

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MED-71-6.06

**RECONSTRUCTION OF EXISTING
SEPARATED CROSSING WITH CSXT RR
WESTFIELD TOWNSHIP
GUILFORD TOWNSHIP
MEDINA COUNTY**

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF 3.15 MILES OF I-71 INCLUDING THE ADDITION OF A THIRD LANE IN EACH DIRECTION IN THE MEDIAN AREA. NEW GUARDRAIL, NEW OR RECONSTRUCTED DRAINAGE IN THE MEDIAN. ADDING DIRECTIONAL RAMPS BETWEEN IR71 AND IR76. RECONSTRUCTING AND REALIGNING THE REMAINING INTERCHANGE RAMPS TO ELIMINATE WEAVES. THE REPLACEMENT OF I-71/I-76 INTERCHANGE BRIDGES OVER I-71 AND US-224. THE RECONSTRUCTION AND WIDENING OF THE I-71 MAINLINE STRUCTURES OVER GREENWICH ROAD, CHIPPEWA DITCH AND RYAN ROAD/CSXT RAILROAD. REPLACING THE I-76EB MAINLINE STRUCTURE OVER CHIPEWA DITCH AND WIDENING THE IR76 WB STRUCTURE OVER RYAN ROAD/CSXT RAILROAD.

PROJECT EARTH DISTURBED AREA 186.7 AC.
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 1.0 AC.
NOTICE OF INTENT EARTH DISTURBED AREA 187.7 AC.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF MAINLINE I.R. 71 OR MAINLINE I.R.76 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF THE TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

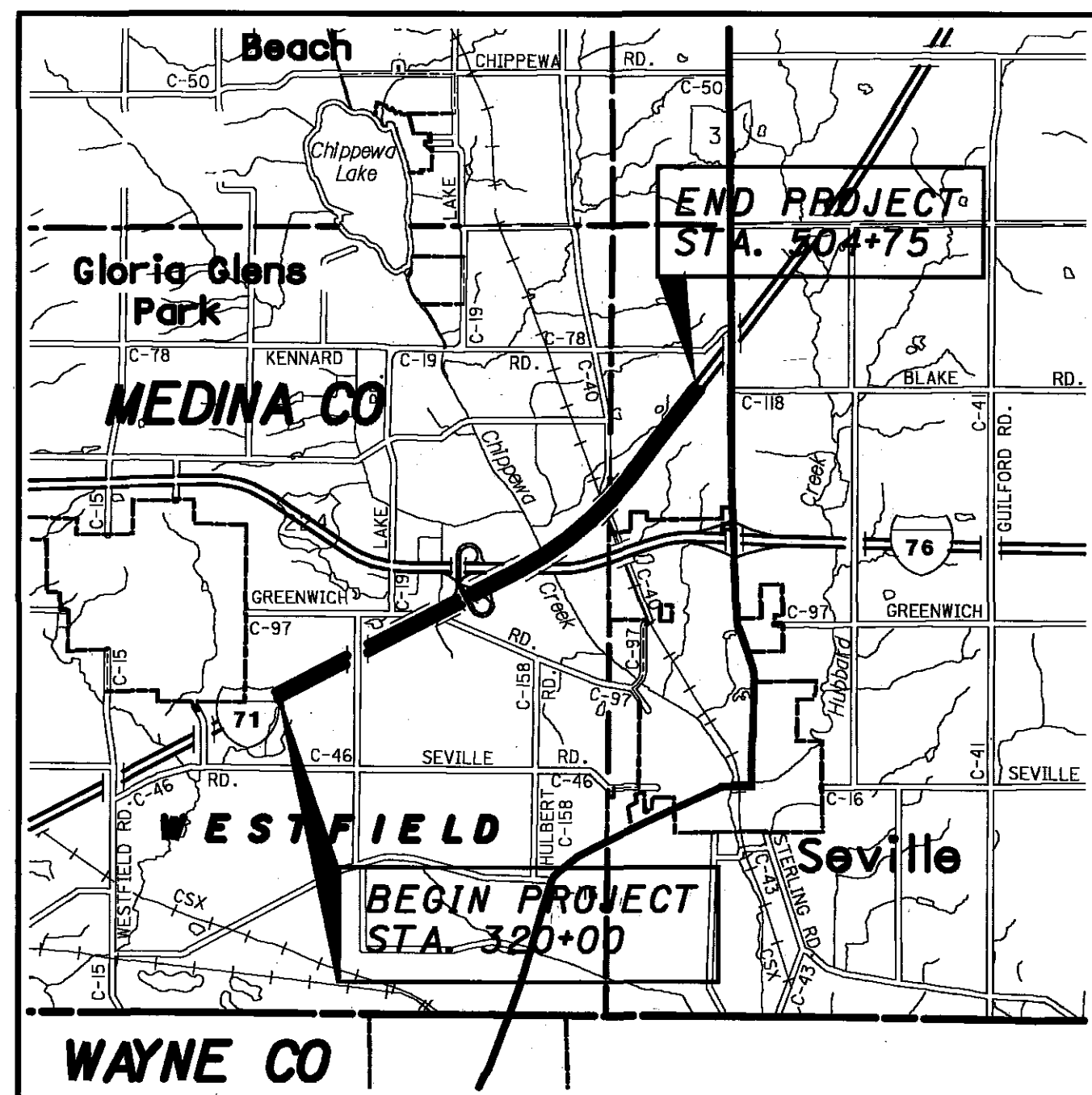
UNDER AUTHORITY OF SECTION 4511.21, DIVISION (I) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED *Thomas M. Olson*
DATE 3-21-06 DISTRICT DEPUTY DIRECTOR

APPROVED *Sandra Paster*
DATE 5-8-06 DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
CALL 1-800-925-0988 (TOLL FREE)
OHIO OIL AND GAS PRODUCERS
UNDERGROUND PROTECTION
SERVICE (OGPUPS)
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
BURGESS & NIPLE
100 W. ERIE ST.
PAINESVILLE, OH. 44077



PORTION TO BE IMPROVED:

INTERSTATE & DIVIDED HIGHWAY	=====
UNDIVIDED STATE & FEDERAL ROUTES	=====
OTHER ROADS	=====

DESIGN DESIGNATION

	IR71	IR76
CURRENT ADT (2007)	48,930	32,230
DESIGN YEAR ADT (2027)	68,660	42,730
DESIGN HOURLY VOLUME (2027)	7,209	4,957
DIRECTIONAL DISTRIBUTION	55%	55%
TRUCKS (24 HOUR B&C)	31%	35%
DESIGN SPEED	70 MPH	70 MPH
LEGAL SPEED	65 MPH	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION ----- RURAL RURAL INTERSTATE INTERSTATE

DESIGN EXCEPTIONS: NONE

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STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS											SUPPLEMENTAL SPECIFICATIONS		
BP-1.1	7/28/00	DM-4.3	7/19/02	HW-2.1	1/20/06	HL-30.21	4/19/02	MT-98.12	4/19/02	TC-41.20	1/19/01		
BP-2.1	7/16/04	DM-4.4	7/19/02	HW-2.2	7/15/05	HL-30.22	1/21/05	MT-98.13	4/19/02	TC-42.10	1/19/01		
BP-2.2	7/16/04	DM-5.1	7/19/02	LA-1.2	7/28/00	HL-30.31	1/21/05	MT-98.14	4/19/02	TC-42.20	7/16/04		
BP-2.3	7/16/04			MH-1.1	7/19/02	HL-40.10	4/19/02	MT-98.15	7/16/04	TC-51.11	4/20/01		
BP-3.1	7/16/04	F-1.1	7/16/04	MH-1.2	1/20/06	HL-40.20	1/16/04	MT-98.16	4/19/02	TC-51.12	4/20/01	800	4/21/06
BP-4.1	7/16/04	F-2.1	7/28/00	MH-1.3	7/20/01	HL-50.11	7/20/01	MT-98.17	10/18/02	TC-52.10	4/20/01	802	4/15/05
BP-5.1	7/28/00	F-3.1	7/28/00			HL-50.21	1/21/05	MT-98.18	10/18/02	TC-52.20	4/20/01	832	4/25/06
BP-8.1	7/28/00	F-3.3	7/28/00	RM-1.1	1/20/06	HL-60.11	1/16/04	MT-98.19	10/18/02	TC-61.10	1/19/01		
BP-9.1	4/15/05	F-3.4	7/28/00	RM-4.2	4/18/03	HL-60.12	1/21/05	MT-99.20M	1/30/95	TC-65.10	1/21/05	843	4/18/03
CB-1.1	7/15/05			RM-4.3	4/18/03	HL-60.21	1/21/05	MT-99.60	10/18/02	TC-65.11	1/21/05	873	10/30/03
CB-2.2	7/15/05	GR-1.1	7/16/04	RM-4.4	4/18/03	HL-60.31	7/20/01	MT-101.60	10/18/02	TC-72.20	1/21/05	880	4/15/05
CB-2.3	7/15/05	GR-2.1	1/16/04	RM-4.5	4/18/03			MT-101.70	10/18/02	TC-73.10	1/19/01	894	4/15/05
CB-3.1	7/15/05	GR-3.1	4/18/03	RM-4.6	1/16/04	MT-35.10	4/20/01	MT-102.10	10/18/02				
CB-3.2	7/15/05	GR-3.2	4/18/03	RM-7.1	4/15/05	MT-95.30	7/16/04	MT-105.10	10/18/02	AS-1-81	7/19/02		
CB-3.4	7/15/05	GR-4.2	4/15/05	RM-7.2	4/15/05	MT-95.31	7/16/04	MT-105.11	10/18/02	BR-1	7/19/02		
				GR-5.1	4/18/03	MT-95.32	7/16/04						
DM-1.1	10/21/05	GR-5.2	1/16/04	HL-10.11	1/16/04	MT-95.40	7/16/04	TC-12.30	1/19/01	EXJ-4-87	7/19/02		
DM-1.2	10/21/05	GR-5.3	1/16/04	HL-10.12	1/21/05	MT-95.41	7/16/04	TC-15.115	7/18/03	GSD-1-96	7/19/02		
DM-1.3	7/20/01	GR-6.1	4/18/03	HL-10.13	1/17/03	MT-96.10	4/19/02	TC-18.24	1/18/02	ICD-1-82	7/19/02		
DM-1.4	1/21/05	GR-6.2	4/18/03	HL-10.31	7/20/01	MT-96.20	4/19/02	TC-21.10	1/19/01	PCB-91	7/19/02		
DM-4.1	7/19/02			HL-20.11	4/19/02	MT-96.21	4/19/02	TC-21.20	1/19/01	PSID-1-99	7/18/03		
DM-4.2	1/21/05	I-1.1	7/15/05	HL-20.21	1/21/05	MT-97.10	4/19/02	TC-22.20	1/19/01	SBR-1-99	7/19/02		
				HL-30.11	1/21/05	MT-97.11	4/19/02	TC-41.10	1/19/01	SICD-1-99	7/19/02		

SPECIAL PROVISIONS

MED-IR 71-6.06
060349 PID-75657
DIST 3 8/23/2006

BURGESS & NIPLE BRIDGE PLANS MED-71-0729 L&R MED-71-0729 EN MED-71-0794 L&R MED-71-0860 L&R MED-76-0158 L MED-224-1570	MS CONSULTANTS BRIDGE PLANS MED-71-0750 MED-71-0810 L&R MED-76-0061 L MED-76-0112 R	BURGESS & NIPLE ROADWAY PLANS ERIC N. FORSBERG E-4137 REGISTERED PROFESSIONAL ENGINEER SIGNED: <i>Eric N. Forsberg</i> DATE: 3/6/06
STATE OF OHIO WILLIAM T. LOGAN E-36319 REGISTERED PROFESSIONAL ENGINEER SIGNED: <i>William T. Logan</i> DATE: 3/14/06	STATE OF OHIO PRINCHADASARAM ARUMUGASAMY E-53688 REGISTERED PROFESSIONAL ENGINEER SIGNED: <i>Prinichadasaram Arumugasamy</i> DATE: 3/14/06	

FEDERAL PROJECT NO.
E035(602)

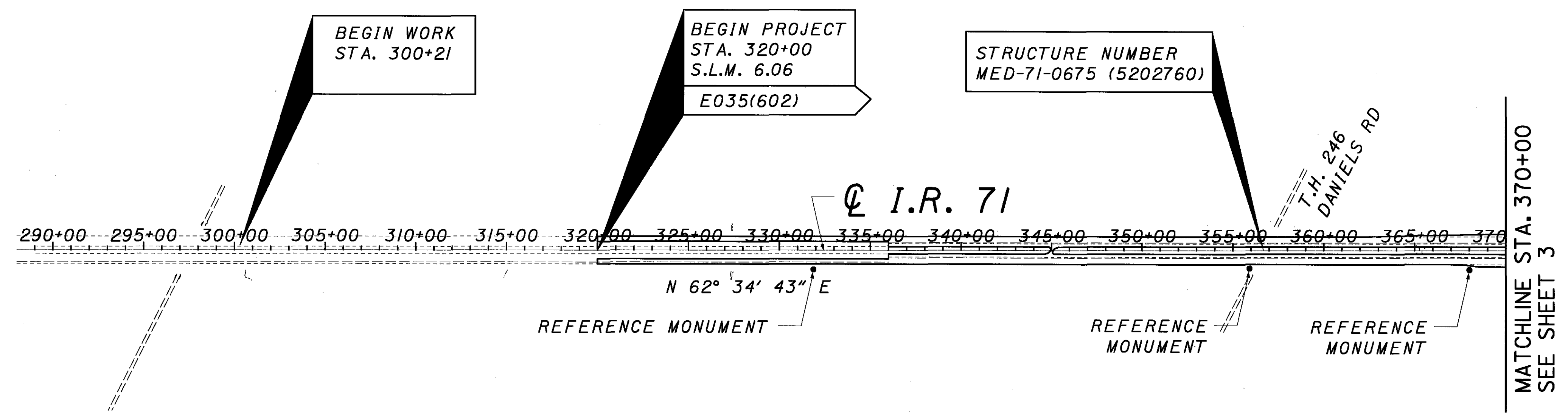
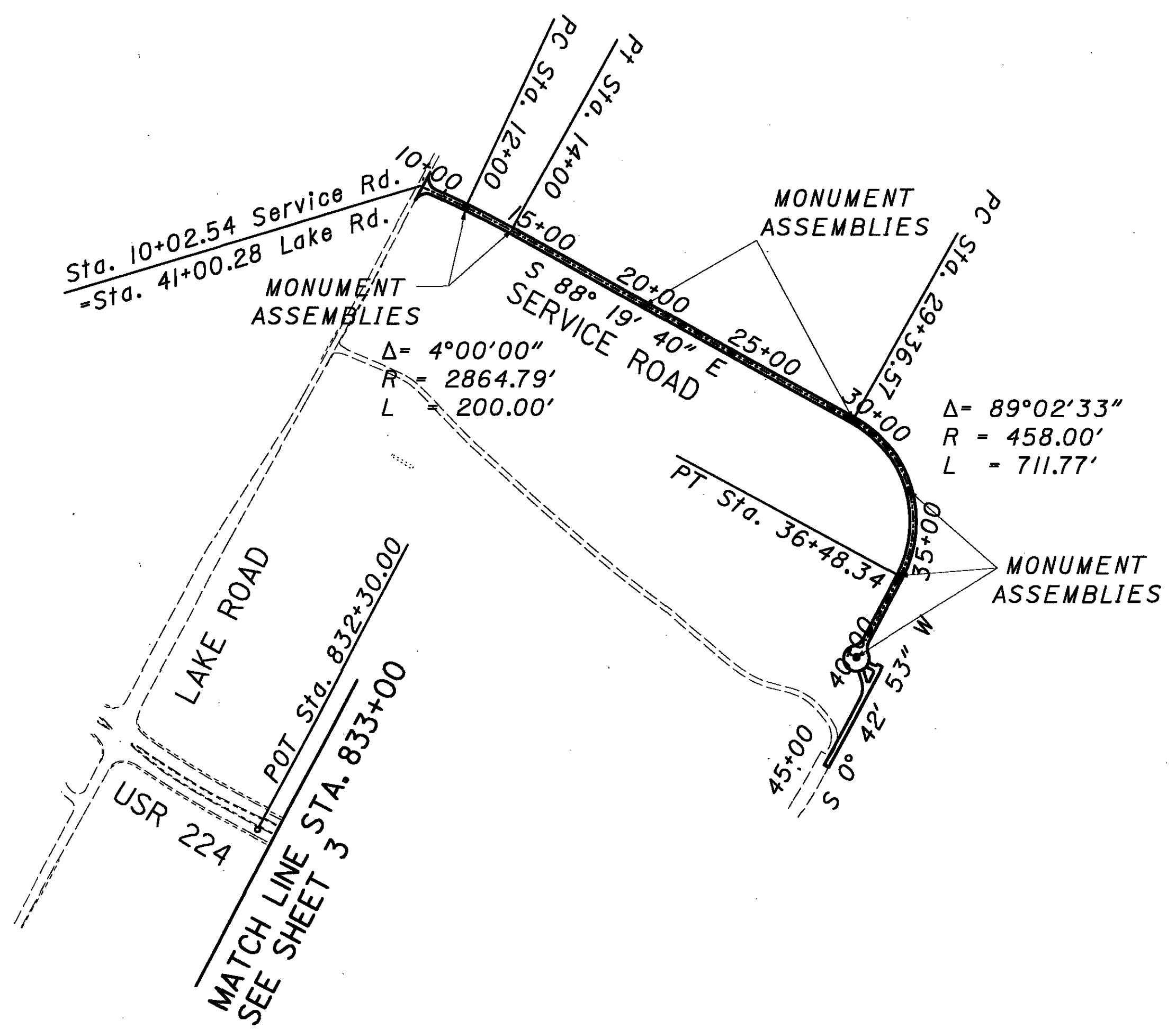
PID NO.
75657

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
CSXT R.R.

MED-71-6.06

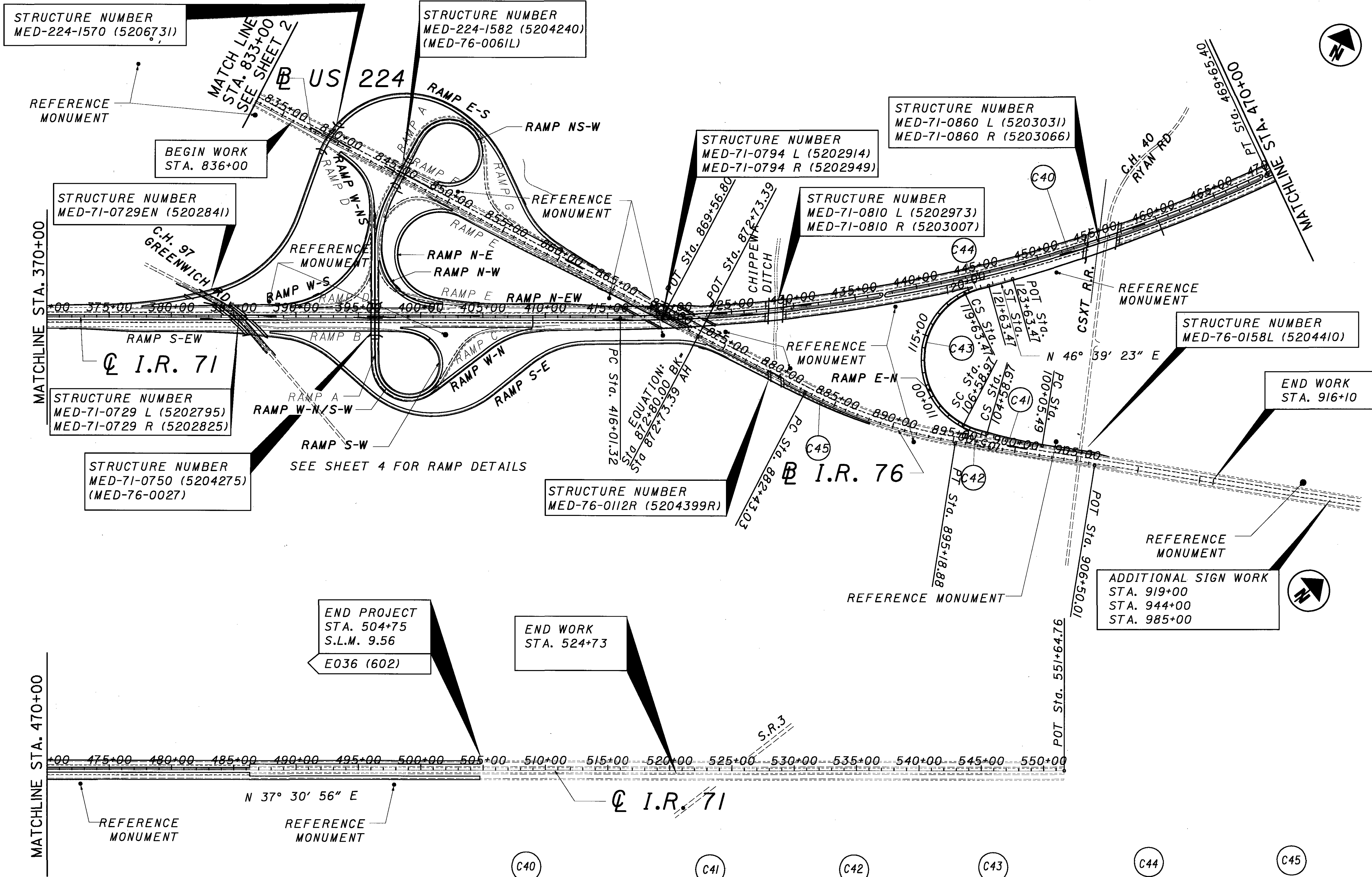
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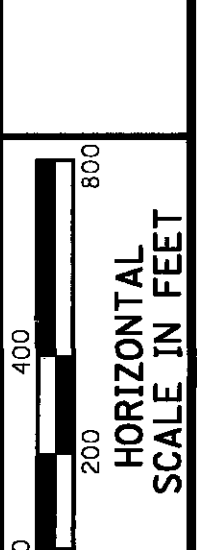
SCHEMATIC PLAN

MED-71-6.06

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C40	C41	C42	C43	C44	C45
P.I. Sta = 443+26.96	P.I. Sta = 102+32.50	P.I. = 105+83.72	P.I. Sta = 118+42.48	P.I. = 120+30.32	P.I. Sta = 888+86.69
$\Delta = 25^\circ 03' 47''$ (LT)	$\Delta = 6^\circ 48' 08''$ (RT)	Ls = 200.00'	$\Delta = 127^\circ 11' 18''$ (RT)	Ls = 200.00'	$\Delta = 18^\circ 42' 45''$ (LT)
Dc = 0° 28' 02"	Dc = 1° 30' 00"	8s = 11° 15' 00"	Dc = 9° 45' 00"	8s = 9° 45' 00"	Dc = 1° 28' 00"
R = 12,262.63'	R = 3,819.72'	LT = 124.74'	R = 587.65'	LT = 133.54'	R = 3906.53'
T = 2,725.64'	T = 227.01'	ST = 75.83'	T = 1,183.51'	ST = 66.85'	T = 643.66'
L = 5,364.08'	L = 453.48'	x = 199.12'	L = 1,304.49'	x = 199.42'	L = 1275.85'
E = 299.27'	E = 6.74'	y = 14.79'	E = 733.72'	y = 11.32'	E = 52.67'
S.E. = .019 (70MPH)	S.E. = .041 (60MPH)	k = 99.87'	S.E. = .083 (45MPH)	k = 99.90'	EX. S.E. = .048
		p = 2.40'		p = 2.83'	



SCHEMATIC PLAN

MED-71-6.06

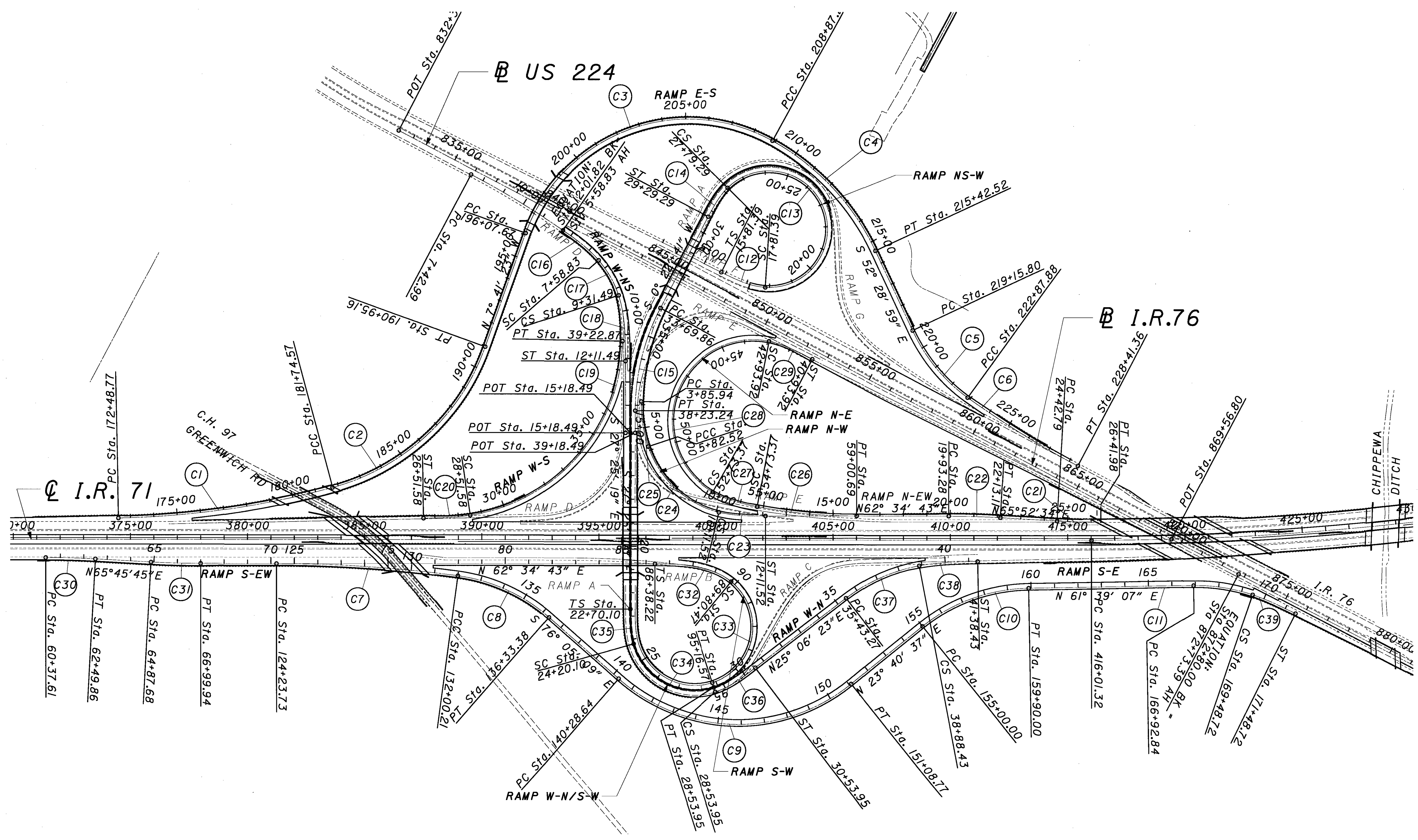
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0 100 200
HORIZONTAL
SCALE IN FEET

INTERCHANGE GEOMETRIC LAYOUT

MED-71-6.06



FOR CURVE DATA
SEE SHEET 5

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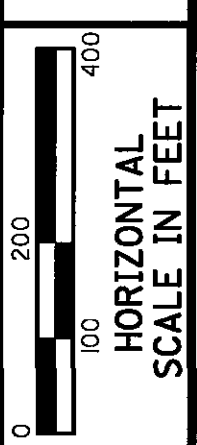
(C1) P.I. Sta = 177+13.95 Δ = 13° 53' 13" (LT) Dc = 1° 30' 00" R = 3,819.72' T = 465.18' L = 925.80' E = 28.22' S.E. = .041 (60MPH)	(C2) P.I. Sta = 186+74.17 Δ = 55° 14' 07" (LT) Dc = 6° 00' 00" R = 954.93' T = 499.60' L = 920.59' E = 122.80' S.E. = .083 (55MPH)	(C3) P.I. Sta = 204+75.83 Δ = 99° 09' 59" (RT) Dc = 7° 45' 00" R = 739.30' T = 868.16' L = 1,279.56' E = 400.99' S.E. = .083 (50MPH)	(C4) P.I. Sta = 212+26.13 Δ = 36° 02' 25" (RT) Dc = 5° 30' 00" R = 1,041.74' T = 338.89' L = 655.28' E = 53.74' S.E. = .082 (55MPH)	(C5) P.I. Sta = 221+05.87 Δ = 28° 50' 11" (LT) Dc = 7° 45' 00" R = 739.30' T = 190.07' L = 372.08' E = 24.04' S.E. = .083 (50MPH)	(C6) P.I. Sta = 225+65.11 Δ = 8° 18' 08" (LT) Dc = 1° 30' 00" R = 3,819.72' T = 277.23' L = 553.48' E = 10.05' S.E. = .041 (60MPH)	(C7) P.I. Sta = 128+12.56 Δ = 7° 45' 53" (RT) Dc = 1° 00' 00" R = 5,729.58' T = 388.83' L = 776.48' E = 13.18' S.E. = .029 (60MPH)	(C8) P.I. Sta = 134+23.21 Δ = 33° 34' 15" (RT) Dc = 7° 45' 00" R = 739.30' T = 223.00' L = 433.17' E = 32.90' S.E. = .083 (50MPH)	(C9) P.I. Sta = 146+78.56 Δ = 80° 14' 15" (LT) Dc = 7° 25' 42" R = 771.30' T = 649.93' L = 1,080.13' E = 237.32' S.E. = .083 (50MPH)
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(C10) P.I. Sta = 157+54.38 Δ = 37° 58' 30" (RT) Dc = 7° 45' 00" R = 739.30' T = 254.38' L = 490.00' E = 42.54' S.E. = .083 (50MPH)	(C11) P.I. Sta = 168+22.07 Δ = 19° 49' 51" (RT) Dc = 7° 45' 00" R = 739.30' T = 129.23' L = 255.88' E = 11.21' S.E. = .083 (50MPH)	(C12) P.I. = 17+15.86 Ls = 200.00' θs = 22° 55' 06" LT = 134.47' ST = 67.70' Dcl = 0° 0' 0" Dc2 = 22° 55' 06" x = 196.82' y = 26.36' k = 99.47' p = 6.63'	(C13) P.I. Sta = 23+33.78 Δ = 228° 42' 04" (LT) Dc = 22° 55' 06" R = 250.00' T = 552.39' L = 997.90' S.E. = .083 (30MPH)	(C14) P.I. = 28+29.72 Ls = 150.00' θs = 17° 11' 19" LT = 100.48' ST = 50.43' Dcl = 22° 55' 06" Dc2 = 0° 0' 0" x = 148.66' y = 14.90' k = 74.78' p = 3.74'	(C15) P.I. Sta = 36+01.10 Δ = 27° 48' 00" (LT) Dc = 6° 07' 54" R = 934.43' T = 231.25' L = 453.39' E = 28.19' S.E. = .054 (35MPH)	(C16) P.I. = 6+85.77 Ls = 200.00' θs = 14° 31' 18" LT = 126.94' ST = 74.00' Dcl = 1° 29' 44" Dc2 = 13° 01' 18" x = 198.58' y = 18.56' k = 99.79' p = 3.35'	(C17) P.I. Sta = 8+46.29 Δ = 22° 28' 57" (RT) Dc = 13° 01' 18" R = 440.00' T = 87.45' L = 172.66' E = 8.61' S.E. = .080 (35MPH)	(C18) P.I. = 10+25.73 Ls = 280.00' θs = 18° 13' 49" LT = 187.67' ST = 94.24' Dcl = 18° 13' 18" Dc2 = 0° 0' 0" x = 277.18' y = 29.48' k = 139.53' p = 7.40'
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(C19) P.I. Sta = 34+87.20 Δ = 80° 20' 48" (LT) Dc = 7° 30' 00" R = 763.94' T = 644.97' L = 1,071.29' E = 235.86' S.E. = .083 (50MPH)	(C20) P.I. = 27+85.03 Ls = 200.00' θs = 7° 30' 00" LT = 133.45' ST = 66.78' Dcl = 0° 0' 0" Dc2 = 7° 30' 00" x = 199.66' y = 8.72' k = 99.94' p = 2.18'	(C21) P.I. Sta = 25+42.41 Δ = 3° 29' 09" (LT) Dc = 1° 45' 00" R = 3,274.04' T = 99.63' L = 199.19' E = 1.52' S.E. = .047 (60MPH)	(C22) P.I. Sta = 21+03.22 Δ = 3° 17' 51" (RT) Dc = 1° 30' 00" R = 3,819.72' T = 109.95' L = 219.83' E = 1.58' S.E. = .030 (50MPH)	(C23) P.I. = 10+78.54 Ls = 200.00' θs = 13° 30' 00" LT = 133.72' ST = 67.02' Dcl = 0° 0' 0" Dc2 = 13° 30' 00" x = 198.89' y = 15.65' k = 99.82' p = 3.92'	(C24) P.I. Sta = 8+17.36 Δ = 57° 54' 54" (LT) Dc = 13° 30' 00" R = 424.41' T = 234.85' L = 429.00' E = 60.64' S.E. = .080 (35MPH)	(C25) P.I. Sta = 4+85.20 Δ = 19° 39' 27" (LT) Dc = 10° 00' 00" R = 572.96' T = 99.26' L = 196.58' E = 8.54' S.E. = .072 (35MPH)	(C26) P.I. Sta = 56+87.65 Δ = 10° 40' 59" (LT) Dc = 2° 30' 00" R = 2,291.83' T = 214.28' L = 427.32' E = 10.00' S.E. = .040 (45MPH)	(C27) P.I. = 53+49.60 Ls = 200.00' θs = 19° 00' 00" LT = 125.42' ST = 76.23' Dcl = 2° 30' 00" Dc2 = 16° 30' 00" x = 197.50' y = 24.82' k = 99.63' p = 4.06'
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(C28) P.I. Sta = 64+38.91 Δ = 161° 36' 31" (LT) Dc = 16° 30' 00" R = 347.25' T = 2,144.99' L = 979.45' E = 1,825.67' S.E. = .083 (35MPH)	(C29) P.I. = 42+27.84 Ls = 200.00' θs = 16° 30' 00" LT = 133.92' ST = 67.20' Dcl = 16° 30' 00" Dc2 = 0° 0' 0" x = 198.35' y = 19.09' k = 99.72' p = 4.79'	(C30) P.I. Sta = 61+43.76 Δ = 3° 11' 02" (RT) Dc = 1° 30' 00" R = 3,819.72' T = 106.15' L = 212.26' E = 1.47' S.E. = .041 (60MPH)	(C31) P.I. Sta = 65+93.84 Δ = 3° 11' 02" (LT) Dc = 1° 30' 00" R = 3,819.72' T = 106.16' L = 212.26' E = 1.47' S.E. = .041 (60MPH)	(C32) P.I. = 88+72.25 Ls = 342.25' θs = 39° 13' 08" LT = 234.03' ST = 119.43' Dcl = 0° 0' 0" Dc2 = 22° 55' 06" x = 326.56' y = 75.52' k = 168.49' p = 19.20'	(C33) P.I. Sta = 94+39.62 Δ = 122° 51' 52" (RT) Dc = 22° 55' 06" R = 250.00' T = 459.15' L = 536.10' E = 130.45 S.E. = .083 (30MPH)	(C34) P.I. Sta = 26+99.70 Δ = 91° 53' 49" (LT) Dc = 21° 10' 53" R = 270.50' T = 279.61' L = 433.86' E = 82.42 S.E. = .083 (30MPH)	(C35) P.I. = 23+70.50 Ls = 150.00' θs = 15° 53' 10" LT = 100.41' ST = 50.37' Dcl = 0° 0' 00" Dc2 = 21° 10' 53" x = 148.85' y = 13.79' k = 74.81' p = 3.46'	(C36) P.I. = 29+21.37 Ls = 200.00' θs = 19° 41' 21" LT = 134.17' ST = 67.43' Dcl = 19° 41' 21" Dc2 = 0° 0' 0" x = 197.65' y = 22.72' k = 99.61' p = 5.70'
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(C37) P.I. Sta = 37+19.05 Δ = 26° 45' 00" (RT) Dc = 7° 45' 00" R = 739.30' T = 175.79' L = 345.16' E = 20.05' S.E. = .083 (50MPH)	(C38) P.I. = 39+71.99 Ls = 250.00' θs = 9° 41' 15" LT = 166.92' ST = 83.56' Dcl = 7° 45' 00" Dc2 = 0° 0' 0" x = 249.29' y = 14.06' k = 124.88' p = 3.52'	(C39) P.I. = 170+15.50 Ls = 200.00' θs = 7° 45' 00" LT = 133.46' ST = 66.78' Dcl = 7° 45' 00" Dc2 = 0° 0' 0" x = 199.63' y = 9.01' k = 99.94' p = 2.25'
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INTERCHANGE GEOMETRIC LAYOUT

CALCULATED
CHECKED

SCHEMATIC PLAN
HORIZONTAL AND VERTICAL CONTROL

MED-71-6.06

6
1120

NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
3908	336+50.06	146.901L	493,840.60	2,129,464.14	1,093.18	ODOT MONUMENT
3041	342+83.36	0.404R	494,001.50	2,130,094.13	1,088.06	C/L MONUMENT
BM					1,092.22	BM # 35 [] - CUT CONC BASE N LEG OF SIGN "EXIT 209 1 MILE" NB
3042	350+16.89	0.423R	494,339.29	2,130,745.24	1,086.87	C/L MONUMENT
BM					1,080.94	BM # 36 [] - CUT CONC NLEG OF SIGN "GAS - EXIT 209"
3043	366+42.33	5.399R	495,083.44	2,132,190.35	1,056.96	C/L MONUMENT
3909	368+03.42	147.553R	495,031.44	2,132,398.80	1,069.86	ODOT MONUMENT
3044	374+52.20	0.403R	495,460.85	2,132,906.93	1,039.15	C/L MONUMENT
BM					1,038.79	BM # 37 X-CUT NW BOLT OF OVERHEAD SIGN "EXIT 209 NEXT RIGHT"
3045	382+13.85	0.338R	495,811.67	2,133,582.97	1,023.36	C/L MONUMENT
TBM					1,027.74	TBM # 114 X-CUT NW BOLT TOP PARAPET WALL OF NW ABUT SB BR # MED 71 0729L
TBM					1,020.46	TBM # 115 X-CUT NE BOLT TOP PARAPET WALL OF NE ABUT NB BR # MED 71 0729R
BM					1,014.81	BM # 38 []-CUT CONC N LEG OF SIGN "EXIT 209" 50' NE OF BR # MED 71 0729R
BM					1,002.51	BM # 39 TOP STEEL POST @ R/W ANGLE BREAK 100' SW OF BR # MED 71 0750
3046	402+33.68	0.172R	496,742.01	2,135,375.78	991.19	C/L MONUMENT
3910	402+36.34	523.19	496,278.98	2,135,619.01	1,007.15	ODOT MONUMENT
BM					988.67	BM # 40 [] - CUT CENTER OF HEADWALL SE SIDE I-71 @ EXIT 209 ON RAMP TOP I-71 NB
BM					1,009.28	BM # 41 []-CUT CONC SOUTH LEG OF SIGN (SB) "EXIT 209"
3047	416+01.50	0.036L	497,372.12	2,136,589.82	1,009.02	C/L MONUMENT
TBM					1,013.86	TBM # 116 []-CUT TOP BRIDGE CURB SW COR OF SW ABUT NB BR # MED 71 0794R
TBM					1,014.12	TBM # 117 X-CUT NE BOLT TOP PARAPET WALL OF NE ABUT / NB BR # MED 71 0794R
3048	422+83.35	0.022L	497,702.79	2,137,186.02	1,009.98	C/L MONUMENT
BM					1,008.37	BM # 42 X-CUT SE BOLT OF OVERHEAD SIGN "EXIT 209 NEXT RIGHT" SB
TBM					1,007.41	TBM # 118 X-CUT NW BOLT TOP PARAPET WALL OF NW ABUT (NB) BR # MED 71 0810 R
TBM					1,004.50	TBM # 119 X-CUT NW BOLT TOP PARAPET WALL OF SE ABUT (NB) BR # MED 71 0810 R
3049	429+83.28	0.143R	498,076.02	2,137,778.03	998.21	C/L MONUMENT
3050	436+83.34	0.208R	498,482.58	2,138,347.83	998.73	C/L MONUMENT
BM					1,005.27	BM # 43 [] - CUT CONC S LEG OF SIGN (SB) "LODGING - EXIT 209"
3051	441+82.89	0.197R	498,792.30	2,138,739.74	1,007.29	C/L MONUMENT
BM					1,019.36	BM # 44 [] - CUT CONC S LEG OF SIGN (SB) "SEVILLE CHIPPEWA LAKE NEXT RIGHT"
3052	448+82.27	0.180R	499,252.17	2,139,266.56	1,022.41	C/L MONUMENT
TBM					1,039.60	TBM # 120 [] TOP NW END NW PARAPET WALL N BOUND I-71 BR # MED 71 0860 R
TBM					1,046.07	TBM # 121 [] CUT ON TOP NE END OF SOUTHERLY PARAPET WALL OF S BOUND I-71 BR # MED 71 0860L
BM					1,043.27	BM # 45 [] - CUT CONC S LEG OF SIGN (SB) "EXIT 209 1 MILE"
3053	457+82.04	0.026L	499,886.78	2,139,904.13	1,041.02	C/L MONUMENT
3911	460+24.79	82.297R	500,010.83	2,140,129.33	1,049.19	ODOT MONUMENT
BM					1,074.14	BM #46 [] - CUT CONC S LEG OF SIGN (SB) "FOOD - EXIT 209"
3054	477+10.45	0.026L	501,380.17	2,141,122.62	1,080.01	C/L MONUMENT
3912	483+30.01	139.158R	501,786.84	2,141,610.33	1,097.53	ODOT MONUMENT
3055	484+82.22	0.005R	501,992.31	2,141,592.64	1,096.32	C/L MONUMENT
3056	492+62.36	5.019L	502,614.17	2,142,063.74	1,111.77	C/L MONUMENT
BM					1,119.28	BM # 47 TOP STEEL POST 2' SE OF NW R/W FENCE 100' NW OF CL STA 492+62
3057	492+62.32	5.107R	502,607.97	2,142,071.75	1,112.14	C/L MONUMENT
3058	497+93.72	5.038L	503,035.64	2,142,387.31	1,123.59	C/L MONUMENT
3059	497+93.73	4.865R	503,029.63	2,142,395.18	1,123.90	C/L MONUMENT
3060	504+54.27	4.924L	503,559.52	2,142,789.66	1,135.81	C/L MONUMENT
3062	514+62.25	4.854L	504,358.99	2,143,403.56	1,156.39	C/L MONUMENT
3063	514+62.18	5.156R	504,352.84	2,143,411.45	1,156.39	C/L MONUMENT
3913	534+27.49	139.889R	505,829.65	2,144,715.15	1,190.87	ODOT MONUMENT
3064	534+38.67	0.005L	505,923.71	2,144,610.99	1,189.34	C/L MONUMENT
3065	542+57.89	0.093L	506,573.56	2,145,109.81	1,185.89	C/L MONUMENT
3066	551+63.20	0.398L	507,291.83	2,145,660.89	1,170.67	C/L MONUMENT

NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
<i>MED-71-0729 L&R</i>						
0214	384+41.43	13.93	495904.40	2133791.24	1022.31	O.C. SET I.P.'S
0215	382+93.85	-141.44	495974.36	2133588.69	1002.65	O.C. SET I.P.'S
0216	385+08.75	10.86	495938.14	2133849.58	1001.92	O.C. SET I.P.'S
0217	386+01.41	9.38	495982.12	2133931.14	1002.36	O.C. SET I.P.'S
0218	386+92.77	132.22	495915.16	2134068.81	999.54	O.C. SET I.P.'S TRAV
0219	386+67.29	32.17	495992.24	2134000.12	1017.70	O.C. SET I.P.'S
<i>MED-71-0750 L&R</i>						
0262	396+81.77	-111.75	496587.19	2134834.34	1002.46	O.C. SET I.P.'S
0263	396+94.33	1.85	496492.13	2134897.80	998.34	O.C. SET I.P.'S
0264	395+83.17	143.08	496315.58	2134864.17	1004.27	O.C. SET I.P.'S
0265	396+62.77	-157.83	496619.34	2134796.25	1018.67	O.C. SET I.P.'S
<i>MED-71-0794 L&R</i>						
0255	417+55.23	0.35	497443.43	2136726.01	1012.51	O.C. SET I.P.'S
0256	418+79.54	36.80	497470.65	2136852.85	1002.35	O.C. SET I.P.'S
0257	417+50.15	-35.00	497472.21	2136704.87	1001.20	O.C. SET I.P.'S
0258	417+41.45	-152.90	497572.16	2136641.73	991.15	O.C. SET I.P.'S
0259	420+17.19	2.26	497567.78	2136956.61	990.25	O.C. SET I.P.'S
0260	422+83.54	159.35	497565.72	2137267.33	990.29	O.C. SET I.P.'S
0261	421+80.77	-5.81	497655.93	2137094.61	998.59	O.C. SET I.P.'S
<i>MED-71-0810 L&R</i>						
020	427+81.63	-26.49	497987.35	2137595.21	1004.12	O.C. SET I.P.'S
021	427+99.53	8.17	497968.01	2137629.08	993.30	O.C. SET I.P.'S
022	428+58.35	-208.28	498181.12	2137559.54	983.41	O.C. SET I.P.'S
023	428+08.33	199.51	497812.45	2137740.84	982.84	O.C. SET I.P.'S
024	429+09.87	6.86	498029.68	2137720.67	991.28	O.C. SET I.P.'S
025	429+29.38	30.28	498020.98	2137749.90	1001.24	O.C. SET I.P.'S
<i>MED-71-0860 L&R</i>						
0266	454+21.53	0.60	499626.53	2139654.67	1033.85	O.C. SET I.P.'S
0267	454+52.44	-30.73	499670.51	2139654.08	1029.22	O.C. SET I.P.'S
0268	454+72.36	26.29	499644.71	2139708.69	1010.33	O.C. SET I.P.'S
0269	455+39.91	98.78	499642.62	2139807.99	1007.05	O.C. SET I.P.'S
0270	456+17.53	-186.67	499896.53	2139656.36	1009.61	O.C. SET I.P.'S
0271	456+28.64	29.98	499754.58	2139820.40	1028.66	O.C. SET I.P.'S
0272	456+72.10	6.64	499802.18	2139833.57	1041.07	O.C. SET I.P.'S

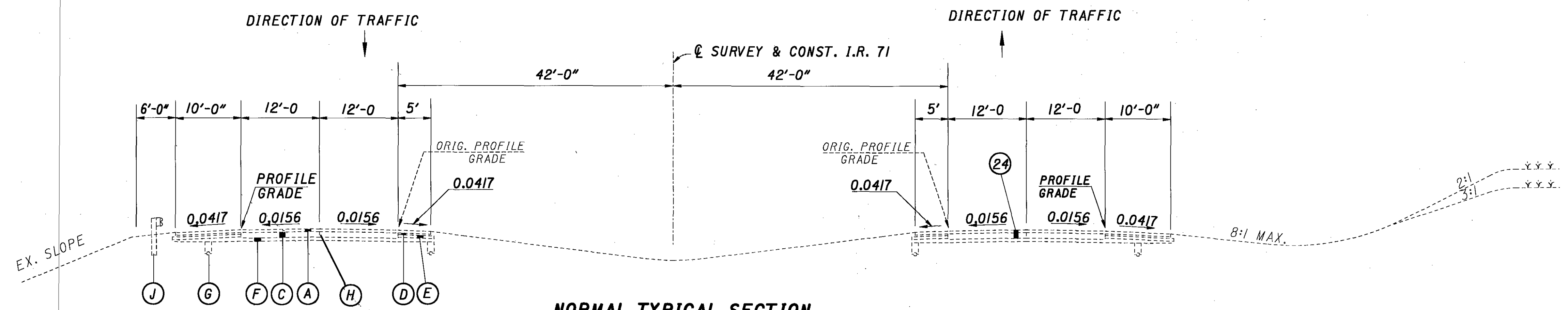
LEGEND
O.C. = OTIS COMPTON
- = LEFT
+ = RIGHT

I.R. 76 CENTERLINE CONSTRUCTION CONTROL POINTS *				
STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
835+00.00	⊙ CONST.	497556.04	2133433.38	
845+00.00	⊙ CONST.	497549.43	2134433.36	
855+00.00	⊙ CONST.	497542.83	2135433.34	
865+00.00	⊙ CONST.	497536.23	2136433.32	
875+00.00	⊙ CONST.	497529.58	2137439.90	
872+80.00	⊙ CONST.	497531.08	2137213.30	STATION EQUATION
882+43.03	⊙ CONST.	497524.67	2138182.92	PC
895+08.88	⊙ CONST.	497722.89	2139437.55	PT
906+50.00	⊙ CONST.	498078.70	2140511.25	

* - NOT ⊙ R/W

PROPOSED MONUMENTS - APPROXIMATE LOCATIONS *							PROPOSED MONUMENTS - AS-BUILT LOCATIONS				
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING	ELEVATION
IR 71	332+00	105' RT	493,409.730	2,129,180.656	TO BE DETERMINED	PROPOSED MONUMENT					
	356+00	110' RT	494,510.567	2,131,313.303	TO BE DETERMINED	PROPOSED MONUMENT					
	369+00	121' RT	495,099.493	2,132,472.306	TO BE DETERMINED	PROPOSED MONUMENT					
	388+00	85' LT	496,006.457	2,134,142.249	TO BE DETERMINED	PROPOSED MONUMENT					
	402+35	150' RT	496,609.623	2,135,445.952	TO BE DETERMINED	PROPOSED MONUMENT					
	419+00	86' RT	497,437.419	2,136,894.551	TO BE DETERMINED	PROPOSED MONUMENT					
	424+25	86' RT	497,702.086	2,137,352.167	TO BE DETERMINED	PROPOSED MONUMENT					
	438+00	85' RT	498,486.383	2,138,492.323	TO BE DETERMINED	PROPOSED MONUMENT					
	452+00	85' RT	499,410.082	2,139,556.225	TO BE DETERMINED	PROPOSED MONUMENT					
	472+75	85' RT	500,982.998	2,140,924.889	TO BE DETERMINED	PROPOSED MONUMENT					
	498+00	85' RT	502,985.798	2,142,462.555	TO BE DETERMINED	PROPOSED MONUMENT					
	USR 224	823+15	42' RT	497,603.604	2,132,307.495	TO BE DETERMINED	PROPOSED MONUMENT				
833+00		65' RT	497,491.390	2,133,242.901	TO BE DETERMINED	PROPOSED MONUMENT					
IR 76	850+20	115' LT	497,594.888	2,134,963.631	TO BE DETERMINED	PROPOSED MONUMENT					
	865+00	28' RT	497,556.994	2,136,433.411	TO BE DETERMINED	PROPOSED MONUMENT					
	881+00	90' LT	497,636.295	2,138,043.977	TO BE DETERMINED	PROPOSED MONUMENT					
	892+00	28' RT	497,606.427	2,139,140.620	TO BE DETERMINED	PROPOSED MONUMENT					
	903+75	90' LT	498,076.126	2,140,224.850	TO BE DETERMINED	PROPOSED MONUMENT					
	926+00	110' LT	498,066.204	2,140,479.300	TO BE DETERMINED	PROPOSED MONUMENT					

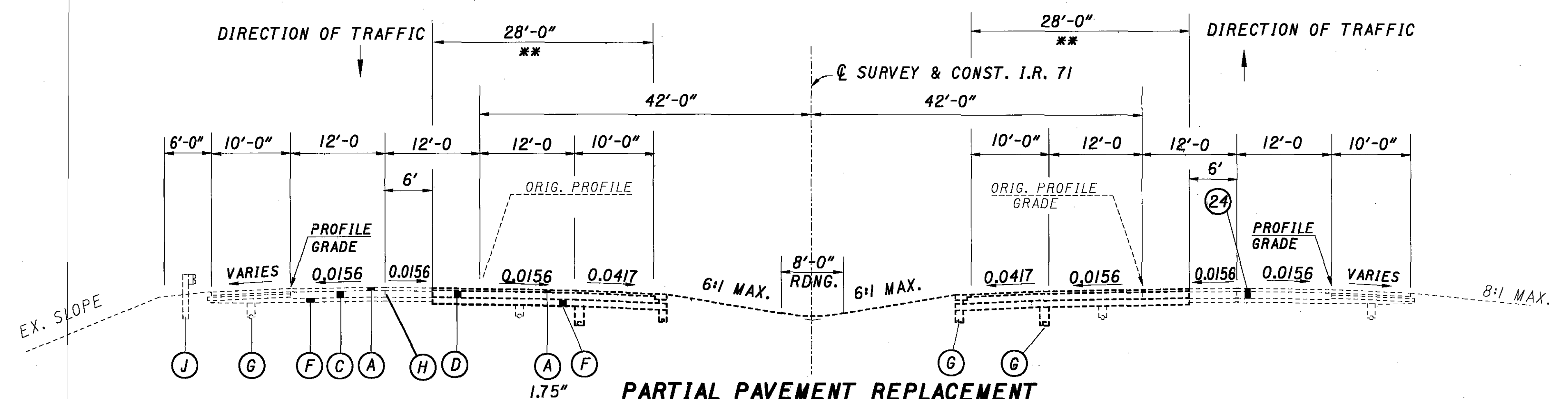
* - ⊙ R/W



NORMAL TYPICAL SECTION
LIMITING STATIONS

STA. 336+00.00	TO	STA. 384+11.92
STA. 386+49.92	TO	STA. 417+68.14
STA. 422+41.32	TO	STA. 427+63.31
STA. 429+47.85	TO	STA. 454+00.02
STA. 456+89.00	TO	STA. 504+75.00

** - FULL DEPTH PAVING (EXCEPT SURFACE)
FROM WAY/MED-71-7.04/0.00 PROJECT

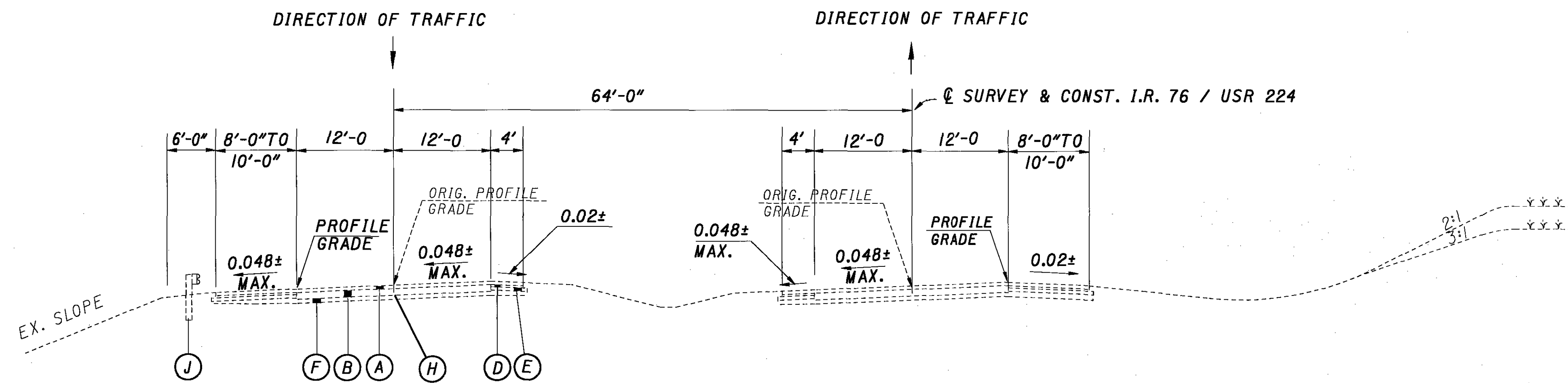


PARTIAL PAVEMENT REPLACEMENT
LIMITING STATIONS

STA. 320+00.00	TO	STA. 336+00.00
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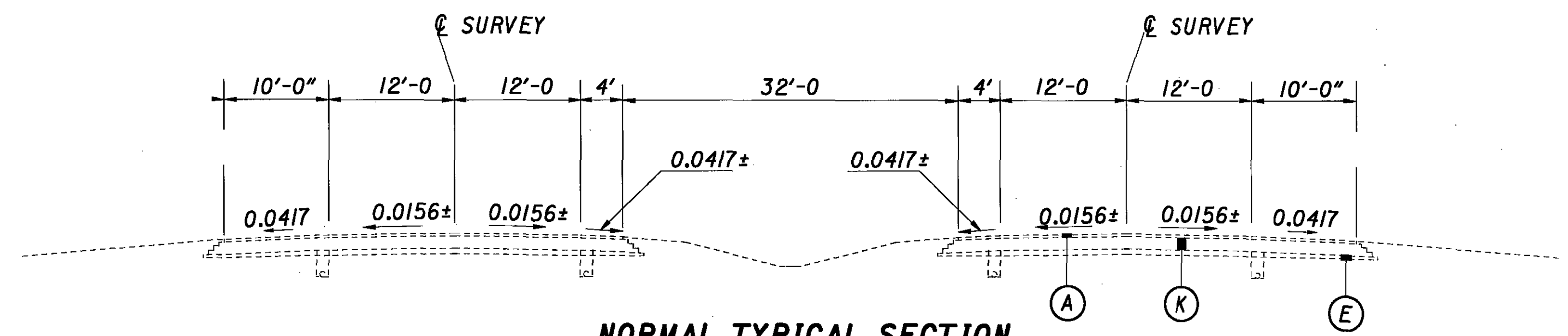
- EXISTING ITEM LEGEND**
- (A) ASPHALT CONCRETE (5" MIN., 7" MAX. +/-)
 - (B) 9" REINFORCED CONCRETE PAVEMENT
 - (C) 10" REINFORCED CONCRETE PAVEMENT
 - (D) BITUMINOUS AGGREGATE BASE
 - (E) AGGREGATE BASE
 - (F) SUBBASE
 - (G) UNDERDRAIN
 - (H) STANDARD LONGITUDINAL JOINT
 - (J) GUARDRAIL

- PROPOSED ITEM LEGEND**
- (24) 202 PAVEMENT REMOVED



SUPERELEVATED TYPICAL SECTION

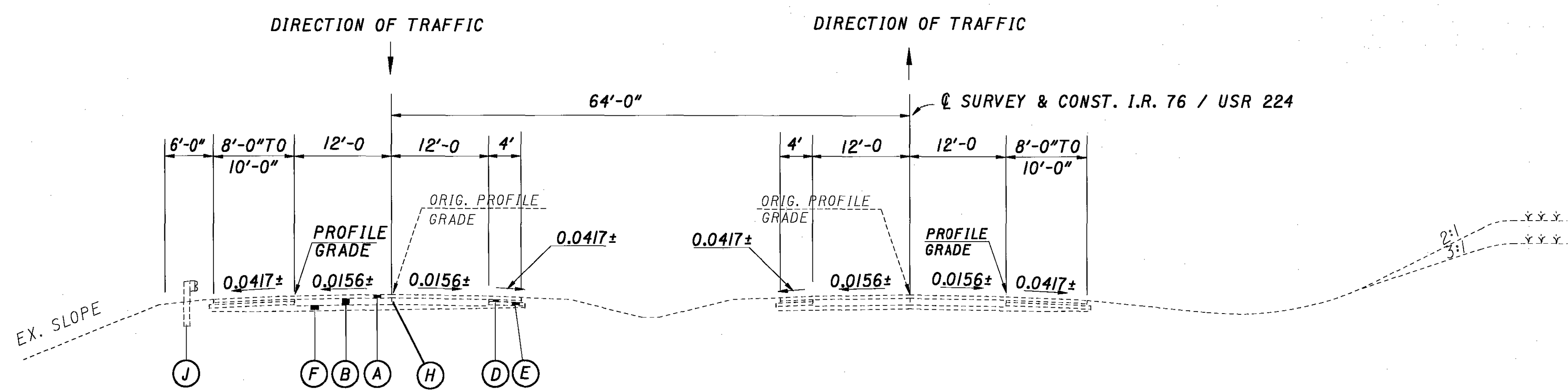
<u>WESTBOUND LANES</u>		<u>EASTBOUND LANES</u>	
STA. 881+50.00	TO STA. 896+25.00	STA. 881+50.00	TO STA. 896+25.00
STA. 914+00.00	TO STA. 931+75.00	STA. 914+00.00	TO STA. 931+75.00



NORMAL TYPICAL SECTION

<u>WESTBOUND LANES</u>		<u>EASTBOUND LANES</u>	
STA. 864+25.00	TO STA. 872+80.00 (BACK)	STA. 863+00.00	TO STA. 872+80.00 (BACK)
STA. 872+73.39 (AHEAD)	TO STA. 878+92.68	STA. 872+73.39 (AHEAD)	TO STA. 875+50.00
STA. 898+50.00	TO STA. 903+87.00	STA. 898+50.00	TO STA. 903+87.00
STA. 906+05.00	TO STA. 912+00.00	STA. 906+05.00	TO STA. 912+00.00

NOTE: STATIONING SHOWN INCLUDES APPROACH SLABS



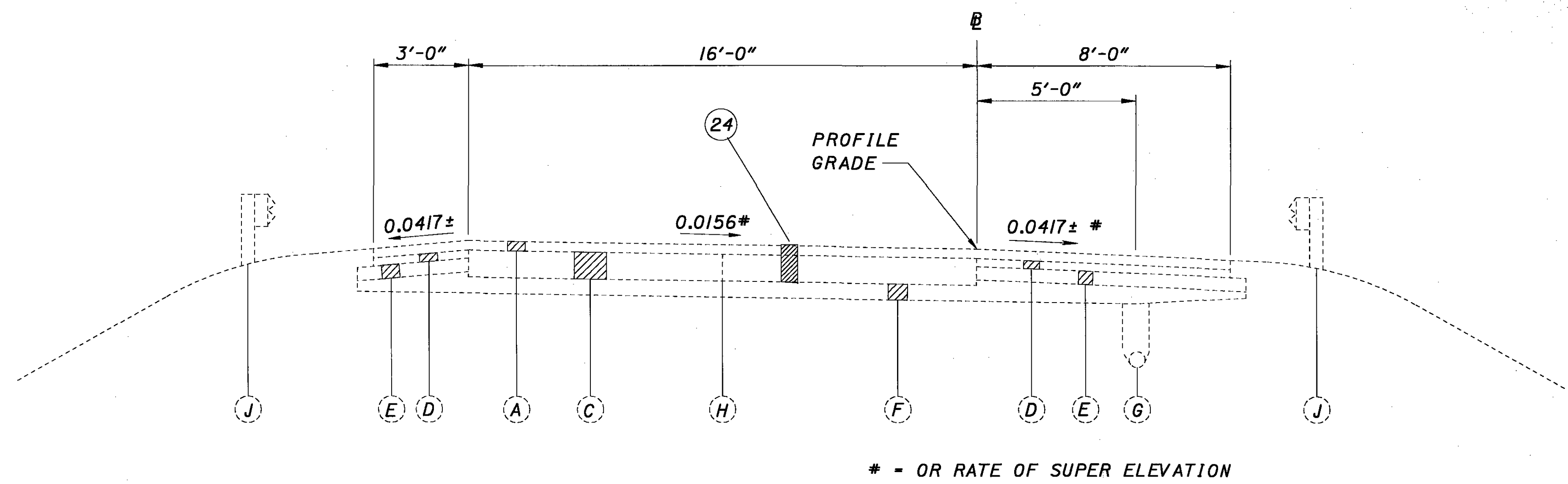
NORMAL TYPICAL SECTION

<u>WESTBOUND LANES</u>		<u>EASTBOUND LANES</u>	
STA. 833+00.00	TO STA. 852+85.64 (USR224)	STA. 833+00.00	TO STA. 852+85.64 (USR224)
STA. 852+85.64	TO STA. 864+25.00	STA. 852+85.64	TO STA. 863+00.00
STA. 879+85.42	TO STA. 881+50.00	STA. 875+50.00	TO STA. 879+29.63
STA. 896+25.00	TO STA. 898+50.00	STA. 880+22.37	TO STA. 881+50.00
STA. 912+00.00	TO STA. 914+00.00	STA. 896+25.00	TO STA. 898+50.00
		STA. 912+00.00	TO STA. 914+00.00

EXISTING ITEM LEGEND

- (A) ASPHALT CONCRETE (6"±/- ON CONC., 3"±/- ON ASPH.)
- (B) 9" REINFORCED CONCRETE PAVEMENT
- (C) 10" REINFORCED CONCRETE PAVEMENT
- (D) BITUMINOUS AGGREGATE BASE
- (E) AGGREGATE BASE
- (F) SUBBASE
- (G) UNDERDRAIN
- (H) STANDARD LONGITUDINAL JOINT
- (J) GUARDRAIL
- (K) 14" BITUMINOUS AGGREGATE BASE

...X75657GYA.DGN



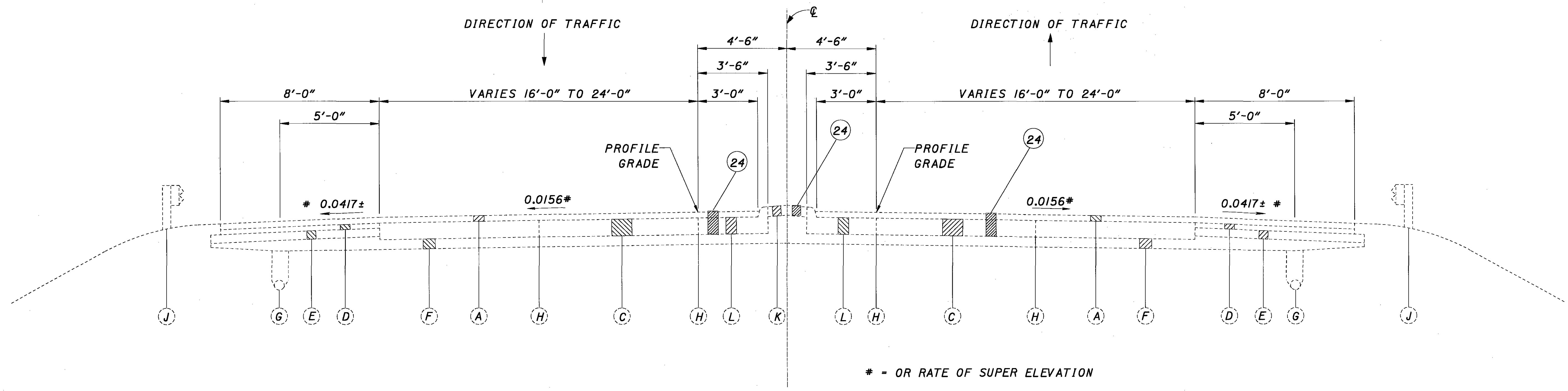
- EXISTING ITEM LEGEND**
- (A) ASPHALT CONCRETE (5" MIN., 7" MAX. +/-)
 - (B) 9" REINFORCED CONCRETE PAVEMENT
 - (C) 10" REINFORCED CONCRETE PAVEMENT
 - (D) BITUMINOUS AGGREGATE BASE
 - (E) AGGREGATE BASE
 - (F) SUBBASE
 - (G) UNDERDRAIN
 - (H) STANDARD LONGITUDINAL JOINT
 - (J) GUARDRAIL
 - (K) CONCRETE MEDIAN
 - (L) COMBINED CURB & GUTTER

RAMP EXISTING TYPICAL SECTION

LIMITING STATIONS

STA. 11+01.82	TO STA. 17+53.17	RAMP B
STA. 0+00.00	TO STA. 11+10.86	RAMP C
STA. 12+01.82	TO STA. 18+95.28	RAMP D
STA. 22+92.14	TO STA. 27+99.17	RAMP D
STA. 12+01.82	TO STA. 19+72.49	RAMP E
STA. 23+71.69	TO STA. 31+98.16	RAMP E
STA. 6+64.05	TO STA. 12+15.74	RAMP F
STA. 12+01.82	TO STA. 19+33.21	RAMP G

- OR RATE OF SUPER ELEVATION



- OR RATE OF SUPER ELEVATION

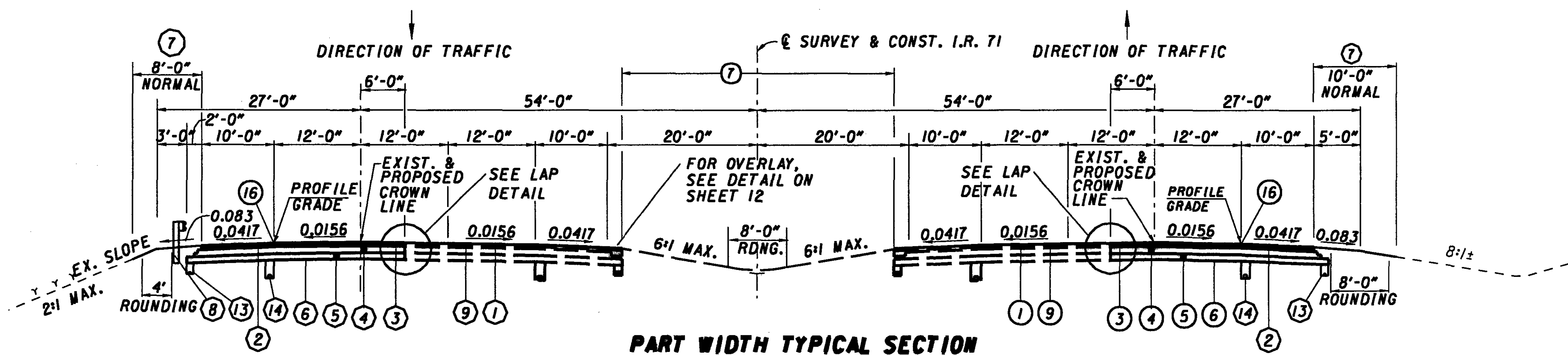
TWO WAY RAMP EXISTING TYPICAL SECTION

LIMITING STATIONS

STA. 0+00.00	TO STA. 1+03.07	RAMP A
STA. 4+56.24	TO STA. 13+63.68	RAMP A
STA. 16+54.18	TO STA. 17+51.05	RAMP A
STA. 17+53.17	TO STA. 24+18.34	RAMP B
STA. 0+00.00	TO STA. 6+64.05	RAMP F

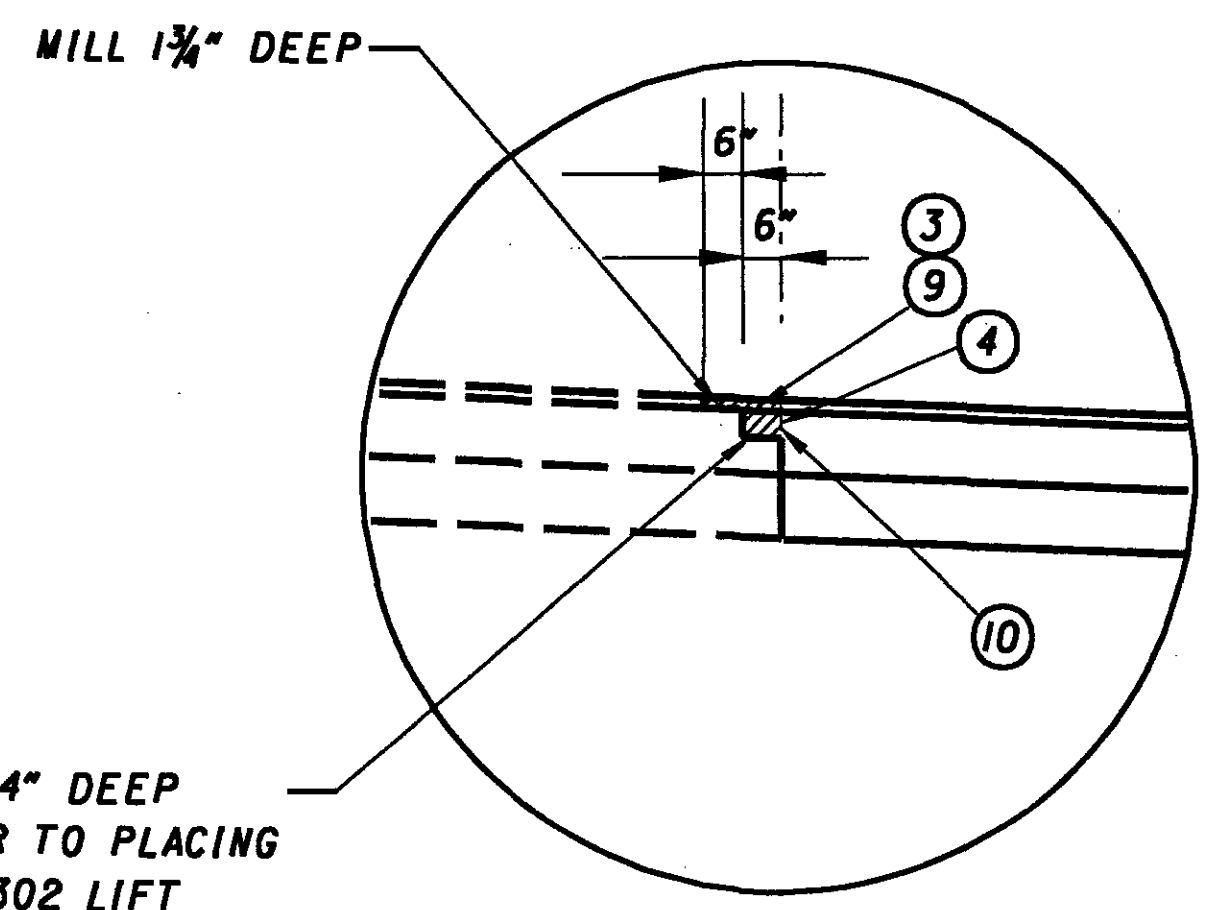
PROPOSED ITEM LEGEND

- (24) 202 PAVEMENT REMOVED

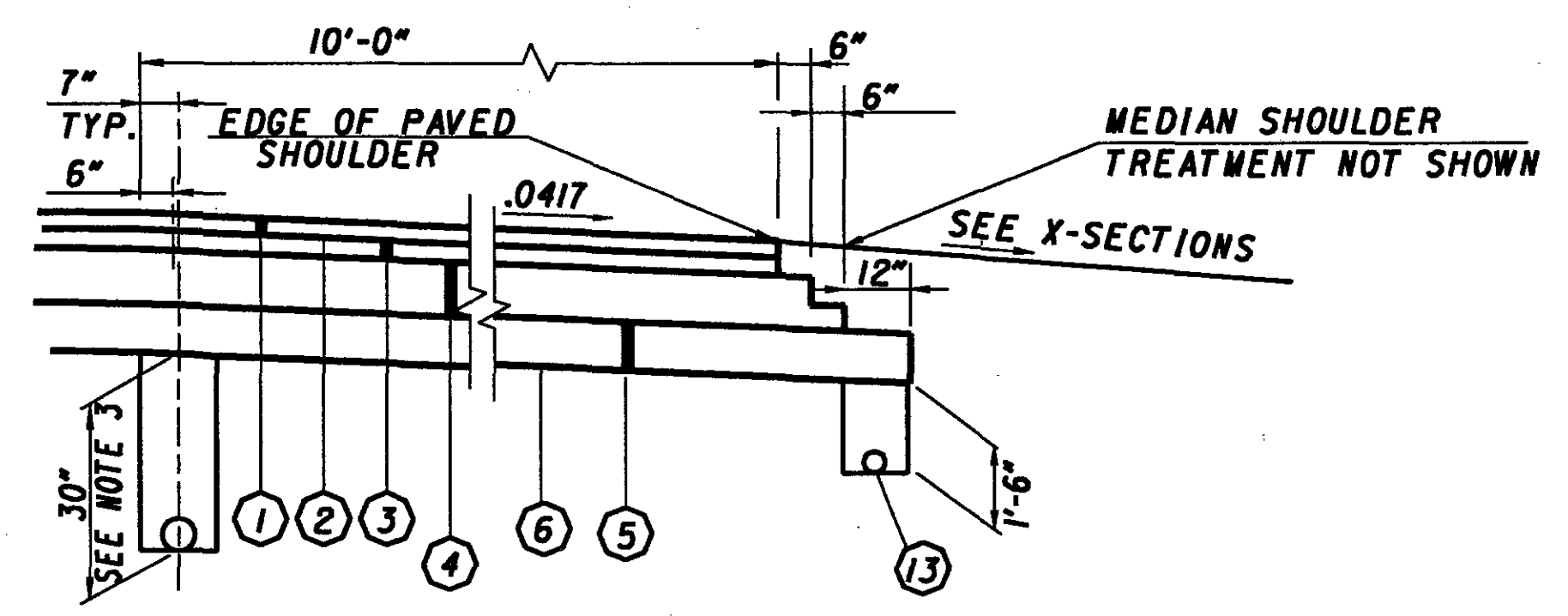


**PART WIDTH TYPICAL SECTION
ABUTING PREVIOUS PAVING**

SB LIMITING STATIONS		NB LIMITING STATIONS	
STA. 320+00.00 TO	STA. 336+00.00 - 1600.00'	STA. 320+00.00 TO	STA. 336+00.00 - 1600.00'
STA. 486+28.80 TO	STA. 504+75.00 - 1846.20'	STA. 486+28.80 TO	STA. 504+75.00 - 1846.20'



**CONVERSION OF MAINLINE BUTT JOINT
TO LAPPED JOINT
LAP DETAIL**



**SHOULDER EDGE COURSE AND
4\"/>
SHOULDER EDGE COURSE**

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
4. THE EXISTING INTERMEDIATE COURSE ON THE ABUTTING PREVIOUS PAVED AREAS MAY REQUIRE PROFILING AND PLANING BEFORE THE SURFACE COURSE IS ADDED. COST FOR ANY PROFILING AND PLANING ON THESE AREAS SHALL BE INCIDENTAL TO THE SURFACE PAVING AND SHALL BE INCLUDED IN THE COST OF THE SURFACE COURSE PAVING.

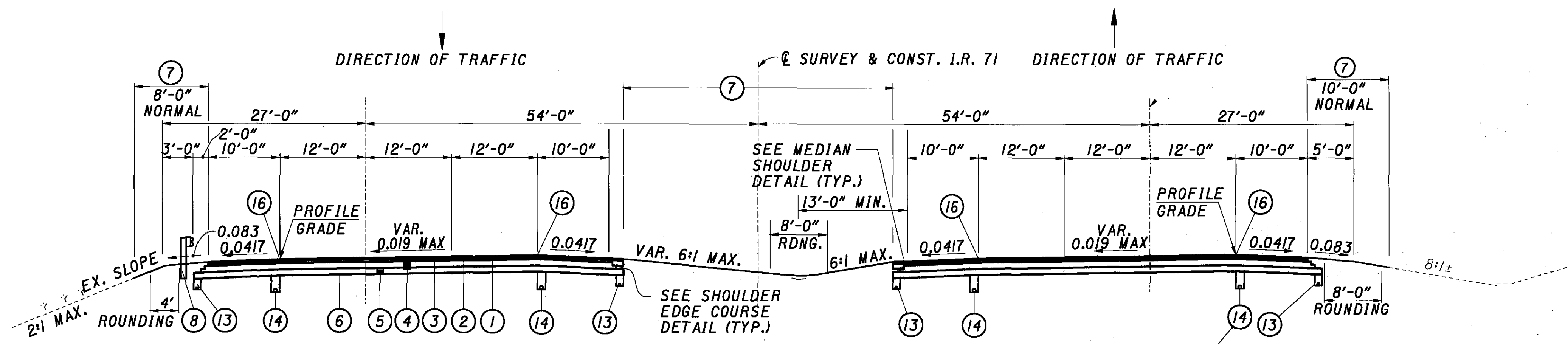
PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)



SUPERELEVATED TYPICAL SECTION

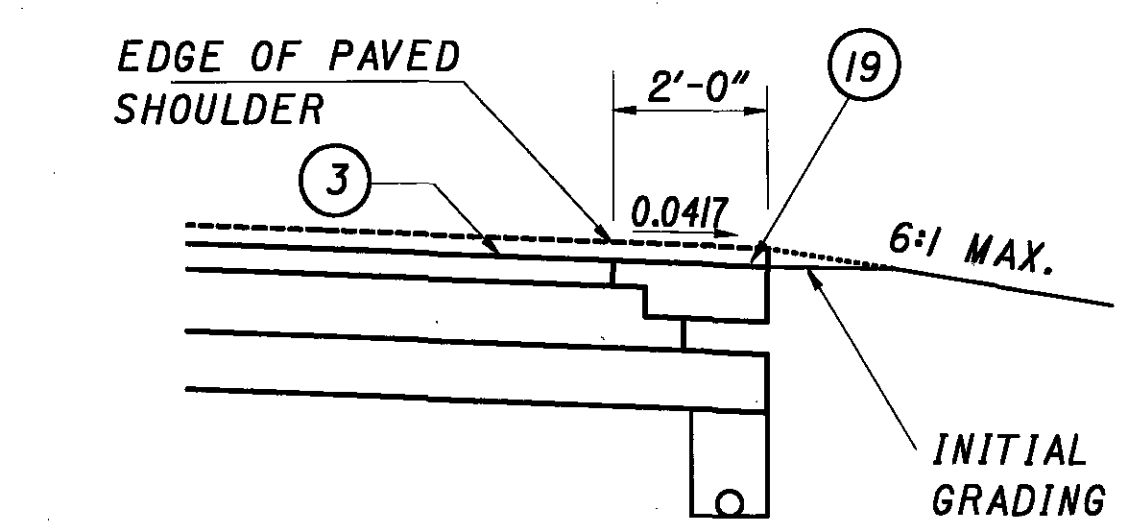
SB LIMITING STATIONS

STA. 414+00.00	TO	STA. 416+66.28	=	266.28'
STA. 421+43.93	TO	STA. 427+78.71	=	634.78'
STA. 429+47.24	TO	STA. 454+09.92	=	2462.68'
STA. 457+12.74	TO	STA. 469+65.40	=	1252.66'
			TOTAL	= 4616.40'

NB LIMITING STATIONS

STA. 414+00.00	TO	STA. 418+64.07	=	464.07'
STA. 423+35.71	TO	STA. 427+64.00	=	428.29'
STA. 429+31.51	TO	STA. 453+60.04	=	2428.53'
STA. 456+62.02	TO	STA. 469+65.40	=	1303.38'
			TOTAL	= 4624.27'

MEDIAN DITCH LOCATION MAY VARY FROM CENTERED AS SHOWN BELOW TO THE MAX. SHIFTED POSITION SHOWN ABOVE.

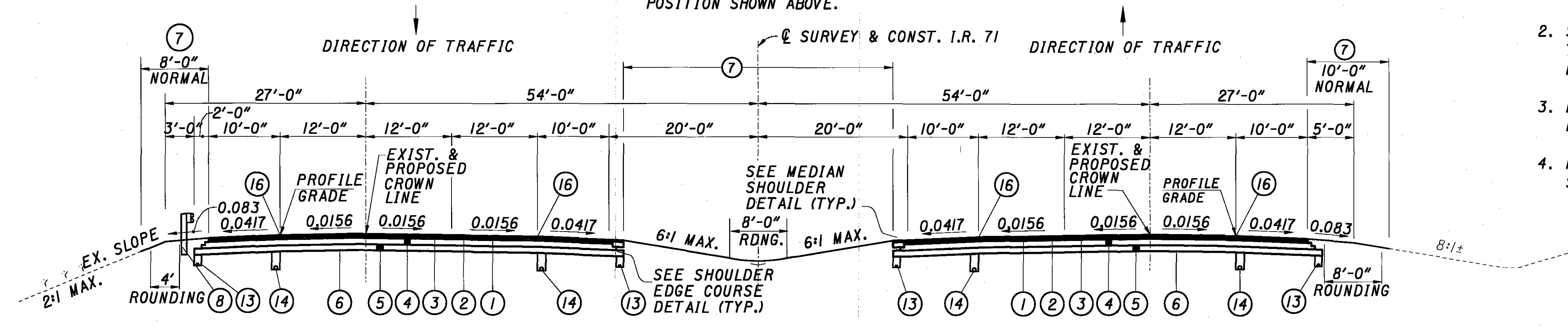


MEDIAN SHOULDER DETAIL

SURFACE COURSE (DASHED) TO BE PLACED AFTER MOT PHASE.

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
4. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.



NORMAL TYPICAL SECTION

SB LIMITING STATIONS

STA. 336+00.00	TO	STA. 383+76.55	=	4776.55'
STA. 385+59.98	TO	STA. 414+00.00	=	2840.02'
STA. 469+65.40	TO	STA. 486+28.80	=	1663.40'
			TOTAL	= 9279.97'

NB LIMITING STATIONS

STA. 336+00.00	TO	STA. 385+07.29	=	4907.29'
STA. 386+87.75	TO	STA. 414+00.00	=	2712.25'
STA. 469+65.40	TO	STA. 486+28.80	=	1663.40'
			TOTAL	= 9282.94'

PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

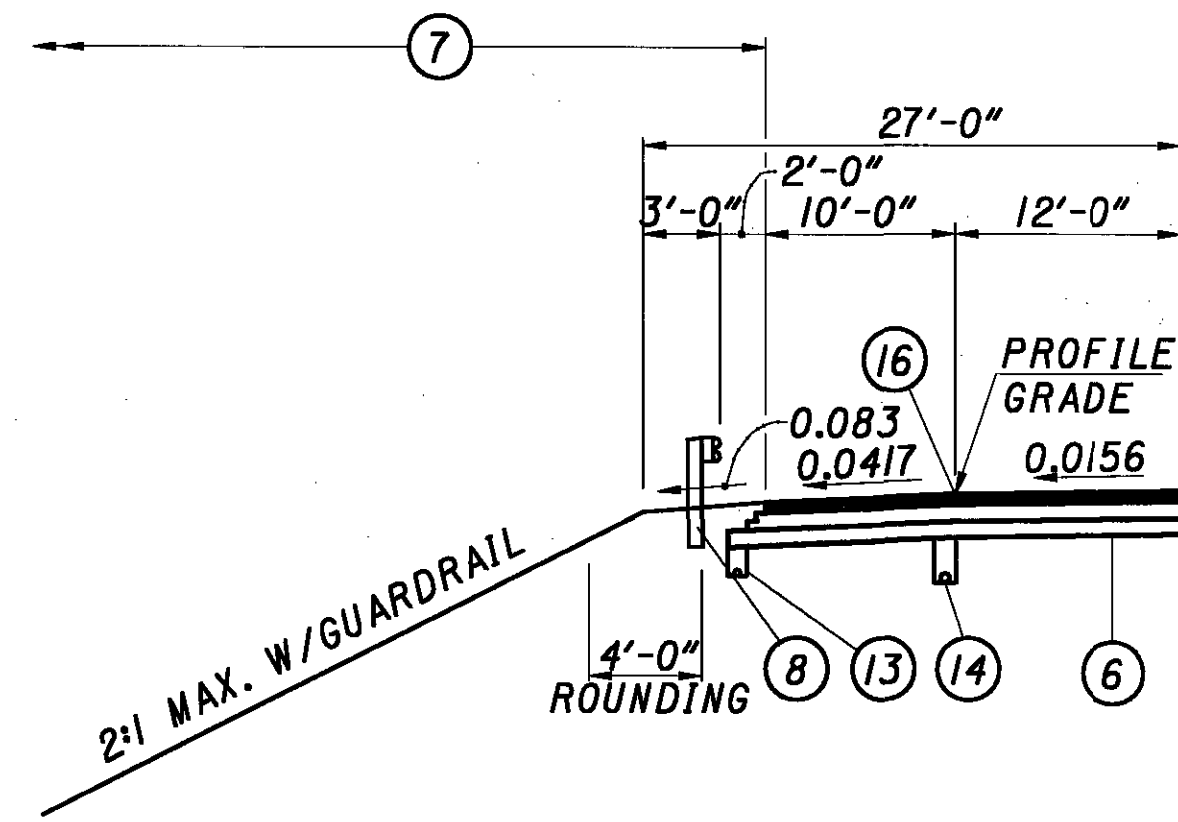
PROPOSED TYPICAL SECTION

MED-71-6.06

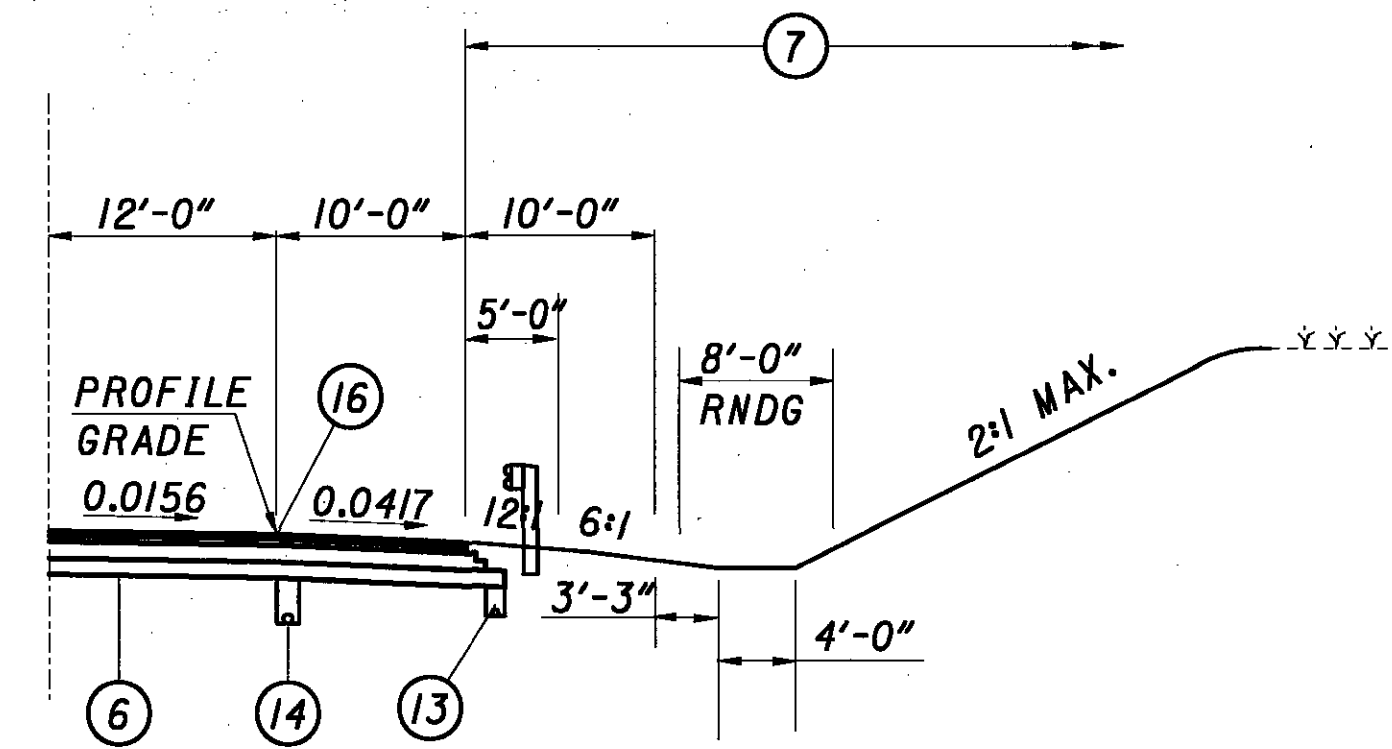
NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET NO. 577.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS SEE STANDARD CONSTRUCTION DRAWING BP-9.I FOR DETAILS.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET II.

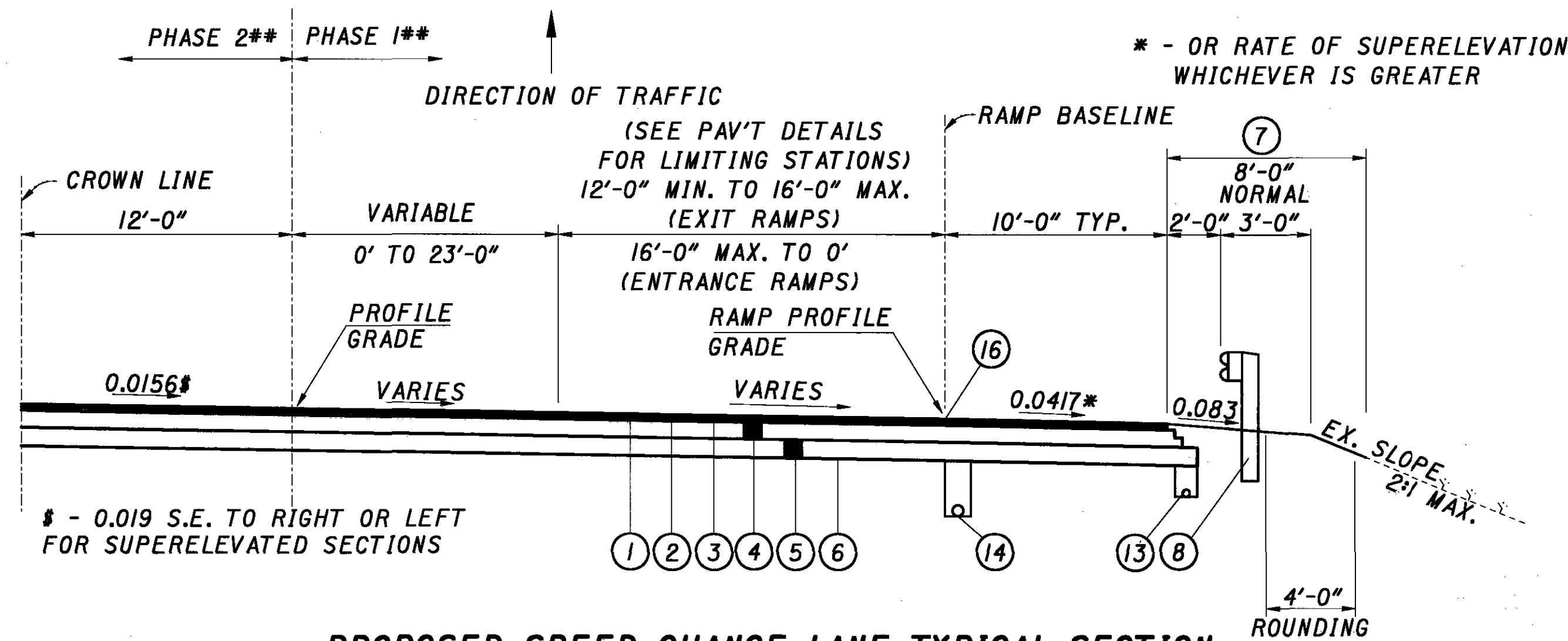
** - CONSTRUCT TO EXISTING EDGE OF PAVEMENT DURING PHASE I. (OMIT SURFACE COURSE UNTIL FINAL PHASE) SEE DETAIL ON SHEET II FOR CONVERSION OF BUTT JOINT TO LAPPED JOINT.



FILL TYPICAL SECTION - OUTSIDE SHOULDER
(WHERE ADDITIONAL GRADING IS REQUIRED - SEE CROSS SECTIONS)



CUT SECTION - OUTSIDE SHOULDER
APPLIES ONLY AT OVERHEAD BRIDGES WITH PIERS



PROPOSED SPEED CHANGE LANE TYPICAL SECTION

SB LIMITING STATIONS

STA. 361+98.57 TO STA. 375+00.00 = 1301.43' **
STA. 375+00.00 TO STA. 383+84.23 = 884.23'
STA. 385+59.98 TO STA. 389+60.52 = 400.54'
STA. 413+25.00 TO STA. 422+51.32 = 926.32'

NB LIMITING STATIONS

STA. 367+56.21 TO STA. 374+00.00 = 643.79' **
STA. 408+92.81 TO STA. 418+64.07 = 971.26'
STA. 423+35.71 TO STA. 423+66.53 = 30.82'
STA. 444+36.51 TO STA. 460+13.43 = 1576.92'

PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

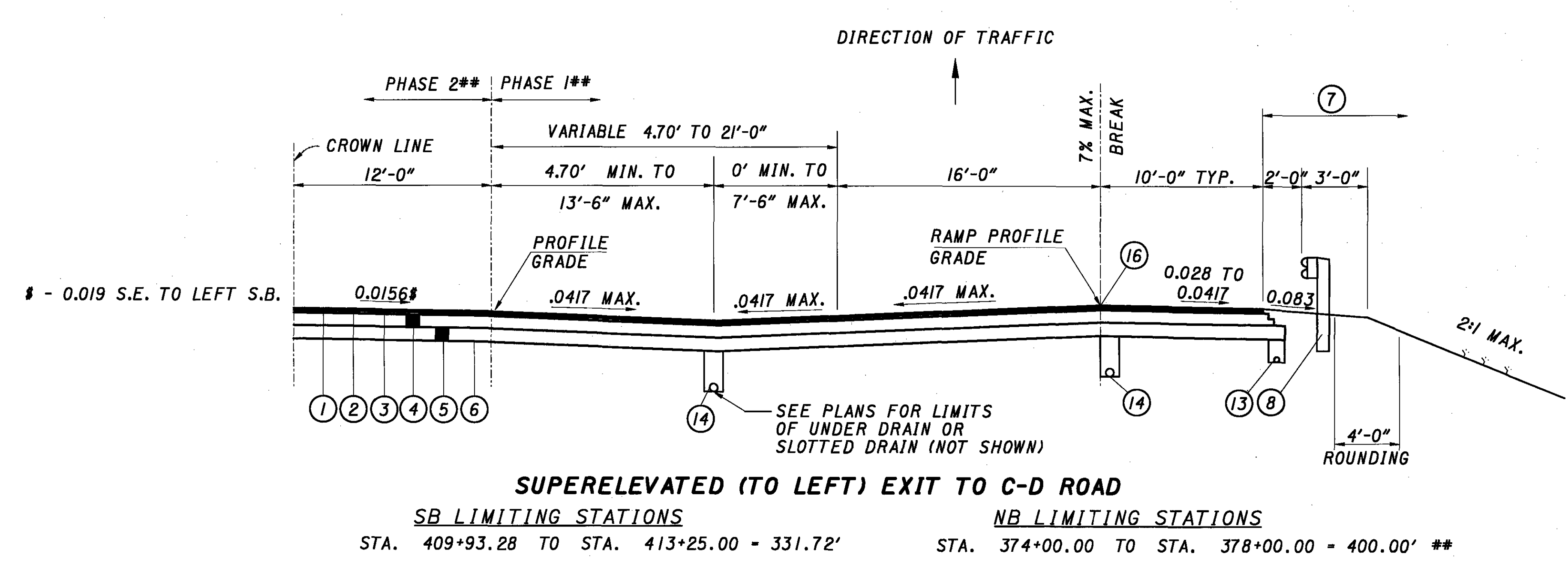
OUTSIDE SHOULDER WITH CONCRETE BARRIER TYPICAL SECTION
FOR LOCATIONS AND DETAILS SEE SHEET 509

- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

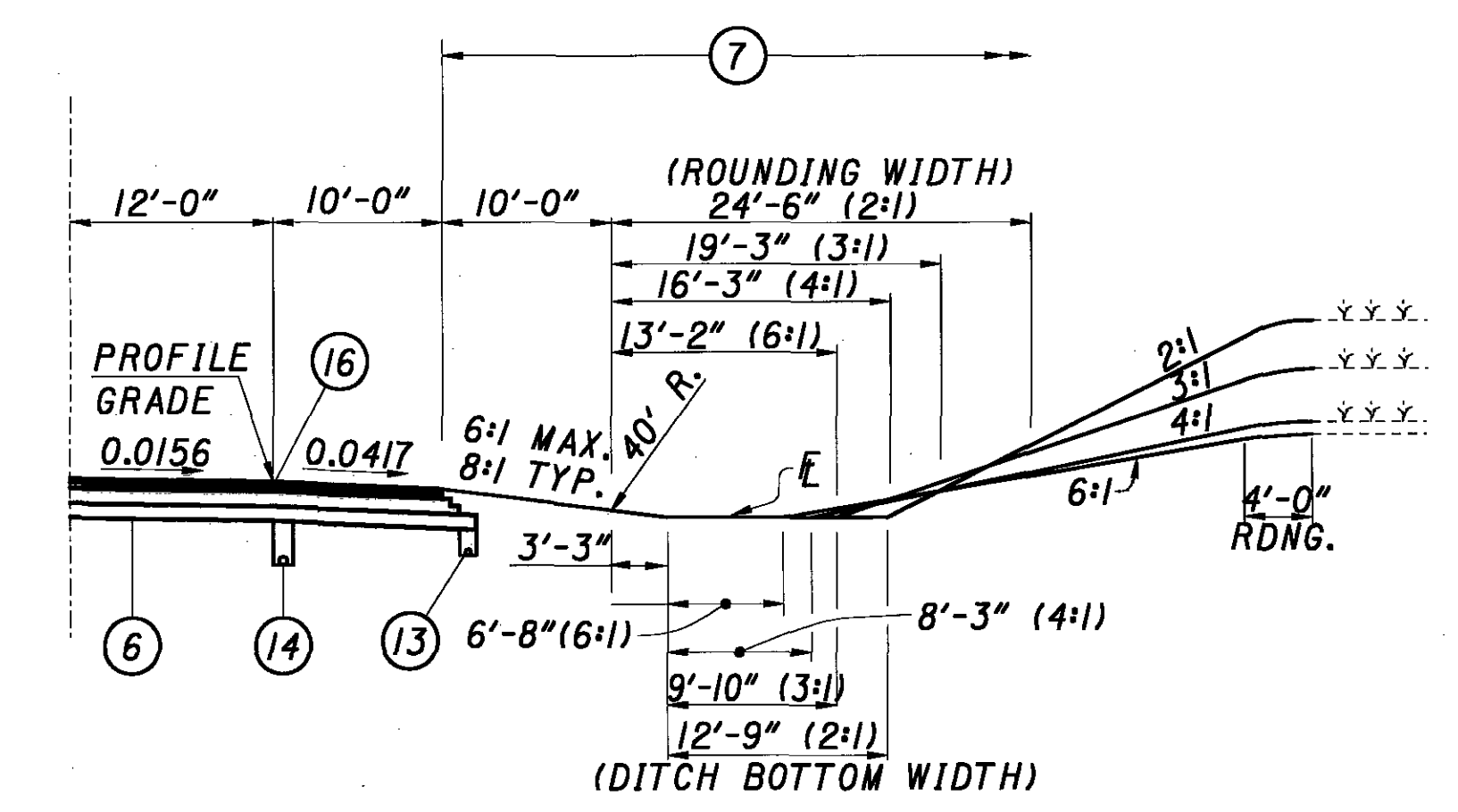
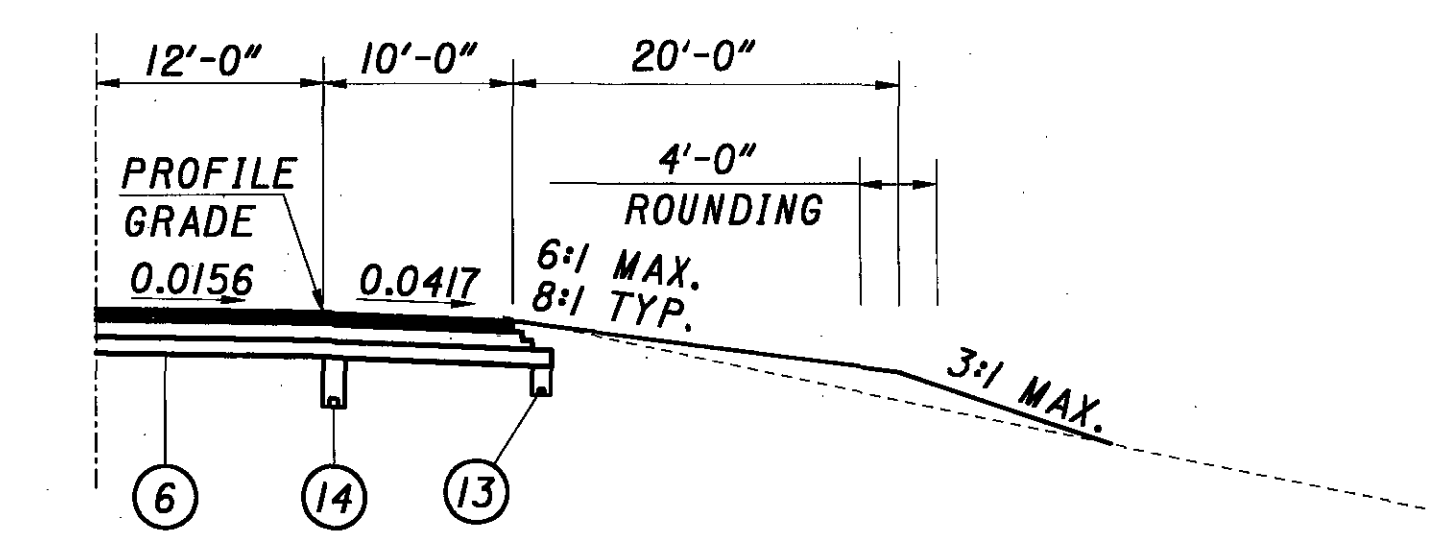
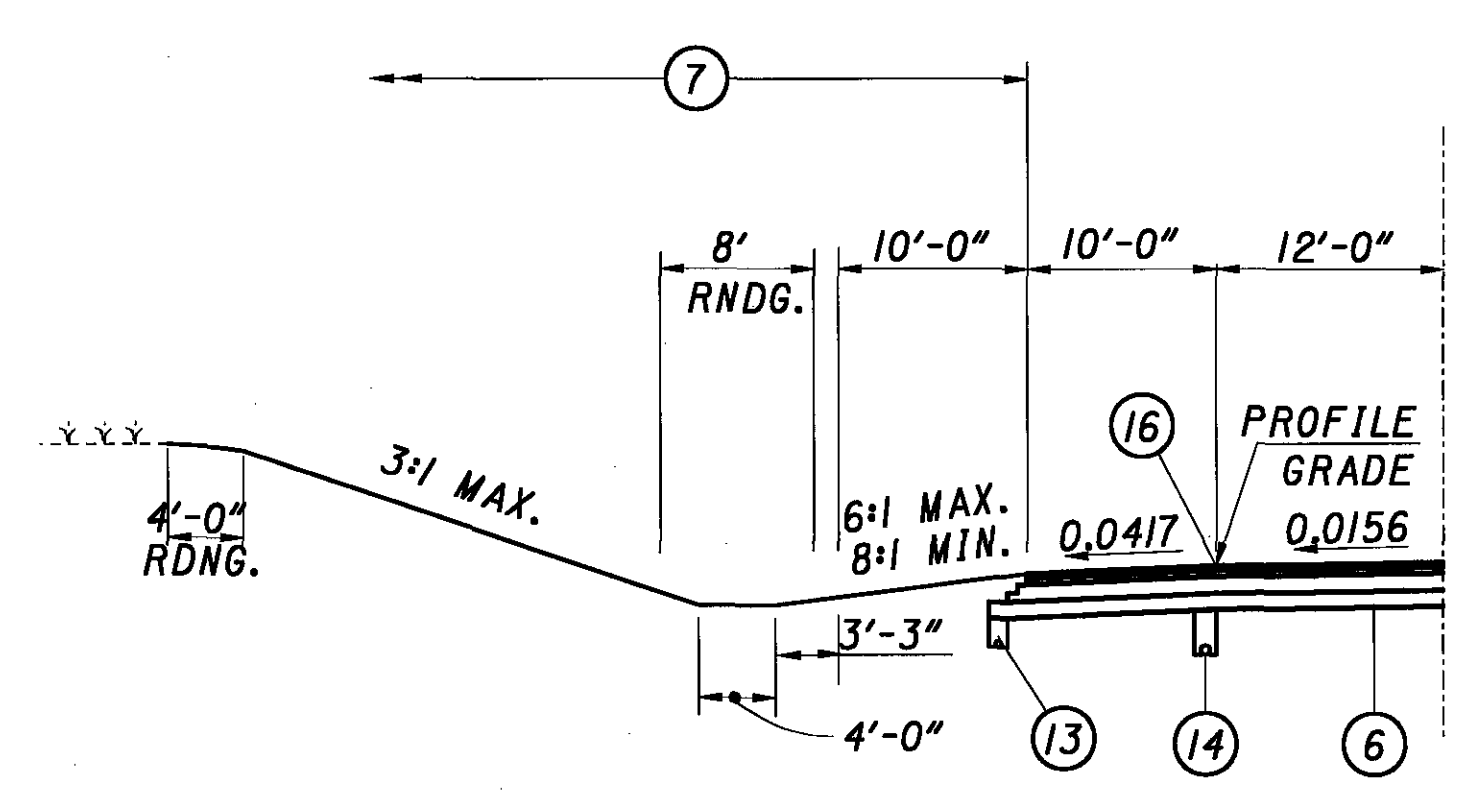
PROPOSED TYPICAL SECTION

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- NOTES:**
1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
 2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
 3. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
 4. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

** - CONSTRUCT TO EXISTING EDGE OF PAVEMENT DURING PHASE I. (OMIT SURFACE COURSE UNTIL FINAL PHASE) SEE DETAIL ON SHEET 11 FOR CONVERSION OF BUTT JOINT TO LAPPED JOINT.



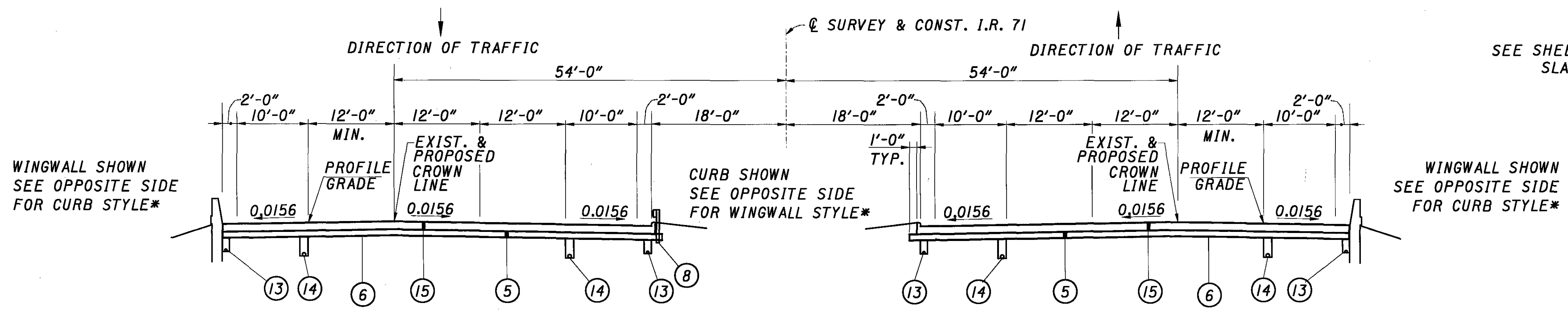
- # ① 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- # ② 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- # ③ 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- # ④ 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- ⑤ 304 10" AGGREGATE BASE
- ⑥ 204 SUBGRADE COMPACTION
- ⑦ 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- ⑧ 606 GUARDRAIL, TYPE 5
- # ⑨ 407 TACK COAT (SEE GENERAL NOTE)
- ⑩ 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- PROPOSED ITEM LEGEND**
- ⑪ 609 CONCRETE MEDIAN
 - ⑫ 302 8" ASPHALT CONCRETE BASE, PG64-22
 - ⑬ 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
 - ⑭ 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
 - ⑮ 526 REINFORCED CONCRETE APPROACH SLAB
 - # ⑯ HOT LONGITUDINAL JOINT
 - ⑰ 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
 - ⑱ 603 15" SLOTTED DRAIN, TYPE 2
 - ⑲ 301 8" ASPHALT CONCRETE BASE, PG-64-22
 - ⑳ 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

- ⑳ 203 EXCAVATION
- ㉑ 203 EMBANKMENT
- ㉒ 452 12" NON-REINFORCED CONCRETE PAVEMENT
- ㉓ 202 PAVEMENT REMOVED

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

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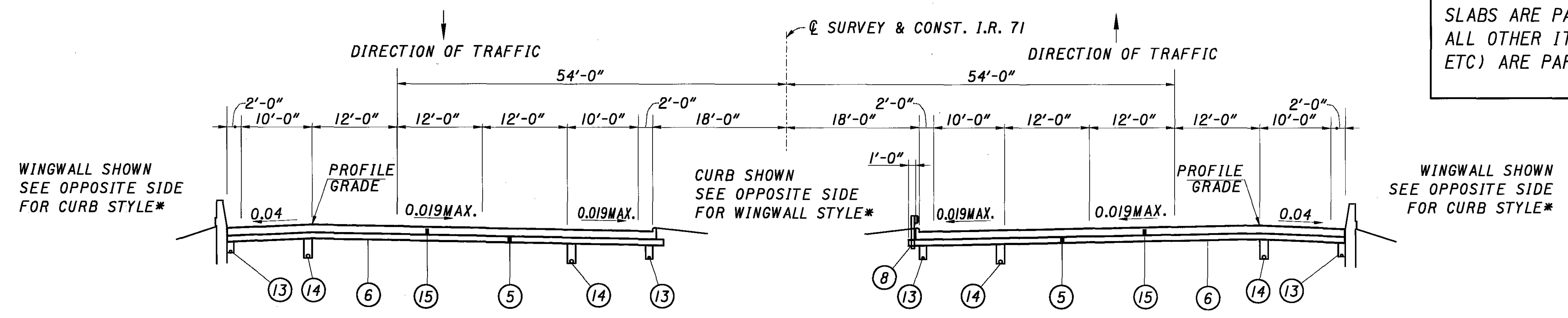


NORMAL TYPICAL SECTION

SOUTHBOUND LIMITING STATIONS
 STA. 383+76.55 TO STA. 384+06.55 = 30.00'
 STA. 385+29.98 TO STA. 385+59.98 = 30.00'
 TOTAL = 60.00'

NORTHBOUND LIMITING STATIONS
 STA. 385+07.29 TO STA. 385+37.29 = 25.00'
 STA. 386+57.75 TO STA. 386+87.75 = 25.00'
 TOTAL = 60.00'

SEE SHEET 28 FOR APPROACH
SLAB WITH CD ROAD



SUPERELEVATED TYPICAL SECTION

SOUTHBOUND LIMITING STATIONS
 STA. 416+66.28 TO STA. 416+91.28 = 25.00'
 STA. 421+18.93 TO STA. 421+43.93 = 25.00'
 STA. 427+78.71 TO STA. 428+03.71 = 25.00'
 STA. 429+22.24 TO STA. 429+47.24 = 25.00'
 STA. 454+09.92 TO STA. 454+34.92 = 25.00'
 STA. 456+87.74 TO STA. 457+12.74 = 25.00'
 TOTAL = 150.00'

NORTHBOUND LIMITING STATIONS
 STA. 418+64.07 TO STA. 418+89.07 = 25.00'
 STA. 423+10.71 TO STA. 423+35.71 = 25.00'
 STA. 427+64.00 TO STA. 427+89.00 = 25.00'
 STA. 429+06.51 TO STA. 429+31.51 = 25.00'
 STA. 453+60.04 TO STA. 453+85.04 = 25.00'
 STA. 456+37.02 TO STA. 456+62.02 = 25.00'
 TOTAL = 150.00'

ITEM 526 - REINFORCED CONCRETE APPROACH
SLABS ARE PART OF THE STRUCTURE PAY ITEMS.
ALL OTHER ITEMS SHOWN HERE (204, 304, 605,
ETC) ARE PART OF THE ROADWAY ITEMS.

PROPOSED ITEM LEGEND

- # (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
- # (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- # (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- # (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- # (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- # (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1

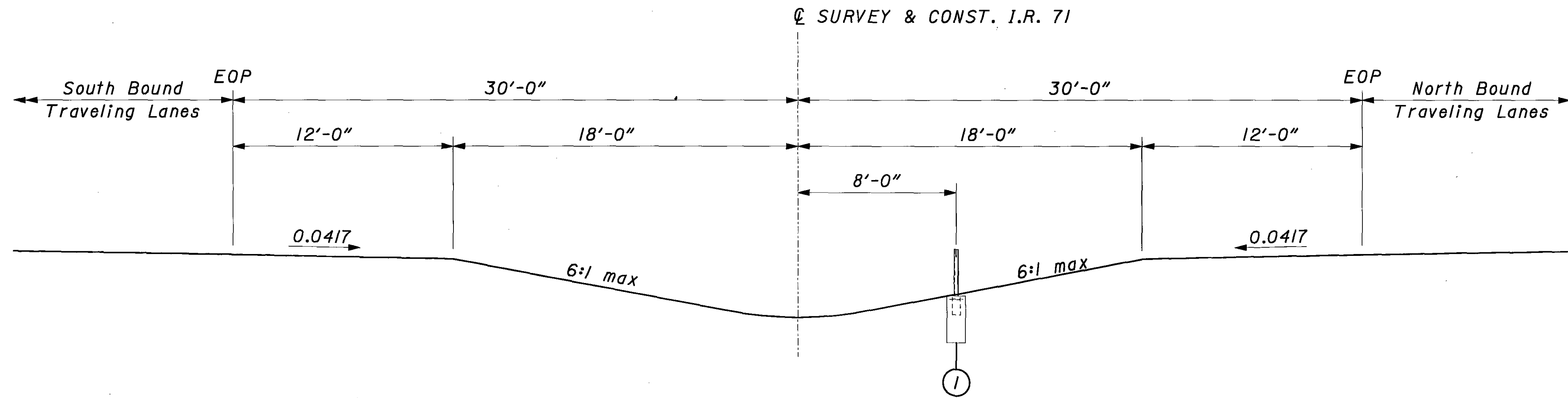
- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

APPROACH SLAB TYPICAL SECTION

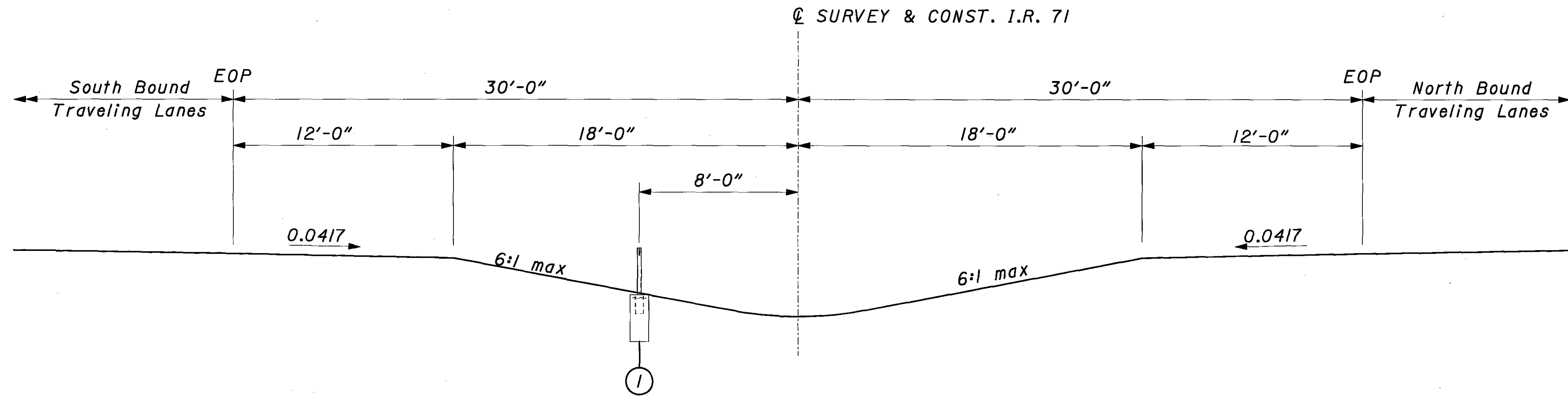
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CONCRETE FOUNDATION POST SECTION I.R. 71
SECTION APPLIES:

- Sta. 345+40 to Sta. 355+03
- Sta. 388+99 to Sta. 394+56
- Sta. 422+86 to Sta. 426+21
- Sta. 429+31 to Sta. 436+90
- Sta. 456+74 to Sta. 468+90



CONCRETE FOUNDATION POST SECTION I.R. 71
SECTION APPLIES:

- Sta. 336+00 to Sta. 344+60
- Sta. 358+34 to Sta. 384+03
- Sta. 398+11 to Sta. 417+27
- Sta. 437+70 to Sta. 453+98
- Sta. 469+70 to Sta. 486+29

LEGEND

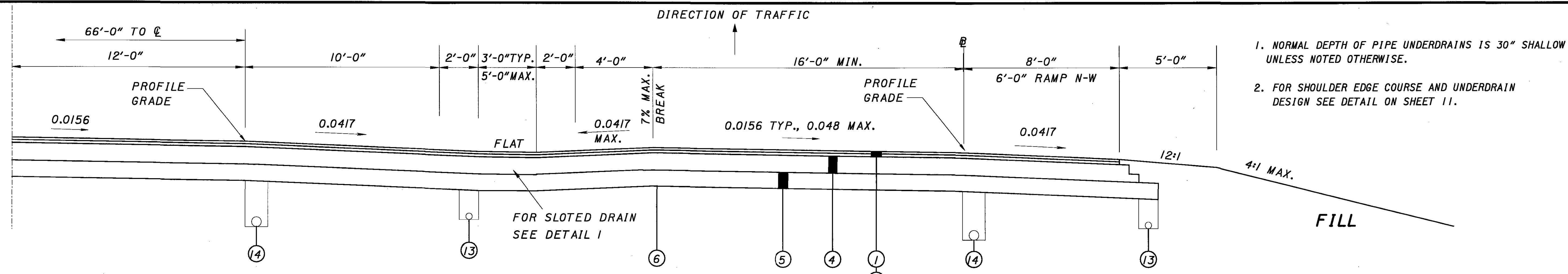
- ① 606 GUARDRAIL MISC.: TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED)

CHECKED

CALCULATED

TYPICAL SECTION IR71/IR76/USR224 RAMPS

MED-71-6.06

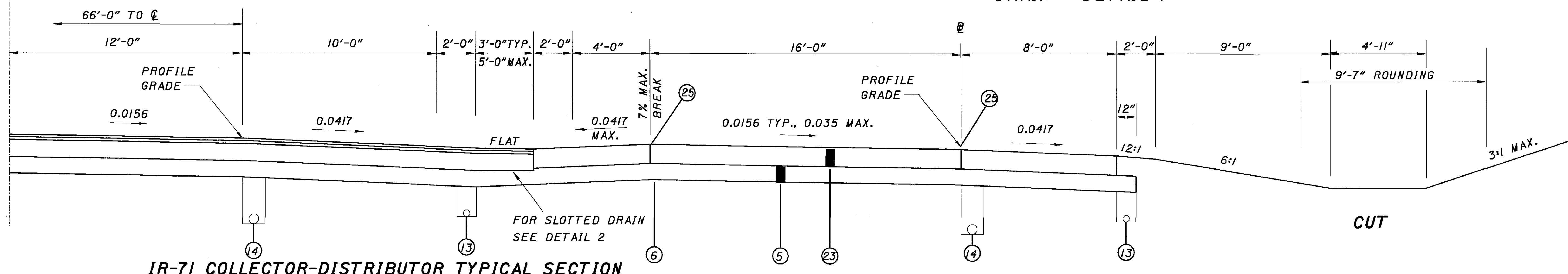
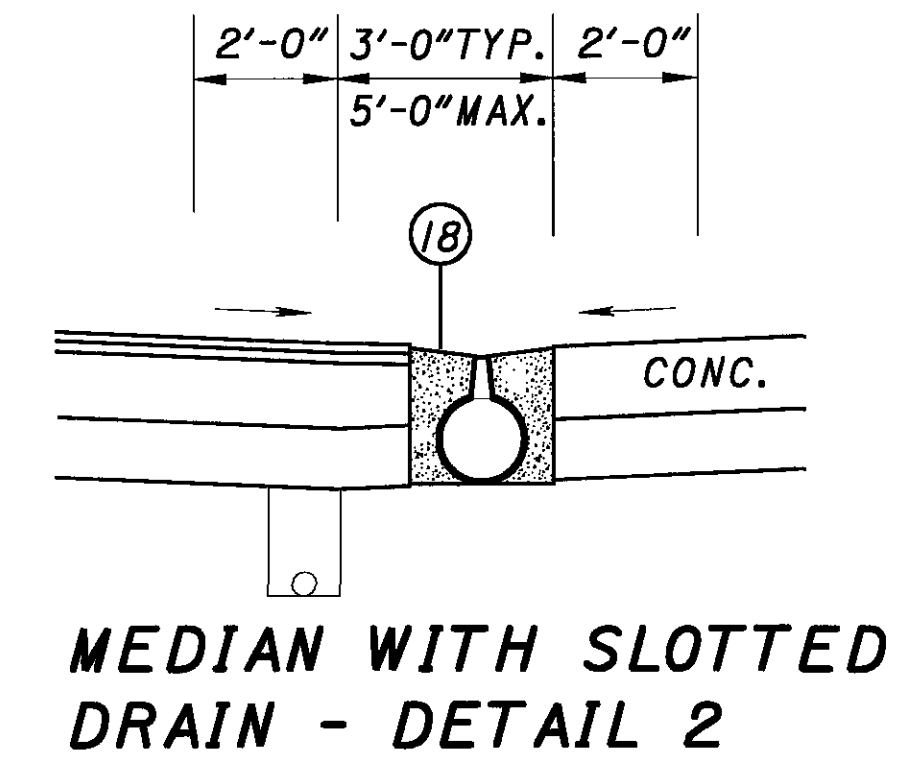
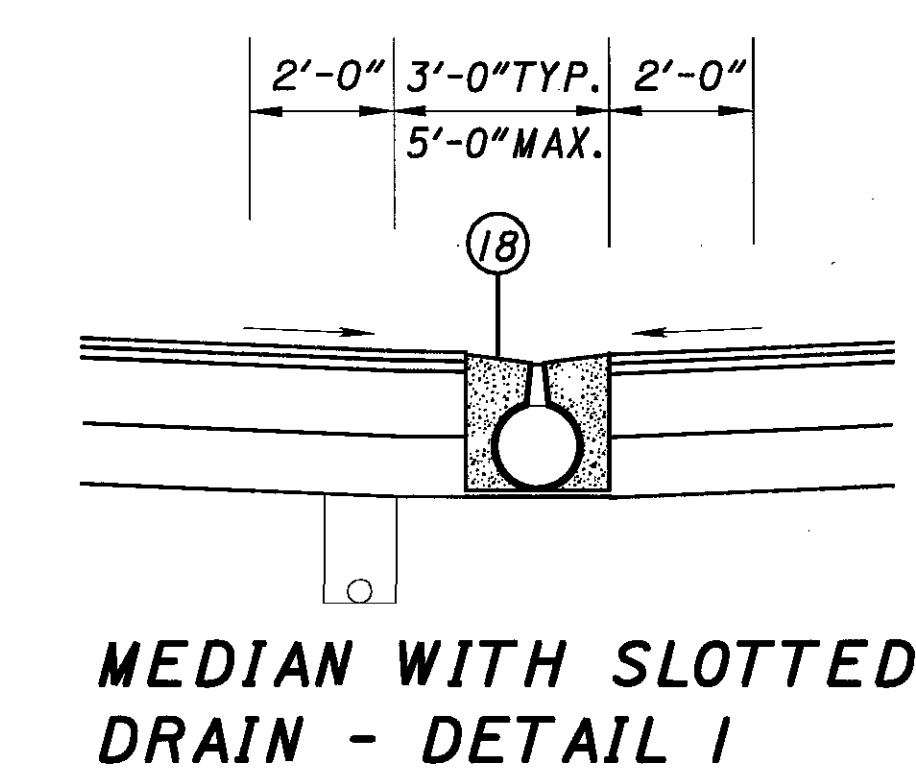


1. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
2. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

IR-71 COLLECTOR-DISTRIBUTOR TYPICAL SECTION

LIMITING STATIONS

STA. 66+99.94 TO STA. 74+57.02 RAMP S-EW = 757.08'	STA. 11+11.52 TO STA. 11+77.77 RAMP N-W = 66.25'
STA. 76+37.26 TO STA. 76+92.03 RAMP S-EW = 54.77'	STA. 11+77.77 TO STA. 19+93.28 RAMP N-EW = 815.51'
STA. 76+92.03 TO STA. 84+00.00 RAMP S-W = 707.97'	TOTAL = 881.76'
TOTAL = 1519.82'	



IR-71 COLLECTOR-DISTRIBUTOR TYPICAL SECTION

LIMITING STATIONS

STA. 84+00.00 TO STA. 87+38.71 RAMP S-W = 338.70'

PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED
- (25) STANDARD LONGITUDINAL JOINT
- (26) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- (27) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- (28) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- (29) 302 14" ASPHALT CONCRETE BASE, PG64-22
- (30) 304 6" AGGREGATE BASE

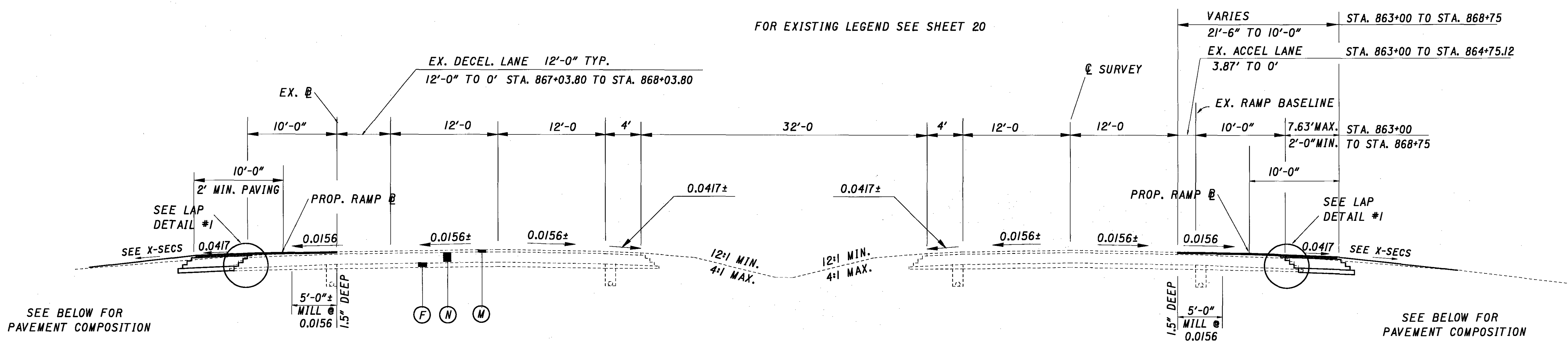
RAMPS

N-W
N-EW
S-EW
S-W

17
1120

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FOR EXISTING LEGEND SEE SHEET 20

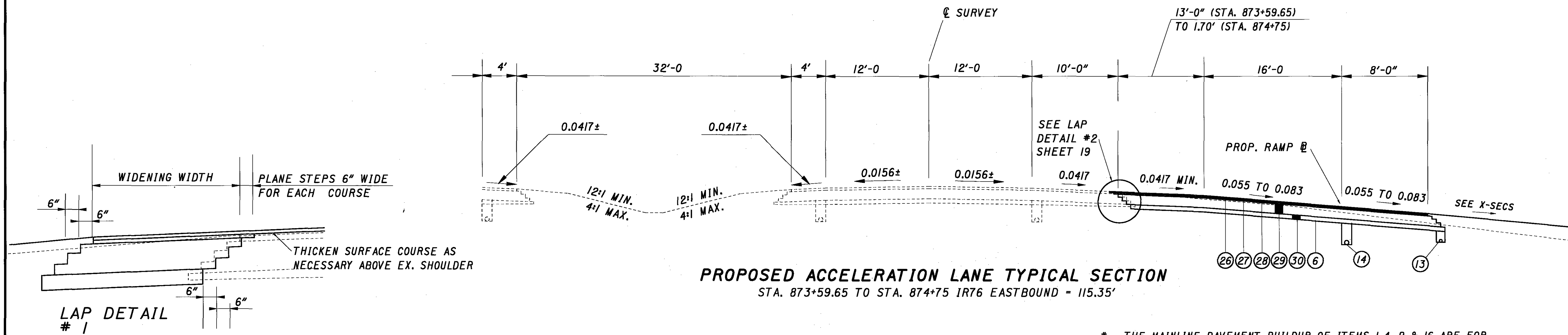


PROPOSED DECELERATION LANE TYPICAL SECTION

STA. 866+50 TO STA. 868+03.80 IR76 WESTBOUND - 153.80'

PROPOSED ACCELERATION LANE TYPICAL SECTION

STA. 863+00 TO STA. 868+75.04 IR76 EASTBOUND - 575.04'



PROPOSED ACCELERATION LANE TYPICAL SECTION

STA. 873+59.65 TO STA. 874+75 IR76 EASTBOUND - 115.35'

PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

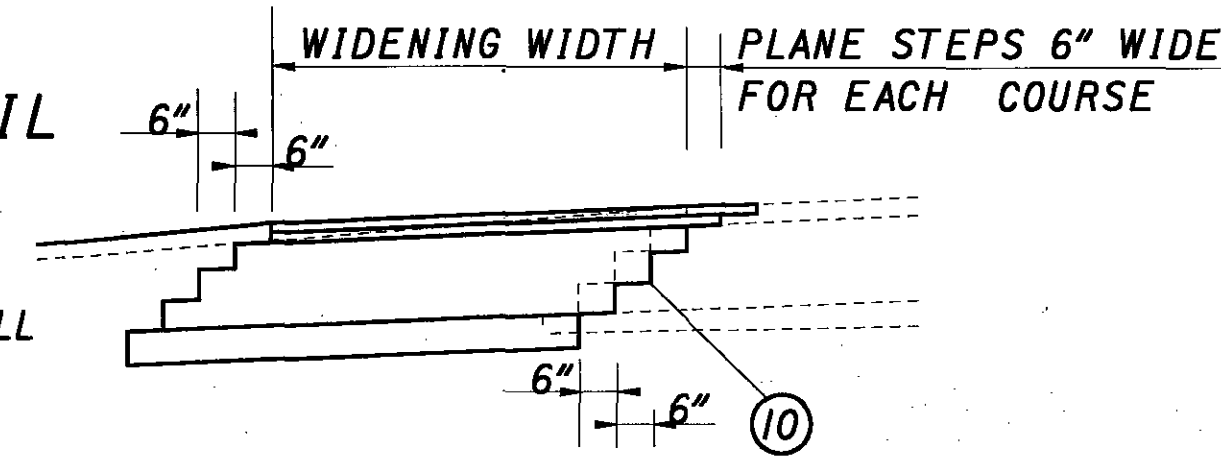
- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED
- (25) STANDARD LONGITUDINAL JOINT
- (26) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- (27) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- (28) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- (29) 302 14" ASPHALT CONCRETE BASE, PG64-22
- (30) 304 6" AGGREGATE BASE

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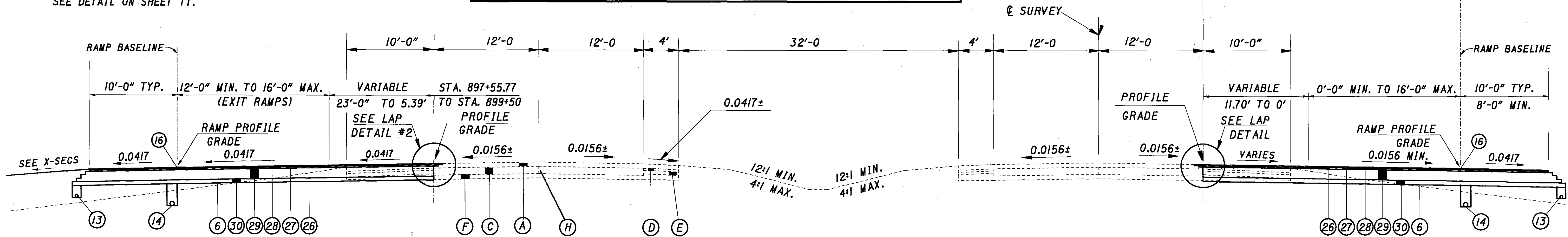
1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
4. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

LAP DETAIL #2

ADJACENT TO FULL DEPTH ASPHALT



FOR EXISTING LEGEND SEE SHEET 20

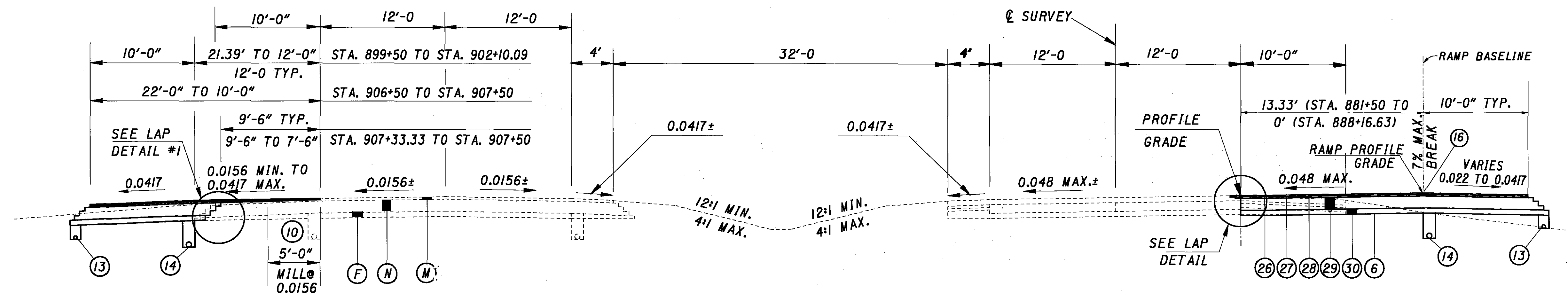


PROPOSED DECELERATION LANE TYPICAL SECTION

STA. 897+55.77 TO STA. 899+50 IR76 WESTBOUND - 194.23'

PROPOSED ACCELERATION LANE TYPICAL SECTION

STA. 874+75.00 TO STA. 879+08.48 IR76 EASTBOUND - 433.48'
 STA. 880+50.92 TO STA. 881+50.00 IR76 EASTBOUND - 99.08'
 TOTAL = 532.56'

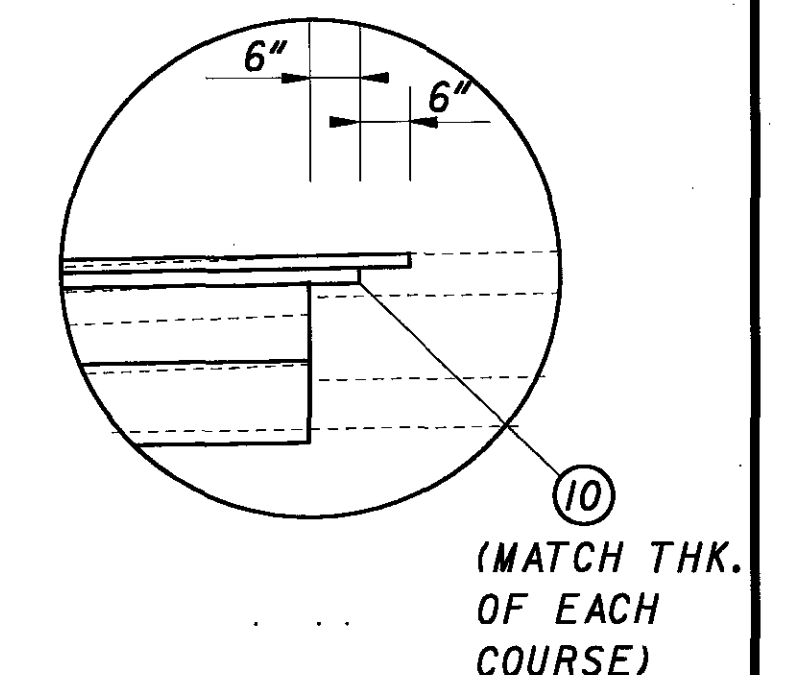


PROPOSED DECELERATION LANE TYPICAL SECTION

STA. 899+50 TO STA. 903+63.12 IR76 WESTBOUND - 413.12'
 STA. 906+31.08 TO STA. 907+50.00 IR76 WESTBOUND - 118.92'
 TOTAL = 532.04'

PROPOSED ACCELERATION LANE TYPICAL SECTION

STA. 881+50.00 TO STA. 888+16.63 IR76 EASTBOUND - 666.63'



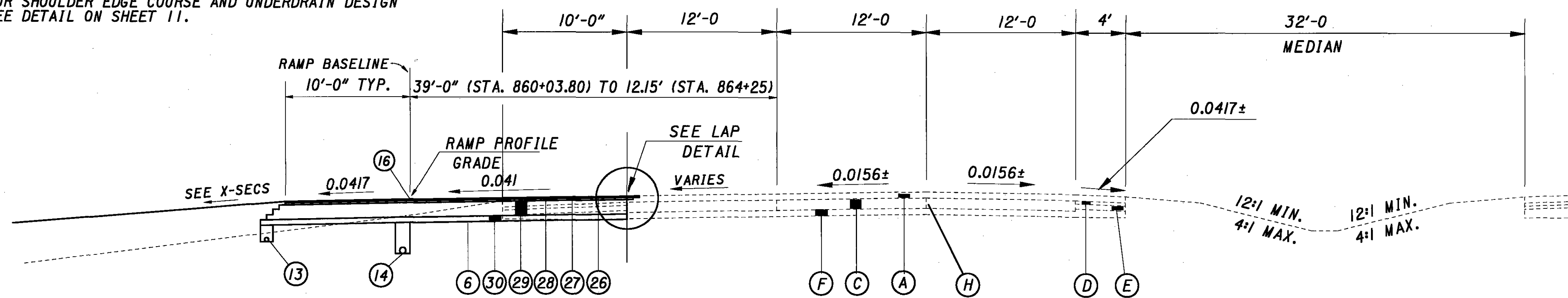
LAP DETAIL
ADJACENT TO CONCRETE BASE

PROPOSED ITEM LEGEND

- | | | |
|--|--|---|
| * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH | (11) 609 CONCRETE MEDIAN | (21) 203 EXCAVATION |
| * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) | (12) 302 8" ASPHALT CONCRETE BASE, PG64-22 | (22) 203 EMBANKMENT |
| * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH) | (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT |
| * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22 | (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP) | (24) 202 PAVEMENT REMOVED |
| (5) 304 10" AGGREGATE BASE | (15) 526 REINFORCED CONCRETE APPROACH SLAB | (25) STANDARD LONGITUDINAL JOINT |
| (6) 204 SUBGRADE COMPACTION | * (16) HOT LONGITUDINAL JOINT | (26) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH |
| (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE) | (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D | (27) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) |
| (8) 606 GUARDRAIL, TYPE 5 | (18) 603 15" SLOTTED DRAIN, TYPE 2 | (28) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 |
| * (9) 407 TACK COAT (SEE GENERAL NOTE) | (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22 | (29) 302 14" ASPHALT CONCRETE BASE, PG64-22 |
| (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS) | (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI | (30) 304 6" AGGREGATE BASE |

* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
4. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

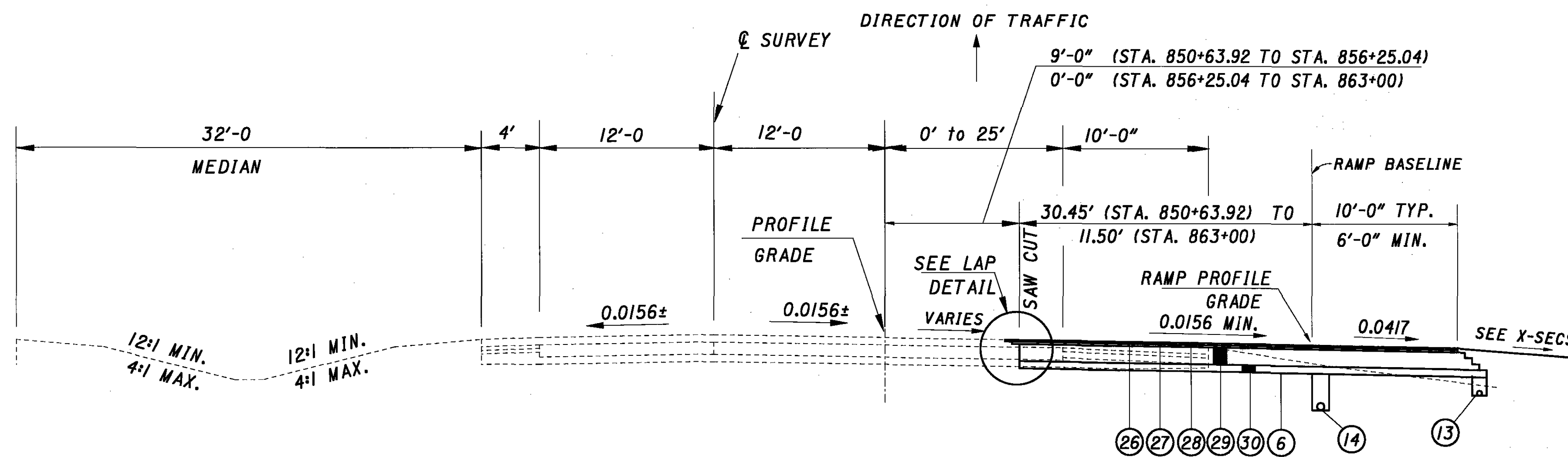


PROPOSED DECELERATION LANE TYPICAL SECTION

STA. 860+03.80 TO STA. 864+25 IR76 WESTBOUND - 421.20'

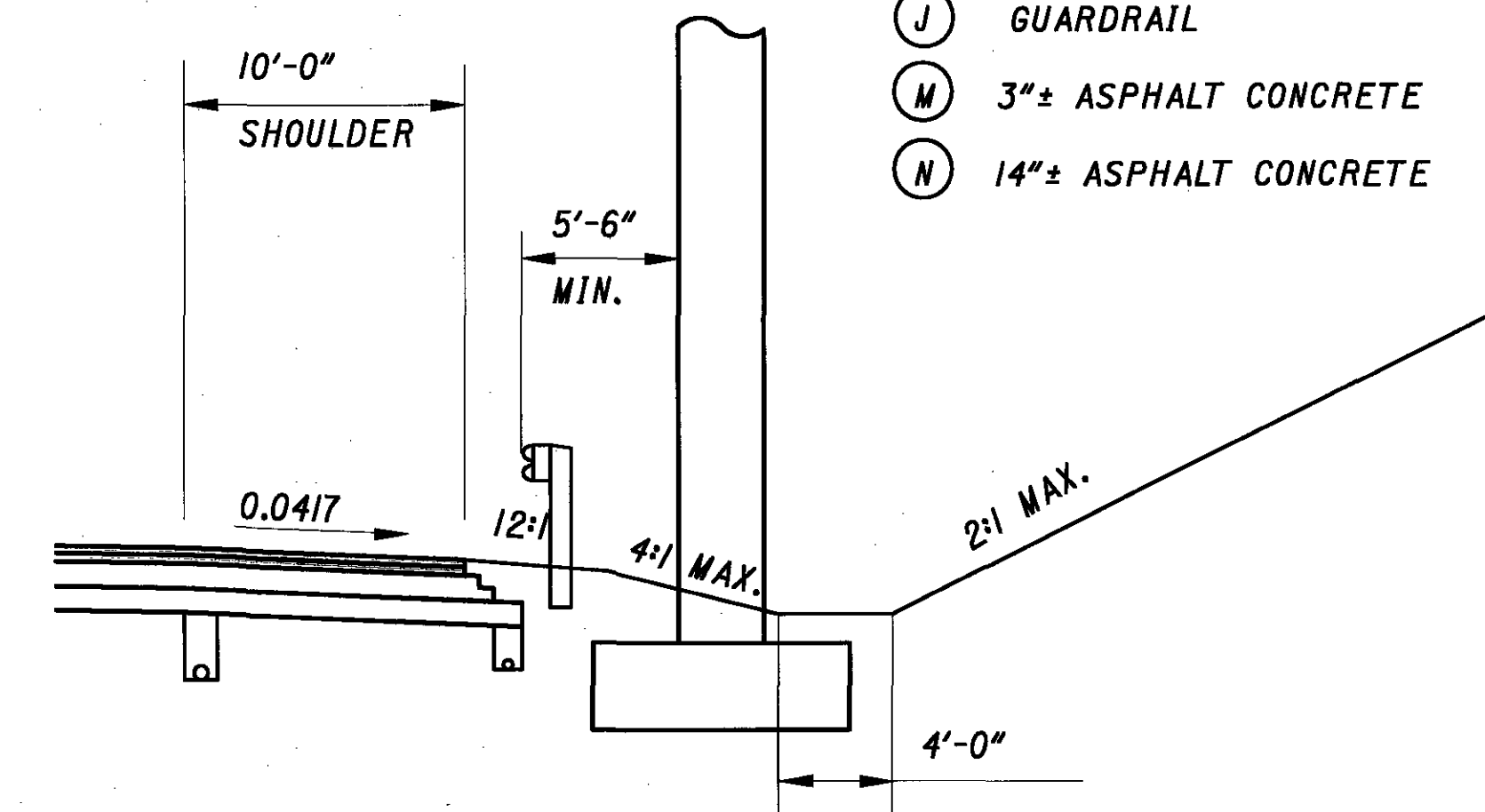
EXISTING ITEM LEGEND

- (A) 6"± ASPHALT CONCRETE
- (B) 9" REINFORCED CONCRETE PAVEMENT
- (C) 10" REINFORCED CONCRETE PAVEMENT
- (D) BITUMINOUS AGGREGATE BASE
- (E) AGGREGATE BASE
- (F) SUBBASE
- (G) UNDERDRAIN
- (H) STANDARD LONGITUDINAL JOINT
- (J) GUARDRAIL
- (M) 3"± ASPHALT CONCRETE
- (N) 14"± ASPHALT CONCRETE



PROPOSED ACCELERATION LANE TYPICAL SECTION

STA. 850+63.92 TO STA. 863+00 IR76 EASTBOUND - 1236.08'



SHOULDER GRADING UNDER BRIDGE WITH PIERS OFFSET 5'-6" FROM GUARDRAIL

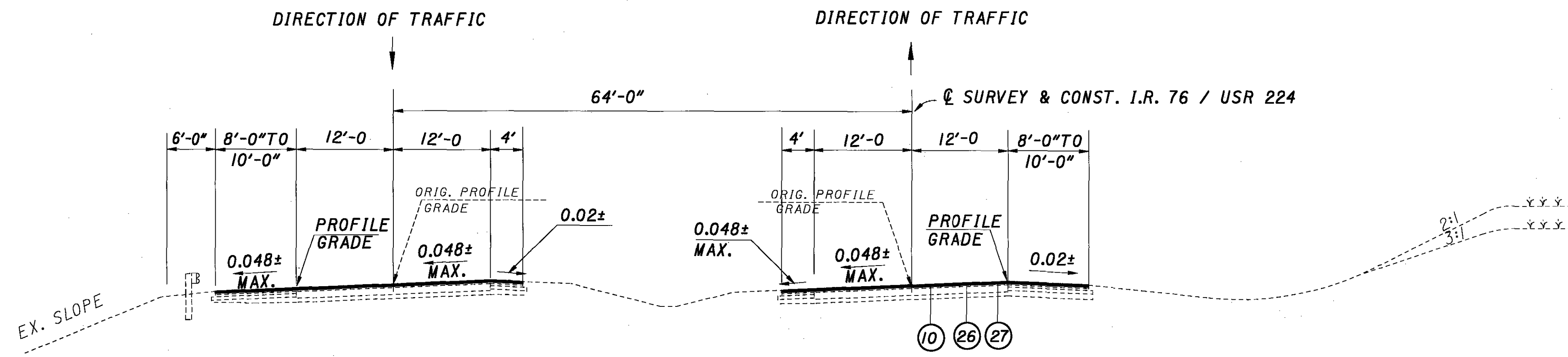
PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
- (13) 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- (15) 526 REINFORCED CONCRETE APPROACH SLAB
- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

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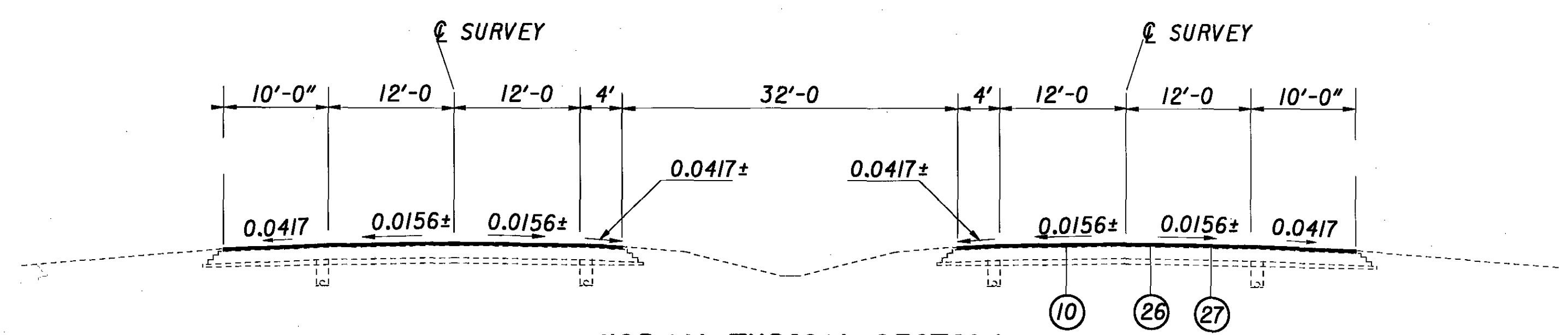
- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
- (23) 452 12" NON-REINFORCED CONCRETE PAVEMENT
- (24) 202 PAVEMENT REMOVED
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- (26) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- (27) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- (28) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- (29) 302 14" ASPHALT CONCRETE BASE, PG64-22
- (30) 304 6" AGGREGATE BASE



SUPERELEVATED TYPICAL SECTION

WESTBOUND LANES		EASTBOUND LANES	
STA. 881+50.00	TO STA. 896+25.00	STA. 881+50.00	TO STA. 896+25.00
STA. 914+00.00	TO STA. 916+10.00	STA. 914+00.00	TO STA. 916+10.00

NOTES:
 1. SEQUENCE OF OPERATIONS:
 THIS WORK SHALL NOT BE PERFORMED UNTIL ALL RAMP WORK IS COMPLETE AND NO MORE TRAFFIC SHIFTS ARE SCHEDULED.
 2. PLANING AND RESURFACING SHALL NOT BE PERFORMED ON NEW RAMP PAVEMENT OR WIDENINGS. THE ONLY EXCEPTION TO THIS IS A 1' LAP INTO THE NEW SURFACE COURSE.

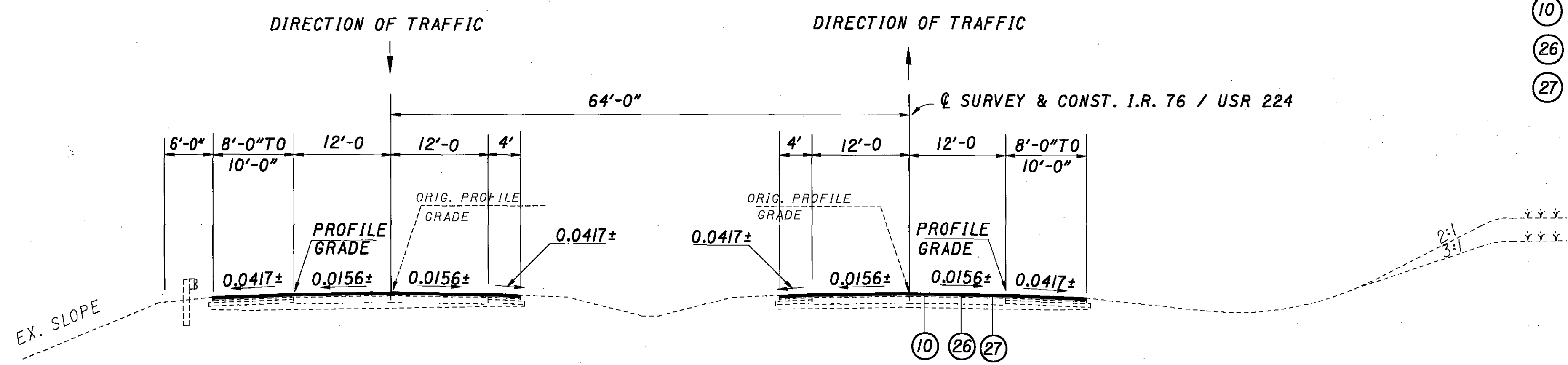


NORMAL TYPICAL SECTION

WESTBOUND LANES		EASTBOUND LANES	
STA. 864+25.00	TO STA. 872+80.00 (BACK)	STA. 863+00.00	TO STA. 872+80.00 (BACK)
STA. 872+73.39 (AHEAD)	TO STA. 878+66.13	STA. 872+73.39 (AHEAD)	TO STA. 875+50.00
STA. 898+50.00	TO STA. 903+63.12	STA. 898+50.00	TO STA. 903+63.12
STA. 906+31.08	TO STA. 912+00.00	STA. 906+31.08	TO STA. 912+00.00

PROPOSED

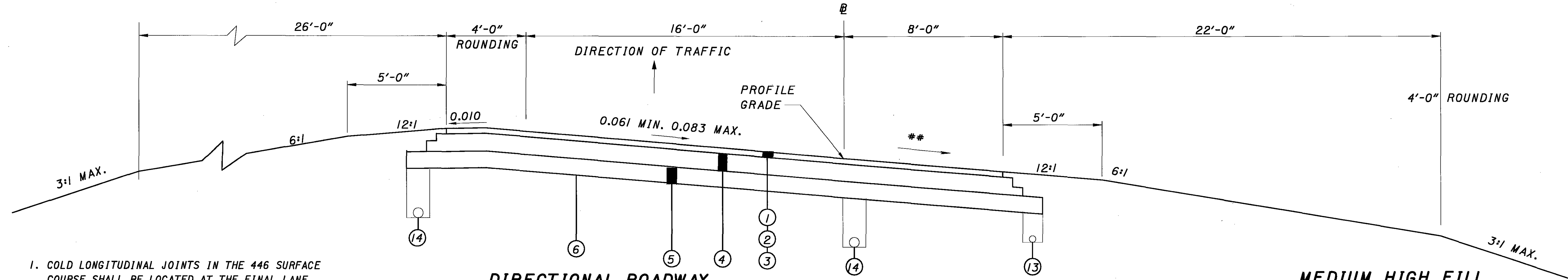
- 10 1 1/2" PAVEMENT PLANING, ASPHALT CONCRETE
- 26 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- 27 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTES)



NORMAL TYPICAL SECTION

WESTBOUND LANES		EASTBOUND LANES	
STA. 839+25.00	TO STA. 852+85.64 (USR224)	STA. 839+25.00	TO STA. 852+85.64 (USR224)
STA. 852+85.64	TO STA. 864+25.00	STA. 852+85.64	TO STA. 863+00.00
STA. 880+13.96	TO STA. 881+50.00	STA. 875+50.00	TO STA. 879+08.48
STA. 896+25.00	TO STA. 898+50.00	STA. 880+50.92	TO STA. 881+50.00
STA. 912+00.00	TO STA. 914+00.00	STA. 896+25.00	TO STA. 898+50.00
		STA. 912+00.00	TO STA. 914+00.00

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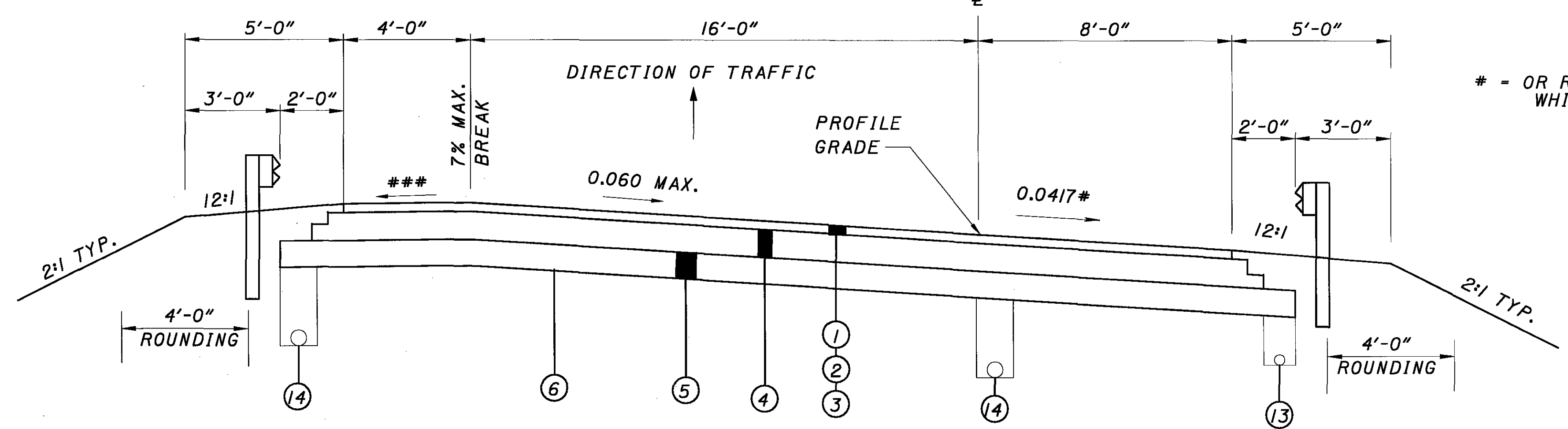
1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

DIRECTIONAL ROADWAY

LIMITING STATIONS

STA. 132+18 TO STA. 136+15	RAMP S-E = 397.00'		
STA. 155+15 TO STA. 159+61	RAMP S-E = 446.00'	STA. 181+93 TO STA. 190+77	RAMP E-S = 884.00'
STA. 167+14 TO STA. 169+44.32	RAMP S-E = 230.32'	STA. 219+33 TO STA. 222+70	RAMP E-S = 337.00'
	TOTAL = 1073.32'		TOTAL = 1221.00'

** = RATE OF SUPER ELEVATION



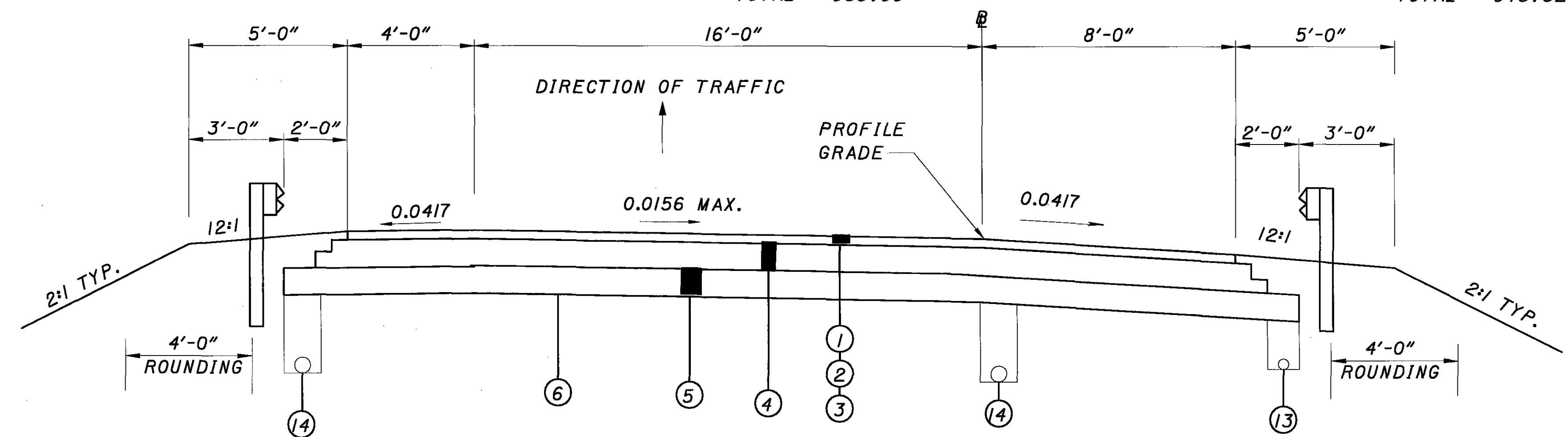
= OR RATE OF SUPER ELEVATION WHICHEVER IS GREATER

DIRECTIONAL ROADWAY

LIMITING STATIONS

STA. 175+62.31 TO STA. 179+07.66	RAMP E-S = 345.35'	STA. 130+91.68 TO STA. 132+18	RAMP S-E = 126.32'
STA. 181+86.27 TO STA. 181+93	RAMP E-S = 6.73'	STA. 136+15 TO STA. 138+64	RAMP S-E = 249.00'
STA. 190+77 TO STA. 193+45	RAMP E-S = 268.00'	STA. 153+05 TO STA. 155+15	RAMP S-E = 210.00'
STA. 217+29 TO STA. 219+33	RAMP E-S = 204.00'	STA. 159+61 TO STA. 161+25	RAMP S-E = 164.00'
STA. 222+70 TO STA. 223+87.88	RAMP E-S = 117.88'	STA. 165+50 TO STA. 167+14	RAMP S-E = 164.00'
	TOTAL = 938.96'		TOTAL = 913.32'

*** - VARIES 0.010 TO 0.0417



DIRECTIONAL ROADWAY

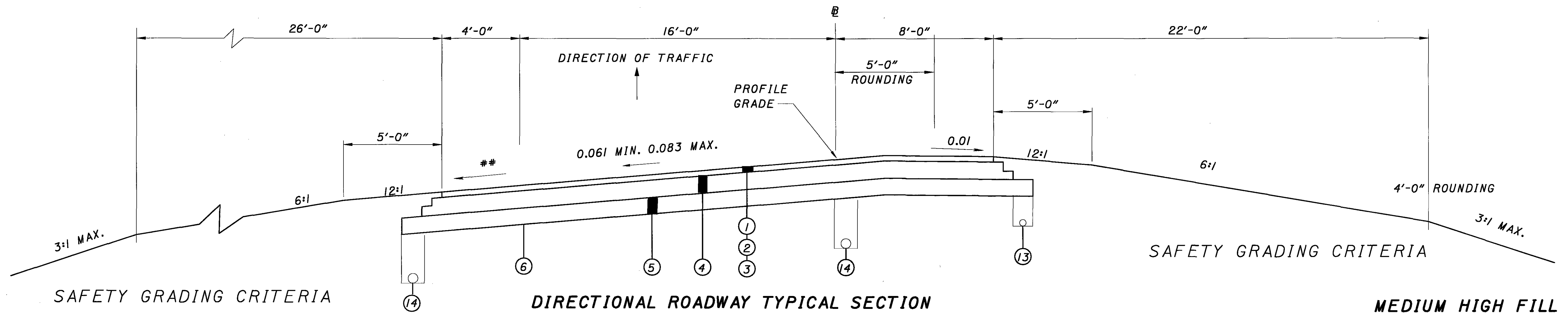
LIMITING STATIONS

STA. 161+25 TO STA. 165+50	RAMP S-E = 425'
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*** - VARIES 0.010 TO 0.0417

RAMPS

E-S
S-E



DIRECTIONAL ROADWAY TYPICAL SECTION

LIMITING STATIONS

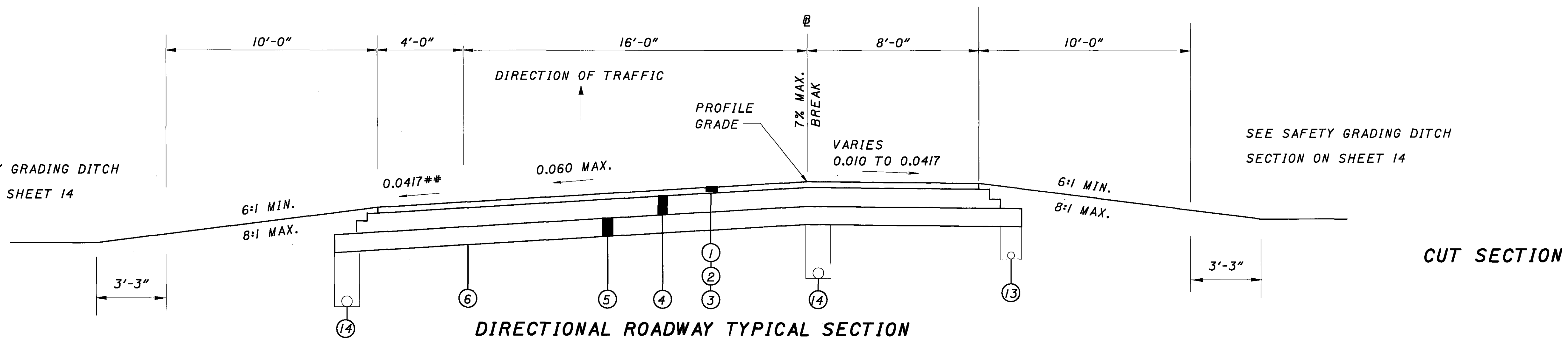
STA. 140+47 TO STA. 150+90 RAMP S-E = 1043.00'
 STA. 199+16.96 TO STA. 215+25 RAMP E-S = 1608.04'
 TOTAL = 2651.04'

** - RATE OF SUPER ELEVATION

SAFETY GRADING CRITERIA

MEDIUM HIGH FILL

SEE SAFETY GRADING DITCH SECTION ON SHEET 14



DIRECTIONAL ROADWAY TYPICAL SECTION

LIMITING STATIONS

STA. 138+64 TO STA. 140+47 RAMP S-E = 183.00'
 STA. 150+90 TO STA. 153+05 RAMP S-E = 215.00'
 STA. 193+45 TO STA. 196+25.35 RAMP E-S = 280.35'
 STA. 215+25 TO STA. 217+29 RAMP E-S = 204.00'
 TOTAL = 882.35'

** - OR RATE OF SUPER ELEVATION WHICHEVER IS GREATER

SEE SAFETY GRADING DITCH SECTION ON SHEET 14

CUT SECTION

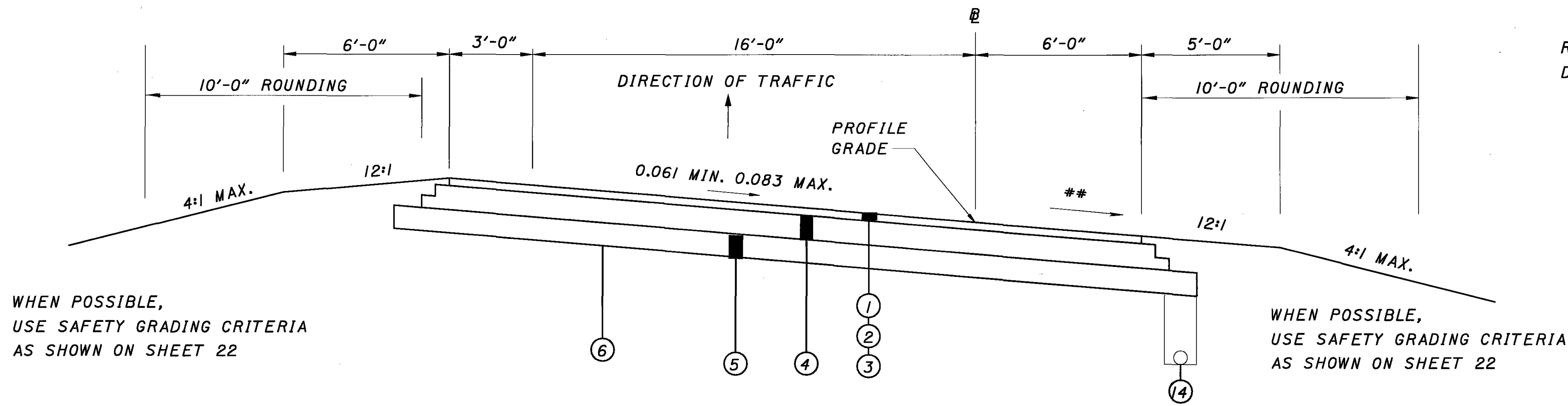
- # ① 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- # ② 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- # ③ 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- # ④ 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- ⑤ 304 10" AGGREGATE BASE
- ⑥ 204 SUBGRADE COMPACTION
- ⑦ 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- ⑧ 606 GUARDRAIL, TYPE 5
- # ⑨ 407 TACK COAT (SEE GENERAL NOTE)
- ⑩ 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

PROPOSED ITEM LEGEND

- ⑪ 609 CONCRETE MEDIAN
- ⑫ 302 8" ASPHALT CONCRETE BASE, PG64-22
- ⑬ 605 4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41, (18" NORMAL DEPTH)
- ⑭ 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
- ⑮ 526 REINFORCED CONCRETE APPROACH SLAB
- # ⑯ HOT LONGITUDINAL JOINT
- ⑰ 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- ⑱ 603 15" SLOTTED DRAIN, TYPE 2
- ⑲ 301 8" ASPHALT CONCRETE BASE, PG-64-22
- ⑳ 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

- ⑳ 203 EXCAVATION
- ㉑ 203 EMBANKMENT
- ㉒ 452 12" NON-REINFORCED CONCRETE PAVEMENT
- ㉓ 202 PAVEMENT REMOVED
- ㉔ 304 6" AGGREGATE BASE

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RAMPS SHOWN IN DIRECTION OF TRAVEL.
DIRECTION OF STATIONING MAY BE OPPOSITE.

WHEN POSSIBLE,
USE SAFETY GRADING CRITERIA
AS SHOWN ON SHEET 22

WHEN POSSIBLE,
USE SAFETY GRADING CRITERIA
AS SHOWN ON SHEET 22

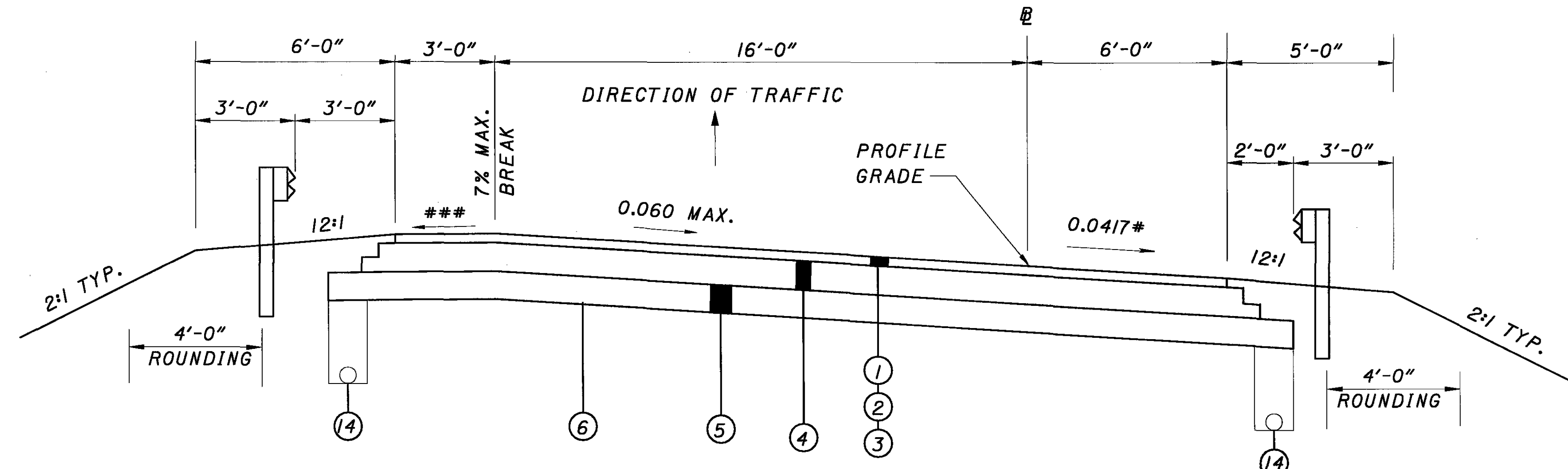
MEDIUM HIGH FILL

RAMP TYPICAL SECTION

- RATE OF SUPER ELEVATION

LIMITING STATIONS

STA. 5+18.30	TO STA. 10+75	RAMP N-W = 556.70'
STA. 28+58.61	TO STA. 37+53.11	RAMP W-S = 894.50'
STA. 42+71.68	TO STA. 53+86	RAMP N-E = 1114.32'
STA. 105+47	TO STA. 120+35.62	RAMP E-N = 1488.62'
		TOTAL = 4054.14'



- VARIES
0.010 TO 0.0417

* - OR RATE OF SUPER ELEVATION
WHICHEVER IS GREATER

RAMP TYPICAL SECTION

LIMITING STATIONS

STA. 10+75	TO STA. 11+11.52	RAMP N-W = 36.52'
STA. 53+86	TO STA. 54+78.46	RAMP N-E = 92.46'
STA. 104+58.97	TO STA. 105+47	RAMP E-N = 88.03'
		TOTAL = 217.01'

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

PROPOSED ITEM LEGEND

- * (1) 446 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH
- * (2) 407 TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
- * (3) 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
- * (4) 302 10 1/2" ASPHALT CONCRETE BASE, PG64-22
- (5) 304 10" AGGREGATE BASE
- (6) 204 SUBGRADE COMPACTION
- (7) 659 SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) 606 GUARDRAIL, TYPE 5
- * (9) 407 TACK COAT (SEE GENERAL NOTE)
- (10) 254 PAVEMENT PLANING, ASPHALT CONCRETE (SEE TYPICAL SECTIONS FOR AVERAGE THICKNESS)

- (11) 609 CONCRETE MEDIAN
- (12) 302 8" ASPHALT CONCRETE BASE, PG64-22
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- (14) 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41 (SHALLOW - 30" DEEP) (DEEP - 60" DEEP)
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- * (16) HOT LONGITUDINAL JOINT
- (17) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- (18) 603 15" SLOTTED DRAIN, TYPE 2
- (19) 301 8" ASPHALT CONCRETE BASE, PG-64-22
- (20) 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI

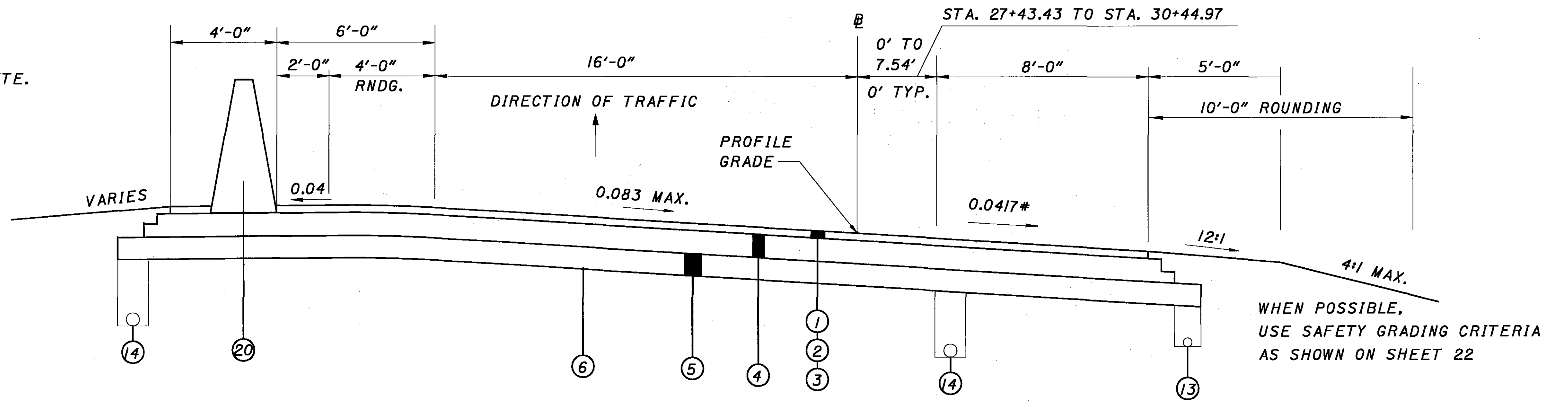
- (21) 203 EXCAVATION
- (22) 203 EMBANKMENT
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- (24) 202 PAVEMENT REMOVED
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* - THE MAINLINE PAVEMENT BUILDUP OF ITEMS 1-4, 9 & 16 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE INCLUDED UNDER ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)

RAMPS	
E-N	
N-E	
N-W	
W-S	

...V75657GVB.DGN

RAMPS SHOWN IN DIRECTION OF TRAVEL.
DIRECTION OF STATIONING MAY BE OPPOSITE.



WHEN POSSIBLE,
USE SAFETY GRADING CRITERIA
AS SHOWN ON SHEET 22

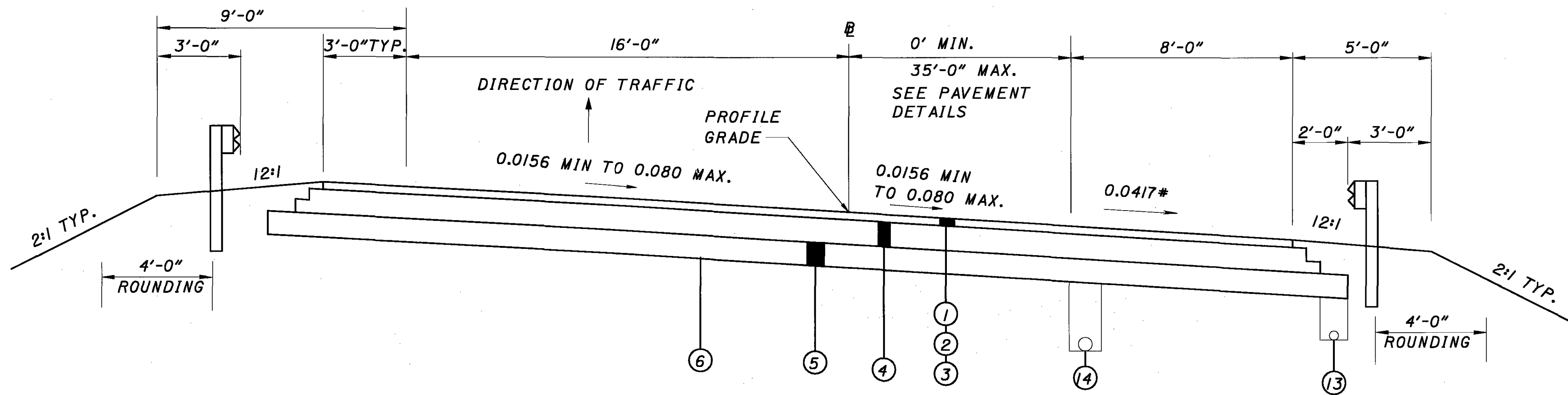
1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

*** - VARIES
0.010 TO 0.0417

RAMP WITH SPEED CHANGE LANE

LIMITING STATIONS
STA. 22+65.22 TO STA. 30+44.97 RAMP NS-W - 779.75'

* - OR RATE OF SUPER ELEVATION
WHICHEVER IS GREATER

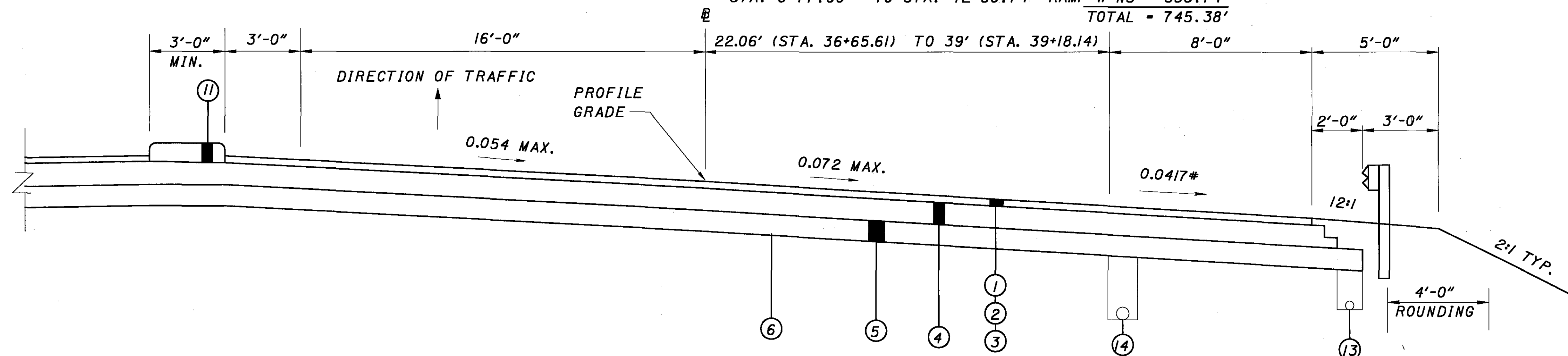


*** - VARIES
0.010 TO 0.0417

RAMP WITH SPEED CHANGE LANE

LIMITING STATIONS
STA. 33+03.97 TO STA. 36+65.61 RAMP NS-W = 361.64'
STA. 8+77.00 TO STA. 12+60.74 RAMP W-NS = 383.74'
TOTAL = 745.38'

* - OR RATE OF SUPER ELEVATION
WHICHEVER IS GREATER



*** - VARIES
0.010 TO 0.0417

RAMP WITH SPEED CHANGE LANE

LIMITING STATIONS
STA. 36+65.61 TO STA. 39+18.49 RAMP NS-W = 252.88'

* - OR RATE OF SUPER ELEVATION
WHICHEVER IS GREATER

CALCULATED
CHECKED

TYPICAL SECTIONS - IR71/IR76/USR224 RAMPS

MED-71-6.06

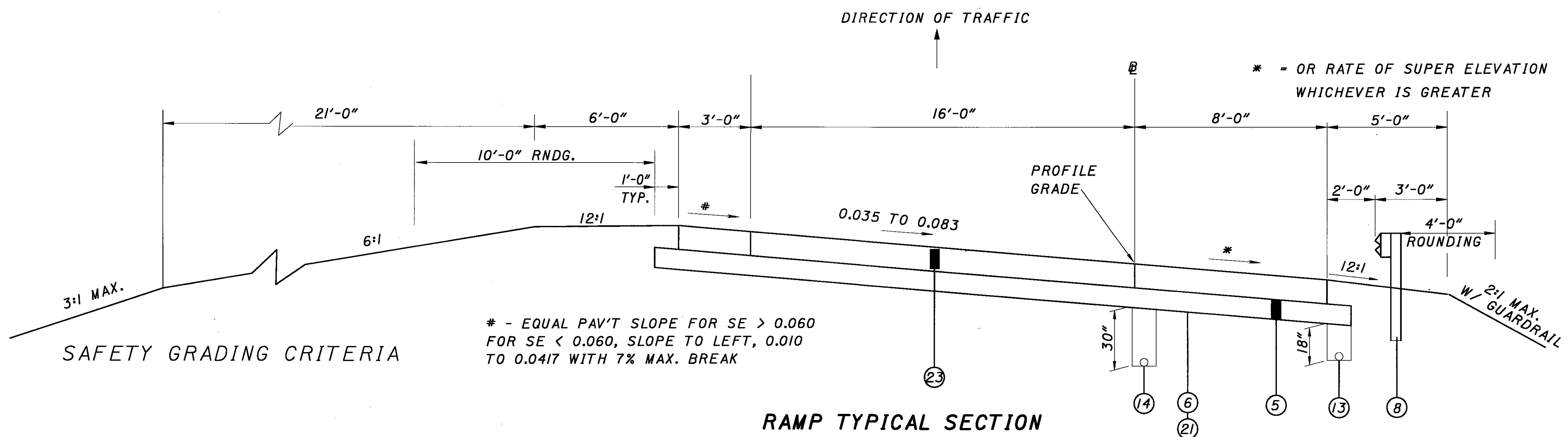
RAMPS

NS-W
W-NS

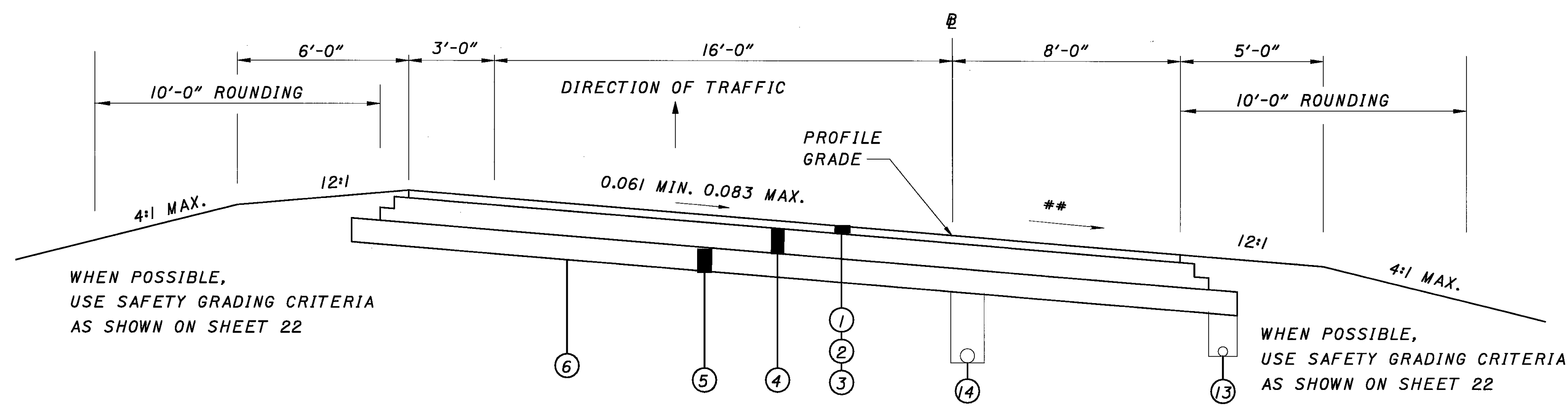
24
1120

FOR LEGEND SEE SHEET 23

... \756570YB.DGN



RAMP TYPICAL SECTION
 LIMITING STATIONS
 STA. 87+38.71 TO STA. 93+72.68 RAMP S-W = 633.97'



RAMP TYPICAL SECTION

- RATE OF SUPER ELEVATION

LIMITING STATIONS

STA. 6+97 TO STA. 8+77.83 RAMP W-NS = 180.83'

STA. 17+13.54 TO STA. 22+65.22 RAMP NS-W = 551.68'

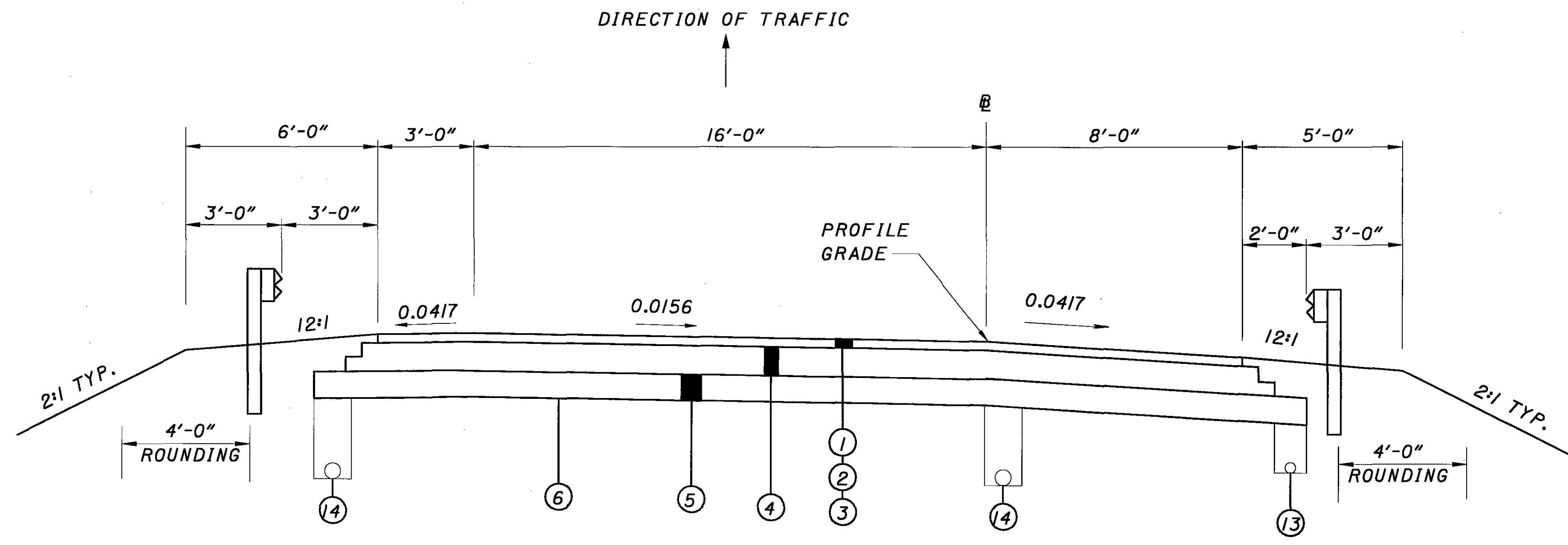
STA. 34+00 TO STA. 39+17.14 RAMP W-N = 517.14'

TOTAL = 1249.65'

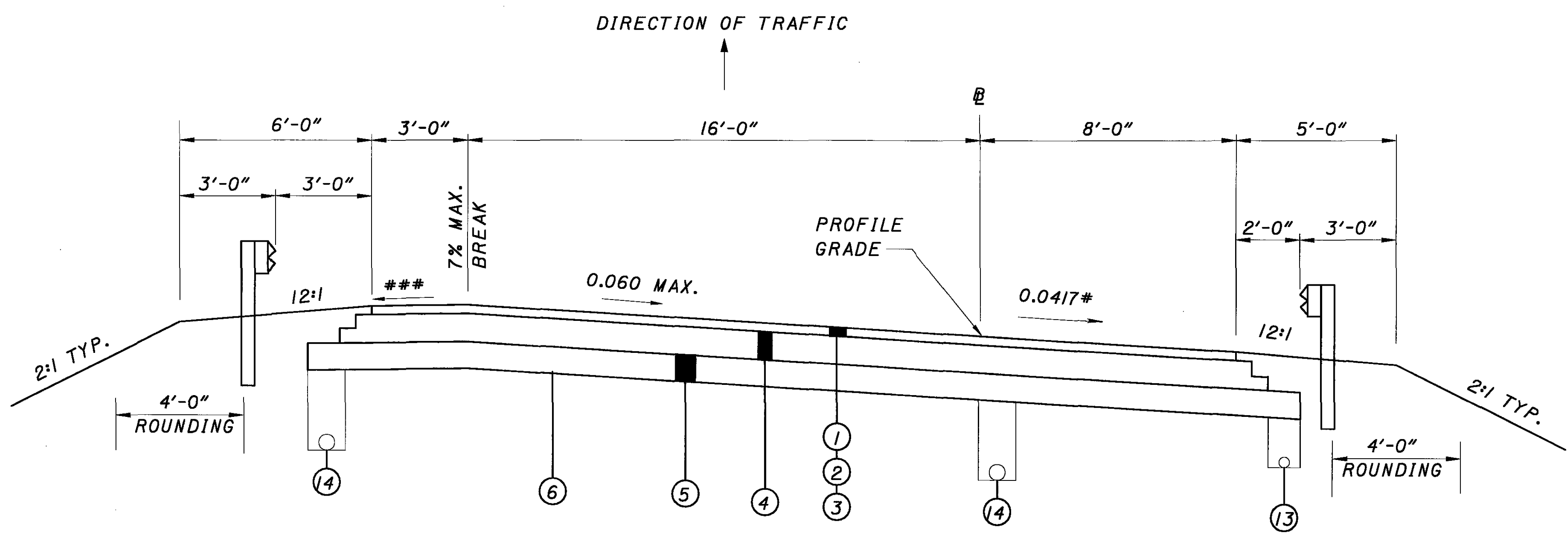
1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

RAMPS
S-W
W-NS
NS-W
W-N

FOR LEGEND SEE SHEET 23



RAMP TYPICAL SECTION
 LIMITING STATIONS
 STA. 31+75 TO STA. 34+00 RAMP W-N = 225.00'



*** - VARIES
 0.010 TO 0.0417

RAMP TYPICAL SECTION

* - OR RATE OF SUPER ELEVATION
 WHICHEVER IS GREATER

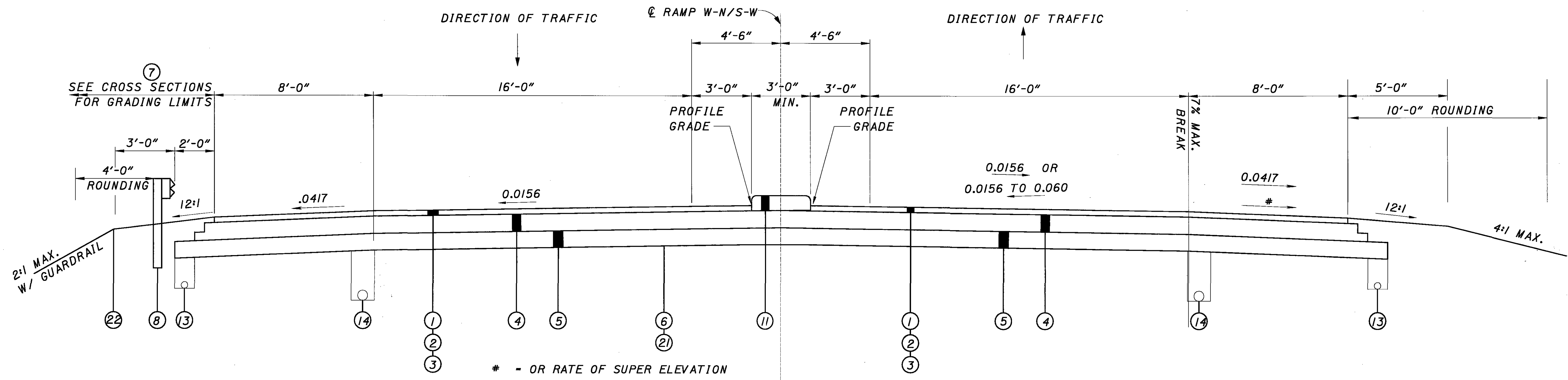
LIMITING STATIONS
 STA. 5+58.83 TO STA. 6+97 RAMP W-NS = 138.17'
 STA. 30+16.15 TO STA. 31+75 RAMP W-N = 158.85'
 TOTAL = 297.02'

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.

HIGH FILL

RAMPS

W-N
 W-NS



* - OR RATE OF SUPER ELEVATION
** - OR RATE OF SUPER ELEVATION WHICHEVER IS GREATER

* - WHEN PAVEMENT SLOPES TOWARDS MEDIAN, SLOPE TO LEFT, 0.010 TO 0.0417 WITH 7% MAX. BREAK

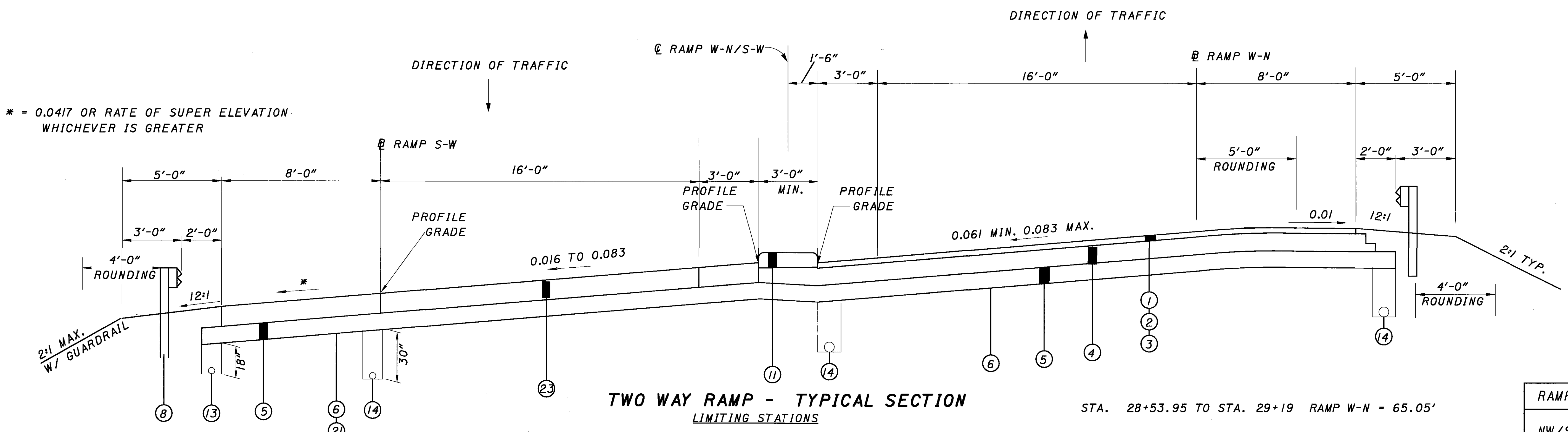
TWO WAY RAMP - TYPICAL SECTION
LIMITING STATIONS

STA. 15+18.49 TO STA. 18+34.39 RAMP W-N/S-W = 315.90'
STA. 21+44.39 TO STA. 22+70.10 RAMP W-N/S-W = 125.71'
TOTAL = 441.61'

STA. 12+60.74 TO STA. 15+18.49 RAMP W-N = 257.75'
STA. 22+70.10 TO STA. 23+69 RAMP W-N = 98.90'
STA. 29+19 TO STA. 30+16.15 RAMP W-N = 97.15'
TOTAL = 453.80'

FOR LEGEND SEE SHEET 23

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS AS PER BP-3.1.
2. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 11.



* - 0.0417 OR RATE OF SUPER ELEVATION WHICHEVER IS GREATER

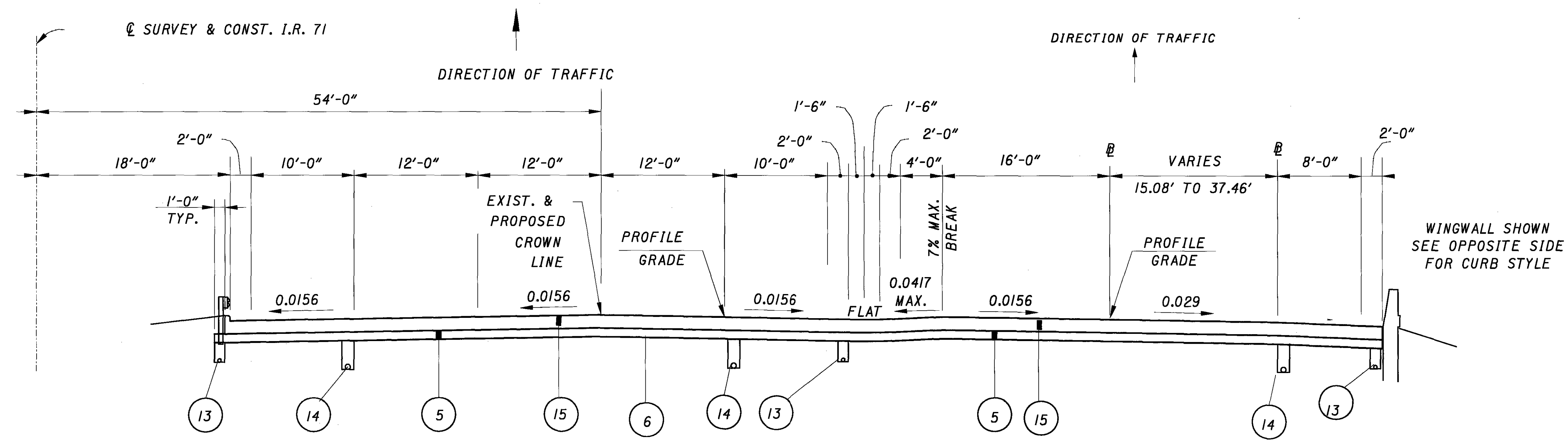
TWO WAY RAMP - TYPICAL SECTION
LIMITING STATIONS

STA. 22+70.10 TO STA. 23+69 RAMP WN/SW = 98.90'
STA. 93+72.68 TO STA. 95+16.57 RAMP S-W = 143.89'
TOTAL = 242.79'

STA. 23+69 TO STA. 28+53.95 RAMP W-N/S-W = 484.95'

STA. 28+53.95 TO STA. 29+19 RAMP W-N = 65.05'

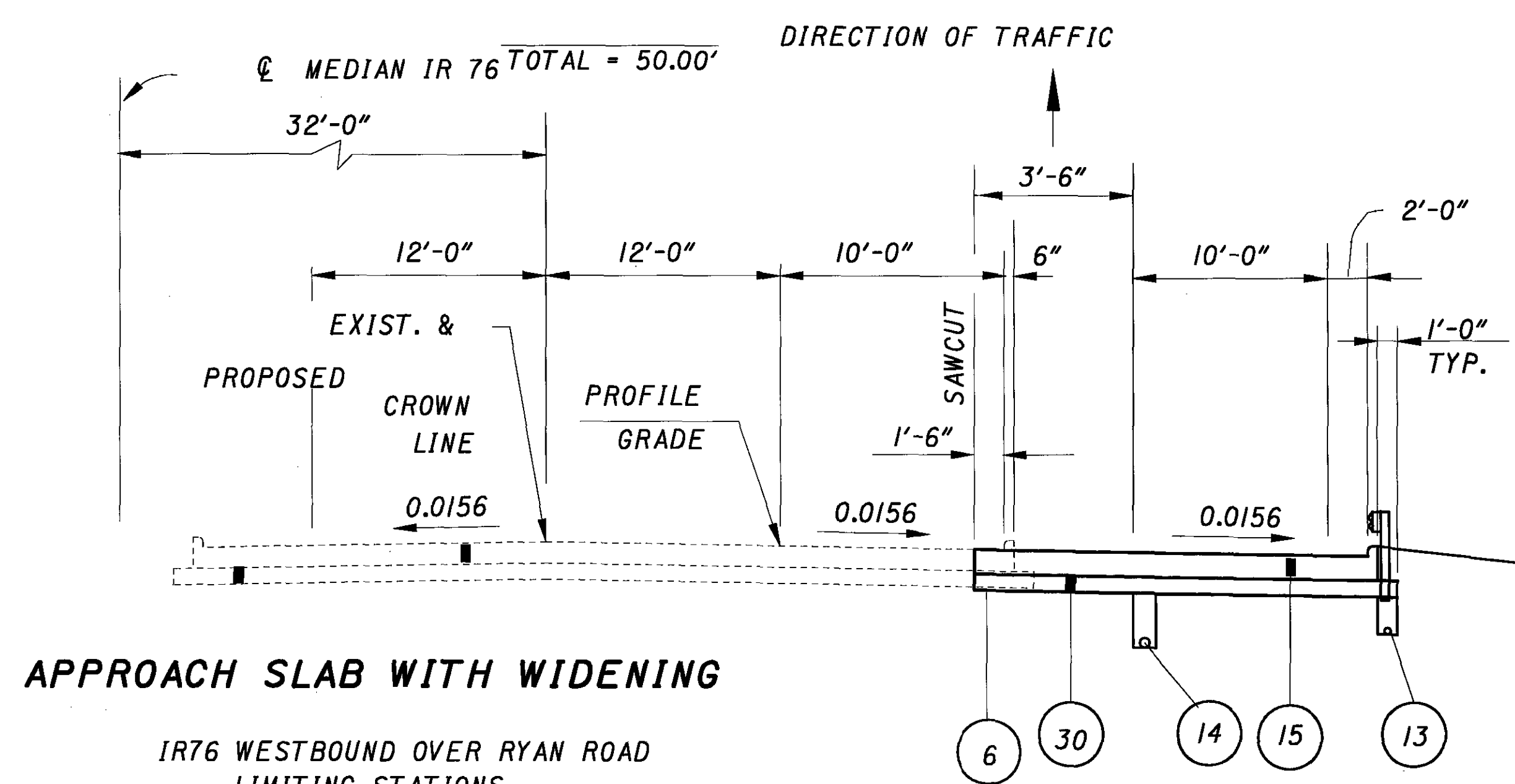
RAMPS
NW/SW
W-N
S-W



APPROACH SLAB WITH C-D ROADWAY

IR71 NORTHBOUND OVER GREENWICH RD.
 LIMITING STATIONS
 STA. 74+57.02 TO STA. 74+87.02 RAMP S-EW = 30.00'
 STA. 76+07.26 TO STA. 76+37.26 RAMP S-EW = 30.00'
 TOTAL = 50.00'

1. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.

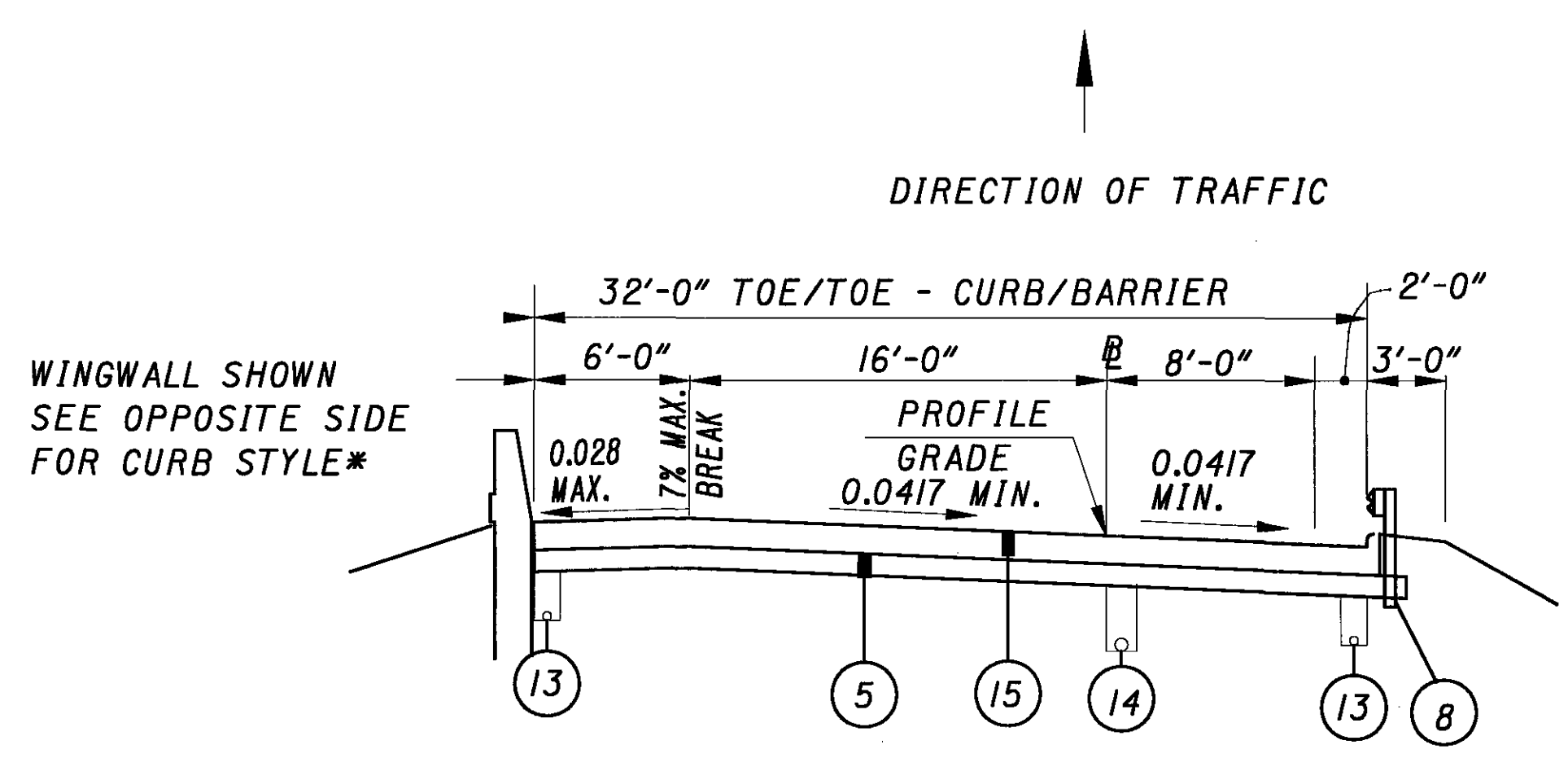


APPROACH SLAB WITH WIDENING

IR76 WESTBOUND OVER RYAN ROAD
 LIMITING STATIONS
 STA. 903+63.12 TO STA. 903+88.12 I-76 = 25.00'
 STA. 906+06.08 TO STA. 906+31.08 I-76 = 25.00'
 TOTAL = 50.00'

FOR LEGEND SEE SHEET 23

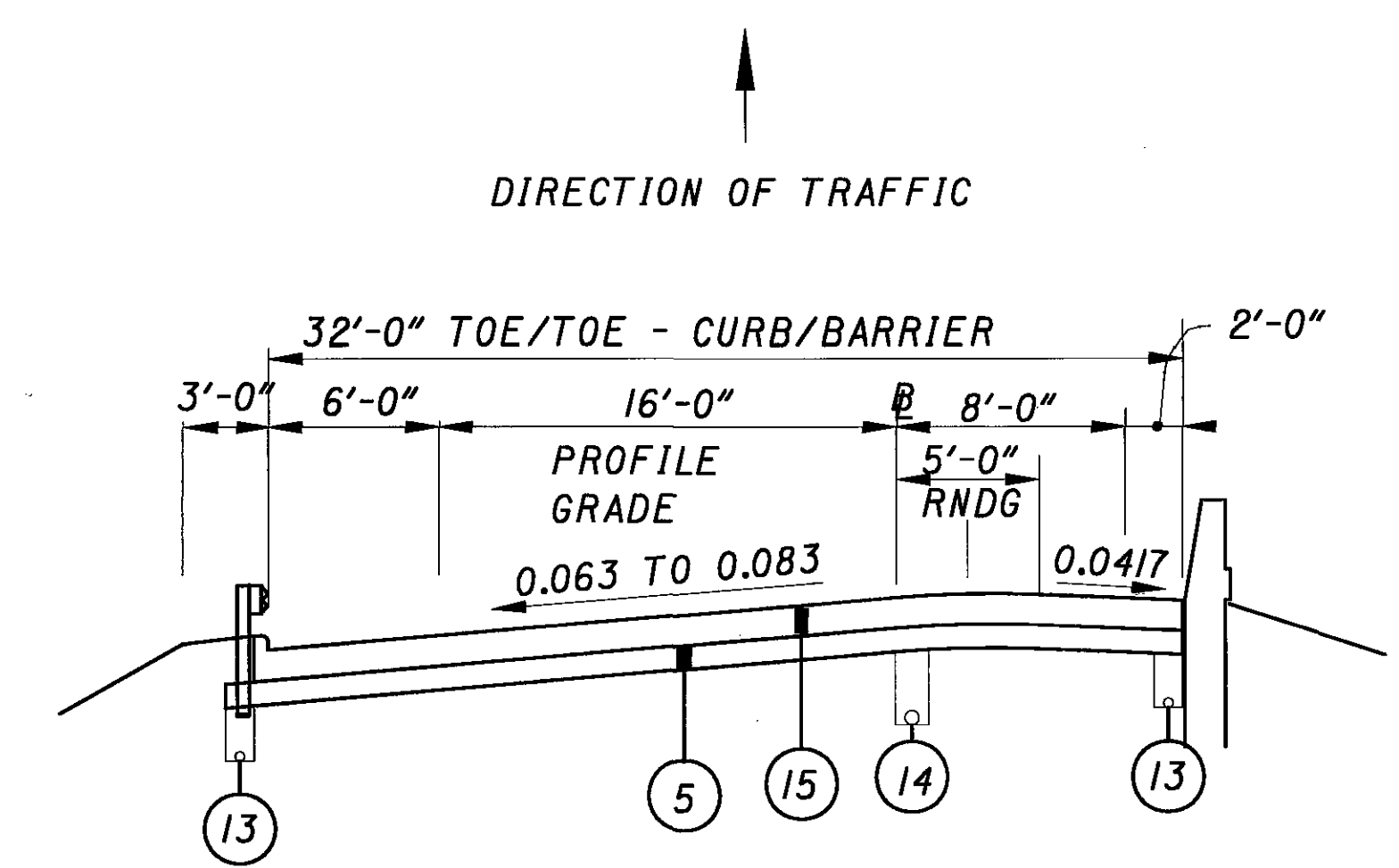
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APPROACH SLAB TYPICAL SECTION

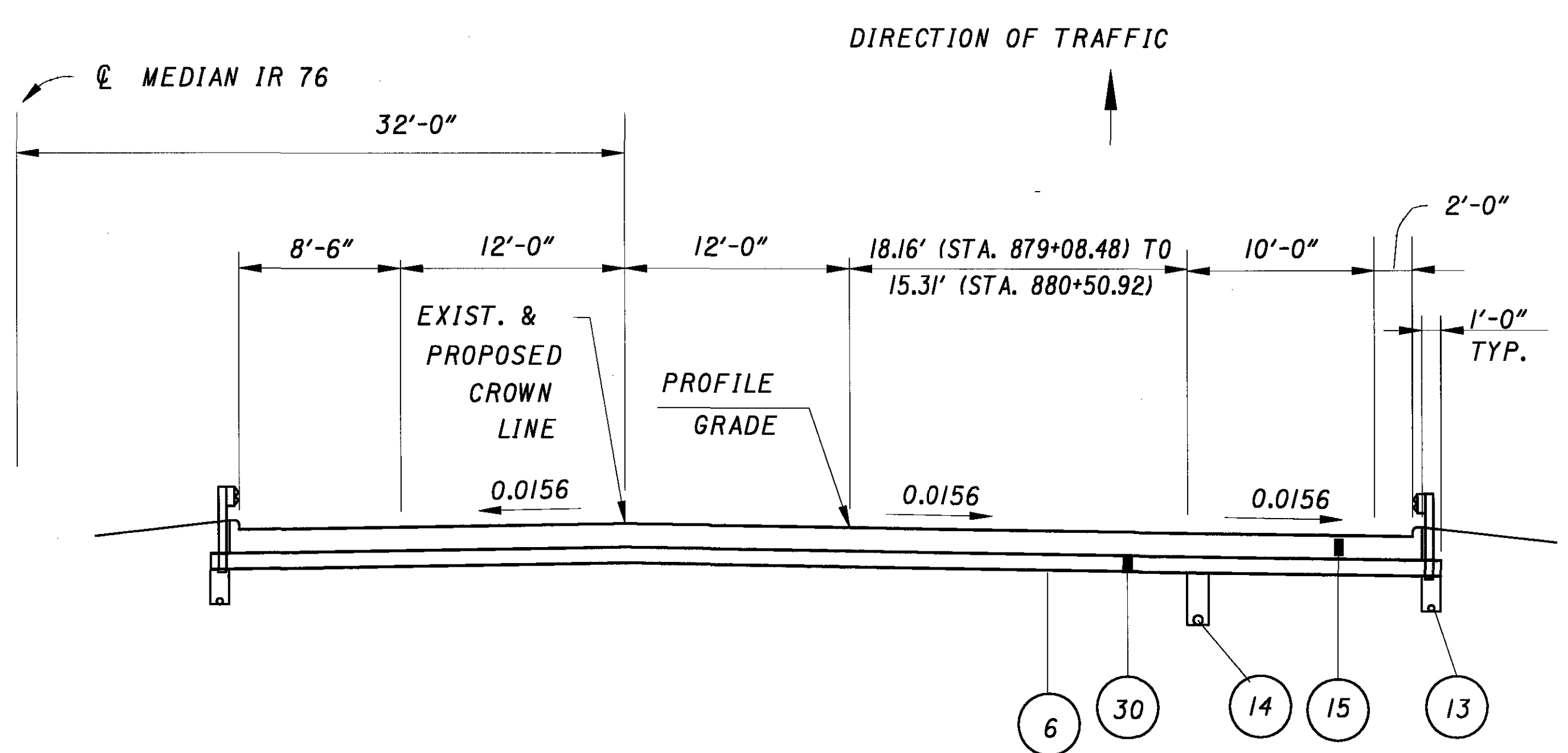
LIMITING STATIONS
 STA. 179+07.66 TO STA. 179+37.66 RAMP E-S = 30.00'
 STA. 181+56.27 TO STA. 186+86.27 RAMP E-S = 30.00'
 TOTAL = 60.00'

* - SEE STRUCTURE PLANS FOR WINGWALL AND CURB LIMITS



APPROACH SLAB TYPICAL SECTION

LIMITING STATIONS
 STA. 196+25.35 TO STA. 196+55.35 RAMP E-S = 30.00'
 STA. 198+86.96 TO STA. 199+16.96 RAMP E-S = 30.00'
 TOTAL = 60.00'



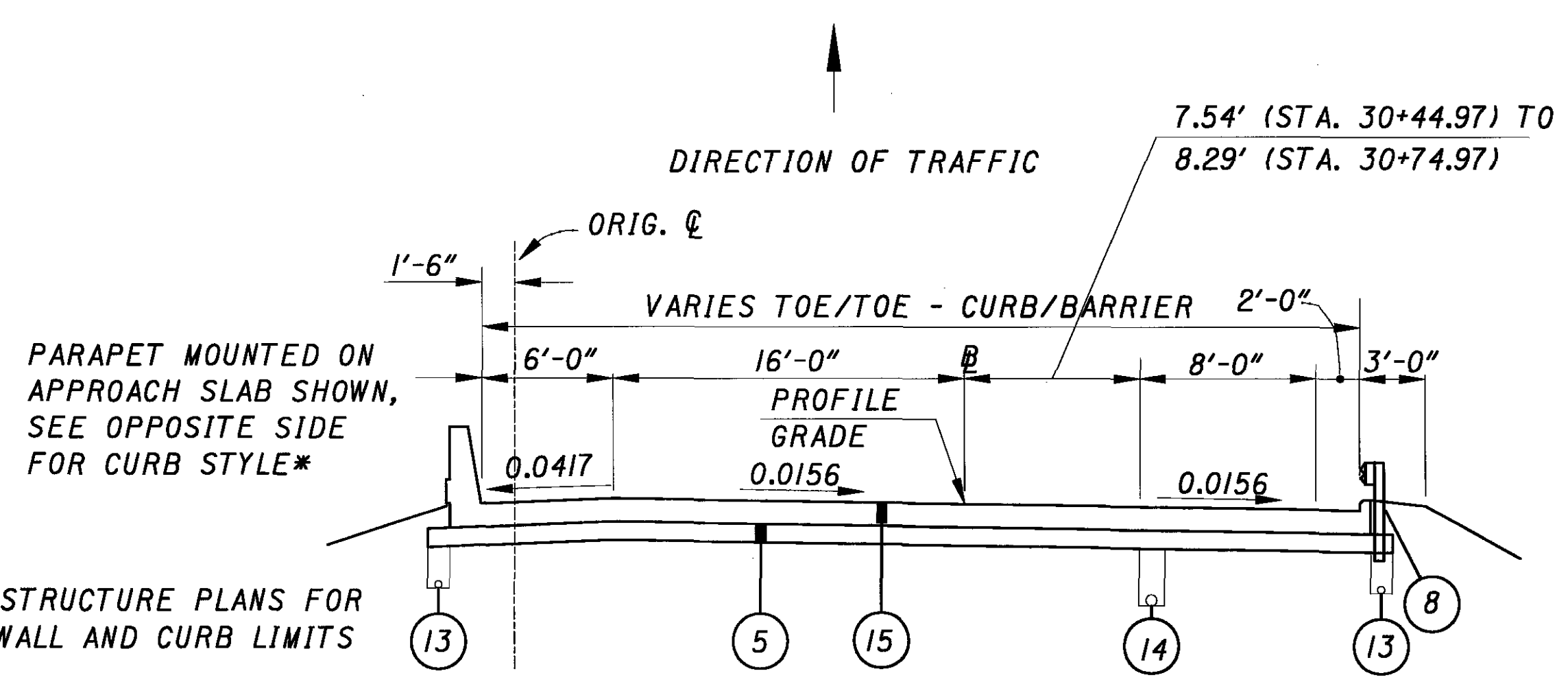
APPROACH SLAB TYPICAL SECTION

IR76 EASTBOUND OVER CHIPPEWA DITCH
LIMITING STATIONS
 STA. 879+08.48 TO STA. 879+33.48 I-76 = 25.00'
 STA. 880+25.92 TO STA. 880.50.92 I-76 = 25.00'
 TOTAL = 50.00'

1. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE:

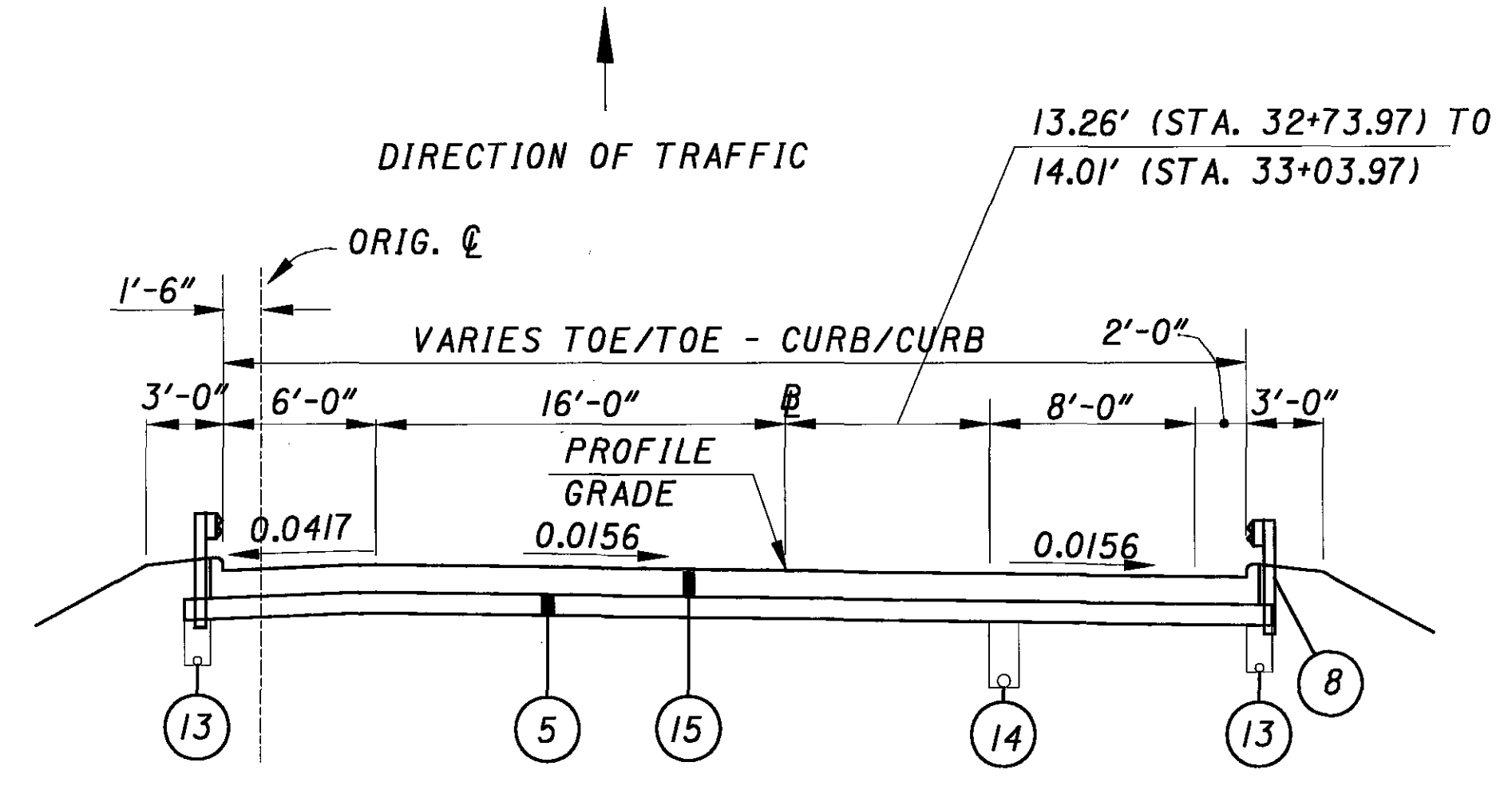
RAMP E-S
IR76 EB

FOR LEGEND SEE SHEET 23



* - SEE STRUCTURE PLANS FOR WINGWALL AND CURB LIMITS

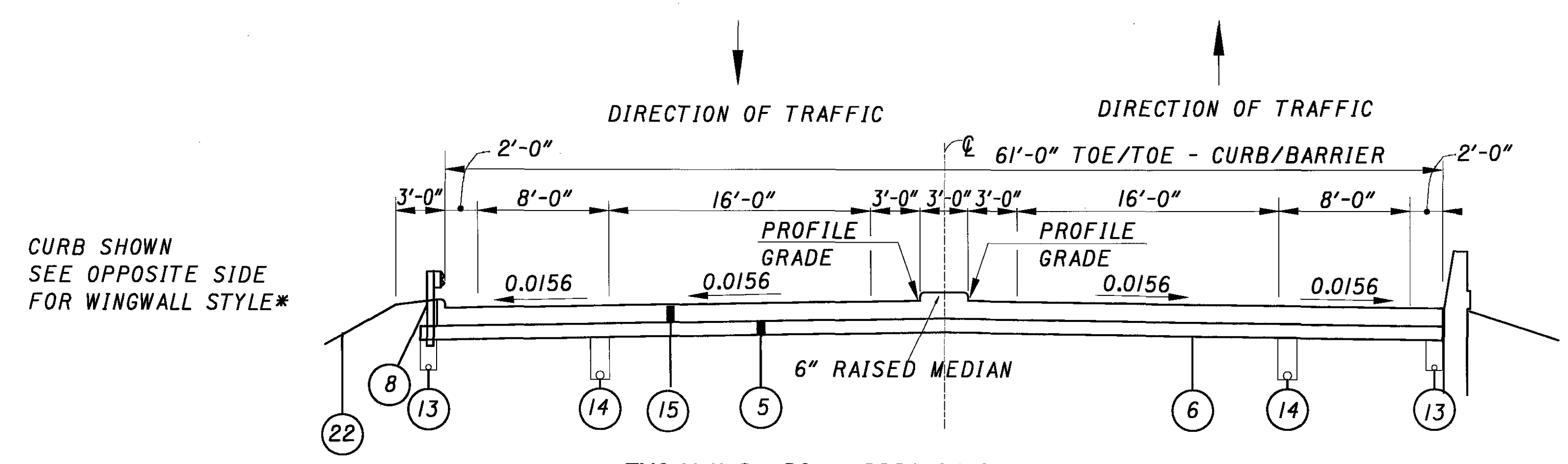
APPROACH SLAB TYPICAL SECTION
LIMITING STATIONS
STA. 30+44.97 TO STA. 30+74.97 RAMP NS-W = 30.00'



* - SEE STRUCTURE PLANS FOR WINGWALL AND CURB LIMITS

APPROACH SLAB TYPICAL SECTION
LIMITING STATIONS
STA. 32+73.97 TO STA. 33+03.97 RAMP NS-W = 30.00'

1. NORMAL DEPTH OF PIPE UNDERDRAINS IS 30" SHALLOW UNLESS NOTED OTHERWISE.



CURB SHOWN SEE OPPOSITE SIDE FOR WINGWALL STYLE*

WINGWALL SHOWN SEE OPPOSITE SIDE FOR CURB STYLE*

TWO WAY RAMPS - APPROACH SLAB TYPICAL SECTION
LIMITING STATIONS
STA. 18+34.39 TO STA. 18+64.39 RAMP W-N/S-W = 30.00'
STA. 21+14.39 TO STA. 21+44.39 RAMP W-N/S-W = 30.00'
TOTAL = 60.00'

* - SEE STRUCTURE PLANS FOR WINGWALL AND CURB LIMITS

RAMPS
NS-W
W-N/S-W

FOR LEGEND SEE SHEET 23

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COLUMBIA GAS TRANSMISSION
589 NORTH STATE ROAD
MEDINA, OH 44256
ATTN: MR. ED HAAS
330-723-4900

OHIO EDISON
6326 LAKE ROAD
ELYRIA, OH 44035
440-326-3257

MFC DRILLING
P.O. BOX 715
46275 U.S. RTE. 36
COSHOCOTON, OHIO 43812
(740) 662-5600

COLUMBIA GAS OF OHIO
7080 FRY ROAD
P.O. BOX 30999
MIDDLEBURG HEIGHTS, OH 44130
440-891-2455, (800) 344-4077

MCI
120 RAVINE STREET
AKRON, OHIO 44303
ATTN: MR. ALLAN GUEST
(330) 253-8269

CSAPO OIL AND GAS
157 MYERS STREET
CRESTON, OHIO 44217
(330) 435-4458

GATHERCO INC.
5772 DRESSLER AVE. N.W.
NORTH CANTON, OHIO 44720
ATTN: BETH TILLMAN
(330) 498-9553

VERIZON
(A.K.A. GENERAL TELEPHONE)
6223 NORWALK ROAD
MEDINA, OH 44256
ATTN: MR. RANDY HOWARD
330-722-9586

OHIO EDISON TRANSMISSION
76 SOUTH MAIN STREET
AKRON, OHIO 44308
MR. DAVE KOZY
(330) 384-5194

SEVILLE UTILITIES
44 W. MAIN STREET
P.O. BOX 46
SEVILLE, OHIO 44273
ATTN: KEVIN BITTAKER
(330) 769-2458

MEDINA COUNTY SANITARY ENGINEER
791 W. SMITH ROAD
P.O. BOX 542
MEDINA, OHIO 44258
(330) 723-9585

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON N.A.V.D. 88 DATUM.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE AIRWAY/HIGHWAY CLEARANCE FOR A PRIVATE USE AIRPORT. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 17 FT. FROM THE BEGINNING OF THE PROJECT TO STA. 371+00 AND 100 FT. FOR THE REMAINDER OF THE PROJECT. AT EACH LIGHT TOWER LOCATION, THE MAXIMUM OPERATING HEIGHT SHALL BE EQUAL TO THE LIGHT TOWER POLE HEIGHT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, THE CONTRACTOR IS ADVISED THAT COORDINATION WITH THE AIRPORT OWNER WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. FOR PRIVATE USE AIRPORTS OR HELIPORTS, THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE AIRPORT OWNER. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL COORDINATION IS MET AND DOCUMENTATION HAS BEEN FURNISHED TO THE PROJECT ENGINEER. IF COORDINATION IS NOT OBTAINED, THEN THE PROJECT ENGINEER WILL HAVE THE AUTHORITY TO PROVIDE RESTRICTIONS AS REQUIRED.

Westfield Airport
Donnie George
6453 Seville Road
Seville, Ohio 44273
(330)-887-5769

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN 109.02 OF THE 2002 CMS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR IS ADVISED OF THE PRESENCE OF POSSIBLY THREE (3) OTHER CONSTRUCTION CONTRACTS WITHIN OR IN THE VICINITY OF THE WORK LIMITS FOR THIS PROJECT. THE WAY/MED-71-7.04/0.00, THE MED-71-9.56 AND THE MED-224-15.45 PROJECTS MAY BE UNDER CONSTRUCTION AT THE SAME TIME AS THIS PROJECT AND 105.08 COOPERATION BETWEEN CONTRACTORS IS REQUIRED

ENVIRONMENTAL COMMITMENTS

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEANOUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID AND / OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS. ANY MATERIAL THAT DOES FALL INTO STREAMS SHALL BE REMOVED AS SOON AS POSSIBLE. IF NOT REMOVED WITHIN 48 HOURS, LIQUIDATED DAMAGES WILL BE ASSESSED AS PER 108.07.

INSTREAM WORK

1. BANK STABILIZATION WILL BE LIMITED TO WITHIN 25 FEET UPSTREAM AND DOWNSTREAM OF THE EXISTING STRUCTURE. BANK STABILIZATION WILL BE LIMITED TO REGRADING OF THE BANKS FOR THE TOE-OF-SLOPE (IN STREAM) TO THE TOP OF BANK AND WILL INCLUDE PLACEMENT OF ROCK CHANNEL PROTECTION WHERE REQUIRED. THIS WILL EXCLUDE WORK SUCH AS WIDENING, DEEPENING OR RELOCATION. THIS STABILIZATION WILL BE KEPT TO A MINIMUM.

2. WRITTEN PERMISSION WILL BE OBTAINED FROM THE CHIEF OF ODNR'S DIVISION OF WILDLIFE FOR ANY NECESSARY IN-STREAM BLASTING.

3. THE SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL, AND STANDARD DRAWINGS WILL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

WORK IN OR ADJACENT TO WETLANDS

1. THE CONTRACTOR SHALL NOT USE ANY PORTION OF WETLANDS FOR STAGING OR MATERIAL STORAGE. ALSO, NO FUELS OR PETROCHEMICALS ARE TO BE STORED AND NO FUEL TRANSFER OPERATIONS ARE TO BE PERFORMED IN CLOSE PROXIMITY TO WETLANDS AND EXISTING STREAMS.

2. WHEN STREAM BANKS, AND RIPARIAN AREAS ARE DISTURBED, THEY SHOULD BE RESEEDED OR PLANTED WITH NATIVE RIPARIAN VEGETATION IMMEDIATELY AFTER THE WORK IS COMPLETED.

WATERWAY PERMIT DETERMINATION (404/401)

THE 404/401 WATERWAY PERMITS FOR THIS PROJECT HAVE YET TO BE AUTHORIZED BY THE US ARMY CORPS OF ENGINEERS AND/OR THE OHIO ENVIRONMENTAL PROTECTION AGENCY. THE CONTRACTOR SHALL NOT PERFORM ANY WORK IN AND/OR PLACE ANY FILL IN JURISDICTIONAL STREAMS OR WETLANDS UNTIL THE FINAL 404/401 PERMITS ARE AUTHORIZED BY THE US ARMY CORPS OF ENGINEERS AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY. THE COMPLETE/AUTHORIZED 404/401 PERMITS WILL BE PROVIDED TO THE CONTRACTOR BY ODOT PERSONNEL BY MARCH 30, 2007.

WORK IN WATERS OF THE U.S.

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE OHIO DEPARTMENT OF TRANSPORTATION - OFFICE OF ENVIRONMENTAL SERVICES (OES) AND/OR THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) HAS DETERMINED THAT THE PROJECT MAY MEET THE CRITERIA OF A 404 INDIVIDUAL PERMIT AND 401 WATER QUALITY CERTIFICATION (WQC); BASED UPON THE ANTICIPATED IMPACTS TO STREAM(S) AND/OR WETLAND(S). HOWEVER, THIS PERMIT DETERMINATION DID NOT INCLUDE THE USE OF TEMPORARY CONSTRUCTION ACCESS FILLS THAT MAY BE REQUIRED FOR CONSTRUCTION (I.E. CAUSEWAY STREAM CROSSINGS, CONSTRUCTION ACCESS PADS, COFFERDAMS, ETC.). INFORMATION REGARDING THE USE OF TEMPORARY CONSTRUCTION ACCESS FILLS MAY NOT HAVE BEEN KNOWN AT THE TIME OF THE PERMIT DETERMINATION. THE CONTRACTOR SHOULD BE AWARE THAT THE USE OF TEMPORARY FILL BELOW THE ORDINARY HIGH WATER MARK (OHWM), WHICH IS THE USACE'S JURISDICTIONAL LIMITS, WILL REQUIRE A PRE-CONSTRUCTION NOTIFICATION (PCN) AND AUTHORIZATION BY THE USACE UNDER NWP 33 - TEMPORARY CONSTRUCTION ACCESS AND DEWATERING. SHOULD TEMPORARY CONSTRUCTION ACCESS FILL BE REQUIRED, THE CONTRACTOR SHALL COORDINATE SUCH ACTIVITIES, INCLUDING THE PCN, THROUGH OES AND ALLOW 60 DAYS MINIMUM FOR PROCESSING WITH THE USACE. THE CONTRACTOR SHALL NOT COORDINATE THESE ACTIVITIES DIRECTLY WITH THE USACE. THE CONTRACTOR SHALL NOT UTILIZE TEMPORARY FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. SHOULD A PCN BE REQUIRED, THE PCN SHALL INCLUDE PERTINENT INFORMATION (I.E. VOLUME AND SURFACE AREA OF TEMPORARY FILLS) AND DRAWINGS (PLAN AND PROFILE VIEW) OF TEMPORARY FILLS BELOW OHWM. ONLY CLEAN, NON ERODIBLE MATERIALS SHALL BE USED FOR TEMPORARY CONSTRUCTION ACCESS FILLS. ANY TEMPORARY FILLS BELOW OHWM SHALL BE REMOVED FOLLOWING COMPLETION OF THE AUTHORIZED ACTIVITY AND THE AREA OF STREAM WHERE TEMPORARY FILL WAS LOCATED SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION. PLEASE NOTE THAT FORDING OF WATERWAYS IS NOT ALLOWED PER ODOT CONSTRUCTION AND MATERIAL SUPPLEMENTAL SPECIFICATION 832, ITEM 832.07.

CALCULATED
CHECKED
GENERAL NOTES

MED-71-6.06

GNA.DGN

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF THE BRIDGE(S) SCHEDULED FOR DEMOLITION OR RENOVATION WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE(S).

THE BRIDGES WHICH WERE SURVEYED AND CONTAINED NO ASBESTOS ARE: MED-71-729 R (OVER GREENWICH ROAD), MED-71-0729 L (OVER GREENWICH ROAD), MED-71-0794 L (OVER IR76/US224), MED-71-0794 R (OVER IR76/US224), MED-71-0810 L (OVER CHIPPEWA DITCH), MED-71-0810 R (OVER CHIPPEWA DITCH), MED-71-0860 L (OVER RYAN ROAD AND CSXT RAILROAD), MED-71-0860 R (OVER RYAN ROAD AND CSXT RAILROAD), MED-76-0027 (OVER MED-71-0750), MED-76-0061 L (OVER MED-224-15.82 RAMP), MED-76-0112 R (I-76 EASTBOUND OVER CHIPPEWA DITCH), AND MED-76-0158 L (OVER CSXT AND RYAN ROAD).

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR SHALL COMPLETE THE FORMS AND RETURN A COPY OF EACH STRUCTURE TO THE DISTRICT CONSTRUCTION ENGINEER. ON MEDINA COUNTY PROJECTS A FEE IS REQUIRED FOR EACH STRUCTURE. THE CONTRACTOR SHALL SUBMIT THE FORM AND FEE TO THE AKRON AIR POLLUTION CONTROL AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF THE DEMOLITION OF THE BRIDGES. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OF THE STRUCTURES UNTIL THE ABOVE REQUIREMENTS ARE MET.

INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

- THE CONTRACTORS NAME AND ADDRESS
- THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL OR RENOVATION
- A DESCRIPTION OF THE PLANNED DEMOLITION OR RENOVATION WORK AND THE METHOD(S) TO BE USED

A COPY OF THE OEPA FORMS ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 3 OFFICE, 906 N. CLARK STREET, ASHLAND, OHIO, 44805.

BASIS FOR PAYMENT:

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE BID ITEM FOR 202 - STRUCTURE REMOVAL.

CONCRETE BRIDGE REMOVAL / INDIANA BATS

OLD CONCRETE BRIDGES HAVE BEEN FOUND TO PROVIDE SUITABLE DAY-ROOSTING HABITAT FOR MALE INDIANA BATS. PRIOR TO BRIDGE REMOVAL, FROM APRIL 16 THROUGH SEPTEMBER 14, THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS. IF ANY ARE FOUND, THE U.S. FISH & WILDLIFE SERVICE WILL BE NOTIFIED.

PROTECTION OF RIGHT OF WAY LANDSCAPING

THE CONTRACTOR SHALL CONSTRICT ALL OF HIS/HER ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION AND GRADING LIMITS. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITS, A REQUEST IN WRITING MUST BE SUBMITTED TO THE PROJECT ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREAS THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE ENGINEER SHALL APPROVE THE REQUEST IN WRITING BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. PRIOR TO BEGINNING WORK, THE CONTRACTOR, SUPERINTENDENT OR HIS REPRESENTATIVE,

THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION AND GRADING LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE. ANY ITEMS DAMAGED BEYOND THE GRADING AND CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS DIRECTED BY THE PROJECT ENGINEER.

TREE REMOVAL RESTRICTIONS

THIS PROJECT IS WITHIN THE LIMITS OF THE FEDERAL ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND MAY IMPACT THAT SPECIES HABITAT. UNAVOIDABLE CUTTING OF TREES WITH EXFOLIATING LOOSE OR PEELING BARK, SPLIT TRUNKS AND / OR BRANCHES, OR CAVITIES SHALL ONLY BE DONE BETWEEN SEPTEMBER 16 AND APRIL 14. TREE CUTTING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO ACCOMMODATE CONSTRUCTION ACTIVITIES.

WASTE AND BORROW AREAS

THE CONTRACTOR MUST COMPLY WITH THE SPECIFICATIONS FOR WASTE AND BORROW AREAS IN ACCORDANCE WITH SUBSECTION 105.16 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. PRIOR TO BEGINNING BORROW OR WASTE OPERATIONS, OBTAIN THE ENGINEER'S WRITTEN APPROVAL OF A DETAILED OPERATION PLAN. IN ORDER TO OBTAIN THE WRITTEN APPROVAL, THE PLAN MUST ADDRESS THE CONCERNS AS SPECIFIED IN THE AFOREMENTIONED SPECIFICATION. OF SPECIFIC NOTE, THE PROPOSED WASTE AND BORROW AREAS MUST BE REVIEWED BY AN ENVIRONMENTAL CONSULTANT THAT IS PRE-QUALIFIED BY THE DEPARTMENT FOR ECOLOGICAL WORK.

RIGHT OF WAY COMMITMENTS

MAINTAINING PRIVATE ACCESS

THE SERVICE ROAD FROM LAKE ROAD AND THE CULVERT UNDER LAKE ROAD SHALL BE CONSTRUCTED AND OPENED TO TRAFFIC PRIOR TO BEGINNING CONSTRUCTION ON THE RAMP ES EMBANKMENT BETWEEN STA. 197+00 AND STA. 211+15. NON-EMBANKMENT WORK CAN BE PERFORMED IN THE ABOVE AREA, PROVIDING THAT THE EXISTING DRIVEWAY IS KEPT OPEN TO TRAFFIC. THE LAKE ROAD CULVERT REPLACEMENT SHALL BE CONSTRUCTED USING FLAGGERS AND PART WIDTH CONSTRUCTION. THE COUNTY ENGINEER HAS AGREED TO ALLOW A ONE DAY CLOSURE OF LAKE ROAD TO PERFORM THIS WORK AT THE CONTRACTOR'S OPTION. IF THE CONTRACTOR WISHES TO CLOSE LAKE ROAD HE SHALL REQUEST APPROVAL FROM THE COUNTY ENGINEER FOR SAID CLOSURE. ALL NECESSARY DETOUR SIGNING SHALL BE PROVIDED UNDER ITEM 614. THE SERVICE ROAD SHALL BE OPEN TO TRAFFIC PRIOR TO JULY 1, 2007, FAILURE TO MEET THAT DATE SHALL RESULT IN THE ASSESMENT OF LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 FOR EACH DAY WHICH THE ROAD IS NOT OPENED TO TRAFFIC.

FOR ADDITIONAL SEQUENCE OF CONSTRUCTION REQUIREMENTS, SEE THE MAINTENANCE OF TRAFFIC NOTES AND THE NOTE REGARDING RAMP ES CONSTRUCTION.

TOPSOIL REMOVED FROM PARCEL 26 (MEDIAN SOD FARMS)

ALL TOPSOIL REMOVED IN THIS AREA MUST BE USED BY THE CONTRACTOR FOR THIS PROJECT ONLY. ANY TOPSOIL REMOVED FROM PARCEL 26 WHICH IS NOT USED ON THIS PROJECT SHALL BE STOCKPILED AT AN AREA ADJACENT TO THE SERVICE ROAD (AT A LOCATION AGREEABLE TO MEDINA SOD FARMS) AND LEFT FOR USE BY MEDINA SOD FARMS. PAYMENT FOR THIS WORK SHALL BE INCLUDED UNDER THE PERTINENT EXCAVATION AND EMBANKMENT ITEMS. NO PAYMENT SHALL BE MADE FOR ANY TOPSOIL STOCKPILED ON THE MEDINA SOD FARM PROPERTY.

ROADWAY

ITEM 204 - PROOF ROLLING

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER. (SEE SHEET 51)

ANY ADDITIONAL PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

RAMP EN EMBANKMENT CONSTRUCTION

A SETTLEMENT OF 4" IN 12 MONTHS IS EXPECTED IN THE VICINITY OF RAMP EN, STA. 113+00 TO STA. 117+00. THE CONTRACTOR SHALL SCHEDULE HIS WORK IN THAT VICINITY TO CONSTRUCT THE CULVERT, AND EMBANKMENT PRIOR TO APRIL 1, 2007. PAVING WITHIN THAT SAME AREA SHALL NOT BEGIN UNTIL APRIL 1, 2008. IN ORDER TO ALLOW FOR THE IMMEDIATE START OF EMBANKMENT CONSTRUCTION ON THIS RAMP, GEOTEXTILE FABRIC AND STONE IS INCLUDED TO BE USED IF NECESSARY. SEE SHEETS 51 & 54.

GENERAL NOTES

MED-71-6.06

32
1120

ROADWAY

CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 - CLEARING AND GRUBBING. TREE REMOVAL SHALL BE PERFORMED AS SPECIFIED IN THE "TREE REMOVAL RESTRICTION" NOTE ON SHEET 32.

RAMP ES EMBANKMENT AND CULVERT CONSTRUCTION

SETTLEMENTS ARE EXPECTED IN THE VICINITY OF RAMP ES, STA. 176+00 TO STA. 211+15. THE CONTRACTOR SHALL SCHEDULE HIS WORK TO CONSTRUCT THE CULVERTS, AS DISCUSSED BELOW, WICK DRAINS AND THE EMBANKMENT, INCLUDING SURCHARGE, (UNLESS RESTRICTED BY THE "EMBANKMENT RESTRICTIONS FOR SLOPE STABILITY" NOTE ON SHEET 43 OR THE "MAINTAINING PRIVATE ACCESS" NOTE ON SHEET 32) PRIOR TO OCTOBER 15, 2007. THIS DATE SHALL CONSTITUTE AN INTERIM COMPLETION DATE OF THE SAID WORK. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY FOR WHICH THESE TIME LIMITS ARE NOT MET.

PLACEMENT OF THE EMBANKMENT AT THE RATE SPECIFIED BY THE NOTE ON SHEET 43 SHALL BEGIN NO LATER THAN AUGUST 15, 2007. ALL WORK ITEMS REQUIRED PRIOR TO PLACING THE EMBANKMENT SHALL BE COMPLETED BY THAT DATE. THAT DATE SHALL CONSTITUTE AN INTERIM COMPLETION DATE OF THE SAID WORK. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY FOR WHICH THESE TIME LIMITS ARE NOT MET.

CULVERTS "A" AND "B" AS DETAILED ON SHEET 553 SHALL BE INSTALLED PRIOR TO PLACING THE EMBANKMENT AND SURCHARGE. THE SURCHARGE SHALL REMAIN IN PLACE AT LEAST UNTIL APRIL 1, 2008. AFTER THE SURCHARGE IS REMOVED (SECOND FULL CONSTRUCTION SEASON), THE 12' x 8' BOX CULVERT SHALL BE CONSTRUCTED AND THE TEMPORARY CULVERTS REMOVED.

SEE SHEETS 39-50 FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR CONSTRUCTING EMBANKMENT IN AREAS OF SIGNIFICANT ANTICIPATED SETTLEMENT.

THE FINAL GRADING AND PAVING OF RAMP E-S SHALL NOT BE PERFORMED UNTIL STAGE 2 (SECOND FULL CONSTRUCTION SEASON). SEE THE MAINTENANCE OF TRAFFIC AND CONSTRUCTION PHASING NOTES ON SHEETS 57 & 58.

AS PART OF THE SURCHARGE REMOVAL, THE SIDE SLOPES SHALL BE CUT BACK TO MATCH THE FINAL SIDE SLOPES SHOWN ON THE CROSS SECTIONS. THE AREA BETWEEN THE TOE OF SLOPE AND DITCH SHALL ALSO BE FILLED AND REGRADED TO PROVIDE POSITIVE FLOW TO THE DITCH.

ROCK CUT EARTHWORK

IN ACCORDANCE WITH THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, ITEM 204, PARAGRAPH 204.05, IN THOSE AREAS WHERE ROCK MAY BE PRESENT A QUANTITY OF EXCAVATION AND EMBANKMENT MATERIAL HAS BEEN CALCULATED AND PROVIDED BELOW TO BE USED AS DIRECTED BY THE ENGINEER. THESE AREAS ARE DELINEATED ON THE CROSS SECTIONS. THE LIMITS OF ADDITIONAL EXCAVATION IS DEFINED IN PARAGRAPH 204.05.

ROCK CUT EARTHWORK	STATION	END AREA (S.F.)		204	
		CUT	FILL	EXCAVATION OF SUBGRADE CU YD	EMBANKMENT CU YD
BEGIN ROCK CUT EARTHWORK	500+00	70	70		
END ROCK CUT EARTHWORK	504+75	70	70	1231	1231
TOTALS CARRIED TO THE GENERAL SUMMARY				1231	1231

END AREA CALCULATION
 30' WIDE x (2' DEEP, LESS AGGREGATE BASE THICKNESS) = 30'x(2'-10"/12") = 35 S.F.
 35 S.F. x 2 SIDES = 70 S.F.

LEVELING OF PROPERTY ADJACENT TO RAMP E-S

AS PART OF THE RIGHT OF WAY NEGOTIATIONS, ODOT HAS AGREED TO PROVIDE FILL TO LEVEL THE AREA SHOWN ON SHEET 359 OF THE PLANS. THE DELINEATED AREA SHALL BE FILLED TO ELEVATION 1008.0. AT THE EDGES OF THE FILL AREA, THE TRANSITION TO EXISTING GROUND SHALL BE MADE AT A 3:1 OR FLATTER SLOPE. THE TOP OF SLOPE SHALL BE NO CLOSER THAN 15' TO THE POND. NO MATERIAL OR CONSTRUCTION ACTIVITIES SHALL OCCUR IN THE POND. CARE SHALL BE TAKEN TO PREVENT ANY SILT OR RUNOFF TO ENTER THE POND WITHOUT FIRST BEING FILTERED OR TREATED. THE FOLLOWING ESTIMATED QUANTITIES ARE INCLUDED TO PERFORM THIS WORK:

- ITEM 203 - EMBANKMENT 600 C.Y.
- ITEM 659 - TOPSOIL 140 C.Y.
- ITEM 659 - SEEDING AND MULCHING 1290 S.Y.

DISPOSAL OF WASTE MATERIAL

THE AREAS OF THE INTERIOR OF THE IR71/IR76 LOOP RAMPS ARE AVAILABLE AS A WASTE SITE FOR THE DISPOSAL OF EXCAVATED MATERIAL, PAVEMENT REMOVED, AND CONCRETE REMOVED FROM STRUCTURES. ONLY THOSE AREAS DELINEATED ON THE "WASTE MATERIAL" SCHEMATIC PLAN WILL BE APPROVED FOR USE.

IF THE CONTRACTOR DESIRES TO USE ANY OF THESE SITES, HE MUST SUBMIT A GRADING PLAN TO THE DISTRICT FOR APPROVAL, AS WELL AS A SUMMARY OF THE MEANS AND METHODS FOR PERFORMING THE WORK IN ACCORDANCE WITH THE GUIDELINES SET HEREIN AND AS DIRECTED BY THE ENGINEER.

THE GENERAL GUIDELINES FOR GRADING PLAN APPROVAL ARE AS FOLLOWS:

1. THE PROPOSED FILL SLOPES SHALL NOT BE STEEPER THAN THE EXISTING SLOPES. SAFETY GRADING SHALL APPLY. FILL AREAS MAY UTILIZE SLOPES AS STEEP AS 4:1 BEYOND THE DITCHES. FILL HEIGHTS GREATER THAN 10' MUST BE APPROVED BY THE ODOT OFFICE OR GEOTECHNICAL ENGINEER.
2. MANHOLES AND CATCH BASINS SHALL BE ADJUSTED TO GRADE AND PIPES SHALL BE EXTENDED AS NECESSARY TO PROPAGATE THE EXISTING DRAINAGE FLOW PATTERNS.
3. CONCRETE TO BE PLACED IN THE WASTE AREA SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF 203.02.
4. THE CONTRACTOR SHALL PROVIDE A MAINTENANCE OF TRAFFIC PLAN FOR ACCESSING THE SITE, TO BE APPROVED BY THE ENGINEER.

ALL WORK DESCRIBED HEREIN AND ANY ADDITIONAL WORK NECESSARY IN CREATING THE FILL AREA SHALL BE PERFORMED AT THE CONTRACTORS EXPENSE.

ITEM 202- RAISED PAVEMENT MARKERS REMOVED

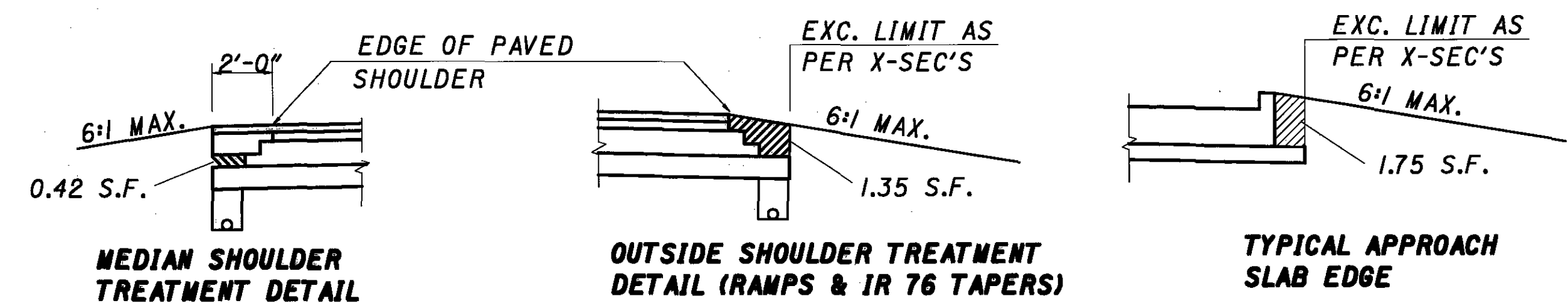
THE CONTRACTOR SHALL DISPOSE OF ALL RAISED PAVEMENT MARKERS (RPMS) ON THE PROJECT ACCORDING TO CMS 105.17. THE WORK SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE EACH FOR ITEM 202 - RAISED PAVEMENT MARKER REMOVED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR REMOVING RAISED PAVEMENT MARKERS:

202 RAISED PAVEMENT MARKERS REMOVED 555 EACH

EARTHWORK VOLUME ADJUSTMENT

THE EARTHWORK CALCULATIONS AS SHOWN ON THE CROSS SECTIONS REFLECTS VOLUMES MEASURED TO THE EDGE OF THE SUBBASE. TO PLACE SOIL SHOWN IN THE CROSS HATCHED AREA, ADDITIONAL EMBANKMENT WILL BE REQUIRED AS TABULATED BELOW:



LOCATION	LENGTH	END AREA	VOLUME	LOCATION	LENGTH	END AREA	VOLUME
MAINLINE				RAMPS			
NB MEDIAN	15763'	0.42 S.F.	245 C.Y.	SHOULDER STEP - 1 SIDE	4010'	1.35 S.F.	201 C.Y.
OUTSIDE	16102'	1.35 S.F.	805 C.Y.	SHOULDER STEP - 2 SIDES	17324'	1.35 S.F.x 2	1732 C.Y.
SB MEDIAN	15756	0.42 S.F.	245 C.Y.	APPROACH SLABS - 2 SIDES	230'	1.75 S.F.x 2	30 C.Y.
OUTSIDE	16292	1.35 S.F.	815 C.Y.	IR 76			
APP. SLABS MED.	200	1.75 S.F.	13 C.Y.	SHOULDER STEP - 1 SIDE	4426'	1.35 S.F.	221 C.Y.
APP. SLABS OUT.	200	1.75 S.F.	13 C.Y.	APPROACH SLABS 1-SIDE	50'	1.75 S.F.	3 C.Y.
				APPROACH SLABS 2-SIDES	50'	1.75 S.F.x2	6 C.Y.
TOTAL - 2136 C.Y.				TOTAL - 2193 C.Y.			

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO ADJUST THE EARTHWORK FOR PAVEMENT STEPS:

ITEM 203 - EMBANKMENT 4329 CU. YD.

CALCULATED
 KEH
 CHECKED
 ENF

GENERAL NOTES

MED-71-6.06

GNA.DGN

ITEM SPECIAL - DRILLED WATER WELL ABANDONED (SEE RM-7.1)

LOCATION : USR 224, STA. 844+05, 203' LT.
RAMP ES, STA. 204+20, 35' LT.

ITEM SPECIAL - DRILLED WATER WELL ABANDONED 2 EACH

ITEM SPECIAL - PLUGGING AND VENTING GAS AND/OR OIL WELL (SEE RM-7.2)

LOCATION : RAMP S-E, STA. 169+75, 53' RT.

ITEM SPECIAL - PLUGGING AND VENTING GAS AND/OR OIL WELL 1 EACH

ITEM 209 - LINEAR GRADING (RESHAPE DITCH)

THIS WORK SHALL BE PERFORMED AT THE LOCATIONS AS SHOWN ON THE PLANS. IT SHALL ONLY APPLY WHEN REGRADING BY CROSS SECTIONS IS NOT INDICATED.

WORK SHALL INCLUDE RESTORATION OF THE DISTURBED AREAS IN ACCORDANCE WITH ITEM 659.

ANY ADDITIONAL PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

ITEM 209 - DITCH CLEANOUT, AS PER PLAN

THIS WORK SHALL BE PERFORMED AT THE LOCATIONS AS SHOWN ON THE PLANS. THIS WORK APPLIES ONLY TO DITCH AREAS WHICH ARE NOT SHOWN TO BE AFFECTED BY THE REGRADING OPERATIONS.

THIS WORK SHALL CONSIST OF REESTABLISHING THE CROSS SECTION ON AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 203.01. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203 EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED. ALSO INCLUDED IN THIS ITEM SHALL BE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO SEED AND MULCH THE CLEANED OUT DITCH AS PER CMS ITEM 659 SEEDING AND MULCHING. THE CONTRACTOR SHALL RESTORE, TO THE SATISFACTION OF THE ENGINEER, ANY DISTURBED AREAS CAUSED BY CONSTRUCTION OF THIS ITEM AT NO ADDITIONAL COST TO THE STATE.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT FOR ITEM 209, DITCH CLEANOUT, AS PER PLAN.

ANY ADDITIONAL PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

ITEM 604 - REFERENCE MONUMENT

PROPOSED REFERENCE MONUMENT LOCATIONS LISTED ARE APPROXIMATE FOR STATIONING AND OFFSET. (SEE SHEET 7 FOR TABLE WITH NORTHINGS AND EASTINGS) THE ACTUAL LOCATIONS WILL BE STAKED BY THE DISTRICT THREE SURVEY DEPARTMENT PRIOR TO CONSTRUCTION. THE MONUMENTS WILL BE CONSTRUCTED AS ITEM 604 REFERENCE MONUMENT PER THE STANDARD DRAWING RM-1.1. MONUMENTS DISKS WILL BE PROVIDED BY ODOT DISTRICT THREE.

STATION	OFFSET	604 REFERENCE MONUMENT
IR 71		
332+00	105' RT	I
356+00	110' RT	I
369+00	121' RT	I
388+00	85' LT	I
402+35	150' RT	I
419+00	86' RT	I
424+25	86' RT	I
438+00	85' RT	I
452+00	85' RT	I
472+75	85' RT	I
498+00	85' RT	I
TOTALS CARRIED TO NEXT TABLE		11

STATION	OFFSET	604 REFERENCE MONUMENT
IR 76		
823+15	42' RT	I
833+00	65' RT	I
850+20	115' LT	I
865+00	28' RT	I
881+00	90' LT	I
892+00	28' RT	I
903+75	90' LT	I
926+00	110' LT	I
SUB-TOTAL		8
FROM LEFT TABLE		11
TOTALS CARRIED TO GENERAL SUMMARY		19

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - GUARDRAIL, TYPE 5

UNDERDRAIN OUTLETS SHALL BE LOCATED ALONG EACH GUARDRAIL RUN BEFORE THE FIRST POST IS SET. POSTS LOCATED OVER AN UNDERDRAIN OUTLET SHALL NOT BE DRIVEN, BUT SHALL BE SET IN DRILLED OR DUG HOLES. POSTS LOCATED WHERE THE AVAILABLE POST EMBEDMENT DEPTH IS LESS THAN 3'-5" AND GREATER THAN 2'-6" SHALL BE ENCASED WITH 4" (MIN.) OF CONCRETE (GR-2.2).

WHERE AVAILABLE POST EMBEDMENT DEPTH IS LESS THAN 2'-6", A PLATE, AS DETAILED ON SECTION B-B OF STANDARD CONSTRUCTION DRAWING GR-2.2, MAY BE USED AS AN ALTERNATE ATTACHMENT METHOD.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS444 SS444M	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99 7/12/99	8/27/99
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97	3/6/98

- 2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

GRADING SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-4.3M.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36" W x 12" H FOR THE SRT-350 AND 14" W x 20" H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CALCULATED
KEH
CHECKED
ENF

GENERAL NOTES

MED-71-6.06

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1120

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ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED)
 ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE ANCHOR TERMINAL

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A TENSIONED CABLE GUARDRAIL SYSTEM MEETING NCHRP REPORT 350 TEST LEVEL-3 REQUIREMENTS BY USING ONE OF THE THREE FOLLOWING PRODUCTS:

1) BRIFEN WIRE ROPE SAFETY FENCE, BRIFEN USA, 9215 S. SHIELDS BLVD. OKLAHOMA CITY, OKLAHOMA 73160
 PH: 405-793-9500 OR 866-427-4336

2) TRINITY CABLE SAFETY SYSTEM (CASS), TRINITY INDUSTRIES, 2525 STEMMONS FREEWAY, DALLAS, TEXAS 75207
 (CONTACT: BRIAN SMITH 214-631-4420 OR 800 527-6050 EXT. 8140)

3) MARION STEEL'S WIRE ROPE BARRIER, MARION STEEL COMPANY, 912 CHENEY AVE., MARION, OHIO 43302
 (CONTACT: RICK MAUER, 603-430-9350 OR 603-490-1603).

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE SYSTEM SHALL HAVE A MAXIMUM DEFLECTION OF 8.00 FT.

PAYMENT FOR THE ABOVE WORK SHALL BE AT THE UNIT BID PRICE FOR:

ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED)
 ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE ANCHOR TERMINAL

THE BID PRICE SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL CABLE GUARDRAIL SYSTEM, INCLUDING ALL RELATED HARDWARE, GRADING, EMBANKMENT, AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER AND ODOT PROJECT ENGINEER.

POSTS ARE SET IN SOCKETED CONCRETE FOUNDATIONS AND SHALL NOT BE PERMANENTLY INSTALLED UNTIL THEIR RESPECTIVE RUNS OF TENSIONED CABLE GUARDRAIL ARE READY FOR FINAL CONNECTION TO THE END TERMINAL ASSEMBLY.

THE CONTRACTOR SHALL REPLACE ANY POST DAMAGED DURING INSTALLATION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

THE CONTRACTOR SHALL PROVIDE DELINEATORS ON THE GUARDRAIL POSTS AT A MINIMUM INTERVAL OF 100 FT.

MEASUREMENT FOR THE TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST DOES NOT INCLUDE THE 50 FT. ANCHOR TERMINAL. ANCHOR TERMINALS ARE PAID FOR SEPARATELY.

STATION TO STATION	SIDE	606			
		Guardrail, Misc.: Tensioned Cable With Concrete Foundation Line Post (Socketed) Ft.	Guardrail, Misc.: Tensioned Cable Anchor Terminal Each		
REF.					
CR1	Sta. 336+00 to Sta. 344+60 Lt.	760	2		
CR2	Sta. 345+40 to Sta. 355+03 Rt.	863	2		
CR3	Sta. 358+34 to Sta. 384+03 Lt.	2469	2		
CR4	Sta. 388+99 to Sta. 394+56 Rt.	457	2		
CR5	Sta. 398+11 to Sta. 417+27 Lt.	1816	2		
CR6	Sta. 422+86 to Sta. 426+21 Rt.	235	2		
CR7	Sta. 429+31 to Sta. 436+90 Rt.	659	2		
CR8	Sta. 437+70 to Sta. 453+98 Lt.	1528	2		
CR9	Sta. 456+74 to Sta. 468+90 Rt.	1116	2		
CR10	Sta. 469+70 to Sta. 486+29 Lt.	1559	2		
<i>Totals Carried to the General Summary</i>		11462	20		

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50', INCLUSIVE OF THE TWO 25' LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50', INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 1'-6" X 1'-6".

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

A TYPE C DELINEATOR SHOULD BE INSTALLED ON A FLEXIBLE POST AT THE HEAD OF ALL TYPE E-98 UNITS LOCATED ON THE RIGHT SIDE OF THE THROUGH ROADWAY. A TYPE D DELINEATOR SHOULD BE INSTALLED ON A FLEXIBLE POST AT THE HEAD OF ALL TYPE E-98 UNITS LOCATED ON THE LEFT SIDE OF THE THROUGH ROADWAY. DELINEATORS SHALL COMPLY WITH STANDARD TRAFFIC DRAWINGS TC-61.10 AND CMS 620 AND ARE ITEMIZED IN THE GUARDRAIL SUBSUMMARY.

ITEM 606 - IMPACT ATTENUATOR, TYPE I-98 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE C-A-T MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE C-A-T SYSTEM IS CONSIDERED TO BE 31'-3" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

ITEM 606 - IMPACT ATTENUATOR, TYPE I-98 (BIDIRECTIONAL) - CONTINUED

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS245M	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATIONS AND SECTIONS FOR USE AS A LONGITUDINAL MEDIAN BARRIER TERMINAL OR CRASH CUSHION ATTENUATOR	4/10/97	3/6/98
SS224M	C-A-T TRANSITION TO MEDIAN BARRIER GUARDRAIL PLAN, ELEVATION AND SECTIONS	4/26/96	3/6/98
SS226M	C-A-T TRANSITION TO VERTICAL WALL OR PIER PLAN, ELEVATION AND SECTIONS	4/26/96	3/6/98

2. THE BRAKEMASTER MANUFACTURED BY ENERGY ABSORPTION SYSTEM, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE BRAKEMASTER SYSTEM IS CONSIDERED TO BE 32'-8" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
92-00-01	BRAKEMASTER GENERAL ASSEMBLY (UNIDIRECTIONAL SYSTEM)	3/6/97	3/6/98
92-00-81	BRAKEMASTER (UNIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
92-00-02	BRAKEMASTER GENERAL ASSEMBLY (BIDIRECTIONAL SYSTEM)	3/10/97	3/6/98
92-00-82	BRAKEMASTER (BIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
9202024	ANCHOR ASSEMBLY, FOUNDATION TUBE, 6 1/2 FT. [1.981 METERS], BR	6/12/97	3/6/98

- 3) THE FLEAT-MT MANUFACTURED BY ROAD SYSTEMS, INC. (RSI), 3616 OLD HOWARD COUNTY AIRPORT ROAD, BIG SPRINGS, TX, 79720 (TELEPHONE 915-263-2435) AND AVAILABLE FROM RSI'S LIST OF APPROVED DISTRIBUTORS.

THE LENGTH OF THE FLEAT-MT SYSTEM IS CONSIDERED TO BE 37'-6" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS AND THE MANUFACTURERS INSTALLATION MANUAL.

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
MEDFLT-W-US	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT ASSEMBLY FOR WOOD BREAKAWAY POST SYSTEM	4/10/02 REV. 5	1/6/03
MEDFLT-S-US	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT ASSEMBLY FOR STEEL BREAKAWAY POST SYSTEM	4/10/02 REV. 6	1/6/03

THE FACE OF THE TYPE I-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 36" W x 12" H. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE I-98 (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING, AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER

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ITEM 607 FENCE, TYPE 47, AS PER PLAN

THIS ITEM SHALL BE USED TO REPLACE THE EXISTING RIGHT OF WAY FENCE THAT IS DISTURBED BY THIS PROJECT AT STREAM CROSSINGS AND BRIDGES. SPOT SECTIONS OF RUSTED FENCE MAY ALSO BE REPLACED.

ENSURE THAT THE NEW FENCE IS LOCATED INSIDE THE RIGHT OF WAY LINE IN ACCORDANCE WITH CURRENT STANDARDS. IN ALL CASES, CURRENT STANDARD CONSTRUCTION DRAWINGS SHALL BE USED TO ESTABLISH THE CORRECT CONFIGURATION AND LOCATION OF THE NEW FENCE.

THE WORK SHALL INCLUDE REMOVAL OF ALL OF THE EXISTING RIGHT OF WAY FENCE AND ASSOCIATED HARDWARE AND DISPOSAL. CORNER, END AND ANCHOR POSTS AND THEIR ASSOCIATED CONCRETE ENCASEMENTS ARE TO BE COMPLETELY REMOVED. METAL POSTS SHALL BE REMOVED OR DRIVEN A MINIMUM OF 6" BELOW THE EXISTING GROUND SURFACE.

ALL TREES AND BRUSH WITHIN THE AREA 2'-0" EITHER SIDE OF THE FENCE AND A SUFFICIENT DISTANCE INSIDE THE FENCE ALIGNMENT TO PERMIT ITS CONSTRUCTION SHALL BE REMOVED IN ACCORDANCE WITH ITEM 201, EXCEPT THAT NO STUMP MAY EXCEED A HEIGHT OF 2" ABOVE THE EXISTING GROUND SURFACE. THE STUMPS OF ALL TREES AND BRUSH SHALL BE TREATED WITH AN EPA REGISTERED HERBICIDE LABELED FOR CUT STUMP TREATMENT. THE HERBICIDE SHALL BE APPLIED ACCORDING TO LABEL INSTRUCTIONS. THE HERBICIDE USED FOR THIS PROJECT SHALL BE SHIPPED IN NEW SEALED CONTAINERS BEARING THE MANUFACTURER'S LABEL. THE CONTRACTOR SHALL BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL OR LIMITED COMMERCIAL APPLICATORS OR UNDER THE DIRECT SUPERVISION OF THE SAME.

OHIO LAW REGULATES THE DISPOSAL OF LANDSCAPE WASTE THAT RESULT FROM ROADWAY CLEARING AND GRUBBING OPERATIONS. THE REGULATED WASTES INCLUDES BRUSH, TREES, STUMPS, TREE TRIMMINGS, BRANCHES, WEEDS, LEAVES, GRASS, SHRUBBERY, YARD TRIMMINGS, CROP RESIDUE, AND OTHER PLANT MATTER, EXCLUDING SOIL AND GARBAGE. THIS MATERIAL SHALL NOT BE BURIED OFF THE RIGHT-OF-WAY. THIS MATERIAL MAY BE BURIED IN NONSTRUCTURAL AREAS ON THE PROJECT SITE OR RIGHT-OF-WAY, WHERE PERMITTED BY THE ENGINEER.

ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AND SEEDED ACCORDING TO ITEM 870 AND INCLUDED IN ITEM 607 FOR PAYMENT.

THE COST OF ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 607, FENCE, TYPE 47, AS PER PLAN.

THE TYPICAL APPLICATIONS AT EACH STRUCTURE IS AS FOLLOWS:

	MEDIAN	OUTSIDE SLOPES
BR. NO. MED-71-0729L&R	2@55' - 110'	4@55'-220'
BR. NO. MED-71-0794L&R	2@68' - 136'	4@50'-200'
BR. NO. MED-71-0810L&R	2@33' - 66'	4@50'-200'
BR. NO. MED-71-0860L&R	2@36' - 72'	4@50'-200'
	384'	820'

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR USE AS DIRECTED BY THE ENGINEER:

607 - FENCE, TYPE 47, AS PER PLAN 1204 FEET

ANY ADDITIONAL PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

NEW RIGHT OF WAY FENCING

TYPE 47 OR TYPE CLT FENCE SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON R/W SHEETS 16/41-24/41 & 32/41-38/41, AND QUANTIFIED ON SHEETS 154A AND 154B. THE PROPOSED FENCE SHALL BE LOCATED 2' INSIDE THE PROPOSED R/W UNLESS SHOWN OTHERWISE.

PAVEMENT

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1, AND AS SHOWN ON THE MAINTENANCE OF TRAFFIC TYPICAL SECTIONS.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL, IN ALL CASES, BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

JOB MIX FORMULA (JMF) FOR ITEM 401 AND ITEM 880

ONLY ONE JMF MAY BE PLACED INTO THE PAVER DURING PLACEMENT OF ANY ASPHALT LIFT. MIXING OF MORE THAN ONE JMF IS PROHIBITED DURING PLACEMENT.

ASPHALT END JOINTS ABUTTING ADJACENT PROJECTES OR PRIOR STAGE

ASPHALT END JOINTS SHALL BE LAPPED INTO ADJACENT PROJECTS OR PRIOR PHASE WORK TO AVOID FULL VERTICAL JOINTS. A 50' LENGTH OF THE INTERMEDIATE COURSE SHALL BE PLANED AND REPLACED FROM STA. 335+50 TO STA. 336+00 AND STA. 486+28.80 TO STA. 486+78.80, AS WELL AS FROM STA. 432+00 TO STA. 432+50 AFTER STAGE I, TO PROVIDE THE LAP. THE FOLLOWING QUANTITIES ARE CARRIED DIRECTLY TO GENERAL SUMMARY SHEET NO. 140A FOR THIS WORK:

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE	1245 CY
ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY)	61 CY

ITEM 407, TACK COAT AND ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

407, TACK COAT	0.07 GAL. PER SQ. YARD
407, TACK COAT FOR INTERMEDIATE COURSE	0.04 GAL. PER SQ. YARD

ITEM 301 - BITUMINOUS AGGREGATE BASE, PG-64-22, AS PER PLAN

THIS ITEM SHALL BE USED TO PROVIDE THE OUTSIDE EDGE SHOULDER TREATMENT AS SHOWN ON THE MAINTENANCE OF TRAFFIC TYPICAL SECTIONS. THE SHOULDER IS TO BE PAVED WITH ITEM 301 AND MAINTAINED BY THE CONTRACTOR. COMPACTION IS TO BE WAIVED WHEN PLACED IN FRONT OF EXISTING GUARDRAIL.

EXCAVATION NECESSARY TO PLACE THIS MATERIAL IS TO BE INCLUDED. ALL WORK NECESSARY FOR A COMPLETE INSTALLATION AS MENTIONED ABOVE INCLUDING THE MAINTENANCE OF THIS ITEM IS TO BE INCLUDED IN THE CUBIC YARD COST OF ITEM 301 - BITUMINOUS AGGREGATE BASE, PG 64-22, AS PER PLAN.

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN

MATERIALS FOR THIS ITEM OF WORK SHALL BE LIMITED TO LIMESTONE.

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB

THE SHAPE OF THE CURBING ON APPROACH SLABS SHALL BE TRANSITIONED, FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE, WITHIN THE LIMITS OF THE APPROACH SLAB.

ITEM 880 - ASPHALT CONCRETE WITH WARRANTY

LIFT THICKNESSES (AND STEP HEIGHTS) SHOWN IN THE PLAN ARE FOR QUANTITY ESTIMATION ONLY AND ARE NOT REQUIRED LIFT THICKNESSES FOR ACTUAL CONSTRUCTION. THE STEP WIDTHS AS SHOWN SHOULD BE MAINTAINED.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A

THE PRESSURE RELIEF JOINT SHALL BE CONSTRUCTED AS PER BP-2.3 EXCEPT THAT IT SHALL EXTEND UNDER THE EXISTING PAVEMENT BY 6".

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DRAINAGE

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

EXISTING / PROPOSED PIPE CONNECTIONS

THE CONTRACTOR SHALL HAVE THE OPTION OF USING A COUPLING BAND TO JOIN EXISTING CORRUGATED METAL PIPE WITH A PROPOSED SECTION OF CORRUGATED METAL PIPE OR PLACING A CONCRETE COLLAR AS PER STANDARD CONSTRUCTION DRAWING DM-1.1. ALL CONCRETE PIPE CONNECTIONS SHALL HAVE A CONCRETE COLLAR AS PER STANDARD CONSTRUCTION DRAWING DM-1.1 PLACED AT THE JOINING OF EXISTING AND PROPOSED SECTIONS OF PIPE.

ANY EXPOSED METAL FROM THE PIPE CONNECTIONS OF A CORRUGATED METAL PIPE SHALL BE GALVANIZED COATED AS PER CMS SPECIFICATION 711.02 AND INCLUDED IN THE COST OF ITEM 603.

MASONRY COLLARS

MASONRY COLLARS, AS PER DM-1.1, SHALL BE CONSTRUCTED AT ALL LOCATIONS WHERE DISSIMILAR PIPE MATERIALS MEET, OR WHERE NORMAL JOINTING METHODS OR MATERIALS ARE NOT FEASIBLE OR UTILIZED. SEE DM-1.1 FOR ADDITIONAL REQUIREMENTS.

ITEM 202 - PIPE REMOVED

THE DEPARTMENT WILL MEASURE PIPE REMOVED BY THE NUMBER OF FEET, MEASURED FROM CENTER-TO-CENTER OF APPURTENANT SMALL STRUCTURES OR BETWEEN OPEN ENDS INCLUSIVE OF LENGTHS OF PIPE BENDS AND BRANCHES. THE DEPARTMENT WILL NOT DEDUCT FOR CATCH BASINS, INLETS, OR MANHOLES THAT ARE 6 FEET OR LESS ACROSS.

HEADWALL PATCHING

HEADWALLS ON THE PROJECT THAT ARE NOT BEING REPLACED MAY NEED PATCHING TO REPAIR MINOR FACIAL DETERIORATION. IF NEEDED, ITEM 519 - PATCHING CONCRETE STRUCTURES SHALL BE USED TO MAKE THESE REPAIRS.

PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OR ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH USING ITEM 603 - 6" TYPE F CONDUIT AND OUTLETTED USING ITEM 604 - PRECAST REINFORCED CONCRETE OUTLET AS PER DM-1.1. THE OPTIMUM OUTLET ELEVATION SHALL BE 12" ABOVE THE FLOWLINE ELEVATION OF THE DITCH.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

OUTLETS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE.

PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

UNTREATED SEPTIC CONNECTIONS

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY UNTREATED SEPTIC DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM. ANY PIPE CARRYING UNTREATED SEPTIC FLOW SHALL BE PLUGGED WITH CLASS C CONCRETE AT THE RIGHT OF WAY LINE. PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 AND 203 ITEM.

TREATED SEPTIC CONNECTIONS

TREATED SEPTIC FLOW MAY BE DISCHARGED INTO THE HIGHWAY DRAINAGE SYSTEM PROVIDED THE OWNER HAS ACQUIRED AN OFFICIAL PERMIT FROM THE OHIO DEPARTMENT OF TRANSPORTATION.

IN EACH CASE WHERE A PERMIT HAS BEEN ISSUED FOR MAKING A TREATED SEPTIC CONNECTION INTO A HIGHWAY DRAINAGE CONDUIT, AN INSPECTION WELL SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DM-3.1.

PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

ITEM 603 - CONDUIT BORED OR JACKED, AS PER PLAN

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 5 FEET TO THE EDGE OF PAVEMENT. PROVIDE A 0.50 INCH (12.7 MM) UNGALVANIZED CASING PIPE CONFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING WELD PER 513.21.

ITEM 603 - SLOTTED DRAIN: 15", TYPE 2

THIS ITEM SHALL CONSIST OF 15 INCH DIAMETER SLOTTED DRAIN BITUMINOUS COATED STEEL CONDUIT 707.05 (14 GAUGE) WITH 6 INCH BY $\frac{3}{16}$ INCH GALVANIZED SOLID BAR GRATE AS APPROVED BY THE ENGINEER. ALL COST FOR LABOR AND MATERIALS, INCLUDING TYPE 2 BEDDING, AND BACKFILLING AS DETAILED ON STANDARD CONSTRUCTION DRAWING DM-1.3 SHALL BE INCLUDED IN THE PRICE BID PER FOOT.

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UNDERDRAIN CONNECTIONS

ALL EXISTING UNDERDRAINS SHALL BE CONNECTED INTO THE PROPOSED UNDERDRAINS. THIS SHALL BE ACCOMPLISHED BY INSTALLING 6" UNDERDRAINS TRANSVERSELY AT APPROXIMATELY 1000' SPACING WITH ONE ADDITIONAL CONNECTION AT THE HIGH SIDE OF EACH BRIDGE AND ONE ADDITIONAL CONNECTION AT EACH SAG.

MEDIAN - 22 LOCATIONS x 8' x 2 SIDES - 352 FT.
OUTSIDE - 22 LOCATIONS x 5' x 2 SIDES - 220 FT.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK:

ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41 572 L.F.

MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPERNEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

PROPOSED UNDERDRAINS

UNDERDRAIN OUTLET CONNECTIONS AND TRANSVERSE UNDERDRAINS MAY EXTEND ACROSS ADJOINING CONSTRUCTION PHASES. IN THESE SITUATIONS THE CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY PLUGS OR CAPS AT THE LIMITS OF THE UNDERDRAIN CONSTRUCTION. DURING THE CONSTRUCTION OF THE SUBSEQUENT PHASE THE TEMPORARY PLUG OR CAP SHALL BE REMOVED, THE EXISTING UNDERDRAIN OR OUTLET SHALL BE INSPECTED FOR CLEANLINESS, CLEANED IF NECESSARY, AND THE UNDERDRAIN OR OUTLET CONSTRUCTION COMPLETED OR CONTINUED TO THE NEXT STAGE LIMIT. ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO PROVIDE, TO THE SATISFACTION OF THE ENGINEER, THE TEMPORARY CAPPING AND PIPE CLEANOUT BETWEEN EACH PHASE SHALL BE INCLUDED IN ITEM 603, 6" CONDUIT, TYPE F AND/OR ITEM 605, SHALLOW PIPE UNDERDRAIN, BY SIZE AND TYPE.

THE UNDERDRAINS AT THE NORTHERLY LIMITS OF STAGE I CONSTRUCTION WILL RECEIVE THE UNDERDRAIN FLOW FROM THE SUBSEQUENT NORTHERLY STAGE OR PROJECT. TEMPORARY CAPS SHALL BE PROVIDED DURING STAGE I CONSTRUCTION AT THESE LOCATIONS AND THE CONNECTION TO THE ADJOINING CONSTRUCTION STAGE SHALL BE AS REFERENCED ABOVE. ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO PROVIDE, TO THE SATISFACTION OF THE ENGINEER, THE TEMPORARY CAPPING AND PIPE CLEANOUT BETWEEN EACH STAGE SHALL BE INCLUDED IN ITEM 605, SHALLOW PIPE UNDERDRAIN, BY SIZE AND TYPE.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH LEAN GROUT, ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE STRUCTURE TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12".

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT , AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

SPRING DRAINS

THE FOLLOWING ITEMS WILL BE USED FOR DRAINING ANY SPRINGS SHOWN IN THE PLAN OR ENCOUNTERED DURING CONSTRUCTION. THE FOLLOWING TYPES OF PIPES MAY BE USED: 707.33, 707.41, 707.42 OR 707.45 PERFORATED PER 707.31.

SPRING DRAINS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD CONSTRUCTION DRAWING DM-I.I AND PAID FOR UNDER THE FOLLOWING ITEMS:

605, 6" UNCLASSIFIED PIPE UNDERDRAIN, FOR SPRINGS LIN. FT.
605, AGGREGATE DRAIN, FOR SPRINGS LIN. FT

PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK SHALL BE PERFORMED AT THE LOCATIONS AS SHOWN ON THE PLANS. THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUIT SPECIFIED IN THE PLANS. ALL MATERIALS REMOVED SHALL BE DISPOSED OF AS PER 203.05. ALL PIPES SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL-PIPE CLEANOUT (24" AND UNDER OR OVER 24"). THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

ANY ADDITIONAL PROJECT QUANTITIES ARE TO BE DETERMINED BY PROJECT PERSONNEL AND WILL BE PAID FOR AS PART OF THE FINAL CHANGE ORDER FOR THE PROJECT.

ITEM 603 - 6" CONDUIT, TYPE F

THE TERM "603 - 6" CONDUIT, TYPE F" APPEARING THROUGHOUT THESE PLANS SHALL BE CONSIDER TO READ "603 - 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS". THIS APPLIES TO THE ROADWAY PLANS, QUANTITY TABLES AND DRAINAGE DETAILS.

EROSION CONTROL

ITEM 659 - SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES OR CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS AND QUANTITIES ARE CARRIED ON THE CROSS SECTIONS.

ITEM 659 - SEEDING AND MULCHING, CLASS I, AS PER PLAN

TO AVOID CONTAMINATING THE ADJACENT MEDINA SOD FARM PROPERTY AND CROP, HYDRO SEED AND STRAW SHALL NOT BE PERMITTED FOR THIS ITEM OF WORK. NO METHOD OF APPLICATION WHICH COULD RESULT IN THE DRIFTING OF THE SEEDING AND MULCHING ONTO THE SOD FARM PROPERTY WILL BE PERMITTED.

REPAIR SEEDING AND MULCHING IN AREAS USING SEEDING AND MULCHING, CLASS I, AS PER PLAN

ANY INTERSEEDING OR REPAIR SEEDING AND MULCHING IN THESE AREAS SHALL BE PERFORMED USING THE SAME CLASS I SEED MIXTURE AS INITIALLY PLACED. THIS REQUIREMENT SHALL BE CONSIDERED AS INCIDENTAL TO THE INTERSEEDING OR REPAIR SEEDING AND MULCHING ITEM OF WORK.

WATERING, MOWING AND REPAIR OF PERMANENT SEEDED AREAS

QUANTITIES FOR THE GROWTH AND CARE OF SEEDING AREAS ARE SHOWN ON SHEET 154.

CALCULATED
CHECKED

GENERAL NOTES

MED-71-6.06

GNA.DGN

EROSION CONTROL CONTINUED

EROSION CONTROL

ITEMS 601, 660, AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS AND TURF OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ITEM 660 OR 671.

THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET THE REQUIREMENTS OF 108.04.

IN AREAS OF BEST MANAGEMENT PRACTICES FOR POST CONSTRUCTION STORM WATER TREATMENT AS LISTED IN THE VEGETATED STRIPS (& SWALES) NOTE, THE PERFORMANCE CRITERIA STATED IN 659.23 SHALL BE INCREASED FROM 70% GRASS COVER TO 80% GRASS COVER.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED STRIPS (& SWALES)

VEGETATED STRIPS (& SWALES) HAVE BEEN USED IN THIS PLAN. TAKE CARE TO GRADE THESE AREAS AS THE PLAN INDICATES. STABILIZE THE STRIP (& SWALE) WITH THE PERMANENT EROSION PROTECTION UPON FINAL GRADING. PAYMENT SHALL BE INCLUDED IN THE PERMANENT EROSION PROTECTION ITEMS. THE FOLLOWING TABLE IDENTIFIES THE LOCATIONS OF THESE BMP'S.

STATION		SIDE	BMP TYPE	ITEM 670 VEGETATED SWALE EROSION PROTECTION MAT TYPE B SQ. YD.
FROM	TO			
I-71				
320+00	417+90	CL	VEGETATED FILTER STRIP	
422+15	427+95	CL	VEGETATED FILTER STRIP	
429+15	454+10	CL	VEGETATED FILTER STRIP	
456+64	509+84	CL	VEGETATED FILTER STRIP	
320+00	385+81	RT	VEGETATED FILTER STRIP	
387+92	395+13	RT	VEGETATED FILTER STRIP	
402+90	403+90	RT	VEGETATED SWALE	83
403+90	408+93	RT	VEGETATED FILTER STRIP	
403+85	404+85	LT	VEGETATED SWALE	83
407+00	408+00	LT	VEGETATED SWALE	83
409+50	410+50	LT	VEGETATED SWALE	83
408+93	412+35	RT	VEGETATED FILTER STRIP	
419+64	420+64	RT	VEGETATED SWALE	130
419+23	420+50	RT	VEGETATED FILTER STRIP	
422+60	428+30	RT	VEGETATED FILTER STRIP	
428+60	444+36	RT	VEGETATED FILTER STRIP	
444+36	454+25	RT	VEGETATED FILTER STRIP	
455+60	504+74	RT	VEGETATED FILTER STRIP	
320+00	377+63	LT	VEGETATED FILTER STRIP	
377+63	383+25	LT	VEGETATED FILTER STRIP	
384+75	389+60	LT	VEGETATED FILTER STRIP	
389+60	399+32	LT	VEGETATED FILTER STRIP	
399+32	400+32	LT	VEGETATED SWALE	83
401+77	415+32	LT	VEGETATED FILTER STRIP	
415+32	416+18	LT	VEGETATED SWALE	69
416+18	417+20	LT	VEGETATED SWALE	83
419+53	428+54	LT	VEGETATED FILTER STRIP	
428+82	455+62	LT	VEGETATED FILTER STRIP	
457+08	504+74	LT	VEGETATED FILTER STRIP	
I-76/US224				
644+08	848+51	RT	VEGETATED FILTER STRIP	
850+65	865+26	RT	VEGETATED FILTER STRIP	
871+25	873+61	RT	VEGETATED FILTER STRIP	
873+61	800+07	RT	VEGETATED FILTER STRIP	
800+13	888+17	RT	VEGETATED FILTER STRIP	
841+22	842+22	LT	VEGETATED SWALE	83
842+35	848+63	LT	VEGETATED FILTER STRIP	
851+10	852+10	LT	VEGETATED SWALE	83
852+10	853+10	LT	VEGETATED SWALE	83
855+50	860+05	LT	VEGETATED FILTER STRIP	
860+05	869+25	LT	VEGETATED FILTER STRIP	
893+95	897+53	LT	VEGETATED FILTER STRIP	
897+53	904+22	LT	VEGETATED FILTER STRIP	
905+52	908+00	LT	VEGETATED FILTER STRIP	
RAMP S-E				
130+92	169+42	RT	VEGETATED FILTER STRIP	
130+92	140+00	LT	VEGETATED FILTER STRIP	
154+70	155+70	LT	VEGETATED SWALE	181
167+25	169+43	LT	VEGETATED FILTER STRIP	
SUBTOTAL COLUMN A				1127

STATION		SIDE	BMP TYPE	ITEM 670 VEGETATED SWALE EROSION PROTECTION MAT TYPE B SQ. YD.
FROM	TO			
RAMP E-S				
175+62	180+05	RT	VEGETATED FILTER STRIP	
181+50	196+58	RT	VEGETATED FILTER STRIP	
200+18	223+87	RT	VEGETATED FILTER STRIP	
175+62	180+15	LT	VEGETATED FILTER STRIP	
180+60	196+56	LT	VEGETATED FILTER STRIP	
194+45	223+87	LT	VEGETATED FILTER STRIP	
RAMP E-N				
104+60	120+35	RT	VEGETATED FILTER STRIP	
104+60	120+35	LT	VEGETATED FILTER STRIP	
RAMPS S-W				
88+60	89+60	RT	VEGETATED SWALE	83
RAMP W-N				
36+00	37+00	RT	VEGETATED SWALE	172
37+00	39+17	RT	VEGETATED FILTER STRIP	
30+15	39+17	LT	VEGETATED FILTER STRIP	
RAMP W-N/S-W				
15+18	18+65	RT	VEGETATED FILTER STRIP	
21+60	24+85	RT	VEGETATED FILTER STRIP	
15+18	18+65	LT	VEGETATED FILTER STRIP	
21+60	27+00	LT	VEGETATED FILTER STRIP	
RAMP W-N/S-W				
28+59	37+52	RT	VEGETATED FILTER STRIP	
28+59	37+52	LT	VEGETATED FILTER STRIP	
RAMP N-W				
5+20	9+34	RT	VEGETATED FILTER STRIP	
RAMP N-E				
42+72	54+77	LT	VEGETATED FILTER STRIP	
RAMP W-NS				
7+58	13+01	RT	VEGETATED FILTER STRIP	
8+67	12+62	LT	VEGETATED FILTER STRIP	
RAMP N-SW				
22+15	30+75	RT	VEGETATED FILTER STRIP	
32+71	36+63	RT	VEGETATED FILTER STRIP	
36+63	37+05	RT	VEGETATED FILTER STRIP	
17+10	30+75	LT	VEGETATED FILTER STRIP	
32+71	32+30	LT	VEGETATED FILTER STRIP	
SERVICE ROAD				
10+75	11+75	RT	VEGETATED SWALE	83
25+30	26+30	LT	VEGETATED SWALE	83
25+34	26+34	RT	VEGETATED SWALE	83
26+30	27+30	LT	VEGETATED SWALE	83
26+34	27+34	RT	VEGETATED SWALE	83
39+00	40+00	RT	VEGETATED SWALE	83
SUBTOTAL COLUMN B				753
SUBTOTAL COLUMN A				1127
TOTAL CARRIED TO GENERAL SUMMARY				1880

GENERAL NOTES

MED-71-6.06

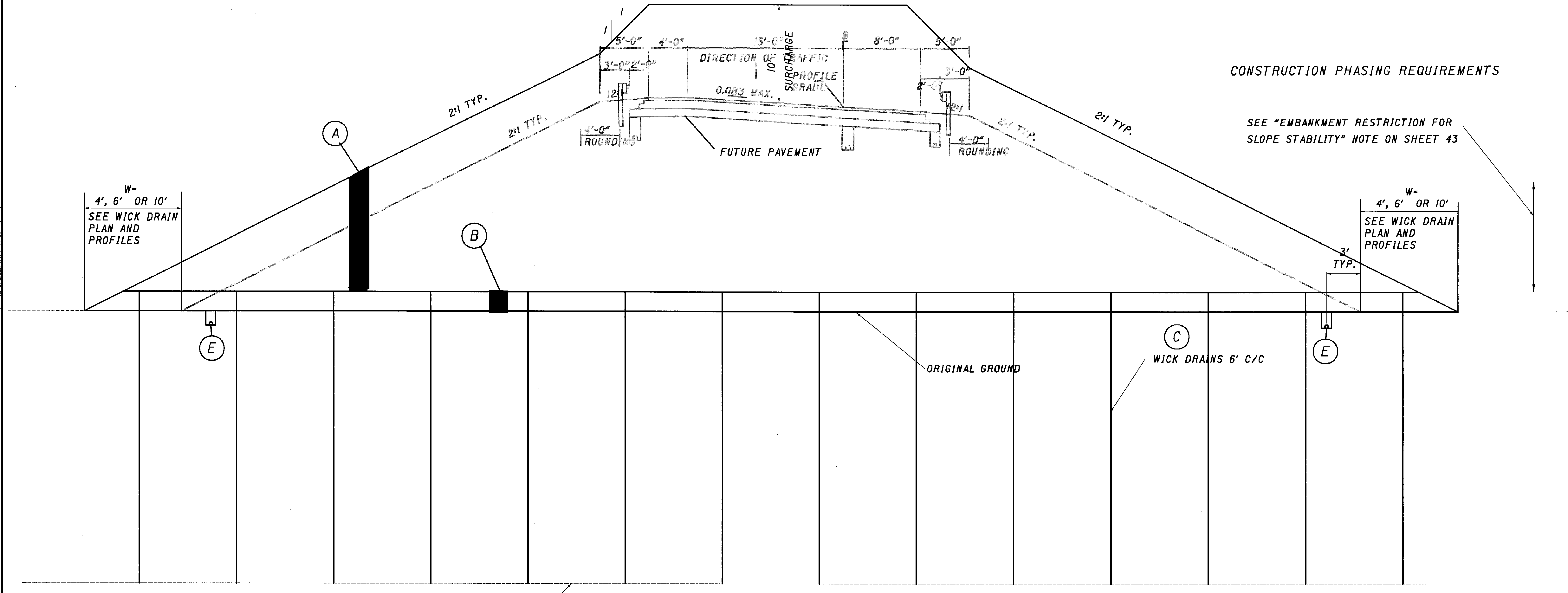
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INITIAL EMBANKMENT CONSTRUCTION

DIRECTIONAL ROADWAY SHOWN, TYPICAL
DETAILS ALSO APPLY TO TYPICAL RAMP.

CURVE RIGHT (SUPERELEVATION) SHOWN,
REVERSE FOR CURVE LEFT.



CONSTRUCTION PHASING REQUIREMENTS

SEE "EMBANKMENT RESTRICTION FOR
SLOPE STABILITY" NOTE ON SHEET 43

W=
4', 6' OR 10'
SEE WICK DRAIN
PLAN AND
PROFILES

W=
4', 6' OR 10'
SEE WICK DRAIN
PLAN AND
PROFILES

(E)

(B)

(C)

(E)

ORIGINAL GROUND

WICK DRAINS 6' C/C

BOTTOM OF WICK DRAINS
SEE WICK DRAIN PLAN AND PROFILE SHEETS

DIRECTIONAL ROADWAY

LIMITING STATIONS - RAMP ES

STA. 189+50 TO STA. 192+50	W=4'
STA. 192+50 TO STA. 194+50	W=6'
STA. 194+50 TO STA. 197+00	W=10'
STA. 198+50 TO STA. 202+50	W=10'
STA. 202+50 TO STA. 205+50	W=6'
STA. 205+50 TO STA. 206+25	W=4'

PROPOSED ITEM LEGEND

- (A) 203 EMBANKMENT
- (B) 203 3' EMBANKMENT, AS PER PLAN
- (C) SPEC WICK DRAINS 6' C/C TYPICAL
- (D) 203 EXCAVATION
- (E) 605 4" UNCLASSIFIED PIPE UNDERDRAIN,
707.31 OR 707.41

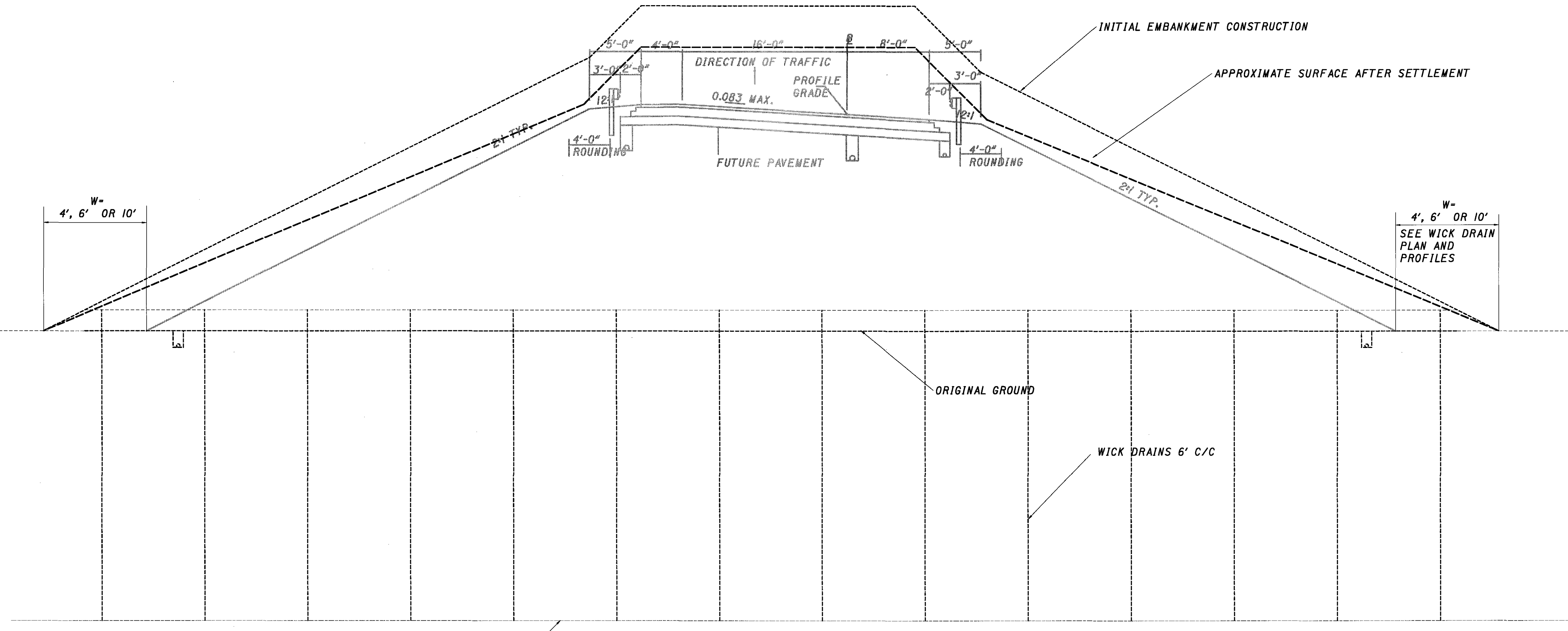
TYPICAL SECTION RAMPS E-S
WICK DRAINS / EMB. CONSTR.

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EMBANKMENT CONSTRUCTION AFTER SETTLEMENT

DIRECTIONAL ROADWAY SHOWN, TYPICAL
DETAILS ALSO APPLY TO TYPICAL RAMP.

CURVE RIGHT (SUPERELEVATION) SHOWN,
REVERSE FOR CURVE LEFT.



BOTTOM OF WICK DRAINS
SEE WICK DRAIN PLAN AND PROFILE SHEETS

DIRECTIONAL ROADWAY

LIMITING STATIONS - RAMP ES

STA. 189+50 TO STA. 192+50	W=4'
STA. 192+50 TO STA. 194+50	W=6'
STA. 194+50 TO STA. 197+00	W=10'
STA. 198+50 TO STA. 202+50	W=10'
STA. 202+50 TO STA. 205+50	W=6'
STA. 205+50 TO STA. 206+25	W=4'

PROPOSED ITEM LEGEND

- (A) 203 EMBANKMENT
- (B) 203 3' EMBANKMENT, AS PER PLAN
- (C) SPEC WICK DRAINS 6' C/C TYPICAL
- (D) 203 EXCAVATION
- (E) 605 4" UNCLASSIFIED PIPE UNDERDRAIN,
707.31 OR 707.41

TYPICAL SECTION RAMPS E-S
WICK DRAINS / EMB. CONSTR.

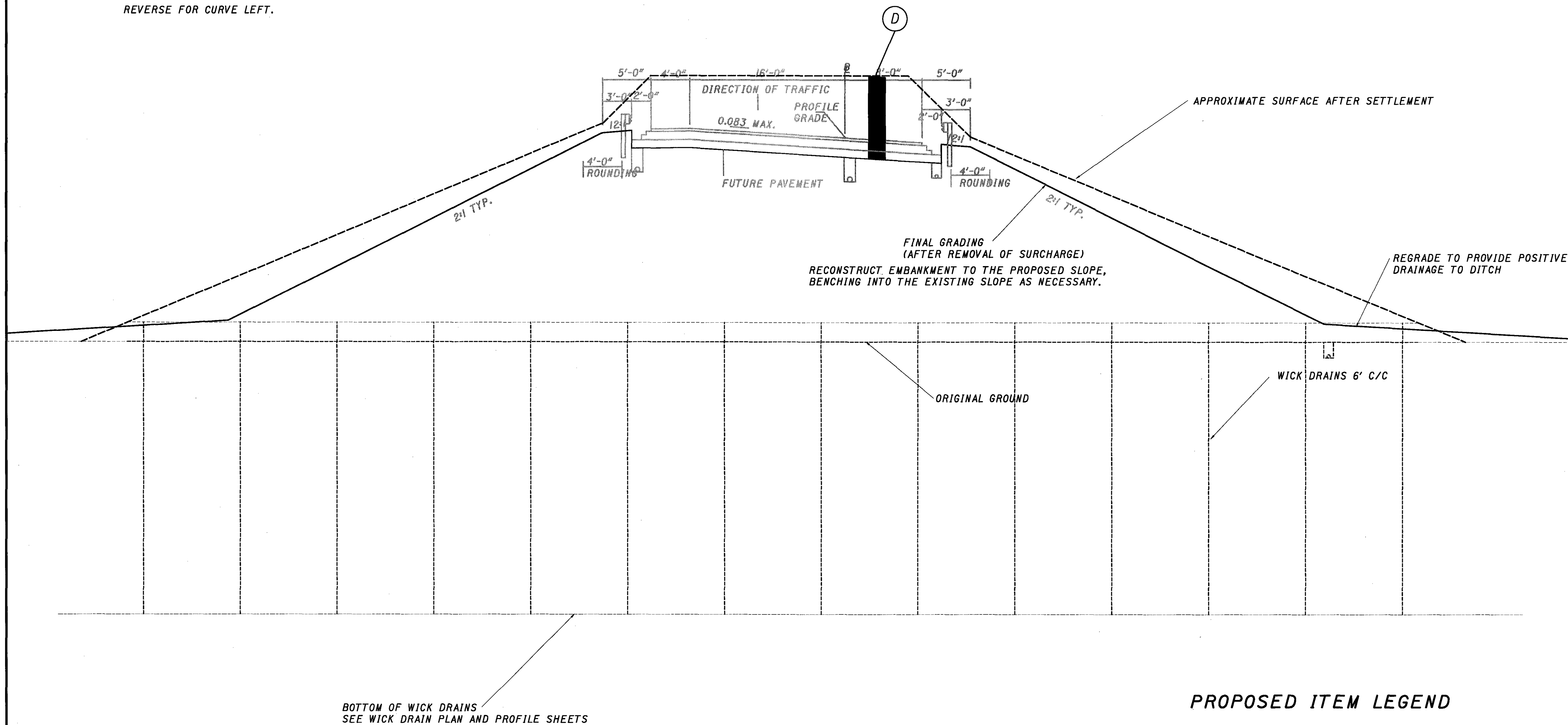
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REMOVAL OF SURCHARGE

DIRECTIONAL ROADWAY SHOWN, TYPICAL
DETAILS ALSO APPLY TO TYPICAL RAMP.

CURVE RIGHT (SUPERELEVATION) SHOWN,
REVERSE FOR CURVE LEFT.



DIRECTIONAL ROADWAY LIMITING STATIONS - RAMP ES

STA. 189+50 TO STA. 192+50	W=4'
STA. 192+50 TO STA. 194+50	W=6'
STA. 194+50 TO STA. 197+00	W=10'
STA. 198+50 TO STA. 202+50	W=10'
STA. 202+50 TO STA. 205+50	W=6'
STA. 205+50 TO STA. 206+25	W=4'

PROPOSED ITEM LEGEND

- (A) 203 EMBANKMENT
- (B) 203 3' EMBANKMENT, AS PER PLAN
- (C) SPEC WICK DRAINS 6' C/C TYPICAL
- (D) 203 EXCAVATION
- (E) 605 4" UNCLASSIFIED PIPE UNDERDRAIN,
707.31 OR 707.41

TYPICAL SECTION RAMPS E-S
WICK DRAINS / EMB. CONSTR.

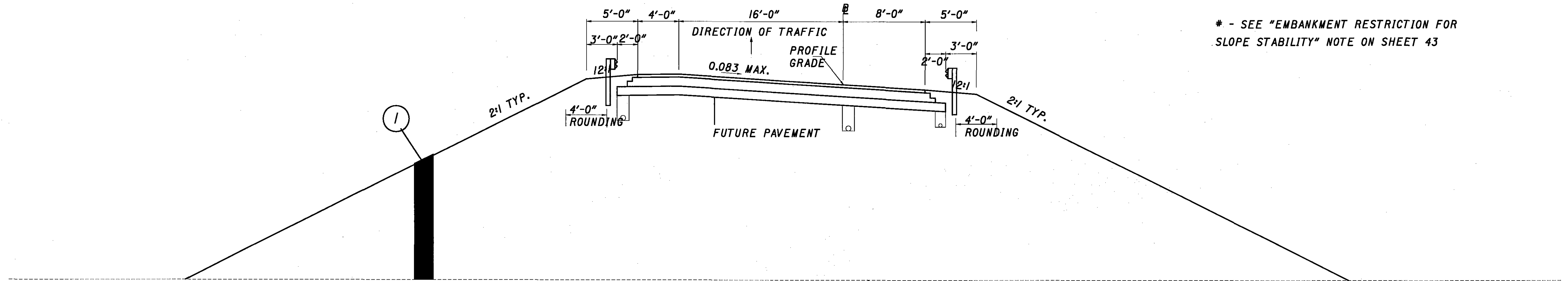
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PROPOSED ITEM LEGEND

① 203 EMBANKMENT

CONSTRUCTION PHASING REQUIREMENTS

* - SEE "EMBANKMENT RESTRICTION FOR SLOPE STABILITY" NOTE ON SHEET 43



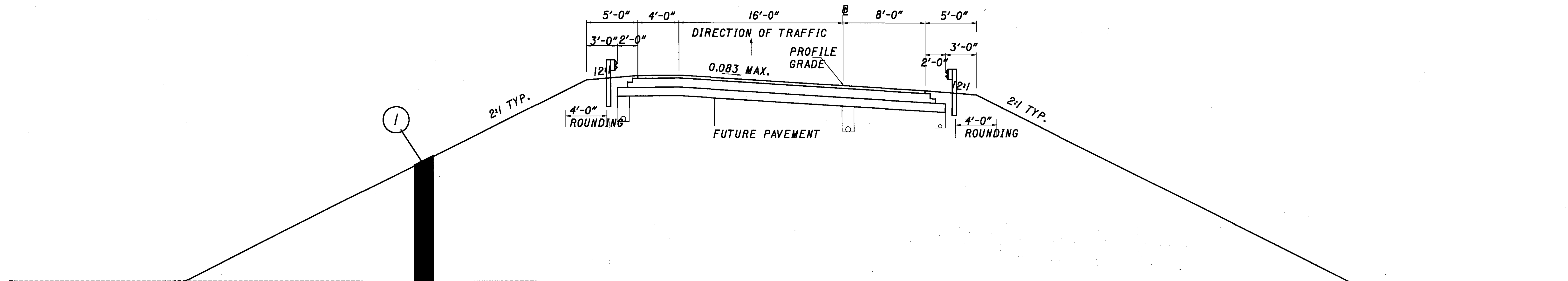
LIMITING STATIONS - RAMP E-S

- # - STA. 176+00 TO STA. 179+37
- # - STA. 181+56 TO STA. 189+50
- # - STA. 206+25 TO STA. 211+15

EX. GROUND

DIRECTIONAL ROADWAY SHOWN, TYPICAL DETAILS ALSO APPLY TO TYPICAL RAMP.

CURVE RIGHT (SUPERELEVATION) SHOWN, REVERSE FOR CURVE LEFT.



LIMITING STATIONS - RAMP E-N

- STA. 104+00 TO STA. 113+00
- STA. 113+00 TO STA. 117+00 *
- STA. 117+00 TO STA. 121+00

EX. GROUND

* - REQUIRES A WAITING PERIOD, SEE "RAMP EN EMBANKMENT CONSTRUCTION" NOTE ON SHEET 32

TYPICAL SECTION RAMPS E-S & E-N EMBANKMENT CONSTRUCTION

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SETTLEMENTS ALONG RAMP E-S

SETTLEMENTS OF LESS THAN 3 INCHES TO AS MUCH AS 60 INCHES ARE ANTICIPATED AS A RESULT OF THE EMBANKMENT CONSTRUCTION ALONG RAMP E-S. (SEE THE "RAMP E-S EMBANKMENT CONSTRUCTION" NOTE ON SHEET 33 FOR SCHEDULING REQUIREMENTS FOR THIS CONSTRUCTION) ALSO SEE THE "EMBANKMENT RESTRICTIONS FOR SLOPE STABILITY" NOTE BELOW.

EMBANKMENT RESTRICTIONS FOR SLOPE STABILITY

THE CONSTRUCTION OF THE EMBANKMENT ALONG RAMP E-S BETWEEN STA. 176+00 TO STA. 211+15 IS LIMITED AS FOLLOWS:

1. THE RATE OF EMBANKMENT CONSTRUCTION, INCLUDING SURCHARGE, SHALL BE LIMITED TO 1 FOOT PER DAY AND NOT MORE THAN 5 FEET IN ANY 7 DAY PERIOD.
2. THE EMBANKMENT CONSTRUCTION SHALL BE LIMITED AS PER THE "PIEZOMETER MONITORING NOTES" ON SHEET 46 IN AREAS HAVING PIEZOMETERS.

EMBANKMENT, SURCHARGE OF EMBANKMENT

PAYMENT FOR THE PLACEMENT OF ADDITIONAL SURCHARGE MATERIALS AS SETTLEMENTS WARRANT WILL BE MADE UNDER ITEM 203. MATERIAL REMOVED AFTER THE SETTLEMENT WAITING PERIOD, WILL BE MEASURED FROM ITS SETTLED POSITION TO THE BOTTOM OF THE PROPOSED SUBGRADE AND TO THE FINAL PLAN SIDE SLOPES INDICATED IN THE CROSS SECTIONS. THE CONTRACTOR SHALL PROVIDE AS BUILT CROSS SECTIONS OF THE SURCHARGED AREA, SURVEYED WITHIN ONE WEEK PRIOR TO THE REMOVAL OF THE SURCHARGE.

WICK DRAINS (PRE-FABRICATED VERTICAL DRAINS)

THE CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR, EQUIPMENT, AND MATERIALS, AND PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF WICK DRAINS IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS AND WITH THE REQUIREMENTS OF THESE SPECIFICATIONS. THE DRAINS SHALL BE SPACED AND ARRANGED AS SHOWN ON THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.

MATERIAL SPECIFICATION

THE PREFABRICATED DRAIN SHALL CONSIST OF A CONTINUOUS PLASTIC DRAINAGE CORE WRAPPED IN A NON-WOVEN GEOTEXTILE MATERIAL. THE PREFABRICATED DRAINS USED SHALL BE ONE OF THE FOLLOWING PRODUCTS (OR APPROVED EQUAL) AND SHALL MEET THE MATERIAL SPECIFICATIONS IDENTIFIED HEREIN:

PRODUCT	MANUFACTURER	U.S. SUPPLIER
ALI-DRAIN	BURCAN INDUSTRIES LIMITED SUITE 19-III INDUSTRIAL DRIVE WHITBY, ONTARIO, CANADA L1N5Z9 905-668-3131	TERRASYSTEMS, INC P.O. BOX 265 PURCELLVILLE, VA 22123 703-882-4130
HITEK-FLODRAIN	BURCAN INDUSTRIES LIMITED (SEE ABOVE)	TERRASYSTEMS, INC. (SEE ABOVE)
MEBRA-DRAIN	GEOTECHNICS HOLLAND BV P.O. BOX 270 6950 AF DIEREN HOLLAND	L.B. FOSTER COMPANY OR 415 HOLIDAY DRIVE PITTSBURGH, PA 15220 412-928-3475
		INTERNATIONAL CONST. EQUIP. INC 301 WAREHOUSE DRIVE MATTHEWS, NORTH CAROLINA 28105 800-438-9281
AMERDRAIN	AMERICAN WICK DRAIN COMPANY 301 WAREHOUSE DRIVE MATTHEWS, NORTH CAROLINA 28105	INTERNATIONAL CONSTR. EQUIP. INC. (SEE ABOVE)

THE DRAINS SHALL BE FREE OF DEFECTS, RIPS, HOLES, OR FLAWS.

WICK DRAINS (PRE-FABRICATED VERTICAL DRAINS) CONTINUED

EACH SEPARATE COMPONENT (GEOTEXTILE AND CORE) AND THE COMPOSITE WICK DRAIN SHALL HAVE MINIMUM TENSILE STRENGTH WITHOUT DISTRESS OR SEPARATION OF 15 POUNDS PER INCH WIDTH BY CLAMPING OVER THE FULL WIDTH AND TESTING IN ACCORDANCE WITH ASTM D-4595 (IE, 4 INCH GAUGE LENGTH TESTED IN A CONSTANT RATE OF EXTENSION TEST MACHINE AT 10 PERCENT STRAIN PER MINUTE.)

THE COMPOSITE WICK DRAIN SHALL HAVE THE FOLLOWING FLOW CHARACTERISTICS. FLOW CAPACITY THROUGH THE CORE SHALL BE NOT LESS THAN 0.5 GALLONS PER MINUTE AS MEASURED UNDER A NORMAL STRESS OF 5000 PSF AFTER A PERIOD OF 24 HOURS USING A GRADIENT OF 1. THE PERMEABILITY OF THE GEOTEXTILE BE GREATER THAN 0.01 CENTIMETERS PER SECOND AS DETERMINED BY ASTM D-4491. THE GEOTEXTILE SHALL HAVE AN AOS OF NOT GREATER THAN 0.30 MILLIMETERS AND NOT LESS 0.10 MILLIMETERS.

SOURCE APPROVAL

PRIOR TO DELIVERY OF THE WICK DRAIN PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COPY OF AN AFFIDAVIT SIGNED BY A LEGALLY AUTHORIZED OFFICIAL FROM THE COMPANY MANUFACTURING THE WICK DRAIN CORE AND THE GEOTEXTILE WRAP. THE AFFIDAVIT SHALL ATTEST THAT THE PRODUCTS MEET THE PHYSICAL AND MECHANICAL REQUIREMENTS STATED IN THE SPECIFICATION AND SHALL INCLUDE TEST RESULTS. A WICK DRAIN SAMPLE SHALL BE SUBMITTED FOR EVALUATION AT LEAST 15 WORKING DAYS PRIOR TO DELIVERY TO THE PROJECT. THIS SAMPLE SHALL BE AT LEAST 5 LINEAL FEET. APPROVAL OF THE WICK DRAIN BY THE ENGINEER SHALL BE REQUIRED PRIOR TO SITE DELIVERY.

CONTROL TESTING

SAMPLES OF THE WICK DRAIN SHALL BE PERIODICALLY REVIEWED BY THE ENGINEER. THE ENGINEER RESERVES THE RIGHT TO COLLECT SAMPLES PERIODICALLY DURING CONSTRUCTION FOR CONFIRMATION TESTING.

SHIPMENT AND STORAGE

DURING PERIODS OF SHIPMENT AND STORAGE, THE WICK DRAINS SHALL BE WRAPPED IN A HEAVY DUTY PROTECTIVE COATING. THE STORAGE AREA SHALL BE SUCH THAT THE DRAINS ARE PROTECTED FROM SUNLIGHT, MUD, DIRT, DUST, DEBRIS, AND DETRIMENTAL SUBSTANCES.

EQUIPMENT

THE WICK DRAINS SHALL BE INSTALLED WITH EQUIPMENT WHICH WILL CAUSE A MINIMUM OF DISTURBANCE OF THE SUBSOIL DURING THE INSTALLATION. THE PREFABRICATED DRAINS SHALL BE INSTALLED USING A MANDREL OR SLEEVE THAT WILL BE ADVANCED THROUGH APPROXIMATELY 2 FEET OF SAND FILL AND EXISTING SOILS TO THE REQUIRED DEPTH USING VIBRATORY, CONSTANT LOAD, OR CONSTANT RATE OF ADVANCEMENT METHODS. USE OF FALLING WEIGHT IMPACT HAMMERS OR JETTING SHALL NOT BE PERMITTED FOR INSTALLATION OF THE DRAINS. THE MANDREL SHALL PROTECT THE PREFABRICATED DRAIN MATERIAL FROM TEARS, CUTS, AND ABRASIONS DURING INSTALLATION AND SHALL BE WITHDRAWN AFTER THE INSTALLATION OF THE DRAIN. THE DRAIN SHALL BE PROVIDED WITH AN ANCHOR PLATE OR ROD AT THE BOTTOM TO ANCHOR THE BOTTOM OF THE DRAIN AT THE REQUIRED DEPTH AT THE TIME OF MANDREL REMOVAL. THE PROJECTED CROSS SECTIONAL AREA OF THE MANDREL AND ANCHOR COMBINATION SHALL NOT BE GREATER THAN THAT SUGGESTED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL EXAMINE THE SITE AND SUBSURFACE CONDITIONS REVEALED BY THE TEST BORINGS TO DETERMINE THE EQUIPMENT REQUIRED FOR THE CONDITIONS ANTICIPATED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SELECTION OF EQUIPMENT TO INSTALL THE WICK DRAINS IN ACCORDANCE WITH THIS SPECIFICATION.

AT LEAST THREE (3) WEEKS PRIOR TO THE INSTALLATION OF THE WICK DRAINS THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, FOR REVIEW AND APPROVAL, DETAILS OF THE SEQUENCE AND METHOD OF INSTALLATION. THE SUBMITTAL SHALL, AT A MINIMUM, CONTAIN THE FOLLOWING SPECIFICATION INFORMATION:

WICK DRAINS (PRE-FABRICATED VERTICAL DRAINS) CONTINUED

A. SIZE, TYPE WEIGHT, MAXIMUM PUSHING FORCE, VIBRATORY HAMMER RATED ENERGY, AND CONFIGURATION OF THE INSTALLATION RIG,

B. DIMENSIONS AND LENGTH OF MANDREL,

C. DETAILS OF DRAIN ANCHORAGE,

D. DETAILED DESCRIPTION OF PROPOSED INSTALLATION PROCEDURES,

E. PROPOSED METHOD(S) FOR OVERCOMING OBSTRUCTIONS, AND

F. PROPOSED METHOD(S) FOR SPLICING DRAINS.

APPROVAL BY THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF HIS/HER RESPONSIBILITY TO INSTALL WICK DRAIN IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. IF, AT ANY TIME, THE ENGINEER CONSIDERS THE METHOD OF INSTALLATION TO NOT PRODUCE A SATISFACTORY DRAIN, THE CONTRACTOR SHALL ALTER HIS/HER METHOD AND/OR EQUIPMENT AS NECESSARY TO COMPLY WITH THE PLANS AND SPECIFICATIONS.

CONSTRUCTION REQUIREMENTS

WICK DRAINS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. WICK DRAINS SHALL BE INSTALLED AFTER THE 3 FEET OF SAND FILL HAS BEEN PLACED. PRIOR TO THE INSTALLATION OF THE WICK DRAINS, THE CONTRACTOR SHALL STAKE OUT THE PROPOSED LOCATIONS OF THE DRAINS AND THEN TAKE ALL REASONABLE PRECAUTIONS TO PRESERVE THE STAKES. THE LOCATIONS OF THE STAKES SHALL NOT VARY BY MORE THAN SIX (6) INCHES FROM THE LOCATIONS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PREPARE AND SUBMIT A MAP, ON DAILY BASIS, TO THE ENGINEER WHICH DEPICTS HOW DEEP EACH WAS INSTALLED.

THE CONTRACTOR SHALL DEMONSTRATE THAT HIS EQUIPMENT, METHOD, AND MATERIALS PRODUCE A SATISFACTORY INSTALLATION IN ACCORDANCE WITH THIS SPECIFICATION. FOR THIS PURPOSE, THE CONTRACTOR SHALL BE REQUIRED TO INSTALL SEVERAL TRIAL DRAINS AT LOCATIONS WITHIN THE WORK AREA DESIGNATED BY THE ENGINEER. TRIAL DRAINS CONFORMING TO THIS SPECIFICATION WILL BE PAID FOR AT THE SAME UNIT PRICE AS THE PRODUCTION DRAINS.

THE WICK DRAINS SHALL BE INSTALLED TO THE ESTIMATED DEPTHS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. IT IS THE INTENT OF THESE PLANS THAT THE WICK DRAINS FULLY PENETRATE THE SOFT/WEAK STRATA AND PENETRATE INTO THE UNDERLYING FIRM/COMPACT SOILS. DRAINS THAT DEVIATE FROM THE PLAN LOCATION BY MORE THAN SIX (6) INCHES, DAMAGED, OR IMPROPERLY INSTALLED SHALL BE REJECTED. REJECTED DRAINS MAY BE REMOVED OR ABANDONED IN PLACE. AT THE CONTRACTOR'S OPTION, REPLACEMENT DRAINS SHALL BE OFFSET APPROXIMATELY EIGHTEEN (18) INCHES FROM THE LOCATION OF THE REJECTED DRAIN. ALL REJECTED DRAINS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE DRAINS SHALL BE INSTALLED VERTICAL AND TO THE DEPTHS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A SUITABLE MEANS OF VERIFYING THE PLUMBNESS OF THE MANDREL AND DETERMINING THE DEPTH OF THE DRAIN AT ANY TIME. THE EQUIPMENT SHALL BE CAREFULLY CHECKED FOR PLUMBNESS AND SHALL NOT DEVIATE MORE THAN 0.25 INCH PER FOOT FROM VERTICAL. THE DRAINS SHALL BE INSTALLED IN A SEQUENCE SUCH THAT EQUIPMENT WILL NOT TRAVEL OVER PREVIOUSLY INSTALLED DRAINS.

SPLICES OR CONNECTIONS IN THE WICK DRAIN MATERIAL SHALL BE DONE SO AS TO INSURE CONTINUITY OF THE WICK MATERIAL AND THE SPLICED WICKS SHALL CONFORM TO ALL OF THE MATERIAL SPECIFICATION REQUIREMENTS. THE PREFABRICATED DRAIN SHALL BE CUT SUCH THAT AT LEAST A ONE (1) INCH LENGTH PROTRUDES ABOVE THE WORKING SURFACE AT EACH PREFABRICATED DRAIN LOCATION.

WICK DRAINS (PRE-FABRICATED VERTICAL DRAINS) CONTINUED

WHERE OBSTRUCTIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL ABANDON THE HOLE. AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL INSTALL A NEW DRAIN WITHIN 18 INCHES OF THE OBSTRUCTED DRAIN. A MAXIMUM OF TWO ATTEMPTS SHALL BE MADE AS DIRECTED BY THE ENGINEER FOR EACH OBSTRUCTED DRAIN. IF THE DRAIN STILL CANNOT BE INSTALLED TO, THE DESIGN TIP ELEVATION, THE DRAIN LOCATION SHOULD BE ABANDONED AND THE INSTALLATION EQUIPMENT SHOULD BE MOVED TO THE NEXT DRAIN LOCATION.

INSTALLATION OF THE DRAINS SHOULD CONSIDER AND BE COORDINATED WITH THE GEOTECHNICAL INSTRUMENTATION. SPECIAL CARE SHOULD BE TAKEN TO INSTALL DRAINS IN SUCH A MANNER SO AS NOT TO DISTURB THE INSTRUMENTATION ALREADY IN PLACE. THE REPLACEMENT OF INSTRUMENTATION DAMAGED AS A RESULT OF THE CONTRACTOR'S ACTIVITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

METHOD OF MEASUREMENT

THE QUANTITY OF PREFABRICATED DRAIN SHALL BE THE NUMBER OF LINEAR FEET SATISFACTORILY INSTALLED FROM THE TOP OF THE WORKING SURFACE DESIGN ELEVATION TO INSTALLED TIP ELEVATION OF THE THE DRAIN. IN CASE OF OBSTRUCTIONS, THE CONTRACTOR SHALL BE PAID AT THE CONTRACT UNIT PRICE FOR THE NUMBER OF LINEAR FEET OF DRAIN MEASURED FROM THE TOP OF THE WORKING SURFACE ELEVATION TO THE ELEVATION AT WHICH THE OBSTRUCTION WAS ENCOUNTERED.

BASIS OF PAYMENT

PAYMENT FOR WICK DRAINS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER LINEAL FOOT, FOR "ITEM SPECIAL - WICK DRAINS" WHICH PRICE SHALL BE FULL COMPENSATION FOR THE COST OF FURNISHING THE FULL LENGTH OF WICK DRAIN MATERIAL, INSTALLING THE DRAIN, ALTERING OF THE EQUIPMENT AND METHODS OF INSTALLATION IN ORDER TO PRODUCE THE REQUIRED END RESULT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND SHALL ALSO INCLUDE THE COST OF FURNISHING ALL TOOLS, MATERIALS, LABOR, EQUIPMENT AND ALL OTHER COSTS NECESSARY TO COMPLETE THE REQUIRED WORK. NO DIRECT PAYMENT WILL BE MADE FOR UNACCEPTABLE DRAINS OR FOR ANY DELAYS OR EXPENSES THROUGH CHANGES NECESSITATED BY IMPROPER OR UNACCEPTABLE MATERIAL OR EQUIPMENT.

EACH WICK DRAIN COVERS AN AREA OF 31.18 S.F. (6.00'x 3.00'/TAN 30°)

RAMP	FROM	TO	AREA S.F.	AVG. DEPTH	No. OF DRAINS	WICK DRAINS FT.
ES	189+50	195+00	84,850	39'	2722	106158
ES	195+00	197+00	30,020	68'	963	65484
ES	198+50	201+30	45,995	68'	1475	100300
ES	201+30	202+30	18,325	56'	588	32928
ES	202+30	205+00	45,585	40'	1462	58480
ES	205+00	206+25	19,475	19'	625	11875
			244,250			
ITEM SPECIAL - WICK DRAINS (CARRIED TO GENERAL SUMMARY)						375225

ITEM 203-EMBANKMENT, AS PER PLAN

MATERIAL SHALL BE SAND AS SPECIFIED IN 703.02A, FINE AGGREGATE. THE EMBANKMENT QUANTITIES SHOWN IN THE CROSS SECTIONS INCLUDE THIS MATERIAL, HOWEVER, PAYMENT SHALL BE MADE SEPARATELY AND THE QUANTITY OF THIS ITEM IS DEDUCTED FROM THE OVERALL 203 - EMBANKMENT QUANTITY.

METHOD OF MEASUREMENT

THE METHOD OF MEASUREMENT SHALL BE AS DEFINED IN 203.09 AND MAY BE EITHER BY END AREA VOLUME OR BY WEIGHT CONVERSION TO CUBIC YARDS.

ITEM 203 - EMBANKMENT, AS PER PLAN 244,250 S.F. x 3' / 27 C.F./C.Y. = 27139 C.Y. (CARRIED TO GENERAL SUMMARY)

ITEM SPECIAL-SETTLEMENT PLATFORM

DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER. SETTLEMENT READINGS SHALL BE TAKEN WEEKLY STARTING WHEN THE EMBANKMENT CONSTRUCTION IS BEGUN AND ENDING AFTER THE EMBANKMENT AND SURCHARGE HAVE BEEN COMPLETED. AFTER THE SURCHARGE IS COMPLETED, READINGS SHALL BE TAKEN EVERY 14 DAYS AND CONTINUE UNTIL THE SURCHARGE REMOVAL HAS BEGUN. (THIS INCLUDES READINGS THROUGHOUT THE WINTER.) THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). A COPY OF EACH CUMULATIVE PLOT SHALL BE PROVIDED TO THE ENGINEER AND SENT TO THE OFFICE OF GEOTECHNICAL ENGINEERING. ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

SETTLEMENT PLATFORM SURVEY DATA SHALL BE PROVIDED WITH X,Y,Z COORDINATES AND REFERENCED TO A STATIONARY BENCHMARK LOCATED AT LEAST 500 FEET FROM ANY EARTHWORK CONSTRUCTION ACTIVITIES. THE LOCATION OF THE BENCHMARK SHALL BE AGREED TO WITH THE ENGINEER.

MATERIALS: SOUND LUMBER SUCH AS 19MM (3/4-INCH) EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 64MM (2-1/2-INCH) STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 915MM X 915MM X 3.2MM (36" X 36" X 1/8") MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT THE CONTRACTOR'S OPTION.

CONSTRUCTION METHODS: THE PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE BEFORE CONSTRUCTION OF THE SAND LAYER OR WICK DRAINS. THE PIPE SHALL BE FIRMLY SECURED TO THE PLATFORM AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. THE PIPE SHALL BE MARKED AT INTERVALS TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE THE SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED. PLATFORMS OR PIPES DAMAGED OR DISPLACED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR PROPER CONDITION AT THE CONTRACTOR'S EXPENSE.

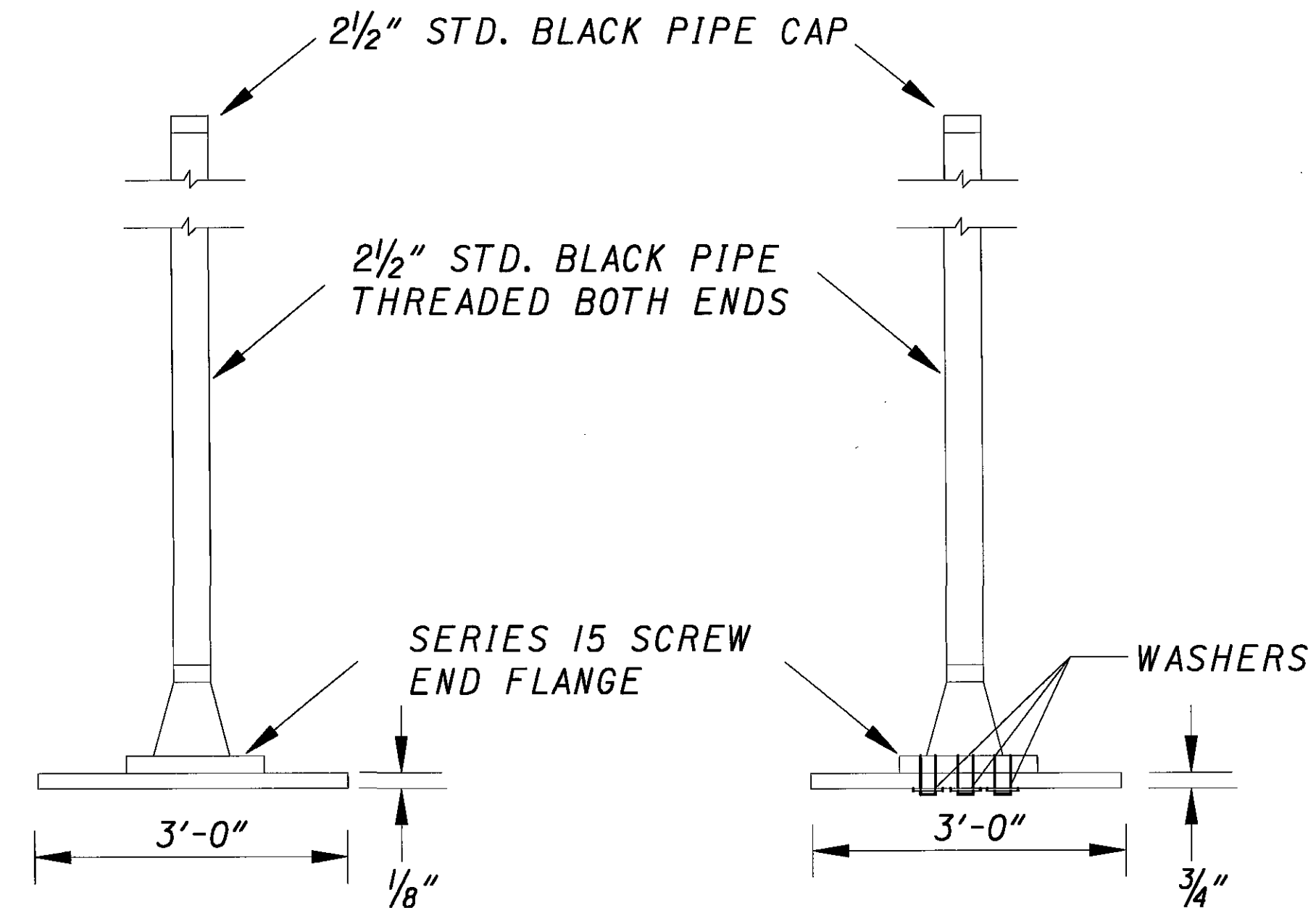
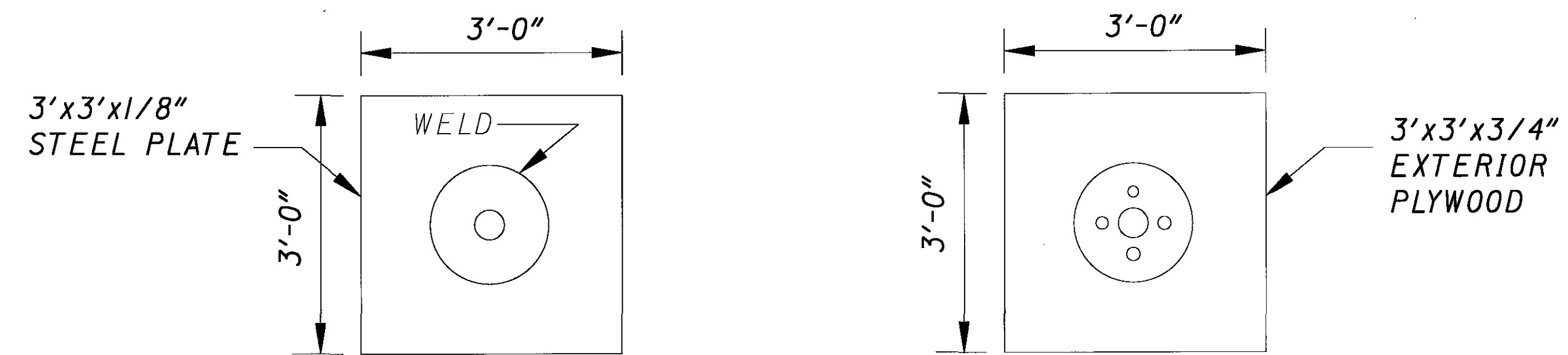
PRIOR TO PAVING, THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF 600MM (TWO FEET) BELOW THE FINISHED SURFACE OF THE SUBGRADE OR FINISHED GROUND SURFACE, WHICHEVER IS APPLICABLE.

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER.

BASIS OF PAYMENT: PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR "ITEM SPECIAL- SETTLEMENT PLATFORMS" WHICH IS COMPENSATION FOR CONSTRUCTING MAINTAINING, AND MONITORING THE SETTLEMENT PLATFORMS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.

SETTLEMENT PLATFORM

NOT TO SCALE



NOTES:

1. SETTLEMENT PLATFORMS SHALL BE PLACED AT THE LOCATION INDICATED IN THE PLANS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. CONTRACTOR HAS THE OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.
3. CONTRACTOR SHALL FURNISH MATERIAL AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL.
4. SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

RAMP	STATION	OFFSET	ITEM SPECIAL - SETTLEMENT PLATFORM
ES	190+00	20' RT	1
ES	191+00	20' RT	1
ES	192+00	20' RT	1
ES	193+00	20' RT	1
ES	194+00	20' RT	1
ES	195+00	8' LT	1
ES	196+00	8' LT	1
ES	196+56.73	10.94' LT	1
ES	198+83	15' LT	1
ES	200+00	8' LT	1
ES	201+00	8' LT	1
ES	202+00	8' LT	1
ES	203+00	8' LT	1
ES	204+00	8' LT	1
ES	205+00	8' LT	1
ES	206+00	8' LT	1
TOTALS CARRIED TO GENERAL SUMMARY			16

CALCULATED
KEH
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SETTLEMENT NOTES

MED-71-6.06

GNA.DGN

ITEM SPECIAL - PIEZOMETERS

PIEZOMETER INSTALLATION NOTES:

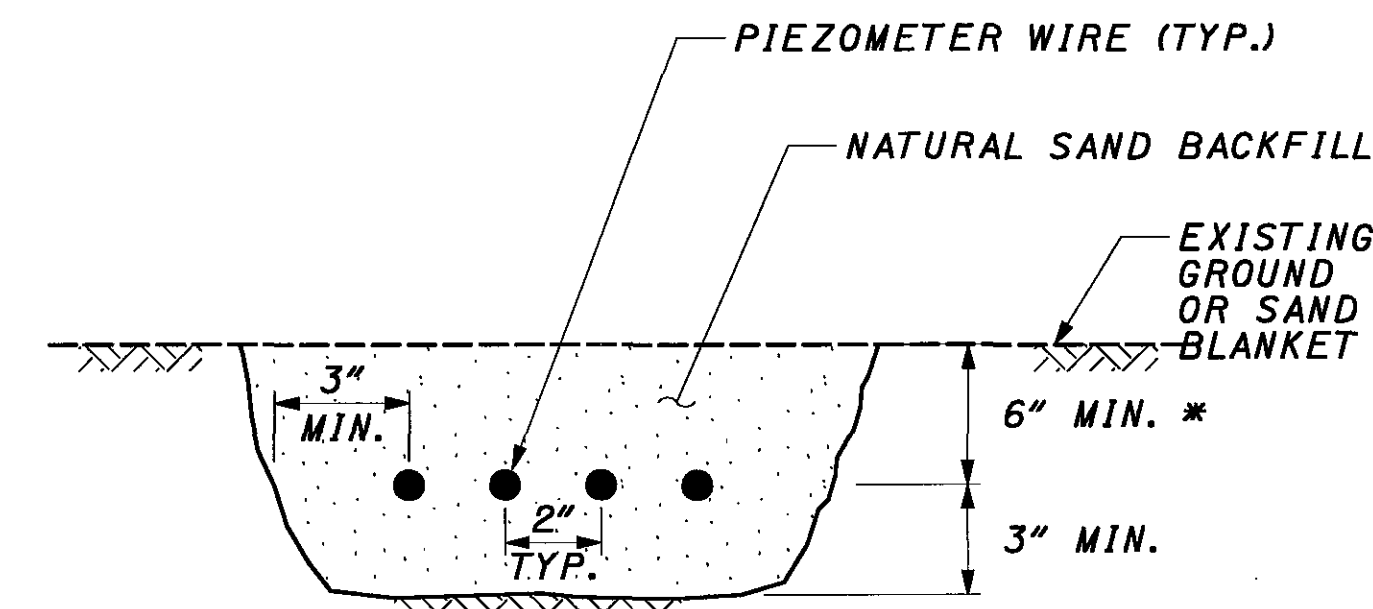
- ALL PIEZOMETER LOCATIONS SHALL BE CENTERED EQUIDISTANT BETWEEN ADJACENT WICK DRAINS AT LOCATIONS SHOWN ON THE PLANS OR AT LOCATIONS DIRECTED BY THE ENGINEER. PIEZOMETERS SHALL BE INSTALLED AFTER THE WICK DRAINS ARE INSTALLED, BUT PRIOR TO ANY EMBANKMENT PLACEMENT ACTIVITIES.
- DURING PIEZOMETER INSTALLATION, DRILLING PROCEDURES SHALL INCLUDE THE STANDARD PENETRATION TEST (SPT) WITH SAMPLING AT NO MORE THAN 2.5-FOOT INTERVALS. A BORING LOG SHALL BE PREPARED BY AN EXPERIENCED GEOLOGIST OR TECHNICIAN DURING DRILLING FOR REVIEW BY THE ENGINEER. PRIOR TO PLACING THE PIEZOMETERS THE INSTALLATION DEPTHS SHALL BE APPROVED BY THE ENGINEER TO ENSURE THE PIEZOMETERS ARE LOCATED IN THE APPROPRIATE SOIL STRATUM. PIEZOMETERS ARE NOT TO BE PLACED IN GRANULAR STRATUMS.
- PIEZOMETERS SHALL BE SLOPE INDICATOR COMPANY MODEL 52611020 (50 PSI) VW BOREHOLE PIEZOMETERS OR APPROVED EQUAL. THE PIEZOMETERS SHALL BE FABRICATED WITH THE CORRECT AMOUNT OF CABLE SUCH THAT NO CABLE SPLICES ARE REQUIRED IN THE FIELD. THE CABLE SHALL BE MARKED AT 5-FOOT INCREMENTS (MINIMUM) SUCH THAT THE PIEZOMETER TIP ELEVATION CAN BE ACCURATELY DETERMINED.
- PIEZOMETERS MAY BE NESTED IN THE SAME BOREHOLE OR SET IN SEPARATE BOREHOLES. THE CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS TO ENSURE ALL PIEZOMETERS ARE PROPERLY INSTALLED AND THAT NO CONTAMINATION OF THE SAND SURROUNDING THE PIEZOMETER OCCURS DURING PLACEMENT OF THE BENTONITE-CEMENT GROUT. THE MIX PROPORTIONS OF THE BENTONITE-CEMENT GROUT SHALL BE ACCEPTABLE TO THE ENGINEER.
- DURING PIEZOMETER PLACEMENT THE BENTONITE CHIPS SHALL BE HYDRATED WITH WATER PRIOR TO INTRODUCTION OF THE BENTONITE-CEMENT GROUT.
- CABLES FOR PIEZOMETERS SHALL BE LAID IN A TRENCH EXCAVATED INTO THE SAND BLANKET OR EXISTING GROUND FROM THE PIEZOMETER LOCATION TO THE CONTROL TERMINAL. SEE TYPICAL SECTION.
- PIEZOMETER CABLE SHALL BE LAID IN A ZIG-ZAG MANNER IN THE TRENCH SO AS TO PROVIDE 5 +/- PERCENT SLACK FROM THE PIEZOMETER LOCATION TO THE PIEZOMETER CONTROL TERMINAL.
- PIEZOMETER CONTROL TERMINALS SHALL BE LOCATED AT CONVENIENT LOCATIONS AGREED UPON WITH THE ENGINEER THAT ARE NEAR THE TOE OF EMBANKMENT SLOPE. LOCATIONS SHALL PREFERABLY BE ON HIGHER GROUND THAT WILL REMAIN DRY AT ALL TIMES. CONTROL TERMINALS SHALL HAVE LOCKING TERMINAL BOXES AND SHALL BE PROTECTED FROM DAMAGE WITH BOLLARDS. ANY DAMAGE SUSTAINED TO THE PIEZOMETER CONTROL TERMINALS SHALL BE REMEDIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

PIEZOMETER MONITORING NOTES:

- INITIAL PIEZOMETER READINGS SHALL BE OBTAINED EVERY THIRD DAY FOR A 14-DAY TIME PERIOD PRIOR TO PLACEMENT OF ANY EMBANKMENT MATERIALS TO ESTABLISH PIEZOMETER BASELINE READINGS.
- DURING EMBANKMENT CONSTRUCTION ACTIVITIES PIEZOMETER READINGS SHALL BE OBTAINED AT LEAST ONCE PER DAY AND FOR EACH ONE-FOOT INCREASE IN EMBANKMENT HEIGHT.
- PIEZOMETER READINGS SHALL BE COMPARED TO THE BASELINE PIEZOMETER READINGS AFTER EACH SET OF PIEZOMETER READINGS IS OBTAINED. IF AT ANY TIME A PIEZOMETER READING EXCEEDS 7 PSI (1000 PSF) ABOVE ITS BASELINE PIEZOMETER READING THIS INFORMATION SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND ALL EMBANKMENT CONSTRUCTION OPERATIONS SHALL CEASE WITHIN 100 FEET OF THAT PIEZOMETER LOCATION. EMBANKMENT CONSTRUCTION MAY ONLY RESUME AFTER THE PIEZOMETER READING HAS REDUCED TO FALL WITHIN THE RANGE OF 7 PSI (1000 PSF) ABOVE THE PIEZOMETER BASELINE READING.
- SUBSEQUENT TO COMPLETION OF THE EMBANKMENT AND SURCHARGE, PIEZOMETER READINGS SHALL BE OBTAINED ON A DAILY BASIS FOR THE FIRST SEVEN DAYS, EVERY OTHER DAY FOR THE NEXT SEVEN DAYS AND THEN ONCE EVERY SEVEN DAYS FOR THE NEXT 70 DAYS OR UNTIL PIEZOMETER READINGS HAVE STABILIZED.
- PIEZOMETER READINGS SHALL BE PROVIDED TO THE ENGINEER THE SAME DAY AS THEY ARE OBTAINED.

BASIS OF PAYMENT:

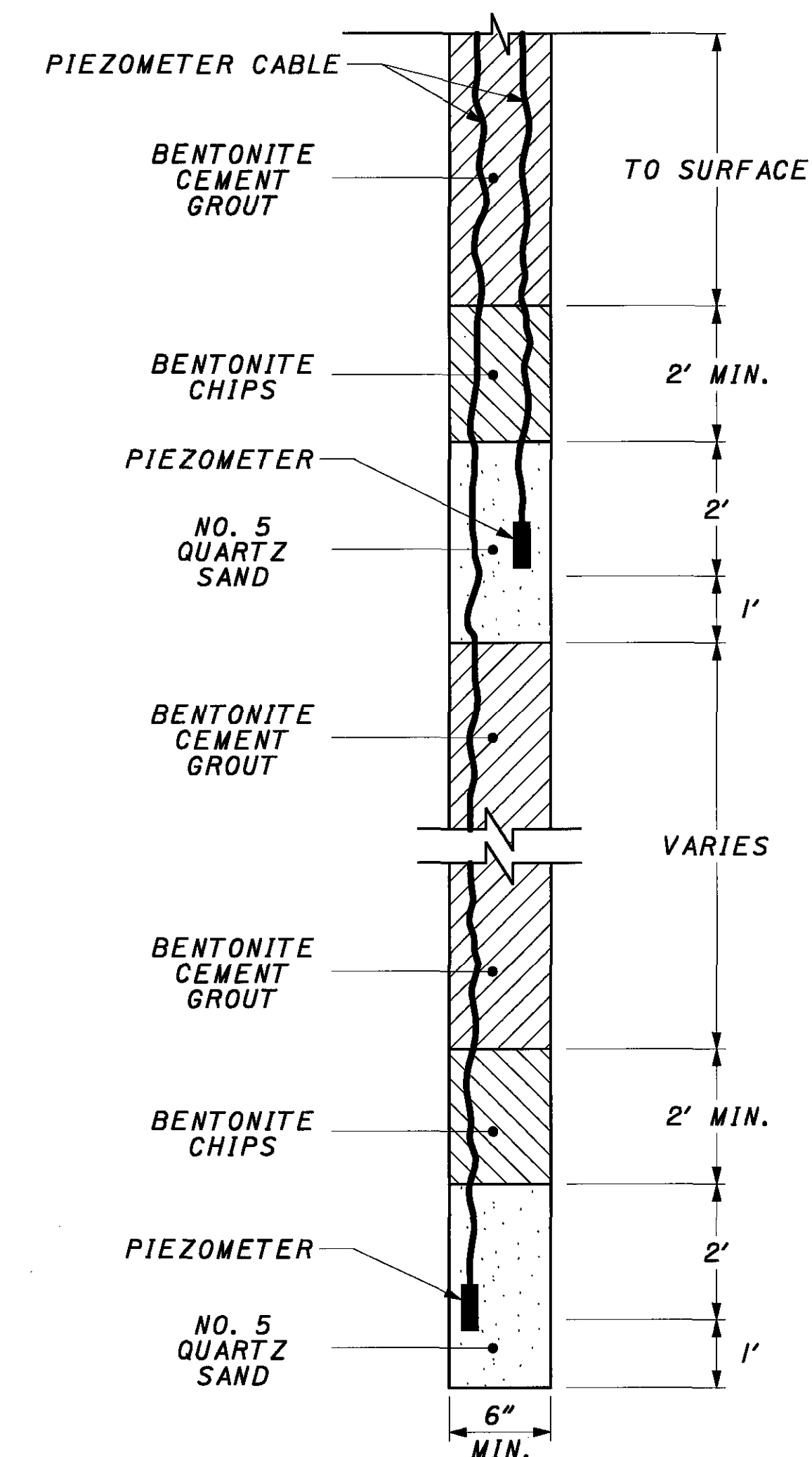
PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR "ITEM SPECIAL - PIEZOMETERS" WHICH IS COMPENSATION FOR CONSTRUCTING, MAINTAINING, AND MONITORING THE PIEZOMETERS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR PIEZOMETERS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.



TYPICAL PIEZOMETER WIRE TRENCH
NOT TO SCALE

* - DEPTH SHALL BE SUCH THAT NO DAMAGE TO WIRES OCCURS AFTER INSTALLATION

RAMP	STATION	OFFSET	ESTIMATED PIEZOMETER TIP ELEVATIONS	ITEM SPECIAL - PIEZOMETERS
ES	192+00	℄	970, 985	2
ES	194+50	56' RT	975, 985	2
ES	194+50	43' LT	975, 985	2
ES	196+00	56' RT	940, 955, 970, 980	4
ES	196+00	43' LT	940, 955, 970, 980	4
ES	199+00	38.96' RT	950, 965, 980	3
ES	199+00	38.50' LT	950, 965, 980	3
ES	200+00	56.50' RT	940, 955, 970, 980	4
ES	200+00	53.01' LT	940, 955, 970, 980	4
ES	201+00	59.95' RT	940, 955, 970, 980	4
ES	201+00	51' LT	940, 955, 970, 980	4
ES	203+00	℄	960, 970, 980	3
ES	204+00	℄	960, 970, 980	3
TOTALS CARRIED TO GENERAL SUMMARY				42 EACH



TYPICAL PIEZOMETER INSTALLATION DETAIL
NOT TO SCALE

PROJECTWISE: PR33412/CADD/75657W101.DGN

CALCULATED
CHECKED

PIEZOMETER NOTES AND DETAILS

MED-71-6.06

ITEM SPECIAL - INCLINOMETERS

INCLINOMETER INSTALLATION NOTES:

1. THE INCLINOMETERS LOCATED AT THE TOE OF THE SLOPES SHALL BE INSTALLED AT LEAST THREE WEEKS PRIOR TO EMBANKMENT CONSTRUCTION. THE INCLINOMETERS LOCATED NEAR THE MID-SLOPES SHALL BE INSTALLED AFTER THE EMBANKMENT HAS BEEN PLACED TWO FEET ABOVE THE INCLINOMETER ELEVATION. NO EMBANKMENT SHALL BE PLACED IN THE VICINITY OF THE MID-SLOPE INCLINOMETERS WITHIN THREE DAYS OF INSTALLATION TO ALLOW THE GROUT TO SET AND TO OBTAIN BASELINE INCLINOMETER READINGS. ALL INCLINOMETERS SHALL BE PROPERLY CORDONED OFF AND PROTECTED WITH A LOCKING STEEL CASING TO PREVENT DAMAGE. ANY INCLINOMETERS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE STATE.
2. EACH INCLINOMETER CASING SHALL EXTEND TO ELEVATION 890.0. THE MINIMUM DIAMETER OF THE BOREHOLE USED TO INSTALL THE INCLINOMETER CASING SHALL BE 6 INCHES AND THE ANNULUS BETWEEN THE BOREHOLE AND INCLINOMETER CASING SHALL BE BACKFILLED WITH CEMENT GROUT MIXTURE WHICH IS ACCEPTABLE TO THE ENGINEER.
3. THE INCLINOMETER CASING SHALL BE 3.34" OUTSIDE DIAMETER QC TYPE CASING SUPPLIED BY SLOPE INDICATOR COMPANY OR APPROVED EQUAL.

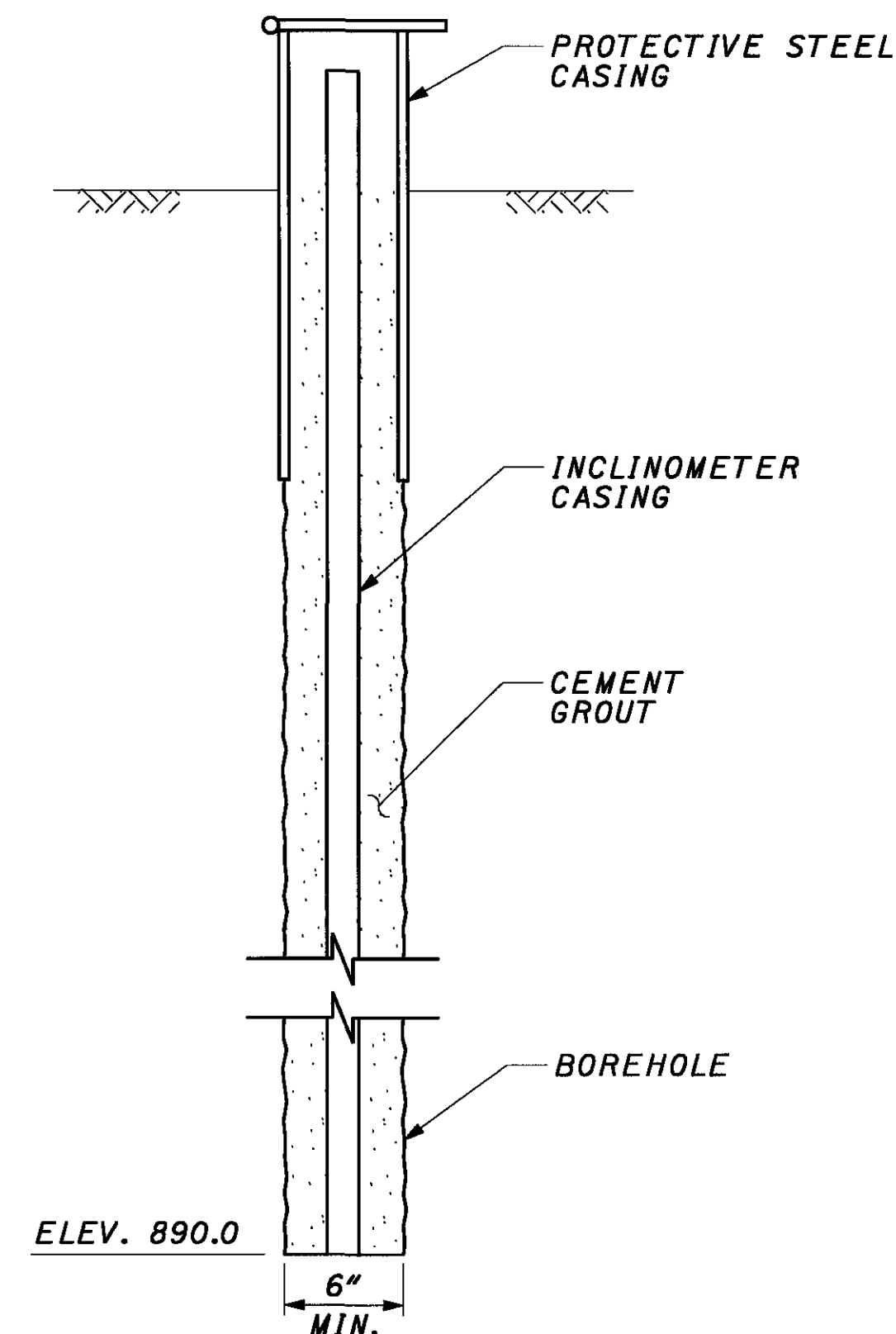
INCLINOMETER MONITORING NOTES:

1. THE INCLINOMETERS LOCATED AT THE TOE OF SLOPE SHALL BE SURVEYED 7 DAYS AND 14 DAYS AFTER INSTALLATION AND BEFORE ANY EMBANKMENT OPERATIONS COMMENCE TO PROVIDE BASELINE INCLINOMETER READINGS. THE INCLINOMETERS LOCATED AT MID-SLOPE SHALL BE SURVEYED THREE DAYS AFTER INSTALLATION TO PROVIDE BASELINE INCLINOMETER READINGS.
2. DURING EMBANKMENT CONSTRUCTION ACTIVITIES THE INCLINOMETERS SHALL BE SURVEYED AT LEAST ONCE EVERY 7 DAYS. SUBSEQUENT TO COMPLETION OF THE EMBANKMENT AND SURCHARGE, INCLINOMETERS SHALL BE SURVEYED EVERY 14 DAYS FOR THE NEXT 90 DAYS.
3. INCLINOMETER SURVEYS SHALL BE REDUCED TO CUMULATIVE DISPLACEMENT PROFILES RELATIVE TO THE INCLINOMETER'S BASELINE READING. INCLINOMETER DATA SHALL BE PROVIDED TO THE ENGINEER WITHIN TWO DAYS AFTER EACH SURVEY.

BASIS OF PAYMENT:

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR "ITEM SPECIAL - INCLINOMETERS" WHICH IS COMPENSATION FOR CONSTRUCTING, MAINTAINING, AND MONITORING THE INCLINOMETERS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR INCLINOMETERS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.

RAMP	STATION	OFFSET	ITEM SPECIAL - INCLINOMETERS
ES	195+87.30	43' LT	1
ES	195+87.30	56' RT	1
ES	195+88.47	87.24' LT	1
ES	195+88.47	101.14' RT	1
ES	196+47.25	5' RT	1
ES	196+96.53	7.15' RT	1
ES	198+44.97	6.48' RT	1
ES	199+11.70	2.48' RT	1
ES	199+81.85	102.59' RT	1
ES	199+85.38	56.37' RT	1
ES	199+85.81	98.53' LT	1
ES	199+87.40	53.12' LT	1
TOTALS CARRIED TO GENERAL SUMMARY			12 EACH



**TYPICAL INCLINOMETER INSTALLATION
NOT TO SCALE**

ITEM SPECIAL - SETTLEMENT MONUMENTS

SETTLEMENT MONUMENT INSTALLATION NOTES:

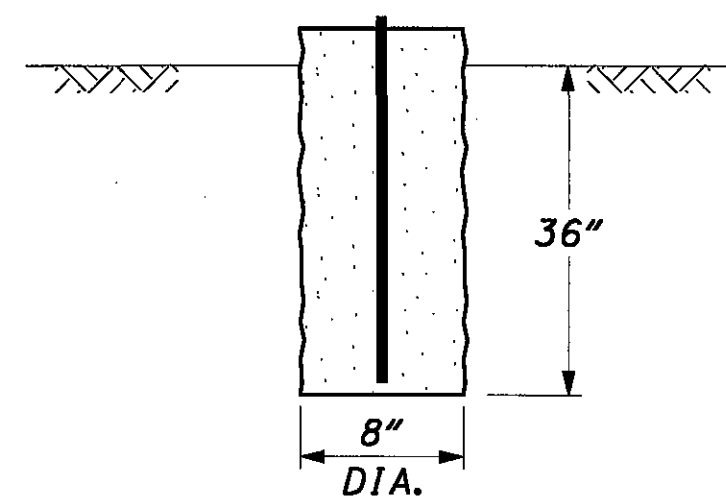
1. SETTLEMENT MONUMENTS SHALL CONSIST OF A MINIMUM 3-FOOT LONG IRON PIN SET IN AN EIGHT-INCH DIAMETER HOLE FILLED WITH CONCRETE. THE SETTLEMENT MONUMENTS SHALL BE INSTALLED AFTER THE LEVEL OF THE EMBANKMENT HAS BEEN PLACED TWO FEET ABOVE THE TOE OF SLOPE. THE SETTLEMENT MONUMENTS SHALL BE PROPERLY CORDONED OFF AND PROTECTED TO PREVENT DAMAGE.

SETTLEMENT MONUMENT MONITORING NOTES:

1. SETTLEMENT MONUMENTS SHALL BE SURVEYED THE SAME DAY AS THEY ARE INSTALLED AND THEN ON A WEEKLY BASIS DURING EMBANKMENT CONSTRUCTION ACTIVITIES. SUBSEQUENT TO COMPLETION OF THE EMBANKMENT AND SURCHARGE, SETTLEMENT MONUMENTS SHALL BE SURVEYED ON A WEEKLY BASIS FOR THE FIRST FOUR WEEKS AND THEN ONCE EVERY OTHER WEEK FOR THE NEXT 8 WEEKS.
2. SETTLEMENT MONUMENT SURVEY DATA SHALL BE PROVIDED WITH X,Y,Z COORDINATES AND REFERENCED TO A STATIONARY BENCHMARK LOCATED AT LEAST 500 FEET FROM ANY EARTHWORK CONSTRUCTION ACTIVITIES. THE LOCATION OF THE BENCHMARK SHALL BE AGREED TO WITH THE ENGINEER.
3. SETTLEMENT MONUMENT SURVEY DATA SHALL BE PROVIDED TO THE ENGINEER THE SAME DAY AS THE READINGS ARE OBTAINED.

BASIS OF PAYMENT:

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR "ITEM SPECIAL - SETTLEMENT MONUMENTS" WHICH IS COMPENSATION FOR CONSTRUCTING, MAINTAINING, AND MONITORING THE SETTLEMENT MONUMENTS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR SETTLEMENT MONUMENTS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.



**TYPICAL SETTLEMENT MONUMENT
NOT TO SCALE**

RAMP	STATION	OFFSET	ITEM SPECIAL - SETTLEMENT MONUMENTS
ES	191+00	67' LT	1
ES	191+00	80' RT	1
ES	192+00	72' LT	1
ES	192+00	82' RT	1
ES	193+00	76' LT	1
ES	193+00	85.50' RT	1
ES	194+00	76.50' LT	1
ES	194+00	88' RT	1
ES	195+00	85.50' LT	1
ES	195+00	99.50' RT	1
ES	196+00	85' LT	1
ES	196+00	99.50' RT	1
ES	196+94.15	27.79' RT	1
ES	196+97.46	15.68' LT	1
ES	198+45.41	27.48' RT	1
ES	198+45.70	15.98' LT	1
ES	199+48.68	93.36' RT	1
ES	199+49.18	92.07' LT	1
ES	200+00	93.74' LT	1
ES	200+00	99.26' RT	1
ES	201+00	94.64' LT	1
ES	201+00	102.92' RT	1
ES	202+00	93.97' LT	1
ES	202+00	101.36' RT	1
ES	203+00	85' LT	1
ES	203+00	91' RT	1
ES	204+00	85' LT	1
ES	204+00	89' RT	1
ES	205+00	86.50' RT	1
ES	205+03.87	81' LT	1
TOTALS CARRIED TO GENERAL SUMMARY			30 EACH

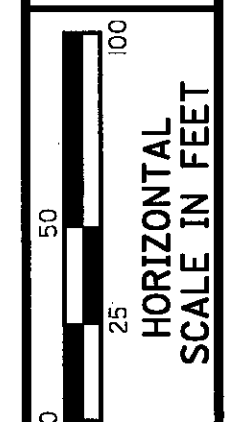
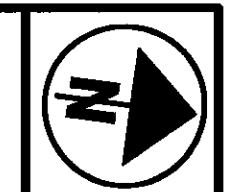
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SETTLEMENT MONUMENT NOTES

MED-71-6.06

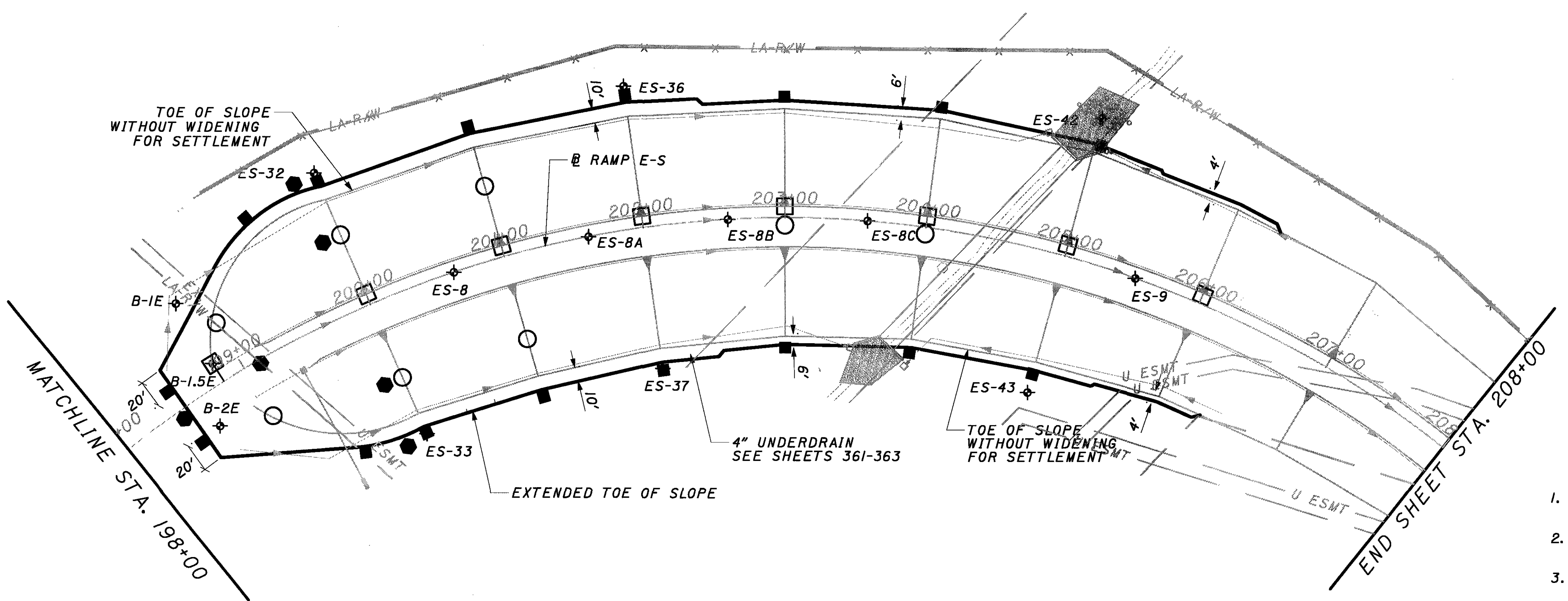
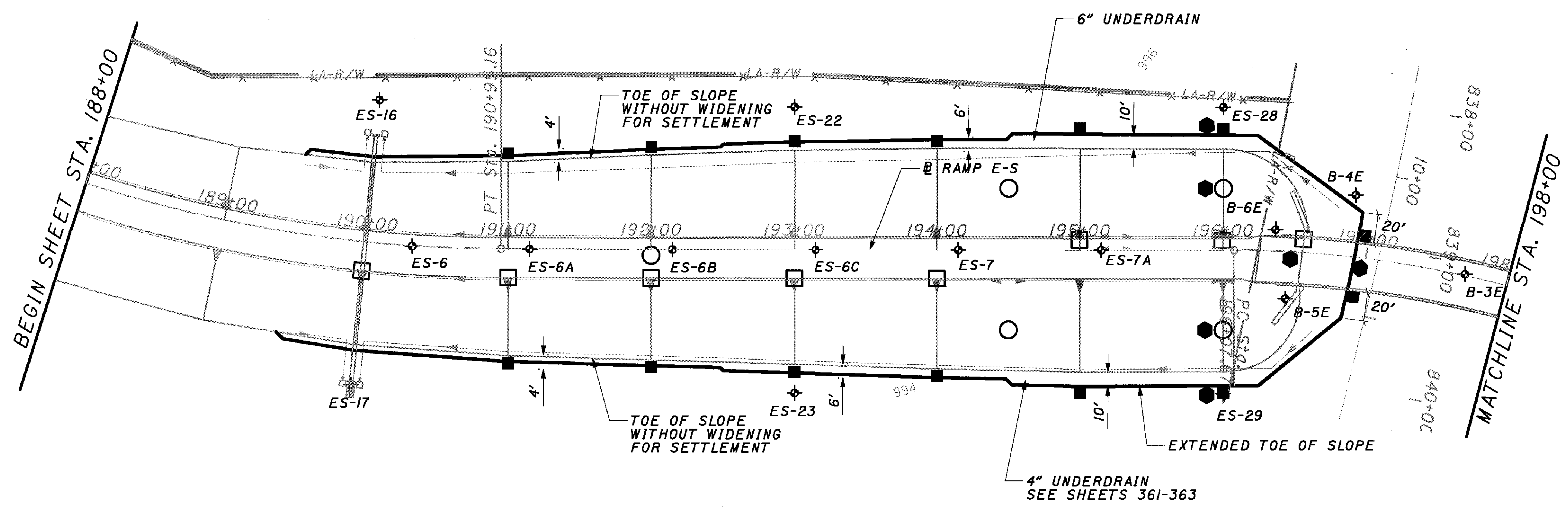
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RAMP E-S INSTRUMENTATION PLAN
STA. 188+00 TO STA. 208+00

MED-71-6.06



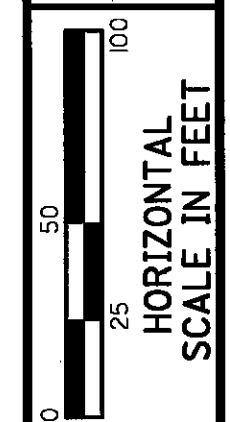
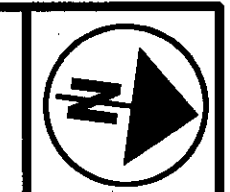
LEGEND

- SETTLEMENT PLATFORM
- SETTLEMENT MONUMENT
- INCLINOMETER
- PIEZOMETER

NOTES

1. SEE SHEET 45 FOR SETTLEMENT PLATFORM DETAILS AND LOCATIONS.
2. SEE SHEET 46 FOR PIEZOMETER DETAILS AND LOCATIONS.
3. SEE SHEET 47 & 47A FOR INCLINOMETER AND SETTLEMENT MONUMENT DETAILS AND LOCATIONS.

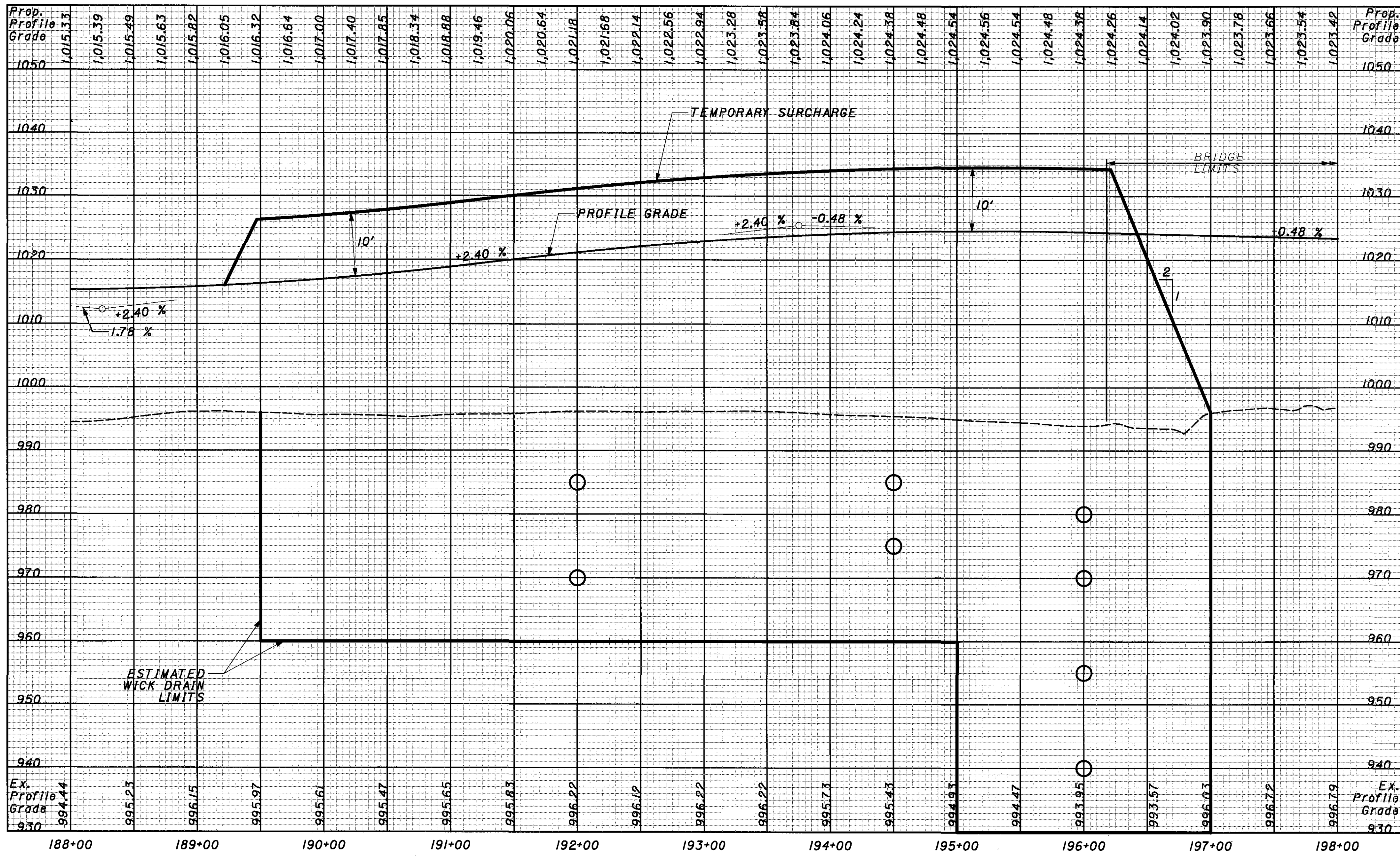
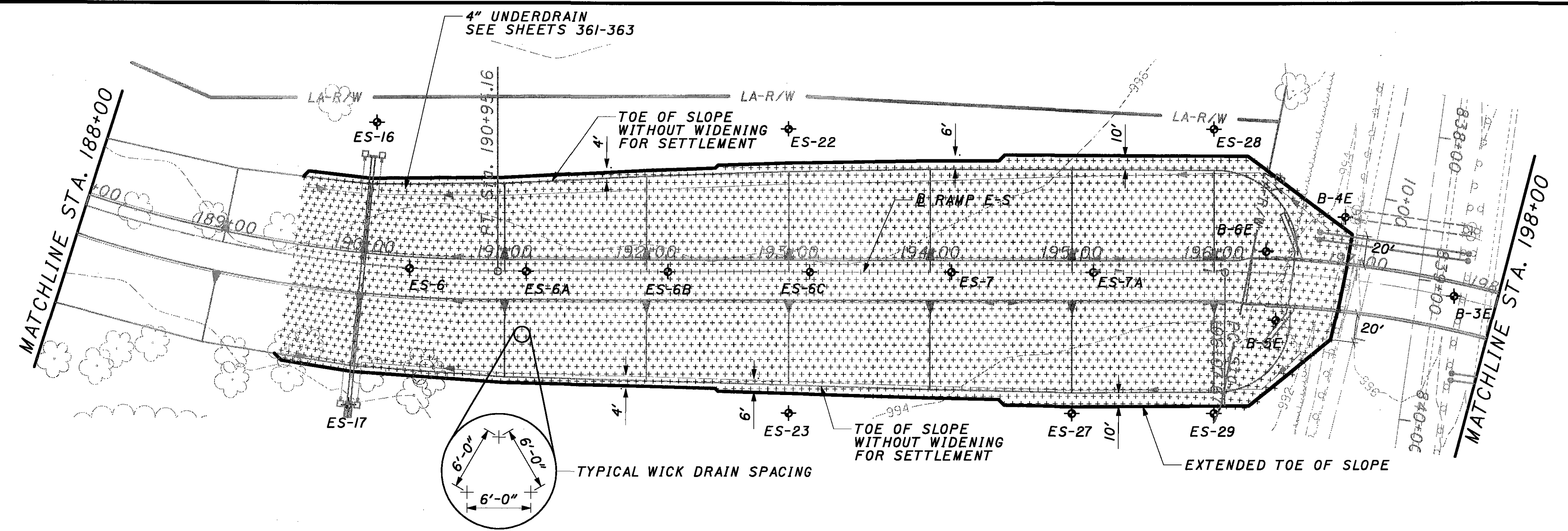
PROJECTWISE : PR33412/cadd/75657c/p01.dgn



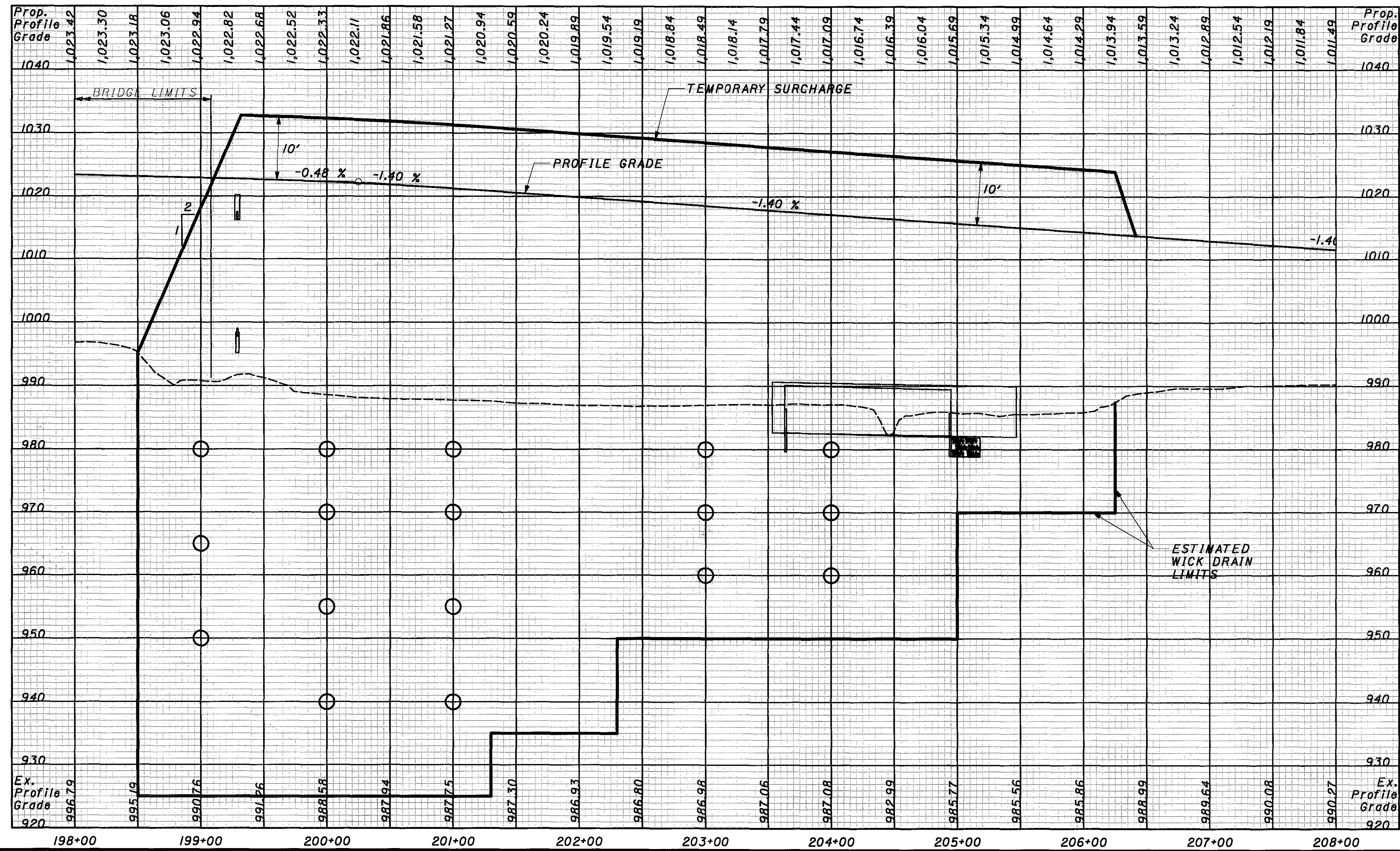
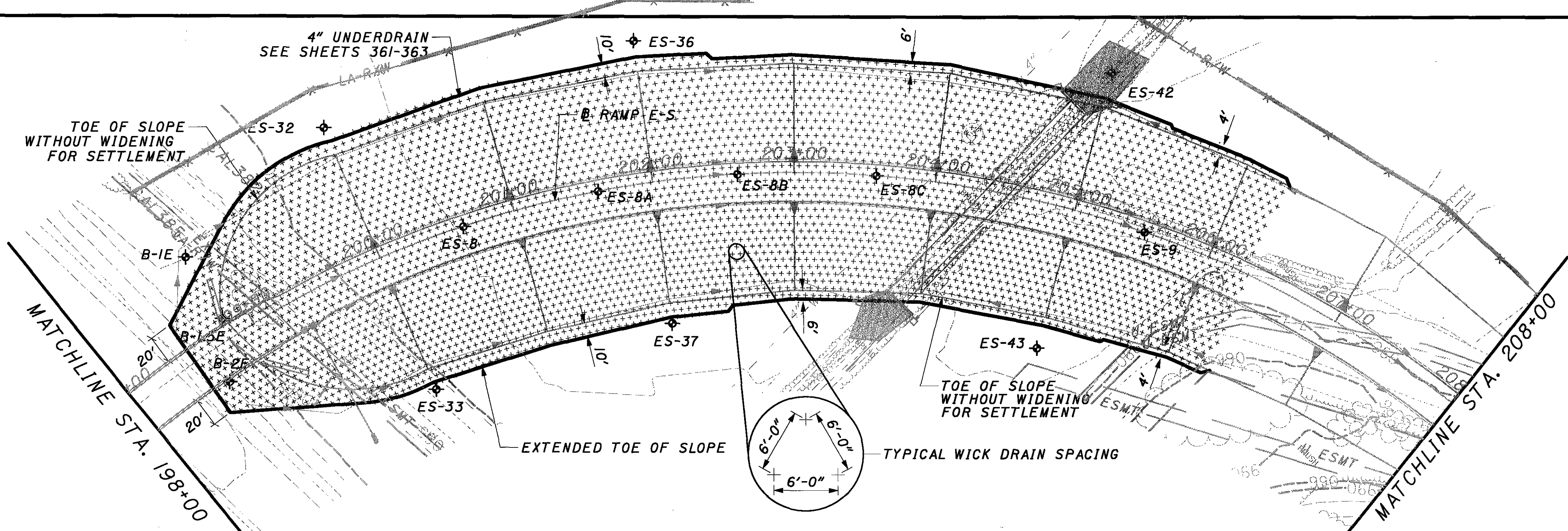
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RAMP E-S WICK DRAIN PLAN & PROFILE STA. 188+00 TO STA. 198+00

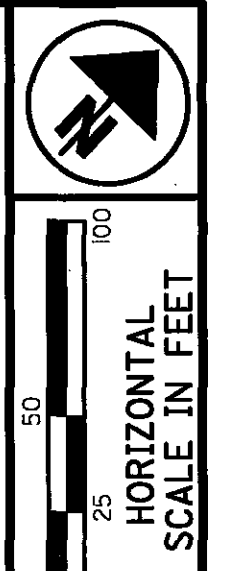
MED-71-6.06



PROJECTWISE: PR33412/cadd/75657WD01.dgn



LEGEND
 ○ ESTIMATED PIEZOMETER TIP ELEVATION



RAMP E-S WICK DRAIN PLAN & PROFILE
STA. 198+00 TO STA. 208+00

MED-71-6.06

RAMP E-N EMBANKMENT CONSTRUCTION

IN ORDER TO ALLOW FOR IMMEDIATE CONSTRUCTION OF THE RAMP EMBANKMENT, QUANTITIES ARE PROVIDED TO PLACE GEOTEXTILE FABRIC AND A 2 FOOT THICK LAYER OF #1 OR #2 STONE (ITEM 203, EMBANKMENT AS PER PLAN A). THIS ITEM SHALL BE NON-PERFORMED IN AREAS WHICH HAVE SUFFICIENT SOIL STRENGTH TO BEGIN EMBANKMENT CONSTRUCTION. SEE SHEET 54 FOR QUANTITIES.

ITEM 203-EMBANKMENT, AS PER PLAN A

MATERIAL SHALL BE AS SPECIFIED IN TABLE 703.01-1, SIZE #1 OR #2. THE EMBANKMENT QUANTITIES SHOWN IN THE CROSS SECTIONS INCLUDE THIS MATERIAL, HOWEVER, PAYMENT SHALL BE MADE SEPARATELY AND THE QUANTITY OF THIS ITEM IS DEDUCTED FROM THE OVERALL 203 - EMBANKMENT QUANTITY.

METHOD OF MEASUREMENT

THE METHOD OF MEASUREMENT SHALL BE AS DEFINED IN 203.09 AND MAY BE EITHER BY END AREA VOLUME OR BY WEIGHT CONVERSION TO CUBIC YARDS.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING - SEQUENCE OF OPERATIONS

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 OF A FOOT OF THE PLAN SUBGRADE ELEVATION.
2. REMOVE AND REPLACE THE UNSUITABLE MATERIAL. SHEETS 54 & 55 SHOW THE LIMITS AND TYPE OF THE UNSUITABLE MATERIALS:

UNSUITABLE MATERIALS INCLUDE A4-B'S, A-7-5'S, A-5'S. COAL, SHALE, ROCK OR OTHER MATERIALS THAT ARE TO BE REMOVED PRIOR TO PROOF ROLLING.

3. CONSTRUCT AND COMPACT THE SUBGRADE ACCORDING TO 204.03.
4. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06 TO DETERMINE THE ACTUAL LIMITS OF THE SOFT SUBGRADE AND TO VERIFY THE UNIFORMITY OF THE SUBGRADE COMPACTION. THE LIMITS SHOWN ON SHEET 54 & 55 WHICH DO NOT SHOW UNSUITABLE MATERIAL ARE THE APPROXIMATE LOCATIONS WHERE SOFT SUBGRADE MAY BE LOCATED.

THE ENGINEER WILL ADJUST THE LOCATION OF THESE AREAS BASED UPON THE PROOF ROLLING RESULTS. AFTER THE SOFT SUBGRADE AREAS HAVE BEEN DETERMINED, THE ENGINEER WILL ADJUST THE PLAN WIDTH AND DEPTH BY UTILIZING TEST PITS ACCORDING TO THE CONSTRUCTION INSPECTION MANUAL.

5. UNDERCUT THE AREAS DETERMINED BY THE ENGINEER AND REPLACE WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. THE UNDERCUTS WILL EXTEND TO A MINIMUM OF 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
6. COMPACT THE SUBGRADE ACCORDING TO 204.03.
7. PROOF ROLL THE UNDERCUT AREAS ACCORDING TO 204.06 TO VERIFY THE UNDERCUT STABILITY.
8. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

REMOVAL OF UNSUITABLE MATERIALS

UNSUITABLE SUBGRADE MATERIALS WERE ENCOUNTERED IN THE SUBSURFACE INVESTIGATION AND SHOULD BE ANTICIPATED AT THE LOCATIONS SHOWN IN THE SOIL SCHEMATIC PLANS. UNSUITABLE SOILS CONSIST OF A-4B SILT SOILS AND OTHER WEAK SOILS.

SUBGRADE TREATMENT

UNDERCUTS WILL BE REQUIRED AT LOCATIONS THROUGHOUT THE LENGTH OF THIS PROJECT. THE DEPTH OF TREATMENT WILL BE A MINIMUM OF 12". DEPENDING UPON THE RESULTS OF THE PROOF ROLLING, THE LOCATIONS AND DEPTHS OF TREATMENT MAY BE ADJUSTED BY THE ENGINEER. THE DESIGN DEPTHS ARE SHOWN ON THE SOIL SCHEMATIC PLAN SHEETS 54 & 55.

UNDERCUT SUBGRADE TREATMENTS							
SOIL SCHEMATIC SHEET NUMBER		204	204	204	204		
		EXCAVATION OF SUBGRADE	GRANULAR MATERIAL TYPE B	GEOTEXTILE FABRIC	SUBGRADE COMPACTION		
		CU. YDS.	CU. YDS.	SQ. YDS.	SQ. YDS.		
54		10052	10052	19317	22406		
55		17361	17361	32058	35636		
TOTAL		27413	27413	51375	58042		

QUANTITY CALCULATIONS

ITEM 204 - PROOF ROLLING

1 HR/ 2000 S.Y. x 302,000 S.Y.) = 151 HRS
(TOTAL SUBGRADE AREA)

SECOND PROOF ROLLING AFTER PLACING UNDERCUTS

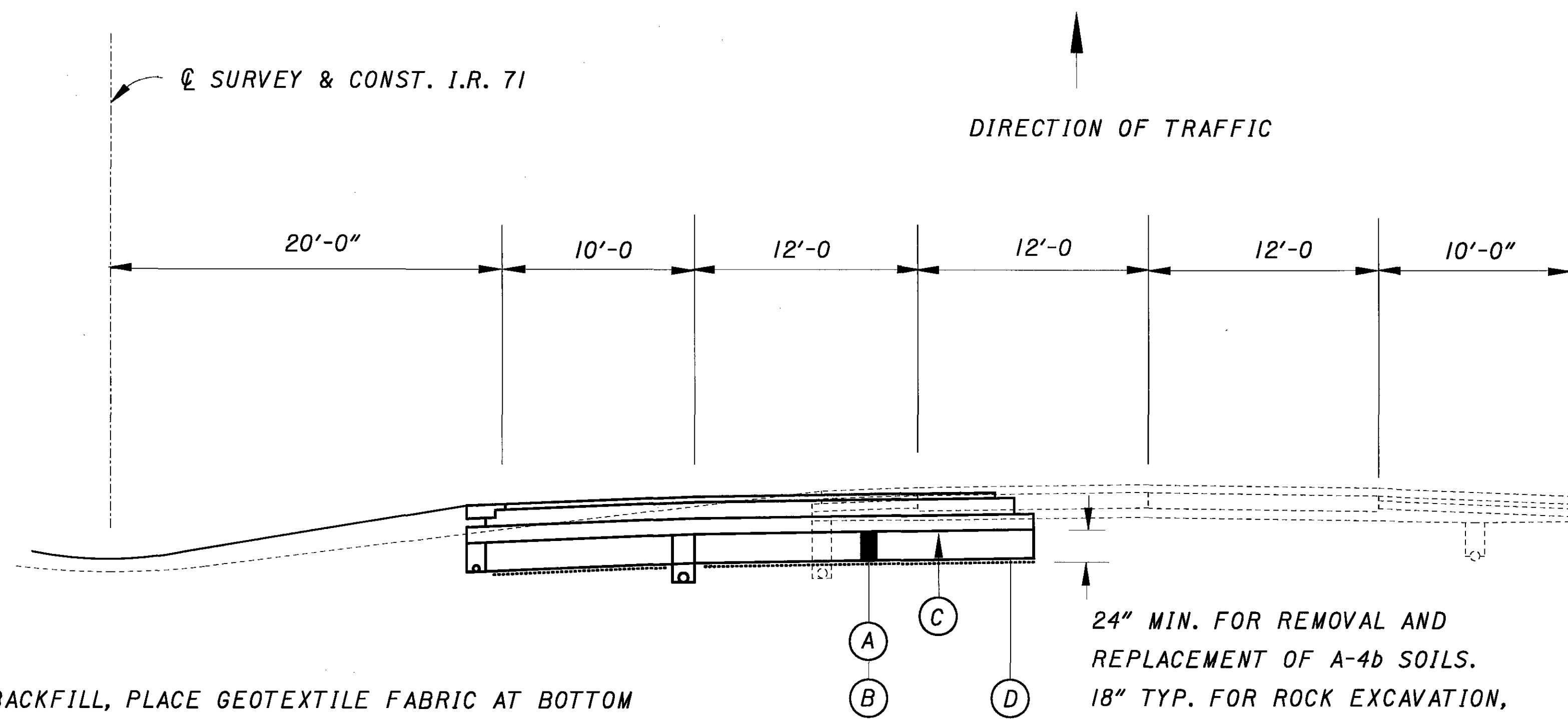
ITEM 204 - PROOF ROLLING

1 HR/ 2000 S.Y. x (51,000 S.Y.) = 26 HRS

TOTAL = 177 HOURS (CARRIED TO GENERAL SUMMARY)

THESE DETAILS TYPICALLY APPLY FOR REMOVAL OF A-4b SILTY SOILS OR OTHER WEAK SOILS.

SEE SHEET 53 FOR 3 FOOT DEEP UNDERCUTS



UNDERCUT AND BACKFILL, PLACE GEOTEXTILE FABRIC AT BOTTOM OF CUT, STOP GEOTEXTILE FABRIC 6" FROM THE EDGE OF ALL UNDERDRAINS.

24" MIN. FOR REMOVAL AND REPLACEMENT OF A-4b SOILS. 18" TYP. FOR ROCK EXCAVATION, 12" MIN. AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER

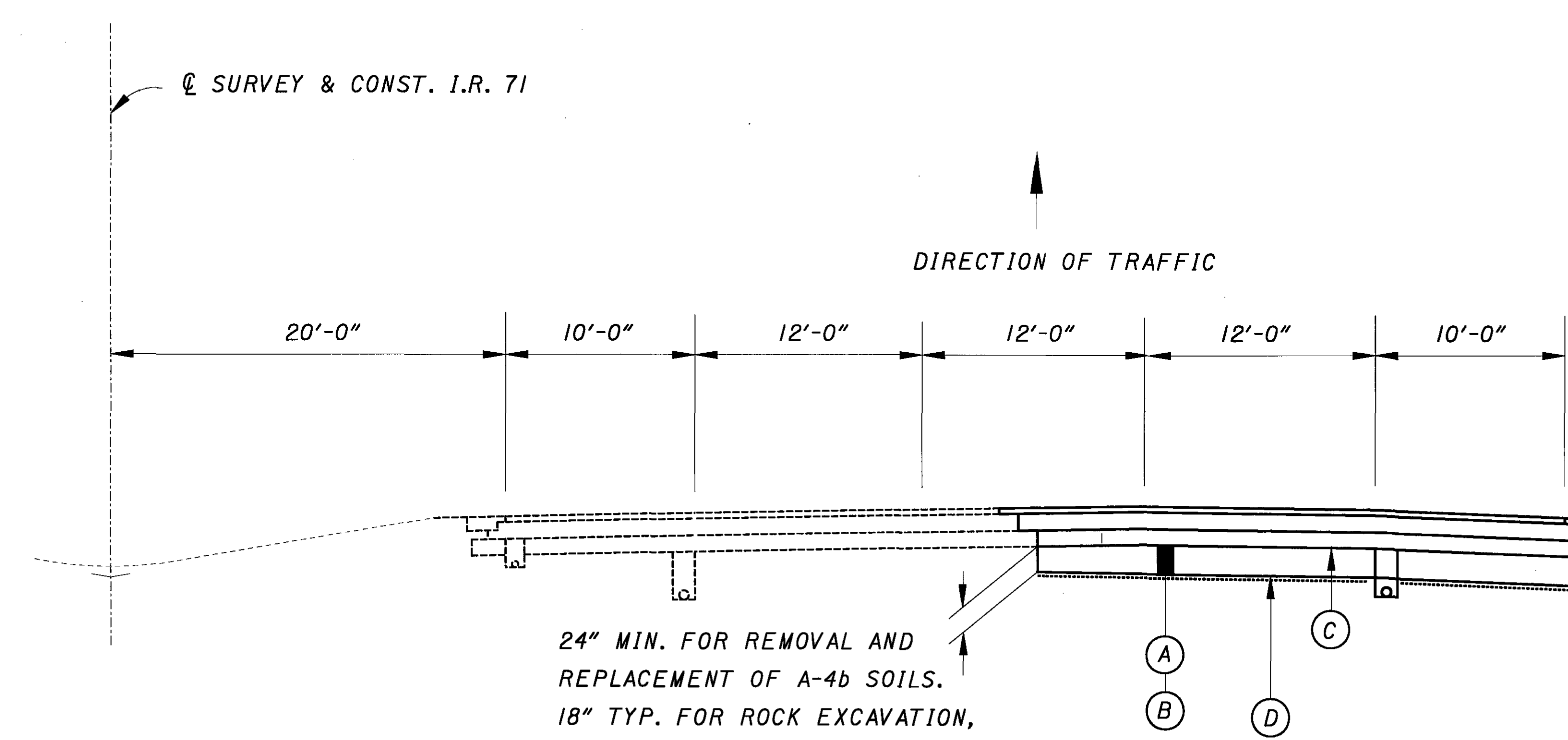
UNDERCUT TYPICAL SECTION

PHASE I

SEE SOIL SCHEMATIC PLANS FOR LOCATIONS

LEGEND

- (A) - 204 EXCAVATION OF SUBGRADE
- (B) - 204 GRANULAR EMBANKMENT, TYPE B
- (C) - 204 SUBGRADE COMPACTION
- (D) - 204 GEOTEXTILE FABRIC



24" MIN. FOR REMOVAL AND REPLACEMENT OF A-4b SOILS. 18" TYP. FOR ROCK EXCAVATION, 12" MIN. AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER

UNDERCUT AND BACKFILL, PLACE GEOTEXTILE FABRIC AT BOTTOM OF CUT, STOP GEOTEXTILE FABRIC 6" FROM THE EDGE OF ALL UNDERDRAINS.

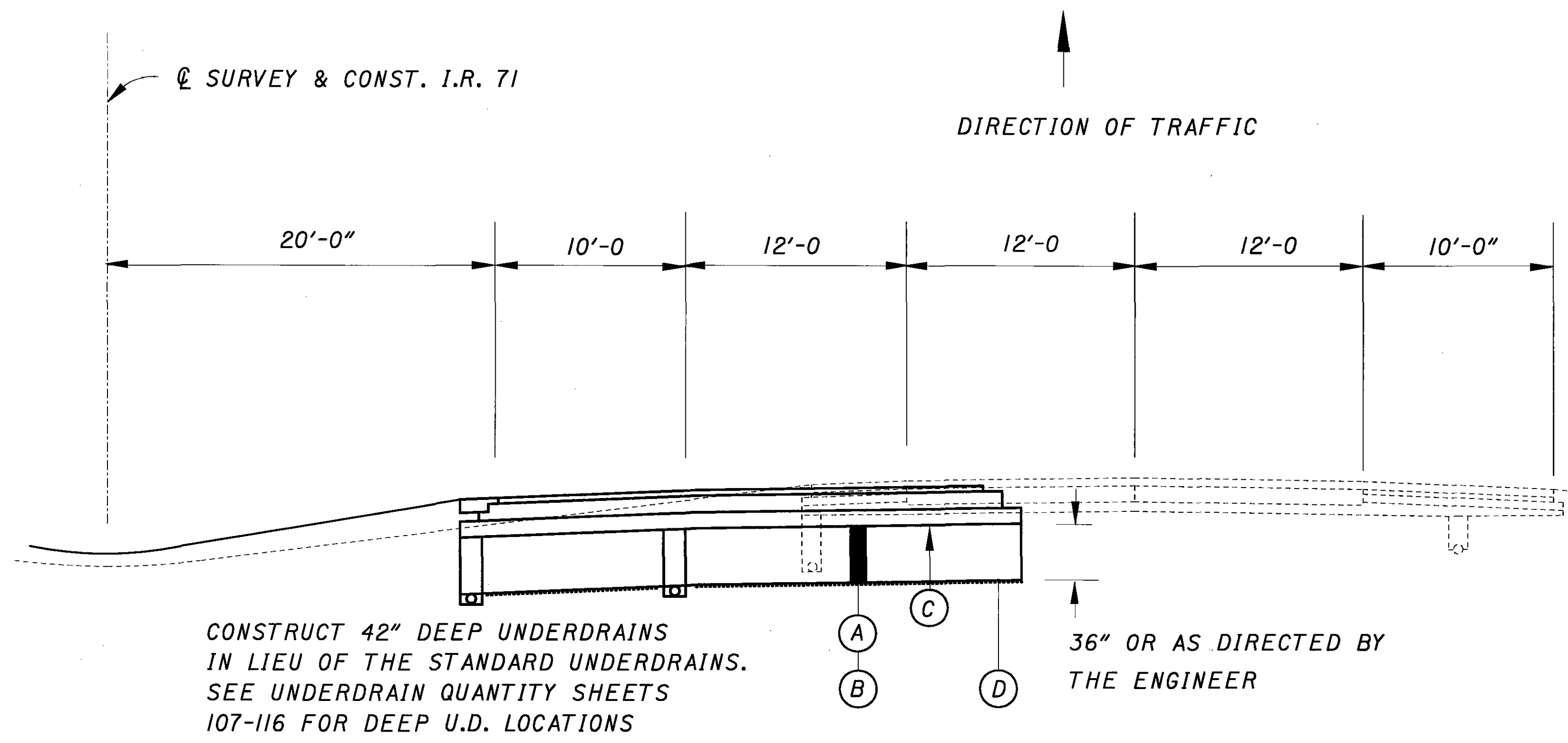
UNDERCUT TYPICAL SECTION

PHASE 2

SEE SOIL SCHEMATIC PLANS FOR LOCATIONS

THESE DETAILS TYPICALLY APPLY FOR REMOVAL OF A-4b SILTY SOILS OR OTHER WEAK SOILS.

THIS SHEET IS SHOWN FOR INFORMATION ONLY. IT SHALL ONLY APPLY IF 36" DEEP UNDERCUTS ARE DETERMINED BY THE ENGINEER TO BE NECESSARY.



CONSTRUCT 42" DEEP UNDERDRAINS IN LIEU OF THE STANDARD UNDERDRAINS. SEE UNDERDRAIN QUANTITY SHEETS 107-116 FOR DEEP U.D. LOCATIONS

36" OR AS DIRECTED BY THE ENGINEER

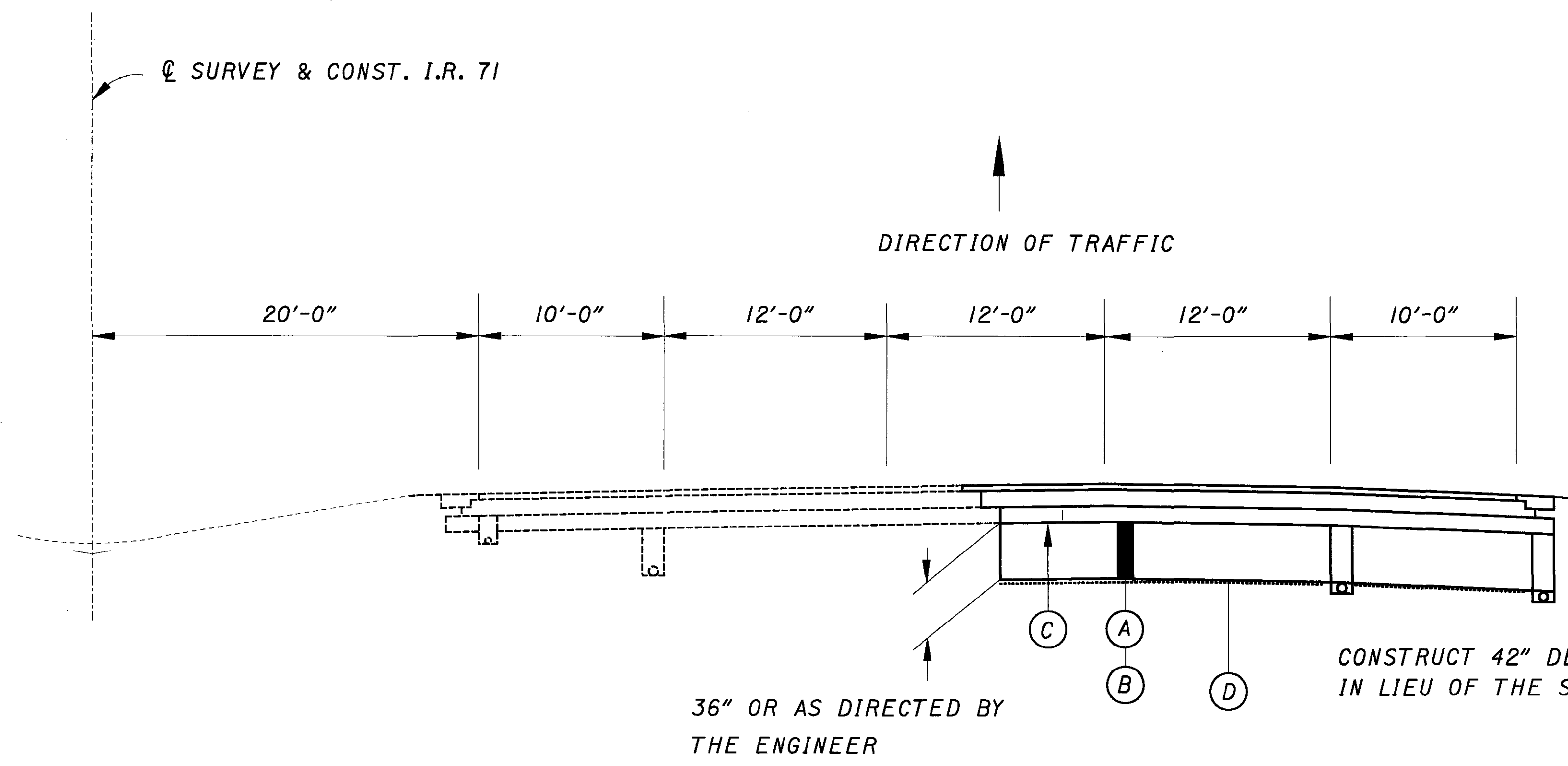
**UNDERCUT TYPICAL SECTION
PHASE 1**

SEE SOIL SCHEMATIC PLANS FOR LOCATIONS

UNDERCUT AND BACKFILL, PLACE GEOTEXTILE FABRIC AT BOTTOM OF CUT, STOP GEOTEXTILE FABRIC 6" FROM THE EDGE OF ALL UNDERDRAINS.

LEGEND

- (A) - 204 EXCAVATION OF SUBGRADE
- (B) - 204 GRANULAR EMBANKMENT, TYPE B
- (C) - 204 SUBGRADE COMPACTION
- (D) - 204 GEOTEXTILE FABRIC



36" OR AS DIRECTED BY THE ENGINEER

CONSTRUCT 42" DEEP UNDERDRAINS IN LIEU OF THE STANDARD UNDERDRAINS

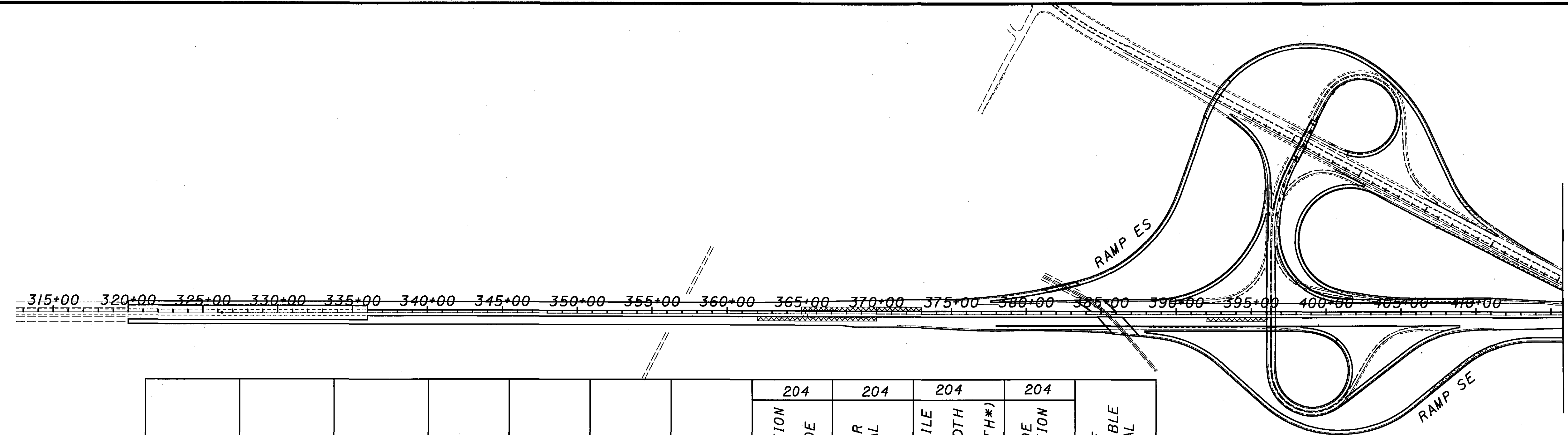
**UNDERCUT TYPICAL SECTION
PHASE 2**

SEE SOIL SCHEMATIC PLANS FOR LOCATIONS

UNDERCUT AND BACKFILL, PLACE GEOTEXTILE FABRIC AT BOTTOM OF CUT, STOP GEOTEXTILE FABRIC 6" FROM THE EDGE OF ALL UNDERDRAINS.

TYPICAL 3' DEEP UNDERCUT SECTION

MED-71-6.06



BEGIN STATION	END STATION	LENGTH FEET	WIDTH FEET	DEPTH INCHES	AREA SQ. YDS.	VOLUME CU. YDS.	204 EXCAVATION OF SUBGRADE CU. YDS.	204 GRANULAR MATERIAL TYPE B CU. YDS.	204 GEOTEXTILE FABRIC (AVE. WIDTH LESS U.D. WIDTH*) SQ. YDS.	204 SUBGRADE COMPACTION SQ. YDS.	TYPE OF UNSUITABLE MATERIAL	
MEDIAN SOIL TREATMENT												
362+00 NB	370+00 NB	800	30	12	2667	889	889	889	2326	2667		
392+00 NB	396+00 NB	400	30	24	1333	889	889	889	1163	1333		
439+00 NB	450+00 NB	1100	30	12	3667	1222	1222	1222	3199	3667		
RAMP SOIL TREATMENT												
SE 152+50	SE 154+00	150	32	24	533	356	356	356	436	533	A-4b	
SE 154+00	SE 158+00	400	32	24	1422	948	948	948	1164	1422		
ES 220+00	ES 222+00	200	32	12	711	237	237	237	589	711		
76EB 880+50	888+00	750	21.5	24	1792	1195	1195	1195	1473	1792		
QUANTITIES CARRIED TO SUM-SUMMARY SHEET NO. 51							10052	10052	19317	22406		

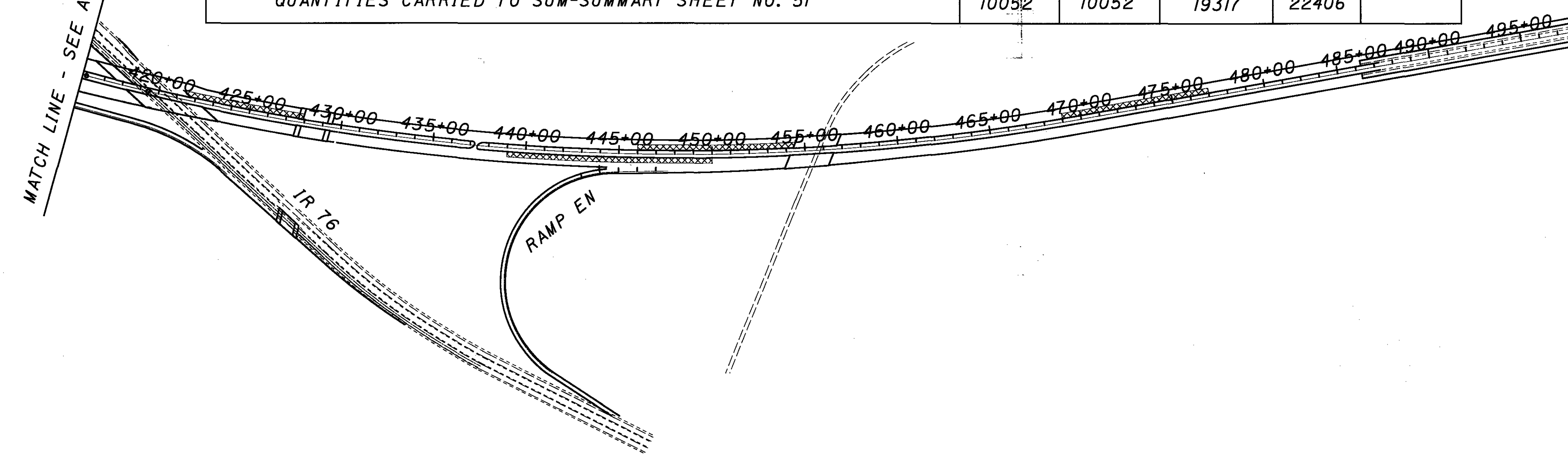
 - REMOVE AND REPLACE WITH GRANULAR MATERIAL

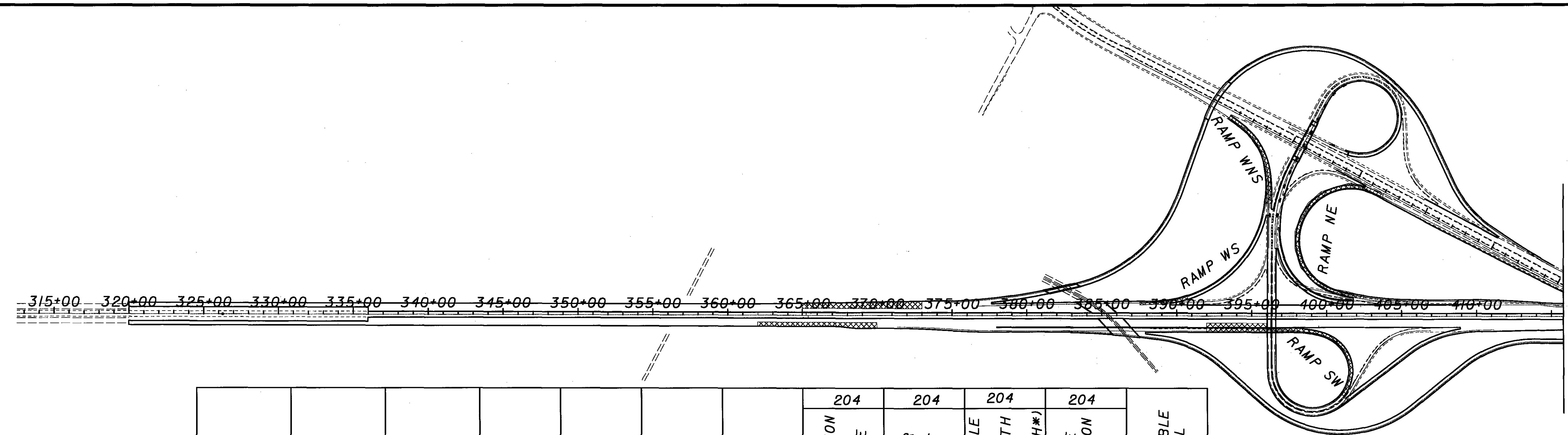
* - DEDUCT 2.17' FOR EACH INTERIOR U.D. AND 1.66' FOR THE EXTERIOR U.D.

RAMP E-N SOIL TREATMENT		203 EMBANKMENT AS PER PLAN A CU. YDS.	204 GEOTEXTILE FABRIC SQ. YDS.
STATION	END WIDTH FEET		
104+00	24	237	356
105+00	40	363	544
106+00	58	548	822
107+00	90	756	1133
108+00	114	778	1167
109+00	96	704	1056
110+00	94	689	1033
111+00	92	689	1033
112+00	94	711	1067
113+00	98	748	1122
114+00	104	793	1189
115+00	110	852	1278
116+00	120	941	1411
117+00	134	807	1211
118+00	84	533	800
119+00	60	385	578
120+00	44		
TOTALS		10534	15800

QUANTITIES CARRIED TO GENERAL SUMMARY

MATCH LINE - SEE ABOVE

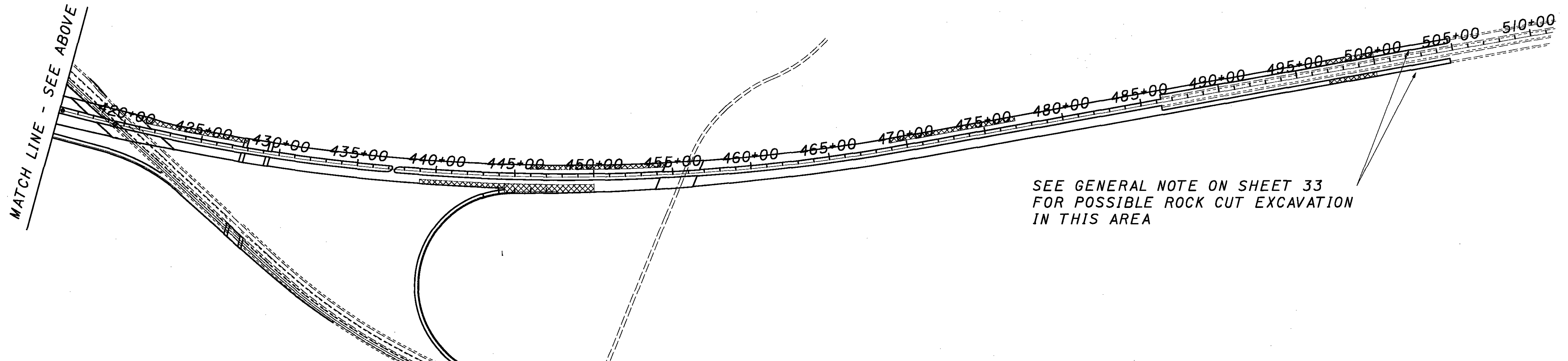




BEGIN STATION	END STATION	LENGTH FEET	AVG. WIDTH FEET	DEPTH INCHES	AREA SQ. YDS.	VOLUME CU. YDS.	204	204	204	204	TYPE OF UNSUITABLE MATERIAL
							EXCAVATION OF SUBGRADE CU. YDS.	GRANULAR MATERIAL TYPE B CU. YDS.	GEOTEXTILE FABRIC (AVE. WIDTH LESS U.D. WIDTH*) SQ. YDS.	SUBGRADE COMPACTION SQ. YDS.	
OUTSIDE SOIL TREATMENT											
362+00 NB	370+00 NB	800	32.92	12	2926	975	975	975	2586	2926	
392+00 NB	396+00 NB	400	65	24	2889	1926	1926	1926	2526	2889	
439+00 NB	444+36 NB	536	30	12	1787	596	596	596	1559	1787	
444+36 NB	450+00 NB	564	56.83	12	3561	1187	1187	1187	3321	3561	
497+00 NB	500+00 NB	300	30	24	1000	667	667	667	872	1000	
365+00 SB	373+00 SB	800	44.04	24	3913	2609	2609	2609	3574	3913	A-4b
421+00±SB	427+97±SB	697	32.20	12	2494	831	831	831	2197	2494	
446+00 SB	454+57±SB	857	30	12	2857	952	952	952	2492	2857	
469+00 SB	477+00 SB	800	30	12	2667	889	889	889	2326	2667	
497+00 SB	500+00 SB	300	30	24	1000	667	667	667	872	1000	
RAMP SOIL TREATMENT											
WNS 5+60	WNS 11+30	570	31.63	24	2003	1336	1336	1336	1900	2003	
WS 26+50	WS 29+00	250	29	24	806	537	537	537	759	806	
NE 41+00	NE 56+00	1500	29	24	4833	3222	3222	3222	4557	4833	
SW 85+00	SW 94+00	900	29	12	2900	967	967	967	2517	2900	
QUANTITIES CARRIED TO SUM-SUMMARY SHEET NO. 51							17361	17361	32058	35636	

- REMOVE AND REPLACE WITH GRANULAR MATERIAL

* - DEDUCT 2.17' FOR EACH INTERIOR U.D. AND 1.66' FOR THE EXTERIOR U.D.



SEE GENERAL NOTE ON SHEET 33 FOR POSSIBLE ROCK CUT EXCAVATION IN THIS AREA

614 MAINTAINING TRAFFIC

THE INTENT OF THIS PROJECT IS TO ADD A 3RD LANE ALONG THE MEDIAN SIDE OF IR 71 IN BOTH DIRECTIONS AND TO RECONSTRUCT AND MODIFY THE IR71/IR76/USR224 INTERCHANGE.

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, INCLUDING MATERIAL TRUCKS, SHALL BE EQUIPPED WITH A FLASHING, ROTATING OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW 40 MPH. VEHICLE HAZARD LAMPS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

LIGHTING USED TO ILLUMINATE THE WORK AREA SHALL BE AIMED AND SHIELDED TO PREVENT GLARE ENCROACHING INTO OPEN TRAFFIC LANES. FOR ADDITIONAL NOTES SEE THE "FLOODLIGHTING" NOTE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES PER 108.07 OF THE CMS.

ALL SIGNS, BARRICADES, SIGN SUPPORTS, CONES, DRUMS, FLAGGERS AND INCIDENTALS SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE MOST RECENT REVISION, CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), EXCEPT AS NOTED WITHIN. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES.

THE MAINTENANCE OF TRAFFIC DETAILS SHALL BE COORDINATED WITH THE MAINTENANCE OF TRAFFIC DETAILS OF ANY ADJACENT CONSTRUCTION PROJECTS. THE CONTRACTORS ARE REQUIRED TO COOPERATE WITH EACH OTHERS WORK ACTIVITIES DURING THE ENTIRE CONSTRUCTION PROCESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

MAINTAINING TRAFFIC - IR 71 & IR 76 REQUIREMENTS

GENERAL

TWO (2) LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON I.R. 71 AND IR 76 EXCEPT FOR MINIMUM PERIODS, AS NOTED IN THE "WORKING HOURS RESTRICTIONS" NOTE, WHEN ONE LANE OF TRAFFIC IN EACH DIRECTION WILL BE PERMITTED.

I.R. 71 RECONSTRUCTION BY THIS PROJECT WILL BE BY THREE (3) SEPARATE STAGES AND EACH STAGE OF CONSTRUCTION WILL REQUIRE ONE OR MORE CONSTRUCTION SEASON. SEE SCHEMATIC PLANS, SHEET NOS. 87-89 FOR DELINEATION OF CONSTRUCTION STAGE LIMITS. THE SEQUENCE FOR CONSTRUCTION SHALL BE STAGE 1, STAGE 2, STAGE 3. THE CONSTRUCTION OF EACH STAGE SHALL BE COMPLETED AND TRAFFIC RETURNED TO THE NORMAL TWO OR NEW THREE LANES OF TRAFFIC IN EACH DIRECTION BY OCTOBER 15 OF EACH YEAR. OCTOBER 15 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES WILL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT TRAFFIC IS STILL DIVERTED FROM THE NORMAL TRAFFIC LANES.

DUE TO THE TIME CONSTRAINTS AND THE TEMPERATURE RESTRICTIONS FOR PLACING THE ASPHALT SURFACE COURSE, A STAGE 3 HAS BEEN SHOWN. THE CONTRACTOR MAY MOVE THIS WORK TO AN EARLIER STAGE OR PHASE, IF WEATHER PERMITS.

TWO LANE TRAFFIC WIDTH REQUIREMENTS:

UNLESS SPECIFICALLY STATED OR SHOWN IN THE PLANS, TWO LANES OF TRAFFIC SHALL CONSIST OF A MINIMUM OF TWO 11'-0" WIDE LANES PLUS 12" MINIMUM BUFFER ON EACH SIDE TO GUARDRAIL, PARAPETS, DRUMS, BARRIER OR EDGES OF PAVED SURFACES. THUS THE TWO LANE TRAFFIC WIDTH SHALL BE A MINIMUM OF 24'-0" CLEAR.

SEQUENCE OF CONSTRUCTION:

EACH CONSTRUCTION STAGE SHALL BE CONSTRUCTED IN PHASES. PRE-PHASE 1 CONSISTS OF PREPARATORY WORK WHICH IS REQUIRED FOR PHASE 1 MAINTENANCE OF TRAFFIC. PHASE 1 RECONSTRUCTS THE INSIDE PAVEMENT LANES OR ADDS NEW ACCELERATION OR DECELERATION LANES. PHASE 2 RECONSTRUCTS THE OUTSIDE PAVEMENT LANES AND SHOULDER OF I.R. 71. AND INCLUDES THE INTERCHANGE RECONSTRUCTION WORK. THE REMAINDER OF THE FINAL SURFACE COURSE AND PAVEMENT MARKINGS ARE PLACED UNDER STAGE 3, WHICH IS AT THE END OF STAGE 2, PHASE 2B. SEE MAINTENANCE OF TRAFFIC TYPICAL SECTIONS AND PLAN DETAILS FOR THE VARIOUS PHASES OF CONSTRUCTION.

CONSTRUCTION STAGES 1&2, PHASES 1&2 HAVE USED STANDARD CONSTRUCTION DRAWING MT-102.10 AS A BASE, UNLESS SPECIFICALLY SHOWN OTHERWISE, ALL REQUIREMENTS OF THIS STANDARD CONSTRUCTION DRAWING SHALL BE INCORPORATED IN THE APPLICABLE CONSTRUCTION STAGES/PHASES AS DETAILED IN THESE PLANS EXCEPT FOR THE FOLLOWING ITEMS:

1. NO LIGHTING IS REQUIRED.
 2. OC-53-36 "MAINTAIN PRESENT LANE" SIGN IS NOT REQUIRED. *
 3. OW-138-36 (DIAGONAL ARROW) SIGN IS NOT REQUIRED. *
- * - THESE SIGNS MAY BE REQUIRED IN SPECIAL SITUATIONS.

WORKING HOURS RESTRICTION:

INTERSTATES 71 & 76 THROUGHOUT DISTRICT THREE (MEDINA COUNTY) IS A RESTRICTED WORK CORRIDOR DUE TO HIGH TRAFFIC VOLUMES. NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED EXCEPT AT THE TIMES SHOWN. ALL MAINTENANCE OF TRAFFIC WORK, INCLUDING INSTALLATION OF SIGNING AND LANE CLOSURES SHALL OCCUR WITHIN THE APPROVED TIME PERIODS. NO EXCEPTIONS ARE PERMITTED.

INTERSTATE 71 LANE CLOSURE HOURS:

NON-HOLIDAY WEEKS:

SUNDAY	9:00 P.M.	THROUGH MONDAY	6:00 A.M.
MONDAY	8:00 P.M.	THROUGH TUESDAY	6:00 A.M.
TUESDAY	8:00 P.M.	THROUGH WEDNESDAY	6:00 A.M.
WEDNESDAY	8:00 P.M.	THROUGH THURSDAY	6:00 A.M.
THURSDAY	8:00 P.M.	THROUGH FRIDAY	6:00 A.M.

HOLIDAY WEEKS: HOLIDAY ON MONDAY

TUESDAY	8:00 P.M.	THROUGH WEDNESDAY	6:00 A.M.
WEDNESDAY	8:00 P.M.	THROUGH THURSDAY	6:00 A.M.
THURSDAY	8:00 P.M.	THROUGH FRIDAY	6:00 A.M.

HOLIDAY ON TUESDAY

SUNDAY	9:00 P.M.	THROUGH MONDAY	6:00 A.M.
WEDNESDAY	8:00 P.M.	THROUGH THURSDAY	6:00 A.M.
THURSDAY	8:00 P.M.	THROUGH FRIDAY	6:00 A.M.

HOLIDAY ON WEDNESDAY

SUNDAY	9:00 P.M.	THROUGH MONDAY	6:00 A.M.
MONDAY	8:00 P.M.	THROUGH TUESDAY	6:00 A.M.
THURSDAY	8:00 P.M.	THROUGH FRIDAY	6:00 A.M.

HOLIDAY ON THURSDAY

SUNDAY	9:00 P.M.	THROUGH MONDAY	6:00 A.M.
MONDAY	8:00 P.M.	THROUGH TUESDAY	6:00 A.M.
TUESDAY	8:00 P.M.	THROUGH WEDNESDAY	6:00 A.M.

HOLIDAY ON FRIDAY

SUNDAY	9:00 P.M.	THROUGH MONDAY	6:00 A.M.
MONDAY	8:00 P.M.	THROUGH TUESDAY	6:00 A.M.
TUESDAY	8:00 P.M.	THROUGH WEDNESDAY	6:00 A.M.
WEDNESDAY	8:00 P.M.	THROUGH THURSDAY	6:00 A.M.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES. ALL MAINTENANCE OF TRAFFIC WORK, INCLUDING INSTALLATION OF SIGNING AND LANE CLOSURES SHALL OCCUR WITHIN THE ABOVE TIME PERIODS. NO EXCEPTIONS ARE PERMITTED.

INTERSTATE 76 AND USR 224 LANE CLOSURE HOURS:

ANYTIME: 7 P.M. TO 7:00 A.M.

AFTER STAGE 2 IS IMPLEMENTED, IR 76 EB MAY BE REDUCED TO ONE LANE ANYTIME BETWEEN STA. 841+00 TO STA. 873+00. DURING RAMP N-E CONSTRUCTION PROVISIONS FOR THE RAMP E MERGE SHALL BE AS DETAILED ON SHEET 127. ANY OTHER CLOSURES SHALL BE IMPLEMENTED AS PER DETAIL SHEET 133 OR AS PER MT-95.32 FOR CLOSURES LESS THAN ONE DAY.

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC
GENERAL NOTES

MED-71-6.06

56
1120

MAINTAINING TRAFFIC - IR 71 & IR 76 REQUIREMENTS

WINTER TIME LIMITATIONS

ALL EXISTING LANES, INCLUDING TURN LANES, SHALL BE OPEN TO TRAFFIC BETWEEN OCTOBER 15 AND MARCH 15. OCTOBER 15 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS 108.07 FOR EACH CALENDAR DAY THAT THE SPECIFIC PHASE WORK IS NOT COMPLETED AND ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

PAVEMENT WORK AREA DEFINITION

THROUGHOUT THESE NOTES THE PAVEMENT WORK AREAS WHICH ARE TO BE COMPLETED AND LIMITS OF THAT WORK IS DESCRIBED. ALTHOUGH NOT SPECIFICALLY STATED, ALL ASSOCIATED DRAINAGE WORK, BRIDGE WORK, GRADING, INSTALLATION OF EROSION CONTROL ITEMS, TRAFFIC CONTROL WORK, LIGHTING WORK, GUARDRAIL OR BARRIER WORK, ETC. IS ALSO TO BE PERFORMED.

CONSTRUCTION SEASON DEFINITION

THROUGHOUT THESE NOTES THE TERM "CONSTRUCTION SEASON" IS USED, IT TYPICALLY APPLIES AS FOLLOWS:

BEFORE FIRST FULL CONSTRUCTION SEASON	- 2006	PRE-PHASE 1 WORK
FIRST FULL CONSTRUCTION SEASON	- 2007	STAGE 1, PHASES 1 & 2
SECOND FULL CONSTRUCTION SEASON	- 2008	STAGE 1, PHASES 3 & 3A
THIRD FULL CONSTRUCTION SEASON	- 2009	STAGE 2, PHASES 1 - 2B
FOURTH CONSTRUCTION SEASON	- 2010	STAGE 3

PRE-PHASE 1 - MAINTENANCE OF TRAFFIC

PRE-PHASE 1 - SUMMER/FALL BEFORE FIRST FULL CONSTRUCTION SEASON

MAINTAIN A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION. ONE LANE CLOSURE PERIODS ARE PERMITTED PER THE TIME FRAMES STATED ON SHEET 56 UNDER THE "WORKING HOURS RESTRICTIONS" NOTE. COMPLETE THE FOLLOWING WORK DURING THIS PHASE:

1. BEGIN CONSTRUCTION OF THE SERVICE ROAD.
2. BEGIN CONSTRUCTION OF RAMP EN EMBANKMENT BETWEEN STA. 104+00 AND 121+00.
3. CONSTRUCT SHOULDER REBUILDING OR REPLACEMENT AS SHOWN ON SHEETS 80, 82 AND 83. THE CONTRACTOR MUST SCHEDULE THE WORK IN ORDER TO PLACE ALL REQUIRED LIFTS OF ASPHALT TO MATCH THE EXISTING PAVEMENT TO ELIMINATE ANY DROPOFFS. PERFORM ANY PAVEMENT REPAIRS AS PER THE DETAILS ON SHEET 67C.
4. CONSTRUCT CULVERT UNDER LAKE RD.
5. IF COMPLETION OF ALL LIFTS IS NOT ACCOMPLISHED, PROVIDE TEMPORARY ASPHALT WEDGE IF DROP OFF OF GREATER THAN 1.5" IS EXPOSED TO TRAFFIC. IF LEFT EXPOSED THE CONTRACTOR SHALL FURNISH AND ERECT W8-H13 AND W8-II SIGNS PRIOR TO OPENING THE ADJOINING LANE TO TRAFFIC.
6. INSTALL EDGE LINES ALONG SHOULDER REBUILDING AREAS.
7. OCTOBER 15, 2006 IS CONSIDERED AN INTERIM COMPLETION DATE FOR THE SHOULDER REBUILDING LISTED ABOVE. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY WHICH THE TIME LIMITS ARE NOT MET.
8. APRIL 1, 2007 IS CONSIDERED AN INTERIM COMPLETION DATE FOR THE PLACEMENT (FULL HEIGHT) OF RAMP E-N EMBANKMENT BETWEEN STATION 113+00 AND STA. 117+00. THE PLACEMENT OF THIS EMBANKMENT SHALL NOT BE SUBJECT TO WINTER SHUT DOWN (CMS 108.06, DECEMBER 1 TO APRIL 30) AND TIME EXTENTIONS THEREOF. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY WHICH THE TIME LIMITS ARE NOT MET.

STAGE 1 - MAINTENANCE OF TRAFFIC

STAGE 1 CONSTRUCTION - NORTH PORTION OF PROJECT

THIS STAGE CONSTRUCTS ALL IR71 MAINLINE PAVEMENT NORTH OF STA. 432+00 AND ADDS NEW RAMPS S-E, SE-W, E-S AND E-N.

PHASE 1 - FIRST HALF OF FIRST FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AS LISTED ON SHEET 87.

DURING THIS PHASE THE MEDIAN MAINLINE PAVEMENT NORTH OF STA. 432+00 AND THE SERVICE ROAD PAVING SHALL BE COMPLETED. RAMP E-N, E-S, S-EW AND S-E WORK WILL BE STARTING OR CONTINUING. BEGIN IR76 WB WIDENING FOR RAMP EN.

AT THE END OF THIS PHASE INSTALL PCB, TEMPORARY PAVEMENT MARKINGS AND SIGNS, AS NEEDED, IN PREPARATION FOR SHIFT TO PHASE 2.

PHASE 2 - SECOND HALF OF FIRST FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AS LISTED ON SHEET 87A. DURING THIS PHASE THE OUTSIDE MAINLINE PAVEMENT NORTH OF STA. 448+00 SHALL BE COMPLETED. PLACEMENT OF THE MAINLINE SURFACE COURSE SHALL BE PERFORMED AS PART OF STAGE 3. RAMPS E-N, S-EW, S-E AND E-S WORK WILL BE ONGOING. PLACE THE EMBANKMENT SURCHARGE ON RAMP E-S. COMPLETE ALL RAMP TIE INS TO MAINLINE PAVEMENT.

IR71 BETWEEN STA. 432+00 AND STA. 504+00 SHALL BE LIMITED TO TWO LANES IN THEIR PRESENT LOCATION. DRUMS AND/OR SIGNAGE TO PROHIBIT THE USE OF THE FUTURE THIRD LANE SHALL BE PROVIDED BY THE CONTRACTOR.

AT THE END OF THIS PHASE (PRIOR TO WINTER) RETURN MAINLINE IR71 AND IR76 TO THEIR NORMAL POSITION WITH 2 LANES OPEN IN EACH DIRECTION.

OCTOBER 15, 2007 IS CONSIDERED AN INTERIM COMPLETION DATE FOR THE OUTSIDE MAINLINE RECONSTRUCTION AND RE-OPENING TO TRAFFIC. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY WHICH THE TIME LIMITS ARE NOT MET.

PHASE 3 - FIRST HALF OF SECOND FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AS LISTED ON SHEET 87A. REMOVE THE EMBANKMENT SURCHARGE ON RAMP E-S. COMPLETE CONSTRUCTION OF RAMPS S-EW, S-E & E-N. PLACE SURFACE COURSE AND PERMANENT MARKINGS ON THOSE RAMPS, EXCEPT AT THE TIE INS. AT THE END OF THIS PHASE, OPEN RAMPS S-EW, S-E & E-N TO TRAFFIC. INSTALL GUIDE SIGNS FOR THE ABOVE RAMPS, PRIOR TO OPENING.

PHASE 3A - SECOND HALF OF SECOND FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AS LISTED ON SHEET 87A. COMPLETE CONSTRUCTION OF RAMPS E-S. PLACE SURFACE COURSE AND PERMANENT MARKINGS ON THAT RAMP, EXCEPT AT THE TIE INS. AT THE END OF THIS PHASE, OPEN RAMP E-S TO TRAFFIC. INSTALL GUIDE SIGNS FOR THE ABOVE RAMPS, PRIOR TO OPENING. PERFORM ANY PAVEMENT REPAIRS AS PER THE DETAILS ON SHEET 67C.

OCTOBER 15, 2008 IS CONSIDERED AN INTERIM COMPLETION DATE FOR THE COMPLETION OF THE RAMP PAVING AND OPENING TO TRAFFIC. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY WHICH THE TIME LIMITS ARE NOT MET.

STAGE 2 - MAINTENANCE OF TRAFFIC

STAGE 2 CONSTRUCTION - SOUTH PORTION OF PROJECT - ONE CONSTRUCTION SEASON.

THIS STAGE CONSTRUCTS ALL IR71 MAINLINE PAVEMENT BETWEEN STA. 320+00 AND STA. 432+00. WHEN THIS STAGE BEGINS, RAMPS E-S, S-E & E-N ARE OPENED TO TRAFFIC. ALL OTHER IR71/IR76 INTERCHANGE RAMPS ARE RECONSTRUCTED OR RELOCATED UNDER THIS STAGE.

STAGE 2 - MAINTENANCE OF TRAFFIC

PHASE 1 - START OF THIRD FULL CONSTRUCTION SEASON

FOR THIS STAGE ONLY, THE "WINTER TIME LIMITATIONS" REQUIREMENTS, AS DESCRIBED ON SHEET 57, SHALL BE MODIFIED TO REPLACE APRIL 1 WITH MARCH 15.

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AS LISTED ON SHEET 88.

IMPLEMENT THE DETOUR OF RAMP S-W. CONSTRUCT THE MEDIAN MAINLINE PAVEMENT BETWEEN STA. 336+00 AND STA. 432+00. CONSTRUCT RAMP SW BRIDGE OVER IR71 AND TEMPORARY PAVEMENT ON RAMPS W-NS & NS-W. AFTER CONSTRUCTING THE TEMPORARY PAVEMENT, SHIFT RAMP NS-W TRAFFIC AND BEGIN CONSTRUCTION OF THE RAMP NS-W BRIDGE OVER USR 224.

AT THE END OF THIS PHASE INSTALL PCB, TEMPORARY PAVEMENT MARKINGS AND SIGNS, AS NEEDED, IN PREPARATION FOR SHIFT TO PHASE 2.

PHASE 2 - MIDDLE OF THIRD FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AND DETOURS AS LISTED ON SHEET 88.

DURING THIS PHASE BEGIN THE CONSTRUCTION OF THE OUTSIDE MAINLINE PAVEMENT BETWEEN STA. 320+00 AND STA. 448+00. CONSTRUCT TEMPORARY PAVEMENT FOR RAMPS W-N, N-EW AND RAMP E. CONTINUE CONSTRUCTION OF THE RAMP NS-W BRIDGE AND PAVEMENT. BEGIN TO CONSTRUCT THE RAMP WN BRIDGE OVER IR71 AND A PORTION OF THE RAMP WN PAVEMENT. BEGIN TO CONSTRUCT RAMPS W-NS & RAMP W-S. CONSTRUCT ALL PHASE 2 WORK FOR TEMPORARY RAMP WN AND THE NORTHBOUND MAINLINE PAVEMENT FROM STA. 414+00 TO STA. 418+00 WITHIN 14 DAYS AND IMPLEMENT PHASE 2A IN THAT AREA. (SEE SHETS 110 & 111)

AT THE END OF THIS PHASE INSTALL PCB, TEMPORARY PAVEMENT MARKINGS AND SIGNS, AS NEEDED, IN PREPARATION FOR SHIFT TO PHASE 2A.

14 DAYS AFTER THE MOT SHIFT DETAILED ON SHEET 110 IS IMPLEMENTED, IS CONSIDERED AN INTERIM COMPLETION DATE FOR COMPLETING THE PAVING WORK AND SHIFTING TO THE PHASE 2A MAINTENANCE OF TRAFFIC SHIFT FOR RAMP WN AS DETAILED ON SHEET 111. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY WHICH THE TIME LIMITS ARE NOT MET.

PHASE 2A - MIDDLE OF THIRD FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AND DETOURS AS LISTED ON SHEET 89. (CONTINUE PHASE 2 SHIFTS EXCEPT AS NOTED ON 89)

DURING THIS PHASE CONTINUE THE CONSTRUCTION OF THE OUTSIDE MAINLINE PAVEMENT BETWEEN STA.320+00 AND STA. 448+00. UTILIZE TEMPORARY PAVEMENT FOR RAMPS W-N, N-EW AND RAMP E. CONSTRUCT RAMP N-E, PORTION OR RAMP S-W AND IR76 EB ACCELERATION LANE. CONTINUE TO CONSTRUCT THE RAMP NS-W STRUCTURE AND RAMP NS-W. COMPLETE CONSTRUCTION OF RAMPS W-NS, W-S & W-N.

AT THE END OF THIS PHASE OPEN RAMPS NE, WN, N-EW, WS & IR71SB OVER GREENWICH RD. INSTALL PCB, TEMPORARY PAVEMENT MARKINGS AND SIGNS, AS NEEDED, IN PREPARATION FOR SHIFT TO PHASE 2B.

PHASE 2B - END OF THIRD FULL CONSTRUCTION SEASON

IMPLEMENT THE MAINTENANCE OF TRAFFIC SHIFTS AND DETOURS AS LISTED ON SHEET 89. (CONTINUE PHASE 2A SHIFTS EXCEPT AS NOTED ON 89)

DURING THIS PHASE COMPLETE THE CONSTRUCTION OF THE OUTSIDE MAINLINE PAVEMENT BETWEEN STA. 320+00 AND STA. 448+00. (NOT INCLUDING THE SURFACE COURSE). CONSTRUCT RAMP NW AND REMAINDER OF N-SW & SW.

AT THE END OF THIS PHASE (PRIOR TO OCTOBER 15) INSTALL TEMPORARY PAVEMENT MARKINGS, OPEN ALL RAMPS, REMOVE ALL DETOURS AND RETURN IR71 AND IR76 LANES TO THEIR NORMAL POSITION. OPEN IR 71 TO THREE LANES EACH DIRECTION.

OCTOBER 15, 2009 IS CONSIDERED AN INTERIM COMPLETION DATE FOR THE OUTSIDE MAINLINE RECONSTRUCTION AND RE-OPENING BOTH THE MAINLINE AND ALL RAMPS TO TRAFFIC. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED FOR EACH DAY WHICH THE TIME LIMITS ARE NOT MET.

STAGE 3 - MAINTENANCE OF TRAFFIC

STAGE 3 - BEGINNING OF FOURTH FULL CONSTRUCTION SEASON

THIS WORK MAY BE STARTED IN EARLIER PHASES, PROVIDING THAT THE WORK AREAS AVOID THE INTERCHANGE MAINTENANCE OF TRAFFIC SHIFT AREAS.

MAINTAIN 1 OR 2 LANES OF TRAFFIC IN EACH DIRECTION AS PER THE REQUIREMENTS AND RESTRICTIONS NOTED ON SHEET 56 UNDER THE "WORKING HOURS RESTRICTIONS" NOTE.

THE "WORKING HOURS RESTRICTIONS" NOTE SHALL APPLY FOR REDUCTIONS FROM 2 LANES TO 1 LANE. IR 71 MAY BE REDUCED FROM 3 LANES TO 2 LANES AT ANY TIME, ANY DAY, EXCEPT BETWEEN THE HOURS OF 3:00 P.M. AND 6:00 P.M.

COMPLETE THE FOLLOWING WORK ON IR71 & IR76 DURING THIS PHASE:

1. PLACE THE FINAL ASPHALT SURFACE COURSE.
2. APPLY FINAL PAVEMENT MARKINGS, RAISED PAVEMENT MARKERS AND SHOULDER RUMBLE STRIPS ON FINAL SURFACE COURSE AS PER THE TRAFFIC CONTROL PLANS.
3. COMPLETE MISCELLANEOUS ITEMS OF WORK AND FINAL CLEAN-UP.
4. OPEN ALL 3 LANES TO THE LIMITS SHOWN ON THE TRAFFIC CONTROL PLANS.

MAINTAINING TRAFFIC - IR71/IR76/USR224 INTERCHANGE RAMPS

TRAFFIC WIDTH REQUIREMENTS

A MINIMUM OF ONE 11 FOOT LANE WITH ONE FOOT MIN. BARRIER OFFSET ON THE RAMPS SHALL BE MAINTAINED BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND 615 PAVEMENT FOR MAINTAINING TRAFFIC.

LANE CLOSURES

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

MAINTAINING TRAFFIC - GENERAL

COORDINATION WITH ADJACENT PROJECTS

THE CONSTRUCTION OF STAGE 2 OF THIS PROJECT MAY REQUIRE THE CONTRACTOR TO COORDINATE CONSTRUCTION WITH AN ADJACENT CONSTRUCTION PROJECT TO THE SOUTH. IF REQUIRED, PHASE 1 AND 2 CONSTRUCTION MUST BE SCHEDULED FOR COORDINATION OF WORK ZONES WITH THE ADJOINING PROJECT.

IF COORDINATION IS NECESSARY, THE CONTRACTORS MUST COORDINATE THEIR WORK SCHEDULES AND SUBMIT TO THE DISTRICT CONSTRUCTION ENGINEER WHO WILL ESTABLISH THE FINAL APPROVED COORDINATED WORK SCHEDULE.

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC
GENERAL NOTES

MED-71-6.06

58
1120

MAINTAINING TRAFFIC - GENERAL REQUIREMENTS

FREEWAY CLOSURE

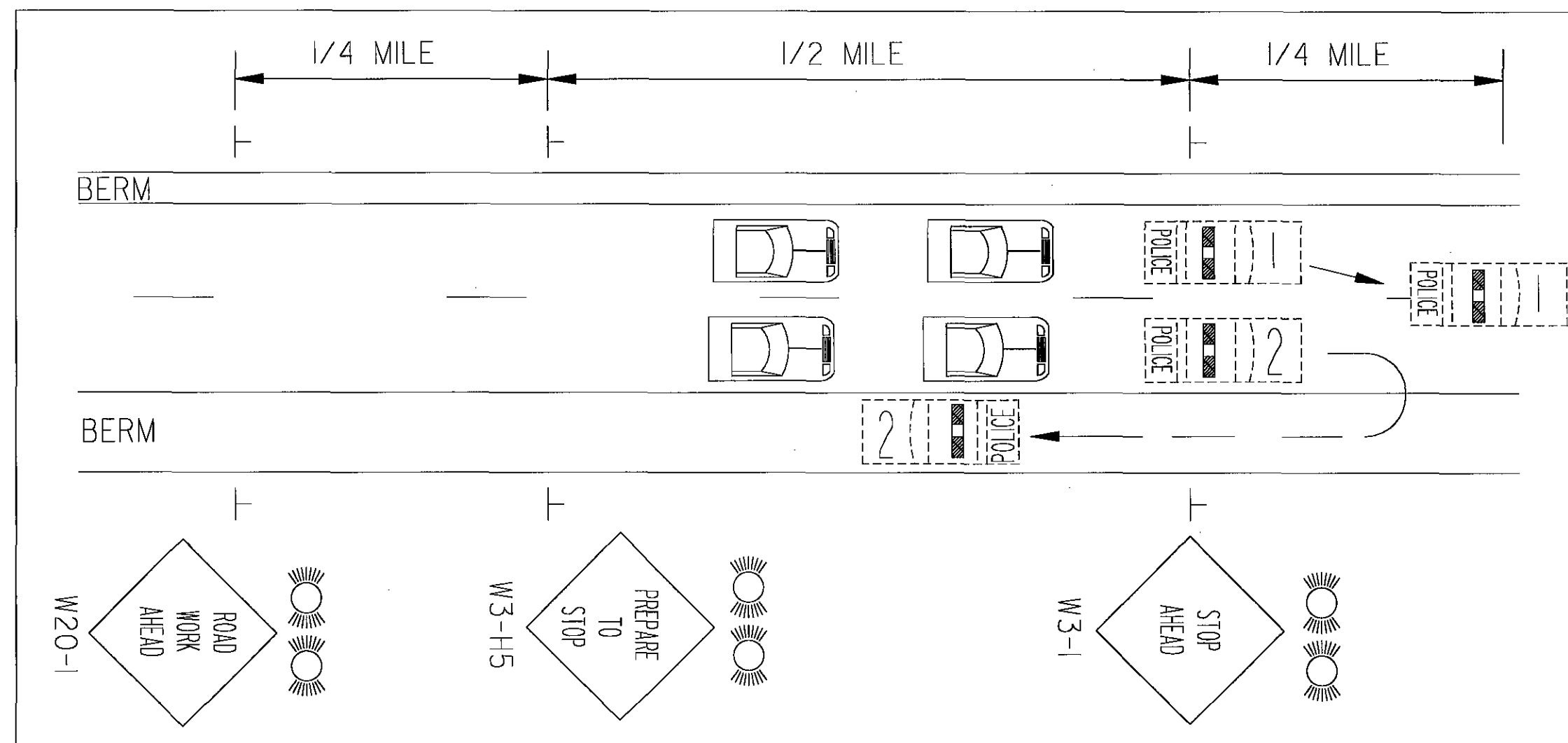
ANY TIME TRAFFIC MUST BE COMPLETELY STOPPED ON A FREEWAY, OR INTERSTATE IT SHALL BE DONE IN THE FOLLOWING MANNER: (THIS INCLUDES THE ERECTION OF OVERHEAD SIGN SUPPORTS OR BRIDGE BEAMS.) THE COMPLETE TRAFFIC STOPPAGE ON ALL LANES OF ANY DIRECTIONAL ROADWAY SHALL BE NO MORE THAN 10 MINUTES IN ANY ONE CONSECUTIVE 30 MINUTE PERIOD

A MINIMUM OF TWO (2) LAW ENFORCEMENT OFFICERS (L.E.O.) WITH PATROL VEHICLES SHALL BE USED TO PACE MOTORISTS TO A STOP. THERE SHALL BE ONE L.E.O. FOR EACH LANE ON THE FREEWAY.

AFTER TRAFFIC HAS BEEN SLOWED, ONE (1) PATROL VEHICLE SHALL TRAVEL ALONG THE ROADWAY SHOULDER 500 FEET BEHIND THE BACK UP OF STOPPED VEHICLES. WHERE STOPPAGE OCCURS IN THE VICINITY OF FREEWAY ENTRANCES, THE CONTRACTOR SHALL PLACE FLAGMEN ON THE RAMPS TO STOP TRAFFIC. PATROL VEHICLES SHALL HAVE FLASHING BEACONS.

TO PROVIDE ADEQUATE VISIBILITY TO APPROACHING MOTORISTS THE CONTRACTOR SHALL ERECT AND MAINTAIN "ROADWORK AHEAD", "PREPARE TO STOP", AND "STOP AHEAD" SIGNS WITH TWO FLASHING TWELVE INCH (12) TRAFFIC SIGNAL HEADS IN ACCORDANCE WITH 632.05. THESE SIGNS SHALL BE ILLUMINATED DURING NIGHT OPERATIONS AND SHALL BE 48 INCH BY 48 INCH SIGNS. PATROL VEHICLES AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE SKETCH BELOW.

STOPPING TRAFFIC SHALL BE DONE WHEN THE GREATEST NUMBER OF LANES IS PERMITTED TO BE CLOSED BY THE PLANS. A PORTABLE CHANGEABLE MESSAGE SIGN, FROM ODOTS PRE-APPROVED LIST, SHALL BE PLACED 1.5 MILES TO 2 MILES IN ADVANCE OF THE CLOSURE OR AS DIRECTED BY THE ENGINEER.



CONSTRUCTION ACCESS POINTS

CONSTRUCTION ACCESS POINTS IN THE PORTABLE CONCRETE BARRIER ARE REQUIRED IN ORDER TO ACCESS THE WORK ZONE IN CERTAIN AREAS OF THE PROJECT. SEE SHEET 133 FOR NOTES AND DETAILS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD). PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614-MAINTAINING TRAFFIC, UNLESS ITEMIZED SEPARATELY.

FINAL PAVEMENT MARKINGS / RUMBLE GROOVES / RAISED PAV'T MARKERS

PLACEMENT OF RUMBLE GROOVES AND RAISED PAVEMENT MARKERS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE "WORKING HOURS RESTRICTION" NOTE ON SHEET 56

FINAL PAVEMENT MARKING SHALL BE INSTALLED AS A MOVING OPERATION. THE CONTRACTOR SHALL PROVIDE TWO (2) TRAILING VEHICLES AS PER MT-99.20M FOLLOWING THE PAVEMENT MARKING EQUIPMENT. THE TWO (2) TRAILING VEHICLES SHALL TRAVEL 500 FEET APART WITH THE REMOTE VEHICLE TRAVELING ON THE SHOULDER (LEFT OR RIGHT AS APPLICABLE) WHERE USABLE SHOULDER IS AVAILABLE. THE FIRST TRAIL VEHICLE IN A TRAFFIC LANE SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR MEETING NCHRP 350 REQUIREMENTS. THE INTERMEDIATE TRAILING VEHICLE SHALL TRAVEL IN THE CLOSED LANE 500 FEET BEHIND THE PAVEMENT MARKING EQUIPMENT.

THE ABOVE WORK ITEMS MAY BE PLACED, WHEREVER PRACTICAL, DURING THE END OF THE PHASE 2 WORK (IF THE FINAL SURFACE COURSE HAD BEEN PLACED) UTILIZING THE LONG TERM PHASE 2 SHIFTS.

FOR THREE LANE SECTIONS (AS AVAILABLE AT THE END OF THE FINAL PAVING PHASE) ONE LANE MAY BE CLOSED TO PERFORM THIS WORK.

TEMPORARY PAVEMENT / PAVEMENT FOR MAINTAINING TRAFFIC

THE TERMS "TEMPORARY PAVEMENT" AND "PAVEMENT FOR MAINTAINING TRAFFIC" ARE USED INTERCHANGEABLY THROUGHOUT THESE PLANS. WHENEVER "TEMPORARY PAVEMENT" IS USED, IT SHALL BE CONSIDERED TO READ "PAVEMENT FOR MAINTAINING TRAFFIC".

TRENCH FOR TEMPORARY PAVEMENTS

TRENCH EXCAVATION FOR TEMPORARY PAVEMENTS NOT PROTECTED BY PORTABLE CONCRETE BARRIER SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

TRENCH CLOSING FOR TEMPORARY PAVEMENT

TEMPORARY PAVEMENTS SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1 1/2" BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK SHIFT. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

THE FOLLOWING ITEM WILL BE USED FOR THE MAINTENANCE OF THE EXISTING PAVEMENT, SHOULDERS OR BRIDGES:

614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 50 CU. YARD

CALCULATED
DCF
CHECKED
ENF

MAINTENANCE OF TRAFFIC
GENERAL NOTES

MED-71-6.06

59
1120

MAINTAINING TRAFFIC - SHOULDER REBUILDING

AGGREGATE DRAINS

THESE DRAINS ARE TO BE INSTALLED TO AID IN THE DRAINAGE OF THE SUBGRADE PRIOR TO THE USE OF THE SHOULDERS FOR MAINTAINING TRAFFIC. THEY SHALL BE INSTALLED AT EACH APPROACH SLAB OR AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

SHOULDER REBUILDING LIMITS

ALL SHOULDER REPAIRS SHALL EXTEND TO EITHER EXISTING FULL DEPTH ASPHALT PAVEMENT, ASPHALT PAVEMENT ON EXISTING CONCRETE BASE OR TO THE BRIDGE ABUTMENTS. STATIONING SHOWN IN THE PLANS IS APPROXIMATE. THE ONLY EXCEPTION TO THE ABOVE IS AT THE NORTHERLY WORK LIMITS.

THE CONTRACTOR SHALL OPERATE A FULLY LOADED CONSTRUCTION VEHICLE ON THE EXPOSED SHOULDER AFTER THE PLANING OPERATION. THE ENGINEER WILL OBSERVE THE RUTTING CAUSED BY THE VEHICLE AND DETERMINE THE UNDERCUT LIMITS. THE LIMITS SHOWN IN THE PLANS FOR UNDERCUTS AND AGGREGATE DRAINS ARE APPROXIMATE, ALL LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR OPERATING THE LOADED VEHICLE ON THE EXPOSED SHOULDER.

SHOULDER REBUILDING SEQUENCE OF OPERATIONS

1. IMPLEMENT ADJACENT LANE CLOSURE
2. PLANE THE EXISTING SHOULDER TO THE SPECIFIED DEPTH
3. DRIVE A FULLY LOADED CONSTRUCTION VEHICLE OVER THE PLANED SURFACE
4. ALLOW TIME FOR THE ENGINEER TO OBSERVE ANY RUTTING AND DETERMINE UNDERCUT LIMITS (IF ANY)
5. INSTALL AGGREGATE DRAINS
6. IF UNDERCUTS REQUIRED:
UNDERCUT 10", PLACE GEOTEXTILE FABRIC AND GRANULAR MATERIAL.
7. PAVE SHOULDER

GENERAL REQUIREMENTS

SPEED MEASUREMENT MARKINGS

SPEED MEASUREMENT MARKINGS TO ASSIST IN THE ENFORCEMENT OF SPEED ZONES WITHIN THE CONSTRUCTION ZONES, SHALL BE UTILIZED FOR THIS PROJECT. MARKINGS SHALL BE 644, WHITE, 24 INCHES WIDE AND EXTEND APPROXIMATELY 2 FEET ON EITHER SIDE OF THE TEMPORARY LANE LINE. THEY SHALL BE PLACED AT 1/4 MILE (1320 FT.) INTERVALS

OVER A MINIMUM ONE MILE LENGTH OF TANGENT ROADWAY. THE LINEAR MEASUREMENTS SHALL BE SURFACE MEASURE (NOT HORIZONTAL PROJECTION). EACH ROADWAY SHALL BE LAID OUT SEPARATELY. THE MARKINGS SHALL BE LAID OUT BY A REGISTERED SURVEYOR. AFTER PLACEMENT, THE MARKING INSTALLATION SHALL BE MEASURED BY A REGISTERED SURVEYOR AND A SEALED DOCUMENT SHALL BE PROVIDED TO THE ENGINEER WHICH LISTS THE EXACT SPACING AND STATION LOCATION OF ALL INSTALLED MARKINGS. ANY MARKINGS WHICH CREATE ZONE LENGTHS THAT VARY FROM 1320 FEET BY MORE THAN ONE FOOT SHALL BE REPLACED AT NO ADDITIONAL COST TO THE STATE.

THE FOLLOWING LOCATIONS SHALL RECEIVE SPEED MEASUREMENT MARKINGS:
STAGE 1, NONE, LESS THAN 1 MILE TANGENT LENGTH AVAILABLE
STAGE 2, PHASE 1, NB & SB, STA. 339+00 TO STA. 410+00
STAGE 2, PHASE 2, NB & SB, STA. 323+00 TO STA. 410+00

ALL COST FOR SURVEYING, PLACING AND RE-SURVEYING ARE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

MAINTAINING TRAFFIC - GREENWICH AND RYAN ROADS

TWO WAY TRAFFIC SHALL BE MAINTAINED USING FLAGGERS (MT-97.10) OR TEMPORARY SIGNAL INSTALLATIONS (MT-96.10, MT-96.20 OR MT-96.21). WHEN SETTING BEAMS OR PLACING THE DECK POUR, A COMPLETE STOPPAGE OF TRAFFIC FOR NO MORE THAN 10 MINUTES IN ANY ONE CONSECUTIVE 30 MINUTE PERIOD SHALL BE PERMITTED. GREENWICH ROAD AND RYAN ROAD ARE NOT TO CLOSE SIMULTANEOUSLY. THE CLOSURE OF GREENWICH ROAD FOR THE MED-71-0729EN (RAMP E-S OVER GREENWICH ROAD) STRUCTURE IS LIMITED TO 60 CONSECUTIVE CALENDAR DAYS. THE CLOSURE OF GREENWICH ROAD FOR MED-71-0729 L/R (IR71 OVER GREENWICH ROAD) STRUCTURE IS LIMITED TO 14 DAYS FOR DEMOLITION OF THE EXISTING BRIDGE. THE CLOSURE OF RYAN ROAD FOR STRUCTURES MED-71-0860 L/R (IR 71 OVER RYAN ROAD) IS LIMITED TO 60 CONSECUTIVE CALENDAR DAYS PER PHASE. THE CLOSURE OF RYAN ROAD FOR STRUCTURE MED-76-0158L (IR 76 OVER RYAN ROAD) IS LIMITED TO 30 CONSECUTIVE CALENDAR DAYS. LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 SHALL BE ASSESSED IF THE ROAD IS NOT RE-OPENED IN TIME.

ITEM 614, WORK ZONE PAVEMENT MARKINGS

THE "TEMPORARY" PAVEMENT MARKING DESCRIPTIONS AND LEGENDS SHOWN THROUGHOUT THESE PLANS SHOULD BE CONSIDERED TO READ "WORK ZONE" PAVEMENT MARKINGS AS PER THE 2005 CMS.

ITEM 614, WORK ZONE SIGNING

ALL WORK ZONE SIGNING SHALL UTILIZE AN ORANGE BACKGROUND COLOR EXCEPT FOR REGULATORY SIGNS.

ITEM 614, BARRIER REFLECTORS AND OBJECT MARKERS

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR MAINTENANCE OF TRAFFIC AND ON ALL EXISTING GUARDRAIL OR BARRIER WHICH IS ADJACENT TO SHIFTED TRAFFIC. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO THE APPROPRIATE STANDARD CONSTRUCTION DRAWING AND ITEM 626 EXCEPT THAT THE SPACING SHALL BE 50 FEET. WHEN ADDING BARRIER REFLECTORS TO AN EXISTING BARRIER WHICH HAS REFLECTORS, THE MARKERS SHALL BE LOCATED MIDWAY BETWEEN THE EXISTING FACE-MOUNTED REFLECTORS. FOR EXISTING GUARDRAIL OR BARRIER INSTALLATIONS, THE SPACING OF THE ADDITIONAL REFLECTORS SHALL BE 100' C/C, LOCATED MIDWAY BETWEEN EXISTING REFLECTORS, THUS RESULTING IN A 50' SPACING.

ON NEW GUARDRAIL AND BARRIERS LOCATED ON THE MEDIAN SIDE, THE PROPOSED, 626 MARKERS SHALL BE INSTALLED AT 50' SPACING TO MEET THIS REQUIREMENT, BECAUSE THOSE REFLECTORS WILL ALREADY BE IN PLACE, ADDITIONAL 614 - BARRIER REFLECTORS WILL NOT BE NEEDED AT THOSE LOCATIONS.

CURE WATER

THE CONTRACTOR IS RESPONSIBLE TO CONTROL ANY WATER THAT FLOWS ONTO THE ROADWAY. DURING TIMES WHEN THE WATER MAY FREEZE, IT IS THE CONTRACTORS RESPONSIBILITY TO MAKE SURE THE ROADWAY DOES NOT BECOME ICY.

ITEM 614 - REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE USING A PRICE PER SQ. FT. FOR ITEM 614 - REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 614 - REPLACEMENT SIGN 400 SQ. FT.

GENERAL REQUIREMENTS

614 - PORTABLE CHANGEABLE MESSAGE SIGN

THE CONTRACTOR SHALL FURNISH, AND MAINTAIN PORTABLE CHANGEABLE SIGNS (PCMS) AS CALLED FOR IN THE PLAN AND REMOVE WHEN NO LONGER NEEDED. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. (HTTP://WWW.DOT.STATE.OH.US/TESTLAB/APPLISTS/MISC/PCMS.HTM) THE UNITS MUST HAVE A MINIMUM LEGIBILITY DISTANCE OF 850'.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT.

THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY.

THE NUMBER, LOCATION, PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE LOCATIONS OF THE PCMS MAY NOT BE WITHIN THE WORK LIMITS OF THE PROJECT BUT SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR, SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9" BY 15" MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGE, IF NECESSARY.

THE PCMS UNITS SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF A FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR BECOME DUE TO THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID PER SIGN-MONTH FOR ALL SIGNS FURNISHED UNDER ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK, INCLUDING RELOCATION IF NECESSARY.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED IN THE M.O.T. SUBSUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, 96* SIGN MNTH.

* IR 71 - 2 LOCATIONS @ 8 MONTHS PER STAGE (4 STAGES)
 IR 76- 2 LOCATIONS @ 8 MONTHS PER DIRECTION (2 STAGES)
 4 TOTAL UNITS

WORK ZONE DELINEATION

IN TRANSITION AREAS FOR LANE SHIFTS EQUAL TO OR GREATER THAN 4 FEET AND FOR CROSSOVERS, THE CONTRACTOR SHALL PROVIDE DELINEATION AS FOLLOWS:

1. ON ASPHALT SURFACES, DELINEATION SHALL BE BY USE OF 642 TYPE 2 ALKYD PAINT OR 643 POLYESTER, WITH 621 PERMANENT RAISED PAVEMENT MARKERS. THIS MARKING SHALL CONSIST OF 4 INCH EDGE LINES, 8 INCH CHANNELIZING LINES, AND RAISED PAVEMENT MARKERS. IN THE TRANSITION AREA, THE RAISED PAVEMENT MARKERS SHALL BE LOCATED AT 20 FT. SPACING ALONG THE EDGE LINES AND THE CHANNELIZING LINES. IN THE TANGENT AREAS, THE RAISED PAVEMENT MARKERS SHALL BE LOCATED AT 120 FT. SPACING ALONG THE LANE LINES.
2. ON CONCRETE PAVEMENT OR BRIDGE DECKS AND ON PAVEMENT WHERE THE SURFACE COURSE HAS ALREADY BEEN PLACED, DELINEATION IN THE TRANSITION AREA DURING THE CONSTRUCTION SEASON SHALL BE BY USE OF 873 WET REFLECTIVE REMOVABLE TAPE. DURING THE WINTER SEASON (DECEMBER 1 THROUGH MARCH 31) DELINEATION IN THE TRANSITION AREA SHALL BE BY USE OF 643 POLYESTER. IN THE WINTER, PIECES (4 X 12 INCHES) OF 873 WET REFLECTIVE REMOVABLE TAPE SHALL ALSO BE PROVIDED AT 20 FOOT INCREMENTS, OFFSET FROM EACH OF THE CHANNELIZING LINES.

REMOVAL OF RAISED PAVEMENT MARKERS, WHEN NO LONGER NEEDED, SHALL BE AS PER 202.10. THE TRANSITION AREA SHALL BE RESURFACED AS PART OF THE ROADWAY WORK. PAYMENT FOR RESURFACING IS NOT PART OF THIS ITEM OF WORK. FOR DETAILS ON THIS DELINEATION SCHEME SEE PLAN SHEET 133D.

IN THE TANGENT AREA, DELINEATION SHALL BE PROVIDED BY USE OF 643 POLYESTER FOR LONG LINE MARKING, WITH PIECES OF 873 WET REFLECTIVE REMOVABLE TAPE (4" X 12") TO BE PROVIDED AT 80 FOOT INCREMENTS, ALONG THE LANE LINES. FOR DETAILS SEE PLAN SHEET 133E.

ALL MATERIAL FURNISHED FOR 873 WET REFLECTIVE TAPE SHALL BE LISTED ON THE DEPARTMENT'S PREQUALIFIED LISTS. THE INSTALLATION OF ALL MATERIALS SHALL MEET OR EXCEED THE MANUFACTURER'S RECOMMENDATIONS.

AFTER REMOVABLE PAVEMENT MARKINGS HAVE BEEN INSTALLED, THEY SHALL BE CUT AT 10 FOOT OR SHORTER INTERVALS.

THE TRANSITION AREA FOR SHIFT TAPERS IS GENERALLY CONSIDERED TO BEGIN 300 FT IN ADVANCE OF THE BEGINNING OF THE SHIFT TAPER AND TO END 300 FT BEYOND THE TERMINATION OF THE SHIFT TAPER. THE TRANSITION AREA FOR CROSSOVERS IS GENERALLY CONSIDERED TO BEGIN 300 FT IN ADVANCE OF THE BEGINNING OF THE CROSSOVER GEOMETRICS AND TO END 300 FT BEYOND THE TERMINATION OF THE CROSSOVER GEOMETRICS.

PAYMENT FOR ALL WORK ZONE DELINEATION SHALL BE MADE AS TRANSITION AREA DELINEATION. PAYMENT SHALL BE MADE AT THE CONTRACT BID PRICE PER FOOT OF TRANSITION AREA AND SHALL INCLUDE THE COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING, IF NECESSARY, THE APPROPRIATE DELINEATION SCHEME SPECIFIED ABOVE.

PAYMENT FOR ITEM 614 TANGENT AREA DELINEATION SHALL BE MADE AT THE CONTRACT BID PRICE PER FOOT OF TANGENT AREA AND SHALL INCLUDE THE COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING, IF NECESSARY, THE APPROPRIATE DELINEATION SCHEME SPECIFIED ABOVE.

PAYMENT SHALL ALSO INCLUDE REPLACEMENT, AS PER 614.11.A (CONSTRUCTION AND MATERIALS SPECIFICATIONS) OR 614.115.D (PROPOSAL NOTE 101), OF ANY PART OF THE DELINEATION SYSTEM WHICH, IN THE JUDGEMENT OF THE ENGINEER, FAILS. PAYMENT SHALL ALSO INCLUDE THE REPLACEMENT OF PAVEMENT MARKINGS IN BRIDGE REPAIR AREAS AT NO ADDITIONAL COST. THAT PLACEMENT SHALL BE PERFORMED PRIOR TO REOPENING THE LANE(S) TO TRAFFIC. LANE CLOSURES REQUIRED TO REPAIR OR REPLACE MISSING TAPE OR RAISED PAVEMENT MARKERS WILL BE AT THE ENGINEER'S APPROVAL AND AT THE CONTRACTOR'S COST.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
614	FOOT	TRANSITION AREA DELINEATION
614	FOOT	TANGENT AREA DELINEATION

CALCULATED
DCP
CHECKED
ENF

MAINTENANCE OF TRAFFIC
GENERAL NOTES

MED-71-6.06

61
1120

WORKSITE TRAFFIC SUPERVISOR

THE CONTRACTOR SHALL EMPLOY (OTHER THAN THE SUPERINTENDENT) AND SUBJECT TO THE APPROVAL OF THE ENGINEER, A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS). THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS).
2. THE NATIONAL SAFETY COUNCIL, TRAFFIC CONTROL ZONES SUPERVISORS COURSE, PHONE NUMBER 1-800-441-5103.
3. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528.

THE WTS POSITION IS ESTABLISHED FOR THE PURPOSE OF MONITORING AND CORRECTING ANY TRAFFIC CONTROL DEFICIENCIES IN THE WORK ZONE. THE WTS MUST ALSO COORDINATE WITH ALL LAW ENFORCING AGENCIES RESPONSIBLE FOR THE ROADWAY UNDER CONSTRUCTION AND RETRIEVE ALL CRASH REPORTS (OH-1) THAT OCCUR DURING THE CONSTRUCTION SEASON. THE WTS SHALL OVERSEE ALL OPERATIONS THAT AFFECT THE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE WORK ZONE. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS'S MAIN DUTY WHILE THE WORK ZONE IS IN PLACE. THE WTS SHALL BE PRESENT WHEN THE WORK ZONE IS BEING SET UP, AND SHALL ALSO BE PRESENT WHEN THE CONTRACTOR OR SUBCONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ETC. IN LIEU OF THE WTS BEING PRESENT WHEN A SUBCONTRACTOR HAS A WORK ZONE IN PLACE, THE CONTRACTOR MAY USE HIS OWN PERSONNEL THAT IS A CERTIFIED WTS. THE CONTRACTOR OR SUBCONTRACTOR MUST PRESENT A COPY OF HIS WTS CERTIFICATE TO THE PROJECT ENGINEER. A MINIMUM OF 3 TIMES DAILY, INCLUDING WEEKENDS AND HOLIDAYS, THE WTS SHALL REVIEW THE WORK ZONE AND/OR CRASH DATA FOR DEFICIENCIES AND MAINTAIN THE WORK ZONE. THE WTS MUST RECOMMEND SOLUTIONS TO ADDRESS ANY ISSUES THAT ARE POTENTIALLY CREATING CRASHES WITHIN THE WORK ZONE. THE WTS MUST PRESENT THESE RECOMMENDATIONS TO THE ENGINEER AND THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) FOR APPROVAL AT ALL PROJECT PROGRESS MEETINGS. UPON APPROVAL BY THE ENGINEER AND THE DWZTM, THE CONTRACTOR MUST IMPLEMENT THE RECOMMENDED SOLUTIONS TO THE WORK ZONES WITHIN ONE WEEK. THESE HOURS MAY BE ADJUSTED BY THE ENGINEER BUT MUST BE PERFORMED ONCE A DAY DURING THE CONSTRUCTION SEASONS. THE WTS MUST INSPECT THE WORK ZONE ONE TIME PER WEEK DURING THE HOURS OF DARKNESS.

A RECORD OF EACH DAILY REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER THE FOLLOWING WORK DAY. ALSO IN WRITING, THE WTS'S REPORT SHALL INCLUDE: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, VISIBILITY, TRAFFIC FLOW CONDITIONS, INCIDENTS, ACCIDENTS, CONGESTION POINTS, ADEQUACY OF ADVANCED WARNING SIGNS BEYOND PROJECT LIMITS, INTERACTION OF WORK VEHICLES AND TRAFFIC, PROPER STORAGE OF MATERIALS AND EQUIPMENT. IF THE RESTRICTIONS ARE SHORT TERM, THE WTS SHALL MONITOR THE ZONE FOR COMPLIANCE. DURING LANE CLOSURES, THE WTS SHALL MAKE SURE ALL TRAFFIC CONTROL ITEMS ARE FUNCTIONING PROPERLY. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS'S MAIN DUTY DURING IMPLEMENTATION OF ZONES OR SHORTTERM ZONES. THE WTS SHALL HAVE THE AUTHORITY TO HAVE DEFICIENCIES CORRECTED AS SOON AS POSSIBLE. THE WTS SHALL PROVIDE THE DWZTM A SKETCH OF THE TRAFFIC CONTROL PLAN (TCP) EVERY DAY THERE IS TO BE A SHORT-TERM TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THIS TCP SHALL SHOW HOW THE WORK ZONES ARE TO BE IMPLEMENTED.

THE WTS SHALL BE AVAILABLE ON A 24-HOUR BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. A 24-HOUR PHONE NUMBER SHALL BE MADE AVAILABLE TO THE PROJECT ENGINEER. IN ORDER TO CONTACT THE WTS. THE WTS SHALL HAVE A PAGER AND THE PHONE NUMBER PROVIDED TO THE PROJECT ENGINEER.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE, SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO DEDUCT \$2000.00 PER DAY FROM MONEY DUE TO THE CONTRACTOR, NOT AS A PENALTY, BUT AS A LIQUIDATION DAMAGE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORKSITE TRAFFIC SUPERVISOR:

ITEM 614 WORKSITE TRAFFIC SUPERVISOR MONTHS	35 MONTHS
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ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC AS DIRECTED AND APPROVED BY THE ENGINEER FOR THE FOLLOWING TASKS:

- A) TRANSITION FROM ONE TRAFFIC CONTROL PATTERN TO ANOTHER
- B) TO ALLOW FOR FINAL RESURFACING, PAVEMENT MARKING, BARRIER MOVEMENT OR OTHER ACTIVITIES WHEN LESS THAN 2 LANES DIRECTIONAL ARE PROVIDED FOR TRAFFIC.
- C) FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.
- D) DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- E) DURING A TRAFFIC SIGNAL INSTALLATION.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH: THE STATE HIGHWAY PATROL (TELEPHONE: 330-725-4921) LOCATED AT 3149 FRANTZ ROAD, MEDINA OHIO 44256.

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE HOURLY BASIS UNDER ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE M.O.T. SUBSUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 800 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

BUTT JOINTS

THE BRIDGE APPROACHES WHICH HAVE NOT RECEIVED A SURFACE COURSE AND THE MILLED AREAS FOR BUTT JOINTS SHALL NOT BE LEFT OPEN TO TRAFFIC. BEFORE OPENING TO TRAFFIC A TEMPORARY ASPHALT CONCRET WEDGE OF SUFFICIENT LENGTH SHALL BE CONSTRUCTED AT THE DROPOFF AS DIRECTED BY THE ENGINEER. ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC IS TO BE USED FOR THE WEDGE CONSTRUCTION. IT SHALL BE PLACED WHILE TRAFFIC IS PROHIBITED. BEFORE THE NEW PAVEMENT IS PLACED, THE WEDGE SHALL BE REMOVED AND THE COSTS SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

THE FOLLOWING ITEM SHALL BE USED FOR THIS PURPOSE:

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 300 CU. YD.

"BUMP" (WB-1) AND "ADVISORY SPEED" (W13-1) SIGNS AND SUPPORTS SHALL BE ERECTED AND MAINTAINED AT THE BUTT JOINT UNTIL THE SURFACE COURSE IS COMPLETED. THE COSTS FOR PROVIDING, ERECTING, MAINTAINING AND SUBSEQUENTLY REMOVING THESE SIGNS AND SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

WORK ZONES INCREASED PENALTIES SIGN

R11-H5a-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

(THE SIGNS SHALL BE DUAL MOUNTED. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS.)

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONES INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONES INCREASED PENALTIES SIGN 26 EACH

ITEM 614 - REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE USING A PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 614 - REPLACEMENT DRUM 250 EACH

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 614 - WATER 3000 M.GAL.

ITEM 614, WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT (R2-1) (55 SPEED LIMIT) SIGNS AND SUPPORTS WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED LIMIT SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

CONSTRUCTION AND MATERIALS SPECIFICATIONS, ITEM 614, PARAGRAPH 614.02(B) INDICATES THAT THE TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, SPEED REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE SPEED REDUCTION IN THE OPPOSITE DIRECTION. SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION, IN SUCH CASE, IS APPROPRIATE ONLY IF CONDITIONS ARE EXPECTED TO HAVE AN IMPACT ON THE DIRECTIONAL TRAFFIC FLOW, AS DIRECTED BY THE ENGINEER.

(THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 CONSECUTIVE CALENDAR DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF A DIRECTIONAL ROADWAY OF DIVIDED HIGHWAYS. THE FIRST WORK ZONE SPEED LIMIT SIGN SHALL BE PLACED 500 FEET IN ADVANCE OF THE LANE REDUCTION OR SHIFT TAPER OR AT A POINT WHEREVER CONSTRUCTION BEGINS, WHICHEVER COMES FIRST. ON UNDIVIDED HIGHWAYS THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, 250 FEET IN ADVANCE OF THE TAPER. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1 MILE FOR 55 MPH ZONES AND EVERY ONE-HALF MILE FOR 50 MPH AND 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.)

REDUCED SPEED AHEAD SIGNS SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION, APPROXIMATELY 1300 FEET ON MULTI-LANE HIGHWAYS AND 500 FEET ON 2-LANE HIGHWAYS.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R2-1 (SPEED LIMIT) SIGNS SHALL BE USED ON UNDIVIDED ROADWAYS. R2-1 (SPEED LIMIT) AND R2-H2a SIGNS SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R2-1 AND R2-H2a SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO ITEM 630, GROUND MOUNTED SUPPORTS, NO. 3 POSTS.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, WORK ZONE SPEED LIMIT SIGN 42 EACH

CALCULATED
DCF
CHECKED
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MAINTENANCE OF TRAFFIC
GENERAL NOTES

MED-71-6.06

63
1120

MNA.DGN

ITEM 620 - DELINEATOR, MISC., TUBULAR MARKER

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING AND INSTALLING A TEMPORARY DELINEATOR ALONG THE OUTSIDE SHOULDER OF EXISTING BRIDGES DURING PHASE I TRAFFIC SHIFTS. THE DELINEATOR SHALL BE A FLEXIBLE REFLECTORIZED TUBULAR MARKER, SPECIFICALLY MADE FOR USE AS A TRAFFIC DIVIDER / DELINEATOR MEETING THE REQUIREMENTS OF 6F.57 OF THE OMTCD. THE BASE PLATE SHALL BE ANCHORED TO THE EXISTING BRIDGE CURB BY ANCHORS USING EITHER ADHESIVE ANCHORS, EXPANSION ANCHORS, NAILS, OR TAPCON SCREW TYPE ANCHORS. SPACING SHALL BE AT 25' CENTER TO CENTER. THE MARKER SHALL BE ORANGE WITH A MINIMUM OF 2 REFLECTIVE WHITE STRIPES. MATERIALS USED FOR STAGE I OF THE PROJECT SHALL BE NEW, HOWEVER, THE SAME MATERIALS MAY BE USED FOR SUBSEQUENT STAGES PROVIDING THAT THEY ARE IN GOOD CONDITION AND WILL FUNCTION AS DESIGNED.

THE FOLLOWING QUANTITY SHALL BE USED TO PROVIDE THESE MARKERS:

ITEM 620 - DELINEATOR, MISC., TUBULAR MARKER 80 EACH

ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E-98, AS PER PLAN A

PRIOR TO MOVING TRAFFIC TO THE OUTSIDE SHOULDER FOR MAINTAINING TRAFFIC, THIS ITEM SHALL BE PERFORMED TO REALIGN ALL ANCHOR ASSEMBLIES, TYPE E, WHERE ANY PORTION IS CLOSER THAN 3 FEET TO THE PROPOSED SHIFTED TRAFFIC EDGE LINE. THE CONTRACTOR SHALL CAREFULLY REMOVE 50 FEET OF GUARDRAIL (INCLUDING THE END ASSEMBLY) AND REINSTALL IT AT A 25:1 MIN. TO 15:1 MAX. TAPER RATE. THE NEAREST POINT OF THE E-98 HEAD SHALL BE LOCATED AT LEAST 1.25 TO 2.5 FEET FROM THE NORMAL GUARDRAIL OFFSET. THE CONTRACTOR SHALL MAXIMIZE THE OFFSET WITHIN THE ABOVE LIMITS AS FEASIBLE DUE TO THE EXISTING GRADING CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY PARTS DAMAGED AS A RESULT OF THE REMOVAL OPERATION. ANY EMBANKMENT REQUIRED TO OFFSET THE ASSEMBLY IS INCIDENTAL TO THIS ITEM OF WORK.

THE FOLLOWING ITEM WILL BE USED TO PERFORM THIS WORK:

ITEM 606-ANCHOR ASSEMBLY REBUILT, TYPE E-98, AS PER PLAN A 8 EACH

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL COSTS TO REMOVE THE DAMAGED ASSEMBLY AND COMPLETELY REPAIR/REPLACE THE ANCHOR ASSEMBLY. THIS WORK SHALL BE DONE WITHIN 24 HOURS OF BEING DAMAGED. NIGHT WORK ONLY WILL BE PERMITTED. LANE CLOSURES DURING REPAIRS SHALL BE IN ACCORDANCE WITH MT-95.30. ALL COSTS ASSOCIATED WITH MAINTAINING TRAFFIC DURING REPAIRS SHALL BE CONSIDERED INCIDENTAL TO THE WORK BEING PERFORMED. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS 108.07 IF REPAIRS ARE NOT COMPLETE WITHIN 48 HOURS FROM THE TIME ODOT REQUESTS REPAIR.

THE FOLLOWING ITEM WILL BE USED TO PERFORM THIS WORK:

ITEM 606-ANCHOR ASSEMBLY, TYPE E-98, AS PER PLAN 10 EACH

WORK ZONE PAVEMENT MARKINGS AFTER PLANING OR SURFACE COURSE

THIS ITEM IS PROVIDED TO BE USED AFTER MILL AND FILL PAVEMENT REPAIRS (IR71), PAVEMENT PLANING (IR76) AND AFTER PLACEMENT OF THE SURFACE COURSE ON IR 71 AND IR 76. IF THE CONTRACTOR IMMEDIATELY PLACES THE PERMANENT PAVEMENT MARKINGS, THEN THIS ITEM SHALL BE NON-PERFORMED.

	LOCATION	LENGTH	EDGE LINE YELLOW	EDGE LINE WHITE	LANE LINE
IR76 EB	STA. 839+25 TO STA. 916+10	7685'	7685'	7685'	7685'
IR76 WB	STA. 839+25 TO STA. 916+10	7685'	7685'	7685'	7685'
IR71 NB	STA. 320+00 TO STA. 504+75	18475'	18475'	18475'	36950'
IR71 SB	STA. 320+00 TO STA. 504+75	18475'	18475'	18475'	36950'
IR76 EB	STA. 839+25 TO STA. 916+10	7685'	7685'	7685'	7685'
IR76 WB	STA. 839+25 TO STA. 916+10	7685'	7685'	7685'	7685'
IR71 (AFTER MILL AND FILL, SEE SHEET 67C)			27330'	27330'	27330'

THE FOLLOWING ITEM WILL BE USED TO PERFORM THIS WORK:

ITEM 614 - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT 30.82 MI.
 ITEM 614 - WORK ZONE LANE LINE, CLASS 1, 642 PAINT 25.00 MI.

ITEM 622 PORTABLE CONCRETE BARRIER

TEMPORARILY FILLING THE VOID BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT IS NOT ALLOWED. THE MATERIAL PLACED WILL BECOME CONTAMINATED AND THE STEP CONSTRUCTION WILL BE LOST, WHICH IS NOT ACCEPTABLE. THE CONTRACTOR HAS ONLY TWO OPTIONS OF SETTING UP THE PORTABLE CONCRETE BARRIER BETWEEN PHASES.

THE FIRST OPTION IS TO RETAIN THE PORTABLE CONCRETE BARRIER SETUP WHEN TRAFFIC IS ON THE EXISTING PAVEMENT AND PROVIDE ADDITIONAL PORTABLE CONCRETE BARRIER ON THE NEW SECTION OF PAVEMENT PRIOR TO SHIFTING TRAFFIC OVER ONTO THE NEW SECTION.

THE SECOND OPTION IS TO MOVE THE EXISTING PORTABLE CONCRETE BARRIER SETUP OVER TO THE NEW SECTION, BUT WITH RESTRICTONS. MOVEMENT OF THE PORTABLE CONCRETE BARRIER BETWEEN PHASES SHALL BE ACCOMPLISHED IN ONE WORKING DAY AND ONLY AT NIGHT PER THE "WORK ZONE RESTRICTION" NOTE IN THE PLANS. A LANE CLOSURE OF THE LANE ADJACENT TO THE PORTABLE CONCRETE BARRIER IS NECESSARY TO PERFORM THIS WORK. THE CONTRACTOR SHALL USE MULTIPLE CREWS, EQUIPMENT, ETC., IN ORDER TO PERFORM THIS TASK.

THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL SEVEN (7) DAYS IN ADVANCE. WORK SHALL NOT BEGIN UNTIL APPROVAL HAS BEEN GRANTED.

ALL COSTS INVOLVED IN REMOVING AND REINSTALLING THE PORTABLE CONCRETE BARRIER SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 622 PORTABLE CONCRETE BARRIER.

GUARDRAIL DELINEATION AND HERBICIDAL SPRAYING DURING PHASE I MOT

PRIOR TO SHIFTING TRAFFIC TO THE OUTSIDE SHOULDER FOR PHASE I MOT OPERATIONS THE CONTRACTOR SHALL RECONSTRUCT ALL EXISTING TYPE E END TERMINALS AS NOTED ON THIS SHEET, USING ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN A.

IN ADDITION, THE CONTRACTOR SHALL PLACE BARRIER REFLECTORS, TYPE A IN ACCORDANCE WITH ITEM 614 ALONG ALL EXISTING GUARDRAIL RUNS AND SPRAY A NON-SELECTIVE HERBICIDAL SPRAY, (ROUND-UP OR EQUAL) ON A FIVE FOOT WIDE STRIP ADJACENT TO THE OUTSIDE EDGE OF PAVED SHOULDER ALONG ALL EXISTING GUARDRAIL RUNS PRIOR TO SHIFTING TRAFFIC TO PHASE I.

ALL COST FOR PLACING AND SUPPLYING THE HERBICIDAL SPRAY ARE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

PAVEMENT MARKINGS AFTER SHIFT REMOVALS

FOR AREAS WHERE SHIFTED TRAFFIC WILL RETURN TO NORMAL LANE POSITIONS, AND NOT SHIFT TO A DIFFERENT MOT SCHEME, THE ORIGINAL PAVEMENT MARKINGS SHALL BE RESTORED. THE FOLLOWING ITEMS ARE TO BE USED TO RETURN MAINLINE IR 71 AND MAINLINE IR 76 LANES TO THE ORIGINAL POSITION AFTER STAGE 1, PHASES 1 & 2 ARE COMPLETE.

	LOCATION	LENGTH	EDGE LINE YELLOW	EDGE LINE WHITE	LANE LINE	MATERIAL
IR71 NB	STA. 358+90 TO STA. 383+60	2470'	2470'	2470'	2470'	642
IR71 SB	STA. 356+40 TO STA. 386+25	2985'	2985'	2985'	2985'	642
IR71 NB	STA. 415+44 TO STA. 523+45	10801'	10801'	10801'	10801'	642
IR71 SB	STA. 421+10 TO STA. 523+75	10265'	10265'	10265'	10265'	642
IR76 EB	STA. 869+90 TO STA. 893+80	2390'	2390'	2390'	2390'	642
IR76 WB	STA. 854+40 TO STA. 876+60	2220'	2220'	2220'	2220'	642
IR76 WB	STA. 891+90 TO STA. 916+10	2420'	2420'	2420'	2420'	642
IR71 NB	STA. 300+20 TO STA. 515+65	21544'	21544'	21544'	43088'	642
IR71 SB	STA. 309+10 TO STA. 523+75	21465'	21465'	21465'	42930'	642
ADDITIONAL			2000'	2000'	2000'	642

TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY ON SHEET 559

ITEM 642 - EDGE LINE 29.76 MI.
 ITEM 642 - LANE LINE 23.02 MI.

CALCULATED
 DCF
 CHECKED
 ENF

MAINTENANCE OF TRAFFIC
 GENERAL NOTES

MED-71-6.06

64
 1120

MNA.DGN

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR MAINTAINING TRAFFIC.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS (INCLUDING A CONCRETE LEVELING PAD WHEN NOT LOCATED ON EXISTING PAVEMENT):

- 1) THE QUADGUARD CZ, (24" WIDE 6-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., 35 EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE 6-BAY QUADGUARD CZ IS 20'-9". INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG.#	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 Rev. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG	11/19/97 Rev. D	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 Rev. F	8/27/99
354051Z	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24,30,36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 Rev. F	8/27/99
3540260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 Rev. C	8/27/99

- 2) THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRIES, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE TRACC IS 21'-0" LONG AND 2'-7" WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG.#	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/12/99 Rev. I	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS	6/30/99 Rev. I	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99

- 3) THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR, DISTRIBUTED BY ROAD SYSTEMS INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515, (TELEPHONE 330-799-9291)

THE TAU-II FOR THIS NOTE IS A PARALLEL 8-BAY UNIT (24' LONG AND 35" WIDE). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

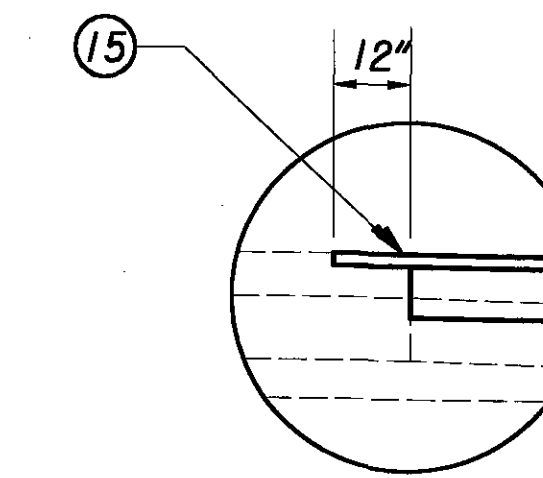
DWG.#	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
A040416	UNIVERSAL TAU-II PARTS LIST	4/22/04	10/16/04
A040420	UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP	4/28/04	10/16/04
A040105	UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A04020)	1/7/04	10/16/04
B040239	APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL 60 MPH UNIT)	4/21/04	10/16/04

- 4) THE GREAT CZ IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC. THIS ATTENUATOR MAY BE USED UNTIL JANUARY 1, 2007 IF THE ITEM WAS PURCHASED BEFORE OCTOBER 1, 1998 AND IS IN THE CONTRACTOR'S INVENTORY.

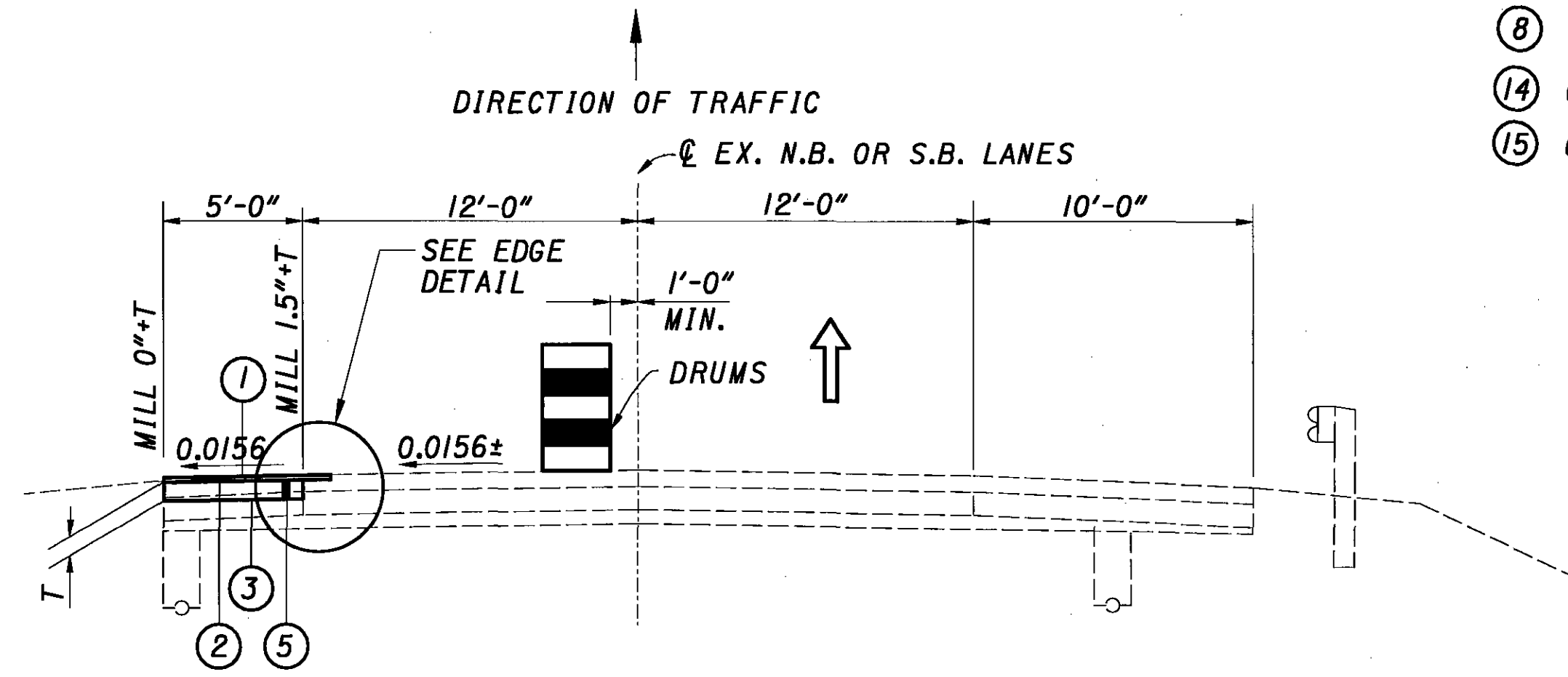
THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY 1 TO 6 UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, 5 INSTALLED UNITS REQUIRE 1 SPARE PARTS PACKAGE AND 7 INSTALLED UNITS REQUIRE 2 SPARE PARTS PACKAGES. WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL OR BI-DIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, REPAIR, REPLACE OR RELOCATE A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

LEGEND

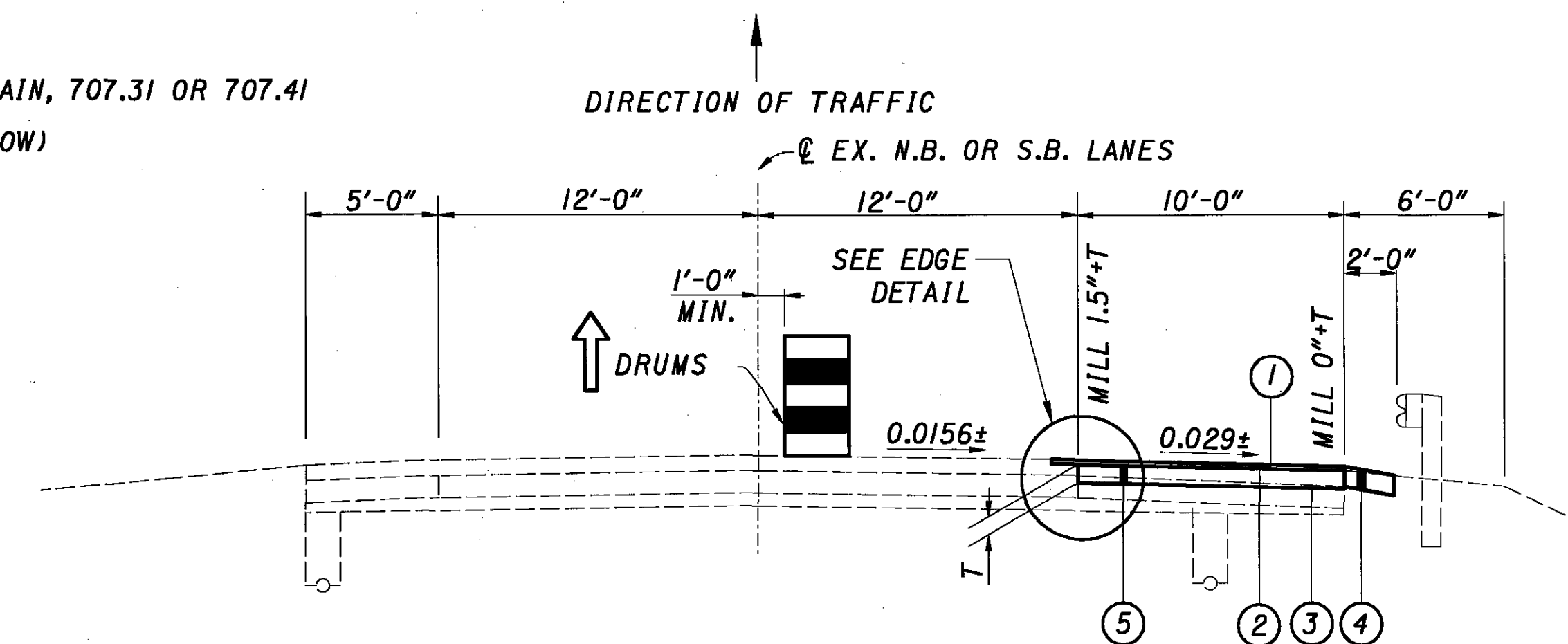
- ① 254 PAVEMENT PLANING, ASPHALT CONCRETE, (8" MAX. - 4" MIN., 1/2" FOR LAP)
- ② 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-28
- ③ 407 TACK COAT (SEE GENERAL NOTE)
- ④ 301 6" ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
- ⑤ 301 (VAR. THICKNESS) ASPHALT CONCRETE BASE, PG 64-22
- ⑥ 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B
- ⑦ 204 EXCAVATION OF SUBGRADE
204 GRANULAR MATERIAL, TYPE B
- ⑧ 204 GEOTEXTILE FABRIC
- ⑭ 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41
- ⑮ 642 EDGELINE (WHITE OR YELLOW)



EDGE DETAIL

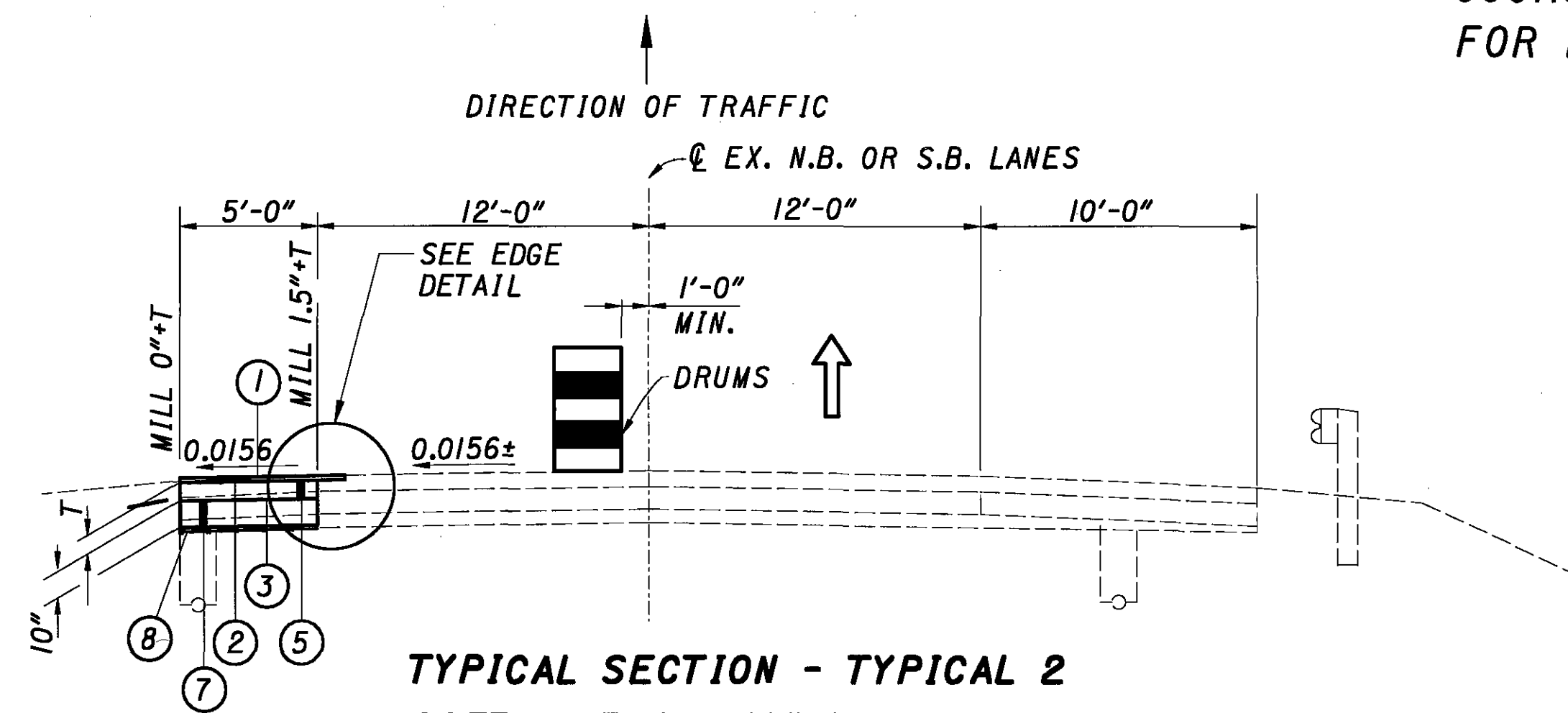


**TYPICAL SECTION - TYPICAL 1
NO EXTRA SUBBASE**

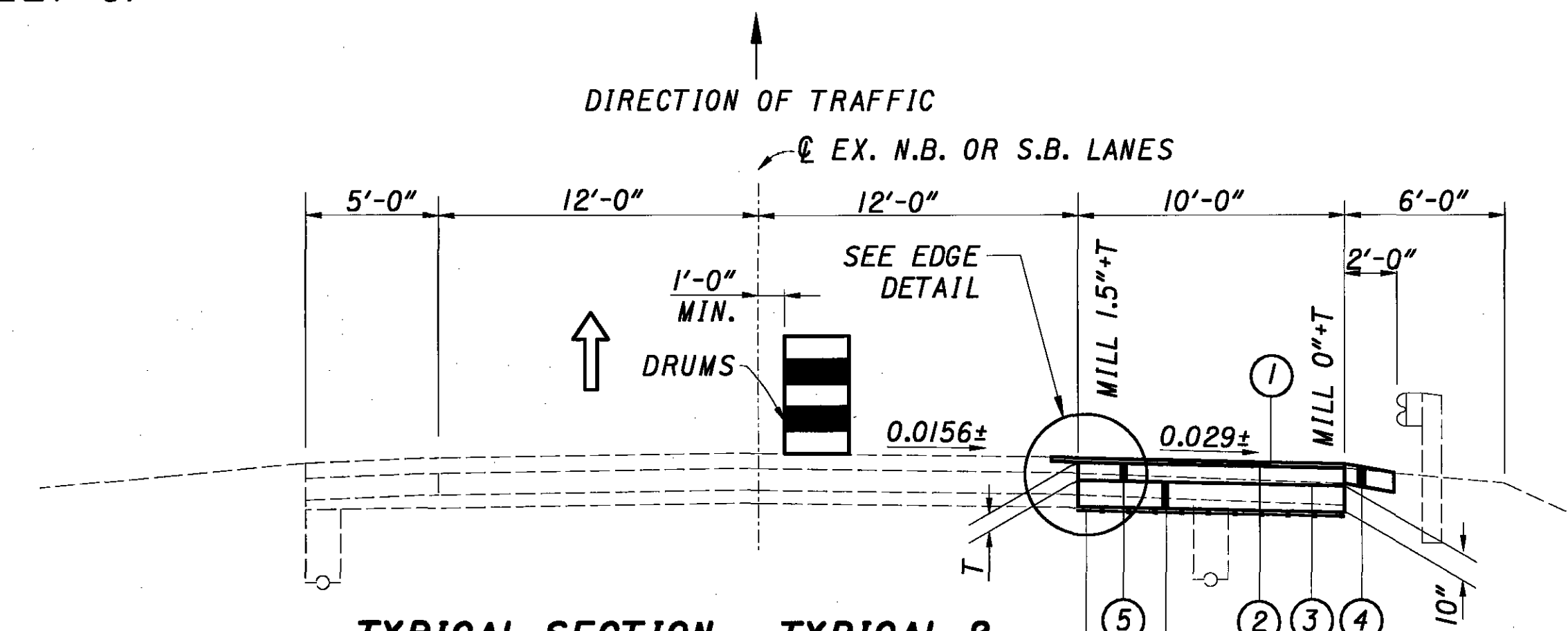


**TYPICAL SECTION - TYPICAL 1
NO EXTRA SUBBASE**

FOR THICKNESS OF 301 COURSE (T) AND LIMITING STATIONS FOR EACH TYPICAL SEE SHEET 67



**TYPICAL SECTION - TYPICAL 2
SOFT AREAS - 10" UNDERCUT
WITH FABRIC**



**TYPICAL SECTION - TYPICAL 2
SOFT AREAS - 10" UNDERCUT
WITH FABRIC**

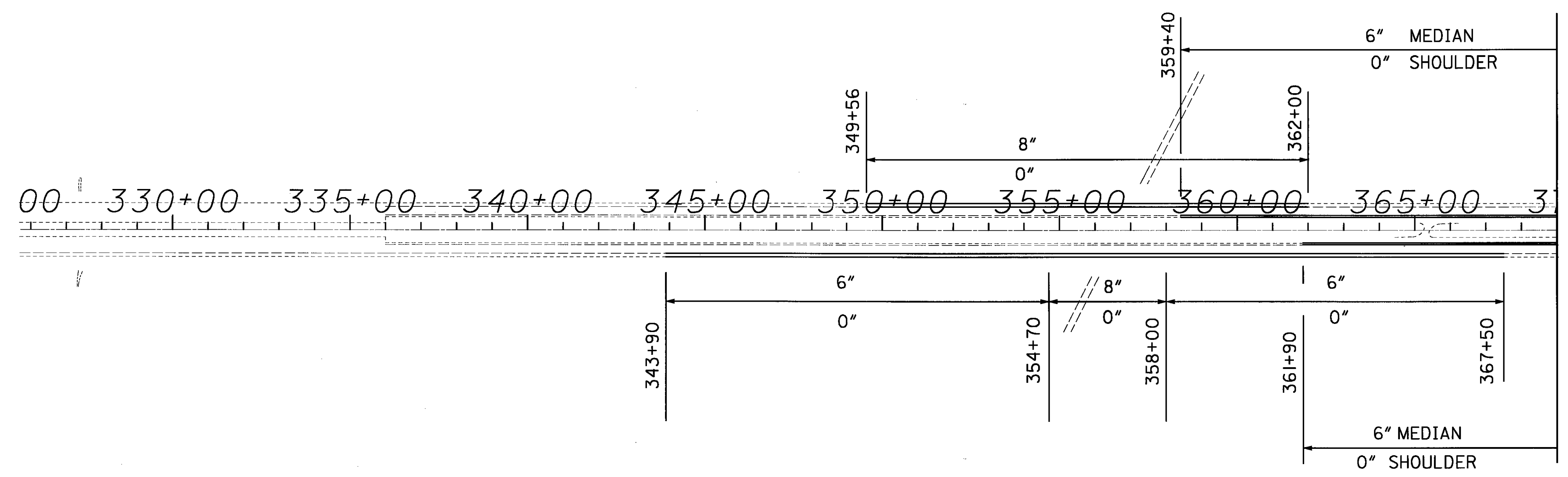
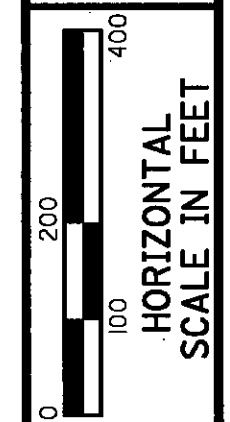
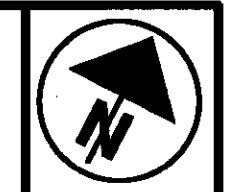
**IR71 INSIDE BERM RESURFACING TYPICAL SECTION
PRE-PHASE I**

STAGE 1, PHASE 1 SHIFTS ONLY
STA. 361+90 TO STA. 380+60 NORTHBOUND
STA. 359+40 TO STA. 383+25 SOUTHBOUND

**IR71 OUTSIDE BERM RESURFACING TYPICAL SECTION
PRE-PHASE I**

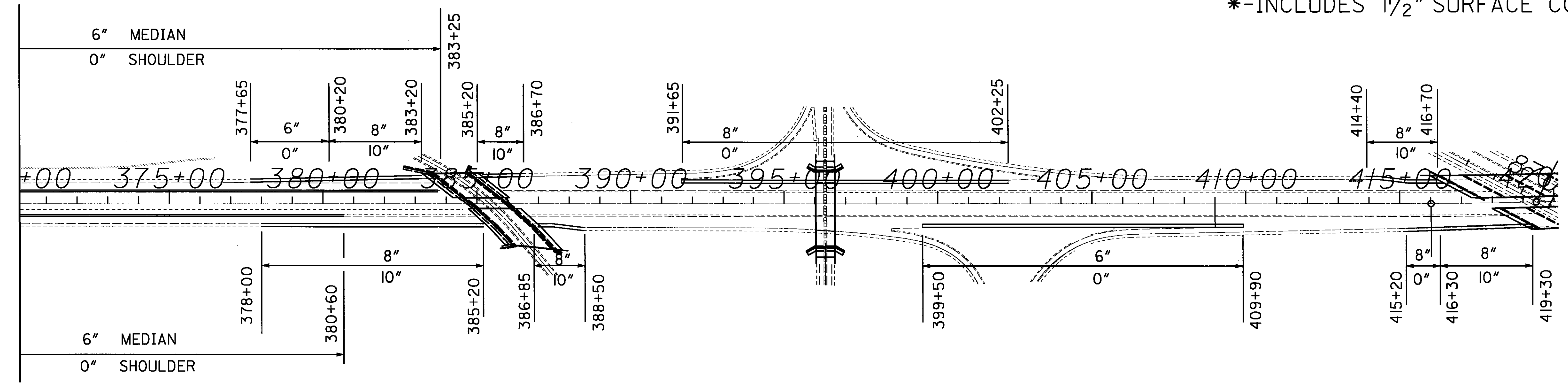
STA. 343+90 TO STA. 472+73 NORTHBOUND
STA. 349+56 TO STA. 473+39 SOUTHBOUND

NOTE: ALL STATION LIMITS SHOWN INCLUDE THE EXISTING BRIDGES WHICH ARE TO BE RECONSTRUCTED.



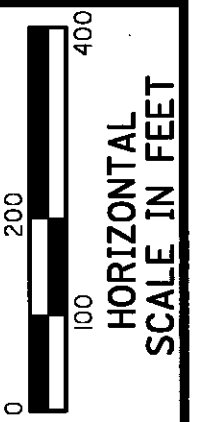
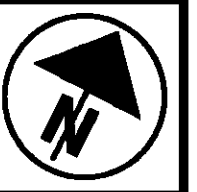
LEGEND		EXAMPLE
MILL AND FILL DEPTH*		8"
UNDERCUT DEPTH		10"

*-INCLUDES 1/2" SURFACE COURSE



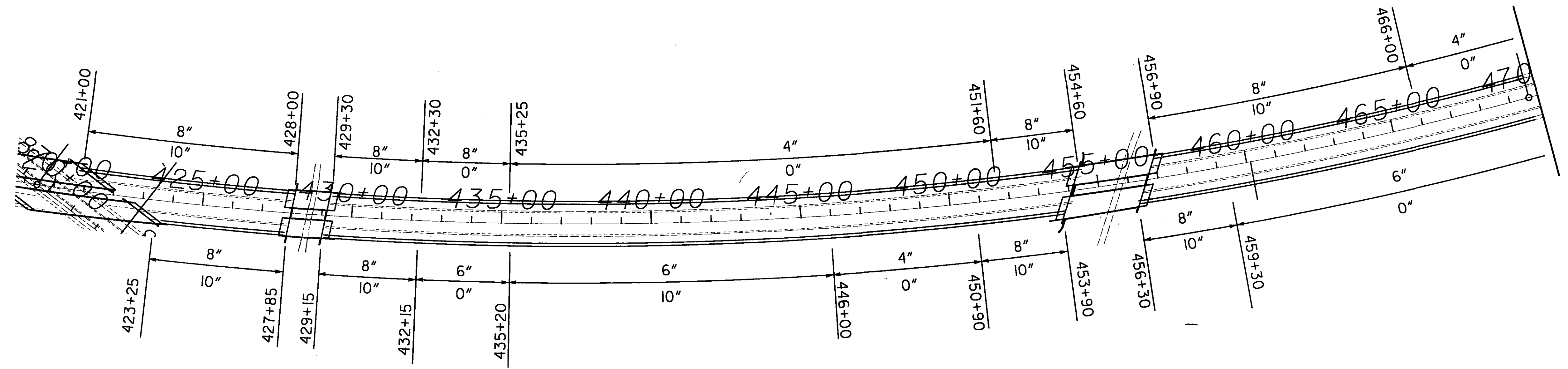
SHOULDER REPLACEMENT PLAN

MED-71-6.06



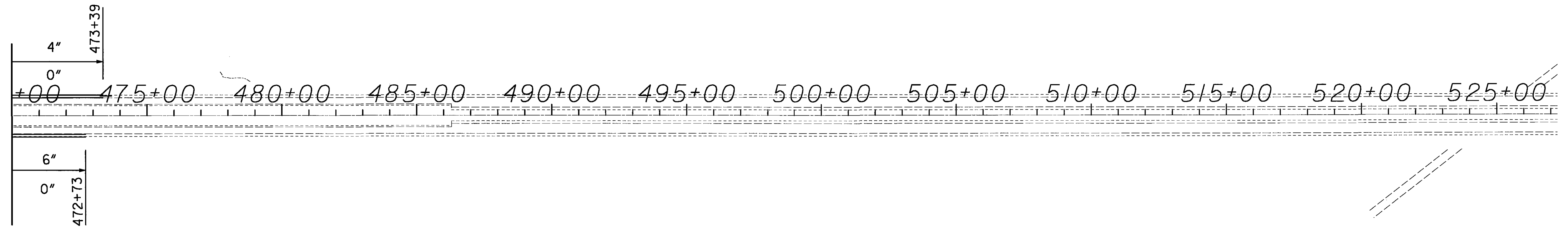
SHOULDER REPLACEMENT PLAN

MED-71-6.06



LEGEND	EXAMPLE
MILL AND FILL DEPTH*	8"
UNDERCUT DEPTH	10"

*-INCLUDES 1/2" SURFACE COURSE



PAVEMENT REPAIRS

PAVEMENT REPAIRS SHALL BE MADE PRIOR TO SHIFTING TRAFFIC FROM THE NORMAL LANE POSITIONS. BADLY CRACKED AND SPALLED JOINTS, SHALL BE REPAIRED USING ITEM 253 - PAVEMENT REPAIR. FOR LARGE AREAS NEEDING REPAIRS, THE METHOD SHALL BE BY MILL AND FILL AS DETAILED ON THIS SHEET. THESE REPAIRS SHALL ONLY BE PERFORMED WHEN DIRECTED BY THE ENGINEER. REPAIRS TO THE PAVEMENT AREAS WHICH WILL BE USED FOR MAINTENANCE OF TRAFFIC SHIFTS FOR STAGE 1 MUST BE MADE PRIOR TO OCTOBER 15, 2006 OR LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 WILL BE ASSESSED. THE STAGE 1 NORTHBOUND SHIFT LIMITS ARE FROM STATION 415+50 TO STA. 504+75. THE STAGE 1 SOUTHBOUND SHIFT LIMITS ARE FROM STATION 421+00 TO STATION 504+75. REPAIRS TO THE PAVEMENT AREAS WHICH WILL BE USED FOR MAINTENANCE OF TRAFFIC SHIFTS FOR STAGE 2 MUST BE MADE PRIOR TO OCTOBER 15, 2008 OR LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 WILL BE ASSESSED. THE STAGE 2 NORTHBOUND SHIFT LIMITS ARE FROM STATION 320+00 TO STATION 448+00. THE STAGE 2 SOUTHBOUND SHIFT LIMITS ARE FROM STATION 320+00 TO STATION 448+00. THE CONTRACTOR SHALL NOT PERFORM ANY REPAIRS IN THE STAGE 2 MOT SHIFT AREAS UNTIL SEPTEMBER 1, 2008 UNLESS DIRECTED BY THE ENGINEER. THIS WOULD ONLY OCCUR TO REPAIR BADLY DISTRESSED PAVEMENT AREAS. THE NUMBER OF REPAIRS AND LOCATIONS ARE APPROXIMATE AND THE EXACT INFORMATION MUST BE VERIFIED AND DIRECTED BY THE ENGINEER PRIOR TO THE START OF WORK. THE ENGINEER SHALL BE NOTIFIED SEVEN (7) WORKING DAYS IN ADVANCE OF STARTING THE PAVEMENT REPAIRS IN ORDER TO DETERMINE THE EXACT LOCATIONS.

ITEM 253 - PAVEMENT REPAIR

THIS WORK SHALL ONLY BE PERFORMED IN THE OUTSIDE (RIGHT) LANE. THE TYPICAL REMOVAL SHALL EXTEND TO SOUND CONCRETE BASE. THE TYPICAL REPAIR WIDTH SHALL BE A MINIMUM OF 24" WIDE. WIDER REPAIRS SHALL BE AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES, THE REPAIR DEPTH IS ASSUMED TO BE 6". IT IS ESTIMATED THAT 80 JOINTS WILL BE REPAIRED. FOR THE LOCATIONS OF THE MOT SHIFT AREAS SEE THE "PAVEMENT REPAIRS" NOTE ON THIS SHEET.

STAGE 1 MOT SHIFT AREAS: 6' x 12' x 6"/12" x 30 LOCATIONS / 27 CF/CY = 40 C.Y.
STAGE 2 MOT SHIFT AREAS: 6' x 12' x 6"/12" x 50 LOCATIONS / 27 CF/CY = 67 C.Y.
TOTAL = 107 C.Y.

MILL AND FILL

THIS WORK SHALL ONLY BE PERFORMED IN THE OUTSIDE (RIGHT) LANE AND INCLUDES THE BRIDGE DECKS IF SO DIRECTED BY THE ENGINEER. THE TYPICAL REMOVAL SHALL LAP 6" BEYOND THE EDGE OR LANE LINE. THE DEPTH OF REPAIR SHALL BE 1 1/2". DUE TO THE ELAPSED TIME BEFORE STAGE 2 IS IMPLEMENTED, IT IS ESTIMATED THAT MOST (100%) OF THE SOUTHERLY AREA (STAGE 2) WILL NEED TREATMENT, AND A SMALL PORTION (10%) OF THE NORTHERLY AREA (STAGE 1) WILL NEED TREATMENT.

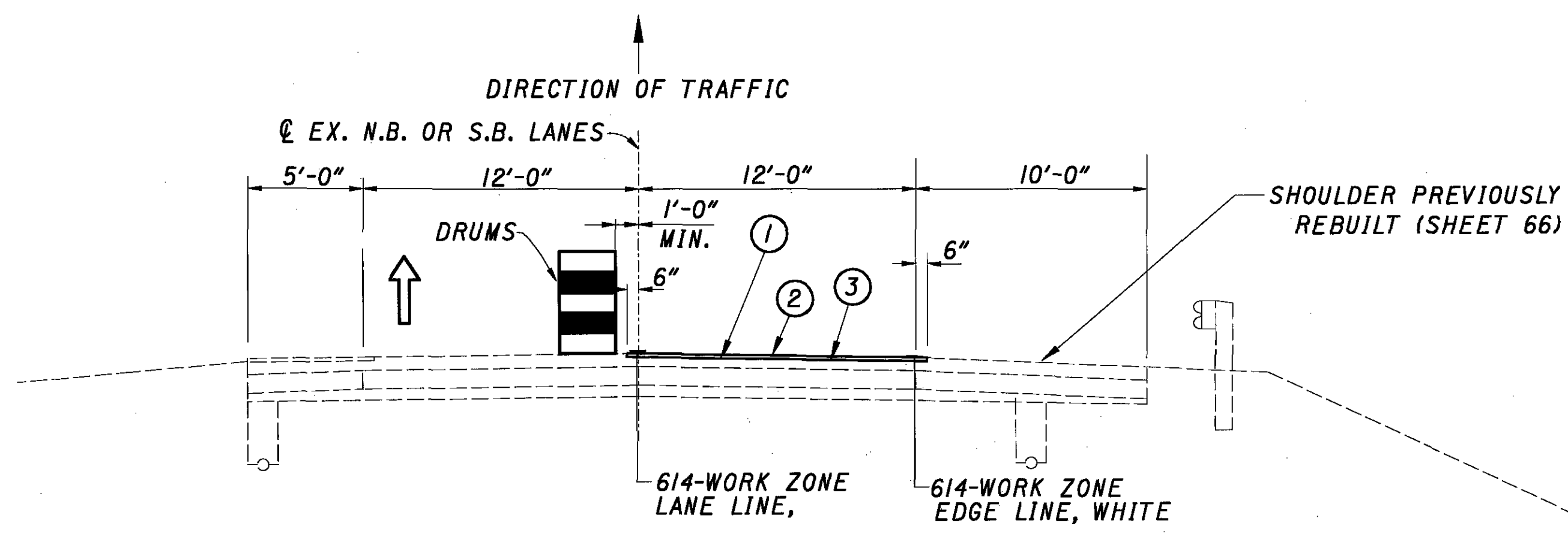
STAGE	STA. TO STA.	LENGTH	% TREATED	TREATED LENGTH	SQ. YDS.	VOLUME
1 NB	415+50 TO 504+75	8925'	10%	892'	1288	54
1 SB	421+00 TO 504+75	8375'	10%	838'	1210	50
2 NB	320+00 TO 448+00	12800'	100%	12800'	18489	770
2 SB	320+00 TO 448+00	12800'	100%	12800'	18489	770
				27330'	36978	1664
EXTRA DEPTH AREAS (3" TOTAL)						
10% x 36978 S.Y. = 3698 S.Y.					3698	154
				TOTAL	40676	1818

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE	40676 S.Y.
ITEM 407 - TACK COAT (0.075 x 40676 = 3050 GAL)	3050 GAL.
ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-28	1818 C.Y.
ITEM 614 - WORK ZONE LANE LINE, CLASS I	27330 FT *
ITEM 614 - WORK ZONE EDGE LINE, CLASS I	27330 FT *

* - PAVEMENT MARKING QUANTITIES CARRIED TO SHEET 64, ALL OTHER QUANTITIES CARRIED TO THE GENERAL SUMMARIES.

LEGEND

- ① 254 PAVEMENT PLANING, ASPHALT CONCRETE (1/2" TYP.)
- ② 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-28
- ③ 407 TACK COAT (SEE GENERAL NOTE)

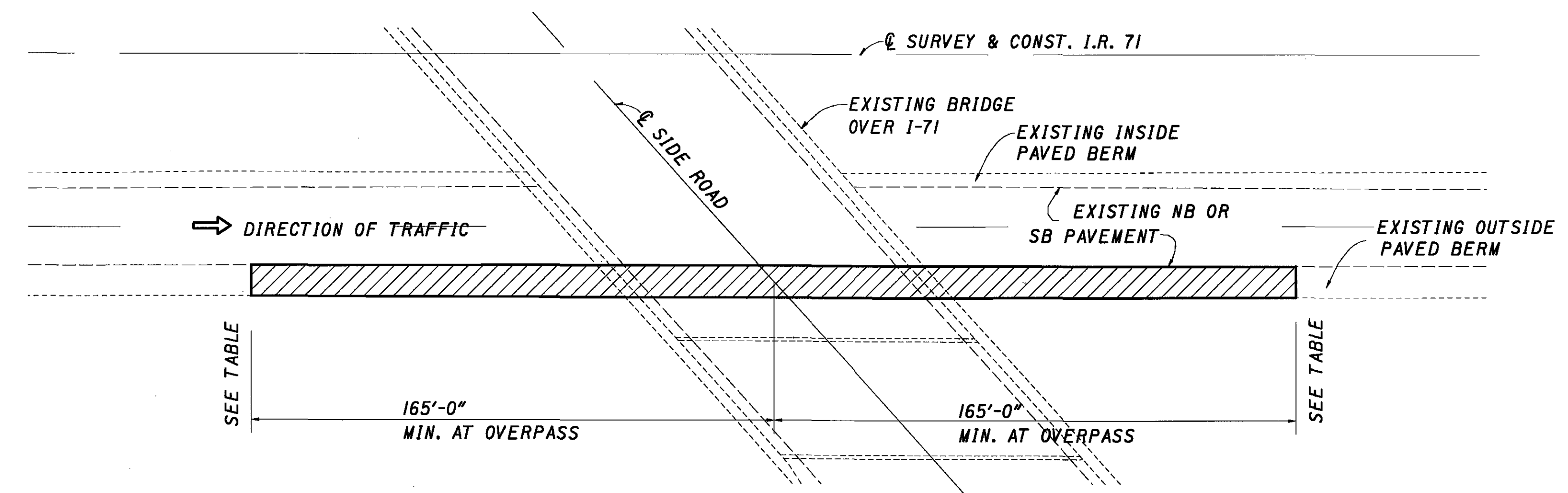


IR71 MAINLINE PAVEMENT MILL AND FILL

LOCATIONS TO BE DETERMINED BY THE ENGINEER

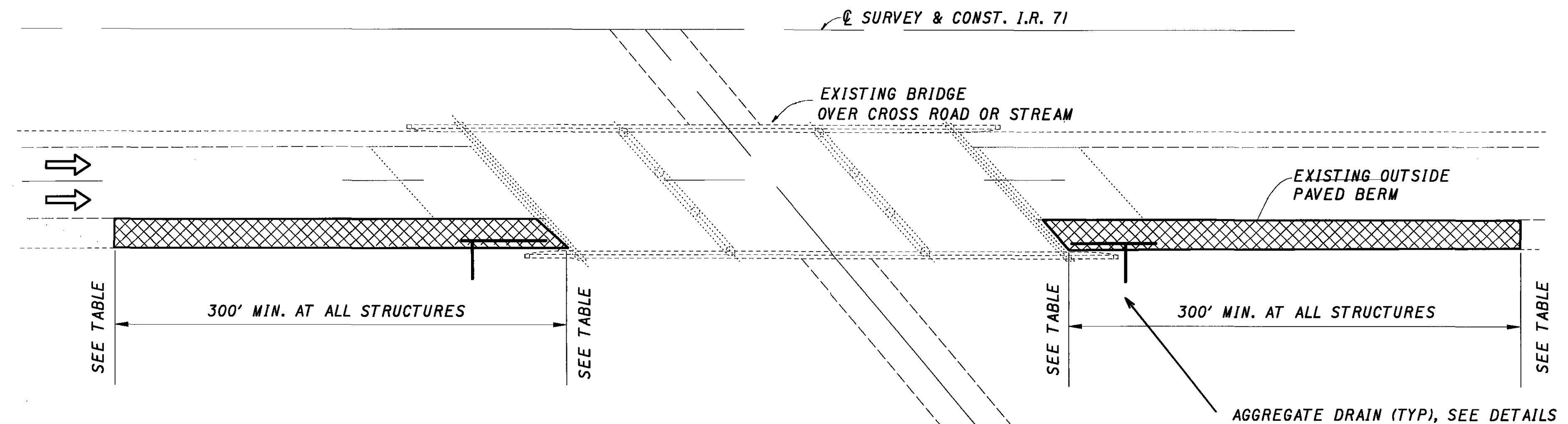
- NOTES:**
1. REBUILD SHOULDERS PRIOR TO SHIFTING TRAFFIC ONTO THE PAVED BERM.
 2. MAINTAIN ONE LANE OF TRAFFIC, AS PER STANDARD CONSTRUCTION DRAWING MT-95.30, DURING THE SHOULDER REBUILDING. SEE THE 614 NOTES FOR ADDITIONAL RESTRICTIONS, AND TRENCH GENERAL NOTES.
 3. PROVIDE TEMPORARY ASPHALT WEDGE, 1' WIDE IF DROP OFF GREATER THAN 1/2" IS EXPOSED TO TRAFFIC (ALSO SEE "TRENCH CLOSING FOR TEMP. PAVEMENT" NOTE)
 4. VARY SHOULDER CROSS SLOPE TO MEET BRIDGE CROSS SLOPE

THE SHOULDER REBUILDING DETAILED BELOW REPRESENTS THE MINIMUM AMOUNT OF WORK REQUIRED AT EACH MAINLINE BRIDGE OR OVERPASS.



PLAN - SPECIAL TREATMENT UNDER ALL UNDERPASSES

- LEGEND**
- ▨ SHOULDER REPLACEMENT AREA USING T= 6.5"
 - ▩ SHOULDER REPLACEMENT AREA USING T= 6.5" AND 10" GRANULAR MATERIAL AND FABRIC



PLAN - SPECIAL TREATMENT AT MAINLINE BRIDGES

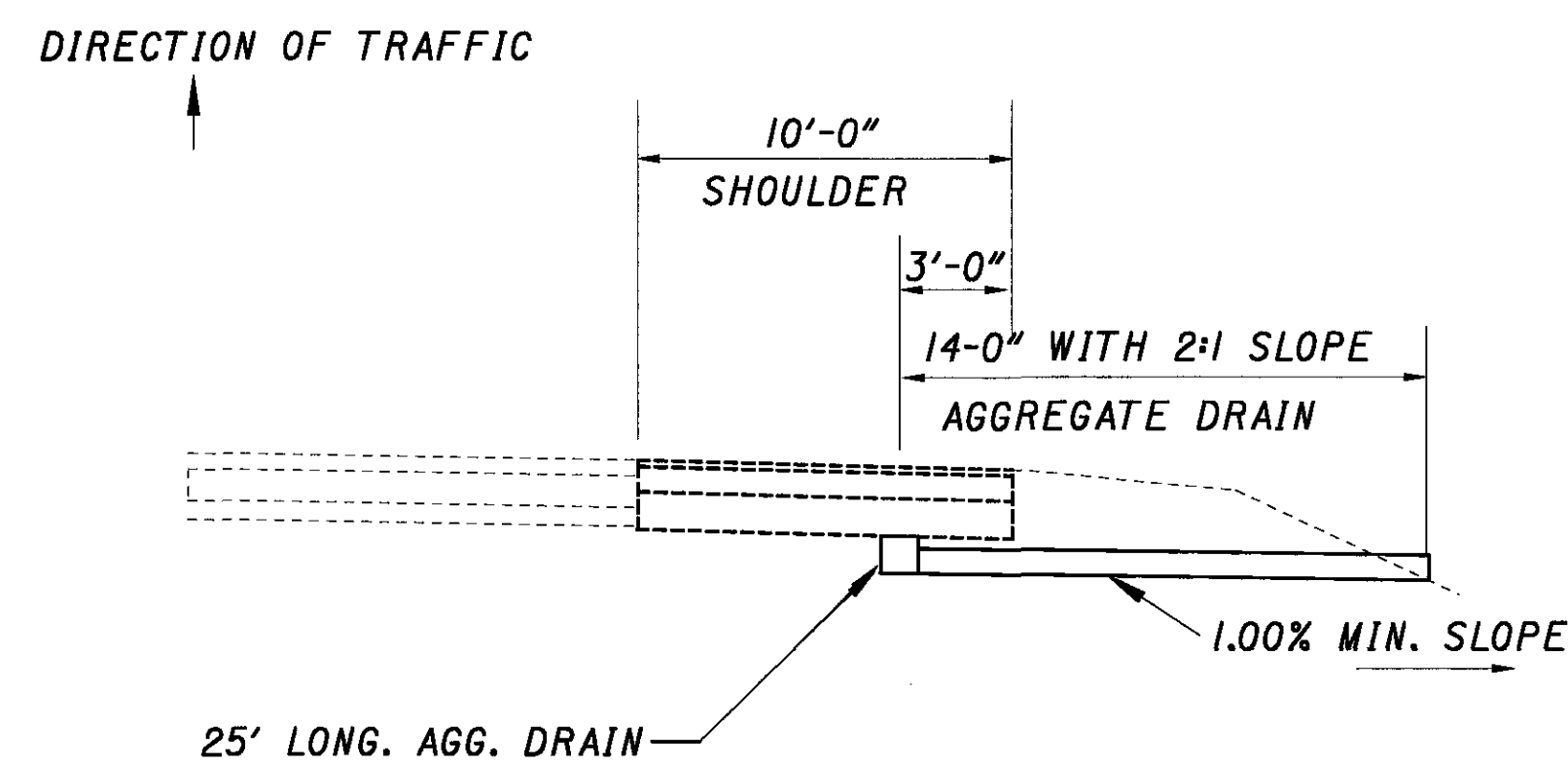
ROUTE/ DIRECTION	SIDE	BRIDGE NO. MED-71-	APPROX. FORE- SLOPE	ITEM 605		
				LONG. AGGREGATE DRAIN	TRANS. AGGREGATE DRAIN	
				FT.	FT.	
IR71/ SOUTHBOUND	OUTSIDE	0729L	2:1	25/25	14/14	
		0794L	2:1	25/25	14/14	
		0810L	2:1	25/25	14/14	
		0860L	2:1	25/25	14/14	
IR71/ SOUTHBOUND		0729R	2:1	25/25	14/14	
		0794R	2:1	25/25	14/14	
		0810R	2:1	25/25	14/14	
		0860R	2:1	25/25	14/14	
SUB-TOTAL				400	224	
TOTAL				624		

SHEET TOTALS CARRIED TO GENERAL SUMMARY

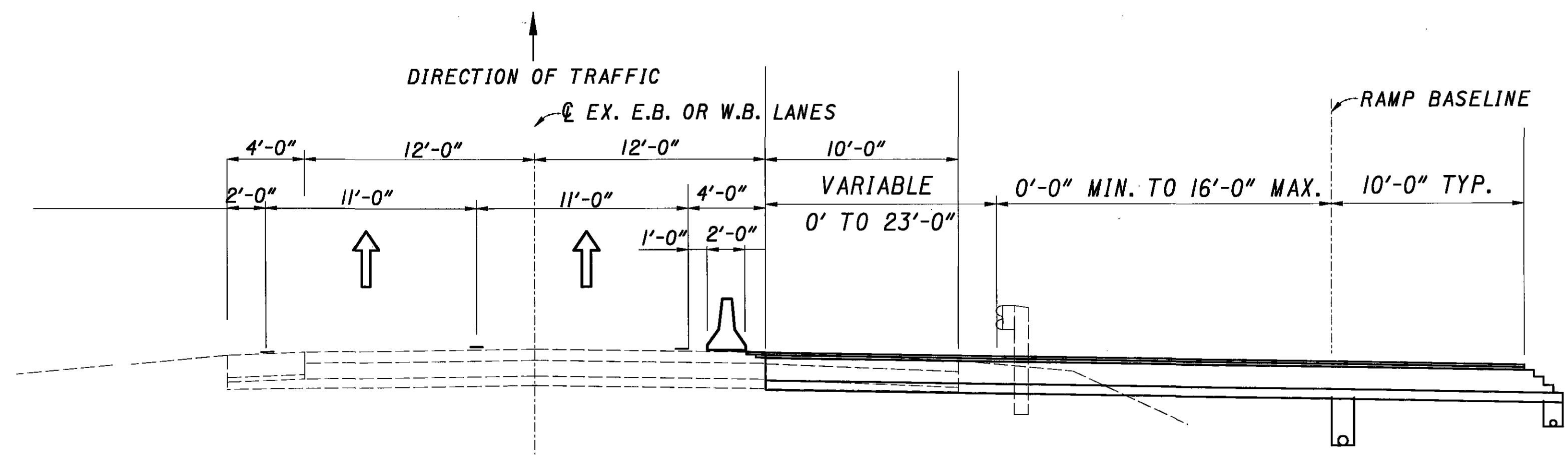
AGGREGATE DRAINS

AT ALL MAINLINE BRIDGES, ADJACENT TO EACH APPROACH SLAB, AN AGGREGATE DRAIN SHALL BE ADDED. A DRAIN SHALL BE INSTALLED LONGITUDINALLY ALONG THE APPROACH SLAB AND OUTLETTED AT THE LOW END WITH A TRANSVERSE AGGREGATE DRAIN WHICH WILL OUTLET ON THE 2:1 SLOPE.

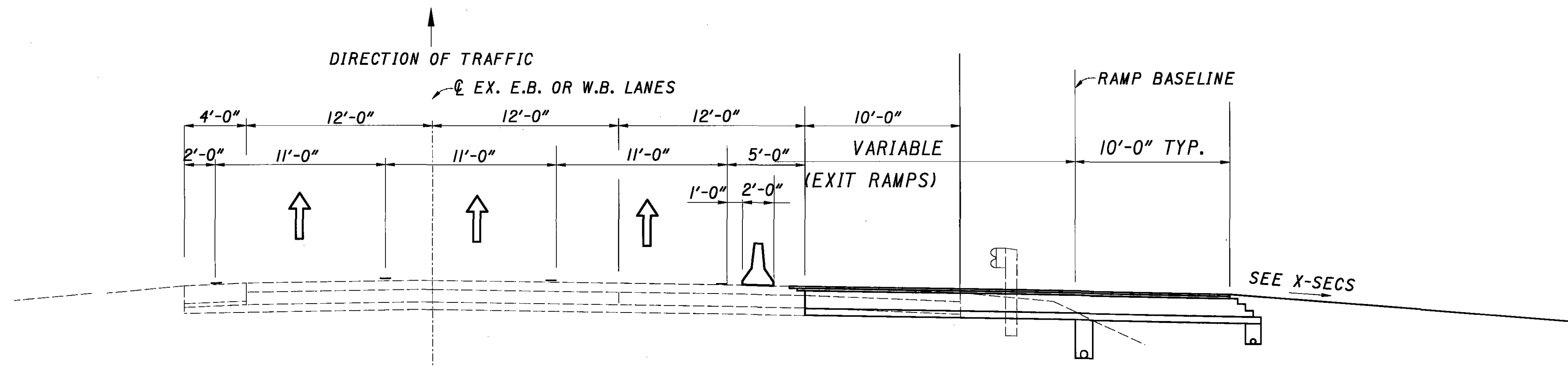
SEE SHEET 66 FOR
SHOULDER RESURFACING
ABOVE AGGREGATE DRAINS



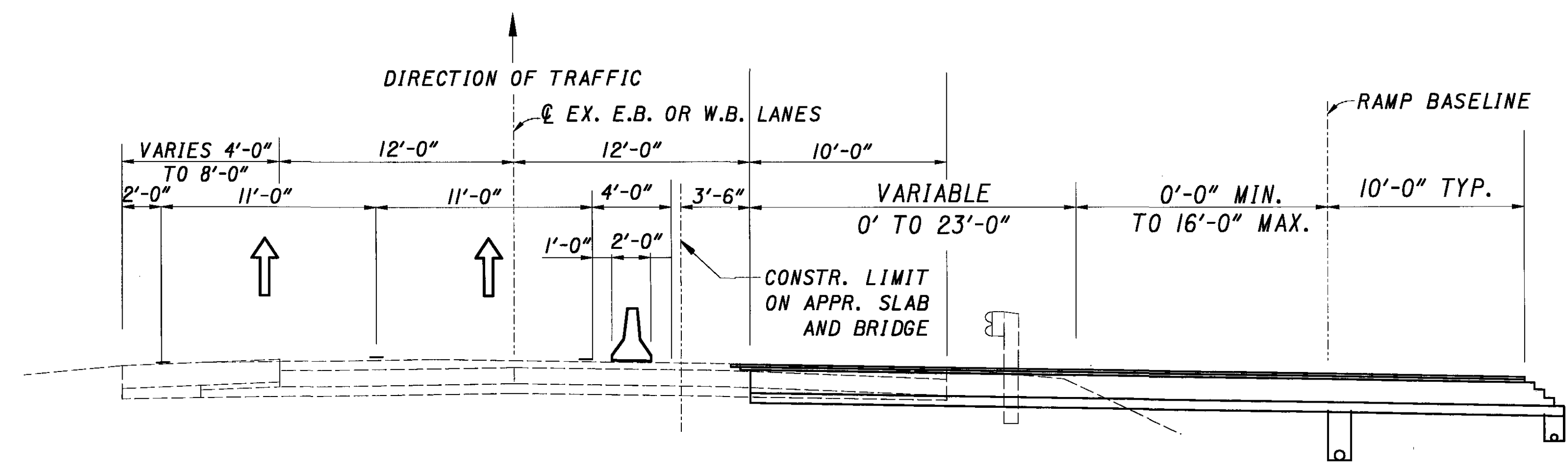
TYPICAL AGGREGATE DRAIN ALONG
APPROACH SLAB



IR76 TRAFFIC SHIFT FOR OUTSIDE CONSTRUCTION
STAGE 1, PHASE 1 **STAGE 2 - PHASE 2A**
IR 76 WB @ RAMP E-N IR 76 EB @ RAMP N-E



IR76 TRAFFIC SHIFT AT EX. SPEED CHANGE LANE
STAGE 1, PHASE 1
IR 76 WB @ RAMP E-S

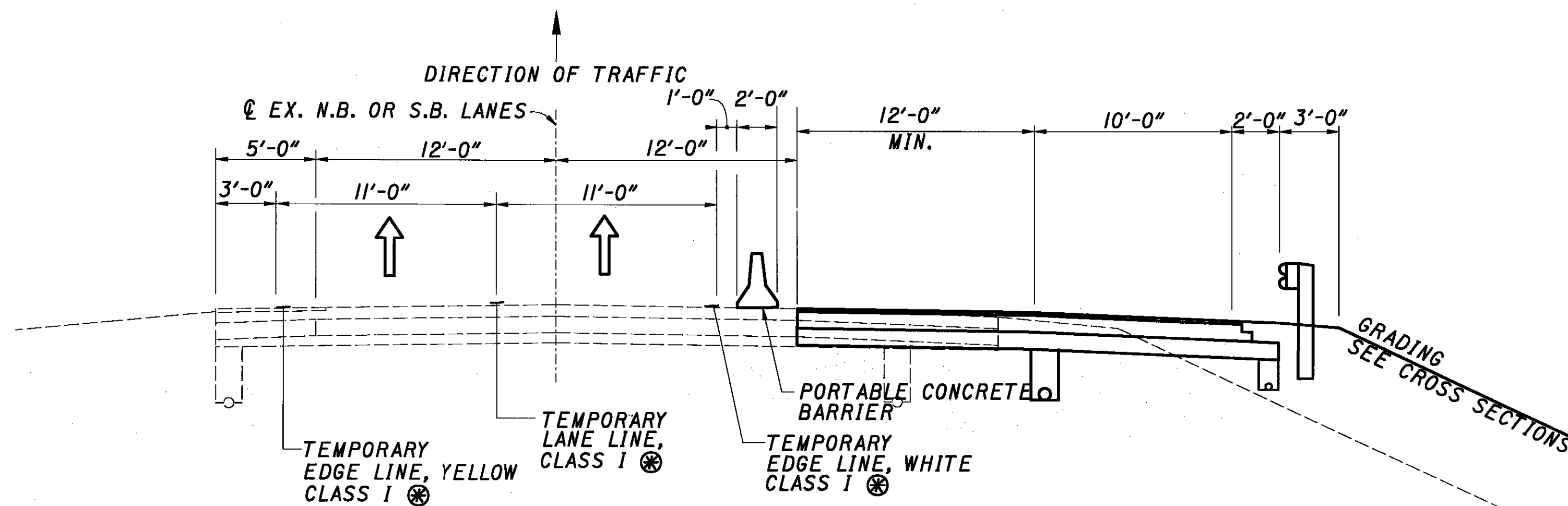


IR76 TRAFFIC SHIFT FOR OUTSIDE CONSTRUCTION AT RAMP S-E
STAGE 1, PHASE 1
IR 76 EB @ RAMP S-E

LEGEND

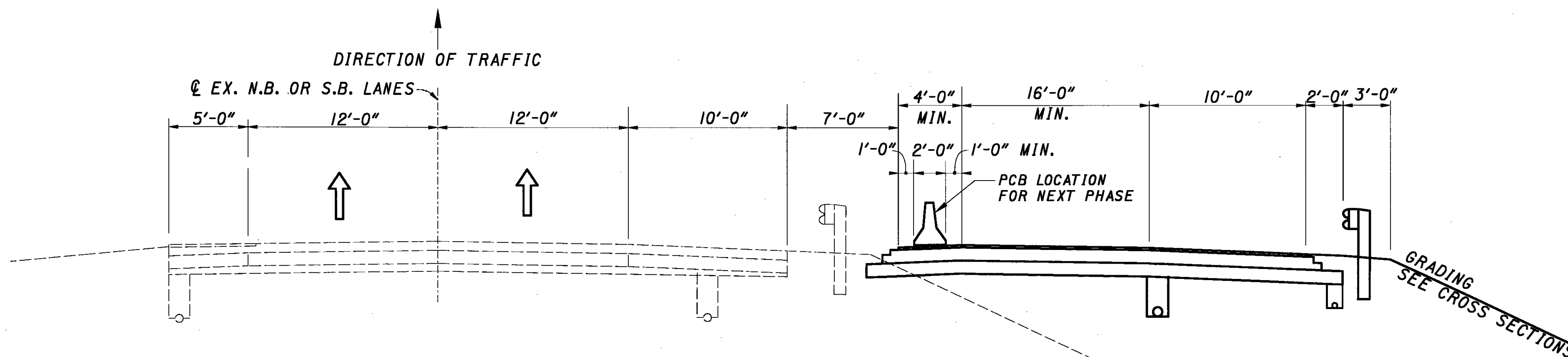
- ① 254 PAVEMENT PLANING, ASPHALT CONCRETE (9 1/2" MAX. - 1 1/2" MIN.)
- ② 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-28
- ③ 407 TACK COAT (SEE GENERAL NOTE)
- ④ 301 6" ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
- ⑤ 301 ASPHALT CONCRETE BASE, PG 64-22
- ⑥ 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B
- ⑭ 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41

NOTES: FOR GUARDRAIL TYPICAL SECTION SEE TYPICAL FILL MEDIAN SHOULDER



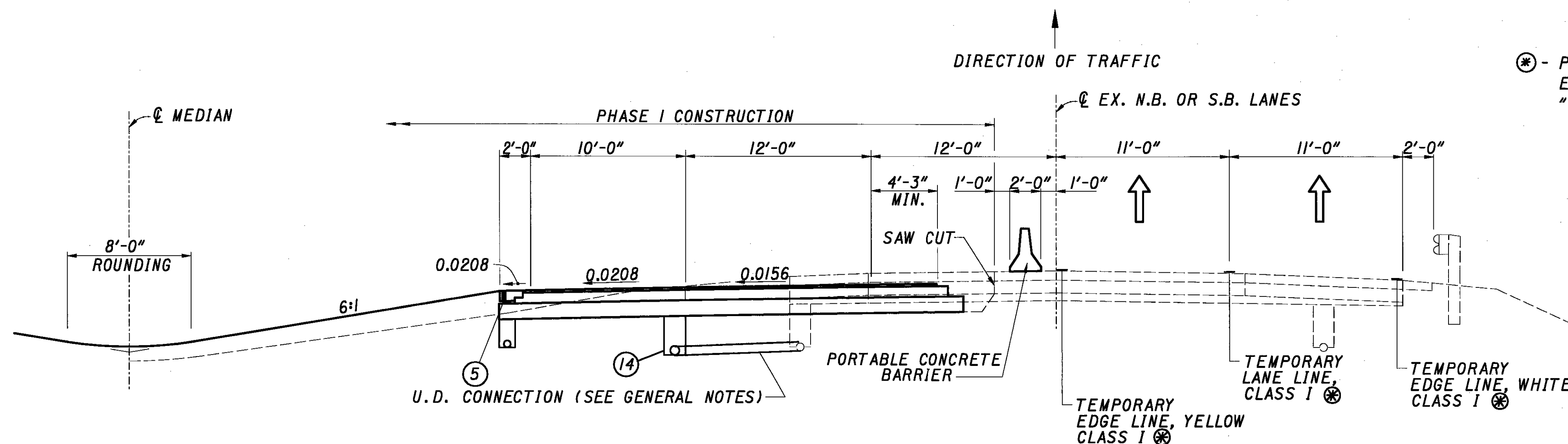
**IR71 MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGE 1 - PHASE 1**

IR71 STA. 362+00 TO STA. 377+65 SOUTHBOUND (RAMP E-S) - 1565'
IR71 STA. 367+50 TO STA. 378+00 NORTHBOUND (RAMP S-EW) - 1050'
TOTAL - 2615'



**IR71 MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGE 1 - PHASE 1**

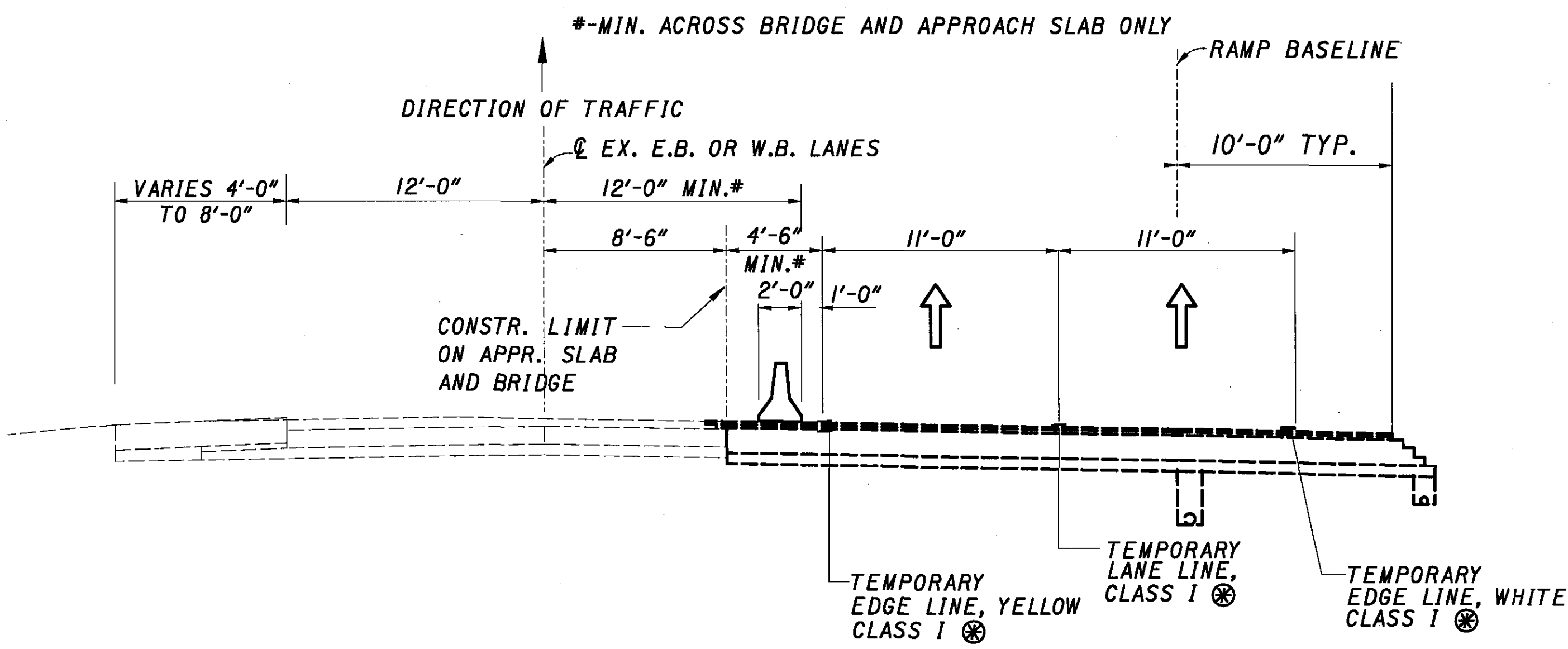
RAMP S-EW (NORTH OF STA. 378+00)



**IR 71 MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGE 1 - PHASE 1
STAGE 2 - PHASE 1**

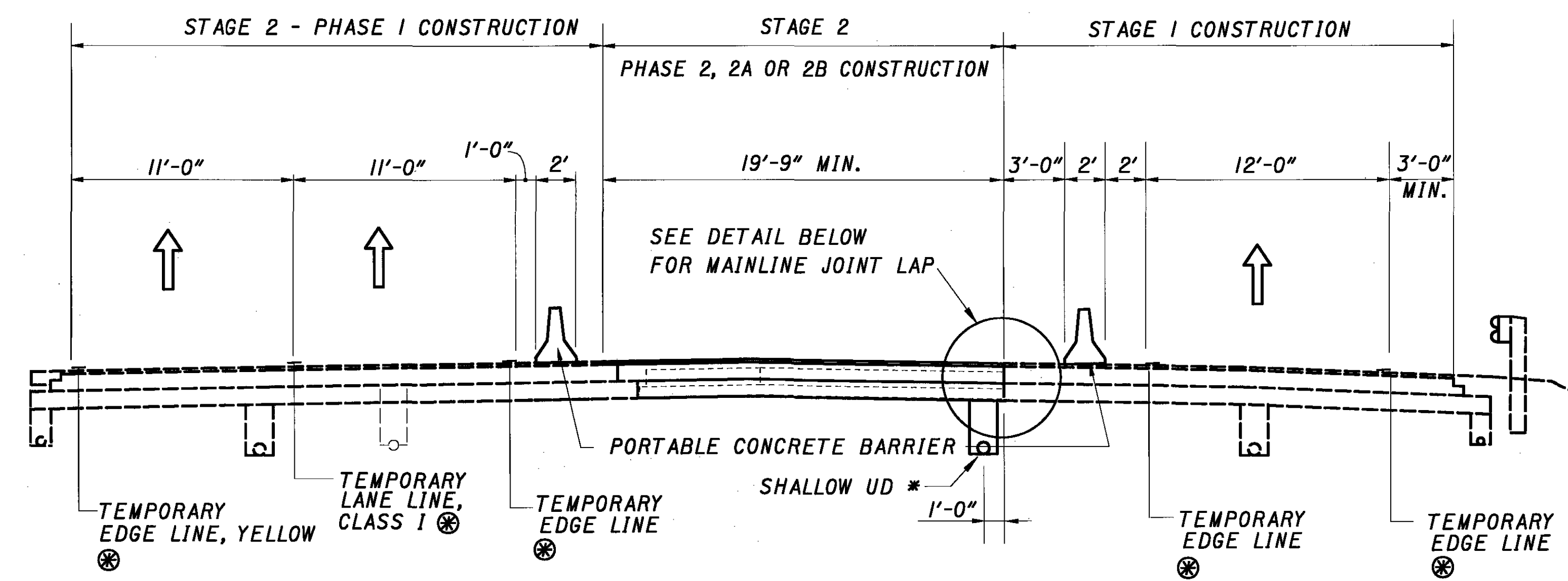
* - PAVEMENT MARKINGS SHALL BE PAID FOR AS EITHER "614 - TRANSITION AREA DELINEATION" OR "614 - TANGENT AREA DELINEATION".

NOTE: ALL STATION LIMITS SHOWN INCLUDE THE EXISTING BRIDGES WHICH ARE TO BE RECONSTRUCTED.



IR76 TRAFFIC SHIFT FOR BRIDGE CONSTRUCTION AT RAMP S-E

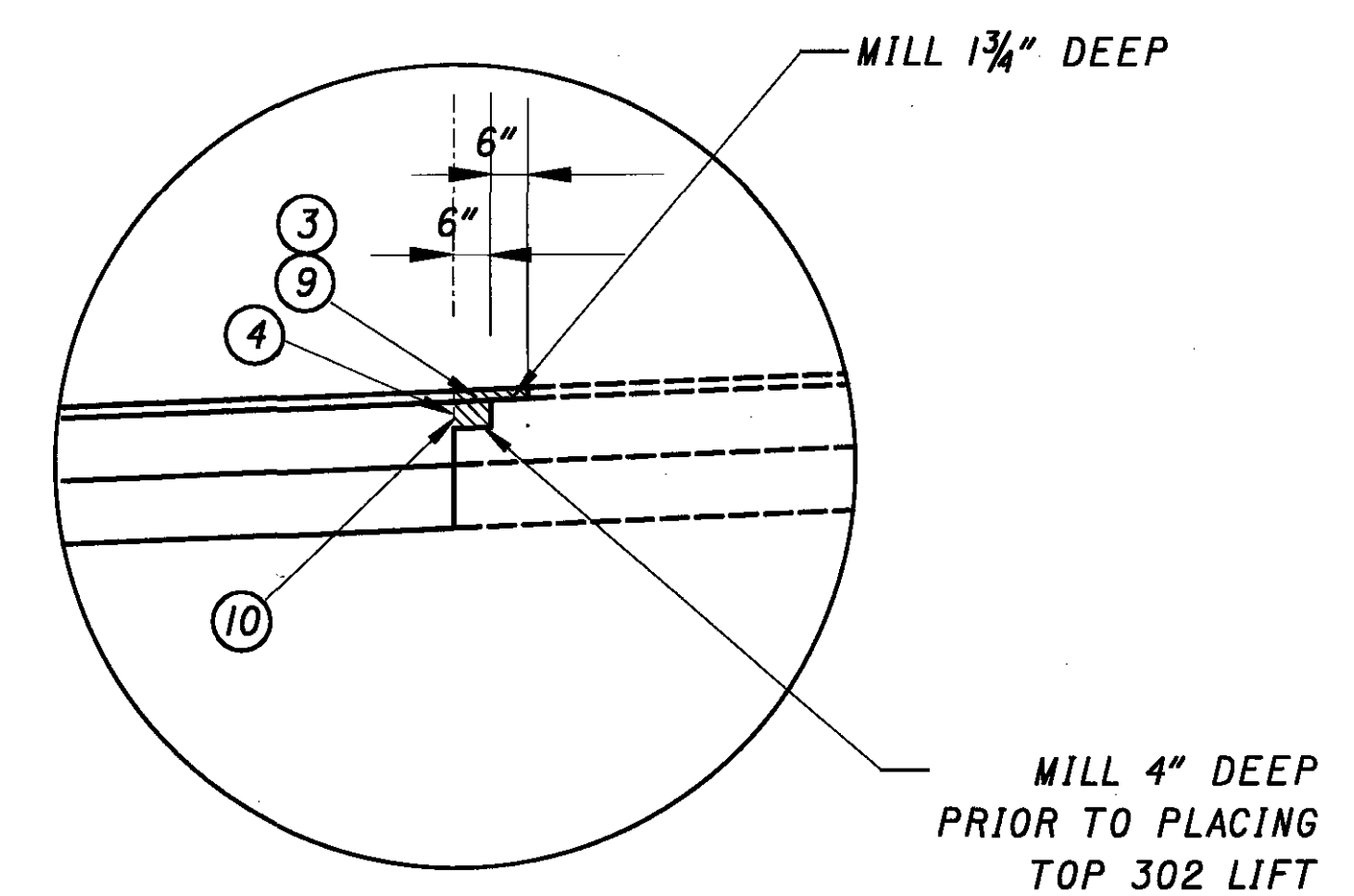
PHASE 2
IR 76 EB RAMP S-E



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
PHASE 2, 2A OR 2B - TYPICAL ENTRANCE AND EXIT RAMP
CONSTRUCTED DURING PREVIOUS PHASE**

* - STA. 373+00 TO STA. 378+77 NB
STA. 372+65 TO STA. 378+77 SB

IR 71 STA. 362+00 TO STA. 377+65 SOUTHBOUND (RAMP E-S) = 1565'
IR 71 STA. 367+50 TO STA. 378+00 NORTHBOUND (RAMP S-EW) = 1050'
TOTAL = 2615'



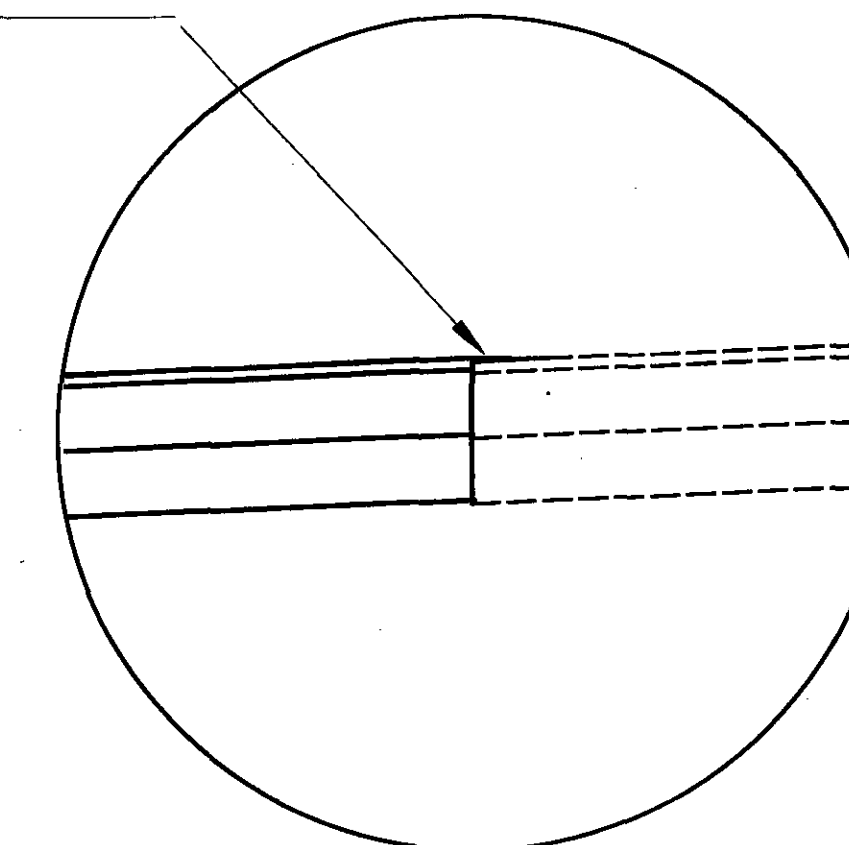
**CONVERSION OF MAINLINE
BUTT JOINT TO LAPPED JOINT
FOR LEGEND SEE SHEET 67**

LEGEND

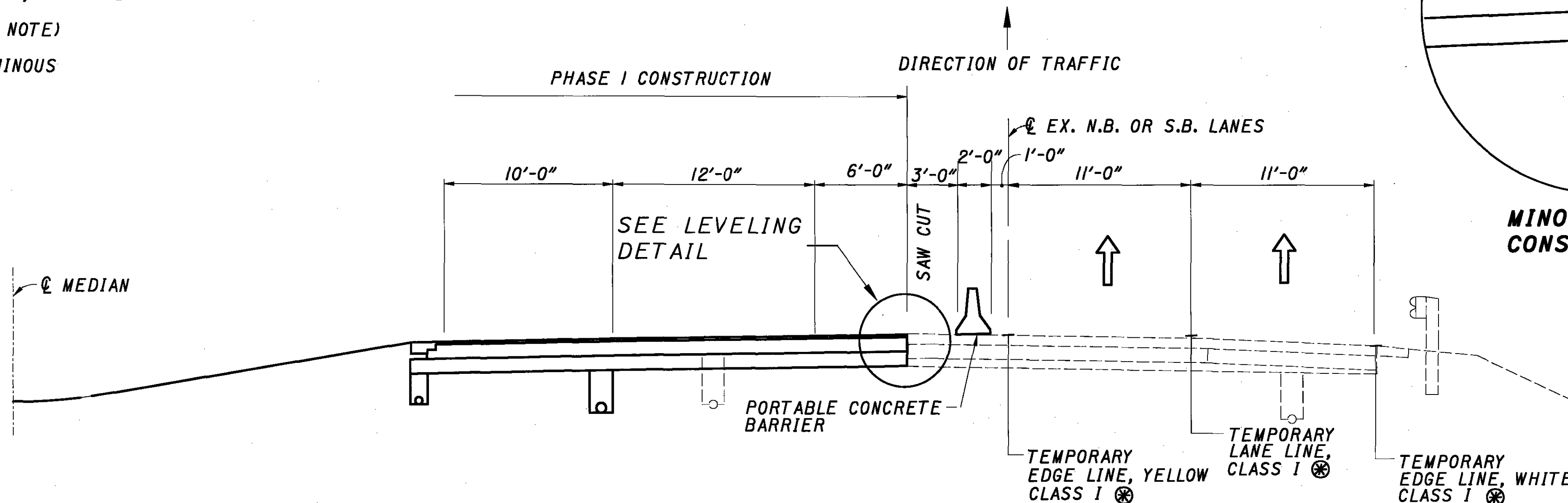
- ③ 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG-64-28
- ④ 302 4" ASPHALT CONCRETE BASE, PG 64-22
- ⑨ 407 TACK COAT (SEE GENERAL NOTE)
- ⑩ 254 PAVEMENT PLANING, BITUMINOUS

WEDGE USING 614-ASPHALT CONC.
FOR MAINT. TRAFFIC AT RATE NOT
TO EXCEED 1" IN 2'

WEDGING MAY APPLY
TO EITHER SIDE OF JOINT



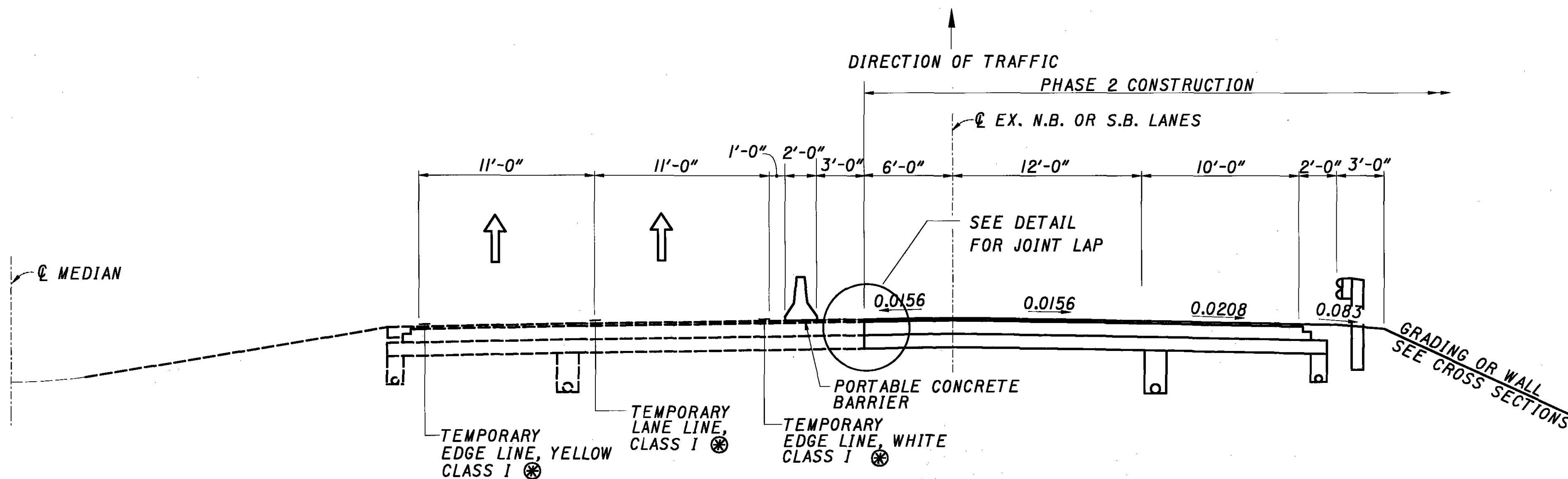
MINOR LEVELING AT
CONSTRUCTION JOINT



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
REQUIRING LONGITUDINAL BUTT JOINT
PHASE 1**

* - PAVEMENT MARKINGS SHALL BE PAID FOR AS
EITHER "614 - TRANSITION AREA DELINEATION" OR
"614 - TANGENT AREA DELINEATION".

SOUTHBOUND	NORTHBOUND
STA. 363+00 TO STA. 377+65 = 1465'	STA. 370+00 TO STA. 378+00 = 800'
STA. 401+00 TO STA. 411+00 = 1000'	STA. 405+00 TO STA. 414+00 = 900'
TOTAL = 3165'	



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
REQUIRING LONGITUDINAL BUTT JOINT
PHASE 2**

SAME STATIONS AS ABOVE PLUS

SOUTHBOUND	NORTHBOUND
STA. 320+00 TO STA. 336+00 = 1600'	STA. 320+00 TO STA. 336+00 = 1600'
STA. 486+28.80 TO STA. 504+75 = 1846.20'	STA. 486+28.80 TO STA. 504+75 = 1846.20'

TOTAL = 3165' + 1600' + 1600' + 1846.2' + 1846.2' = 10057'

CALCULATED
CHECKED

**MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS
PHASES 1 & 2**

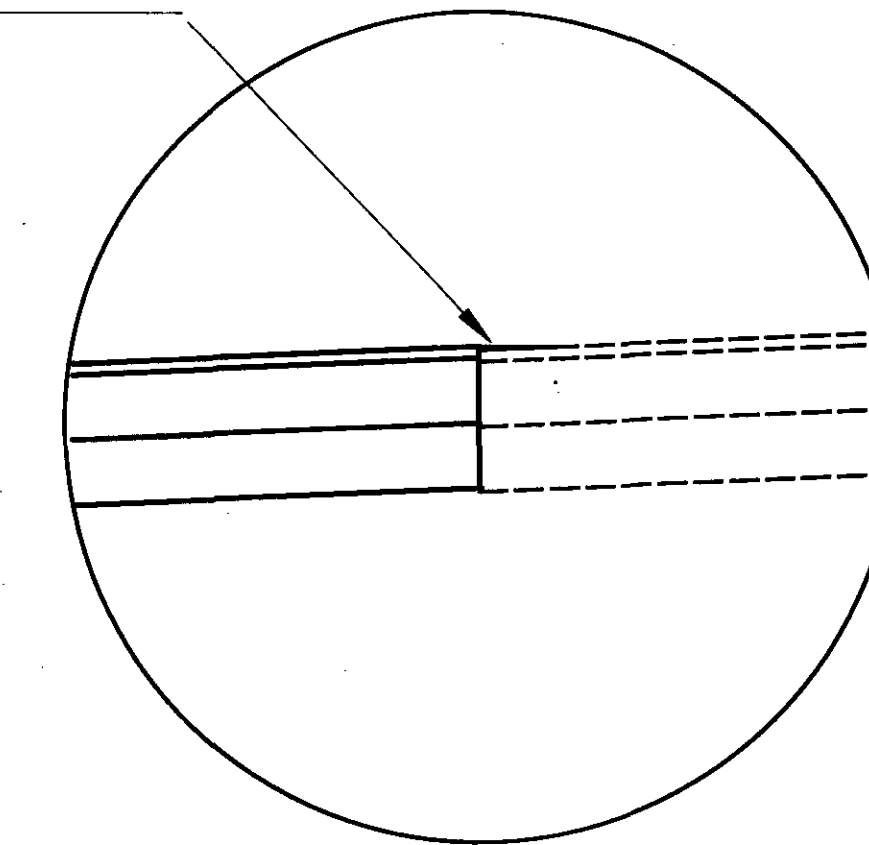
MED-71-6.06

LEGEND

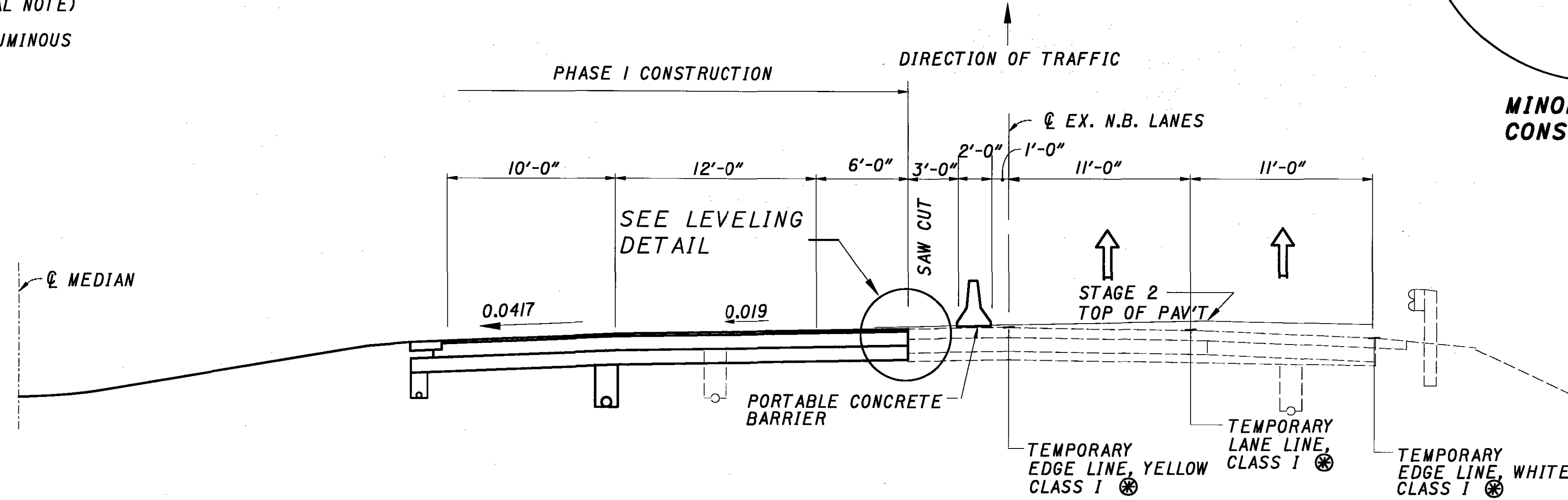
- ③ 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG-64-28
- ④ 302 4" ASPHALT CONCRETE BASE, PG 64-22
- ⑨ 407 TACK COAT (SEE GENERAL NOTE)
- ⑩ 254 PAVEMENT PLANING, BITUMINOUS

WEDGE USING 614-ASPHALT CONC.
FOR MAINT. TRAFFIC AT RATE NOT
TO EXCEED 1" IN 2'

WEDGING MAY APPLY
TO EITHER SIDE OF JOINT



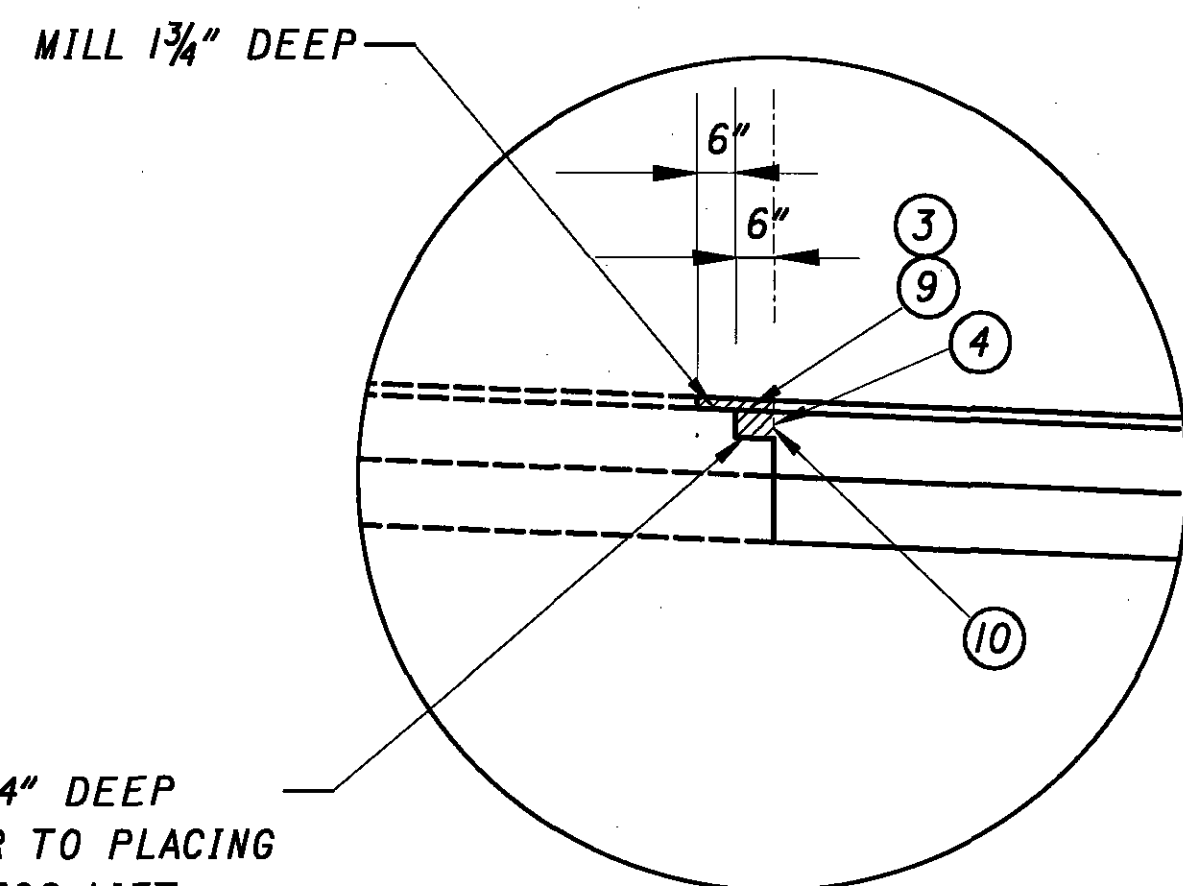
**MINOR LEVELING AT
CONSTRUCTION JOINT**



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
REQUIRING LONGITUDINAL BUTT JOINT**

PHASE 1
NORTHBOUND
STA. 432+00 TO STA. 448+00 - 1600'

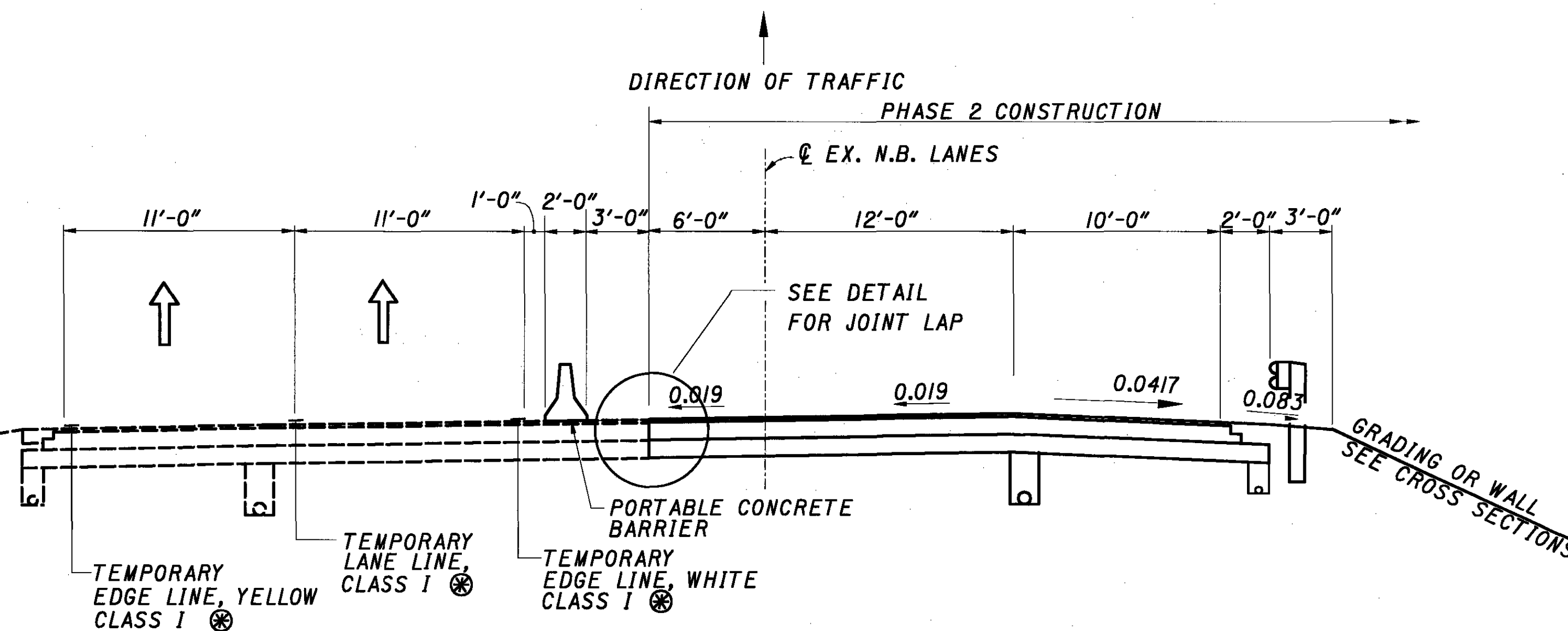
**SPECIAL DETAIL TO PARTIALLY
CONSTRUCT SUPERELEVATED PAV'T
ADJACENT TO EXISTING NON-
SUPERELEVATED PAVEMENT**



MILL 1 3/4" DEEP

MILL 4" DEEP
PRIOR TO PLACING
TOP 302 LIFT

**CONVERSION OF MAINLINE BUTT JOINT
TO LAPPED JOINT**



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
REQUIRING LONGITUDINAL BUTT JOINT**

PHASE 2
NORTHBOUND
STA. 432+00 TO STA. 448+00 - 1600'

⊛ - PAVEMENT MARKINGS SHALL BE PAID FOR AS
EITHER "614 - TRANSITION AREA DELINEATION" OR
"614 - TANGENT AREA DELINEATION".

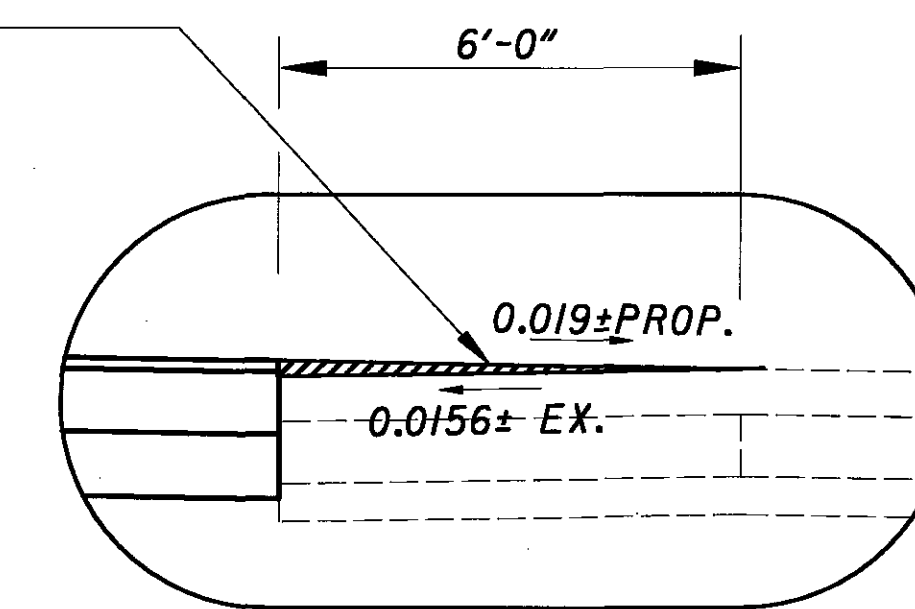
MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS
PHASES 1 & 2

MED-71-6.06

LEGEND

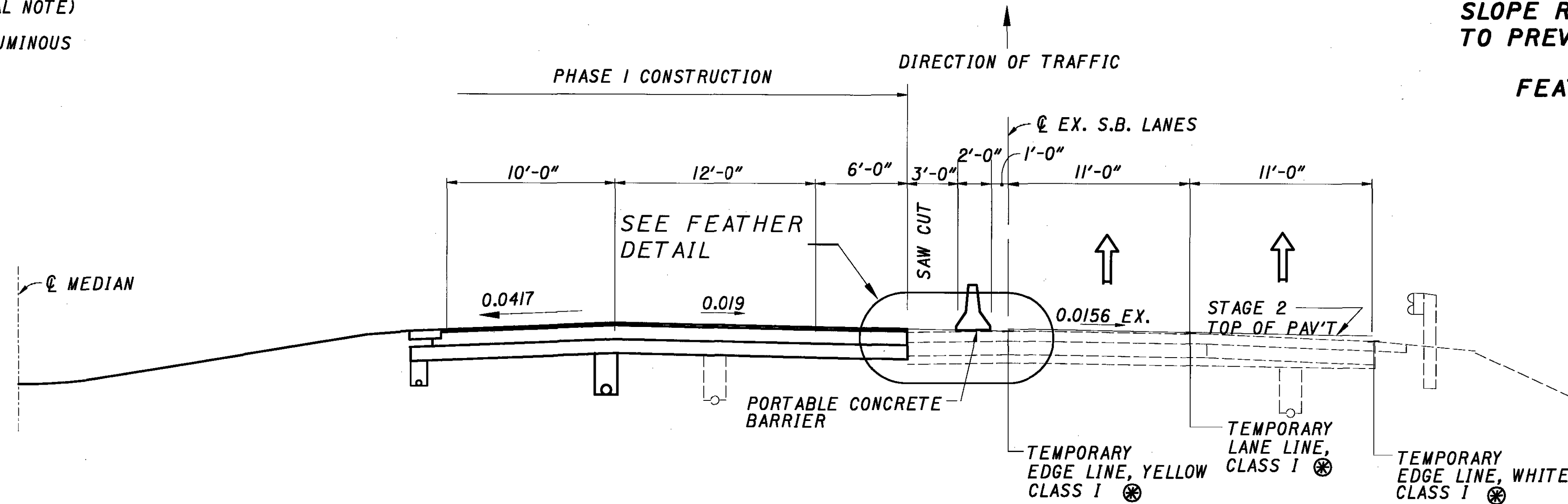
- ③ 446 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG-64-28
- ④ 302 4" ASPHALT CONCRETE BASE, PG 64-22
- ⑨ 407 TACK COAT (SEE GENERAL NOTE)
- ⑩ 254 PAVEMENT PLANING, BITUMINOUS

FEATHER USING 614-ASPHALT CONC.
FOR MAINT. TRAFFIC 2 1/2" ± TO 0"



**SLOPE REVERSAL LEVELING
TO PREVENT PONDING**

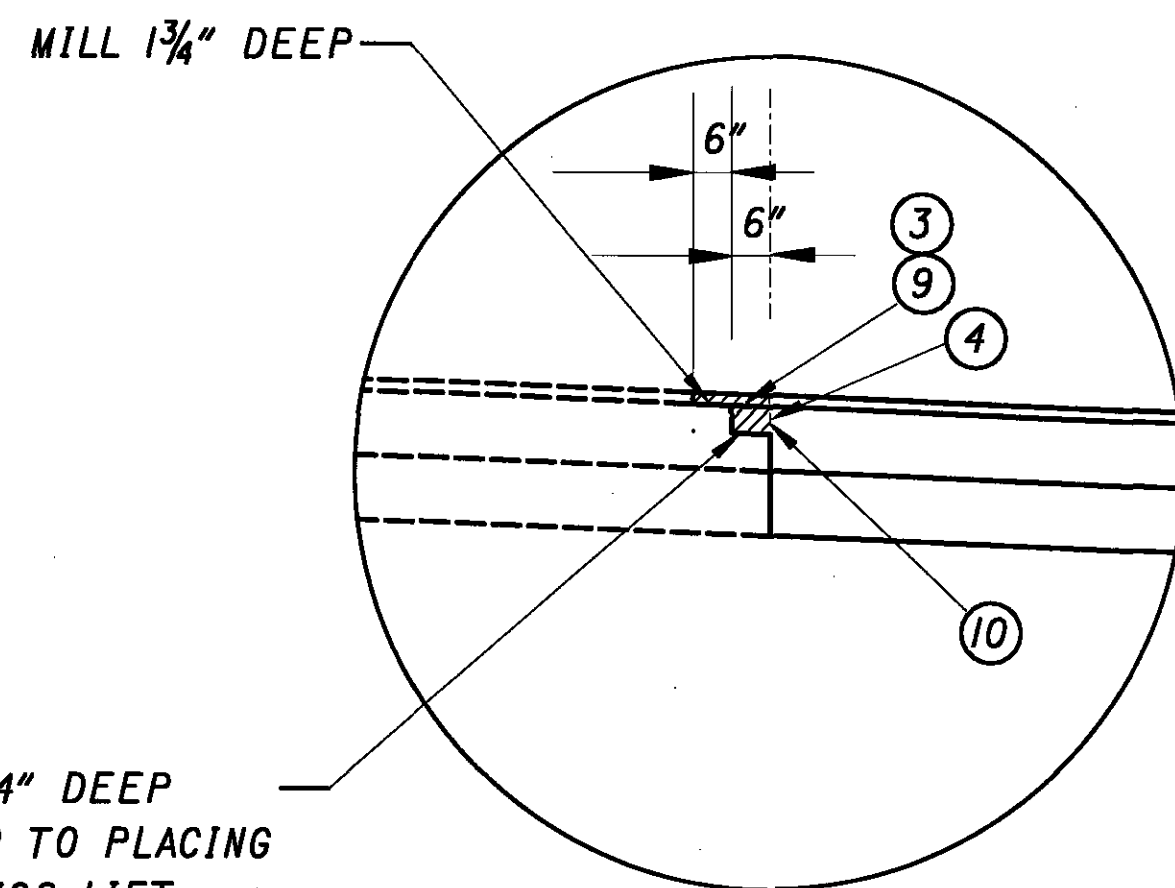
FEATHER DETAIL



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
REQUIRING LONGITUDINAL BUTT JOINT
PHASE I**

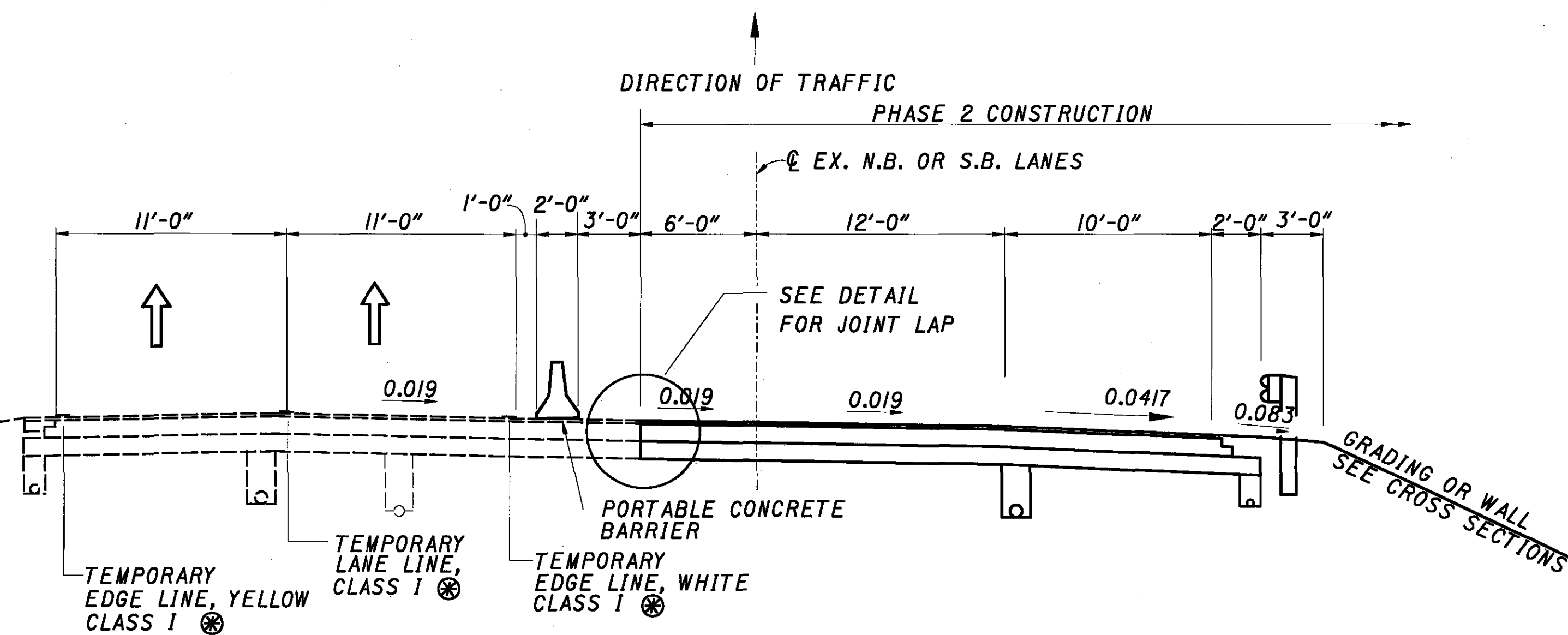
SOUTHBOUND
STA. 432+00 TO STA. 448+00- 1600'

**SPECIAL DETAIL TO PARTIALLY
CONSTRUCT SUPERELEVATED PAV'T
ADJACENT TO EXISTING NON-
SUPERELEVATED PAVEMENT**



**CONVERSION OF MAINLINE BUTT JOINT
TO LAPPED JOINT**

MILL 4" DEEP
PRIOR TO PLACING
TOP 302 LIFT



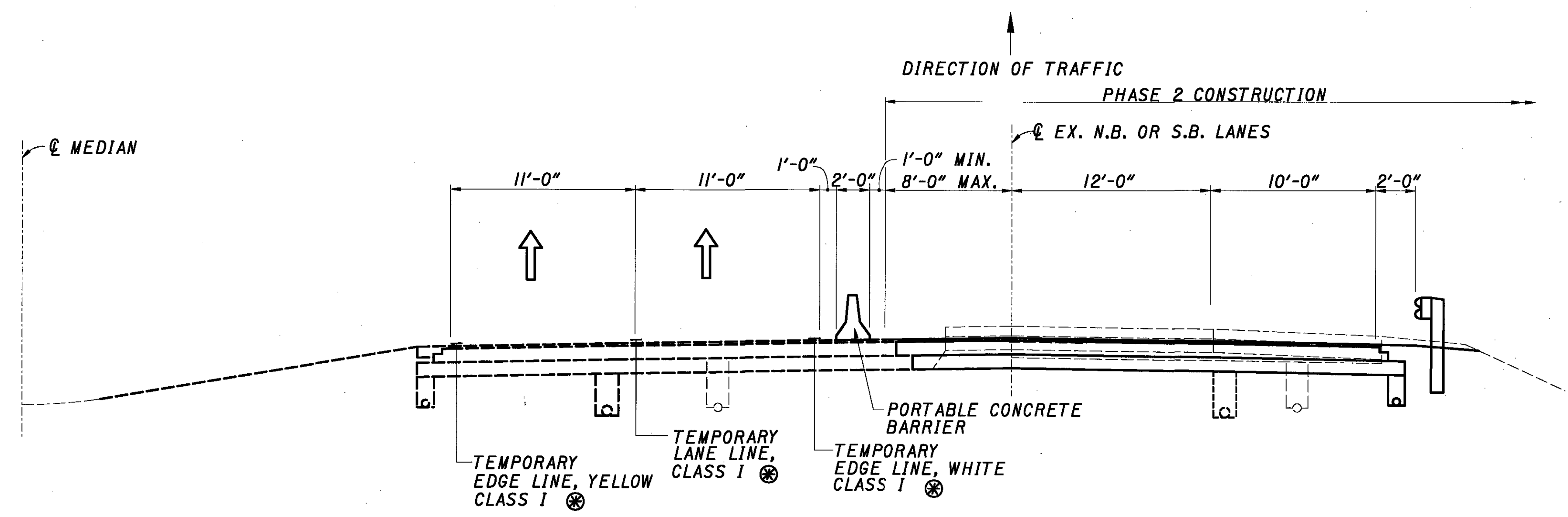
**MAINTENANCE OF TRAFFIC TYPICAL SECTION
REQUIRING LONGITUDINAL BUTT JOINT
PHASE 2**

SOUTHBOUND
STA. 432+00 TO STA. 448+00- 1600'

⊗ - PAVEMENT MARKINGS SHALL BE PAID FOR AS
EITHER "614 - TRANSITION AREA DELINEATION" OR
"614 - TANGENT AREA DELINEATION".

CALCULATED
CHECKED
**MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS
PHASES 1 & 2**

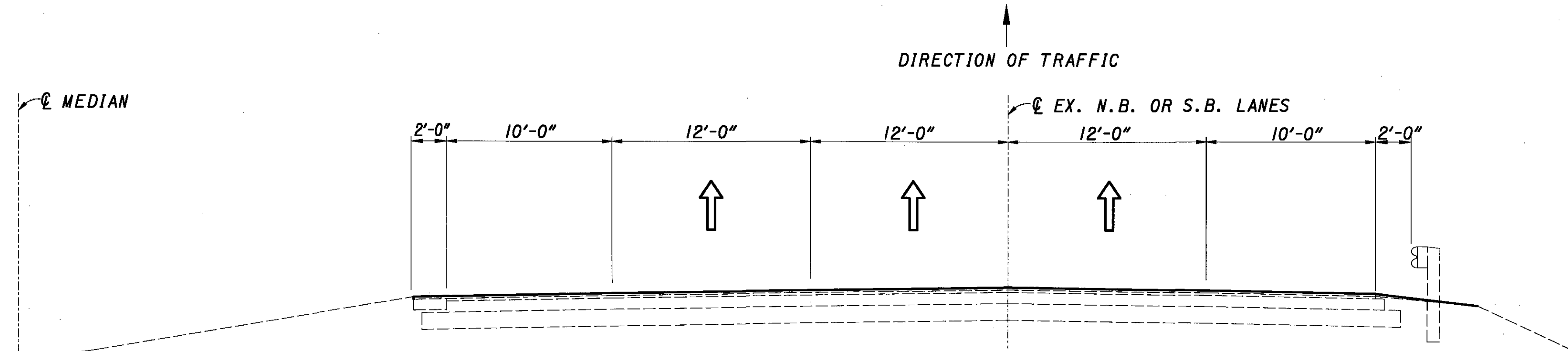
MED-71-6.06



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
PHASE 2**

ALL LOCATIONS EXCEPT THOSE
REQUIRING LONGITUDINAL BUTT JOINT

☉ - PAVEMENT MARKINGS SHALL BE PAID FOR AS
EITHER "614 - TRANSITION AREA DELINEATION" OR
"614 - TANGENT AREA DELINEATION".



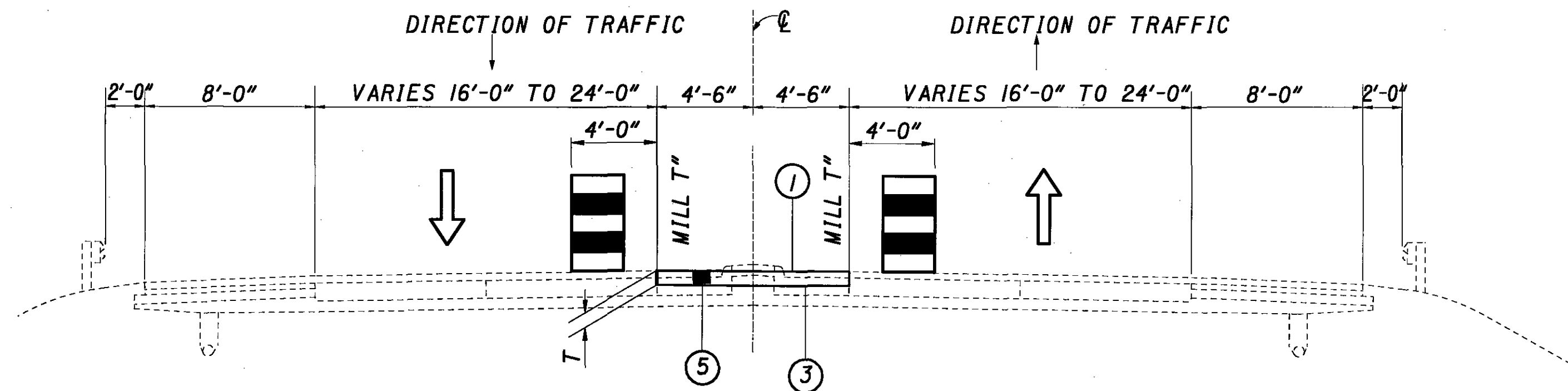
**MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGE 3**

APPLY FINAL SURFACE COURSE AND FINAL PAVEMENT
MARKINGS, RPMS AND SHOULDER RUMBLE STRIPS
SEE THE GENERAL NOTE ON SHEET 58 REGARDING
MAINTENANCE OF TRAFFIC REQUIREMENTS FOR THIS WORK
SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL DETAILS

SEE SHEET 79
FOR QUANTITIES

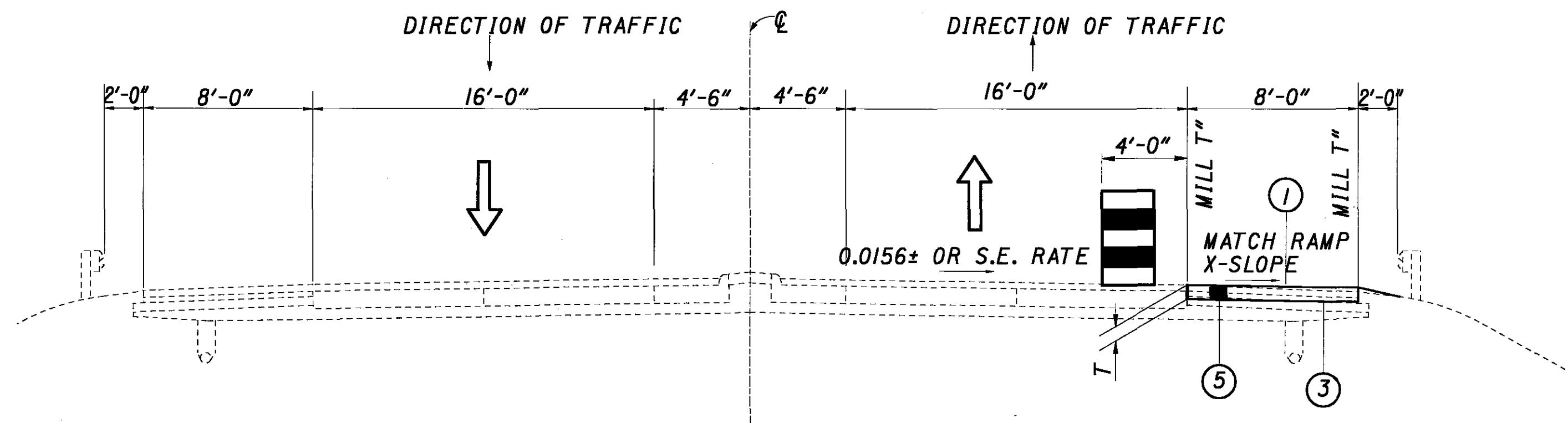
LEGEND

- ① 254 PAVEMENT PLANING, BITUMINOUS (6" TYP. SEE QUANTITY TABLE)
- ② 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-28
- ③ 407 TACK COAT (SEE GENERAL NOTE)
- ④ 301 6" ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
- ⑤ 301 ASPHALT CONCRETE BASE, PG 64-22
- ⑥ 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B
- ⑭ 605 6" BY TYPE PIPE UNDERDRAIN, 707.31 OR 707.41



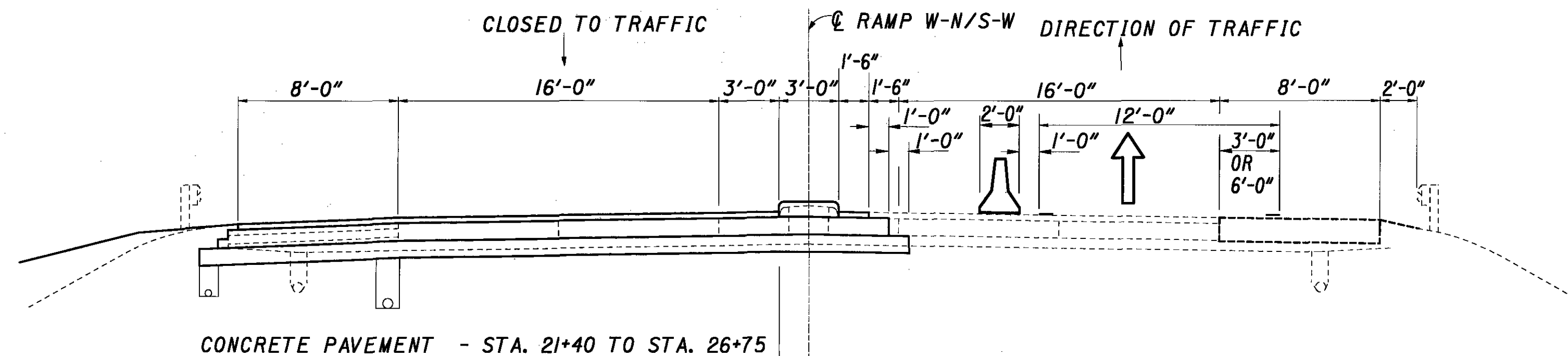
**TWO WAY RAMP MEDIAN REPLACEMENT
PRE-PHASE I OR PHASE I**

RAMP NS-W STA. 24+69 TO STA. 27+75
RAMP NS-W STA. 35+00 TO STA. 38+00
RAMP S-W/W-N STA. 14+00 TO STA. 17+25
RAMP S-W/W-N STA. 29+08 TO STA. 30+72 (USE ITEM 615)



**TWO WAY RAMP SHOULDER REPLACEMENT
PRE-PHASE I**

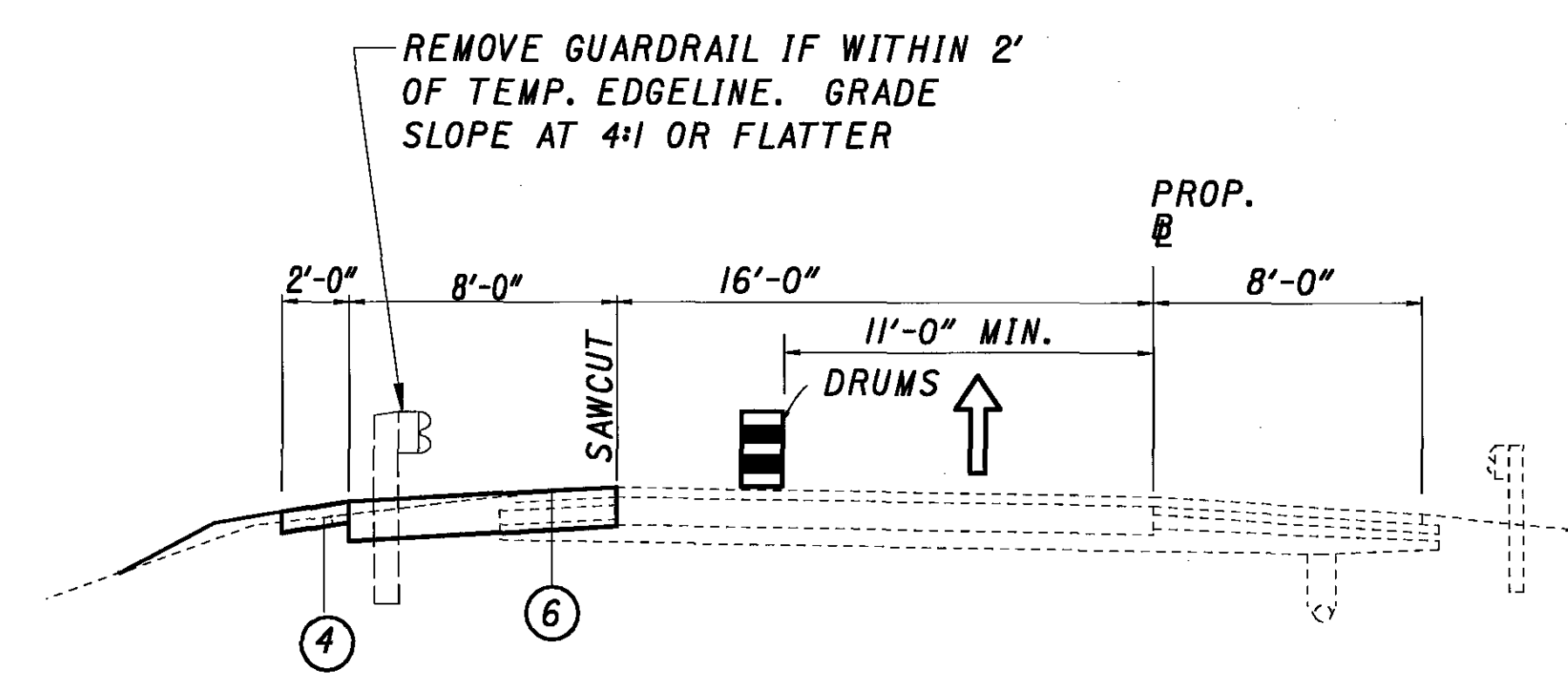
RAMP W-N, STA. 16+20 TO STA. 18+42
RAMP W-N, STA. 21+42 TO STA. 27+80



**TWO WAY RAMP (ONE WAY TRAFFIC ONLY)
PHASE I**

RAMP S-W/W-N, STA. 16+20 TO STA. 26+75

WIDEN LEFT SHOULDER TO ALLOW FOR MAJOR PROFILE CHANGE

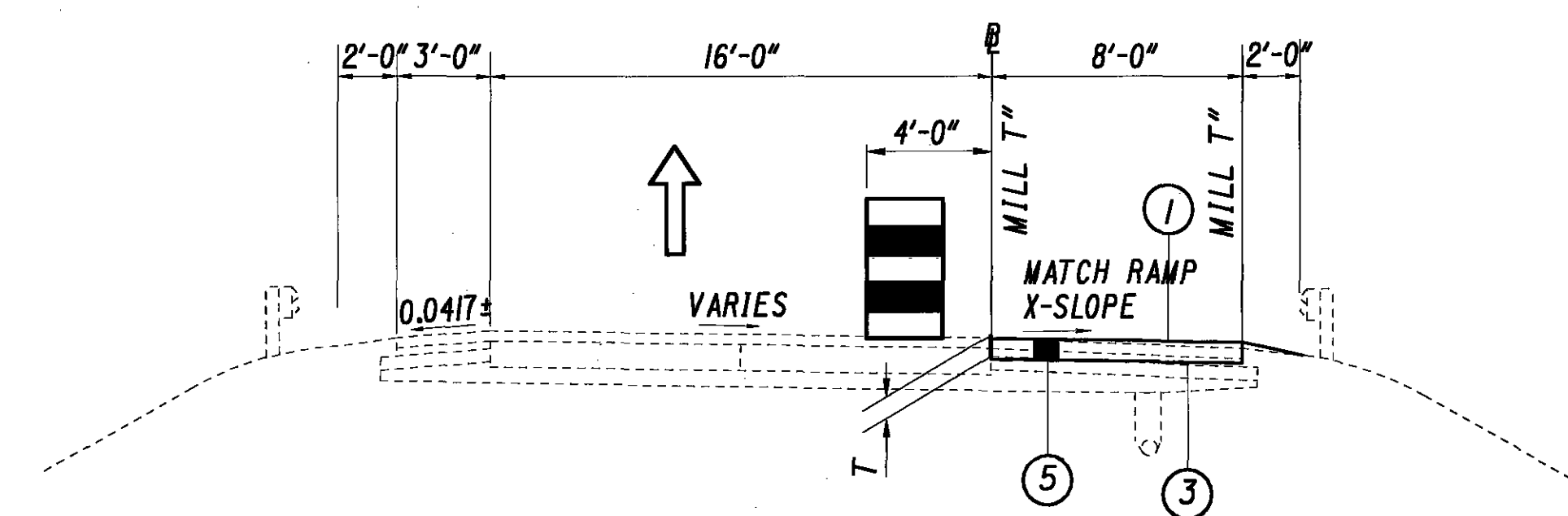


**INSIDE BERM REPLACEMENT TYPICAL SECTION
PRE-PHASE 2**

REF. ④ USED WHEN TRAFFIC IS WITHIN 2' OF EDGE OF SHOULDER

RAMP W-NS, STA. 5+59 TO STA. 10+80
RAMP S-W/W-N STA. 30+72 TO STA. 31+54

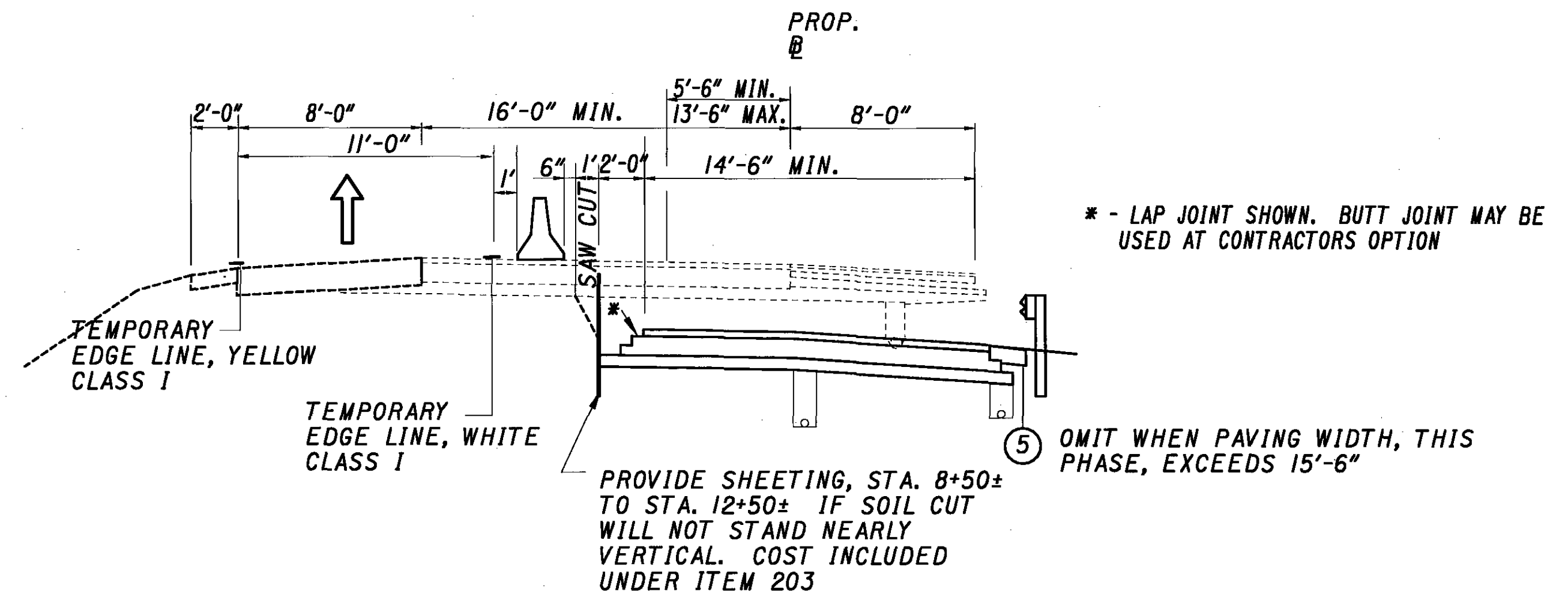
CROSS TRAFFIC TO OPPOSING RAMP



**RAMP OUTSIDE BERM REPLACEMENT
PRE-PHASE 1 OR PHASE 1**

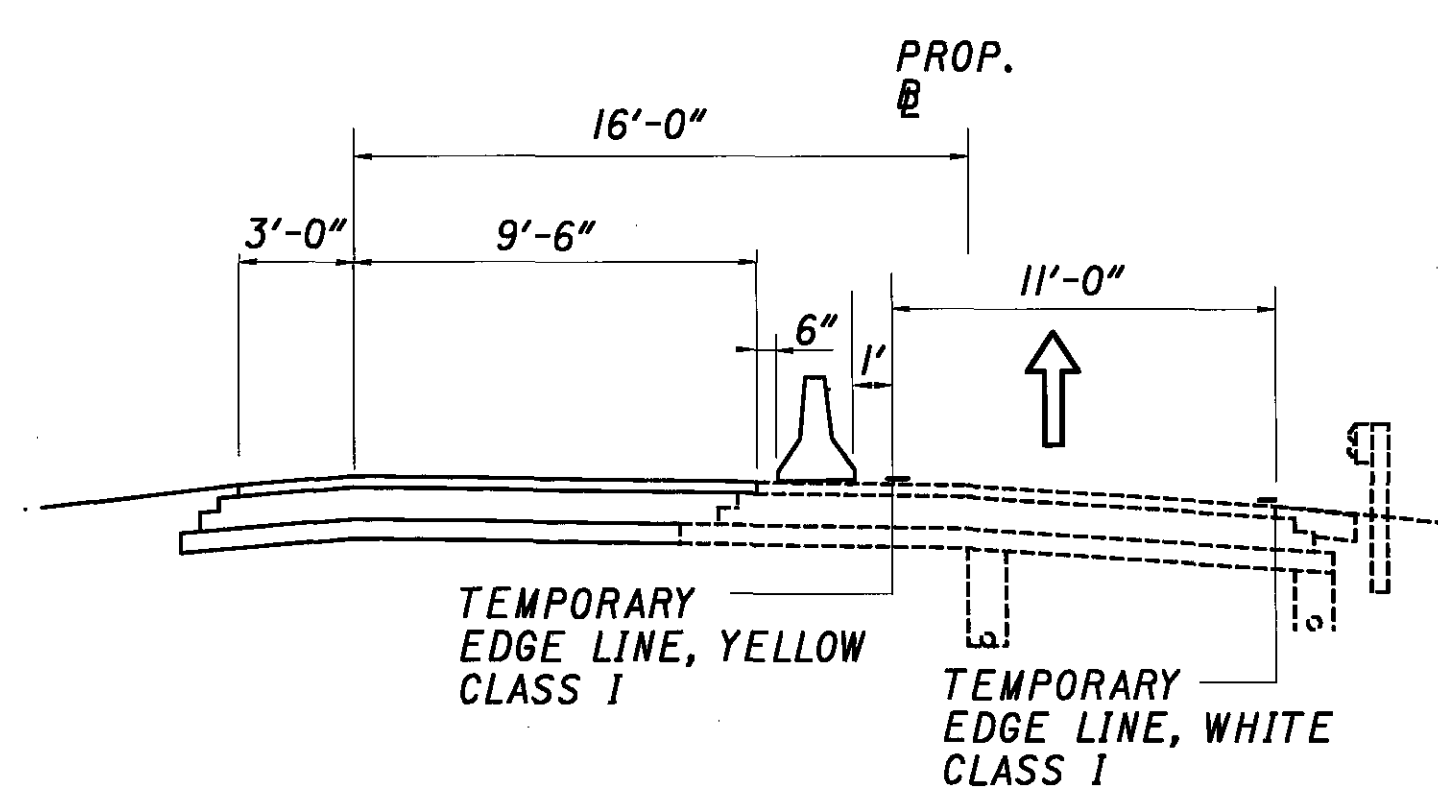
RAMP NS-W, STA. 26+00 TO STA. 30+73
RAMP NS-W, STA. 32+96 TO STA. 35+50

SEE SHEET 79 FOR QUANTITIES



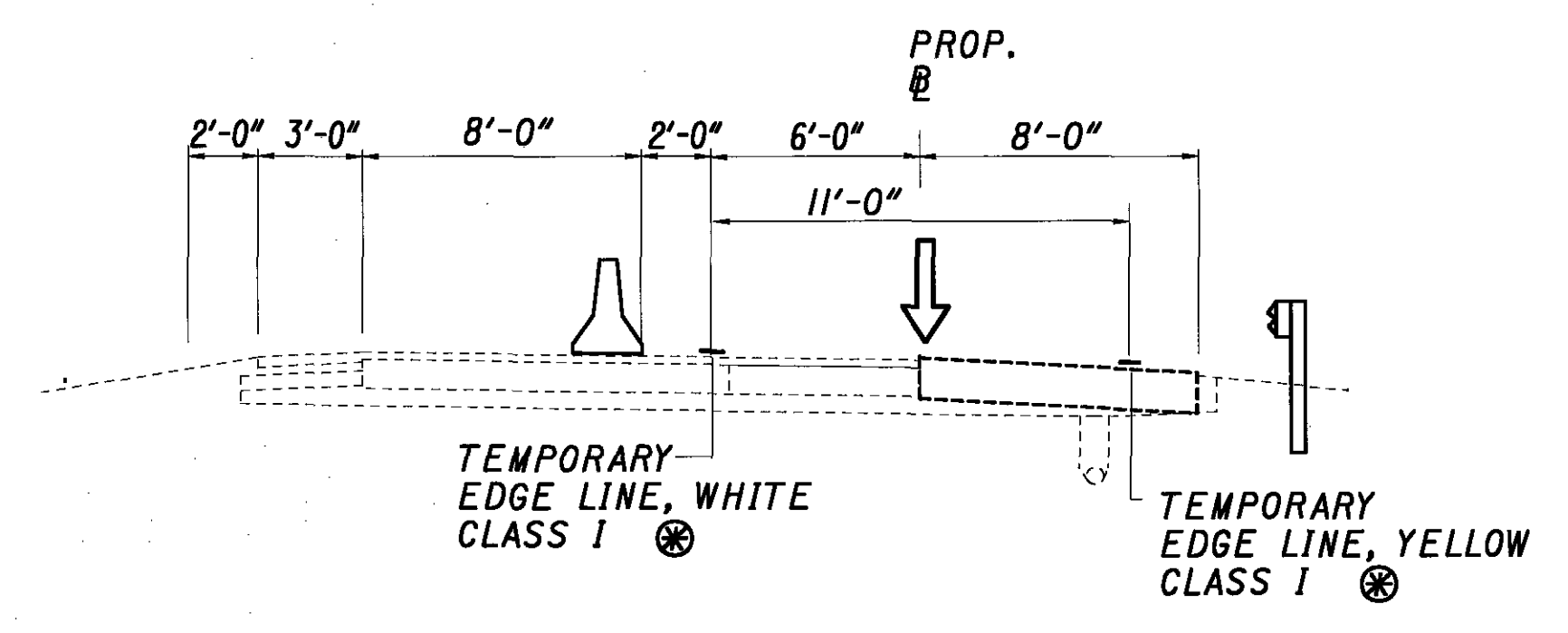
**MAINTENANCE OF TRAFFIC TYPICAL SECTION
PHASE 2**

RAMP W-NS



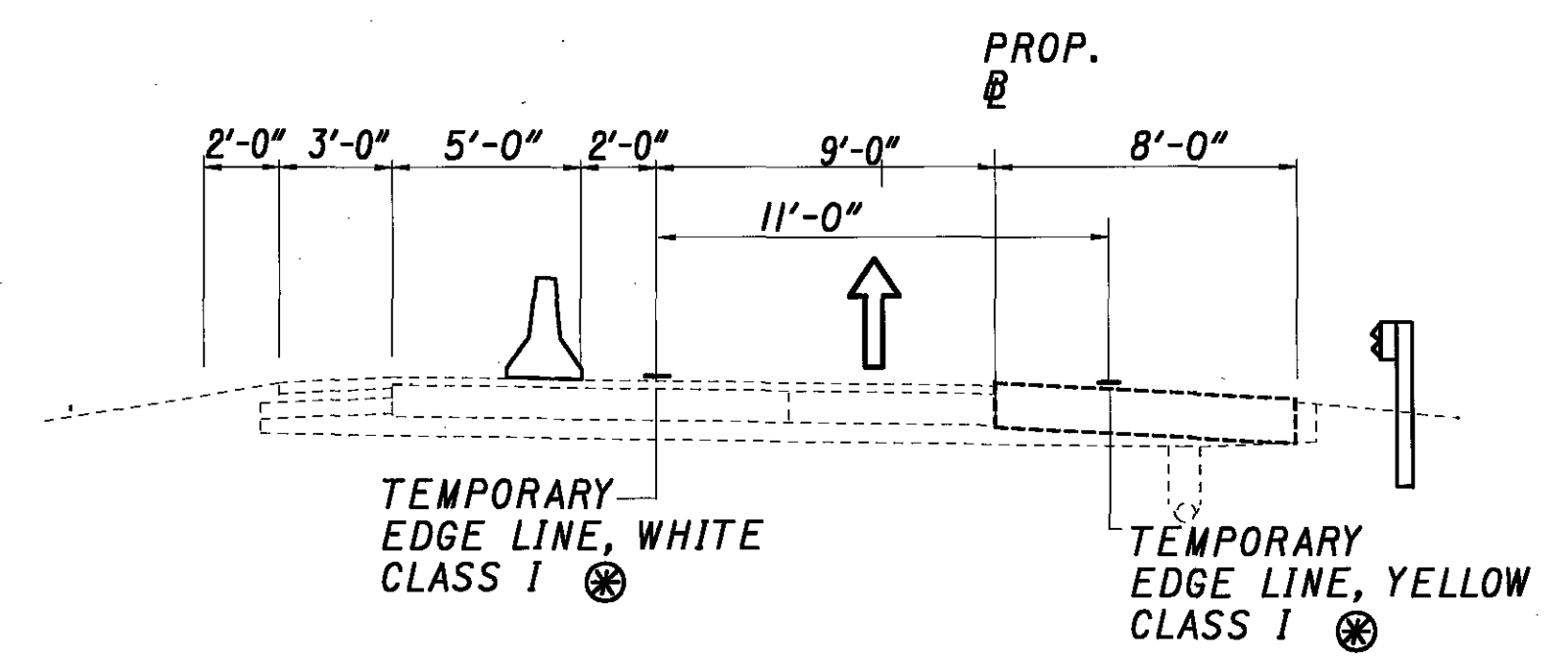
**MAINTENANCE OF TRAFFIC TYPICAL SECTION
PHASE 2A**

RAMP W-NS



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
PHASE 1**

RAMP G (RAMP NS-W TRAFFIC)



**MAINTENANCE OF TRAFFIC TYPICAL SECTION
PHASE 1**

RAMP W-N

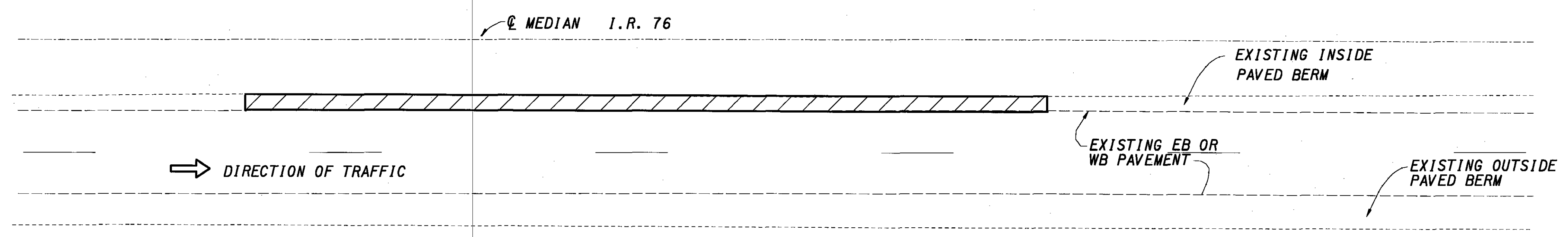
⊗ - PAVEMENT MARKINGS SHALL BE PAID FOR AS EITHER "614 - TRANSITION AREA DELINEATION" OR "614 - TANGENT AREA DELINEATION".

CALCULATED
CHECKED
MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS
IR76/USR224 RAMPS - PHASES 1, 2 & 2A

MED-71-6.06

DETAIL SHEET	RAMP	SIDE	STATION TO STATION		LENGTH FT.	PAVING WIDTH FT.	T 301 BASE COURSE THICKNESS INCHES	254	301	407	615	SHOULDER EDGE TREATMENT		301
			PAVEMENT PLANING, ASPHALT CONCRETE	ASPHALT CONCRETE BASE PG64-22				TACK COAT	PAV'T FOR MAINT. TRAFFIC, CLASS B	WIDTH	AREA	ASPH. CONC. BASE PG64-22, AS PER PLAN		
			SQ. YARD	CU. YARD				GAL.	CU. YARD	FT.	SQ. YARD	CU. YARD		
77	NS-W	MEDIAN	24+69	27+75	306	9.00	6.00	306	51.0	23.0				
77	NS-W	MEDIAN	35+00	38+00	300	9.00	6.00	300	50.0	22.5				
77	S-W/W-N	MEDIAN	14+00	17+25	325	9.00	6.00	325	54.2	24.4				
77	S-W/W-N	MEDIAN	29+08	30+72	164	9'-13'					200			
78	S-W/W-N	MEDIAN	30+72	31+54	82	10'-3'					59			
78	W-NS	LEFT	5+59	10+80	521	8.00					463	2.00	116	19.3
78	NS-W	RIGHT	26+00	30+73	473	8.00	6.00	420	70.0	31.5				
78	NS-W	RIGHT	32+96	35+50	254	8.00	6.00	226	37.7	17.0				
77	W-N	RIGHT	16+20	18+42	222	8.00	6.00	197	32.8	14.8				
77	W-N	RIGHT	21+42	27+80	638	8.00	6.00	567	94.5	42.5				
TOTAL								2341	390.2	175.7	722			19.3

SHEET TOTALS CARRIED TO GENERAL SUMMARY



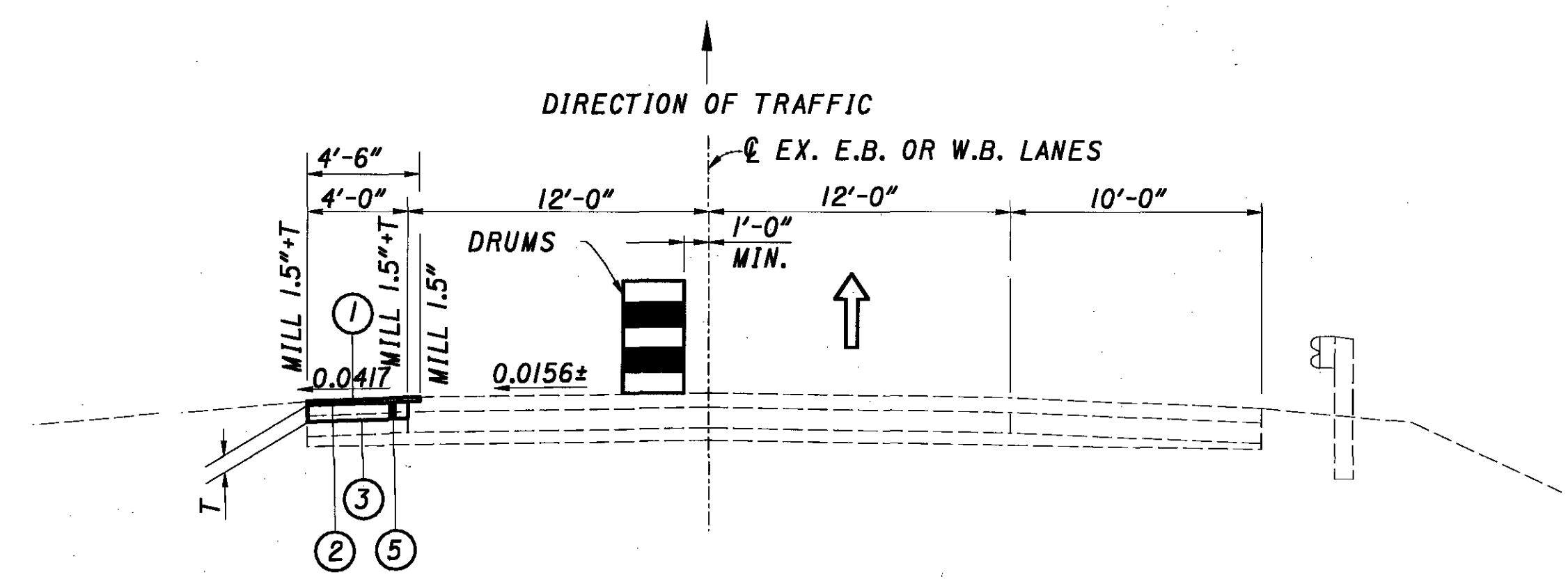
- NOTES:**
1. REBUILD SHOULDERS PRIOR TO SHIFTING TRAFFIC ONTO THE PAVED BERM.
 2. MAINTAIN ONE LANE OF TRAFFIC, AS PER STANDARD CONSTRUCTION DRAWING MT-95.30, DURING THE SHOULDER REBUILDING. SEE THE 614 NOTES FOR ADDITIONAL RESTRICTIONS, AND TRENCH GENERAL NOTES.

LEGEND

- ① 254 PAVEMENT PLANING, ASPHALT CONCRETE (5.5" MAX. - 1.5" MIN.)
- ② 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-28
- ③ 407 TACK COAT (SEE GENERAL NOTE)
- ④ 301 6" ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
- ⑤ 301 (VAR. THICKNESS) ASPHALT CONCRETE BASE, PG 64-22



PLAN



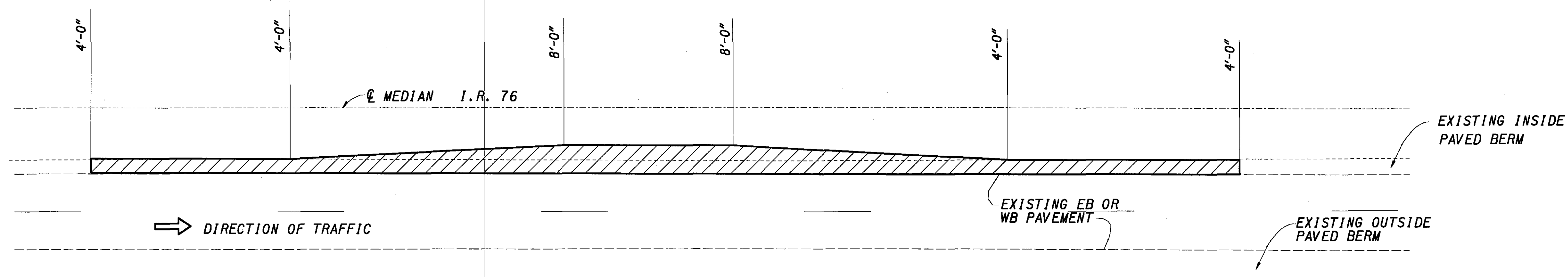
**IR76 INSIDE SHOULDER REBUILDING - TYPICAL SECTION
PRE-PHASE I**

IR 76 EB AT RAMP N-E, STA. 847+05 TO STA. 863+00** EASTBOUND
 IR 76 WB AT RAMP E-S, STA. 857+40 TO STA. 864+25** WESTBOUND
 IR 76 WB AT RAMP E-N, STA. 894+90 TO STA. 913+10 WESTBOUND

** - MEET FULL DEPTH ASPHALT PAVEMENT

ROUTE/ DIRECTION	SIDE	STATION TO STATION		LENGTH	301 BASE COURSE THICKNESS	RESURFACING			254	301	407	448	SHOULDER EDGE TREATMENT		301
						SHOULDER BASE PAVING WIDTH	SURFACE COURSE AREA	BASE COURSE AREA	PAVEMENT PLANING, ASPHALT CONCRETE	ASPHALT CONCRETE BASE PG64-22	TACK COAT	ASPH. CONC. SURFACE COURSE, TYPE 1 PG64-28	SHOULDER EDGE TREATMENT		ASPH. CONC. BASE PG64-22, AS PER PLAN
													WIDTH	AREA	
FROM	TO	FT.	INCHES	FT.	SQ. YARD	SQ. YARD	SQ. YARD	SQ. YARD	CU. YARD	GAL.	CU. YARD	FT.	SQ. YARD	CU. YARD	
IR76/ EB	INSIDE	847+05	863+00	1595	4	4.00	798	709	798	78.8	59.9	33.3			
IR76/ WB	INSIDE	857+40	864+25	685	4	4.00	343	304	343	33.8	25.7	14.3			
	INSIDE	894+90	913+10	1820	4	4.00	910	809	910	89.9	68.3	37.9			
TOTAL							2051	1822	2051	202.5	153.9	85.5			

SHEET TOTALS CARRIED TO GENERAL SUMMARY



PLAN

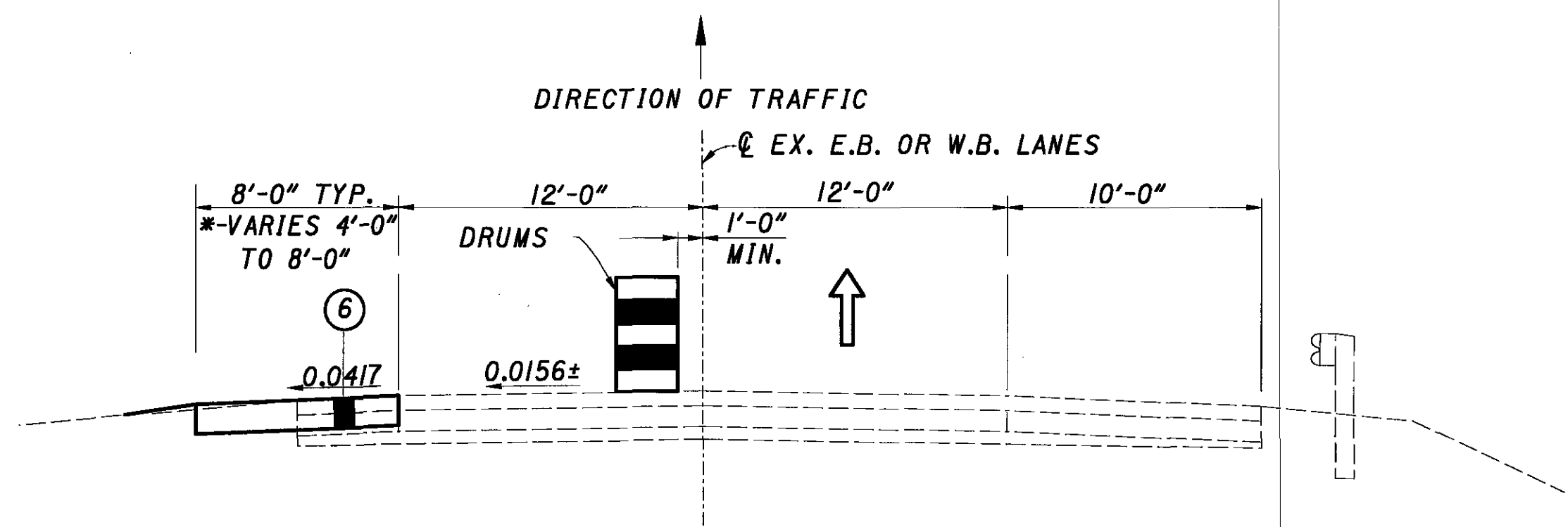
LEGEND

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B

LEGEND

⑥ 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B

- NOTES:
1. REBUILD SHOULDERS PRIOR TO SHIFTING TRAFFIC ONTO THE PAVED BERM.
 2. MAINTAIN ONE LANE OF TRAFFIC, AS PER STANDARD CONSTRUCTION DRAWING MT-95.30, DURING THE SHOULDER REBUILDING. SEE THE 614 NOTES FOR ADDITIONAL RESTRICTIONS, AND TRENCH GENERAL NOTES.



IR76 INSIDE BERM REPLACEMENT TYPICAL SECTION
PRE-PHASE I

IR 76 EB AT RAMP S-E, STA. 875+50** TO STA. 890+80 EASTBOUND

*-4'-0" TO 8'-0" STA. 875+50 TO STA. 878+10
8'-0" TO 4'-0" STA. 880+60 TO STA. 883+20

** - MEET FULL DEPTH ASPHALT PAVEMENT

ROUTE/ DIRECTION	SIDE	STATION TO STATION		LENGTH	SHOULDER REPLACEMENT		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
		FROM	TO		WIDTH	AREA (SY)	SQ. YARD	
IR76/ EASTBOUND	INSIDE	875+50	878+10	260.00	4.00 TO 8.00	173	173	
		878+10	880+60	250.00	8.00'	222	222	
		880+60	883+20	260.00	8.00 TO 4.00	173	173	
		883+20	890+80	760.00	4.00	338	338	
TOTAL							906	

SHEET TOTALS CARRIED TO GENERAL SUMMARY

MEDIAN SHOULDER 301 EDGE COURSE - PHASE 1

(SEE SHEET 12)

NORTHBOUND LENGTH (FROM SHEET 155) = 13904.5'

SOUTHBOUND LENGTH (FROM SHEET 156) = 13896.1'

TOTAL = 27800.6'

AREA = (3.25"x24"+4.75"x18")÷144/S.F. = 1.1354 S.F./L.F.

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22

27800.6' x 1.1354 S.F. ÷ 27 = 1169.1 C.Y. USE 1200 C.Y.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

MINOR LEVELING AT BUTT TYPE CONSTRUCTION JOINTS

PHASE 1 - MAINLINE LONGITUDINAL BUTT JOINTS

LEVELING (SEE SHEET 71) 2615' x 2' x 1/2" AVG. / 12" ÷ 27 = 8.1 C.Y.

LEVELING (SEE SHEET 73) 3165' x 2' x 1/2" AVG. / 12" ÷ 27 = 9.8 C.Y.

LEVELING (SEE SHEET 74) 1600 x 2' x 1.25" AVG. / 12" ÷ 27 = 4.9 C.Y.

LEVELING (SEE SHEET 75) 1600 x 6' x 1.25" AVG. / 12" ÷ 27 = 37.0 C.Y.

TOTAL = 59.8 C.Y.

BUTT JOINT TO LAPPED JOINT CONVERSION QUANTITIES

PHASE 2 - MAINLINE / RAMP FROM SHEET 72 - 2615'

PHASE 2 - MAINLINE / MAINLINE FROM SHEET 73 - 10057'

FROM SHEET 74 - 1600'

FROM SHEET 75 - 1600'

TOTAL = 15872'

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

15872' x 1' ÷ 9 = 1764 S.Y.

ITEM 302 - ASPHALT CONCRETE BASE, PG64-22

15872' x 0.5' x 4" / 12" ÷ 27 = 97.8 C.Y. #

ITEM 407 - TACK COAT

15872' x 1' / 9 x .07 GAL/S.Y. = 123 GAL. #

ITEM 446 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2

PG64-28 15872' x 1' x 1.75" / 12" ÷ 27 = 85.7 C.Y. #

MAINTENANCE OF TRAFFIC CALCULATIONS

MED-71-6.06

SHEET NUMBER	STATION TO STATION		WORK ZONE IMPACT ATTENUATOR, UNIDIRECTIONAL	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	TRANSITION AREA DELINEATION	TANGENT AREA DELINEATION	TEMPORARY EDGE LINE, CLASS I, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS I, 642 PAINT (YELLOW)	TEMPORARY LANE LINE, CLASS I, 642 PAINT (DASHED)	TEMPORARY LANE LINE, CLASS I, 642 PAINT (SOLID)	TEMPORARY CHANNELIZING LINE, CLASS I, 642 PAINT	TEMPORARY GORE MARKING CLASS II, 642 PAINT	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	TEMPORARY LANE LINE, CLASS I, 740.06, TYPE I (SOLID)	TEMPORARY LANE LINE, CLASS I, 740.06, TYPE I (DASHED)	622			
	FROM	TO																	EACH	EACH	EACH	EACH
	STAGE I - PHASE I																					
	I-71 NORTHBOUND																					
90	358+90	367+50	1		5	5	860															
	367+50	375+00			15	15		750														
91	375+00	383+60			6	6	860															
96	415+44	429+24	1	24	11	11	1380															
96	429+24	432+00			5	5		276														
	432+00	483+29			79	108		5129														
97	483+29	497+19			6	6	1390															
	I-71 SOUTHBOUND																					
91	356+40	365+00			6	6	860															
	365+00	377+65			25	25		1265														
90	377+65	386+25	1		5	5	860															
97	421+10	435+00		26	8	8	1390															
	435+00	486+29		86	108	103		5129														
96	486+29	489+05			5	5		276														
96	489+05	502+85	1				1380															
	I-76 EASTBOUND																					
93	869+90	883+20	1	5	26	26	1330															
94	883+20	893+80			11	11	1060															
	I-76 WESTBOUND																					
91	891+90	900+50			6	6	860															
	900+50	907+50			19	19		700														
90	907+50	916+10	1		5	5	860															
	I-76 WESTBOUND																					
92	854+40	863+00		4	6	6	860															
92	863+00	865+30			5	5		230														
92	865+30	866+30			2	2		100														
	866+30	868+00		3	3	3		170														
90	868+00	876+60	1	7	5	5	860															
	RAMP ES																					
104	210+30	212+50			5	5																
TOTALS CARRIED TO GENERAL SUMMARY			7	239	406	396	14810	14025														
																				17650		
																				850		

CALCULATED	DWL
	CHECKED
ENF	
MAINTENANCE OF TRAFFIC SUBSUMMARY	
MED-71-6.06	
83	
1120	

SHEET NUMBER	STATION TO STATION		WORK ZONE IMPACT ATTENUATOR, UNIDIRECTIONAL	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	TRANSITION AREA DELINEATION	TANGENT AREA DELINEATION	TEMPORARY EDGE LINE, CLASS I, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS I, 642 PAINT (YELLOW)	TEMPORARY LAKE LINE, CLASS I, 642 PAINT (DASHED)	TEMPORARY LAKE LINE, CLASS I, 642 PAINT (SOLID)	TEMPORARY CHANNELIZING LINE, CLASS I, 642 PAINT	TEMPORARY GORE MARKING CLASS II, 642 PAINT	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	TEMPORARY LAKE LINE, CLASS I, 740.06, TYPE I (SOLID)	TEMPORARY LAKE LINE, CLASS I, 740.06, TYPE I (DASHED)	622				
	FROM	TO																	EACH	EACH	EACH	EACH	FEET
	STAGE 1 - PHASE 2																						
	I-71 NORTHBOUND																						
98,99	429+00	450+60	1		18	18	2160														850		
	450+60	501+75			103	103		5115														5120	
100	501+75	523+45			7	7	2170															310	
	I-71 SOUTHBOUND																						
100	429+30	451+00			7	7	2170															310	
	451+00	502+15			103	103		5115														5120	
99,98	502+15	523+75	1		18	18	2160															850	
	STAGE 1 - PHASE 3																						
	I-76 EASTBOUND																						
133	836+60	840+30	1	1	8	8																370	
95	870+00	889+22	1	10	12	9	1922															280	100
	I-76 WESTBOUND																						
133	838+00	841+70	1	1	8	8																370	
	STAGE 2 - PHASE 1																						
	I-71 NORTHBOUND																						
96	319+44	333+24	1		6	6	1380																
96	333+24	336+00			5	5		276														280	
103	336+00	429+00		63	196	196		9300														8630	670
97	429+00	442+90		29	7	7	1390															310	
	I-71 SOUTHBOUND																						
101	325+10	339+00			7	7	1390															310	
103	339+00	432+00		73	197	197		9300														8630	670
102	432+00	438+18		13	13	13		618														620	
102	438+18	451+98		29			1380																
	RAMP SE																						
105	66+20	76+90	1		21	21		1070														870	180
	RAMP SW																						
107	14+40	14+80	1	1																			
107	14+80	18+25		7	7	7	345															350	
107	18+25	25+75		15	20	20		750														450	300
107	25+75	29+20		7	2	2	345																
	I-76 EASTBOUND																						
133	859+40	870+40	1	1	8	8										1100						320	
133	866+40	872+20	1	1	12	12																580	
	I-76 WESTBOUND																						
133A	862+65	879+48	1	1	8	8									1683	1683	1683					230	100
133	868+00	873+80	1	1	12	12																580	
TOTALS CARRIED TO GENERAL SUMMARY			12	253	805	803	16812	31544							1683	2783	1683				35740	2020	

0.85 MI. 0.32 MI.

MAINTENANCE OF TRAFFIC SUBSUMMARY

MED-71-6.06

CALCULATED
DWL
CHECKED
ENF

7565TMSA.dgn

SHEET NUMBER	STATION TO STATION		WORK ZONE IMPACT ATTENUATOR, UNIDIRECTIONAL	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	TRANSITION AREA DELINEATION	TANGENT AREA DELINEATION	TEMPORARY EDGE LINE, CLASS I, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS I, 642 PAINT (YELLOW)	TEMPORARY LAWE LINE, CLASS I, 642 PAINT (DASHED)	TEMPORARY LAWE LINE, CLASS I, 642 PAINT (SOLID)	TEMPORARY CHANNELIZING LINE, CLASS I, 642 PAINT	TEMPORARY GORE MARKING CLASS II, 642 PAINT	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	TEMPORARY LAWE LINE, CLASS I, 740.06, TYPE I (SOLID)	TEMPORARY LAWE LINE, CLASS I, 740.06, TYPE I (DASHED)	622			
	FROM	TO																	EACH	EACH	EACH	EACH
	STAGE 2 - PHASE 2A																					
	I-71 NORTHBOUND																					
118	358+40	361+60		3			320															
118	361+60	370+00	1	9	6	6	840														300	
118	370+00	376+25		5	14	14	510														680	
111	405+00	408+50			14	14	860														710	
111	408+50	412+50			8	8		400													400	
111	412+50	418+00			20	20		550													550	
	I-71 SOUTHBOUND																					
122	348+35	354+35			12	12	600														600	
122	354+35	363+00		2	3	3	865														80	
121	363+00	370+00			14	14	700														700	
121	370+00	378+65			17	17															870	
124	397+70	407+00	1	4	19	19	950														950	
124	407+00	408+00			2	2		100													100	
	RAMP E																					
127	-(1+00)	4+80			7	7	580														340	
	I-76 EASTBOUND																					
127	839+25	847+05													780							
133	843+30	846+50	1	1	8	8															320	
127	847+05	854+12			6	6	707														300	
91	854+12	865+75			24	24		1163													1170	
91	865+75	874+35			6	6	860														300	
	I-76 WESTBOUND																					
133	844+70	847+90	1	1	8	8															320	
	RAMP N-SW																					
106	23+29	28+75		2	7	7	546														410	
106	28+75	33+00		4	9	9		425													190	240
106	33+00	38+00	1	4	9	9	500														440	
	RAMP WN																					
128,129	3+04	20+15	1	45	34	31	1711														1340	170
	STAGE 2 - PHASE 2B																					
	I-71 NORTHBOUND																					
112,113	411+50	428+50		8	22	22	1700														970	
	I-71 SOUTHBOUND																					
119,120	374+96	390+86			25	25	1590														1120	130
125	401+75	408+00			13	13		625													630	
125,126	408+00	418+26	1	8	9	9	1026														410	
	RAMP WN																					
129	20+15	31+70		19	26	26		1155													1030	130
112	31+70	41+72		5	18	18		1002													1000	
TOTALS CARRIED TO GENERAL SUMMARY				7	120	360	357	14865	5420						780						16230	670

0.15 MI.

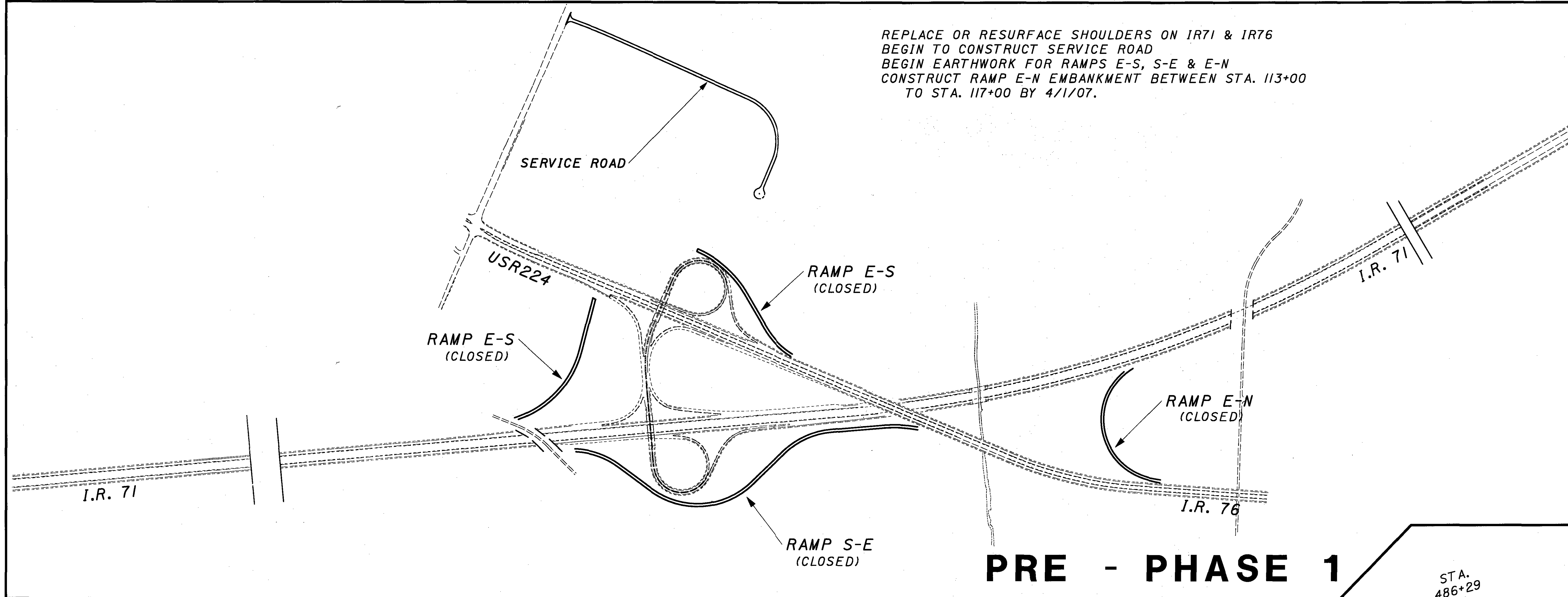
MAINTENANCE OF TRAFFIC SUBSUMMARY

MED-71-6.06

CALCULATED
DWL
CHECKED
ENF

86
1120

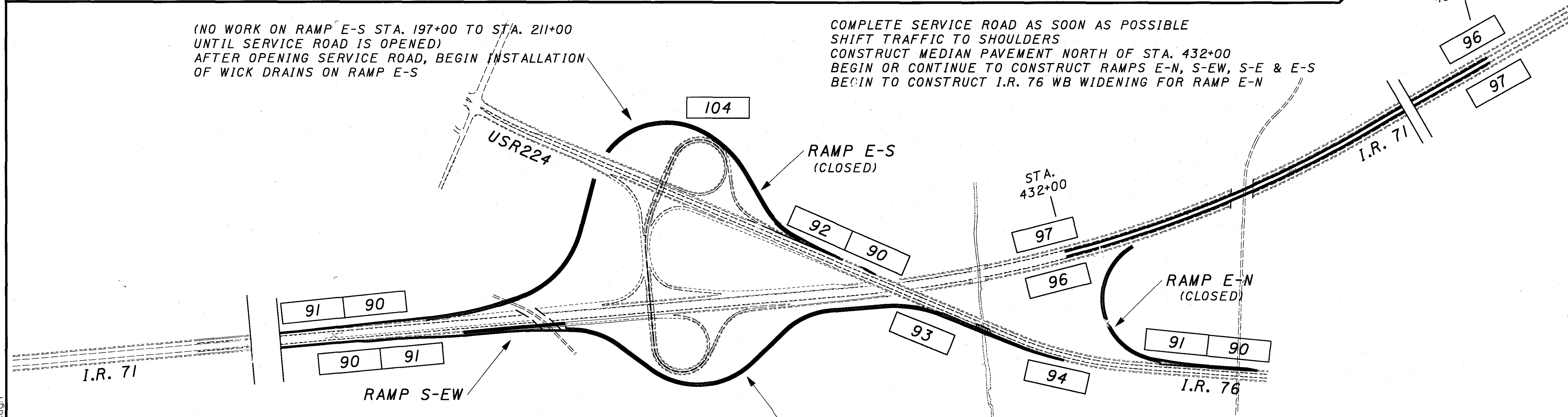
REPLACE OR RESURFACE SHOULDERS ON I.R. 71 & I.R. 76
 BEGIN TO CONSTRUCT SERVICE ROAD
 BEGIN EARTHWORK FOR RAMPS E-S, S-E & E-N
 CONSTRUCT RAMP E-N EMBANKMENT BETWEEN STA. 113+00
 TO STA. 117+00 BY 4/1/07.



PRE - PHASE 1

(NO WORK ON RAMP E-S STA. 197+00 TO STA. 211+00
 UNTIL SERVICE ROAD IS OPENED)
 AFTER OPENING SERVICE ROAD, BEGIN INSTALLATION
 OF WICK DRAINS ON RAMP E-S

COMPLETE SERVICE ROAD AS SOON AS POSSIBLE
 SHIFT TRAFFIC TO SHOULDERS
 CONSTRUCT MEDIAN PAVEMENT NORTH OF STA. 432+00
 BEGIN OR CONTINUE TO CONSTRUCT RAMPS E-N, S-EW, S-E & E-S
 BEGIN TO CONSTRUCT I.R. 76 WB WIDENING FOR RAMP E-N



STAGE 1 - PHASE 1

- INDICATES DETAIL SHEET NUMBER

CALCULATED
 CHECKED

HORIZONTAL
 SCALE IN FEET

**MAINTENANCE OF TRAFFIC
 - STAGE 1**

MED-71-6.06

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☐ - INDICATES DETAIL SHEET NUMBER

PLACE EMBANKMENT AND EMBANKMENT SURCHARGE ON RAMP E-S
 SHIFT TRAFFIC TO NEW MEDIAN PAVEMENT
 CONSTRUCT OUTSIDE PAVEMENT
 CONTINUE CONSTRUCTION OF RAMP E-S, S-EW, S-E & E-N
 COMPLETE ALL RAMP TIE INS TO MAINLINE PAVEMENT
 RETURN MAINLINE TRAFFIC TO NORMAL POSITION AT END OF PHASE



HORIZONTAL SCALE IN FEET

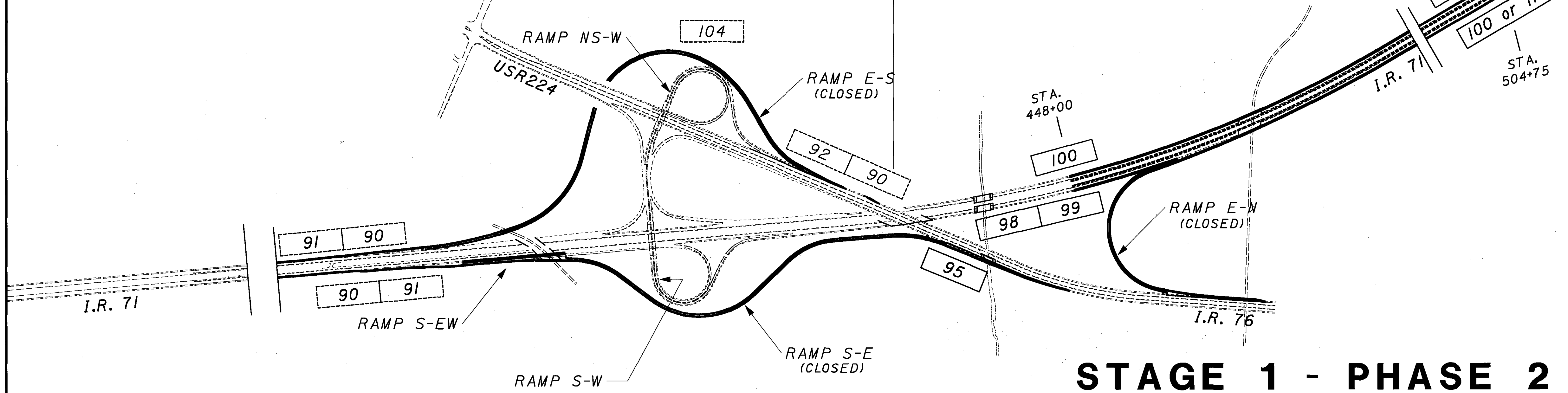
CALCULATED
 CHECKED

MAINTENANCE OF TRAFFIC - STAGE 1

MED-71-6.06

87A
 1120

CONTINUE STAGE 1 - PHASE 1 SHIFTS AS NEEDED



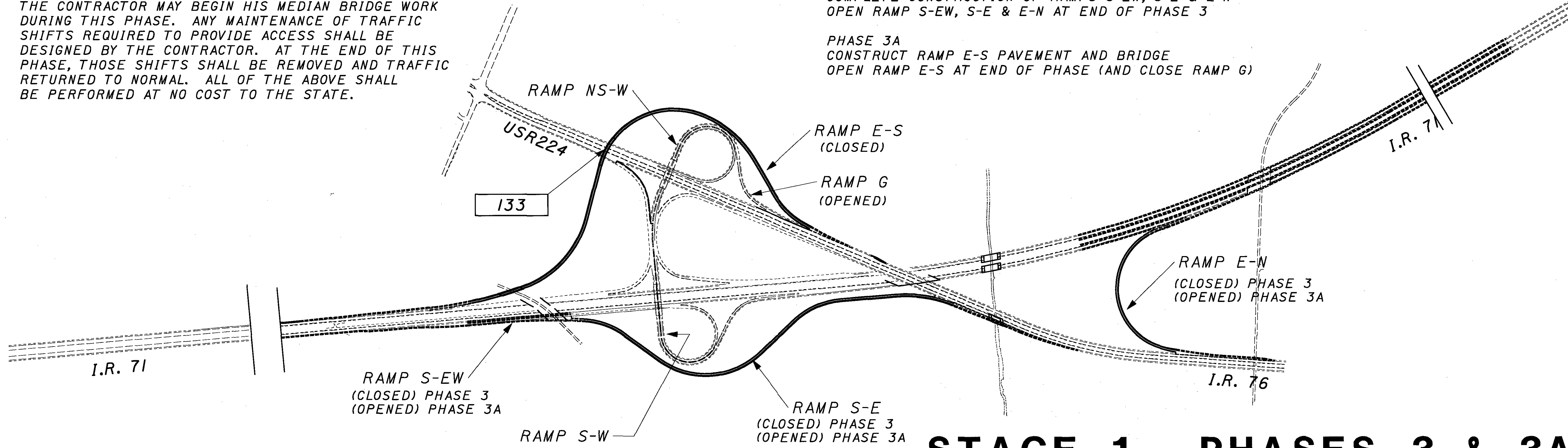
STAGE 1 - PHASE 2

OPTIONAL MAINLINE IR 71 WORK

THE CONTRACTOR MAY BEGIN HIS MEDIAN BRIDGE WORK DURING THIS PHASE. ANY MAINTENANCE OF TRAFFIC SHIFTS REQUIRED TO PROVIDE ACCESS SHALL BE DESIGNED BY THE CONTRACTOR. AT THE END OF THIS PHASE, THOSE SHIFTS SHALL BE REMOVED AND TRAFFIC RETURNED TO NORMAL. ALL OF THE ABOVE SHALL BE PERFORMED AT NO COST TO THE STATE.

PHASE 3:
 REMOVE EMBANKMENT SURCHARGE ON RAMP E-S,
 COMPLETE CONSTRUCTION OF RAMPS S-EW, S-E & E-N
 OPEN RAMP S-EW, S-E & E-N AT END OF PHASE 3

PHASE 3A
 CONSTRUCT RAMP E-S PAVEMENT AND BRIDGE
 OPEN RAMP E-S AT END OF PHASE (AND CLOSE RAMP G)



STAGE 1 - PHASES 3 & 3A

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HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

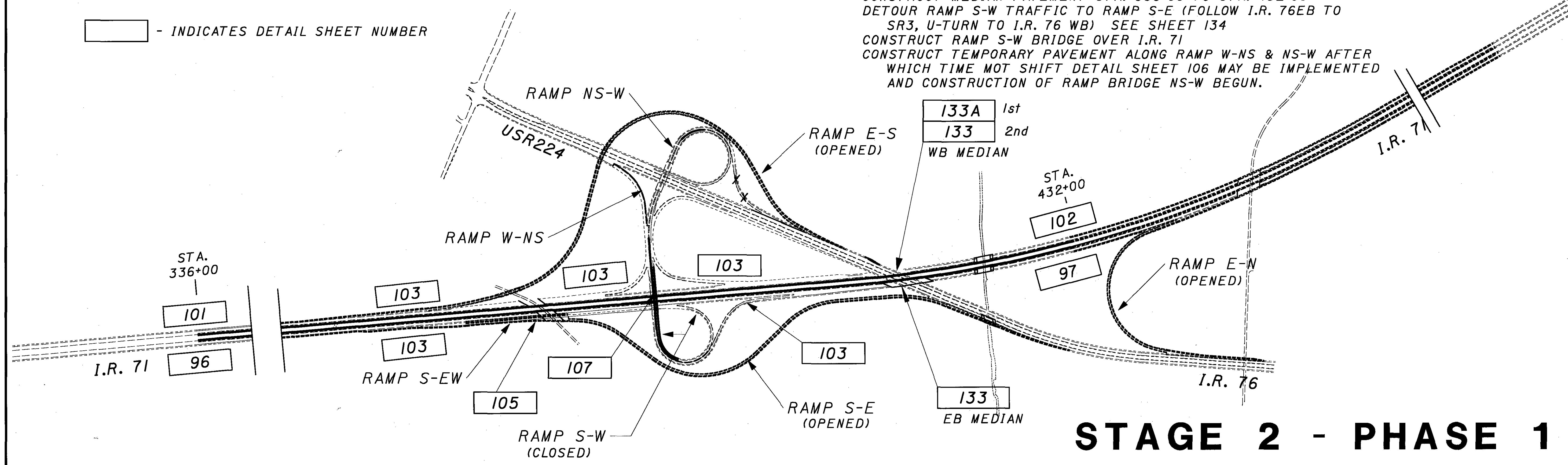
MAINTENANCE OF TRAFFIC - STAGE 2

MED-71-6.06

88
1120

RAMPS E-S, S-E AND E-N OPENED TO TRAFFIC
SHIFT I.R. 71 MAINLINE TRAFFIC TO OUTSIDE SHOULDERS
CONSTRUCT MEDIAN PAVEMENT STA. 336+00 TO STA. 432+00
DETOUR RAMP S-W TRAFFIC TO RAMP S-E (FOLLOW I.R. 76EB TO SR3, U-TURN TO I.R. 76 WB) SEE SHEET 134
CONSTRUCT RAMP S-W BRIDGE OVER I.R. 71
CONSTRUCT TEMPORARY PAVEMENT ALONG RAMP W-NS & NS-W AFTER WHICH TIME MOT SHIFT DETAIL SHEET 106 MAY BE IMPLEMENTED AND CONSTRUCTION OF RAMP BRIDGE NS-W BEGUN.

[] - INDICATES DETAIL SHEET NUMBER

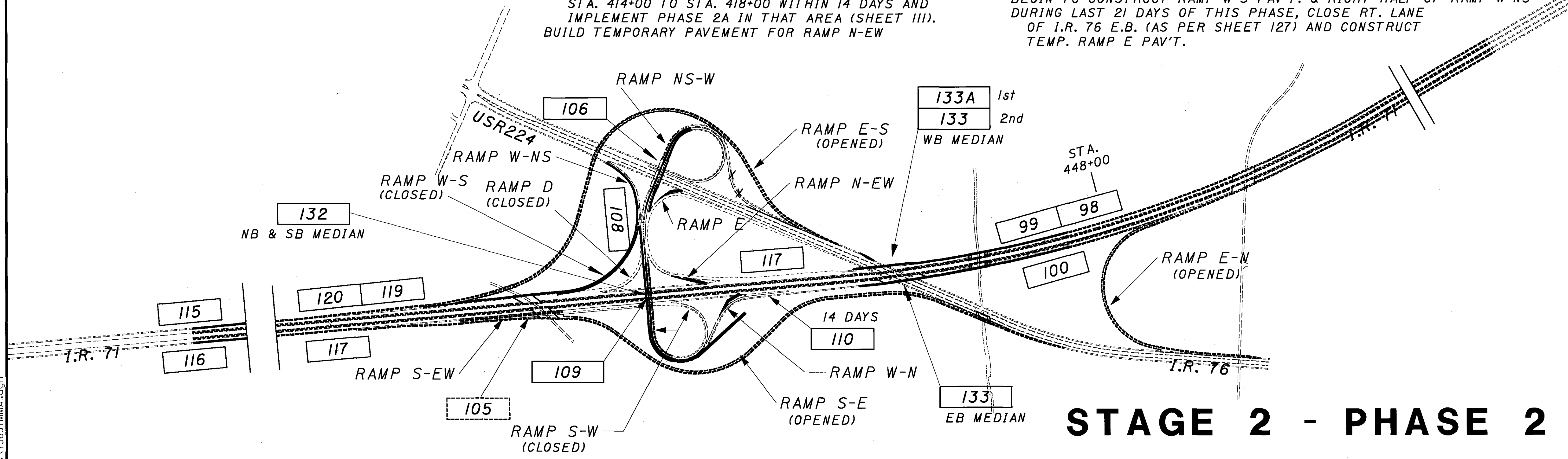


STAGE 2 - PHASE 1

[] - INDICATES DETAIL SHEET NUMBER

CONTINUE RAMP S-W DETOUR
SHIFT TRAFFIC TO NEW MEDIAN PAVEMENT
SHIFT RAMP W-N TRAFFIC TO NORTH SIDE OF BRIDGE OVER I.R. 71
BEGIN TO CONSTRUCT OUTSIDE PAVEMENT
CONSTRUCT TEMP. RAMP WN AND MAINLINE PAV'T STA. 414+00 TO STA. 418+00 WITHIN 14 DAYS AND IMPLEMENT PHASE 2A IN THAT AREA (SHEET III).
BUILD TEMPORARY PAVEMENT FOR RAMP N-EW

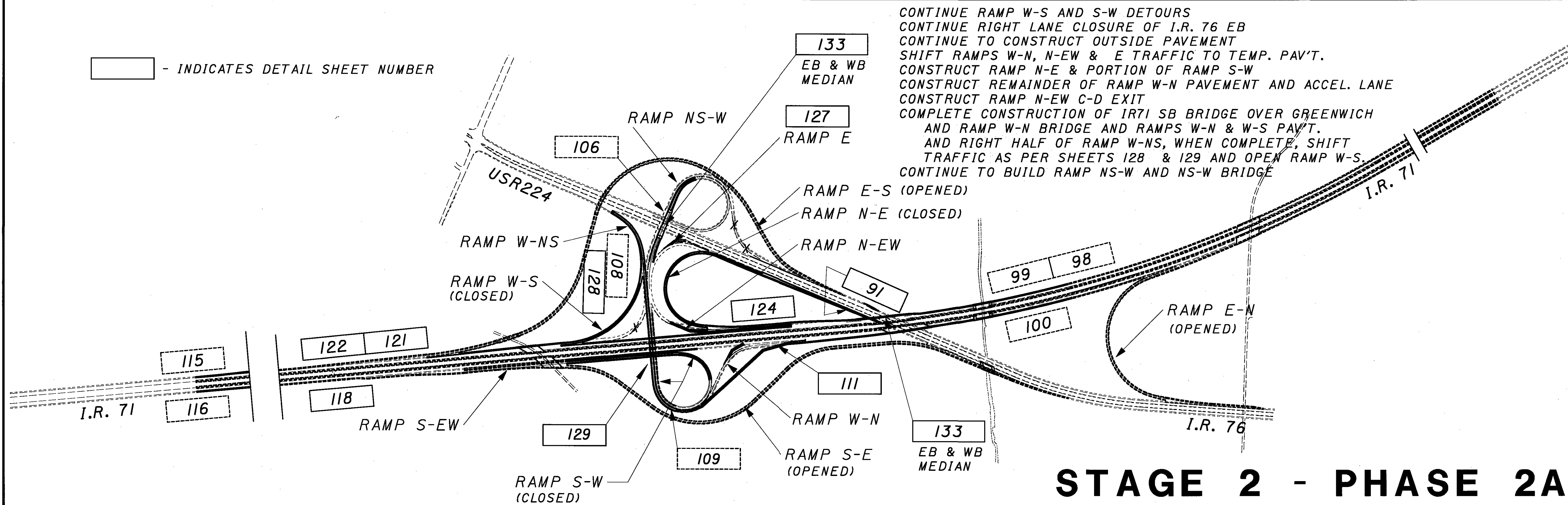
CONTINUE (OR BEGIN) TO CONSTRUCT PORTION OF RAMP NS-W AND RAMP NS-W BRIDGE
CLOSE AND DETOUR RAMP D (FOLLOW I.R. 76EB TO SR3, U-TURN, TAKE I.R. 76WB TO I.R. 71SB) SEE SHEET 135
BEGIN TO CONSTRUCT RAMP W-N BRIDGE OVER I.R. 71 & RAMP W-N PAV'T.
BEGIN TO CONSTRUCT RAMP W-S PAV'T. & RIGHT HALF OF RAMP W-NS DURING LAST 21 DAYS OF THIS PHASE, CLOSE RT. LANE OF I.R. 76 E.B. (AS PER SHEET 127) AND CONSTRUCT TEMP. RAMP E PAV'T.



STAGE 2 - PHASE 2

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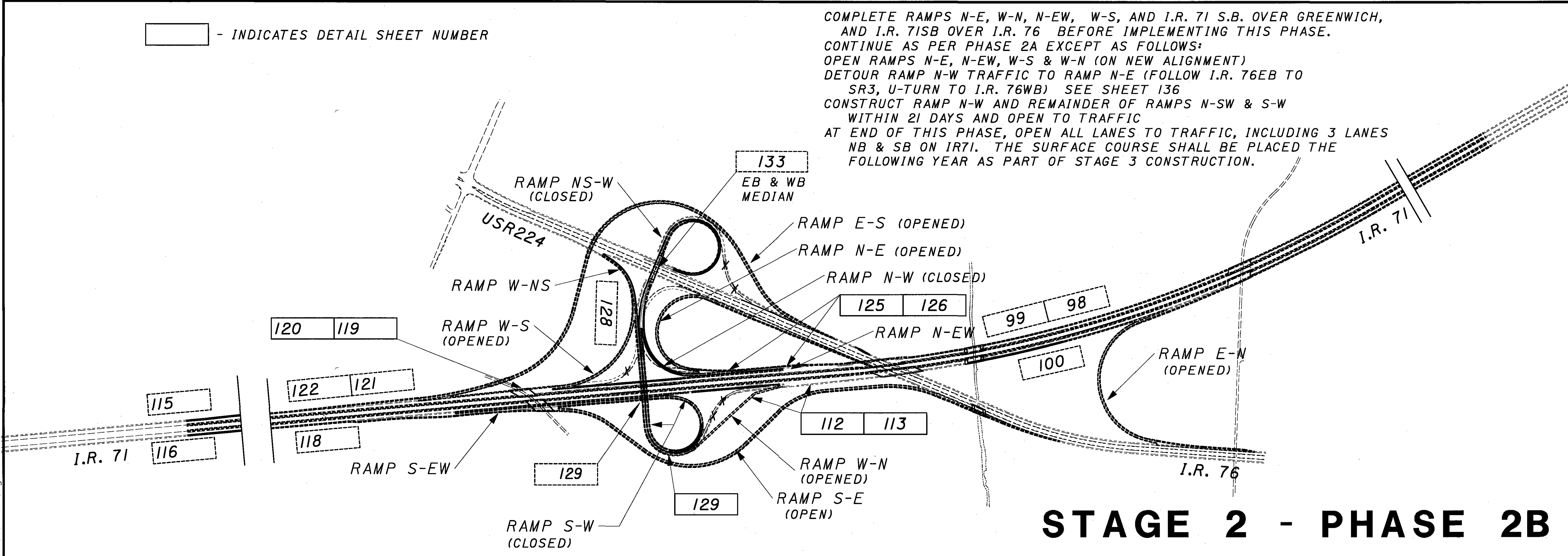
INDICATES DETAIL SHEET NUMBER



CONTINUE RAMP W-S AND S-W DETOURS
 CONTINUE RIGHT LANE CLOSURE OF I.R. 76 EB
 CONTINUE TO CONSTRUCT OUTSIDE PAV'T.
 SHIFT RAMPS W-N, N-EW & E TRAFFIC TO TEMP. PAV'T.
 CONSTRUCT RAMP N-E & PORTION OF RAMP S-W
 CONSTRUCT REMAINDER OF RAMP W-N PAVEMENT AND ACCEL. LANE
 CONSTRUCT RAMP N-EW C-D EXIT
 COMPLETE CONSTRUCTION OF I.R. 71 SB BRIDGE OVER GREENWICH
 AND RAMP W-N BRIDGE AND RAMPS W-N & W-S PAV'T.
 AND RIGHT HALF OF RAMP W-NS, WHEN COMPLETE, SHIFT
 TRAFFIC AS PER SHEETS 128 & 129 AND OPEN RAMP W-S.
 CONTINUE TO BUILD RAMP NS-W AND NS-W BRIDGE

STAGE 2 - PHASE 2A

INDICATES DETAIL SHEET NUMBER



COMPLETE RAMPS N-E, W-N, N-EW, W-S, AND I.R. 71 S.B. OVER GREENWICH,
 AND I.R. 71SB OVER I.R. 76 BEFORE IMPLEMENTING THIS PHASE.
 CONTINUE AS PER PHASE 2A EXCEPT AS FOLLOWS:
 OPEN RAMPS N-E, N-EW, W-S & W-N (ON NEW ALIGNMENT)
 DETOUR RAMP N-W TRAFFIC TO RAMP N-E (FOLLOW I.R. 76EB TO
 SR3, U-TURN TO I.R. 76WB) SEE SHEET 136
 CONSTRUCT RAMP N-W AND REMAINDER OF RAMPS N-SW & S-W
 WITHIN 21 DAYS AND OPEN TO TRAFFIC
 AT END OF THIS PHASE, OPEN ALL LANES TO TRAFFIC, INCLUDING 3 LANES
 NB & SB ON I.R. 71. THE SURFACE COURSE SHALL BE PLACED THE
 FOLLOWING YEAR AS PART OF STAGE 3 CONSTRUCTION.

STAGE 2 - PHASE 2B

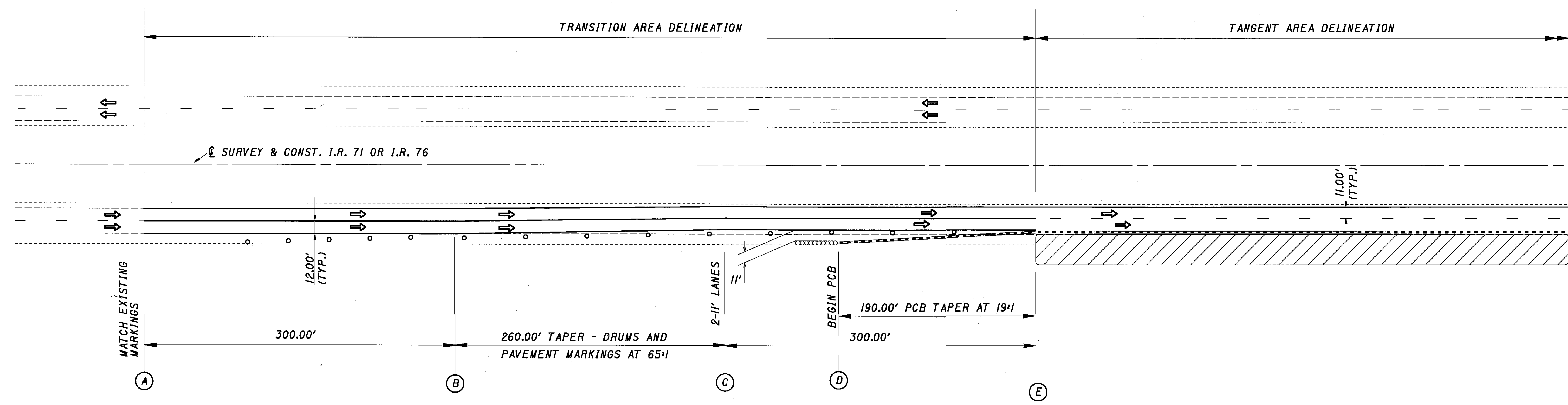
CALCULATED
 CHECKED
 HORIZONTAL SCALE IN FEET
 MAINTENANCE OF TRAFFIC - STAGE 2
 MED-71-6.06
 89
 1120

...75657MMA.dgn

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - APPROACHING WORK ZONE
MINOR SHIFT ONTO LEFT SHOULDER

MED-71-6.06



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.

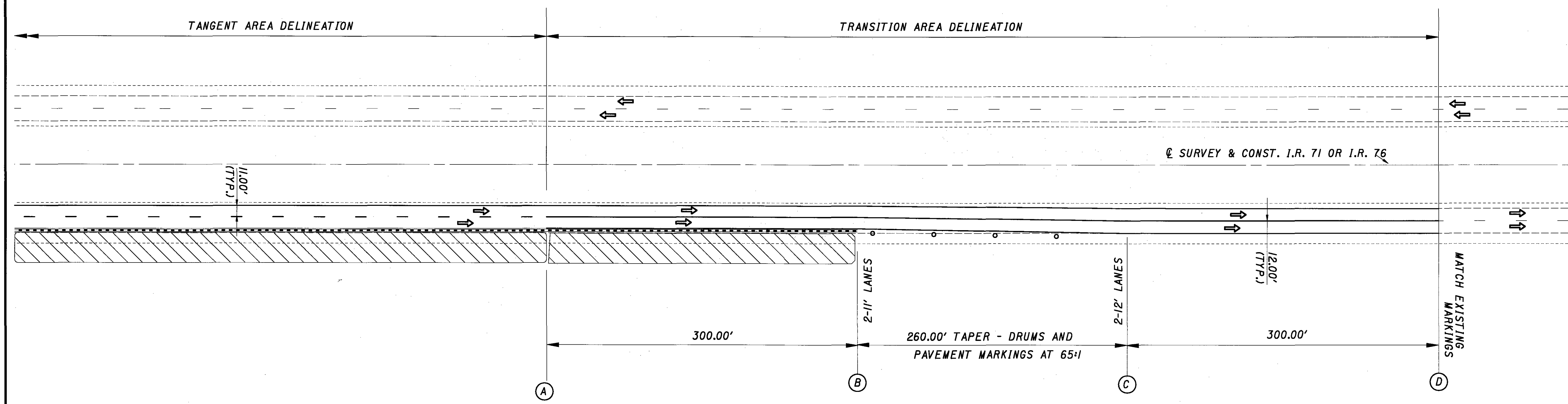
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 1 - PHASE 1 NB71	358+90	361+90	364+50	365+60	367+50
STAGE 1 - PHASE 1 SB71	386+25	383+25	380+65	379+55	377+65
STAGE 1 - PHASE 1 WB76	876+60	873+60	871+00	869+90	868+00
STAGE 1 - PHASE 1 WB76	916+10	913+10	910+50	909+40	907+50

1/1
90
1120



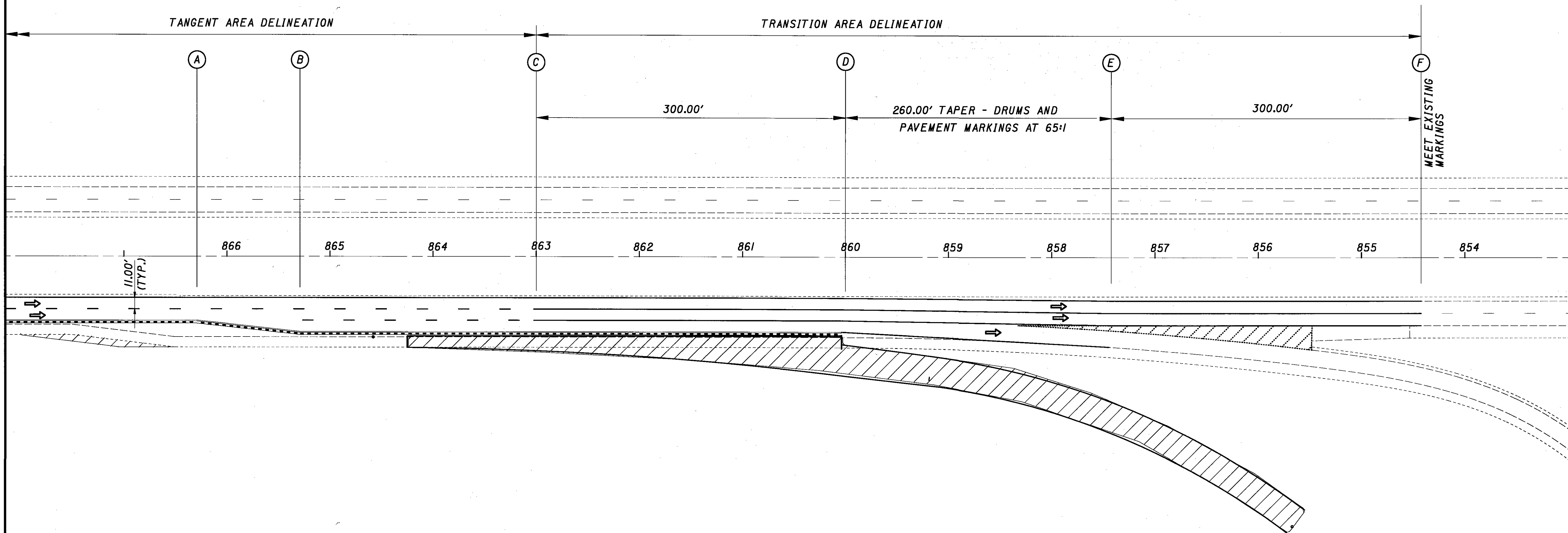
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 70, 72-76 SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 1 - PHASE 1 NB71	375+00	378+00	380+60	383+60
STAGE 1 - PHASE 1 SB71	365+00	362+00	359+40	356+40
STAGE 1 - PHASE 1 WB76	900+50	897+50	894+90	891+90
STAGE 2 - PHASE 2A EB76	865+75	868+75	871+35	874+35



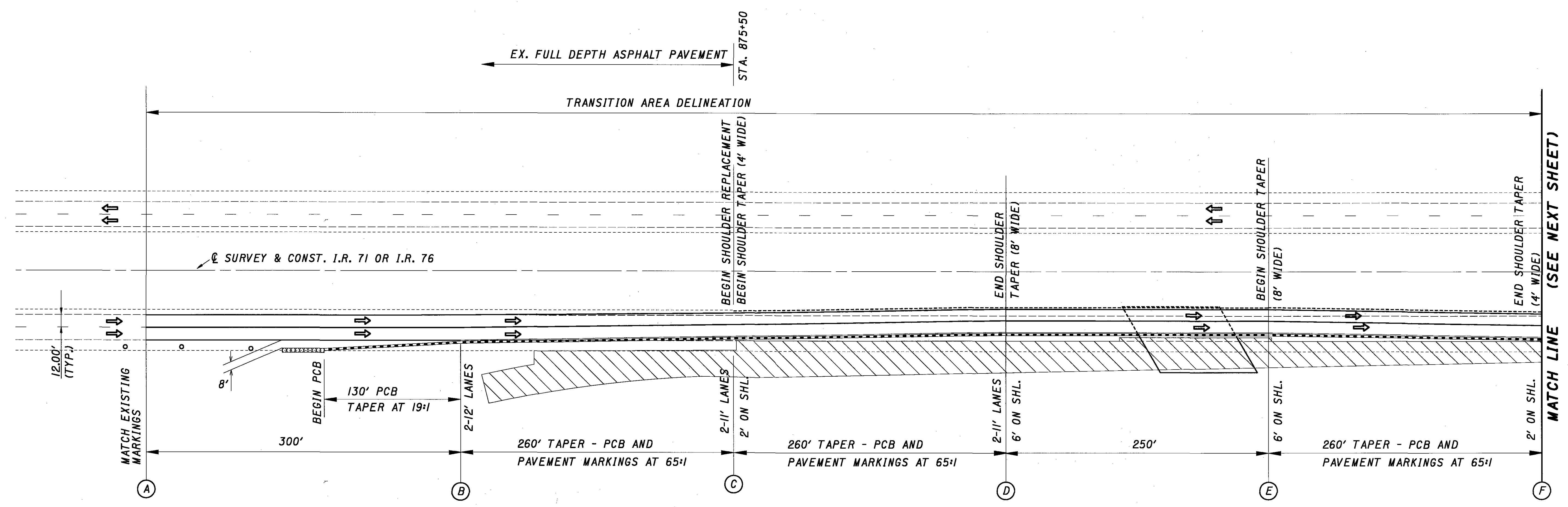
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR .M.O.T. QUANTITIES.

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- - Work Zone Impact Attenuator
- ▨ - Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN					
	(A)	(B)	(C)	(D)	(E)	(F)
STAGE 1 - PHASE 1 WB76	866+30	865+30	863+00	860+00	857+40	854+40



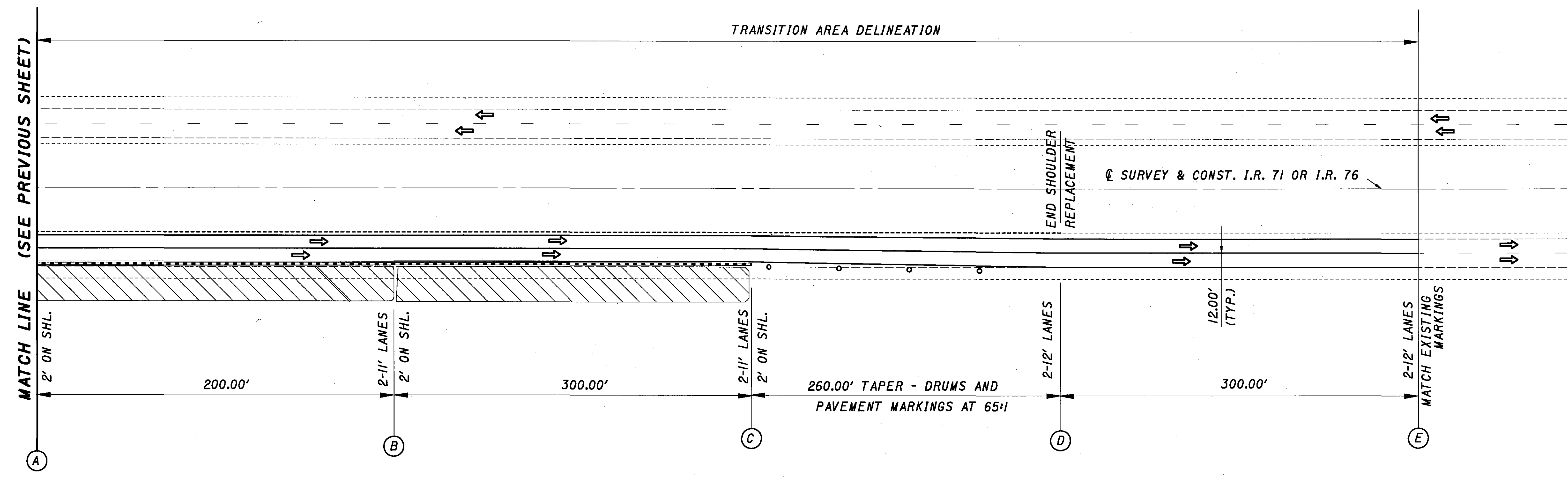
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN					
	(A)	(B)	(C)	(D)	(E)	(F)
STAGE 1 - PHASE 1 EB76	869+90	872+90	875+50	878+10	880+60	883+20



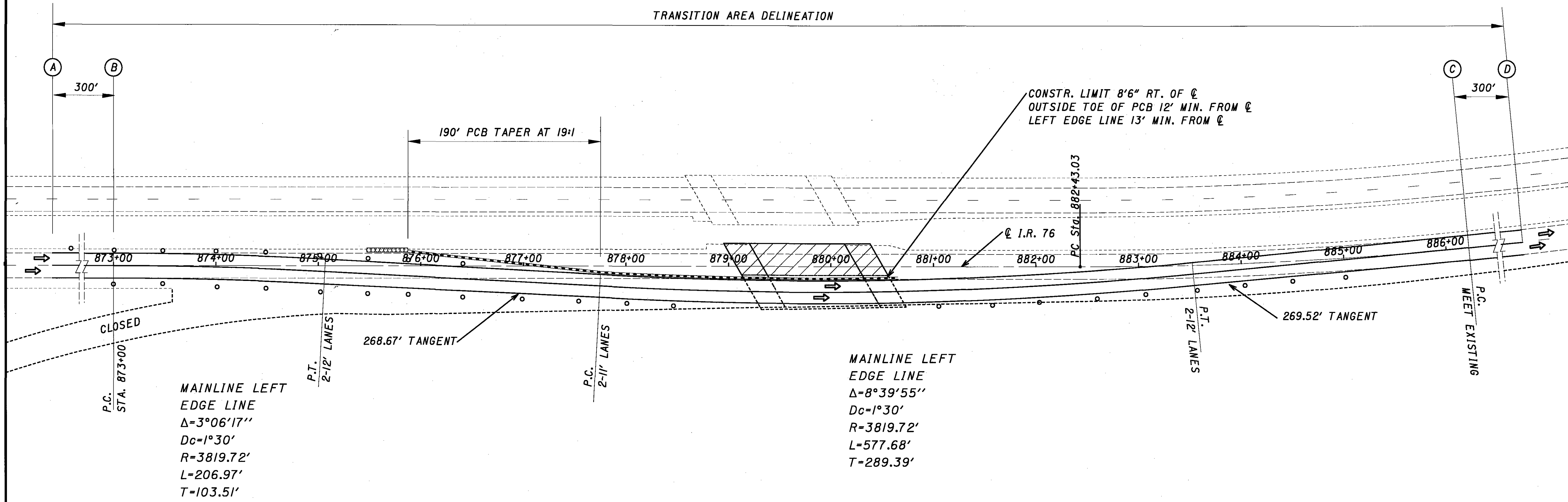
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR .M.O.T. QUANTITIES.

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 1 - PHASE 1 E.B.76	883+20	885+20	888+20	890+80	893+80



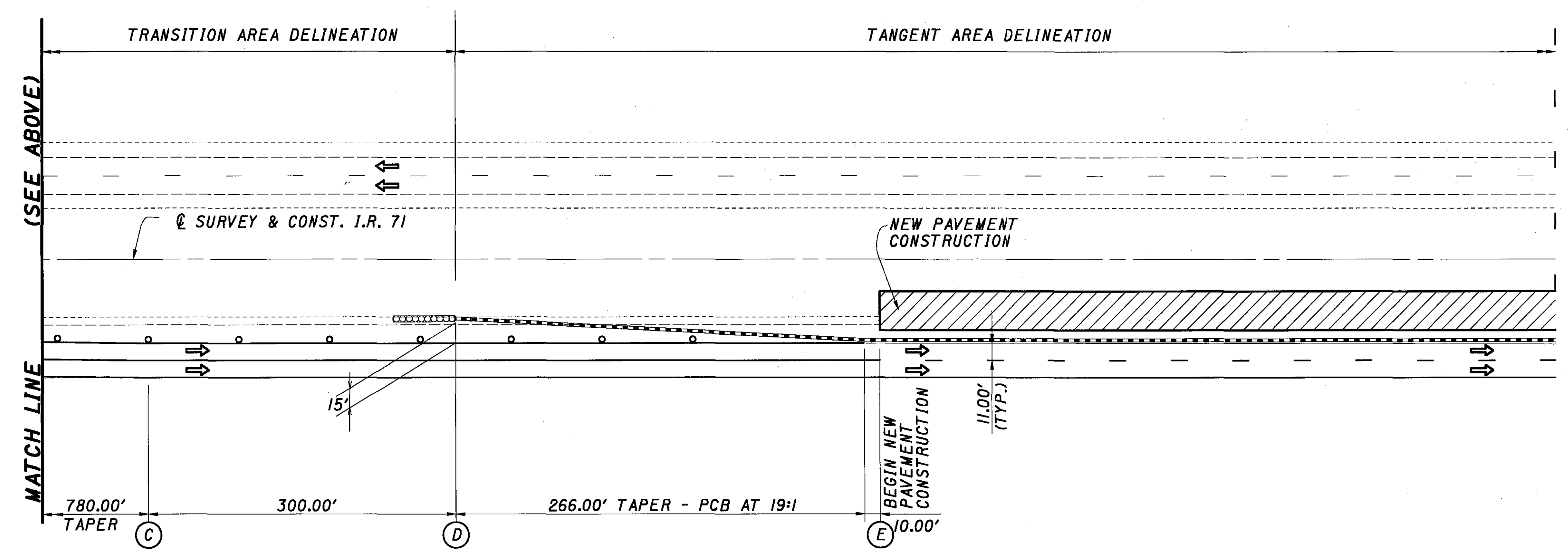
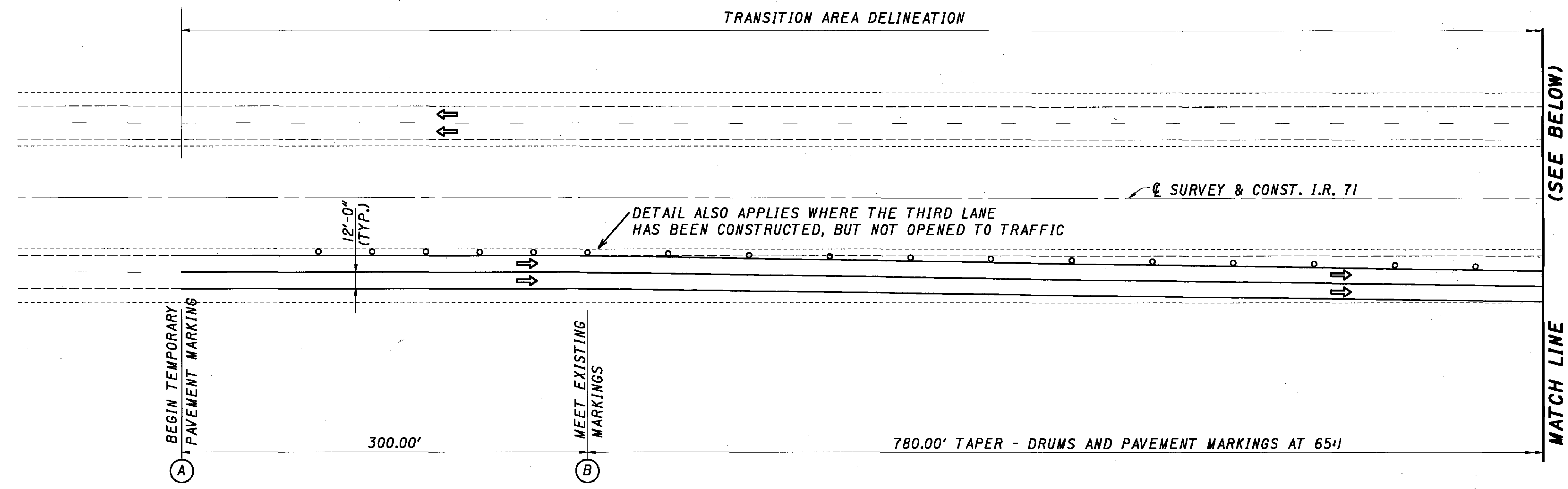
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.
 4. USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 1 - PHASE 2 EB76	870+00	873+00	886+22	889+22



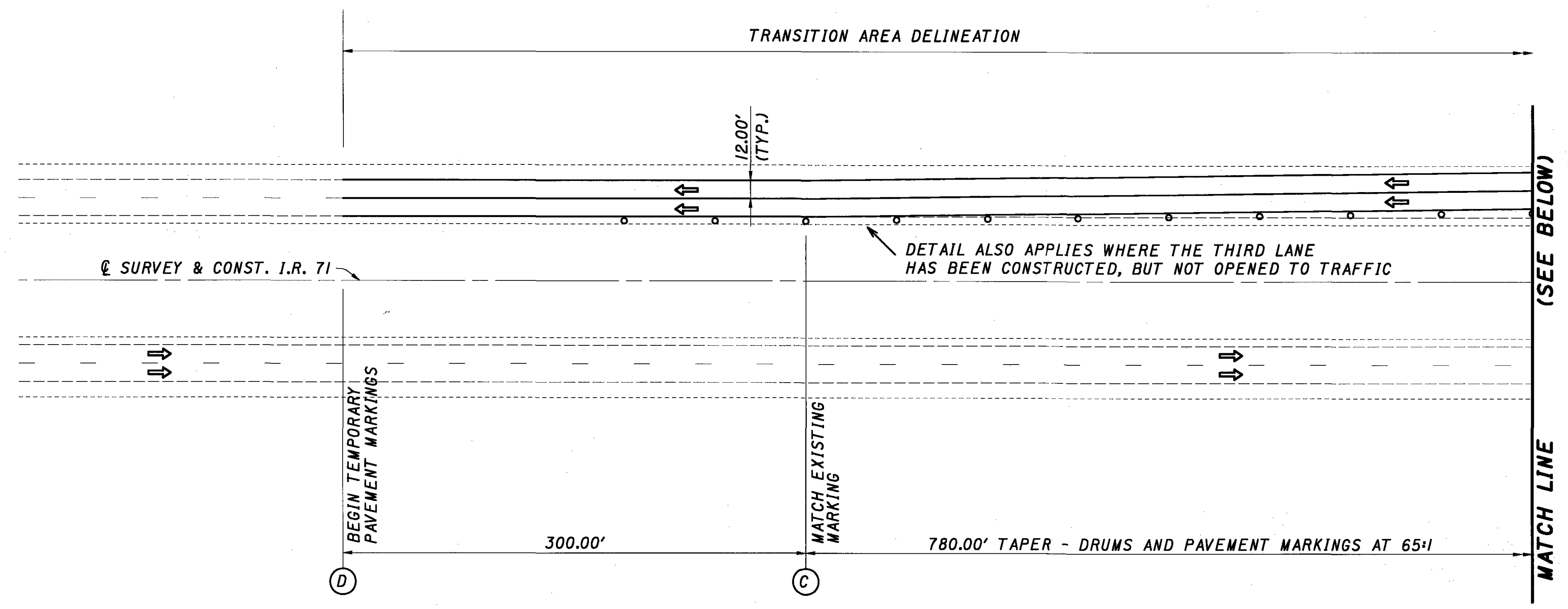
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONST. DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE I M.O.T. TYPICAL SECTION, SHEETS 70,71. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.

LEGEND

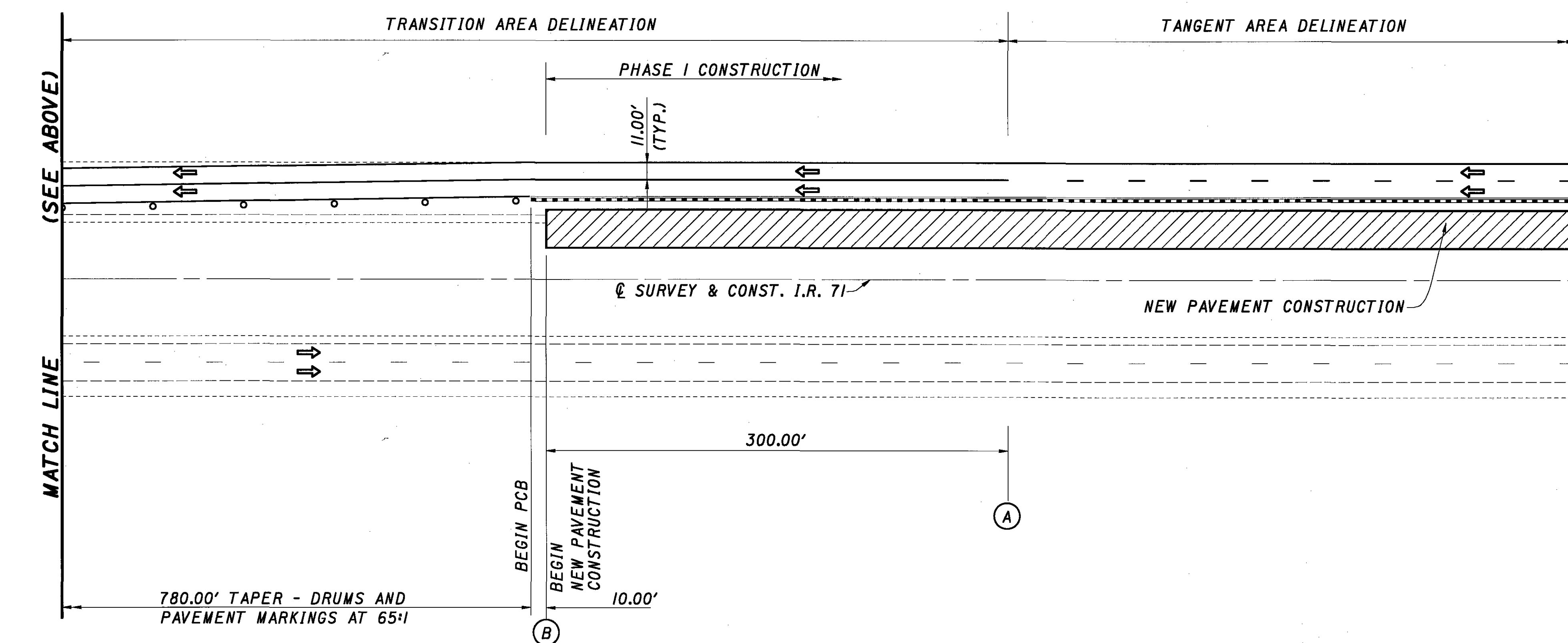
- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 1 - PHASE I NB71	415+44	418+44	426+24	429+24	432+00
STAGE 1 - PHASE I SB71	502+85	499+85	492+05	489+05	486+29
STAGE 2 - PHASE I NB71	319+44	322+44	330+24	333+24	336+00



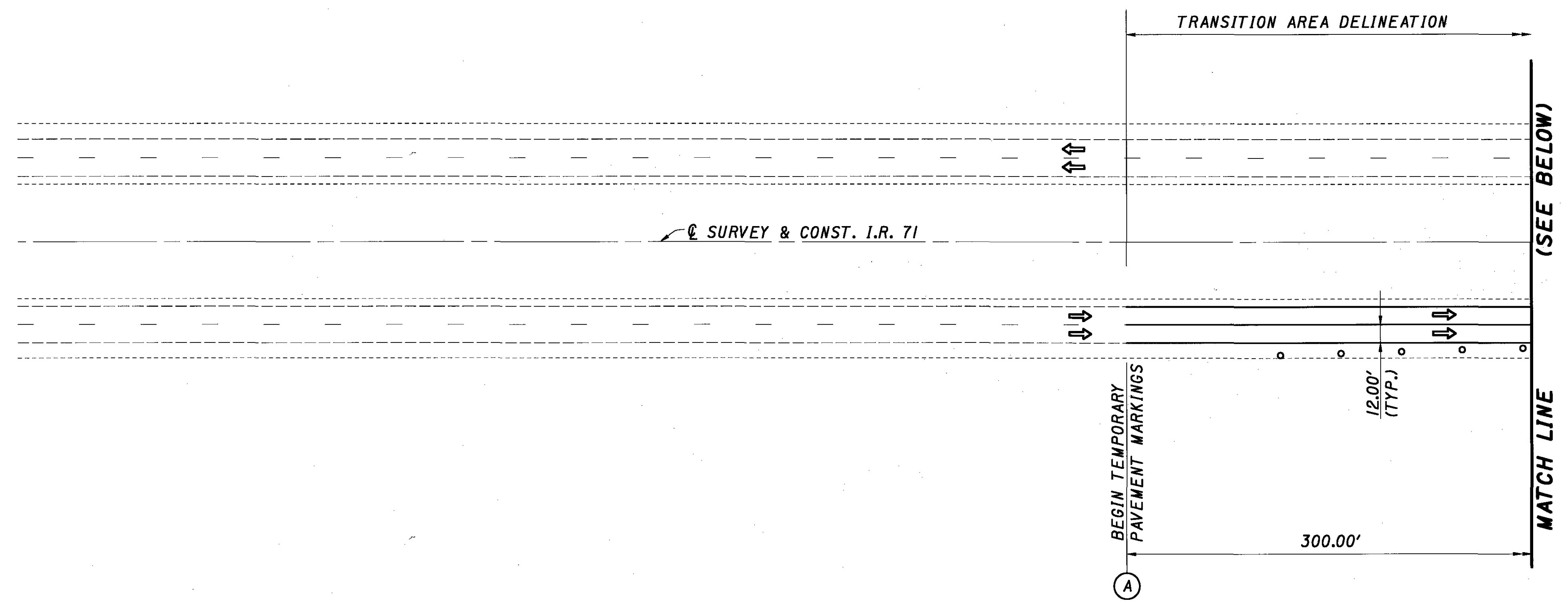
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONST. DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 1 M.O.T. TYPICAL SECTION, SHEETS 70, 71. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.



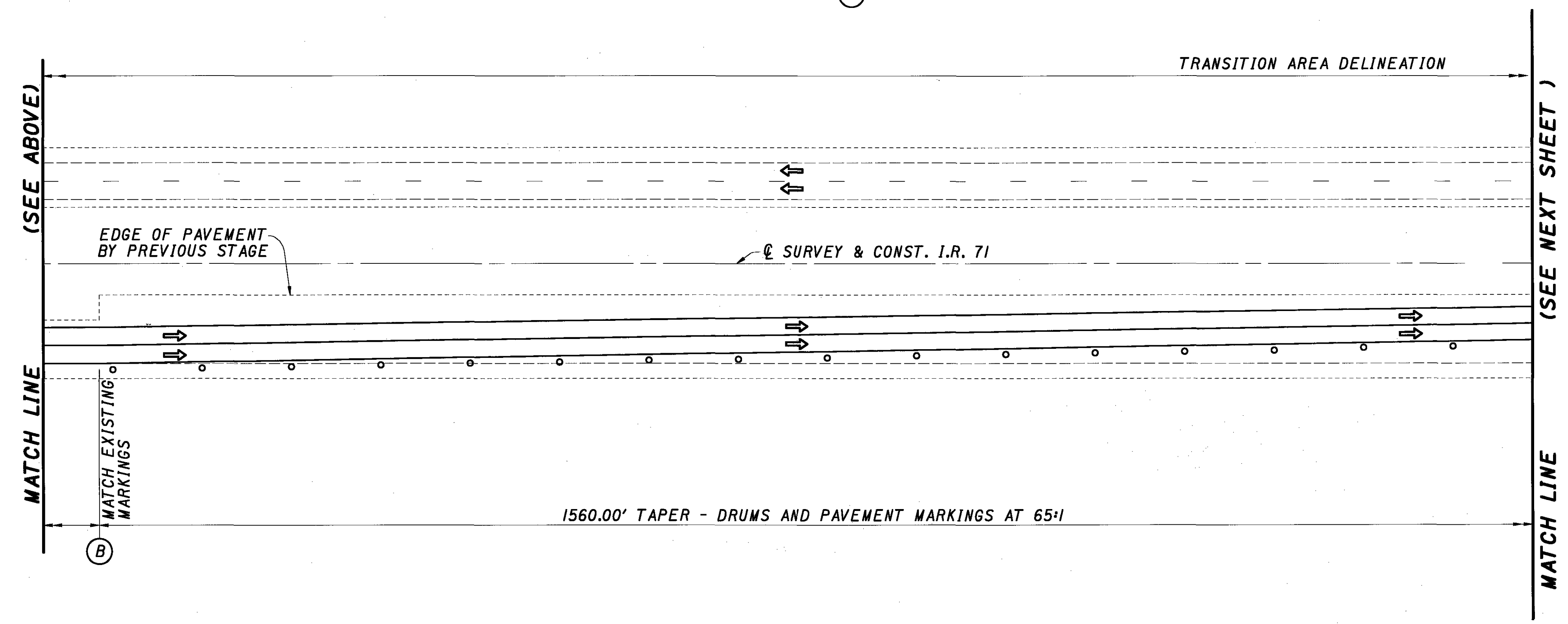
- LEGEND**
- - - - - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
 - o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
 - xxxxxx - Work Zone Impact Attenuator
 - ▨ - Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 1 - PHASE 1 SB71	435+00	432+00	424+10	421+10
STAGE 1 - PHASE 1 NB71	483+29	486+29	494+19	497+19
STAGE 2 - PHASE 1 NB71	429+00	432+00	439+90	442+90



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONST. DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.
 4. USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

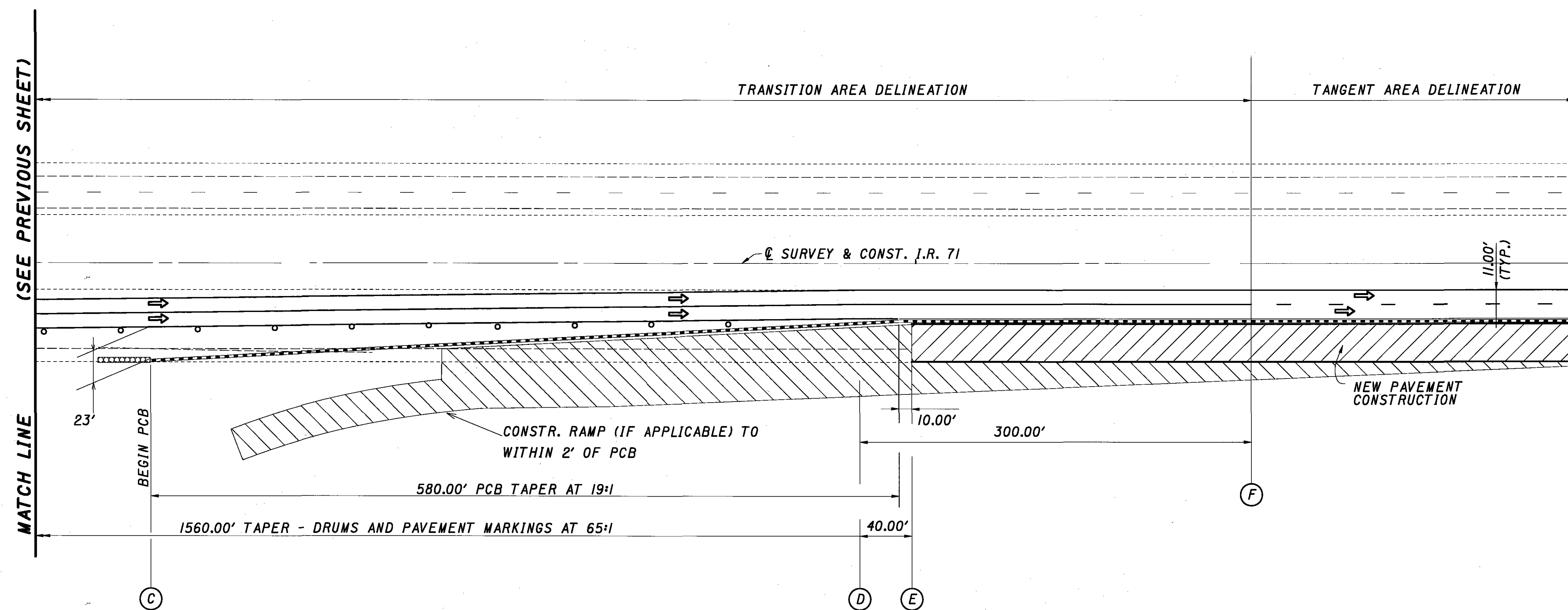


LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN					
	(A)	(B)	(C)	(D)	(E)	(F)
STAGE 1 - PHASE 2 NB71	429+00	432+00	442+10	447+60	448+00	450+60
STAGE 1 - PHASE 2 SB71	523+75	520+75	510+65	505+15	504+75	502+15
STAGE 2 - PHASE 2 SB71	467+00	464+00	453+90	448+40	448+00	445+40



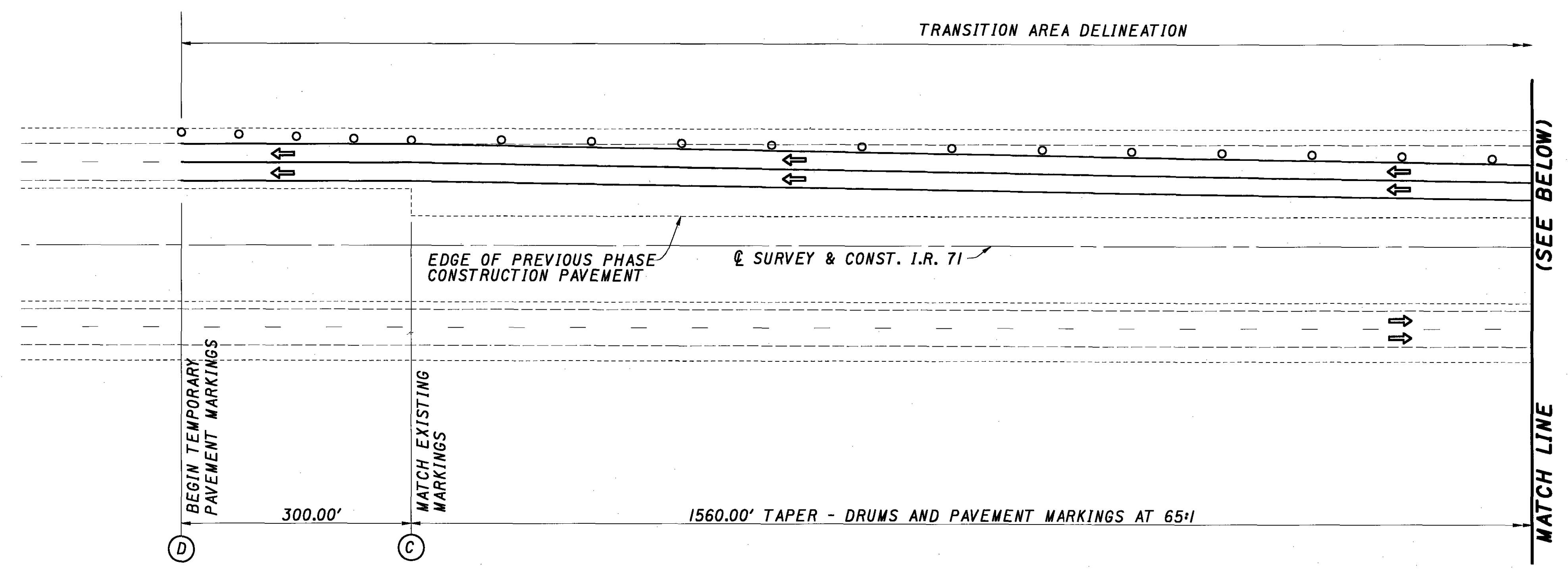
- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.
 4. USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

LEGEND

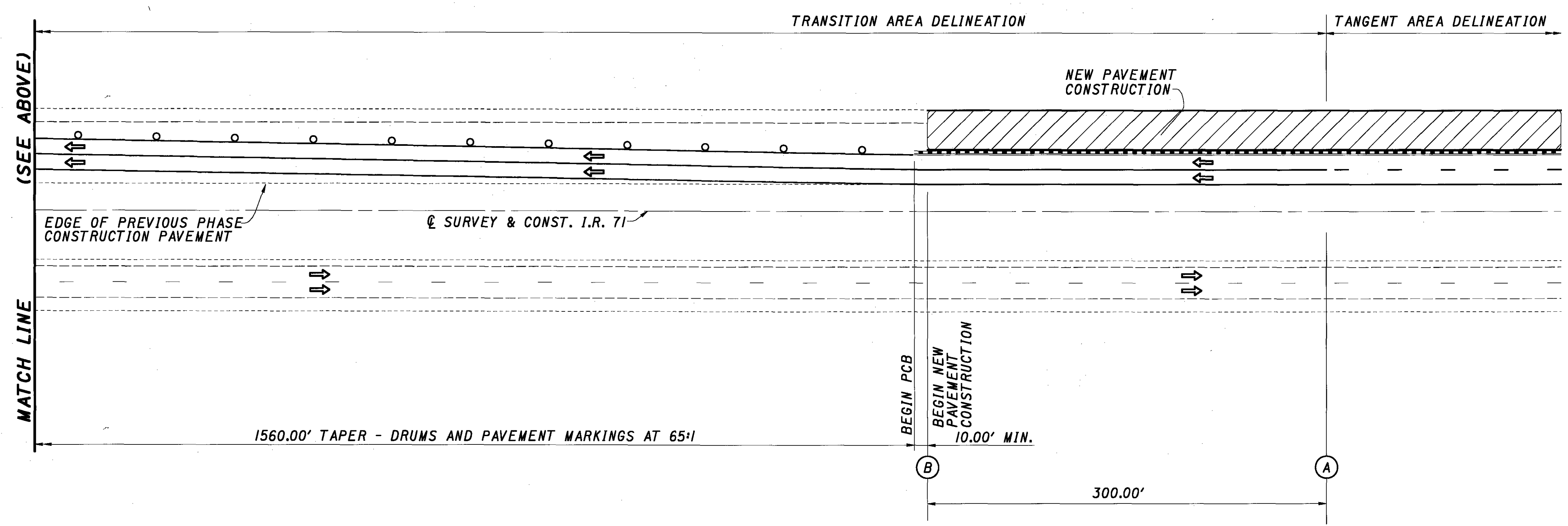
- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN					
	(A)	(B)	(C)	(D)	(E)	(F)
STAGE 1 - PHASE 2 NB71	429+00	432+00	442+10	447+60	448+00	450+60
STAGE 1 - PHASE 2 SB71	523+75	520+75	510+65	505+15	504+75	502+15
STAGE 2 - PHASE 2 SB71	467+00	464+00	453+90	448+40	448+00	445+40



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONST. DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.
 4. USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

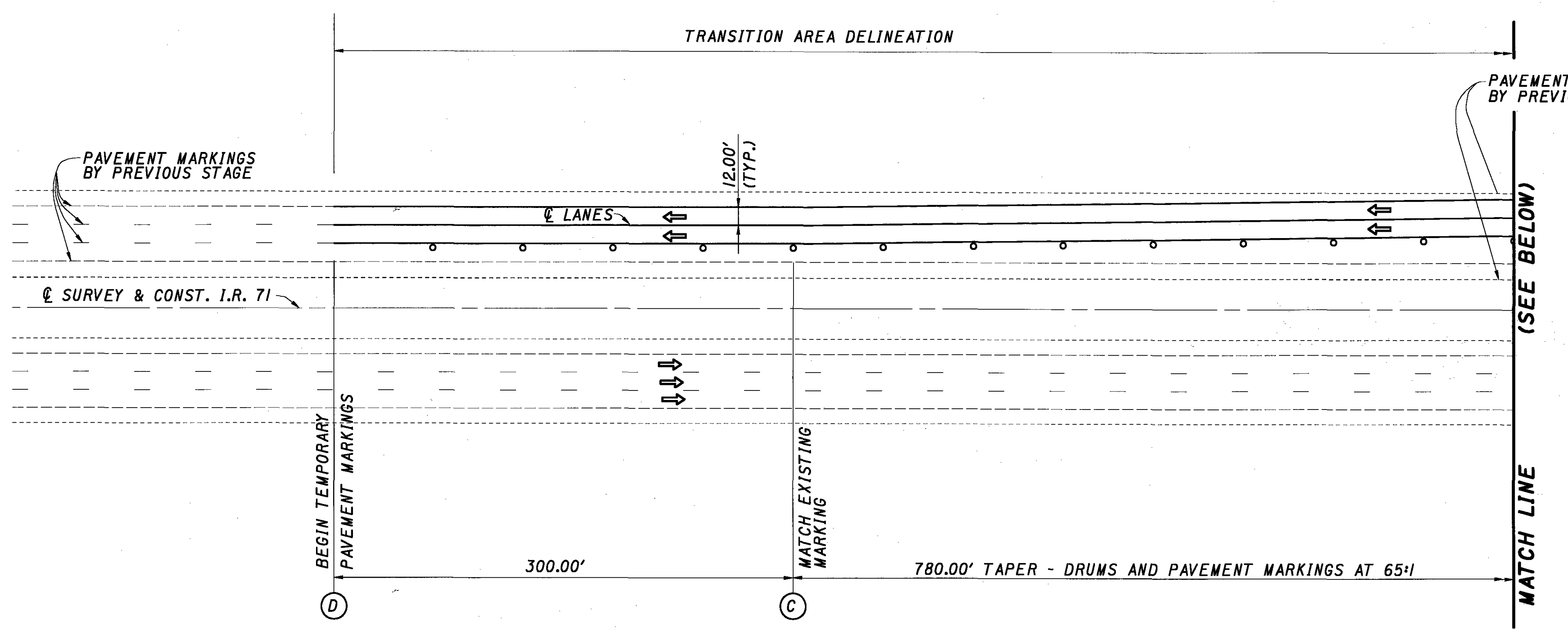


- LEGEND**
- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
 - o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
 - Work Zone Impact Attenuator
 - Area of Construction During This Phase

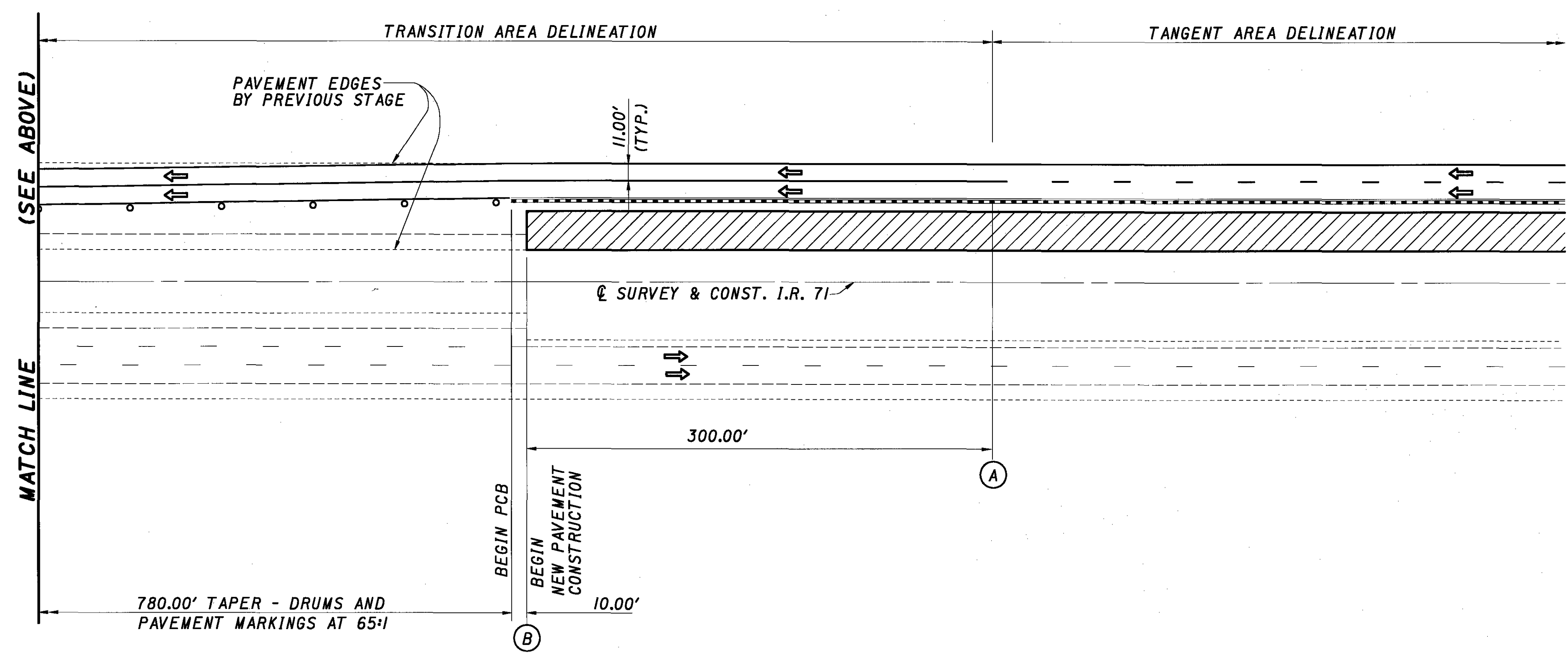
* - IF 3 LANES ARE OPEN NORTHBOUND, USE DETAIL ON SHEET 115

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 1 - PHASE 2 NB71*	501+75	504+75	520+45	523+45
STAGE 1 - PHASE 2 SB71	451+00	448+00	432+30	429+30
STAGE 2 - PHASE 2 NB71	429+00	432+00	447+70	450+70



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 1 M.O.T. TYPICAL SECTION, SHEET 70, 71. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.



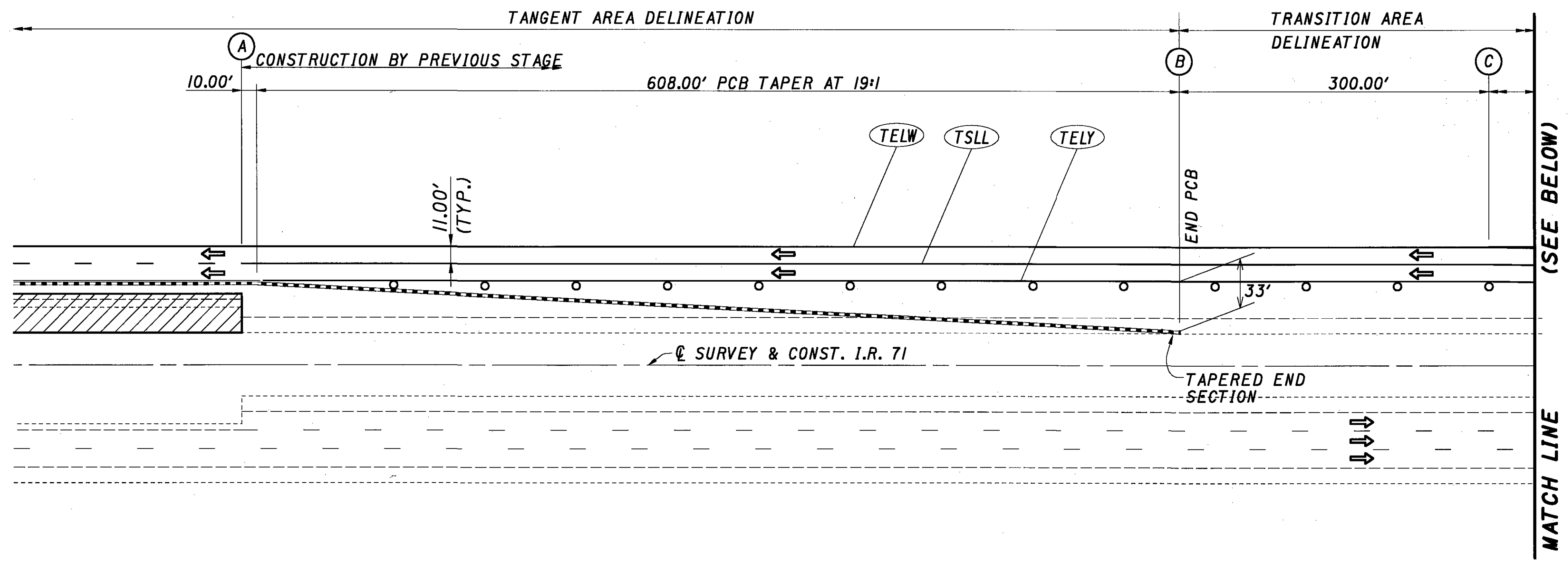
LEGEND

- - - - - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- ▨ - Area of Construction During This Phase

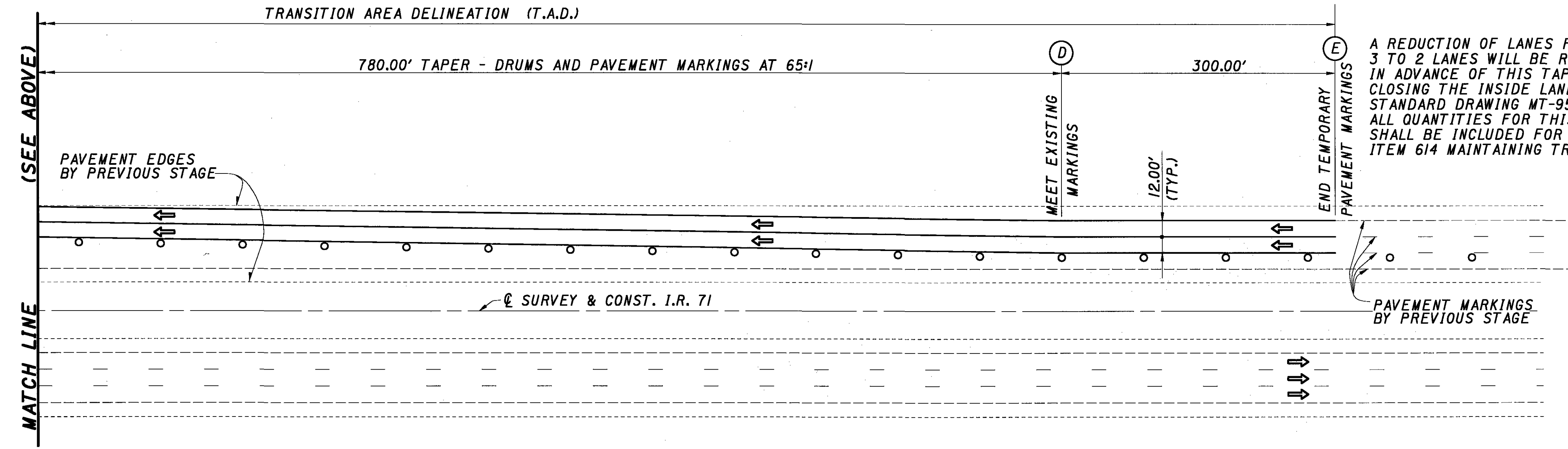
THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 2 - PHASE 1 SB71	339+00	336+00	328+10	325+10

...75657MPH.dgn



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 1 M.O.T. TYPICAL SECTION, SHEETS 70, 71. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.



A REDUCTION OF LANES FROM 3 TO 2 LANES WILL BE REQUIRED IN ADVANCE OF THIS TAPER BY CLOSING THE INSIDE LANES AS PER STANDARD DRAWING MT-95.30. ALL QUANTITIES FOR THIS CLOSURE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 614 MAINTAINING TRAFFIC.

NOTE: ALL TEMPORARY PAVEMENT MARKINGS ON PREVIOUSLY CONSTRUCTED NEW PAVEMENT SHALL BE 740.06, TYPE 1 ALL EXISTING CONFLICTING MARKINGS SHALL BE REMOVED UNDER ITEM 614 MAINTAINING TRAFFIC.

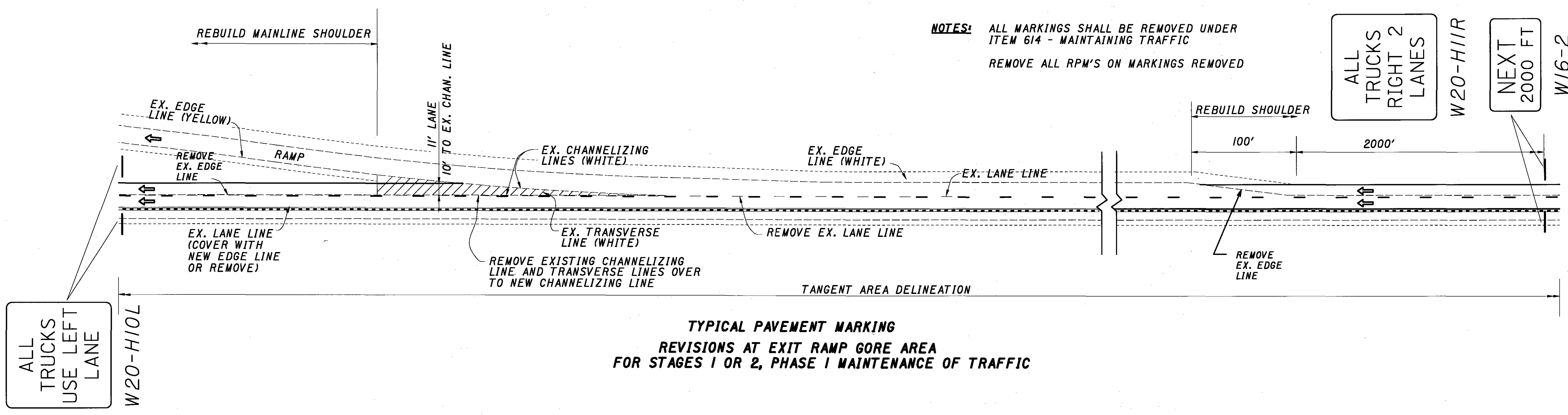
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

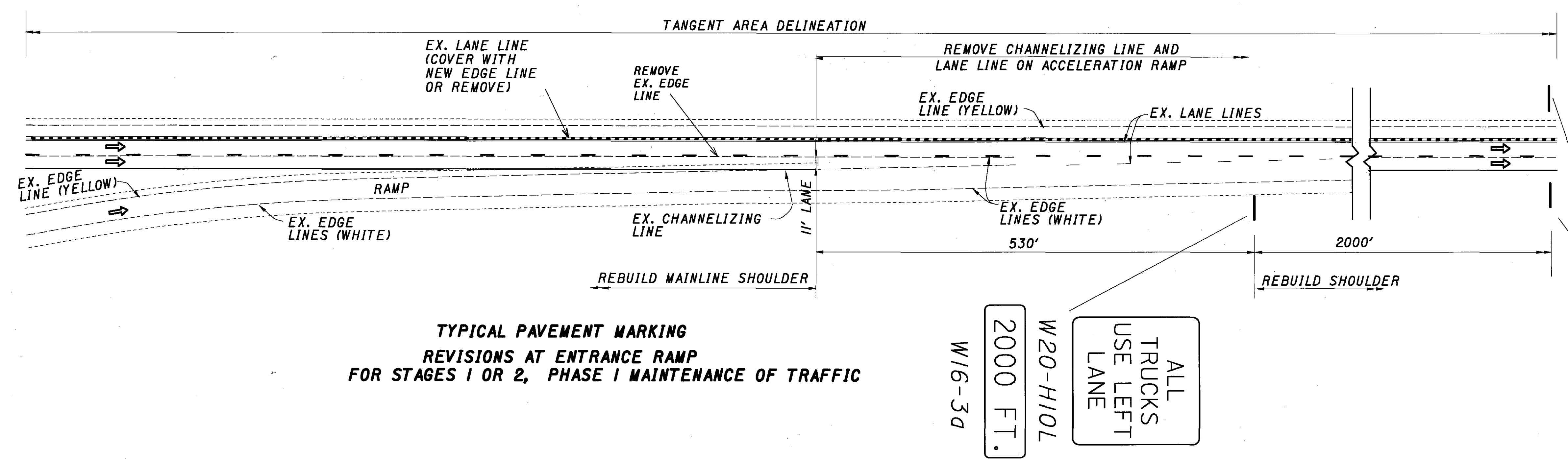
THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 2 - PHASE 1 SB71	432+00	438+18	441+18	448+98	451+98

NOTES: ALL MARKINGS SHALL BE REMOVED UNDER ITEM 614 - MAINTAINING TRAFFIC
REMOVE ALL RPM'S ON MARKINGS REMOVED



TYPICAL PAVEMENT MARKING REVISIONS AT EXIT RAMP GORE AREA FOR STAGES 1 OR 2, PHASE 1 MAINTENANCE OF TRAFFIC



TYPICAL PAVEMENT MARKING REVISIONS AT ENTRANCE RAMP FOR STAGES 1 OR 2, PHASE 1 MAINTENANCE OF TRAFFIC

NOTES: ALL MARKINGS SHALL BE REMOVED UNDER ITEM 614 - MAINTAINING TRAFFIC
REMOVE ALL RPM'S ON MARKINGS REMOVED

DURING THESE WORK ACTIVITIES THE FOLLOWING M.O.T. REQUIREMENTS ARE APPLICABLE:

1. DURING THE INSTALLATION OF THESE MARKINGS, THE OUTSIDE LANE OF IR 71 MAY BE CLOSED TO TRAFFIC AS PER STD. DWG. MT-95.30. (SEE THE MAINTENANCE OF TRAFFIC GENERAL NOTES FOR ALLOWABLE TIMES)
2. SIGNAGE TO THE EXIT RAMP SHALL BE AS PER STD. DWG. MT-98.14.

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- - Work Zone Impact Attenuator

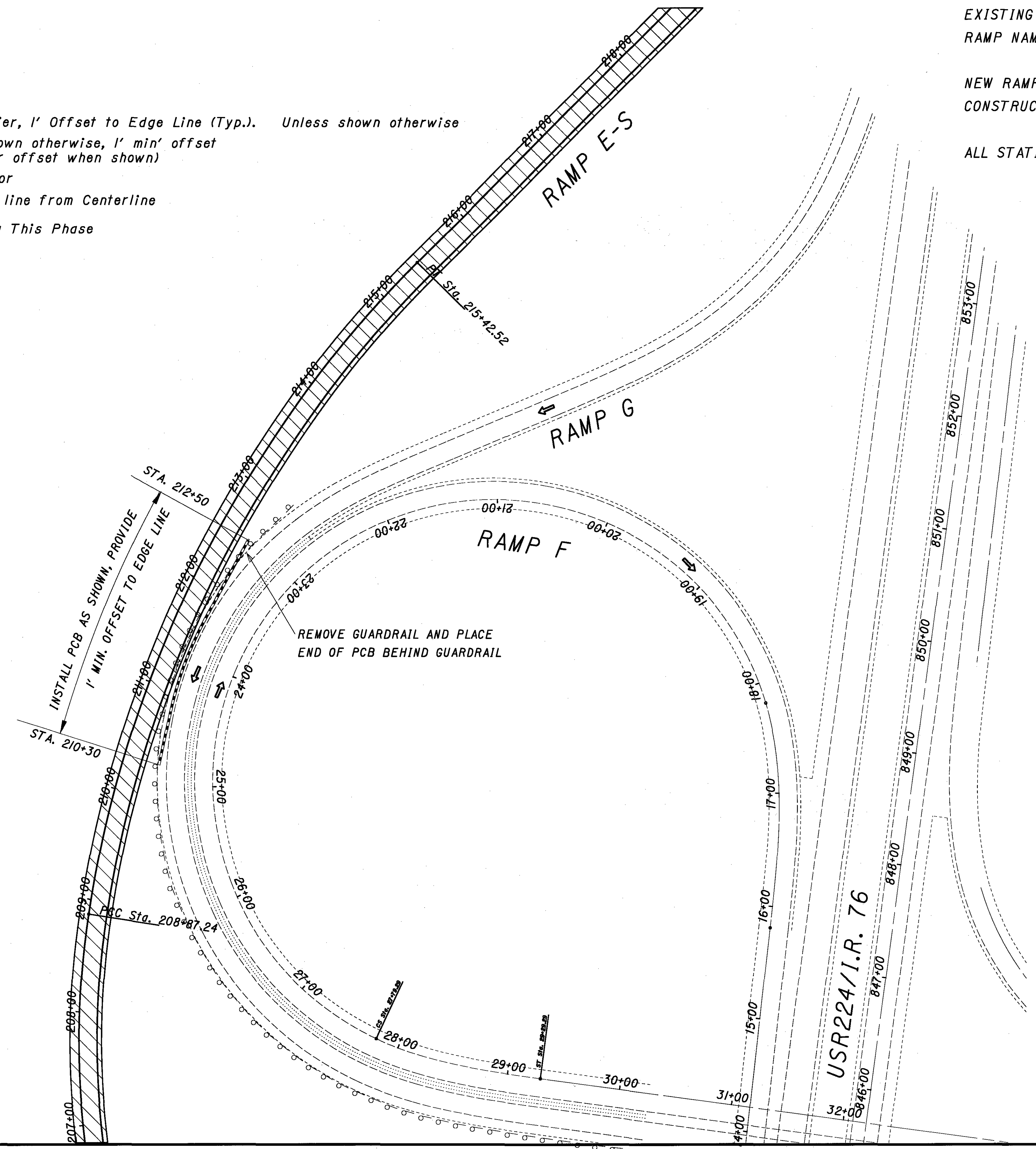
EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING

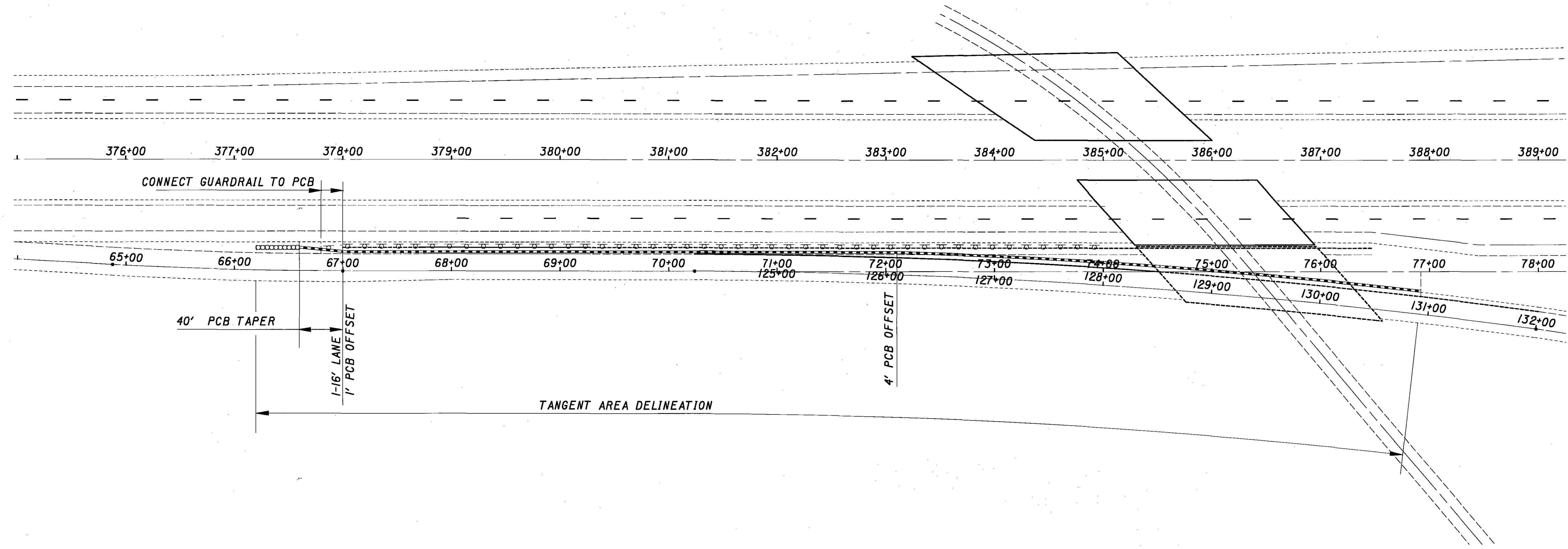
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- ▬ - Work Zone Impact Attenuator
- - Offset to lane line or edge line from Centerline
- ▨ - Area of Construction During This Phase







**MAINTENANCE OF TRAFFIC - RAMP E-S
PROTECTION OF RAMP G TRAFFIC**

MED-71-6.06



LEGEND

-  - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
-  - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
-  - Work Zone Impact Attenuator
-  - Area of Construction During This Phase

- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE TAPER RATES.
 3. FOR M.O.T. TYPICAL SECTION, SHEET 71 SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.

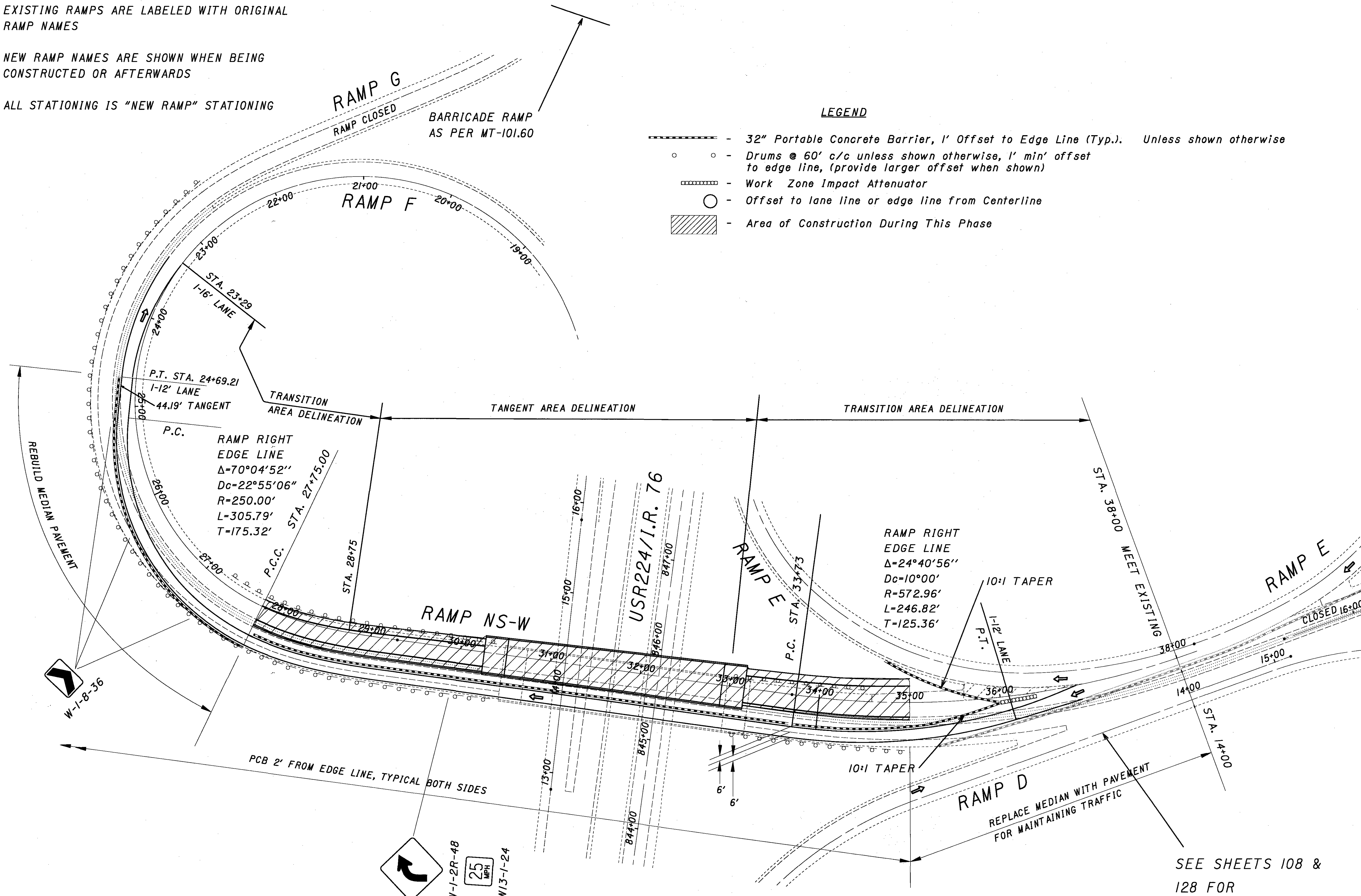
EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase



CALCULATED
CHECKED






**MAINTENANCE OF TRAFFIC
RAMP NS-W CROSSOVER**

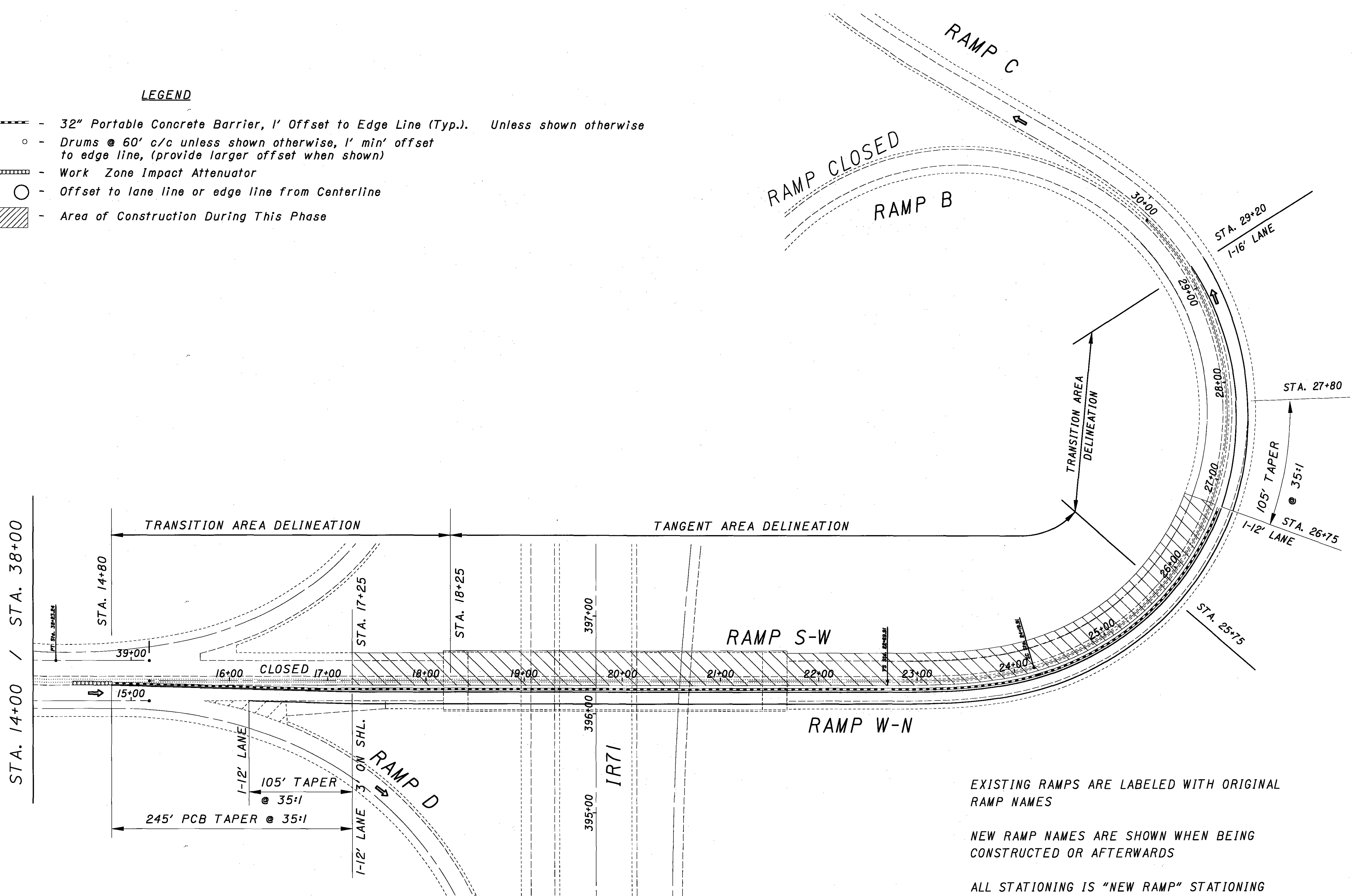
MED-71-6.06

1/1
106
1120

MPD.DGN

LEGEND

-  - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
-  - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
-  - Work Zone Impact Attenuator
-  - Offset to lane line or edge line from Centerline
-  - Area of Construction During This Phase



EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING

**MAINTENANCE OF TRAFFIC
RAMP W-N SHIFT**

MED-71-6.06

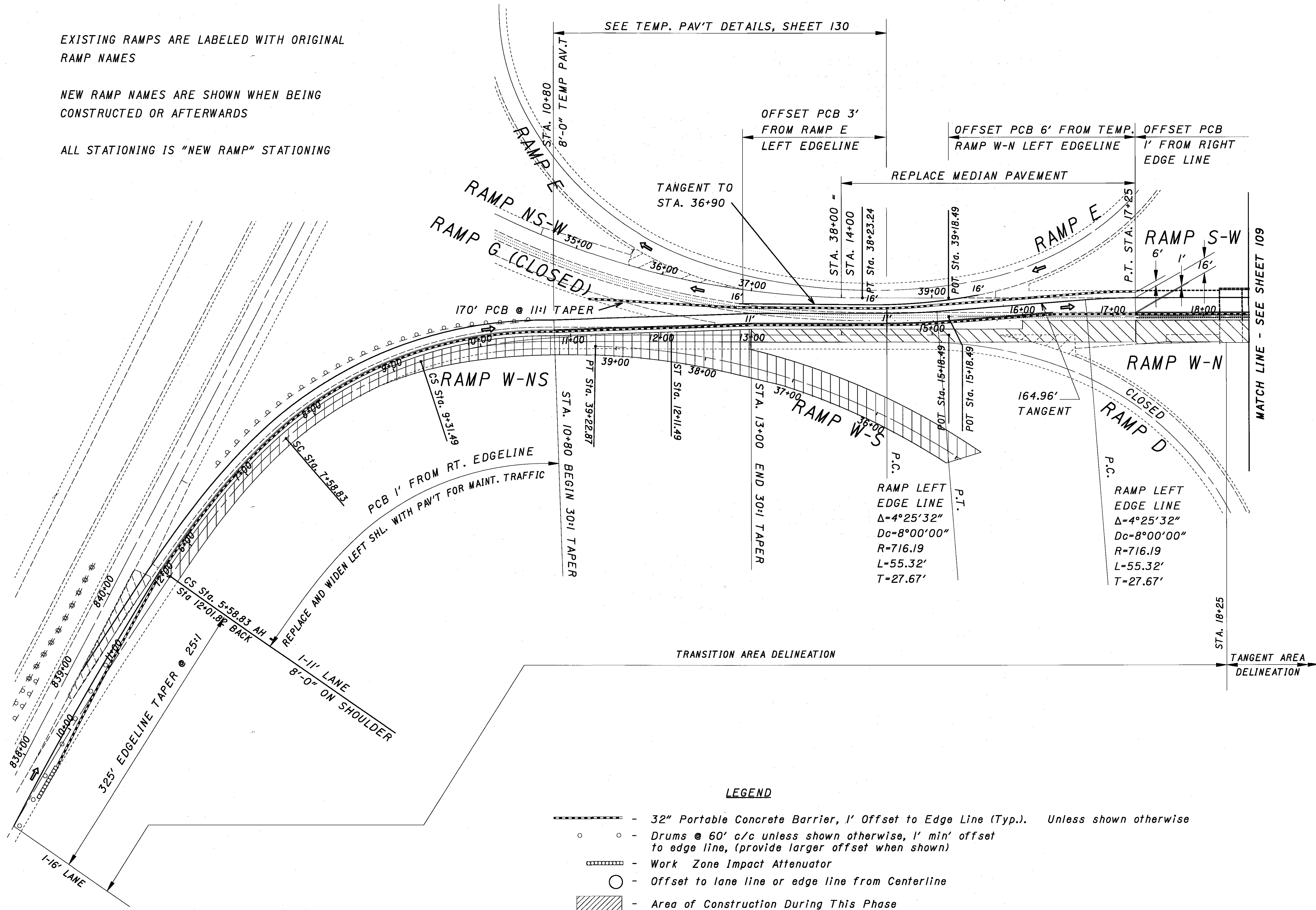
//

107
1120

EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING



LEGEND

- - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- ○ - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- ⊞⊞⊞⊞ - Work Zone Impact Attenuator
- - Offset to lane line or edge line from Centerline
- ▨ - Area of Construction During This Phase

CALCULATED
CHECKED

**MAINTENANCE OF TRAFFIC
RAMP W-N CROSSOVER - PHASE 2**

MED-71-6.06

1 / 2

108
1120

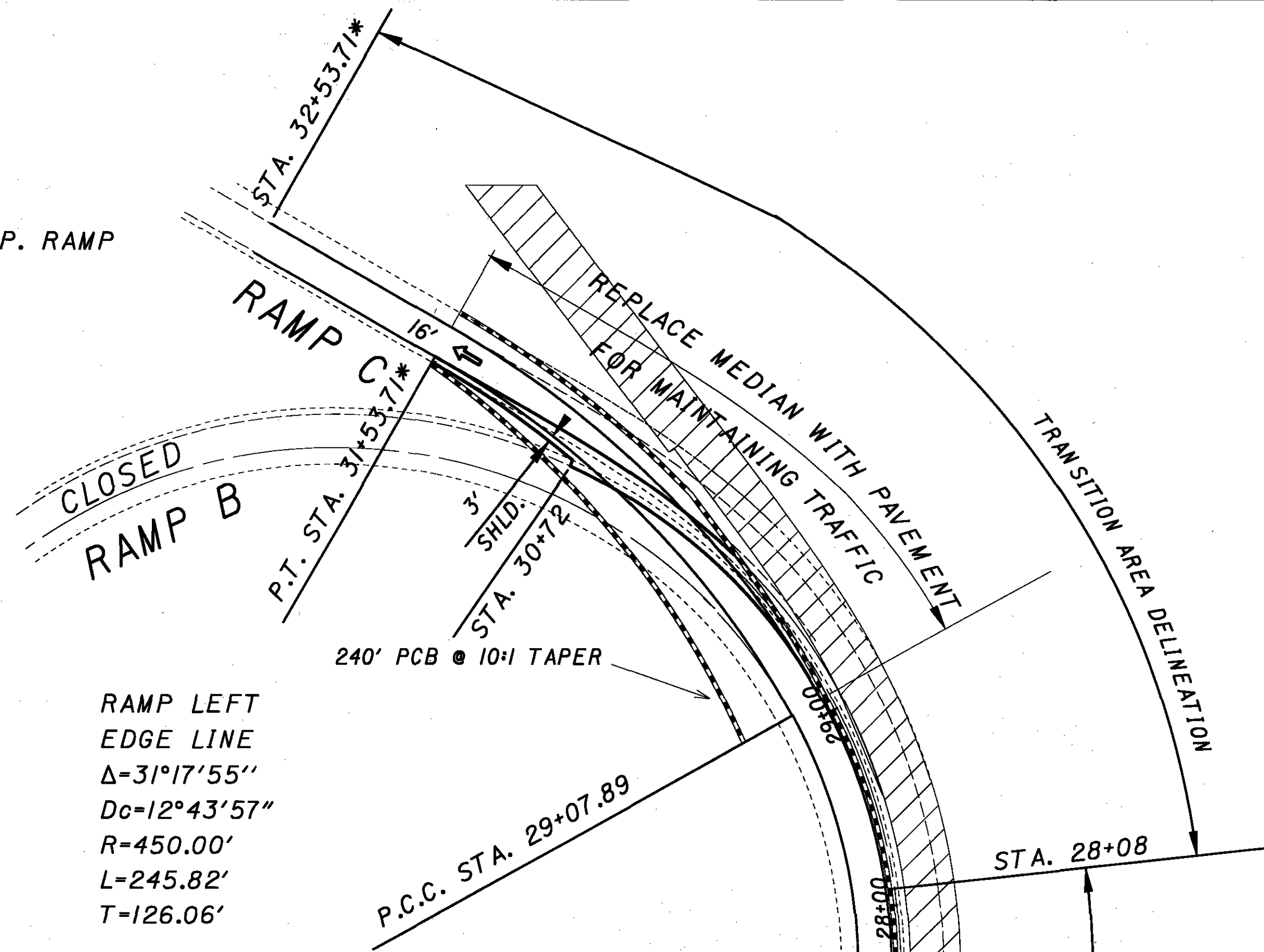
MPD.DGN

* - STATIONING ON EXTENDED TEMP. RAMP

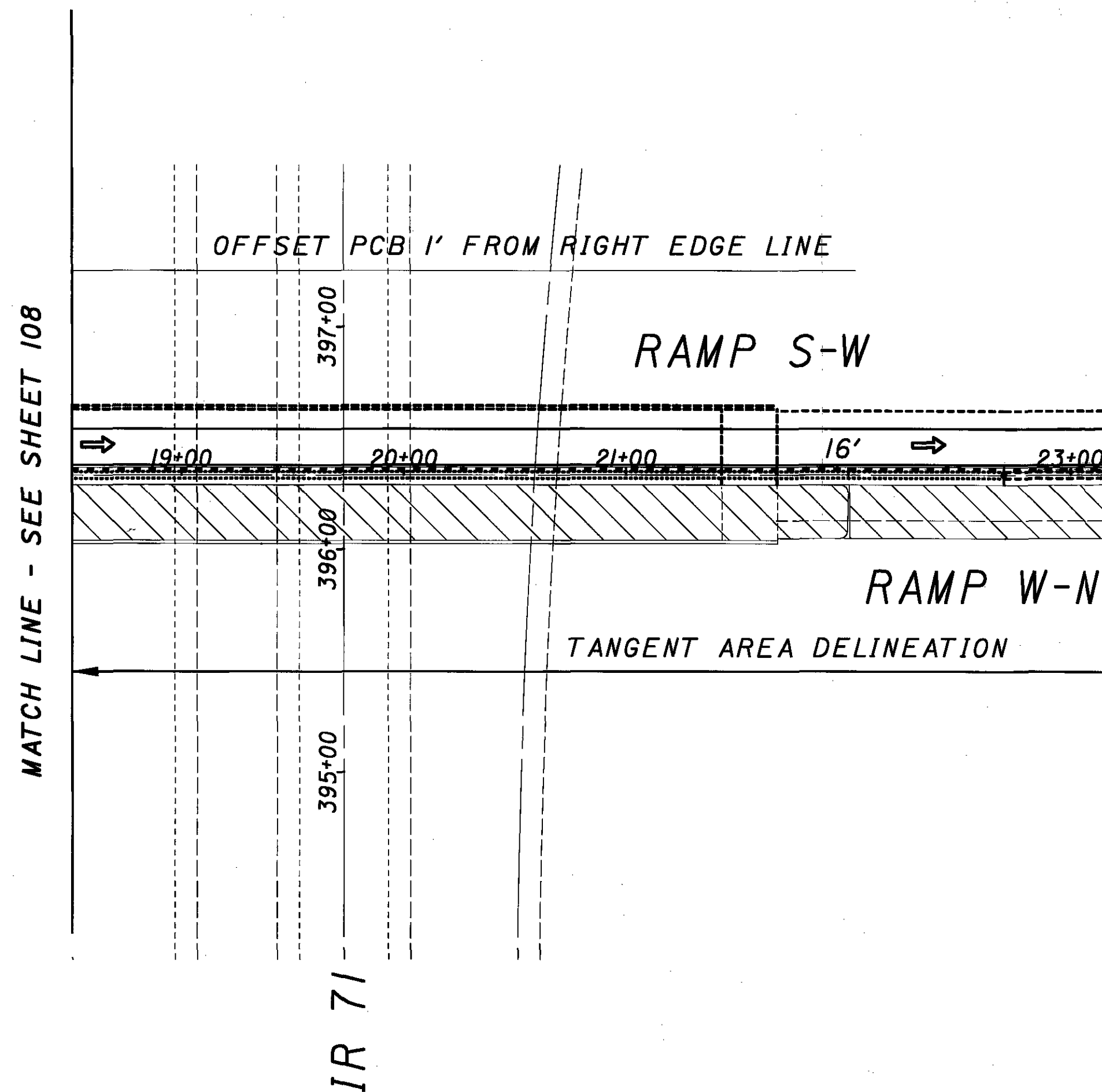
EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING



RAMP LEFT
EDGE LINE
 $\Delta=31^{\circ}17'55''$
 $Dc=12^{\circ}43'57''$
 $R=450.00'$
 $L=245.82'$
 $T=126.06'$



LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase



HORIZONTAL SCALE IN FEET

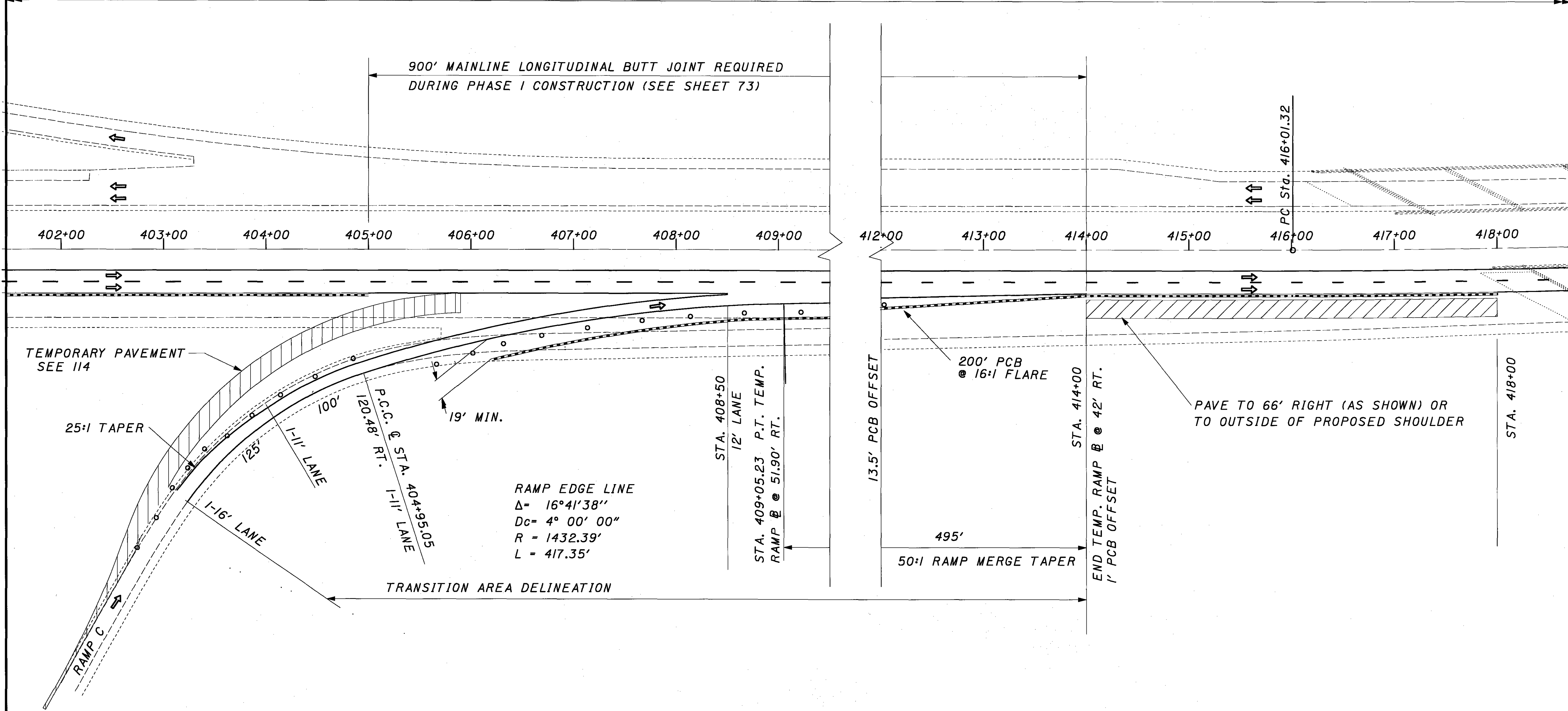
CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 2
PHASE 2 - NORTHBOUND

MED-71-6.06

110
1120

TANGENT AREA DELINEATION (MAINLINE)



900' MAINLINE LONGITUDINAL BUTT JOINT REQUIRED DURING PHASE I CONSTRUCTION (SEE SHEET 73)

402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00 412+00 413+00 414+00 415+00 416+00 417+00 418+00

TEMPORARY PAVEMENT SEE 114

25:1 TAPER

1-11' LANE
1-16' LANE

P.C.C. @ STA. 404+95.05
120.48' RT.

RAMP EDGE LINE
 $\Delta = 16^\circ 41' 38''$
 $D_c = 4^\circ 00' 00''$
 $R = 1432.39'$
 $L = 417.35'$

TRANSITION AREA DELINEATION

STA. 408+50
12' LANE

STA. 409+05.23 P.T. TEMP.
RAMP @ 51.90' RT.

13.5' PCB OFFSET

200' PCB @ 16:1 FLARE

STA. 414+00
END TEMP. RAMP @ 42' RT.
1' PCB OFFSET

PAVE TO 66' RIGHT (AS SHOWN) OR TO OUTSIDE OF PROPOSED SHOULDER

STA. 418+00

495'
50:1 RAMP MERGE TAPER

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

...75657MPM.dgn



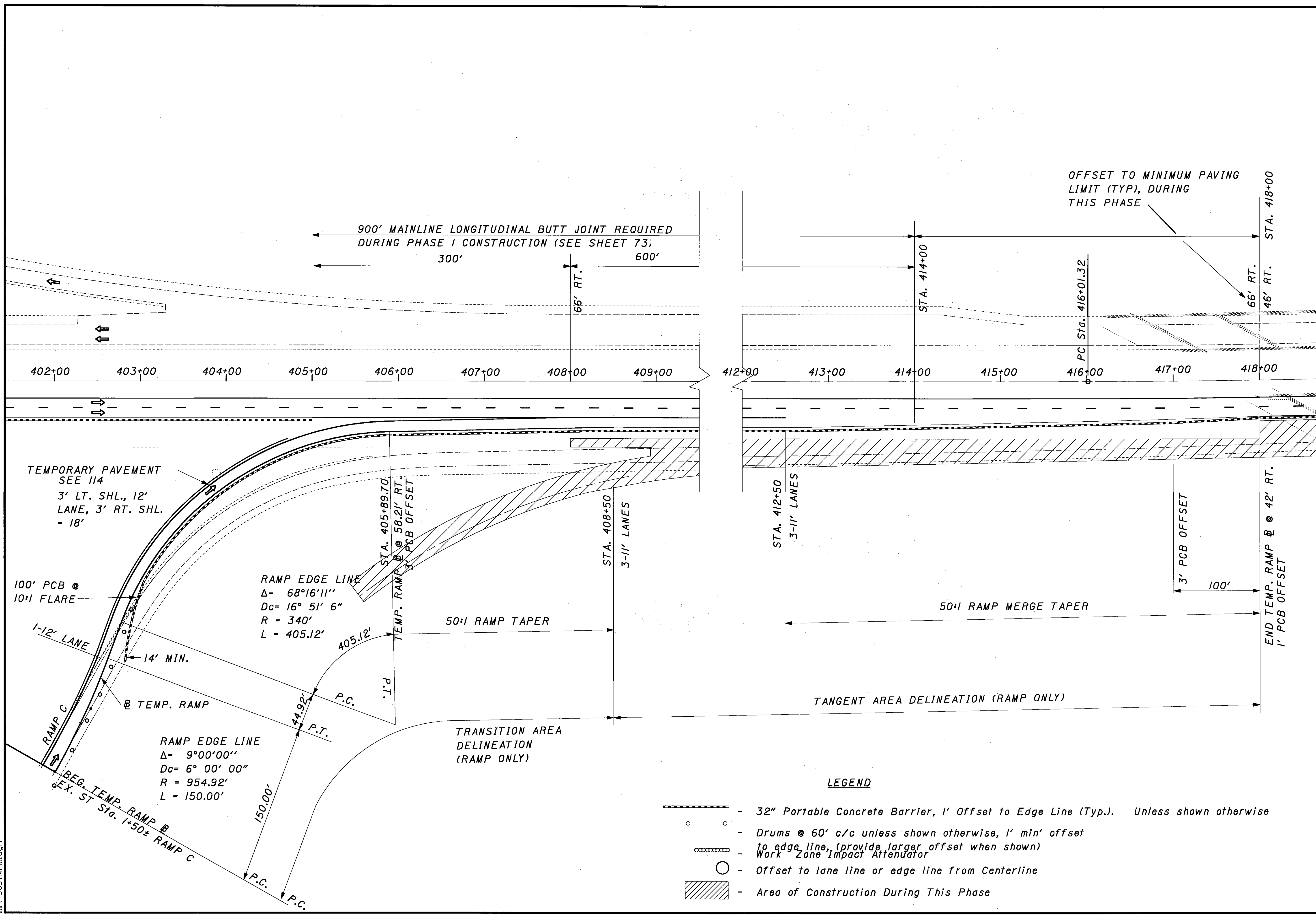
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 2
PHASE 2A - NORTHBOUND

MED-71-6.06

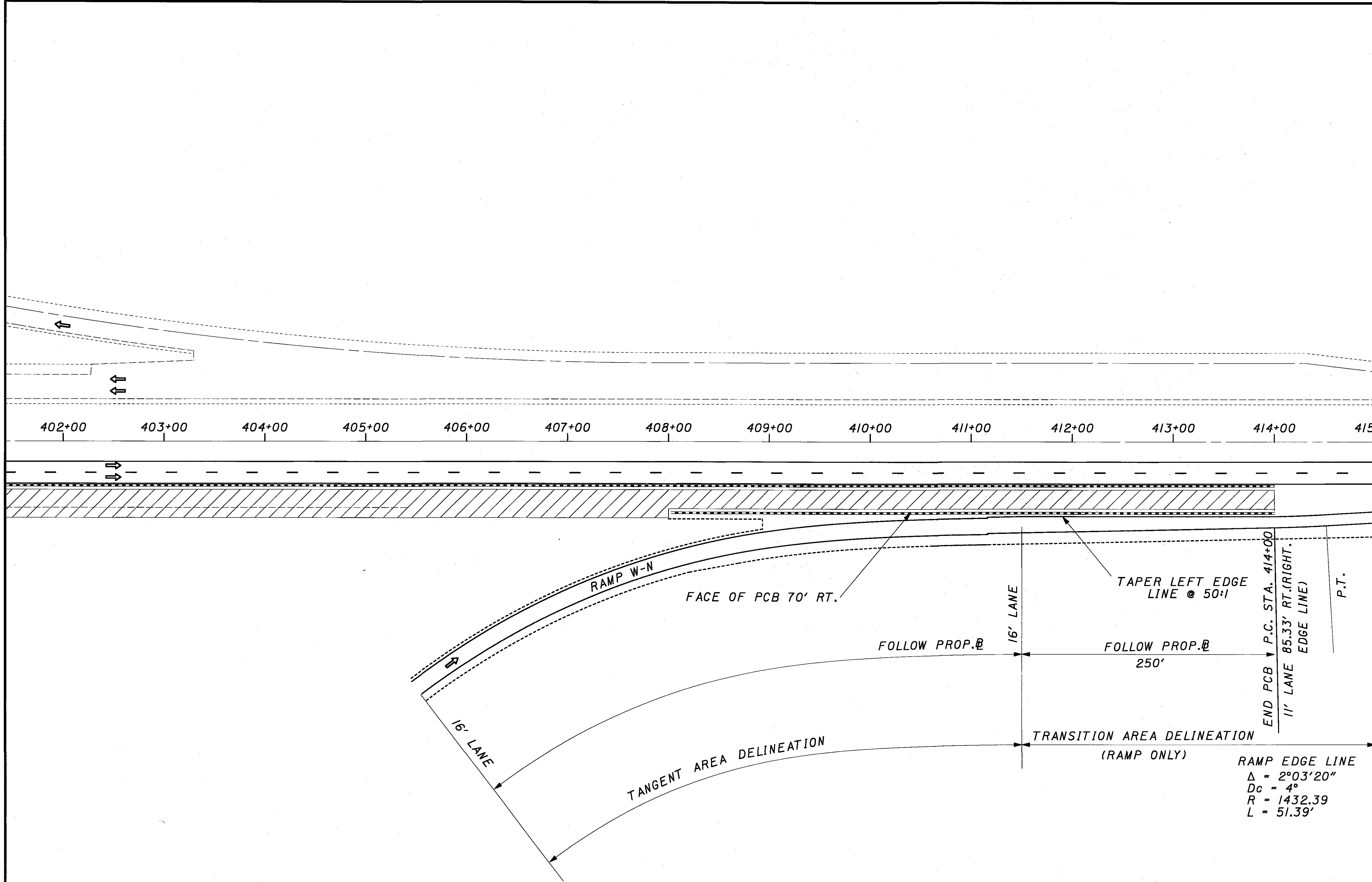
111
1120



LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown) Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

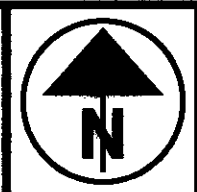
...75657MPM.dgn



MATCHLINE STA. 415+00
SEE NEXT SHEET

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase



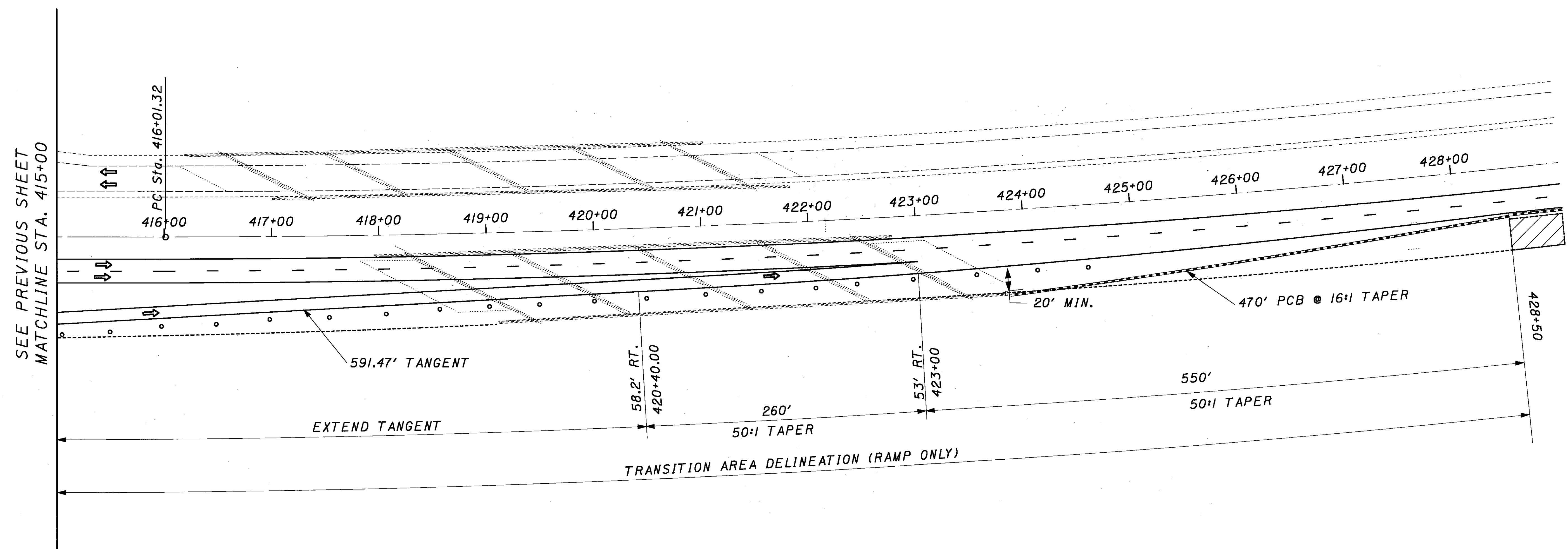
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

**MAINTENANCE OF TRAFFIC - STAGE 2
PHASE 2B - NORTHBOUND**

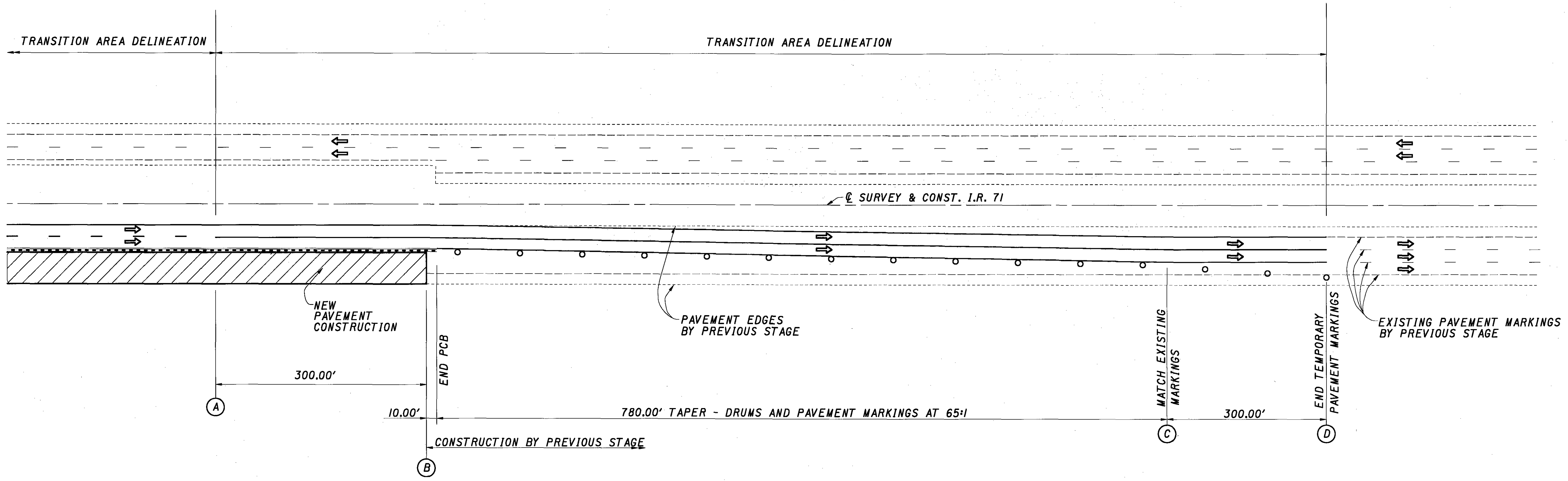
MED-71-6.06

113
1120



LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.
 4. USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

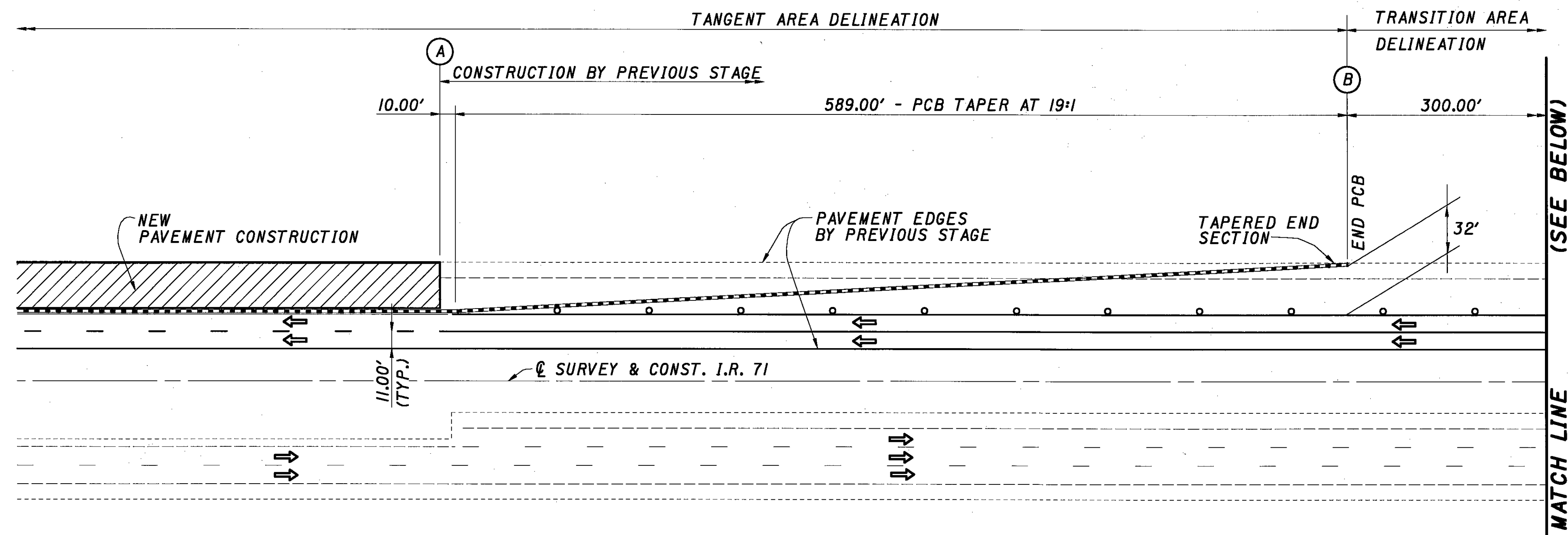
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- - - Work Zone Impact Attenuator
- Area of Construction During This Phase

* - USE IF 3 LANES ARE OPEN NORTHBOUND, OTHERWISE USE DETAIL ON SHEET 100

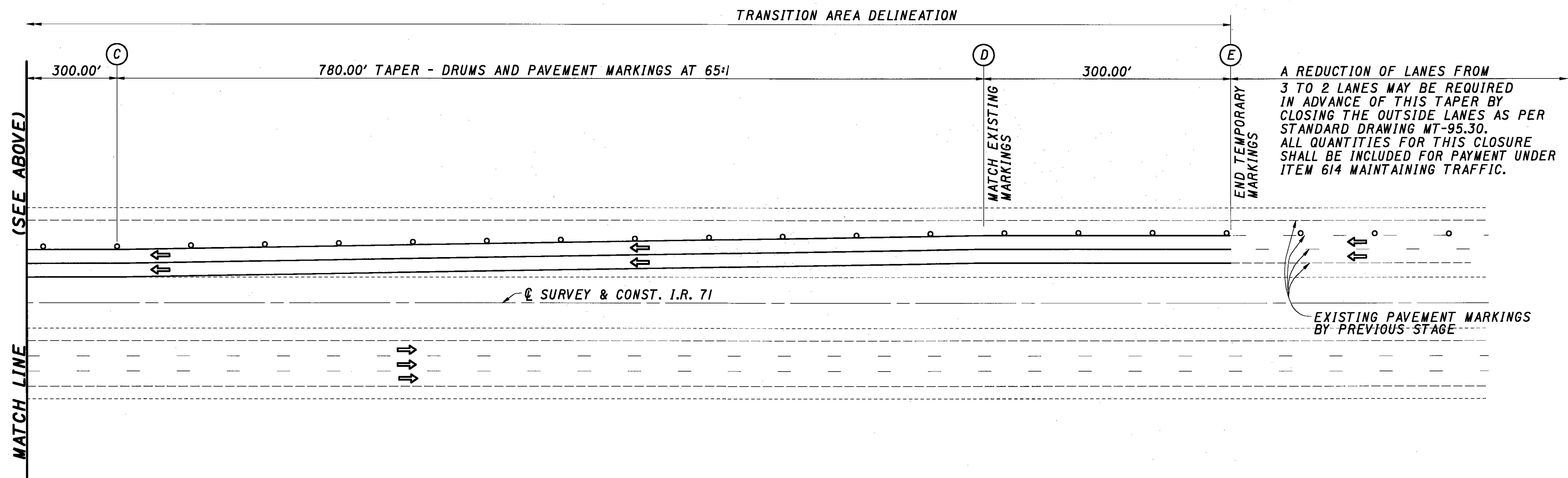
THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 1 - PHASE 2 NB71*	501+75	504+75	512+65	515+65
STAGE 2 - PHASE 2 SB71	323+00	320+00	312+10	309+10



- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONST. DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76. SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.
 4. USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

NOTE: ALL TEMPORARY PAVEMENT MARKINGS ON PREVIOUSLY CONSTRUCTED NEW PAVEMENT SHALL BE 740.06, TYPE 1. ALL EXISTING CONFLICTING MARKINGS SHALL BE REMOVED UNDER ITEM 614 MAINTAINING TRAFFIC.



LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 2 - PHASE 2 NB71	320+00	314+01	311+01	303+21	300+21

CALCULATED
 CHECKED
MAINTENANCE OF TRAFFIC - APPROACHING WORK ZONE TRAFFIC FROM PREVIOUS CONSTRUCTION STAGE TO NEW CONSTRUCTION AREA
MED-71-6.06
 116
 1120



HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 1 OR 2
TYPICAL EXIT RAMP - PHASE 2

MED-71-6.06

117
1120

800' MAINLINE BUTT JOINT REQUIRED DURING PHASE I CONSTRUCTION (SEE SHEET 73)

CONSTRUCT MINIMUM 1160'
FOR USE IN NEXT PHASE

TRANSITION AREA DELINEATION (RAMP ONLY)

12' RAMP, 0' ON LEFT SHOULDER

159' ±

P.C.

196' ±

P.T.

320'

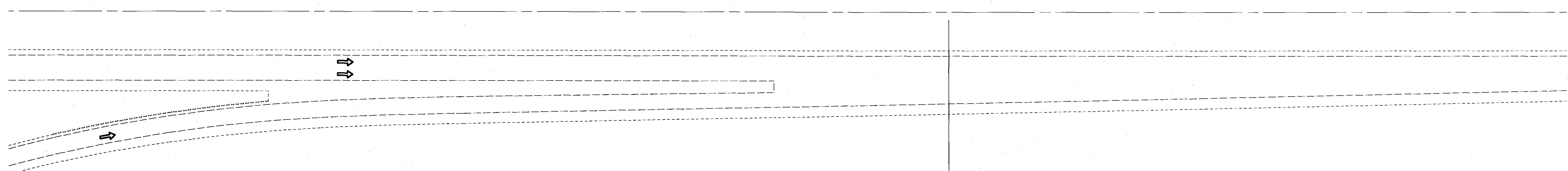
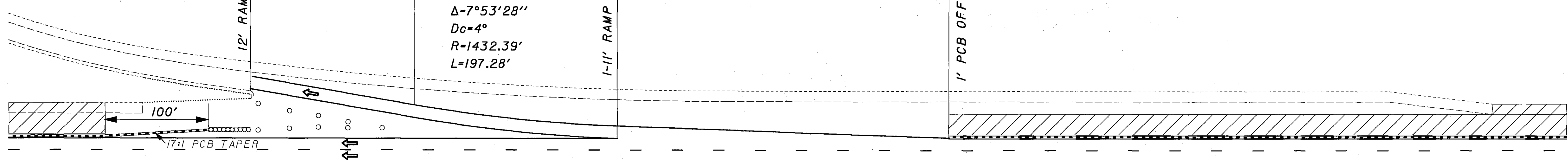
RAMP TAPER AS PER MT-98.13
(APPROX. 29:1 TAPER)

RAMP EDGE
LINE
 $\Delta=7^{\circ}53'28''$
 $Dc=4^{\circ}$
 $R=1432.39'$
 $L=197.28'$

1-11' RAMP LANE

TEMP. @ 42' LT.
1' PCB OFFSET

TYPICAL EXIT RAMP PHASE 2



OFFSET TO MINIMUM PAVING LIMIT DURING THIS PHASE

46' LT. OF CL TO 66' LT OF CL

USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES
AND APPROACH SLABS

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

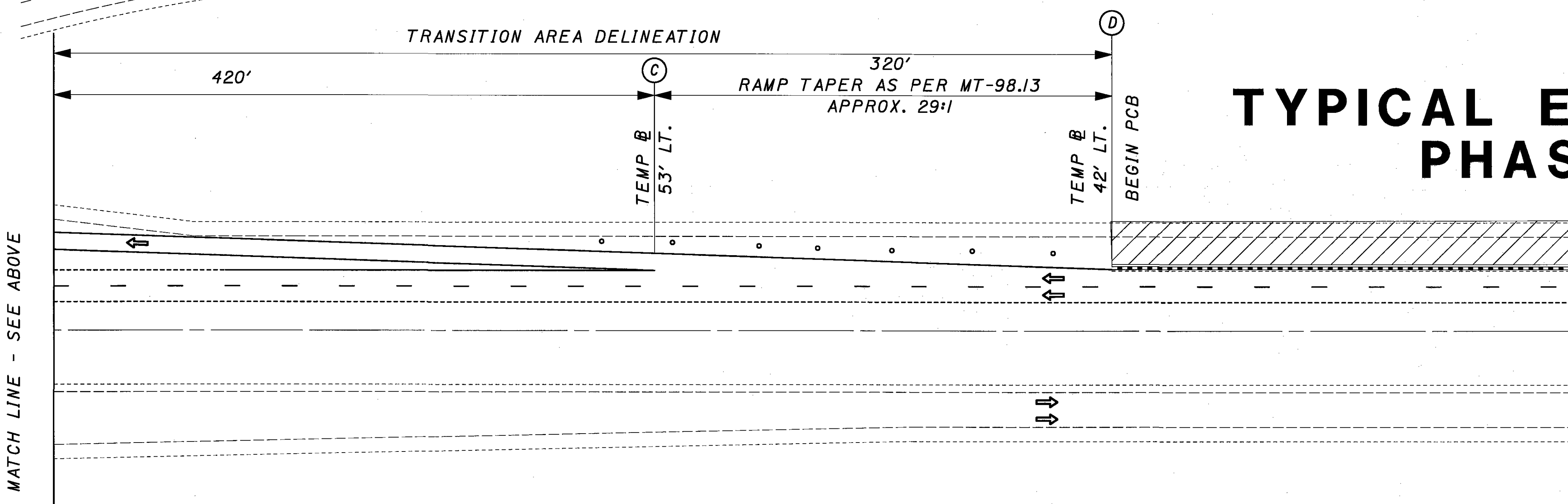
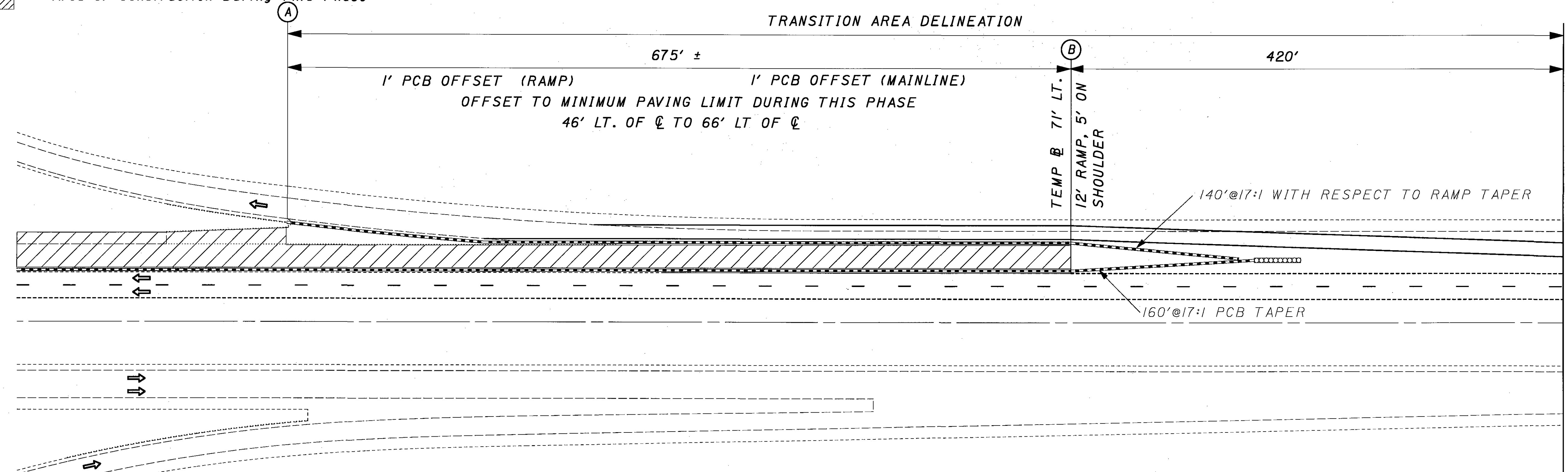
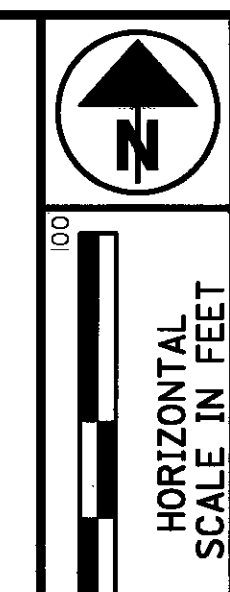
THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T.
STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN		
	(A)	(B)	(C)
STAGE 2 - PHASE 2 NB71	376+75	373+20	370+00
STAGE 2 - PHASE 2 SB71	404+25	407+80	411+00

75657MPB.dgn

- LEGEND**
- Pav't markings from Phase 2A
 - - - - - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
 - o o Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
 - Work Zone Impact Attenuator
 - Offset to lane line or edge line from Centerline
 - ▨ Area of Construction During This Phase

USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS



TYPICAL EXIT RAMP PHASE 2A

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

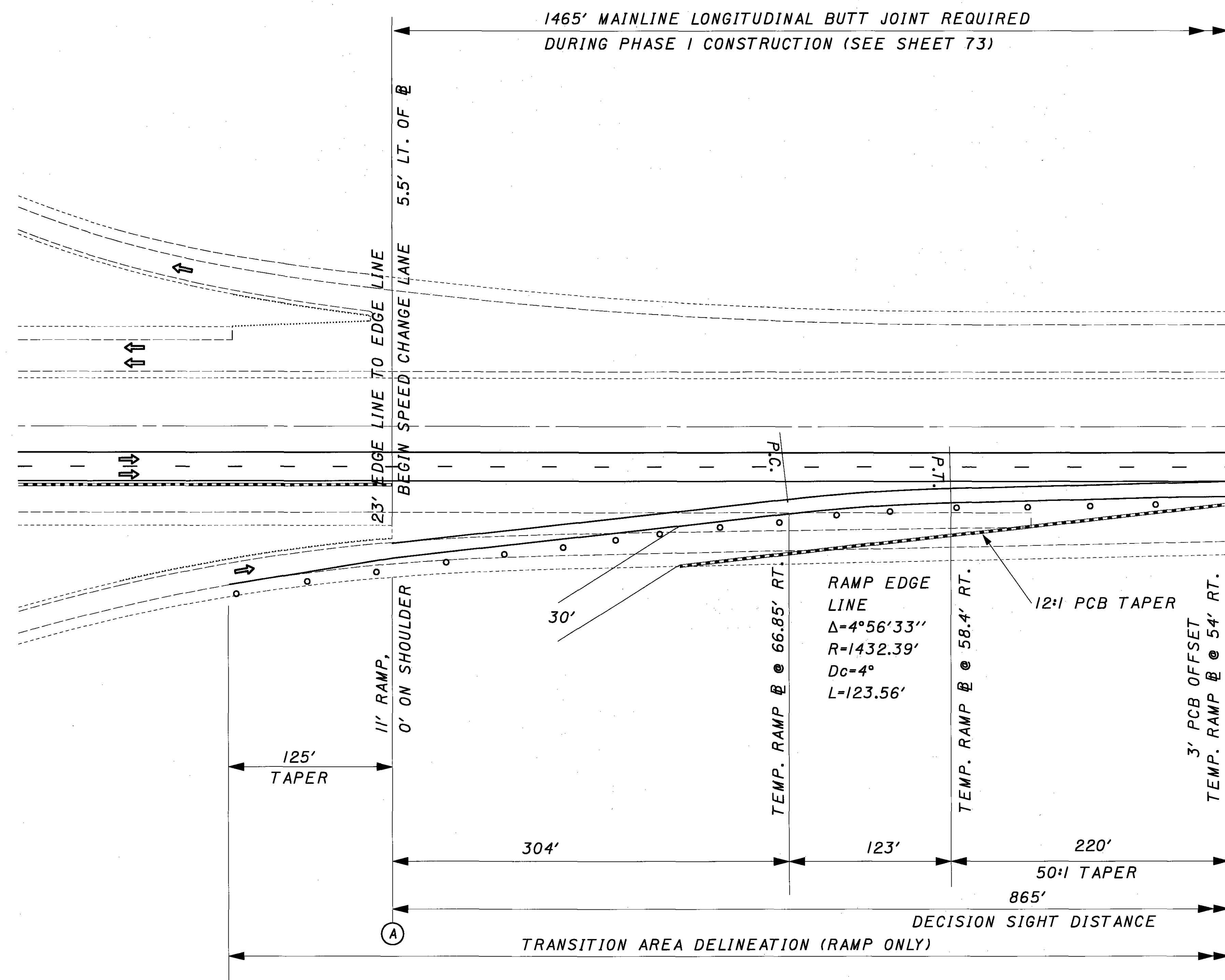
	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 2 - PHASE 2A NB71	376+25	370+00	361+60	358+40

MAINTENANCE OF TRAFFIC - STAGE 1 OR 2
TYPICAL EXIT RAMP - PHASE 2A

MED-71-6.06

118
1120

...75657MPB.dgn



TYPICAL ENTRANCE RAMP PHASE 2

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T.
STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 2 - PHASE 2 SB71	377+65	366+00	363+00	362+00
STAGE 2 - PHASE 2B SB71	389+61	377+96	374+96	373+96

75657MPB.dgn



HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 1 OR 2
TYP. ENTRANCE RAMP - PHASE 2

MED-71-6.06

2 / 2

120
1120

1465' MAINLINE LONGITUDINAL BUTT JOINT REQUIRED DURING PHASE 1 CONSTRUCTION (SEE SHEET 73)

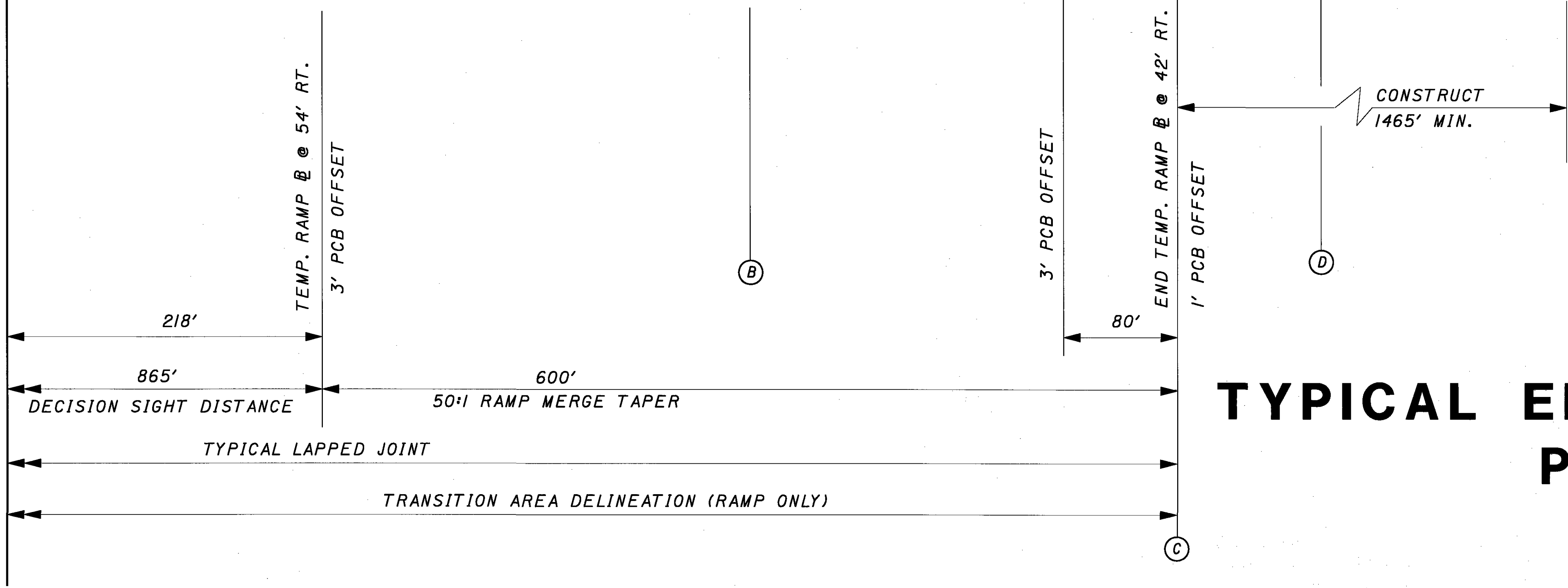
OFFSET TO MIN. PAVING LIMITS DURING THIS PHASE
46' RT. OF \mathcal{C} TO 66' RT. OF \mathcal{C}

OFFSET TO MIN. PAVING LIMITS DURING THIS PHASE
60' RT. OF \mathcal{C} TO 66' RT. OF \mathcal{C}

END ACCELERATION
LANE TAPER -
SEE PAVEMENT DETAILS

300' 100'

MATCH LINE - SEE PREVIOUS SHEET



TYPICAL ENTRANCE RAMP PHASE 2

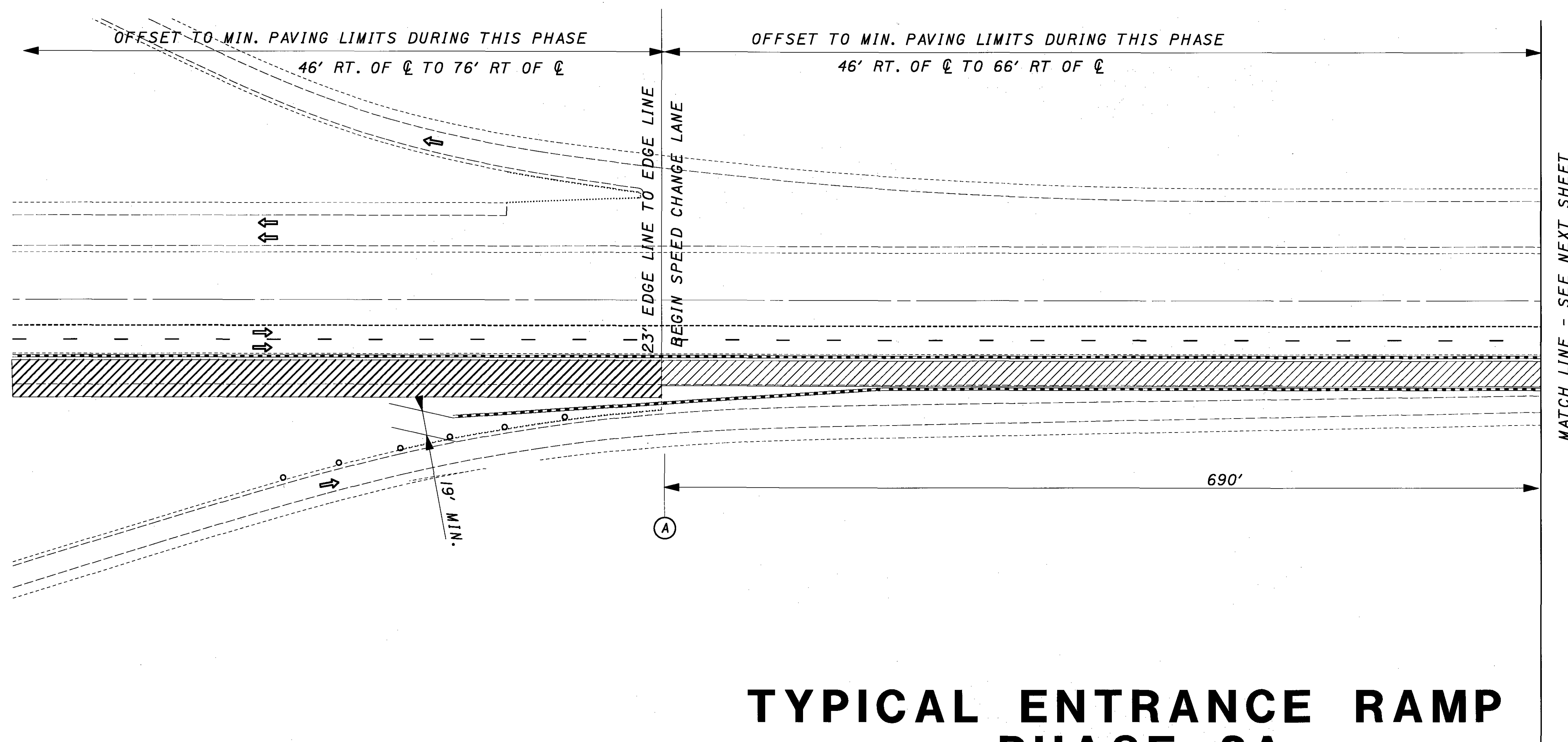
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 2 - PHASE 2 SB71	377+65	366+00	363+00	362+00
STAGE 2 - PHASE 2B SB71	389+61	377+96	374+96	373+96

75657MPB.dgn



TYPICAL ENTRANCE RAMP PHASE 2A

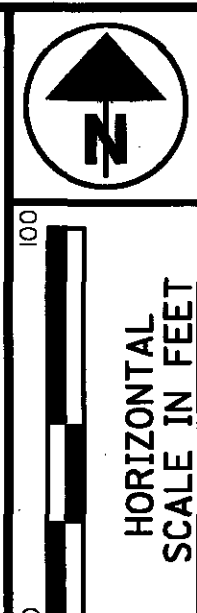
LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- - Offset to lane line or edge line from Centerline
- Area of Construction During This Phase
- Pav't markings from Phase 2

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 2 - PHASE 2A SB71	377+65	363+00	362+00	354+35	348+35

...75657MPB.dgn



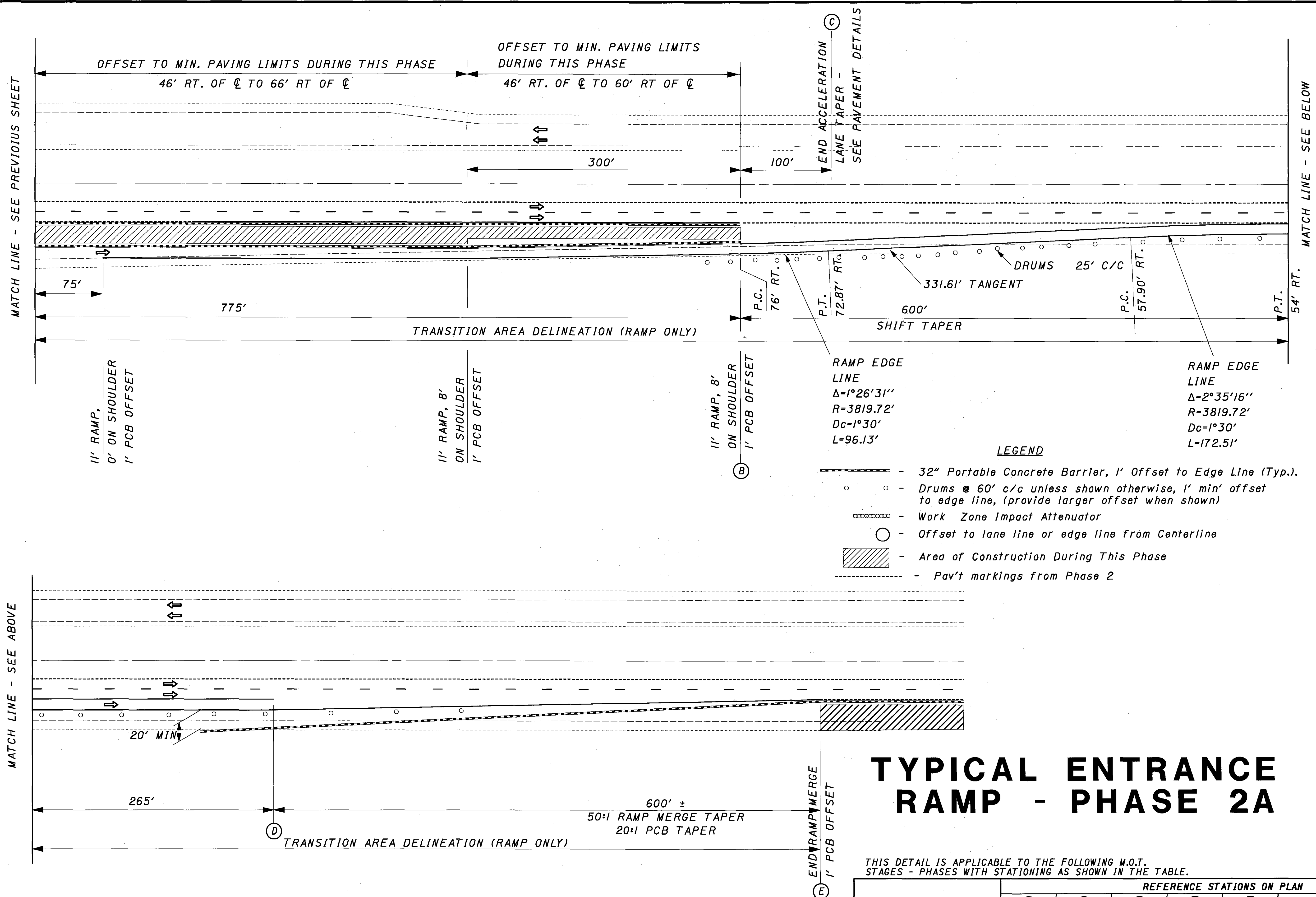
CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 1 OR 2
TYP. ENTRANCE RAMP - PHASE 2A

MED-71-6.06

2 / 2

122
1120



TYPICAL ENTRANCE RAMP - PHASE 2A

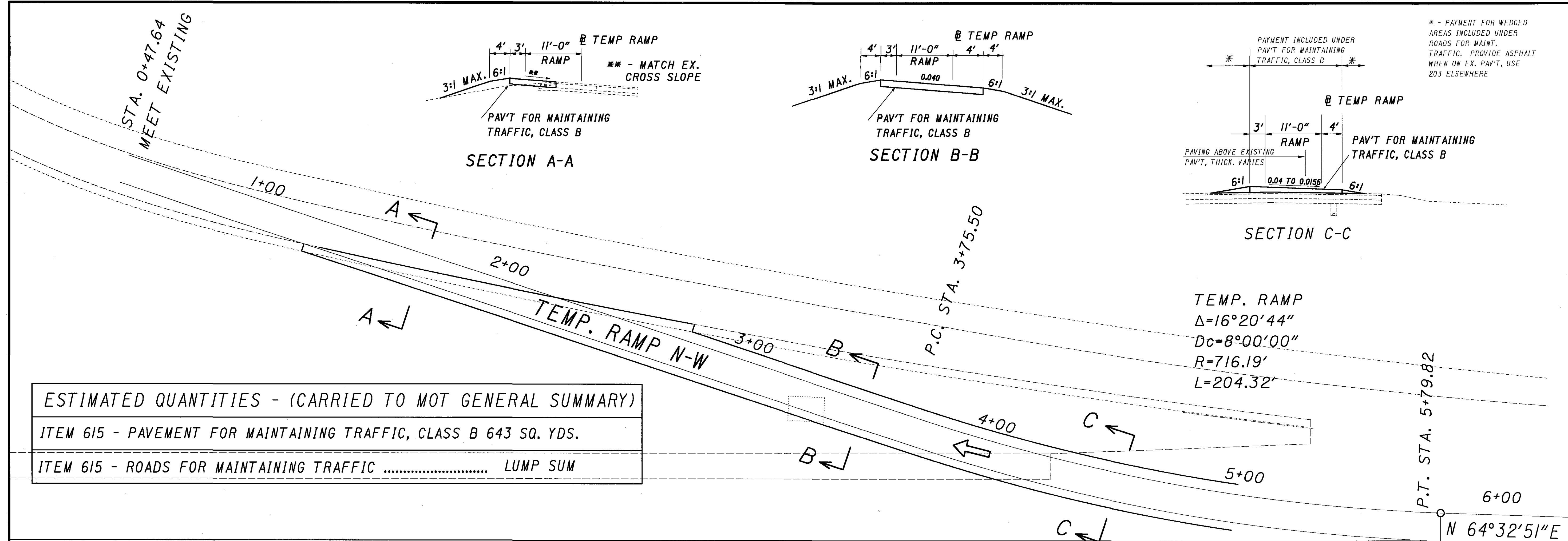
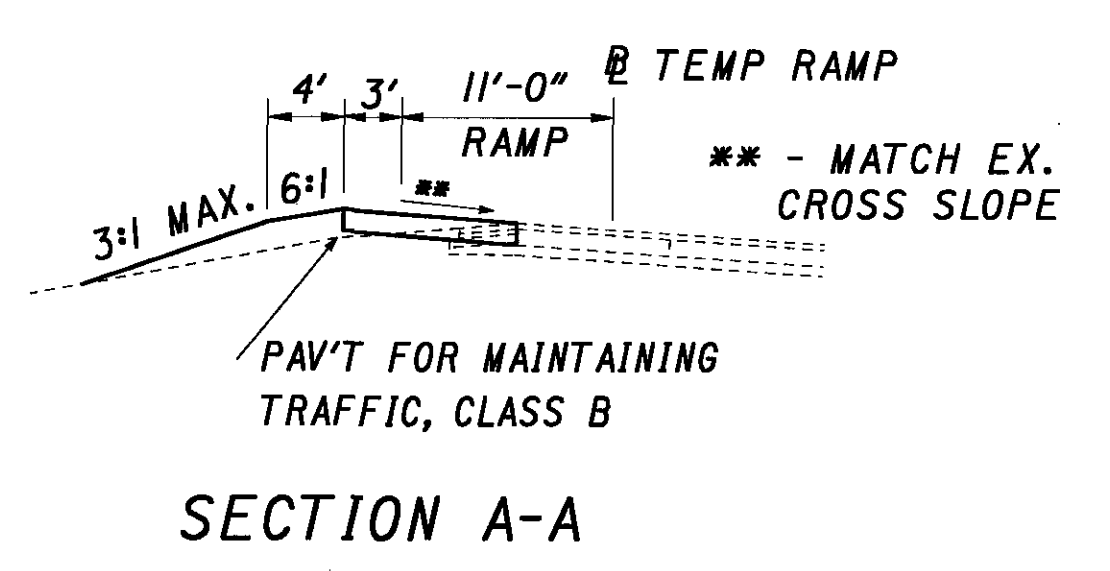
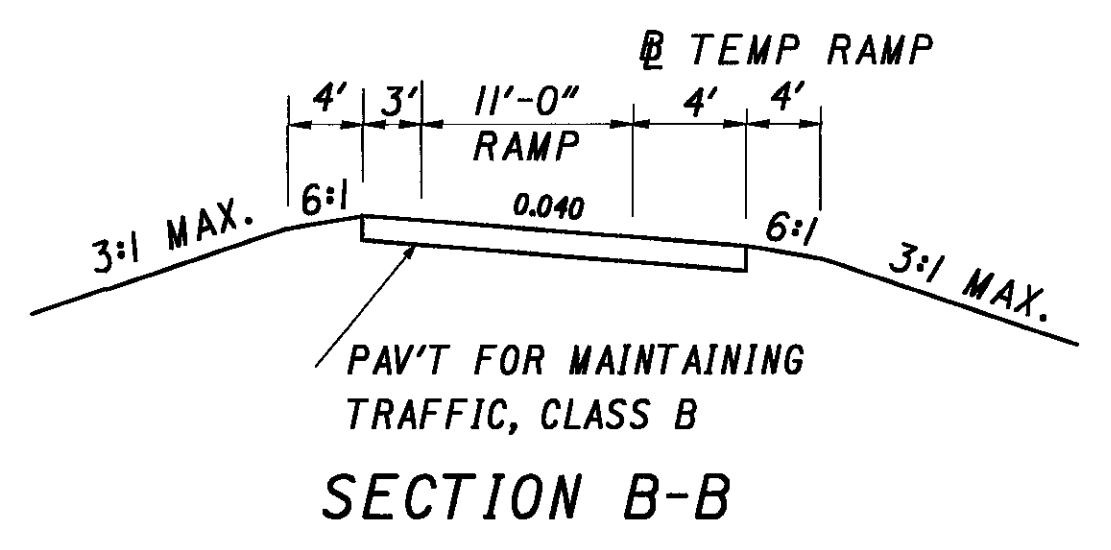
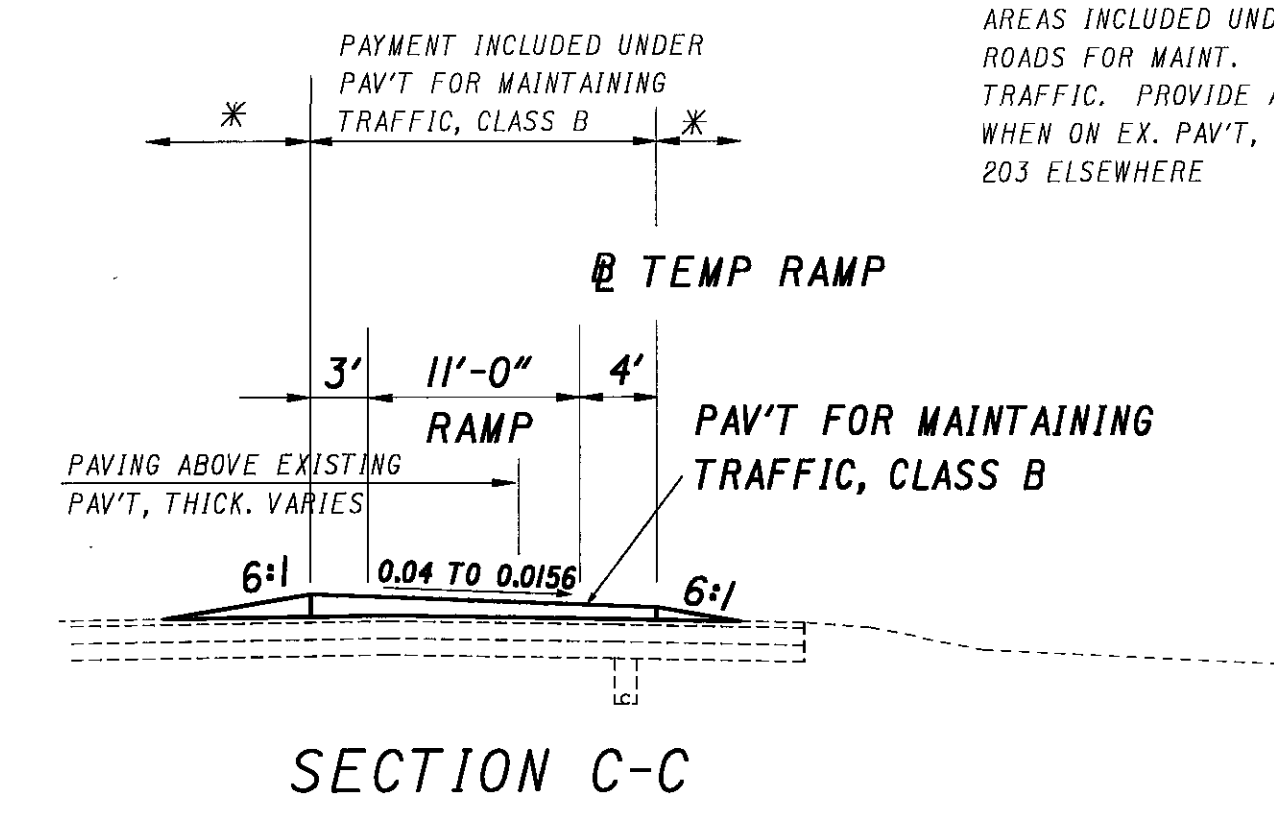
THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 2 - PHASE 2A SB71	377+65	363+00	362+00	354+35	348+35

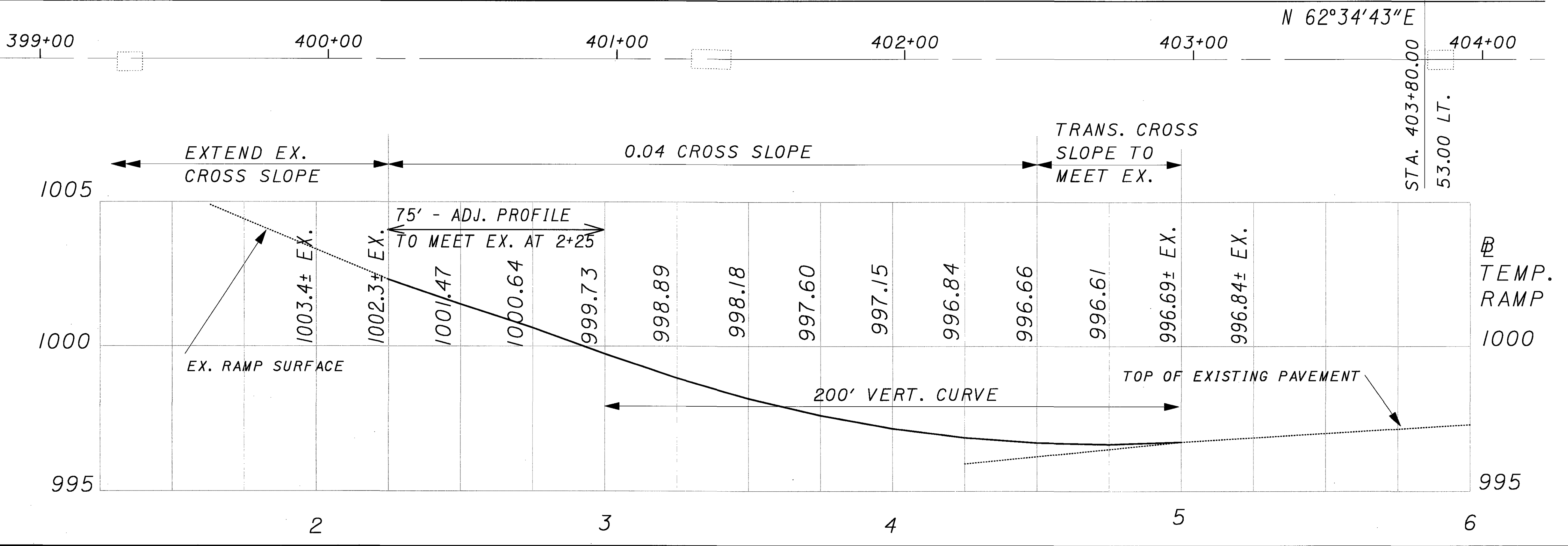
USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

...75657MPB.dgn

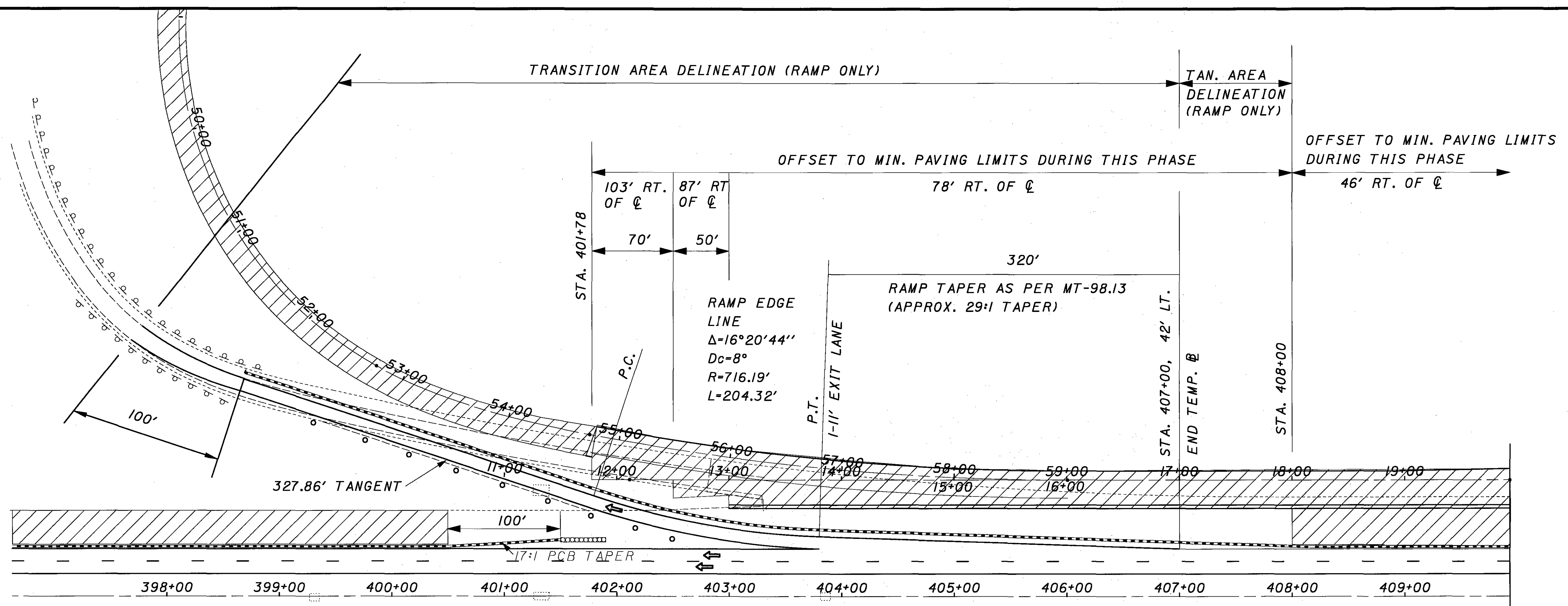
* - PAYMENT FOR WEDGED AREAS INCLUDED UNDER ROADS FOR MAINT. TRAFFIC. PROVIDE ASPHALT WHEN ON EX. PAV'T, USE 203 ELSEWHERE



ESTIMATED QUANTITIES - (CARRIED TO MOT GENERAL SUMMARY)	
ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	643 SQ. YDS.
ITEM 615 - ROADS FOR MAINTAINING TRAFFIC	LUMP SUM



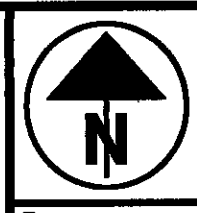
..75657MDH.dgn



LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

75657MPB.dgn



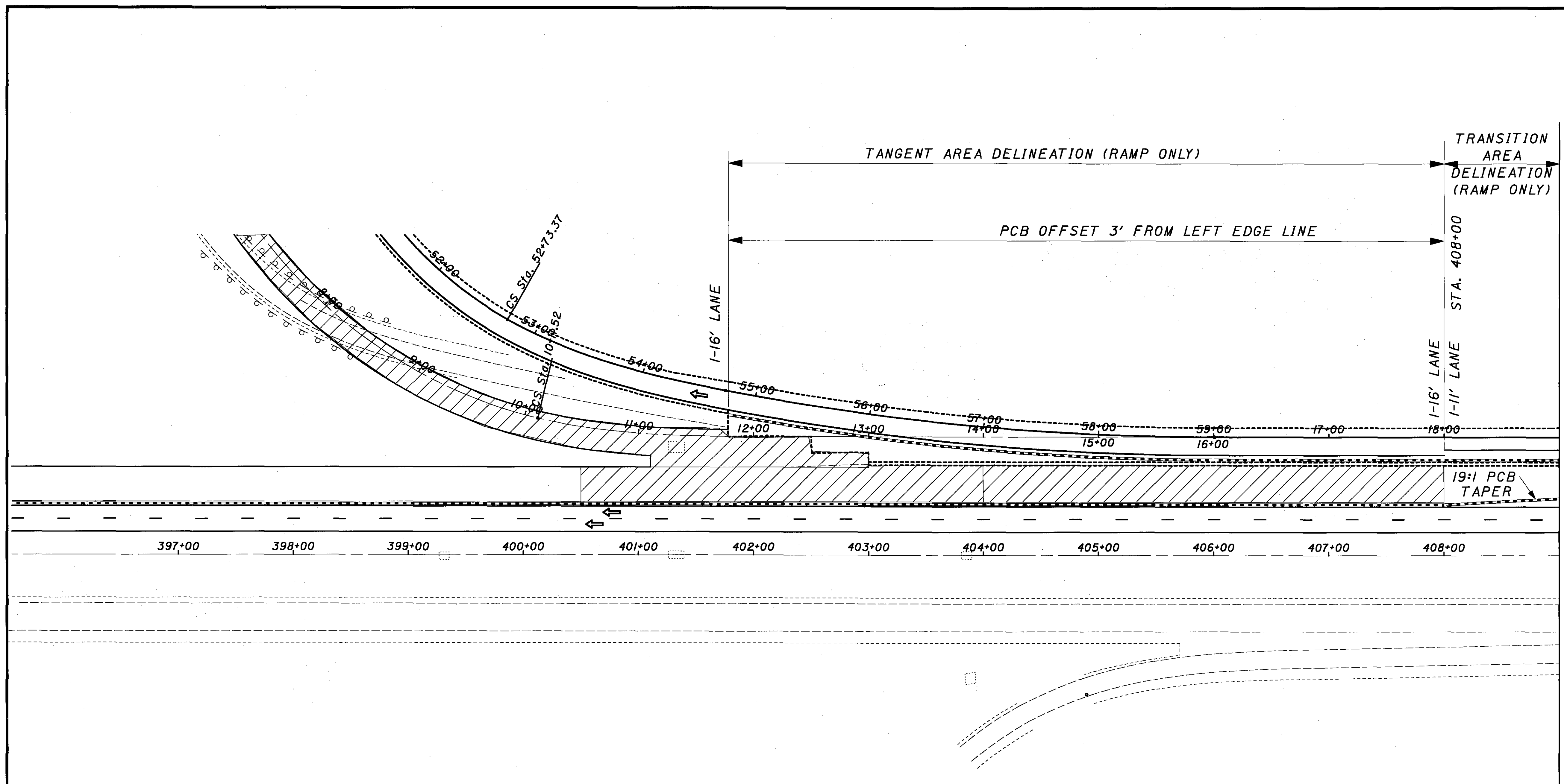
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED


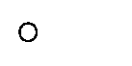
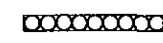


**MAINTENANCE OF TRAFFIC - STAGE 2
EXIT RAMP N-NEW - PHASE 2B**

MED-71-6.06

125
1120



LEGEND

-  - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
-  - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
-  - Work Zone Impact Attenuator
-  - Offset to lane line or edge line from Centerline
-  - Area of Construction During This Phase

...75657MPB.dgn



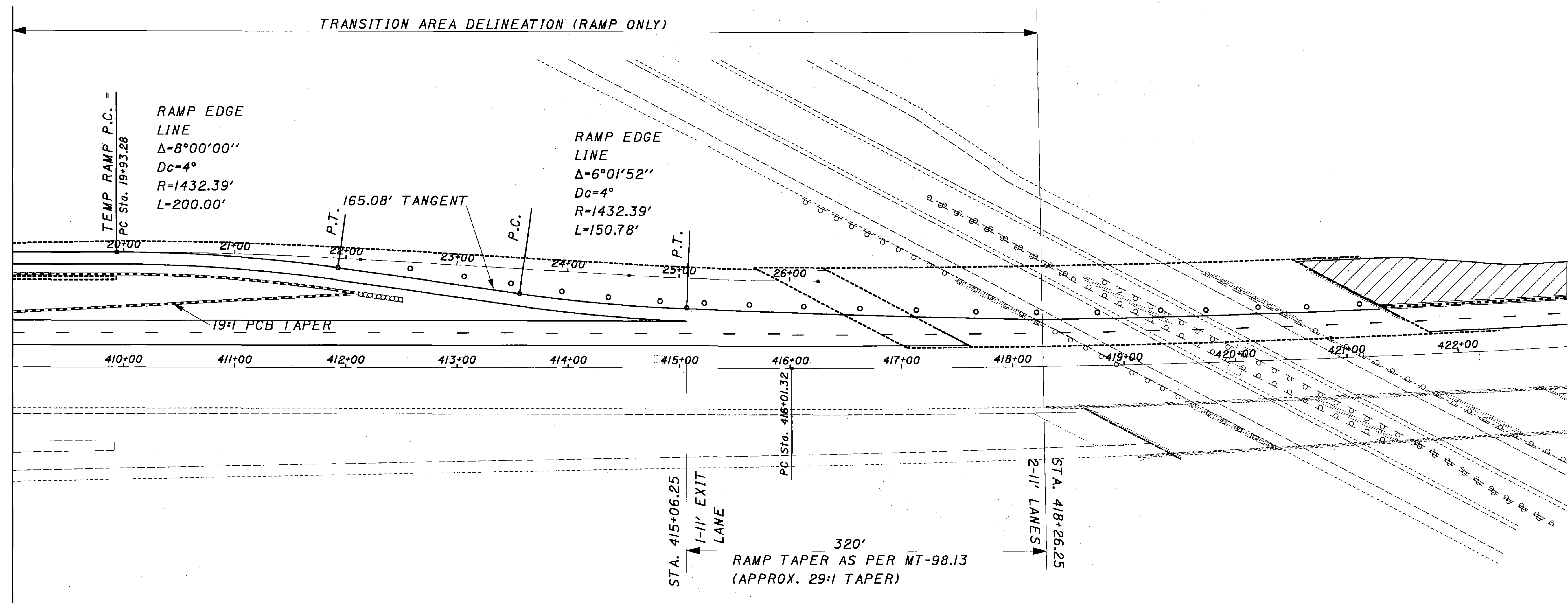
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

**MAINTENANCE OF TRAFFIC - STAGE 2
EXIT RAMP N-EW - PHASE 2B**

MED-71-6.06

126
120

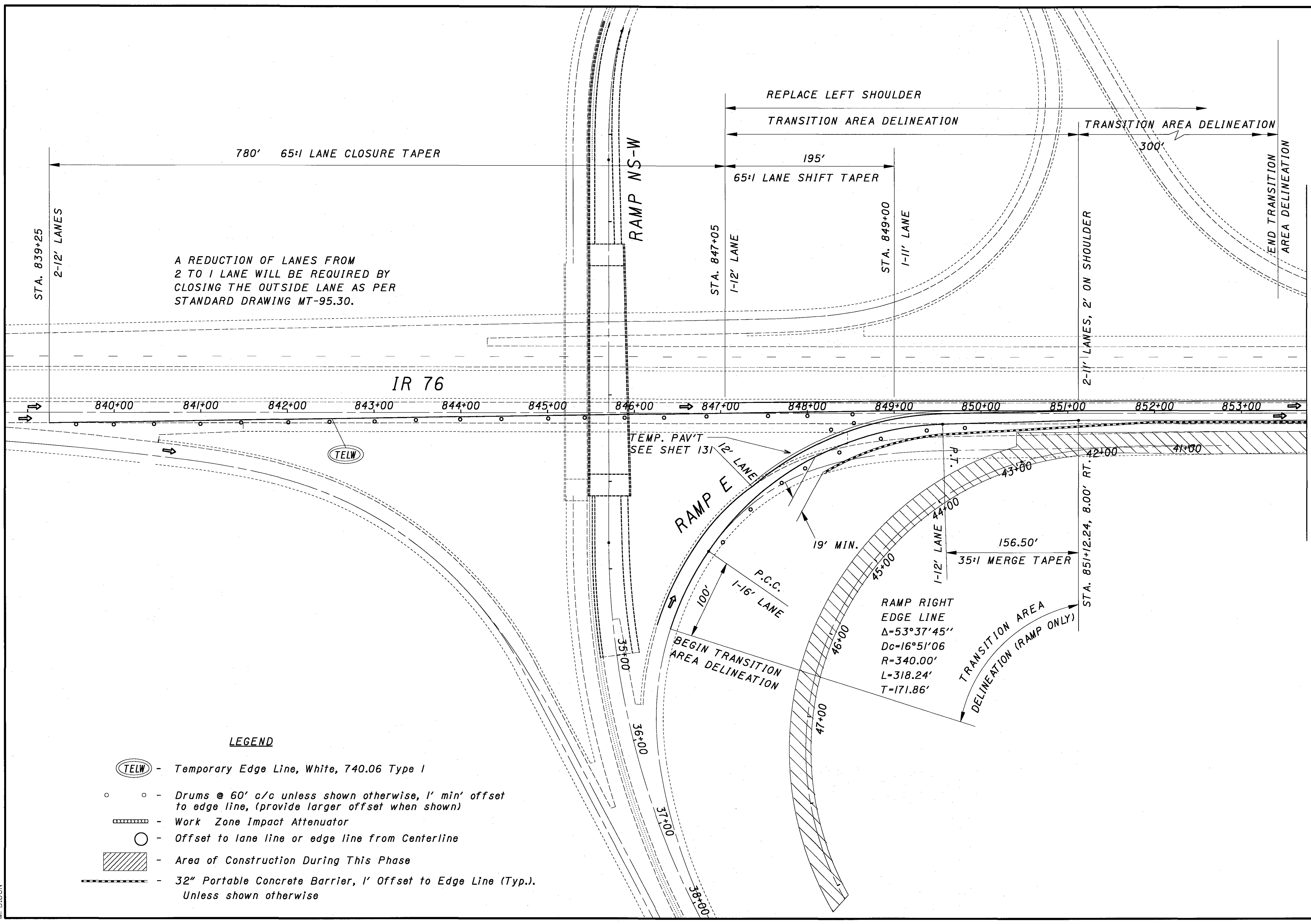


LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

USE 740.06, TYPE 1 FOR PHASE 2 ACROSS BRIDGES AND APPROACH SLABS

...75657MPB.dgn







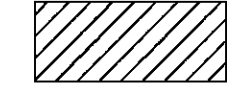

A REDUCTION OF LANES FROM 2 TO 1 LANE WILL BE REQUIRED BY CLOSING THE OUTSIDE LANE AS PER STANDARD DRAWING MT-95.30.

IR 76

TEMP. PAV'T
SEE SHET 131

RAMP RIGHT
EDGE LINE
 $\Delta=53^{\circ}37'45''$
 $Dc=16^{\circ}51'06$
 $R=340.00'$
 $L=318.24'$
 $T=171.86'$

LEGEND

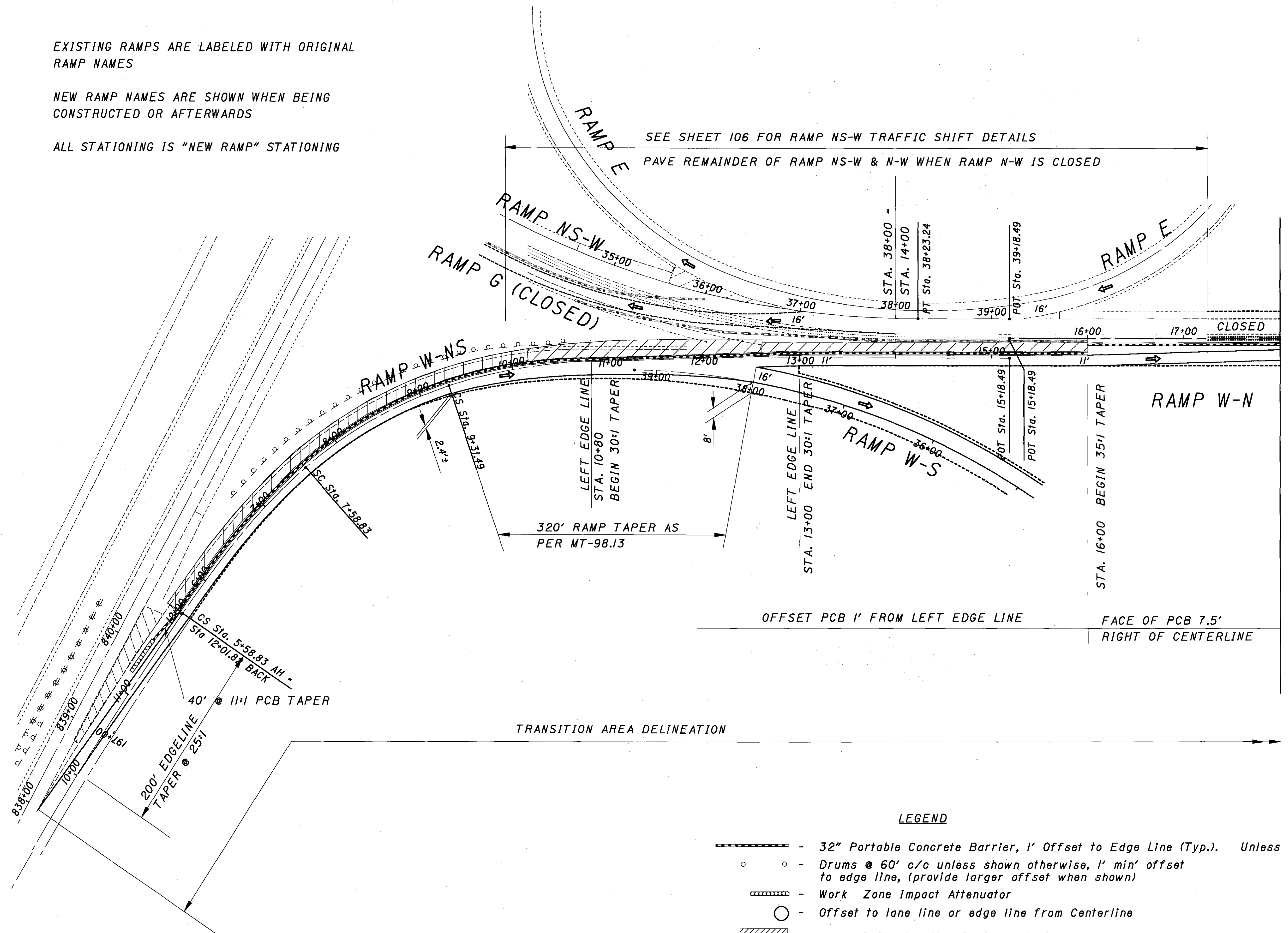
-  - Temporary Edge Line, White, 740.06 Type 1
-  - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
-  - Work Zone Impact Attenuator
-  - Offset to lane line or edge line from Centerline
-  - Area of Construction During This Phase
-  - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise

MATCH LINE - SEE SHEET 91

EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING



SEE SHEET 106 FOR RAMP NS-W TRAFFIC SHIFT DETAILS
PAVE REMAINDER OF RAMP NS-W & N-W WHEN RAMP N-W IS CLOSED

MATCH LINE - SEE SHEET 129

OFFSET PCB 1' FROM LEFT EDGE LINE
FACE OF PCB 7.5' RIGHT OF CENTERLINE

TRANSITION AREA DELINEATION

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- o - Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC
RAMP W-NS SHIFT RIGHT - PHASE 2A

MED-71-6.06

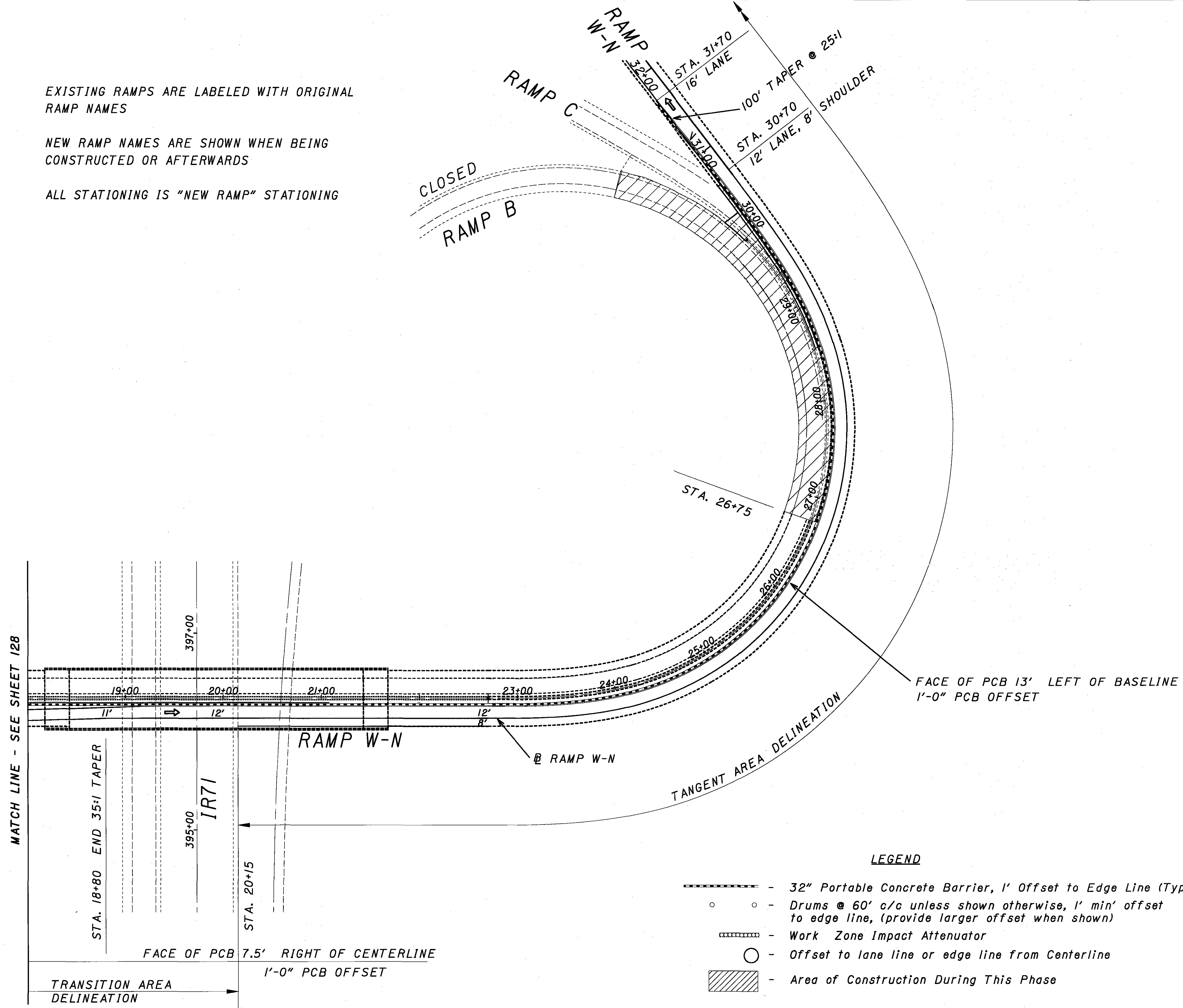
1 / 2

128
1120

EXISTING RAMPS ARE LABELED WITH ORIGINAL RAMP NAMES

NEW RAMP NAMES ARE SHOWN WHEN BEING CONSTRUCTED OR AFTERWARDS

ALL STATIONING IS "NEW RAMP" STATIONING



MATCH LINE - SEE SHEET 128

STA. 18+80 END 35:1 TAPER

IR71

FACE OF PCB 7.5' RIGHT OF CENTERLINE
1'-0" PCB OFFSET

LEGEND

- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- Offset to lane line or edge line from Centerline
- Area of Construction During This Phase

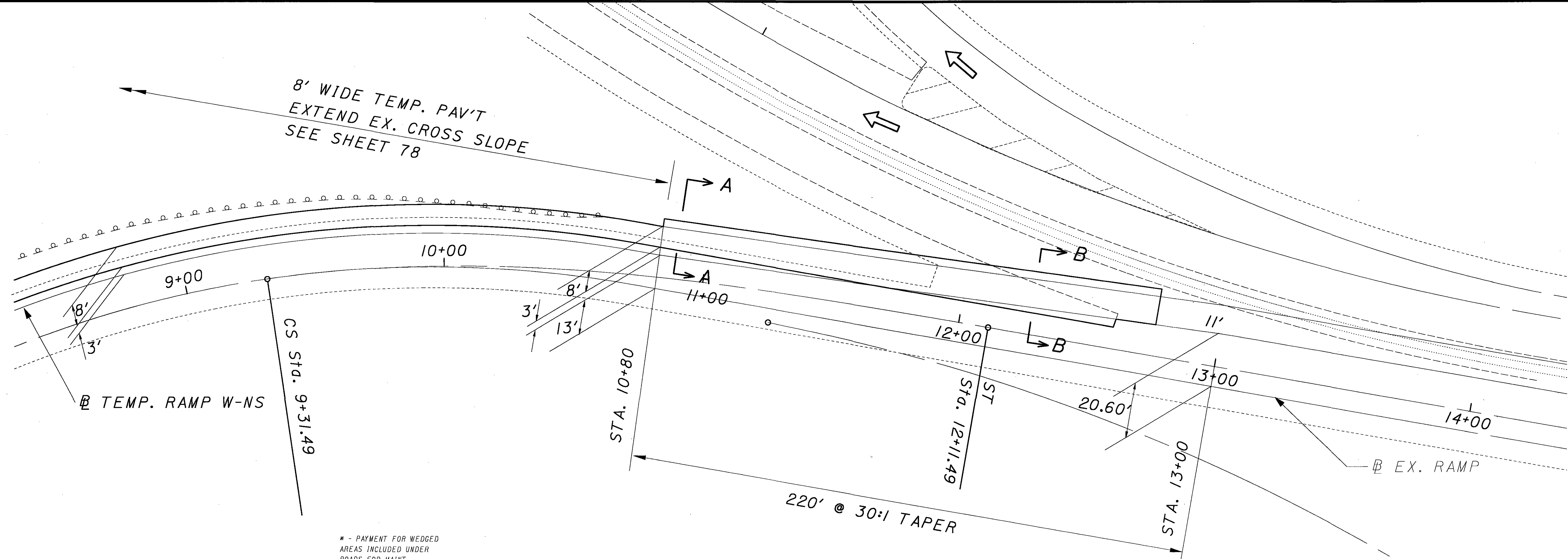
CALCULATED
CHECKED

**MAINTENANCE OF TRAFFIC
RAMP W-N SHIFT RIGHT - PHASE 2B**

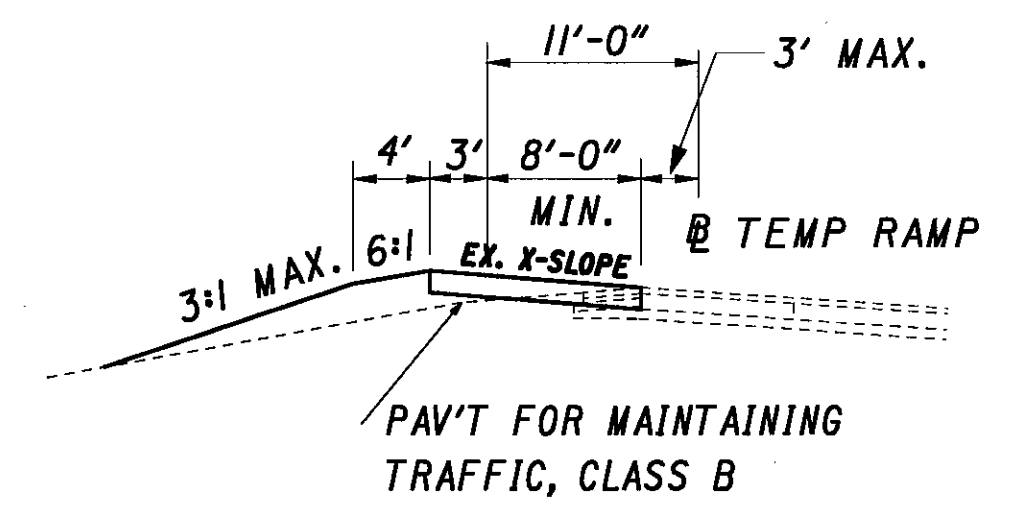
MED-71-6.06

2 / 2

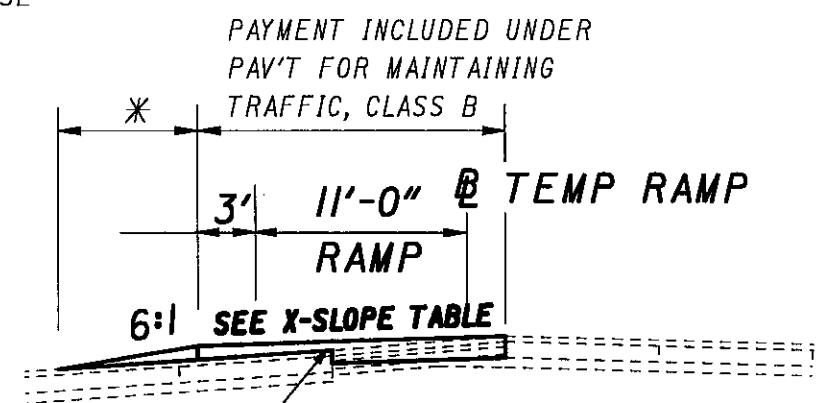
129
1120



* - PAYMENT FOR WEDGED AREAS INCLUDED UNDER ROADS FOR MAINT. TRAFFIC. PROVIDE ASPHALT WHEN ON EX. PAV'T, USE 203 ELSEWHERE



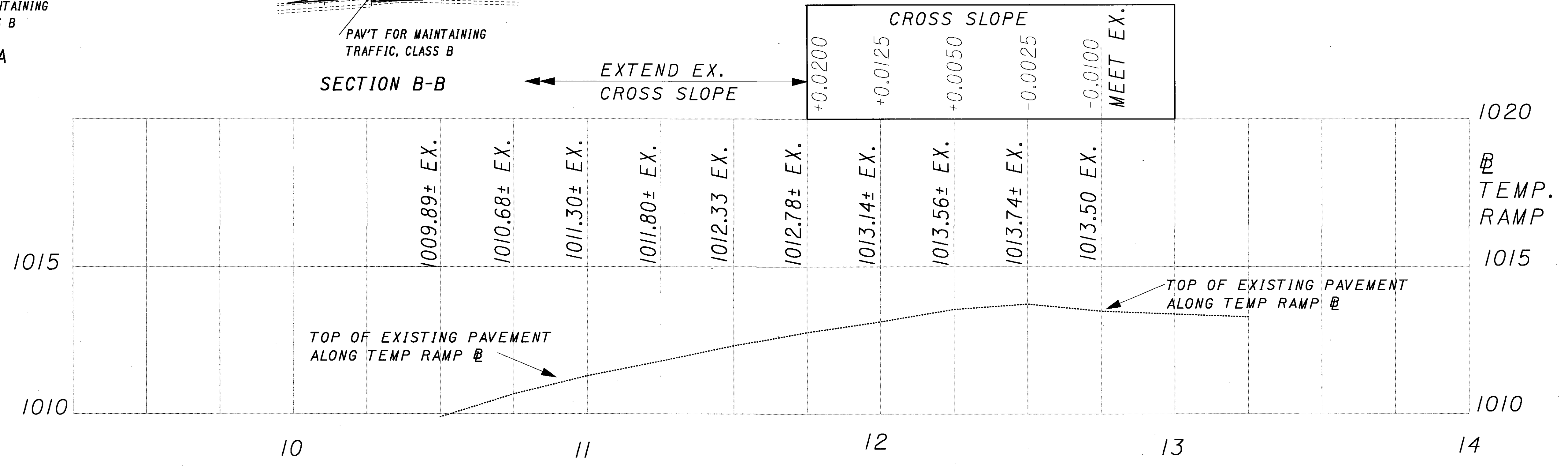
SECTION A-A



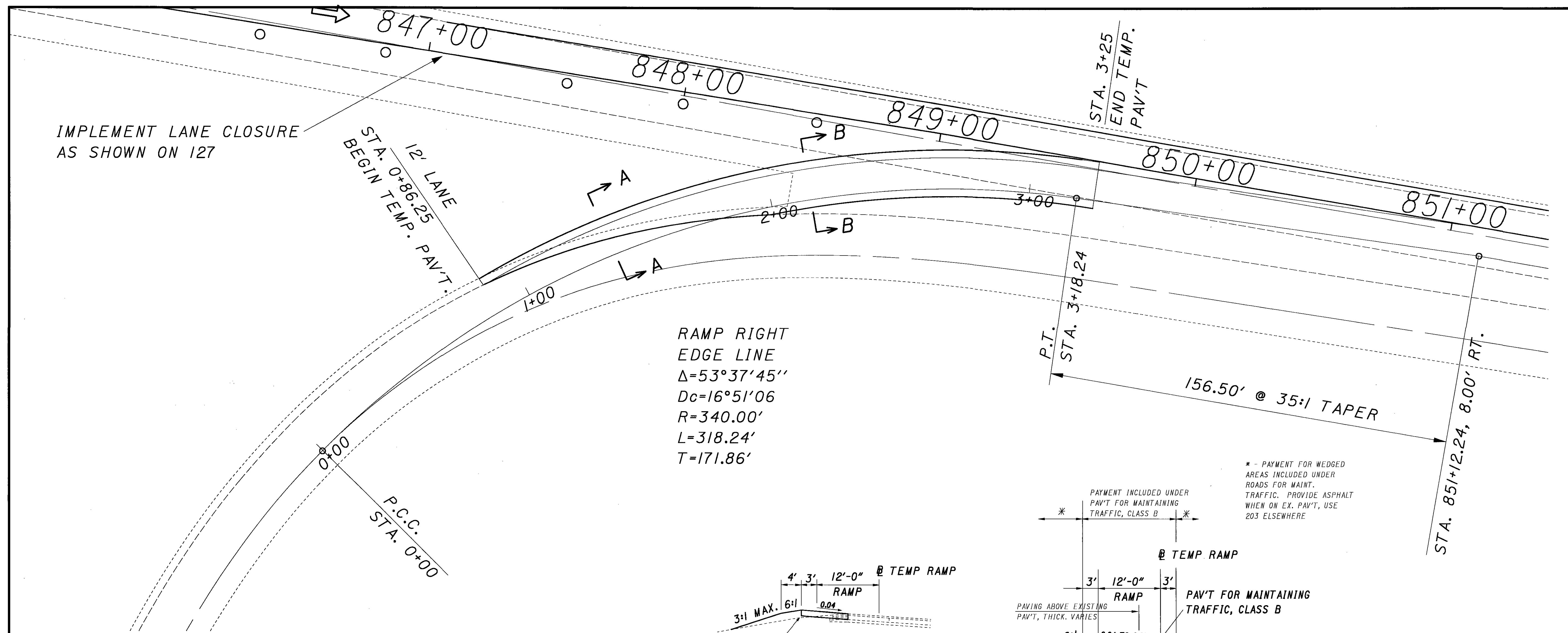
SECTION B-B

ESTIMATED QUANTITIES - (CARRIED TO MOT GENERAL SUMMARY)

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	303 SQ. YDS.
ITEM 615 - ROADS FOR MAINTAINING TRAFFIC	LUMP SUM

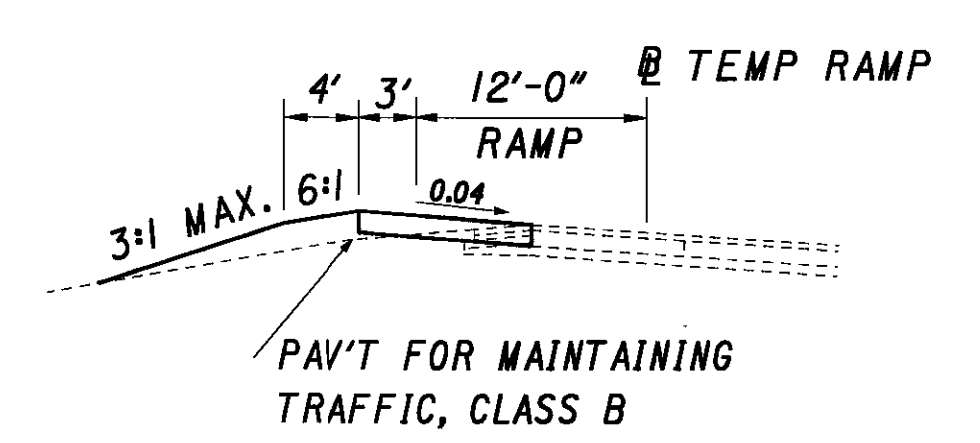


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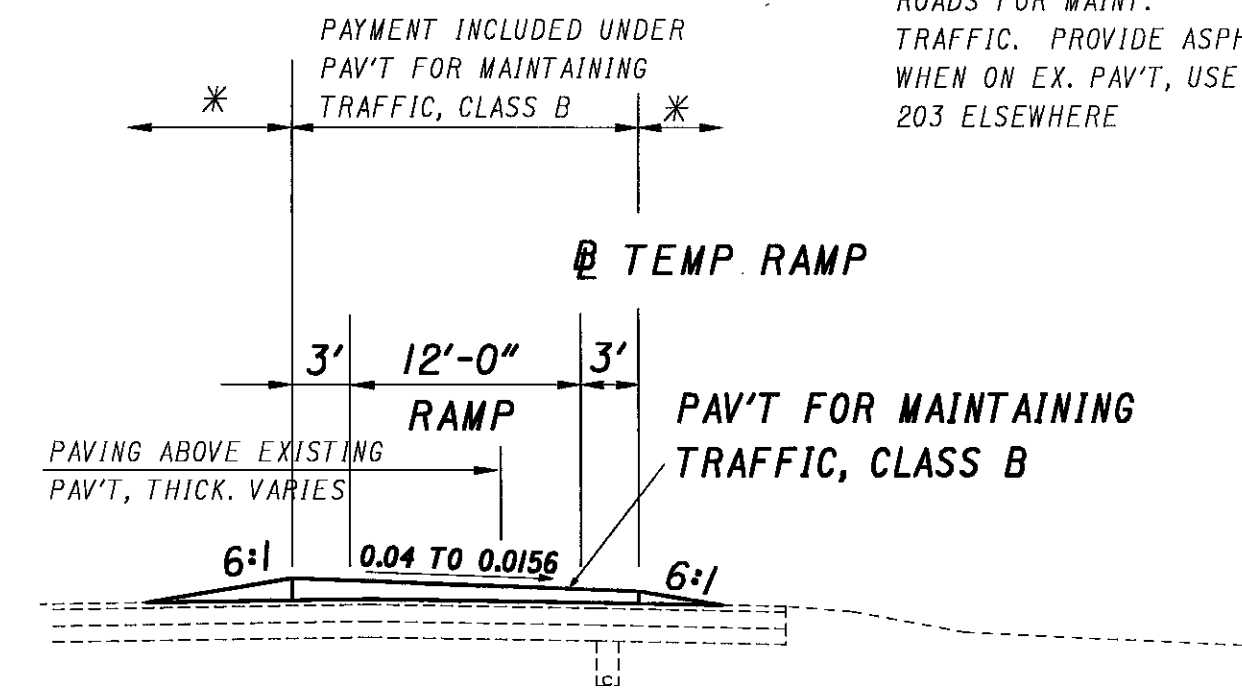


RAMP RIGHT
EDGE LINE
 $\Delta=53^{\circ}37'45''$
 $Dc=16^{\circ}51'06''$
 $R=340.00'$
 $L=318.24'$
 $T=171.86'$

* - PAYMENT FOR WEDGED AREAS INCLUDED UNDER ROADS FOR MAINT. TRAFFIC. PROVIDE ASPHALT WHEN ON EX. PAV'T, USE 203 ELSEWHERE

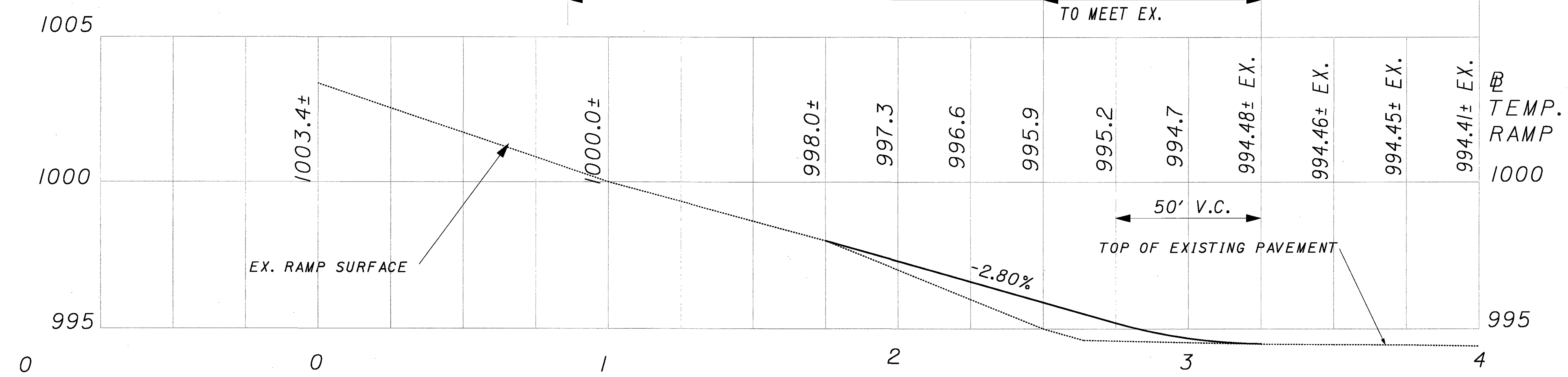


SECTION A-A

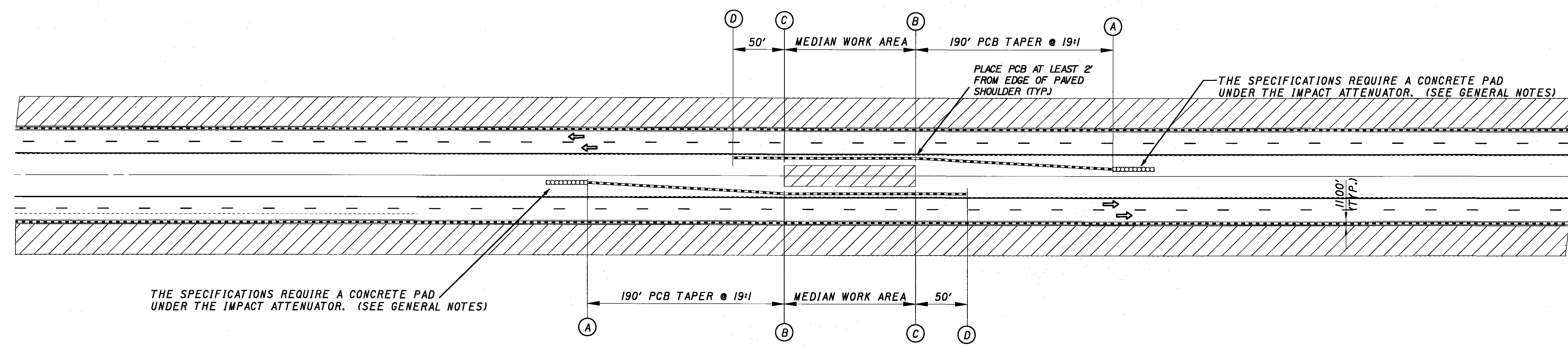


SECTION B-B

ESTIMATED QUANTITIES - (CARRIED TO MOT GENERAL SUMMARY)	
ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	381 SQ. YDS.
ITEM 615 - ROADS FOR MAINTAINING TRAFFIC	LUMP SUM



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THE SPECIFICATIONS REQUIRE A CONCRETE PAD UNDER THE IMPACT ATTENUATOR. (SEE GENERAL NOTES)

PLACE PCB AT LEAST 2' FROM EDGE OF PAVED SHOULDER (TYP)

THE SPECIFICATIONS REQUIRE A CONCRETE PAD UNDER THE IMPACT ATTENUATOR. (SEE GENERAL NOTES)

- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR M.O.T. QUANTITIES.

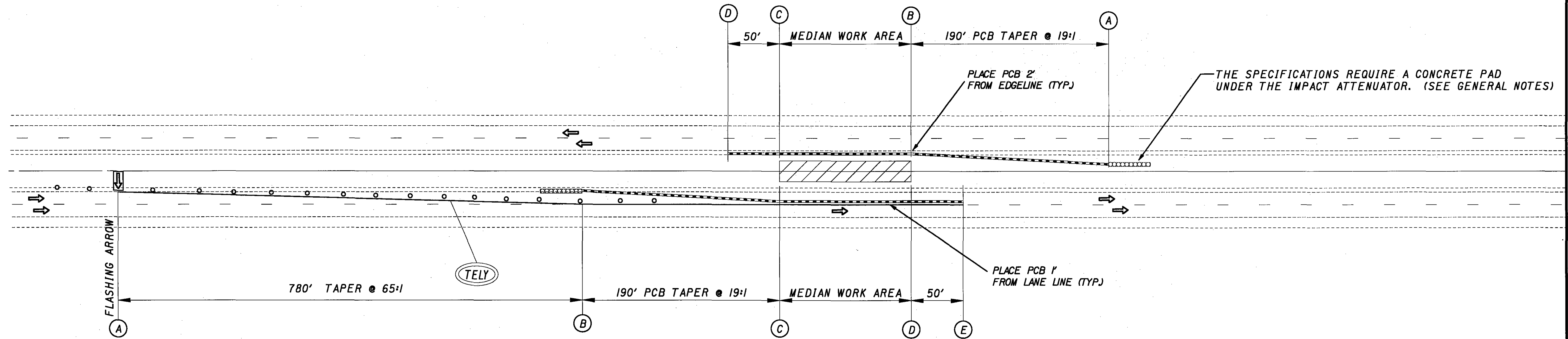
- 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- - Work Zone Impact Attenuator
- ▨ - Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
STAGE 2 - PHASE 2 NB71	394+10	396+00	396+70	397+20
STAGE 2 - PHASE 2 SB71	398+60	396+70	396+00	395+50

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

TOP DETAIL	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	
STAGE 1 - PHASE 3 EB 76	836+60	838+50	839+80	840+30	
STAGE 1 - PHASE 3 WB 76	841+70	839+80	838+50	838+00	
STAGE 2 - PHASE 1 EB 76	866+40	868+30	871+70	872+20	
STAGE 2 - PHASE 1 WB 76	873+80	871+90	868+50	868+00	
STAGE 2 - PHASE 2 WB 76	873+80	871+90	868+50	868+00	
STAGE 2 - PHASE 2A EB76	843+30	845+20	846+00	846+50	
STAGE 2 - PHASE 2A WB76	847+90	846+00	845+20	844+70	



THIS LOWER DETAIL SHALL BE IMPLEMENTED FIRST, IN THE DIRECTION SPECIFIED, IN ORDER TO ALLOW FOR DRIVING BATTERED PILES IN THE MEDIAN. AFTER PILE DRIVING IS COMPLETE, THE TOP DETAIL SHOWN ABOVE SHALL BE IMPLEMENTED AND THE LANE SHALL BE OPENED.

- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-95.40, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED.
 3. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEETS 72-76 SEE SHEETS 83-86 FOR .M.O.T. QUANTITIES.

LEGEND

- (TELW) - Temp. Edge Line, White, Class I, 740.06 Type I
- (TELY) - Temp. Edge Line, Yellow, Class I, 740.06, Type I
- (TSL) - Temp. Solid Lane Line, Class I, 740.06 Type I
- (TLL) - Temp. Lane Line, Class I, 740.06 Type I
- (TCH) - Temp. Chan. Line, Class I, 740.06 Type I
- - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- - Work Zone Impact Attenuator
- //// - Area of Construction During This Phase

THIS DETAIL IS APPLICABLE TO THE FOLLOWING M.O.T. STAGES - PHASES WITH STATIONING AS SHOWN IN THE TABLE.

LOWER DETAIL	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
STAGE 2 - PHASE 1 EB 76	859+40	867+20	869+10	869+90	870+40
STAGE 2 - PHASE 2 EB 76	861+40	869+20	871+10	871+90	872+40

MAINTENANCE OF TRAFFIC PROTECTION OF MEDIAN WORK AREA

MED-71-6.06



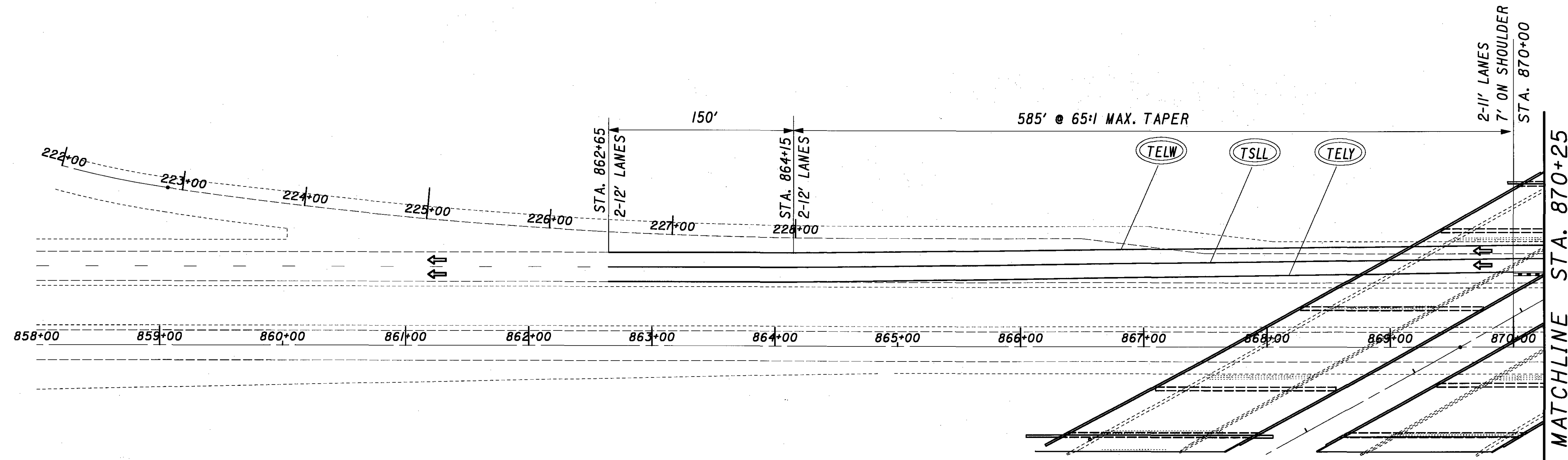
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 2 - PHASE 1
IR76 WESTBOUND

MED-71-6.06

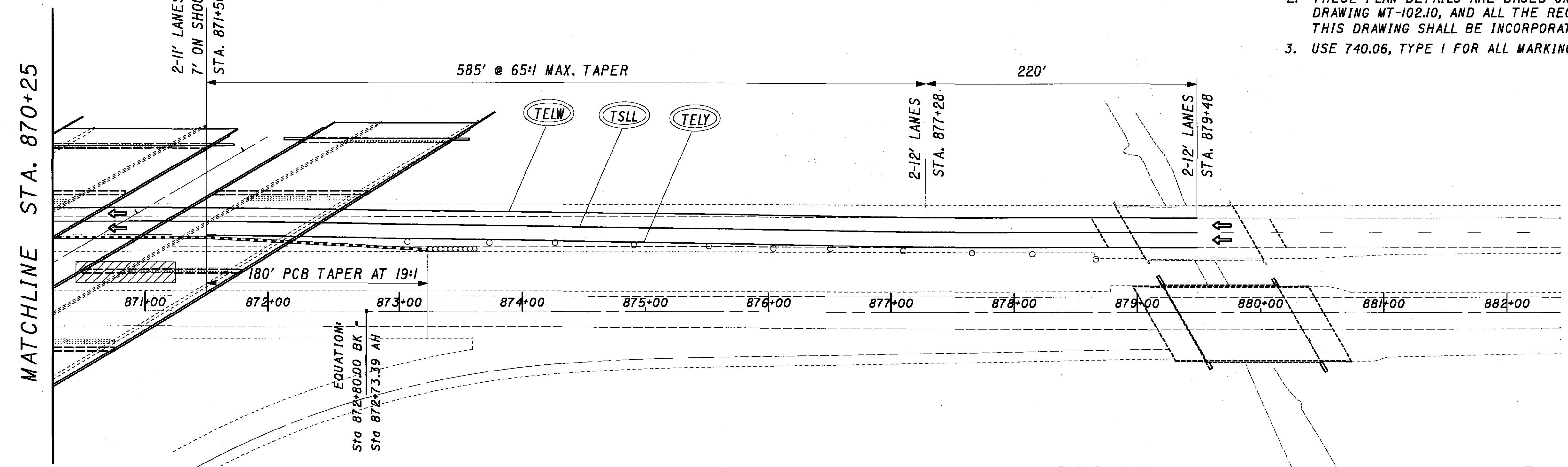
133A
1120



THIS MAINTENANCE OF TRAFFIC SCHEME IS PROVIDED TO ALLOW FOR THE PLACEMENT OF A CRANE, SET PERPENDICULAR TO THE CENTERLINE, TO ALLOW FOR DRIVING BATTERED PILES. IF THE CONTRACTOR DOES NOT NEED TO SET THE CRANE PERPENDICULAR HE HAS THE OPTION TO NON-PERFORM THIS LANE SHIFT AND WORK FROM THE MEDIAN AS PER THE DETAILS ON SHEET 133

THIS MAINTENANCE OF TRAFFIC SCHEME SHALL BE IMPLEMENTED FOR A MAXIMUM OF 14 DAYS. THEN SWITCH TO DETAIL ON SHEET 133.

- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED.
 3. USE 740.06, TYPE I FOR ALL MARKINGS



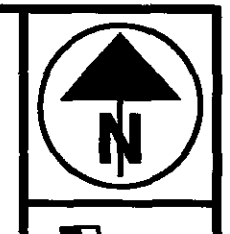
EQUATION:
Sta 872+80.00 BK
Sta 872+73.39 AH

LEGEND

- (TELW) - Temporary Edge Line, White, 740.06 Type I
- (TELY) - Temporary Edge Line, Yellow, 740.06, Type I
- (TSSL) - Temporary Solid Lane Line, 740.06 Type I
- (TLL) - Temporary Lane Line, 740.06 Type I

- - - - - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.). Unless shown otherwise
- o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
- Work Zone Impact Attenuator
- ▨ - Area of Construction During This Phase

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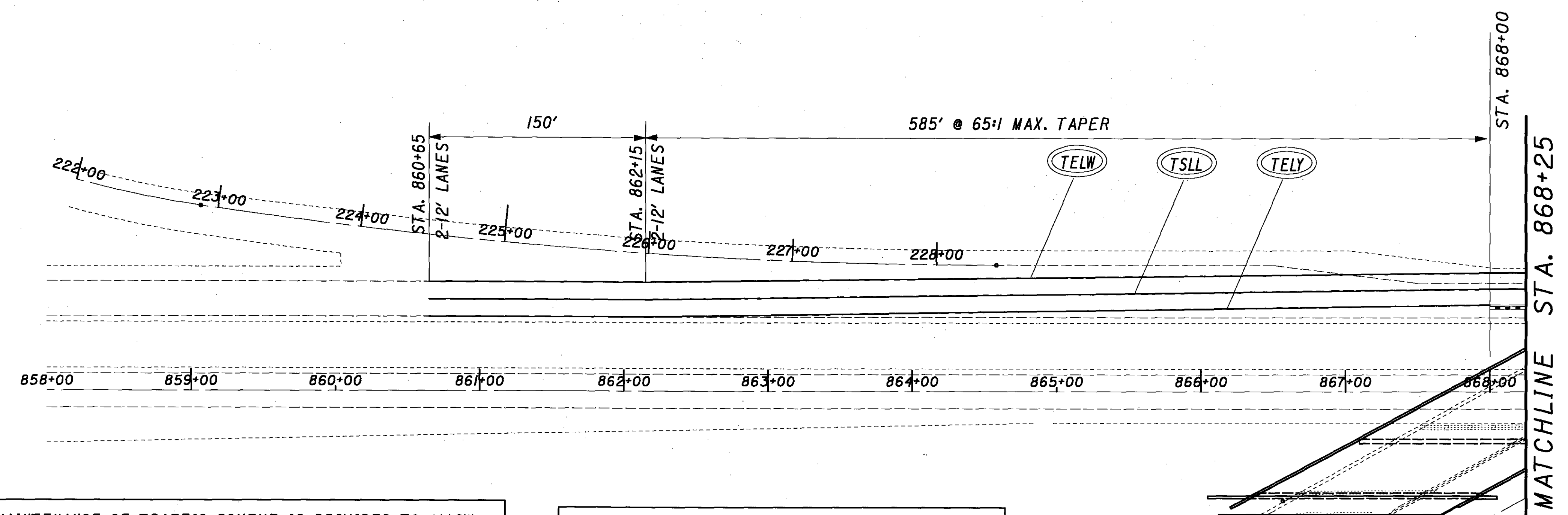
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC - STAGE 2 - PHASE 2
IR76 WESTBOUND

MED-71-6.06

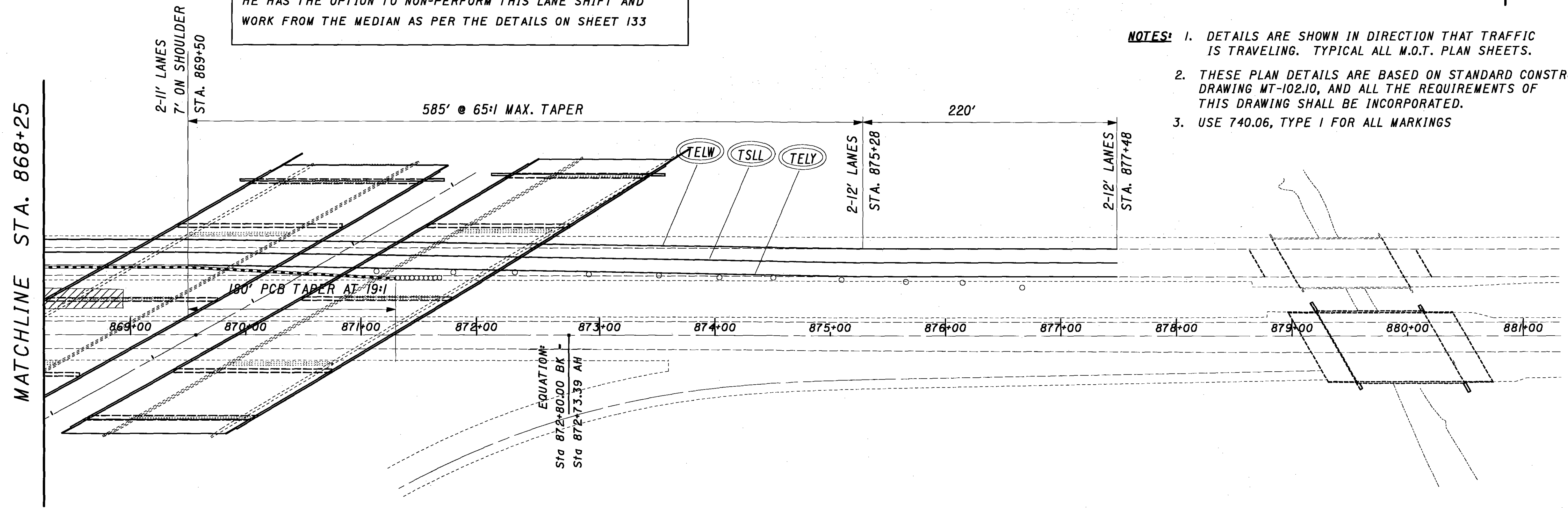
133B
1120



THIS MAINTENANCE OF TRAFFIC SCHEME IS PROVIDED TO ALLOW FOR THE PLACEMENT OF A CRANE, SET PERPENDICULAR TO THE CENTERLINE, TO ALLOW FOR DRIVING BATTERED PILES. IF THE CONTRACTOR DOES NOT NEED TO SET THE CRANE PERPENDICULAR HE HAS THE OPTION TO NON-PERFORM THIS LANE SHIFT AND WORK FROM THE MEDIAN AS PER THE DETAILS ON SHEET 133

THIS MAINTENANCE OF TRAFFIC SCHEME SHALL BE IMPLEMENTED FOR A MAXIMUM OF 14 DAYS. THEN SWITCH TO DETAIL ON SHEET 133.

- NOTES:**
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
 2. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED.
 3. USE 740.06, TYPE 1 FOR ALL MARKINGS

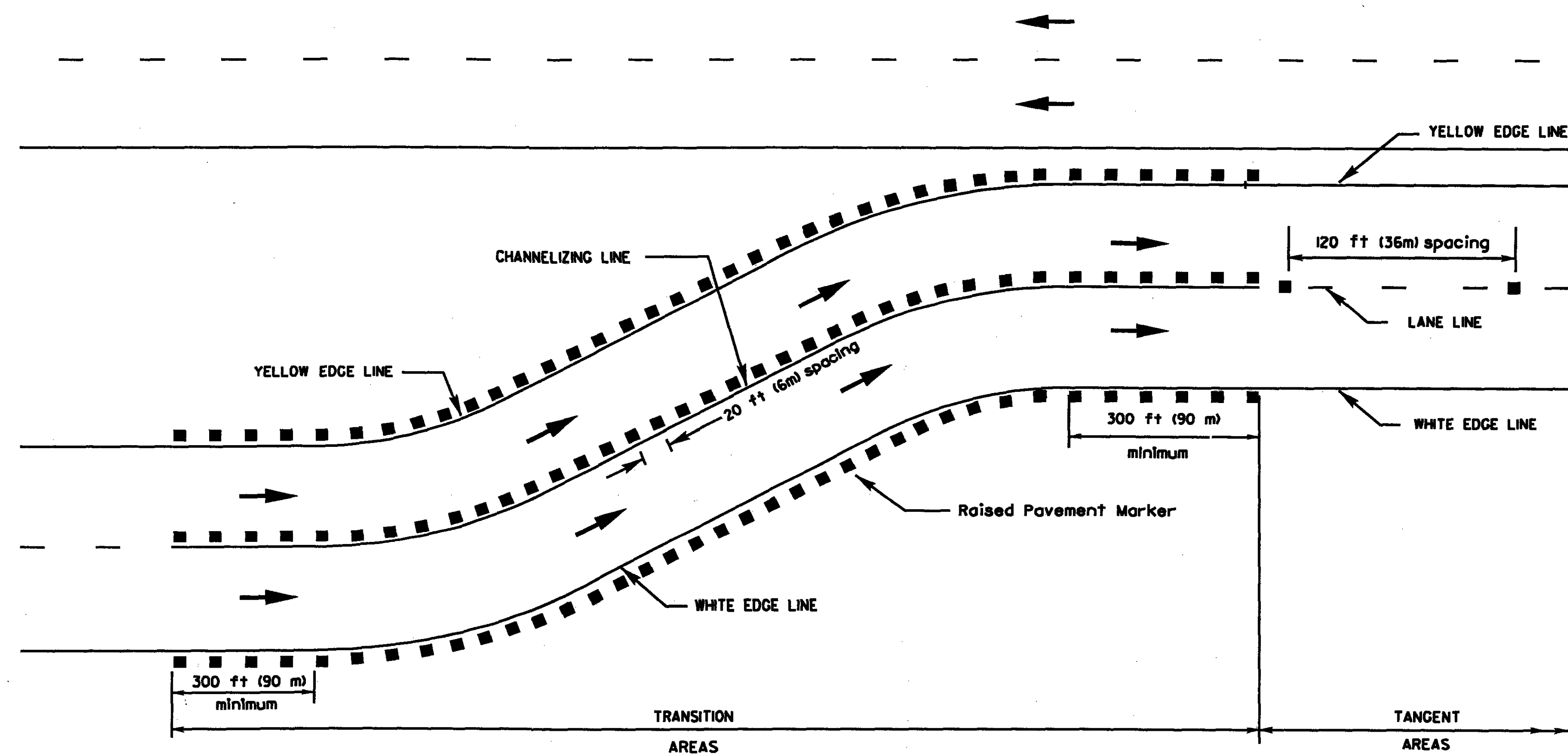


- LEGEND**
- (TELW) - Temporary Edge Line, White, 740.06 Type 1
 - (TELY) - Temporary Edge Line, Yellow, 740.06, Type 1
 - (TSSL) - Temporary Solid Lane Line, 740.06 Type 1
 - (TLL) - Temporary Lane Line, 740.06 Type 1
 - - 32" Portable Concrete Barrier, 1' Offset to Edge Line (Typ.) Unless shown otherwise
 - o o - Drums @ 60' c/c unless shown otherwise, 1' min' offset to edge line, (provide larger offset when shown)
 - - Work Zone Impact Attenuator
 - ▨ - Area of Construction During This Phase

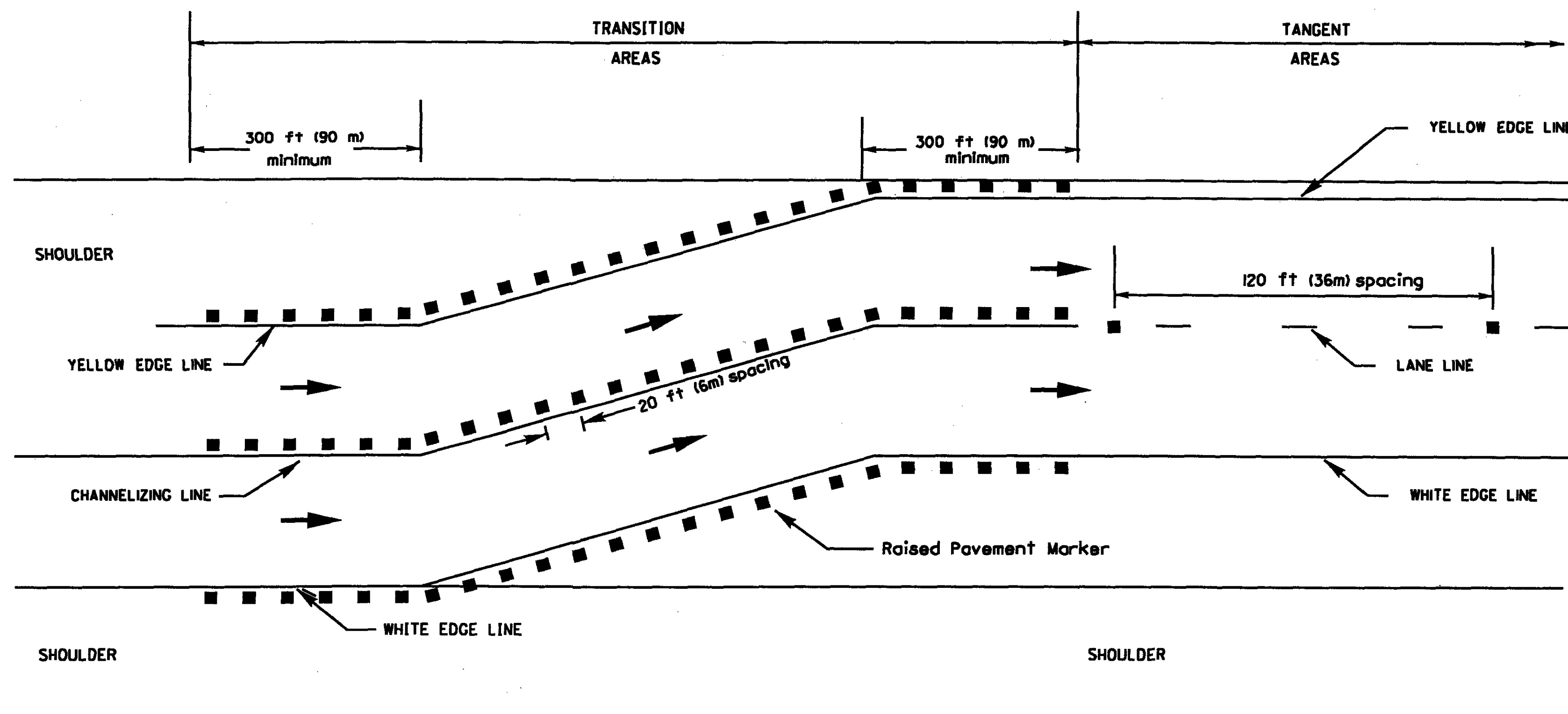
...175657MPK.dgn

NOTES

1. This drawing presents delineation procedures for freeways and expressways on asphalt surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. Raised Pavement Markers shall meet the following seasonal specifications:
 - a) Raised Pavement Markers in place during the normal construction season may be either 621 Raised Pavement Markers or 614 Work Zone Raised Pavement Markers (WZRPMS). The normal construction season with regard to use of WZRPMS shall be the period from April 1 through October 15.
 - b) At locations where it is intended that Raised Pavement Markers will winter over, 621 Raised Pavement Markers shall be provided.
 - c) At locations where it is intended that work will continue beyond October 15 but will be completed prior to the beginning of snow-plowing season, 614 WZRPMS may remain in place until such time. Snow-plowing season shall be as specified in the plans. If snow-plowing season is not specified in the plans, it shall be assumed that snow-plowing season runs from October 16 through March 31. If project delays, not the fault of ODOT, cause work to extend into the snow-plowing season, the contractor shall be responsible for replacing WZRPMS with 621 Raised Pavement Markers, as determined by the Engineer, at the contractor's expense.
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of raised pavement markers (RPMs) shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas RPMs shall be provided only along the lane lines, spaced at 120 foot (36 m) center-to-center.
7. The RPMs shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the RPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the RPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the RPMs shall be centered between dashes.
9. The RPMs shall be removed when they are no longer appropriate.
10. Holes resulting from removal of 621 RPMs shall be filled as per 202.10. If removal of the 621 RPMs does not take place immediately after the highlighted alignment becomes invalid, the reflectors within the 621 RPMs shall be removed.
11. Following removal of 621 RPMs resurfacing of the transition shall be performed. The resurfacing shall be performed at the time the surface course is being applied. In preparation for resurfacing, the existing pavement shall be removed to a depth necessary to match the level of the intermediate course of the proposed pavement.



WORK ZONE DELINEATION FOR CROSSOVERS



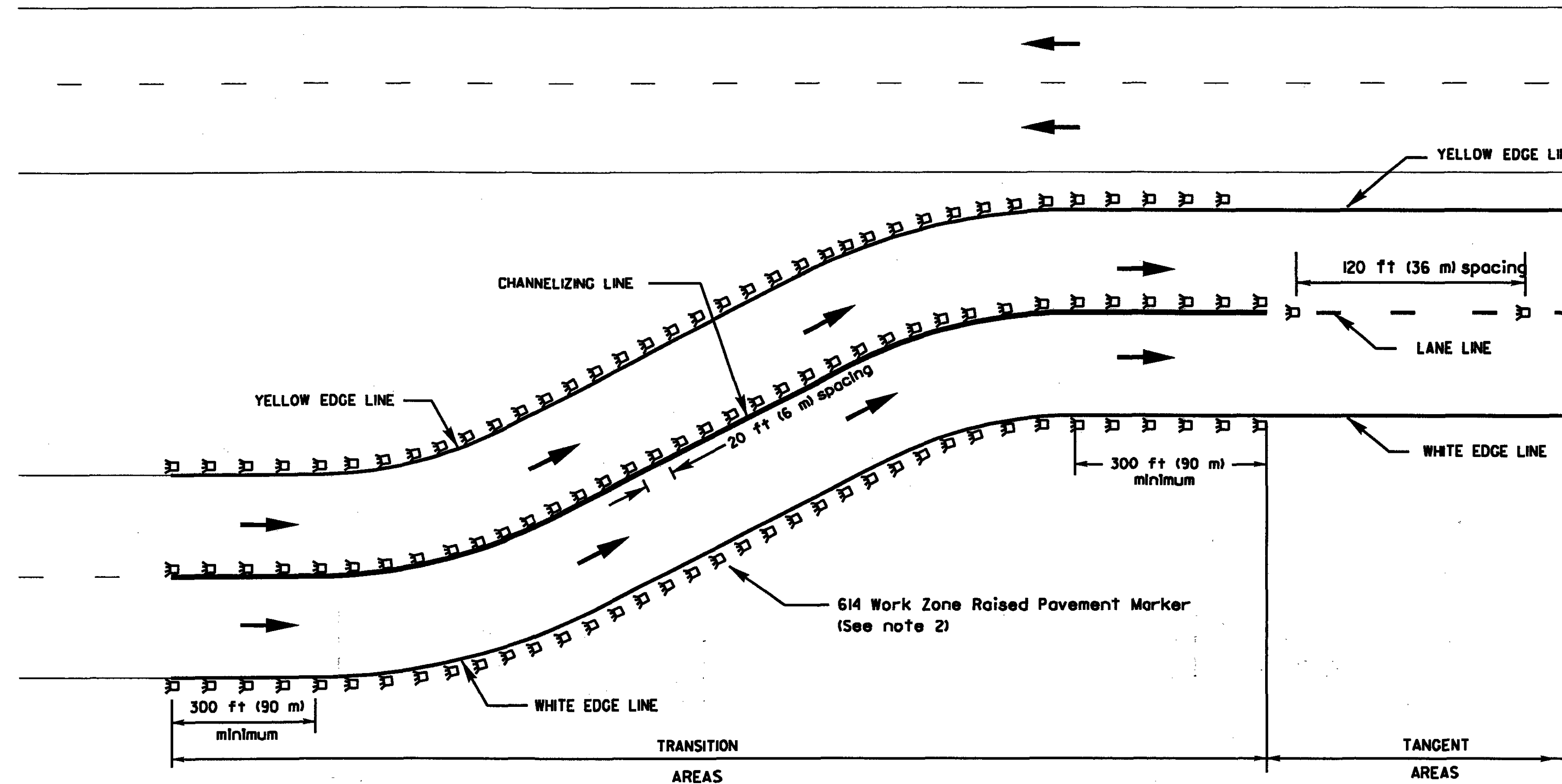
WORK ZONE DELINEATION FOR LANE SHIFTS

LEGEND

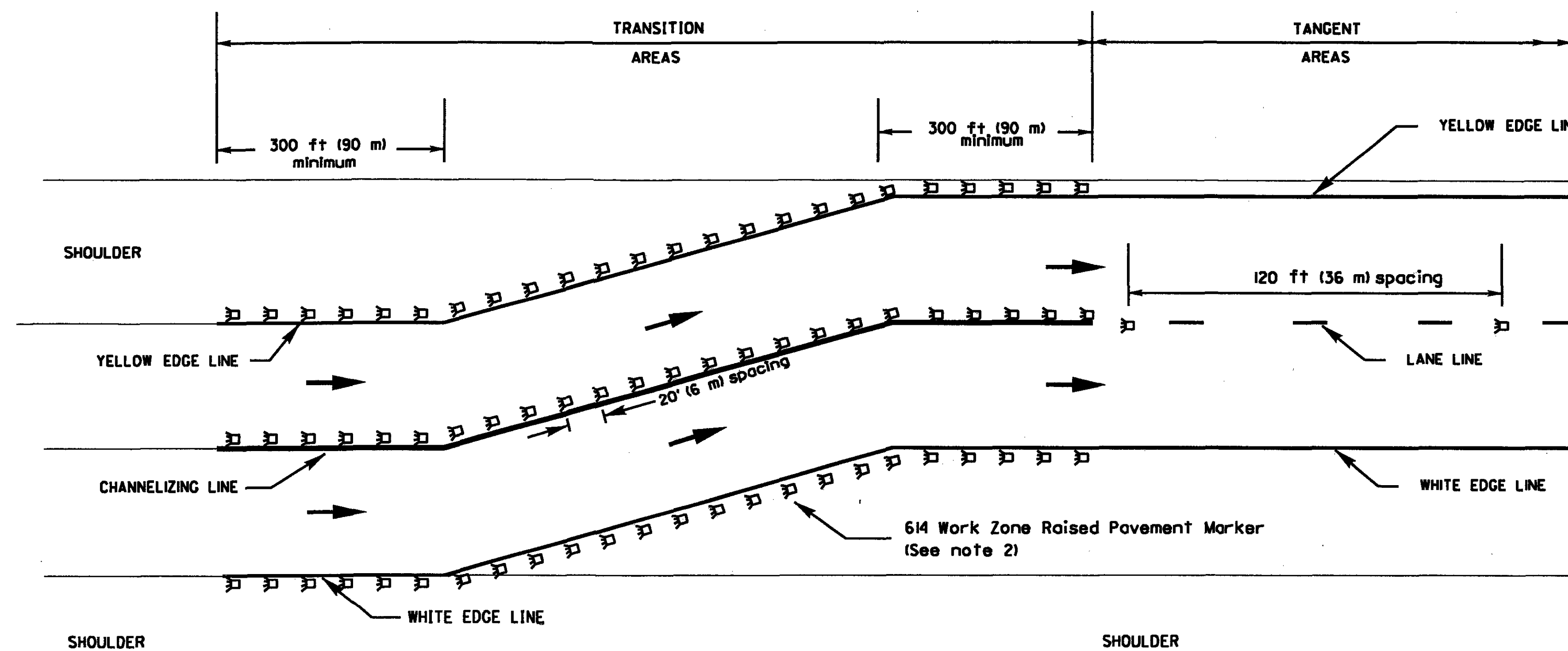
- RPM
- ➔ DIRECTION OF TRAVEL

NOTES

1. This drawing presents delineation procedures for freeways and expressways on concrete surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. The Work Zone Raised Pavement Markers (WZRPMS) shown on this drawing are intended for use only during the non-snow-plowing season. WZRPMS shall not be provided during the snow-plowing season. The snow-plowing season shall be from October 16 through March 31 or as otherwise specified in the plans. Where a temporary alignment will remain in use through the winter, the WZRPMS shall be removed prior the beginning of snow-plowing season and replaced approximately April 1, or as otherwise determined by the Engineer.
3. All material furnished shall be listed on the Department's Qualified Products Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of WZRPMS shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas WZRPMS shall be provided only along the lane lines, spaced at 120 feet (36 m) center-to-center.
7. The WZRPMS shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the WZRPMS shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the WZRPMS shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the WZRPMS shall be centered between dashes.
9. The WZRPMS shall be removed when they are no longer appropriate.





WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

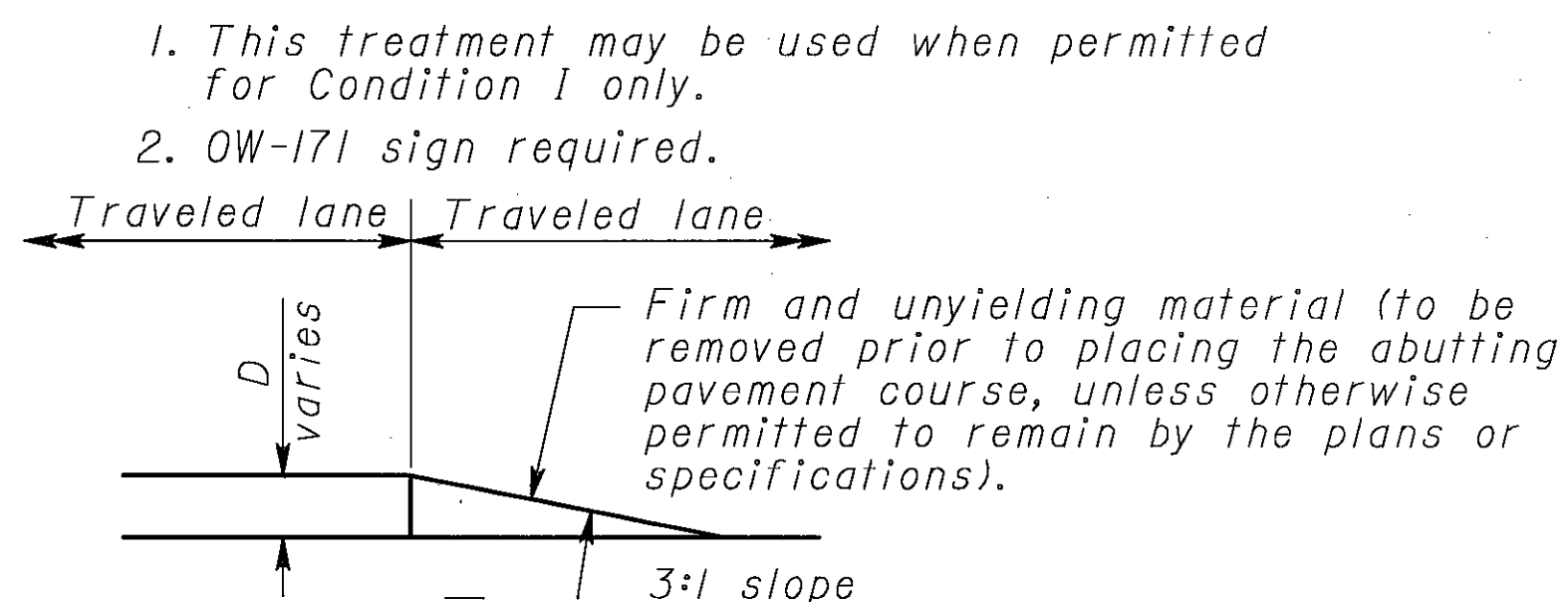
LEGEND

-  WORK ZONE RPM, TYPE A
-  DIRECTION OF TRAVEL

GENERAL NOTES

- It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. The suggested treatments are intended for high volume projects that will last at least seven days and have an active work zone 1 mile [1.6 km] or less in length. For guidance on the use of this sheet, see L&D Manual Volume One, Section 500. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for **Item 614 - Maintaining Traffic**.
- While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
- In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
- The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
- Where concrete barrier is specified, it shall be in accordance with **SCD RM-4.2** and Item 622.
- When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- When OW-151 (Low Shoulder) signs or OW-155 (Shoulder Drop-Off) signs or OW-171 (Uneven Lanes) signs are required, they shall be placed 750' [230 m] in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than 0.5 mile [800 m], additional signs should be erected at intervals of 1.0 mile [1600 m] or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate a difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10' [3.0 m], drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" [125] and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
 - Lengths greater than 60' [18 m] - utilize appropriate treatment from Condition I.
 - Lengths of 60' [18 m] or less - repairs shall be effected in accordance with CMS 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT (MILLING OR RESURFACING)



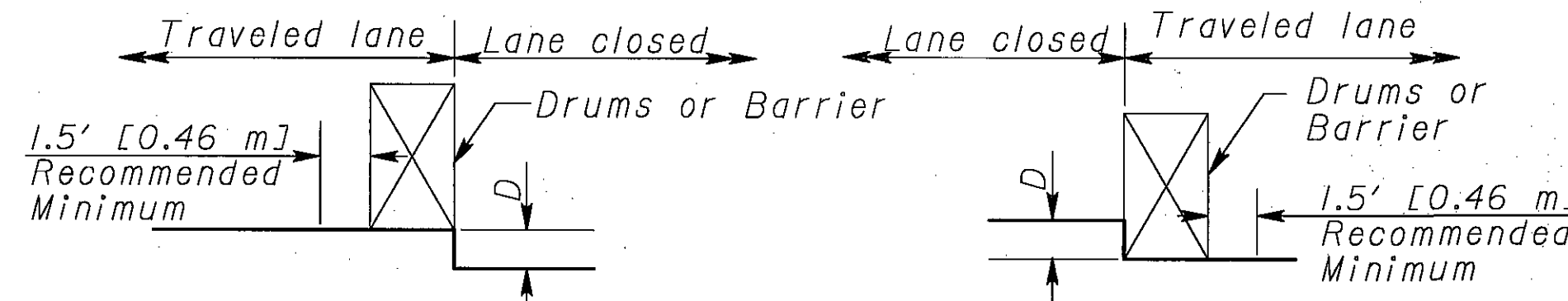
CONDITION I

DROP-OFFS BETWEEN TRAVELED LANES

- These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D	Treatment
≤ 1/2" [≤40]	Erect OW-171 sign.
1/2"-3" [40-75]	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
>3"-5" [75-125]	Lane closure utilizing drums as shown below.
>5" [125]	Lane closure utilizing portable concrete barrier as shown below.

* Cones may be used for daytime only conditions.



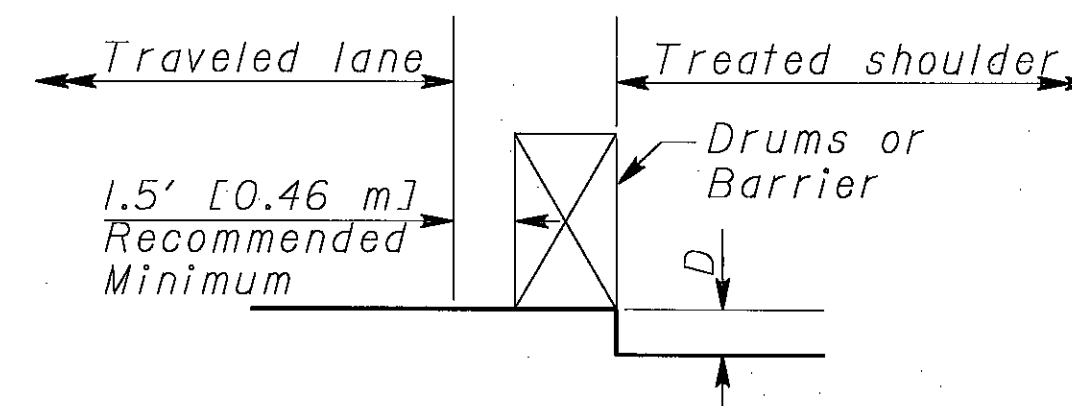
CONDITION II

DROP-OFFS WITHIN GRADED SHOULDER AREA

- The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials or concrete). For the purpose herein, its maximum width shall be considered to be 12' [3.6 m].

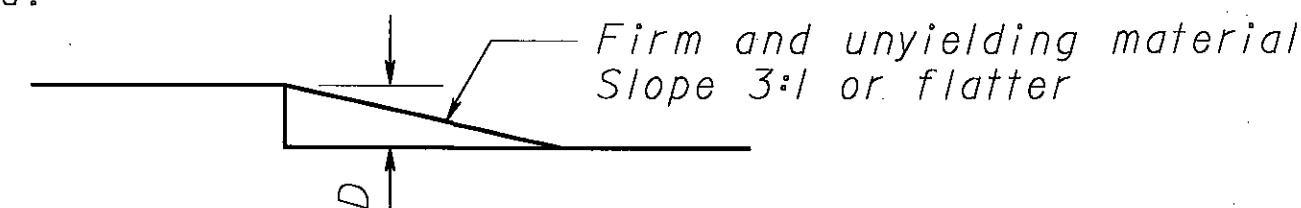
D	Treatment
≤ 1/2" [≤40]	1) Erect OW-155 signs.
> 1/2"-5" [40-125]	1) If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
>5"-12" [125-305] Daylight only	If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below.
>5"-24" [125-610]	1) If minimum lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums.
>24" [610]	Lane closure utilizing portable concrete barrier as shown below.

* Minimum lane widths shall be 10' [3.0 m] unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

- This treatment may not be used within a bituminous shoulder where a hot longitudinal joint per CMS 401.15 is required.
- OW-151 signs required.



CONDITION III

DROP-OFFS BEYOND GRADED SHOULDER OR BACK OF CURB

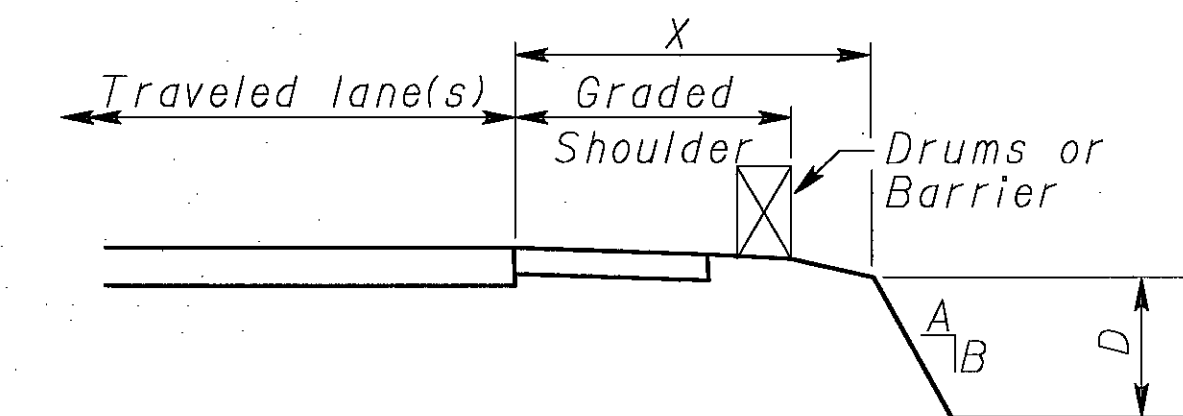
- See Note 2 under Condition II.
- Use Chart A or B below, as applicable.

CHART A

USE FOR: 1. Uncurbed Facilities.

2. Curbed Facilities, where:

- Curbs are less than 6" [150] in height.
- Curbs are 6" [150] or greater in height and the legal speed is greater than 40 mph [70 km/h].

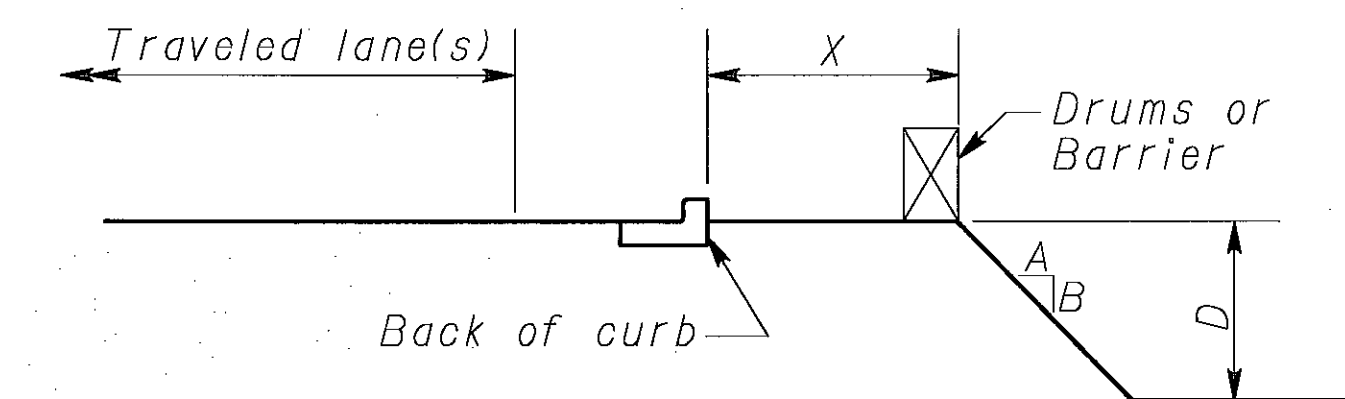


X	D	A/B	Treatment Required	
			Day	Night
0-4' [0-1.2 m]	Any	Any	(a)	(a)
4'-30' [1.2-9.1 m]	Any	3:1 or Flatter	None	None
4'-12' [1.2-3.6 m]	≤ 3" [≤75]	Steeper than 3:1	None	None
4'-12' [1.2-3.6 m]	>3"-≤12" [75-≤305]	Steeper than 3:1	Drums	Drums
4'-12' [1.2-3.6 m]	>12" [≤305]	Steeper than 3:1	Drums	Barrier
>12'-20' [3.6-6.1 m]	<12" [≤305]	Steeper than 3:1	None	None
>12'-20' [3.6-6.1 m]	>12"-≤24" [305-≤610]	Steeper than 3:1	Drums	Drums
>12'-20' [3.6-6.1 m]	>24" [610]	Steeper than 3:1	Drums	Barrier
>20'-30' [6.1-9.1 m]	<24" [610]	Steeper than 3:1	None	None
>20'-30' [6.1-9.1 m]	>24" [610]	Steeper than 3:1	Drums	Barrier
>30' [9.1 m]	Any	Any	None	None

(a) Use treatment specified under Condition II.

CHART B

USE FOR: Curbed facilities, where the curb is 6" [150] or greater in height and the legal speed is 40 mph [70 km/h] or less.



X	D	A/B	Treatment Required	
			Day	Night
0-10' [0-3.0 m]	<12" [≤305]	Any	None	Drums
0-10' [0-3.0 m]	>12" [≥305]	Any	Drums	Drums
>10' [≥3.0 m]	Any	Any	None	None

NOTE: All metric dimensions (in brackets []) are in millimeters unless otherwise noted.

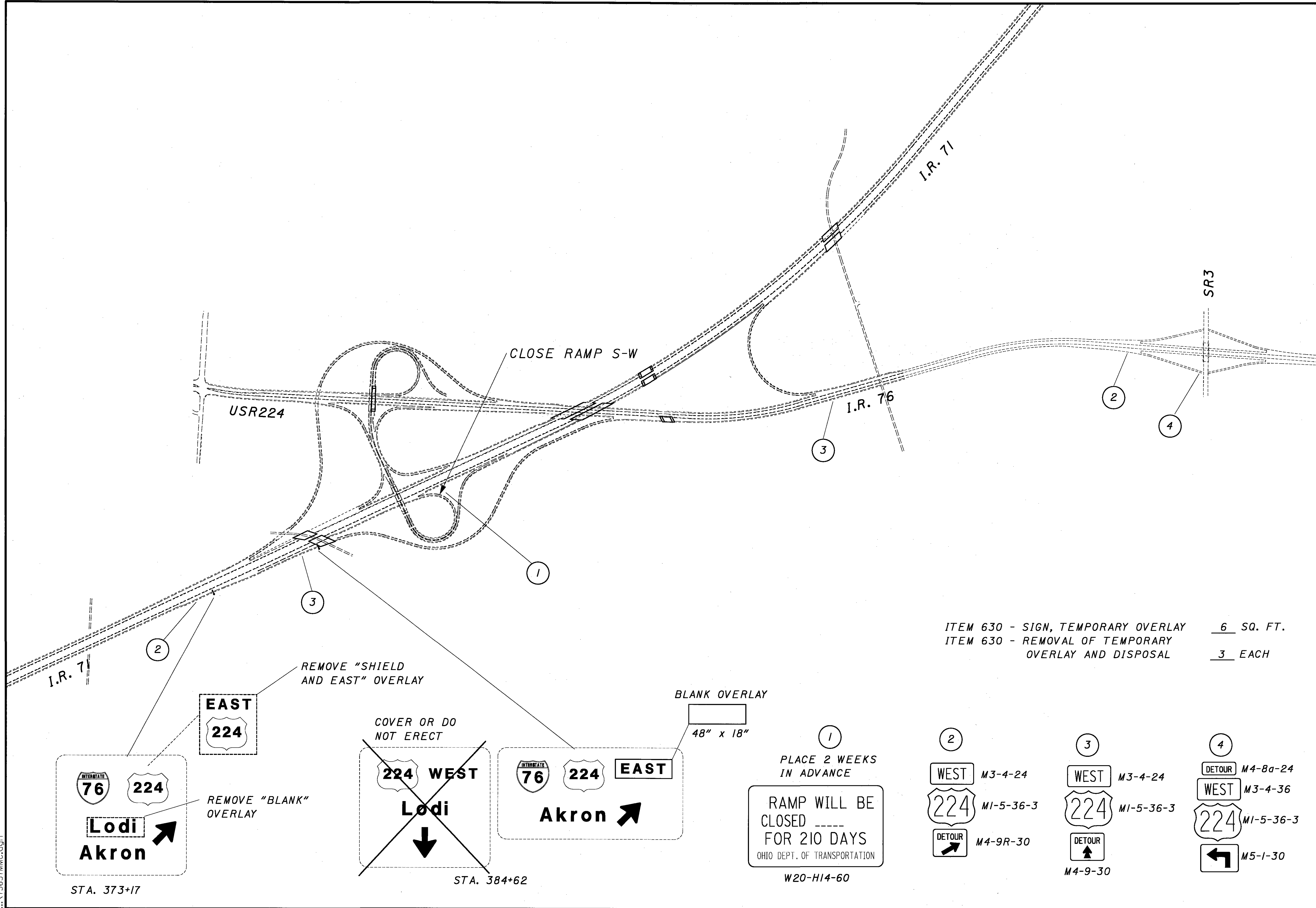


HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

DETOUR PLAN
STAGE 2 - PHASE 1

MED-71-6.06



ITEM 630 - SIGN, TEMPORARY OVERLAY 6 SQ. FT.
 ITEM 630 - REMOVAL OF TEMPORARY OVERLAY AND DISPOSAL 3 EACH

REMOVE "BLANK" OVERLAY

EAST
224

INTERSTATE 76 224

Lodi ↗
Akron

STA. 373+17

COVER OR DO NOT ERECT

~~224 WEST~~

Lodi ↓

STA. 384+62

BLANK OVERLAY
48" x 18"

INTERSTATE 76 224 **EAST**

Akron ↗

1

PLACE 2 WEEKS IN ADVANCE

RAMP WILL BE CLOSED FOR 210 DAYS

OHIO DEPT. OF TRANSPORTATION

W20-H14-60

2

WEST M3-4-24

224 MI-5-36-3

DETOUR ↗ M4-9R-30

3

WEST M3-4-24

224 MI-5-36-3

DETOUR ↑ M4-9-30

4

DETOUR M4-8a-24

WEST M3-4-36

224 MI-5-36-3

DETOUR ↙ M5-1-30

...75657MMC.dgn



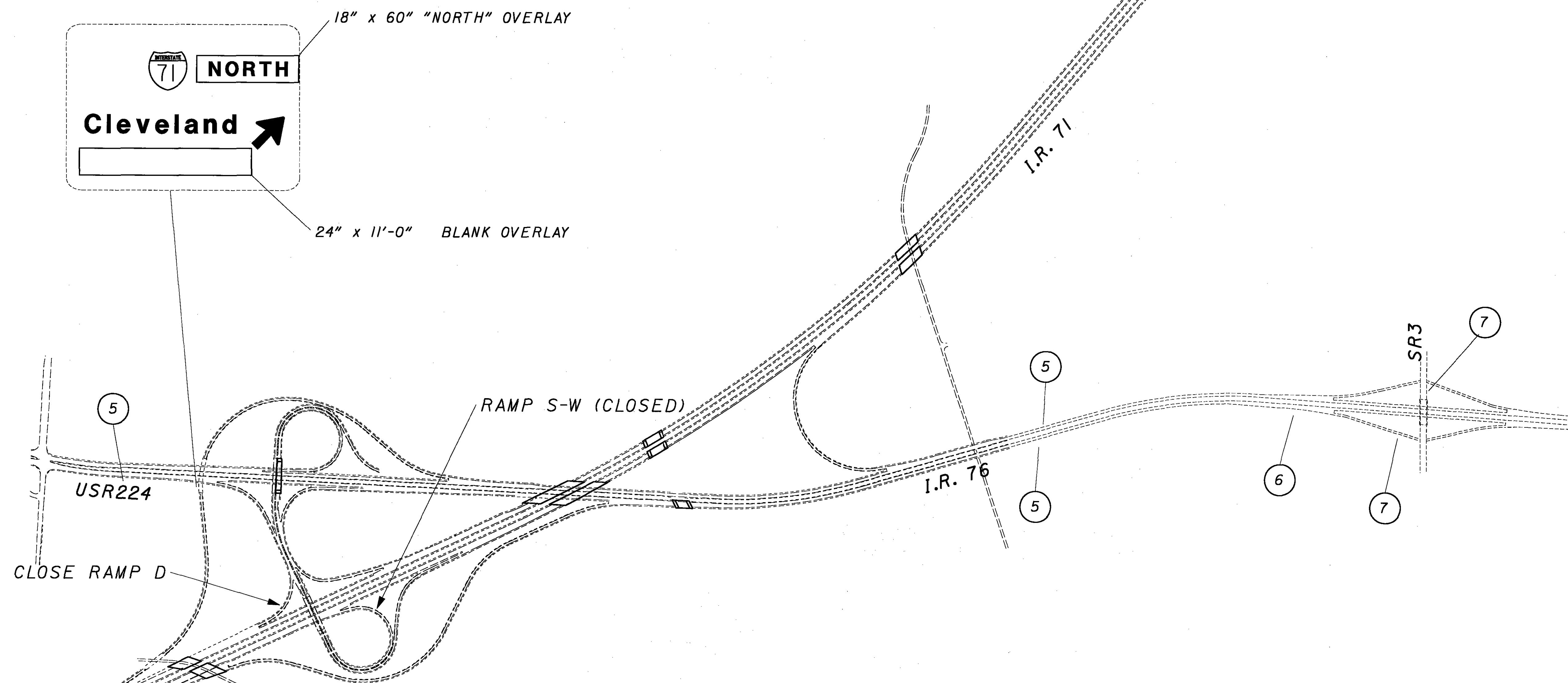
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

DETOUR PLAN
STAGE 2 - PHASE 2

MED-71-6.06

135
1120



ITEM 630 - SIGN, TEMPORARY OVERLAY 29.5 SQ. FT.
 ITEM 630 - REMOVAL OF TEMPORARY OVERLAY AND DISPOSAL 2 EACH

- | | | |
|-------------------------|-------------------------|-------------------------|
| 5 | 6 | 7 |
| SOUTH M3-3-36 | SOUTH M3-3-36 | DETOUR OM-23-24 |
| INTERSTATE 71 MI-1-36-2 | INTERSTATE 71 MI-1-36-2 | SOUTH M3-3-36 |
| DETOUR M4-9-30 | DETOUR M4-9R-30 | INTERSTATE 71 MI-1-36-2 |
| | | M5-1-30 |

...75657MMC.dgn



HORIZONTAL SCALE IN FEET

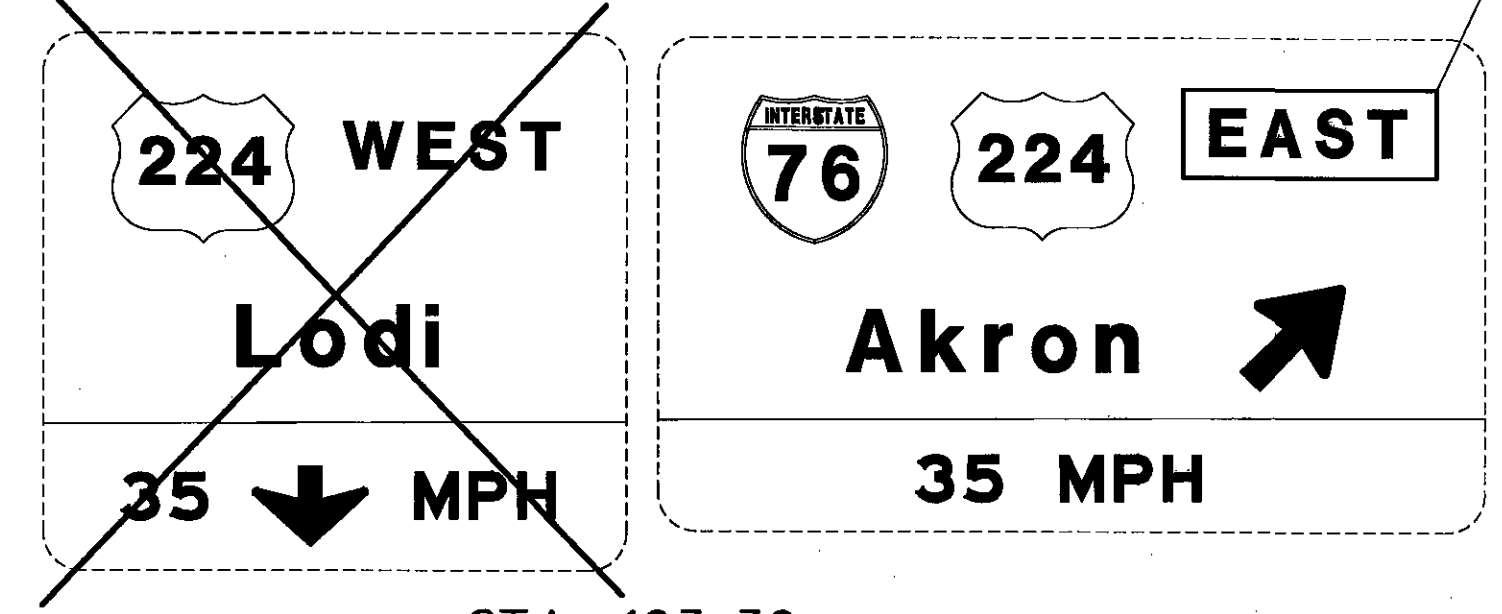
CALCULATED
CHECKED

DETOUR PLAN
STAGE 2 - PHASE 2B

MED-71-6.06

136
1120

COVER OR DO NOT ERECT

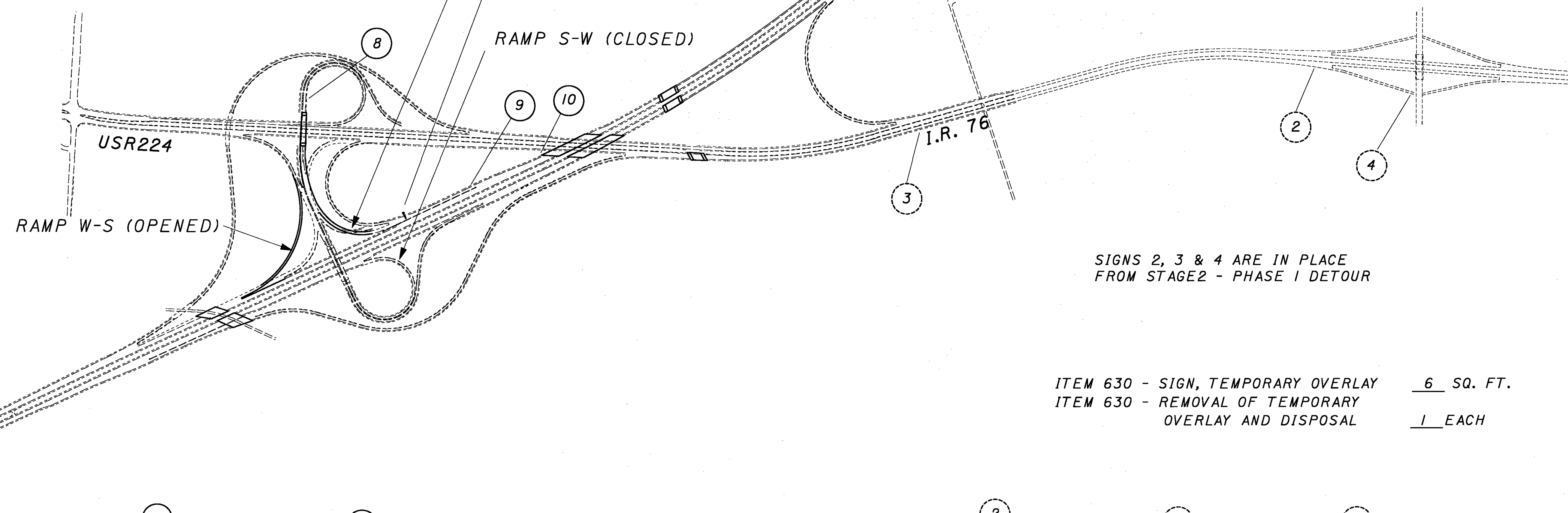


STA. 403+30

CLOSE RAMP N-W

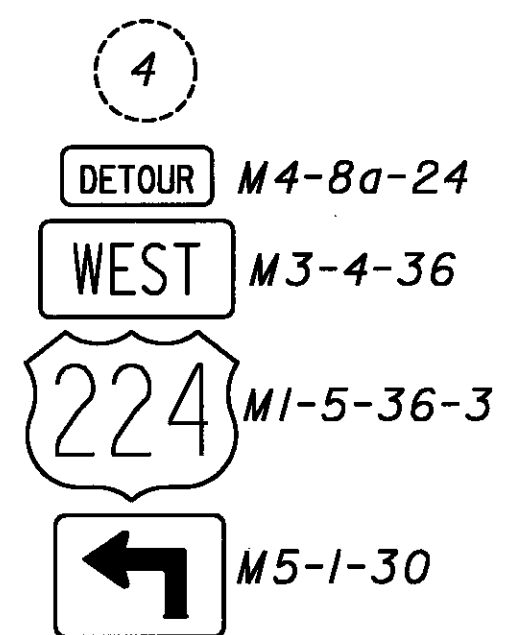
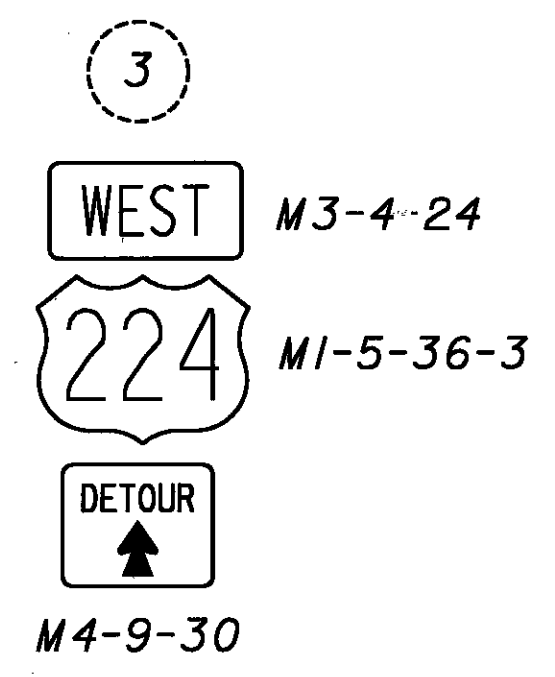
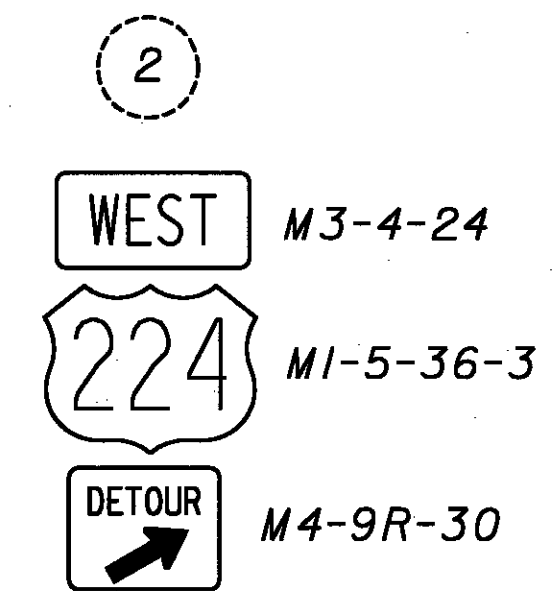
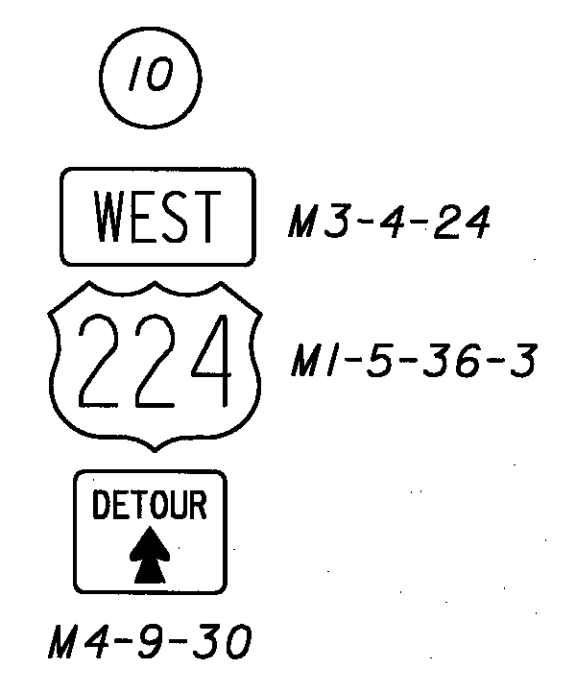
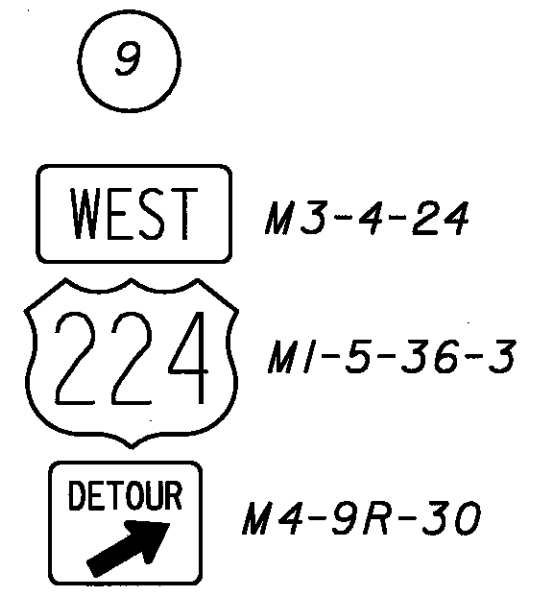
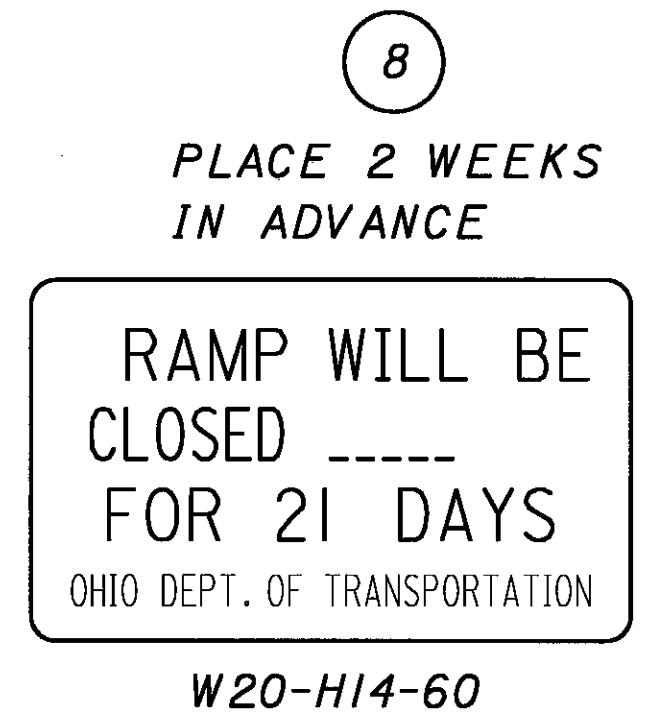
RAMP S-W (CLOSED)

RAMP W-S (OPENED)

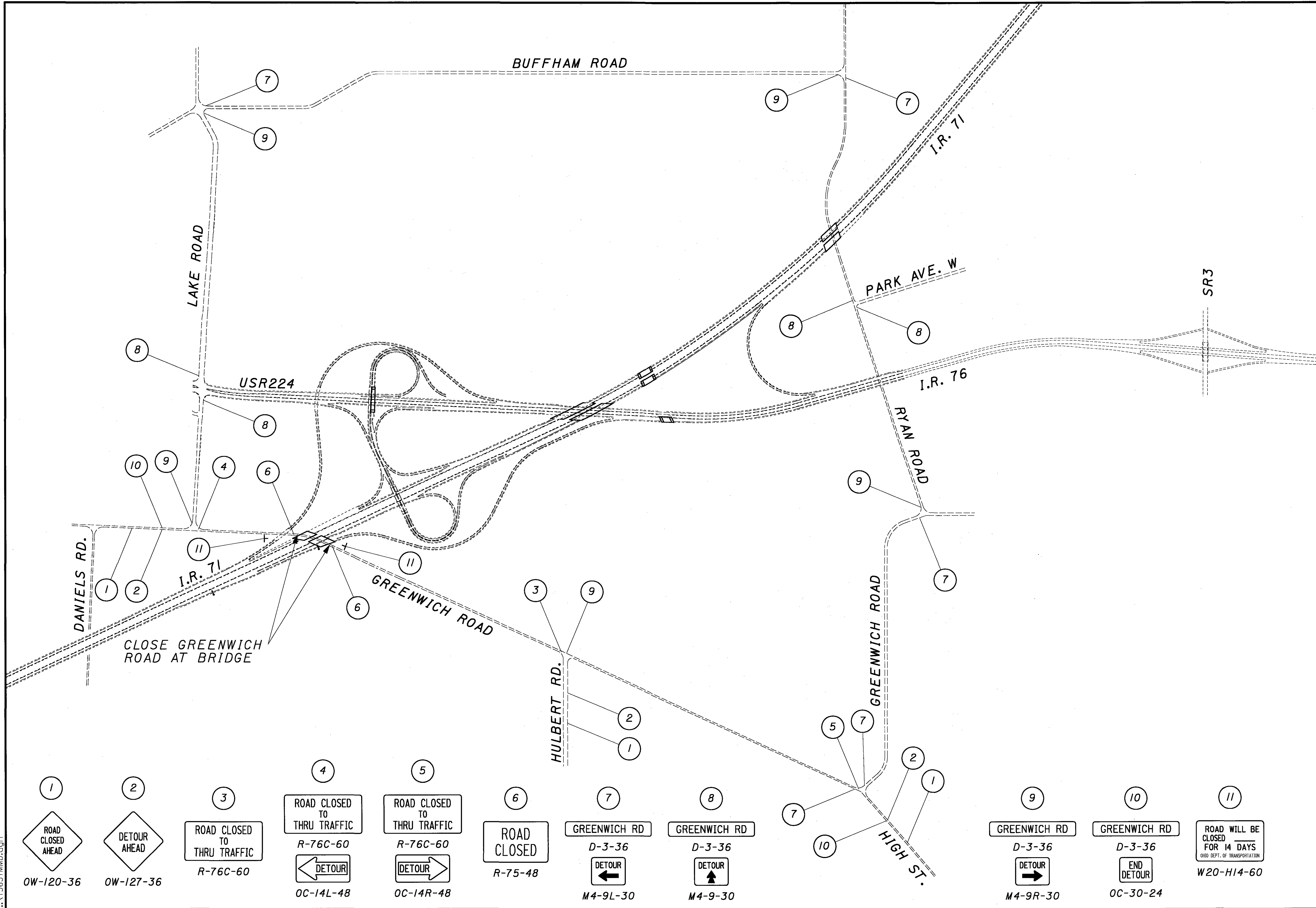


SIGNS 2, 3 & 4 ARE IN PLACE FROM STAGE 2 - PHASE 1 DETOUR

ITEM 630 - SIGN, TEMPORARY OVERLAY 6 SQ. FT.
ITEM 630 - REMOVAL OF TEMPORARY OVERLAY AND DISPOSAL 1 EACH



...75657MMC.dgn



DETOUR PLAN
GREENWICH ROAD

MED-71-6.06

75657MMD.dgn

1
ROAD CLOSED AHEAD
OW-120-36

2
DETOUR AHEAD
OW-127-36

3
ROAD CLOSED TO THRU TRAFFIC
R-76C-60

4
ROAD CLOSED TO THRU TRAFFIC
R-76C-60
DETOUR
OC-14L-48

5
ROAD CLOSED TO THRU TRAFFIC
R-76C-60
DETOUR
OC-14R-48

6
ROAD CLOSED
R-75-48

7
GREENWICH RD
D-3-36
DETOUR
M4-9L-30

8
GREENWICH RD
D-3-36
DETOUR
M4-9-30

9
GREENWICH RD
D-3-36
DETOUR
M4-9R-30

10
GREENWICH RD
D-3-36
END DETOUR
OC-30-24

11
ROAD WILL BE CLOSED FOR 14 DAYS
OHIO DEPT. OF TRANSPORTATION
W20-H14-60



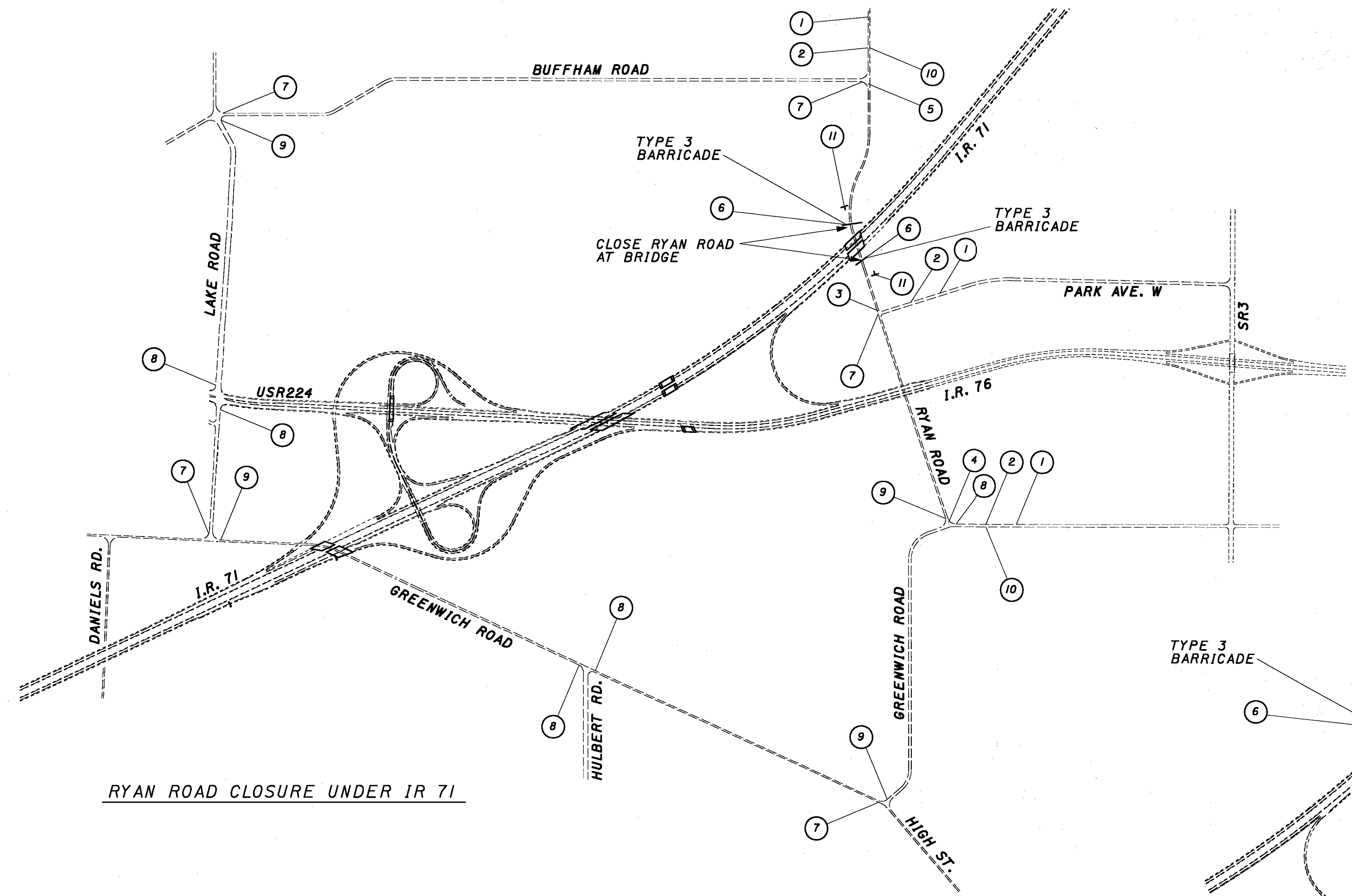
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

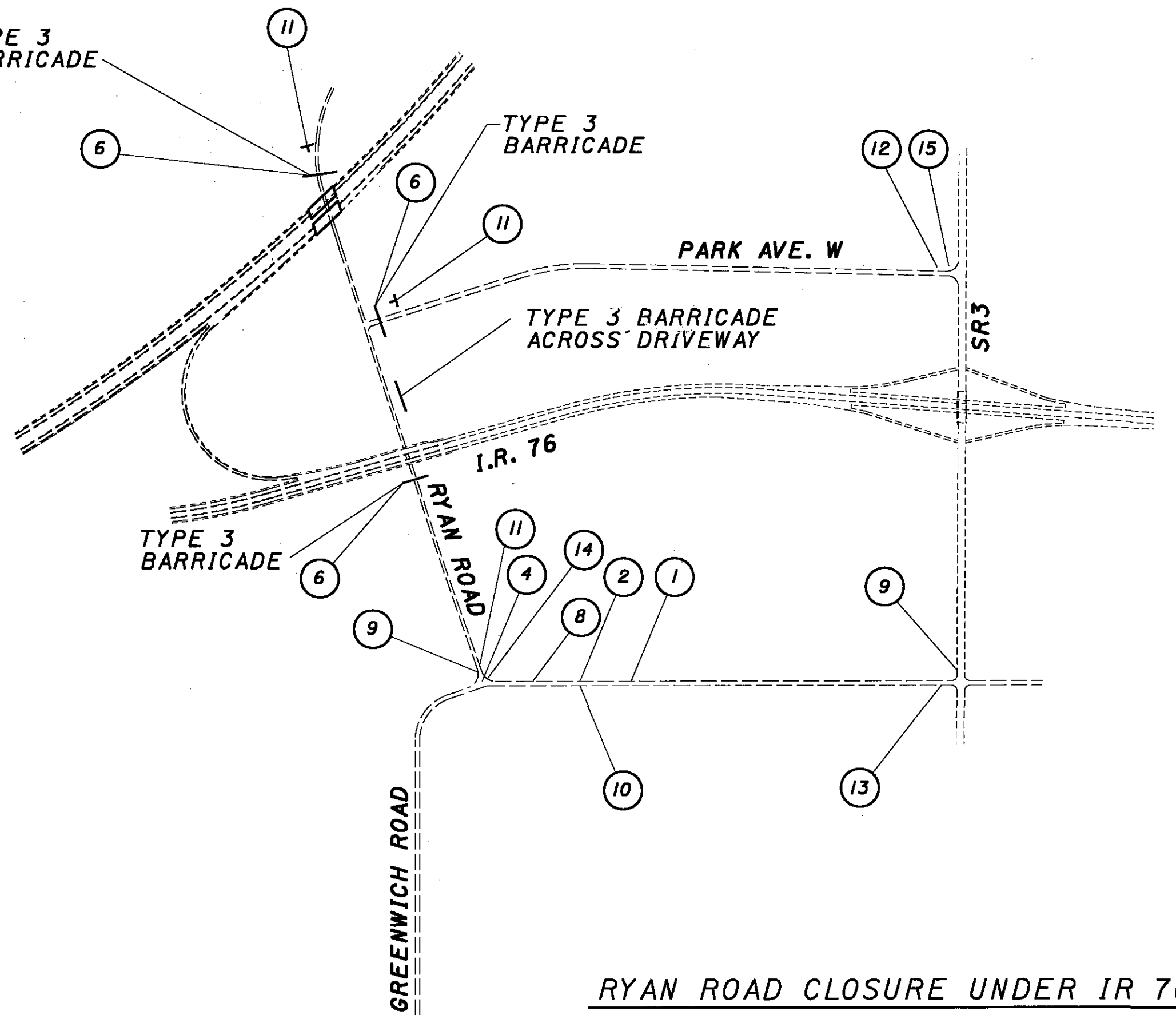
DETOUR PLAN
RYAN ROAD

MED-71-6.06

136B
1120



RYAN ROAD CLOSURE UNDER IR 71



RYAN ROAD CLOSURE UNDER IR 76
30 DAYS CONCURRENTLY WITH
CLOSURE UNDER IR 71

- | | | | | | | | |
|--|---|---|---|---|--|---|---|
| 1
ROAD CLOSED AHEAD
OW-120-36 | 2
DETOUR AHEAD
OW-127-36 | 3
ROAD CLOSED TO THRU TRAFFIC
R-76C-60 | 4
ROAD CLOSED TO THRU TRAFFIC
R-76C-60
OC-14L-48
← DETOUR | 5
ROAD CLOSED TO THRU TRAFFIC
R-76C-60
OC-14R-48
DETOUR → | 6
ROAD CLOSED
R-75-48 | 7
RYAN RD
D-3-36
DETOUR ←
M4-9L-30 | 8
RYAN RD
D-3-36
DETOUR →
M4-9-30 |
| 9
RYAN RD
D-3-36
DETOUR →
M4-9R-30 | 10
RYAN RD
D-3-36
END DETOUR
OC-30-24 | 11
ROAD WILL BE CLOSED FOR 14 DAYS
OHIO DEPT. OF TRANSPORTATION
W20-H14-60 | 12
ROAD CLOSED AT RYAN RD
R-76-MODIFIED | 13
TO
M4-5
PARK AVE
D-3-36
DETOUR ←
M4-9L-30 | 14
TO
M4-5
PARK AVE
D-3-36
DETOUR →
M4-9R-30 | 15
TO
M4-5
RYAN RD
D-3-36
DETOUR ←
M4-9L-30 | |

75657MMD.dgn

SHEET NUMBER																FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
35	37	67	67C	69	79	80	82	148	149	159	160	160A	527	528	560	IM	NHS								
								DRAINAGE CONTINUED																	
									1					1			2		604	04500	2	EACH	CATCH BASIN, NO. 2-2B		
									2								2		604	09000	2	EACH	CATCH BASIN ADJUSTED TO GRADE		
									3								2	1	604	09500	3	EACH	CATCH BASIN RECONSTRUCTED TO GRADE		
									2								2		604	10900	2	EACH	MEDIAN INLET, NO. 2-6		
									5								4	1	604	31500	5	EACH	MANHOLE, NO. 3		
									1								1		604	32101	1	EACH	MANHOLE NO. 5, AS PER PLAN	495	
									1								1		604	34500	1	EACH	MANHOLE ADJUSTED TO GRADE		
									2								2		604	35500	2	EACH	MANHOLE RECONSTRUCTED TO GRADE		
									37								30	7	604	36600	37	EACH	PRECAST REINFORCED CONCRETE OUTLET		
									4571								4626	1156	605	05200	5782	FT	4" UNCLASSIFIED PIPE UNDERDRAINS, 707.31 OR 707.41		
									81485								69046	17262	605	06000	86308	FT	4" BASE PIPE UNDERDRAINS, 707.31 OR 707.41		
572									97357								77886	19471	605	11100	97357	FT	6" SHALLOW PIPE UNDERDRAINS, 707.31 OR 707.41		
									4021								3217	804	605	13300	4021	FT	6" UNCLASSIFIED PIPE UNDERDRAINS, 707.31 OR 707.41		
								624									499	125	605	31100	624	FT	AGGREGATE DRAINS		
								PAVEMENT																	
			107														86	21	253	02000	107	CU YD	PAVEMENT REPAIR		
1245		24094	40676		2341	2051	1764				1405	60868					107555	26889	254	01000	134444	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE		
		3057			390	203	1200						1517				5094	1273	301	46000	6367	CU YD	ASPHALT CONCRETE BASE, PG64-22		
		644			19												530	133	301	46001	663	CU YD	ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN	35	
											3945						3156	789	302	46000	3945	CU YD	ASPHALT CONCRETE BASE, PG64-22		
											85498	1821		3527			72677	18169	304	20000	90846	CU YD	AGGREGATE BASE		
		1807	3050		176	154						6087	910				9747	2437	407	10000	12184	GALLON	TACK COAT		
												466	443				727	182	407	14000	909	GALLON	TACK COAT FOR INTERMEDIATE COURSE		
													474				379	95	408	10000	474	GALLON	PRIME COAT		
													77				62	15	411	10001	77	CU YD	STABILIZED CRUSHED AGGREGATE, AS PER PLAN	35	
													493				394	99	446	46040	493	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28		
													484	2536			2416	604	446	50000	3020	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H		
														55				44	11	448	46024	55	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (DRIVEWAYS)	
													493				394	99	448	46050	493	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22		
		1004	1818			86							370				2622	656	448	47010	3278	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-28		
													39				31	8	448	48020	39	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)		
												60						48	12	SPECIAL	45130000	60	FT	PRESSURE RELIEF JOINT, TYPE A	
											5215						4172	1043	452	15000	5215	SO YD	12" NON-REINFORCED CONCRETE PAVEMENT		
													340	38			302	76	609	26000	378	FT	CURB, TYPE 6		
													692				554	138	609	72000	692	SO. YD.	CONCRETE MEDIAN		
														16.05			12.84	3.21	618	40600	16.05	MILE	RUMBLE STRIPS (ASPHALT CONCRETE)		
61																	87875	21969	880	15000	109844	CU YD	ASPHALT CONCRETE (7 YEAR WARRANTY)		
								WATER WORK																	
														18				14	4	638	00904	18	FT	6" WATER MAIN DUCTILE IRON ANCHORING PIPE AND FITTINGS (ANSI CLASS 52)	
																		1		638	10600	1	EACH	FIRE HYDRANT AND GATE VALVE REMOVED AND RESET	
																		1		638	10801	1	EACH	VALVE BOX, ADJUSTED TO GRADE, AS PER PLAN A	527
																		1		638	10801	1	EACH	VALVE BOX, ADJUSTED TO GRADE, AS PER PLAN B	527

GENERAL SUMMARY

MED-71-6.06

SHEET NUMBER																		FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
59	60	61	62	63	64	79	81	82	83	84	85	86	114	123	130	131	151	152	IM							NHS	
								MAINTENANCE OF TRAFFIC																			
			800																640	160	614	11100	800	HOOR	LAW ENFORCEMENT OFFICER WITH PATROL CAR		
			35																28	7	614	11500	35	MONTH	WORKSITE TRAFFIC SUPERVISOR		
									14810	16812	15362	14865							49479	12370	614	11600	61849	FT	TRANSITION AREA DELINEATION		
									14025	31544	24722	5420							60569	15142	614	11610	75711	FT	TANGENT AREA DELINEATION		
									7	12	9	7							28	7	614	12336	35	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)		
																			LUMP	LUMP	614	12420	LUMP		DETOUR SIGNING		
				42															34	8	614	12470	42	EACH	WORK ZONE SPEED LIMIT SIGN		
				26															21	5	614	12484	26	EACH	WORK ZONE INCREASED PENALTIES SIGN		
	400																		320	80	614	12510	400	SQ FT	REPLACEMENT SIGN		
					250														200	50	614	12600	250	EACH	REPLACEMENT DRUM		
50			300					60										328	82	614	13000	410	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC			
									239	253	23	120					211	230	861	215	614	13200	1076	EACH	BARRIER REFLECTOR, TYPE A		
									406	805	599	360					4	1	1740	435	614	13300	2175	EACH	BARRIER REFLECTOR, TYPE B		
									396	803	594	357						1720	430	614	13350	2150	EACH	OBJECT MARKER, ONE WAY			
		96																	77	19	614	18600	96	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN	61	
				25.00															20.00	5.00	614	20100	25.00	MILE	WORK ZONE LANE LINE, CLASS 1, 642 PAINT		
									0.85	0.85									1.36	0.34	614	20200	1.70	MILE	WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE I		
				30.82															24.66	6.16	614	22100	30.82	MILE	WORK ZONE EDGE LINE, CLASS 1, 642 PAINT		
									0.32	0.32	0.15								0.63	0.16	614	22200	0.79	MILE	WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE I		
													LUMP	LUMP	LUMP	LUMP			LUMP	LUMP	615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC		
								722	906				877	643	303	381			3066	766	615	25000	3832	SO YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B		
					3000														2400	600	616	10000	3000	M. GAL.	WATER		
																	10	11	17	4	620	10300	21	EACH	DELINEATOR, TYPE C, POST MOUNTED		
																4	4	6	2	620	15300	8	EACH	DELINEATOR, TYPE D, POST MOUNTED			
			80																64	16	620	70000	80	EACH	DELINEATOR, MISC., TUBULAR MARKER		
									17650	35740	28480	16230							78480	19620	622	40020	98100	FT	PORTABLE CONCRETE BARRIER, 32"		
									850	2020	630	670							3336	834	622	40040	4170	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED		
FOR TRAFFIC CONTROL SUMMARY SEE SHEET 559																											
FOR LIGHTING GENERAL SUMMARY SEE SHEETS 618 & 619																											
FOR STRUCTURE GENERAL SUMMARIES:																											
MED-224-1576, SEE SHEET 557																											
MED-71-0675, SEE SHEET 681																											
MED-71-0729L, SEE SHEET 689																											
MED-71-0729R, SEE SHEET 731																											
MED-71-0729EN, SEE SHEET 779																											
MED-71-0750, SEE SHEET 802																											
MED-71-0794, SEE SHEET 829																											
MED-71-0810, SEE SHEET 892																											
MED-71-0860, SEE SHEET 929																											
MED-76-0061L, SEE SHEET 987																											
MED-76-0112R, SEE SHEET 1013																											
MED-76-0158L, SEE SHEET 1032																											
MED-224-1570, SEE SHEET 1052																											
SERVICE ROAD CULVERT, SEE SHEET 557E																											
																			LUMP	LUMP	614	11000	LUMP		MAINTAINING TRAFFIC		
																			37	9	619	16020	46	MONTH	FIELD OFFICE, TYPE C		
																			LUMP	LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES		
																			LUMP	LUMP	624	10000	LUMP		MOBILIZATION		

GENERAL SUMMARY

MED-71-6.06

140B
1120

REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603					604	605						
		FROM	TO		TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41		
																SQ YD	FEET
UD23	185	82+04	85+00	S-W										296			
UD24	185	82+04	85+00	S-W										296			
UD25	185	28+52		W-S										7			
UD26	185	28+52	31+00	W-S										246			
UDI	186	396+00	399+63	SB	10									353			
UD2	186	396+00	399+63	SB		10								353			
UD3	186	396+00	399+63	SB		10								353			
UD4	186	396+00	399+63	SB	10									353			
UD5	186	399+63		SB	11	48											
UD6	186	399+32	399+63	SB		4	5	32									
UD7	186	396+00	401+00	NB										500			
UD8	186	396+00	401+00	NB										500			
UD9	186	396+00	401+00	NB										500			
UD10	186	396+00	401+00	NB										500			
UD11	186	401+00		NB	11	48											
UDI2	186	401+00	401+33	NB		4	5	34									
UDI3	186	399+63	406+00	SB	10									627			
UDI4	186	399+63	406+00	SB		10								627			
UDI5	186	399+63	406+00	SB		10								627			
UDI6	186	399+63	406+00	SB	10									627			
UDI7	186	401+00	406+00	NB	20									480			
UDI8	186	401+00	406+00	NB		20								480			
UDI9	186	401+00	406+00	NB		20								480			
UD20	186	401+00	406+00	NB	20									480			
UD21	186	54+73	59+00	N-E	10									415			
UD22	186	54+73	59+00	N-E		10								417			
UD23	186	54+73		N-E										9			
UD24	186	53+25	54+73	N-E										147			
UD25	186	53+25	59+00	N-E												575	
UDI	187	16+00	19+93	N-EW	10									383			
UD2	187	16+00	19+93	N-EW		10								383			
UD3	187	406+00	409+93	SB	10									383			
UD4	187	406+00	409+93	SB		10								383			
UD5	187	406+00	409+93	SB		10								383			
UD6	187	406+00	409+93	SB	10									383			
UD7	187	406+00	409+93	NB										393			
UD8	187	406+00	409+93	NB										393			
UD9	187	406+00	408+93	NB										293			
UD10	187	406+00	408+93	NB										293			
UDI1	187	409+97		SB	2	12	11	5	75	89	1						
UDI2	187	409+97	414+77	SB										480			
UDI3	187	409+97	414+77	SB										480			
UDI4	187	409+97	414+77	SB										480			
UDI5	187	409+97	414+77	SB										480			
UDI6	187	409+97	414+76	NB										479			
UDI7	187	409+97	414+76	NB										479			
UDI8	187	39+17	44+98	W-N										581			
UDI9	187	39+17	44+98	W-N										579			
UD20	187	414+86		NB	11	70	5	14									
UD21	187	414+81		SB	11	67	5	15									
UD22	187	414+81	415+71	SB										91			
UD23	187	414+81	416+00	SB										119			
UD24	187	415+75	416+00	SB										25			
TOTAL COLUMN A					2	176	372	25	170	89	1	8600	9016		575		

REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603					604	605						
		FROM	TO		TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41		
																SQ YD	FEET
UD25	187	414+81	416+00	SB												119	
UD26	187	414+81	416+00	SB												114	
UD27	187	414+86	416+00	NB												114	
UD28	187	414+86	416+00	NB												114	
UD29	187	414+86	416+00	NB												114	
UD30	187	414+86	416+00	NB												114	
UD31	187	406+00	409+00	SB	2												303
UDI	188	416+00	416+15	SB												15	
UD2	188	416+00	416+36	SB												36	
UD3	188	416+00	417+29	SB												129	
UD4	188	416+00	417+49	SB												149	
UD5	188	416+00	418+17	NB												217	
UD6	188	416+00	418+37	NB												237	
UD7	188	416+00	419+19	NB												320	
UD8	188	416+00	419+38	NB												340	
UD9	188	420+65	420+96	SB												31	
UDI0	188	421+00	426+00	NB												498	
UDI1	188	420+84	426+00	SB												516	
UDI2	188	421+68	426+00	SB												430	
UDI3	188	421+87	426+00	SB												412	
UDI4	188	423+56	423+85	NB												29	
UDI5	188	422+59	426+00	NB	10											331	
UDI6	188	422+78	426+00	NB												10	
UDI7	188	423+40	426+00	NB												10	
UDI8	188	423+89	426+00	NB	10											202	
UDI	189	426+00	427+70	SB												169	
UD2	189	426+00	427+69	SB												168	
UD3	189	426+00	427+63	SB												163	
UD4	189	426+00	427+62	SB												162	
UD5	189	427+62	427+70	SB	11	48											
UD6	189	427+45	427+62	SB		4	5	23									
UD7	189	427+70	428+03	SB													33
UD8	189	427+69	428+02	SB													33
UD9	189	427+63	427+96	SB													33
UDI0	189	427+62	427+95	SB													33
UDI1	189	426+00	427+57	NB	10											147	
UDI2	189	426+00	427+56	NB												10	
UDI3	189	426+00	427+51	NB												10	
UDI4	189	426+00	427+50	NB	10											141	
UDI5	189	427+45	427+57	NB		4	5	15									
UDI6	189	427+50	427+57	NB	11	48											
UDI7	189	427+50	427+83	NB													33
UDI8	189	427+51	427+84	NB													33
UDI9	189	427+56	427+89	NB													33
UD20	189	427+57	427+90	NB													33
UD21	189	429+07	429+41	NB												35	
UD22	189	429+29	429+65	SB												35	
UD23	189	429+69	431+90	SB												220	
TOTAL COLUMN B					2	62	144	10	38		1	3480	3199	132	435		
TOTAL COLUMN A					2	176	372	25	170	89	1	8600	9016		575		
TOTALS CARRIED TO SHEET 148					4	238	516	35	208	89	2	12080	12215	132	1010		

UNDERDRAIN QUANTITIES
 MED - 71 - 6.06
 CRE KEH
 143
 1120

REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603				604	605					
		FROM	TO		TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41
UD26	192	463+04	466+00	NB		10					286				
UD27	192	463+04	466+00	NB		10					287				
UD28	192	463+04	466+00	NB	10						287				
UDI	193	466+00	469+79	SB							377				
UD2	193	466+00	469+79	SB							377				
UD3	193	466+00	469+79	SB							378				
UD4	193	466+00	469+79	SB							378				
UD5	193	466+00	469+80	NB							380				
UD6	193	466+00	469+80	NB							380				
UD7	193	466+00	469+80	NB							382				
UD8	193	466+00	469+80	NB							382				
UD9	193	469+89		SB	11	52	5	17							
UD10	193	469+84		NB	11	52	5	12							
UD11	193	469+89	476+00	SB	10						601				
UDI2	193	469+89	476+00	SB		10					601				
UDI3	193	469+89	476+00	SB		10					601				
UDI4	193	469+89	476+00	SB	10						601				
UDI5	193	469+84	476+00	NB							616				
UDI6	193	469+84	476+00	NB							616				
UDI7	193	469+84	476+00	NB							616				
UDI8	193	469+84	476+00	NB							616				
UDI	194	476+00	478+79	SB							279				
UD2	194	476+00	478+79	SB							279				
UD3	194	476+00	478+79	SB							279				
UD4	194	476+00	478+79	SB							279				
UD5	194	476+00	478+80	NB							280				
UD6	194	476+00	478+80	NB							280				
UD7	194	476+00	478+80	NB							280				
UD8	194	476+00	478+80	NB							280				
UD9	194	478+84		NB	11	52	5	14							
UD10	194	478+89		SB	11	52	5	15							
UDI1	194	478+89	486+00	SB							711				
UDI2	194	478+89	486+00	SB							711				
UDI3	194	478+89	486+00	SB							711				
UDI4	194	478+89	486+00	SB							711				
UDI5	194	478+84	486+00	NB							716				
UDI6	194	478+84	486+00	NB							716				
UDI7	194	478+84	486+00	NB							716				
UDI8	194	478+84	486+00	NB							716				
UDI	195	486+00	488+79	SB							280				
UD2	195	486+00	488+79	SB							280				
UD3	195	486+00	486+29	SB							29				
UD4	195	486+00	486+29	SB							29				
UD5	195	486+00	488+80	NB							280				
UD6	195	486+00	488+80	NB							280				
UD7	195	486+00	486+29	NB							29				
UD8	195	486+00	486+29	NB							29				
UD9	195	488+89		SB	11	19									
UD10	195	488+84		NB	11	19									
UDI1	195	488+89	496+00	SB							711				
TOTAL COLUMN A					96	286	20	58			9539	9114			

REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603				604	605					
		FROM	TO		TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41
UDI2	195	488+89	496+00	SB									711		
UDI3	195	488+84	496+00	NB									716		
UDI4	195	488+84	496+00	NB									716		
UDI	196	496+00	498+78	SB									278		
UD2	196	496+00	498+78	SB									278		
UD3	196	496+00	498+78	NB									278		
UD4	196	496+00	498+78	NB									278		
UD5	196	498+82		SB	11	19									
UD6	196	498+82		NB	11	19									
UD7	196	498+82	504+75	SB									593		
UD8	196	498+82	504+75	SB									593		
UD9	196	498+82	504+75	NB									593		
UDI0	196	498+82	504+75	NB									593		
TOTAL COLUMN B						22	38						2458	3169	
TOTAL COLUMN A						96	286	20	58				9539	9114	
TOTALS CARRIED TO SHEET 148						118	324	20	58				11997	12283	

UNDERDRAIN QUANTITIES

MED - 71 - 6.06

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145
1120

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REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603					604	605					
					TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	
		SQ YD	FEET		FEET	FEET	FEET	FEET	EACH	FEET	FEET	FEET	FEET			
UD1	364	215+00	217+95	E-S								295				
UD2	364	215+00	217+95	E-S									295			
UD3	364	215+00	217+95	E-S									294			
UD4	364	217+95		E-S	2	9	22		25		1					
UD5	364	218+05	222+10	E-S								401				
UD6	364	218+05	222+10	E-S									405			
UD7	364	218+05	223+00	E-S									506			
UD8	364	222+10	223+00	E-S										89		
UD9	364	222+10	223+00	E-S											90	
UD10	364	223+00		E-S	2		35	5	12		1					
UD11	364	223+00	224+00	E-S		10						90				
UD12	364	223+00	224+00	E-S			10					90				
UD13	364	223+00	223+88	E-S								89				
UD1	365	224+00	228+08	E-S								407				
UD2	365	224+00	228+41	E-S									441			
UD1	366	5+59	7+00	W-NS											141	
UD2	366	5+59	7+00	W-NS										140		
UD3	366	7+00		W-NS	2		13	5	12		1					
UD4	366	7+00	12+89	W-NS			20						568			
UD5	366	7+00	12+87	W-NS		20						559				
UD6	366	12+99	16+00	W-NS									301			
UD7	366	12+99	16+00	W-NS								301				
UD8	366	12+99		W-NS	2	1	44		13		1					
UD1	367	16+00	18+15	W-N/S-W								215				
UD2	367	16+00	18+60	W-N/S-W									260			
UD3	367	18+19	18+60	W-N/S-W								41				
UD4	367	16+00	18+60	W-N/S-W									260			
UD5	367	16+00	18+15	W-N/S-W								215				
UD6	367	18+19	18+60	W-N/S-W								41				
UD7	367	21+18	21+60	W-N/S-W								42				
UD8	367	21+64	22+00	W-N/S-W								36				
UD9	367	21+18	22+00	W-N/S-W									82			
UD10	367	21+18	21+60	W-N/S-W								42				
UD11	367	21+64	22+00	W-N/S-W								36				
UD12	367	21+18	22+00	W-N/S-W									82			
UD1	368	22+00	23+54	W-N/S-W								161				
UD2	368	22+00	23+54	W-N/S-W									158			
UD3	368	23+54		W-N/S-W		9	24									
UD4	368	22+00	26+00	W-N/S-W								372				
UD5	368	22+00	26+00	W-N/S-W									380			
UD6	368	26+00		W-N/S-W	2		9		14		1					
UD7	368	23+64	28+45	W-N/S-W									534			
UD8	368	23+64	28+45	W-N/S-W									484			
UD9	368	26+04	28+54	W-N/S-W								222				
UD10	368	26+04	28+54	W-N/S-W									230			
UD11	368	28+45		W-N/S-W			33									
UD12	368	95+17	93+00	S-W								209				
TOTAL COLUMN A					10	49	210	10	76		5	3685	5459	229	231	

REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603					604	605					
					TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	
		SQ YD	FEET		FEET	FEET	FEET	FEET	EACH	FEET	FEET	FEET	FEET			
UD13	368	95+17	93+00	S-W											217	
UD14	368	28+54	31+00	W-N											246	
UD15	368	28+54	31+00	W-N										249		
UD16	368	30+16	31+00	W-N											83	
UD1	369	31+00	34+00	W-N											300	
UD2	369	31+00	36+00	W-N										499		
UD3	369	31+00	36+00	W-N											500	
UD4	369	34+00	37+12	W-N									10		307	
UD5	369	36+00	37+12	W-N									10		102	
UD6	369	36+00	37+12	W-N											101	
UD7	369	37+12		W-N	2		34	5	21		1					
UD8	369	37+12	39+17	W-N										202		
UD9	369	37+12	39+17	W-N										205		
UD1	371	31+00	31+82	W-S										81		
UD2	371	31+82		W-S	2				24		1					
UD3	371	31+82	37+55	W-S											568	
UD1	372	17+14	18+46	NS-W										127		
UD2	372	17+14	18+46	NS-W											132	
UD3	372	15+70	18+46	NS-W									13	5	258	
UD4	372	18+46	22+00	NS-W											341	
UD5	372	18+46	22+00	NS-W											354	
UD1	373	22+00	24+96	NS-W											285	
UD2	373	22+00	24+96	NS-W											295	
UD3	373	25+00		NS-W	2											
UD4	373	25+00	30+00	NS-W											481	
UD5	373	25+00	30+00	NS-W											494	
UD6	373	22+65		NS-W									28			
UD7	373	22+65	24+96	NS-W											257	
UD8	373	25+00	30+00	NS-W											539	
UD1	374	30+00	30+26	NS-W											26	
UD2	374	30+00	30+71	NS-W											71	
UD3	374	30+30	30+71	NS-W											41	
UD4	374	32+78	33+19	NS-W											41	
UD5	374	33+23	36+36	NS-W											306	
UD6	374	32+78	36+36	NS-W											353	
UD7	374	36+36		NS-W	2		13	5	13		1					
UD8	374	36+36	37+82	NS-W											142	
UD9	374	36+36	39+11	NS-W											269	
UD10	374	39+18		NS-W	2		46	5	11		1					
UD11	374	5+20	6+00	N-W											79	
UD12	374	15+18	16+00	S-W											82	
UD13	374	15+18	16+00	S-W											82	
UD14	374	30+00	30+71	NS-W											71	
UD15	374	37+82	39+09	NS-W											126	
UD1	375	6+00	11+10	N-W											501	
UD2	375	11+10		N-W									28	23		
UD3	375	11+10	11+78	N-W											67	
TOTAL COLUMN B					10	20	223	25	107		5	2949	5763	101	667	
TOTAL COLUMN A					10	49	210	10	76		5	3685	5459	229	231	
TOTALS CARRIED TO SHEET 148					20	69	433	35	183		10	6634	11222	330	898	

UNDERDRAIN QUANTITIES

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REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603				604	605					
		FROM	TO		TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41
		SQ YD	FEET		FEET	FEET	FEET	FEET	EACH	FEET	FEET	FEET	FEET		
UD1	377	860+00	866+00	N-E						600					
UD2	377	860+00	866+00	N-E							600				
UD3	377	866+00		N-E		15	5	12							
UD1	378	852+39	859+50	N-E						711					
UD2	378	852+39	859+50	N-E						711					
UD3	378	859+50		N-E	2	15	5	16	1						
UD4	378	859+54	860+00	N-E						46					
UD5	378	859+54	860+00	N-E						46					
UD6	378	852+39	859+40	N-E	2				1				664		
UD1	379	41+00	42+94	N-E						190					
UD2	379	41+00	42+94	N-E							192				
UD3	379	42+94		N-E							7				
UD4	379	42+94	44+26	N-E							129				
UD5	379	41+00	44+26	N-E									322		
UD6	379	44+26	50+00	N-E							562				
UD1	380	50+00	53+24	N-E							318				
UD1	381	906+89	907+50	E-N						116					
UD2	381	906+89	907+50	E-N							115				
UD3	381	906+89		E-N	2	15	5	6	1						
UD4	381	906+10	906+89	E-N									25		
UD5	381	906+10	906+89	E-N							34				
UD6	381	903+50	903+84	E-N						533					
UD7	381	898+17	903+46	E-N							568				
UD8	381	898+16	903+84	E-N											
UD1	382	104+00	104+59	E-N							59				
UD2	382	104+00	104+59	E-N						59					
UD3	382	104+59		E-N							11				
UD4	382	104+59	112+00	E-N		10					723				
UD5	382	112+00		E-N	2			11	1						
UD6	382	112+00	114+00	E-N							197				
UD1	383	114+00	116+96	E-N		10					282				
UD2	383	117+00		E-N	2			11	1						
UD3	383	117+00	121+96	E-N		20					471				
TOTAL COLUMN A					10	85	15	56		5	2289	4991	25	1011	

SHEET NUMBER	603				604	605					
	TIED CONCRETE BLOCK MAT, TYPE I, GROUTED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41
	SQ YD	FEET	FEET	FEET	FEET	FEET	EACH	FEET	FEET	FEET	FEET
TOTAL SHEET 141		162	522	40	114			14323	14590		
TOTAL SHEET 142	6	345	894	60	148	138	3	13286	14364	226	296
TOTAL SHEET 143	4	238	516	35	208	89	2	12080	12215	132	1010
TOTAL SHEET 144	2	341	839	65	186		1	11939	11958	665	665
TOTAL SHEET 145		118	324	20	58			11997	12283		
TOTAL SHEET 146	32	124	407	35	205		16	8937	15734	3193	141
TOTAL SHEET 147	20	69	433	35	183		10	6634	11222	330	898
TOTAL - COLUMN A	10		85	15	56		5	2289	4991	25	1011
TOTALS CARRIED TO GENERAL SUMMARY SEE SHEETS 138, 139 & 140											
	74	1397	4020	305	1158	227	37	81485	97357	4571	4021

UNDERDRAIN QUANTITIES

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SHEET NUMBER	STATION RANGE		202							209	601		602	604											660	670	SPECIAL	
			PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	MANHOLE REMOVED	CATCH BASIN REMOVED	STRUCTURE REMOVED	STRUCTURE REMOVED	DITCH CLEANOUT AS PER PLAN	ROCK CHANNEL PROTECTION TYPE B, WITH FABRIC FILTER	ROCK CHANNEL PROTECTION TYPE C, WITH FABRIC FILTER	CONCRETE MASONRY	CATCH BASIN, RECONSTRUCT TO GRADE	CATCH BASIN, ADJUSTED TO GRADE	MEDIAN INLET, NO. 2-6	CATCH BASIN, NO. 2-2B	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 4	CATCH BASIN, NO. 5	CATCH BASIN, NO. 5A	CATCH BASIN, NO. 6	MANHOLE, NO. 3	MANHOLE, ADJUST TO GRADE	MANHOLE, NO. 5, AS PER PLAN	MANHOLE, RECONSTRUCT TO GRADE	SODDING REINFORCED	DITCH EROSION PROTECTION	CONDUIT, FILL AND PLUG
			FEET	FEET	EACH	EACH	EACH	CU. YD.	FEET	CU. YD.	CU. YD.	CU. YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FEET	FEET	FEET
180	336+00	346+00		24		1										2											250	
181	346+00	356+00	30			1										1											125	
182	356+00	366+00	577										1														250	
183	366+00	376+00	24			1					4.60	1	0.33								1	1					458	
184	376+00	386+00	152			2	2					5	1.35			1	3	1						2			375	
185	386+00	396+00	231			2	2					3	0.81												37		308	
186	396+00	406+00	221	257	2	3								1						1		2					958	
187	406+00	416+00	89			1	1																				617	
188	416+00	426+00																										
189	426+00	436+00	147			3	2			680		5	1.35												150		125	
190	436+00	446+00	196			2	2			460		3	0.87												36		421	
191	446+00	456+00	111			1	1					4	1.08												36		375	
192	456+00	466+00	162			1	2					4	1.08	1													250	
193	466+00	476+00	44			1	1					2	0.60														500	
194	476+00	486+00								110		2															250	
195	486+00	496+00													1													617
196	496+00	506+00																										563
350	65+00	75+00										1	0.27															
351	75+00	85+00																							3			
352	85+00	93+00	119												1													
353	129+00	138+00	27				1					1	0.70															
355	129+00	138+00																										
356	158+00	168+00																										
357	168+00	171+60.59	27				1					1	0.27															
359	173+00	179+00																										
360	179+00	188+00																										
361	188+00	197+00																										
362	197+00	206+00																										
364	215+00	224+00	6				1					1	0.27															
367	16+00	22+00	80			1	1					4	1.08															
368	22+00	31+00	107			3	2					1	0.27			2												
369	30+00	39+00		102			1					12	1.09															
370	27+00	31+00																										
371	31+00	39+00																										
373	22+00	30+00	206				3	3																				
374	30+00	39+18.49	245				3	3																				
375	6+00	15+00																										
376	15+00	25+00																										
377	860+00	870+00		72			2																					
381	100+05.49	104+00	152				2	2																				
382	104+00	114+00	60					1																				
383	114+00	123+00	29																									
318	834+00	844+00																										
319	844+00	854+00	53				2	1																				
322	874+00	884+00	82				2	2																				
487	156+68											16	5															
488	167+25																											
489	190+00																											
490	218+00																											
491	33+00																											
492	110+00																											
493	116+00																											
493A	12+87																											
495	117+57			20					28																			
520	10+00	18+00	61																									
TOTALS CARRIED TO GENERAL SUMMARY			3238	475	2	37	32	28	1250	21	263	35.16	3	2	2	1	19	32	3	3	11	5	1	1	2	476	15158	221

DRAINAGE SUBSUMMARY

MED-71-6.06

149
1120

...V75657DSA.dgn

CALCULATED
CHECKED

..Y76657GCA.dgn

SHEET NO.	STATION		203		659
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
FROM	TO				
198	318+00	320+00	206	1	128
199	321+00	322+00	419	4	378
200	323+00	324+00	394	8	350
201	325+00	326+00	424	6	412
202	327+00	329+00	948	0	889
203	330+00	331+00	1287	0	2056
204	332+00	333+00	1227	2	2000
205	334+00	335+00	1526	4	2538
206	336+00	337+00	1913	452	3128
207	338+00	339+00	1275	552	1772
208	340+00	341+00	1080	413	1272
209	342+00	343+00	984	440	1222
210	344+00	345+00	1144	426	2056
211	346+00	347+00	1405	409	2528
212	348+00	349+00	1542	424	2550
213	350+00	351+00	1588	425	2277
214	352+00	353+00	2262	311	2772
215	354+00	355+00	3229	89	2956
216	356+00	357+00	3444	14	2834
217	358+00	359+00	2334	274	3239
218	360+00	361+00	1184	476	2711
219	362+00	363+00	1107	548	3033
220	364+00	366+00	2173	502	3577
221	367+00	368+00	1844	544	3106
222	369+00	369+00	877	307	1272
223	370+00	370+00	603	431	1106
224	371+00	372+00	907	1668	2056
225	373+00	374+00	878	4551	2911
226	375+00	375+00	467	4453	1917
227	376+00	377+00	889	11833	3916
228	378+00	378+00	354	2752	1033
229	379+00	380+00	676	8150	3167
230	381+00.33	381+00.33	350	3837	1867
231	382+00	383+00	948	9117	4217
232	384+00	384+00	307	2669	1192
233	385+00	386+00	106	4884	1204
234	387+00	387+00	178	5815	1433
235	388+00	388+00	226	1480	878
236	389+00	390+00	434	3123	2345
237	391+00	392+00	1569	1634	2867
238	393+00	394+00	3821	399	3039
239	395+00	396+00	4109	77	2539
240	397+00	398+00	4273	26	2616
241	399+00	400+00	2470	111	1967
242	401+00	401+00	2755	110	1428
243	402+00	402+00	1650	151	1228
TOTALS - COLUMN A			63786	73902	95982

SHEET NO.	STATION		203		659
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
FROM	TO				
244	403+00	403+00	933	209	1089
245	404+00	405+00	1739	909	2667
246	406+00	407+00	1655	1602	3050
247	408+00	409+00	1581	2153	2389
248	410+00	411+00	1241	2599	2650
249	412+00	413+00	1015	3370	3705
250	414+00	414+00	433	2206	2056
251	415+00	415+00	296	2493	1856
252	416+00	417+00	527	4841	3227
253	418+00	419+00	0	0	0
254	420+00	421+00	0	0	0
255	422+00	423+00	184	1146	2775
256	424+00	424+00	126	605	1400
257	425+00	425+00	222	505	1250
258	426+00	426+00	358	412	1128
259	427+00	428+00	391	377	981
260	429+00	429+51.00	528	105	967
261	430+00	431+00	693	550	1661
262	432+00	433+00	936	396	1828
263	434+00	435+00	903	444	1689
264	436+00	437+00	1110	397	1478
265	438+00	439+00	1034	689	1733
266	440+00	441+00	977	939	2083
267	442+00	443+00	908	2040	1833
268	444+00	444+00	487	3644	2211
269	445+00	445+00	576	3513	2283
270	446+00	447+00	1093	7003	4578
271	448+00	448+00	629	3256	1939
272	449+00	449+00	538	2554	1594
273	450+00	451+00	358	4834	2917
274	452+00	452+00	58	2715	1589
275	453+00	453+00	46	2009	1578
276	454+00	454+00	5	125	158
277	455+00	456+00	0	0	0
278	457+00	457+00	141	1552	2800
279	458+00	459+00	471	1056	2961
280	460+00	461+00	1227	74	1105
281	462+00	462+00	632	95	561
282	463+00	463+00	563	201	544
283	464+00	465+00	1219	437	1044
284	466+00	467+00	1199	389	1106
285	468+00	469+00	1245	395	1100
286	470+00	470+00	620	180	556
287	471+00	472+00	1268	320	1117
288	473+00	474+00	1273	291	1106
289	475+00	476+00	1228	292	1205
TOTALS - COLUMN B			32666	63922	77547

SHEET NO.	STATION		203		659
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
FROM	TO				
290	477+00	478+00	1186	318	1284
291	479+00	480+00	1261	347	1561
292	481+00	482+00	1268	243	1400
293	483+00	484+00	1177	207	1206
294	485+00	486+00	850	244	1034
295	487+00	488+00	483	54	666
296	489+00	490+00	480	52	627
297	491+00	492+00	484	61	645
298	493+00	494+00	468	22	466
299	495+00	496+00	476	14	406
300	497+00	498+00	485	12	372
301	499+00	500+00	490	22	478
302	501+00	502+00	502	34	516
303	503+00	504+00	425	21	379
304	505+00	505+00	0	0	0
I.R. 76					
326	836+00	839+00	141	1553	2817
327	839+65.00	842+00	26	705	1379
328	843+00	845+00	3	74	500
329	846+00	849+00	3	74	250
330	850+00	853+00	703	111	1089
331	854+00	856+00	1486	395	2000
332	857+00.01	859+00.05	1809	743	2138
333	860+00	862+00	1862	1013	3934
334	863+00	865+00	790	851	2528
335	866+00	868+00	1082	152	1856
336	869+00	870+00	300	8	889
337	871+00	873+00	0	0	0
338	874+00	876+00	626	1325	1105
339	877+00	879+00	662	1233	1270
340	880+00	882+00	233	669	779
341	883+00	886+00	428	453	922
342	887+00	890+00	145	11	144
343	891+00	894+00	0	0	628
344	895+00	897+00	0	0	0
345	898+00	900+00	290	5713	2758
346	901+00	903+00	188	3725	2892
347	904+00	905+00	10	761	754
348	907+00	908+00	6	409	203
RAMP S-W					
385	88+00	90+00	1750	0	1889
386	91+00	93+00	1369	4	1667
387	94+00	95+00	178	0	235
TOTALS - COLUMN C			24125	21633	45666
TOTALS - COLUMN A			63786	73902	95982
TOTALS - COLUMN B			32666	63922	77547
TOTALS CARRIED TO SHEET 154			120577	159457	219195

CALCULATED
ASK
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EARTHWORK QUANTITIES

MED - 71 - 6.06

153
1120

SHEET NO.	STATION		203		659	
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING	
						FROM
388	RAMP S-E	131+00	132+00	469	7433	1745
389		133+00	134+00	778	6014	2511
390		135+00	136+00	537	6845	4189
391		137+00	138+00	346	2950	2072
392		139+00	140+00	700	1329	2011
393		141+00	142+00	963	558	1995
394		143+00	144+00	520	900	2072
395		145+00	146+00	411	541	1461
396		147+00	148+00	1791	7	1539
397		149+00	151+00	1867	208	2583
398		152+00	153+00	4771	32	2423
399		154+00	155+00	6255	0	2434
400		156+00	157+00	4866	613	2789
401		158+00	159+00	2772	2800	2839
402		160+00	162+00	2501	2658	3067
403		163+00	165+00	1942	2514	3433
404		166+00	167+00	602	1479	1967
405		168+00	169+00	237	1583	1367
406		170+00	171+00	217	498	506
407	RAMP E-S	176+00	177+00	344	8287	2061
408		178+00	179+00	397	10783	2482
409		182+00	183+00	139	14683	3627
410		184+00	185+00	67	13097	2756
411		186+00	187+00	181	12240	2711
412		188+00	189+00	2112	12993	4436
413		190+00	191+00	5829	18963	8384
414		192+00	193+00	5767	23083	7984
415		194+00	195+00	7429	27835	8439
416		196+00	199+00	5383	25850	7636
417		200+00	201+00	5401	32935	9800
418		202+00	203+00	5057	28933	9423
419		204+00	205+00	5211	25231	9067
420	RAMP E-S	206+00	207+00	942	14975	3987
421		208+00	209+00	238	9249	2372
422		210+00	212+00	265	4345	2006
423		213+00	215+00	162	5481	2622
424		216+00	217+00	285	4837	4050
425		218+00	219+00	745	1104	2719
426		220+00	222+00	2055	1071	2350
427		223+00	223+00	0	0	0
428	RAMP W-NS	6+00	9+00	1572	4	1652
429		10+00	12+00	2029	1293	1444
430		13+00	14+00	783	441	1127
TOTALS - COLUMN A			84938	336675	146138	

SHEET NO.	STATION		203		659	
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING	
						FROM
431	RAMP W-N	16+00	18+00	1578	228	2266
432		21+00	23+00	7	1272	2146
433		24+00	26+00	284	1369	2477
434		27+00	28+00	1111	41	1083
435		29+00	31+00	2170	78	1489
436		32+00	34+00	1344	1141	3350
437		35+00	36+00	1811	3020	3250
438		37+00	38+00	4524	1172	3200
439		36+00	38+00	688	20	338
440	RAMP W-S	29+00	30+00	397	3532	1928
441		31+00	33+00	391	8692	4617
442		34+00	36+00	112	12107	4155
443		37+00	38+00	55	1255	477
444	RAMP NS-W	18+00	21+00	1548	0	2179
445		22+00	24+00	645	12	889
446		25+00	27+00	922	24	1439
447		28+00	30+00	255	1384	2067
448		33+00	35+00	1175	1755	2564
449		36+00	38+00	984	1839	1605
450		39+00	39+00	0	0	0
451	RAMP N-E / RAMP N-W	43+00	46+00	4111	184	3644
452		47+00	49+00	3291	1358	2994
453		50+00	52+00	13874	909	5288
454		53+00	54+00	3111	9	1128
455	RAMP E-N	104+00	105+00	148	6696	1977
456		106+00	107+00	59	9422	2772
457		108+00	109+00	138	7834	2956
458		110+00	111+00	118	7426	2383
459		112+00	113+00	43	8742	2311
460		114+00	115+00	267	11162	2961
461		116+00	117+00	324	14359	3411
462		118+00	119+00	103	11768	2811
463		120+00	120+00	0	0	0
464						
465						
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521	GREENWICH ROAD	10+00	11+00	19	2050	1106
522		12+00	13+00	398	2057	1911
523		14+00	15+00	474	89	1273
524		16+00	17+00	112	114	916
525		17+33.00	18+00	45	93	387
TOTALS - COLUMN B			46636	123213	81748	

SHEET NO.	STATION		203		659	
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING	SEEDING AND MULCHING CLASS I AS PER PLAN
TOTALS - COLUMN A			84938	336675	146138	
TOTALS - COLUMN B			46636	123213	81748	
TOTALS - SHEET 153			120577	159457	219195	
TOTALS - SHEET 527			3492	2539		14741
SUBTOTALS			255643	621884	447081	14741
						461822
DEDUCTIONS FOR 660 & 670					-17514	-117
SUBTOTALS			255643	621884	429567	14624
DEDUCTION FOR EMB. APP (SHEET 44)					-27139	
DEDUCTION FOR EMB. APP-A (SHEET 54)					-10534	
						444191
TOTALS CARRIED TO GENERAL SUMMARY			255643	584211	429567	14624

**SEEDING AND MULCHING
GROWTH AND CARE CALCULATIONS**

TOPSOIL
111 C.Y. x 461822 S.Y. / 1000 S.Y. = 51262 C.Y.

SOIL ANALYSIS TEST
1 EACH x 51262 C.Y. / 10000 C.Y. = 5 EACH

INTERSEEDING
5% x 444191 S.Y. = 22210 S.Y., USE 22000 S.Y.

REPAIR SEEDING AND MULCHING
5% x 444191 S.Y. = 22210 S.Y., USE 22000 S.Y.

COMMERCIAL FERTILIZER
30 LBS / 1000 S.F. x 461822 S.Y. x 9 S.F./S.Y. = 124692 LBS
20 LBS / 1000 S.F. x 22000 S.Y. x 9 S.F./S.Y. = 3960 LBS.
= 128652 LBS. = 64.33 TONS

LIME
461822 S.Y. x 9 S.F./S.Y. + 43560 S.F. PER ACRE = 95.42 ACRES

WATER (476 = SODDING REINFORCED)
2x300 GALS/1000 S.F. x (461822-476) S.Y. x 9 S.F./S.Y. = 2491268 GALS
1x300 GALS/1000 S.F. x 22000 S.Y. x 9 S.F./S.Y. = 59400 GALS
1x300 GALS/1000 S.F. x 476 S.Y. x 9 S.F./S.Y. x 8 WEEKS = 10281 GALS
= 2560949 GALS = 2561 M. GALS. USE 2600 M. GALS.

MOWING
25% x 461822 = 115456 S.Y. x 9 S.F./S.Y. x 1 M.S.F./1000 S.F. = 1039 M.S.F., USE 1000 M.S.F.

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CALCULATED
ASK
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EARTHWORK QUANTITIES

MED-71-6.06

154
1120

R/W SHEET NO.	FROM			TO			ALIGNMENT	202	607	607
	STATION	OFFSET	SIDE	STATION	OFFSET	SIDE		FENCE REMOVED	FENCE, TYPE 47	FENCE, TYPE CLT
								FOOT	FOOT	FOOT
17/47	461+98.98	167.86	LT	468+71.54	250.94	LT	71-RW		677.67	
17/47	468+71.54	250.94	LT	469+40.55	214.55	LT	71-RW		78.01	
17/47	469+40.55	214.55	LT	469+23.73	182.65	LT	71-RW		36.06	
17/47	469+92.41	147.10	LT	470+79.00	116.37	LT	71-RW		91.88	
17/47	472+69.51	16.50	LT	473+12.59	17.50	RT	71-RW		54.88	
17/47	472+92.44	121.11	LT	472+01.31	193.14	LT	71-RW		116.16	
17/47	471+37.01	226.43	LT	471+05.66	218.49	LT	71-RW		32.34	
17/47	471+05.66	218.49	LT	470+11.37	268.21	LT	71-RW		364.71	
17/47	470+11.37	268.21	LT	470+50.52	273.05	LT	71-RW		39.45	
17/47	470+50.52	273.05	LT	474+21.16	428.32	LT	71-RW		401.85	
17/47	461+98.98	167.86	LT	469+70.55	197.92	LT	71-RW	772.43		
17/47	469+70.55	197.92	LT	471+32.61	92.79	LT	71-RW	193.17		
17/47	472+11.48	34.89	LT	473+09.42	35.11	RT	71-RW	120.38		
17/47	473+26.14	96.40	LT	471+50.56	198.15	LT	71-RW	202.93		
17/47	471+50.56	198.15	LT	474+00.00	198.02	LT	71-RW	249.44		
18/47	476+00.31	234.06	RT	476+19.45	217.84	RT	71-RW		25.09	
18/47	476+19.45	217.84	RT	478+60.80	268.12	RT	71-RW		246.52	
18/47	478+60.80	268.12	RT	480+46.22	393.41	RT	71-RW		223.78	
18/47	480+46.22	393.41	RT	482+86.07	597.32	RT	71-RW		314.84	
18/47	482+86.07	597.32	RT	483+69.13	678.35	RT	71-RW		116.00	
18/47	483+69.13	678.35	RT	486+26.11	808.07	RT	71-RW		287.86	
18/47	486+26.11	808.07	RT	488+79.98	847.98	RT	71-RW		256.99	
18/47	474+08.07	32.99	LT	474+69.62	35.11	RT	71-RW	120.38		
18/47	475+12.19	79.22	RT	476+00.31	234.06	RT	71-RW	178.91		
18/47	475+75.98	195.15	RT	482+98.80	164.17	RT	71-RW	723.49		
18/47	482+98.80	164.17	RT	483+20.97	537.10	RT	71-RW	372.24		
18/47	482+86.07	597.32	RT	483+20.97	537.10	RT	71-RW	69.61		
18/47	483+20.97	537.10	RT	486+72.74	725.35	RT	71-RW	398.98		
18/47	486+72.74	725.35	RT	488+00.00	723.96	RT	71-RW	127.24		
19/47	474+21.16	428.32	LT	476+50.22	670.31	LT	71-RW		333.21	
19/47	474+00.00	198.02	LT	482+45.58	253.14	LT	71-RW	835.14		
19/47	482+45.58	253.14	LT	482+95.59	522.89	LT	71-RW	274.35		
21/47	488+79.98	847.98	RT	491+94.31	803.08	RT	71-RW		317.53	
21/47	491+94.31	803.08	RT	495+93.78	560.40	RT	71-RW		467.40	
21/47	495+93.78	560.40	RT	497+48.97	408.21	RT	71-RW		217.37	
21/47	497+48.97	408.21	RT	501+49.73	298.01	RT	71-RW		415.63	
21/47	486+00.00	723.96	RT	489+01.46	720.91	RT	71-RW	96.85		
21/47	489+01.46	720.91	RT	493+01.34	228.99	RT	71-RW	634.64		
21/47	493+01.34	228.99	RT	501+00.00	236.26	RT	71-RW	799.97		
23/47	501+49.73	298.01	RT	509+51.33	277.97	RT	71-RW		814.15	
23/47	509+51.33	277.97	RT	512+57.80	424.25	RT	71-RW		347.51	
23/47	501+00.00	236.26	RT	509+26.03	198.40	RT	71-RW	835.54		
23/47	509+26.03	198.40	RT	513+08.86	434.12	RT	71-RW	457.99		
24/47	516+48.42	183.93	LT	516+29.31	100.46	LT	71-RW		85.57	
24/47	517+17.69	185.95	LT	517+44.05	100.99	LT	71-RW		88.87	
TOTALS - COLUMN A								7463.68	6451.33	

R/W SHEET NO.	FROM			TO			ALIGNMENT	202	607	607
	STATION	OFFSET	SIDE	STATION	OFFSET	SIDE		FENCE REMOVED	FENCE, TYPE 47	FENCE, TYPE CLT
								FOOT	FOOT	FOOT
24/47	515+96.53	310.31	RT	515+96.73	78.84	RT	71-RW	234.56		
24/47	516+03.83	35.19	RT	516+12.91	34.77	LT	71-RW	70.55		
24/47	516+19.12	78.87	LT	516+48.42	183.93	LT	71-RW	109.95		
24/47	516+79.85	200.48	RT	517+69.97	191.59	RT	71-RW	91.99		
24/47	517+17.69	185.95	LT	517+49.46	78.29	LT	71-RW	112.15		
24/47	517+39.90	34.73	LT	517+29.51	35.65	RT	71-RW	71.14		
24/47	517+28.35	79.04	RT	518+08.56	188.95	RT	71-RW	140.06		
24/47	518+08.56	188.95	RT	527+00.00	170.35	RT	71-RW	961.34		
25/47	528+40.12	549.44	RT	529+33.52	373.63	RT	71-RW		200.75	
25/47	529+33.52	373.63	RT	531+39.35	248.07	RT	71-RW		245.57	
25/47	531+39.35	248.07	RT	533+34.91	223.00	RT	71-RW		200.88	
25/47	533+34.91	223.00	RT	535+14.96	228.00	RT	71-RW		183.43	
25/47	535+14.96	228.00	RT	536+25.65	218.71	RT	71-RW		113.09	
25/47	527+00.00	170.35	RT	536+25.65	218.71	RT	71-RW	941.87		
26/47	541+24.56	232.92	RT	541+66.15	133.66	RT	71-RW		107.86	
26/47	542+83.08	119.77	LT	543+23.95	199.41	LT	71-RW		89.28	
26/47	543+27.32	201.26	RT	544+28.07	102.19	RT	71-RW		142.19	
26/47	545+23.89	95.74	LT	545+62.19	198.73	LT	71-RW		109.72	
26/47	541+24.56	232.92	RT	541+54.70	233.32	RT	71-RW	30.71		
26/47	541+54.70	233.32	RT	542+10.16	78.84	RT	71-RW	163.02		
26/47	542+30.00	35.36	RT	542+62.77	35.01	LT	71-RW	77.63		
26/47	542+82.35	78.52	LT	543+76.48	198.72	LT	71-RW	152.02		
26/47	543+23.95	199.41	LT	543+76.48	198.72	LT	71-RW	51.68		
26/47	543+27.32	201.26	RT	544+39.16	78.30	RT	71-RW	165.63		
26/47	544+59.20	35.17	RT	544+94.72	35.59	LT	71-RW	79.18		
26/47	545+15.95	78.79	LT	545+49.14	197.37	LT	71-RW	123.04		
26/47	545+49.14	197.37	LT	545+62.19	198.73	LT	71-RW	12.92		
TOTALS - COLUMN B								3589.44	1392.77	
TOTALS - COLUMN A								7463.68	6451.33	
TOTALS - COLUMN B								3589.44	1392.77	
SHEET TOTAL CARRIED TO SHEET 154B								11053.12	7844.10	

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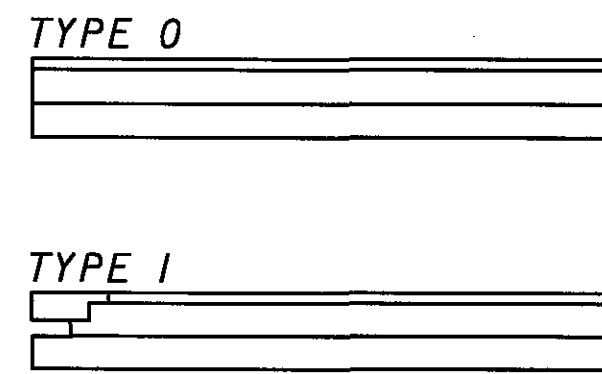
CALCULATED
JEL
CHECKED
ENP

FENCE QUANTITIES

MED - 71 - 6.06

154A
1120

SHOULDER TYPES:



* - OR TACK COAT FOR INTERMEDIATE COURSE. USAGE TO VARY DEPENDING UPON EXPOSURE OF INTERMEDIATE COURSE TO TRAFFIC

ROUTE/ DIRECTION	LOCATION	STATION TO STATION		LENGTH FT.	AVG. WIDTH FT.	AREA SQ. YARD	LEFT SHLD. WIDTH FT.	RIGHT SHLD. WIDTH FT.	LEFT SHLD. LENGTH FT.	RIGHT SHLD. LENGTH FT.	446		407	STEPPED CONSTRUCTION		304	302	204	
		FROM	TO								ASPH. CONC. SURFACE COURSE, TYPE 1H	ASPH. CONC. INTER. COURSE, TYPE 2 PG64-28	TACK COAT *	LEFT SHOULDER TYPE	RIGHT SHOULDER TYPE	AGGREGATE BASE	ASPH. CONC. BASE PG64-22,	SUBGRADE COMP.	
		CU. YARD	CU. YARD								GALS	SEE ABOVE	SEE ABOVE	CU. YARD	CU. YARD	SQ. YARD			
IR71/ NORTHBOUND	MAINLINE	320+00.00	336+00.00	1600.00	30.00	5333.33	10.00	0.00	0.00	0.00	222.2	0.0	373	0	0	0.0	0.0	0	
		320+00.00	336+00.00	1600.00	28.00	4977.78	0.00	10.00	0.00	1600.00	207.4	242.0	199	0	7	1481.5	1490.7	5244	
		336+00.00	367+56.19	3156.19	56.00	19638.52	10.00	10.00	3155.19	3155.19	847.5	954.7	814	1	7	5844.7	5881.3	20690	
		367+56.19	377+99.94	1043.75	46.00	5334.72	10.00	0.00	1044.75	0.00	232.0	259.3	223	1	0	1546.4	1581.4	5509	
		377+99.94	385+07.29	707.35	61.00	4794.26	10.00	15.00	670.26	736.45	206.0	233.1	198	1	0	1373.1	1414.6	4906	
		386+87.75	397+38.22	1050.47	61.00	7119.85	10.00	15.00	1087.56	1021.59	306.7	346.1	294	1	0	2044.9	2103.1	7301	
		397+38.22	398+39.63	101.41	62.00	698.60	10.00	16.00	101.41	101.41	30.0	34.0	29	1	0	200.3	206.2	716	
		398+39.63	408+92.81	1053.18	56.00	6553.12	10.00	10.00	1053.18	1053.18	282.8	318.6	271	1	7	1950.3	1962.5	6904	
		408+92.81	418+64.07	971.26	46.00	4964.22	10.00	0.00	914.29	0.00	215.3	241.3	207	1	0	1435.4	1470.1	5117	
		423+35.71	427+64.00	428.29	56.00	2664.92	10.00	10.00	489.95	392.11	115.6	129.5	111	1	7	794.7	798.7	2812	
		429+31.51	444+36.51	1505.00	56.00	9364.44	10.00	10.00	1498.06	1514.16	404.1	455.2	388	1	7	2787.2	2804.5	9866	
		444+36.51	453+60.04	923.53	46.00	4720.26	10.00	0.00	940.62	0.00	205.4	229.5	197	1	0	1369.2	1399.6	4877	
		456+62.02	460+13.43	351.41	46.00	1796.10	10.00	0.00	334.38	0.00	77.9	87.3	75	1	0	519.6	532.0	1852	
		460+13.43	486+28.80	2615.37	56.00	16273.41	10.00	10.00	2614.85	2957.39	702.1	790.9	674	1	7	4863.5	4880.9	17199	
		486+28.80	504+75.00	1846.20	28.00	5743.73	0.00	10.00	0.00	1846.20	239.3	279.2	230	0	7	1709.4	1720.1	6051	
		486+28.80	504+75.00	1846.20	30.00	6154.00	10.00	0.00	0.00	0.00	254.6	299.2	431	0	0	0.0	0.0	0	
									=13904.50										
		SPEED	367+56.19	368+56.19	100.00	16.00	177.78	0.00	10.00	0.00	100.69	7.4	8.6	7	0	7	55.6	54.3	195
		CHANGE	368+56.19	371+38.20	282.01	22.00	689.36	0.00	10.00	0.00	282.61	28.7	33.5	28	0	7	208.9	207.9	736
		LANES	371+38.20	373+49.79	211.59	23.47	551.78	0.00	10.00	0.00	211.70	23.0	26.8	22	0	7	166.3	166.1	587
			373+49.79	375+87.23	237.44	34.49	909.92	0.00	10.00	0.00	237.81	37.9	44.2	36	0	7	267.4	271.2	950
			375+87.23	377+99.94	212.71	45.52	1075.84	0.00	10.00	0.00	212.82	44.8	52.3	43	0	7	312.0	319.0	1111
			408+92.81	411+16.60	223.79	38.29	952.10	0.00	10.00	0.00	223.79	39.7	46.3	38	0	7	278.3	283.1	989
			411+16.60	418+64.36	747.76	27.54	2288.15	0.00	10.00	0.00	808.79	95.3	111.2	92	0	7	685.5	687.0	2423
			444+36.51	444+66.54	30.03	43.48	145.08	0.00	6.00	0.00	30.03	6.0	7.1	6	0	7	42.2	43.0	150
			444+66.54	445+65.42	98.88	43.50	477.92	0.00	8.00	0.00	98.88	19.9	23.2	19	0	7	138.9	141.8	494
			445+65.42	447+63.67	198.25	37.41	824.06	0.00	10.00	0.00	198.25	34.3	40.1	33	0	7	241.1	245.2	857
			447+63.67	453+60.31	596.64	29.13	1931.12	0.00	10.00	0.00	584.14	80.5	93.9	77	0	7	572.5	577.4	2028
		456+61.74	460+13.43	351.69	13.66	533.79	0.00	10.00	0.00	369.48	22.2	25.9	21	0	7	171.1	164.7	595	
					SUBBASE WIDTH														
	APPROACH	385+07.29	385+37.29	30.00	111.00									3	3	102.8	0.0	370	
	SLABS	386+57.75	386+87.75	30.00	127.00									3	3	117.6	0.0	423	
		418+64.07	418+89.07	25.00	72.00									3	3	55.6	0.0	200	
		423+10.71	423+35.71	25.00	63.00									3	3	48.6	0.0	175	
		427+64.50	427+89.50	25.00	63.00									3	3	48.6	0.0	175	
		429+06.51	429+31.51	25.00	63.00									3	3	48.6	0.0	175	
		453+60.04	453+85.04	25.00	70.00									3	3	54.0	0.0	194	
		456+37.02	456+62.02	25.00	70.00									3	3	54.0	0.0	194	
TOTAL											4988.6	5413.0	5136			31589.8	31406.4	112065	

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB
SEE STRUCTURE PLANS FOR APPROACH SLAB PAYMENT
(204 AND 304 ITEMS PAID FOR WITH ROADWAY QUANTITIES)

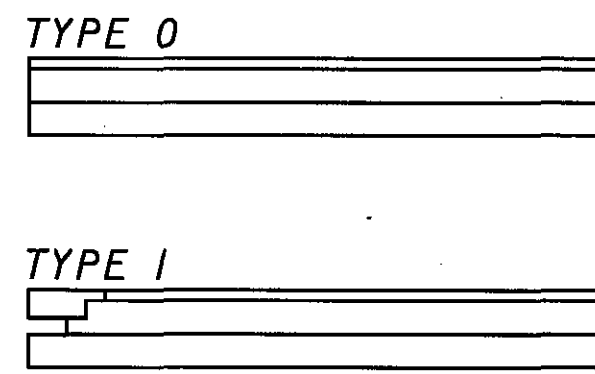
TOTALS CARRIED TO SHEET 159

MAINLINE PAVEMENT CALCULATIONS

MED-71-6.06

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SHOULDER TYPES:



* - OR TACK COAT FOR INTERMEDIATE COURSE. USAGE TO VARY DEPENDING UPON EXPOSURE OF INTERMEDIATE COURSE TO TRAFFIC

ROUTE / DIRECTION	LOCATION	STATION TO STATION		LENGTH FT.	AVG. WIDTH FT.	AREA SQ. YARD	LEFT SHLD. WIDTH FT.	RIGHT SHLD. WIDTH FT.	LEFT SHLD. LENGTH FT.	RIGHT SHLD. LENGTH FT.	446		407	STEPPED CONSTRUCTION		304	302	204	
		FROM	TO								ASPH. CONC. SURFACE COURSE, TYPE 1H	ASPH. CONC. INTER. COURSE, TYPE 2 P664-28	TACK COAT *	LEFT SHOULDER TYPE	RIGHT SHOULDER TYPE	AGGREGATE BASE	ASPH. CONC. BASE P664-22,	SUBGRADE COMP.	
		CU. YARD	CU. YARD								GALS	SEE ABOVE	SEE ABOVE	CU. YARD	CU. YARD	SQ. YARD			
IR71 / SOUTHBOUND	MAINLINE	320+00.00	336+00.00	1600.00	30.00	5333.33	10.00	0.00	0.00	0.00	222.2	0.0	373	0	0	0.0	0.0	0	
		320+00.00	336+00.00	1600.00	28.00	4977.78	10.00	10.00	0.00	1600.00	207.4	242.0	199	0	7	1481.5	1490.7	5244	
		336+00.00	361+98.57	2598.57	56.00	16168.88	10.00	10.00	2598.57	2598.57	697.8	786.0	670	1	7	4812.2	4842.2	17035	
		361+98.57	383+76.55	2177.98	46.00	11131.90	10.00	0.00	2221.43	0.00	484.4	541.1	465	1	0	3229.3	3300.8	11502	
		385+59.98	389+60.52	400.54	46.00	2047.20	10.00	0.00	357.09	0.00	88.6	99.5	85	1	0	590.7	605.8	2107	
		389+60.52	401+10.53	1150.01	56.00	7155.62	10.00	10.00	1150.01	1150.01	308.8	347.8	296	1	7	2129.6	2143.0	7539	
		401+10.53	402+11.45	100.92	62.00	695.23	10.00	16.00	100.92	101.02	29.9	33.8	29	1	0	199.3	205.2	712	
		402+11.45	409+93.28	781.83	61.00	5299.07	10.00	15.00	781.83	781.83	228.0	257.6	219	1	0	1520.2	1564.6	5429	
		409+93.28	416+66.28	673.00	46.00	3439.78	10.00	10.00	736.72	608.83	150.1	167.2	144	1	7	1038.6	1036.0	3664	
		421+43.93	422+51.32	107.39	46.00	548.88	10.00	0.00	49.36	0.00	23.3	26.7	22	1	0	155.5	161.3	557	
		422+51.32	427+78.71	527.39	56.00	3281.54	10.00	10.00	521.95	527.08	141.6	159.5	136	1	7	976.3	982.6	3456	
		429+47.24	454+09.92	2462.68	56.00	15323.34	10.00	10.00	2448.01	2454.31	661.1	744.9	635	1	7	4559.1	4588.5	16140	
		457+12.74	486+28.80	2915.54	56.00	18141.14	10.00	10.00	2930.23	2896.95	783.0	881.9	752	1	7	5398.9	5432.8	19112	
		486+28.80	504+75.00	1846.20	28.00	5743.73	0.00	10.00	0.00	1846.20	239.3	279.2	230	0	7	1709.4	1720.1	6051	
		486+28.80	504+75.00	1846.20	30.00	6154.00	10.00	0.00	0.00	0.00	254.6	299.2	431	0	0	0.0	0.0	0	
									-13896.12										
		SPEED	361+98.57	374+48.77	1250.20	22.50	3125.50	0.00	10.00	0.00	1250.00	130.2	151.9	125	0	7	945.4	942.0	3334
		CHANGE	374+48.77	374+98.77	50.00	33.66	187.00	0.00	9.00	0.00	49.91	7.8	9.1	7	0	7	55.0	55.8	195
		LANES	374+98.77	377+62.72	263.95	39.03	1144.66	0.00	8.00	0.00	264.24	47.7	55.6	46	0	7	334.3	340.3	1189
			377+62.72	383+52.00	589.28	20.95	1371.71	0.00	10.00	0.00	568.65	57.2	66.7	55	0	7	416.1	413.9	1466
			385+18.00	387+51.58	233.58	32.64	847.12	0.00	10.00	0.00	252.57	35.3	41.2	34	0	7	250.9	253.2	889
			387+51.58	388+51.58	100.00	32.54	361.56	0.00	8.00	0.00	100.00	15.1	17.6	14	0	7	106.6	107.9	378
			388+51.58	389+60.52	108.94	34.14	413.25	0.00	6.00	0.00	108.94	17.2	20.1	17	0	7	121.5	123.2	431
			409+93.28	412+13.11	219.83	45.42	1109.41	0.00	10.00	0.00	220.29	46.2	53.9	44	0	7	321.8	328.9	1146
			412+13.11	414+42.79	229.68	34.06	869.21	0.00	10.00	0.00	229.30	36.2	42.3	35	0	7	255.6	259.1	907
			414+42.79	416+66.59	223.80	23.84	592.82	0.00	10.00	0.00	159.27	24.7	28.8	24	0	7	174.5	176.8	619
			421+43.64	421+51.32	7.68	22.00	18.77	0.00	10.00	0.00	69.40	0.8	0.9	1	0	7	9.5	7.2	30
			421+51.32	422+51.32	100.00	16.00	177.78	0.00	10.00	0.00	100.00	7.4	8.6	7	0	7	55.6	54.3	194
					SUBBASE WIDTH														
	APPROACH	383+76.55	384+06.55	30.00	81.00	270.00								3	3	75.0	0.0	270	
	SLABS	385+29.98	385+59.98	30.00	82.00	273.33								3	3	75.9	0.0	273	
		416+66.28	416+91.28	25.00	74.00	205.56								3	3	57.1	0.0	206	
		421+18.93	421+43.93	25.00	72.00	200.00								3	3	55.6	0.0	200	
		427+78.71	428+03.71	25.00	63.00	175.00								3	3	48.6	0.0	175	
		429+22.24	429+47.24	25.00	63.00	175.00								3	3	48.6	0.0	175	
		454+09.92	454+34.92	25.00	63.00	175.00								3	3	48.6	0.0	175	
		456+87.74	457+12.74	25.00	63.00	175.00								3	3	48.6	0.0	175	
	TOTAL										4945.9	5363.1	5095			31305.4	31136.2	110975	

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB
 SEE STRUCTURE PLANS FOR APPROACH SLAB PAYMENT
 (204 AND 304 ITEMS PAID FOR WITH ROADWAY QUANTITIES)

TOTALS CARRIED TO SHEET 159

CALCULATED
 CHECKED
 ENF

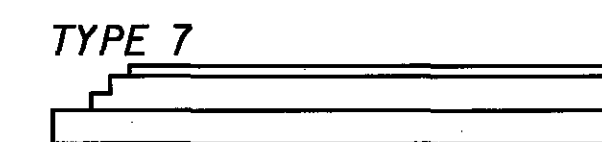
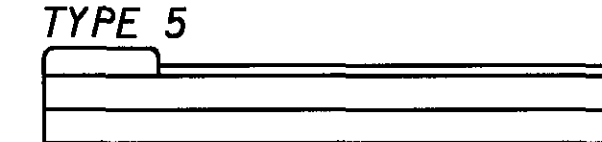
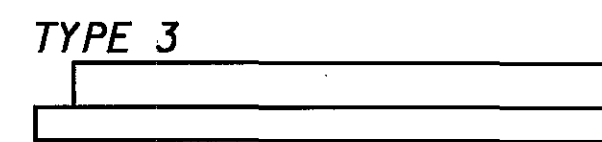
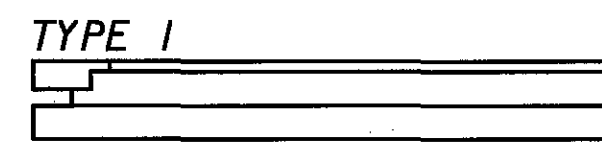
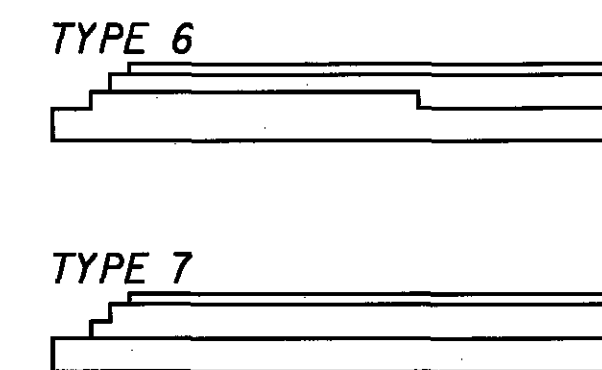
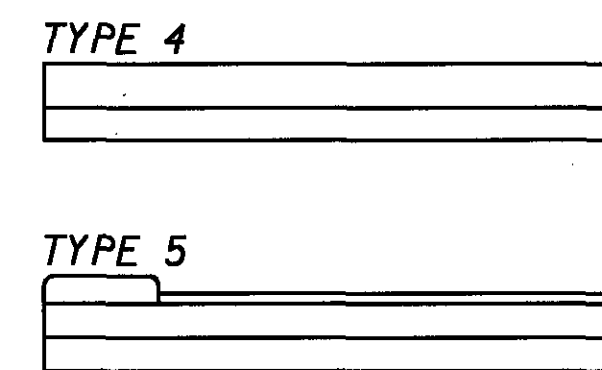
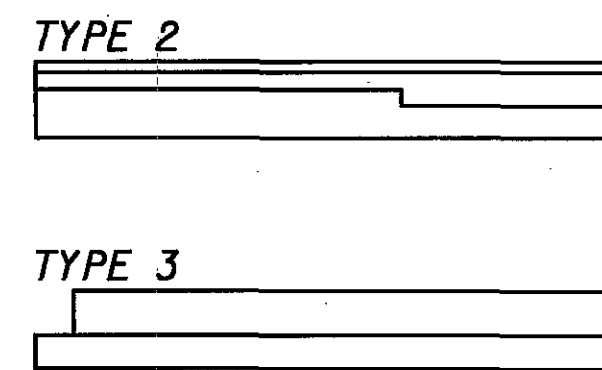
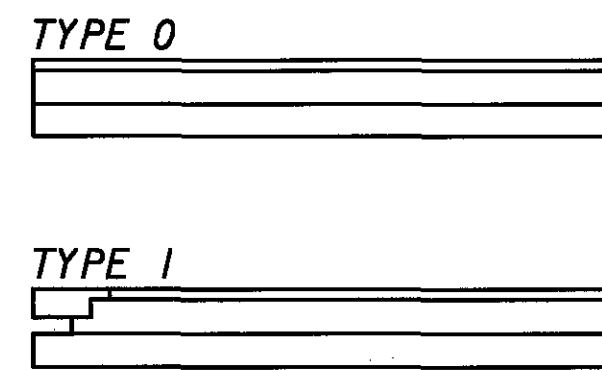
MAINLINE PAVEMENT CALCULATIONS

MED - 71 - 6.06

156
 1120

...N75657GCA.dgn

SHOULDER TYPES:



* - OR TACK COAT FOR INTERMEDIATE COURSE. USAGE TO VARY DEPENDING UPON EXPOSURE OF INTERMEDIATE COURSE TO TRAFFIC

ROUTE/ DIRECTION	LOCATION	STATION TO STATION		LENGTH FT.	ASPHALT SURFACE WIDTH FT.	CONCRETE PAVEMENT WIDTH FT.	ASPHALT SURFACE AREA SQ. YARD	LEFT SHLD. WIDTH FT.	RIGHT SHLD. WIDTH FT.	LEFT SHLD. LENGTH FT.	RIGHT SHLD. LENGTH FT.	622	609	452	446		407	STEPPED CONSTRUCTION		304	302	204	
		CONCRETE BARRIER SINGLE SLOPE, TYPE BI	CONCRETE MEDIAN									12" NON- REINFORCED CONCRETE PAVEMENT	ASPH. CONC. SURFACE COURSE, TYPE IH	ASPH. CONC. INTER. COURSE, TYPE 2 PG64-28	TACK COAT *	LEFT SHOULDER TYPE	RIGHT SHOULDER TYPE	AGGREGATE BASE	ASPH. CONC. BASE PG64-22,	SUBGRADE COMP.			
		FROM	TO									SEE ABOVE	SEE ABOVE	CU. YARD	CU. YARD	GALS	CU. YARD	CU. YARD	SQ. YARD				
IR71/ RAMPS	RAMP S-EW	66+99.94	67+99.94	100.00	31.00		344.44	6.00	9.00	100.00	100.02	0.00	0	0	14.4	16.7	14	0	7	101.9	102.9	361	
		67+99.94	70+23.73	223.79	30.00		745.97	6.00	8.00	223.79	223.79	0.00	0	0	31.1	36.3	30	0	7	221.0	223.0	783	
		70+23.73	74+57.02	433.29	37.50		1805.38	6.00	8.00	417.66	463.94	0.00	0	0	75.2	87.8	72	0	7	530.1	537.8	1883	
		76+37.26	76+92.03	54.77	67.00		407.73	6.00	8.00	79.14	19.24	0.00	0	0	17.0	19.8	16	0	7	114.4	119.4	411	
	RAMP S-W	76+92.03	84+00.00	707.97	30.00		2359.90	6.00	8.00	709.24	707.97	0.00	0	0	98.3	114.7	94	0	7	699.2	705.5	2478	
		84+00.00	87+38.71	338.71	0.00	30.00	0.00	6.00	8.00	339.63	338.88	0.00	0	1129	0.0	0.0	0	4	3	324.1	0.0	1186	
		87+38.71	89+80.47	241.76	0.00	27.00	0.00	3.00	8.00	253.64	237.00	0.00	0	725	0.0	0.0	0	3	3	216.6	0.0	807	
		89+80.47	93+72.68	392.21	0.00	27.00	0.00	3.00	8.00	421.99	379.64	0.00	0	1177	0.0	0.0	0	3	3	351.6	0.0	1310	
		93+72.68	95+16.57	143.89	0.00	27.00	0.00	3.00	8.00	139.30	154.85	0.00	(W-N)	432	0.0	0.0	0	4	3	124.7	0.0	457	
	RAMP S-E	130+91.68	169+44.32	3852.64	28.00		11985.99	4.00	8.00	3856.80	3846.51	0.00	0	0	499.4	582.7	479	7	7	3804.7	3683.1	13270	
	RAMP W-N	12+60.74	15+18.49	257.75	27.00		773.25	3.00	8.00	257.75	257.75	0.00	(NS-W)	0	32.2	37.6	31	4	7	230.7	231.8	816	
		28+53.95	30+16.15	162.20	27.00		486.60	3.00	8.00	156.24	164.89	0.00	180	0	20.3	23.7	19	5	7	195.3	198.4	694	
		30+16.15	39+17.14	900.99	27.00		2702.97	3.00	8.00	909.89	896.70	0.00	0	0	112.6	131.4	108	7	7	862.3	832.3	3004	
	RAMP E-N	104+58.97	120+35.62	1576.65	25.00		4379.58	3.00	6.00	1623.50	1560.72	0.00	0	0	182.5	212.9	175	7	7	1413.0	1354.8	4910	
	RAMP E-S	175+62.31	179+07.66	345.35	28.00		1074.42	4.00	8.00	377.24	336.66	0.00	0	0	44.8	52.2	43	7	7	342.5	330.7	1193	
		181+86.27	196+25.35	1439.08	28.00		4477.14	4.00	8.00	1444.01	1451.16	0.00	0	0	186.5	217.6	179	7	7	1422.3	1376.2	4960	
		199+16.96	223+87.88	2470.92	28.00		7687.31	4.00	8.00	2441.45	2485.33	0.00	0	0	320.3	373.7	307	7	7	2439.3	2361.9	8508	
	RAMP W-S	28+58.14	37+53.11	894.97	25.00		2486.03	3.00	6.00	917.97	877.73	0.00	0	0	103.6	120.8	99	7	7	801.4	768.7	2785	
	APPROACH SLABS					SUBBASE WIDTH																	
	RAMP E-S	179+07.66	179+37.66	30.00	35.00		116.67												3	3	32.4	0.0	117
		181+56.27	181+86.27	30.00	35.00		116.67												3	3	32.4	0.0	117
	RAMP E-S	196+25.35	196+55.35	30.00	35.00		116.67												3	3	32.4	0.0	117
		198+86.96	199+16.96	30.00	35.00		116.67												3	3	32.4	0.0	117
	TOTAL												0	180	3463	1738.2	2027.9	1666			14324.7	12826.5	50284

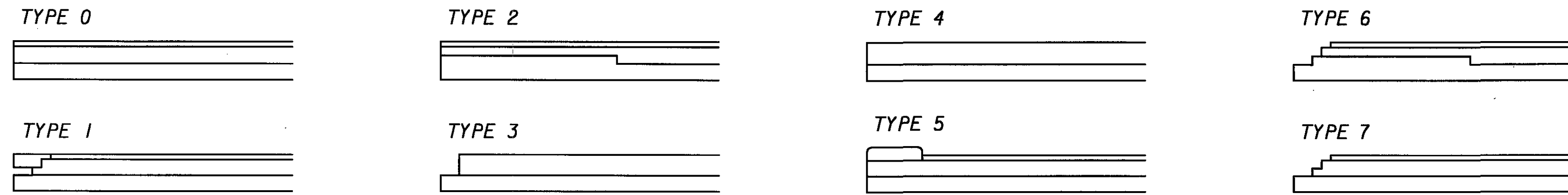
ITEM 526 - REINFORCED CONCRETE APPROACH SLAB
 SEE STRUCTURE PLANS FOR APPROACH SLAB PAYMENT
 (204 AND 304 ITEMS PAID FOR WITH ROADWAY QUANTITIES)

TOTALS CARRIED TO SHEET 159

RAMP PAVEMENT CALCULATIONS

MED-71-6.06

SHOULDER TYPES:



* - OR TACK COAT FOR INTERMEDIATE COURSE. USAGE TO VARY DEPENDING UPON EXPOSURE OF INTERMEDIATE COURSE TO TRAFFIC

ROUTE/ DIRECTION	LOCATION	STATION TO STATION		LENGTH	ASPHALT SURFACE WIDTH	CONCRETE PAVEMENT WIDTH	ASPHALT SURFACE AREA	LEFT SHLD. WIDTH	RIGHT SHLD. WIDTH	LEFT SHLD. LENGTH	RIGHT SHLD. LENGTH	622	609	452	446		407	STEPPED CONSTRUCTION		304	302	204	
												CONCRETE BARRIER SINGLE SLOPE, TYPE BI	CONCRETE MEDIAN	12" NON- REINFORCED CONCRETE PAVEMENT	ASPH. CONC. SURFACE COURSE, TYPE IH	ASPH. CONC. INTER. COURSE, TYPE 2 PG64-28	TACK COAT *	LEFT SHOULDER TYPE	RIGHT SHOULDER TYPE	AGGREGATE BASE	ASPH. CONC. BASE PG64-22,	SUBGRADE COMP.	
												FT.	SQ. YARD	SQ. YARD	SQ. YARD	SQ. YARD	GALS	SEE ABOVE	SEE ABOVE	CU. YARD	CU. YARD	SQ. YARD	
IR71/ RAMPS	RAMP N-EW	11+77.77	16+00.69	422.92	44.50		2091.10	6.00	8.00	422.92	443.92	0.00	0	0	87.1	101.7	84	0	7	608.3	620.7	2165	
		16+00.69	19+93.28	392.59	30.00		1308.63	6.00	8.00	392.59	392.60	0.00	0	0	54.5	63.6	52	0	7	387.7	391.2	1374	
	RAMP N-W	5+18.30	11+11.52	593.22	25.00		1647.83	7.00	6.00	618.25	580.77	0.00	0	0	68.7	80.1	66	0	7	493.6	494.7	1745	
		11+11.52	11+77.77	66.25	29.00		213.47	3.00	6.00	66.16	65.49	0.00	0	0	8.9	10.4	9	7	7	67.4	65.5	235	
	RAMP N-E	42+71.68	54+78.46	1206.78	25.00		3352.17	3.00	6.00	1267.01	1175.11	0.00	0	0	139.7	163.0	134	7	7	1081.8	1037.1	3759	
	RAMP W-NS	5+58.83	8+77.00	318.17	27.00		954.51	3.00	8.00	331.29	317.05	0.00	0	0	39.8	46.4	38	7	7	305.1	294.2	1063	
		8+77.00	12+60.74	383.74	40.00		1705.51	3.00	8.00	388.89	377.31	0.00	0	0	71.1	82.9	68	7	7	521.0	516.1	1833	
		12+60.74	12+99.16	38.42	57.00		243.33	3.00	8.00	38.42	39.37	0.00	0	0	10.1	11.8	10	0	7	70.0	71.9	250	
	RAMP NS-W	17+13.54	22+65.22	551.68	27.00		1655.04	3.00	8.00	592.57	534.08	0.00	0	0	69.0	80.5	66	7	7	529.2	510.1	1843	
		22+65.22	27+43.23	478.01	34.00		1805.82	6.00	8.00	527.73	462.71	520.06	0	0	69.0	87.8	72	7	7	562.7	550.8	1971	
		27+43.23	30+44.97	301.74	37.55		1258.93	6.00	8.00	313.28	298.08	310.54	0	0	48.5	61.2	50	7	7	387.4	382.0	1361	
		33+03.97	36+65.61	361.64	44.82		1800.97	3.00	8.00	365.15	342.48	0.00	0	0	75.0	87.5	72	7	7	543.9	542.5	1919	
		36+65.61	36+98.79	33.18	50.00		184.33	3.00	8.00	33.18	33.18	0.00	59	0	7.7	9.0	7	5	7	69.8	71.9	249	
		36+98.79	37+85.94	87.15	51.00		493.85	3.00	8.00	87.15	87.15	0.00	62	0	20.6	24.0	20	5	7	159.8	164.2	570	
		37+85.94	38+35.94	50.00	52.00		288.89	3.00	7.00	50.00	50.00	0.00	21	0	12.0	14.0	12	5	7	89.2	91.6	318	
		38+35.94	39+18.49	82.55	61.30		562.26	3.00	6.00	82.55	82.55	0.00	28	0	23.4	27.3	22	5	7	169.1	174.2	604	
		RAMP W-N/ S-W	15+18.49	18+34.39	315.90	54.00		1895.40	3.00	8.00	315.90	315.90	0.00	105	0	79.0	92.1	76	5	7	575.2	591.2	2053
		21+44.39	22+70.10	125.71	54.00		754.26	3.00	8.00	125.71	125.71	0.00	42	0	31.4	36.7	30	5	7	228.9	235.3	817	
	22+70.10	28+53.95	583.85	27.00		1751.55	3.00	8.00	583.85	583.85	0.00	195	0	73.0	85.1	70	5	7	576.7	581.9	2044		
	22+70.10	28+53.95	583.85	SUBBASE WIDTH	27.00	0.00	3.00	8.00	583.85	583.85	0.00	0	1752	0.0	0.0	0	4	3	504.6	0.0	1849		
	RAMP NS-W	30+44.97	30+74.97	30.00	43.92		146.40											3	3	40.7	0.0	146	
		32+73.97	33+03.97	30.00	48.64		162.13											3	3	45.0	0.0	162	
	RAMP W-N/ S-W	18+34.39	18+64.39	30.00	64.00		213.33											3	3	59.3	0.0	213	
		21+14.39	21+44.39	30.00	64.00		213.33											3	3	59.3	0.0	213	
	TOTAL												830.6	512	1752	988.5	1165.1	958			8135.7	7387.1	28756

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB
SEE STRUCTURE PLANS FOR APPROACH SLAB PAYMENT
(204 AND 304 ITEMS PAID FOR WITH ROADWAY QUANTITIES)

TOTALS CARRIED TO SHEET 159

RAMP PAVEMENT CALCULATIONS

MED-71-6.06

CALCULATED
CRE
CHECKED
ENF

ITEM 202 - PAVEMENT AND CURB REMOVAL

ITEM 202 PAV'T REM. AREA
ITEM 202 CURB REM. LENGTH

	FROM	TO	LENGTH	WIDTH	AREA	LENGTH
NORTHBOUND	320+00	336+00	1600.00	18.00	3200.0	
MAINLINE	336+00	384+72	4872.00	24.00	12992.0	
	387+00	418+64	3164.00	24.00	8437.3	
	423+35	427+56	421.00	24.00	1122.7	
	429+40	453+75	2453.00	24.00	6541.3	
	456+83	486+28.80	2945.80	24.00	7855.5	
	486+28.80	504+75	1846.20	6.00	1230.8	
SPEED CHANGE LANES	387+45.07	388+45.72	100.72	6.00	67.2	
	388+45.72	393+88.06	542.27	12.00	723.0	
	393+88.06	398+45.79	457.73	24.00	1220.6	
	398+45.79	399+45.79	100.00	12.00	133.3	100.00
	409+91.66	418+91.00	899.30	15.50	1548.8	
SOUTHBOUND	320+00	336+00	1600.00	18.00	3200.0	
MAINLINE	336+00	383+38	4738.00	24.00	12634.7	
	385+95	416+69	3074.00	24.00	8197.3	
	421+45	427+71	626.00	24.00	1669.3	
	429+56	454+23	2467.00	24.00	6578.7	
	457+16	486+28.80	2912.80	24.00	7767.5	
	486+28.80	504+75.00	1846.20	6.00	1230.8	
SPEED CHANGE LANES	376+64.82	383+13	648.18	6.80	489.7	
	385+66.00	391+63.35	597.35	22.80	1513.3	
	402+30.35	403+30.35	100.00	12.00	133.3	100.00
	403+30.35	407+89.18	458.83	24.00	1223.6	
	407+89.18	415+31.17	741.99	12.00	989.3	
	415+31.17	416+31.17	100.00	6.00	66.7	

90766.7 200.00

ITEM 202 - APPROACH SLAB REMOVAL

ITEM 202 APPROACH SLAB REMOVED

	FROM	TO	LENGTH	WIDTH	AREA
NORTHBOUND	384+72	384+97	25.00	24.00	66.7
	386+75	387+00	25.00	24.00	66.7
	418+64	418+89	25.00	30.00	83.3
	423+10	423+35	25.00	25.00	69.4
	427+56	427+81	25.00	24.00	66.7
	429+15	429+40	25.00	24.00	66.7
	453+75	454+00	25.00	24.00	66.7
	456+58	456+83	25.00	24.00	66.7
SOUTHBOUND	383+38	383+63	25.00	38.00	105.6
	385+70	385+95	25.00	43.00	119.4
	416+69	416+94	25.00	24.00	66.7
	421+20	421+45	25.00	24.00	66.7
	427+71	427+96	25.00	24.00	66.7
	429+31	429+56	25.00	24.00	66.7
	454+23	454+48	25.00	24.00	66.7
	456+91	457+16	25.00	24.00	66.7

1178.1

WARR. PAVING QUANTITIES

SHEET NO.	302	407	446	446
	ASPHALT CONCRETE BASE, PG64-22	TACK COAT OR TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 PG64-28
	CU. YD.	GALLONS	CU. YD.	CU. YD.
82	98	123		86
155	31406	5136	4989	5413
156	31136	5095	4946	5363
157	12827	1666	1738	2028
158	7387	958	989	1165
159				
507	119	16	17	20
509	13	1	1	2
513	29	5	5	6
TOTALS	83015	13000	12685	14083

ITEM 880 - ASPHALT CONCRETE (7 YR WARRANTY) 109783 CU.YD.

NON-WARRANTY PAVEMENT QUANTITIES

202	202	202	204	304	452	609	609	622
PAVEMENT REMOVED	CURB REMOVED	APPROACH SLAB REMOVED	SUBGRADE COMPACTION	AGGREGATE BASE	12" NON-REINFORCED CONCRETE PAVEMENT	CURB TYPE 6	CONCRETE MEDIAN	CONCRETE BARRIER SINGLE SLOPE, TYPE B1
SQ. YD.	FT.	SQ. YD.	SQ. YD.	CU. YD.	SQ. YD.	FT.	SQ. YD.	FT.
			112065	31590				
			110975	31305				
			50284	14325	3463		180	
			28756	8136	1752		512	831
90767	200	1178						
			408	113				
			52	14				
			128	15		340		
90767	200	1178	302668	85498	5215	340	692	831

TOTALS CARRIED TO GENERAL SUMMARY

CALCULATED
DWL
CHECKED
ENF

IR 71 PAVEMENT CALCULATIONS

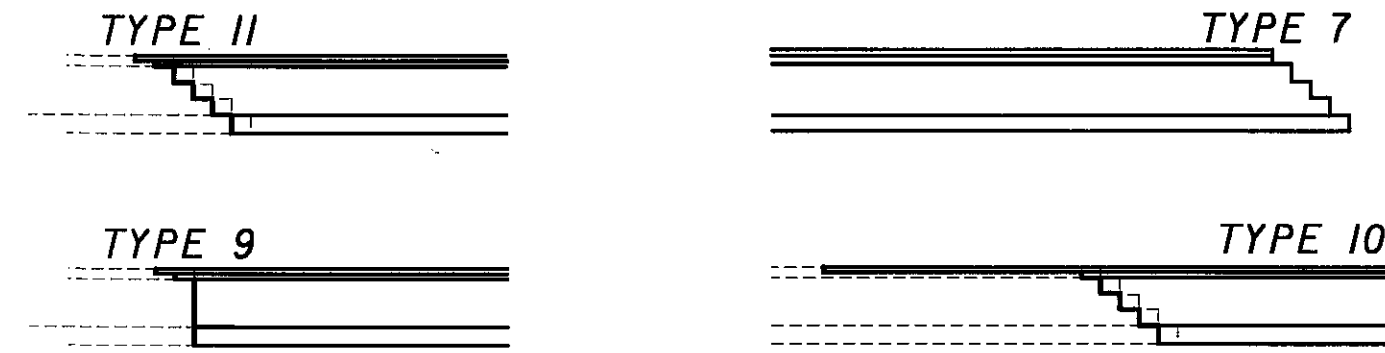
MED-71-6.06

159
1120

...X75657GCA.dgn

EDGE TYPES

* - INCLUDES THE ADDITIONAL
1'-0" WIDTH FOR LAPPED JOINT



ROUTE/ DIRECTION	LOCATION	STATION TO STATION		LENGTH FT.	AVERAGE SURFACE WIDTH * FT.	INTERM. COURSE WIDTH FT.	SURFACE COURSE AREA SQ. YARD	STEPPED CONSTRUCTION		PLANING WIDTH FT.	254	446		407	AVG. 302 BASE WIDTH	AVG. 304 BASE WIDTH	SUBGRADE COMP. WIDTH	302	304	204	SPEC.	609	
		FROM	TO					PAVEMENT PLANING ASPHALT CONCRETE SQ. YARD	ASPH. CONC. SURFACE COURSE, TYPE 1H CU. YARD		ASPH. CONC. INTER. COURSE, TYPE 2 P664-28 CU. YARD	TACK COAT FOR INTERMED. COURSE GALS	ASPH. CONC. BASE P664-22, CU. YARD	AGGREGATE BASE CU. YARD				SUBGRADE COMP. SQ. YARD	PRESSURE RELIEF JOINT, TYPE A FT.	CURB TYPE 6 FT.			
		SEE ABOVE	SEE ABOVE					LEFT EDGE TYPE	RIGHT EDGE TYPE														
IR76 - EASTBOUND SPEED CHANGE LANES	76EB	850+63.92	851+45.04	81.12	30.7	30.2	271	9	7	1	9	11.3	13.2	11	30.7	31.7	31.2	107.6	47.6	281			
	RAMP NE	851+45.04	852+45.04	100.00	25.5	25.0	278	9	7	1	11	11.6	13.5	11	25.5	26.5	26.0	110.2	49.1	289			
		852+45.04	856+25.04	380.00	26.0	25.5	1098	9	7	1	42	45.8	52.4	44	26.0	27.0	26.5	426.9	190.0	1119			
		856+25.04	863+00.00	674.96	24.7	24.2	1852	9	7	1	75	77.2	88.2	74	24.7	25.7	25.2	719.6	320.1	1890			
		863+00.00	868+75.04	575.04	15.7	4.8	1003	10	7	7	447	41.8	14.9	40	4.8	4.8	4.8	119.3	51.1	307			
	76EB	873+59.65	874+75.00	115.35	31.4	30.9	402	11	7	1	13	16.8	19.3	16	30.9	30.9	31.9	154.0	66.0	409			
	RAMP SE	874+75.00	879+08.48	433.48	30.8	30.3	1483	9	7	1	48	61.8	70.9	59	30.8	31.8	31.4	576.9	255.5	1512			
		FEATHER	878+98.48	879+08.48	10.00	33.0	33.0	37	7	7	33	37	1.5	3.6	2								
	APPROACH	879+08.48	879+33.48	25.00	61.0		169									64.0	64.0			29.6	178	30	
	SLABS	880+25.92	880+50.92	25.00	60.0		167									63.0	63.0			29.2	175	30	
	FEATHER	880+50.92	880+60.92	10.00	32.0	32.0	36	7	7	32	36	1.5	3.4	2									
		880+50.92	881+50.00	99.08	24.0	23.5	264	9	7	1	11	11.0	12.6	11	24.0	25.0	24.5	102.7	45.9	270			
	881+50.00	888+16.63	666.63	16.5	16.0	1222	9	7	1	74	50.9	57.6	49	16.5	17.5	17.0	475.3	216.0	1259				
IR76 WESTBOUND SPEED CHANGE LANES	76 WB	860+03.80	864+25.00	421.20	24.6	24.1	1151	7	9	1	47	48.0	54.8	46	24.6	25.6	25.1	447.7	199.7	1175			
	RAMP ES	866+50.00	867+03.80	53.80	13.5	5.0	81	7	10	7	42	3.4	1.5	3	5.0	5.0	5.0	11.6	5.0	30			
		867+03.80	867+49.00	45.20	17.0	8.0	86	7	10	7	35	3.6	2.0	3	8.0	8.0	8.0	15.6	6.7	40			
		867+49.00	868+03.80	54.80	13.5	5.0	82	7	10	7	43	3.4	1.5	3	5.0	5.0	5.0	11.8	5.1	30			
		76 WB	897+55.77	899+50.00	194.23	41.2	40.9	889	7	9	1	22	37.0	42.9	36	41.2	42.2	41.7	345.8	151.8	900		
	RAMP EN	899+50.00	902+10.09	260.09	26.7	17.2	772	7	10	7	202	32.2	24.2	31	17.2	17.2	17.2	193.3	82.8	497			
		902+10.09	903+63.12	153.02	22.0	12.5	374	7	10	7	118	15.6	10.3	15	12.5	12.5	12.5	82.6	35.4	213			
		APPROACH	903+63.12	903+88.12	25.00	15.5		43								17.0	17.0			7.9	47		
	SLABS	906+06.08	906+31.08	25.00	15.5		43								17.0	17.0			7.9	47			
		906+31.08	906+50.00	18.92	22.0	12.5	46	7	10	7	15	1.9	1.3	2	12.5	12.5	12.5	10.2	4.4	26			
	906+50.00	907+50.00	100.00	16.0	7.0	178	7	10	7	78	7.4	3.8	7	7.0	7.0	7.0	30.2	13.0	78				
IR76 EDGE TAPERS	FROM CURB / PAVEMENT QUANTITIES ON SHEET NUMBER 513											0.5	0.6	1				3.4	0.8	13		38	
TOTAL											1405	484.2	492.5	466				3944.7	1820.6	10785	60	38	

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB
SEE STRUCTURE PLANS FOR APPROACH SLAB PAYMENT
(204 AND 304 ITEMS PAID FOR WITH ROADWAY QUANTITIES)

TOTALS CARRIED TO GENERAL SUMMARY

CALCULATED
DWL
CHECKED
ENF

IR76 SPEED CHANGE LANE PAVEMENT CALCULATIONS

MED-71-6.06

160
1120

* - INCLUDES AN ADDITIONAL 1'-0" WIDTH
FOR LAPPED JOINT ONTO PREVIOUSLY
PLACED (NEW) SURFACE COURSE

ROUTE/ DIRECTION	STATION TO STATION		LENGTH FT.	AVERAGE SURFACE WIDTH * FT.	PLANING WIDTH FT.	SURFACE COURSE AREA SQ. YARD						254	446	407	644	644	644	621						
	FROM	TO										PAVEMENT PLANING ASPHALT CONCRETE SQ. YARD	ASPH. CONC. SURFACE COURSE, TYPE 1H CU. YARD	TACK COAT GALS	EDGE LINE (YELLOW) FT.	EDGE LINE (WHITE) FT.	LANE LINE FT.	RAISED PAVEMENT MARKER ONE-WAY WHITE EACH						
IR76 - EASTBOUND RESURFACING	839+25	841+49	224.00	51.0	51.0	1269.3						1269.3	52.9	126.9										
	841+49	850+63.92	914.92	38.0	38.0	3863.0						3863.0	161.0	386.3										
	850+63.92	868+75.04	1811.12	* 28.0	* 28.0	5634.6						5634.6	234.8	563.5										
	868+75.04	874+75	599.96	38.0	38.0	2533.2						2533.2	105.5	253.3										
	874+75	879+08.48	433.48	* 28.0	* 28.0	1348.6						1348.6	56.2	134.9										
	880+50.92	888+16.63	765.71	* 28.0	* 28.0	2382.2						2382.2	99.3	238.2										
	888+16.63	903+63.12	1544.49	38.0	38.0	6521.2						6521.2	271.7	652.1										
	906+31.08	916+10	978.92	38.0	38.0	4133.2						4133.2	172.2	413.3										
	839+25	916+10	7685.00																				65	
IR76 WESTBOUND RESURFACING	839+25	848+75	950.00	62.0	62.0	6544.4						6544.4	272.7	654.4										
	848+75	860+03.80	1128.80	38.0	38.0	4766.0						4766.0	198.6	476.6										
	860+03.80	864+25	421.20	* 28.0	28.0	1310.4						1310.4	54.6	131.0										
	864+25	867+00	175.00	38.0	38.0	738.9						738.9	30.8	73.9										
	867+00	868+53.80	153.80	75.5	75.5	1290.2						1290.2	53.8	129.0										
	868+53.80	878+66.13	1112.33	38.0	38.0	4696.5						4696.5	195.7	469.7										
	880+13.96	897+55.77	1741.81	38.0	38.0	7354.3						7354.3	306.4	735.4										
	897+55.77	899+50	194.23	* 28.0	28.0	604.3						604.3	25.2	60.4										
	899+50	903+63.12	413.12	38.0	38.0	1744.3						1744.3	72.7	174.4										
	906+31.08	907+50	118.92	38.0	38.0	502.1						502.1	20.9	50.2										
	907+50	916+00	860.00	38.0	38.0	3631.1						3631.1	151.3	363.1										
	839+25	916+10	7685.00																				65	
	TOTAL												60,868	2,536	6,086.8	15,370	13,402	15,370	130	PAVEMENT MARKING QUANTITIES IN MILES				
TOTALS CARRIED TO GENERAL SUMMARY																5.45				TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY ON SHEET 559				

IR76 MAINLINE RESURFACING

MED-71-6.06

...Y75657CCA.dgn

SUPERELEVATION TABLE NORTHBOUND

PI STA= 443+26.96

Dc = 0°28'02"

STATION	REMARKS	30' RIGHT					42' RIGHT					54' RIGHT					OUTSIDE EDGE CONTROL 66' RIGHT	
		EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
414+00	N	1011.08	510.2:1	-0.19	-0.0156	12.00	1011.27	-0.19	-0.0156	12.00	1011.46		0.19	0.0156	12.00	1011.27	414+00	
414+25		1011.33		-0.19	-0.0156	12.00	1011.51	-0.19	-0.0156	12.00	1011.70		0.14	0.0117	12.00	1011.56	414+25	
414+50		1011.56		-0.19	-0.0156	12.00	1011.75	-0.19	-0.0156	12.00	1011.93		0.09	0.0078	12.00	1011.84	414+50	
414+75		1011.78		-0.19	-0.0156	12.00	1011.97	-0.19	-0.0156	12.00	1012.16		0.05	0.0039	12.00	1012.11	414+75	
415+00	H.F	1011.99		-0.19	-0.0156	12.00	1012.17	-0.19	-0.0156	12.00	1012.36		0.00	0.0000	12.00	1012.36	415+00	
415+25		1012.18		-0.19	-0.0156	12.00	1012.37	-0.19	-0.0156	12.00	1012.55		-0.05	-0.0038	12.00	1012.60	415+25	
415+50		1012.36		-0.19	-0.0156	12.00	1012.55	-0.19	-0.0156	12.00	1012.74		-0.09	-0.0077	12.00	1012.83	415+50	
415+75		1012.54		-0.19	-0.0156	12.00	1012.72	-0.19	-0.0156	12.00	1012.91		-0.14	-0.0115	12.00	1013.05	415+75	
416+00		1012.69		-0.19	-0.0156	12.00	1012.88	-0.19	-0.0156	12.00	1013.07		-0.18	-0.0154	12.00	1013.25	416+00	
416+01.31	F.C	1012.70		-0.19	-0.0156	12.00	1012.89	-0.19	-0.0156	12.00	1013.07		-0.19	-0.0156	12.00	1013.26	416+01.31	
416+25		1012.83		-0.21	-0.0173	12.00	1013.04	-0.21	-0.0173	12.00	1013.24		-0.21	-0.0173	12.00	1013.45	416+25	
416+50	F.S	1012.95	510.2:1	-0.23	-0.0190	12.00	1013.17	-0.23	-0.0190	12.00	1013.40		-0.23	-0.0190	12.00	1013.63	416+50	
416+75		1013.11		-0.23	-0.0190	12.00	1013.33	-0.23	-0.0190	12.00	1013.56		-0.23	-0.0190	12.00	1013.79	416+75	
417+00		1013.27		-0.23	-0.0190	12.00	1013.49	-0.23	-0.0190	12.00	1013.72		-0.23	-0.0190	12.00	1013.95	417+00	
417+25		1013.43		-0.23	-0.0190	12.00	1013.65	-0.23	-0.0190	12.00	1013.88		-0.23	-0.0190	12.00	1014.11	417+25	
417+50		1013.56		-0.23	-0.0190	12.00	1013.78	-0.23	-0.0190	12.00	1014.01		-0.23	-0.0190	12.00	1014.24	417+50	
417+75		1013.68		-0.23	-0.0190	12.00	1013.90	-0.23	-0.0190	12.00	1014.13		-0.23	-0.0190	12.00	1014.36	417+75	
418+00		1013.78		-0.23	-0.0190	12.00	1014.00	-0.23	-0.0190	12.00	1014.23		-0.23	-0.0190	12.00	1014.46	418+00	
418+25		1013.86		-0.23	-0.0190	12.00	1014.08	-0.23	-0.0190	12.00	1014.31		-0.23	-0.0190	12.00	1014.54	418+25	
418+50		1013.93		-0.23	-0.0190	12.00	1014.15	-0.23	-0.0190	12.00	1014.38		-0.23	-0.0190	12.00	1014.61	418+50	
418+75		1013.98		-0.23	-0.0190	12.00	1014.20	-0.23	-0.0190	12.00	1014.43		-0.23	-0.0190	12.00	1014.66	418+75	
419+00		1014.02		-0.23	-0.0190	12.00	1014.24	-0.23	-0.0190	12.00	1014.47		-0.23	-0.0190	12.00	1014.70	419+00	
419+25		1014.03		-0.23	-0.0190	12.00	1014.25	-0.23	-0.0190	12.00	1014.48		-0.23	-0.0190	12.00	1014.71	419+25	
419+50		1014.03		-0.23	-0.0190	12.00	1014.25	-0.23	-0.0190	12.00	1014.48		-0.23	-0.0190	12.00	1014.71	419+50	
419+75		1014.02		-0.23	-0.0190	12.00	1014.24	-0.23	-0.0190	12.00	1014.47		-0.23	-0.0190	12.00	1014.70	419+75	
420+00		1013.98		-0.23	-0.0190	12.00	1014.20	-0.23	-0.0190	12.00	1014.43		-0.23	-0.0190	12.00	1014.66	420+00	
420+25		1013.93		-0.23	-0.0190	12.00	1014.15	-0.23	-0.0190	12.00	1014.38		-0.23	-0.0190	12.00	1014.61	420+25	
420+50		1013.86		-0.23	-0.0190	12.00	1014.08	-0.23	-0.0190	12.00	1014.31		-0.23	-0.0190	12.00	1014.54	420+50	
420+75		1013.78		-0.23	-0.0190	12.00	1014.00	-0.23	-0.0190	12.00	1014.23		-0.23	-0.0190	12.00	1014.46	420+75	
421+00		1013.68		-0.23	-0.0190	12.00	1013.90	-0.23	-0.0190	12.00	1014.13		-0.23	-0.0190	12.00	1014.36	421+00	
421+25		1013.56		-0.23	-0.0190	12.00	1013.78	-0.23	-0.0190	12.00	1014.01		-0.23	-0.0190	12.00	1014.24	421+25	
421+50		1013.42		-0.23	-0.0190	12.00	1013.64	-0.23	-0.0190	12.00	1013.87		-0.23	-0.0190	12.00	1014.10	421+50	
421+75		1013.27		-0.23	-0.0190	12.00	1013.49	-0.23	-0.0190	12.00	1013.72		-0.23	-0.0190	12.00	1013.95	421+75	
422+00		1013.10		-0.23	-0.0190	12.00	1013.32	-0.23	-0.0190	12.00	1013.55		-0.23	-0.0190	12.00	1013.78	422+00	
422+25		1012.91		-0.23	-0.0190	12.00	1013.13	-0.23	-0.0190	12.00	1013.36		-0.23	-0.0190	12.00	1013.59	422+25	
422+50		1012.71		-0.23	-0.0190	12.00	1012.93	-0.23	-0.0190	12.00	1013.16		-0.23	-0.0190	12.00	1013.39	422+50	
422+75		1012.49		-0.23	-0.0190	12.00	1012.71	-0.23	-0.0190	12.00	1012.94		-0.23	-0.0190	12.00	1013.17	422+75	
423+00		1012.25		-0.23	-0.0190	12.00	1012.47	-0.23	-0.0190	12.00	1012.70		-0.23	-0.0190	12.00	1012.93	423+00	
423+25		1011.99		-0.23	-0.0190	12.00	1012.21	-0.23	-0.0190	12.00	1012.44		-0.23	-0.0190	12.00	1012.67	423+25	
423+50		1011.72		-0.23	-0.0190	12.00	1011.94	-0.23	-0.0190	12.00	1012.17		-0.23	-0.0190	12.00	1012.40	423+50	
423+75		1011.43		-0.23	-0.0190	12.00	1011.65	-0.23	-0.0190	12.00	1011.88		-0.23	-0.0190	12.00	1012.11	423+75	
424+00		1011.13		-0.23	-0.0190	12.00	1011.35	-0.23	-0.0190	12.00	1011.58		-0.23	-0.0190	12.00	1011.81	424+00	
424+25		1010.81		-0.23	-0.0190	12.00	1011.03	-0.23	-0.0190	12.00	1011.26		-0.23	-0.0190	12.00	1011.49	424+25	
424+50		1010.47		-0.23	-0.0190	12.00	1010.69	-0.23	-0.0190	12.00	1010.92		-0.23	-0.0190	12.00	1011.15	424+50	
424+75		1010.11		-0.23	-0.0190	12.00	1010.33	-0.23	-0.0190	12.00	1010.56		-0.23	-0.0190	12.00	1010.79	424+75	
425+00		1009.74		-0.23	-0.0190	12.00	1009.96	-0.23	-0.0190	12.00	1010.19		-0.23	-0.0190	12.00	1010.42	425+00	
425+25		1009.35		-0.23	-0.0190	12.00	1009.57	-0.23	-0.0190	12.00	1009.80		-0.23	-0.0190	12.00	1010.03	425+25	
425+50		1008.94		-0.23	-0.0190	12.00	1009.16	-0.23	-0.0190	12.00	1009.39		-0.23	-0.0190	12.00	1009.62	425+50	
425+75		1008.52		-0.23	-0.0190	12.00	1008.74	-0.23	-0.0190	12.00	1008.97		-0.23	-0.0190	12.00	1009.20	425+75	
426+00		1008.08		-0.23	-0.0190	12.00	1008.30	-0.23	-0.0190	12.00	1008.53		-0.23	-0.0190	12.00	1008.76	426+00	
426+25		1007.63		-0.23	-0.0190	12.00	1007.85	-0.23	-0.0190	12.00	1008.08		-0.23	-0.0190	12.00	1008.31	426+25	
426+50		1007.18		-0.23	-0.0190	12.00	1007.40	-0.23	-0.0190	12.00	1007.63		-0.23	-0.0190	12.00	1007.86	426+50	
426+75		1006.73		-0.23	-0.0190	12.00	1006.95	-0.23	-0.0190	12.00	1007.18		-0.23	-0.0190	12.00	1007.41	426+75	
427+00		1006.28		-0.23	-0.0190	12.00	1006.50	-0.23	-0.0190	12.00	1006.73		-0.23	-0.0190	12.00	1006.96	427+00	
427+25		1005.83		-0.23	-0.0190	12.00	1006.05	-0.23	-0.0190	12.00	1006.28		-0.23	-0.0190	12.00	1006.51	427+25	
427+50		1005.38		-0.23	-0.0190	12.00	1005.60	-0.23	-0.0190	12.00	1005.83		-0.23	-0.0190	12.00	1006.06	427+50	
427+75		1004.93		-0.23	-0.0190	12.00	1005.15	-0.23	-0.0190	12.00	1005.38		-0.23	-0.0190	12.00	1005.61	427+75	
428+00		1004.48		-0.23	-0.0190	12.00	1004.70	-0.23	-0.0190	12.00	1004.93		-0.23	-0.0190	12.00	1005.16	428+00	
428+25		1004.03		-0.23	-0.0190	12.00	1004.25	-0.23	-0.0190	12.00	1004.48		-0.23	-0.0190	12.00	1004.71	428+25	
428+50		1003.58		-0.23	-0.0190	12.00	1003.80	-0.23	-0.0190	12.00	1004.03		-0.23	-0.0190	12.00	1004.26	428+50	
428+75		1003.13		-0.23	-0.0190	12.00	1003.35	-0.23	-0.0190	12.00	1003.58		-0.23	-0.0190	12.00	1003.81	428+75	
429+00		1002.68		-0.23	-0.0190	12.00	1002.90	-0.23	-0.0190	12.00	1003.13		-0.23	-0.0190	12.00	1003.36	429+00	
429+25		1002.23		-0.23	-0.0190	12.00	1002.45	-0.23	-0.0190	12.00	1002.68		-0.23	-0.0190	12.00	1002.91	429+25	

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CALCULATED
CHECKED

SUPERELEVATION TABLE

MED - 71 - 6.06

161
1120

SUPERELEVATION TABLE NORTHBOUND

PI STA= 443+26.96

Dc = 0°28'02"

STATION	REMARKS	30' RIGHT					42' RIGHT					54' RIGHT					OUTSIDE EDGE CONTROL 66' RIGHT	
		EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
429+50		1001.80		-0.23	-0.0190	12.00	1002.02		-0.23	-0.0190	12.00	1002.25		-0.23	-0.0190	12.00	1002.48	429+50
429+75		1001.39		-0.23	-0.0190	12.00	1001.61		-0.23	-0.0190	12.00	1001.84		-0.23	-0.0190	12.00	1002.07	429+75
430+00		1001.02		-0.23	-0.0190	12.00	1001.24		-0.23	-0.0190	12.00	1001.47		-0.23	-0.0190	12.00	1001.70	430+00
430+25		1000.68		-0.23	-0.0190	12.00	1000.90		-0.23	-0.0190	12.00	1001.13		-0.23	-0.0190	12.00	1001.36	430+25
430+50		1000.37		-0.23	-0.0190	12.00	1000.59		-0.23	-0.0190	12.00	1000.82		-0.23	-0.0190	12.00	1001.05	430+50
430+75		1000.09		-0.23	-0.0190	12.00	1000.31		-0.23	-0.0190	12.00	1000.54		-0.23	-0.0190	12.00	1000.77	430+75
431+00		999.84		-0.23	-0.0190	12.00	1000.06		-0.23	-0.0190	12.00	1000.29		-0.23	-0.0190	12.00	1000.52	431+00
431+25		999.62		-0.23	-0.0190	12.00	999.84		-0.23	-0.0190	12.00	1000.07		-0.23	-0.0190	12.00	1000.30	431+25
431+50		999.43		-0.23	-0.0190	12.00	999.65		-0.23	-0.0190	12.00	999.88		-0.23	-0.0190	12.00	1000.11	431+50
431+75		999.27		-0.23	-0.0190	12.00	999.49		-0.23	-0.0190	12.00	999.72		-0.23	-0.0190	12.00	999.95	431+75
432+00		999.14		-0.23	-0.0190	12.00	999.36		-0.23	-0.0190	12.00	999.59		-0.23	-0.0190	12.00	999.82	432+00
432+25		999.04		-0.23	-0.0190	12.00	999.26		-0.23	-0.0190	12.00	999.49		-0.23	-0.0190	12.00	999.72	432+25
432+50		998.97		-0.23	-0.0190	12.00	999.19		-0.23	-0.0190	12.00	999.42		-0.23	-0.0190	12.00	999.65	432+50
432+75		998.94		-0.23	-0.0190	12.00	999.16		-0.23	-0.0190	12.00	999.39		-0.23	-0.0190	12.00	999.62	432+75
433+00		998.93		-0.23	-0.0190	12.00	999.15		-0.23	-0.0190	12.00	999.38		-0.23	-0.0190	12.00	999.61	433+00
433+25		998.96		-0.23	-0.0190	12.00	999.18		-0.23	-0.0190	12.00	999.41		-0.23	-0.0190	12.00	999.64	433+25
433+50		999.01		-0.23	-0.0190	12.00	999.23		-0.23	-0.0190	12.00	999.46		-0.23	-0.0190	12.00	999.69	433+50
433+75		999.10		-0.23	-0.0190	12.00	999.32		-0.23	-0.0190	12.00	999.55		-0.23	-0.0190	12.00	999.78	433+75
434+00		999.22		-0.23	-0.0190	12.00	999.44		-0.23	-0.0190	12.00	999.67		-0.23	-0.0190	12.00	999.90	434+00
434+25		999.36		-0.23	-0.0190	12.00	999.58		-0.23	-0.0190	12.00	999.81		-0.23	-0.0190	12.00	1000.04	434+25
434+50		999.54		-0.23	-0.0190	12.00	999.76		-0.23	-0.0190	12.00	999.99		-0.23	-0.0190	12.00	1000.22	434+50
434+75		999.75		-0.23	-0.0190	12.00	999.97		-0.23	-0.0190	12.00	1000.20		-0.23	-0.0190	12.00	1000.43	434+75
435+00		999.99		-0.23	-0.0190	12.00	1000.21		-0.23	-0.0190	12.00	1000.44		-0.23	-0.0190	12.00	1000.67	435+00
435+25		1000.26		-0.23	-0.0190	12.00	1000.48		-0.23	-0.0190	12.00	1000.71		-0.23	-0.0190	12.00	1000.94	435+25
435+50		1000.56		-0.23	-0.0190	12.00	1000.78		-0.23	-0.0190	12.00	1001.01		-0.23	-0.0190	12.00	1001.24	435+50
435+75		1000.89		-0.23	-0.0190	12.00	1001.11		-0.23	-0.0190	12.00	1001.34		-0.23	-0.0190	12.00	1001.57	435+75
436+00		1001.25		-0.23	-0.0190	12.00	1001.47		-0.23	-0.0190	12.00	1001.70		-0.23	-0.0190	12.00	1001.93	436+00
436+25		1001.64		-0.23	-0.0190	12.00	1001.86		-0.23	-0.0190	12.00	1002.09		-0.23	-0.0190	12.00	1002.32	436+25
436+50		1002.06		-0.23	-0.0190	12.00	1002.28		-0.23	-0.0190	12.00	1002.51		-0.23	-0.0190	12.00	1002.74	436+50
436+75		1002.52		-0.23	-0.0190	12.00	1002.74		-0.23	-0.0190	12.00	1002.97		-0.23	-0.0190	12.00	1003.20	436+75
437+00		1003.00		-0.23	-0.0190	12.00	1003.22		-0.23	-0.0190	12.00	1003.45		-0.23	-0.0190	12.00	1003.68	437+00
437+25		1003.52		-0.23	-0.0190	12.00	1003.74		-0.23	-0.0190	12.00	1003.97		-0.23	-0.0190	12.00	1004.20	437+25
437+50		1004.05		-0.23	-0.0190	12.00	1004.27		-0.23	-0.0190	12.00	1004.50		-0.23	-0.0190	12.00	1004.73	437+50
437+75		1004.54		-0.23	-0.0190	12.00	1004.76		-0.23	-0.0190	12.00	1004.99		-0.23	-0.0190	12.00	1005.22	437+75
438+00		1005.03		-0.23	-0.0190	12.00	1005.25		-0.23	-0.0190	12.00	1005.48		-0.23	-0.0190	12.00	1005.71	438+00
438+25		1005.52		-0.23	-0.0190	12.00	1005.74		-0.23	-0.0190	12.00	1005.97		-0.23	-0.0190	12.00	1006.20	438+25
438+50		1006.01		-0.23	-0.0190	12.00	1006.23		-0.23	-0.0190	12.00	1006.46		-0.23	-0.0190	12.00	1006.69	438+50
438+75		1006.50		-0.23	-0.0190	12.00	1006.72		-0.23	-0.0190	12.00	1006.95		-0.23	-0.0190	12.00	1007.18	438+75
439+00		1006.99		-0.23	-0.0190	12.00	1007.21		-0.23	-0.0190	12.00	1007.44		-0.23	-0.0190	12.00	1007.67	439+00
439+25		1007.48		-0.23	-0.0190	12.00	1007.70		-0.23	-0.0190	12.00	1007.93		-0.23	-0.0190	12.00	1008.16	439+25
439+50		1007.97		-0.23	-0.0190	12.00	1008.19		-0.23	-0.0190	12.00	1008.42		-0.23	-0.0190	12.00	1008.65	439+50
439+75		1008.46		-0.23	-0.0190	12.00	1008.68		-0.23	-0.0190	12.00	1008.91		-0.23	-0.0190	12.00	1009.14	439+75
440+00		1008.95		-0.23	-0.0190	12.00	1009.17		-0.23	-0.0190	12.00	1009.40		-0.23	-0.0190	12.00	1009.63	440+00
440+25		1009.44		-0.23	-0.0190	12.00	1009.66		-0.23	-0.0190	12.00	1009.89		-0.23	-0.0190	12.00	1010.12	440+25
440+50		1009.93		-0.23	-0.0190	12.00	1010.15		-0.23	-0.0190	12.00	1010.38		-0.23	-0.0190	12.00	1010.61	440+50
440+75		1010.36		-0.23	-0.0190	12.00	1010.58		-0.23	-0.0190	12.00	1010.81		-0.23	-0.0190	12.00	1011.04	440+75
441+00		1010.80		-0.23	-0.0190	12.00	1011.02		-0.23	-0.0190	12.00	1011.25		-0.23	-0.0190	12.00	1011.48	441+00
441+25		1011.23		-0.23	-0.0190	12.00	1011.45		-0.23	-0.0190	12.00	1011.68		-0.23	-0.0190	12.00	1011.91	441+25
441+50		1011.67		-0.23	-0.0190	12.00	1011.89		-0.23	-0.0190	12.00	1012.12		-0.23	-0.0190	12.00	1012.35	441+50
441+75		1012.10		-0.23	-0.0190	12.00	1012.32		-0.23	-0.0190	12.00	1012.55		-0.23	-0.0190	12.00	1012.78	441+75
442+00		1012.54		-0.23	-0.0190	12.00	1012.76		-0.23	-0.0190	12.00	1012.99		-0.23	-0.0190	12.00	1013.22	442+00
442+25		1012.97		-0.23	-0.0190	12.00	1013.19		-0.23	-0.0190	12.00	1013.42		-0.23	-0.0190	12.00	1013.65	442+25
442+50		1013.40		-0.23	-0.0190	12.00	1013.62		-0.23	-0.0190	12.00	1013.85		-0.23	-0.0190	12.00	1014.08	442+50
442+75		1013.84		-0.23	-0.0190	12.00	1014.06		-0.23	-0.0190	12.00	1014.29		-0.23	-0.0190	12.00	1014.52	442+75
443+00		1014.29		-0.23	-0.0190	12.00	1014.51		-0.23	-0.0190	12.00	1014.74		-0.23	-0.0190	12.00	1014.97	443+00
443+25		1014.75		-0.23	-0.0190	12.00	1014.97		-0.23	-0.0190	12.00	1015.20		-0.23	-0.0190	12.00	1015.43	443+25
443+50		1015.21		-0.23	-0.0190	12.00	1015.43		-0.23	-0.0190	12.00	1015.66		-0.23	-0.0190	12.00	1015.89	443+50
443+75		1015.68		-0.23	-0.0190	12.00	1015.90		-0.23	-0.0190	12.00	1016.13		-0.23	-0.0190	12.00	1016.36	443+75
444+00		1016.16		-0.23	-0.0190	12.00	1016.38		-0.23	-0.0190	12.00	1016.61		-0.23	-0.0190	12.00	1016.84	444+00
444+25		1016.65		-0.23	-0.0190	12.00	1016.87		-0.23	-0.0190	12.00	1017.10		-0.23	-0.0190	12.00	1017.33	444+25
444+50		1017.14		-0.23	-0.0190	12.00	1017.36		-0.23	-0.0190	12.00	1017.59		-0.23	-0.0190	12.00	1017.82	444+50
444+75		1017.64		-0.23	-0.0190	12.00	1017.86		-0.23	-0.0190	12.00	1018.09		-0.23	-0.0190	12.00	1018.32	444+75
445+00		1018.14		-0.23	-0.0190	12.00	1018.36		-0.23	-0.0190	12.00	1018.59		-0.23	-0.0190	12.00	1018.82	445+00

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CALCULATED
CHECKED

SUPERELEVATION TABLE

MED-71-6.06

162
1120

SUPERELEVATION TABLE NORTHBOUND

PI STA= 443+26.96

Dc = 0°28'02"

STATION	REMARKS	30' RIGHT					42' RIGHT					54' RIGHT					OUTSIDE EDGE CONTROL 66' RIGHT	
		EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
445+25		1018.64		-0.23	-0.0190	12.00	1018.86		-0.23	-0.0190	12.00	1019.09		-0.23	-0.0190	12.00	1019.32	445+25
445+50		1019.14		-0.23	-0.0190	12.00	1019.36		-0.23	-0.0190	12.00	1019.59		-0.23	-0.0190	12.00	1019.82	445+50
445+75		1019.64		-0.23	-0.0190	12.00	1019.86		-0.23	-0.0190	12.00	1020.09		-0.23	-0.0190	12.00	1020.32	445+75
446+00		1020.14		-0.23	-0.0190	12.00	1020.36		-0.23	-0.0190	12.00	1020.59		-0.23	-0.0190	12.00	1020.82	446+00
446+25		1020.64		-0.23	-0.0190	12.00	1020.86		-0.23	-0.0190	12.00	1021.09		-0.23	-0.0190	12.00	1021.32	446+25
446+50		1021.14		-0.23	-0.0190	12.00	1021.36		-0.23	-0.0190	12.00	1021.59		-0.23	-0.0190	12.00	1021.82	446+50
446+75		1021.64		-0.23	-0.0190	12.00	1021.86		-0.23	-0.0190	12.00	1022.09		-0.23	-0.0190	12.00	1022.32	446+75
447+00		1022.16		-0.23	-0.0190	12.00	1022.38		-0.23	-0.0190	12.00	1022.61		-0.23	-0.0190	12.00	1022.84	447+00
447+25		1022.69		-0.23	-0.0190	12.00	1022.91		-0.23	-0.0190	12.00	1023.14		-0.23	-0.0190	12.00	1023.37	447+25
447+50		1023.25		-0.23	-0.0190	12.00	1023.47		-0.23	-0.0190	12.00	1023.70		-0.23	-0.0190	12.00	1023.93	447+50
447+75		1023.83		-0.23	-0.0190	12.00	1024.05		-0.23	-0.0190	12.00	1024.28		-0.23	-0.0190	12.00	1024.51	447+75
448+00		1024.43		-0.23	-0.0190	12.00	1024.65		-0.23	-0.0190	12.00	1024.88		-0.23	-0.0190	12.00	1025.11	448+00
448+25		1025.05		-0.23	-0.0190	12.00	1025.27		-0.23	-0.0190	12.00	1025.50		-0.23	-0.0190	12.00	1025.73	448+25
448+50		1025.70		-0.23	-0.0190	12.00	1025.92		-0.23	-0.0190	12.00	1026.15		-0.23	-0.0190	12.00	1026.38	448+50
448+75		1026.36		-0.23	-0.0190	12.00	1026.58		-0.23	-0.0190	12.00	1026.81		-0.23	-0.0190	12.00	1027.04	448+75
449+00		1027.04		-0.23	-0.0190	12.00	1027.26		-0.23	-0.0190	12.00	1027.49		-0.23	-0.0190	12.00	1027.72	449+00
449+25		1027.72		-0.23	-0.0190	12.00	1027.94		-0.23	-0.0190	12.00	1028.17		-0.23	-0.0190	12.00	1028.40	449+25
449+50		1028.40		-0.23	-0.0190	12.00	1028.62		-0.23	-0.0190	12.00	1028.85		-0.23	-0.0190	12.00	1029.08	449+50
449+75		1029.08		-0.23	-0.0190	12.00	1029.30		-0.23	-0.0190	12.00	1029.53		-0.23	-0.0190	12.00	1029.76	449+75
450+00		1029.76		-0.23	-0.0190	12.00	1029.98		-0.23	-0.0190	12.00	1030.21		-0.23	-0.0190	12.00	1030.44	450+00
450+25		1030.44		-0.23	-0.0190	12.00	1030.66		-0.23	-0.0190	12.00	1030.89		-0.23	-0.0190	12.00	1031.12	450+25
450+50		1031.12		-0.23	-0.0190	12.00	1031.34		-0.23	-0.0190	12.00	1031.57		-0.23	-0.0190	12.00	1031.80	450+50
450+75		1031.79		-0.23	-0.0190	12.00	1032.01		-0.23	-0.0190	12.00	1032.24		-0.23	-0.0190	12.00	1032.47	450+75
451+00		1032.46		-0.23	-0.0190	12.00	1032.68		-0.23	-0.0190	12.00	1032.91		-0.23	-0.0190	12.00	1033.14	451+00
451+25		1033.11		-0.23	-0.0190	12.00	1033.33		-0.23	-0.0190	12.00	1033.56		-0.23	-0.0190	12.00	1033.79	451+25
451+50		1033.75		-0.23	-0.0190	12.00	1033.97		-0.23	-0.0190	12.00	1034.20		-0.23	-0.0190	12.00	1034.43	451+50
451+75		1034.38		-0.23	-0.0190	12.00	1034.60		-0.23	-0.0190	12.00	1034.83		-0.23	-0.0190	12.00	1035.06	451+75
452+00		1035.00		-0.23	-0.0190	12.00	1035.22		-0.23	-0.0190	12.00	1035.45		-0.23	-0.0190	12.00	1035.68	452+00
452+25		1035.61		-0.23	-0.0190	12.00	1035.83		-0.23	-0.0190	12.00	1036.06		-0.23	-0.0190	12.00	1036.29	452+25
452+50		1036.21		-0.23	-0.0190	12.00	1036.43		-0.23	-0.0190	12.00	1036.66		-0.23	-0.0190	12.00	1036.89	452+50
452+75		1036.80		-0.23	-0.0190	12.00	1037.02		-0.23	-0.0190	12.00	1037.25		-0.23	-0.0190	12.00	1037.48	452+75
453+00		1037.37		-0.23	-0.0190	12.00	1037.59		-0.23	-0.0190	12.00	1037.82		-0.23	-0.0190	12.00	1038.05	453+00
453+25		1037.94		-0.23	-0.0190	12.00	1038.16		-0.23	-0.0190	12.00	1038.39		-0.23	-0.0190	12.00	1038.62	453+25
453+50		1038.49		-0.23	-0.0190	12.00	1038.71		-0.23	-0.0190	12.00	1038.94		-0.23	-0.0190	12.00	1039.17	453+50
453+75		1039.04		-0.23	-0.0190	12.00	1039.26		-0.23	-0.0190	12.00	1039.49		-0.23	-0.0190	12.00	1039.72	453+75
454+00		1039.57		-0.23	-0.0190	12.00	1039.79		-0.23	-0.0190	12.00	1040.02		-0.23	-0.0190	12.00	1040.25	454+00
454+25		1040.09		-0.23	-0.0190	12.00	1040.31		-0.23	-0.0190	12.00	1040.54		-0.23	-0.0190	12.00	1040.77	454+25
454+50		1040.60		-0.23	-0.0190	12.00	1040.82		-0.23	-0.0190	12.00	1041.05		-0.23	-0.0190	12.00	1041.28	454+50
454+75		1041.10		-0.23	-0.0190	12.00	1041.32		-0.23	-0.0190	12.00	1041.55		-0.23	-0.0190	12.00	1041.78	454+75
455+00		1041.59		-0.23	-0.0190	12.00	1041.81		-0.23	-0.0190	12.00	1042.04		-0.23	-0.0190	12.00	1042.27	455+00
455+25		1042.07		-0.23	-0.0190	12.00	1042.29		-0.23	-0.0190	12.00	1042.52		-0.23	-0.0190	12.00	1042.75	455+25
455+50		1042.53		-0.23	-0.0190	12.00	1042.75		-0.23	-0.0190	12.00	1042.98		-0.23	-0.0190	12.00	1043.21	455+50
455+75		1042.99		-0.23	-0.0190	12.00	1043.21		-0.23	-0.0190	12.00	1043.44		-0.23	-0.0190	12.00	1043.67	455+75
456+00		1043.43		-0.23	-0.0190	12.00	1043.65		-0.23	-0.0190	12.00	1043.88		-0.23	-0.0190	12.00	1044.11	456+00
456+25		1043.87		-0.23	-0.0190	12.00	1044.09		-0.23	-0.0190	12.00	1044.32		-0.23	-0.0190	12.00	1044.55	456+25
456+50		1044.29		-0.23	-0.0190	12.00	1044.51		-0.23	-0.0190	12.00	1044.74		-0.23	-0.0190	12.00	1044.97	456+50
456+75		1044.70		-0.23	-0.0190	12.00	1044.92		-0.23	-0.0190	12.00	1045.15		-0.23	-0.0190	12.00	1045.38	456+75
457+00		1045.10		-0.23	-0.0190	12.00	1045.32		-0.23	-0.0190	12.00	1045.55		-0.23	-0.0190	12.00	1045.78	457+00
457+25		1045.49		-0.23	-0.0190	12.00	1045.71		-0.23	-0.0190	12.00	1045.94		-0.23	-0.0190	12.00	1046.17	457+25
457+50		1045.87		-0.23	-0.0190	12.00	1046.09		-0.23	-0.0190	12.00	1046.32		-0.23	-0.0190	12.00	1046.55	457+50
457+75		1046.24		-0.23	-0.0190	12.00	1046.46		-0.23	-0.0190	12.00	1046.69		-0.23	-0.0190	12.00	1046.92	457+75
458+00		1046.60		-0.23	-0.0190	12.00	1046.82		-0.23	-0.0190	12.00	1047.05		-0.23	-0.0190	12.00	1047.28	458+00
458+25		1046.94		-0.23	-0.0190	12.00	1047.16		-0.23	-0.0190	12.00	1047.39		-0.23	-0.0190	12.00	1047.62	458+25
458+50		1047.28		-0.23	-0.0190	12.00	1047.50		-0.23	-0.0190	12.00	1047.73		-0.23	-0.0190	12.00	1047.96	458+50
458+75		1047.61		-0.23	-0.0190	12.00	1047.83		-0.23	-0.0190	12.00	1048.06		-0.23	-0.0190	12.00	1048.29	458+75
459+00		1047.94		-0.23	-0.0190	12.00	1048.16		-0.23	-0.0190	12.00	1048.39		-0.23	-0.0190	12.00	1048.62	459+00
459+25		1048.27		-0.23	-0.0190	12.00	1048.49		-0.23	-0.0190	12.00	1048.72		-0.23	-0.0190	12.00	1048.95	459+25
459+50		1048.60		-0.23	-0.0190	12.00	1048.82		-0.23	-0.0190	12.00	1049.05		-0.23	-0.0190	12.00	1049.28	459+50
459+75		1048.93		-0.23	-0.0190	12.00	1049.15		-0.23	-0.0190	12.00	1049.38		-0.23	-0.0190	12.00	1049.61	459+75
460+00		1049.26		-0.23	-0.0190	12.00	1049.48		-0.23	-0.0190	12.00	1049.71		-0.23	-0.0190	12.00	1049.94	460+00
460+25		1049.59		-0.23	-0.0190	12.00	1049.81		-0.23	-0.0190	12.00	1050.04		-0.23	-0.0190	12.00	1050.27	460+25
460+50		1049.93		-0.23	-0.0190	12.00	1050.15		-0.23	-0.0190	12.00	1050.38		-0.23	-0.0190	12.00	1050.61	460+50
460+75		1050.30		-0.23	-0.0190	12.00	1050.52		-0.23	-0.0190	12.00	1050.75		-0.23	-0.0190	12.00	1050.98	460+75

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SUPERELEVATION TABLE

MED - 71 - 6.06

163
1120

CALCULATED
CHECKED

SUPERELEVATION TABLE NORTHBOUND

PI STA= 443+26.96

Dc = 0°28'02'

STATION	REMARKS	30' RIGHT					42' RIGHT					54' RIGHT					OUTSIDE EDGE CONTROL 66' RIGHT	
		EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
461+00		1050.70		-0.23	-0.0190	12.00	1050.92		-0.23	-0.0190	12.00	1051.15		-0.23	-0.0190	12.00	1051.38	461+00
461+25		1051.12		-0.23	-0.0190	12.00	1051.34		-0.23	-0.0190	12.00	1051.57		-0.23	-0.0190	12.00	1051.80	461+25
461+50		1051.56		-0.23	-0.0190	12.00	1051.78		-0.23	-0.0190	12.00	1052.01		-0.23	-0.0190	12.00	1052.24	461+50
461+75		1052.02		-0.23	-0.0190	12.00	1052.24		-0.23	-0.0190	12.00	1052.47		-0.23	-0.0190	12.00	1052.70	461+75
462+00		1052.51		-0.23	-0.0190	12.00	1052.73		-0.23	-0.0190	12.00	1052.96		-0.23	-0.0190	12.00	1053.19	462+00
462+25		1053.03		-0.23	-0.0190	12.00	1053.25		-0.23	-0.0190	12.00	1053.48		-0.23	-0.0190	12.00	1053.71	462+25
462+50		1053.56		-0.23	-0.0190	12.00	1053.78		-0.23	-0.0190	12.00	1054.01		-0.23	-0.0190	12.00	1054.24	462+50
462+75		1054.09		-0.23	-0.0190	12.00	1054.31		-0.23	-0.0190	12.00	1054.54		-0.23	-0.0190	12.00	1054.77	462+75
463+00		1054.62		-0.23	-0.0190	12.00	1054.84		-0.23	-0.0190	12.00	1055.07		-0.23	-0.0190	12.00	1055.30	463+00
463+25		1055.15		-0.23	-0.0190	12.00	1055.37		-0.23	-0.0190	12.00	1055.60		-0.23	-0.0190	12.00	1055.83	463+25
463+50		1055.68		-0.23	-0.0190	12.00	1055.90		-0.23	-0.0190	12.00	1056.13		-0.23	-0.0190	12.00	1056.36	463+50
463+75		1056.21		-0.23	-0.0190	12.00	1056.43		-0.23	-0.0190	12.00	1056.66		-0.23	-0.0190	12.00	1056.89	463+75
464+00		1056.74		-0.23	-0.0190	12.00	1056.96		-0.23	-0.0190	12.00	1057.19		-0.23	-0.0190	12.00	1057.42	464+00
464+25		1057.27		-0.23	-0.0190	12.00	1057.49		-0.23	-0.0190	12.00	1057.72		-0.23	-0.0190	12.00	1057.95	464+25
464+50		1057.80		-0.23	-0.0190	12.00	1058.02		-0.23	-0.0190	12.00	1058.25		-0.23	-0.0190	12.00	1058.48	464+50
464+75		1058.33		-0.23	-0.0190	12.00	1058.55		-0.23	-0.0190	12.00	1058.78		-0.23	-0.0190	12.00	1059.01	464+75
465+00		1058.86		-0.23	-0.0190	12.00	1059.08		-0.23	-0.0190	12.00	1059.31		-0.23	-0.0190	12.00	1059.54	465+00
465+25		1059.39		-0.23	-0.0190	12.00	1059.61		-0.23	-0.0190	12.00	1059.84		-0.23	-0.0190	12.00	1060.07	465+25
465+50		1059.92		-0.23	-0.0190	12.00	1060.14		-0.23	-0.0190	12.00	1060.37		-0.23	-0.0190	12.00	1060.60	465+50
465+75		1060.45		-0.23	-0.0190	12.00	1060.67		-0.23	-0.0190	12.00	1060.90		-0.23	-0.0190	12.00	1061.13	465+75
466+00		1060.98		-0.23	-0.0190	12.00	1061.20		-0.23	-0.0190	12.00	1061.43		-0.23	-0.0190	12.00	1061.66	466+00
466+25		1061.51		-0.23	-0.0190	12.00	1061.73		-0.23	-0.0190	12.00	1061.96		-0.23	-0.0190	12.00	1062.19	466+25
466+50		1062.04		-0.23	-0.0190	12.00	1062.26		-0.23	-0.0190	12.00	1062.49		-0.23	-0.0190	12.00	1062.72	466+50
466+75		1062.57		-0.23	-0.0190	12.00	1062.79		-0.23	-0.0190	12.00	1063.02		-0.23	-0.0190	12.00	1063.25	466+75
467+00		1063.10		-0.23	-0.0190	12.00	1063.32		-0.23	-0.0190	12.00	1063.55		-0.23	-0.0190	12.00	1063.78	467+00
467+25		1063.63		-0.23	-0.0190	12.00	1063.85		-0.23	-0.0190	12.00	1064.08		-0.23	-0.0190	12.00	1064.31	467+25
467+50		1064.16		-0.23	-0.0190	12.00	1064.38		-0.23	-0.0190	12.00	1064.61		-0.23	-0.0190	12.00	1064.84	467+50
467+75		1064.69		-0.23	-0.0190	12.00	1064.91		-0.23	-0.0190	12.00	1065.14		-0.23	-0.0190	12.00	1065.37	467+75
468+00		1065.22		-0.23	-0.0190	12.00	1065.44		-0.23	-0.0190	12.00	1065.67		-0.23	-0.0190	12.00	1065.90	468+00
468+25		1065.73		-0.23	-0.0190	12.00	1065.95		-0.23	-0.0190	12.00	1066.18		-0.23	-0.0190	12.00	1066.41	468+25
468+50		1066.24		-0.23	-0.0190	12.00	1066.46		-0.23	-0.0190	12.00	1066.69		-0.23	-0.0190	12.00	1066.92	468+50
468+75		1066.75		-0.23	-0.0190	12.00	1066.97		-0.23	-0.0190	12.00	1067.20		-0.23	-0.0190	12.00	1067.43	468+75
469+00		1067.26		-0.23	-0.0190	12.00	1067.48		-0.23	-0.0190	12.00	1067.71		-0.23	-0.0190	12.00	1067.94	469+00
469+25	F.S	1067.77	5/10.2:1	-0.23	-0.0190	12.00	1067.99		-0.23	-0.0190	12.00	1068.22		-0.23	-0.0190	12.00	1068.45	469+25
469+50		1068.35		-0.20	-0.0169	12.00	1068.55		-0.20	-0.0169	12.00	1068.76		-0.20	-0.0169	12.00	1068.96	469+50
469+65.4	F.C.	1068.71		-0.19	-0.0156	12.00	1068.90		-0.19	-0.0156	12.00	1069.08		-0.19	-0.0156	12.00	1069.27	469+65.4
469+75		1068.92		-0.19	-0.0156	12.00	1069.11		-0.19	-0.0156	12.00	1069.30		-0.17	-0.0142	12.00	1069.47	469+75
470+00		1069.48		-0.19	-0.0156	12.00	1069.66		-0.19	-0.0156	12.00	1069.85		-0.13	-0.0107	12.00	1069.98	470+00
470+25		1070.03		-0.19	-0.0156	12.00	1070.22		-0.19	-0.0156	12.00	1070.40		-0.09	-0.0071	12.00	1070.49	470+25
470+50		1070.58		-0.19	-0.0156	12.00	1070.77		-0.19	-0.0156	12.00	1070.96		-0.04	-0.0036	12.00	1071.00	470+50
470+75	H.F.	1071.14		-0.19	-0.0156	12.00	1071.32		-0.19	-0.0156	12.00	1071.51		0.00	0.0000	12.00	1071.51	470+75
471+00		1071.69		-0.19	-0.0156	12.00	1071.88		-0.19	-0.0156	12.00	1072.07		0.05	0.0039	12.00	1072.02	471+00
471+25		1072.25		-0.19	-0.0156	12.00	1072.44		-0.19	-0.0156	12.00	1072.62		0.09	0.0078	12.00	1072.53	471+25
471+50		1072.81		-0.19	-0.0156	12.00	1072.99		-0.19	-0.0156	12.00	1073.18		0.14	0.0117	12.00	1073.04	471+50
471+75	N	1073.37	5/10.2:1	-0.19	-0.0156	12.00	1073.56		-0.19	-0.0156	12.00	1073.75		0.19	0.0156	12.00	1073.56	471+75

CALCULATED
CHECKED

SUPERELEVATION TABLE

MED - 71 - 6.06

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SUPERELEVATION TABLE SOUTHBOUND

PI STA= 443+26.96

Dc = 0°28'02"

OUTSIDE EDGE CONTROL 66' LT.		54' LEFT					42' LEFT					30' LEFT					¢	
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS	STATION
414+00	1011.43	12.00	0.0156	0.19		1011.62	12.00	-0.0156	-0.19		1011.43	12.00	-0.0156	-0.19	287.4:1	1011.24	N	414+00
414+25	1011.74	12.00	0.0156	0.19		1011.93	12.00	-0.0117	-0.14		1011.79	12.00	-0.0117	-0.14	↑	1011.65		414+25
414+50	1012.04	12.00	0.0156	0.19		1012.23	12.00	-0.0078	-0.09		1012.13	12.00	-0.0078	-0.09		1012.04		414+50
414+75	1012.31	12.00	0.0156	0.19		1012.50	12.00	-0.0039	-0.05		1012.45	12.00	-0.0039	-0.05		1012.40		414+75
415+00	1012.57	12.00	0.0156	0.19		1012.76	12.00	0.0000	0.00		1012.76	12.00	0.0000	0.00		1012.76	H.F	415+00
415+25	1012.82	12.00	0.0156	0.19		1013.01	12.00	0.0038	0.05		1013.05	12.00	0.0038	0.05		1013.10		415+25
415+50	1013.05	12.00	0.0156	0.19		1013.24	12.00	0.0077	0.09		1013.33	12.00	0.0077	0.09		1013.42		415+50
415+75	1013.26	12.00	0.0156	0.19		1013.45	12.00	0.0115	0.14		1013.59	12.00	0.0115	0.14		1013.72		415+75
416+00	1013.46	12.00	0.0156	0.19		1013.65	12.00	0.0154	0.18		1013.83	12.00	0.0154	0.18		1014.02		416+00
416+01.31	1013.47	12.00	0.0156	0.19		1013.66	12.00	0.0156	0.19		1013.84	12.00	0.0156	0.19		1014.03	F.C	416+01.31
416+25	1013.64	12.00	0.0173	0.21		1013.85	12.00	0.0173	0.21		1014.05	12.00	0.0173	0.21	↓	1014.26		416+25
416+50	1013.81	12.00	0.0190	0.23		1014.04	12.00	0.0190	0.23		1014.27	12.00	0.0190	0.23	287.4:1	1014.49	F.S	416+50
416+75	1013.96	12.00	0.0190	0.23		1014.19	12.00	0.0190	0.23		1014.42	12.00	0.0190	0.23		1014.64		416+75
417+00	1014.09	12.00	0.0190	0.23		1014.32	12.00	0.0190	0.23		1014.55	12.00	0.0190	0.23		1014.77		417+00
417+25	1014.21	12.00	0.0190	0.23		1014.44	12.00	0.0190	0.23		1014.67	12.00	0.0190	0.23		1014.89		417+25
417+50	1014.32	12.00	0.0190	0.23		1014.55	12.00	0.0190	0.23		1014.78	12.00	0.0190	0.23		1015.00		417+50
417+75	1014.40	12.00	0.0190	0.23		1014.63	12.00	0.0190	0.23		1014.86	12.00	0.0190	0.23		1015.08		417+75
418+00	1014.47	12.00	0.0190	0.23		1014.70	12.00	0.0190	0.23		1014.93	12.00	0.0190	0.23		1015.15		418+00
418+25	1014.53	12.00	0.0190	0.23		1014.76	12.00	0.0190	0.23		1014.99	12.00	0.0190	0.23		1015.21		418+25
418+50	1014.57	12.00	0.0190	0.23		1014.80	12.00	0.0190	0.23		1015.03	12.00	0.0190	0.23		1015.25		418+50
418+75	1014.59	12.00	0.0190	0.23		1014.82	12.00	0.0190	0.23		1015.05	12.00	0.0190	0.23		1015.27		418+75
419+00	1014.60	12.00	0.0190	0.23		1014.83	12.00	0.0190	0.23		1015.06	12.00	0.0190	0.23		1015.28		419+00
419+25	1014.60	12.00	0.0190	0.23		1014.83	12.00	0.0190	0.23		1015.06	12.00	0.0190	0.23		1015.28		419+25
419+50	1014.57	12.00	0.0190	0.23		1014.80	12.00	0.0190	0.23		1015.03	12.00	0.0190	0.23		1015.25		419+50
419+75	1014.53	12.00	0.0190	0.23		1014.76	12.00	0.0190	0.23		1014.99	12.00	0.0190	0.23		1015.21		419+75
420+00	1014.48	12.00	0.0190	0.23		1014.71	12.00	0.0190	0.23		1014.94	12.00	0.0190	0.23		1015.16		420+00
420+25	1014.41	12.00	0.0190	0.23		1014.64	12.00	0.0190	0.23		1014.87	12.00	0.0190	0.23		1015.09		420+25
420+50	1014.32	12.00	0.0190	0.23		1014.55	12.00	0.0190	0.23		1014.78	12.00	0.0190	0.23		1015.00		420+50
420+75	1014.22	12.00	0.0190	0.23		1014.45	12.00	0.0190	0.23		1014.68	12.00	0.0190	0.23		1014.90		420+75
421+00	1014.10	12.00	0.0190	0.23		1014.33	12.00	0.0190	0.23		1014.56	12.00	0.0190	0.23		1014.78		421+00
421+25	1013.97	12.00	0.0190	0.23		1014.20	12.00	0.0190	0.23		1014.43	12.00	0.0190	0.23		1014.65		421+25
421+50	1013.82	12.00	0.0190	0.23		1014.05	12.00	0.0190	0.23		1014.28	12.00	0.0190	0.23		1014.50		421+50
421+75	1013.65	12.00	0.0190	0.23		1013.88	12.00	0.0190	0.23		1014.11	12.00	0.0190	0.23		1014.33		421+75
422+00	1013.47	12.00	0.0190	0.23		1013.70	12.00	0.0190	0.23		1013.93	12.00	0.0190	0.23		1014.15		422+00
422+25	1013.28	12.00	0.0190	0.23		1013.51	12.00	0.0190	0.23		1013.74	12.00	0.0190	0.23		1013.96		422+25
422+50	1013.06	12.00	0.0190	0.23		1013.29	12.00	0.0190	0.23		1013.52	12.00	0.0190	0.23		1013.74		422+50
422+75	1012.83	12.00	0.0190	0.23		1013.06	12.00	0.0190	0.23		1013.29	12.00	0.0190	0.23		1013.51		422+75
423+00	1012.59	12.00	0.0190	0.23		1012.82	12.00	0.0190	0.23		1013.05	12.00	0.0190	0.23		1013.27		423+00
423+25	1012.33	12.00	0.0190	0.23		1012.56	12.00	0.0190	0.23		1012.79	12.00	0.0190	0.23		1013.01		423+25
423+50	1012.05	12.00	0.0190	0.23		1012.28	12.00	0.0190	0.23		1012.51	12.00	0.0190	0.23		1012.73		423+50
423+75	1011.76	12.00	0.0190	0.23		1011.99	12.00	0.0190	0.23		1012.22	12.00	0.0190	0.23		1012.44		423+75
424+00	1011.46	12.00	0.0190	0.23		1011.69	12.00	0.0190	0.23		1011.92	12.00	0.0190	0.23		1012.14		424+00
424+25	1011.13	12.00	0.0190	0.23		1011.36	12.00	0.0190	0.23		1011.59	12.00	0.0190	0.23		1011.81		424+25
424+50	1010.79	12.00	0.0190	0.23		1011.02	12.00	0.0190	0.23		1011.25	12.00	0.0190	0.23		1011.47		424+50
424+75	1010.44	12.00	0.0190	0.23		1010.67	12.00	0.0190	0.23		1010.90	12.00	0.0190	0.23		1011.12		424+75
425+00	1010.07	12.00	0.0190	0.23		1010.30	12.00	0.0190	0.23		1010.53	12.00	0.0190	0.23		1010.75		425+00
425+25	1009.68	12.00	0.0190	0.23		1009.91	12.00	0.0190	0.23		1010.14	12.00	0.0190	0.23		1010.36		425+25
425+50	1009.28	12.00	0.0190	0.23		1009.51	12.00	0.0190	0.23		1009.74	12.00	0.0190	0.23		1009.96		425+50
425+75	1008.87	12.00	0.0190	0.23		1009.10	12.00	0.0190	0.23		1009.33	12.00	0.0190	0.23		1009.55		425+75
426+00	1008.46	12.00	0.0190	0.23		1008.69	12.00	0.0190	0.23		1008.92	12.00	0.0190	0.23		1009.14		426+00
426+25	1008.05	12.00	0.0190	0.23		1008.28	12.00	0.0190	0.23		1008.51	12.00	0.0190	0.23		1008.73		426+25
426+50	1007.64	12.00	0.0190	0.23		1007.87	12.00	0.0190	0.23		1008.10	12.00	0.0190	0.23		1008.32		426+50
426+75	1007.23	12.00	0.0190	0.23		1007.46	12.00	0.0190	0.23		1007.69	12.00	0.0190	0.23		1007.91		426+75
427+00	1006.82	12.00	0.0190	0.23		1007.05	12.00	0.0190	0.23		1007.28	12.00	0.0190	0.23		1007.50		427+00
427+25	1006.41	12.00	0.0190	0.23		1006.64	12.00	0.0190	0.23		1006.87	12.00	0.0190	0.23		1007.09		427+25
427+50	1006.00	12.00	0.0190	0.23		1006.23	12.00	0.0190	0.23		1006.46	12.00	0.0190	0.23		1006.68		427+50
427+75	1005.59	12.00	0.0190	0.23		1005.82	12.00	0.0190	0.23		1006.05	12.00	0.0190	0.23		1006.27		427+75
428+00	1005.18	12.00	0.0190	0.23		1005.41	12.00	0.0190	0.23		1005.64	12.00	0.0190	0.23		1005.86		428+00
428+25	1004.75	12.00	0.0190	0.23		1004.98	12.00	0.0190	0.23		1005.21	12.00	0.0190	0.23		1005.43		428+

SUPERELEVATION TABLE SOUTHBOUND

PI STA= 443+26.96

Dc = 0°28'02'

OUTSIDE EDGE CONTROL 66' LT.		54' LEFT					42' LEFT					30' LEFT					℄	
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS	STATION
429+50	1002.60	12.00	0.0190	0.23		1002.83	12.00	0.0190	0.23		1003.06	12.00	0.0190	0.23		1003.28		429+50
429+75	1002.17	12.00	0.0190	0.23		1002.40	12.00	0.0190	0.23		1002.63	12.00	0.0190	0.23		1002.85		429+75
430+00	1001.74	12.00	0.0190	0.23		1001.97	12.00	0.0190	0.23		1002.20	12.00	0.0190	0.23		1002.42		430+00
430+25	1001.34	12.00	0.0190	0.23		1001.57	12.00	0.0190	0.23		1001.80	12.00	0.0190	0.23		1002.02		430+25
430+50	1000.96	12.00	0.0190	0.23		1001.19	12.00	0.0190	0.23		1001.42	12.00	0.0190	0.23		1001.64		430+50
430+75	1000.63	12.00	0.0190	0.23		1000.86	12.00	0.0190	0.23		1001.09	12.00	0.0190	0.23		1001.31		430+75
431+00	1000.33	12.00	0.0190	0.23		1000.56	12.00	0.0190	0.23		1000.79	12.00	0.0190	0.23		1001.01		431+00
431+25	1000.06	12.00	0.0190	0.23		1000.29	12.00	0.0190	0.23		1000.52	12.00	0.0190	0.23		1000.74		431+25
431+50	999.83	12.00	0.0190	0.23		1000.06	12.00	0.0190	0.23		1000.29	12.00	0.0190	0.23		1000.51		431+50
431+75	999.63	12.00	0.0190	0.23		999.86	12.00	0.0190	0.23		1000.09	12.00	0.0190	0.23		1000.31		431+75
432+00	999.47	12.00	0.0190	0.23		999.70	12.00	0.0190	0.23		999.93	12.00	0.0190	0.23		1000.15		432+00
432+25	999.34	12.00	0.0190	0.23		999.57	12.00	0.0190	0.23		999.80	12.00	0.0190	0.23		1000.02		432+25
432+50	999.25	12.00	0.0190	0.23		999.48	12.00	0.0190	0.23		999.71	12.00	0.0190	0.23		999.93		432+50
432+75	999.19	12.00	0.0190	0.23		999.42	12.00	0.0190	0.23		999.65	12.00	0.0190	0.23		999.87		432+75
433+00	999.17	12.00	0.0190	0.23		999.40	12.00	0.0190	0.23		999.63	12.00	0.0190	0.23		999.85		433+00
433+25	999.18	12.00	0.0190	0.23		999.41	12.00	0.0190	0.23		999.64	12.00	0.0190	0.23		999.86		433+25
433+50	999.22	12.00	0.0190	0.23		999.45	12.00	0.0190	0.23		999.68	12.00	0.0190	0.23		999.90		433+50
433+75	999.30	12.00	0.0190	0.23		999.53	12.00	0.0190	0.23		999.76	12.00	0.0190	0.23		999.98		433+75
434+00	999.42	12.00	0.0190	0.23		999.65	12.00	0.0190	0.23		999.88	12.00	0.0190	0.23		1000.10		434+00
434+25	999.57	12.00	0.0190	0.23		999.80	12.00	0.0190	0.23		1000.03	12.00	0.0190	0.23		1000.25		434+25
434+50	999.76	12.00	0.0190	0.23		999.99	12.00	0.0190	0.23		1000.22	12.00	0.0190	0.23		1000.44		434+50
434+75	999.98	12.00	0.0190	0.23		1000.21	12.00	0.0190	0.23		1000.44	12.00	0.0190	0.23		1000.66		434+75
435+00	1000.23	12.00	0.0190	0.23		1000.46	12.00	0.0190	0.23		1000.69	12.00	0.0190	0.23		1000.91		435+00
435+25	1000.52	12.00	0.0190	0.23		1000.75	12.00	0.0190	0.23		1000.98	12.00	0.0190	0.23		1001.20		435+25
435+50	1000.84	12.00	0.0190	0.23		1001.07	12.00	0.0190	0.23		1001.30	12.00	0.0190	0.23		1001.52		435+50
435+75	1001.20	12.00	0.0190	0.23		1001.43	12.00	0.0190	0.23		1001.66	12.00	0.0190	0.23		1001.88		435+75
436+00	1001.60	12.00	0.0190	0.23		1001.83	12.00	0.0190	0.23		1002.06	12.00	0.0190	0.23		1002.28		436+00
436+25	1002.02	12.00	0.0190	0.23		1002.25	12.00	0.0190	0.23		1002.48	12.00	0.0190	0.23		1002.70		436+25
436+50	1002.49	12.00	0.0190	0.23		1002.72	12.00	0.0190	0.23		1002.95	12.00	0.0190	0.23		1003.17		436+50
436+75	1002.97	12.00	0.0190	0.23		1003.20	12.00	0.0190	0.23		1003.43	12.00	0.0190	0.23		1003.65		436+75
437+00	1003.46	12.00	0.0190	0.23		1003.69	12.00	0.0190	0.23		1003.92	12.00	0.0190	0.23		1004.14		437+00
437+25	1003.95	12.00	0.0190	0.23		1004.18	12.00	0.0190	0.23		1004.41	12.00	0.0190	0.23		1004.63		437+25
437+50	1004.44	12.00	0.0190	0.23		1004.67	12.00	0.0190	0.23		1004.90	12.00	0.0190	0.23		1005.12		437+50
437+75	1004.92	12.00	0.0190	0.23		1005.15	12.00	0.0190	0.23		1005.38	12.00	0.0190	0.23		1005.60		437+75
438+00	1005.41	12.00	0.0190	0.23		1005.64	12.00	0.0190	0.23		1005.87	12.00	0.0190	0.23		1006.09		438+00
438+25	1005.90	12.00	0.0190	0.23		1006.13	12.00	0.0190	0.23		1006.36	12.00	0.0190	0.23		1006.58		438+25
438+50	1006.39	12.00	0.0190	0.23		1006.62	12.00	0.0190	0.23		1006.85	12.00	0.0190	0.23		1007.07		438+50
438+75	1006.87	12.00	0.0190	0.23		1007.10	12.00	0.0190	0.23		1007.33	12.00	0.0190	0.23		1007.55		438+75
439+00	1007.36	12.00	0.0190	0.23		1007.59	12.00	0.0190	0.23		1007.82	12.00	0.0190	0.23		1008.04		439+00
439+25	1007.85	12.00	0.0190	0.23		1008.08	12.00	0.0190	0.23		1008.31	12.00	0.0190	0.23		1008.53		439+25
439+50	1008.33	12.00	0.0190	0.23		1008.56	12.00	0.0190	0.23		1008.79	12.00	0.0190	0.23		1009.01		439+50
439+75	1008.82	12.00	0.0190	0.23		1009.05	12.00	0.0190	0.23		1009.28	12.00	0.0190	0.23		1009.50		439+75
440+00	1009.31	12.00	0.0190	0.23		1009.54	12.00	0.0190	0.23		1009.77	12.00	0.0190	0.23		1009.99		440+00
440+25	1009.79	12.00	0.0190	0.23		1010.02	12.00	0.0190	0.23		1010.25	12.00	0.0190	0.23		1010.47		440+25
440+50	1010.25	12.00	0.0190	0.23		1010.48	12.00	0.0190	0.23		1010.71	12.00	0.0190	0.23		1010.93		440+50
440+75	1010.71	12.00	0.0190	0.23		1010.94	12.00	0.0190	0.23		1011.17	12.00	0.0190	0.23		1011.39		440+75
441+00	1011.15	12.00	0.0190	0.23		1011.38	12.00	0.0190	0.23		1011.61	12.00	0.0190	0.23		1011.83		441+00
441+25	1011.59	12.00	0.0190	0.23		1011.82	12.00	0.0190	0.23		1012.05	12.00	0.0190	0.23		1012.27		441+25
441+50	1012.01	12.00	0.0190	0.23		1012.24	12.00	0.0190	0.23		1012.47	12.00	0.0190	0.23		1012.69		441+50
441+75	1012.42	12.00	0.0190	0.23		1012.65	12.00	0.0190	0.23		1012.88	12.00	0.0190	0.23		1013.10		441+75
442+00	1012.82	12.00	0.0190	0.23		1013.05	12.00	0.0190	0.23		1013.28	12.00	0.0190	0.23		1013.50		442+00
442+25	1013.22	12.00	0.0190	0.23		1013.45	12.00	0.0190	0.23		1013.68	12.00	0.0190	0.23		1013.90		442+25
442+50	1013.63	12.00	0.0190	0.23		1013.86	12.00	0.0190	0.23		1014.09	12.00	0.0190	0.23		1014.31		442+50
442+75	1014.06	12.00	0.0190	0.23		1014.29	12.00	0.0190	0.23		1014.52	12.00	0.0190	0.23		1014.74		442+75
443+00	1014.50	12.00	0.0190	0.23		1014.73	12.00	0.0190	0.23		1014.96	12.00	0.0190	0.23		1015.18		443+00
443+25	1014.94	12.00	0.0190	0.23		1015.17	12.00	0.0190	0.23		1015.40	12.00	0.0190	0.23		1015.62		443+25
443+50	1015.40	12.00	0.0190	0.23		1015.63	12.00	0.0190	0.23		1015.86	12.00	0.0190	0.23		1016.08		443+50
443+75	1015.88	12.00	0.0190	0.23		1016.11	12.00	0.0190	0.23		1016.34	12.00	0.0190	0.23		1016.56		443+75
444+00	1016.36	12.00	0.0190	0.23		1016.59	12.00	0.0190	0.23		1016.82	12.00	0.0190	0.23		1017.04		444+00
444+25	1016.86	12.00	0.0190	0.23		1017.09	12.00	0.0190	0.23		1017.32	12.00	0.0190	0.23		1017.54		444+25
444+50	1017.35	12.00	0.0190	0.23		1017.58	12.00	0.0190	0.23		1017.81	12.00	0.0190	0.23		1018.03		444+50
444+75	1017.85	12.00	0.0190	0.23		1018.08	12.00	0.0190	0.23		1018.31	12.00	0.0190	0.23		1018.53		444+75
445+00	1018.34	12.00	0.0190	0.23		1018.57	12.00	0.0190	0.23		1018.80	12.00	0.0190	0.23		1019.02		445+00

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CALCULATED
CHECKED

SUPERELEVATION TABLE

MED - 71 - 6.06

166
1120

SUPERELEVATION TABLE SOUTHBOUND

PI STA= 443+26.96

Dc = 0°28'02"

OUTSIDE EDGE CONTROL 66' LT.		54' LEFT					42' LEFT					30' LEFT					STATION	
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS	STATION
445+25	1018.84	12.00	0.0190	0.23		1019.07	12.00	0.0190	0.23		1019.30	12.00	0.0190	0.23		1019.52		445+25
445+50	1019.33	12.00	0.0190	0.23		1019.56	12.00	0.0190	0.23		1019.79	12.00	0.0190	0.23		1020.01		445+50
445+75	1019.83	12.00	0.0190	0.23		1020.06	12.00	0.0190	0.23		1020.29	12.00	0.0190	0.23		1020.51		445+75
446+00	1020.32	12.00	0.0190	0.23		1020.55	12.00	0.0190	0.23		1020.78	12.00	0.0190	0.23		1021.00		446+00
446+25	1020.82	12.00	0.0190	0.23		1021.05	12.00	0.0190	0.23		1021.28	12.00	0.0190	0.23		1021.50		446+25
446+50	1021.31	12.00	0.0190	0.23		1021.54	12.00	0.0190	0.23		1021.77	12.00	0.0190	0.23		1021.99		446+50
446+75	1021.81	12.00	0.0190	0.23		1022.04	12.00	0.0190	0.23		1022.27	12.00	0.0190	0.23		1022.49		446+75
447+00	1022.30	12.00	0.0190	0.23		1022.53	12.00	0.0190	0.23		1022.76	12.00	0.0190	0.23		1022.98		447+00
447+25	1022.80	12.00	0.0190	0.23		1023.03	12.00	0.0190	0.23		1023.26	12.00	0.0190	0.23		1023.48		447+25
447+50	1023.29	12.00	0.0190	0.23		1023.52	12.00	0.0190	0.23		1023.75	12.00	0.0190	0.23		1023.97		447+50
447+75	1023.79	12.00	0.0190	0.23		1024.02	12.00	0.0190	0.23		1024.25	12.00	0.0190	0.23		1024.47		447+75
448+00	1024.28	12.00	0.0190	0.23		1024.51	12.00	0.0190	0.23		1024.74	12.00	0.0190	0.23		1024.96		448+00
448+25	1024.78	12.00	0.0190	0.23		1025.01	12.00	0.0190	0.23		1025.24	12.00	0.0190	0.23		1025.46		448+25
448+50	1025.27	12.00	0.0190	0.23		1025.50	12.00	0.0190	0.23		1025.73	12.00	0.0190	0.23		1025.95		448+50
448+75	1025.77	12.00	0.0190	0.23		1026.00	12.00	0.0190	0.23		1026.23	12.00	0.0190	0.23		1026.45		448+75
449+00	1026.26	12.00	0.0190	0.23		1026.49	12.00	0.0190	0.23		1026.72	12.00	0.0190	0.23		1026.94		449+00
449+25	1026.77	12.00	0.0190	0.23		1027.00	12.00	0.0190	0.23		1027.23	12.00	0.0190	0.23		1027.45		449+25
449+50	1027.30	12.00	0.0190	0.23		1027.53	12.00	0.0190	0.23		1027.76	12.00	0.0190	0.23		1027.98		449+50
449+75	1027.86	12.00	0.0190	0.23		1028.09	12.00	0.0190	0.23		1028.32	12.00	0.0190	0.23		1028.54		449+75
450+00	1028.43	12.00	0.0190	0.23		1028.66	12.00	0.0190	0.23		1028.89	12.00	0.0190	0.23		1029.11		450+00
450+25	1029.03	12.00	0.0190	0.23		1029.26	12.00	0.0190	0.23		1029.49	12.00	0.0190	0.23		1029.71		450+25
450+50	1029.65	12.00	0.0190	0.23		1029.88	12.00	0.0190	0.23		1030.11	12.00	0.0190	0.23		1030.33		450+50
450+75	1030.29	12.00	0.0190	0.23		1030.52	12.00	0.0190	0.23		1030.75	12.00	0.0190	0.23		1030.97		450+75
451+00	1030.96	12.00	0.0190	0.23		1031.19	12.00	0.0190	0.23		1031.42	12.00	0.0190	0.23		1031.64		451+00
451+25	1031.64	12.00	0.0190	0.23		1031.87	12.00	0.0190	0.23		1032.10	12.00	0.0190	0.23		1032.32		451+25
451+50	1032.32	12.00	0.0190	0.23		1032.55	12.00	0.0190	0.23		1032.78	12.00	0.0190	0.23		1033.00		451+50
451+75	1033.00	12.00	0.0190	0.23		1033.23	12.00	0.0190	0.23		1033.46	12.00	0.0190	0.23		1033.68		451+75
452+00	1033.67	12.00	0.0190	0.23		1033.90	12.00	0.0190	0.23		1034.13	12.00	0.0190	0.23		1034.35		452+00
452+25	1034.33	12.00	0.0190	0.23		1034.56	12.00	0.0190	0.23		1034.79	12.00	0.0190	0.23		1035.01		452+25
452+50	1034.99	12.00	0.0190	0.23		1035.22	12.00	0.0190	0.23		1035.45	12.00	0.0190	0.23		1035.67		452+50
452+75	1035.63	12.00	0.0190	0.23		1035.86	12.00	0.0190	0.23		1036.09	12.00	0.0190	0.23		1036.31		452+75
453+00	1036.26	12.00	0.0190	0.23		1036.49	12.00	0.0190	0.23		1036.72	12.00	0.0190	0.23		1036.94		453+00
453+25	1036.88	12.00	0.0190	0.23		1037.11	12.00	0.0190	0.23		1037.34	12.00	0.0190	0.23		1037.56		453+25
453+50	1037.49	12.00	0.0190	0.23		1037.72	12.00	0.0190	0.23		1037.95	12.00	0.0190	0.23		1038.17		453+50
453+75	1038.09	12.00	0.0190	0.23		1038.32	12.00	0.0190	0.23		1038.55	12.00	0.0190	0.23		1038.77		453+75
454+00	1038.68	12.00	0.0190	0.23		1038.91	12.00	0.0190	0.23		1039.14	12.00	0.0190	0.23		1039.36		454+00
454+25	1039.26	12.00	0.0190	0.23		1039.49	12.00	0.0190	0.23		1039.72	12.00	0.0190	0.23		1039.94		454+25
454+50	1039.83	12.00	0.0190	0.23		1040.06	12.00	0.0190	0.23		1040.29	12.00	0.0190	0.23		1040.51		454+50
454+75	1040.38	12.00	0.0190	0.23		1040.61	12.00	0.0190	0.23		1040.84	12.00	0.0190	0.23		1041.06		454+75
455+00	1040.93	12.00	0.0190	0.23		1041.16	12.00	0.0190	0.23		1041.39	12.00	0.0190	0.23		1041.61		455+00
455+25	1041.47	12.00	0.0190	0.23		1041.70	12.00	0.0190	0.23		1041.93	12.00	0.0190	0.23		1042.15		455+25
455+50	1041.99	12.00	0.0190	0.23		1042.22	12.00	0.0190	0.23		1042.45	12.00	0.0190	0.23		1042.67		455+50
455+75	1042.51	12.00	0.0190	0.23		1042.74	12.00	0.0190	0.23		1042.97	12.00	0.0190	0.23		1043.19		455+75
456+00	1043.01	12.00	0.0190	0.23		1043.24	12.00	0.0190	0.23		1043.47	12.00	0.0190	0.23		1043.69		456+00
456+25	1043.50	12.00	0.0190	0.23		1043.73	12.00	0.0190	0.23		1043.96	12.00	0.0190	0.23		1044.18		456+25
456+50	1043.99	12.00	0.0190	0.23		1044.22	12.00	0.0190	0.23		1044.45	12.00	0.0190	0.23		1044.67		456+50
456+75	1044.46	12.00	0.0190	0.23		1044.69	12.00	0.0190	0.23		1044.92	12.00	0.0190	0.23		1045.14		456+75
457+00	1044.92	12.00	0.0190	0.23		1045.15	12.00	0.0190	0.23		1045.38	12.00	0.0190	0.23		1045.60		457+00
457+25	1045.37	12.00	0.0190	0.23		1045.60	12.00	0.0190	0.23		1045.83	12.00	0.0190	0.23		1046.05		457+25
457+50	1045.81	12.00	0.0190	0.23		1046.04	12.00	0.0190	0.23		1046.27	12.00	0.0190	0.23		1046.49		457+50
457+75	1046.24	12.00	0.0190	0.23		1046.47	12.00	0.0190	0.23		1046.70	12.00	0.0190	0.23		1046.92		457+75
458+00	1046.66	12.00	0.0190	0.23		1046.89	12.00	0.0190	0.23		1047.12	12.00	0.0190	0.23		1047.34		458+00
458+25	1047.06	12.00	0.0190	0.23		1047.29	12.00	0.0190	0.23		1047.52	12.00	0.0190	0.23		1047.74		458+25
458+50	1047.46	12.00	0.0190	0.23		1047.69	12.00	0.0190	0.23		1047.92	12.00	0.0190	0.23		1048.14		458+50
458+75	1047.85	12.00	0.0190	0.23		1048.08	12.00	0.0190	0.23		1048.31	12.00	0.0190	0.23		1048.53		458+75
459+00	1048.22	12.00	0.0190	0.23		1048.45	12.00	0.0190	0.23		1048.68	12.00	0.0190	0.23		1048.90		459+00
459+25	1048.59	12.00	0.0190	0.23		1048.82	12.00	0.0190	0.23		1049.05	12.00	0.0190	0.23		1049.27		459+25
459+50	1048.95	12.00	0.0190	0.23		1049.18	12.00	0.0190	0.23		1049.41	12.00	0.0190	0.23		1049.63		459+50
459+75	1049.31	12.00	0.0190	0.23		1049.54	12.00	0.0190	0.23		1049.77	12.00	0.0190	0.23		1049.99		459+75
460+00	1049.67	12.00	0.0190	0.23		1049.90	12.00	0.0190	0.23		1050.13	12.00	0.0190	0.23		1050.35		460+00
460+25	1050.05	12.00	0.0190	0.23		1050.28	12.00	0.0190	0.23		1050.51	12.00	0.0190	0.23		1050.73		460+25
460+50	1050.44	12.00	0.0190	0.23		1050.67	12.00	0.0190	0.23		1050.90	12.00	0.0190	0.23		1051.12		460+50
460+75	1050.87	12.00	0.0190	0.23		1051.10	12.00	0.0190	0.23		1051.33	12.00	0.0190	0.23		1051.55		460+75

... \75657gea.dgn

SUPERELEVATION TABLE

MED - 71 - 6.06

CALCULATED
CHECKED

SUPERELEVATION TABLE SOUTHBOUND

PI STA= 443+26.96

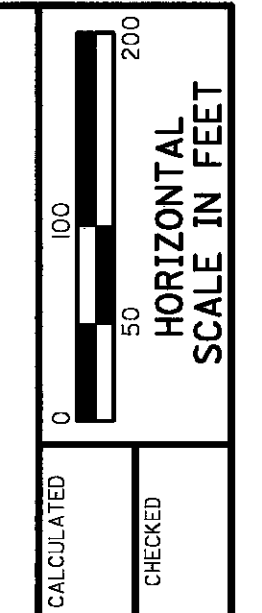
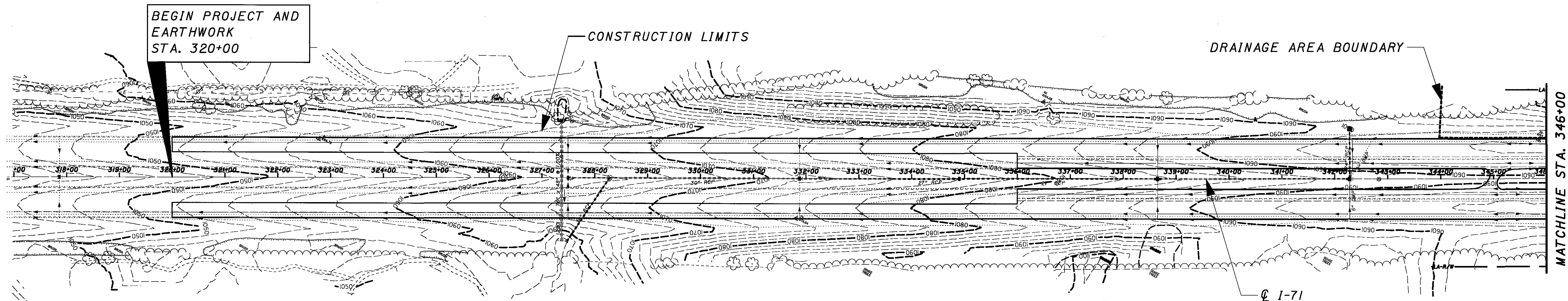
Dc = 0°28'02"

OUTSIDE EDGE CONTROL 66' LT.		54' LEFT					42' LEFT					30' LEFT					STATION	
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS	STATION
461+00	1051.31	12.00	0.0190	0.23		1051.54	12.00	0.0190	0.23		1051.77	12.00	0.0190	0.23		1051.99		461+00
461+25	1051.78	12.00	0.0190	0.23		1052.01	12.00	0.0190	0.23		1052.24	12.00	0.0190	0.23		1052.46		461+25
461+50	1052.26	12.00	0.0190	0.23		1052.49	12.00	0.0190	0.23		1052.72	12.00	0.0190	0.23		1052.94		461+50
461+75	1052.78	12.00	0.0190	0.23		1053.01	12.00	0.0190	0.23		1053.24	12.00	0.0190	0.23		1053.46		461+75
462+00	1053.31	12.00	0.0190	0.23		1053.54	12.00	0.0190	0.23		1053.77	12.00	0.0190	0.23		1053.99		462+00
462+25	1053.86	12.00	0.0190	0.23		1054.09	12.00	0.0190	0.23		1054.32	12.00	0.0190	0.23		1054.54		462+25
462+50	1054.41	12.00	0.0190	0.23		1054.64	12.00	0.0190	0.23		1054.87	12.00	0.0190	0.23		1055.09		462+50
462+75	1054.96	12.00	0.0190	0.23		1055.19	12.00	0.0190	0.23		1055.42	12.00	0.0190	0.23		1055.64		462+75
463+00	1055.51	12.00	0.0190	0.23		1055.74	12.00	0.0190	0.23		1055.97	12.00	0.0190	0.23		1056.19		463+00
463+25	1056.05	12.00	0.0190	0.23		1056.28	12.00	0.0190	0.23		1056.51	12.00	0.0190	0.23		1056.73		463+25
463+50	1056.60	12.00	0.0190	0.23		1056.83	12.00	0.0190	0.23		1057.06	12.00	0.0190	0.23		1057.28		463+50
463+75	1057.14	12.00	0.0190	0.23		1057.37	12.00	0.0190	0.23		1057.60	12.00	0.0190	0.23		1057.82		463+75
464+00	1057.68	12.00	0.0190	0.23		1057.91	12.00	0.0190	0.23		1058.14	12.00	0.0190	0.23		1058.36		464+00
464+25	1058.21	12.00	0.0190	0.23		1058.44	12.00	0.0190	0.23		1058.67	12.00	0.0190	0.23		1058.89		464+25
464+50	1058.75	12.00	0.0190	0.23		1058.98	12.00	0.0190	0.23		1059.21	12.00	0.0190	0.23		1059.43		464+50
464+75	1059.28	12.00	0.0190	0.23		1059.51	12.00	0.0190	0.23		1059.74	12.00	0.0190	0.23		1059.96		464+75
465+00	1059.81	12.00	0.0190	0.23		1060.04	12.00	0.0190	0.23		1060.27	12.00	0.0190	0.23		1060.49		465+00
465+25	1060.33	12.00	0.0190	0.23		1060.56	12.00	0.0190	0.23		1060.79	12.00	0.0190	0.23		1061.01		465+25
465+50	1060.86	12.00	0.0190	0.23		1061.09	12.00	0.0190	0.23		1061.32	12.00	0.0190	0.23		1061.54		465+50
465+75	1061.38	12.00	0.0190	0.23		1061.61	12.00	0.0190	0.23		1061.84	12.00	0.0190	0.23		1062.06		465+75
466+00	1061.90	12.00	0.0190	0.23		1062.13	12.00	0.0190	0.23		1062.36	12.00	0.0190	0.23		1062.58		466+00
466+25	1062.41	12.00	0.0190	0.23		1062.64	12.00	0.0190	0.23		1062.87	12.00	0.0190	0.23		1063.09		466+25
466+50	1062.93	12.00	0.0190	0.23		1063.16	12.00	0.0190	0.23		1063.39	12.00	0.0190	0.23		1063.61		466+50
466+75	1063.44	12.00	0.0190	0.23		1063.67	12.00	0.0190	0.23		1063.90	12.00	0.0190	0.23		1064.12		466+75
467+00	1063.95	12.00	0.0190	0.23		1064.18	12.00	0.0190	0.23		1064.41	12.00	0.0190	0.23		1064.63		467+00
467+25	1064.46	12.00	0.0190	0.23		1064.69	12.00	0.0190	0.23		1064.92	12.00	0.0190	0.23		1065.14		467+25
467+50	1064.97	12.00	0.0190	0.23		1065.20	12.00	0.0190	0.23		1065.43	12.00	0.0190	0.23		1065.65		467+50
467+75	1065.48	12.00	0.0190	0.23		1065.71	12.00	0.0190	0.23		1065.94	12.00	0.0190	0.23		1066.16		467+75
468+00	1065.99	12.00	0.0190	0.23		1066.22	12.00	0.0190	0.23		1066.45	12.00	0.0190	0.23		1066.67		468+00
468+25	1066.50	12.00	0.0190	0.23		1066.73	12.00	0.0190	0.23		1066.96	12.00	0.0190	0.23		1067.18		468+25
468+50	1067.01	12.00	0.0190	0.23		1067.24	12.00	0.0190	0.23		1067.47	12.00	0.0190	0.23		1067.69		468+50
468+75	1067.52	12.00	0.0190	0.23		1067.75	12.00	0.0190	0.23		1067.98	12.00	0.0190	0.23		1068.20		468+75
469+00	1068.03	12.00	0.0190	0.23		1068.26	12.00	0.0190	0.23		1068.49	12.00	0.0190	0.23		1068.71		469+00
469+25	1068.58	12.00	0.0190	0.23		1068.81	12.00	0.0190	0.23		1069.04	12.00	0.0190	0.23	287.4:1	1069.26	F.S	469+25
469+50	1069.13	12.00	0.0169	0.20		1069.33	12.00	0.0169	0.20		1069.54	12.00	0.0169	0.20		1069.74		469+50
469+65.4	1069.47	12.00	0.0156	0.19		1069.66	12.00	0.0156	0.19		1069.84	12.00	0.0156	0.19		1070.03	F.C.	469+65.4
469+75	1069.68	12.00	0.0156	0.19		1069.87	12.00	0.0142	0.17		1070.04	12.00	0.0142	0.17		1070.21		469+75
470+00	1070.23	12.00	0.0156	0.19		1070.42	12.00	0.0107	0.13		1070.55	12.00	0.0107	0.13		1070.67		470+00
470+25	1070.78	12.00	0.0156	0.19		1070.97	12.00	0.0071	0.09		1071.05	12.00	0.0071	0.09		1071.14		470+25
470+50	1071.33	12.00	0.0156	0.19		1071.52	12.00	0.0036	0.04		1071.56	12.00	0.0036	0.04		1071.60		470+50
470+75	1071.88	12.00	0.0156	0.19		1072.07	12.00	0.0000	0.00		1072.07	12.00	0.0000	0.00		1072.07	H.F.	470+75
471+00	1072.42	12.00	0.0156	0.19		1072.61	12.00	-0.0039	-0.05		1072.56	12.00	-0.0039	-0.05		1072.51		471+00
471+25	1072.96	12.00	0.0156	0.19		1073.15	12.00	-0.0078	-0.09		1073.05	12.00	-0.0078	-0.09		1072.96		471+25
471+50	1073.49	12.00	0.0156	0.19		1073.68	12.00	-0.0117	-0.14		1073.54	12.00	-0.0117	-0.14		1073.40		471+50
471+75	1074.03	12.00	0.0156	0.19		1074.22	12.00	-0.0156	-0.19		1074.03	12.00	-0.0156	-0.19	287.4:1	1073.84	N	471+75

CALCULATED
CHECKED

SUPERELEVATION TABLE

MED - 71 - 6.06



PROJECT SITE PLAN
STA. 318+00 TO STA. 346+00

MED-71-6.06

169
1120

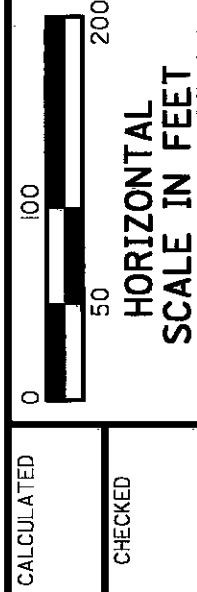
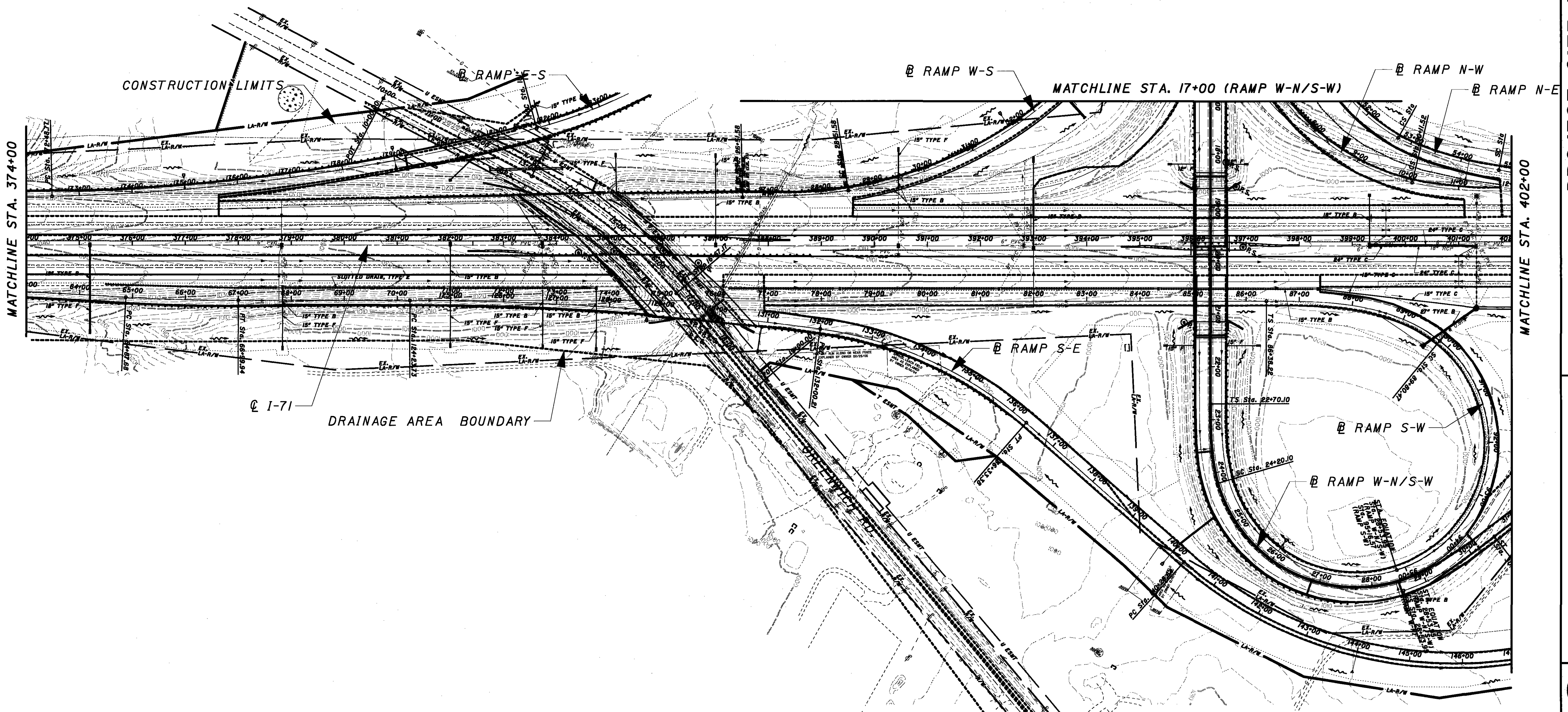
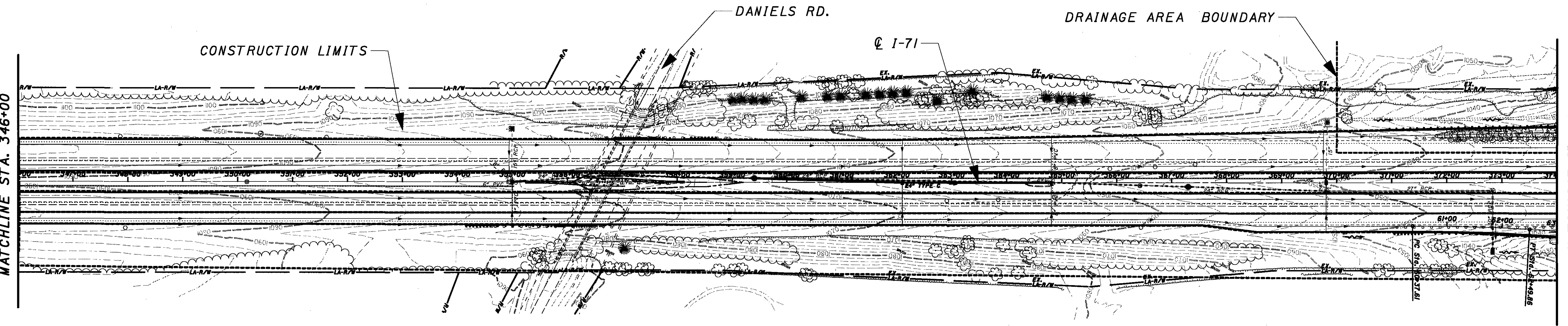
PROJECT DATA	
TOTAL AREA (R.O.W.)	301.7 AC.*
PROJECT DISTURBED AREA	186.7 AC.*
CONTRACTOR DISTURBED AREA	1.0 AC.*
NOI DISTURBED AREA	187.7 AC.*
RATIONAL METHOD RUNOFF COEF. "C" (PRE-CONSTRUCTION)	0.72
RATIONAL METHOD RUNOFF COEF. "C" (POST-CONSTRUCTION)	0.75
IMPERVIOUS AREA (PRE CONSTRUCTION)	45.2 AC.
IMPERVIOUS AREA (POST CONSTRUCTION)	67.3 AC.
SOIL CONSERVATION MAP MEDINA CO. PG. 40,46&47	
RECEIVING WATERS (NON TMDL REGULATED)	
IMMEDIATE	SUBSEQUENT
CHIPPEWA DITCH	N/A
LATITUDE	40° 01' 50"
LONGITUDE	81° 53' 25"
USGS 7.5 MINUTE TOPO QUADRANGLE	
WESTFIELD CENTER (41081-A8-TF-024)	
SEVILLE (41081-A7-TF-024)	

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF 3.15 MILES OF I-71 INCLUDING THE ADDITION OF A THIRD LANE IN EACH DIRECTION IN THE MEDIAN AREA. NEW GUARDRAIL, NEW OR RECONSTRUCTED DRAINAGE IN THE MEDIAN. ADDING DIRECTIONAL RAMPS BETWEEN IR-71 AND IR-76. RECONSTRUCTING AND REALIGNING THE REMAINING INTERCHANGE RAMPS TO ELIMINATE WEAVES. THE REPLACEMENT OF I-71/I-76 INTERCHANGE BRIDGES OVER I-71 AND US-224. THE RECONSTRUCTION AND WIDENING OF THE I-71 MAINLINE STRUCTURES OVER GREENWICH ROAD, CHIPPEWA DITCH AND RYAN ROAD/CSXT RAILROAD. REPLACING THE I-76 MAINLINE STRUCTURE OVER CHIPEWA DITCH AND WIDENING THE IR76 WB STRUCTURE OVER RYAN ROAD/CSXT RAILROAD.

* CALCULATED AREAS INCLUDE I-71, US224/I-76 INTERCHANGE AND THE SERVICE ROAD CONSTRUCTION LIMITS

...75657DEA.DGN



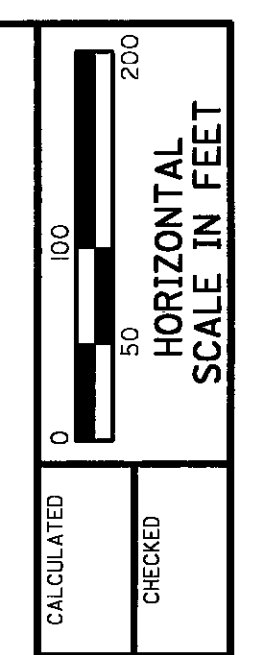
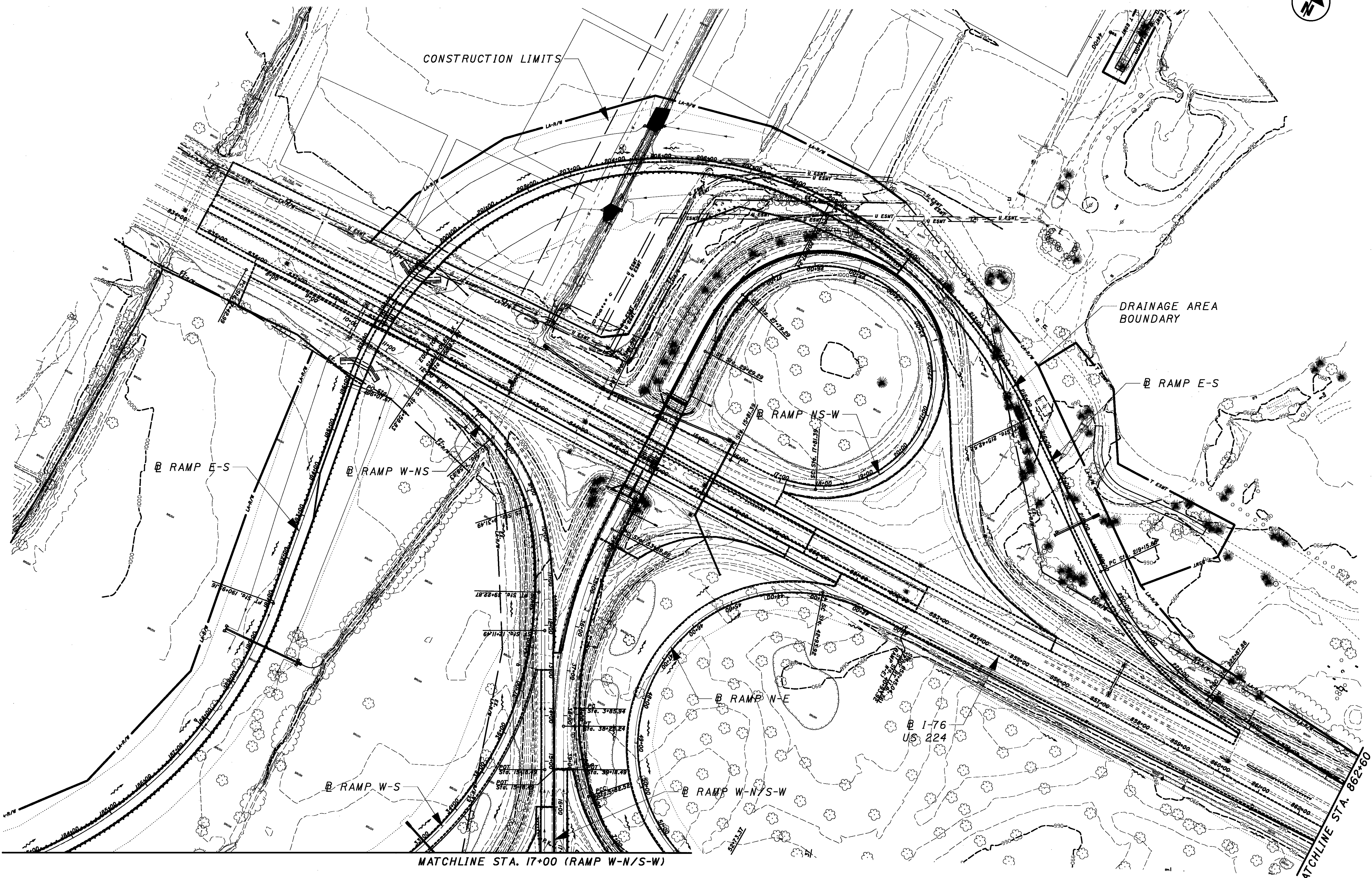
PROJECT SITE PLAN

STA. 346+00 TO STA. 402+00

MED-71-6.06

170
1120

...75657DEC.DGN

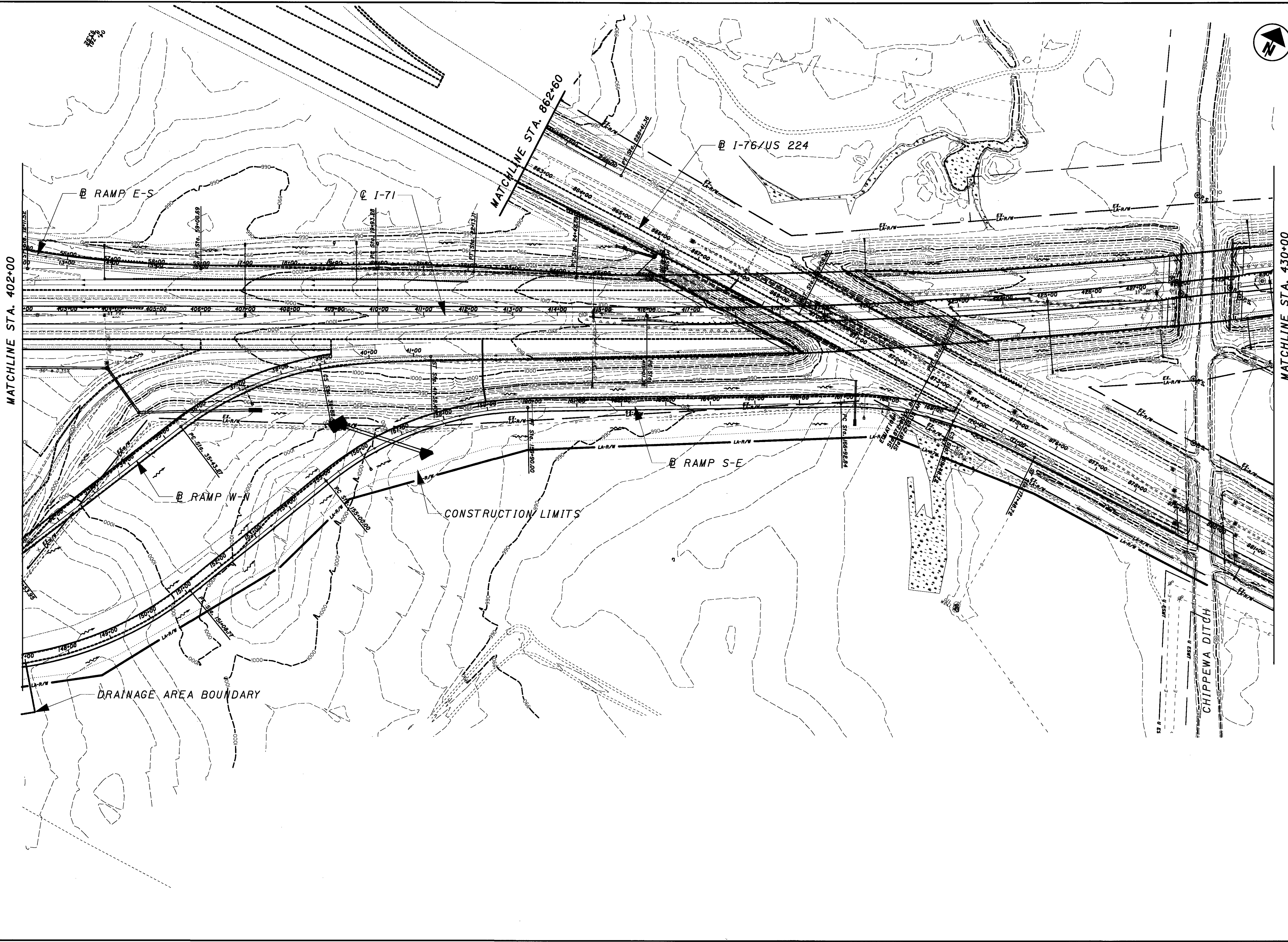


PROJECT SITE PLAN
 STA. 17+00 (RAMP A) TO STA. 862+60 (IR-76)

MED-71-6.06

171
1120

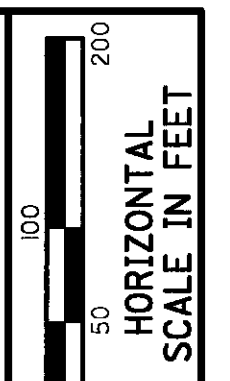
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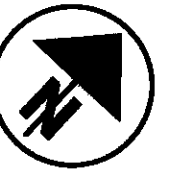


CALCULATED	CHECKED

PROJECT SITE PLAN
 STA. 402+00 TO STA. 430+00

MED-71-6.06





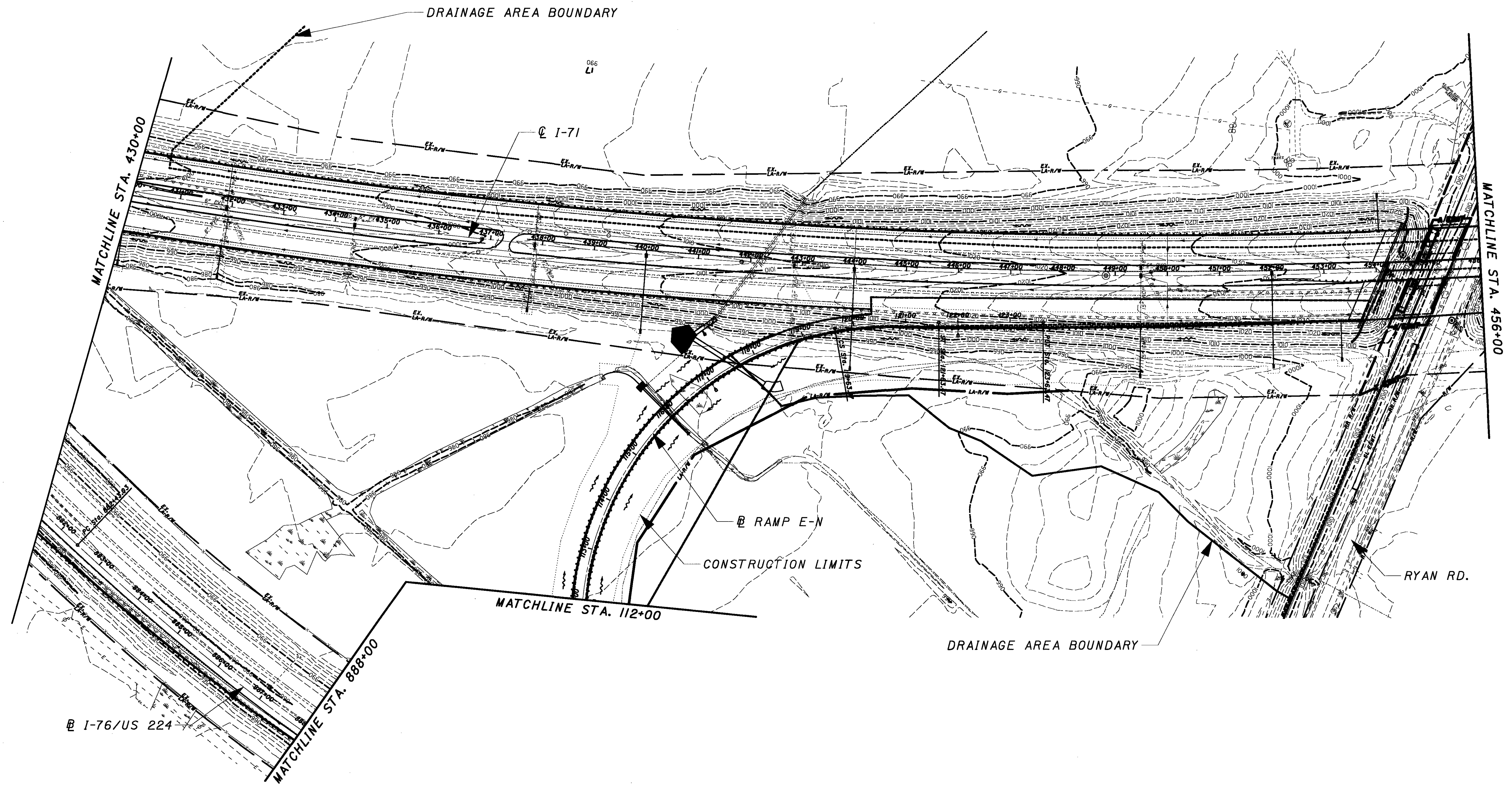
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HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

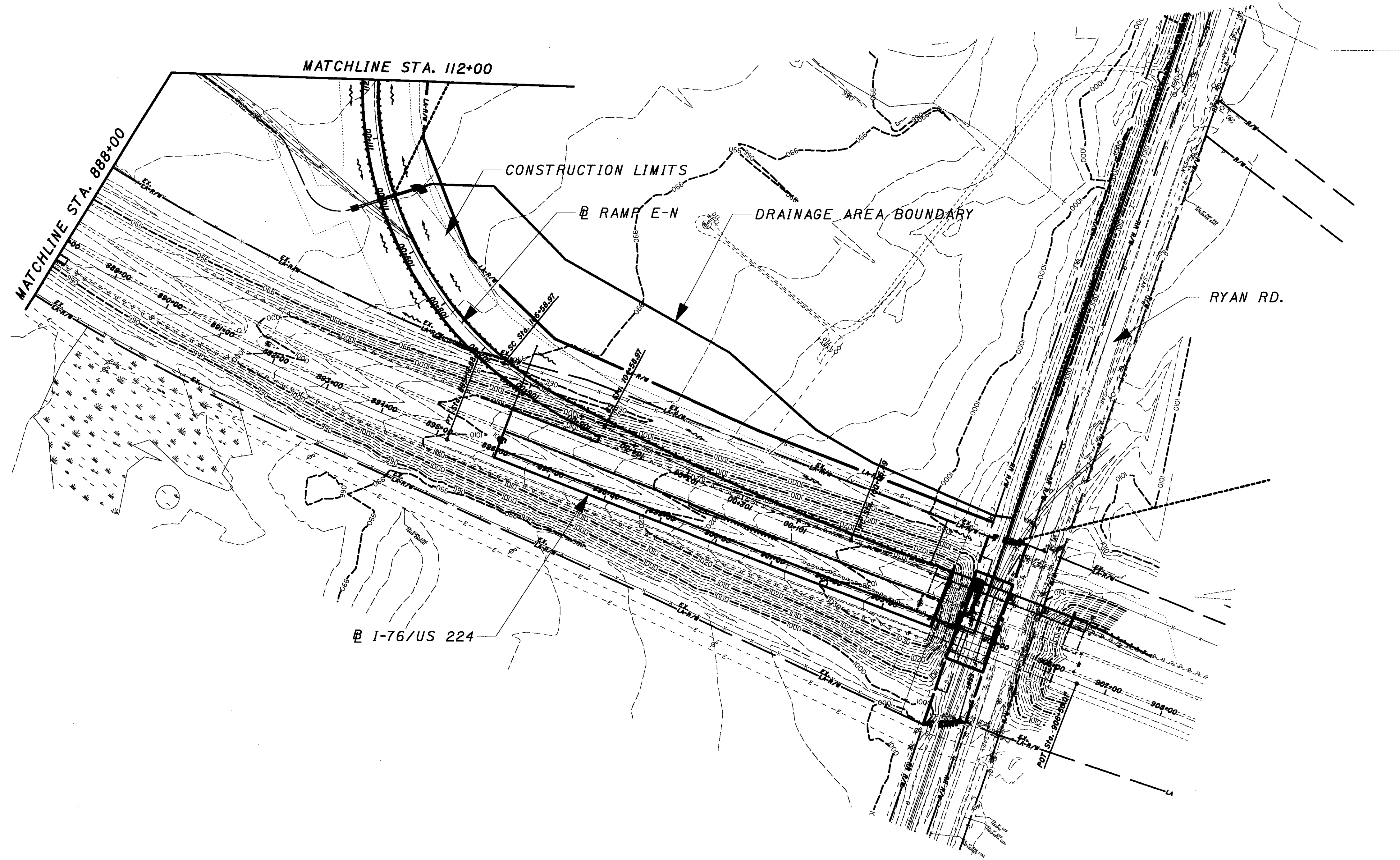
PROJECT SITE PLAN
STA. 430+00 TO STA. 456+00

MED-71-6.06

173
1120



...75657DEE.DGN

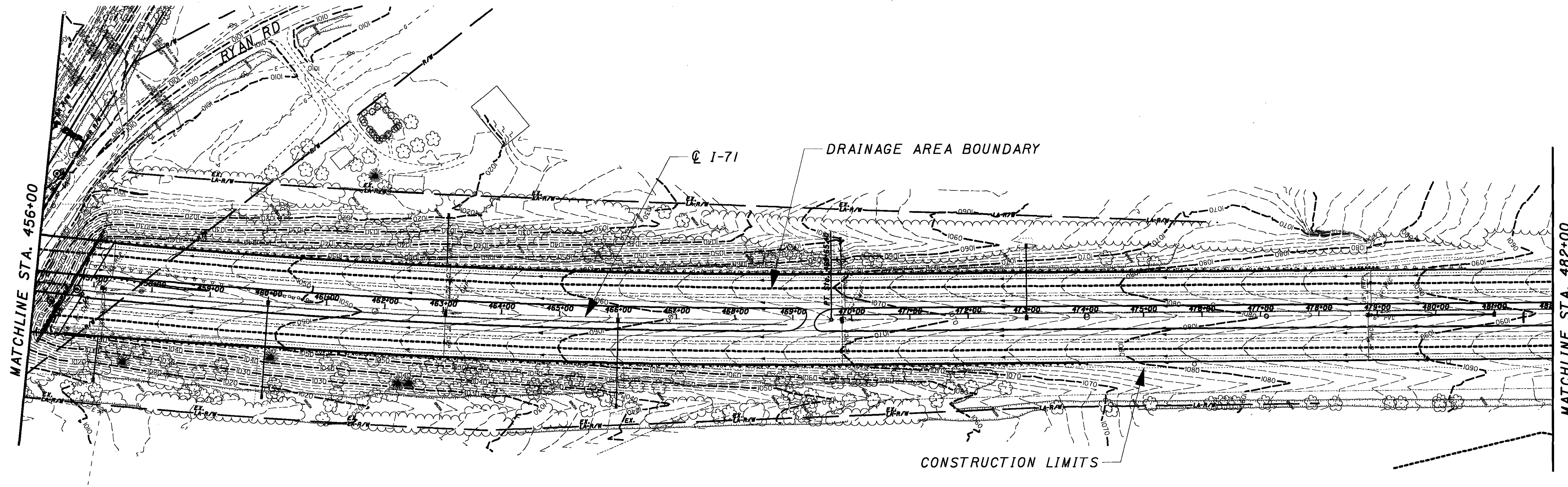


CALCULATED	0	100	200
CHECKED	50		

HORIZONTAL SCALE IN FEET

PROJECT SITE PLAN
STA. 888+00 TO STA. 908+00 (IR-76)

MED-71-6.06



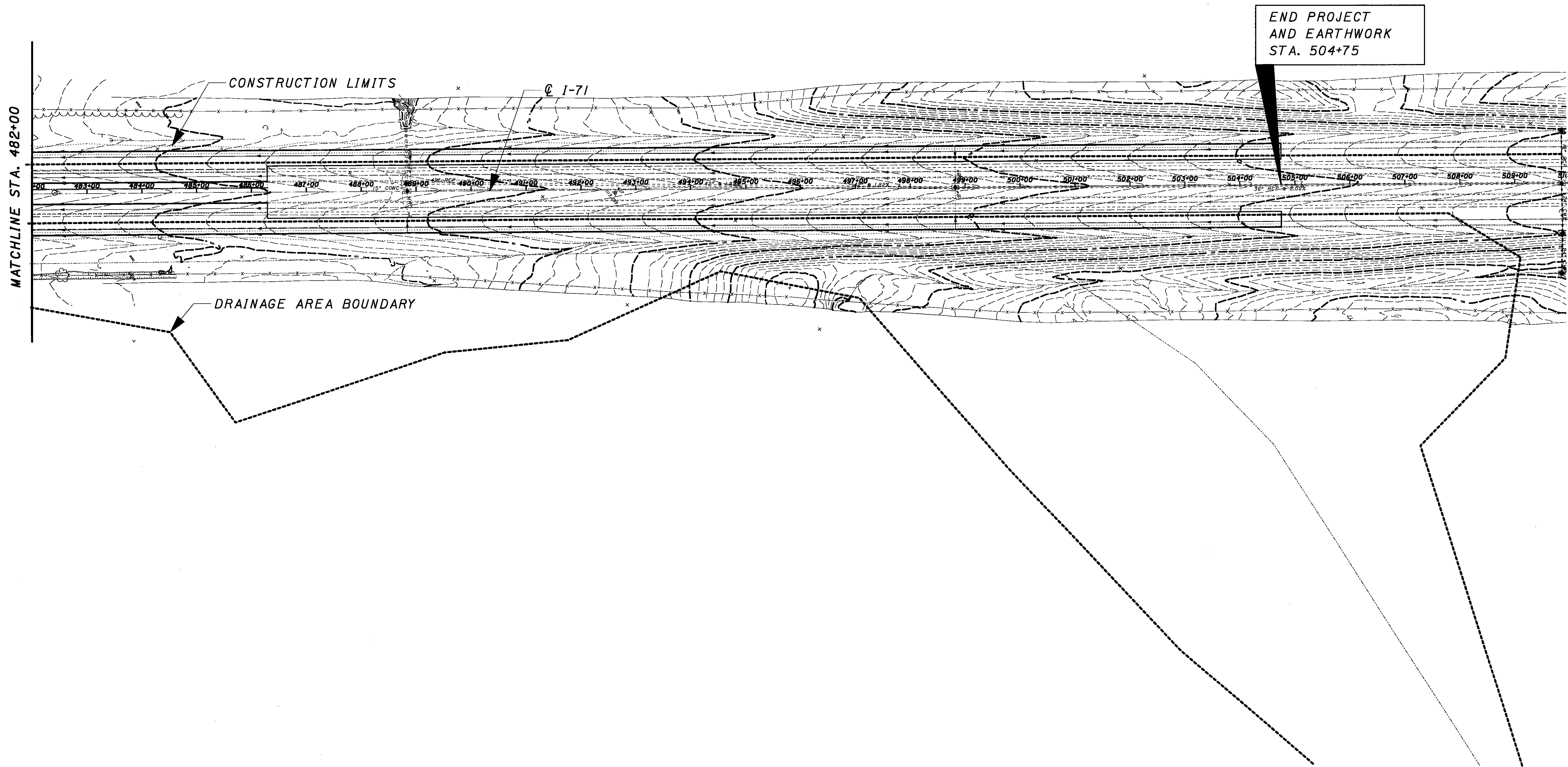
CALCULATED	CHECKED
0	0
50	50
100	100
200	200

HORIZONTAL SCALE IN FEET

**PROJECT SITE PLAN
STA. 456+00 TO STA. 482+00**

MED-71-6.06

...N75657DEH.DGN



CALCULATED	0	100	200
CHECKED			

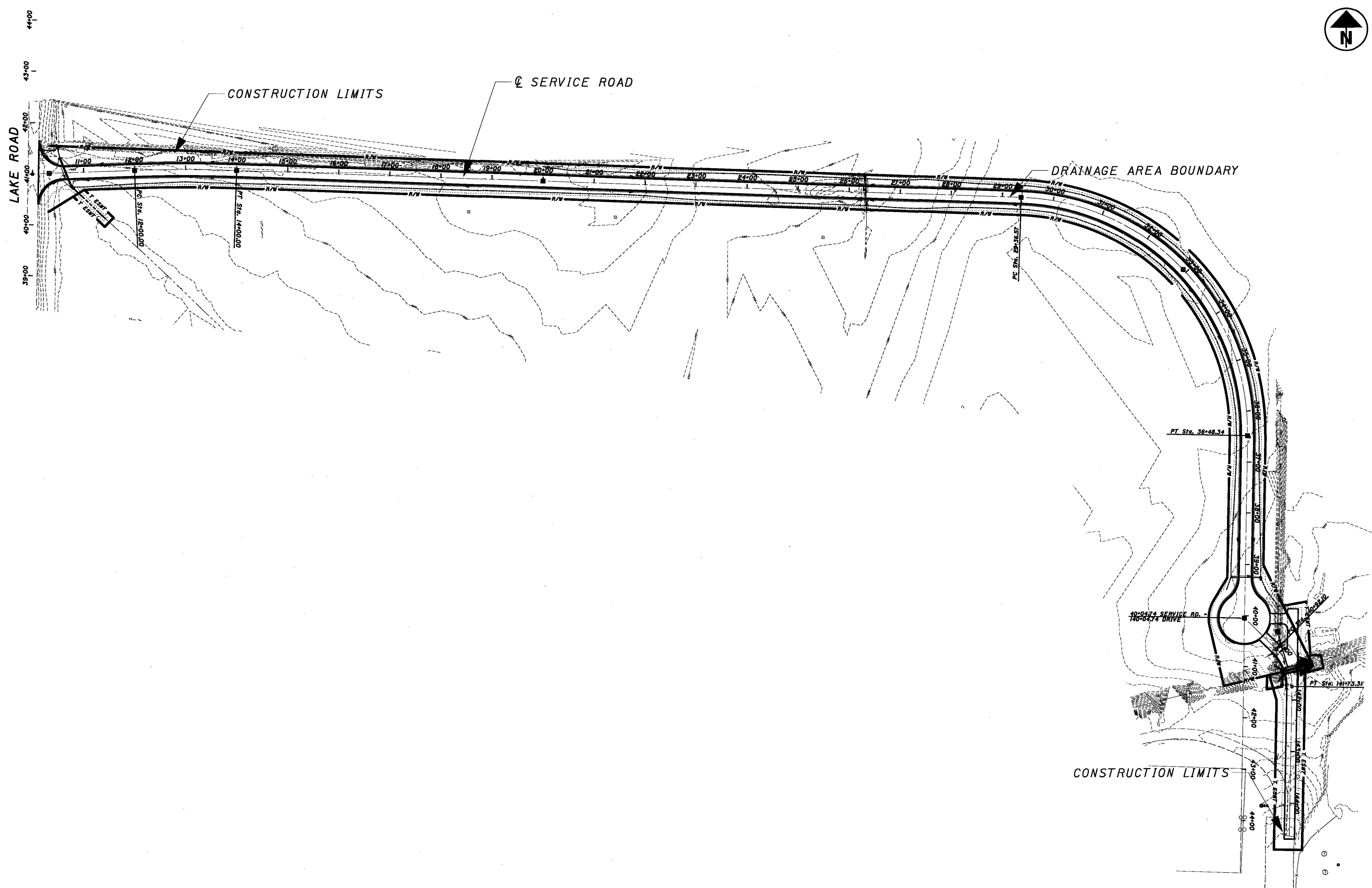
HORIZONTAL SCALE IN FEET

PROJECT SITE PLAN
STA. 482+00 TO STA. 509+00

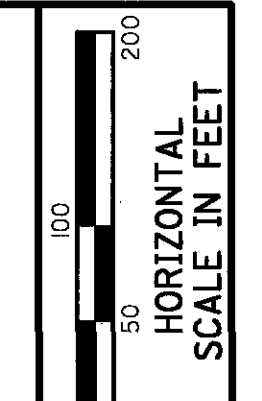
MED-71-6.06

176
1120

...75657DEI.DGN



CALCULATED
CHECKED

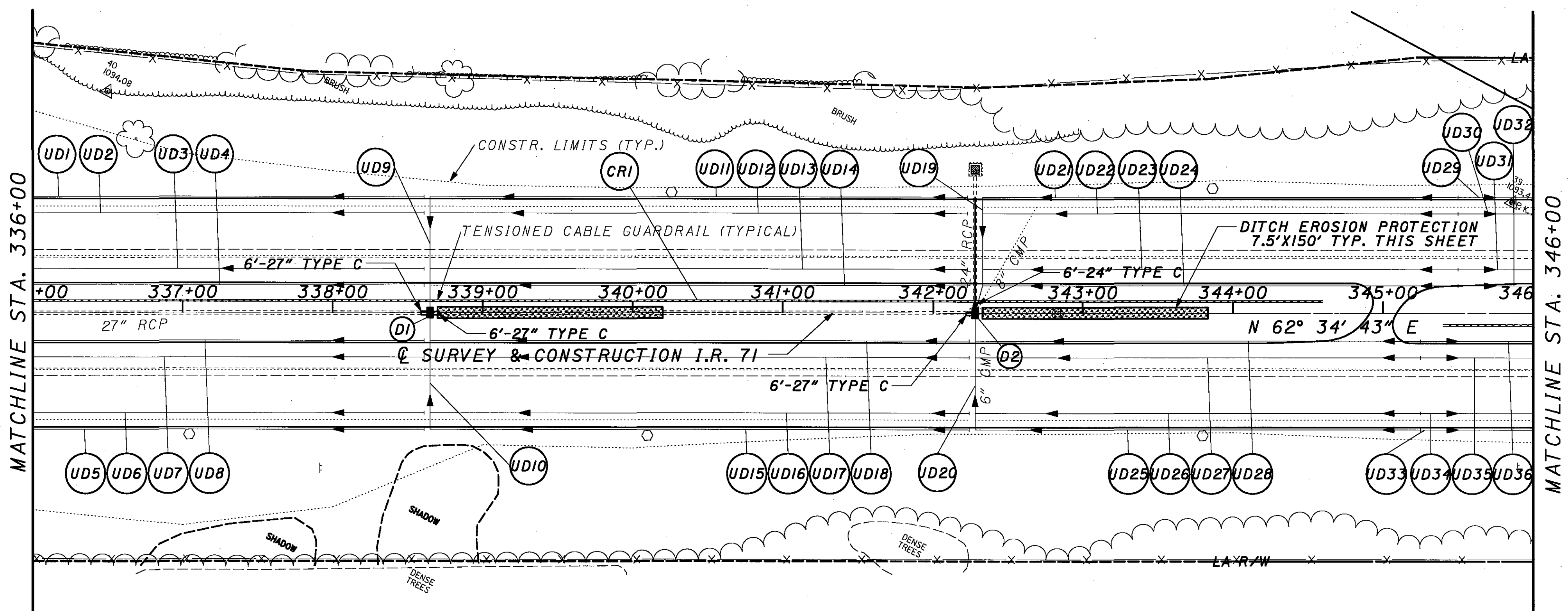
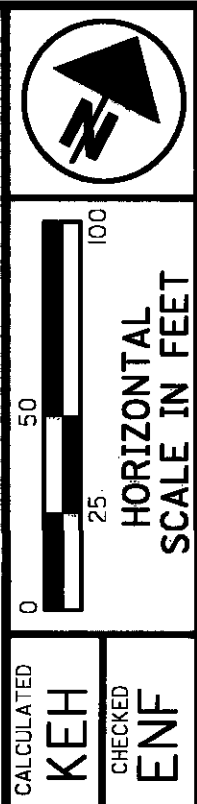


**PROJECT SITE PLAN
SERVICE ROAD**

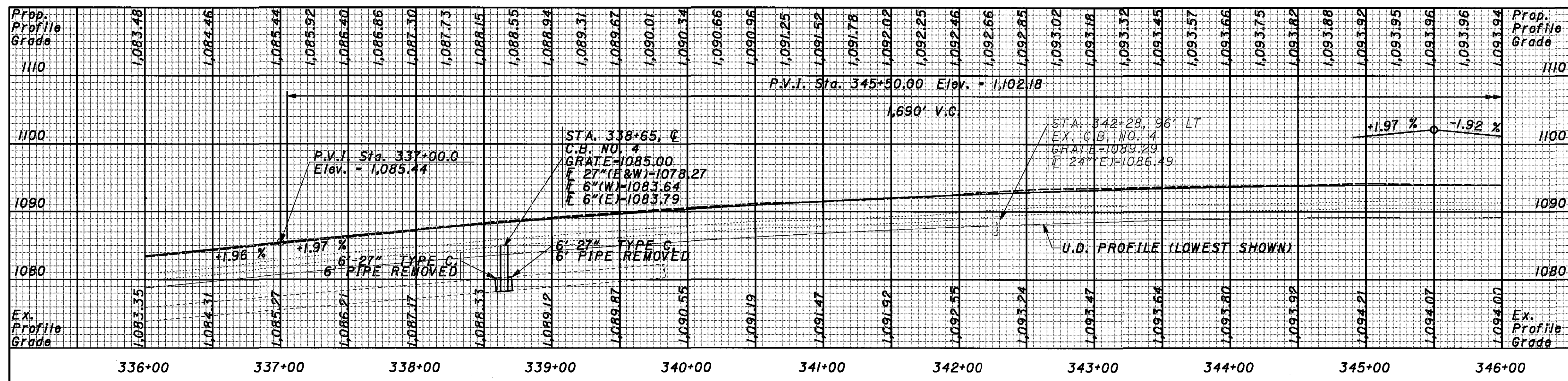
MED-71-6.06

176A
1120

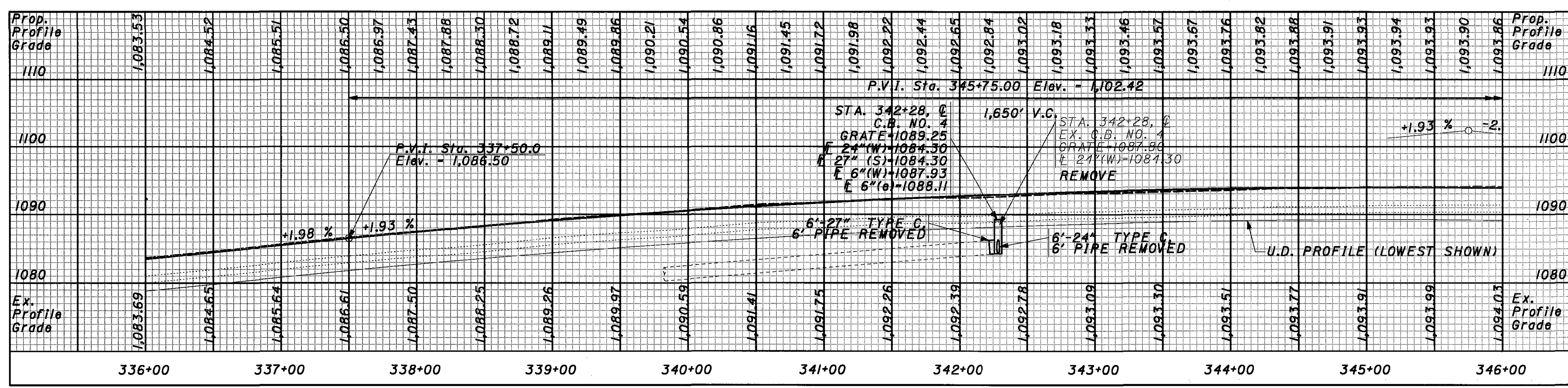
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
141	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
580, 581	TRAFFIC CONTROL



SOUTH BOUND PROFILE



NORTH BOUND PROFILE



REF NO.	STATION		SIDE	TOTALS CARRIED TO GENERAL SUMMARY	
	FROM	TO		EACH	SO. YD.
D1	338+65	340+22	℄	1	125
D2	342+28	343+85	℄	1	125
TOTALS CARRIED TO GENERAL SUMMARY				2	250

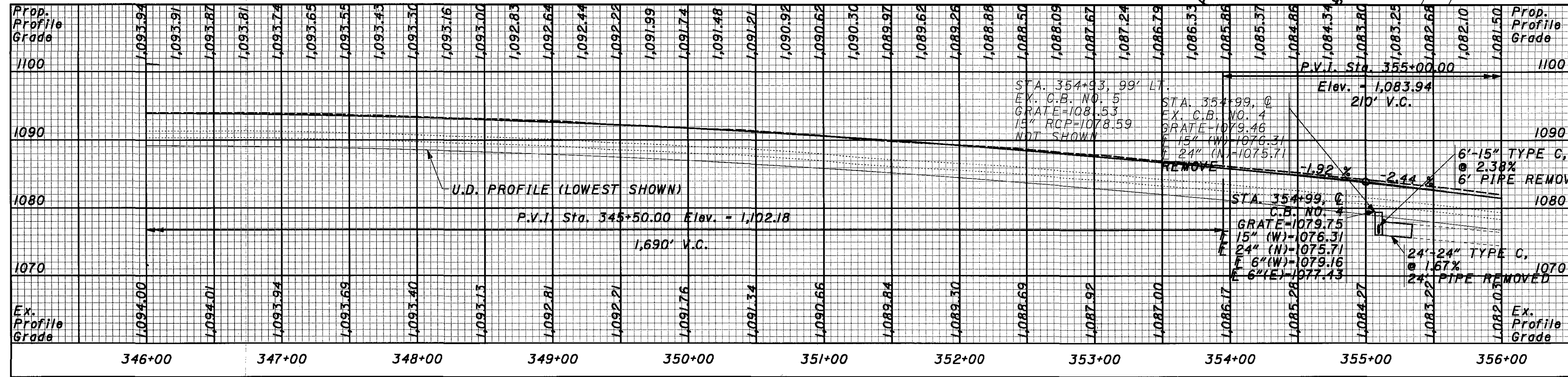
PLAN AND PROFILE
STA. 336+00.00 TO STA. 346+00.00

MED-71-6.06

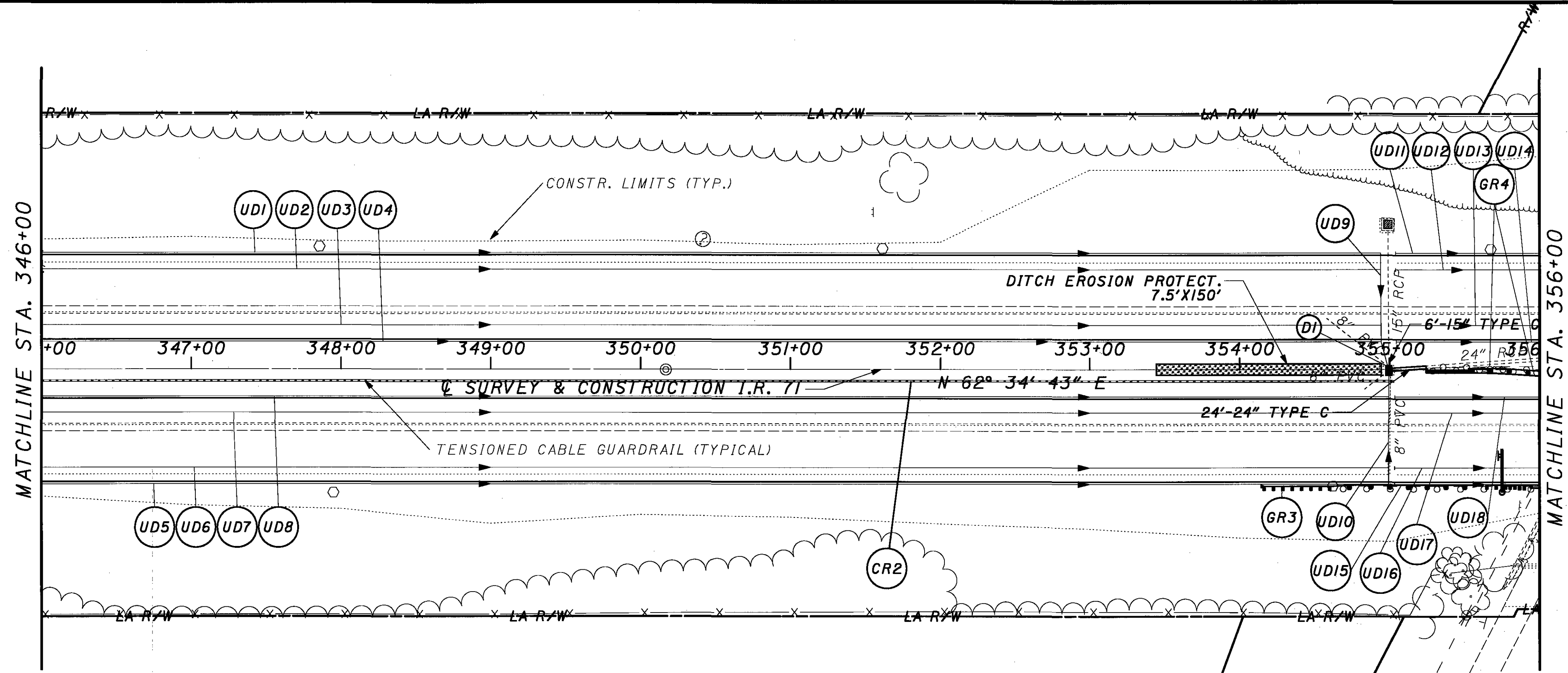
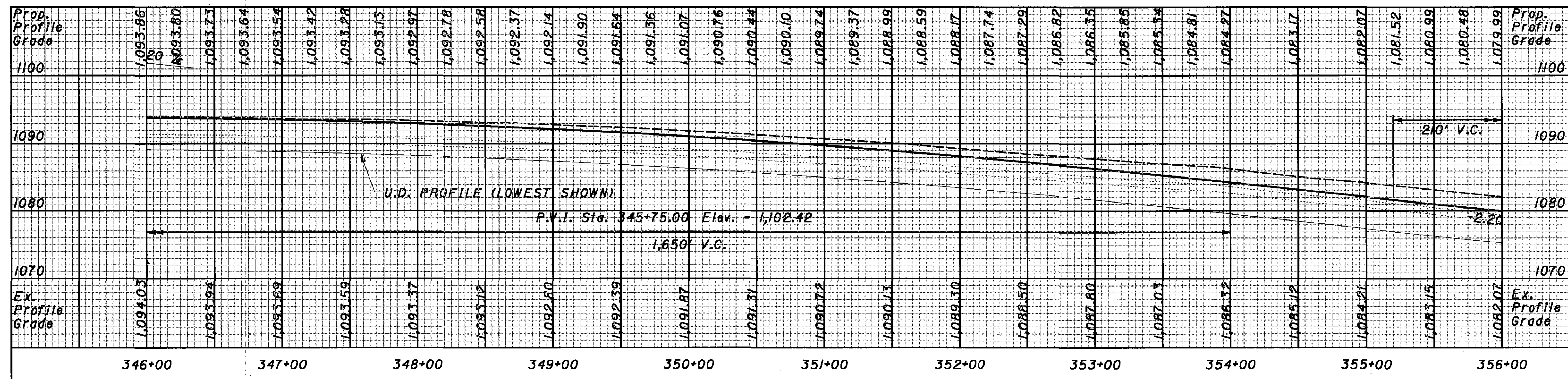
180
1120

...75657gp37.dgn

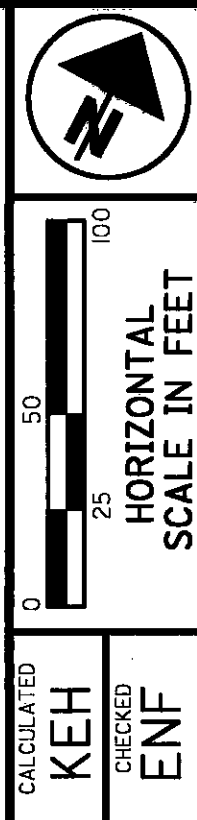
SOUTH BOUND PROFILE



NORTH BOUND PROFILE



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
141	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
581	TRAFFIC CONTROL



REF NO.	STATION		SIDE	DESCRIPTION	EACH	FEET	SQ. YD.
	FROM	TO					
D1	354+99	355+23	LT	NO. 4 CATCH BASIN REMOVED UNDER	1	30	
				PIPE REMOVED, 24\"/>			

TOTALS CARRIED TO SUB-SUMMARY

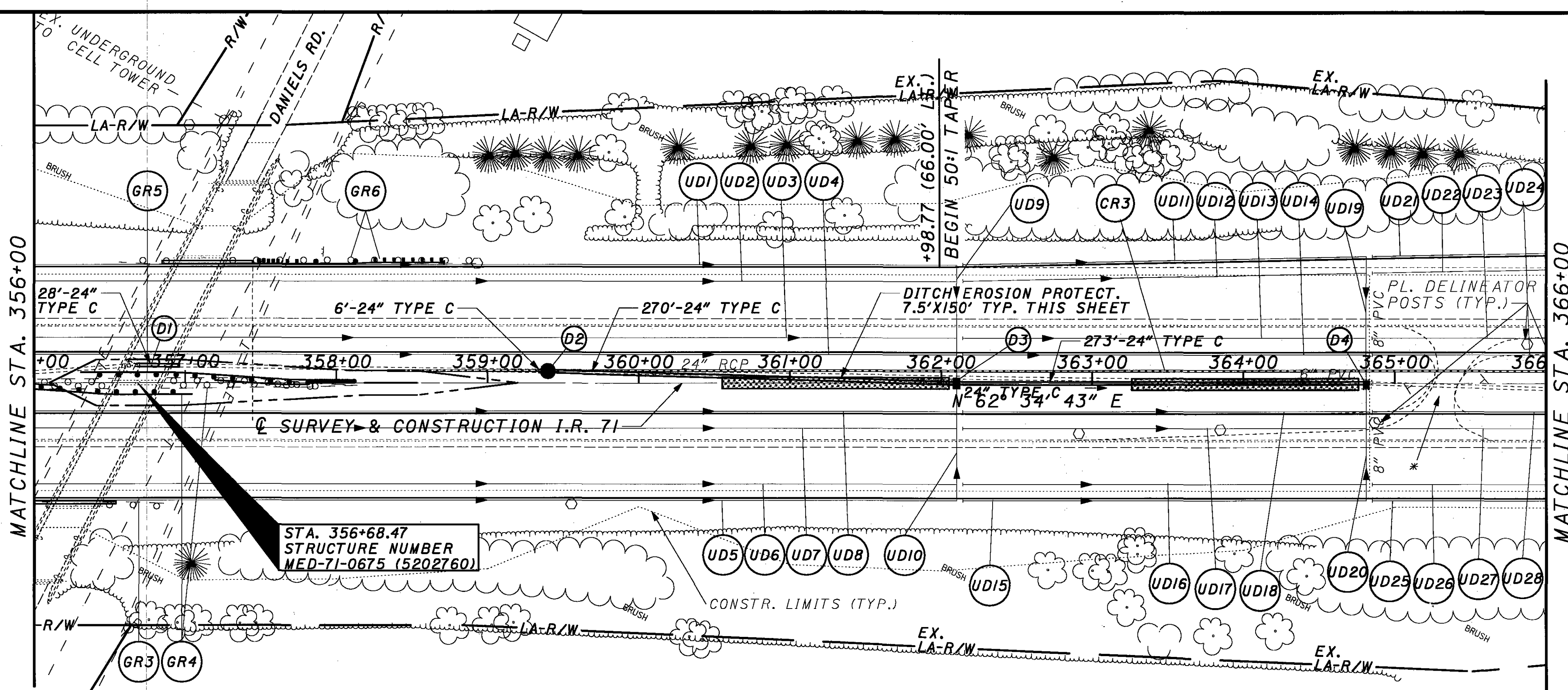
PLAN AND PROFILE
STA. 346+00.00 TO STA. 356+00.00

MED-71-6.06

181
1120

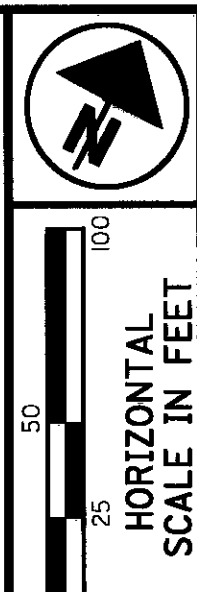
CALCULATED
KEH

CHECKED
ENF

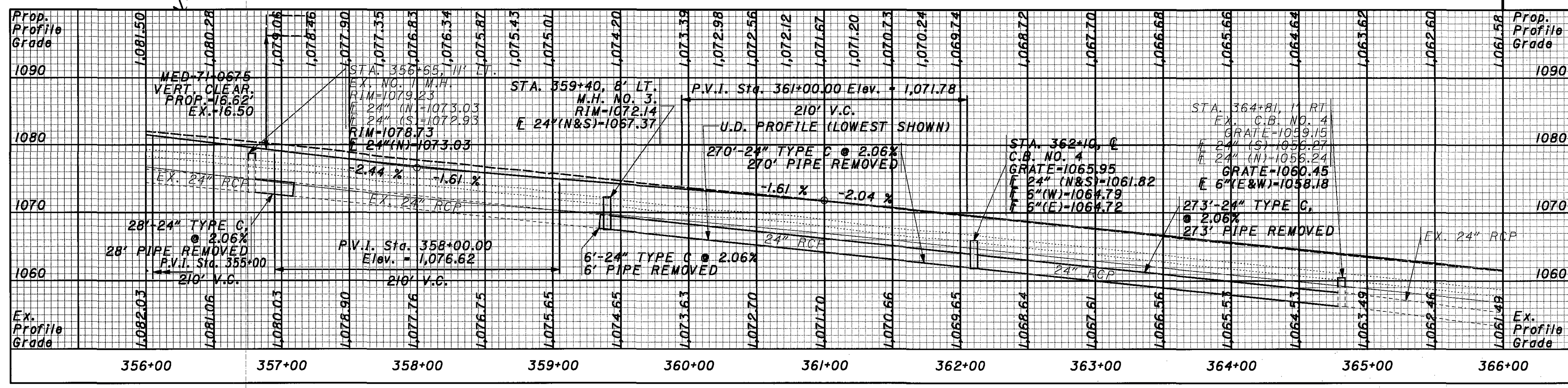


CROSS REFERENCES	
SHEET NO.	DESCRIPTION
14I	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
15I	GUARDRAIL QUANTITIES
58I	TRAFFIC CONTROL

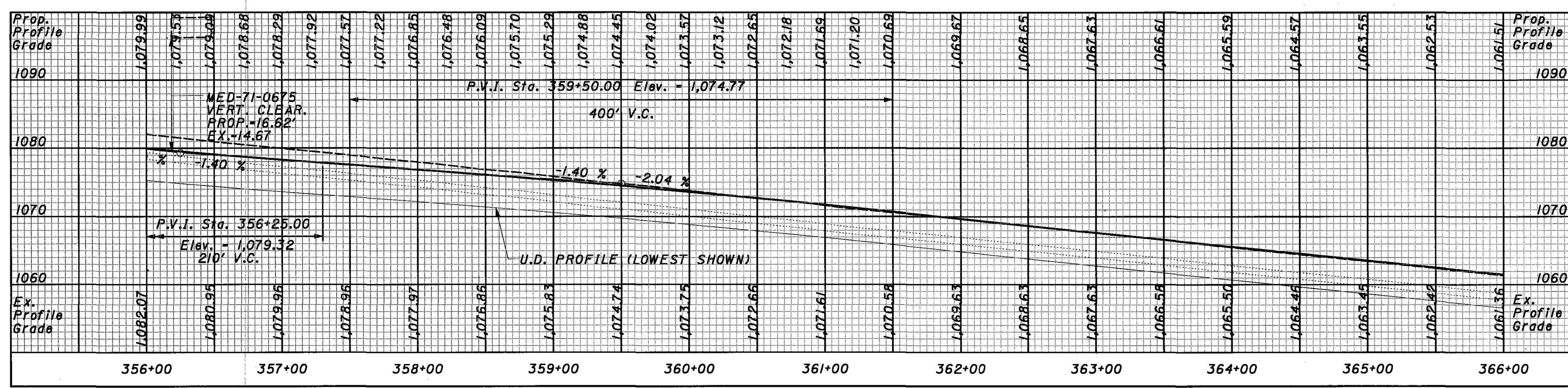
* - EX. CROSSOVER IS REMOVED AS PART OF EXCAVATION



SOUTH BOUND PROFILE



NORTH BOUND PROFILE



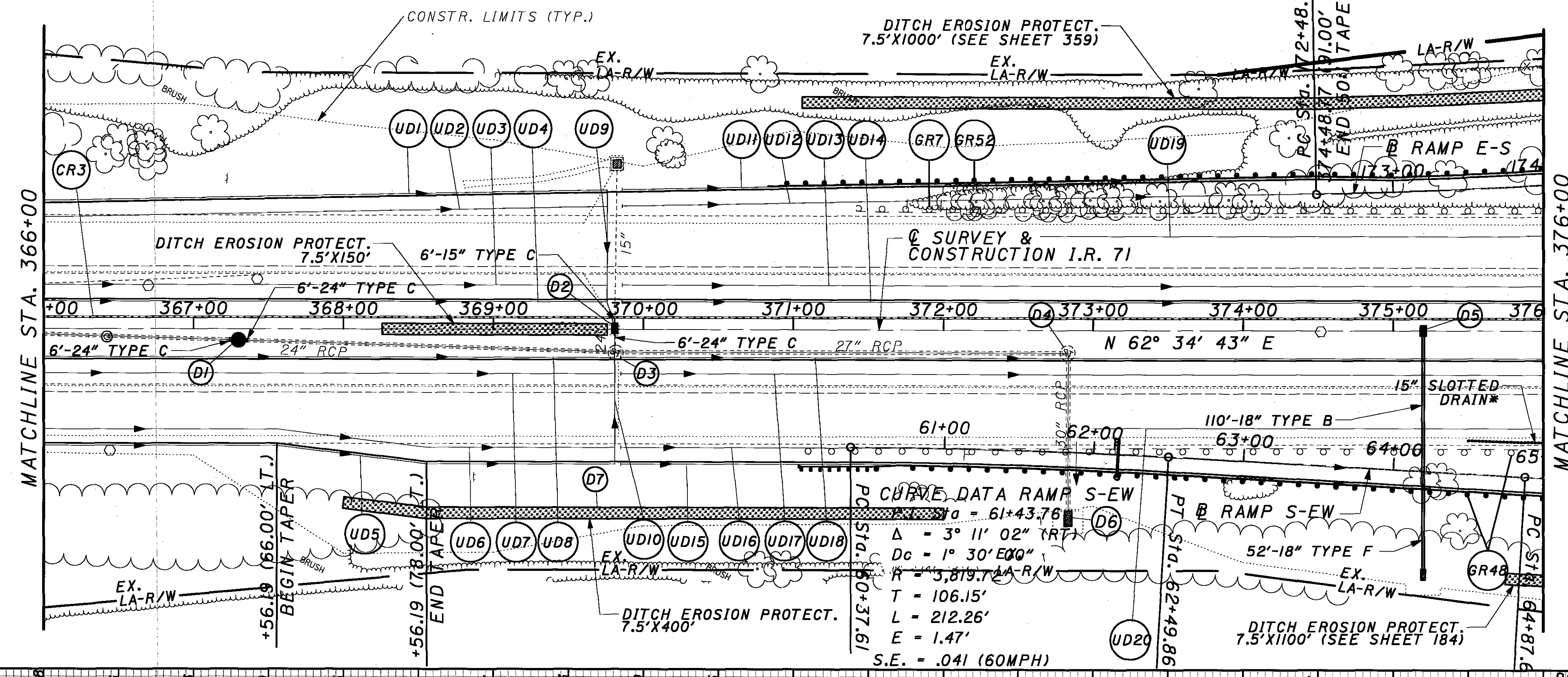
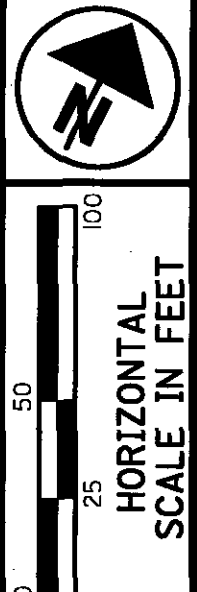
REF NO.	STATION		SIDE	FEET	EACH	SQ. YD.	DITCH EROSION PROTECT.	MANHOLE ADJ. TO GRADE	CATCH BASIN REC. TO GRADE	NO. 3 MANHOLE REC. TO GRADE	NO. 4 CATCH BASIN	24\"/>	
	FROM	TO											
D1	356+65	356+93	LT	28	1								
D2	359+34	359+40	LT	6	1								
D3	359+40	362+10	LT	270	1	125							
D4	362+10	364+81	℄	273	1	125							
TOTALS CARRIED TO SUB-SUMMARY				577									250

PLAN AND PROFILE
STA. 356+00.00 TO STA. 366+00.00

MED-71-6.06

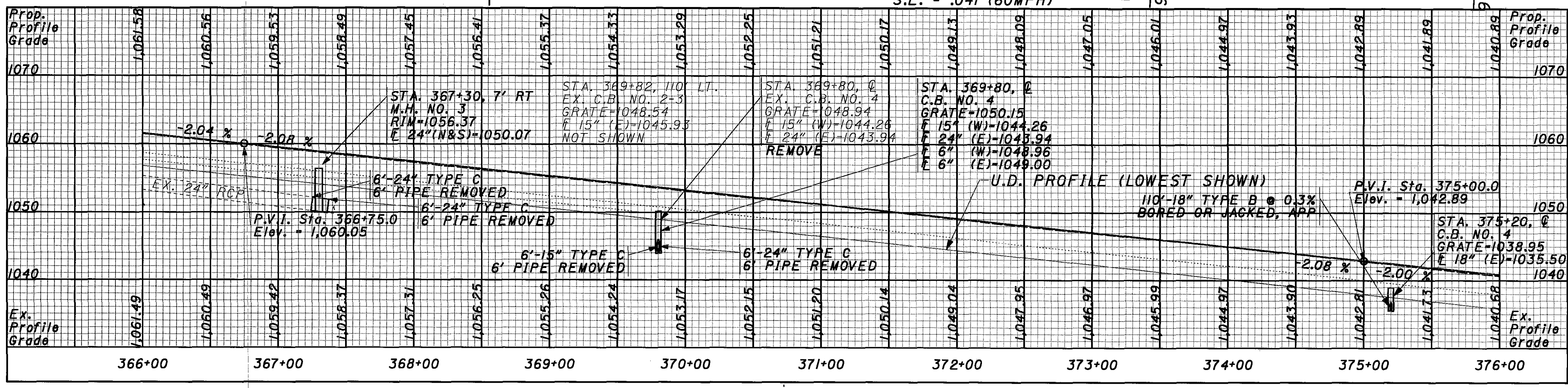
*SEE SHEET 350 FOR QUANTITY

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
142	UNDERDRAIN QUANTITIES
338	CABLE GUARDRAIL QUANT.
151, 152	GUARDRAIL QUANTITIES
582	TRAFFIC CONTROL

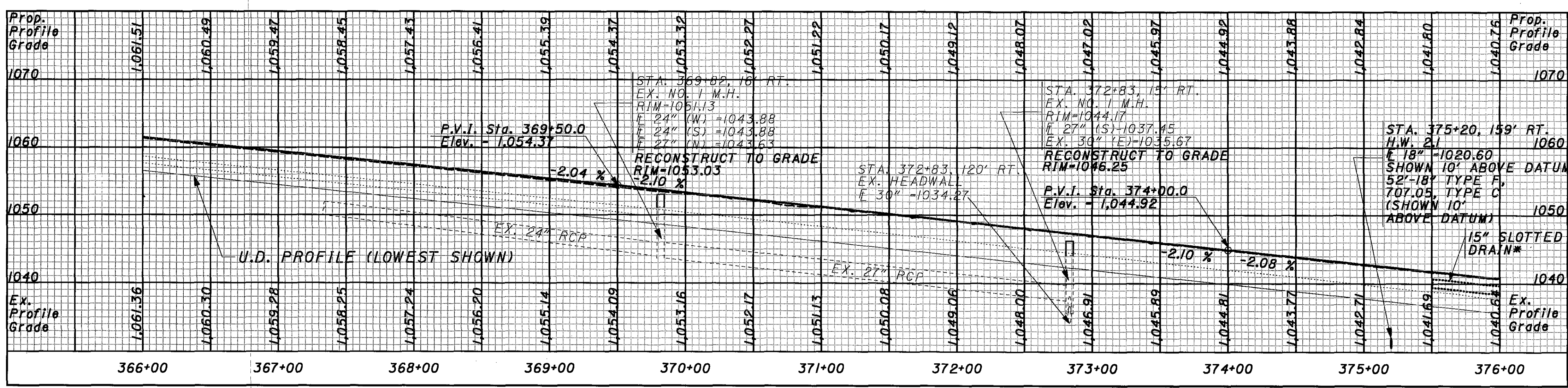


MATCHLINE STA. 376+00

SOUTH BOUND PROFILE



NORTH BOUND PROFILE



REF NO.	STATION		SIDE	DESCRIPTION	CU. YD.	FEET	EACH	NO.	TYPE	MATERIAL	SQ. YD.	QUANTITY
	FROM	TO										
D1	367+24	367+36	LT	DITCH EROSION PROTECT.								125
D2	368+26	369+80	RT	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC								
D3	369+82		RT	ROCK CHANNEL PROTECT., TYPE B W/ F. FABRIC								
D4	372+83		RT	MANHOLE NO. 4 RECONSTR. CATCH BASIN TO GRADE								
D5	375+20		RT	24\"/>								
D6	372+83		RT	24\"/>								
D7	368+00		RT	18\"/>								
TOTALS CARRIED TO SUB-SUMMARY												458

PLAN AND PROFILE
STA. 366+00.00 TO STA. 376+00.00

MED-71-6.06

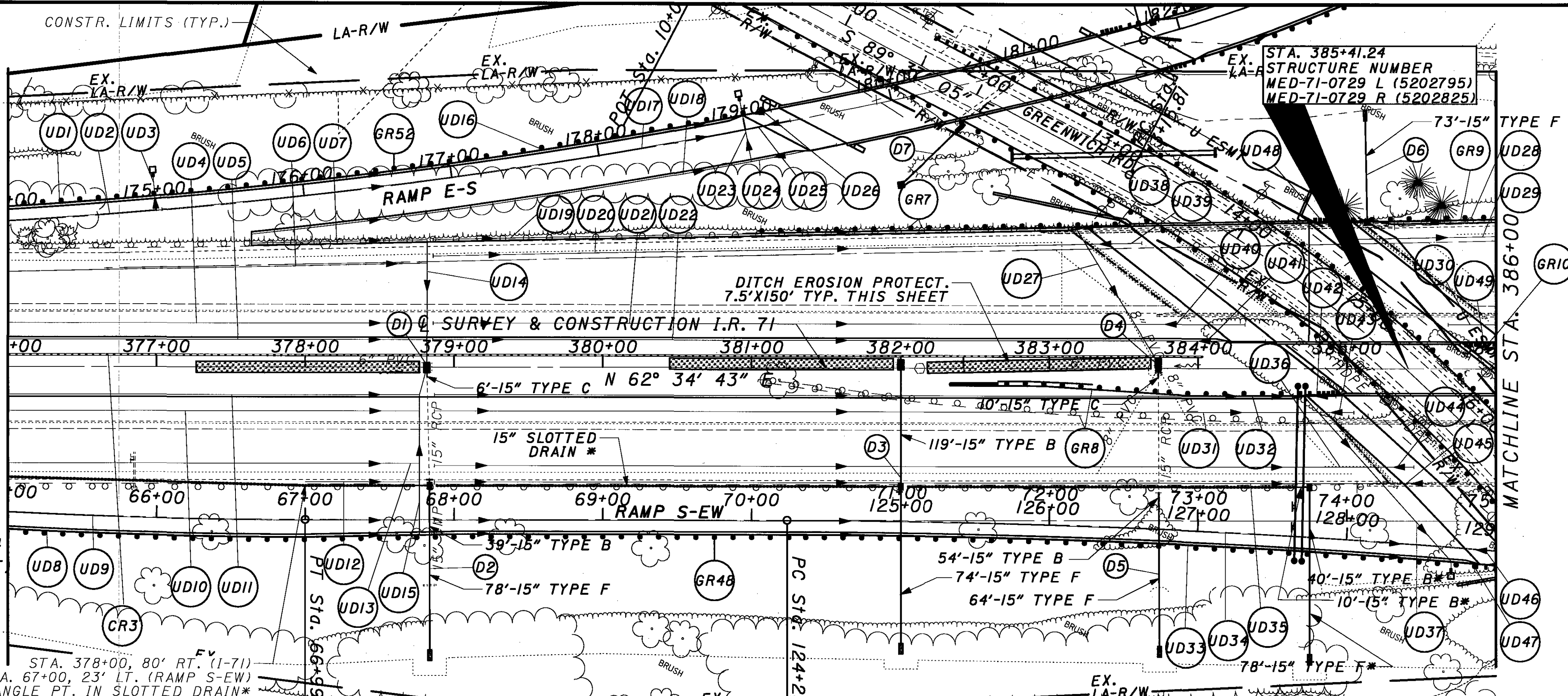
183
120

* SEE SHEET 350

CONSTR. LIMITS (TYP.)

MATCHLINE STA. 376+00

MATCHLINE STA. 386+00

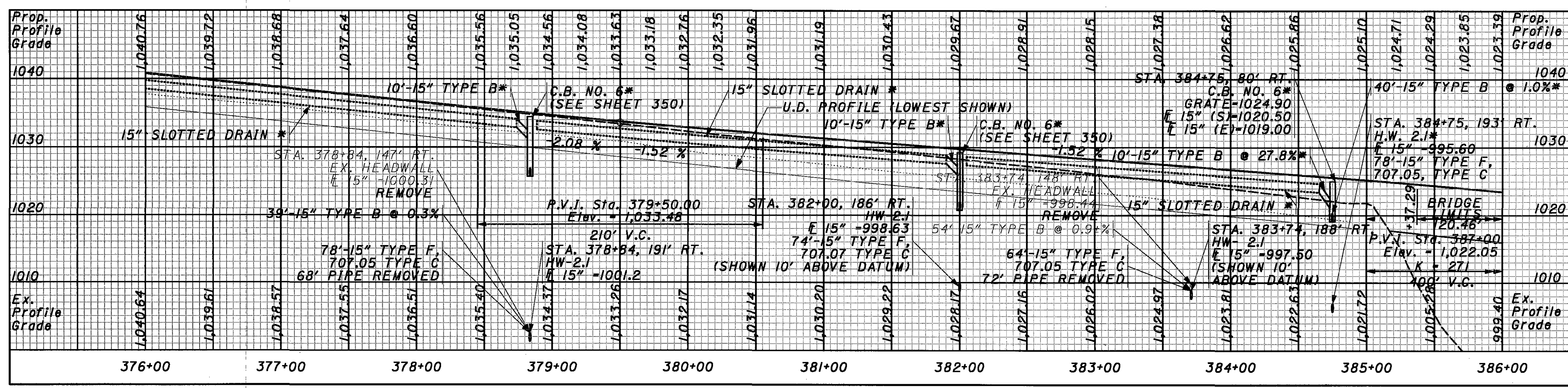
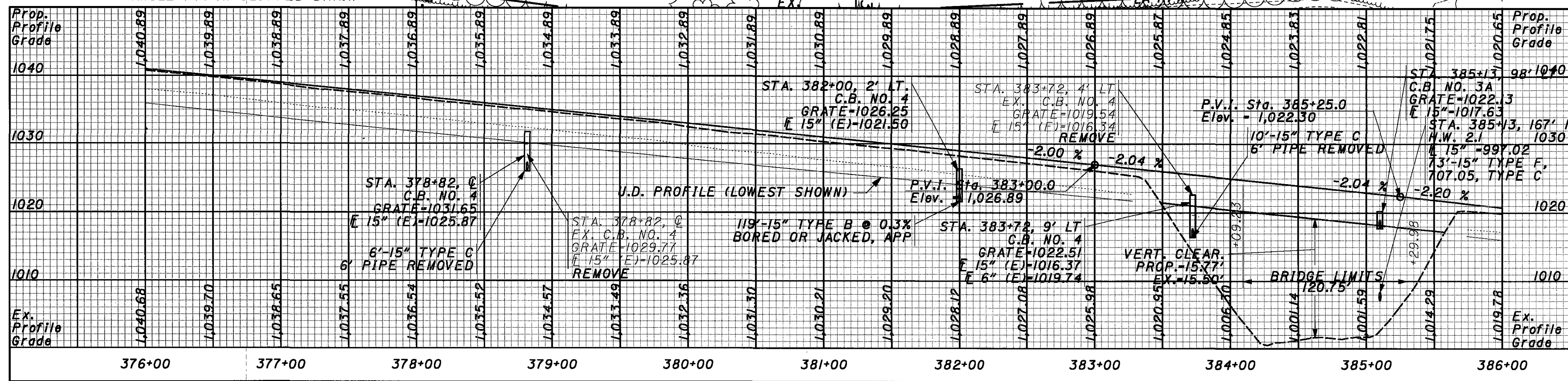


CURVE DATA
RAMP S-EW
 P.I. Sta = 65+93.84
 $\Delta = 3^\circ 11' 02''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 106.16'$
 $L = 212.26'$
 $E = 1.47'$

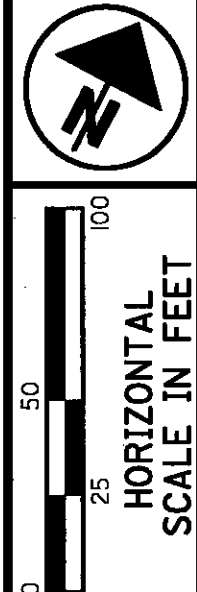
STA. 378+00, 80' RT. (I-71)
 STA. 67+00, 23' LT. (RAMP S-EW)
 ANGLE PT. IN SLOTTED DRAIN*

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
142	UNDERDRAIN QUANTITIES
338	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
582-583	TRAFFIC CONTROL

*SEE SHEET 350 FOR QUANTITIES



REF NO.	STATION		SIDE	QUANTITY	UNIT	DESCRIPTION	SQ. YD.
	FROM	TO					
D1	377+25	378+82	RT	1	EACH	NO. 5 NO. 3A CATCH BASIN	1
D2	378+84	382+00	RT	1	EACH	NO. 4 CATCH BASIN	1
D3	382+00	382+15	LT	1	EACH	NO. 4 CATCH BASIN	1
D4	382+15	383+74	RT	1	EACH	NO. 4 CATCH BASIN	1
D5	383+74	385+10	LT	1	EACH	NO. 4 CATCH BASIN	1
D6	385+10	382+00	LT	1	EACH	NO. 4 CATCH BASIN	1
D7	382+00	382+38	LT	1	EACH	NO. 4 CATCH BASIN	1
TOTALS CARRIED TO SUB-SUMMARY				7			7

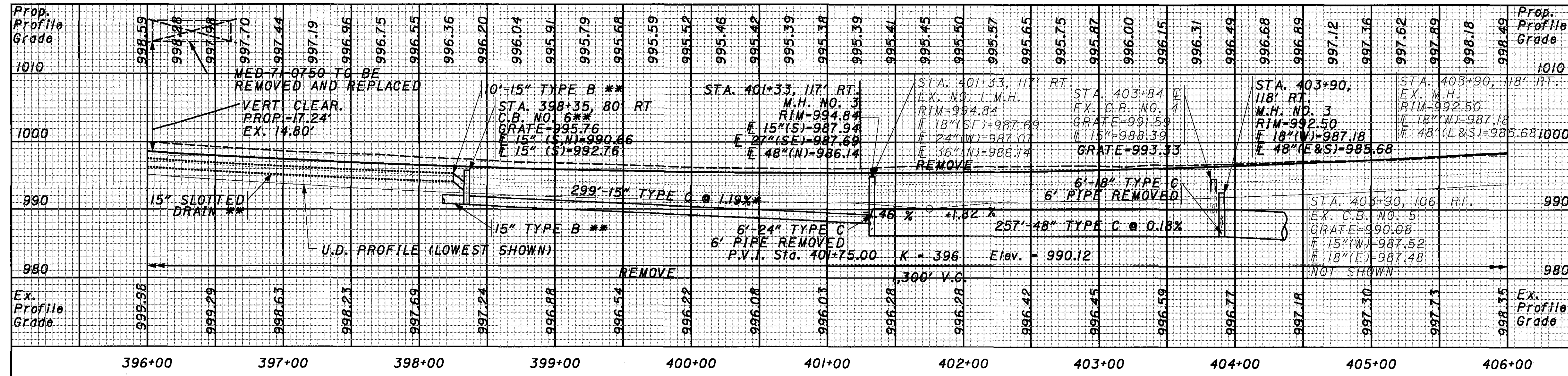


PLAN AND PROFILE
STA. 376+00.00 TO STA. 386+00.00

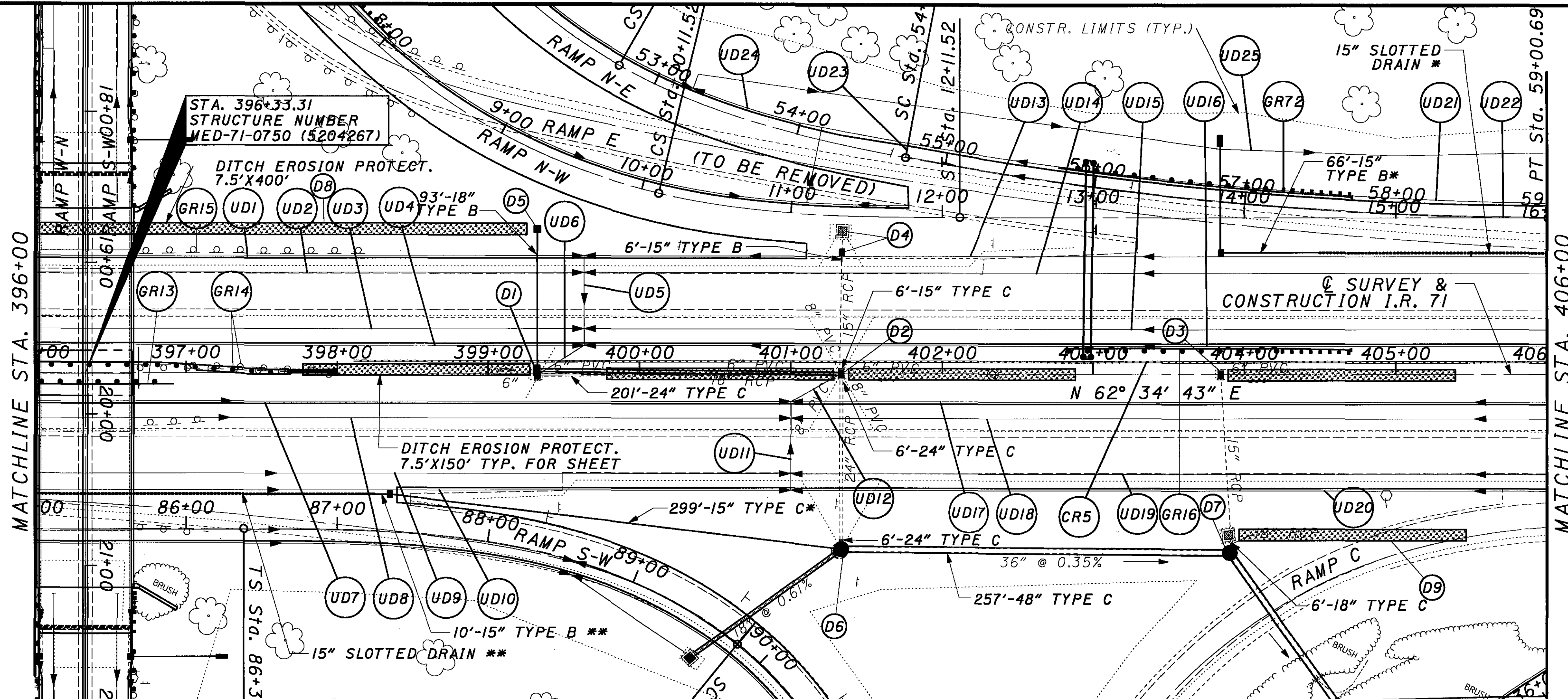
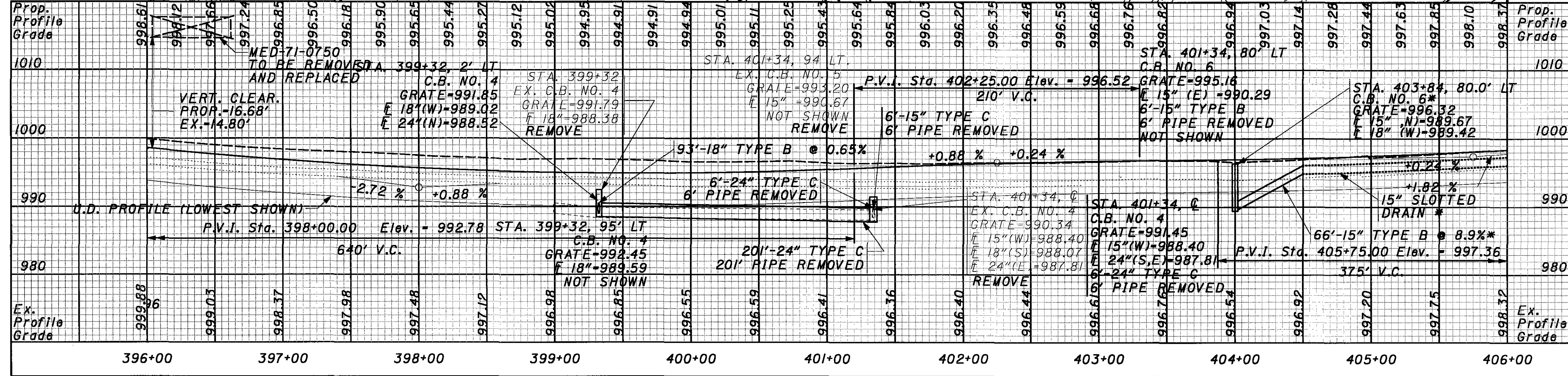
MED-71-6.06

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 1120

NORTH BOUND PROFILE



SOUTH BOUND PROFILE



REF NO.	STATION		SIDE	CATCH BASIN REMOVED	MANHOLE REMOVED	PIPE REMOVED 24" AND UNDER	PIPE REMOVED OVER 24"	15" CONDUIT TYPE B	18" CONDUIT TYPE B	24" CONDUIT TYPE C	48" CONDUIT TYPE C	CATCH BASIN		MANHOLE NO. 3	CATCH BASIN RECON. TO GRADE	DITCH EROSION PROTECT.	
	FROM	TO										EA	EA				
D1	397+75	399+32	LT	1													
D2	399+32	402+91	C	1													
D3	402+91	403+84	C	1													
D4	401+34	401+34	LT														
D5	399+32	401+33	LT														
D6	401+33	401+33	RT														
D7	401+33	403+90	RT				257										
D8	399+25	399+25	RT														
D9	403+97	403+57	RT														
TOTALS CARRIED TO SUB-SUMMARY				3	2	221	257	6	6	213	268	2	1	1	2	1	958

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
143	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
584-585	TRAFFIC CONTROL

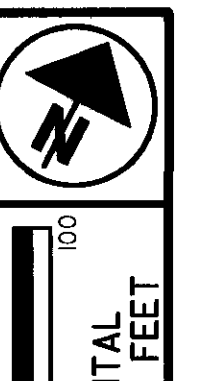
*SEE SHEET 375 FOR QUANTITIES
**SEE SHEET 352 FOR QUANTITIES

186
1120

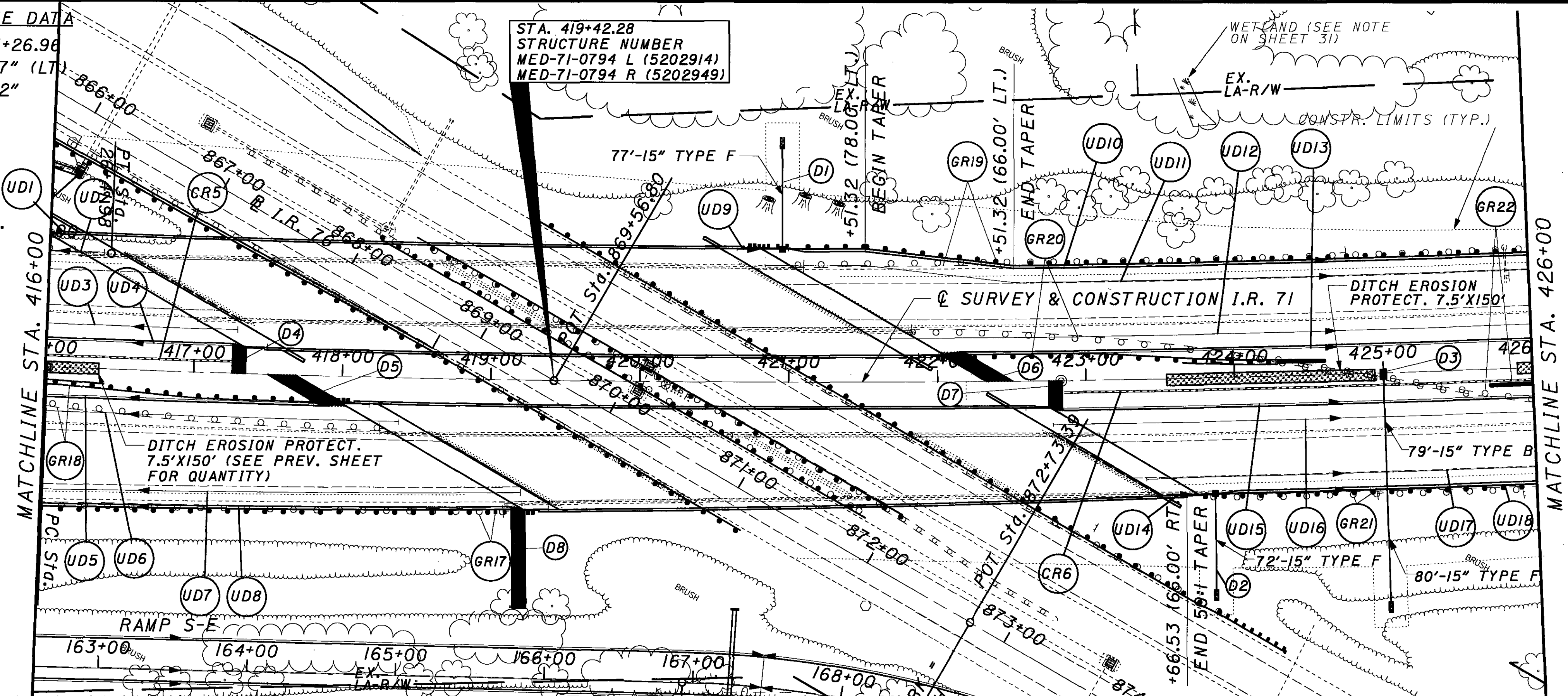
MED-71-6.06

PLAN AND PROFILE
STA. 396+00.00 TO STA. 406+00.00

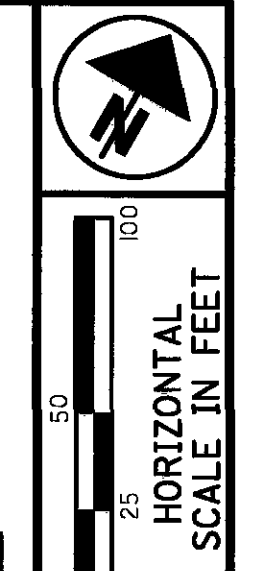
CALCULATED: KEH
CHECKED: ENF



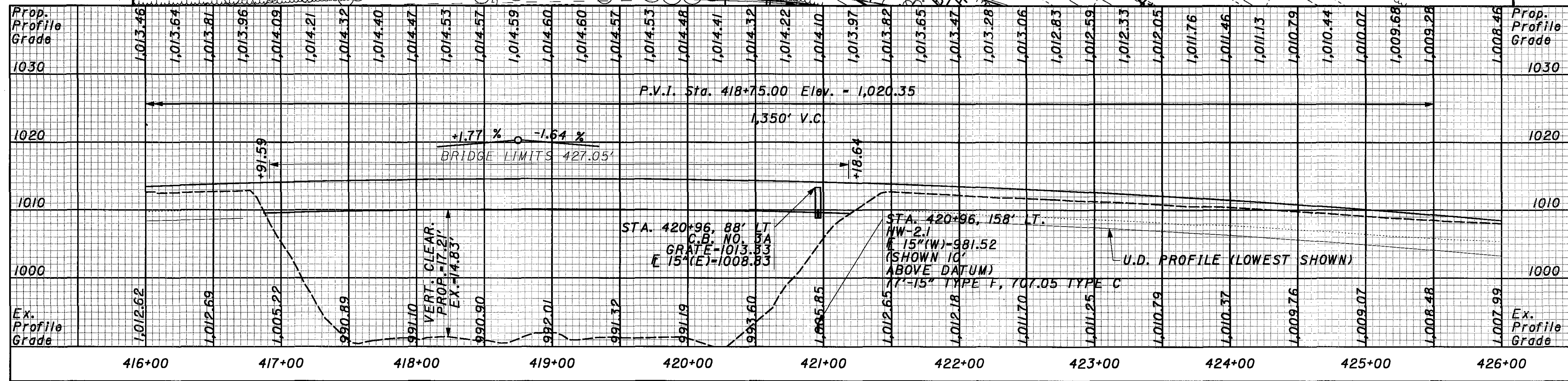
© I.R. 71 CURVE DATA
 P.I. Sta = 443+26.96
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$
 $S.E. = 0.019$
 EX. S.E. = N.C.



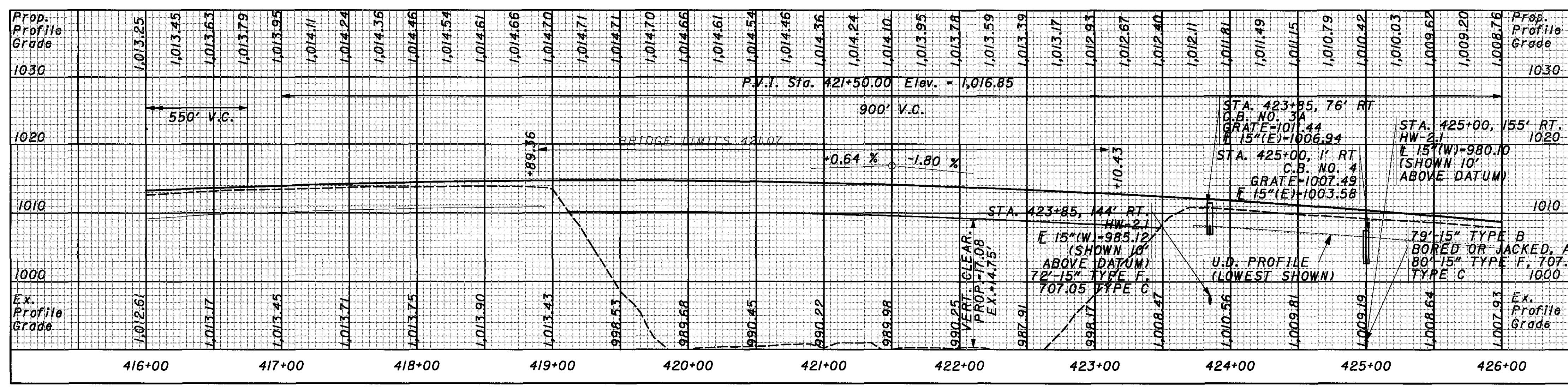
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
143	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
585-586	TRAFFIC CONTROL



SOUTH BOUND PROFILE



NORTH BOUND PROFILE



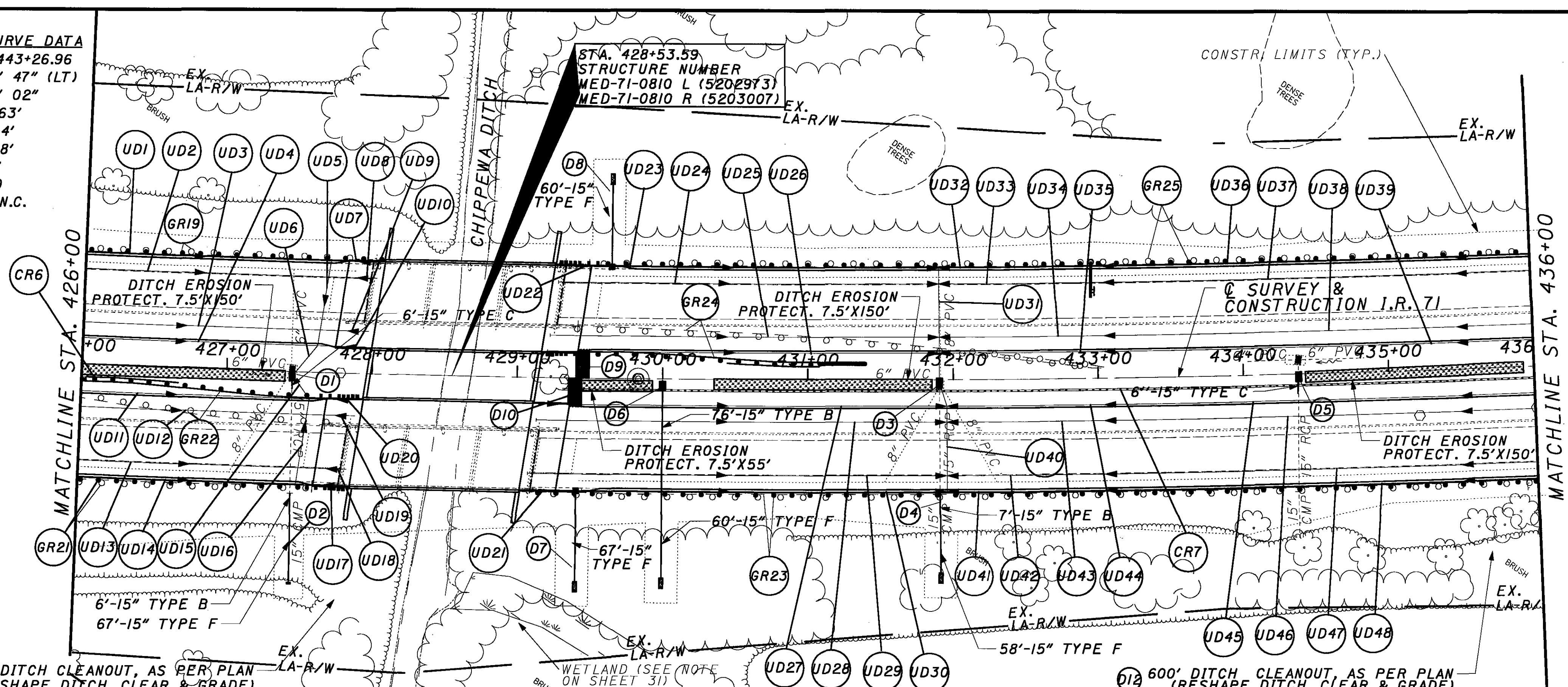
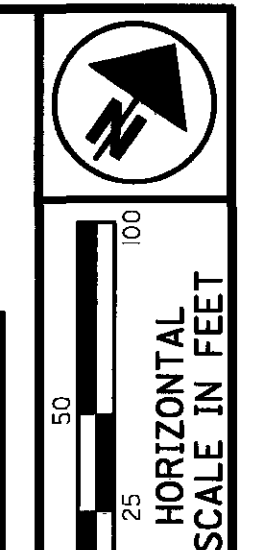
REF NO.	STATION		SIDE	ITEM	QUANTITY	UNIT	TOTALS CARRIED TO GENERAL SUMMARY	
	FROM	TO					QUANTITY	UNIT
D1	420+96	423+85	LT	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC	1	CU. YD.	1	
D2	423+85	425+00	RT	CONCRETE MASONRY	1	CU. YD.	1	
D3	423+43	425+00	RT	15" CONDUIT BORED OR JACKED, APP	1	FEET	79	
D4	417+30	417+96	LT	15" CONDUIT TYPE B	1	FEET	77	
D5	417+96	422+08	RT	15" CONDUIT TYPE F	1	FEET	72	
D6	422+08	422+79	LT	15" CONDUIT TYPE C	1	FEET	80	
D7	422+79	419+19	RT	CATCH BASIN NO. 4	1	EACH	1	
D8	419+19	419+19	RT	CATCH BASIN NO. 3A	1	EACH	1	
				SODDING REIN-FORCED	22	SQ. YD.	22	
				DITCH EROSION PROTECT.	125	SQ. YD.	125	
TOTALS CARRIED TO GENERAL SUMMARY					3		1	125

PLAN AND PROFILE
STA. 416+00.00 TO STA. 426+00.00

MED-71-6.06

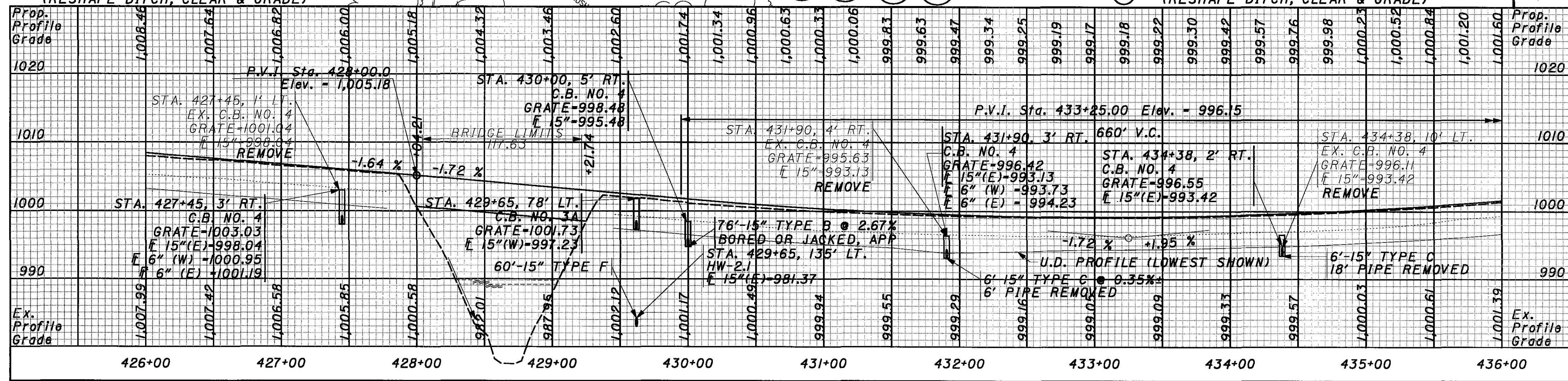
@ I.R. 71 CURVE DATA
 P.I. Sta = 443+26.96
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$
 $S.E. = 0.019$
 EX. S.E. = N.C.

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
143-144	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
586-587	TRAFFIC CONTROL

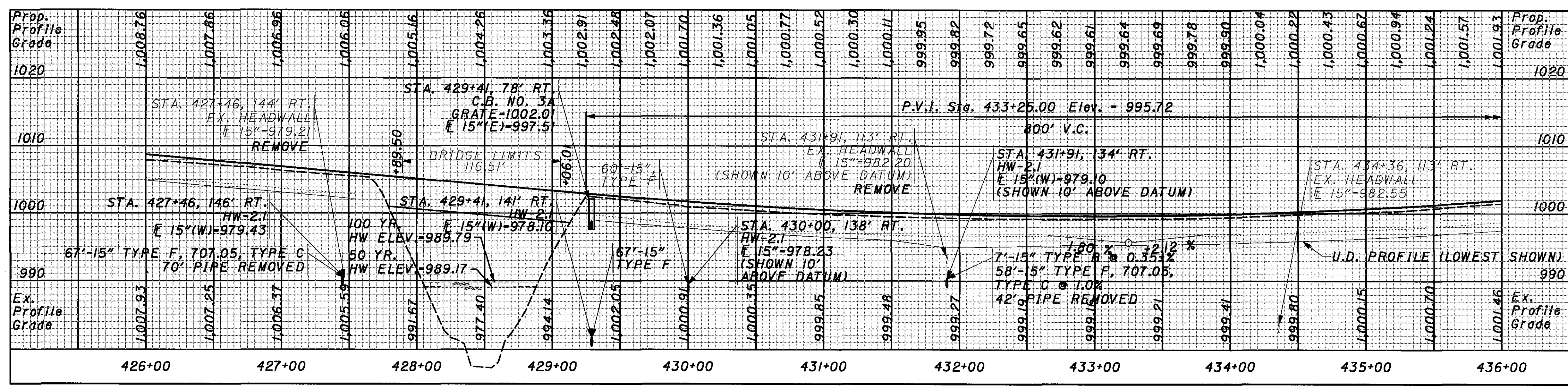


(D1) 80' DITCH CLEANOUT, AS PER PLAN (RESHAPE DITCH, CLEAR & GRADE)
 (D12) 600' DITCH CLEANOUT, AS PER PLAN (RESHAPE DITCH, CLEAR & GRADE)

SOUTH BOUND PROFILE



NORTH BOUND PROFILE



REF NO.	STATION		SIDE	STRUCTURE REMOVED	PIPE REMOVED UNDER	ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	CONC. MASONRY	CATCH BASIN REMOVED	DITCH CLEANOUT AS PER PLAN	15" CONDUIT TYPE F, 707.05, TYPE C	15" CONDUIT TYPE B BORED OR JACKED, APP TYPE C	15" CONDUIT TYPE B	15" CONDUIT TYPE C	CATCH BASIN NO.	SODDING REIN-FORCED	DITCH EROSION PROTECT.	TOTALS CARRIED TO SUB-SUMMARY		
	FROM	TO															FEET	CU. YD.	FEET
D1	425+88	427+45	LT		11			1		67			6	1		125		421	421
D2	427+46	431+90	RT		70		0.27	1		58			6	1		125		36	36
D3	430+33	431+90	RT		6			1		60			6	1		46		20	20
D4	431+91	435+95	RT		42		0.27	1		60			6	1		125		16	16
D5	434+38	430+00	LT		18		0.27	1		60			6	1		46		20	20
D6	429+75	430+00	RT				0.27	1		60			6	1		46		20	20
D7	429+39	429+62	RT				0.27	1		60			6	1		46		20	20
D8	429+62	429+45	RT				0.27	1		60			6	1		46		20	20
D9	429+45	429+40	RT				0.27	1		60			6	1		46		20	20
D10	429+40	427+46	RT				0.27	1		60			6	1		46		20	20
D11	427+46	429+00	RT				0.27	1		60			6	1		46		20	20
D12	429+00	436+00	RT				0.27	1		60			6	1		46		20	20
TOTALS CARRIED TO SUB-SUMMARY					2	147	1.35	3	680	312	13	76	18	2	4	421	36	421	421

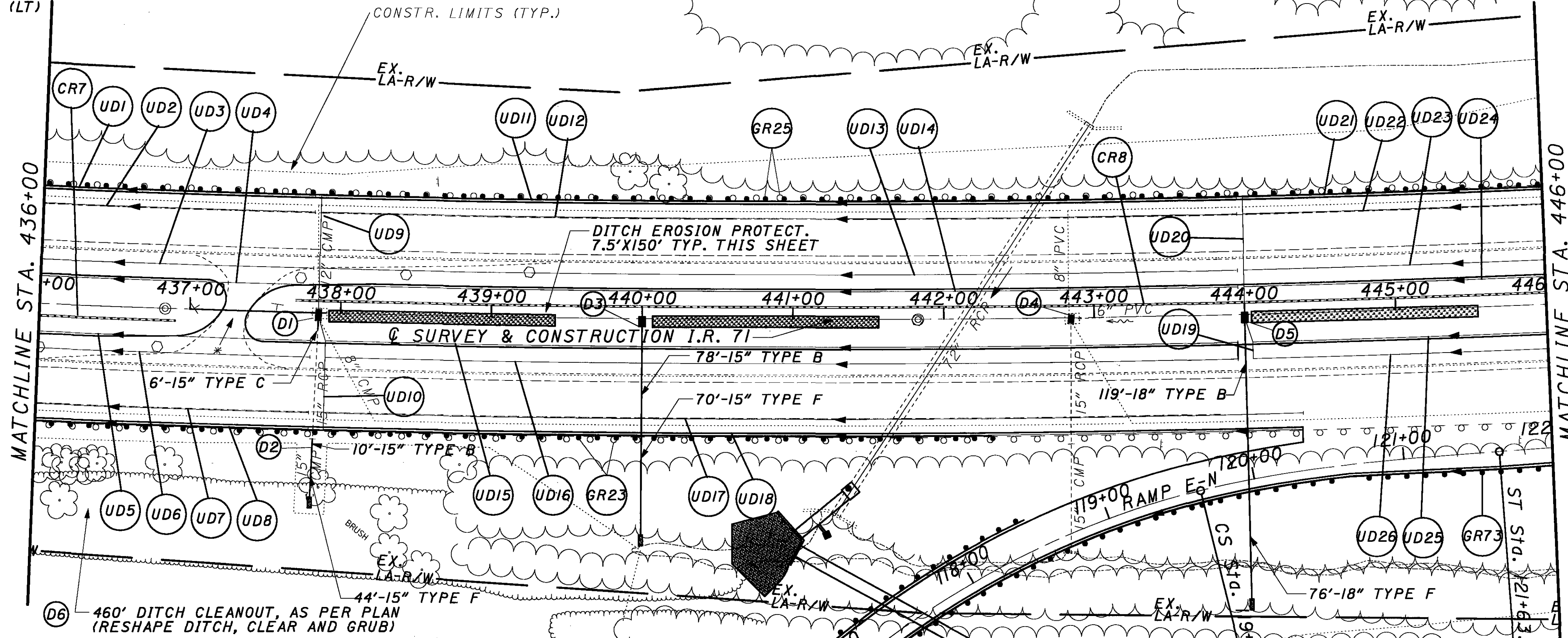
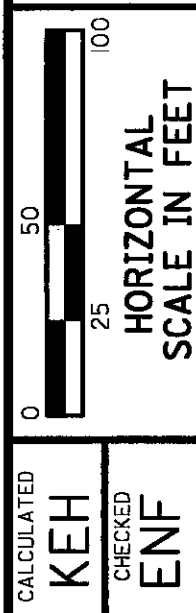
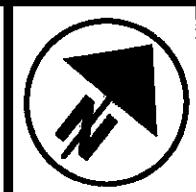
MED-71-6.06

189
1120

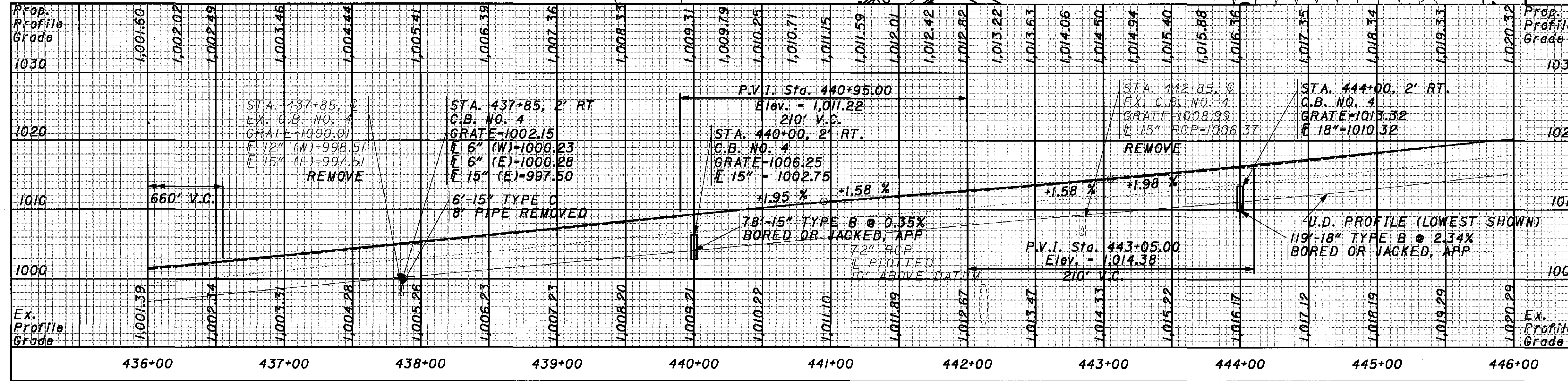
¢ I.R. 71 CURVE DATA
 P.I. Sta = 443+26.96
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$
 $S.E. = 0.019$
 $EX. S.E. = N.C.$

* - EX. CROSSOVER IS REMOVED AS PART OF EXCAVATION

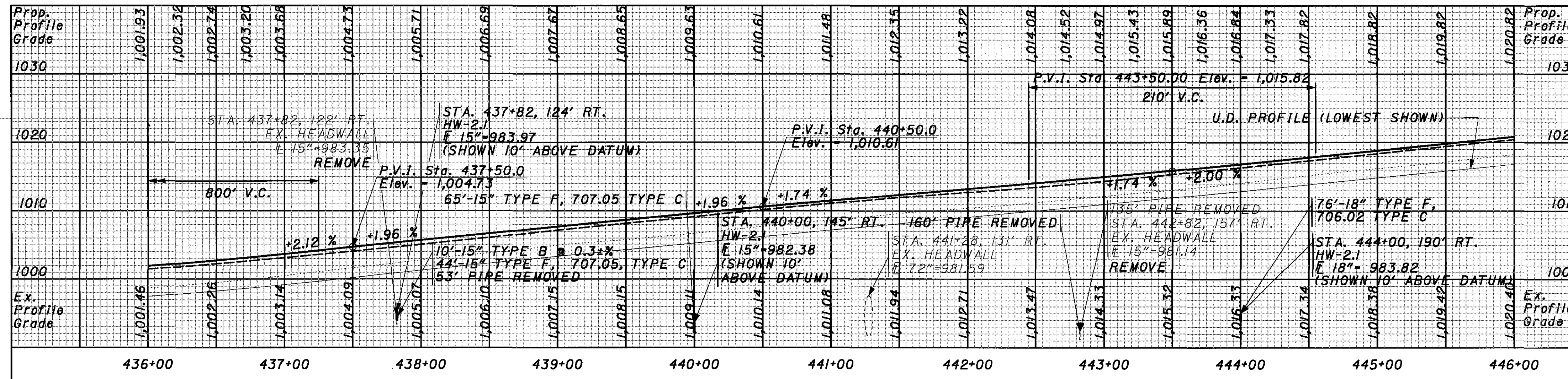
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
144	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
587	TRAFFIC CONTROL



SOUTH BOUND PROFILE



NORTH BOUND PROFILE



REF. NO.	STATION	SIDE		SIDE	FEET	EACH	SQ. YD.	DITCH CLEANOUT BASIN AS PER PLAN	DITCH EROSION PROTECT.	CATCH BASIN NO. 4	18" CONDUIT TYPE B BORED OR JACKED, APP	15" CONDUIT TYPE B BORED OR JACKED, APP	15" CONDUIT TYPE C	CONCRETE MASONRY	ROCK CHANNEL PROTECT. F. FABRIC	PIPE REMOVED UNDER	STRUCTURE REMOVED	TOTALS CARRIED TO SUB-SUM.	
		FROM	TO																
D1	437+85	RT	439+42	RT	8	1													
D2	437+82	RT		RT	53	1													
D3	440+00	¢	441+57	¢	135	1													
D4	442+85	RT		RT															
D5	444+00	RT	440+60	RT	460														
D6	436+00																		
TOTALS CARRIED TO SUB-SUM.					196	2	460	2	460	3	0.87	109	76	10	78	6	119	3	375

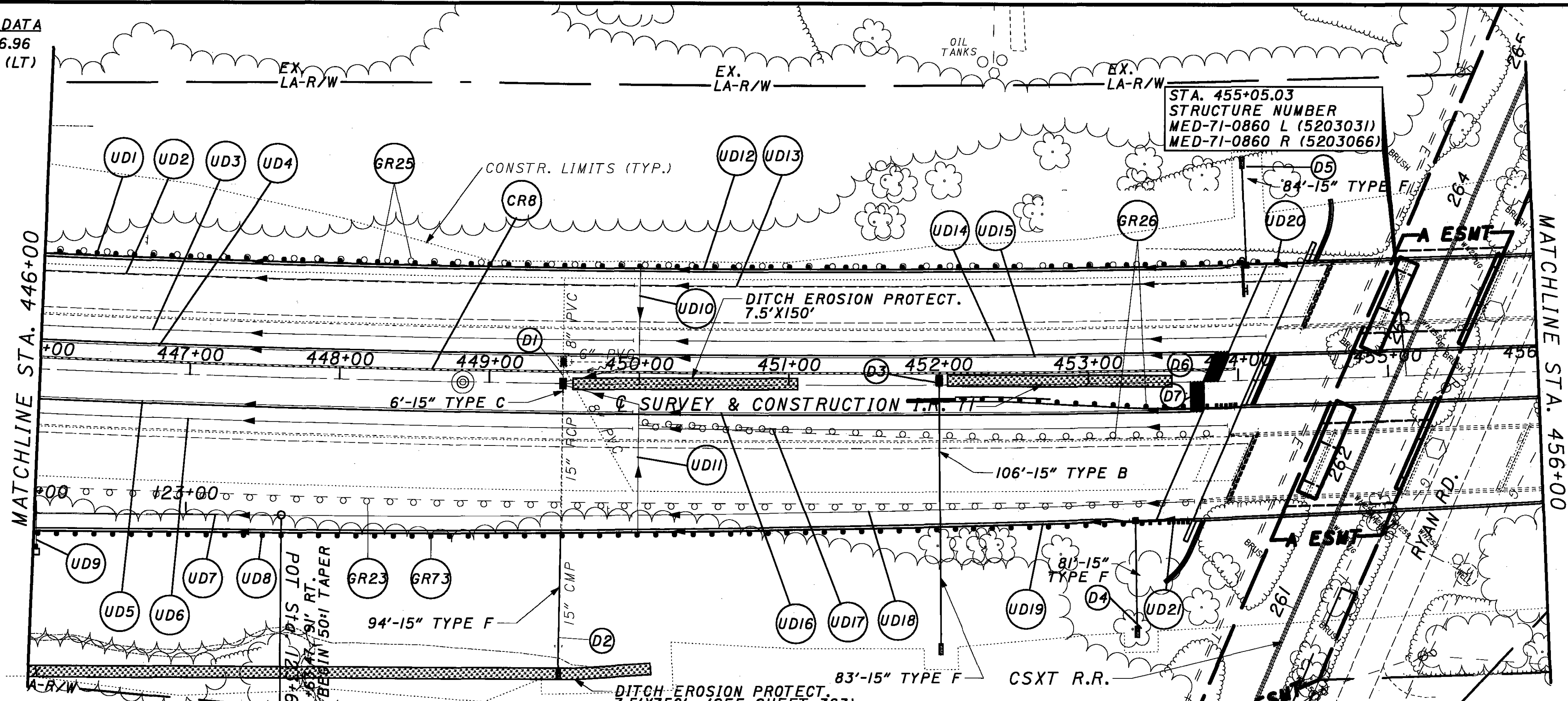
PLAN AND PROFILE
 STA. 436+00.00 TO STA. 446+00.00

MED-71-6.06

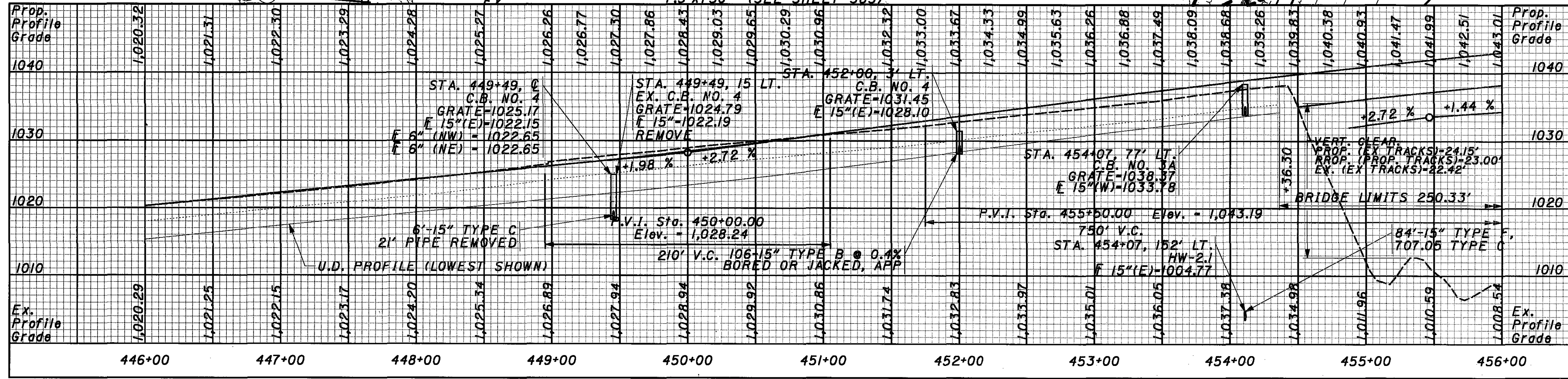
190
1120

Q I.R. 71 CURVE DATA
 P.I. Sta = 443+26.96
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$
 $S.E. = 0.019$
 EX. S.E. = N.C.

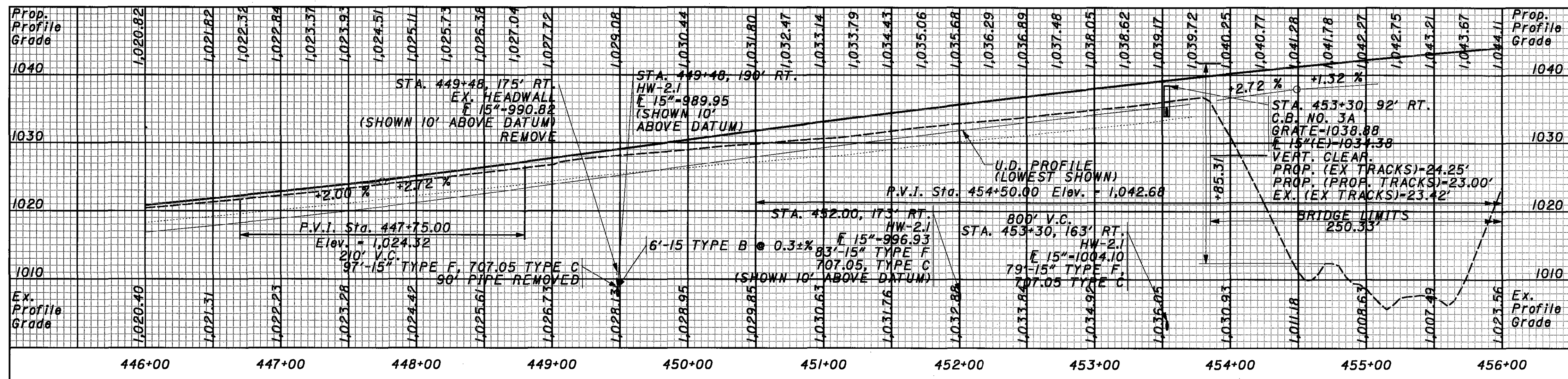
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
144	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
587-588	TRAFFIC CONTROL



SOUTH BOUND PROFILE



NORTH BOUND PROFILE



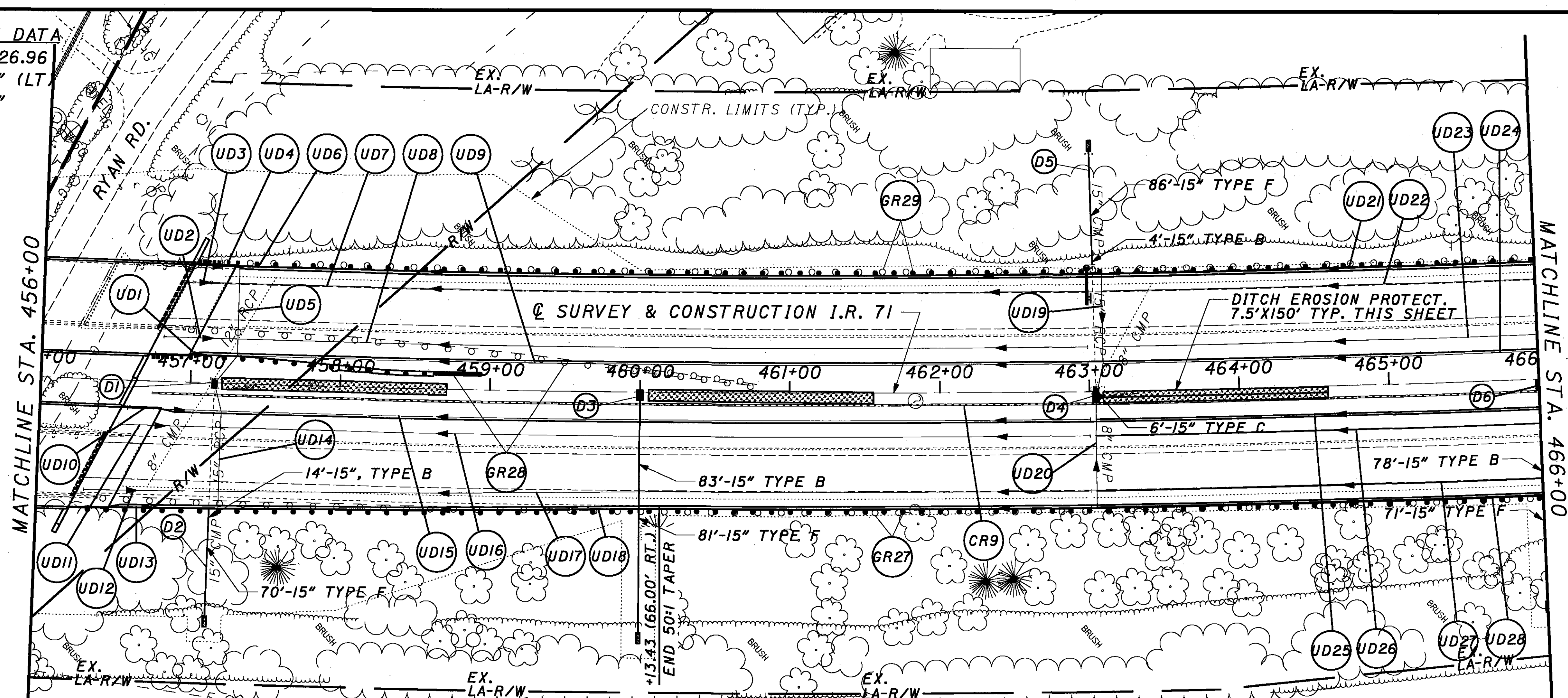
REF NO.	STATION		SIDE	QUANTITY	UNIT	REMARKS
	FROM	TO				
D1	449+49	451+06	RT	1	EACH	CATCH BASIN NO. 4
D2	449+48		RT	1	EACH	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC
D3	452+00	453+57	RT	1	EACH	PIPE REMOVED, STRUCTURE UNDER
D4	453+32		RT	1	EACH	PIPE REMOVED, STRUCTURE UNDER
D5	454+11		LT	1	EACH	PIPE REMOVED, STRUCTURE UNDER
D6	453+90		LT	1	EACH	PIPE REMOVED, STRUCTURE UNDER
D7	453+73		RT	1	EACH	PIPE REMOVED, STRUCTURE UNDER
TOTALS CARRIED TO SUB-SUMMARY						
				2	EACH	CATCH BASIN NO. 4
				1	EACH	CATCH BASIN NO. 3A
				82	FEET	15' CONDUIT TYPE B BORED OR JACKED, APP
				6	FEET	15' CONDUIT TYPE B
				343	FEET	15' CONDUIT TYPE C
				6	FEET	15' CONDUIT TYPE C
				1.08	CU. YD.	CONCRETE MASONRY
				4	CU. YD.	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC
				1	EACH	STRUCTURE REMOVED
				1	EACH	STRUCTURE REMOVED
				21	FEET	PIPE REMOVED, STRUCTURE UNDER
				90	FEET	PIPE REMOVED, STRUCTURE UNDER
				0.27	CU. YD.	CONCRETE MASONRY
				0.27	CU. YD.	CONCRETE MASONRY
				0.27	CU. YD.	CONCRETE MASONRY
				0.27	CU. YD.	CONCRETE MASONRY
				250	SQ. YD.	DITCH EROSION PROTECT.
				125	SQ. YD.	DITCH EROSION PROTECT.
				18	SQ. YD.	SODDING REIN-FORCED
				18	SQ. YD.	SODDING REIN-FORCED

PLAN AND PROFILE
STA. 446+00.00 TO STA. 456+00.00

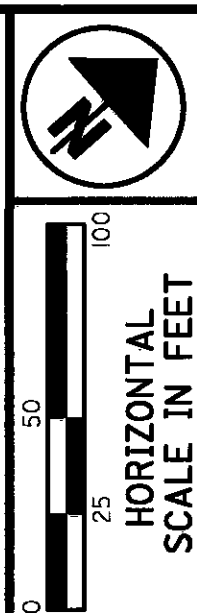
MED-71-6.06

191
1120

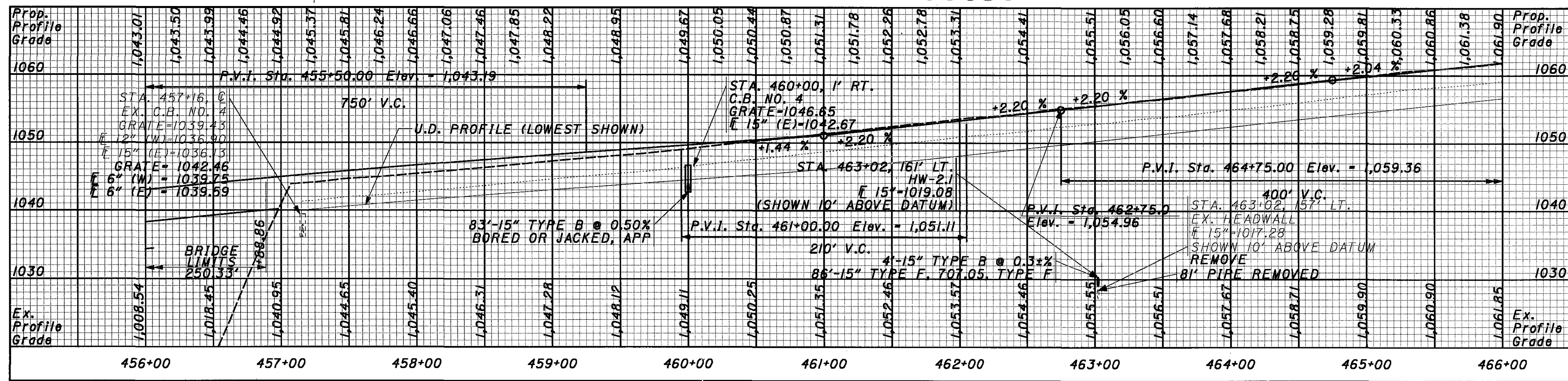
Q I.R. 71 CURVE DATA
 P.I. Sta = 443+26.96
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$
 $S.E. = 0.019$
 $EX. S.E. = N.C.$



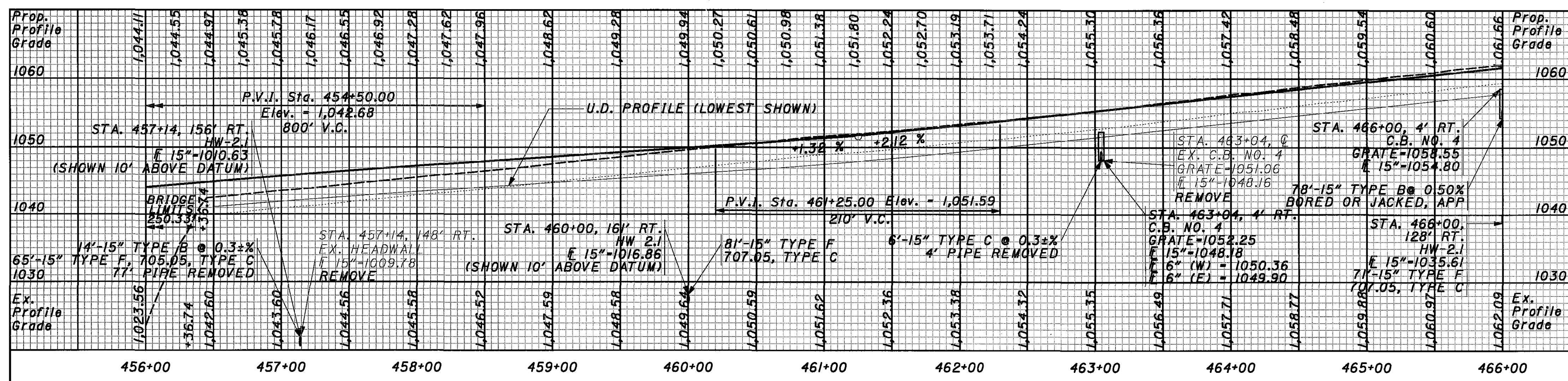
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
144-145	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
588	TRAFFIC CONTROL



SOUTH BOUND PROFILE



NORTH BOUND PROFILE



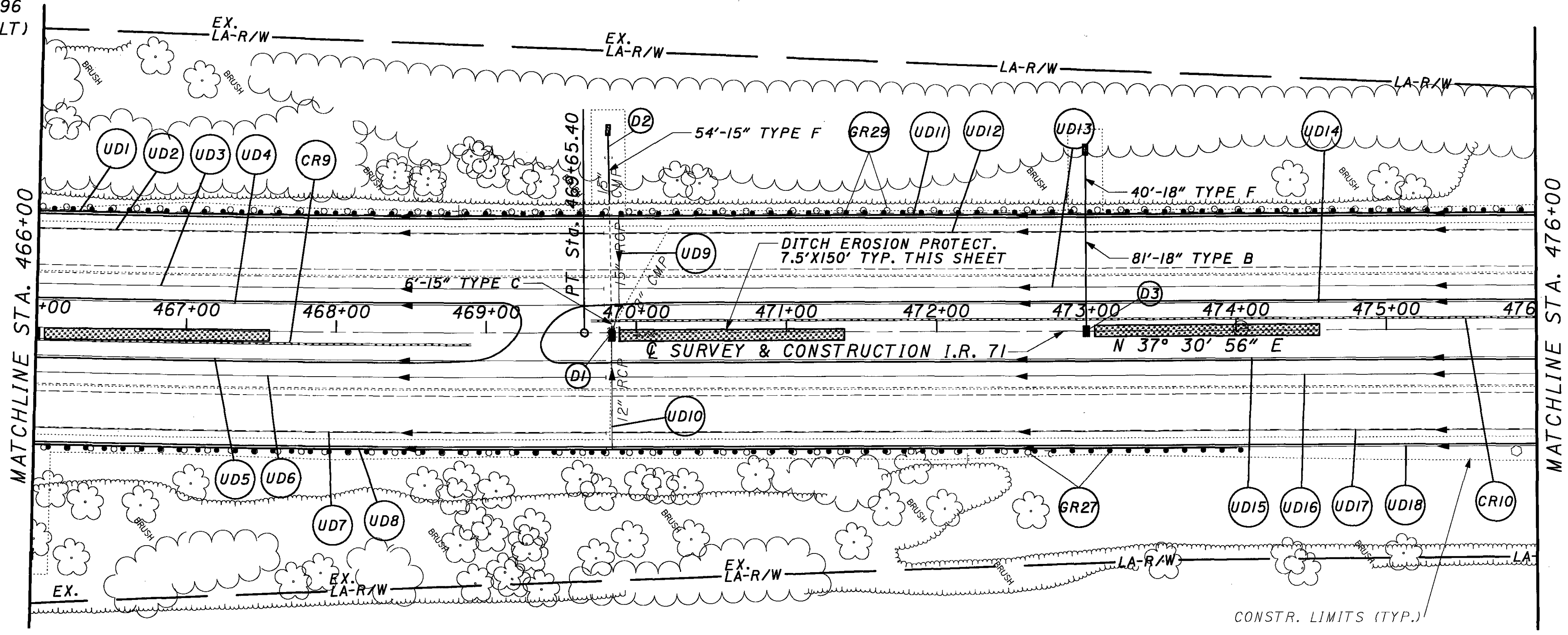
REF NO.	STATION		SIDE	QUANTITY	UNIT	TOTALS CARRIED TO SUB-SUMMARY
	FROM	TO				
D1	457+16	458+73	Q	1	EACH	1
D2	457+14	461+57	RT	1	EACH	1
D3	460+00	464+61	RT	1	EACH	1
D4	463+04	464+61	RT	4	FEET	4
D5	463+02	467+57	LT	81	FEET	81
D6	466+00	467+57	RT	1	EACH	1
602				0.27	CU. YD.	1.08
601				1	CU. YD.	4
202				77	FEET	162
202				4	EACH	2
603				83	FEET	161
603				6	FEET	6
603				65	FEET	303
604				1	EACH	3
604				125	SG. YD.	125
670				125	SG. YD.	500

PLAN AND PROFILE
STA. 456+00.00 TO STA. 466+00.00

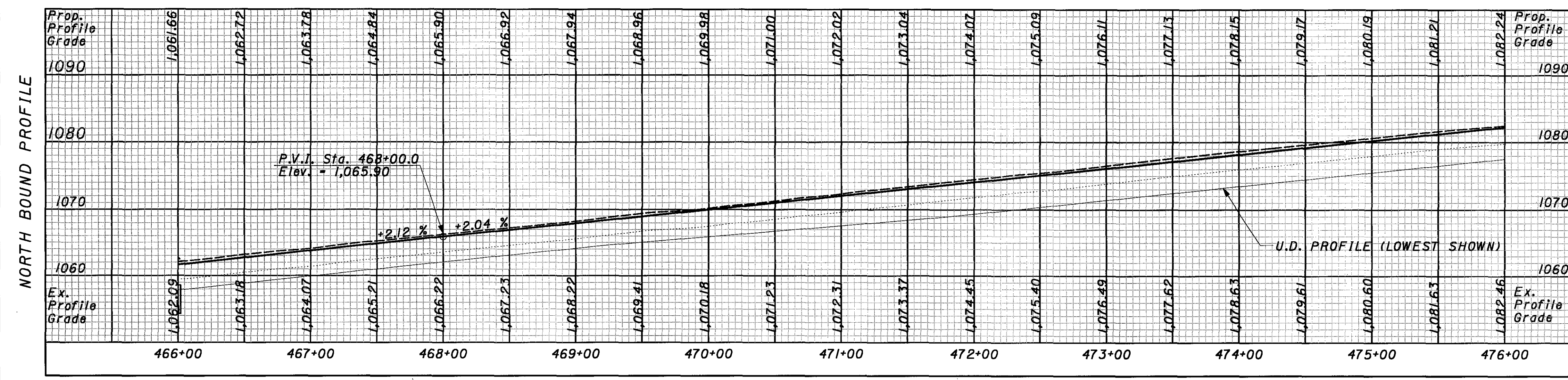
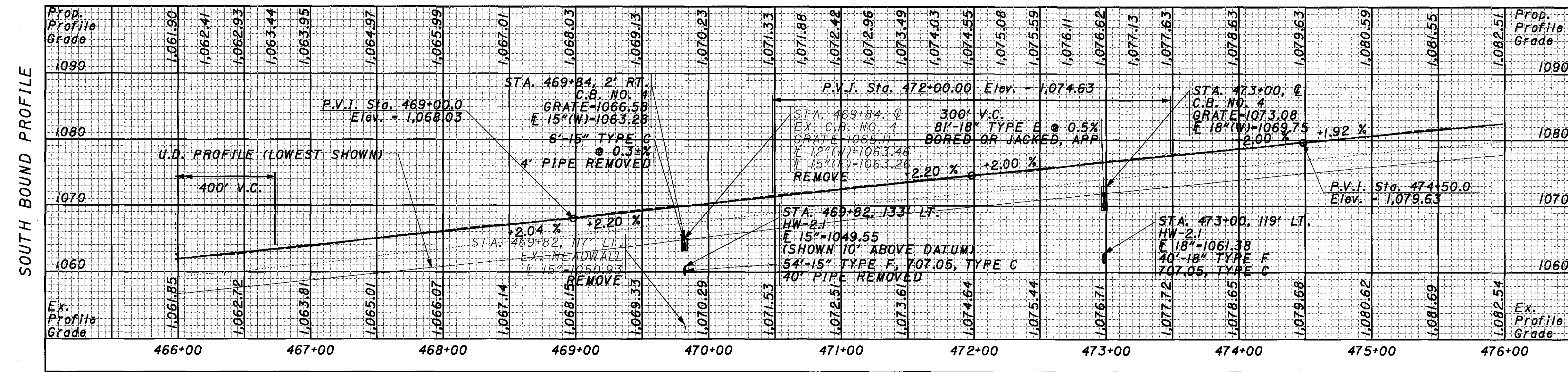
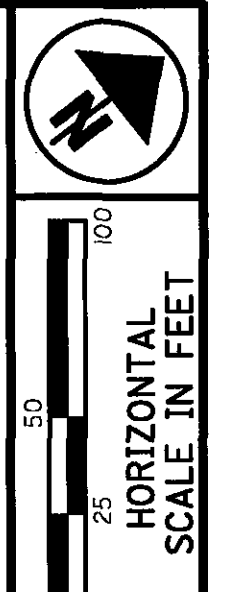
MED-71-6.06

...75657gp48.dgn

Q I.R. 71 CURVE DATA
 P.I. Sta = 443+26.96
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$
 $S.E. = 0.019$
 EX. S.E. = N.C.



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
145	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
588	TRAFFIC CONTROL

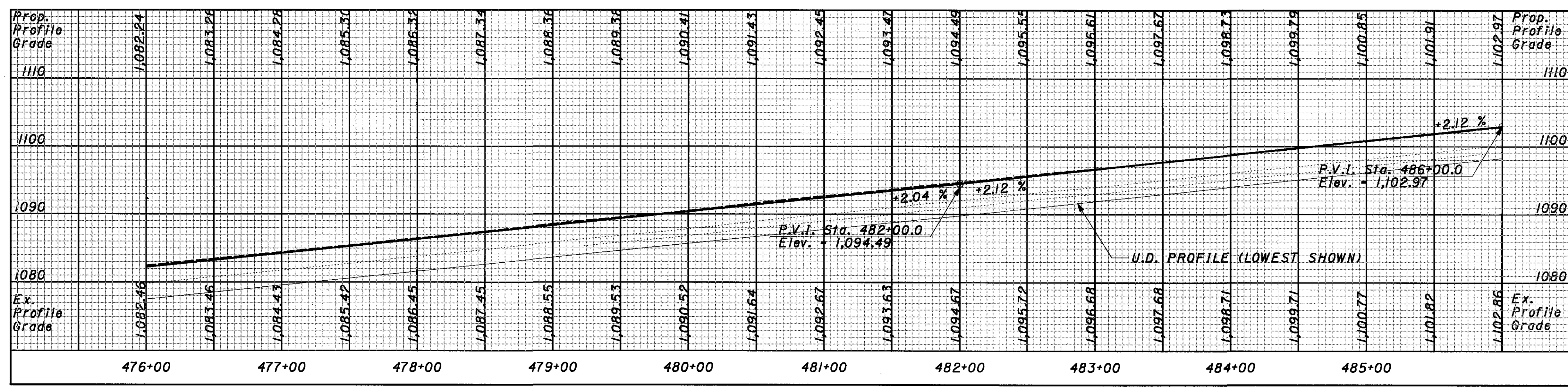


REF NO.	STATION		SIDE	DESCRIPTION	EACH	SQ. YD.	TOTALS CARRIED TO SUB-SUMMARY
	FROM	TO					
D1	469+84	471+41	CL	ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1		1
D2	469+82	473+00	LT	PIPE REMOVED, STRUCTURE REMOVED UNDER	40		
D3	473+00	474+57	LT	PIPE REMOVED, STRUCTURE REMOVED UNDER	40		
				CONCRETE MASONRY	0.27		0.60
				CONCRETE MASONRY	0.33		
				15\"/>			

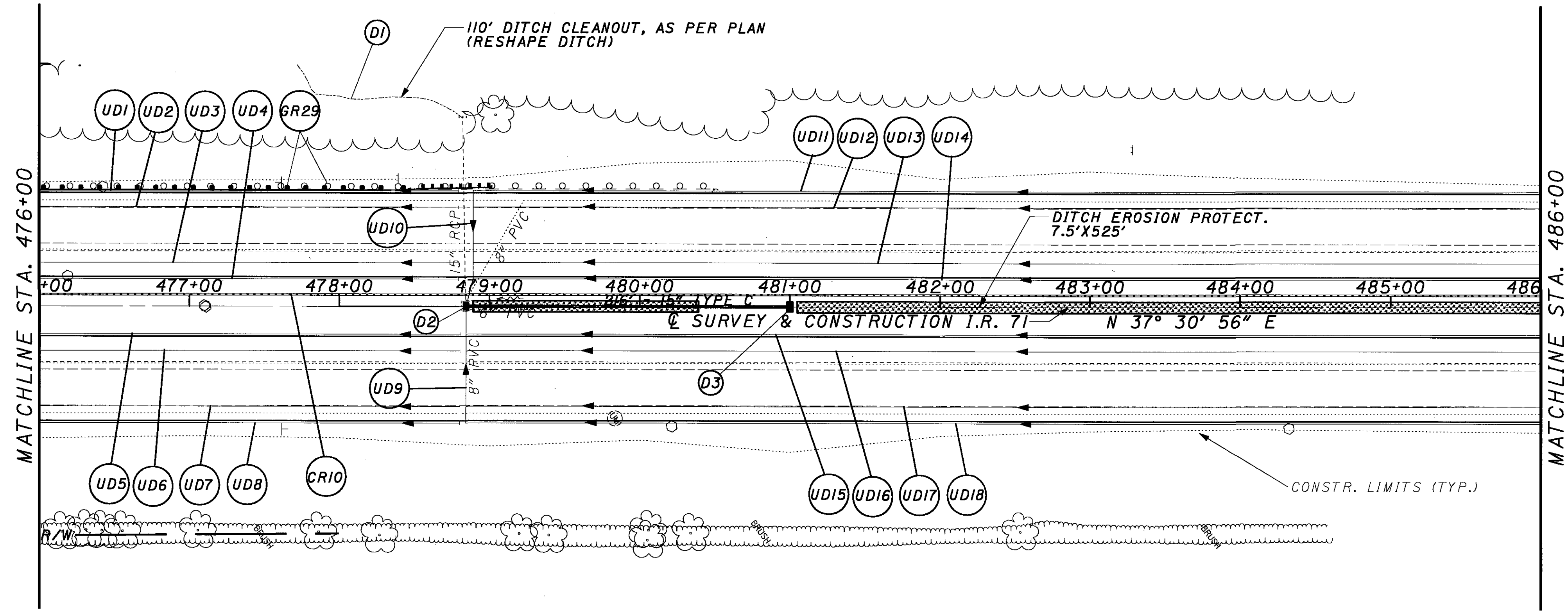
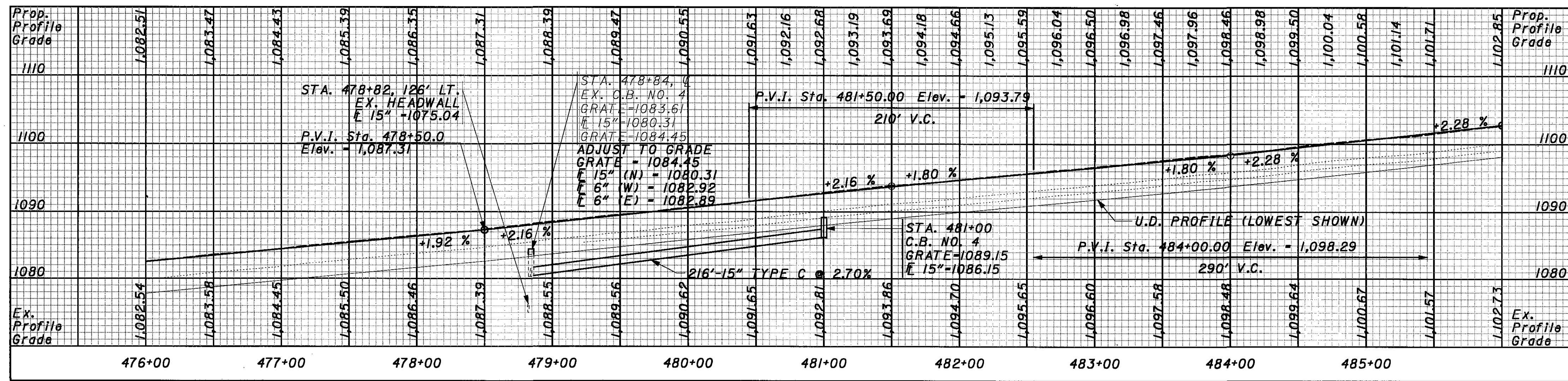
PLAN AND PROFILE
STA. 466+00.00 TO STA. 476+00.00

MED-71-6.06

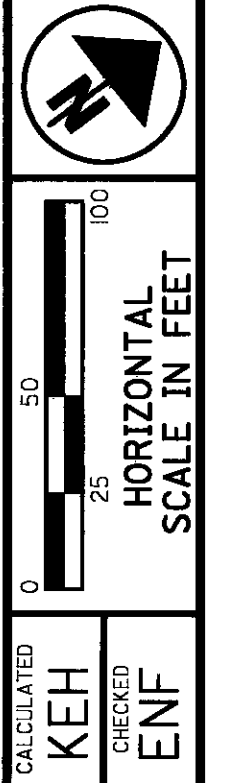
NORTH BOUND PROFILE



SOUTH BOUND PROFILE



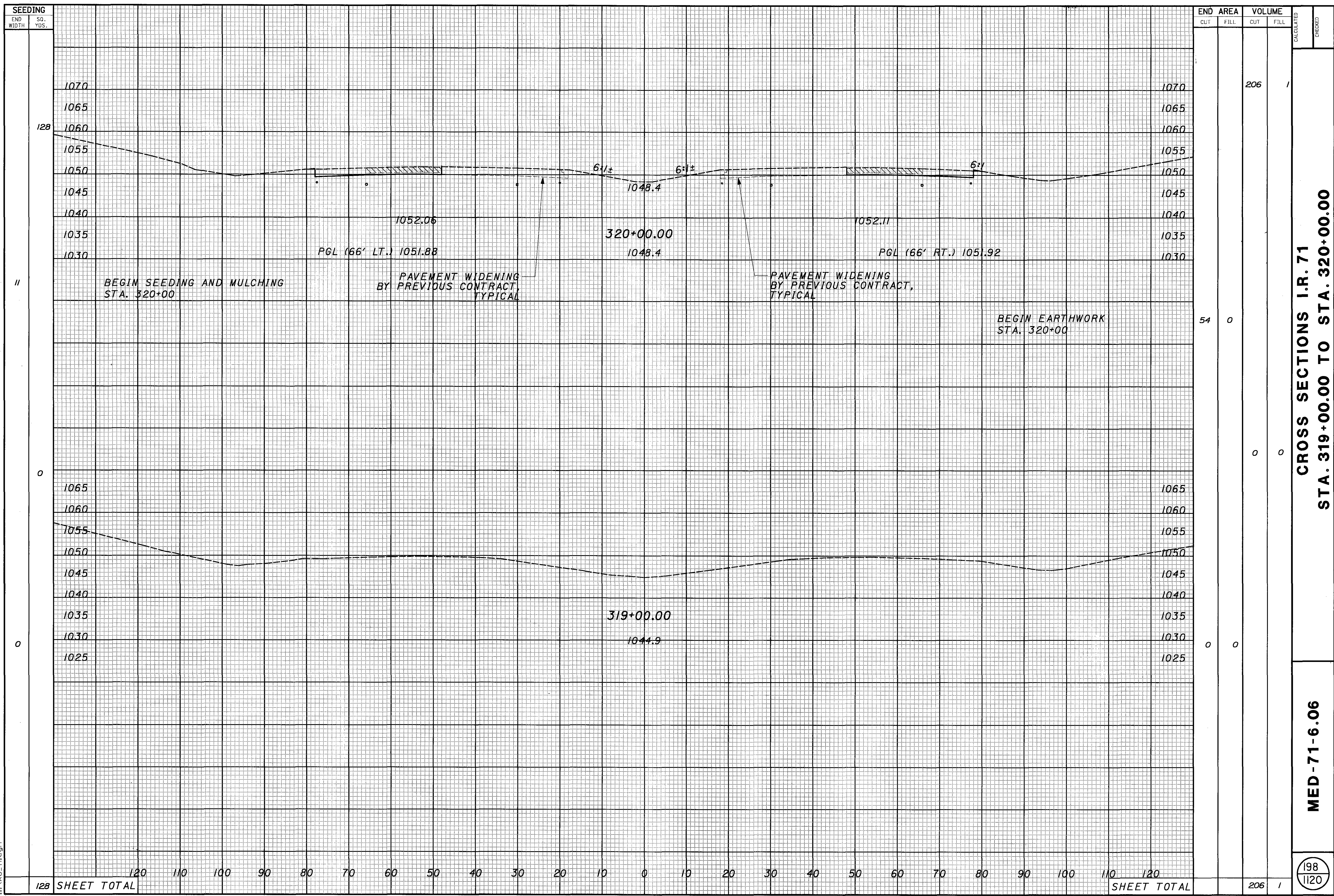
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
145	UNDERDRAIN QUANTITIES
33B	CABLE GUARDRAIL QUANT.
151	GUARDRAIL QUANTITIES
588-589	TRAFFIC CONTROL



REF NO.	STATION		SIDE	ITEM	QUANTITY	UNIT	REMARKS
	FROM	TO					
D1	477+75	478+82	LT	DITCH CLEANOUT AS PER PLAN	110	FEET	
D2	478+84	480+41	CL	ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	2	CU. YD.	
D3	481+00	481+57	CL	15" CONDUIT TYPE C	216	EACH	
				CATCH BASIN ADJUSTED TO GRADE	1	EACH	
				CATCH BASIN NO. 4	1	EACH	
				DITCH EROSION PROTECT.	125	SQ. YD.	
					438	SQ. YD.	
TOTALS CARRIED TO SUB-SUMMARY					110		563

PLAN AND PROFILE STA. 476+00.00 TO STA. 486+00.00

MED-71-6.06

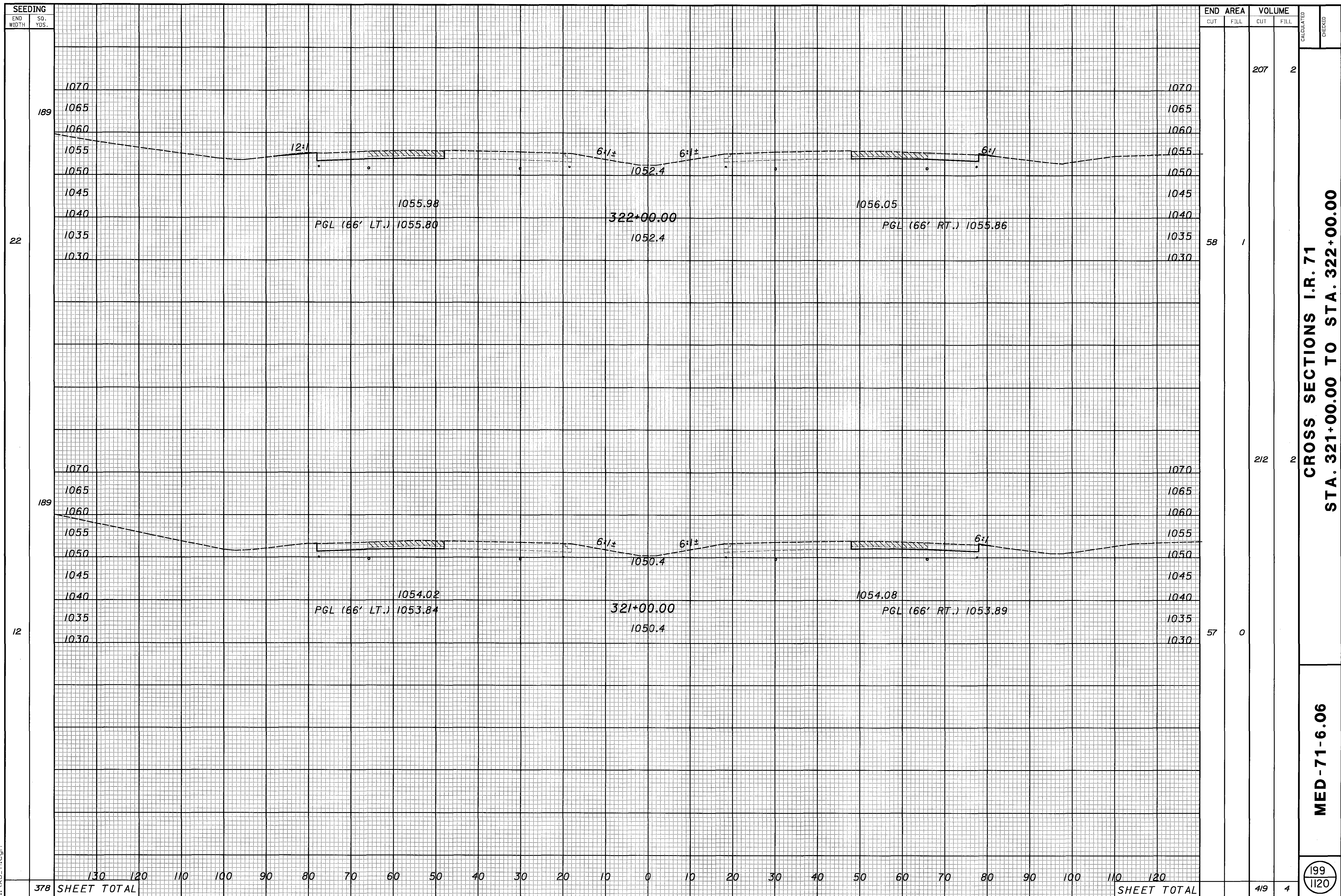


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128 SHEET TOTAL

SHEET TOTAL

206 /



SEEDING	
END WIDTH	SO. YDS.
189	
22	
189	
12	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		207	2
58	1		
		212	2
57	0		
378	SHEET TOTAL	419	4

CROSS SECTIONS I.R. 71
STA. 321+00.00 TO STA. 322+00.00

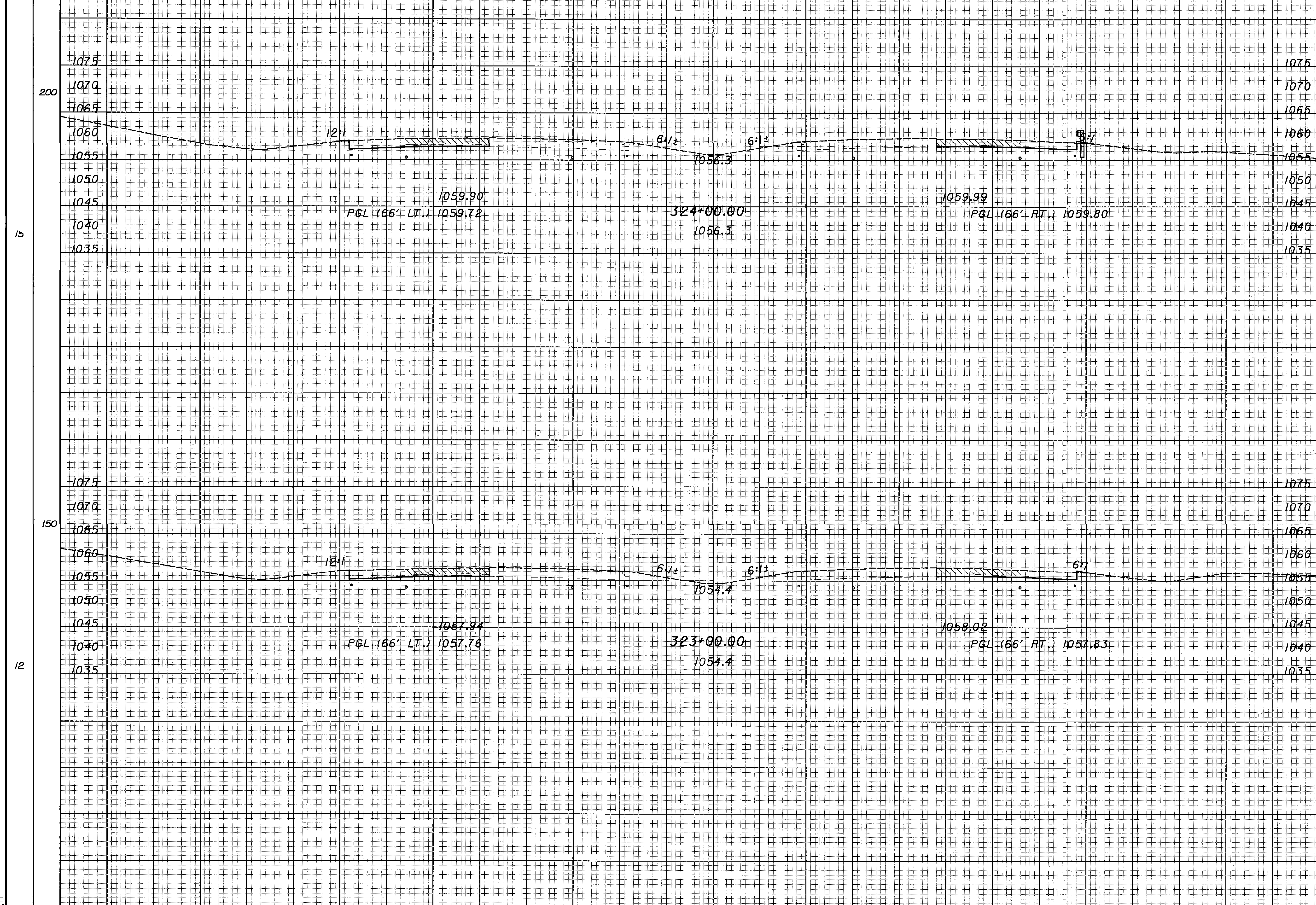
MED-71-6.06

199
 1120

...\\xs-71.cgn

SEEDING
END SO.
WIDTH YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



END AREA	VOLUME	
	CUT	FILL
54	1	195
54	1	199
350	130	120

CROSS SECTIONS I.R. 71
STA. 323+00.00 TO STA. 324+00.00

MED-71-6.06

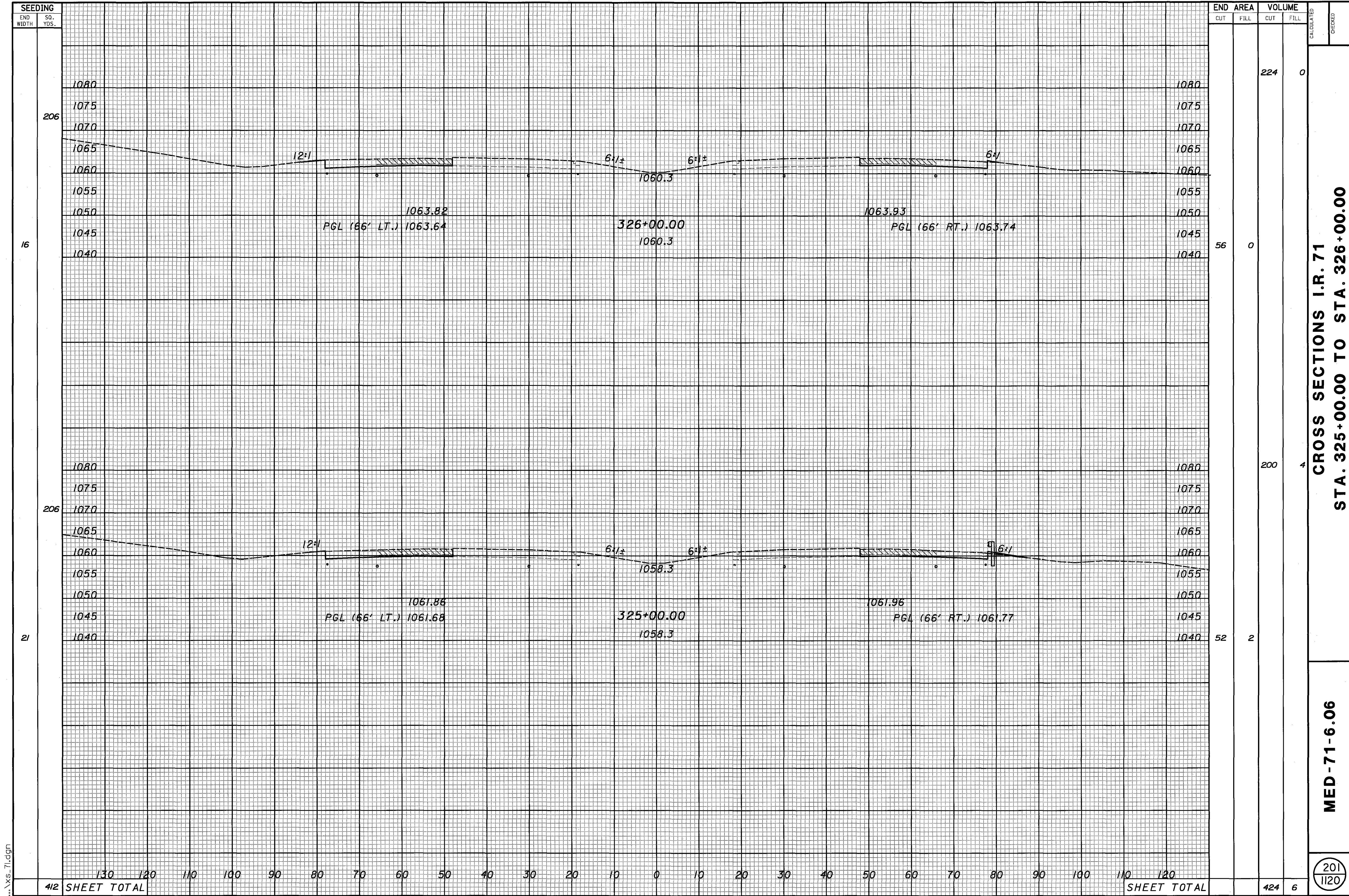
200
1120

...Xs_71.dgn

SHEET TOTAL

SHEET TOTAL

394 8



SEEDING	
END WIDTH	SO. YDS.
206	
16	
206	
21	

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		224	0		
56	0	200	4		
52	2				
412		424	6		

CROSS SECTIONS I.R. 71
 STA. 325+00.00 TO STA. 326+00.00

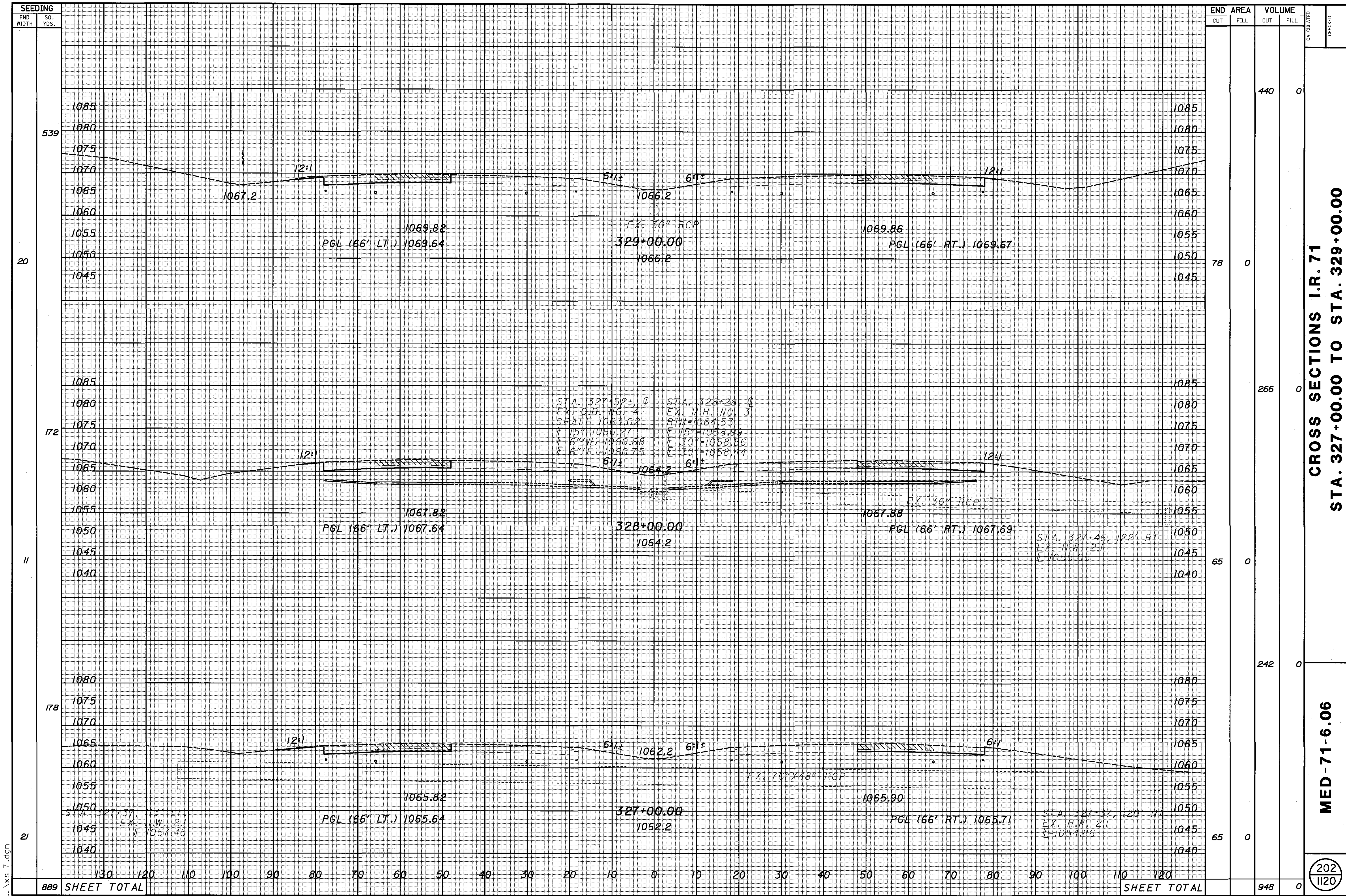
MED-71-6.06

201
 1120

..Xs..71.dgn

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SHEET TOTAL SHEET TOTAL



...Xs-71.dgn

END AREA	VOLUME	CALCULATED	CHECKED
	440	0	
78	0		
	266	0	
65	0		
	242	0	
65	0		
948	0		

CROSS SECTIONS I.R. 71
STA. 327+00.00 TO STA. 329+00.00

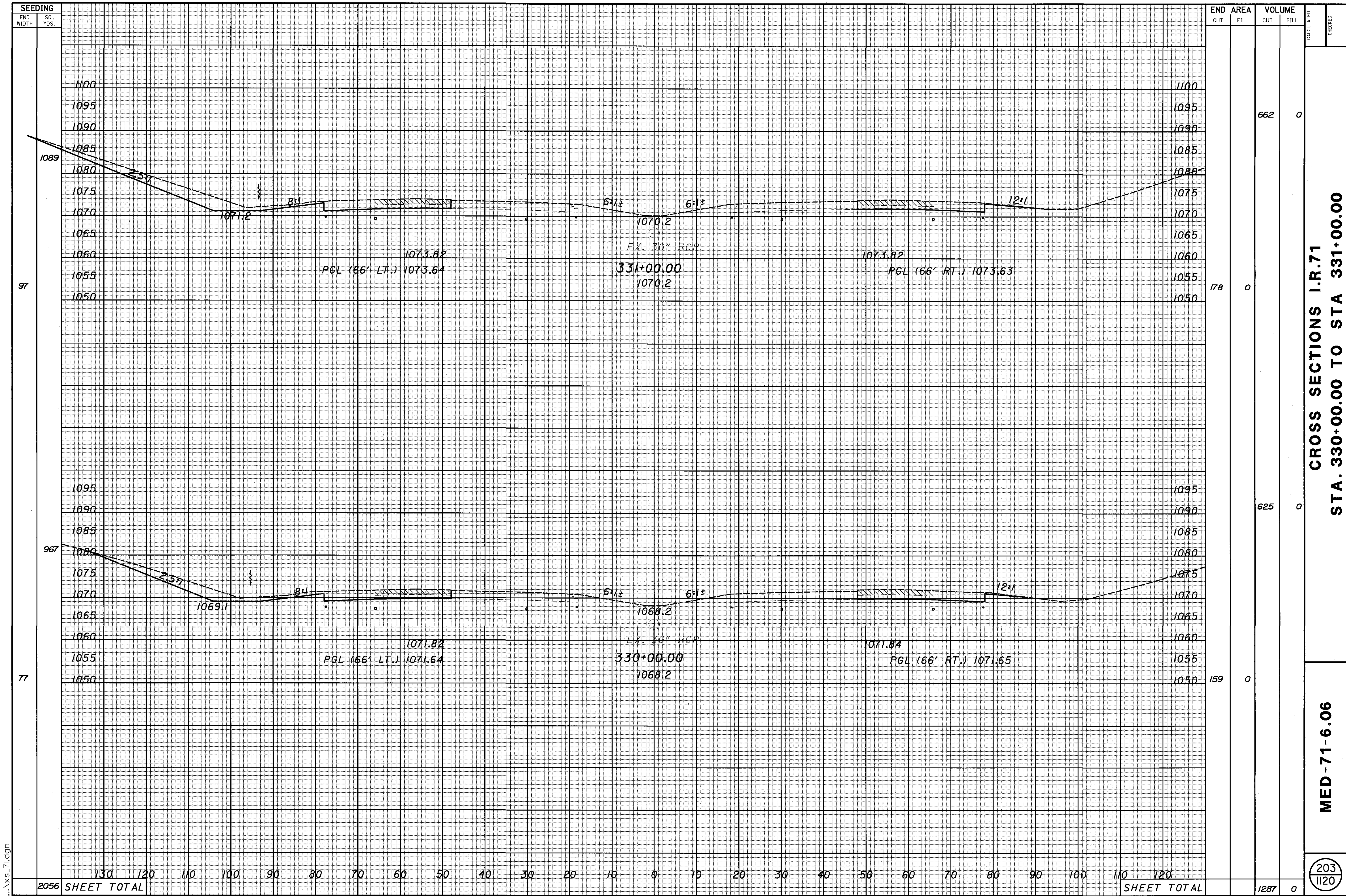
MED-71-6.06

202
1120

539
20
172
11
178
21

889 SHEET TOTAL

SHEET TOTAL

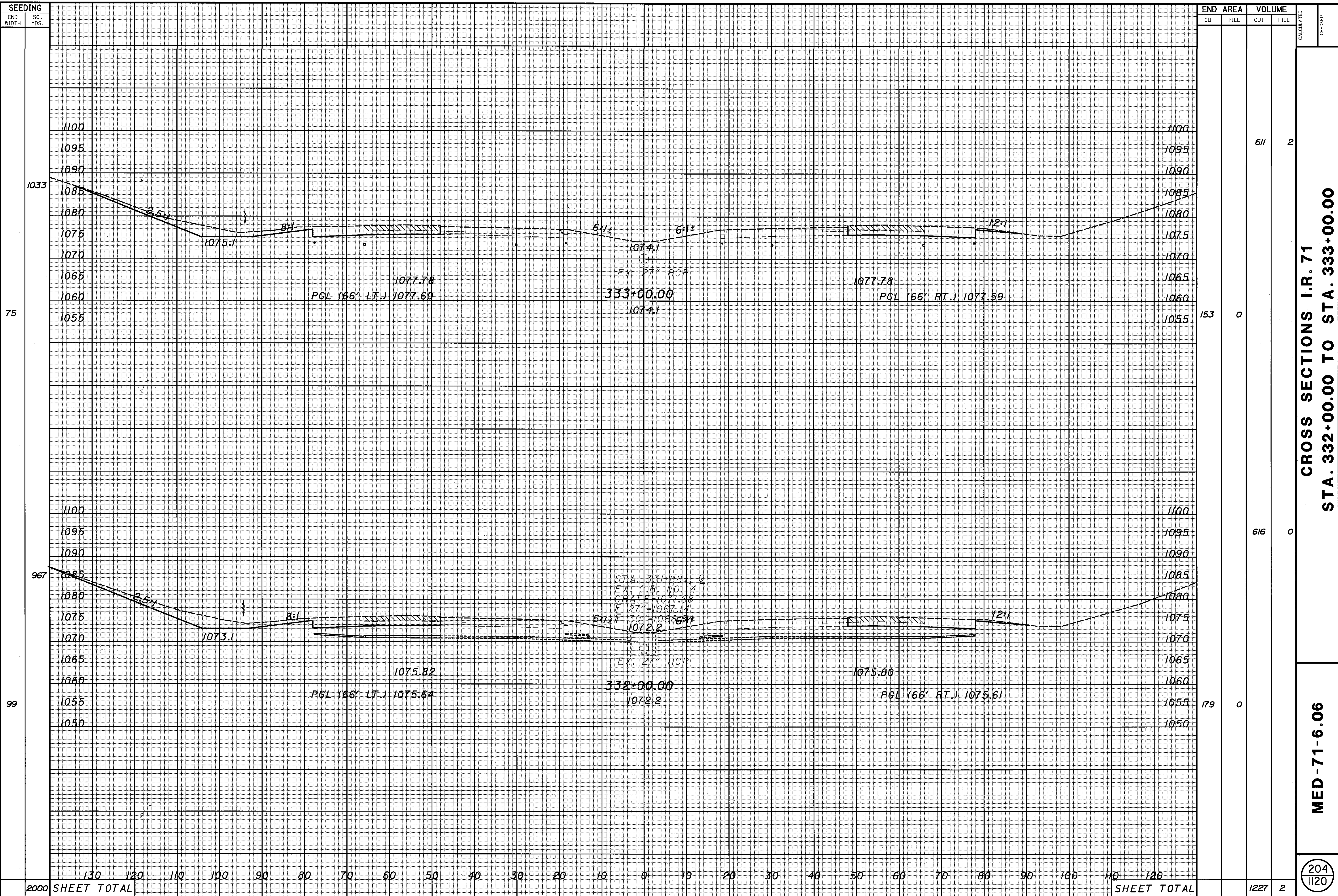


CROSS SECTIONS I.R.71
 STA. 330+00.00 TO STA 331+00.00

MED-71-6.06

203
 1120

...xs-71.dgn

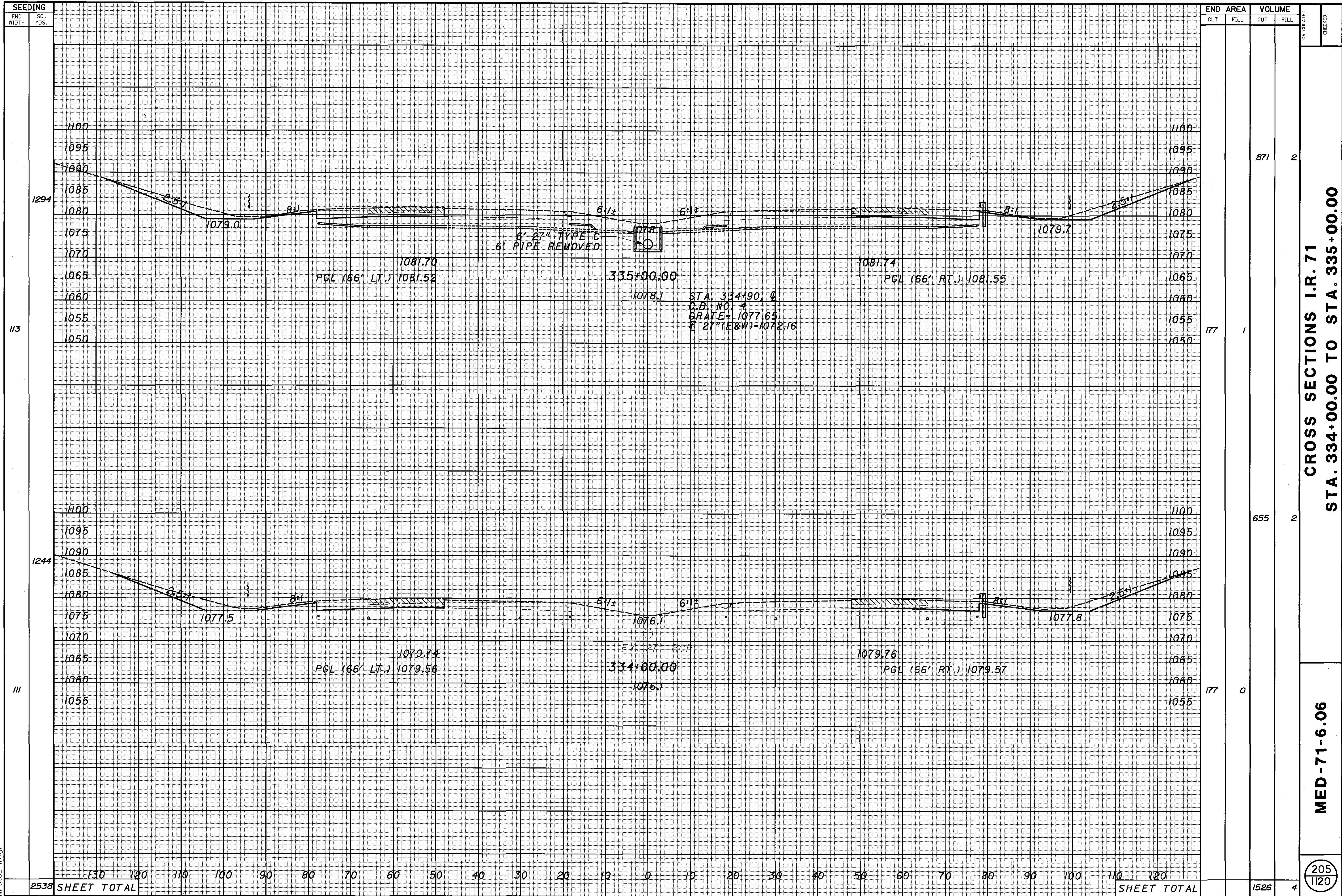


CROSS SECTIONS I.R. 71
 STA. 332+00.00 TO STA. 333+00.00

MED-71-6.06

204
1120

...Xs-71.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

1294

113

111

2538

1100

177

177

177

1526

CROSS SECTIONS I.R. 71
STA. 334+00.00 TO STA. 335+00.00

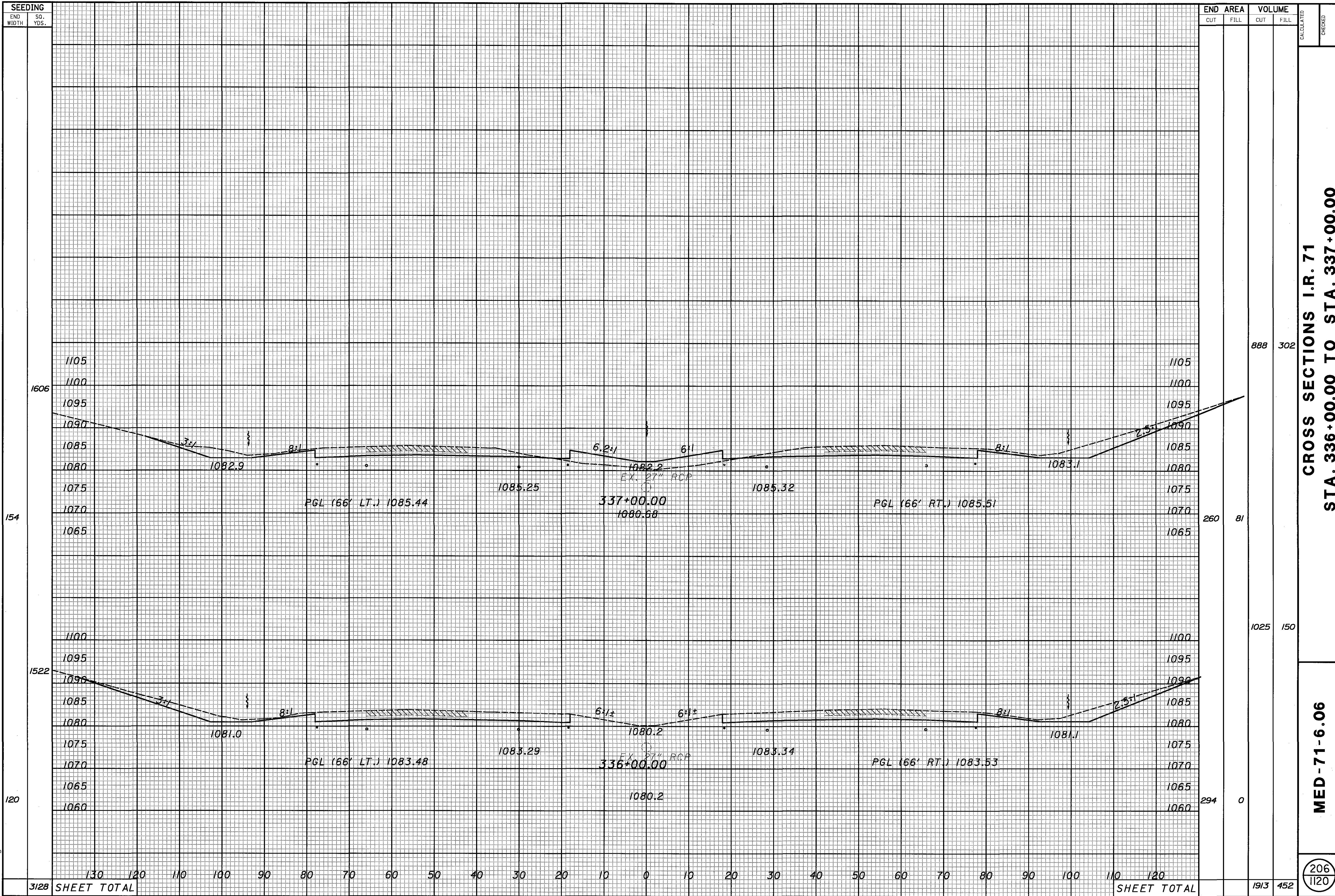
MED-71-6.06

205
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
SHEET TOTAL

SHEET TOTAL

4



SEEDING	
END WIDTH	SO. YDS.
130	
120	
110	
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
888	302		
260	81		
1025	150		
294	0		
1913	452		

CROSS SECTIONS I.R. 71
STA. 336+00.00 TO STA. 337+00.00

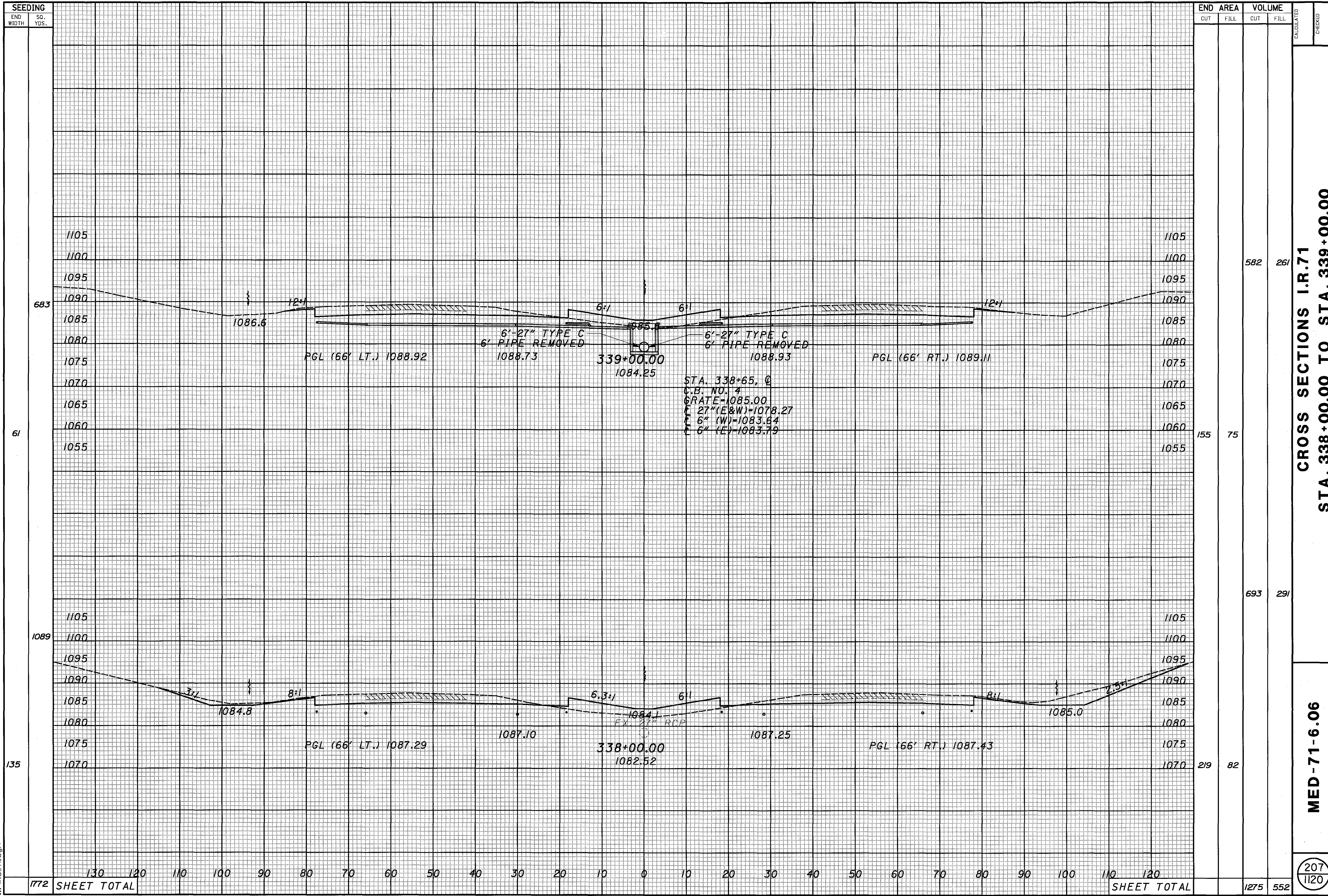
MED-71-6.06

206
 1120

3128 SHEET TOTAL

SHEET TOTAL

..\xs-71.dgn



SEEDING	
END WIDTH	SO. YDS.
683	
61	
135	
1772	

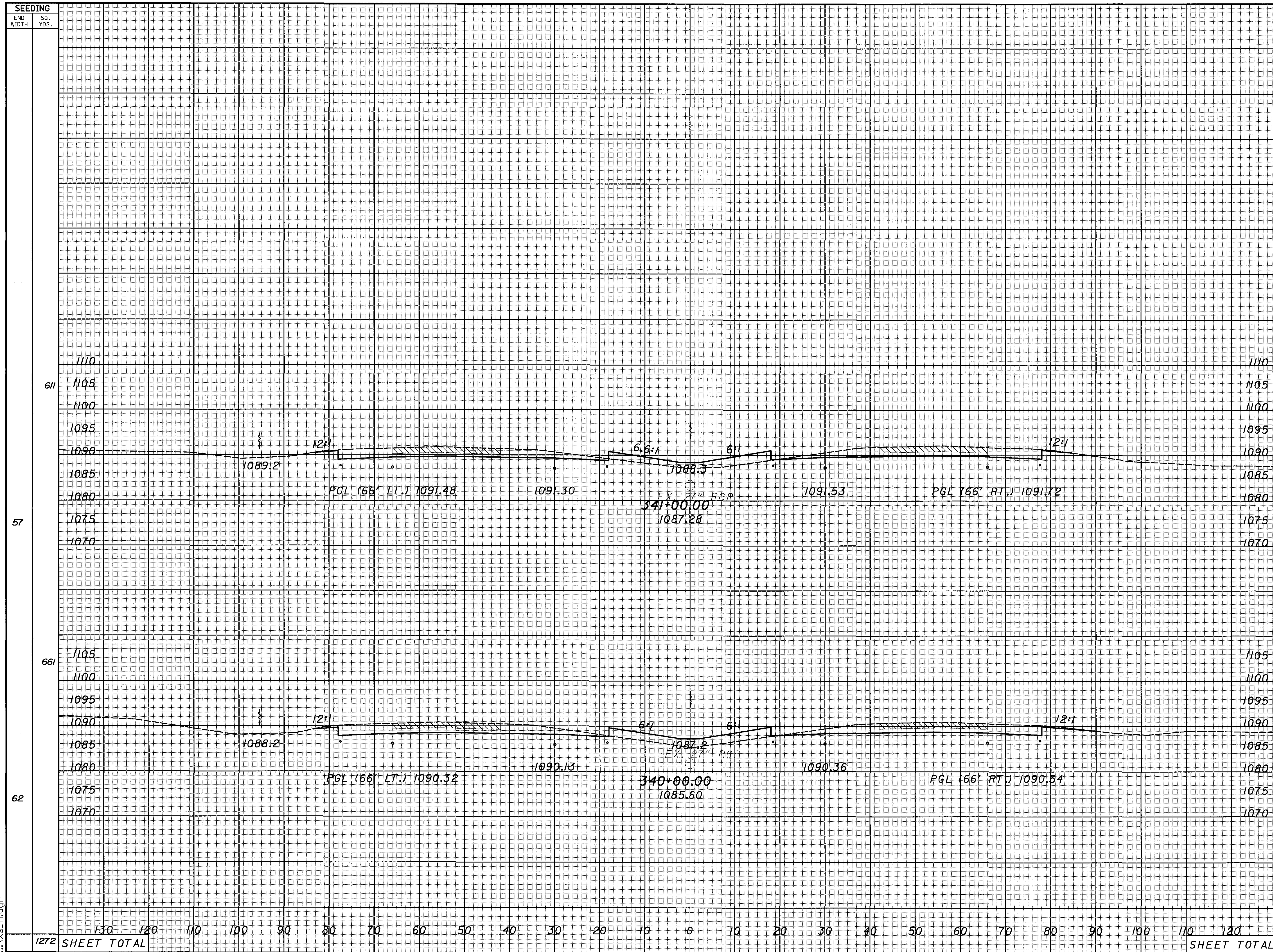
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		582	261		
		693	291		
		219	82		
		1275	552		

CROSS SECTIONS I.R.71
STA. 338+00.00 TO STA. 339+00.00

MED-71-6.06

207
 1120

... \xse-71.dgn



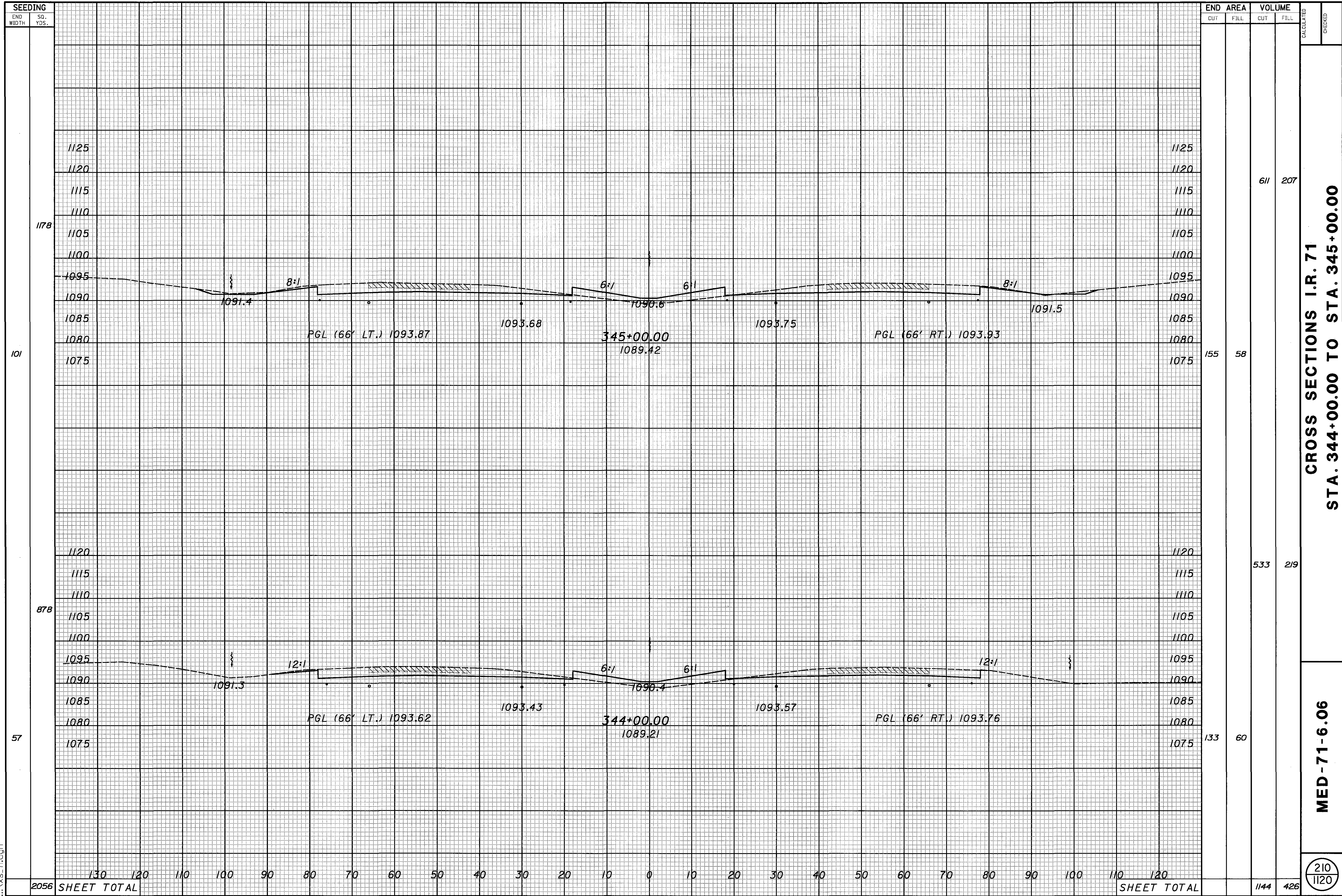
END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
611			513	189		
57	146	56				
661			567	224		
62	160	65				
1272	SHEET TOTAL		1080	413		

CROSS SECTIONS I.R. 71
STA. 340+00.00 TO STA. 341+00.00

MED - 71 - 6.06

208
 1120

...Xs_71.dgn



SEEDING

END WIDTH SO. YDS.

END AREA VOLUME

CUT FILL CUT FILL CALCULATED CHECKED

1125
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075

1091.4
1093.68
1093.75
1091.5

PGL (66' LT.) 1093.87
345+00.00
1089.42
PGL (66' RT.) 1093.93

1125
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075

155 58

1120
1115
1110
1105
1100
1095
1090
1085
1080
1075

1091.3
1093.43
1093.57
1091.5

PGL (66' LT.) 1093.62
344+00.00
1089.21
PGL (66' RT.) 1093.76

1120
1115
1110
1105
1100
1095
1090
1085
1080
1075

133 60

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

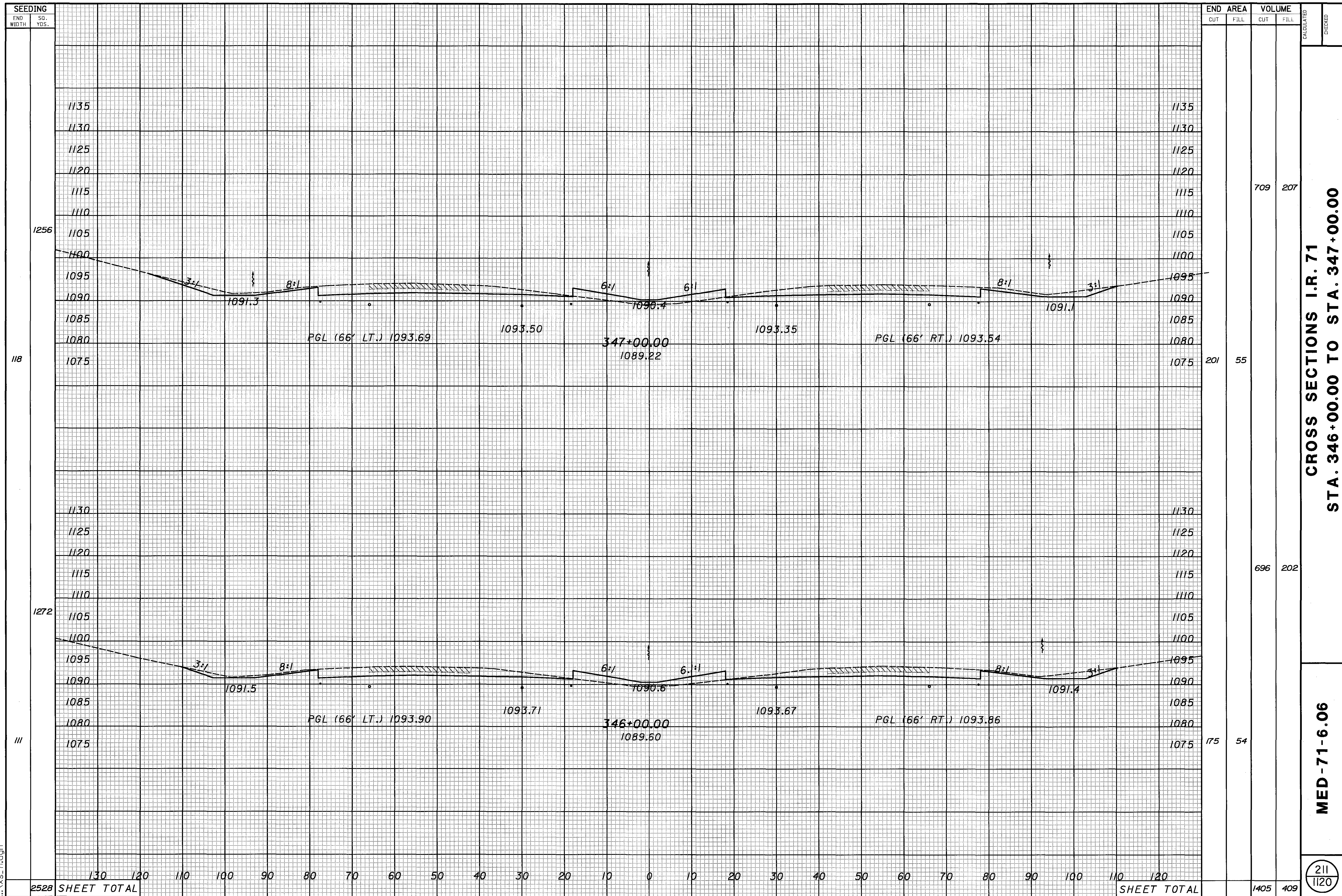
2056 SHEET TOTAL SHEET TOTAL

1144 426

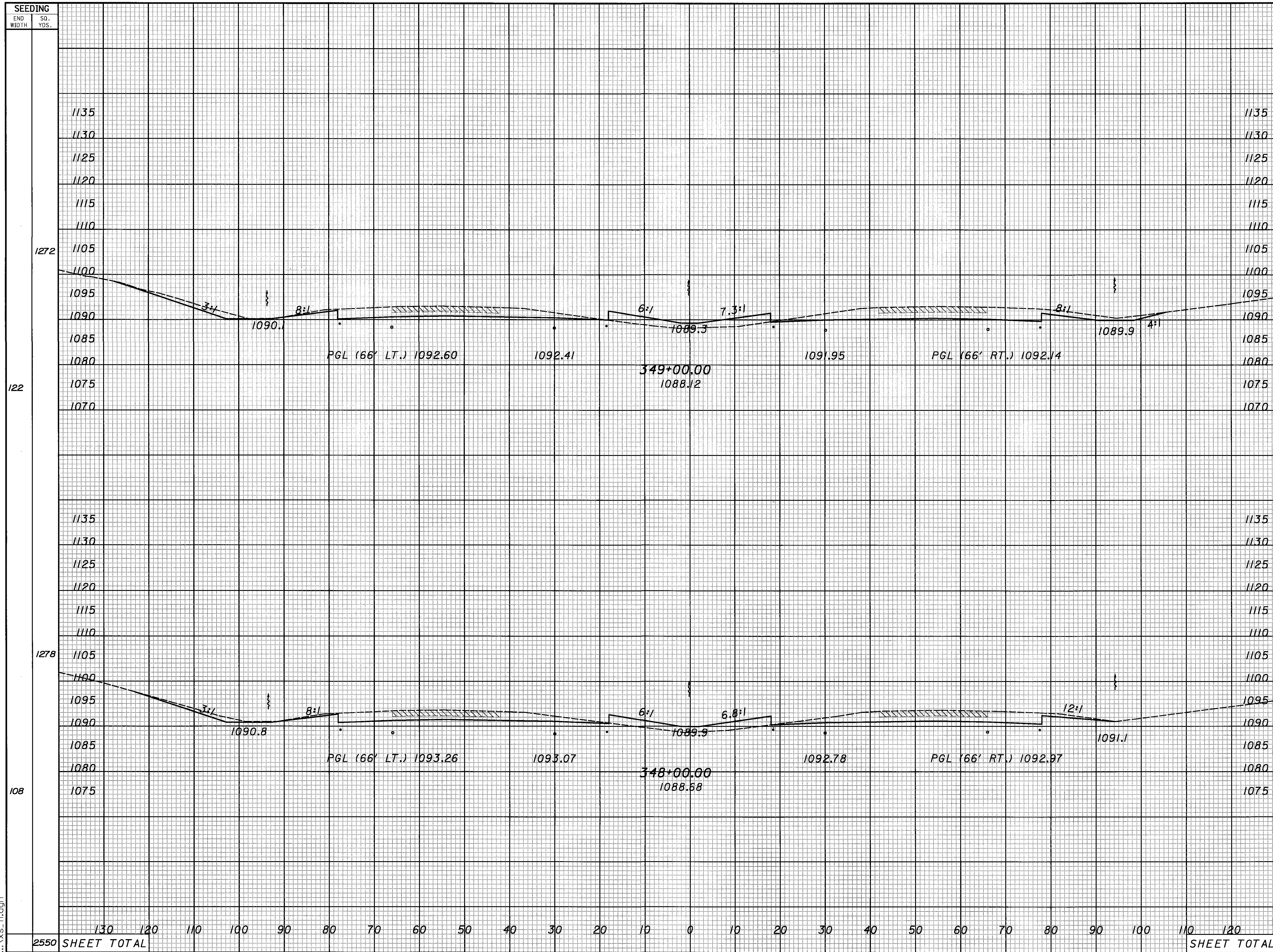
CROSS SECTIONS I.R. 71
STA. 344+00.00 TO STA. 345+00.00

MED-71-6.06

210
1120



...xs_7.dgn



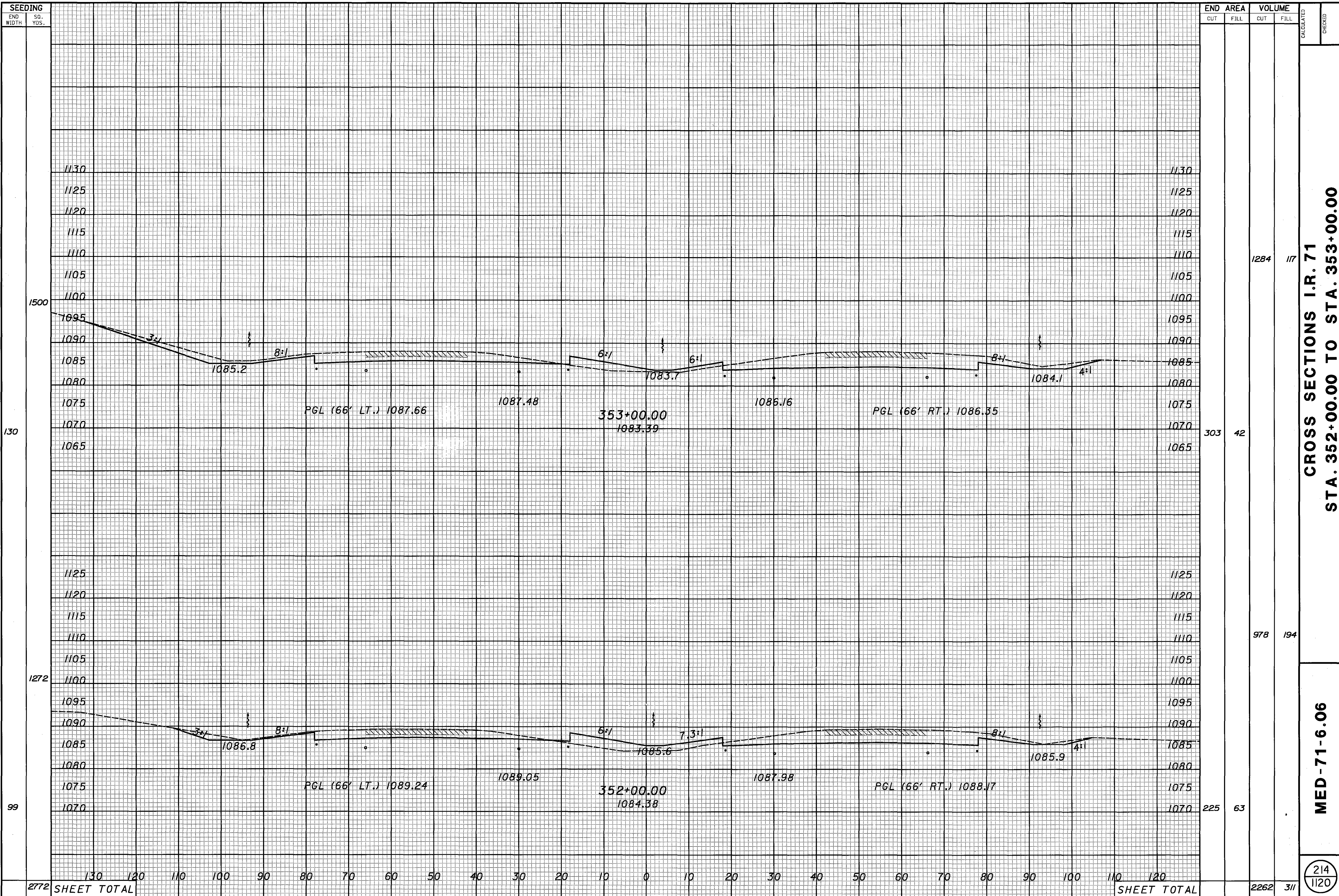
END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
1272			798	211
122	220	58		
1278			744	213
108	182	57		
2550	SHEET TOTAL		1542	424

CROSS SECTIONS I.R. 71
STA. 348+00.00 TO STA. 349+00.00

MED-71-6.06

212
 1120

...Xs_71.dgn

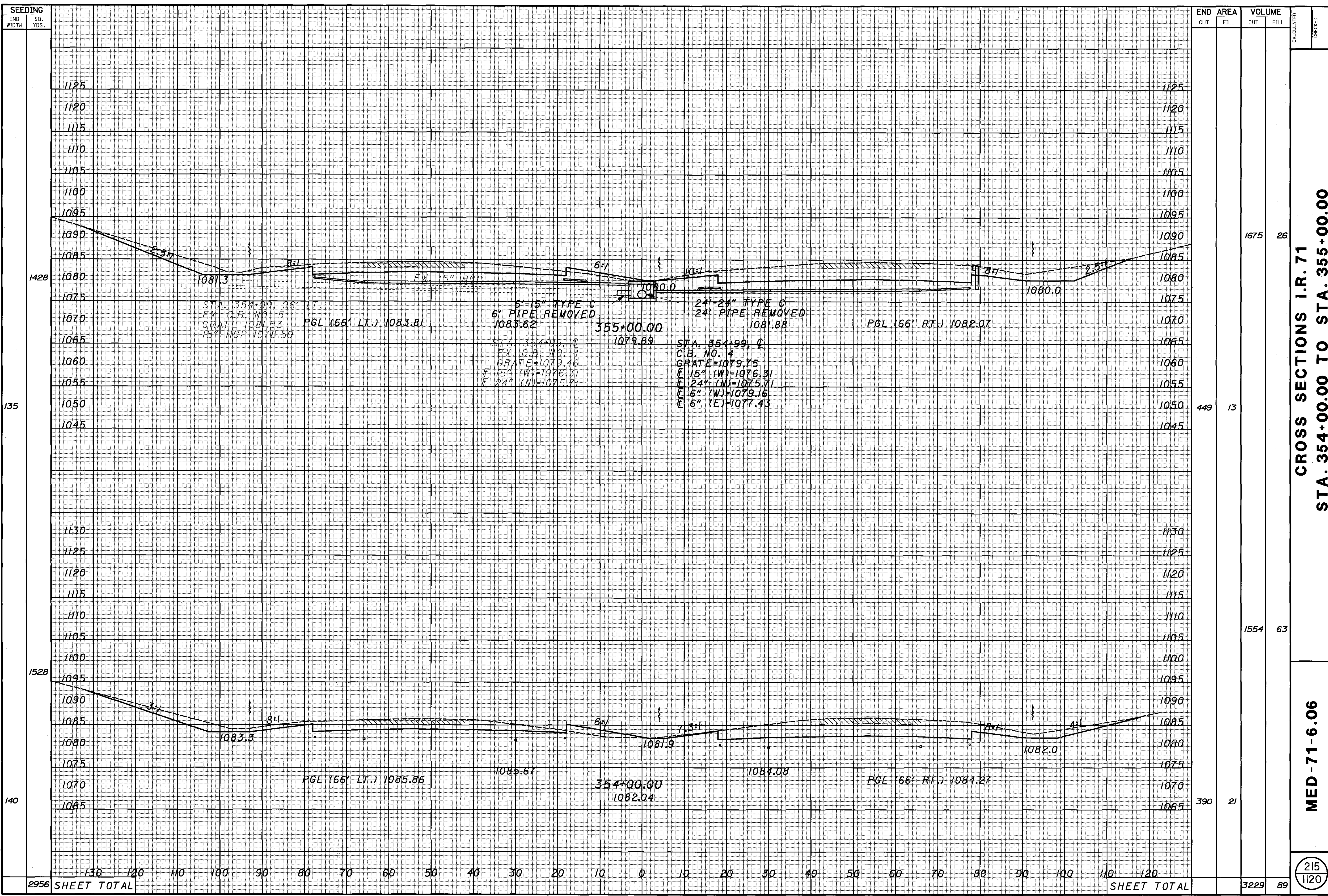


CROSS SECTIONS I.R. 71
 STA. 352+00.00 TO STA. 353+00.00

MED-71-6.06

214
1120

...xs_71.dgn



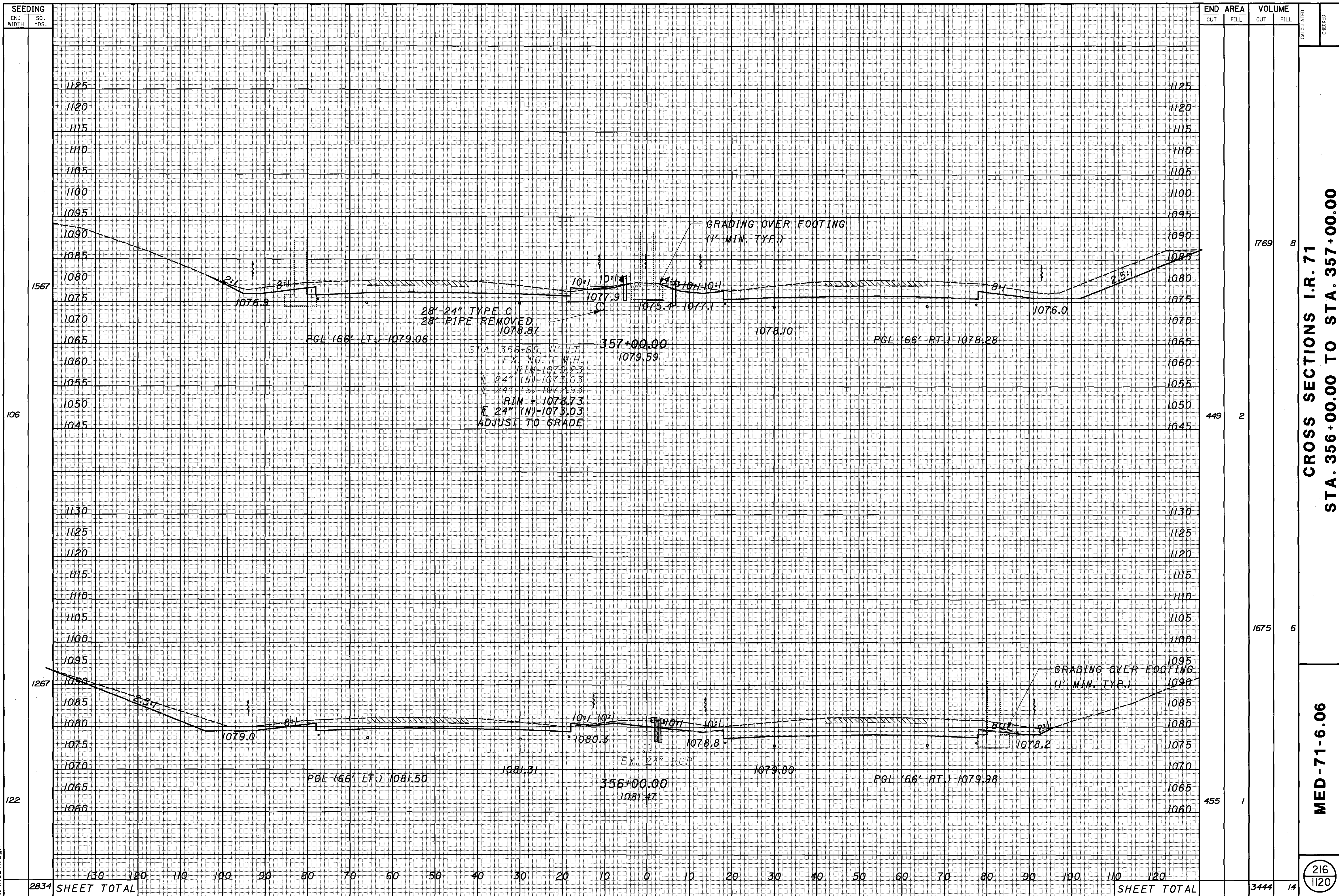
SEEDING	
END WIDTH	SQ. YDS.
1428	
135	
1528	
140	
2956	SHEET TOTAL

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		1675	26		
449	13				
		1554	63		
390	21				
		3229	89		

CROSS SECTIONS I.R. 71
STA. 354+00.00 TO STA. 355+00.00

MED-71-6.06

215
 1120



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

1125
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075
1070
1065
1060
1055
1050
1045

1267
1095
1085
1080
1075
1070
1065
1060

1125
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075
1070
1065
1060
1055
1050
1045

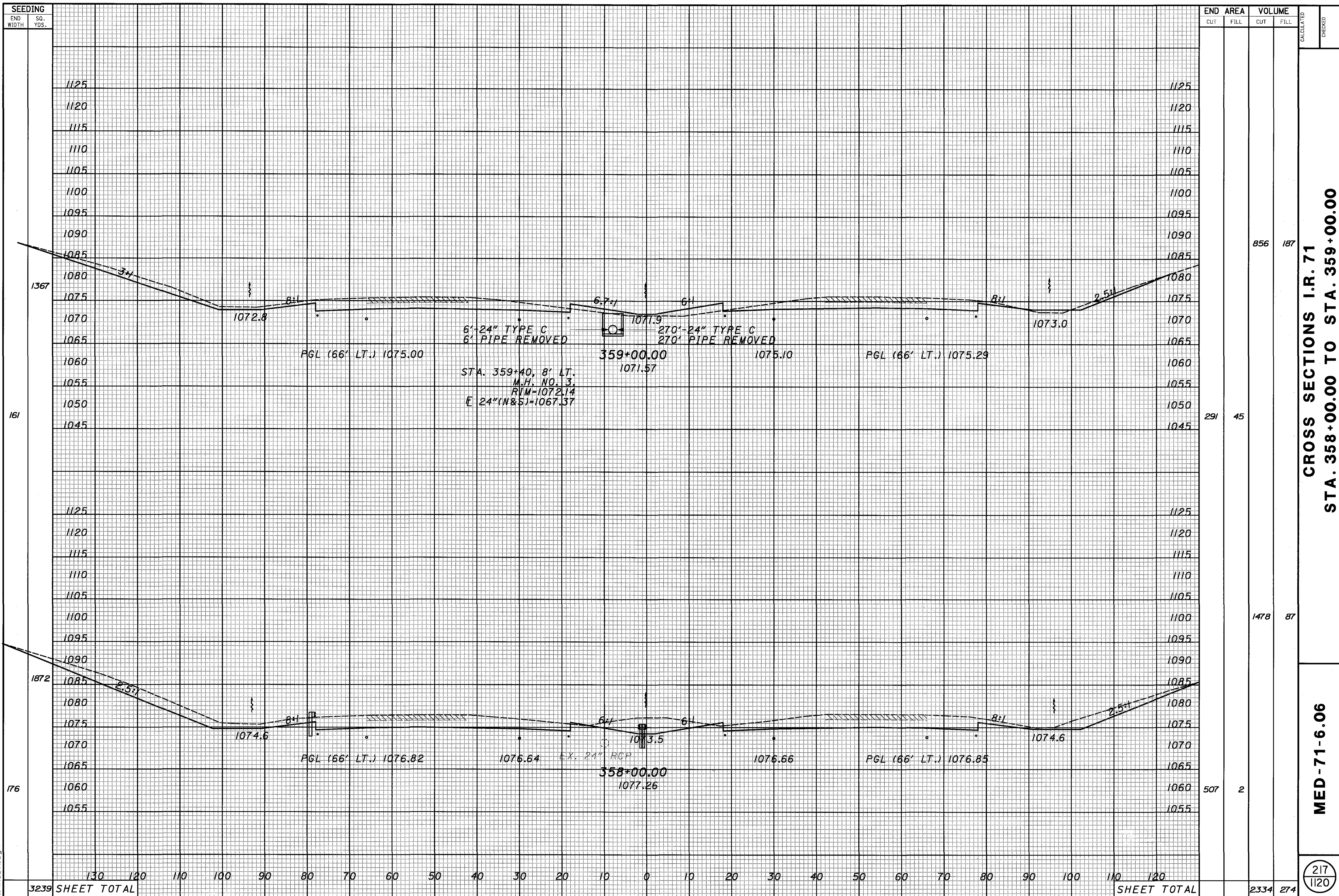
1130
1125
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075
1070
1065
1060

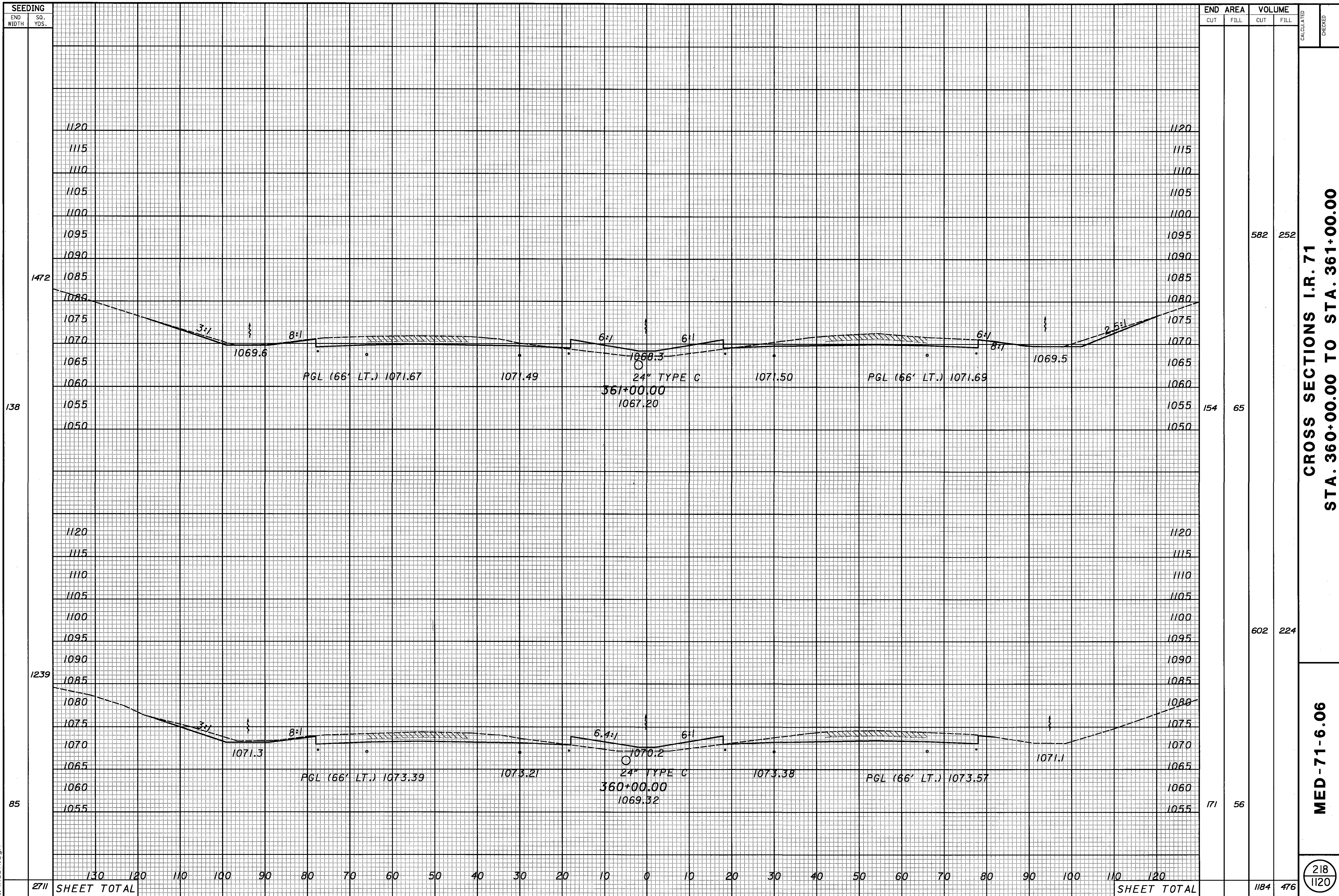
2834 SHEET TOTAL 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 SHEET TOTAL 3444 14

CROSS SECTIONS I.R. 71
STA. 356+00.00 TO STA. 357+00.00

MED-71-6.06

216
1120





SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

138

154

582 252

1239

171

602 224

85

171

56

CROSS SECTIONS I.R. 71
STA. 360+00.00 TO STA. 361+00.00

MED-71-6.06

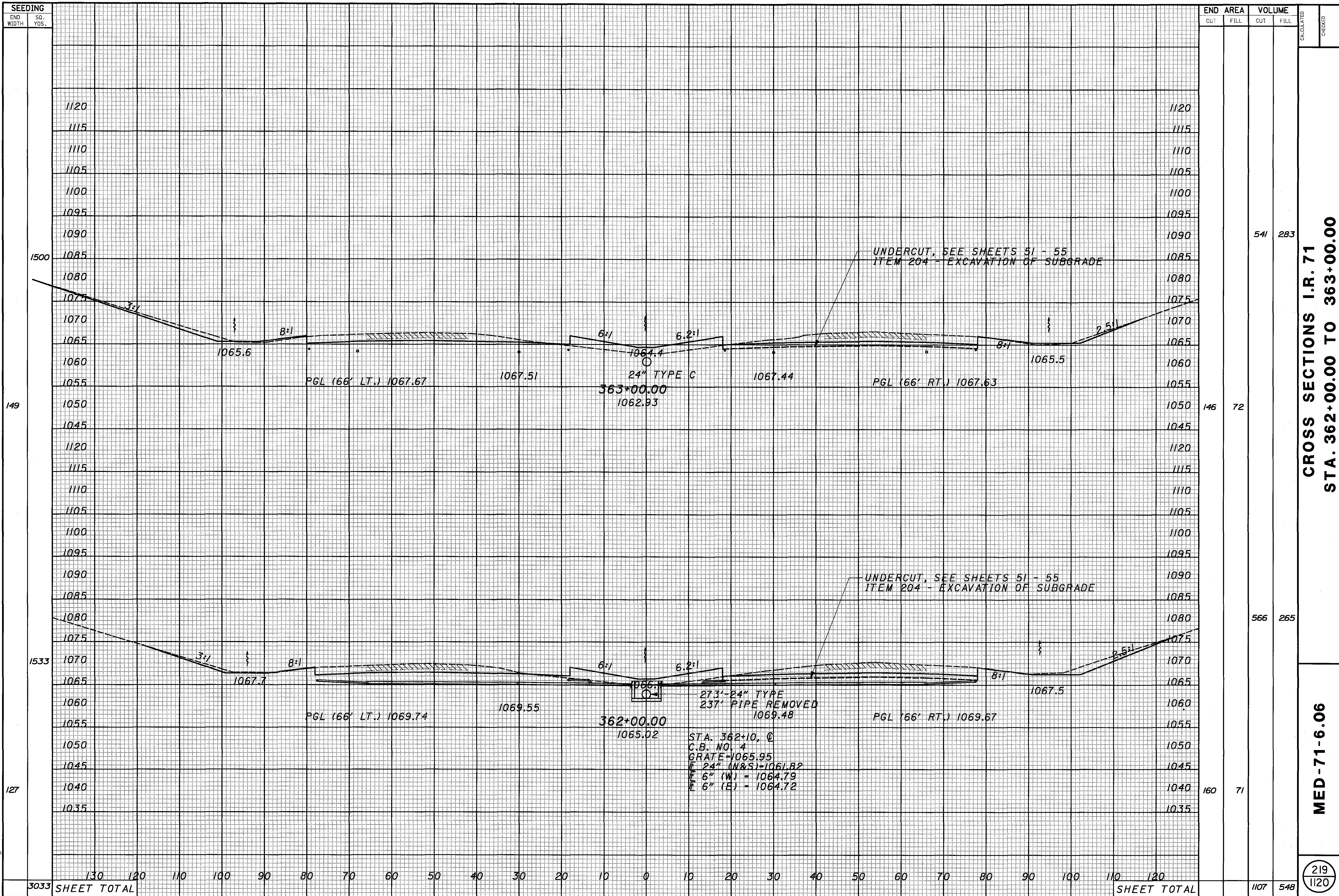
218
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
SHEET TOTAL

SHEET TOTAL

1184 476

.. \xs-71.dgn



END CUT	AREA		VOLUME	
	CUT	FILL	CUT	FILL
1120				
1115				
1110				
1105				
1100				
1095				
1090				
1085				
1080				
1075				
1070				
1065				
1060				
1055				
1050	146	72		
1045				
1120				
1115				
1110				
1105				
1100				
1095				
1090				
1085				
1080				
1075				
1070				
1065				
1060				
1055				
1050				
1045				
1040	160	71		
1035				
1107	541	283	541	283

CROSS SECTIONS I.R. 71
STA. 362+00.00 TO 363+00.00

MED-71-6.06

CALCULATED
 CHECKED

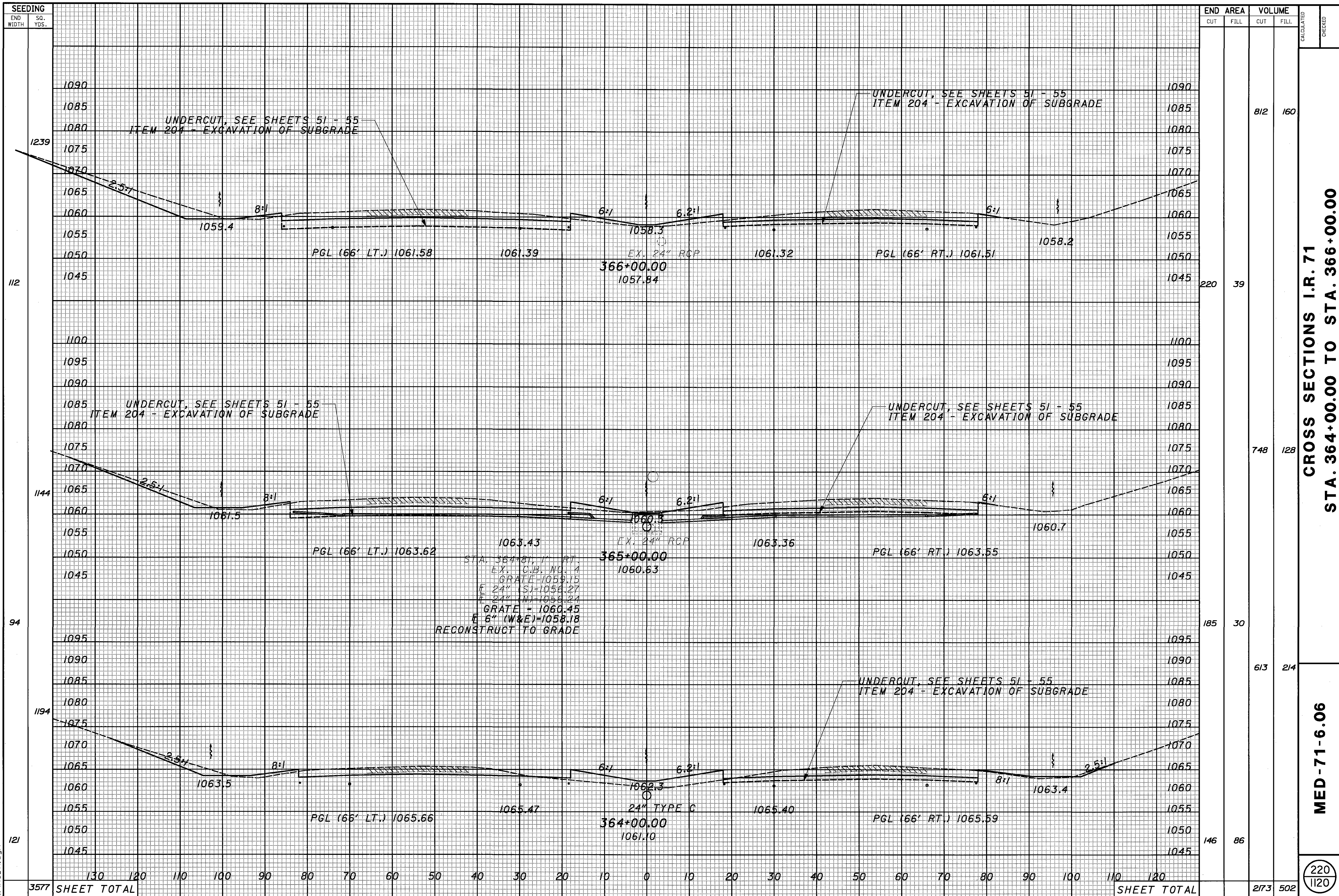
3033 SHEET TOTAL

SHEET TOTAL

1107 548

219
1120

\x.s-71.dgn



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
112	220	39	812	160
1144	185	30	748	128
94	146	86	613	214
121	3577	SHEET TOTAL	2773	502

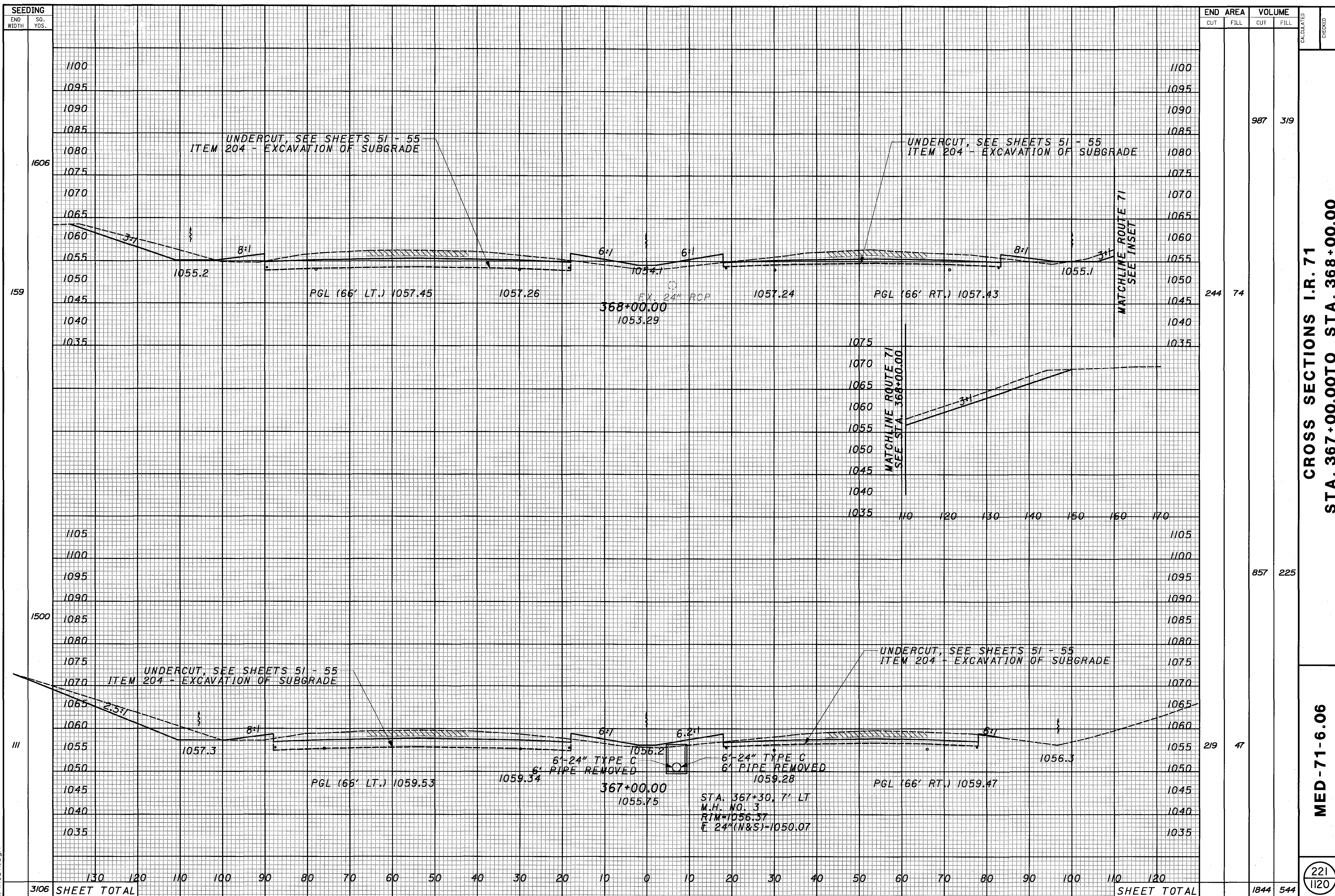
CROSS SECTIONS I.R. 71
STA. 364+00.00 TO STA. 366+00.00

MED-71-6.06

220
 1120

CALCULATED
 CHECKED

...xs-7.dgn



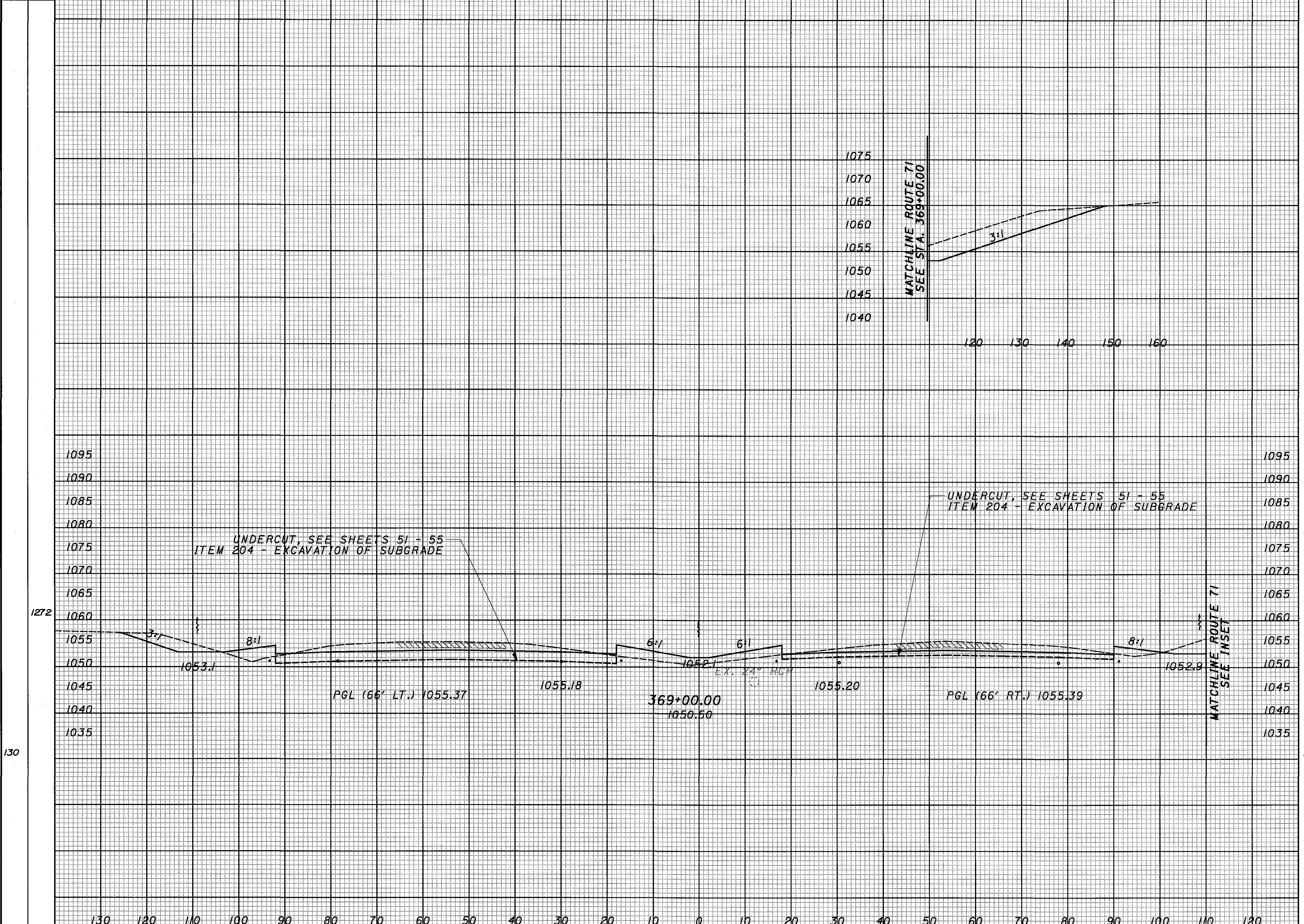
...Xs-71.cgn

3106 SHEET TOTAL

SHEET TOTAL

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL



130

289

99

877

307

CROSS SECTIONS I.R. 71
STA. 369+00.00 TO STA. 369+00.00

MED-71-6.06

222
1120

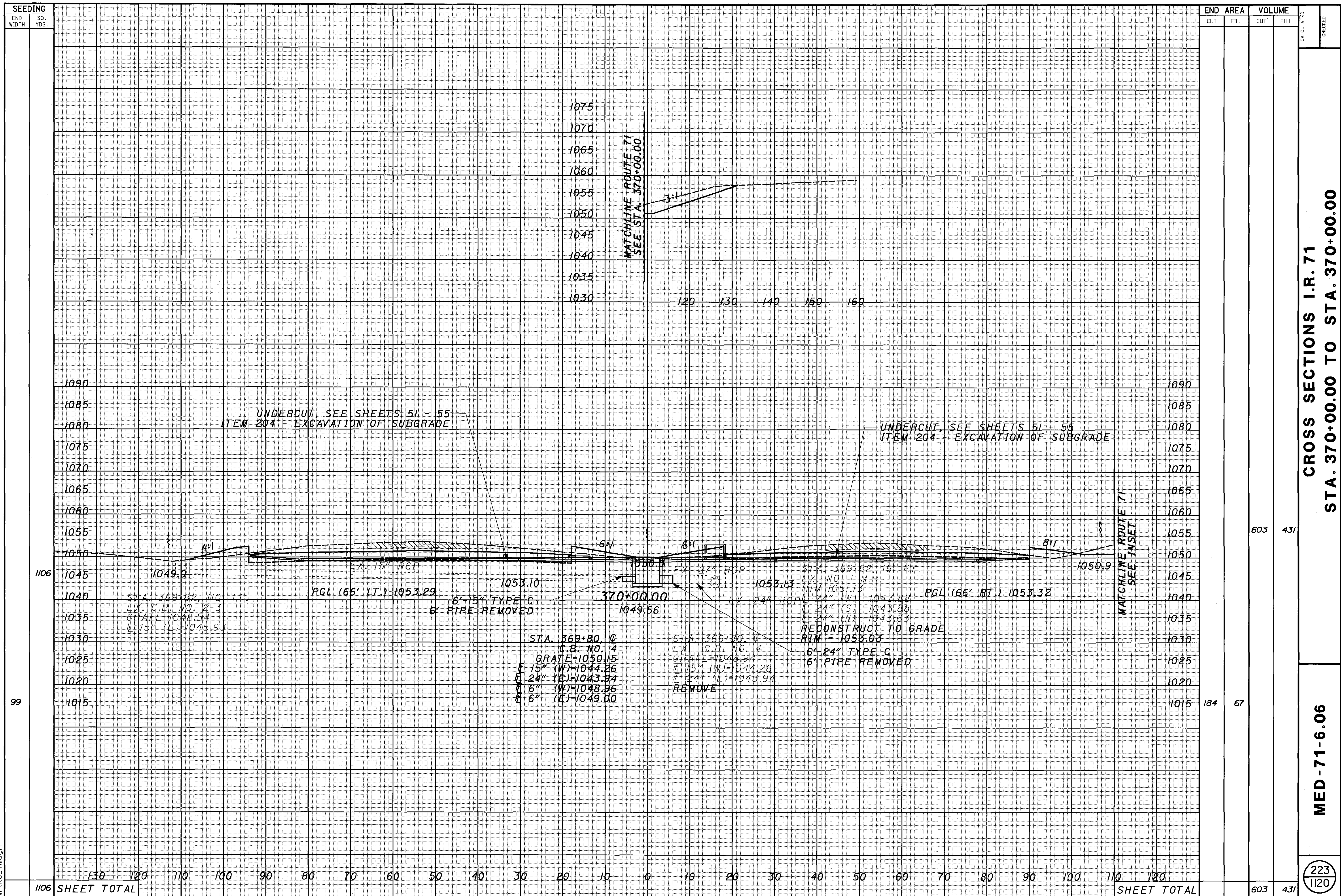
1272 SHEET TOTAL

SHEET TOTAL

877

307

..\\xs-71.dgn



SEEDING	
END WIDTH	SO. YDS.
130	
120	
110	
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

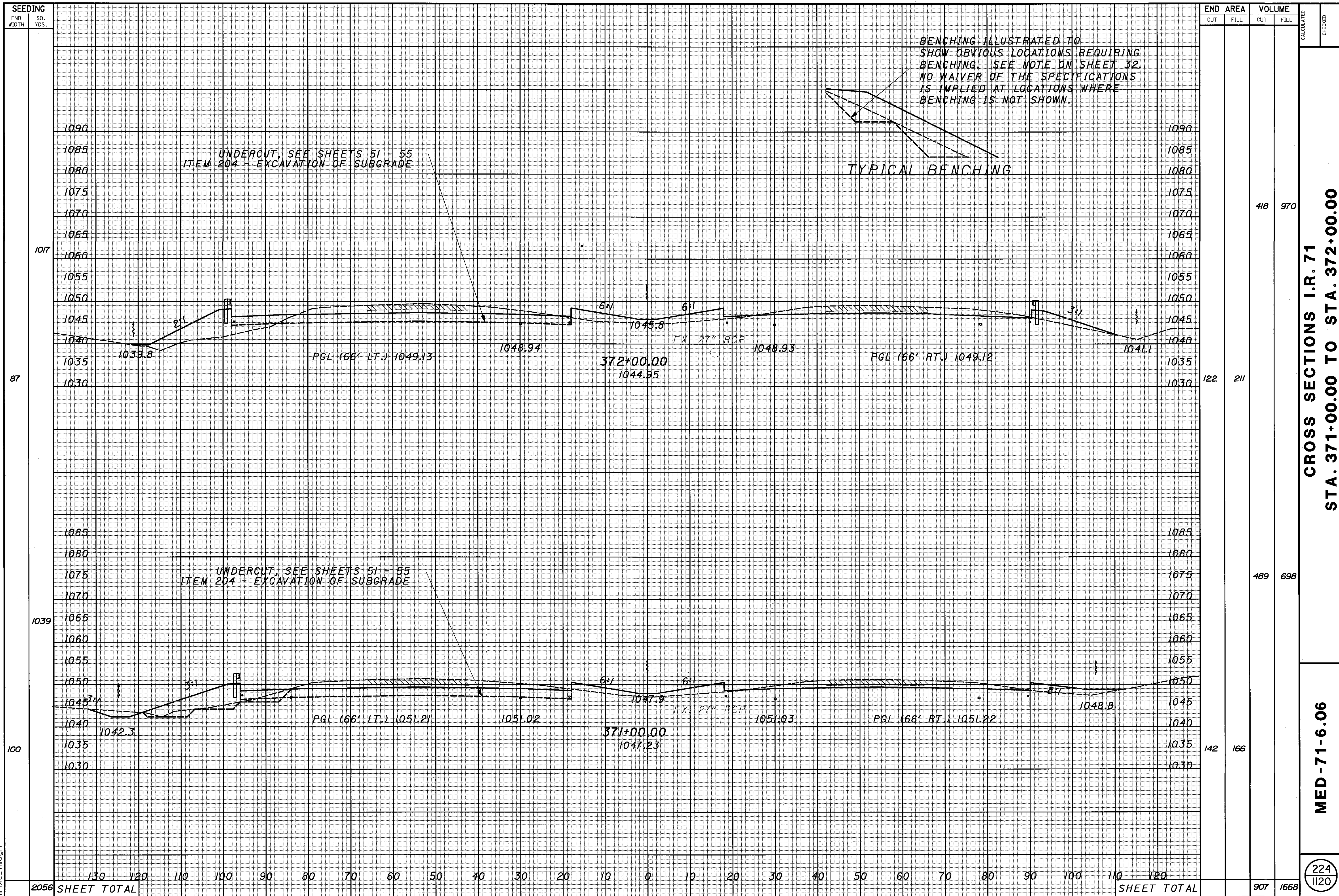
END AREA		VOLUME	
CUT	FILL	CUT	FILL
184	67	603	431
SHEET TOTAL		603	431

CROSS SECTIONS I.R. 71
 STA. 370+00.00 TO STA. 370+00.00

MED-71-6.06

223
 1120

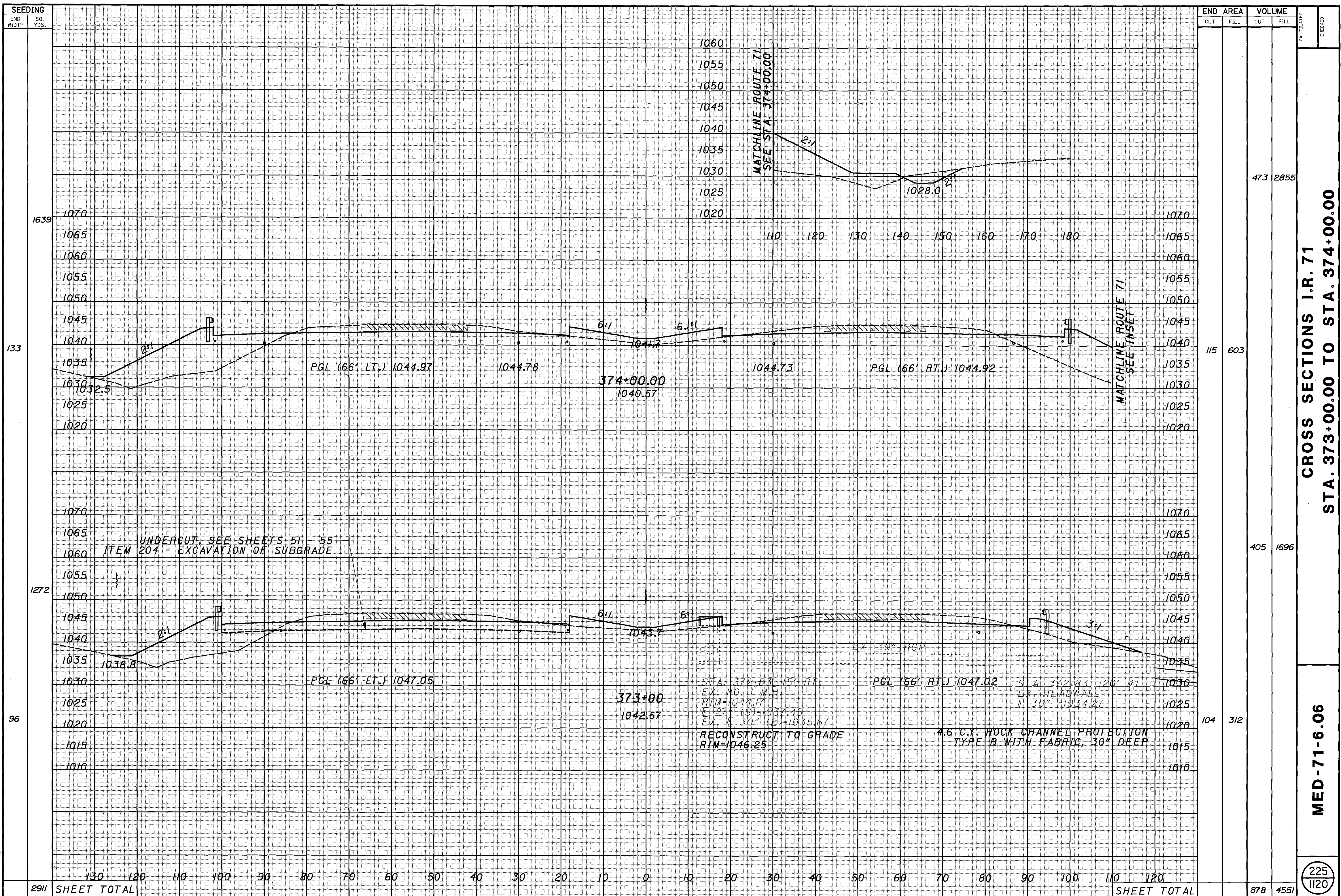
...xs_71.cgm



**CROSS SECTIONS I.R. 71
STA. 371+00.00 TO STA. 372+00.00**

MED-71-6.06

...xs-7.dgn



SEEDING	
END WIDTH	SO. YDS.
133	1639
96	1272
2911	878

STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
373+00.00	115	603	473	2855
373+00.00	104	312	405	1696
SHEET TOTAL	130	120	878	4551

CROSS SECTIONS I.R. 71
 STA. 373+00.00 TO STA. 374+00.00

MED-71-6.06

225
 1120

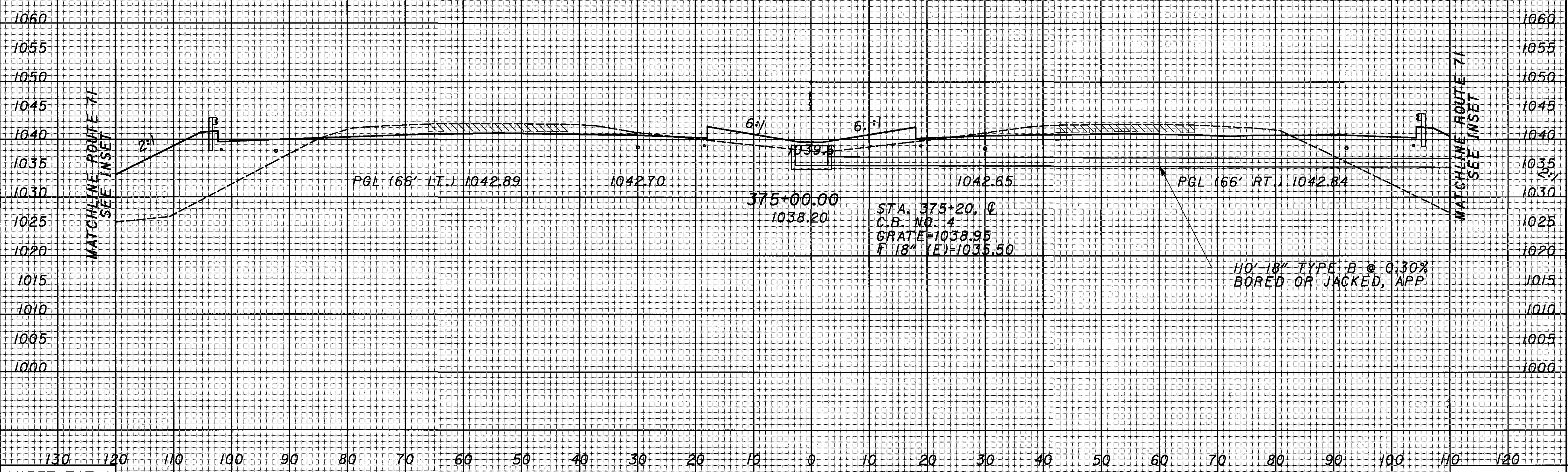
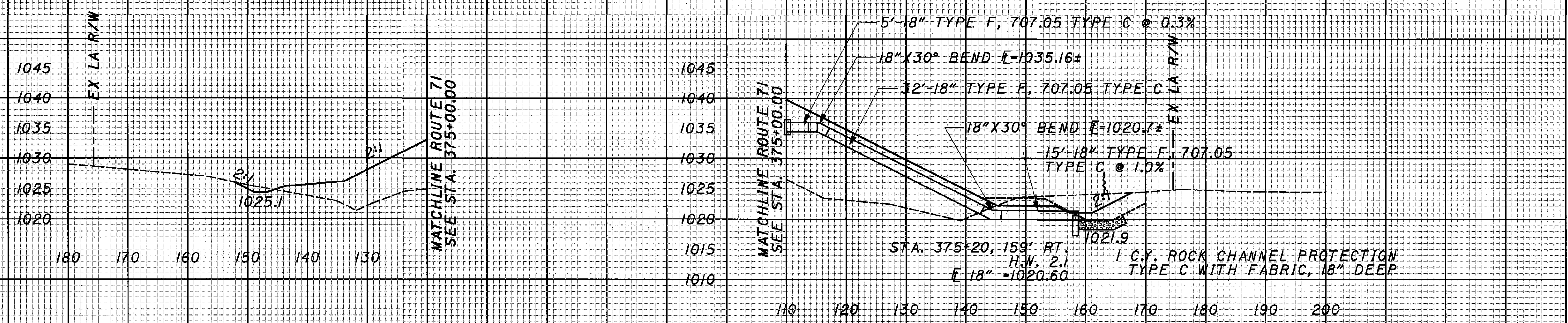
... \xs-71.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL

1917
162

141 939
467 4453

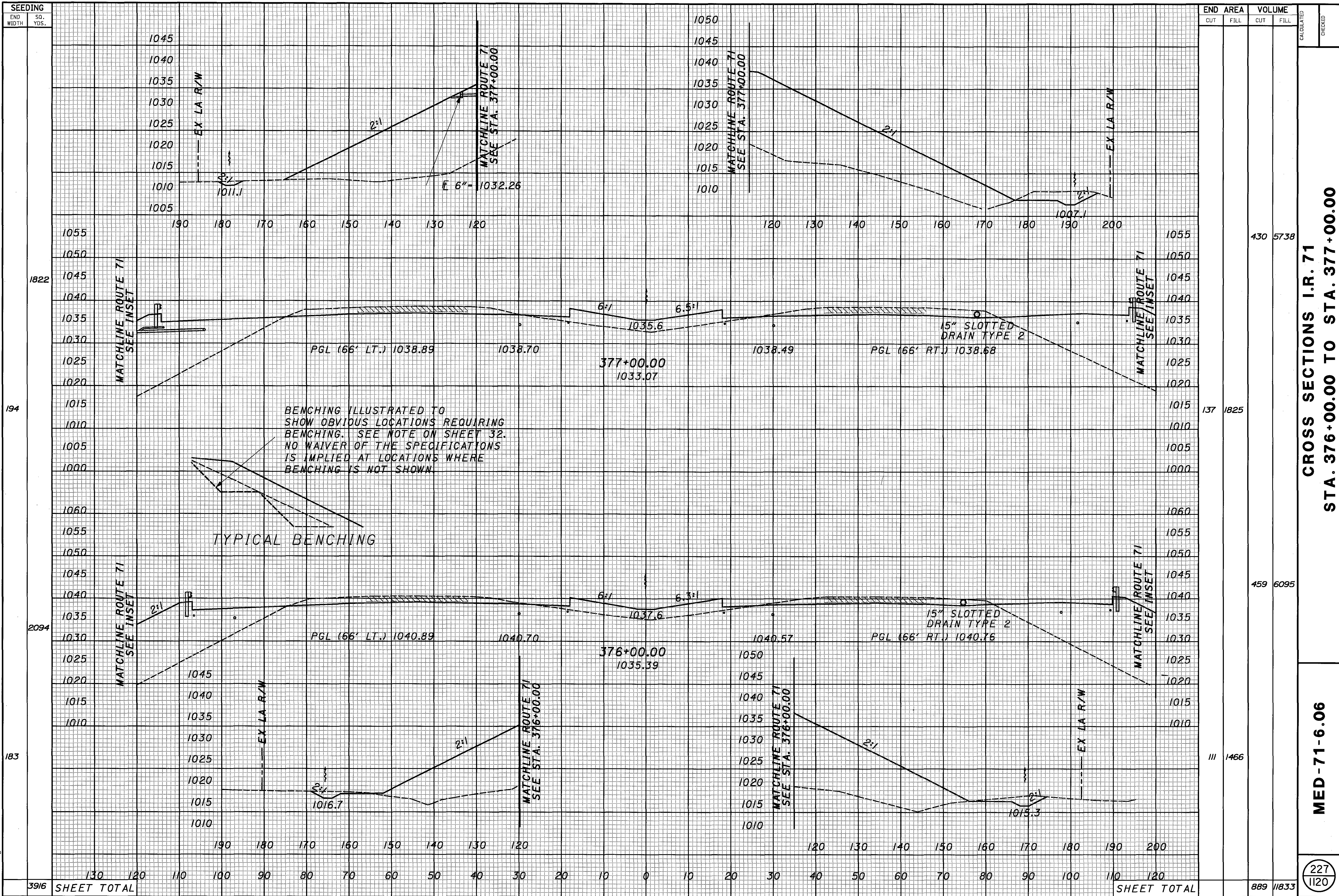


CROSS SECTIONS I.R. 71
STA. 375+00.00 TO STA. 375+00.00

MED-71-6.06

226
1120

...xs_71.dgn

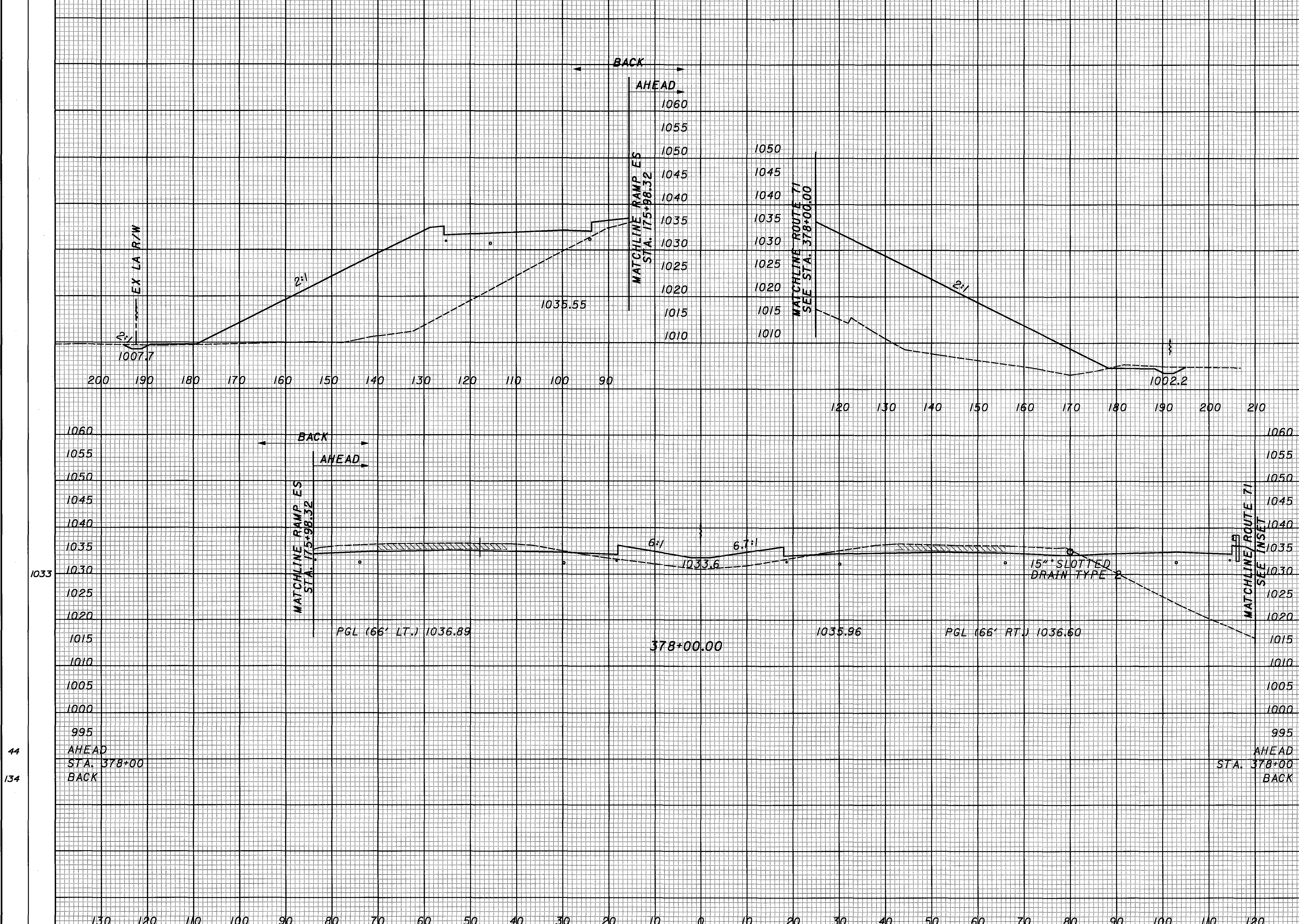


SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1822		430		5738
194		137		1825
2094		459		6095
183		111		1466
3916	SHEET TOTAL		889	11833

CROSS SECTIONS I.R. 71
STA. 376+00.00 TO STA. 377+00.00
MED-71-6.06
 CALCULATED
 CHECKED
 227
 1120

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



44
134

89 299
95 1274

1033 SHEET TOTAL

SHEET TOTAL

354 2752

354 2752

CROSS SECTIONS I.R. 71
STA. 378+00.00 TO STA. 378+00.00

MED-71-6.06

228
1120

...xs-7.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

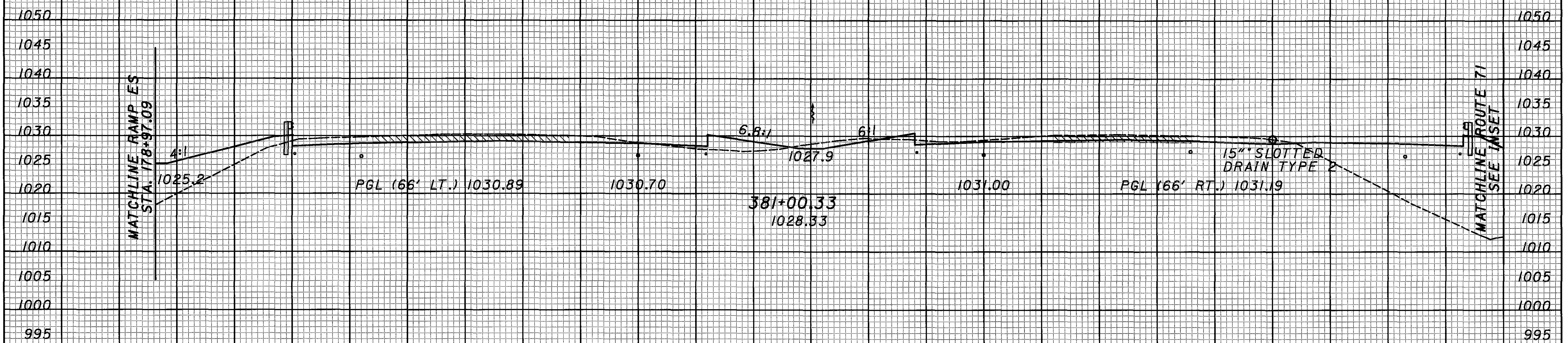


350 3837

CROSS SECTIONS I.R. 71
STA. 381+00.22 TO STA. 381+00.22

1867

148



97 107

MED-71-6.06

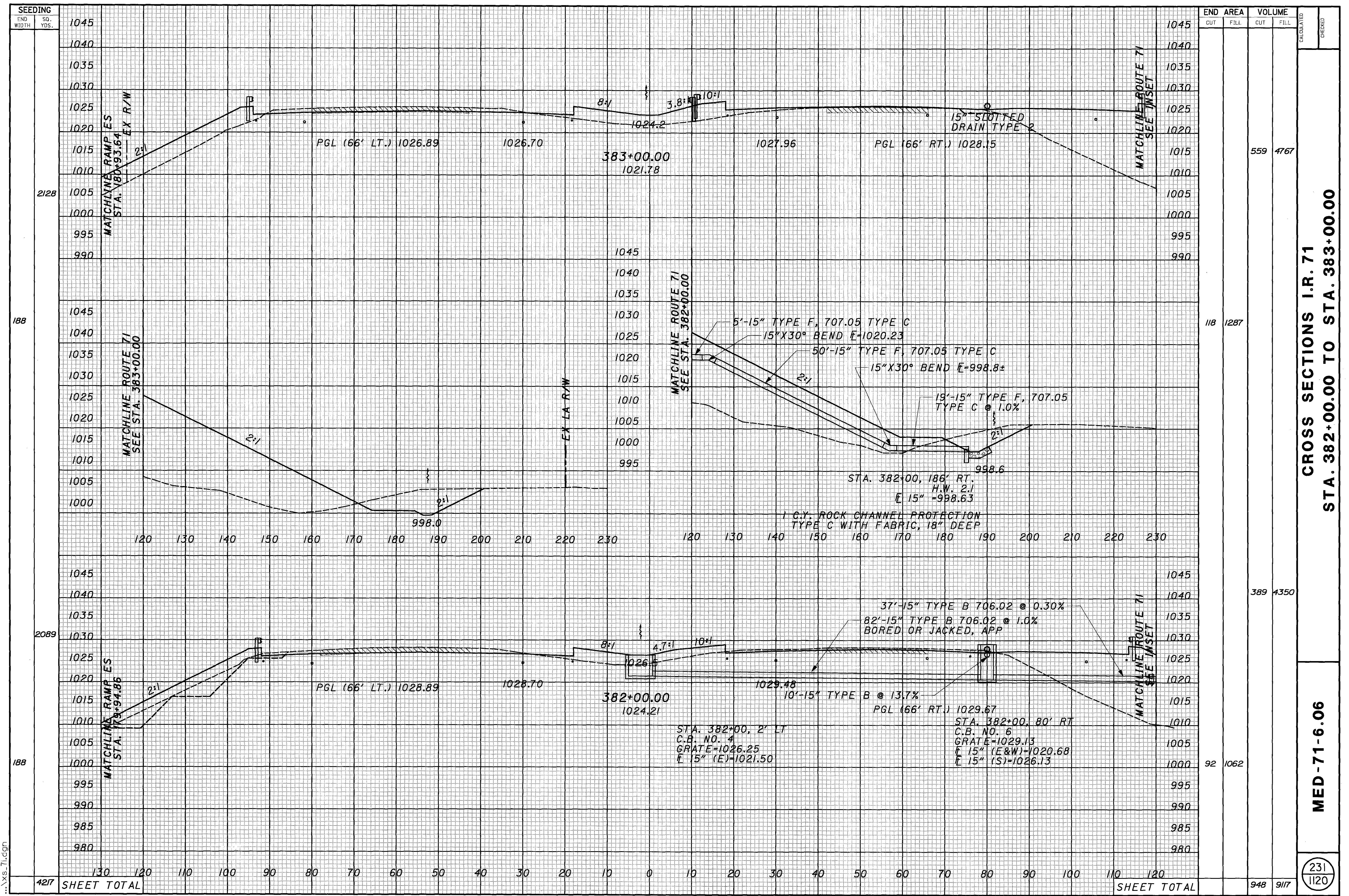
1867 SHEET TOTAL

SHEET TOTAL

350 3837

230
1120

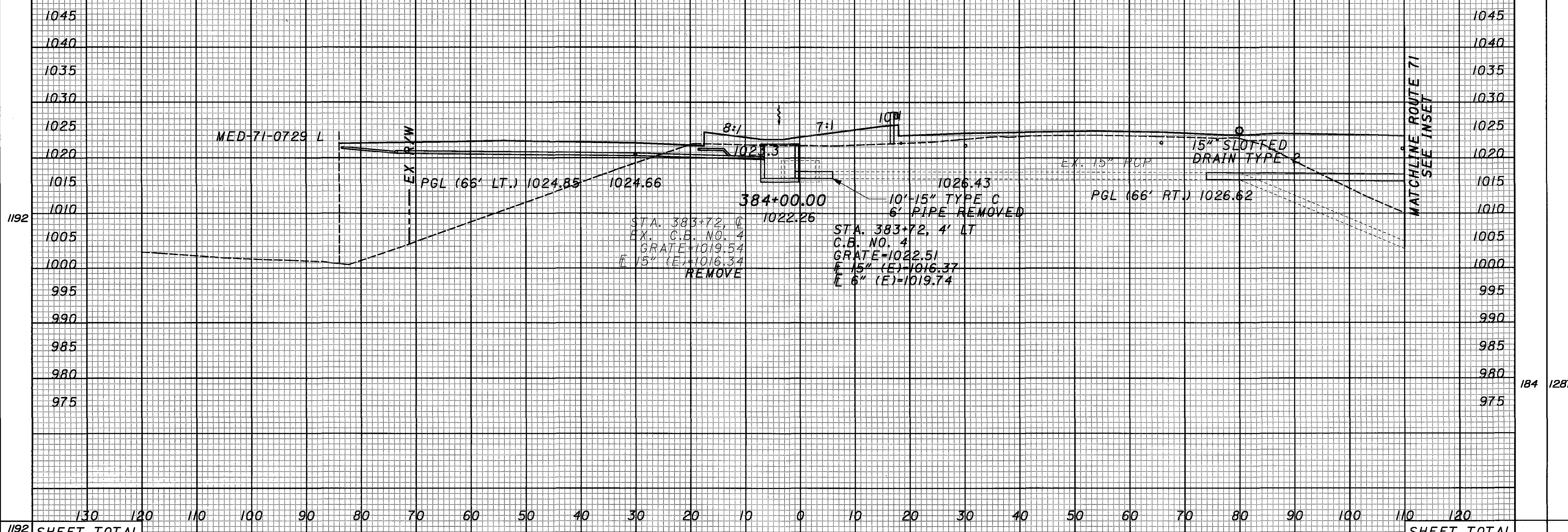
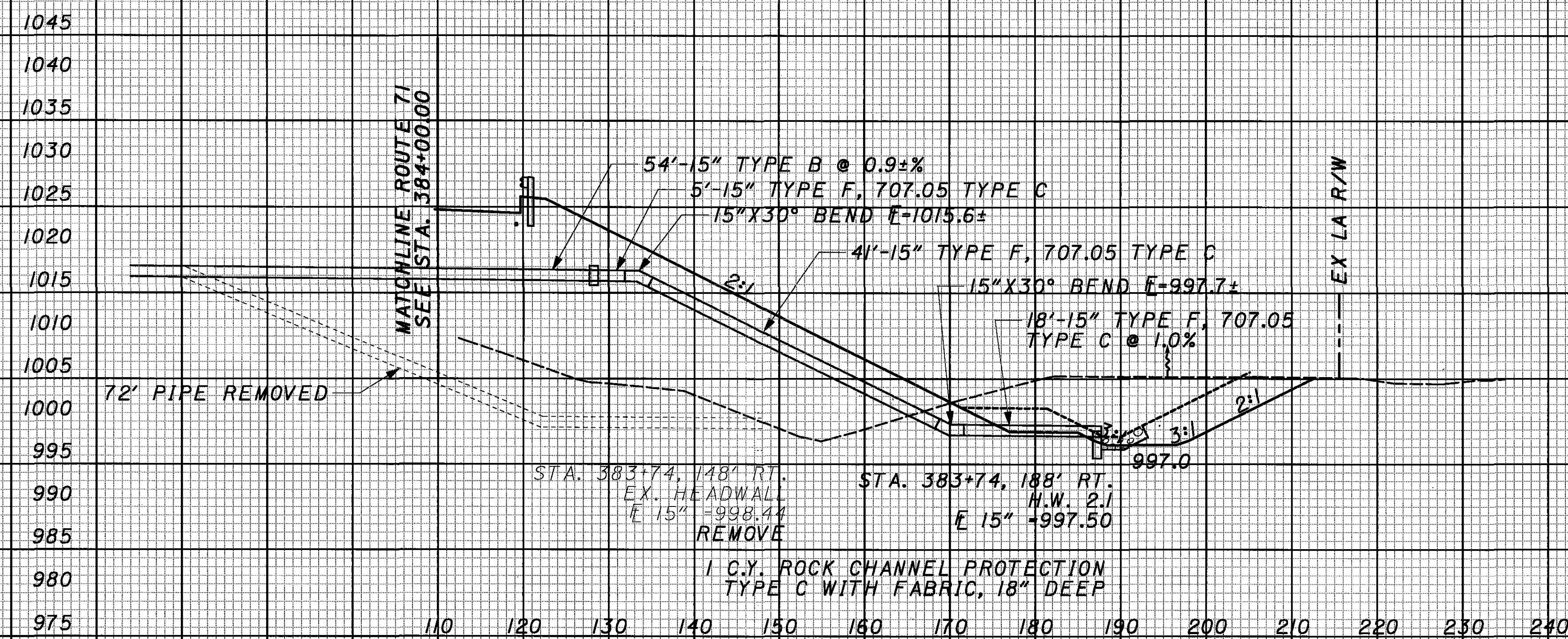
...xs-7.dgn



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
1045				
1040				
1035				
1030				
1025				
1020				
1015			559	4767
1010				
1005				
1000				
995				
990				
1045				
1040				
1035				
1030				
1025				
1020				
1015				
1010				
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995				
990				
1045				
10				

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



CROSS SECTIONS I.R. 71
STA. 384+00.00

MED-71-6.06

232
1120

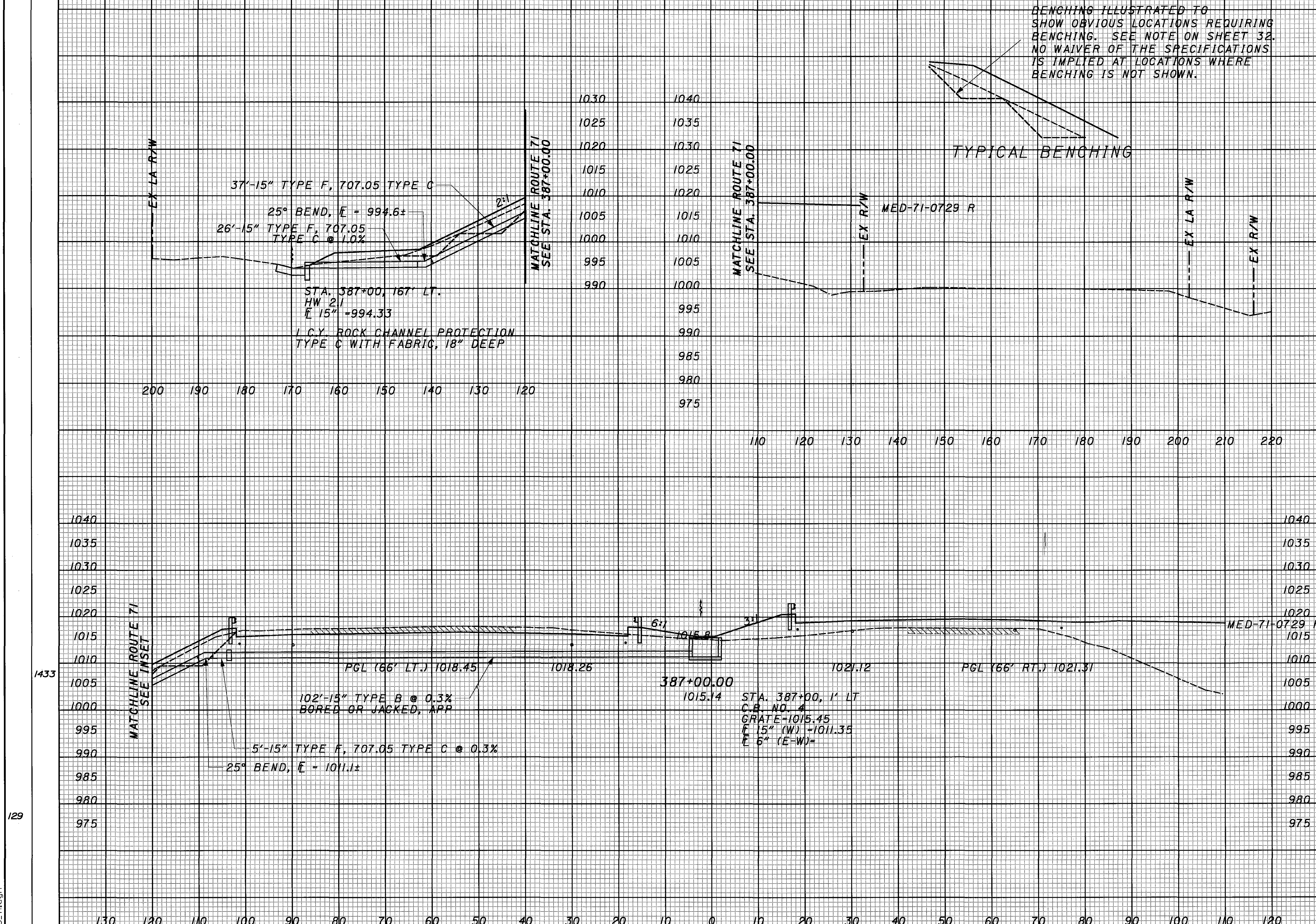
1192 SHEET TOTAL 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 SHEET TOTAL

307	2669
184	1287
307	2669

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED
CHECKED



BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

CROSS SECTIONS I.R. 71
STA. 387+00.00 TO STA. 387+00.00

MED-71-6.06

234
1120

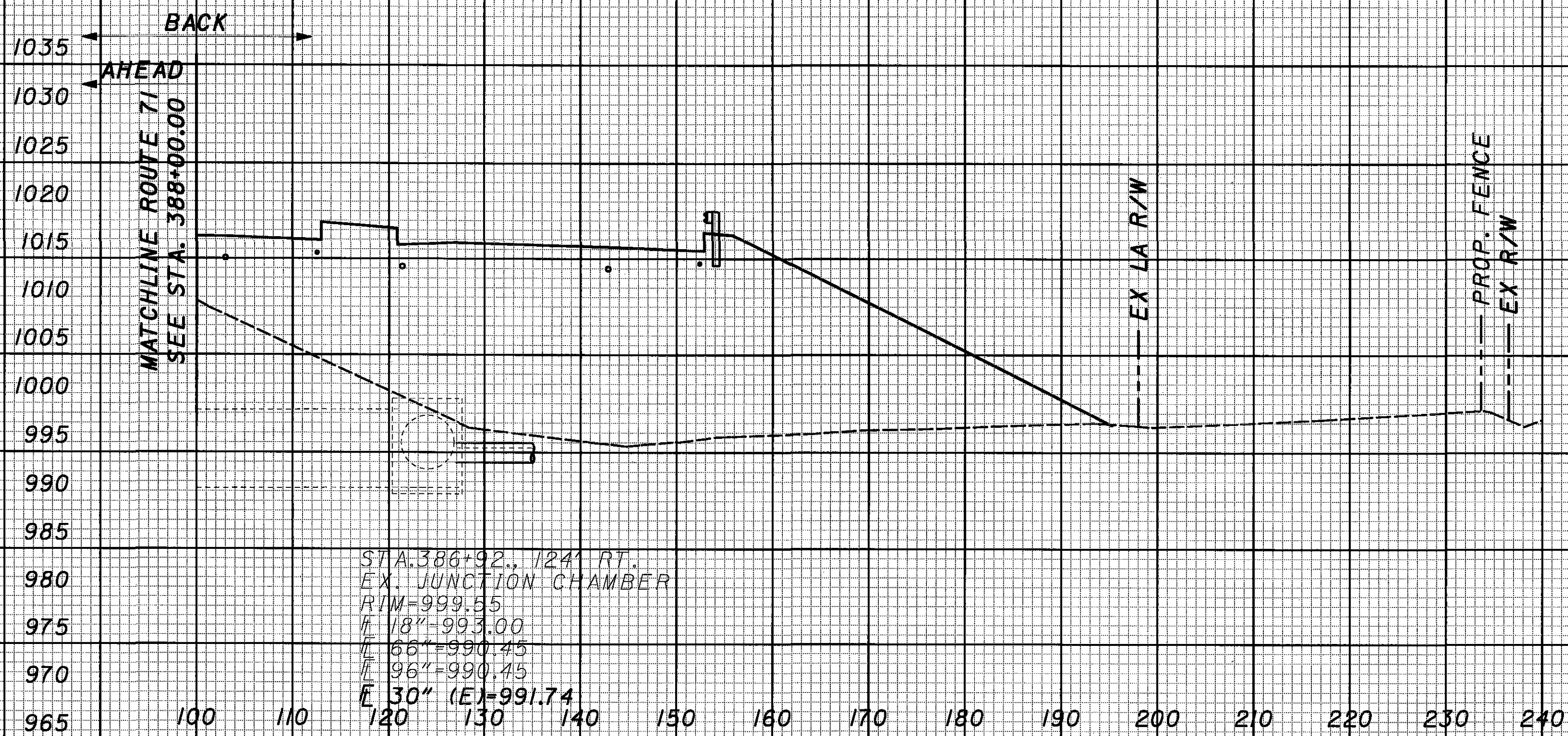
...xs-71.dgn

SEEDING
END WIDTH SQ. YDS.

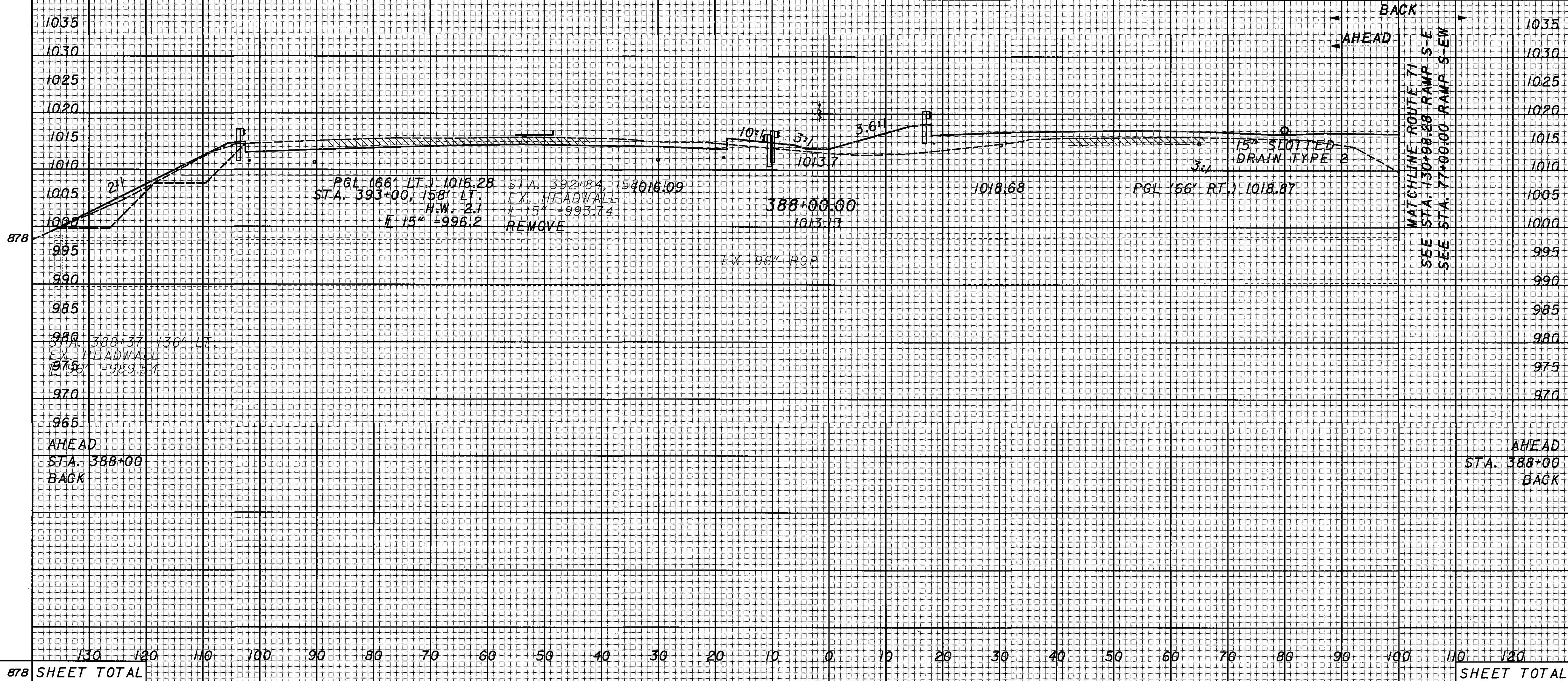
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING



STA. 386+92.12 124' RT.
EX. JUNCTION CHAMBER
RIM=999.55
E 18"=993.00
E 66"=990.45
E 96"=990.45
E 30" (E)=991.74



PGL (66' LT.) 1016.28 STA. 393+00, 158' LT.
EX. HEADWALL
H.W. 2:1
E 15"=996.2 REMOVE

STA. 392+84, 1590/6.09
EX. HEADWALL
E 15"=993.74 REMOVE

388+00.00
1013.13

PGL (66' RT.) 1018.87

BACK
AHEAD
MATCHLINE ROUTE 71
SEE STA. 130+98.28 RAMP S-E
SEE STA. 77+00.00 RAMP S-EW

75
129

AHEAD
STA. 388+00
BACK
55 362
55 1570

226 1480

CROSS SECTIONS I.R. 71
STA. 388+00.00 TP STA. 388+00.00

MED-71-6.06

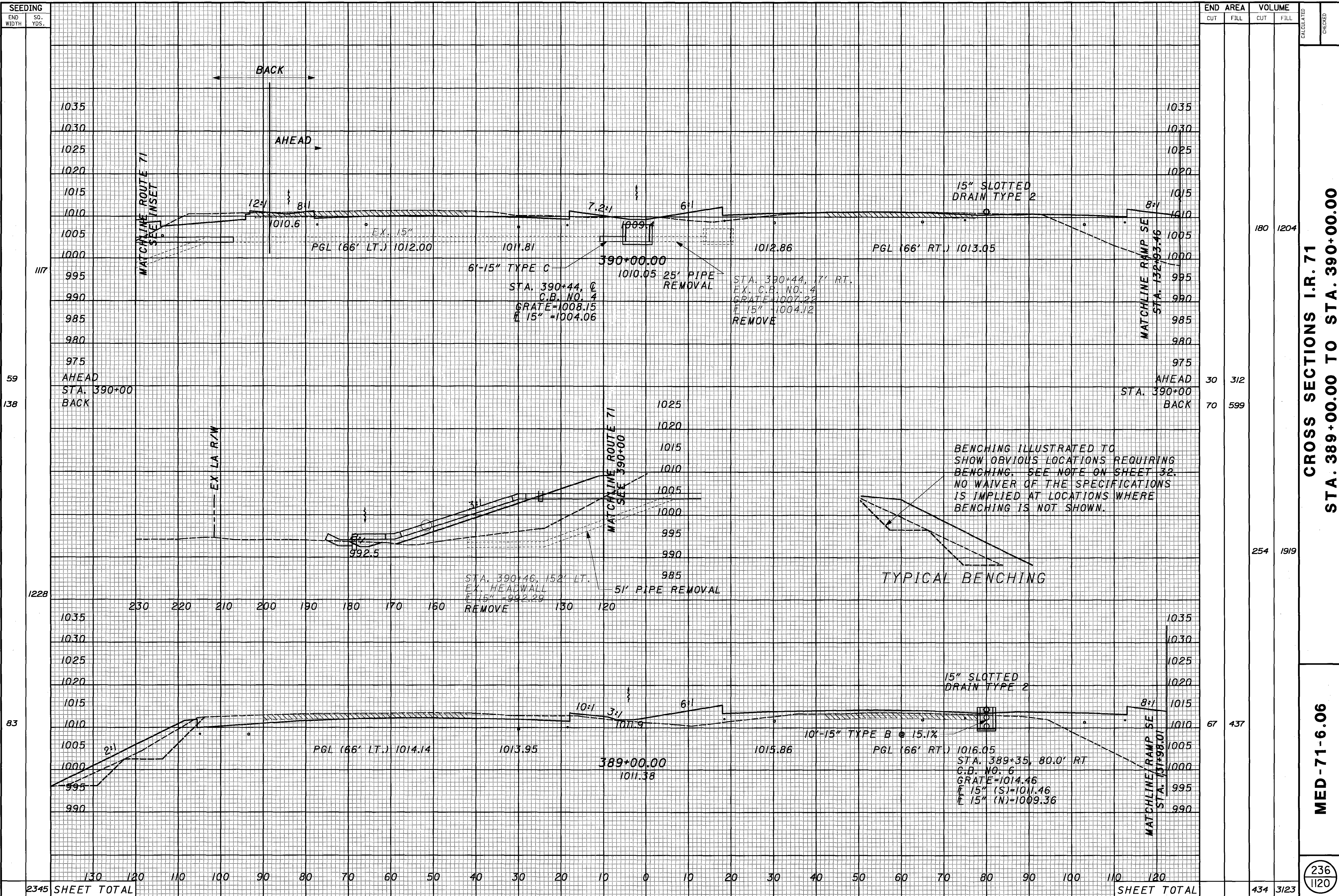
235
120

... \xs_71.dgn

878 SHEET TOTAL

SHEET TOTAL

226 1480



SEEDING	
END WIDTH	SO. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

117
59
138

1228

83

2345 SHEET TOTAL

SHEET TOTAL

180 1204
30 312
70 599

254 1919

67 437

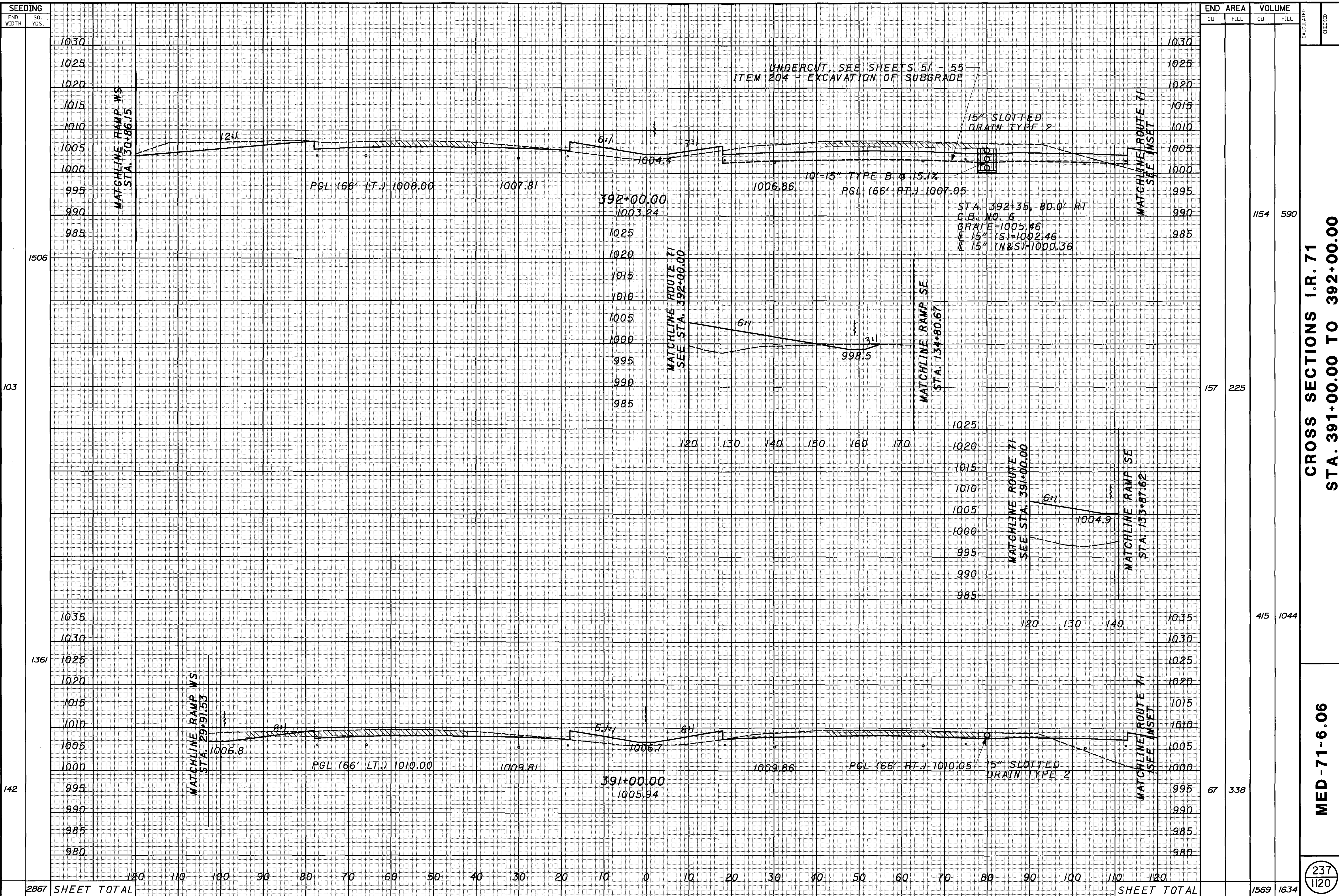
434 3123

CROSS SECTIONS I.R. 71
STA. 389+00.00 TO STA. 390+00.00

MED-71-6.06

236
120

...xs.7.dgn

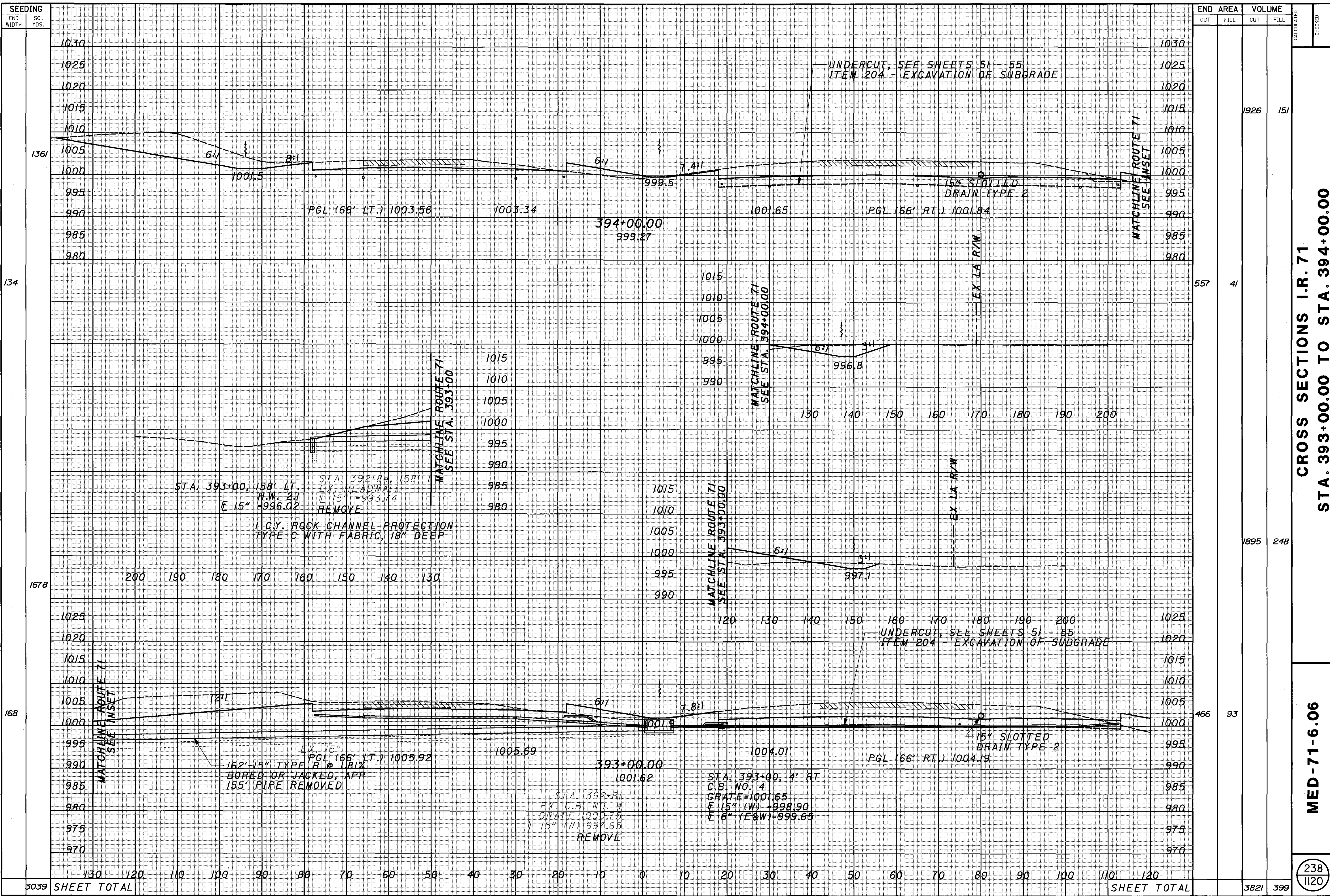


**CROSS SECTIONS I.R. 71
STA. 391+00.00 TO 392+00.00**

MED-71-6.06

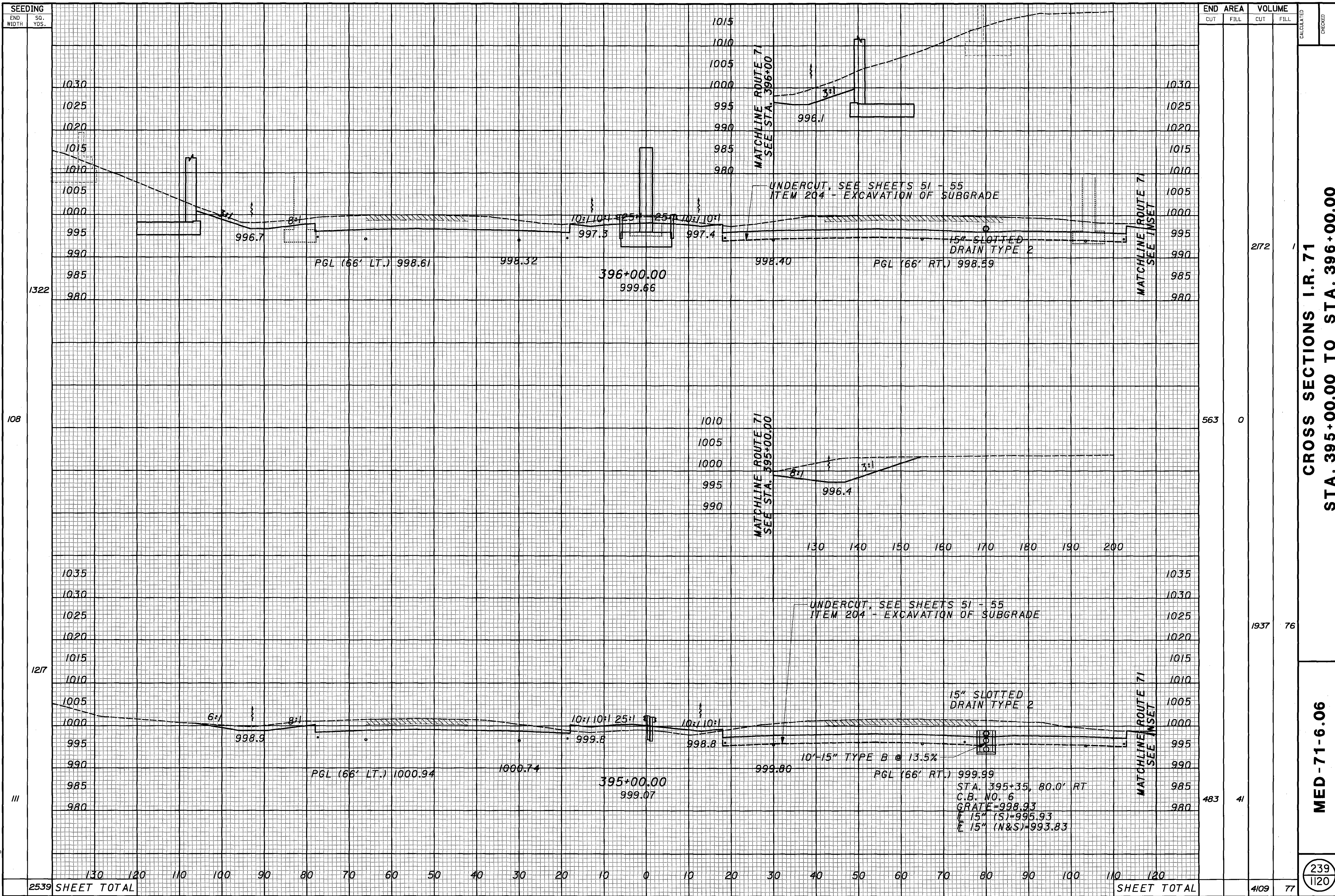
237
1120

...Xs_71.cgn



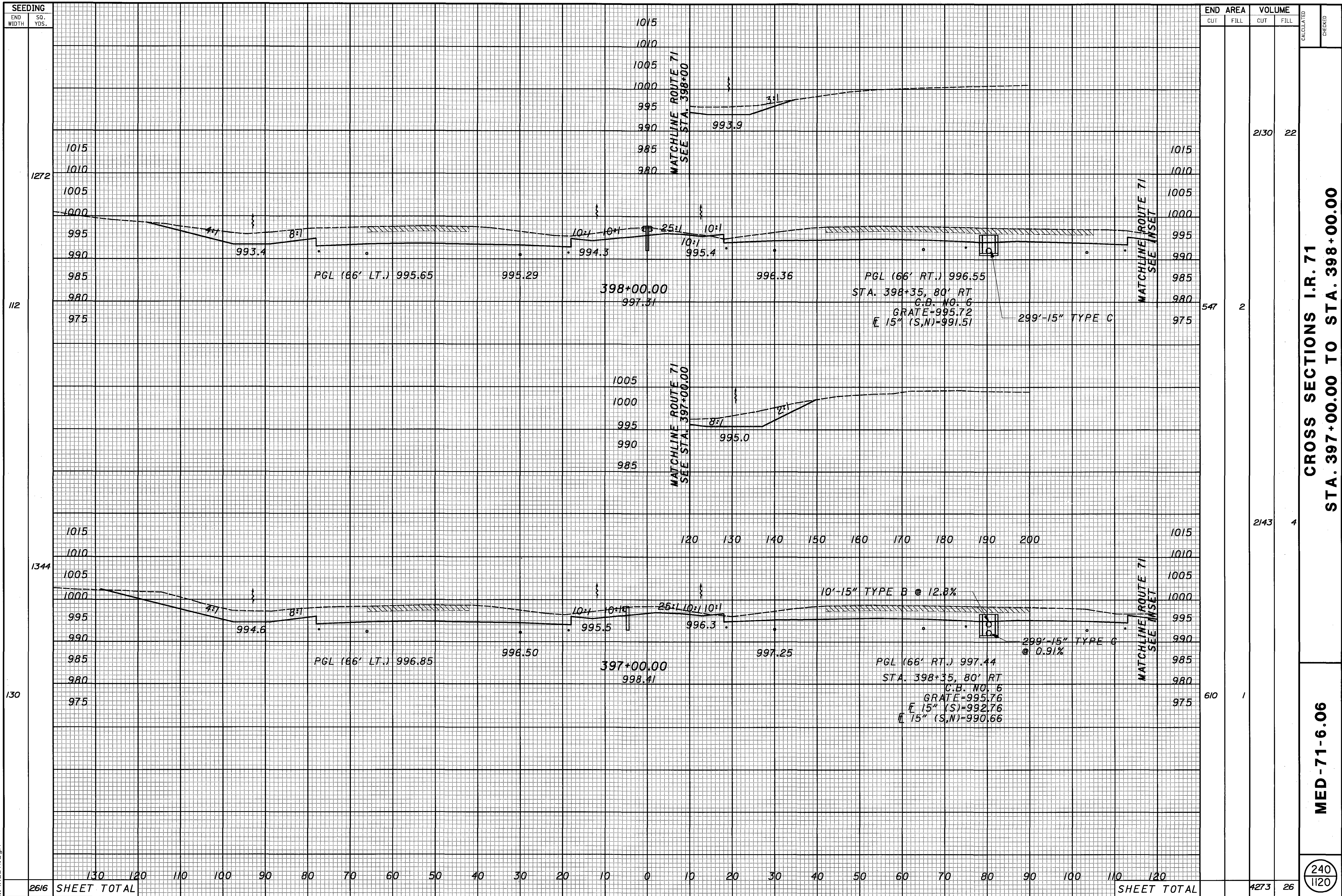
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		1926	151
557	41		
		1895	248
466	93		
3821	399		

CROSS SECTIONS I.R. 71
 STA. 393+00.00 TO STA. 394+00.00
 MED-71-6.06



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1322				
108		2172	563	0
127				
III				
2539 SHEET TOTAL			4109	77

CALCULATED
 CHECKED
CROSS SECTIONS I.R. 71
STA. 395+00.00 TO STA. 396+00.00
MED-71-6.06
 239
 120



SEEDING

END WIDTH SO. YDS.

END AREA VOLUME

CUT FILL CUT FILL

CALCULATED CHECKED

1272

112

1344

130

2130 22

547 2

2143 4

610 1

CROSS SECTIONS I.R. 71
STA. 397+00.00 TO STA. 398+00.00

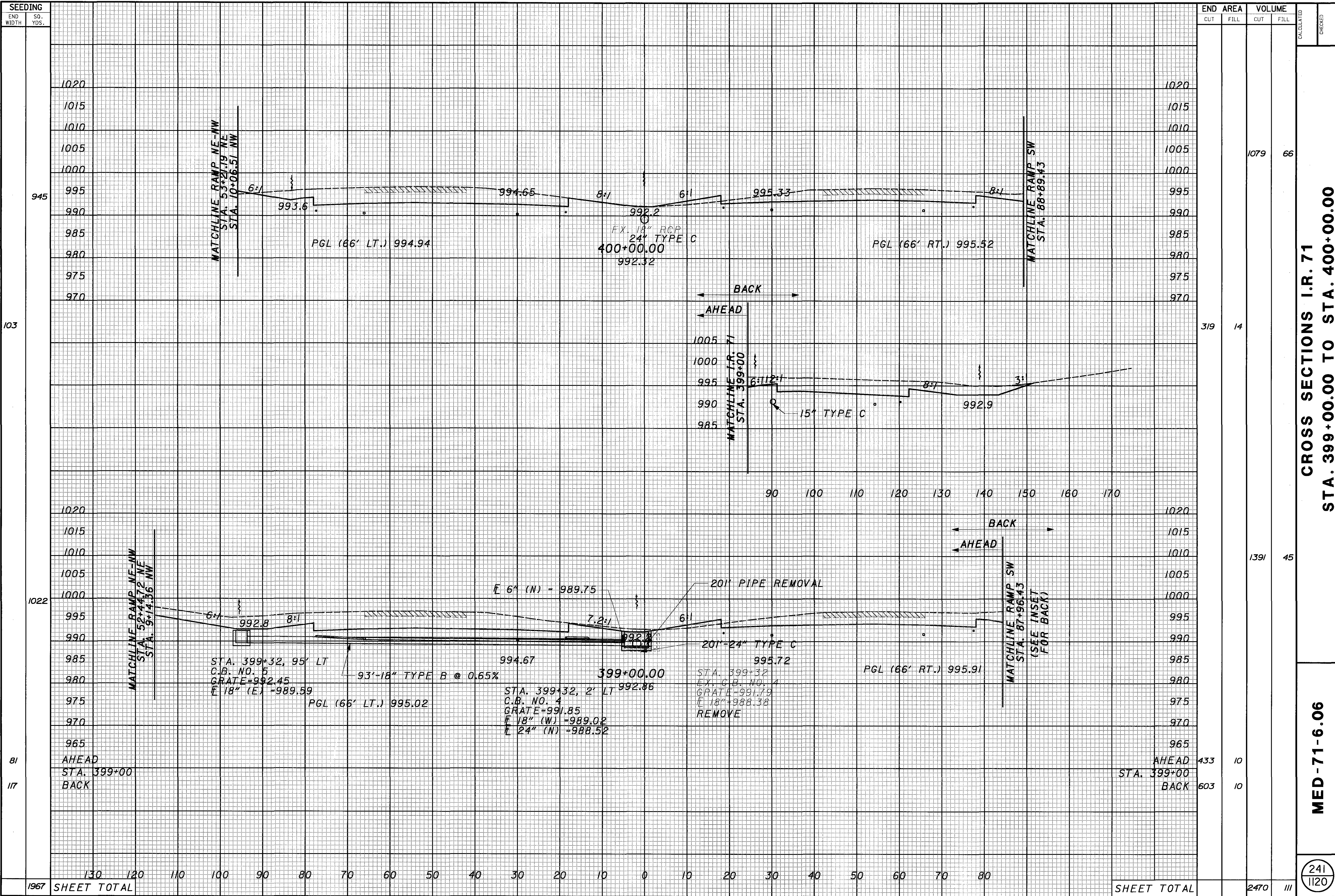
MED-71-6.06

240
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
2616 SHEET TOTAL

SHEET TOTAL 4273 26

...xs_71.dgn

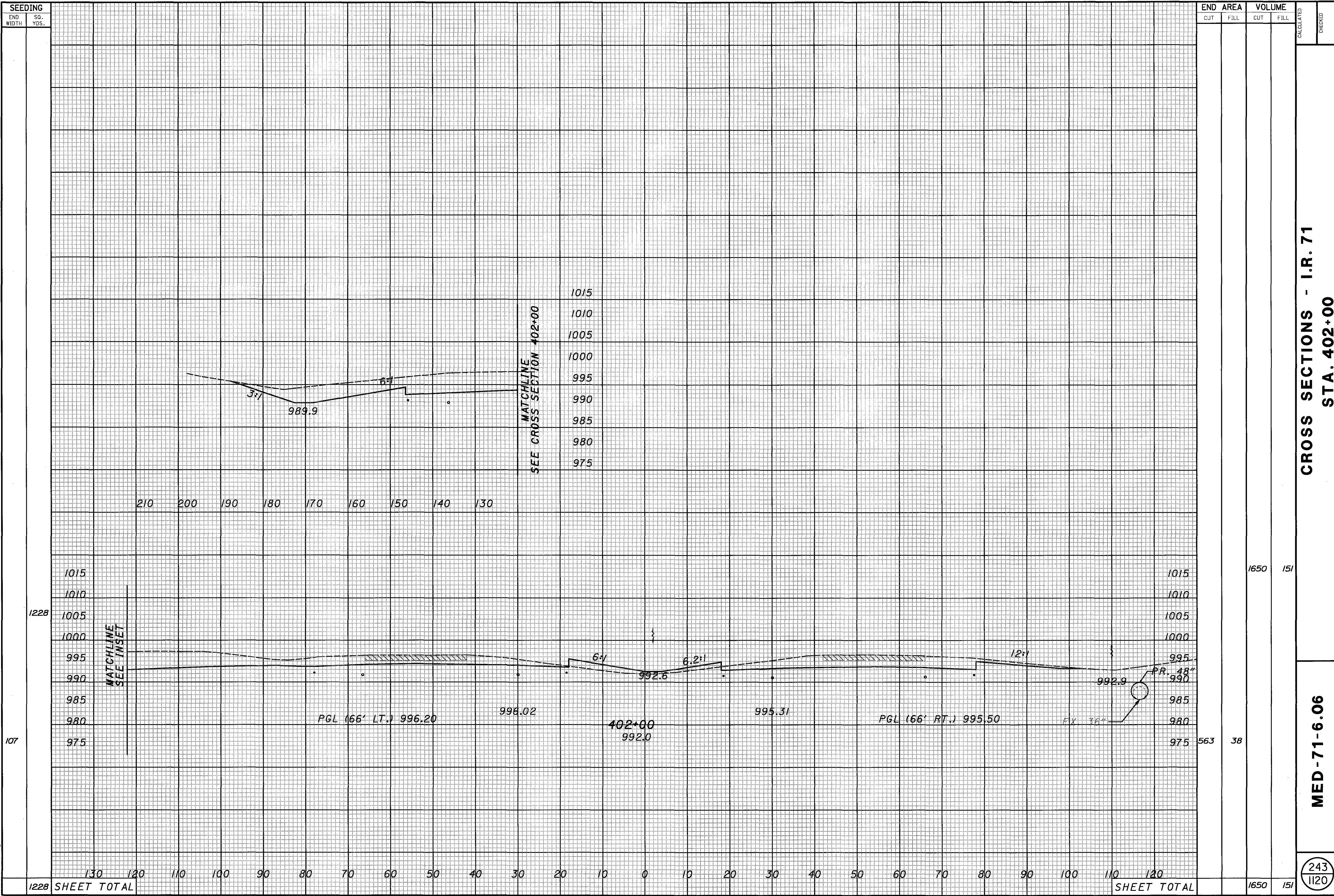


SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
945			1079	66
103	319	14		
1022			1391	45
81	AHEAD 433	10		
117	BACK 603	10		
1967	SHEET TOTAL		2470	111

CROSS SECTIONS I.R. 71
 STA. 399+00.00 TO STA. 400+00.00

MED-71-6.06

241
 1120



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

MATCHLINE
SEE CROSS SECTION 402+00

MATCHLINE
SEE INSET

PGL (66' LT.) 996.20

402+00
992.0

PGL (66' RT.) 995.50

EX 36'

PR 48'

CROSS SECTIONS - I.R. 71
STA. 402+00

MED-71-6.06

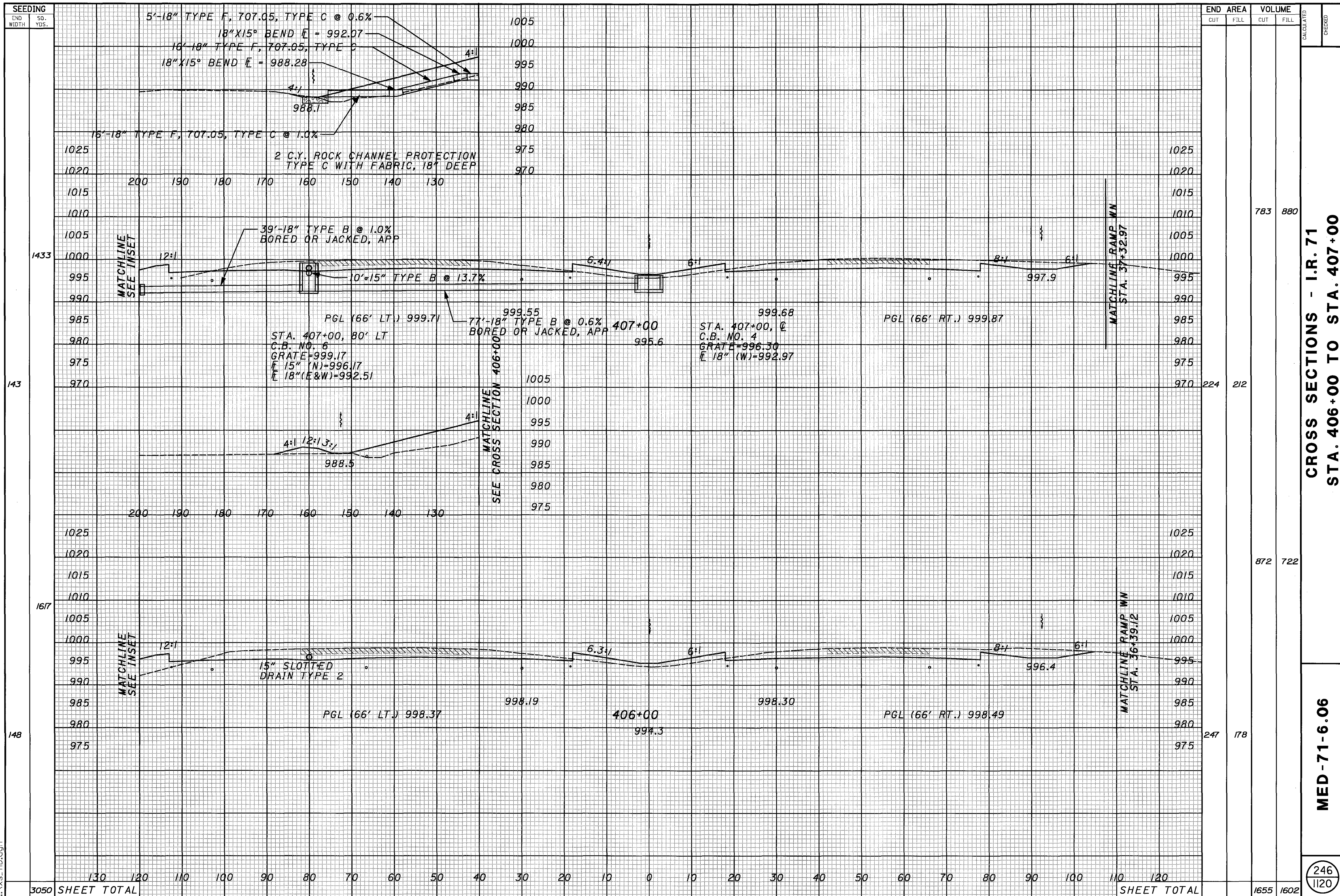
243
1120

1228 SHEET TOTAL

SHEET TOTAL

1650 151

.. \xs_71b.dgn



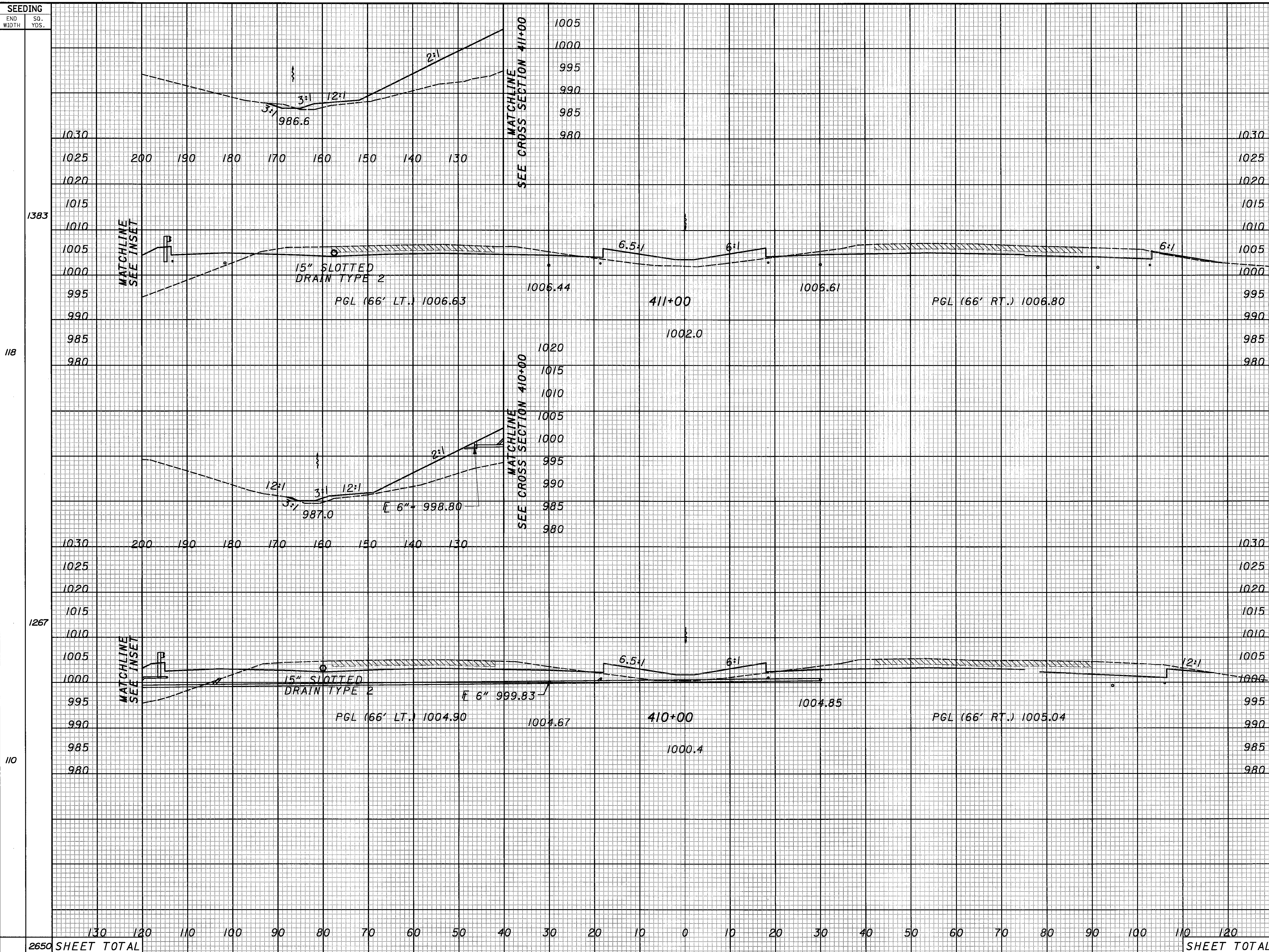
END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975				
970	224	212		
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975				
970	247	178		
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975				
970	1655	1602		

CROSS SECTIONS - I.R. 71
STA. 406+00 TO STA. 407+00

MED-71-6.06

CALCULATED
 CHECKED

...xs_71b.dgn

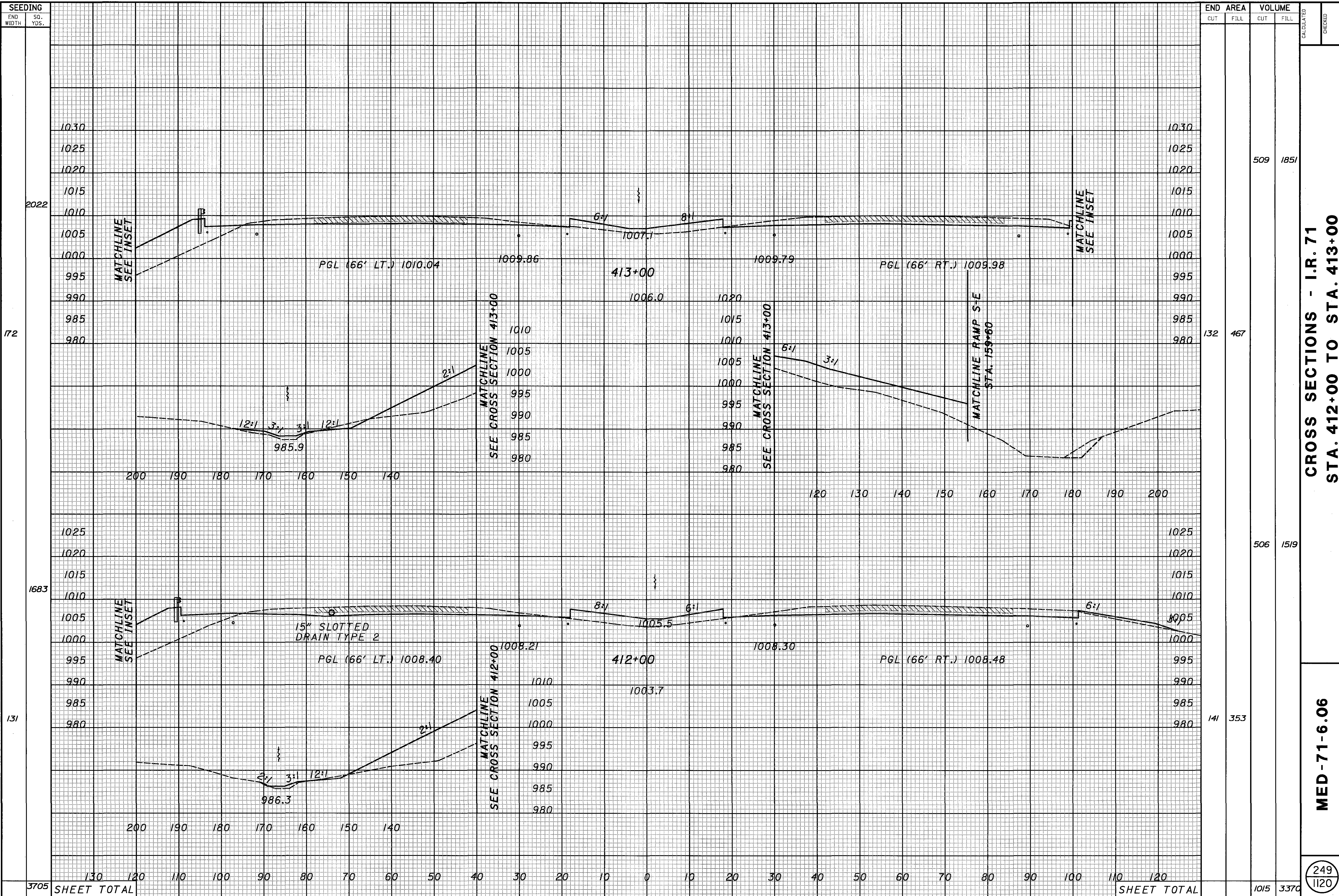


END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
1030						
1025						
1020						
1015						
1010						
1005						
1000						
995						
990						
985						
980						
1020						
1015						
1010						
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0						
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40						
50						
60						
70						
80						
90						
100						
110						
120						
2650	SHEET TOTAL		1241	2599	248	1120

CROSS SECTIONS - I.R. 71
STA. 410+00 TO STA. 411+00

MED-71-6.06

...x.s_7lb.dgn



CROSS SECTIONS - I.R. 71
 STA. 412+00 TO STA. 413+00

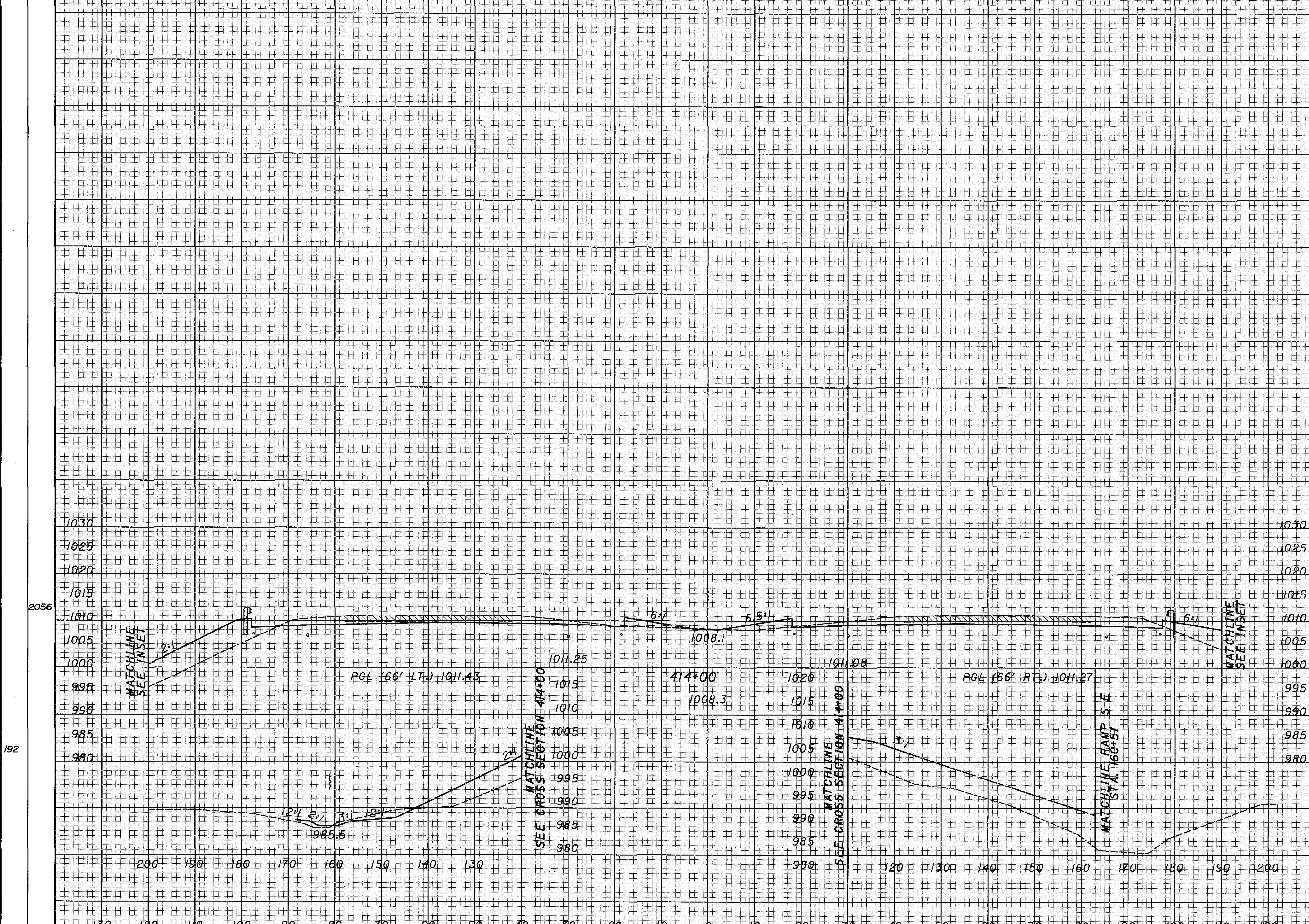
MED-71-6.06

249
 1120

... \xs_71b.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



433 2206

143 533

CROSS SECTIONS - I.R. 71
STA. 414+00

MED-71-6.06

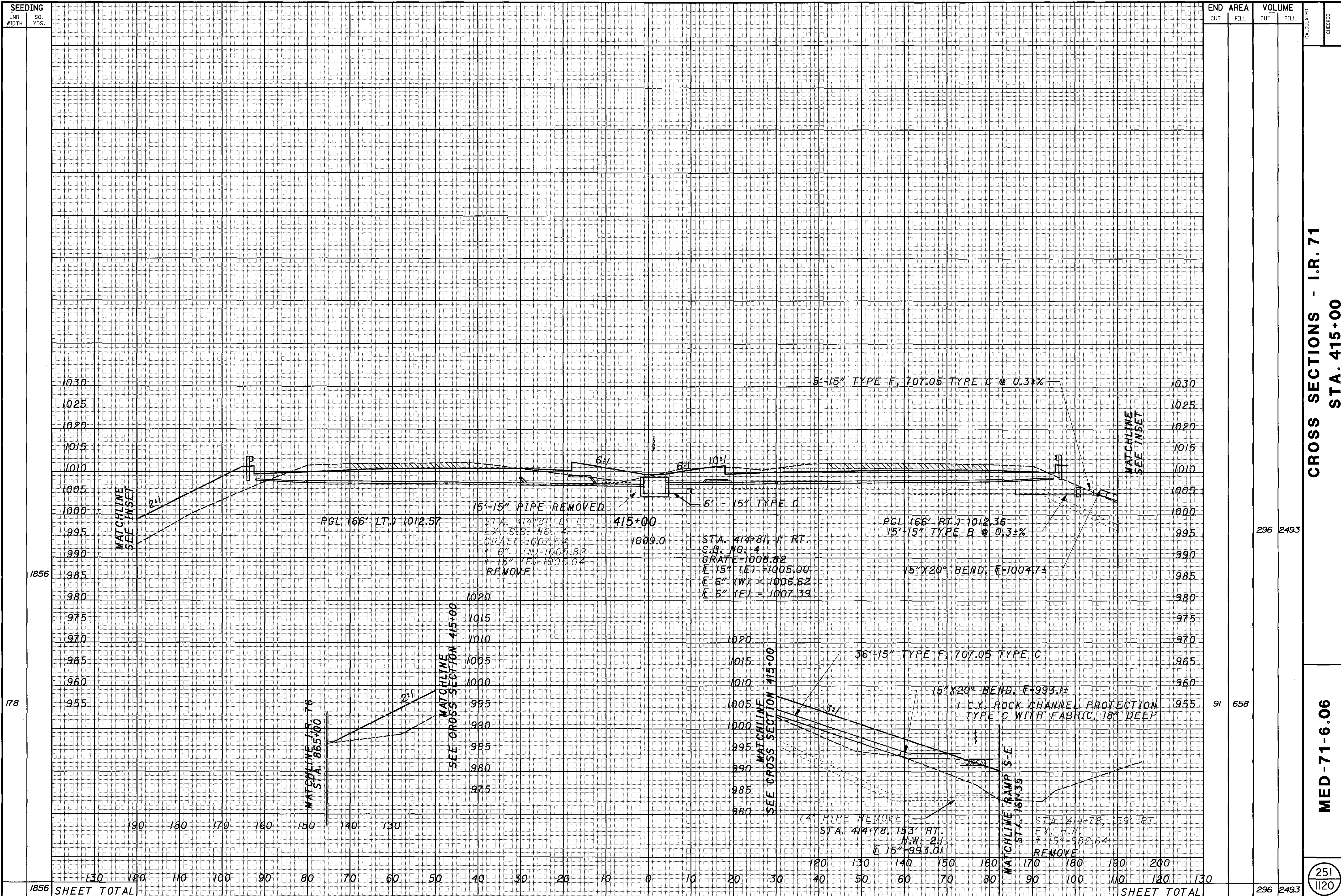
250
1120

2056 SHEET TOTAL

SHEET TOTAL

433 2206

...xs_7ib.dgn



SEEDING	
END WIDTH	SG. YDS.

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		

CROSS SECTIONS - I.R. 71
STA. 415+00

MED-71-6.06

251
 1120

1856

178

296 2493

91 658

1856 SHEET TOTAL

SHEET TOTAL

296 2493

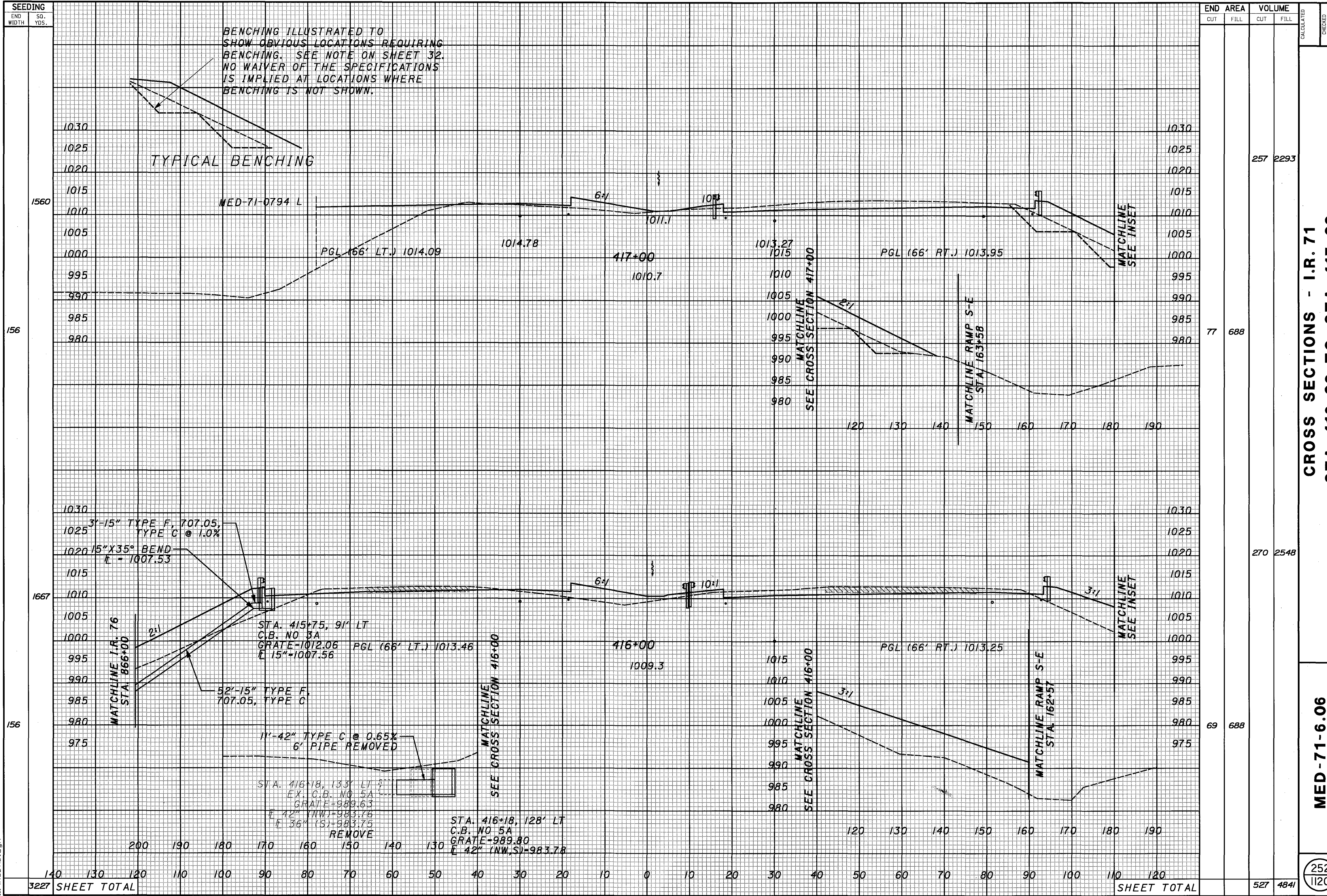
..\xs-71b.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING



257 2293

77 688

270 2548

69 688

CROSS SECTIONS - I.R. 71
STA. 416+00 TO STA. 417+00

MED-71-6.06

252
1120

3227 SHEET TOTAL

SHEET TOTAL

527 4841

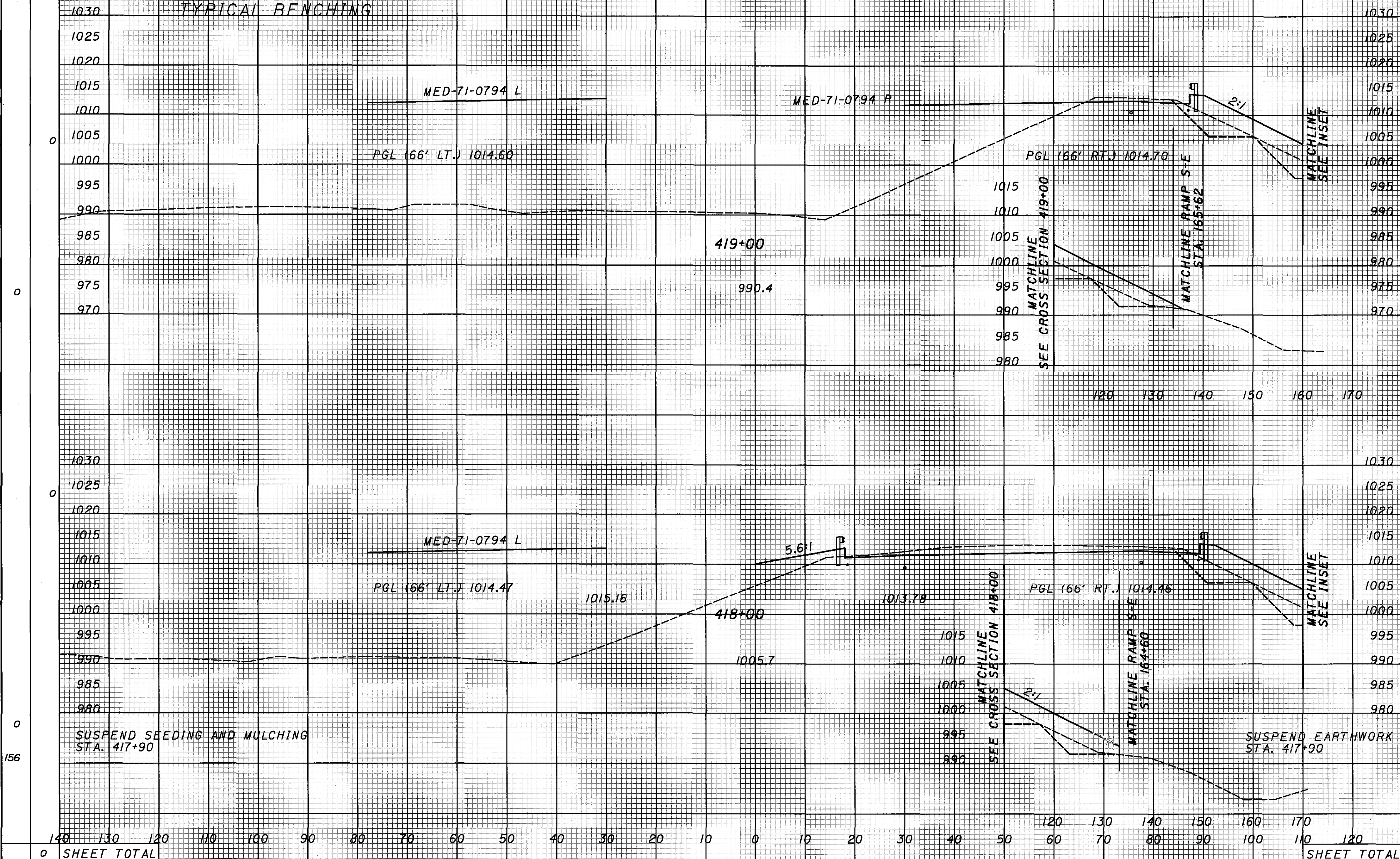
.. \x.s. 71b.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING



CROSS SECTIONS - I.R. 71
STA. 418+00 TO STA. 419+00

MED-71-6.06

253
1120

...xs-7lb.dgn

156

0

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SHEET TOTAL

SHEET TOTAL

0 0

77 688

0 0

0 0

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED
CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

EX LA R/W

6" x 15" TYPE F, 707.05, TYPE C

11" x 15" TYPE F, 707.05, TYPE C @ 1.0%

15" x 25" BEND F = 981.63

1015
1010
1005
1000
995
990
985
980
MATCHLINE
SEE CROSS SECTION 421+00

STA. 420+96, 158' LT
H.W. 2.1
E 15" = 981.52

1 C.Y. ROCK CHANNEL PROTECTION TYPE C WITH FABRIC, 18" DEEP

1040

1040

1035

1035

1030

1030

1025

1025

1020

1020

1015

1015

1010

1010

1005

1005

1000

1000

995

995

990

990

985

985

980

980

975

975

970

970

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SHEET TOTAL

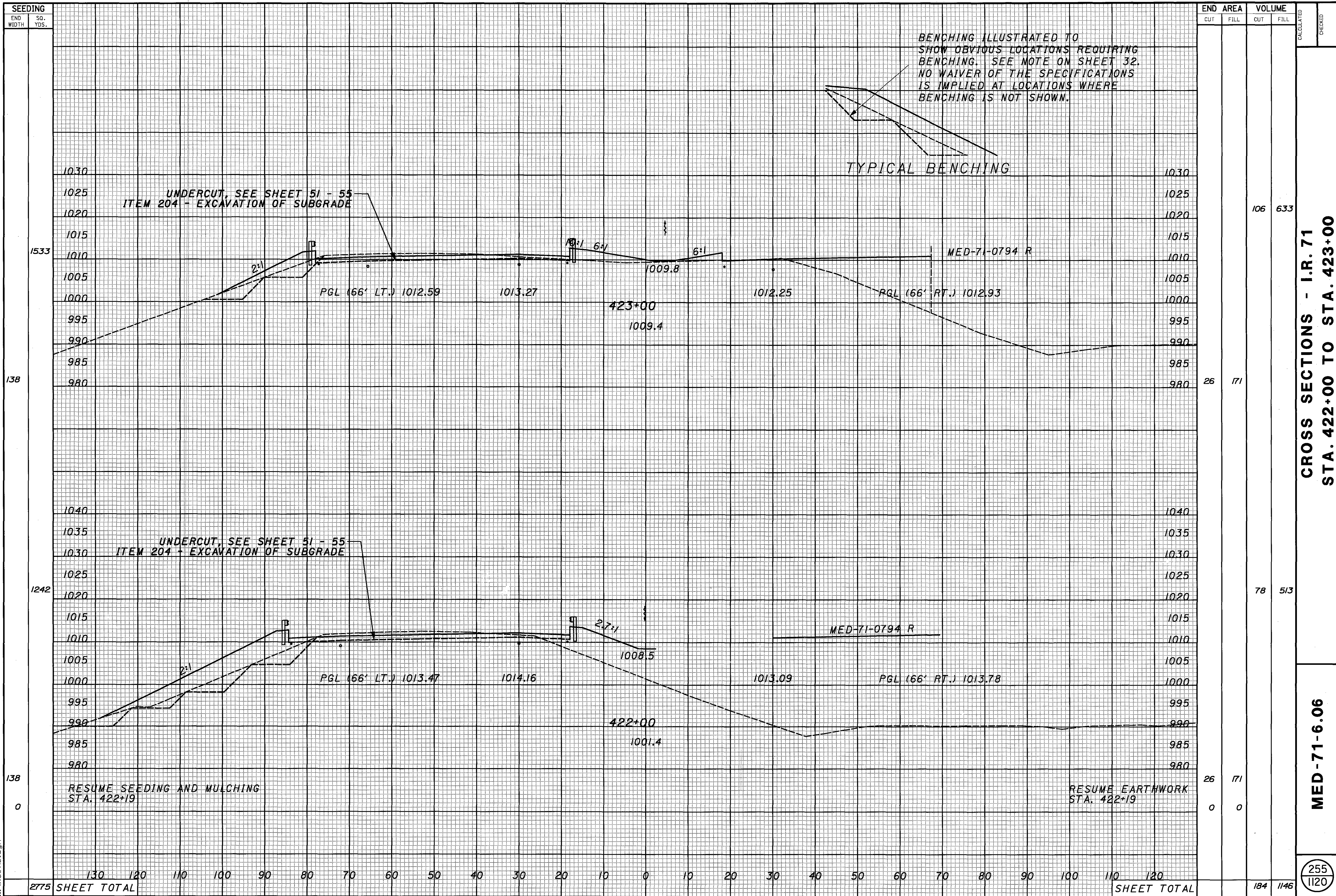
SHEET TOTAL

CROSS SECTIONS - I.R. 71
STA. 420+00 TO STA. 421+00

MED-71-6.06

254
1120

...Xs-7lb.dgn



CROSS SECTIONS - I.R. 71
 STA. 422+00 TO STA. 423+00

MED-71-6.06

255
 1120

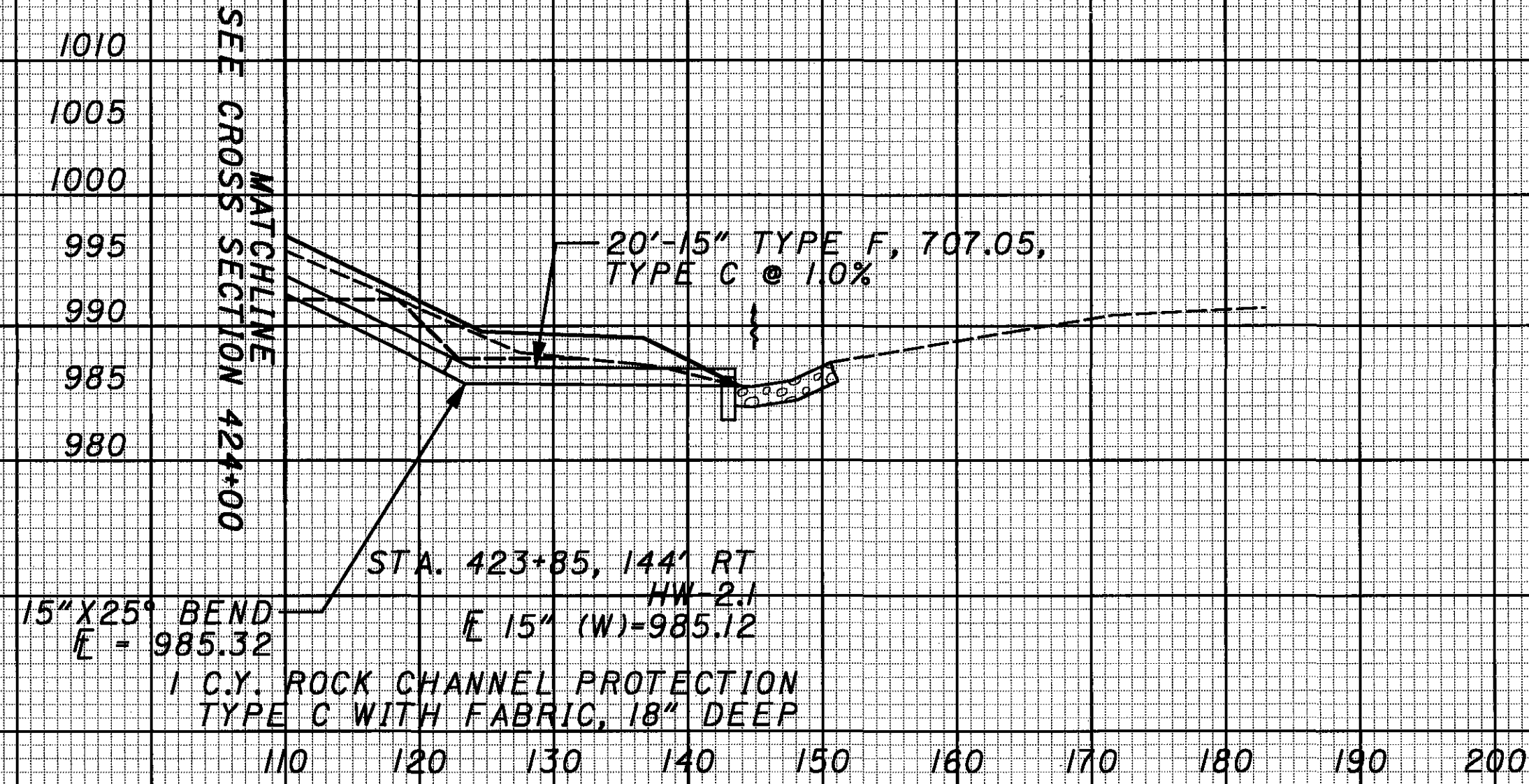
...Xs-71b.dgn

SEEDING
END WIDTH SO. YDS.

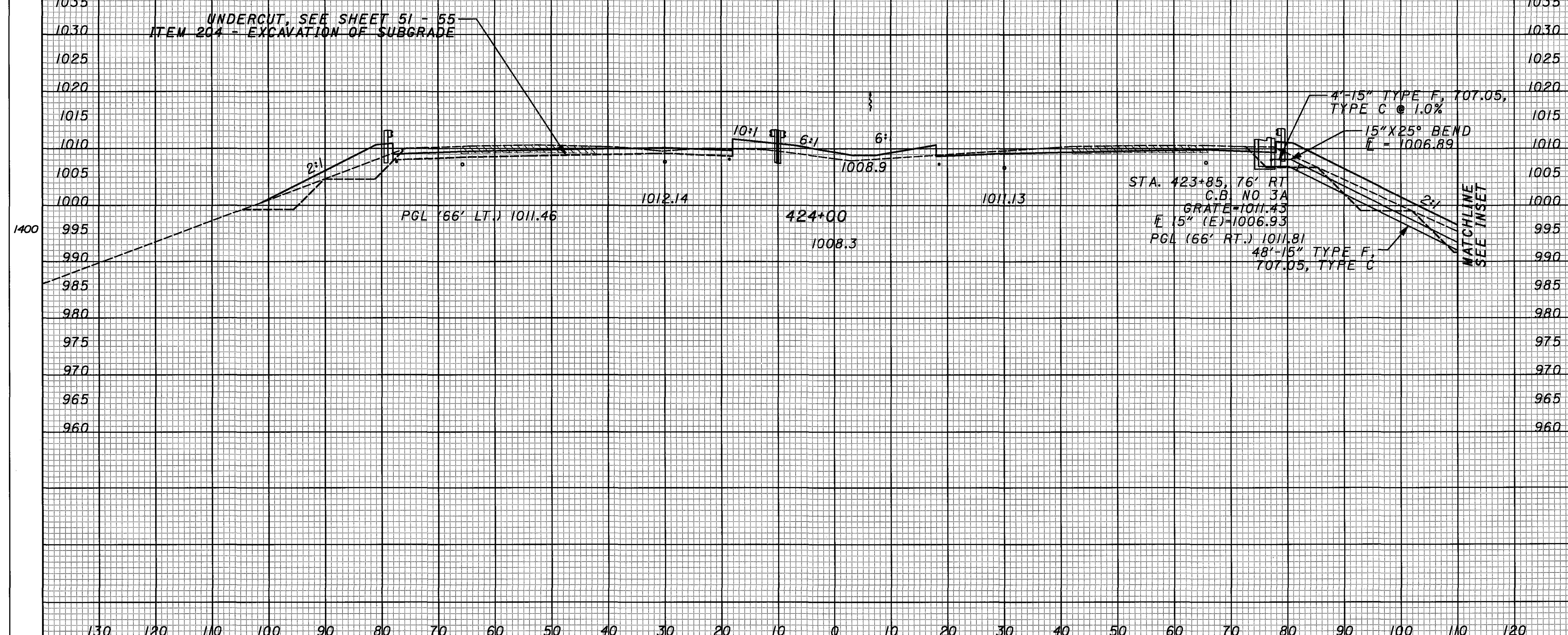
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING



UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION OF SUBGRADE



CROSS SECTIONS - I.R. 71
STA. 424+00

126 605

31 171

MED-71-6.06

256
1120

...xs-7lb.dgn

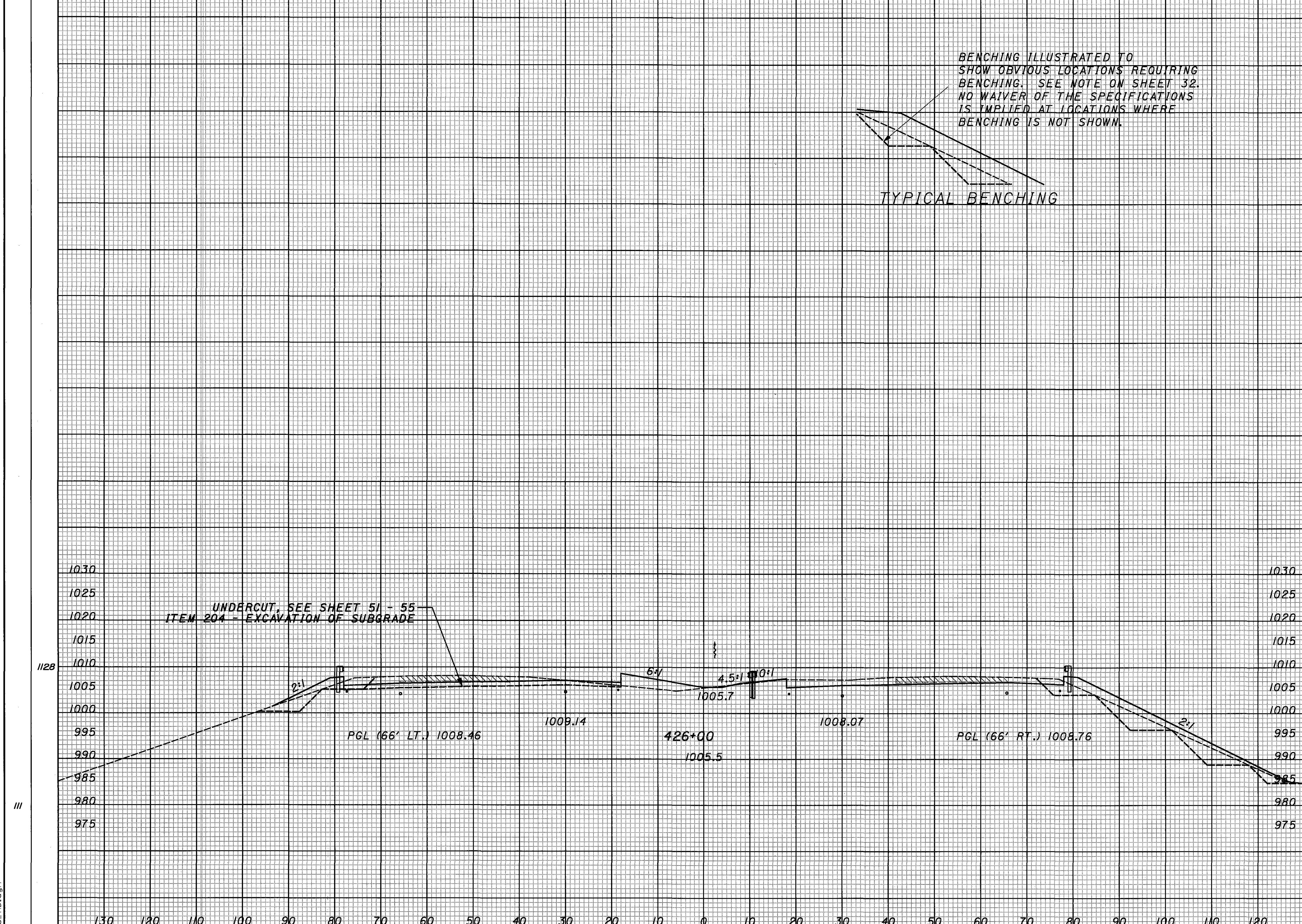
1400 SHEET TOTAL

SHEET TOTAL

126 605

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



1128

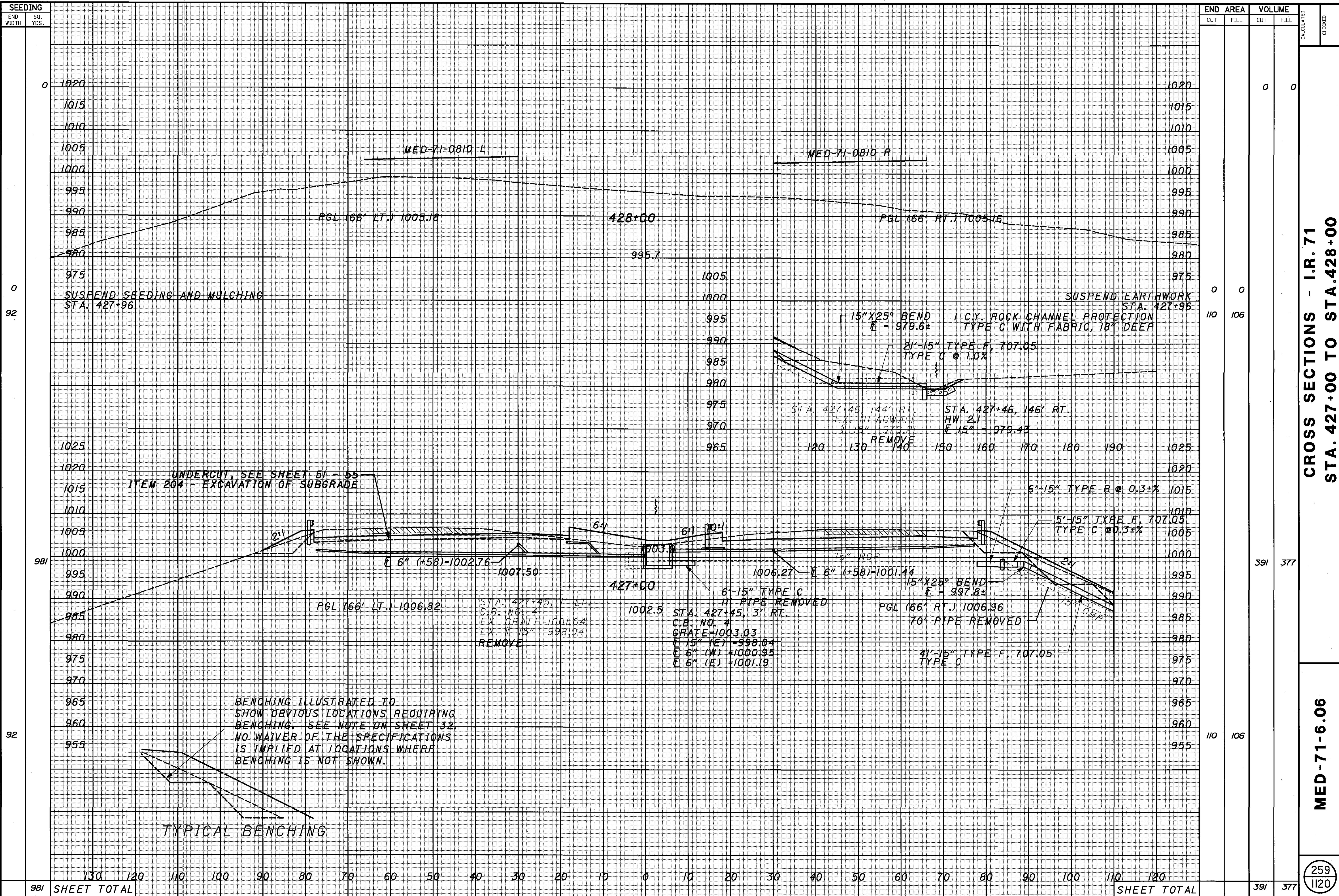
1128

CROSS SECTIONS - I.R. 71
STA. 426+00

MED-71-6.06

258
1120

... \xs-7lb.dgn



CROSS SECTIONS - I.R. 71
 STA. 427+00 TO STA. 428+00

MED-71-6.06

259
 1120

...xs-7lb.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

1000
995
990
985
980
975
970
965

MATCHLINE SEE CROSS SECTION 429+51.00

5'-15" TYPE F, 707.05, TYPE C

1 C.Y. ROCK CHANNEL PROTECTION TYPE C WITH FABRIC, 18" DEEP

5" X 25" BEND F = 978.35

STA. 429+41, 141' RT HW-2.1 F 15" (W)-978.10

110 120 130 140 150 160

1020
1015
1010
1005
1000
995
990
985
980
975
970
965
960
955

PGL (66' LT.) 1002.58

1003.27

429+51.00
1001.78

1001.78

STA. 429+41, 78' RT C.B. NO 3A GRATE-1002.01 F 15" (E)-997.51 PGL (66' RT.) 1002.46

52'-15" TYPE F, 707.05, TYPE C

MATCHLINE SEE INSET

262 77

115

194 21

1020
1015
1010
1005
1000
995
990
985
980
975
970

MED-71-0810 L

MED-71-0810 R

PGL (66' LT.) 1003.46

429+00
990.5

PGL (66' RT.) 1003.36

266 28

115

194 21

RESUME SEEDING AND MULCHING STA. 429+14

RESUME EARTHWORK STA. 429+14

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
967 SHEET TOTAL

SHEET TOTAL

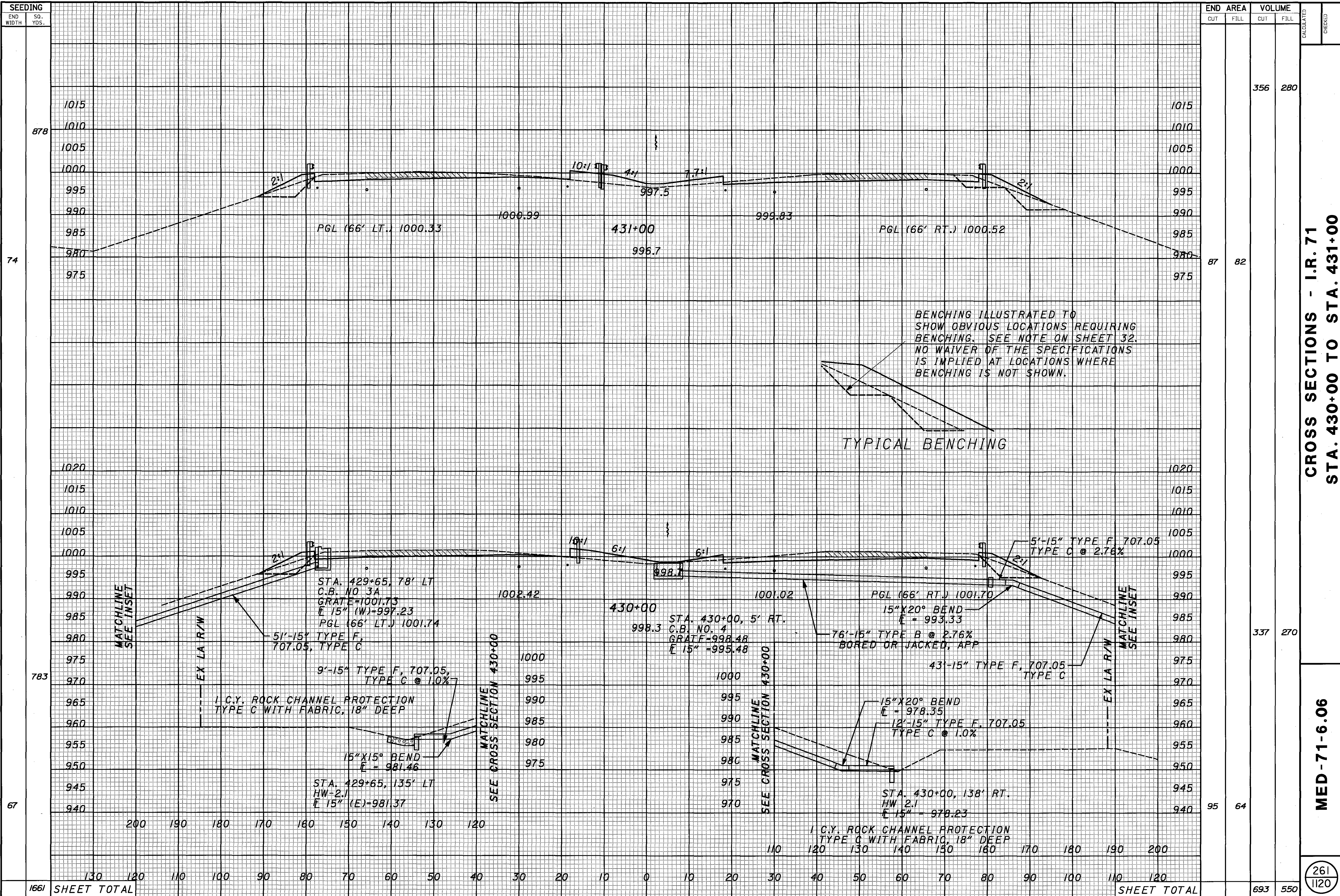
528 105

CROSS SECTIONS - I.R. 71
STA. 429+00 TO STA. 429+51

MED-71-6.06

260
1120

\\s-71b.dgn

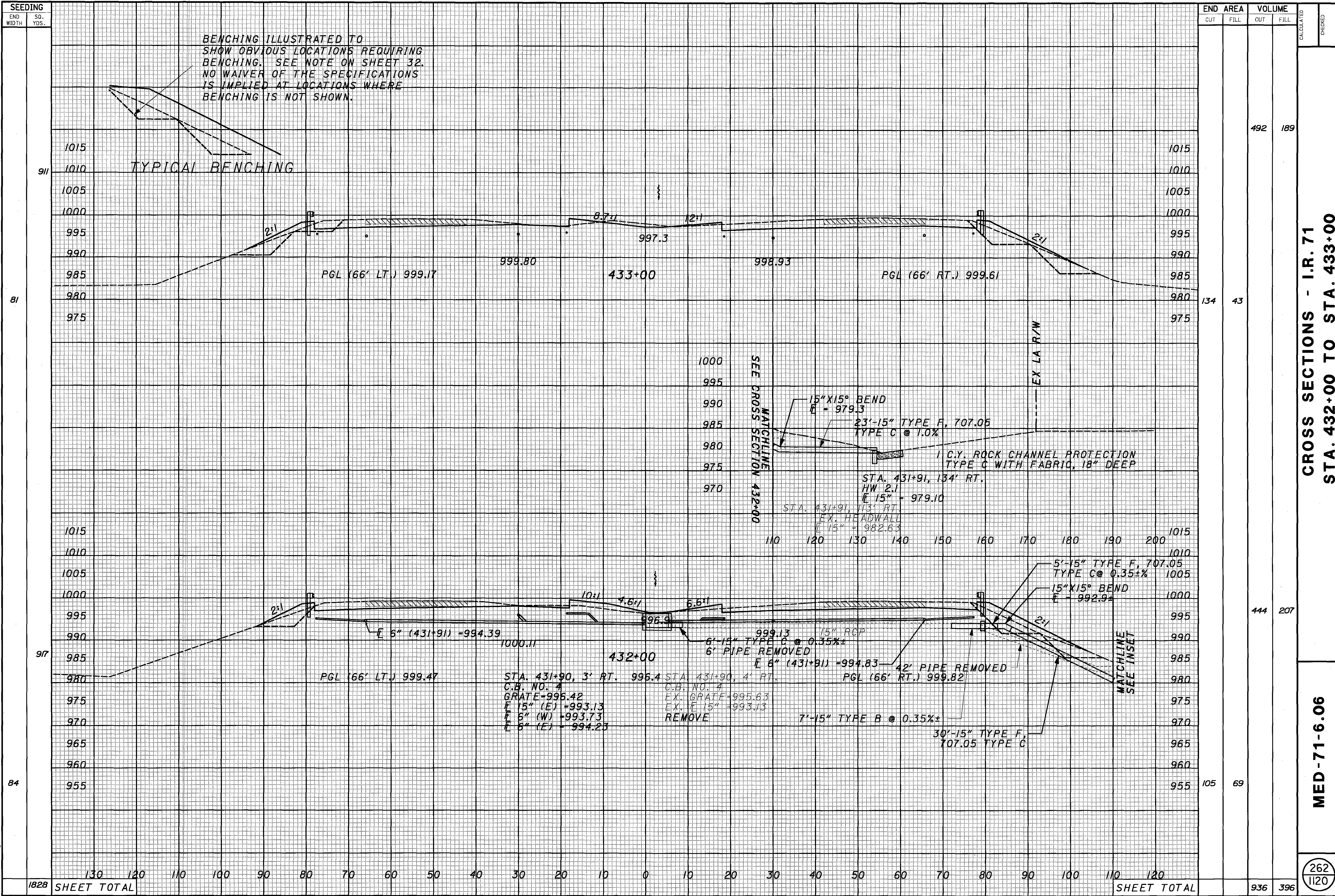


CROSS SECTIONS - I.R. 71
 STA. 430+00 TO STA. 431+00

MED-71-6.06

261
 120

...xs-7b.dgn



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
911			492	189
81	134	43		
917			444	207
84	105	69		
1828	SHEET TOTAL		936	396

CALCULATED
 CHECKED
CROSS SECTIONS - I.R. 71
STA. 432+00 TO STA. 433+00
MED-71-6.06
 262
 1120

..\x.s.71b.dgn

SEEDING
END WIDTH SO. YDS.

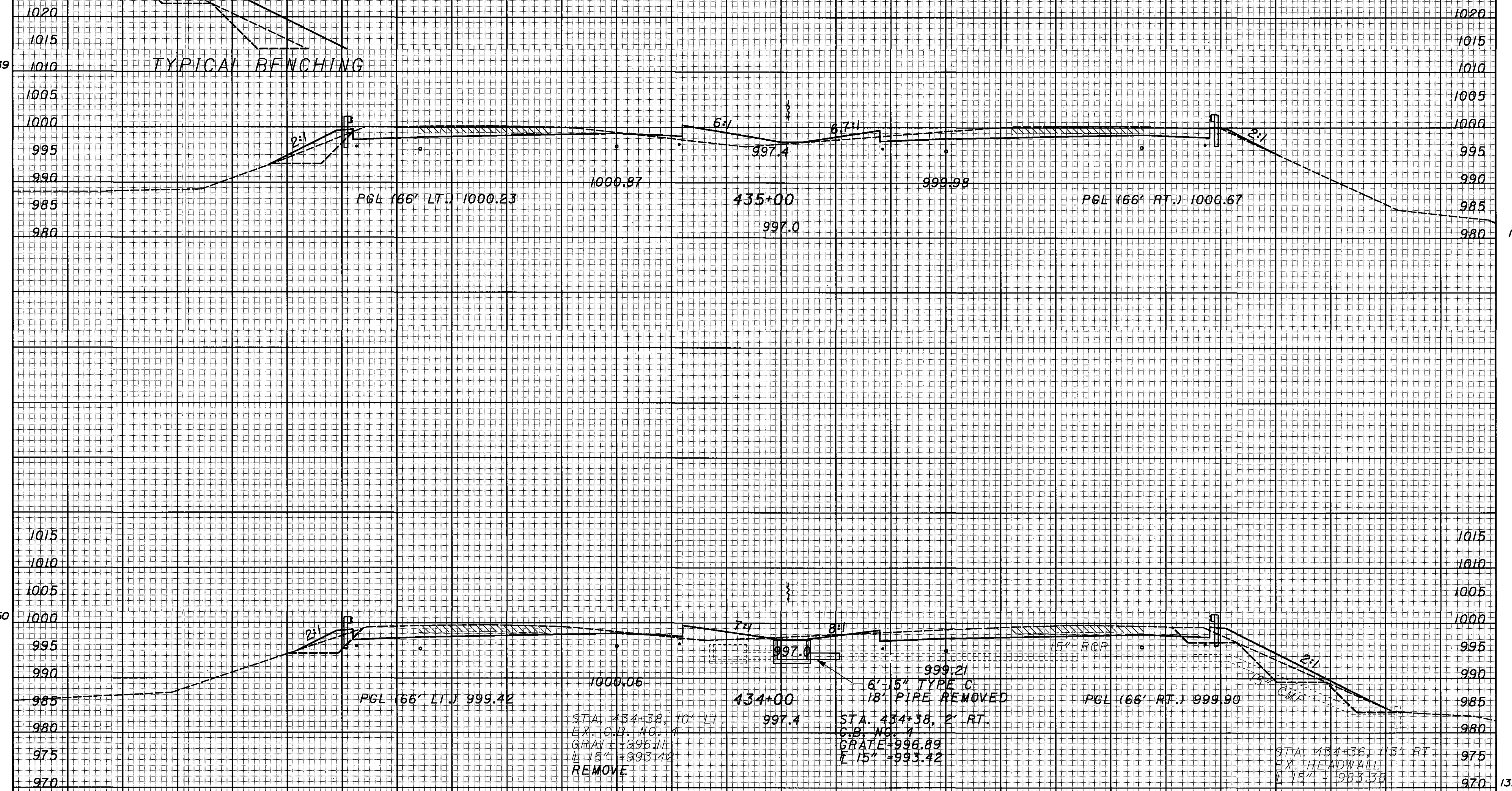
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

839
70

850
83



III	61	454	221
-----	----	-----	-----

132	59	449	223
-----	----	-----	-----

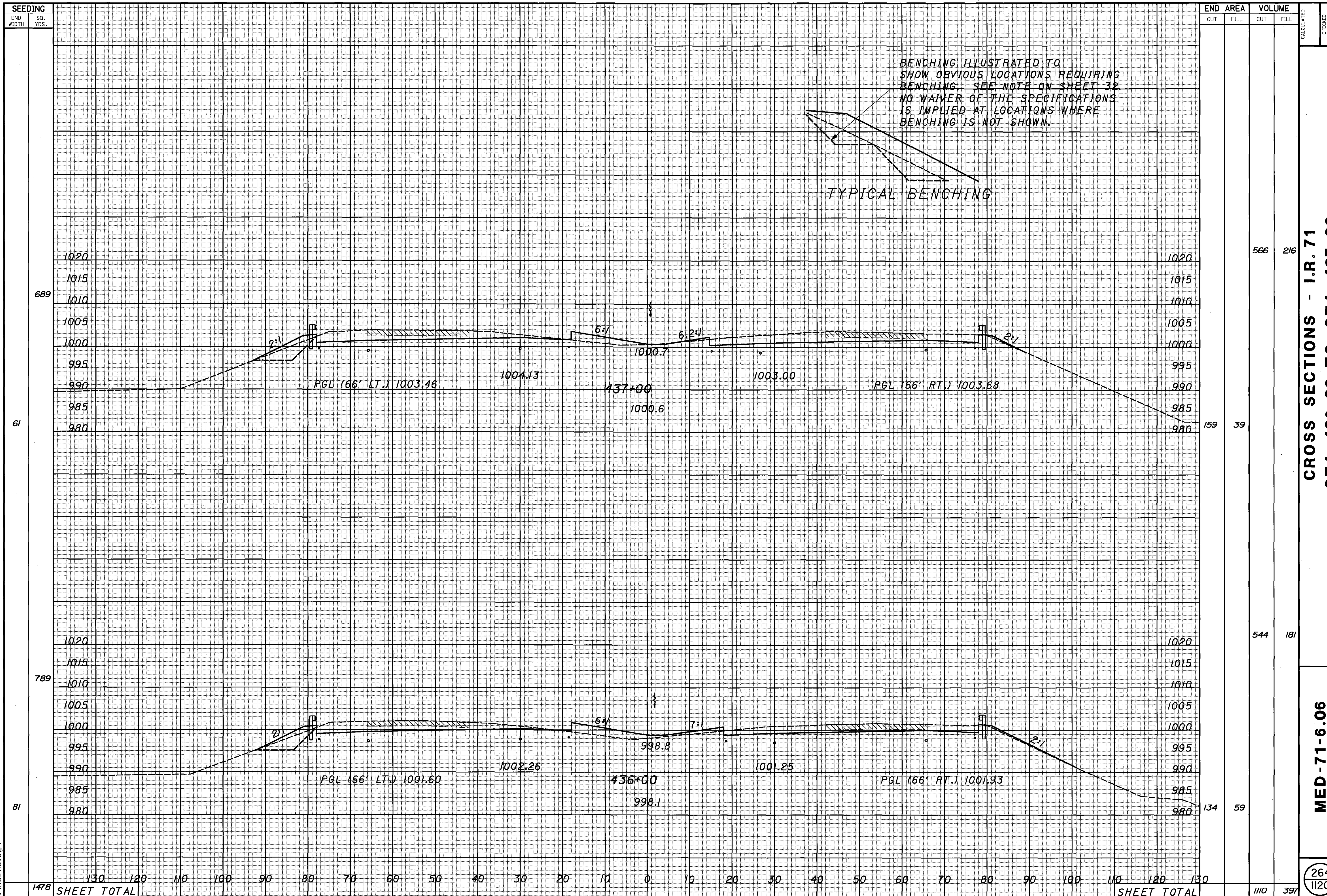
CROSS SECTIONS - I.R. 71
STA. 434+00 TO STA. 435+00

MED-71-6.06

263
1120

...x.s.71b.dgn

1689 SHEET TOTAL 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 SHEET TOTAL 903 444



SEEDING	
END WIDTH	SO. YDS.
689	
61	
789	
81	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		566	216
		159	39
		544	181
		134	59
		110	397

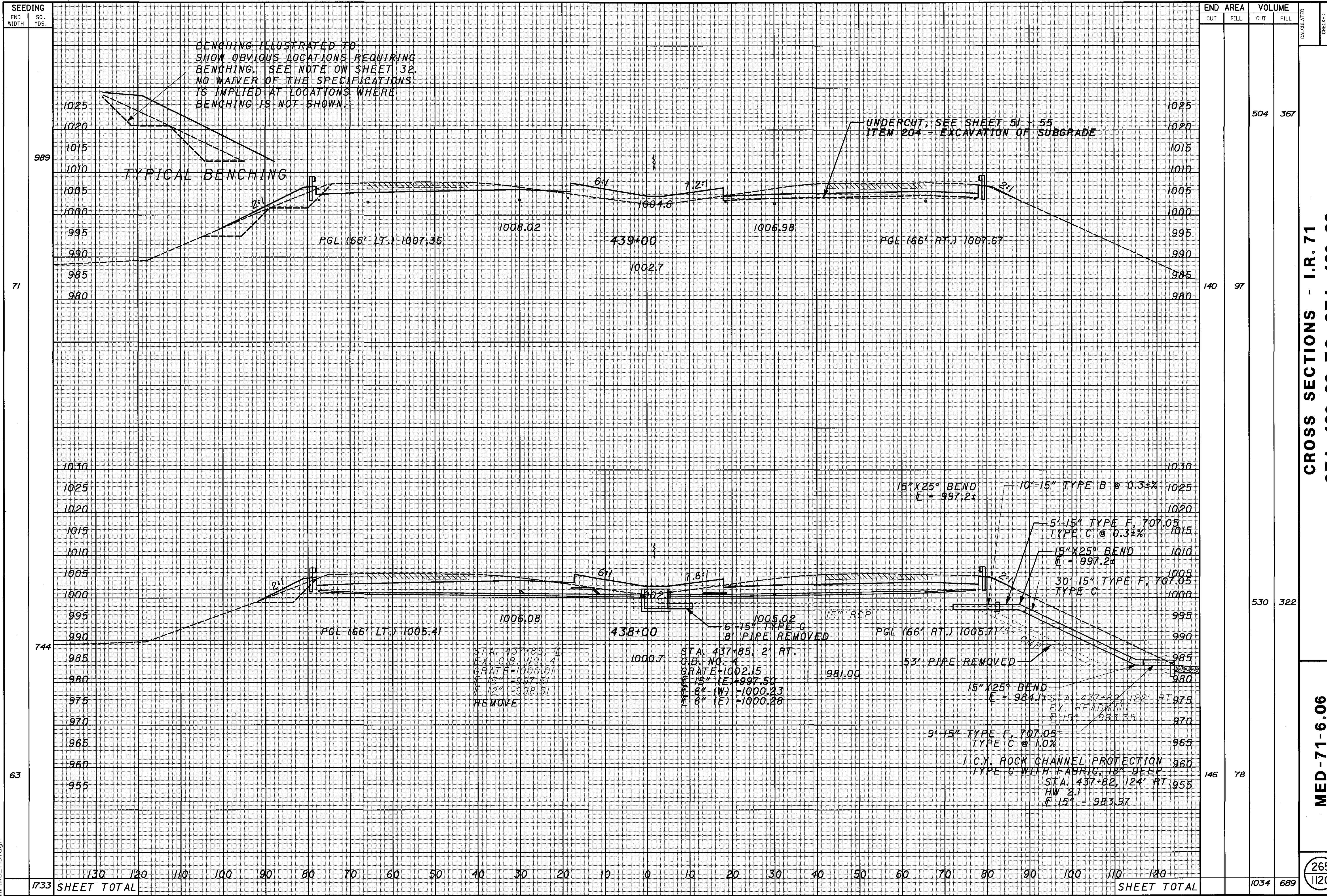
CROSS SECTIONS - I.R. 71
STA. 436+00 TO STA. 437+00

MED-71-6.06

264
1120

...\\xs-71b.dgn

1478 SHEET TOTAL 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 SHEET TOTAL



BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

UNDERCUT, SEE SHEET 51 + 55
ITEM 204 - EXCAVATION OF SUBGRADE

PGL (66' LT.) 1007.36

439+00

PGL (66' RT.) 1007.67

PGL (66' LT.) 1005.41

438+00

PGL (66' RT.) 1005.71

STA. 437+85, C.
A.X. C.B. NO. 4
GRATE=1000.01
E 15" = 997.51
E 12" = 998.51
REMOVE

STA. 437+85, 2' RT.
C.B. NO. 4
GRATE=1002.15
E 15" (E) = 997.50
E 6" (W) = 1000.23
E 6" (E) = 1000.28

15" X 25" BEND
E = 984.1 ±

9'-15" TYPE F, 707.05
TYPE C @ 1.0%

1 C.Y. ROCK CHANNEL PROTECTION
TYPE C WITH FABRIC, 18" DEEP
STA. 437+82, 124' RT.
HW 2.1
E 15" = 983.97

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
140	97	504	367	
146	78	530	322	
1733	SHEET TOTAL	1034	689	

CROSS SECTIONS - I.R. 71
STA. 438+00 TO STA. 439+00

MED-71-6.06

265
1120

...xs-7lb.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION OF SUBGRADE

TYPICAL BENCHING

MATCHLINE
SEE INSET

MATCHLINE
SEE CROSS SECTION 441+00

STA. 441+28, 131' RT.
H.W. 11
E 72' - 981.59

STA. 441+02, 153' RT.
H.W. 11
E 72' - 982.67

EX LA R/W

110 120 130 140 150 160 170 180 190 200

MATCHLINE
SEE CROSS SECTION 440+00

21'-15" TYPE F, 707.05
TYPE C @ 1.0%

STA. 440+00, 145' RT.
H.W. 2.1
E 15" - 982.38

1 C.Y. ROCK CHANNEL PROTECTION
TYPE C WITH FABRIC, 18" DEEP

15" X 25" BEND
E = 982.59

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION OF SUBGRADE

5'-15" TYPE F, 707.05
TYPE C @ 0.35%

78'-15" TYPE B @ 0.35%
BORED OR JACKED, APP

15" X 25" BEND
E = 1002.47

PGL (66' RT.) 1009.63

44'-15" TYPE F, 707.05
TYPE C

EX LA R/W

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

2083 SHEET TOTAL

SHEET TOTAL

486 541

491 398

977 939

CROSS SECTIONS - I.R. 71
STA. 440+00 TO STA. 441+00

MED-71-6.06

266
1120

...xs_7lb.dgn

SEEDING
END WIDTH SO. YDS.

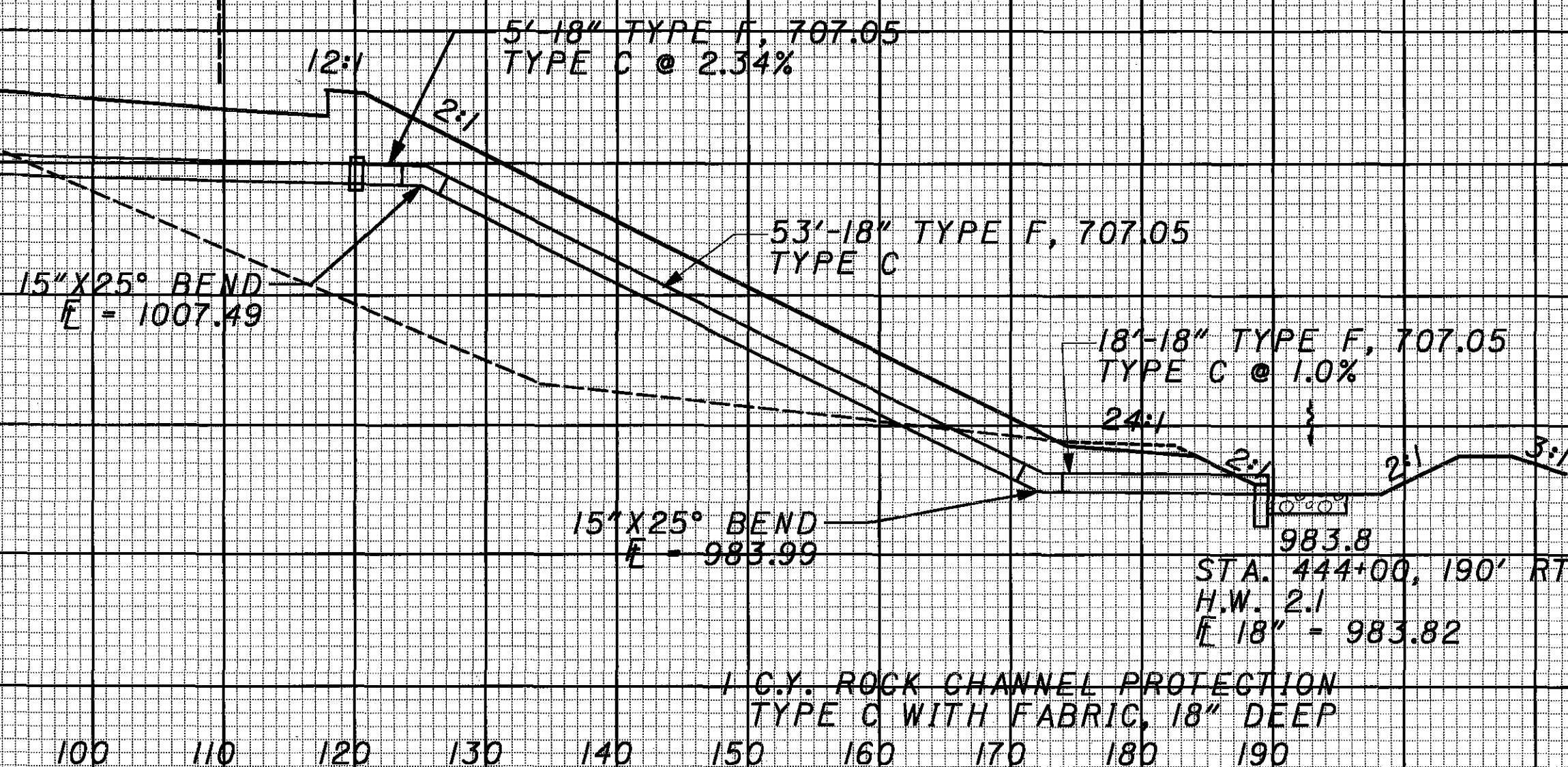
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

1030
1025
1020
1015
1010
1005
1000
995
990
985
980

MATCHLINE RAMP EN
STA. STA. 120+00.69
SEE STA. 444+00



90 100 110 120 130 140 150 160 170 180 190

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION OF SUBGRADE
AHEAD

BACK

MATCHLINE RAMP EN
STA. STA. 120+00.69
SEE INSET

1045
1040
1035
1030
1025
1020
1015
1010
1005
1000
995
990
985
980
975
204
94
AHEAD
STA. 444+00
BACK

PGL (66' LT.) 1016.36

1017.04

444+00

1011.1

STA. 444+00, 2' RT.
C.B. NO. 4
GRATE=1013.32
E 18" =1010.32
E 6" (E) =1011.35
E 6" (W) =1011.35

1016.14
119'-18" TYPE B @ 2.34%
BORED OR JACKED, APP
PGL (66' RT.) 1016.84

AHEAD 124 959
STA. 444+00
BACK 119 143

487 3644

CROSS SECTIONS - I.R. 71
STA. 444+00

MED-71-6.06

268
1120

...x.s.7lb.dgn

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
2211 SHEET TOTAL

SHEET TOTAL

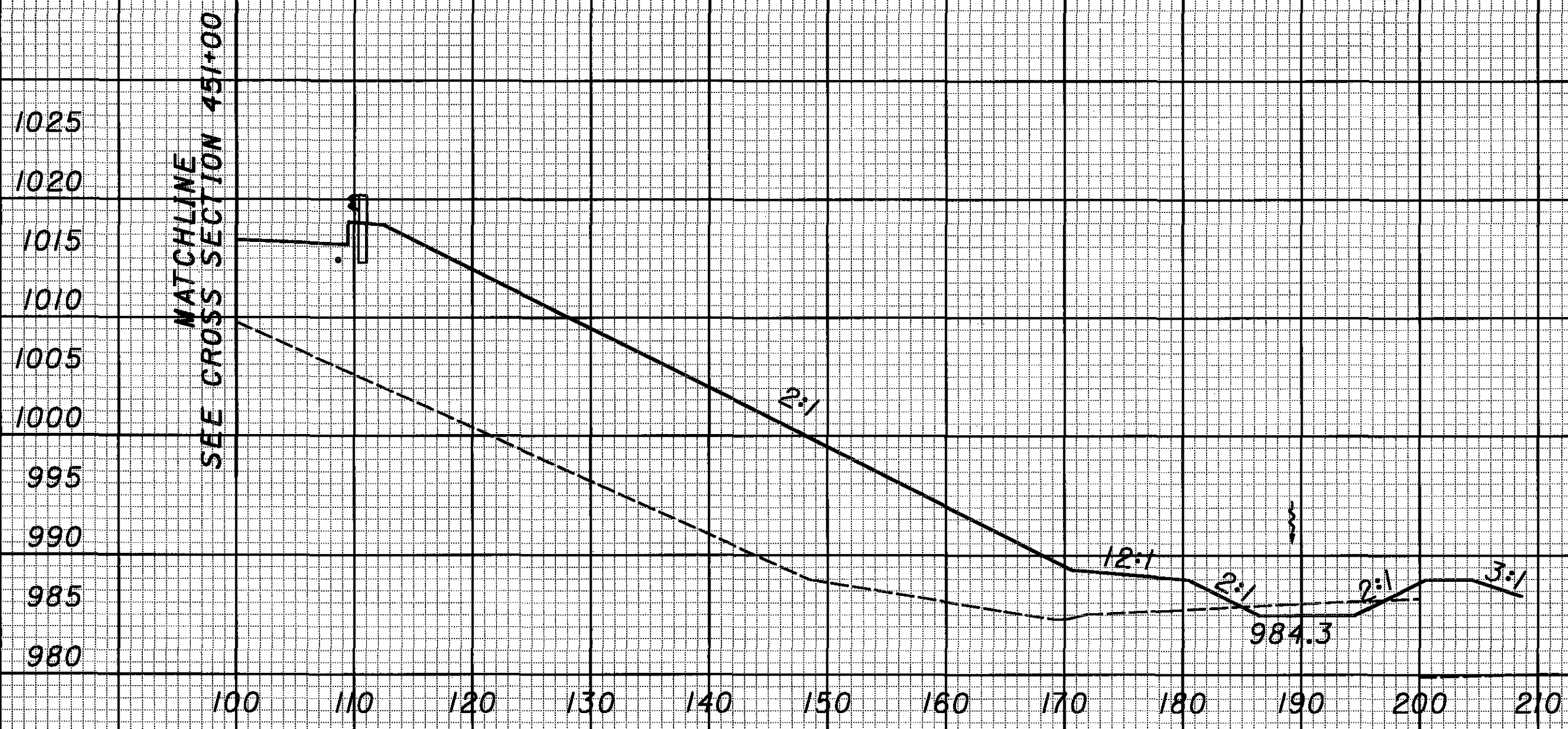
487 3644

SEEDING
END WIDTH SO. YDS.

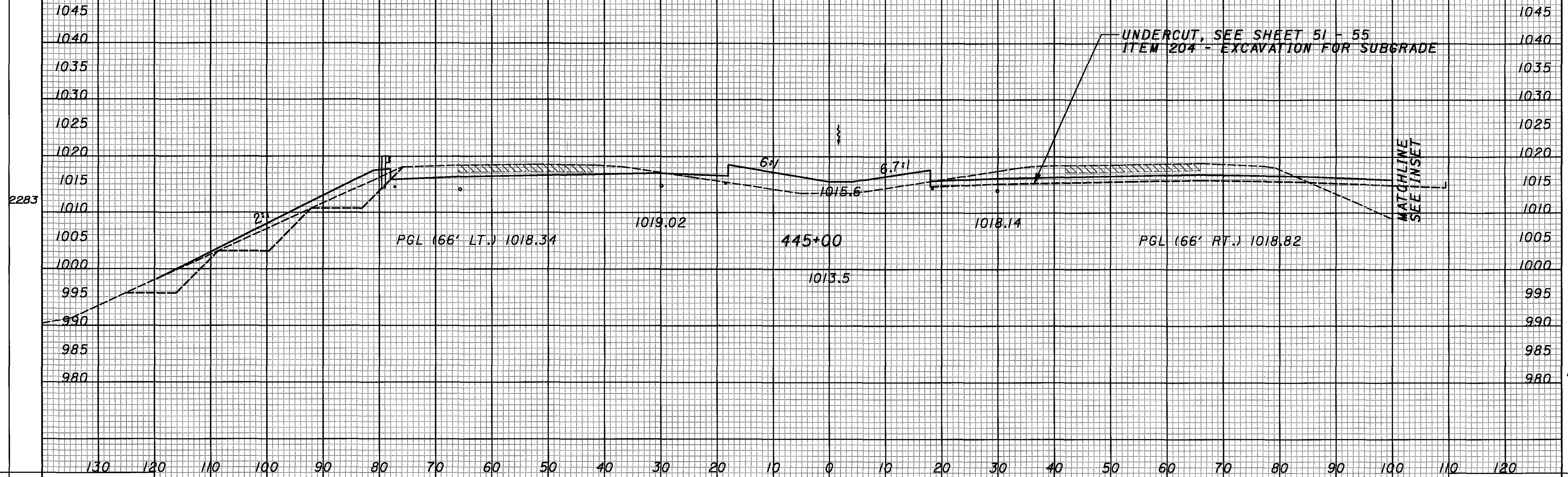
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING



UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION FOR SUBGRADE



576 3513

139 1009

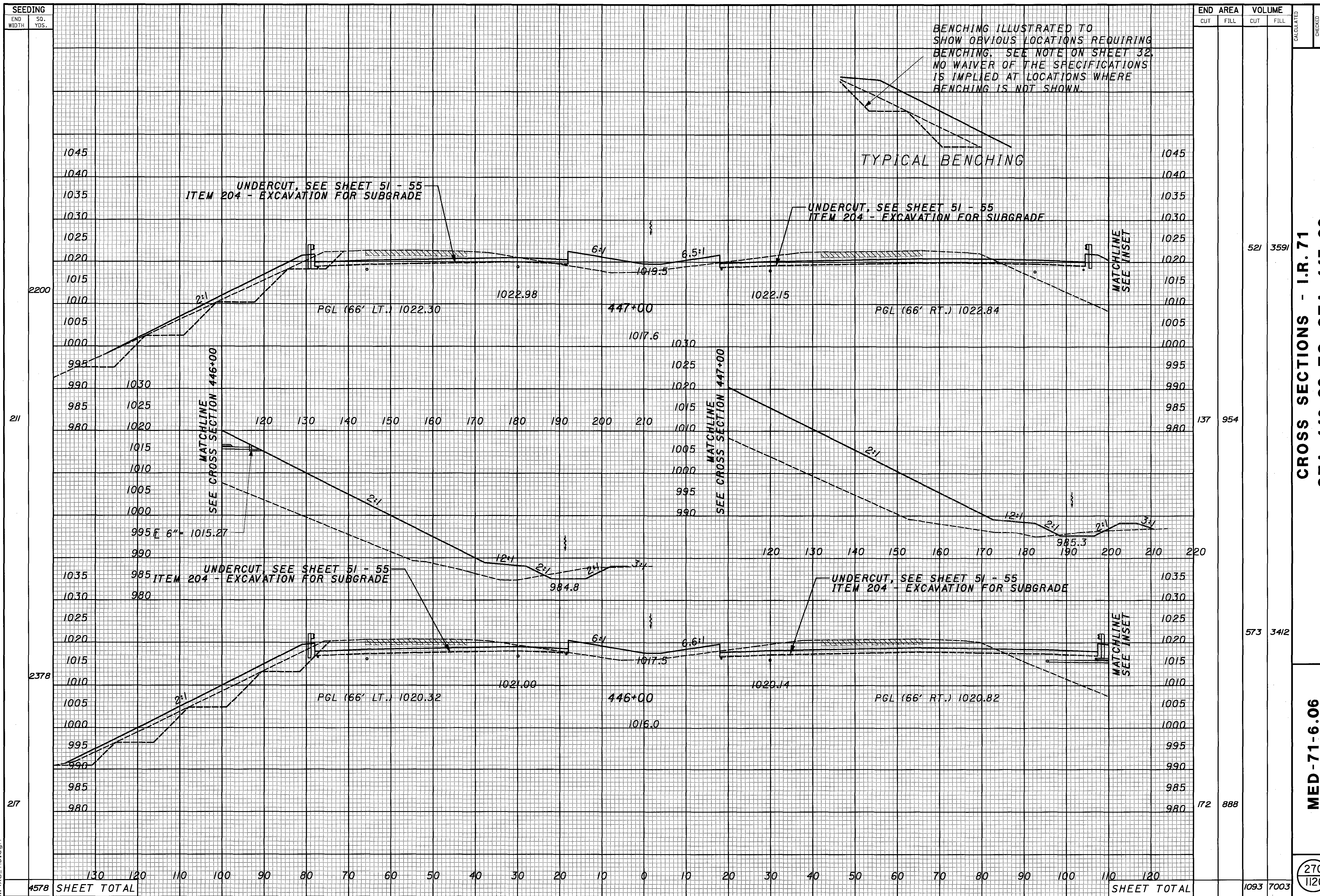
576 3513

CROSS SECTIONS - I.R. 71
STA. 445+00

MED-71-6.06

269
1120

...xs.7b.dgn



BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION FOR SUBGRADE

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION FOR SUBGRADE

PGL (66' LT.) 1022.30

PGL (66' RT.) 1022.84

MATCHLINE
SEE CROSS SECTION 446+00

MATCHLINE
SEE CROSS SECTION 447+00

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION FOR SUBGRADE

UNDERCUT, SEE SHEET 51 - 55
ITEM 204 - EXCAVATION FOR SUBGRADE

PGL (66' LT.) 1020.32

PGL (66' RT.) 1020.82

MATCHLINE
SEE INSET

MATCHLINE
SEE INSET

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
521	3591			
137	954			
573	3412			
172	888			
1093	7003			

CROSS SECTIONS - I.R. 71
STA. 446+00 TO STA. 447+00

MED-71-6.06

270
1120

4578 SHEET TOTAL

SHEET TOTAL

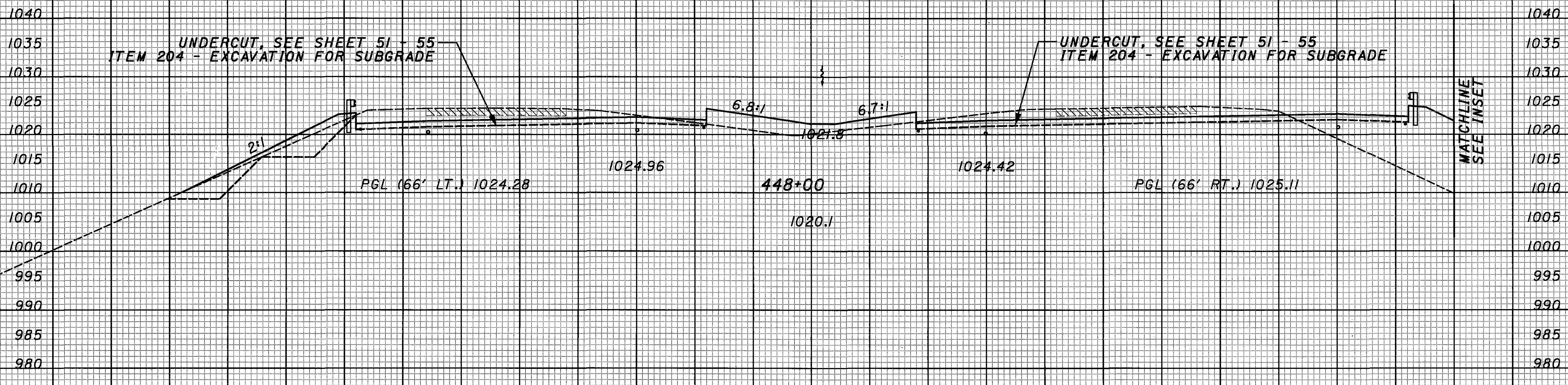
... \xss 71b.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

BENCHING ILLUSTRATED TO SHOW OBVIOUS LOCATIONS REQUIRING BENCHING. SEE NOTE ON SHEET 32. NO WAIVER OF THE SPECIFICATIONS IS IMPLIED AT LOCATIONS WHERE BENCHING IS NOT SHOWN.

TYPICAL BENCHING



629 3256

144 985

CROSS SECTIONS - I.R. 71
STA. 448+00.00

MED-71-6.06

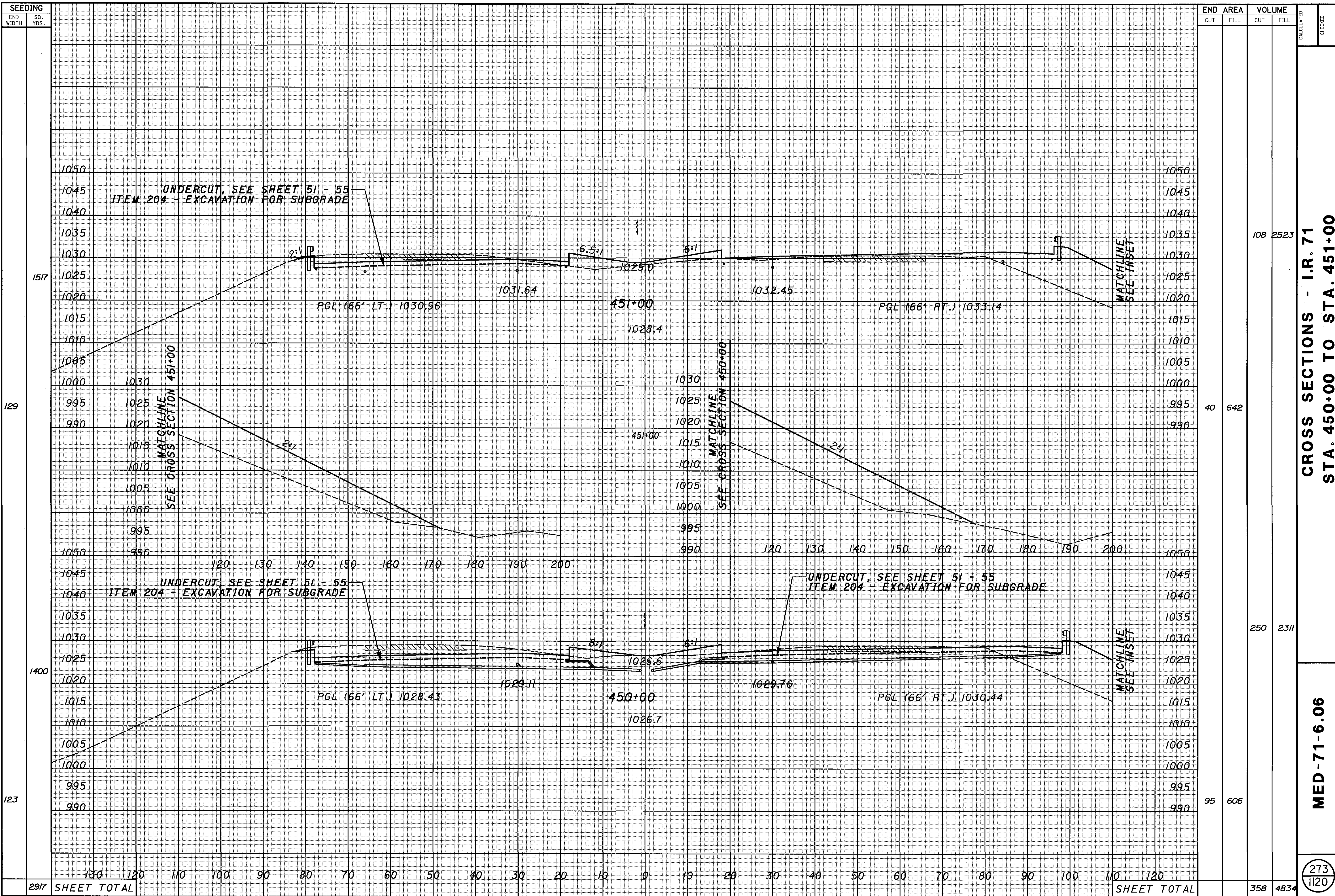
271
1120

1939 SHEET TOTAL

SHEET TOTAL

629 3256

...x.s.7lb.dgn



SEEDING	
END WIDTH	SG. YDS.

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		

297

SHEET TOTAL

SHEET TOTAL

CROSS SECTIONS - I.R. 71
STA. 450+00 TO STA. 451+00

MED-71-6.06

273
1120

108 2523

40 642

250 2311

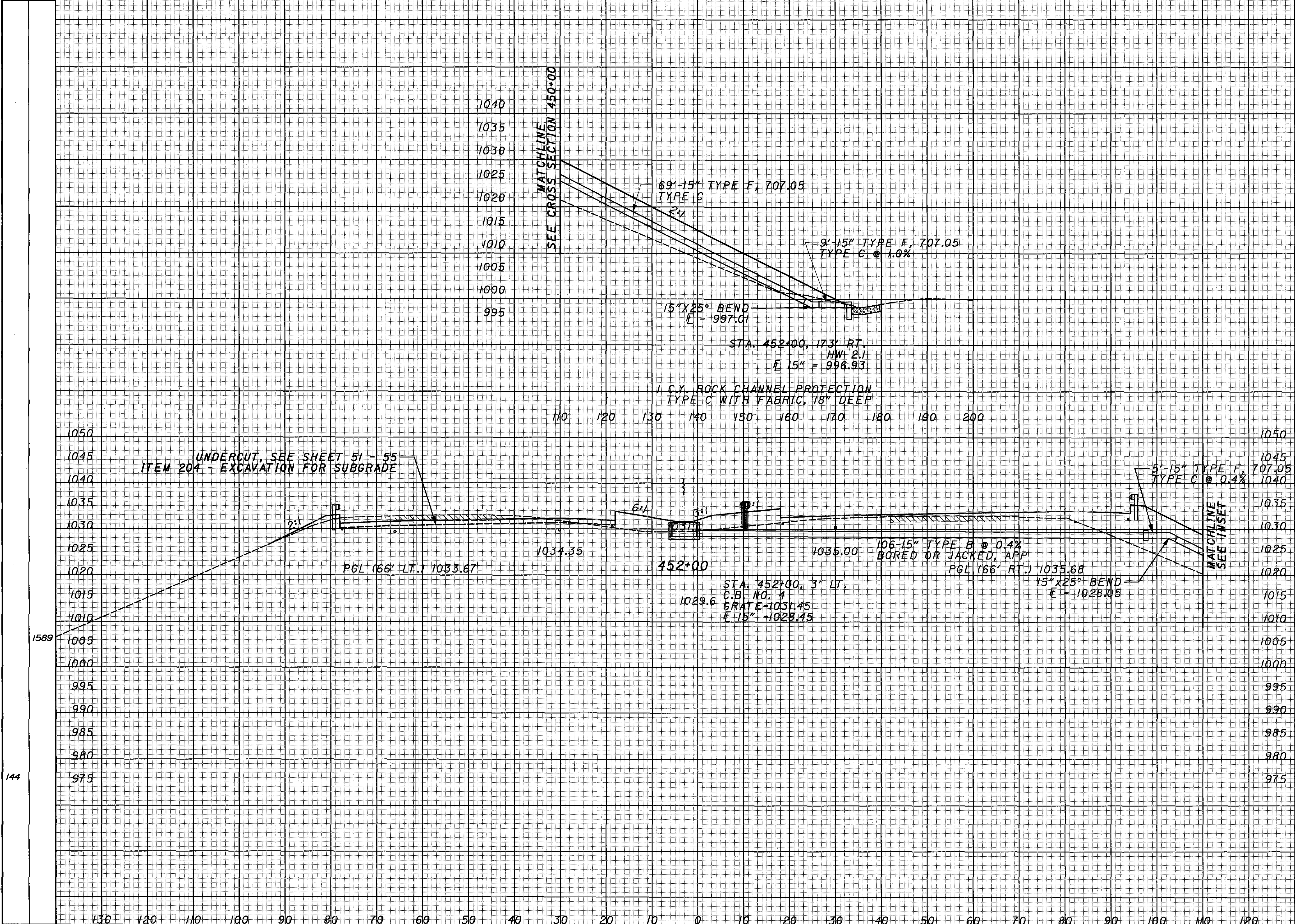
95 606

\\s-71b.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED
CHECKED



CROSS SECTIONS - I.R. 71
STA. 452+00.00

58 2715

18 721

MED-71-6.06

274
1120

1589 SHEET TOTAL

SHEET TOTAL

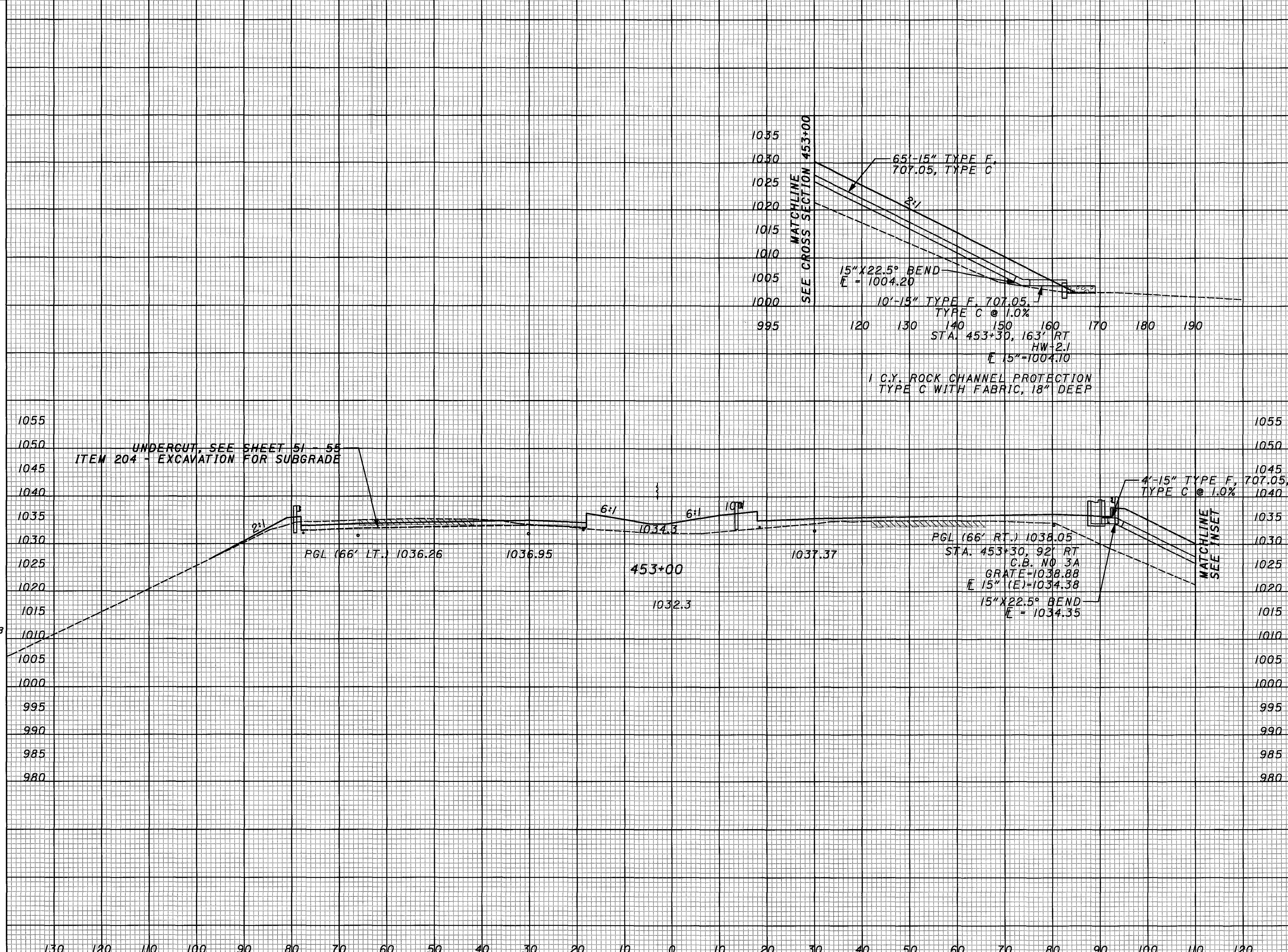
58 2715

...Xs-71b.dgn

SEEDING
END WIDTH SO.
YDS. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

1578	130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120	1578
142	SHEET TOTAL																										142



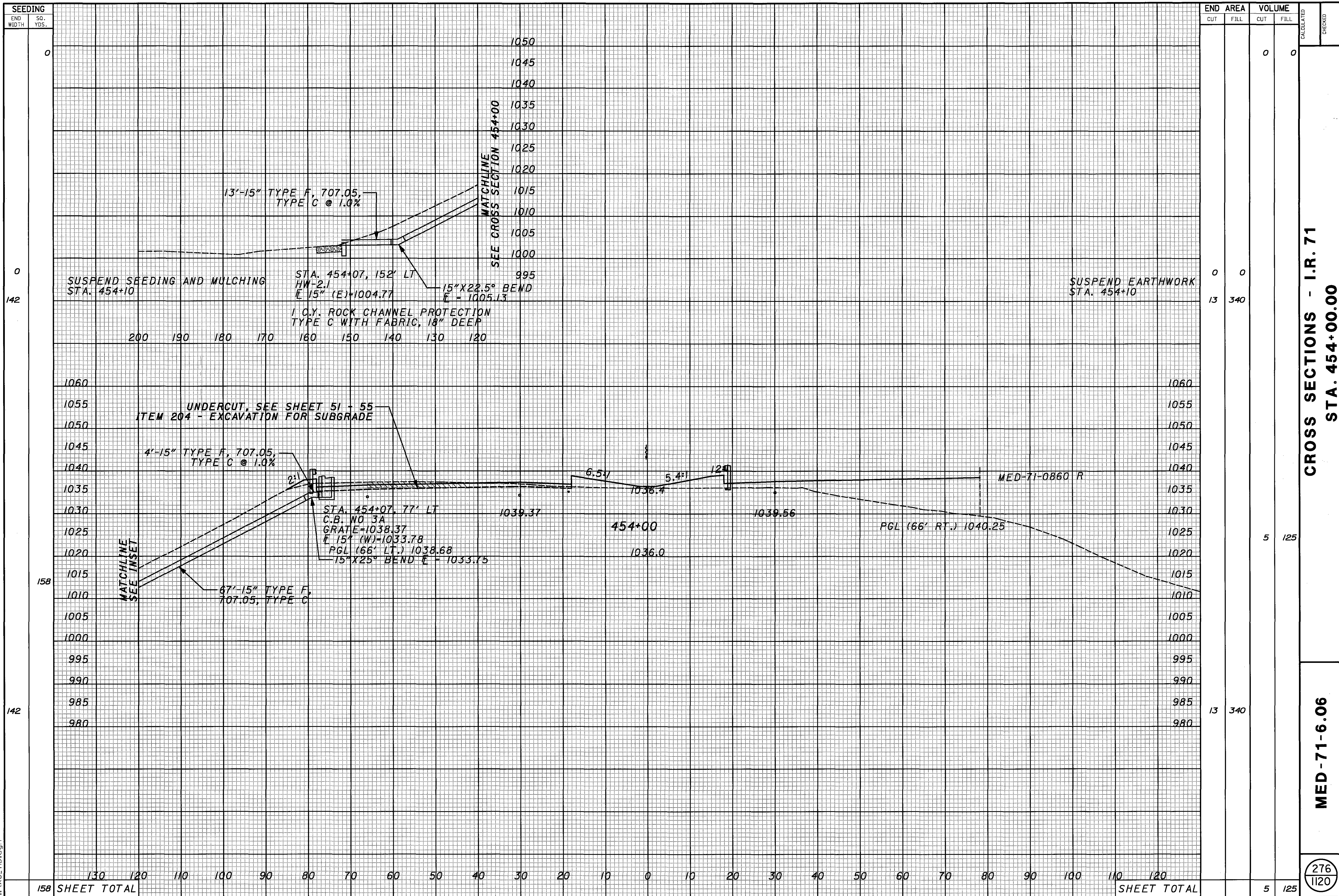
13	745	46	2009	13	745	46	2009
SHEET TOTAL				SHEET TOTAL			

CROSS SECTIONS - I.R. 71
STA. 453+00.00

MED-71-6.06

275
1120

...xs.7lb.dgn



SEEDING

END WIDTH	SO. YDS.
0	0
142	142
158	158
142	142

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
13	340	5	125
13	340	5	125

CROSS SECTIONS - I.R. 71
STA. 454+00.00

MED-71-6.06

276
1120

158 SHEET TOTAL

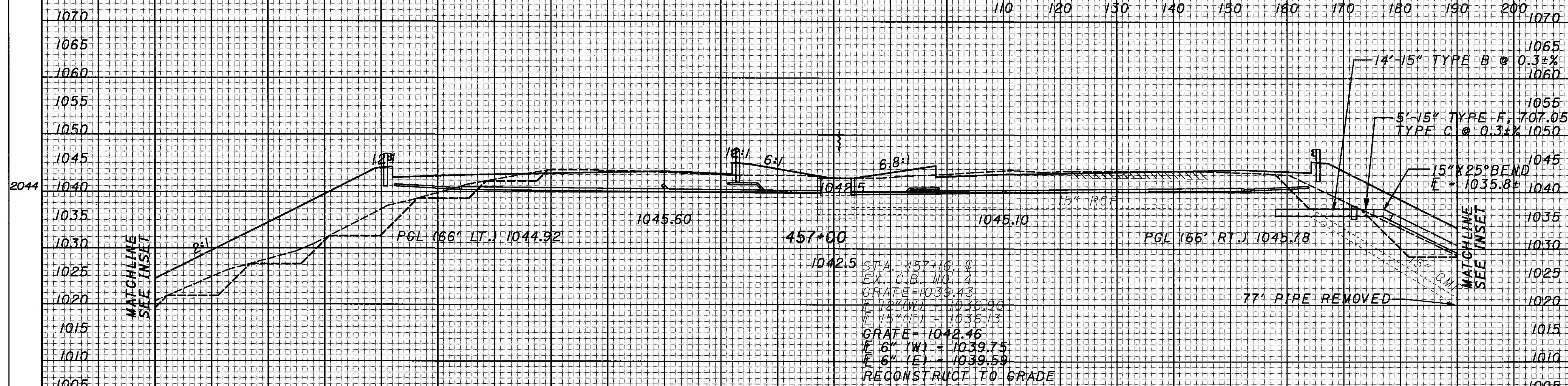
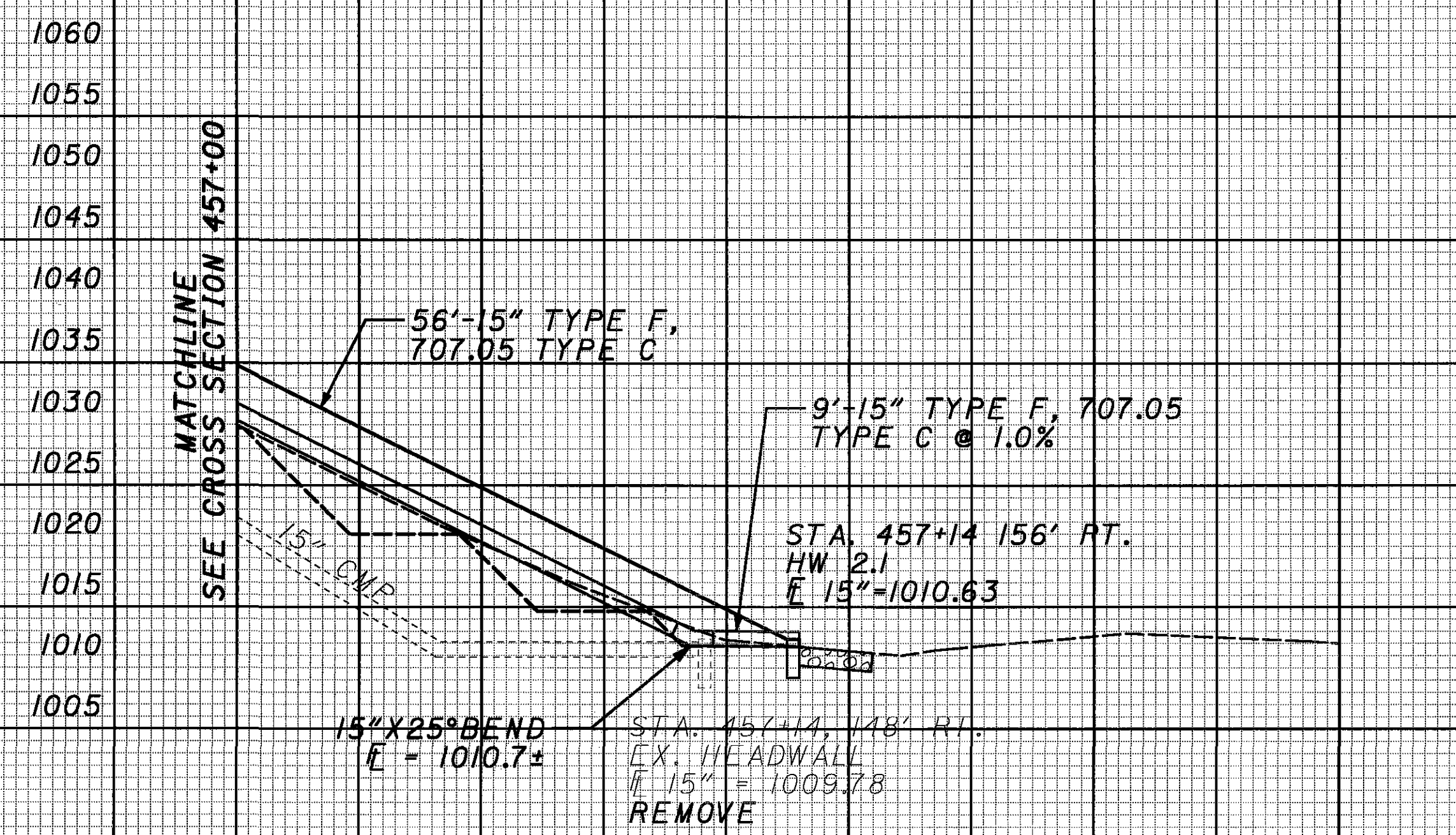
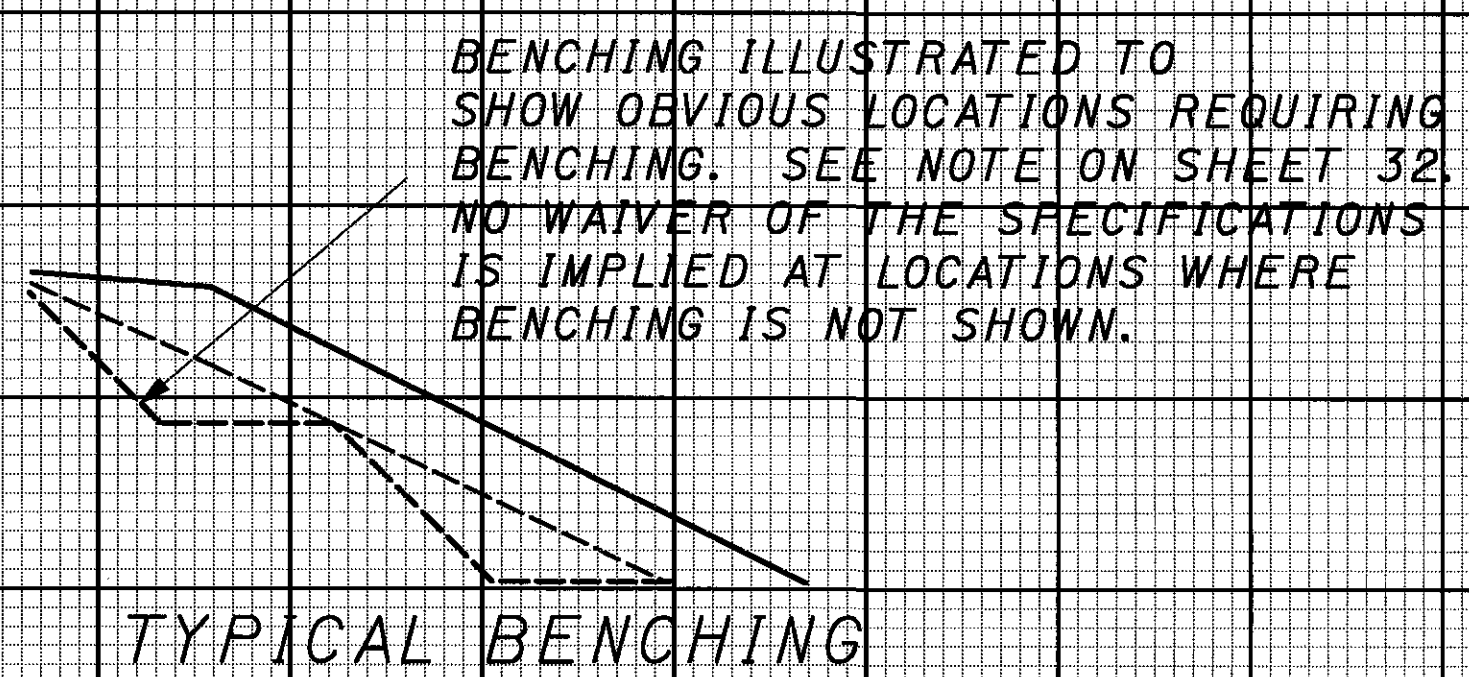
SHEET TOTAL

5 125

...xs-7lb.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



CROSS SECTIONS - I.R. 71
STA. 457+00

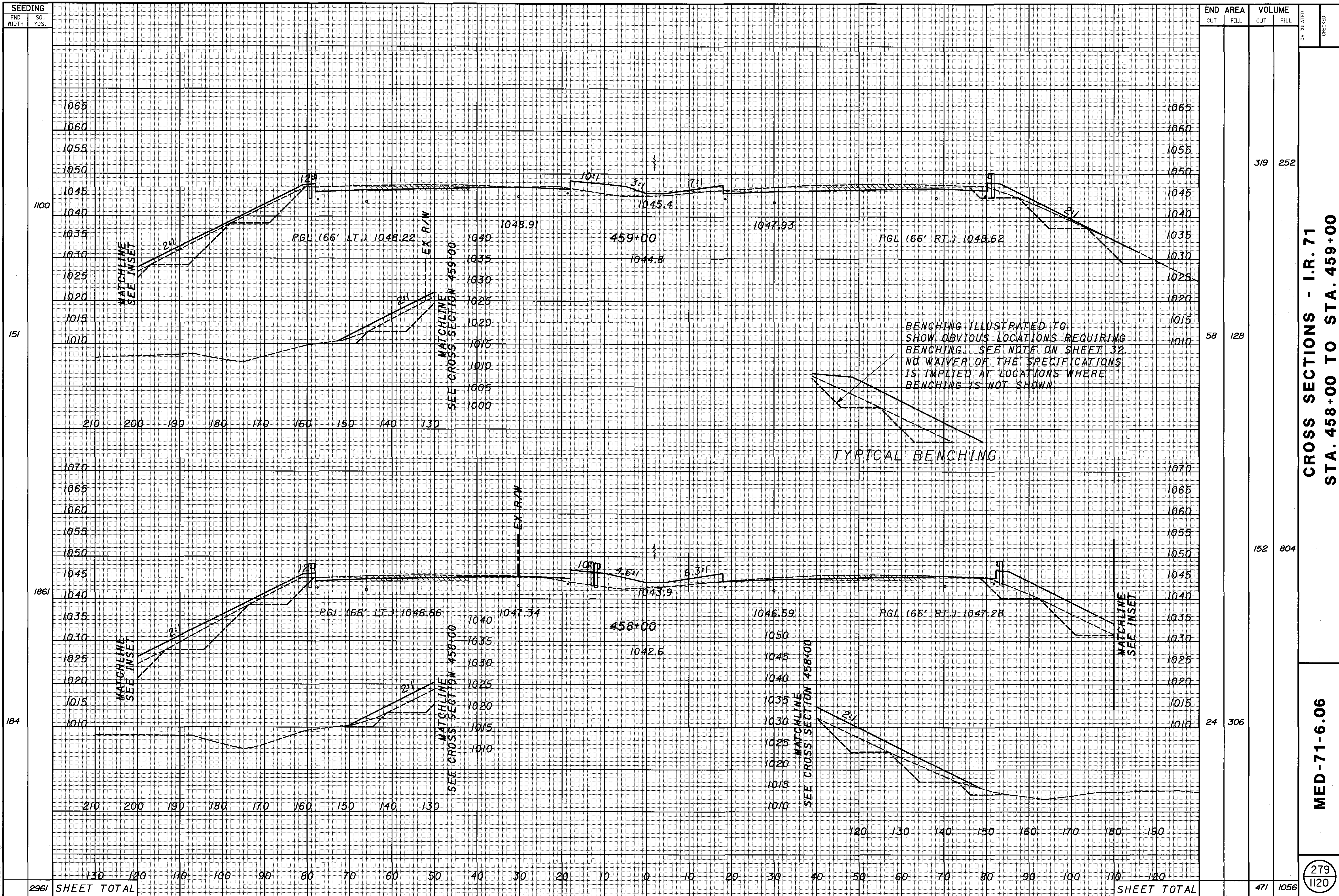
MED-71-6.06

278
1120

...xs-7b.dgn

2800 SHEET TOTAL

SHEET TOTAL



END AREA	VOLUME	
	CUT	FILL
	319	252
58	128	
152	804	
24	306	
471	1056	

CROSS SECTIONS - I.R. 71
 STA. 458+00 TO STA. 459+00

MED-71-6.06

279
 120

2961 SHEET TOTAL

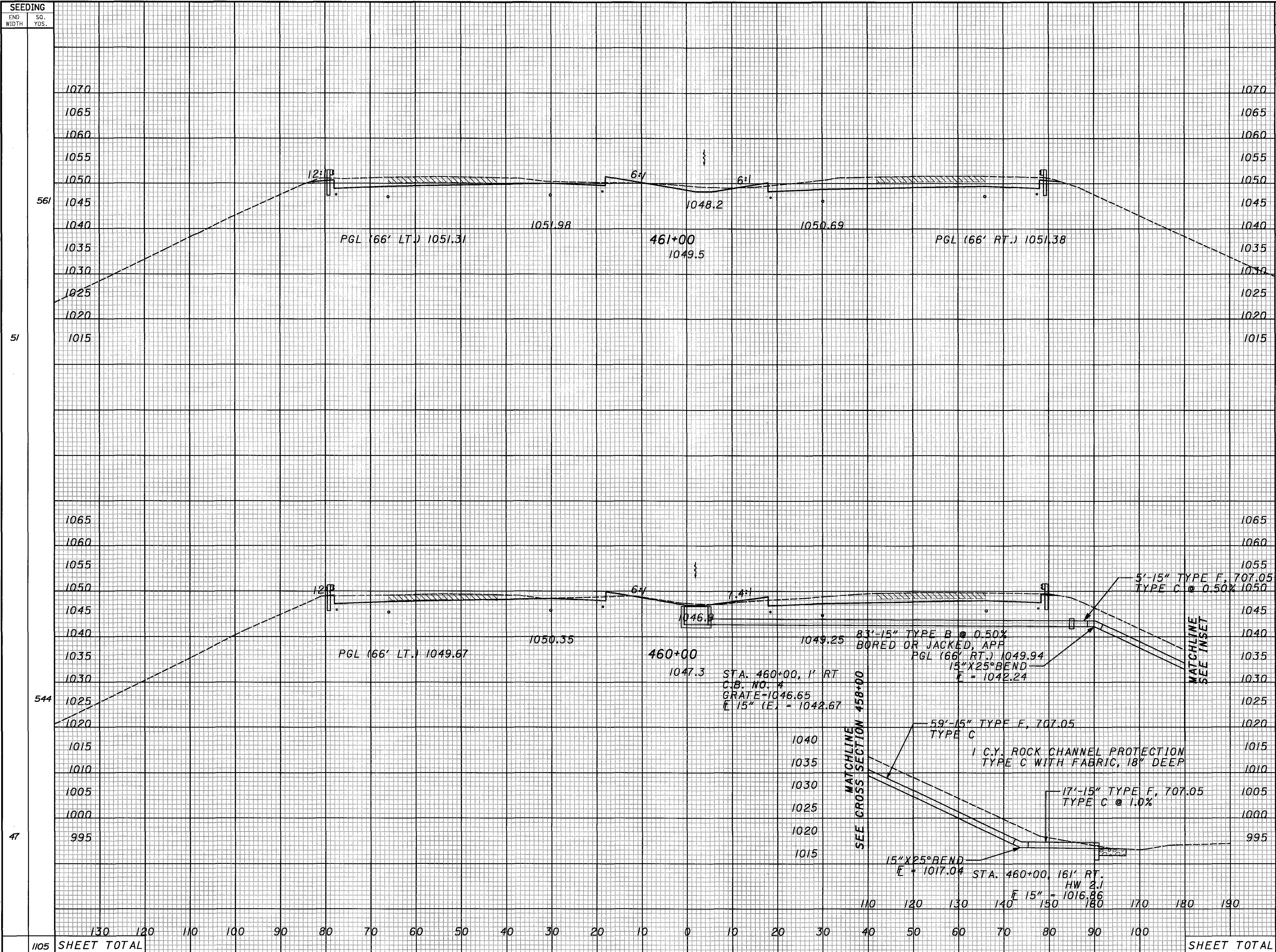
SHEET TOTAL

\\s-71b.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED
CHECKED



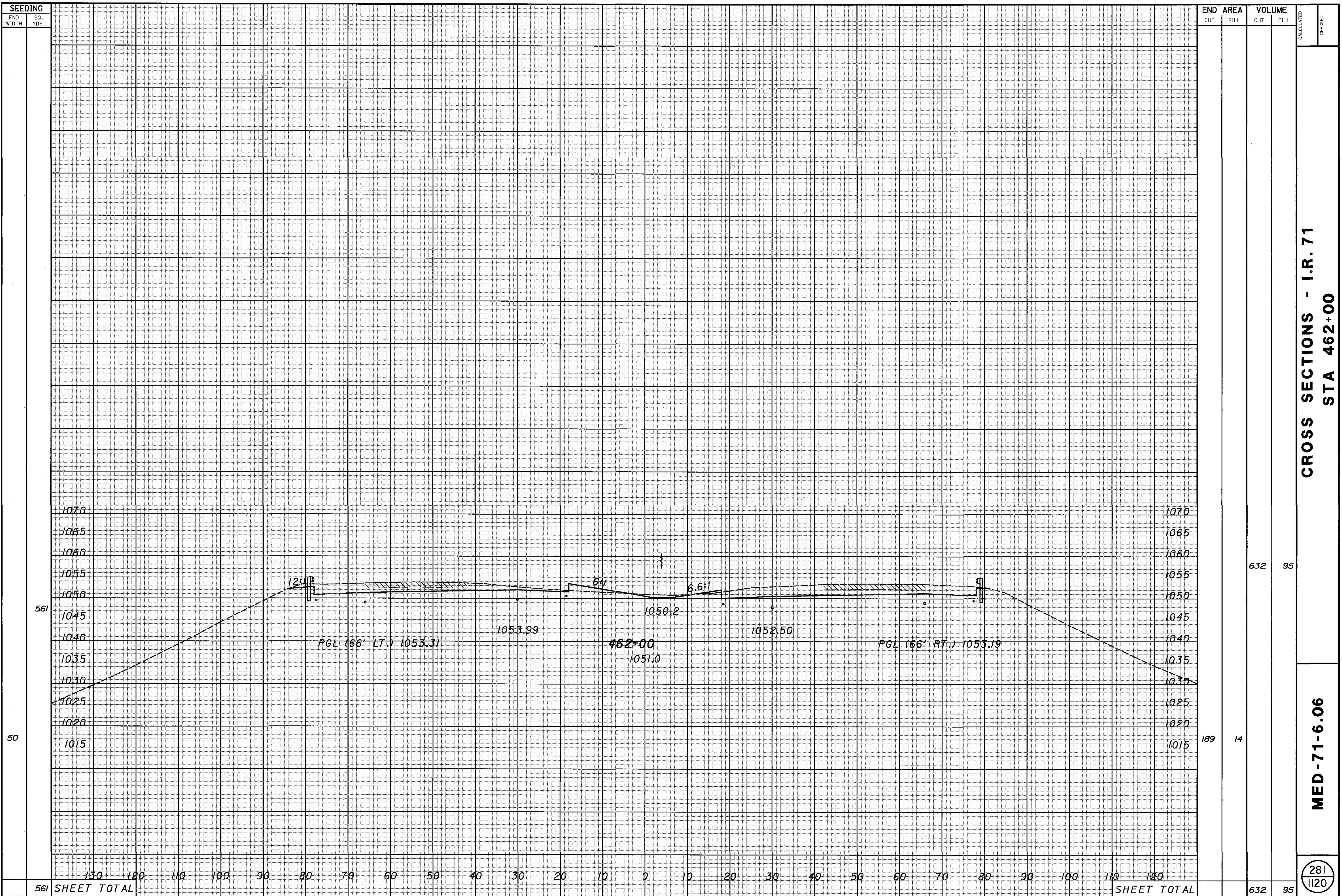
STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1070				
1065				
1060				
1055				
1050				
1045				
1040				
1035				
1030				
1025				
1020				
1015	180	9		
1065				
1060				
1055				
1050				
1045				
1040				
1035				
1030				
1025				
1020				
1015				
1010				
1005				
1000				
995	114	8		
SHEET TOTAL	1227	74		

CROSS SECTIONS - I.R. 71
STA. 460+00 TO STA. 461+00

MED-71-6.06

280
1120

... \xs_71b.dgn



CROSS SECTIONS - I.R. 71
STA 462+00

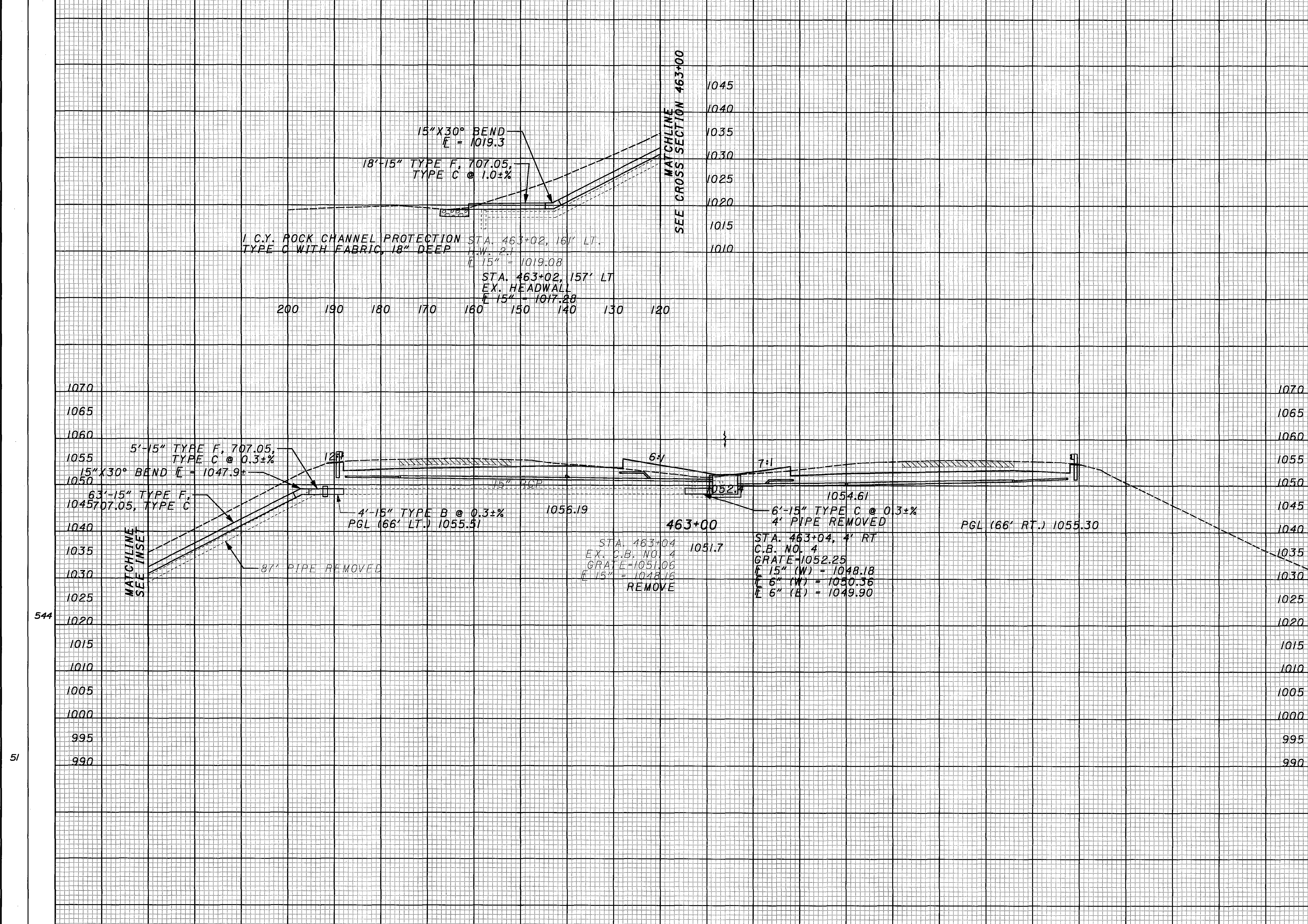
MED-71-6.06

281
 1120

...xs_71b.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



15" X 30° BEND
E = 1019.3

18'-15" TYPE F, 707.05,
TYPE C @ 1.0±%

1 C.Y. ROCK CHANNEL PROTECTION STA. 463+02, 161' LT.
TYPE C WITH FABRIC, 18" DEEP H.W. 2.1
E 15" = 1019.08

STA. 463+02, 157' LT
EX. HEADWALL
E 15" = 1017.88

200 190 180 170 160 150 140 130 120

MATCHLINE
SEE CROSS SECTION 463+00

MATCHLINE
SEE INSET

5'-15" TYPE F, 707.05,
TYPE C @ 0.3±%

15" X 30° BEND E = 1047.9±

6'-15" TYPE F,
1045707.05, TYPE C

8'-15" TYPE B @ 0.3±%
PGL (66' LT.) 1055.51

4'-15" TYPE B @ 0.3±%
PGL (66' RT.) 1055.31

15" P.C.P.

6'-15" TYPE C @ 0.3±%
4' PIPE REMOVED

6'-15" TYPE C @ 0.3±%
4' PIPE REMOVED

PGL (66' RT.) 1055.30

1056.19

1052.25

1054.61

1051.7

1052.25

1048.18

1050.36

1049.90

8'-15" PIPE REMOVED

REMOVE

STA. 463+04
EX. C.B. NO. 4
GRATE=1051.06
E 15" = 1048.16
REMOVE

STA. 463+04, 4' RT
C.B. NO. 4
GRATE=1052.25
E 15" (W) = 1048.18
E 6" (W) = 1050.36
E 6" (E) = 1049.90

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

544 SHEET TOTAL

SHEET TOTAL

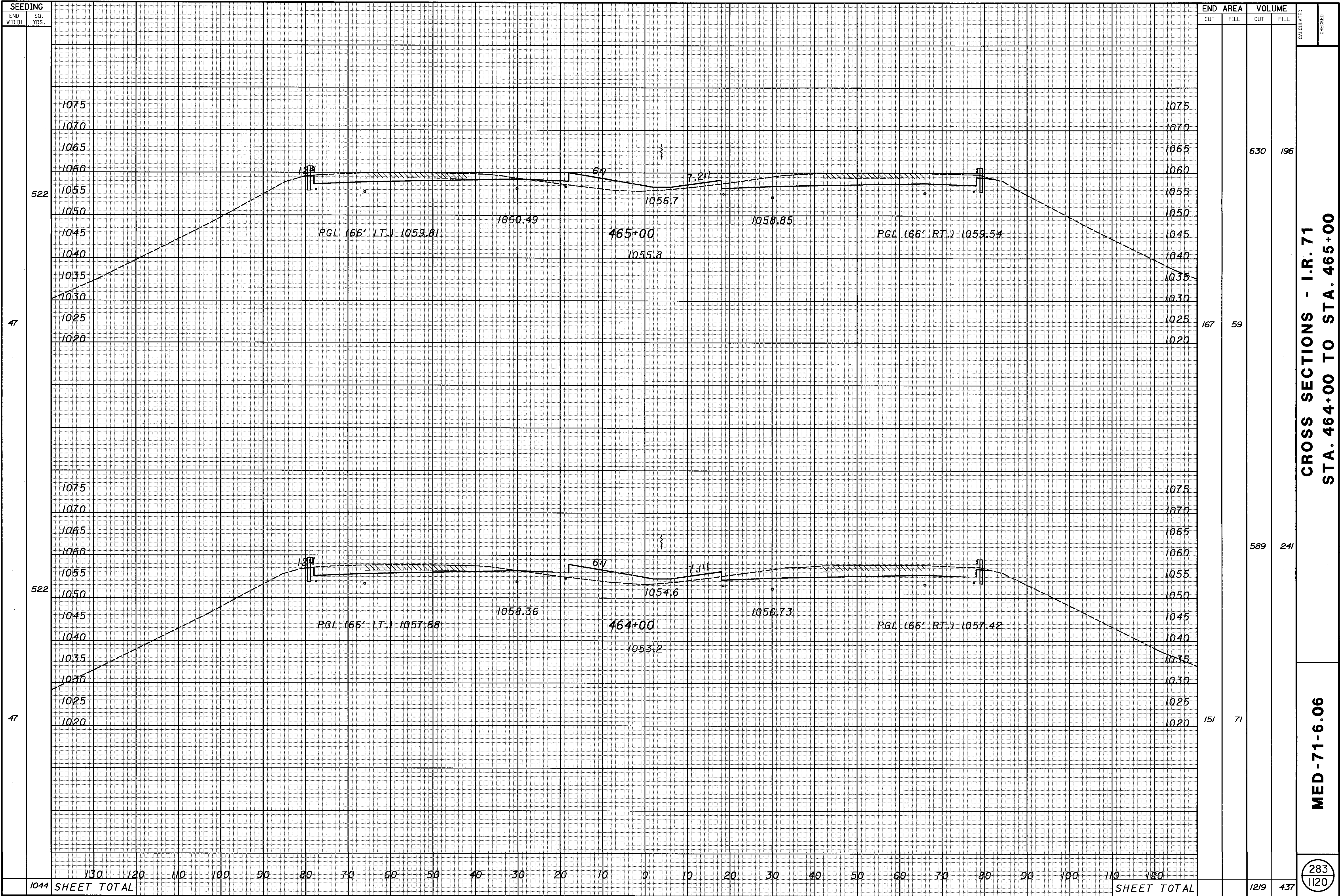
1070	1070		
1065	1065		
1060	1060		
1055	1055		
1050	1050		
1045	1045		
1040	1040		
1035	1035	563	201
1030	1030		
1025	1025		
1020	1020		
1015	1015		
1010	1010		
1005	1005		
1000	1000		
995	995		
990	990	153	38
544		563	201
		563	201

CROSS SECTIONS - I.R. 71
STA. 463+00

MED-71-6.06

282
1120

...xs-7lb.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CROSS SECTIONS - I.R. 71
STA. 464+00 TO STA. 465+00

MED-71-6.06

283
1120

522

522

47

47

167

151

59

71

630

589

196

241

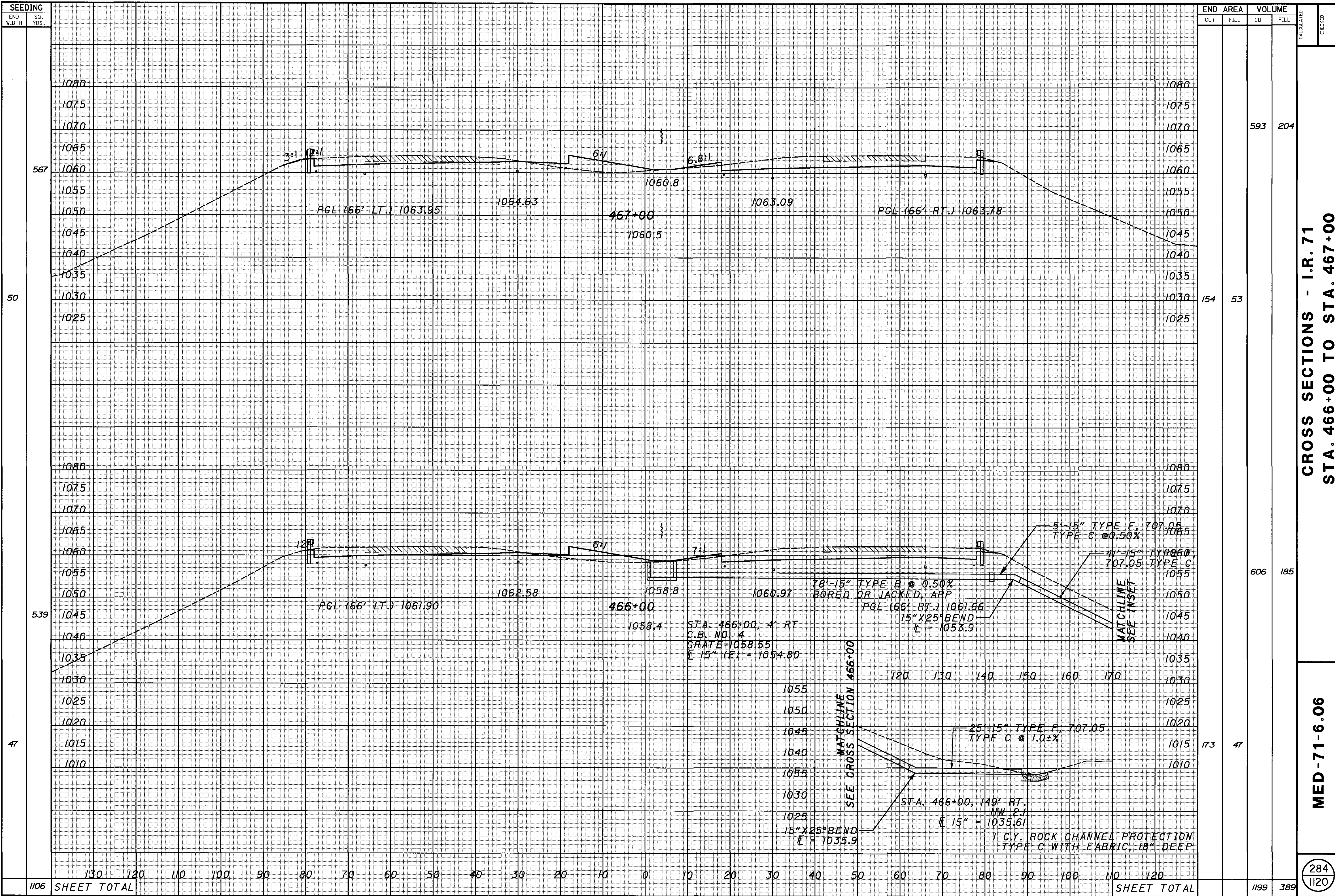
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1044 SHEET TOTAL

SHEET TOTAL

1219

437

... \xs_71b.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

567

50

539

47

593 204

154 53

606 185

173 47

CROSS SECTIONS - I.R. 71
STA. 466+00 TO STA. 467+00

MED-71-6.06

284
1120

... \xss_71b.dgn

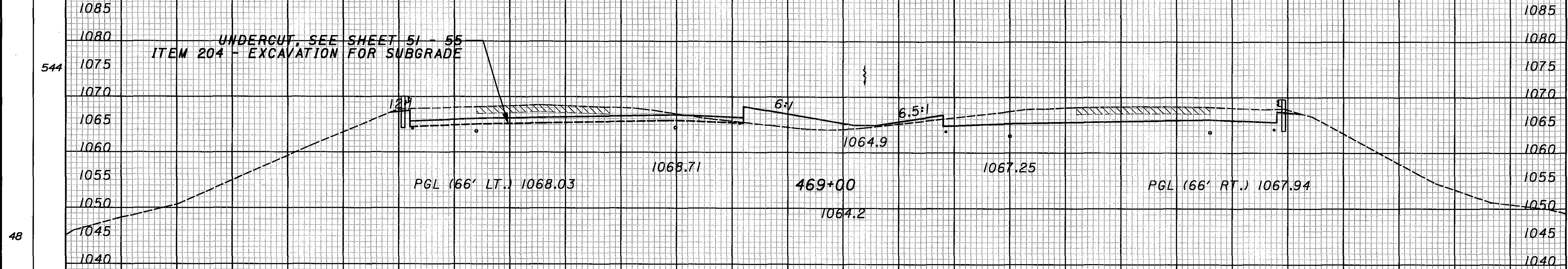
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1106 SHEET TOTAL

SHEET TOTAL

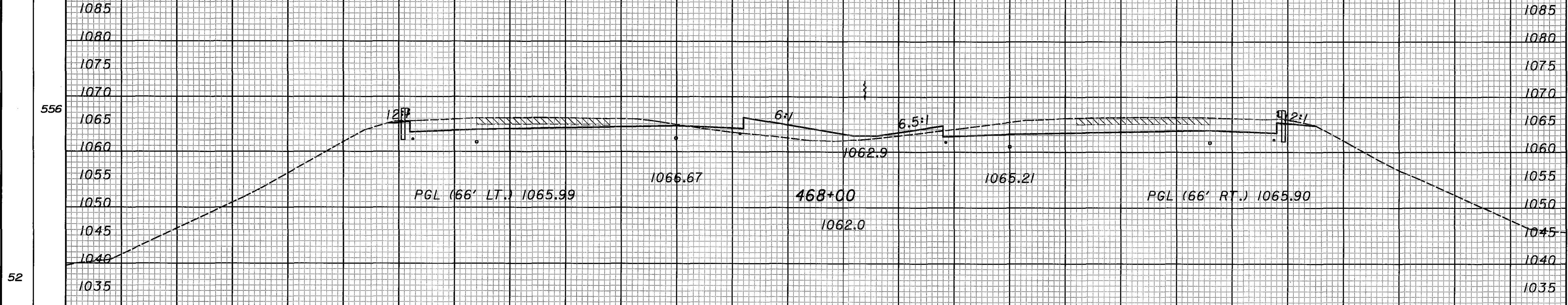
1199 389

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



1085	1085	624	189
1080	1080		
1075	1075		
1070	1070		
1065	1065		
1060	1060		
1055	1055		
1050	1050		
1045	1045	170	54
1040	1040		



1085	1085	621	206
1080	1080		
1075	1075		
1070	1070		
1065	1065		
1060	1060		
1055	1055		
1050	1050		
1045	1045		
1040	1040		
1035	1035	166	58

1100 SHEET TOTAL

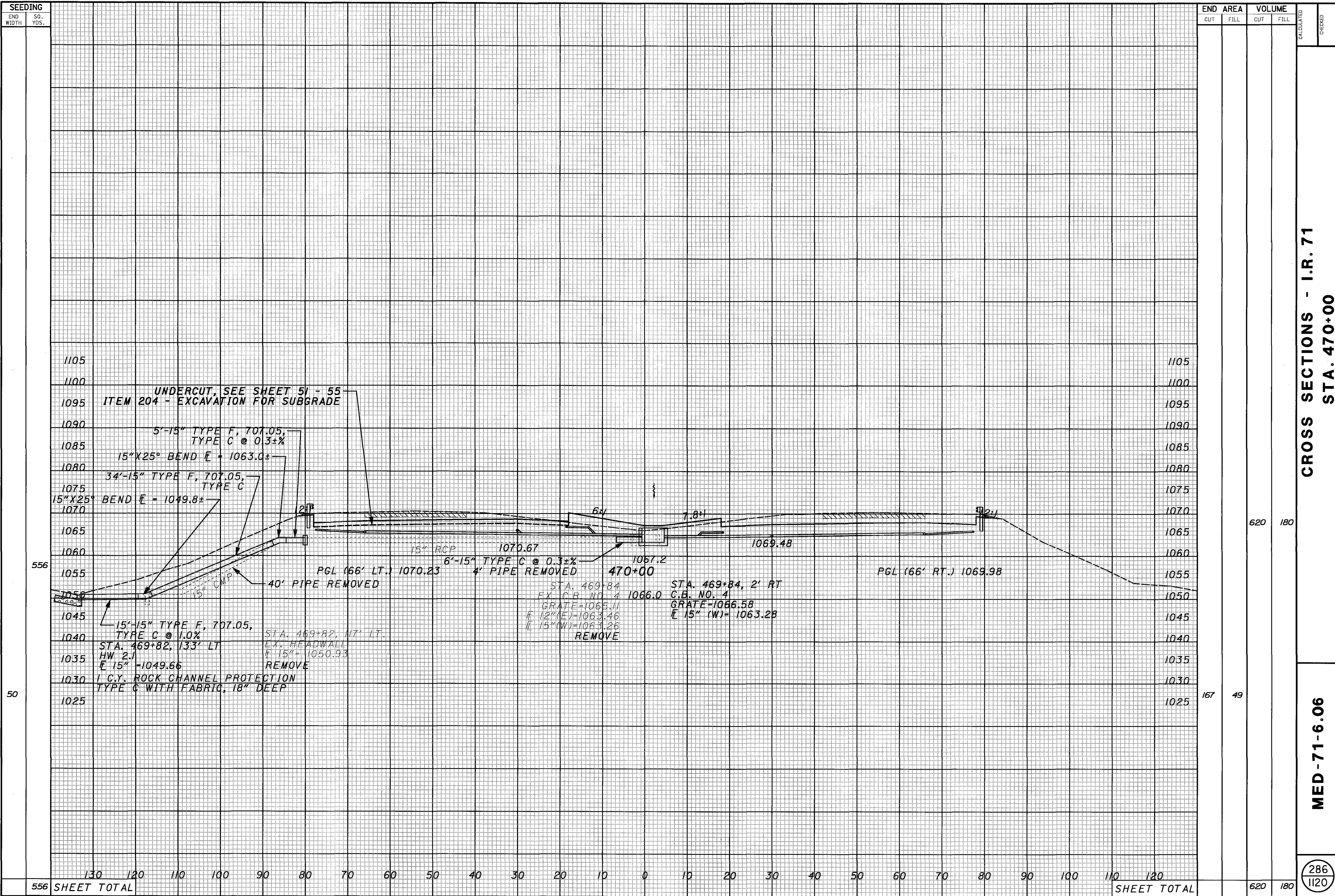
SHEET TOTAL 1245 395

CROSS SECTIONS - I.R. 71
STA. 468+00 TO STA. 469+00

MED-71-6.06

285
1120

...Xs-71b.dgn

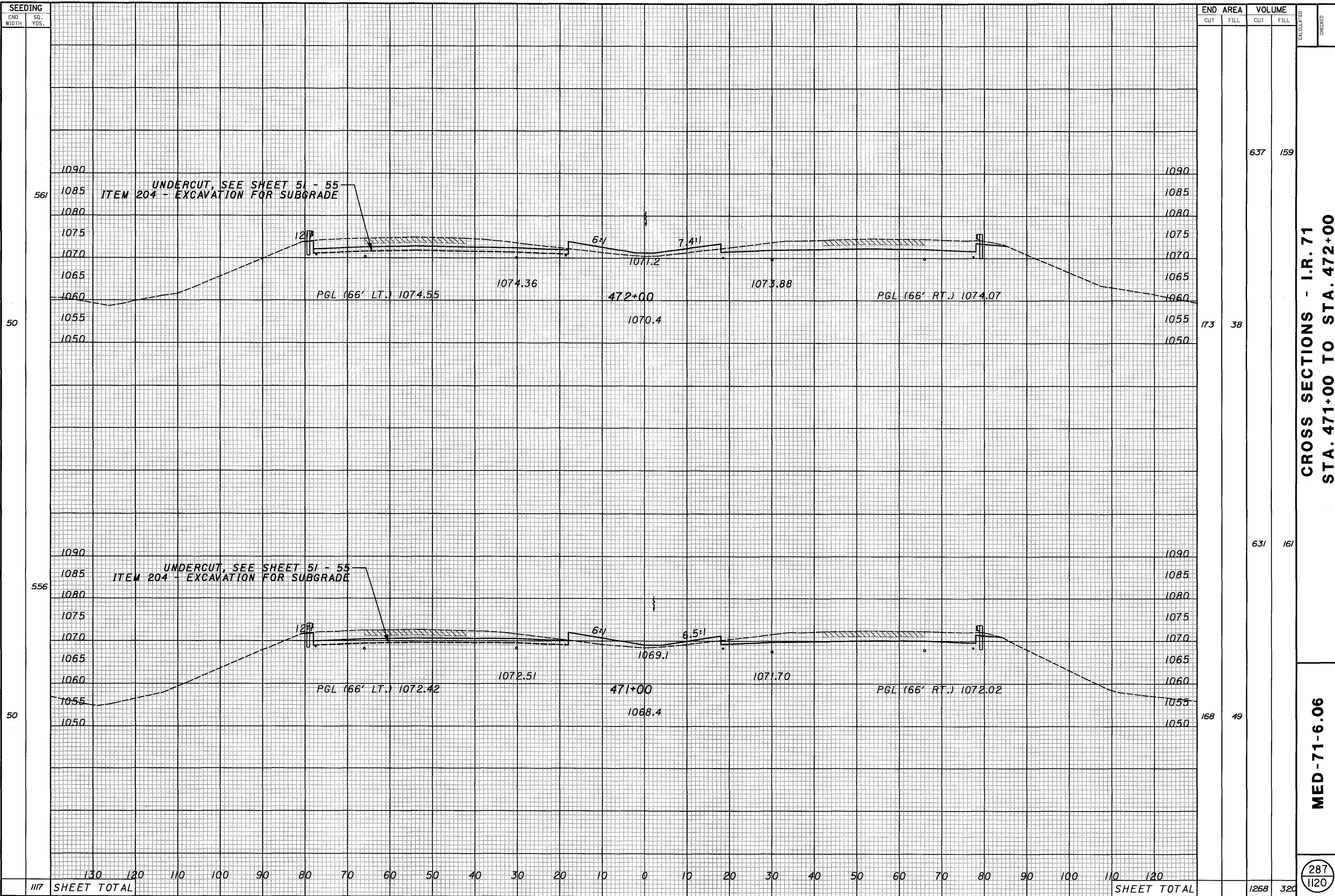


END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		620	180		
167	49				
SHEET TOTAL		620	180	286	1120

CROSS SECTIONS - I.R. 71
 STA. 470+00

MED-71-6.06

...xs_71b.dgn

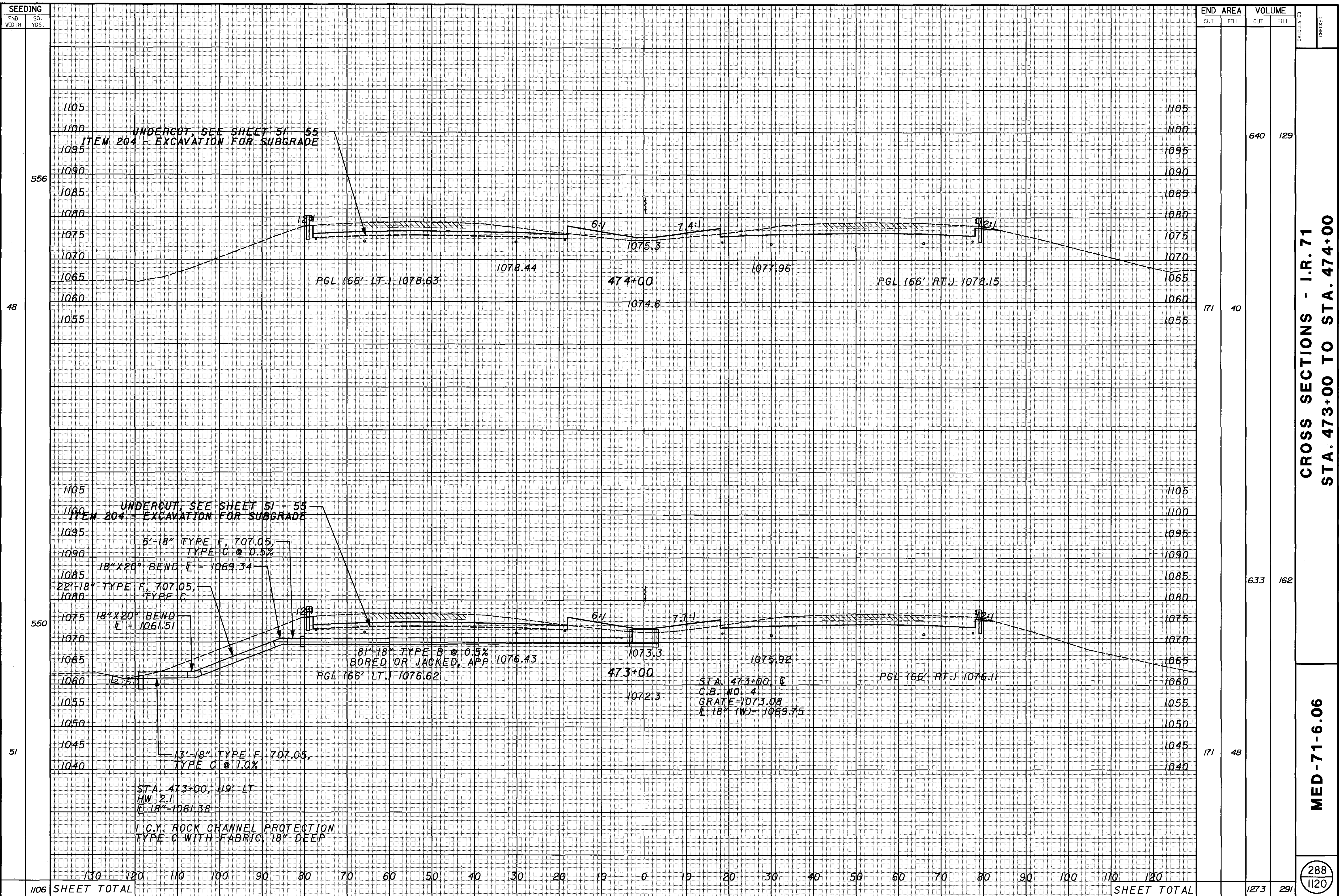


CROSS SECTIONS - I.R. 71
STA. 471+00 TO STA. 472+00

MED-71-6.06

287
1120

...xs-71b.dgn



SEEDING	SO. YDS.	END AREA		VOLUME	
		CUT	FILL	CUT	FILL
556				640	129
48		171	40		
550				633	162
51		171	48		
106	SHEET TOTAL			1273	291

CROSS SECTIONS - I.R. 71
STA. 473+00 TO STA. 474+00

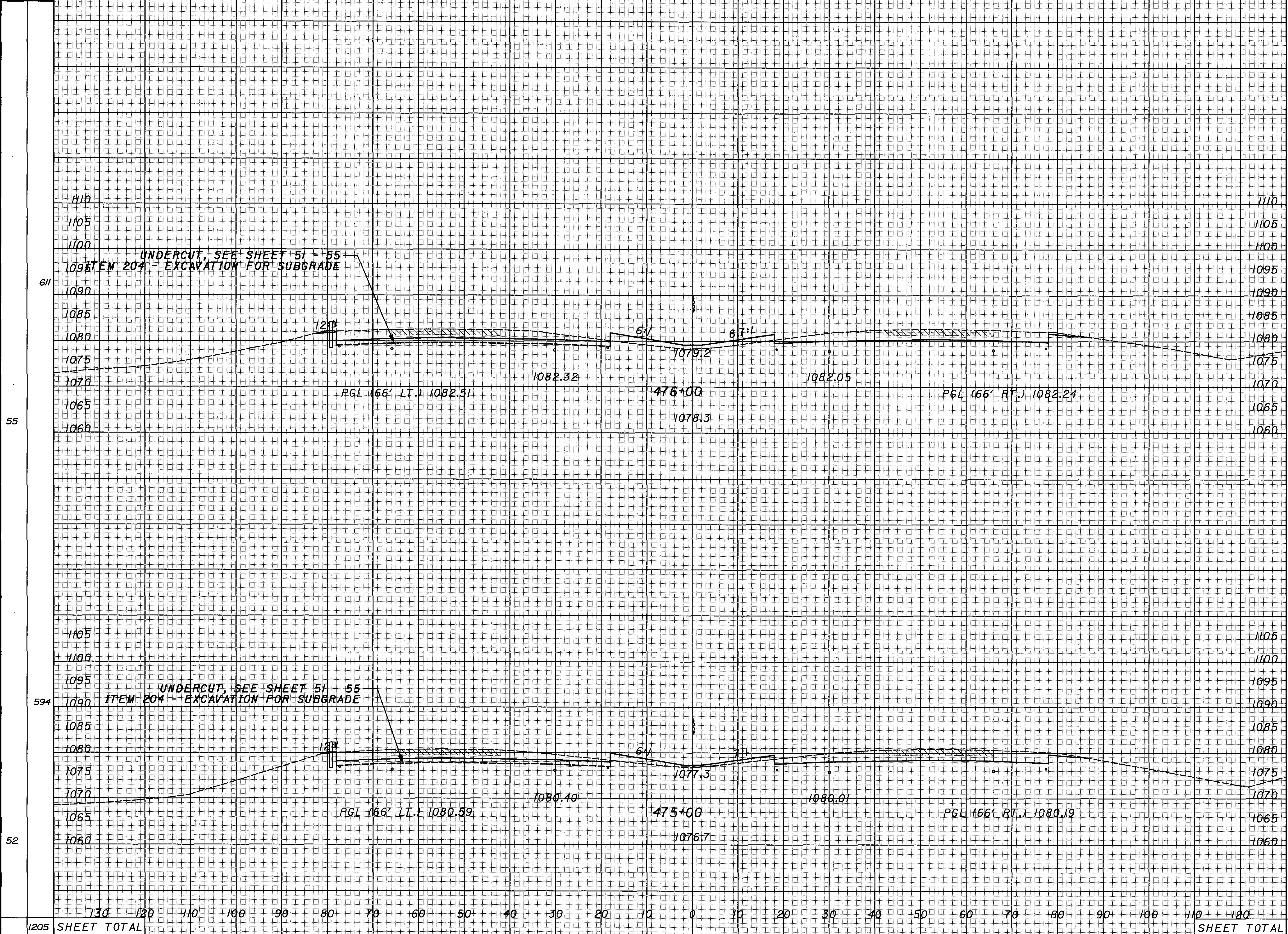
MED-71-6.06

CALCULATED
 CHECKED

...Xs-7lb.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL



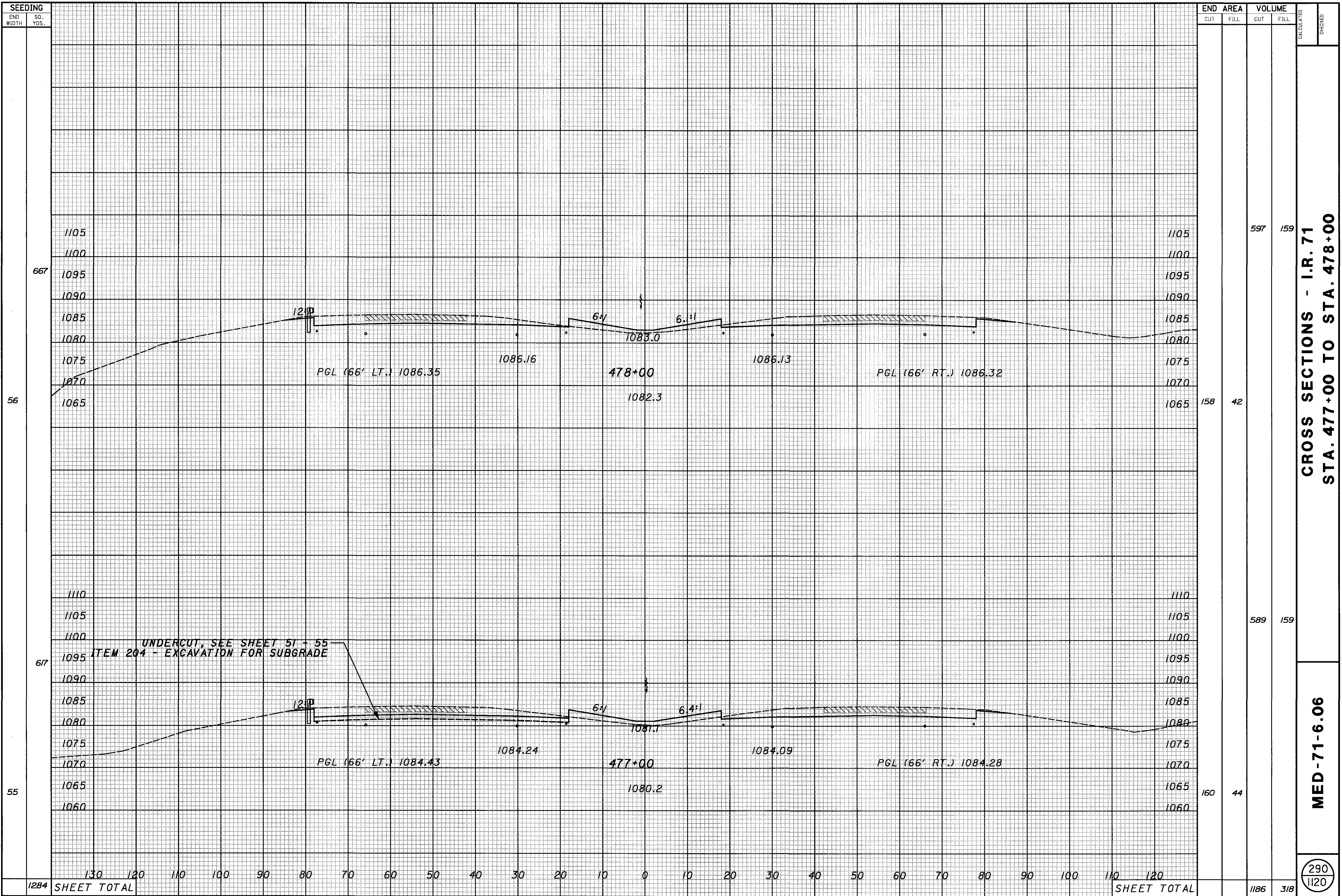
END AREA	VOLUME				
		CUT	FILL	CUT	FILL
600	159				
164	42				
628	133				
175	30				
1205	289				
	120				
1228	292				

CROSS SECTIONS - I.R. 71
STA. 475+00 TO STA. 476+00

MED-71-6.06

289
120

... \xs-71b.dgn

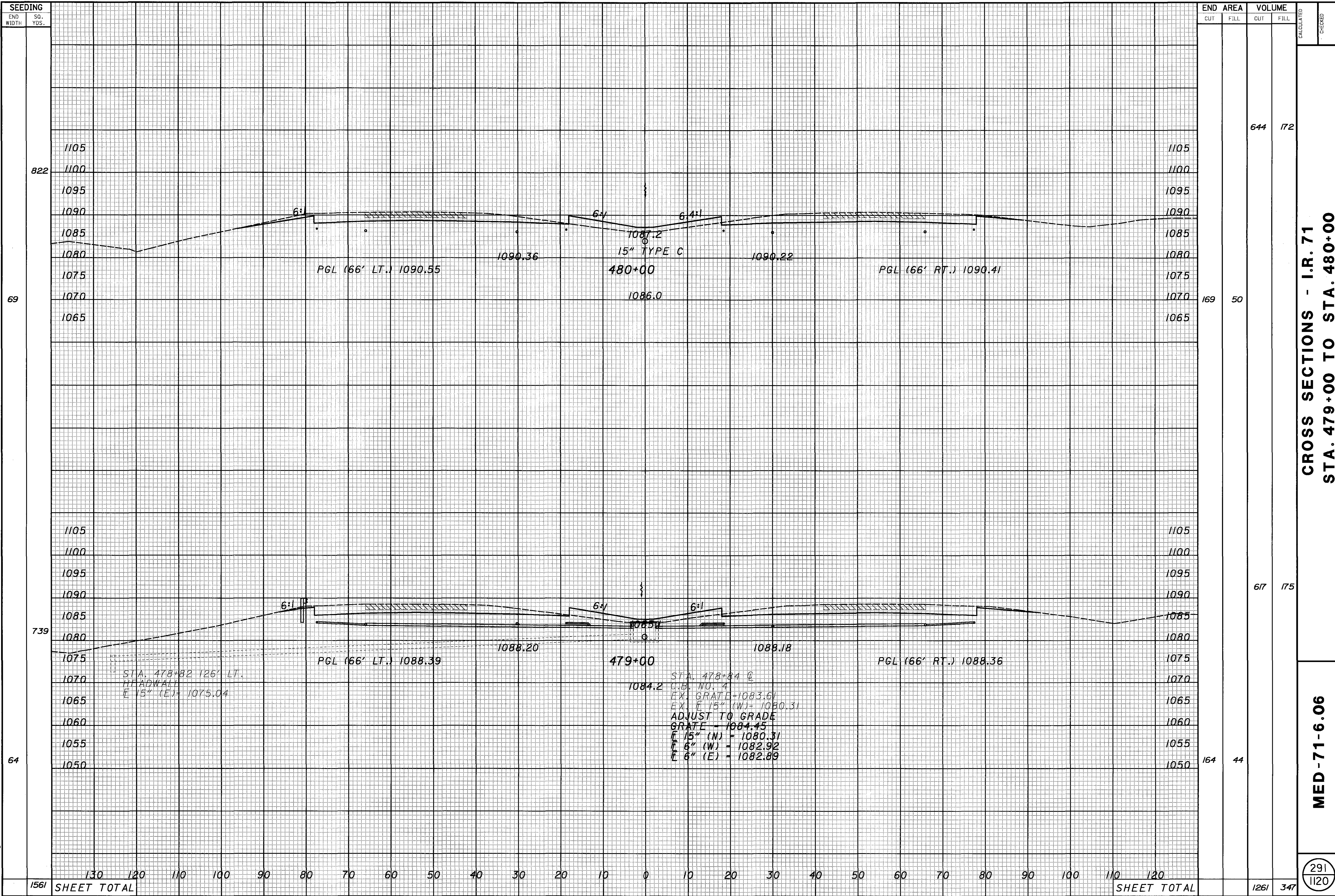


CROSS SECTIONS - I.R. 71
 STA. 477+00 TO STA. 478+00

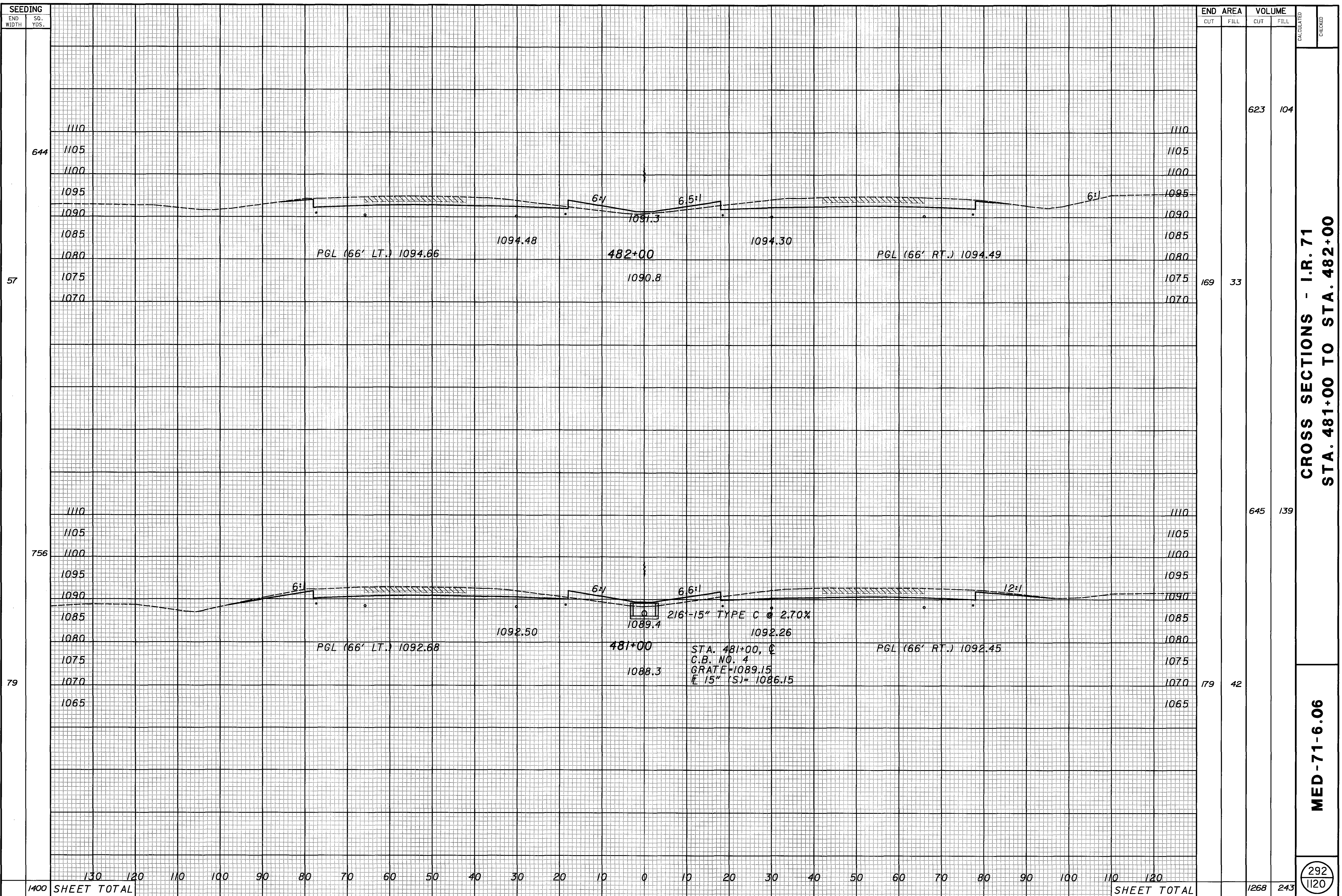
MED-71-6.06

290
 1120

\x.s_71b.dgn



... \xvs_71b.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

644

57

756

79

623 104

169 33

645 139

179 42

CROSS SECTIONS - I.R. 71
STA. 481+00 TO STA. 482+00

MED-71-6.06

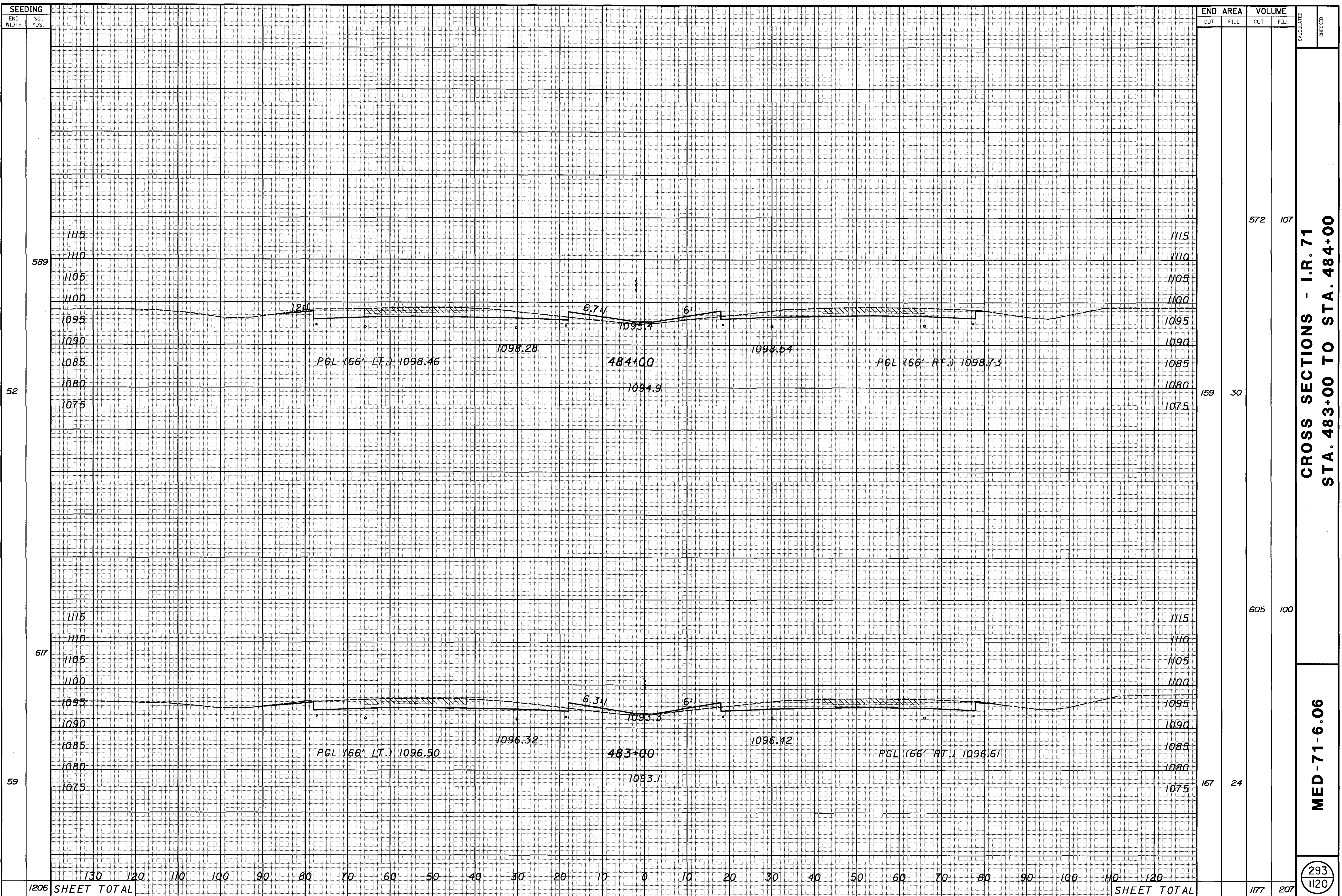
292
1120

1400 SHEET TOTAL

SHEET TOTAL

1268 243

...Xs-71b.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

589

52

67

59

572 107

159 30

605 100

167 24

CROSS SECTIONS - I.R. 71
STA. 483+00 TO STA. 484+00

MED-71-6.06

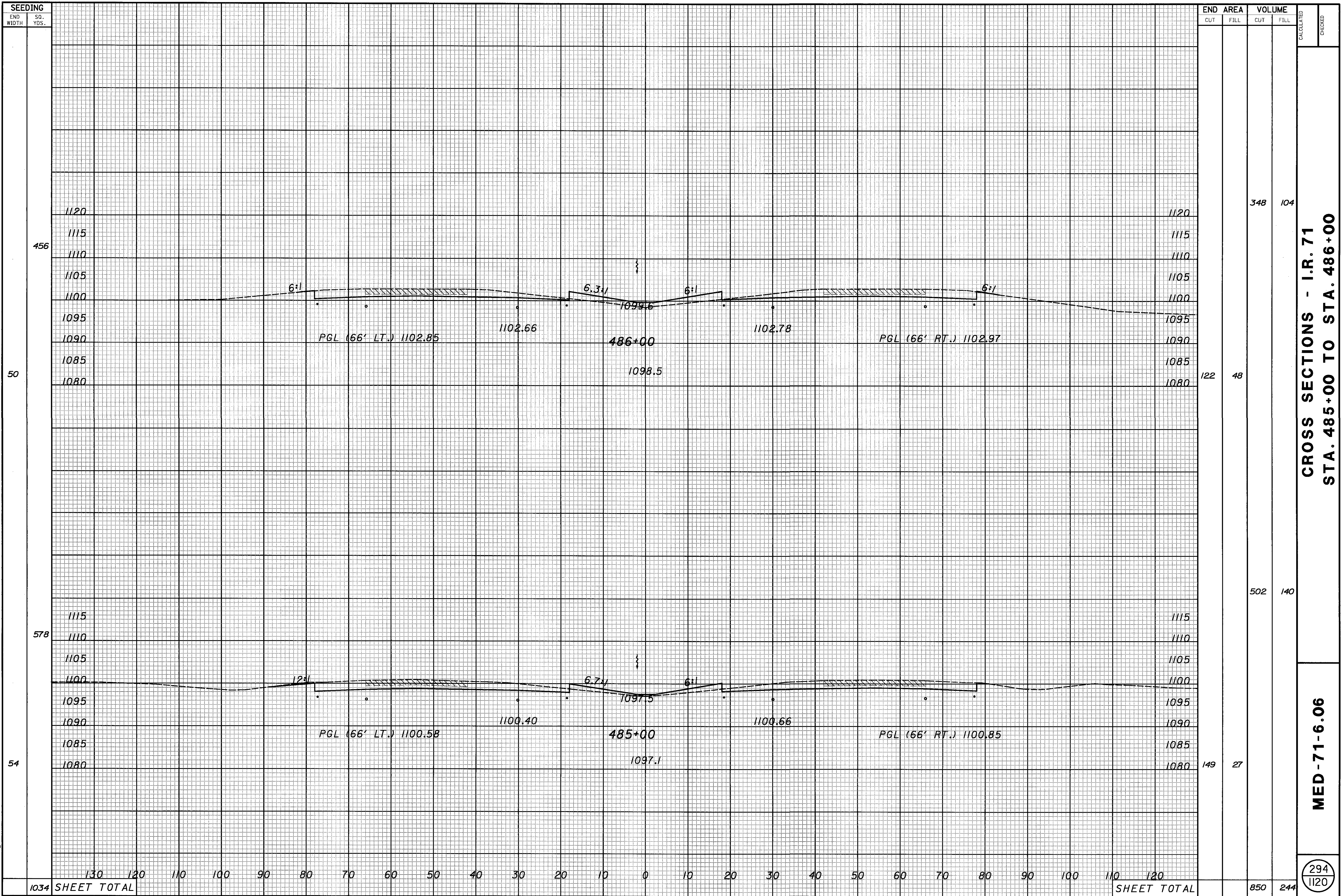
293
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
1206 SHEET TOTAL

SHEET TOTAL

1177 207

... \Xs_71b.dgn



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

456
50

578
54

348 104
122 48

502 140
149 27

CROSS SECTIONS - I.R. 71
STA. 485+00 TO STA. 486+00

MED-71-6.06

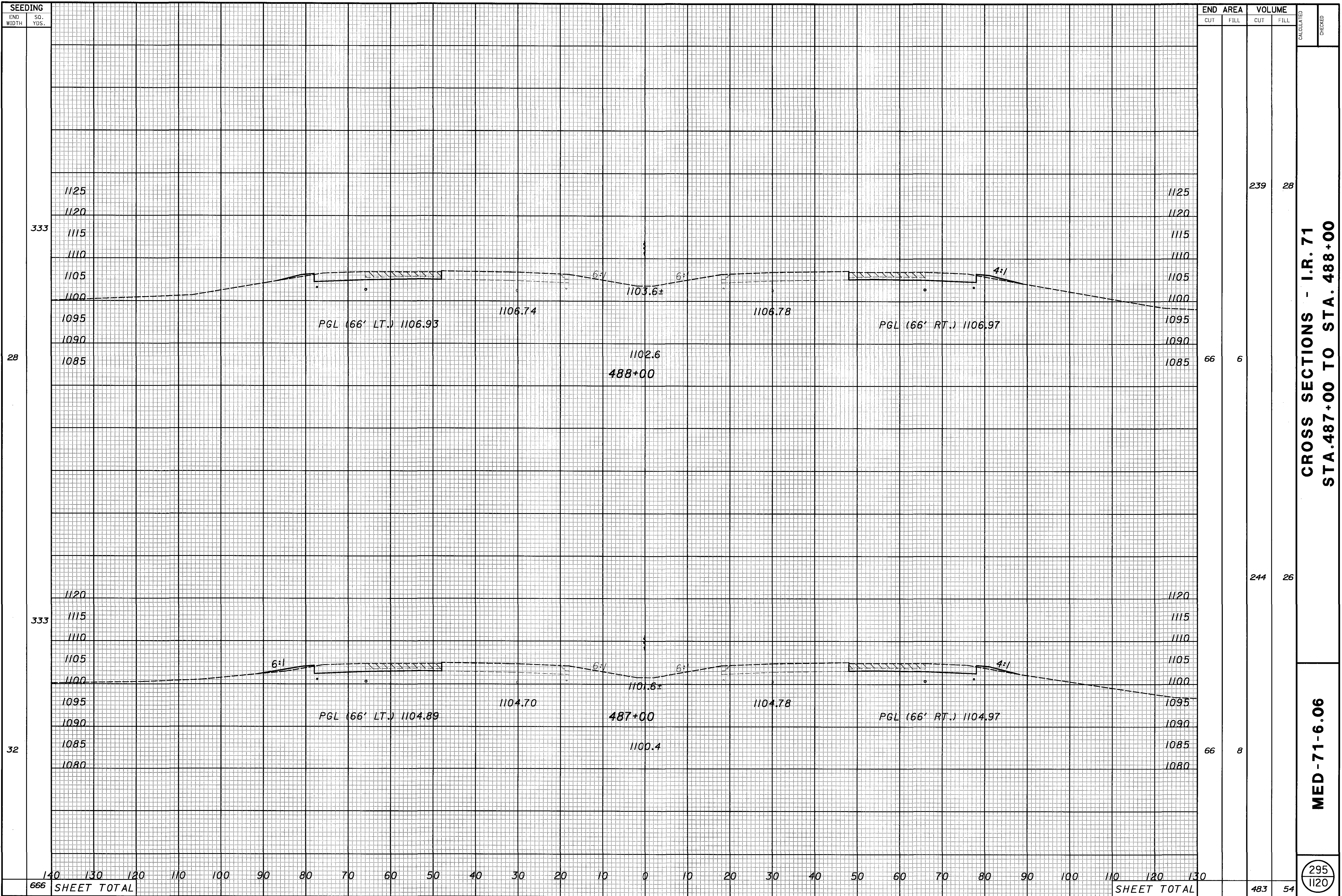
294
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
1034 SHEET TOTAL

SHEET TOTAL

850 244

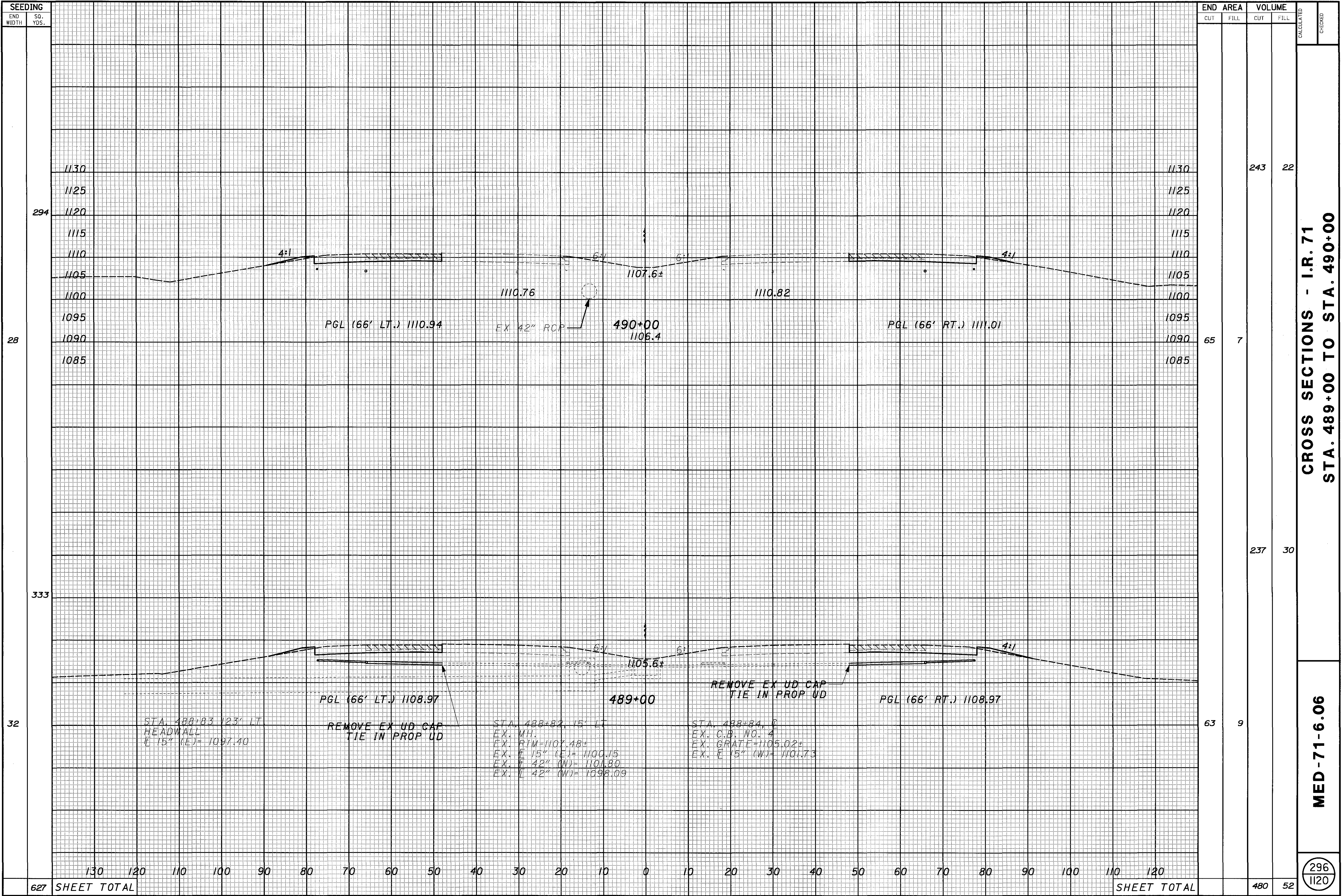
... \xss_71b.dgn



CROSS SECTIONS - I.R. 71
 STA. 487+00 TO STA. 488+00

MED-71-6.06

295
 1120



CROSS SECTIONS - I.R. 71
STA. 489+00 TO STA. 490+00

MED-71-6.06

296
 1120

SEEDING

END WIDTH SO. YDS.

END AREA

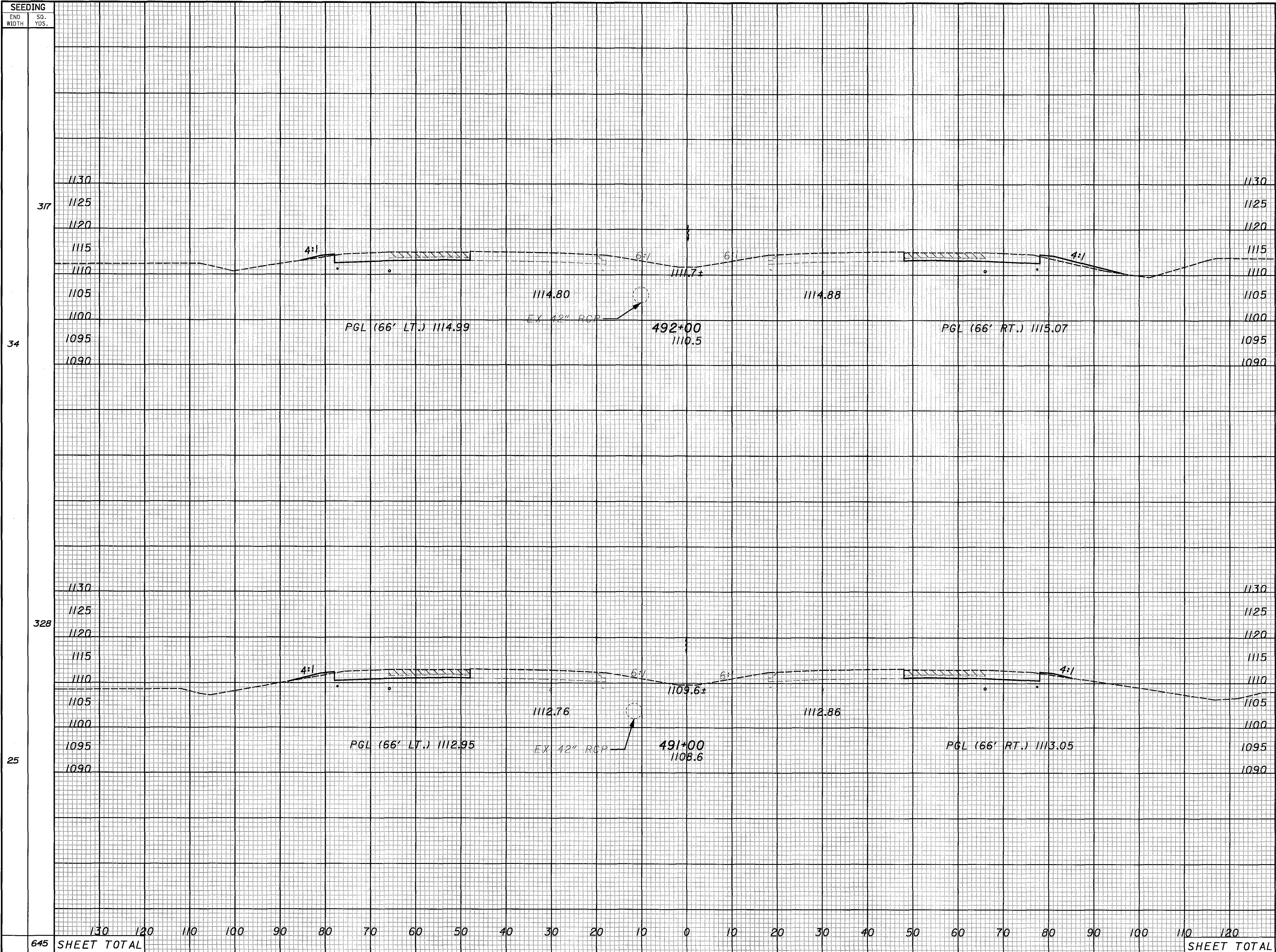
VOLUME

CUT FILL

CUT FILL

CALCULATED

CHECKED



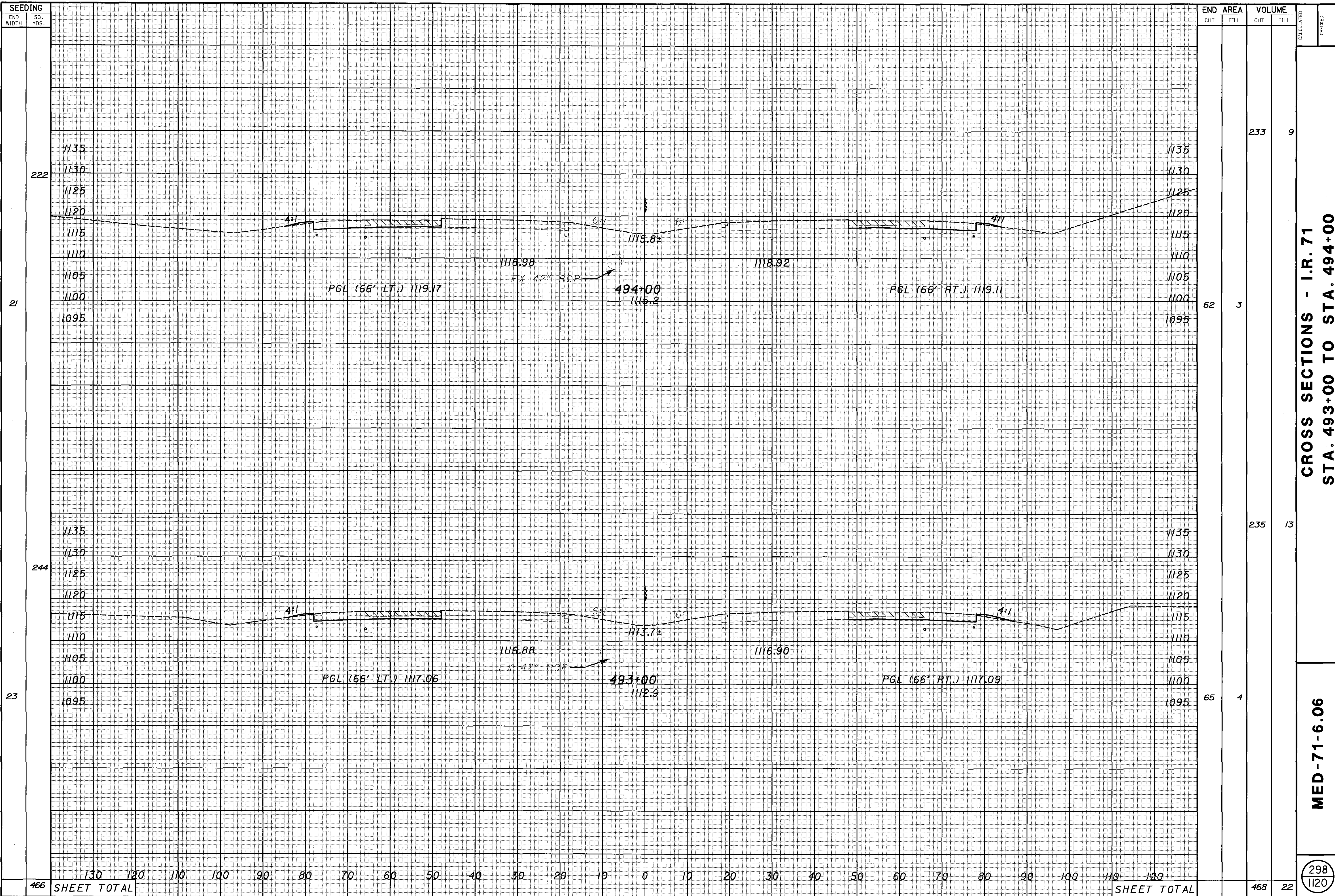
STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
492+00	65	12	241	30
491+00	66	5	243	31
SHEET TOTAL	131	17	484	61

CROSS SECTIONS - I.R. 71
STA. 491+00 TO STA. 492+00

MED-71-6.06

297
1120

...Xs-71b.dgn



SEEDING	
END WIDTH	SO. YDS.
222	
21	
244	
23	
466	

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		233	9		
62	3				
		235	13		
65	4				
		468	22		

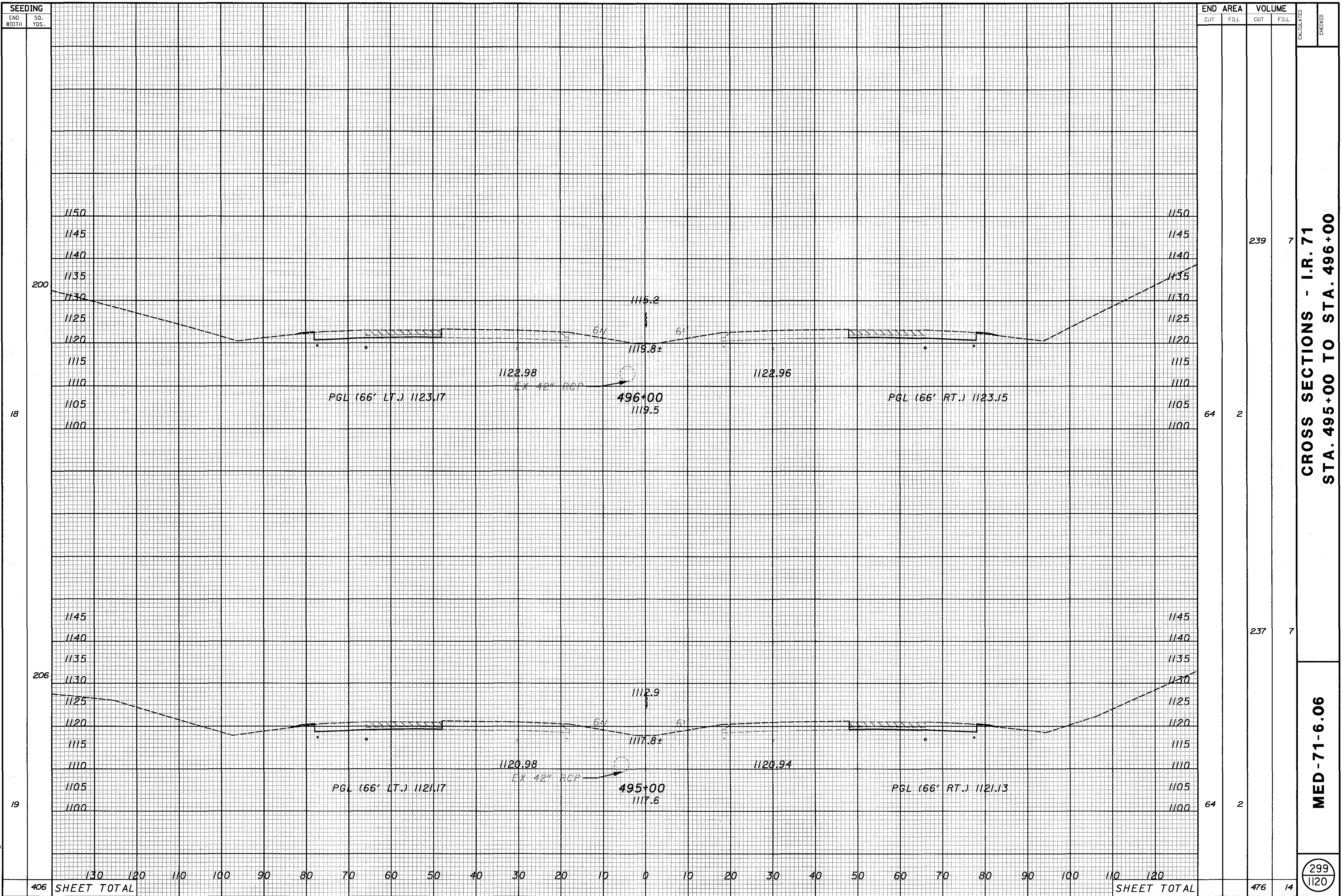
CROSS SECTIONS - I.R. 71
STA. 493+00 TO STA. 494+00

MED-71-6.06

298
 1120

\xss_71b.dgn

130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120
SHEET TOTAL													SHEET TOTAL												



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

CROSS SECTIONS - I.R. 71
STA. 495+00 TO STA. 496+00

MED-71-6.06

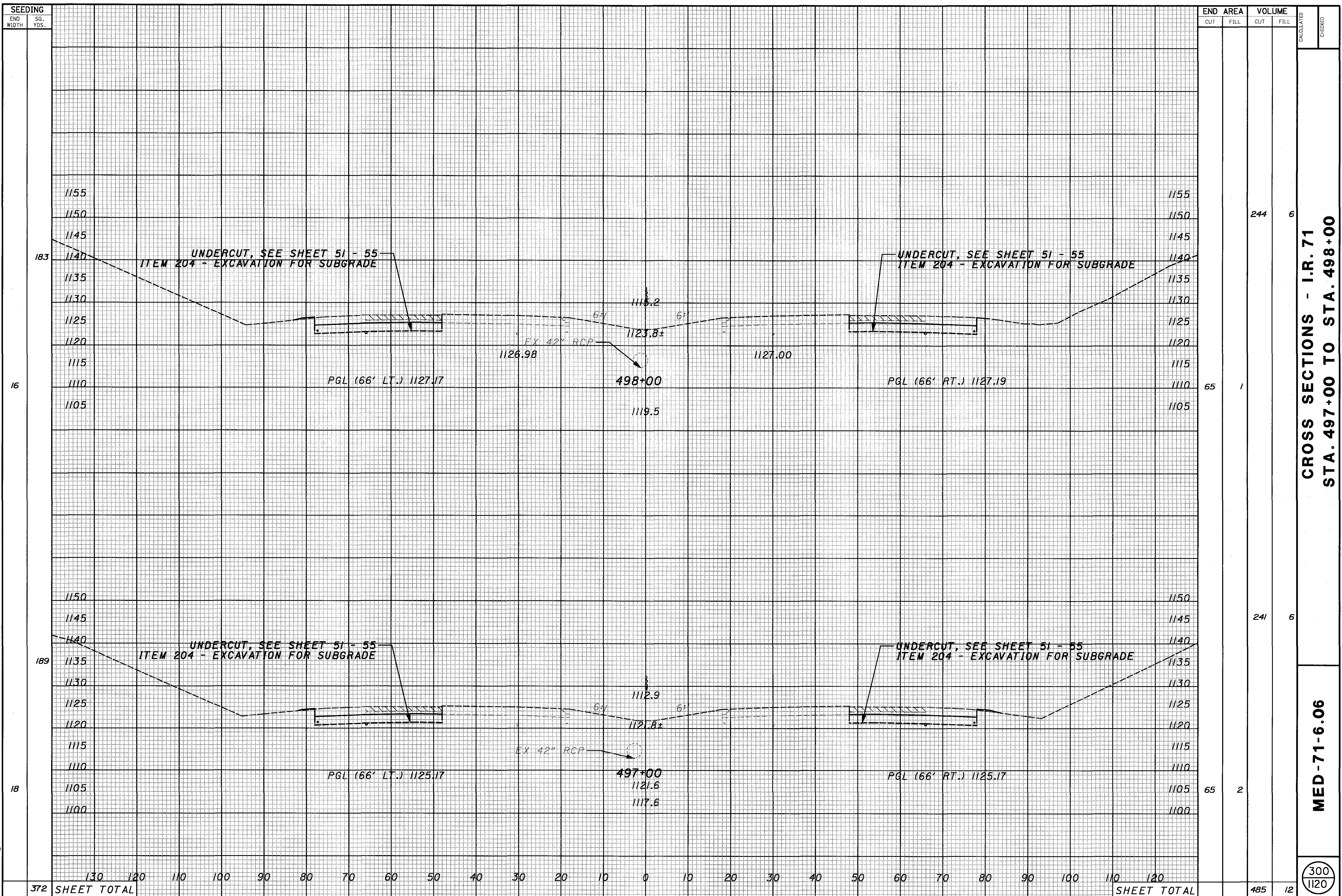
299
120

406	130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120	SHEET TOTAL	476	14
-----	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----	---	----	----	----	----	----	----	----	----	----	-----	-----	-----	-------------	-----	----

239 7

237 7

476 14



CROSS SECTIONS - I.R. 71
STA. 497+00 TO STA. 498+00

MED-71-6.06

300
 1120

...xs_7lb.dgn

372 SHEET TOTAL

SHEET TOTAL

SEEDING
END WIDTH SQ. YDS.

LEGEND



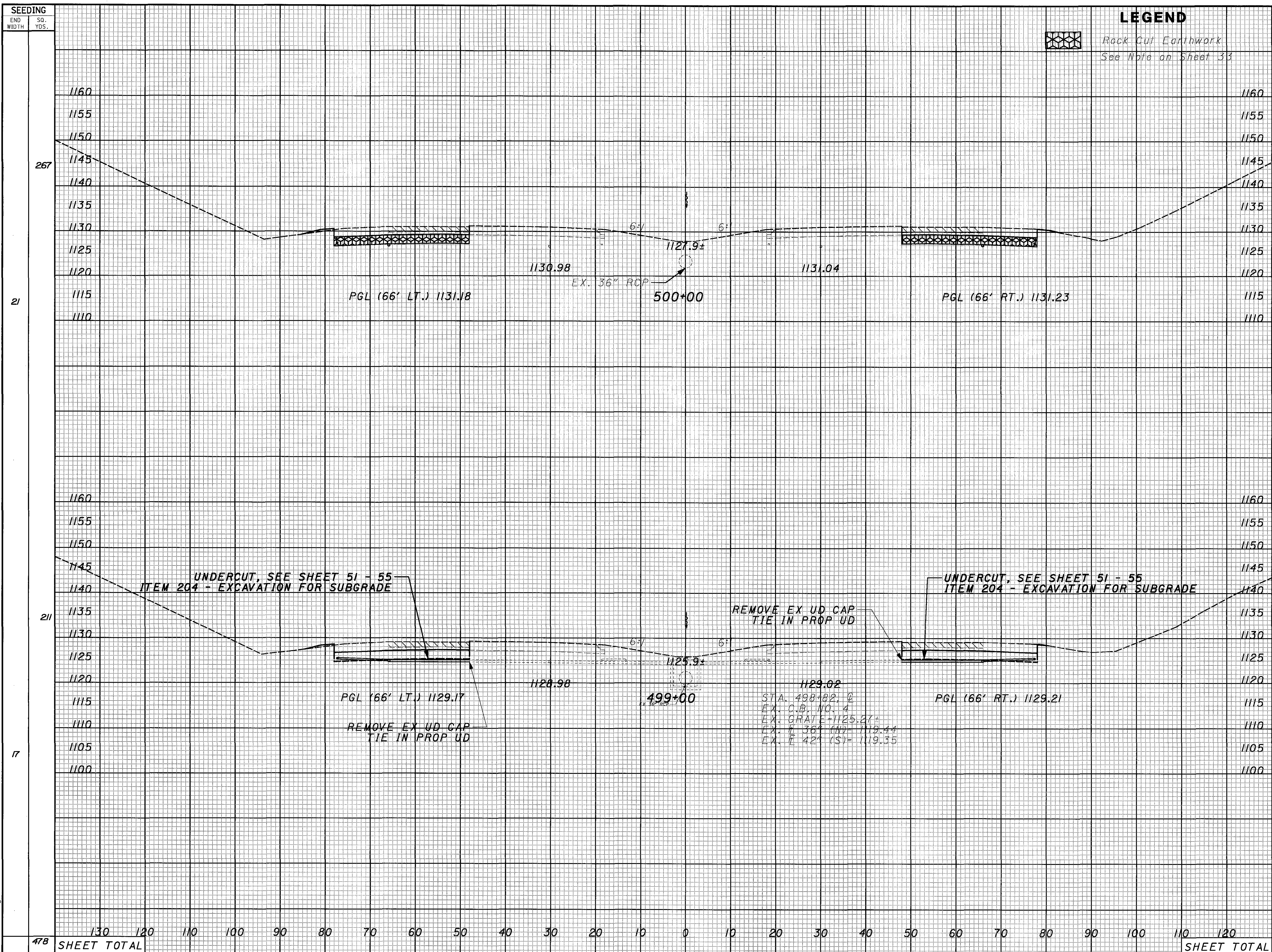
Rock Cut Earthwork
See Note on Sheet 33

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
65	2	246	15	
67	2	244	7	
478	4	490	22	

CROSS SECTIONS - I.R. 71
STA. 499+00 TO STA. 500+00

MED-71-6.06

301
1120



... \xs_71b.dgn

130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120	
SHEET TOTAL													478	SHEET TOTAL												

SEEDING
END WIDTH SO.
WIDTH YDS.

LEGEND

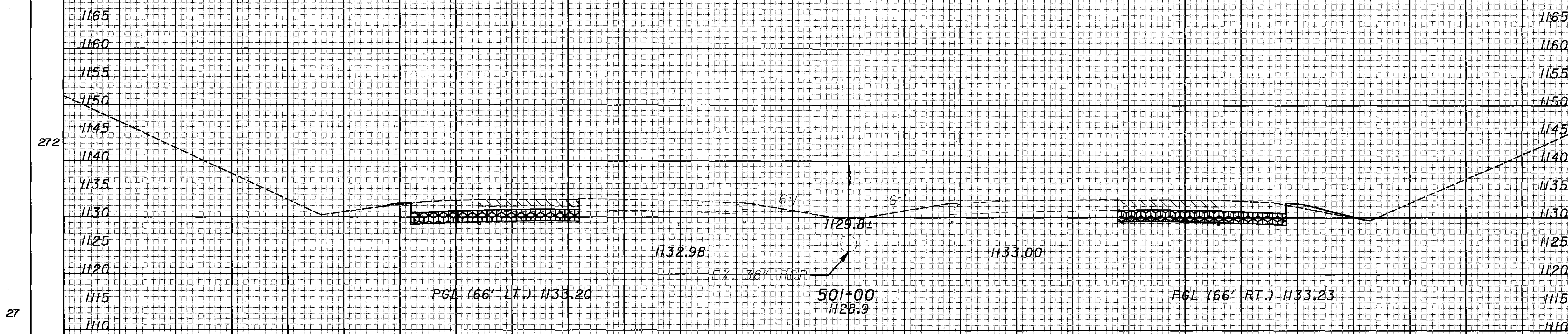
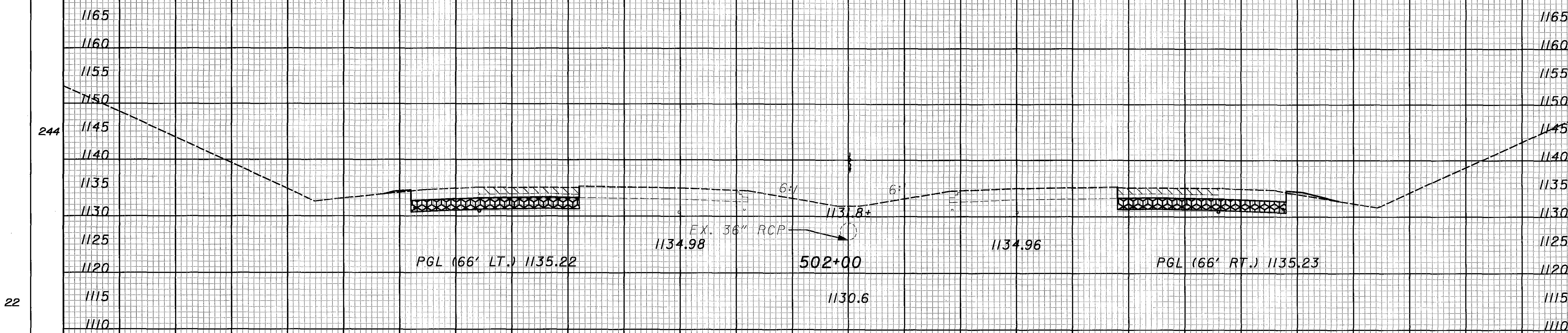


Rock Cut Earthwork
See Note on Sheet 33

END AREA
CUT FILL

VOLUME
CUT FILL

CALCULATED
CHECKED



250	15
68	4

252	19
68	6

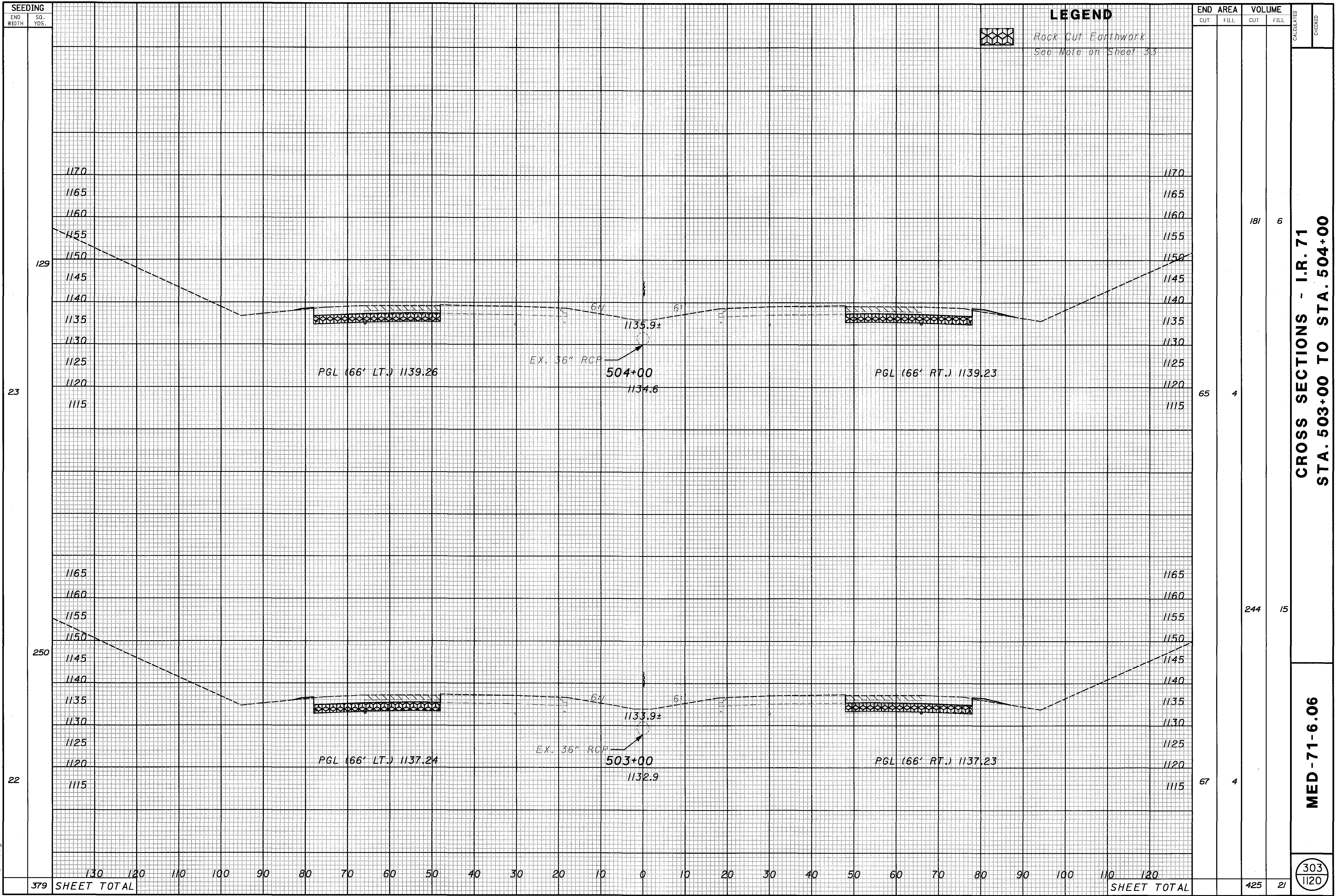
CROSS SECTIONS
STA. 501+00 TO STA. 502+00

MED-71-6.06

302
1120

516 SHEET TOTAL 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 SHEET TOTAL

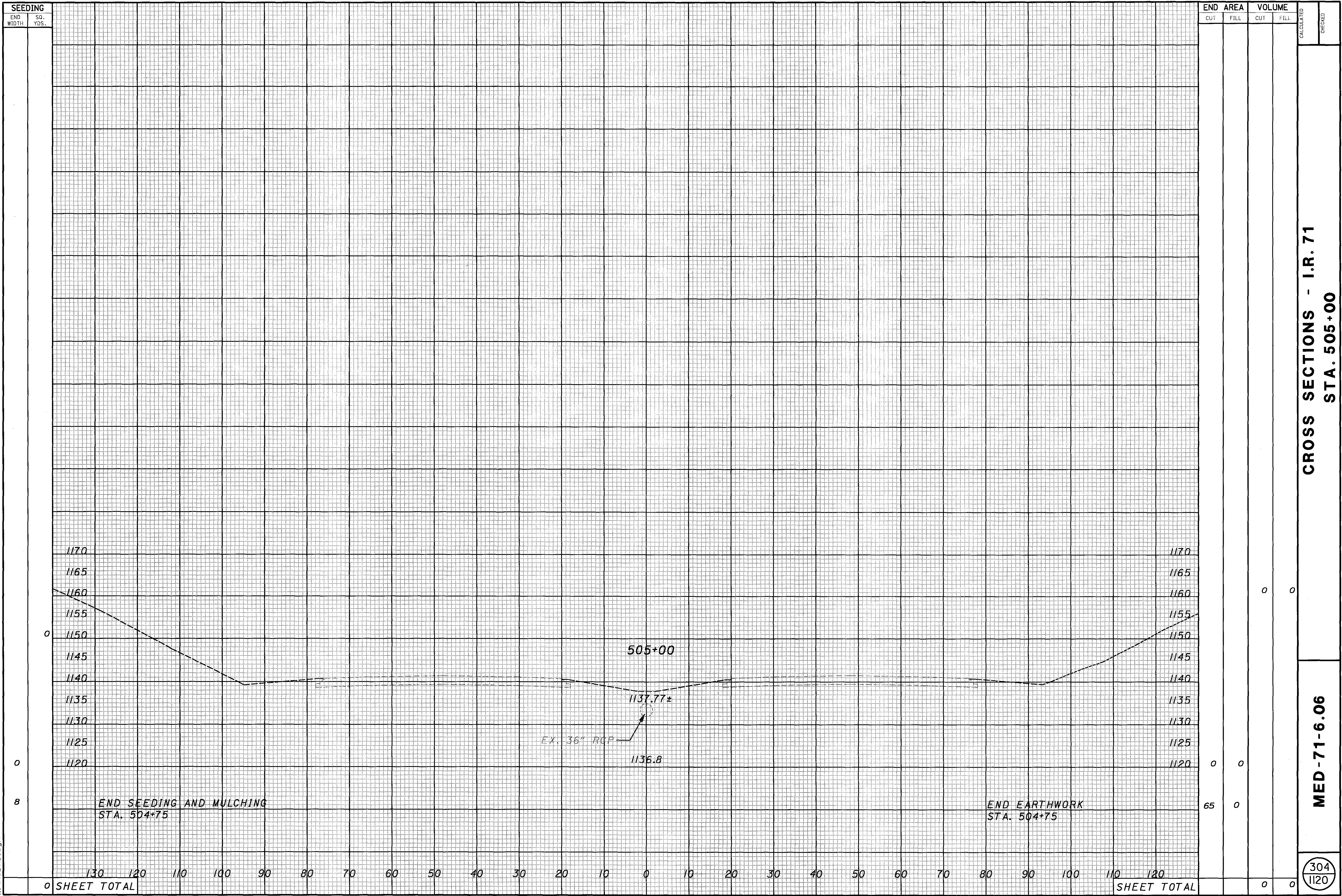
... \xss-71b.dgn



CROSS SECTIONS - I.R. 71
 STA. 503+00 TO STA. 504+00

MED-71-6.06

...xs-7lb.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

CROSS SECTIONS - I.R. 71
STA. 505+00

MED-71-6.06

304
1120

STATION	ELEVATION	CUT	FILL	AREA	VOLUME
504+75	1160	0	0		
504+80	1150	0	0		
504+85	1140	0	0		
504+90	1138	0	0		
504+95	1137.77±	0	0		
505+00	1136.8	0	0		
505+05	1138	0	0		
505+10	1140	0	0		
505+15	1150	0	0		
505+20	1160	0	0		
505+25	1170	0	0		
504+75	1120	65	0		
505+25	1120	0	0		
SHEET TOTAL		65	0		

END SEEDING AND MULCHING
STA. 504+75

END EARTHWORK
STA. 504+75

EX. 36" RCP

505+00

1137.77±

1136.8

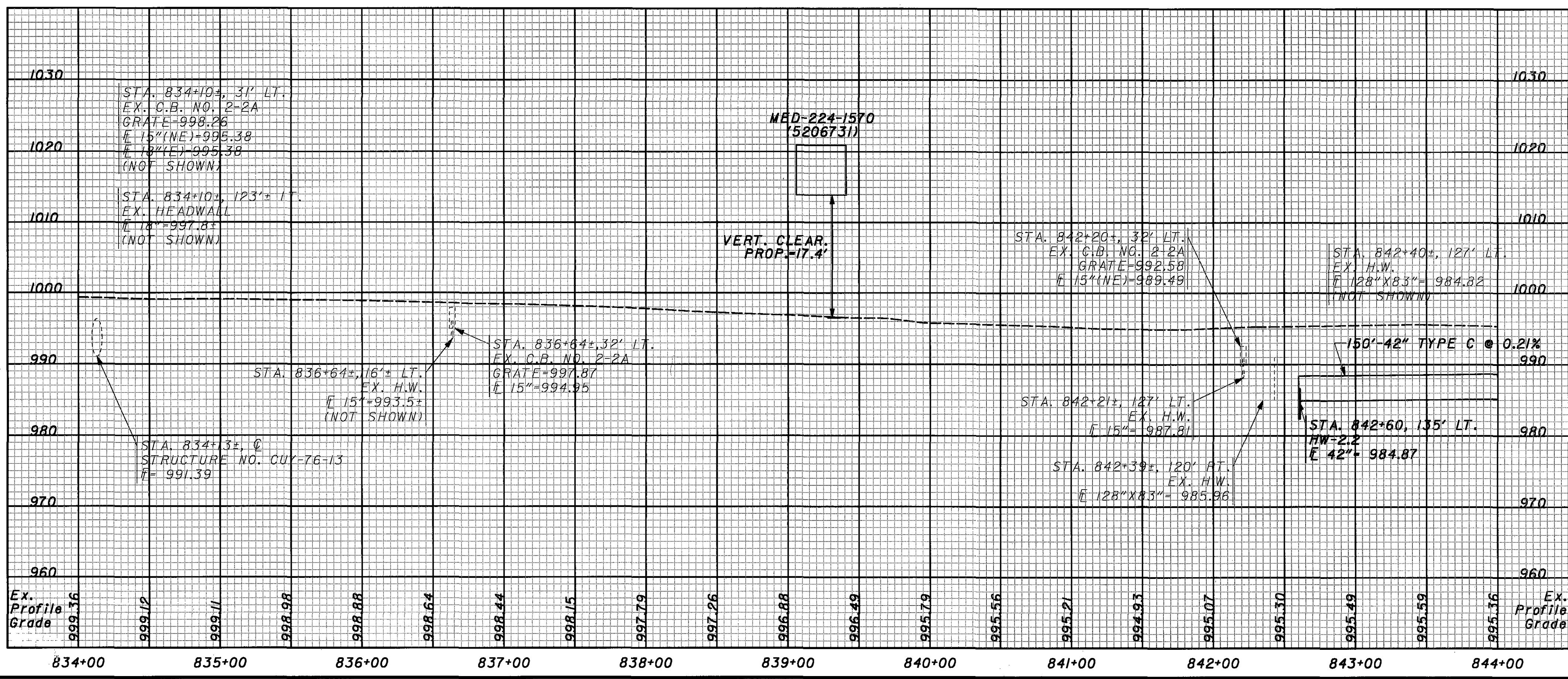
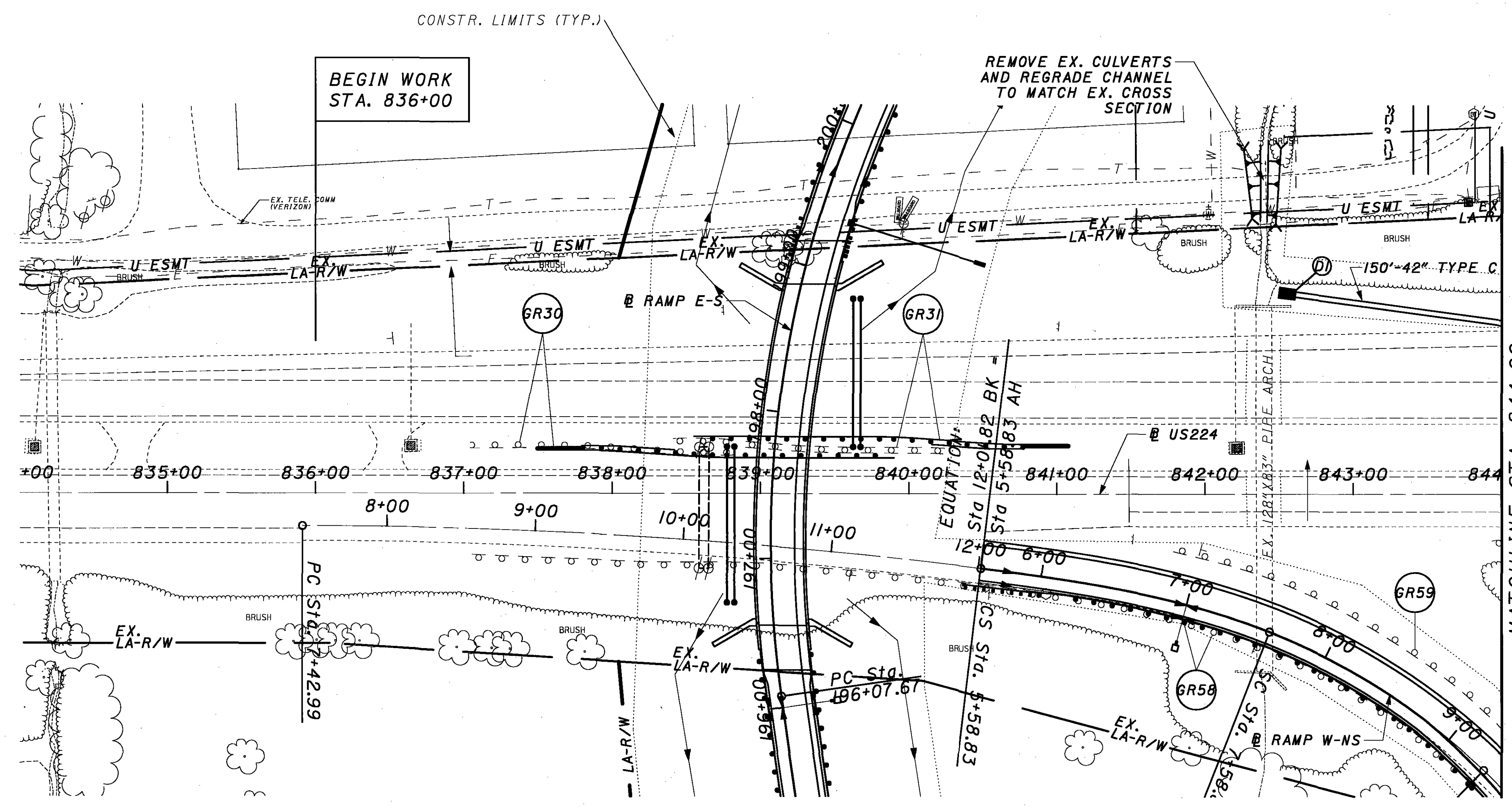
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

0 SHEET TOTAL

SHEET TOTAL

\\s-71b.dgn

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
151	GUARDRAIL QUANTITIES
592	TRAFFIC CONTROL



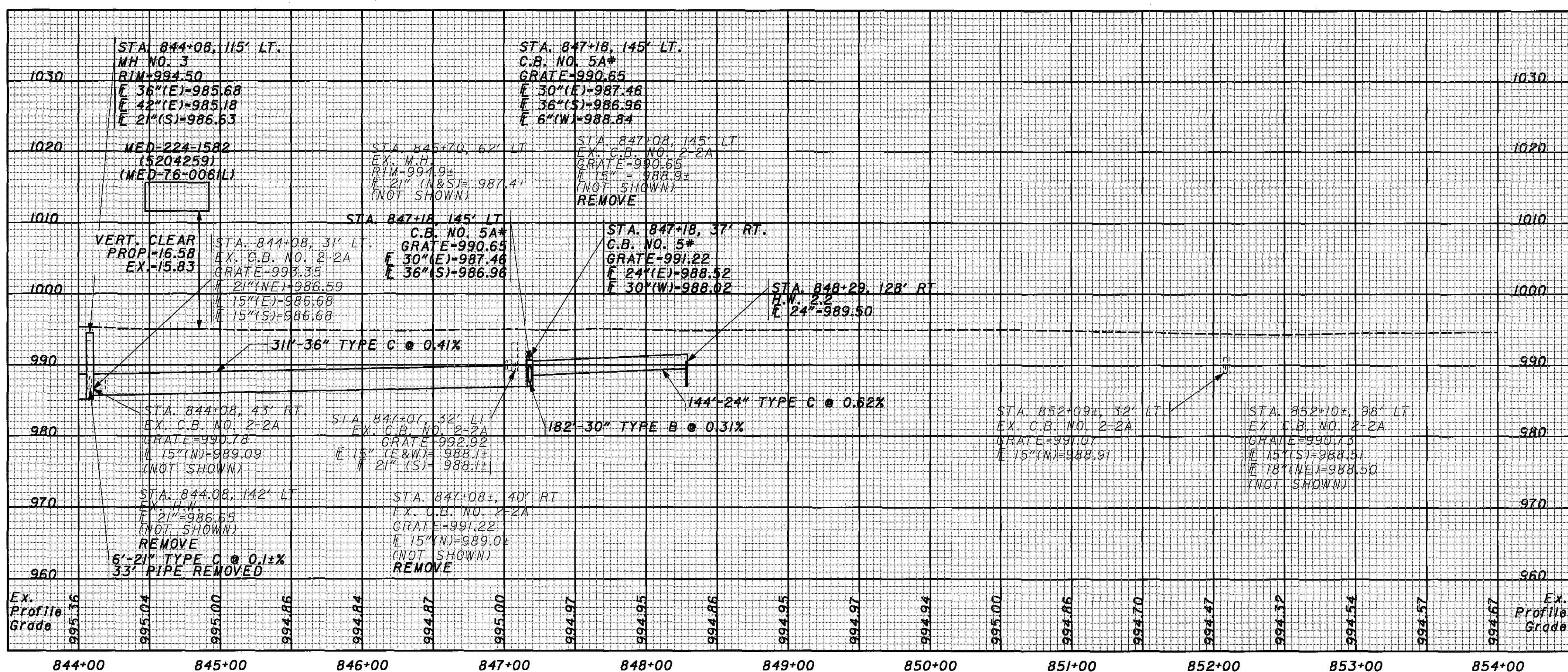
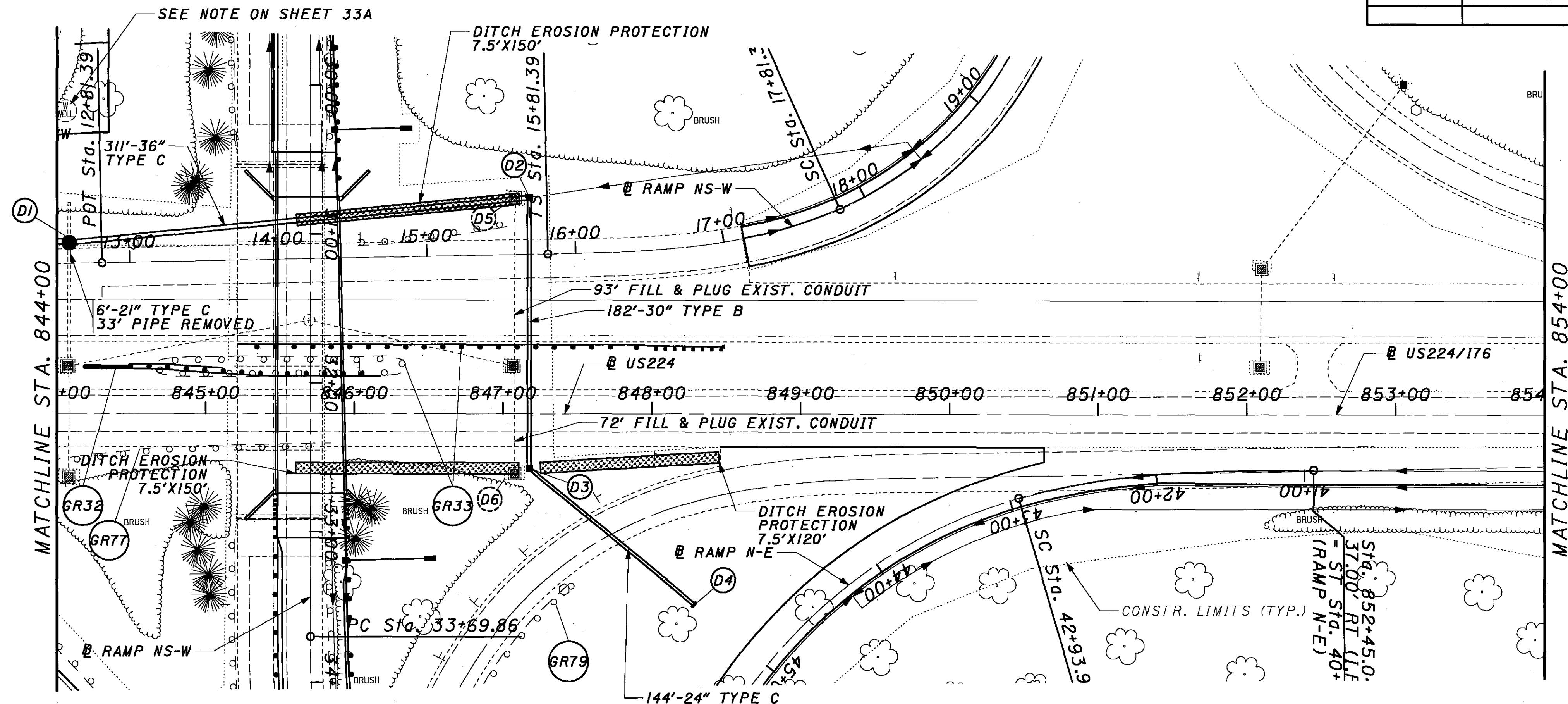
REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY
	FROM	TO			
D1	842+60	844+08	LT.	150'-42" TYPE C	150
				CONCRETE MASONRY	0.84
				ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	4.0
				42" CONDUIT TYPE C	150
TOTALS CARRIED TO SUB-SUMMARY					150

**US224 PLAN & PROFILE
STA. 834+00 TO STA. 844+00**

MED-71-6.06

318
1120

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
151-152	GUARDRAIL QUANTITIES
591,592	TRAFFIC CONTROL



REF NO.	STATION		SIDE	STRUCTURE REMOVED	CATCH BASIN REMOVED	PIPE REMOVED, 24" AND UNDER	SPECIAL	CONCRETE MASONRY	CONDUIT TYPE C	CONDUIT TYPE B BORED OR JACKED, APP	2" CONDUIT TYPE C	CATCH BASIN NO. 5A	CATCH BASIN NO. 5	DITCH EROSION PROTECT.
	FROM	TO												
D1	844+08	847+18	LT	1		33					6			
D2	847+18	847+18	LT&RT							182				125
D3	847+18	848+29	RT		1	10							1	225
D4	848+29	848+29	RT			10	0.43							
D5	847+08	847+08	LT			10								
D6	847+08	847+08	LT&RT			72								
TOTALS CARRIED TO SUB-SUMMARY				1	2	53	165	0.43	144	182	6	1	1	350

US224/176 PLAN & PROFILE
STA. 844+00 TO STA. 854+00

MED-71-6.06

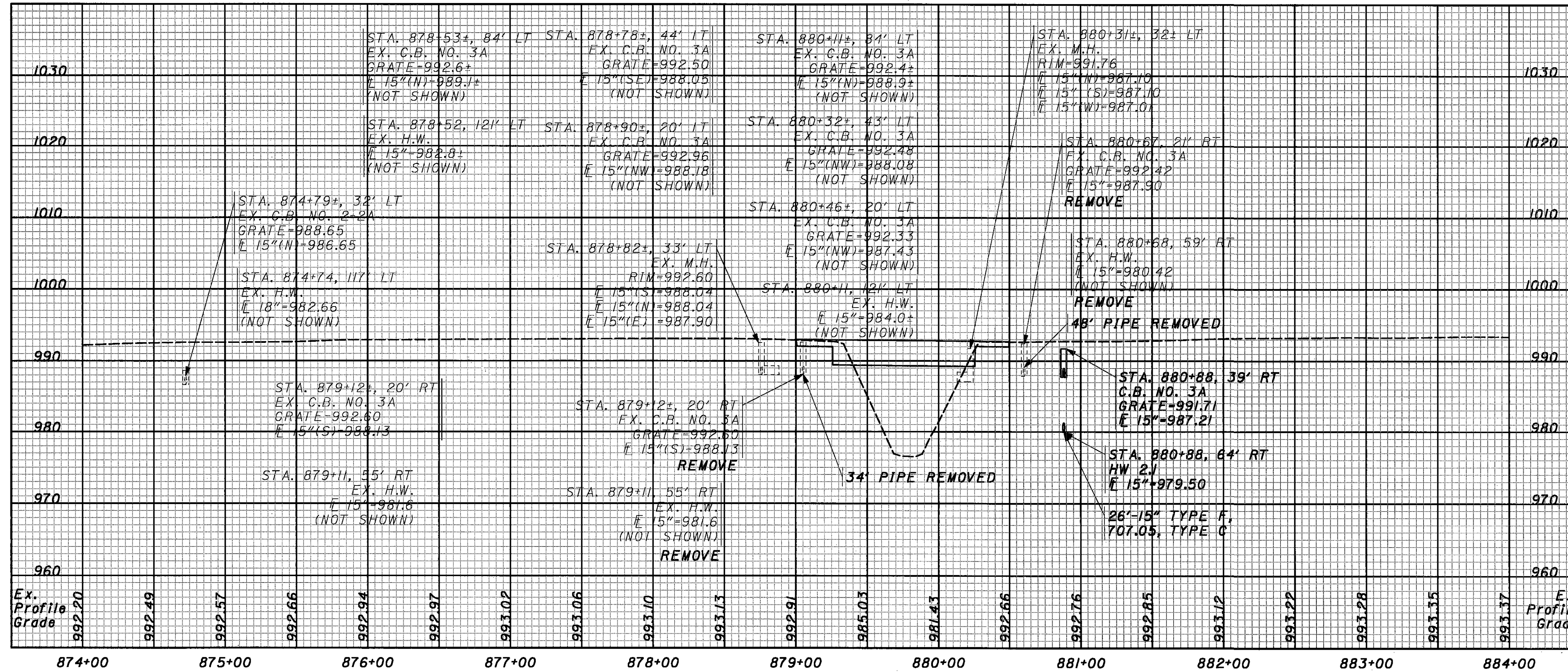
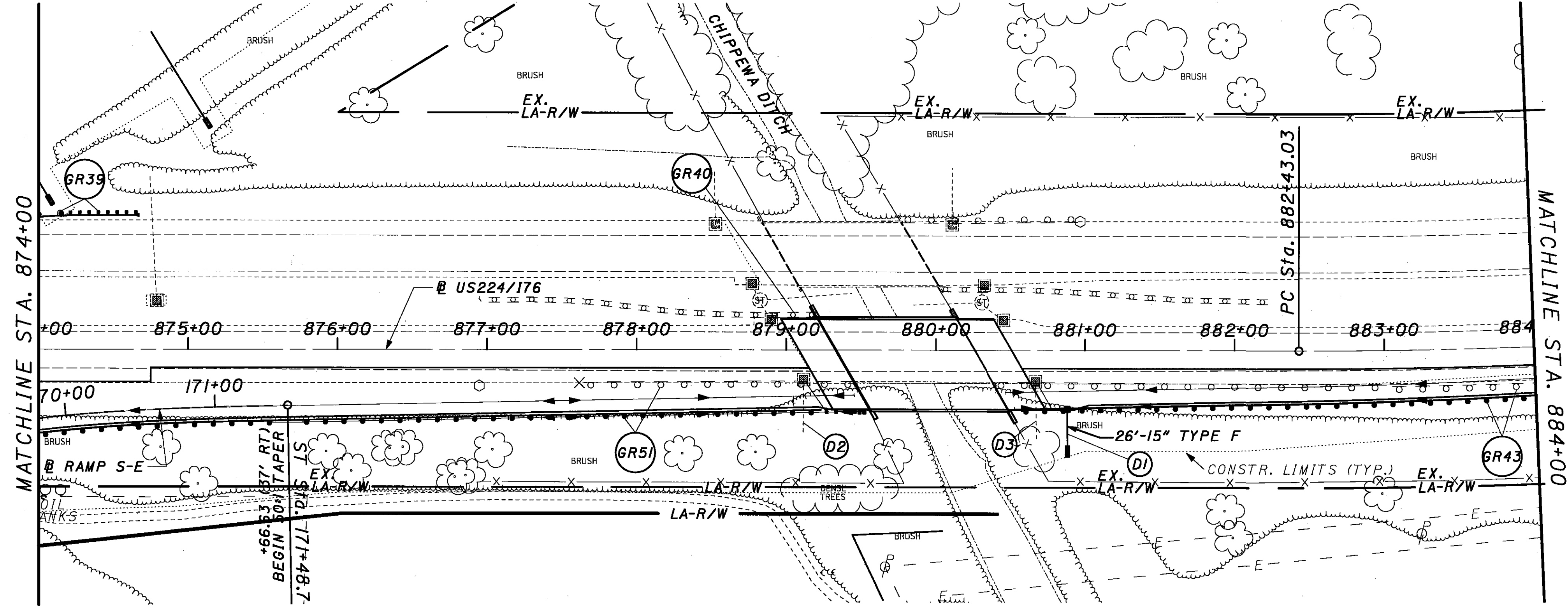
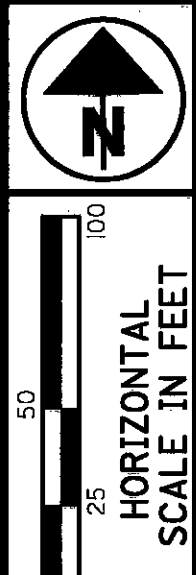
319
1120

CALCULATED: KEH
CHECKED: ENF

HORIZONTAL SCALE IN FEET
1" = 100'

...75657gp55.dgn

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
151	GUARDRAIL QUANTITIES
586, 595	TRAFFIC CONTROL



REF NO.	STATION		SIDE	STRUCTURE REMOVED	CATCH BASIN REMOVED	PIPE REMOVED, 24" AND UNDER	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC	CONCRETE MASONRY	15" CONDUIT TYPE F 707.05 TYPE C	CATCH BASIN NO. 3A	TOTALS CARRIED TO SUB-SUMMARY	
	FROM	TO									FEET	CU. YD.
D1	880+88	880+88	RT								1	
D2	879+11	879+12	RT	1	1	34					1	
D3	880+67	880+68	RT	1	1	48					1	
											2	0.27
TOTALS CARRIED TO SUB-SUMMARY											2	0.27

CALCULATED KEH
CHECKED ENF

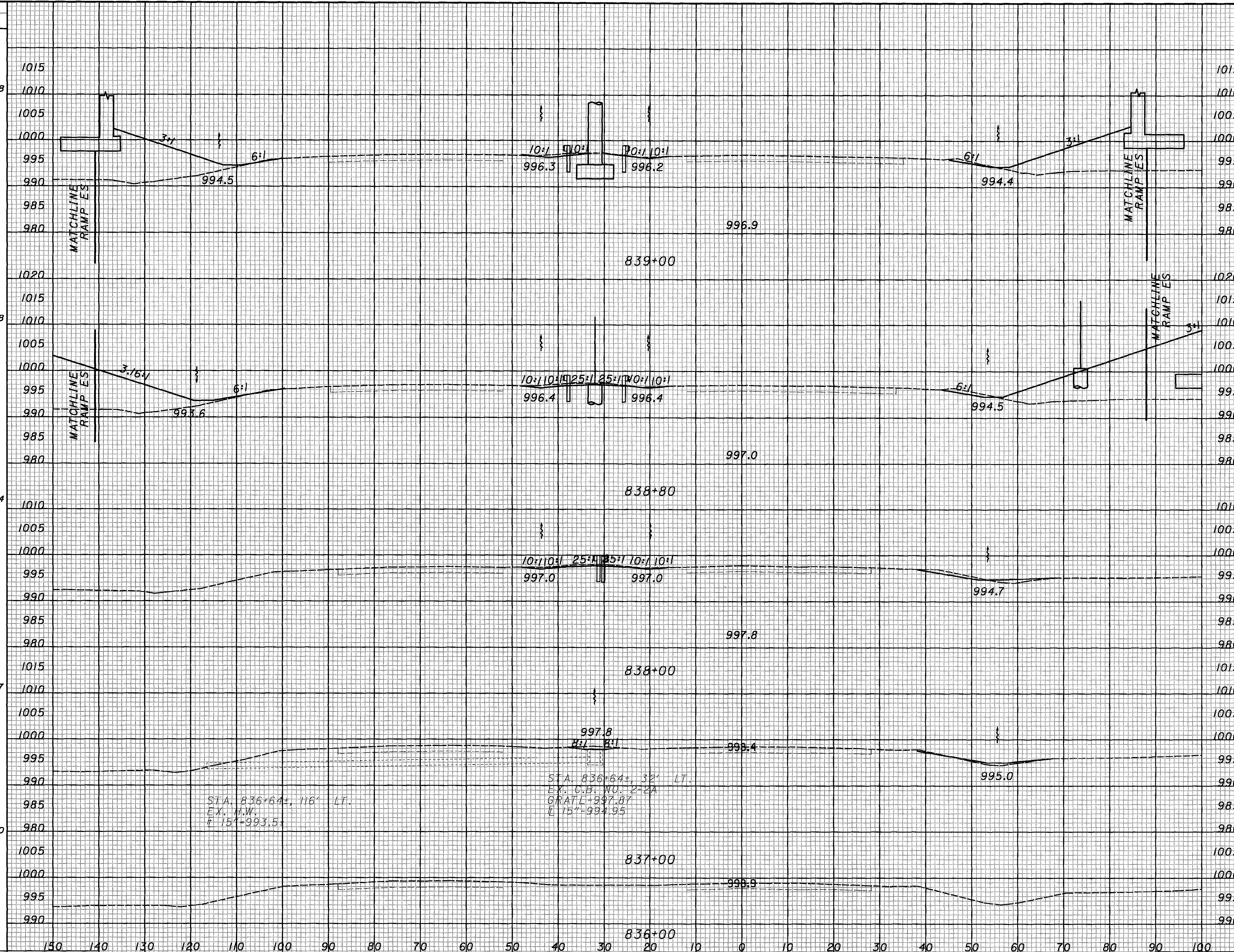
**US224/176 PLAN & PROFILE
STA. 874+00 TO STA. 884+00**

MED-71-6.06

322
1120

SEEDING
END WIDTH SO. YDS.

838
117
268
124
844
66
67
45
250
0



END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
10	343	29	794	
10	245	10		
16	319	16		
47	481	47		
16	6	16		
42	22	42		
7	6	7		
13	11	13		
0	0	0		
141	1553			

CROSS SECTIONS I.R.76
STA. 836+00 TO STA. 839+00

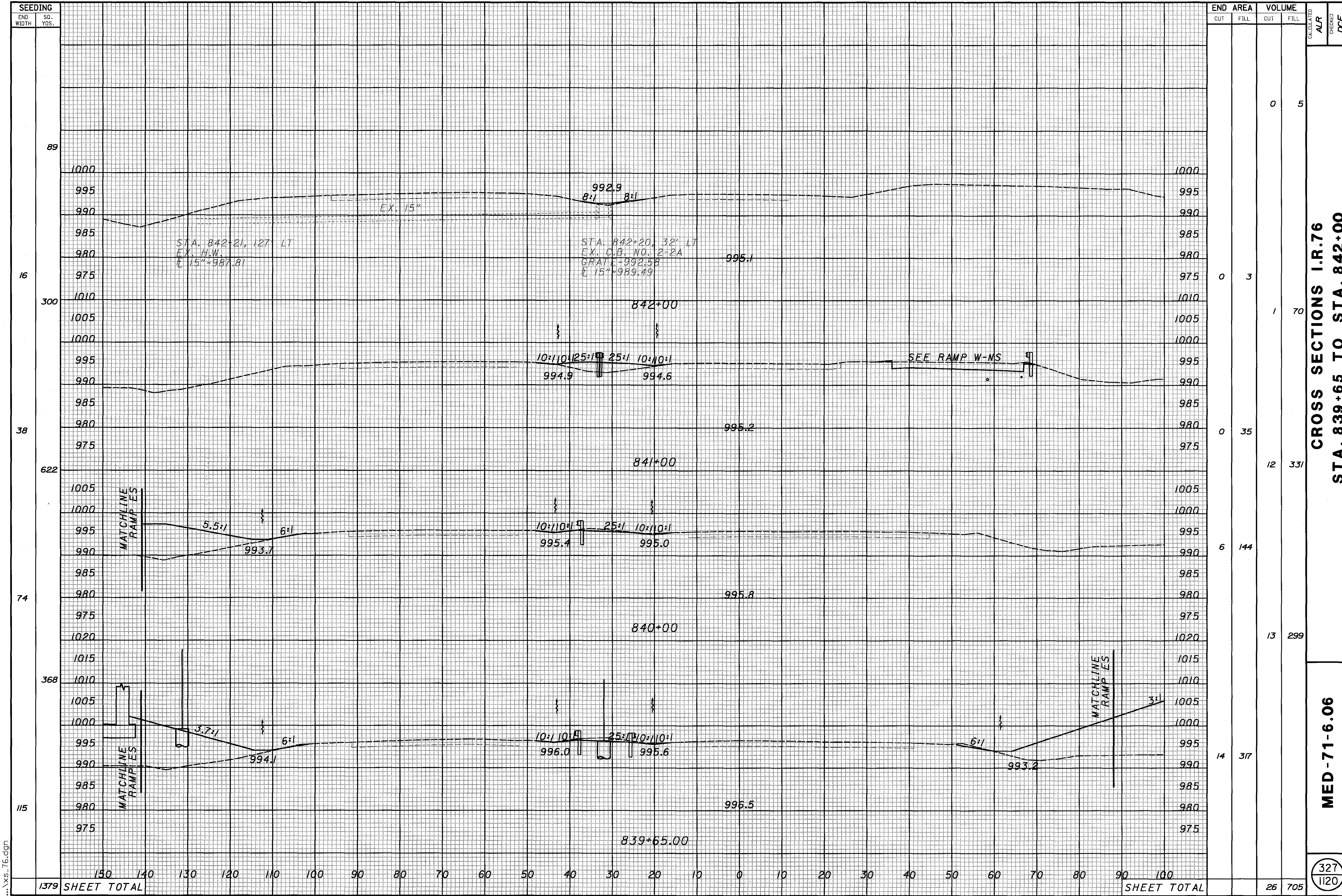
MED-71-6.06

326
1120

2817 SHEET TOTAL

SHEET TOTAL

...xs_76.dgn



..xs-76.dgn

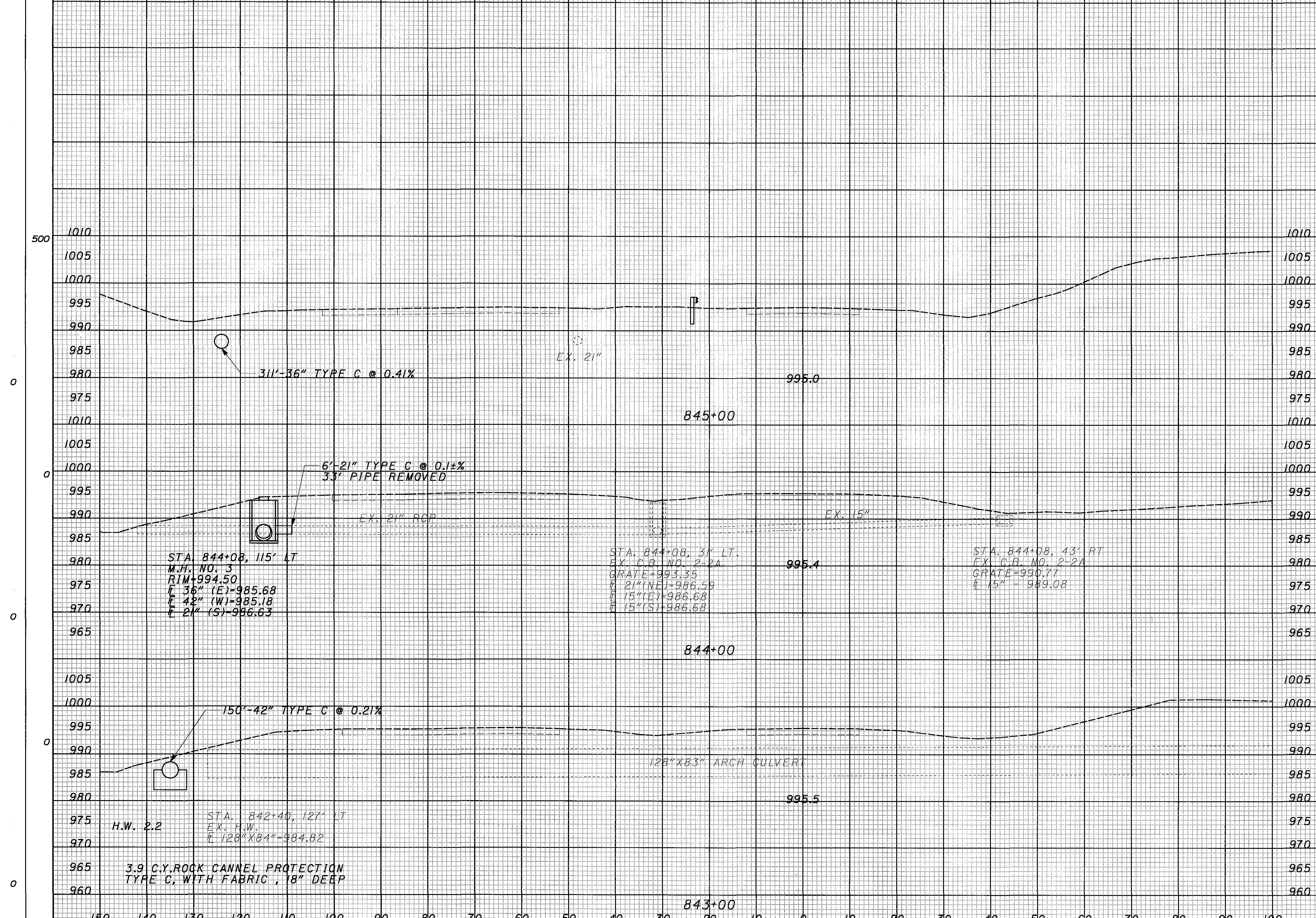
SEEDING

END WIDTH SO. YDS.

END AREA VOLUME

CUT FILL CUT FILL

CALCULATED ALR CHECKED DCF



STA. 844+08, 115' LT
M.H. NO. 3
RIM+994.50
E 36" (E)-985.68
E 42" (W)-985.18
E 21" (S)-986.63

STA. 844+08, 31' LT.
EX. C.B. NO. 2-2A
GRATE=993.35
E 21" (NE)-986.59
E 15" (E)-986.68
E 15" (S)-986.68

STA. 844+08, 43' RT
EX. C.B. NO. 2-2A
GRATE=990.77
E 15" = 989.08

STA. 842+40, 127' LT
EX. H.W.
E 128" X 81"-984.82

H.W. 2.2

500 SHEET TOTAL

SHEET TOTAL

3 74

CROSS SECTIONS I.R.76
STA. 843+00 TO STA. 845+00

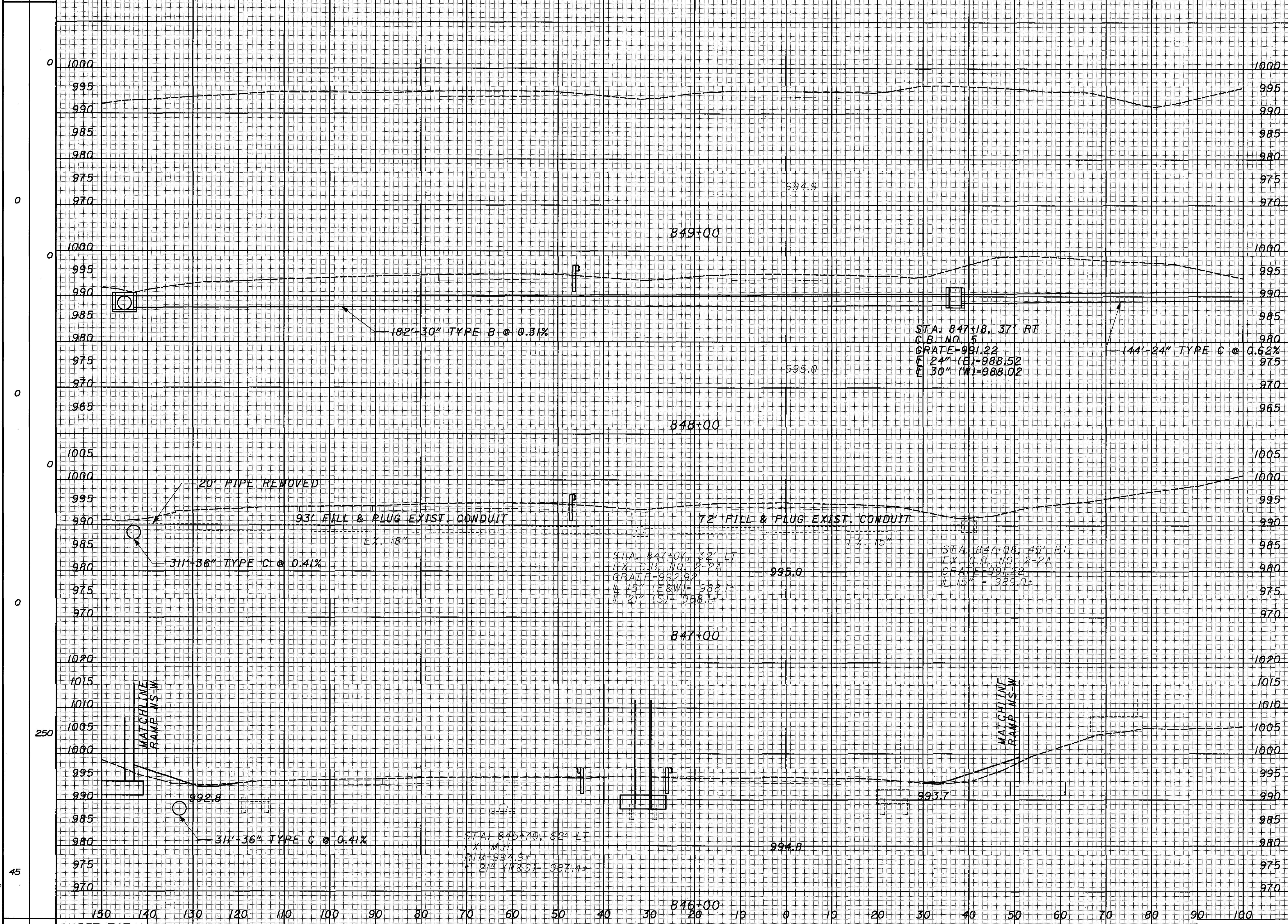
MED-71-6.06

328
1120

...Xs_76.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



CROSS SECTIONS I.R.76
STA. 846+00 TO STA. 849+00

MED-71-6.06

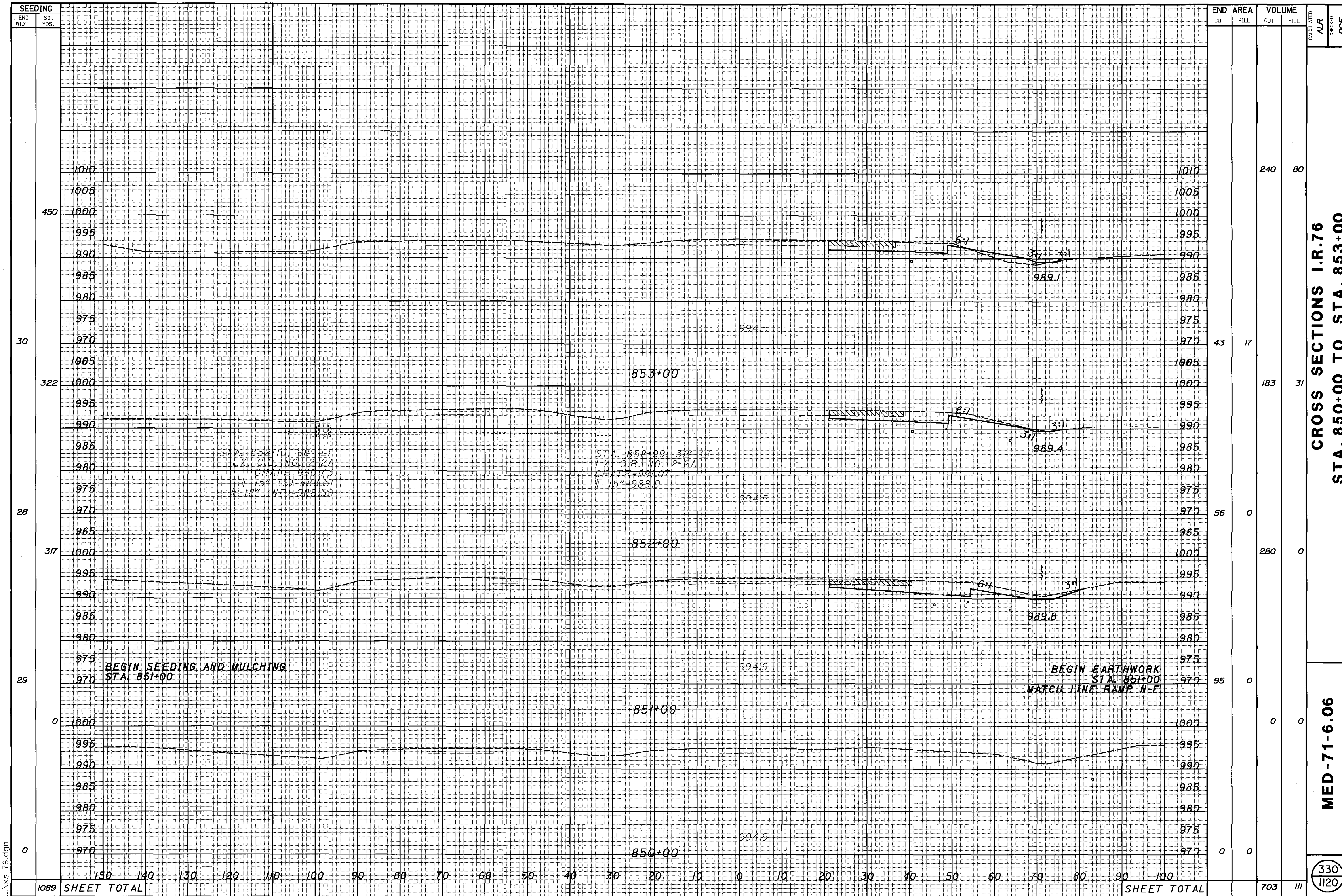
329
1120

...xs-76.dgn

250 SHEET TOTAL

SHEET TOTAL

3 74



...xs.76.dgn

SEEDING	
END WIDTH	SO. YDS.
450	
30	
322	
28	
317	
29	
0	
0	
1089	

END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
1010			240	80		
1005						
1000						
995						
990						
985						
980						
975						
970	43	17				
1005						
1000			183	31		
995						
990						
985						
980						
975						
970	56	0				
965						
1000			280	0		
995						
990						
985						
980						
975						
970	95	0				
1000			0	0		
995						
990						
985						
980						
975						
970	0	0				
1089			703	111		

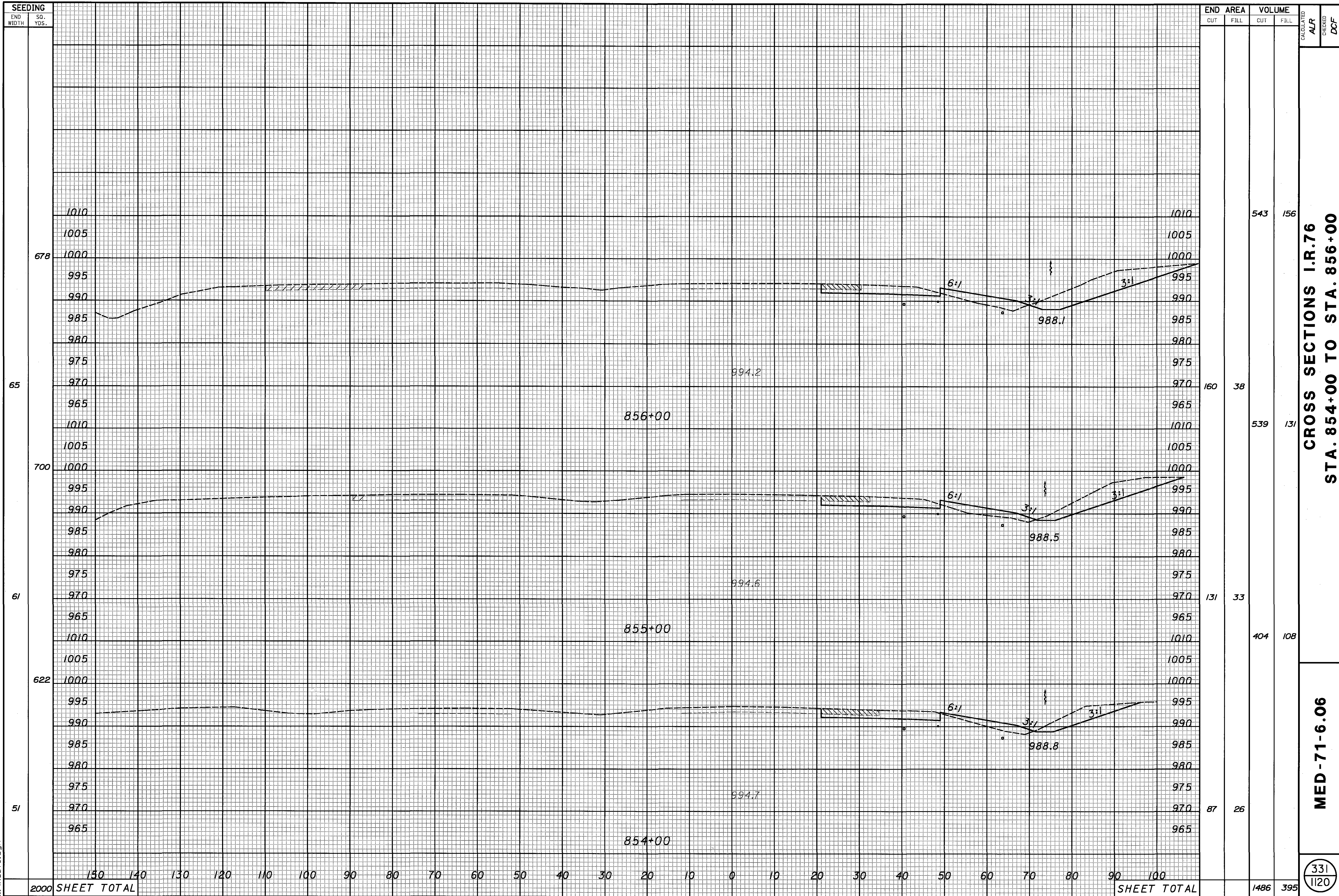
CROSS SECTIONS I.R.76
STA. 850+00 TO STA. 853+00

MED-71-6.06

330
1120

SHEET TOTAL

SHEET TOTAL

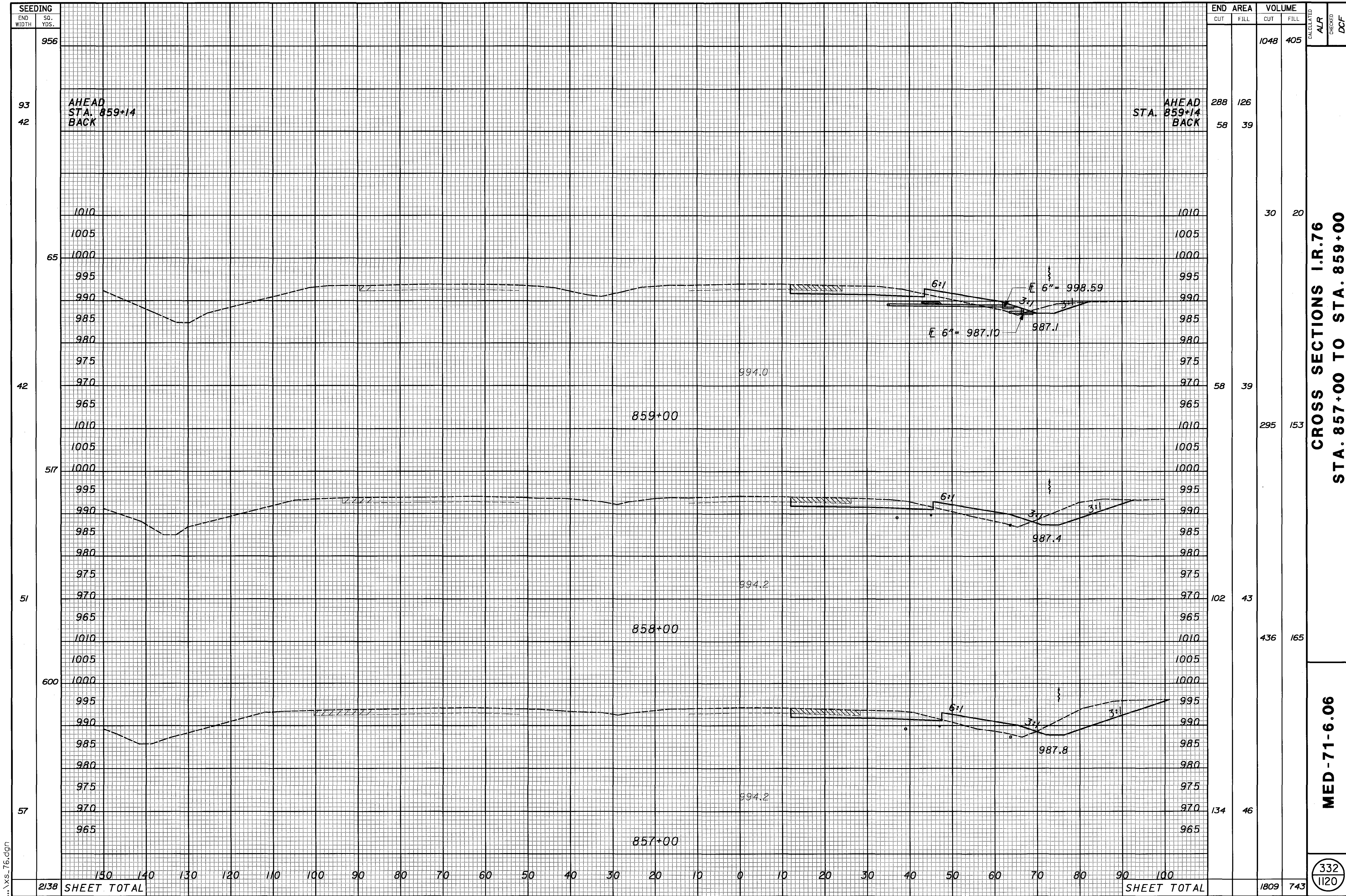


CROSS SECTIONS I.R.76
 STA. 854+00 TO STA. 856+00

MED-71-6.06

331
1120

... \xss-76.dgn

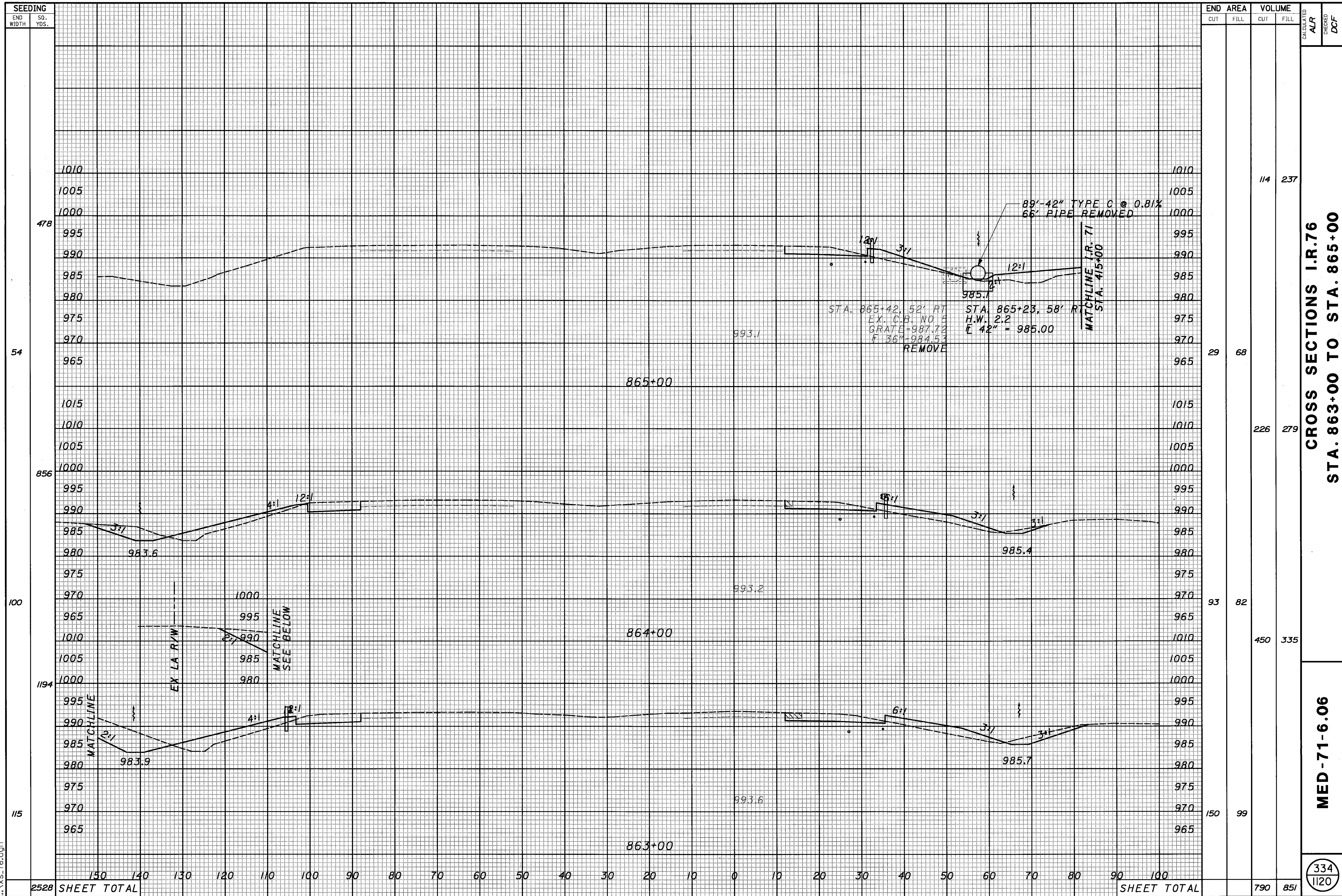


CROSS SECTIONS I.R.76
STA. 857+00 TO STA. 859+00

MED-71-6.06

332
1120

... \xs-76.dgn

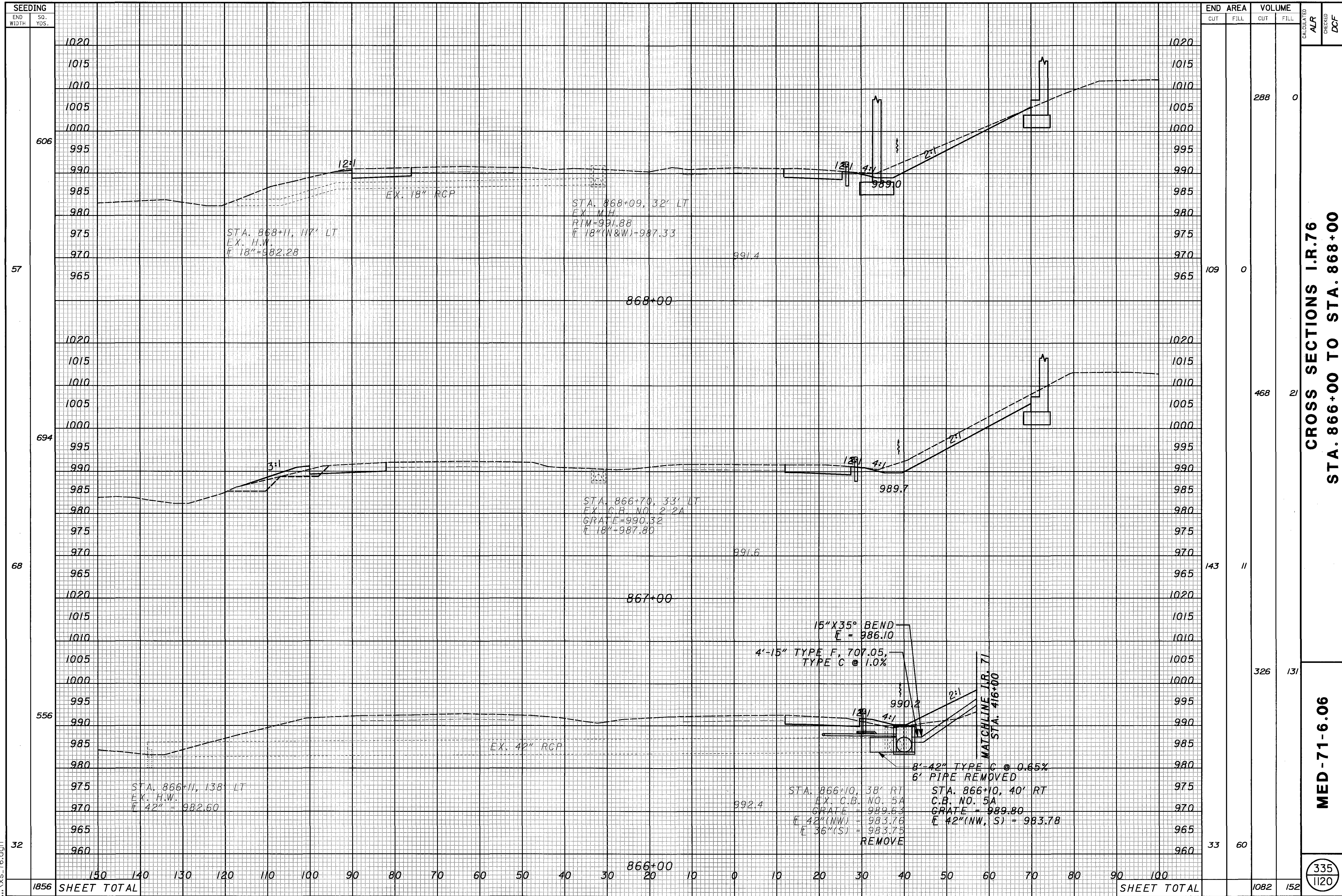


CROSS SECTIONS I.R.76
STA. 863+00 TO STA. 865+00

MED-71-6.06

334
 1120

...X.S.-76.dgn



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
606			288	0
57	109	0		
694			468	21
68	143	11		
556			326	131
32	33	60		
1856	150	140	1082	152

CROSS SECTIONS I.R.76
STA. 866+00 TO STA. 868+00

MED-71-6.06

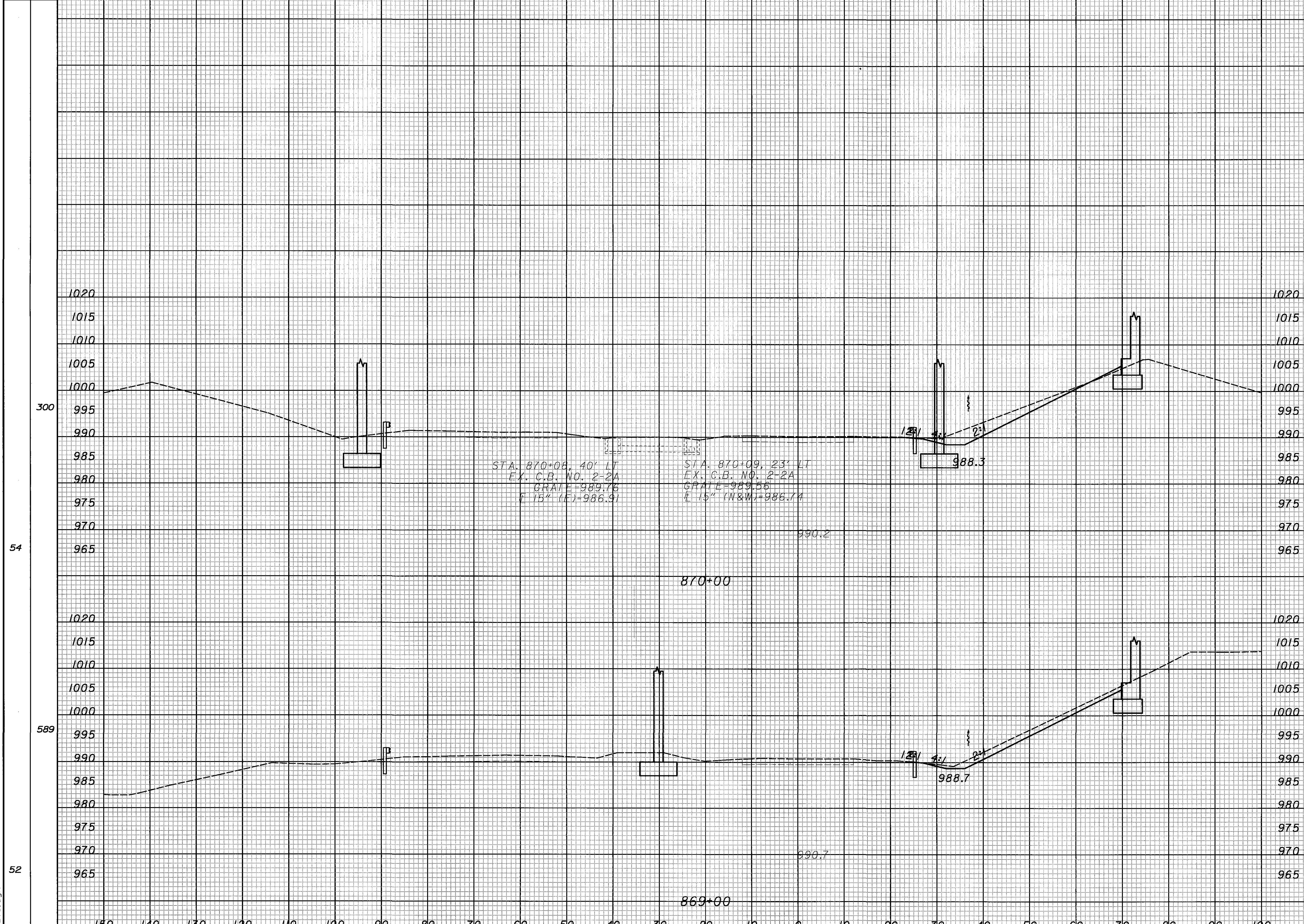
335
 1120

...xss_76.dgn

SEEDING

END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



END AREA	VOLUME	CALCULATED	CHECKED
CUT	FILL	ALR	DCF
58	2	107	4
46	0	193	4
300	8	336	1120

CROSS SECTIONS I.R.76
STA. 869+00 TO STA. 870+00

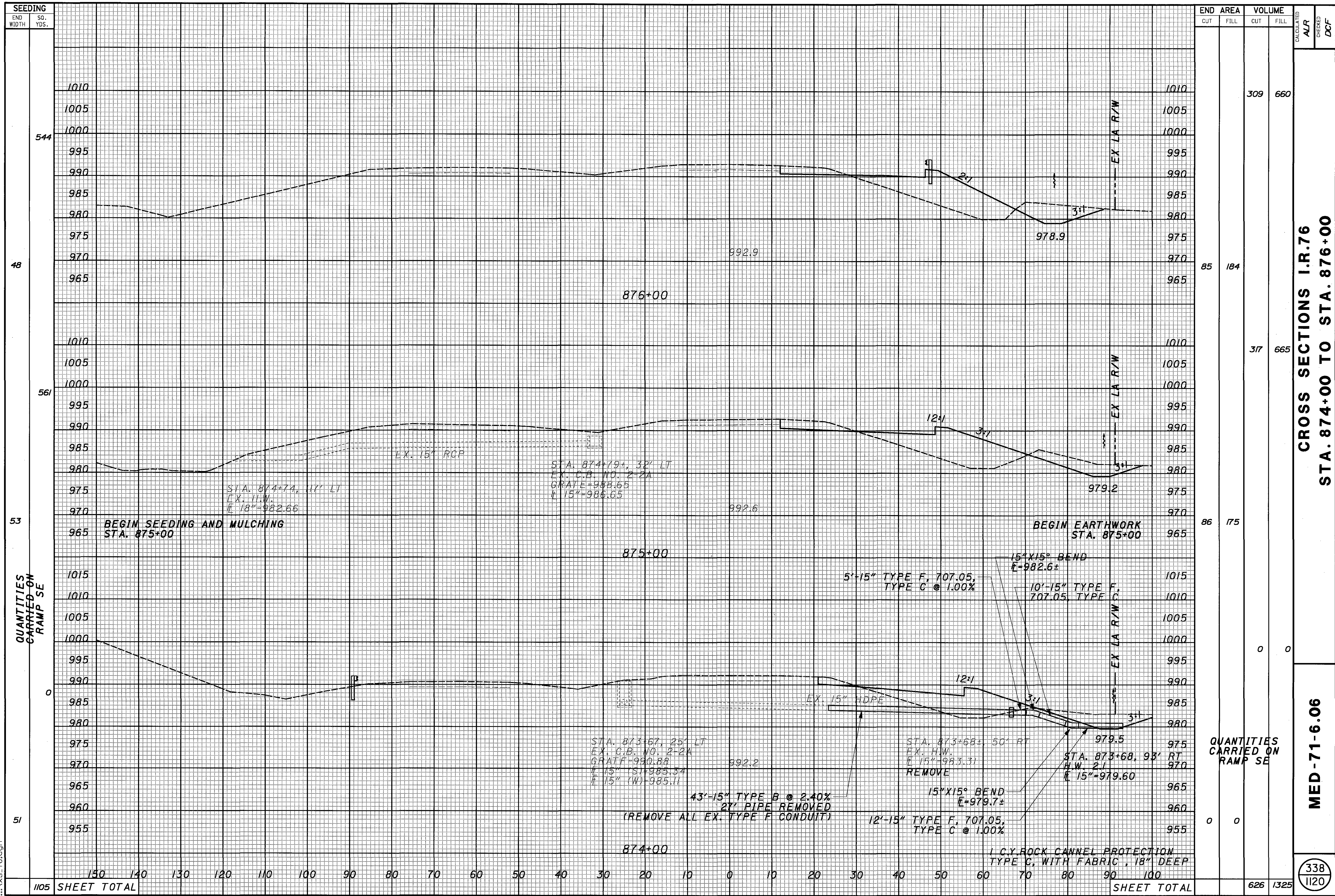
MED-71-6.06

336
1120

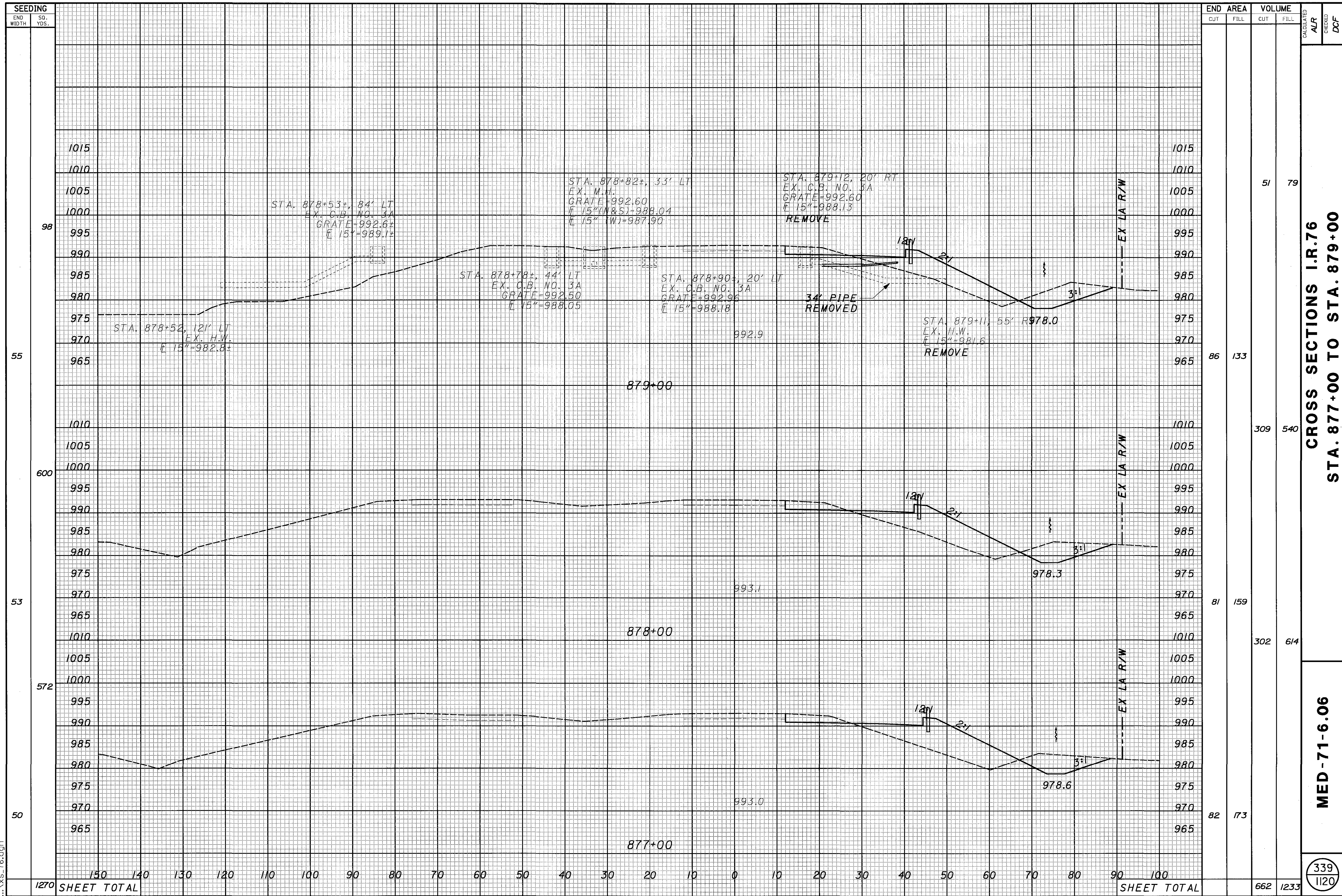
...Xs_76.dgn

889 SHEET TOTAL

SHEET TOTAL



END AREA	VOLUME		CALCULATED	CHECKED	DCF
	CUT	FILL			
1010					
1005					
1000					
995					
990					
985					
980					
975					
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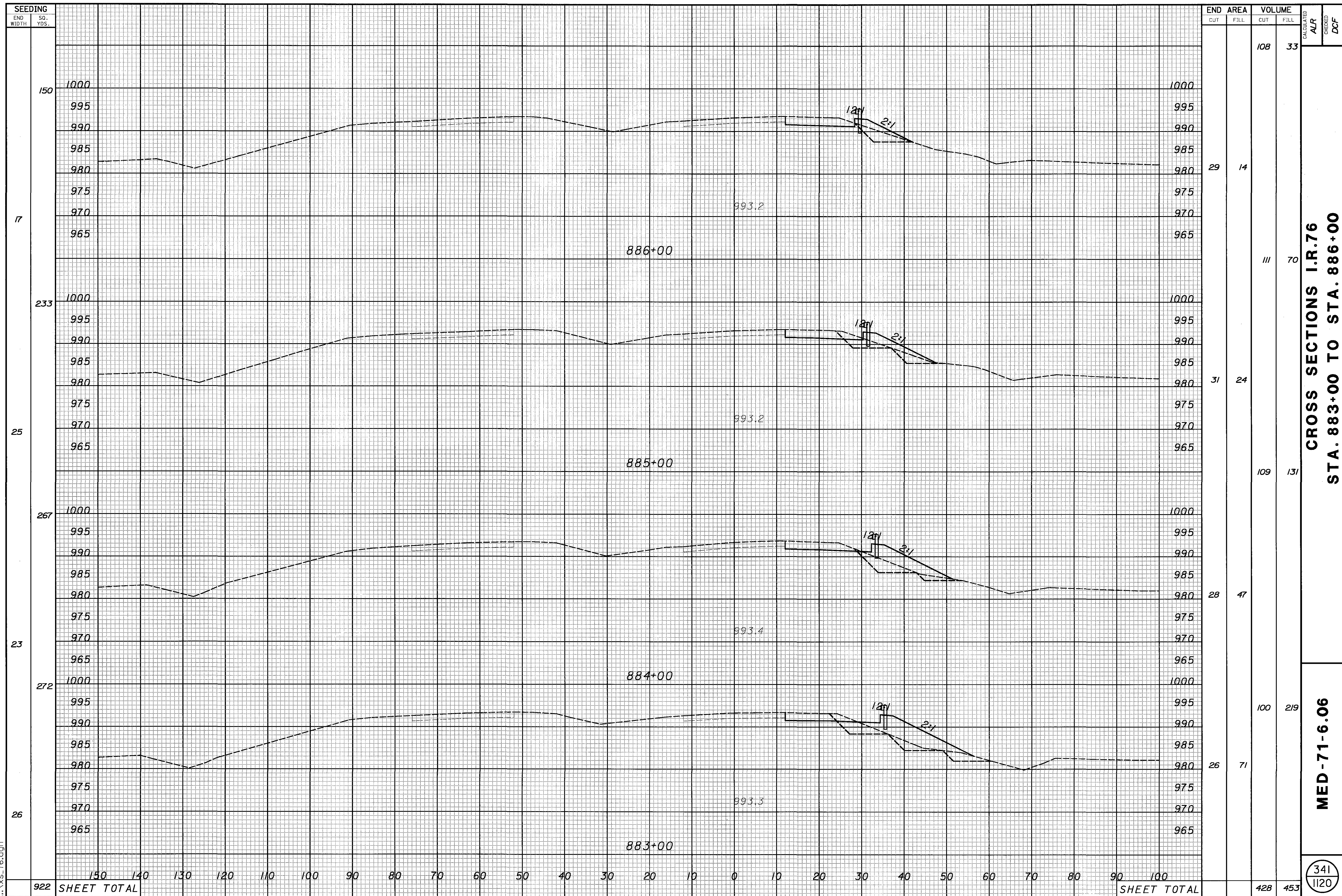


CROSS SECTIONS I.R.76
STA. 877+00 TO STA. 879+00

MED-71-6.06

339
 1120

...\\xs_76.dgn

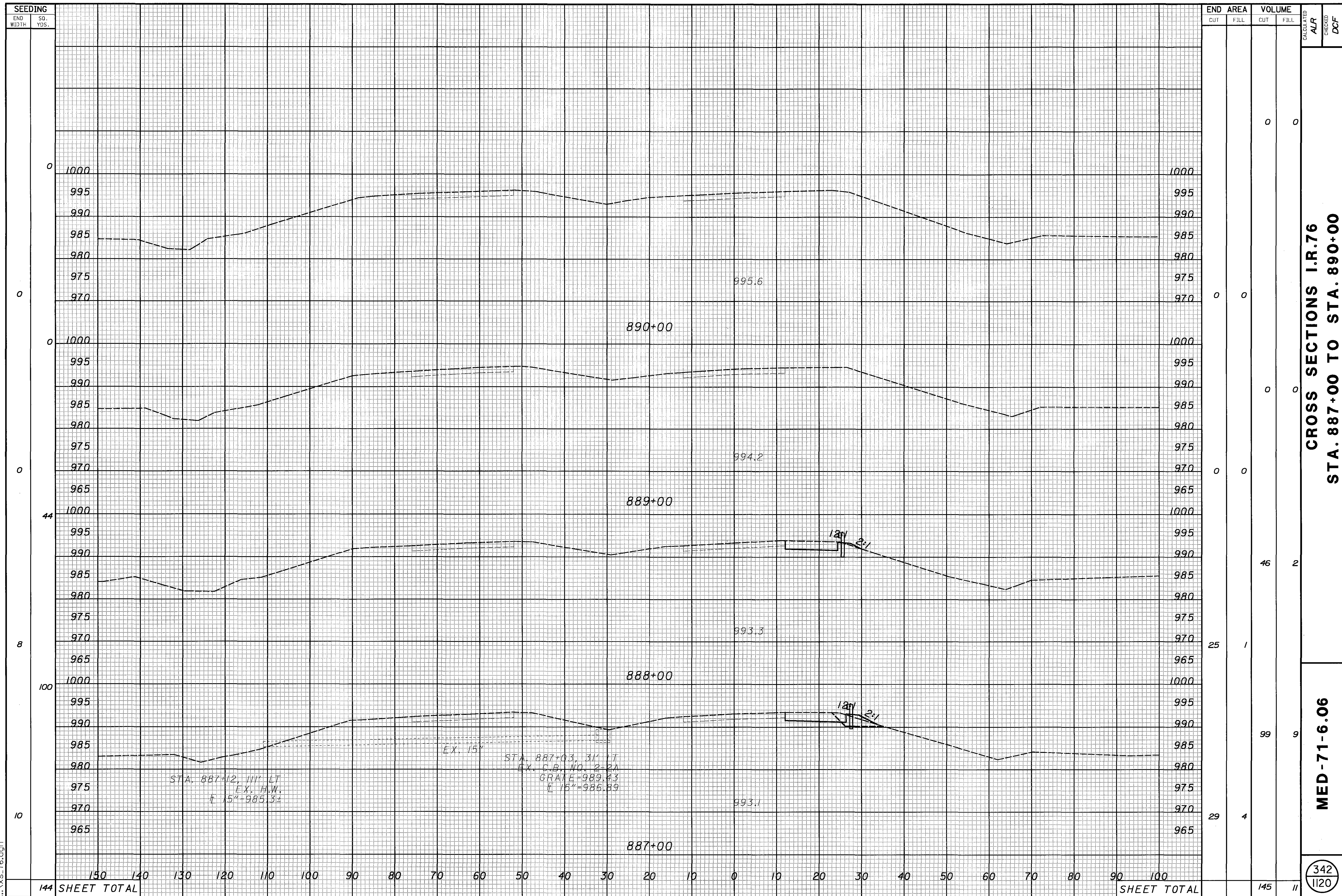


CROSS SECTIONS I.R.76
STA. 883+00 TO STA. 886+00

MED-71-6.06

341
1120

...xs_76.dgn



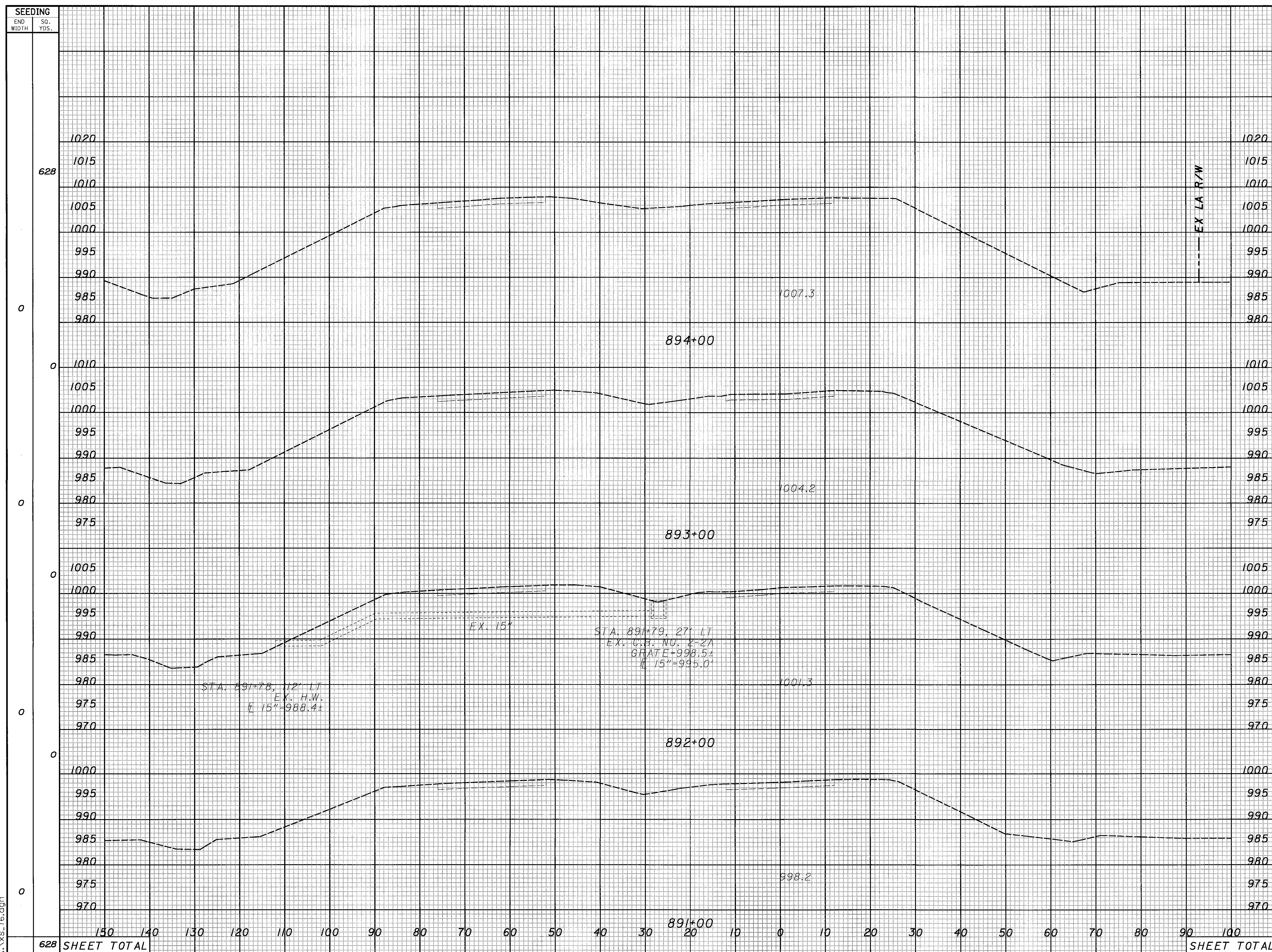
CROSS SECTIONS I.R.76
STA. 887+00 TO STA. 890+00

MED-71-6.06

...xs_76.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



628 SHEET TOTAL

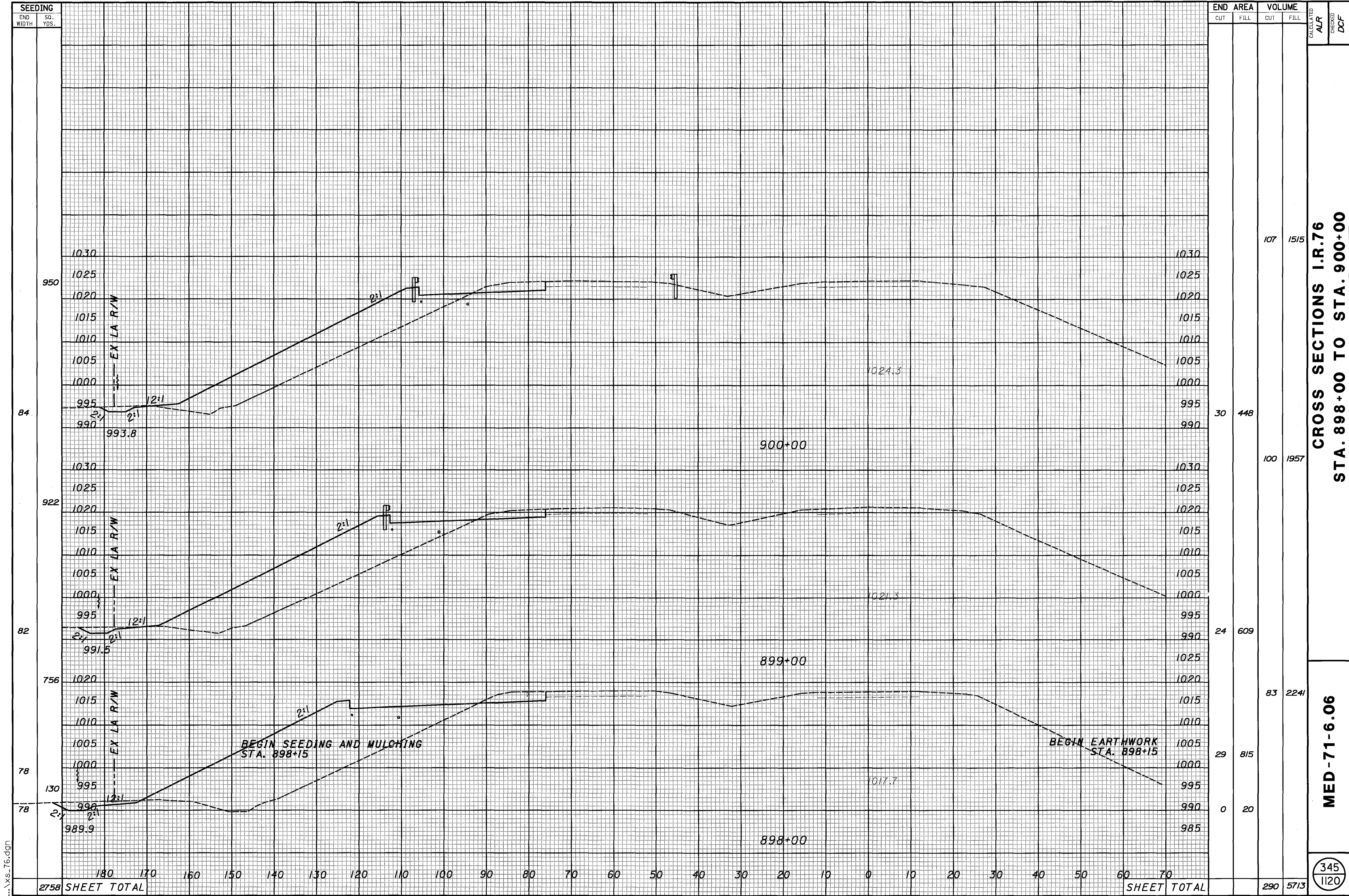
SHEET TOTAL

CROSS SECTIONS I.R.76
STA. 891+00 TO STA. 894+00

MED-71-6.06

343
1120

... \xs_76.dgn



SEEDING	
END WIDTH	SQ. YDS.
84	
82	
78	
78	
2758	SHEET TOTAL

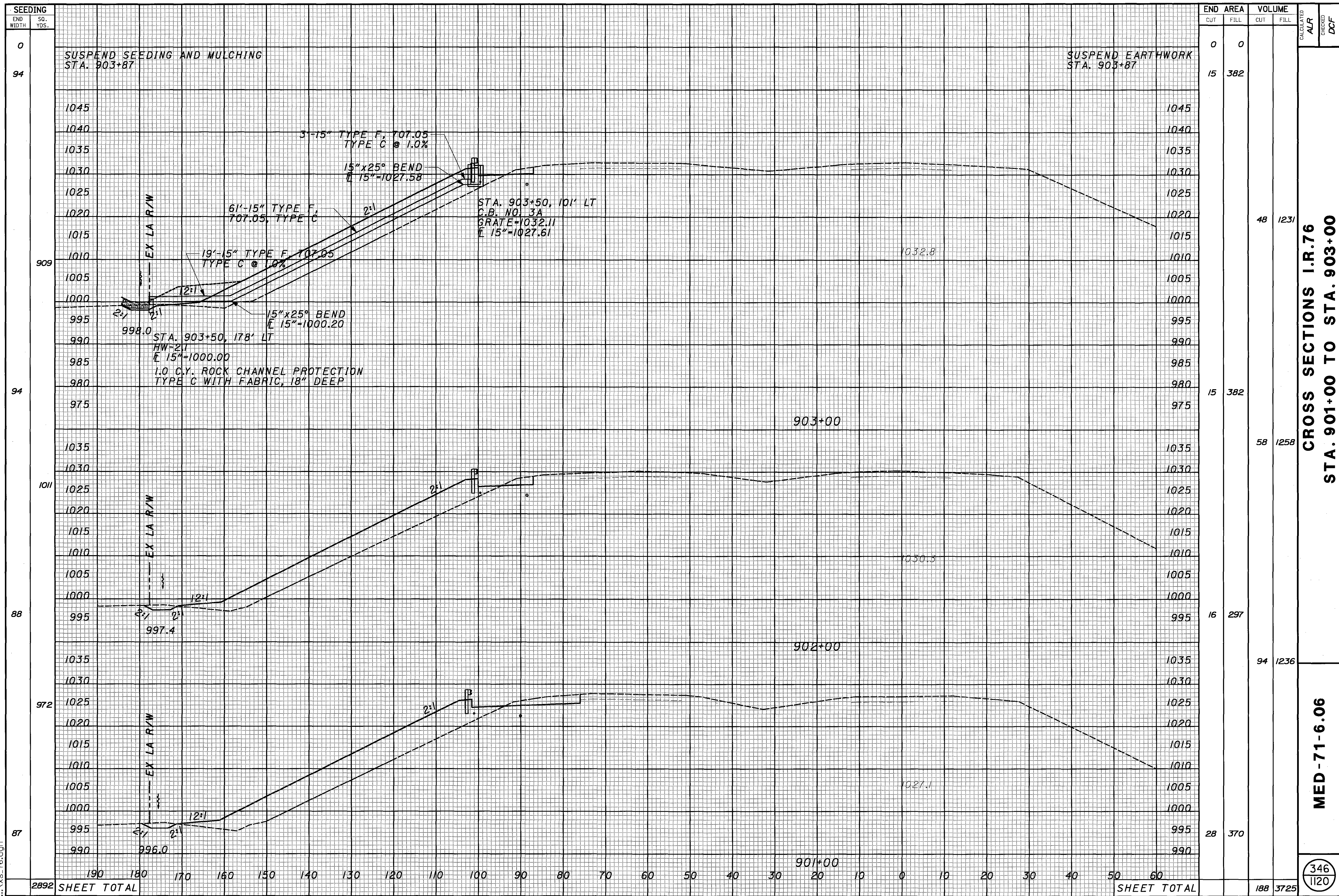
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		107	1515
30	448	100	1957
24	609	83	2241
29	815	0	20
		290	5713

CROSS SECTIONS I.R.76
STA. 898+00 TO STA. 900+00

MED-71-6.06
345
1120

CALCULATED
ALR
CHECKED
DCF

...Xs.76.dgn



..Xs.76.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



END SEEDING AND MULCHING
STA. 907+50

END EARTHWORK
STA. 907+50

STA. 908+40±, 84'± LT
EX. C.B. NO. 3A
GRATE=1036.9±
E 15"=1032.4±
REMOVE

STA. 906+42, 34' LT
EX. C.B. NO. 2-2A
GRATE=1036.75±
E 18"(N&S)=1032.2±
E 18" (W)=1032.2±

STA. 906+38±, 22'± RT
EX. C.B. NO. 3A
GRATE=1036.9±
E 15"=1032.4±

2:1

E 6"= 1032.81

STA. 906+39±, 48'± LT
EX. C.B. NO. 3A
GRATE=1037.0±
E 18"=1032.5±

STA. 906+38±, 16'± LT
EX. C.B. NO. 3A
GRATE=1037.2±
E 18"=1032.7±

1033.3

STA. 906+42, 23'± RT
EX. H.W.
E 15"=1003.77±
995
990

907+00

203

6 409

73

3 221

203 SHEET TOTAL

SHEET TOTAL

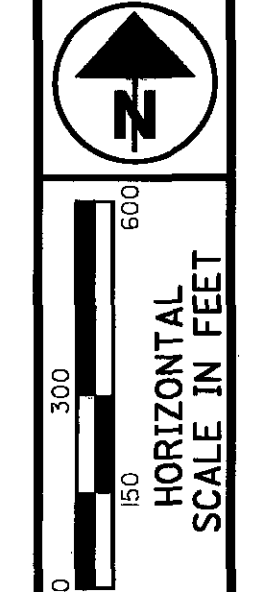
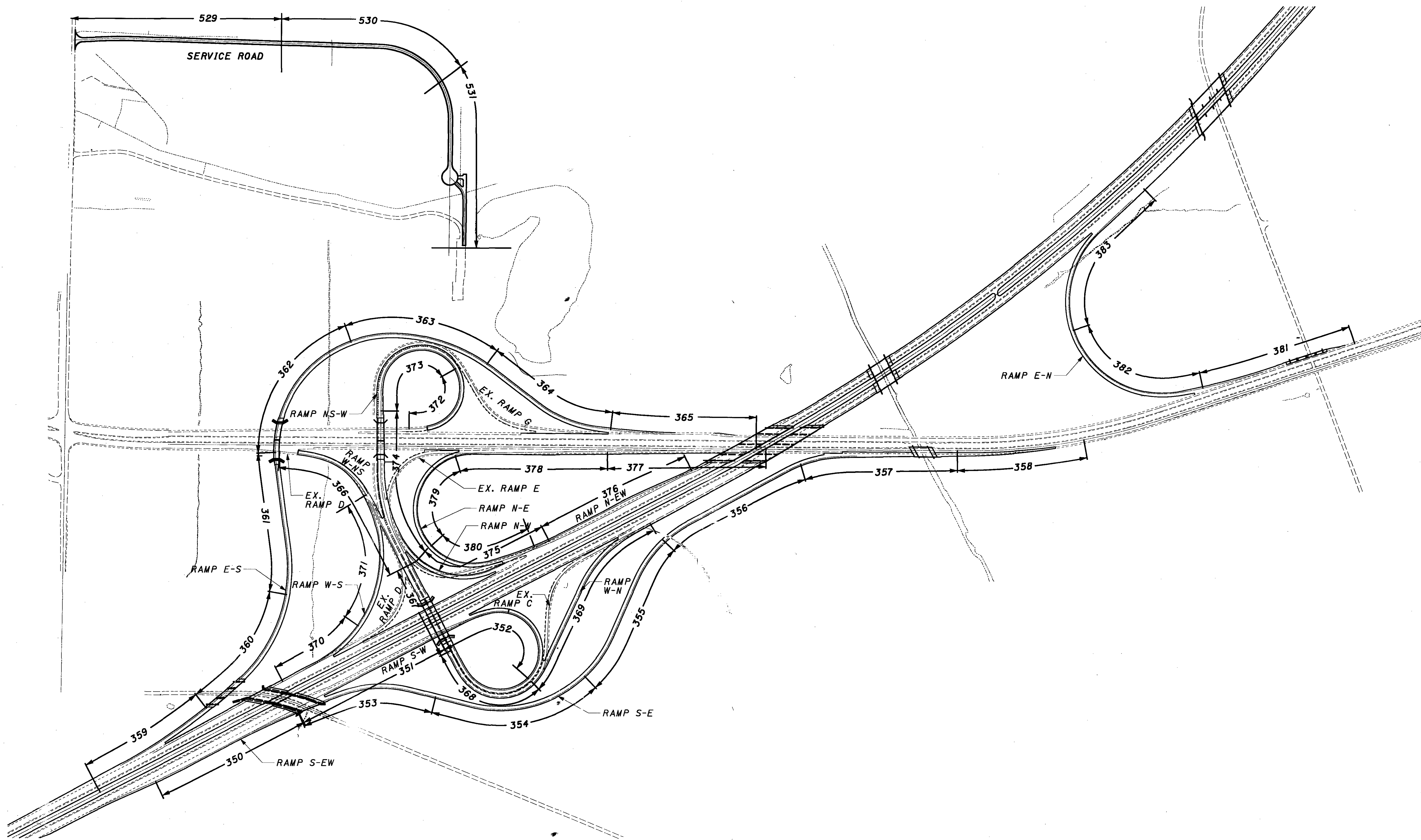
6 409

CROSS SECTIONS I.R.76
STA. 907+00 TO STA. 908+00

MED-71-6.06

348
1120

... \xs_76.dgn

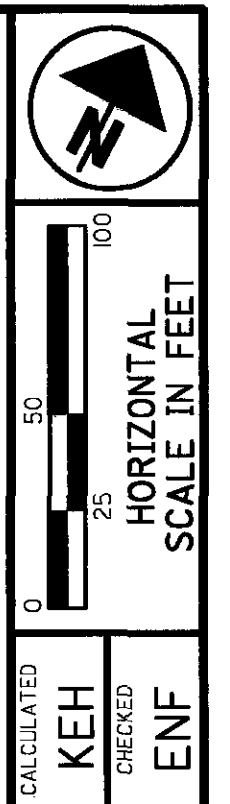


RAMP PLAN & PROFILE LAYOUT

MED-71-6.06

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
152	UNDERDRAIN QUANTITIES
582, 583	GUARDRAIL QUANTITIES
	TRAFFIC CONTROL

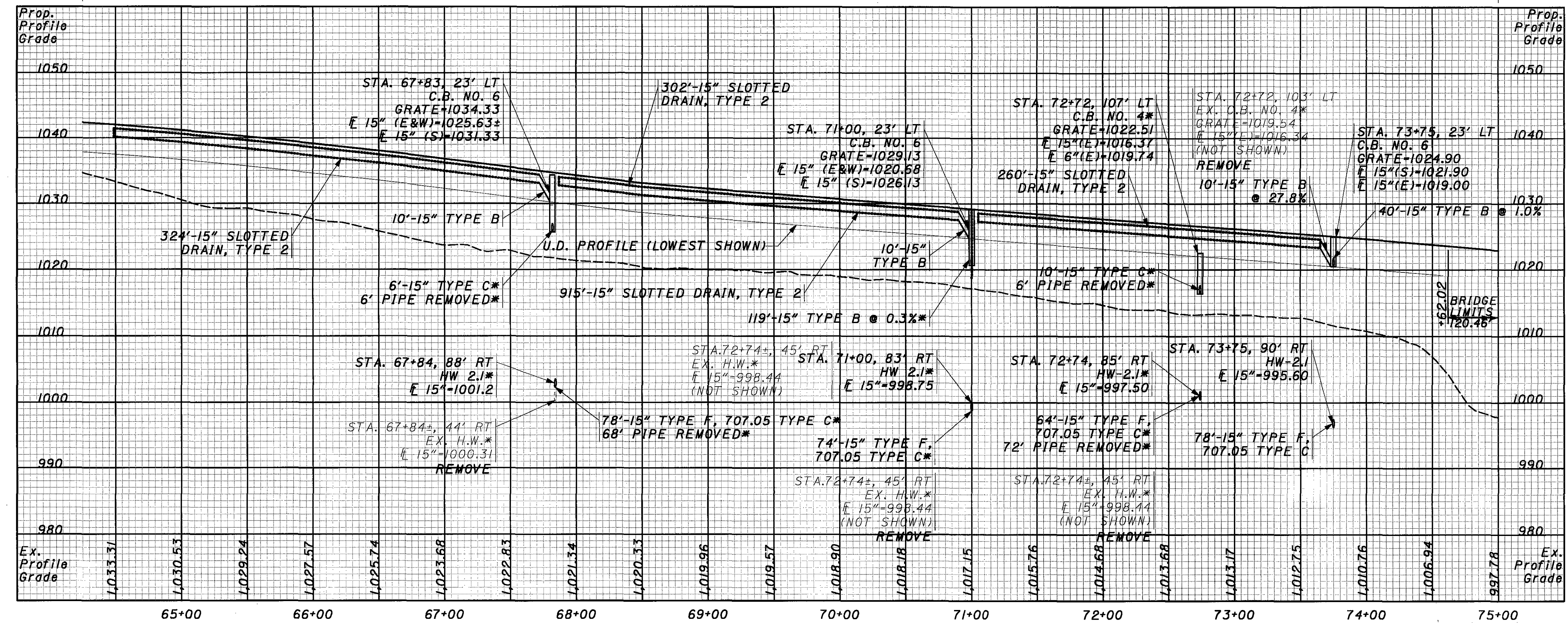
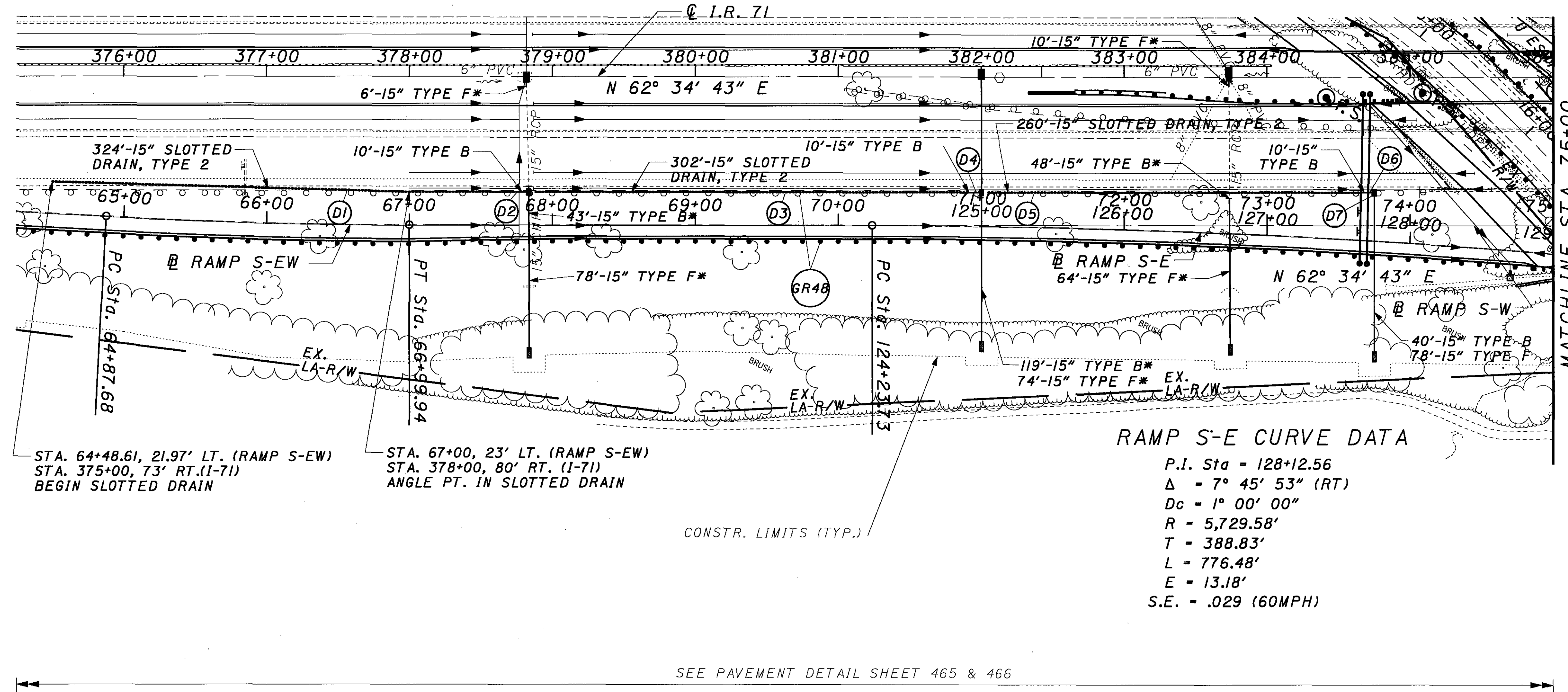
*SEE SHEET 184 FOR QUANTITIES



RAMP S-EW & S-W PLAN & PROFILE
STA. 65+00 TO STA. 75+00

MED-71-6.06

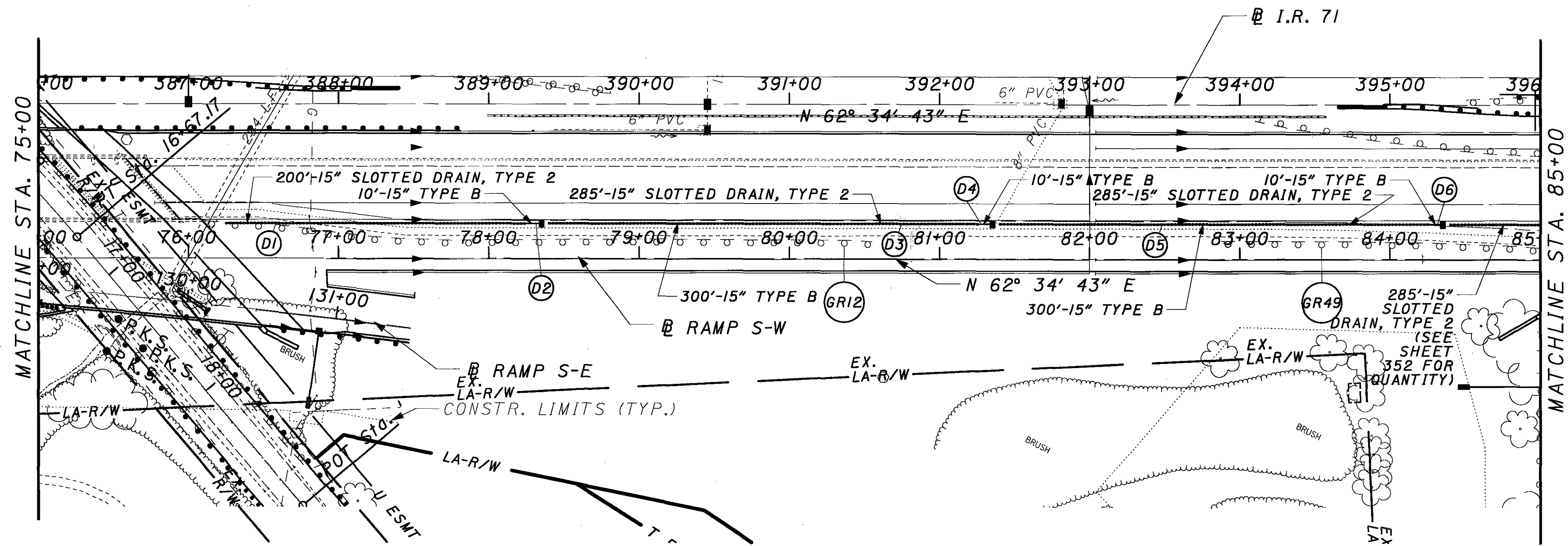
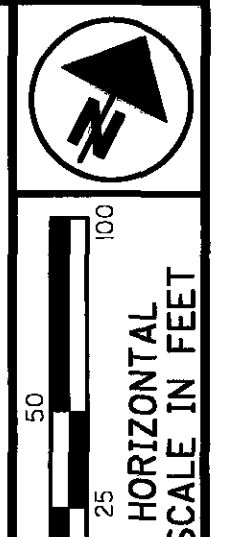
350
1120



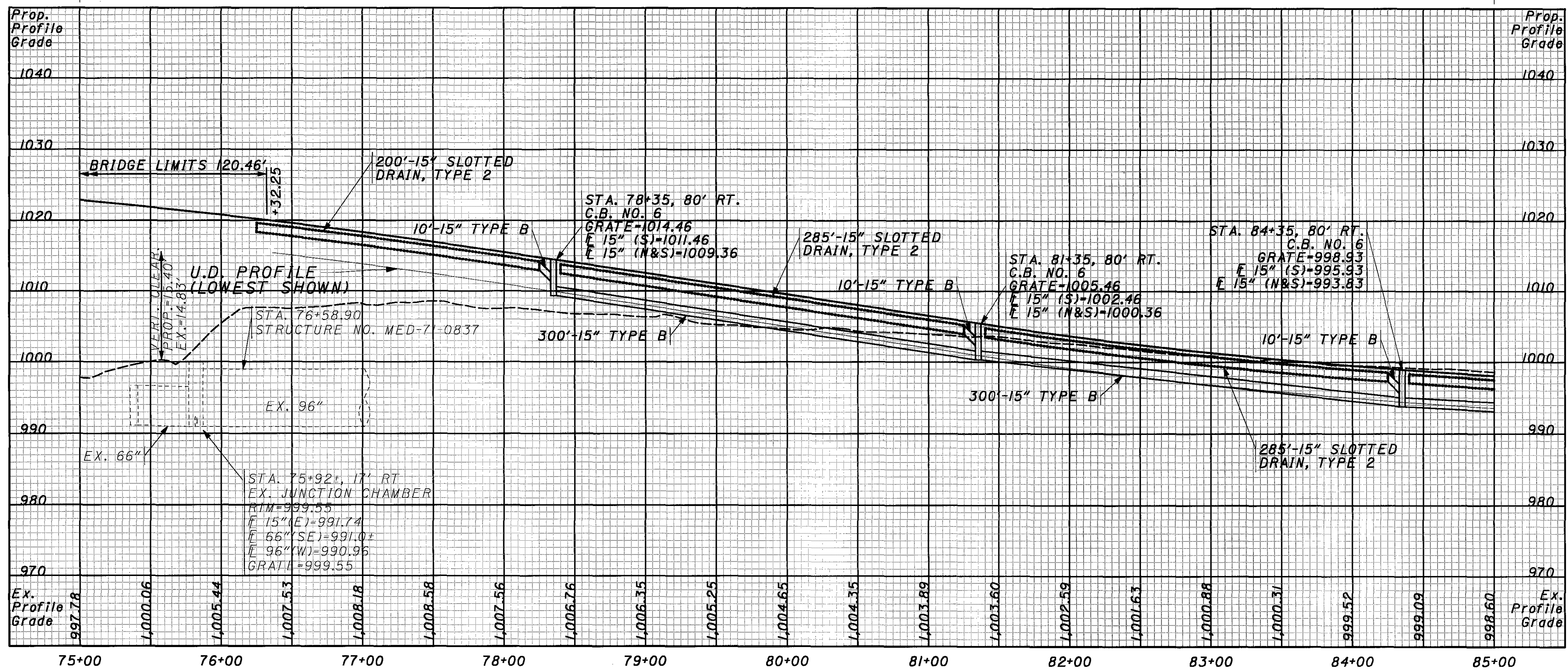
REF NO.	STATION		SIDE	QUANTITY	UNIT	DESCRIPTION
	FROM	TO				
D1	64+49	67+74	LT		EACH	NO. 6 CONCRETE CATCH BASIN
D2	67+74	67+84	LT	325	FEET	15" SLOTTED DRAIN, TYPE 2
D3	67+89	70+90	LT	301	FEET	15" SLOTTED DRAIN, TYPE 2
D4	70+90	71+00	LT	260	FEET	15" SLOTTED DRAIN, TYPE 2
D5	71+05	73+65	LT		FEET	15" SLOTTED DRAIN, TYPE 2
D6	73+65	73+75	LT		FEET	15" SLOTTED DRAIN, TYPE 2
D7	73+75	73+75	LT&RT		FEET	15" SLOTTED DRAIN, TYPE 2
TOTALS CARRIED TO SUB-SUMMARY				886		
				78		
				70		
				0.27		
				3		

...75657gp60.dgn

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
151-152	UNDERDRAIN QUANTITIES
583	GUARDRAIL QUANTITIES
	TRAFFIC CONTROL



SEE PAVEMENT DETAIL SHEETS 466 & 467



REF NO.	STATION		SIDE	QUANTITY	UNIT	
	FROM	TO				
D1	76+25	78+25	LT	200	FEET	
D2	78+25	78+35	LT	1	EACH	
D3	78+40	81+25	LT	285	FEET	
D4	81+25	81+35	LT	1	EACH	
D5	81+40	84+25	LT	285	FEET	
D6	84+25	84+35	LT	1	EACH	
TOTALS CARRIED TO SUB-SUMMARY				630	770	3

RAMP S-W PLAN & PROFILE
STA. 75+00 TO STA. 85+00

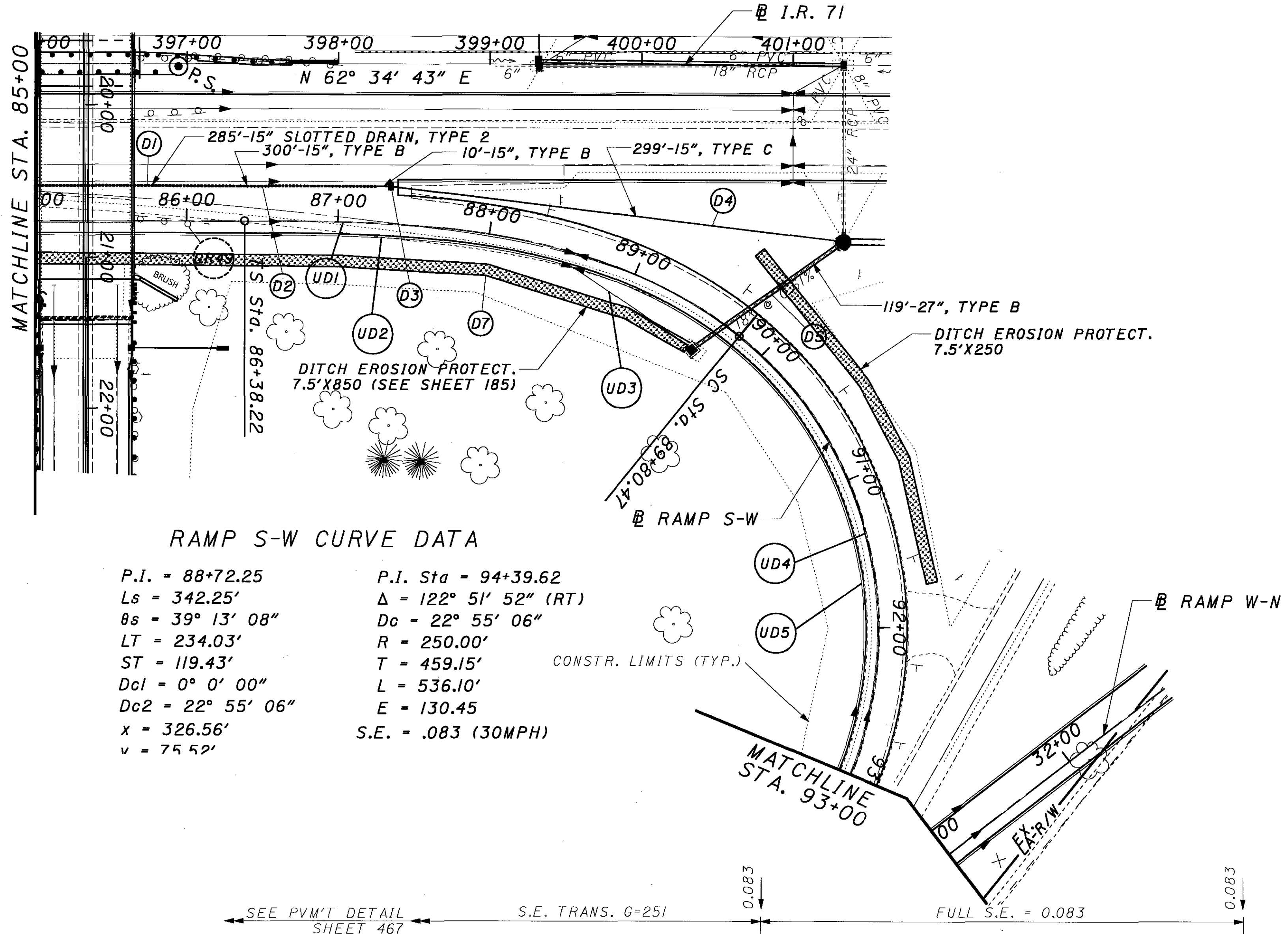
MED-71-6-06

351
 1120

...N75657gp61.dgn

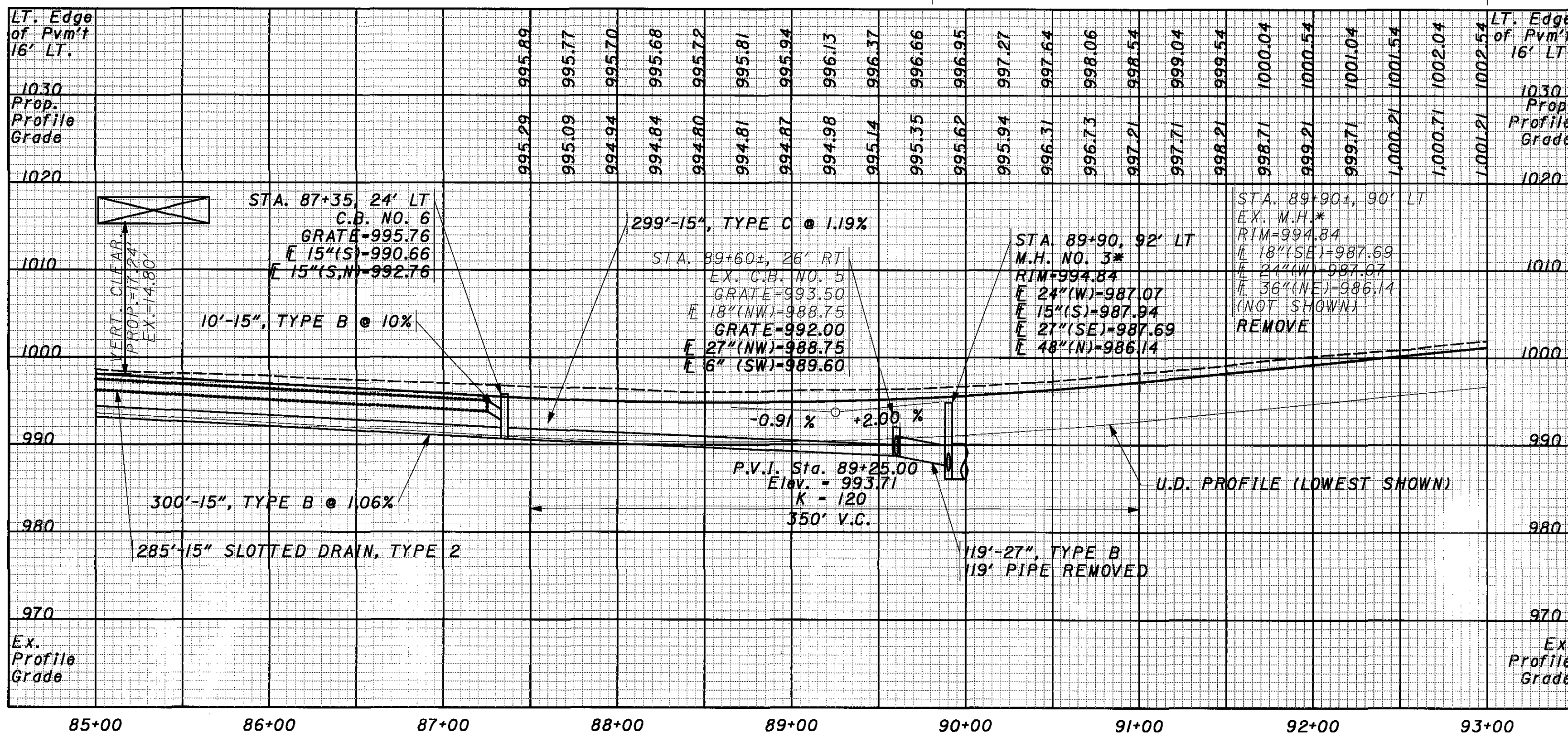
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
	GUARDRAIL QUANTITIES
584	TRAFFIC CONTROL

*SEE SHEET 186 FOR QUANTITIES



RAMP S-W CURVE DATA

P.I. = 88+72.25 P.I. Sta = 94+39.62
 Ls = 342.25' Δ = 122° 51' 52" (RT)
 Bs = 39° 13' 08" Dc = 22° 55' 06"
 LT = 234.03' R = 250.00'
 ST = 119.43' T = 459.15'
 Dc1 = 0° 0' 00" L = 536.10'
 Dc2 = 22° 55' 06" E = 130.45
 x = 326.56' S.E. = .083 (30MPH)
 v = 75.52'



REF NO.	STATION		SIDE	ITEM	QUANTITY	UNIT					
	FROM	TO									
D1	84+40	86+40	LT	27" CONDUIT TYPE B	119	FEET					
D2	86+40	86+50	LT	15" SLOTTED DRAIN, TYPE 2	10	FEET					
D3	86+50	87+34	LT	NO. 6 CATCH BASIN	1	EACH					
D4	87+34	89+90	LT	NO. 6 CATCH BASIN	1	EACH					
D5	89+60	89+90	LT&RT	15" SLOTTED DRAIN, TYPE 2	285	FEET					
D6	89+60	89+60	RT	DITCH EROSION PROTECT.	708	SQ. YD.					
D7	89+90	89+53	RT	DITCH EROSION PROTECT.	208	SQ. YD.					
D8	89+60	91+75	LT	DITCH EROSION PROTECT.	916	SQ. YD.					
TOTALS CARRIED TO SUB-SUMMARY					119	609	1	2	285	1	916

RAMP S-W PLAN & PROFILE
STA. 85+00 TO STA. 93+00

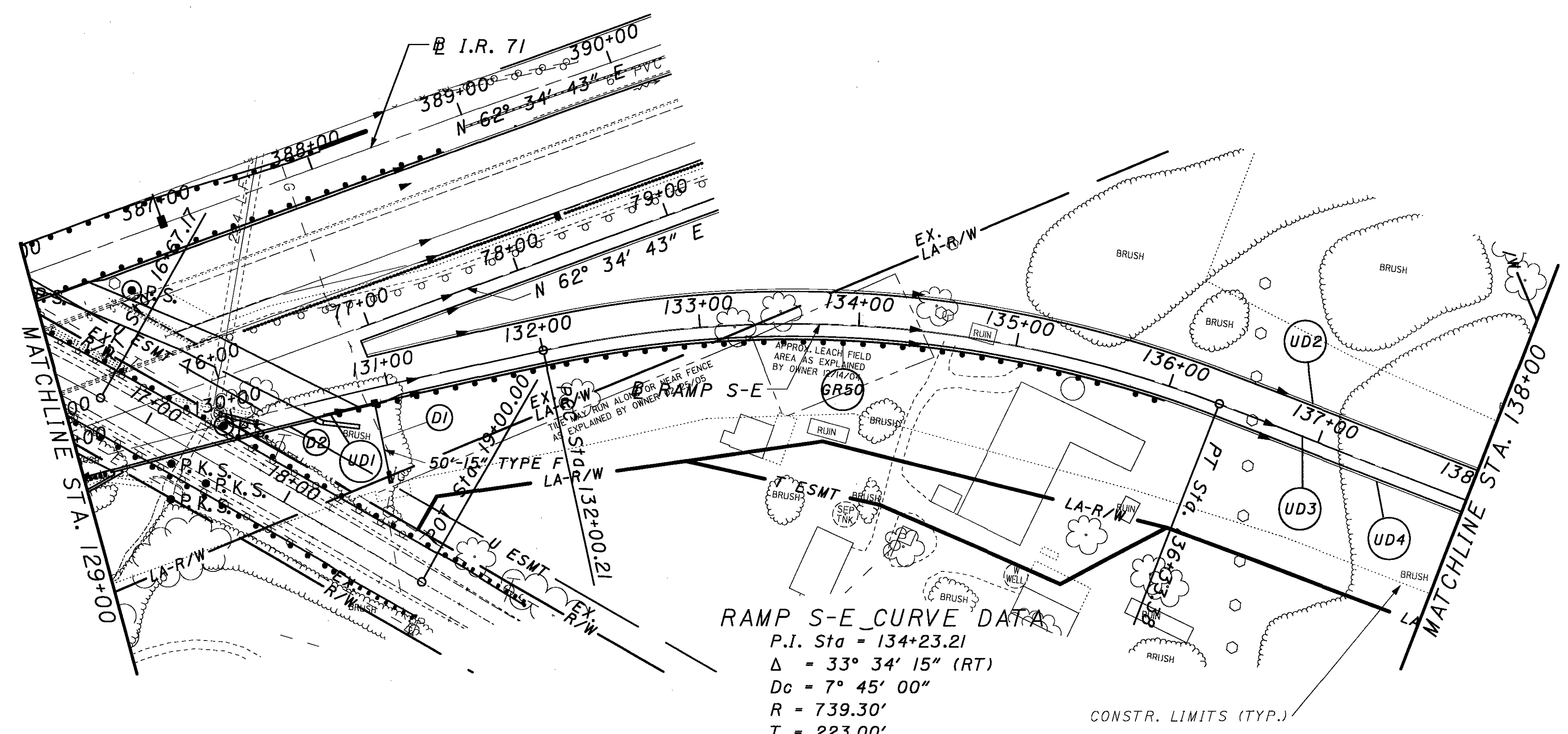
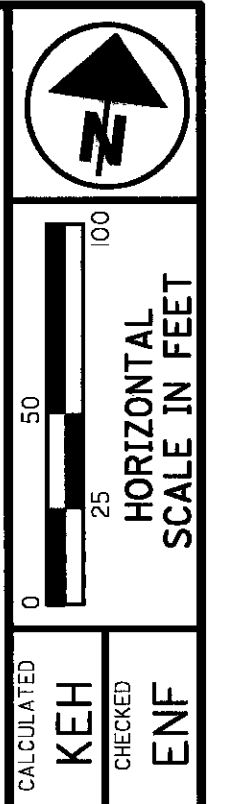
MED-71-6.06

CALCULATED: KEH
 CHECKED: ENF

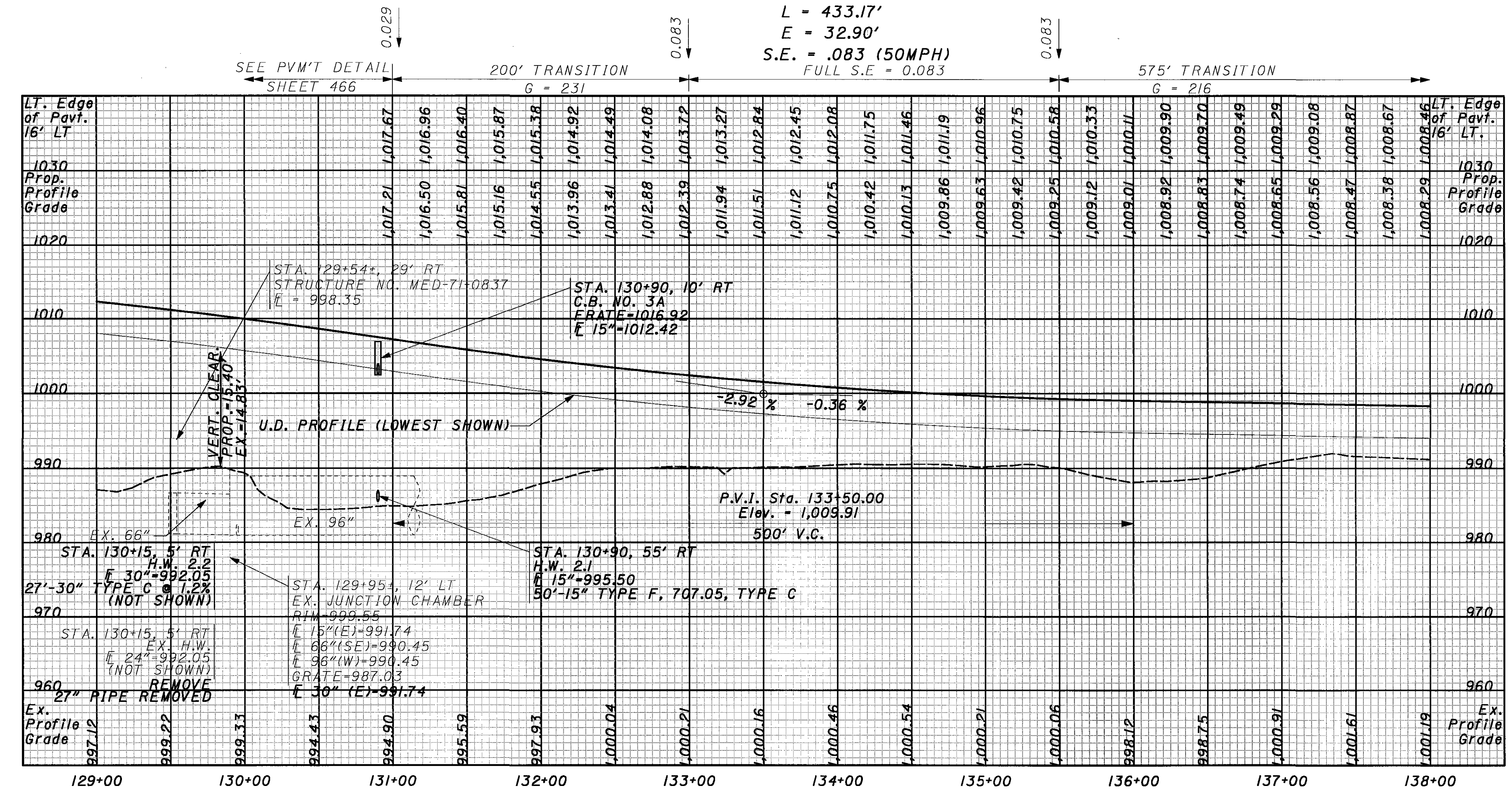
HORIZONTAL SCALE IN FEET

352
1120

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
583, 584	TRAFFIC CONTROL



RAMP S-E CURVE DATA
 P.I. Sta = 134+23.21
 $\Delta = 33^\circ 34' 15''$ (RT)
 $D_c = 7^\circ 45' 00''$
 $R = 739.30'$
 $T = 223.00'$
 $L = 433.17'$
 $E = 32.90'$
 $S.E. = .083$ (50MPH)
 FULL S.E. = 0.083



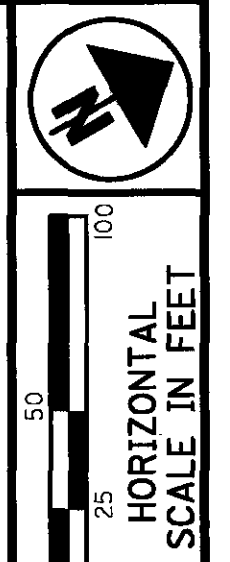
REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY	UNIT
	FROM	TO				
D1	130+90	129+95	RT	PIPE REMOVED UNDER	27	FEET
D2	129+95	130+15	RT<	STRUCTURE REMOVED	1	FEET
				ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	0.27	CU. YD.
				CONCRETE MASONRY	0.43	CU. YD.
				15" CONDUIT TYPE F, 707.05 TYPE C	50	FEET
				30" CONDUIT TYPE C	27	FEET
				CATCH BASIN NO. 3A	1	EACH
TOTALS CARRIED TO SUB-SUMMARY						

**RAMP S-E PLAN & PROFILE
 STA. 129+00 TO STA. 138+00**

MED-71-6.06

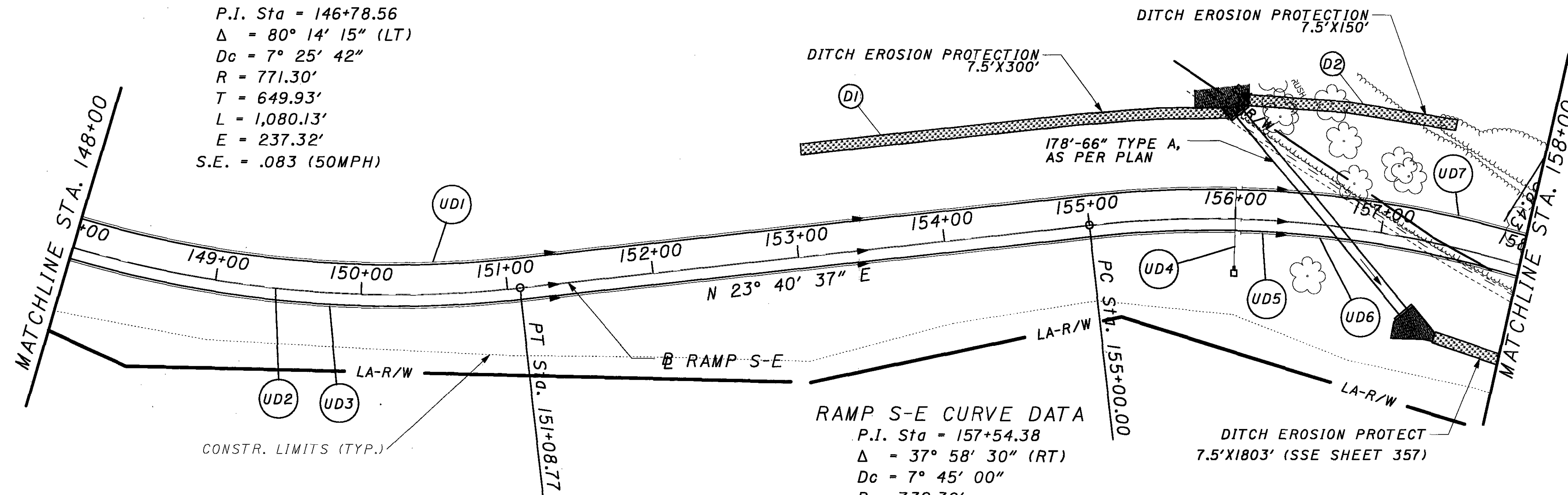
353
1120

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
	GUARDRAIL QUANTITIES
584, 585	TRAFFIC CONTROL
487	CULVERT DETAILS



RAMP S-E CURVE DATA

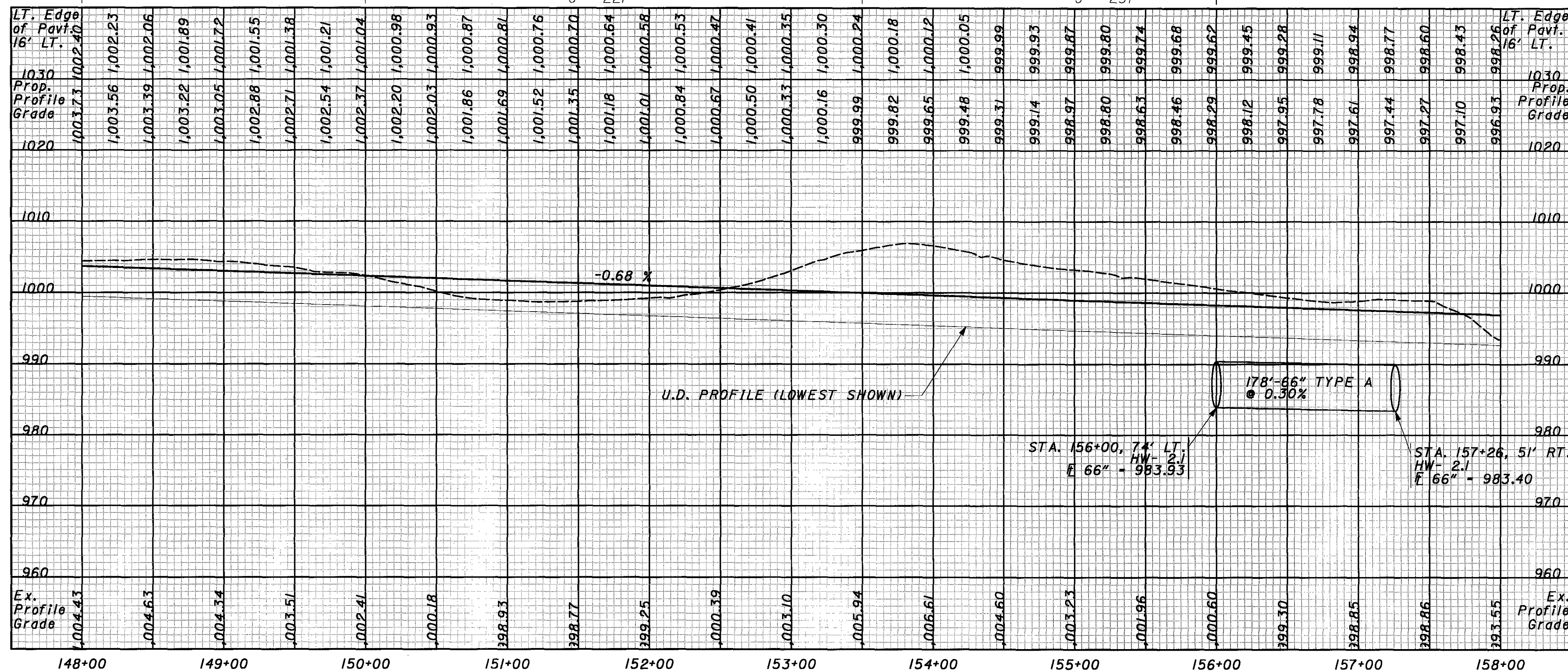
P.I. Sta = 146+78.56
 $\Delta = 80^\circ 14' 15''$ (LT)
 $D_c = 7^\circ 25' 42''$
 $R = 771.30'$
 $T = 649.93'$
 $L = 1,080.13'$
 $E = 237.32'$
 $S.E. = .083$ (50MPH)



RAMP S-E CURVE DATA

P.I. Sta = 157+54.38
 $\Delta = 37^\circ 58' 30''$ (RT)
 $D_c = 7^\circ 45' 00''$
 $R = 739.30'$
 $T = 254.38'$
 $L = 490.00'$
 $E = 42.54'$
 $S.E. = .083$ (50MPH)

FULL S.E. = -0.083 0.083 350' TRANSITION G = 221 0.0156 250' TRANSITION G = 231 0.083 FULL S.E. = 0.083



REF NO.	STATION		SIDE	SQ. YD.
	FROM	TO		
D1	153+10	156+00	LT	250
D2	156+00	157+35	LT	167
TOTALS CARRIED TO SUB-SUMMARY				417

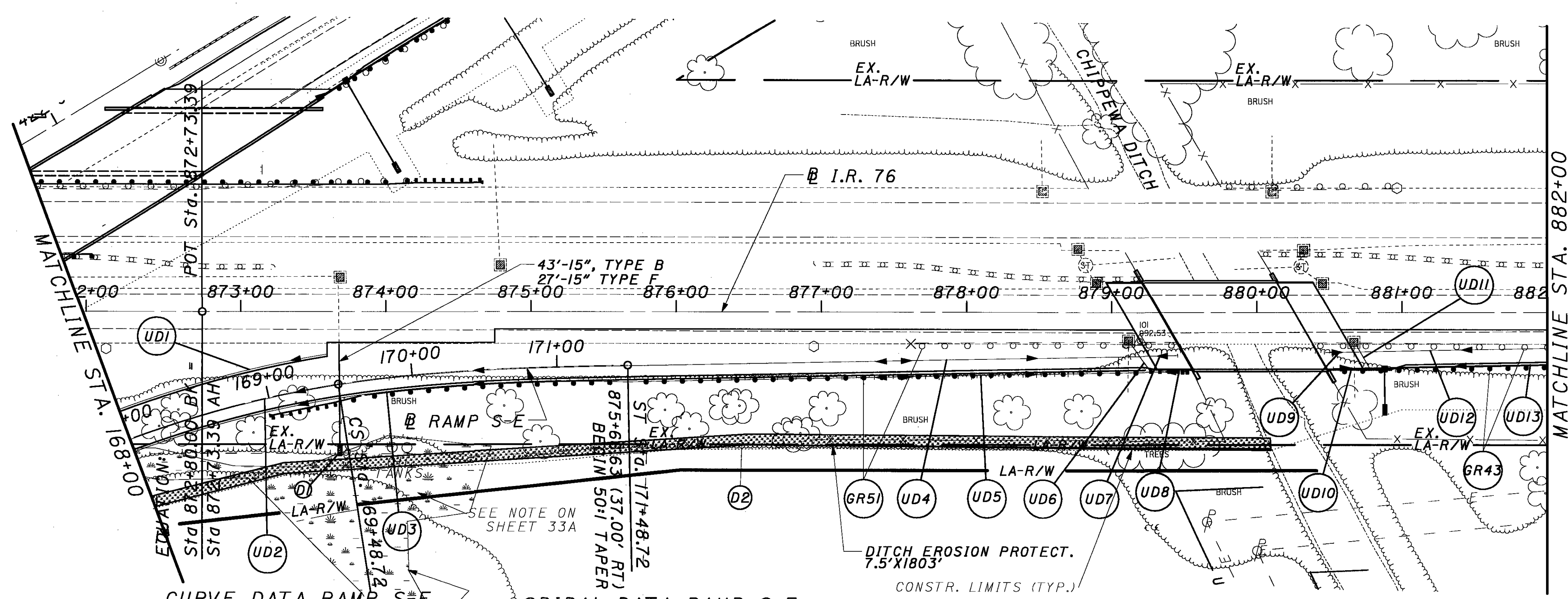
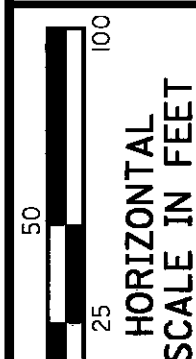
RAMP S-E PLAN & PROFILE
STA. 148+00 TO STA. 158+00

MED-71-6.06

355
1120

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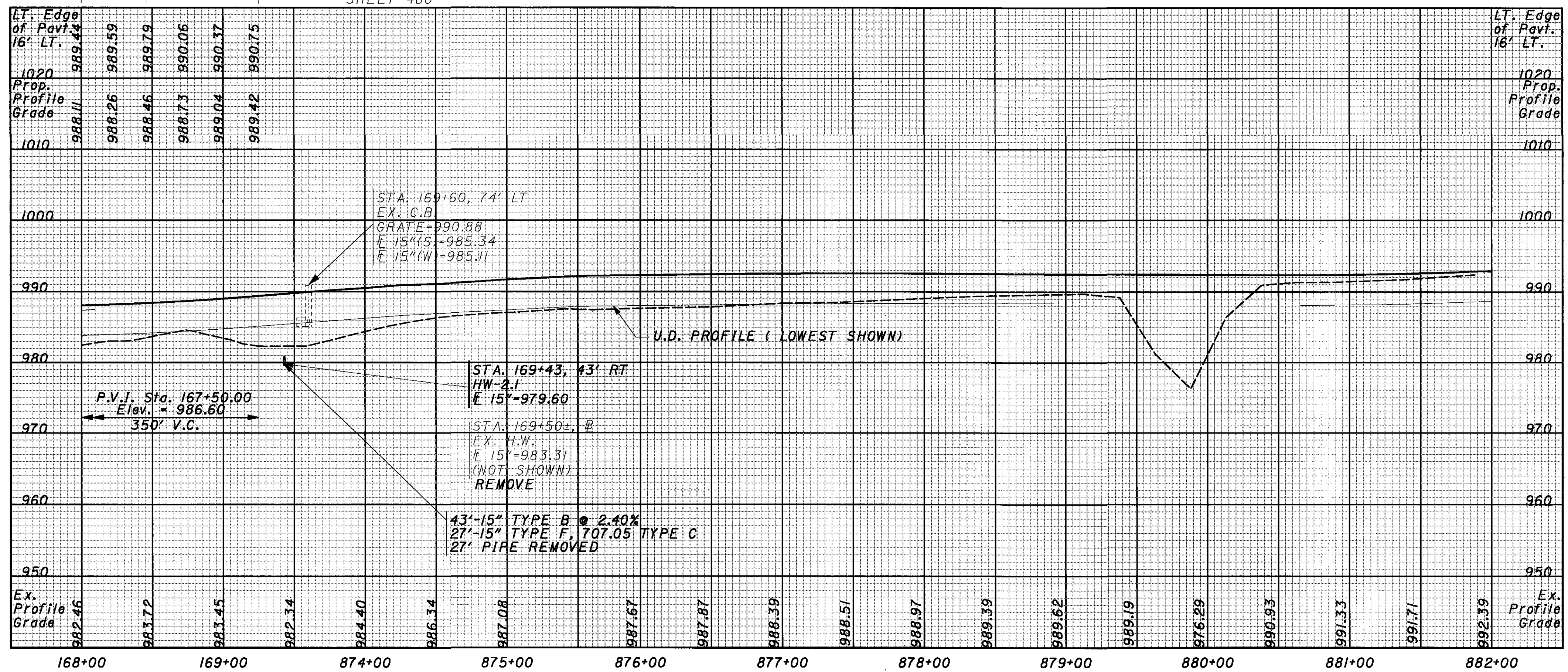
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
586, 595	TRAFFIC CONTROL



CURVE DATA RAMP S-E
 P.I. Sta = 168+22.07
 $\Delta = 19^\circ 49' 51''$ (RT)
 $Dc = 7^\circ 45' 00''$
 $R = 739.30'$
 $T = 129.23'$
 $L = 255.88'$
 $E = 11.21'$
 $S.E. = .083$ (50MPH)

SPIRAL DATA RAMP S-E
 P.I. = 170+15.50
 $Ls = 200.00'$
 $\theta s = 7^\circ 45' 00''$
 $LT = 133.46'$
 $ST = 66.78'$
 $Dc1 = 7^\circ 45' 00''$
 $Dc2 = 0^\circ 0' 0''$

FULL S.E. = 0.083
 SEE PVM'T DETAIL SHEET 480



REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY
	FROM	TO			
D1	169+43		RT.	PIPE STRUCTURE REMOVED UNDER 24" AND 27" UNDER	27
D2	157+52	880+10	RT	ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1
				CONCRETE MASONRY	0.27
				15" CONDUIT TYPE B	43
				15" CONDUIT TYPE F, TYPE C	27
				DITCH EROSION PROTECT.	1503
TOTALS CARRIED TO SUB-SUMMARY					

CALCULATED
KEH

CHECKED
ENF

RAMP S-E PLAN & PROFILE
STA. 168+00 TO STA. 171+60.59

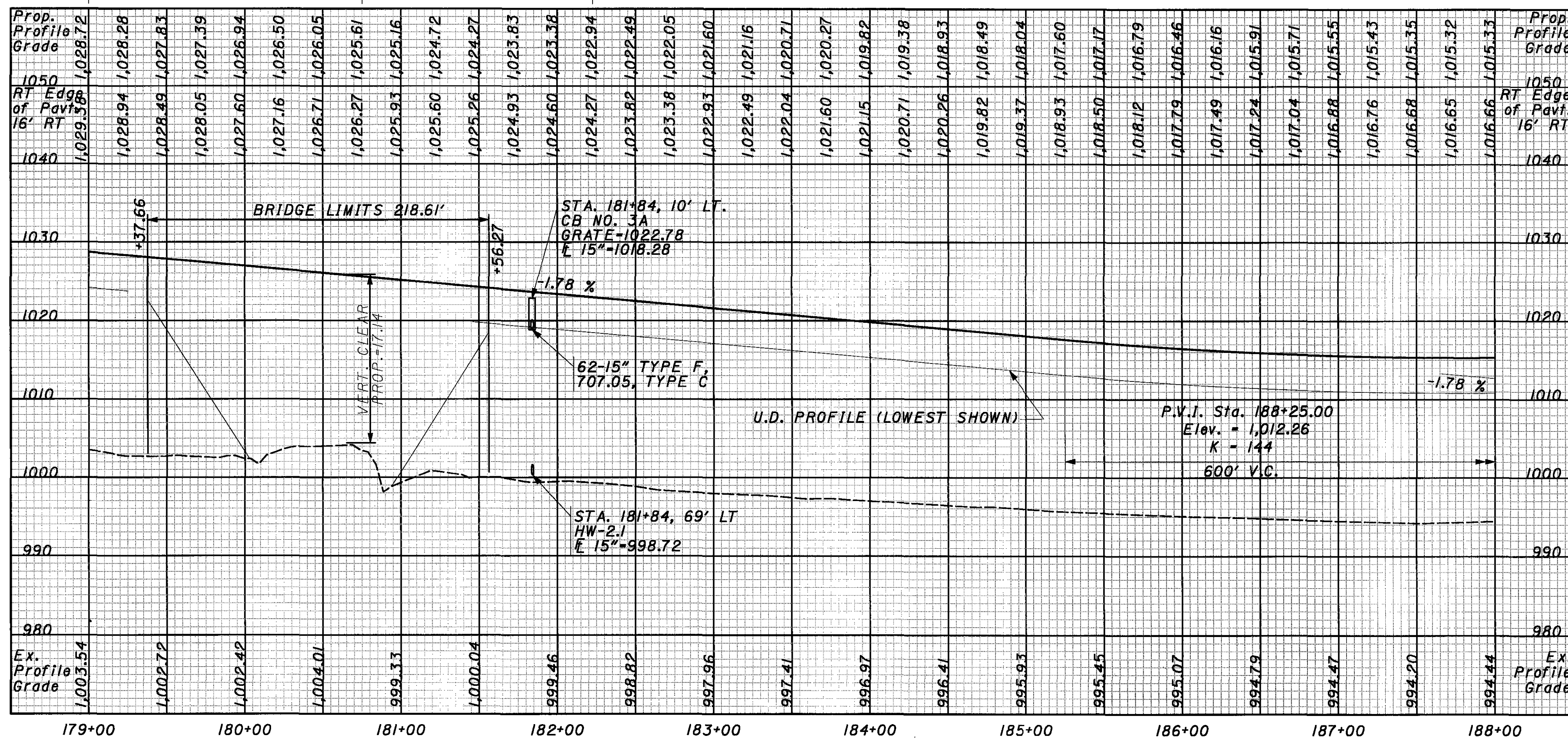
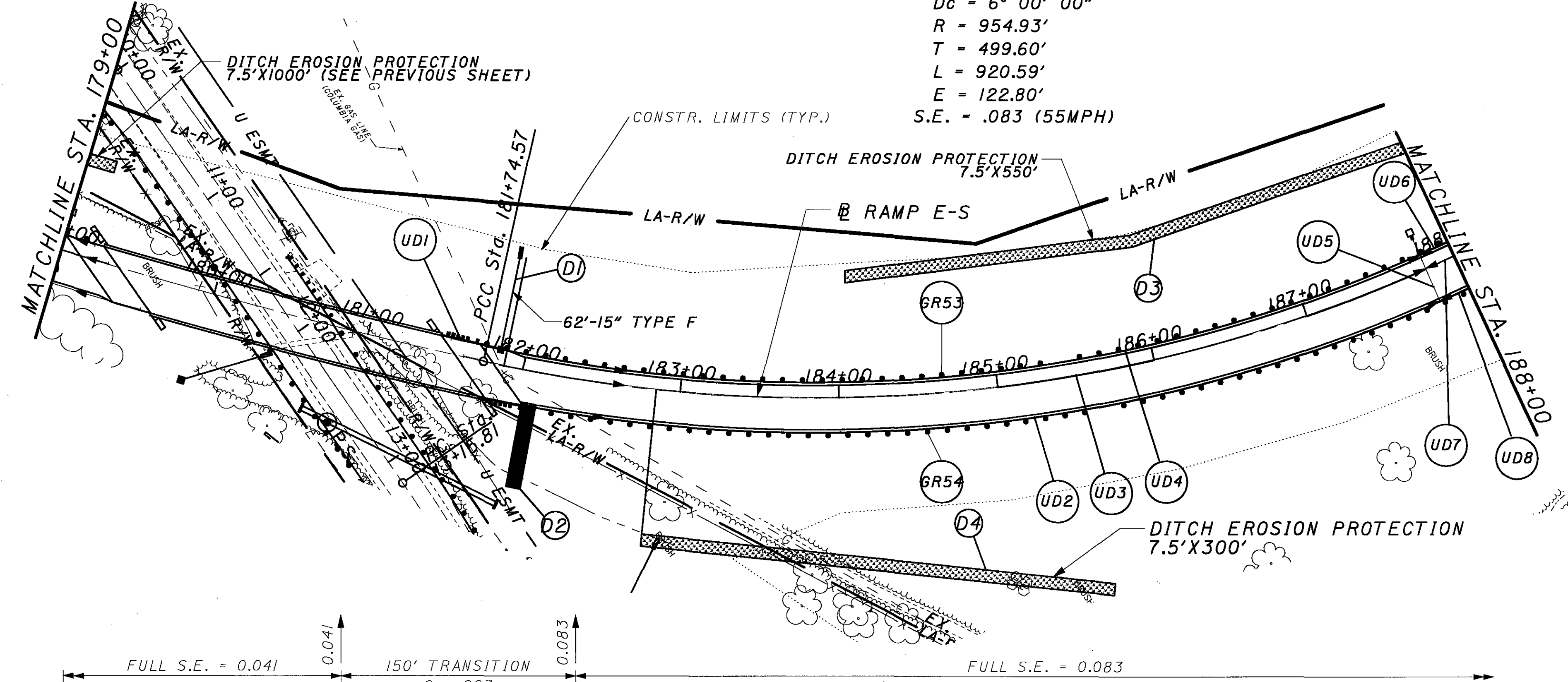
MED-71-6.06

357
1120

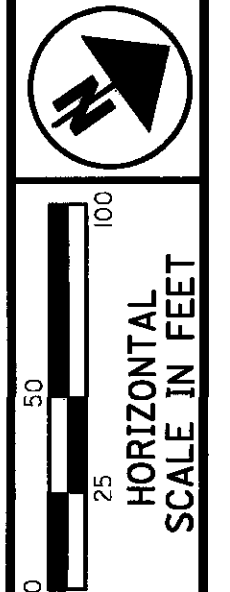
...75657gp87.dgn

CURVE DATA RAMP E-S

P.I. Sta = 186+74.17
 $\Delta = 55^\circ 14' 07''$ (LT)
 $D_c = 6^\circ 00' 00''$
 $R = 954.93'$
 $T = 499.60'$
 $L = 920.59'$
 $E = 122.80'$
 $S.E. = .083$ (55MPH)



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
583, 593	TRAFFIC CONTROL



REF NO.	STATION		SIDE	ITEM	QUANTITY	UNIT	TOTALS CARRIED TO SUB-SUMMARY	
	FROM	TO						
D1	181+84		LT	ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1	CU. YD.	1	
D2	182+08		RT	CONCRETE PROTECT. MASONRY	0.27	CU. YD.	0.27	
D3	184+98	190+00	LT	15' CONDUIT TYPE F	62	FEET	62	
D4	182+85	185+50	RT	CATCH BASIN NO. 3A	1	EACH	1	
				SODDING REINFORCED	60	SQ. YD.	60	
				DITCH EROSION PROTECT.	458	SQ. YD.	458	
					250	SQ. YD.	250	
TOTALS CARRIED TO SUB-SUMMARY								708

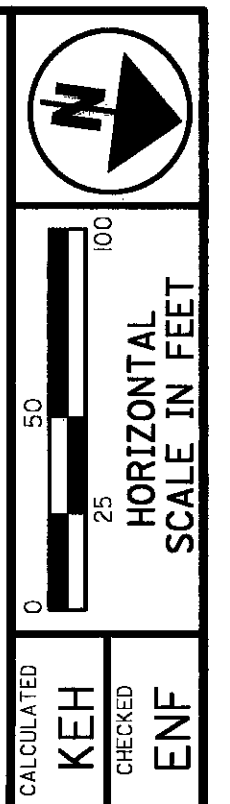
CALCULATED
 KEH
 CHECKED
 ENF

**RAMP E-S PLAN & PROFILE
 STA. 179+00 TO STA. 188+00**

MED-71-6.06

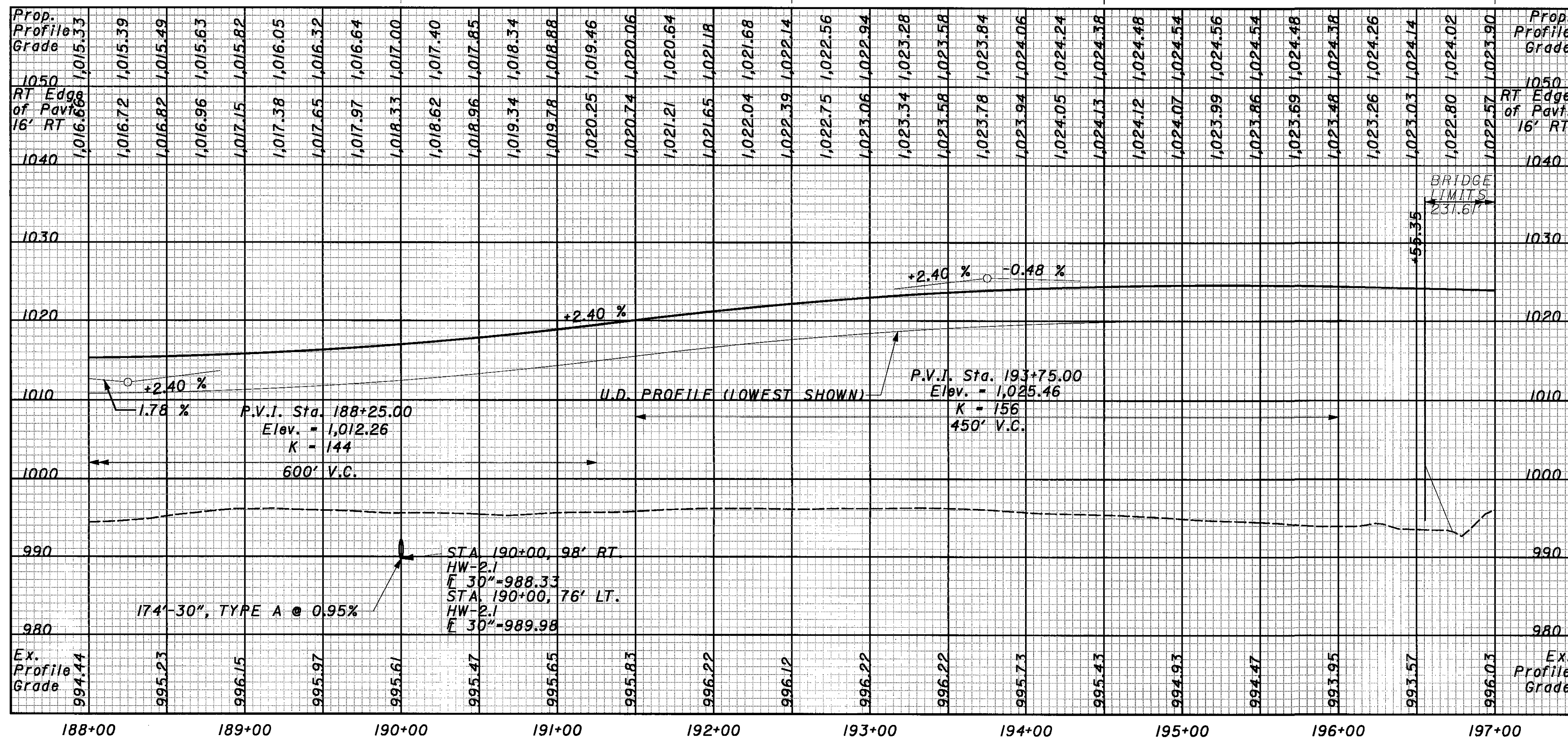
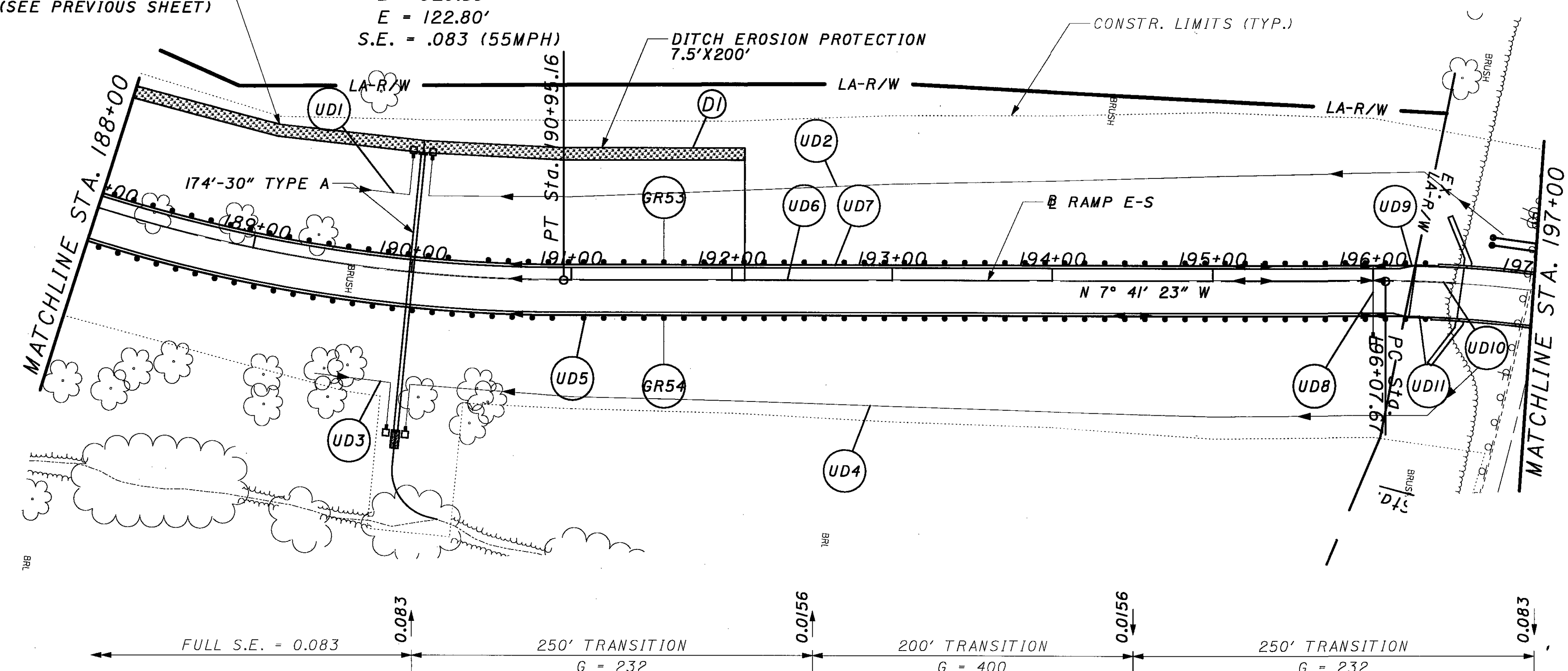
360
 1120

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
592, 593	TRAFFIC CONTROL
489	CULVERT DETAILS



CURVE DATA RAMP E-S
 P.I. Sta = 186+74.17
 $\Delta = 55^\circ 14' 07''$ (LT)
 $D_c = 6^\circ 00' 00''$
 $R = 954.93'$
 $T = 499.60'$
 $L = 920.59'$
 $E = 122.80'$
 $S.E. = .083$ (55MPH)

DITCH EROSION PROTECTION
 7.5'x550' (SEE PREVIOUS SHEET)



REF NO.	STATION		SIDE	SQ. YD.
	FROM	TO		
DI	190+00	192+08	LT	167
TOTALS CARRIED TO SUB-SUMMARY				
				167

**RAMP E-S PLAN & PROFILE
 STA. 188+00 TO STA. 197+00**

MED-71-6.06

361
1120

...75657gp88.dgn

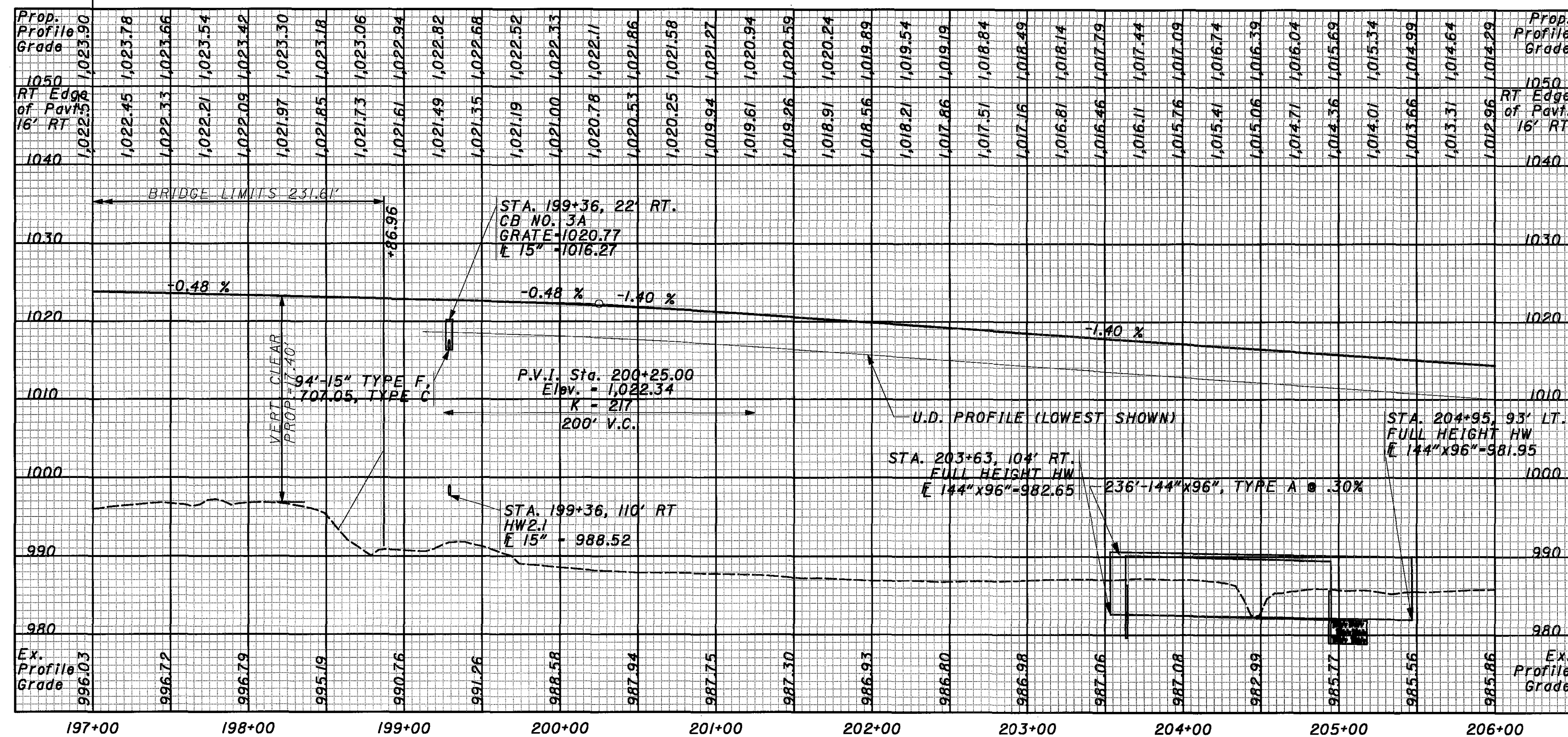
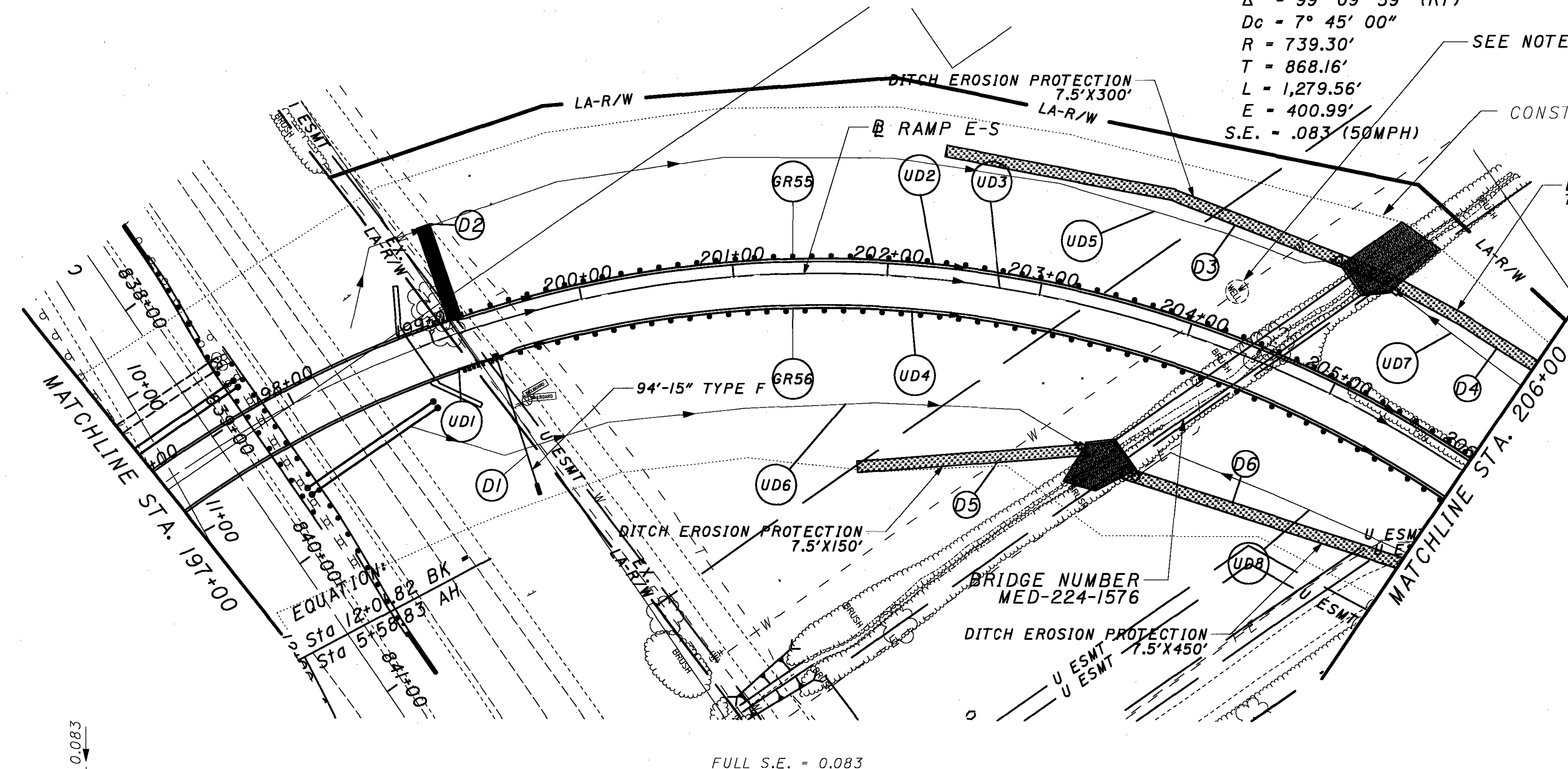
CURVE DATA RAMP E-S

P.I. Sta = 204+75.83
 $\Delta = 99^\circ 09' 59''$ (RT)
 $D_c = 7^\circ 45' 00''$
 $R = 739.30'$
 $T = 868.16'$
 $L = 1,279.56'$
 $E = 400.99'$
 $S.E. = .083$ (50MPH)

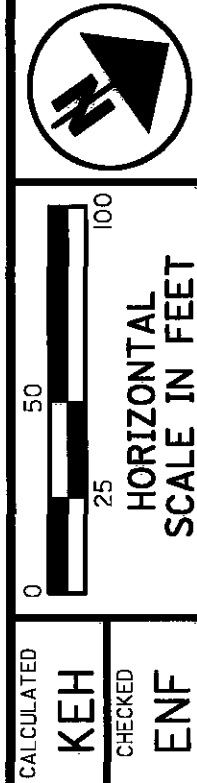
SEE NOTE ON SHEET 33A

CONSTR. LIMITS (TYP.)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
146	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
592	TRAFFIC CONTROL
552-557	CULVERT DETAILS



REF NO.	STATION		SIDE	DITCH EROSION PROTECT.	SODDING REINFORCED	DITCH EROSION PROTECT.	TOTALS CARRIED TO SUB-SUMMARY	
	FROM	TO					CU. YD.	SO. YD.
D1	199+36		RT					
D2	199+18		LT					
D3	202+32	205+00	LT	250	72			
D4	205+00	207+25	LT	208				
D5	201+84	203+49	RT	125				
D6	203+83	208+81	RT	375				
TOTALS CARRIED TO SUB-SUMMARY				958	72			

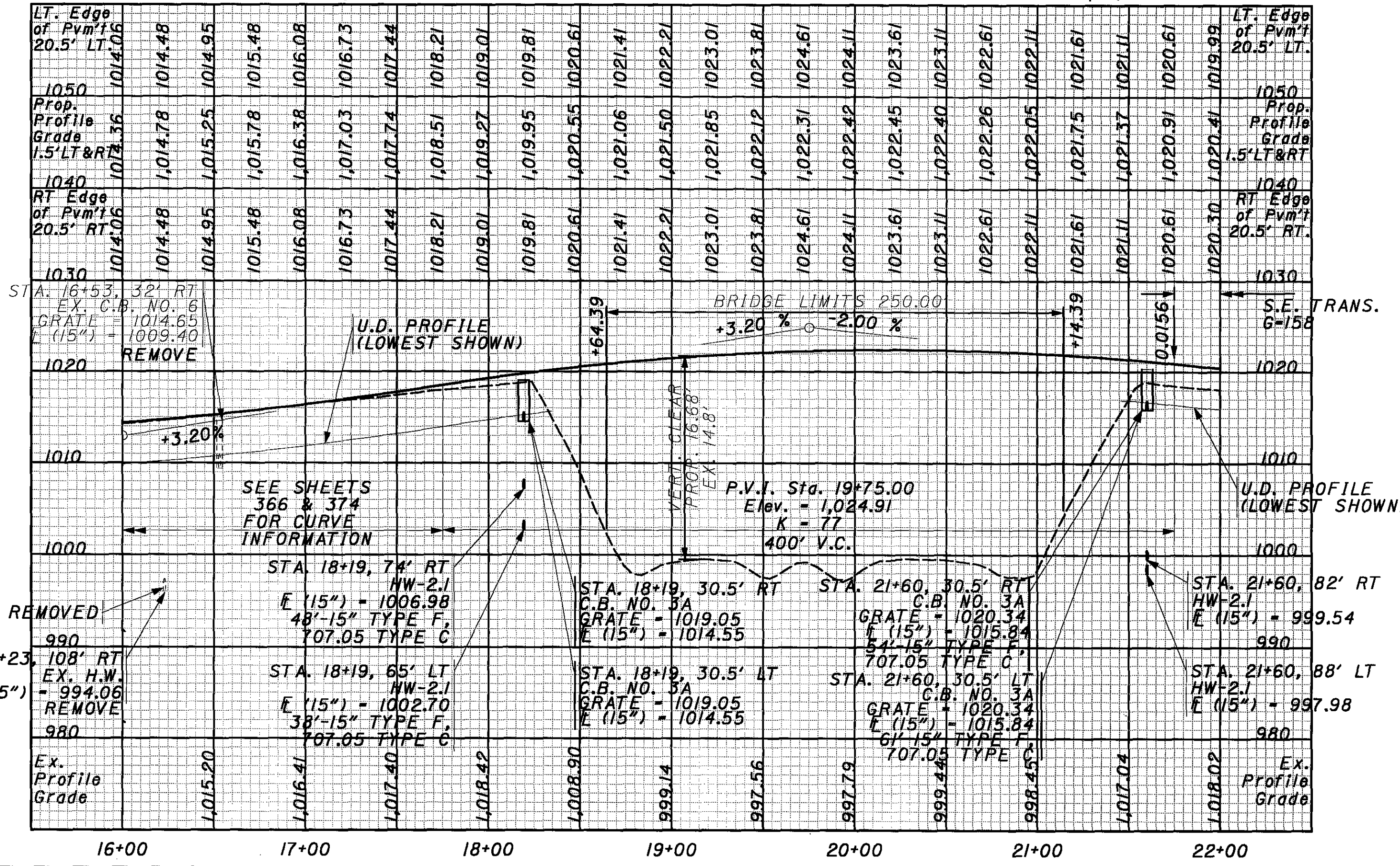
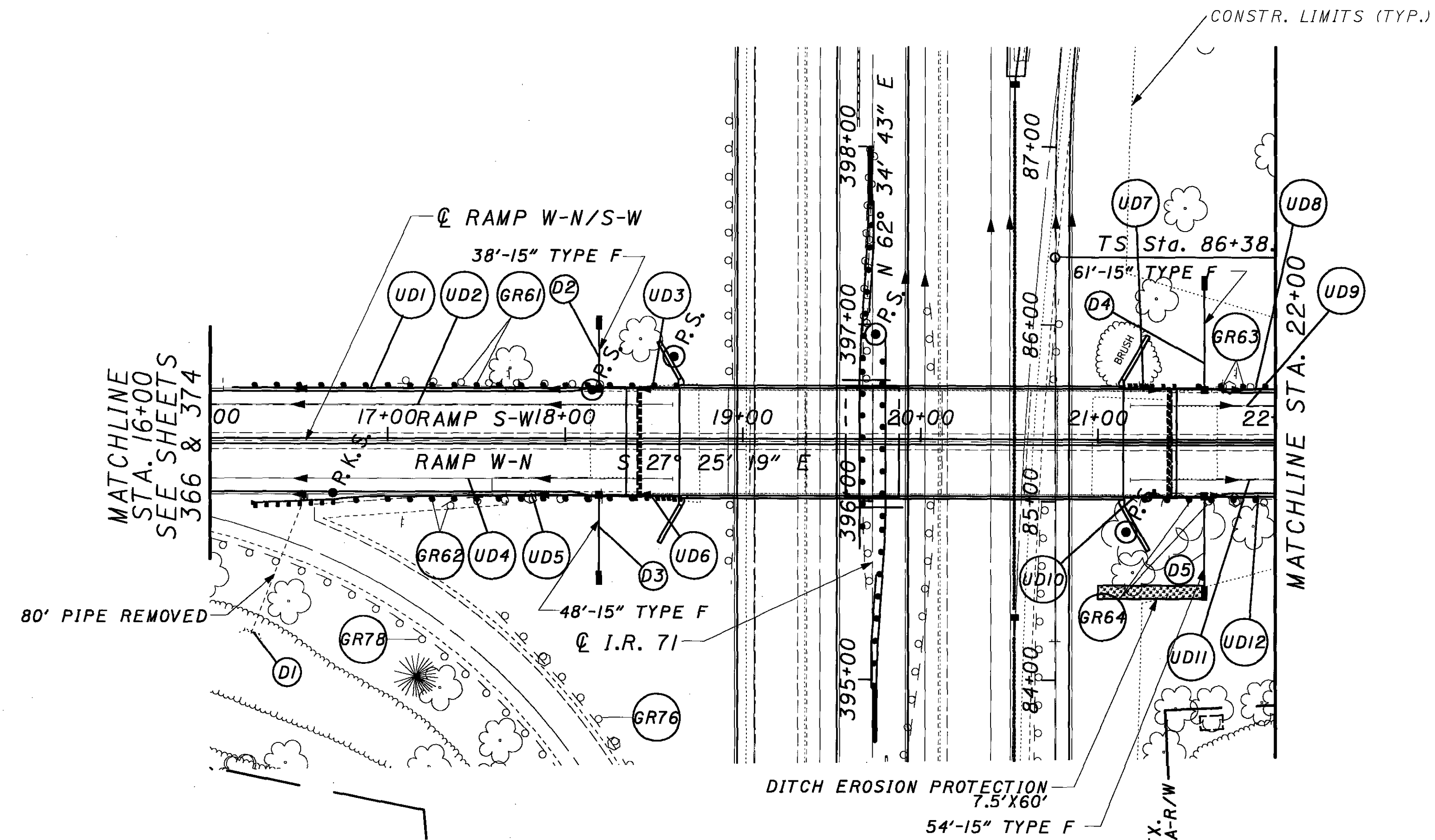
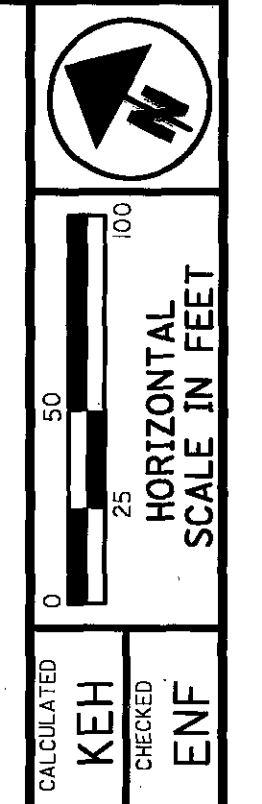


**RAMP E-S PLAN & PROFILE
 STA. 197+00 TO STA. 206+00**

MED-71-6.06

...75657gp89.dgn

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
584, 591	TRAFFIC CONTROL



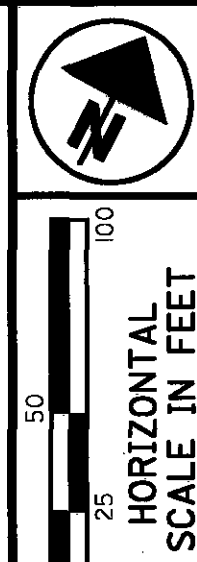
REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY
	FROM	TO			
D1	16+23	16+53	RT.	PIPE REMOVED, 24" AND UNDER	80
D2	18+19		LT.	CATCH BASIN REMOVED	1
D3	18+19		RT.	CONCRETE MASONRY	0.27
D4	21+60		LT.	CONDUIT TYPE F, 707.05 TYPE C	48
D5	21+60		RT.	CONDUIT TYPE F, 707.05 TYPE C	61
				ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1
				CONCRETE MASONRY	0.27
				CONDUIT TYPE F, 707.05 TYPE C	48
				CATCH BASIN NO. 3A	1
				DITCH EROSION PROTECT.	50
TOTALS CARRIED TO SUB-SUMMARY					

**RAMP W-N, S-W PLAN & PROFILE
STA. 16+00 TO STA. 22+00**

MED-71-6.06

367
1120

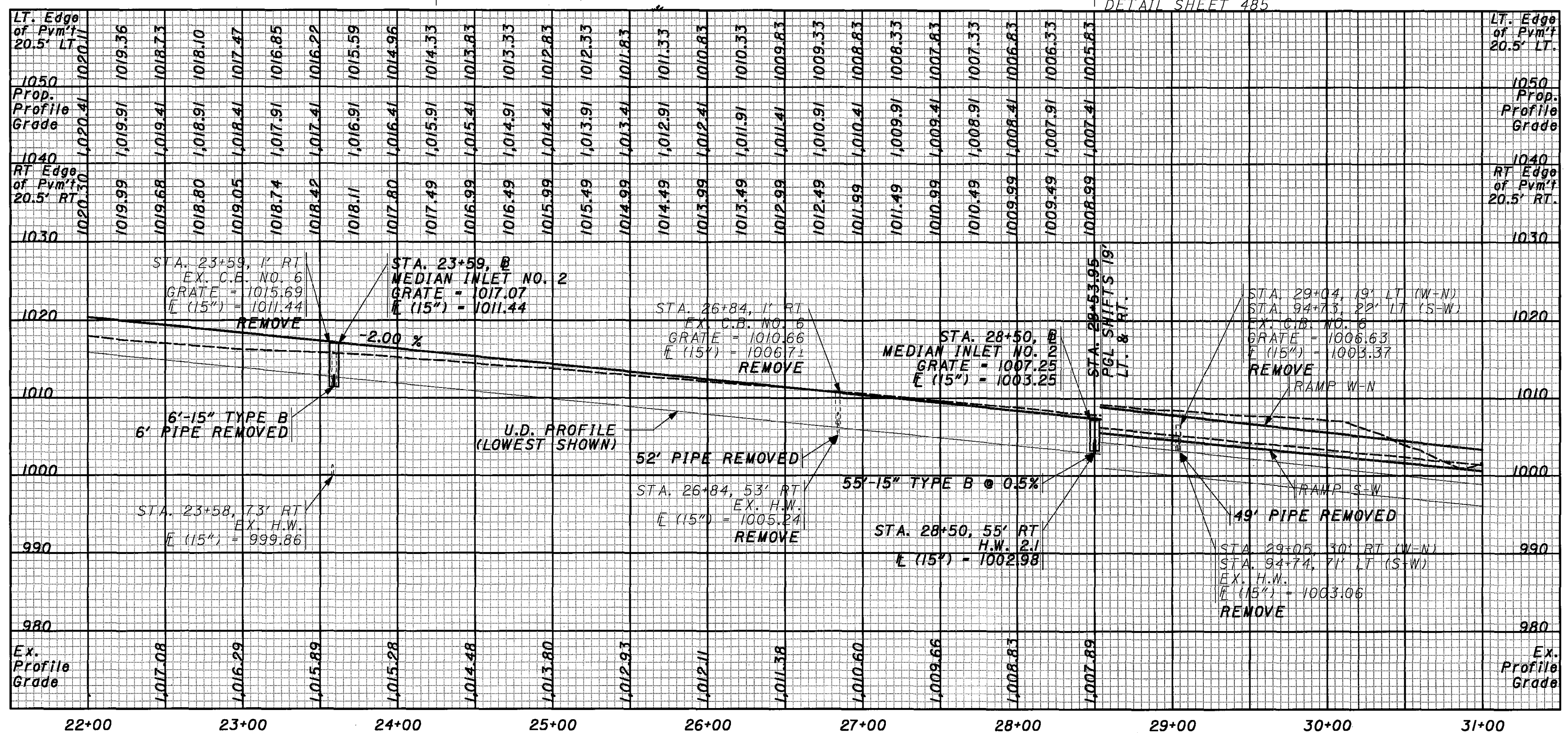
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
584	TRAFFIC CONTROL



SPIRAL DATA RAMP W-N/S-W
 P.I. = 23+70.50
 Ls = 150.00'
 θs = 15° 53' 10"
 LT = 100.41'
 ST = 50.37'
 Dc1 = 0° 0' 00"
 Dc2 = 21° 10' 53"

CURVE DATA RAMP W-N/S-W
 P.I. Sta = 26+99.70
 Δ = 91° 53' 49" (LT)
 Dc = 21° 10' 53"
 R = 270.50'
 T = 279.61'
 L = 433.86'
 E = 82.42
 S.E. = .083 (30MPH)

SPIRAL DATA RAMP W-N/S-W
 P.I. = 29+21.37
 Ls = 200.00'
 θs = 19° 41' 21"
 LT = 134.17'
 ST = 67.43'
 Dc1 = 19° 41' 21"
 Dc2 = 0° 0' 0"

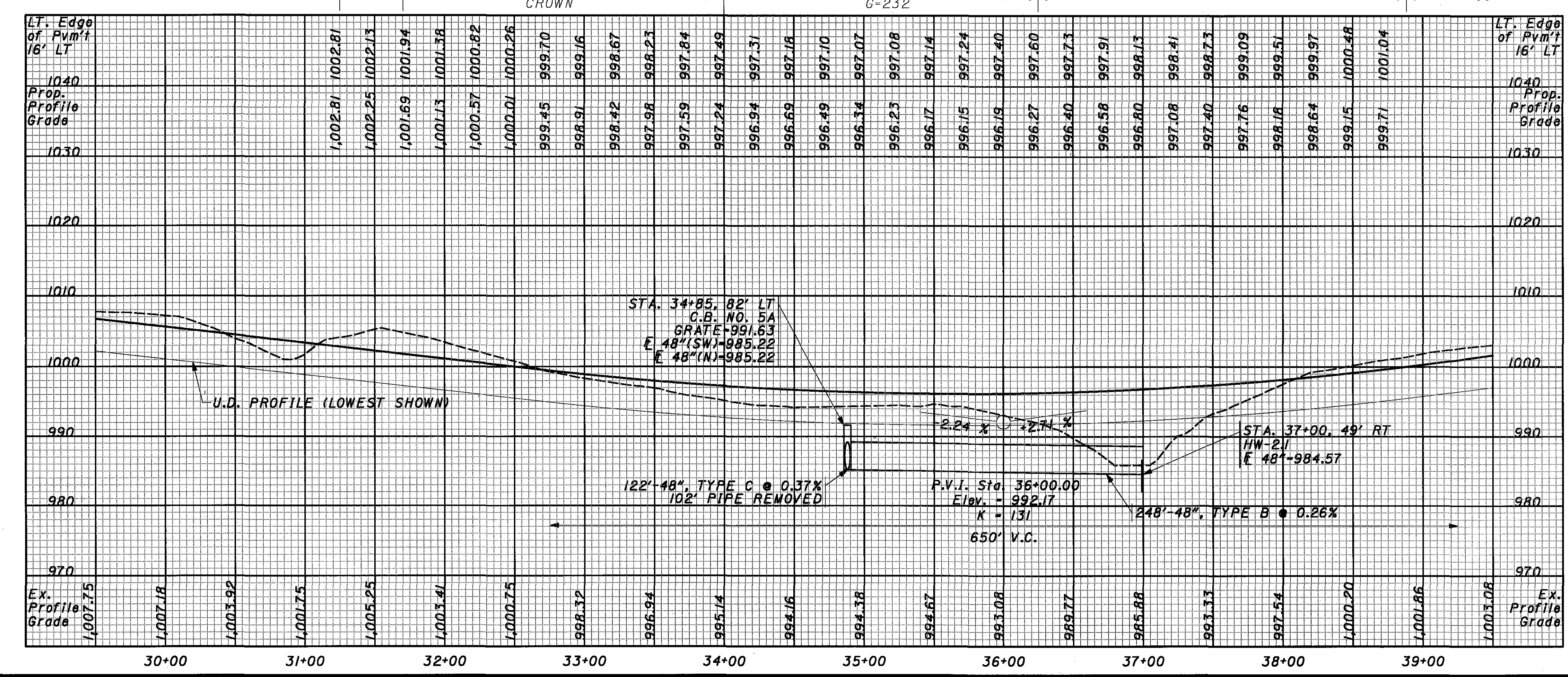
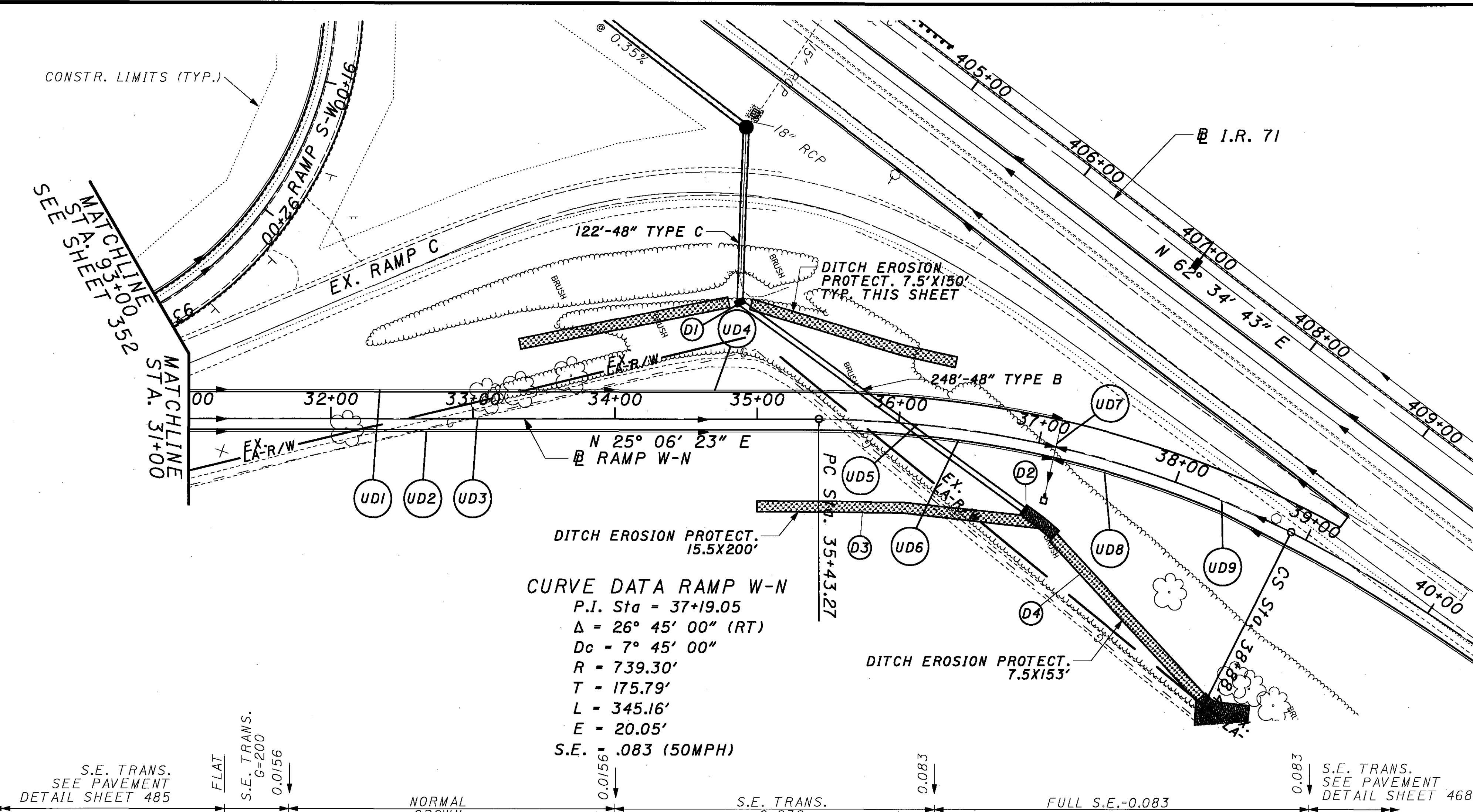


REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY	UNIT	TOTALS CARRIED TO SUB-SUMMARY
	FROM	TO					
D1	23+59	26+84	RT	CATCH BASIN REMOVED	1	EACH	1
D2	26+84	28+50	RT	PIPE REMOVED, 24" UNDER	52	FEET	52
D3	28+50	29+04	RT	PIPE REMOVED, 24" UNDER	49	FEET	49
D4	29+04	29+04	LT	PIPE REMOVED, 24" UNDER	6	FEET	6
				ROCK CHANNEL PROTECT. UNDER F. FABRIC	1	CU. YD.	1
				CONCRETE MASONRY	0.27	CU. YD.	0.27
				15" CONDUIT TYPE B	61	FEET	61
				MEDIAN INLET NO. 2-6	1	EACH	1
					2		2

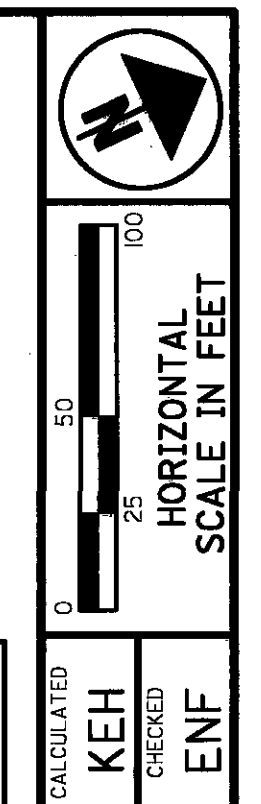
CALCULATED KEH
 CHECKED ENF

RAMP W-N, S-W PLAN & PROFILE STA. 22+00 TO STA. 31+00 (RAMP W-N)

MED-71-6.06



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
584, 584	TRAFFIC CONTROL



REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY
	FROM	TO			
D1	34+92	34+88	LT	DITCH EROSION PROTECT.	722
D2	34+88	37+00	LT&RT	CATCH BASIN NO. 5A	1
D3	35+14	36+74	RT	48" CONDUIT TYPE B	248
D4	37+26	38+83	RT	48" CONDUIT TYPE C	122
				CONCRETE MASONRY	1.09
				ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	12
				PIPE REMOVED OVER 24" F. FABRIC	102
				STRUCTURE REMOVED	1
TOTALS CARRIED TO SUB-SUMMARY					722

RAMP W-N PLAN & PROFILE
STA. 31+00 TO STA. 40+00

MED-71-6.06

369
1120

...75657gp69.dgn

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
	GUARDRAIL QUANTITIES
591	TRAFFIC CONTROL
491	CULVERT DETAILS

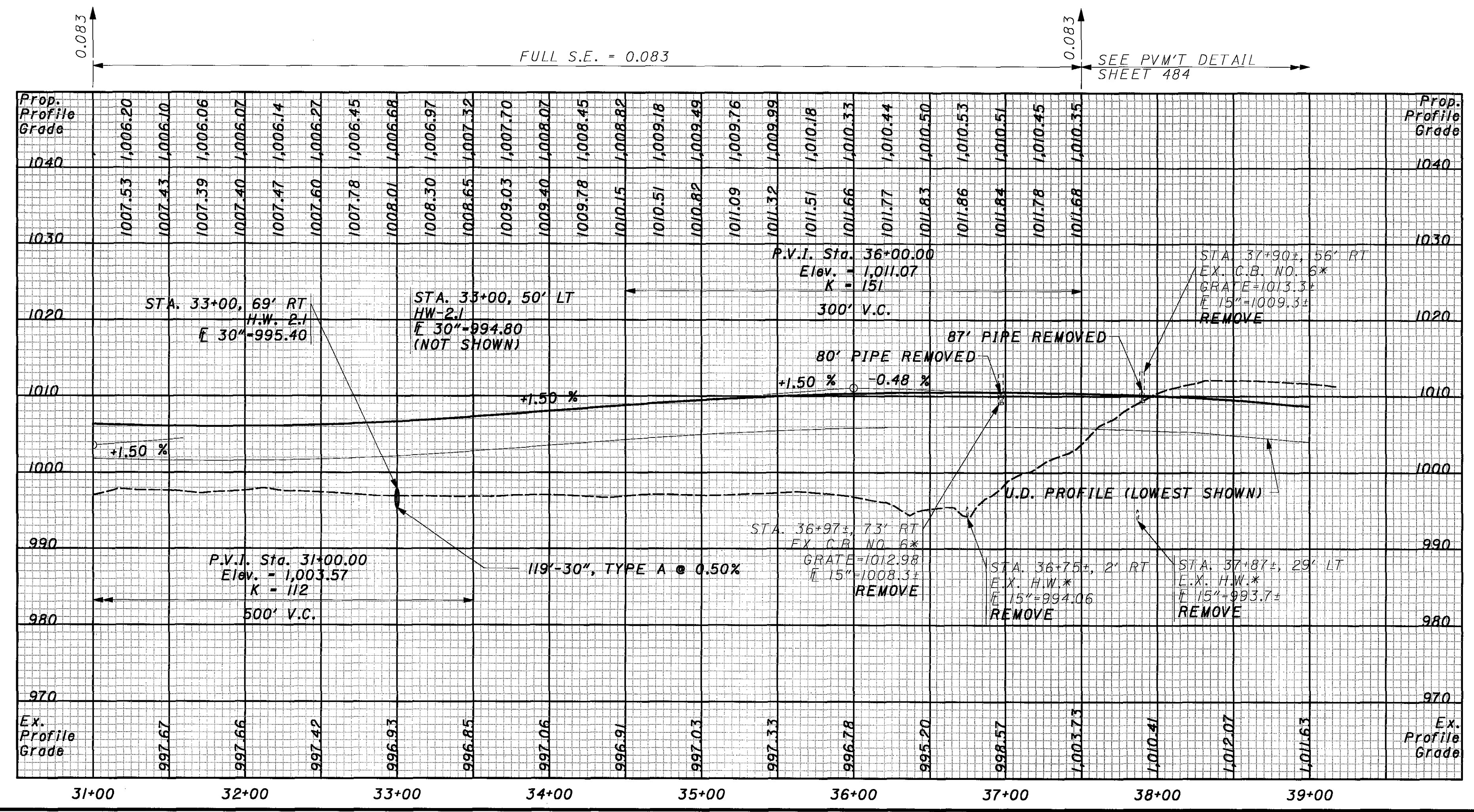
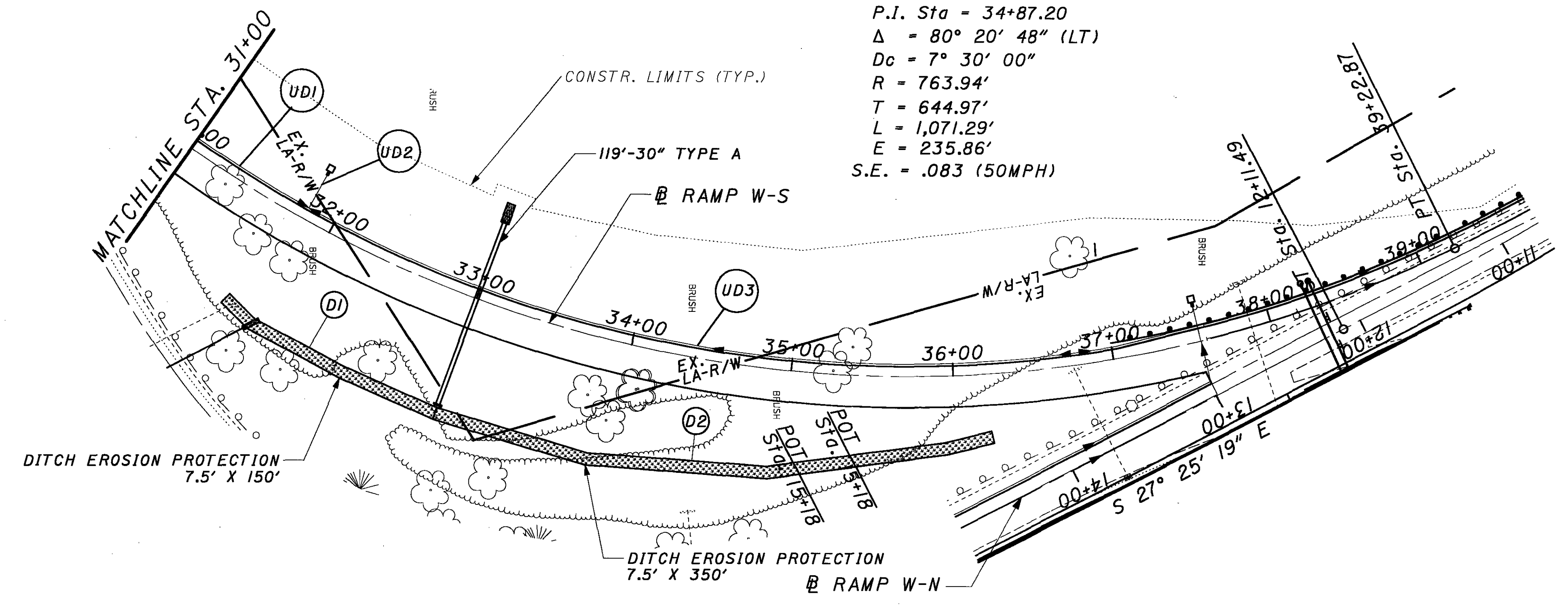
* SEE SHEET 374 FOR QUANTITIES

N

50
25
0
HORIZONTAL
SCALE IN FEET

CALCULATED KEH
CHECKED ENF

CURVE DATA RAMP W-S
 P.I. Sta = 34+87.20
 $\Delta = 80^\circ 20' 48''$ (LT)
 $D_c = 7^\circ 30' 00''$
 $R = 763.94'$
 $T = 644.97'$
 $L = 1,071.29'$
 $E = 235.86'$
 $S.E. = .083$ (50MPH)



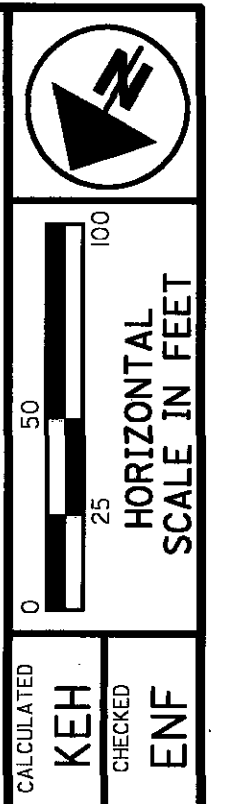
REF NO.	STATION		SIDE	DITCH EROSION PROTECT.	SQ. YD.	TOTALS CARRIED TO SUB-SUMMARY
	FROM	TO				
D1	31+65	33+00	RT		125	417
D2	33+00	36+22	RT		292	
TOTALS CARRIED TO SUB-SUMMARY						

RAMP W-S PLAN & PROFILE
STA. 31+00 TO STA. 39+22.87

MED-71-6.06

371
1120

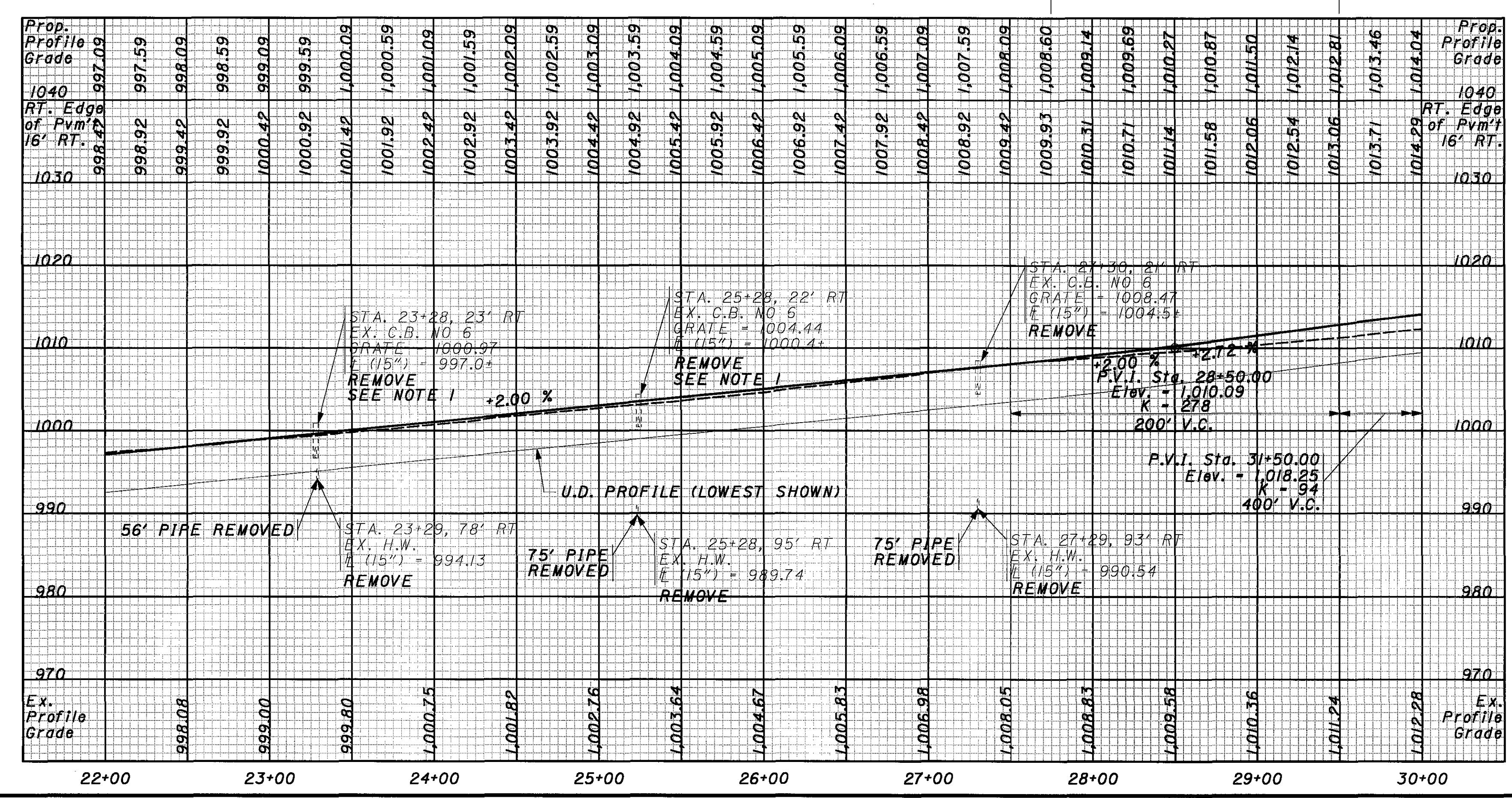
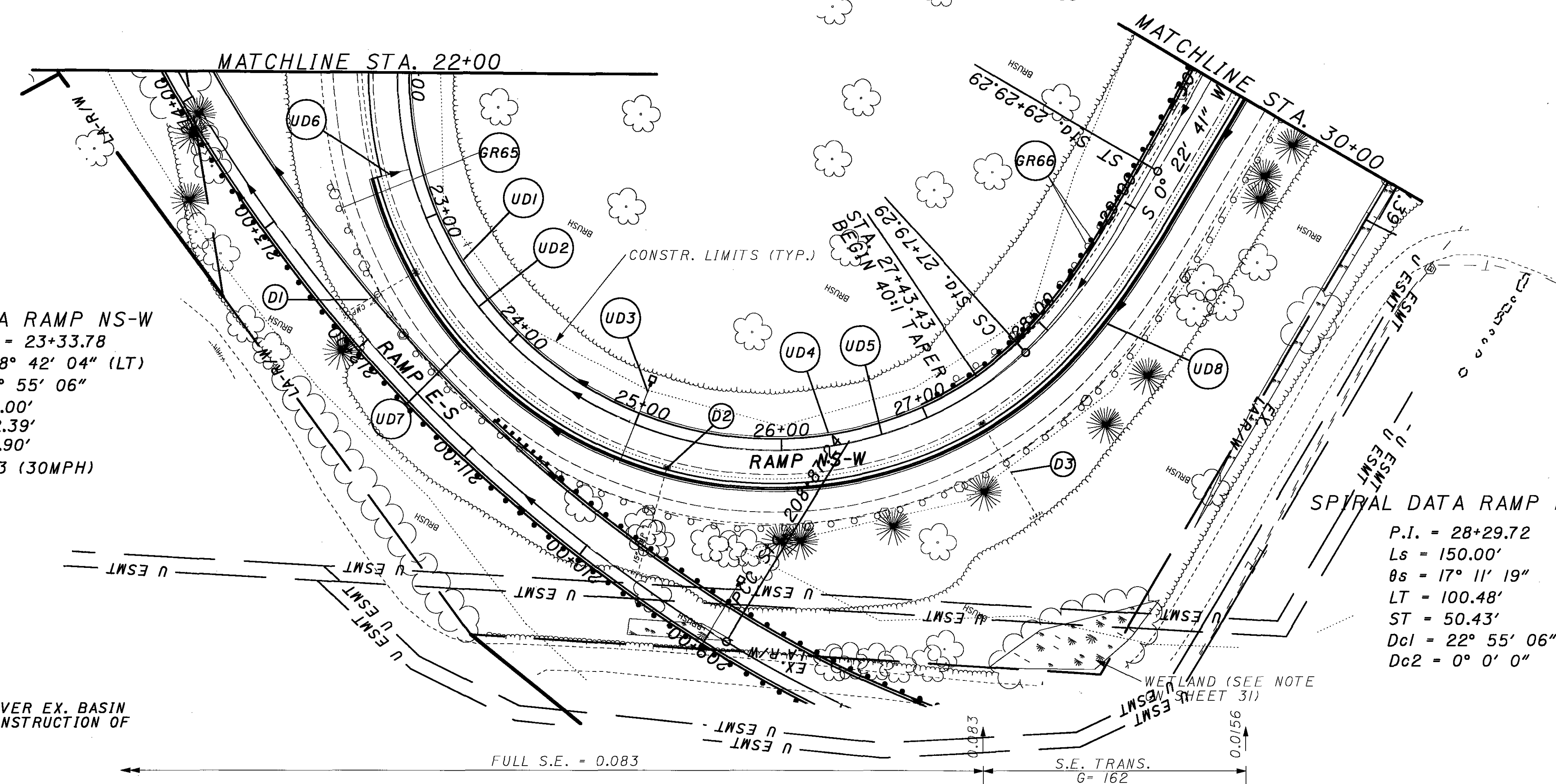
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
592	TRAFFIC CONTROL



CURVE DATA RAMP NS-W
 P.I. Sta = 23+33.78
 $\Delta = 228^\circ 42' 04''$ (LT)
 $Dc = 22^\circ 55' 06''$
 $R = 250.00'$
 $T = 552.39'$
 $L = 997.90'$
 S.E. = .083 (30MPH)

SPIRAL DATA RAMP NS-W
 P.I. = 28+29.72
 $Ls = 150.00'$
 $\theta s = 17^\circ 11' 19''$
 $LT = 100.48'$
 $ST = 50.43'$
 $Dc1 = 22^\circ 55' 06''$
 $Dc2 = 0^\circ 0' 0''$

NOTE 1: PLUG & COVER EX. BASIN DURING CONSTRUCTION OF RAMP ES



REF NO.	STATION		SIDE	STRUCTURE REMOVED	CATCH BASIN REMOVED	PIPE REMOVED, 24" AND UNDER	FEET
	FROM	TO					
D1	23+28		RT	1	1	56	
D2	25+28		RT	1	1	75	
D3	27+29		RT	1	1	75	
TOTALS CARRIED TO SUB-SUMMARY					3	3	206

RAMP NS-W PLAN & PROFILE
STA. 22+00 TO STA. 30+00

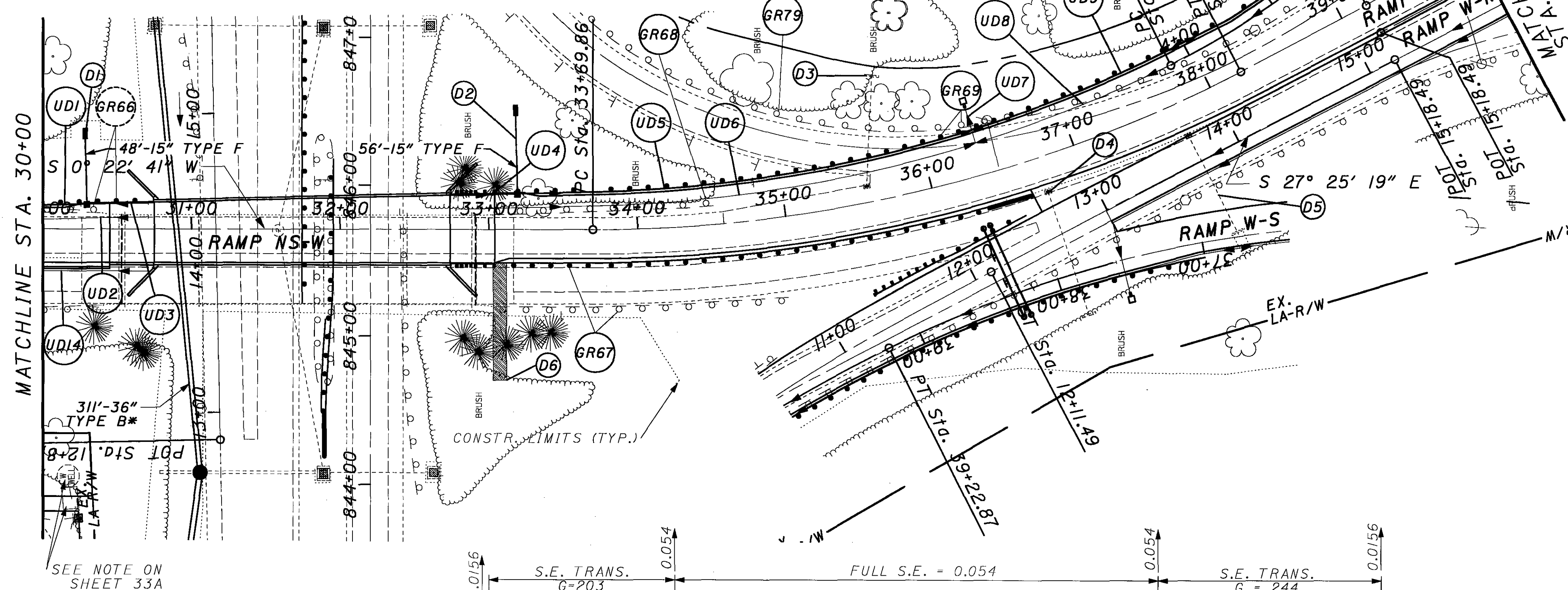
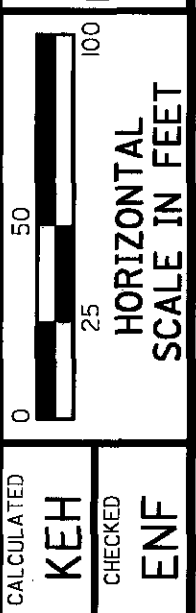
MED-71-6.06

373
1120

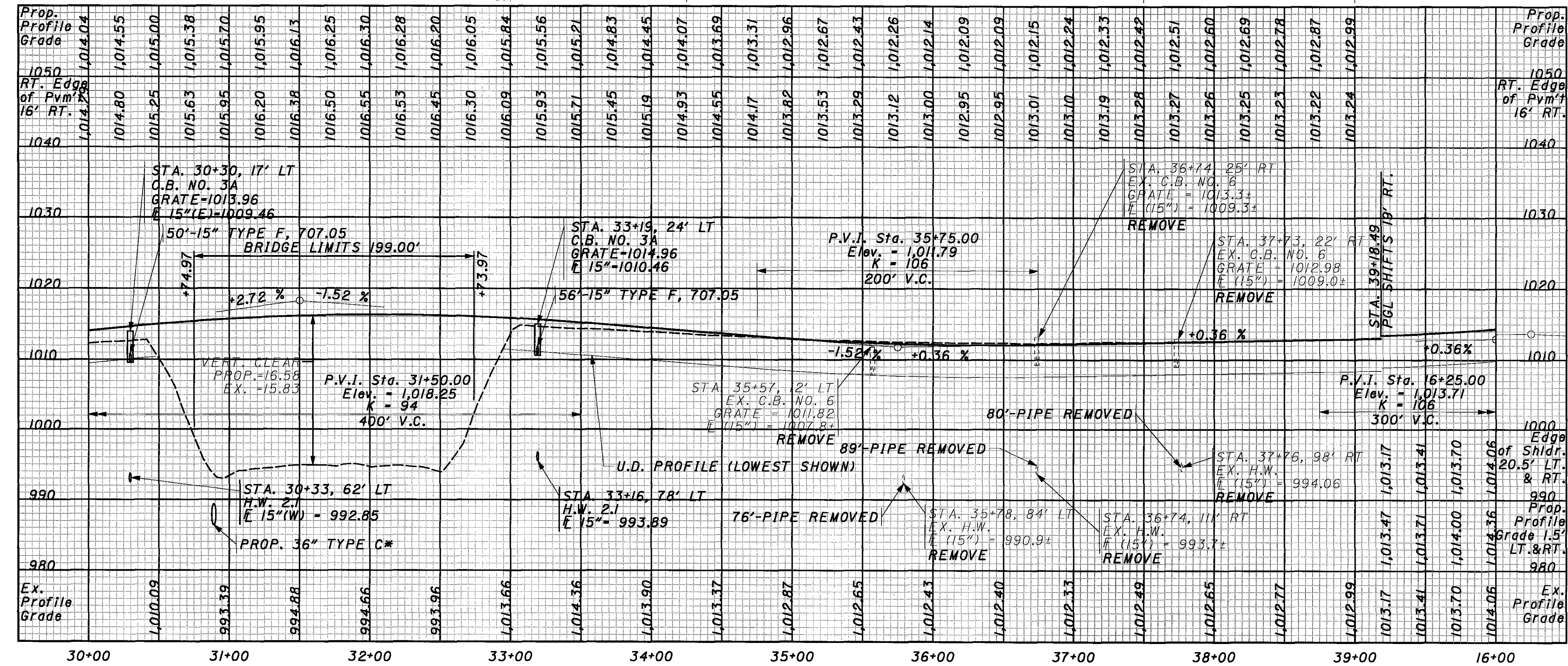
CURVE DATA RAMP S-W
 P.I. Sta = 36+01.10
 $\Delta = 27^\circ 48' 00''$ (LT)
 $D_c = 6^\circ 07' 54''$
 $R = 934.43'$
 $T = 231.25'$
 $L = 453.39'$
 $E = 28.19'$
 S.E. = .054 (35MPH)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
591, 592	TRAFFIC CONTROL

* SEE SHEET 319 FOR QUANTITIES



SEE NOTE ON SHEET 33A



REF NO.	STATION		SIDE	STRUCTURE REMOVED	CATCH BASIN REMOVED	PIPE REMOVED, 24" AND UNDER	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC	CONCRETE MASONRY	CONDUIT TYPE F, 707.05 TYPE C	CATCH BASIN NO. 3A	SODDING REINFORCED
	FROM	TO									
D1	30+30	30+30	LT	EACH	EACH	FEET	CU. YD.	CU. YD.	FEET	EACH	SQ. YD.
D2	33+19	33+19	LT			76		0.27	48	1	
D3	35+57	35+78	LT			89		0.27	56	1	
D4	36+74	37+16	RT			80					85
D5	37+73	37+76	RT								
D6	33+07	33+07									
TOTALS CARRIED TO SUB-SUMMARY					3	245	2	0.54	104	2	85

CALCULATED
 KEH
 CHECKED
 ENF

RAMP NS-W PLAN & PROFILE
 STA. 30+00 TO STA. 39+18.49

MED-71-6.06

374
 1120

CURVE DATA RAMP N-W

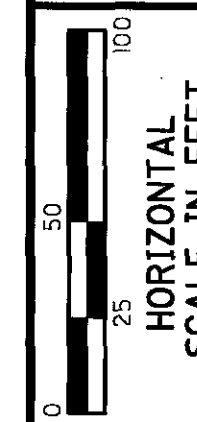
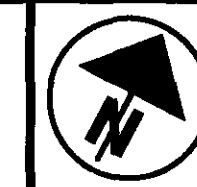
P.I. Sta = 8+17.36
 $\Delta = 57^\circ 54' 54''$ (LT)
 $D_c = 13^\circ 30' 00''$
 $R = 424.41'$
 $T = 234.85'$
 $L = 429.00'$
 $E = 60.64'$
 $S.E. = .080$ (35MPH)

SPIRAL DATA RAMP N-E

P.I. = 10+78.54
 $L_s = 200.00'$
 $\theta_s = 13^\circ 30' 00''$
 $LT = 133.72'$
 $ST = 67.02'$
 $D_{c1} = 0^\circ 0' 0''$
 $D_{c2} = 13^\circ 30' 00''$

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
147	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
584, 591	TRAFFIC CONTROL

* SEE SHEET 186 FOR QUANTITIES

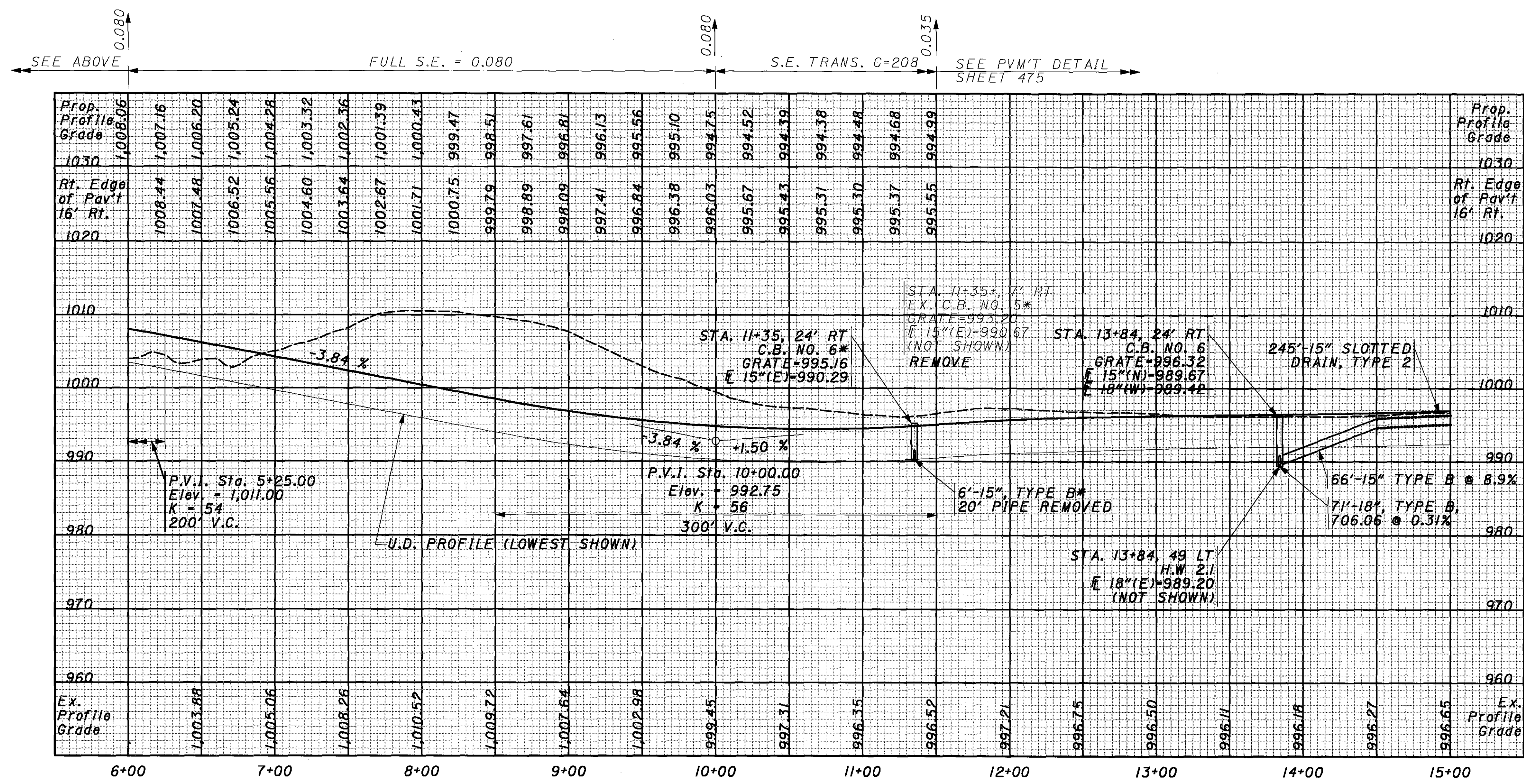
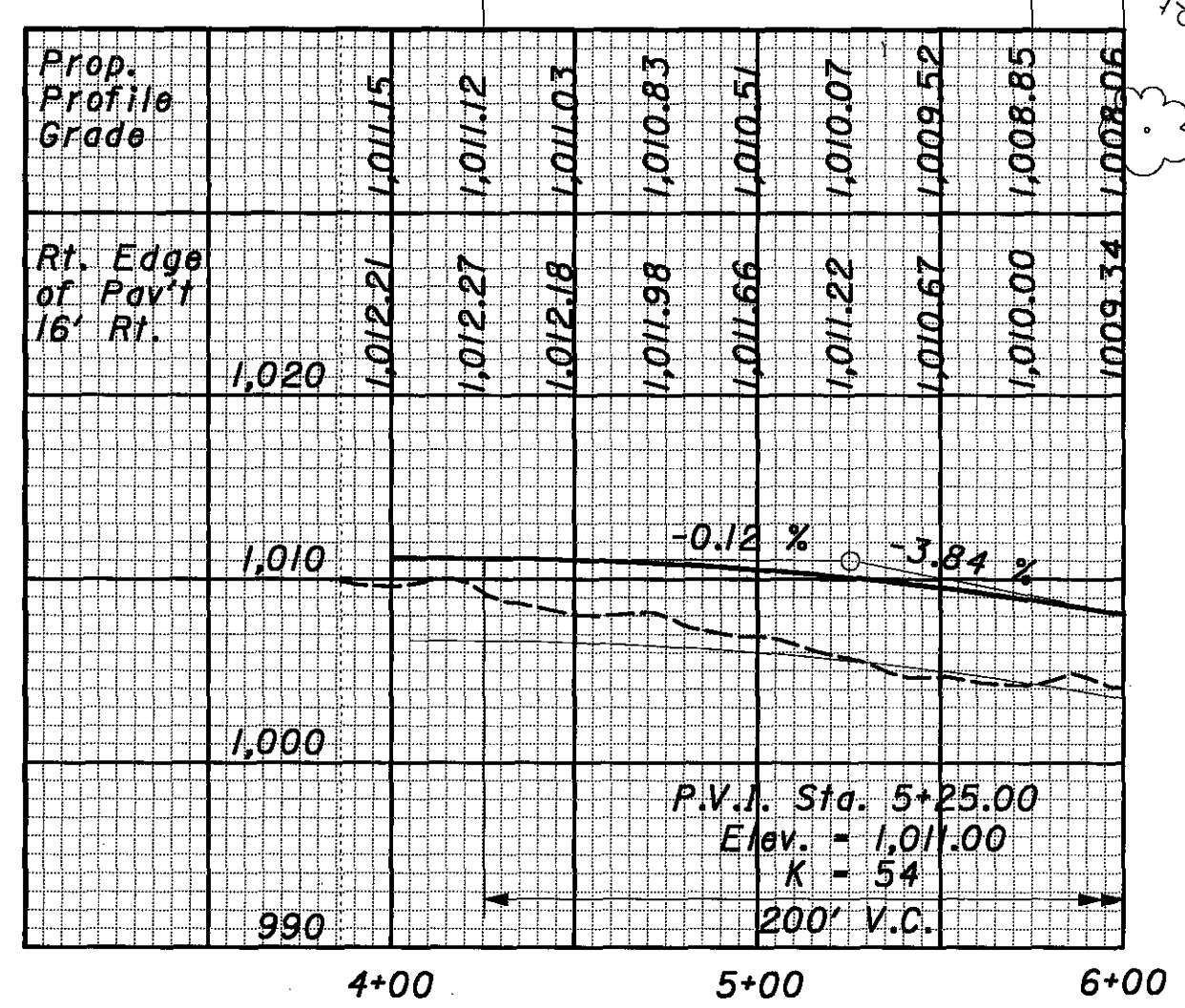
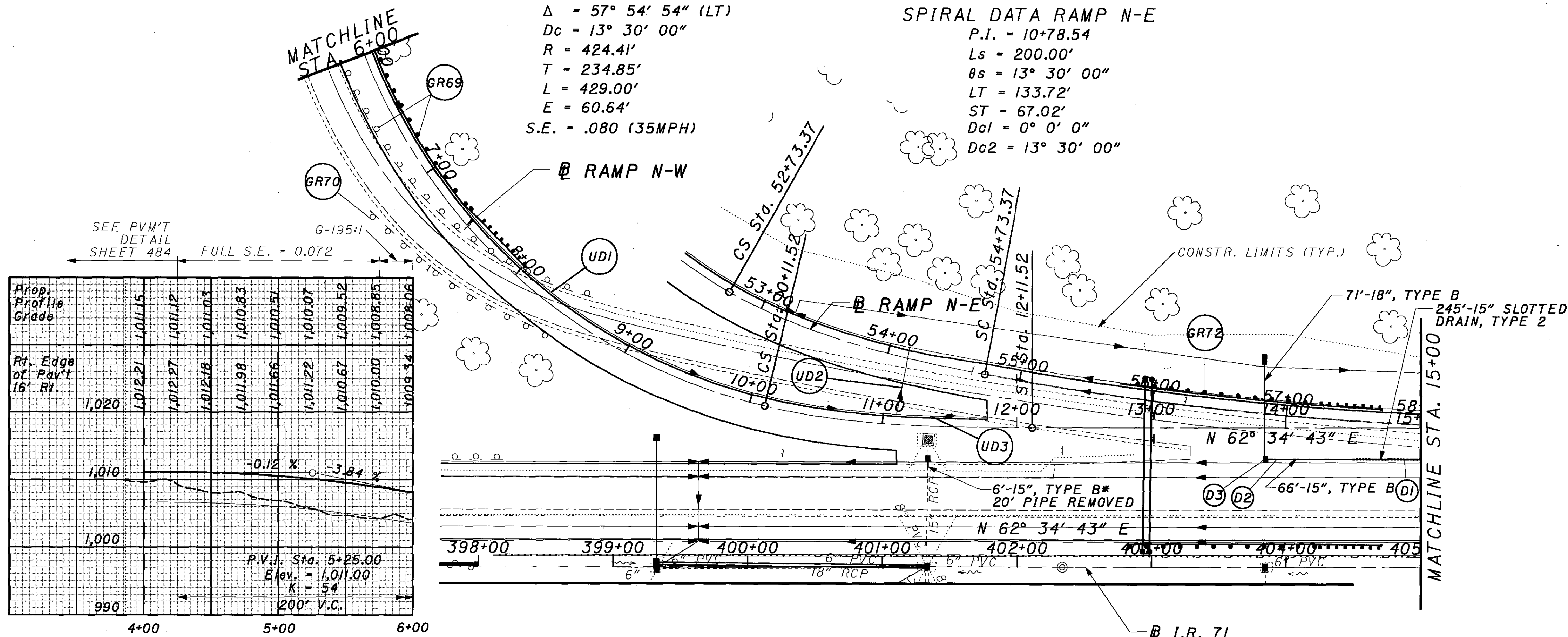


CHECKED KEH
 ENF

**RAMP N-W PLAN & PROFILE
 STA. 6+00 TO STA. 15+00**

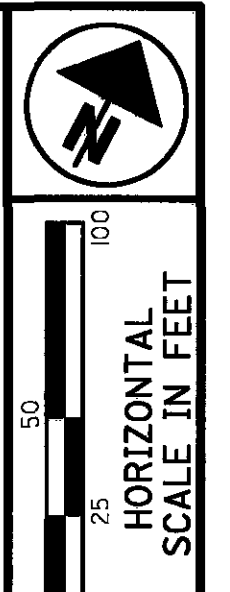
MED-71-6.06

375
 1120



REF NO.	STATION		SIDE	MATERIAL	QUANTITY	UNIT
	FROM	TO				
D1	14+50	16+95	LT	245'-15" SLOTTED DRAIN, TYPE 2	245	FEET
D2	13+84	14+50	LT	66'-15" TYPE B	66	FEET
D3	13+84	13+84	LT	71'-18" TYPE B	71	FEET
				CONCRETE MASONRY	0.33	CU. YD.
				ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1	CU. YD.
				NO. 6 CATCH BASIN	1	EACH
TOTALS CARRIED TO SUB-SUMMARY					137	

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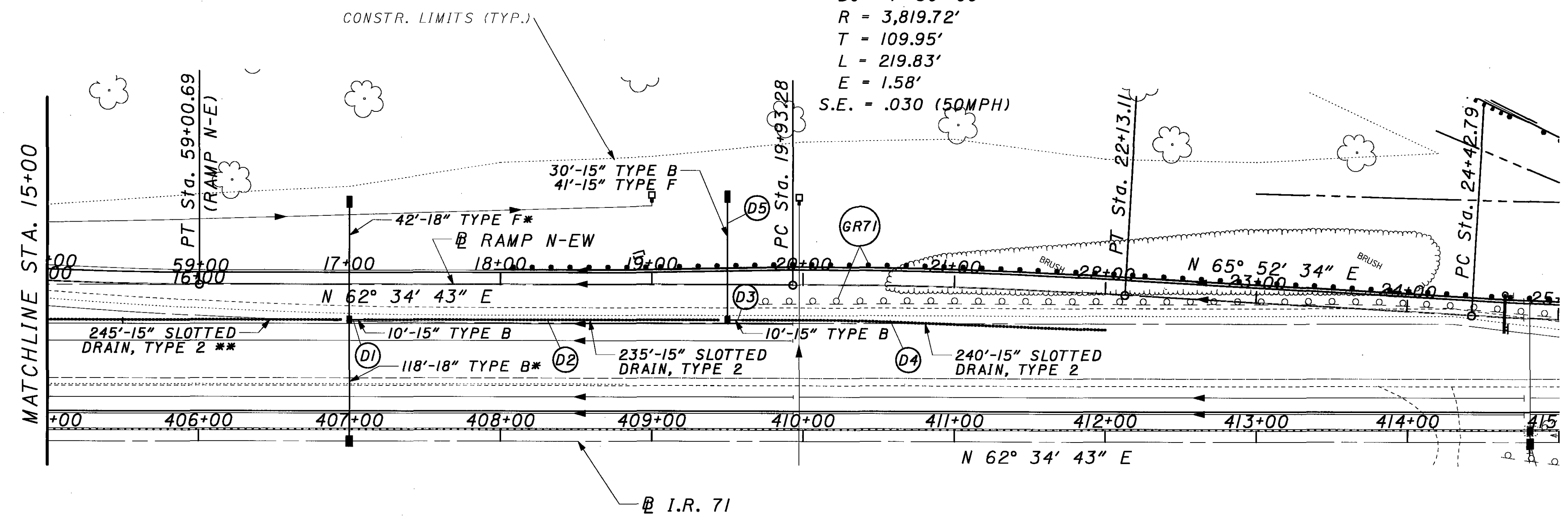


CROSS REFERENCES	
SHEET NO.	DESCRIPTION
386 & 387	UNDERDRAIN INFORMATION
152	GUARDRAIL QUANTITIES
585	TRAFFIC CONTROL

* SEE SHEET 187 FOR QUANTITIES
 ** SEE SHEET 375 FOR QUANTITIES

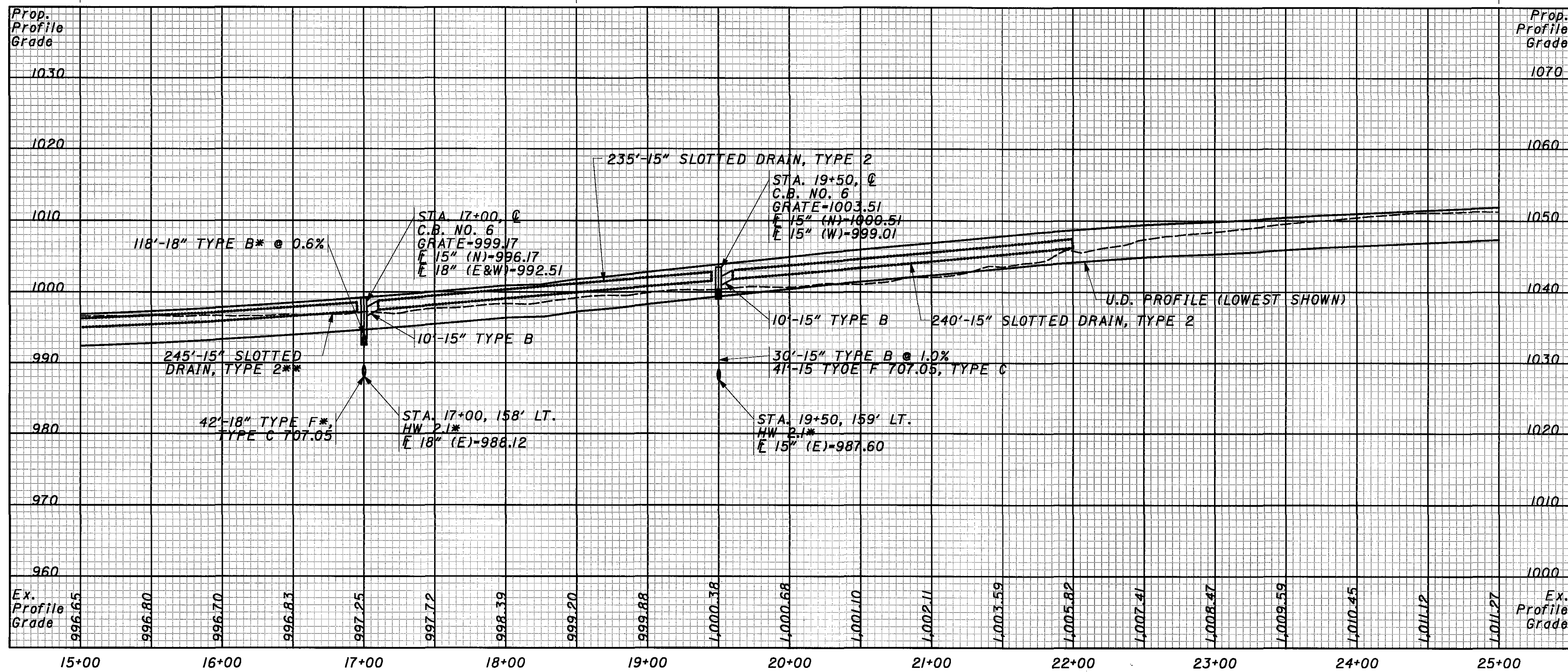
CURVE DATA RAMP N-EW

P.I. Sta = 21+03.22
 $\Delta = 3^\circ 17' 51''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 109.95'$
 $L = 219.83'$
 $E = 1.58'$
 $S.E. = .030$ (50MPH)



SEE PAVEMENT DETAIL SHEET 475

SEE PAVEMENT DETAIL SHEET 476



REF NO.	STATION		SIDE	MATERIAL	QUANTITY	UNIT	REMARKS
	FROM	TO					
D1	17+00	17+10	RT	ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1	CU. YD.	
D2	17+10	19+45	RT	CONCRETE MASONRY	10	CU. YD.	
D3	19+50	19+60	RT	15" CONDUIT TYPE B	10	FEET	
D4	19+60	22+00	RT	15" CONDUIT TYPE F, 707.05, TYPE C	30	FEET	
D5	19+50	19+50	LT	15" SLOTTED DRAIN, TYPE 2	1	FEET	
				NO. 6 CATCH BASIN	1	EACH	
				235'-15" SLOTTED DRAIN, TYPE 2	235	FEET	
				240'-15" SLOTTED DRAIN, TYPE 2	240	FEET	
				41'-15" TYPE B	41	FEET	
				10'-15" TYPE B	50	FEET	
				CONCRETE MASONRY	0.27	CU. YD.	
				ROCK CHANNEL PROTECT. TYPE C W/ F. FABRIC	1	CU. YD.	
				CONCRETE MASONRY	0.27	CU. YD.	
				15" CONDUIT TYPE B	10	FEET	
				15" CONDUIT TYPE F, 707.05, TYPE C	41	FEET	
				15" SLOTTED DRAIN, TYPE 2	475	FEET	
				NO. 6 CATCH BASIN	2	EACH	
TOTALS CARRIED TO SUB-SUMMARY							

**RAMP N-EW PLAN & PROFILE
 STA. 15+00 TO STA. 25+00**

MED-71-6.06

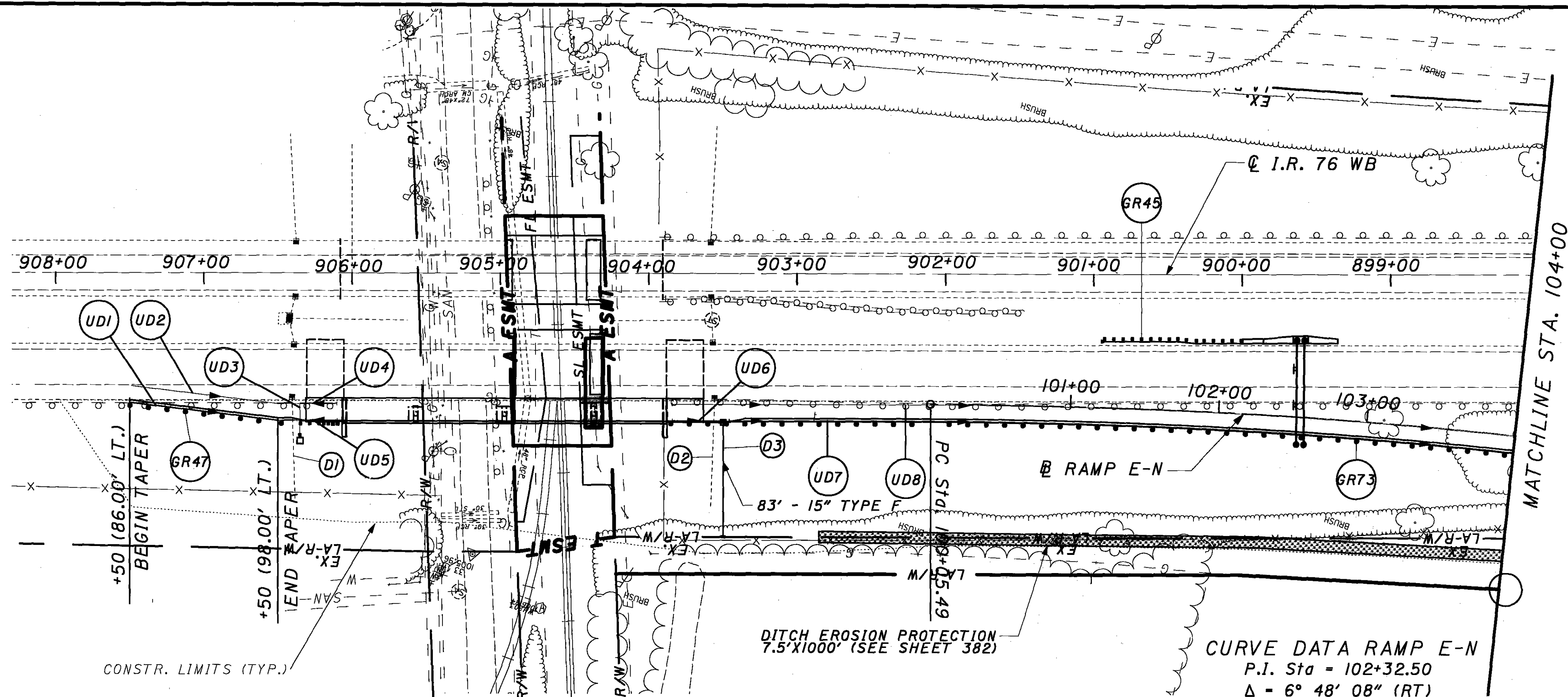
376
1120

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
148	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
595, 596	TRAFFIC CONTROL



0 50 100
HORIZONTAL SCALE IN FEET

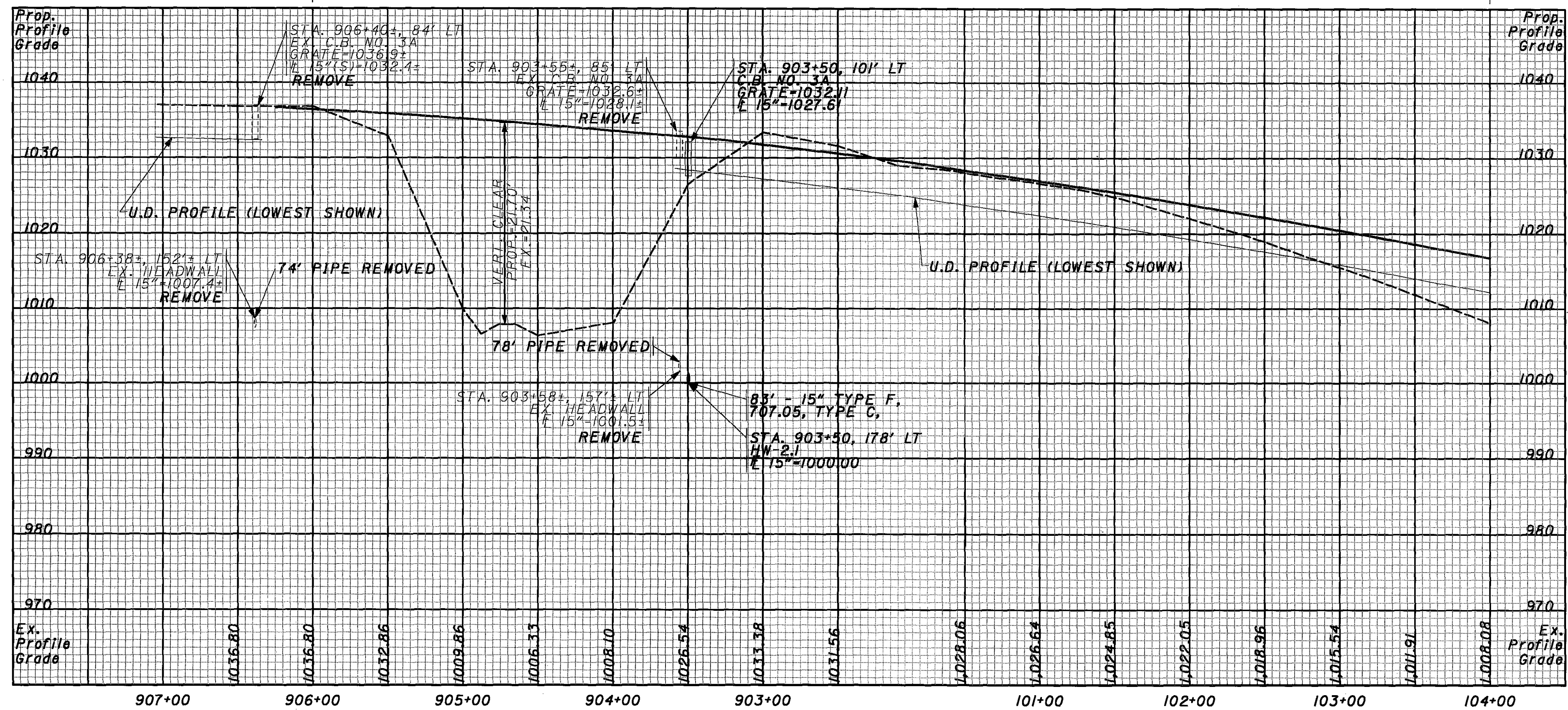
CALCULATED KEH
CHECKED ENF



DITCH EROSION PROTECTION
7.5'x1000' (SEE SHEET 382)

CURVE DATA RAMP E-N
 P.I. Sta = 102+32.50
 $\Delta = 6^\circ 48' 08''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 227.01'$
 $L = 453.48'$
 $E = 6.74'$
 $S.E. = .041$ (60MPH)

SEE PAVEMENT DETAIL SHEET 483



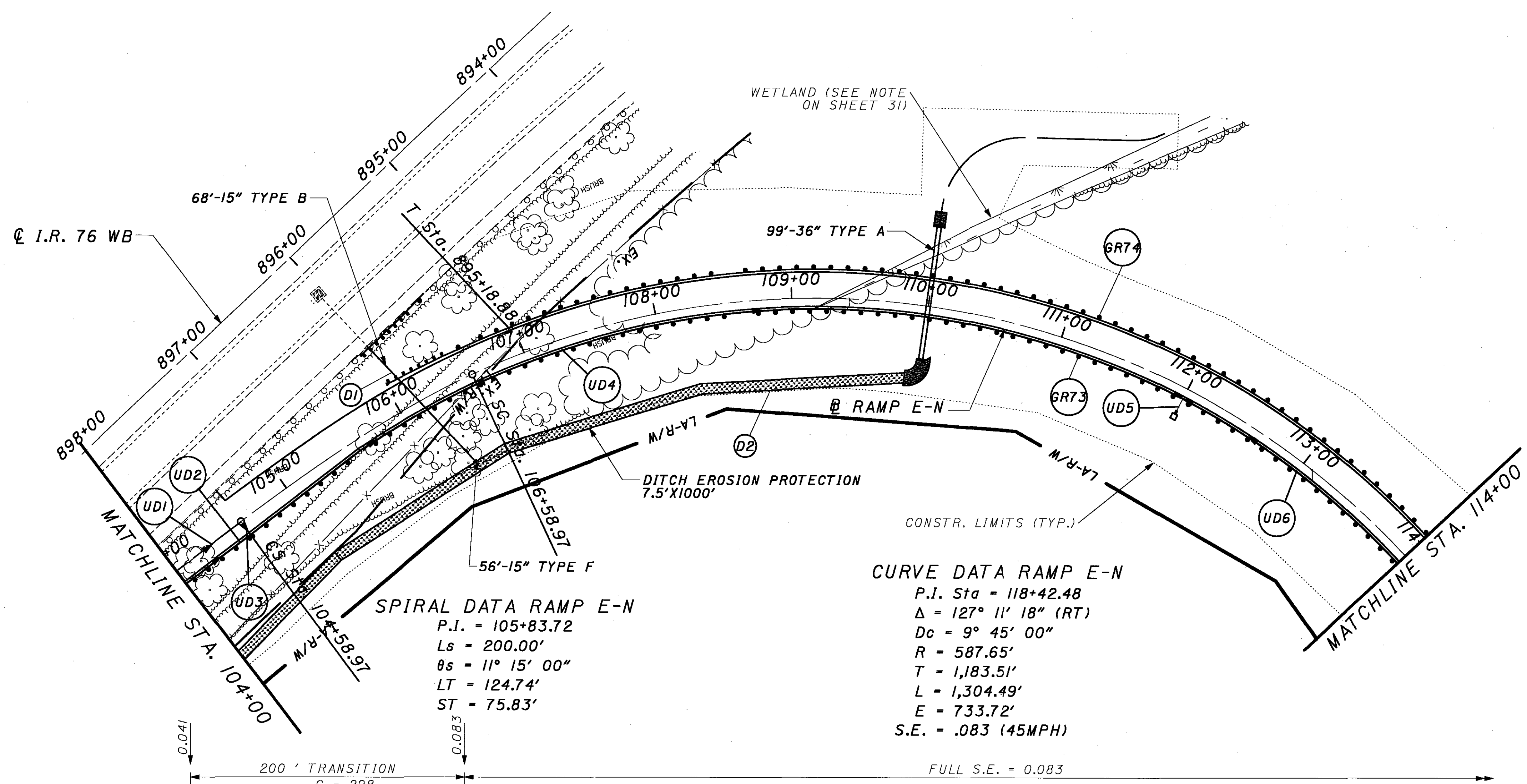
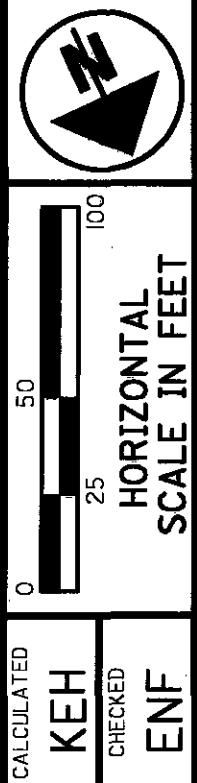
REF NO.	STATION		SIDE	STRUCTURE REMOVED	CATCH BASIN REMOVED	PIPE REMOVED, UNDER	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC	CONCRETE MASONRY	CONDUIT TYPE F TYPE C	NO. 3A CATCH BASIN	
	FROM	TO									
D1	906+38	906.40	LT	1	1	74					
D2	903+55	903+58	LT	1	1	78					
D3	903+50		LT	1	1			0.27		1	
TOTALS CARRIED TO SUB-SUMMARY											
				2	2	152		0.27		83	1

RAMP E-N PLAN & PROFILE
STA. 100+05.49 TO STA. 104+00

MED-71-6.06

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CROSS REFERENCES	
SHEET NO.	DESCRIPTION
148	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
593, 595	TRAFFIC CONTROL
492	CULVERT DETAILS

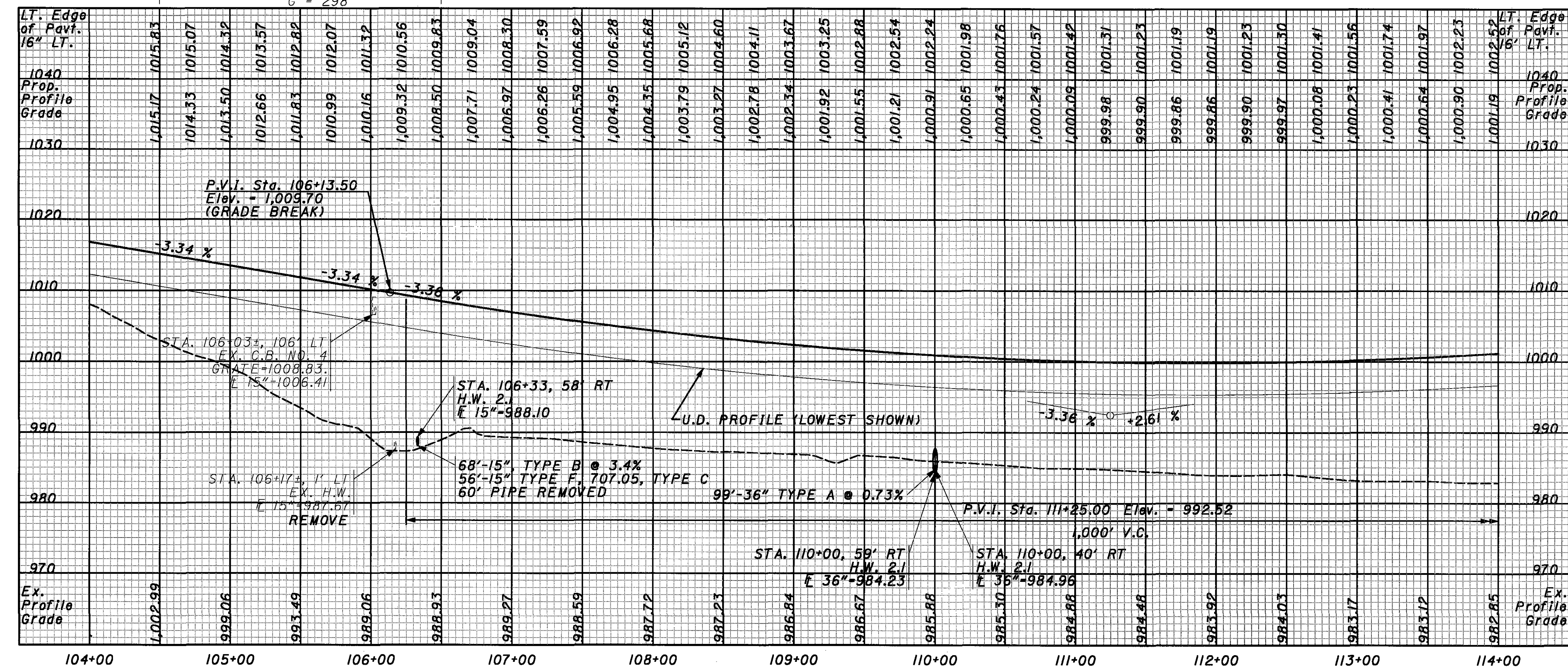


SPIRAL DATA RAMP E-N
 P.I. = 105+83.72
 Ls = 200.00'
 θs = 11° 15' 00"
 LT = 124.74'
 ST = 75.83'

CURVE DATA RAMP E-N
 P.I. Sta = 118+42.48
 Δ = 127° 11' 18" (RT)
 Dc = 9° 45' 00"
 R = 587.65'
 T = 1,183.51'
 L = 1,304.49'
 E = 733.72'
 S.E. = .083 (45MPH)

200' TRANSITION
 G = 298

FULL S.E. = 0.083



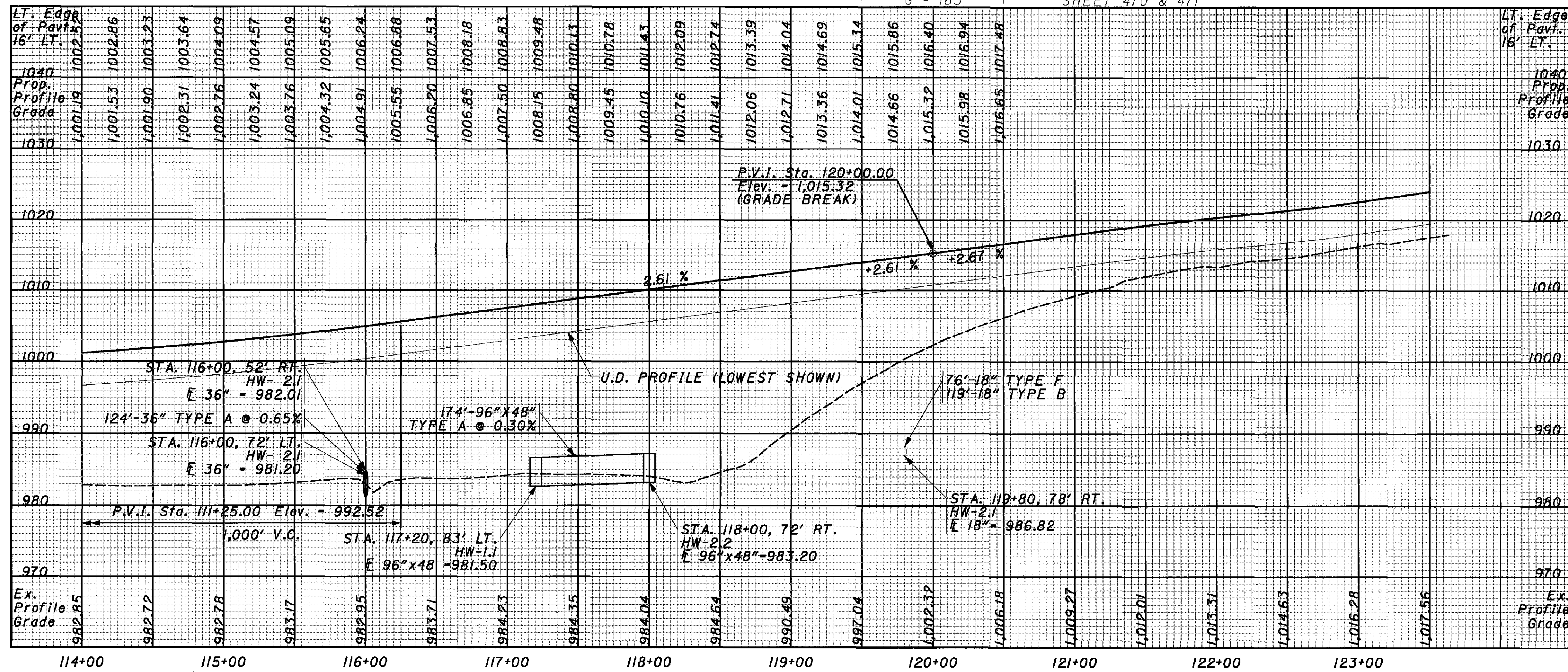
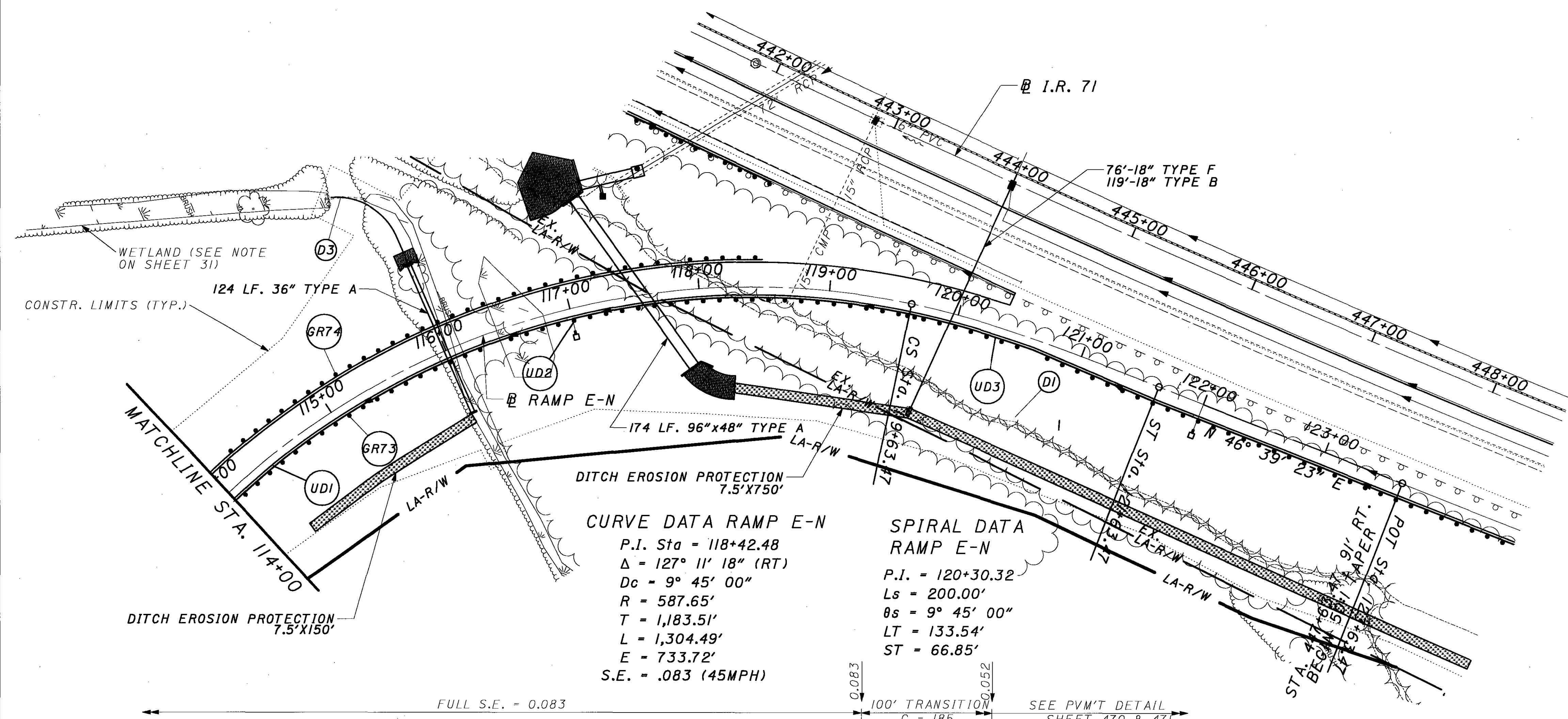
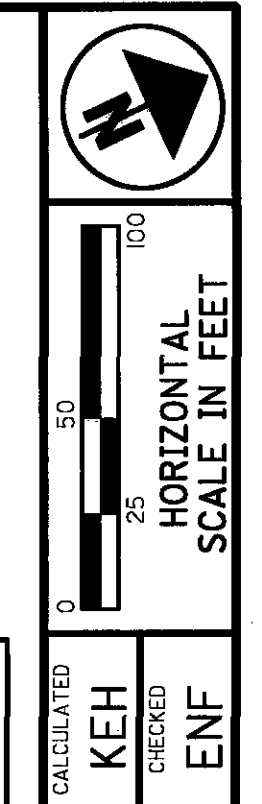
REF NO.	STATION		SIDE	DESCRIPTION	FEET	CU. YD.	SQ. YD.	TOTALS CARRIED TO SUB-SUMMARY
	FROM	TO						
D1	106+17	106+33	RT	PIPE STRUCTURE REMOVED	60			
D2	105+02	110+00	LT	ROCK CHANNEL PROTECT., TYPE C W/ F. FABRIC		0.27	833	833
				CONCRETE MASONRY	68			
				15" CONDUIT TYPE B				
				15" CONDUIT TYPE F, TYPE C	56			
				DITCH EROSION PROTECT.				

MED-71-6.06

382
1120

...75657gp94.cgn

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
148	UNDERDRAIN QUANTITIES
152	GUARDRAIL QUANTITIES
587, 593	TRAFFIC CONTROL
493-498	CULVERT DETAILS
190	DRAINAGE QUANTITIES



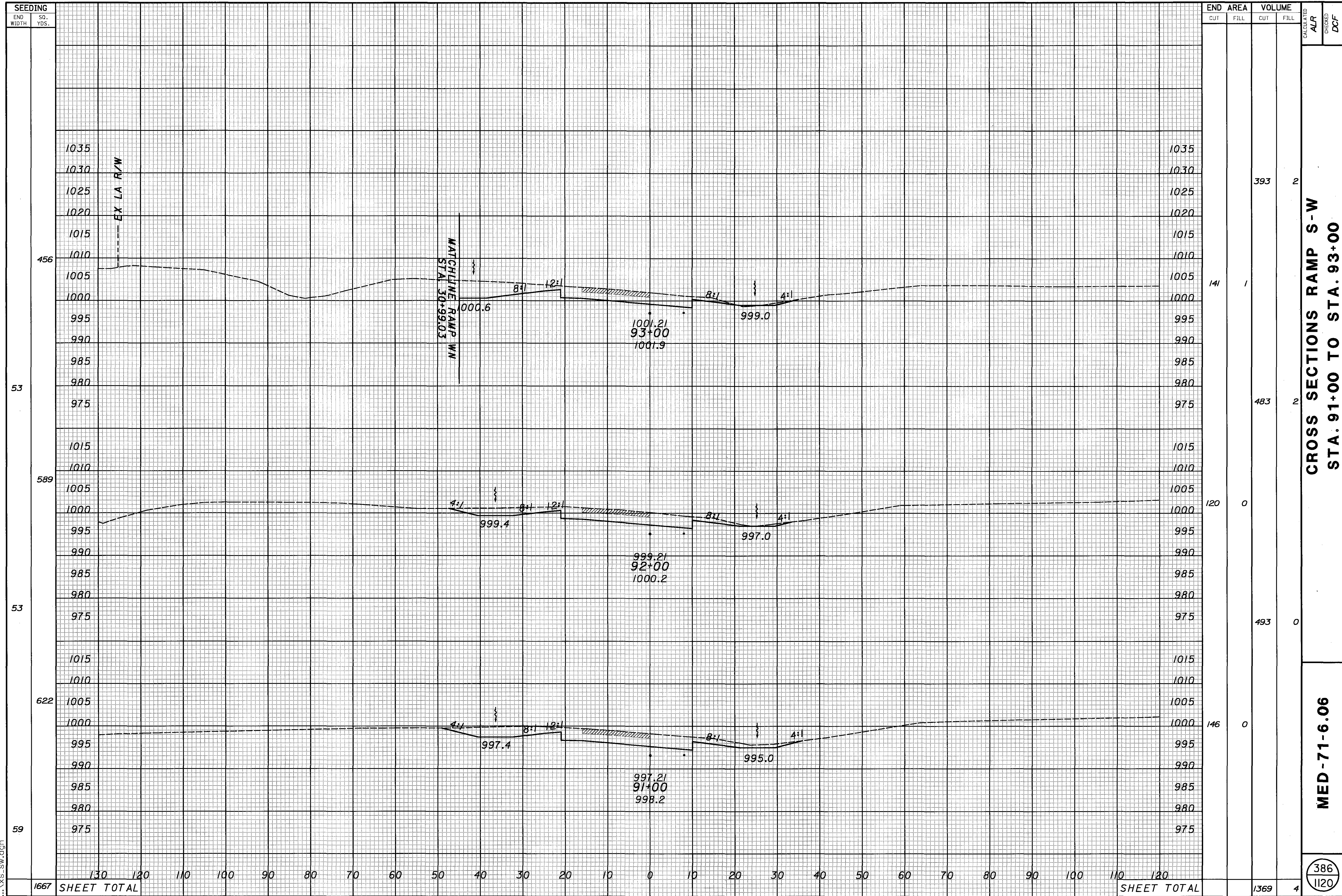
REF NO.	STATION		SIDE	PIPE REMOVED < 24" FEET	DITCH EROSION PROTECT. SO. YD.
	FROM	TO			
D1	118+25	121+04	LT	625	
D2	114+33	115+98	RT	125	
D3	115+69	115+91	LT	29	
TOTALS CARRIED TO SUB-SUMMARY				750	

**RAMP E-N PLAN & PROFILE
 STA. 114+00 TO STA. 123+63.47**

MED-71-6.06

383
1120

...V75657gp95.dgn



CROSS SECTIONS RAMP S-W
 STA. 91+00 TO STA. 93+00

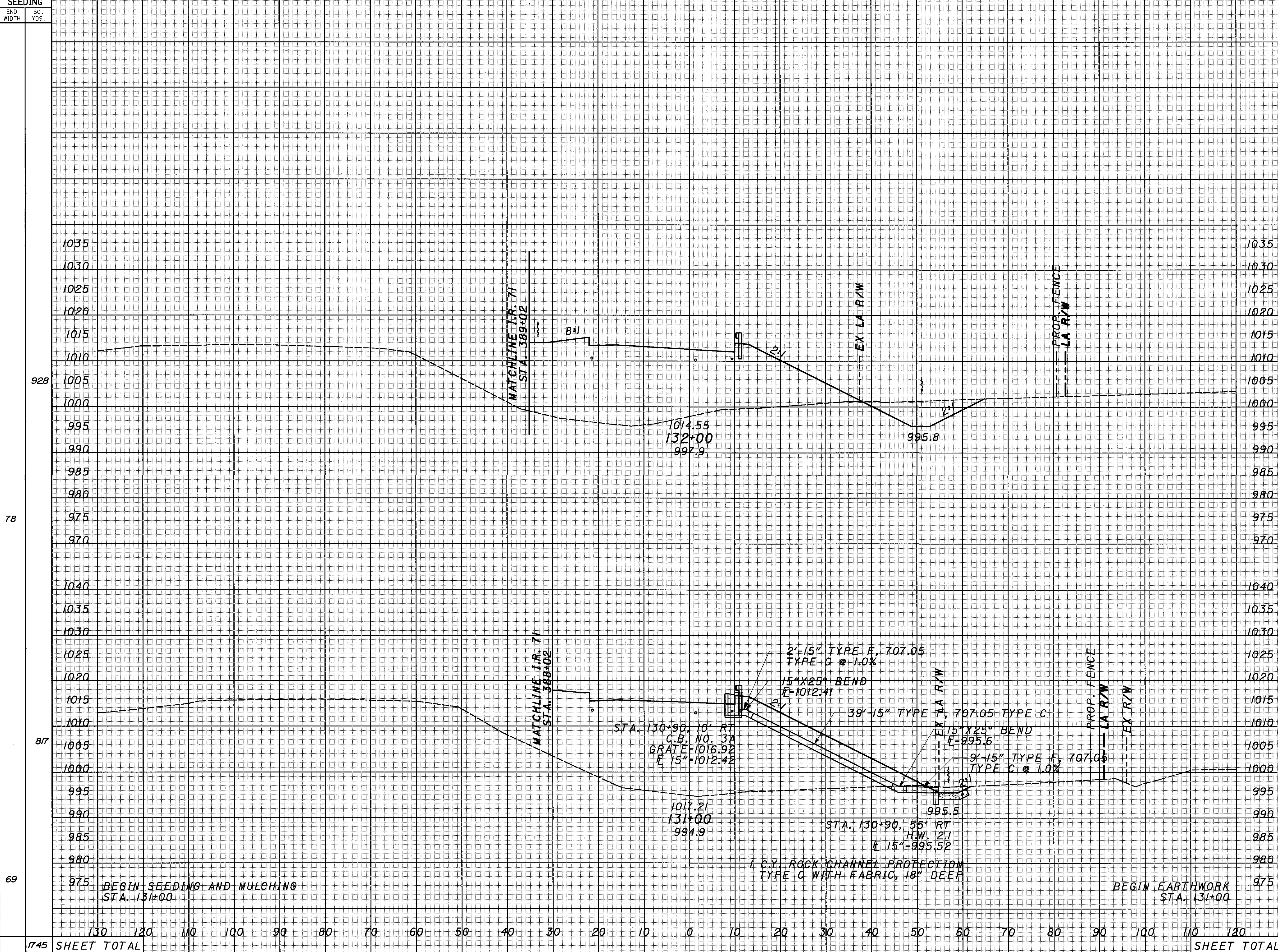
MED-71-6.06

386
 1120

... \xs-sw.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



296 3466

84 934

173 3967

9 1208

CROSS SECTIONS - RAMP S-E
STA. 131+00 TO STA. 132+00

MED-71-6.06

388
1120

1745 SHEET TOTAL

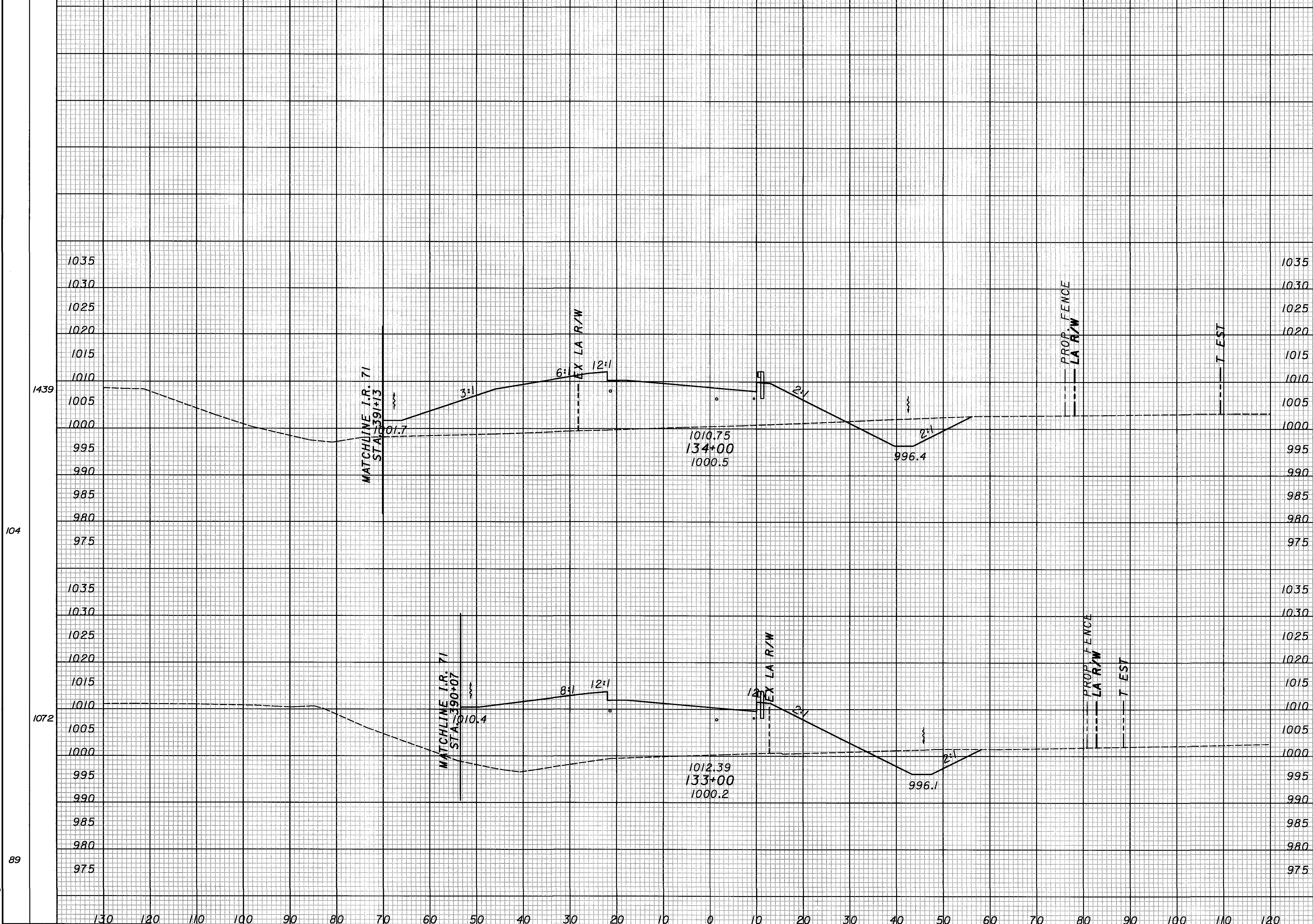
SHEET TOTAL

469 7433

...xs_se.dgn

SEEDING
END SO.
WIDTH YDS.

END AREA
CUT FILL
VOLUME
CUT FILL
CALCULATED
ALR
CHECKED
DCF



474 2805

89 796

304 3209

76 938

CROSS SECTIONS - RAMP S-E
STA. 133+00 TO STA. 134+00

MED-71-6.06

389
1120

2511 SHEET TOTAL

SHEET TOTAL

778 6014

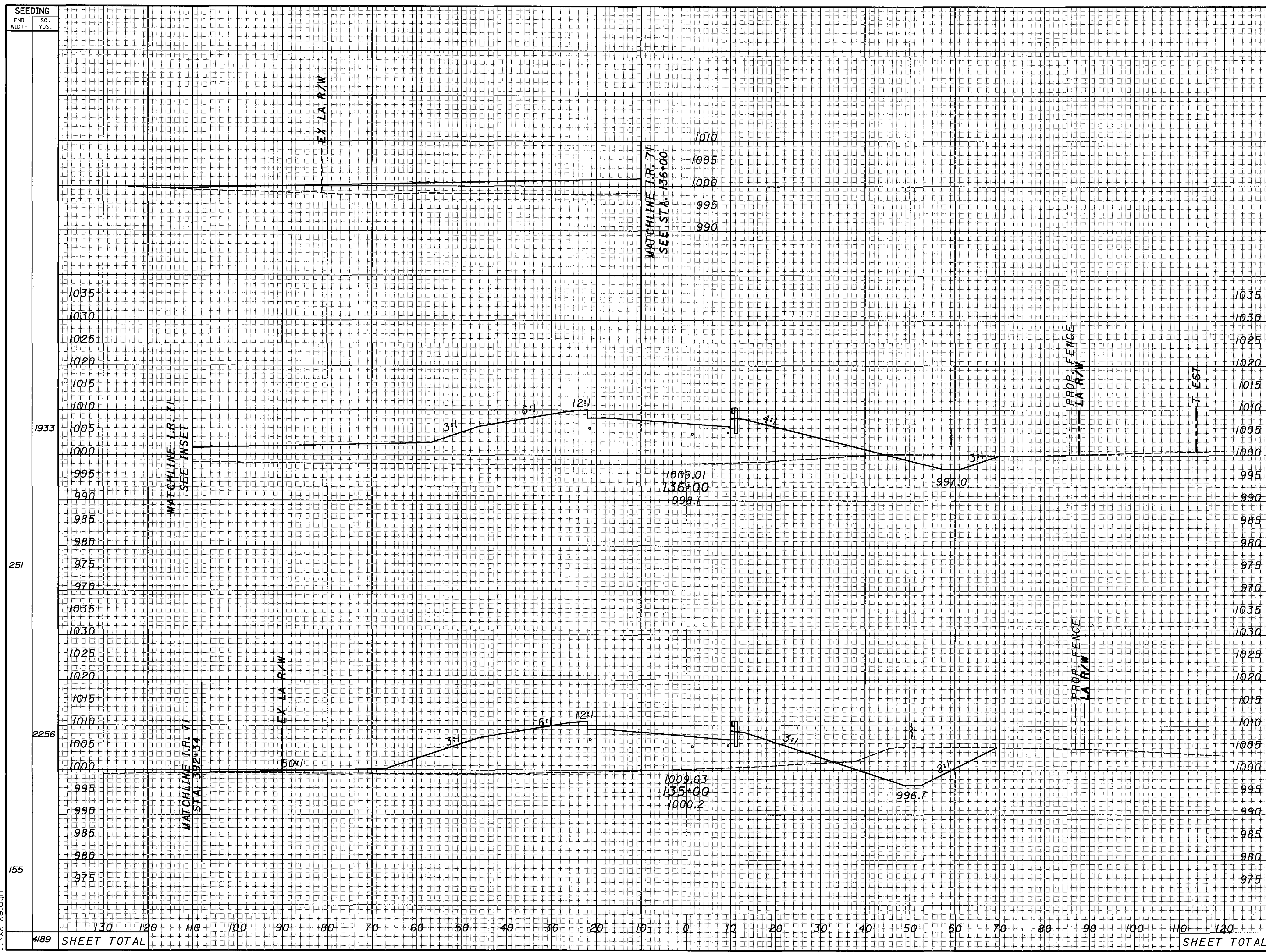
...xs_se.dgn

SEEDING

END SO. WIDTH YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED
ALR
CHECKED
DCF



END AREA	VOLUME	
	CUT	FILL
141	3231	
47	1232	
396	3614	
167	719	
537	6845	

CROSS SECTIONS - RAMP S-E
STA. 135+00 TO STA. 136+00

MED-71-6.06

390
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
SHEET TOTAL

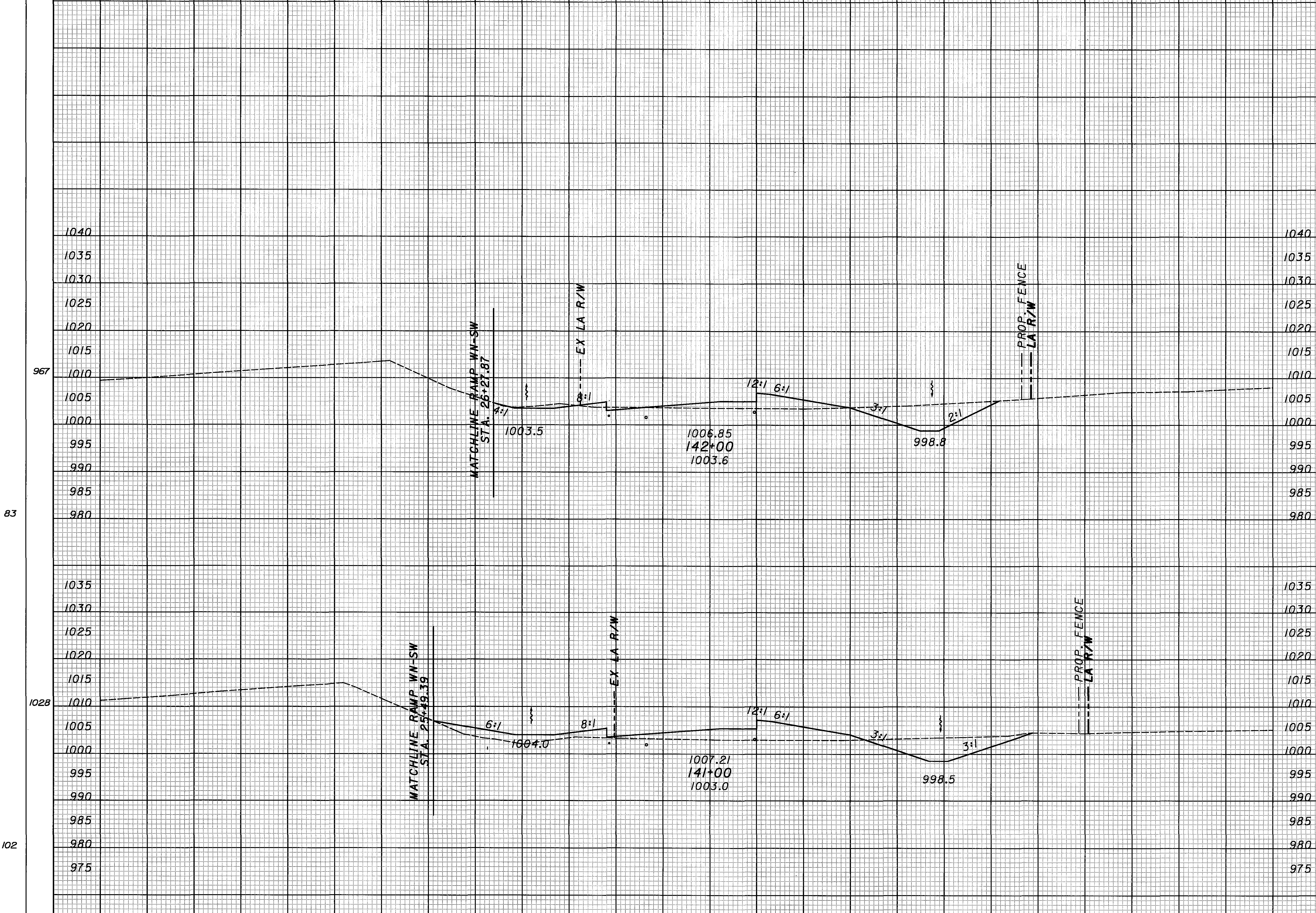
SHEET TOTAL

...Xs_se.dgn

SEEDING

END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR
CHECKED DCF



ELEVATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1040				
1035				
1030				
1025				
1020			586	142
1015				
1010				
1005				
1000				
995				
990				
985				
980	109	64		
1035				
1030				
1025				
1020			377	416
1015				
1010				
1005				
1000				
995				
990				
985				
980	95	160		
975				
TOTAL			963	558

CROSS SECTIONS - RAMP S-E
STA. 141+00.00 TO STA. 142+00.00

MED-71-6.06

393
1120

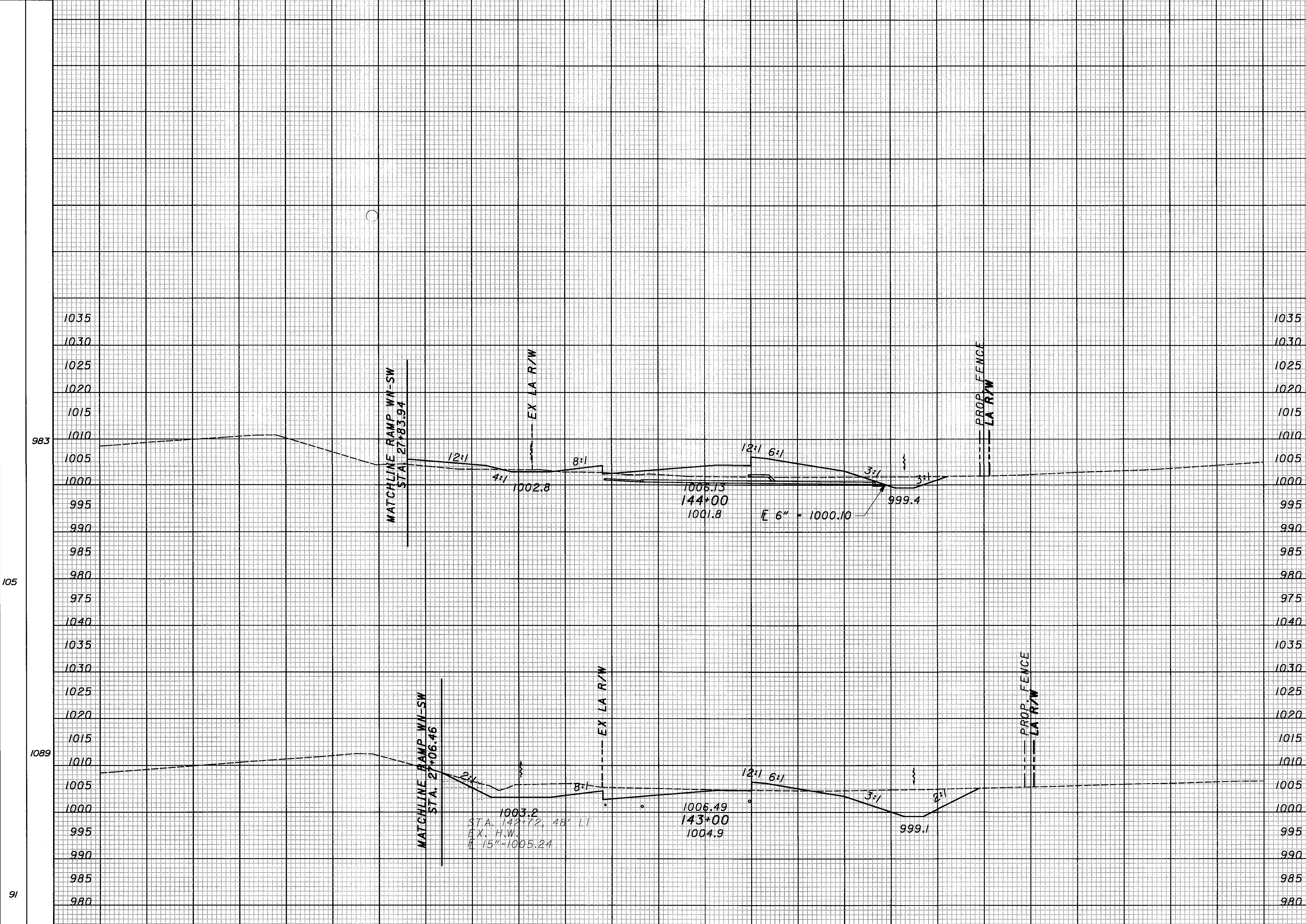
...Xs_se.dgn

1995 SHEET TOTAL

SHEET TOTAL

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



END AREA	VOLUME	CALCULATED	CHECKED
78	585		
31	157		
442	315		
207	13		
520	900		

CROSS SECTIONS - RAMP S-E
STA. 143+00 TO STA. 144+00

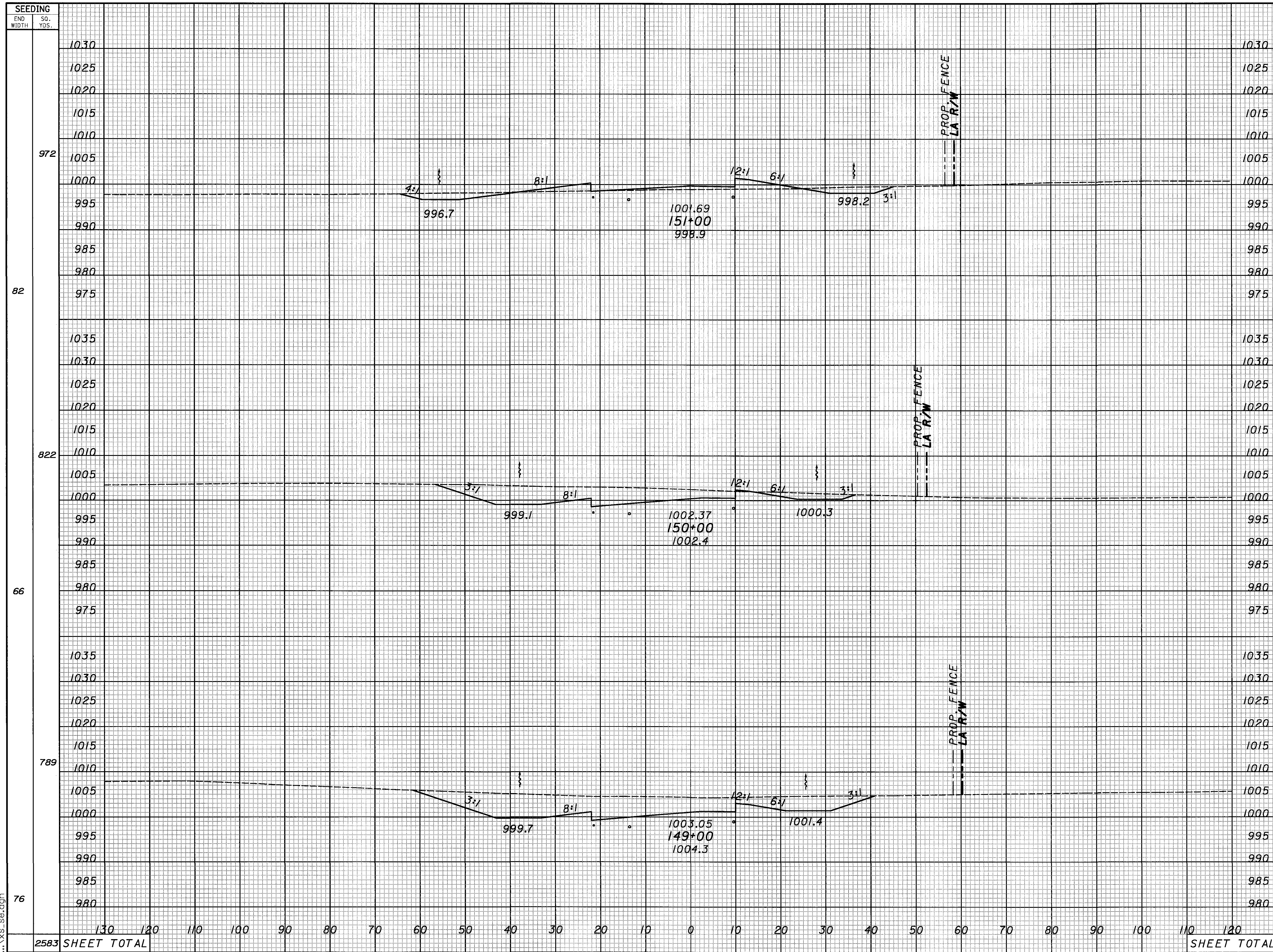
MED-71-6.06

394
1120

... \xs_se.dgn

2072 SHEET TOTAL

SHEET TOTAL



SEEDING	END AREA		VOLUME		CALCULATED	ALR	CHECKED	DCF																							
	CUT	FILL	CUT	FILL																											
1030																															
1025																															
1020																															
1015																															
1010																															
972																															
1005																															
1000																															
995																															
990																															
985																															
980																															
975	44	47																													
1035																															
1030																															
1025																															
1020																															
1015																															
1010																															
822																															
1005																															
1000																															
995																															
990																															
985																															
980	27	1																													
975																															
1035																															
1030																															
1025																															
1020																															
1015																															
1010																															
789																															
1005																															
1000																															
995																															
990																															
985																															
980	349	0																													
2583	130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120	SHEET TOTAL	1867	208	397	1120

CROSS SECTIONS - RAMP S-E
STA. 149+00 TO STA. 151+00

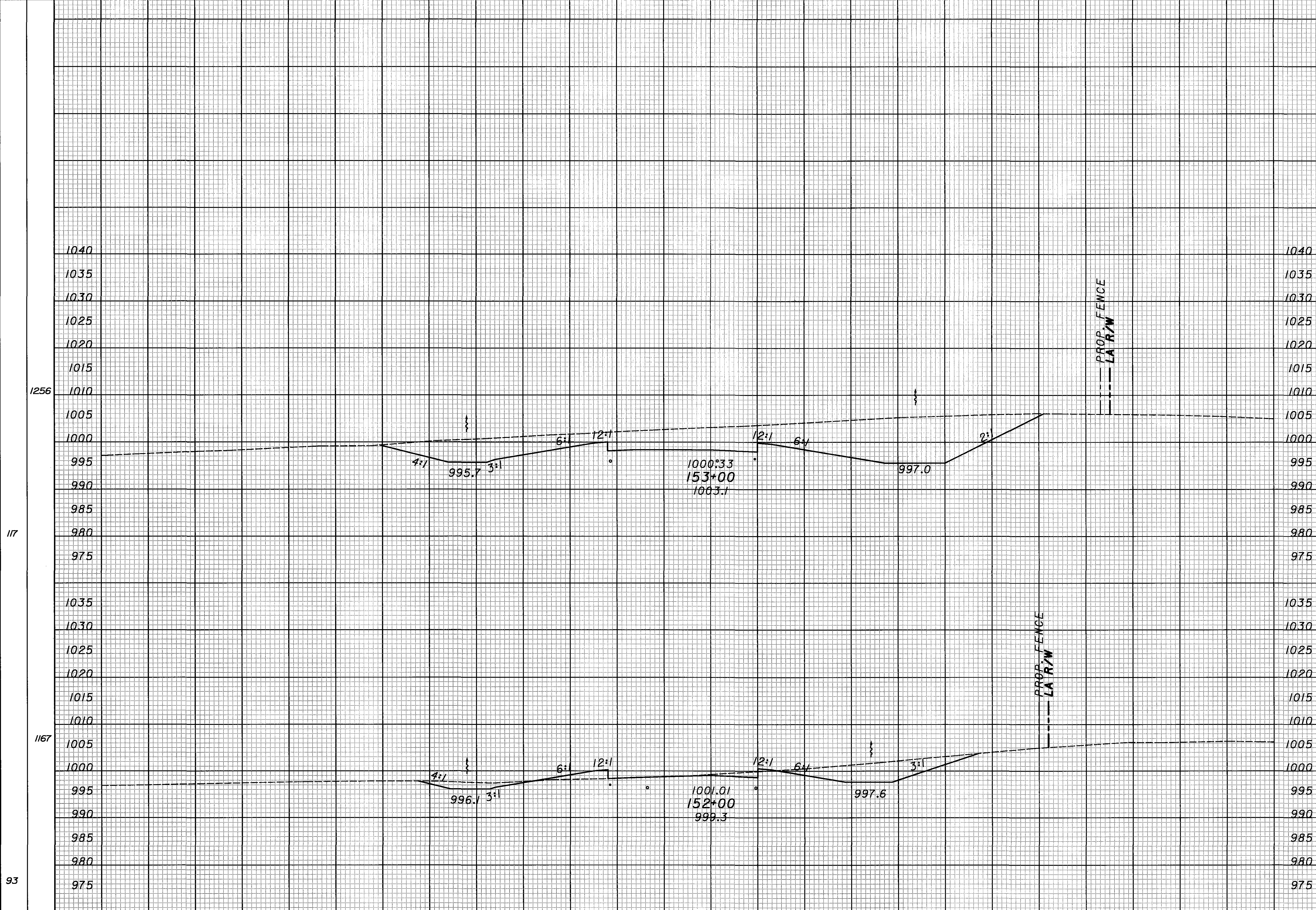
MED-71-6.06

... \xs_se.dgn

SEEDING

END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CREDITED DCF



END AREA	VOLUME	CALCULATED	CREDITED
CUT	FILL	CUT	FILL
		3198	0
		712	0
		1573	32
		137	17

CROSS SECTIONS - RAMP S-E
STA. 152+00 TO STA. 153+00

MED-71-6.06

398
1120

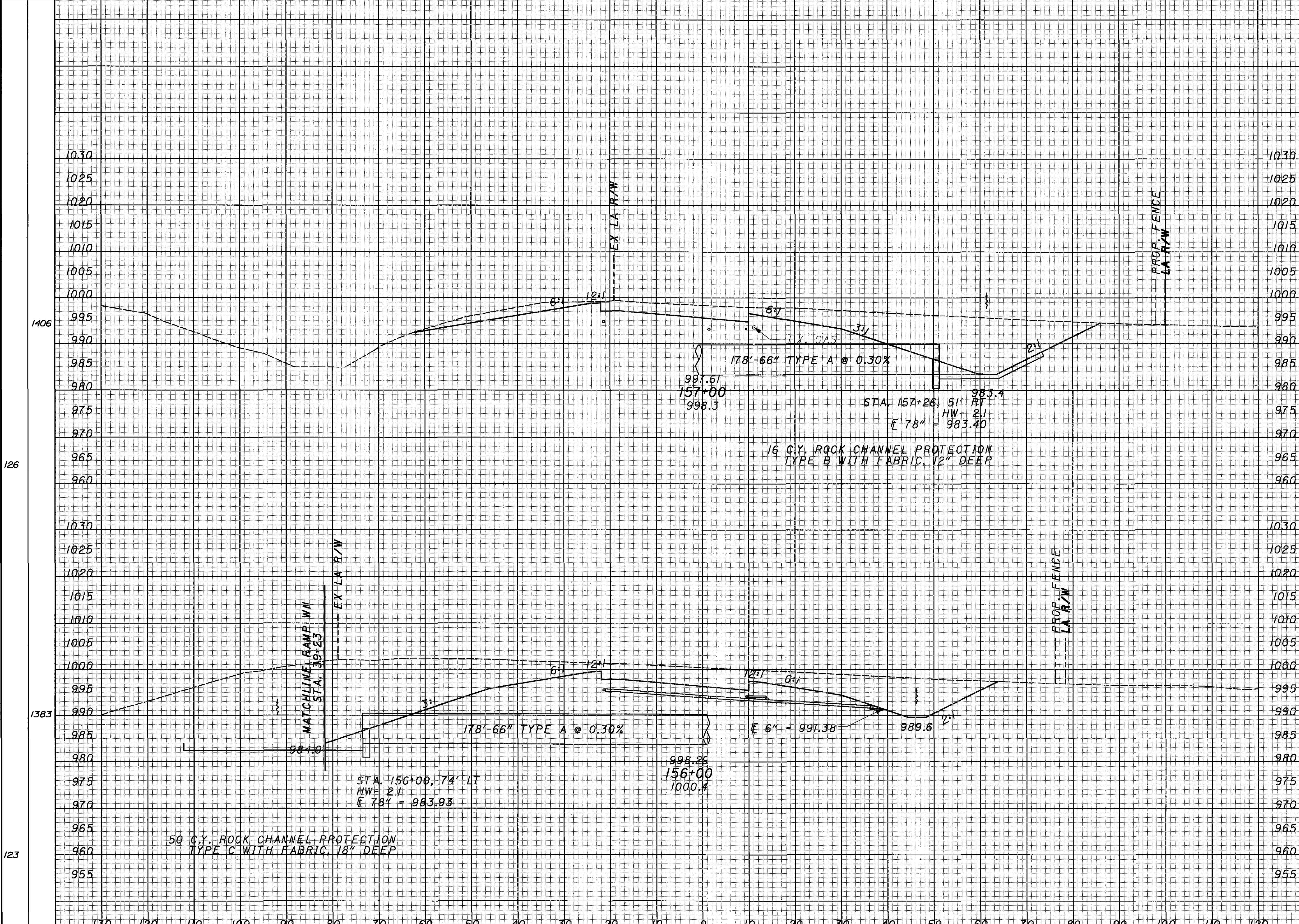
2423 SHEET TOTAL

SHEET TOTAL 4771 32

...xs.se.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



END AREA		VOLUME	
CUT	FILL	CUT	FILL
2049	613	608	0
2817	0	913	0
4866	613		

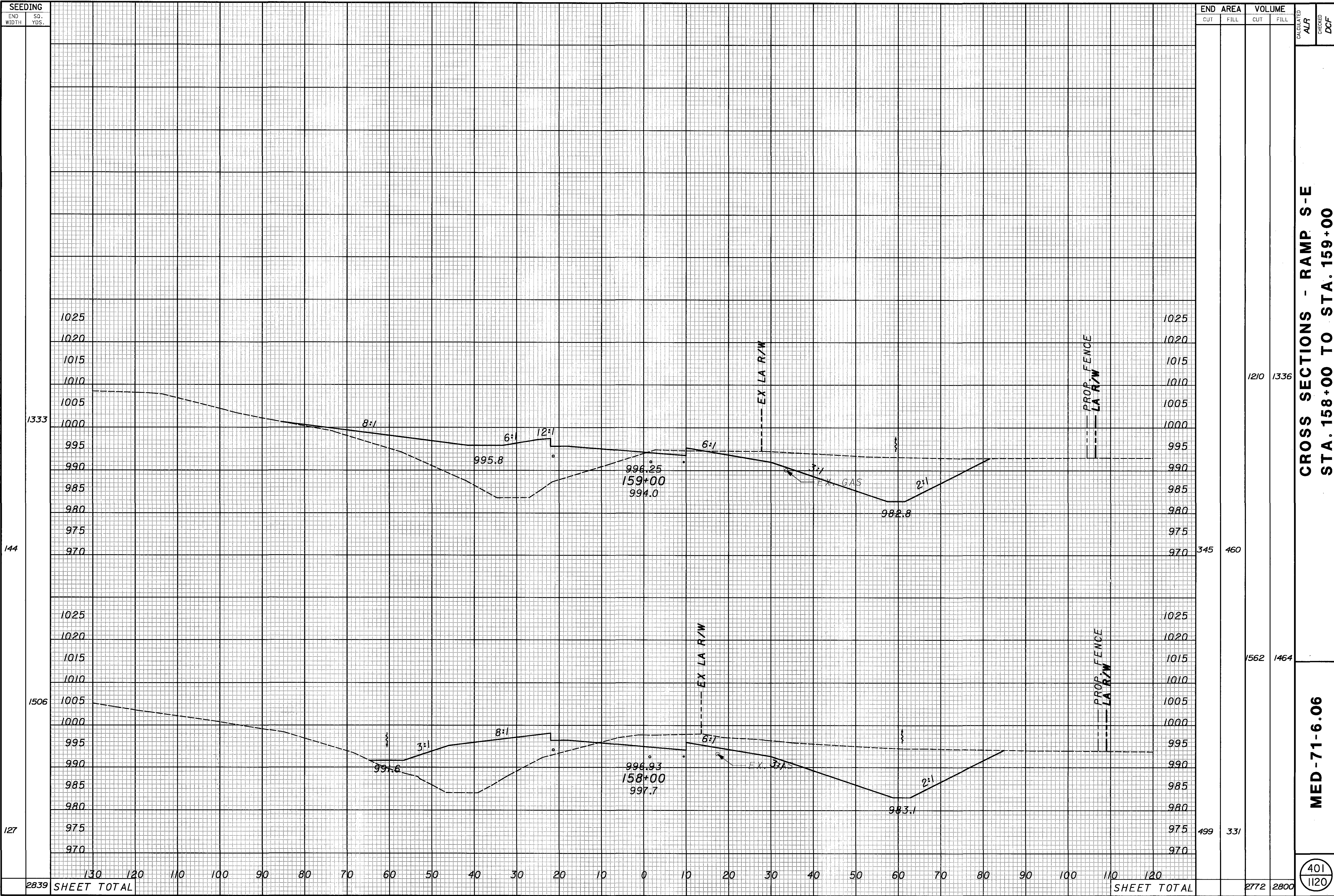
CROSS SECTIONS - RAMP S-E
STA. 156+00 TO STA. 157+00

MED-71-6.06

400
1120

2789 SHEET TOTAL SHEET TOTAL

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SEEDING	
END WIDTH	SO. YDS.
1333	144
1506	127
2839	

END AREA		VOLUME		CALCULATED ALR	CHECKED DCF
CUT	FILL	CUT	FILL		
		1210	1336		
345	460	1562	1464		
499	331	2772	2800		

CROSS SECTIONS - RAMP S-E
STA. 158+00 TO STA. 159+00

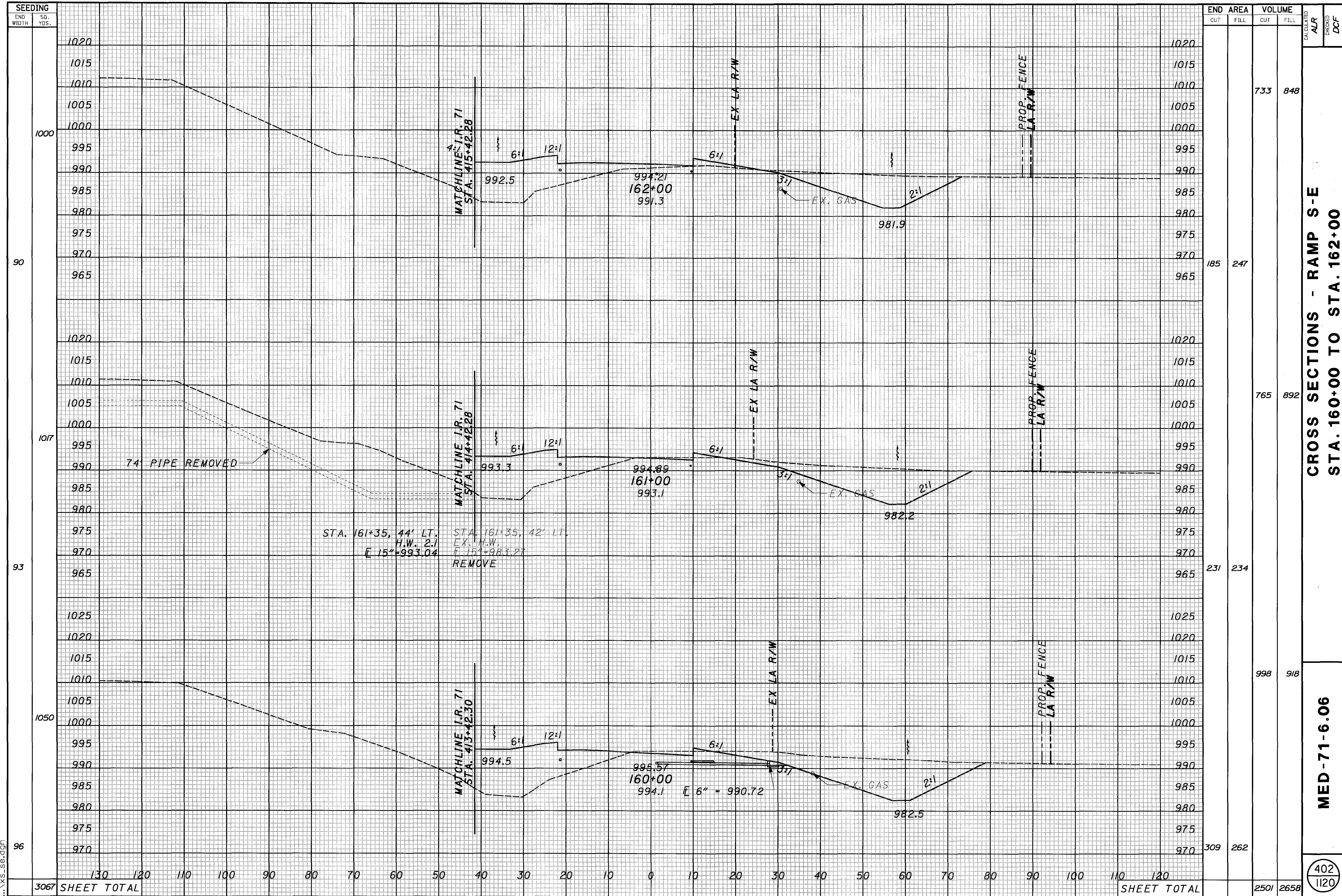
MED-71-6.06

401
1120

... \xs-se.dgn

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
SHEET TOTAL

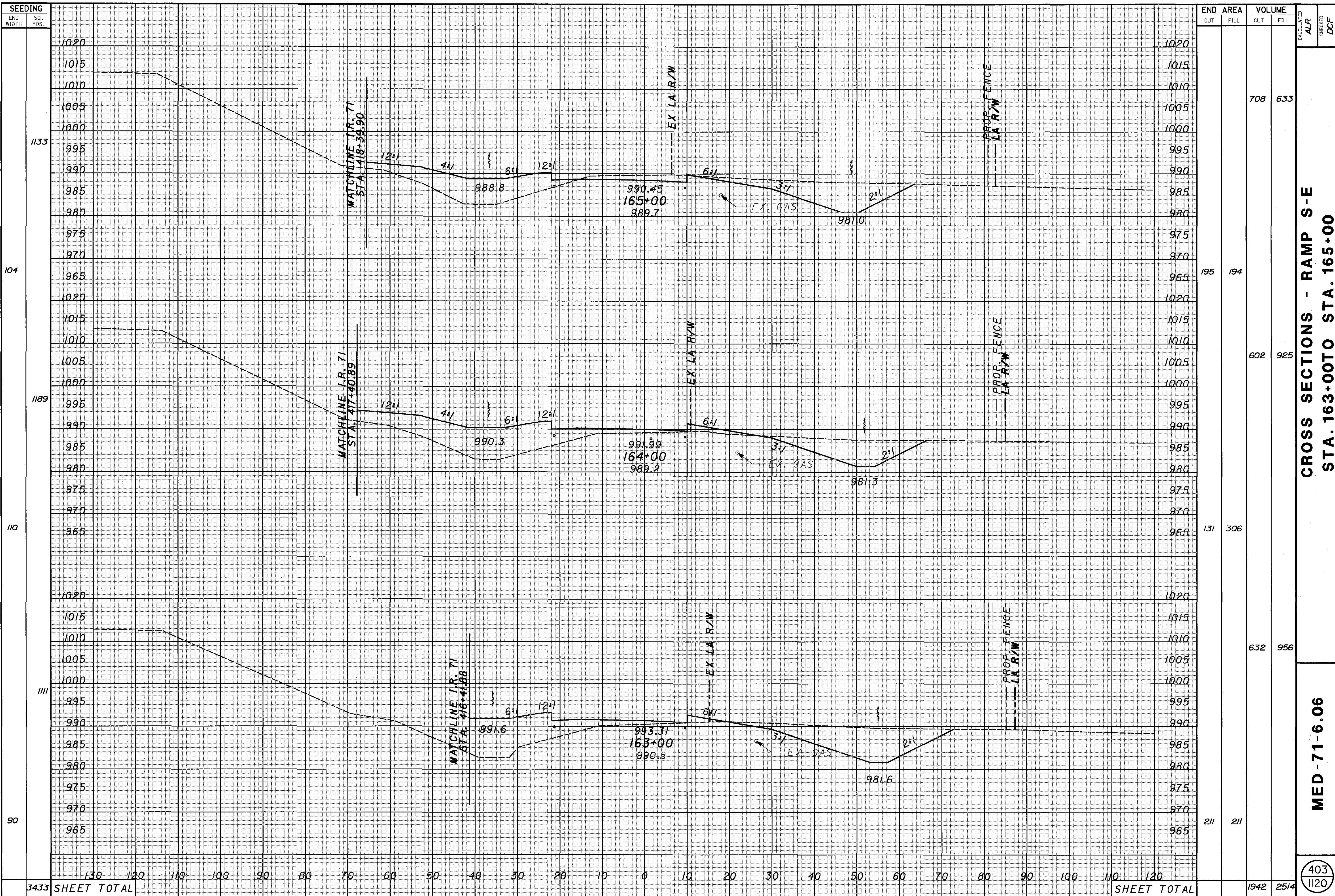
SHEET TOTAL



**CROSS SECTIONS - RAMP S-E
STA. 160+00 TO STA. 162+00**

MED-71-6.06

...xs.secdgn



END AREA	VOLUME	CUT		FILL	
		CUT	FILL	CUT	FILL
195	194	708	633		
131	306	602	925		
211	211	632	956		
3433	SHEET TOTAL	1942	2514		

CROSS SECTIONS - RAMP S-E
STA. 163+00 TO STA. 165+00

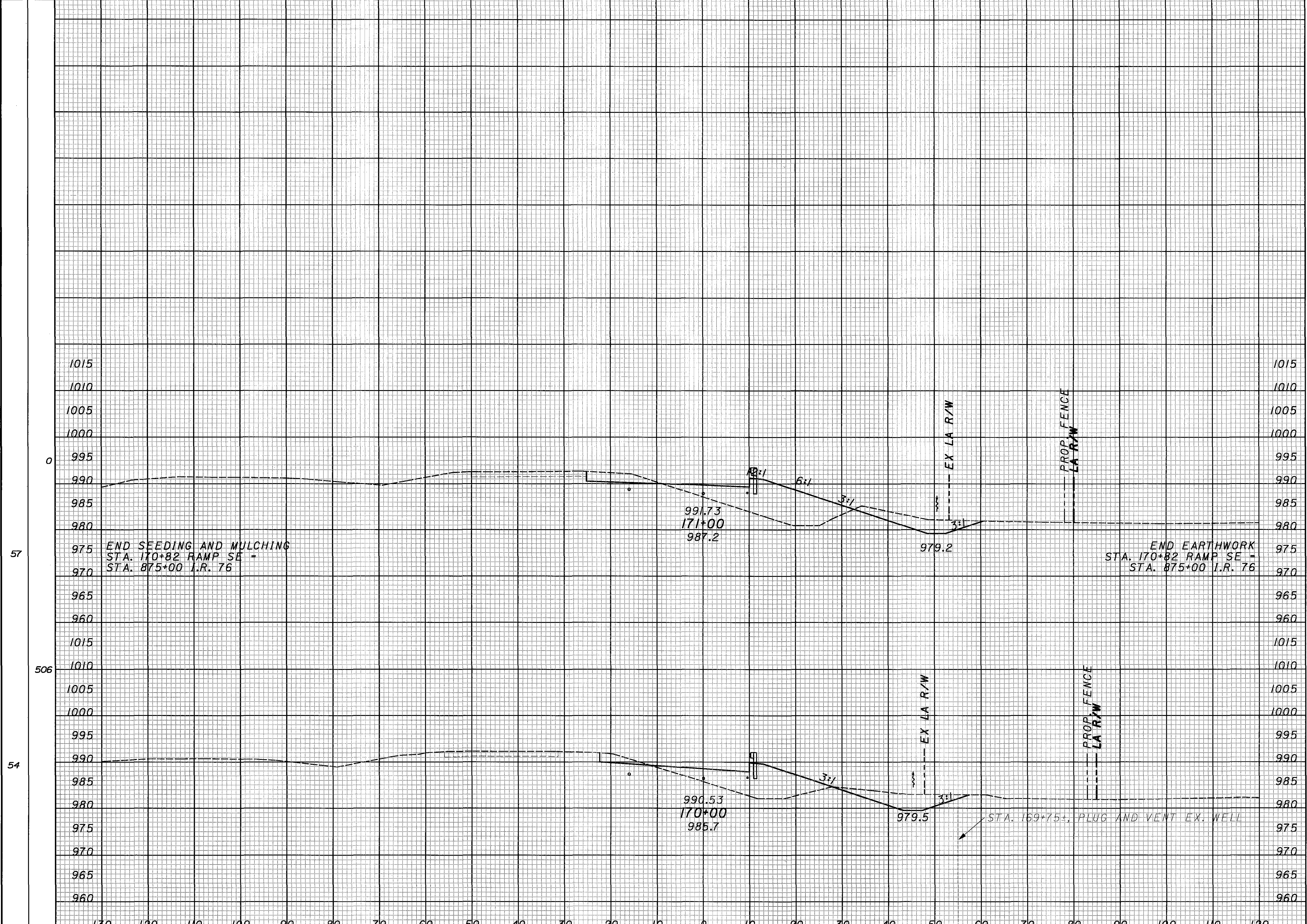
MED-71-6.06

CALCULATED ALR
 CHECKED DCF

...xs.se.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



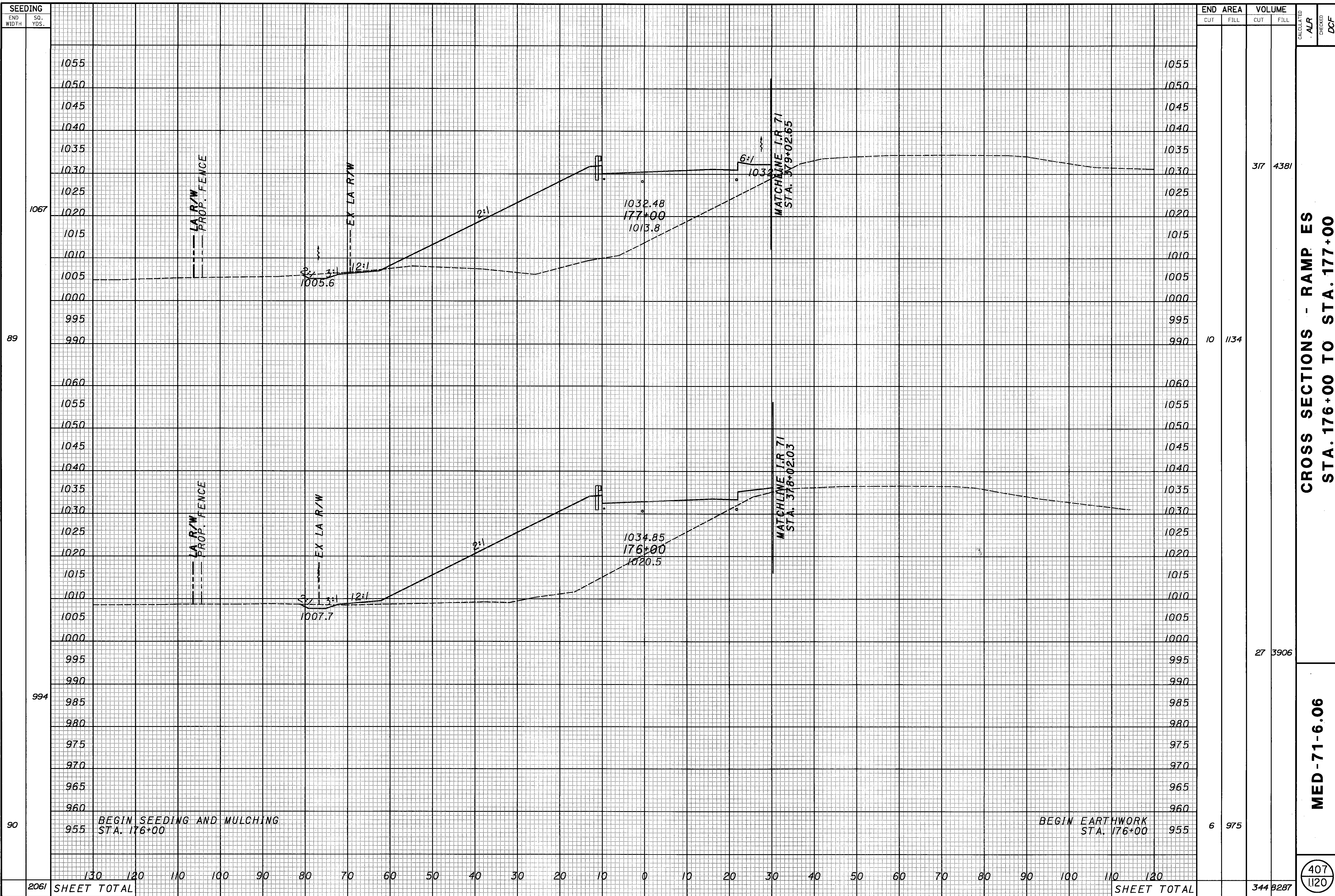
STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975	81	188		
970				
965				
960				
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975				
970				
965				
960				
975				
970				
965				
960				
975				
970				
965				
960				
130				
120				
110				
100				
90				
80				
70				
60				
50				
40				
30				
20				
10				
0				
10				
20				
30				
40				
50				
60				
70				
80				
90				
100				
110				
120				
506			27	498
SHEET TOTAL			27	498

CROSS SECTIONS - RAMP S-E
STA. 170+00 TO STA. 171+00

MED-71-6.06

406
1120

...xs-se.dgn



SEEDING	
END WIDTH	SO. YDS.
1067	
89	
994	
90	
2061	

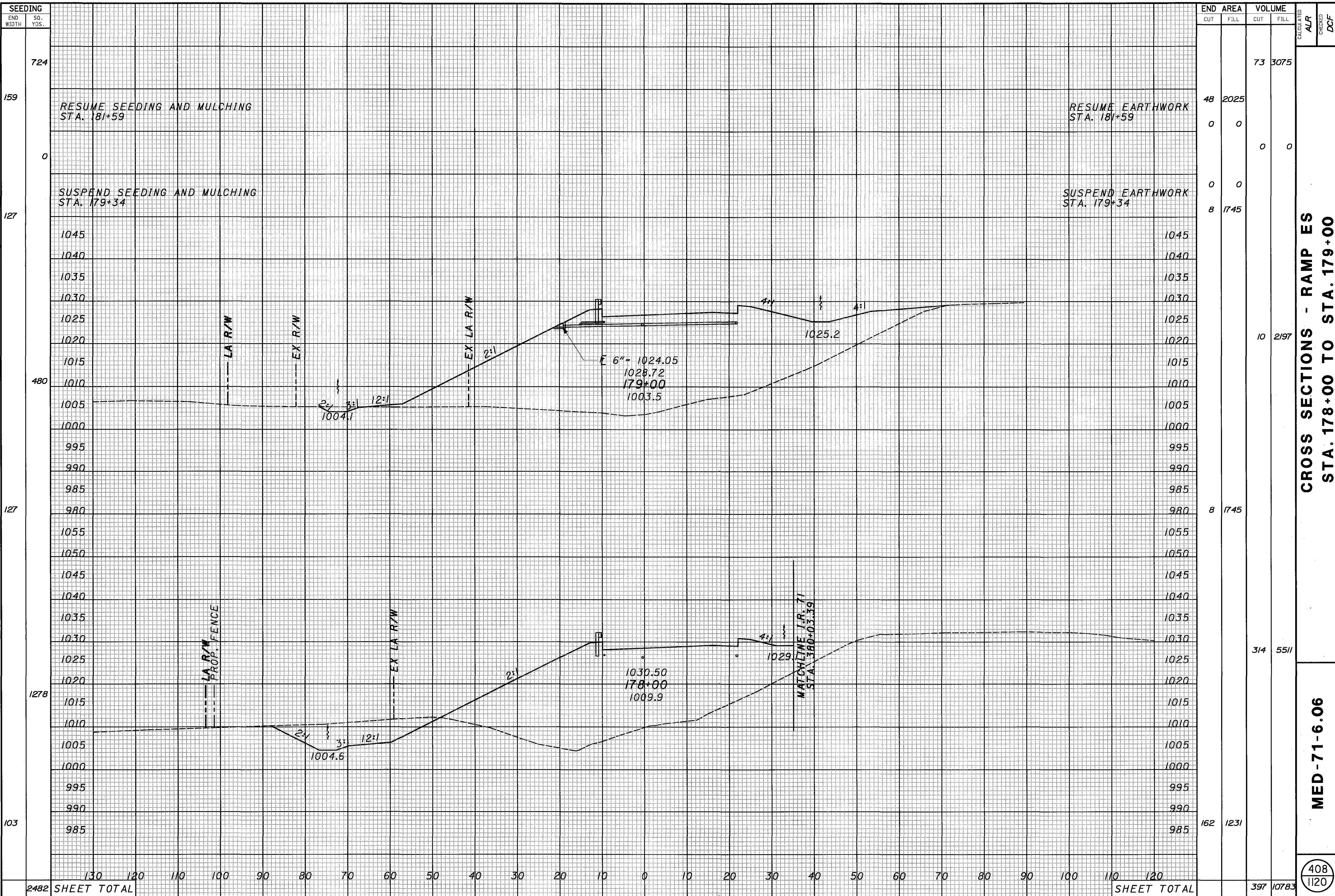
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		317	4381
10	1134		
		27	3906
6	975		
SHEET TOTAL		344	9287

CROSS SECTIONS - RAMP ES
 STA. 176+00 TO STA. 177+00

MED-71-6.06

CALCULATED ALR
 CHECKED DCF

\\xs.es.dgn



END STA.	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
724			73	3075		
159	48	2025	0	0		
0	0	0	0	0		
127	0	0	0	0		
1045	8	1745	10	2197		
1040						
1035						
1030						
1025						
1020						
1015						
1010						
1005						
1000						
995						
990						
985						
127	8	1745	314	5511		
1055						
1050						
1045						
1040						
1035						
1030						
1025						
1020						
1015						
1010						
1005						
1000						
995						
990						
985	162	1231				
103						
130						
120						
110						
100						
90						
80						
70						
60						
50						
40						
30						
20						
10						
0						
10						
20						
30						
40						
50						
60						
70						
80						
90						
100						
110						
120						
2482	SHEET TOTAL		397	10783		

CROSS SECTIONS - RAMP ES
STA. 178+00 TO STA. 179+00

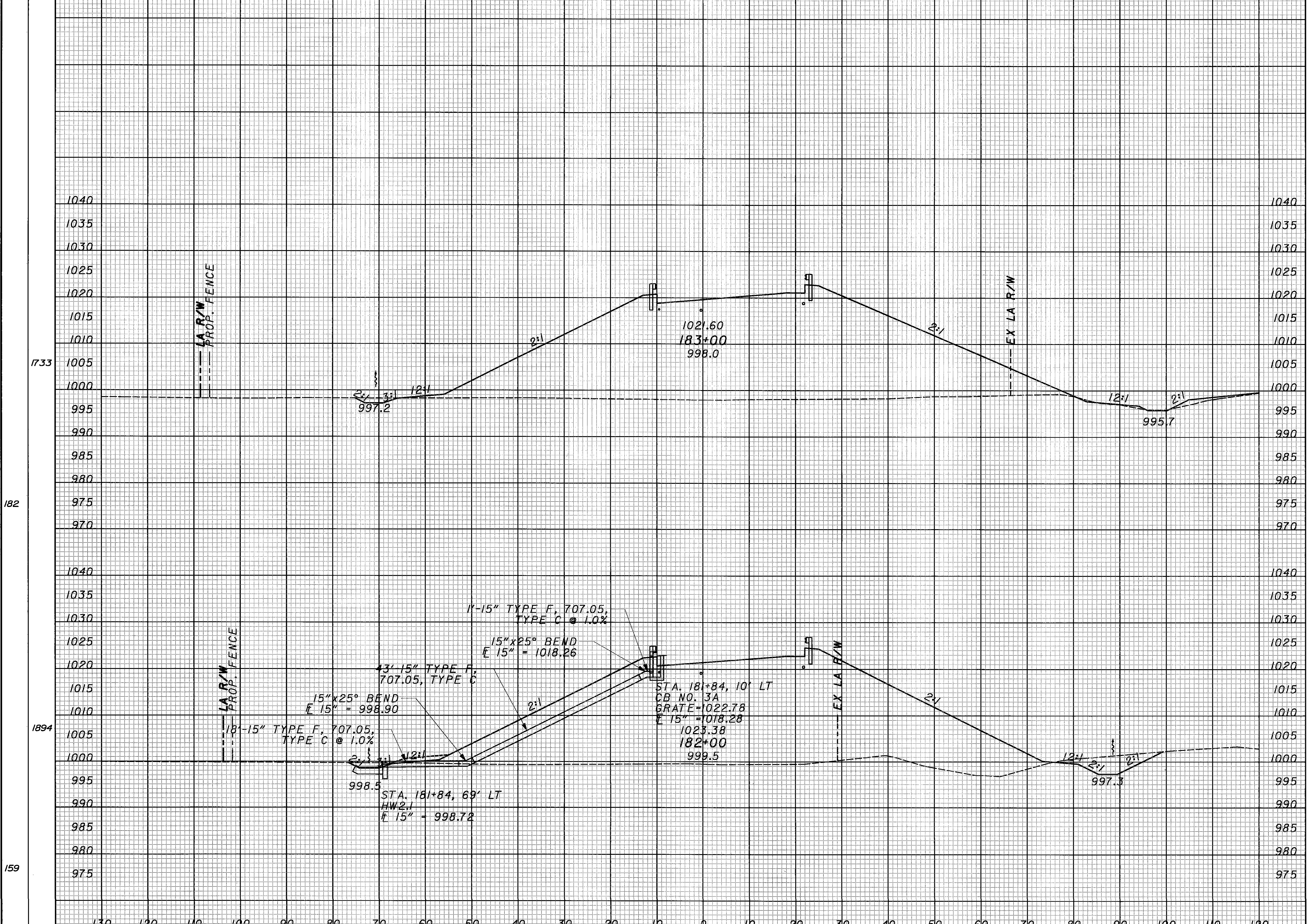
MED-71-6.06

408
1120

\\s.es.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
183+00			34	7182
182+00			10	2026
181+84			105	7501
181+00			48	2025
TOTAL			139	14683

CROSS SECTIONS - RAMP ES
STA. 182+00 TO STA. 183+00

MED-71-6.06

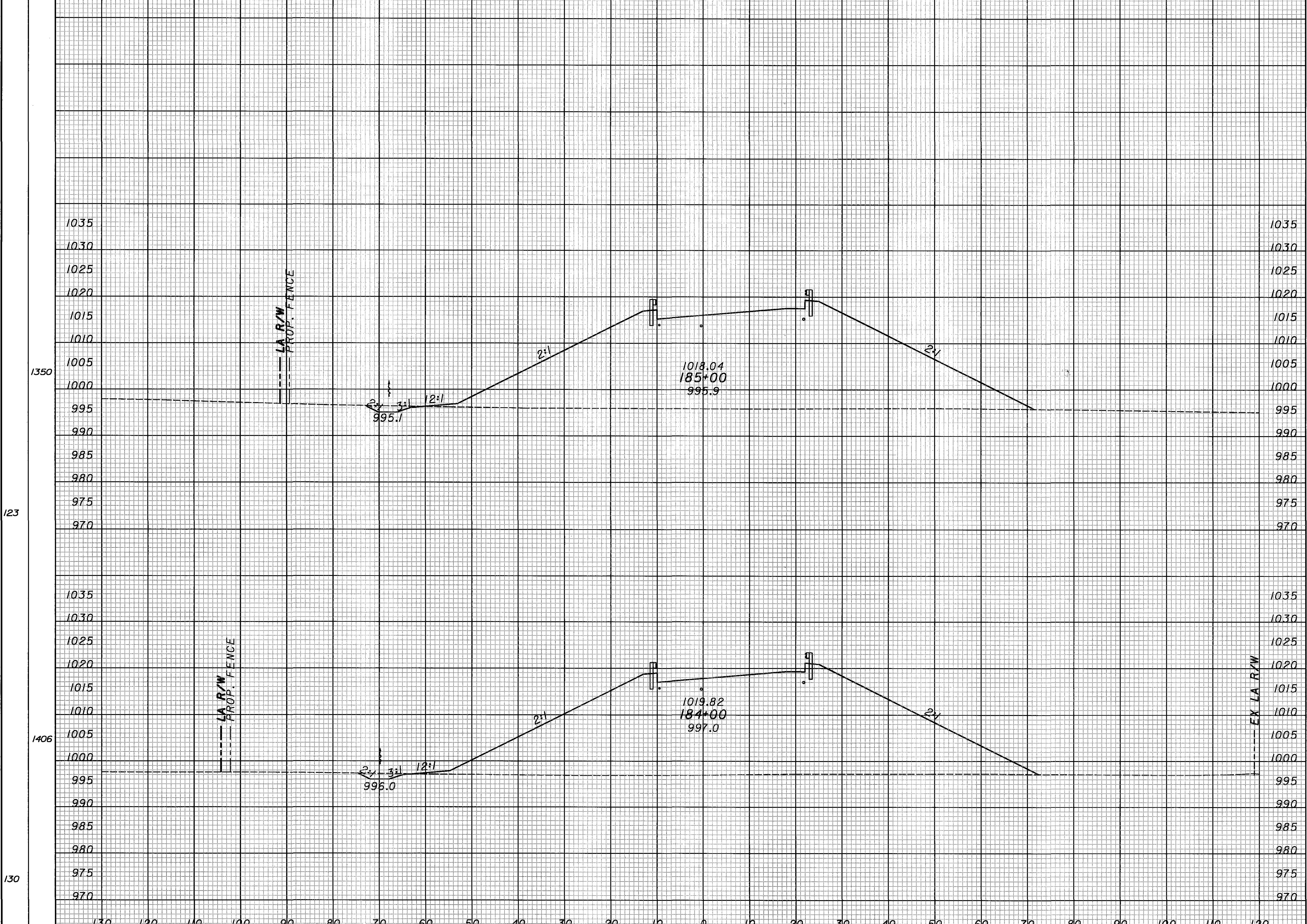
409
1120

3627 SHEET TOTAL 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 SHEET TOTAL

... \x.s.es.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1035				
1030				
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975				
970				
1035				
1030				
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975				
970				
130				
120				
110				
100				
90				
80				
70				
60				
50				
40				
30				
20				
10				
0				
10				
20				
30				
40				
50				
60				
70				
80				
90				
100				
110				
120				
130				
2756	SHEET TOTAL		67	13097

CROSS SECTIONS - RAMP ES
STA. 184+00 TO STA. 185+00

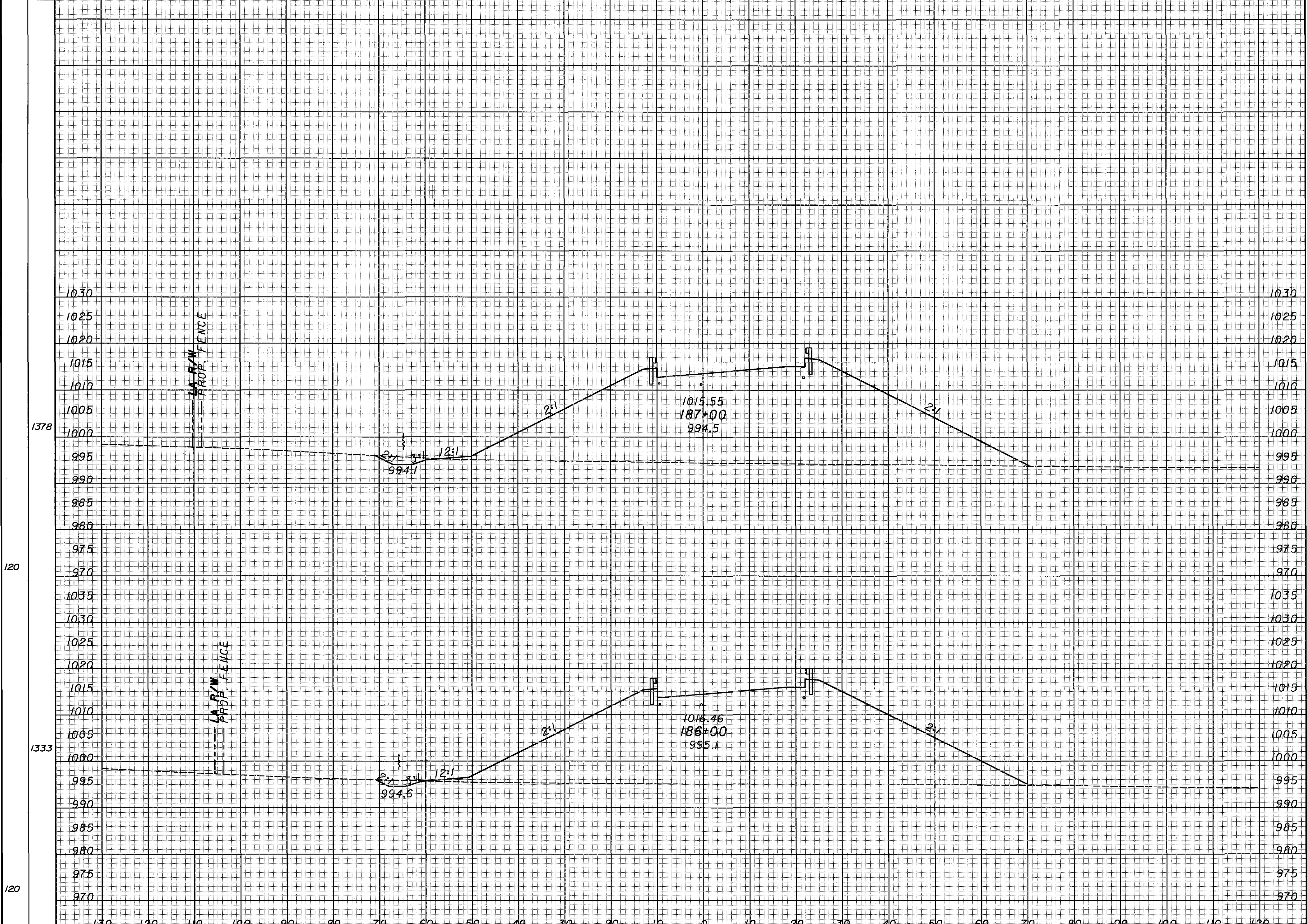
MED-71-6.06

410
1120

... \xs-es.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
141			6066	
14			1650	
40			6174	
9			1684	
181			12240	

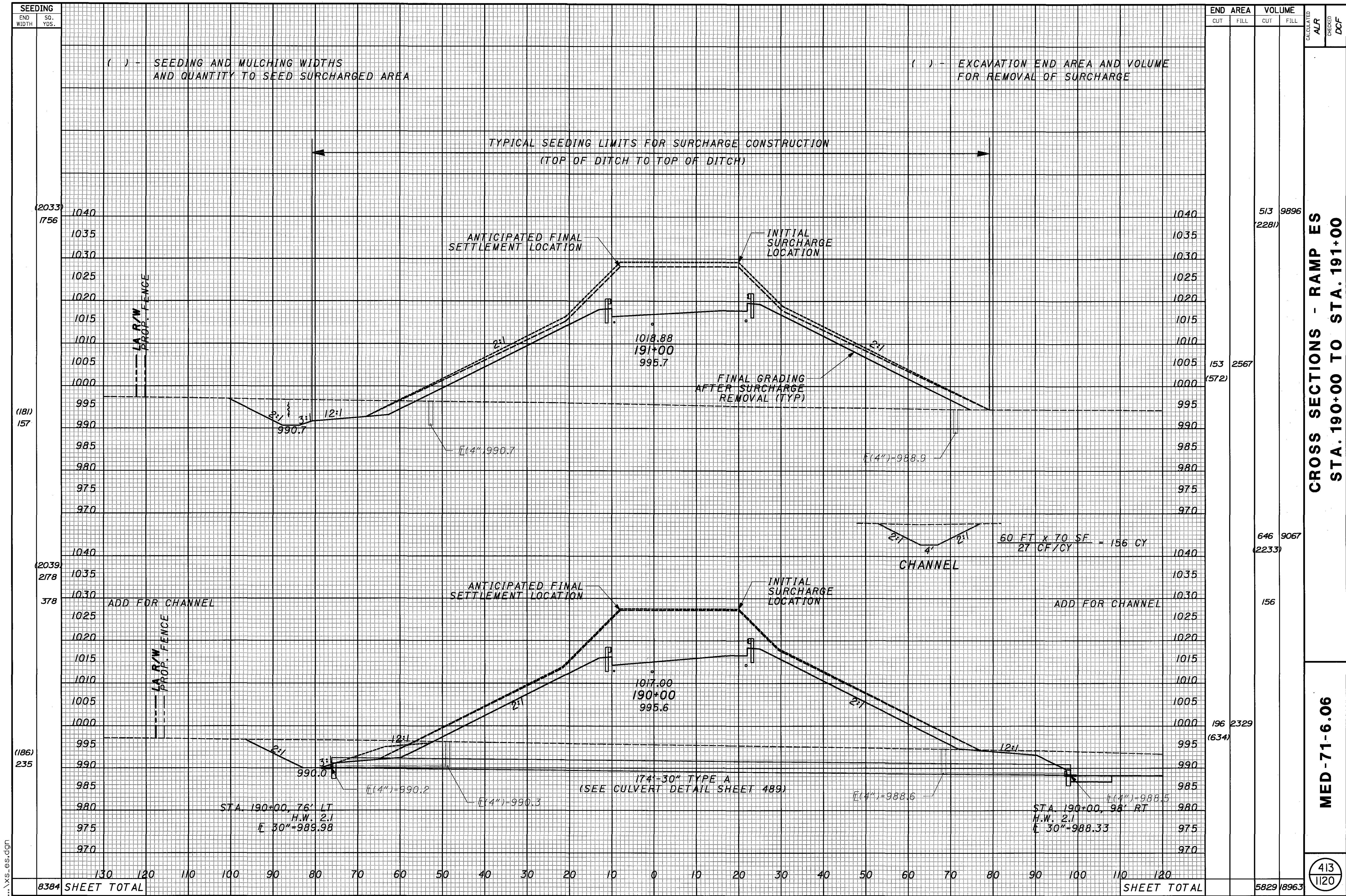
CROSS SECTIONS - RAMP ES
STA. 186+00 TO STA. 187+00

MED-71-6.06

411
1120

2711 SHEET TOTAL SHEET TOTAL

... \xs.es.dgn



() - SEEDING AND MULCHING WIDTHS AND QUANTITY TO SEED SURCHARGED AREA

() - EXCAVATION END AREA AND VOLUME FOR REMOVAL OF SURCHARGE

TYPICAL SEEDING LIMITS FOR SURCHARGE CONSTRUCTION
(TOP OF DITCH TO TOP OF DITCH)

ANTICIPATED FINAL SETTLEMENT LOCATION

INITIAL SURCHARGE LOCATION

FINAL GRADING AFTER SURCHARGE REMOVAL (TYP)

CHANNEL

60 FT x 70 SF - 156 CY
27 CF/CY

174"-30" TYPE A
(SEE CULVERT DETAIL SHEET 489)

STA. 190+00, 76' LT
H.W. 2.1
E 30"-989.98

STA. 190+00, 98' RT
H.W. 2.1
E 30"-988.33

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

(2033) 1756

1040

513 9896
(2281)

(181) 157

995

153 2567
(572)

(2039) 2178

1040

646 9067
(2233)

(186) 235

995

196 2329
(634)

8384 SHEET TOTAL

SHEET TOTAL

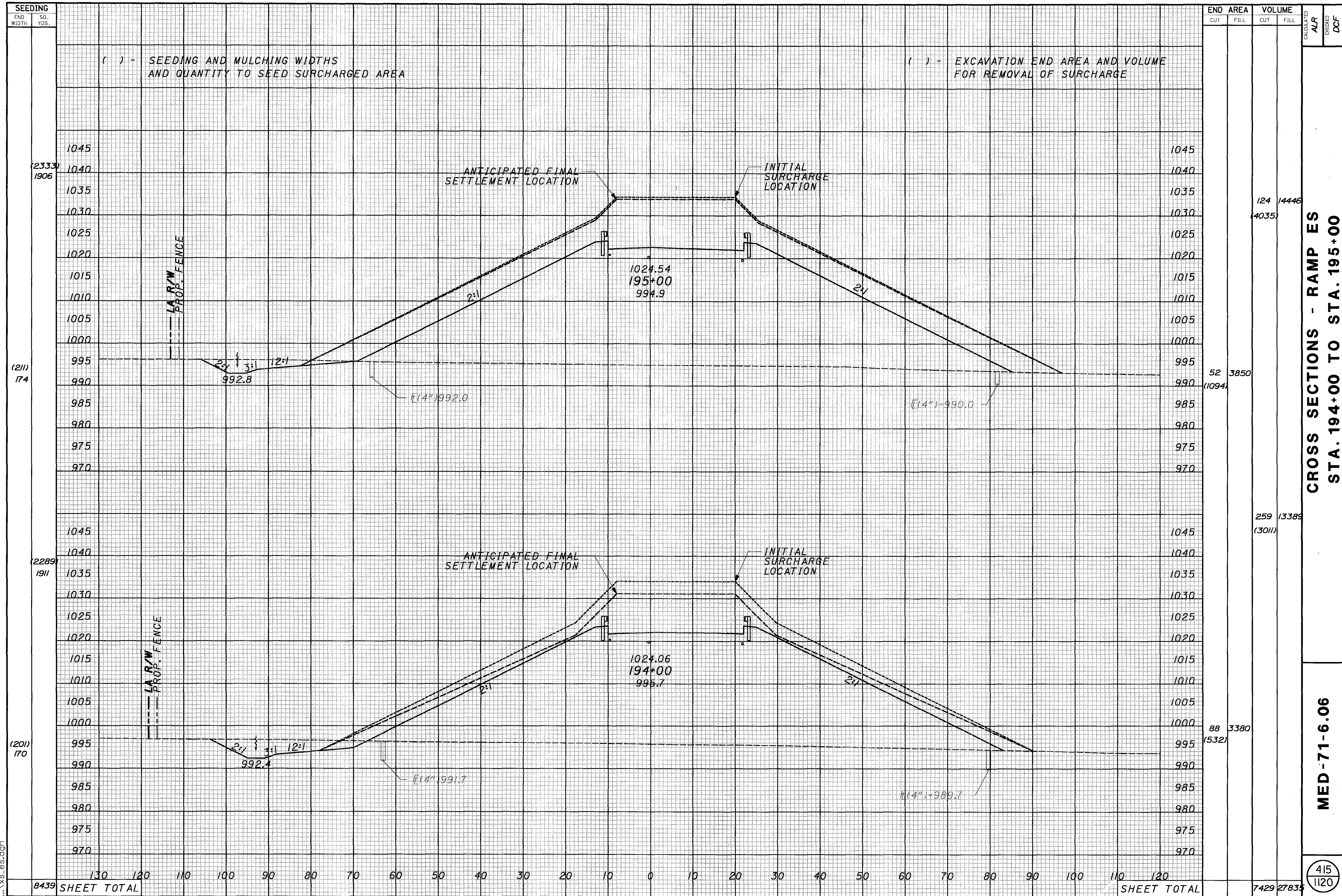
5829 18963

CROSS SECTIONS - RAMPES
STA. 190+00 TO STA. 191+00

MED-71-6.06

413
1120

...XS-es.dgn



() - SEEDING AND MULCHING WIDTHS AND QUANTITY TO SEED SURCHARGED AREA

() - EXCAVATION END AREA AND VOLUME FOR REMOVAL OF SURCHARGE

SEEDING	
END WIDTH	SO. YDS.
(2333)	1906
(211)	174
(2289)	1911
(201)	170
8439 SHEET TOTAL	

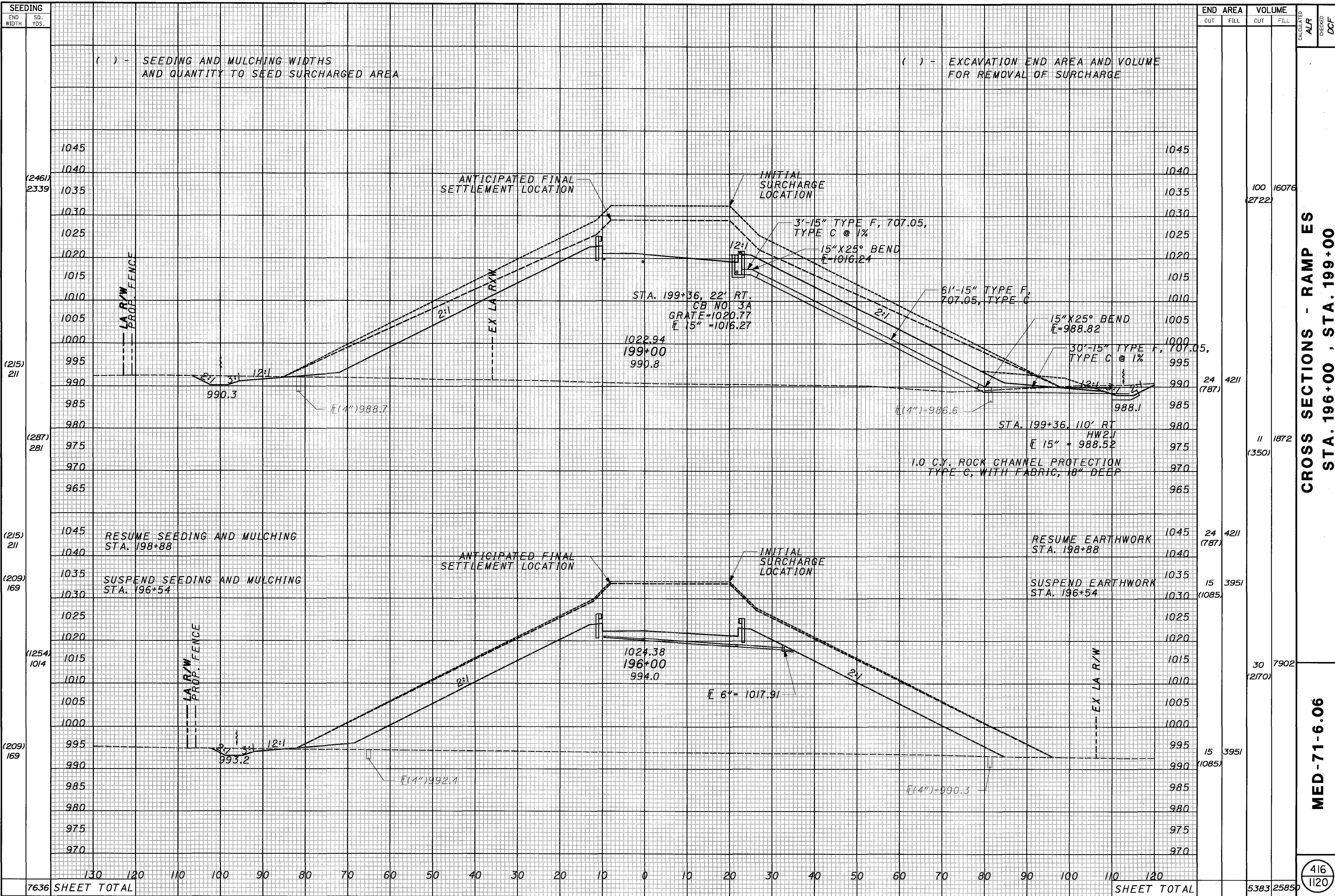
END AREA		VOLUME	
CUT	FILL	CUT	FILL
124	14446	(4035)	
52	3850	(1094)	
259	13389	(3011)	
88	3380	(532)	
7429		27835	

CROSS SECTIONS - RAMP ES
STA. 194+00 TO STA. 195+00

MED-71-6.06

415
1120

... \xs.es.dgn



() - SEEDING AND MULCHING WIDTHS AND QUANTITY TO SEED SURCHARGED AREA

() - EXCAVATION END AREA AND VOLUME FOR REMOVAL OF SURCHARGE

END AREA	VOLUME	CALCULATED	ALF	CHECKED	DCF
100	16076				
24	4211				
11	1872				
24	4211				
15	3951				
30	7902				
15	3951				
5383	25850				

CROSS SECTIONS - RAMP ES
STA. 196+00 , STA. 199+00

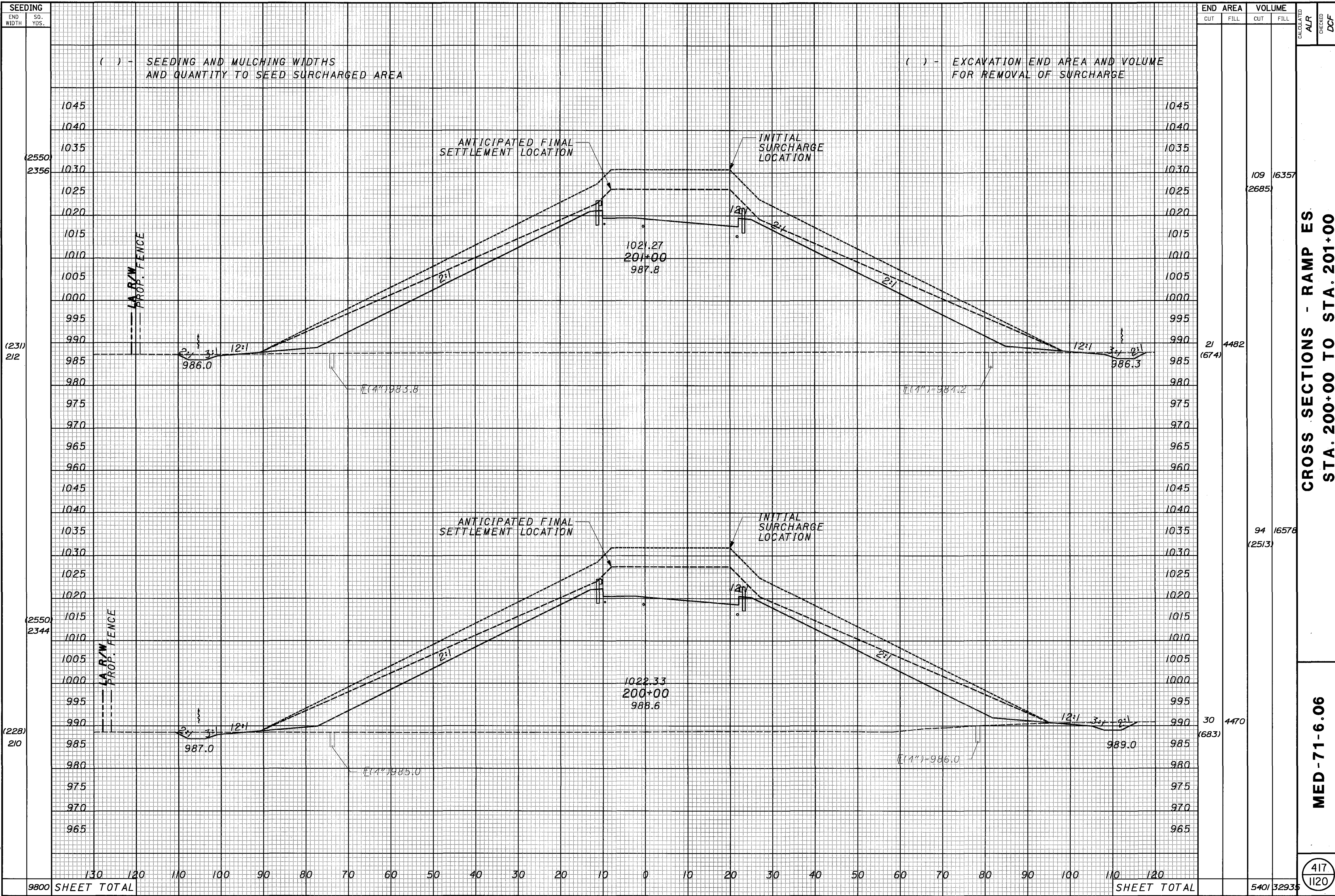
MED-71-6.06

416
1120

.. \xs.es.dgn

7636 SHEET TOTAL

SHEET TOTAL



SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME	
		CUT	FILL	CUT	FILL
(2550) 2356				109	16357 (2685)
(231) 212		21	4482 (674)		
(2550) 2344				94	16578 (2513)
(228) 210		30	4470 (683)		
9800	SHEET TOTAL			540	32935

CALCULATED	CHECKED	END AREA		VOLUME	
		CUT	FILL	CUT	FILL
ALR	DCF				

CROSS SECTIONS - RAMP ES
STA. 200+00 TO STA. 201+00

MED-71-6.06

417
1120

...xs.es.dgn

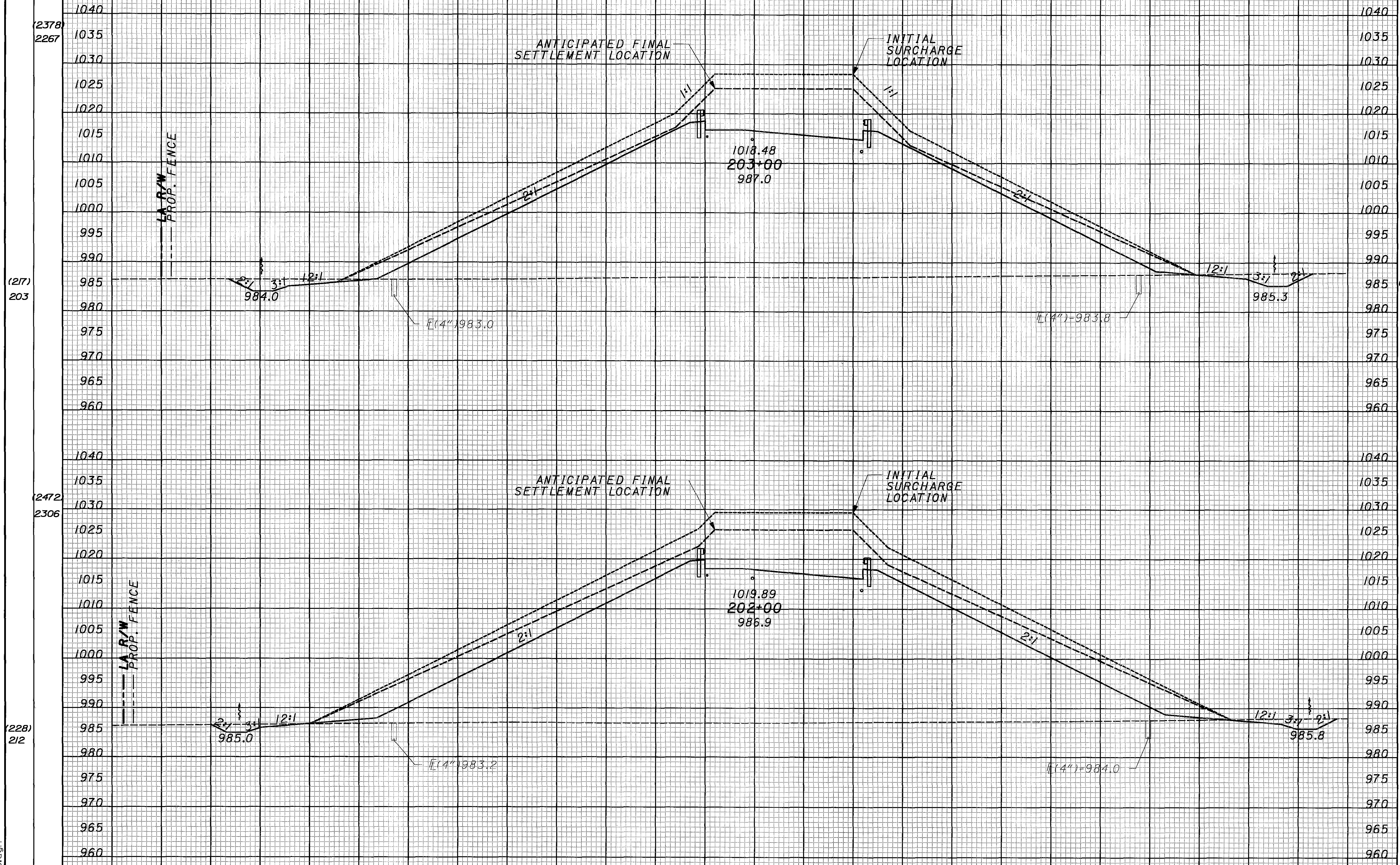
SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED ALR CHECKED DCF

() - SEEDING AND MULCHING WIDTHS AND QUANTITY TO SEED SURCHARGED AREA

() - EXCAVATION END AREA AND VOLUME FOR REMOVAL OF SURCHARGE



1040	1040		
1035	1035		
1030	1030		
1025	1025	335	13798
1020	1020	(2087)	
1015	1015		
1010	1010		
1005	1005		
1000	1000		
995	995		
990	990	63	3822
985	985	(546)	
980	980		
975	975		
970	970		
965	965		
960	960		
1040	1040		
1035	1035		
1030	1030		
1025	1025		
1020	1020		
1015	1015		
1010	1010		
1005	1005		
1000	1000		
995	995		
990	990		
985	985	38	4351
980	980	(776)	
975	975		
970	970		
965	965		
960	960		

CROSS SECTIONS - RAMP ES
STA. 202+00 TO STA. 203+00

MED-71-6.06

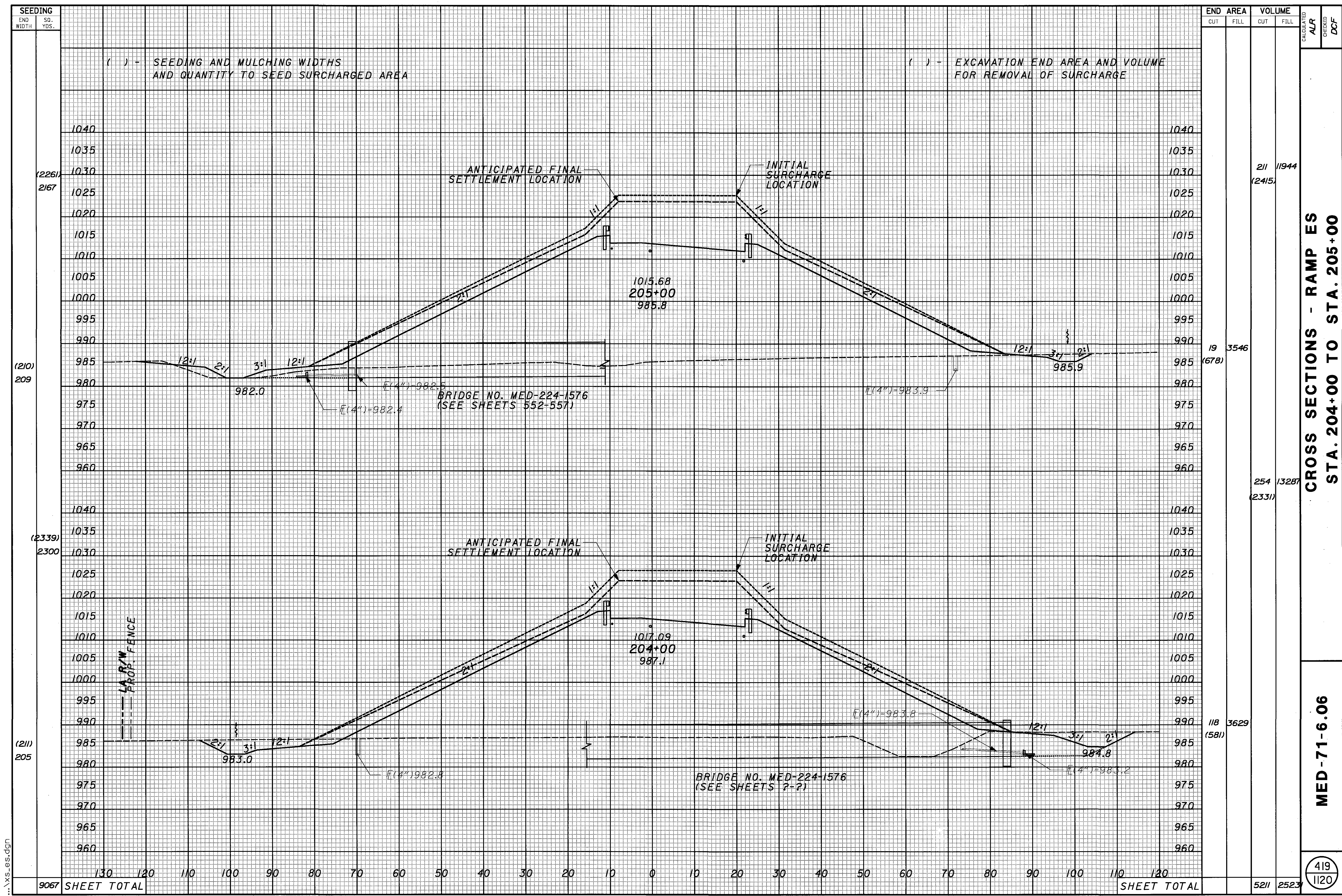
418
1120

... \x.s.es.dgn

9423 SHEET TOTAL

SHEET TOTAL

5057 28935



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
(2261) 2167			211	11944
(210) 209	19	3546	(678)	
(2339) 2300			254	13287
(211) 205	118	3629	(581)	
9067	130	120	521	2523

CROSS SECTIONS - RAMP ES
STA. 204+00 TO STA. 205+00

MED-71-6.06

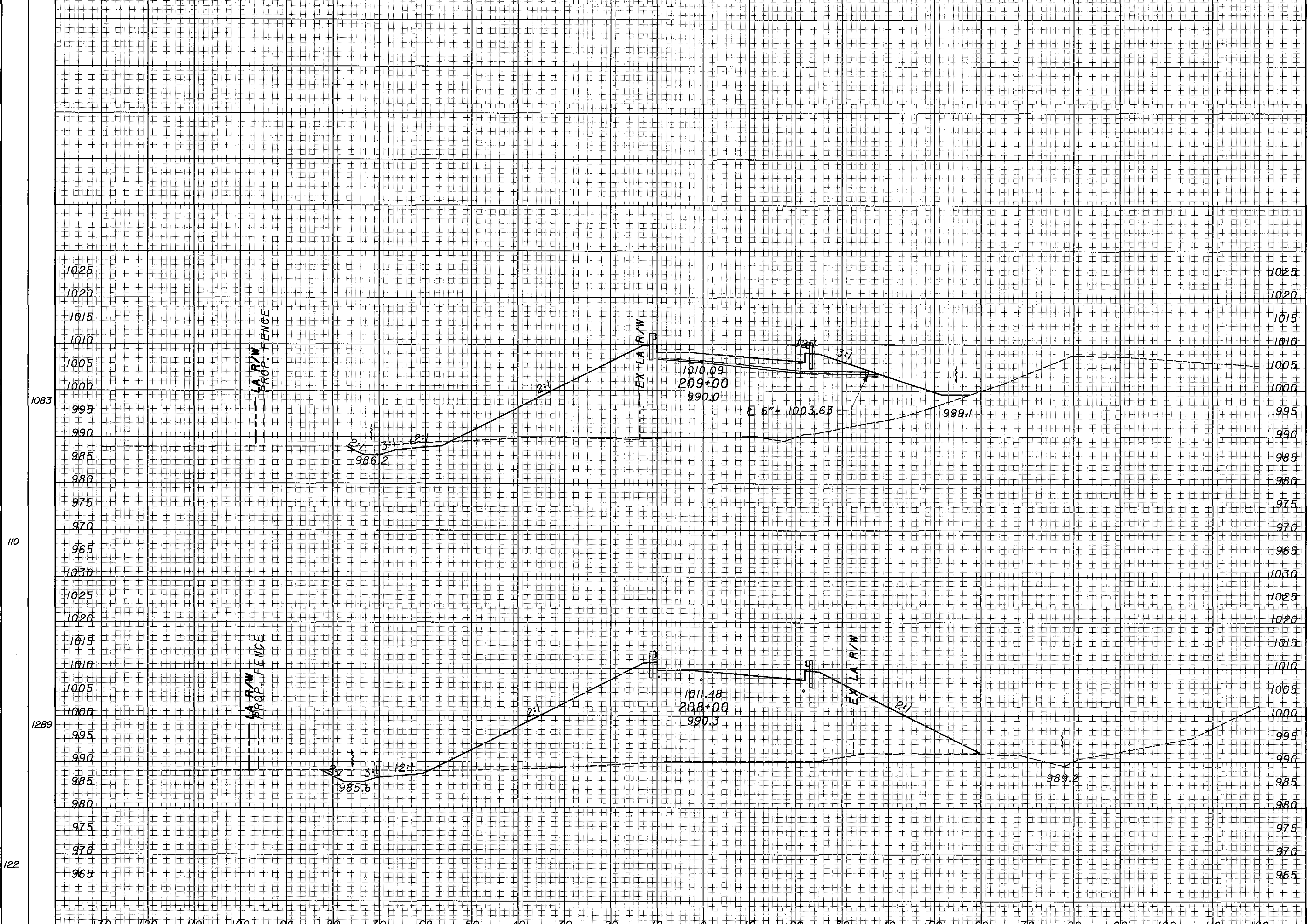
119
1120

...Xs-es.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED ALR CHECKED DCF



26 1353

112 5360

35 1541

126 3889

CROSS SECTIONS - RAMP ES
STA. 208+00 TO STA. 209+00

MED-71-6.06

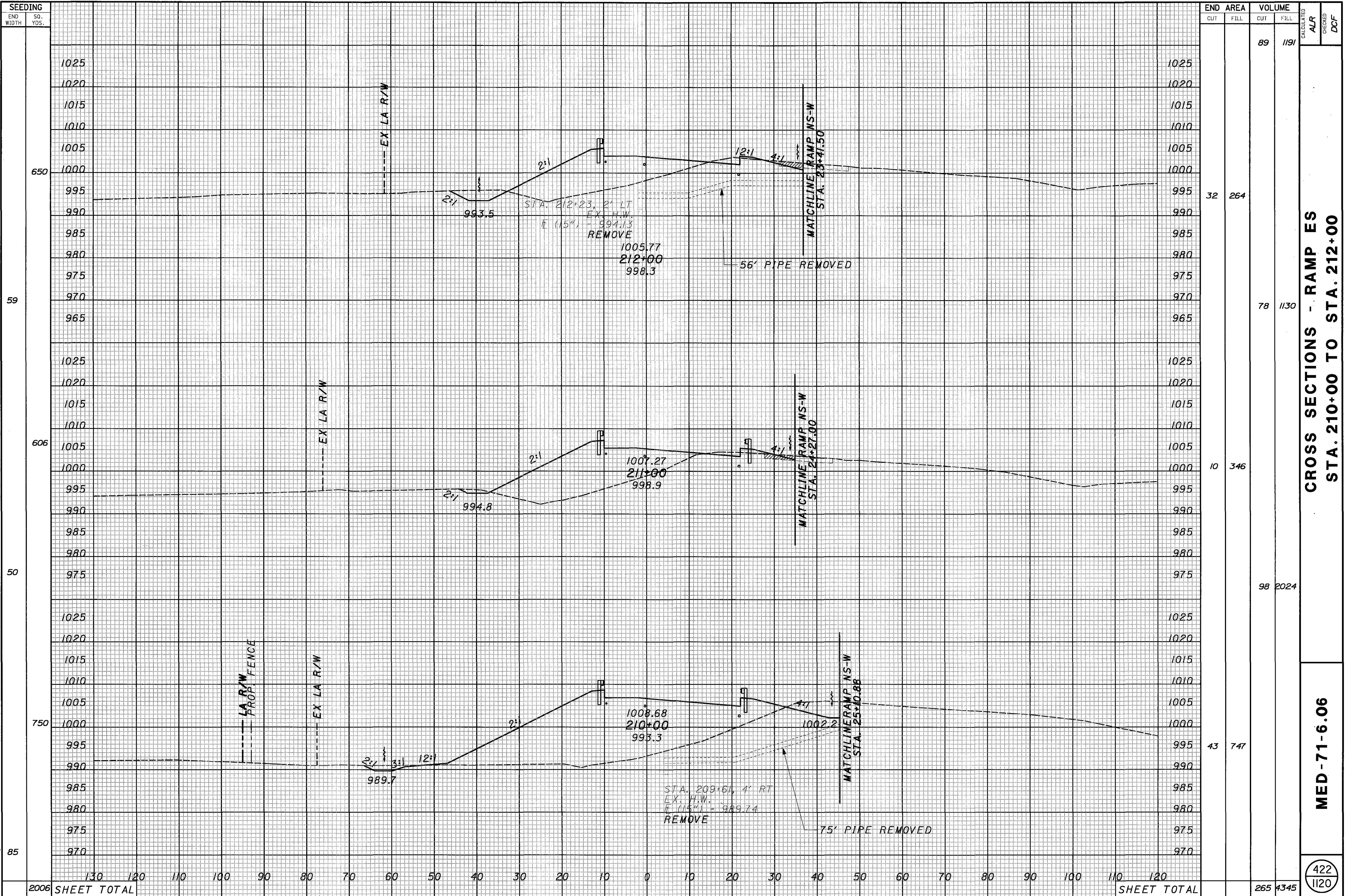
421
1120

2372 SHEET TOTAL

SHEET TOTAL

238 9249

... \x.s.es.dgn



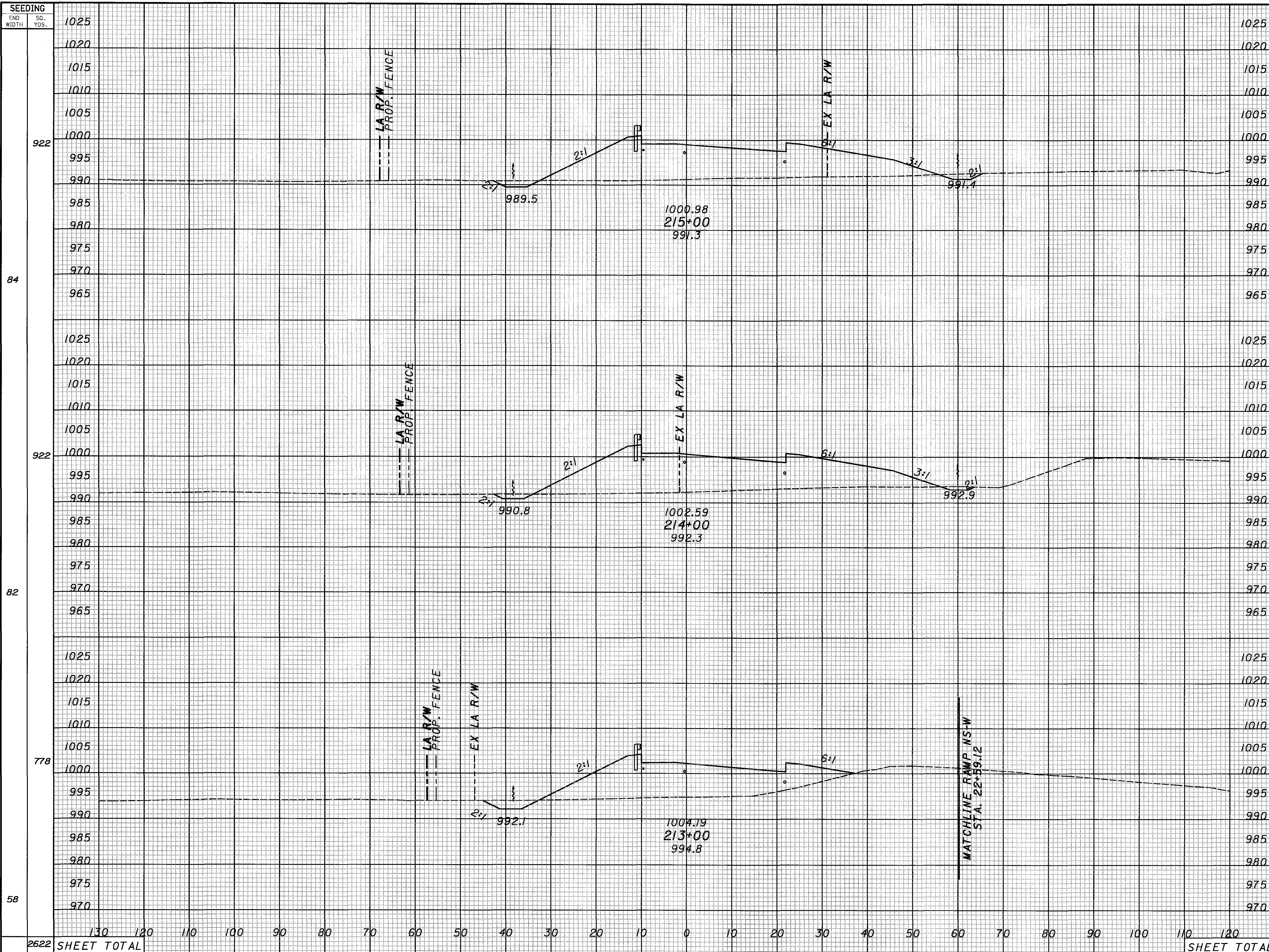
SEEDING	END AREA		VOLUME		CALCULATED	ALR	CHECKED	DCF
	CUT	FILL	CUT	FILL				
650	32	264	89	191				
59			78	1130				
606	10	346						
50			98	2024				
750	43	747						
85								
2006 SHEET TOTAL			265	4345				

CROSS SECTIONS - RAMP ES
STA. 210+00 TO STA. 212+00

MED-71-6.06

422
1120

...xs.es.dgn

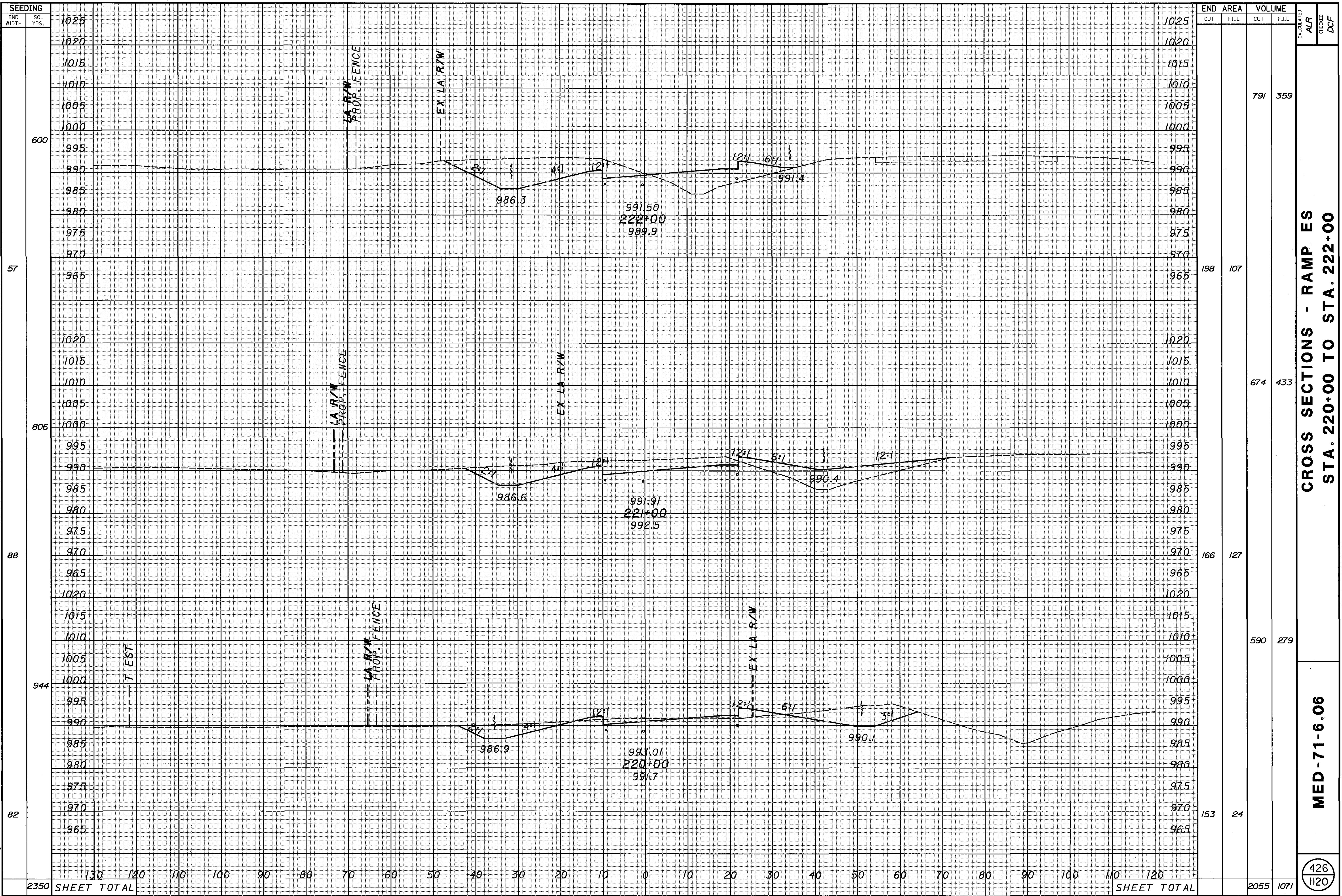


SEEDING	END WIDTH	SO. YDS.	ELEVATION	END AREA		VOLUME		CALCULATED ALR	CHECKED DCF																										
				CUT	FILL	CUT	FILL																												
1025			1025																																
1020			1020																																
1015			1015																																
1010			1010																																
1005			1005			60	1876																												
1000	922		1000																																
995			995																																
990			990																																
985			985																																
980			980																																
975			975																																
970	84		970	18	508																														
965			965																																
1025			1025																																
1020			1020																																
1015			1015																																
1010			1010																																
1005			1005			53	1921																												
1000	922		1000																																
995			995																																
990			990																																
985			985																																
980			980																																
975			975																																
970	82		970	11	530																														
965			965																																
1025			1025																																
1020			1020																																
1015			1015																																
1010			1010																																
1005			1005			49	1684																												
1000	778		1000																																
995			995																																
990			990																																
985			985																																
980			980																																
975			975																																
970	58		970	16	379																														
SHEET TOTAL				2622	130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120	SHEET TOTAL	162	5481	423	1120

CROSS SECTIONS - RAMP ES
 STA. 213+00 TO STA. 215+00

MED-71-6.06

...xs.es.dgn



CROSS SECTIONS - RAMP ES
STA. 220+00 TO STA. 222+00

MED-71-6.06

CALCULATED ALR
 CHECKED DCF

\xvs.es.dgn

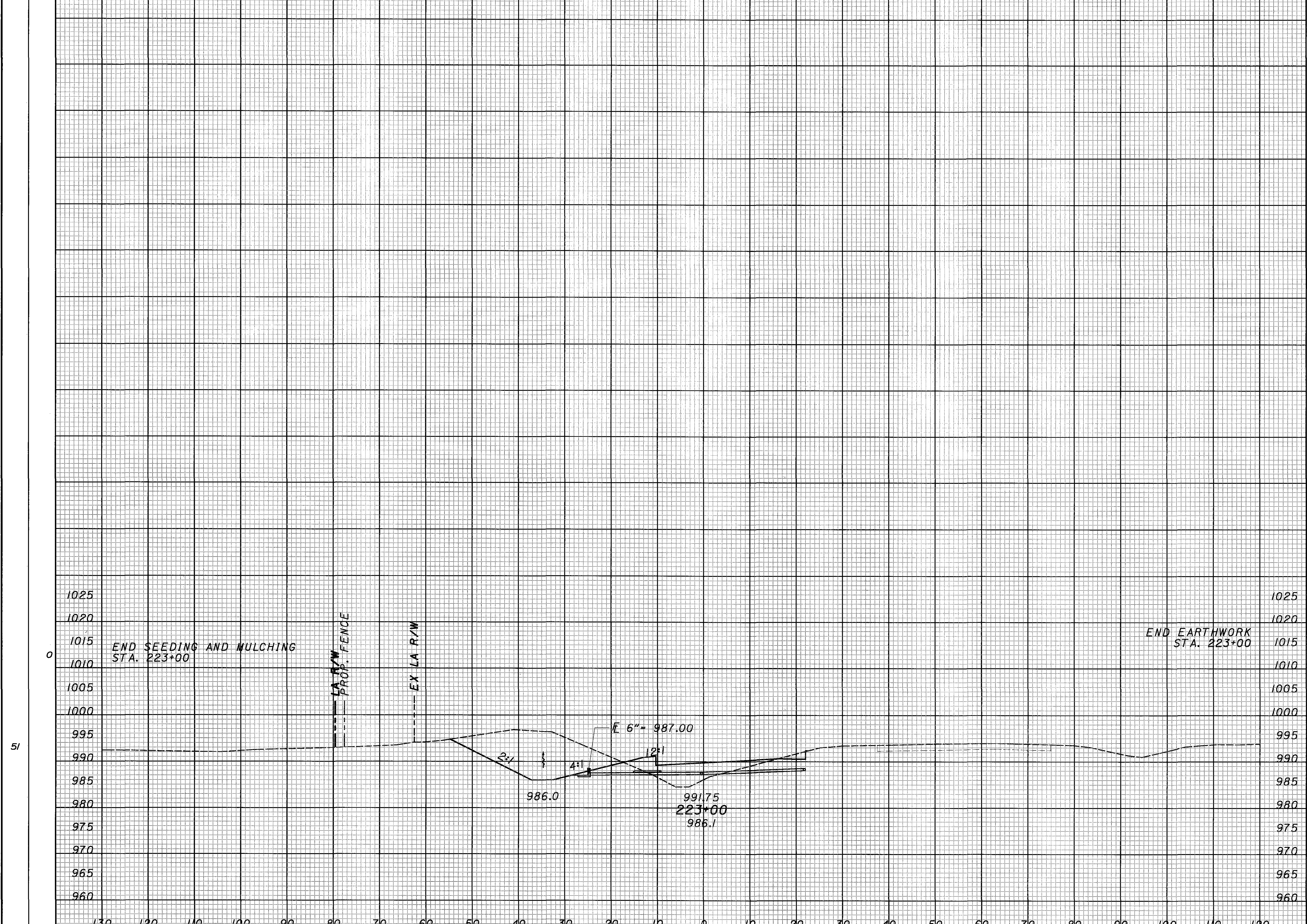
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SHEET TOTAL

426
1120

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



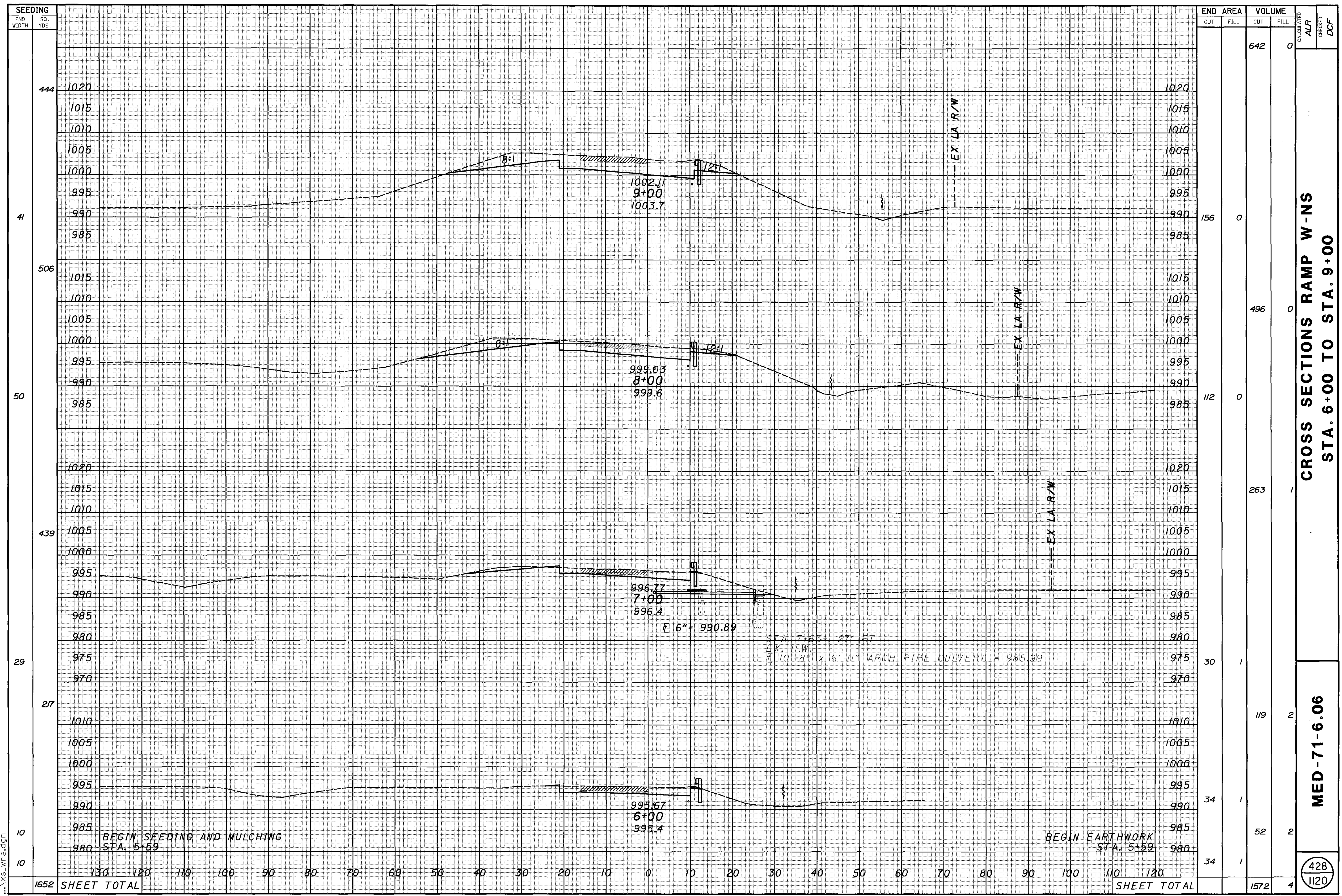
END AREA		VOLUME	
CUT	FILL	CUT	FILL
230	87	0	0
SHEET TOTAL		0	0

CROSS SECTIONS - RAMP ES
STA. 223+00 TO STA. 223+00

MED-71-6.06

427
1120

... \xs-es.dgn



END STA.	END AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
444			642	0	ALR	DCF
41	156	0	0	0		
506			496	0		
50	112	0	0	0		
439			263	1		
29	30	1	1	1		
27			119	2		
10	34	1	52	2		
10	34	1	1	1		
1652	SHEET TOTAL		1572	4		

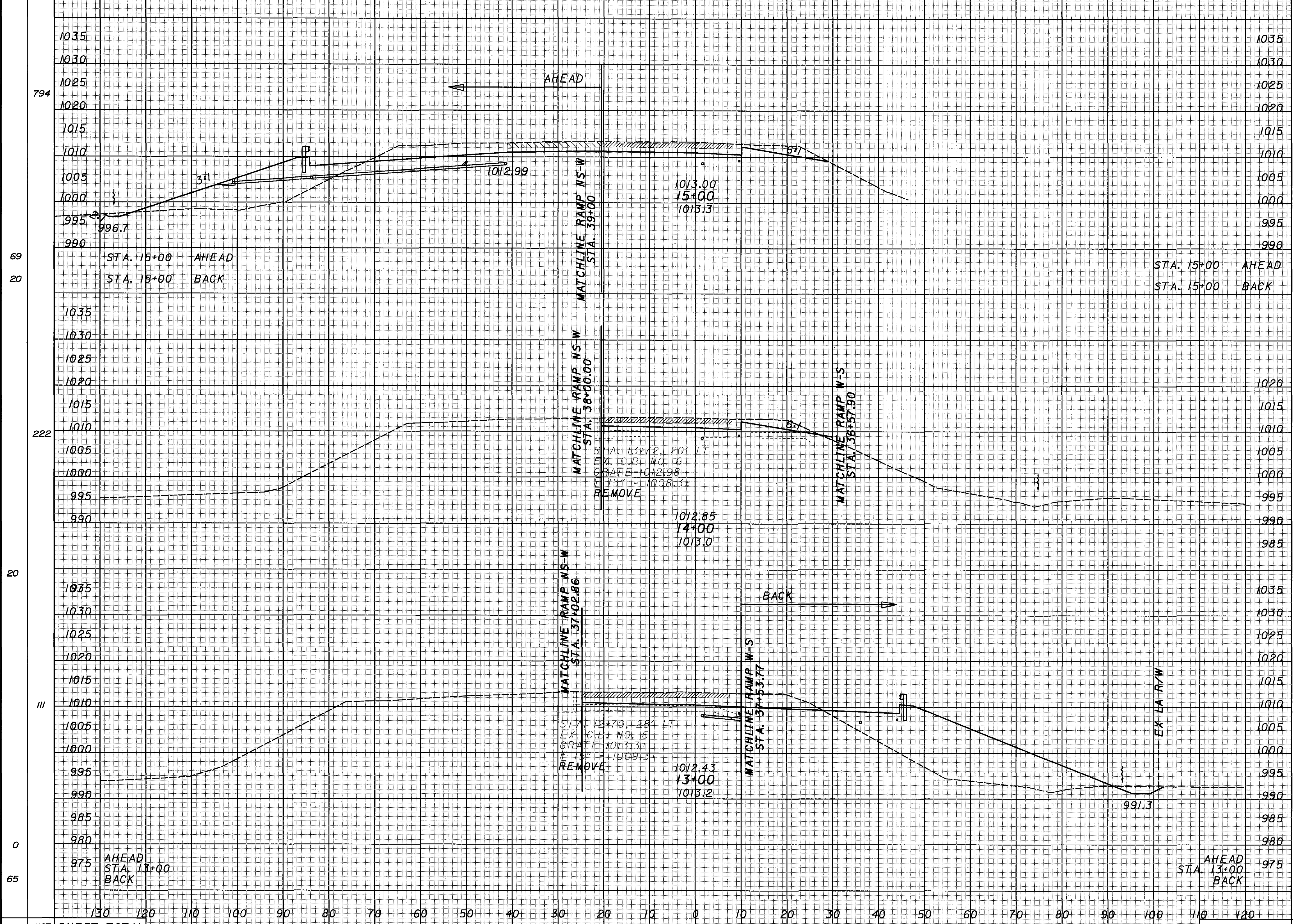
CROSS SECTIONS RAMP W-NS
STA. 6+00 TO STA. 9+00

MED-71-6.06

\Xs-wns.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



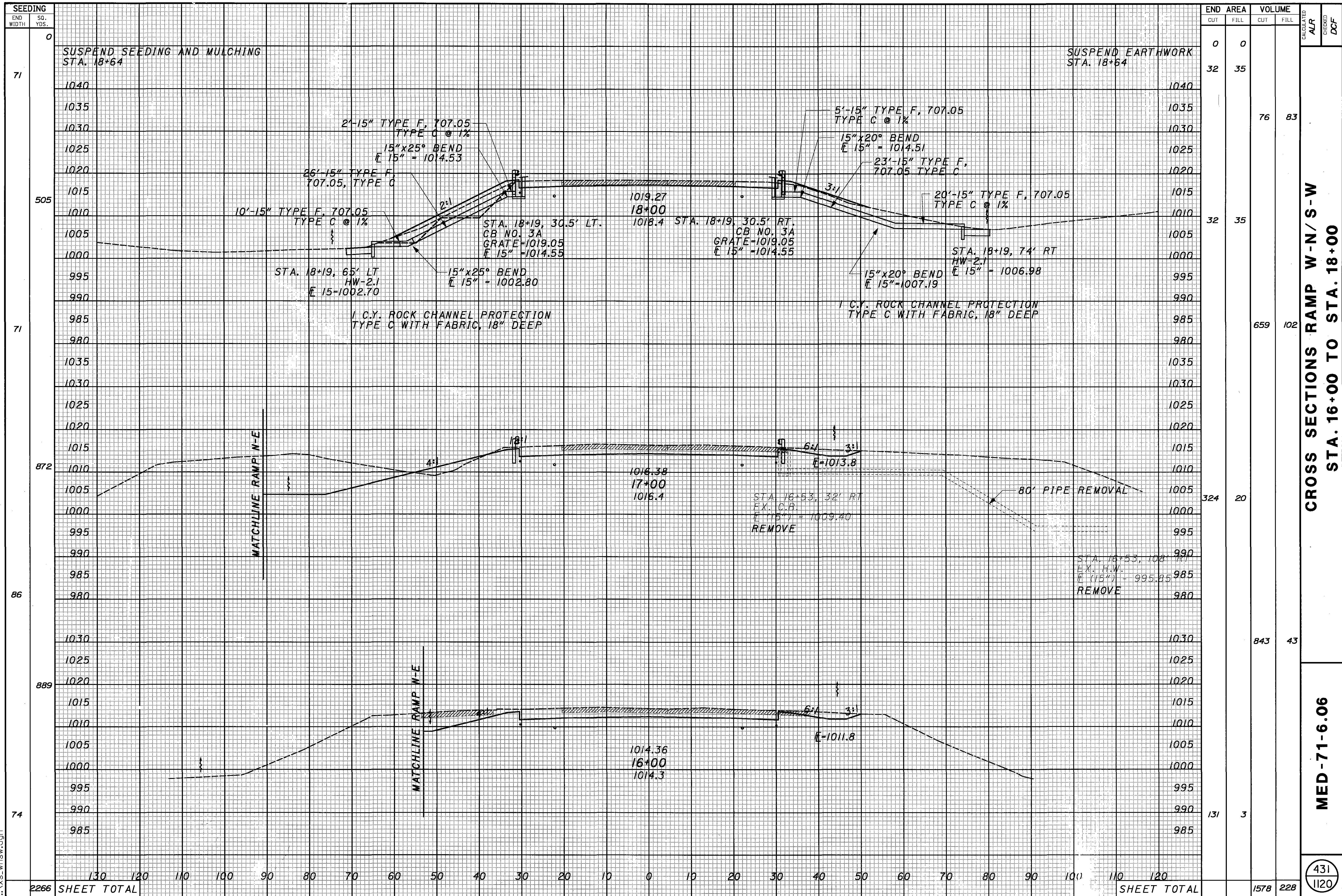
STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1035				
1030			396	437
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
STA. 15+00 AHEAD	83	233		
STA. 15+00 BACK	58	0		
1035				
1030				
1025				
1020			200	2
1015				
1010				
1005				
1000				
995				
990			50	1
985				
1035				
1030				
1025				
1020				
1015				
1010				
1005				
1000				
995				
990				
985				
1035				
1030				
1025				
1020			187	2
1015				
1010				
1005				
1000				
995				
990				
985				
980				
975			51	0
STA. 13+00 AHEAD	153	456		
STA. 13+00 BACK				
1127 SHEET TOTAL			783	441

CROSS SECTIONS RAMP W-S
STA. 13+00 TO STA. 15+00

MED-71-6.06

430
1120

...X.S.-W.S.dgn



END AREA	VOLUME	CALCULATED	CHECKED		
				CUT	FILL
0	0				
32	35				
	76	83			
32	35				
	659	102			
324	20				
	843	43			
131	3				
1578	228				

CROSS SECTIONS RAMP W-N/S-W
 STA. 16+00 TO STA. 18+00

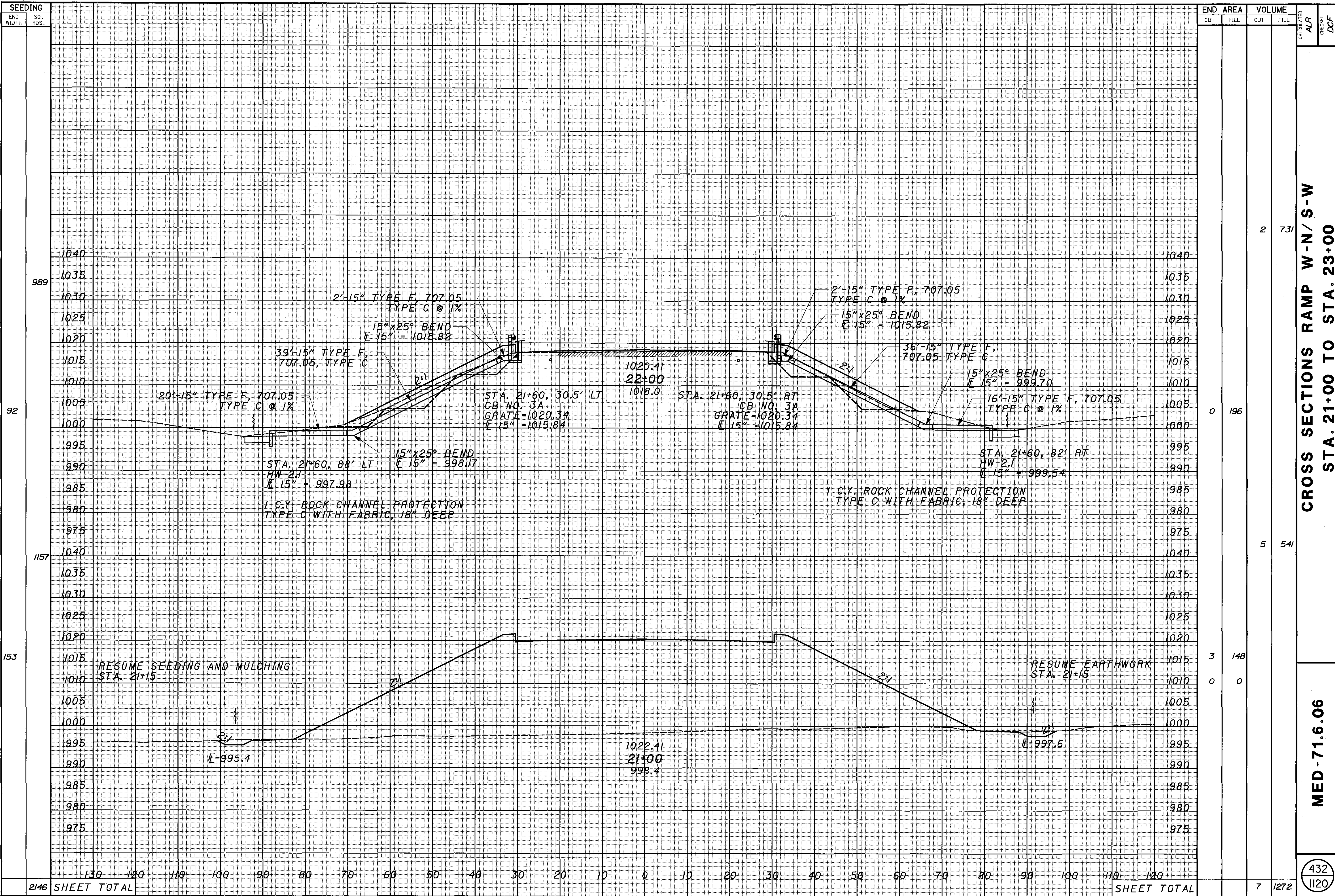
MED-71-6.06

431
 1120

...XSS-WNSW.dgn

2266 SHEET TOTAL

SHEET TOTAL



SEEDING	
END WIDTH	SO. YDS.
92	
989	
1157	
153	
2146	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	196	2	731
0	0	5	541
3	148		
0	0		
		7	1272

CROSS SECTIONS RAMP W-N/S-W
 STA. 21+00 TO STA. 23+00

MED-71.6.06

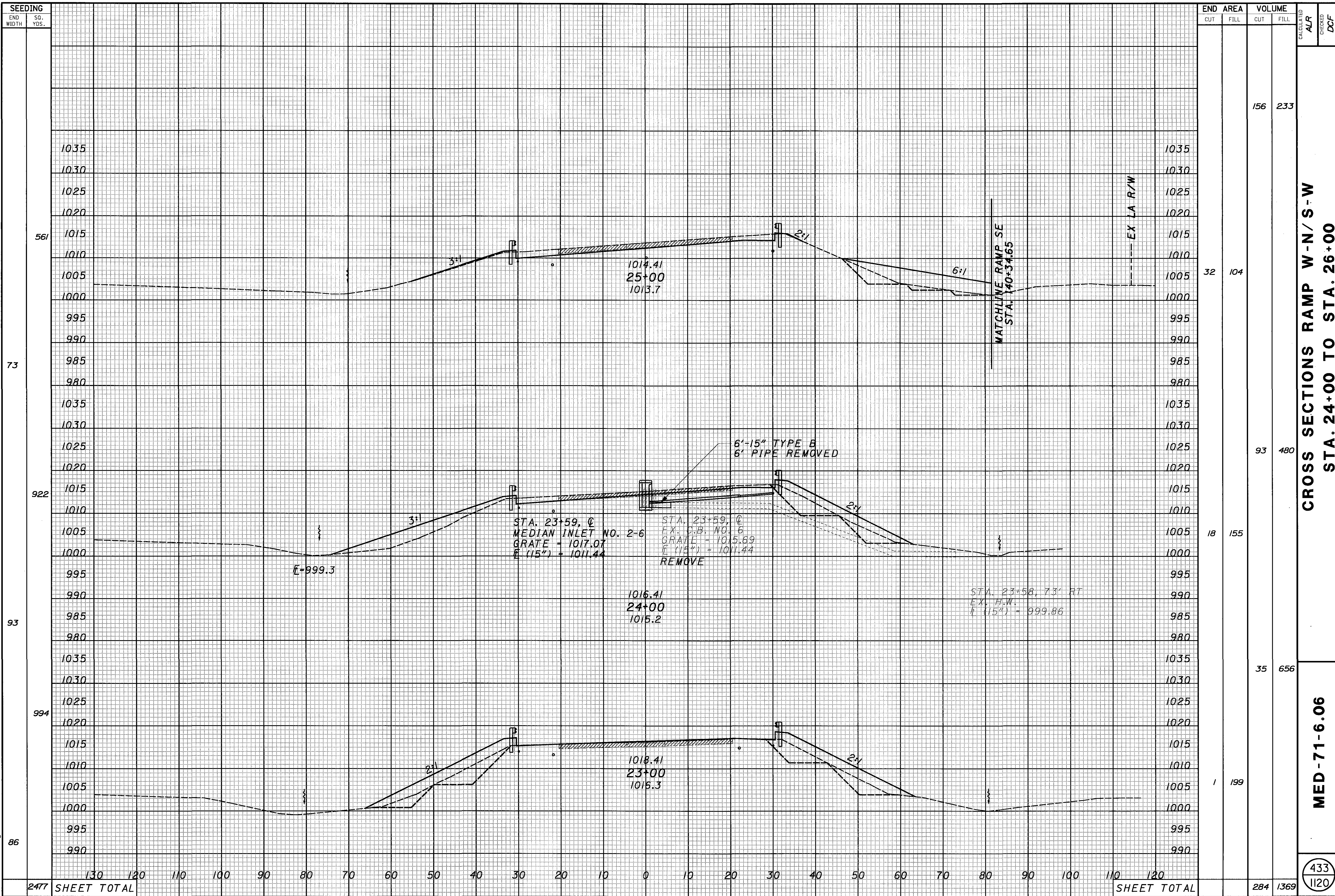
CALCULATED ALR
 CHECKED DCF

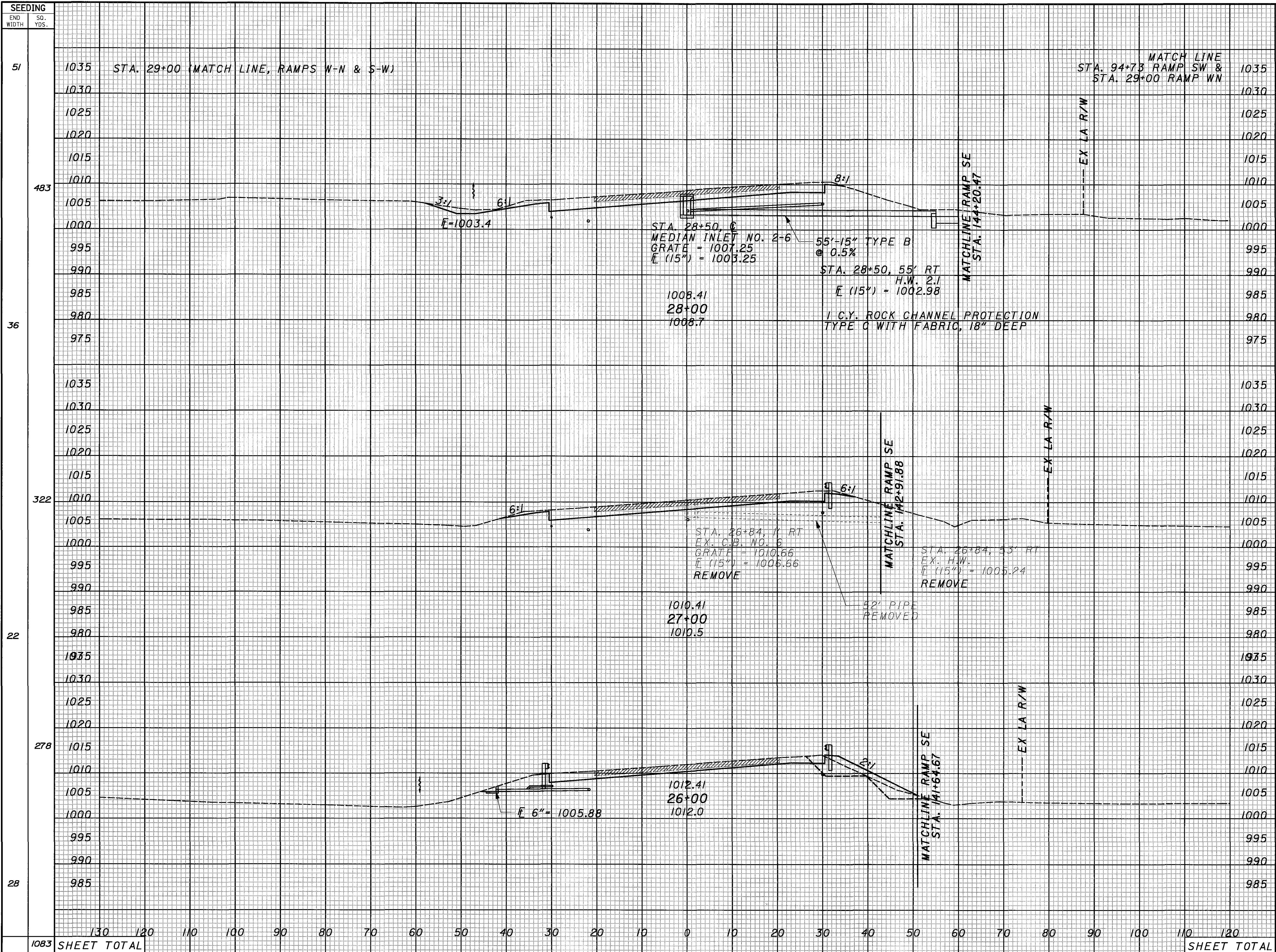
\Xs_wns.w.dgn

SHEET TOTAL

SHEET TOTAL

432
1120





END AREA	VOLUME		CALCULATED ALR	CHECKED DCF
	CUT	FILL		
148	0	0		
114	0	485		
86	0	370		
52	22	256	41	
111	41			

CROSS SECTIONS RAMP W-N/S-W
 STA. 27+00 TO STA. 28+00

MED-71.6.06

434
 1120

1083 SHEET TOTAL

SHEET TOTAL

\xs_wsw.dgn



SEEDING	
END WIDTH	SO. YDS.
130	1035
120	1030
110	1025
100	1020
90	1015
80	1010
70	1005
60	1000
50	995
40	990
30	985
20	980

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	ALF	DCF
289	5	1026	21		
121	13	759	33		
87	0	385	24		
SHEET TOTAL		2170	78		

CROSS SECTIONS RAMP W-N
 STA. 29+00 TO STA. 31+00

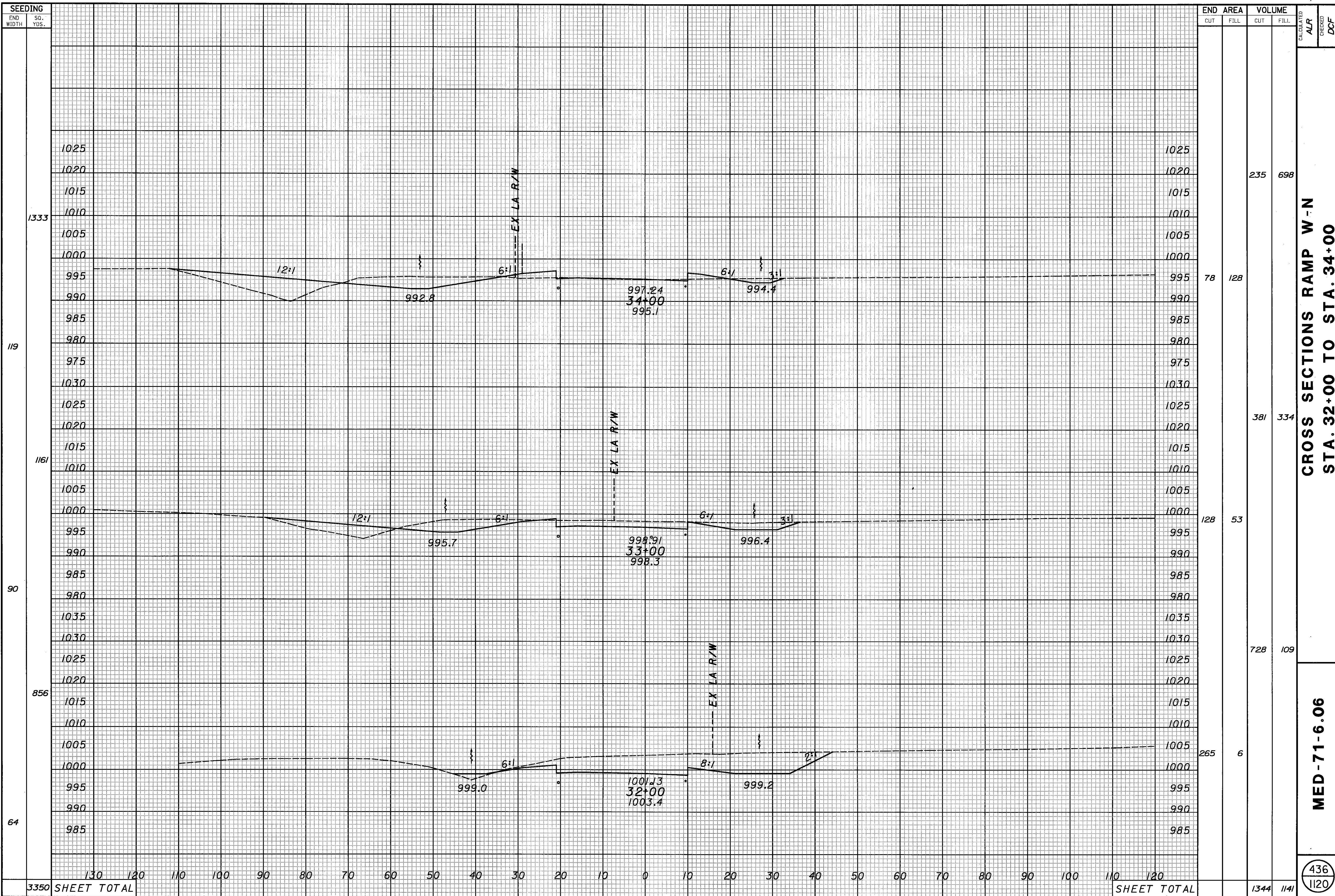
MED-71-6.06

435
 1120

\x.s.wn.dgn

1489 SHEET TOTAL

SHEET TOTAL



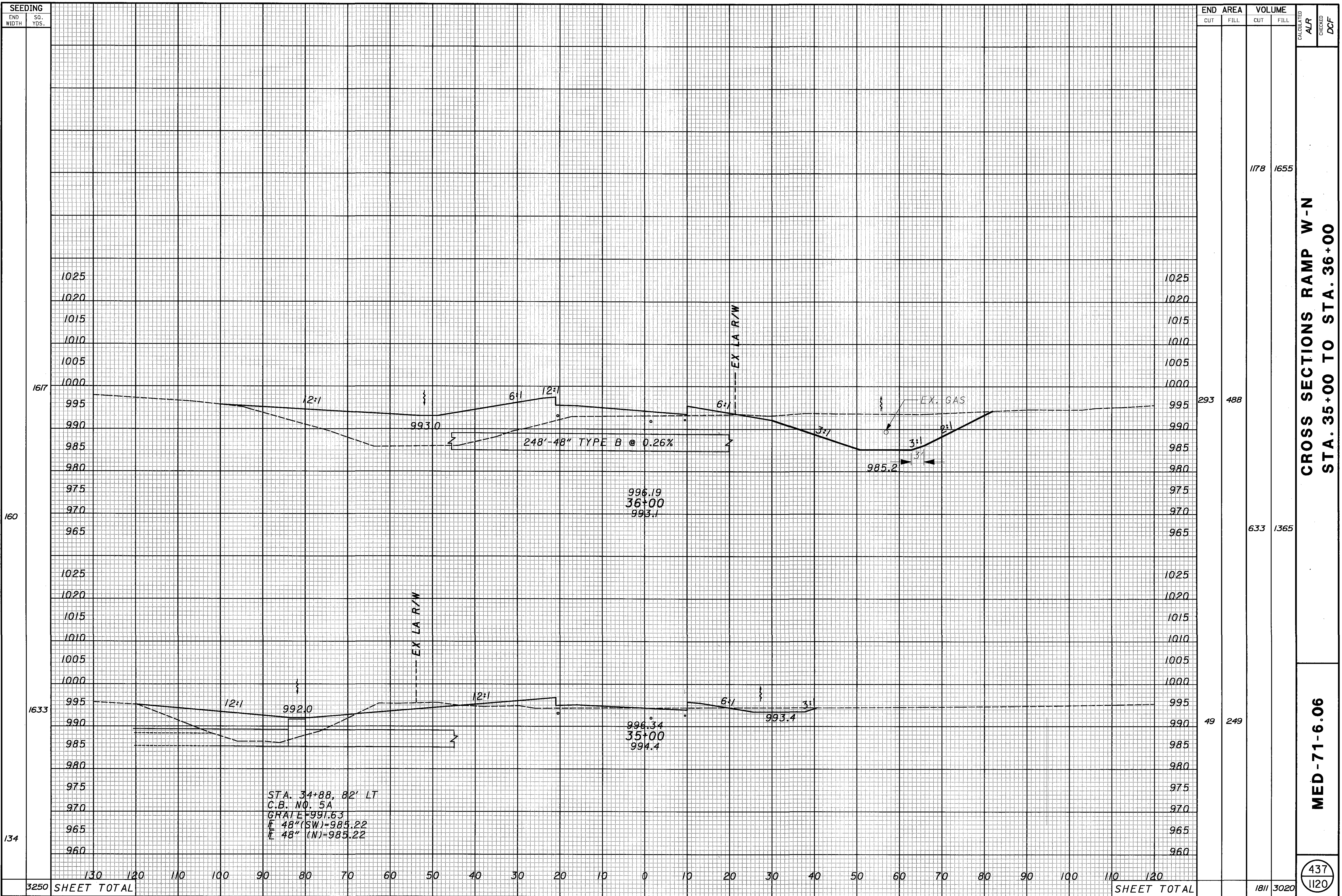
**CROSS SECTIONS RAMP W-N
 STA. 32+00 TO STA. 34+00**

MED-71-6.06

CALCULATED ALF
 CHECKED DCF

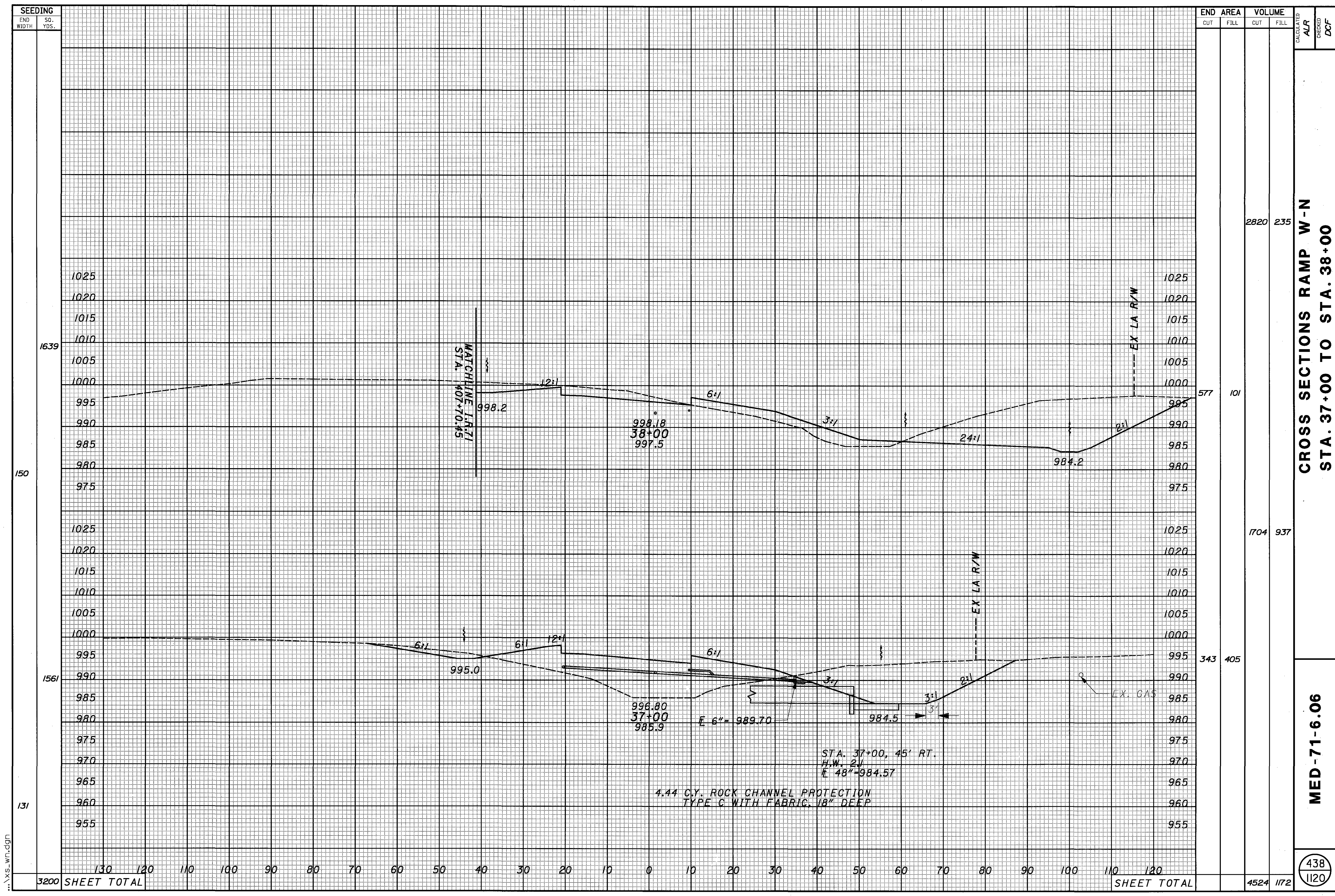
436
 1120

... \x.s.w.m.dgn



**CROSS SECTIONS RAMP W-N
STA. 35+00 TO STA. 36+00**

MED-71-6.06



SEEDING	
END WIDTH	SO. YDS.
1639	
150	
1561	
131	
3200	SHEET TOTAL

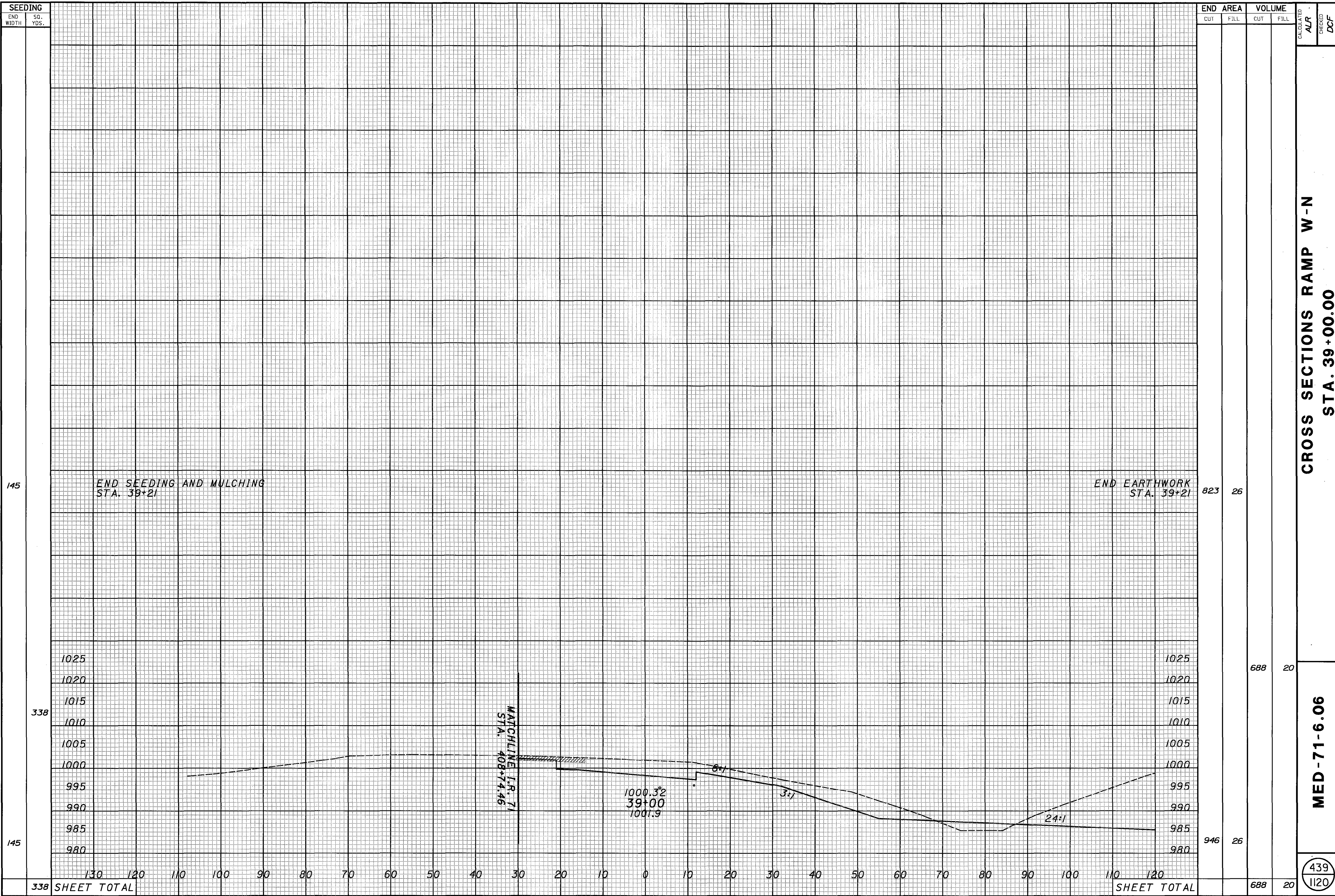
END AREA		VOLUME		CALCULATED	ALR	CHECKED	DCF
CUT	FILL	CUT	FILL				
577	101	2820	235				
343	405	1704	937				
4524	1172						

CROSS SECTIONS RAMP W-N
STA. 37+00 TO STA. 38+00

MED-71-6.06

438
1120

..X.S.-W.N.-dgn

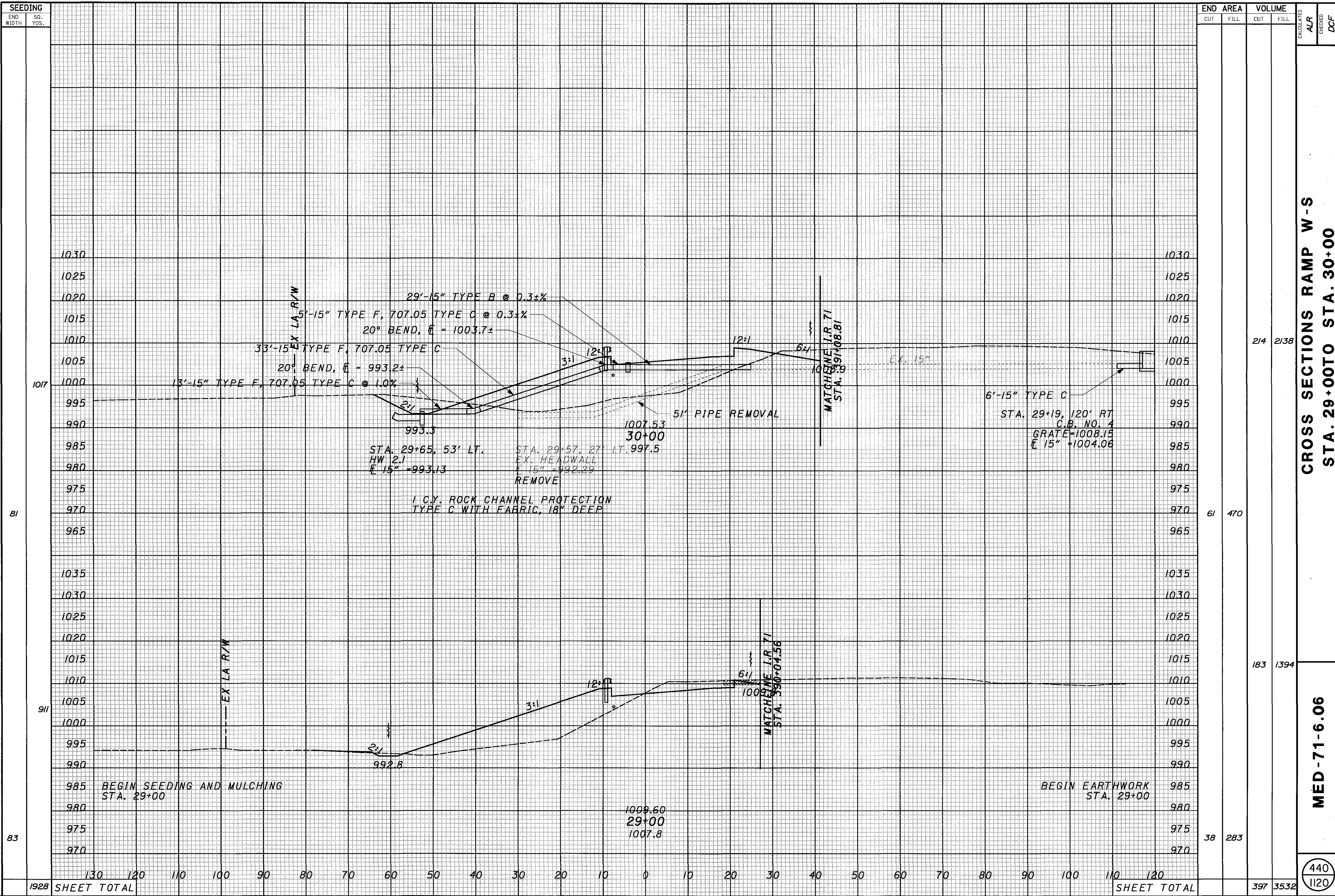


CROSS SECTIONS RAMP W-N
STA. 39+00.00

MED-71-6.06

439
 1120

... \xs-wn.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

81

911

83

CROSS SECTIONS RAMP W-S
STA. 29+00 TO STA. 30+00

MED-71-6.06

440
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
1928 SHEET TOTAL

SHEET TOTAL

397 3532

214 2138

183 1394

61 470

38 283

BEGIN SEEDING AND MULCHING
STA. 29+00

BEGIN EARTHWORK
STA. 29+00

1 C.Y. ROCK CHANNEL PROTECTION
TYPE C WITH FABRIC, 18" DEEP

51" PIPE REMOVAL

MATCHLINE I.R. 71
STA. 29+08.81

MATCHLINE I.R. 71
STA. 29+04.56

6'-15" TYPE C
STA. 29+19, 120' RT
C.B. NO. 4
GRATE=1008.15
E 15" +1004.06

STA. 29+65, 53' LT.
HW 2.1
E 15" -993.13

STA. 29+57, 27' LT. 997.5
EX. HEADWALL
E 15" -992.29
REMOVE

13'-15" TYPE F, 707.05 TYPE C @ 1.0%

33'-15" TYPE F, 707.05 TYPE C

5'-15" TYPE F, 707.05 TYPE C @ 0.3±%

20° BEND, E - 1003.7±

29'-15" TYPE B @ 0.3±%

20° BEND, E - 993.2±

1007.53
30+00

993.3

1009.60
29+00
1007.8

992.8

1009

6:1

12:1

3:1

EX LA R/W

EX LA R/W

EX. 15"

6:1

12:1

12:1

3:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

12:1

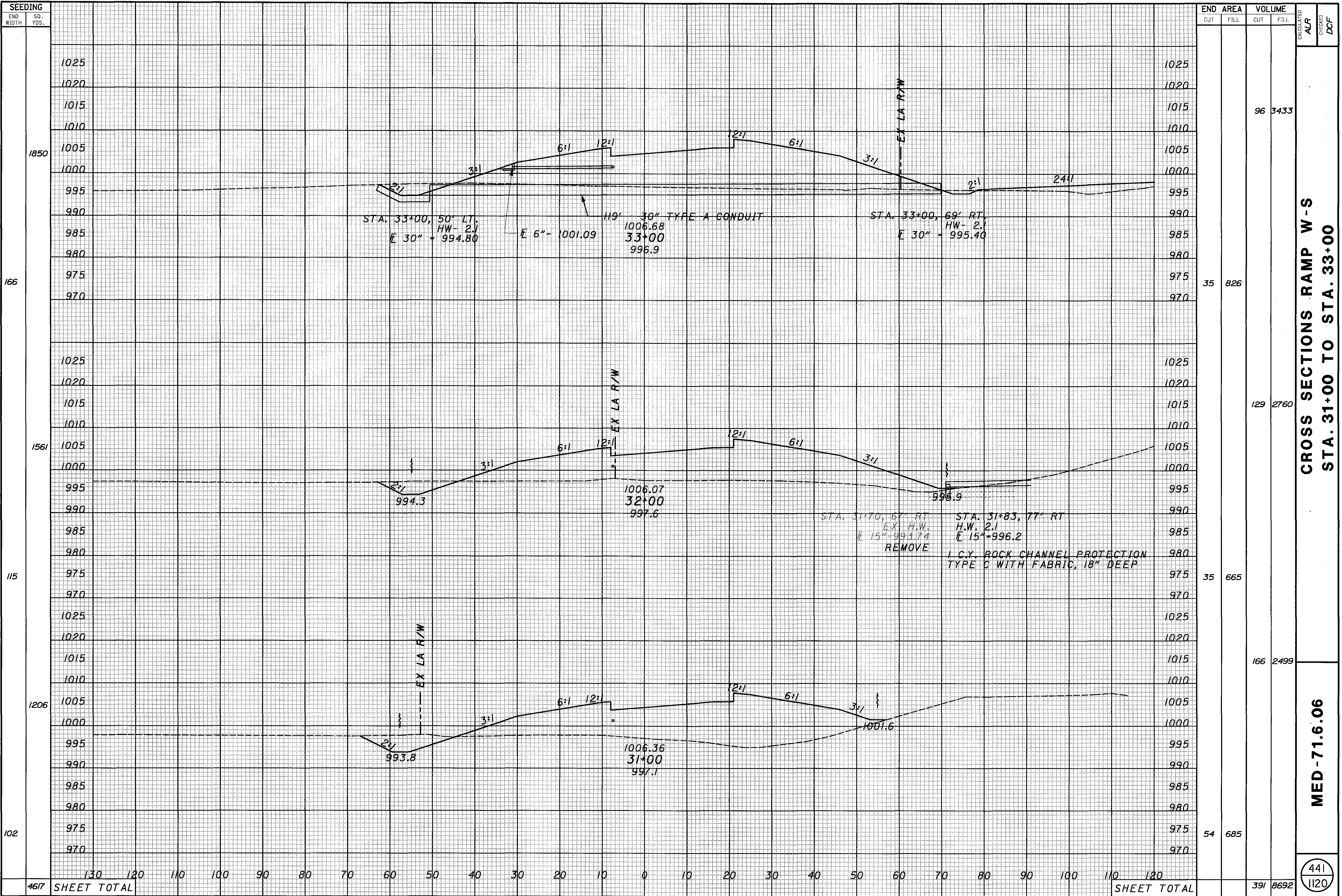
12:1

12:1

12:1

12:1

12:1



...xs_ws.dgn

CALCULATED ALR
 CHECKED DCF

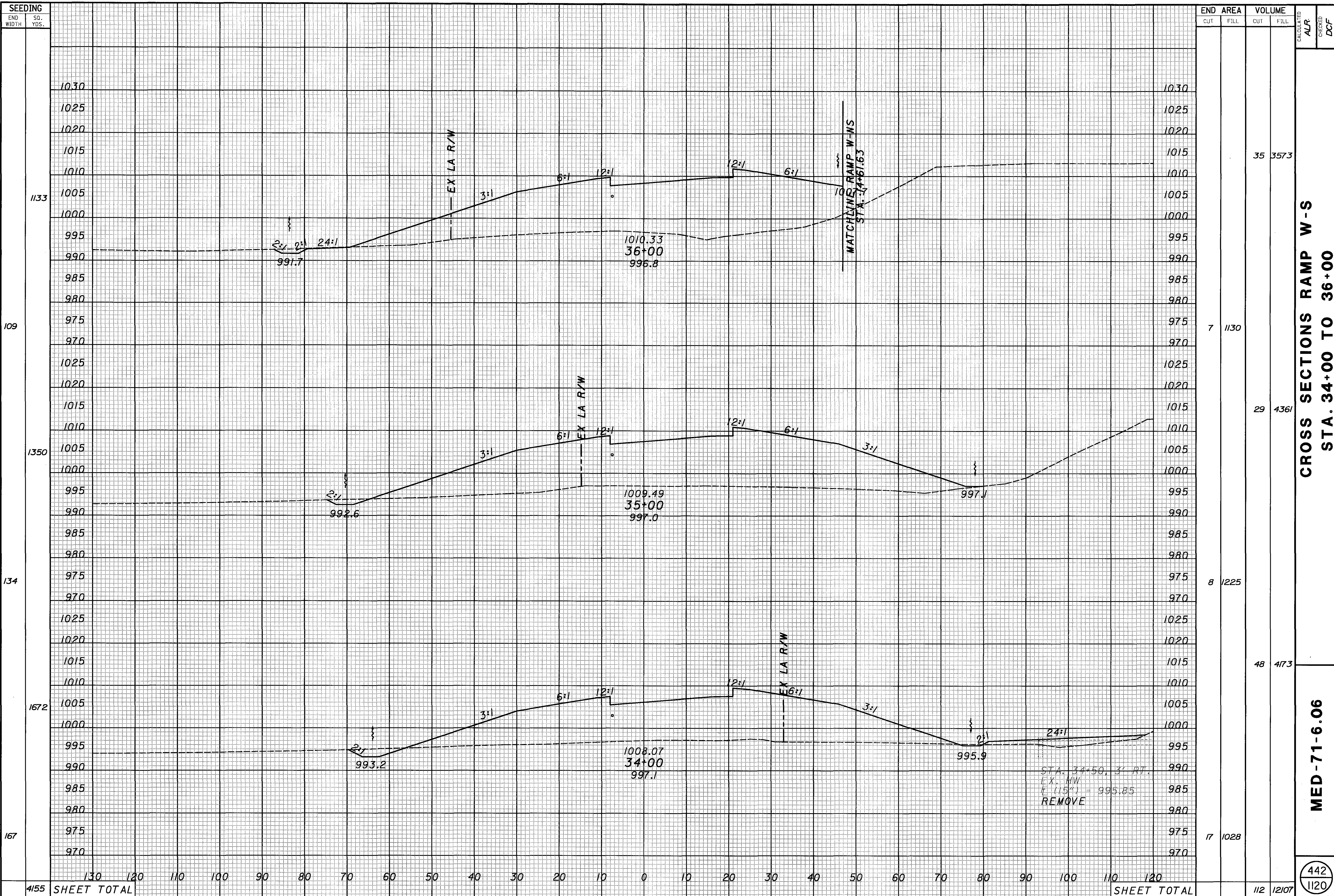
MED-71.6.06

441
 1120

4617 SHEET TOTAL

SHEET TOTAL

391 8692



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

1133
109
1350
134
1672
167
4155 SHEET TOTAL

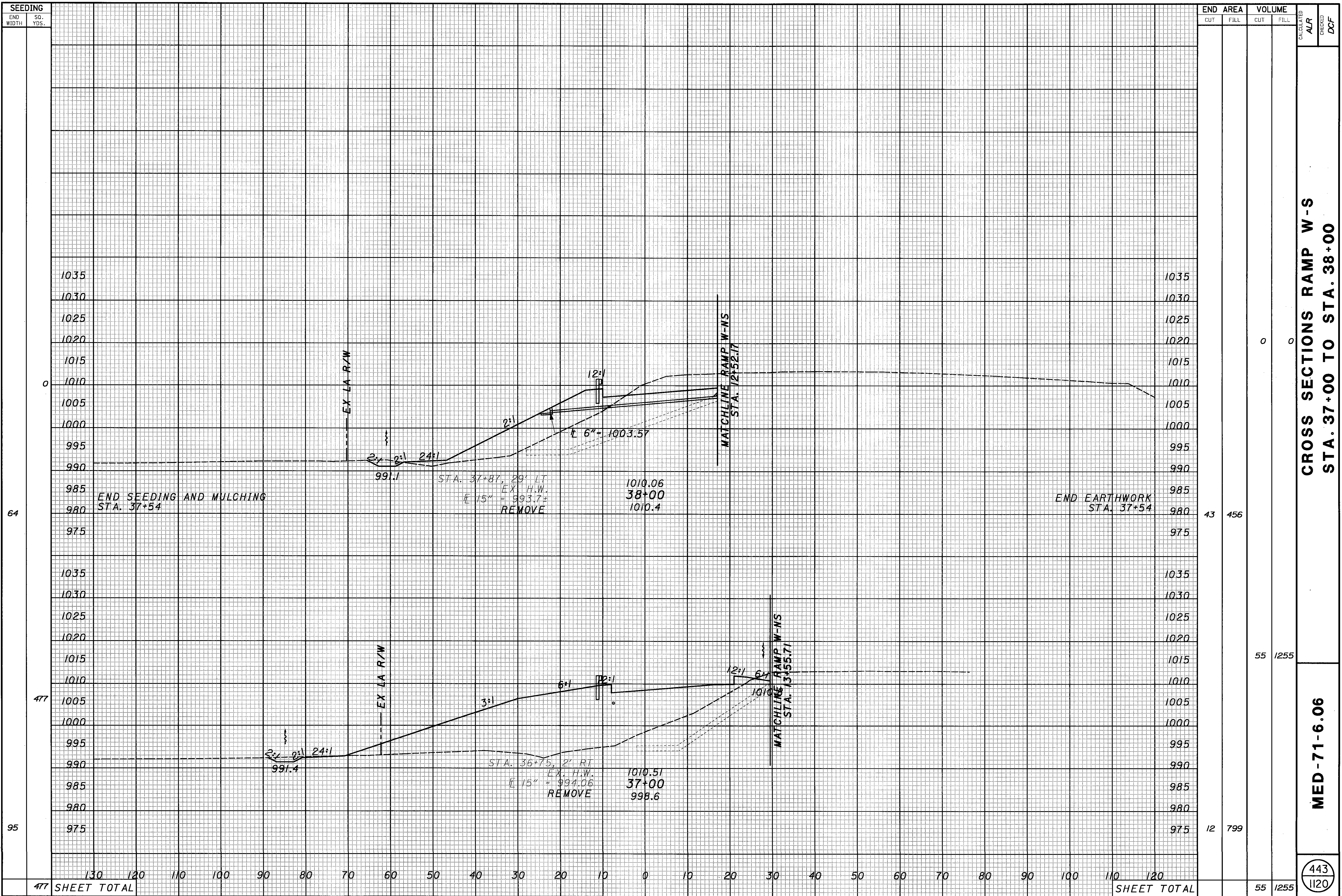
1030
1025
1020
1015
1010
1005
1000
995
990
985
980
975
970
1025
1020
1015
1010
1005
1000
995
990
985
980
975
970
1025
1020
1015
1010
1005
1000
995
990
985
980
975
970
1005
1000
995
990
985
980
975
970
1028
112 12107

CROSS SECTIONS RAMP W-S
STA. 34+00 TO 36+00

MED-71-6.06

442
1120

...xs_ws.dgn



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

64

END SEEDING AND MULCHING
STA. 37+54

STA. 37+87, 29' LT
EX. H.W.
E 15" = 993.7±
REMOVE

1010.06
38+00
1010.4

END EARTHWORK
STA. 37+54

43 456

477

2:1 2:1 24:1
991.4

STA. 36+75, 2' RT
EX. H.W.
E 15" = 994.06
REMOVE

1010.51
37+00
998.6

95

12 799

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
477 SHEET TOTAL

SHEET TOTAL

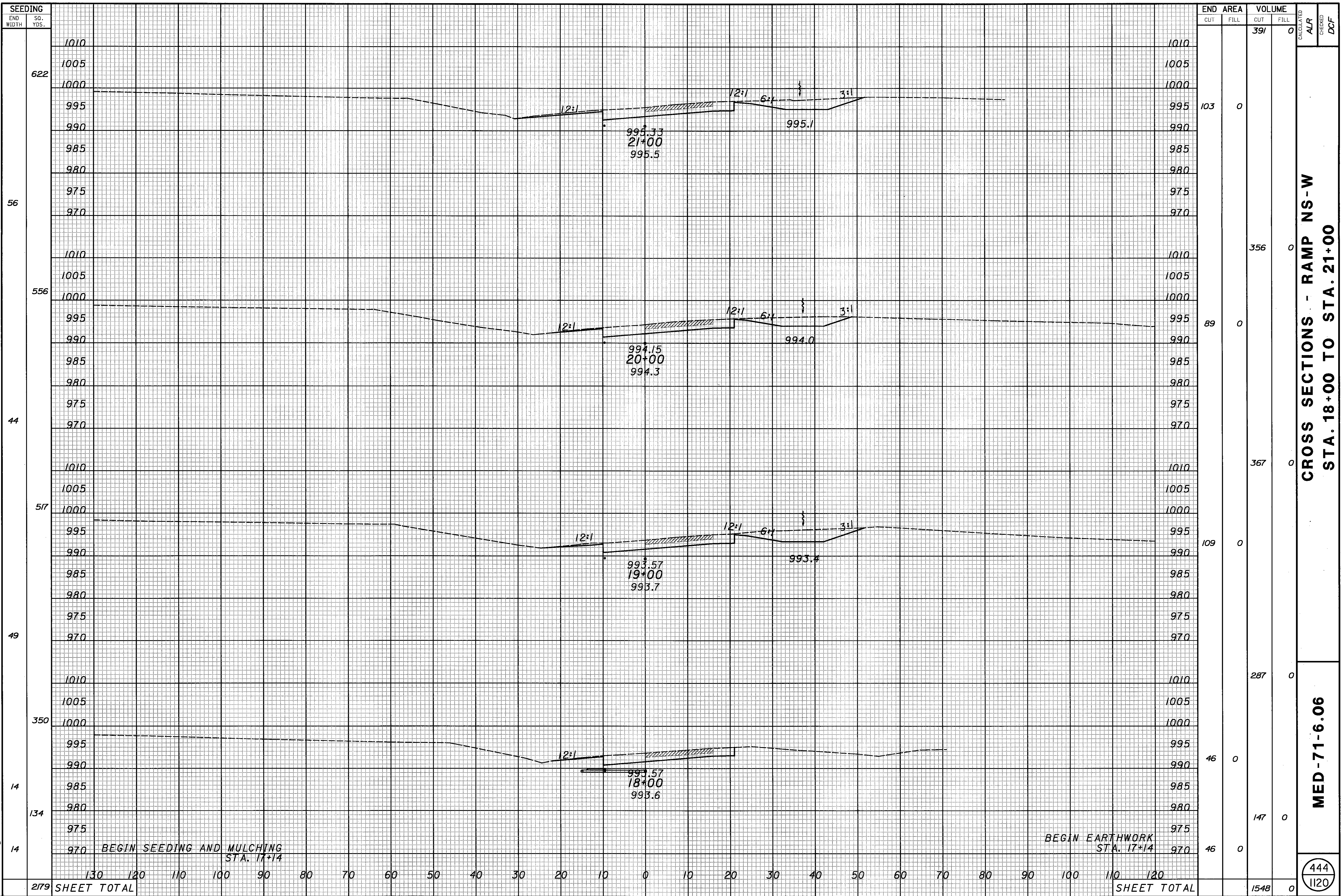
55 1255

CROSS SECTIONS RAMP W-S
STA. 37+00 TO STA. 38+00

MED-71-6.06

443
120

... \xs.ws.dgn



CROSS SECTIONS - RAMP NS - W
 STA. 18+00 TO STA. 21+00

MED - 71 - 6.06

444
 1120

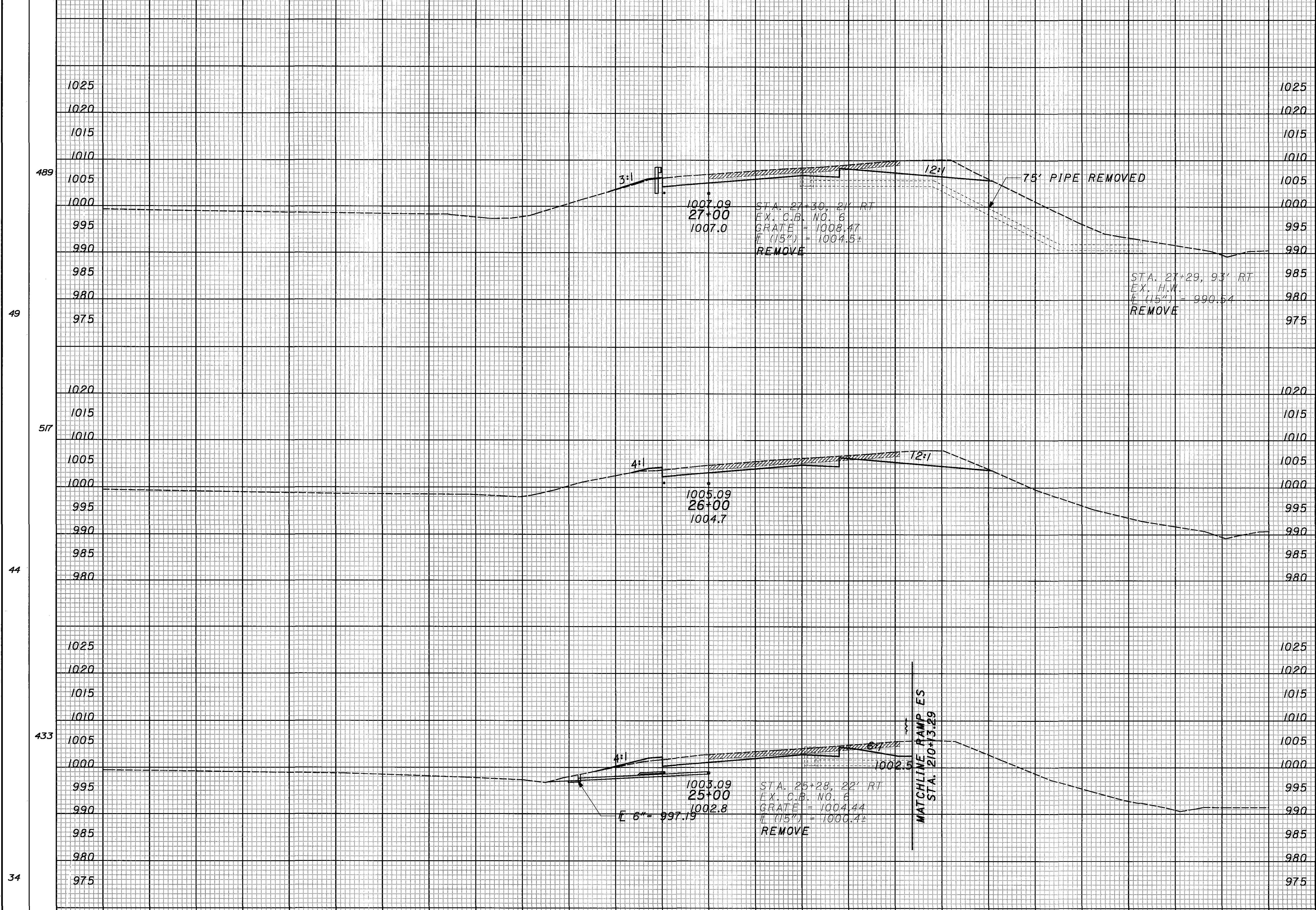
BEGIN SEEDING AND MULCHING
STA. 17+14

BEGIN EARTHWORK
STA. 17+14

\Xs_NSW.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



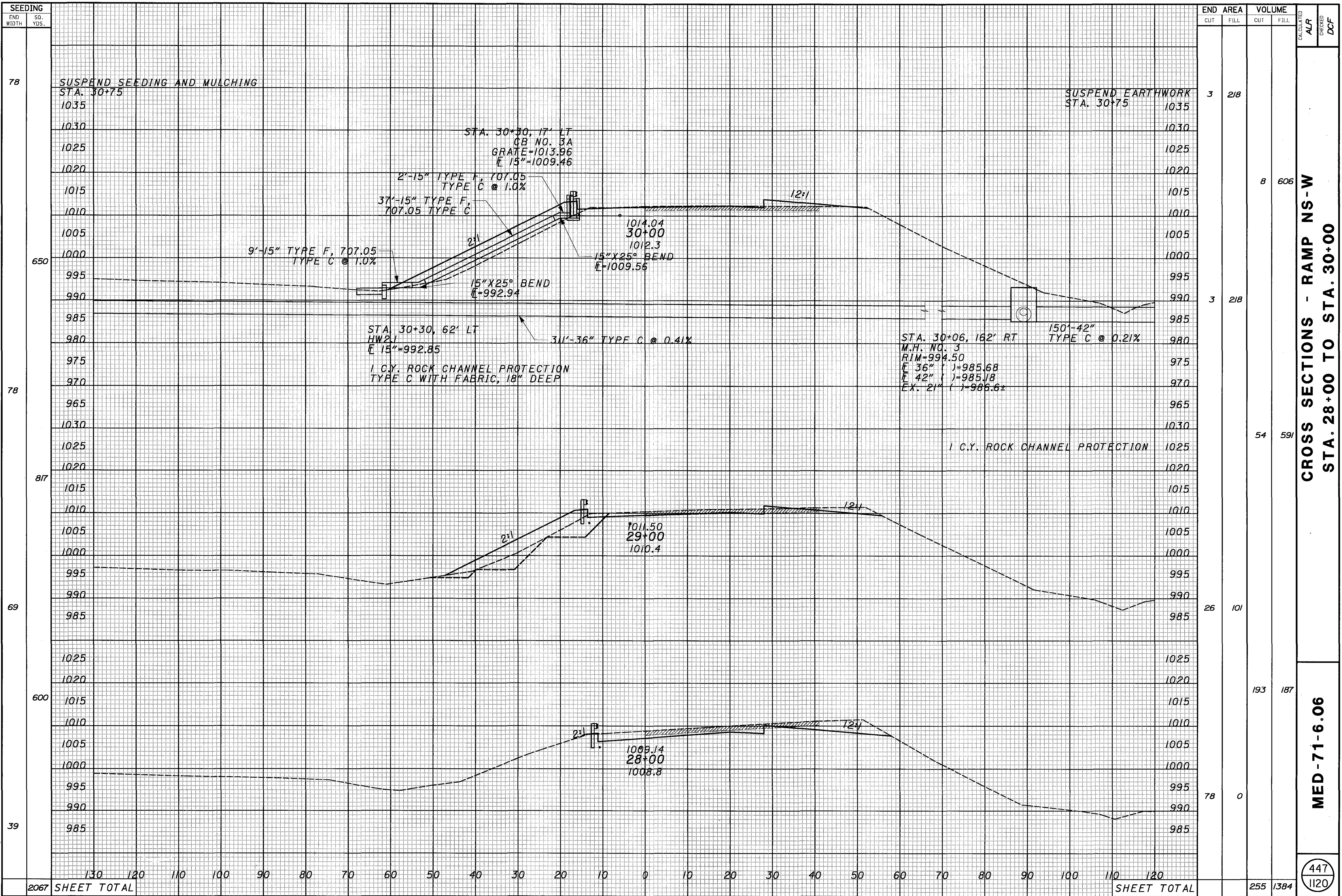
STATION	END AREA		VOLUME		CALCULATED ALR	CHECKED DCF
	CUT	FILL	CUT	FILL		
489						
49			104	2		
57			344	7		
44			82	2		
433			241	13		
34			48	5		
1439	SHEET TOTAL		922	24		

CROSS SECTIONS - RAMP NS-W
STA. 25+00 TO STA. 27+00

MED-71.6.06

446
1120

... \xs_NSW.dgn



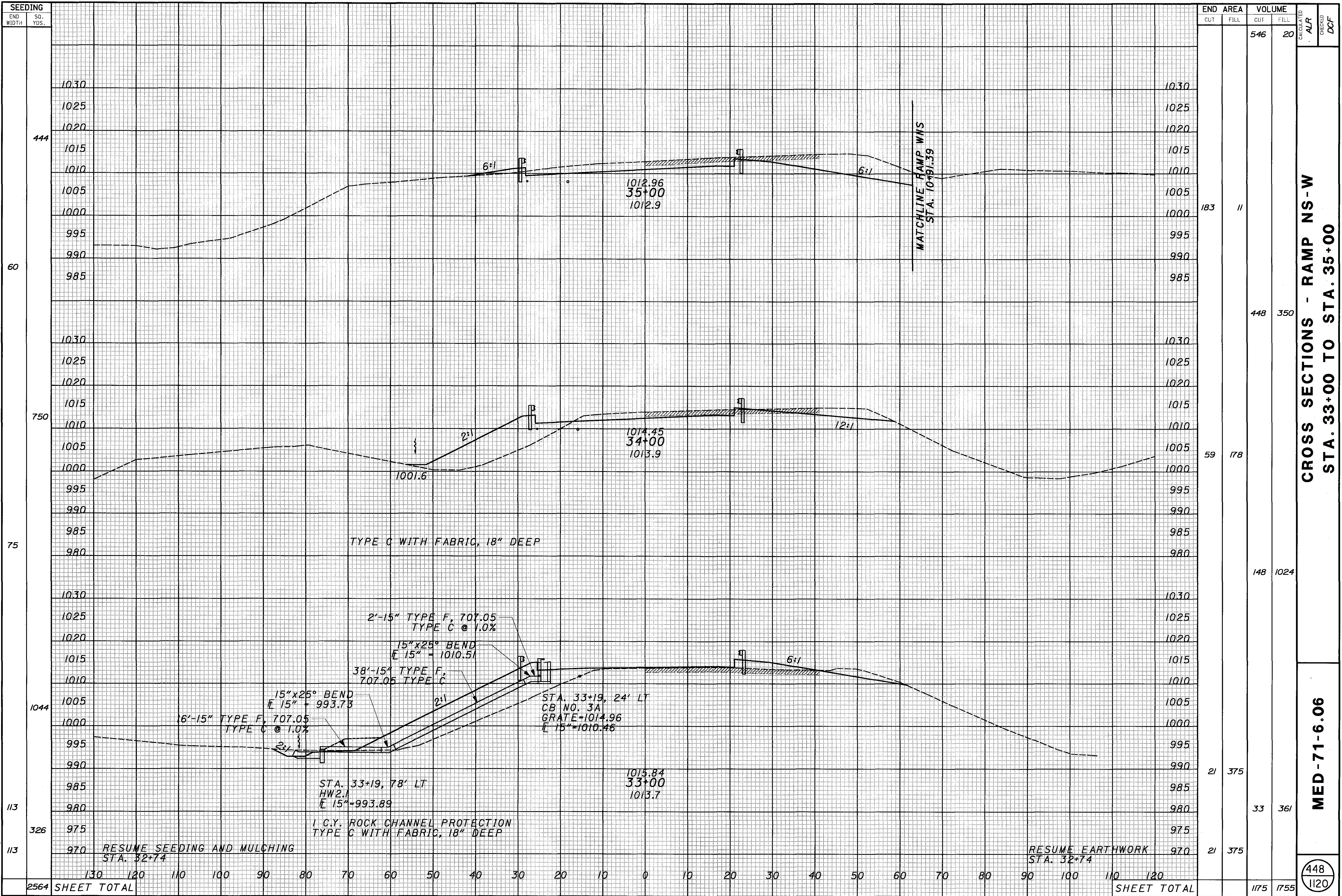
SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
78	3	218	8	606
650	3	218	54	591
78			26	101
87			193	187
69			78	0
600			255	1384
39				
2067	SHEET TOTAL		SHEET TOTAL	

CROSS SECTIONS - RAMP NS-W
 STA. 28+00 TO STA. 30+00

MED-71-6.06

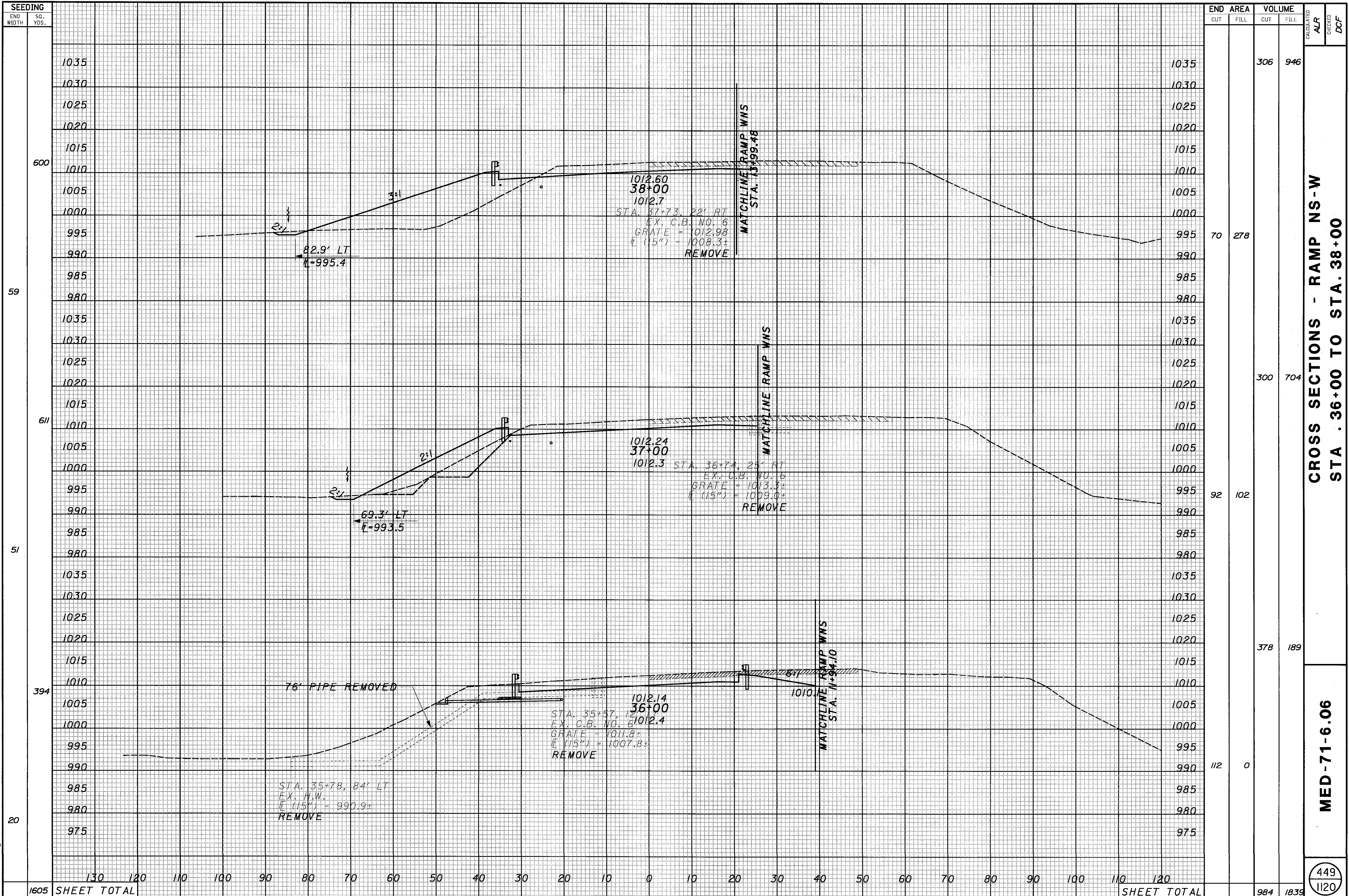
447
 1120

\xss_NSW.dgn



...xs_nsw.dgn

448
1120



SEEDING	
END WIDTH	SO. YDS.
600	
59	
611	
51	
394	
20	

END AREA		VOLUME		CALCULATED	ALR	CHECKED	DCF
CUT	FILL	CUT	FILL				
		306	946				
70	278						
		300	704				
92	102						
		378	189				
112	0						
SHEET TOTAL		984	1839				

CROSS SECTIONS - RAMP NS-W
STA. 36+00 TO STA. 38+00

MED-71-6.06

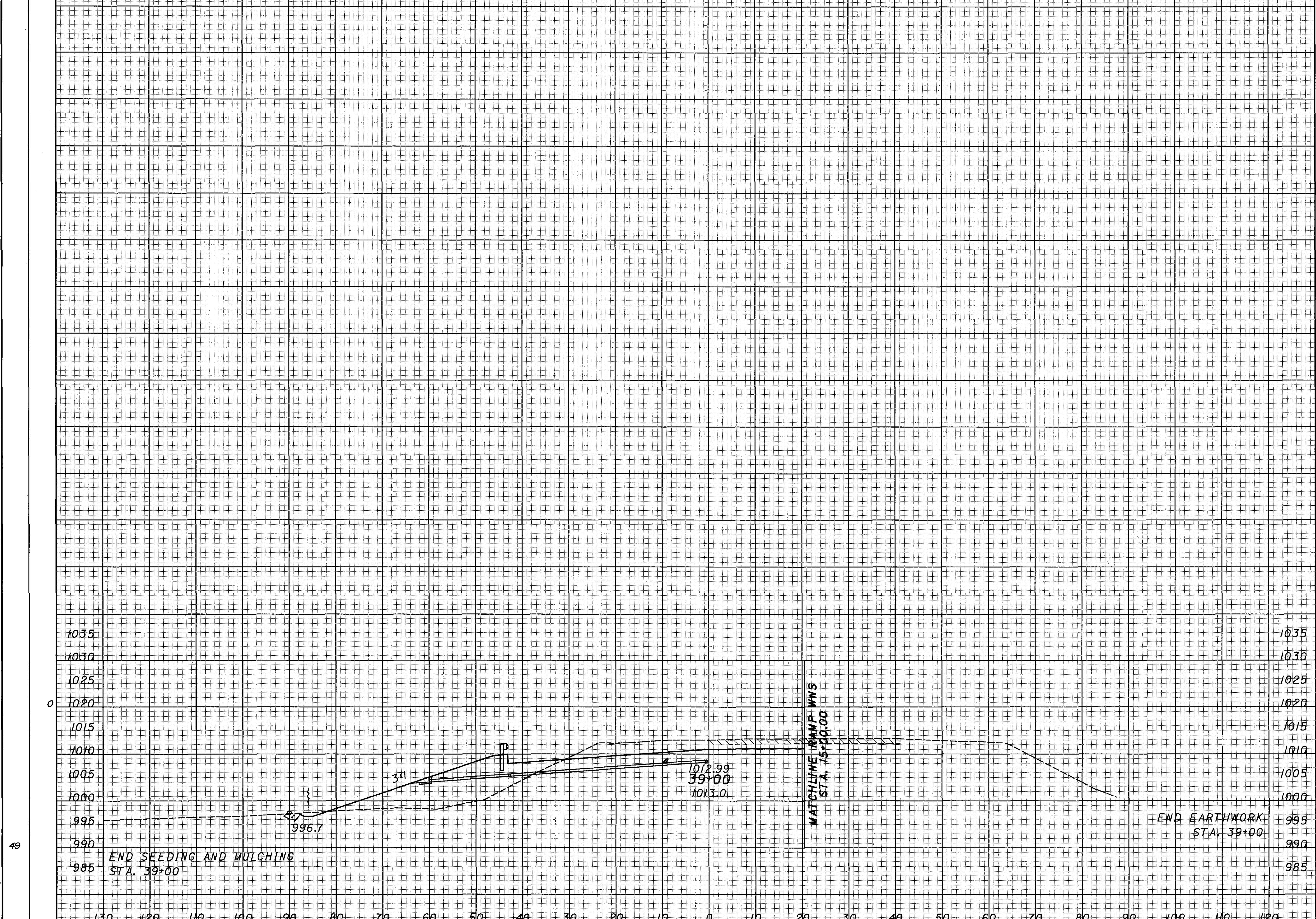
449
1120

... \x\ss-NSW.dgn

SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL

CALCULATED ALR
CHECKED DCF



CROSS SECTIONS - RAMP NS - W
STA. 39+00

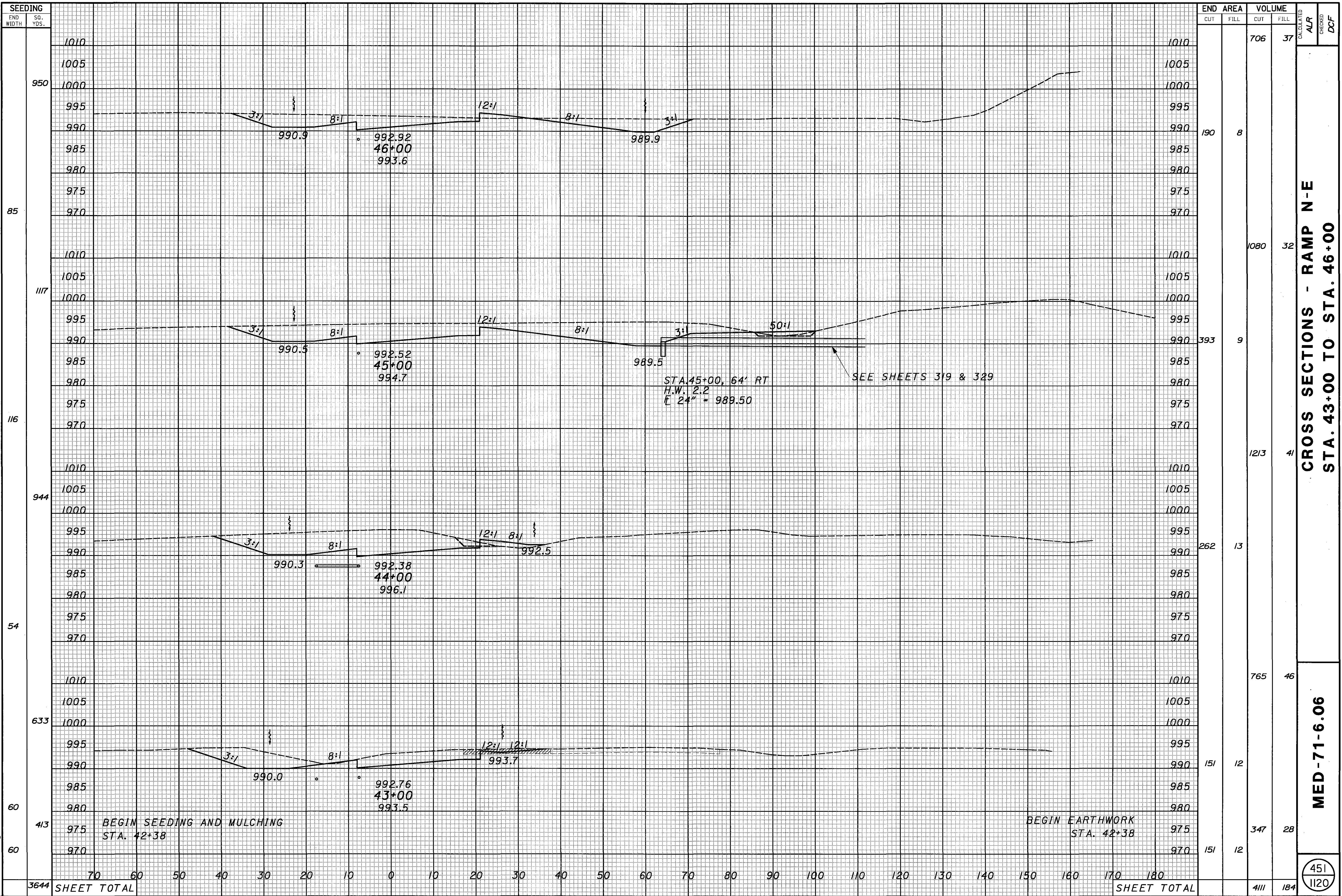
MED - 71 - 6.06

1035	1035		
1030	1030	0	0
1025	1025		
1020	1020		
1015	1015		
1010	1010		
1005	1005		
1000	1000		
995	995	95	233
990	990		
985	985		

1035
1030
1025
1020
1015
1010
1005
1000
995
990
985

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
SHEET TOTAL SHEET TOTAL

450
1120



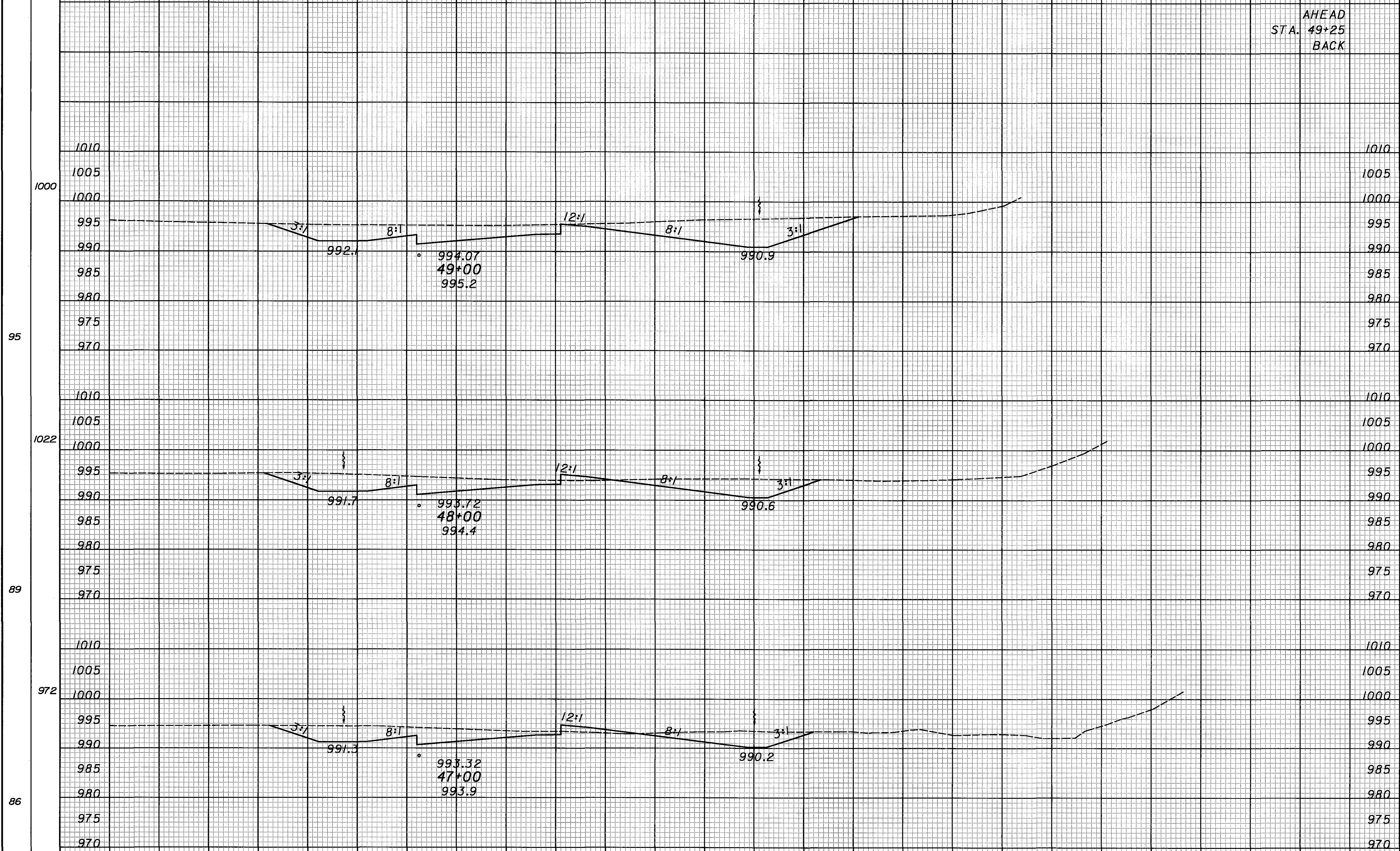
CROSS SECTIONS - RAMP N-E
 STA. 43+00 TO STA. 46+00

MED-71-6.06

451
 1120

SEEDING
END WIDTH SO. YDS.

END AREA		VOLUME		CALCULATED ALR	CHECKED DCF
CUT	FILL	CUT	FILL		
		1190	1308		



AHEAD
STA. 49+25
BACK

367	471	321	0		
367	0	326	0		
		1015	14		
		222	8		
		765	36		
191	12				

CROSS SECTIONS - RAMP N-E
STA. 47+00 TO STA. 49+00

MED-71-6.06

452
1120

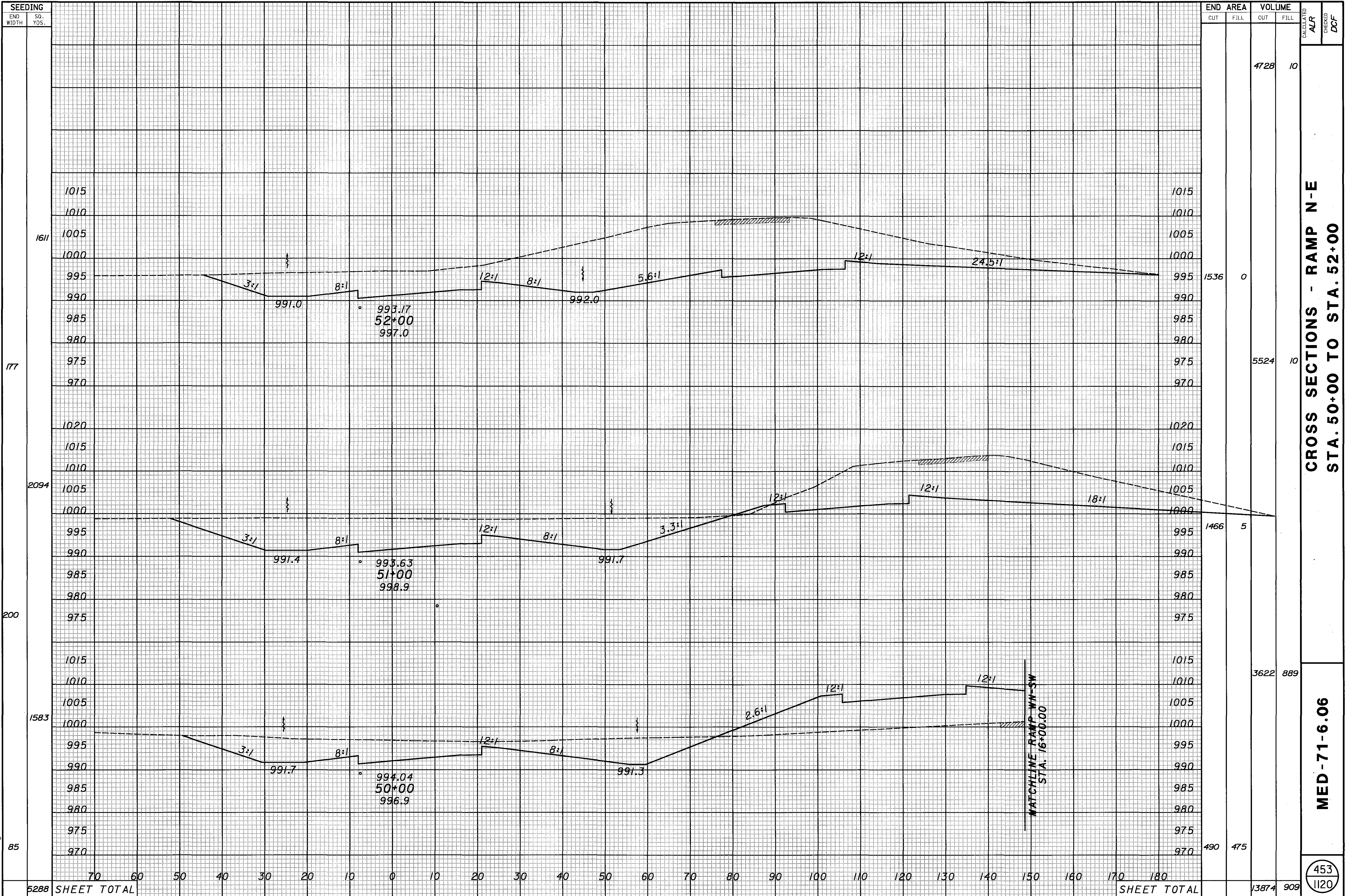
70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

2994 SHEET TOTAL

SHEET TOTAL

3291 1358

... \xs_nenw.dgn



CROSS SECTIONS - RAMP N-E
STA. 50+00 TO STA. 52+00

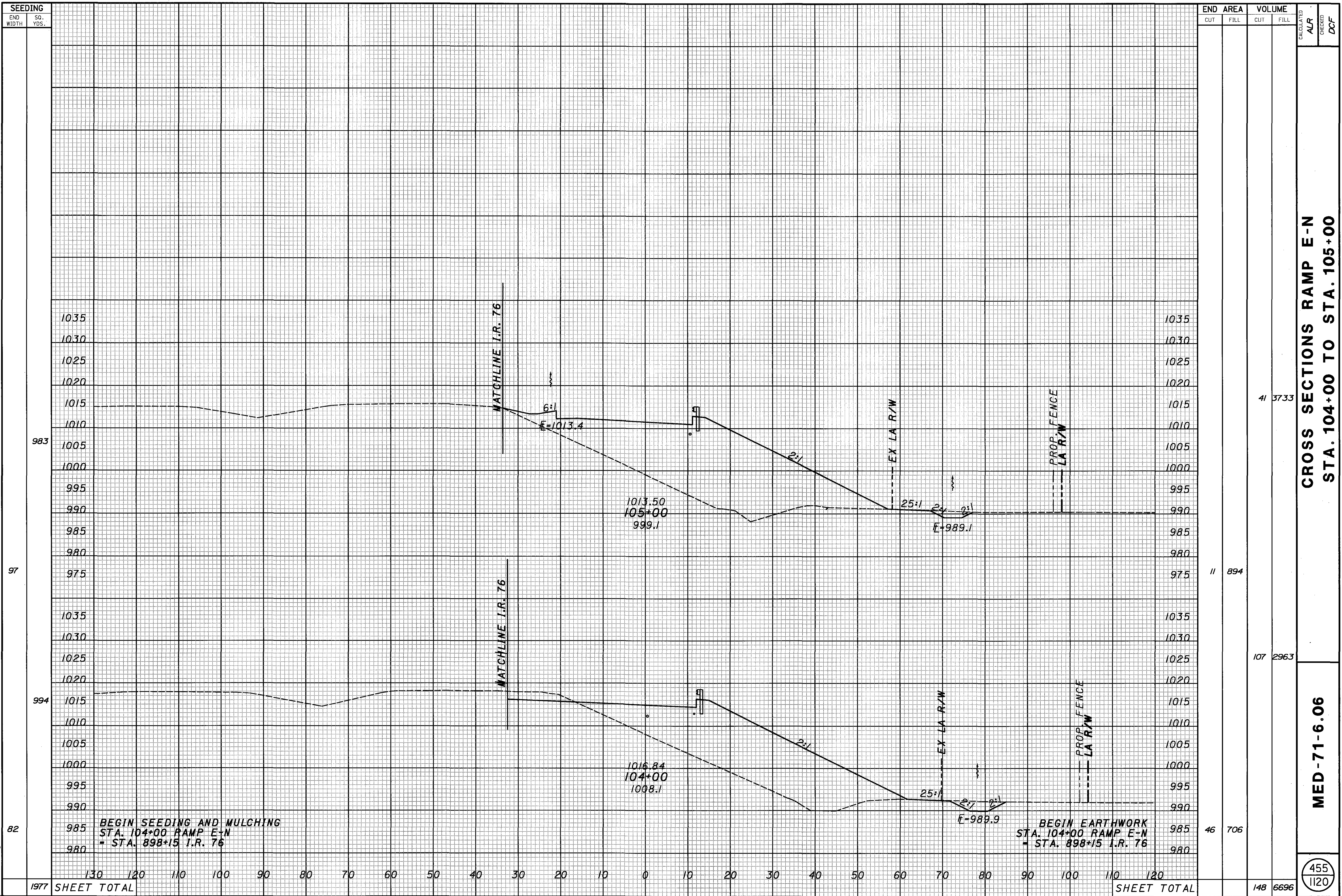
MED-71-6.06

453
120

...xs_nenw.dgn

5288 SHEET TOTAL

SHEET TOTAL



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

1035
1030
1025
1020
1015
1010
1005
1000
995
990
985
980
975
970
965
960
955
950
945
940
935
930
925
920
915
910
905
900
895
890
885
880
875
870
865
860
855
850
845
840
835
830
825
820
815
810
805
800
795
790
785
780
775
770
765
760
755
750
745
740
735
730
725
720
715
710
705
700
695
690
685
680
675
670
665
660
655
650
645
640
635
630
625
620
615
610
605
600
595
590
585
580
575
570
565
560
555
550
545
540
535
530
525
520
515
510
505
500
495
490
485
480
475
470
465
460
455
450
445
440
435
430
425
420
415
410
405
400
395
390
385
380
375
370
365
360
355
350
345
340
335
330
325
320
315
310
305
300
295
290
285
280
275
270
265
260
255
250
245
240
235
230
225
220
215
210
205
200
195
190
185
180
175
170
165
160
155
150
145
140
135
130
120
110
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120

END AREA	VOLUME
CUT	FILL
41	3733
11	894
107	2963
46	706
148	6696

CROSS SECTIONS RAMP E-N
STA. 104+00 TO STA. 105+00

MED-71-6.06

455
1120

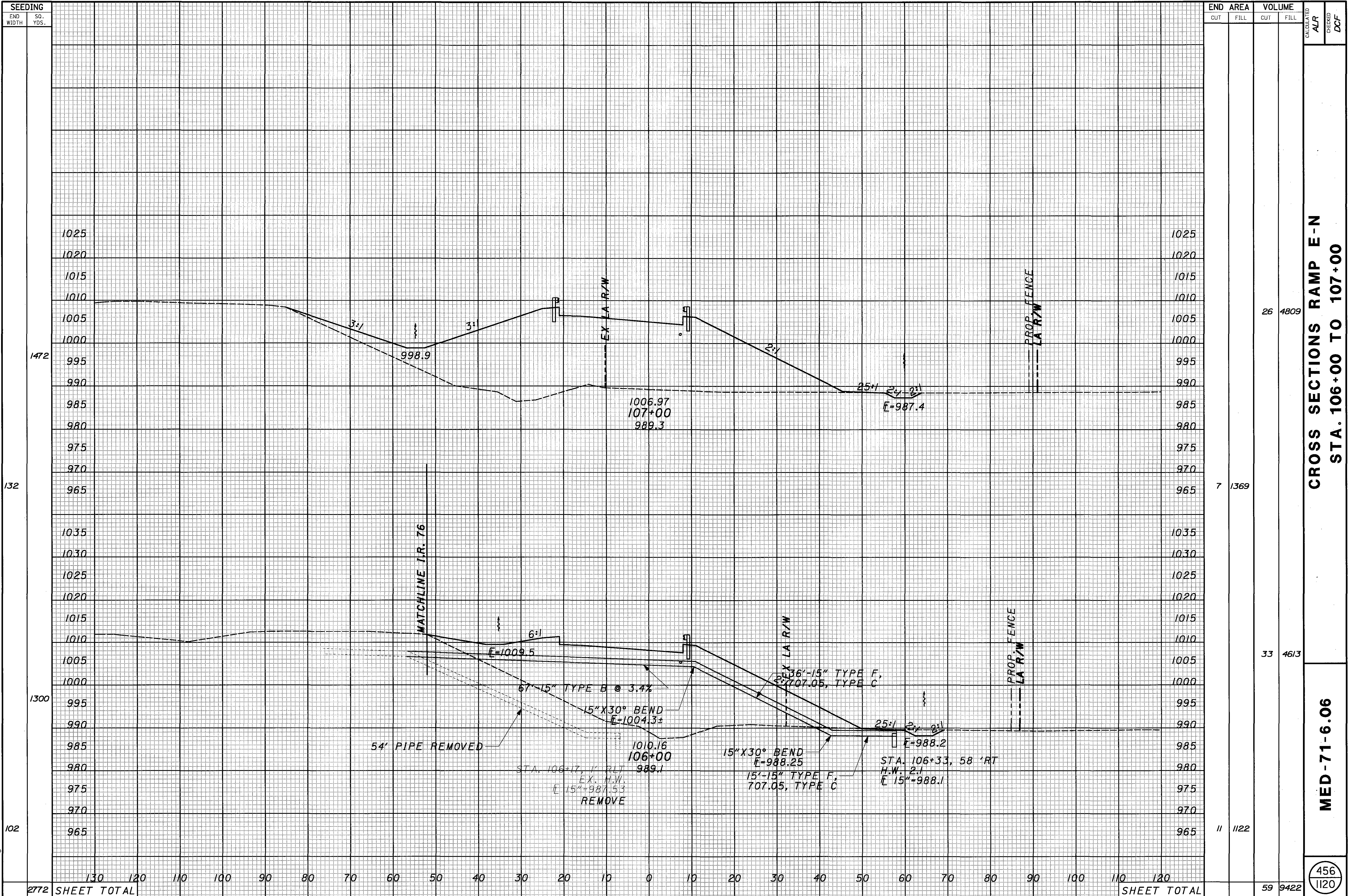
BEGIN SEEDING AND MULCHING
STA. 104+00 RAMP E-N
= STA. 898+15 I.R. 76

BEGIN EARTHWORK
STA. 104+00 RAMP E-N
= STA. 898+15 I.R. 76

1977 SHEET TOTAL

SHEET TOTAL

1977



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

1472

132

1300

102

26 4809

7 1369

33 4613

11 1122

CROSS SECTIONS RAMP E-N
STA. 106+00 TO 107+00

MED-71-6.06

456
1120

2772 SHEET TOTAL

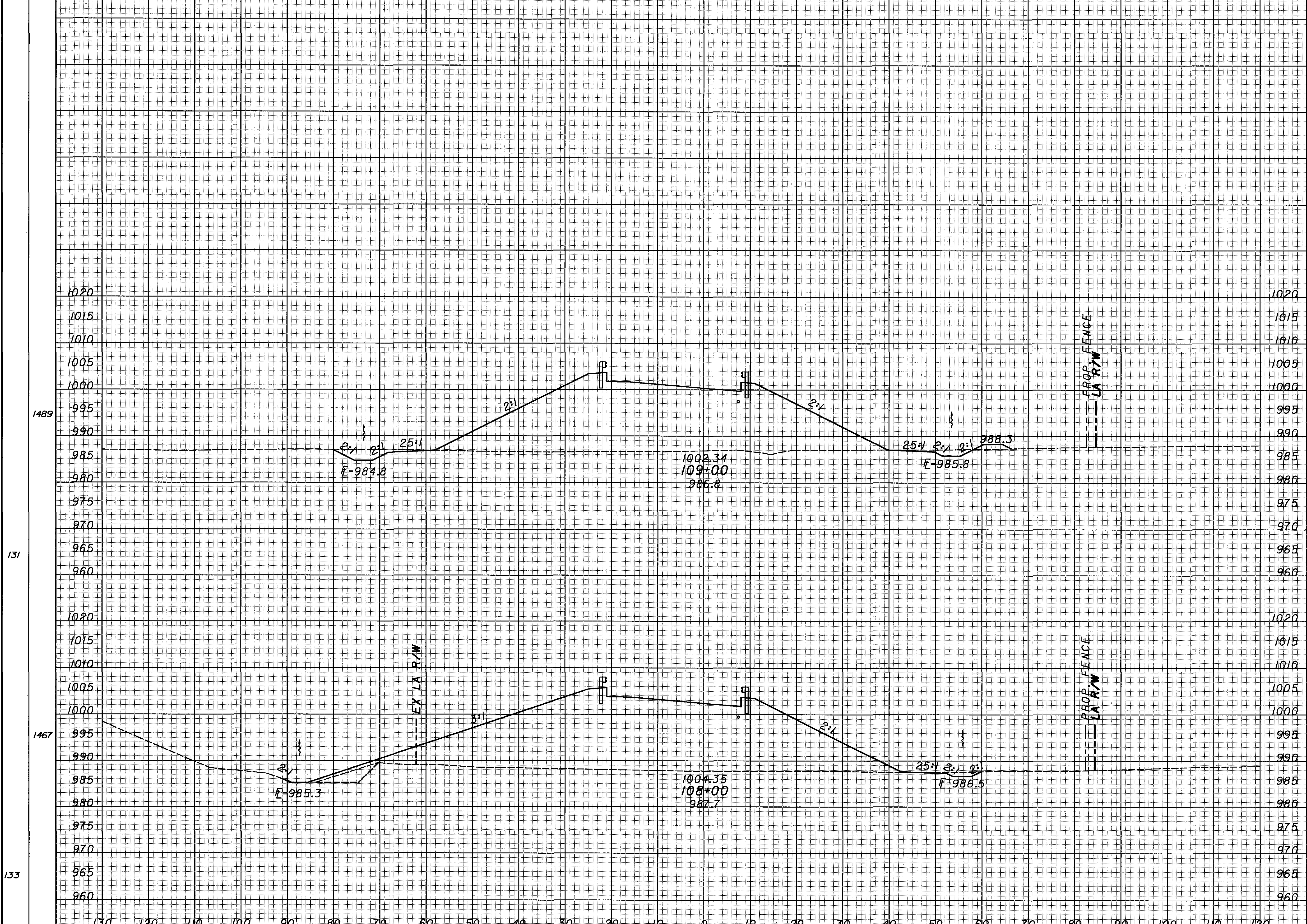
SHEET TOTAL

59 9422

...xs.en.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
108+00	106	3680		
109+00	11	1015		
108+00	32	4154		
109+00	7	1228		
TOTAL	138	7834		

CROSS SECTIONS RAMP E-N
STA. 108+00 TO STA. 109+00

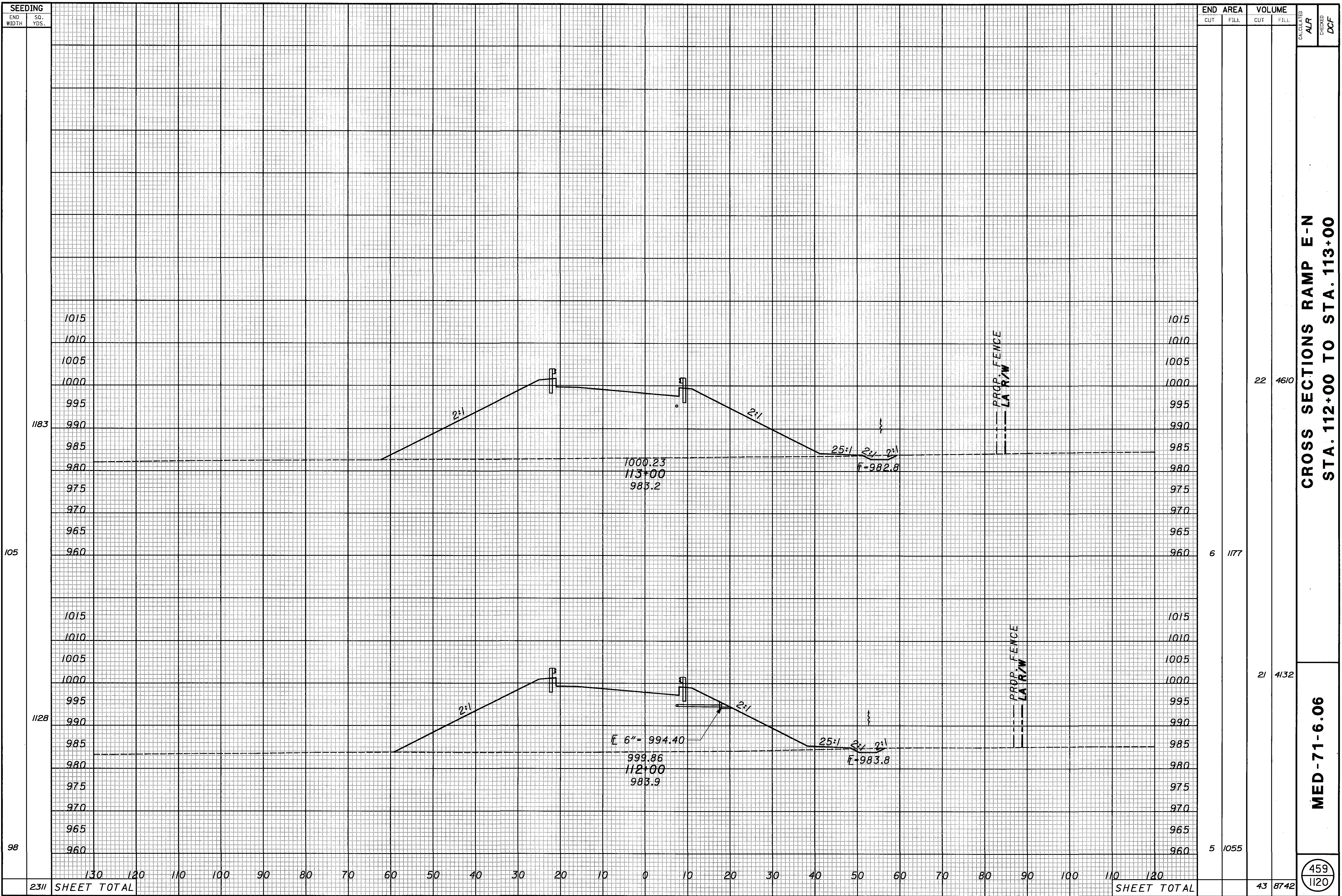
MED-71-6.06

457
1120

2956 SHEET TOTAL

SHEET TOTAL

... \xs=en.dgn



SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF

1183

105

1128

98

22 4610

6 1177

21 4132

5 1055

CROSS SECTIONS RAMP E-N
STA. 112+00 TO STA. 113+00

MED-71-6.06

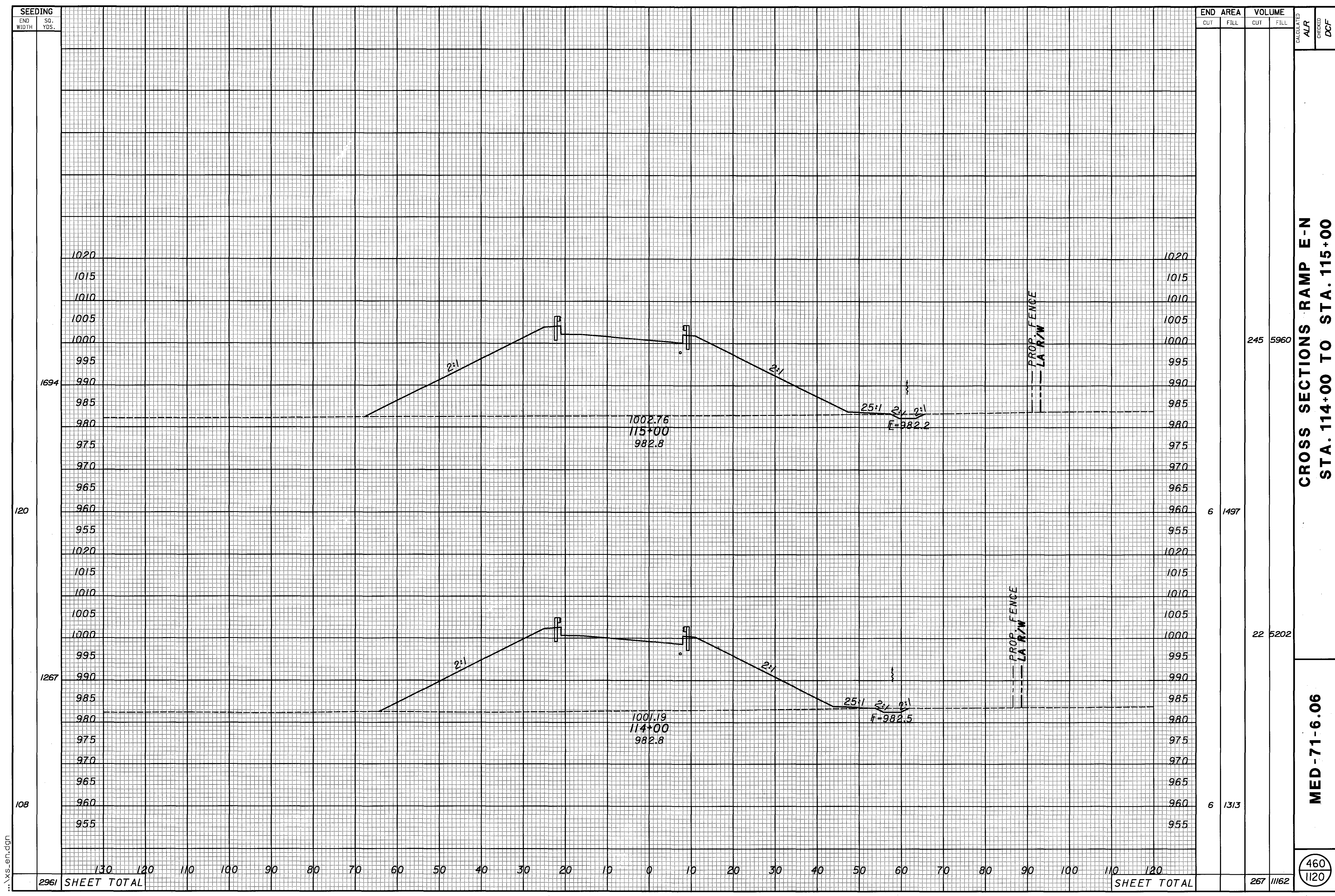
459
1120

2311 SHEET TOTAL

SHEET TOTAL

43 8742

... \xs.en.dgn



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR
CHECKED DCF

1694

120

1267

108

1020
1015
1010
1005
1000
995
990
985
980
975
970
965
960
955
1020
1015
1010
1005
1000
995
990
985
980
975
970
965
960
955

1020
1015
1010
1005
1000
995
990
985
980
975
970
965
960
955
1020
1015
1010
1005
1000
995
990
985
980
975
970
965
960
955

245 5960
6 1497
22 5202
6 1313

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
2961 SHEET TOTAL SHEET TOTAL 267 11162

CROSS SECTIONS RAMP E-N
STA. 114+00 TO STA. 115+00

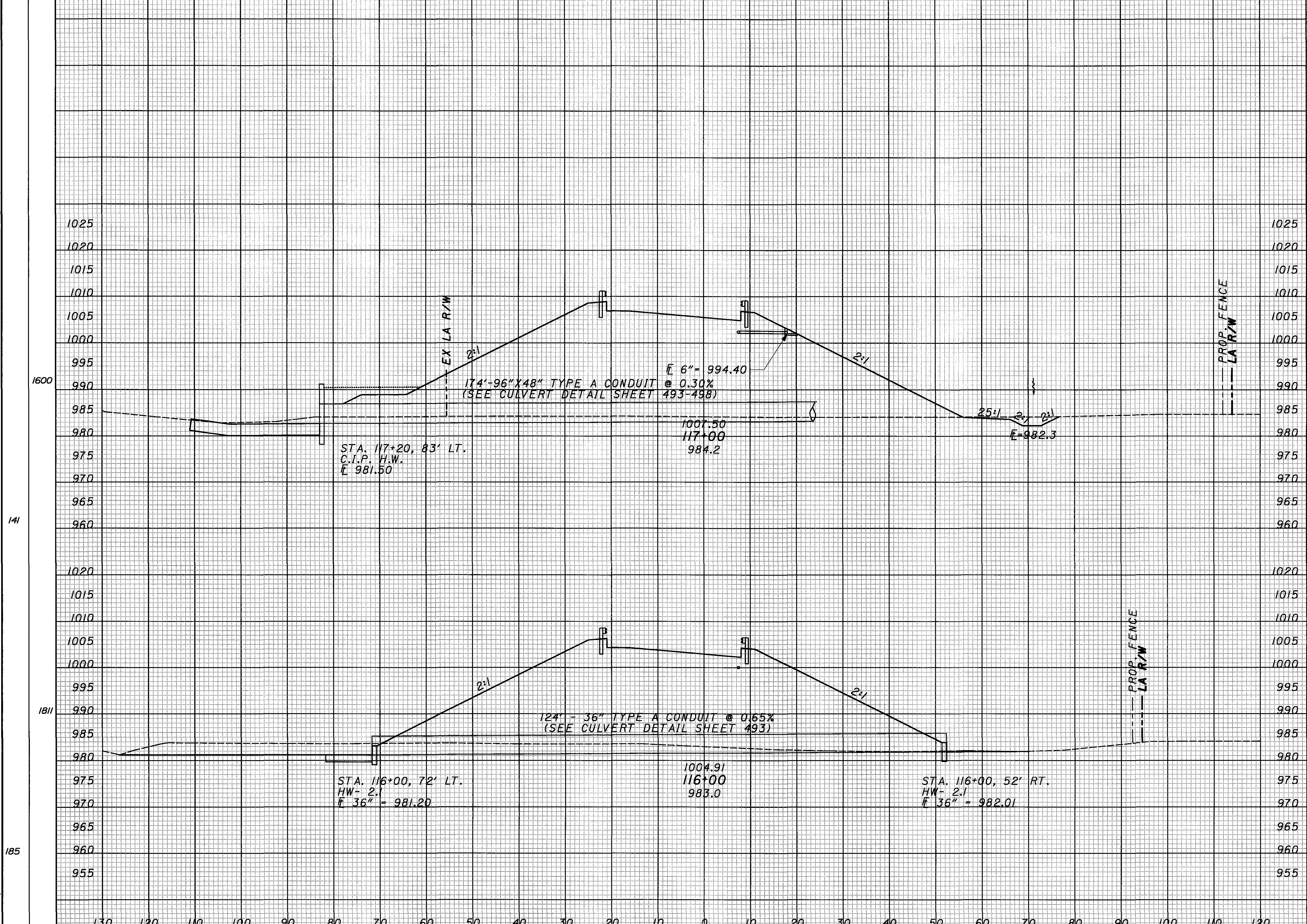
MED-71-6.06

460
1120

...Xs.en.dgn

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED ALR CHECKED DCF



58 7579

18 1940

266 6780

126 1722

CROSS SECTIONS RAMP E-N
STA. 116+00 TO STA. 117+00

MED - 71 - 6.06

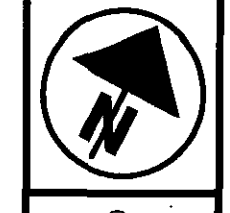
461
1120

3411 SHEET TOTAL

SHEET TOTAL

324 14359

... \xs.en.dgn

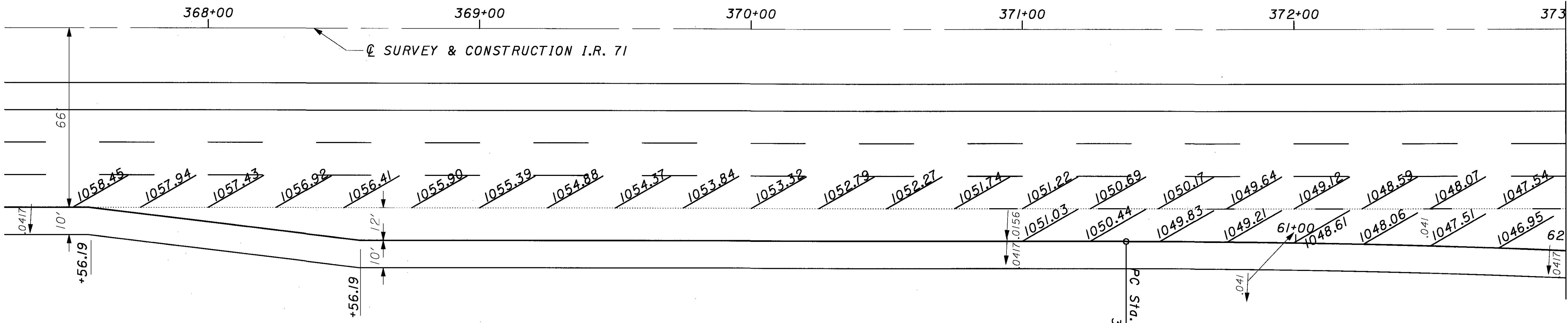


CALCULATED
KEH
CHECKED
ENF

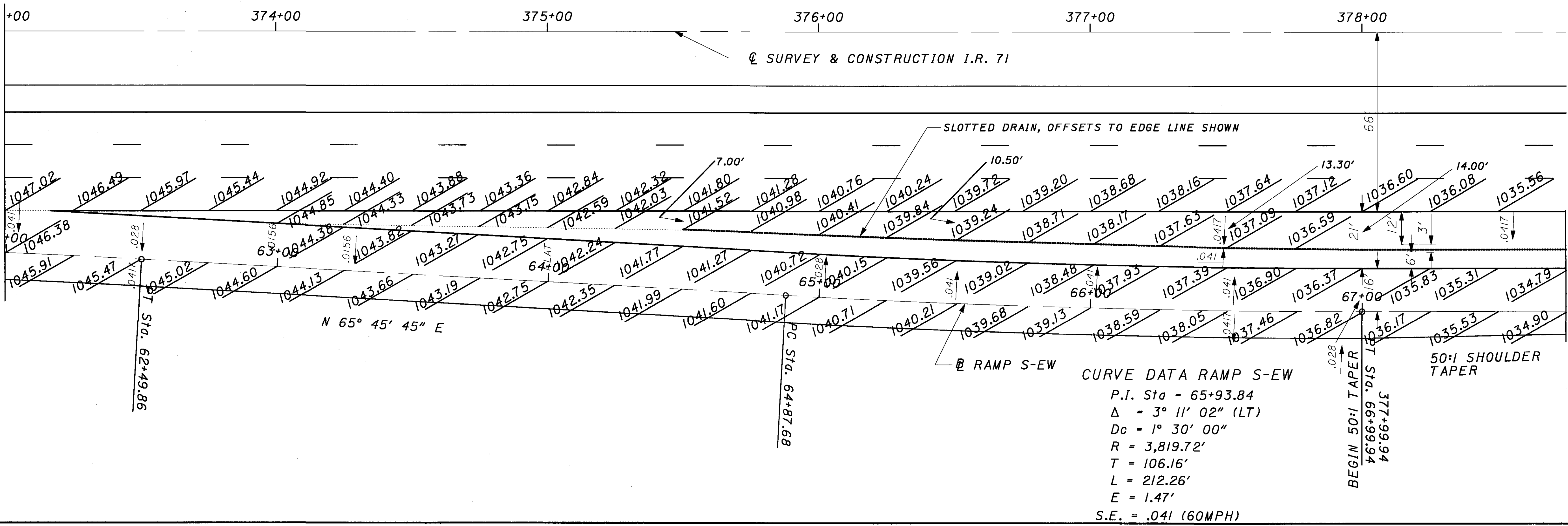
IR 71 / IR 76 INTERCHANGE
RAMP S-EW PAVEMENT DETAIL

MED 71-6.06

465
1120



CURVE DATA RAMP S-EW
 P.I. Sta = 61+43.76
 $\Delta = 3^\circ 11' 02''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 106.15'$
 $L = 212.26'$
 $E = 1.47'$
 S.E. = .041 (60MPH)

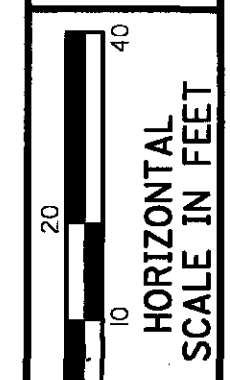
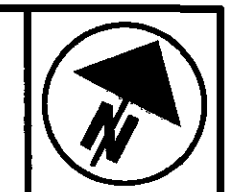


CURVE DATA RAMP S-EW
 P.I. Sta = 65+93.84
 $\Delta = 3^\circ 11' 02''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 106.16'$
 $L = 212.26'$
 $E = 1.47'$
 S.E. = .041 (60MPH)

MATCHLINE SEE ABOVE

MATCHLINE SEE SHEET 466

... \75657GAA.dgn

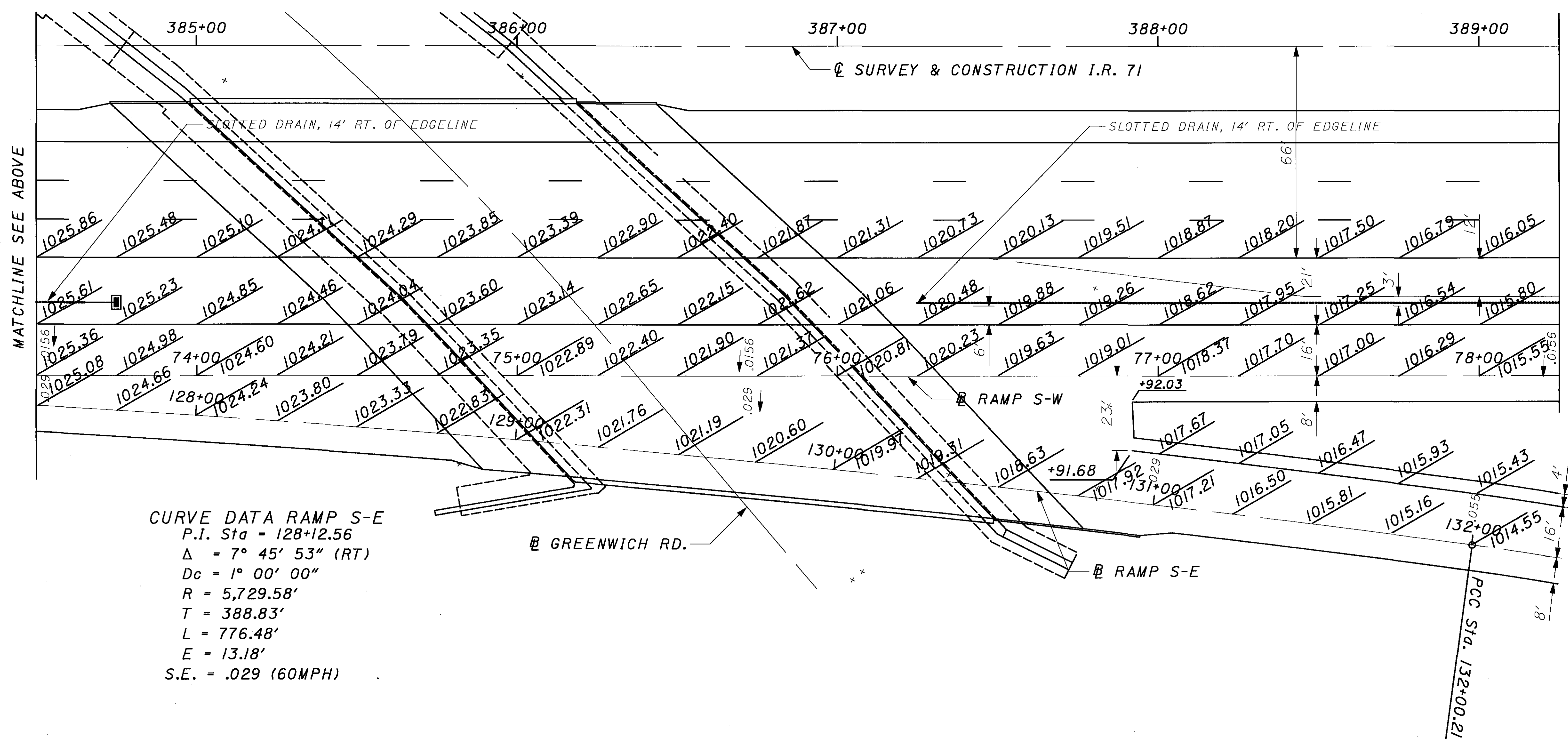
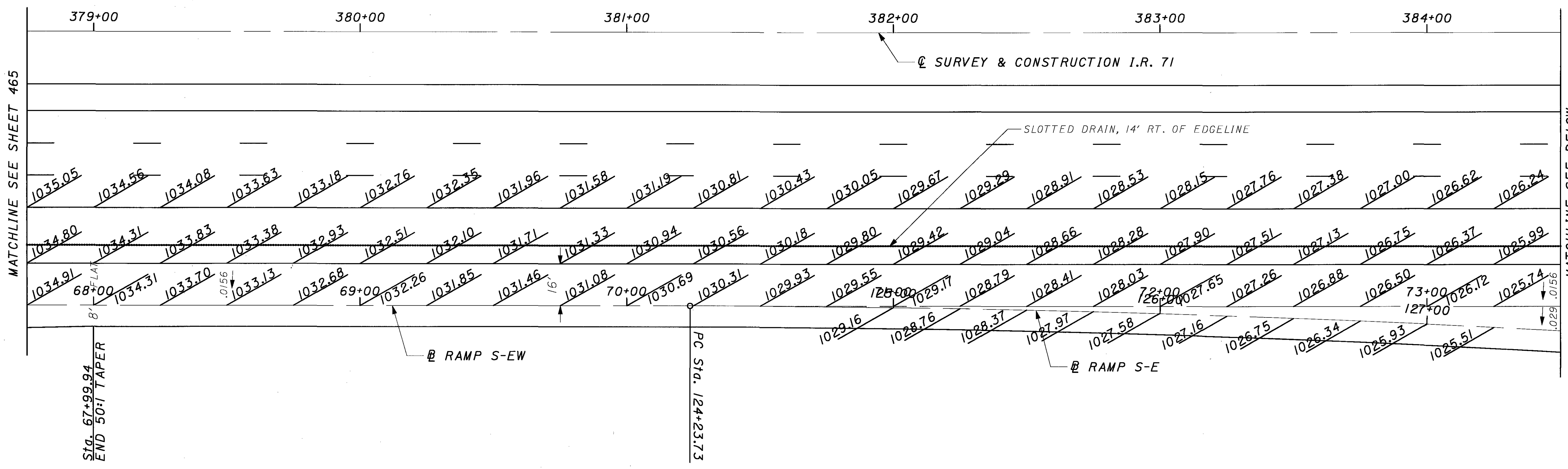


CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE RAMP S-E, S-W & S-EW PAVEMENT DETAIL

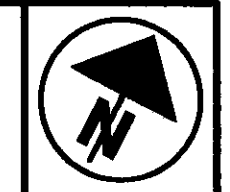
MED 71-6.06

466
1120



CURVE DATA RAMP S-E
 P.I. Sta = 128+12.56
 $\Delta = 7^\circ 45' 53''$ (RT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 388.83'$
 $L = 776.48'$
 $E = 13.18'$
 $S.E. = .029$ (60MPH)

...75657GAB.dgn



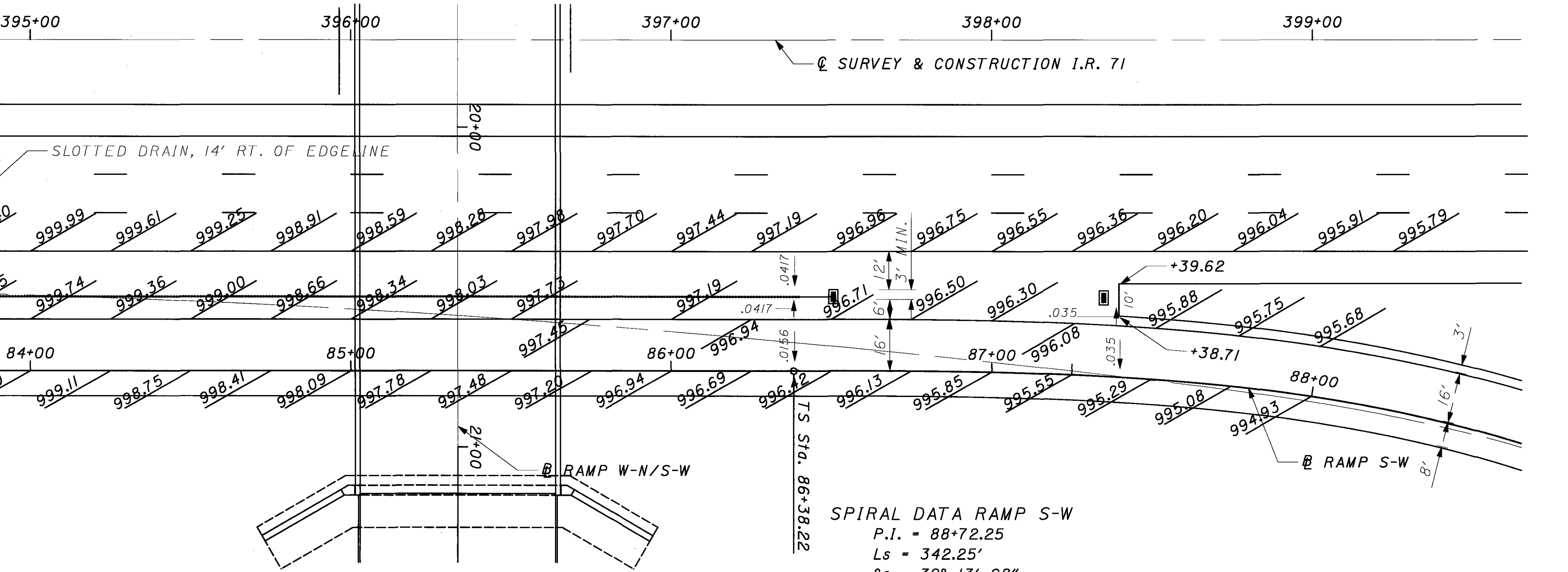
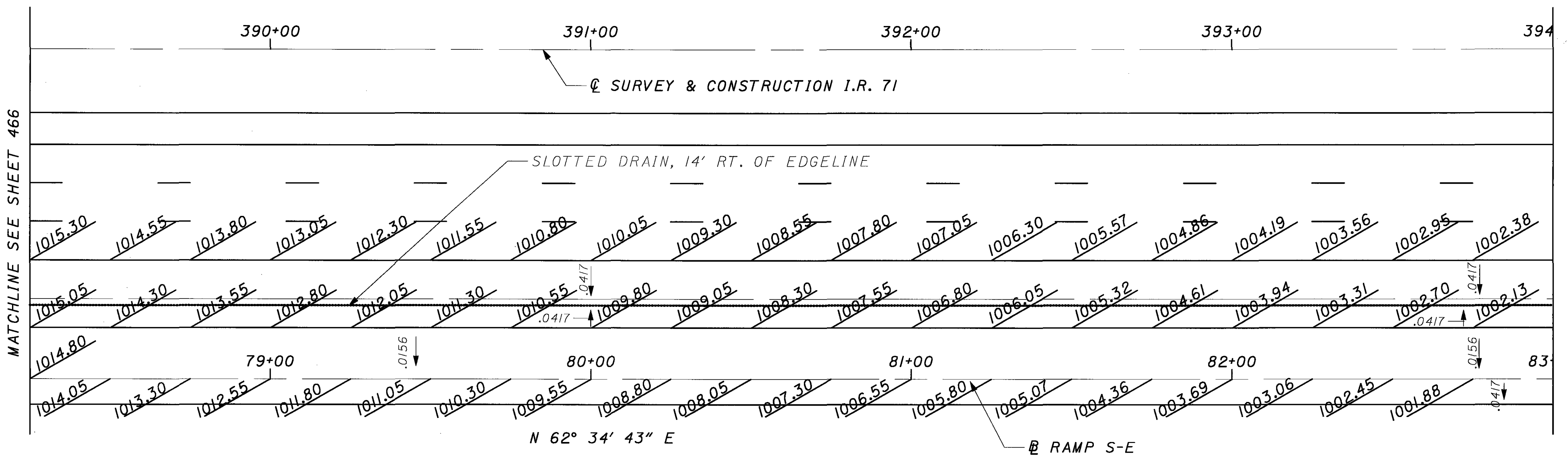
0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP S-W PAVEMENT DETAIL

MED 71-6.06

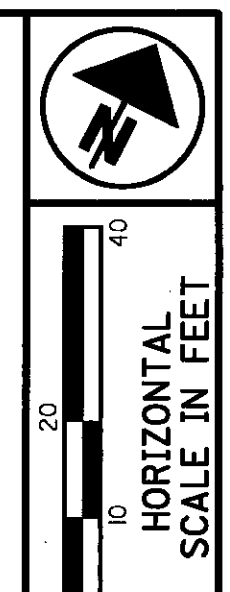
467
1120



MATCHLINE SEE ABOVE

MATCHLINE SEE SHEET 466

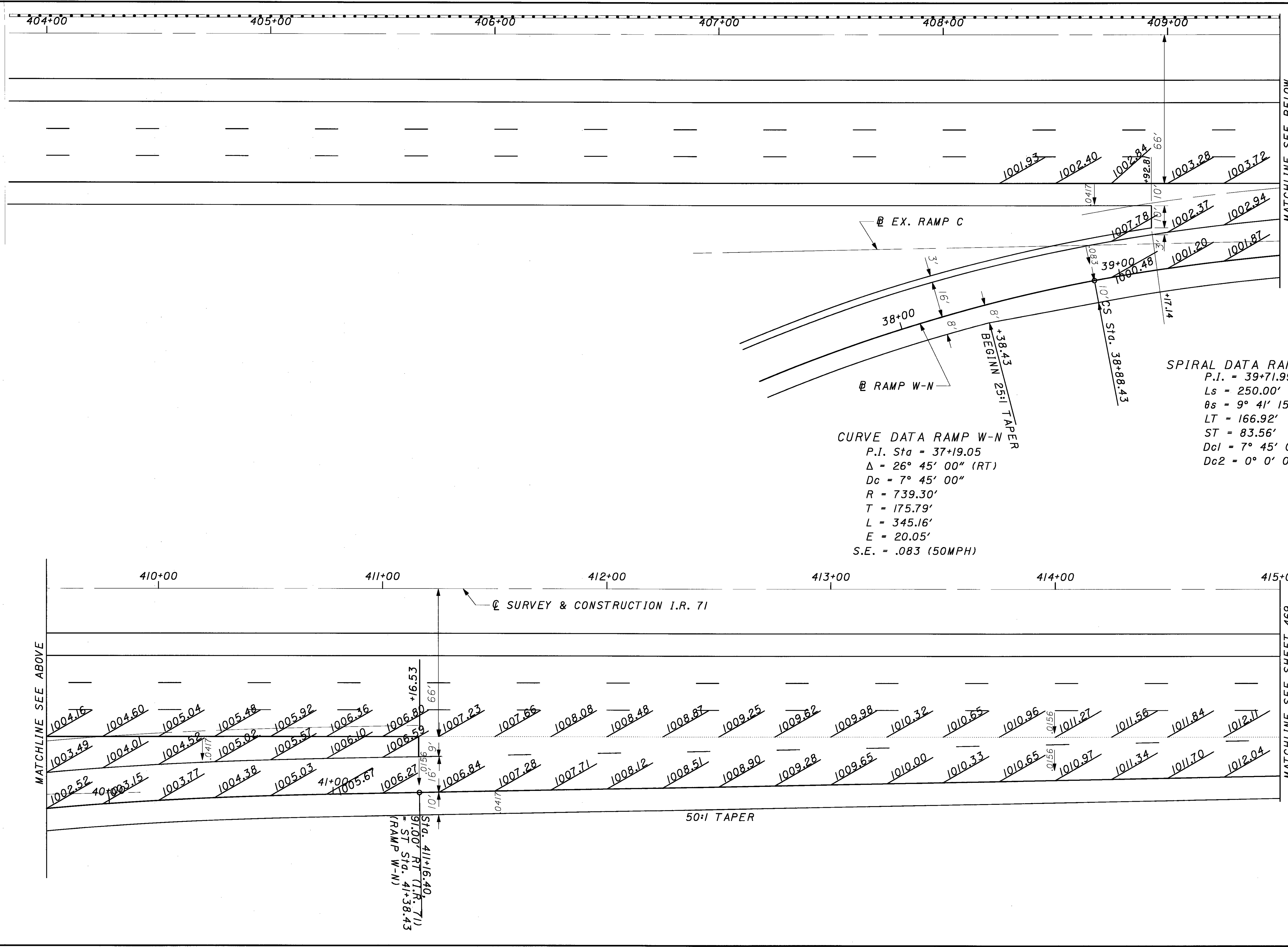
MATCHLINE SEE BELOW



CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP W-N PAVEMENT DETAIL

MED 71-6.06



MATCHLINE SEE BELOW

MATCHLINE SEE SHEET 469

SPIRAL DATA RAMP W-N
 P.I. = 39+71.99
 Ls = 250.00'
 θs = 9° 41' 15"
 LT = 166.92'
 ST = 83.56'
 Dc1 = 7° 45' 00"
 Dc2 = 0° 0' 0"

CURVE DATA RAMP W-N
 P.I. Sta = 37+19.05
 Δ = 26° 45' 00" (RT)
 Dc = 7° 45' 00"
 R = 739.30'
 T = 175.79'
 L = 345.16'
 E = 20.05'
 S.E. = .083 (50MPH)

Sta. 41+16.40
 RT (I.R. 71)
 ST Sta. 41+38.43
 (RAMP W-N)



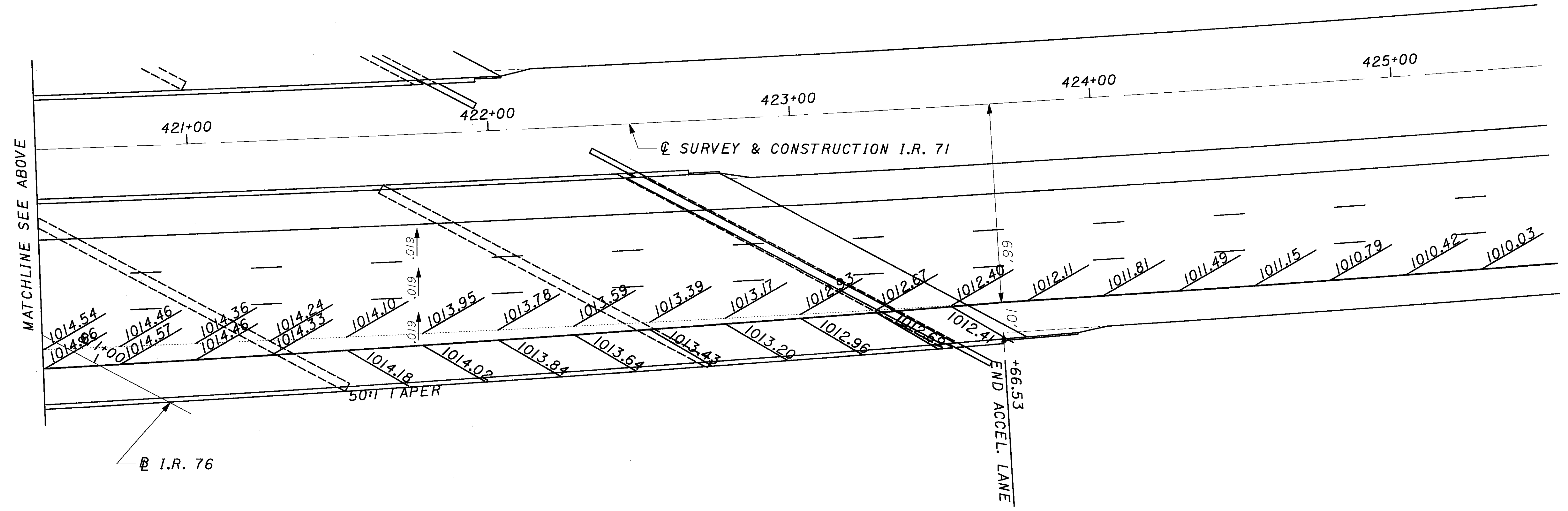
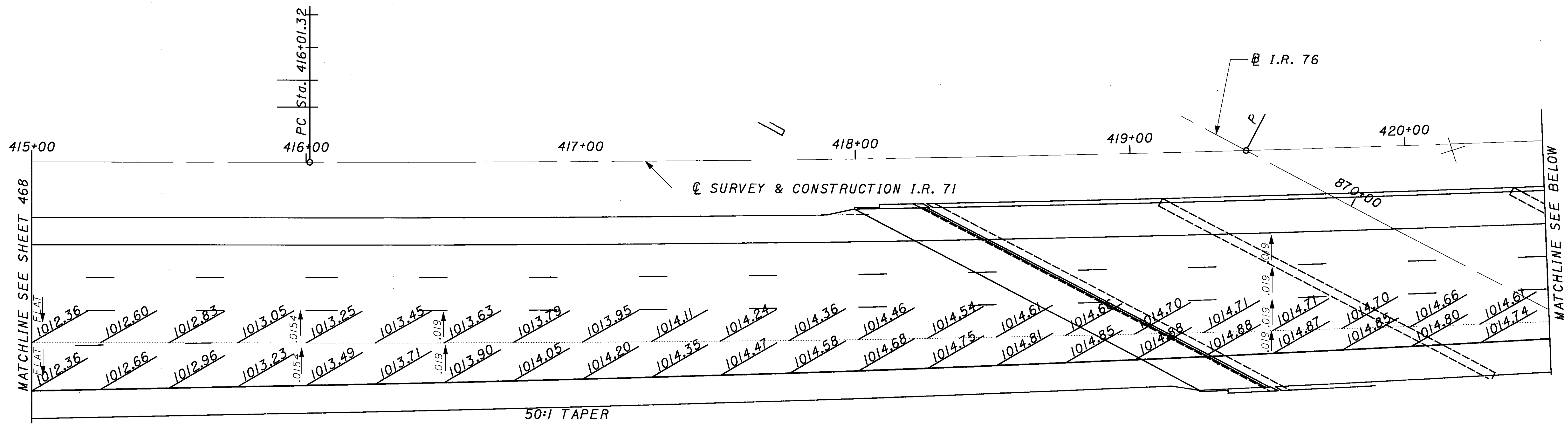
0 10 20
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

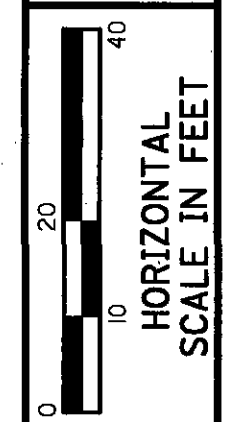
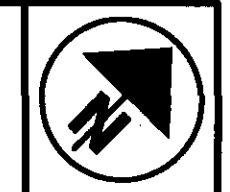
IR 71 / IR 76 INTERCHANGE
RAMP W-N PAVEMENT DETAIL

MED 71-6.06

469
1120



...75657GAC.dgn

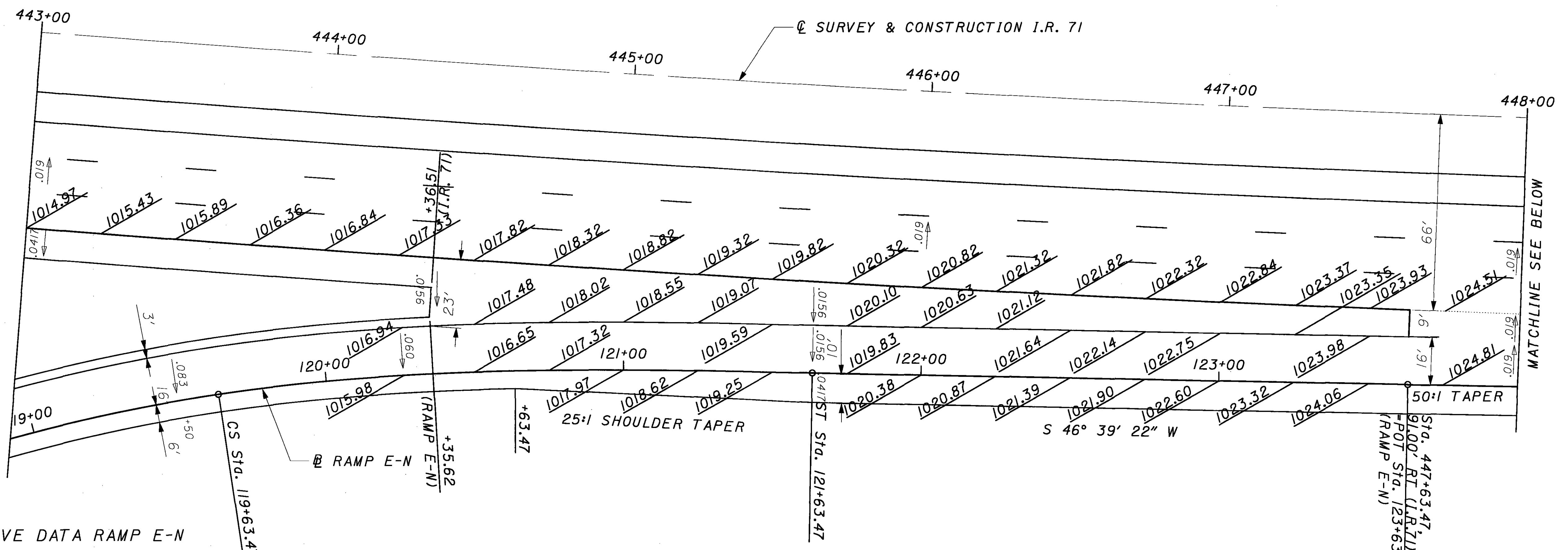


CALCULATED
CHECKED

**IR 71 / IR 76 INTERCHANGE
RAMP E-N PAVEMENT DETAIL**

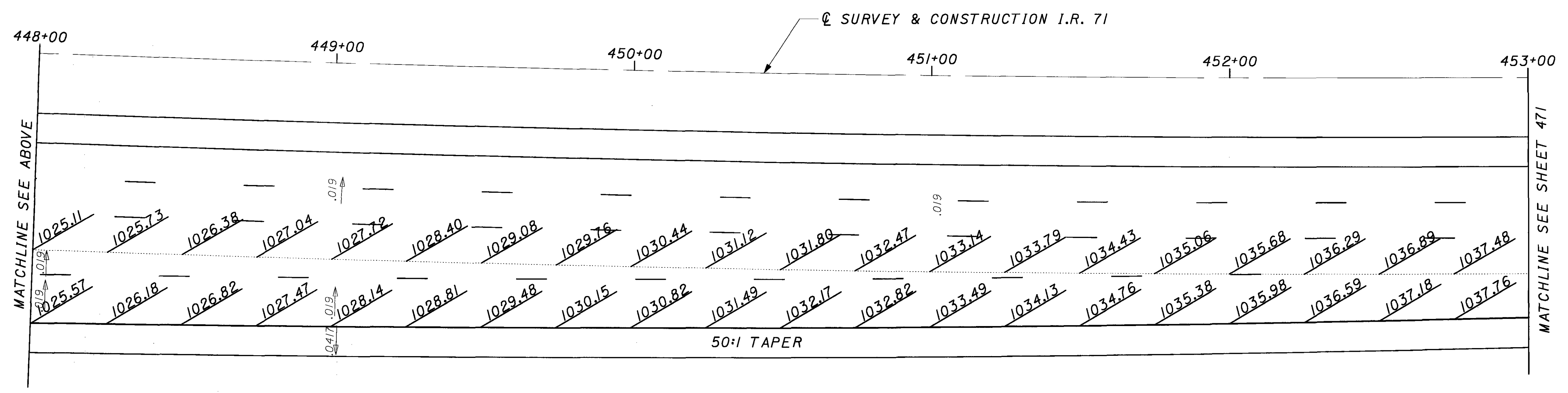
MED 71-6.06

470
1120

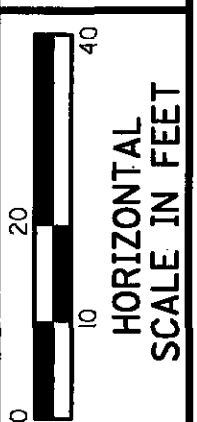


CURVE DATA RAMP E-N
 P.I. Sta = 118+42.48
 $\Delta = 127^\circ 11' 18''$ (RT)
 $D_c = 9^\circ 45' 00''$
 $R = 587.65'$
 $T = 1,183.51'$
 $L = 1,304.49'$
 $E = 733.72'$
 $S.E. = .083$ (45MPH)

SPIRAL DATA RAMP E-N
 P.I. = 120+30.32
 $L_s = 200.00'$
 $\theta_s = 9^\circ 45' 00''$
 $LT = 133.54'$
 $ST = 66.85'$



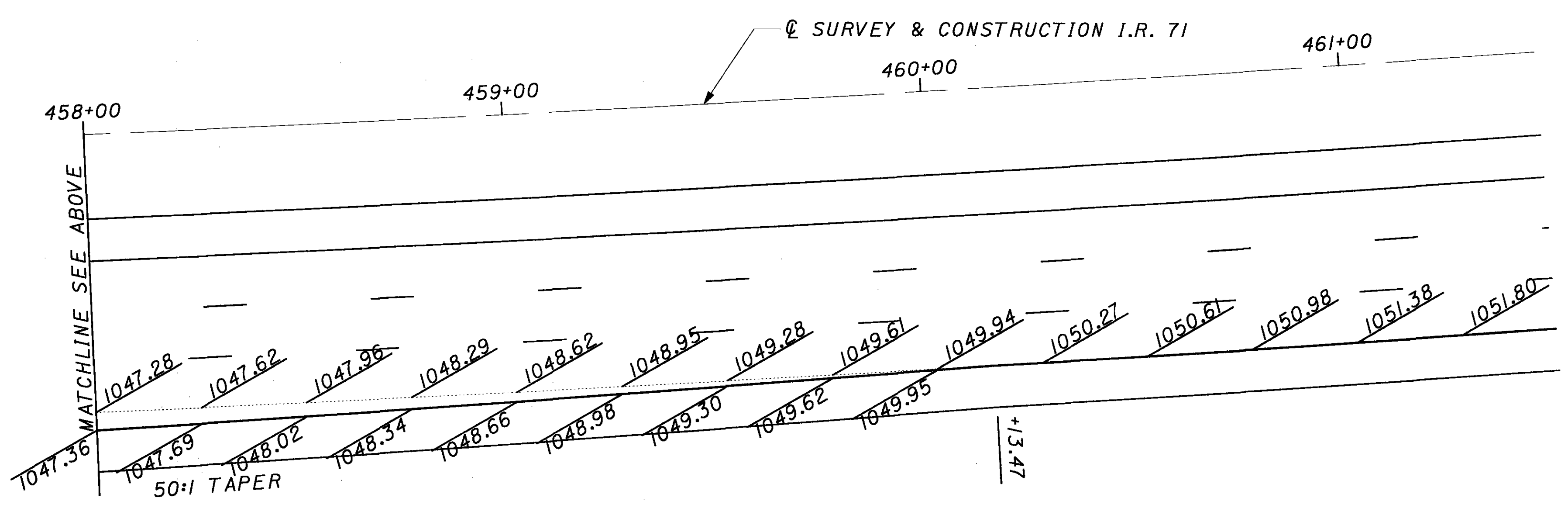
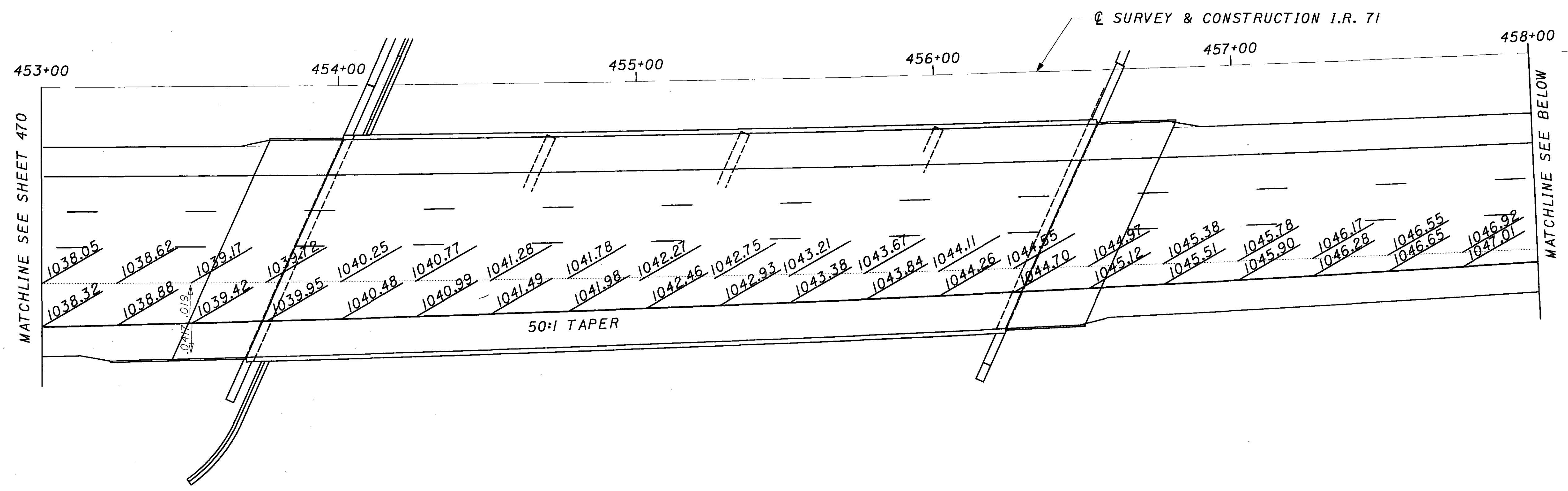
...75657CAD.dgn

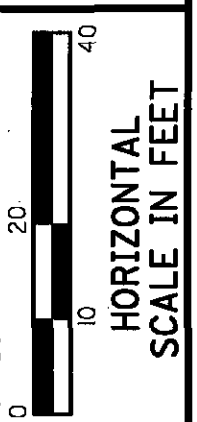
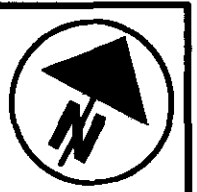
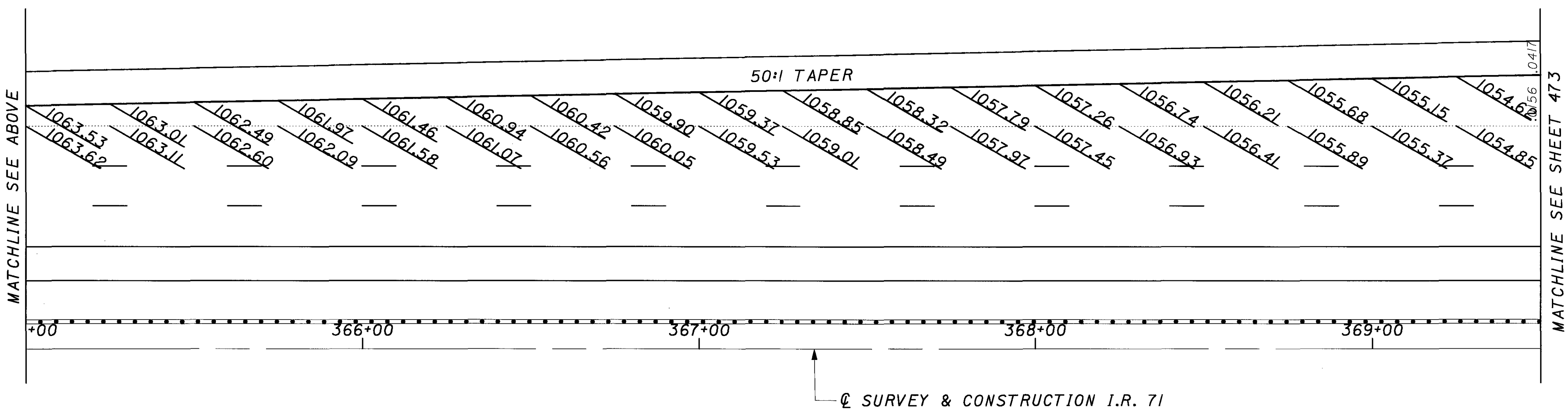
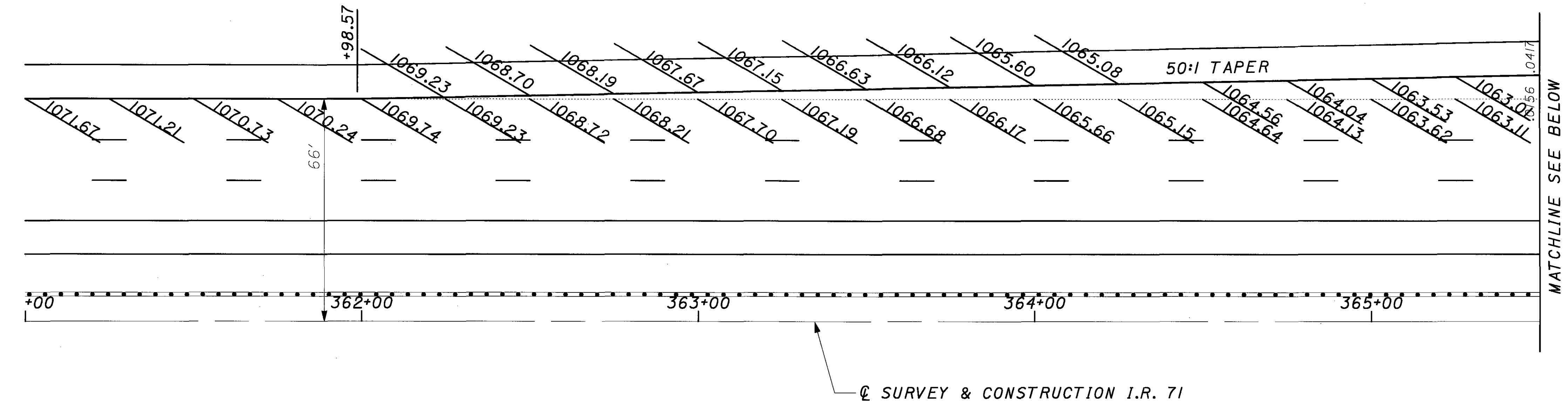


CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP E-N PAVEMENT DETAIL

MED 71-6.06

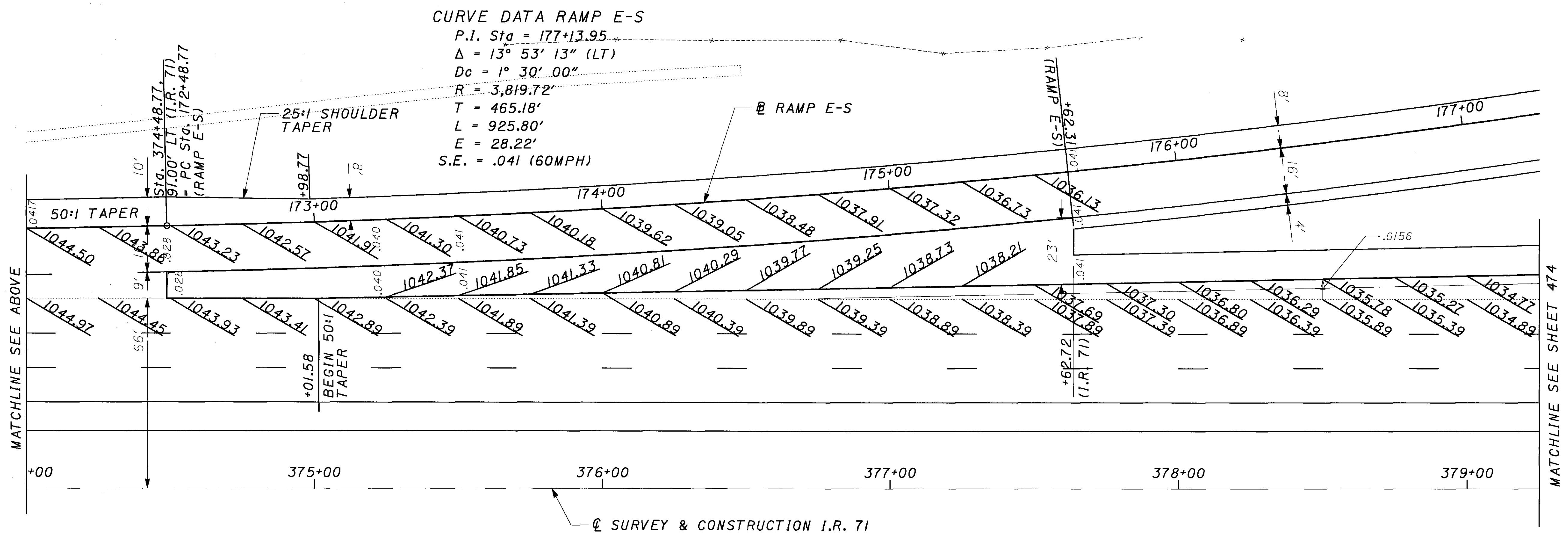
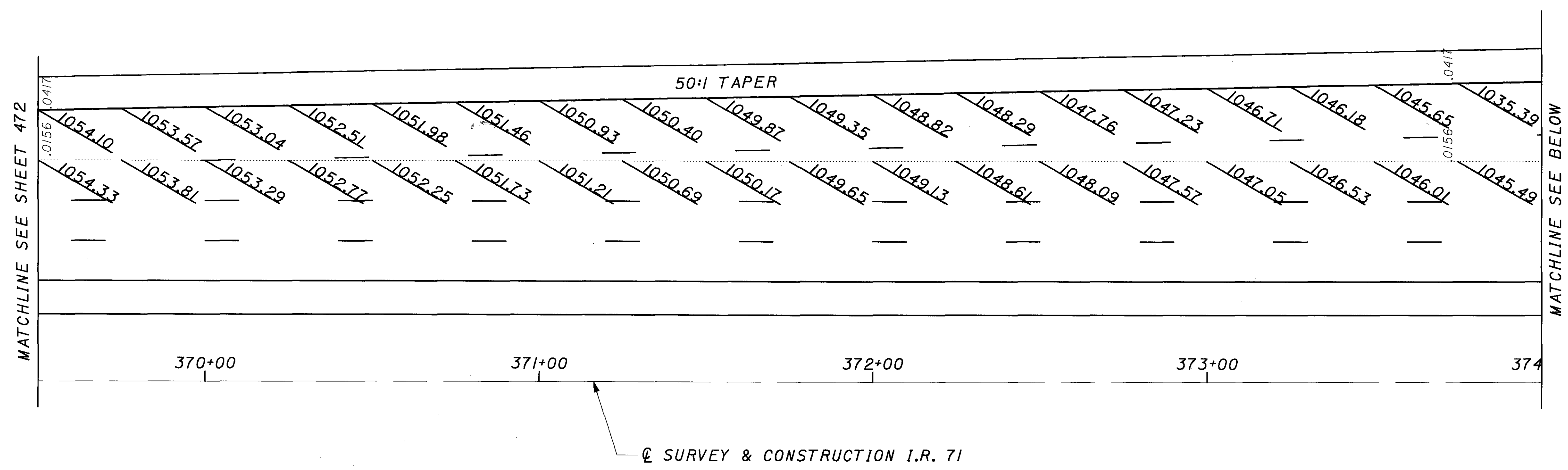
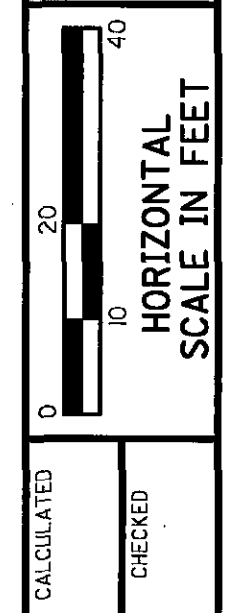
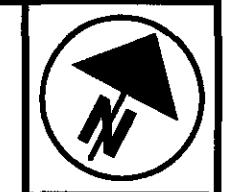




CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP E-S PAVEMENT DETAIL

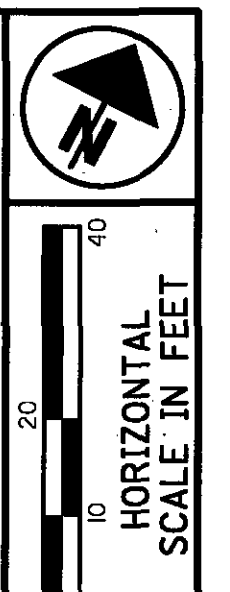
MED 71-6.06



IR 71 / IR 76 INTERCHANGE
 RAMP E-S PAVEMENT DETAIL

MED 71-6.06

...T5657GAH.dgn

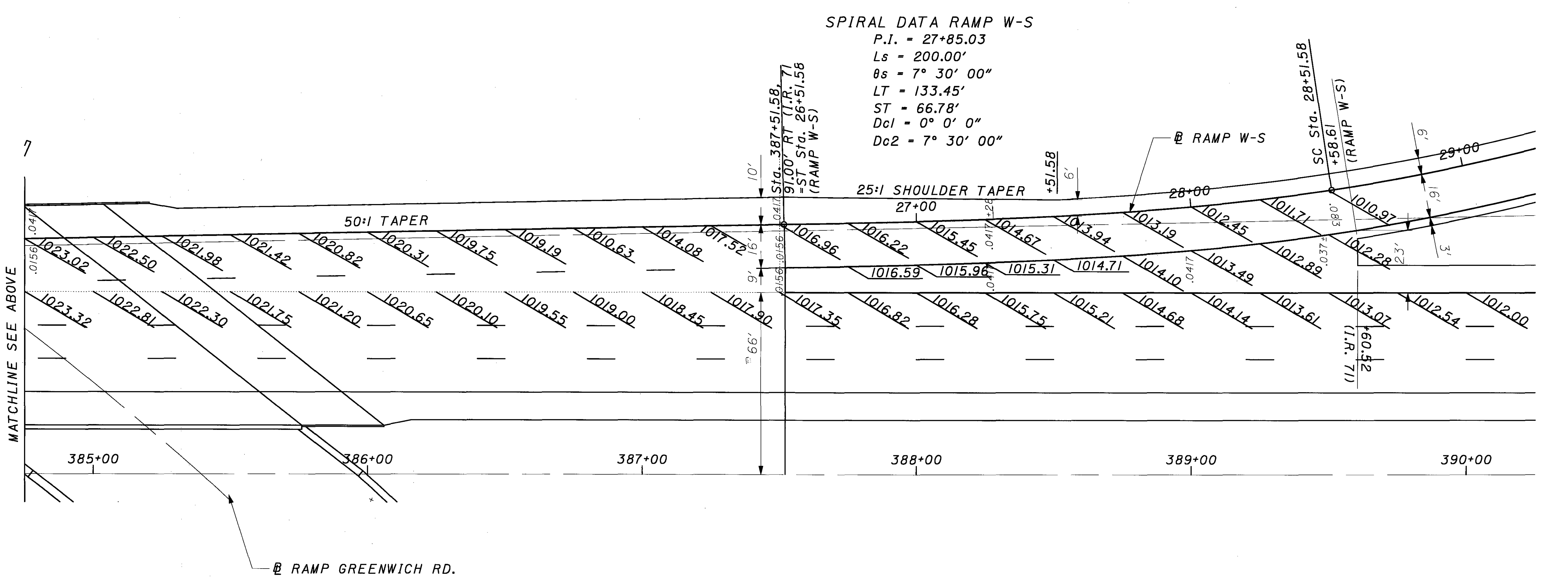
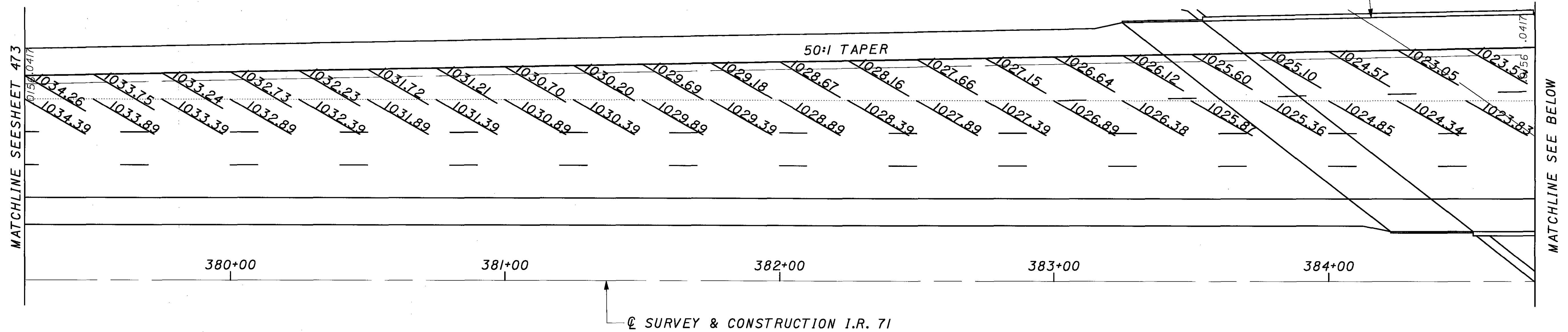


CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP W-S PAVEMENT DETAIL

MED 71-6.06

474
1120



...715657GAG.dgn

SPIRAL DATA RAMP N-E

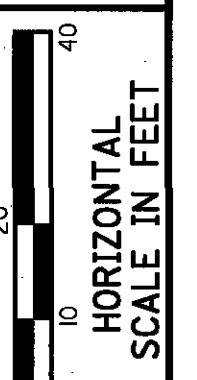
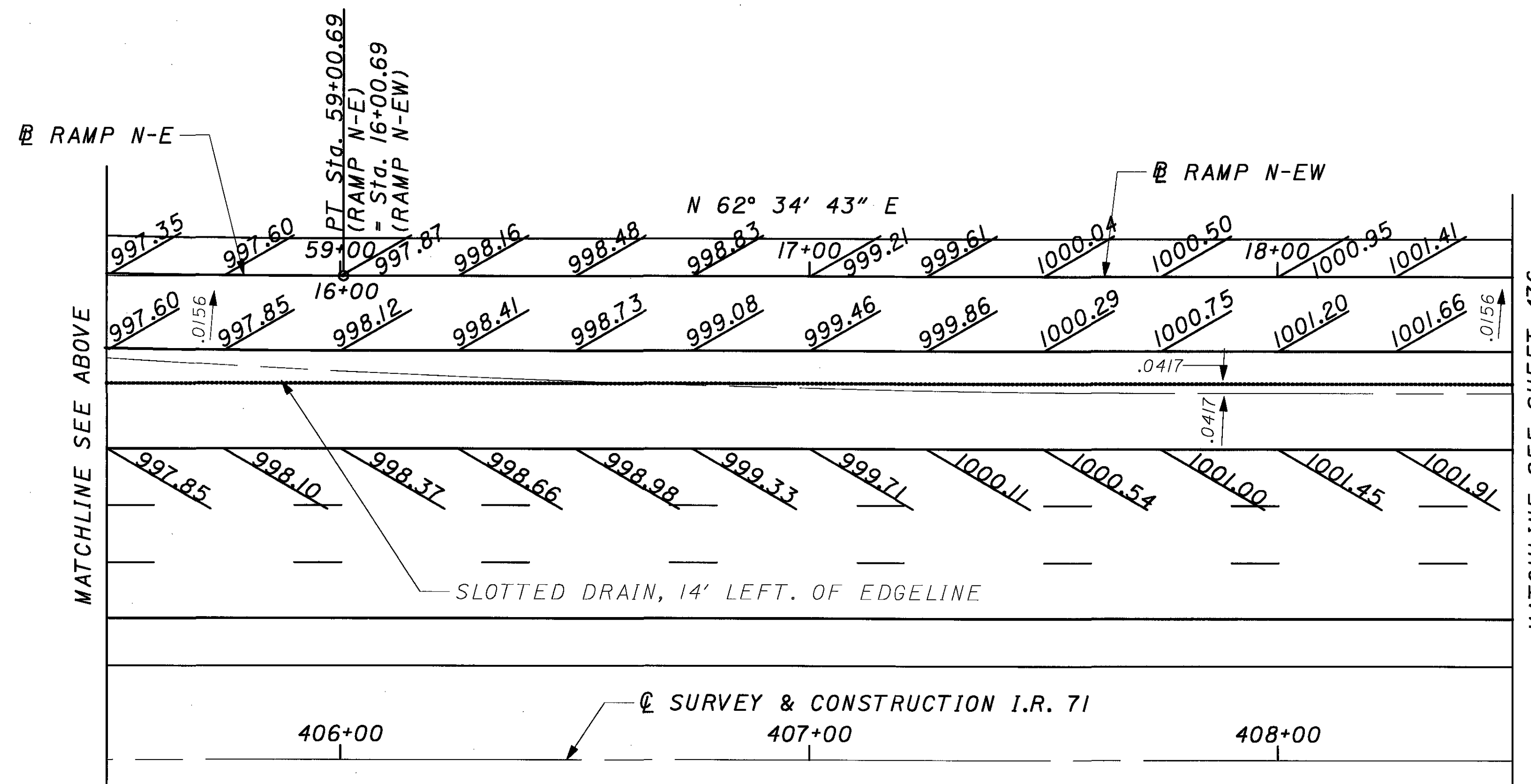
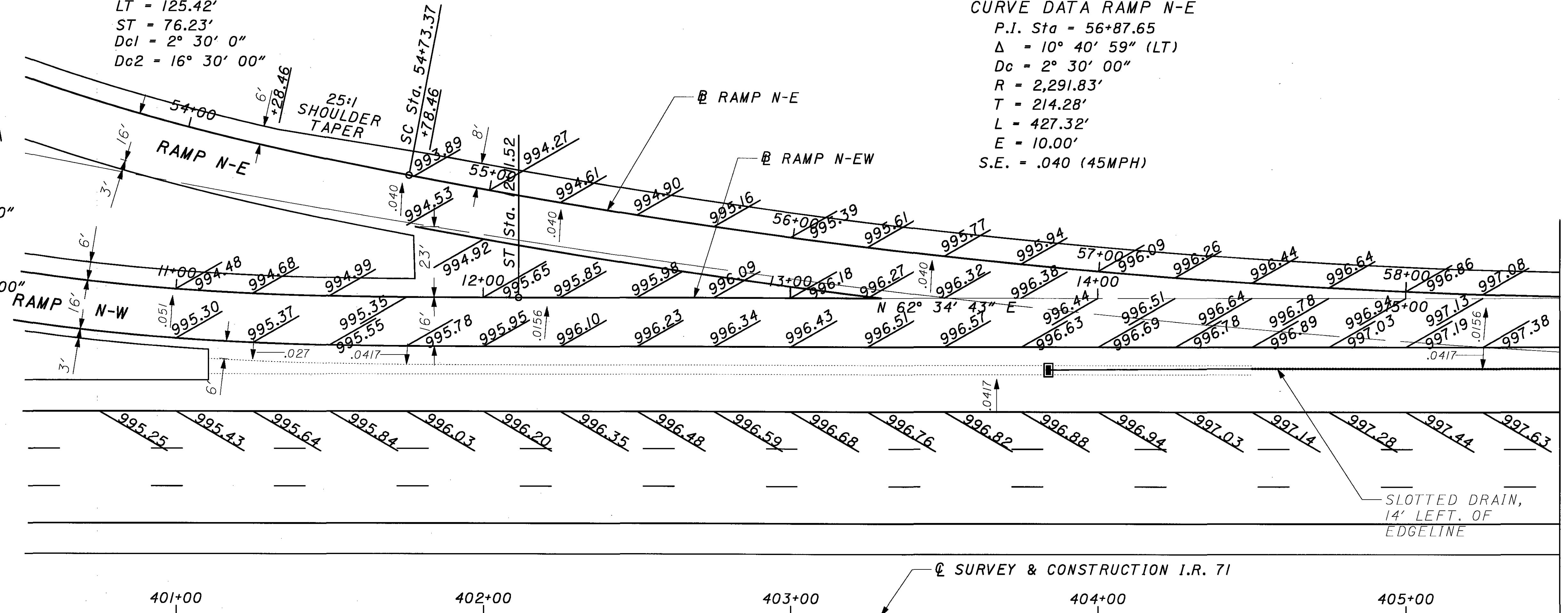
P.I. = 53+49.60
 Ls = 200.00'
 θs = 19° 00' 00"
 LT = 125.42'
 ST = 76.23'
 Dc1 = 2° 30' 00"
 Dc2 = 16° 30' 00"

CURVE DATA RAMP N-E

P.I. Sta = 56+87.65
 Δ = 10° 40' 59" (LT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 T = 214.28'
 L = 427.32'
 E = 10.00'
 S.E. = .040 (45MPH)

SPIRAL DATA RAMP N-W

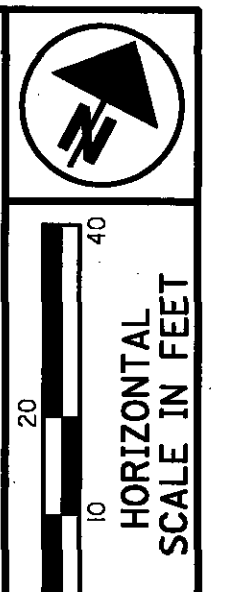
P.I. = 10+78.54
 Ls = 200.00'
 θs = 13° 30' 00"
 LT = 133.72'
 ST = 67.02'
 Dc1 = 0° 0' 00"
 Dc2 = 13° 30' 00"



CALCULATED
 CHECKED

**IR 71 / IR 76 INTERCHANGE
 RAMP N-E PAVEMENT DETAIL**

MED 71-6.06



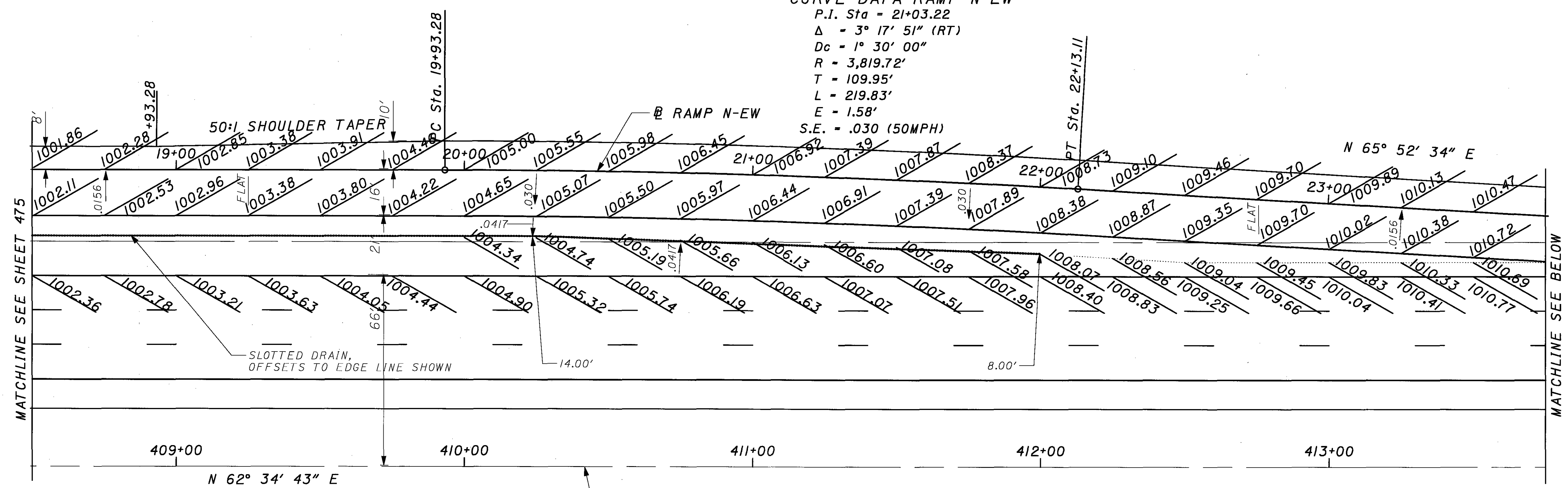
CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP N-EW PAVEMENT DETAIL

MED 71-6.06

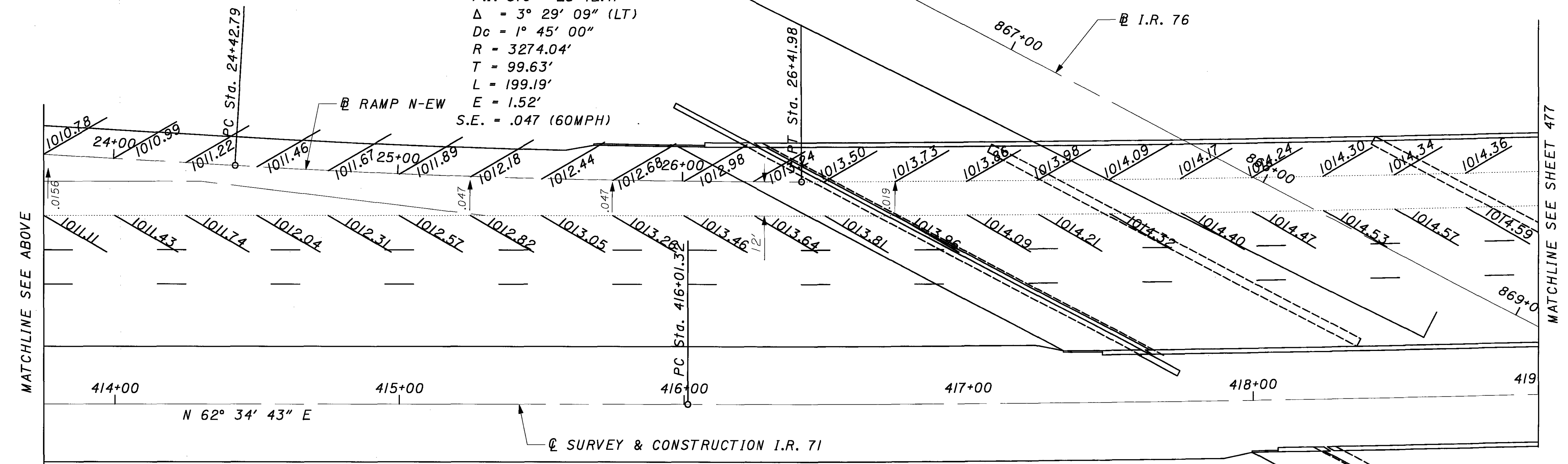
476
1120

CURVE DATA RAMP N-EW
P.I. Sta = 21+03.22
 $\Delta = 3^\circ 17' 51''$ (RT)
 $Dc = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 109.95'$
 $L = 219.83'$
 $E = 1.58'$
S.E. = .030 (50MPH)



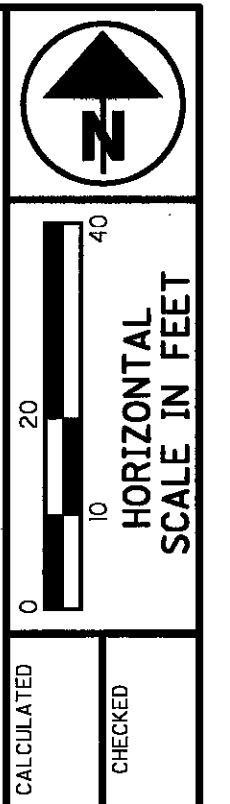
Q SURVEY & CONSTRUCTION I.R. 71

CURVE DATA RAMP N-EW
P.I. Sta = 25+42.41
 $\Delta = 3^\circ 29' 09''$ (LT)
 $Dc = 1^\circ 45' 00''$
 $R = 3274.04'$
 $T = 99.63'$
 $L = 199.19'$
 $E = 1.52'$
S.E. = .047 (60MPH)



Q SURVEY & CONSTRUCTION I.R. 71

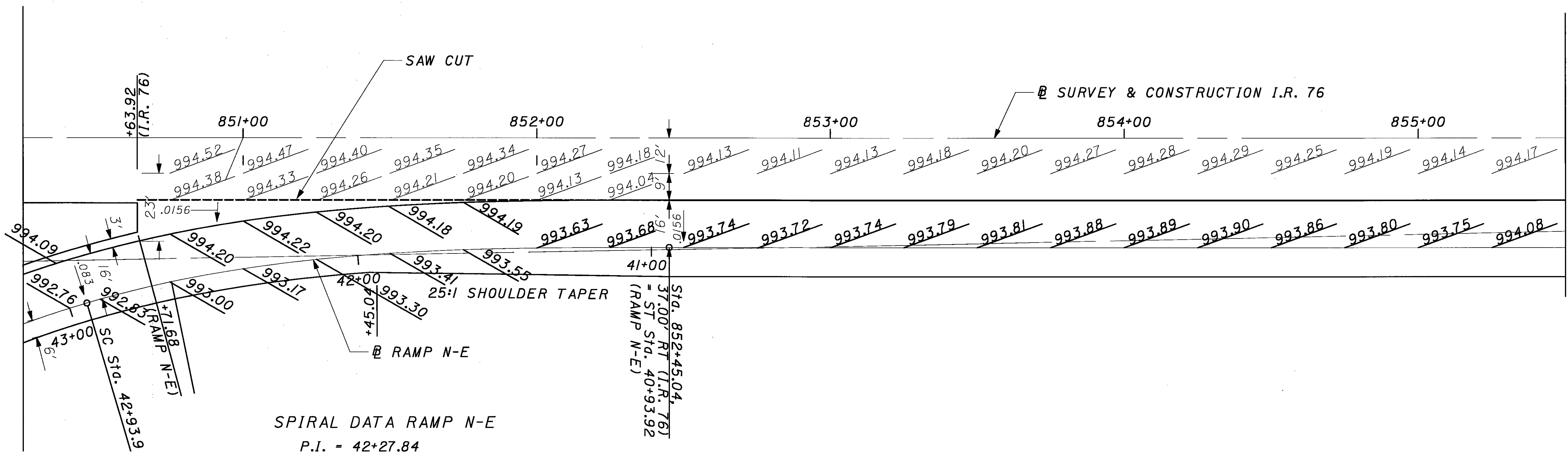
...75657GAE.dgn



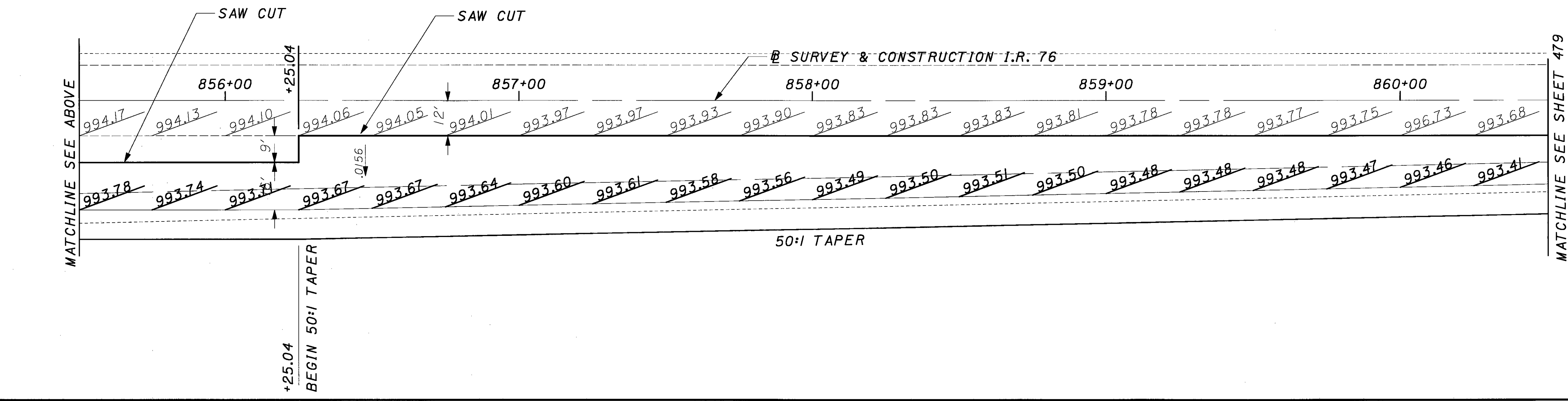
CALCULATED
CHECKED

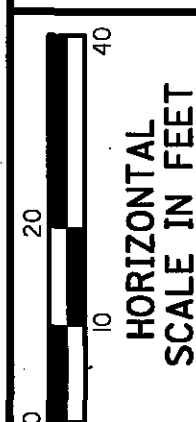
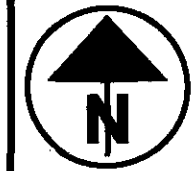
IR 71 / IR 76 INTERCHANGE
RAMP N-E PAVEMENT DETAIL

MED 71-6.06



SPIRAL DATA RAMP N-E
 P.I. = 42+27.84
 Ls = 200.00'
 Bs = 16° 30' 00"
 LT = 133.92'
 ST = 67.20'
 Dc1 = 16° 30' 00"
 Dc2 = 0° 0' 0"





CALCULATED
CHECKED

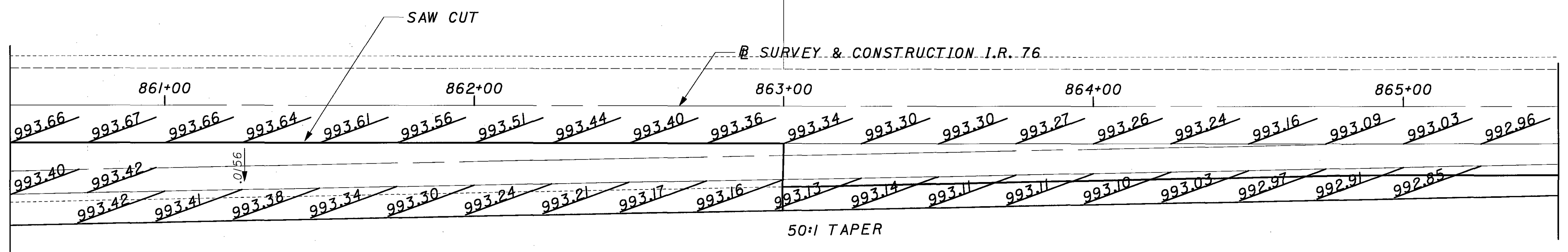
IR 71 / IR 76 INTERCHANGE
RAMP N-E PAVEMENT DETAIL

MED 71-6.06

479
1120

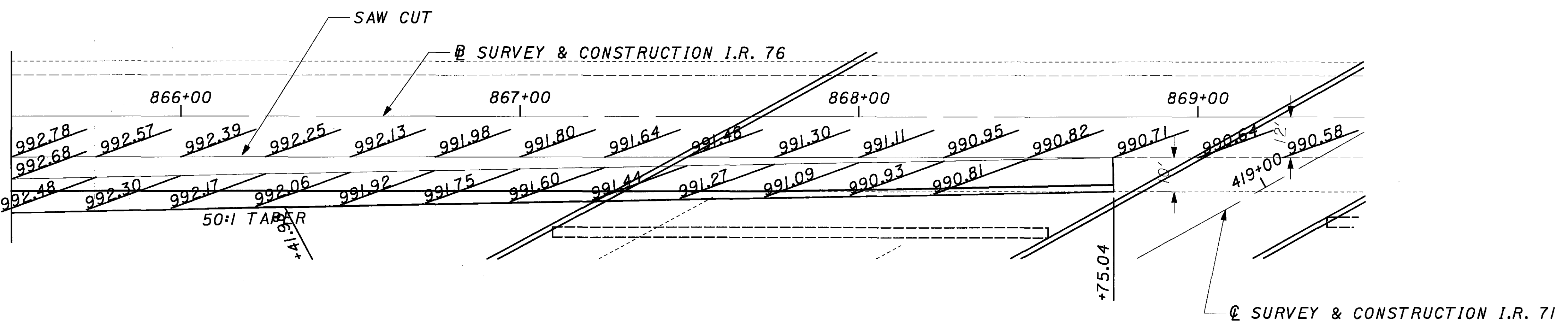
EX. COMPOSITE PAVEMENT EX. FULL DEPTH ASPHALT PAVEMENT

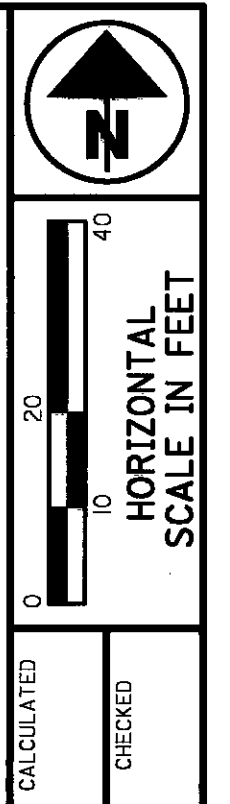
MATCHLINE SEE SHEET 478



MATCHLINE SEE BELOW

MATCHLINE SEE ABOVE

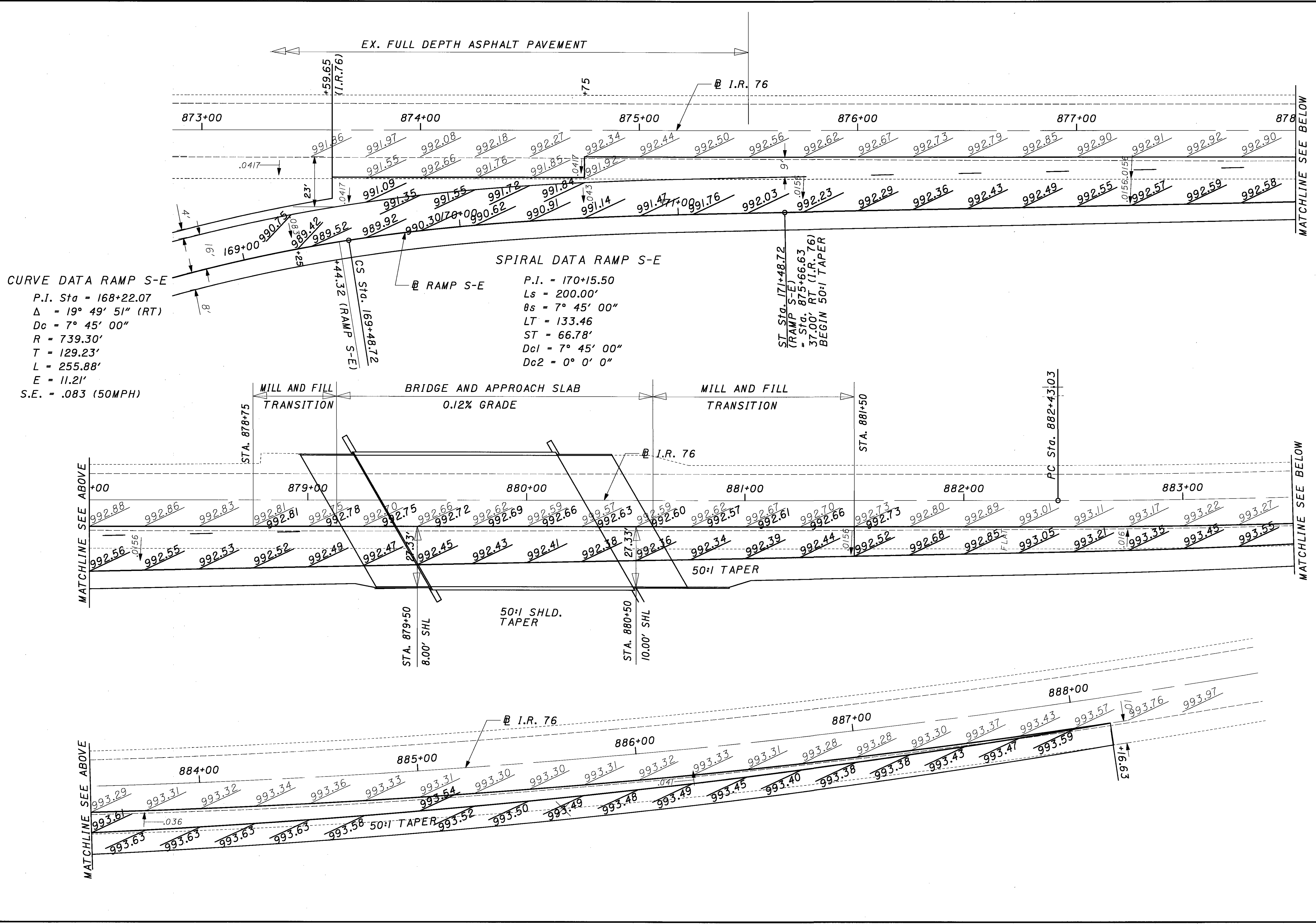




CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP S-E PAVEMENT DETAIL

MED 71-6.06
480
1120



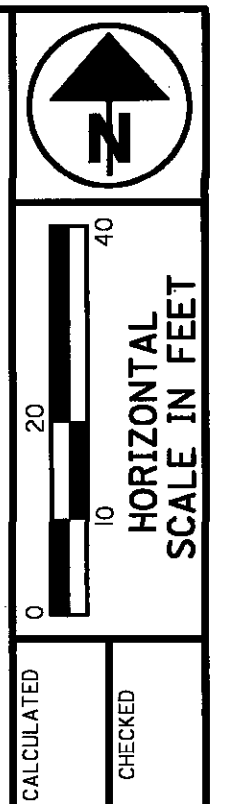
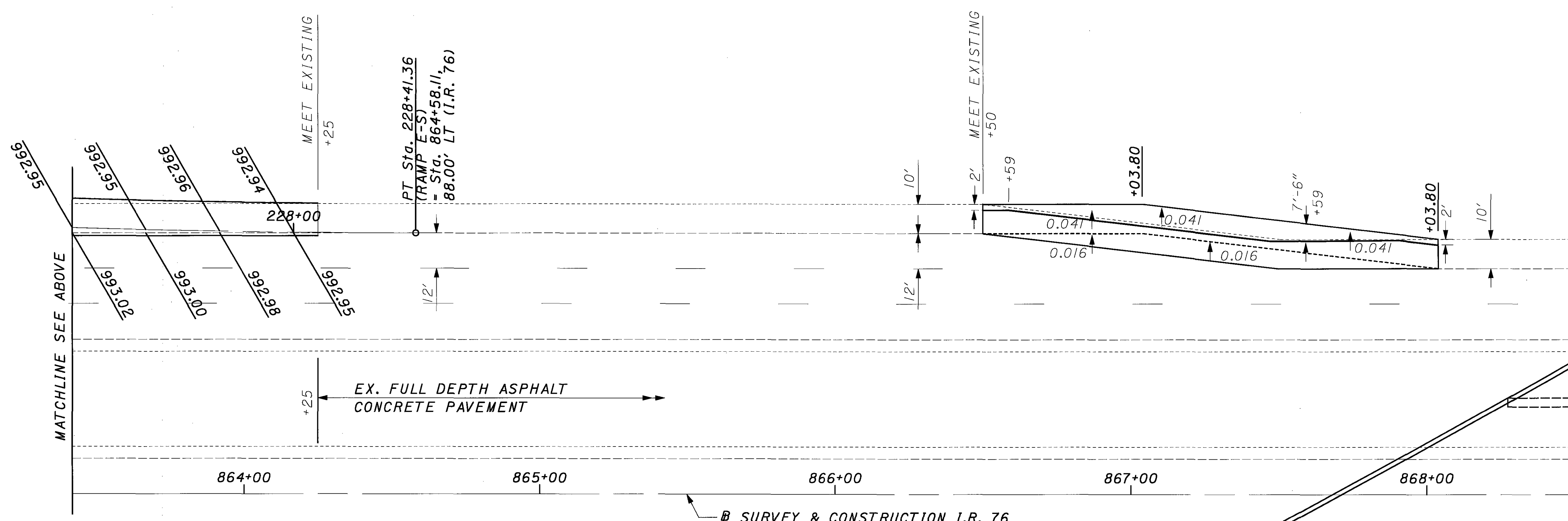
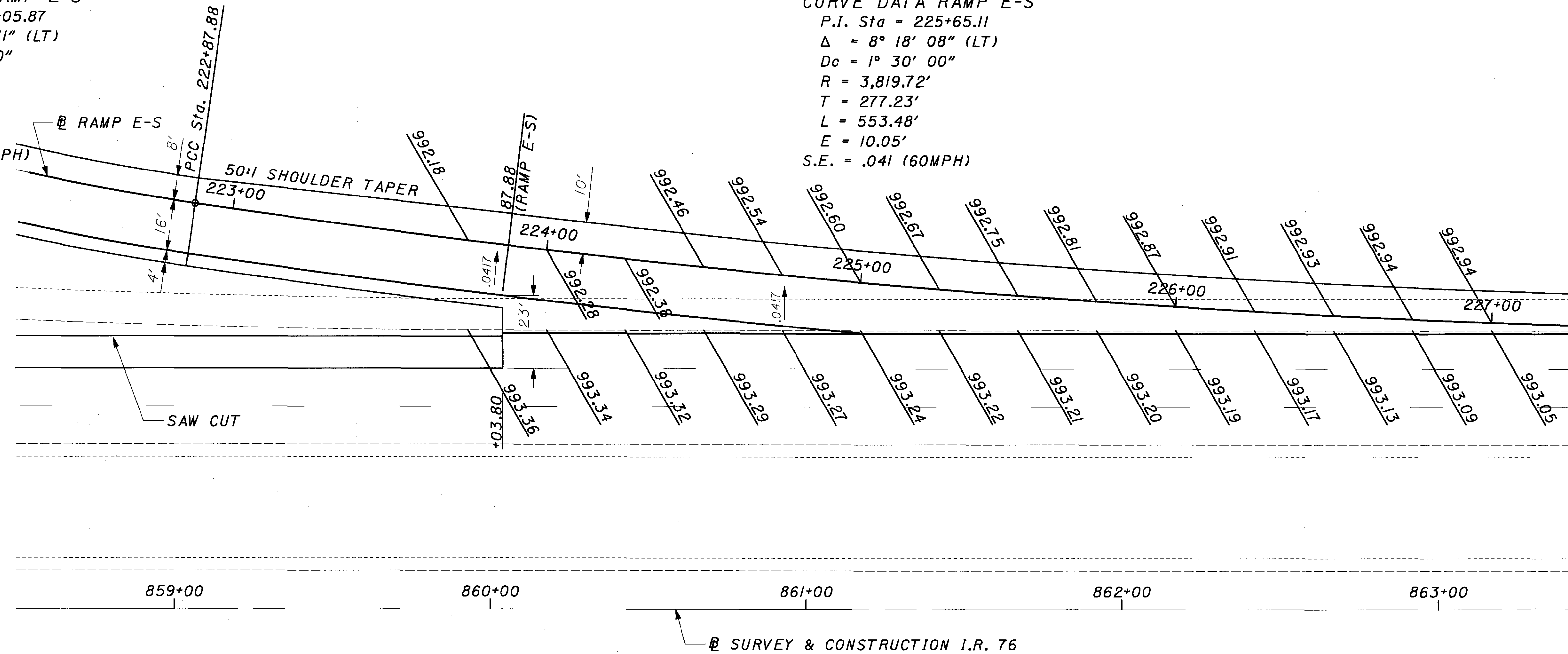
...T5657CAM.dgn

CURVE DATA RAMP E-S

P.I. Sta = 221+05.87
 $\Delta = 28^\circ 50' 11''$ (LT)
 $D_c = 7^\circ 45' 00''$
 $R = 739.30'$
 $T = 190.07'$
 $L = 372.08'$
 $E = 24.04'$
 S.E. = .083 (50MPH)

CURVE DATA RAMP E-S

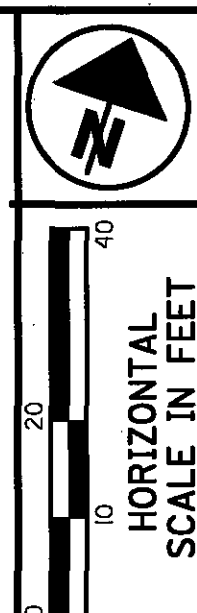
P.I. Sta = 225+65.11
 $\Delta = 8^\circ 18' 08''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 277.23'$
 $L = 553.48'$
 $E = 10.05'$
 S.E. = .041 (60MPH)



IR 71 / IR 76 INTERCHANGE
 RAMP E-S PAVEMENT DETAIL

MED 71-6.06

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CHECKED
CALCULATED

IR 71 / IR 76 INTERCHANGE
RAMP E-N PAVEMENT DETAIL

MED 71-6.06

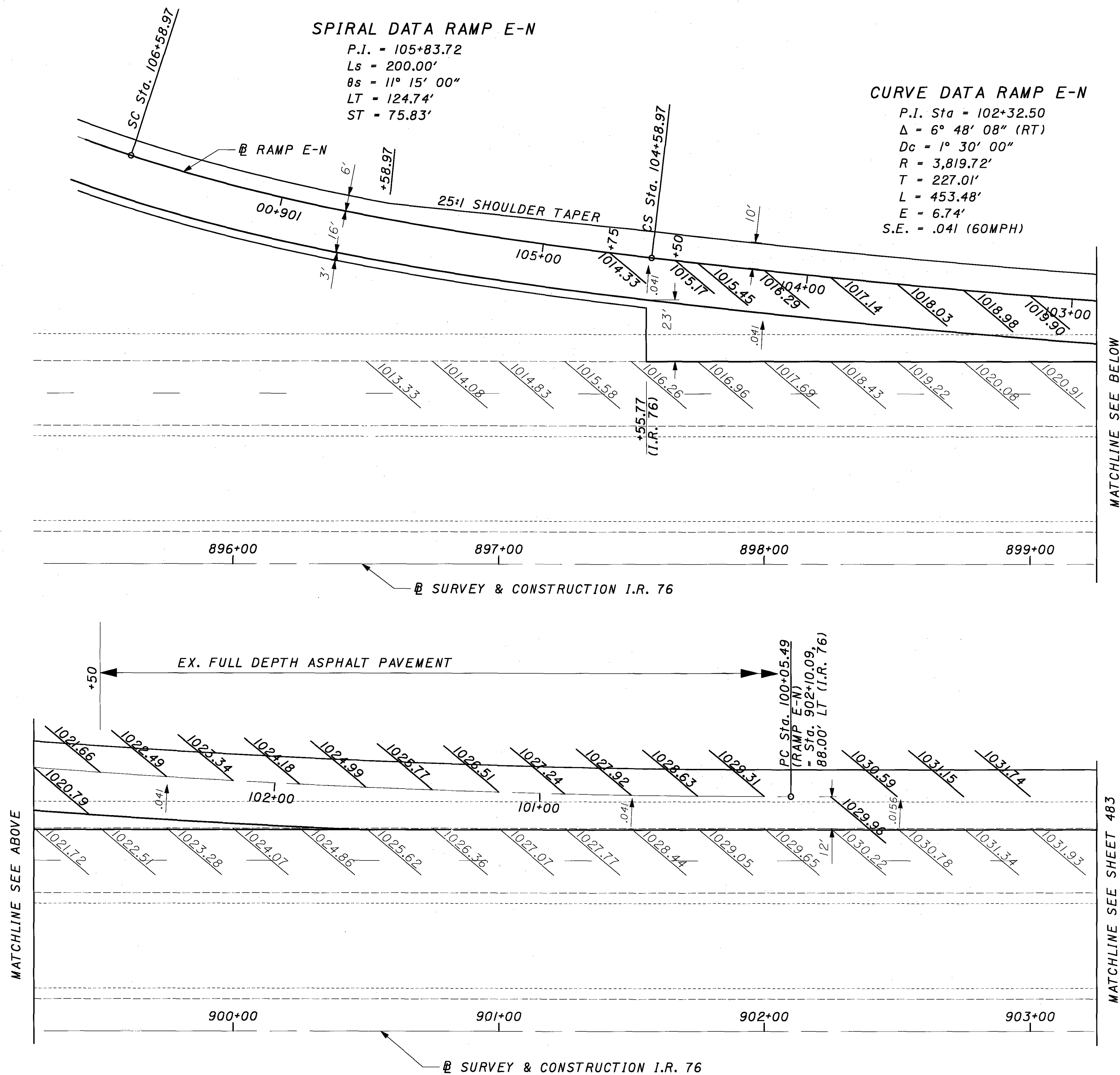
482
1120

SPIRAL DATA RAMP E-N

P.I. = 105+83.72
Ls = 200.00'
θs = 11° 15' 00"
LT = 124.74'
ST = 75.83'

CURVE DATA RAMP E-N

P.I. Sta = 102+32.50
Δ = 6° 48' 08" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 227.01'
L = 453.48'
E = 6.74'
S.E. = .041 (60MPH)

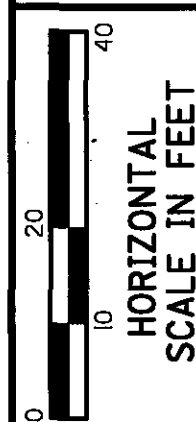
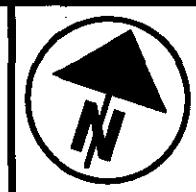
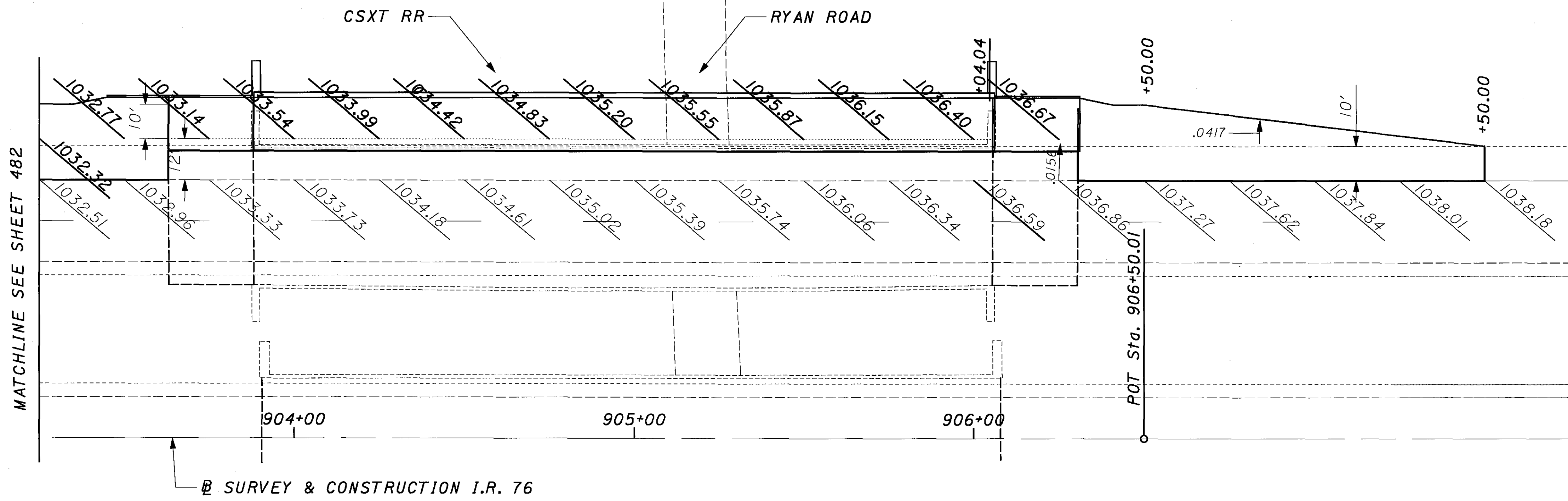


MATCHLINE SEE ABOVE

MATCHLINE SEE BELOW

MATCHLINE SEE SHEET 483

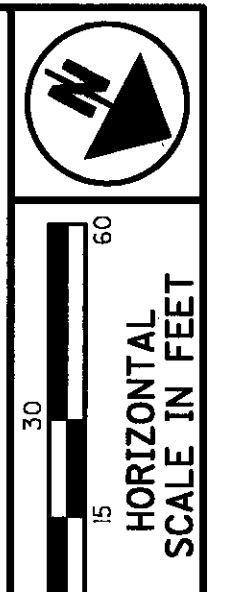
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CALCULATED
CHECKED

IR 71 / IR 76 INTERCHANGE
RAMP E-N PAVEMENT DETAIL

MED 71-6.06

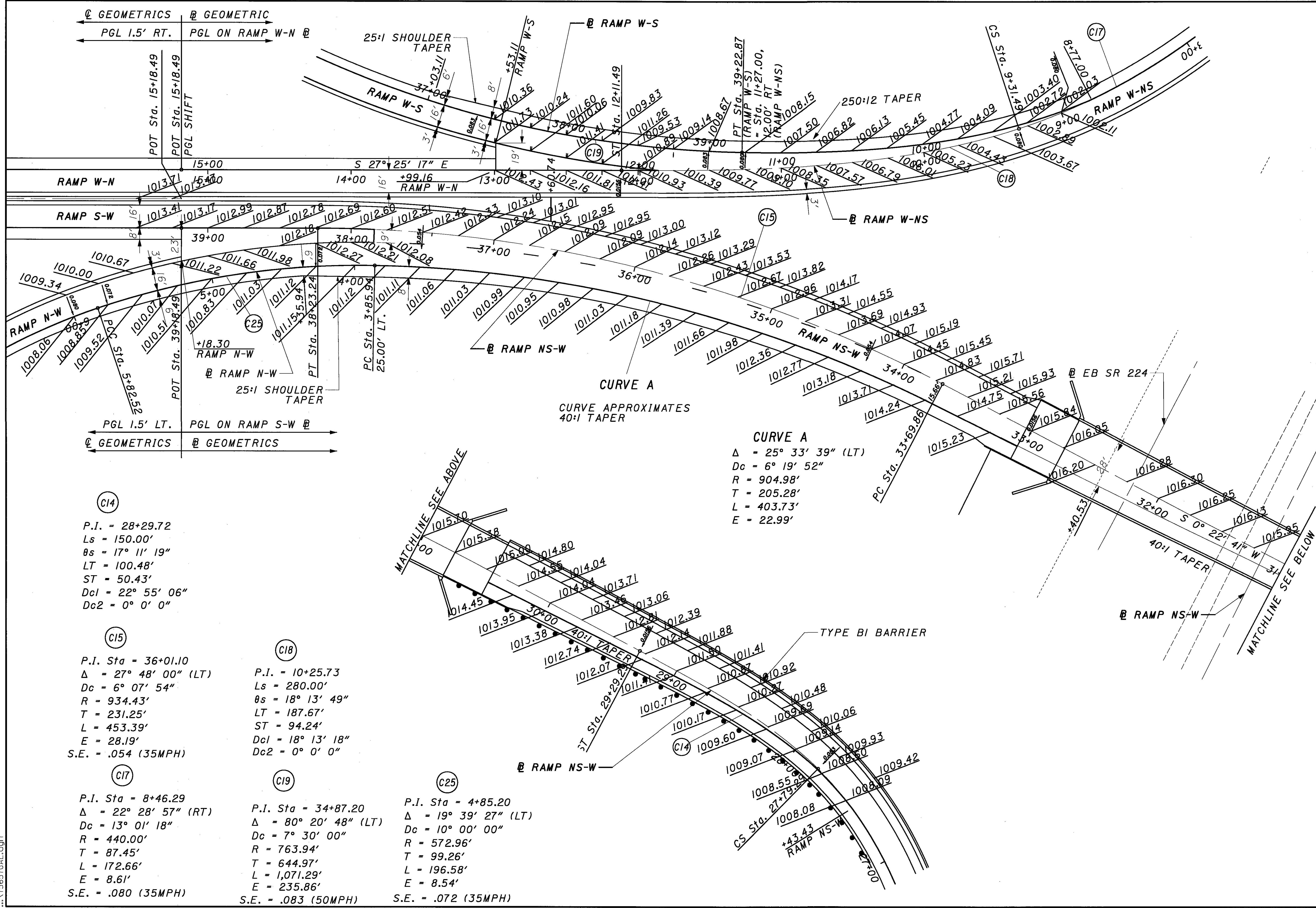


CALCULATED
CHECKED

IR71/IR76 INTERCHANGE - RAMPS W-NS, W-N, W-S
RAMPS N-W, S-W & NS-W PAVEMENT DETAIL

MED 71-6.06

484
1120



GEOMETRICS PGL 1.5' RT.
GEOMETRIC PGL ON RAMP W-N

GEOMETRICS PGL 1.5' LT.
GEOMETRIC PGL ON RAMP S-W

CURVE A
CURVE APPROXIMATES
40:1 TAPER

CURVE A
 $\Delta = 25^\circ 33' 39''$ (LT)
 $Dc = 6^\circ 19' 52''$
 $R = 904.98'$
 $T = 205.28'$
 $L = 403.73'$
 $E = 22.99'$

C14
P.I. = 28+29.72
Ls = 150.00'
 $\theta_s = 17^\circ 11' 19''$
LT = 100.48'
ST = 50.43'
 $Dc1 = 22^\circ 55' 06''$
 $Dc2 = 0^\circ 0' 0''$

C15
P.I. Sta = 36+01.10
 $\Delta = 27^\circ 48' 00''$ (LT)
 $Dc = 6^\circ 07' 54''$
 $R = 934.43'$
 $T = 231.25'$
 $L = 453.39'$
 $E = 28.19'$
S.E. = .054 (35MPH)

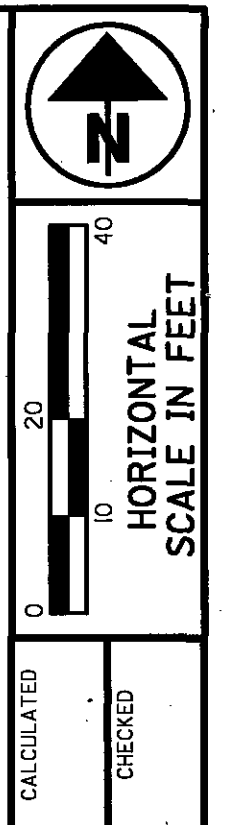
C18
P.I. = 10+25.73
Ls = 280.00'
 $\theta_s = 18^\circ 13' 49''$
LT = 187.67'
ST = 94.24'
 $Dc1 = 18^\circ 13' 18''$
 $Dc2 = 0^\circ 0' 0''$

C17
P.I. Sta = 8+46.29
 $\Delta = 22^\circ 28' 57''$ (RT)
 $Dc = 13^\circ 01' 18''$
 $R = 440.00'$
 $T = 87.45'$
 $L = 172.66'$
 $E = 8.61'$
S.E. = .080 (35MPH)

C19
P.I. Sta = 34+87.20
 $\Delta = 80^\circ 20' 48''$ (LT)
 $Dc = 7^\circ 30' 00''$
 $R = 763.94'$
 $T = 644.97'$
 $L = 1,071.29'$
 $E = 235.86'$
S.E. = .083 (50MPH)

C25
P.I. Sta = 4+85.20
 $\Delta = 19^\circ 39' 27''$ (LT)
 $Dc = 10^\circ 00' 00''$
 $R = 572.96'$
 $T = 99.26'$
 $L = 196.58'$
 $E = 8.54'$
S.E. = .072 (35MPH)

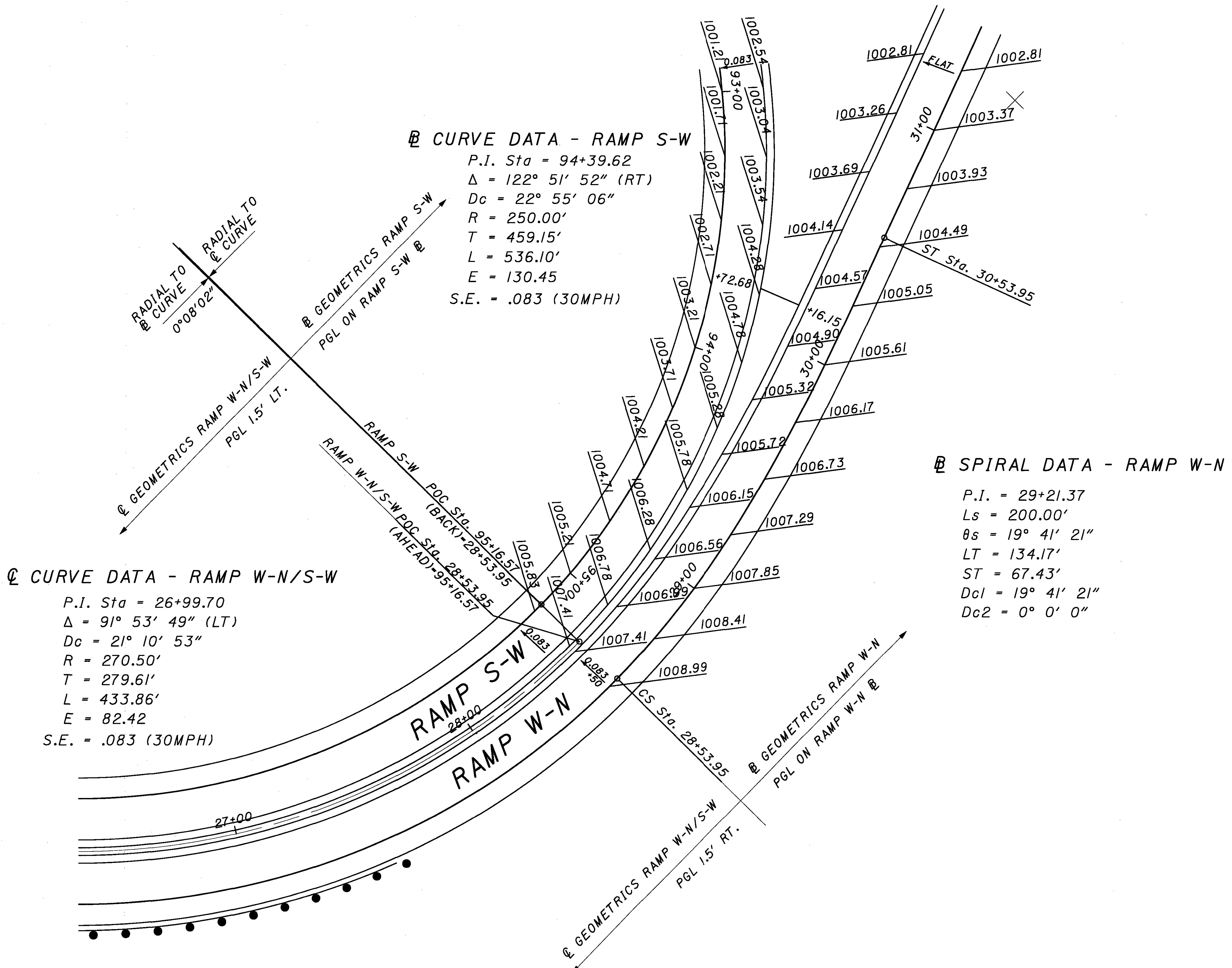
...75657GAL.dgn



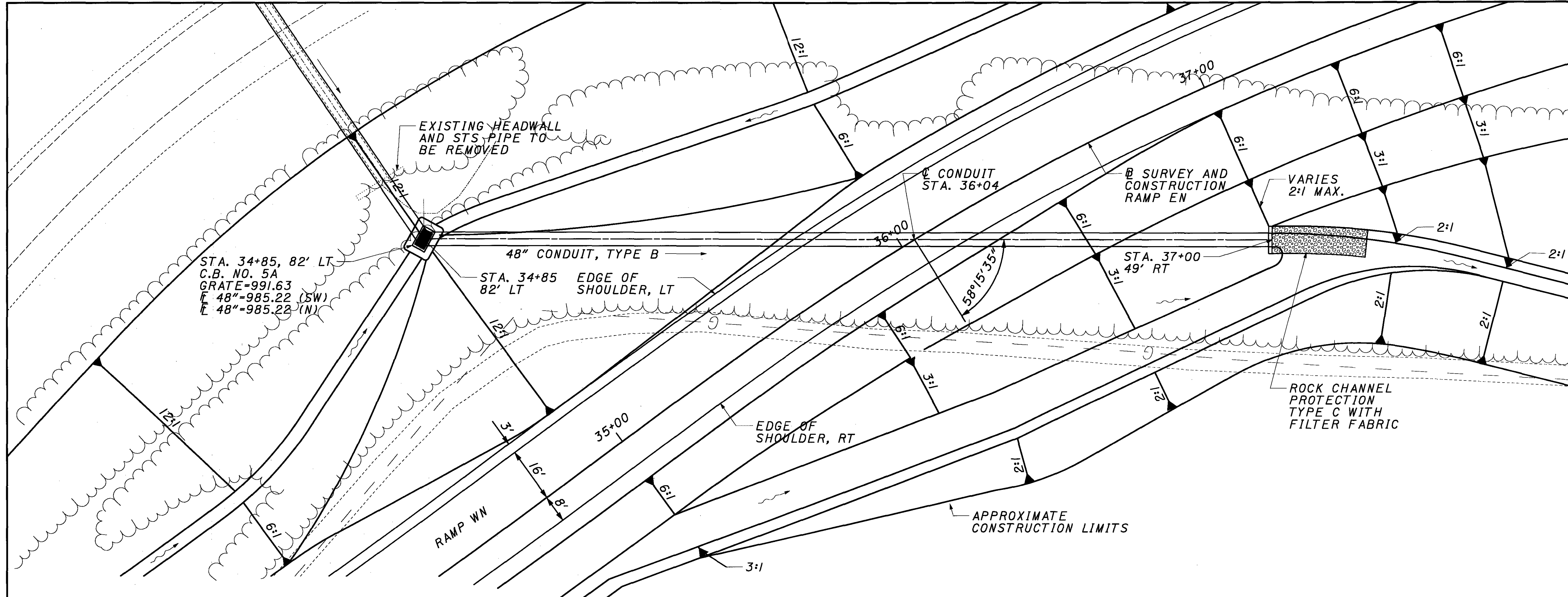
IR 71 INTERCHANGE
 RAMP W-N/S-W PAVEMENT DETAIL

MED 71-6.06

485
 1120



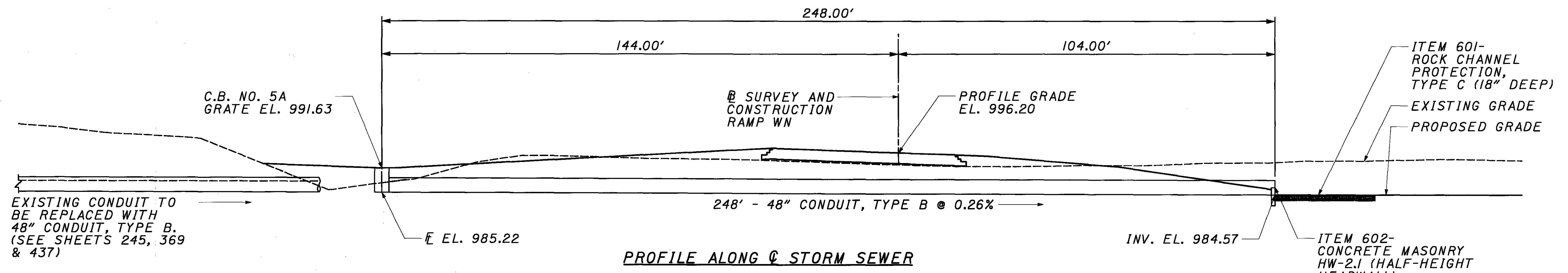
...75657GA0.dgn



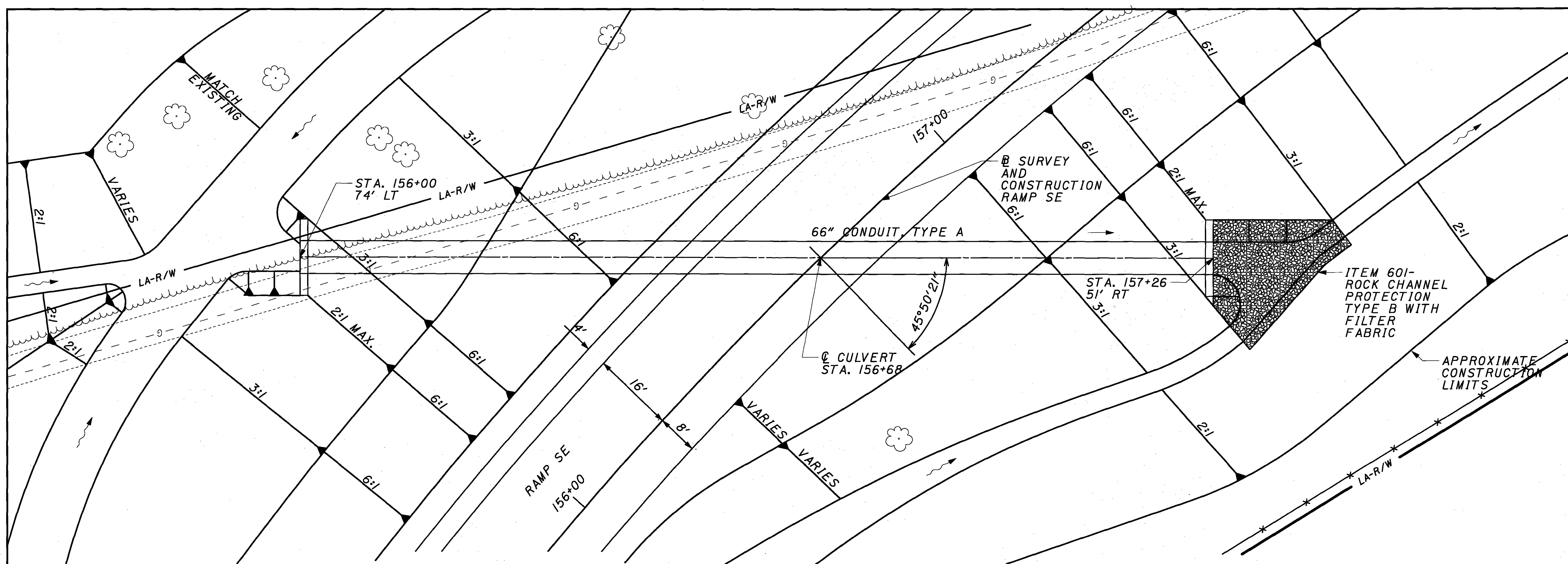
PROPOSED STRUCTURE	
TYPE:	48" CONDUIT, TYPE B
SKEW:	58°15'35"

HYDRAULIC DATA		
DRAINAGE AREA: 6.60 ACRES		
FREQ. (YR)	Q (CFS)	VEL. (FPS)
10	55.0	--
25	66.1	5.64

NOTE: SEE SHEETS 186 & 369 FOR ADDITIONAL STORM SEWER DETAILS.



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PLAN

HYDRAULIC DATA		
DRAINAGE AREA: 30.55 ACRES		
FREQ. (YR)	Q (CFS)	VEL. (FPS)
50	95.10	7.79
100	112.60	8.11

pH VALUE = 7.6

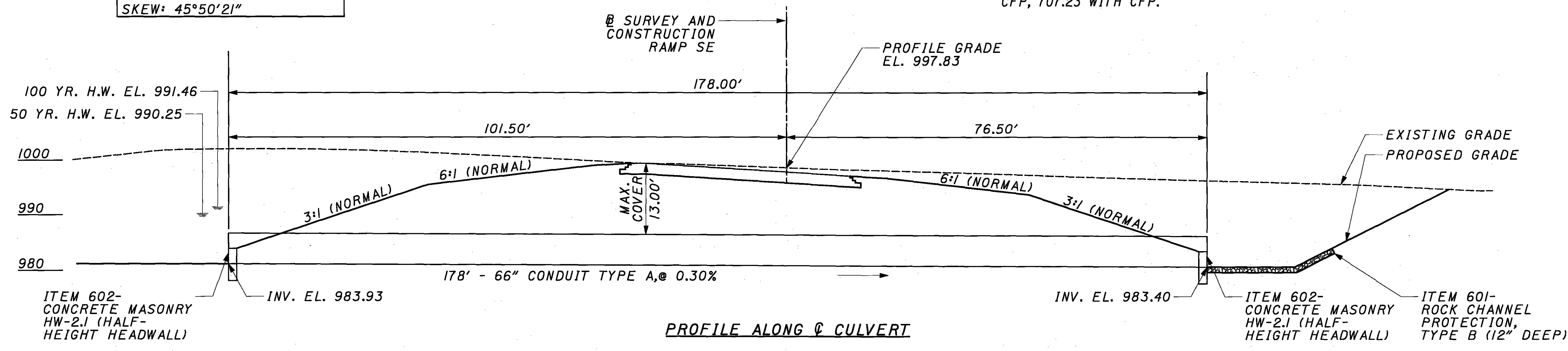
PROPOSED STRUCTURE	
TYPE:	66" CONDUIT, TYPE A
SKEW:	45°50'21"

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	16	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER FABRIC
602	5	CU YD	CONCRETE MASONRY
603	178	FT	66" CONDUIT, TYPE A, AS PER PLAN

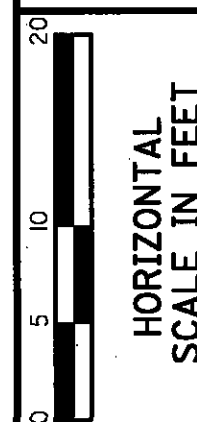
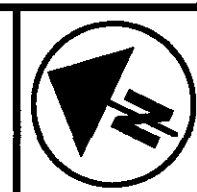
QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY. SEE SHEETS 149 & 150

ITEM 603 - 66" CONDUIT, TYPE A, AS PER PLAN

MATERIALS FOR THIS ITEM SHALL BE 706.02 1250 D-LOAD, 707.01 ALUMINIZED, 707.02 (0.138) ALUMINIZED, 707.02 WITH CFP, 707.03 (0.280), 707.03 WITH CFP, 707.04 (1/2") (0.138) POLYMER COATED, 707.04 (1") (0.079) POLYMER COATED, 707.04 (1/2") (0.138) POLYMER COATED ASPHALT COATED AND PAVED, 707.04 (1") POLYMER COATED ASPHALT COATED AND PAVED, 707.05 (0.138) ALUMINIZED ASPHALT COATED AND PAVED, 707.07 (0.138) ALUMINIZED ASPHALT COATED AND PAVED, 707.21 WITH CFP, 707.22 WITH CFP, 707.23 WITH CFP.



PROFILE ALONG CULVERT

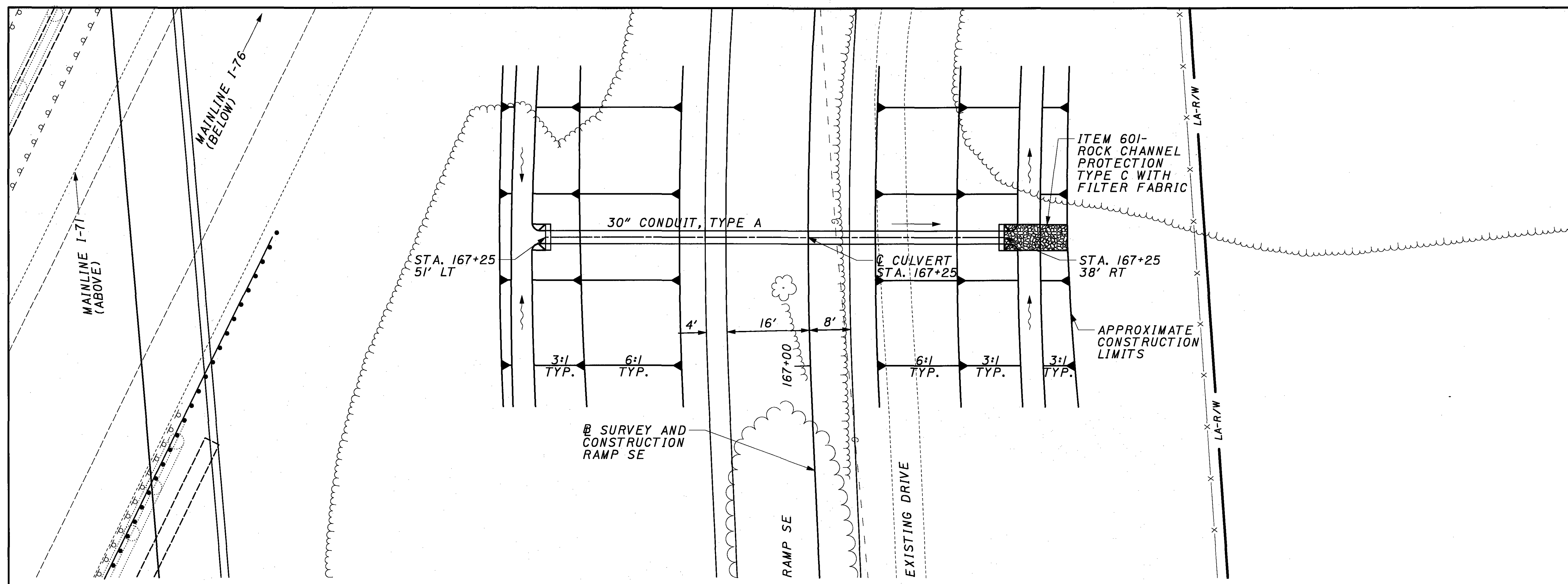


CALCULATED
ASK
CHECKED
MPH

CULVERT DETAIL
RAMP SE STA. 167+25

MED-71-6.06

488
1120



PLAN

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	4	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC
602	2	CU YD	CONCRETE MASONRY
603	89	FT	30" CONDUIT, TYPE A, AS PER PLAN A

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY. SEE SHEET 149 & 150.

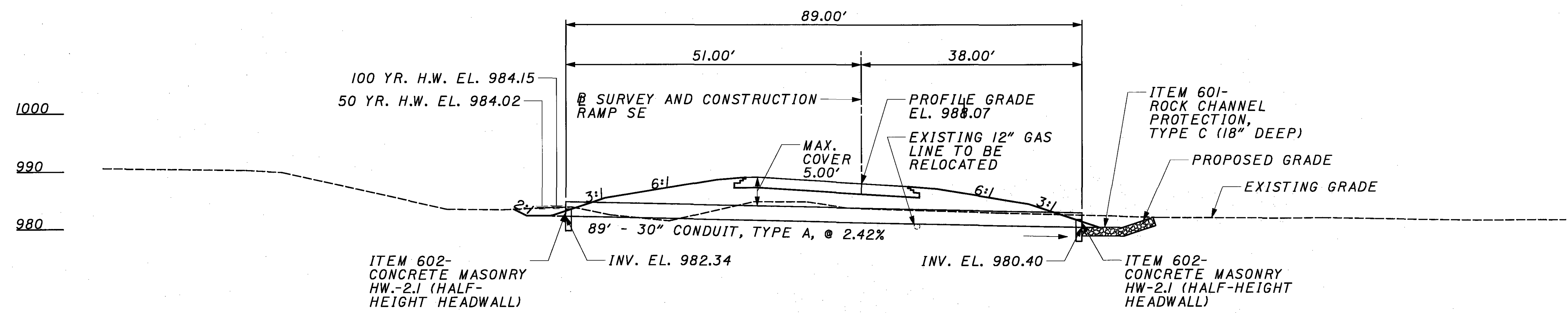
PROPOSED STRUCTURE	
TYPE:	30" CONDUIT, TYPE A,
SKEW:	0°

HYDRAULIC DATA		
DRAINAGE AREA: 4.20 ACRES		
FREQ. (YR)	Q (CFS)	VEL. (FPS)
50	12.13	11.54
100	13.67	10.15

pH VALUE = 7.6

ITEM 603 - 30" CONDUIT, TYPE A, AS PER PLAN A

MATERIALS FOR THIS ITEM SHALL BE
 706.02, 707.01 (0.138) ALUMINIZED,
 707.04 (1/2") (0.079) POLYMER COATED, 707.04 (1/2")
 POLYMER COATED ASPHALT COATED AND PAVED,
 707.05 (0.079) ALUMINIZED ASPHALT COATED AND PAVED.

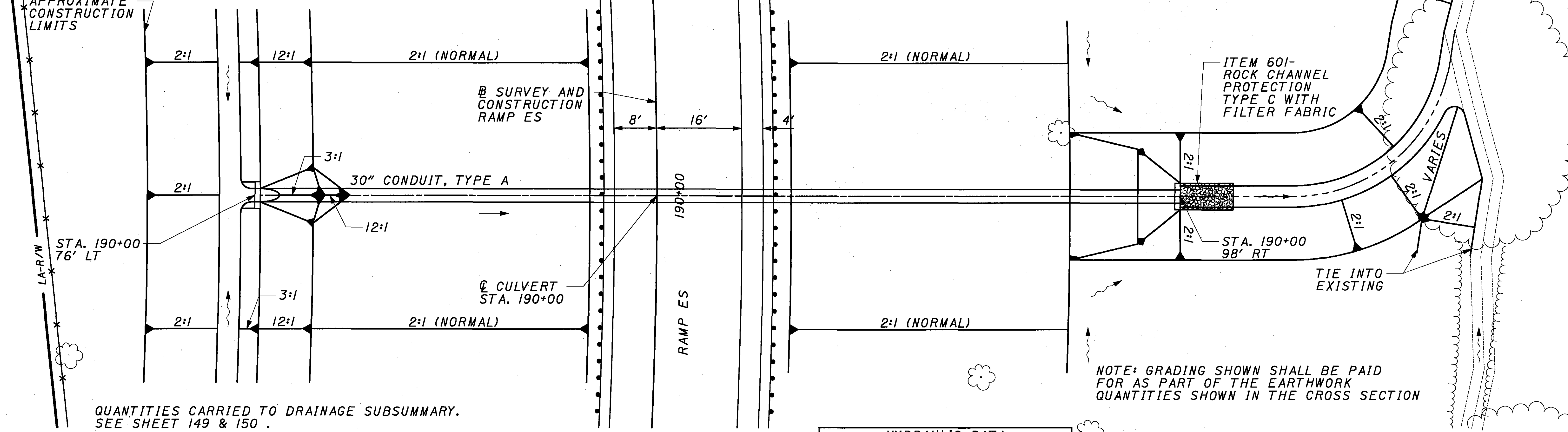


PROFILE ALONG CULVERT

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PROPOSED STRUCTURE
 TYPE: 30" CONDUIT, TYPE A,
 SKEW: 0°

APPROXIMATE CONSTRUCTION LIMITS



QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY.
 SEE SHEET 149 & 150 .

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	3	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC
602	2	CU YD	CONCRETE MASONRY
603	174	FT	30" CONDUIT, TYPE A, AS PER PLAN B

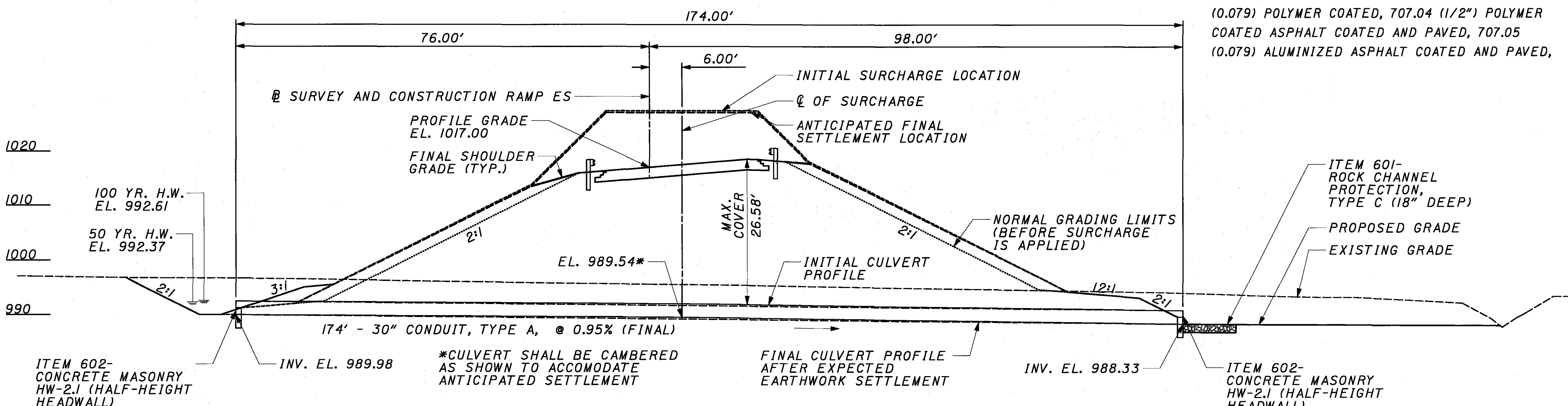
PLAN

HYDRAULIC DATA			
DRAINAGE AREA: 18.00 ACRES			
FREQ. (YR)	Q (CFS)	VEL. (FPS)	
50	21.00	9.49	
100	24.00	9.65	

pH VALUE = 7.6

ITEM 603 - 30" CONDUIT, TYPE A, AS PER PLAN B

MATERIALS FOR THIS ITEM SHALL BE 706.02 2000 D-LOAD, 707.01 (0.138) ALUMINIZED, 707.04 (1/2") (0.079) POLYMER COATED, 707.04 (1/2") POLYMER COATED ASPHALT COATED AND PAVED, 707.05 (0.079) ALUMINIZED ASPHALT COATED AND PAVED,

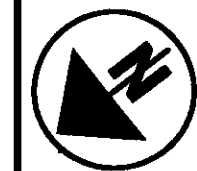


PROFILE ALONG ϕ CULVERT

ITEM 602- CONCRETE MASONRY HW-2.1 (HALF-HEIGHT HEADWALL)

*CULVERT SHALL BE CAMBERED AS SHOWN TO ACCOMODATE ANTICIPATED SETTLEMENT

ITEM 602- CONCRETE MASONRY HW-2.1 (HALF-HEIGHT HEADWALL)



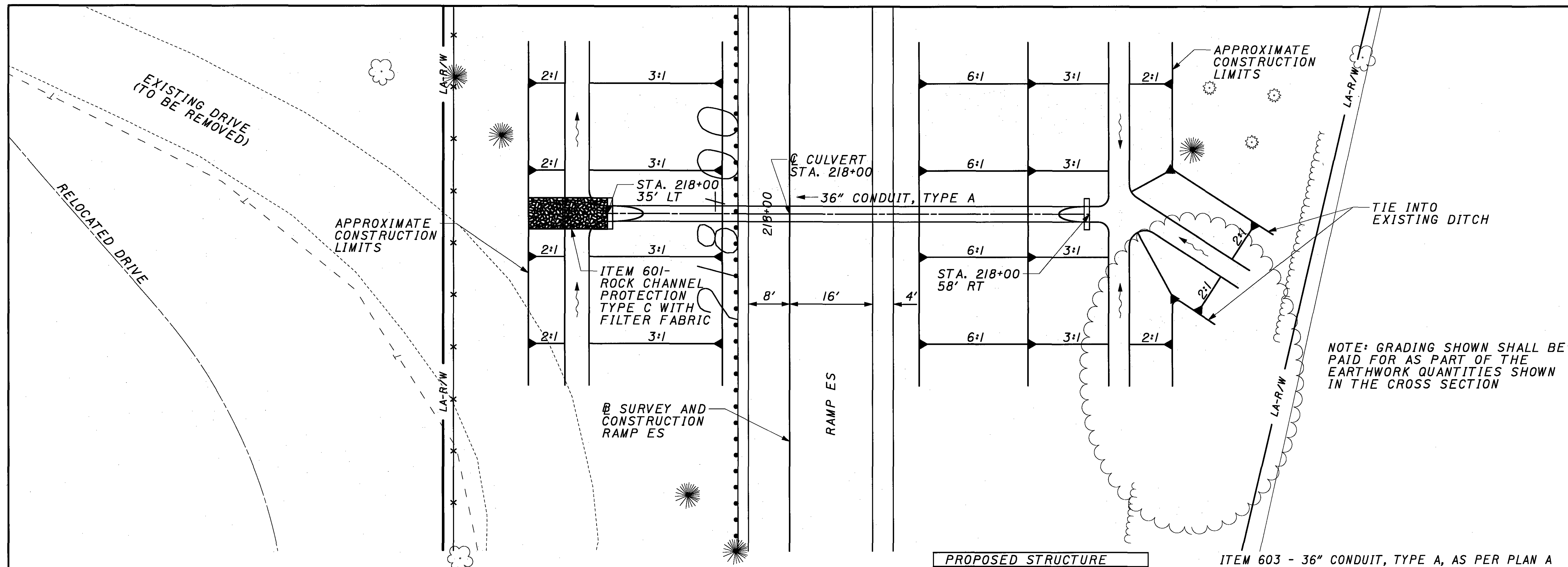
0 5 10 20
HORIZONTAL
SCALE IN FEET

CALCULATED
ASK
CHECKED
MPH

CULVERT DETAIL
RAMP ES STA. 218+00

MED-71-6.06

490
1120



PLAN

PROPOSED STRUCTURE
TYPE: 36" CONDUIT, TYPE A,
SKEW: 0°

HYDRAULIC DATA		
DRAINAGE AREA: 6.80 ACRES		
FREQ. (YR)	Q (CFS)	VEL. (FPS)
50	16.88	5.71
100	19.06	5.93

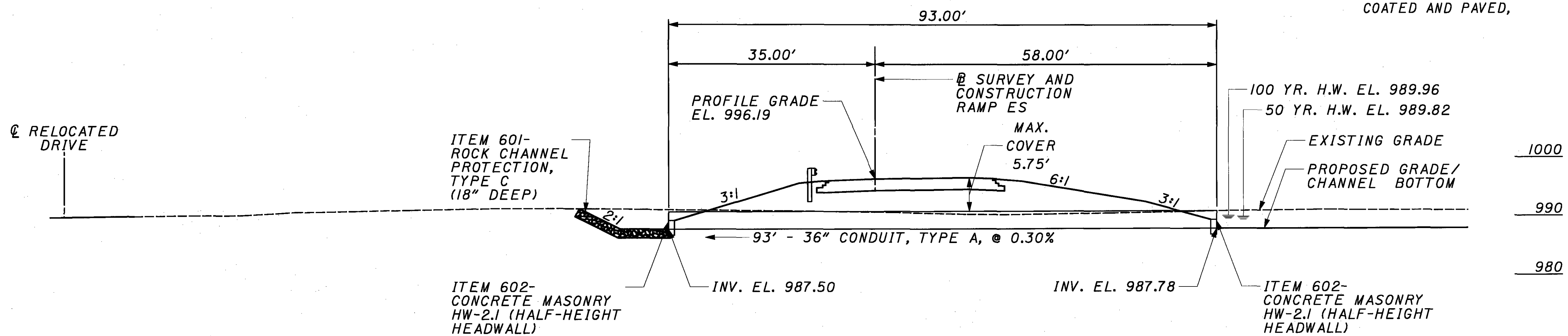
pH VALUE = 7.6

ITEM 603 - 36" CONDUIT, TYPE A, AS PER PLAN A

MATERIALS FOR THIS ITEM SHALL BE 706.02, 707.01 (0.138) ALUMINIZED, 707.02 (0.138) ALUMINIZED, 707.04 (1/2") (0.079) POLYMER COATED, 707.04 (1") (0.079) POLYMER COATED, 707.04 (1 1/2") POLYMER COATED ASPHALT COATED AND PAVED, 707.04 (1") POLYMER COATED ASPHALT COATED AND PAVED, 707.05 (0.079) ALUMINIZED ASPHALT COATED AND PAVED, 707.07 (0.079) ALUMINIZED ASPHALT COATED AND PAVED,

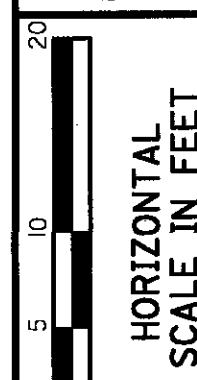
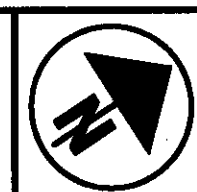
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	6	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC
602	1	CU YD	CONCRETE MASONRY
603	93	FT	36" CONDUIT, TYPE A, 706.02, AS PER PLAN A

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY.
SEE SHEETS 149 & 150 .



PROFILE ALONG CULVERT

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CALCULATED ASK CHECKED MPH

**CULVERT DETAIL
RAMP EN STA. 110+00**

MED-71-6.06

MATCH EXISTING

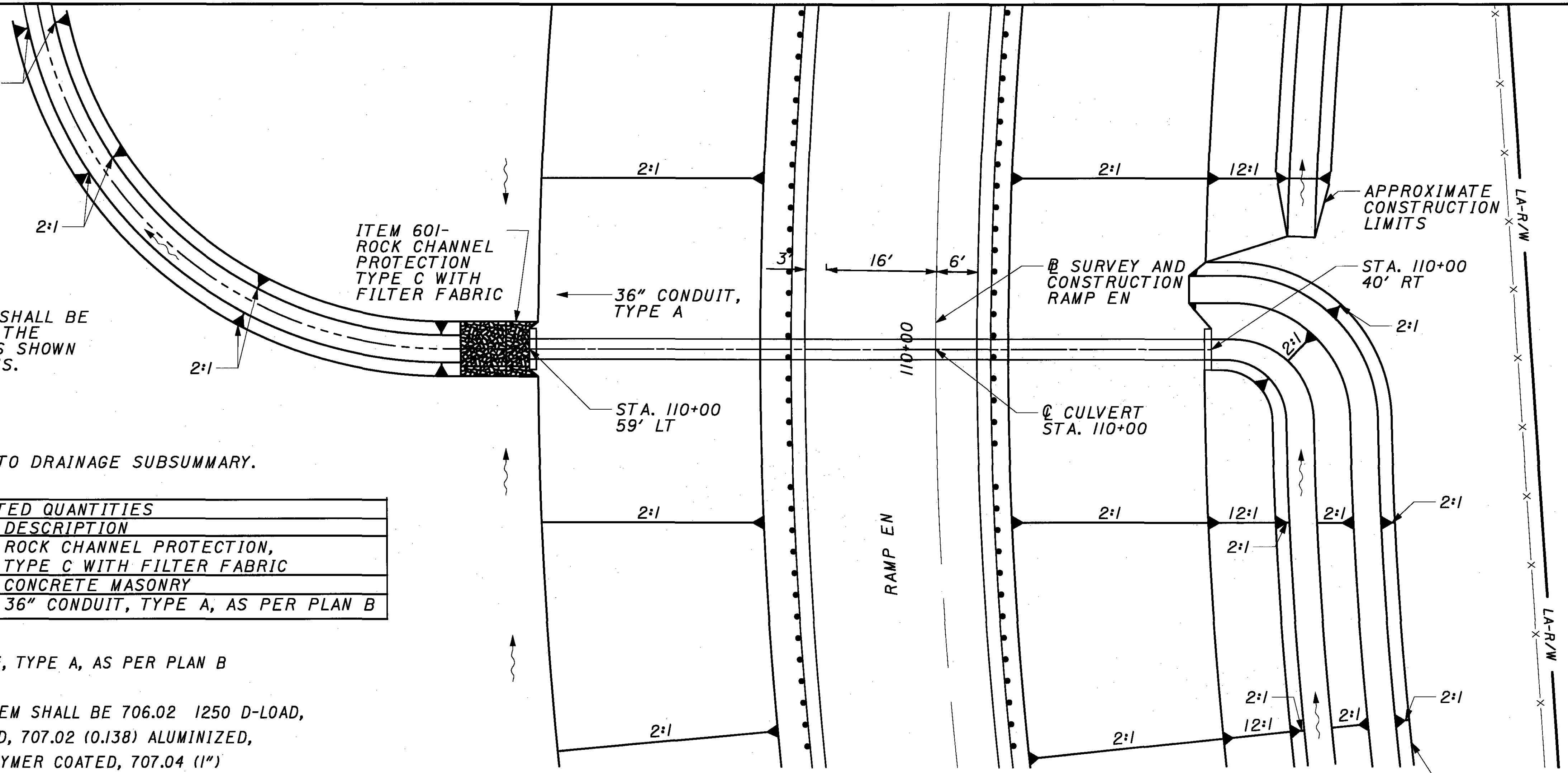
NOTE: GRADING SHOWN SHALL BE PAID FOR AS PART OF THE EARTHWORK QUANTITIES SHOWN IN THE CROSS SECTIONS.

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY. SEE SHEET 149 & 150

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	5	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC
602	2	CU YD	CONCRETE MASONRY
603	99	FT	36" CONDUIT, TYPE A, AS PER PLAN B

ITEM 603 - 36" CONDUIT, TYPE A, AS PER PLAN B

MATERIALS FOR THIS ITEM SHALL BE 706.02 1250 D-LOAD, 707.01 (0.138) ALUMINIZED, 707.02 (0.138) ALUMINIZED, 707.04 (1/2") (0.079) POLYMER COATED, 707.04 (1") (0.079) POLYMER COATED, 707.04 (1/2") POLYMER COATED ASPHALT COATED AND PAVED, 707.04 (1") POLYMER COATED ASPHALT COATED AND PAVED, 707.05 (0.079) ALUMINIZED ASPHALT COATED AND PAVED, 707.07 (0.079) ALUMINIZED ASPHALT COATED AND PAVED,

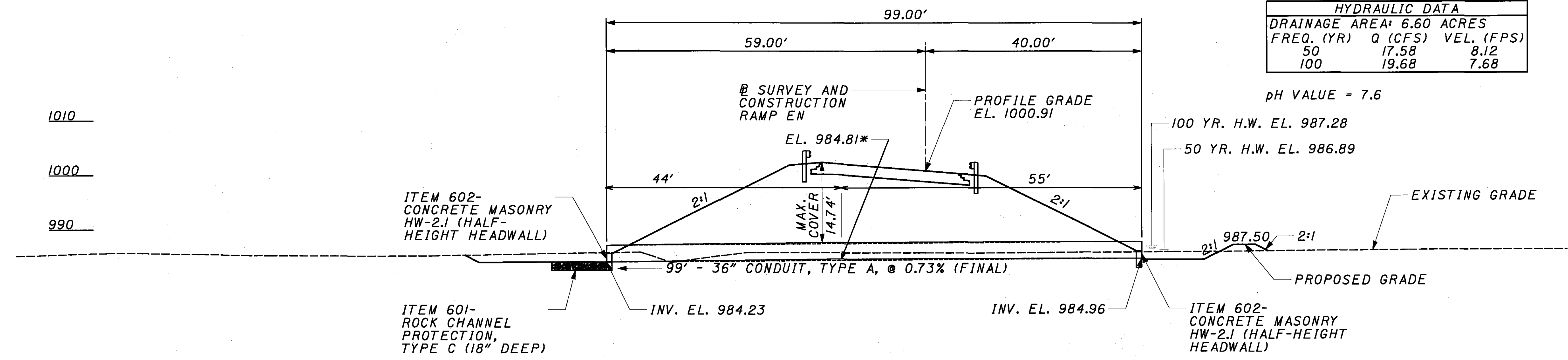


PLAN

PROPOSED STRUCTURE	
TYPE:	36" CONDUIT, TYPE A,
SKEW:	0°

HYDRAULIC DATA			
DRAINAGE AREA: 6.60 ACRES			
FREQ. (YR)	Q (CFS)	VEL. (FPS)	
50	17.58	8.12	
100	19.68	7.68	

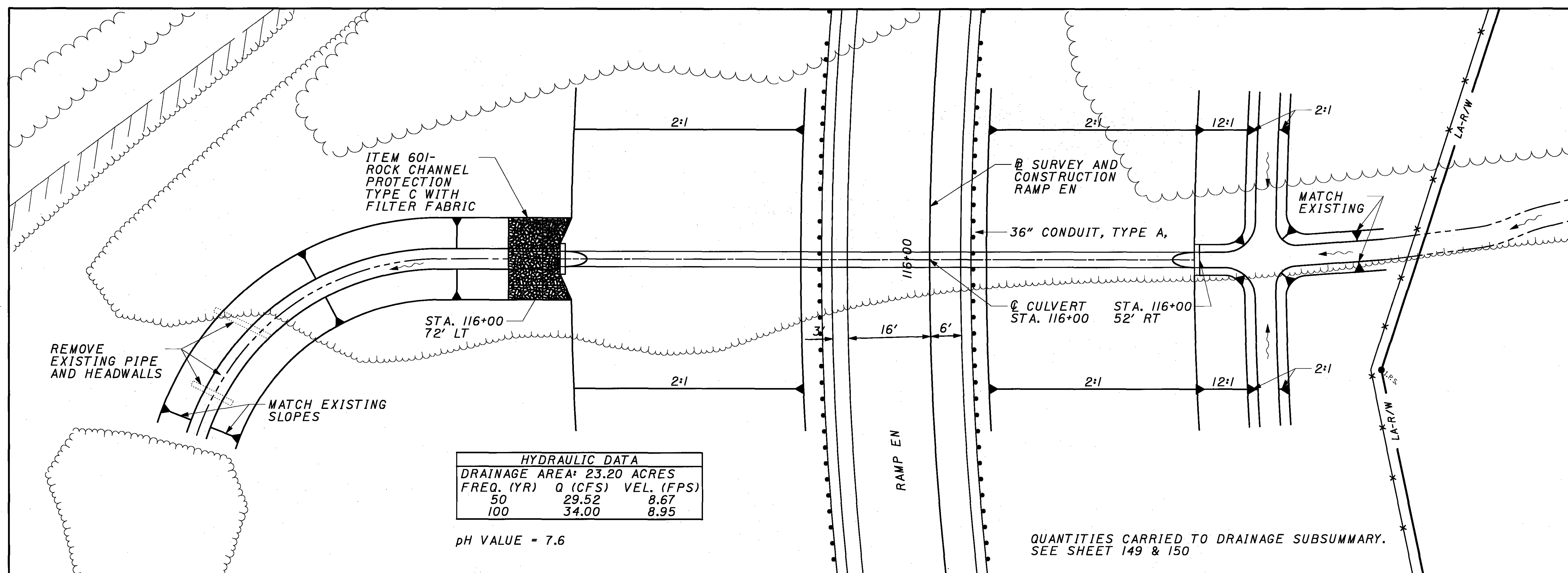
pH VALUE = 7.6



PROFILE ALONG CULVERT

*CULVERT SHALL BE CAMBERED AS SHOWN TO ACCOMMODATE ANTICIPATED SETTLEMENT

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HYDRAULIC DATA		
DRAINAGE AREA: 23.20 ACRES		
FREQ. (YR)	Q (CFS)	VEL. (FPS)
50	29.52	8.67
100	34.00	8.95

pH VALUE = 7.6

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY.
 SEE SHEET 149 & 150

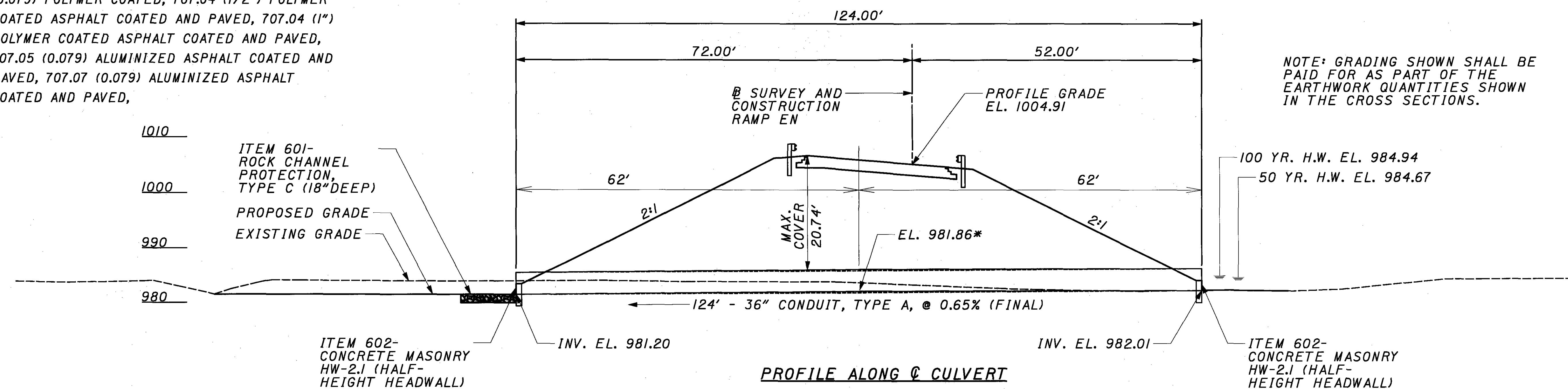
PROPOSED STRUCTURE	
TYPE:	36" CONDUIT, TYPE A,
SKEW:	0°

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	10	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC
602	2	CU YD	CONCRETE MASONRY
603	124	FT	36" CONDUIT, TYPE A, AS PER PLAN C

ITEM 603 - 36" CONDUIT, TYPE A, AS PER PLAN C

MATERIALS FOR THIS ITEM SHALL BE 706.02 1750 D-LOAD, 707.01 (0.138) ALUMINIZED, 707.02 (0.138) ALUMINIZED, 707.04 (1/2") (0.079) POLYMER COATED, 707.04 (1") (0.079) POLYMER COATED, 707.04 (1/2") POLYMER COATED ASPHALT COATED AND PAVED, 707.04 (1") POLYMER COATED ASPHALT COATED AND PAVED, 707.05 (0.079) ALUMINIZED ASPHALT COATED AND PAVED, 707.07 (0.079) ALUMINIZED ASPHALT COATED AND PAVED,

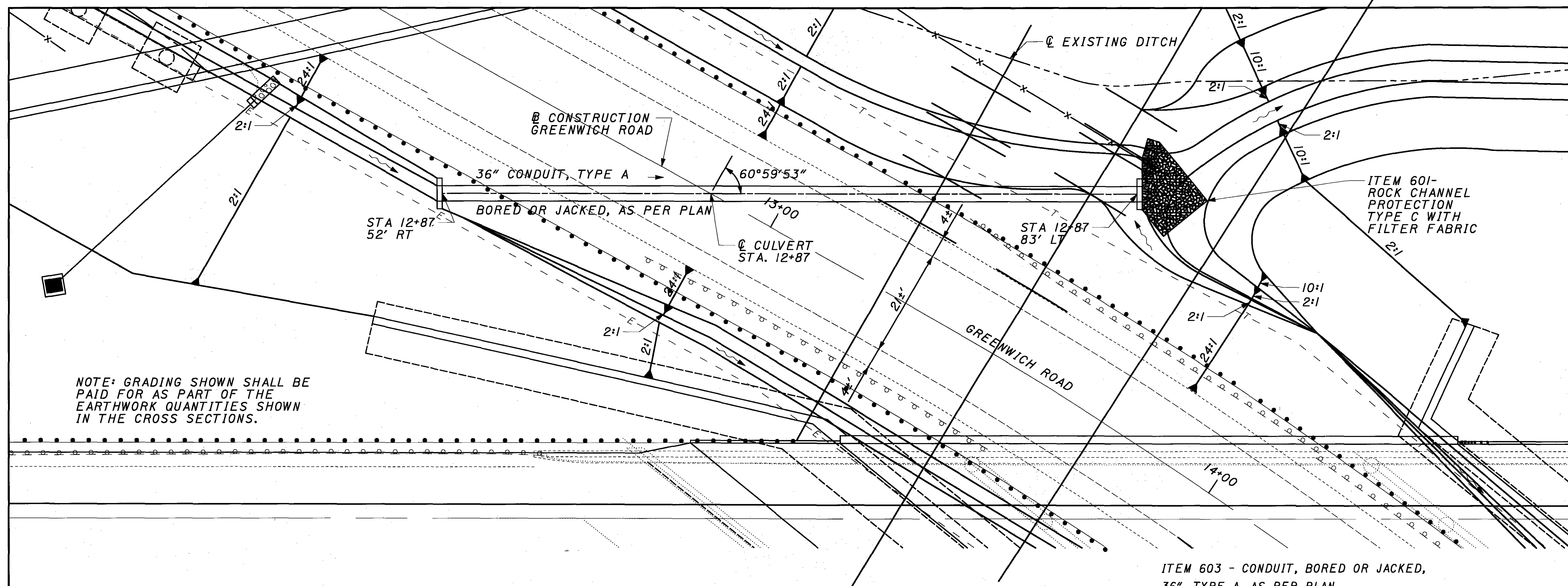
PLAN



NOTE: GRADING SHOWN SHALL BE PAID FOR AS PART OF THE EARTHWORK QUANTITIES SHOWN IN THE CROSS SECTIONS.

PROFILE ALONG C CULVERT

*CULVERT SHALL BE CAMBERED AS SHOWN TO ACCOMMODATE ANTICIPATED SETTLEMENT



NOTE: GRADING SHOWN SHALL BE PAID FOR AS PART OF THE EARTHWORK QUANTITIES SHOWN IN THE CROSS SECTIONS.

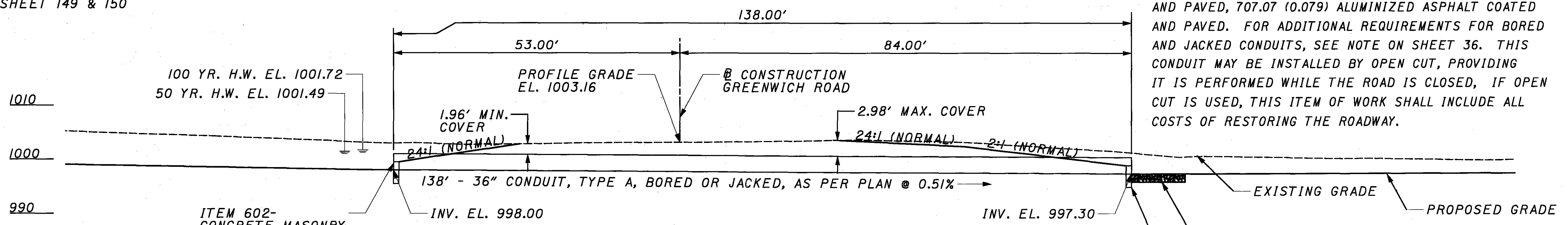
PLAN

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	8	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC
602	2	CU YD	CONCRETE MASONRY
603	138	FT	CONDUIT, BORED OR JACKED, 36", TYPE A, AS PER PLAN

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY. SEE SHEET 149 & 150

ITEM 603 - CONDUIT, BORED OR JACKED, 36", TYPE A, AS PER PLAN

MATERIALS FOR THIS ITEM SHALL BE 706.02, 707.01 (0.138) ALUMINIZED, 707.02 (0.138) ALUMINIZED, 707.04 (1/2") (0.079) POLYMER COATED, 707.04 (1") (0.079) POLYMER COATED, 707.04 (1/2") POLYMER COATED ASPHALT COATED AND PAVED, 707.04 (1") POLYMER COATED ASPHALT COATED AND PAVED, 707.05 (0.079) ALUMINIZED ASPHALT COATED AND PAVED, 707.07 (0.079) ALUMINIZED ASPHALT COATED AND PAVED. FOR ADDITIONAL REQUIREMENTS FOR BORED AND JACKED CONDUITS, SEE NOTE ON SHEET 36. THIS CONDUIT MAY BE INSTALLED BY OPEN CUT, PROVIDING IT IS PERFORMED WHILE THE ROAD IS CLOSED, IF OPEN CUT IS USED, THIS ITEM OF WORK SHALL INCLUDE ALL COSTS OF RESTORING THE ROADWAY.



PROFILE ALONG CULVERT

HYDRAULIC DATA		
DRAINAGE AREA: 8.43 ACRES		
FREQ. (YR)	Q (CFS)	VEL. (FPS)
25	35.1	7.83
50	38.2	7.98
100	42.5	8.14

pH VALUE = 7.6

PROPOSED STRUCTURE
 TYPE: 36" CONDUIT, TYPE A,
 BORED OR JACKED, AS PER PLAN
 SKEW: 60°59'53"

ITEM 601- ROCK CHANNEL PROTECTION, TYPE C (18" DEEP)

ITEM 602- CONCRETE MASONRY HW 2.1 (HALF-HEIGHT HEADWALL)

GENERAL NOTES

DESIGN SPECIFICATIONS: THIS STANDARD DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

- INTERNAL ANGLE OF FRICTION (ϕ) - 30 DEGREES
- COEFFICIENT OF FRICTION (μ) - 0.30
- UNIT WEIGHT OF SOIL - 120 PCF
- UNIT WEIGHT OF CONCRETE - 150 PCF
- SLOPE OF BACKFILL - 2:1 (TYPE A & B HEADWALLS)
- HEIGHT OF LIVE LOAD SURCHARGE - 2 FT (TYPE C HEADWALLS)
- MAXIMUM FOUNDATION BEARING PRESSURE - 2000 P.S.F.
- CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI (FOOTING, WINGWALL AND FORESLOPE WALL)
- REINFORCING STEEL - ASTM A615, A616, OR A617 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

PRECAST CONCRETE: AT THE OPTION OF THE CONTRACTOR, PRECAST FOOTINGS AND WINGWALLS MAY BE USED PROVIDED THEY ARE SIZED TO MEET THE SOIL PARAMETERS AND MEET OR EXCEED THE MATERIAL STRENGTHS SPECIFIED HEREIN. THE CONTRACTOR SHALL SUBMIT DESIGNS AND SHOP DRAWINGS TO THE OFFICE OF STRUCTURAL ENGINEERING FOR APPROVAL.

FORESLOPE WALL ANCHOR DOWELS: ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20 AND TO A DEPTH SPECIFIED ON SHEET 6/6. PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER MAY BE USED PROVIDED THEY CAN RESIST AN ULTIMATE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 603.

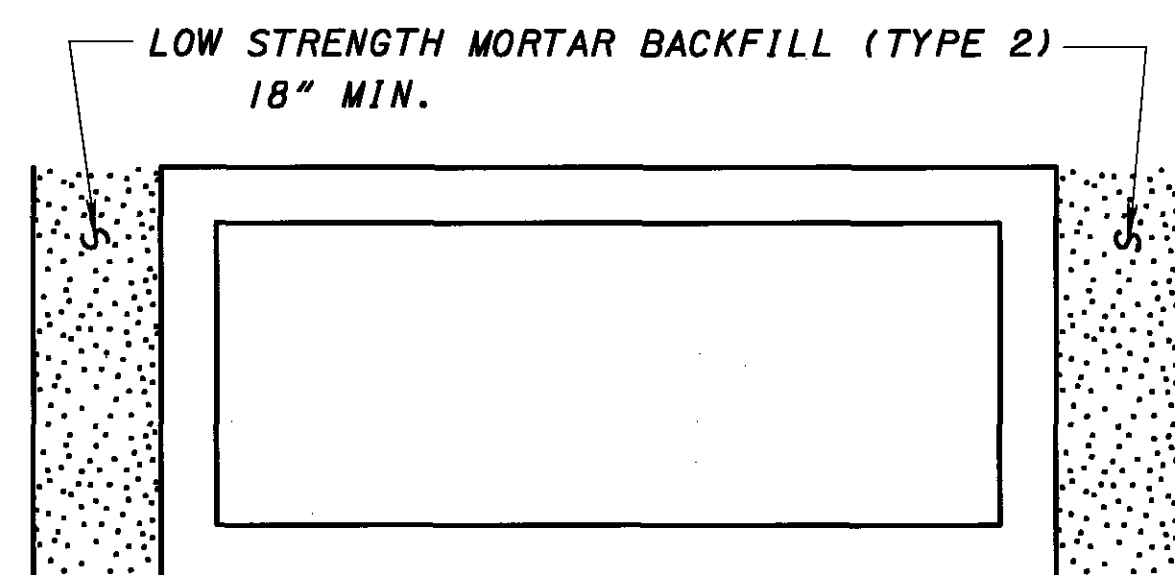
BACKFILL LIMITATION: WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

ITEM 603 8'-0" SPAN X 4'-0" RISE CONDUIT, TYPE A, 706.05, AS PER PLAN

ALL OF CMS 603 SHALL BE PERFORMED EXCEPT THE BACKFILLING SHALL BE MODIFIED TO CONSIST OF LOW STRENGTH MORTAR BACKFILL (TYPE 2) MEETING THE REQUIREMENTS OF CMS 613. THE LIMITS ARE UP TO THE TOP OF THE CULVERT. SEE THE DETAIL ON THIS SHEET. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN ITEM 603, PER PLAN.

ITEM 604 MANHOLE, NO. 5, AS PER PLAN

PLACE THE MANHOLE AS SHOWN ON THE CULVERT DETAIL SHEET, CONNECTING THE EXISTING 72" CONDUIT AND THE PROPOSED 84" CONDUIT. REMOVAL OF THE EXISTING PIPE WILL BE PAID FOR UNDER ITEM 202-PIPE REMOVED, OVER 24" AS PER PLAN, AND REMOVAL OF THE EXISTING HEADWALL WILL BE PAID FOR UNDER ITEM 202-STRUCTURE REMOVED.



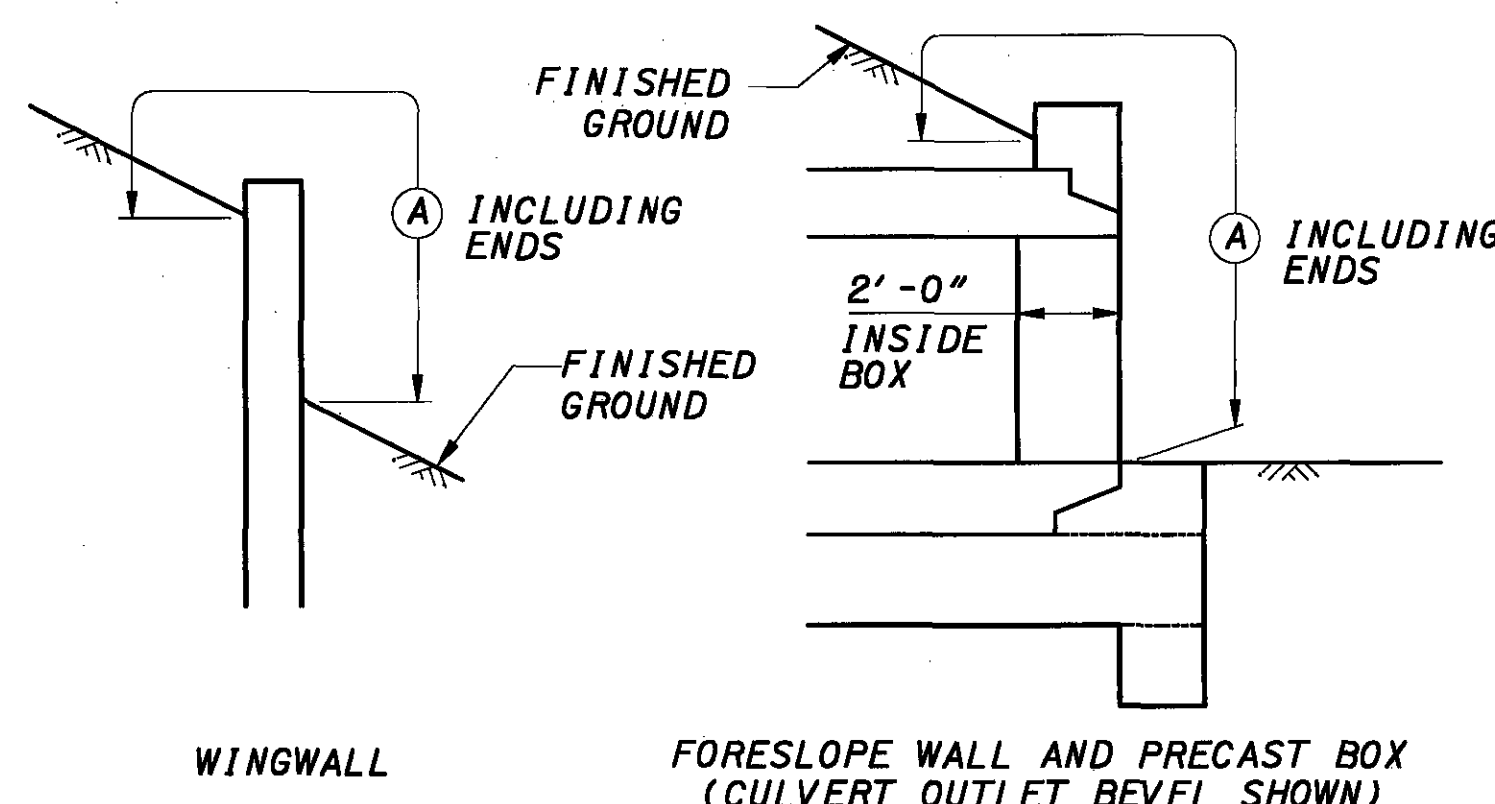
LOW STRENGTH MORTAR BACKFILL

POROUS BACKFILL WITH FILTER FABRIC 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

PERFORMED EXPANSION JOINT FILLER: PERFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PERFORMED EXPANSION JOINT FILLER.

SEALING OF FORESLOPE WALL AND WINGWALLS: ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES, (EPOXY URETHANE).



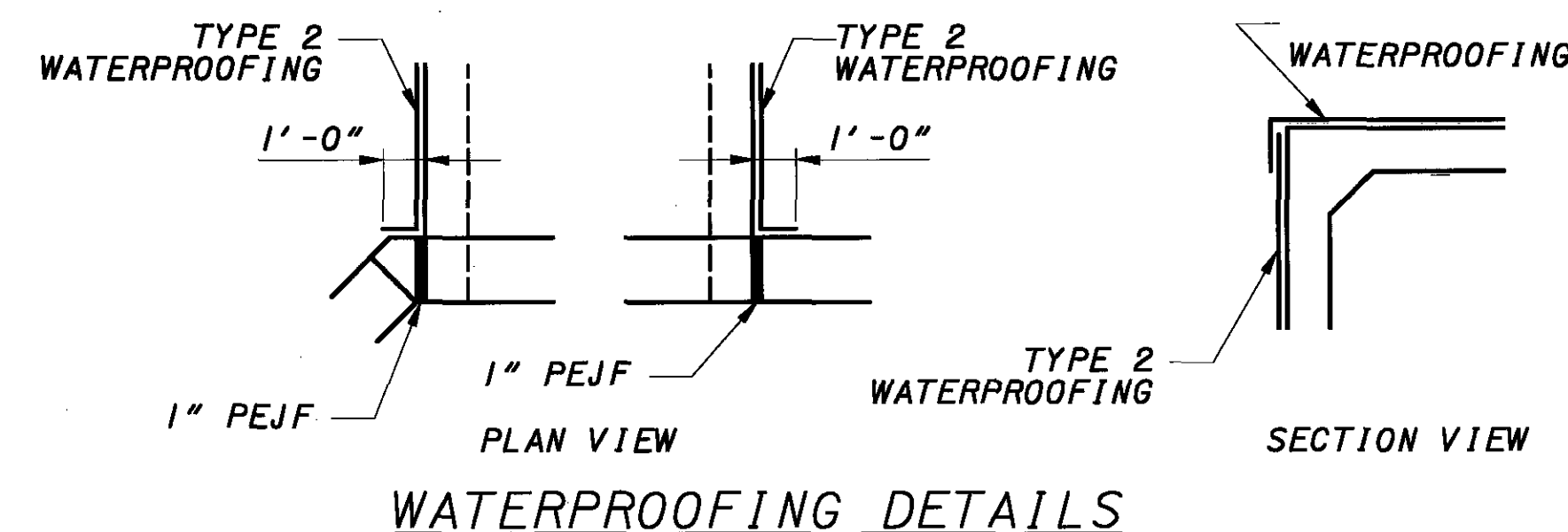
LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA

WATERPROOFING: TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS NOT PLACED DIRECTLY ON TOP OF THE CULVERT, TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS TO BE USED DIRECTLY ON TOP OF THE CULVERT, TYPE 3 WATERPROOFING, PER CMS 512.10 AND 711.29 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.



BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE (RET-WALL/WINGWALL/FOOTING). PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

ESTIMATED QUANTITIES				
ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
202	35201	20	FT.	PIPE REMOVED, OVER 24"
202	11100	28	CU. YD.	STRUCTURE REMOVED
503	11100	LUMP		COFFERDAMS, CRIBS, AND SHEETING
503	21100	LUMP		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)
509	10000	7542	LB.	EPOXY COATED REINFORCING STEEL
511	46000	18	CU. YD.	CLASS C CONCRETE, WINGWALL
511	46500	34	CU. YD.	CLASS C CONCRETE, FOOTING
511	46600	1	CU. YD.	CLASS C CONCRETE, HEADWALLS
512	33000	387	SQ. YD.	TYPE 2 WATERPROOFING
512	10100	42	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	13600	40	SQ. FT.	1" PERFORMED EXPANSION JOINT FILLER
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC
601	32204	155	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER
603	05700	9	FT.	15" CONDUIT, TYPE C
603	28400	44	FT.	84" CONDUIT, TYPE C
603	94801	174	LIN. FT.	8'-0" SPAN 4'-0" RISE CONDUIT, TYPE A, 706.05, AS PER PLAN
604	04500	1	EA.	CATCH BASIN, NO. 2-2B
604	32101	1	EA.	MANHOLE, NO. 5, AS PER PLAN

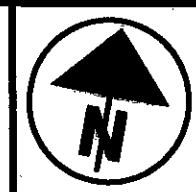
NOTE: TOTALS CARRIED TO SUB-SUMMARY SHEETS 149 & 150

HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

CULVERT NOTES & QUANTITIES
RAMP EN STA. 117+57

MED-71-6.06



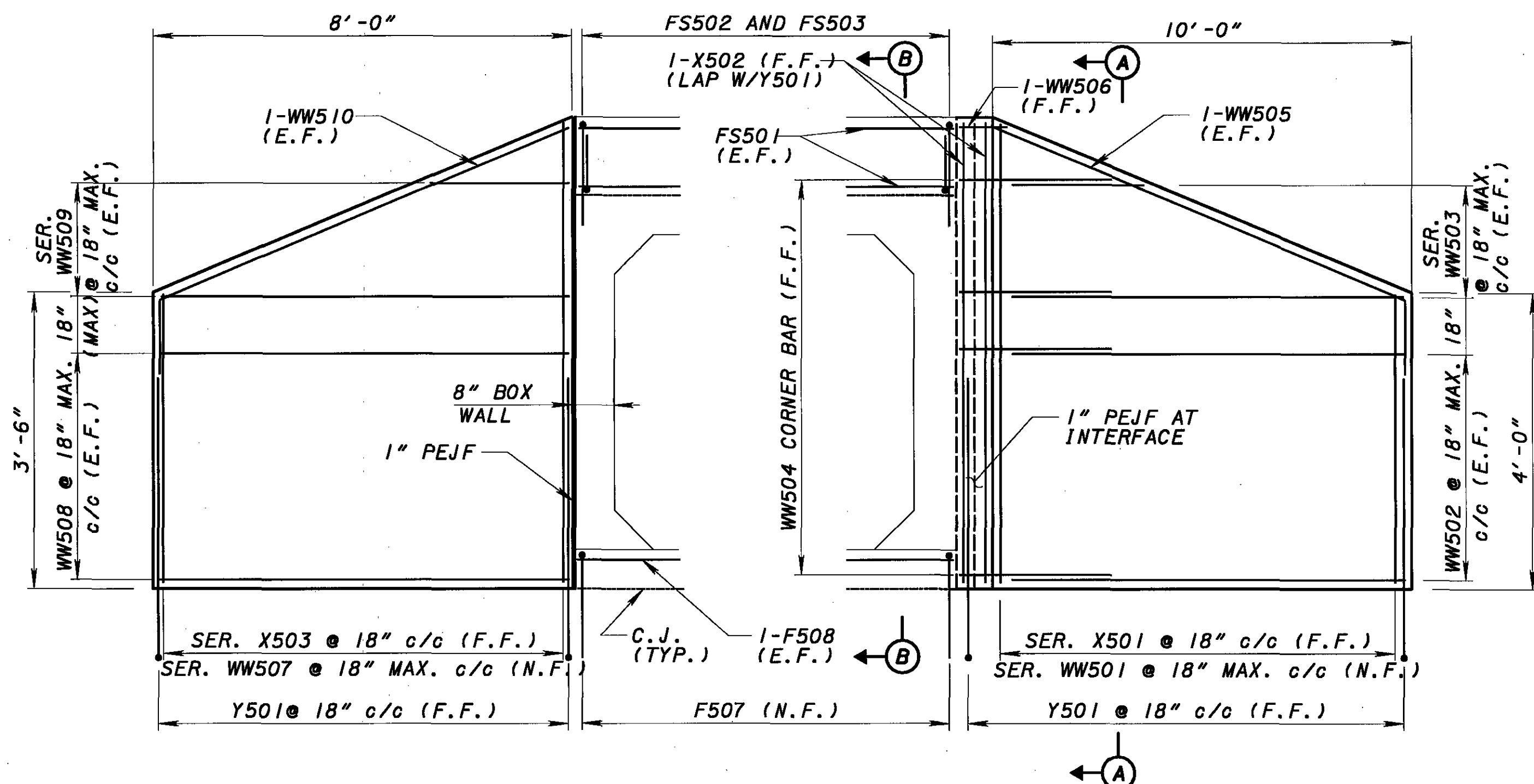
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

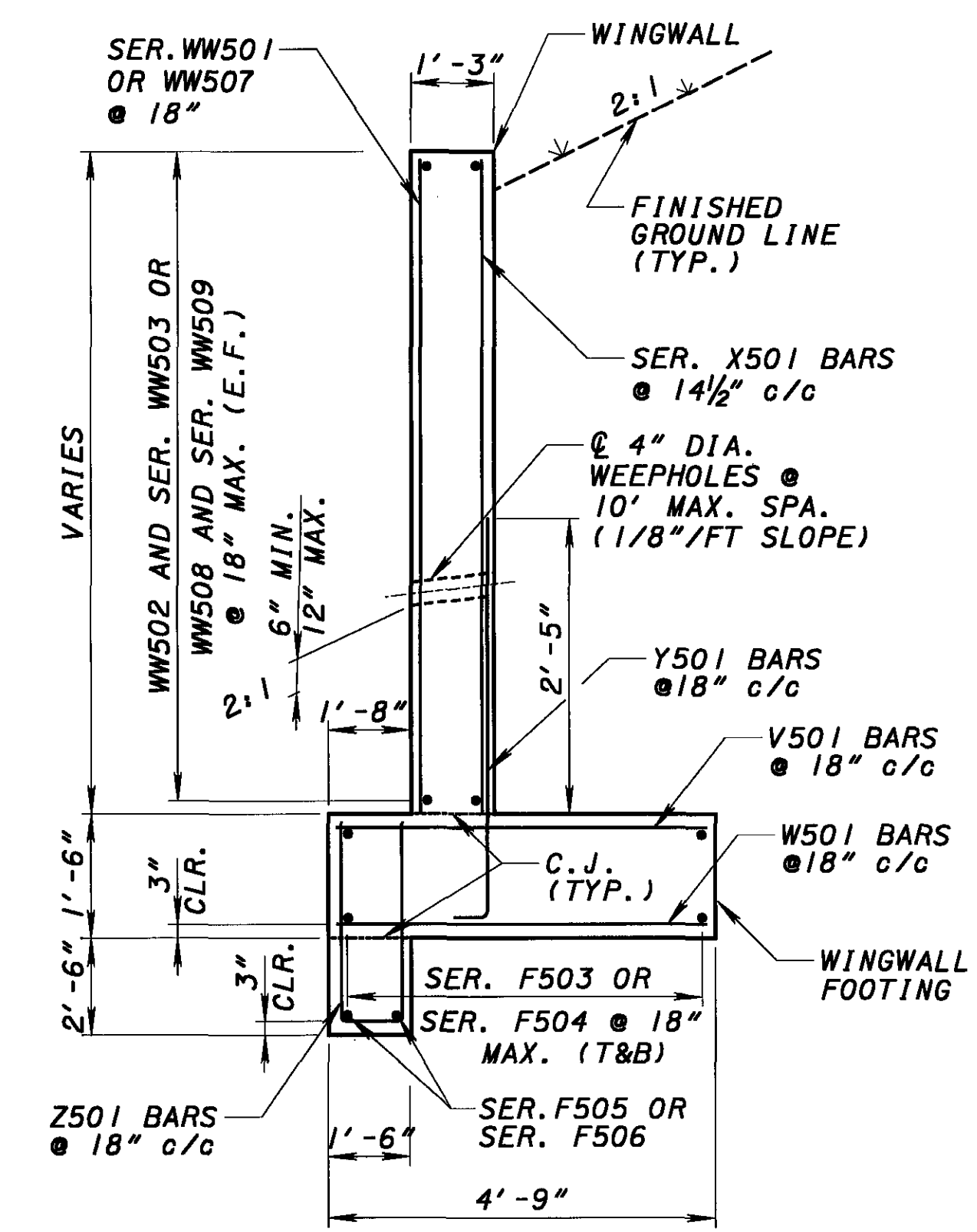
CULVERT INLET DETAIL
RAMP EN STA. 117+57

MED - 71 - 6.06

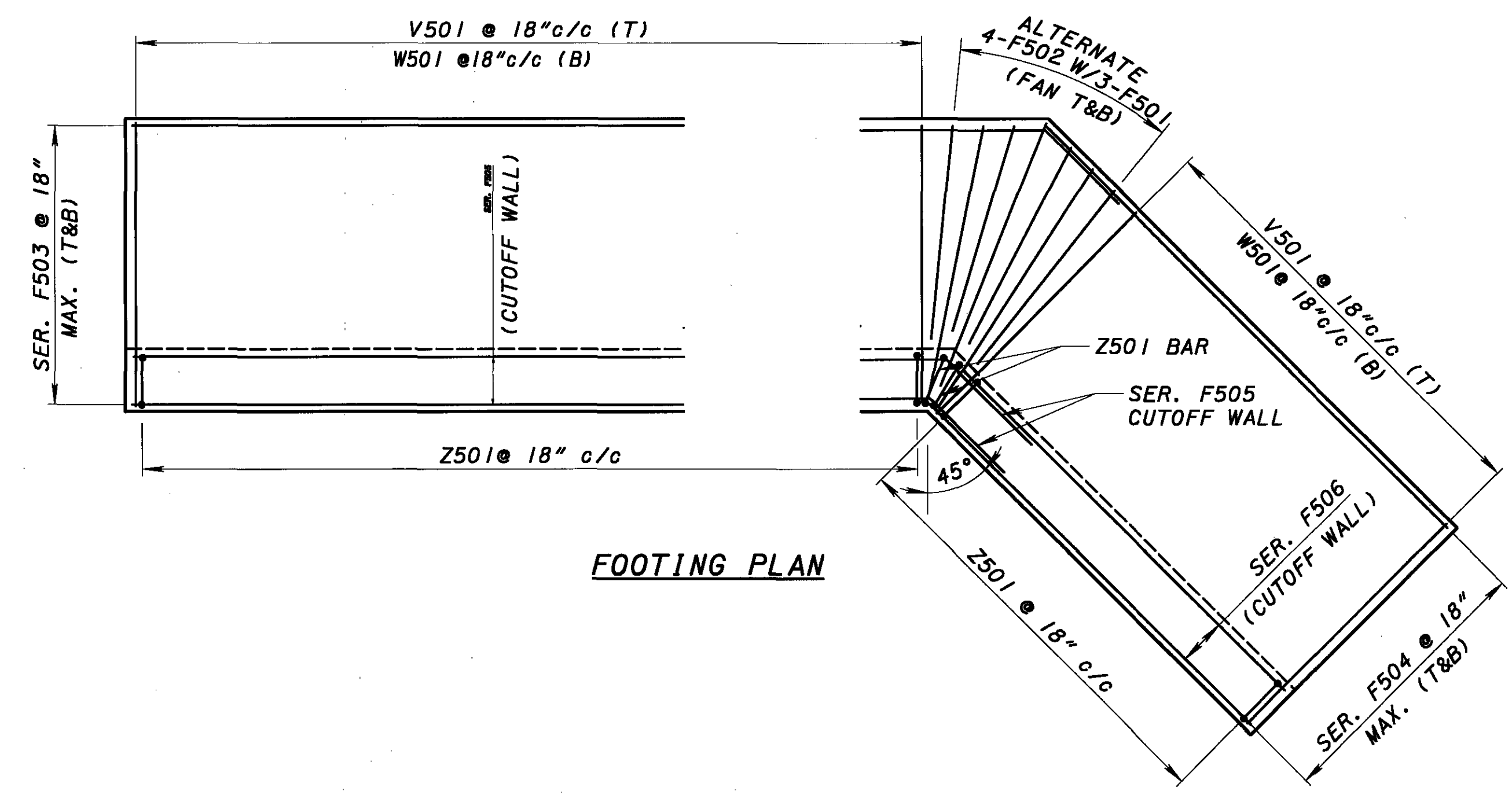
496
1120



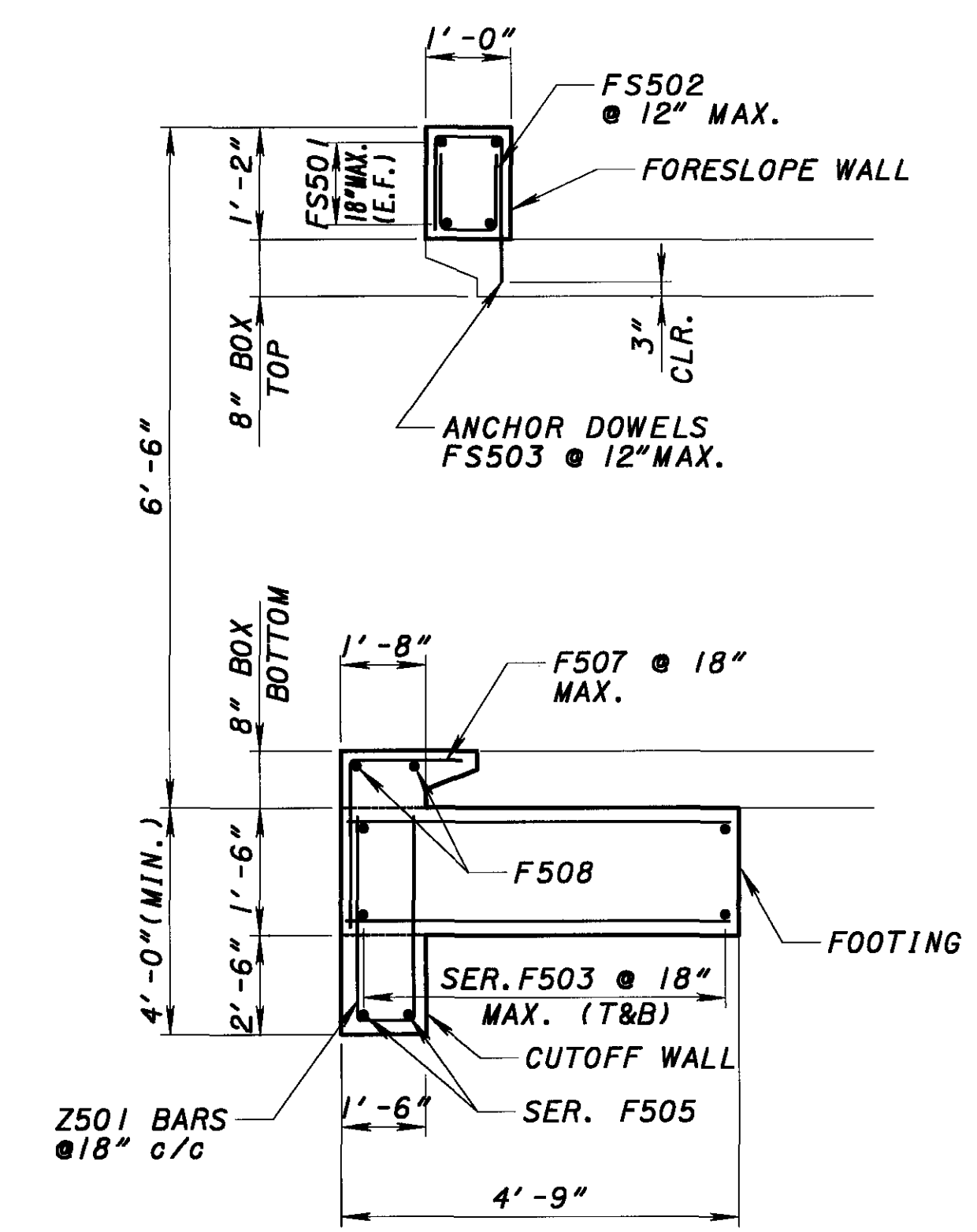
INLET WINGWALL ELEVATION
(FOOTING NOT SHOWN)



SECTION A-A
(POROUS BACKFILL NOT SHOWN FOR CLARITY)



FOOTING PLAN



SECTION B-B
(CULVERT INLET BEVEL SHOWN)

DESIGN HEIGHT

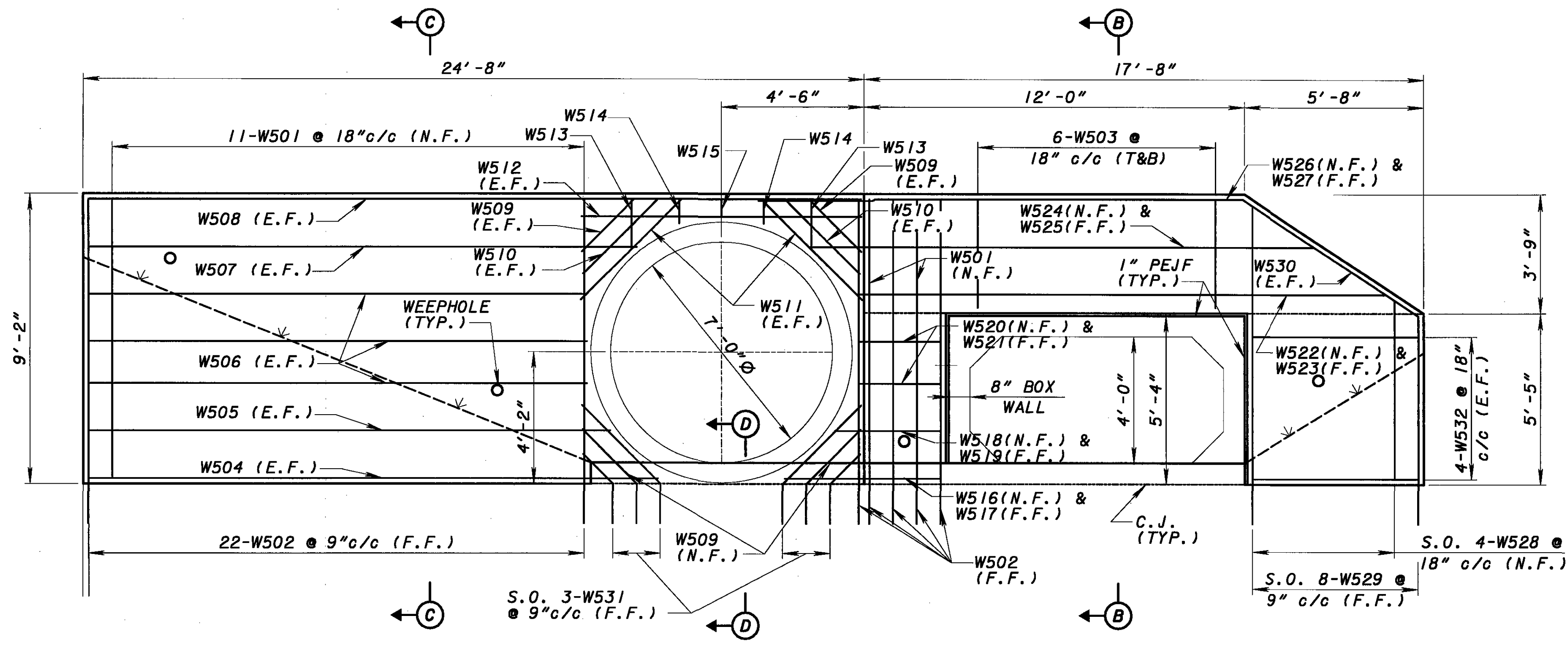
THE INLET HEADWALL IS TYPE B WITH A DESIGN HEIGHT OF 6'-6\".

NOTES

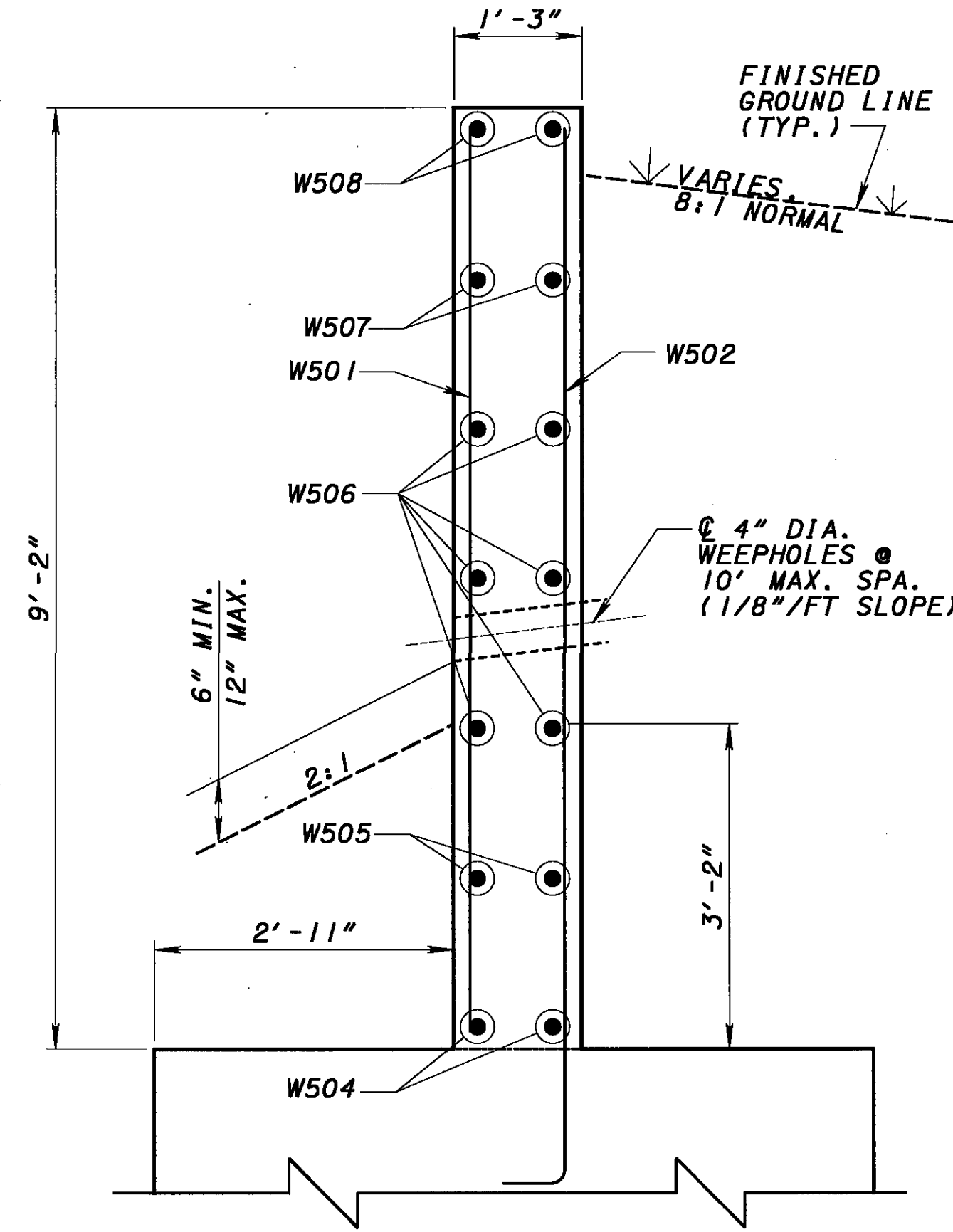
1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO. 5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.

LEGEND:

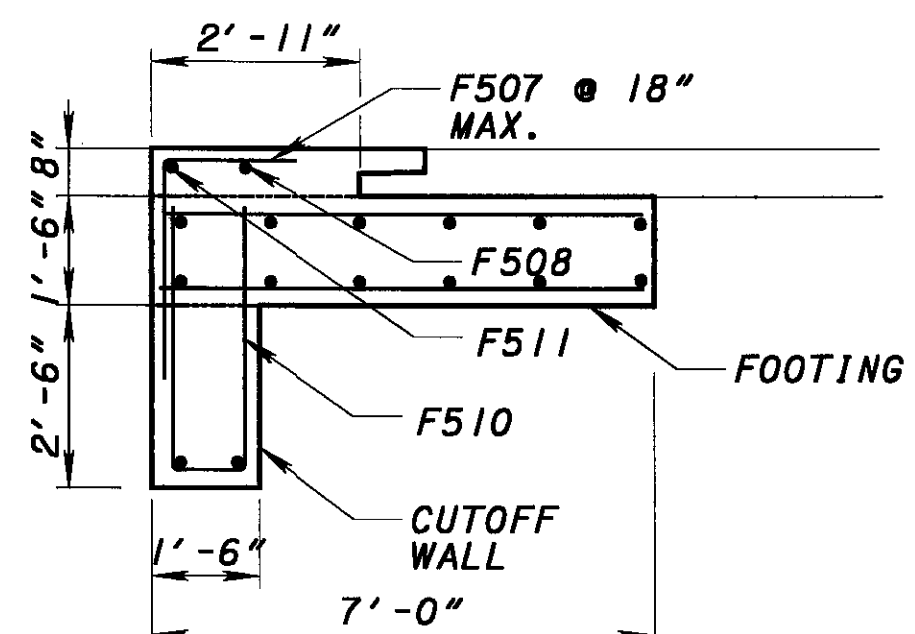
C. J.	CONSTRUCTION JOINT	N. F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	(T)	TOP
E. F.	EACH FACE	(B)	BOTTOM
F. F.	FAR FACE	T&B	TOP AND BOTTOM
MAX.	MAXIMUM	TYP.	TYPICAL
MIN.	MINIMUM		
PEJF	PREFORMED EXPANSION JOINT FILLER		



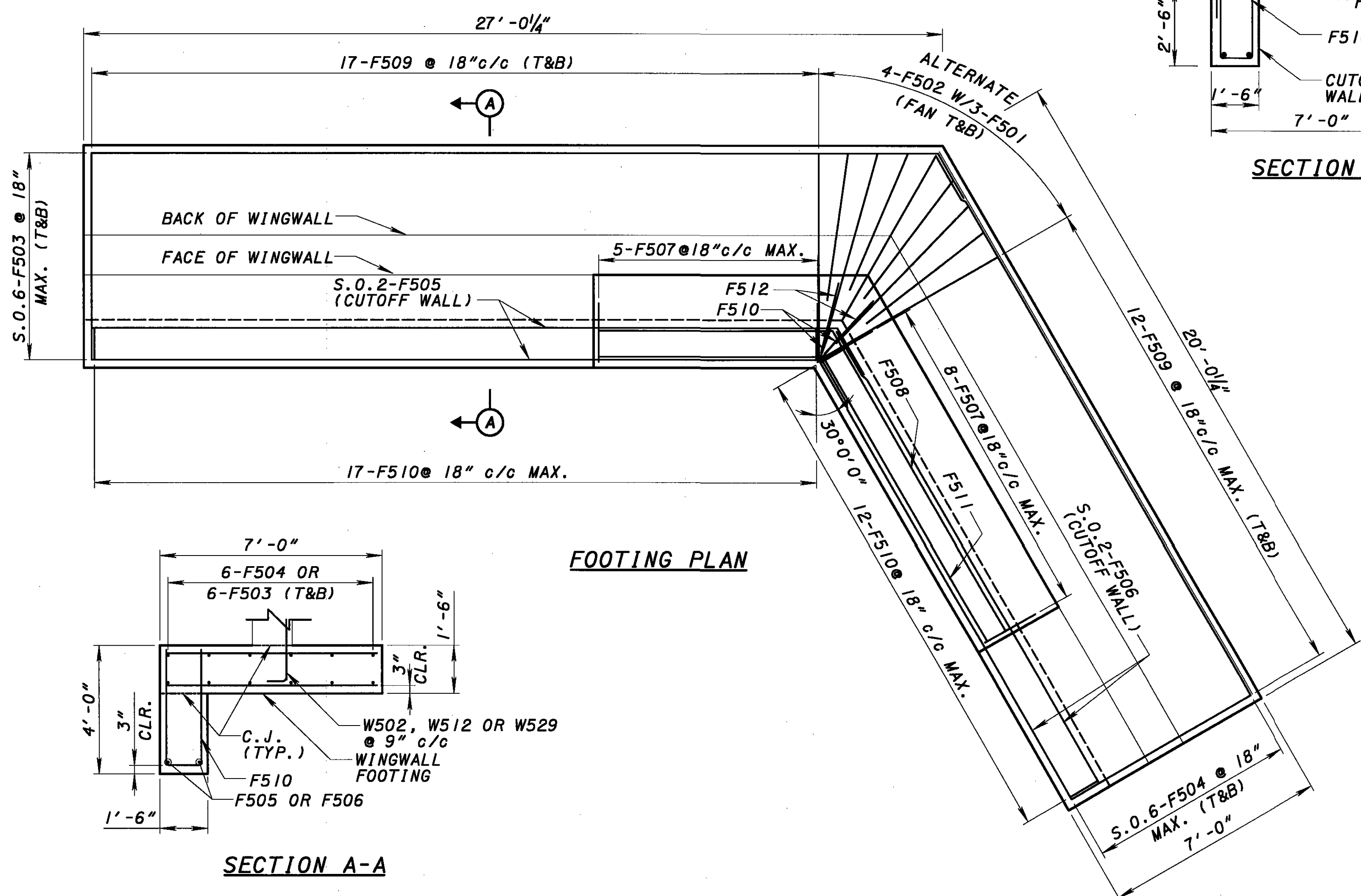
WINGWALL ELEVATION
(FOOTING NOT SHOWN)



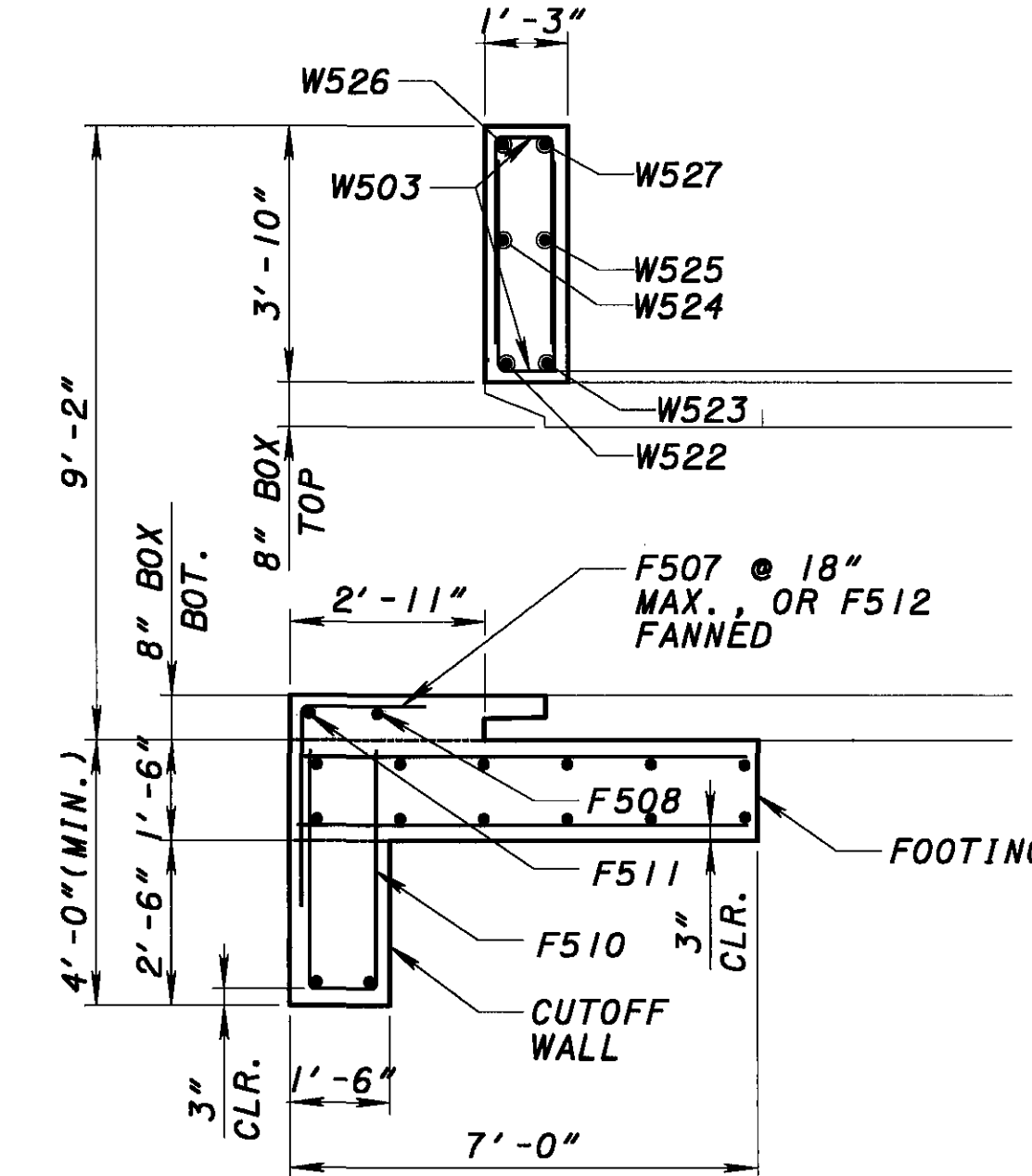
SECTION C-C
(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION D-D



FOOTING PLAN



SECTION B-B

NOTES

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, W501 IS A NO.5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED. MAINTAIN 2" CLEAR COVER EXCEPT AS SHOWN.

LEGEND:

- | | | | |
|------|----------------------------------|------|----------------|
| C.J. | CONSTRUCTION JOINT | N.F. | NEAR FACE |
| CLR. | CLEAR | S.O. | SERIES OF |
| DIA. | DIAMETER | T&B | TOP AND BOTTOM |
| E.F. | EACH FACE | TYP. | TYPICAL |
| F.F. | FAR FACE | φ | DIAMETER |
| MAX. | MAXIMUM | | |
| MIN. | MINIMUM | | |
| PEJF | PREFORMED EXPANSION JOINT FILLER | | |

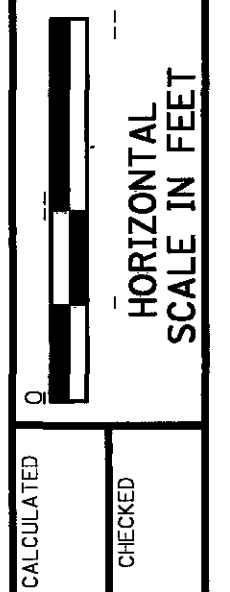
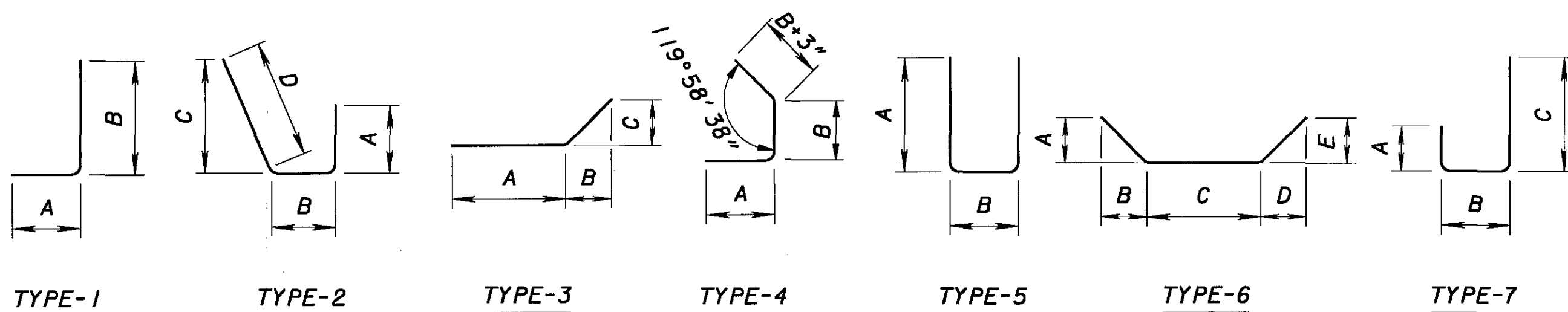
CULVERT OUTLET DETAIL
RAMP EN STA. 117+57

MED-71-6.06

CALCULATED
CHECKED
XXX
HORIZONTAL
SCALE IN FEET

INLET HEADWALL REINFORCING SCHEDULE										
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS					
					A	B	C	D	INC.	
WINGWALLS										
X501	1 SERIES of 8	3'-10"	43	STR.						0'-4 ³ / ₈ "
X502	2	6'-4"	14	STR.						
X503	1 SERIES of 7	3'-4"	51	STR.						1'-0"
Y501	17	4'-0"	72	1	0'-6"	3'-8"				
WW501	1 SERIES of 8	3'-10"	43	STR.						0'-4 ³ / ₈ "
WW502	2	9'-8"	61	STR.						
WW503	2 SERIES of 2	4'-10"	31	STR.						4'-10"
WW504	5	3'-10"	20	2	0'-7"	0'-4"	2'-7 ¹ / ₄ "	3'-0"		
WW505	2	12'-4"	26	3	2'-5"	2'-4"	9'-8"			
WW506	1	1'-5"	2	4	0'-7"	0'-4"				
WW507	1 SERIES of 7	3'-4"	36	STR.						1'-0"
WW508	6 SERIES of 2	7'-8"	48	STR.						
WW509	2 SERIES of 2	3'-10"	24	STR.						1'-10"
WW510	2	10'-7"	23	3	2'-5"	2'-10"	7'-8"			
FOOTING & CUTOFF WALL										
V501	19	4'-5"	88	STR.						
W501	19	4'-5"	88	STR.						
Z501	21	8'-2"	179	5	3'-7"	1'-2"				
F501	6	4'-0"	26	STR.						
F502	8	3'-2"	27	STR.						
F503	2 SERIES of 4	18'-9"	167	3	16'-3 ³ / ₄ " TO 18'-10 ¹ / ₄ "	1'-2 ¹ / ₂ "	2'-1 ¹ / ₄ "			0'-10"
F504	2 SERIES of 4	8'-11"	86	STR.						0'-10 ³ / ₈ "
F505	1 SERIES of 4	11'-6"	40	3	16'-3 ³ / ₄ " TO 16'-11 ³ / ₄ "	1'-2 ¹ / ₂ "	2'-1 ¹ / ₄ "			0'-8"
F506	1 SERIES of 2	18'-9"	20	STR.						0'-8 ¹ / ₈ "
F507	2	9'-7"	25	1	1'-8"	1'-10"				
F508	7	3'-5"	19	STR.						
FORESLOPE WALL										
FS501	4	9'-0"	38	STR.						
FS502	10	2'-1"	22	5	0'-10"	0'-8"				
FS503	10	2'-8"	28	7	0'-10"	0'-8"	1'-1"			
TOTAL			1347							

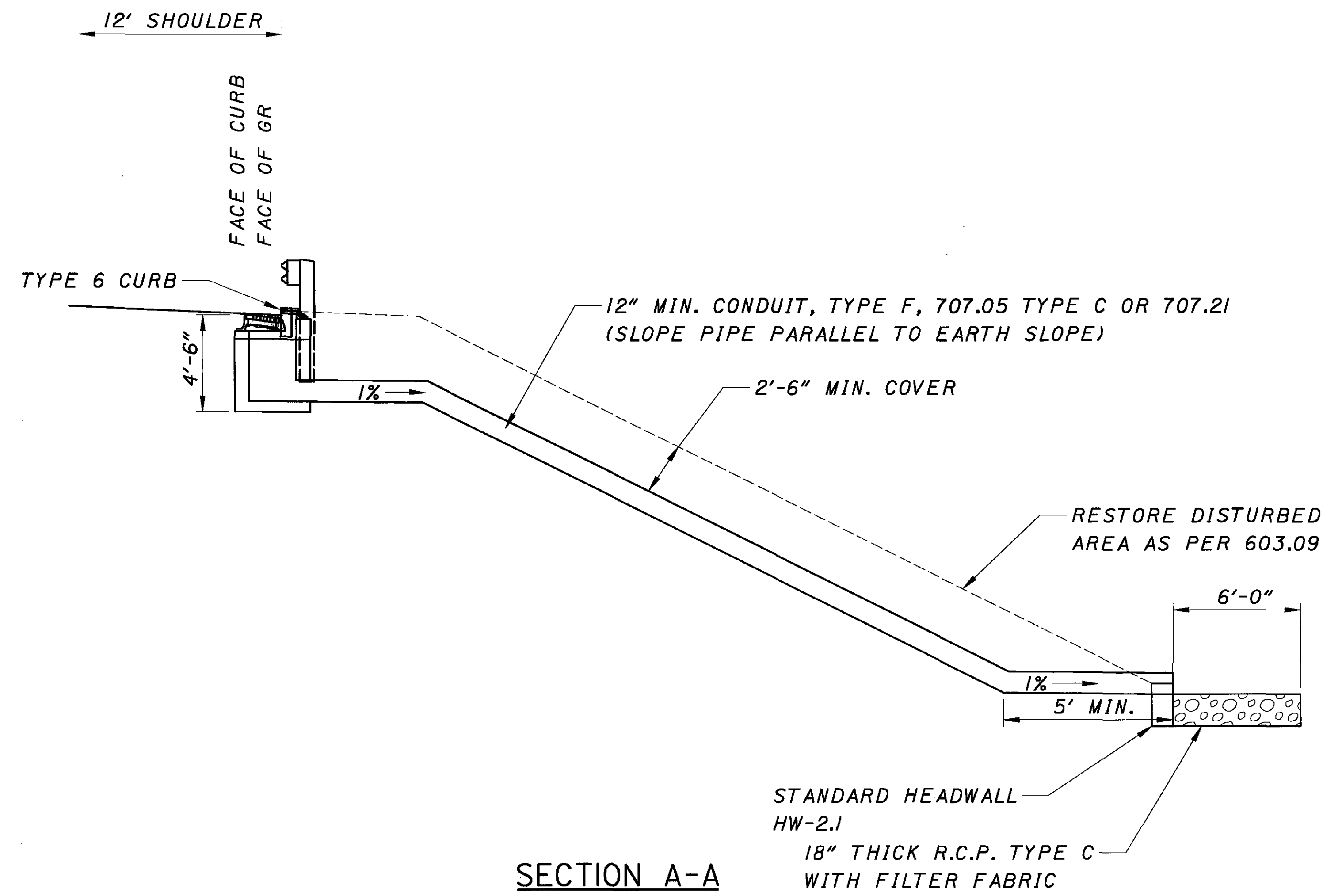
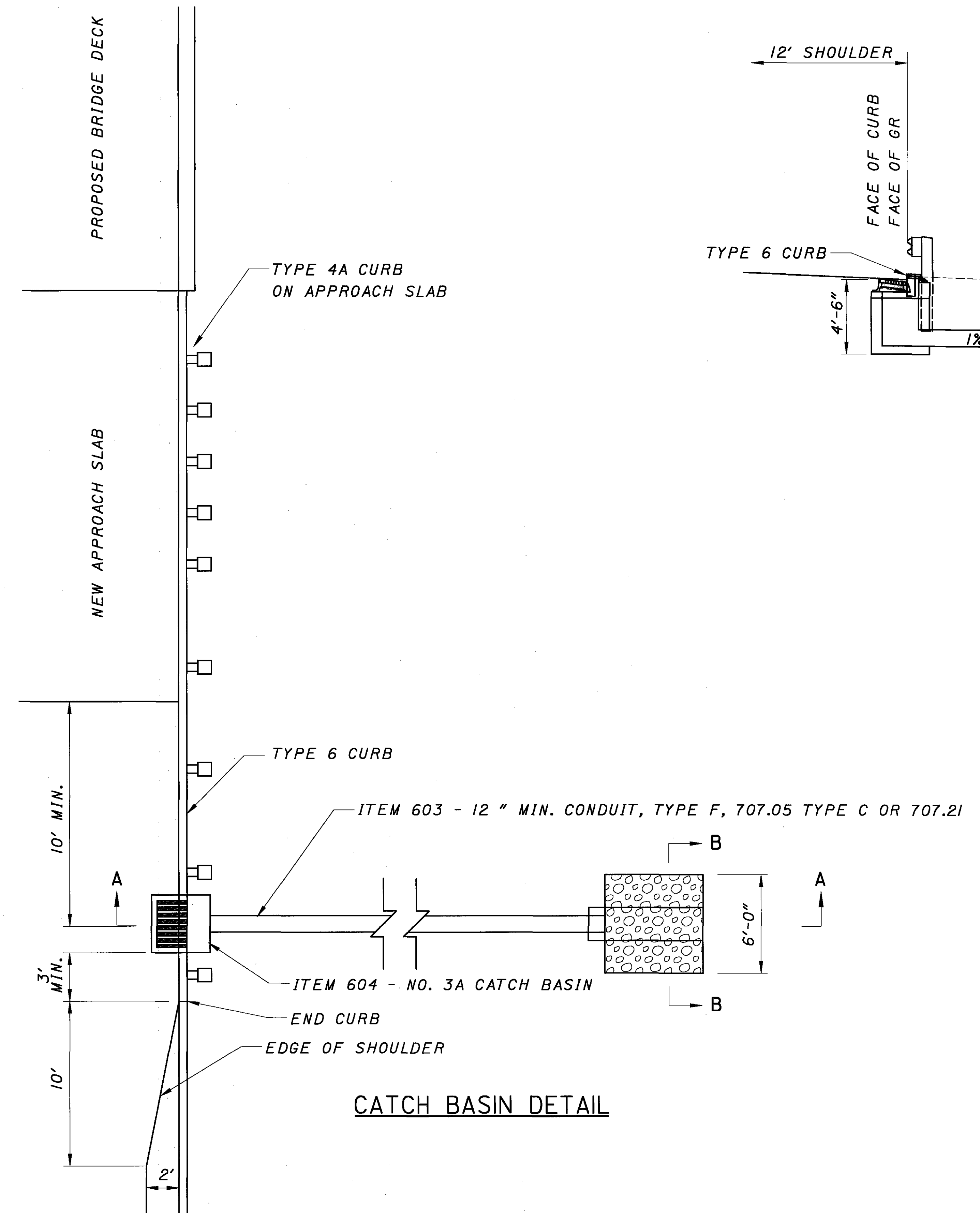
OUTLET HEADWALL REINFORCING SCHEDULE										
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS					
					A	B	C	D	INC.	
WINGWALLS										
W501	13	8'-10"	119	STR						
W502	27	10'-7"	298	1	0'-6"	10'-3"				
W503	12	7'-1"	88	5	3'-2 ¹ / ₂ "	0'-11"				
W504	2	17'-11"	37	STR						
W505	2	16'-5"	34	STR						
W506	6	15'-8"	98	STR						
W507	2	17'-3"	36	STR						
W508	2	25'-0"	52	STR						
W509	6	2'-4"	14	STR						
W510	4	3'-4"	13	STR						
W511	4	4'-6"	18	STR						
W512	2	8'-10"	18	STR						
W513	2	3'-10"	7	5	1'-7"	0'-11"				
W514	2	2'-2"	4	5	0'-9"	0'-11"				
W515	1	1'-8"	1	5	0'-6"	0'-11"				
W516	1	4'-10"	5	3	2'-5"	1'-3"	2'-2"			
W517	1	6'-2"	6	3	3'-0 ³ / ₄ "	1'-7"	2'-8 ³ / ₈ "			
W518	1	3'-3"	3	3	2'-5"	0'-5 ¹ / ₂ "	0'-9 ¹ / ₂ "			
W519	1	4'-7"	4	3	3'-0 ³ / ₄ "	0'-9 ³ / ₈ "	1'-4 ¹ / ₄ "			
W520	2	2'-6"	5	3	2'-5"	0'-1"	0'-1 ³ / ₄ "			
W521	2	3'-10"	7	3	3'-0 ³ / ₄ "	0'-4 ¹ / ₂ "	0'-8 ¹ / ₂ "			
W522	1	16'-8"	17	3	16'-5 ³ / ₄ "	0'-1 ¹ / ₂ "	0'-2 ¹ / ₂ "			
W523	1	18'-0"	18	3	17'-1 ¹ / ₂ "	0'-5 ³ / ₄ "	0'-9 ³ / ₄ "			
W524	1	15'-11"	16	3	14'-2 ¹ / ₂ "	0'-10 ¹ / ₂ "	1'-6 ¹ / ₄ "			
W525	1	17'-3"	17	3	14'-10 ¹ / ₄ "	1'-2 ³ / ₈ "	2'-1"			
W526	1	14'-6"	15	3	11'-11"	1'-4"	2'-3 ¹ / ₂ "			
W527	1	15'-2"	15	3	12'-6 ³ / ₄ "	1'-4"	2'-3 ¹ / ₂ "			
W528	S.O.	TO	119	STR						1'-0"
	4	8'-7"								
	1	6'-11"				6'-7"				
W529	S.O.	TO	575	1	0'-6"	TO				0'-5 ³ / ₄ "
	8	10'-4"				10'-0"				
W530	2	9'-8"	20	6	1'-3"	0'-10"	6'-9"	1'-3"	0'-10"	
	2	2'-6"			1'-4"					
W531	S.O.	TO	67	3	TO	0'-10 ¹ / ₂ "	0'-10 ¹ / ₂ "			1'-1"
	3	4'-8"			3'-6"					
W532	8	5'-2"	43	STR						
FOOTING & CUTOFF WALL										
F501	6	6'-0"	37	STR						
F502	8	4'-8"	38	STR						
F503	S.O.	TO	2054	3	22'-10 ¹ / ₂ "	1'-4"	2'-3 ¹ / ₂ "			0'-9"
	6	29'-3"			26'-7 ¹ / ₂ "					
F504	S.O.	TO	1336	STR						0'-9"
	2	15'-10"								
	6	19'-7"								
F505	S.O.	TO	107	3	22'-10 ¹ / ₂ "	1'-4"	2'-3 ¹ / ₂ "			0'-6"
	2	26'-0"			23'-4 ³ / ₈ "					
F506	S.O.	TO	67	STR						0'-7"
	2	16'-5"								
F507	13	4'-8"	63	1	3'-0"	1'-10"				
F508	1	18'-5"	19	3	7'-6 ³ / ₈ "	5'-5 ³ / ₈ "	9'-5 ¹ / ₄ "			
F509	58	6'-8"	403	STR						
F510	31	8'-1"	261	5	3'-7"	1'-2"				
F511	1	17'-1"	17	3	6'-10 ¹ / ₂ "	5'-1 ¹ / ₂ "	8'-10 ¹ / ₂ "			
F512	2	2'-3"	4	STR						
TOTAL WEIGHT			6195							



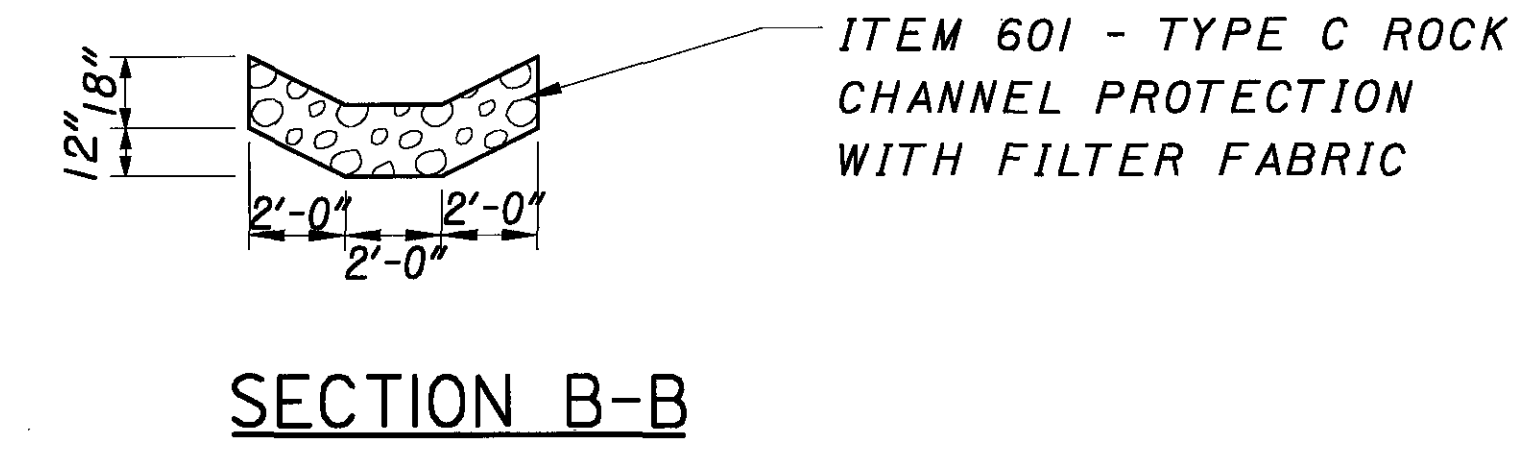
CALCULATED
CHECKED

CULVERT REINFORCEMENT
RAMP EN STA. 117+57

MED-71-6.06



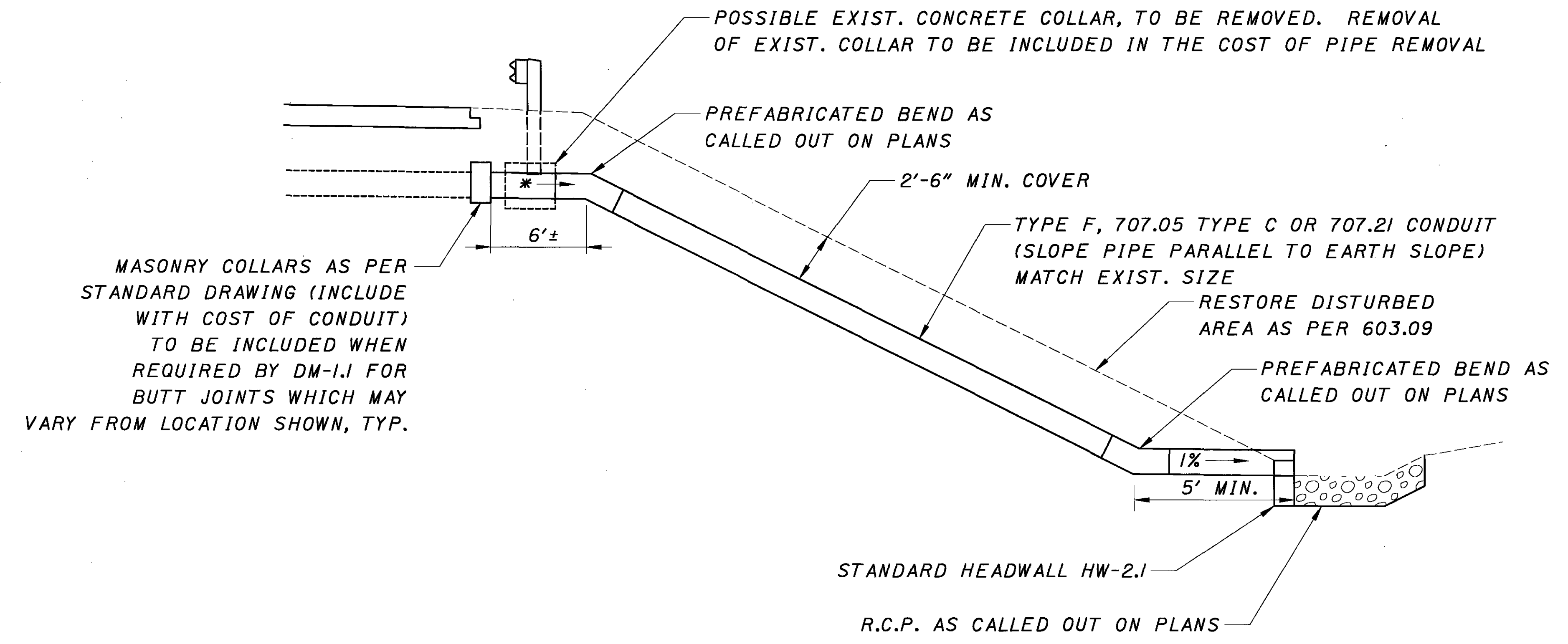
SECTION A-A



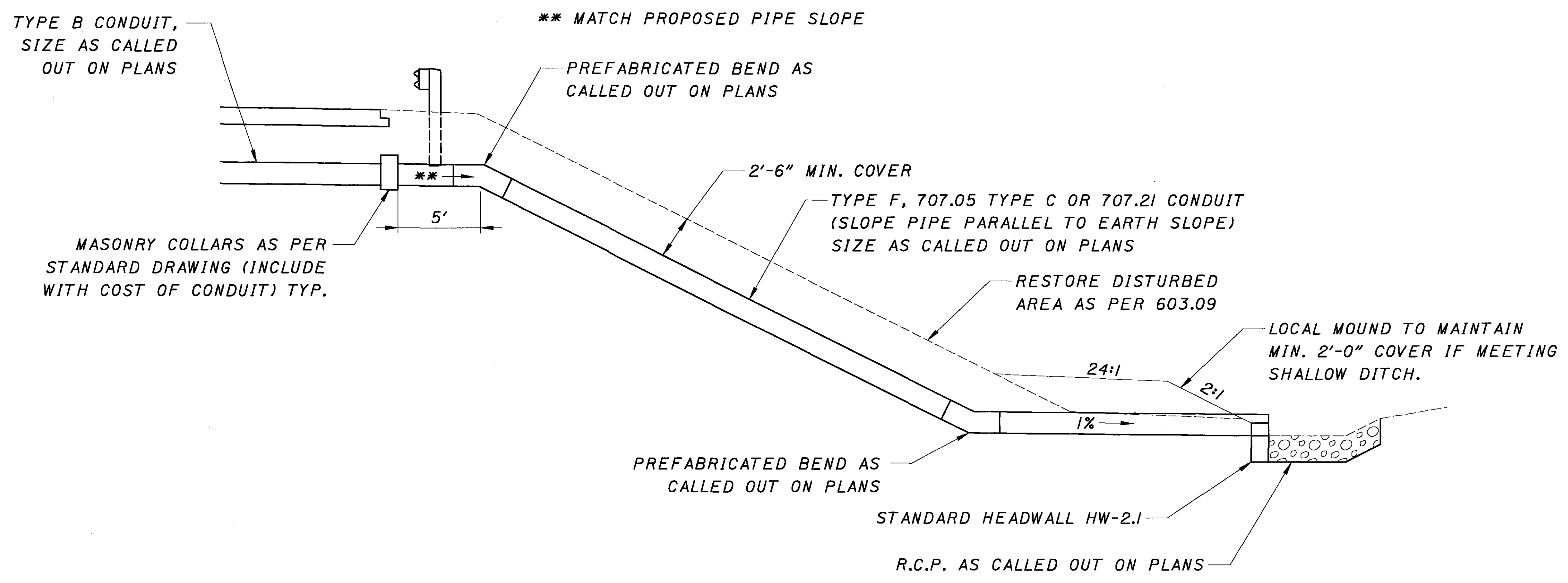
SECTION B-B

...\\75657DDP.dgn

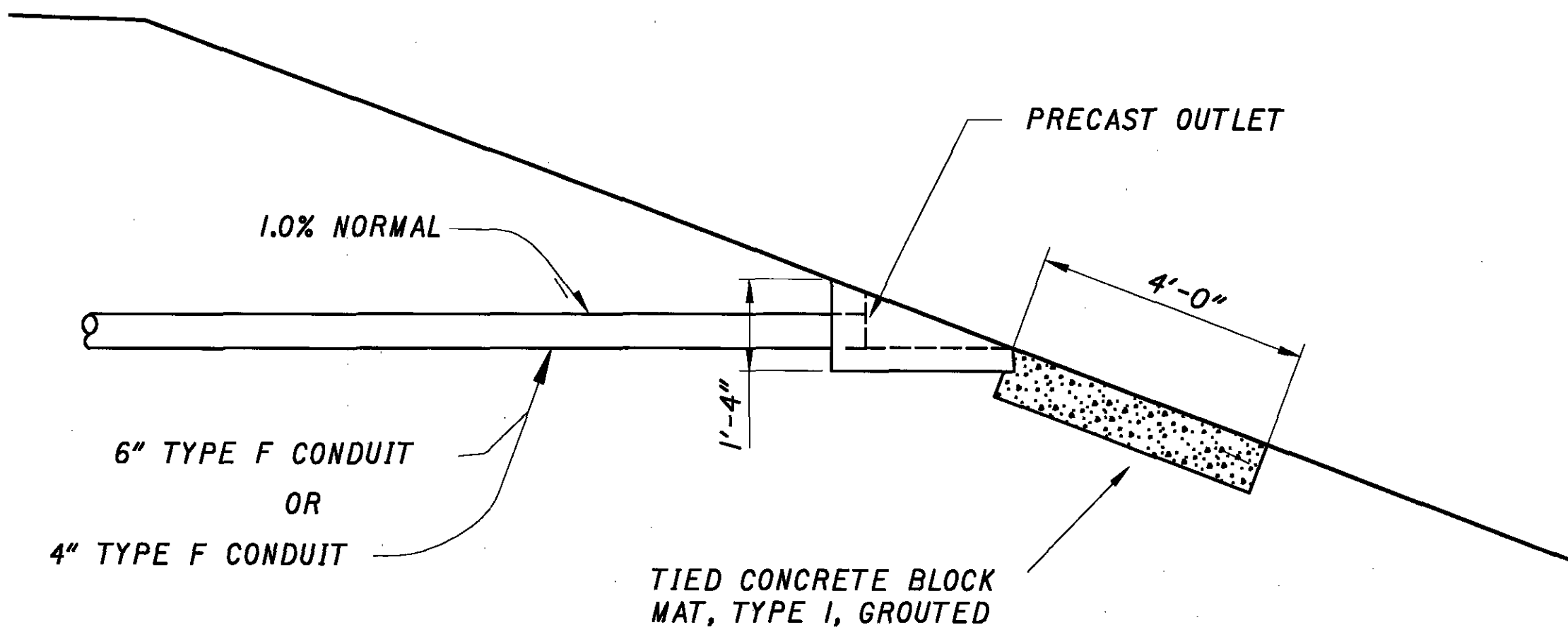
* MATCH EXIST. PIPE SLOPE, 1.0% MIN.



MEETING EXIST. CONDUIT & EMBANKMENT WITH NO BENCH



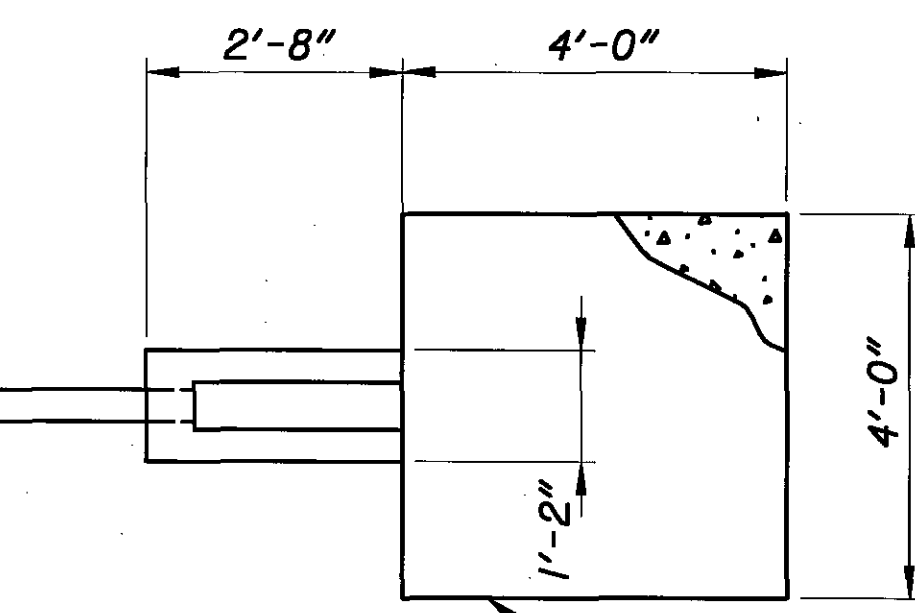
NEW CONDUIT & EMBANKMENT WITH BENCH



6" TYPE F CONDUIT
OR
4" TYPE F CONDUIT

TIED CONCRETE BLOCK
MAT, TYPE I, GROUTED

6" TYPE F CONDUIT
OR
4" TYPE F CONDUIT



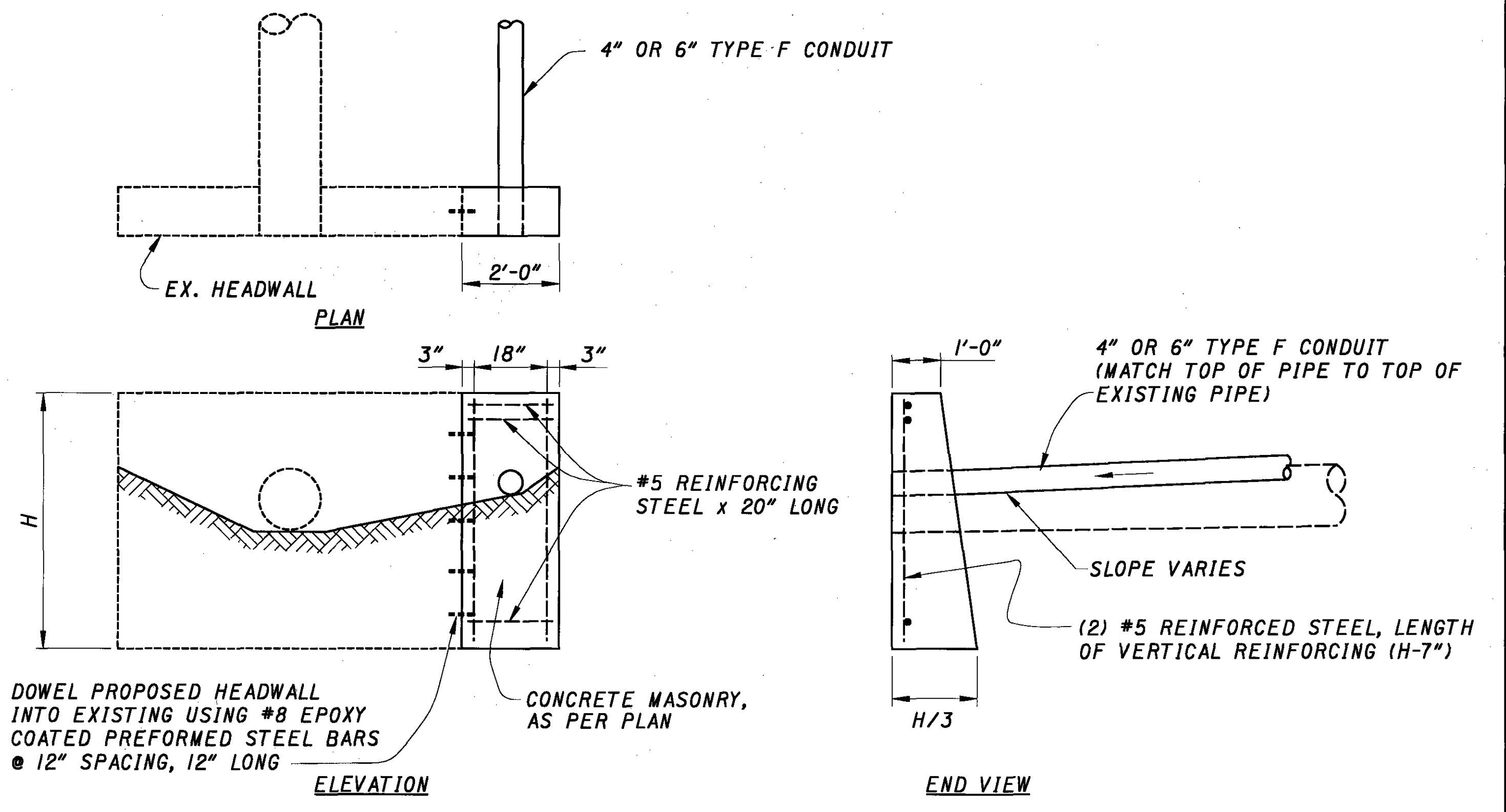
PLAN

TIED CONCRETE BLOCK
MAT, TYPE I, GROUTED

PRECAST REINFORCED CONCRETE OUTLET
TO BE PROVIDED AND INSTALLED AS PER DM-1.1

NOTES:

- 1. TOP OF CONCRETE BLOCK MAT IS TO BE PLACED FLUSH WITH SURFACE OF SLOPE.



DOWEL PROPOSED HEADWALL
INTO EXISTING USING #8 EPOXY
COATED PREFORMED STEEL BARS
@ 12" SPACING, 12" LONG

CONCRETE MASONRY,
AS PER PLAN

4" OR 6" TYPE F CONDUIT
(MATCH TOP OF PIPE TO TOP OF
EXISTING PIPE)

SLOPE VARIES

(2) #5 REINFORCED STEEL, LENGTH
OF VERTICAL REINFORCING (H-7")

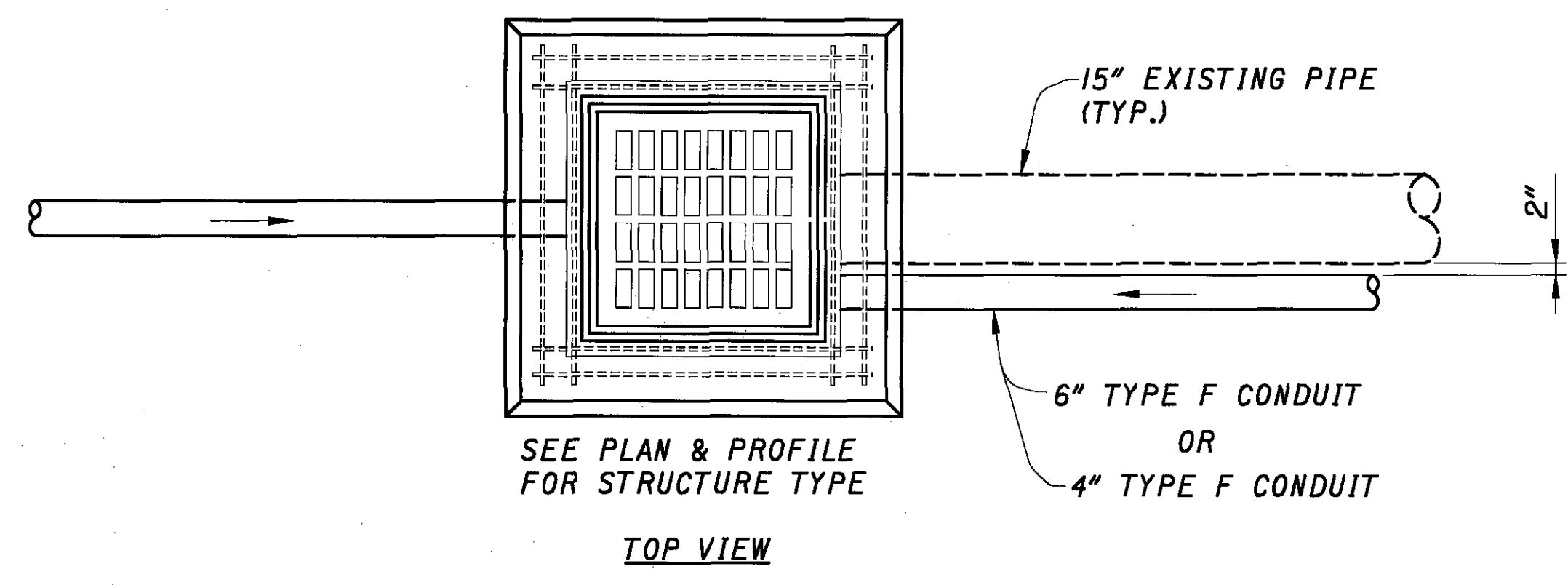
ELEVATION

END VIEW

WHEN TYING INTO HEADWALL OF EXISTING 15" CONDUIT, H = 5'-2"
FOR 18" CONDUIT, H = 5'-5"

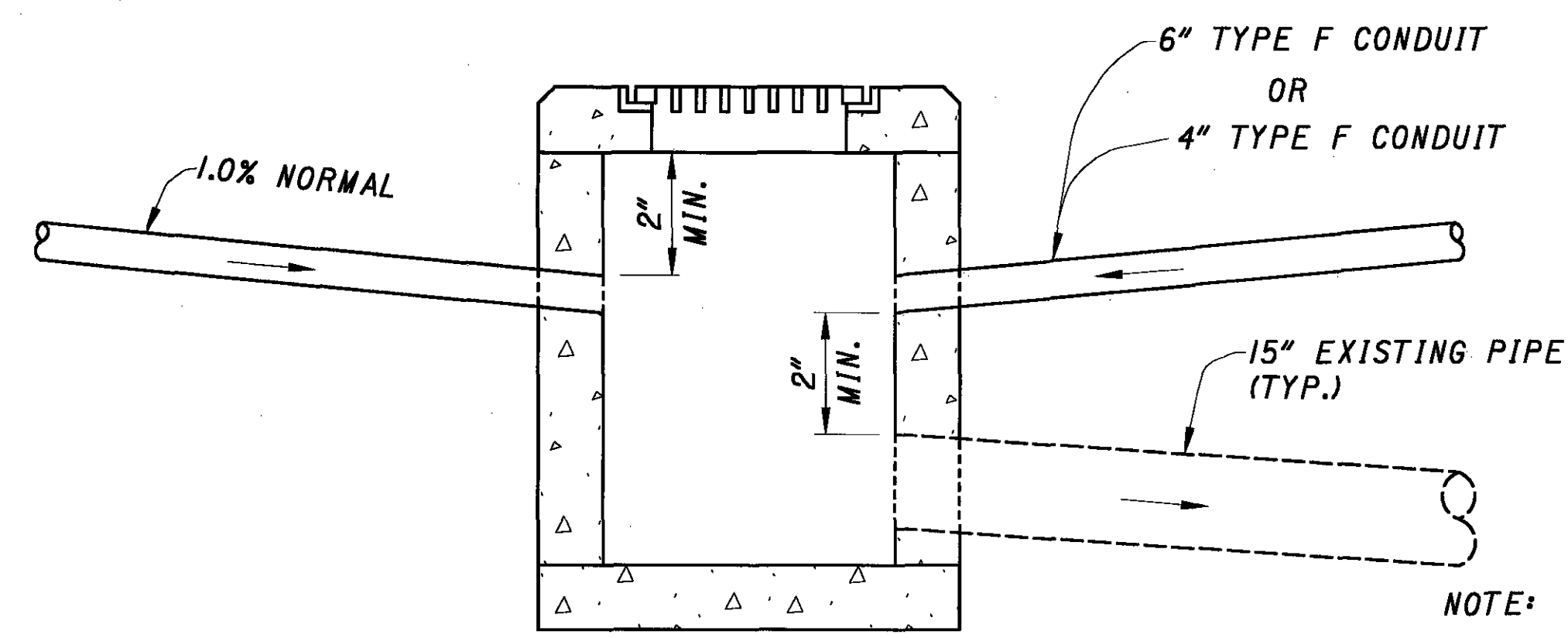
SEE HW-2.1 FOR MORE INFORMATION

OUTLET DETAIL TO HEADWALL



SEE PLAN & PROFILE
FOR STRUCTURE TYPE

TOP VIEW



CROSS-SECTION

NOTE:

WHEN NECESSARY TO AVOID EXISTING
PIPES, CONNECT THE TYPE F CONDUIT
TO THE SIDE OF THE CATCH BASIN
OR MANHOLE WITH APPROPRIATE BEND

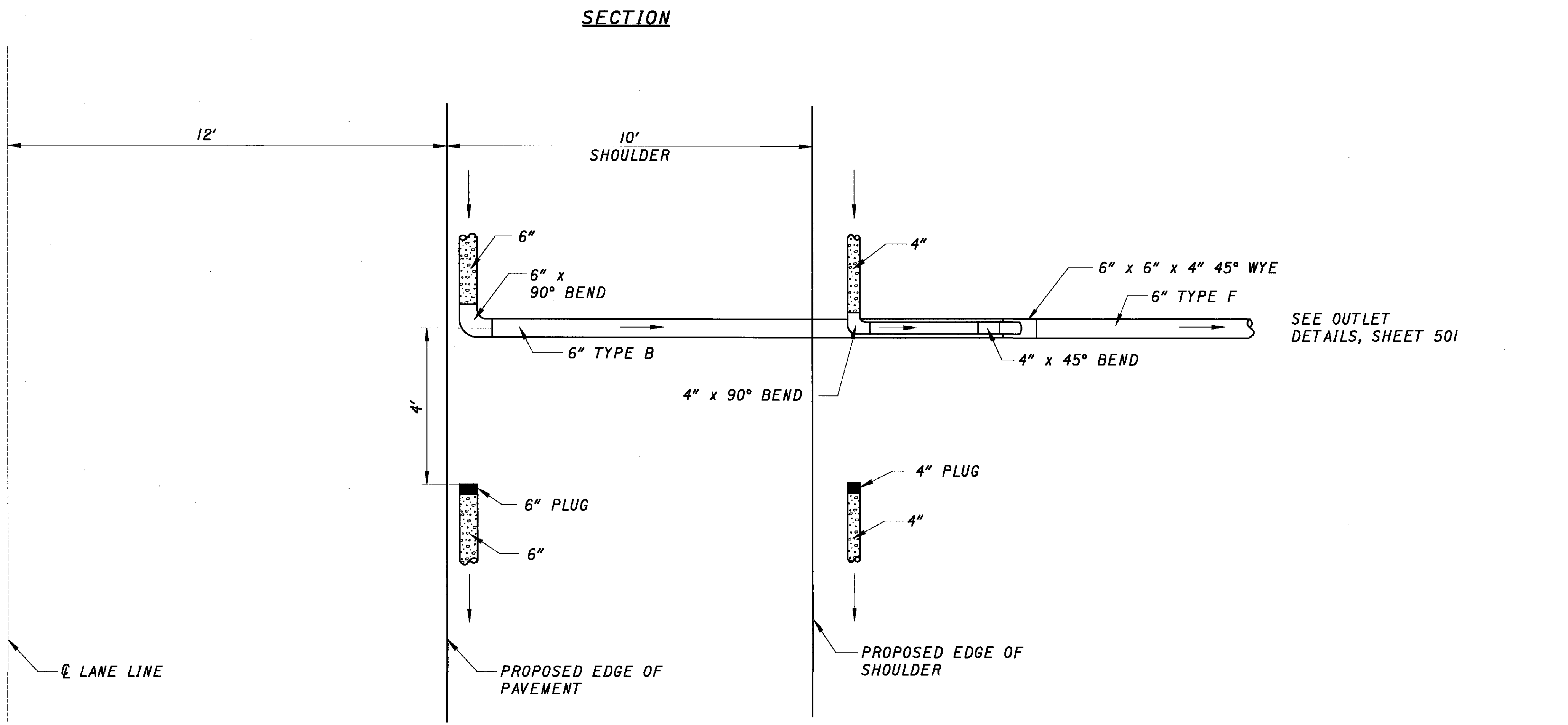
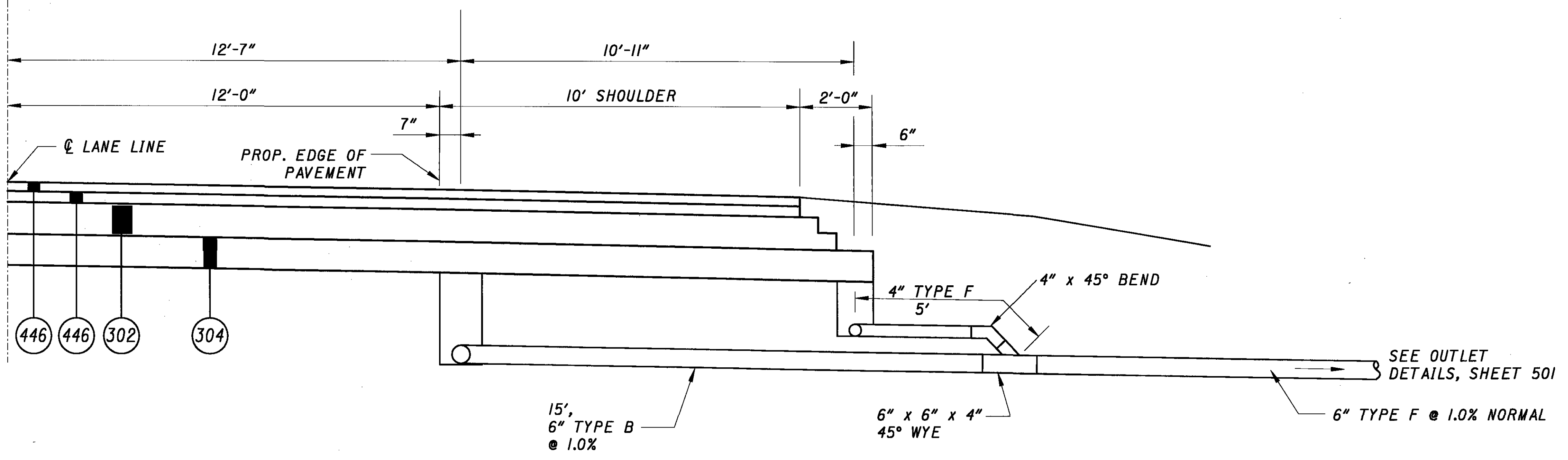
OUTLET DETAIL TO CATCH BASIN OR MANHOLE

CALCULATED
CHECKED



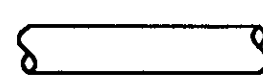
UNDERDRAIN DETAILS

MED-71-6.06

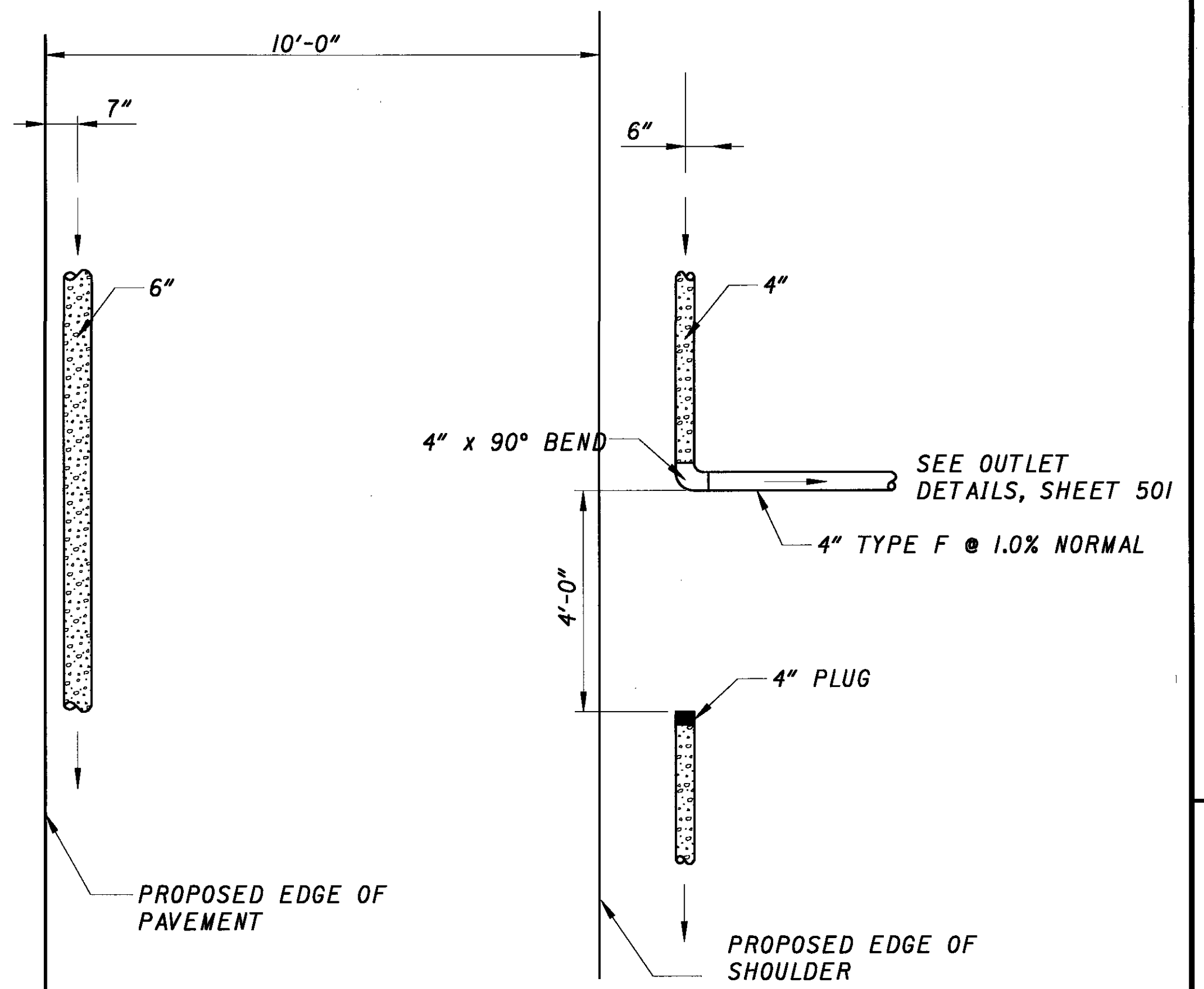
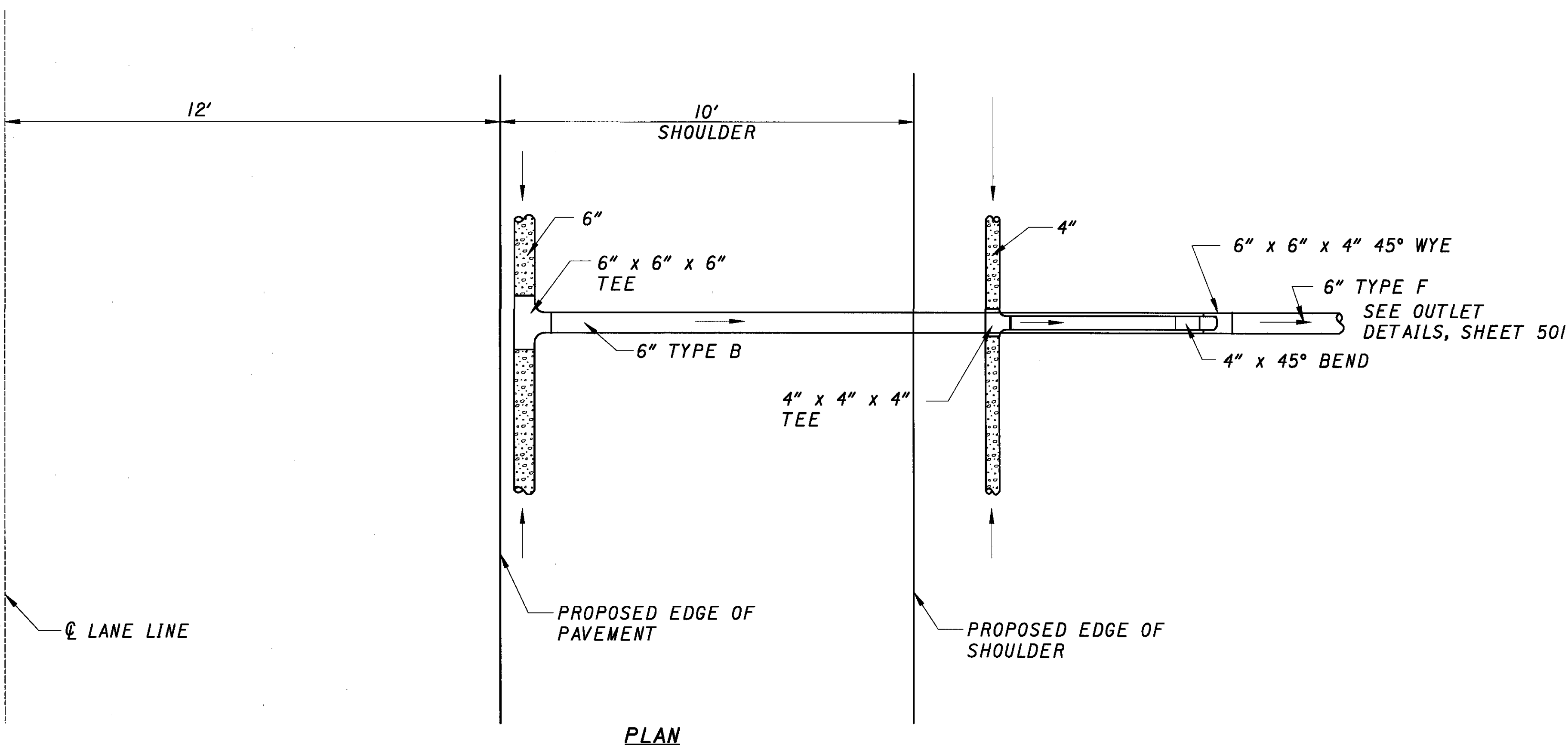
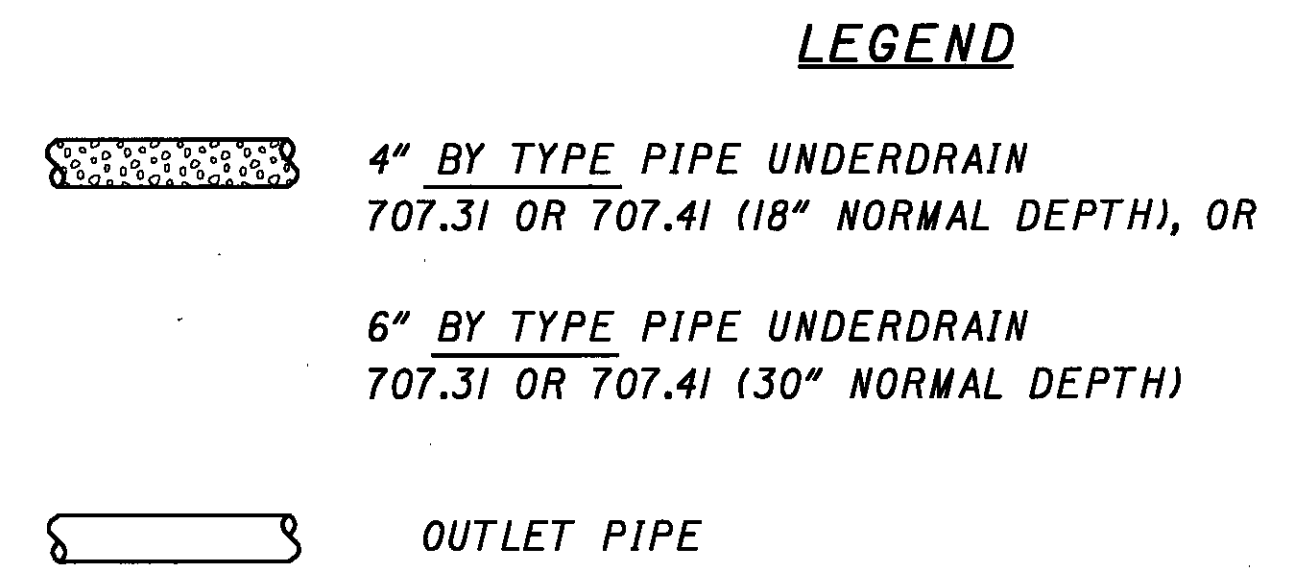
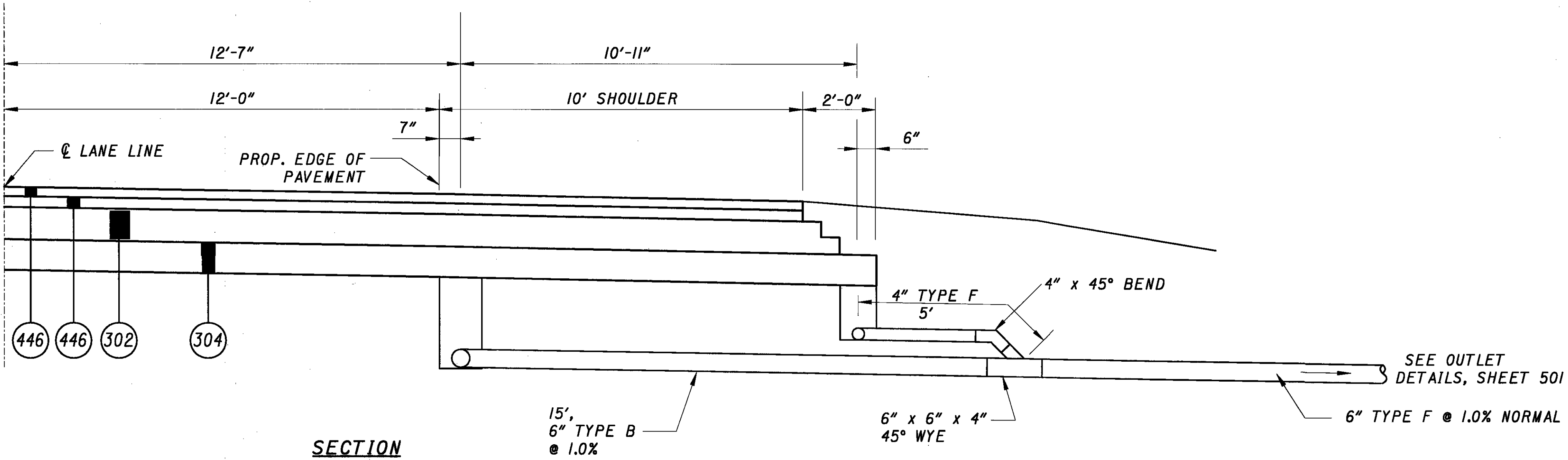
501
1120



UNDERDRAIN DETAILS
NORMAL OUTLET

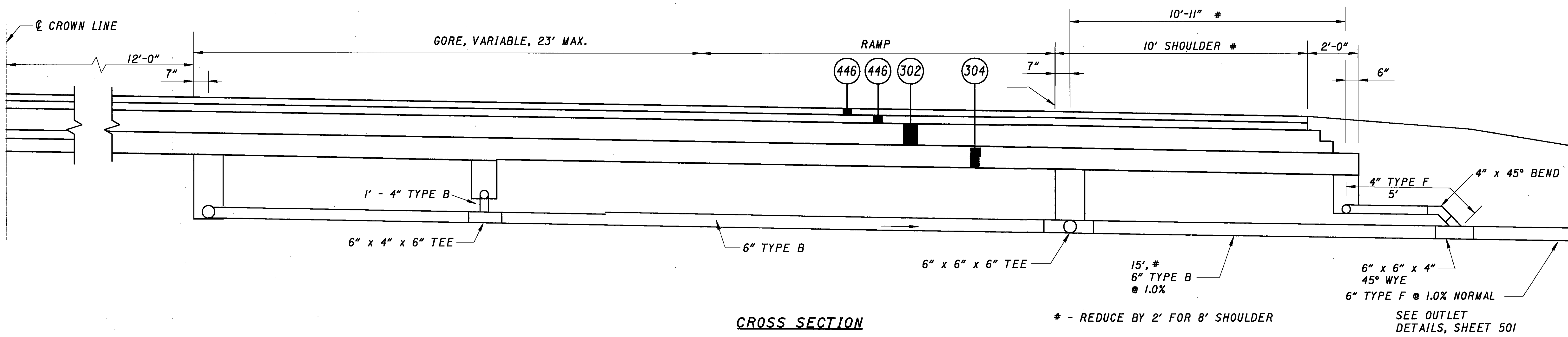
- LEGEND**
-  4" BY TYPE PIPE UNDERDRAIN 707.31 OR 707.41 (18" NORMAL DEPTH), OR
 -  6" BY TYPE PIPE UNDERDRAIN 707.31 OR 707.41 (30" NORMAL DEPTH)
 -  OUTLET PIPE

DDD.DGN



UNDERDRAIN DETAILS
OUTLET IN SAG

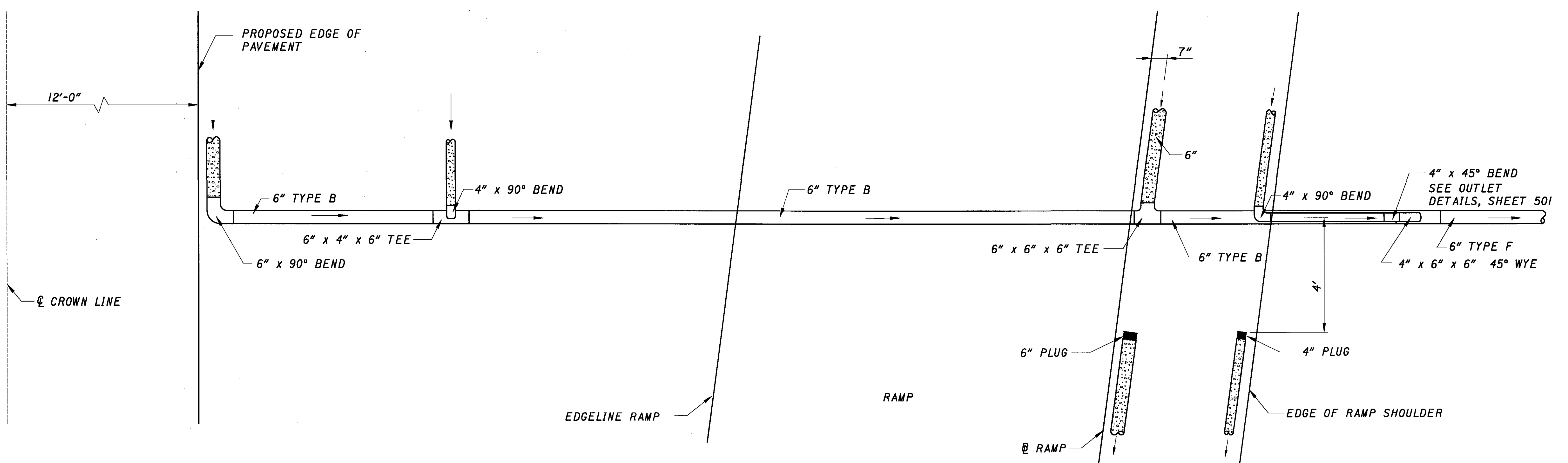
NOTE:
THIS DETAIL IS TYPICALLY USED ON THE HIGH SIDE OF A SUPERELEVATED SECTION, WHERE THE 6" UNDERDRAIN IS NOT PRESENT.



CROSS SECTION

* - REDUCE BY 2' FOR 8' SHOULDER

SEE OUTLET
DETAILS, SHEET 501



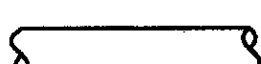


PLAN



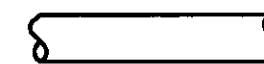
CONNECTION DETAIL FOR UNDERDRAIN DETAIL

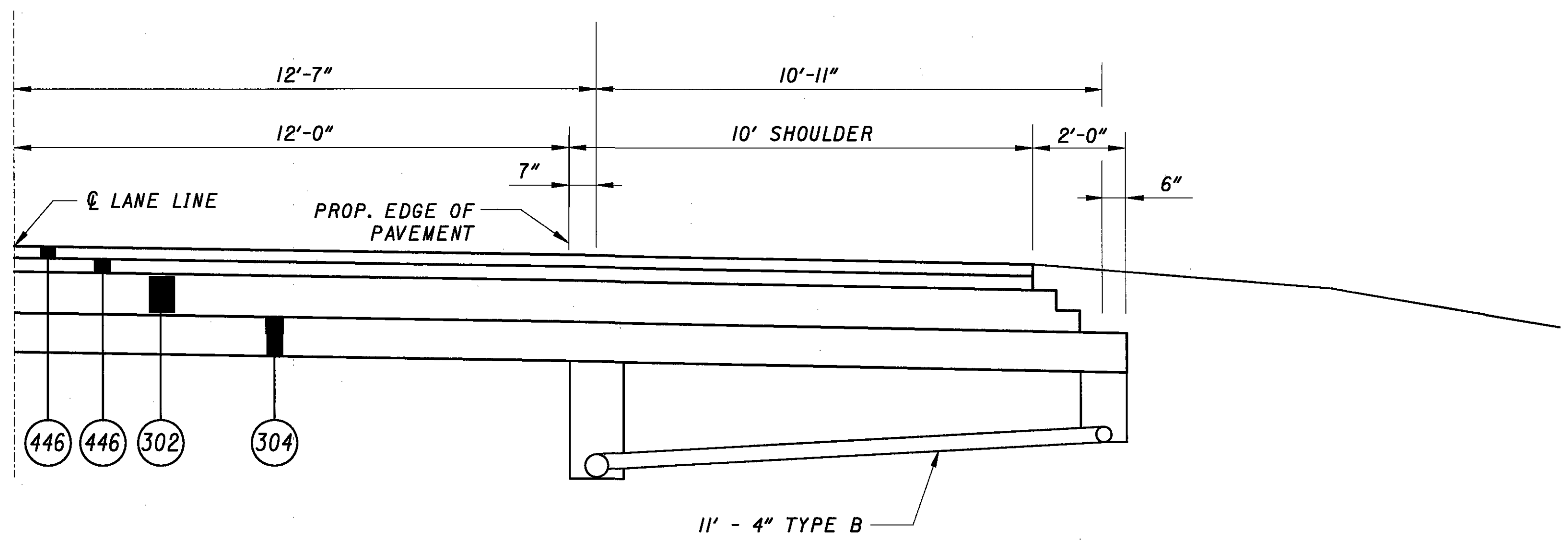
MAINLINE DRAINING TOWARDS GORE

LEGEND

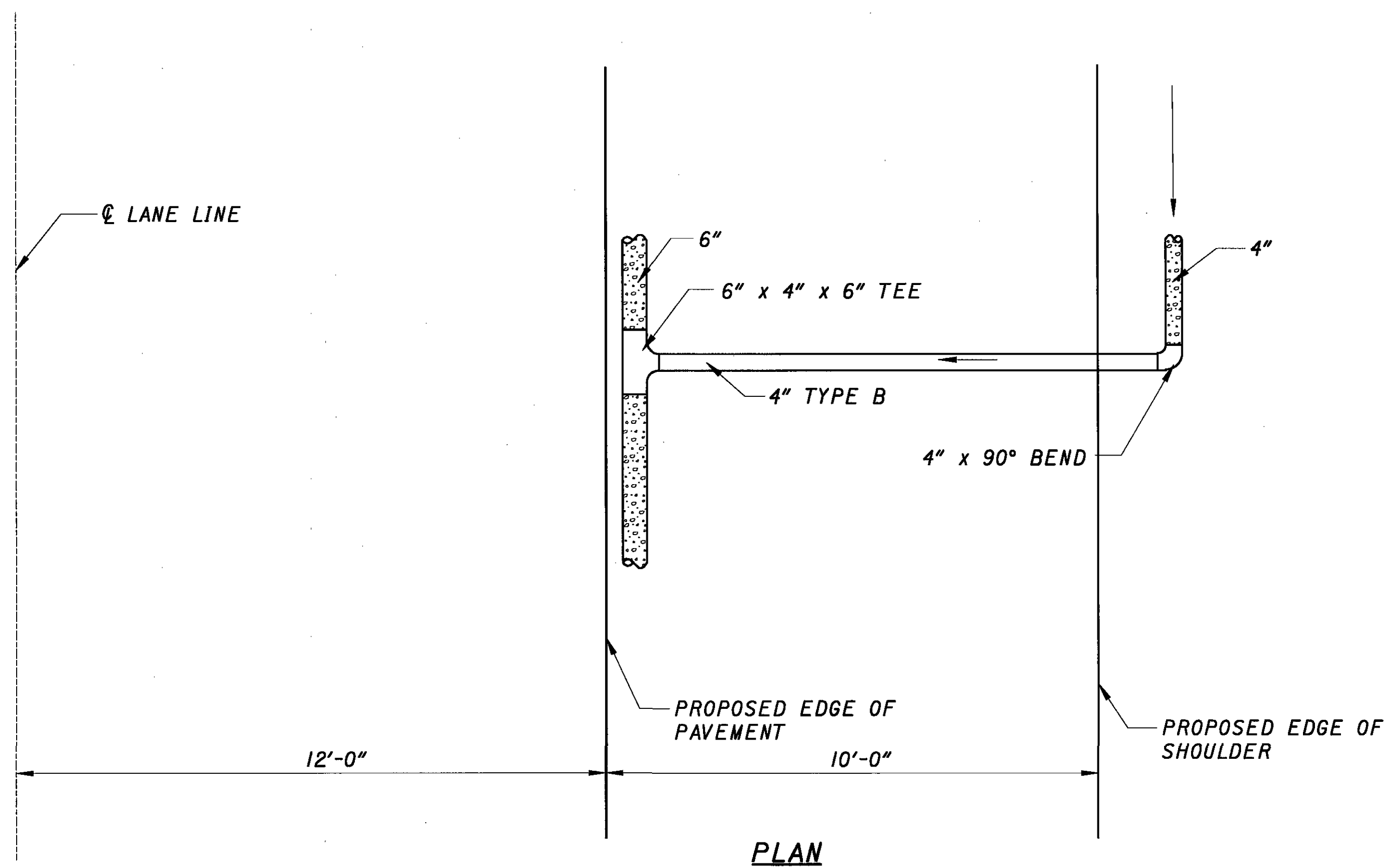
-  4" BY TYPE PIPE UNDERDRAIN
707.31 OR 707.41 (18" NORMAL DEPTH), OR
-  6" BY TYPE PIPE UNDERDRAIN
707.31 OR 707.41 (30" NORMAL DEPTH)
-  OUTLET PIPE

LEGEND

-  4" BY TYPE PIPE UNDERDRAIN
707.31 OR 707.41 (18" NORMAL DEPTH), OR
-  6" BY TYPE PIPE UNDERDRAIN
707.31 OR 707.41 (30" NORMAL DEPTH)
-  OUTLET PIPE

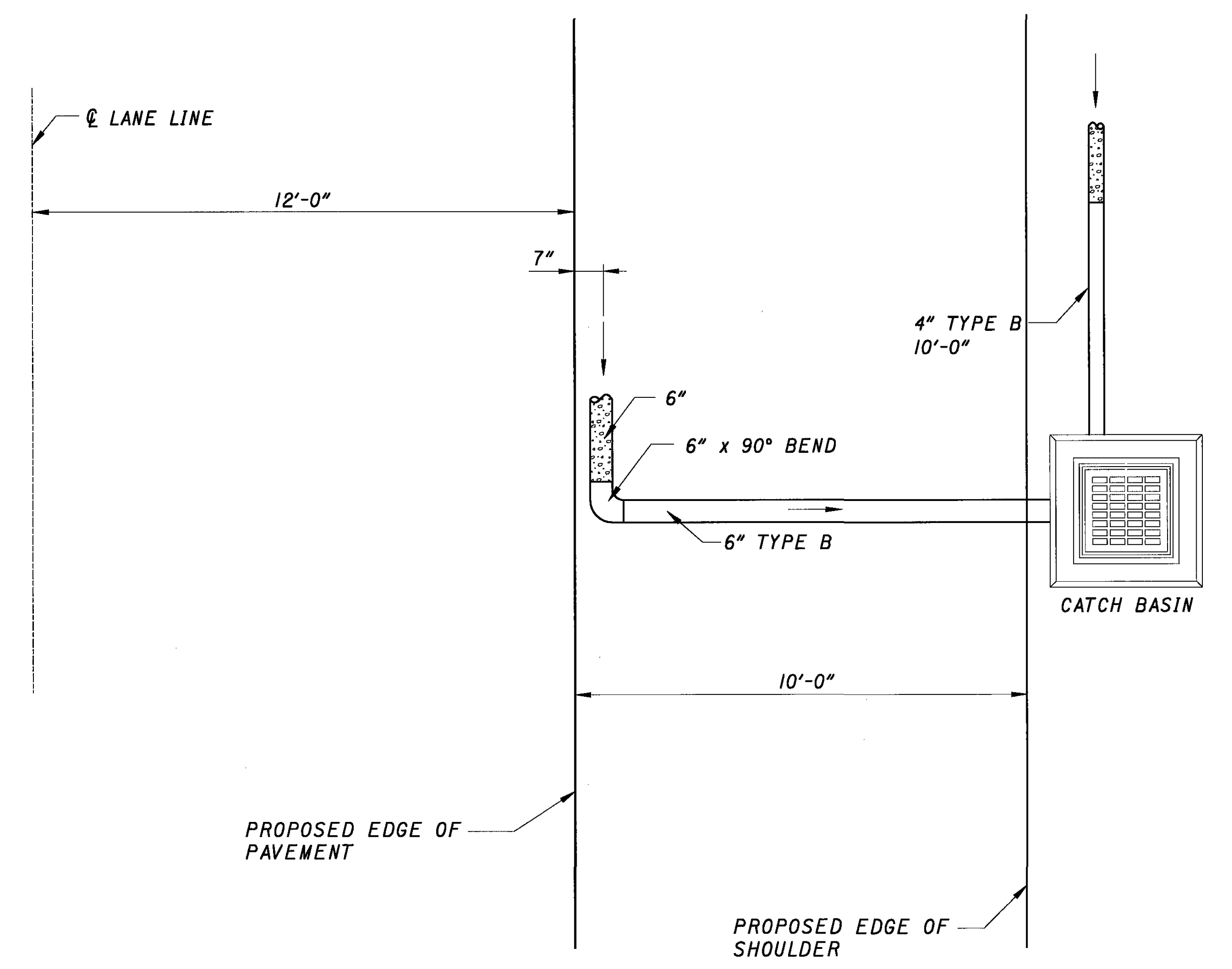


CROSS SECTION

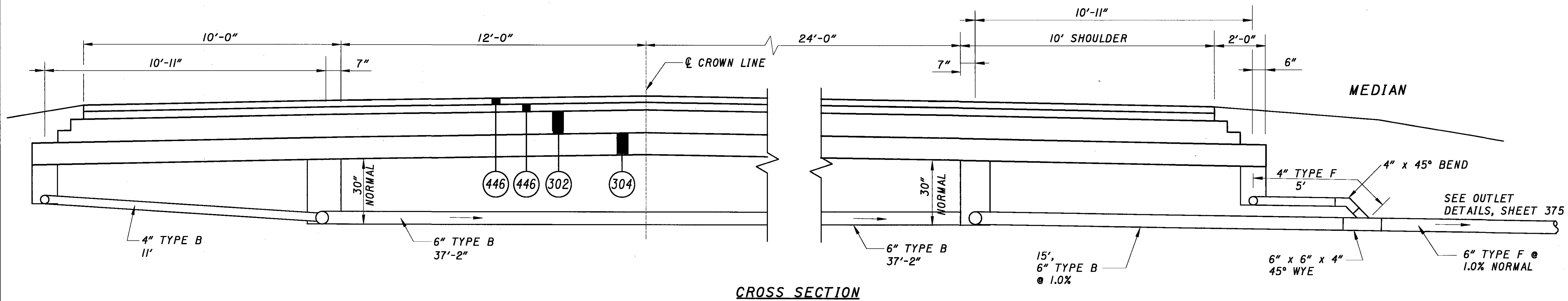


PLAN

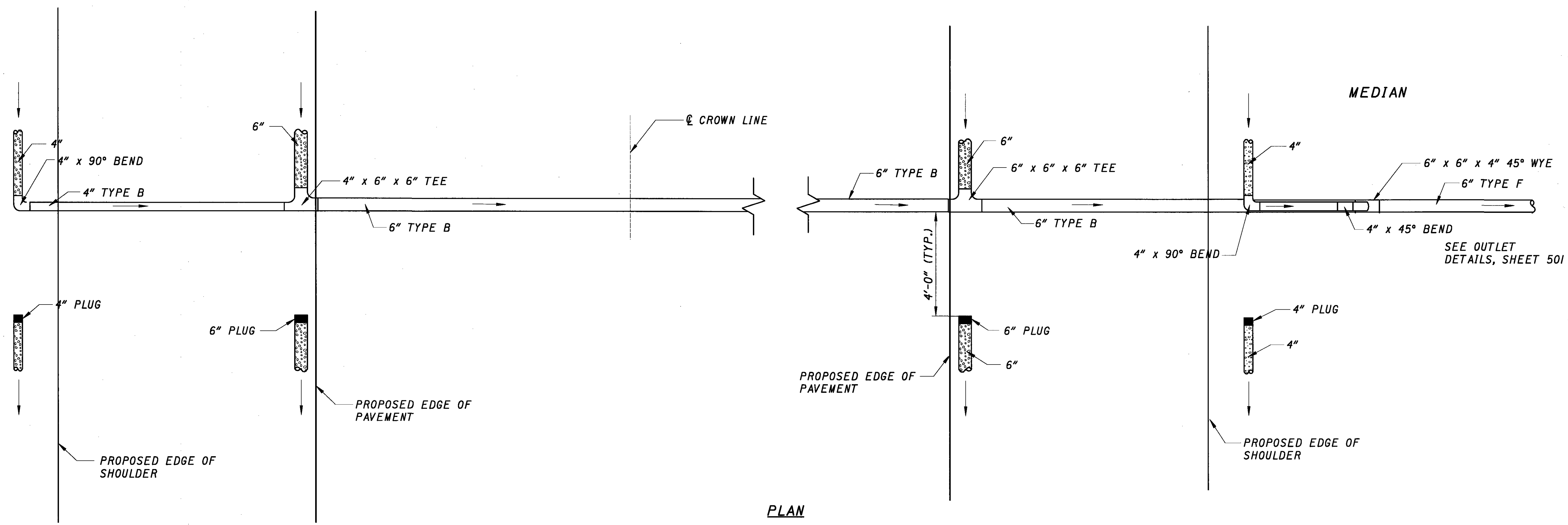
**UNDERDRAIN DETAIL
4" TO 6" CONNECTION**



**UNDERDRAIN DETAIL
DIRECT UD CONNECTIONS TO CB**



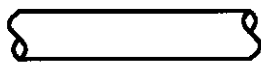


CROSS SECTION



PLAN

UNDERDRAIN DETAILS
 OUTSIDE U.D.'S TO MEDIAN U.D. CONNECTION

- LEGEND**
-  4" BY TYPE PIPE UNDERDRAIN 707.31 OR 707.41 (18" NORMAL DEPTH), OR
 -  6" BY TYPE PIPE UNDERDRAIN 707.31 OR 707.41 (30" NORMAL DEPTH)
 -  OUTLET PIPE

UNDERDRAIN DETAILS

MED-71-6.06

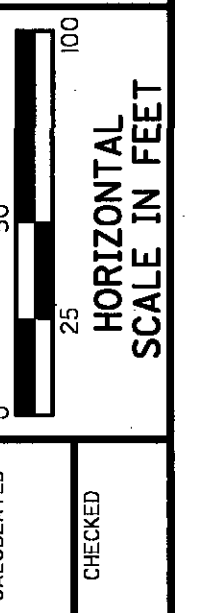
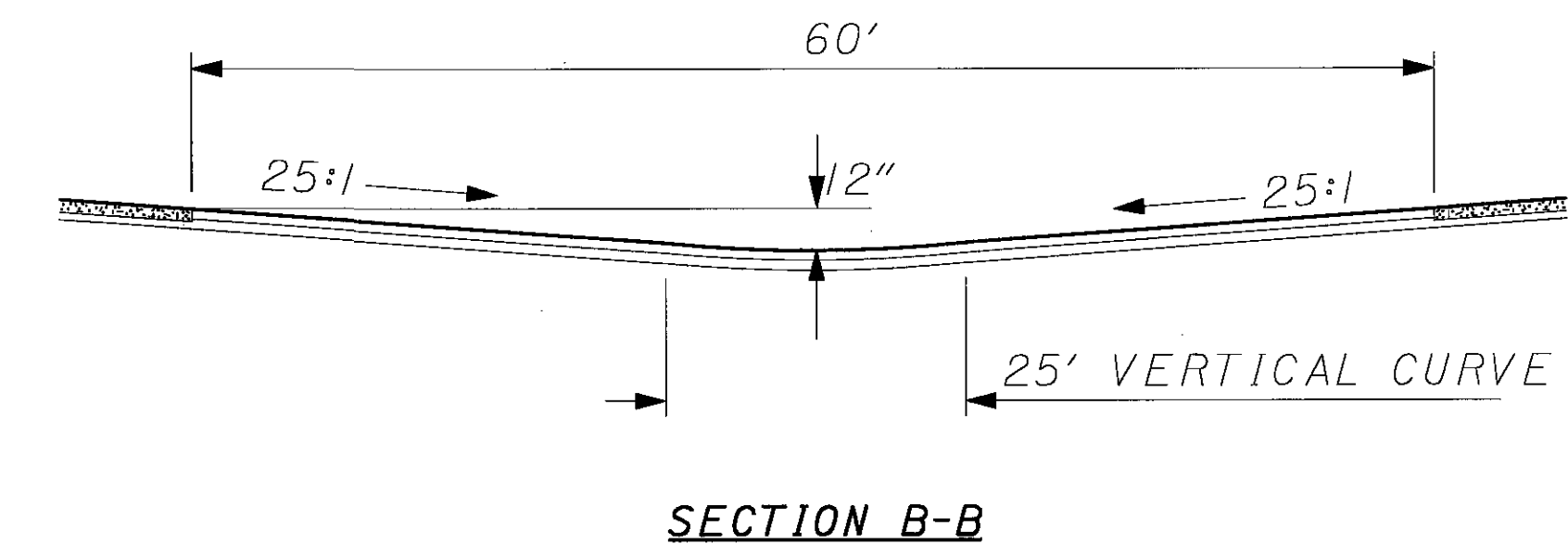
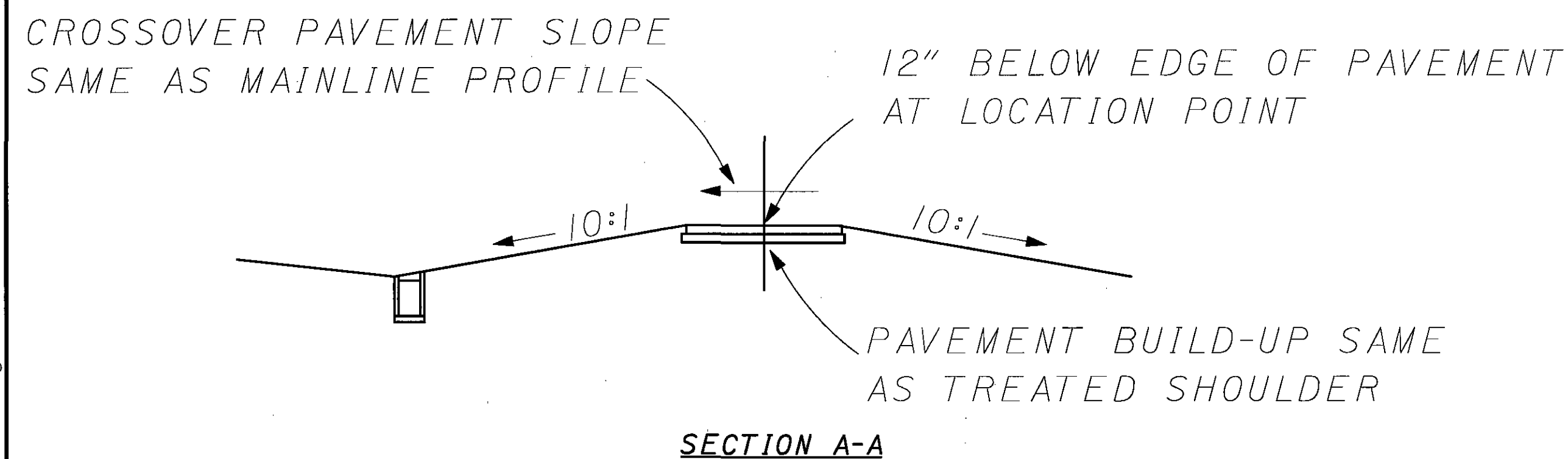
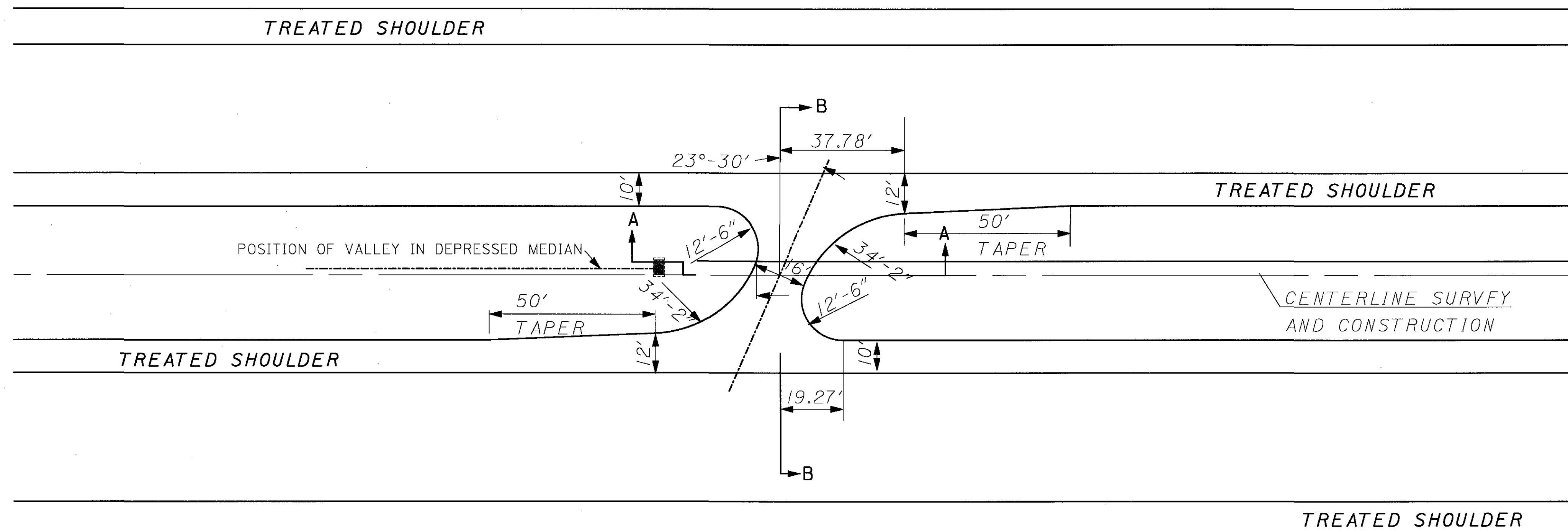
DDF.DGN

LOCATION	203	302	304	407	446	
	SUBGRADE COMPACTION	ASPHALT CONCRETE BASE PG 64-22	AGGREGATE BASE	TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG64-28
	SQ. YARD	CU. YARD	CU. YARD	GAL.	CU. YARD	CU. YARD
STA. 345+00	136	39.7	37.8	5.4	5.7	6.6
STA. 437+30	136	39.7	37.8	5.4	5.7	6.6
STA. 469+30	136	39.7	37.8	5.4	5.7	6.6
SUBTOTAL OF PAVEMENT QUANTITIES CARRIED TO SUBSUMMARIES	408	119	113	16	17.1	19.8

U-TURN MEDIAN OPENING LOCATIONS

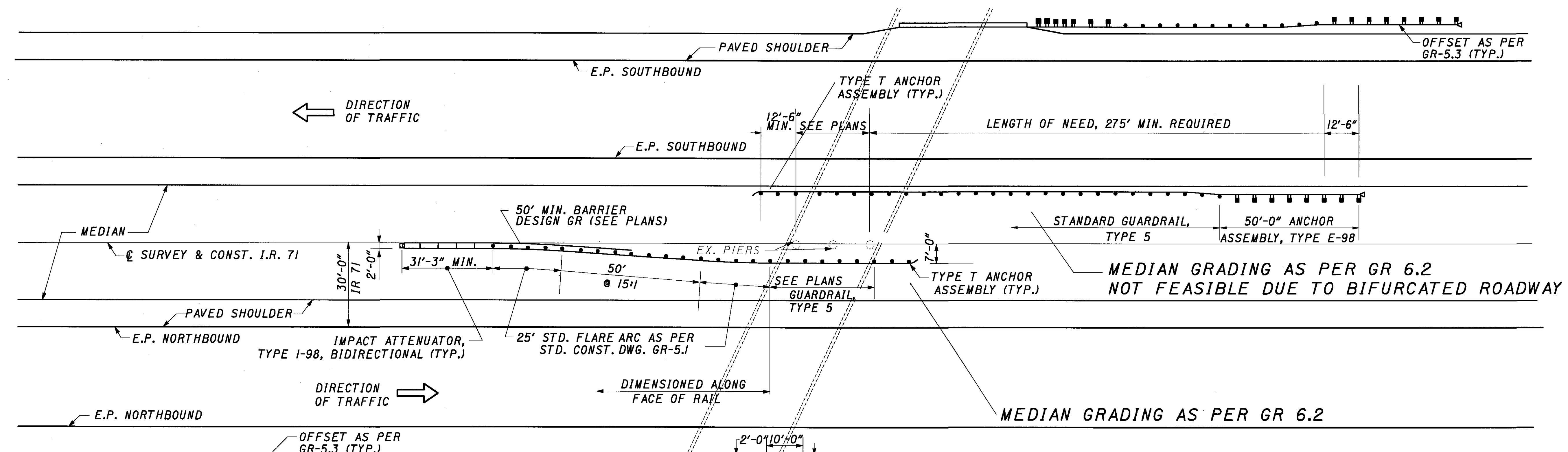
STA. 345+00
 STA. 437+30
 STA. 469+30

QUANTITIES CARRIED TO SUMMARY TABLE ON SHEET 159



PAVEMENT DETAIL
STANDARD U-TURN MEDIAN OPENING

MED-71-6.06



LENGTH OF NEED
140' MIN. FOR BACK OF PIERS 8' BEYOND SHOULDER

LENGTH	OFFSET TO BACK OF PIER FROM EDGE LINE
75'	19' MAX.
62.5'	18' MAX.
37.5'	17' MAX.

BRIDGE TERMINAL ASSEMBLY TYPE I
29'-2 3/4"

CONCRETE BARRIER, TYPE D, SEE TABLE 20' MIN.
14'-0"

EX. BRIDGE PIERS
10'-0"

TYPE D CONCRETE BARRIER TRANSITION SEE RM-4.5
2'-1 1/4"

FACE OF PIER (MINIMUM)
2'-0" 10' 0"

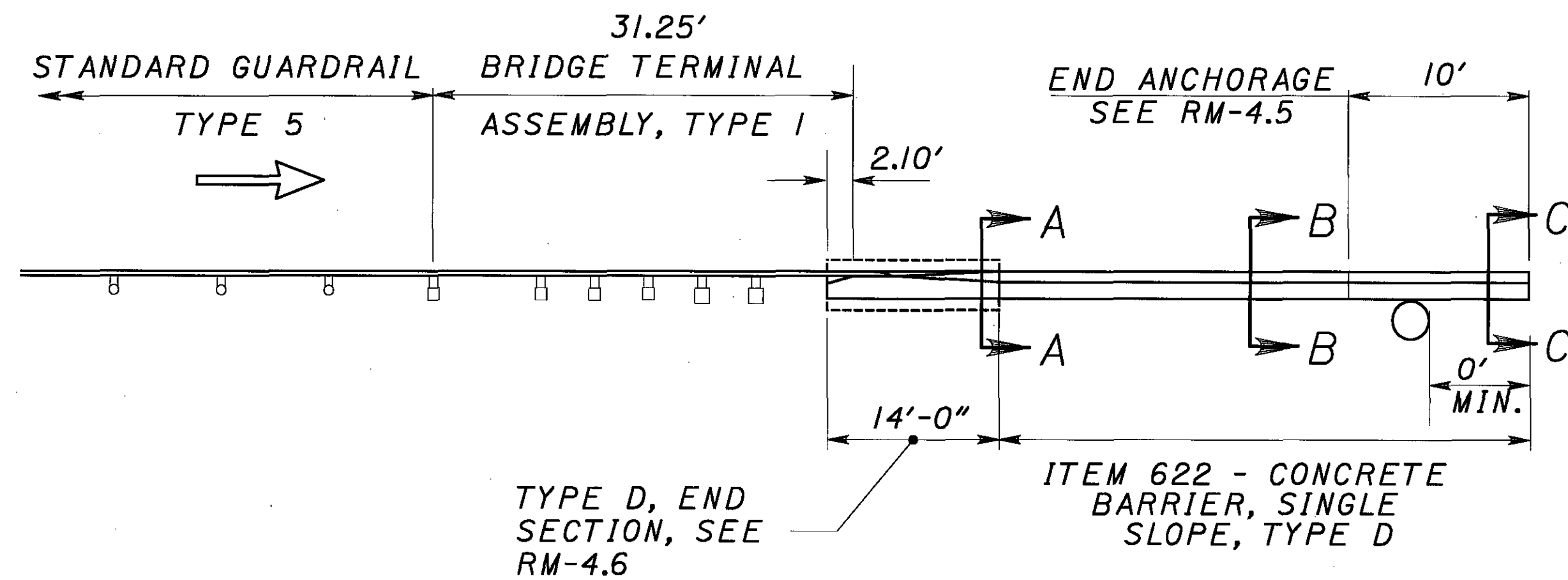
SEE NOTE 6

TYPICAL OUTSIDE SHOULDER PIER PROTECTION

- NOTES:**
- FOR ADDITIONAL NOTES AND DETAILS PERTAINING TO THE OUTSIDE SHOULDER PIER PROTECTION SEE STD. DRAWING RM-4.3, RM-4.5, GR-3.1, AND GR-5.1.
 - THE CONCRETE BARRIER SHALL NOT BE PLACED PRIOR TO THE PLACEMENT UP TO THE TOP OF THE INTERMEDIATE COURSES ON THE BERM.
 - THROUGH BOLTS SHALL BE PROVIDED IN THE END OF THE BARRIER FOR CONNECTING THE TYPE I&2 BRIDGE TERMINAL ASSEMBLY AS PER STD. DRAWING GR-3.1 AND GR-3.2.
 - FOR INCORPORATED CONCRETE BARRIER, TYPE D, SEE STD. CONSTRUCTION DWG. RM-4.5.
 - SEE STD. DRAWING GR-3.1, FOR BRIDGE TERMINAL ASSEMBLY, TYPE 1, AND GR-3.2, FOR BRIDGE TERMINAL ASSEMBLY, TYPE 2.
 - WHERE PLANS INDICATED A TRAILING GUARDRAIL RUN AN ADDITIONAL TYPE D, CONCRETE BARRIER TRANSITION AS PER STD. DRAWING RM-4.5 SHALL BE INSTALLED AT THE END OF THE BRIDGE PIER PROTECTION AND CONNECTION OF THE TRAILING GUARDRAIL SHALL BE MADE USING A BRIDGE TERMINAL ASSEMBLY, TYPE 2, PER STD. DRAWING GR-3.2.
 - FOR ADDITIONAL NOTES AND DETAILS PERTAINING TO THE MEDIAN GUARDRAIL AT THE PIERS SEE STANDARD CONSTRUCTION DRAWING GR-1.1, GR-1.2, GR-2.1, GR-4.2, GR-5.1 AND GR-6.2.
 - WHERE THE DISTANCE BETWEEN THE EDGE OF THE PAVED SHOULDER AND THE FACE OF THE EXISTING PIER IS LESS THAN 4'-0" AN INCORPORATED CONCRETE BARRIER, TYPE D WILL BE REQUIRED. SEE RM-4.5 FOR DETAILS.

REF.	LOCATION	CONCRETE BARRIER STATION		REMARKS	204	302	304	407	446	
		A	B		SUBGRADE COMPACTION	BITUMINOUS AGGREGATE BASE PG 64-22	AGGREGATE BASE	TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG64-28
					SQ. YARD	CU. YARD	CU. YARD	GAL.	CU. YARD	CU. YARD
GR-6	IR71 NB	355+94.02	356+54.02	L(A-A) = 14' L(B-B)=36' L(C-C)=10'	25.9	6.6	7.2	0.5	0.5	1.0
GR-3	IR71 SB	356+84.61	357+44.61	L(A-A) = 14' L(B-B)=36' L(C-C)=10'	25.9	6.6	7.2	0.5	0.5	1.0
QUANTITIES CARRIED TO SUB-SUMMARY ON SHEET 159					51.8	13.2	14.4	1.0	1.0	2.0

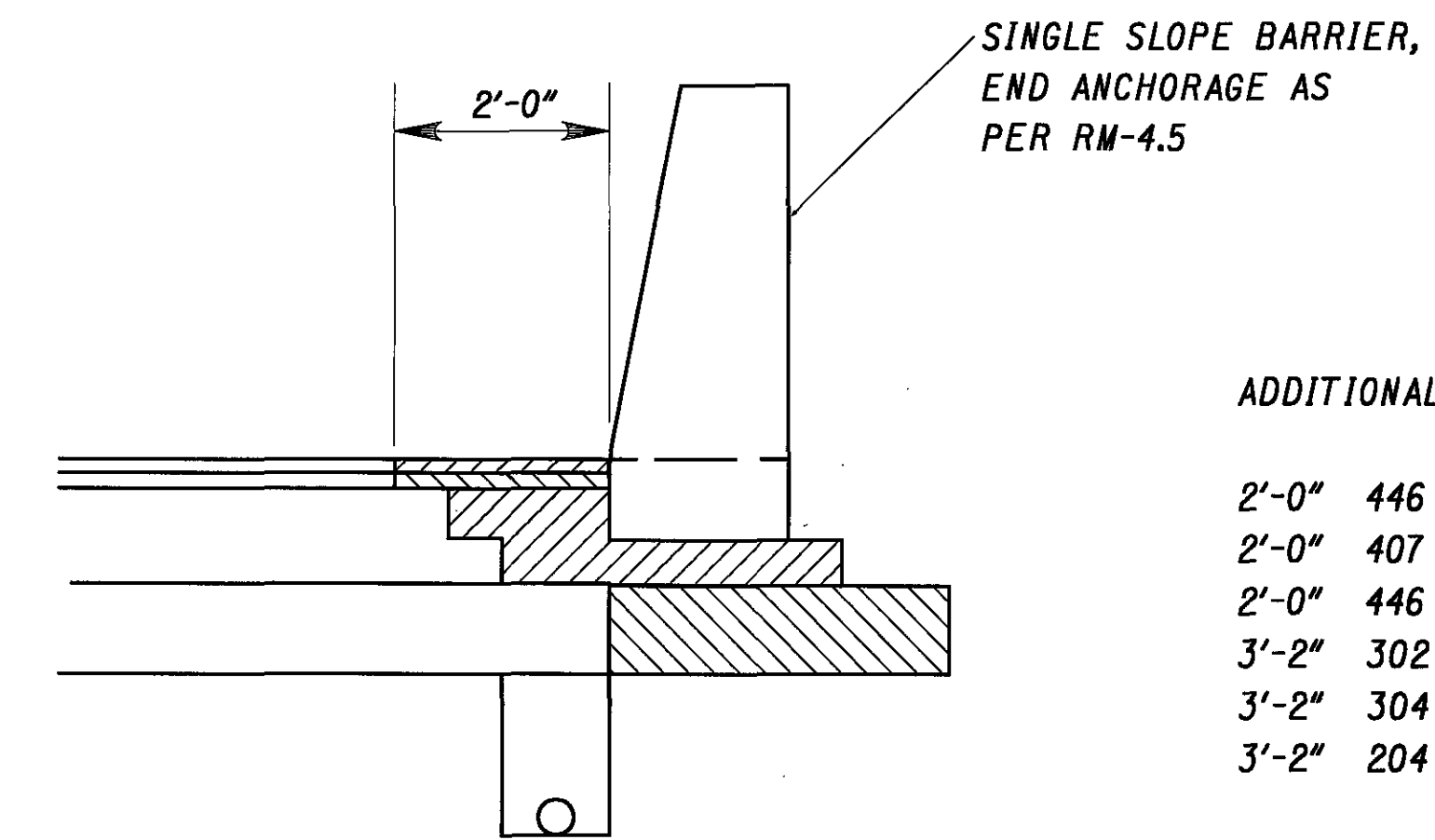
OUTSIDE SHOULDER BRIDGE PIER PROTECTION TABLE



DIRECTIONAL TRAVEL WHERE NO TRAILING GUARDRAIL IS USED

TYPICAL OUTSIDE SHOULDER PIER PROTECTION

SECTION C-C

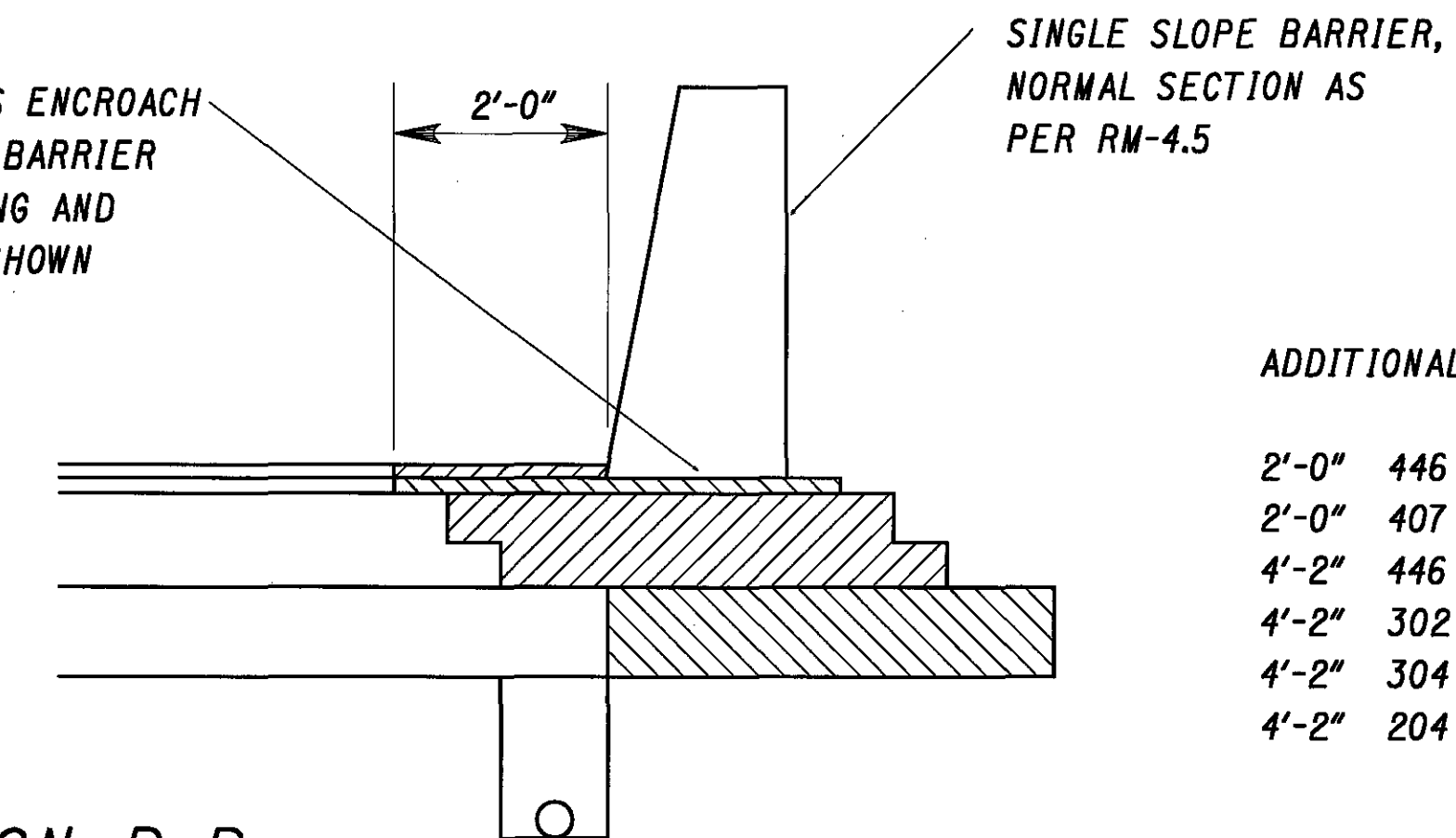


ADDITIONAL PAVING WIDTHS

- 2'-0" 446 SURFACE
- 2'-0" 407 TACK COAT
- 2'-0" 446 INTERMEDIATE
- 3'-2" 302 ASPH. BASE
- 3'-2" 304 AGGRE. BASE
- 3'-2" 204 SUB. COMP.

WHERE PIER FOOTINGS ENCROACH INTO BARRIER, PLACE BARRIER DIRECTLY ONTO FOOTING AND OMIT BASE COURSES SHOWN

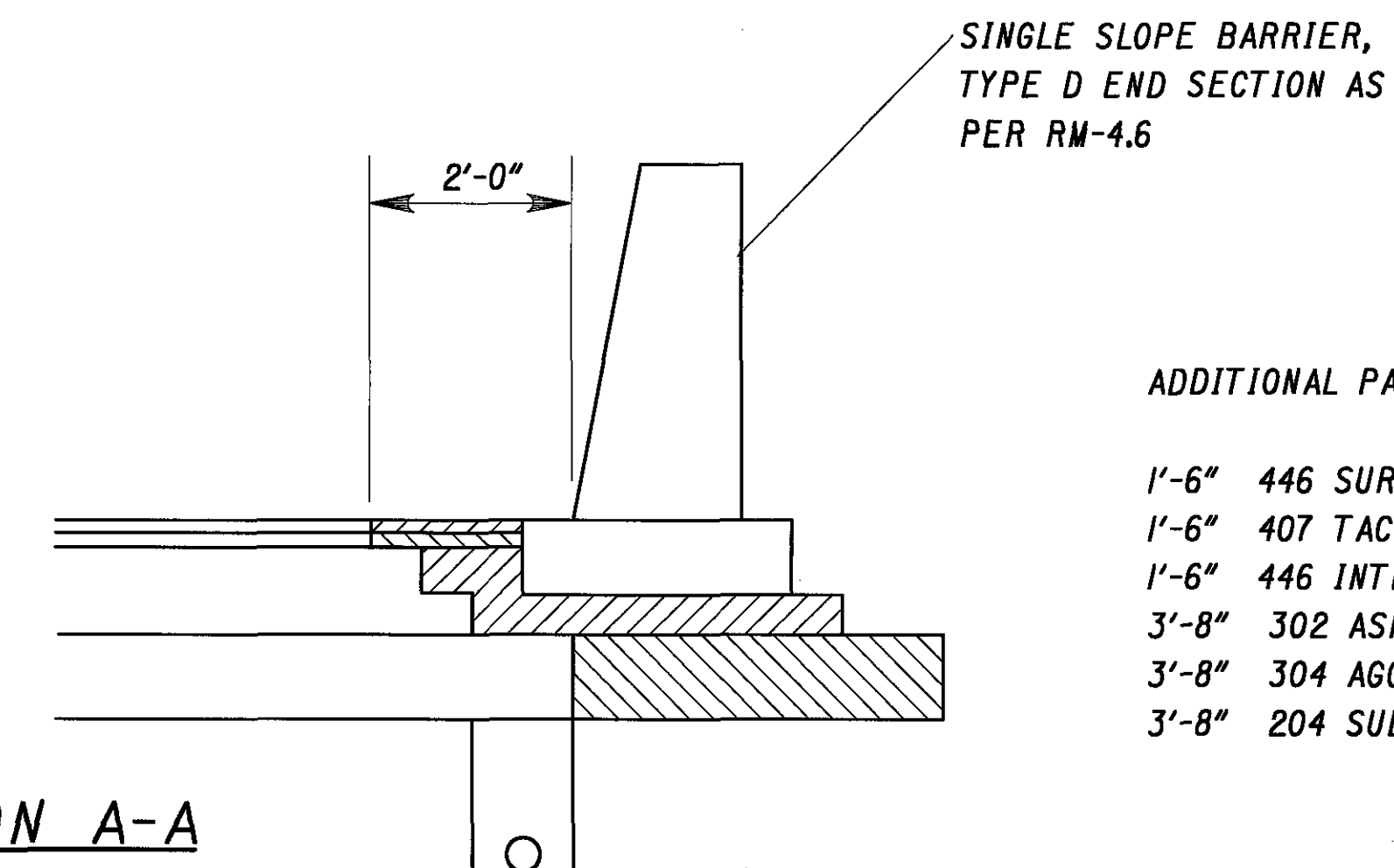
SECTION B-B



ADDITIONAL PAVING WIDTHS

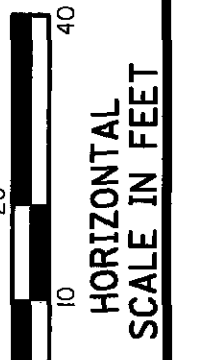
- 2'-0" 446 SURFACE
- 2'-0" 407 TACK COAT
- 4'-2" 446 INTERMEDIATE
- 4'-2" 302 ASPH. BASE
- 4'-2" 304 AGGRE. BASE
- 4'-2" 204 SUB. COMP.

SECTION A-A



ADDITIONAL PAVING WIDTHS

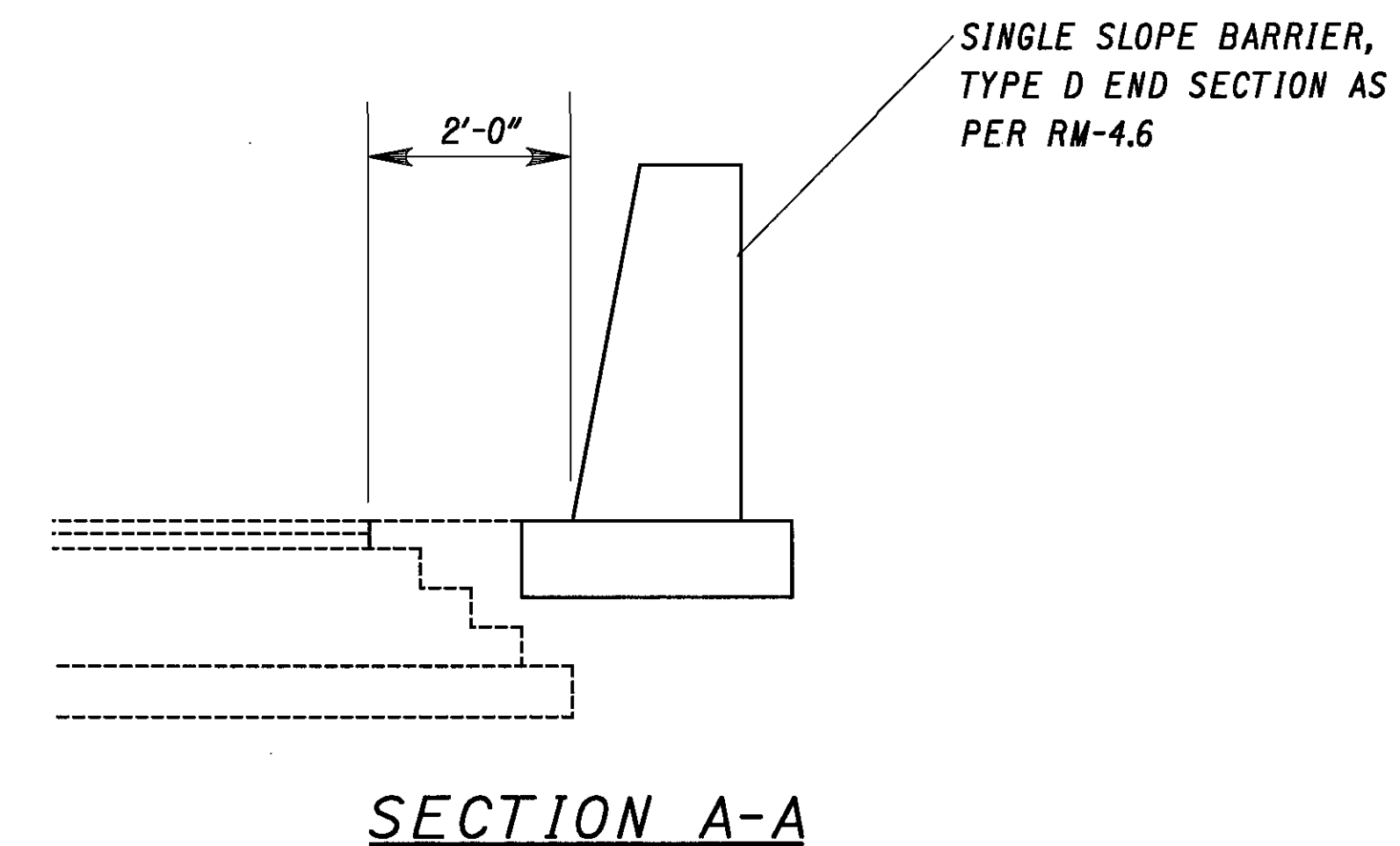
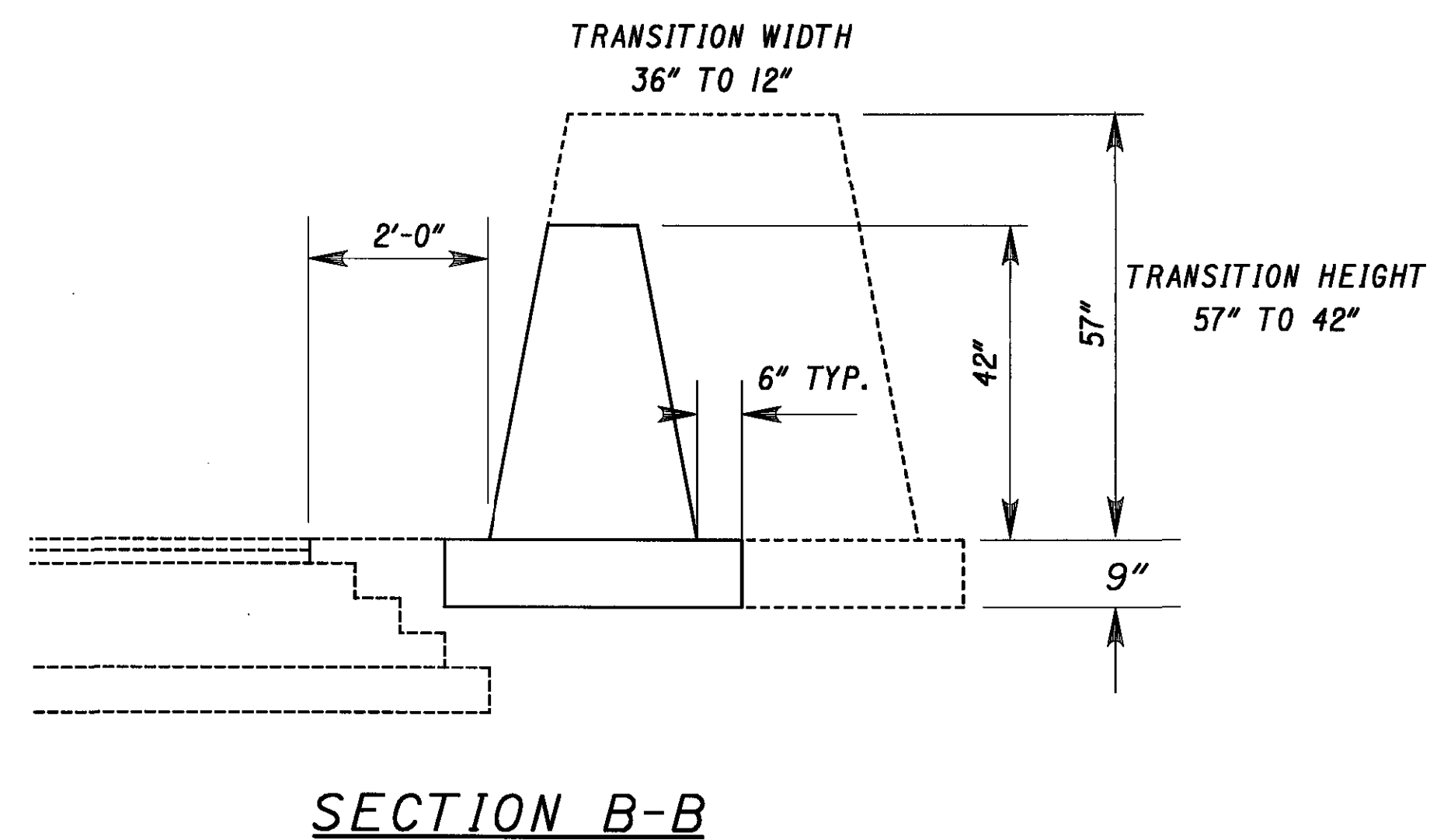
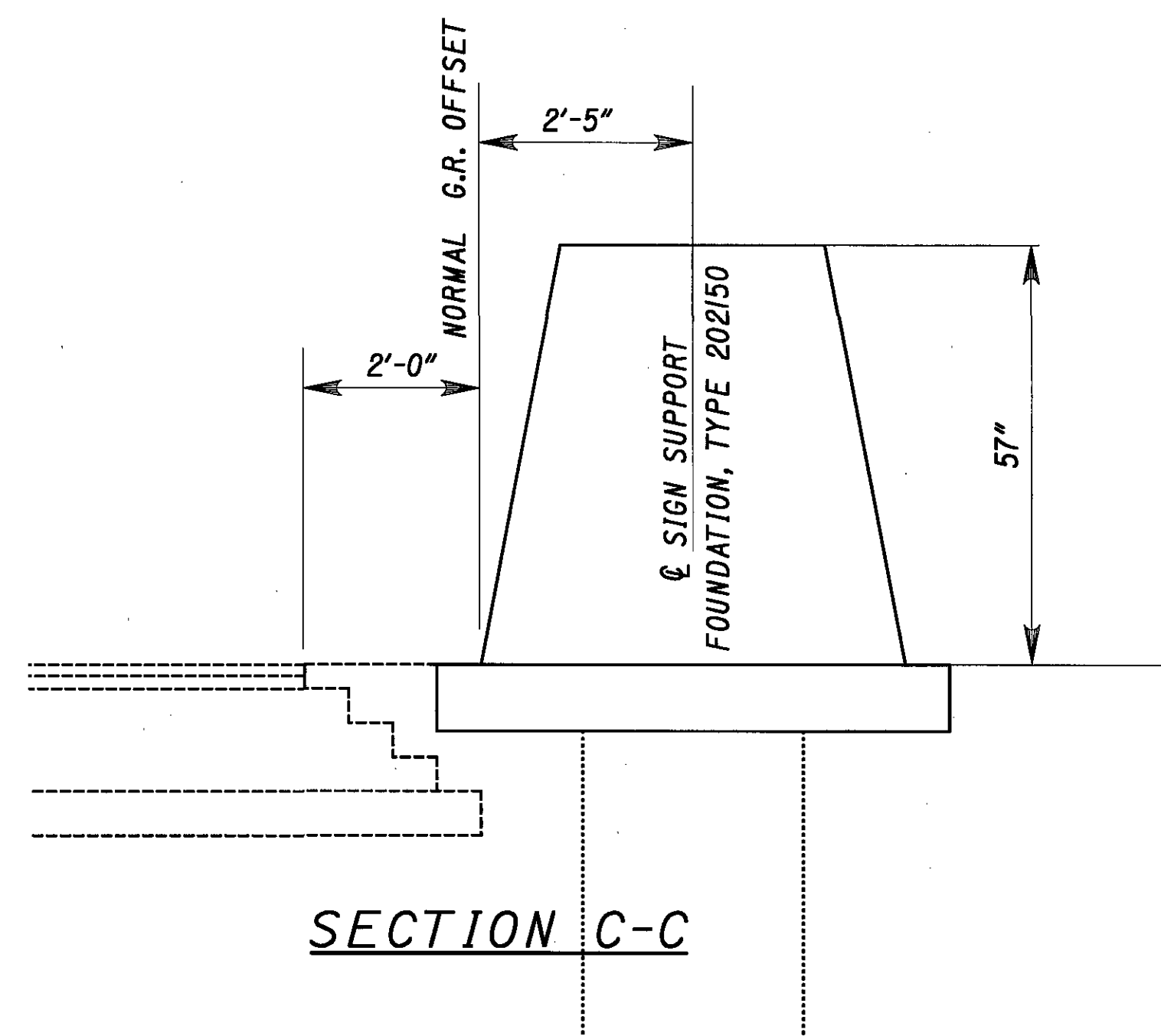
- 1'-6" 446 SURFACE
- 1'-6" 407 TACK COAT
- 1'-6" 446 INTERMEDIATE
- 3'-8" 302 ASPH. BASE
- 3'-8" 304 AGGRE. BASE
- 3'-8" 204 SUB. COMP.



CALCULATED
CHECKED

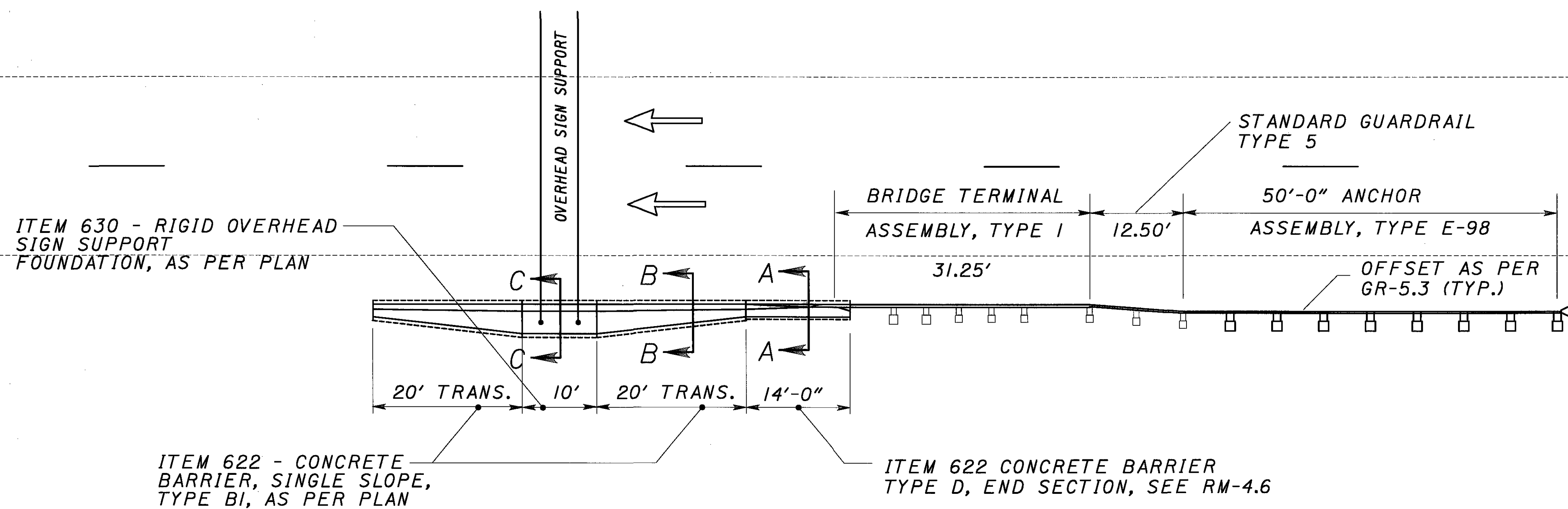
OVERPASS PIER PROTECTION DETAIL

MED-71-6.06



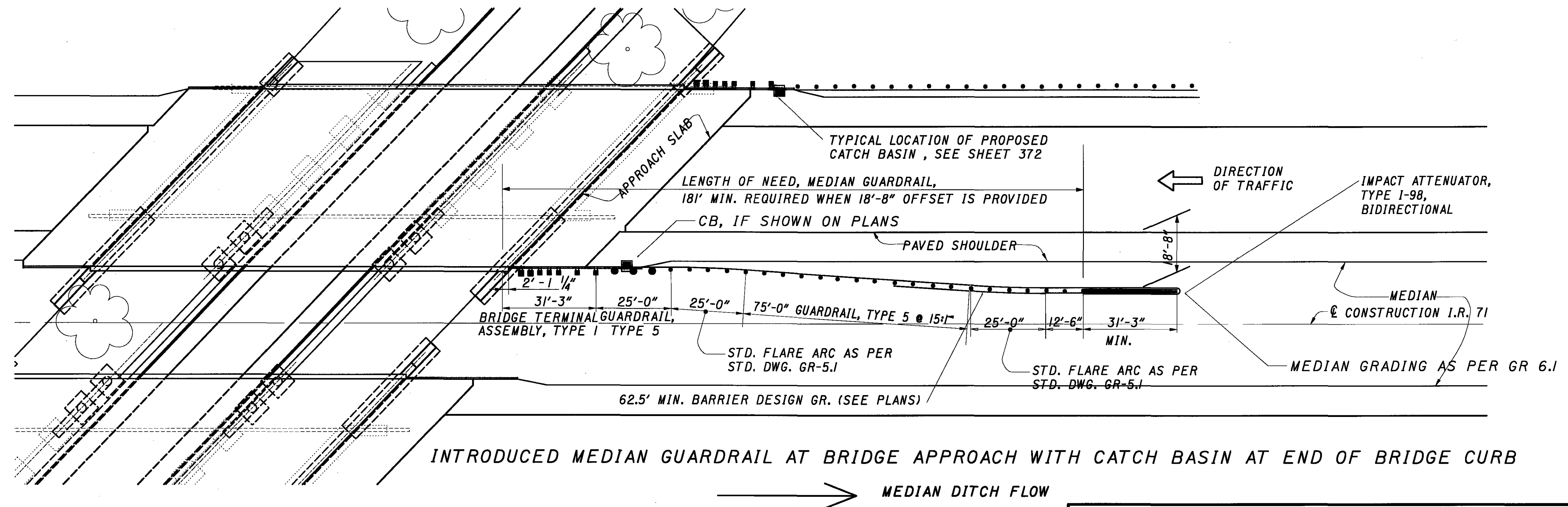
ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE BI, AS PER PLAN

THIS ITEM OR WORK SHALL ALSO INCLUDE ALL COSTS OF CONSTRUCTING THE 9" CONCRETE BASE AS SHOWN.



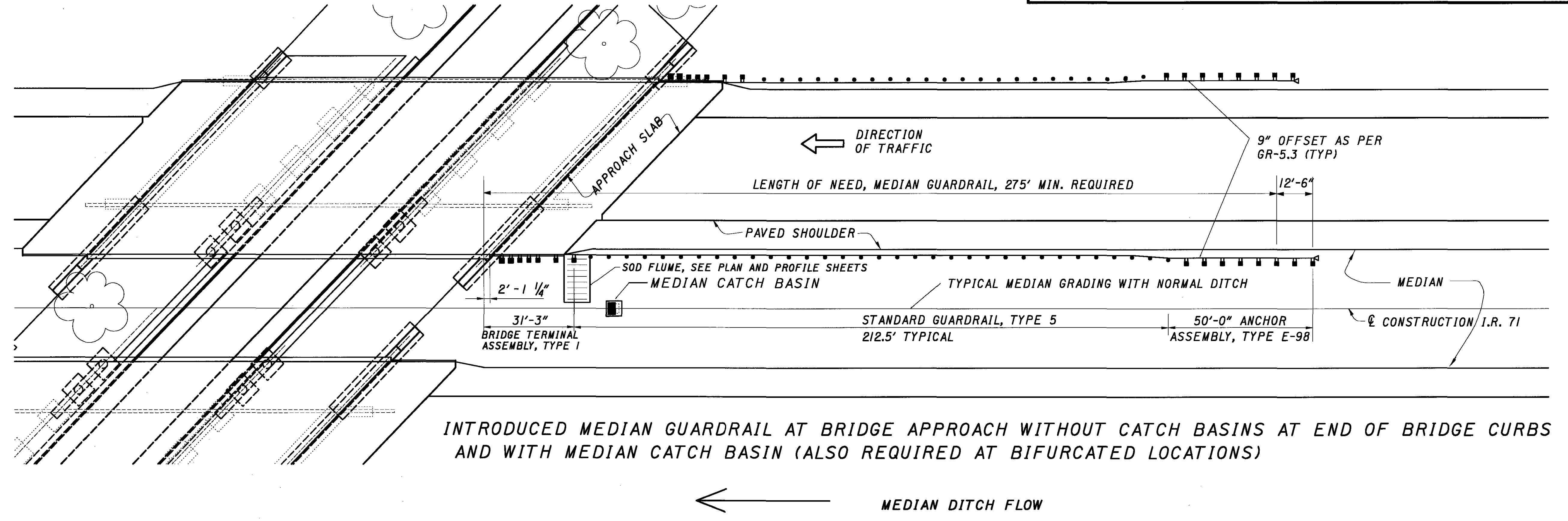
DIRECTIONAL TRAVEL WHERE NO TRAILING GUARDRAIL IS USED

TYPICAL NARROW MEDIAN SIGN SUPPORT PROTECTION

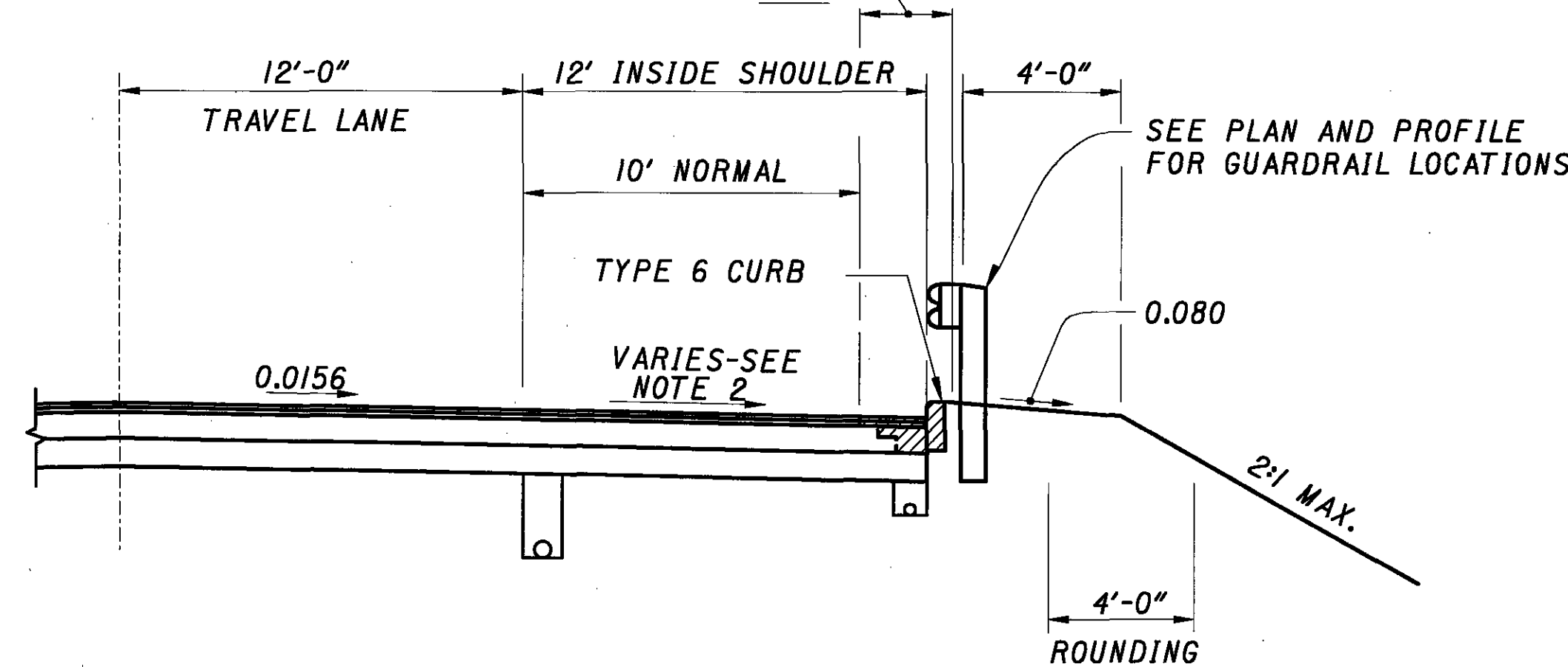


NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS SEE STANDARD CONSTRUCTION DRAWING GR-1.1, GR-1.2, GR-1.3, GR-3.1, GR-4.3, GR-4.4 AND GR-5.1.
2. SEE THE I.R. 71 PLAN AND PROFILE SHEETS FOR LOCATIONS AND REFERENCE NUMBERS. SEE THE ROADWAY SUBSUMMARY FOR QUANTITIES.



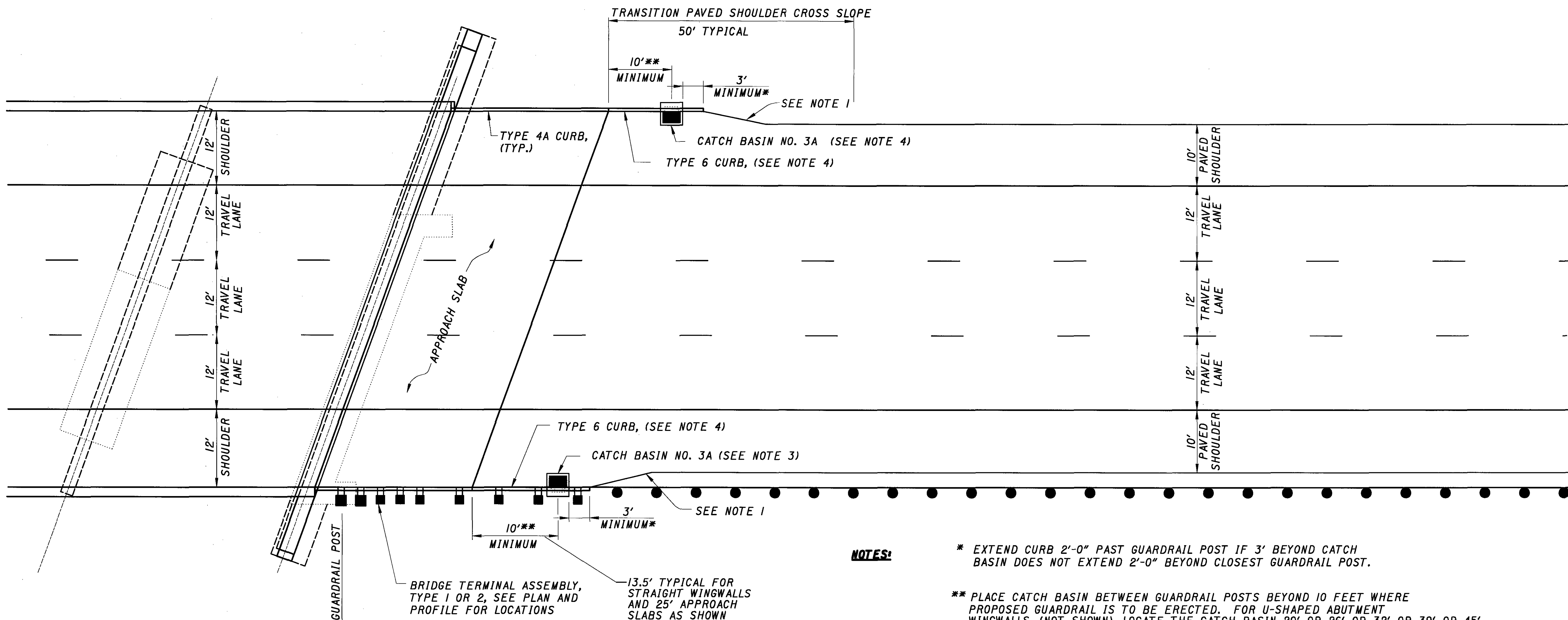
FOR ADDITIONAL PAVEMENT QUANTITIES
FOR CROSS HATCHED AREAS SEE
TABLE ON SHEET 513



SHOULDER DETAIL - LOW PROFILE GRADE END OF STRUCTURE

(NOT TO SCALE)

- NOTES:**
1. TAPER ASPHALT PAVED SHOULDER WIDTH FROM 12' TO 10' IN 10' FROM THE END OF CURB
 2. TRANSITION CROSS SLOPE FROM 0.0156 TO 0.0417 IN 50' TYP.
 3. SEE DRAINAGE SUBSUMMARY FOR APPLICABLE CATCH BASIN TYPE. SEE PLAN AND PROFILE SHEETS FOR OUTLET PIPING ARRANGEMENT.
 4. FOR LOW END OF STRUCTURES WITHOUT CATCH BASIN (AS PER THE PLAN AND PROFILE SHEETS) PROVIDE REINFORCED SODDING FLUME (DM-4.1) AT THE END OF THE APPROACH SLAB CURB AND OMIT TYPE 6 CURB SHOWN.

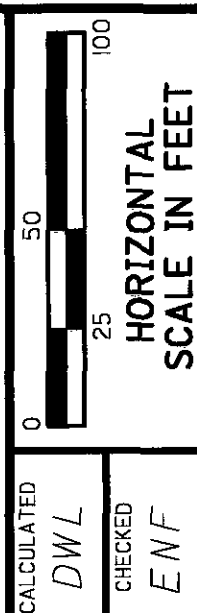


DRAINAGE DETAIL - LOW PROFILE GRADE END OF STRUCTURE

NOTES:

- * EXTEND CURB 2'-0" PAST GUARDRAIL POST IF 3' BEYOND CATCH BASIN DOES NOT EXTEND 2'-0" BEYOND CLOSEST GUARDRAIL POST.
- ** PLACE CATCH BASIN BETWEEN GUARDRAIL POSTS BEYOND 10 FEET WHERE PROPOSED GUARDRAIL IS TO BE ERRECTED. FOR U-SHAPED ABUTMENT WINGWALLS, (NOT SHOWN), LOCATE THE CATCH BASIN 20' OR 26' OR 32' OR 39' OR 45' FROM END OF WINGWALL AS APPROPRIATE TO ACHIEVE THE MINIMUM 10' DISTANCE BEYOND THE APPROACH SLAB AND BE CENTERED BETWEEN POSTS.

ITEMS 302, 407 & 448 ARE WARRANTY ITEMS



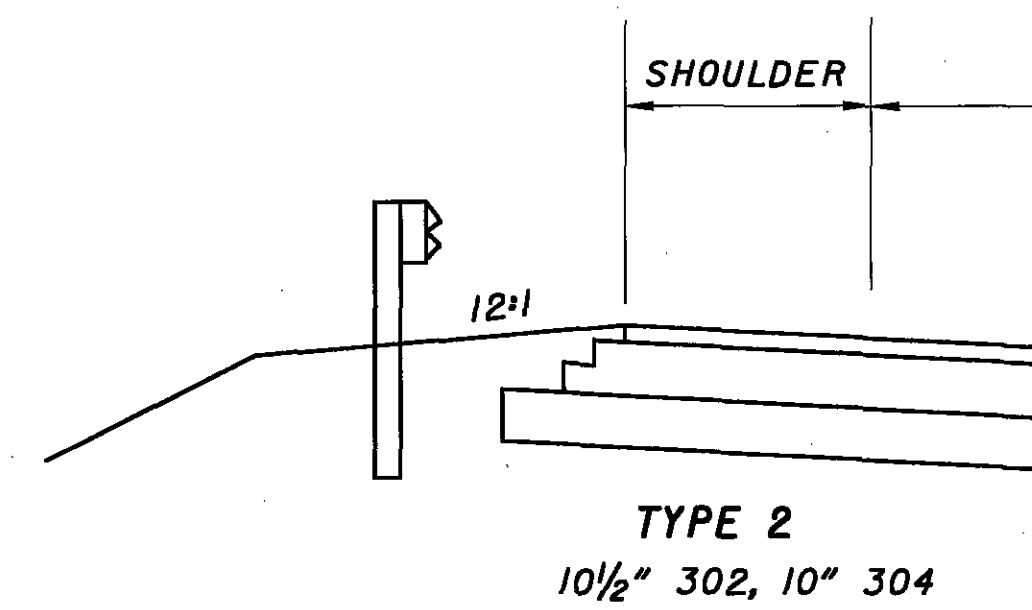
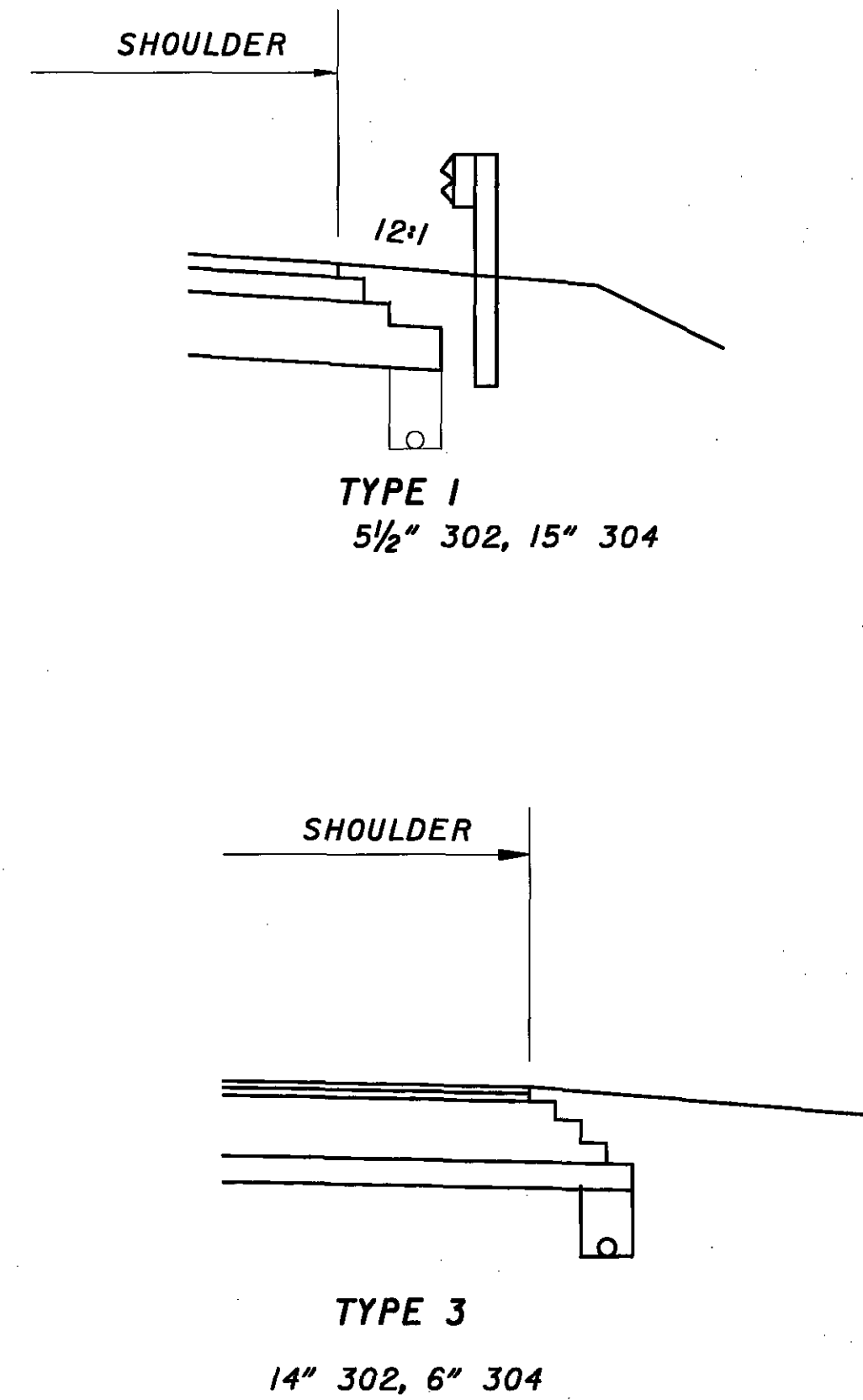
CALCULATED
DWL
CHECKED
ENF

CURB/PAV'T QUANTITIES

MED-71-6.06

513
1120

IR 71 AND RAMP PAVEMENT WIDENINGS (WARRANTY AND NON-WARRANTY ITEMS)



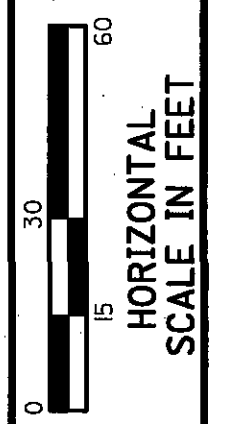
IR 76 PAVEMENT WIDENINGS (NON-WARRANTY ITEMS)

BR. NO.	LOCATION	SHOULDER TYPE 1, 2 OR 3	LENGTH ALONG CURB, FT.	204	302	304	407	446		609
				SUBGRADE COMPACTION	ASPHALT CONCRETE BASE PG 64-22	AGGREGATE BASE	TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG64-28	CURB, TYPE 6
				SQ. YARD	CU. YARD	CU. YARD	GAL.	CU. YARD	CU. YARD	FT.
76-0112R	SW	3	0	1.1	0.43	0.19	0.04	0.05	0.05	0
	SE	3	20	5.5	1.29	0.19	0.22	0.23	0.27	20
76-0158L	NE	3	0	1.1	0.43	0.19	0.04	0.05	0.05	0
	NW	3	18	5.1	1.21	0.19	0.20	0.21	0.25	18
TOTALS				12.8	3.36	0.76	0.50	0.54	0.62	38

IR 76 QUANTITIES CARRIED TO TABLE ON SHEET 160

BR. NO.	LOCATION	SHOULDER TYPE 1, 2 OR 3	LENGTH ALONG CURB, FT.	204	302	304	407	446		609
				SUBGRADE COMPACTION	ASPHALT CONCRETE BASE PG 64-22	AGGREGATE BASE	TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG64-28	CURB, TYPE 6
				SQ. YARD	CU. YARD	CU. YARD	GAL.	CU. YARD	CU. YARD	FT.
71-0729R	NE	2	18	5.1	1.05	0.31	0.20	0.21	0.25	18
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0729L	NE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	NW	2	21	5.8	1.17	0.31	0.23	0.24	0.28	21
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0729EN	NE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	NW	2	19	5.3	1.09	0.31	0.21	0.22	0.26	19
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0794R	NE	2	17	4.9	1.01	0.31	0.19	0.20	0.24	17
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0794L	NE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	NW	2	19	5.3	1.09	0.31	0.21	0.22	0.26	19
	SW	2	29	7.5	1.50	0.31	0.30	0.31	0.37	29
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0810R	NE	2	21	5.8	1.17	0.31	0.23	0.24	0.28	21
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0810L	NE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	NW	2	21	5.8	1.17	0.31	0.23	0.24	0.28	21
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0860R	NE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	21	5.8	1.17	0.31	0.23	0.24	0.28	21
71-0860L	NE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	21	5.8	1.17	0.31	0.23	0.24	0.28	21
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
71-0750	NE	2	18	5.1	1.05	0.31	0.20	0.21	0.25	18
	NW	2	20	5.5	1.13	0.31	0.22	0.23	0.27	20
	SW	2	20	5.5	1.13	0.31	0.22	0.23	0.27	20
	SE	2	18	5.1	1.05	0.31	0.20	0.21	0.25	18
224-1570	NE	2	17	4.9	1.01	0.31	0.19	0.20	0.24	17
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
224-1582	NE	2	20	5.5	1.13	0.31	0.22	0.23	0.27	20
	NW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SW	2	0	1.1	0.32	0.31	0.04	0.05	0.05	0
	SE	2	20	5.5	1.13	0.31	0.22	0.23	0.27	20
TOTALS				128.3	29.14	14.88	4.97	5.45	6.15	340

IR 71 & RAMP QUANTITIES CARRIED TO TABLE ON SHEET 159

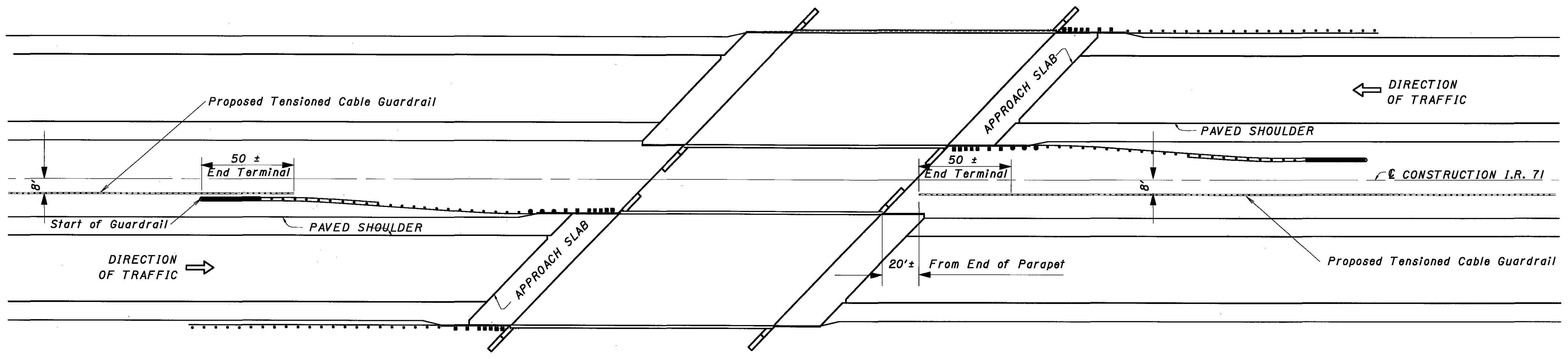


DRAWN ENF
CHECKED DCF

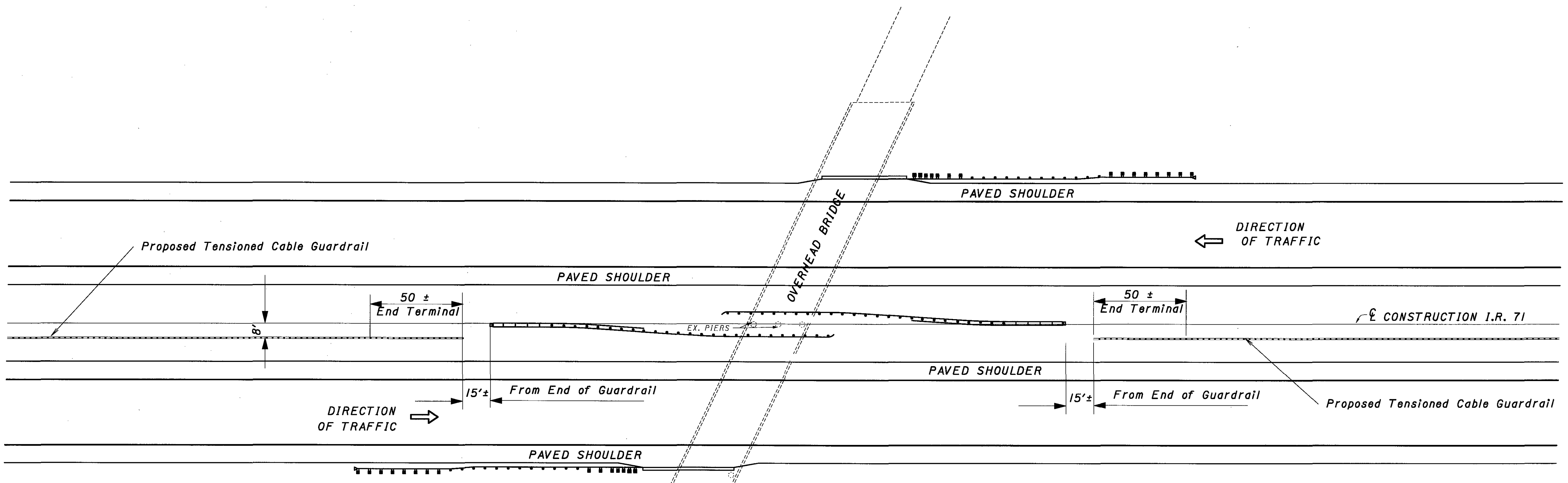
I.R. 71
Cable Guardrail Detail

MED-71-6.06

513A
1120

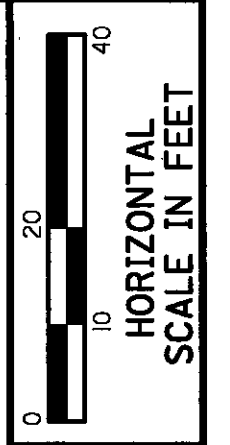


CABLE GUARDRAIL AT MAINLINE BRIDGE



CABLE GUARDRAIL AT OVERHEAD BRIDGE

...75657cable.dgn

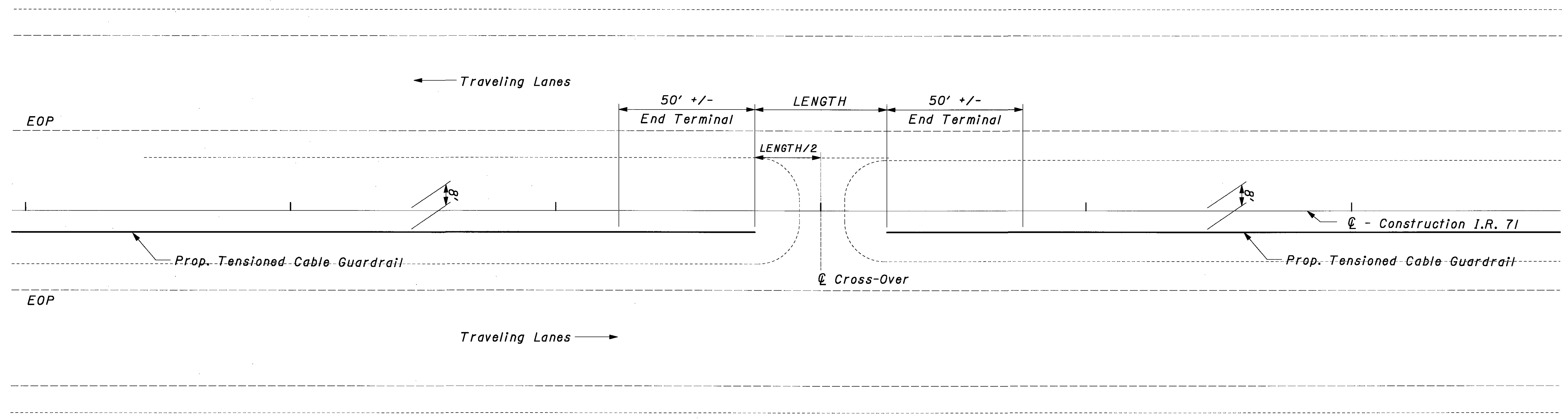


DRAWN
GLM
CHECKED
WDC

I.R. 71
Cable Guardrail Detail

MED-71-6.06

513B
1120

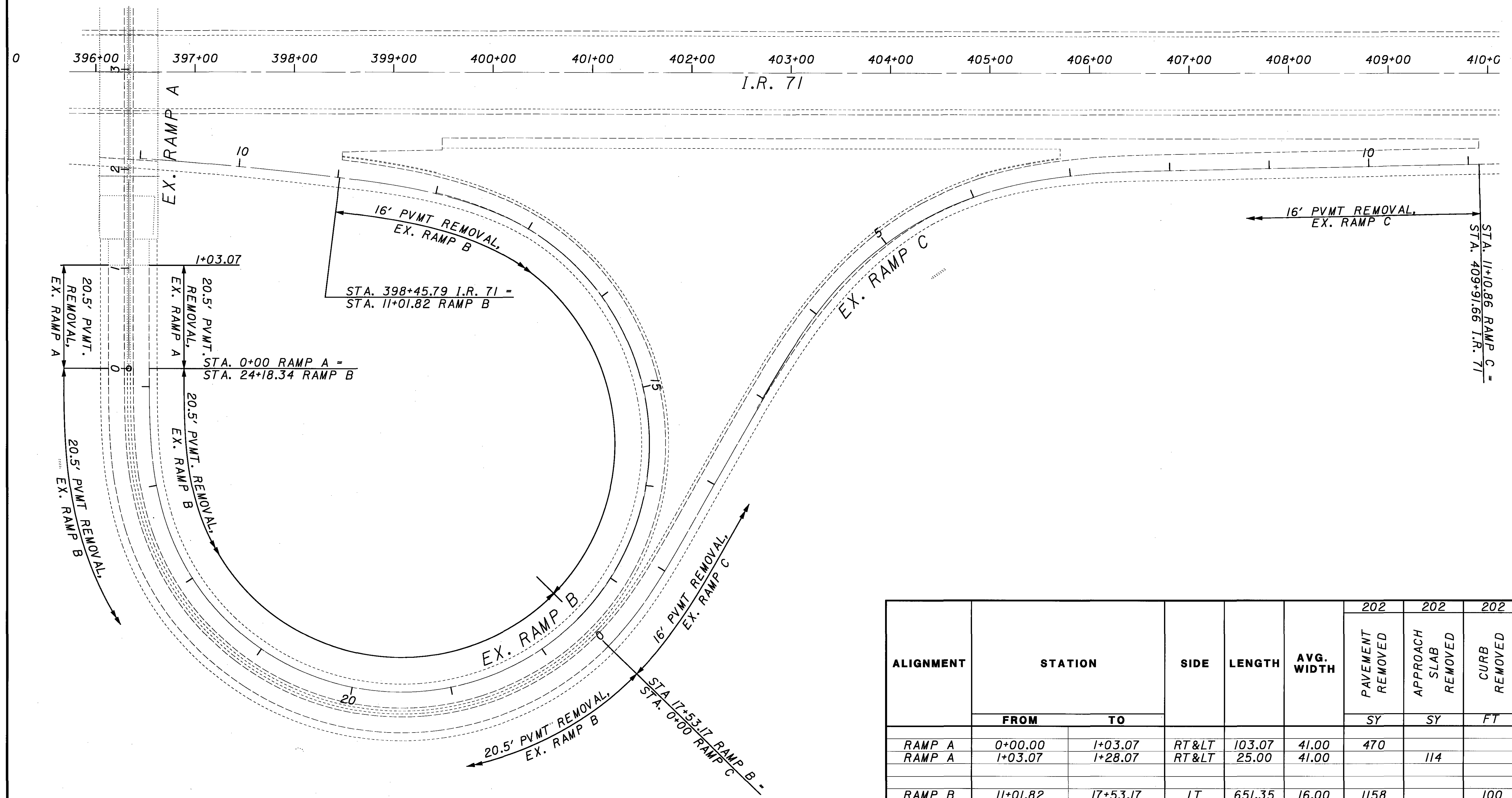


See Typical Sections for proposed Tensioned Cable Guardrail begin and end stations at cross-overs.



PAVEMENT REMOVAL PLAN

MED-71-6.06

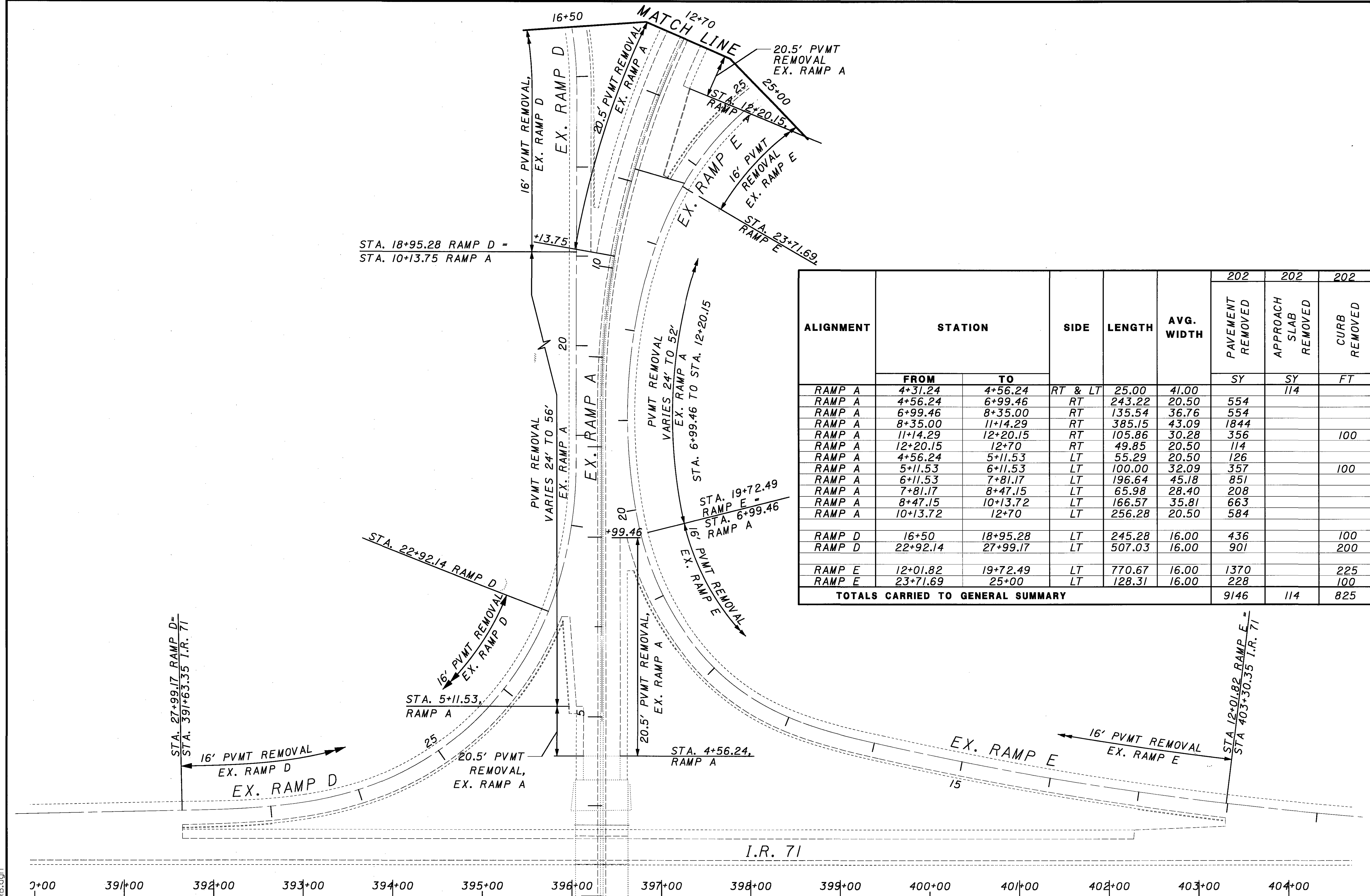


ALIGNMENT	STATION		SIDE	LENGTH	AVG. WIDTH	202	202	202
	FROM	TO				PAVEMENT REMOVED SY	APPROACH SLAB REMOVED SY	CURB REMOVED FT
RAMP A	0+00.00	1+03.07	RT<	103.07	41.00	470		
RAMP A	1+03.07	1+28.07	RT<	25.00	41.00		114	
RAMP B	11+01.82	17+53.17	LT	651.35	16.00	1158		100
RAMP B	17+53.17	24+18.34	RT<	665.17	41.00	3030		
RAMP C	0+00.00	11+10.86	LT	1110.86	16.00	1975		80
TOTALS CARRIED TO GENERAL SUMMARY						6633	114	180

...75657GMA.dgn

PAVEMENT REMOVAL PLAN

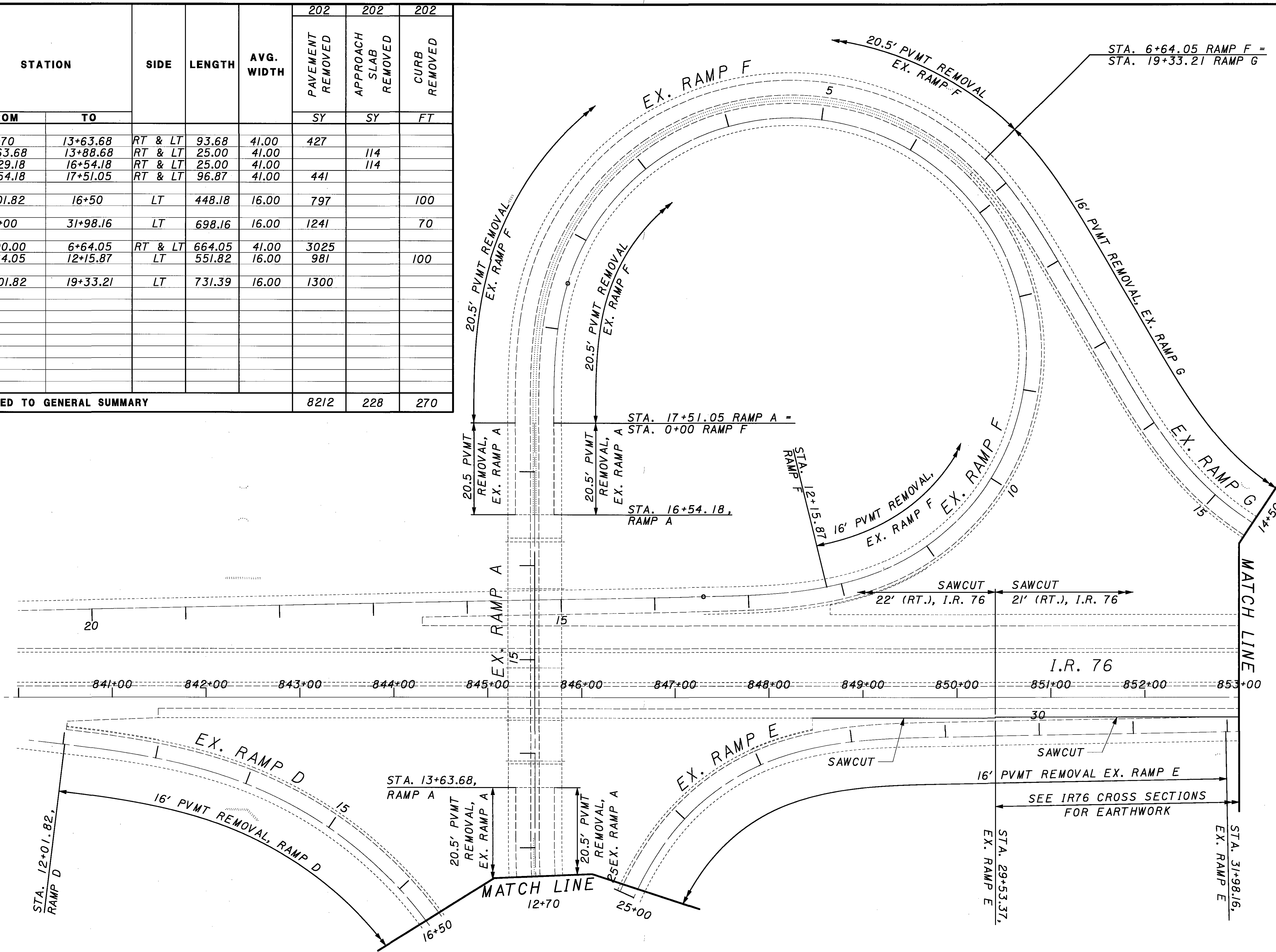
MED-71-6.06



ALIGNMENT	STATION		SIDE	LENGTH	AVG. WIDTH	202	202	202
	FROM	TO				PAVEMENT REMOVED	APPROACH SLAB REMOVED	CURB REMOVED
						SY	SY	FT
RAMP A	4+31.24	4+56.24	RT & LT	25.00	41.00			
RAMP A	4+56.24	6+99.46	RT	243.22	20.50	554	114	
RAMP A	6+99.46	8+35.00	RT	135.54	36.76	554		
RAMP A	8+35.00	11+14.29	RT	385.15	43.09	1844		
RAMP A	11+14.29	12+20.15	RT	105.86	30.28	356		100
RAMP A	12+20.15	12+70	RT	49.85	20.50	114		
RAMP A	4+56.24	5+11.53	LT	55.29	20.50	126		
RAMP A	5+11.53	6+11.53	LT	100.00	32.09	357		100
RAMP A	6+11.53	7+81.17	LT	196.64	45.18	851		
RAMP A	7+81.17	8+47.15	LT	65.98	28.40	208		
RAMP A	8+47.15	10+13.72	LT	166.57	35.81	663		
RAMP A	10+13.72	12+70	LT	256.28	20.50	584		
RAMP D	16+50	18+95.28	LT	245.28	16.00	436		100
RAMP D	22+92.14	27+99.17	LT	507.03	16.00	901		200
RAMP E	12+01.82	19+72.49	LT	770.67	16.00	1370		225
RAMP E	23+71.69	25+00	LT	128.31	16.00	228		100
TOTALS CARRIED TO GENERAL SUMMARY						9146	114	825

...V75657GMB.dgn

ALIGNMENT	STATION		SIDE	LENGTH	AVG. WIDTH	202	202	202
	FROM	TO				PAVEMENT REMOVED	APPROACH SLAB REMOVED	CURB REMOVED
						SY	SY	FT
RAMP A	12+70	13+63.68	RT & LT	93.68	41.00	427		
RAMP A	13+63.68	13+88.68	RT & LT	25.00	41.00		114	
RAMP A	16+29.18	16+54.18	RT & LT	25.00	41.00		114	
RAMP A	16+54.18	17+51.05	RT & LT	96.87	41.00	441		
RAMP D	12+01.82	16+50	LT	448.18	16.00	797		100
RAMP E	25+00	31+98.16	LT	698.16	16.00	1241		70
RAMP F	0+00.00	6+64.05	RT & LT	664.05	41.00	3025		
RAMP F	6+64.05	12+15.87	LT	551.82	16.00	981		100
RAMP G	12+01.82	19+33.21	LT	731.39	16.00	1300		
TOTALS CARRIED TO GENERAL SUMMARY						8212	228	270





 CALCULATED KEH


 CHECKED ENF

PAVEMENT REMOVAL PLAN

MED-71-6.06

...75657GMC.dgn

ALIGNMENT	STATION		SIDE	LENGTH	AVG. WIDTH	202	202	202
	FROM	TO				PAVEMENT REMOVED	APPROACH SLAB REMOVED	CURB REMOVED
						SY	SY	FT
RAMP E	31+98.16	35+28.86	LT	330.7	12.56	461		
RAMP E	35+28.86	42+42.68	LT	743.82	10.99	908		
RAMP G	7+42.99	12+01.82	LT	465.83	9.0	466		
RAMP G	12+01.82	14+50	LT	248.18	16.00	441		200
TOTALS CARRIED TO GENERAL SUMMARY						2256		200

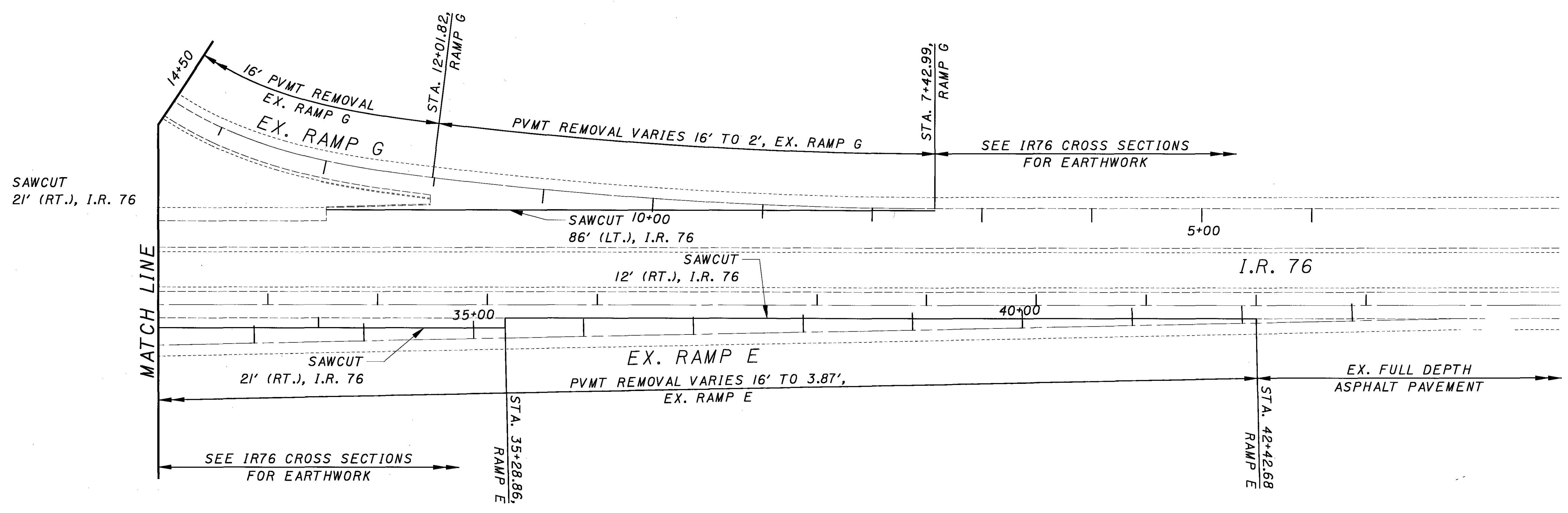


 0 50 100 200

 HORIZONTAL SCALE IN FEET

 CALCULATED: MBM

 CHECKED: ENF



PAVEMENT REMOVAL PLAN

MED-71-6.06

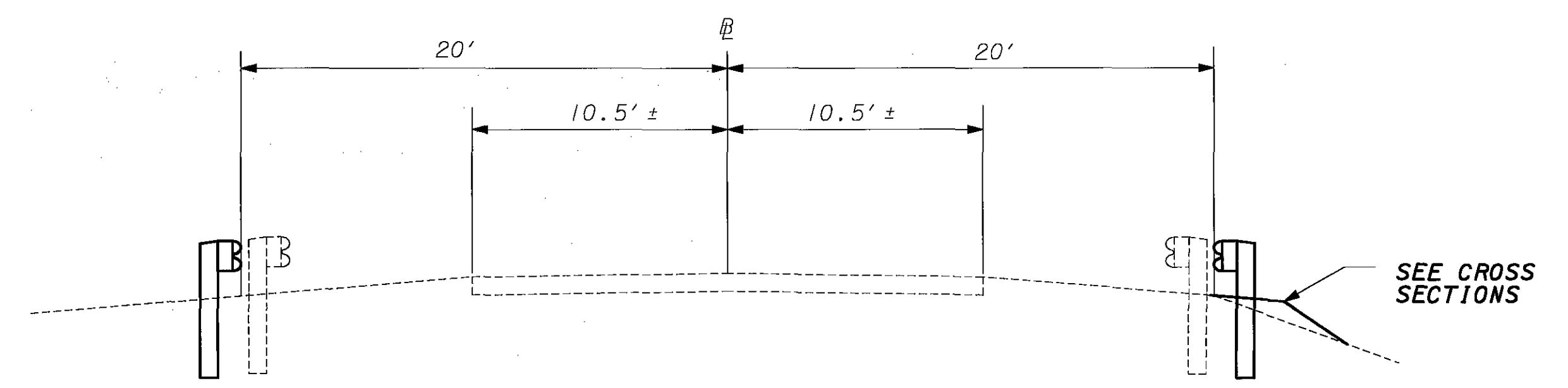
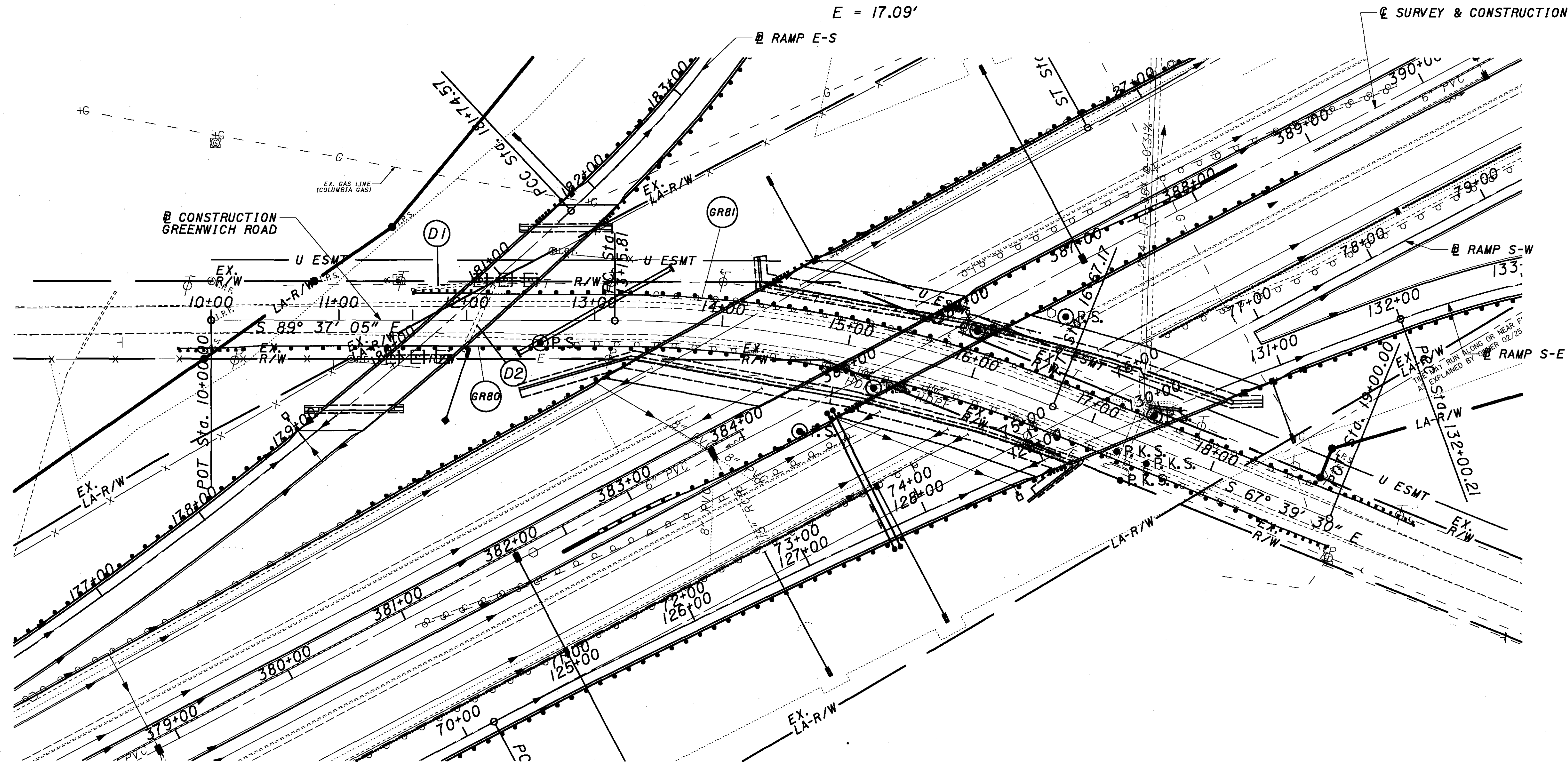
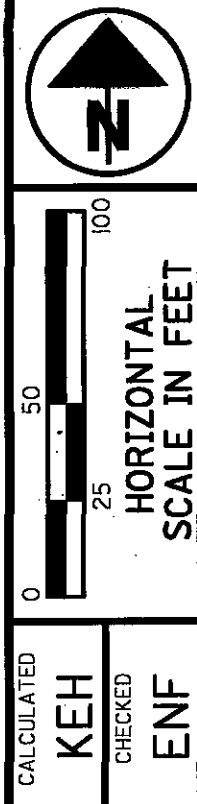
...75657GMD.dgn

- NOTES:
1. BASELINE OF GREENWICH ROAD IS NOT CENTERLINE OF R/W AND IS INTENDED TO ACT AS A BASELINE OF CONSTRUCTION SPECIFIC ONLY TO THIS PROJECT.
 2. CONTRACTOR SHALL GRADE ROADSIDE DITCHES TO DRAIN.

FOR GUARDRAIL QUANTITIES SEE SHEET 152

P.I. Sta = 14+93.67
 $\Delta = 21^\circ 57' 36''$ (RT)
 $D_c = 6^\circ 15' 00''$
 $R = 916.73'$
 $T = 177.86'$
 $L = 351.36'$
 $E = 17.09'$

REF NO.	STATION		SIDE	202	SPECIAL
	FROM	TO		PIPE REMOVED, 24" AND UNDER FEET	FILL & PLUG COUDDIT FEET
D1	11+57	12+17	LT	61	
D2	11+97	12+21			56
TOTALS CARRIED TO SUB-SUMMARY				61	56

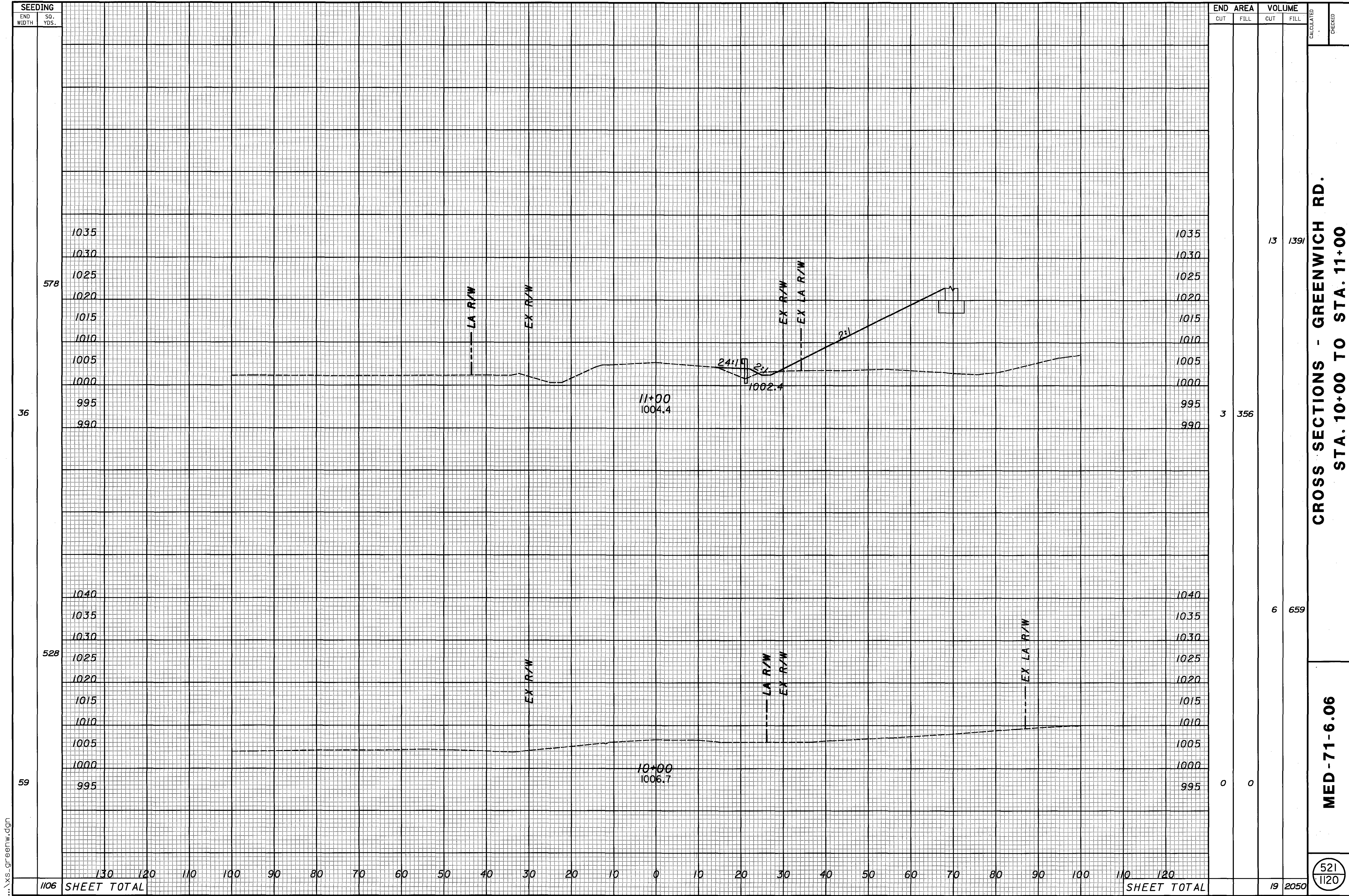


GREENWICH ROAD PLAN
 STA. 10+00 TO STA. 19+00

MED-71-6.06

520
1120

...175657greenw.dgn



SEEDING	
END WIDTH	SO. YDS.
578	
36	
528	
59	
1106	

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		13	1391		
3	356				
		6	659		
0	0				
		19	2050		

CROSS SECTIONS - GREENWICH RD.
STA. 10+00 TO STA. 11+00
MED-71-6.06
521
1120

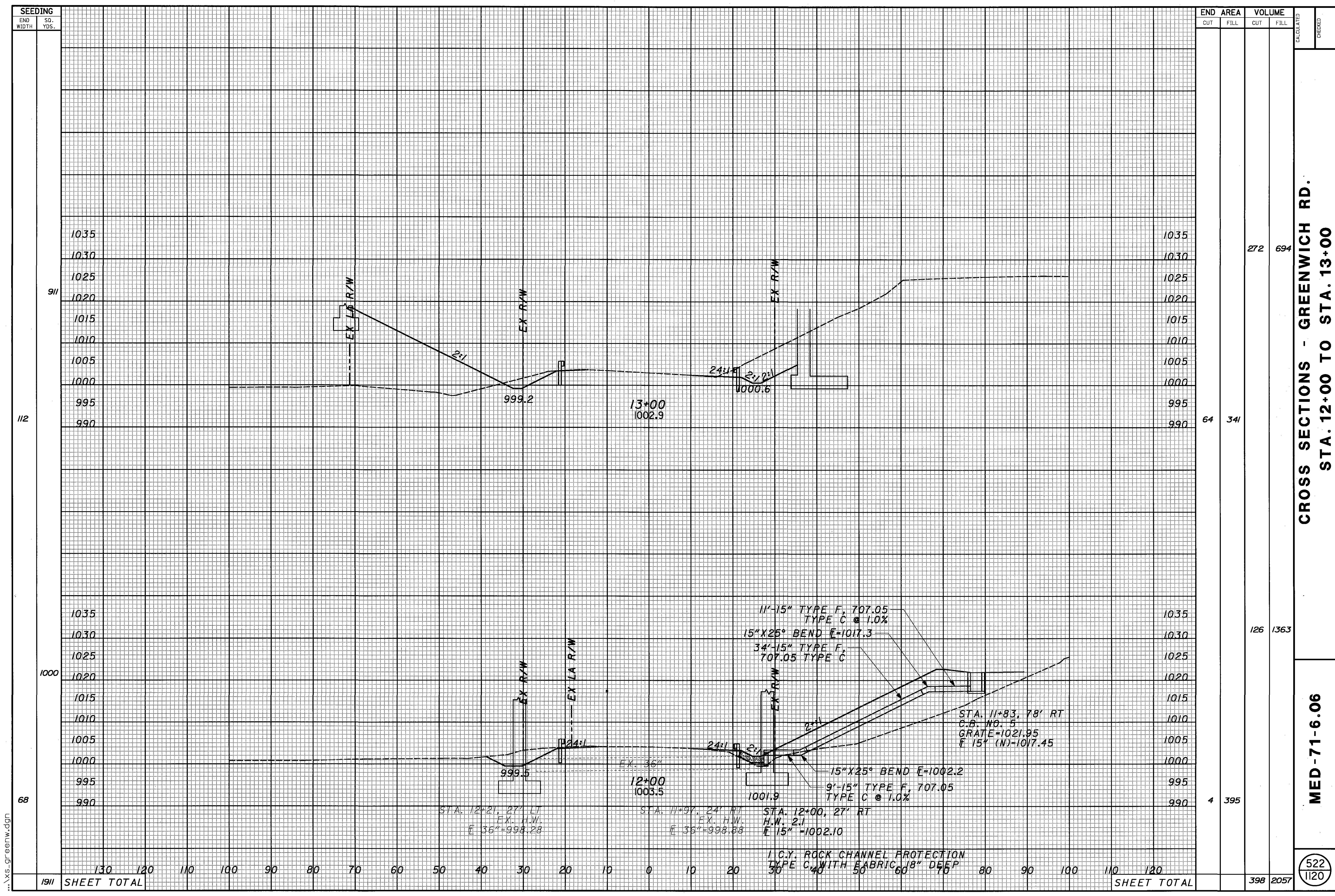
...Xs_greenw.dgn

1106

SHEET TOTAL

SHEET TOTAL

19 2050



...xs_greenw.dgn

SEEDING	
END WIDTH	SO. YDS.
130	120
120	110
110	100
100	90
90	80
80	70
70	60
60	50
50	40
40	30
30	20
20	10
10	0
0	10
10	20
20	30
30	40
40	50
50	60
60	70
70	80
80	90
90	100
100	110
110	120
120	130

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
64	341	272	694		
4	395	126	1363		
191	SHEET TOTAL	398	2057		

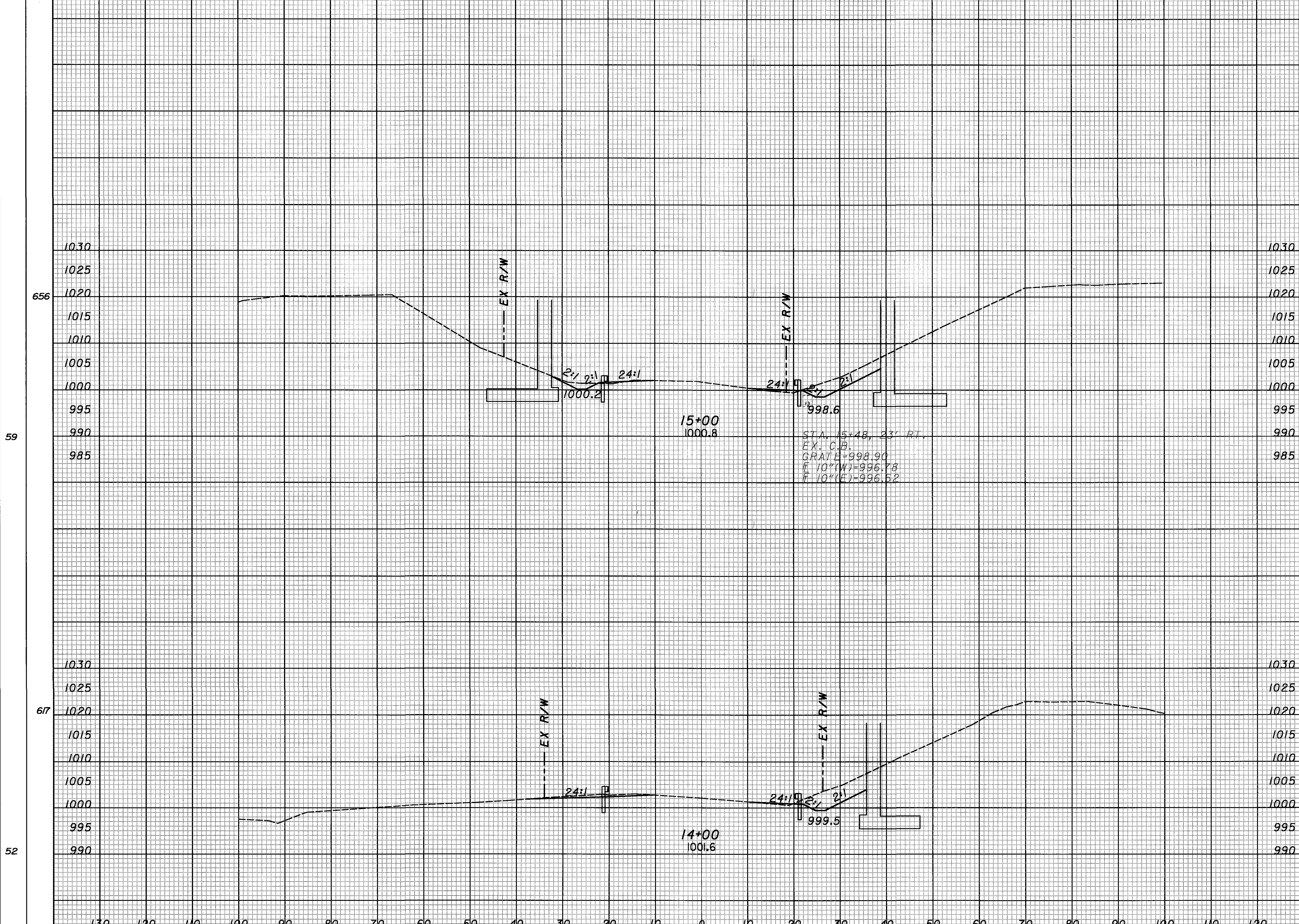
CROSS SECTIONS - GREENWICH RD.
STA. 12+00 TO STA. 13+00

MED-71-6.06

522
1120

SEEDING
END WIDTH SQ. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



59

52

64

83

202 24

272 65

34

CROSS SECTIONS - GREENWICH RD.
STA. 14+00 TO STA 15+00

MED-71-6.06

523
1120

1273 SHEET TOTAL

SHEET TOTAL

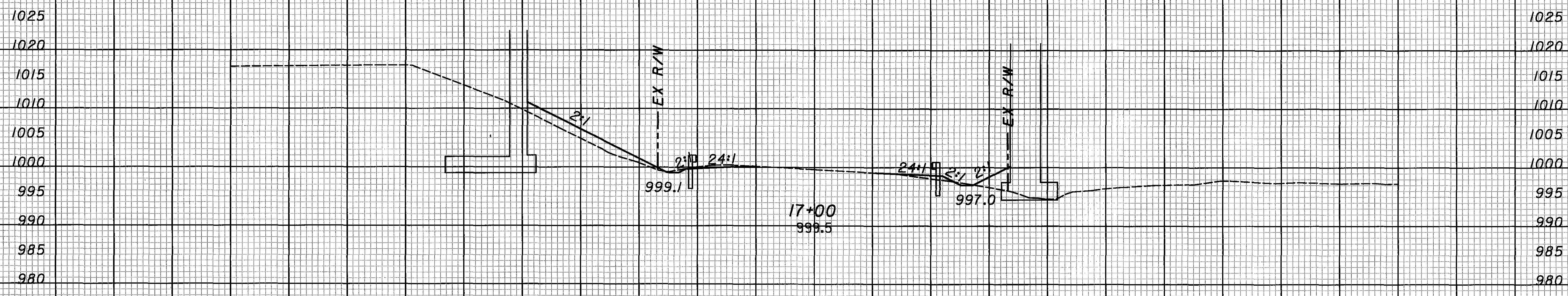
474 89

... \xs_greenw.dgn

SEEDING
END WIDTH SO. YDS.

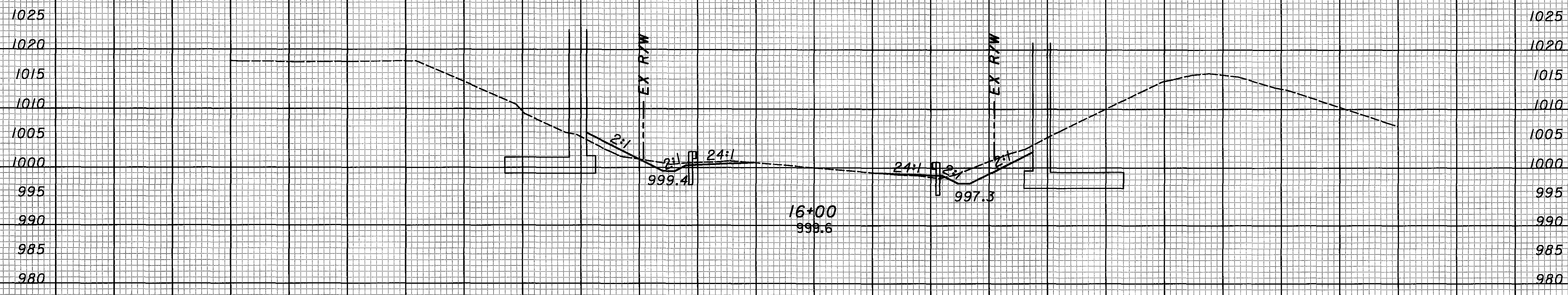
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED

222
66



ELEVATION	CUT	FILL
1025		18
1020		
1015		27
1010		
1005		
1000		
995		
990		
985	6	35
980		

694
59



ELEVATION	CUT	FILL
1025		94
1020		87
1015		
1010		
1005		
1000		
995		
990		
985	45	12
980		

CROSS SECTIONS - GREENWICH RD.
STA. 16+00 TO STA. 17+00

MED-71-6.06

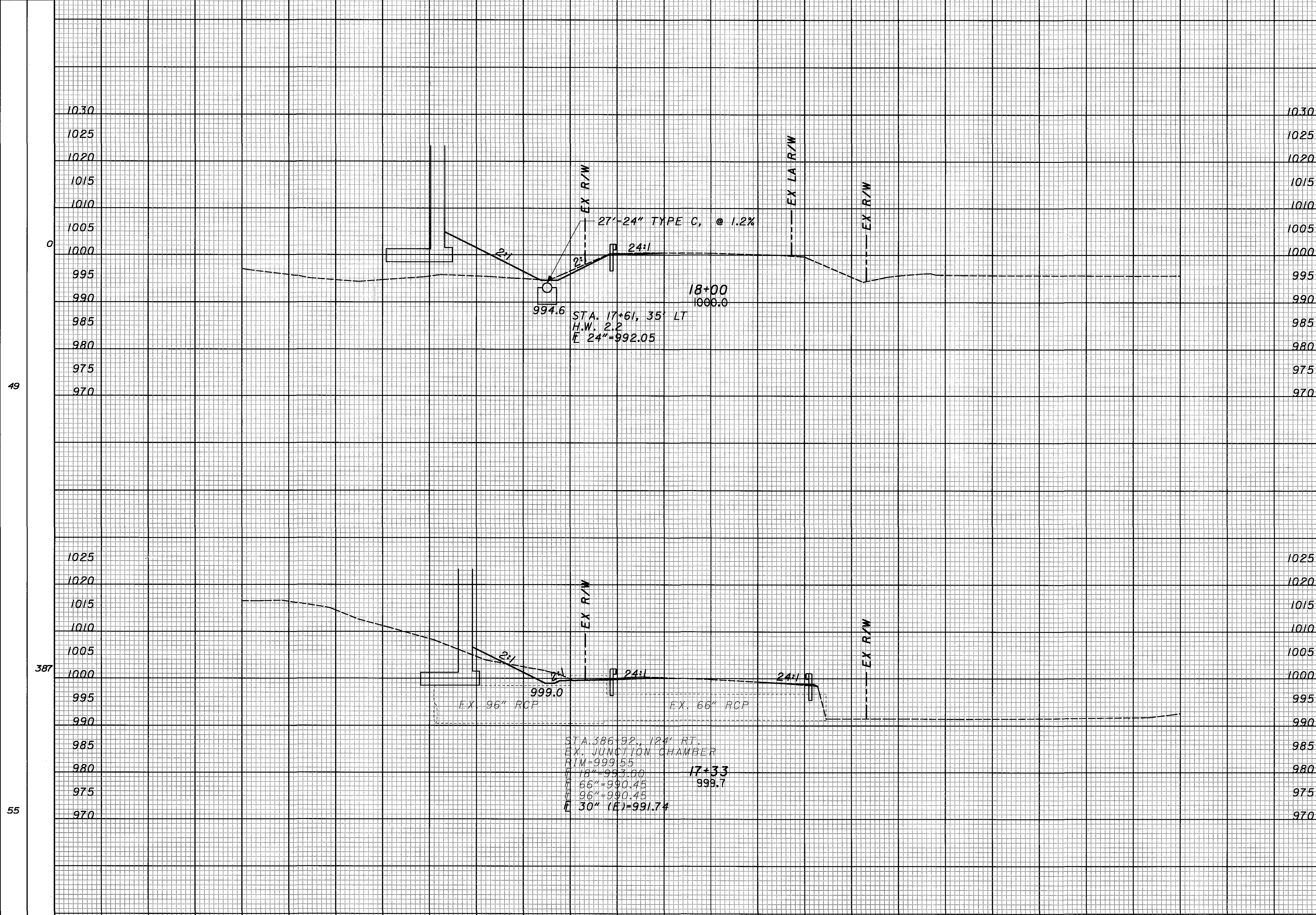
524
1120

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120
916 SHEET TOTAL SHEET TOTAL

...xss.greenw.dgn

SEEDING
END SO.
WIDTH YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED CHECKED



END AREA	VOLUME		
CUT	FILL	CUT	FILL
12	66	0	0
24	9	45	93

CROSS SECTIONS - GREENWICH RD.
STA. 17+33 TO STA. 18+00

MED-71-6.06

525
1120

... \xs.greenw.dgn

387 SHEET TOTAL

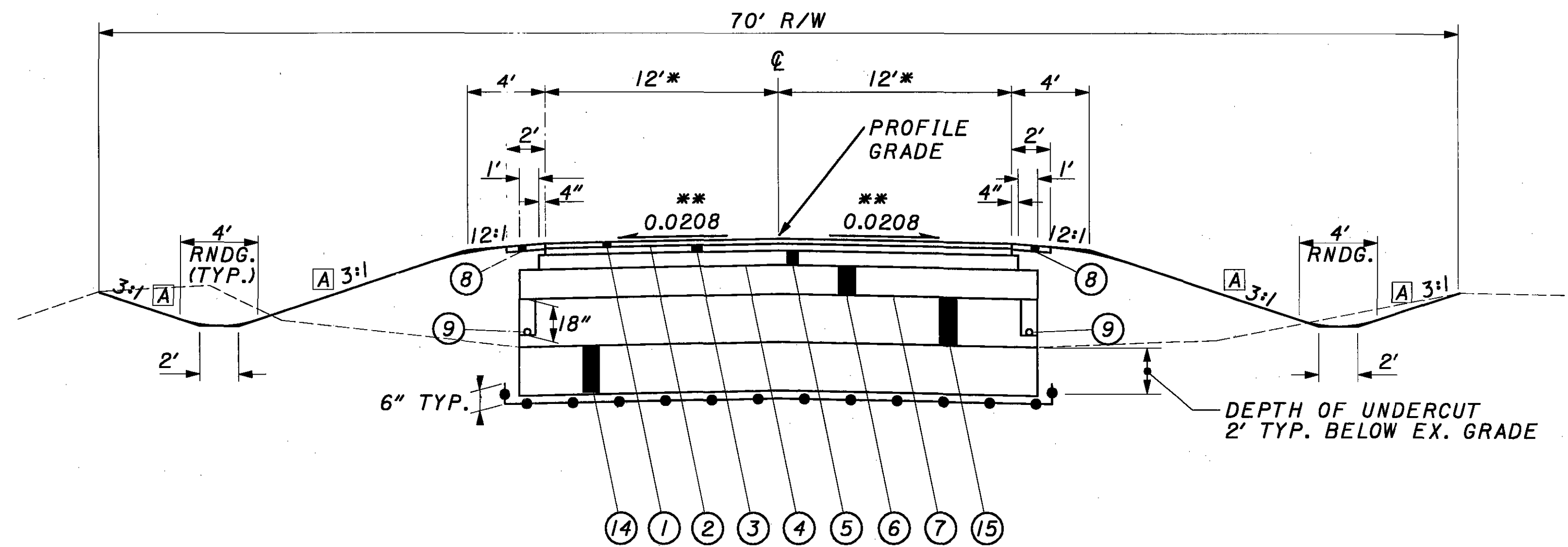
SHEET TOTAL

45 93

A UNLESS OTHERWISE SHOWN ON CROSS SECTIONS.

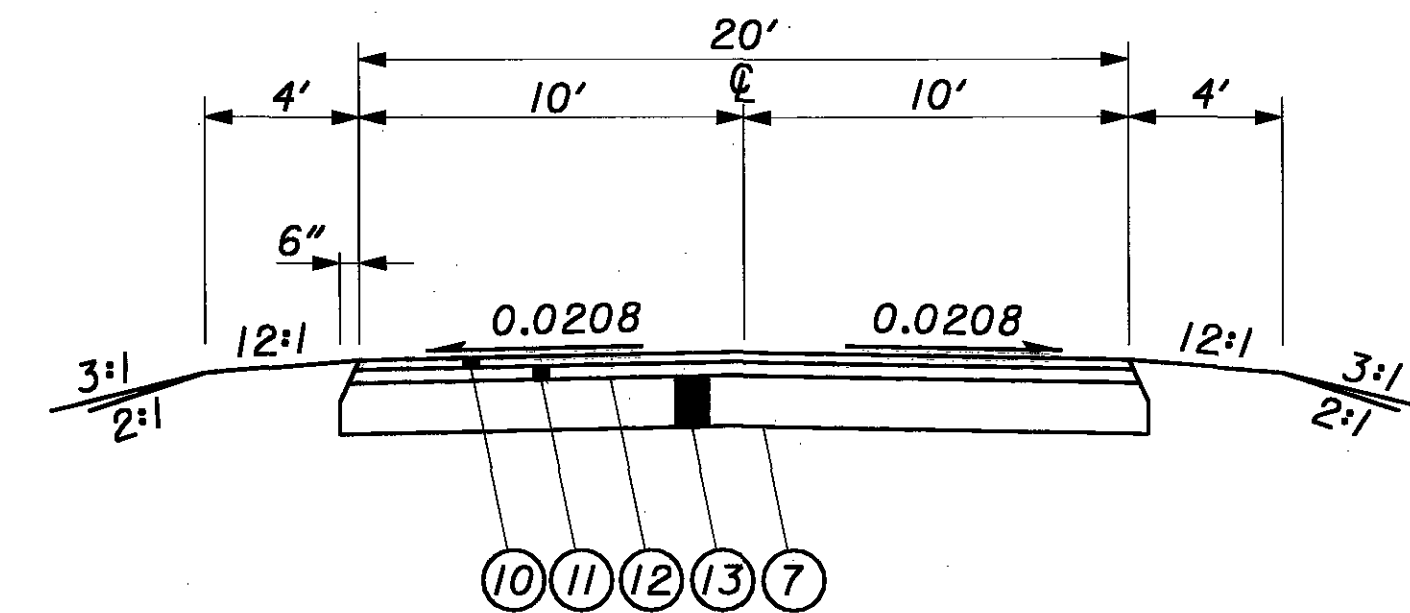
ITEM 203 - EMBANKMENT, AS PER PLAN B

THIS MATERIAL SHALL CONFORM TO 703.16 AND BE PLACED OVER THE TYPE B GRANULAR MATERIAL IN THE LOCATIONS DESIGNATED. STRUCTURAL GEOGRID, TENSAR BX-1200, OR EQUIVALENT, SHALL BE PLACED ON TOP OF THE EMBANKMENT BEFORE PLACING THE ITEM 304 LAYER. THE UNIT PRICE FOR ITEM 203 - EMBANKMENT, AS PER PLAN B, SHALL INCLUDE THE EMBANKMENT MATERIAL AND THE STRUCTURAL GEOGRID.



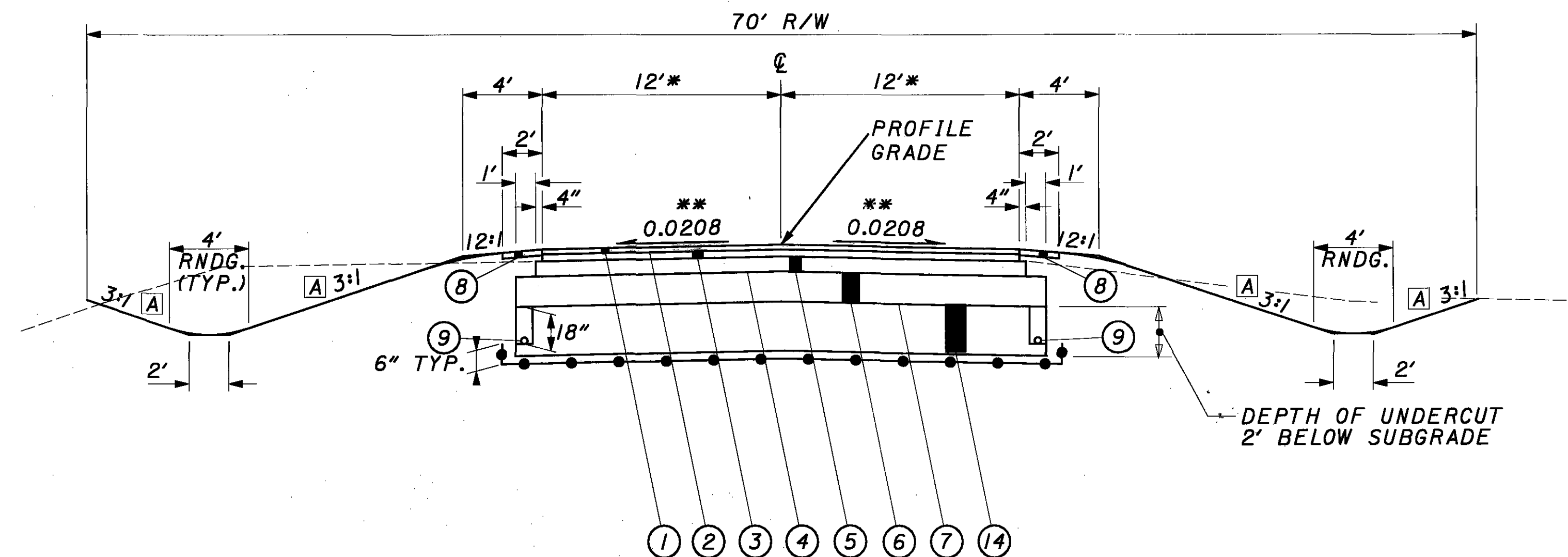
SERVICE ROAD
 PROFILE GRADE > 2 1/2" ABOVE EX. GROUND
 STA. 10+34.00 TO STA. 12+56.00 - 222.00 L.F.
 STA. 22+32.00 TO STA. 25+12.00 - 280.00 L.F.
 STA. 26+20.00 TO STA. 28+50.00 - 230.00 L.F.
 STA. 37+43.00 TO STA. 40+54.74 - 311.74 L.F.
 TOTAL - 1043.74 L.F.

* VARIES 12' TO 50' TO 0'
 FROM STA. 39+26.39 TO STA. 40+54.74
 ** CROSS SLOPE TO BE 0.0156 FROM
 STA. 39+50.00 TO STA. 40+54.74
 TRANSITION FROM 39+26.39 TO 39+50.00



DRIVES
 DRIVE STA. 140+54.74 TO STA. 144+70.13 - 415.39 L.F.
 SERVICE RD. STA. 40+54.74, 50.00' LT TO 84.61' LT. - 34.61 L.F.
 SERVICE RD. STA. 40+34.74, 94.61' LT TO STA. 40+91.59, 94.61' LT. - 56.85 L.F.
 TOTAL 506.85 L.F.

- ① ITEM 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
- ② ITEM 407 TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL/S.Y.
- ③ ITEM 448 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
- ④ ITEM 407 TACK COAT @ 0.1 GAL/S.Y.
- ⑤ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ⑥ ITEM 304 12" AGGREGATE BASE
- ⑦ ITEM 204 SUBGRADE COMPACTION
- ⑧ ITEM 411 2" STABILIZED CRUSHED AGGREGATE, AS PER PLAN
- ⑨ ITEM 605 4" BY TYPE UNDERDRAIN, 707.31 OR 707.41 (18" NORMAL DEPTH)
- ⑩ ITEM 448 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, (DRIVEWAYS)
- ⑪ ITEM 448 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, (DRIVEWAYS)
- ⑫ ITEM 408 PRIME COAT @ 0.4 GAL/S.Y.
- ⑬ ITEM 304 8" AGGREGATE BASE
- ⑭ ITEM 204 GRANULAR MATERIAL, TYPE B
- ⑮ ITEM 203 EMBANKMENT, AS PER PLAN B (0" MIN TO APPROX. 27" MAX.)



SERVICE ROAD
 PROFILE GRADE < 2 1/2" ABOVE EX. GROUND
 STA. 10+11.48 TO STA. 10+34.00 - 22.52 L.F.
 STA. 12+56.00 TO STA. 22+32.00 - 976.00 L.F.
 STA. 25+12.00 TO STA. 26+20.00 - 108.00 L.F.
 STA. 28+50.00 TO STA. 37+43.00 - 893.00 L.F.
 TOTAL - 1999.52 L.F.

LOCATION	STATION TO STATION		LENGTH	ASPHALT SURFACE AVG. WIDTH	ASPHALT SURFACE AREA	TOTAL EDGE LENGTH	DEPTH OF UNDERCUT	204	204			204	301	304	407	407	408		411	448	448	448	448
								SUBGRADE COMPACT.	GRANULAR MATERIAL, TYPE B			GEOTEXTILE FABRIC,	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE	TACK COAT	TACK COAT FOR INTER. COURSE	PRIME COAT		STABIL. CRUSHED AGGREGATE, AS PER PLAN (SHLDRS.)	ASPH. CONC. SURFACE COURSE, TYPE 1 PG64-22	ASPH. CONC. INTER. COURSE, TYPE 2 PG64-22	ASPH. CONC. SURFACE COURSE, TYPE 1 PG64-22 (DRIVEWAYS)	ASPH. CONC. INTER. COURSE, TYPE 2 PG64-22 (DRIVEWAYS)
	FROM	TO	FT.	FT.	SQ. FEET	FT.	FT.	SQ. YARD	CU. YARD			SQ. YARD	CU. YARD	CU. YARD	GALS	GALS	GALS		CU. YARD	CU. YARD	CU. YARD	CU. YARD	CU. YARD
SERVICE RD.	10+11.48	10+64.75	53.27		2357.98	160.44	2.00	288.7	190.5			294.7	44.7	95.2	26.8	13.1			2.0	10.9	14.6		
SERVICE RD.	10+64.75	39+26.28	2861.53	24.00	68676.72	5723.06	2.00	8584.6	5652.4			8796.5	1307.1	2826.2	784.3	381.5			70.7	317.9	423.9		
SERVICE RD.	39+26.28	40+54.74	128.46		8791.52	337.49	2.00	1033.1	684.5			1045.6	164.9	342.3	98.9	48.8			4.2	40.7	54.3		
DRIVE	140+54.74	144+70.13	415.39	20.00	8307.80	751.53		964.8						214.4			385.9					32.1	44.9
DRIVE	40+54.74	EAST	34.61	20.00	692.20	82.66		81.5						18.1			32.6					2.7	3.7
DRIVE	40+34.74	40+91.59	56.85	20.00	1137.00	199.89		137.4						30.5			55.0					4.4	6.1
TOTALS CARRIED TO GENERAL SUMMARY								11090.1	6527.4			10136.8	1516.7	3526.7	910.0	443.4	473.5		76.9	369.5	492.8	39.1	54.7

CALCULATED JEL
 CHECKED ENF
SERVICE ROAD AND DRIVE QUANTITIES
MED-71-6.06
 527
 1120

SHEET NO.	STATION		203		659	204	203
			EXCAVATION	EMBANKMENT	SEEDING AND MULCHING, CLASS 1 AS PER PLAN	EXCAVATION OF SUBGRADE	EMBANKMENT, AS PER PLAN B
	FROM	TO	CU. YD.	CU. YD.	SQ. YD.	CU. YD.	CU. YD.
	SERVICE ROAD						
532	10+11.48	11+50	366	184	1202	341	171
533	12+00	13+50	213	77	899	392	23
534	14+00	15+50	353	34	819	392	
534	16+00	17+50	159	73	785	392	
536	18+00	19+50	159	82	795	392	
537	20+00	21+50	269	51	845	392	
538	22+00	23+50	124	180	941	392	99
539	24+00	25+50	301	145	1014	392	90
540	26+00	27+00	126	208	766	392	251
541	27+50	29+00	118	143	853	392	59
542	29+50	31+00	226	72	927	392	
543	31+50	33+00	226	60	872	392	
544	33+50	35+00	278	39	845	392	
545	35+50	37+00	243	38	769	392	
546	37+50	39+00	93	183	953	343	118
547	39+50	40+65	101	410	433	611	594
	SERVICE ROAD - DRIVES						
548	140+54.74	141+41	8	445	313		
549	141+50	143+00	23	115	455		
550	143+50	144+70.13	106	0	255		
TOTALS CARRIED TO SHEET 154			3492	2539	14741		
TOTALS CARRIED TO GENERAL SUMMARY						6391	1405

WATER WORKS

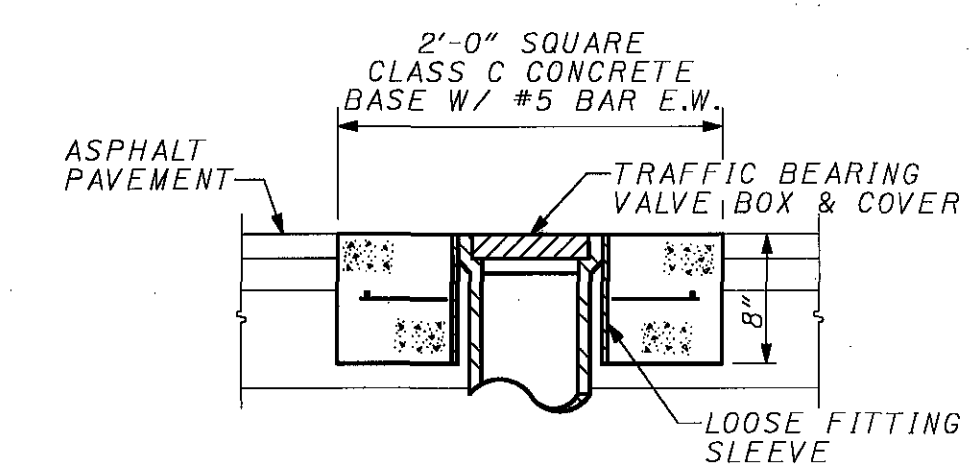
ITEM 638 VALVE BOX, ADJUSTED TO GRADE, AS PER PLAN A OR B

IN ADDITION TO THE REQUIREMENTS OF 638 THIS ITEM INCLUDES REMOVAL OF THE EXISTING STANDARD DUTY VALVE BOXES LOCATED WITHIN THE PROPOSED SERVICE ROAD PAVEMENT, AND FURNISHING AND INSTALLING TRAFFIC BEARING VALVE BOXES AT THE SAME LOCATIONS. VALVE BOXES SHALL BE HEAVY DUTY, ADJUSTABLE, CAST IRON EXTENSION TYPE, THREE PIECE, 5 1/4-INCH SHAFT, SCREW TYPE, AND OF SUCH LENGTH AS NECESSARY TO EXTEND FROM VALVE TO FINISHED GRADE. TOPS SHALL BE SURROUNDED BY A PAD OF CONCRETE BEING 2-FOOT SQUARE, CONFORMING TO THE DETAIL SHOWN BELOW AND FLUSH WITH THE ADJOINING ASPHALT PAVEMENT. THE VALVE BOX COVER SHALL BE MARKED "WATER".

AS PER PLAN	VALVE SIZE	BASE
"A"	6"	ROUND, 11" IN HEIGHT, 14 3/8" DIAMETER AT BOTTOM
"B"	12"	OVAL, 9 1/2" IN HEIGHT, 21" BY 12 1/2" DIAMETER AT BOTTOM

CONCRETE SHALL CONFORM TO 499, AND REINFORCING STEEL SHALL CONFORM TO 709.09.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICE PER EACH FOR: 638 VALVE BOX, ADJUSTED TO GRADE, AS PER PLAN A OR B

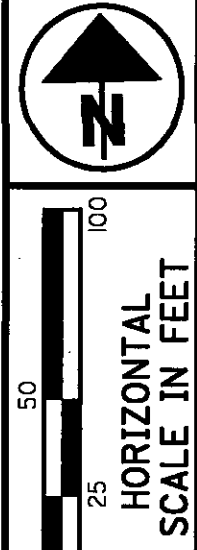


ITEM 638 VALVE BOX, ADJUSTED TO GRADE, AS PER PLAN A OR B

REF. NO.	SHT. NO.	STATION		SIDE	DESCRIPTION	UNIT	QUANTITY	670						
		FROM	TO											
R1	529	10+32.58		☉	PIPE REMOVED, 24" AND UNDER	FEET	39							
R2	529	12+00		☉	CONCRETE MASONRY	CU. YD.	2.2							
R3	529	14+00		☉	ROCK CHANNEL PROTECTION, TYPE C, WITH FABRIC FILTER	CU. YD.								
R4	529	20+00		☉	PIPE REMOVED, 24" AND UNDER	FEET								
R5	529	9+85	10+24	LT	STRUCTURE REMOVED (RAILROAD TIE RETAINING WALL)	LUMP								
D1	529	9+80.49	10+38.42	LT	STRUCTURE REMOVED (RAILROAD TIE RETAINING WALL)	LUMP								
R1	530	29+36.57		☉	CONCRETE MASONRY	CU. YD.								
R2	530	32+92.45		☉	CONCRETE MASONRY	CU. YD.	0.62							
D1	530	26+32.50		LT*RT	CONCRETE MASONRY	CU. YD.								
R1	531	36+48.34		☉	CONCRETE MASONRY	CU. YD.								
R2	531	40+04.74		☉	CONCRETE MASONRY	CU. YD.								
R5	531	40+58	41+05	LT	CONCRETE MASONRY	CU. YD.								
R6	531	DRIVE 141+27	DRIVE 141+58	RT	CONCRETE MASONRY	CU. YD.								
D1	531	38+75	39+25	LT*RT	CONCRETE MASONRY	CU. YD.								
D2	531	39+20	40+30	LT	CONCRETE MASONRY	CU. YD.	0.50							
D3	531	40+30	41+00.54	LT	CONCRETE MASONRY	CU. YD.	0.43							
TOTALS CARRIED TO GENERAL SUMMARY								56	52	124	58	1	8	117

REF. NO.	SHT. NO.	STATION		SIDE	638									
		FROM	TO		6" WATER MAIN DUCTILE IRON ANCHORING PIPE AND FITTINGS (ANSI CLASS 52)	VALVE BOX ADJUSTED TO GRADE AS PER PLAN A	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN B	FIRE HYDRANT EXTENDED AND ADJUSTED TO GRADE						
W1	529	10+20		LT										
W2	529	10+24		LT	18	1		1						
TOTALS CARRIED TO GENERAL SUMMARY					18	1		1						

REFERENCE NO.	SHEET NUMBER	STATION RANGE		SIDE	603				604	605				
		FROM	TO		4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	4" CONDUIT, TYPE F	6" CONDUIT, TYPE F	CONDUIT BORED OR JACKED, 6" TYPE B, AS PER PLAN,	PRECAST REINFORCED CONCRETE OUTLET	4" BASE PIPE UNDERDRAIN, 707.31 OR 707.41	6" SHALLOW PIPE UNDERDRAIN, 707.31 OR 707.41	4" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.31 OR 707.41
UD1	529	10+13	10+51	N			10			60				
UD2	529	10+13	10+72	S			10			80				
UD3	529	10+57	12+75	N			10					215		
UD4	529	10+78	12+75	S			10					195		
UD5	529	12+75	22+00	N						925				
UD6	529	12+75	22+00	S						925				
UD1	530	22+00	26+30	N			10			430				
UD2	530	22+00	26+30	S			10			430				
UD3	530	26+34	27+00	N			10					66		
UD4	530	26+34	27+00	S			10					66		
UD5	530	27+00	34+00	N						700				
UD6	530	27+00	34+00	S						700				
UD1	531	34+00	37+00	E						300				
UD2	531	34+00	37+00	W						300				
UD3	531	37+00	39+23	E			10					223		
UD4	531	37+00	39+23	W			10					223		
UD5	531	39+27	39+78	E			10					68		
UD6	531	39+27	40+50	W			10					155		
TOTALS CARRIED TO GEN. SUMMARY							120			4850		1211		



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
528	UNDERDRAIN QUANTITIES
527	ROADWAY QUANTITIES
597	TRAFFIC CONTROL
528	DRAINAGE QUANTITIES
528	WATER WORKS QUANTITIES
550A	LAKE RD CULVERT DETAIL

INT. W/LOT LINE
 STA. 9+99.66
 N 500,098.3383
 E 2,132,563.9187

INT. W/LAKE RD.
 STA. 10+02.54
 N 500,098.4554
 E 2,132,566.7992

P.I. STA. 13+00.00, 1.75' LT
 N 500,110.5387
 E 2,132,864.0537

EX. R/W
 STA. 10+32.58
 N 500,099.6756
 E 2,132,596.8158

REFERENCE
 P.O.T. STA. 10+32.58

DITCH
 STA. 12+00
 3/4" IRON PIPE
 BURIED 6"±

N 500,106.4754
 E 2,132,764.0954

REFERENCE
 P.C. STA. 12+00.00

DITCH
 STA. 14+00
 3/4" IRON PIPE
 BURIED 6"±

N 500,107.6192
 E 2,132,964.0520

REFERENCE
 P.T. STA. 14+00.00

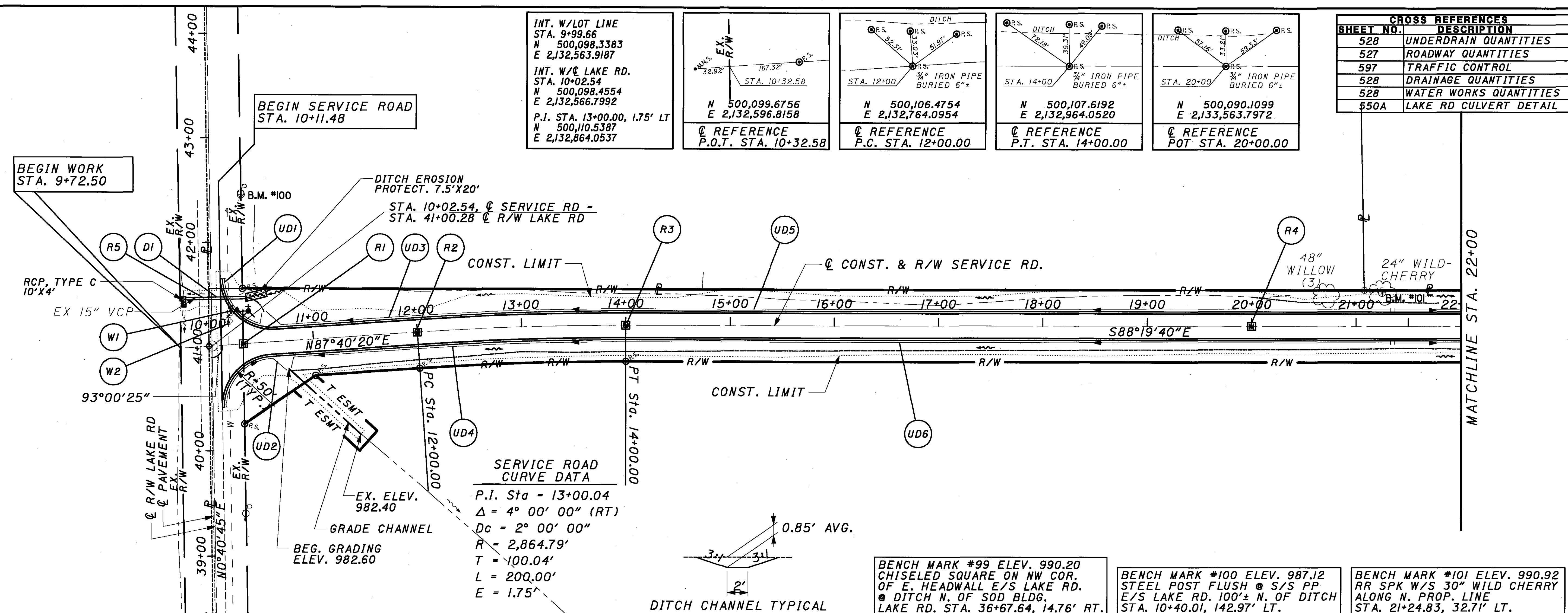
DITCH
 STA. 20+00
 3/4" IRON PIPE
 BURIED 6"±

N 500,090.1099
 E 2,133,563.7972

REFERENCE
 POT STA. 20+00.00

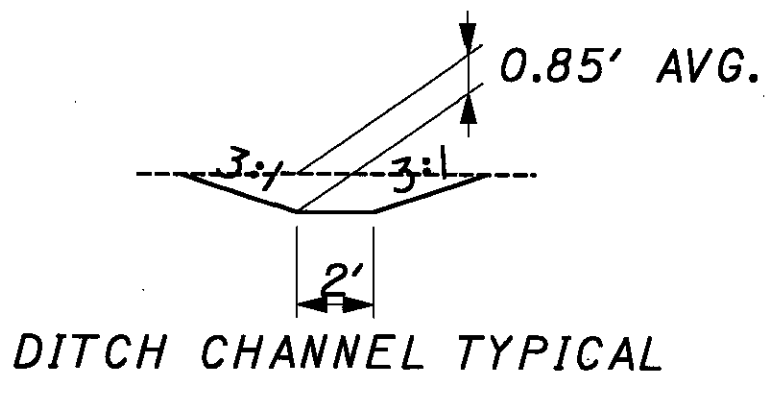
BEGIN WORK
 STA. 9+72.50

BEGIN SERVICE ROAD
 STA. 10+11.48



SERVICE ROAD
 CURVE DATA

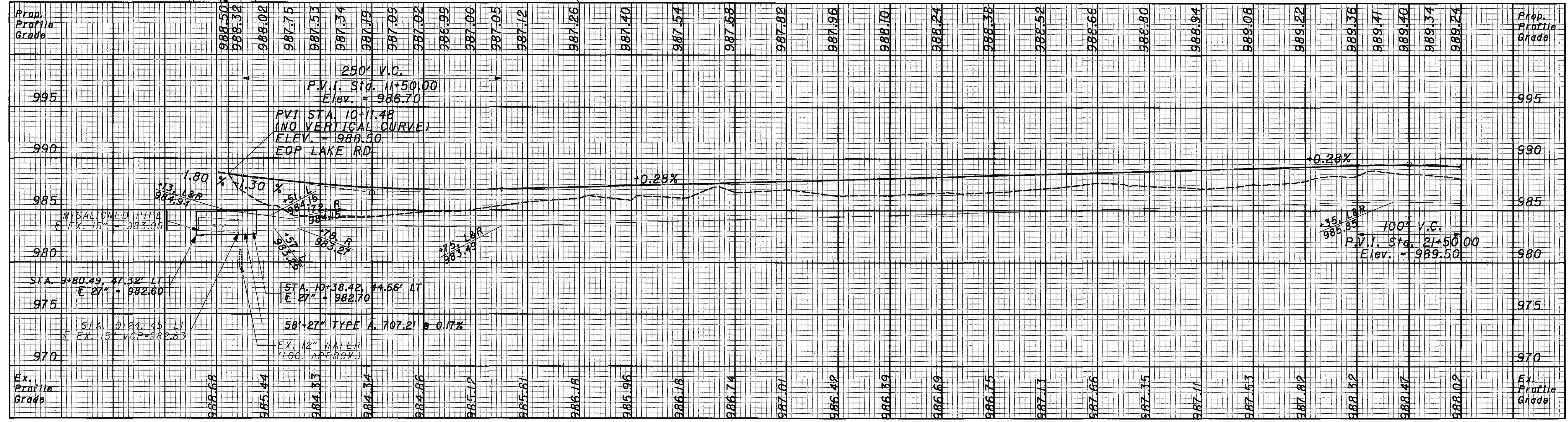
P.I. Sta = 13+00.04
 $\Delta = 4^\circ 00' 00''$ (RT)
 $D_c = 2^\circ 00' 00''$
 $R = 2,864.79'$
 $T = 100.04'$
 $L = 200.00'$
 $E = 1.75'$



BENCH MARK #99 ELEV. 990.20
 CHISELED SQUARE ON NW COR.
 OF E. HEADWALL E/S LAKE RD.
 @ DITCH N. OF SOD BLDG.
 LAKE RD. STA. 36+67.64, 14.76' RT.

BENCH MARK #100 ELEV. 987.12
 STEEL POST FLUSH @ S/S PP
 E/S LAKE RD. 100'± N. OF DITCH
 STA. 10+40.01, 142.97' LT.

BENCH MARK #101 ELEV. 990.92
 RR SPK W/S 30" WILD CHERRY
 ALONG N. PROP. LINE
 STA. 21+24.83, 32.71' LT.



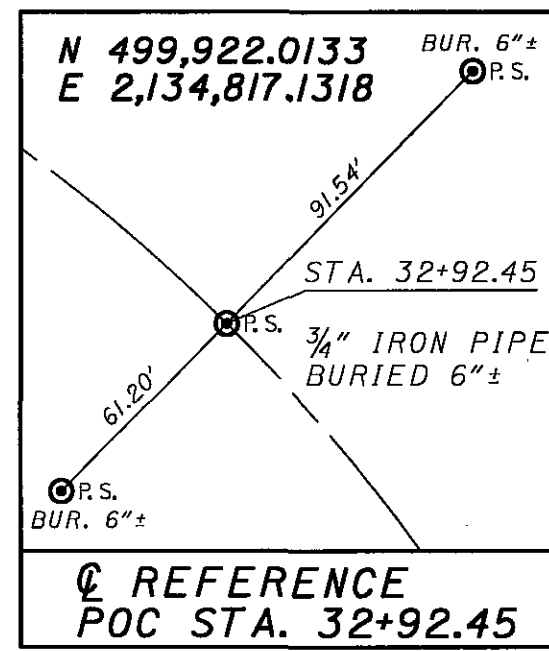
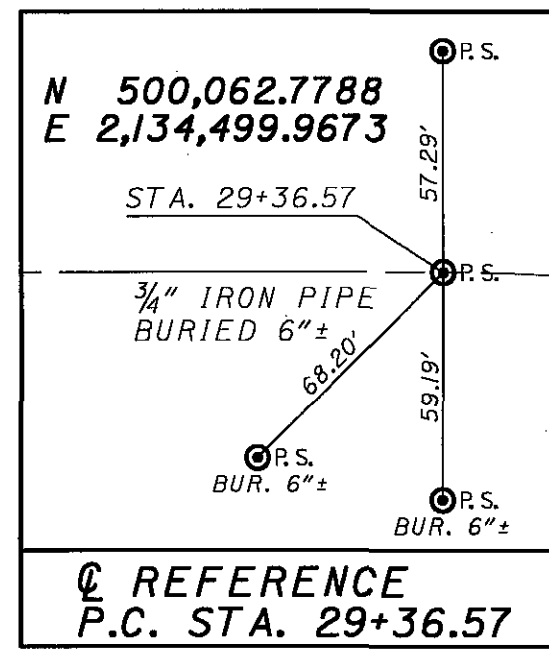
10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00

SERVICE ROAD PLAN AND PROFILE
 STA. 10+00.00 TO STA. 22+00.00

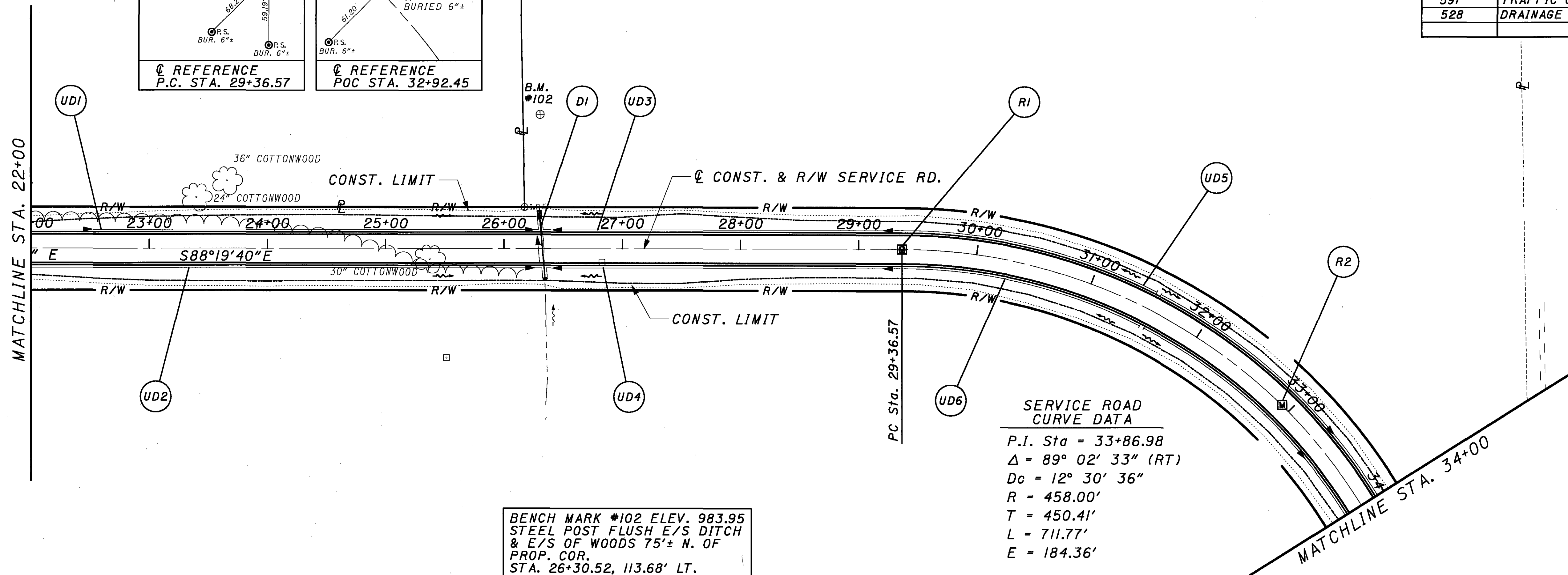
MED-71-6.06

529
1120

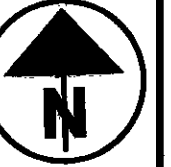
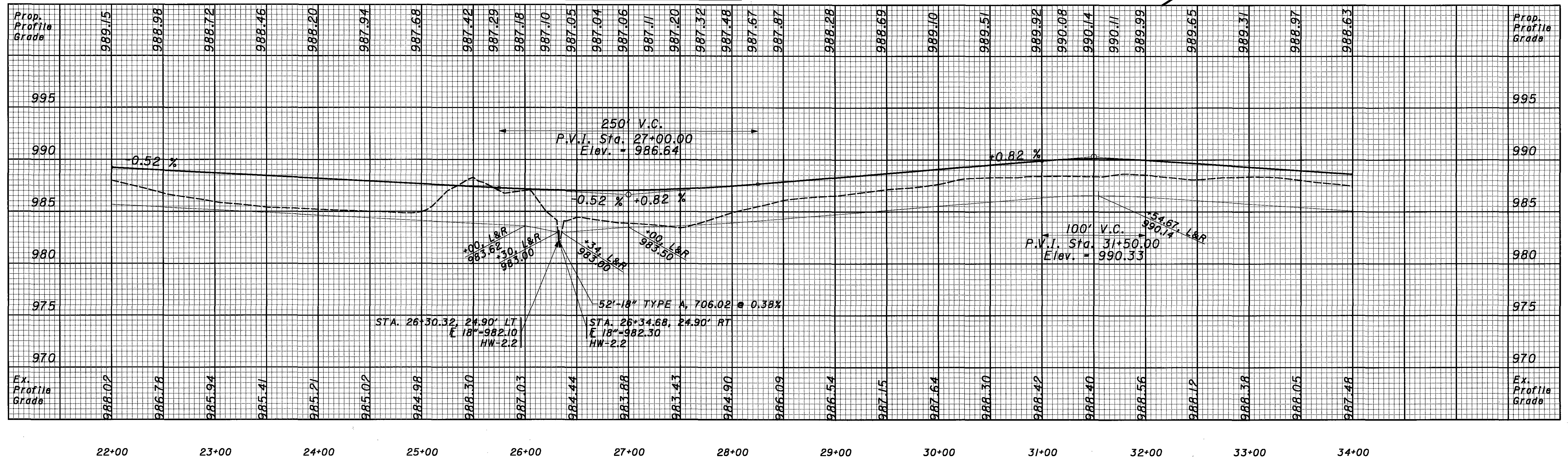
PROJECTWISE:/PR33412/CADD/75657gpser vice.dgn



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
528	UNDERDRAIN QUANTITIES
527	ROADWAY QUANTITIES
597	TRAFFIC CONTROL
528	DRAINAGE QUANTITIES



BENCH MARK #102 ELEV. 983.95
 STEEL POST FLUSH E/S DITCH
 & E/S OF WOODS 75'± N. OF
 PROP. COR.
 STA. 26+30.52, 113.68' LT.



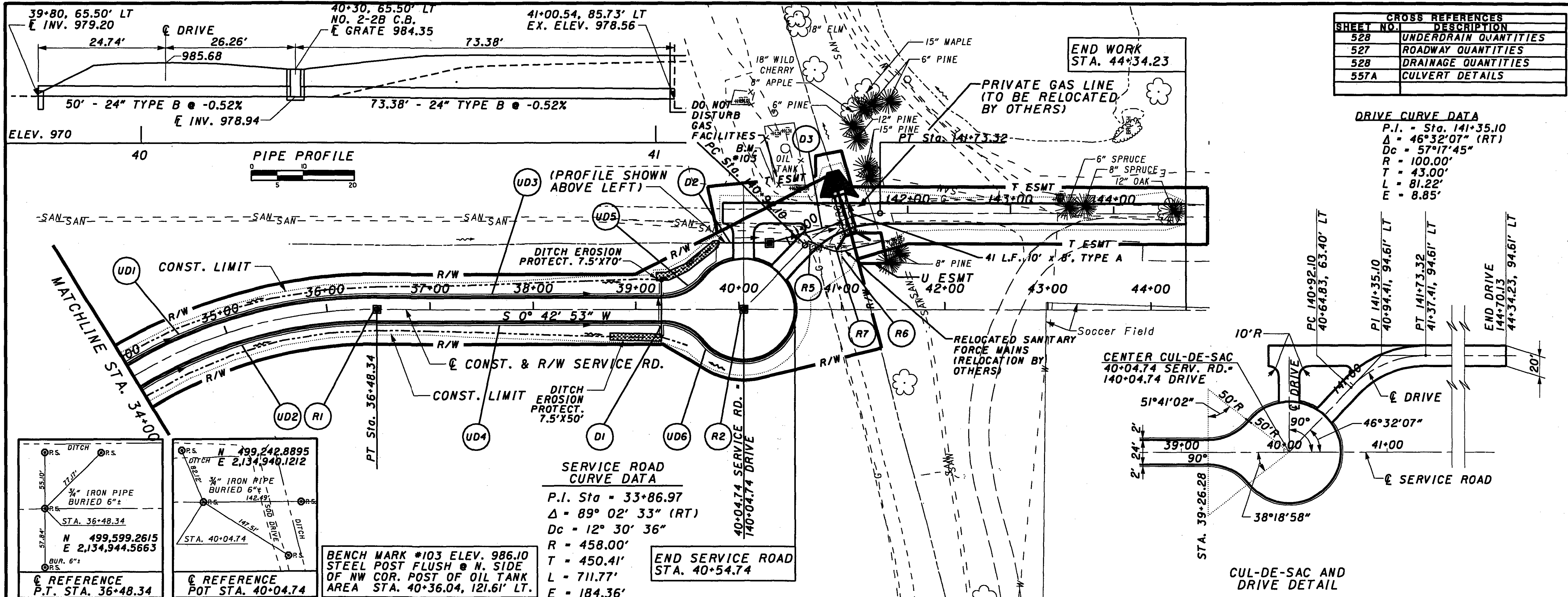
50
100
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

SERVICE ROAD PLAN AND PROFILE
 STA. 22+00.00 TO STA. 34+00.00

MED-71-6.06

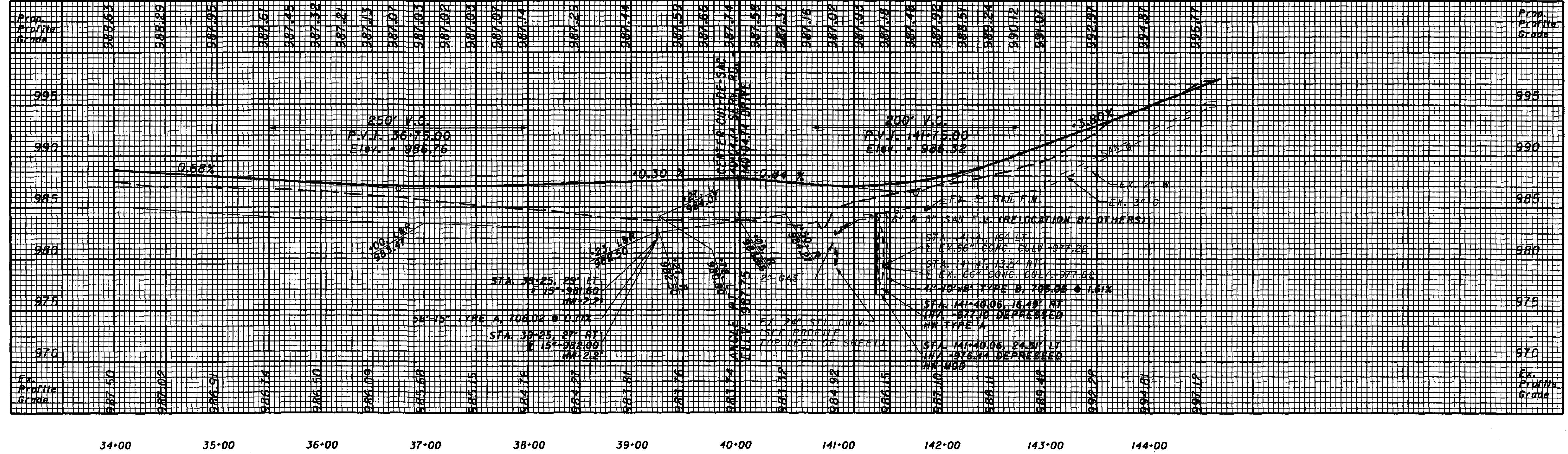
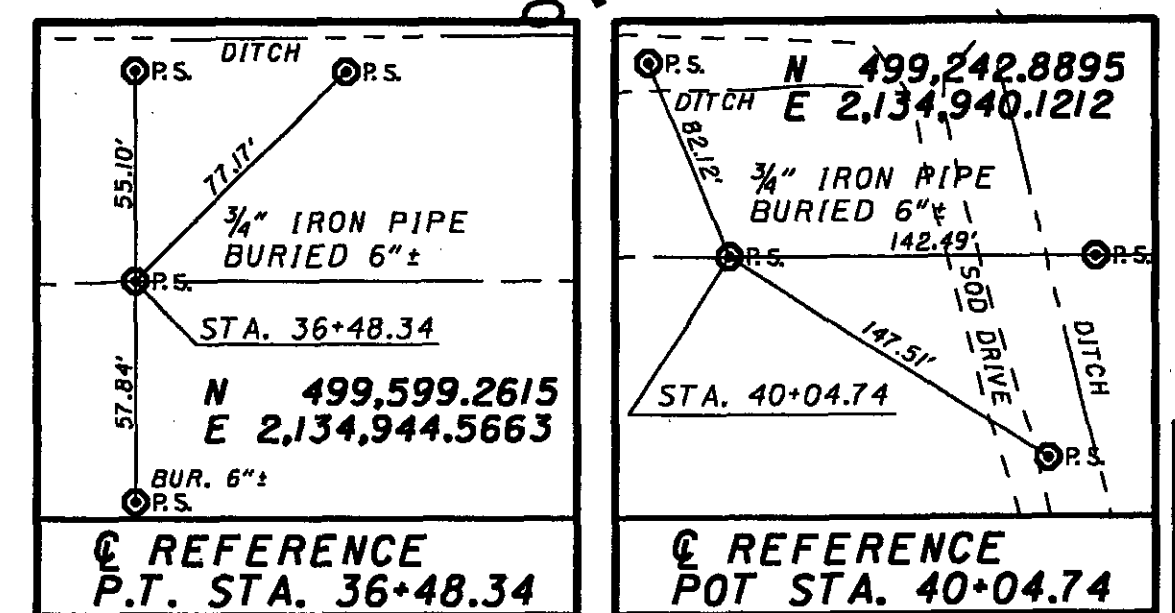
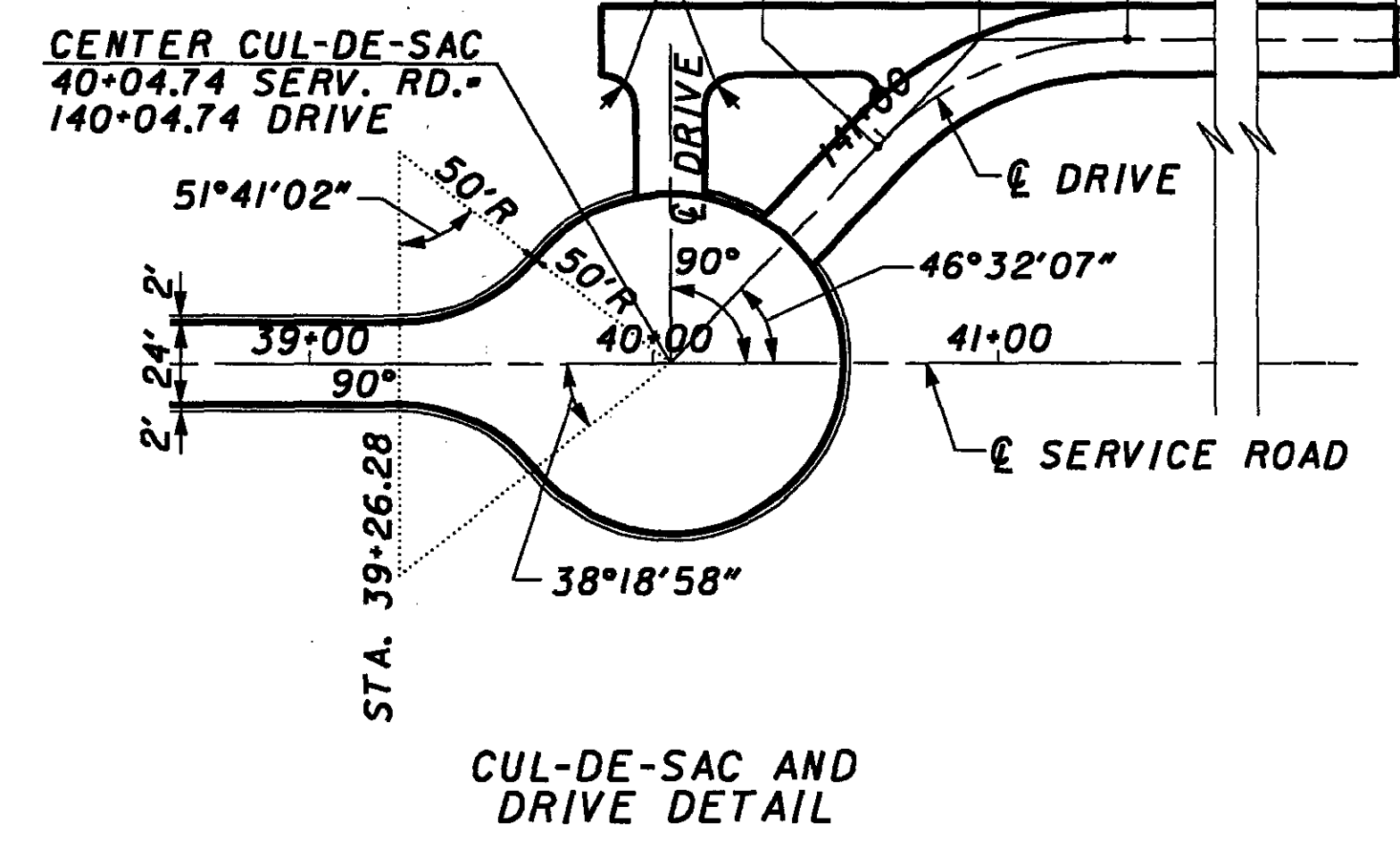
530
1120



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
528	UNDERDRAIN QUANTITIES
527	ROADWAY QUANTITIES
528	DRAINAGE QUANTITIES
557A	CULVERT DETAILS

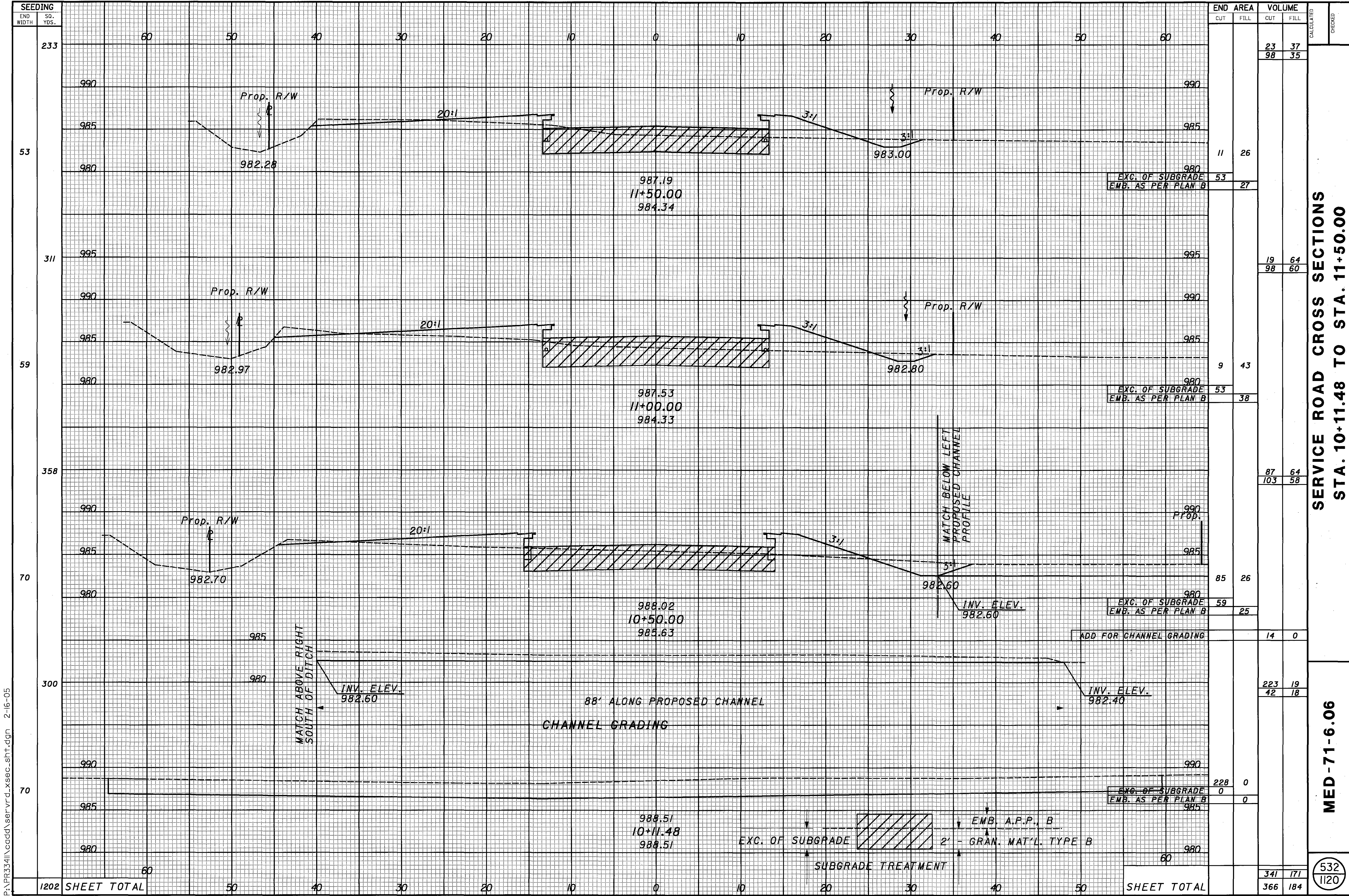
DRIVE CURVE DATA
 P.I. = Sta. 141+35.10
 $\Delta = 46^\circ 32' 07''$ (RT)
 $D_c = 57' 17' 45''$
 $R = 100.00'$
 $T = 43.00'$
 $L = 81.22'$
 $E = 8.85'$

SERVICE ROAD CURVE DATA
 P.I. Sta = 33+86.97
 $\Delta = 89^\circ 02' 33''$ (RT)
 $D_c = 12^\circ 30' 36''$
 $R = 458.00'$
 $T = 450.41'$
 $L = 711.77'$
 $E = 184.36'$
END SERVICE ROAD STA. 40+54.74



SERVICE ROAD PLAN AND PROFILE
STA. 34+00.00 TO STA. 40+00.00
MED-71-6.06
 531
 1120

PROJECTWISE:/PR33412/CADD/75657qpservice3.dgn



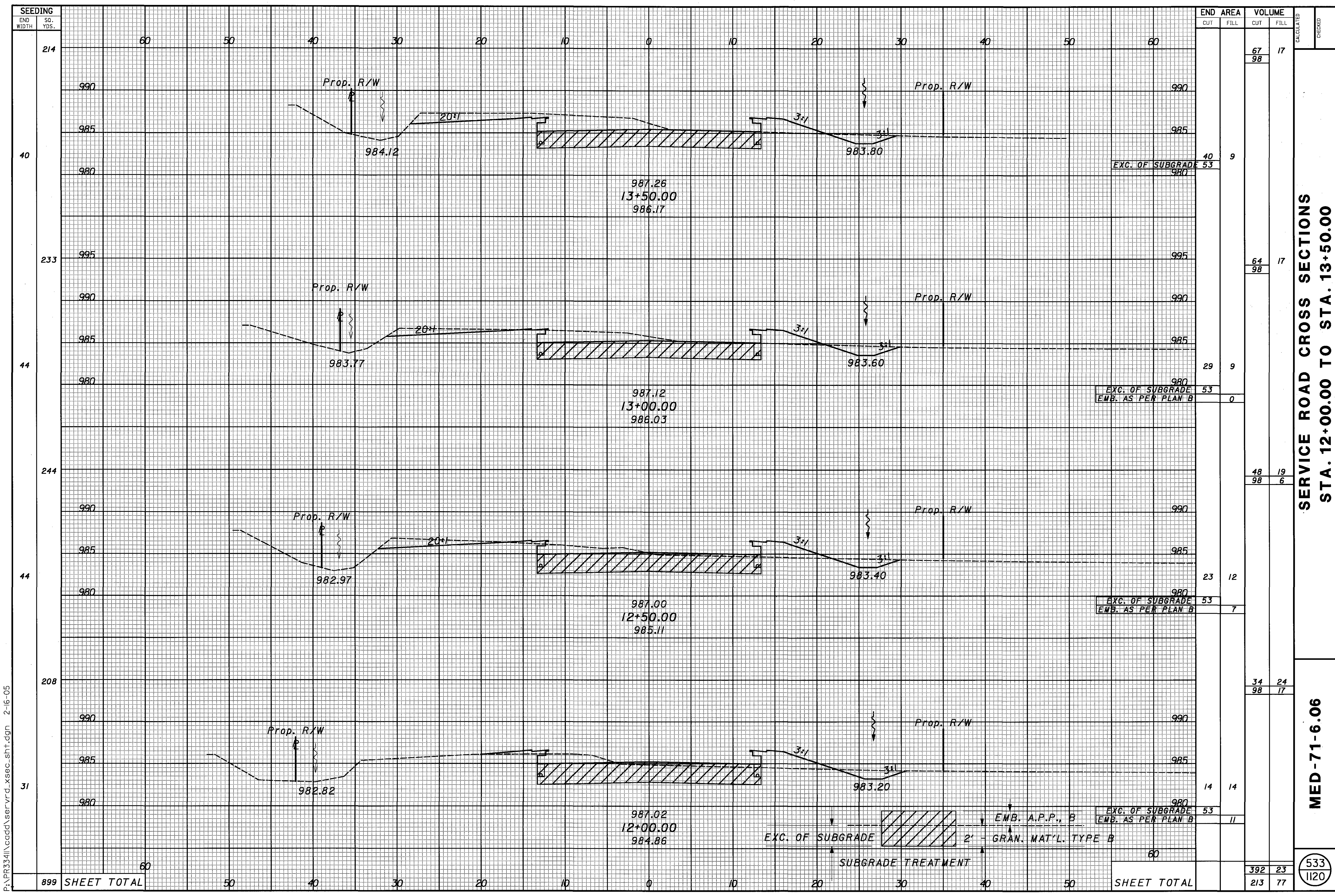
END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
233			23	37		
			98	35		
53	11	26				
			53	27		
311			19	64		
			98	60		
59	9	43				
			53	38		
358			87	64		
			103	58		
70	85	26				
			59	25		
			14	0		
300			223	19		
			42	18		
70	228	0				
			0	0		
1202			341	171		
			366	184		

SERVICE ROAD CROSS SECTIONS
STA. 10+11.48 TO STA. 11+50.00

MED-71-6.06

532
1120

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SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
214			67	17
			98	
40			64	17
			98	
233			48	19
			98	6
44			34	24
			98	17
244			392	23
			98	77
44			213	
208				
31				
899				

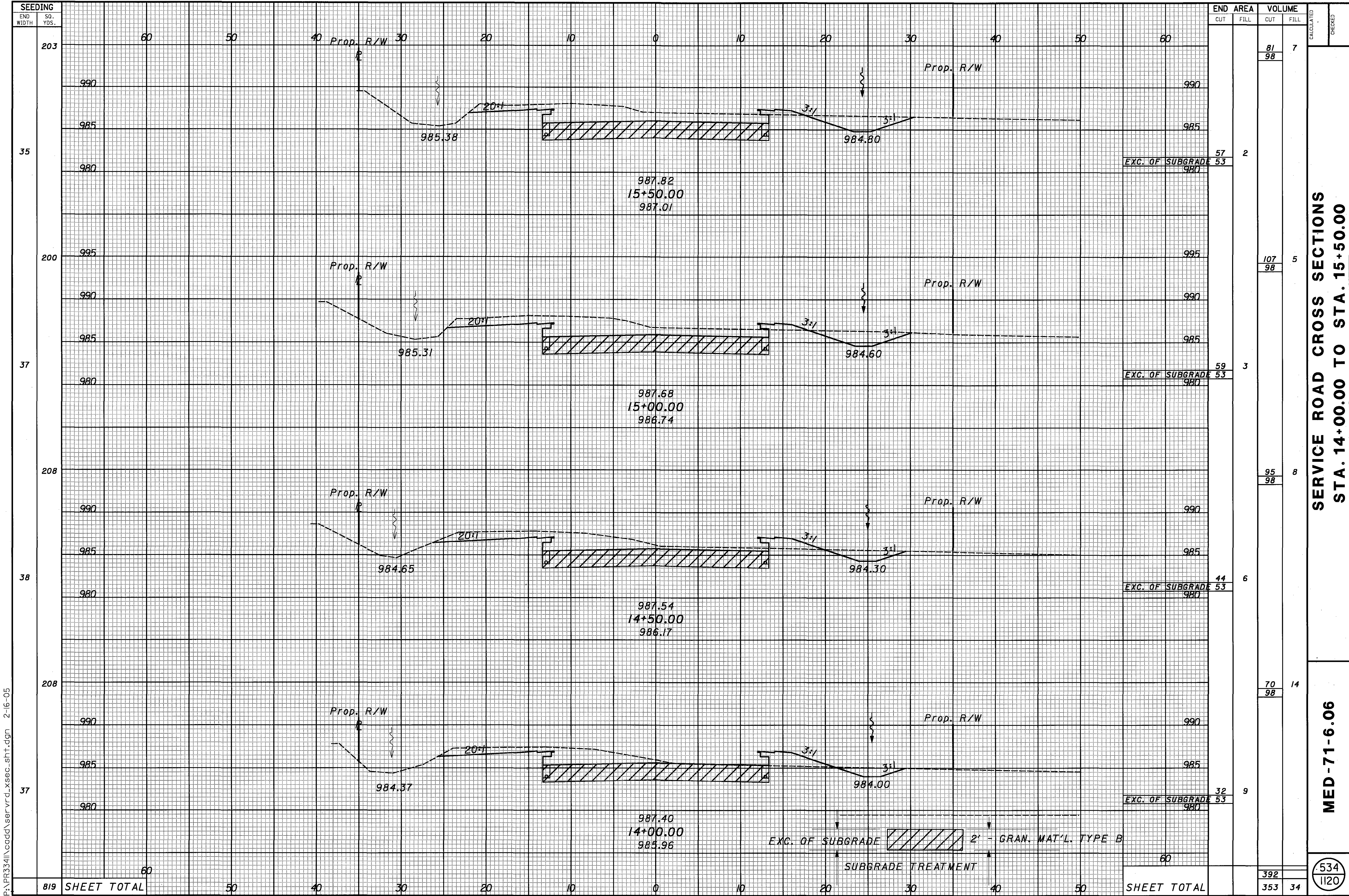
SERVICE ROAD CROSS SECTIONS
STA. 12+00.00 TO STA. 13+50.00

MED-71-6.06

533
1120

SHEET TOTAL

SHEET TOTAL



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SEEDING	
END WIDTH	SO. YDS.
60	203
50	35
40	200
30	37
20	208
10	38
0	208
10	37
20	
30	
40	
50	
60	
60	819 SHEET TOTAL

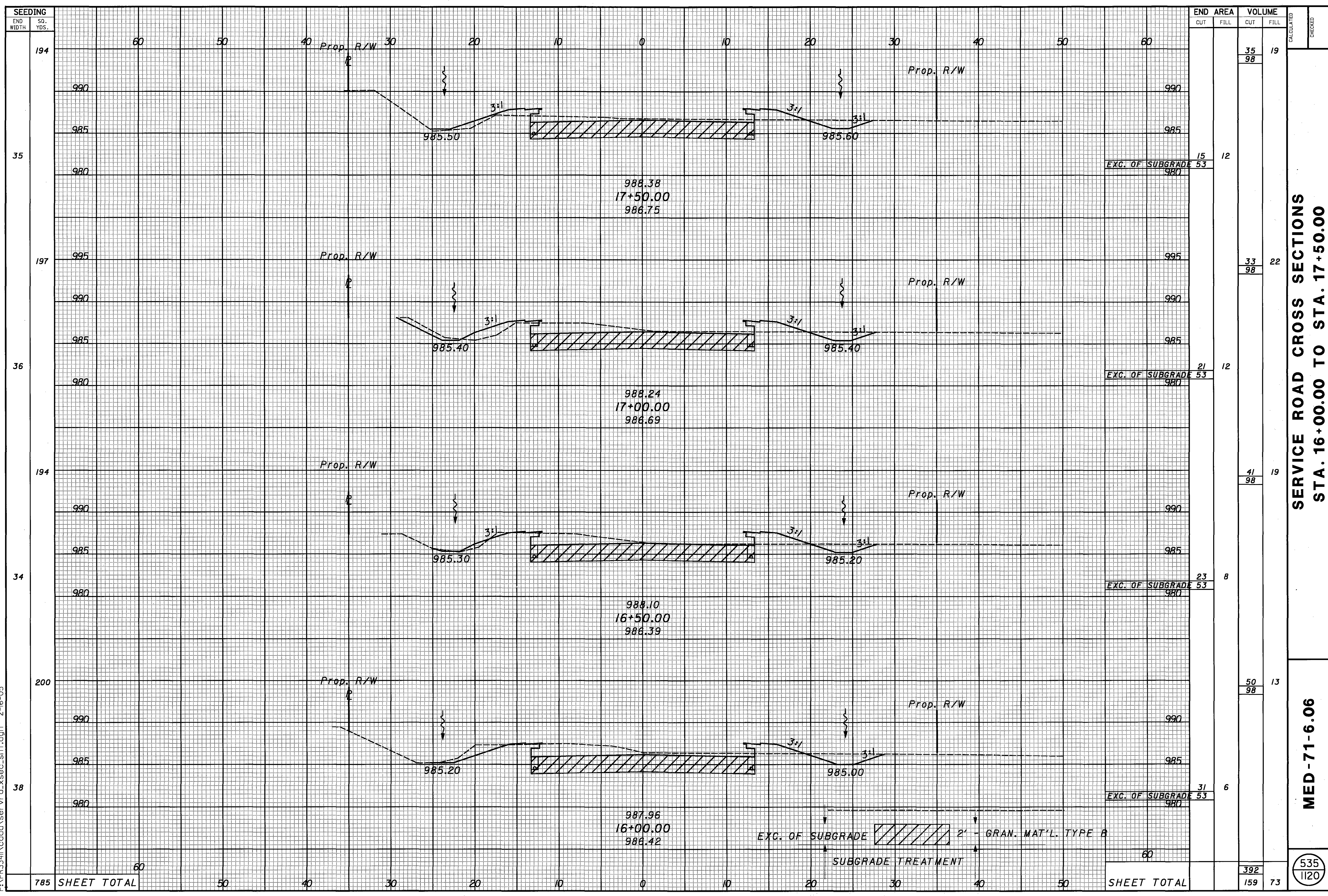
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		81	7		
		98			
		57	2		
		53			
		107	5		
		98			
		59	3		
		53			
		95	8		
		98			
		44	6		
		53			
		70	14		
		98			
		32	9		
		53			
		392			
		353	34		

SERVICE ROAD CROSS SECTIONS
STA. 14+00.00 TO STA. 15+50.00

MED-71-6.06

534
1120

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SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
194			35	19
35			98	
197			33	22
36			98	
194			41	19
34			98	
200			50	13
38			98	
785	60	60	392	73

SERVICE ROAD CROSS SECTIONS
STA. 16+00.00 TO STA. 17+50.00

MED - 71 - 6.06

535
 1120

CALCULATED
 CHECKED

15
 EXC. OF SUBGRADE 53
 980

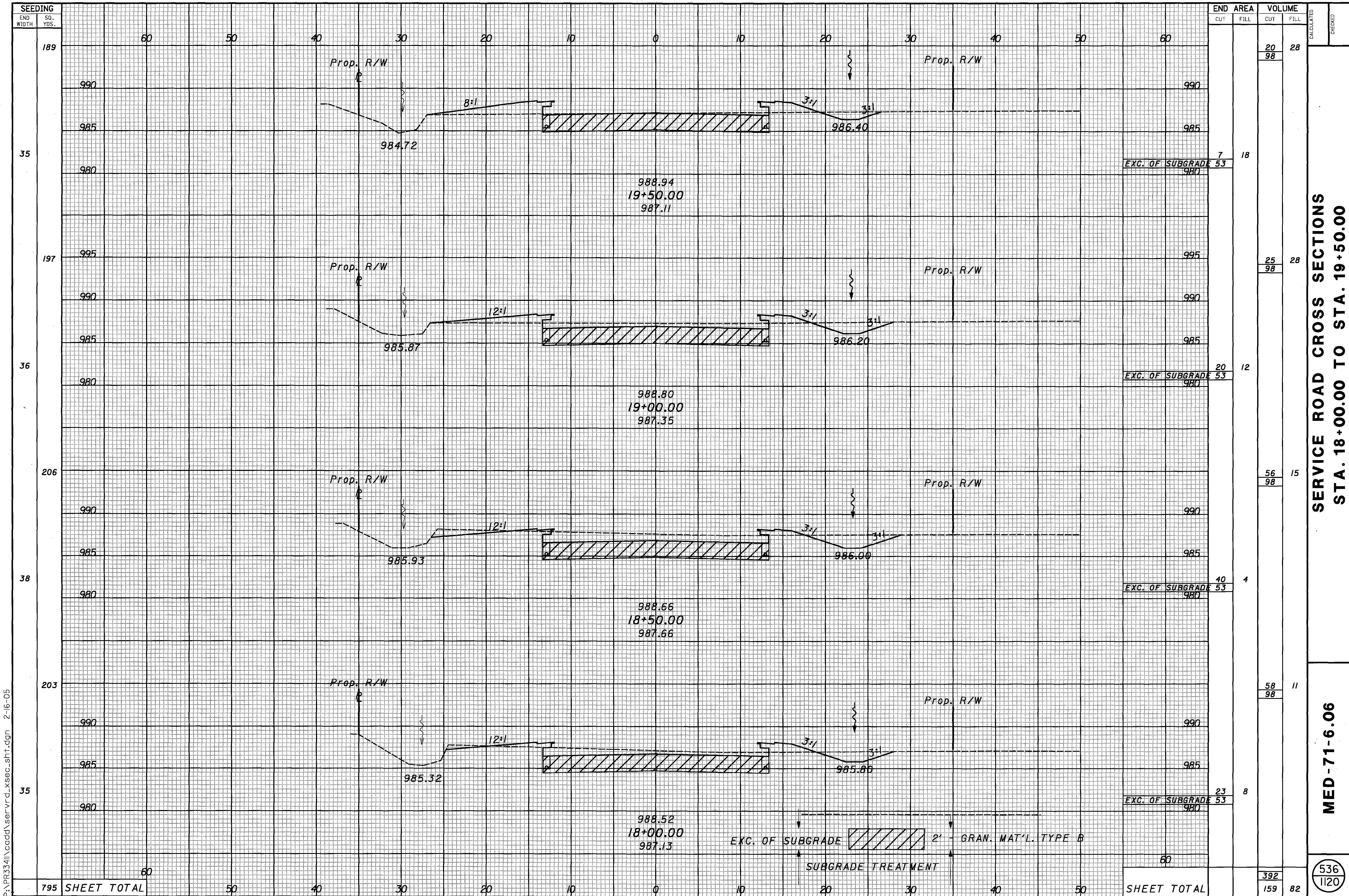
21
 EXC. OF SUBGRADE 53
 980

23
 EXC. OF SUBGRADE 53
 980

31
 EXC. OF SUBGRADE 53
 980

EXC. OF SUBGRADE 2' GRAN. MAT'L. TYPE B
 SUBGRADE TREATMENT

60
 SHEET TOTAL

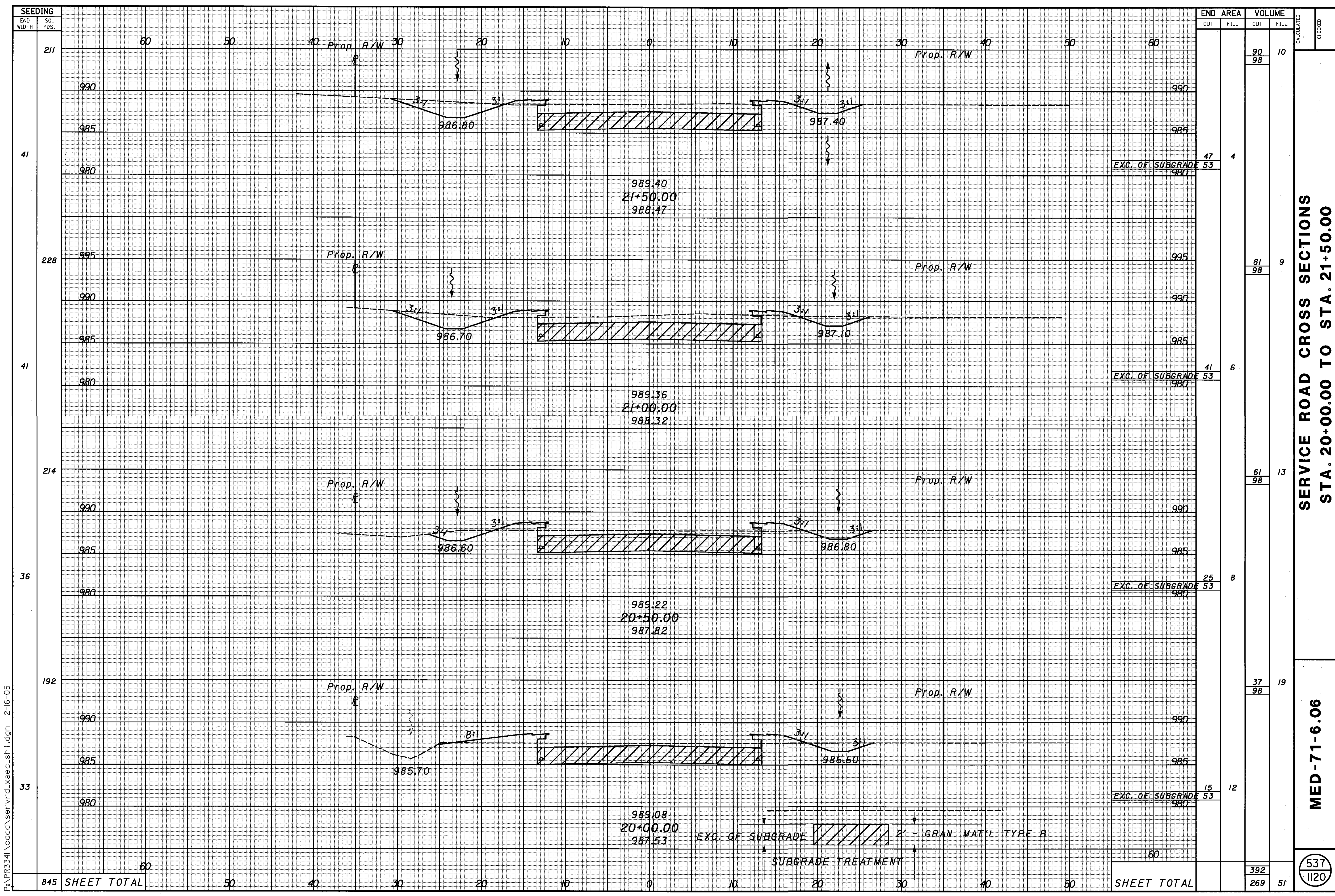


**SERVICE ROAD CROSS SECTIONS
 STA. 18+00.00 TO STA. 19+50.00**

MED-71-6.06

536
1120

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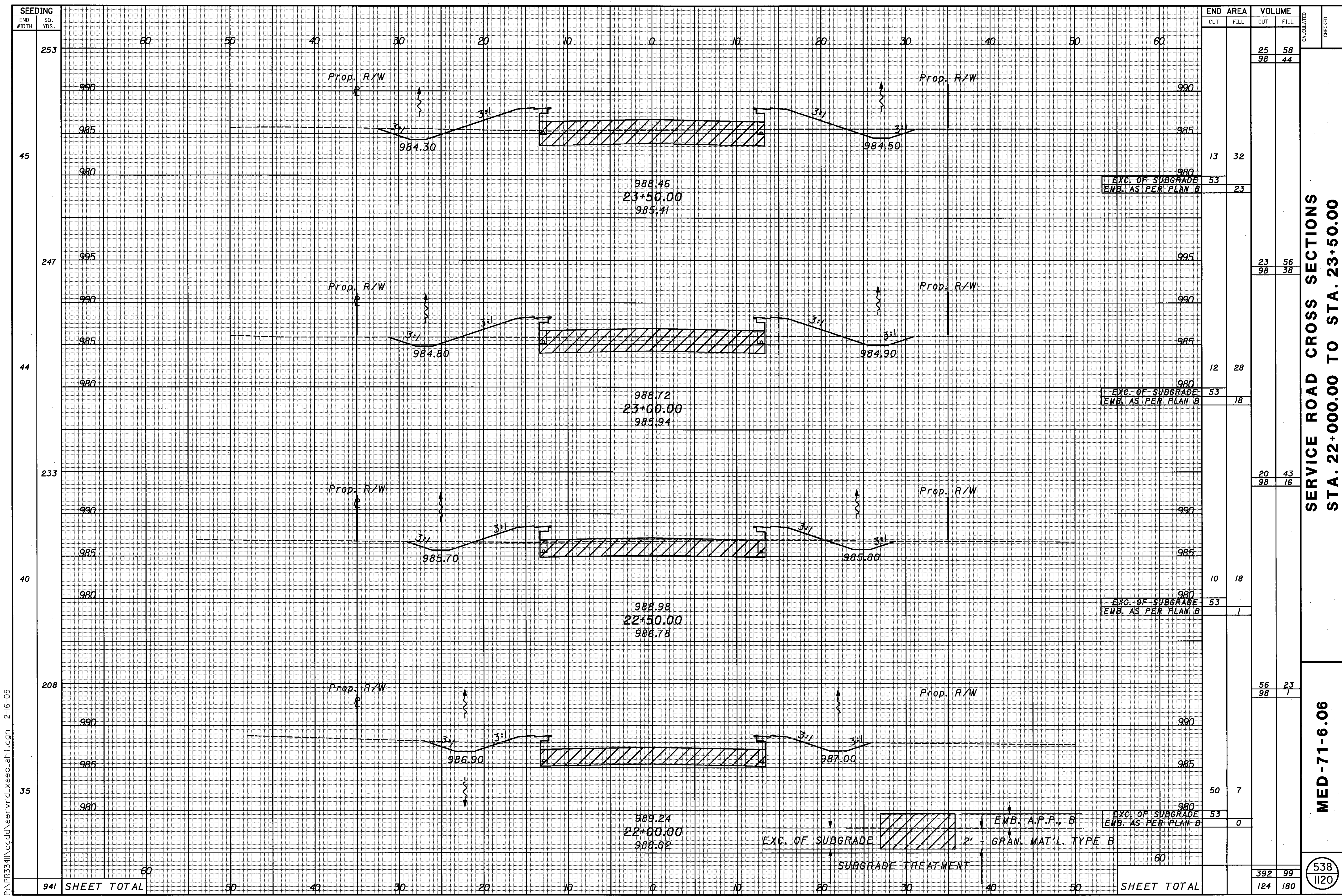
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SEEDING	END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED	CHECKED
			CUT	FILL	CUT	FILL		
211	60	50	40	30	90	10		
41					47	4		
228	60	50	40	30	81	9		
41					41	6		
214	60	50	40	30	61	13		
36					25	8		
192	60	50	40	30	37	19		
33					15	12		
845	60	50	40	30	392	51		

SERVICE ROAD CROSS SECTIONS
STA. 20+00.00 TO STA. 21+50.00

MED-71-6.06

537
1120



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SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
253			25	58
			98	44
45	13	32		
	53	23		
247			23	56
			98	38
44	12	28		
	53	18		
233			20	43
			98	16
40	10	18		
	53	1		
208			56	23
			98	1
35	50	7		
	53	0		
941	392	99		
	124	180		

SERVICE ROAD CROSS SECTIONS
STA. 22+000.00 TO STA. 23+50.00

MED-71-6.06

538
1120

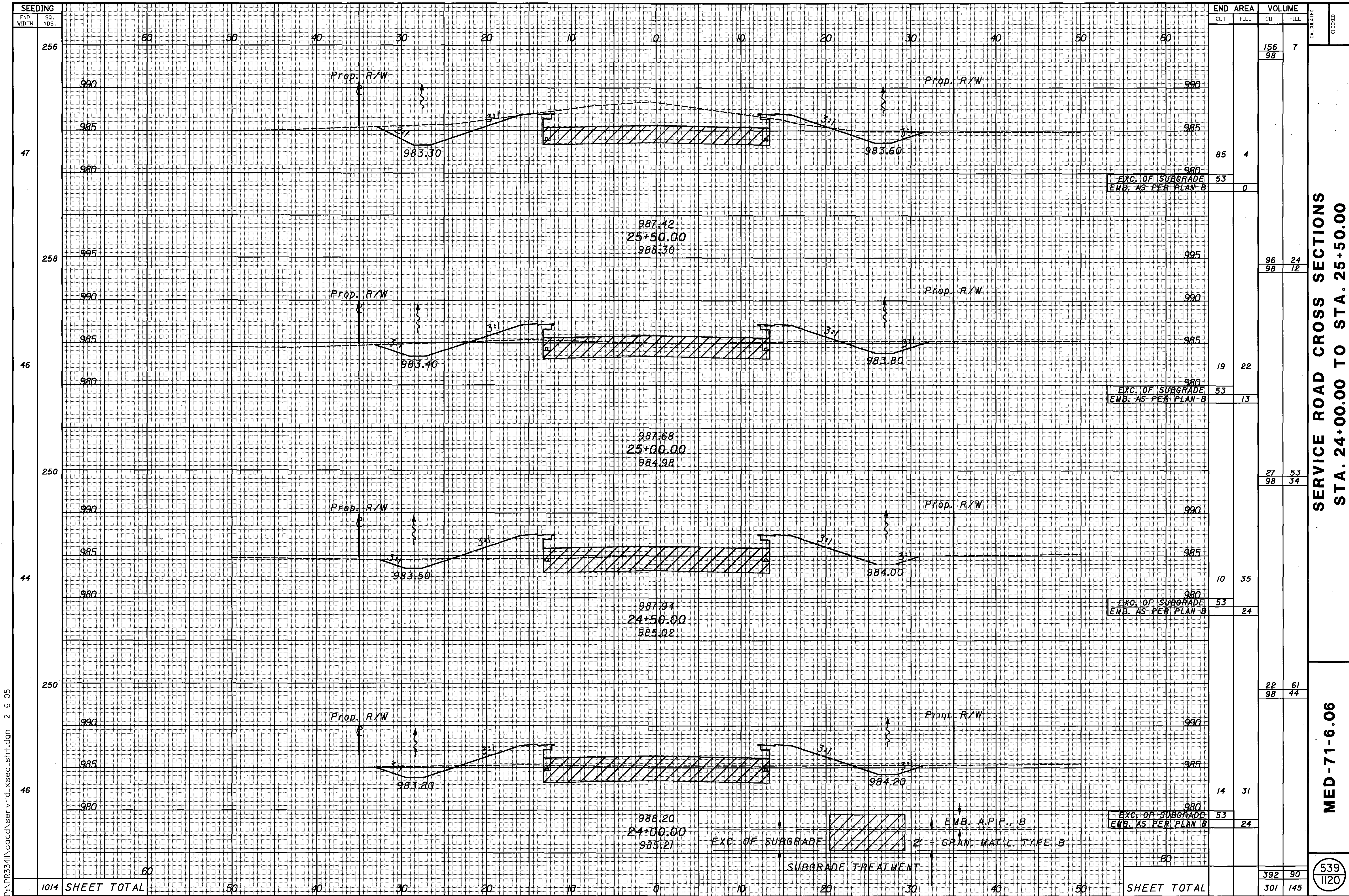
EXC. OF SUBGRADE
EMB. AS PER PLAN B

EXC. OF SUBGRADE
EMB. AS PER PLAN B

EXC. OF SUBGRADE
EMB. AS PER PLAN B

EXC. OF SUBGRADE
EMB. AS PER PLAN B

EXC. OF SUBGRADE
2' - GRAN. MAT'L. TYPE B
SUBGRADE TREATMENT



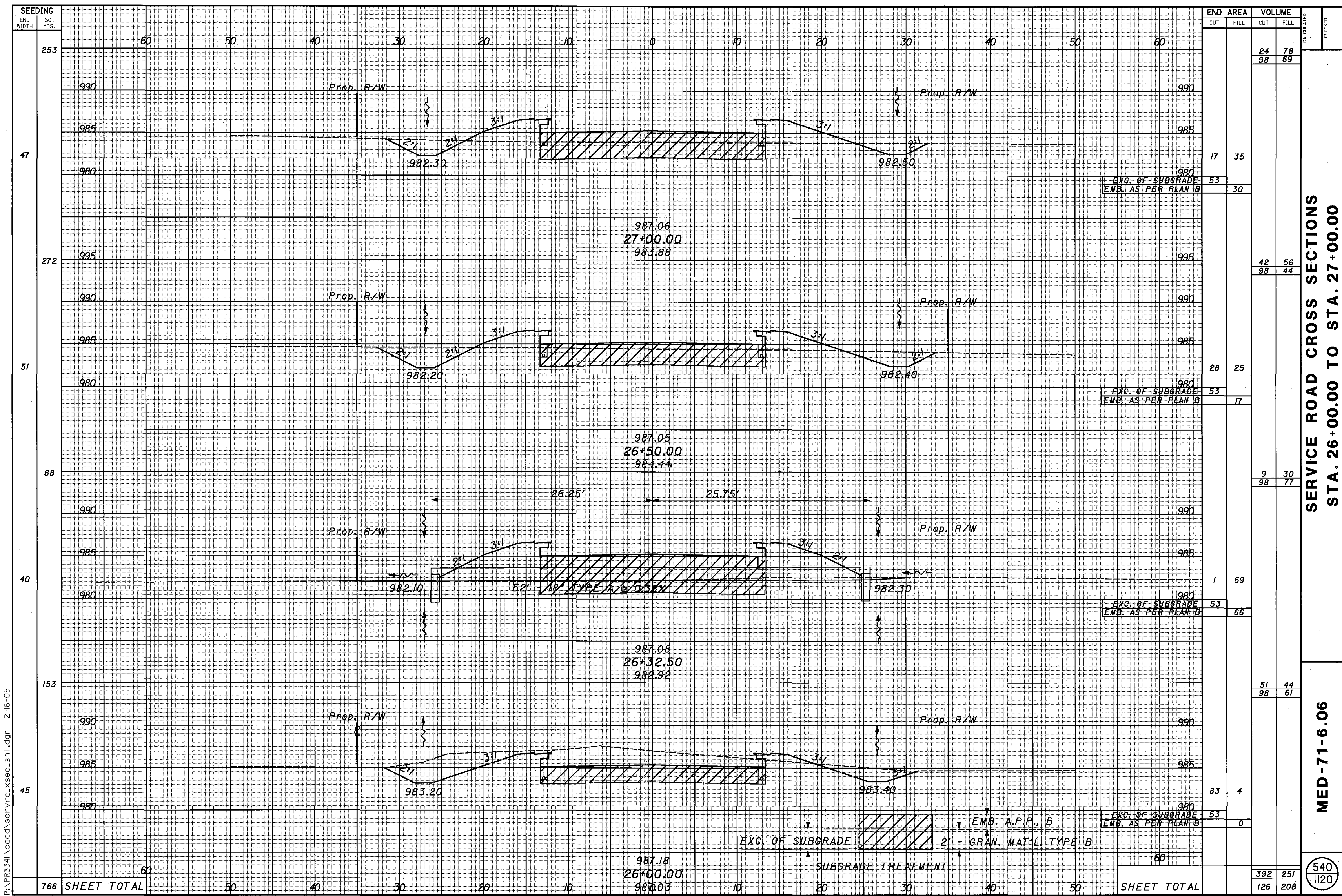
END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
256			156	7		
			98			
47			85	4		
			53	0		
258			96	24		
			98	12		
46			19	22		
			53	13		
250			27	53		
			98	34		
44			10	35		
			53	24		
250			22	61		
			98	44		
46			14	31		
			53	24		
1014			392	90		
			301	145		

SERVICE ROAD CROSS SECTIONS
STA. 24+00.00 TO STA. 25+50.00

MED-71-6.06

539
1120

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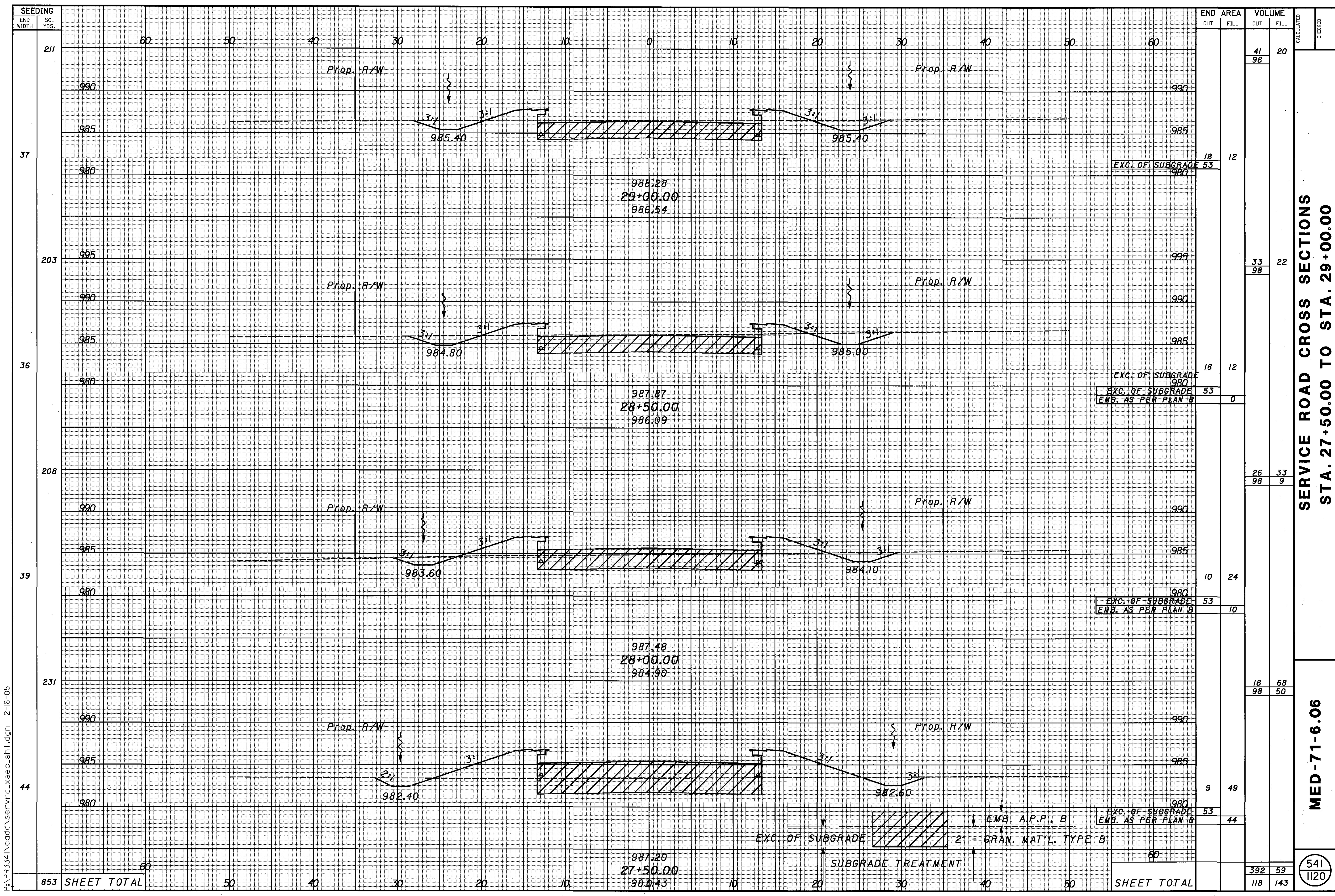
SEEDING	END WIDTH	SO. YDS.	STATION												END AREA		VOLUME			
			60	50	40	30	20	10	0	10	20	30	40	50	60	CUT	FILL	CUT	FILL	
253																	17	35	24	78
																	53	30	98	69
272																	28	25	42	56
																	53	17	98	44
88																	1	69	9	30
																	53	66	98	77
153																	83	4	51	44
																	53	0	98	61
766 SHEET TOTAL																			392	251
																			126	208

SERVICE ROAD CROSS SECTIONS
STA. 26+00.00 TO STA. 27+00.00

MED-71-6.06

540
1120

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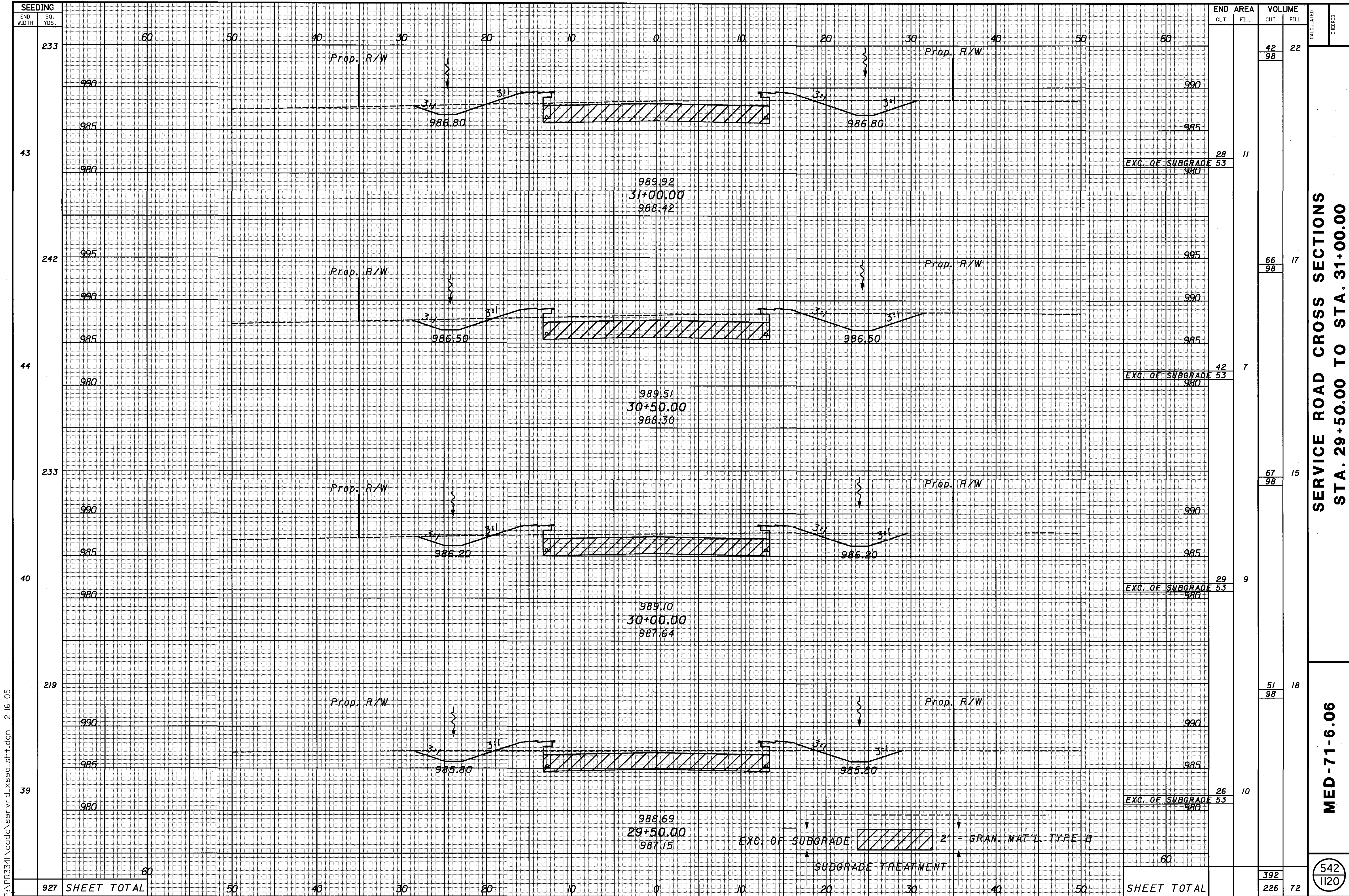


SERVICE ROAD CROSS SECTIONS
STA. 27+50.00 TO STA. 29+00.00

MED-71-6.06

541
1120

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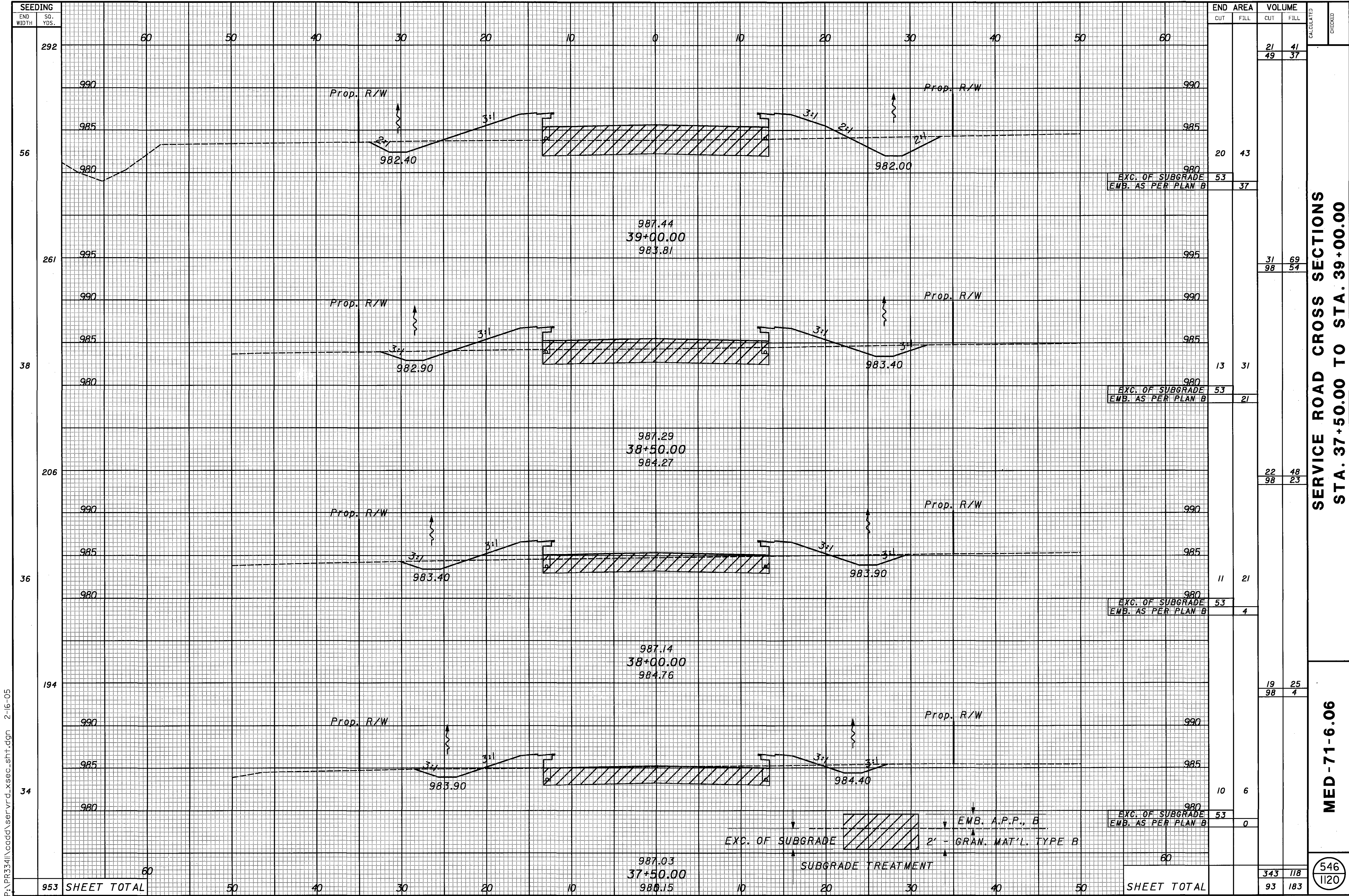
P:\PR3341\cadd\servr\d_xsec_sht.dgn 2-16-05

SEEDING	END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED	CHECKED
			CUT	FILL	CUT	FILL		
233	60	50			42	22		
					98			
43					28	11		
					53			
242					66	17		
					98			
44					42	7		
					53			
233					67	15		
					98			
40					29	9		
					53			
219					51	18		
					98			
39					26	10		
					53			
927	60	50			392	72		
					226			

SERVICE ROAD CROSS SECTIONS
STA. 29+50.00 TO STA. 31+00.00

MED-71-6.06

542
1120



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SEEDING	
END WIDTH	SO. YDS.
292	60
56	50
261	40
38	30
206	20
36	10
194	0
34	10
953	20
	30
	40
	50
	60

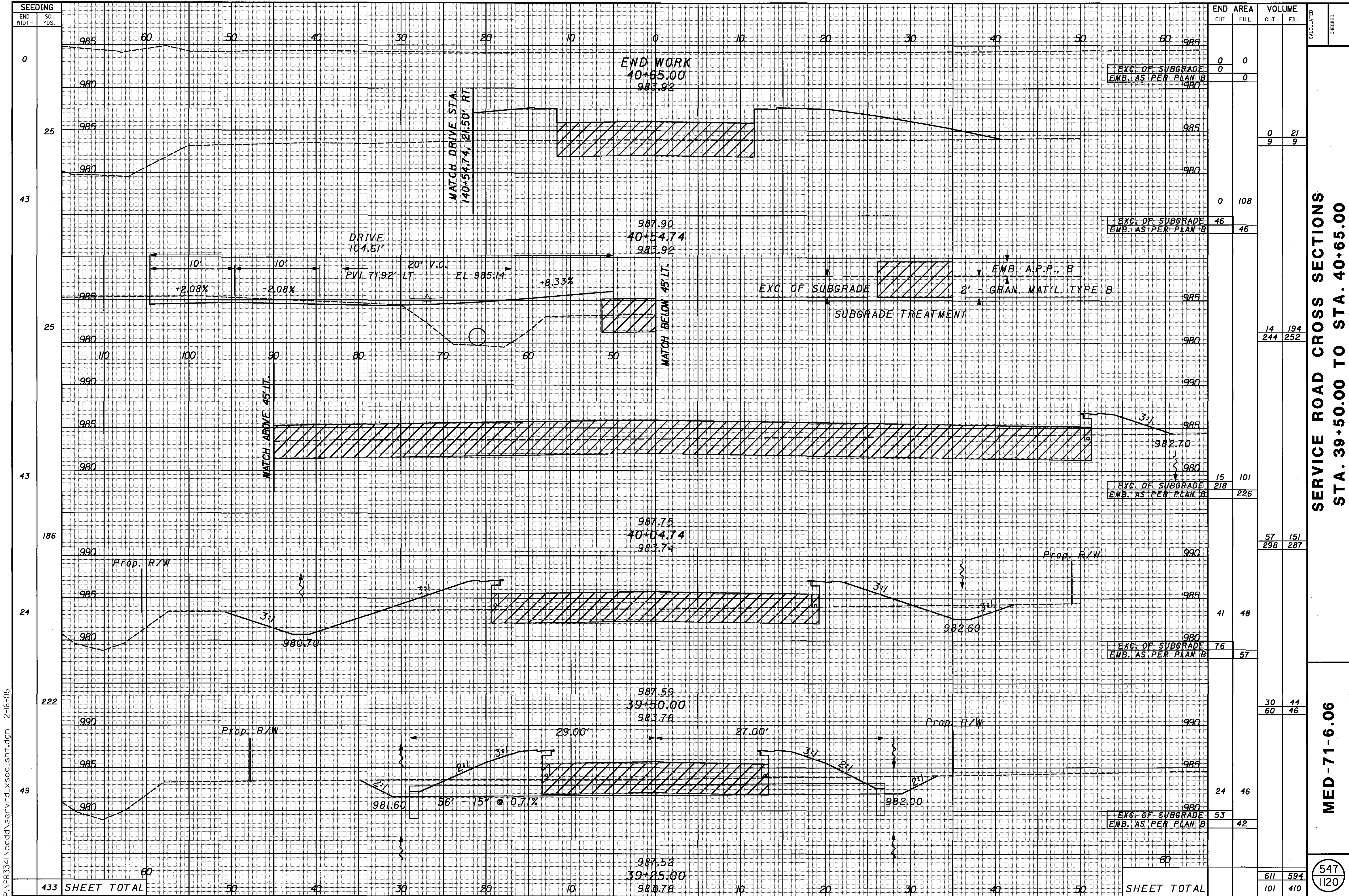
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
		21	41		
		49	37		
20	43				
53	37				
		31	69		
		98	54		
13	31				
53	21				
		22	48		
		98	23		
11	21				
53	4				
		19	25		
		98	4		
10	6				
53	0				
		343	118		
		93	183		

SERVICE ROAD CROSS SECTIONS
STA. 37+50.00 TO STA. 39+00.00

MED-71-6.06

546
1120

953	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	60	SHEET TOTAL
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END STA.	END AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
0	0	0	0	0		
25	0	0	0	21		
43	0	108	0	9		
25	46	46	14	194		
43	15	101	244	252		
186	57	151	218	226		
24	41	48	298	287		
222	30	44	76	57		
49	24	46	60	46		
433	611	594	101	410		

SERVICE ROAD CROSS SECTIONS
STA. 39+50.00 TO STA. 40+65.00

MED-71-6.06

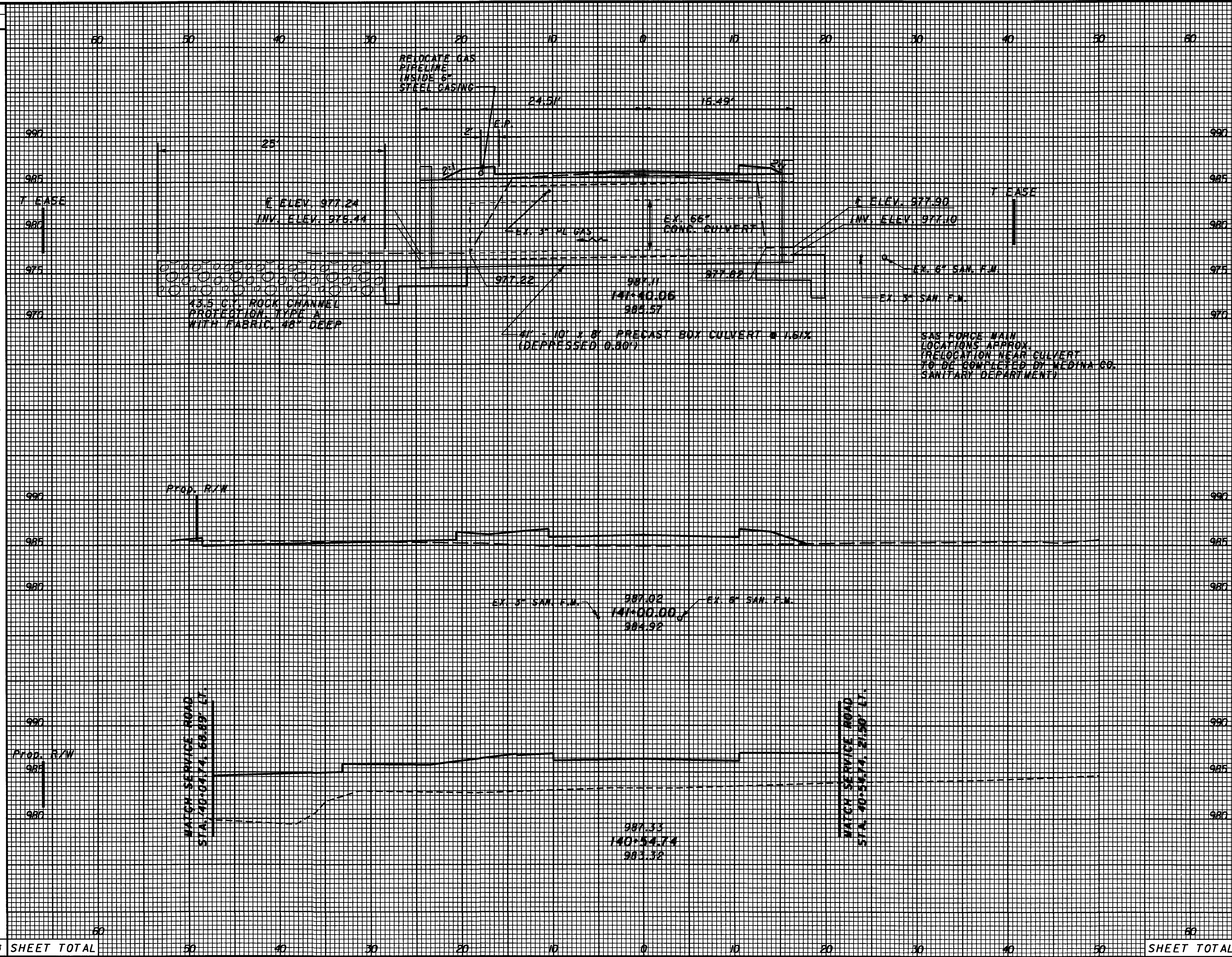
547
1120

P:\PR3341\cadd\servrd_xsec_sht.dgn 2-16-05

433 SHEET TOTAL

SHEET TOTAL

SEEDING
 END WIDTH SO. YDS.
 34
 32
 128
 24
 151
 36
 313



END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
	0	39		
0	170			
4		163		
5	45			
4		243		
0	245			
8	445			

DRIVE CROSS SECTIONS
 STA. 140+54.74 TO STA. 141+40.06

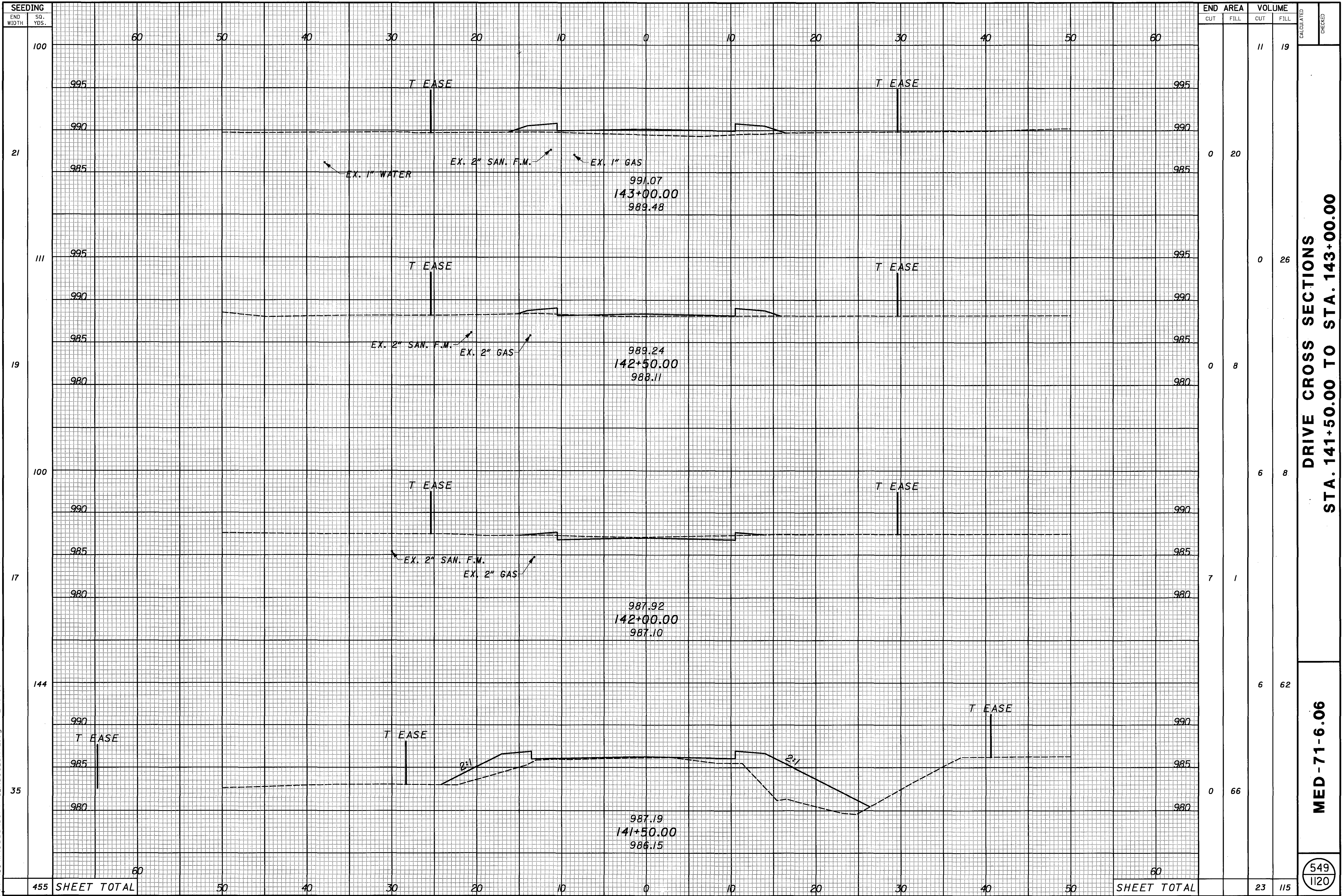
MED-71-6.06

548
1120

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313 SHEET TOTAL

SHEET TOTAL



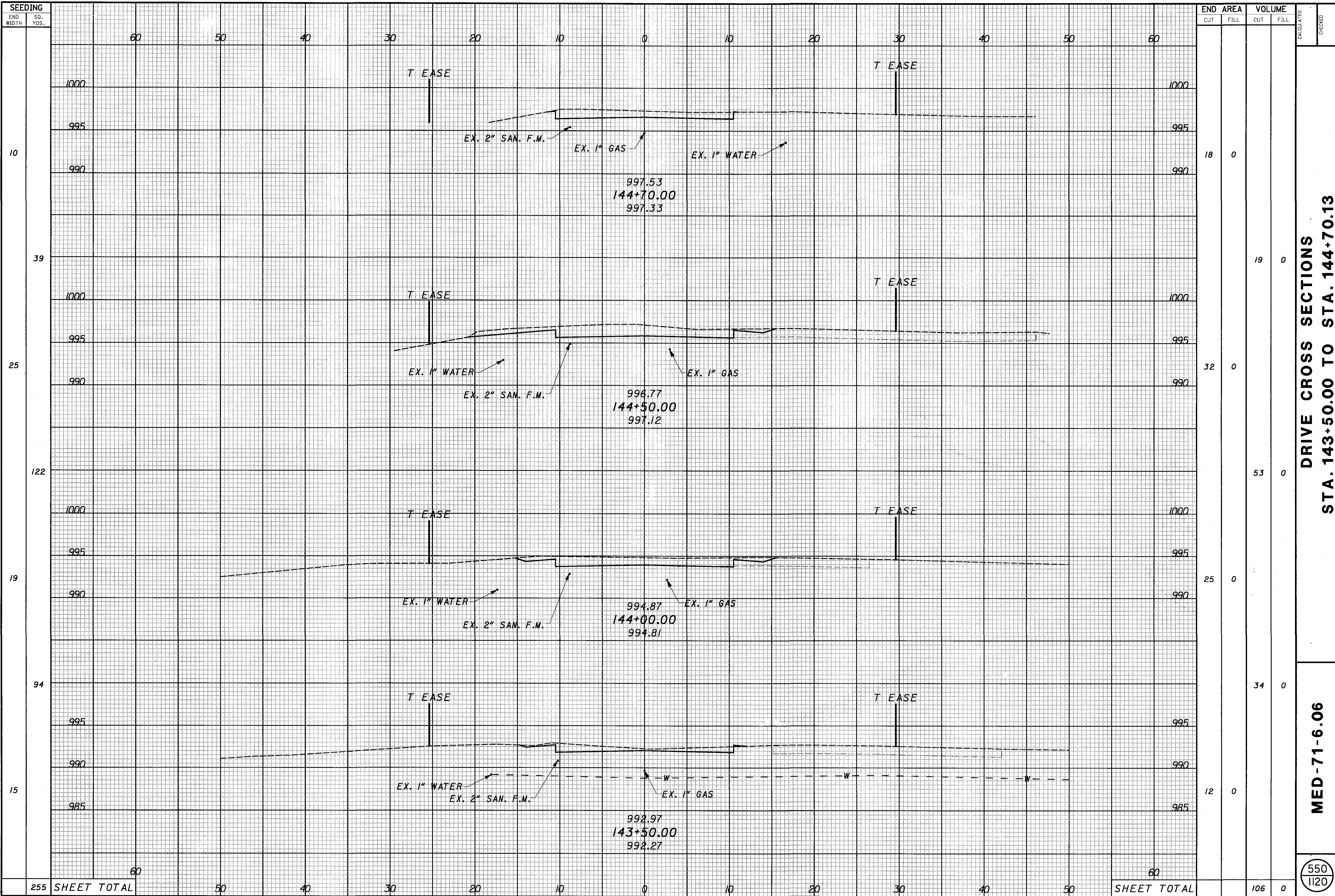
SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
100			11	19
21	0	20		
111			0	26
19	0	8		
100			6	8
17	7	1		
144			6	62
35	0	66		
455	SHEET TOTAL		23	115

DRIVE CROSS SECTIONS
 STA. 141+50.00 TO STA. 143+00.00

MED-71-6.06

549
 1120

P:\PR334\cadd\serverd_xsec_sht2.dgn 2-16-05

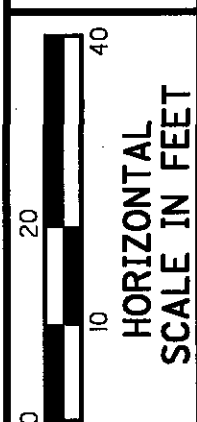
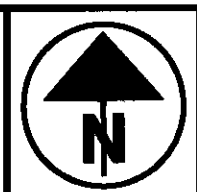


DRIVE CROSS SECTIONS
 STA. 143+50.00 TO STA. 144+70.13

MED-71-6.06

550
1120

P:\PR334\codd\ser\vr\d_xsec.sht2.dgn 2-16-05



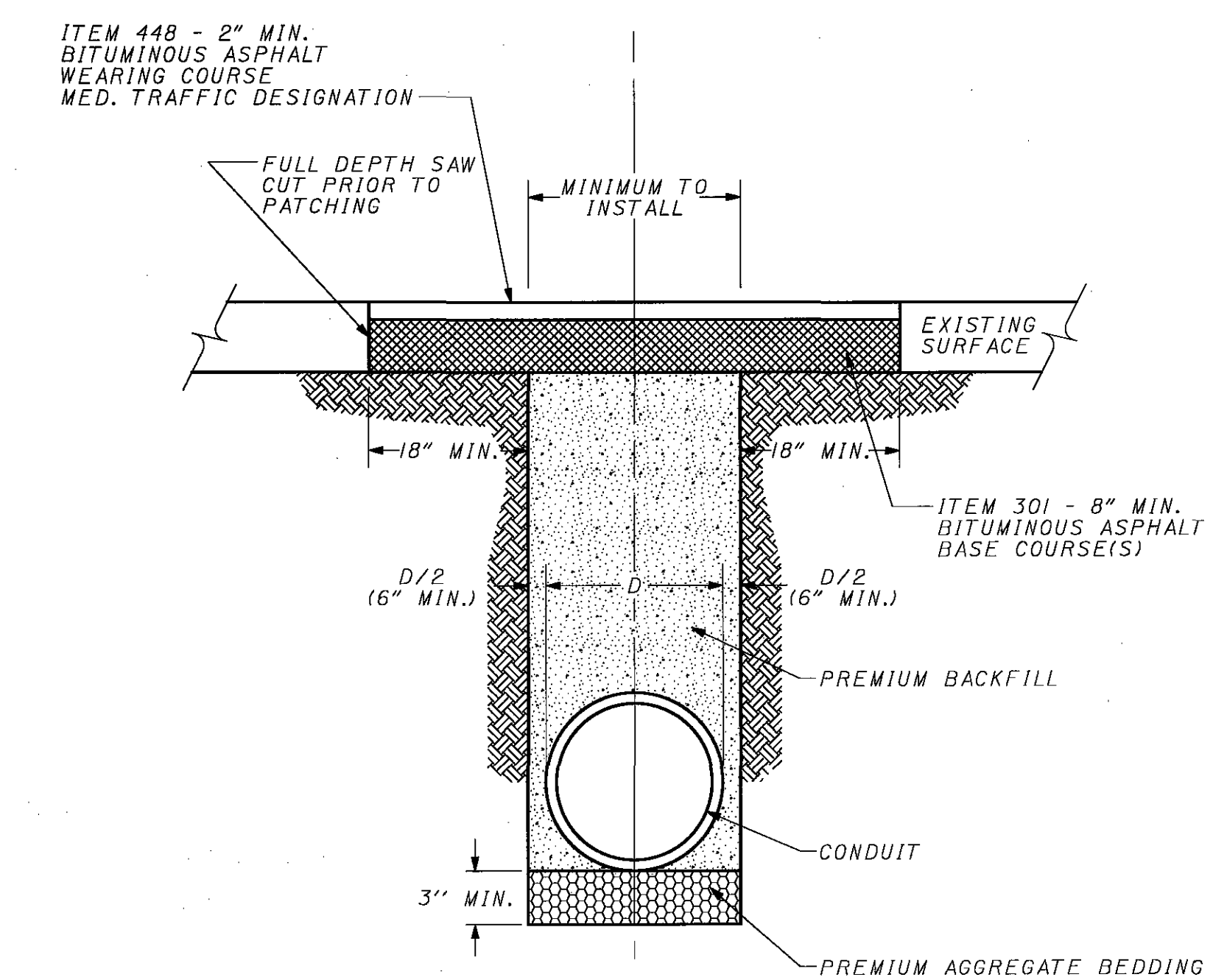
CALCULATED
CHECKED

LAKE ROAD CULVERT DETAIL
STA. 41+46.50

MED-71-6.06

550A
1120

OPEN CUT PLAN FOR UTILITY CROSSINGS UNDER COUNTY AND TOWNSHIP ROADS

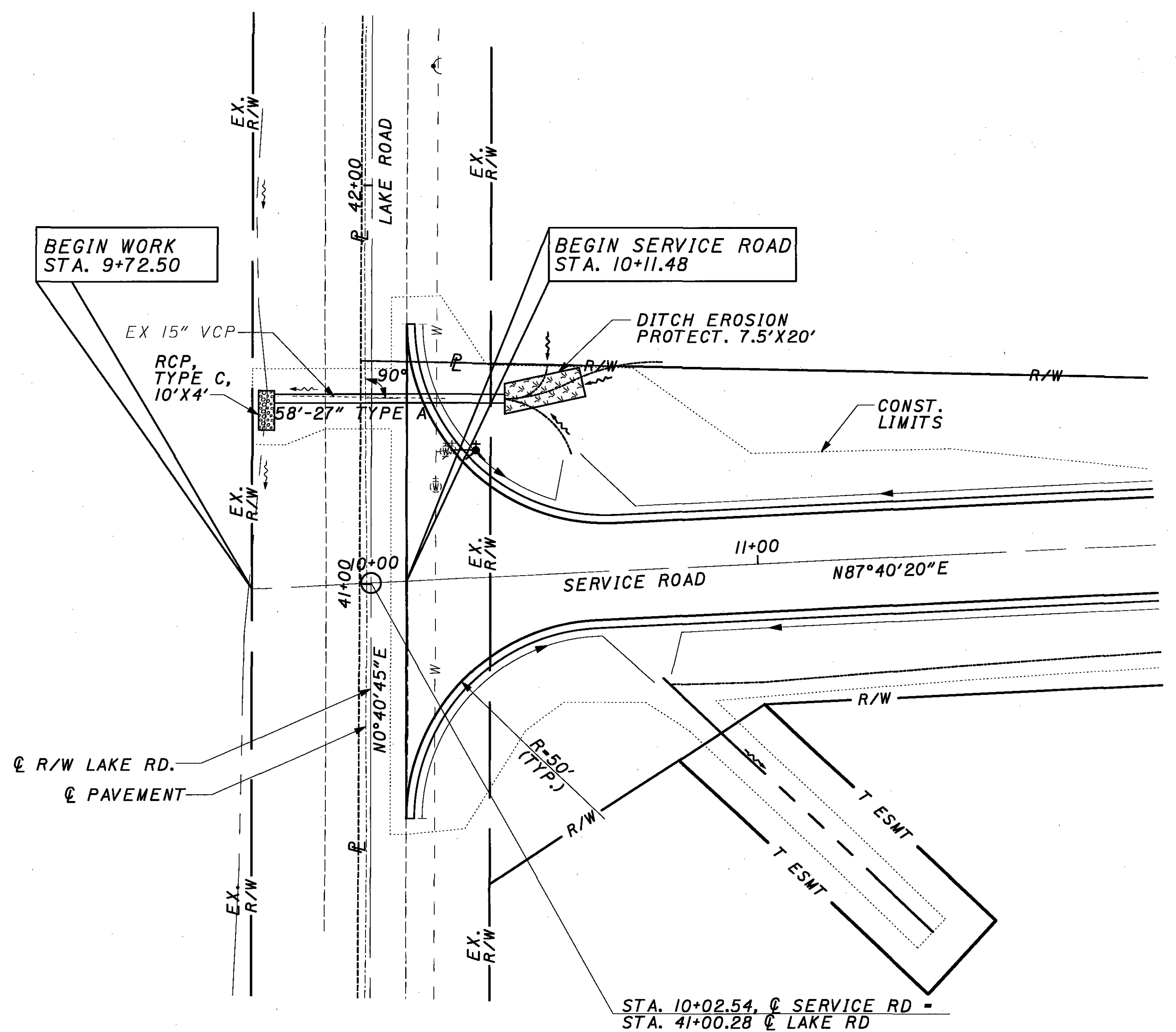


NOTE:
THE EXCAVATED TRENCH SHALL BE
BACKFILLED WITH CDF A MINIMUM OF
TWO FEET (2') EITHER SIDE OF THE
PAVEMENT EDGE.

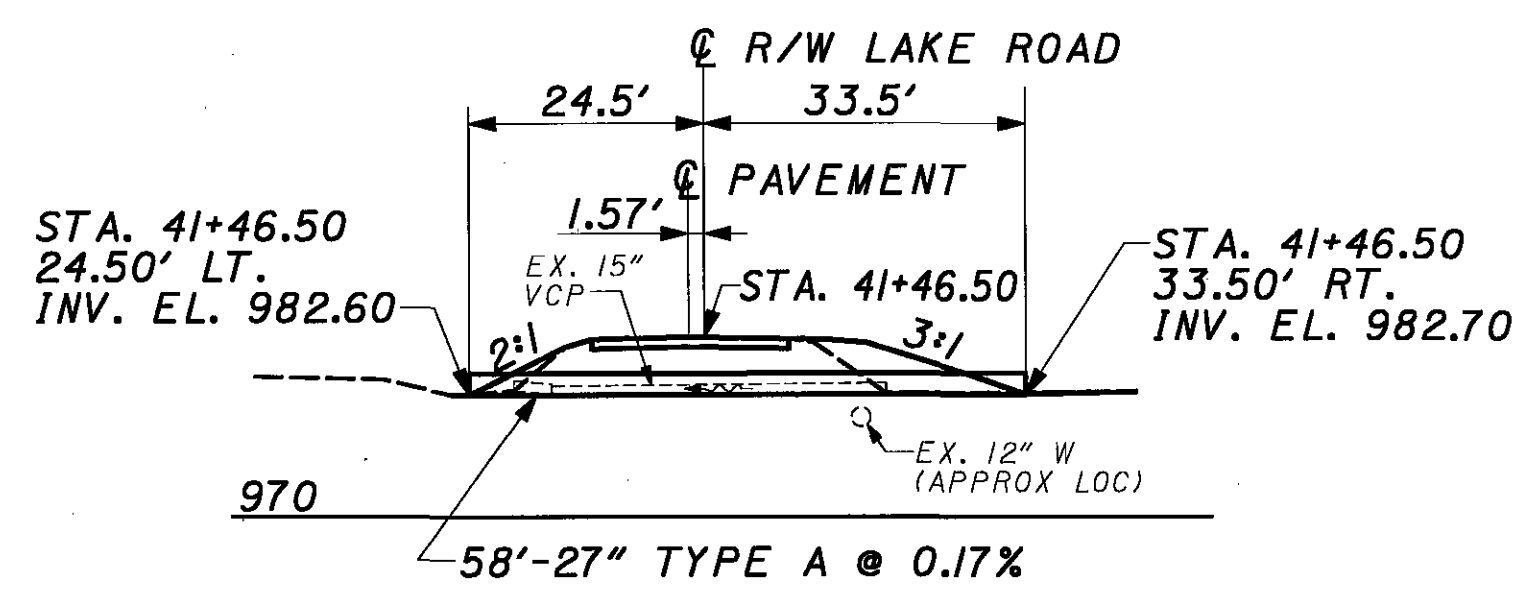
OFFICE OF THE
**MEDINA COUNTY
ENGINEER**
MICHAEL J. SALBY, P.E., P.S.

MEDINA COUNTY ENGINEERING CENTER
171 W. SMITH ROAD
P.O. BOX 895
MEDINA, OHIO 44028-0895
PH. (430) 723-2661

OPEN CUT PLAN	STANDARD DRAWING
	2005



STA. 10+02.54, C SERVICE RD =
STA. 41+00.28 C LAKE RD



AGGREGATE BACKFILL/BEDDING

PREMIUM AGGREGATE BACKFILL UNDER THE CONDUIT(S) WILL CONSIST OF LOOSE GRADED NO. 57 OR NO. 8 LIMESTONE AGGREGATE, FREE DUMPED IN TRENCH, HAND WORKED AROUND PIPE AND FILLED OVER THE PIPE PER PLAN DETAIL.

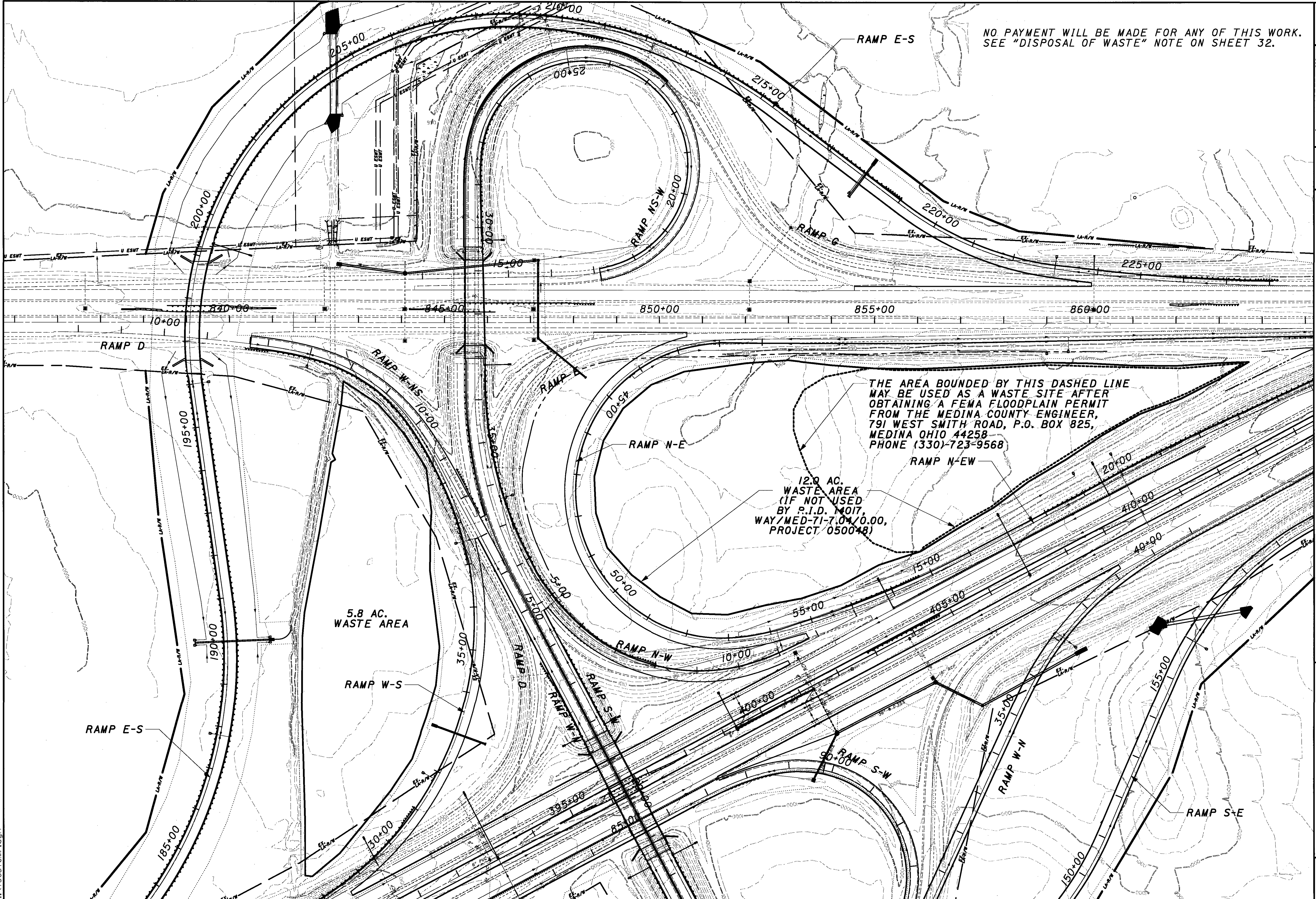
PREMIUM AGGREGATE BACKFILL MAY BE ANY OF THE FOLLOWING:

1. LOOSE GRADED NO. 8, 67, OR 57 LIMESTONE AGGREGATE, FREE DROPPED IN TRENCH, HAND WORKED AROUND PIPE, AND FILLED TO GRADE;
2. CRUSHED LIMESTONE AGGREGATE NO. 9 (SCREENINGS), 304, P209, OR 411 COMPACTED BY MECHANICAL MEANS IN 6-INCH LIFTS TO GRADE.
3. LSM, LOW STRENGTH MORTAR MATERIAL, READY-MIXED AND POURED INTO TRENCH TO GRADE USING A SAND-CEMENT MIXTURE OF CURRENT VOLUMES NOT EXCEEDING ONE AND ONE-HALF (1-1/2) SACKS OF CEMENT PER CUBIC YARD OF MATERIAL MADE AND CONFORMING TO ITEM 613 LOW STRENGTH MORTAR BACKFILL.

ITEM 603 - 27" CONDUIT, TYPE A, 707.21, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 603 CULVERT, TYPE A, PAYMENT FOR "ITEM 603 - 27" CONDUIT, TYPE A, 707.21, AS PER PLAN", SHALL INCLUDE SAWCUTTING AND REMOVING THE EXISTING ASPHALT PAVEMENT, FURNISHING AND INSTALLING THE CULVERT, BACKFILLING, AND REPAVING THE EXCAVATED PORTION OF ROADWAY IN ACCORDANCE WITH THE MEDINA COUNTY STANDARD DRAWING AND NOTES SHOWN ABOVE.

PROJECTWISE:/PR33412/CADD/75657dplake.dgn

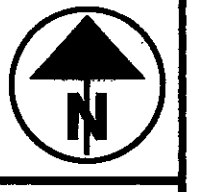


NO PAYMENT WILL BE MADE FOR ANY OF THIS WORK.
SEE "DISPOSAL OF WASTE" NOTE ON SHEET 32.

THE AREA BOUNDED BY THIS DASHED LINE
MAY BE USED AS A WASTE SITE AFTER
OBTAINING A FEMA FLOODPLAIN PERMIT
FROM THE MEDINA COUNTY ENGINEER,
791 WEST SMITH ROAD, P.O. BOX 825,
MEDINA OHIO 44258
PHONE (330)-723-9568

12.0 AC.
WASTE AREA
(IF NOT USED
BY P.I.D. 14017,
WAY/MED-71-7.04/0.00,
PROJECT 050048)

5.8 AC.
WASTE AREA



200
100
0
HORIZONTAL
SCALE IN METERS

CALCULATED
CHECKED

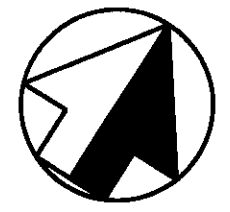
WASTE AREA SCHEMATIC

MED-71-6.06

551
1/20

...75657GMF.dgn

CURVE DATA
 P.I. Sta = 204+75.83
 D = 99° 09' 59" (RT)
 Dc = 7° 45' 00"
 R = 739.30'
 T = 868.16'
 L = 1,279.56'
 E = 400.99'



DATE	9-07-04
REVIEWED	GW
DRAWN	DCF
DESIGNED	DCF
STRUCTURE FILE NUMBER	5206758
REVISION	MPH

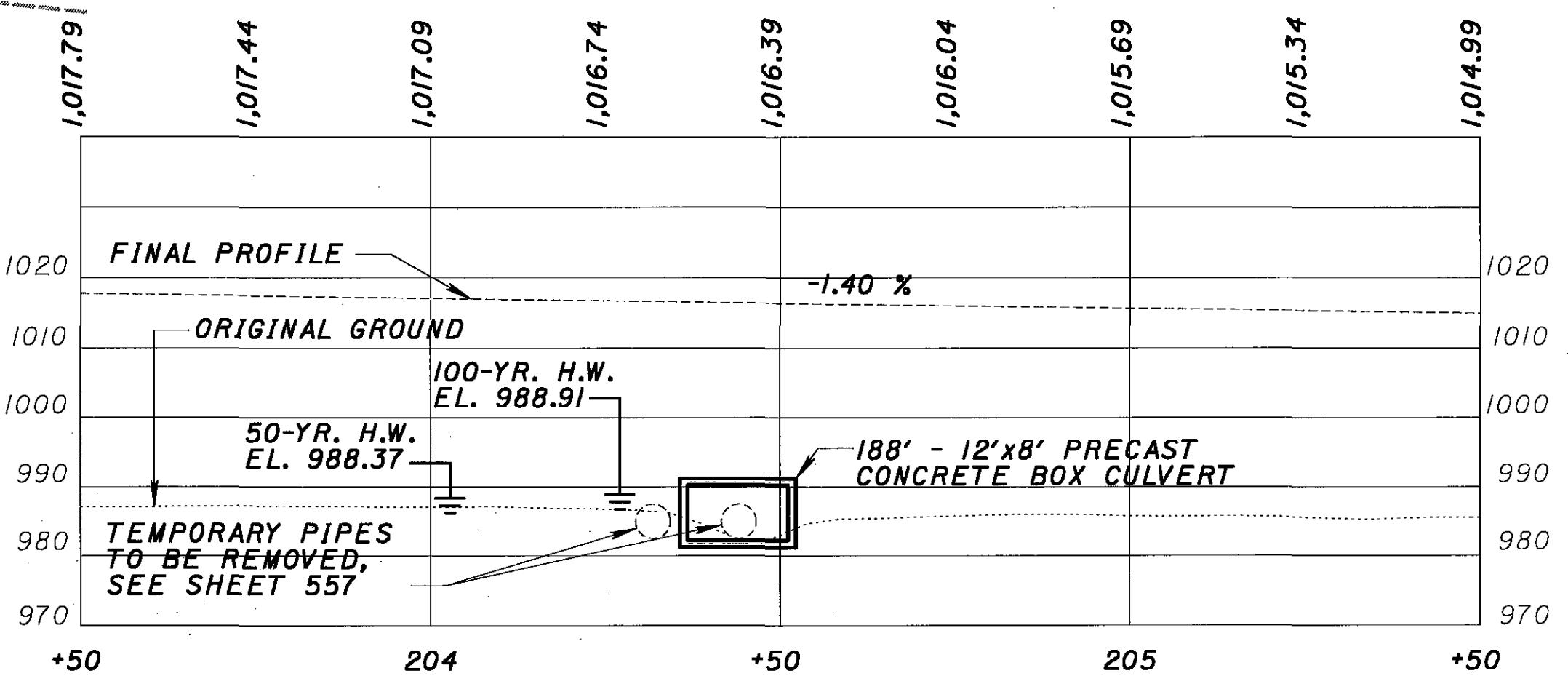
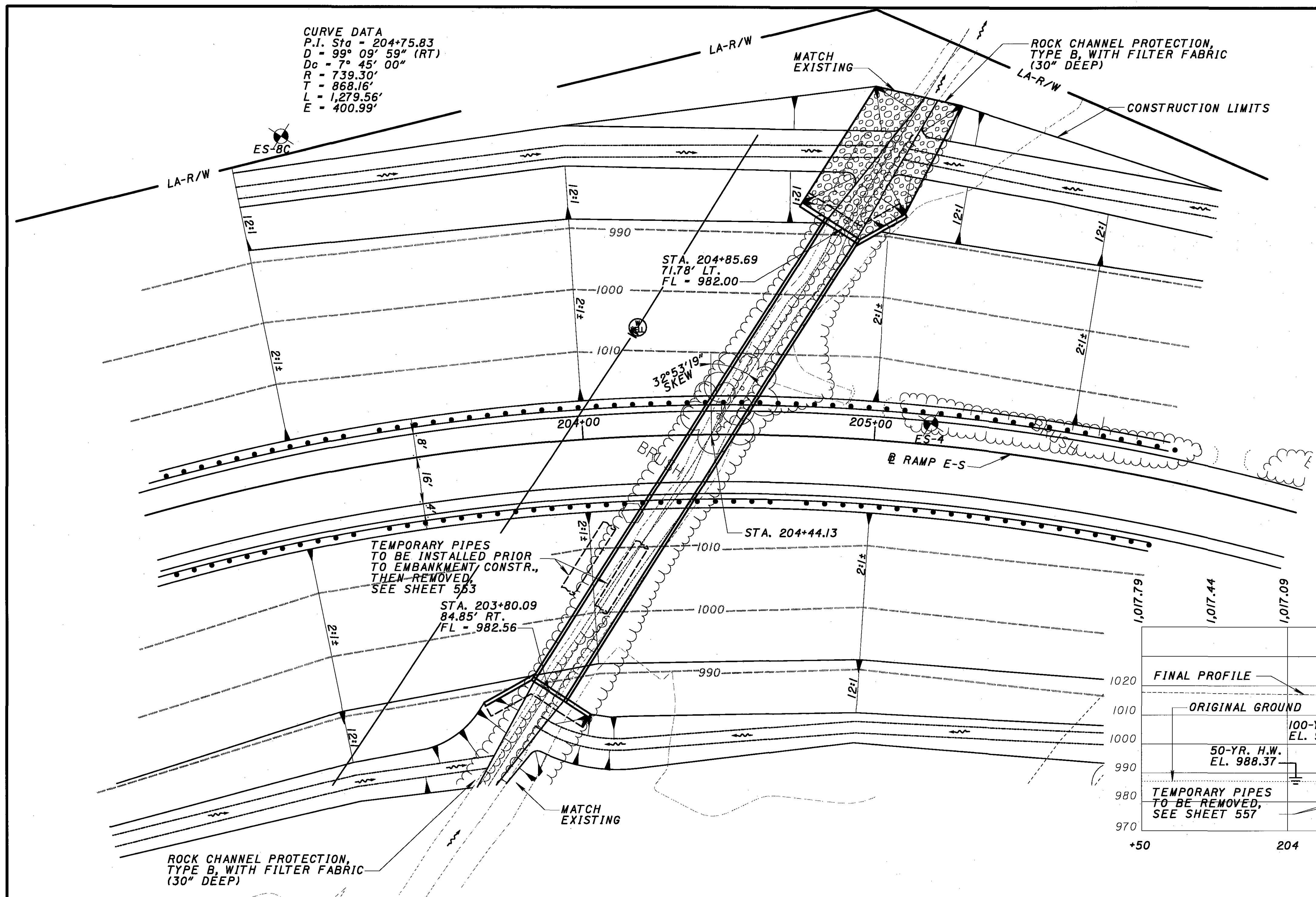
TRAFFIC DATA
 CURRENT ADT (2007) = 48,930
 DESIGN YEAR ADT (2027) = 68,660

HYDRAULIC DATA
 DRAINAGE AREA = 1.25 SQ. MI.
 PROPOSED WATERWAY OPENING = 96.0 SQ. FT.

FREQ (YR)	Q (CFS)	VEL (FPS)
50	438	11.53
100	501	11.96

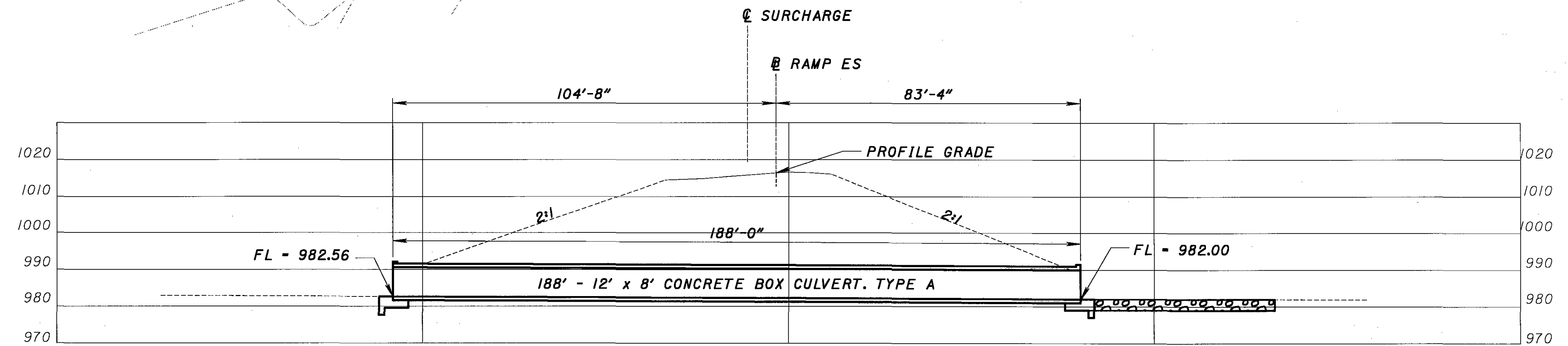
pH VALUE = 7.5

BENCHMARKS
 NO BENCHMARKS HAVE BEEN SET



PROFILE @ RAMP E-S

NOTE:
 EARTHWORK QUANTITIES SHOWN ARE APPROXIMATE.
 ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
 FOR PLAN OF TEMPORARY PIPES, SEE SHEET 553

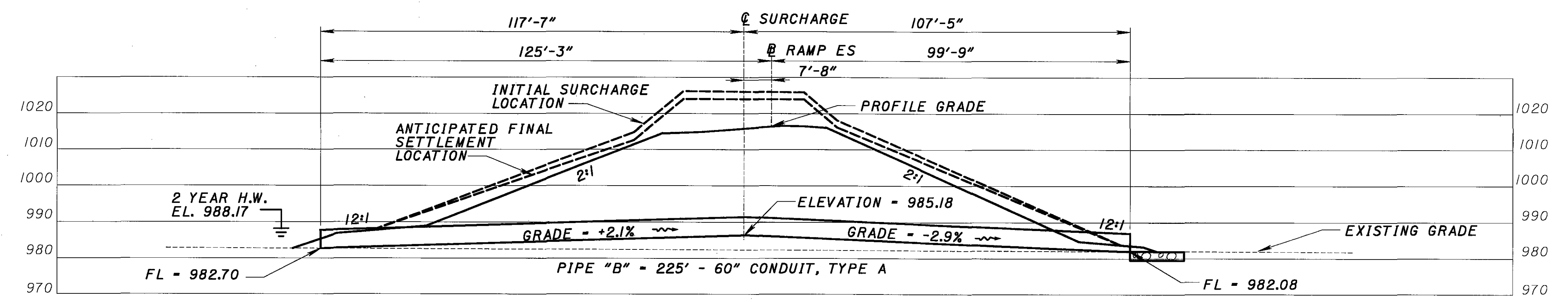
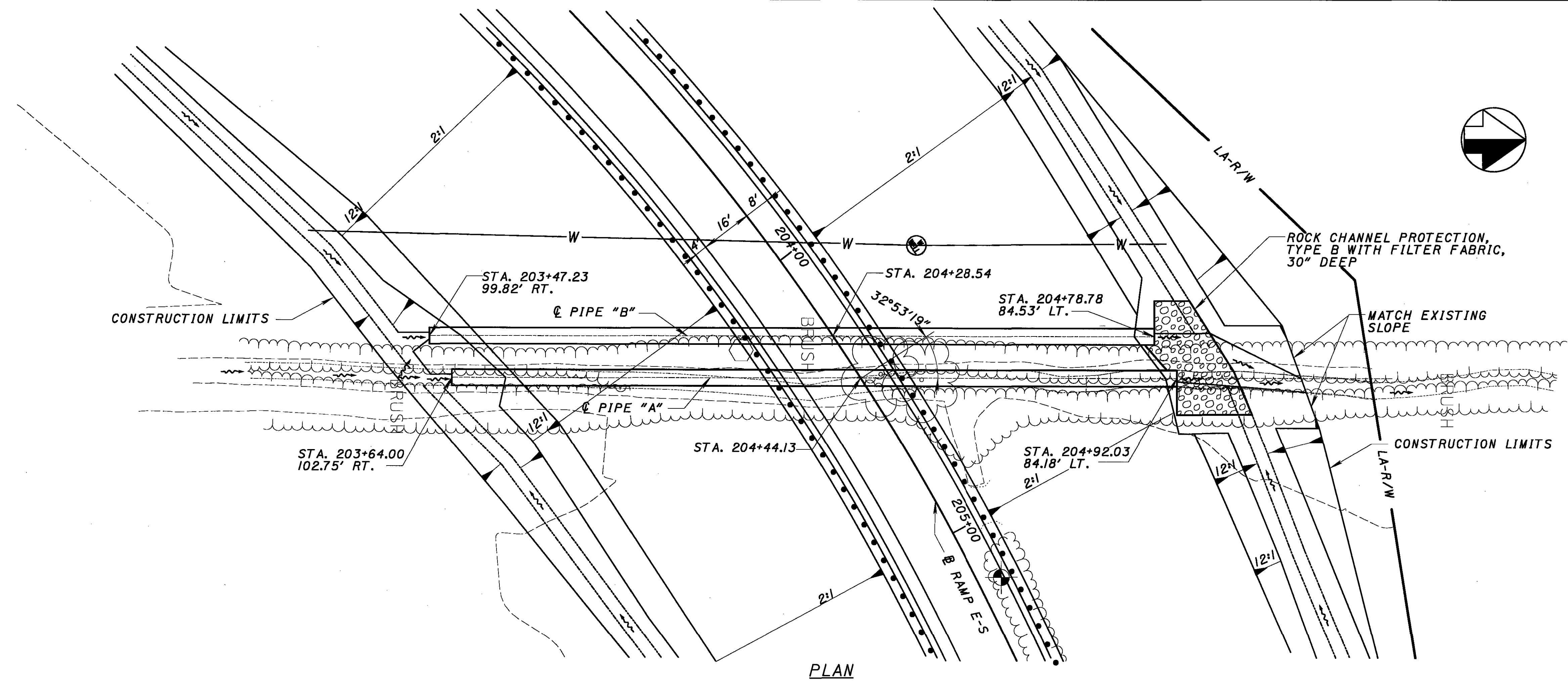


PROFILE 12' x 8' CONCRETE BOX CULVERT

PROPOSED STRUCTURE	
TYPE:	PRECAST REINFORCED CONCRETE BOX CULVERT
SPAN:	12'-0" F/F CULVERT WALLS
ROADWAY:	28'-0" O/O PAVEMENT
ALIGNMENT:	TANGENT TO CURVE
SUPERELEVATION:	NONE
APPROACH SLAB:	NONE
SKEW:	32° 53' 19"
WEARING SURFACE:	60 psf
LOADING:	HS-25-44, WITH ALTERNATE MILITARY LOADING
LOCATION:	LATITUDE: 41°01'59" N. LONGITUDE: 81°53'06" W.

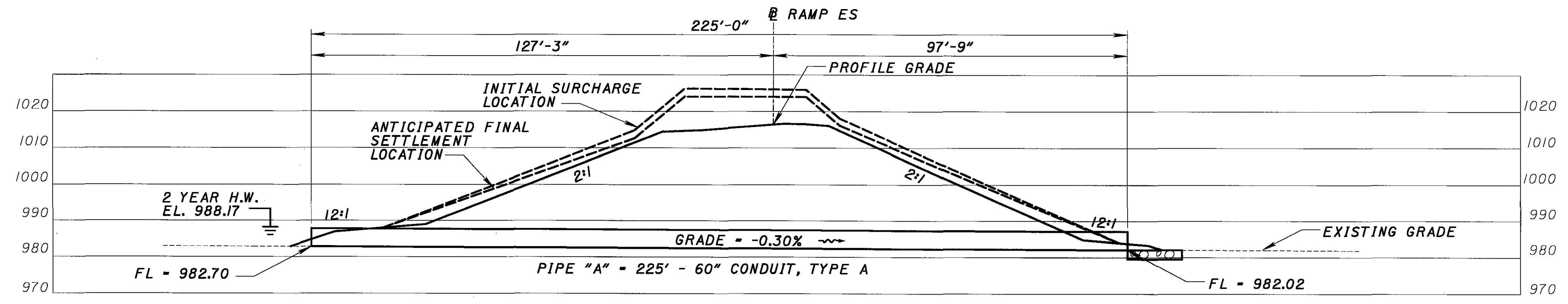
SITE PLAN
 BRIDGE NO. MED-224-1576
 RAMP ES OVER STREAM

MED-71-6.06
 PID-75657



PROFILE PIPE "B"

* PIPE "B" SHALL BE CAMBERED TO ENSURE THAT FLOW IS MAINTAINED DURING AND AFTER EXPECTED EARTHWORK SETTLEMENT.



PROFILE PIPE "A"

NOTE:
FOR ESTIMATED QUANTITIES SEE SHEET 557.

HYDRAULIC DATA		
MINIMUM RECOMMENDED TEMPORARY CULVERT SIZES ARE SHOWN. THE SIZES WERE CALCULATED USING THE FOLLOWING 2-YEAR DESIGN FREQUENCY DATA:		
DRAINAGE AREA: 1.25 SQ. MI.	Q (CFS)	VEL (FPS)
FREQ (YR) 2	115	9.15

PROPOSED STRUCTURE
TYPE: TWIN 60" CONDUIT, TYPE A, AS PER PLAN
SKEW: 32°53'19"

... \ME07ISP2.DGN

DESIGN SPECIFICATIONS: THIS STANDARD DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION (ϕ) - 30 DEGREES
 COEFFICIENT OF FRICTION (μ) - 0.30
 UNIT WEIGHT OF SOIL - 120 PCF
 UNIT WEIGHT OF CONCRETE - 150 PCF
 SLOPE OF BACKFILL - 2:1 (TYPE A & B HEADWALLS)
 HEIGHT OF LIVE LOAD SURCHARGE - 2 FT
 MAXIMUM FOUNDATION BEARING PRESSURE - 2000 P.S.F.

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI
 (FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
 GRADE 60 MINIMUM YIELD STRENGTH
 60,000 PSI (ALL REINFORCING SHALL BE
 EPOXY COATED)

PRECAST CONCRETE: AT THE OPTION OF THE CONTRACTOR, PRECAST FOOTINGS AND WINGWALLS MAY BE USED PROVIDED THEY ARE SIZED TO MEET THE SOIL PARAMETERS AND MEET OR EXCEED THE MATERIAL STRENGTHS SPECIFIED HEREIN. THE CONTRACTOR SHALL SUBMIT DESIGNS AND SHOP DRAWINGS TO THE OFFICE OF STRUCTURAL ENGINEERING FOR APPROVAL.

FORESLOPE WALL ANCHOR DOWELS: ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20 AND TO A DEPTH SPECIFIED ON SHEET 6/6. PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER MAY BE USED PROVIDED THEY CAN RESIST AN ULTIMATE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 603.

BACKFILL LIMITATION: WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

ITEM 603 12' x 8' CONDUIT, TYPE A, 706.05, AS PER PLAN

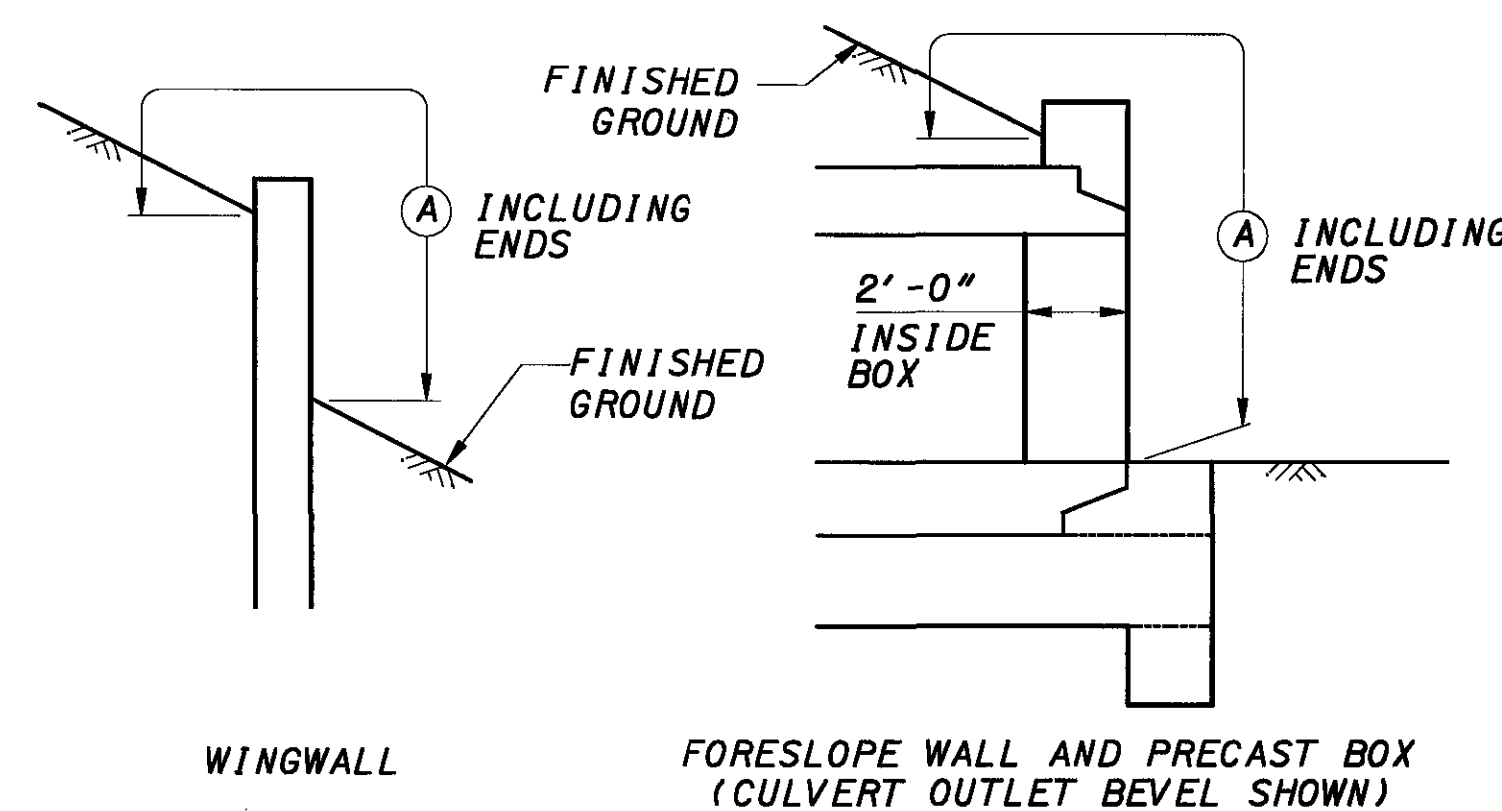
ALL OF CMS 603 SHALL BE PERFORMED EXCEPT THE BACKFILLING SHALL BE MODIFIED TO CONSIST OF LOW STRENGTH MORTAR BACKFILL (TYPE 2) MEETING THE REQUIREMENTS OF CMS 613. THE LIMITS ARE UP TO THE TOP OF THE CULVERT. SEE THE DETAIL ON THIS SHEET. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN ITEM 603, PER PLAN.

POROUS BACKFILL WITH FILTER FABRIC 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

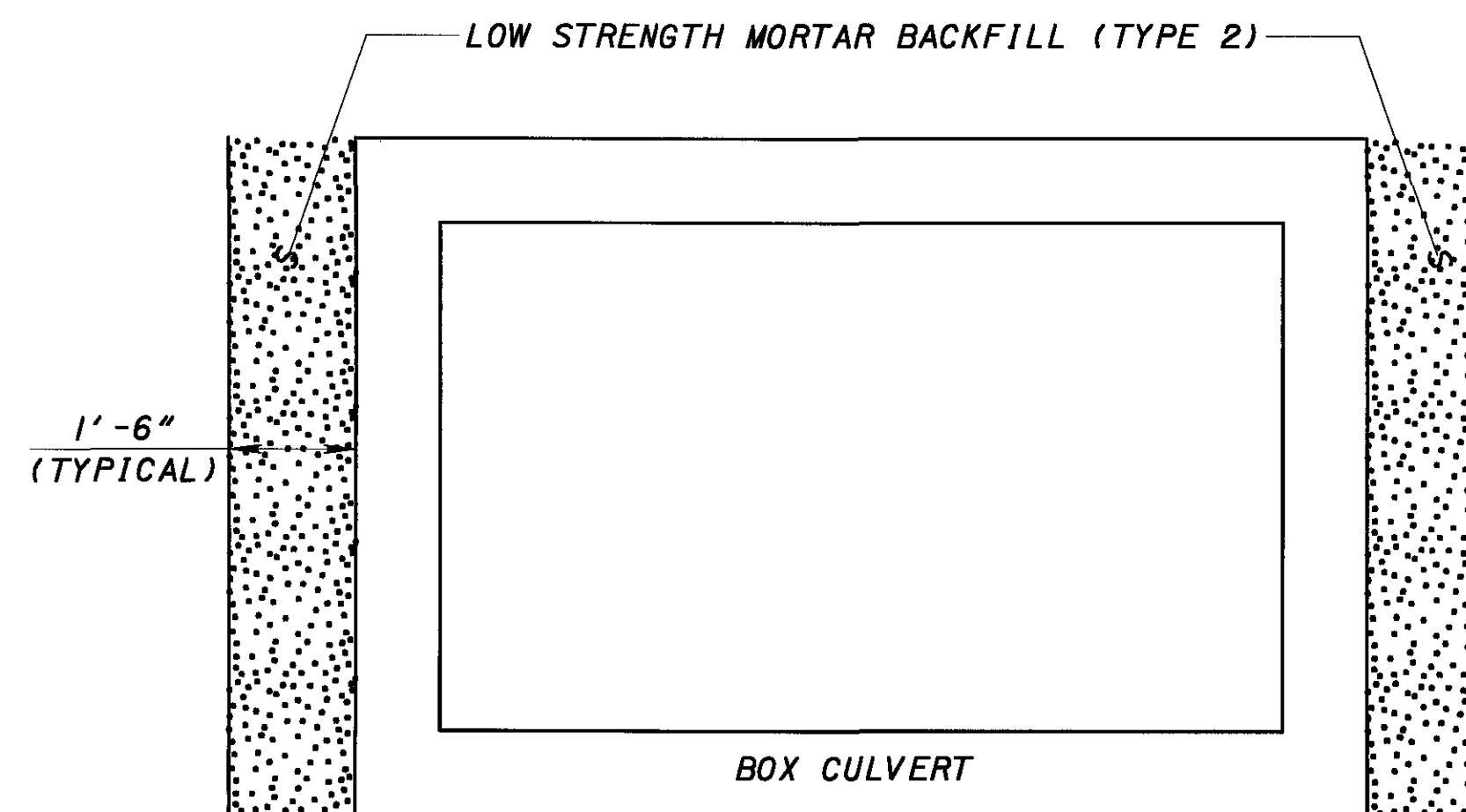
PREFORMED EXPANSION JOINT FILLER: PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

SEALING OF FORESLOPE WALL AND WINGWALLS: ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES, (EPOXY URETHANE).



LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA

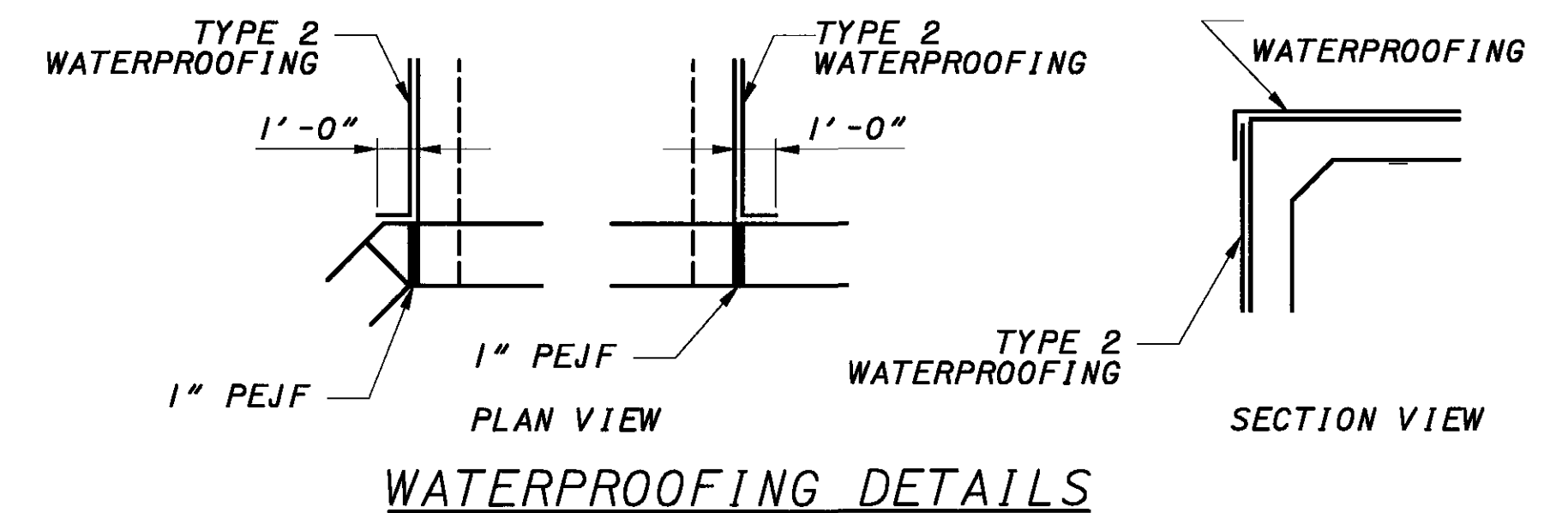


LOW STRENGTH MORTAR BACKFILL

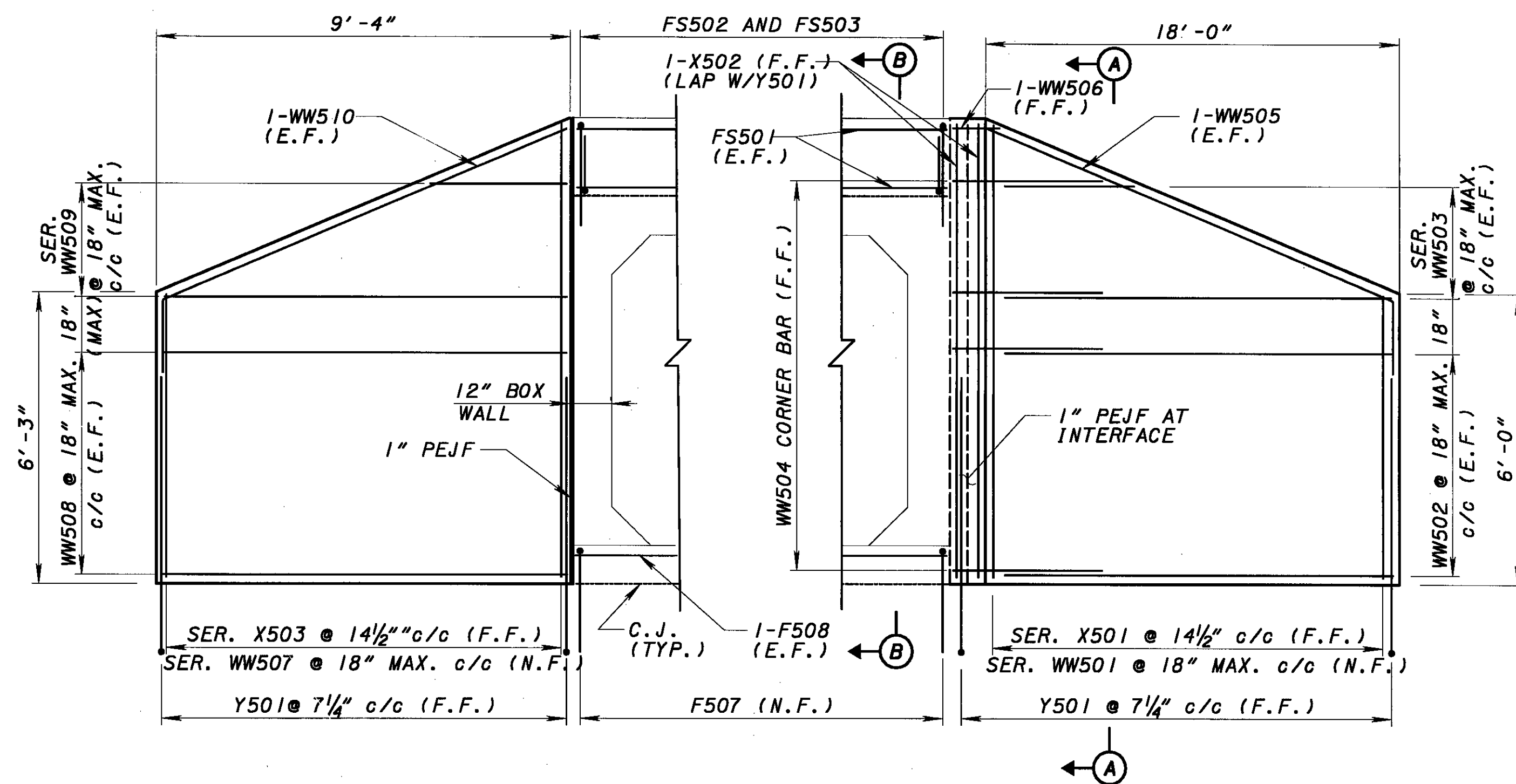
WATERPROOFING: TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS NOT PLACED DIRECTLY ON TOP OF THE CULVERT, TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS TO BE USED DIRECTLY ON TOP OF THE CULVERT, TYPE 3 WATERPROOFING, PER CMS 512.10 AND 711.29 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.

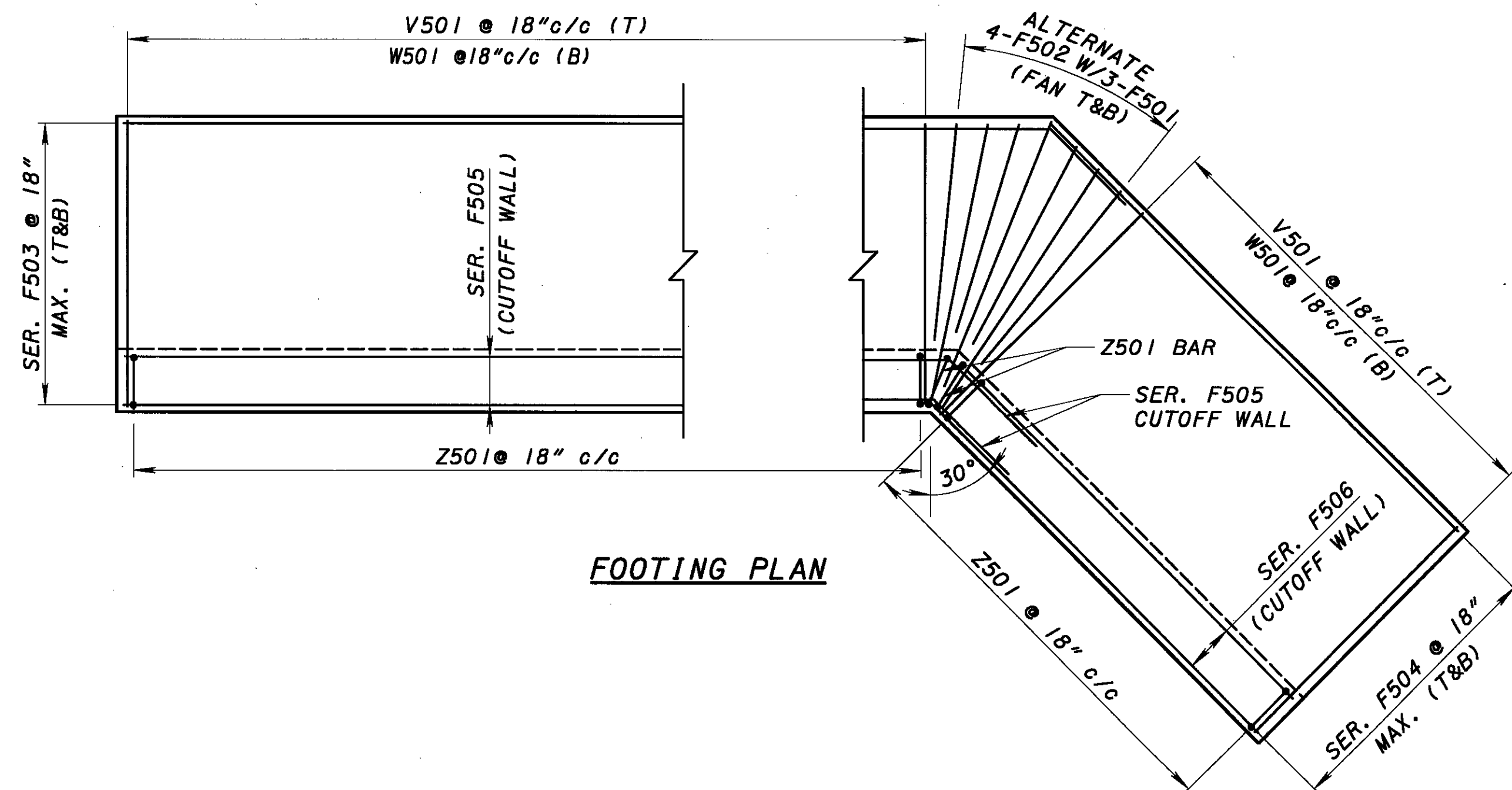


BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE (RET-WALL/WINGWALL- INCLUDING FOOTING). PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

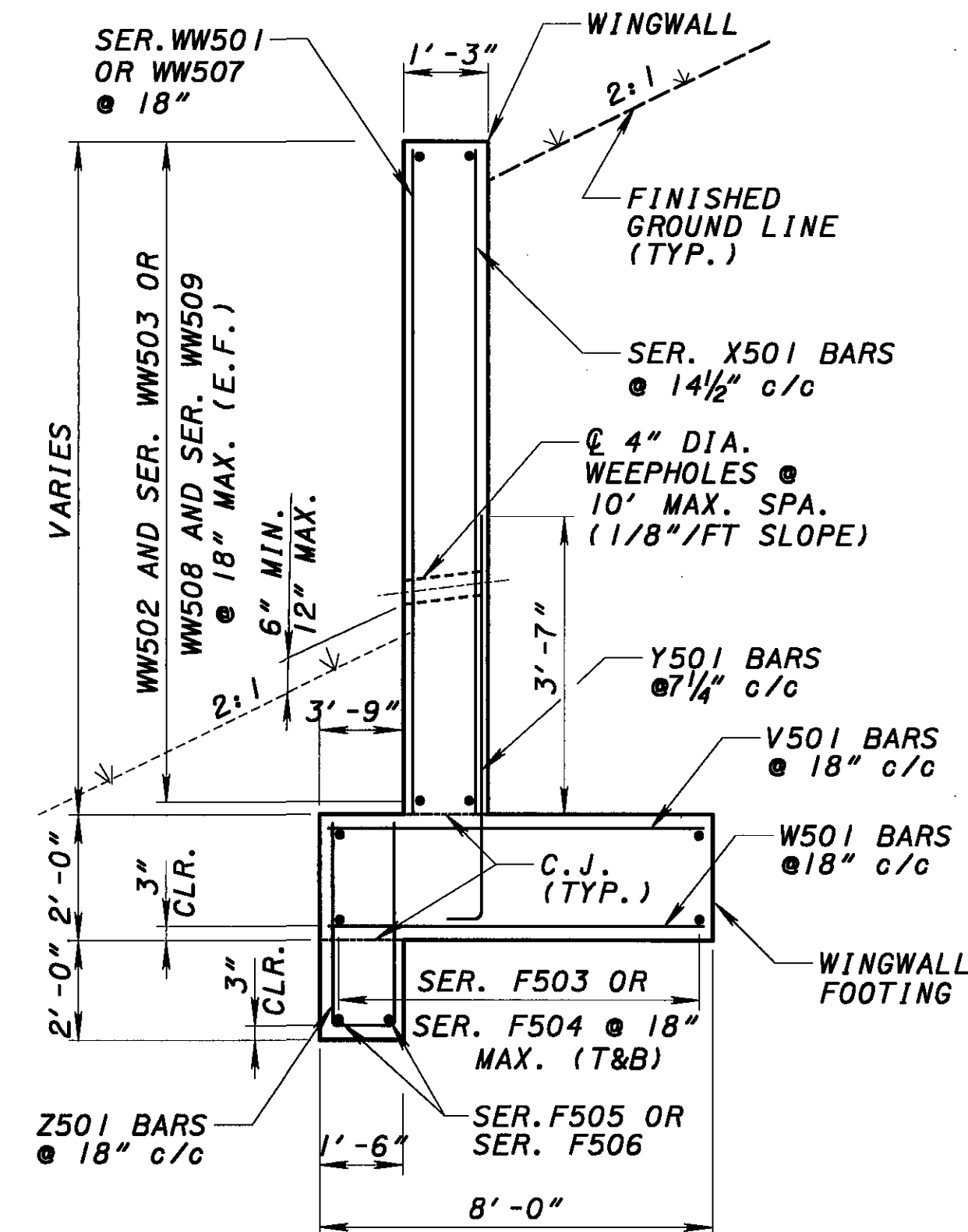


WINGWALL ELEVATION
(FOOTING NOT SHOWN)

(NOTE: INLET AND OUTLET WINGWALLS IDENTICAL MIRROR IMAGES.)

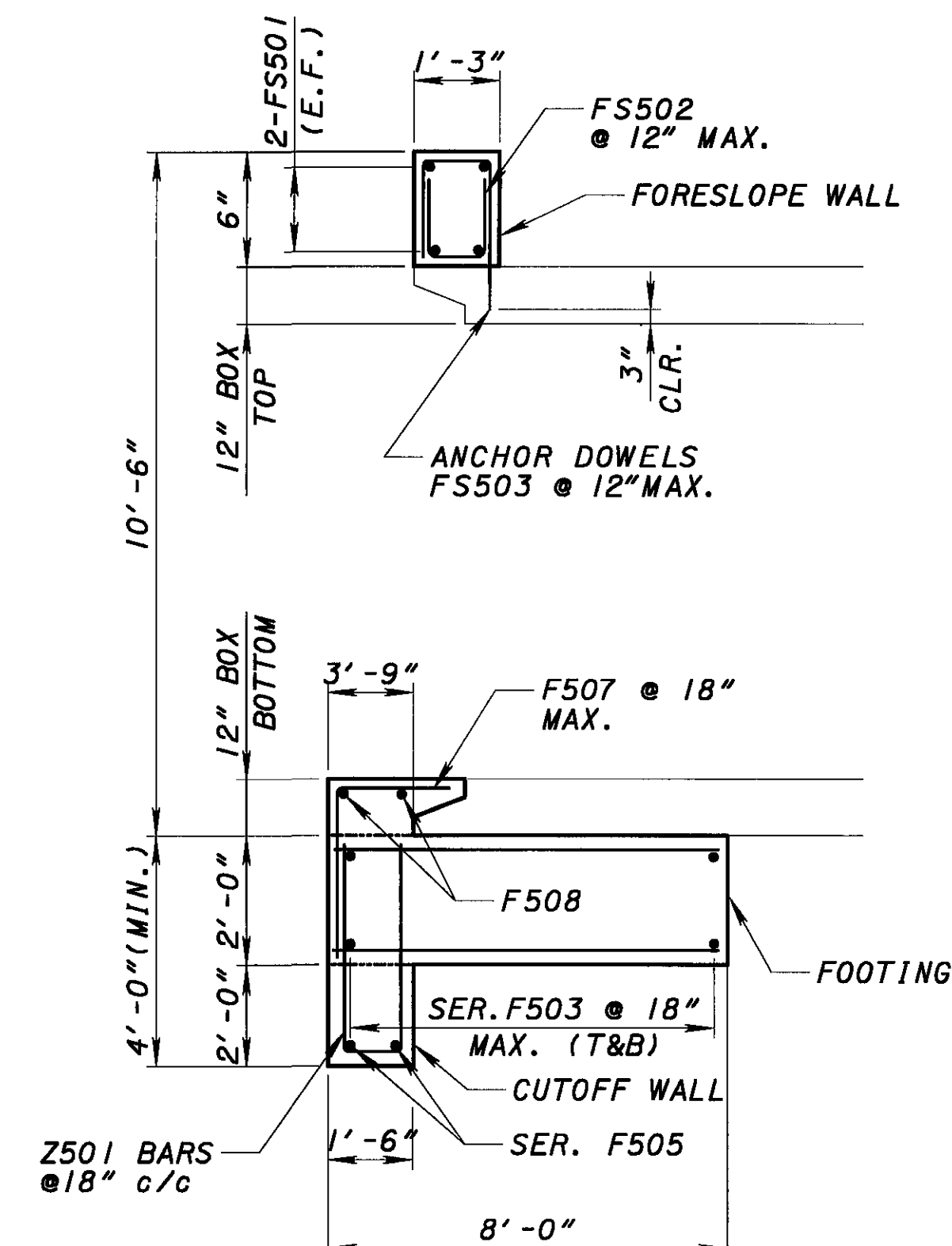


FOOTING PLAN



SECTION A-A

(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION B-B

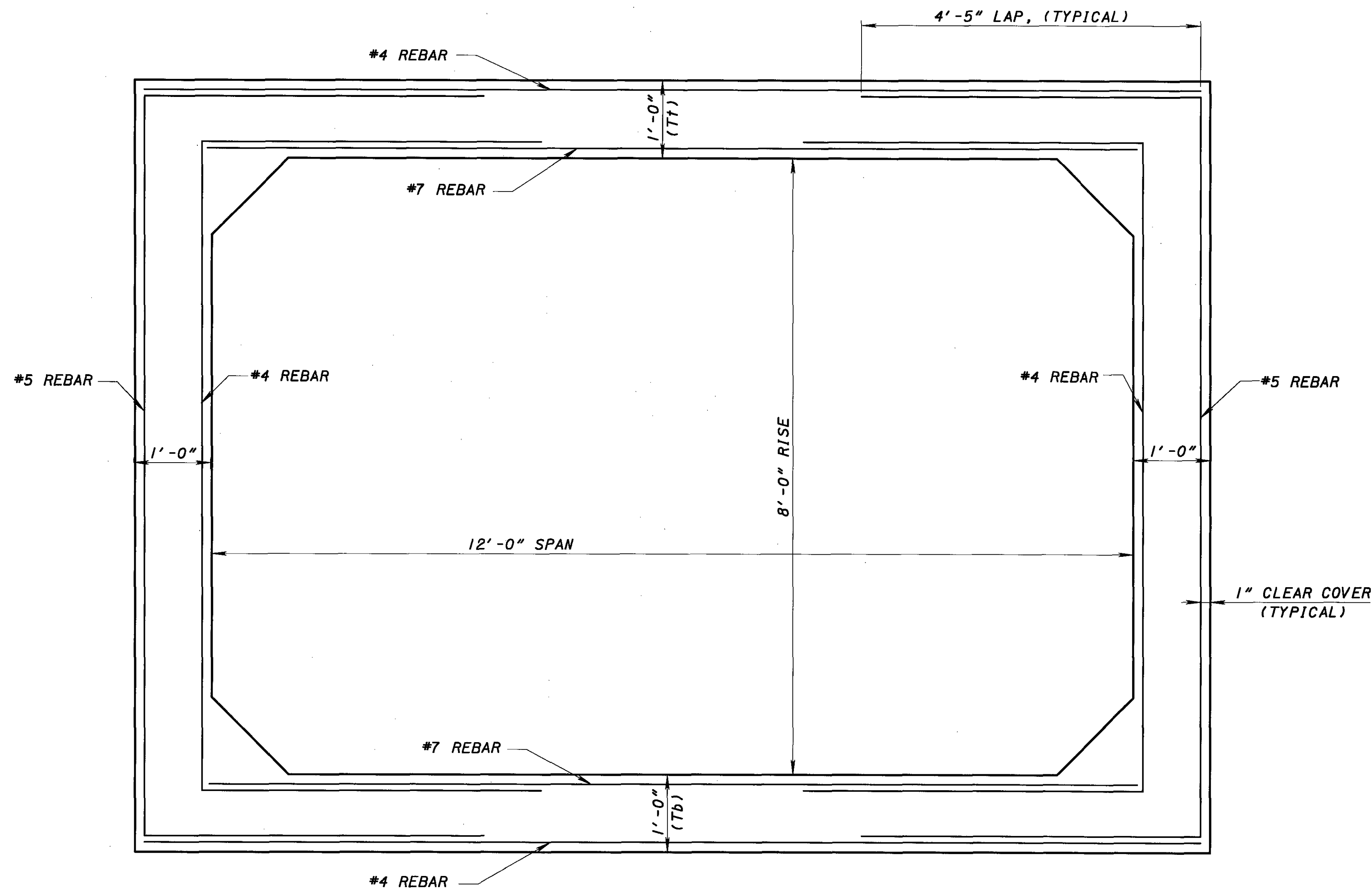
(CULVERT INLET BEVEL SHOWN)

NOTES

1. FOR STRUCTURE SITE PLAN, SEE SHEET 552.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO. 5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.

LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	(T)	TOP
E.F.	EACH FACE	(B)	BOTTOM
F.F.	FAR FACE	T&B	TOP AND BOTTOM
MAX.	MAXIMUM	TYP.	TYPICAL
MIN.	MINIMUM		
PEJF	PERFORMED EXPANSION JOINT FILLER		



NOTES:

1. ITEM 603 - 12' x 8' CONDUIT TYPE A, 706.05, AS PER PLAN. ALL REQUIREMENTS OF CMS 706.05 AND ASTM C1433 SHALL BE MET EXCEPT AS DETAILED IN THIS DRAWING.
2. LOADING: HS-25 AND ALTERNATE MILITARY (FWS - 60 PSF) LOADING.
3. MINIMUM REINFORCING YIELD STRESS SHALL BE 60,000 PSI.
4. MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 7,000 PSI.
5. MAXIMUM CIRCUMFERENTIAL REINFORCING SPACING SHALL BE 4".

AS AN ALTERNATE TO THE 7,000 PSI COMPRESSIVE STRENGTH CONCRETE, Tt AND Tb MAY BE INCREASED TO 14" WHILE MAINTAINING INSIDE CULVERT DIMENSIONS AND 5,000 PSI COMPRESSIVE STRENGTH CONCRETE MAY BE USED. THIS ALTERNATE WILL REQUIRE THE WINGWALL AND FOOTING DIMENSIONS TO BE ADJUSTED ACCORDINGLY.

DATE	9-07-04
REVIEWED	GWM
STRUCTURE FILE NUMBER	5206758
DRAWN	DCF
DESIGNED	DCF
CHECKED	XXY

STRUCTURE DETAILS
BRIDGE NO. MED-224-1576
RAMP ES OVER STREAM

MED-71-6.06
PID-75657

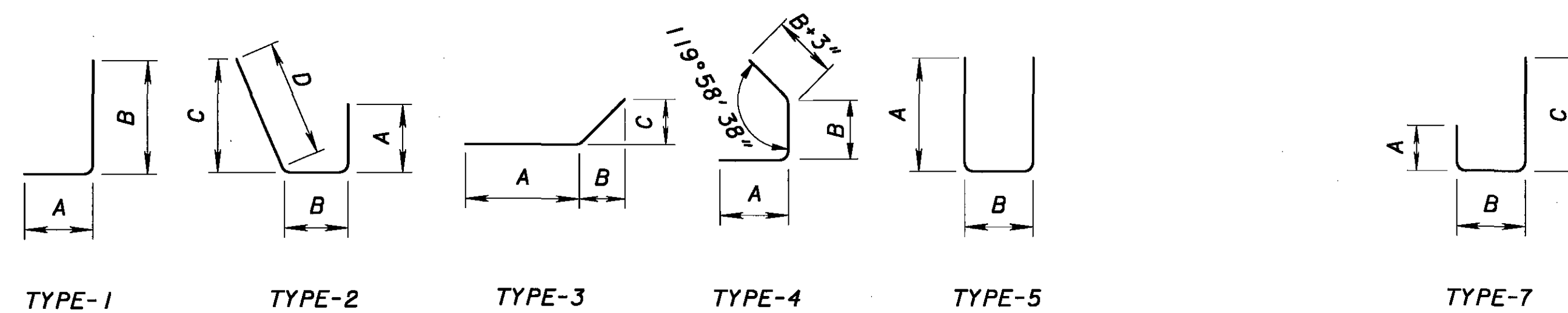
TYPE B HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				
					A	B	C	D	INC.
WINGWALLS									
X501	2 SERIES of 16	5'-10" TO 10'-4"	270	STR.					0'-3 ⁵ / ₈ "
X502	4	10'-4"	44	STR.					
X503	2 SERIES of 9	6'-1" TO 10'-4"	222	STR.					0'-6 ³ / ₈ "
Y501	98	5'-8"	584	1	0'-6"	5'-4"			
WW501	2 SERIES of 13	5'-10" TO 10'-4"	220	STR.					0'-4 ¹ / ₂ "
WW502	16	17'-8"	296	STR.					
WW503	4 SERIES of 3	5'-11" TO 17'-8"	148	STR.					5'-10 ⁵ / ₈ "
WW504	14	4'-4"	64	2	0'-10"	0'-5 ³ / ₄ "	2'-8 ³ / ₄ "	3'-1 ¹ / ₄ "	
WW505	4	20'-7"	86	3	2'-5"	4'-4"	17'-8"		
WW506	2	1'-11"	4	4	0'-10"	0'-5 ³ / ₄ "			
WW507	2 SERIES of 7	6'-1" TO 10'-4"	120	STR.					0'-8 ¹ / ₂ "
WW508	16	9'-0"	152	STR.					
WW509	4 SERIES of 3	3'-0" TO 9'-0"	76	STR.					3'-0"
WW510	4	12'-4"	52	3	2'-5"	4'-1"	9'-0"		
FOOTING & CUTOFF WALL									
V501	56	7'-8"	448	STR.					
W501	56	7'-8"	448	STR.					
Z501	60	8'-2"	512	5	3'-7"	1'-2"			
F501	12	6'-11"	88	STR.					
F502	16	5'-5"	92	STR.					
F503	4 SERIES of 7	23'-6" TO 28'-0"	754	3	21'-1 ¹ / ₄ " TO 25'-6 ¹ / ₂ "	1'-2 ¹ / ₂ "	2'-1 ¹ / ₄ "		0'-9"
F504	4 SERIES of 7	15'-9" TO 20'-2"	526	STR.					0'-8 ⁷ / ₈ "
F505	2 SERIES of 2	23'-6" TO 24'-3"	100	3	21'-1 ¹ / ₄ " TO 21'-9 ¹ / ₂ "	1'-2 ¹ / ₂ "	2'-1 ¹ / ₄ "		0'-9"
F506	2 SERIES of 2	15'-9" TO 16'-5"	68	STR.					0'-8 ⁷ / ₈ "
F507	22	6'-4"	146	1	3'-9"	2'-8"			
F508	4	13'-8"	58	STR.					
FORESLOPE WALL									
FS501	8	13'-8"	116	STR.					
FS502	30	1'-0"	32	5	0'-2"	0'-11"			
FS503	30	1'-11"	60	7	0'-2"	0'-11"	1'-1"		
		TOTAL	5786						

ESTIMATED QUANTITIES - 12'x8' BOX CULVERT						
ITEM	ITEM EXT	IM	NHS	TOTAL	UNIT	DESCRIPTION
503	11100	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS, AND SHEETING
503	21300	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)
509	10000	4629	1157	5786	LB.	EPOXY COATED REINFORCING STEEL
511	46000	30	8	38	CU. YD.	CLASS C CONCRETE, WINGWALL
511	46500	46	12	58	CU. YD.	CLASS C CONCRETE, FOOTING
511	46600	1		1	CU. YD.	CLASS C CONCRETE, HEADWALLS
512	33000	569	142	711	SQ. YD.	TYPE 2 WATERPROOFING
512	10100	60	15	75	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	13600	43	11	54	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	21230	LUMP	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC
601	32104	114	28	142	CU. YD.	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER,
603	96001	150	38	188	FT.	12'x 8' CONDUIT, TYPE A, 706.05, AS PER PLAN
613	41300	167	42	209	CU. YD.	LOW STRENGTH MORTAR BACKFILL (TYPE 2)

ESTIMATED QUANTITIES - TEMPORARY PIPES						
ITEM	ITEM EXT	IM	NHS	TOTAL	UNIT	DESCRIPTION
601	32104	49	12	61	CU. YD.	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER,
603	23601	360	90	450	FT.	60" CONDUIT, TYPE A, AS PER PLAN

ITEM 603 - 60" CONDUIT, TYPE A, AS PER PLAN

MATERIALS FOR THIS ITEM MAY BE NEW OR USED. IF USED, THEY SHALL HAVE MET THE CMS REQUIREMENTS WHEN THEY WERE NEW, OR BE APPROVED BY THE ENGINEER. REMOVAL OF THIS PIPE WHEN NO LONGER NEEDED IS INCLUDED IN THIS ITEM.



DESIGNED: DCF
 CHECKED: MPH
 DRAWN: DCF
 REVISED: DCF
 REVIEWED: GWM
 DATE: 9-07-04
 STRUCTURE FILE NUMBER: 5206758
 REINFORCING SCHEDULE & SUMMARY OF QUANTITIES
 BRIDGE NO. MED-224-1576
 RAMP ES OVER STREAM
 MED-71-6.06
 PID-75657
 6/6
 557
 1120
 BURGESS & NIPL
 5085 Reed Road
 Columbus, Ohio 43220

NOTES:

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS

LEGEND:

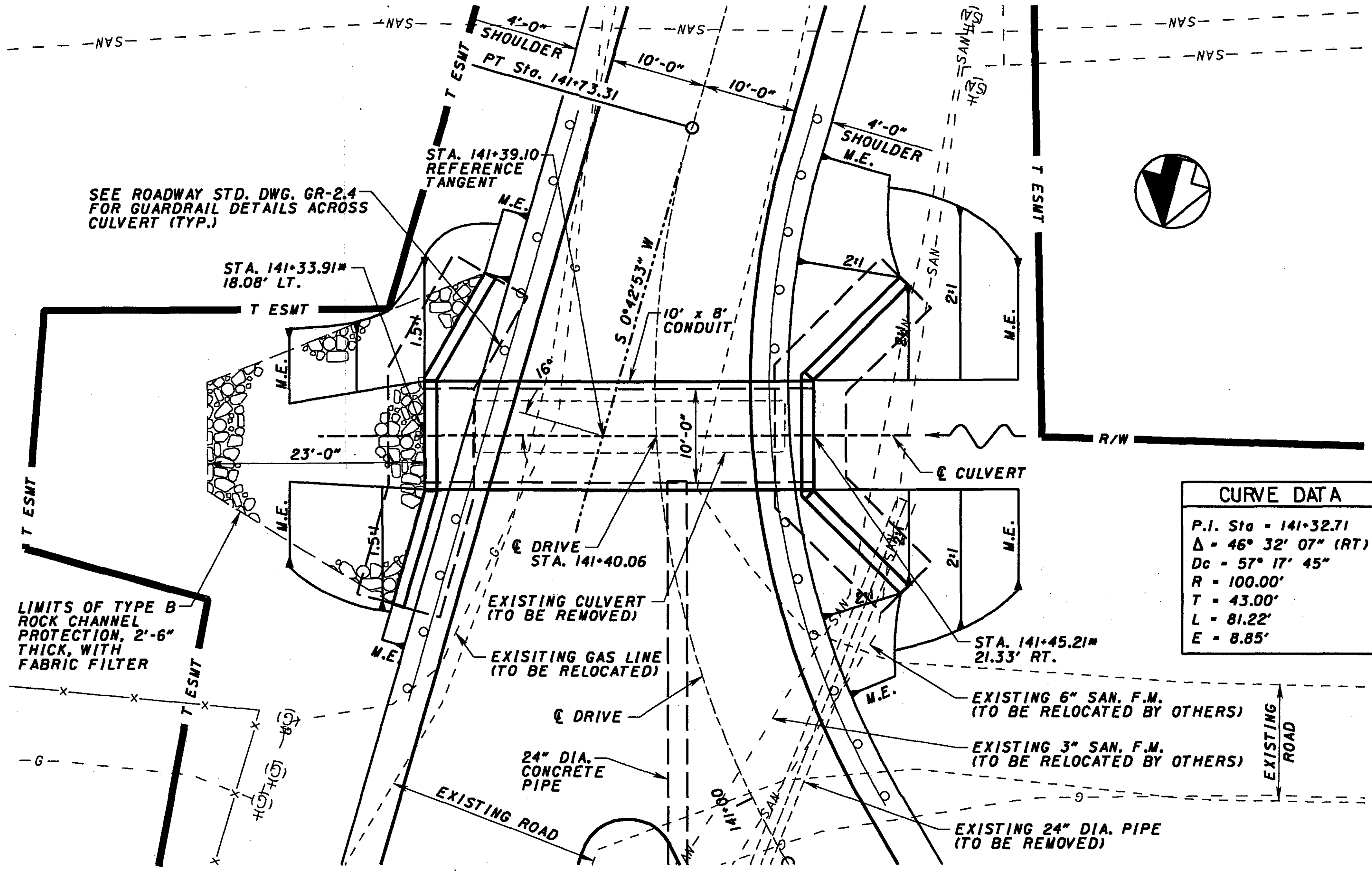
- CLR. - CLEAR
- LT. - LEFT
- FIRM - FLOOD INSURANCE RATE MAP
- F.M. - FORCE MAIN
- M.E. - MATCH EXISTING
- P.G. - PROFILE GRADE
- RT. - RIGHT
- T ESMT - TEMPORARY EASEMENT
- * - STATIONING AT INDICATED POINTS IS FROM REFERENCE TANGENT
- ** - CHIPPEWA CREEK BACKWATER ELEVATION FROM MEDINA COUNTY FIRM, PANEL 80/100

HYDRAULIC DESIGN DATA	
DRAINAGE AREA - 3.89 SQ. MI.	
$Q_{10} = 475$ cfs	$Q_{100} = 794$ cfs
$HW_{10} = 985.58$	$HW_{100} = 991.00$ **
$V_{10} = 8.14$ ft/s	$V_{100} = 9.35$ ft/s

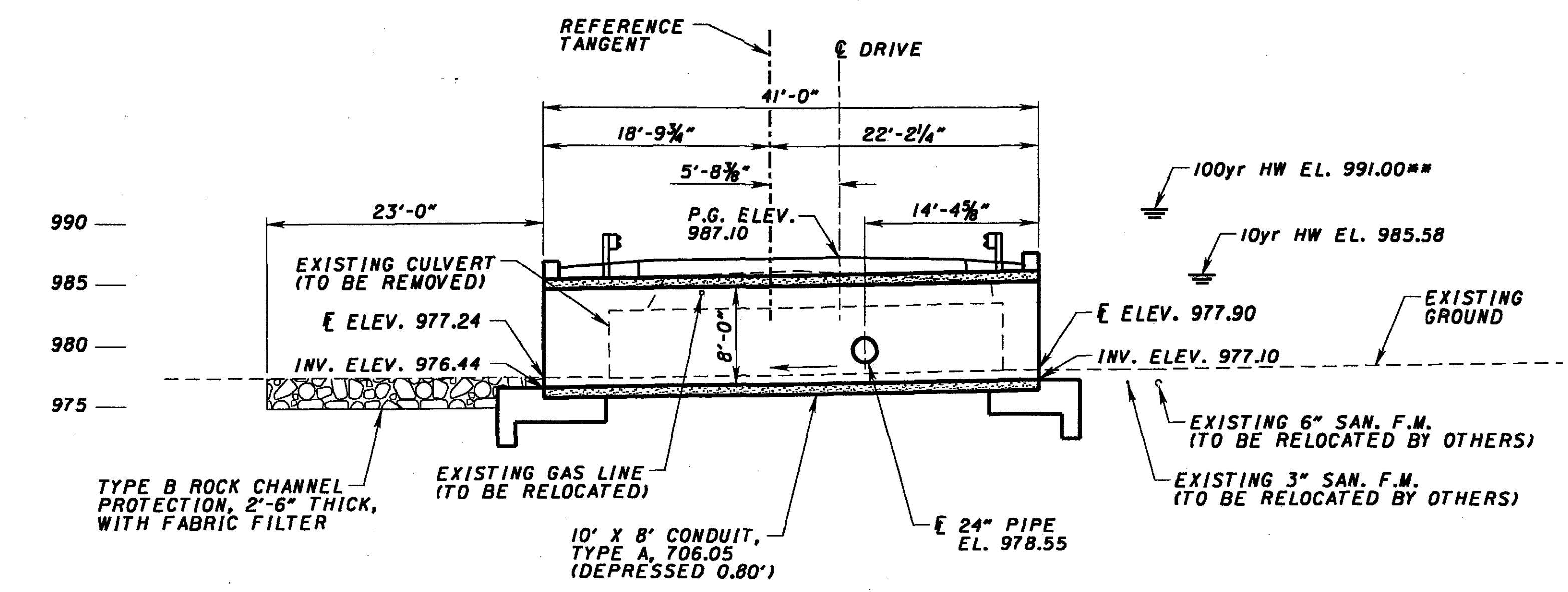
EXISTING STRUCTURE
TYPE: 66" ± DIAMETER CONCRETE PIPE CULVERT
SKEW: 16° ± R.F.
ALIGNMENT: TANGENT

PROPOSED STRUCTURE
TYPE: 10'-0" x 8'-0" CONCRETE BOX CULVERT
SKEW: 16°00'00" R.F.
ALIGNMENT: TANGENT

CURVE DATA
P.I. Sta = 141+32.71
$\Delta = 46^\circ 32' 07"$ (RT)
$D_c = 57^\circ 17' 45"$
$R = 100.00'$
$T = 43.00'$
$L = 81.22'$
$E = 8.85'$



PLAN



CULVERT PROFILE

GENERAL NOTES:

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

ITEM 603, 10' X 8' CONDUIT, TYPE A, 706.05, AS PER PLAN: THE OPENING FOR THE 24" PIPE SHALL BE PREFABRICATED INTO THE BOX CULVERT. THE PIPE SHALL EXTEND 2 INCHES INSIDE THE BOX CULVERT WALL. THE PIPE SHALL BE NO CLOSER THAN 2 FEET TO THE END OF A PRECAST SEGMENT.

PRECAST CONCRETE: AT THE OPTION OF THE CONTRACTOR, PRECAST FOOTINGS AND WINGWALLS MAY BE USED PROVIDED THEY ARE SIZED TO MEET THE SOIL PARAMETERS AND MEET OR EXCEED THE MATERIAL STRENGTHS SPECIFIED HEREIN. THE CONTRACTOR SHALL SUBMIT DESIGNS AND SHOP DRAWINGS TO THE OFFICE OF STRUCTURAL ENGINEERING FOR APPROVAL.

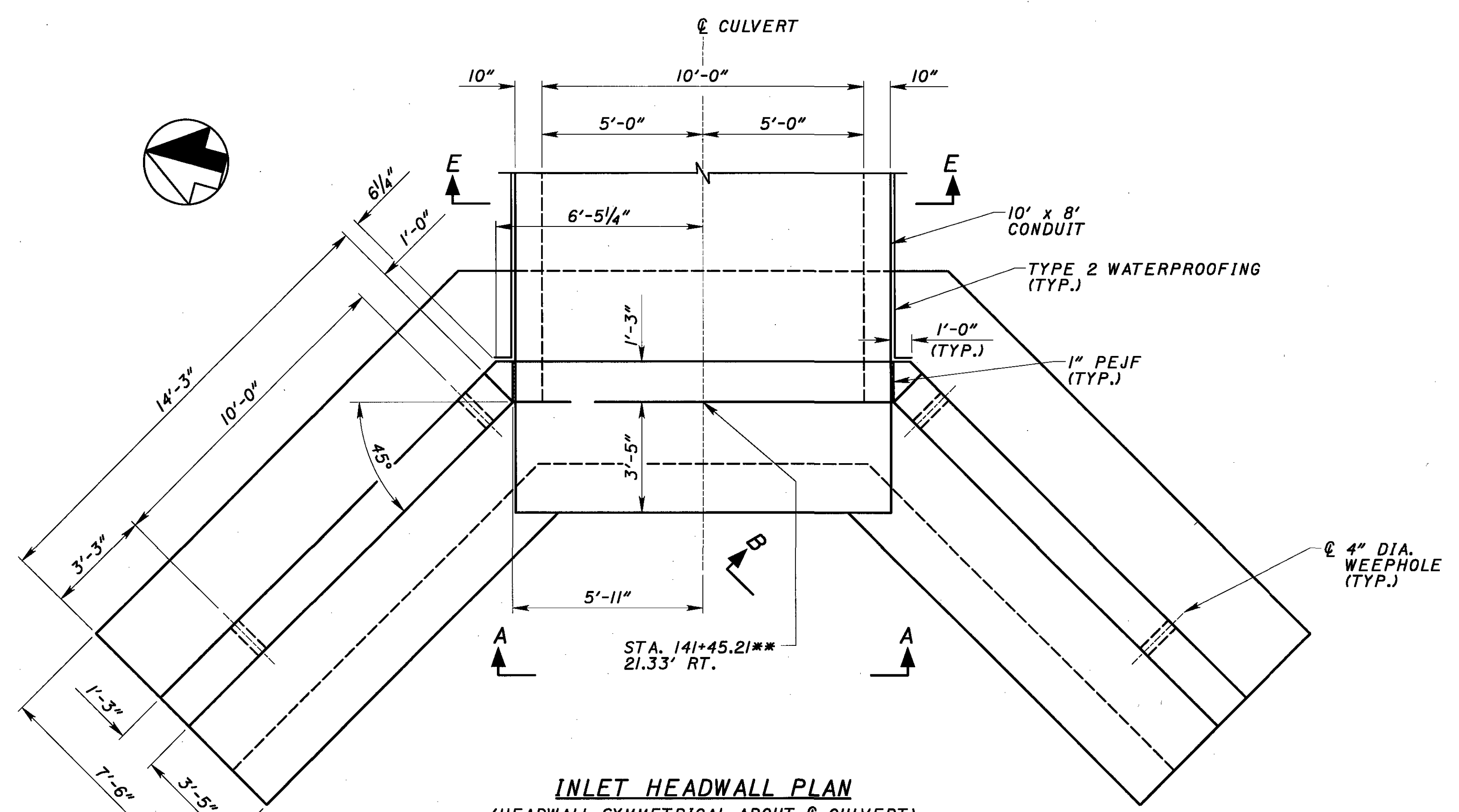
FORESLOPE WALL ANCHOR DOWELS: ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20. PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE, HEADWALLS.

AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER MAY BE USED PROVIDED THEY CAN RESIST AN ULTIMATE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 603.

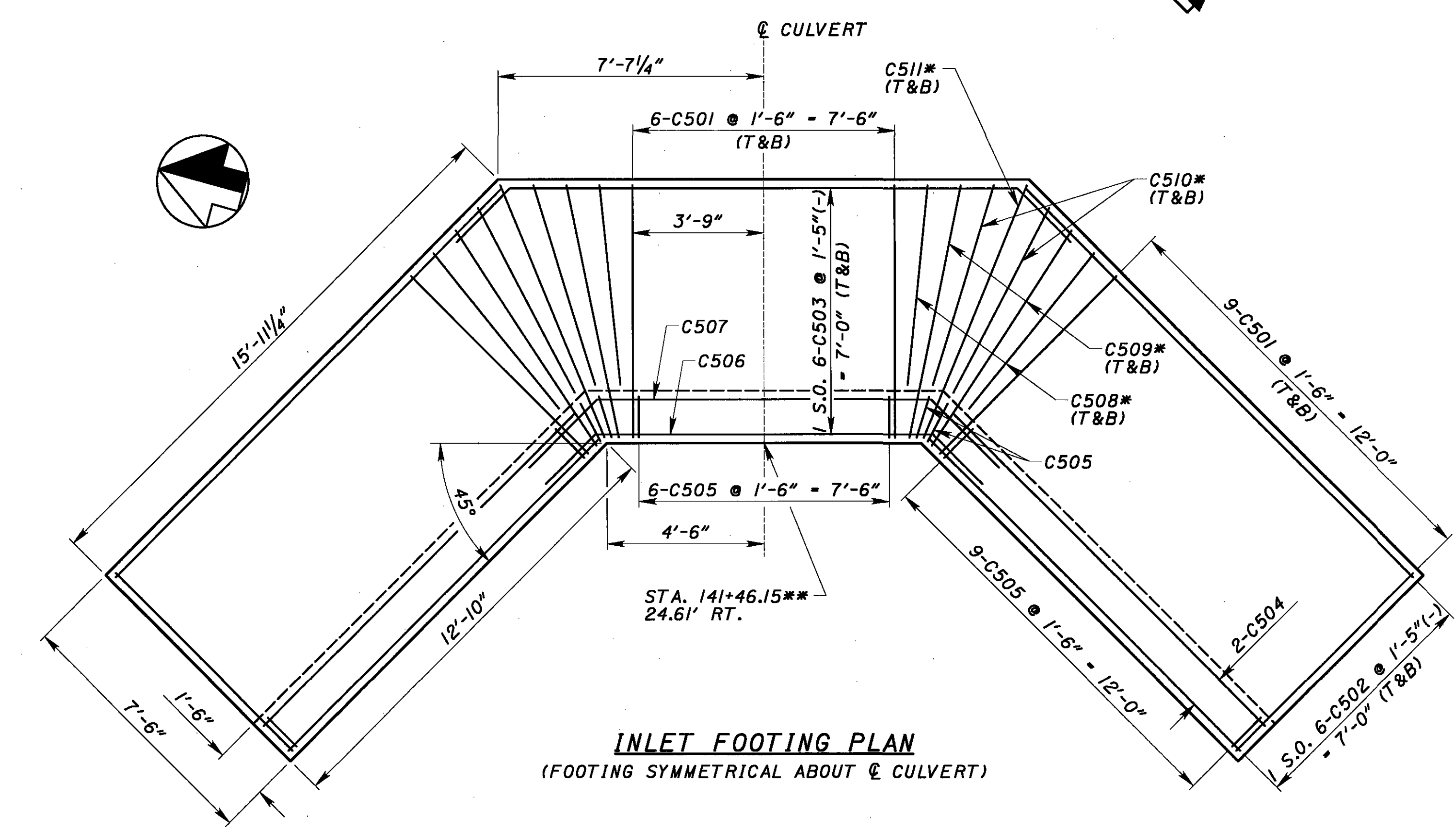
FOUNDATION BEARING PRESSURE: CULVERT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 2000 TONS PER SQUARE FOOT.

BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE. PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

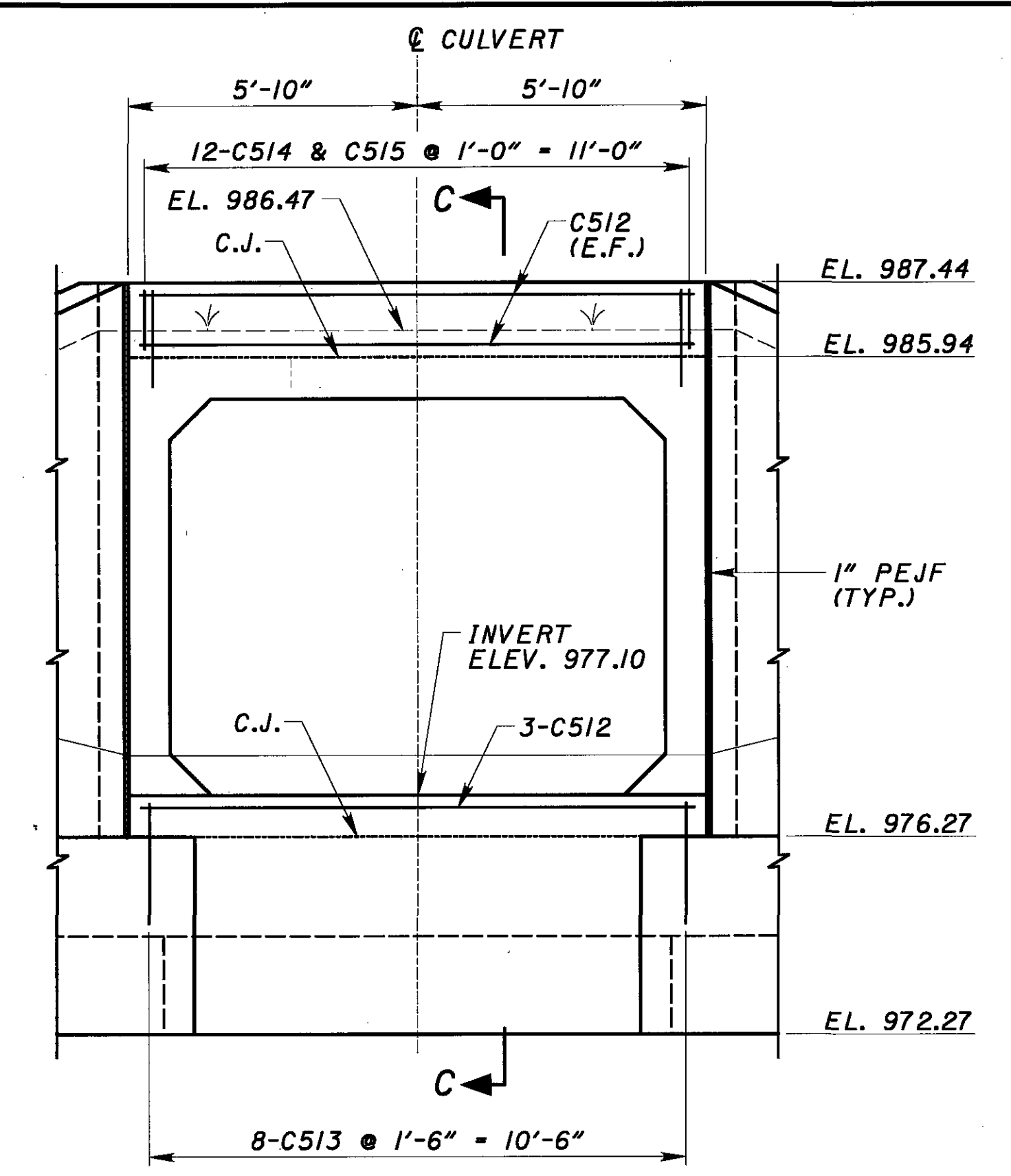
P:\PR3341\CADD\CULVERT SITE PLAN.dgn



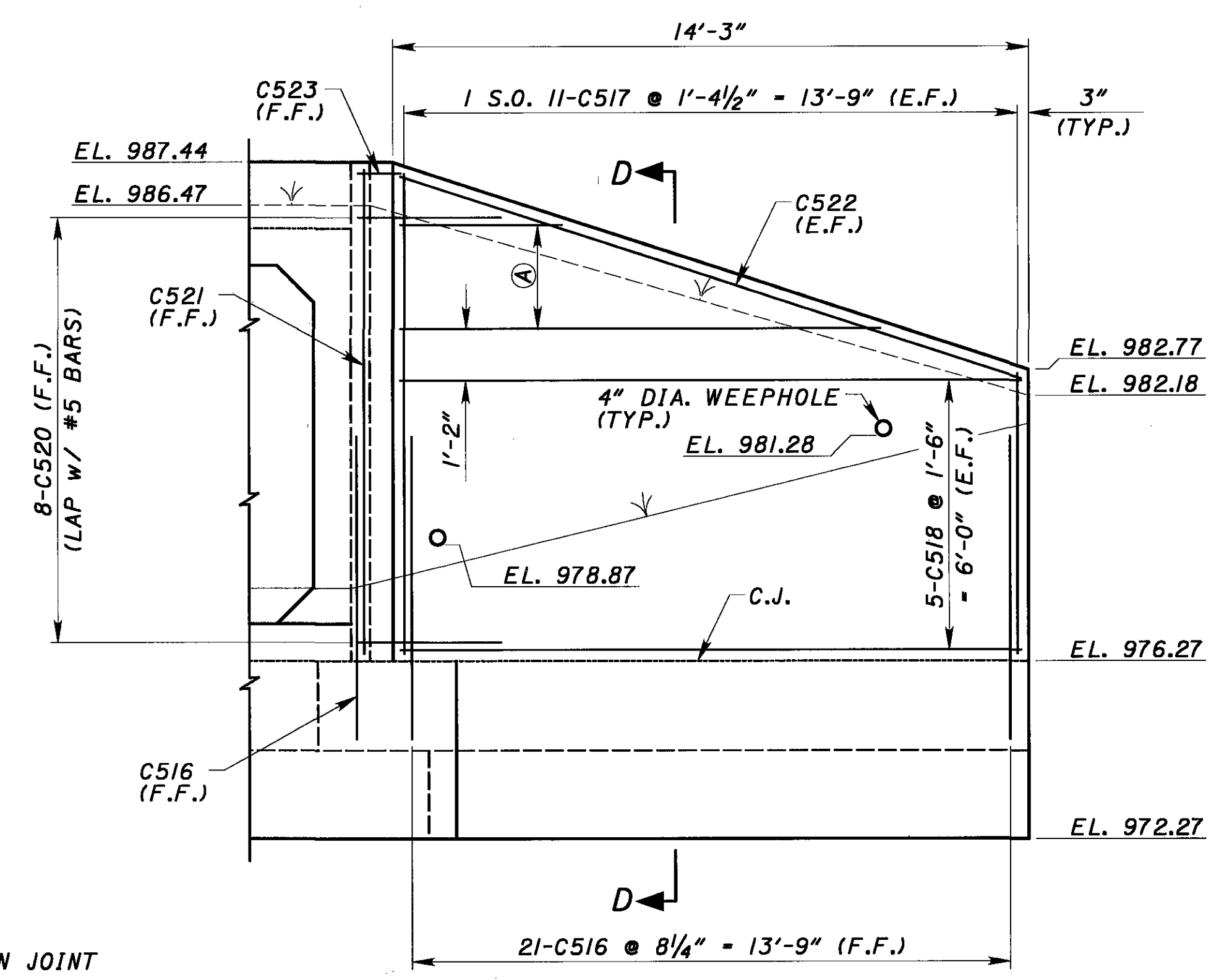
INLET HEADWALL PLAN
(HEADWALL SYMMETRICAL ABOUT Q CULVERT)



INLET FOOTING PLAN
(FOOTING SYMMETRICAL ABOUT Q CULVERT)



VIEW A-A
(FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY)

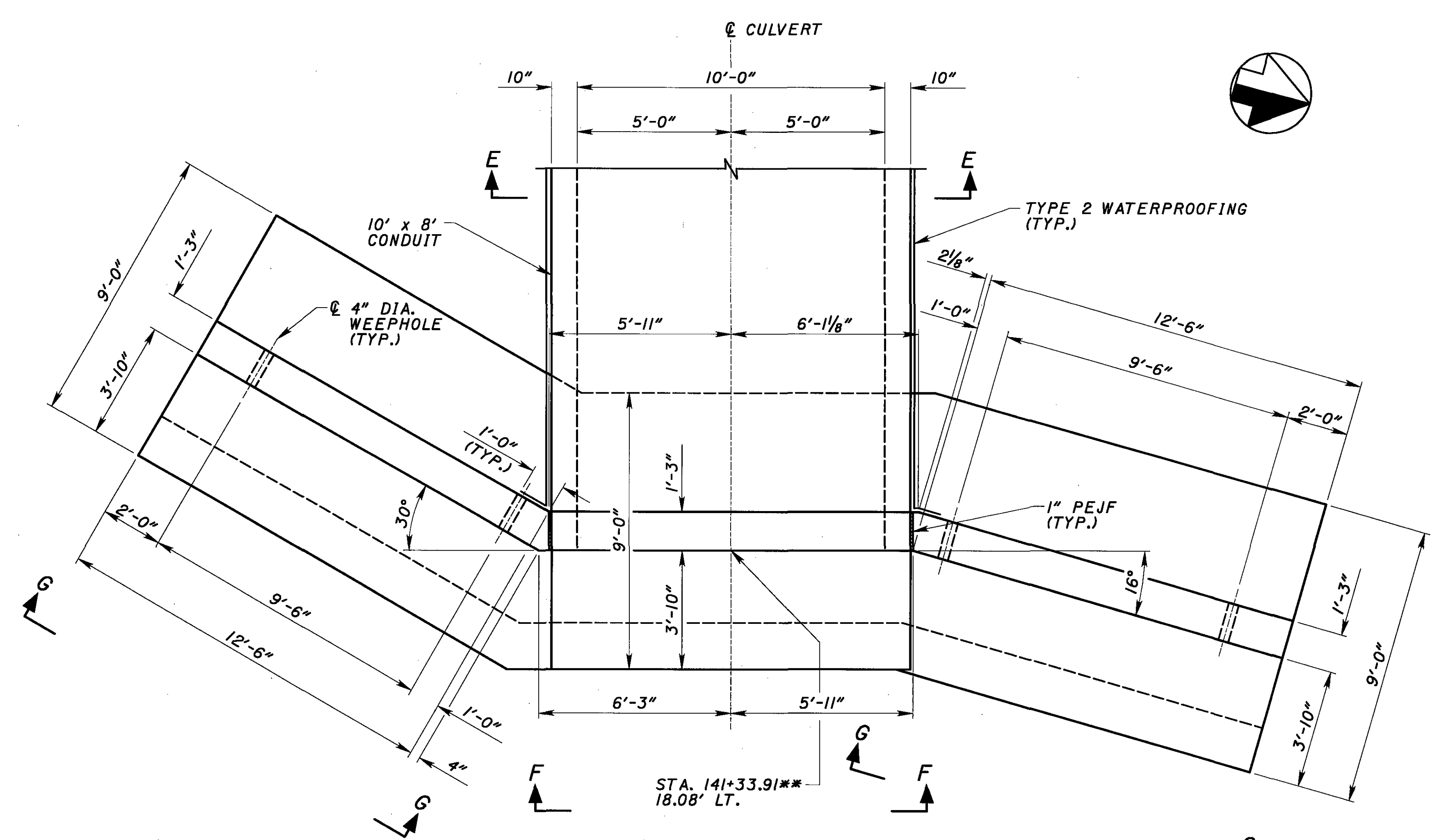


VIEW B-B
(FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY)

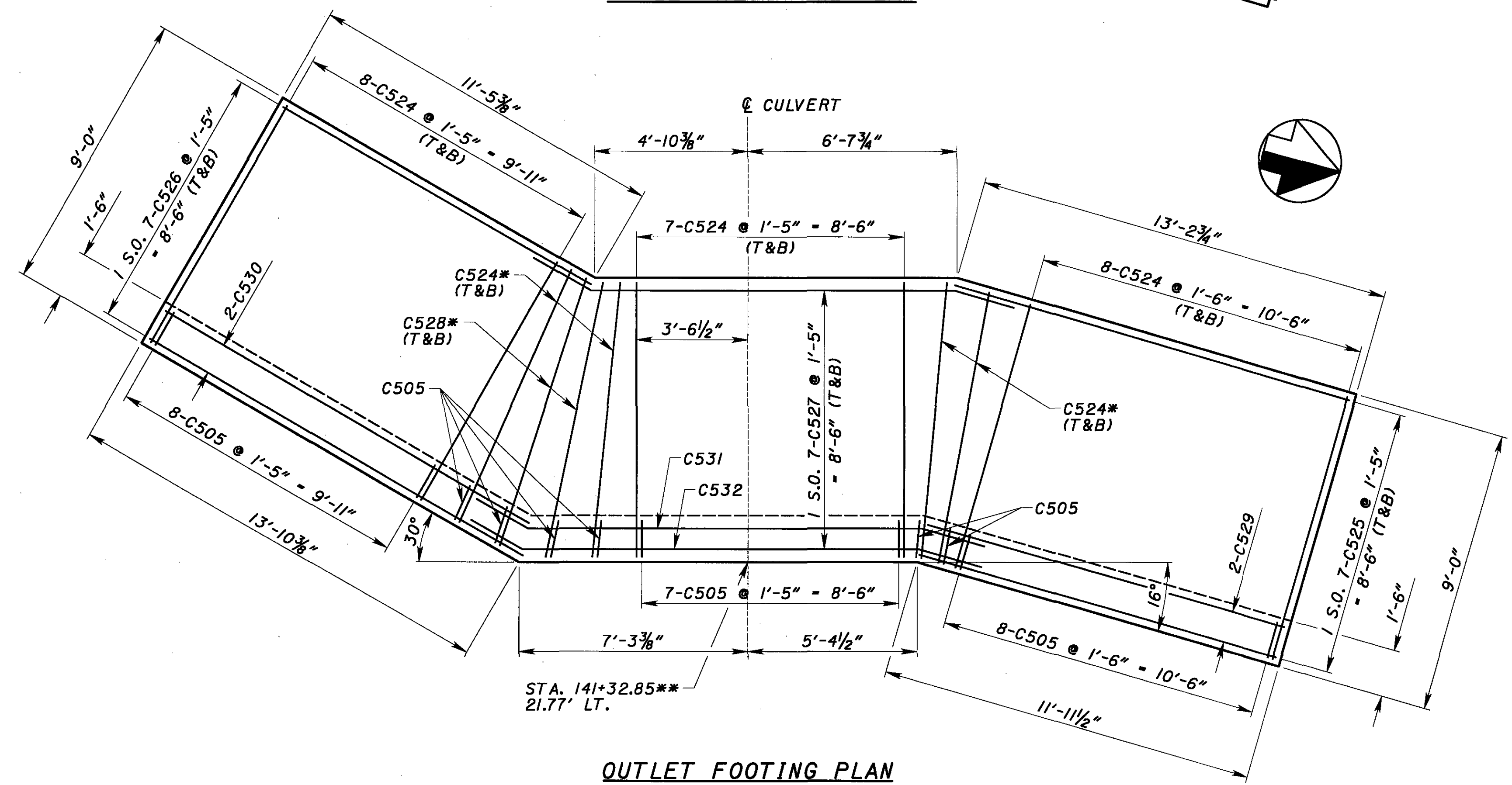
- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - DIA. - DIAMETER
 - E.F. - EACH FACE
 - F.F. - FAR FACE
 - PEJF - PREFORMED EXPANSION JOINT FILLER
 - RT. - RIGHT
 - S.O. - SERIES OF
 - T&B - TOP & BOTTOM
 - * - FAN BARS
 - ** - STATIONING AT INDICATED POINTS IS FROM REFERENCE TANGENT
 - Ⓐ - 1 S.O. 3-C519 @ 1'-2" = 2'-4" (E.F.)

- NOTES:**
1. SEE SHEET 557D FOR SECTIONS C-C, D-D & E-E.

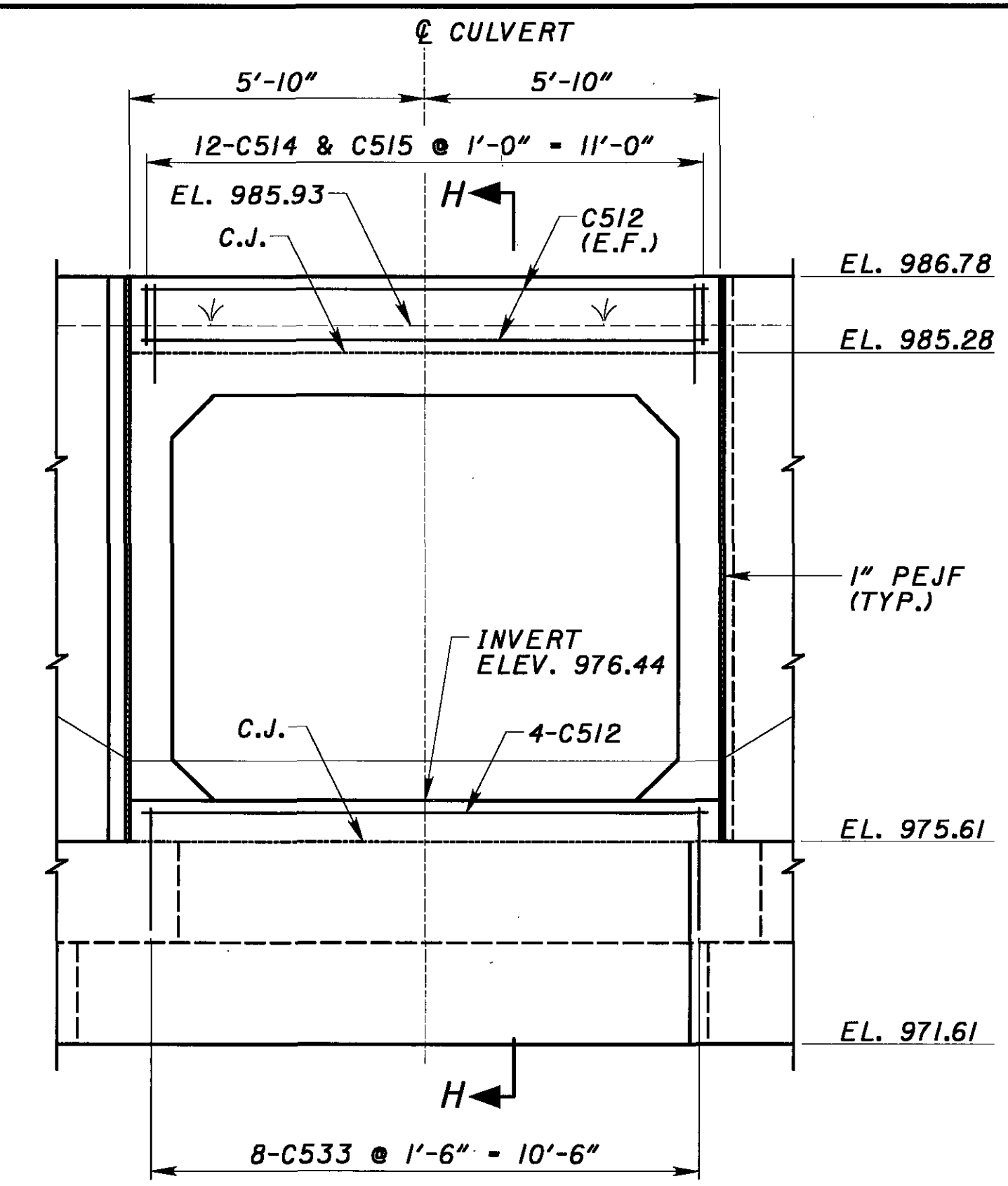
P:\PR3341\cdd\CULVERT_DETAILS_1.dgn



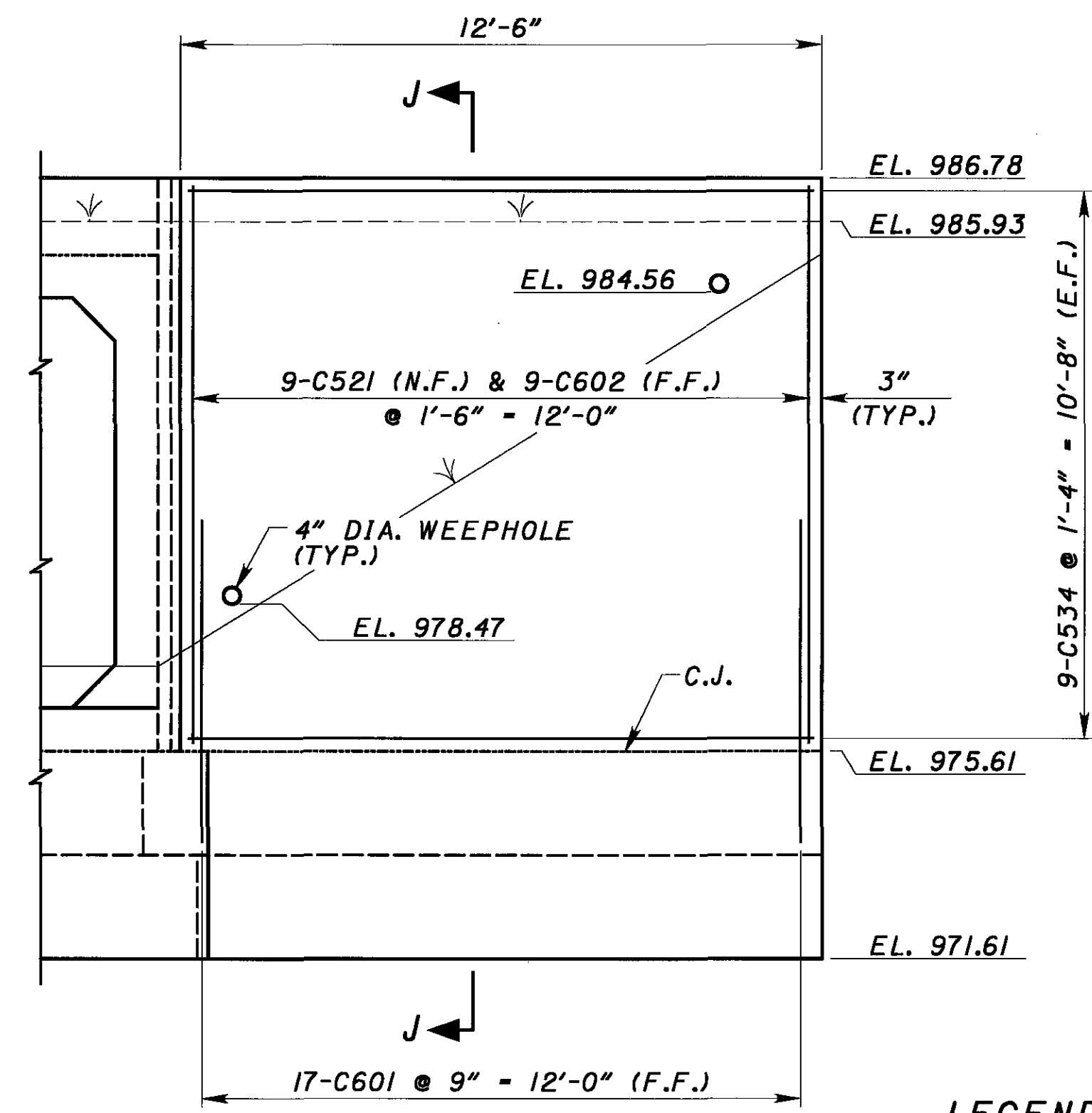
OUTLET HEADWALL PLAN



OUTLET FOOTING PLAN



VIEW F-F
(FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY)

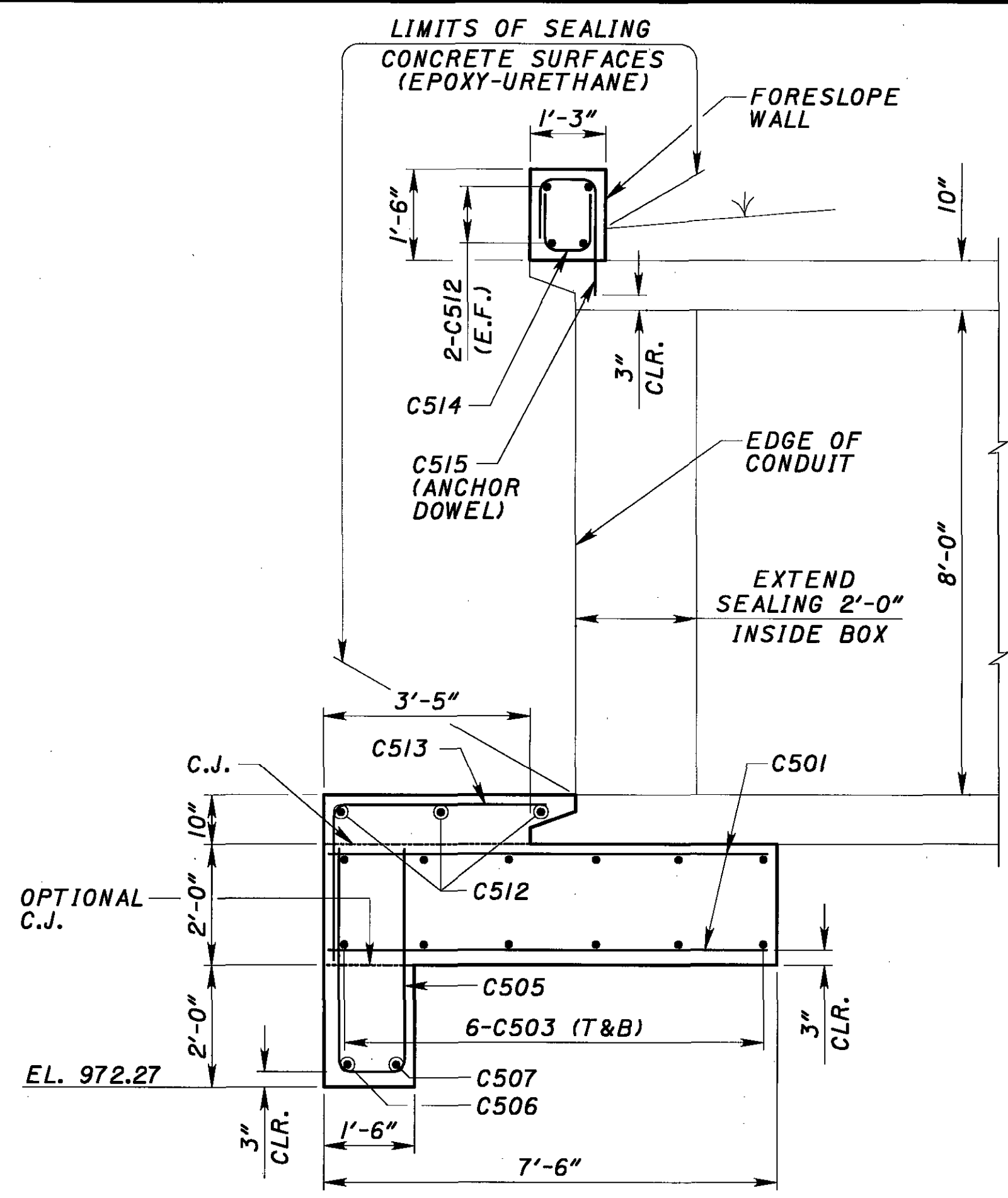


VIEW G-G
(RIGHT WINGWALL SHOWN, LEFT WINGWALL SIMILIAR)
(FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY)

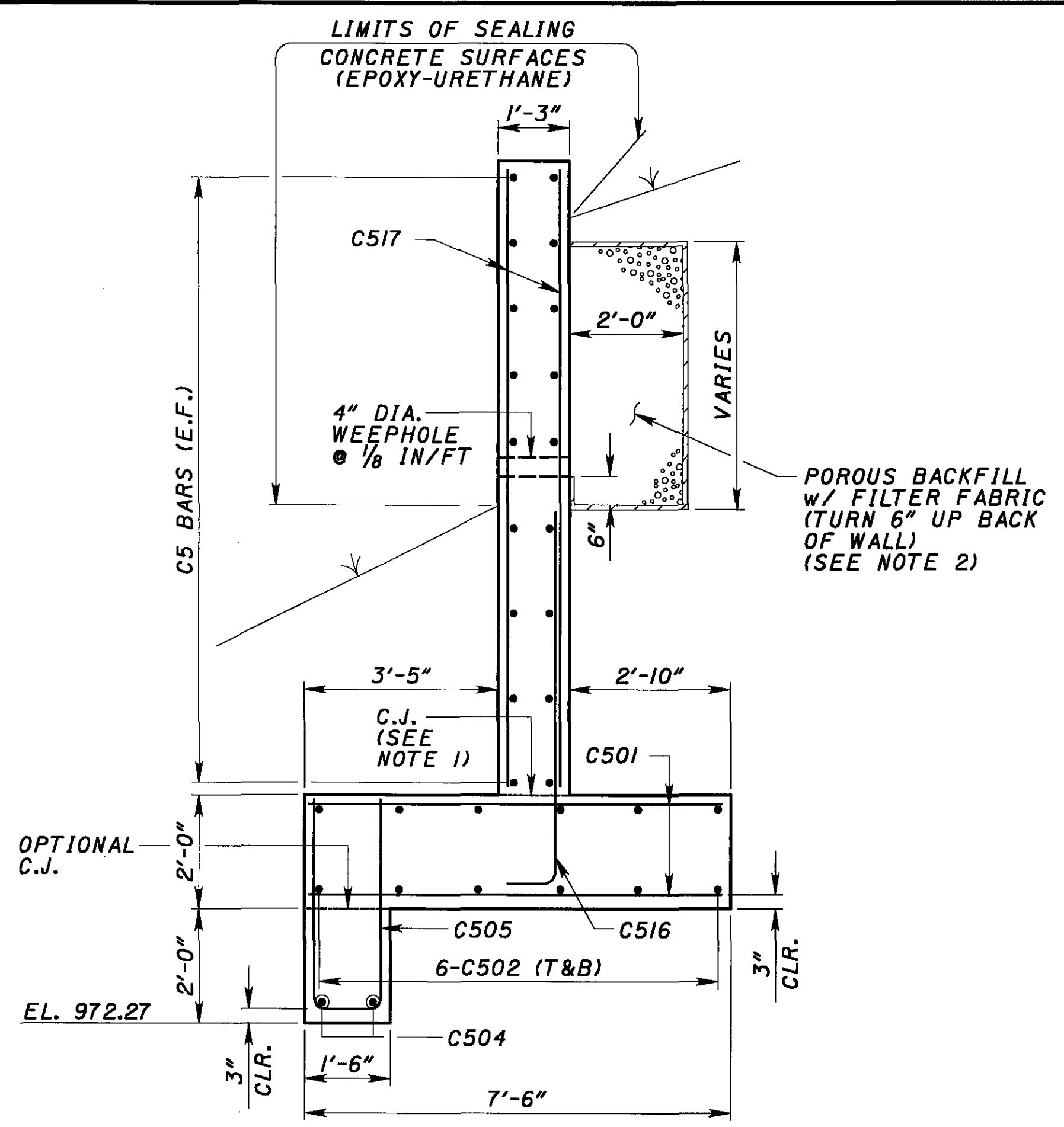
NOTES:
1. SEE SHEET 557D FOR SECTIONS E-E, H-H & J-J.

- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - DIA. - DIAMETER
 - E.F. - EACH FACE
 - F.F. - FAR FACE
 - LT. - LEFT
 - N.F. - NEAR FACE
 - PEJF - PREFORMED EXPANSION JOINT FILLER
 - S.O. - SERIES OF
 - T&B - TOP & BOTTOM
 - * - FAN BARS
 - ** - STATIONING AT INDICATED POINTS IS FROM REFERENCE TANGENT

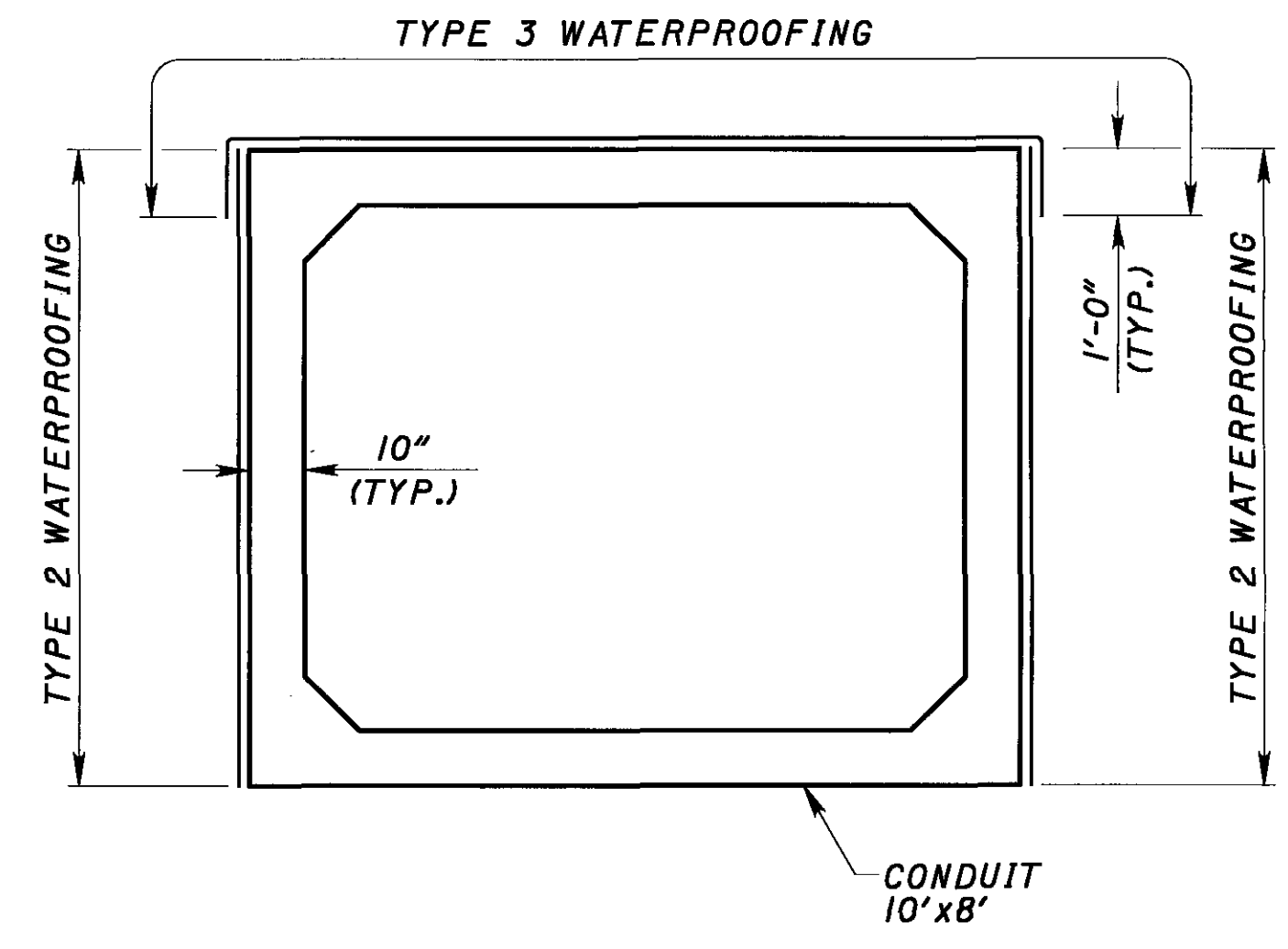
P:\PR3341\cadd\CULVERT DETAILS 2.dgn



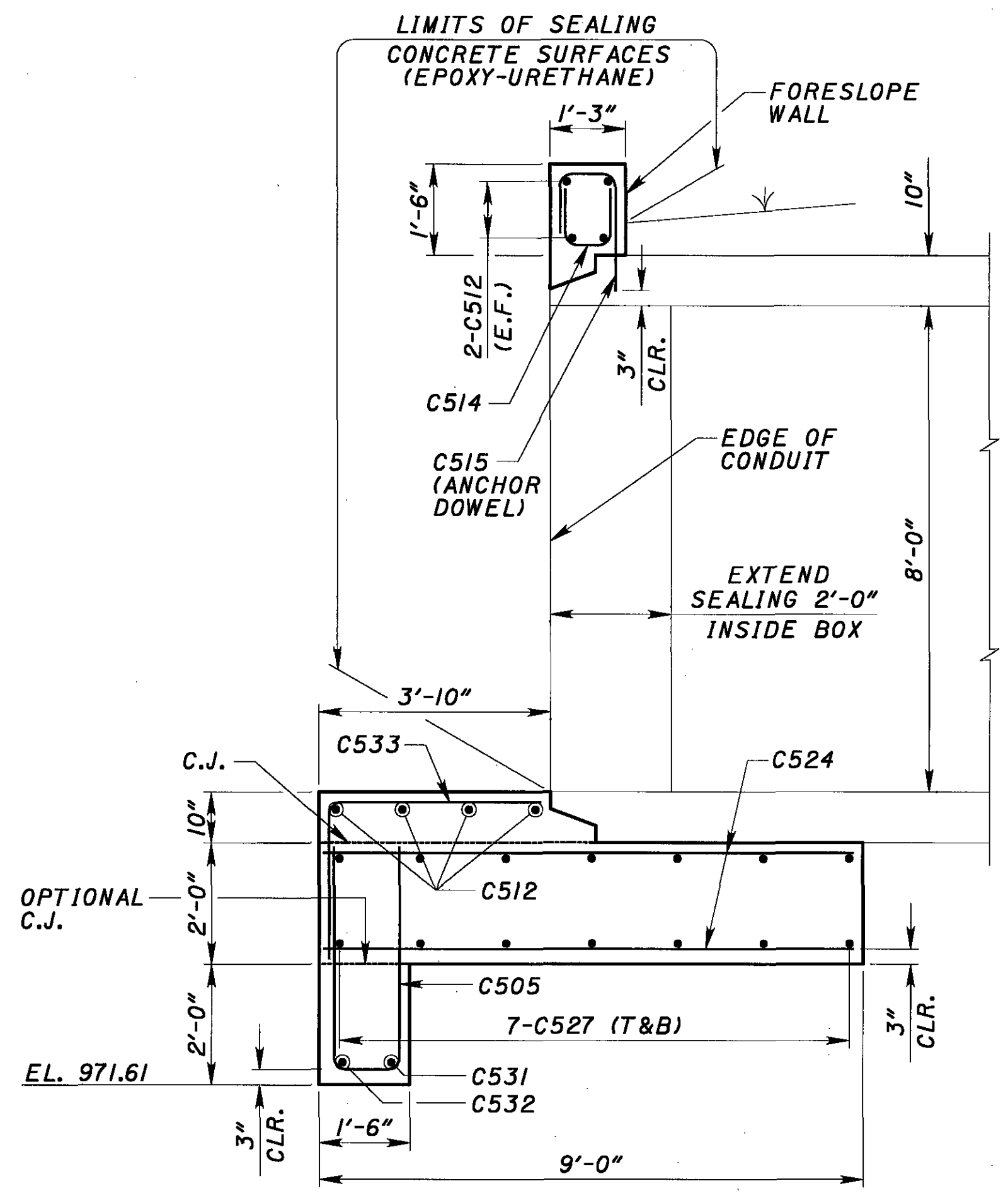
SECTION C-C



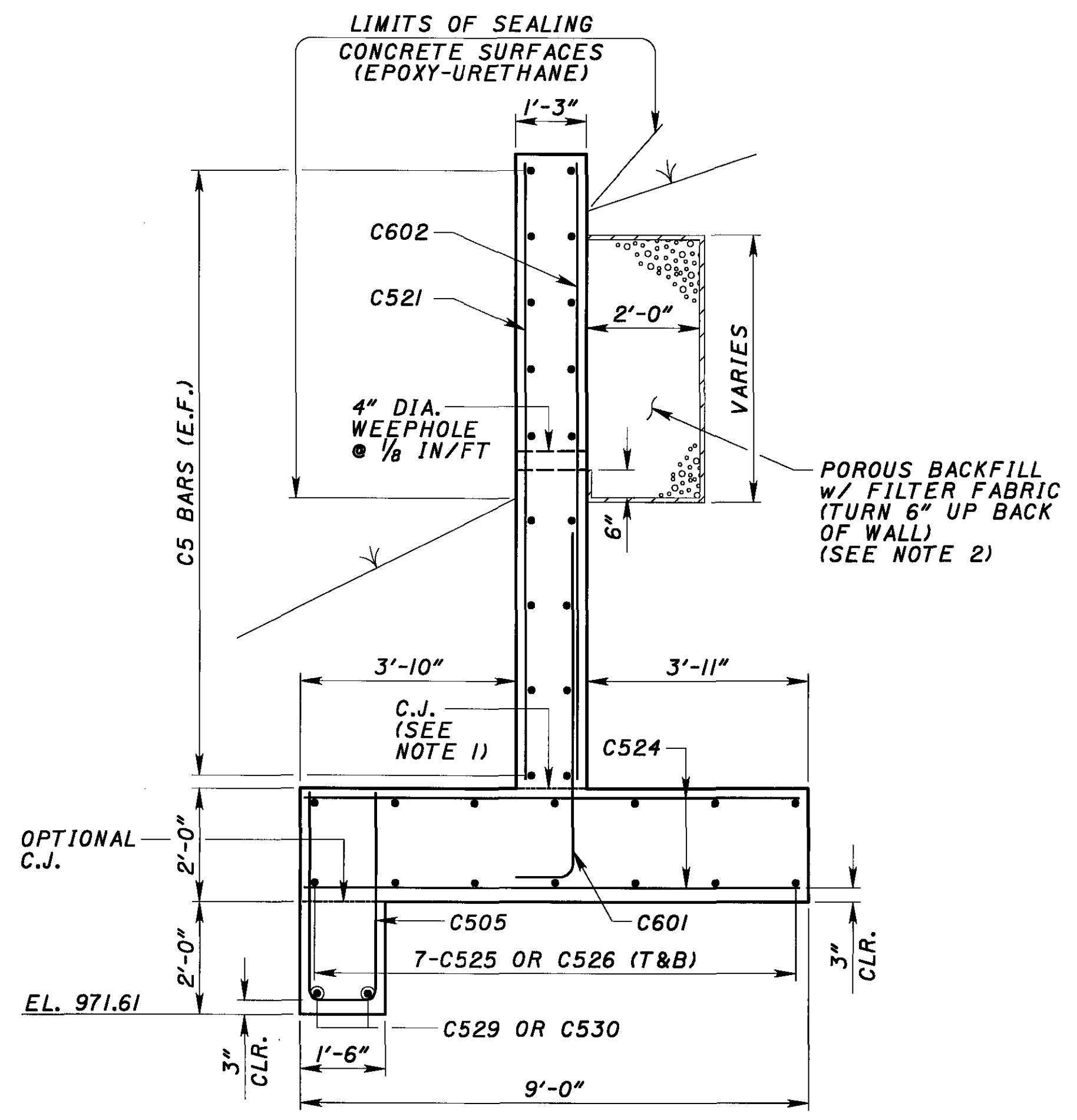
SECTION D-D



SECTION E-E
(SEE NOTE 3)



SECTION H-H



SECTION J-J

LEGEND:

- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- DIA. = DIAMETER
- E.F. = EACH FACE
- T&B = TOP & BOTTOM

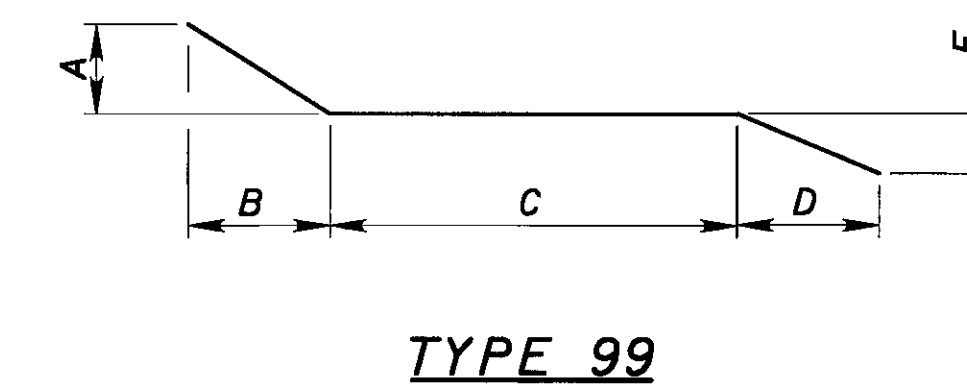
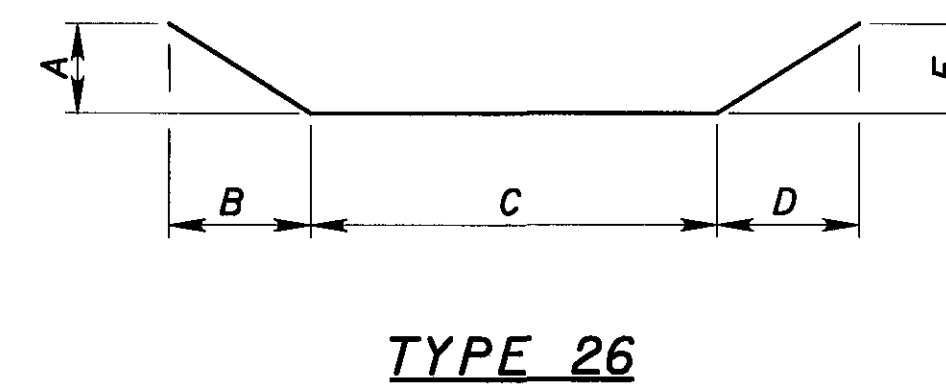
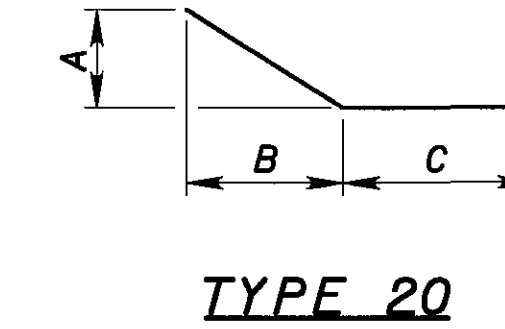
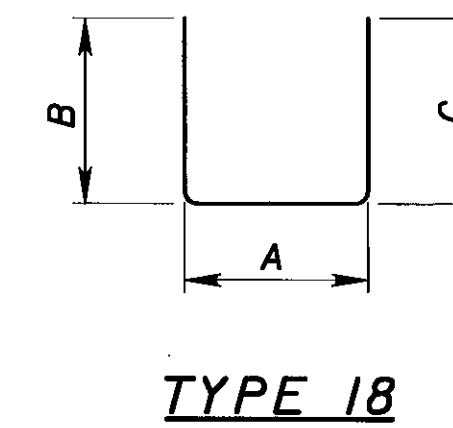
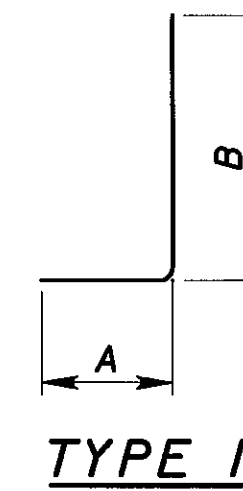
NOTES:

1. THE INTERFACE BETWEEN THE TOP OF THE FOOTING AND BASE OF WINGWALL STEM SHALL BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4" BY MEANS OF A SERRATED TROWEL.
2. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS. PLACE TWO CUBIC FEET OF BAGGED No. 3 AGGREGATE AT EACH WEEPHOLE. THE DEPARTMENT WILL INCLUDE BAGGED AGGREGATE WITH POROUS BACKFILL FOR PAYMENT.
3. EXTEND WATERPROOFING FOR ALL PORTIONS OF CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL.

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CULVERT REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
C501	48	7'-2"	358	STR						
	4	12'-8"								
C502	S.O.	T0	354	STR						0'-7 1/4"
	6	15'-8"								
	2	13'-4"					9'-2"			
C503	S.O.	T0	203	26	1'-6"	1'-6"	T0	1'-6"	1'-6"	1'-2"
	6	19'-2"					15'-0"			
C504	4	12'-8"	52	STR						
C505	57	8'-1"	480	18	1'-2"	3'-7"	3'-7"			
C506	1	13'-4"	13	26	1'-6"	1'-6"	9'-2"	1'-6"	1'-6"	
C507	1	15'-3"	15	26	1'-10"	1'-10"	10'-1"	1'-10"	1'-10"	
C508	8	5'-8"	47	STR						
C509	8	7'-4"	61	STR						
C510	8	5'-11"	49	STR						
C511	4	7'-9"	32	STR						
C512	15	10'-6"	164	STR						
C513	8	5'-9"	47	1	2'-6"	3'-5"				
C514	24	3'-0"	75	18	0'-11"	1'-2"	1'-2"			
C515	24	3'-9"	93	18	0'-11"	1'-2"	1'-11"			
C516	44	7'-5"	340	1	0'-10"	6'-9"				
	4	6'-2"								
C517	S.O.	T0	388	STR						0'-5 1/2"
	11	10'-9"								
C518	20	13'-9"	286	STR						
	4	3'-7"								
C519	S.O.	T0	89	STR						3'-7"
	3	10'-9"								
C520	16	3'-10"	63	20	0'-3 1/2"	1'-11"	1'-11"			
C521	20	10'-10"	225	STR						
C522	4	14'-7"	60	STR						
C523	2	0'-9"	1	20	0'-3 1/2"	0'-4"	0'-4"			
C524	54	8'-8"	488	STR						
	2	11'-9"								
C525	S.O.	T0	180	STR						0'-2 1/2"
	7	13'-0"								
	2	11'-4"								
C526	S.O.	T0	181	STR						0'-4 1/2"
	7	13'-7"								
	2						11'-6"			
C527	S.O.			99	1'-0"	1'-9"	T0	2'-0"	0'-7"	
	7						12'-7"			
C528	4	8'-10"	36	STR						
C529	2	11'-9"	24	STR						
C530	2	11'-4"	23	STR						
C531	1			99	1'-0"	1'-9"	12'-6"	2'-0"	0'-7"	
C532	1			99	1'-0"	1'-9"	12'-7"	2'-0"	0'-7"	
C533	8	5'-10"	48	1	2'-6"	3'-6"				
C534	36	12'-2"	456	STR						
C601	34	7'-1"	361	1	1'-0"	6'-3"				
C602	18	10'-10"	292	STR						
		TOTAL	5584							



ESTIMATED QUANTITIES

ITEM	ITEM EXT.	IM	NHS	TOTAL	UNIT	DESCRIPTION
202	35200	27	7	34	FT	PIPE REMOVED, OVER 24"
509	10000	4467	1117	5584	POUND	EPOXY COATED REINFORCING STEEL
511	46500	45	11	56	CU YD	CLASS C CONCRETE, FOOTING
511	46600	24	6	30	CU YD	CLASS C CONCRETE, HEADWALL
512	10100	65	16	81	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	33000	74	19	93	SQ YD	TYPE 2 WATERPROOFING
512	33010	50	13	63	SQ YD	TYPE 3 WATERPROOFING
516	13600	45	11	56	SQ FT	1" PREFORMED EXPANSION JOINT FILLER
518	21200	14	4	18	CU YD	POROUS BACKFILL WITH FILTER FABRIC
601	32104	40	10	50	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER
603	95501	33	8	41	FT	10' X 8' CONDUIT, TYPE A, 706.05, AS PER PLAN

NOTES:

- ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.
- ALL BARS SHALL BE EPOXY COATED.
- BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

TRAFFIC CONTROL GENERAL NOTES

CALCULATED
EMW
CHECKED
SLT

MILE MARKER LOCATION

THE LOCATION OF MILE MARKERS ON THE PLANS ARE APPROXIMATE AND A MORE PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE ON THE PLANNED DATE OF MARKER INSTALLATION. THE ENGINEER WILL CONTACT THE OFFICE OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF MILE MARKERS BY MEANS OF A PAINT MARK ON THE PAVEMENT EDGE. ALTERNATE MARKS WILL NOT BE PROVIDED ON DIVIDED HIGHWAYS AND THE CONTRACTOR SHALL SET MARKERS FOR THE OPPOSITE ROADWAY ACROSS FROM THE PROVIDED MARK. DELINEATORS WHOSE NORMAL POSITION FALLS WITHIN 50 FEET OF A MILE MARKER SHALL BE OMITTED.

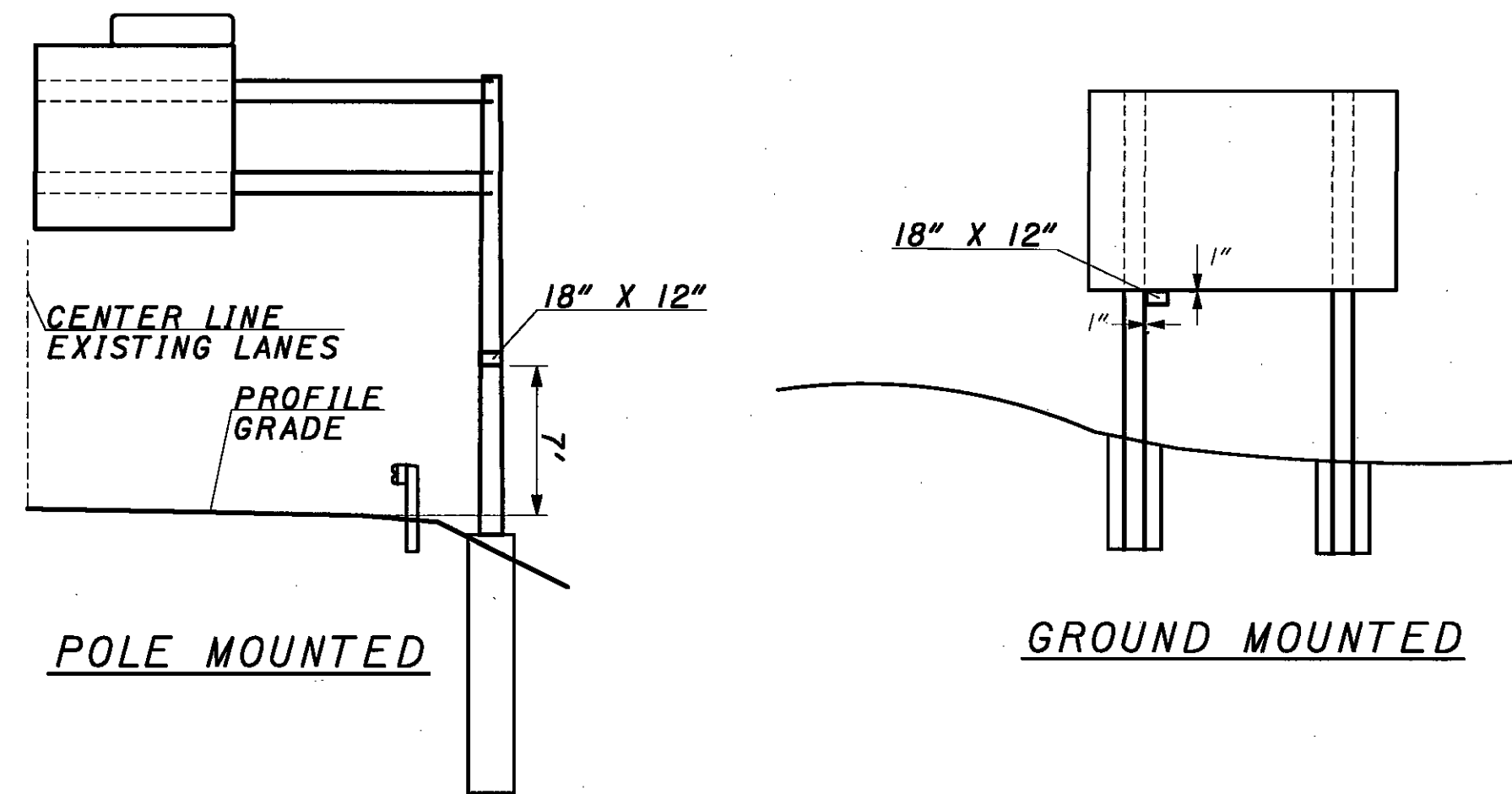
FREEWAY LOCATION IDENTIFICATION SYSTEM SIGNS

THESE SIGNS CONSIST OF A MAINLINE MARKER (N-44B) OR A RAMP MARKER (N-43B), ATTACHED TO GUIDE AND DESTINATION SIGNS.

THE CONTRACTOR SHALL DETERMINE THE CORRECT STRAIGHT LINE MILEAGE, IN HUNDREDTH'S OF A MILE, FOR EACH SIGN BASED ON THE FINAL LOCATION OF THE SIGN. THE CORRECT MILEAGE SHALL BE DETERMINED ONLY AFTER THE MILE MARKERS HAVE BEEN LOCATED BY THE DEPARTMENT. THE PLAN SHOWS THE ROUTE NUMBER, ROUTE DIRECTION AND RAMP CODES (WHERE APPLICABLE). SEE THIS SHEET FOR DETAILS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A RECORD OF THE STRAIGHT LINE MILEAGE FOR EACH FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 630 - SIGN, FLAT SHEET, TYPE G. THE REQUIRED ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED ARE PAID AS INDICATED.

FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN DETAIL



CERTIFIED DRAWINGS

THE CONTRACTOR SHALL CERTIFY THAT ALL TRAFFIC CONTROL ITEMS FURNISHED ON THIS PROJECT SHALL BE IN CONFORMANCE TO THE CONTRACT REQUIREMENTS PER CMS 625.04 AND 630.03. THE CONTRACTOR SHALL SUBMIT EIGHT (8) SETS OF SIGN LEGEND CERTIFIED DRAWINGS AND CATALOG CUTS TO THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3 CONSTRUCTION ENGINEER, 906 NORTH CLARK STREET, ASHLAND OHIO 44805, FOR APPROVAL. CERTIFIED SHOP DRAWINGS AND CATALOG CUTS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION.

IN ADDITION TO THE REQUIREMENTS OF 625.04 AND 630.03, ALL DESIGN QUESTIONS OR COMMENTS ORIGINATING FROM THE CONTRACTOR OR MANUFACTURER REGARDING THE SHOP DRAWINGS AND CATALOG CUTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW PRIOR TO CERTIFICATION BY THE CONTRACTOR. THE ENGINEER RESERVES THE RIGHT TO ACCEPT THE CONTRACTORS' CERTIFIED DRAWINGS OR REQUEST FURTHER REVIEW AND ACCEPTANCE BY THE DISTRICT 3 PRODUCTION DEPARTMENT PRIOR TO INSTALLATION OF THE TRAFFIC CONTROL ITEMS.

SERVICE SIGN

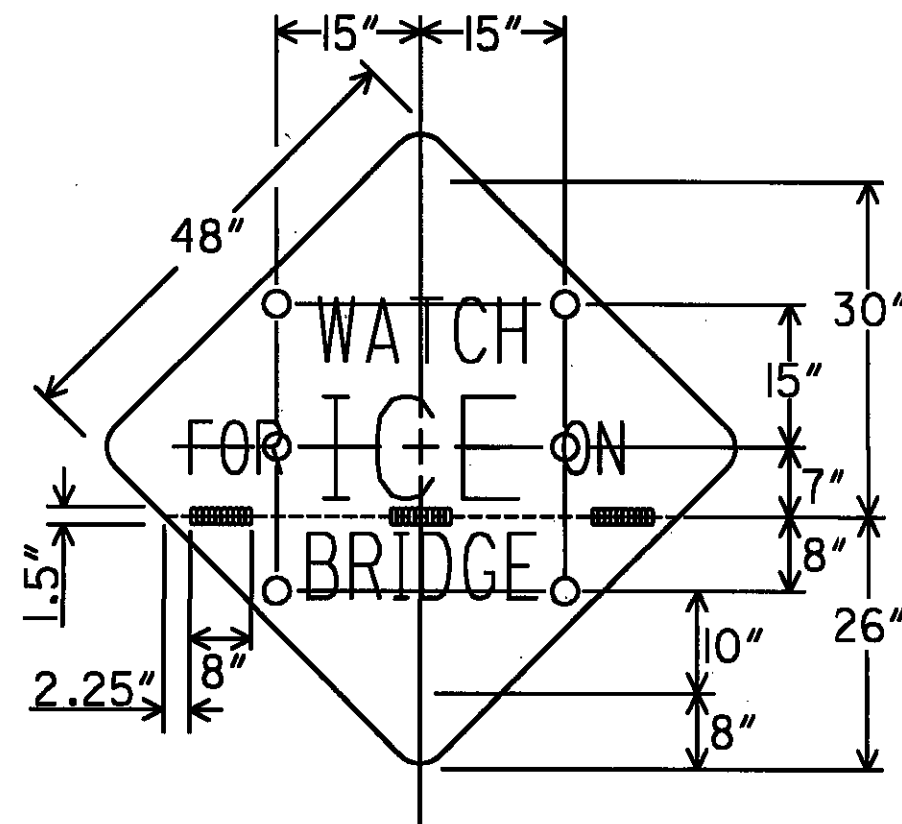
ALL SERVICE TYPE SIGNS, WHICH ARE BLUE SIGNS IDENTIFYING RESTAURANTS, LODGING, AND GAS STATIONS, ARE ADMINISTERED BY "OHIO LOGOS INCORPORATED". THESE SIGNS SHALL REMAIN IN PLACE AND FUNCTIONAL AS LONG AS POSSIBLE. IF THE CONTRACTOR DETERMINES THAT THESE SIGNS WILL BE AFFECTED BY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT OHIO LOGOS, INC. (1-800-860-5646) IN WRITING A MINIMUM OF THIRTY (30) DAYS PRIOR TO THE PROJECT BEGINNING DATE. THIS INFORMATION SHALL BE SENT TO:

OHIO LOGOS, INC.
4384 TULLER RD.
DUBLIN, OH 43017
ATTN: ROGER ROSE, GENERAL MANAGER

OHIO LOGOS, INC. IS RESPONSIBLE FOR REMOVAL AND REERECTION OF THE LOGO SIGNS. THE CONTRACTOR SHALL NOT ALTER, REMOVE, RELOCATE, OR TAKE THESE SIGNS DOWN. THE CONTRACTOR, AT THE COMPLETION OF THIS PROJECT, SHALL NOTIFY OHIO LOGOS, INC. THAT THEY CAN REERECT THE SIGNS THAT HAD BEEN PREVIOUSLY REMOVED. THIS "DOWN TIME" SHALL BE LIMITED TO A MAXIMUM TWO (2) WEEK PERIOD.

ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 630, THIS ITEM SHALL HAVE THE FOLLOWING REQUIREMENTS AND FEATURES:



- HOLES DRILLED AS PER TC-52.10.
- THE SIGN SHALL BE JOINED WITH AN 8" LONG BY 1-1/2" WIDE HINGE WHICH IS RIVETED TO EACH SECTION OF THE SIGN AND THEN COVERED WITH YELLOW REFLECTIVE SHEETING (TYPE F-730.18) TO MATCH THE BACKGROUND OF THE SIGN.
- TO FOLD THE SIGN DOWN, REMOVE THE TOP FOUR BOLTS, FOLD THE UPPER PART OF THE SIGN DOWN AND INSERT A BOLT THROUGH THE LOWEST HOLE IN THE SIGN AND INTO THE POST. FASTEN THE BOLT TO PREVENT THE SIGN FROM FLOPPING IN THE WIND AND SUSTAINING DAMAGE.
- MOUNT ON TWO NO. 3 SIGN SUPPORTS.

PAYMENT FOR THE WORK ABOVE SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN, SQ. FT. AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS ITEM.

ITEM 646 - EPOXY PAVEMENT MARKINGS, (EPOPLEX) (ALT. BID #1)

THE EPOXY PAVEMENT MARKING MATERIAL FURNISHED UNDER THESE ITEMS SHALL BE EPOPLEX LS-60 AS FURNISHED BY EPOPLEX, MAPLE SHADE, NEW JERSEY.

ITEM 646 - EPOXY PAVEMENT MARKINGS, (POLYCARB) (ALT. BID #2)

THE EPOXY PAVEMENT MARKING MATERIAL SHALL BE MARK 55.4 AS FURNISHED BY POLYCARB, CLEVELAND, OHIO.

PAYMENT WILL BE AT THE NORMAL CONTRACT UNIT PRICE AS SPECIFIED IN ITEM 646.

ITEM 630 - SIGN, OVERHEAD EXTRUSHEET, AS PER PLAN

THE BACKGROUNDS OF ALL PERMANENT TRAFFIC CONTROL SIGNS SHALL BE REFLECTORIZED WITH TYPE G REFLECTIVE SHEETING. REFLECTORIZED LEGENDS, SHIELDS AND SYMBOLS (E.G. ROUTE SHIELDS, HAZARDOUS CARGO PLAQUE, AIRPORT SYMBOL, ARROWS, BORDERS) USED ON GROUND MOUNTED PERMANENT TRAFFIC CONTROL SIGNS SHALL BE OF TYPE G REFLECTIVE SHEETING. REFLECTORIZED LEGENDS, SHIELDS AND SYMBOLS USED ON OVERHEAD MOUNTED PERMANENT TRAFFIC CONTROL SIGNS SHALL BE OF TYPE H OR TYPE J REFLECTIVE SHEETING. ALL REFLECTIVE SHEETING MATERIALS SHALL BE CONTAINED ON THE ODOT LIST OF PREQUALIFIED REFLECTIVE SIGN SHEETING MATERIALS.

ITEM 630 - SIGNING, MISC.: SIGN DATA COLLECTION

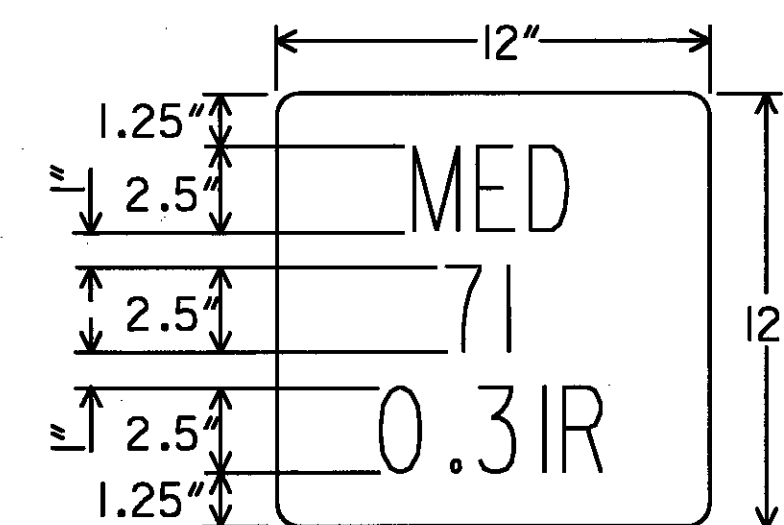
THIS ITEM OF WORK SHALL CONSIST OF COLLECTING AND RECORDING INFORMATION FOR ANY WORK INVOLVING PERMANENT SIGNING INCLUDING REMOVAL, SIGN RELOCATION OR NEW SIGN INSTALLATION ON THIS PROJECT. DISTRICT THREE HAS A SIGN INVENTORY SYSTEM IN OPERATION. WORK PERFORMED ON EXISTING SIGNS AND INSTALLATION OF NEW SIGNS WILL AFFECT THE ACCURACY OF THE INVENTORY. ALL EXISTING SIGNS HAVE A BAR CODE STICKER. THE BAR CODE STICKER NUMBER FOR ANY SIGNS REMOVED ON THE PROJECT SHALL BE RECORDED COMPLETELY AND ACCURATELY SO THEY CAN BE REMOVED FROM THE INVENTORY. THE BAR CODE STICKER NUMBER FOR ANY SIGNS THAT ARE NEW OR RELOCATED SHALL ALSO BE RECORDED COMPLETELY AND ACCURATELY. NEW SIGNS REQUIRE NEW BAR CODE STICKERS WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. ANY STICKERS NOT USED ARE TO BE RETURNED TO ODOT D03 TRAFFIC DEPARTMENT.

THE INFORMATION SHALL BE COLLECTED FROM ALL SIGNS REMOVED, RELOCATED OR INSTALLED ON THE PROJECT AND RECORDED COMPLETELY AND ACCURATELY BY A PERSON FAMILIAR WITH SIGNING TERMINOLOGY. THE INFORMATION REQUIRED APPEARS ON A FORM WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. ALL SECTIONS OF THE FORM SHALL BE COMPLETED FROM THE INFORMATION COLLECTED FOR EACH SIGN. NOTE THAT THE STRAIGHT LINE MILEAGE LOG POINT OF THE SIGN REMOVAL, RELOCATION OR INSTALLATION IS TO BE PROVIDED. PROJECT STATIONING IS NOT ACCEPTABLE. AFTER THE FORM IS COMPLETED, IT SHALL BE RETURNED TO ODOT DISTRICT 03 TRAFFIC DEPARTMENT. A COPY OF THIS FORM IS AVAILABLE UPON REQUEST FOR THE CONTRACTOR TO REVIEW FOR BIDDING PURPOSES. FOR A COPY OF THIS FORM PLEASE CALL 1-800-276-4188, EXTENSION 227 - ROADWAY SERVICES MANAGER. ALL COMPLETED FORMS FOR THE PROJECT ARE TO BE PROVIDED TO THE ENGINEER NOT LATER THAN 30 CALENDAR DAYS AFTER COMPLETION OF SIGNING WORK ITEMS.

PAYMENT FOR THE LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK WHICH INCLUDES COLLECTION OF INFORMATION, COMPLETION OF THE FORMS SUPPLIED TO THE CONTRACTOR, INSTALLATION OF BAR CODE STICKERS, MEASURING OF THE SIGNS AND ANY OTHER WORK IN ORDER TO COMPLETE THE FORM SHALL BE INCLUDED IN THE COST OF ITEM 630 - SIGNING, MISC.: SIGN DATA COLLECTION PER EACH. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY: 247 EACH

ITEM SPECIAL - BRIDGE LOCATION MARKER

A BRIDGE LOCATION MARKER SHALL BE LOCATED AT EACH BRIDGE ON THIS PROJECT AND CONSIST OF THE COUNTY ABBREVIATION, ROUTE, AND STRAIGHT LINE MILEAGE WITH OFFSET SIDE ON A SIGN WITH THE DIMENSIONS BELOW.



TRAFFIC CONTROL GENERAL NOTES

MED-71-6.06

558
1120

Projectwise:PR33412/cadd/75657TNI.dgn

SHEET NUMBER										FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
64	67	134	135	136	160A	558	560	575	576	100% STATE	IM	NHS						
TRAFFIC CONTROL																		
							130				104	26	620	10300	130	EACH	DELINEATOR, TYPE C, POST MOUNTED	
							62				50	12	620	15300	62	EACH	DELINEATOR, TYPE D, POST MOUNTED	
								12			10	2	620	40300	12	EACH	REFLECTOR, TYPE D	
					130		942				858	214	621	00100	1072	EACH	RPM	
								21			17	4	625	32000	21	EACH	GROUND ROD	
								323	36		287	72	630	02100	359	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
								376			301	75	630	03100	376	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								702			562	140	630	04100	702	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
								276			221	55	630	06400	276	FT	GROUND MOUNTED SUPPORT, S4X7.7 BEAM	
								489			391	98	630	07600	489	FT	GROUND MOUNTED SUPPORT, WIOX12 BEAM	
								31			25	6	630	09000	31	EACH	BREAKAWAY BEAM CONNECTION	
								8			6	2	630	21000	8	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	
								8			7	1	630	66500	8	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.115	
								4			3	1	630	77000	4	EACH	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.24	
								16			13	3	630	79500	16	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
								961	16		782	195	630	80100	977	SQ FT	SIGN, FLAT SHEET	
								80			64	16	630	80101	80	SQ FT	SIGN, FLAT SHEET, AS PER PLAN	558
								777			622	155	630	80200	777	SQ FT	SIGN, GROUND MOUNTED EXTRUSHEET	
								4049			3239	810	630	80225	4049	SQ FT	SIGN, OVERHEAD EXTRUSHEET, AS PER PLAN	558
		6	30	6					30		58	14	630	80300	72	SQ FT	SIGN, TEMPORARY OVERLAY	
								15			12	3	630	84500	15	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
								21			17	4	630	84510	21	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
								3			2	1	630	84511	3	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN	612
								136			109	27	630	84900	136	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								24			19	5	630	85400	24	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
								4			3	1	630	85600	4	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
									113		90	23	630	86002	113	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								61			49	12	630	86102	61	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL	
								14			11	3	630	87400	14	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
								3			2	1	630	89706	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
								2			2	1	630	89804	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	
		3	2	1							5	1	630	89894	6	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	
							247			247	630		97700	247	EACH	SIGNING, MISC.: SIGN DATA COLLECTION	558	
29.76	4.10										27.09	6.77	642	00100	33.86	MILE	EDGE LINE, TYPE I	
23.02											18.42	4.60	642	00200	23.02	MILE	LANE LINE, TYPE I	
					5.45		25.03				24.38	6.10	644	00100	30.48	MILE	EDGE LINE	
					2.91		15.77				14.94	3.74	644	00200	18.68	MILE	LANE LINE	
							0.55				0.44	0.11	644	00300	0.55	MILE	CENTER LINE	
							3906				3125	781	644	00400	3906	FT	CHANNELIZING LINE	
							35				28	7	644	00500	35	FT	STOP LINE	
							2474				1979	495	644	00700	2474	FT	TRANSVERSE / DIAGONAL LINE	
TRAFFIC CONTROL (ALTERNATE BID ITEMS)																		
ALTERNATE BID #1 (EPOPLEX)																		
							1.48				1.18	0.3	646	10001	1.48	MILE	EDGE LINE, AS PER PLAN (EPOPLEX) (ALTERNATE 1)	558
							0.88				0.70	0.18	646	10101	0.88	MILE	LANE LINE, AS PER PLAN (EPOPLEX) (ALTERNATE 1)	558
							197				158	39	646	10301	197	FT	CHANNELIZING LINE, AS PER PLAN (EPOPLEX) (ALTERNATE 1)	558
ALTERNATE BID #2 (POLYCARB)																		
							1.48				1.18	0.3	646	10001	1.48	MILE	EDGE LINE, AS PER PLAN (POLYCARB) (ALTERNATE 2)	558
							0.88				0.70	0.18	646	10101	0.88	MILE	LANE LINE, AS PER PLAN (POLYCARB) (ALTERNATE 2)	558
							197				158	39	646	10301	197	FT	CHANNELEZING LINE, AS PER PLAN (POLYCARB) (ALTERNATE 2)	558

TRAFFIC CONTROL GENERAL SUMMARY

MED-71-6.06

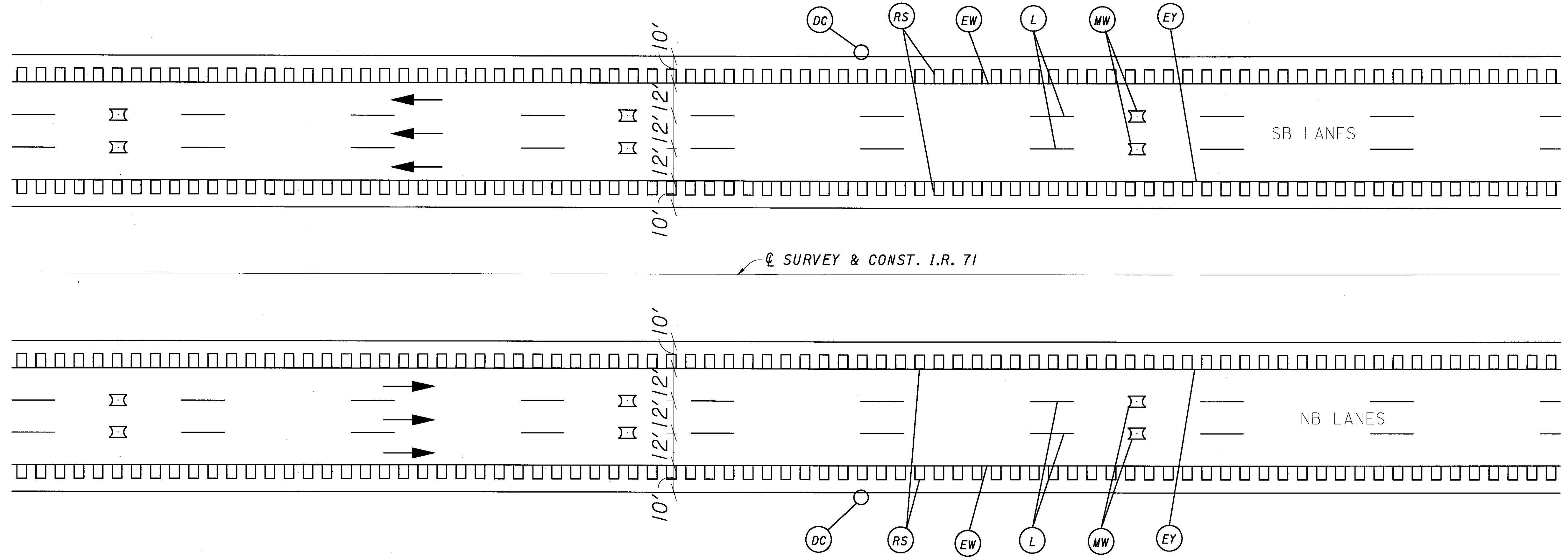
559
1120

Projectwise:PR33412/cadd/75657101.dgn

SHEET NO.	STATION TO STATION	LOCATION	618		620		621			644					646					
			RUMBLE STRIPS, (ASPHALT CONCRETE)		DELINEATOR, TYPE C, POST MOUNTED (WHITE)	DELINEATOR, TYPE D, POST MOUNTED (YELLOW)	RAISED PAVEMENT MARKER, HIGH PROFILE, WHITE	RAISED PAVEMENT MARKER, HIGH PROFILE, WHITE-RED	RAISED PAVEMENT MARKER, HIGH PROFILE, YELLOW-RED	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINE	CENTER LINE (DOUBLE YELLOW)	CHANNELIZING LINE (WHITE)	STOP LINE	TRANSVERSE / DIAGONAL LINE (WHITE)	EDGE LINE, AS PER PLAN (WHITE)	EDGE LINE, AS PER PLAN (YELLOW)	LANE LINE, AS PER PLAN	CHANNELIZING LINE, AS PER PLAN (WHITE)
			MEDIAN	SHOULDER																
579	301+00 TO 314+00	LT./RT.	1125	1125	3		16			1125	1125	2250								
580	314+00 TO 327+00	LT./RT.	2600	2600	7		44			2600	2600	5200								
580	327+00 TO 340+00	LT./RT.	2600	2600	6		44			2600	2600	5200								
581	340+00 TO 353+00	LT./RT.	2600	2600	7		44			2600	2600	5200								
581	353+00 TO 366+00	LT./RT.	2600	2600	6		44			2600	2600	5200								
582	366+00 TO 379+00	LT./RT.	2600	2600	7	1	49	32	3	3637	2837	5879	798	250						
583	379+00 TO 392+00	LT./RT.	2600	2600	7	9	40	23	18	4973	4653	4808	361	877	913	722	842	197		
584	392+00 TO 404+00	LT./RT.	2400	2400	23	9	40	8	76	8620	8547	4800	153	634	620	620				
585	404+00 TO 417+00	LT./RT.	2600	2600	6	9	49	30	31	5903	5096	5883	725	557						
586	417+00 TO 430+00	LT./RT.	2600	2600	9	3	45	5	7	2239	1937	2680	189		1260	1260	2628			
587	430+00 TO 441+00	LT./RT.	2200	2200	6		37			2200	2200	4400								
587	441+00 TO 453+00	LT./RT.	2400	2400	7	2	40	8	4	3047	2740	4800	327							
588	453+00 TO 465+00	LT./RT.	2400	2400	5		33			1800	1800	3600			600	600	1200			
588	465+00 TO 477+00	LT./RT.	2400	2400						2400	2400	4800								
589	477+00 TO 489+00	LT./RT.	2400	2400						2400	2400	4800								
589	489+00 TO 500+00	LT./RT.	2200	2200						2200	2200	4400								
590	500+00 TO 513+00	LT./RT.	2600	2600						2600	2600	5200								
590	513+00 TO 520+00	LT.	1438	1438						1438	1438	2876								
591	RAMPS	LT./RT.			5	15		16	32	4336	3762	410	513							
592	RAMPS	LT./RT.			9	10		5	44	3140	3151				534	534				
593	WB I.R. 76 RAMP TO SB I.R. 71	LT./RT.			1	4			12	1000	1000									
593	WB I.R. 76 RAMP TO NB I.R. 71	LT./RT.				5			11	900	900									
594	WB I.R. 76 RAMP TO SB I.R. 71	LT./RT.			3	1			9	700	700									
594	853+00 TO 867+00	LT./RT.			9	2		18	4	2208	295	499	560	78						
595	877+00 TO 890+00	RT.			3		2			977		226			139					
595	890+00 TO 903+00	LT.			1	2	1	14	4	704	341	170	280	78						
596	903+00 TO 985+00	LT.								63										
597	10+15 TO 34+00	LT./RT.								4770			2378	35						
598	34+00 TO 39+26	LT./RT.								1052			526							
SUBTOTAL			42363	42363	130	62	528	159	255	72232	59922	83281	2904	3906	35	2474	4066	3736	4670	197
TOTAL			84726		130	62	942			132154		83281	2904	3906	35	2474	7802		4670	197
TOTAL CARRIED TO ROADWAY GENERAL SUMMARY			16.05 MI.																	
TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					130	62	942			25.03 MI.	15.77 MI.	0.55 MI.	3906	35	2474	1.48 MI.	0.88 MI.	197		

CALCULATED BY: EMW
 CHECKED BY: SLT
PAVEMENT MARKING SUB-SUMMARY
MED-71-6.06
 560
 1120

..\75657TSL.dgn

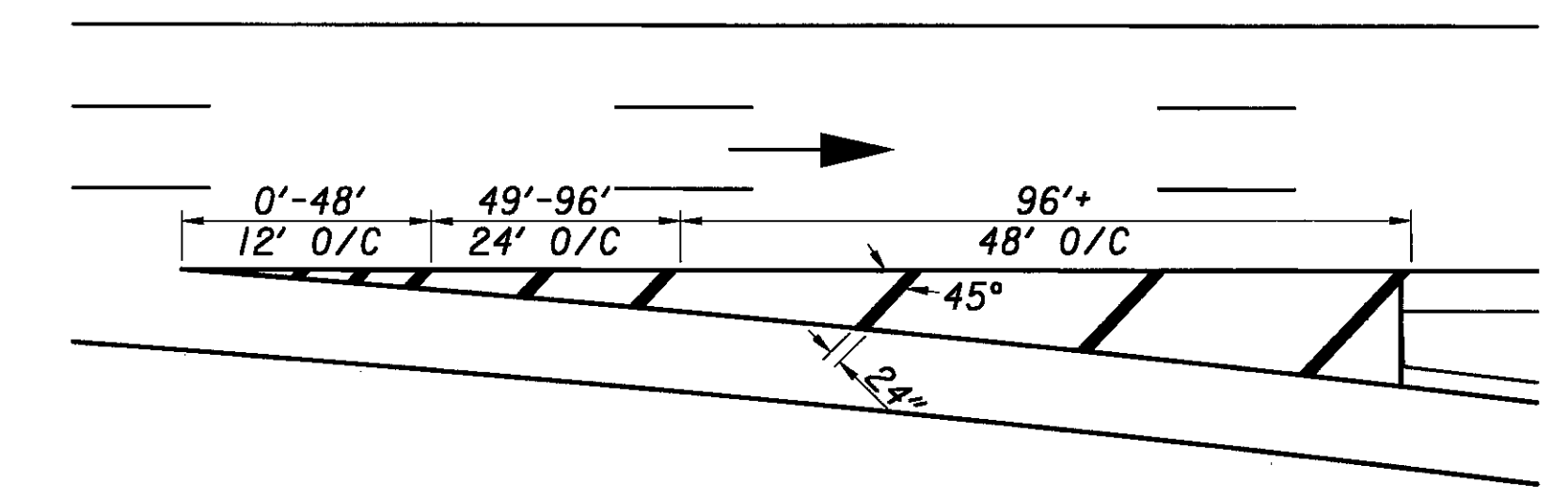


TRAFFIC CONTROL LEGEND

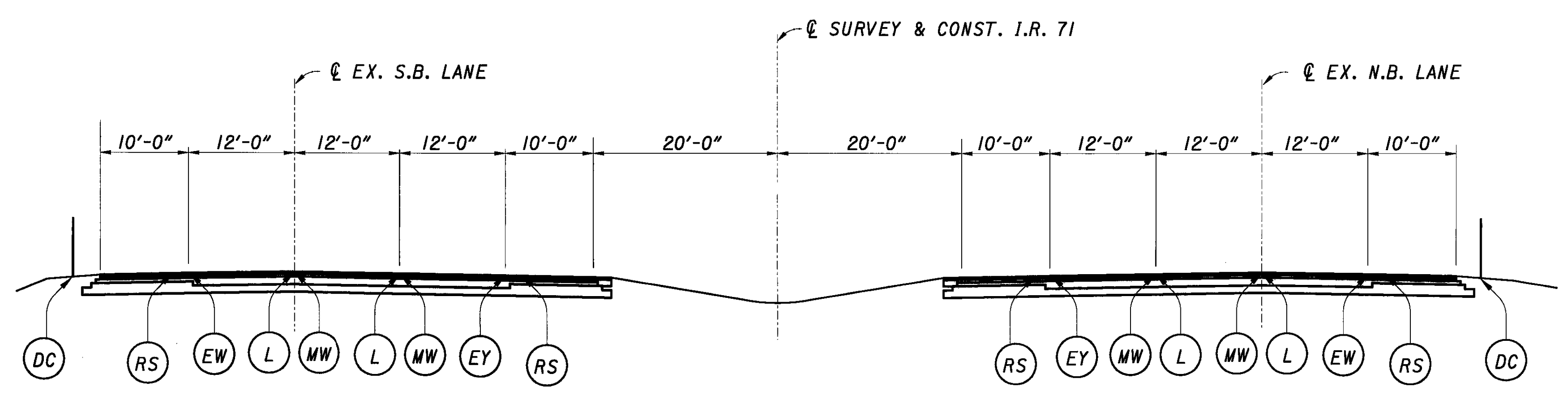
- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- (DC) TYPE C DELINEATOR (WHITE) @ 400' C/C (DO NOT PLACE ON BRIDGE DECKS)
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' C/C (DO NOT PLACE ON BRIDGE DECKS)
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

← TRAFFIC DIRECTION

TYPICAL TRANSVERSE LINE DETAIL



NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10, TC-65.10, TC-65.11, TC-72.20, AND BP-9.1 FOR ADDITIONAL DETAILS.
ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.
SEE SHEET 578 FOR MEDIAN CROSSOVER DETAILS.
SEE SHEET 560 FOR PAVEMENT MARKING QUANTITIES.



TYPICAL LAYOUT

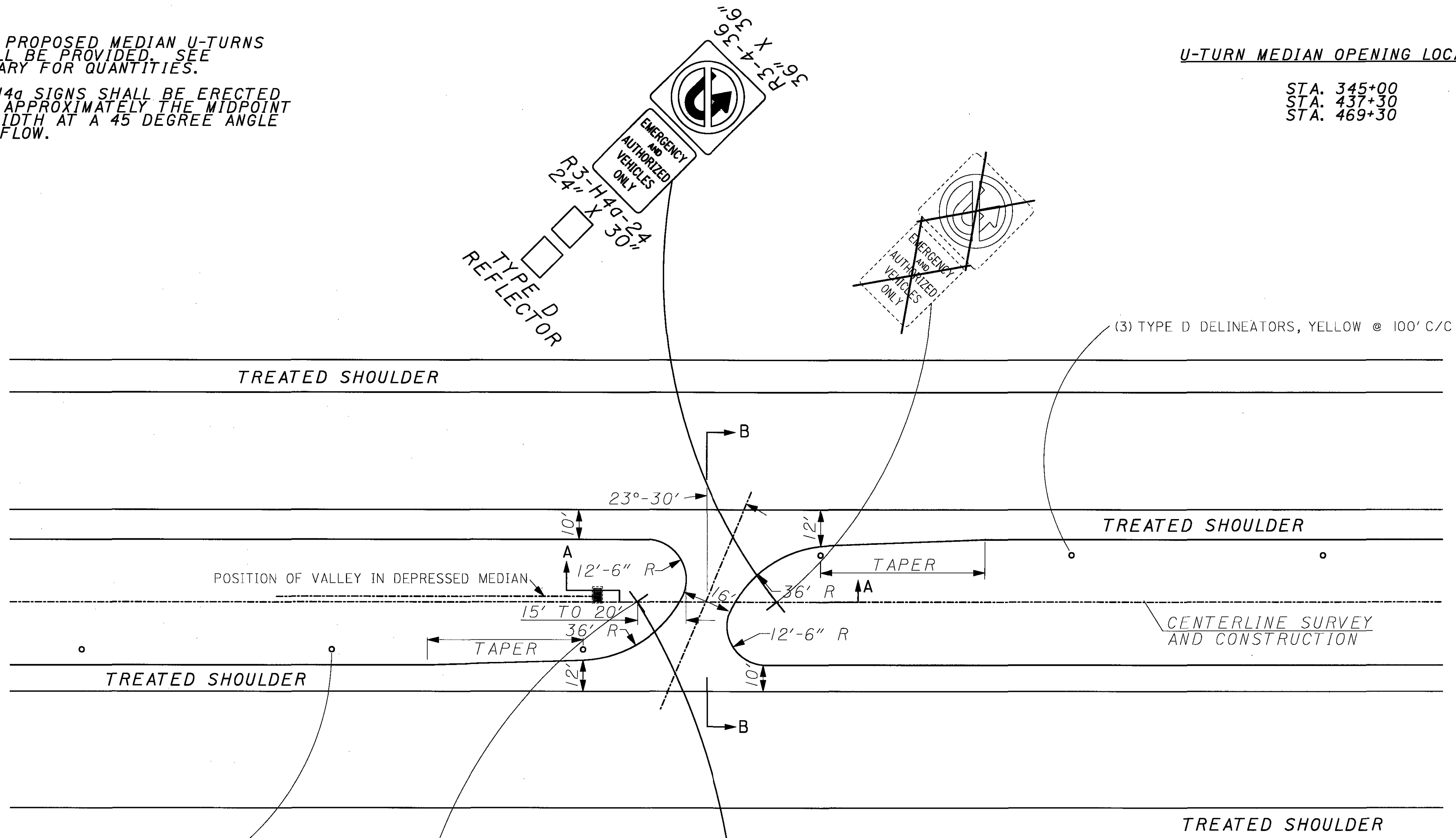
Projectwise:PR33412/cadd/756571.dwg

NOTES:

1. AT EXISTING AND PROPOSED MEDIAN U-TURNS NEW SIGNING SHALL BE PROVIDED. SEE SIGNING SUBSUMMARY FOR QUANTITIES.
2. THE R3-4 & R3-H4a SIGNS SHALL BE ERECTED BACK-TO-BACK AT APPROXIMATELY THE MIDPOINT OF THE MEDIAN WIDTH AT A 45 DEGREE ANGLE TO THE TRAFFIC FLOW.

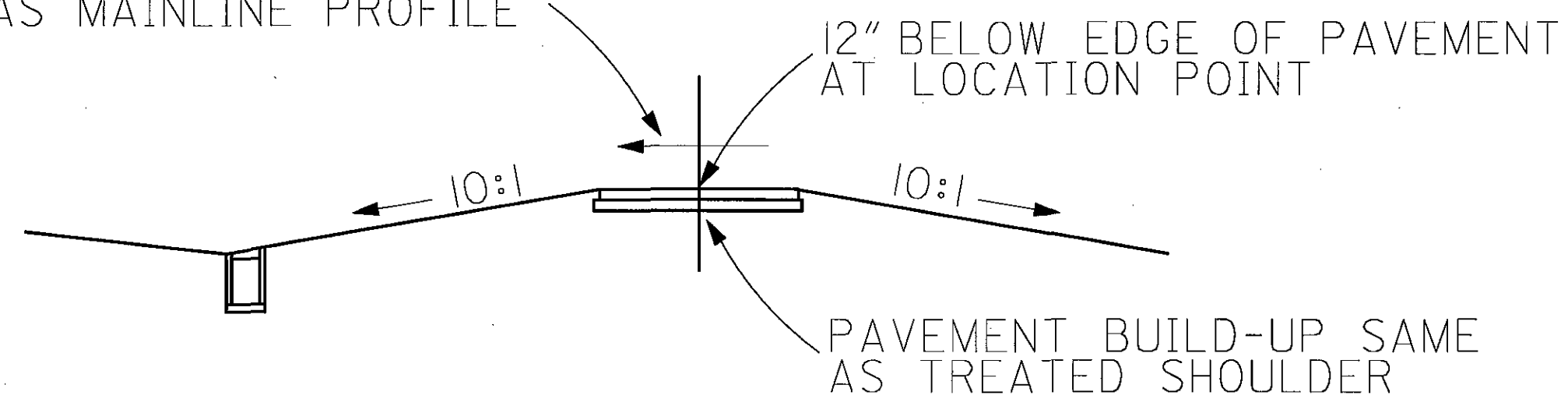
U-TURN MEDIAN OPENING LOCATIONS

STA. 345+00
 STA. 437+30
 STA. 469+30

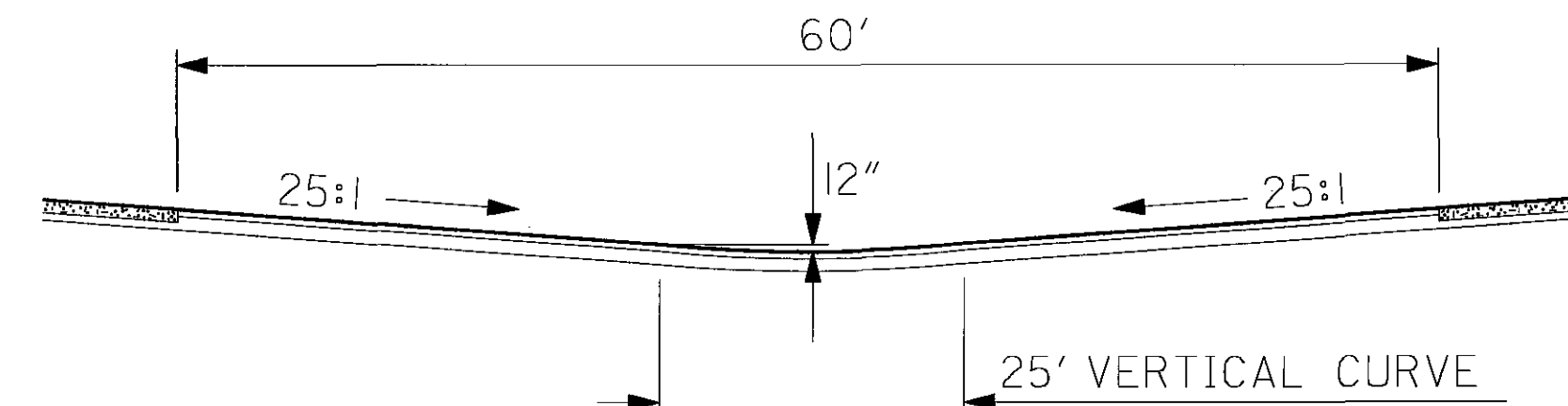


(3) TYPE D DELINEATORS, YELLOW @ 100' C/C

CROSSOVER PAVEMENT SLOPE SAME AS MAINLINE PROFILE



SECTION A-A



SECTION B-B

Projectwise:PR33412/ccdd/75657td2.dgn

CALCULATED		EMW		CHECKED		SLT	
EMW		EMW		SLT		SLT	

**SIGNING PLAN AND PAVEMENT DETAIL
 STANDARD U-TURN MEDIAN OPENING**

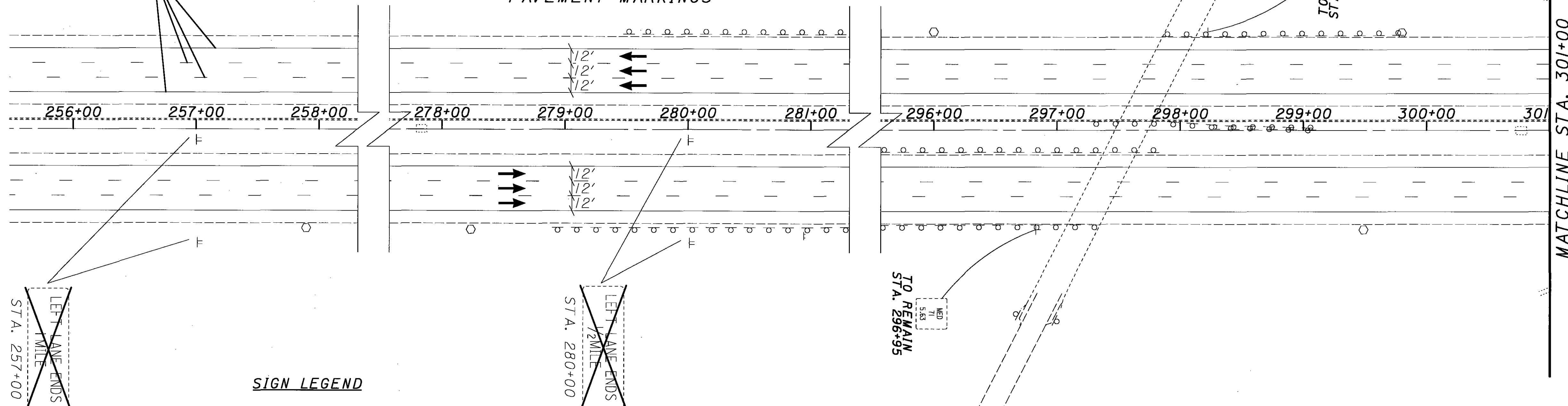
MED-71-6.06

578
 1120

Project:wise:PR33412\ccdd\765671pl.dgn

- NOTES:
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

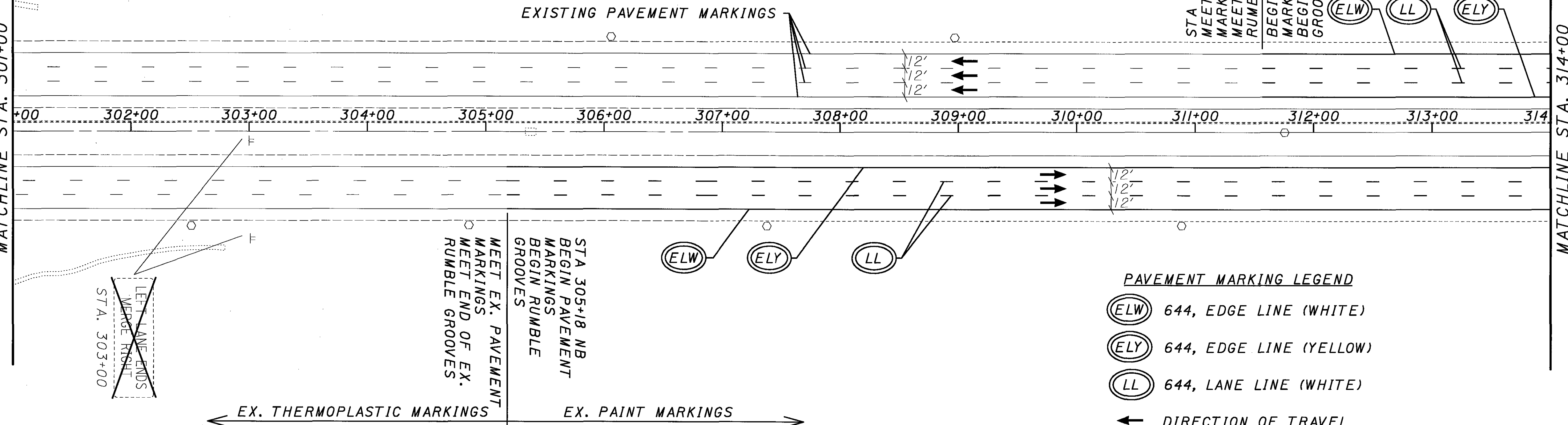
EXISTING PAVEMENT MARKINGS



SIGN LEGEND

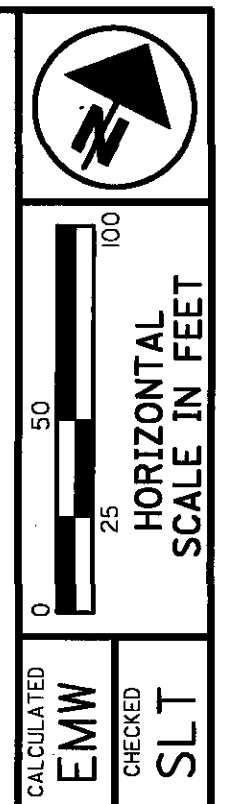
- ⊕ GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

MATCHLINE STA. 301+00



PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- ← DIRECTION OF TRAVEL



PAVEMENT MARKING & SIGNING PLAN
STA. 256+00 TO STA. 314+00

MED-71-6.06

579
1120

Project wise: PR33412\cadd\76567tp2.dgn

MATCHLINE STA. 314+00

MATCHLINE STA. 327+00

MATCHLINE STA. 327+00

MATCHLINE STA. 340+00

PAVEMENT MARKING LEGEND

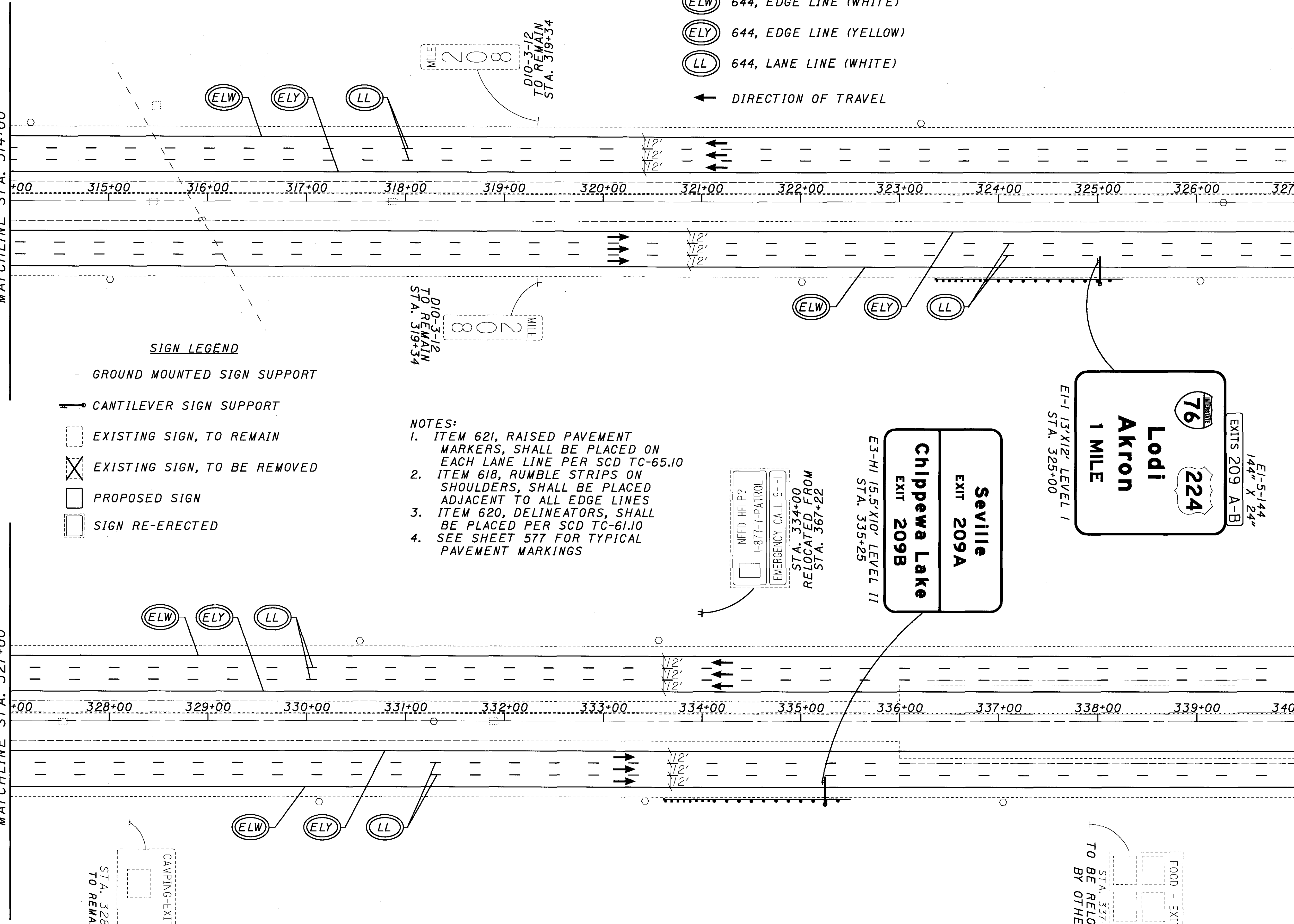
- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- ← DIRECTION OF TRAVEL

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- ┆ CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- SIGN RE-ERECTED

NOTES:

1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS



MILE 208
D10-3-12 TO REMAIN STA. 319+34

MILE 208
D10-3-12 TO REMAIN STA. 319+34

NEED HELP?
-877-7-PATROL
EMERGENCY CALL 9-1-1
STA. 334+00
RELOCATED FROM
STA. 367+22

E3-H1 15.5'X10' LEVEL II
STA. 335+25

Seville
EXIT 209A

Chippewa Lake
EXIT 209B

E1-1 13'X12' LEVEL I
STA. 325+00

Lodi
Akron
1 MILE

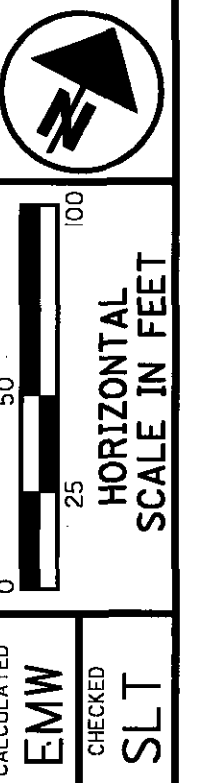
76
224

EXITS 209 A-B
144' X 24'

E1-5-144
144' X 24'

CAMPING-EXIT 209
STA. 328+20
TO REMAIN

FOOD - EXIT 209
STA. 337+91
TO BE RELOCATED
BY OTHERS



PAVEMENT MARKING & SIGNING PLAN
STA. 314+00 TO STA. 340+00

MED-71-6.06

MATCHLINE STA. 340+00

MATCHLINE STA. 353+00

MATCHLINE STA. 353+00

MATCHLINE STA. 366+00

Mansfield 38
Columbus 101
E7 15.5'X5' LEVEL 11
STA. 342+00

TYPE D REFLECTOR
R3-H2D-30"
24" X 30"
EMERGENCY
AUTHORIZED
VEHICLES
ONLY
STA. 344+79

E1-1 10.5'X9.5' LEVEL 11
Medina
NEXT RIGHT
EXIT 209 A
E1-5-108
108" X 24"

E1-1 13'X12' LEVEL 1
Lodi
AKRON
1/2 MILE
EXIT 209 A-B
E1-5-144
144" X 24"

AKRON
1 MILE
EXIT 209
EXISTING SIGN, TO BE REMOVED

SPECIAL 12" X 12"
STA. 357+49
SOUTH
M3-3-36
36" X 18"
MI-1-36
48" X 36"
STA. 357+91

GAS - EXIT 204
STA. 355+87
TO REMAIN

SPECIAL 12" X 12"
STA. 355+88

DANIELS RD

- NOTES:
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

SPEED LIMIT
65 MPH
VEHICLES OVER
4 TONS EMPTY WT.
NON-LONG BUSES
R2-H2D-84
STA. 350+00

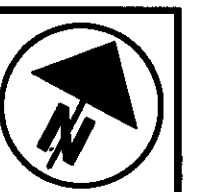
Mansfield 38
Columbus 101
STA. 351+55

SIGN LEGEND

- GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- SIGN RE-ERECTED

PAVEMENT MARKING LEGEND

- ELW 644, EDGE LINE (WHITE)
- ELY 644, EDGE LINE (YELLOW)
- LL 644, LANE LINE (WHITE)
- DIRECTION OF TRAVEL



0 25 50 100
HORIZONTAL
SCALE IN FEET

CALCULATED
EMW
CHECKED
SLT

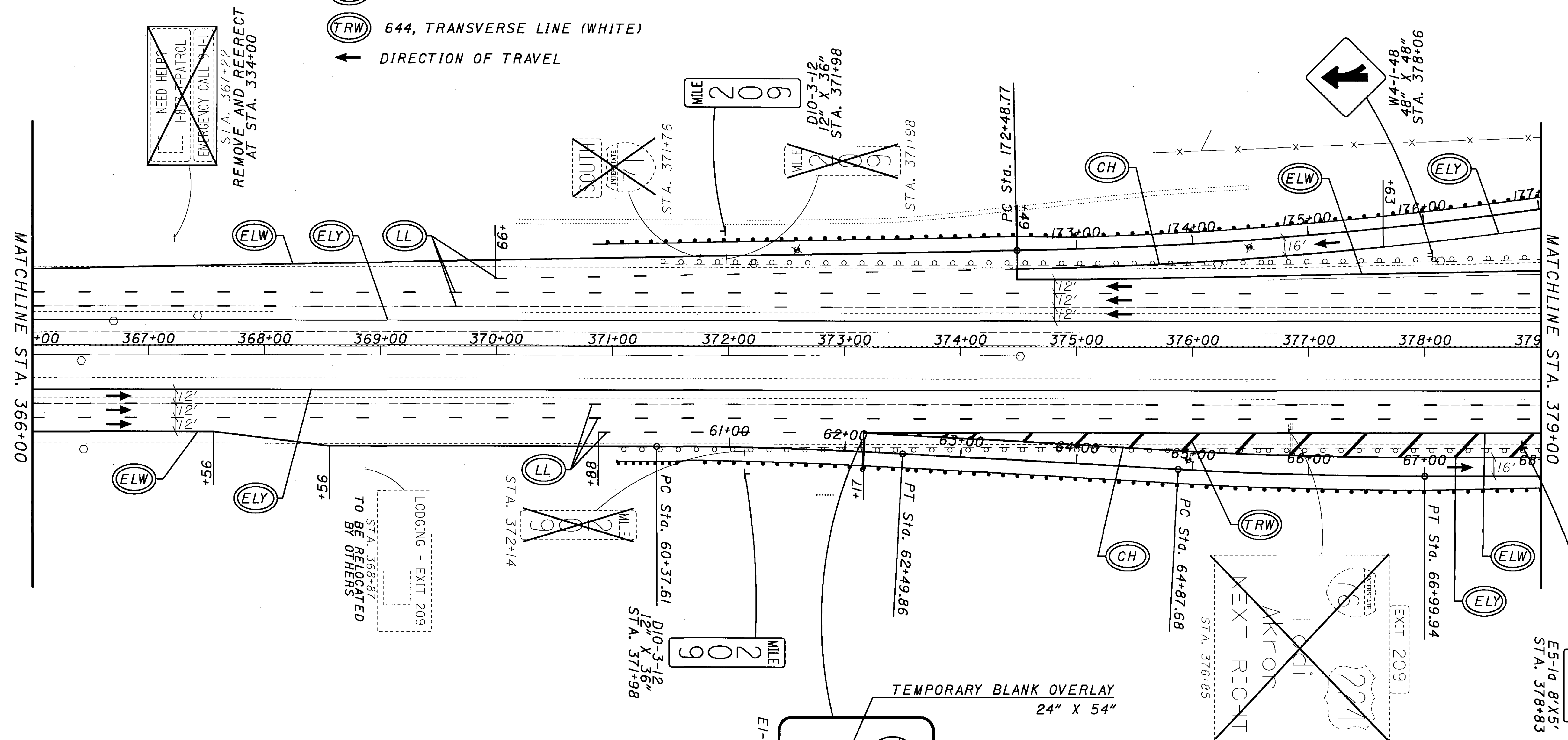
PAVEMENT MARKING & SIGNING PLAN
STA. 366+00 TO STA. 379+00

MED-71-6.06

582
1120

PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- (TRW) 644, TRANSVERSE LINE (WHITE)
- ← DIRECTION OF TRAVEL



- NOTES:**
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

TEMPORARY SHIELD AND "EAST" OVERLAY PANEL
54" X 54"



SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- EXISTING CANTILEVER SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- ⊗ EXISTING SIGN, REMOVED FOR REUSE

Project\wise\PR33\412\cadd\765671p4.dgn

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- ⊗ EXISTING SIGN, REMOVED FOR REUSE
- SIGN RE-ERECTED

PAVEMENT MARKING LEGEND

- (ELW) 646, EDGE LINE, APP (WHITE) - ON BRIDGE DECK & APP. SLAB
 - (ELY) 646, EDGE LINE, APP (YELLOW) - ON BRIDGE DECK & APP. SLAB
 - (LL) 646, LANE LINE, APP (WHITE) - ON BRIDGE DECK & APP. SLAB
 - (CH) 646, CHANNELIZING LINE, APP (WHITE)
 - (CH) 644, CHANNELIZING LINE (WHITE)
 - (TRW) 644, TRANSVERSE LINE (WHITE)
 - (ELW) 644, EDGE LINE (WHITE)
 - (ELY) 644, EDGE LINE (YELLOW)
 - (LL) 644, LANE LINE (WHITE)
- ← DIRECTION OF TRAVEL

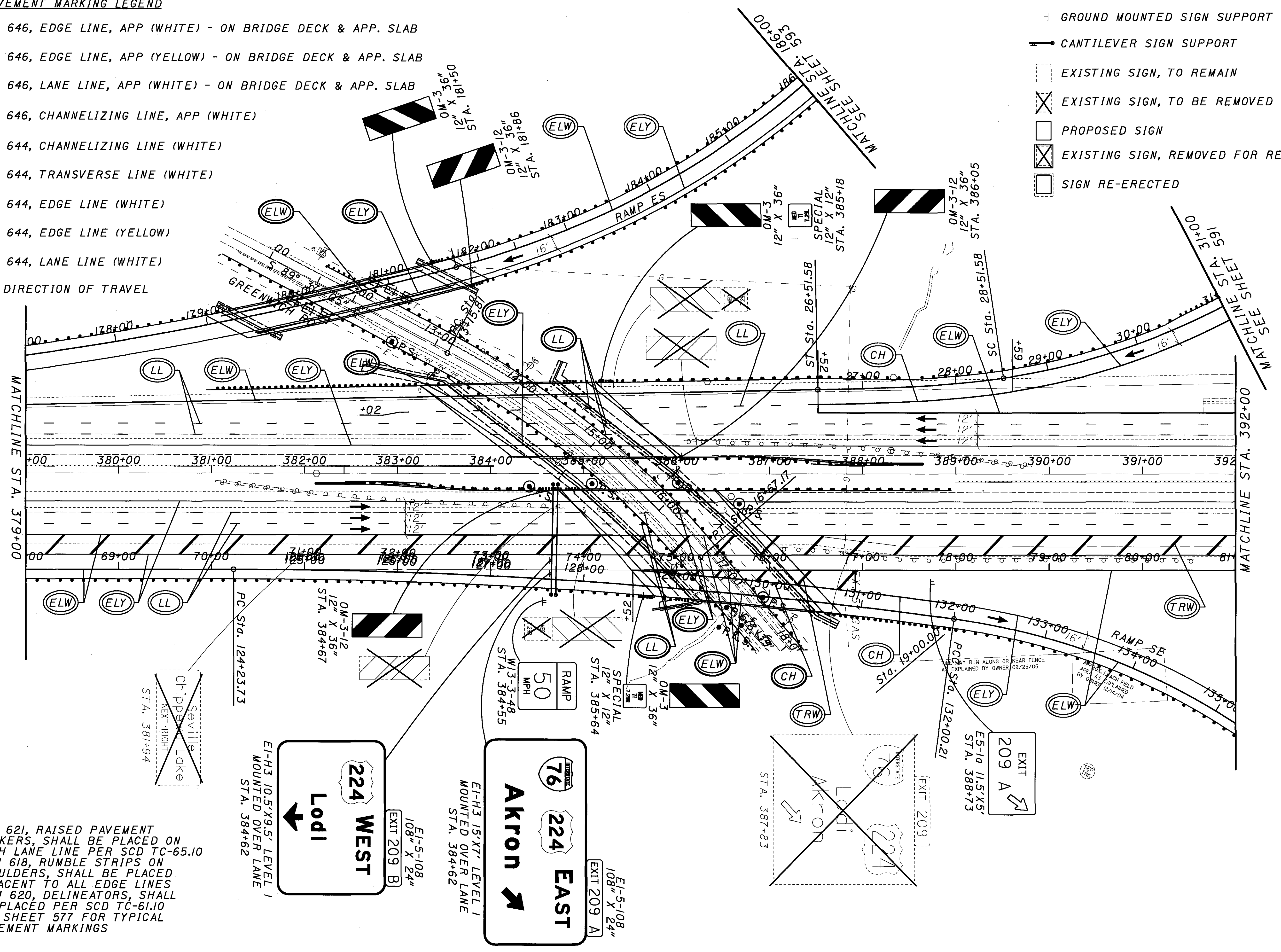
CALCULATED
EMW
CHECKED
SLT

HORIZONTAL SCALE IN FEET

0 25 50 100

**PAVEMENT MARKING & SIGNING PLAN
STA. 379+00 TO STA. 392+00**

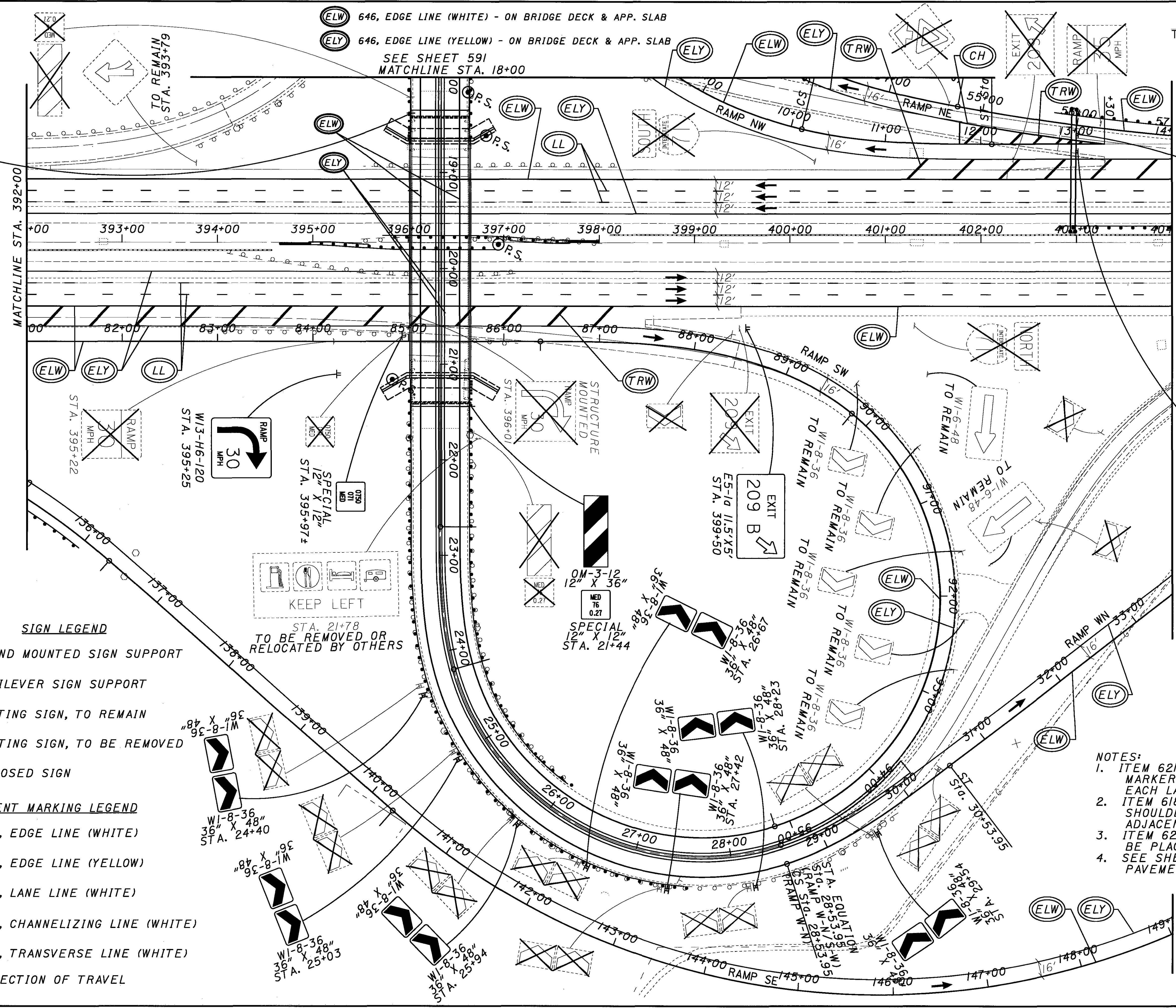
MED-71-6.00



- NOTES:**
1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

Projectwise:PR33412\cadd\765671p5.dgn

Project: wisetPR33412_cocdd\76567tp6.dgn



SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- (TRW) 644, TRANSVERSE LINE (WHITE)
- ← DIRECTION OF TRAVEL

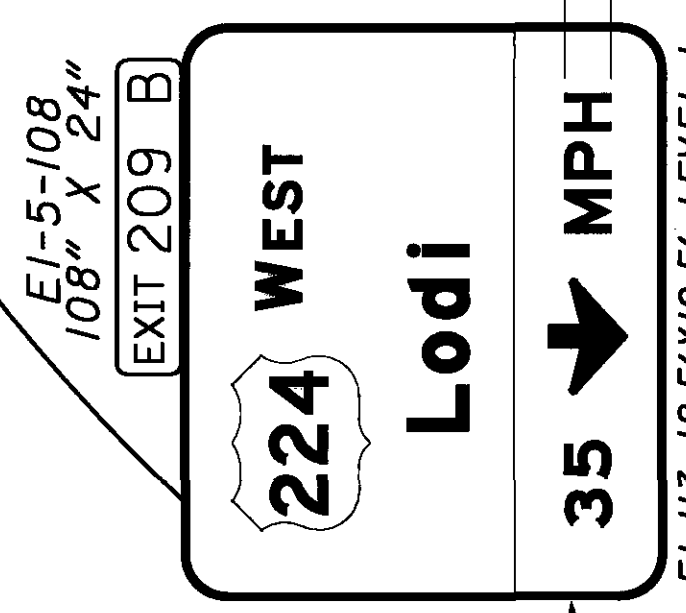
STA. 21+78
TO BE REMOVED OR
RELOCATED BY OTHERS

OM-3-12
12" X 36"
MED 76
0.21
SPECIAL
12" X 12"
STA. 21+44

- NOTES:**
1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

(ELW) 646, EDGE LINE (WHITE) - ON BRIDGE DECK & APP. SLAB
(ELY) 646, EDGE LINE (YELLOW) - ON BRIDGE DECK & APP. SLAB
SEE SHEET 591
MATCHLINE STA. 18+00

BLACK LETTERING
ON YELLOW PANEL
THIS SECTION OF SIGN



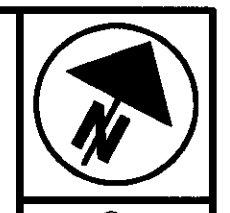
BLACK LETTERING
ON YELLOW PANEL
THIS SECTION OF SIGN

PAVEMENT MARKING & SIGNING PLAN
STA. 392+00 TO STA. 405+00

MED-71-6.06

584
1120

Project:wise:PR33412\cadd\76567tp1.dgn



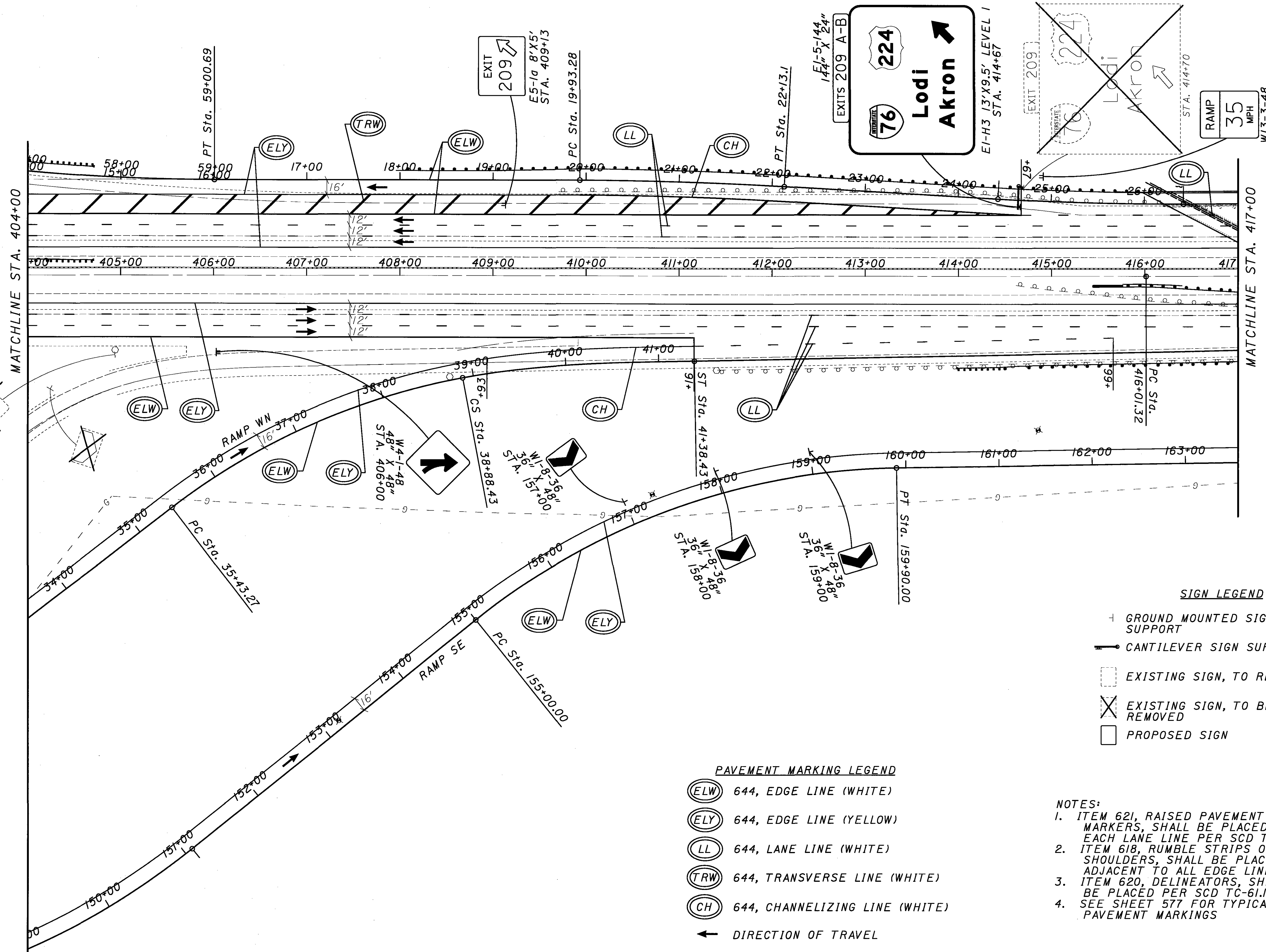
0 50 100
HORIZONTAL
SCALE IN FEET

CALCULATED
EMW
CHECKED
SLT

PAVEMENT MARKING & SIGNING PLAN STA. 404+00 TO STA. 417+00

MED-71-6.06

585
1120



SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (TRW) 644, TRANSVERSE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- ← DIRECTION OF TRAVEL

- ### NOTES:
1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

MATCHLINE STA. 404+00

MATCHLINE STA. 417+00

58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00 191+00 192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00 247+00 248+00 249+00 250+00 251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00 292+00 293+00 294+00 295+00 296+00 297+00 298+00 299+00 300+00 301+00 302+00 303+00 304+00 305+00 306+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00 321+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00 331+00 332+00 333+00 334+00 335+00 336+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00 346+00 347+00 348+00 349+00 350+00 351+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359+00 360+00 361+00 362+00 363+00 364+00 365+00 366+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00 376+00 377+00 378+00 379+00 380+00 381+00 382+00 383+00 384+00 385+00 386+00 387+00 388+00 389+00 390+00 391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00 410+00 411+00 412+00 413+00 414+00 415+00 416+00 417+00



0 25 50
HORIZONTAL
SCALE IN FEET

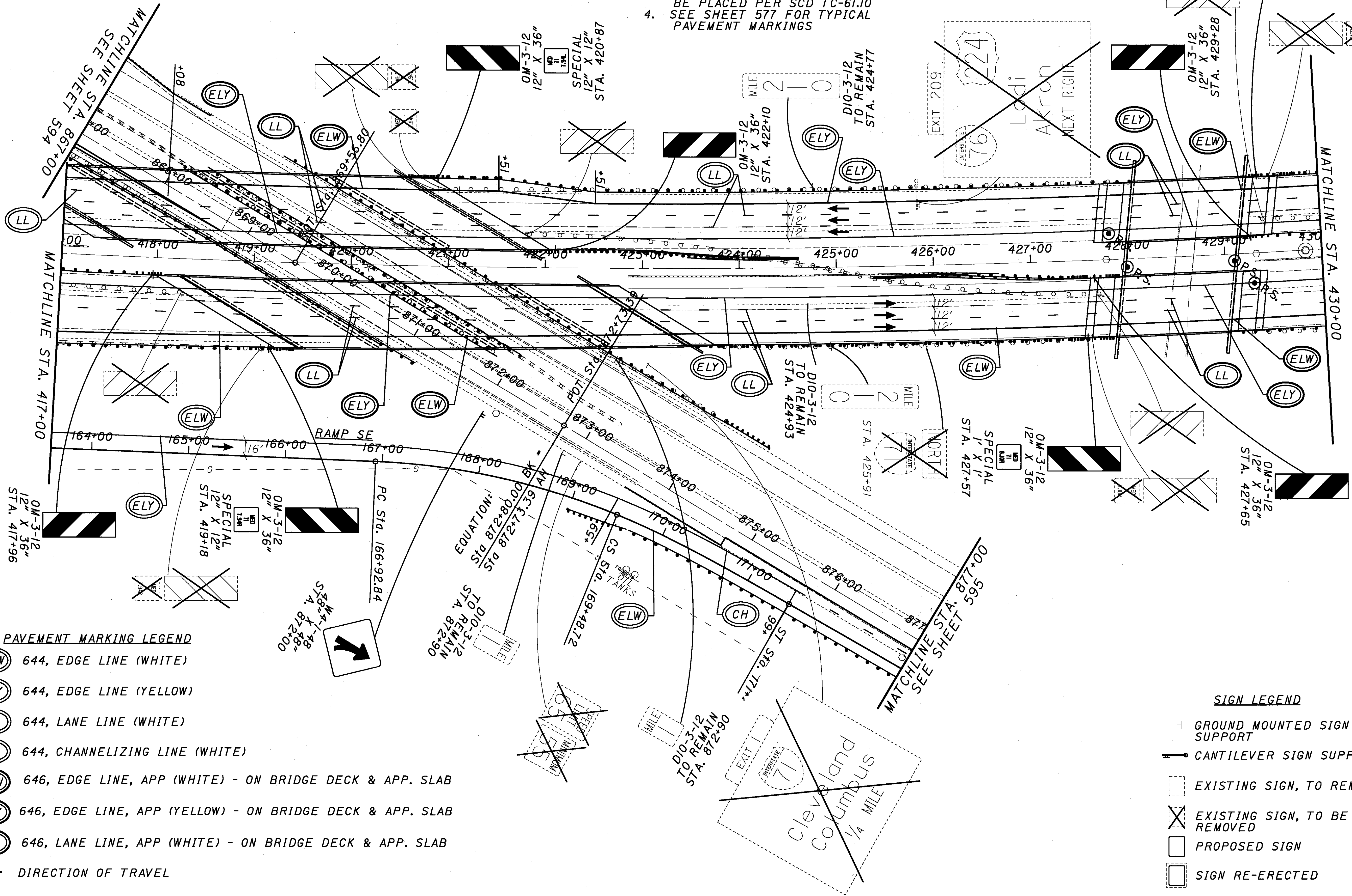
CALCULATED
EMW
CHECKED
SLT

PAVEMENT MARKING & SIGNING PLAN
STA. 417+00 TO STA. 430+00

MED-71-6.06

586
1120

- NOTES:
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS



PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- (ELW) 646, EDGE LINE, APP (WHITE) - ON BRIDGE DECK & APP. SLAB
- (ELY) 646, EDGE LINE, APP (YELLOW) - ON BRIDGE DECK & APP. SLAB
- (LL) 646, LANE LINE, APP (WHITE) - ON BRIDGE DECK & APP. SLAB
- ← DIRECTION OF TRAVEL

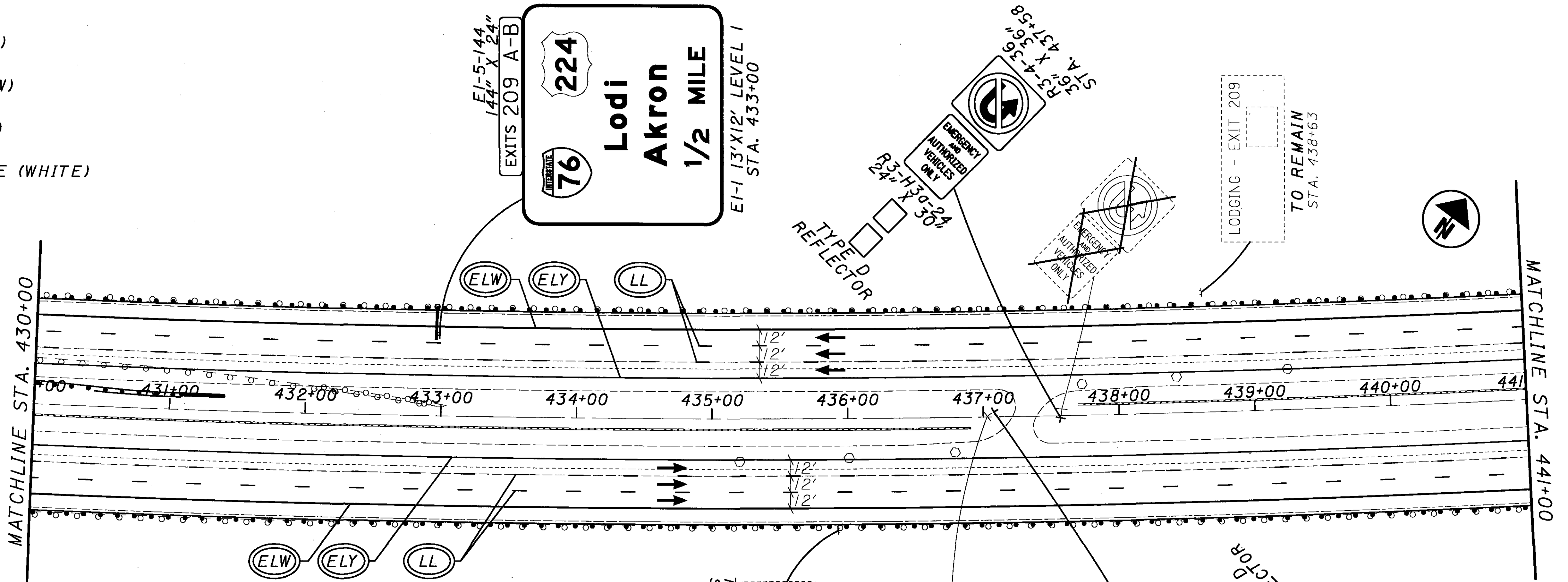
SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- ┆ CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- ◻ SIGN RE-ERECTED

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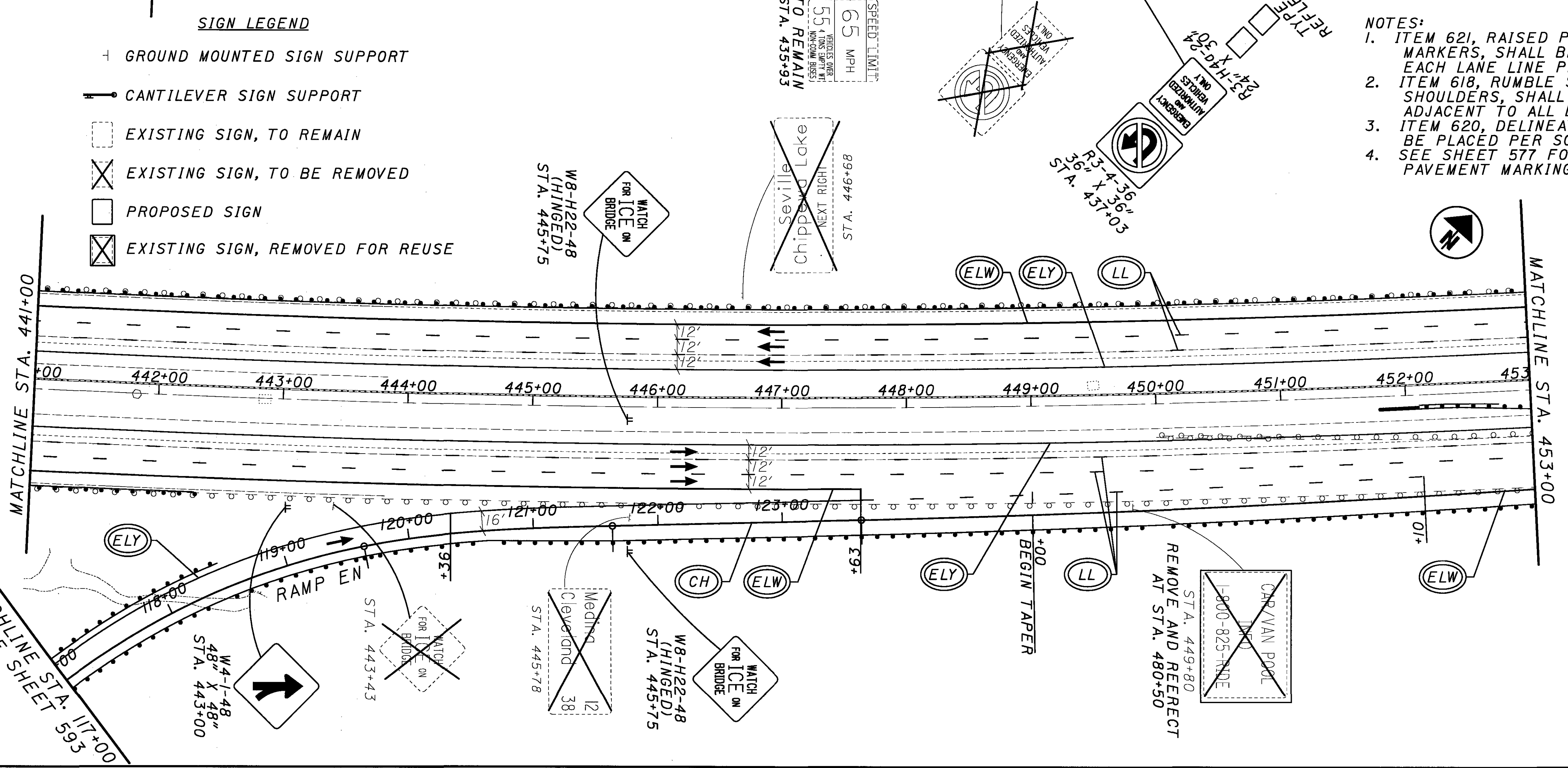
PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- ← DIRECTION OF TRAVEL



SIGN LEGEND

- ⊕ GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- ⊗ EXISTING SIGN, REMOVED FOR REUSE



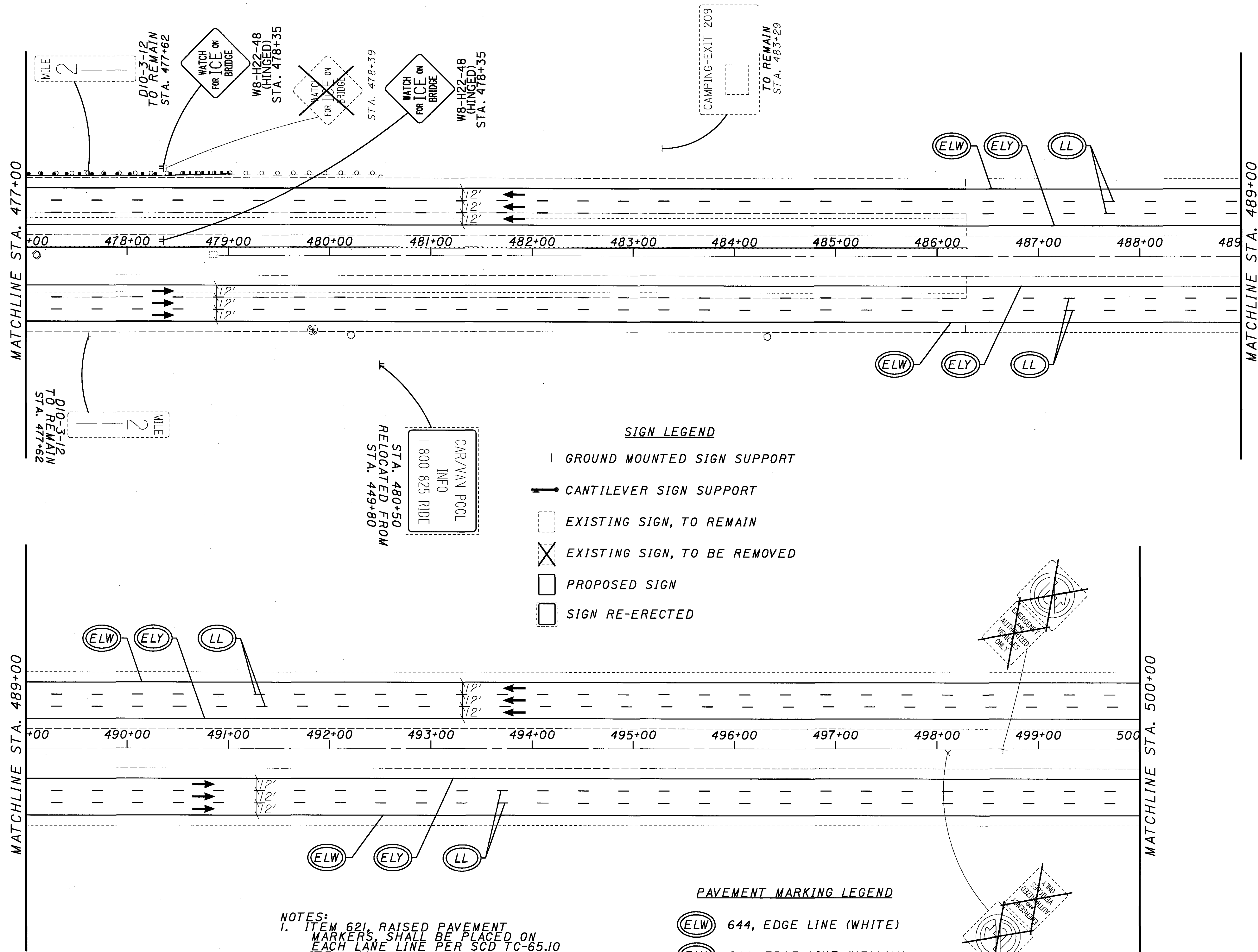
- NOTES:
1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

CALCULATED	EMW	CHECKED	SLT

PAVEMENT MARKING & SIGNING PLAN
STA. 430+00 TO STA. 453+00

MED-71-6.06

Project:\w\se\PR33412\cadd\765677p9.dgn



MILE 2
DIO-3-12 TO REMAIN STA. 477+62

WATCH FOR ICE ON BRIDGE
W8-H22-48 (HINGED) STA. 478+35

WATCH FOR ICE ON BRIDGE
W8-H22-48 (HINGED) STA. 478+35

WATCH FOR ICE ON BRIDGE
W8-H22-48 (HINGED) STA. 478+35

CAMPING-EXIT 209
TO REMAIN STA. 483+29

MILE 2
DIO-3-12 TO REMAIN STA. 477+62

STA. 480+50
RELOCATED FROM STA. 449+80

CAR/VAN POOL
INFO
1-800-825-RIDE

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- ┆ CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- SIGN RE-ERECTED

PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- ← DIRECTION OF TRAVEL

- NOTES:**
1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

CALCULATED
EMW
CHECKED
SLT

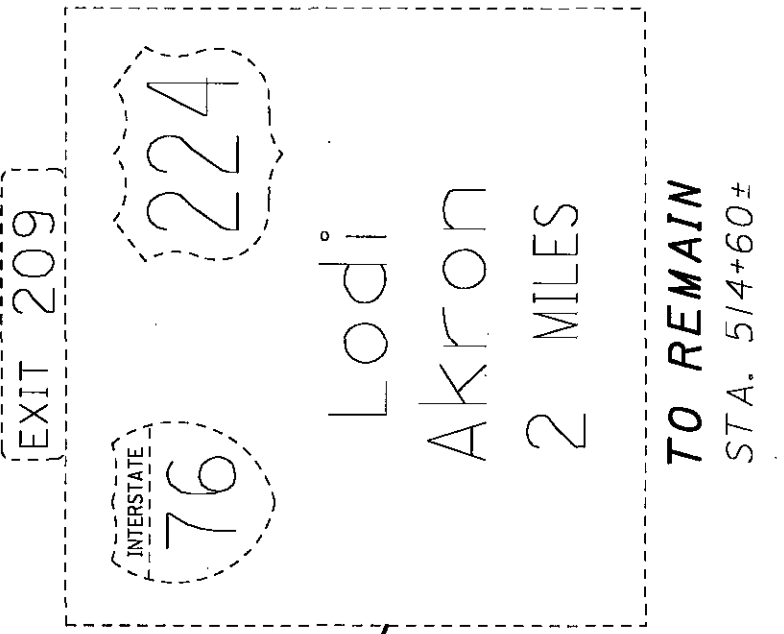
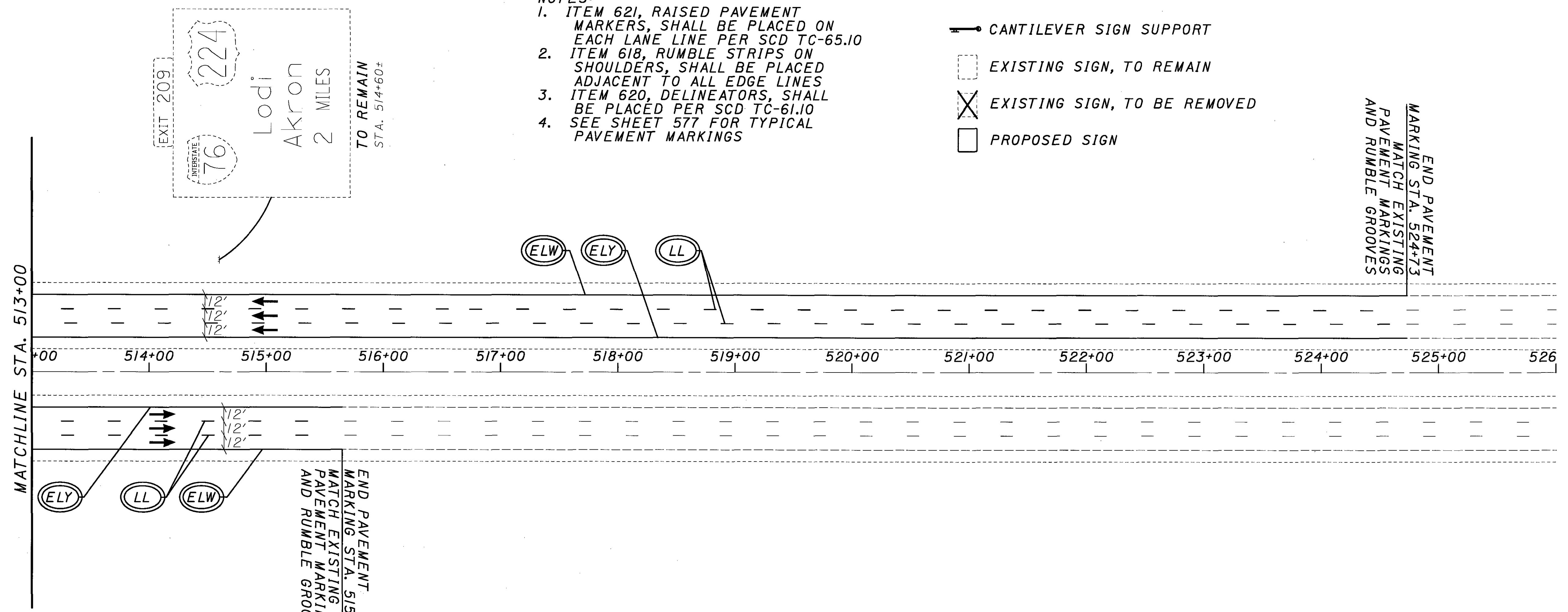
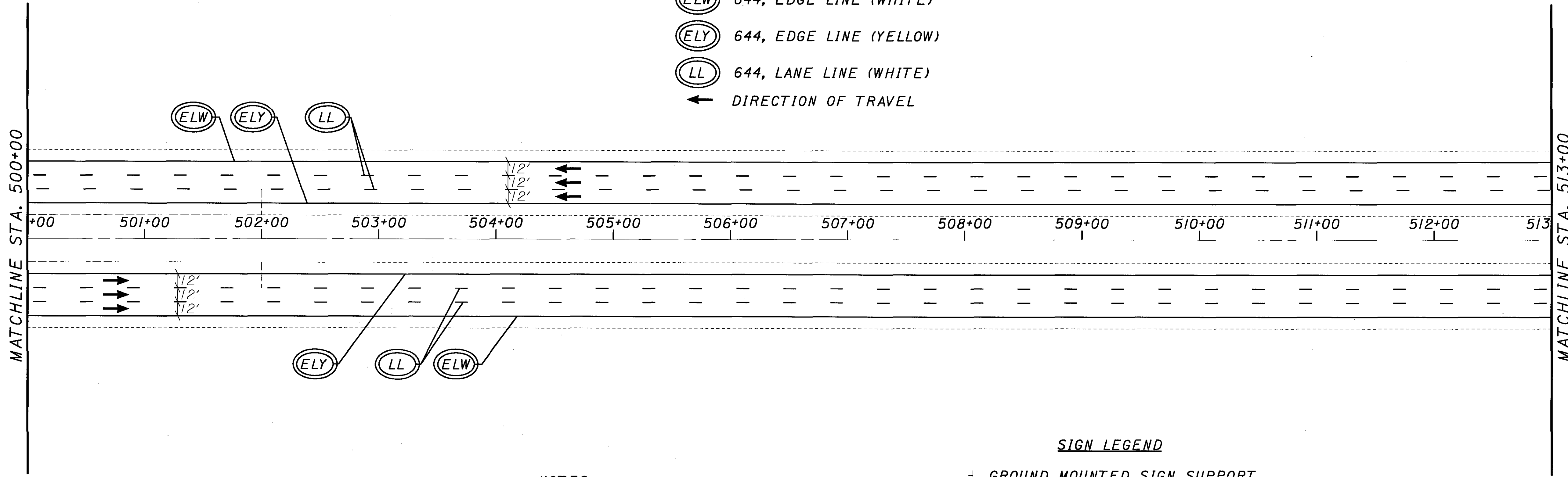
0 25 50
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKING & SIGNING PLAN
STA. 477+00 TO STA. 500+00**

MED-71-6.06

PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- ← DIRECTION OF TRAVEL



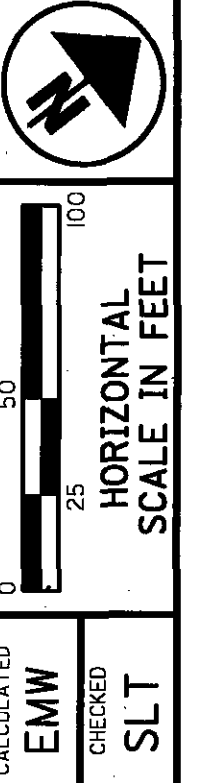
- NOTES:
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- ← CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

END PAVEMENT MARKING STA. 524+73
MATCH EXISTING PAVEMENT MARKINGS AND RUMBLE GROOVES

END PAVEMENT MARKING STA. 515+65
MATCH EXISTING PAVEMENT MARKINGS AND RUMBLE GROOVES

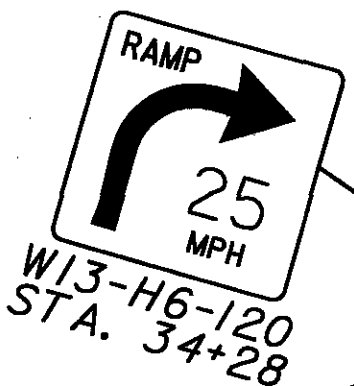


PAVEMENT MARKING & SIGNING PLAN
STA. 500+00 TO 520+00

MED-71-6.06

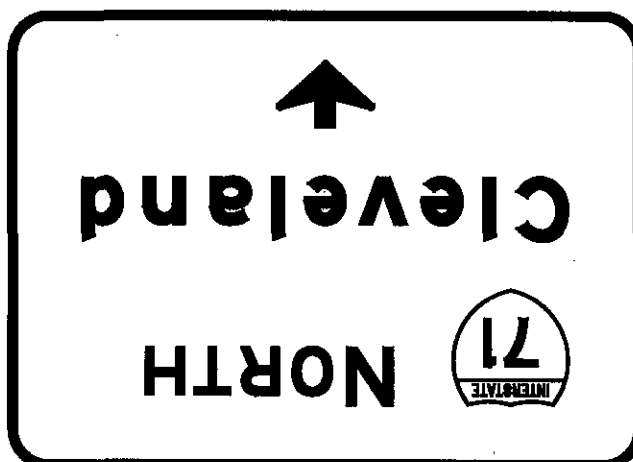
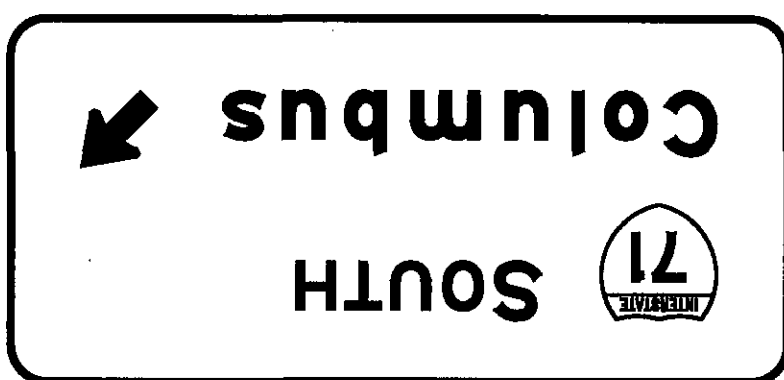
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- NOTES:
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS



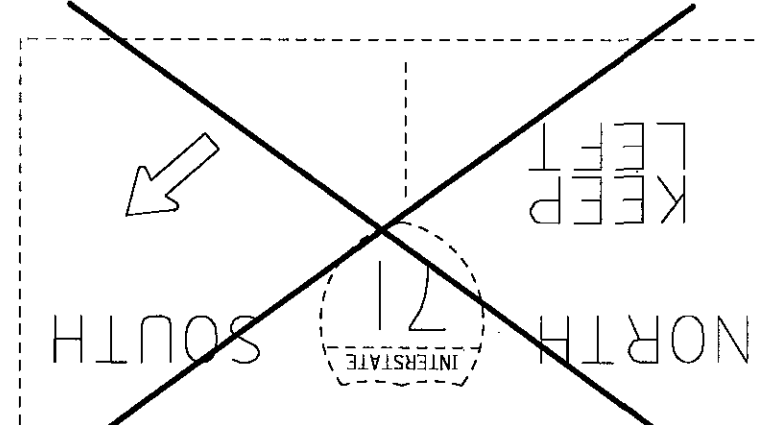
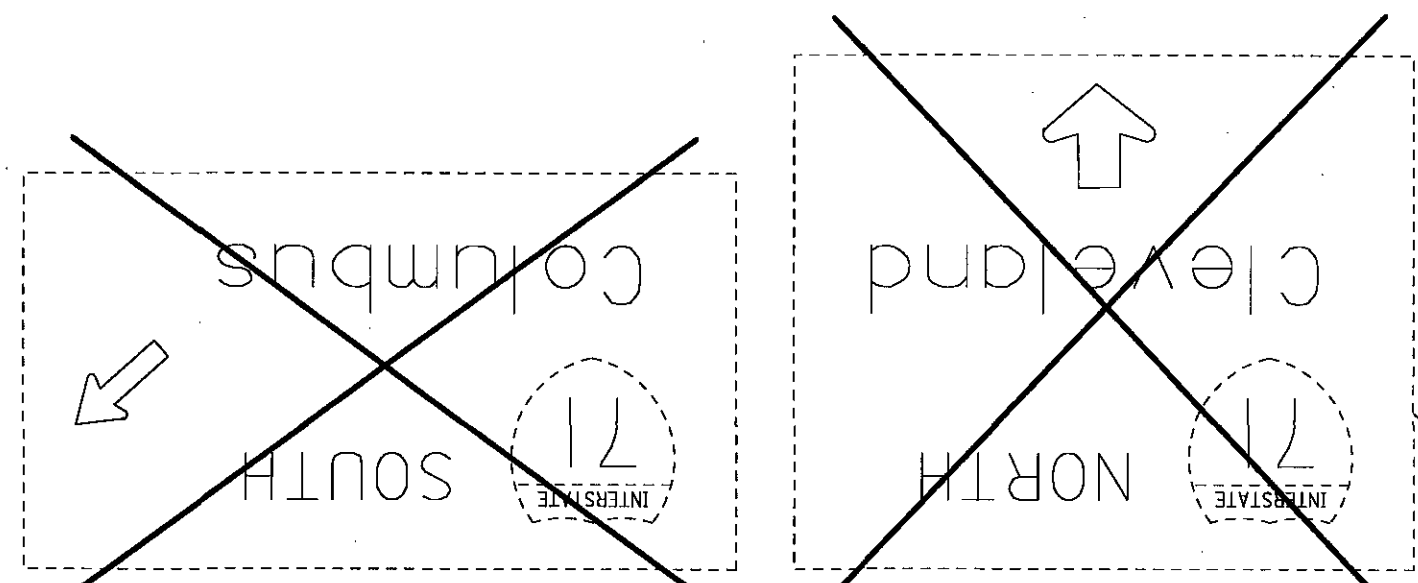
SEE SHEET 592

BASE LINE I-76/US224



EI-H3 14'X6' LEVEL II
STA. 12+20

EI-H3 11'X8' LEVEL II
STA. 12+20



ST. Sta. 12+11.49



+86

+83

+19

+16

+16

+16

+16

+16

MATCHLINE STA. 18+00
SEE SHEET 584

RAMP SW

RAMP WN

RAMP W

RAMP WS

RAMP NW

RAMP N

RAMP NE

RAMP E

RAMP SE

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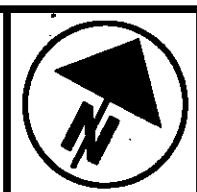
RAMP E

RAMP SE

RAMP S

RAMP SW

RAMP W



NOTES:

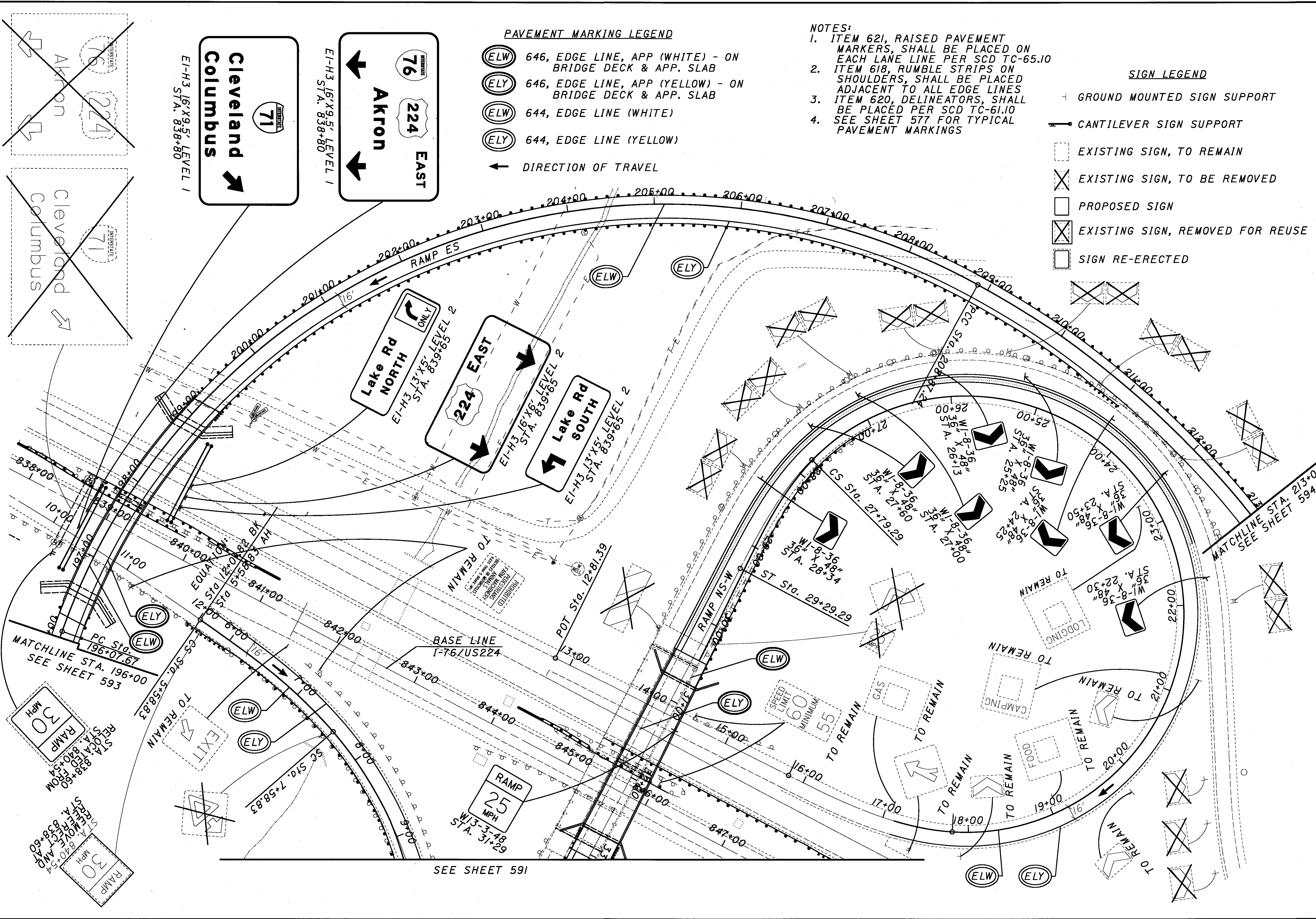
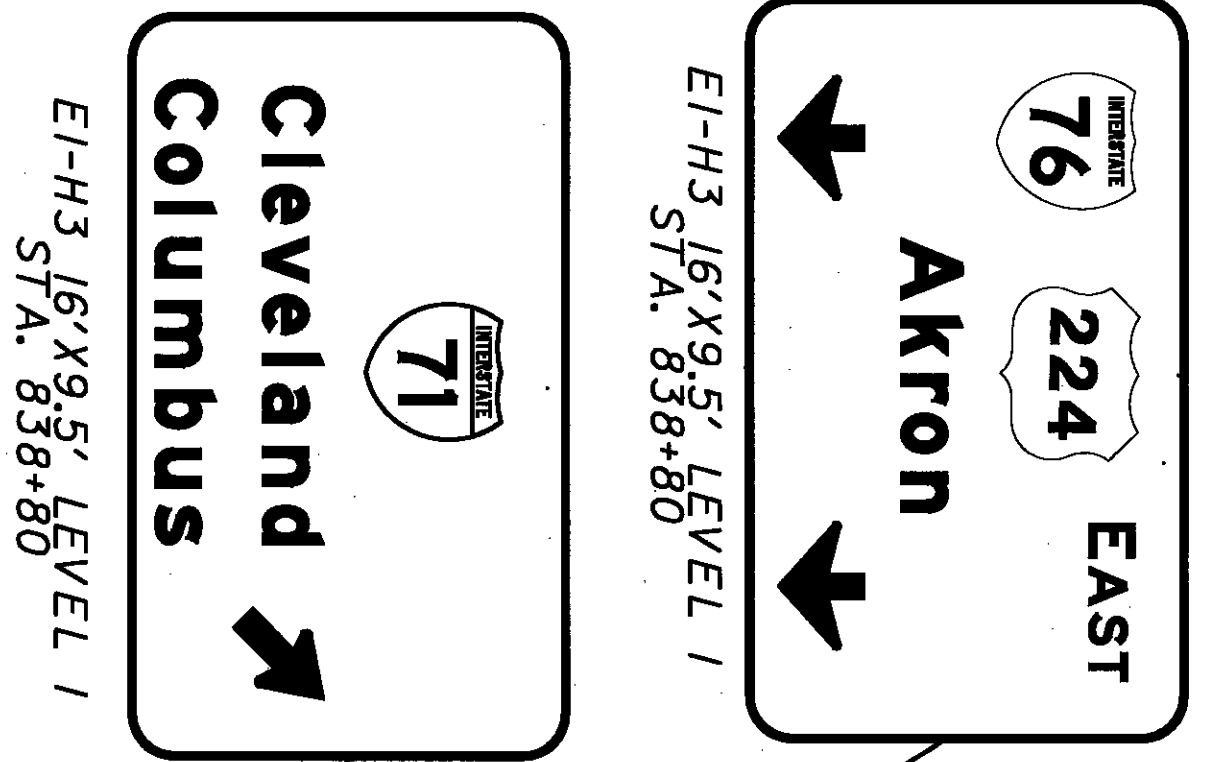
- ITEM 62I, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
- ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
- ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
- SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN
- ⊗ EXISTING SIGN, REMOVED FOR REUSE
- SIGN RE-ERECTED

PAVEMENT MARKING LEGEND

- (ELW) 646, EDGE LINE, APP (WHITE) - ON BRIDGE DECK & APP. SLAB
- (ELY) 646, EDGE LINE, APP (YELLOW) - ON BRIDGE DECK & APP. SLAB
- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- ← DIRECTION OF TRAVEL



Projectwise:PR33412\cadd\76567\tp14.dgn

NOTES:

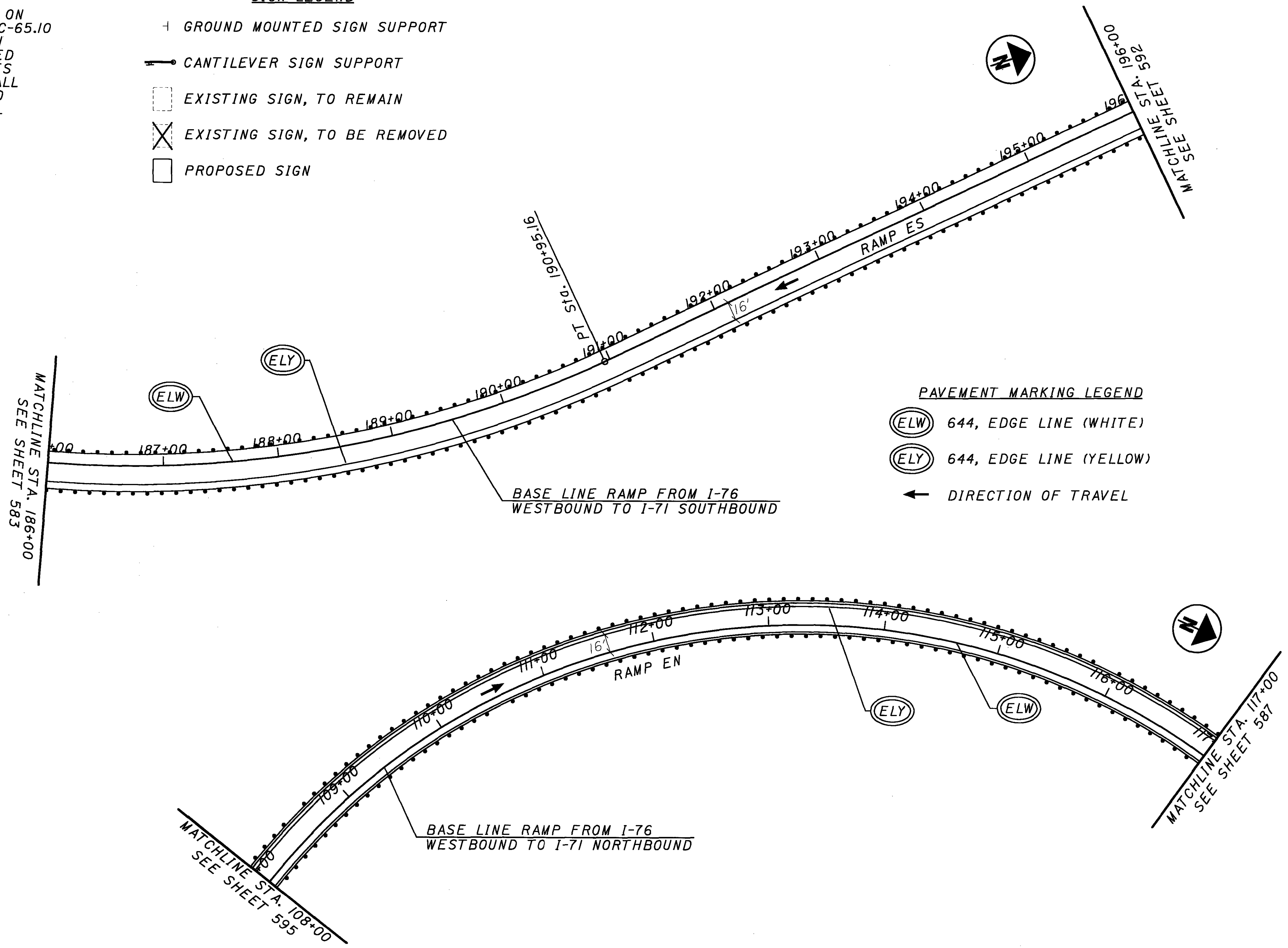
1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- ← DIRECTION OF TRAVEL

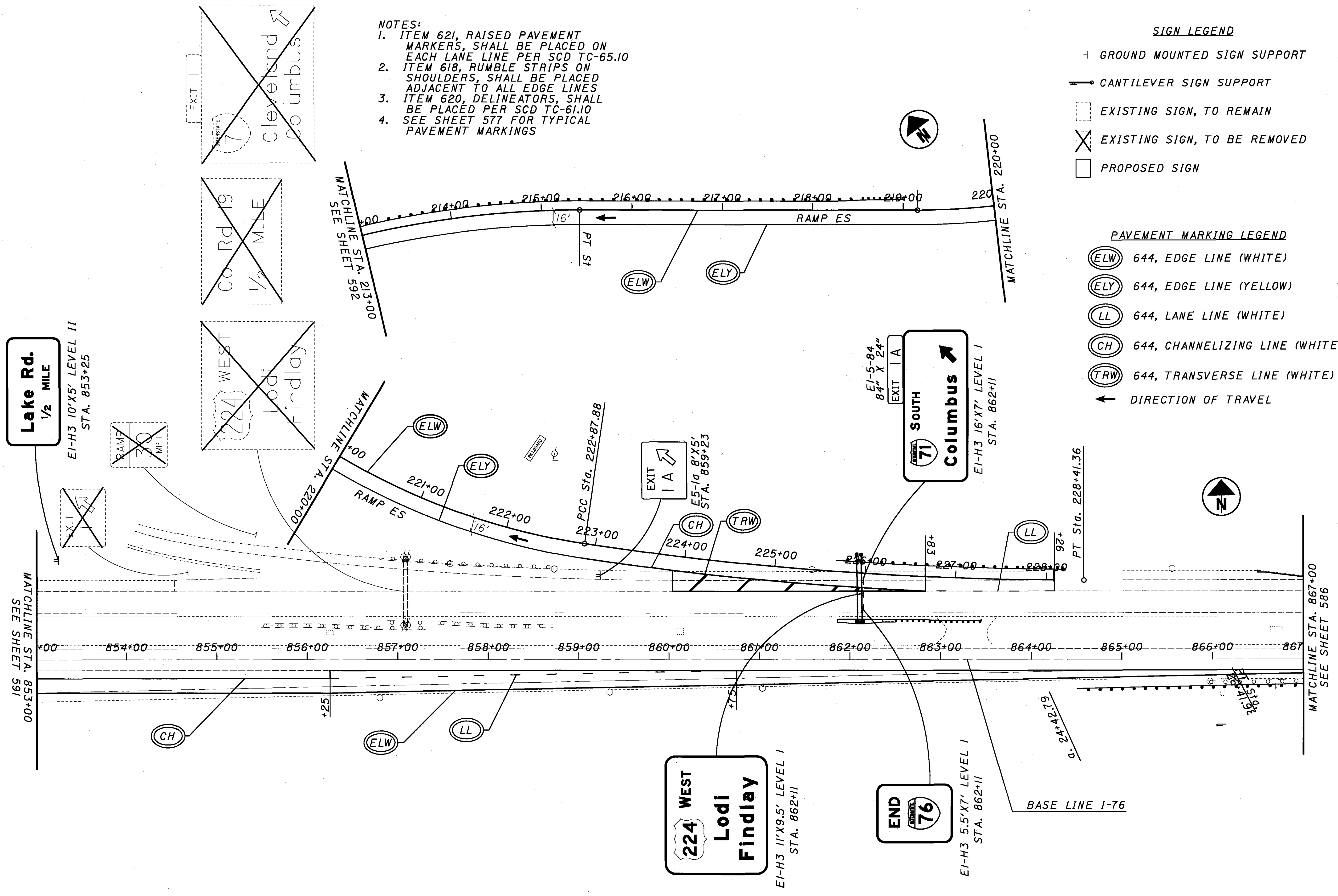


CALCULATED	EMM	SLT
CHECKED		

PAVEMENT MARKING & SIGNING PLAN
RAMP E-S AND RAMP E-N

MED-71-6.06

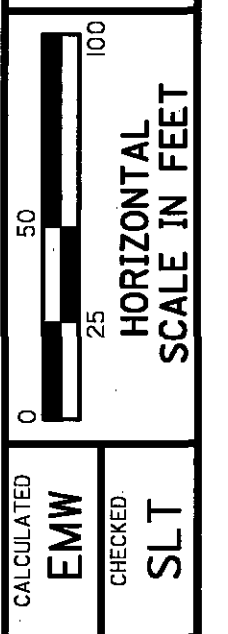
Projectwise:PR33412\cadd\765671p5.dgn



- NOTES:**
- ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
 - ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
 - ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
 - SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

- SIGN LEGEND**
- + GROUND MOUNTED SIGN SUPPORT
 - CANTILEVER SIGN SUPPORT
 - EXISTING SIGN, TO REMAIN
 - ⊗ EXISTING SIGN, TO BE REMOVED
 - PROPOSED SIGN

- PAVEMENT MARKING LEGEND**
- (ELW) 644, EDGE LINE (WHITE)
 - (ELY) 644, EDGE LINE (YELLOW)
 - (LL) 644, LANE LINE (WHITE)
 - (CH) 644, CHANNELIZING LINE (WHITE)
 - (TRW) 644, TRANSVERSE LINE (WHITE)
 - ← DIRECTION OF TRAVEL



**PAVEMENT MARKING & SIGNING PLAN
RAMP E-S**

MED-71-6.06

SIGN LEGEND

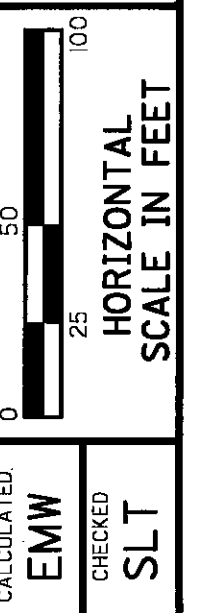
- ↑ GROUND MOUNTED SIGN SUPPORT
- ⌋ CANTILEVER SIGN SUPPORT
- EXISTING SIGN, TO REMAIN
- ⊗ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

NOTES:

1. ITEM 621, RAISED PAVEMENT MARKERS, SHALL BE PLACED ON EACH LANE LINE PER SCD TC-65.10
2. ITEM 618, RUMBLE STRIPS ON SHOULDERS, SHALL BE PLACED ADJACENT TO ALL EDGE LINES
3. ITEM 620, DELINEATORS, SHALL BE PLACED PER SCD TC-61.10
4. SEE SHEET 577 FOR TYPICAL PAVEMENT MARKINGS

PAVEMENT MARKING LEGEND

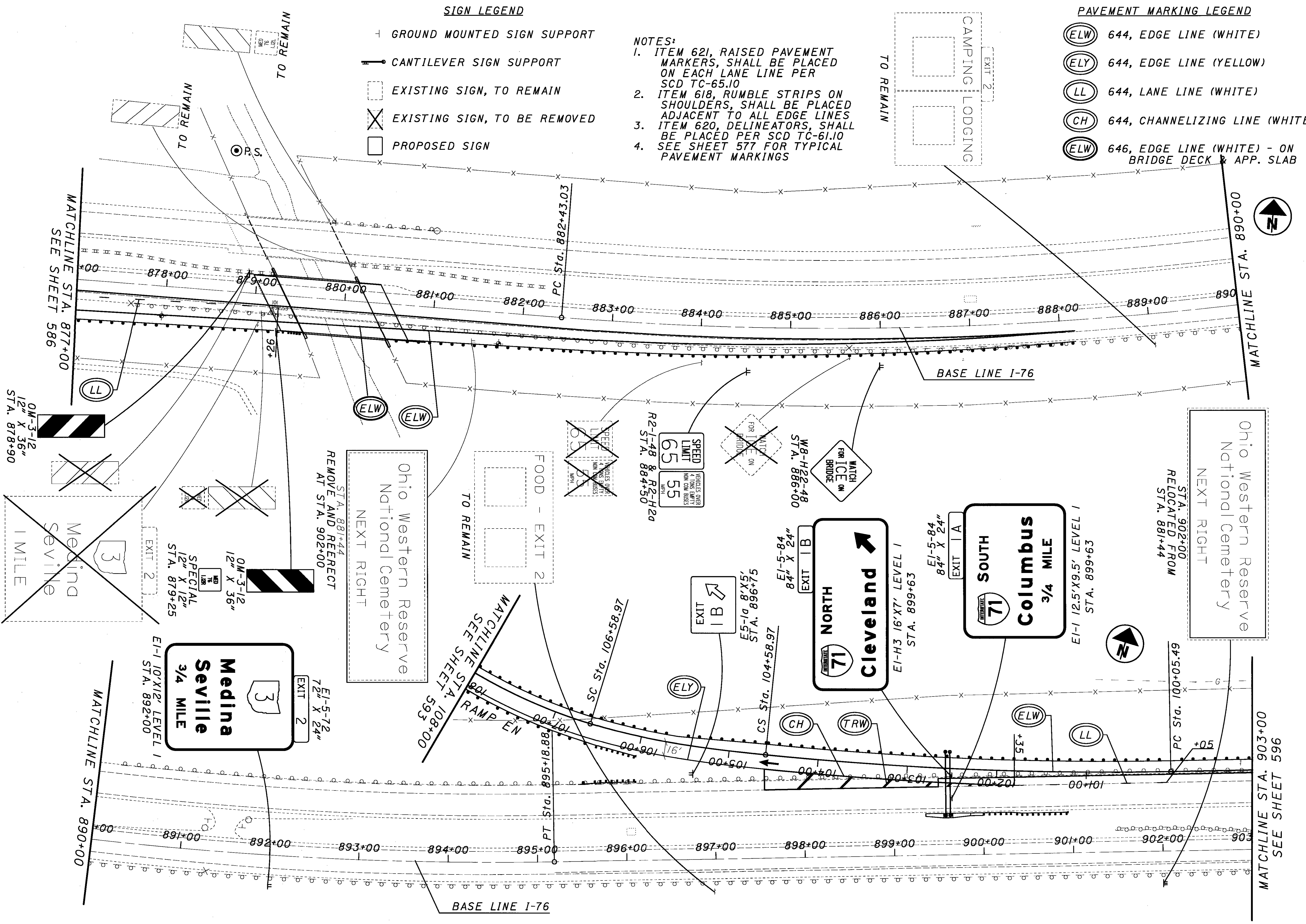
- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- (ELW) 646, EDGE LINE (WHITE) - ON BRIDGE DECK & APP. SLAB



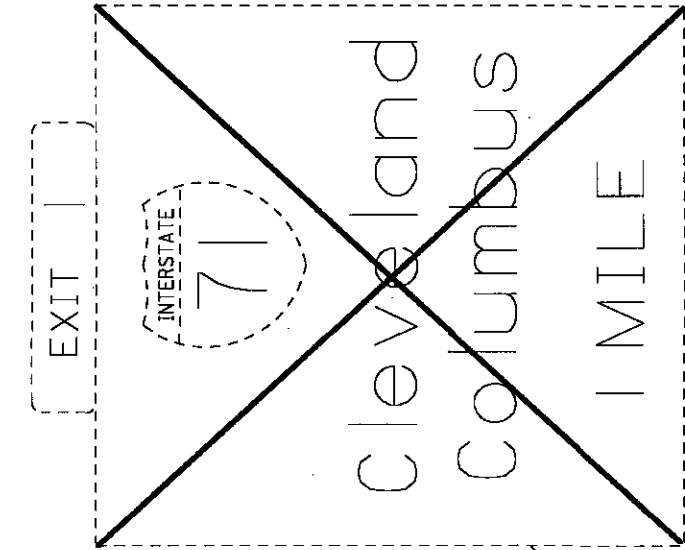
**PAVEMENT MARKING & SIGNING PLAN
RAMPS S-E AND E-N AT I-76**

MED-71-6.06

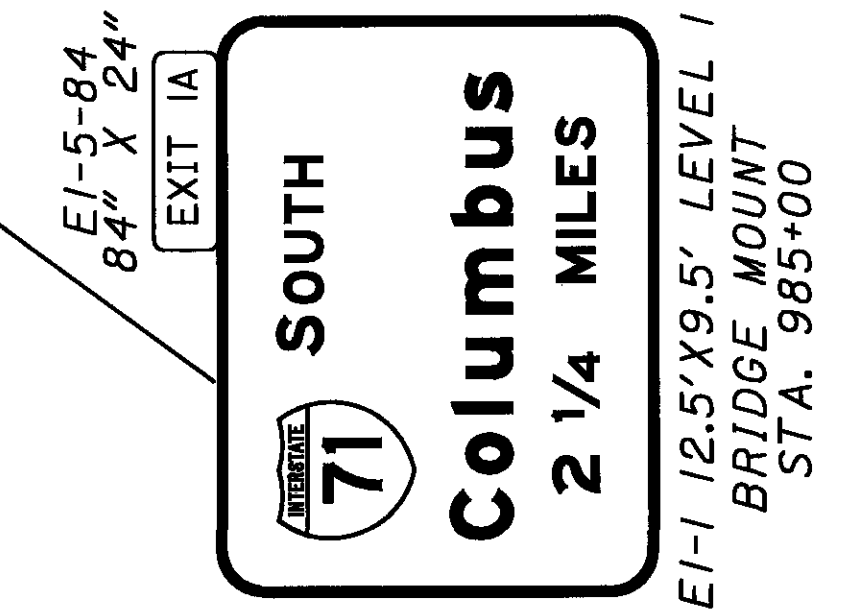
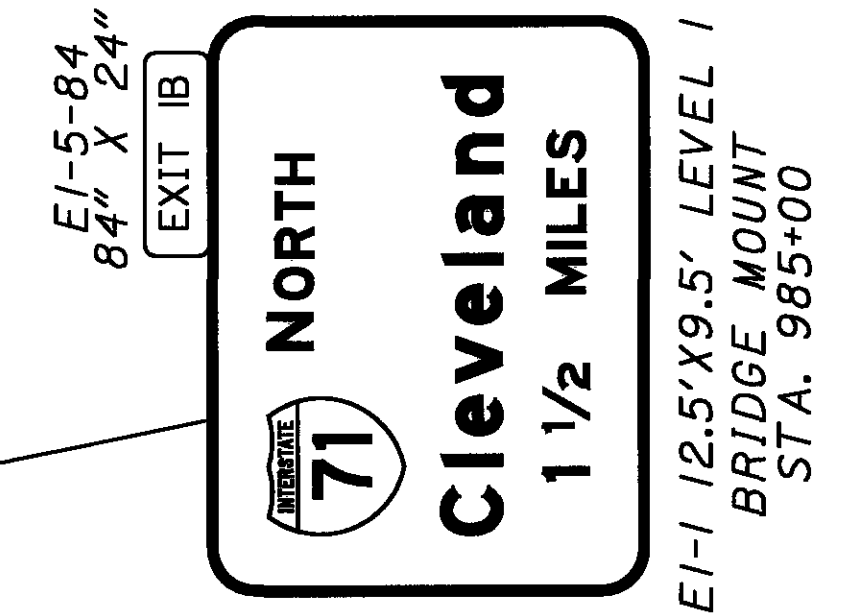
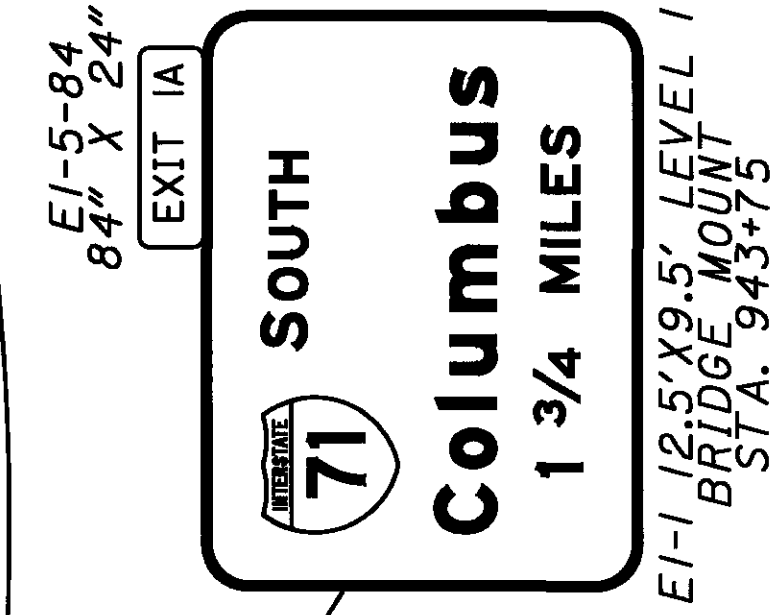
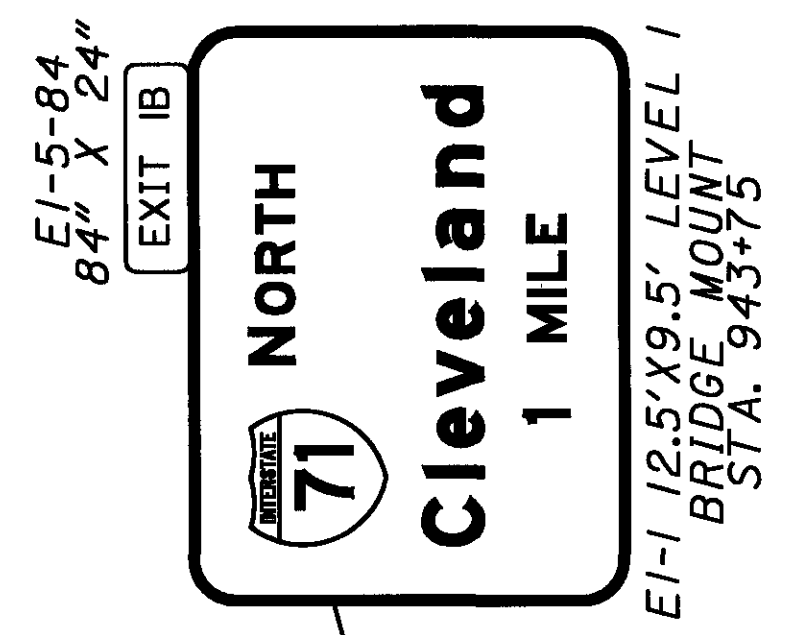
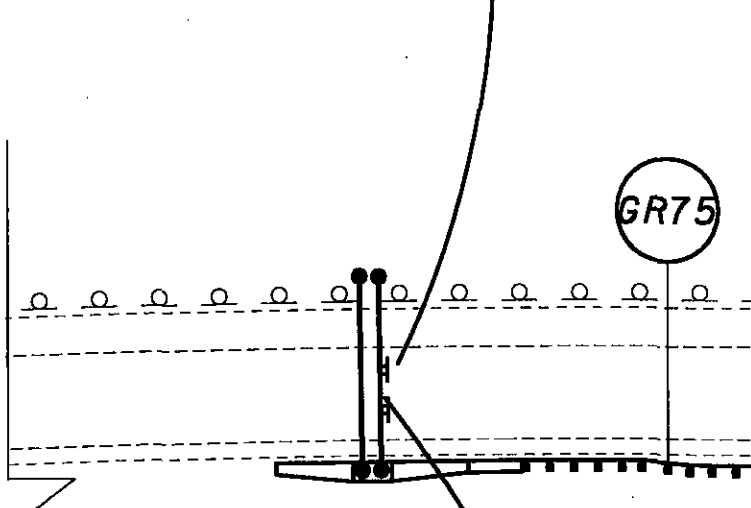
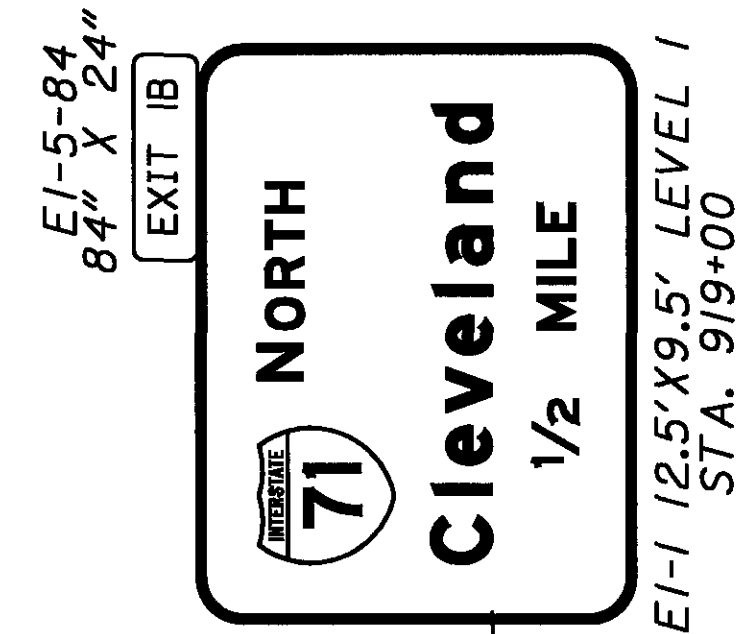
595
1120



Project: wise:PR33412_cadd\76567.rpt.dgn



MATCHLINE STA. 903+00
SEE SHEET 595

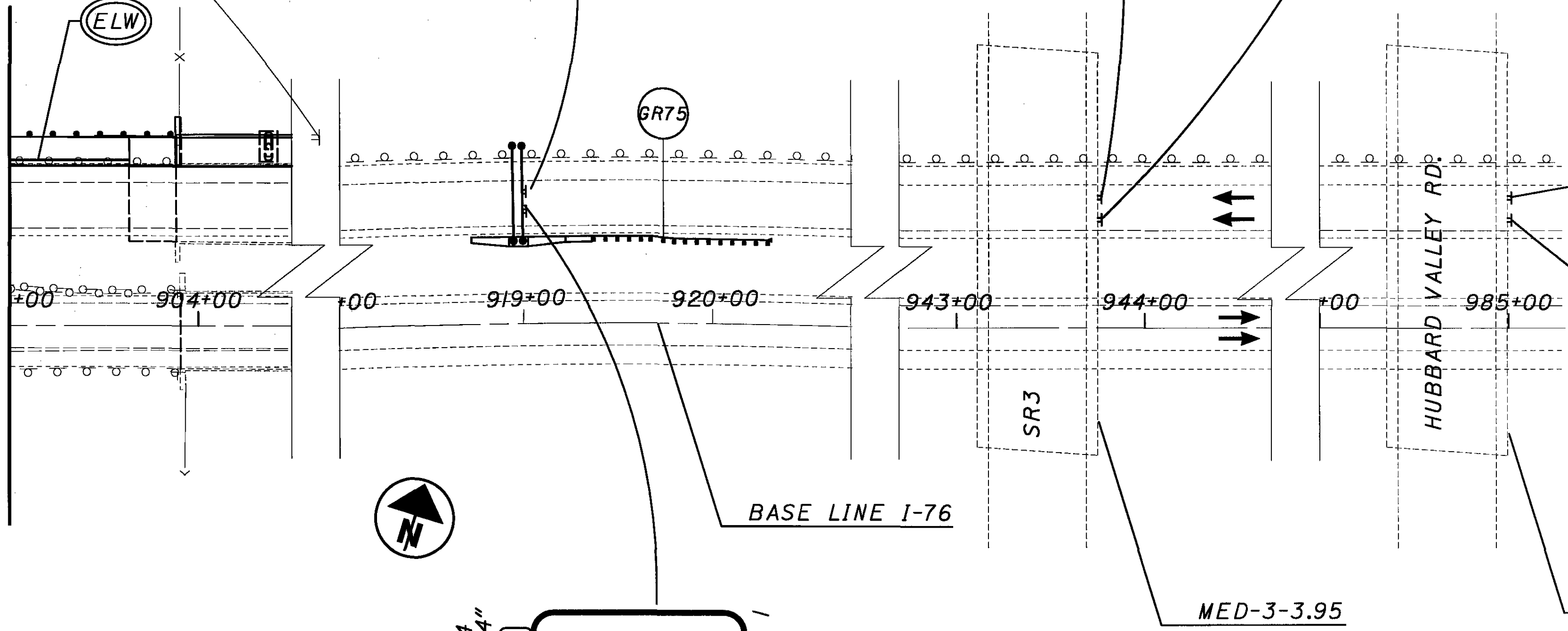


PAVEMENT MARKING LEGEND

- (ELW) 644, EDGE LINE (WHITE)
- (ELY) 644, EDGE LINE (YELLOW)
- (LL) 644, LANE LINE (WHITE)
- (CH) 644, CHANNELIZING LINE (WHITE)
- ↑ DIRECTION OF TRAVEL

SIGN LEGEND

- + GROUND MOUNTED SIGN SUPPORT
- ⌋ CANTILEVER SIGN SUPPORT
- ⊞ EXISTING SIGN, TO REMAIN
- ⊞ EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

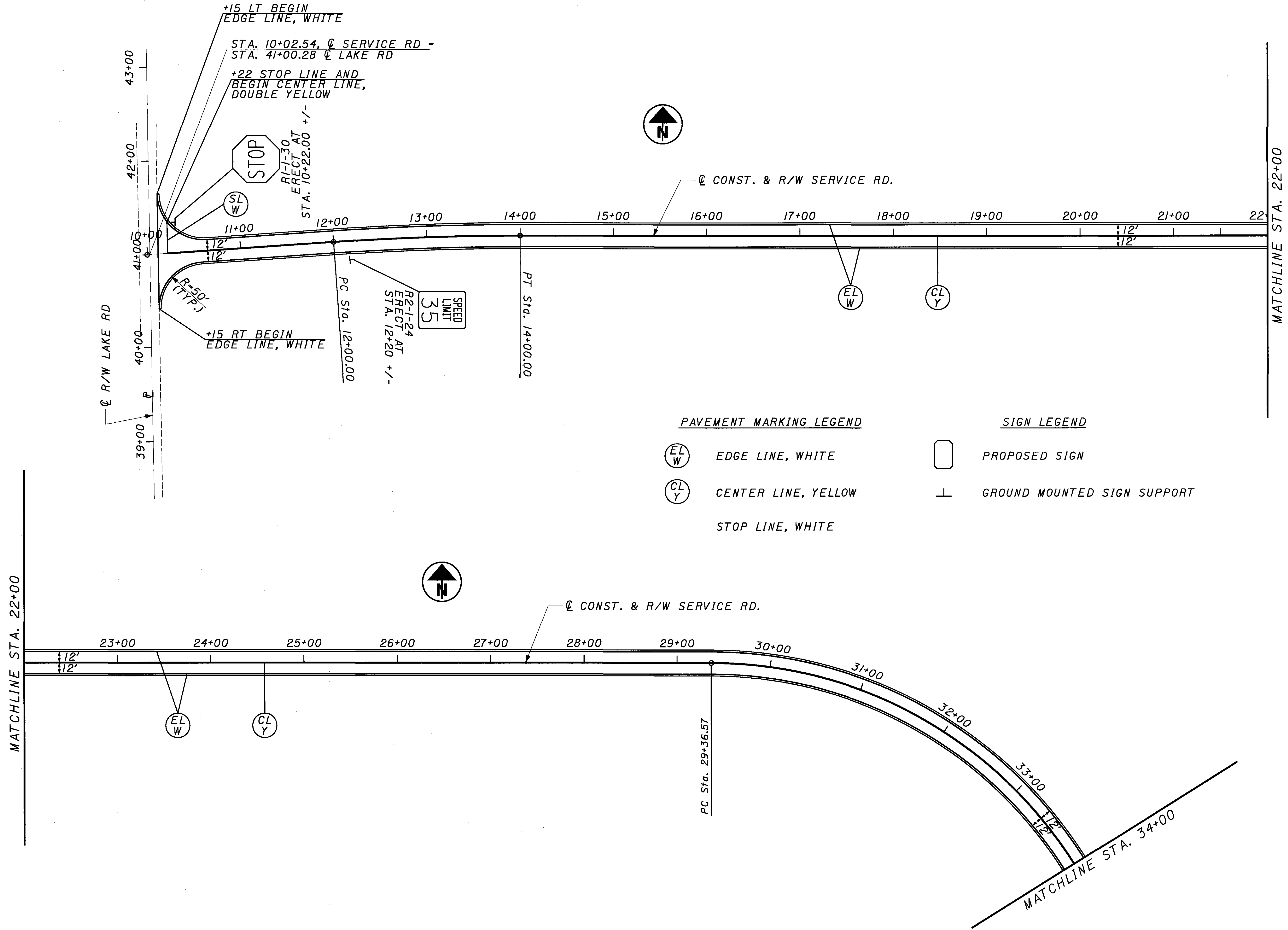


CALCULATED	EMW	CHECKED	SLT

PAVEMENT MARKING & SIGNING PLAN
RAMPS S-E AND E-N AT I-76

MED-71-6.06

...75657tpservicel9.dgn



PAVEMENT MARKING LEGEND

- (EL W) EDGE LINE, WHITE
- (CL Y) CENTER LINE, YELLOW
- STOP LINE, WHITE

SIGN LEGEND

- [RECTANGLE] PROPOSED SIGN
- [T-SHAPE] GROUND MOUNTED SIGN SUPPORT

CALCULATED
JLE
CHECKED
SLT

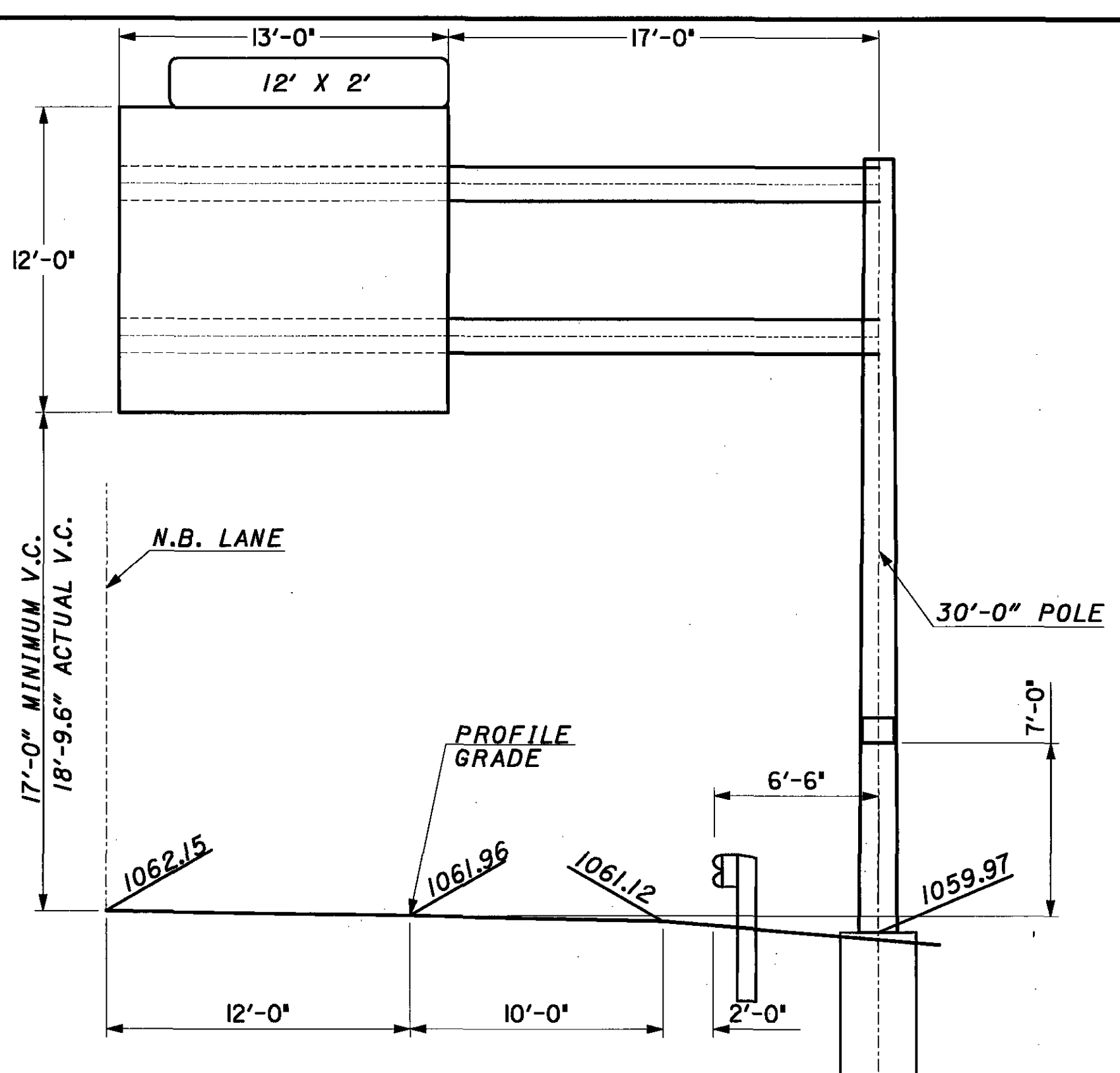
0 25 50 100
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN

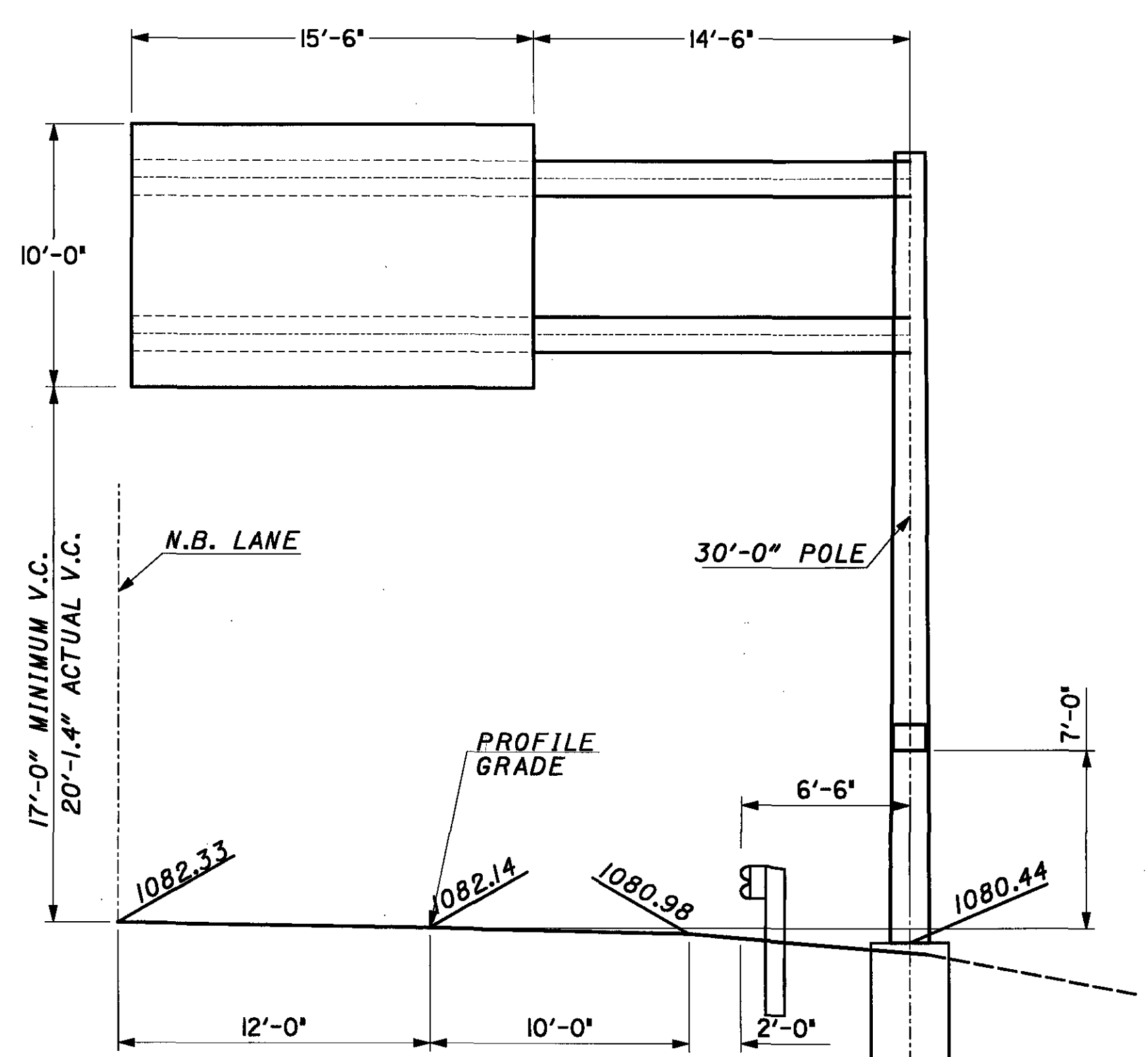
MED-71-6.06

CANTILEVER SIGN ELEVATION DETAILS

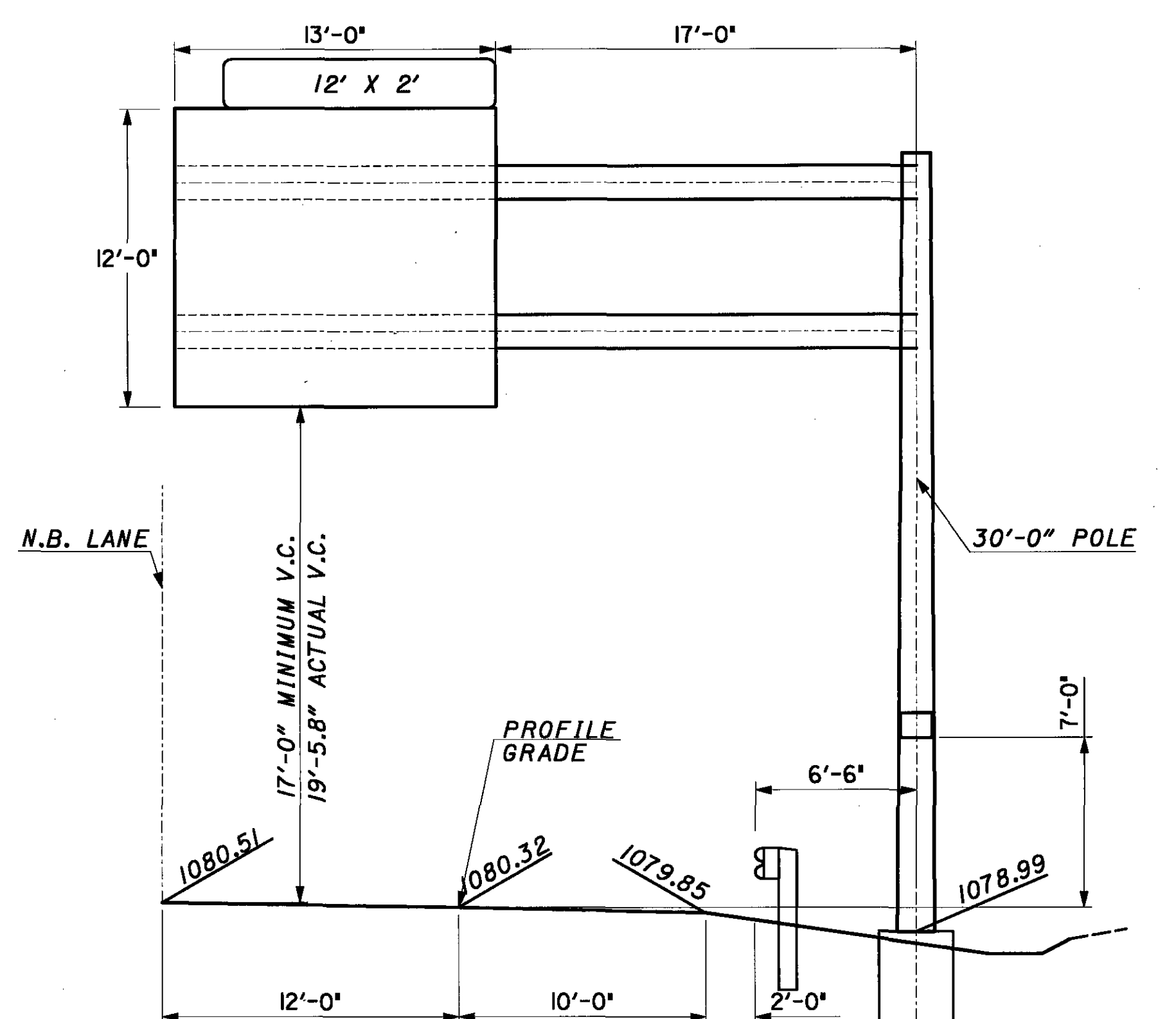
MED-71-6.06



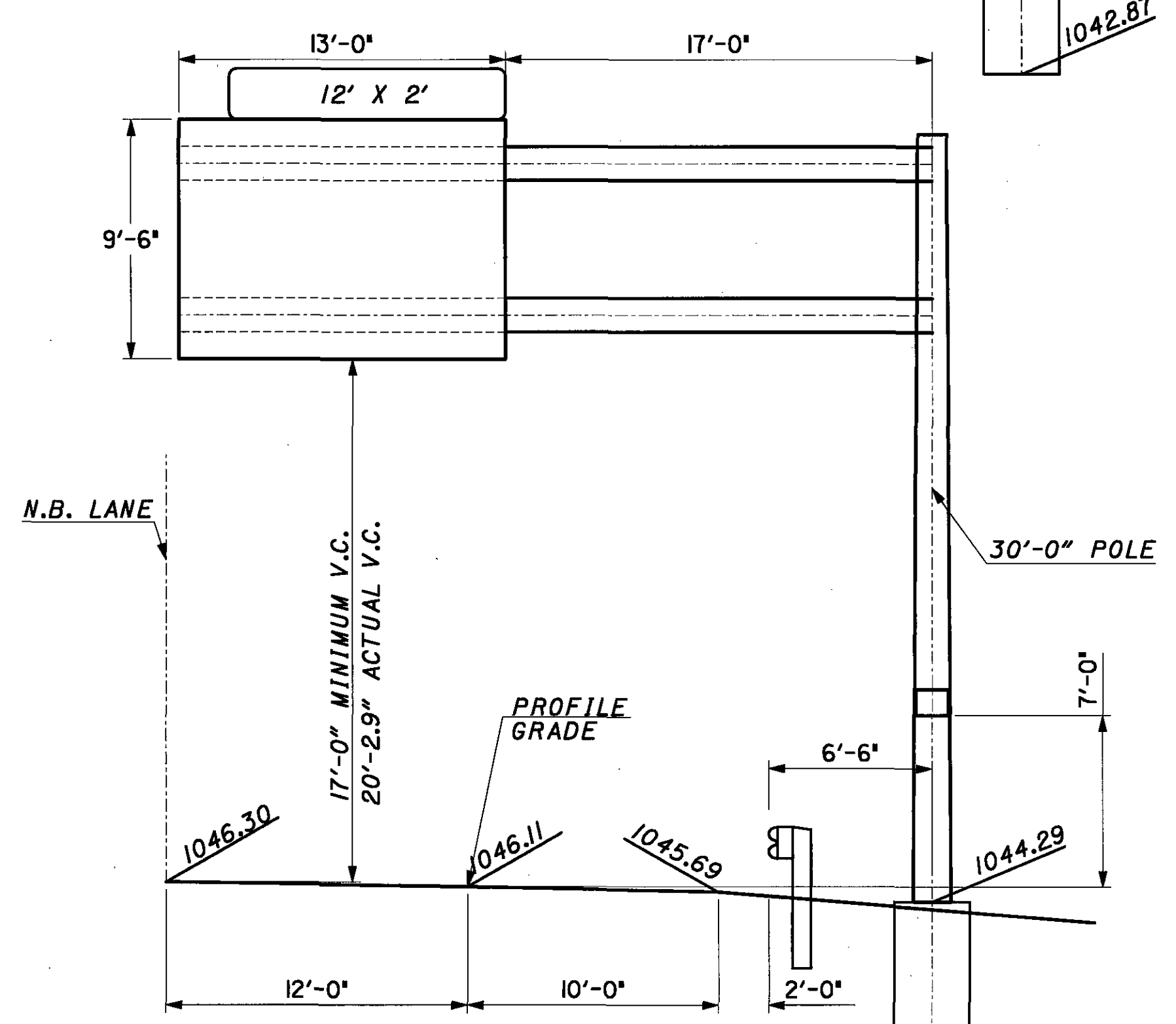
CANTILEVER SIGN NO. 1
 STA. 325+00, 82.7'RT. N.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM



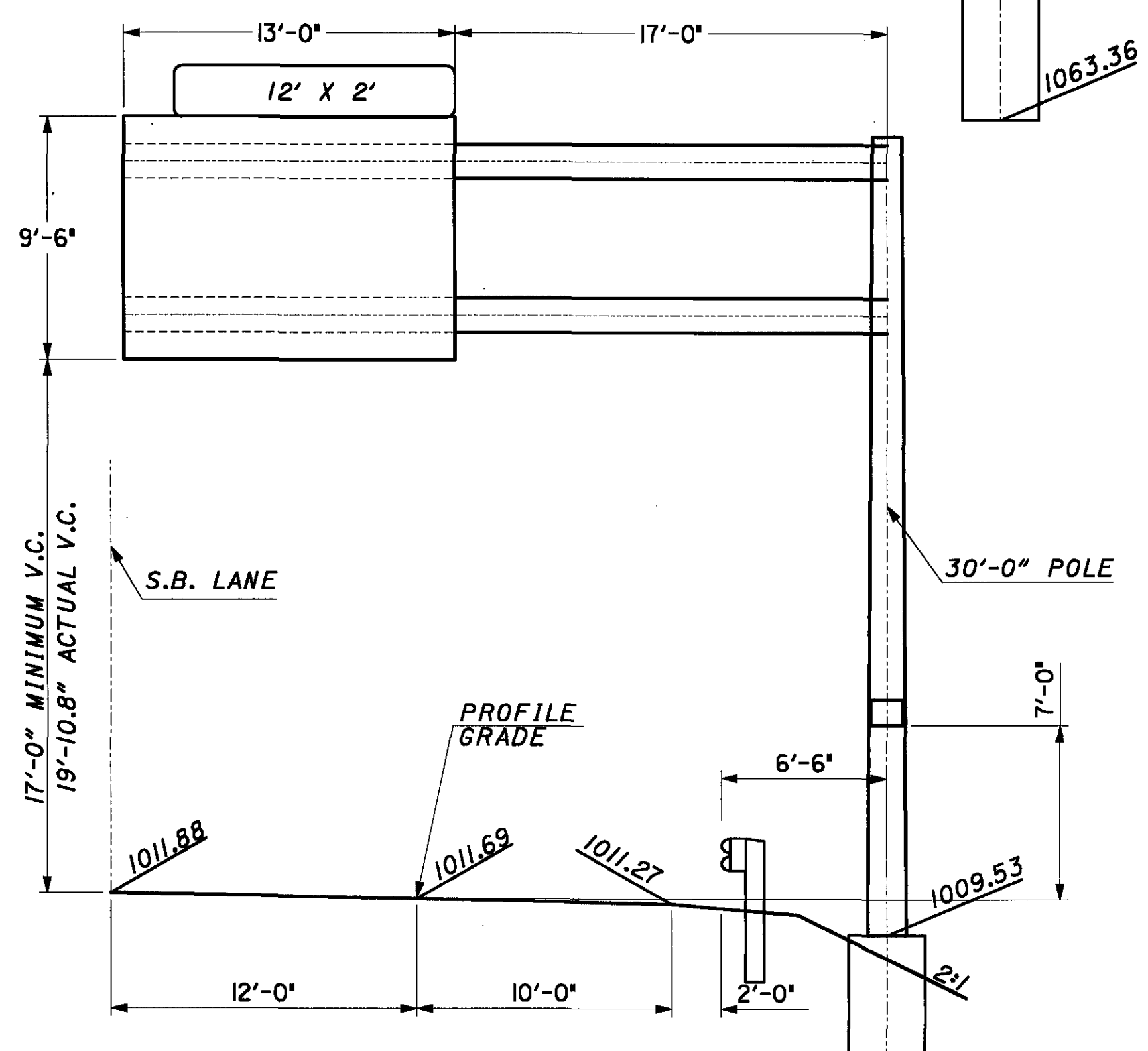
CANTILEVER SIGN NO. 2
 STA. 335+25, 82.7'RT. N.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM



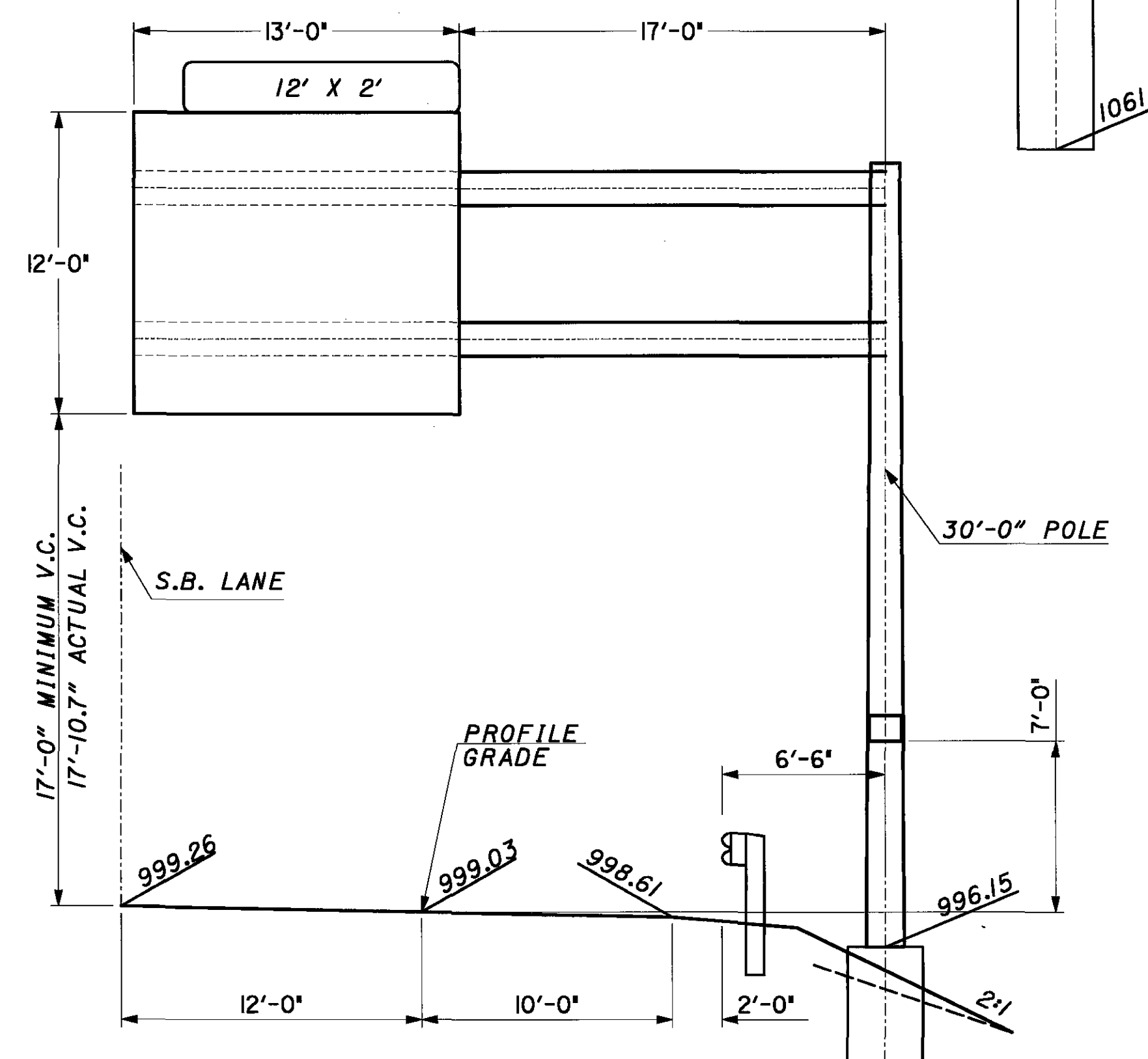
CANTILEVER SIGN NO. 3
 STA. 355+75, 82.7'RT. N.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM



CANTILEVER SIGN NO. 4
 STA. 373+17, 97.4'RT. N.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM

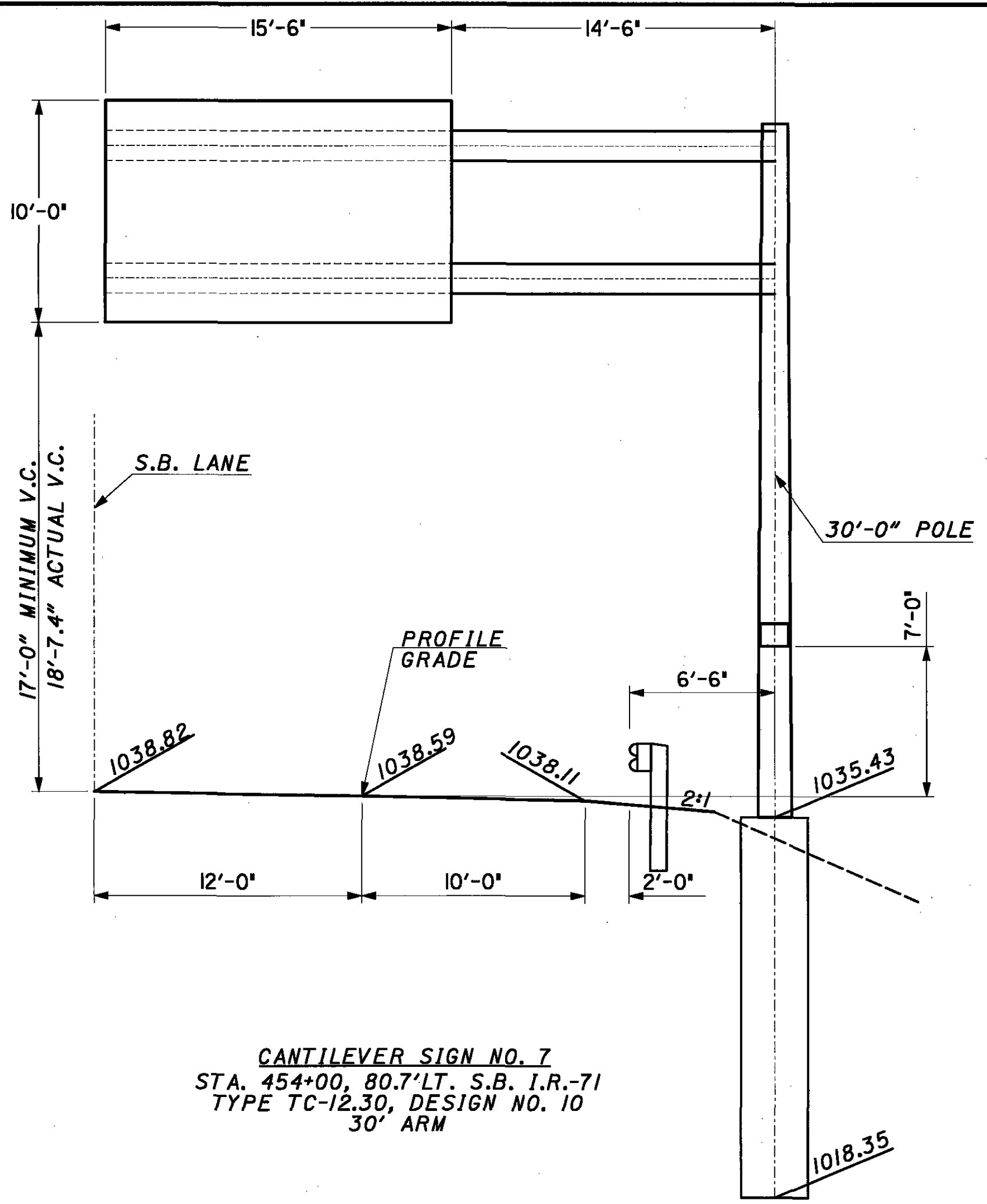


CANTILEVER SIGN NO. 5
 STA. 414+67, 97.4'LT. S.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM

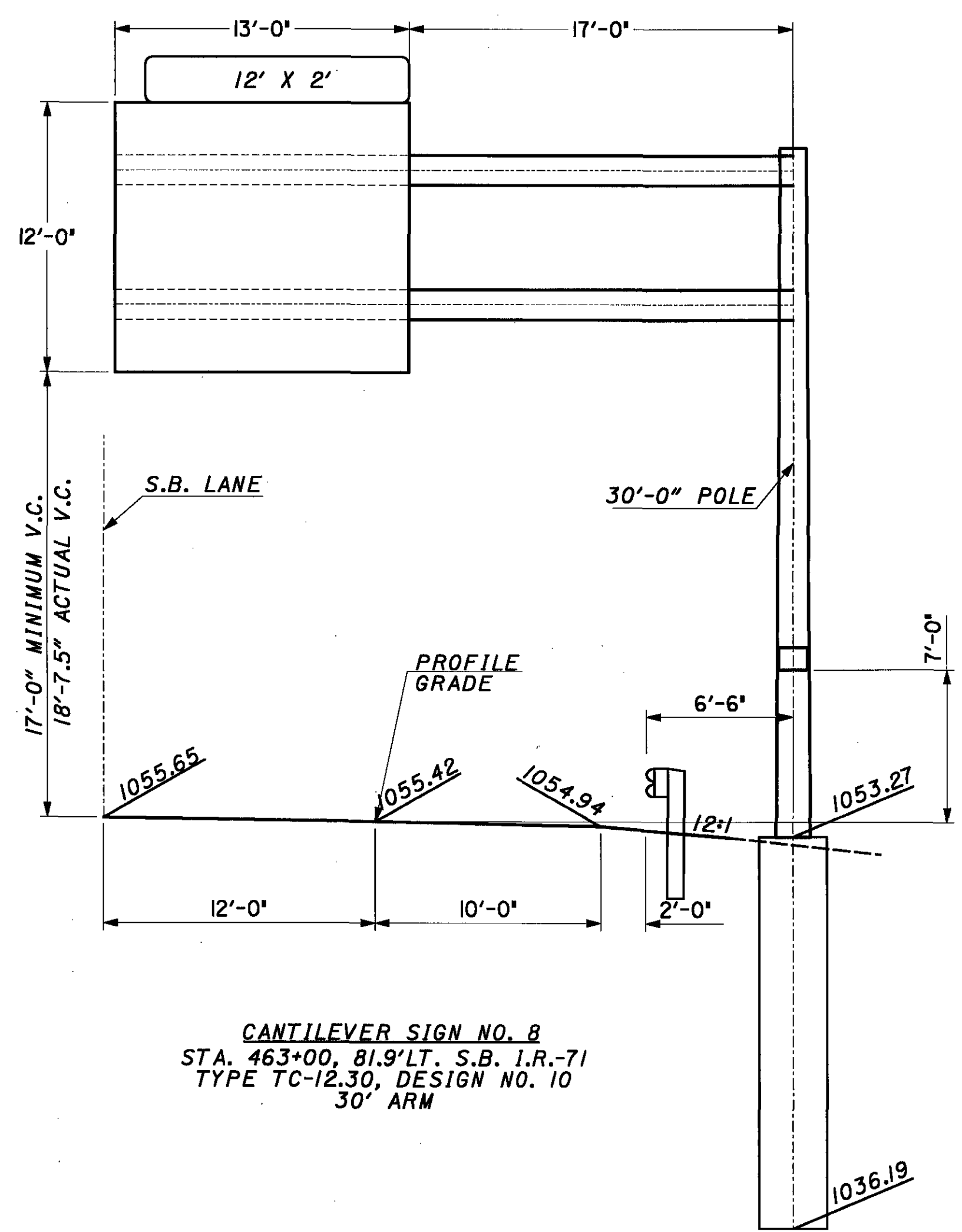


CANTILEVER SIGN NO. 6
 STA. 433+00, 80.7'LT. S.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM

Projectwise:PR33412/cadd/75657TEL.dgn



CANTILEVER SIGN NO. 7
 STA. 454+00, 80.7' LT. S.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM



CANTILEVER SIGN NO. 8
 STA. 463+00, 81.9' LT. S.B. I.R.-71
 TYPE TC-12.30, DESIGN NO. 10
 30' ARM

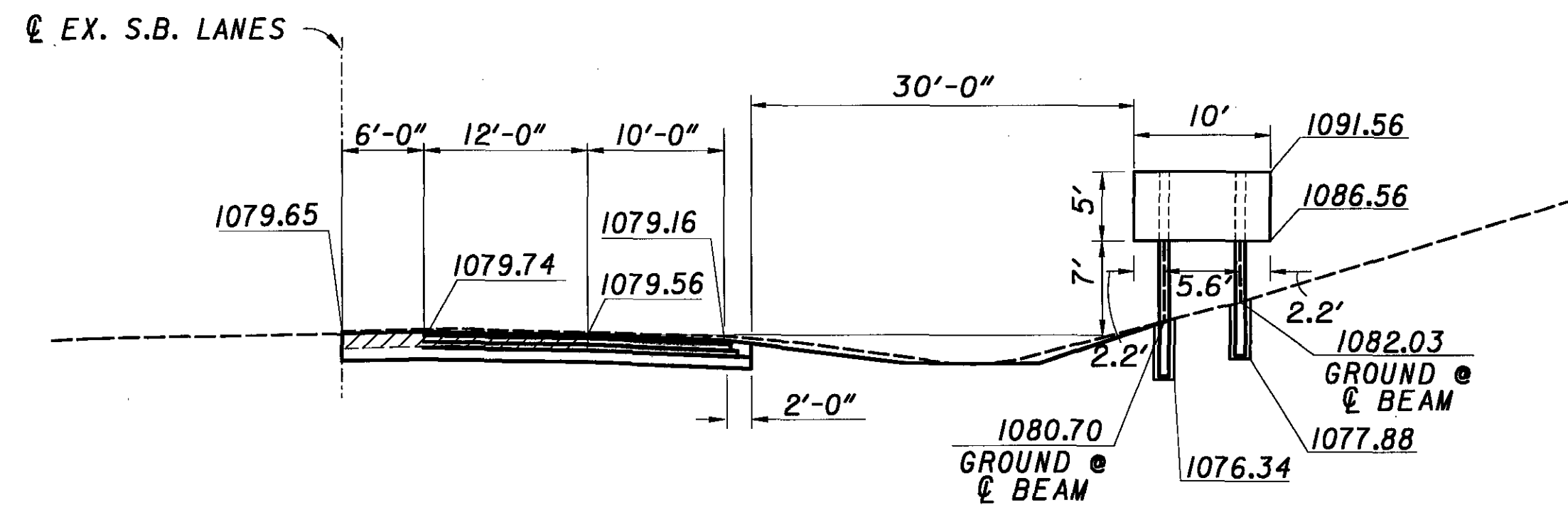
Projectwise:PR33412/cadd/75657TE2.dgn

CALCULATED
 EMW
 CHECKED
 SLT

CANTILEVER SIGN ELEVATION DETAILS

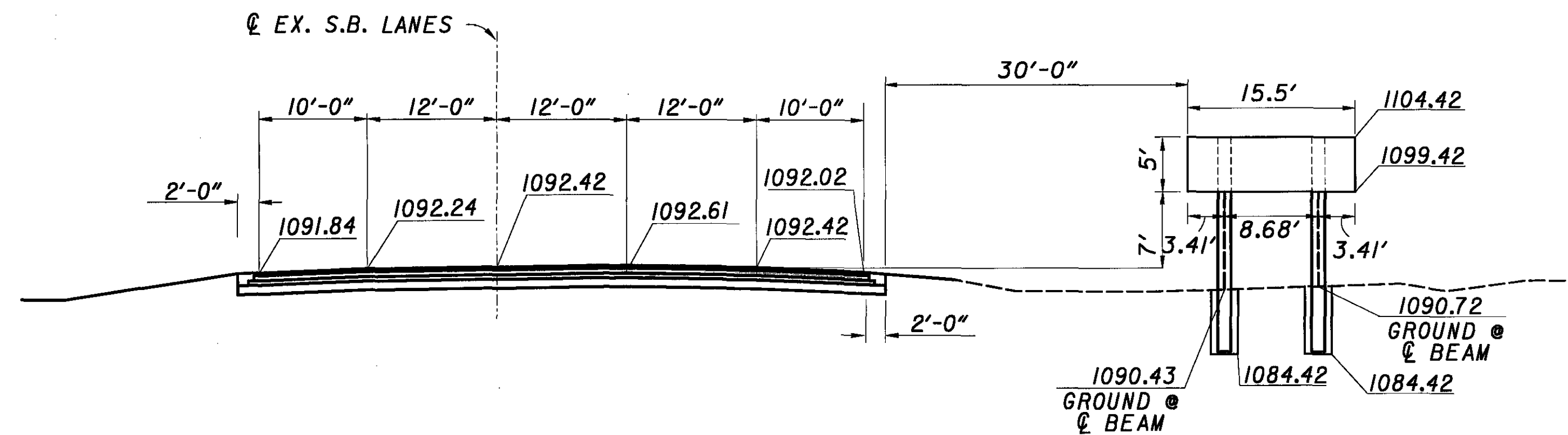
MED-71-6.06

600
 1120



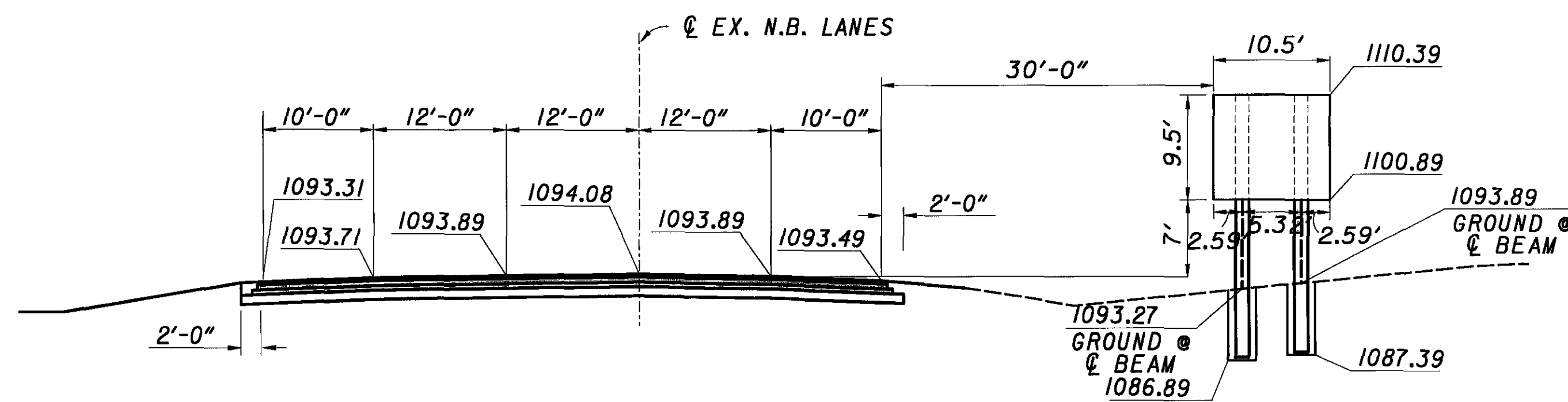
STA. 334+00 S.B., 106.12' LT.

R2-H2b-84
2-S4X7.7 BEAMS 15'/13.5' LONG
WITH BREAKAWAY CONNECTIONS



STA. 342+00 S.B., 113.75' LT.

E7
2-W10X12 BEAMS 20'/20' LONG
WITH BREAKAWAY CONNECTIONS

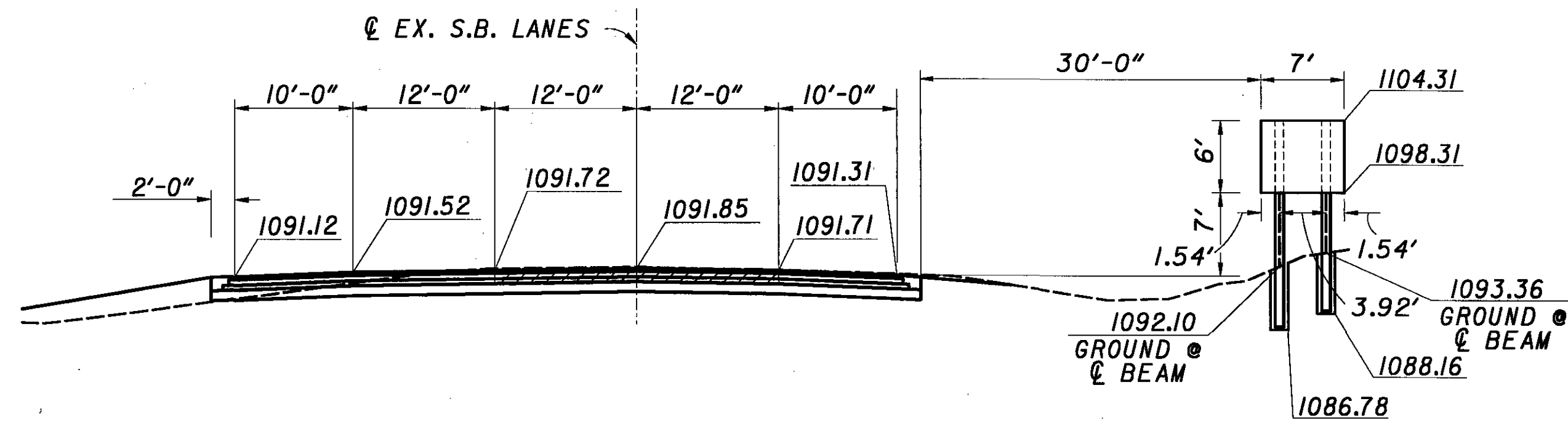


STA. 345+50 N.B., 111.25' RT.

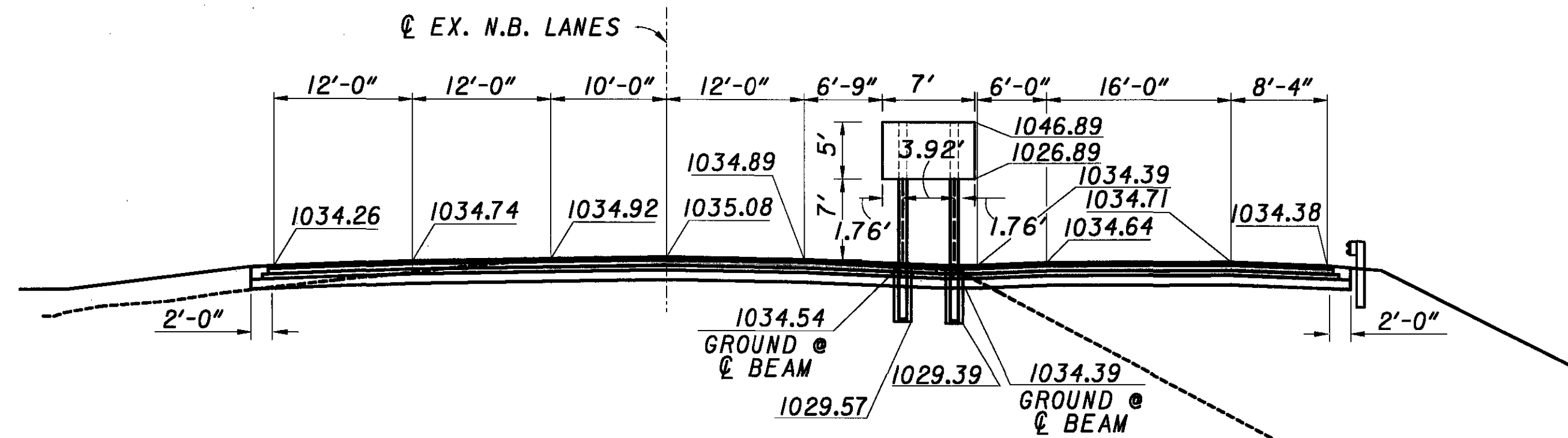
E1-1
2-W8X18 BEAMS 23.5'/23' LONG
WITH BREAKAWAY CONNECTIONS

NOTE: ALL DETAILS SHOWN IN THE DIRECTION
TRAFFIC IS TRAVELING.
SEE SHEETS 580-581 FOR PLAN VIEW.
SEE SHEET 561-562 FOR SIGNING QUANTITIES.
SEE STANDARD CONSTRUCTION DRAWING
TC-41.10 FOR ADDITIONAL DETAILS.

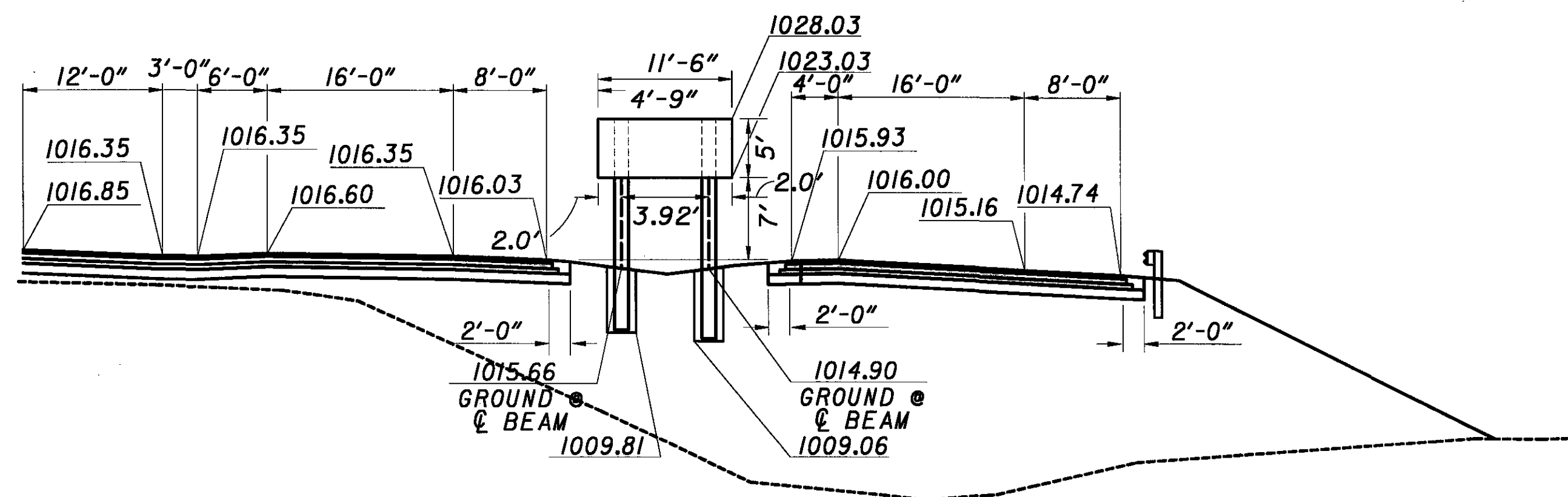
Projectwise:PR33412/cadd/75657TE3.dgn



STA. 350+00 S.B., 106.81' LT.
 R2-H2b-84
 W6X9 17.5/16 LONG
 WITH BREAKAWAY CONNECTIONS

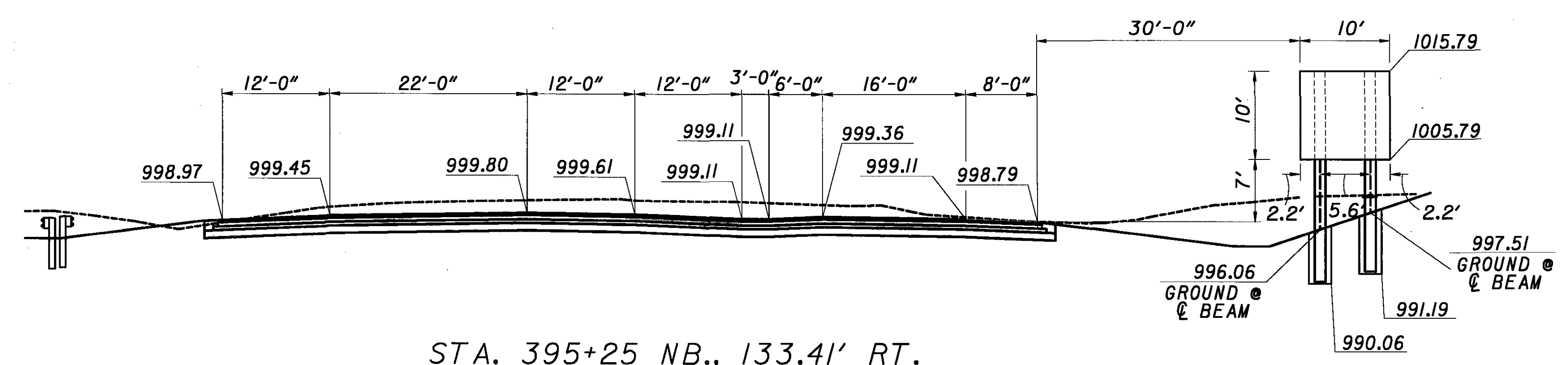


STA. 378+83 NB., 72.76' RT.
 E5-1a
 W6X9 17'/17.5' LONG
 WITH BREAKAWAY CONNECTIONS

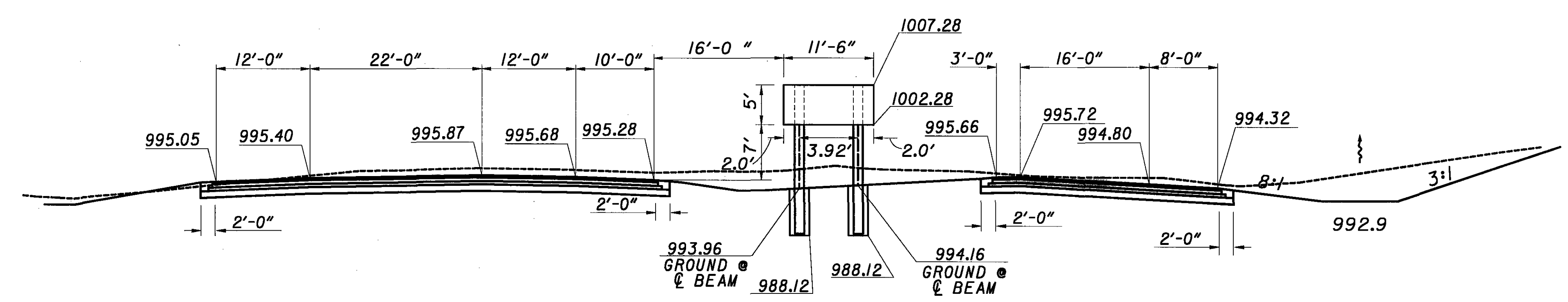


STA. 388+73 NB., 112.62' RT.
 E5-1a
 W10X12 18'/19' LONG
 WITH BREAKAWAY CONNECTIONS

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.
 SEE SHEETS 581-583 FOR PLAN VIEW.
 SEE SHEET 561-564 FOR SIGNING QUANTITIES.
 SEE STANDARD CONSTRUCTION DRAWING TC-41.10 FOR ADDITIONAL DETAILS.

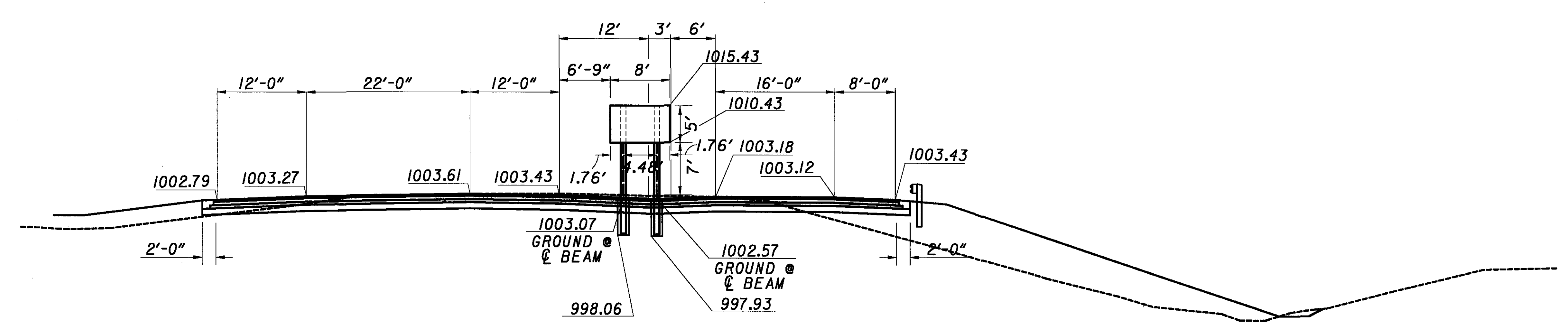


STA. 395+25 NB., 133.41' RT.
W13-H6-120
W8X18 21'/20' LONG
WITH BREAKAWAY CONNECTIONS



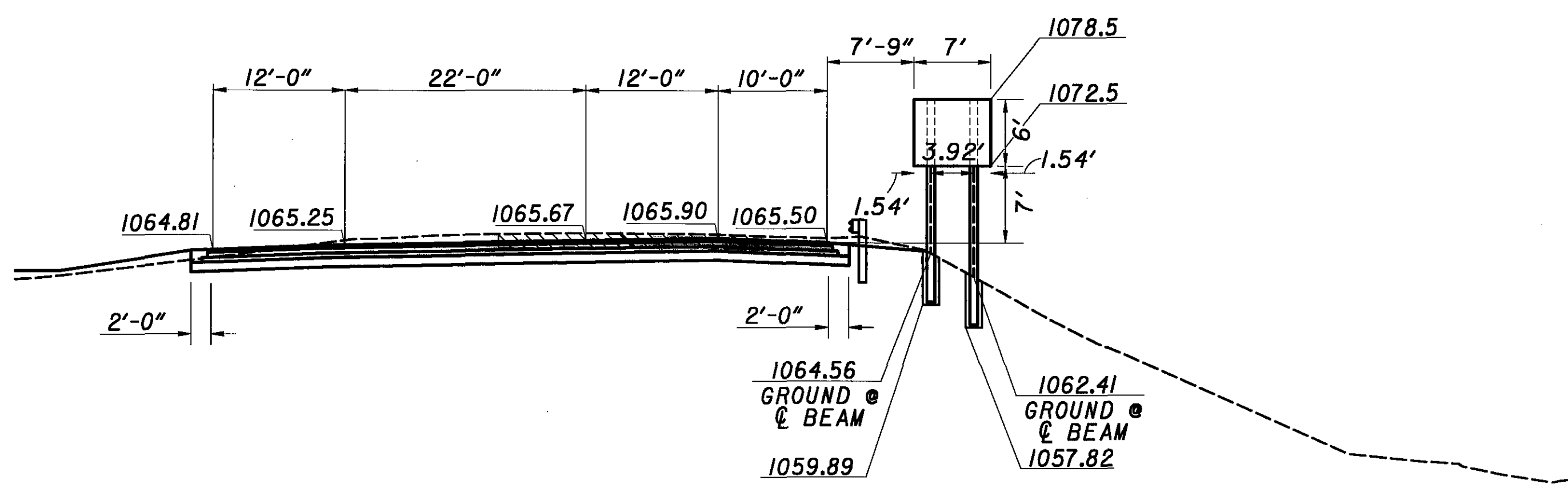
STA. 399+50 NB., 84.84' RT.
E5-1a
W10X12 19'/19' LONG
WITH BREAKAWAY CONNECTIONS

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.
SEE SHEETS 584-585 FOR PLAN VIEW.
SEE SHEET 563-566 FOR SIGNING QUANTITIES.
SEE STANDARD CONSTRUCTION DRAWING TC-41.10 FOR ADDITIONAL DETAILS.

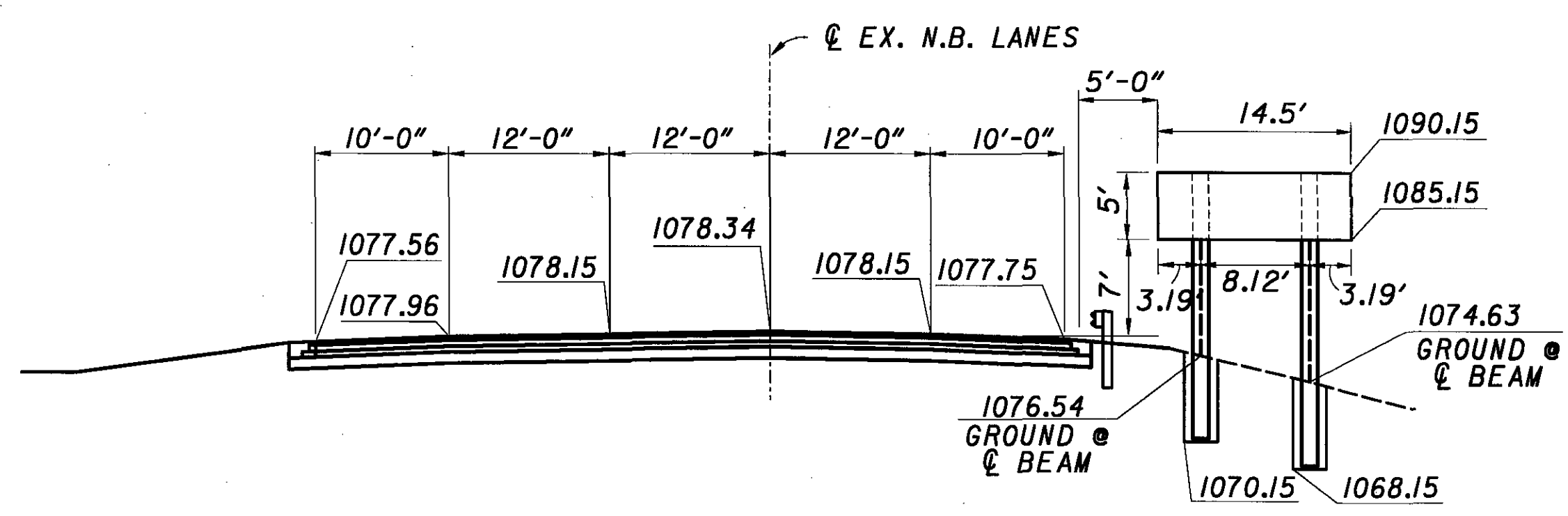


STA. 409+13 SB., 72.84' LT.
E5-1a
W6X9 17.5'/17.5' LONG
WITH BREAKAWAY CONNECTIONS

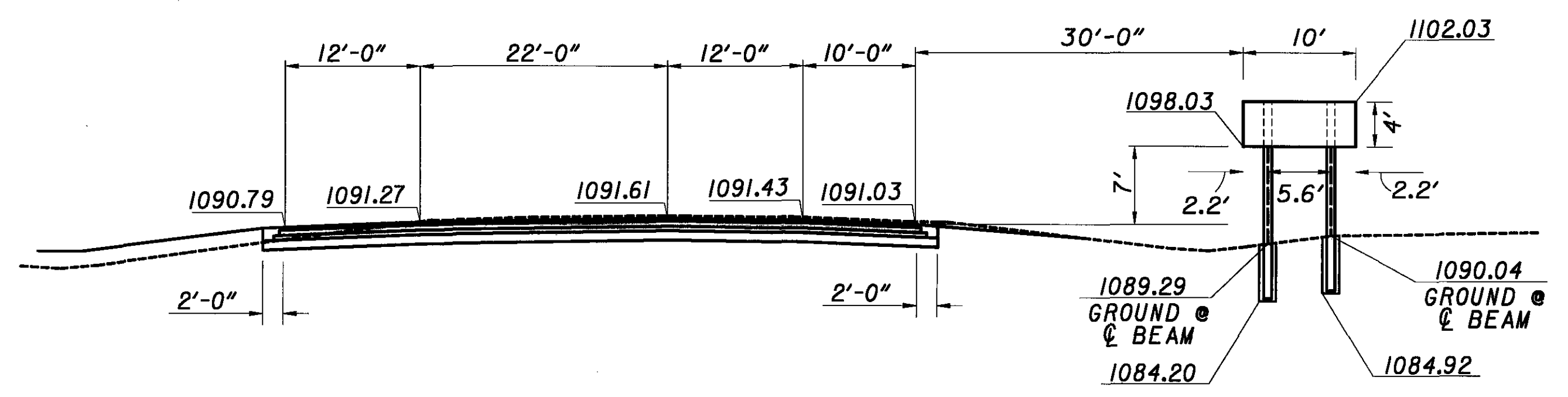
Projectwise:PR33412/CADD/15657TE5.DGN



STA. 468+00 NB., 83.89' RT.
R2-H2b-84
W6X9 18.5'/20.5' LONG



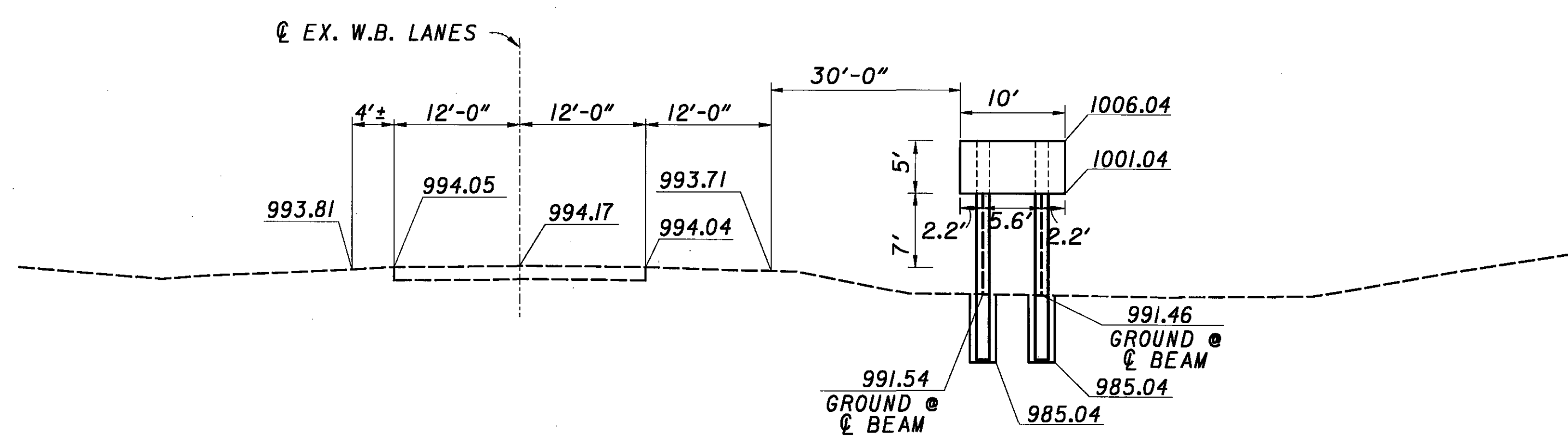
STA. 474+00 N.B., 90.25' RT.
E7
2-W10X12 BEAMS 20'/22' LONG



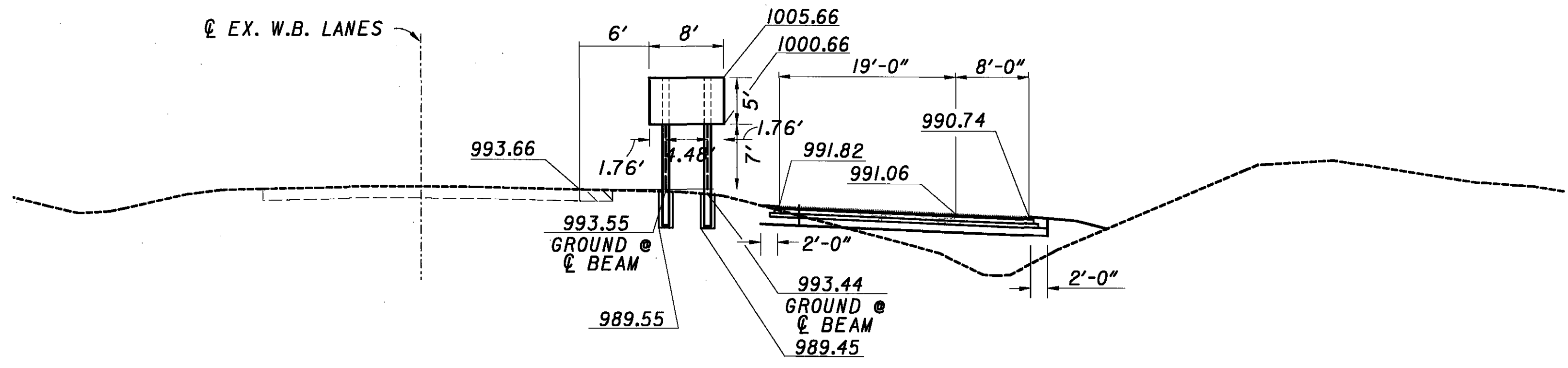
STA. 480+50 SB., 105.11' LT.
RELOCATED FROM STATION 449+80
W6X9 18'/17.5' LONG
WITH BREAKAWAY CONNECTIONS

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.
SEE SHEETS 588-589 FOR PLAN VIEW.
SEE SHEET 569-570 FOR SIGNING QUANTITIES.
SEE STANDARD CONSTRUCTION DRAWING TC-41.10 FOR ADDITIONAL DETAILS.

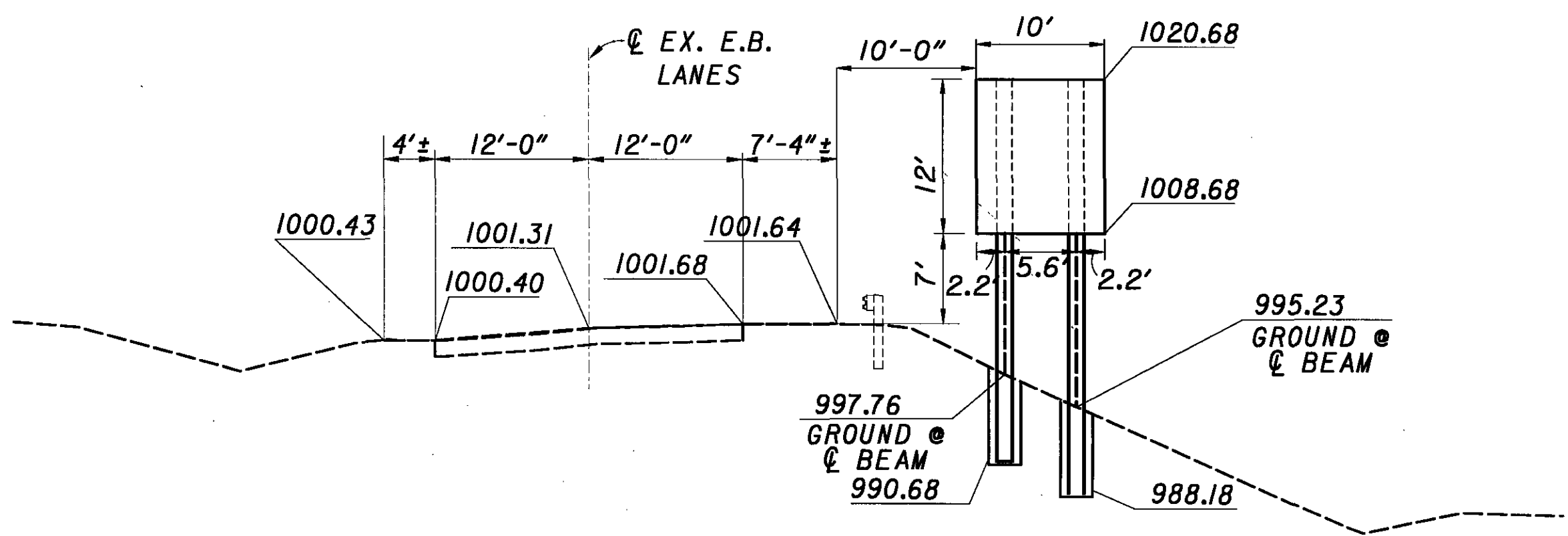
Projectwise\PR33412\CADD\756571E6.DGN



STA. 853+25 W.B., 111' LT.
EI-H3
2-W10X12 BEAMS 21'/21' LONG
WITH BREAKAWAY CONNECTIONS



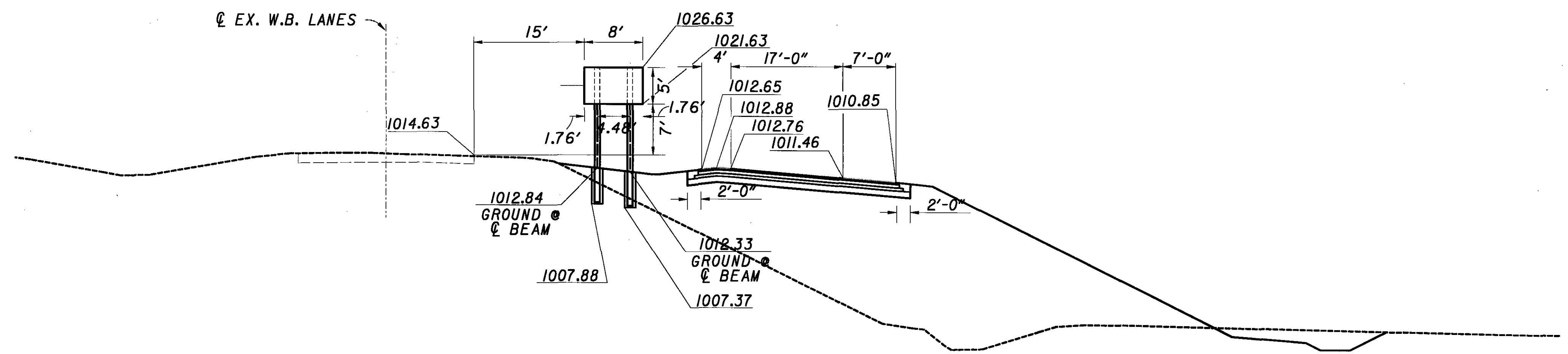
STA. 859+23 WB., 89.33' LT.
E5-1a
S4X7.7 16'/16' LONG
WITH BREAKAWAY CONNECTIONS



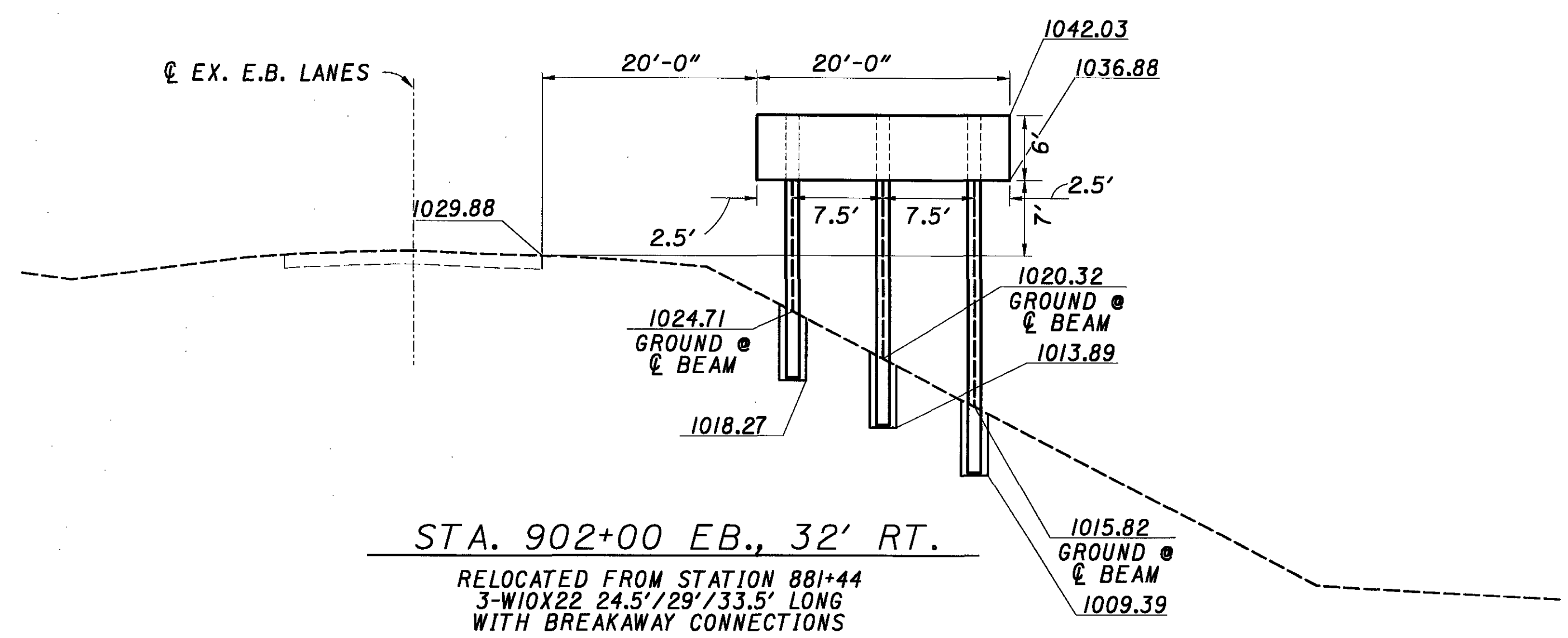
STA. 892+00 E.B., 35.22' RT.
EI-1
2-W10X22 BEAMS 30'/32.5' LONG

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.
SEE SHEETS 594-595 FOR PLAN VIEW.
SEE SHEET 573-574 FOR SIGNING QUANTITIES.
SEE STANDARD CONSTRUCTION DRAWING TC-41.10 FOR ADDITIONAL DETAILS.

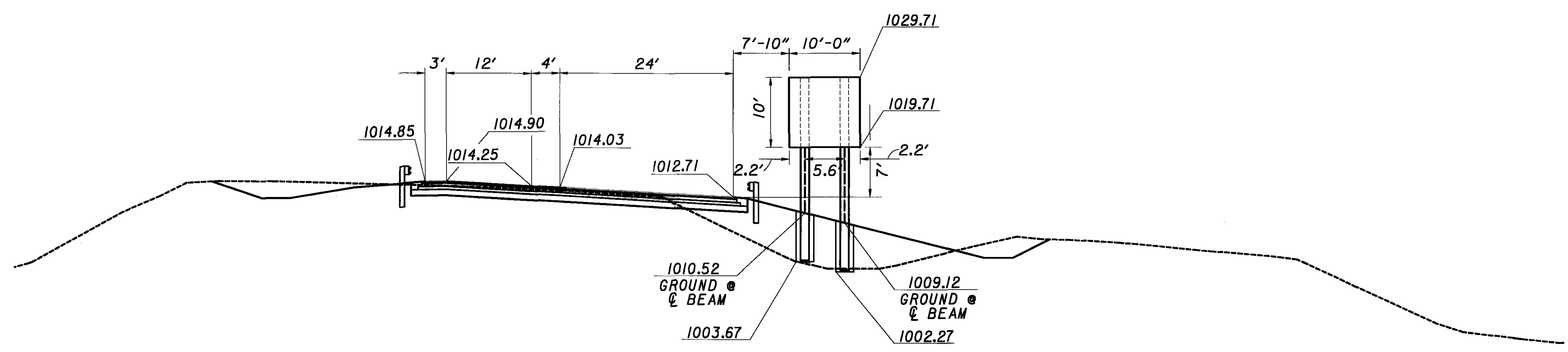
Projectwise:PR33412/cadd/756571E1.dgn



STA. 896+75 WB., 91.08' LT.
E5-1a
W6X9 18.5'/19' LONG
WITH BREAKAWAY CONNECTIONS



STA. 902+00 EB., 32' RT.
RELOCATED FROM STATION 881+44
3-W10X22 24.5'/29'/33.5' LONG
WITH BREAKAWAY CONNECTIONS



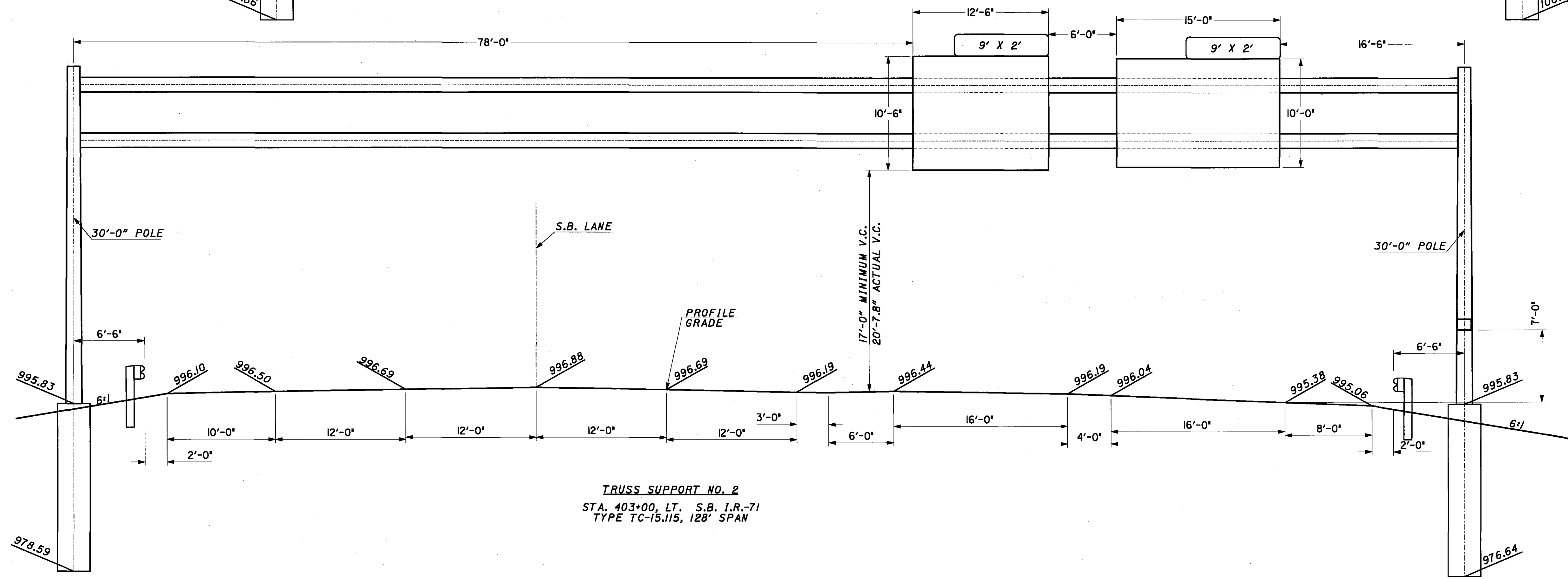
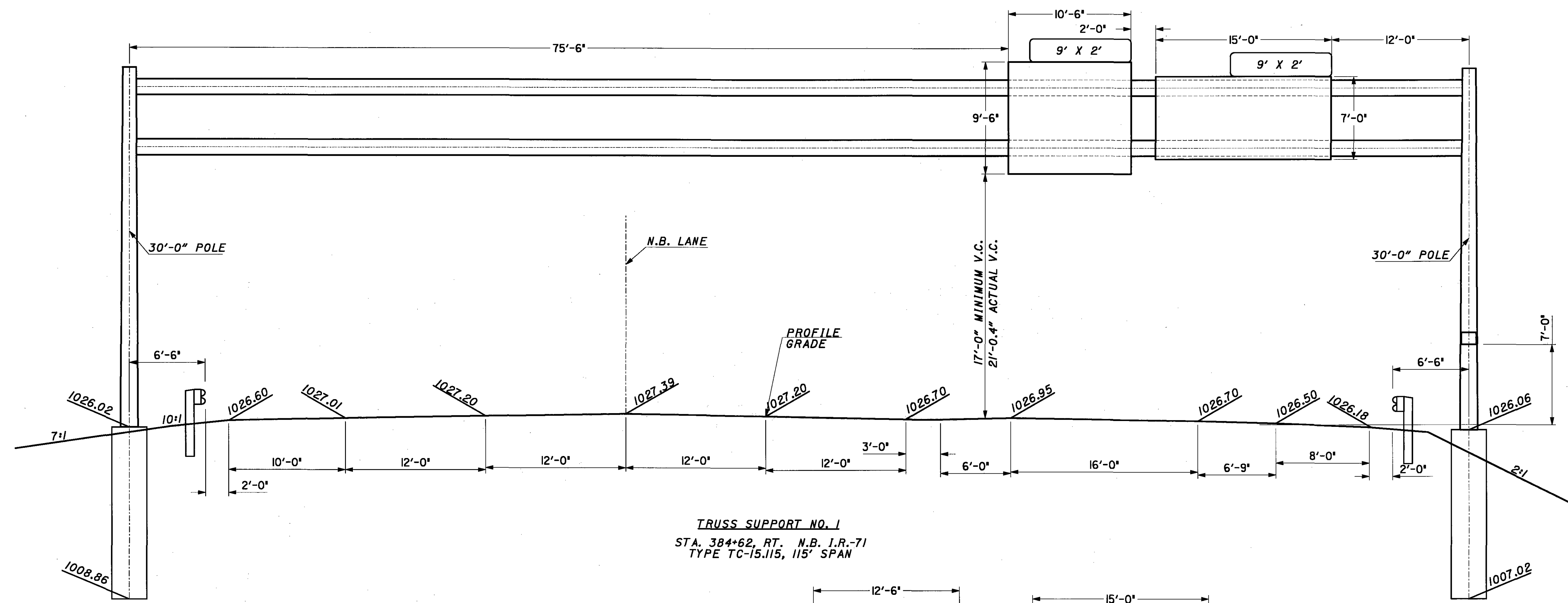
STA. 34+28 SB., 32.42' LT.
W13-H6-120
W10X22 26'/27' LONG
WITH BREAKAWAY CONNECTIONS

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.
SEE SHEETS 591, 595 FOR PLAN VIEW.
SEE SHEET 569-570, 573-574 FOR SIGNING QUANTITIES.
SEE STANDARD CONSTRUCTION DRAWING TC-41.10 FOR ADDITIONAL DETAILS.

Projectwise:PR33412/CADD/75657TE8.DGN

TRUSS SIGN ELEVATION DETAILS

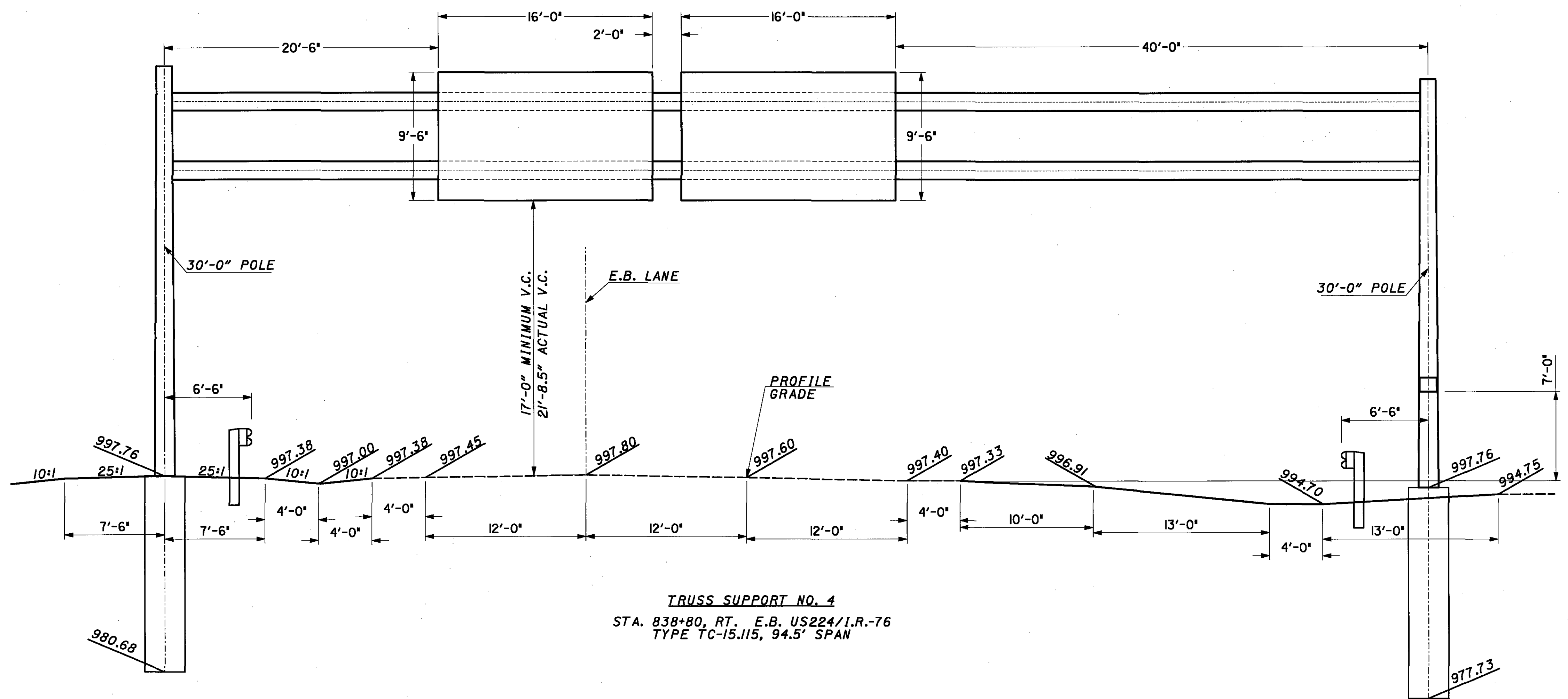
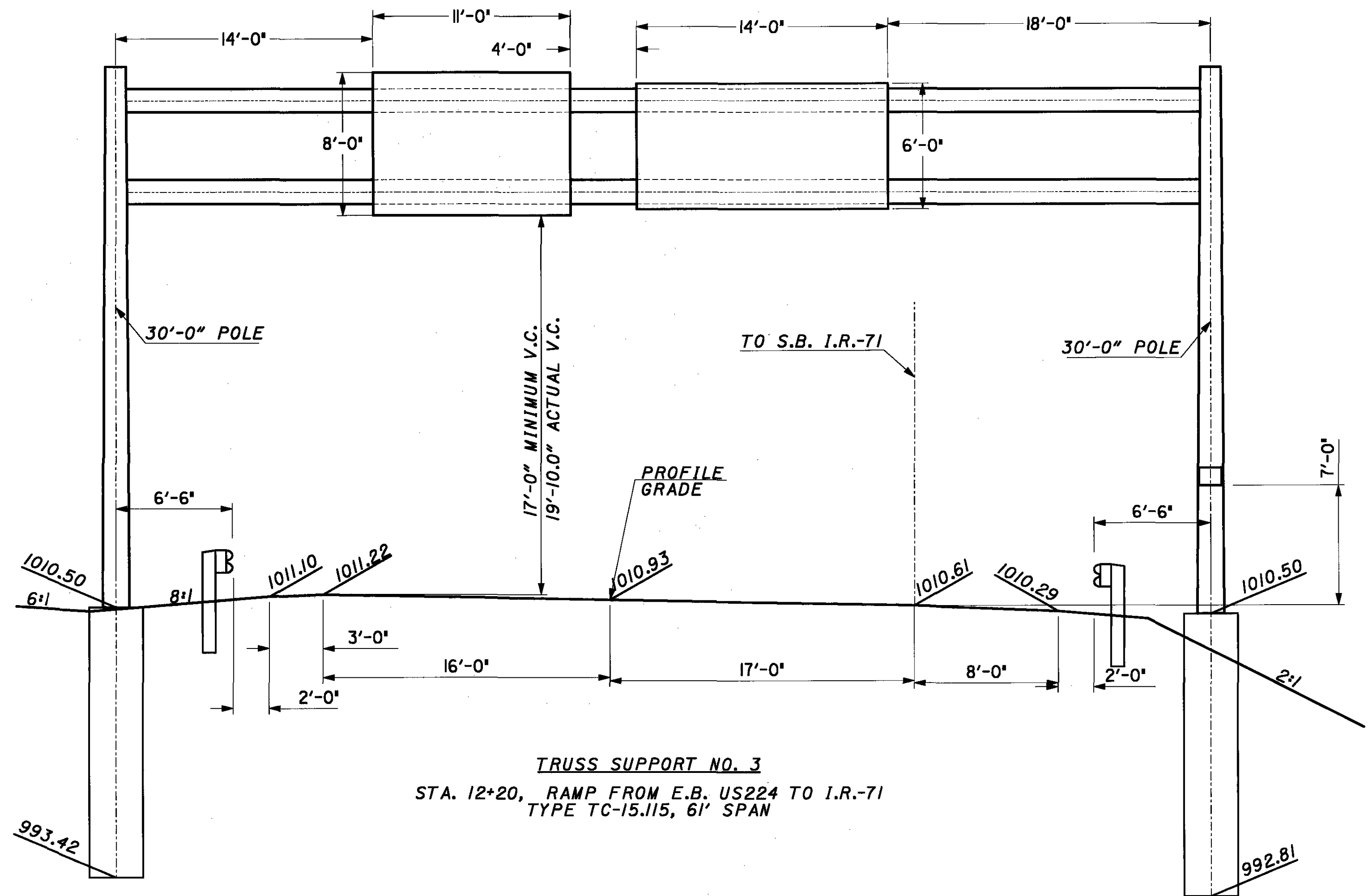
MED-71-6.06



Projectwise:PR33412/cadd/756571E9.dgn

TRUSS SIGN ELEVATION DETAILS

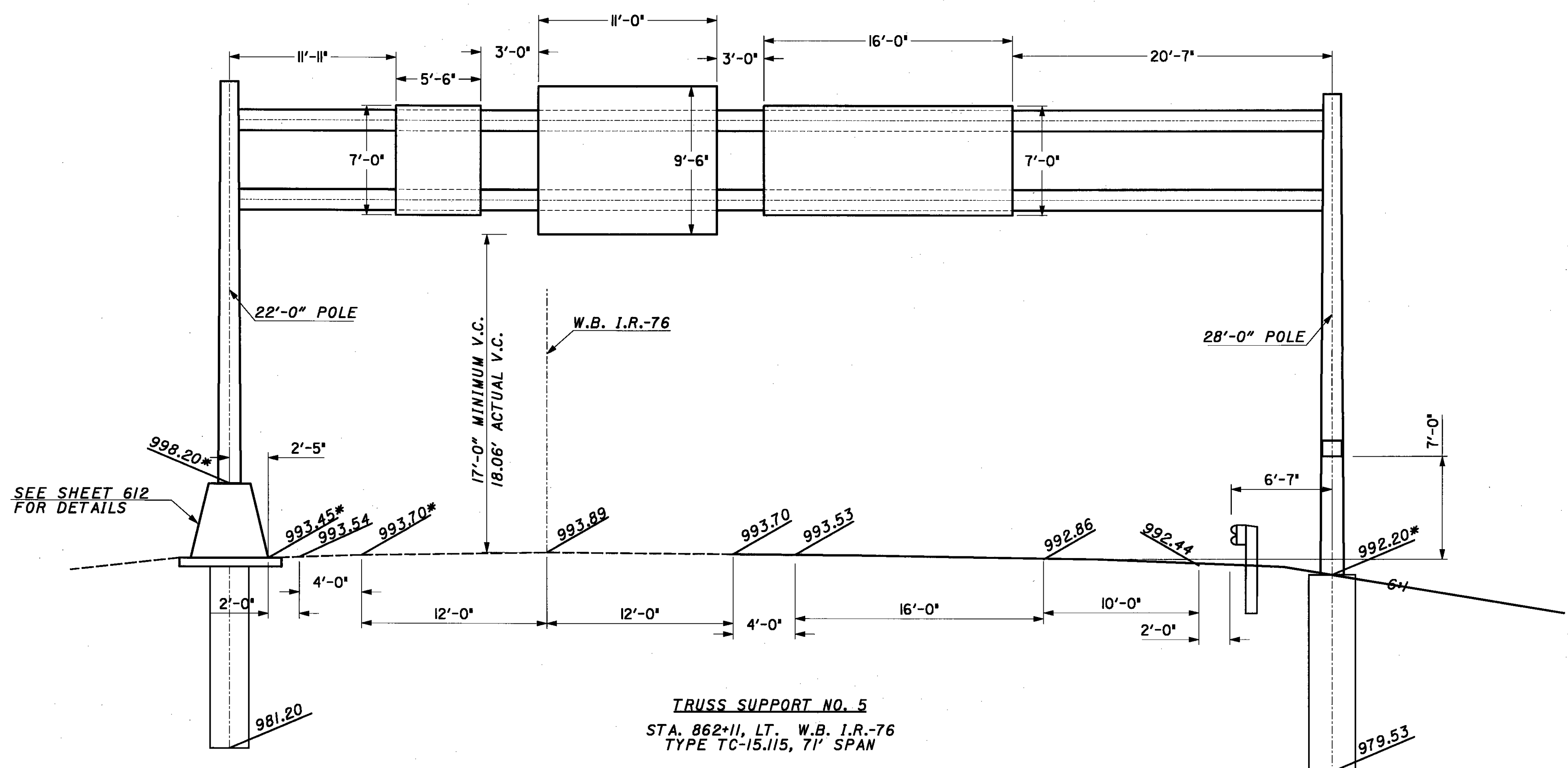
MED-71-6.06



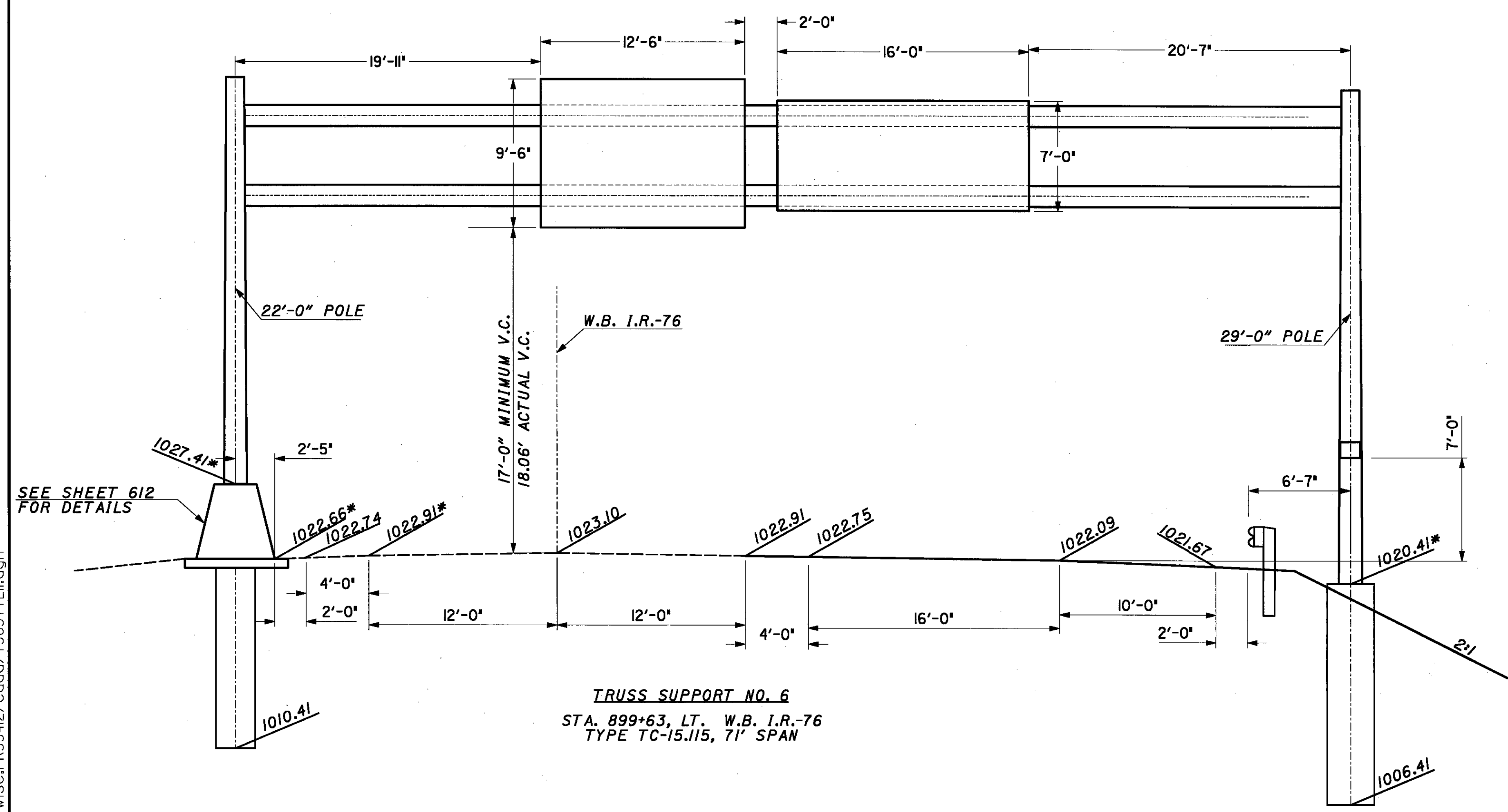
Projectwise:PR33412/cadd/756571E10.dgn

TRUSS SIGN ELEVATION DETAILS

MED-71-6.06



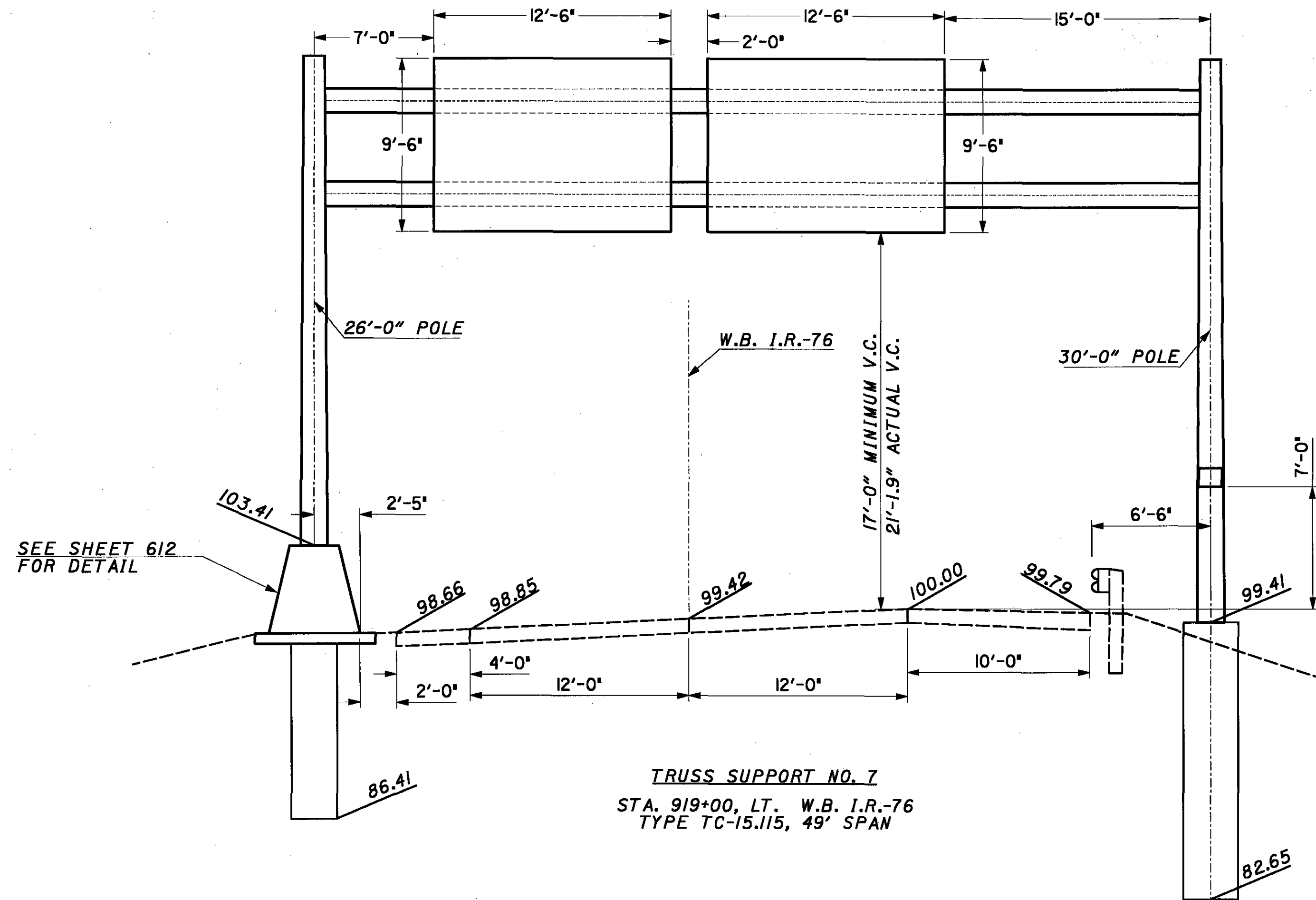
TRUSS SUPPORT NO. 5
STA. 862+11, LT. W.B. I.R.-76
TYPE TC-15.115, 71' SPAN



TRUSS SUPPORT NO. 6
STA. 899+63, LT. W.B. I.R.-76
TYPE TC-15.115, 71' SPAN

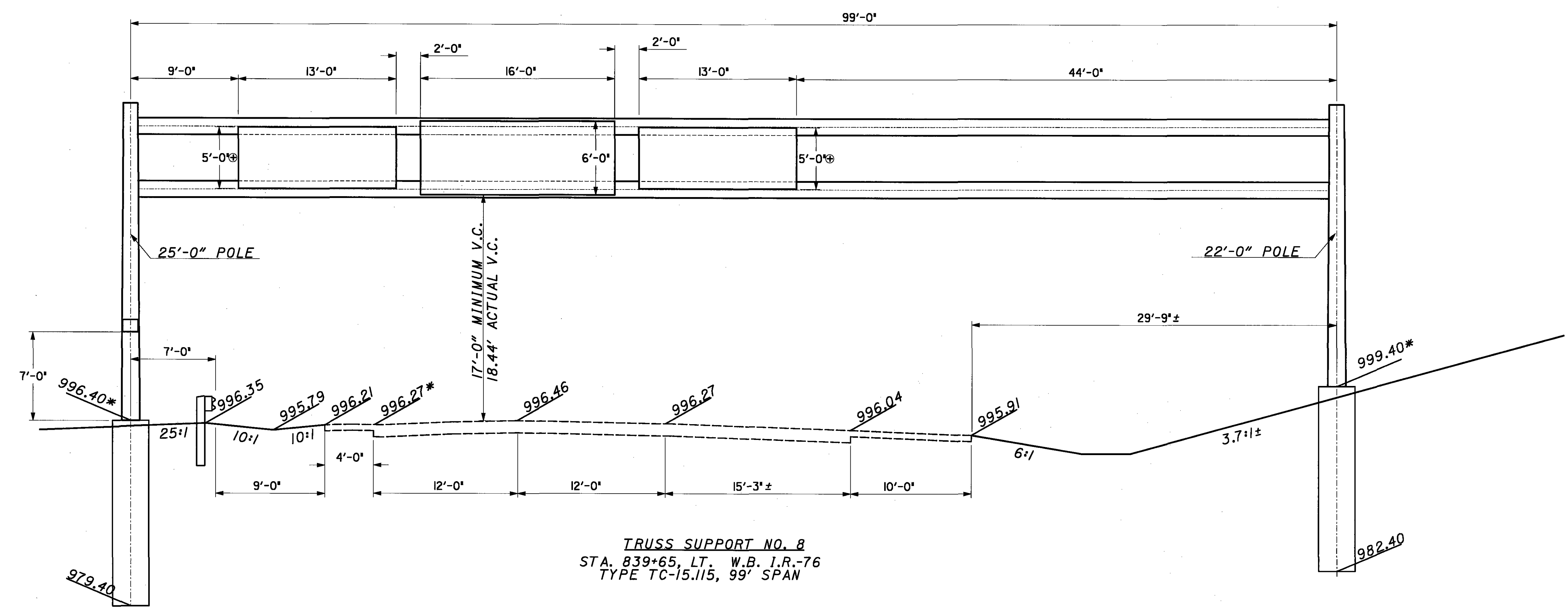
* INSIDE EDGE OF PAVEMENT SHALL BE USED AS A LOCAL BENCHMARK FOR SETTING THE FOUNDATION ELEVATIONS

Projectwise:PR33412/cadd/T56571E11.dgn



TRUSS SIGN ELEVATION DETAILS

MED-71-6.06



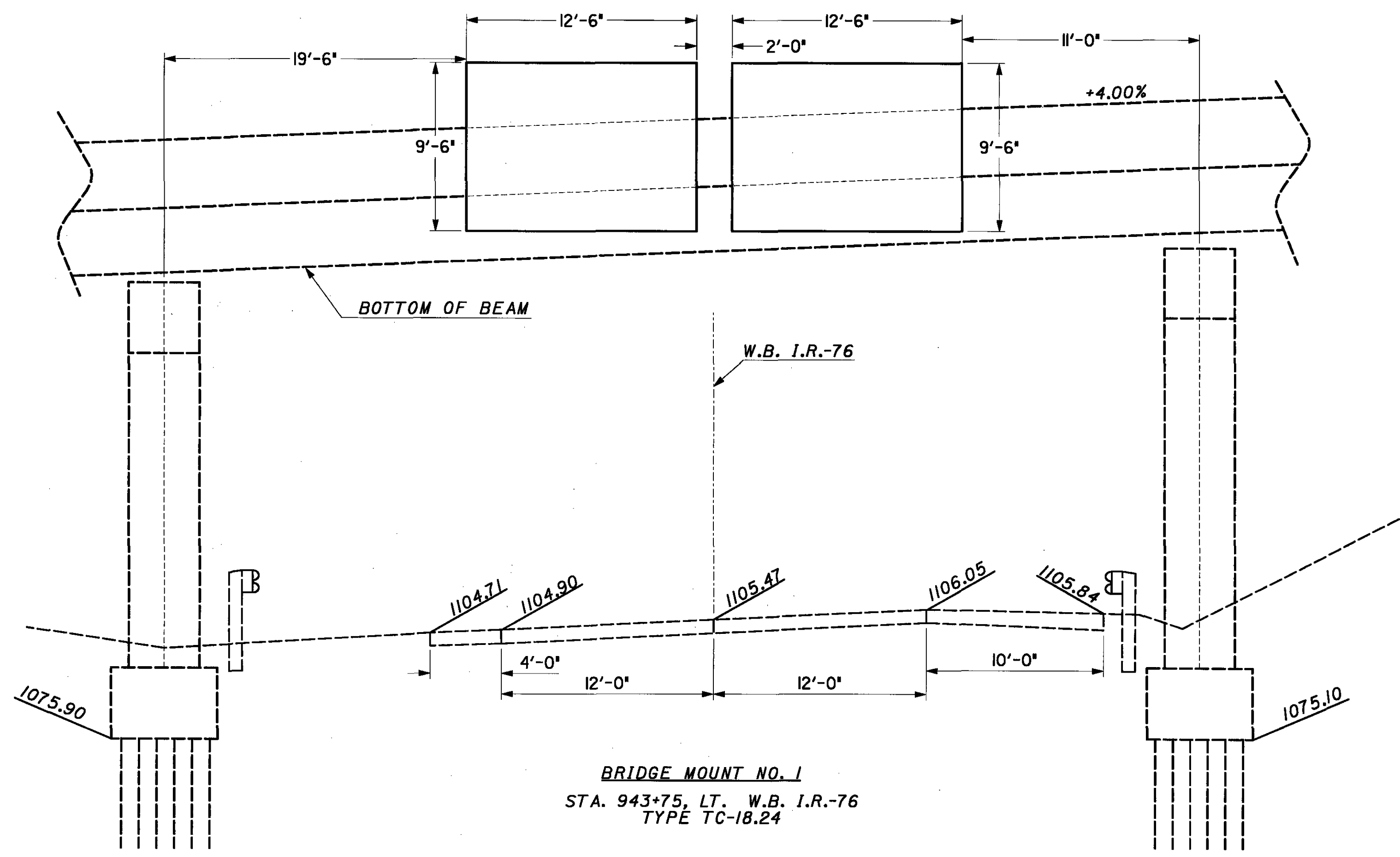
TRUSS SUPPORT NO. 8
STA. 839+65, LT. W.B. I.R.-76
TYPE TC-15.115, 99' SPAN

⊕ ADDITIONAL HEIGHT PROVIDED TO EQUAL TRUSS HEIGHT
* INSIDE EDGE OF PAVEMENT SHALL BE USED AS A LOCAL BENCHMARK FOR SETTING THE FOUNDATION ELEVATIONS

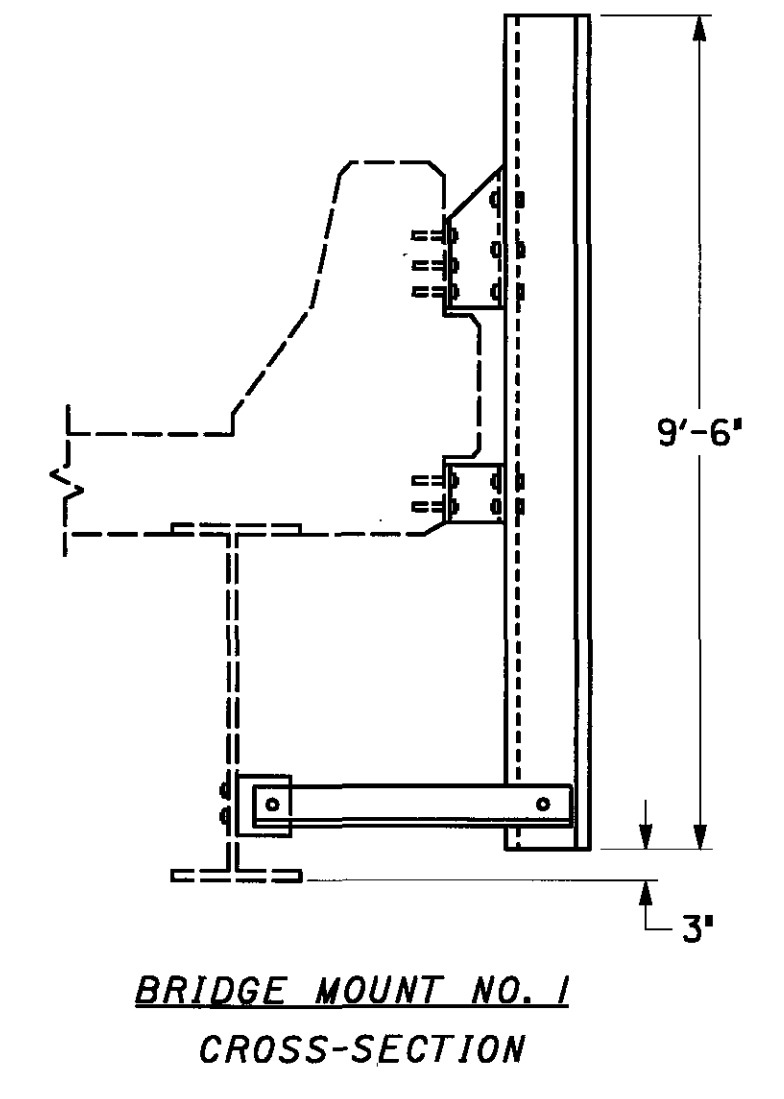
Projectwise:PR33412/cadd/75657TE14.dgn

BRIDGE MOUNTED SIGN ELEVATION DETAILS

MED-71-6.06

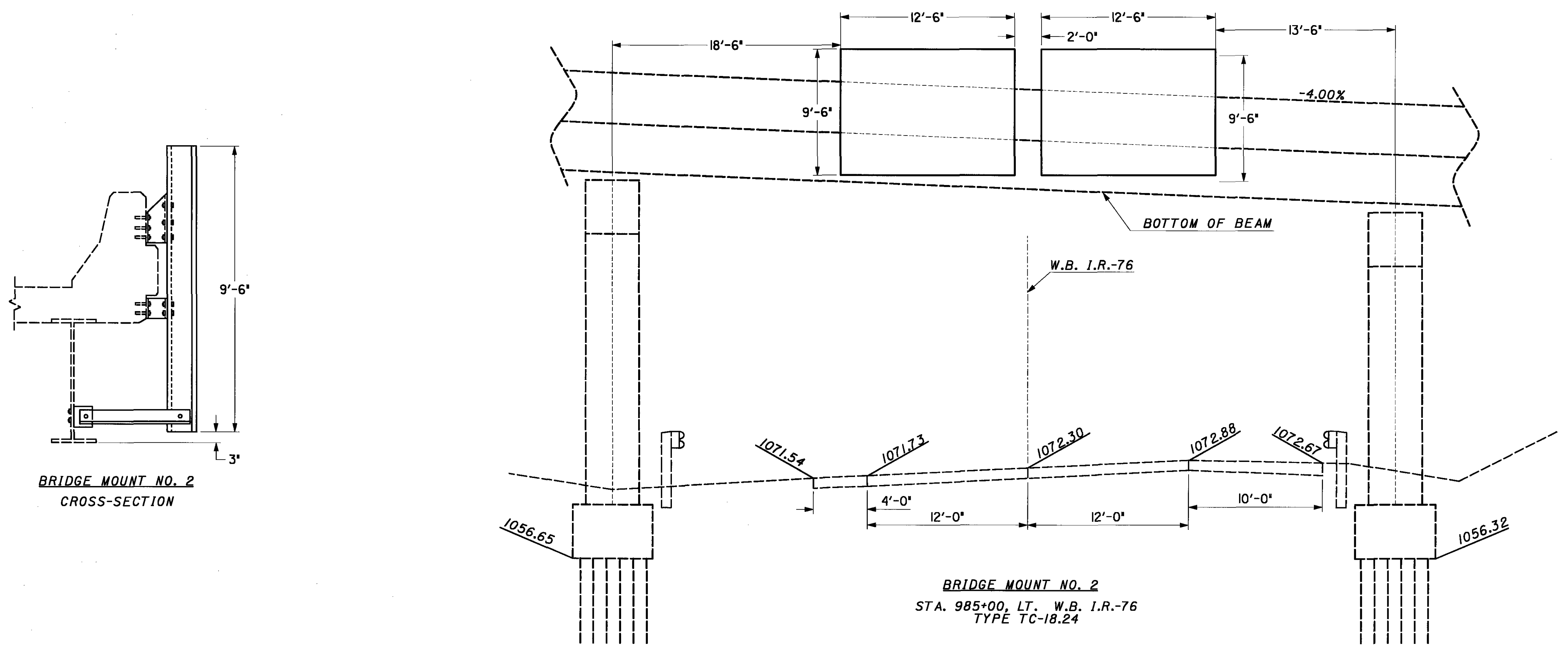


BRIDGE MOUNT NO. 1
STA. 943+75, LT. W.B. I.R.-76
TYPE TC-18.24

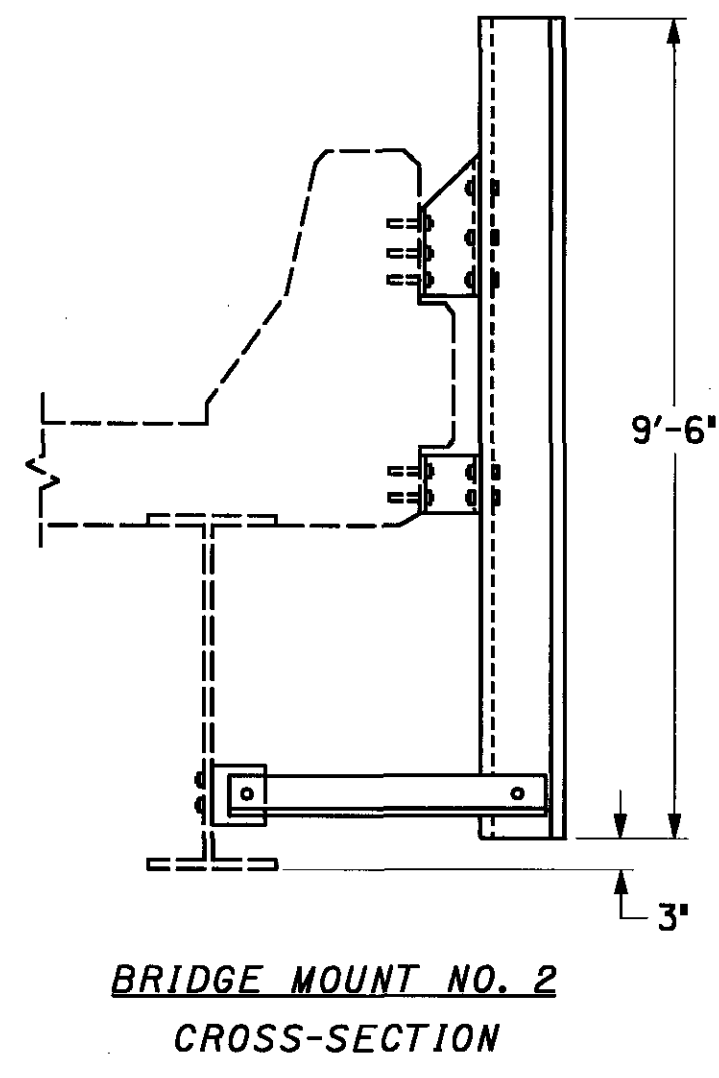


BRIDGE MOUNT NO. 1
CROSS-SECTION

NOTE: LOWEST POINT ON SIGN SHALL BE AT LEAST 3" ABOVE EXISTING BRIDGE CLEARANCE.

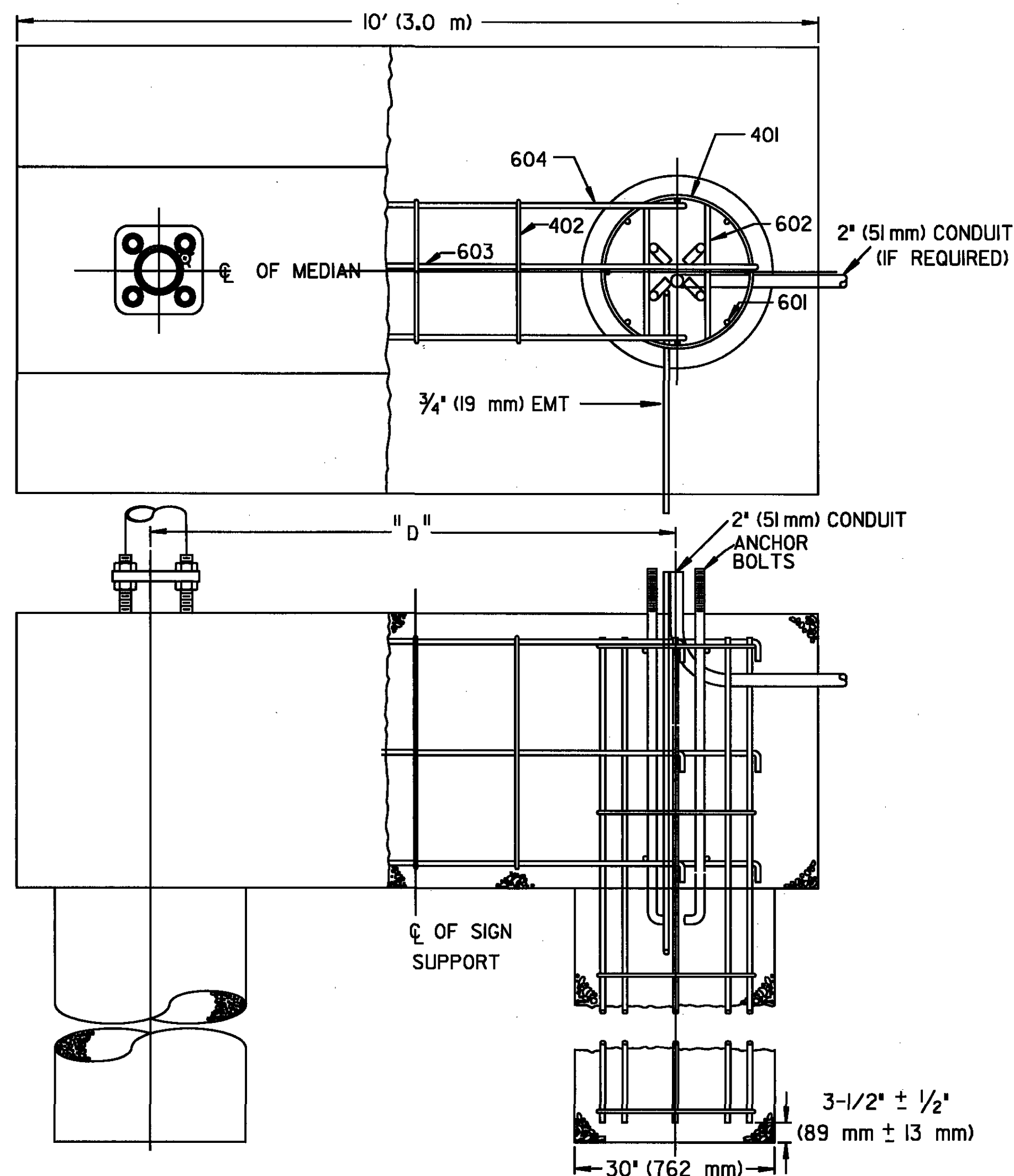


BRIDGE MOUNT NO. 2
STA. 985+00, LT. W.B. I.R.-76
TYPE TC-18.24

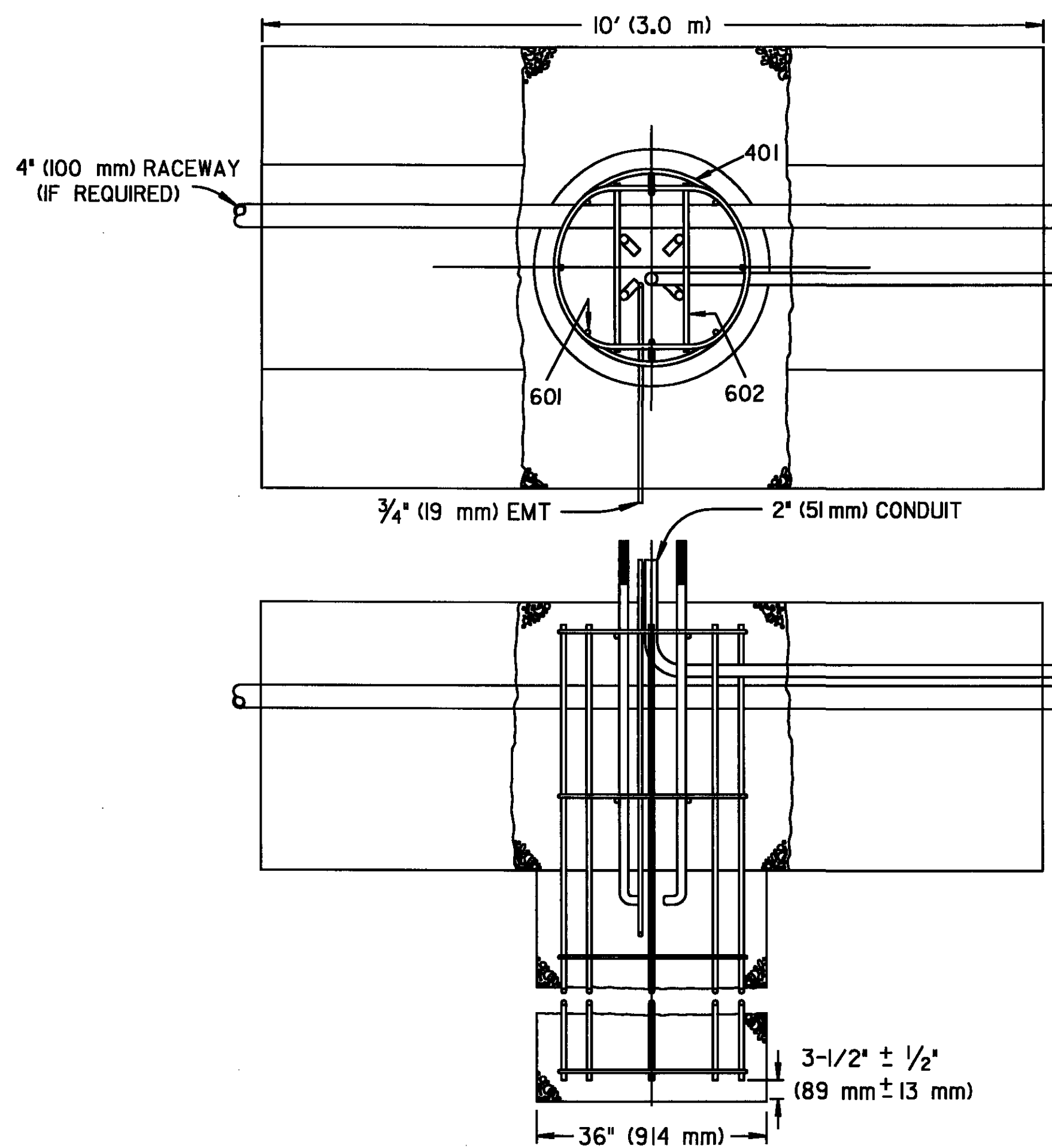


BRIDGE MOUNT NO. 2
CROSS-SECTION

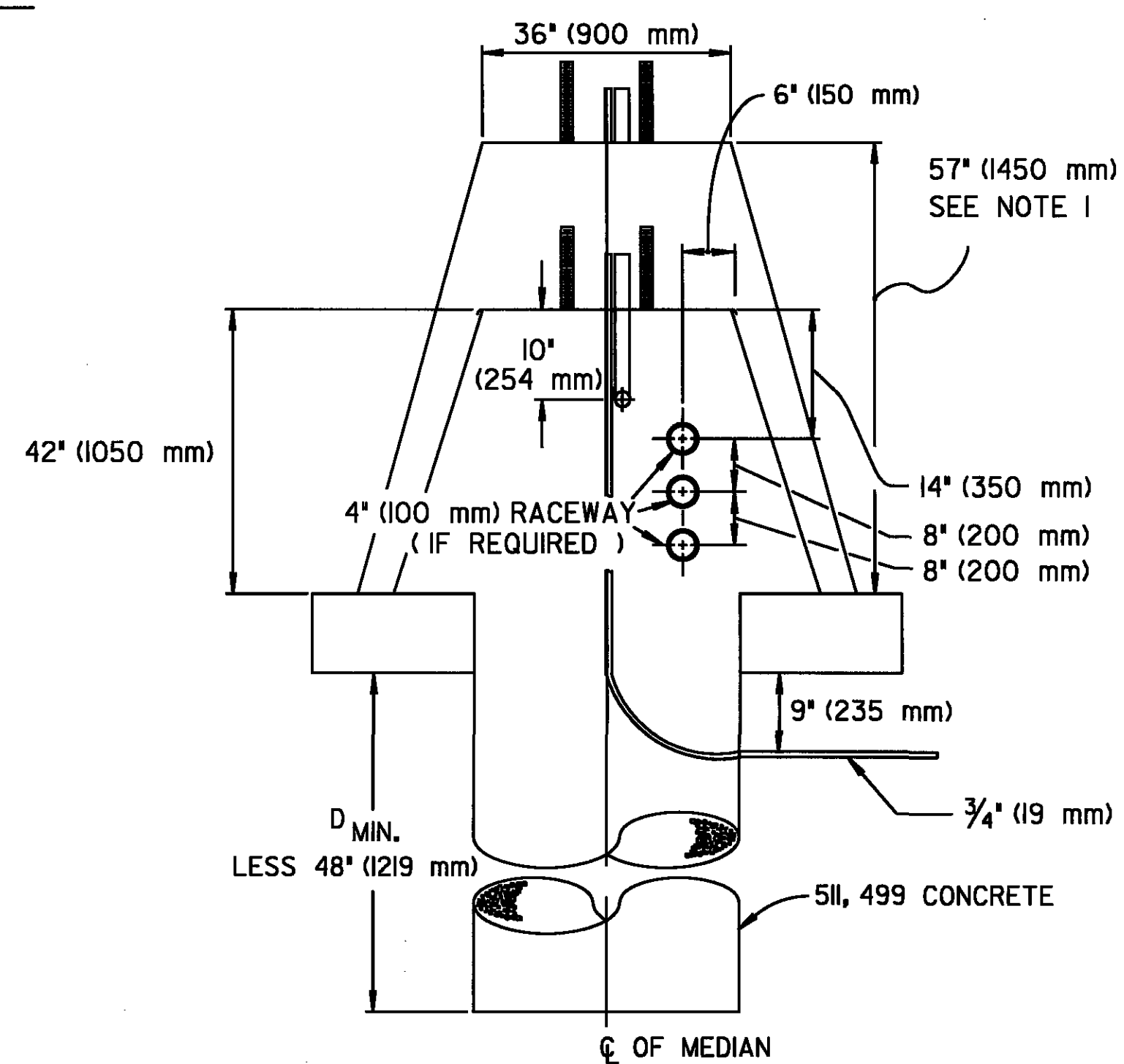
Projectwise:PR33412/cadd/75657TEB.dgn



SPAN TYPE



CANTILEVER, BUTTERFLY
OR CENTER MOUNT TYPE



NOTES

- IF A 57" (1450 mm) WALL IS REQUIRED THE REINFORCING STEEL AND ANCHOR BOLTS SHALL REMAIN IN THE SAME POSITION, RELATIVE TO THE TOP OF THE WALL, AS IN THE 42" (1050 mm) WALL.
- REFER TO DRAWINGS TC-21.10 AND TC-32.10 FOR TYPICAL DIMENSIONS WITH THE FOLLOWING MODIFICATIONS TO THE REINFORCEMENT SCHEDULES:
 - 42" (1050 mm) WALL
 - MARK 601 LENGTH = D MIN. - 13" (330 mm)
 - MARK 603 NUMBER = 3
 - MARK 604 NUMBER = 6
 - MARK 402 VERTICAL DIMENSION = 36" (900 mm)
 - 57" (1450 mm) WALL
 - MARK 601 LENGTH = D MIN. + 5" (127 mm)
 - MARK 603 NUMBER = 4
 - MARK 604 NUMBER = 8
 - MARK 402 VERTICAL DIMENSION = 52" (1300 mm)
- FOR INFORMATION REGARDING THE TRANSITION SECTIONS OF THE BARRIER WALL, SEE DRAWING RM-4.4.
- FOR SINGLE SLOPE CONCRETE BARRIER SHAPES, SEE DRAWING RM-4.3.
- PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 630 - RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN.

Projectwise: 33412\cadd\75657_202150.dgn

3-01-04

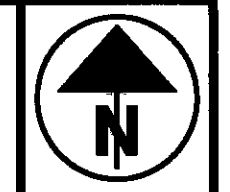
CONCRETE BARRIER MEDIAN OVERHEAD
SIGN SUPPORT FOUNDATIONS (SINGLE SLOPE)

OFFICE OF TRAFFIC
ENGINEERING

202150

MED-71-6.06

612
1120



0 200 400
HORIZONTAL
SCALE IN FEET

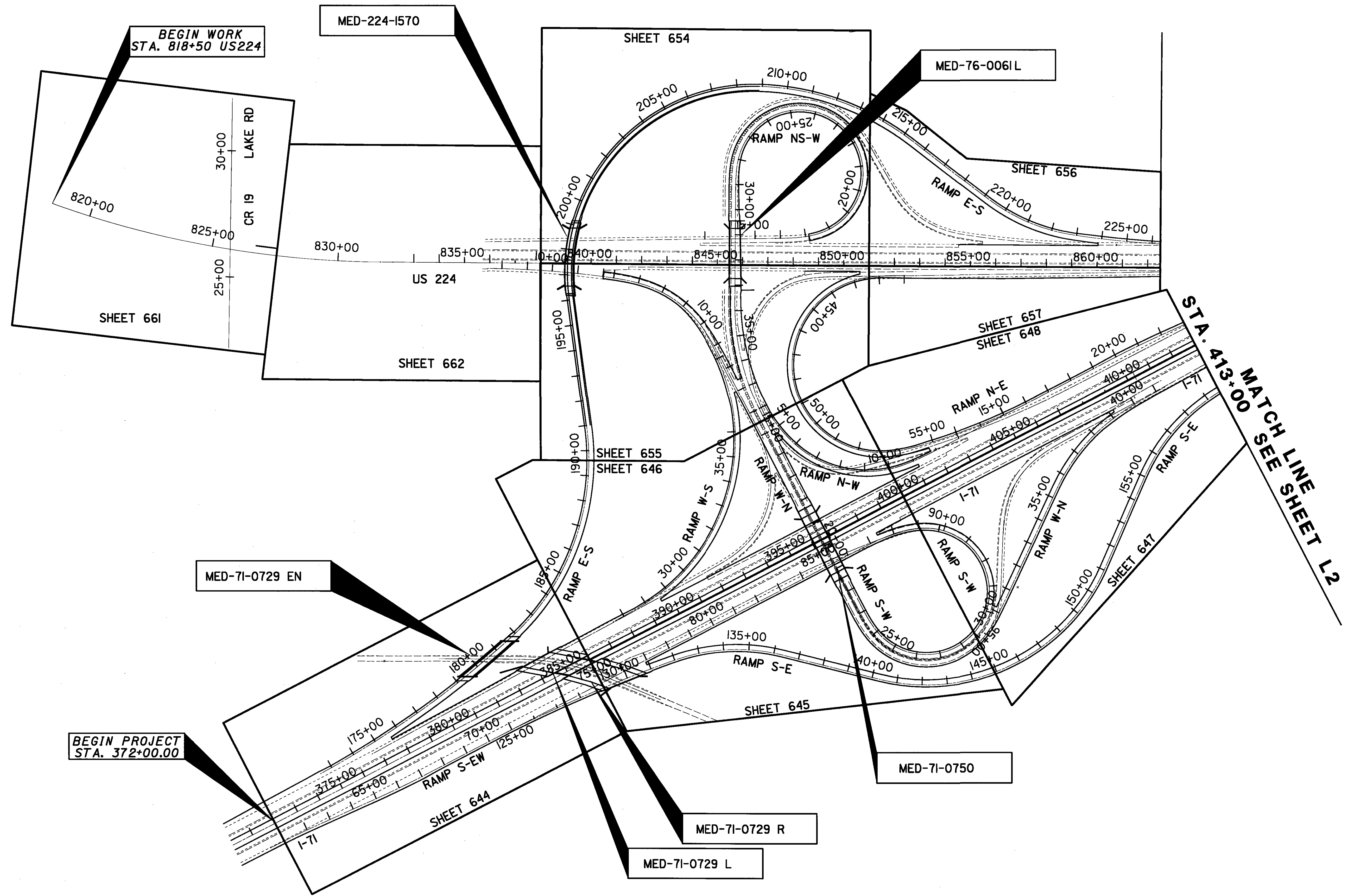
CALCULATED
CHECKED

LIGHTING SCHEMATIC PLAN

MED-71-6.06

613
1120

P:\PR33412\CADD\756571\MA.DGN



BEGIN WORK
STA. 818+50 US224

MED-224-1570

MED-76-0061L

MED-71-0729 EN

BEGIN PROJECT
STA. 372+00.00

MED-71-0729 R

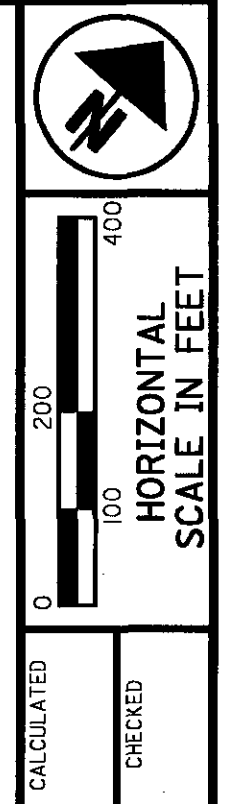
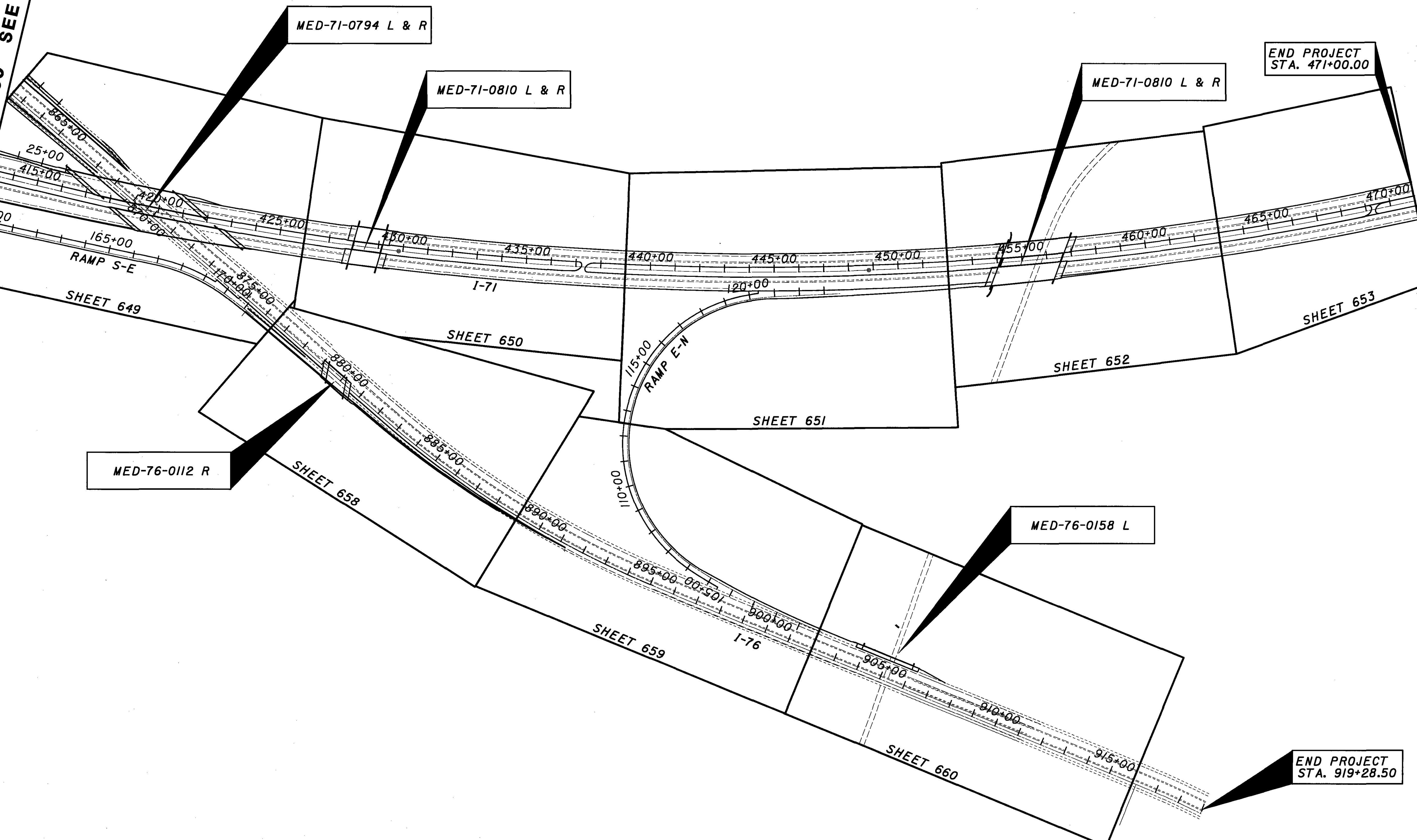
MED-71-0729 L

MED-71-0750

STA. 413+00 MATCH LINE SEE SHEET L2

P:\PR33412\CADD\75657LMB.DGN

MATCH LINE STA. 413+00 SEE SHEET L1



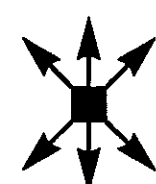
CALCULATED
CHECKED

LIGHTING SCHEMATIC PLAN

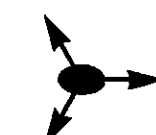
MED-71-6.06

614
1120

SYMBOLS



PROPOSED 6-400W HPS SYMMETRIC MEDIUM CUT-OFF HIGHMAST LUMINAIRE LIGHT TOWER. FOR FOUNDATION TYPE, DIAMETER, AND DEPTH, SEE SUB-SUMMARY SHEETS.



PROPOSED 1-400W HPS SYMMETRIC MEDIUM CUT-OFF LOWMAST LUMINAIRE LIGHT POLE.



PROPOSED UNDERPASS LUMINAIRE.



PROPOSED POWER SERVICE AND CONTROL CENTER.



PROPOSED CONCRETE PULL BOX; 18" SQUARE, 725.08, EXCEPT AS OTHERWISE NOTED.



PROPOSED STRUCTURE JUNCTION BOX



PROPOSED UNDERGROUND CIRCUIT, EXCEPT AS OTHERWISE NOTED. SIZE AND TYPE OF CONDUIT OR DUCT CABLE, AS WELL AS NUMBER, SIZE AND TYPE OF DISTRIBUTION CABLES, AS NOTED ON THE PLANS.



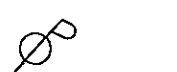
CONDUIT STUBBED OUT 20'-0", OR AS NOTED ON THE PLANS, AND CAPPED 24" BFG FOR FUTURE.



PROPOSED CONDUIT IN STRUCTURE. SIZE AND TYPE OF CONDUIT AS WELL AS NUMBER, SIZE AND TYPE OF DISTRIBUTION CABLES, AS NOTED ON THE PLANS.



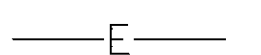
STRUCTURE GROUND



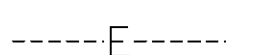
EXISTING ELECTRICAL UTILITY POLE.



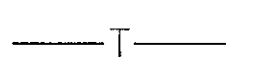
EXISTING COMMUNICATION UTILITIES (TELEPHONE/CATV) POLE.



EXISTING OVERHEAD ELECTRIC UTILITY LINE.



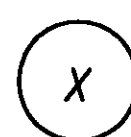
EXISTING UNDERGROUND ELECTRIC UTILITY.



EXISTING OVERHEAD COMMUNICATION UTILITIES (TELEPHONE/CATV).



EXISTING UNDERGROUND COMMUNICATION UTILITIES (TELEPHONE/CATV).



ITEM NUMBER. REFERS TO SUBSUMMARY SHEET ENTRIES.

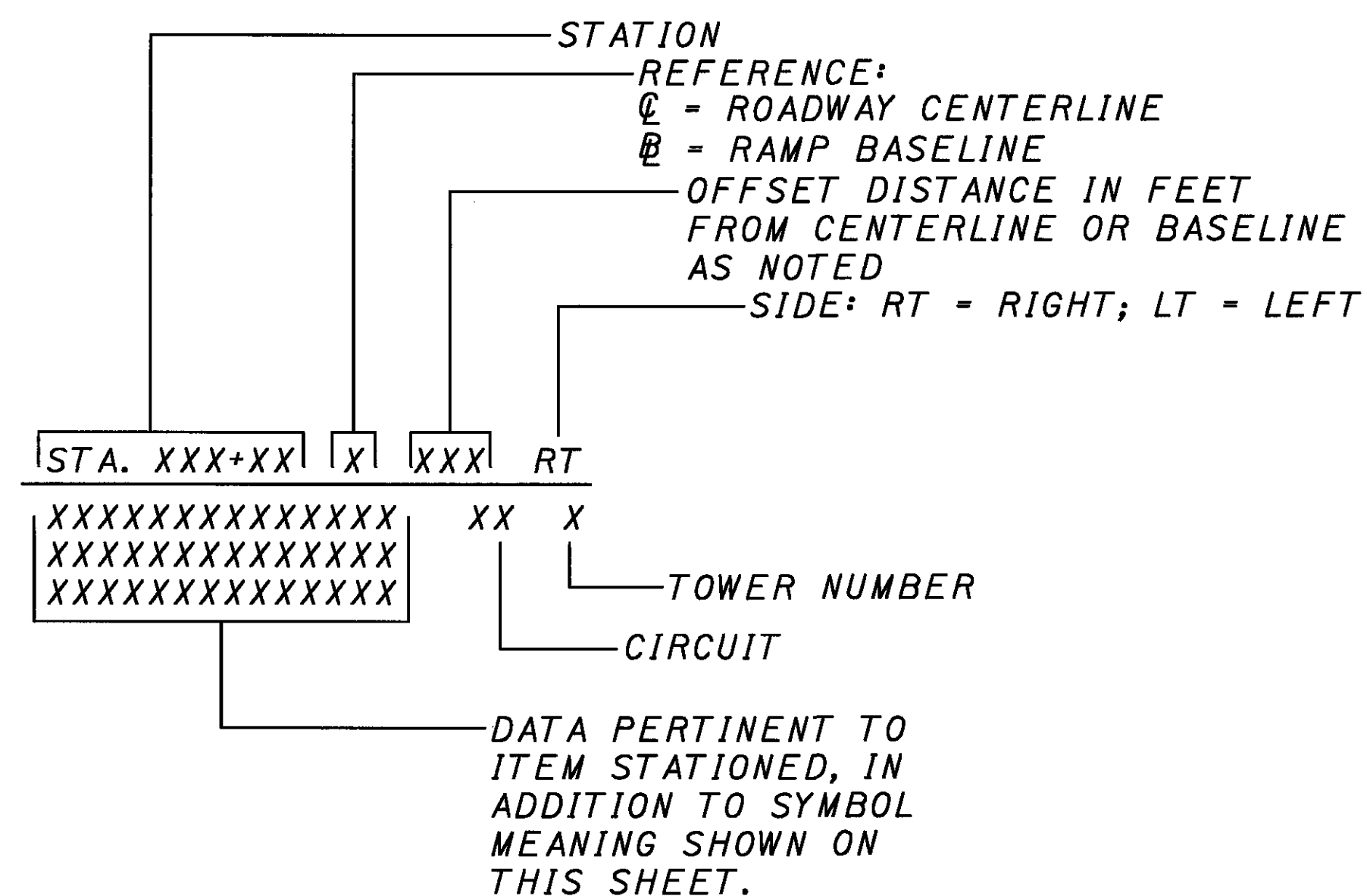


CODED NOTE REFERENCE.

ABBREVIATIONS

BFG	BELOW FINISHED GRADE
CONC	CONCRETE
C	CONDUIT
EB	EAST BOUND
EX	EXISTING
GRD	GROUND
HPS	HIGH PRESSURE SODIUM
KV	KILOVOLT
NB	NORTH BOUND
SB	SOUTH BOUND
SQ	SQUARE
SYM	SYMMETRIC
TYP	TYPICAL
V	VOLT
W	WATT
WB	WEST BOUND

TYPICAL STATIONING INFORMATION



SPECIFICATIONS

LIGHTING GENERAL NOTES ARE SUPPLEMENTAL TO ITEMS 202, 603, 625 AND 725 OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED JANUARY 1, 2002, WHICH SHALL GOVERN ALL WORK OF THIS PROJECT, EXCEPT AS HEREINAFTER MODIFIED.

REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THE PLANS.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL-30.11 FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED 20 FEET. A QUANTITY OF ITEM 603 - "4" CONDUIT, TYPE E" IS INCLUDED FOR THIS PURPOSE.

ITEM 625 - LIGHT TOWER FOUNDATIONS, MISC.: SPREAD FOUNDATION, AS PER PLAN.

IN LIEU OF THE LIGHT TOWER FOUNDATION DESIGN SHOWN IN HL-20.21, PROVIDE A SPREAD FOUNDATION AS SHOWN ON SHEET 665. FOUNDATION MATERIALS SHALL COMPLY WITH THE NOTES ON HL-20.21 AND SHEET 665, WITH THE NOTES ON SHEET 665 TAKING PRECEDENCE IN THE EVENT OF A CONFLICT BETWEEN THEM.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625 - "LIGHT TOWER FOUNDATION, MISC.: SPREAD FOUNDATION, AS PER PLAN", AND SHALL BE FULL COMPENSATION, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

ITEM 625 - PORTABLE POWER UNIT

THE CONTRACTOR SHALL SUPPLY A PORTABLE POWER UNIT AS SPECIFIED IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. A QUANTITY OF ITEM 625 - "PORTABLE POWER UNIT" IS INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 625 - 2" CONDUIT, 725.04, AS PER PLAN

PROVIDE 2" CONDUIT, 725.04, UNDER STRUCTURES, SUPPORTED EXPOSED ON TOP OF THE STEEL TRUSS CROSS-BRACING AT INTERVALS NOT TO EXCEED 16- FEET. UTILIZE HOT DIPPED GALVANIZED BEAM CLAMPS WITH ONE HOLE HOT DIPPED GALVANIZED MALLEABLE IRON CONDUIT CLAMPS AND CLAMPBACKS, SECURED WITH 1/4" STAINLESSSTEEL HEXHEAD MACHINE BOLTS AND LOCKWASHERS. MOUNT BEAM CLAMPS ON CROSS-BRACING ANGLES NOT CLOSER THAN 12" APART. CONDUITS SHALL BE CONTINUOUS BELOW STRUCTURES AND ABOVE THE BOTTOM CHORD OF TRUSSES FROM ABUTMENT TO ABUTMENT. PROVIDE CONDUIT EXPANSION FITTINGS UNDERGROUND IMMEDIATELY BEHIND EACH ABUTMENT AS SHOWN IN HL-30.32.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID PER LINEAL FOOT OF ITEM 625 - 2" CONDUIT, 725.04, AS PER PLAN, AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

ITEM 625, CONDUIT, MISC.: 4" MULTICELL RACEWAY:

THE RACEWAY SHALL CONSIST OF A FACTORY ASSEMBLED SYSTEM OF (4) INNERDUCTS WITHIN A PROTECTIVE OUTERDUCT. IN GENERAL THE OUTERDUCT SHALL BE PVC CAPABLE OF BURIAL OR CONCRETE ENCASEMENT.

THE ELBOWS, BENDS, OR FITTINGS REQUIRED FOR THE CONSTRUCTION SHALL BE STANDARD UNITS MADE BY THE RACEWAY MANUFACTURER.

THE INNERDUCTS SHALL BE NOMINAL 1", SCHEDULE 40 PVC PER 713.07 WITH A BELL INSERTION DEPTH OF 2" MINIMUM.

THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE MULTICELL DUCT IS TO REMAIN EMPTY, A 1/4" NYLON ROPE SHALL BE INSTALLED IN EACH EMPTY DUCT. THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION.

THE CONDUIT SHALL BE PLACED IN THE OUTSIDE SHOULDER PARAPET AS SHOWN IN THE PLANS. FINAL INSTALLATION DETAILS WILL BE BASED UPON COORDINATION WITH CONTRACTOR AND CONDUIT MANUFACTURER AND APPROVED BY THE PROJECT ENGINEER.

THE RACEWAY WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 625-CONDUIT MISC.: 4" MULTICELL RACEWAY. THIS PRICE SHALL INCLUDE THE INCIDENTAL COST OF THE FITTINGS AND ALL OTHER ITEMS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE PROJECT ENGINEER.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ/GEDNEY TYPE AX, CROUSE-HINDS TYPE XJ6 OR APPLETON TYPE XJ. EACH EXPANSION FITTING SHALL PROVIDE 4" OF TOTAL MOVEMENT AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ/GEDNEY TYPE DX, CROUSE-HINDS TYPE XD OR APPLETON TYPE DF. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

PAYMENT FOR EXPANSION AND DEFLECTION FITTINGS SHALL BE INCLUDED WITH THE RELATED CONDUIT.

LUMINAIRE, HIGHMAST, AS PER PLAN

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN CMS 725.21 ARE HEREBY WAIVED. INSTEAD, THE LUMINAIRES FOR HIGH-MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

HIGHMAST, 400 WATT HIGH PRESSURE SODIUM, TYPE V DISTRIBUTION, MEDIUM CUT-OFF, 480 VOLT; COOPER HMX, TEST #HMX4SCM; GENERAL ELECTRIC HMAA ENCLOSED, TEST #6312; HOLOPHANE HMSC, TEST #43481; OR EQUAL APPROVED BY THE PROJECT ENGINEER.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED TOWER LOCATIONS, THE DESIGNED TOWER HEIGHTS, AND THE DESIGNED NUMBER AND TYPE OF LUMINAIRES PER TOWER.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "LUMINAIRE, HIGHMAST, AS PER PLAN", WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

LUMINAIRE, LOWMAST, AS PER PLAN

THE LUMINAIRES SHALL BE AS SPECIFIED FOR HIGH-MAST LUMINAIRES IN CMS 725.21 EXCEPT THAT THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS ARE HEREBY WAIVED. IN ADDITION, THE LUMINAIRES FOR LOW-MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

HIGHMAST, 400 WATT HIGH PRESSURE SODIUM, TYPE V DISTRIBUTION, MEDIUM CUT-OFF, 480 VOLT; COOPER HMX, TEST #HMX4SCM; GENERAL ELECTRIC HMAA ENCLOSED, TEST #6312; HOLOPHANE HMSC, TEST #43481; OR EQUAL APPROVED BY THE ENGINEER.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED POLE LOCATIONS AND THE DESIGNED POLE HEIGHTS.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "LUMINAIRE, LOWMAST, AS PER PLAN", WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

LUMINAIRE, UNDERPASS, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR UNDERPASS LIGHTING SHALL BE AS FOLLOWS:

UNDERPASS LUMINAIRES SHALL BE COOPER "ALL LIGHT" TEST #WLI5HG; GENERAL ELECTRIC "VERSAFLOOD II WALLIGHTER" TEST #8578; HOLOPHANE "WALL PACK II" TEST #33263; OR EQUAL APPROVED BY THE PROJECT ENGINEER. LUMINAIRES SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 5-AMPERE FUSE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "LUMINAIRE, UNDERPASS, AS PER PLAN", FOR EACH UNDERPASS LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

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CALCULATED
JGA
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TJS

LIGHTING GENERAL NOTES

MED-71-6.06

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1120

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," PHILIPS "CERAMALUX," OSRAM/SYLVANIA "LUMALUX" OR EQUAL APPROVED BY THE ENGINEER.

ITEM 625 - POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCIES FOR THIS PROJECT ARE:

OHIO EDISON
ELYRIA SERVICE CENTER
6326 LAKE AVENUE
ELYRIA, OH 44035-3225
TELEPHONE: (440) 326-3225
ATTN: MR. DON OLESKA
FOR ALL POWER SERVICES EXCEPT CC-H

SEVILLE BOARD OF PUBLIC AFFAIRS
PO BOX 46
44 WEST MAIN STREET
SEVILLE, OH 44273
ATTN: MR. KEVIN BITAKER, SUPERINTENDENT
FOR POWER SERVICE CC-H

ELECTRICAL SERVICE IS 240/480 VOLTS, SINGLE PHASE, 3-WIRE, GROUNDED NEUTRAL, METERED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHARGES MADE BY THE POWER COMPANY FOR WORK BY THE COMPANY IN CONJUNCTION WITH THE ESTABLISHMENT OF THE REQUIRED SERVICE.

IN ADDITION TO THE POWER SERVICE PROVISIONS SHOWN ON SHEET 679, THE CONTRACTOR SHALL PROVIDE A REINFORCED CONCRETE PAD MOUNT TRANSFORMER PAD TO OHIO EDISON COMPANY SPECIFICATIONS FOR THE PROPOSED TRANSFORMER SERVING POWER SERVICES CC-D AND CC-E. SERVICES

THE CONTRACTOR SHALL PAY FOR ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING, THE POWER SERVICE ELECTRICAL ENERGY ACCOUNT SHALL BE TRANSFERRED TO THE MAINTAINING AGENCY NOTED IN THE PLANS.

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625 - "POWER SERVICE, AS PER PLAN," WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA, WILSON BOHANNAN NO. 660A OR EQUAL AS APPROVED BY THE ENGINEER, AND SHALL BE KEYED IN

MAINTAINING AGENCY.

PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEMS BEING LOCKED.

ITEM SPECIAL - PLASTIC CAUTION TAPE

THE LOCATION OF UNDERGROUND CONDUIT AND BURIED ELECTRICAL CABLES SHALL BE MARKED BY THE USE OF A CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 6" WIDE, COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS, ACID OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT RED WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS, ON ONE SIDE ONLY. TAPES SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED CONTINUOUSLY THE FULL LENGTH OF THE TAPE. TAPE SHALL BE PROVIDED WITH A DETECTABLE ALUMINUM FOIL LAMINATE FOR LOCATING CONDUIT RUNS WITHOUT DIGGING. IDENTIFYING TAPE SHALL BE BURIED IN THE ELECTRIC LINE TRENCH WITH ONE STRIP APPROXIMATELY 6" TO 10" BELOW THE FINAL FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH THE PRINTED SIDE UP AND SHALL BE ESSENTIALLY PARALLEL WITH THE FINISHED SURFACE. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THAT THE TAPE IS NOT PULLED, DISTORTED, OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH FOOT OF ITEM SPECIAL - "PLASTIC CAUTION TAPE," COMPLETE AND IN PLACE, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR SATISFACTORY PERFORMANCE OF THIS WORK.

SHEET NUMBER												FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
620	622	624	626	628	630	632	634	636	638	640	642	IM	NHS						
										28	28	45	11	625	00500	56	EACH	CONNECTOR KIT, TYPE II	
15	27	30	18	30	24	42	33	30	18	15	6	230	58	625	01500	288	EACH	CABLE SPLICING KIT	
		5					4			14	14	22	6	625	10470	28	EACH	LOWMAST LIGHT POLE DESIGN ATON51.7	
1	1	2					3	4				7	2	625	13400	9	EACH	LIGHT TOWER, BBBBBI00	
												9	2	625	13404	11	EACH	LIGHT TOWER, BBBBBI10	
3	9	3	5	2	2	3	4	3	1			28	7	625	13406	35	EACH	LIGHT TOWER, BBBBBI20	
3		2	2	5	4	1						14	3	625	13410	17	EACH	LIGHT TOWER, BBBBBI30	
				1								1		625	13500	1	EACH	LIGHT TOWER, MISC.: BBBBBI40	
										14	14	22	6	625	14100	28	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
	2											2		625	15100	2	EACH	LIGHT TOWER FOUNDATION, 36" X 20' DEEP	
2	5	10			2	1	8	1	1			24	6	625	15200	30	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	
2	3		5	2		1	2	5				16	4	625	15300	20	EACH	LIGHT TOWER FOUNDATION, 36" X 30' DEEP	
3		1		5	4							10	3	625	15400	13	EACH	LIGHT TOWER FOUNDATION, 42" X 25' DEEP	
		1	2	1								3	1	625	15500	4	EACH	LIGHT TOWER FOUNDATION, 42" X 30' DEEP	
						2	1	1				3	1	625	15700	4	EACH	LIGHT TOWER FOUNDATION, MISC.: SPREAD FOUNDATION, AS PER PLAN	616
												1		625	20000	1	EACH	PORTABLE POWER UNIT	
	120	492		1659	690	444	960					3488	872	625	22900	4360	FT	NO. 1/0 AWG 5000 VOLT DISTRIBUTION CABLE	
2532	936	165	1032	1542	1521	852	162	1815	2811	777	465	11688	2922	625	23200	14610	FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
858	480			3630	1737	222	165	2481	1269			8674	2168	625	23300	10842	FT	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	
										1400	1400	2240	560	625	23400	2800	FT	NO. 10 AWG POLE AND BRACKET CABLE	
3280	4106	1875	1005	2561	2376	2895	3118	3962	454	2118	2060	23688	5922	625	24320	29610	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	
1810	657	2393	1171	2378		1904	565	2035	175			10470	2618	625	24330	13088	FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES	
	3188	2644	2192			2701	885					9288	2322	625	24400	11610	FT	DUCT CABLE, MISC.: 2" DUCT CABLE WITH THREE NO. 1/0 AWG 5000 VOLT CABLES	
268	30		148		60	75			35	64	14	555	139	625	25400	694	FT	CONDUIT, 2", 725.04	
				1797				920				2174	543	625	25401	2717	FT	CONDUIT, 2", 725.04, AS PER PLAN	617
702					540				584			1461	365	625	25500	1826	FT	CONDUIT, 3", 725.04	

LIGHTING GENERAL SUMMARY

MED-71-6.06

618
1120

...75657LGA.dgn

SHEET NUMBER												FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
621	623	625	627	629	631	633	635	637	639	741	743	IM	NHS						
40	80	100	80	40	40	40	80	60				544	136	625	25502	680	FT	CONDUIT, 3", 725.05	
120	307	179	146	390	312	356	389	452	372	183	145	2681	670	625	25900	3351	FT	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	
153			1572	710				202				2110	527	625	25920	2637	FT	CONDUIT, MISC.: 4" MULTICELL RACEWAY	
42	60	72	42	48	36	24	66	42	6			350	88	625	26261	438	EACH	LUMINAIRE, HIGHMAST, AS PER PLAN	616
										14	14	22	6	625	26271	28	EACH	LUMINAIRE, LOWMAST, AS PER PLAN	616
		24										19	5	625	27501	24	EACH	LUMINAIRE, UNDERPASS, AS PER PLAN	616
5761	8021	6887	4939	2894	2429	3782	4205	5405	708	2014	1930	39180	9795	625	29002	48975	FT	TRENCH, 24" DEEP	
2			2									3	1	625	29920	4	EACH	STRUCTURE JUNCTION BOX	
2	9	10	6	10	8	11	11	10	7	5	2	73	18	625	30700	91	EACH	PULL BOX, 725.08, 18"	
4		1	7	2	3			2	3			18	4	625	30706	22	EACH	PULL BOX, 725.08, 24"	
16	21	26	16	16	16	6	20	13	2	15	14	145	36	625	32000	181	EACH	GROUND ROD	
1				2				1				3	1	625	33000	4	EACH	STRUCTURE GROUNDING SYSTEM	
2	1				2	2		1		1		7	2	625	34001	9	EACH	POWER SERVICE, AS PER PLAN	679
4987	7896	6887	4899	2460	1552	3762	4205	5190	255	1963	1920	36781	9195	SPECIAL	62536000	45976	FT	PLASTIC CAUTION TAPE	
		2										2		625	37101	2	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	663 675-678

LIGHTING GENERAL SUMMARY

MED-71-6.06

...75657LGB.dgn

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625															
					CONDUIT, 3", 725.05	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	CONDUIT, MISC.: 4" MULTICELL RACEWAY	LUMINAIRE, HIGHMAST, AS PER PLAN	LUMINAIRE, LOWMAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	PLASTIC CAUTION TAPE	
					FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT		
1	644	LT	I-71	371+58	20			6			20							20		
2	644	LT	I-71	371+58 TO 175+05 RAMP ES							617							617		
3	644	LT	I-71	383+44																
4	644	LT	I-71	383+44 TO 384+86			153				88							88		
5	644	LT	I-71	384+86																
6	644	RT	RAMP S-EW	63+73	20			6			20							20		
7	644	RT	RAMP S-EW	63+73 TO 68+96							644							644		
8	644	RT	RAMP S-EW	68+96				6												
9	644	RT	RAMP S-EW	68+96 TO 72+49							455							455		
10	644	RT	RAMP S-EW	72+49				6												
11	644/645	RT	RAMP S-EW	72+49 RAMP S-EW TO 129+08 RAMP S-E							293							293		
12	644	LT	RAMP E-S	175+05				6												
13	644	LT	RAMP E-S	175+05 TO 178+66							441							441		
14	644	LT	RAMP E-S	178+66				6												
15	644	LT	RAMP E-S	178+66 TO 179+10							54									
16	644	LT	RAMP E-S	179+10																
17	644	LT	RAMP E-S	179+10, 53' LT TO 179+10, 63' LT							10									
18	644	LT	RAMP E-S	179+10																
19	644	LT/RT	RAMP E-S	179+10 TO 182+70			60				336									
20	644	LT	RAMP E-S	179+10 TO 13+27 GREENWICH			60				236									
21	644	LT	GREENWICH	13+27																
22	644	LT	GREENWICH	13+27 TO 29+11 RAMP W-S							682							682		
23	644	RT	RAMP E-S	182+70				6												
24	644	RT	RAMP E-S	182+70 TO 186+41							381							381		
25	-	-	-	NOT USED																
26	-	-	-	NOT USED																
27	-	-	-	NOT USED																
28	-	-	-	NOT USED																
29	645	RT	RAMP S-E	129+08							21									
30	645	RT	RAMP S-E	129+27 TO 130+50																
31	645	RT	RAMP S-E	129+40																
32	645	RT	RAMP S-E	130+20							21									
33	645	RT	RAMP S-E	130+60																
34	645	RT	RAMP S-E	130+60 TO 132+78							218							218		
35	645	RT	RAMP S-E	130+98																
36	645	RT	RAMP S-E	130+98, 49' RT TO 130+98, 39' RT							10									
37	645	RT	RAMP S-E	130+98																
38	645	RT	RAMP S-E	130+98 TO 131+80							86									
39	645	RT	RAMP S-E	130+98 TO 132+78							20							20		
40	645	RT	RAMP S-E	130+98 TO 142+00							1108							1108		
TOTALS CARRIED TO GENERAL SUMMARY					40	120	153	42			5761	2	3	4	16	1	2	4987		

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LIGHTING SUBSUMMARY

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ITEM 625

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625														
					CONDUIT, 3", 725.05	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	CONDUIT, MISC.: 4" MULTICELL RACEWAY	LUMINAIRE, HIGHMAST, AS PER PLAN	LUMINAIRE, LOWMAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	PLASTIC CAUTION TAPE
					FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
121	649	LT	RAMP N-E	25+98 TO 421+19 I-71			570				145							145	
122	649	RT	I-71	418+93									1						
123	649	RT	I-71	418+93 TO 424+09			532				134							134	
124	649	LT	I-71	421+19									1						
125	649	LT	I-71	423+66	20			6			20			2				20	
126	649	LT	I-71	423+66 TO 427+08							451							451	
127	649	LT	I-71	424+09									1						
128	-	-	-	NOT USED															
129	650	LT	I-76	876+59	20			6			20			2				20	
130	650	LT	I-71	427+08				6						2					
131	650	LT	I-71	427+08 TO 427+06							56							56	
132	650	LT	I-71	427+06									1						
133	650	LT	I-71	427+06, 85' LT TO 427+06, 12' LT		73													
134	650	LT	I-71	427+06									1						
135	650	LT	I-71	427+06 TO 427+90							84							84	
136	650	RT	I-71	427+32															
137	650	RT	I-71	427+32 TO 429+57			237				130							130	
138	650	LT	I-71	427+60									1						
139	650	LT	I-71	427+60 TO 429+81			233				112							112	
140	650	LT	I-71	427+90									1		1				
141	650	LT	I-71	427+90 TO 428+21							20								
141A	650	LT	I-71	427+99 TO 429+25											1				
142	650	LT	I-71	428+21									1						
143	650	LT	I-71	428+21 TO 428+95															
144	650	LT	I-71	428+95									1						
145	650	LT	I-71	428+95 TO 429+27							20								
146	650	LT	I-71	429+27									1		1				
147	650	LT	I-71	429+27 TO 432+31							304							304	
148	650	RT	I-71	429+57															
149	650	LT	I-71	429+81															
150	650	RT	I-71	430+61	20			6			20			2				20	
151	650	RT	I-71	430+61 TO 435+58							645							645	
152	650	LT	I-71	432+31									1						
153	650	LT	I-71	432+31, 11' LT TO 432+31, 84' LT		73													
154	650	LT	I-71	432+31									1						
155	650	LT	I-71	432+31, 84' LT TO 432+31, 141' LT							60							60	
156	650	LT	I-71	432+31				6						2					
157	650	LT	I-71	432+31 TO 453+68							2192							2192	
158	650	RT	I-71	435+58				6						2					
159	650	RT	I-71	435+58 TO 439+26							506							506	
160	650	LT	I-71	437+42	20			6			20			2				20	
TOTALS CARRIED TO GENERAL SUMMARY					80	146	1572	42			4939	2	6	7	16	1		4899	

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ITEM 625

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625														
					CONDUIT, 3", 725.05	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	CONDUIT, MISC.: 4" MULTICELL RACEWAY	LUMINAIRE, HIGHMAST, AS PER PLAN	LUMINAIRE, LOWMAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	PLASTIC CAUTION TAPE
					FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT
200A	652	LT	I-71	454+48 TO 457+00															
201	652	RT	I-71	455+41															
202	652	RT	I-71	455+41 TO 455+51															
203	652	RT	I-71	455+51															
204	652	RT	I-71	455+51 TO 456+64							113								
205	652	RT	I-71	455+51 TO 457+00							234								
206	652	RT	I-71	456+63															
207	652	RT	I-71	456+64															
208	652	RT	I-71	456+64 TO 461+48				6			484								484
209	652	RT	I-71	457+00															
210	652	RT	I-71	457+00, 90' RT TO 457+00, 11' RT		79													
211	652	RT	I-71	457+00 TO 457+15															
212	652	RT	I-71	457+00															
213	652	LT	I-71	457+08															
214	652	LT	I-71	457+08 TO 457+18							10								
215	652	LT	I-71	457+18															
216	652	LT	I-71	457+18 TO 457+68							50								
217	652	LT	I-71	457+18 TO 457+84															
218	652	RT	I-71	457+15															
219	652	RT	I-71	457+15, 90' RT TO 457+15, 11' RT		79													
220	652	RT	I-71	457+15															
221	652	LT	I-71	457+45															
222	652	LT	I-71	457+68				6											
223	652	LT	I-71	457+68 TO 462+28							455								
224	652	LT	I-71	457+84															
225	652	LT	I-71	457+84, 84' LT TO 457+84, 7' LT		77													
226	652	LT	I-71	457+84 to 457+99							15								
227	652	LT	I-71	457+84															
228	652	LT	I-71	457+99															
229	652	LT	I-71	457+99, 84' LT to 457+99, 7' LT		77													
230	652	LT	I-71	457+99															
231	652	RT	I-71	461+48				6											
232	652	RT	I-71	461+48 TO 466+57							509								509
233	652	LT	I-71	462+28				6											
234	652	LT	I-71	462+28 TO 467+47							519								519
235	653	LT	I-71	466+57		20		6			20								20
236	653	RT	I-71	467+47		20		6			20								20
237	-	-	-	NOT USED															
238	-	-	-	NOT USED															
239	-	-	-	NOT USED															
240	-	-	-	NOT USED															
TOTALS CARRIED TO GENERAL SUMMARY					40	312		36			2429		8	3		16	1	2	1552

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ITEM 625

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625													
					CONDUIT, 3", 725.05	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	CONDUIT, MISC.: 4" MULTICELL RACEWAY	LUMINAIRE, HIGHMAST, AS PER PLAN	LUMINAIRE, LOWMAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN
					FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT
241	-	-	-	NOT USED														
242	-	-	-	NOT USED														
243	-	-	-	NOT USED														
244	654	LT	US224/I-76	838+37										1		1		
245	654	LT	US224/I-76	838+37, 144' LT TO 838+37, 134' LT							10							
246	654	LT	US224/I-76	838+37									1					
247	654	LT	US224/I-76	838+37 TO 17+60 RAMP NS-W							1084							1084
248	654	LT	US224/I-76	838+37 TO 17+80 RAMP NS-W							20							20
249	654	LT	US224/I-76	838+60										1		1		
250	654	LT	US224/I-76	838+60, 144' LT TO 838+60, 134' LT							10							
251	654	LT	US224/I-76	838+60										1				
252	654	LT	US224/I-76	838+60 TO 840+36							22							22
253	654	LT	US224/I-76	838+60 TO 15+92 RAMP NS-W							99							99
254	654	LT	US224/I-76	838+60 TO 18+00 RAMP NS-W							20							20
255	654	LT	US224/I-76	840+36										1				
256	654	LT/RT	US224/I-76	840+36 TO 11+92 RAMP W-NS		180												
257	654	LT	US224/I-76	840+36 TO 200+34 RAMP E-S							143							143
258	654	RT	RAMP E-S	200+34			6											
259	654	RT	RAMP E-S	200+34 TO 204+76							494							494
260	654	RT	RAMP E-S	204+32			6											
261	654	RT	RAMP E-S	204+32 TO 204+76							224							224
262	654	RT	RAMP E-S	204+76										1				
263	654	RT	RAMP E-S	204+76 TO 208+04							360							360
264	654	RT	RAMP E-S	208+04		20		6			20			2				20
265	654	LT	RAMP NS-W	15+92		20		6			20			2				20
266	654	LT	RAMP NS-W	15+92 TO 19+59							424							424
267	654	LT	RAMP NS-W	17+60										1				
268	654	LT/RT	RAMP NS-W	17+60, 17' LT TO 17+60, 27' RT		44												
269	654	RT	RAMP NS-W	17+60										1				
270	654	RT	RAMP NS-W	17+60 TO 851+40 US224/I-76							231							231
271	654	LT	RAMP NS-W	17+80										1				
272	654	LT/RT	RAMP NS-W	17+80, 17' LT TO 17+80, 27' RT		44												
273	654	RT	RAMP NS-W	17+80										1				
274	654	RT	RAMP NS-W	17+80 TO 851+60 US224/I-76							38							38
275	654	LT	RAMP NS-W	18+00										1				
276	654	LT/RT	RAMP NS-W	18+00, 17' LT TO 18+00, 27' RT		44												
277	654	RT	RAMP NS-W	18+00										1				
278	654	RT	RAMP NS-W	18+00 TO 220+60 RAMP E-S							563							563
279	654	LT	RAMP NS-W	19+59										1				
280	654	LT/RT	RAMP NS-W	19+59, 17' LT TO 19+59, 27' RT		44												
TOTALS CARRIED TO GENERAL SUMMARY					40	356		24			3782		11		6		2	3762

LIGHTING SUBSUMMARY

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ITEM 625

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625															
					CONDUIT, 3", 725.05	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	CONDUIT, MISC.: 4" MULTICELL RACEWAY	LUMINAIRE, HIGHMAST, AS PER PLAN	LUMINAIRE, LOWMAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	PLASTIC CAUTION TAPE	
					FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT		
281	654	LT	RAMP NS-W	19+59 TO 22+90							372							372		
282	654	RT	RAMP NS-W	19+59									1							
283	654	RT	RAMP NS-W	19+59 TO 852+76 US224/I-76							222							222		
284	654	LT	RAMP NS-W	22+90	20			6			20				2			20		
285	655	RT	RAMP E-S	190+26	20			6			20				2			20		
286	655	RT	RAMP E-S	195+00	20			6			20							20		
287	655	RT	RAMP E-S	195+00 TO 11+92 RAMP W-NS							173							173		
288	655	RT	RAMP W-NS	11+92									1							
289	655	RT	RAMP W-NS	8+71									1							
290	655	RT/LT	RAMP W-NS	8+71, 16' RT TO 8+71, 28' LT		44														
291	655	RT	RAMP W-NS	8+71 TO 38+71 RAMP W-S							374							374		
292	655	LT	RAMP W-NS	8+71									1							
293	655	LT	RAMP W-NS	8+71, 28' LT TO 8+71, 73' LT							46							46		
294	655	LT	RAMP W-NS	8+71				6							2					
295	655	LT	RAMP W-S	38+71				6							2					
296	655	LT	RAMP N-E	44+64				6							2					
297	655	LT	RAMP N-E	44+64 TO 49+31							488							488		
298	656	LT	US224/I-76	851+40									1							
299	656	LT	US224/I-76	851+40 TO 42+00 RAMP N-E		150														
300	656	LT	US224/I-76	851+60									1							
301	656	LT	US224/I-76	851+60 TO 41+79 RAMP N-E		150														
302	656	LT	US224/I-76	852+76				6							2					
303	656	LT	US224/I-76	852+76 TO 216+69 RAMP E-S							205							205		
304	656	RT	RAMP E-S	216+69	20			6			20				2			20		
305	656	RT	RAMP E-S	220+60									1							
306	656	RT/LT	RAMP E-S	220+60, 29' RT TO 220+60, 16' LT		45														
307	656	LT	RAMP E-S	220+60									1							
308	656	LT	RAMP E-S	220+60 TO 220+99							68							68		
309	656	LT	RAMP E-S	220+99				6							2					
310	656	LT	RAMP E-S	220+99 TO 225+93							556							556		
311	656	LT	RAMP E-S	225+93				6							2					
312	656	LT	RAMP E-S	225+93 TO 866+62 US224/I-76							515							515		
313	657	LT	RAMP N-E	41+79									1							
314	657	LT	RAMP N-E	41+79 TO 857+42 US224/I-76							280							280		
315	657	LT	RAMP N-E	42+00									1							
316	657	LT	RAMP N-E	42+00 TO 44+64							282							282		
317	657	RT	I-76	857+42									1							
318	657	RT	I-76	857+42 TO 862+19							477							477		
319	657	RT	I-76	857+42, 53' RT TO 857+42, 120' RT							67							67		
320	657	RT	I-76	857+42				6							2					
TOTALS CARRIED TO GENERAL SUMMARY					80	389		66			4205		11			20		4205		

LIGHTING SUBSUMMARY

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REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625																												
					CONNECTOR KIT, TYPE II	CABLE SPLICING KIT	LOWMAST LIGHT POLE DESIGN AT0N5I.7	LIGHT TOWER BBBBBB100	LIGHT TOWER BBBBBB110	LIGHT TOWER BBBBBB120	LIGHT TOWER BBBBBB130	LIGHT TOWER MISC.: BBBBBB140	LIGHT POLE FOUNDATION, 24" X 8' DEEP	LIGHT TOWER FOUNDATION, 36" X 20' DEEP	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	LIGHT TOWER FOUNDATION, 36" X 30' DEEP	LIGHT TOWER FOUNDATION, 42" X 25' DEEP	LIGHT TOWER FOUNDATION, 42" X 30' DEEP	LIGHT TOWER FOUNDATION, MISC.: SPREAD FOUNDATION, AS PER PLAN	NO. 1/0 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	1/2" DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES	DUCT CABLE, MISC.: 2" DUCT CABLE WITH THREE NO. 1/0 AWG 5000 VOLT CABLES	CONDUIT, 2", 725.04	CONDUIT, 2", 725.04, AS PER PLAN	CONDUIT, 3", 725.04				
					EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT			
441	662	RT	US224/I-76	827+71		3																											
442	662	RT	US224/I-76	827+71 TO 828+27																													
443	662	RT/LT	US224/I-76	827+71 RT TO 827+71 LT																													
444	662	LT	US224/I-76	827+71		3																											
445	662	LT	US224/I-76	827+71 TO 828+28																													
446	662	RT	US224/I-76	828+27	2		1																										
447	662	RT	US224/I-76	828+27 TO 829+80																													
448	662	LT	US224/I-76	828+28	2		1																										
449	662	LT	US224/I-76	828+28 TO 829+79																													
450	662	LT	US224/I-76	829+79	2		1																										
451	662	LT	US224/I-76	829+79 TO 831+31																													
452	662	RT	US224/I-76	829+80	2		1																										
453	662	RT	US224/I-76	829+80 TO 831+31																													
454	662	LT	US224/I-76	831+31	2		1																										
455	662	LT	US224/I-76	831+31 TO 832+81																													
456	662	RT	US224/I-76	831+31	2		1																										
457	662	RT	US224/I-76	831+31 TO 832+81																													
458	662	LT	US224/I-76	832+81	2		1																										
459	662	LT	US224/I-76	832+81 TO 834+32																													
460	662	RT	US224/I-76	832+81	2		1																										
461	662	RT	US224/I-76	832+81 TO 834+32																													
462	662	LT	US224/I-76	834+32	2		1																										
463	662	LT	US224/I-76	834+32 TO 835+81																													
464	662	RT	US224/I-76	834+32	2		1																										
465	662	RT	US224/I-76	834+32 TO 835+81																													
466	662	LT	US224/I-76	835+81	2		1																										
467	662	LT	US224/I-76	835+81 TO 837+31																													
468	662	RT	US224/I-76	835+81	2		1																										
469	662	RT	US224/I-76	835+81 TO 837+31																													
470	662	LT	US224/I-76	837+31	2		1																										
471	662	RT	US224/I-76	837+31	2		1																										
472																																	
473																																	
474																																	
475																																	
476																																	
477																																	
478																																	
479																																	
480																																	
TOTALS CARRIED TO GENERAL SUMMARY					28	6	14																										

CALCULATED
TJS
CHECKED
JGA

LIGHTING SUBSUMMARY

MED-71-6.06

642
1120

P:\PR33412\CADD\75657\SLX.DGN

ITEM 625

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	ITEM 625														
					CONDUIT, 3", 725.05	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	CONDUIT, MISC.: 4" MULTICELL RACEWAY	LUMINAIRE, HIGHMAST, AS PER PLAN	LUMINAIRE, LOWMAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	PLASTIC CAUTION TAPE
					FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
441	662	RT	US224/I-76	827+71															
442	662	RT	US224/I-76	827+71 TO 828+27							56							56	
443	662	RT/LT	US224/I-76	827+71 RT TO 827+71 LT		145													
444	662	LT	US224/I-76	827+71															
445	662	LT	US224/I-76	827+71 TO 828+28							57							57	
446	662	RT	US224/I-76	828+27															
447	662	RT	US224/I-76	828+27 TO 829+80							153							153	
448	662	LT	US224/I-76	828+28															
449	662	LT	US224/I-76	828+28 TO 829+79							151							151	
450	662	LT	US224/I-76	829+79															
451	662	LT	US224/I-76	829+79 TO 831+31							152							152	
452	662	RT	US224/I-76	829+80															
453	662	RT	US224/I-76	829+80 TO 831+31							151							151	
454	662	LT	US224/I-76	831+31															
455	662	LT	US224/I-76	831+31 TO 832+81							150							150	
456	662	RT	US224/I-76	831+31															
457	662	RT	US224/I-76	831+31 TO 832+81							150							150	
458	662	LT	US224/I-76	832+81															
459	662	LT	US224/I-76	832+81 TO 834+32							151							151	
460	662	RT	US224/I-76	832+81															
461	662	RT	US224/I-76	832+81 TO 834+32							151							151	
462	662	LT	US224/I-76	834+32															
463	662	LT	US224/I-76	834+32 TO 835+81							149							149	
464	662	RT	US224/I-76	834+32															
465	662	RT	US224/I-76	834+32 TO 835+81							149							149	
466	662	LT	US224/I-76	835+81															
467	662	LT	US224/I-76	835+81 TO 837+31							150							150	
468	662	RT	US224/I-76	835+81															
469	662	RT	US224/I-76	835+81 TO 837+31							150							150	
470	662	LT	US224/I-76	837+31							5								
471	662	RT	US224/I-76	837+31							5								
472																			
473																			
474																			
475																			
476																			
477																			
478																			
479																			
480																			
TOTALS CARRIED TO GENERAL SUMMARY						145			14		1930		2		14			1920	

CALCULATED
TJS
CHECKED
JGA

LIGHTING SUBSUMMARY

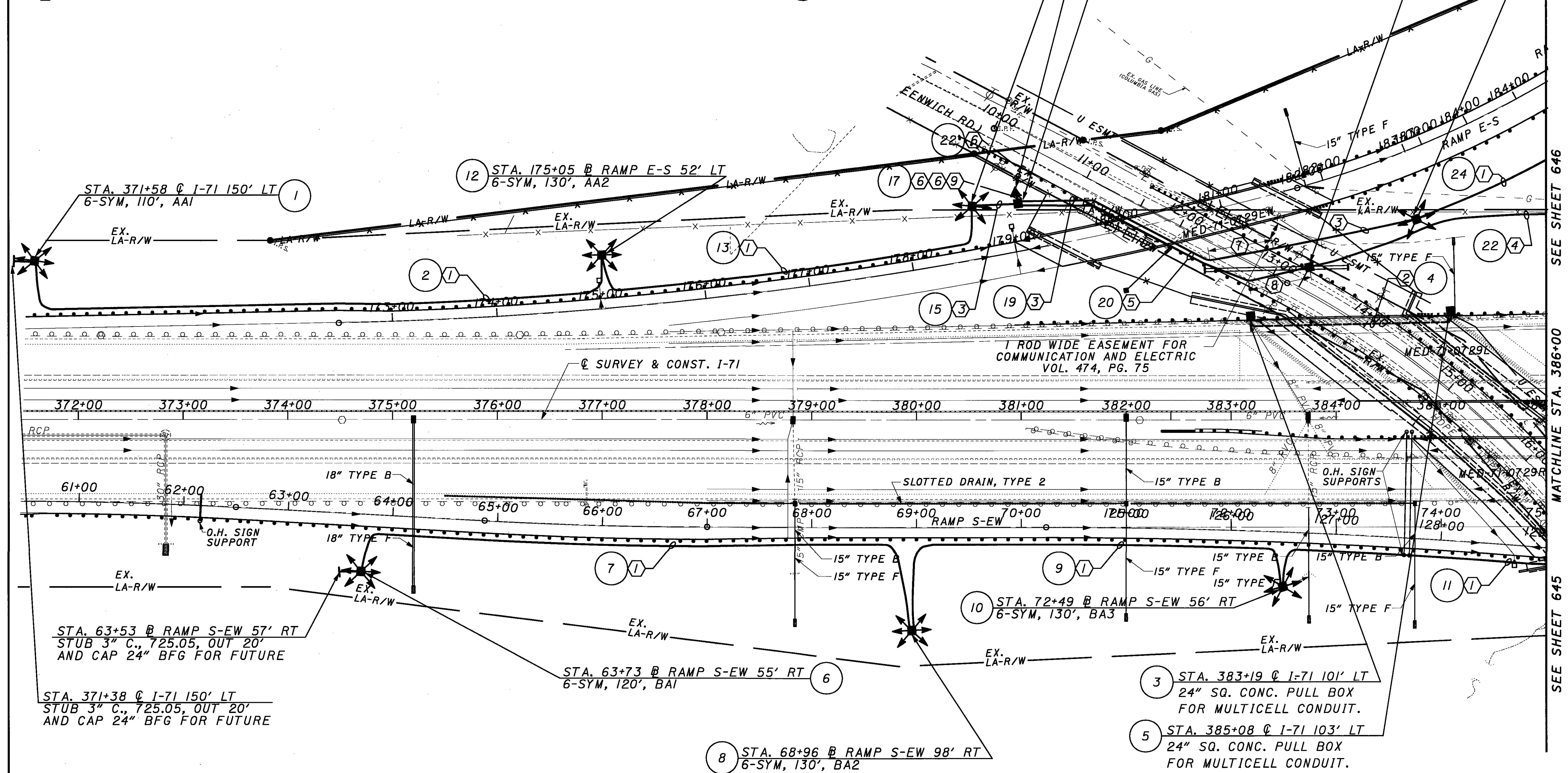
MED-71-6.06

643
1120

CODED NOTES

- ① 1 1/2" DUCT CABLE WITH 3-#4 AWG 5000V CABLES.
- ② EMPTY 4" MULTICELL PVC CONDUIT IN STRUCTURE. SEE DETAIL ON SHEET 664.
- ③ 3" C. 725.04 WITH 3-#4 AWG 5000V CABLES
- ④ 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000V CABLES.
- ⑤ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑥ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
- ⑦⑧ NOT USED.
- ⑨ 2" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.

- ⑩ STA. 179+10 @ RAMP E-S 53' LT
24" SQ. CONC. PULL BOX
- ⑪ STA. 179+10 @ RAMP E-S 63' LT
CONTROL CENTER A
- ⑫ STA. 178+66 @ RAMP E-S 51' LT
6-SYM, 120', AA3
- ⑬ STA. 182+70 @ RAMP E-S 64' RT
6-SYM, 120', AB1
- ⑭ STA. 13+27 @ GEENWICH RD. 21' LT
18" SQ. CONC. PULL BOX
WITH SPLICE KITS.



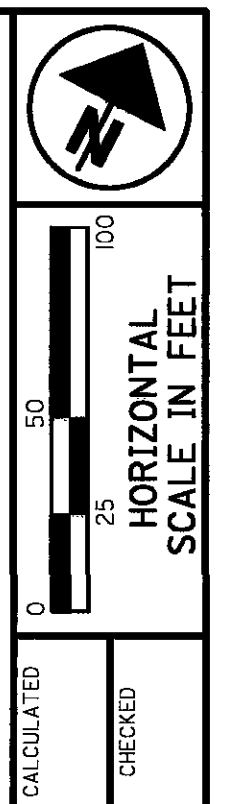
MATCHLINE STA. 386+00 SEE SHEET 645



LIGHTING PLAN
I-71 - STA. 372+00 TO STA. 386+00

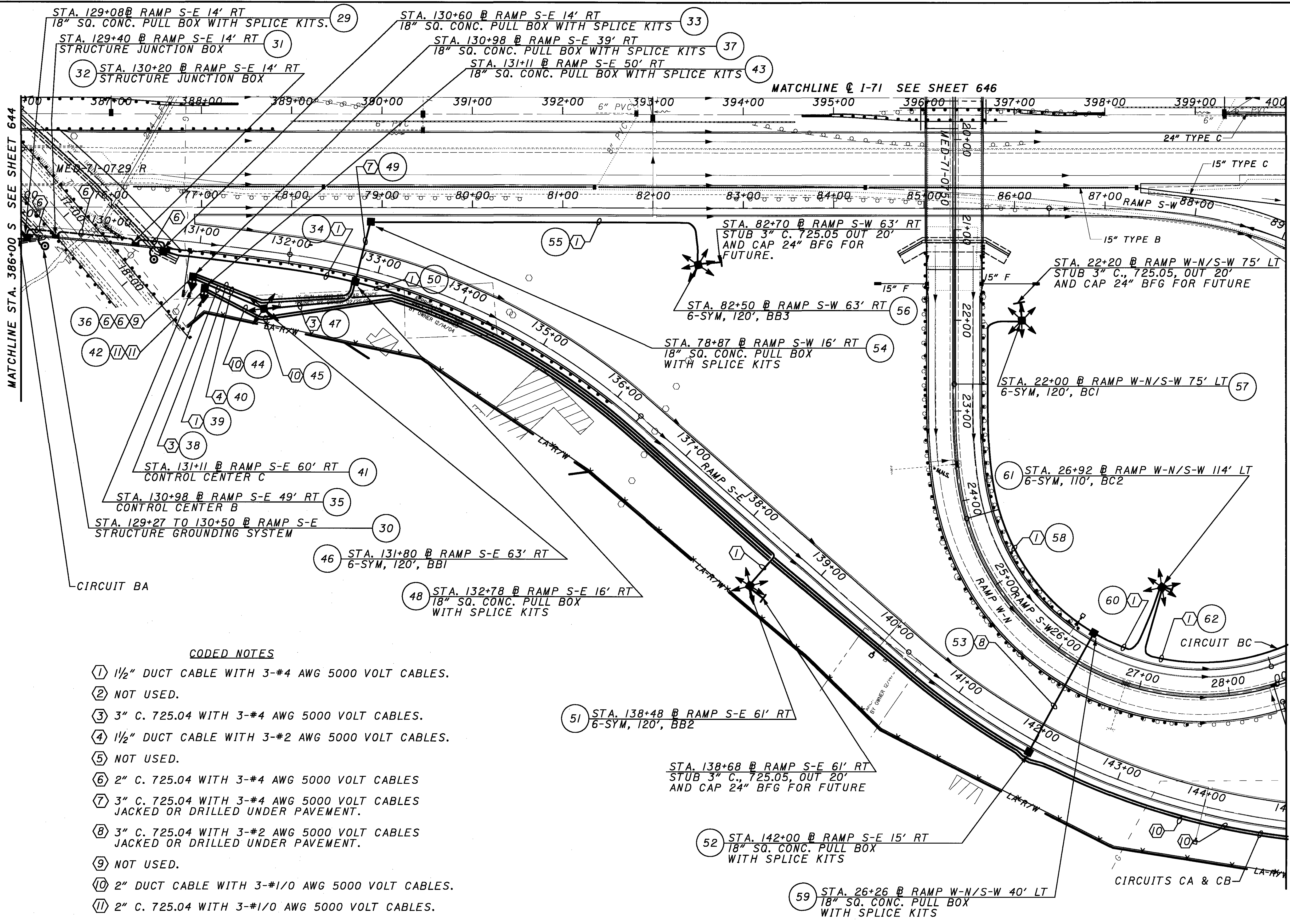
MED-71-6.06

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LIGHTING PLAN
I-71 - STA. 386+00 TO STA. 400+00 S

MED-71-6.06
645
1120



- CODED NOTES**
- ① 1 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
 - ② NOT USED.
 - ③ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
 - ④ 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
 - ⑤ NOT USED.
 - ⑥ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES
 - ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
 - ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
 - ⑨ NOT USED.
 - ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
 - ⑪ 2" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES.

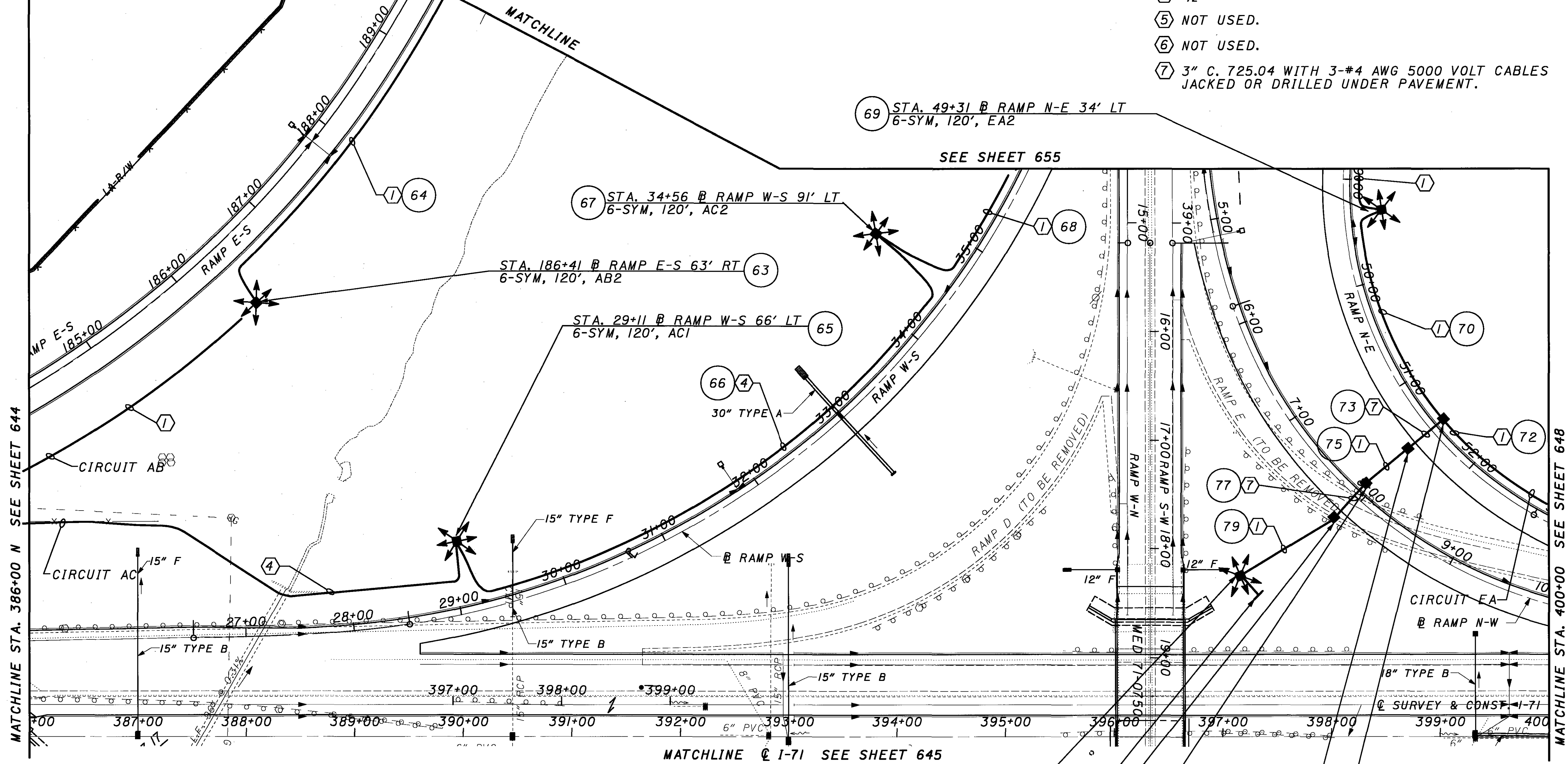
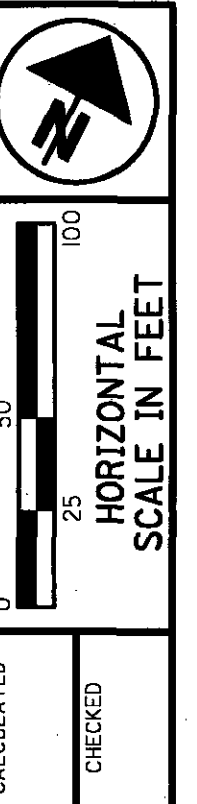
MATCHLINE STA. 386+00 S SEE SHEET 644

MATCHLINE STA. 400+00 S SEE SHEET 647

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CODED NOTES

- ① 1 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ② NOT USED.
- ③ NOT USED.
- ④ 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000V CABLES.
- ⑤ NOT USED.
- ⑥ NOT USED.
- ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.



69 STA. 49+31 @ RAMP N-E 34' LT
6-SYM, 120', EA2

SEE SHEET 655

67 STA. 34+56 @ RAMP W-S 91' LT
6-SYM, 120', AC2

63 STA. 186+41 @ RAMP E-S 63' RT
6-SYM, 120', AB2

65 STA. 29+11 @ RAMP W-S 66' LT
6-SYM, 120', AC1

66 ④
30" TYPE A

15" TYPE F

CIRCUIT AB

CIRCUIT AC

15" TYPE B

15" TYPE B

15" TYPE B

MATCHLINE @ I-71 SEE SHEET 645

80 STA. 7+67 @ RAMP N-W 125' RT
6-SYM, 120', EA3

STA. 7+87 @ RAMP N-EW 125' RT
STUB 3" C. 725.05 OUT 20' AND
CAP 24" BFG FOR FUTURE.

78 STA. 7+92 @ RAMP N-W 28' RT
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

76 STA. 7+92 @ RAMP N-W 16' LT
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

74 STA. 51+49 @ RAMP N-E 28' RT
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

71 STA. 51+49 @ RAMP N-E 15' LT
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

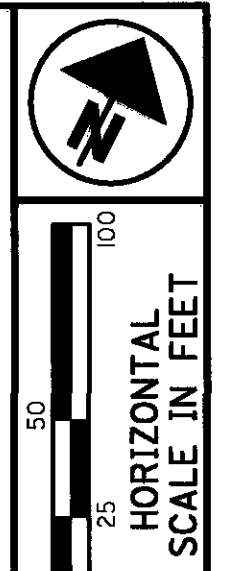
MATCHLINE STA. 386+00 N SEE SHEET 644

MATCHLINE STA. 400+00 SEE SHEET 648

LIGHTING PLAN
I-71 - STA. 386+00 TO STA. 400+00 N

MED-71-6.06

646
1120

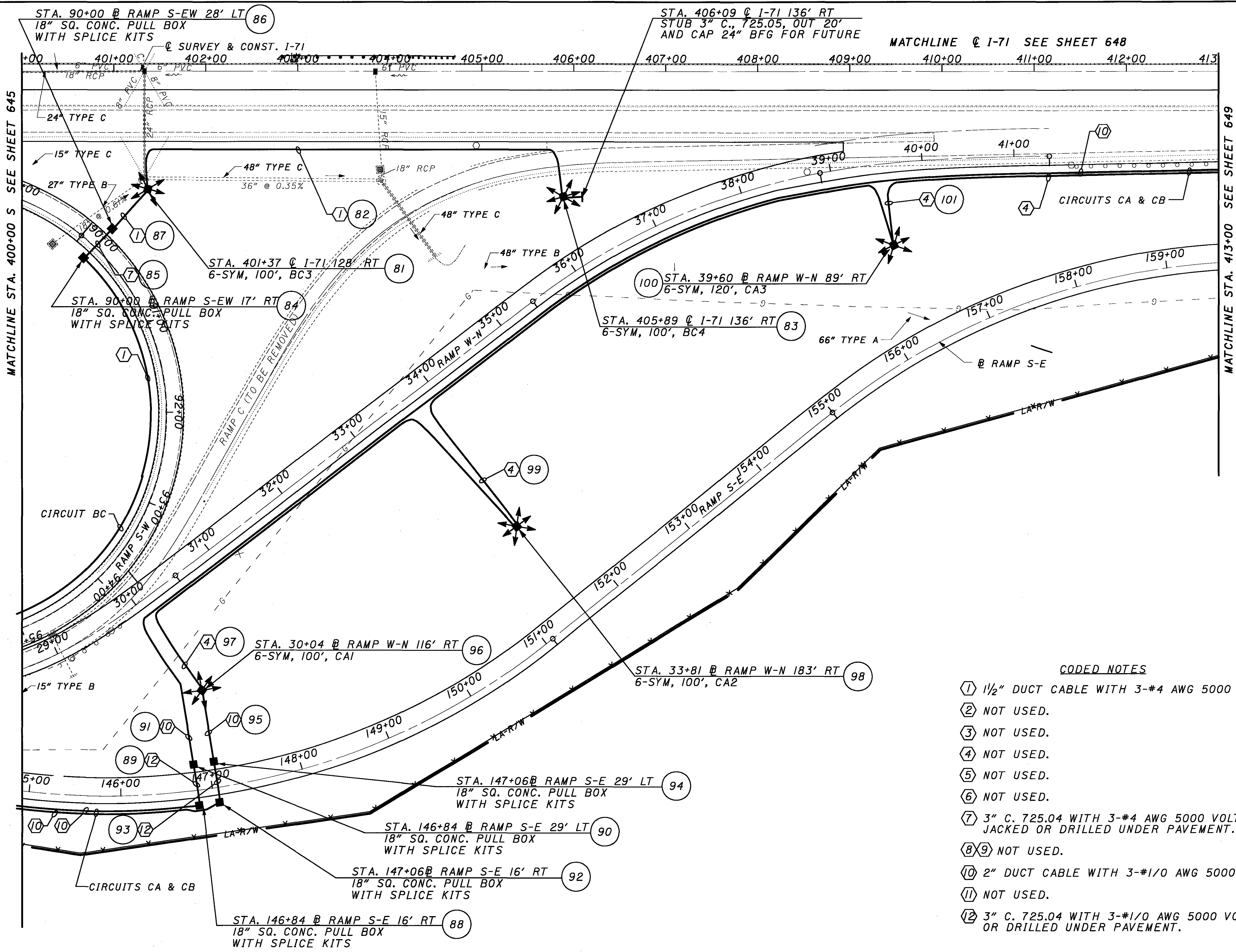


CALCULATED
CHECKED

LIGHTING PLAN
I-71 - STA. 400+00 TO STA. 413+00 S

MED-71-6.06

647
1120



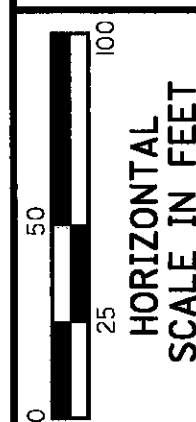
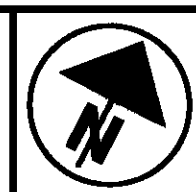
CODED NOTES

- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ② NOT USED.
- ③ NOT USED.
- ④ NOT USED.
- ⑤ NOT USED.
- ⑥ NOT USED.
- ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑧ ⑨ NOT USED.
- ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑪ NOT USED.
- ⑫ 3" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.

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CODED NOTES

① 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000V CABLES.

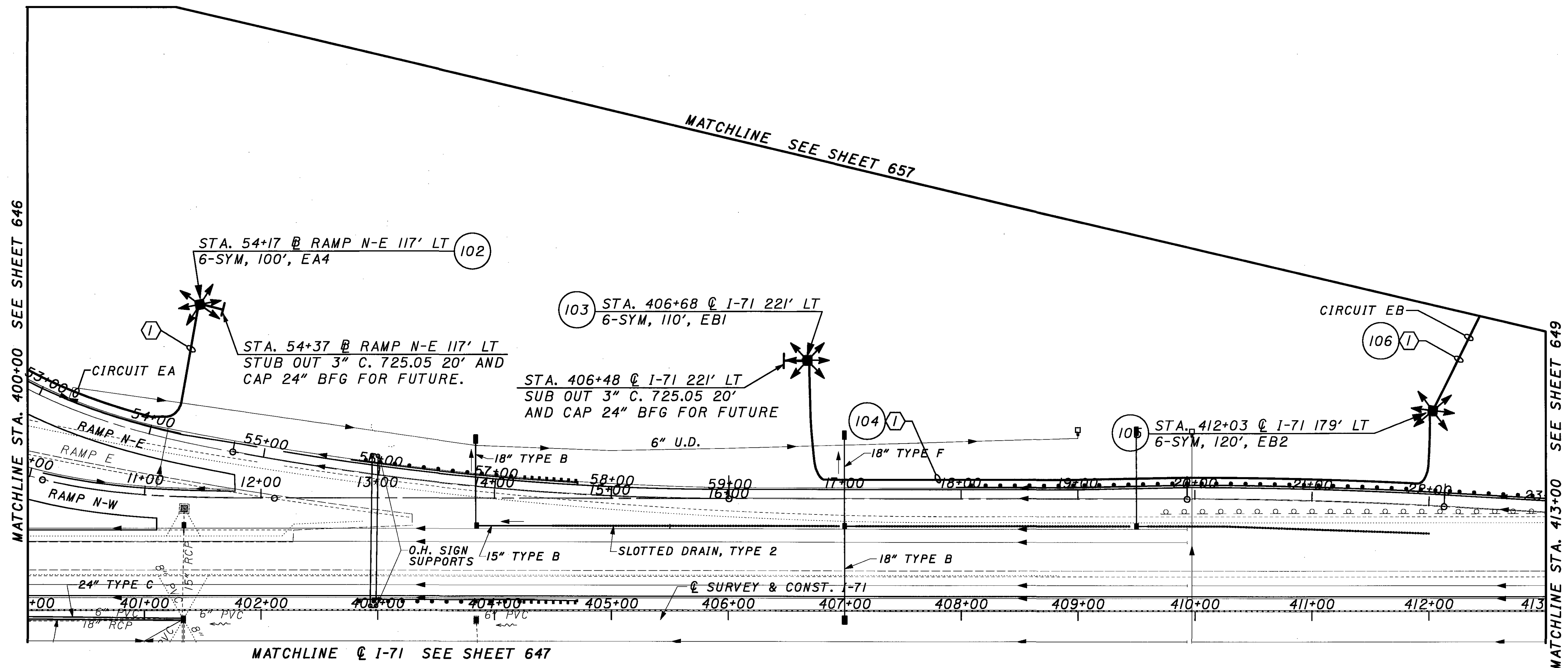


CALCULATED
CHECKED

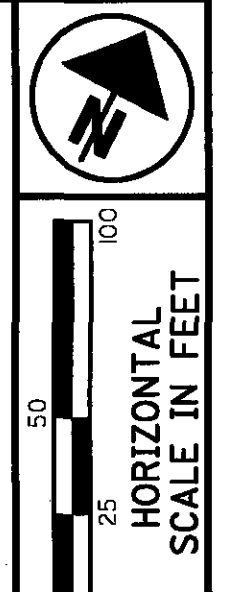
LIGHTING PLAN
I-71 - STA. 400+00 TO STA. 413+00 N

MED-71-6.06

648
1120



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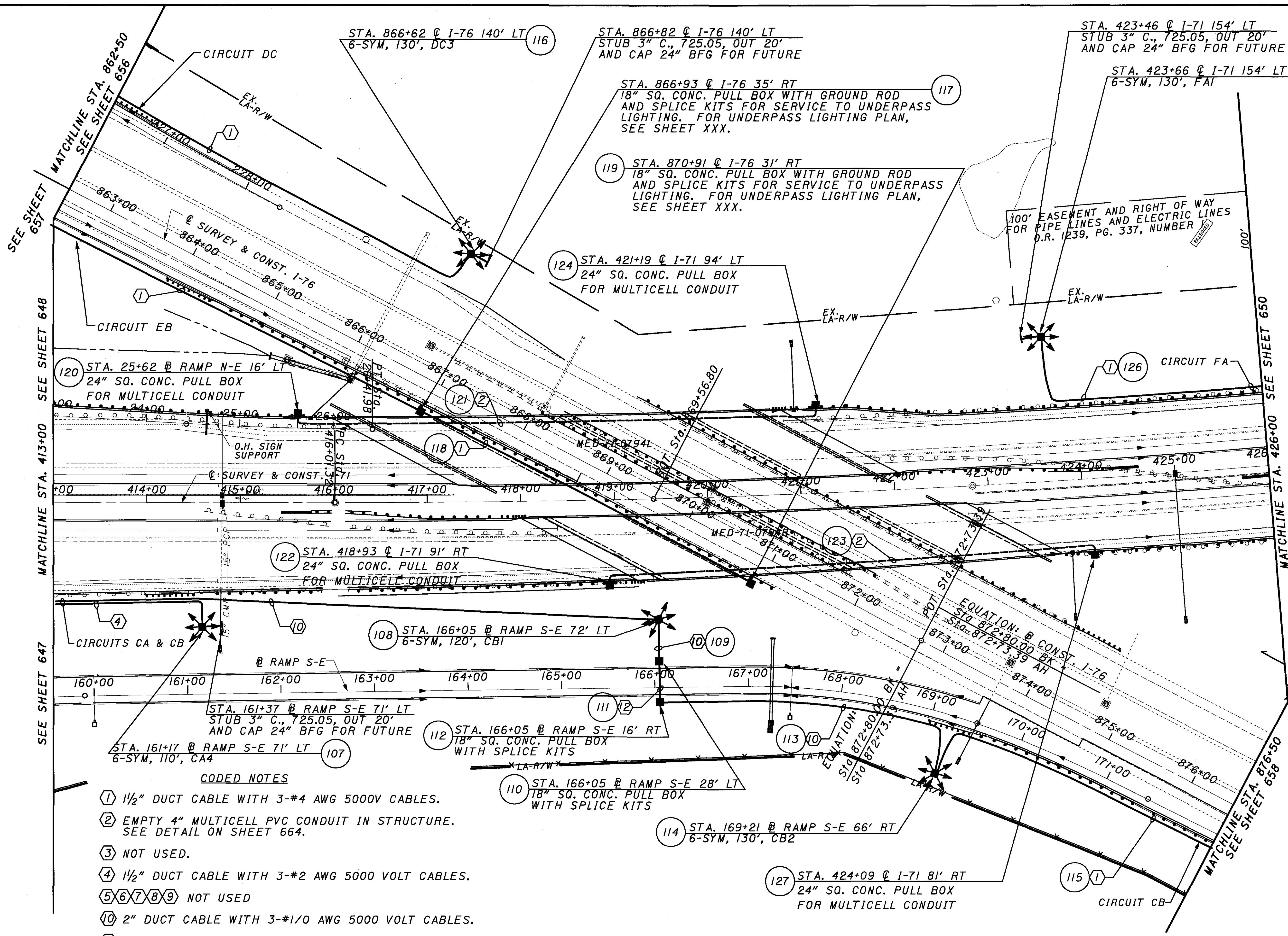


CALCULATED
CHECKED

LIGHTING PLAN
I-71 - STA. 413+00 TO STA. 426+00

MED-71-6.06

649
1120

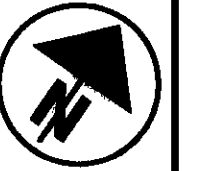


- CODED NOTES**
- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000V CABLES.
 - ② EMPTY 4" MULTICELL PVC CONDUIT IN STRUCTURE. SEE DETAIL ON SHEET 664.
 - ③ NOT USED.
 - ④ 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
 - ⑤⑥⑦⑧⑨ NOT USED
 - ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
 - ⑪ NOT USED.
 - ⑫ 3" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.

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CODED NOTES

- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ② EMPTY 4" MULTICELL PVC CONDUIT IN STRUCTURE. SEE DETAIL ON SHEET 664.
- ③ NOT USED.
- ④ 1/2" DUCT CABLE WITH 3-#2 AWG 5000V CABLES.
- ⑤ NOT USED
- ⑥ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
- ⑦ 3" C. 725.04 WITH 3-# 4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑨ 2" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.

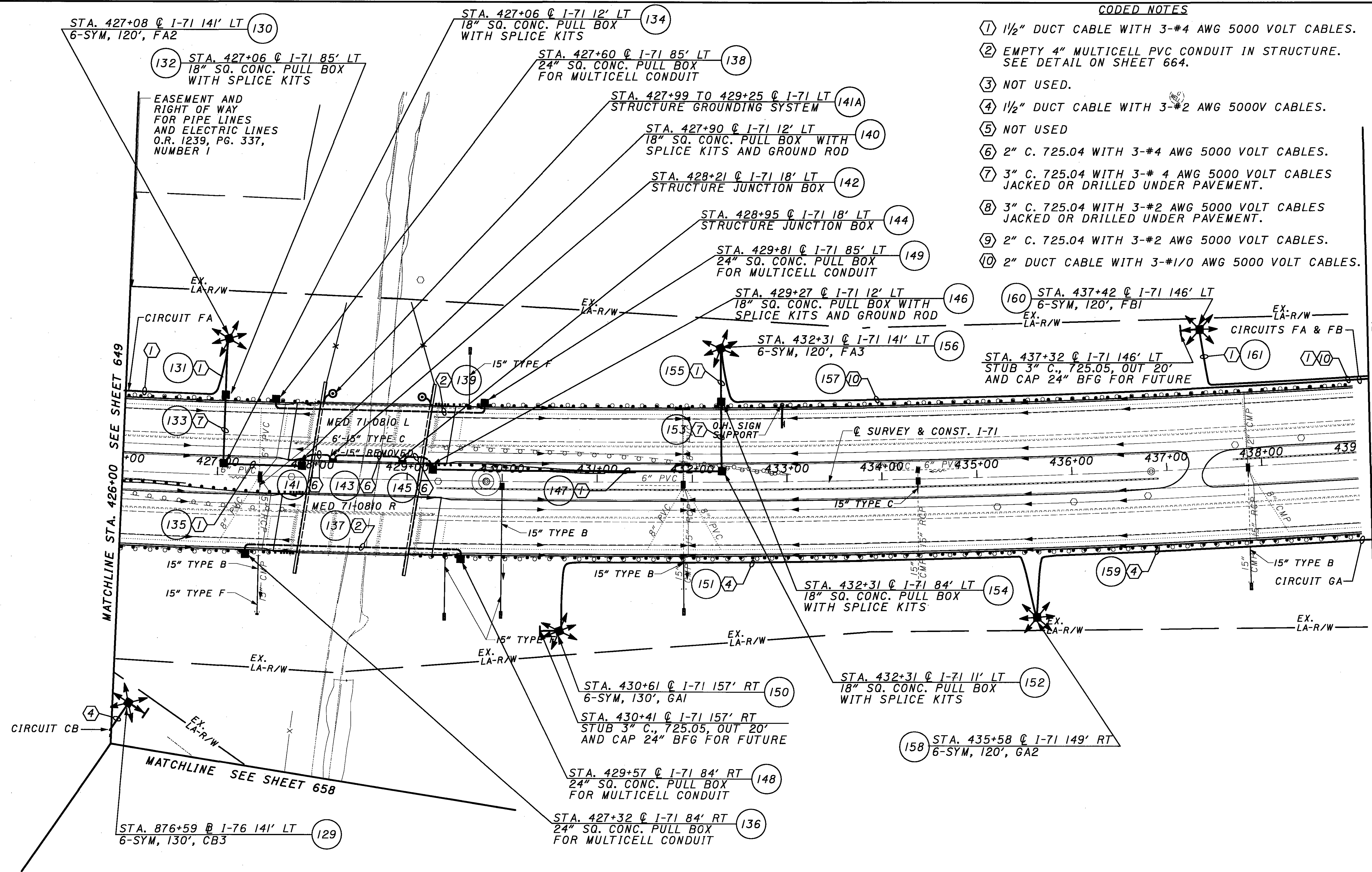


CALCULATED
CHECKED

LIGHTING PLAN
I-71 - STA. 426+00 TO STA. 439+00

MED-71-6.06

650
1120



STA. 427+08 @ I-71 141' LT (130)
6-SYM, 120', FA2

132 STA. 427+06 @ I-71 85' LT
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

EASEMENT AND
RIGHT OF WAY
FOR PIPE LINES
AND ELECTRIC LINES
O.R. 1239, PG. 337,
NUMBER 1

STA. 427+06 @ I-71 12' LT (134)
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

STA. 427+60 @ I-71 85' LT (138)
24" SQ. CONC. PULL BOX
FOR MULTICELL CONDUIT

STA. 427+99 TO 429+25 @ I-71 LT (141A)
STRUCTURE GROUNDING SYSTEM

STA. 427+90 @ I-71 12' LT (140)
18" SQ. CONC. PULL BOX WITH
SPLICE KITS AND GROUND ROD

STA. 428+21 @ I-71 18' LT (142)
STRUCTURE JUNCTION BOX

STA. 428+95 @ I-71 18' LT (144)
STRUCTURE JUNCTION BOX

STA. 429+81 @ I-71 85' LT (149)
24" SQ. CONC. PULL BOX
FOR MULTICELL CONDUIT

STA. 429+27 @ I-71 12' LT (146)
18" SQ. CONC. PULL BOX WITH
SPLICE KITS AND GROUND ROD

160 STA. 437+42 @ I-71 146' LT
6-SYM, 120', FBI

161 STA. 437+32 @ I-71 146' LT
STUB 3" C., 725.05, OUT 20'
AND CAP 24" BFG FOR FUTURE

STA. 432+31 @ I-71 141' LT (156)
6-SYM, 120', FA3

STA. 432+31 @ I-71 84' LT (154)
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

STA. 430+61 @ I-71 157' RT (150)
6-SYM, 130', GA1

STA. 430+41 @ I-71 157' RT
STUB 3" C., 725.05, OUT 20'
AND CAP 24" BFG FOR FUTURE

STA. 432+31 @ I-71 11' LT (152)
18" SQ. CONC. PULL BOX
WITH SPLICE KITS

158 STA. 435+58 @ I-71 149' RT
6-SYM, 120', GA2

STA. 429+57 @ I-71 84' RT (148)
24" SQ. CONC. PULL BOX
FOR MULTICELL CONDUIT

STA. 427+32 @ I-71 84' RT (136)
24" SQ. CONC. PULL BOX
FOR MULTICELL CONDUIT

STA. 876+59 @ I-76 141' LT (129)
6-SYM, 130', CB3

MATCHLINE STA. 426+00 SEE SHEET 649

MATCHLINE SEE SHEET 658

MATCHLINE STA. 439+00 SEE SHEET 651



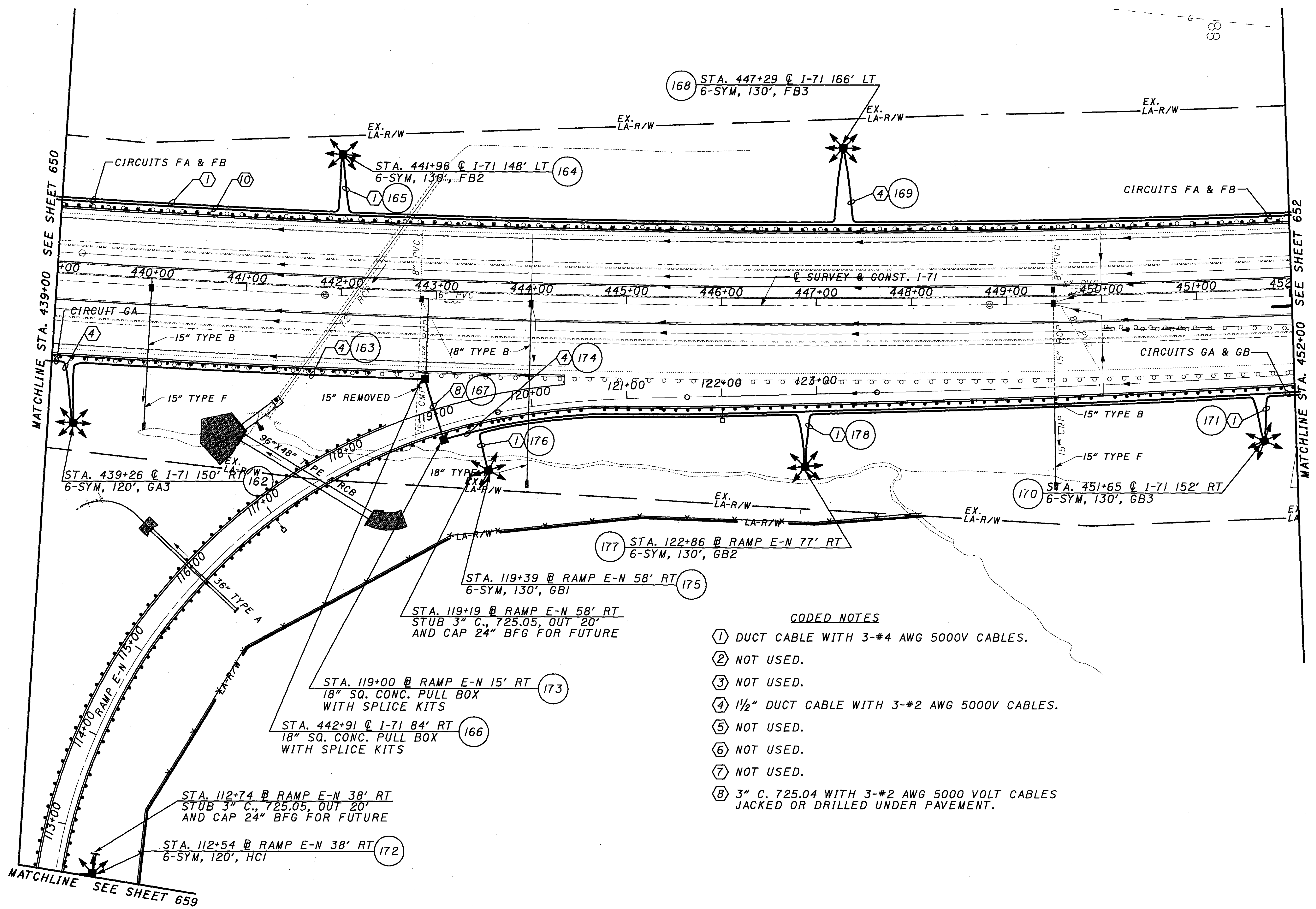
0 25 50 100
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

LIGHTING PLAN
I-71 - STA. 439+00 TO STA. 452+00

MED-71-6.06

651
1120



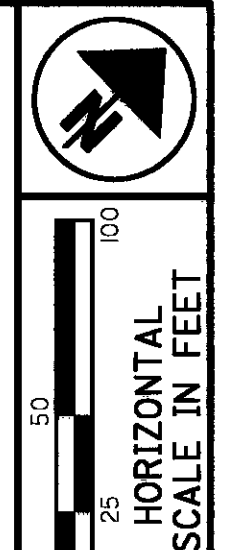
- CODED NOTES**
- ① DUCT CABLE WITH 3-#4 AWG 5000V CABLES.
 - ② NOT USED.
 - ③ NOT USED.
 - ④ 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000V CABLES.
 - ⑤ NOT USED.
 - ⑥ NOT USED.
 - ⑦ NOT USED.
 - ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.

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MATCHLINE STA. 439+00 SEE SHEET 650

MATCHLINE STA. 452+00 SEE SHEET 652

MATCHLINE SEE SHEET 659

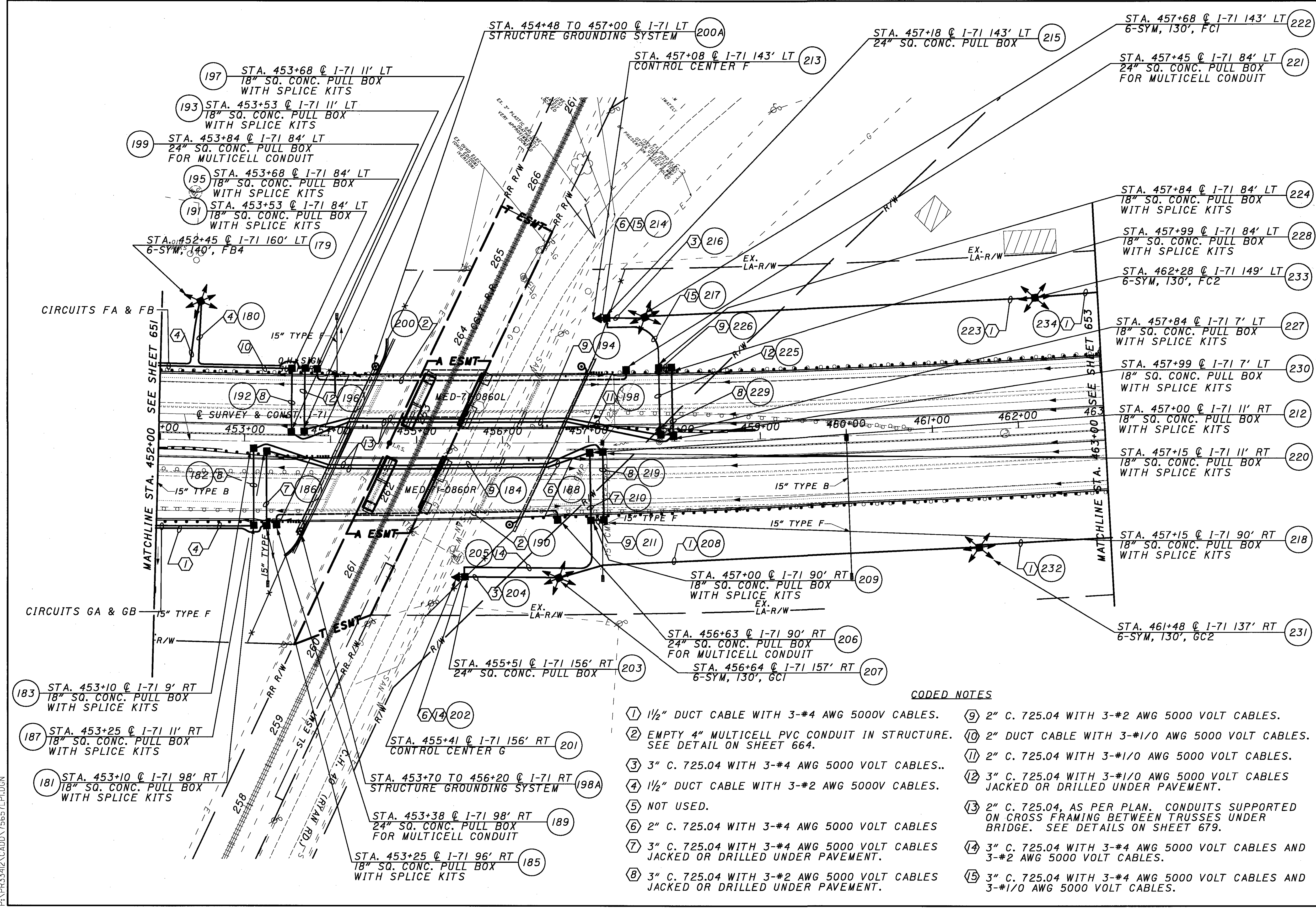


CHECKED
CALCULATED

LIGHTING PLAN
I-71 - STA. 452+00 TO STA. 463+00

MED-71-6.06

652
1120

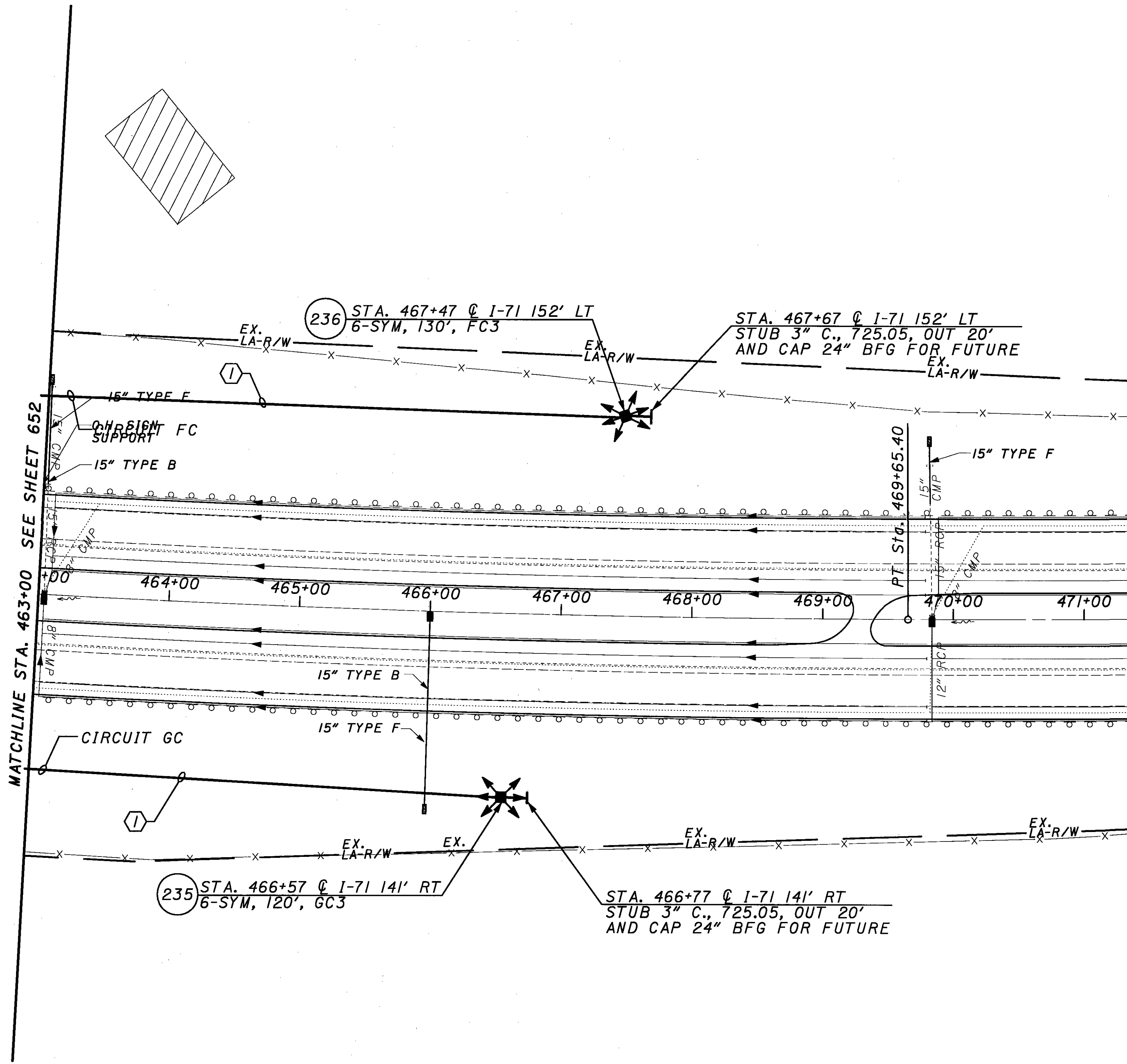


CODED NOTES

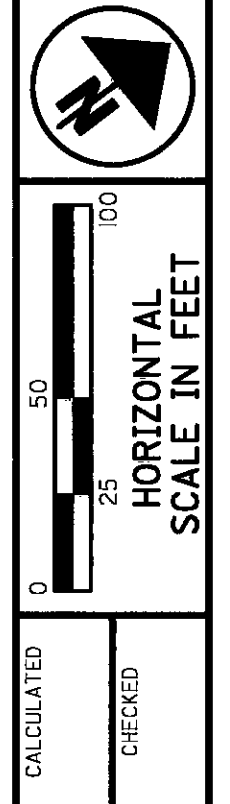
- ① 1 1/2" DUCT CABLE WITH 3-#4 AWG 5000V CABLES.
- ② EMPTY 4" MULTICELL PVC CONDUIT IN STRUCTURE. SEE DETAIL ON SHEET 664.
- ③ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES..
- ④ 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000V CABLES.
- ⑤ NOT USED.
- ⑥ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES
- ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑨ 2" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑪ 2" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑫ 3" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑬ 2" C. 725.04, AS PER PLAN. CONDUITS SUPPORTED ON CROSS FRAMING BETWEEN TRUSSES UNDER BRIDGE. SEE DETAILS ON SHEET 679.
- ⑭ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES AND 3-#2 AWG 5000 VOLT CABLES.
- ⑮ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES AND 3-#1/0 AWG 5000 VOLT CABLES.

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CODED NOTES
 ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.



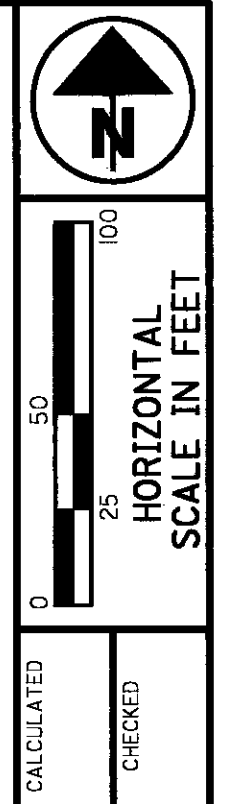
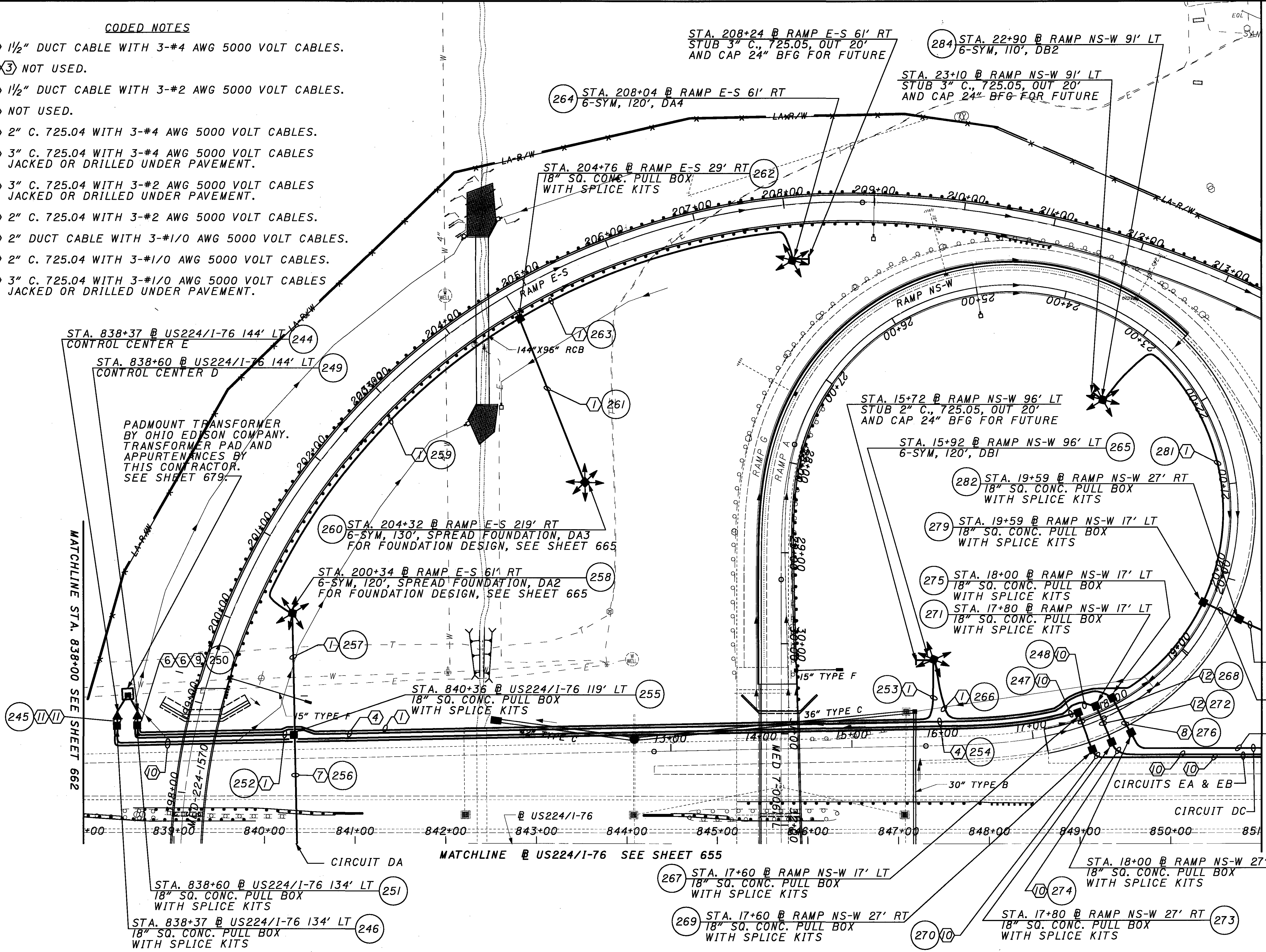
LIGHTING PLAN
I-71 - STA. 463+00 TO STA. 471+00

MED-71-6.06

653
1120

CODED NOTES

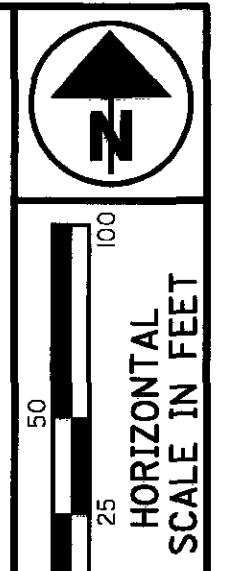
- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ②③ NOT USED.
- ④ 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑤ NOT USED.
- ⑥ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
- ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑨ 2" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑪ 2" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑫ 3" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.



LIGHTING PLAN
I-76 - STA. 838+00 TO STA. 851+00 N

MED-71-6.06

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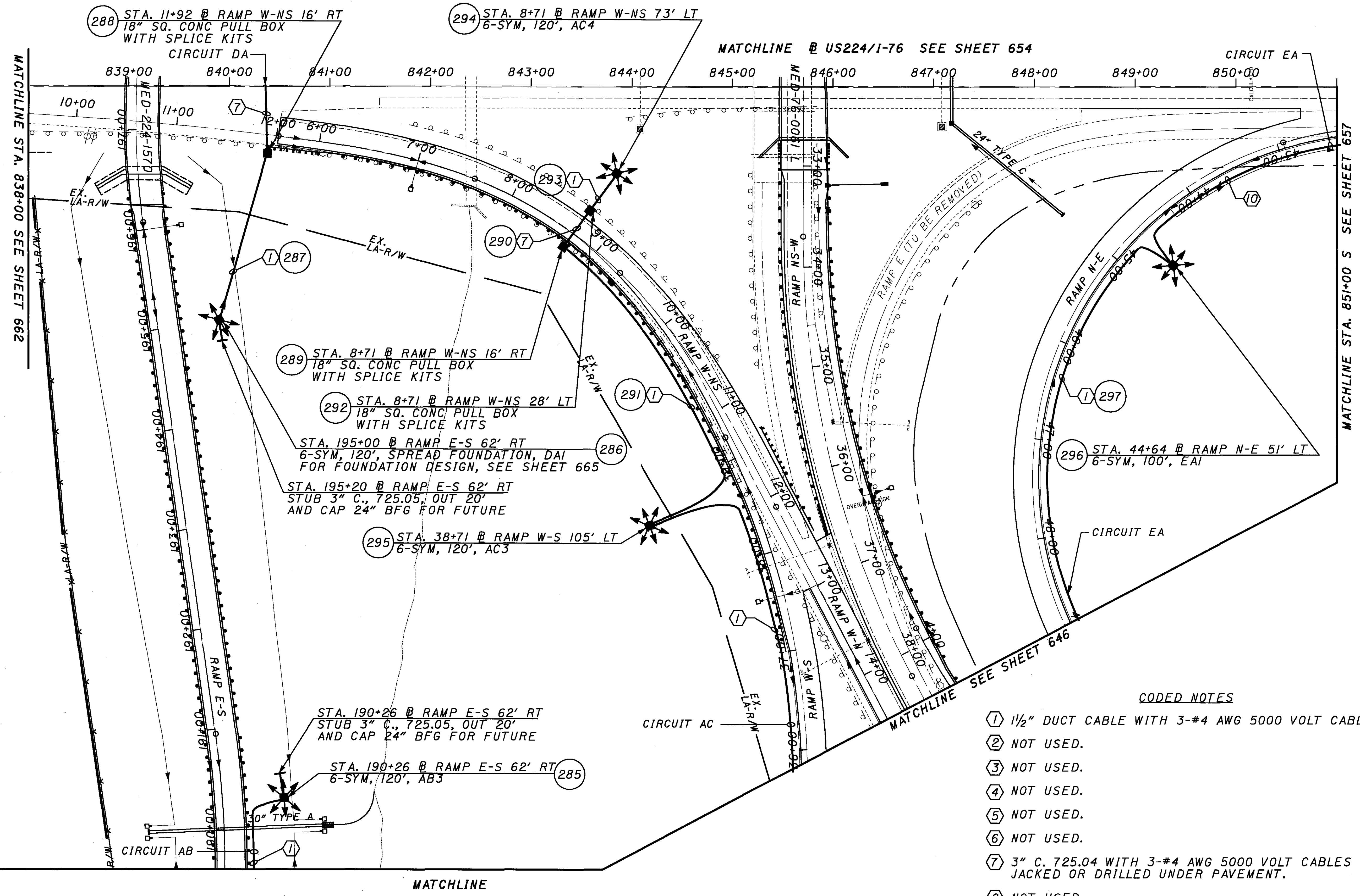


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LIGHTING PLAN
I-76 - STA. 838+00 TO STA. 851+00 S

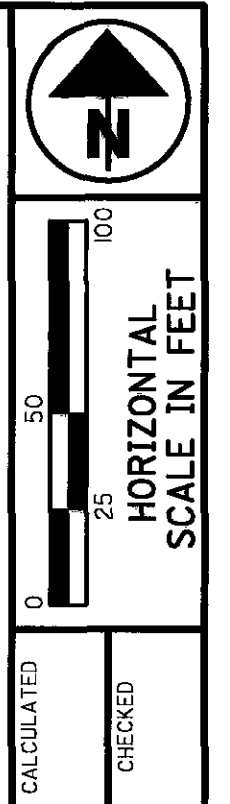
MED-71-6.06

655
1120



- CODED NOTES**
- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
 - ② NOT USED.
 - ③ NOT USED.
 - ④ NOT USED.
 - ⑤ NOT USED.
 - ⑥ NOT USED.
 - ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
 - ⑧ NOT USED
 - ⑨ NOT USED
 - ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.

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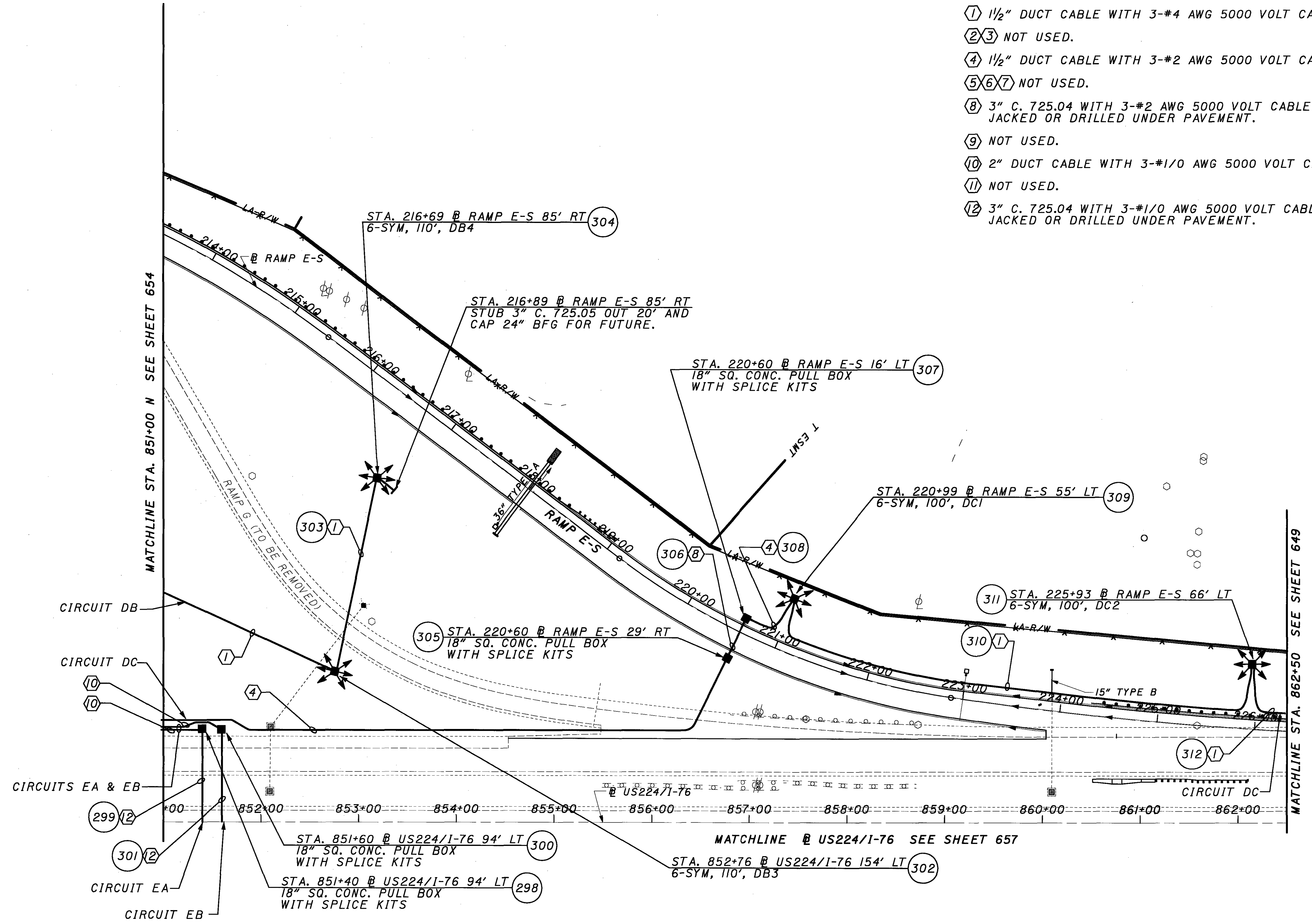


LIGHTING PLAN
 I-76 - STA. 851+00 N TO STA. 862+50 N

MED-71-6.06
 656
 1120

CODED NOTES

- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ②③ NOT USED.
- ④ 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑤⑥⑦ NOT USED.
- ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑨ NOT USED.
- ⑩ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑪ NOT USED.
- ⑫ 3" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.



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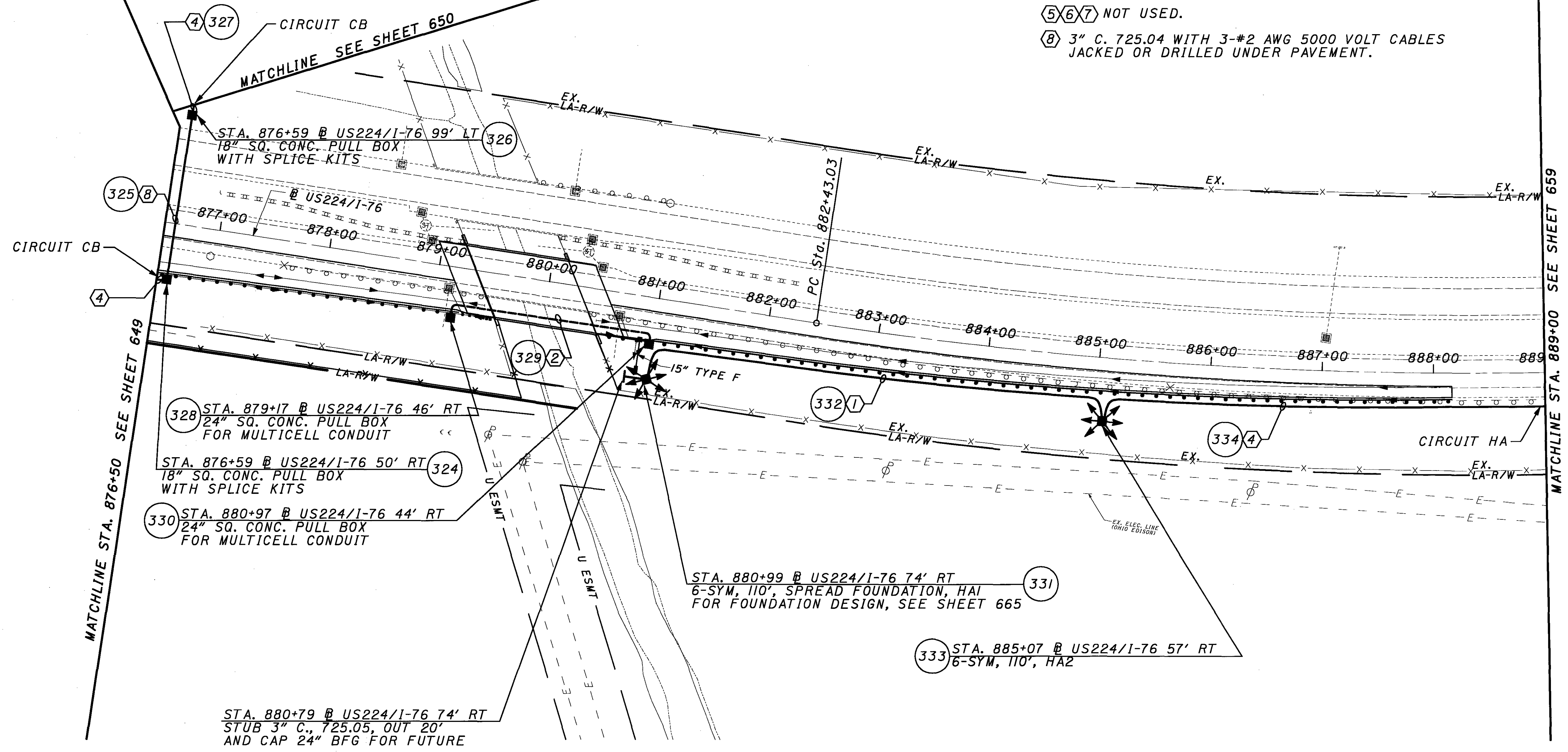
LIGHTING PLAN
I-76 - STA. 876+50 TO STA. 889+00

MED-71-6.06

658
1120

CODED NOTES

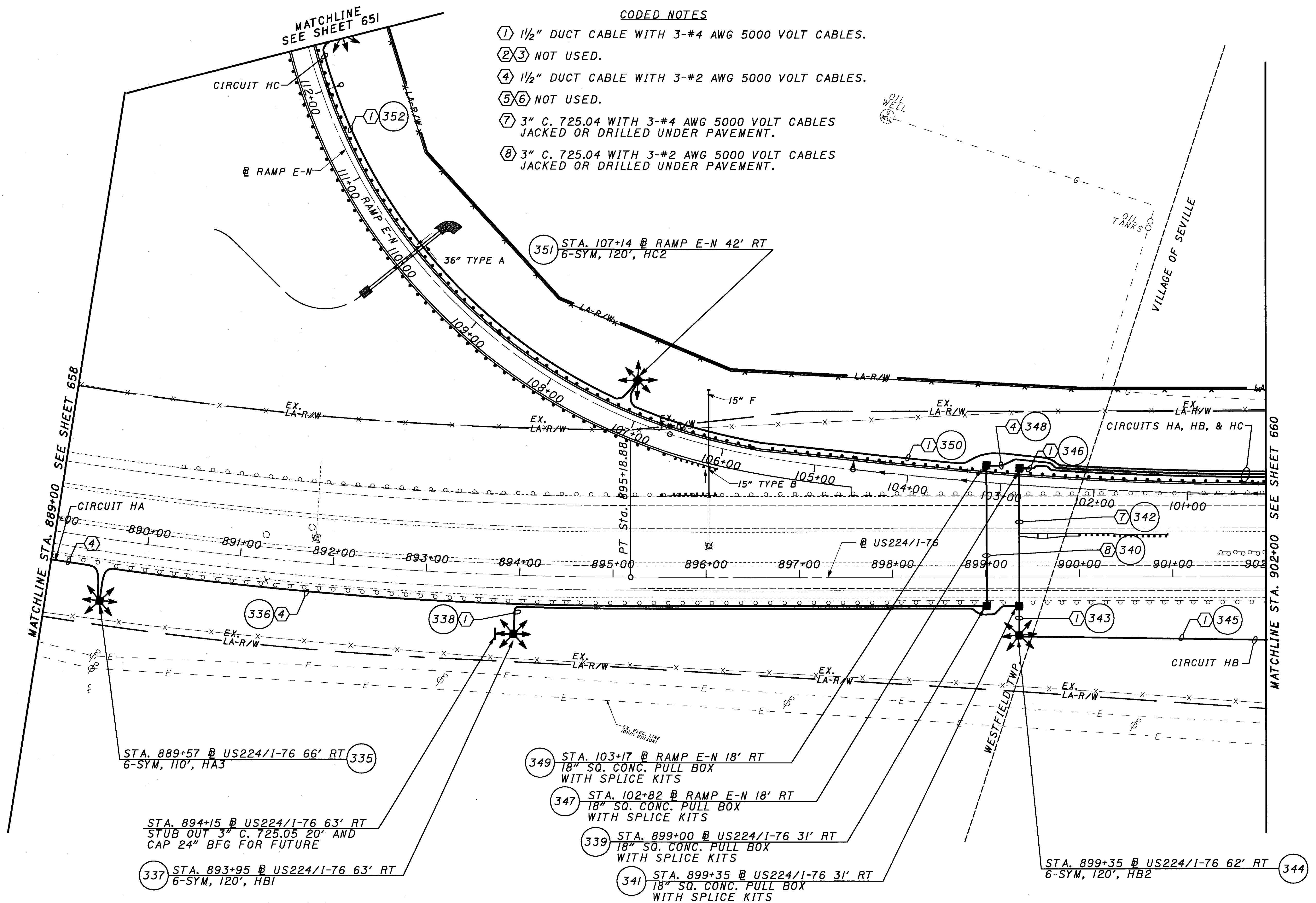
- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ② EMPTY 4" MULTICELL PVC CONDUIT IN STRUCTURE.
- ③ NOT USED.
- ④ 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑤⑥⑦ NOT USED.
- ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.



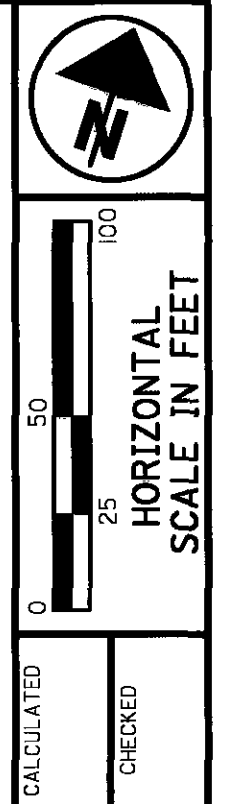
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CODED NOTES

- ① 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ②③ NOT USED.
- ④ 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑤⑥ NOT USED.
- ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑧ 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.



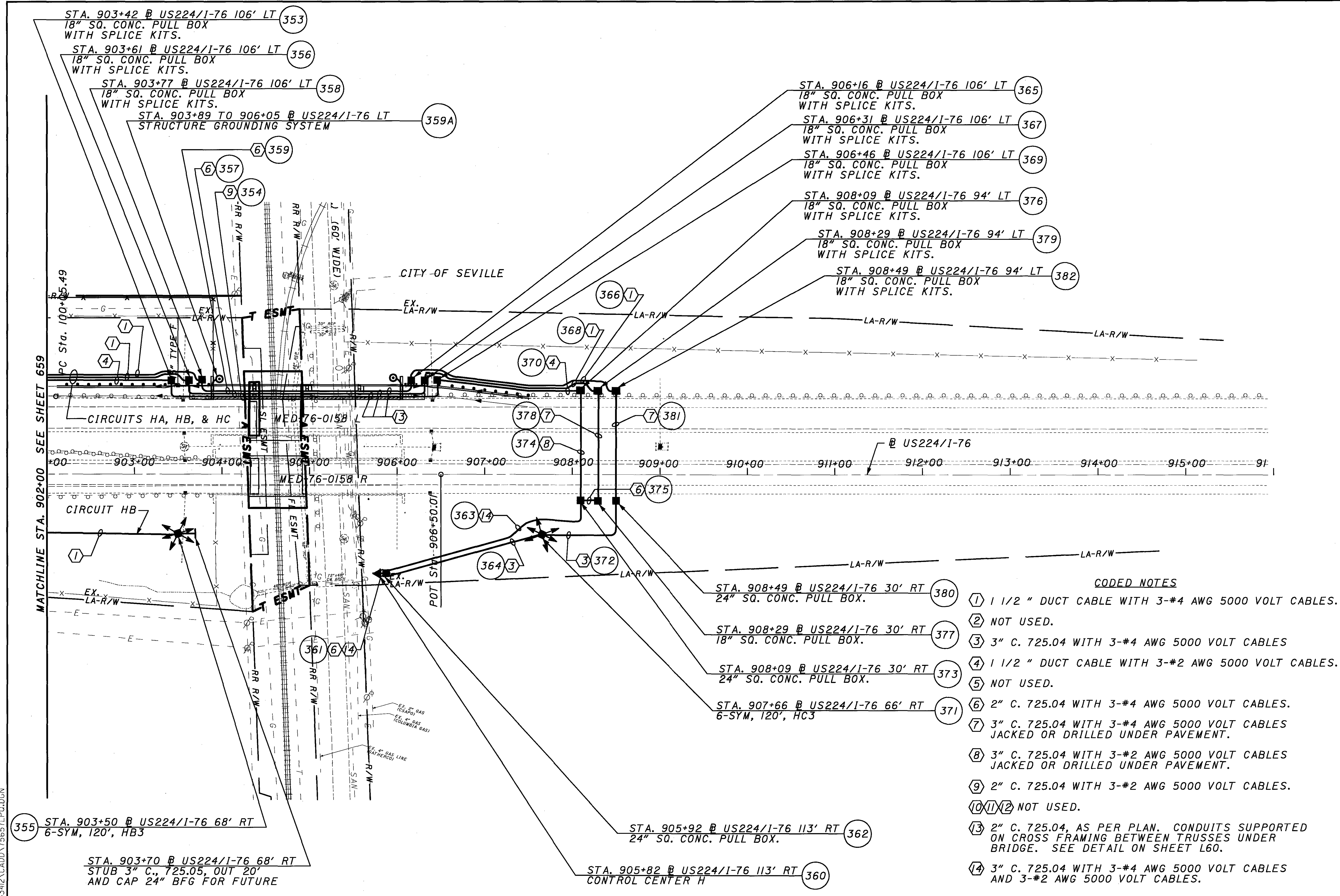
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LIGHTING PLAN
I-76 - STA. 902+00 TO STA. 916+00

MED-71-6.06

660
 1120



STA. 903+42 @ US224/I-76 106' LT (353)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 903+61 @ US224/I-76 106' LT (356)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 903+77 @ US224/I-76 106' LT (358)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 903+89 TO 906+05 @ US224/I-76 LT (359A)
 STRUCTURE GROUNDING SYSTEM

STA. 906+16 @ US224/I-76 106' LT (365)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 906+31 @ US224/I-76 106' LT (367)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 906+46 @ US224/I-76 106' LT (369)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 908+09 @ US224/I-76 94' LT (376)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 908+29 @ US224/I-76 94' LT (379)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.
 STA. 908+49 @ US224/I-76 94' LT (382)
 18" SQ. CONC. PULL BOX
 WITH SPLICE KITS.

MATCHLINE STA. 902+00 SEE SHEET 659

STA. 903+50 @ US224/I-76 68' RT (355)
 6-SYM, 120', HB3
 STA. 903+70 @ US224/I-76 68' RT
 STUB 3" C., 725.05, OUT 20'
 AND CAP 24" BFG FOR FUTURE

STA. 905+82 @ US224/I-76 113' RT (360)
 CONTROL CENTER H
 STA. 905+92 @ US224/I-76 113' RT (362)
 24" SQ. CONC. PULL BOX.

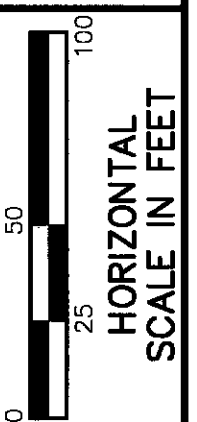
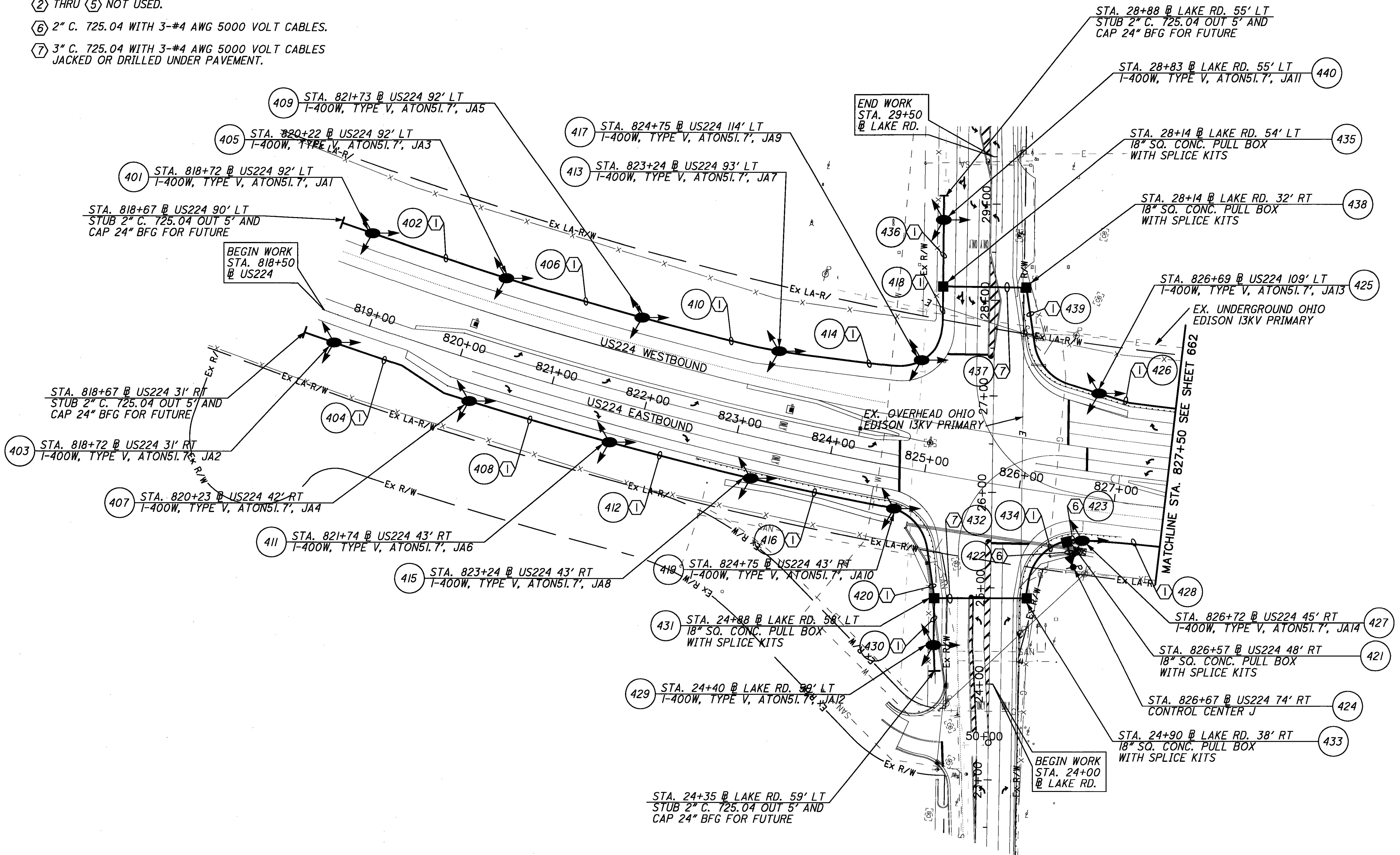
STA. 908+49 @ US224/I-76 30' RT (380)
 24" SQ. CONC. PULL BOX.
 STA. 908+29 @ US224/I-76 30' RT (377)
 18" SQ. CONC. PULL BOX.
 STA. 908+09 @ US224/I-76 30' RT (373)
 24" SQ. CONC. PULL BOX.
 STA. 907+66 @ US224/I-76 66' RT (371)
 6-SYM, 120', HC3

- CODED NOTES**
- (1) 1 1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
 - (2) NOT USED.
 - (3) 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES
 - (4) 1 1/2" DUCT CABLE WITH 3-#2 AWG 5000 VOLT CABLES.
 - (5) NOT USED.
 - (6) 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
 - (7) 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
 - (8) 3" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
 - (9) 2" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.
 - (10)(11)(12) NOT USED.
 - (13) 2" C. 725.04, AS PER PLAN. CONDUITS SUPPORTED ON CROSS FRAMING BETWEEN TRUSSES UNDER BRIDGE. SEE DETAIL ON SHEET L60.
 - (14) 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES AND 3-#2 AWG 5000 VOLT CABLES.

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CODING NOTES

- ① 1-1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ② THRU ⑤ NOT USED.
- ⑥ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
- ⑦ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.

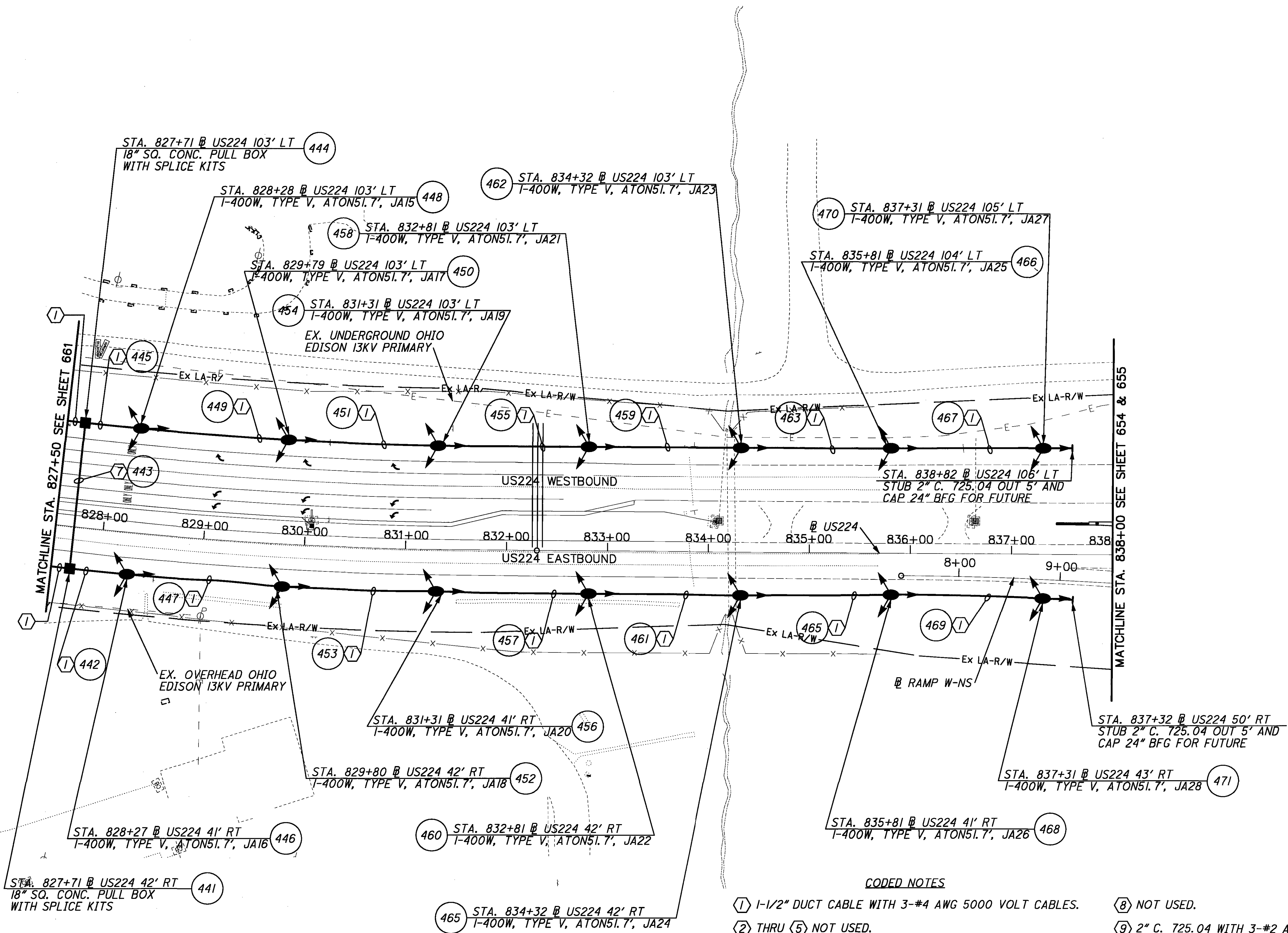


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**LIGHTING PLAN
US224 - STA. 818+50 TO STA. 827+50**

MED-71-6.06

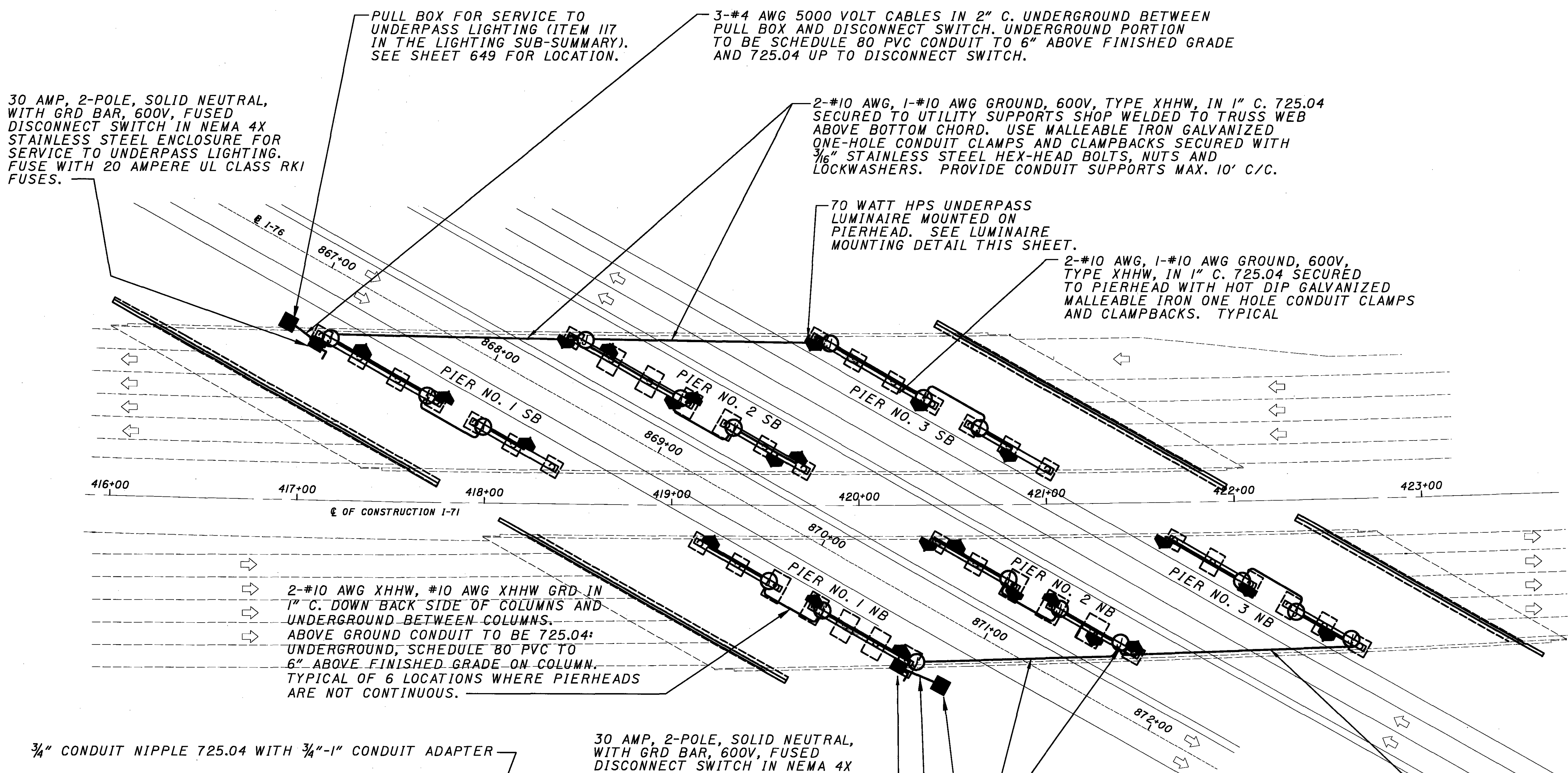
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CODED NOTES

- ① 1-1/2" DUCT CABLE WITH 3-#4 AWG 5000 VOLT CABLES.
- ② THRU ⑤ NOT USED.
- ③ 2" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES.
- ④ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑤ 3" C. 725.04 WITH 3-#4 AWG 5000 VOLT CABLES JACKED OR DRILLED UNDER PAVEMENT.
- ⑥ NOT USED.
- ⑦ 2" C. 725.04 WITH 3-#2 AWG 5000 VOLT CABLES.
- ⑧ 2" DUCT CABLE WITH 3-#1/0 AWG 5000 VOLT CABLES.
- ⑨ 2" C. 725.04 WITH 3-#1/0 AWG 5000 VOLT CABLES.

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30 AMP, 2-POLE, SOLID NEUTRAL, WITH GRD BAR, 600V, FUSED DISCONNECT SWITCH IN NEMA 4X STAINLESS STEEL ENCLOSURE FOR SERVICE TO UNDERPASS LIGHTING. FUSE WITH 20 AMPERE UL CLASS RKI FUSES.

PULL BOX FOR SERVICE TO UNDERPASS LIGHTING (ITEM I17 IN THE LIGHTING SUB-SUMMARY). SEE SHEET 649 FOR LOCATION.

3-#4 AWG 5000 VOLT CABLES IN 2" C. UNDERGROUND BETWEEN PULL BOX AND DISCONNECT SWITCH. UNDERGROUND PORTION TO BE SCHEDULE 80 PVC CONDUIT TO 6" ABOVE FINISHED GRADE AND 725.04 UP TO DISCONNECT SWITCH.

2-#10 AWG, 1-#10 AWG GROUND, 600V, TYPE XHHW, IN 1" C. 725.04 SECURED TO UTILITY SUPPORTS SHOP WELDED TO TRUSS WEB ABOVE BOTTOM CHORD. USE MALLEABLE IRON GALVANIZED ONE-HOLE CONDUIT CLAMPS AND CLAMPBACKS SECURED WITH 3/16" STAINLESS STEEL HEX-HEAD BOLTS, NUTS AND LOCKWASHERS. PROVIDE CONDUIT SUPPORTS MAX. 10' C/C.

70 WATT HPS UNDERPASS LUMINAIRE MOUNTED ON PIERHEAD. SEE LUMINAIRE MOUNTING DETAIL THIS SHEET.

2-#10 AWG, 1-#10 AWG GROUND, 600V, TYPE XHHW, IN 1" C. 725.04 SECURED TO PIERHEAD WITH HOT DIP GALVANIZED MALLEABLE IRON ONE HOLE CONDUIT CLAMPS AND CLAMPBACKS. TYPICAL

2-#10 AWG XHHW, #10 AWG XHHW GRD IN 1" C. DOWN BACK SIDE OF COLUMNS AND UNDERGROUND BETWEEN COLUMNS. ABOVE GROUND CONDUIT TO BE 725.04; UNDERGROUND, SCHEDULE 80 PVC TO 6" ABOVE FINISHED GRADE ON COLUMN. TYPICAL OF 6 LOCATIONS WHERE PIERHEADS ARE NOT CONTINUOUS.

3/4" CONDUIT NIPPLE 725.04 WITH 3/4"-1" CONDUIT ADAPTER

3/4" X 3/4" CAST MALLEABLE IRON GALVANIZED PULL ELL WITH GASKETED COVER SECURED WITH STAINLESS STEEL SCREWS.

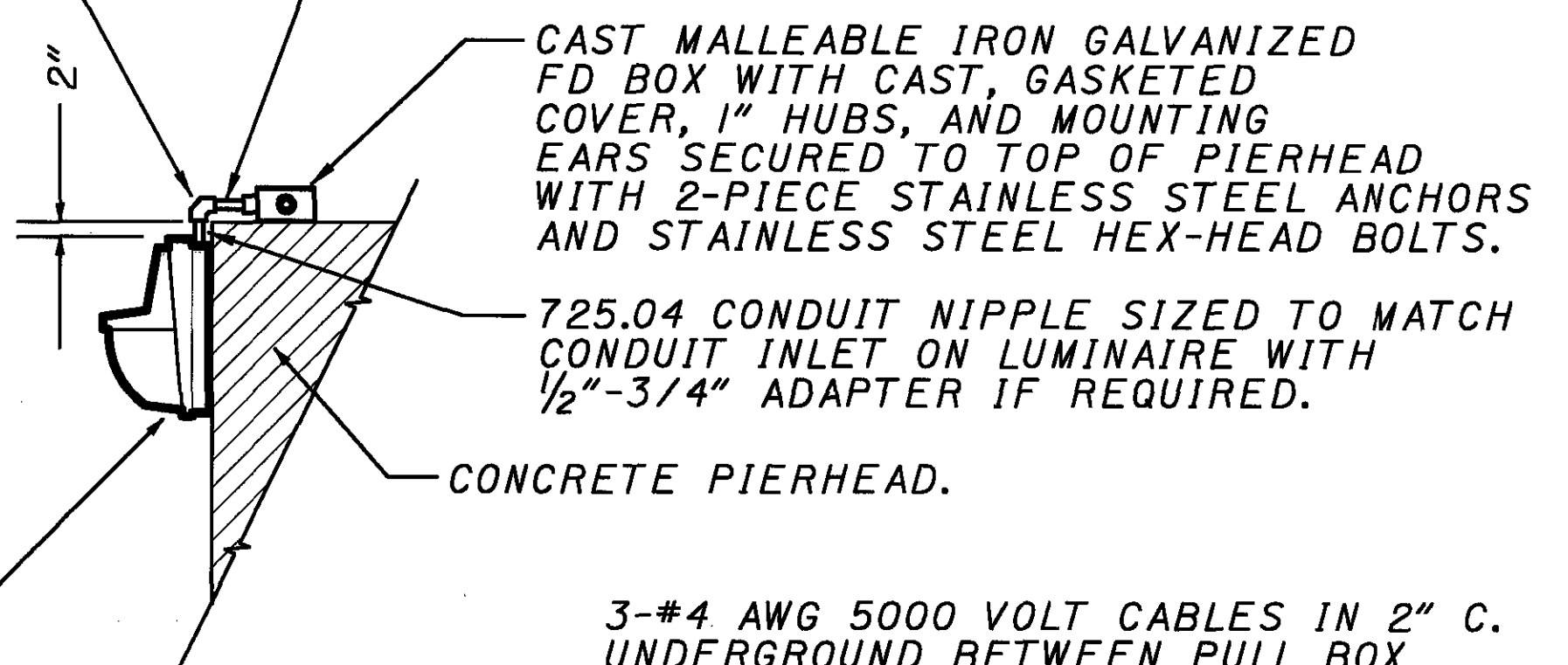
30 AMP, 2-POLE, SOLID NEUTRAL, WITH GRD BAR, 600V, FUSED DISCONNECT SWITCH IN NEMA 4X STAINLESS STEEL ENCLOSURE FOR SERVICE TO UNDERPASS LIGHTING. FUSE WITH 20 AMPERE UL CLASS RKI FUSES.

8" X 6" X 4" NEMA 4X STAINLESS STEEL JUNCTION BOX WITH MOUNTING FEET SECURED TO ABUTMENT TOP WITH A MINIMUM OF FOUR 2-PIECE STAINLESS STEEL ANCHORS AND STAINLESS STEEL HEX-HEAD BOLTS. TYPICAL.

2-#10 AWG, 1-#10 AWG GROUND, 600V, TYPE XHHW, IN 1" C. 725.04 SECURED TO UTILITY SUPPORTS SHOP WELDED TO TRUSS WEB ABOVE BOTTOM CHORD. USE MALLEABLE IRON GALVANIZED ONE-HOLE CONDUIT CLAMPS AND CLAMPBACKS SECURED WITH 3/16" STAINLESS STEEL HEX-HEAD BOLTS, NUTS AND LOCKWASHERS. PROVIDE CONDUIT SUPPORTS MAX. 10' C/C.

PULL BOX FOR SERVICE TO UNDERPASS LIGHTING (ITEM I18 IN THE LIGHTING SUB-SUMMARY). SEE SHEET 649 FOR LOCATION.

70W HPS UNDERPASS LUMINAIRE. SECURE TO CONCRETE PIERHEAD WITH 2-PIECE STAINLESS STEEL ANCHORS AND STAINLESS STEEL HEX-HEAD BOLTS IN EACH MOUNTING HOLE PROVIDED.



CAST MALLEABLE IRON GALVANIZED FD BOX WITH CAST, GASKETED COVER, 1" HUBS, AND MOUNTING EARS SECURED TO TOP OF PIERHEAD WITH 2-PIECE STAINLESS STEEL ANCHORS AND STAINLESS STEEL HEX-HEAD BOLTS.

725.04 CONDUIT NIPPLE SIZED TO MATCH CONDUIT INLET ON LUMINAIRE WITH 1/2"-3/4" ADAPTER IF REQUIRED.

CONCRETE PIERHEAD.

3-#4 AWG 5000 VOLT CABLES IN 2" C. UNDERGROUND BETWEEN PULL BOX AND DISCONNECT SWITCH. UNDERGROUND PORTION TO BE SCHEDULE 80 PVC CONDUIT TO 6" ABOVE FINISHED GRADE AND 725.04 UP TO DISCONNECT SWITCH.

LUMINAIRE MOUNTING DETAIL

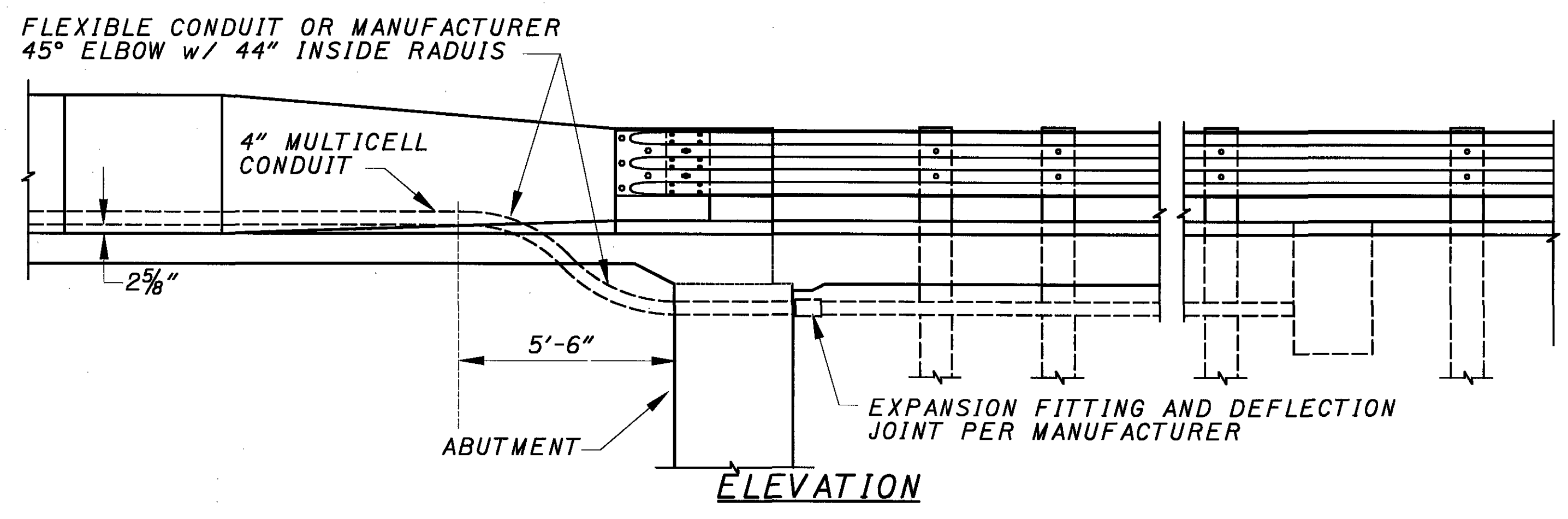
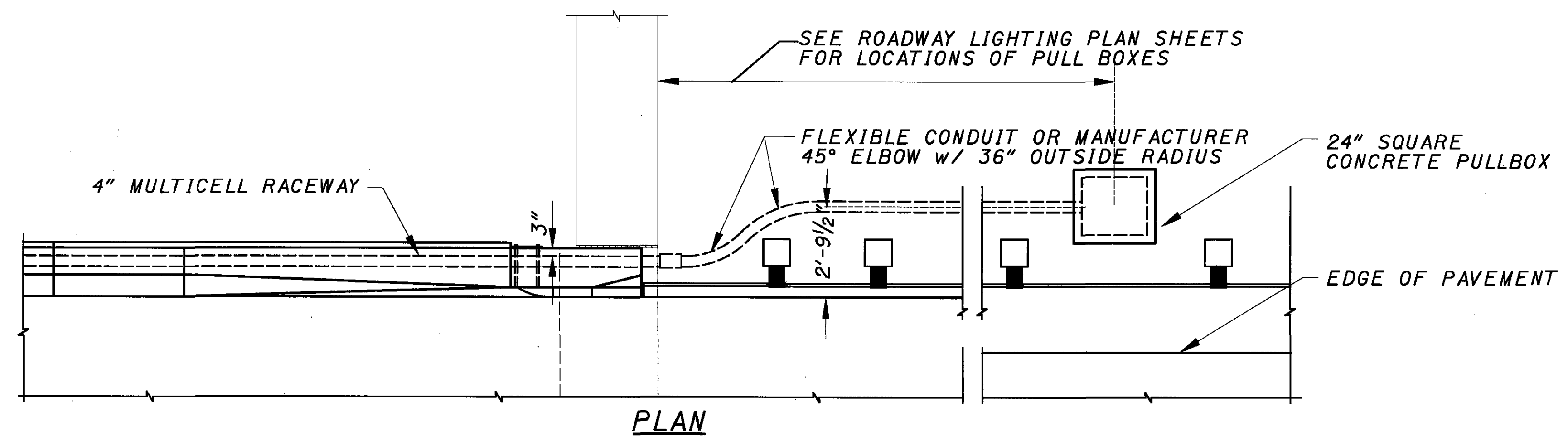
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GENERAL NOTES

1. ALL ELECTRICAL WORK SHOWN ON THIS SHEET, EXCEPT UNDERPASS LUMINAIRES, SHALL BE INCLUDED FOR PAYMENT UNDER "SERVICE TO UNDERPASS LIGHTING, AS PER PLAN", AT ITEMS I17 AND I18 IN THE LIGHTING SUB-SUMMARY.

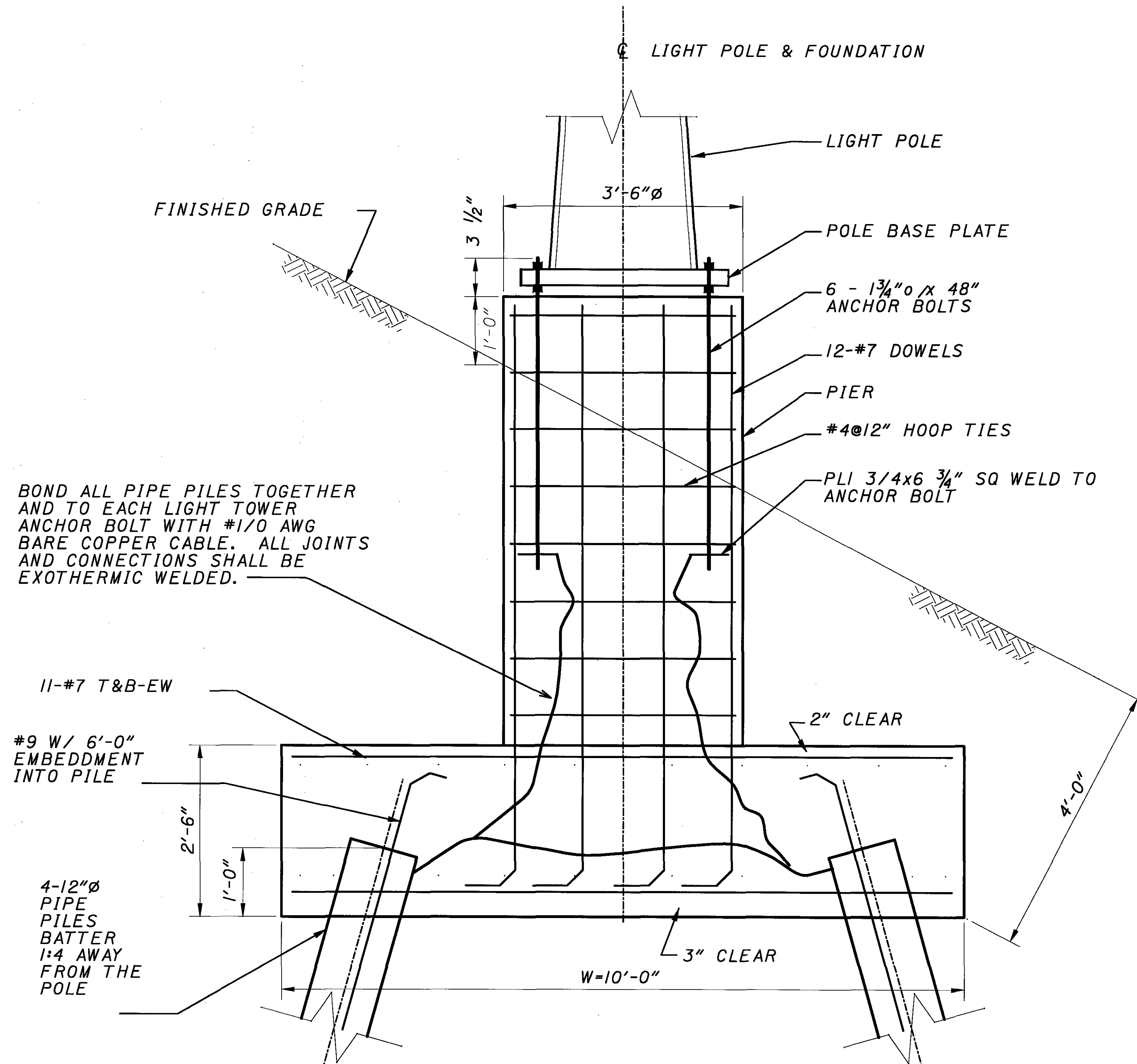
2. SEE SHEETS 675, 676, 677, AND 678 FOR ADDITIONAL INFORMATION AND DIMENSIONED LUMINAIRE LOCATIONS.

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CONDUIT DETAILS FOR SEMI-INTEGRAL OR INTEGRAL BRIDGE WITH STRAIGHT WINGWALLS

STANDARD BRIDGE SIMILAR EXCEPT EXPANSION/DEFLECTION FITTINGS TO BE INSTALLED ON THE BRIDGE SIDE OF THE ABUTMENT PER HL-30.31



BOND ALL PIPE PILES TOGETHER AND TO EACH LIGHT TOWER ANCHOR BOLT WITH #1/0 AWG BARE COPPER CABLE. ALL JOINTS AND CONNECTIONS SHALL BE EXOTHERMIC WELDED.

11-#7 T&B-EW

#9 W/ 6'-0" EMBEDDMENT INTO PILE

4-12"Ø PIPE PILES BATTER 1:4 AWAY FROM THE POLE

- NOTES:
1. FOOTINGS ARE SQUARE OF WIDTH W IN EACH DIRECTION.
 2. PILES SHALL HAVE A DESIGN LOAD CAPACITY OF 50 TONS.
 3. PILES SHALL HAVE AN ESTIMATED PAY LENGTH OF 50 FEET AND SHALL BE DRIVEN TO A MINIMUM PENETRATION OF 50 FEET
 4. TOP OF PIER SHALL BE 12" ABOVE FINISHED GRADE AT THE UP SLOPE SIDE OF THE PIER.
 5. BOTTOM OF THE PILE CAP SHALL BE 4'-0" BELOW FINISHED GRADE.

SPREAD FOUNDATION FOR LIGHT TOWERS

SCALE: NONE

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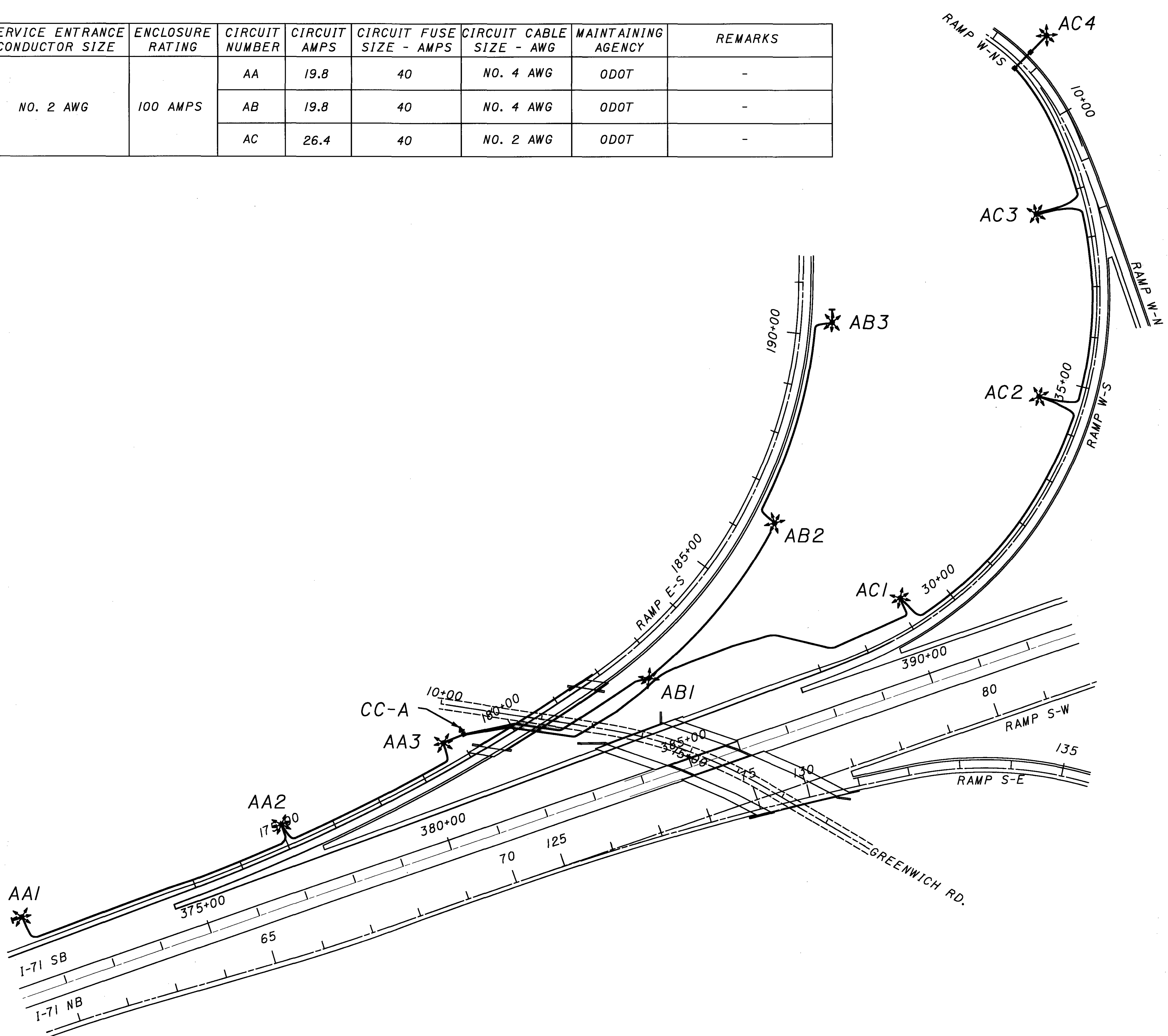
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**LIGHTING DETAIL
LIGHT TOWER SPREAD FOUNDATION**

MED-71-6.06

665
1120

CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
A	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	31.68	NO. 2 AWG	100 AMPS	AA	19.8	40	NO. 4 AWG	ODOT	-
					AB	19.8	40	NO. 4 AWG	ODOT	-
					AC	26.4	40	NO. 2 AWG	ODOT	-



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0 100 200

HORIZONTAL SCALE IN FEET

CALCULATED

CHECKED

LIGHTING CIRCUIT A

MED-71-6.06

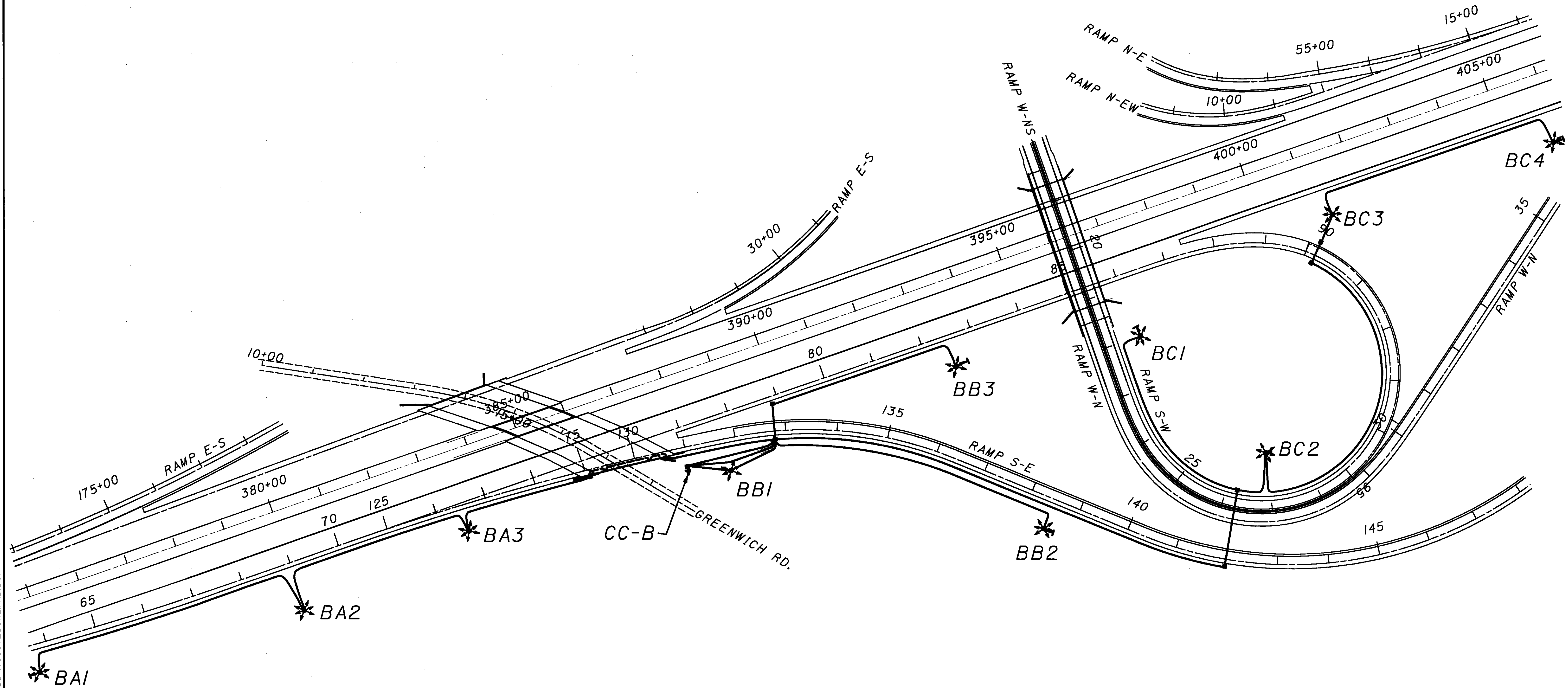
666

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CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
B	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	31.68	NO. 2 AWG	100 AMPS	BA	19.8	40	NO. 4 AWG	ODOT	-
					BB	19.8	40	NO. 4 AWG	ODOT	-
					BC	26.4	40	NO. 2 AWG	ODOT	-

HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED



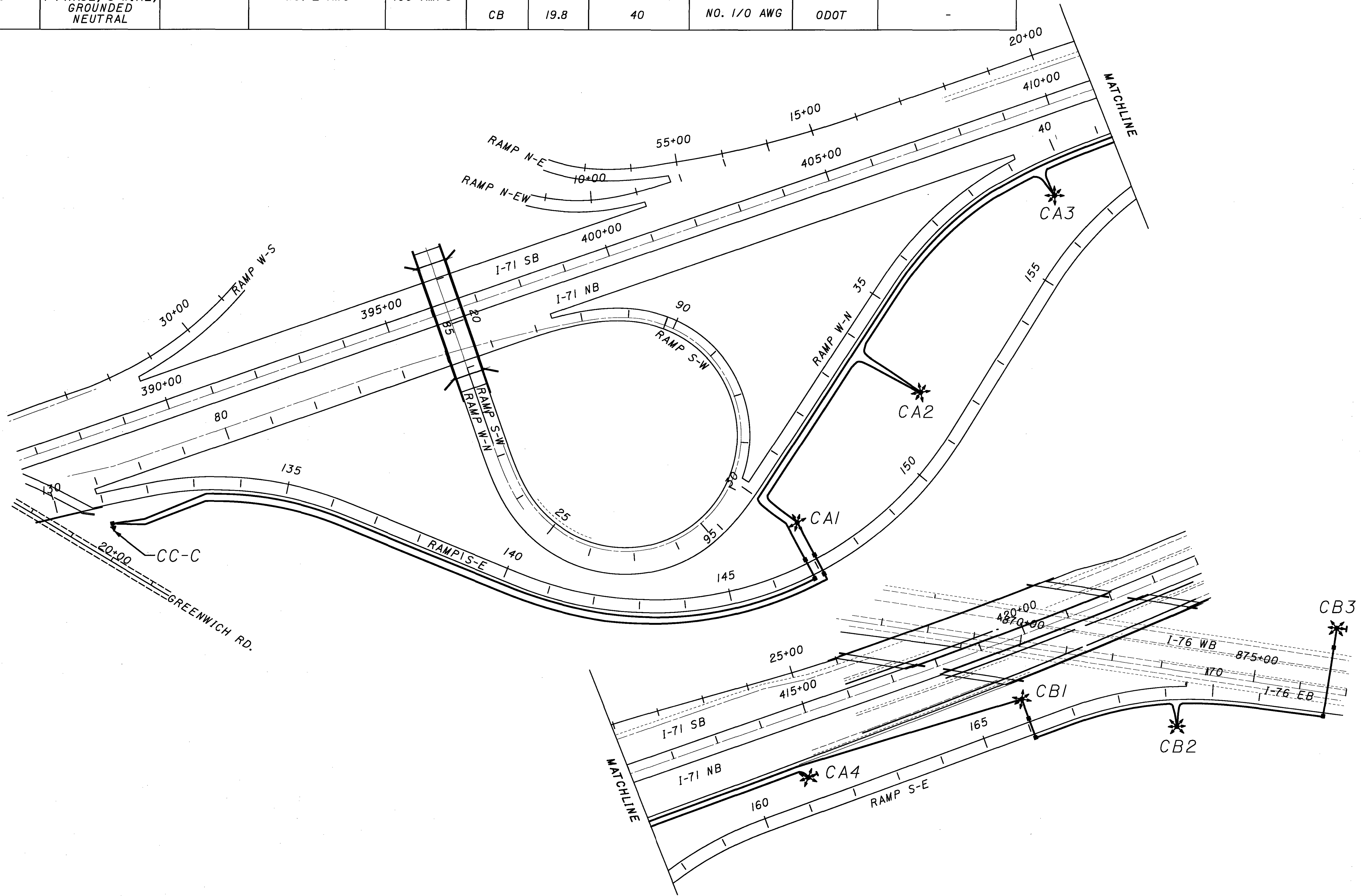
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LIGHTING CIRCUIT B

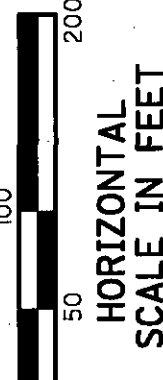
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1120

CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
C	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	22.18	NO. 2 AWG	100 AMPS	CA	26.4	40	NO. 1/0 AWG	ODOT	-
					CB	19.8	40	NO. 1/0 AWG	ODOT	-







 HORIZONTAL SCALE IN FEET

CALCULATED

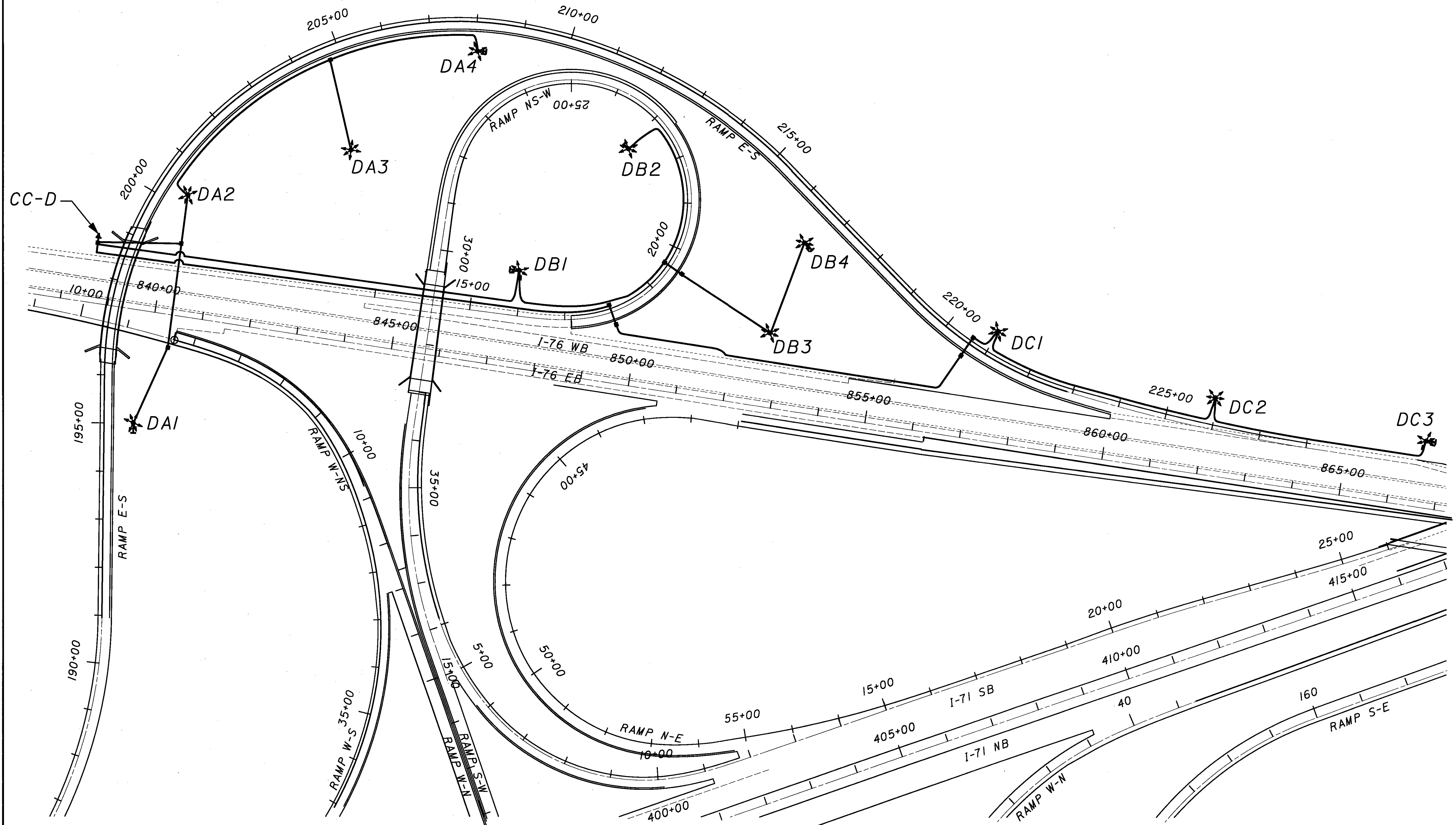
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LIGHTING CIRCUIT C

MED-71-6.06

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CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
D	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	34.85	NO. 2 AWG	100 AMPS	DA	26.4	40	NO. 4 AWG	ODOT	-
					DB	26.4	40	NO. 4 AWG	ODOT	-
					DC	19.8	40	NO. 2 AWG	ODOT	-



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0 50 100 200
HORIZONTAL
SCALE IN FEET

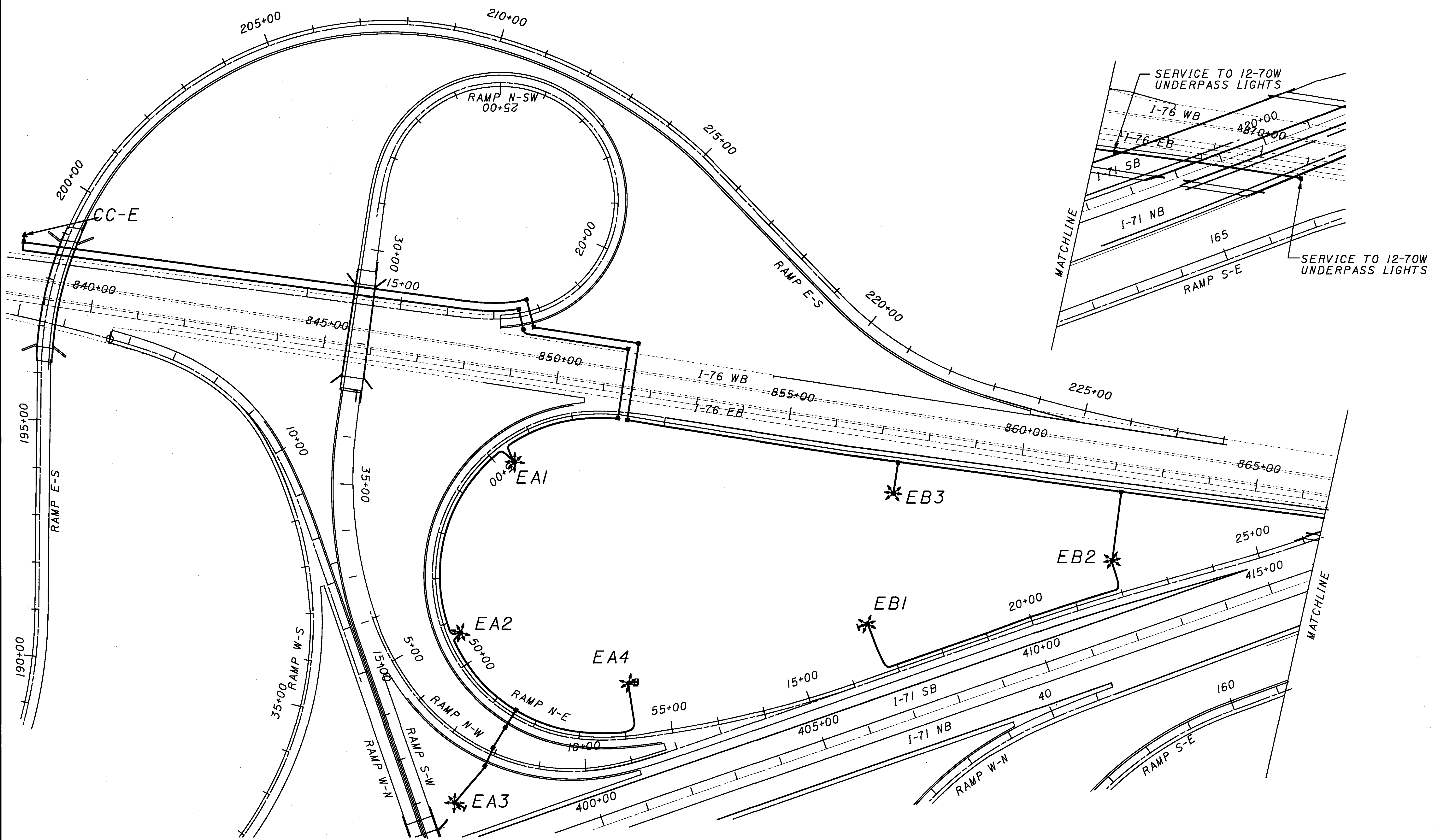
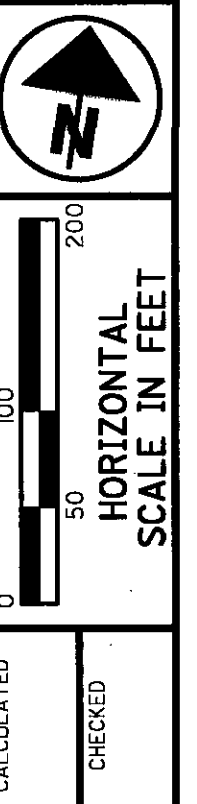
CALCULATED
CHECKED

LIGHTING CIRCUIT D

MED-71-6.06

669
1120

CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
E	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	23.96	NO. 2 AWG	100 AMPS	EA	26.4	40	NO. 1/0 AWG	ODOT	-
					EB	23.52	40	NO. 1/0 AWG	ODOT	-



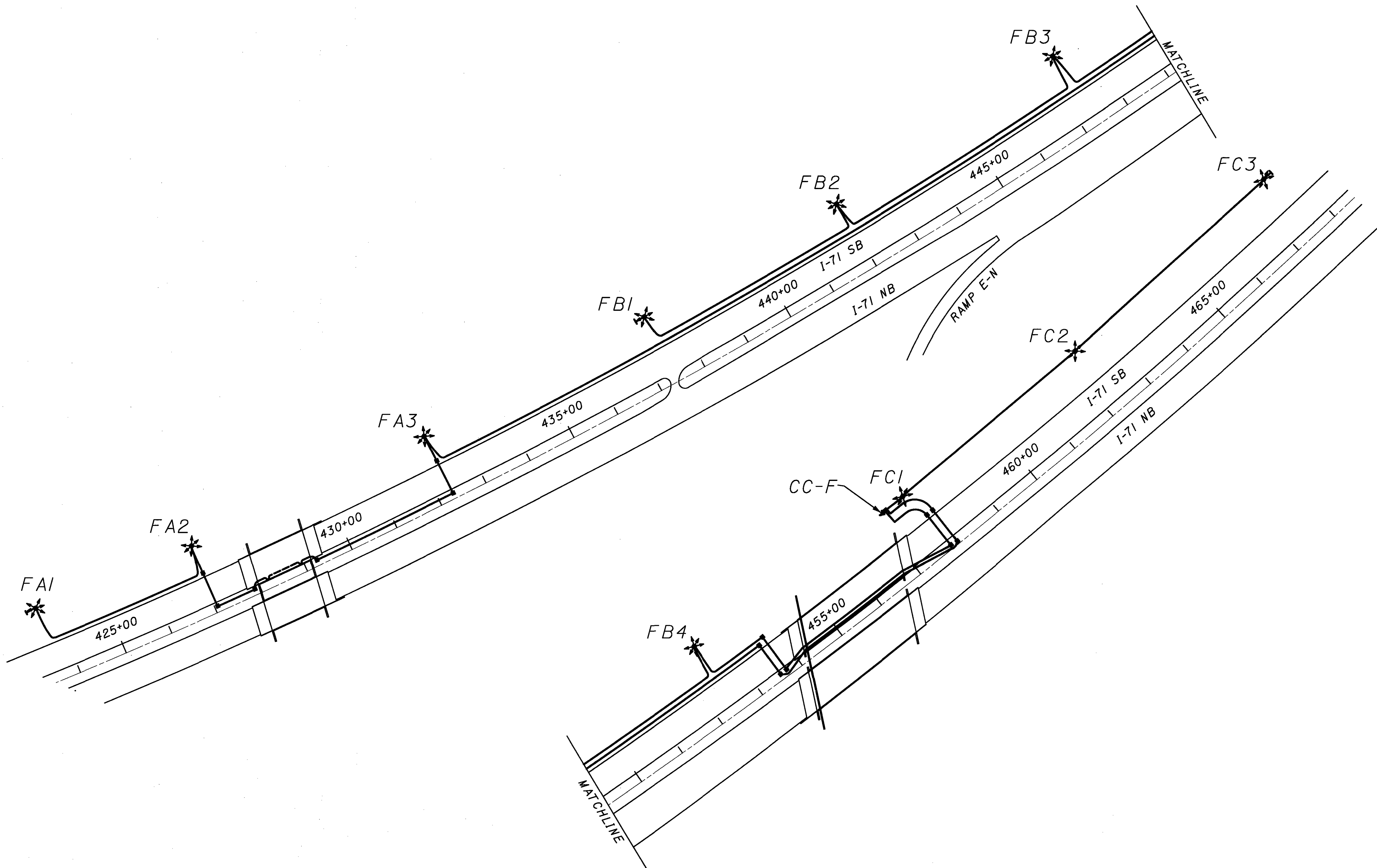
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LIGHTING CIRCUIT E

MED-71-6.06

670
1120

CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
F	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	31.68	NO. 2 AWG	100 AMPS	FA	19.8	40	NO. 1/0 AWG	ODOT	-
					FB	26.4	40	NO. 2 AWG	ODOT	-
					FC	19.8	40	NO. 4 AWG	ODOT	-







 HORIZONTAL SCALE IN FEET

CALCULATED _____
 CHECKED _____

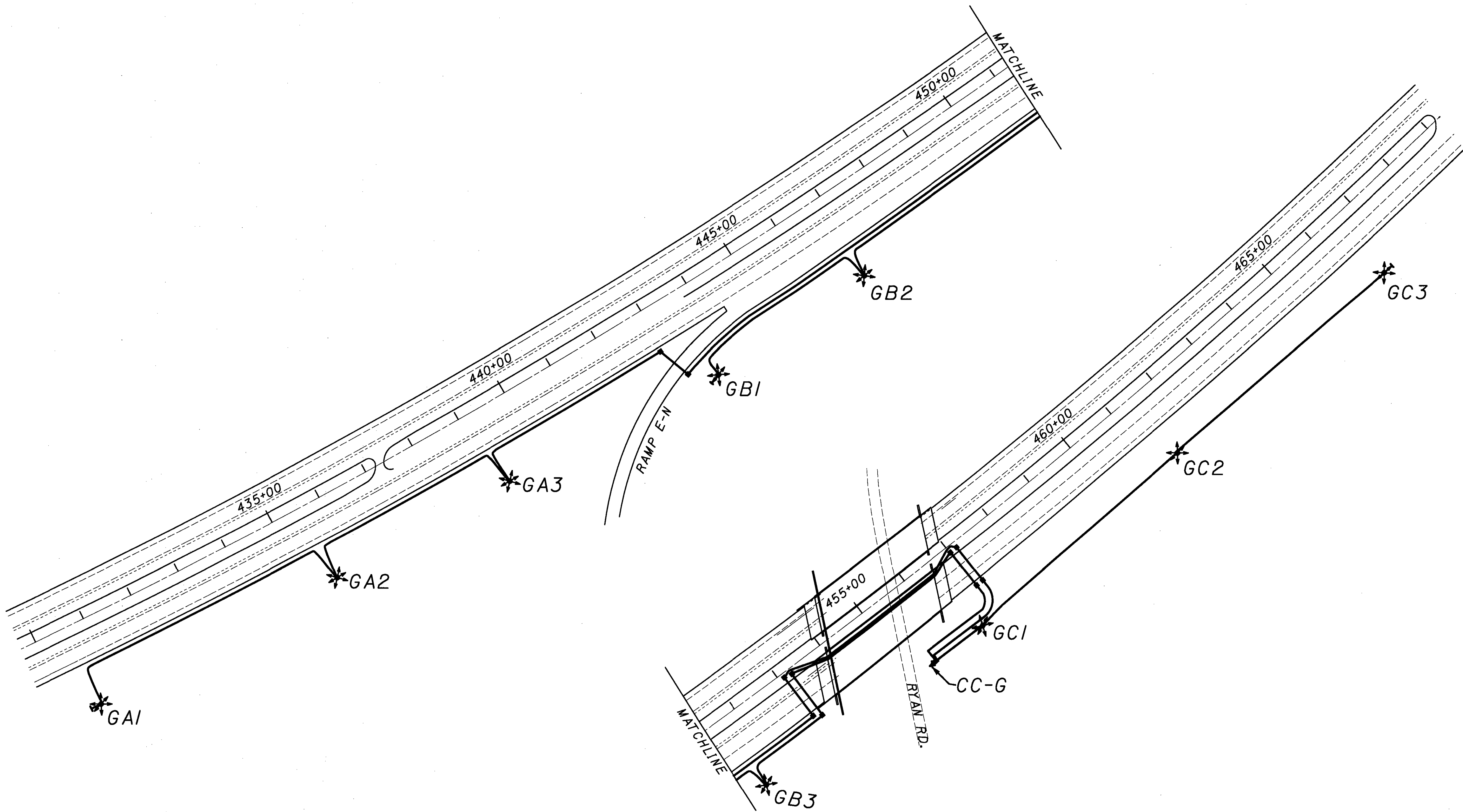
LIGHTING CIRCUIT F



MED - 71 - 6.06

671
1120

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CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
G	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	28.51	NO. 2 AWG	100 AMPS	GA	19.8	40	NO. 2 AWG	ODOT	-
					GB	19.8	40	NO. 4 AWG	ODOT	-
					GC	19.8	40	NO. 4 AWG	ODOT	-





 HORIZONTAL SCALE IN FEET
 CALCULATED _____
 CHECKED _____

LIGHTING CIRCUIT G

MED-71-6.06

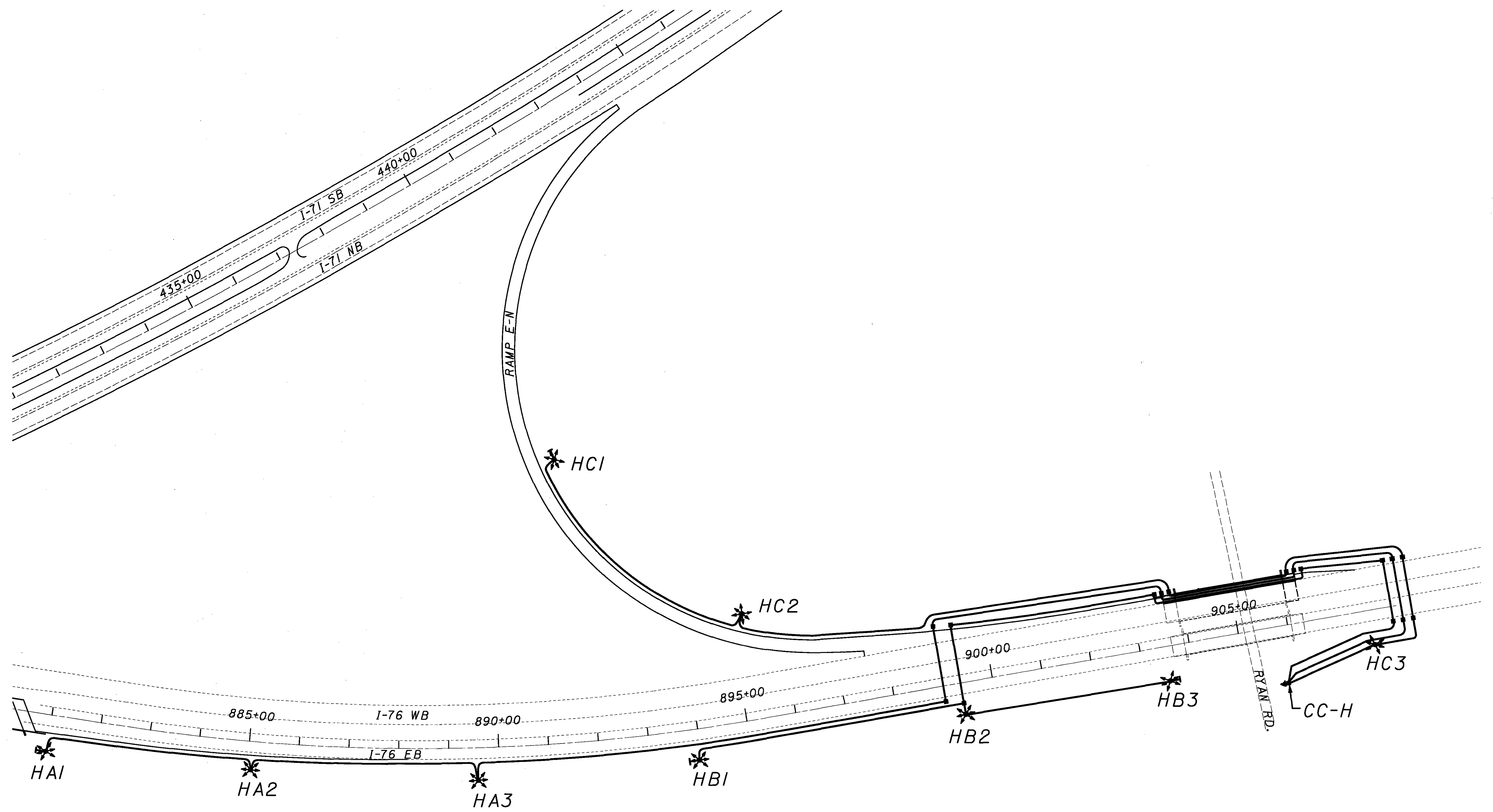
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CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
H	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	28.51	NO. 2 AWG	100 AMPS	HA	19.8	40	NO. 2 AWG	ODOT	-
					HB	19.8	40	NO. 4 AWG	ODOT	-
					HC	19.8	40	NO. 4 AWG	ODOT	-

CALCULATED
CHECKED

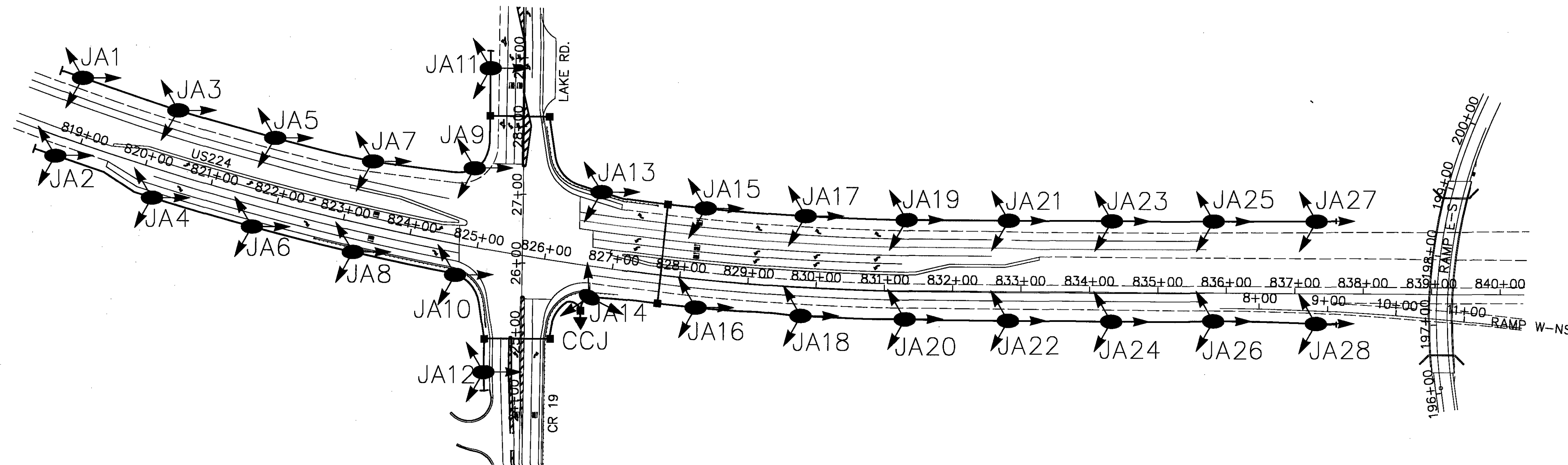
LIGHTING CIRCUIT H


MED-71-6.06



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CONTROL CENTER	POWER SERVICE	CONNECTED LOAD - KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING	CIRCUIT NUMBER	CIRCUIT AMPS	CIRCUIT FUSE SIZE - AMPS	CIRCUIT CABLE SIZE - AWG	MAINTAINING AGENCY	REMARKS
J	240/480V, 1 PHASE, 3-WIRE, GROUNDED NEUTRAL	14.78	NO. 2 AWG	100 AMPS	JA	30.8	40	NO. 4 AWG	WESTFIELD TOWNSHIP	-







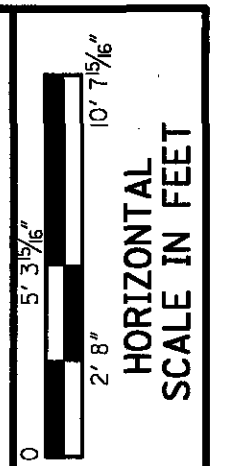
 HORIZONTAL SCALE IN FEET

CALCULATED
 CHECKED

LIGHTING CIRCUIT J

MED - 71 - 6.06

674
1120

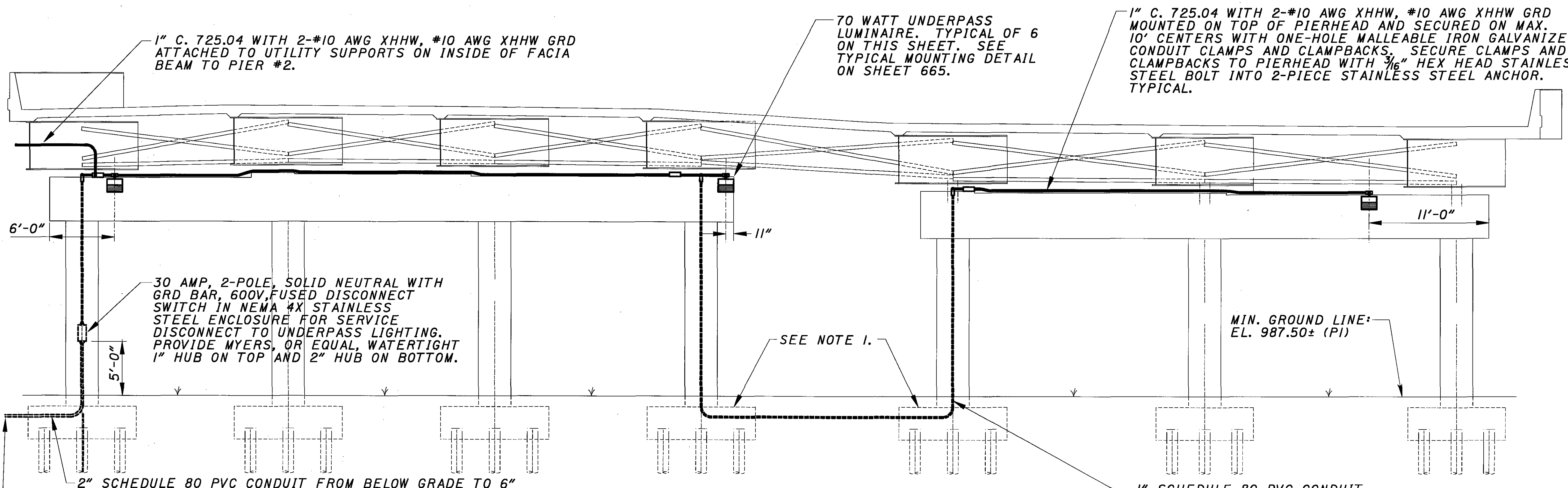


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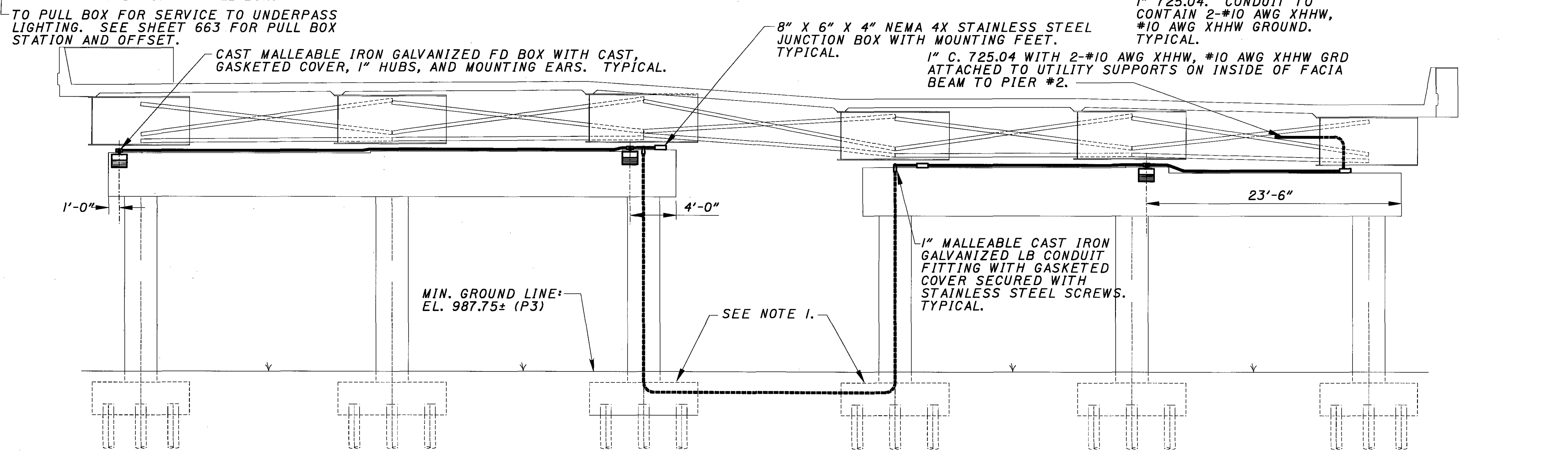
UNDERPASS LIGHTING DETAILS - PIERS 1 & 3 NB
BRIDGE NO. MED-71-0794 L/R

MED-71-6.06

675
1120



NORTH ELEVATION - PIER 1 NORTHBOUND



SOUTH ELEVATION - PIER 3 NORTHBOUND

GENERAL NOTES

1. WHERE TOP OF FOOTING IS LESS THAN 2'-0" BELOW FINISHED GRADE, CAST 1" SCHEDULE 80 PVC CONDUIT INTO FOOTING.
2. FOR STRUCTURE PLAN, REFER TO SHEET 663.

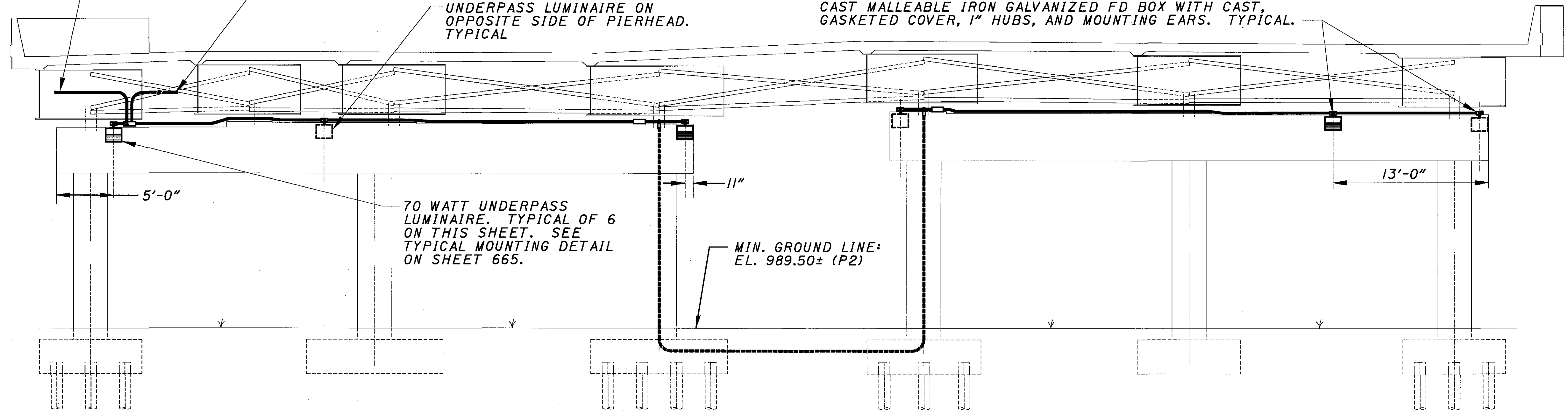
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1" C. 725.04 WITH 2-#10 AWG XHHW, #10 AWG XHHW GRD ATTACHED TO UTILITY SUPPORTS ON INSIDE OF FACIA BEAM TO PIER #3.

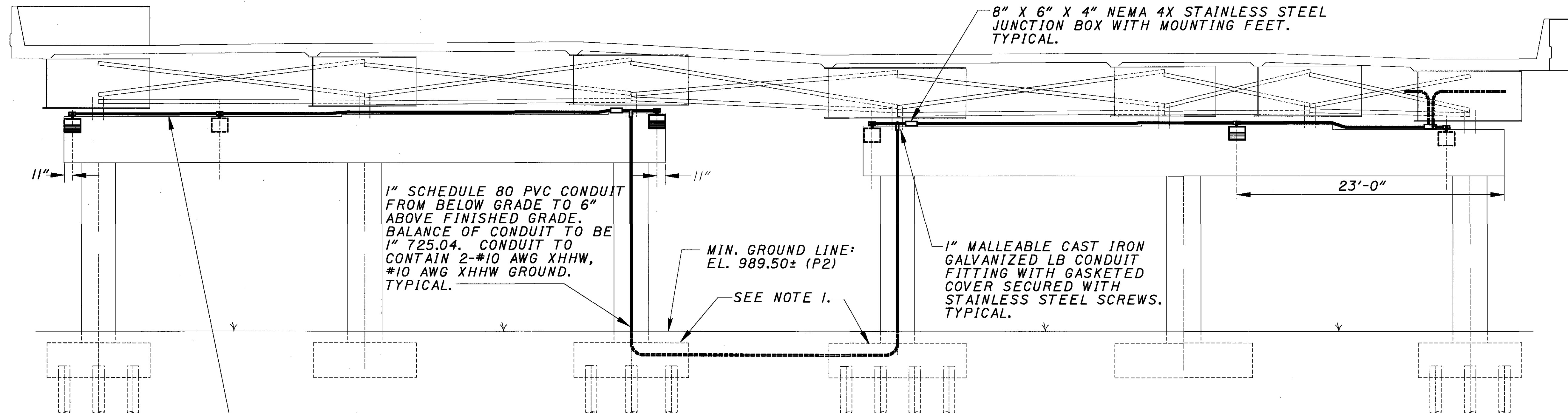
1" C. 725.04 WITH 2-#10 AWG XHHW, #10 AWG XHHW GRD ATTACHED TO UTILITY SUPPORTS ON INSIDE OF FACIA BEAM TO PIER #1.

UNDERPASS LUMINAIRE ON OPPOSITE SIDE OF PIERHEAD. TYPICAL

CAST MALLEABLE IRON GALVANIZED FD BOX WITH CAST, GASKETED COVER, 1" HUBS, AND MOUNTING EARS. TYPICAL.



NORTH ELEVATION - PIER 2 NORTHBOUND



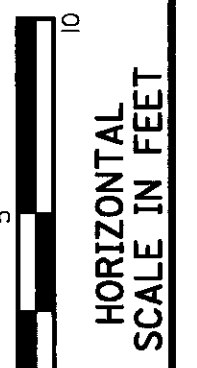
SOUTH ELEVATION - PIER 2 NORTHBOUND

1" C. 725.04 WITH 2-#10 AWG XHHW, #10 AWG XHHW GRD MOUNTED ON TOP OF PIERHEAD AND SECURED ON MAX. 10' CENTERS WITH ONE-HOLE MALLEABLE IRON GALVANIZED CONDUIT CLAMPS AND CLAMPBACKS. SECURE CLAMPS AND CLAMPBACKS TO PIERHEAD WITH 3/16" HEX HEAD STAINLESS STEEL BOLT INTO 2-PIECE STAINLESS STEEL ANCHOR. TYPICAL.

1" MALLEABLE CAST IRON GALVANIZED LB CONDUIT FITTING WITH GASKETED COVER SECURED WITH STAINLESS STEEL SCREWS. TYPICAL.

GENERAL NOTES

1. WHERE TOP OF FOOTING IS LESS THAN 2'-0" BELOW FINISHED GRADE, CAST 1" SCHEDULE 80 PVC CONDUIT INTO FOOTING.
2. FOR STRUCTURE PLAN, REFER TO SHEET 663.



CALCULATED
CHECKED

**UNDERPASS LIGHTING DETAILS - PIER 2 NB
BRIDGE NO. MED-71-0794 L/R**

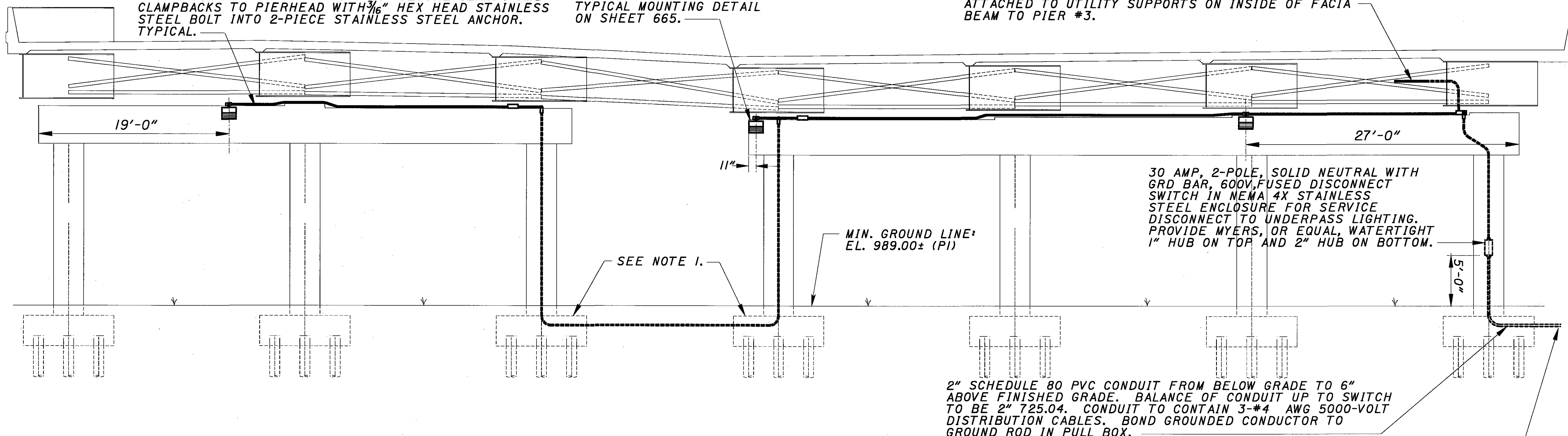
MED-71-6.06

676
1120

1" C. 725.04 WITH 2-#10 AWG XHHW, #10 AWG XHHW GRD MOUNTED ON TOP OF PIERHEAD AND SECURED ON MAX. 10' CENTERS WITH ONE-HOLE MALLEABLE IRON GALVANIZED CONDUIT CLAMPS AND CLAMPBACKS. SECURE CLAMPS AND CLAMPBACKS TO PIERHEAD WITH 3/16" HEX HEAD STAINLESS STEEL BOLT INTO 2-PIECE STAINLESS STEEL ANCHOR. TYPICAL.

70 WATT UNDERPASS LUMINAIRE. TYPICAL OF 6 ON THIS SHEET. SEE TYPICAL MOUNTING DETAIL ON SHEET 665.

1" C. 725.04 WITH 2-#10 AWG XHHW, #10 AWG XHHW GRD ATTACHED TO UTILITY SUPPORTS ON INSIDE OF FACIA BEAM TO PIER #3.

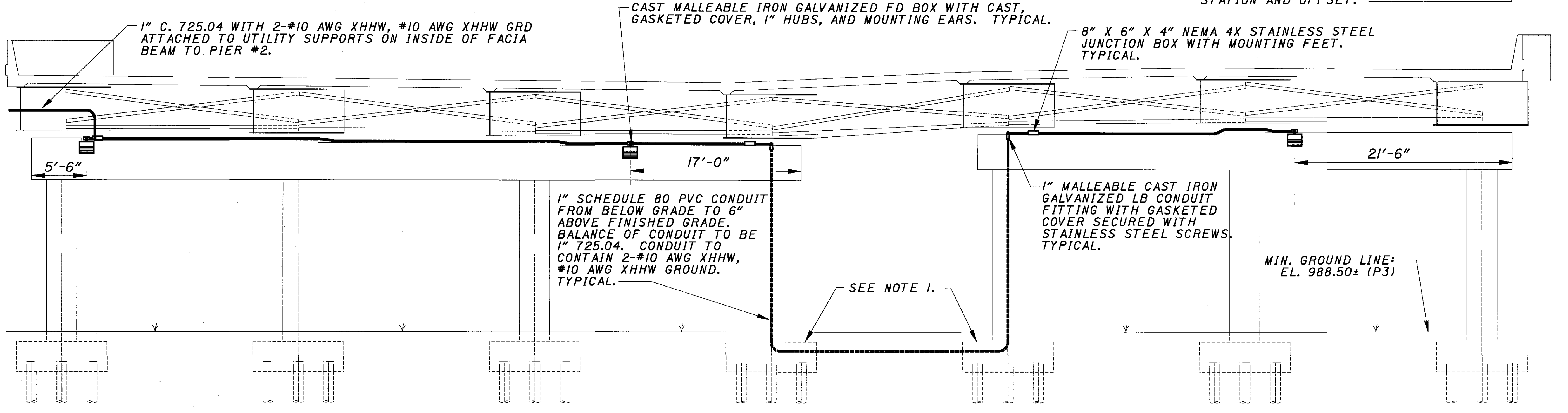


NORTH ELEVATION - PIER 1 SOUTHBOUND

1" C. 725.04 WITH 2-#10 AWG XHHW, #10 AWG XHHW GRD ATTACHED TO UTILITY SUPPORTS ON INSIDE OF FACIA BEAM TO PIER #2.

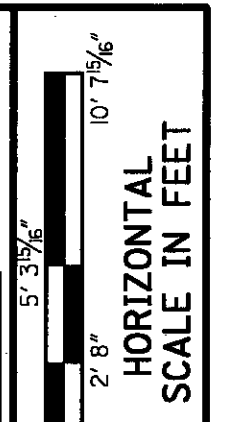
CAST MALLEABLE IRON GALVANIZED FD BOX WITH CAST, GASKETED COVER, 1" HUBS, AND MOUNTING EARS. TYPICAL.

8" X 6" X 4" NEMA 4X STAINLESS STEEL JUNCTION BOX WITH MOUNTING FEET. TYPICAL.



SOUTH ELEVATION - PIER 3 SOUTHBOUND

- GENERAL NOTES**
- WHERE TOP OF FOOTING IS LESS THAN 2'-0" BELOW FINISHED GRADE, CAST 1" SCHEDULE 80 PVC CONDUIT INTO FOOTING.
 - FOR STRUCTURE PLAN, REFER TO SHEET 663.

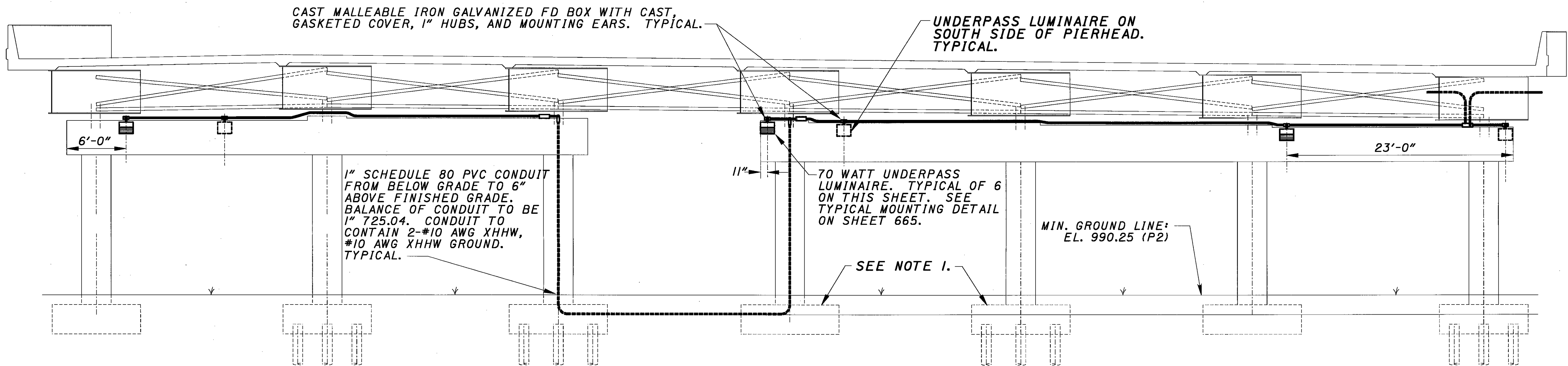


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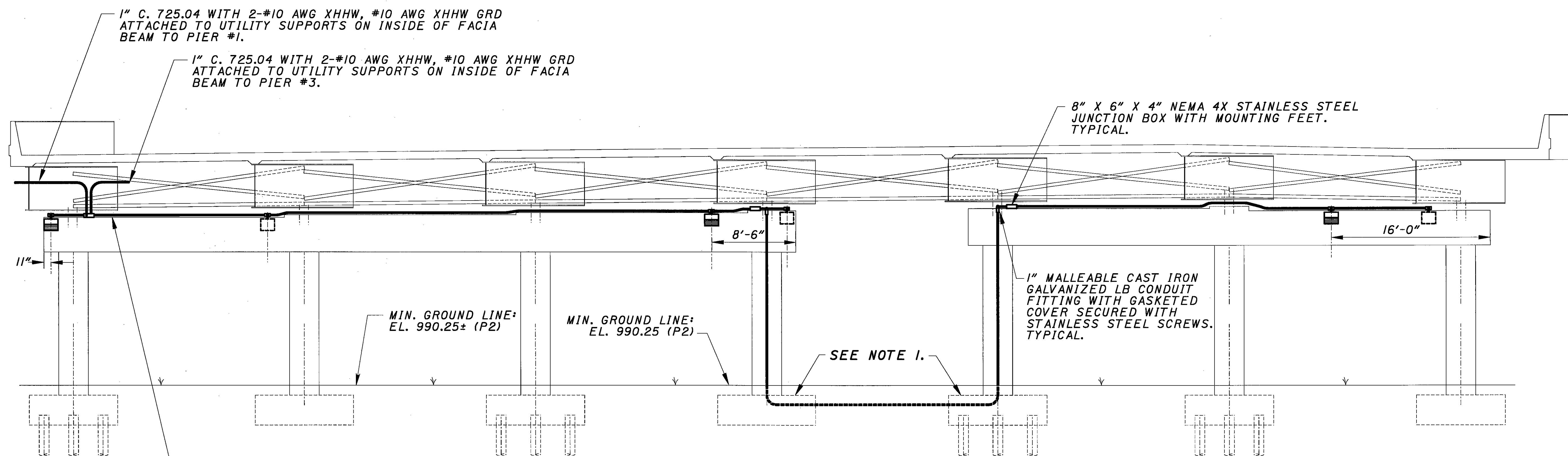
**UNDERPASS LIGHTING DETAILS - PIERS 1 & 3 SB
BRIDGE NO. MED-71-0794 L/R**

MED-71-6.06

677
1120



NORTH ELEVATION - PIER 2 SOUTHBOUND



SOUTH ELEVATION - PIER 2 SOUTHBOUND

- GENERAL NOTES**
1. WHERE TOP OF FOOTING IS LESS THAN 2'-0" BELOW FINISHED GRADE, CAST 1" SCHEDULE 80 PVC CONDUIT INTO FOOTING.
 2. FOR STRUCTURE PLAN, REFER TO SHEET 663.

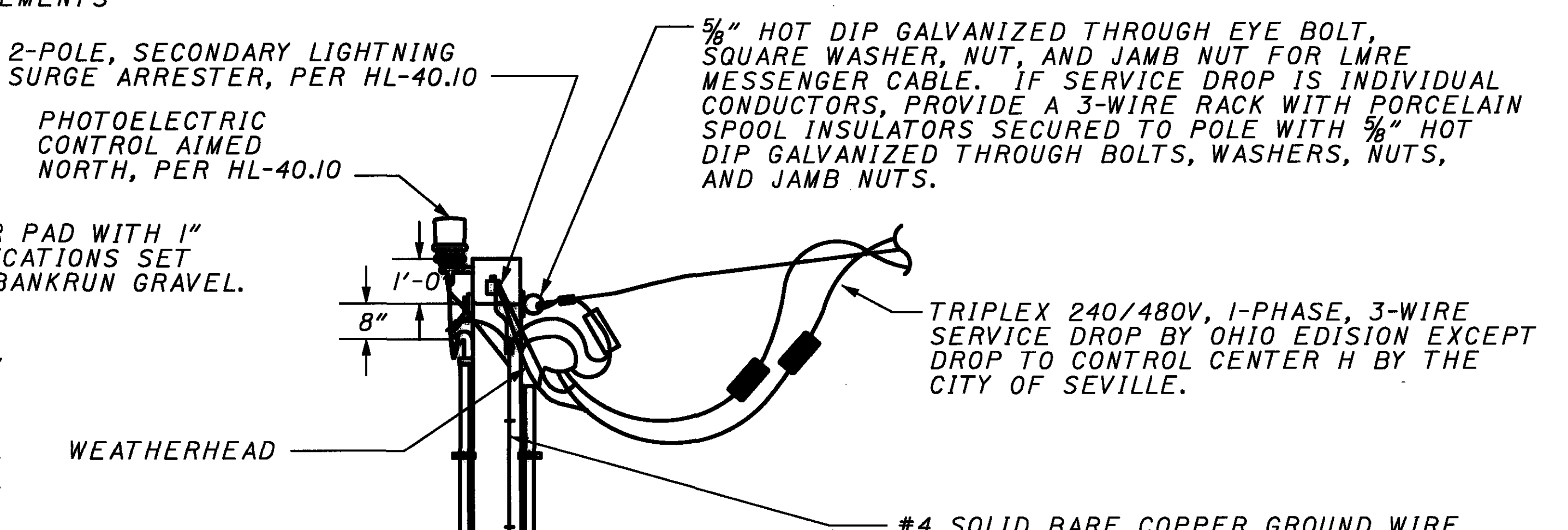
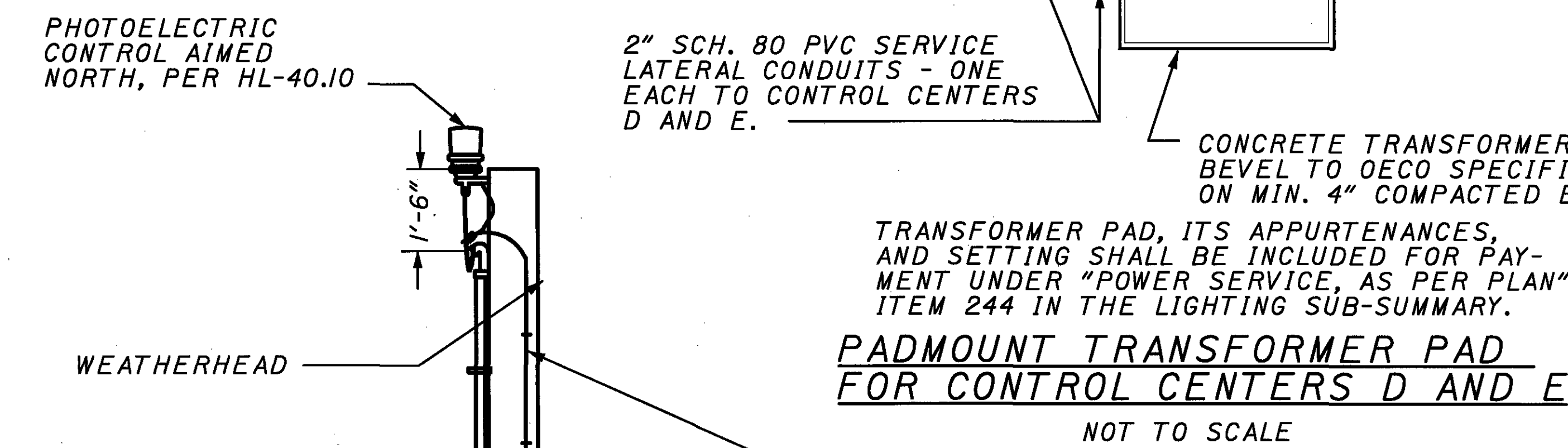
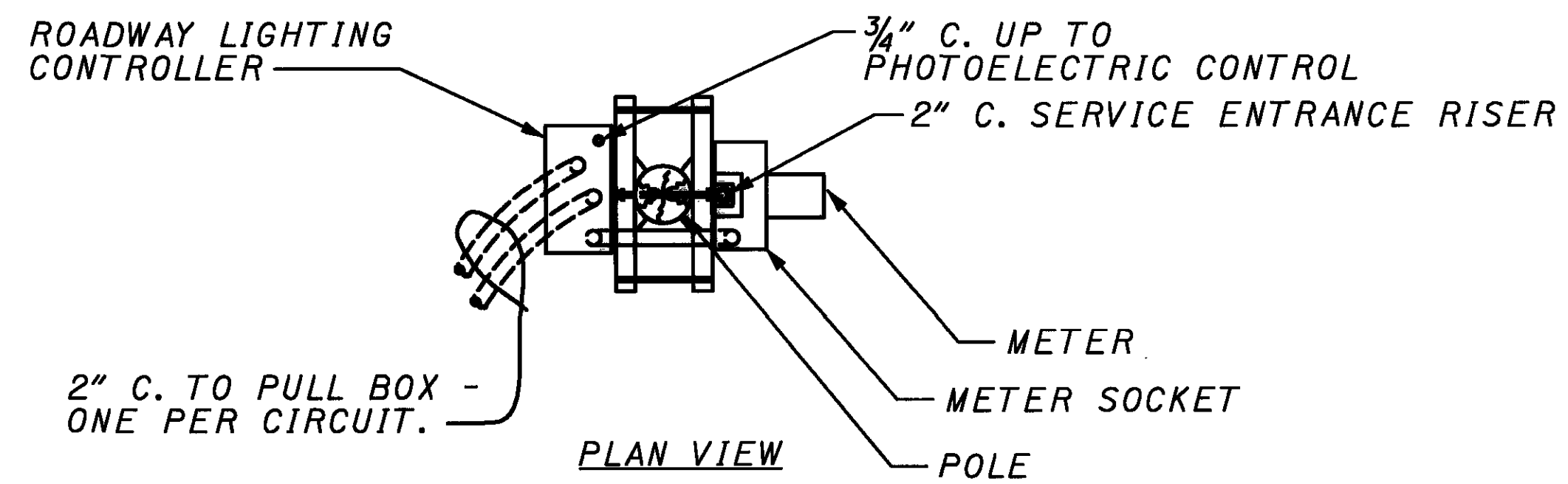
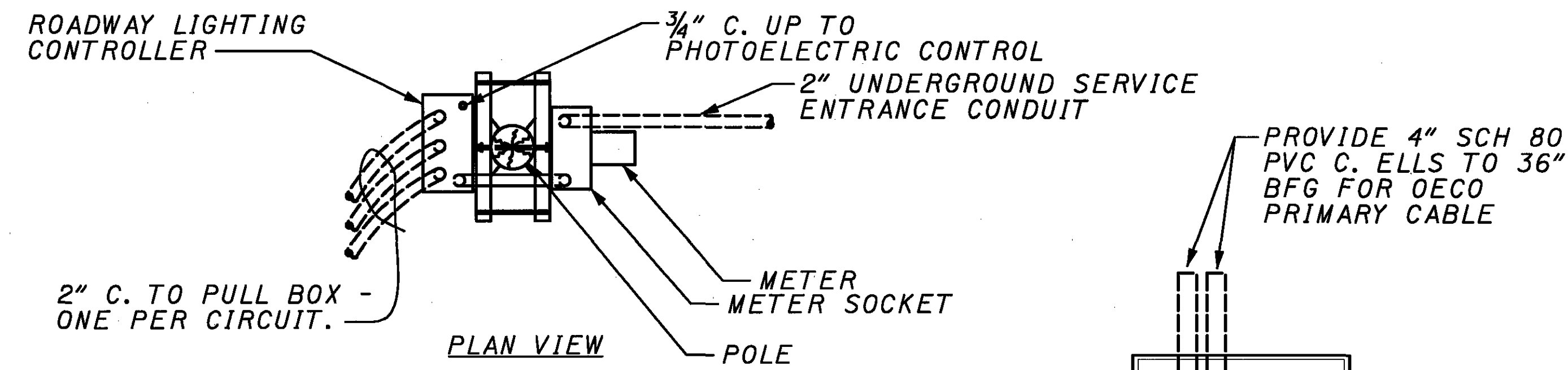
5'-3 3/8"
2"
10' 7 1/8"
SCALE IN FEET

CALCULATED
CHECKED

UNDERPASS LIGHTING DETAILS PIER 2 SB
BRIDGE NO. MED-71-0794 L/R

MED-71-6.06

678
1120



PADMOUNT TRANSFORMER PAD FOR CONTROL CENTERS D AND E
NOT TO SCALE

TRANSFORMER PAD, ITS APPURTENANCES, AND SETTING SHALL BE INCLUDED FOR PAYMENT UNDER "POWER SERVICE, AS PER PLAN" ITEM 244 IN THE LIGHTING SUB-SUMMARY.

TRIPLEX 240/480V, 1-PHASE, 3-WIRE SERVICE DROP BY OHIO EDISON EXCEPT DROP TO CONTROL CENTER H BY THE CITY OF SEVILLE.

5/8" HOT DIP GALVANIZED THROUGH EYE BOLT, SQUARE WASHER, NUT, AND JAMB NUT FOR LMRE MESSENGER CABLE. IF SERVICE DROP IS INDIVIDUAL CONDUCTORS, PROVIDE A 3-WIRE RACK WITH PORCELAIN SPOOL INSULATORS SECURED TO POLE WITH 5/8" HOT DIP GALVANIZED THROUGH BOLTS, WASHERS, NUTS, AND JAMB NUTS.

2-POLE, SECONDARY LIGHTNING SURGE ARRESTER, PER HL-40.10

PHOTOELECTRIC CONTROL AIMED NORTH, PER HL-40.10

WEATHERHEAD

35' CLASS 3 SOUTHERN YELLOW PINE UTILITY POLE, PER 725.19

#4 SOLID BARE COPPER GROUND WIRE

TWO HOLE MALLEABLE IRON CONDUIT CLAMP SECURED BY HOT DIPPED GALVANIZED LAG BOLTS. TYPICAL.

SERVICE RISER; 2" C., 725.04

RAINTIGHT HUB (TYP.)

3-1/4" x 4-1/4" CROSSARM WITH GAINS (TYP. OF 5)

METERS FURNISHED BY OHIO EDISON, EXCEPT, IN THE CASE OF CONTROL CENTER H, THE METER WILL BE FURNISHED BY THE CITY OF SEVILLE. METER SOCKETS FURNISHED BY CONTRACTOR. METER SOCKET AND METER INSTALLED BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH WRITTEN INSTRUCTIONS FROM THE UTILITIES.

5/8" HOT DIP GALVANIZED DOUBLE ARMING BOLT, NUTS AND WASHERS (TYP. OF 4)

CONDUIT BODIES WITH GASKETED COVERS AND 725.04 CONDUIT NIPPLES AS REQUIRED

5/8" HOT DIP GALVANIZED THROUGH BOLT, NUT AND WASHER (TYP.)

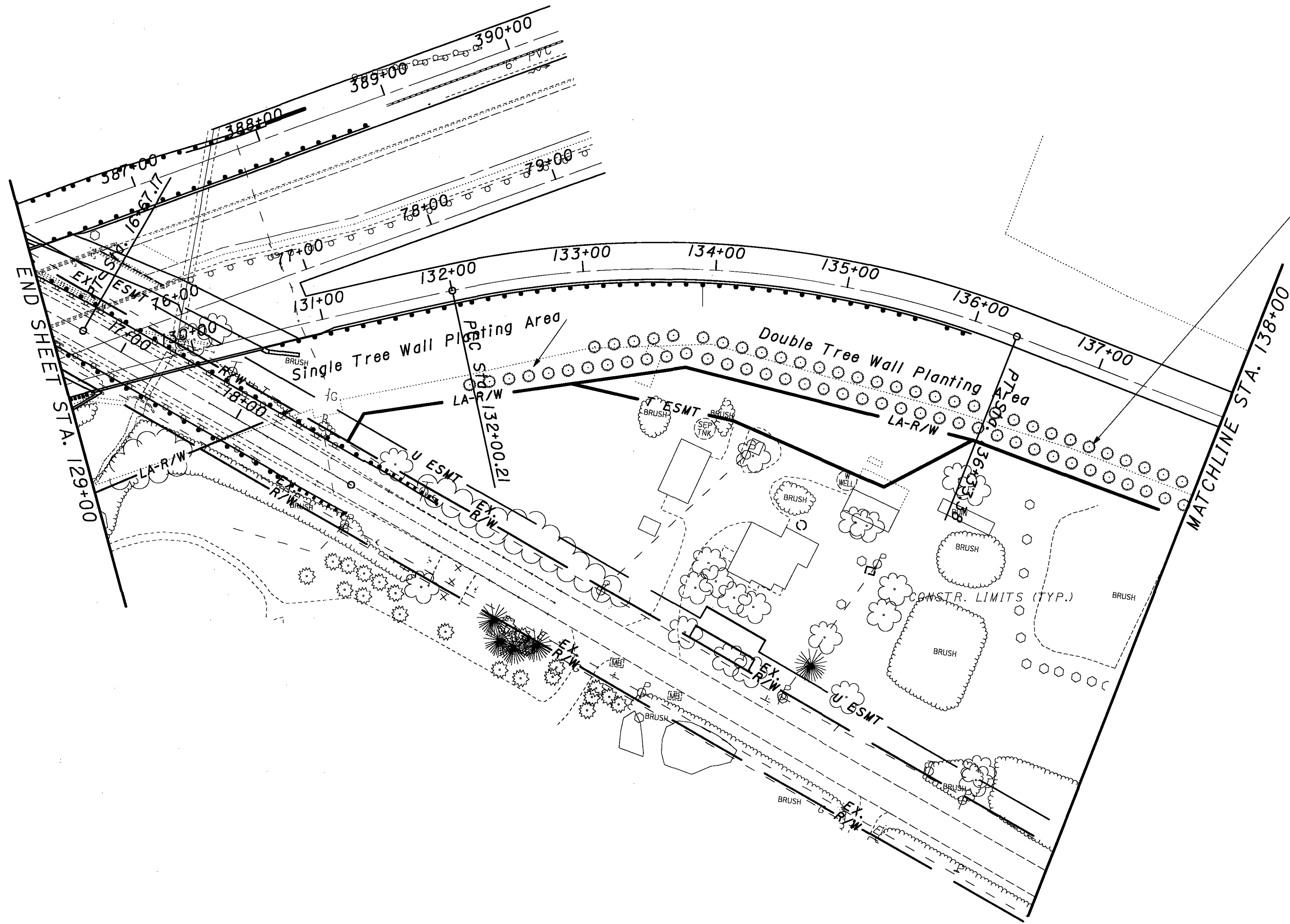
3/4" x 8'-0" GROUND ROD. MAKE EXOTHERMIC WELD CONNECTION TO GROUND WIRE.

- GENERAL NOTES**
1. REFER TO LIGHTING GENERAL NOTES ON SHEET 613 AND LIGHTING ABBREVIATIONS ON SHEET 615.
 2. VERIFY REQUIREMENTS FOR SERVICE POLE AND METERING ARRANGEMENTS WITH UTILITIES PRIOR TO PURCHASING COMPONENTS OR ROUGHING-IN. MAKE MINOR ADJUSTMENTS AS NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THE UTILITIES AT NO CHANGE IN CONTRACT PRICE.
 3. WORK SHOWN ON THIS DRAWING WILL BE PAID FOR UNDER "ITEM 625 - POWER SERVICE, AS PER PLAN."

POWER SERVICE, AS PER PLAN TYPICAL FOR CONTROL CENTERS D AND E
NOT TO SCALE

POWER SERVICE, AS PER PLAN TYPICAL FOR CONTROL CENTERS A, B, C, F, G, H, UPA, UPB, UPC.
NOT TO SCALE

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Typical Norway Spruce Plantings
See Sheet 679C

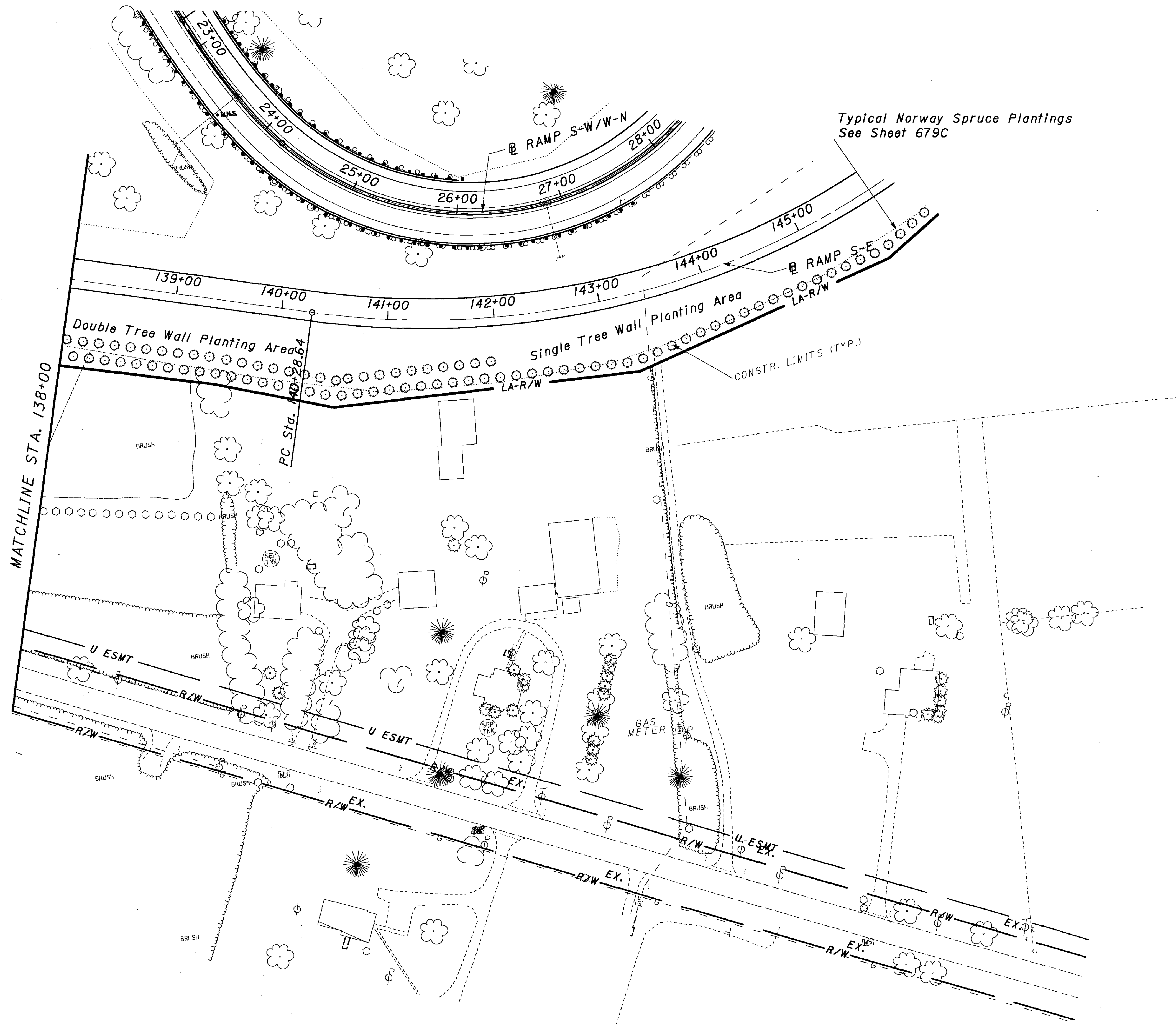
CALCULATED
KEH
CHECKED
ENF

0 25 50 100
HORIZONTAL
SCALE IN FEET

RAMP S-E LANDSCAPING PLAN
STA. 132+00 TO STA. 138+00

MED-71-6.06

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Typical Norway Spruce Plantings
See Sheet 679C

CALCULATED
KEH
CHECKED
ENF

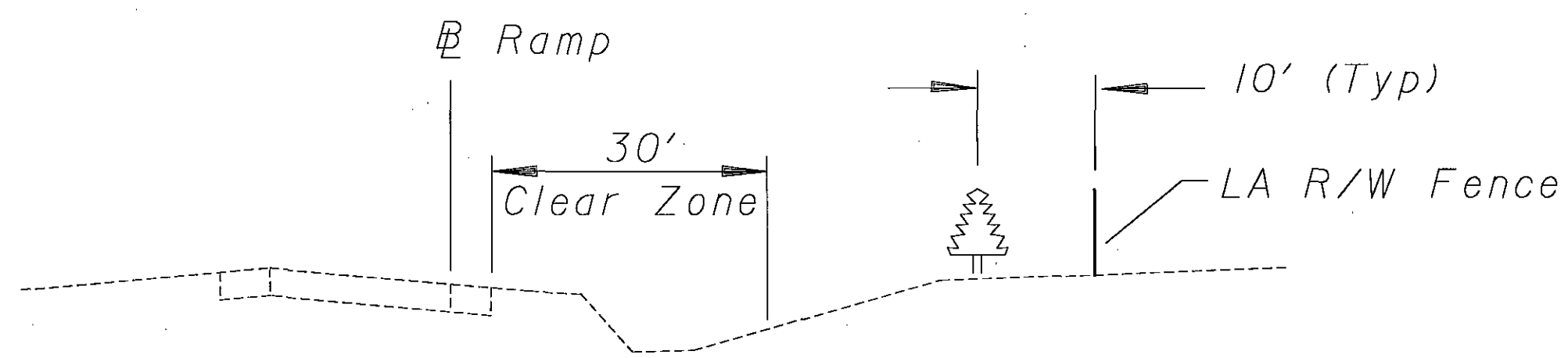
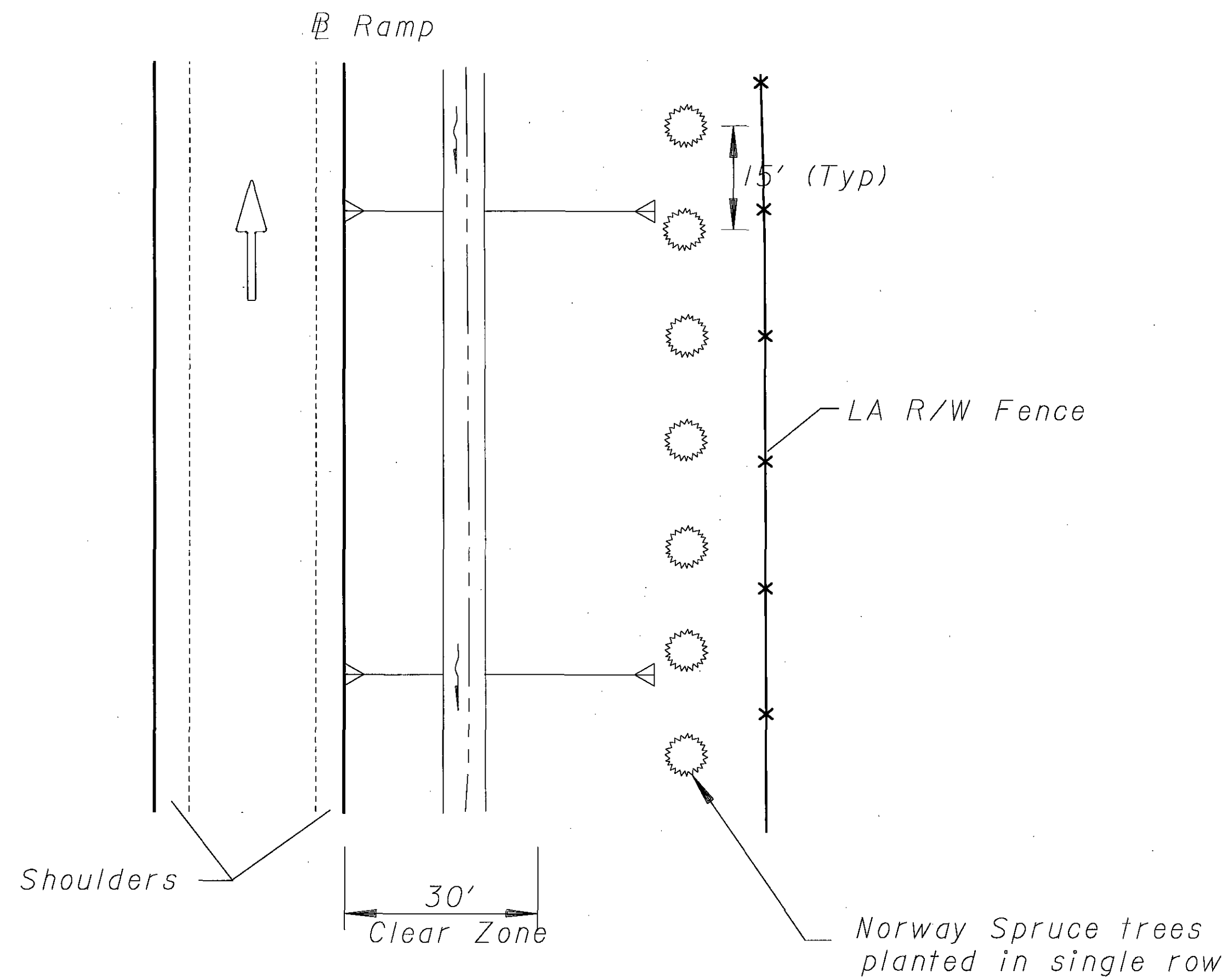
0 50 100
HORIZONTAL
SCALE IN FEET

RAMP S-E LANDSCAPING PLAN
STA. 138+00 TO STA. 146+00

MED-71-6-06

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TREE WALL PLANTING AREA

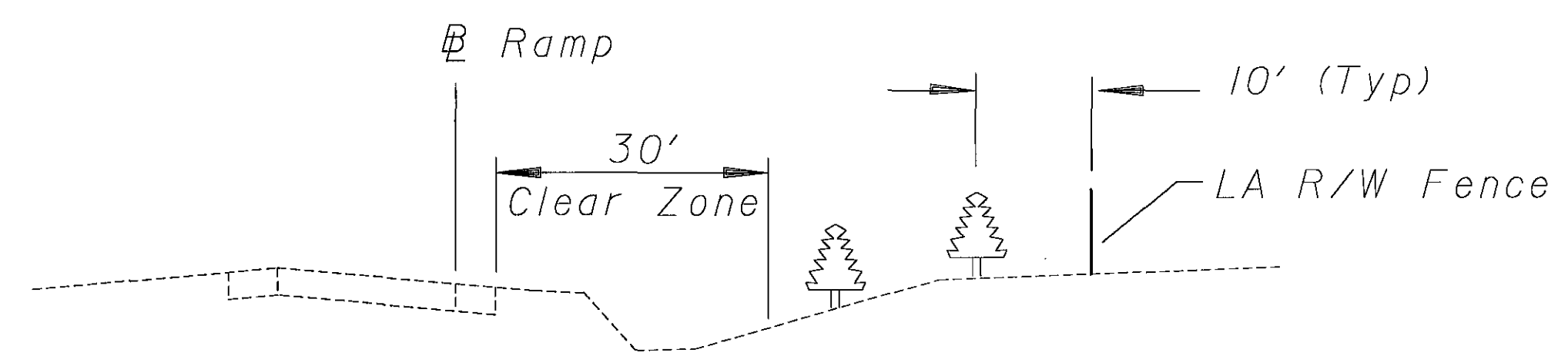
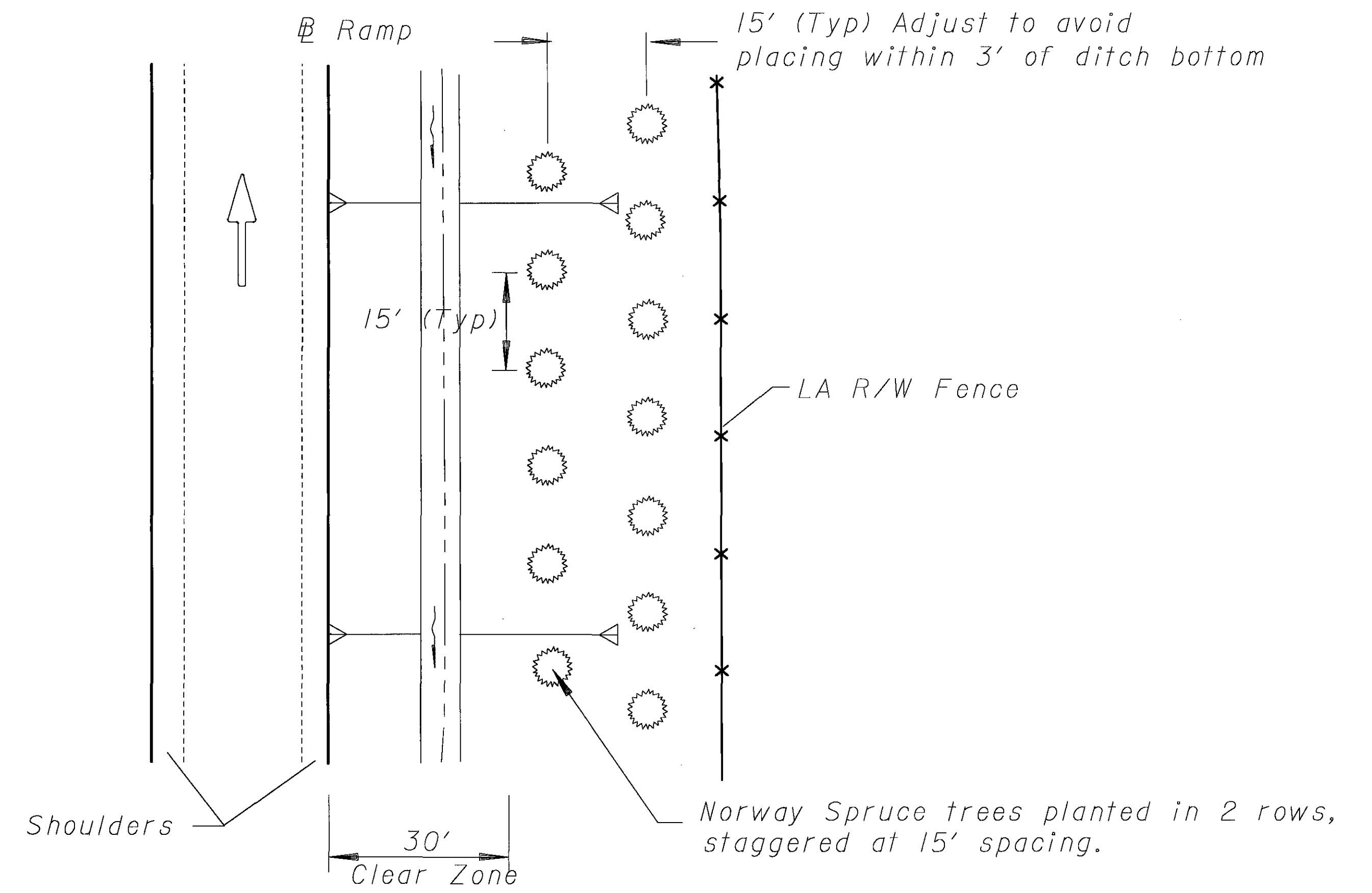


Roadway Typical Section

Single Row Typical

BOTANICAL NAME	COMMON NAME
PICEA ABIES	NORWAY SPRUCE

TREE WALL PLANTING AREA



Roadway Typical Section

2 Row Typical

LANDSCAPING SUBSUMMARY							
ITEM	STATION		ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	
	Ramp SE 132+00 to 138+00	Ramp SE 138+00 to 146+00					
	Rt.	Rt.					
661	69	85	661	50140	154	EACH	EVERGREEN TREE, 7' HEIGHT PICEA ABIES B&B 24" MIN.
662	1035	1275	662	30000	2310	GAL	LANDSCAPE WATERING

(TOTALS CARRIED TO GENERAL SUMMARY, SEE SHEET 138)

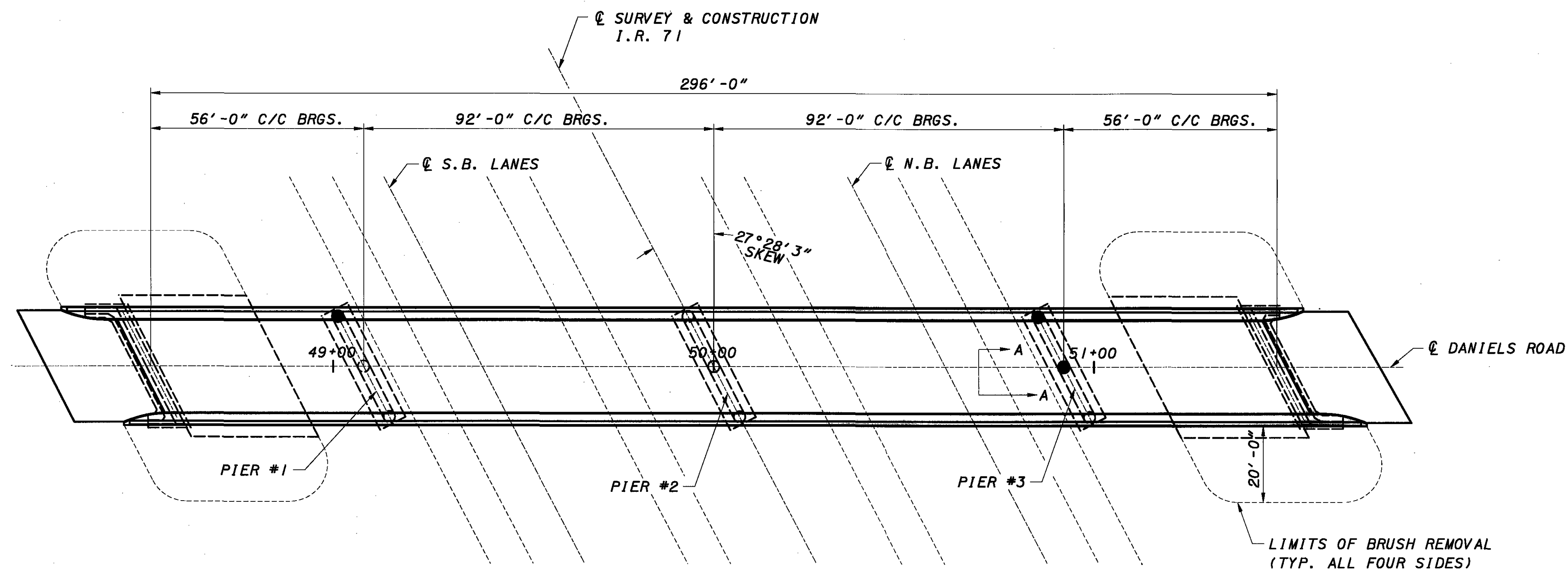
CALCULATED
CHECKED

PLANTING DETAILS AND LANDSCAPING SUBSUMMARY

MED-71-15.78

679C
1120

...1756571DNOTES.dgn



PLAN
MED-71-0675
UNDER DANIELS ROAD

NOTE:
FOR VIEW A-A, SEE SHEET **2/4**.

● - DENOTES PROPOSED PIER ENCASEMENT

PROPOSED WORK

1. ENCASE PIERS SHOWN IN PLAN WITH 6 INCHES OF CONCRETE. SOUND AND PATCH PRIOR TO ADDING ENCASEMENT. SEE SHEET **2/4** FOR DETAILS.
2. PAINT SUPERSTRUCTURE STEEL.
3. REMOVE BRUSH UNDER AND 20 FEET ON EACH SIDE OF STRUCTURE.
4. REMOVE ALL GRAFFITI.
5. SEAL CONCRETE SURFACES. SEE SHEET **3/4** FOR DETAILS.
6. ADD AND RESHAPE CRUSHED AGGREGATE SLOPE PROTECTION. SEE SHEET **4/4** FOR DETAILS.

F:\2025\WAY - MED\BRIDGE\OVERHEAD BRIDGES\MED-71-0675\MED-9851.DGN

GENERAL PLAN BRIDGE NO. MED-71-0675 UNDER DANIELS ROAD	DATE 5/05 REVISED ENF STRUCTURE FILE NUMBER 5202760
DESIGNED AME CHECKED GT	DRAWN MHR REVISED
MED-71-6.06	1 / 4
680 1120	

DESIGN SPECIFICATION:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION FOR STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002.

SUPPLEMENTAL SPECIFICATIONS:

REFERENCE SHALL BE MADE TO SUPPLEMENTAL SPECIFICATIONS:
843 4-18-03 PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR

DESIGN DATA:

CONCRETE CLASS S -COMPRESSIVE STRENGTH 4500 P.S.I.
REINFORCING STEEL- ASTM A615 OR A996
GRADE 60, MINIMUM YIELD STRENGTH 60,000 P.S.I.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO THE CONSTRUCTION MATERIAL SPECIFICATION (CMS SECTIONS 102.05, 105.02 AND 513.04).

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

EXISTING BRIDGE PLANS MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR AT THE ODOT DISTRICT OFFICE IN ASHLAND, OHIO.

TRAFFIC MAINTENANCE:

SEE ROADWAY PLANS FOR ADDITIONAL TRAFFIC NOTES AND DETAILS.

REPLACEMENT OF EXISTING REINFORCING STEEL:

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT THE CONTRACTOR'S EXPENSE.

ITEM 514 FIELD PAINTING OF EXISTING STEEL:

THE COLOR OF THE FINISH COAT SHALL BE A LIGHT GRAY COLOR MEETING FEDERAL STANDARD NUMBER 16440. IN ADDITION TO THE SURFACE AREA OF THE STEEL STRINGERS TO BE PAINTED, AN ADDITIONAL 25% OF THIS AMOUNT HAD BEEN ADDED TO THE SURFACE SQUARE FOOT TOTALS TO ACCOUNT FOR INCIDENTALS SUCH AS CROSS FRAMES AND SCUPPERS.

ITEM 511, CLASS S CONCRETE, MISCELLANEOUS, PIER ENCASEMENT

THIS ITEM SHALL BE USED AS PER DETAILS IN THESE PLANS.

SURFACE PREPARATION: THE PIER CONCRETE COLUMNS SHALL BE SOUNDED AND PATCHED. WHERE THE REPAIR DEPTH IS 3 INCHES OR GREATER, PATCHING SHALL BE PER ITEM 519. WHERE THE REPAIR DEPTH IS LESS THAN 3 INCHES IN DEPTH, PATCHING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 843, PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR.

UP TO 10% OF THE SURFACE AREA SHALL BE ASSUMED TO BE PATCHED. THIS QUANTITY IS BASED ON THE TOTAL AREA OF ALL THE PIERS, NOT FOR AN INDIVIDUAL PIER COLUMN.

CONCRETE FOR ENCASEMENT SHALL BE AS FOLLOWS:

IN LIEU OF THE PROPORTIONING SPECIFIED IN 499.03 AND 511.02, THE FOLLOWING TABLE SHALL BE USED TO ESTABLISH THE QUANTITIES PER CUBIC YARD FOR CONCRETE. THE COURSE AGGREGATE SHALL BE NO. 8 LIMESTONE. CEMENT USED SHALL BE EXPANSIVE HYDRAULIC CEMENT CONFORMING TO ASTM C845, TYPE K AS PER 701.08.

QUANTITIES PER CUBIC YARD

FINES (LB)	AGGREGATE COURSE (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	WATER/CEMENT RATIO
1300	1275	2575	715	0.50

AIR CONTENT - 8% PLUS OR MINUS 2%

TYPE D CHEMICAL ADMIXTURE SHALL BE USED.

THE SLUMP AT THE TIME OF CONCRETE PLACEMENT SHALL BE BETWEEN 5 AND 7 INCHES.

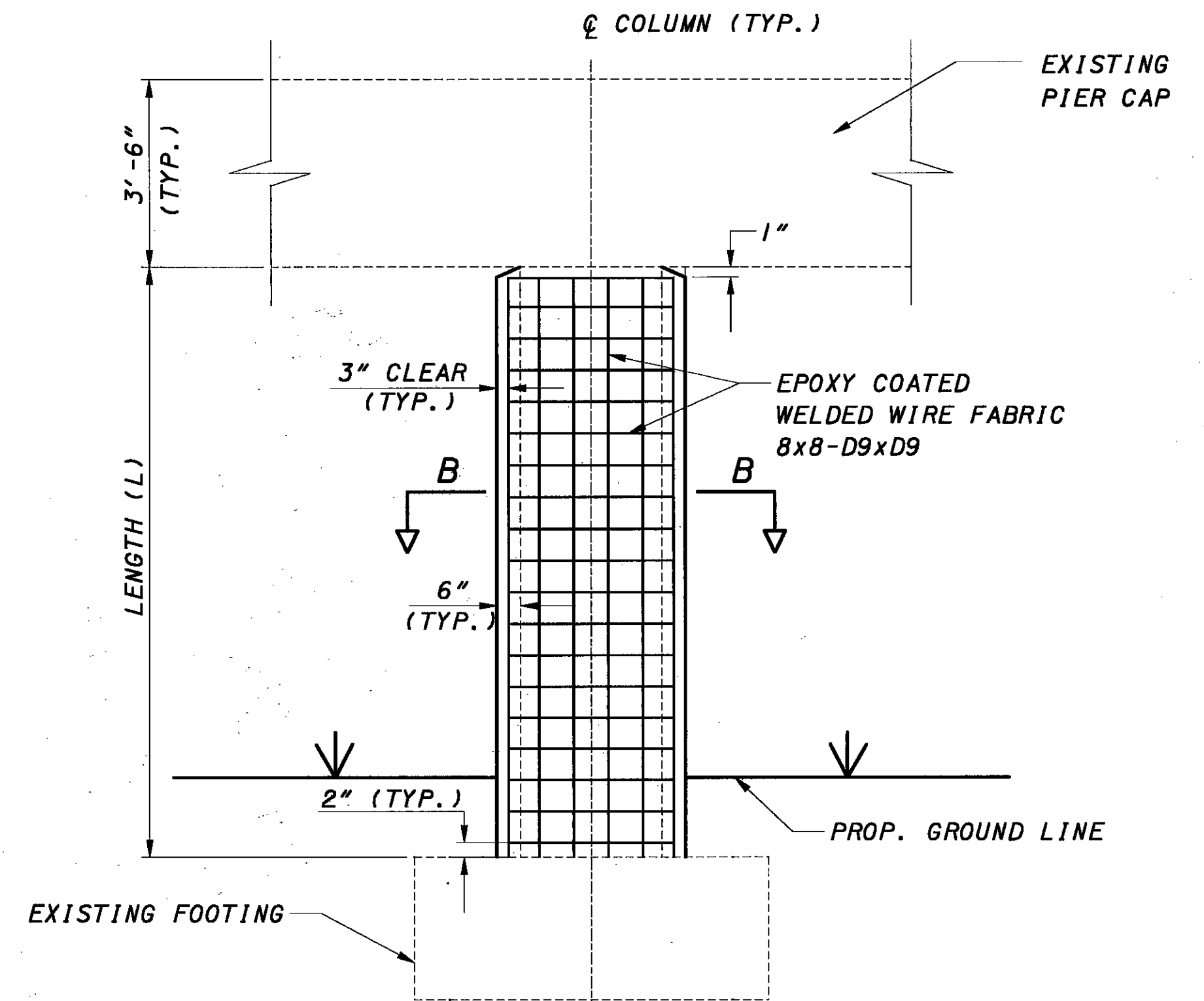
CURING SHALL BE IN ACCORDANCE WITH 511.14 TYPE A WATER CURING.

A CEMENT COMPANY REPRESENTATIVE SHALL BE ON HAND DURING THE MIXING AND PLACING OPERATION DURING THE FIRST POUR, IF THE REDI-MIX PRODUCER HAS NOT HAD PREVIOUS EXPERIENCE WITH TYPE K CEMENT.

REDI-MIX PRODUCERS WHO HAVE HAD PREVIOUS EXPERIENCE SHALL HAVE ON HAND A PERSON WHO HAS BEEN FACTORY TRAINED IN THE USE OF TYPE K CEMENT.

ALL OTHER PROVISIONS OF ITEM 511 SHALL REMAIN IN EFFECT.

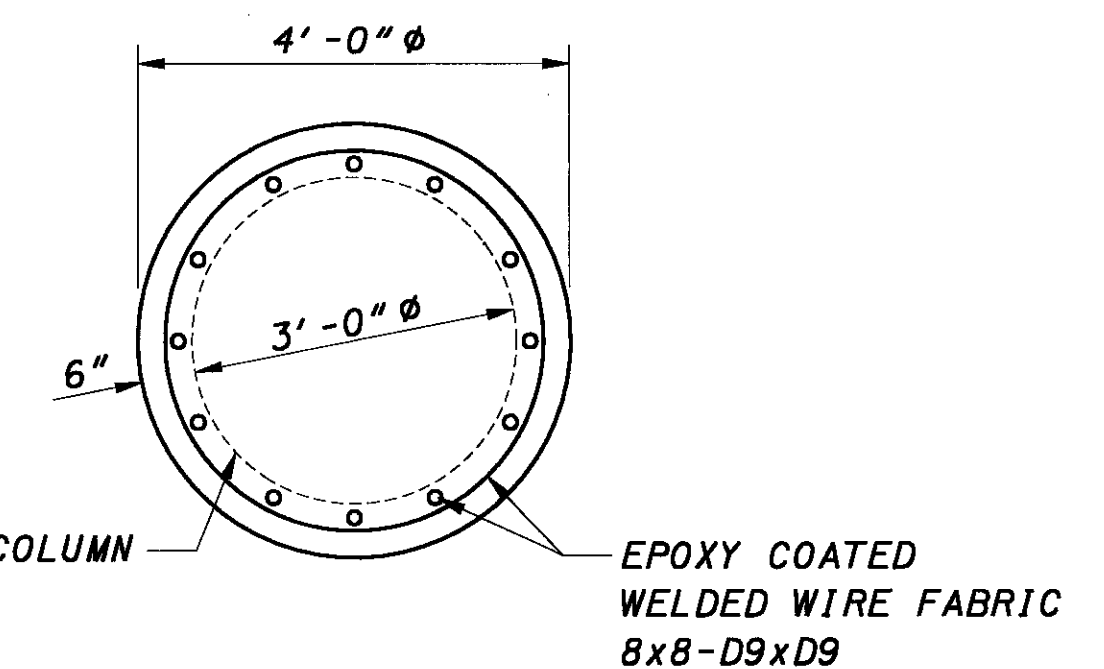
PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 511, CLASS S CONCRETE, MISCELLANEOUS, PIER ENCASEMENT, WHICH SHALL INCLUDE ALL EXCAVATION, LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS, NECESSARY TO COMPLETE THE ABOVE WORK.



VIEW A-A

PROPOSED PIER COLUMN ENCASEMENT

SEE SHEETS 174 FOR LOCATIONS OF PIER ENCASEMENTS



SECTION B-B

BRIDGE	PIER COLUMNS ENCASEMENT LENGTH* (L)		
	PIER 1	PIER 2	PIER 3
MED-71-0675	14'-3"	-	12'-9 1/2"

*DIMENSIONS GIVEN ARE FROM EXISTING PLANS

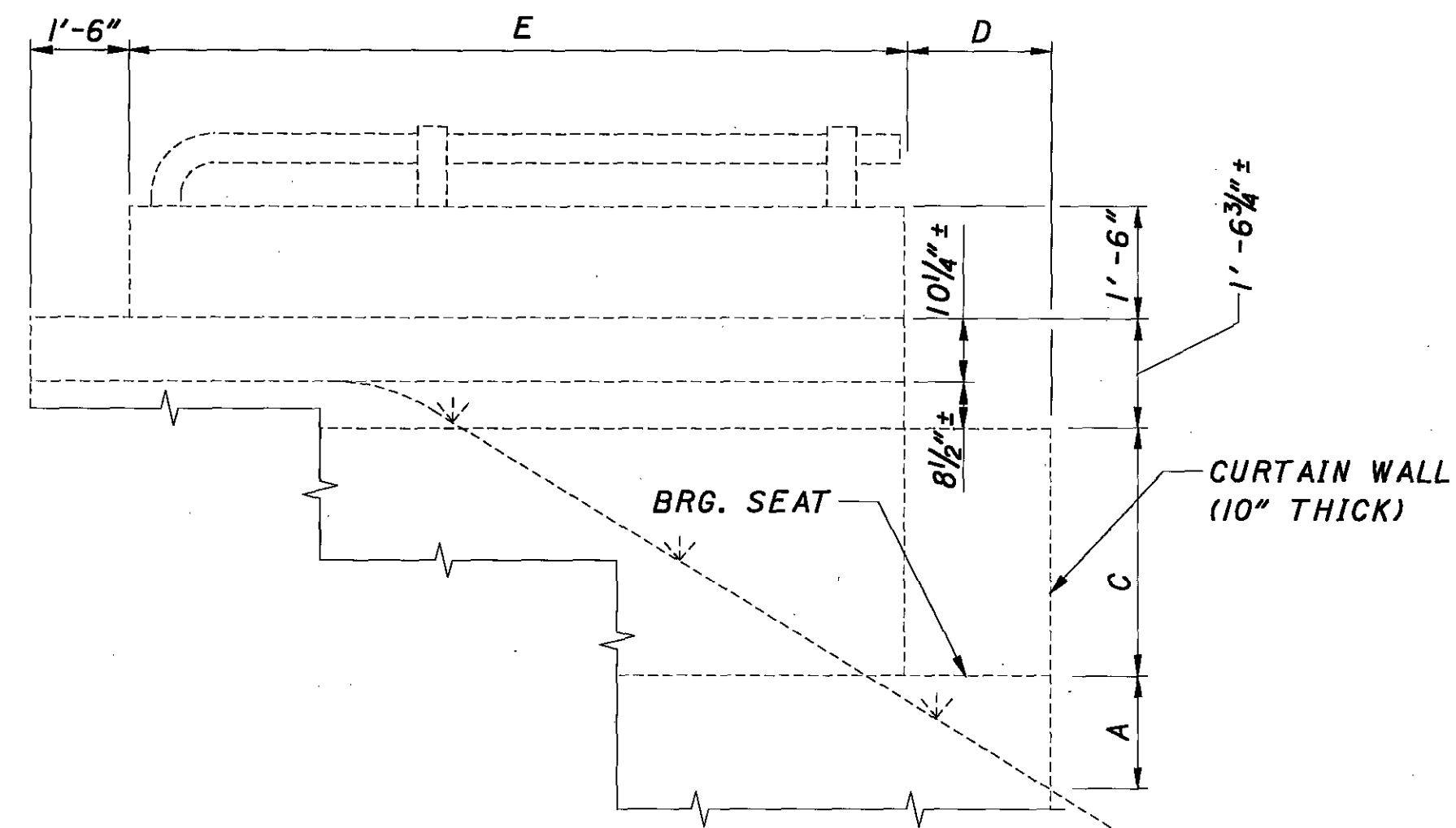
MED-71-0675	FUNDING		ESTIMATED QUANTITIES					SHEET NO.
	IM	NHS	ITEM	EXT	TOTAL	UNIT	DESCRIPTION	
884	707	177	509	10000	884	POUND	EPOXY COATED REINFORCING STEEL	2/4
8	6	2	511	34450	8	CU YD	CLASS S CONCRETE, MISC.: PIER ENCASEMENT	1/4
583	466	117	512	10100	583	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	3/4
1614	1291	323	514	00050	1614	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	1/4
1614	1291	323	514	00056	1614	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	1/4
1614	1291	323	514	00060	1614	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT	1/4
1614	1291	323	514	00066	1614	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, FINISH COAT	1/4
10	8	2	514	10000	10	EACH	FINAL INSPECTION REPAIR	1/4
88	70	18	601	21150	88	CU YD	SLOPE PROTECTION, MISC.: CRUSHED AGGREGATE SLOPE PROTECTION	4/4

DATE	5/05
REVIEWED	ENF
STRUCTURE FILE NUMBER	
DRAWN	AME
REVISOR	GT
DESTROYED	AME
CHECKED	GT

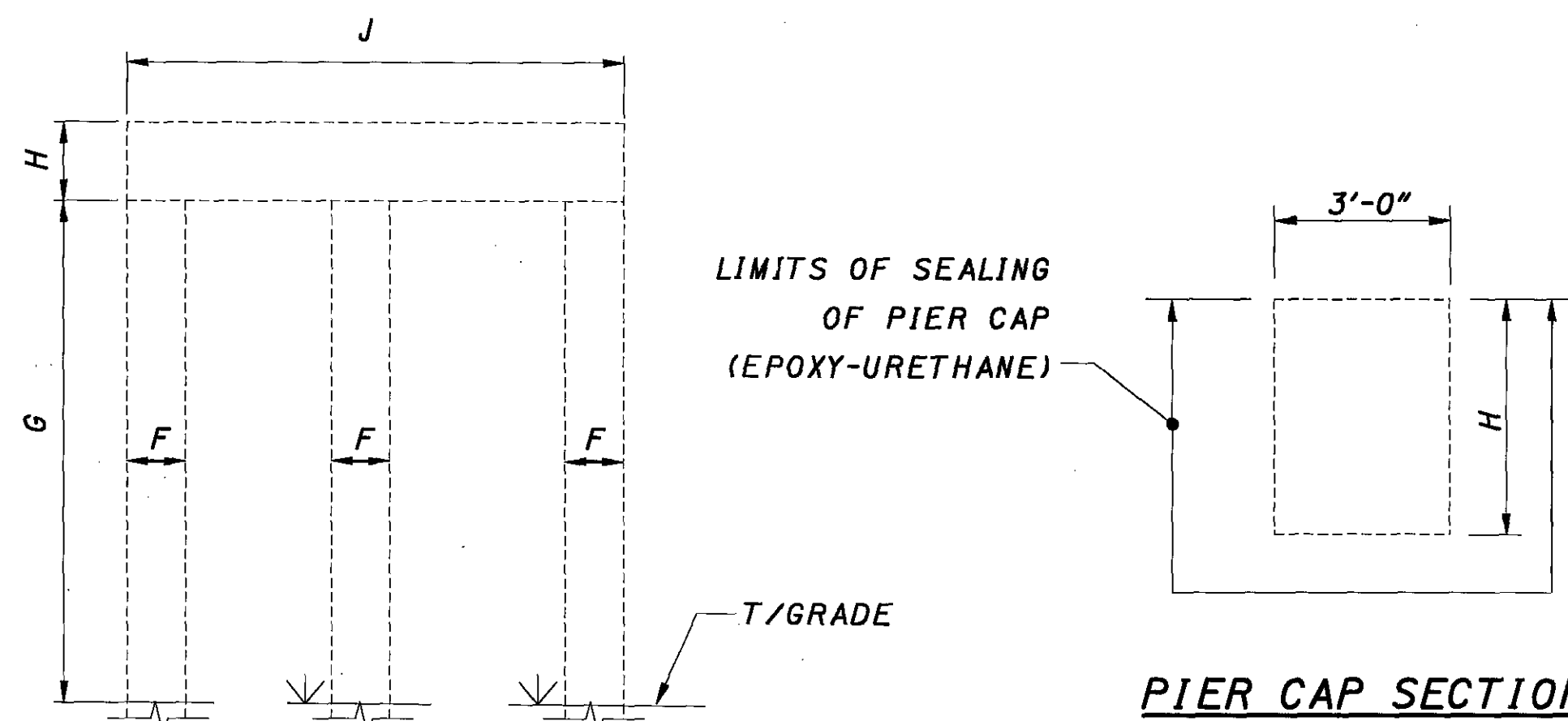
NOTES, QUANTITIES & ENCASEMENT DETAILS
BRIDGE NO. MED-71-0675

MED-71-6.06

...75657CN_QUANT.dgn



TYPICAL WINGWALL ELEVATION

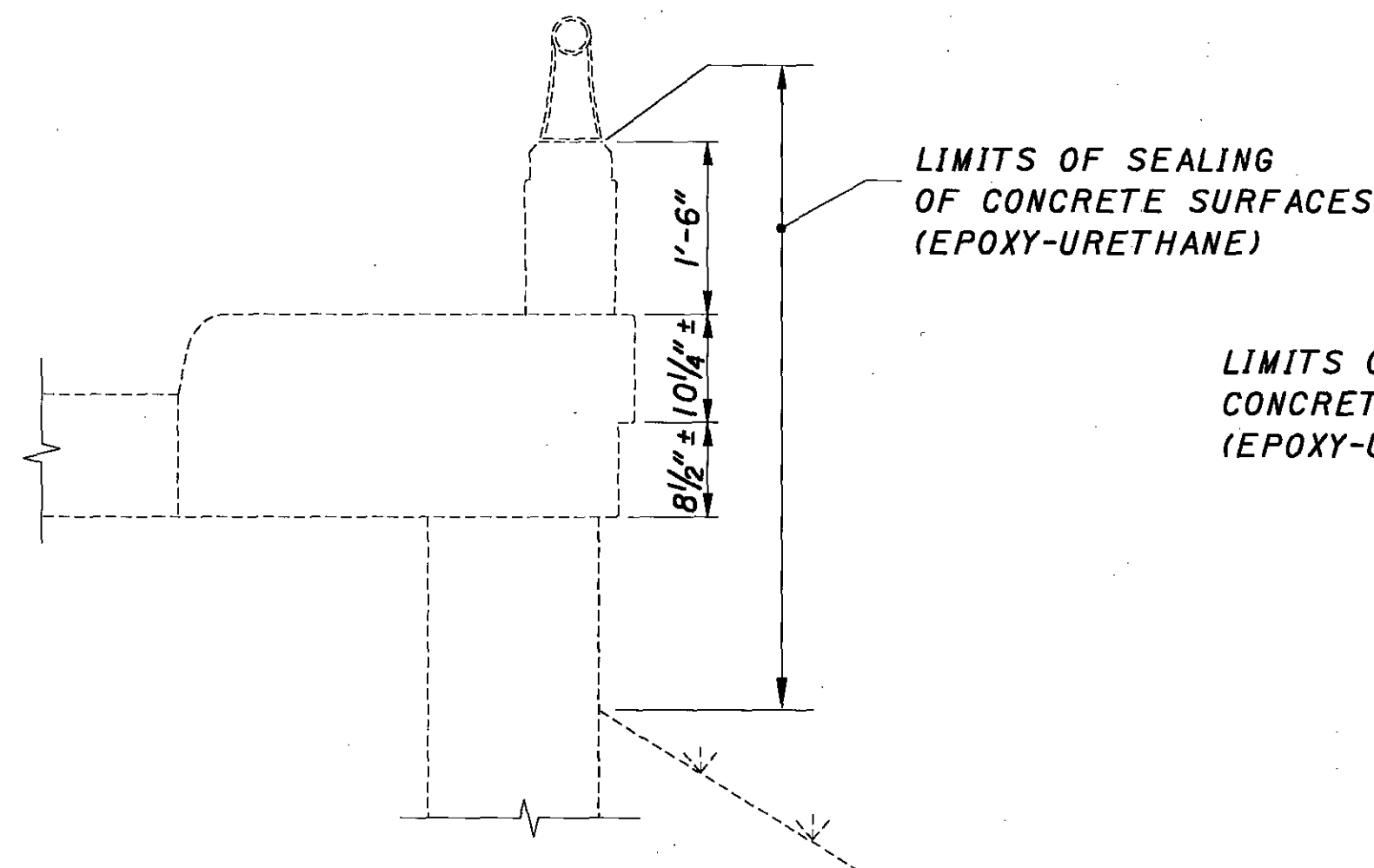


TYPICAL PIER ELEVATION

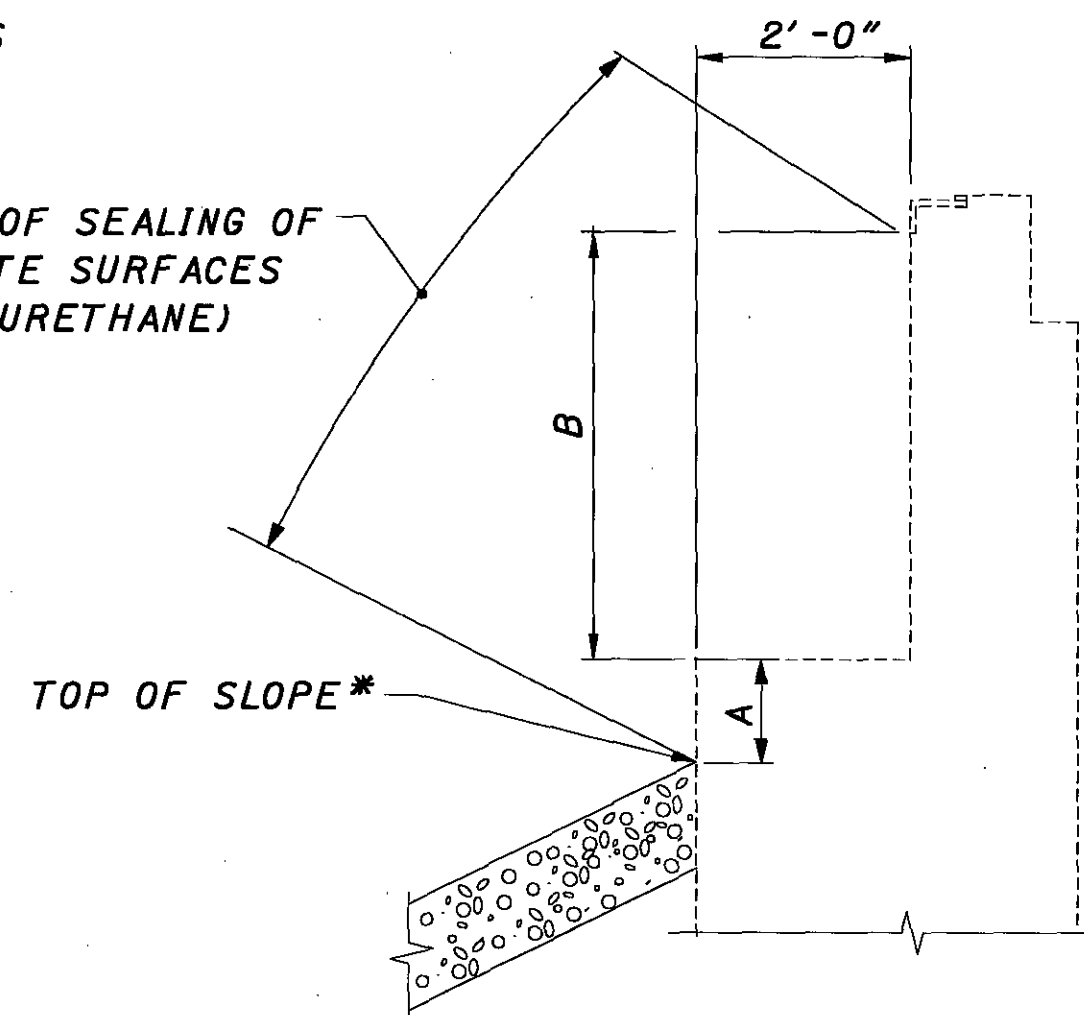
(F - AVG. COLUMN DIAMETER)

DIMENSION TABLE FOR SEALING ABUTMENT CONCRETE SURFACES				
BRIDGE NO.	LOCATION	ABUTMENT LENGTH (L-FT.)	AVG. DIMENSIONS	
			(A-FT.)*	(B-FT.)
MED-71-0675 UNDER DANIELS ROAD T.R. 246	RA	33.8	1.0	4.4
	FA	33.8	1.0	4.4

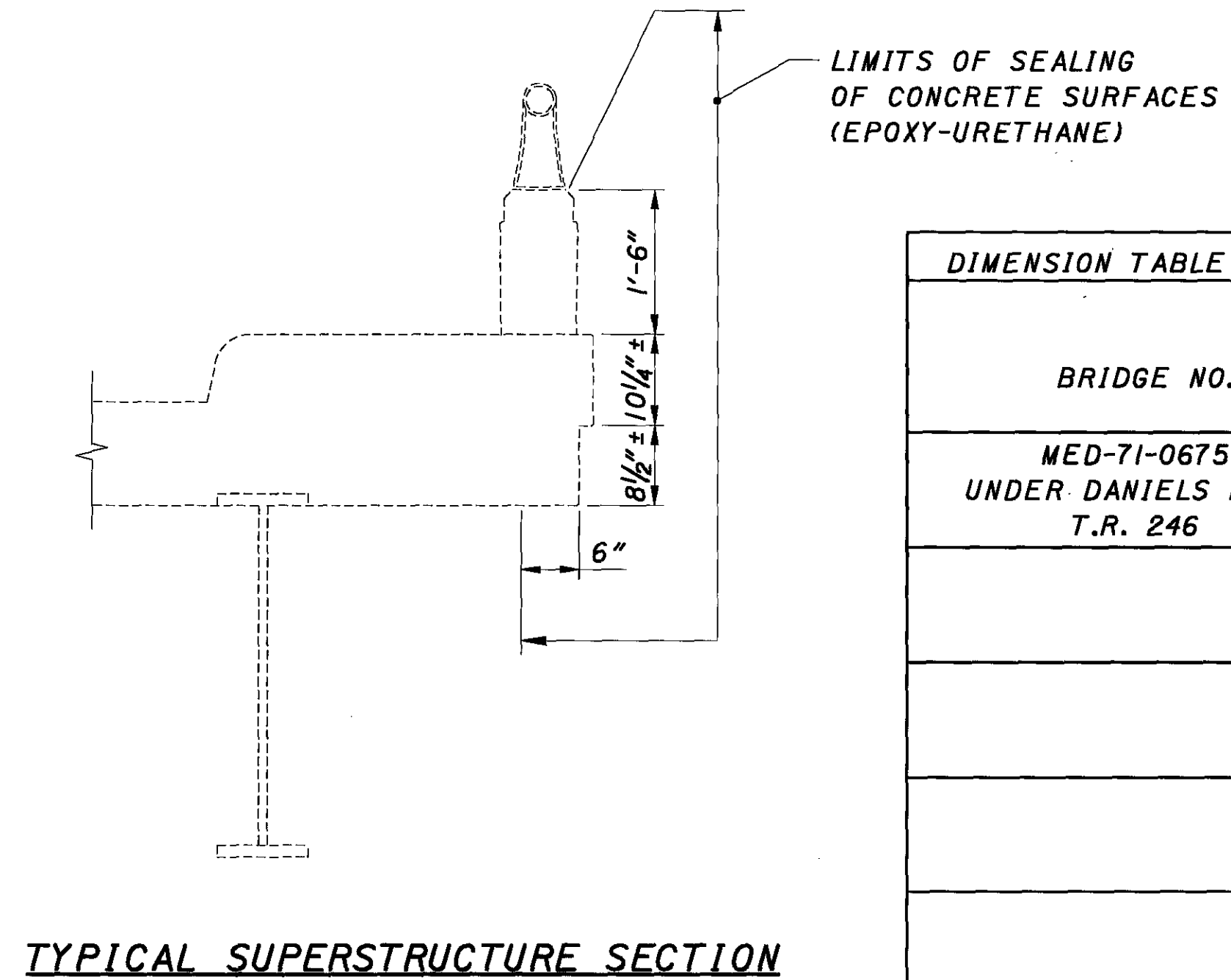
RA - REAR ABUTMENT
FA - FORWARD ABUTMENT



TYPICAL WINGWALL SECTION



TYPICAL ABUTMENT SECTION



TYPICAL SUPERSTRUCTURE SECTION

DIMENSION TABLE FOR SEALING WINGWALL CONCRETE SURFACES					
BRIDGE NO.	LOCATION	AVG. DIMENSIONS (FT.) (OF 2)			
		A*	C	D	E
MED-71-0675 UNDER DANIELS ROAD T.R. 246	RA	1.0	3.6	2.0	15.2
	FA	1.0	3.7	2.0	14.0

* - SEE SHEET 4/4 FOR TOP OF SLOPE ELEVATIONS

ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

AREAS OF CONCRETE SURFACES TO BE SEALED ARE CALCULATED BY USING FIELD MEASURED DIMENSIONS. THE EFFECT OF LOWERING THE 1-71 GRADE TO EXPOSE ADDITIONAL AREAS OF PIER COLUMNS ARE CONSIDERED. AVERAGE DIAMETER OF PIER COLUMN TAKES INTO ACCOUNT THE ENCASING OF SOME OF THE PIER COLUMNS.

PRIOR TO SEALING, ALL GRAFFITI SHALL BE REMOVED AND ALL CONCRETE SURFACES SHALL BE SOUNDED AND PATCHED AS PART OF THIS WORK. WHERE THE REPAIR DEPTH IS 3 INCHES OR GREATER, PATCHING SHALL BE PER ITEM 519. WHERE REPAIR DEPTH IS LESS THAN 3 INCHES IN DEPTH, PATCHING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 843, PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR.

THE CONCRETE SURFACES SHALL BE SEALED AS FOLLOWS:

ABUTMENT: ENTIRE LENGTH - FRONT FACE OF BACKWALL, BEARING SEAT AND EXPOSED FRONT FACE OF BRESTWALL

WINGWALLS: ALL OUTSIDE EXPOSED SURFACES

PIERS: ALL EXPOSED SURFACES EXCEPT TOP OF PIER CAP

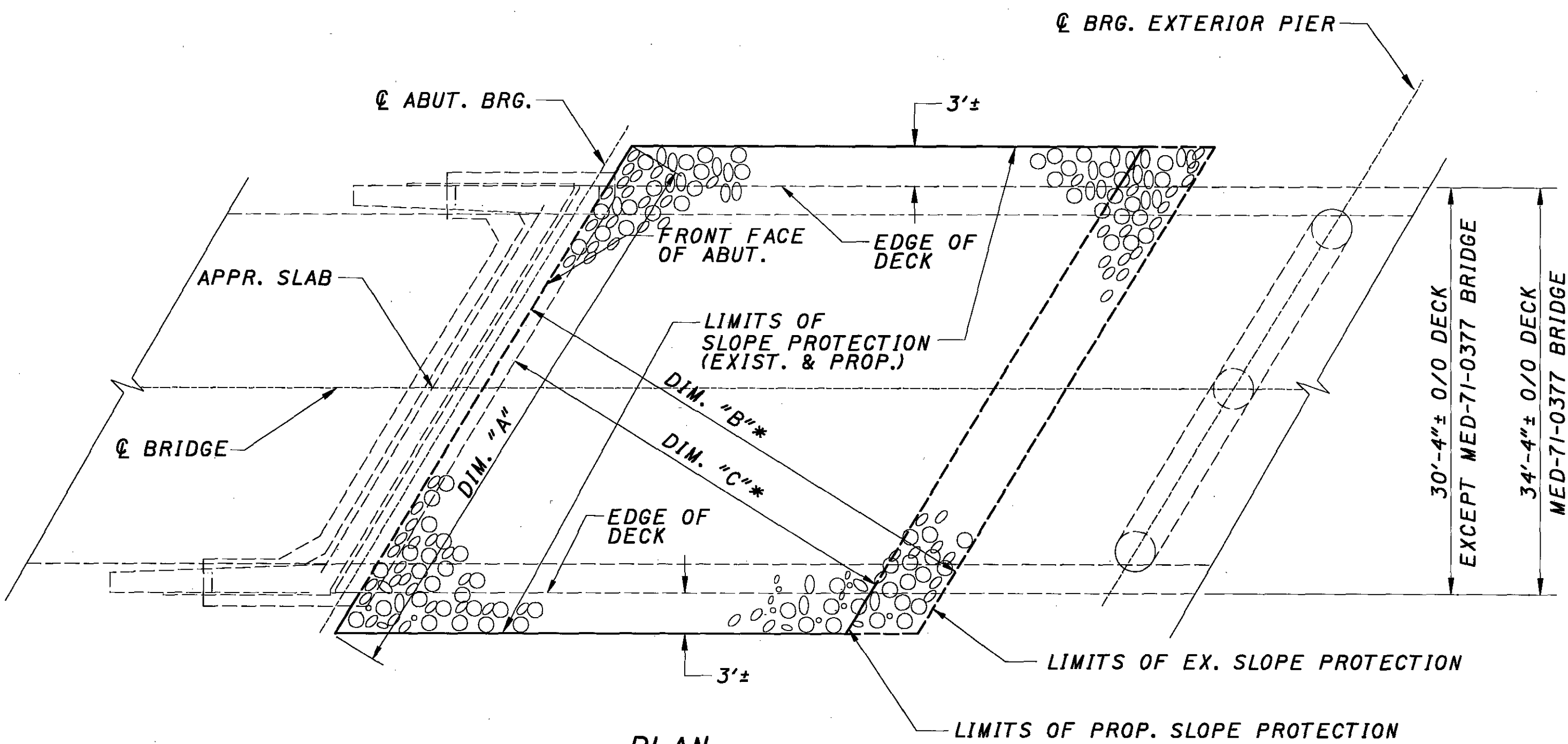
SUPERSTRUCTURE: OUTSIDE PARAPET AND DECK SURFACES AND 6" UNDER DECK OVERHANG

DIMENSION TABLE FOR SEALING OF SUPERSTRUCTURE	
BRIDGE NO.	LENGTH OF SUPERSTRUCTURE (FT.)
MED-71-0675 UNDER DANIELS ROAD T.R. 246	296

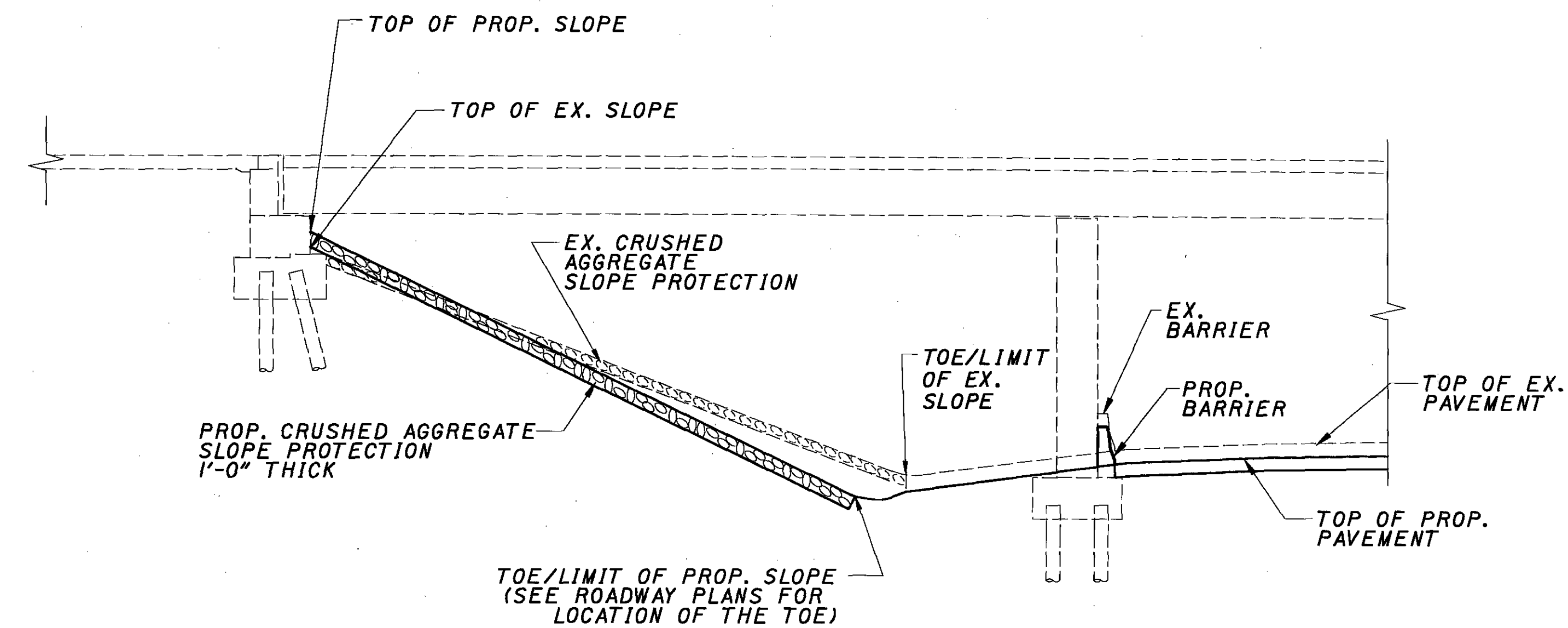
DIMENSION TABLE FOR SEALING OF PIER CONCRETE SURFACES						
BRIDGE NO.	No. OF PIERS	No. OF COLUMNS PER PIER	AVG. DIMENSIONS (FT.)			
			F	G	H	J
MED-71-0675 UNDER DANIELS ROAD T.R. 246	3	3	3.0	13.3	3.6	32.3

DRAWN AME
 CHECKED GT
 DESIGNED AME
 REVISED AME
 REVISED ENF
 DATE 5/05
 STRUCTURE FILE NUMBER
 SEALING OF CONCRETE SURFACES DETAILS AND NOTES
 BRIDGE NO. MED-71-0675

**GENERIC PLAN AND ELEVATION
SHOWING CRUSHED AGGREGATE ABUTMENT SLOPE PROTECTION LIMITS
FOR MED-71-0675 STRUCTURE
(FOR ADDITIONAL DETAILS, REFER TO EXISTING PLANS)**



PLAN
(NOT ALL DETAILS SHOWN)



ELEVATION

NOTES:

ITEM 601 - SLOPE PROTECTION MISC., CRUSHED AGGREGATE SLOPE PROTECTION

PRIOR TO PLACING CRUSHED AGGREGATE SLOPE PROTECTION, ALL BRUSH UNDER AND FROM 20 FEET ON EACH SIDE OF STRUCTURE SHALL BE REMOVED.

EXISTING CRUSHED AGGREGATE FROM ABUTMENT SLOPES SHALL BE SCRAPED AND SAVED. THE AREA WITHIN THE LIMITS OF THE PROPOSED SLOPE PROTECTION SHALL THEN BE REGRADED TO AN ELEVATION 1' BELOW THE FINAL PROPOSED SLOPE PROTECTION ELEVATION. USING THE CRUSHED AGGREGATE RECOVERED FROM THE EXISTING SLOPES AND BY BRINGING IN ADDITIONAL QUANTITY AS NEEDED, THE PROPOSED SLOPE PROTECTION OF 1' UNIFORM THICKNESS SHALL BE PLACED.

FOR QUANTITY CALCULATION PURPOSES, IT HAS BEEN ASSUMED THAT ONLY 20% OF THE EXISTING CRUSHED AGGREGATE VOLUME (I.E. EXISTING SLOPE PROTECTION AREA * 0.2' THICKNESS) IS RECOVERED. THE ADDITIONAL QUANTITY NEEDED WILL BE EQUAL TO (PROPOSED SLOPE PROTECTION AREA)*(1' THICKNESS)-(CRUSHED AGGREGATE RECOVERED FROM THE EXISTING SLOPES). THE CONTRACTOR SHALL HOWEVER BE PAID FOR THE ACTUAL QUANTITY USED ON THE UNIT COST BASIS.

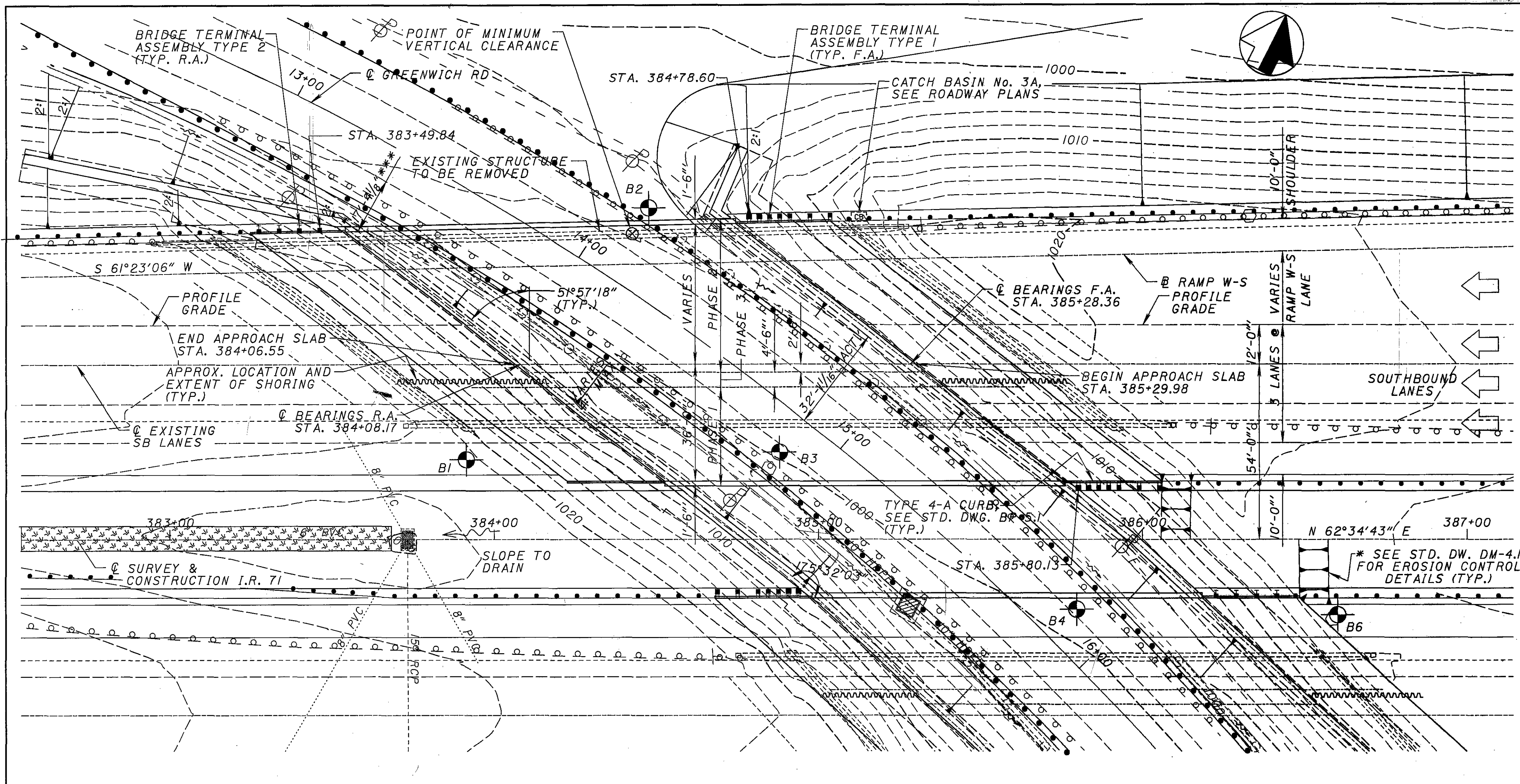
ALL LABOR, MATERIAL, AND INCIDENTAL COST ASSOCIATED WITH PLACING THE PROPOSED SLOPE PROTECTION SHALL BE INCLUDED WITH THIS ITEM.

**TABLE OF DIMENSIONS FOR CRUSHED
AGGREGATE SLOPE PROTECTION**

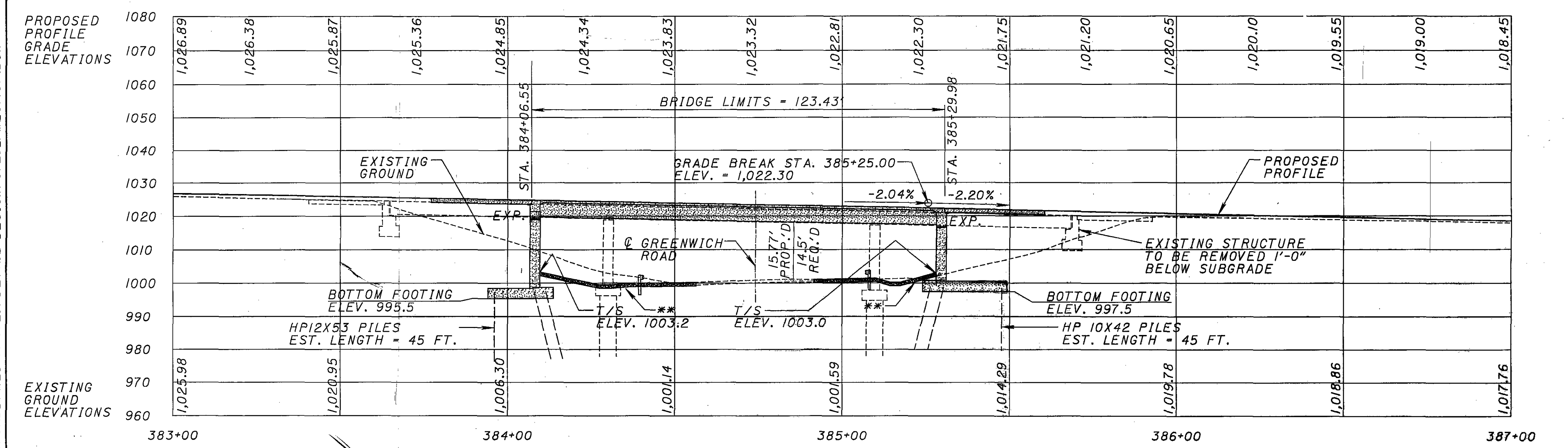
BRIDGE NO.	LOCATION	DIMENSIONS (FT)			APPROX. EXISTING TOP OF SLOPE EL.	APPROX. PROP. TOP OF SLOPE EL.**
		A	B*	C*		
MED-71-0675 UNDER DANIELS ROAD T.R. 246	RA	41.3	36.0	36.0	1091.8	1093.4
	FA	41.3	36.0	36.0	1092.1	1093.4

* - DIMENSION MEASURED ALONG THE SLOPE
** - THE PROPOSED TOP OF SLOPE SHALL BE LOCATED APPROXIMATELY 1'-0" BELOW THE LOWEST BEAM SEAT ELEVATION.

DATE 5/05
 REVISED ENF STRUCTURE FILE NUMBER
 DRAWN AME
 DESIGNED AME
 CHECKED GT
 ABUTMENT SLOPE PROTECTION DETAILS AND NOTES
 BRIDGE NO. MED-71-0675
 MED-71-6.06
 4 / 4
 683
 1120



PLAN



PROFILE ALONG C/ EXISTING SB LANES

NOTE:
EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

- LEGEND:**
- EXP. = EXPANSION
 - F.A. = FORWARD ABUTMENT
 - R.A. = REAR ABUTMENT
 - T/S = TOP OF SLOPE
 - ⊗ = MINIMUM VERTICAL CLEARANCE LOCATION
 - ⊕ = FOUNDATION INVESTIGATION BORING LOCATION
 - * = SEE ROADWAY PLANS FOR DETAILS AND PAYMENT
 - ** = 1'-0" CRUSHED AGGREGATE SLOPE PROTECTION (TYP)
 - *** = REQUIRED FOR STOPPING SIGHT DISTANCE

SOIL BORING INFORMATION

BORING #	STATION	OFFSET	ELEVATION	APPROX. TOP OF ROCK
B1	383+91.43	24.71' (LT)	1022.56	966.10
B2	384+47.62	102.40' (LT)	1002.80	965.80
B3	384+87.94	26.96' (LT)	1000.12	963.10
B4	385+79.73	21.41' (RT)	1001.12	954.10
B6	386+60.17	23.13' (RT)	1017.12	948.60

BENCHMARK INFORMATION

BM #3045: STA. 382+13.85, 0.338' RT., C/L MONUMENT 495,811.67' N, 2,133,582.97' E, ELEV. 1023.36
BM #3046: STA. 402+33.68, 0.172' RT., C/L MONUMENT 496,742.01' N, 2,135,375.78' E, ELEV. 991.19

EXISTING STRUCTURE

TYPE: 3-SPAN CONTINUOUS STEEL BEAM BRIDGE WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 64'-0"±, 80'-0"±, 56'-0"± c/c BEARINGS

ROADWAY: 42'-0"± f/f PARAPETS PLUS ACCELERATION LANE

SKEW: 52°50'00"± RF

ALIGNMENT: STRAIGHT

WEARING SURFACE: MONOLITHIC CONCRETE

DESIGN LOADING: CF 2000 ADEQUATE FOR AASHTO ALTERNATE LOADING

APPROACH SLABS: AS-1-54 (25'-0"± LONG)

CROWN: 3/16" / FT

STRUCTURE FILE NO.: 5202795 (LEFT)

DATE BUILT: 1959

PROPOSED STRUCTURE

TYPE: SINGLE SPAN STEEL (A588) GIRDER BRIDGE WITH REINFORCED CONCRETE DECK AND SEMI-INTEGRAL WALL TYPE ABUTMENTS

SPAN: 120'-2 1/4" c/c BEARINGS

ROADWAY: VARIES

SKEW: 51°57'18" RF

ALIGNMENT: TANGENT

WEARING SURFACE: MONOLITHIC CONCRETE

DESIGN LOADING: HS25 (CASE I) AND THE ALTERNATE MILITARY LOADING

FWS LOADING: 60 PSF

APPROACH SLABS: AS-1-81, 30'-0" LONG (MODIFIED)

CROWN: 0.0156

ADT (2006): 24430 ADTT (2006): 7574

ADT (2026): 34180 ADTT (2026): 10596

LATITUDE: N 41°01'36"

LONGITUDE: W 81°53' 9"

P:\PR30489\CADD\MED-71-0729\DETAIL DESIGN\0729L\MED71SP.DGN

BURGESS & NIPLE

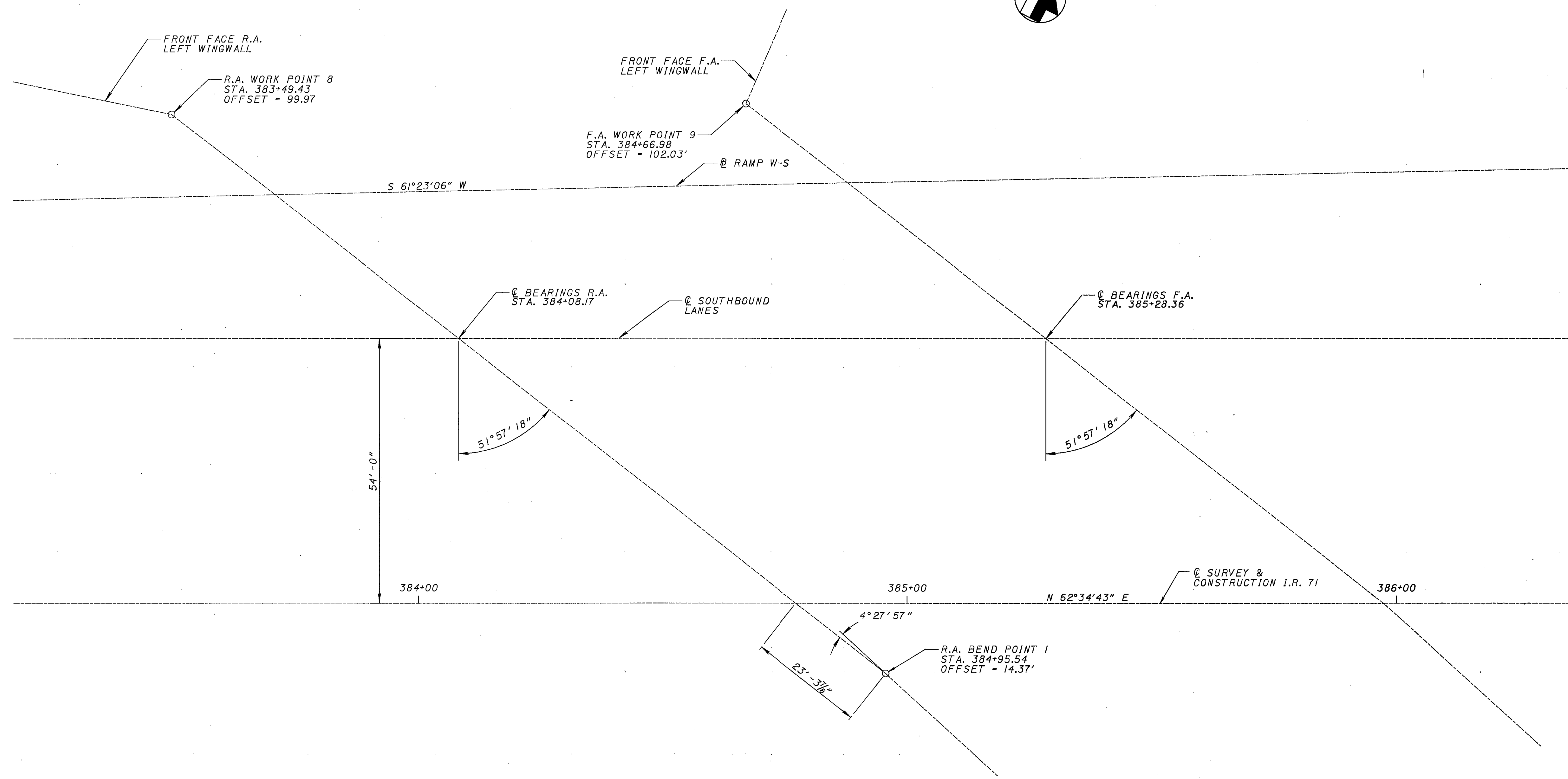
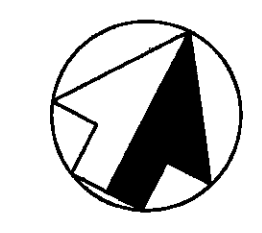
5905 Reed Road
Columbus, Ohio 43220

DATE	04/04	STRUCTURE FILE NUMBER	5202809
REVIEWED	TAB	DESIGNED	WTL
WTL	TTK	MEDINA COUNTY	STA. 384+06.55
BRIDGE NO. MED-71-0729 L		STA. 385+29.98	
SITE PLAN			
OVER EXISTING CH 97 (GREENWICH RD)			
MED-71-6.06		PID-75657	
1 / 43		684 / 1120	

DATE	11/10/04
REVIEWED	DWL
STRUCTURE FILE NUMBER	5202809
DRAWN	MPH
CHECKED	JAA
DESIGNED	MPH
REVISION	

LAYOUT PLAN
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID 75657



LAYOUT PLAN

NOTES:
 1. SEE SHEET 6 / 50 OF BRIDGE NO. MED-71-0729R FOR BEND AND WORK POINTS 2 THRU 7.

LEGEND:
 F.A. - FORWARD BUTMENT
 R.A. - REAR ABUTMENT

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 REVISED 7-19-02 GSD-1-96 REVISED 7-19-02
PCB-91 REVISED 7-19-02 SBR-1-99 REVISED 7-19-02
SICD-1-96 REVISED 7-19-02

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWING:

DM-4-1 DATED 7-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
894 DATED 4-15-05

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25, CASE I AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 PSF.

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL:

ASTM A709 GRADE 50W-YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE USE OF EXPLOSIVES, HEADACHE BALLS OR HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

SUPERSTRUCTURE CONCRETE REMOVAL: FULL DEPTH SAWCUT THROUGH THE DECK IS REQUIRED, BETWEEN THE PHASES.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

SURVEY DISC ON STRUCTURE

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR THE COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS: PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805 (PHONE 800-276-4188).

ITEM 503 UNCLASSIFIED EXCAVATION, AS PER PLAN: THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES AT THE ABUTMENTS, CONSTRUCT THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP AT A 1:1 SLOPE FROM THE TOP OF THE HEEL OF THE FOOTING TO THE SUBGRADE ELEVATION AND FOR A MINIMUM DISTANCE OF 250 FEET BEHIND THE ABUTMENTS. DO NOT BEGIN THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED. AFTER THE FOOTING AND THE BREASTWALL HAVE BEEN CONSTRUCTED, CONSTRUCT THE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENTS UP TO THE BEAM SEAT ELEVATION AND ON A 1:1 SLOPE UP TO THE SUBGRADE ELEVATION PRIOR TO SETTING THE BEAMS ON THE ABUTMENTS.

PILES TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING HARD BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 140 TONS PER PILE FOR THE REAR ABUTMENT PILES AND 108 TONS FOR THE FORWARD ABUTMENT PILES.

REAR ABUTMENT PILES:
156 HPI2x53 PILES 50 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:
115 HPI0x42 PILES 50 FEET LONG, ORDER LENGTH

PHASE CONSTRUCTION AND MAINTENANCE OF TRAFFIC: THE PROPOSED WORK (INCLUDING THE APPROACH SLABS) SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

PHASE 1

FOR PURPOSES OF BRIDGE CONSTRUCTION, WORK PERFORMED DURING ROADWAY NOT STAGE 2 - PHASE 1 SHALL BE CALLED PHASE 1.

1. PLACE PORTABLE CONCRETE BARRIERS ON THE INSIDE OF SOUTHBOUND LANES AND DIVERT TRAFFIC TO OUTER LANES.
2. REMOVE PHASE 1 OF EXISTING STRUCTURES TO ALLOW PHASE 1 CONSTRUCTION.
3. PERFORM PHASE 1 CONSTRUCTION.

PHASE 2

FOR PURPOSES OF BRIDGE CONSTRUCTION, WORK PERFORMED DURING ROADWAY NOT STAGE 2 - PHASE 2 SHALL BE CALLED PHASES 2 & 3.

4. PLACE PORTABLE CONCRETE BARRIERS ON PHASE 1 CONSTRUCTION AND MOVE SOUTHBOUND TRAFFIC TO NEW STRUCTURE.
5. REMOVE PHASE 2 OF EXISTING STRUCTURES TO ALLOW PHASE 2 CONSTRUCTION.
6. COMPLETE REMAINING WORK ITEMS, INCLUDING PHASE 2 AND 3 CONSTRUCTION.
7. REMOVE PORTABLE CONCRETE BARRIERS AND OPEN STRUCTURE TO TRAFFIC.

ITEM 511 CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN
ITEM 511 CLASS C CONCRETE, FOOTING, AS PER PLAN

COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

DRIP GROOVES

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1-1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/8" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D751	0.094 +/- 0.01
BREAKING STRENGTH, GRAB, LBS, MINIMUM (LONG. X TRANS.)	D751	700 X 700
ADHESIVE STRIP, 1" WIDE X 2" LONG, LBS MINIMUM	D751	9
BURST STRENGTH, PSI MINIMUM	D751	1400
HEAT AGING, 70 HR, 212 DEGREES F, 180 DEGREES BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLENESS, 1 HR, 40 DEGREES F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE THE MINIMUM LAP LENGTH FOR THAT BAR AS SHOWN ON THE PLANS.

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

ITEM 512 - SEALING OF CONCRETE SURFACES

THE COLOR OF THE URETHANE TOP COAT SHALL BE FEDERAL STANDARD COLOR NO. 17778

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT

COLOR SHALL BE LIGHT NEUTRAL MEETING FEDERAL STANDARD COLOR NO. 17778

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BURGESS & NIPLE
5095 Reed Road
Columbus, Ohio 43220

DATE 11/09/04
REVIEWED JAA
DRAWN ASK
DESIGNED ASK
STRUCTURE FILE NUMBER 5202809
CHECKED DWL

GENERAL NOTES 1
BRIDGE NO. MED-71-0729 L
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID 75657

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:

THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENT RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/4" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 8 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A CAULKING MATERIAL CONFORMING TO ASTM C920, TYPE S.

BASIS OF PAYMENT:

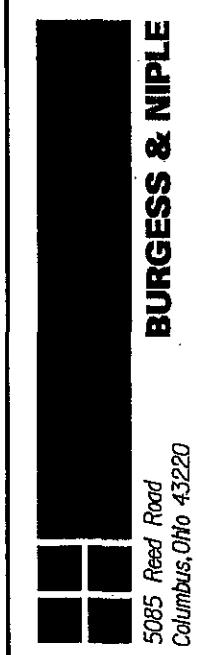
PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB
894E10001	CUBIC YARD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

UTILITY LINES

UTILITY LINES: THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

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DATE	11/09/04
REVIEWED	JAA
STRUCTURE FILE NUMBER	5202809
DRAWN	ASK
CHECKED	DWL

GENERAL NOTES 2
BRIDGE NO. MED-71-0729 L
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID 75657

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ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	SUPER	ABUT	GEN'L	AS PER PLAN REFERENCE SHEET
		IM	NHS							
202	11C73	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP	4/43
503	11101	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN			LUMP	5/43
503	21301	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN			LUMP	4/43
504	11100	308	77	385	SQ. FT.	STEEL SHEET PILING LEFT IN PLACE (MINIMUM SECTION MODULUS OF 30.2 CUBIC INCHES PER FOOT OF WALL)		385		
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION			LUMP	
507	00100	4600	1150	5750	FT.	STEEL PILES HPI0x42, FURNISHED*		5750		
507	00150	4140	1035	5175	FT.	STEEL PILES HPI0x42, DRIVEN		5175		
507	00200	6240	1560	7800	FT.	STEEL PILES HPI2x53, FURNISHED*		7800		
507	00250	5616	1404	7020	FT.	STEEL PILES HPI2x53, DRIVEN		7020		
509	10001	176518	44129	220647	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN*	96671	123976		4/43
511	44101	800	200	1000	CU. YD.	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN		1000		4/43
511	46501	525	131	656	CU. YD.	CLASS C CONCRETE, FOOTING, AS PER PLAN		656		4/43
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB			LUMP	
512	10100	986	246	1232	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	271	961		
512	33000	66	17	83	SQ. YD.	TYPE 2 WATERPROOFING		83		
513	10280	261684	65421	327105	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 4 *	327105			
513	20000	3494	874	4368	EACH	WELDED STUD SHEAR CONNECTORS	4368			
514	00300	LUMP	LUMP	LUMP		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				
514	00400	LUMP	LUMP	LUMP		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT				
514	10000	10	2	12	EACH	FINAL INSPECTION REPAIR	12			
516	13600	255	64	319	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER		319		
516	13900	206	52	258	SQ. FT.	2" PREFORMED EXPANSION JOINT FILLER		258		
516	14021	211	53	264	FT.	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN		264		4/43
516	44201	16	4	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (18" x 12" x 3.631" WITH 19" x 13" x 2" MAX. LOAD PLATE)	20			33/43
518	21200	472	118	590	CU. YD.	POROUS BACKFILL WITH FILTER FABRIC		590		
518	40000	343	86	429	FT.	6" PERFORATED CORRUGATED PLASTIC PIPE		429		
518	40010	114	28	142	FT.	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		142		
526	30001	423	106	529	SQ. YD.	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN			529	43/43
601	20000	1363	341	1704	SQ. YD.	CRUSHED AGGREGATE SLOPE PROTECTION			1704	
894	10001	330	82	412	CU. YD.	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	412			5/43

* - SEE PROPOSAL NOTE

** - ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS

SEE ROADWAY QUANTITIES FOR APPROACH SLAB REMOVAL PAY ITEM.

BURGESS & NIPLE
5095 Road Road
Columbus, Ohio 43220

DATE 11/12/04
REVIEWED DWL
STRUCTURE FILE NUMBER 5202809
DRAWN ASK/DCF
CHECKED DCF/ASK

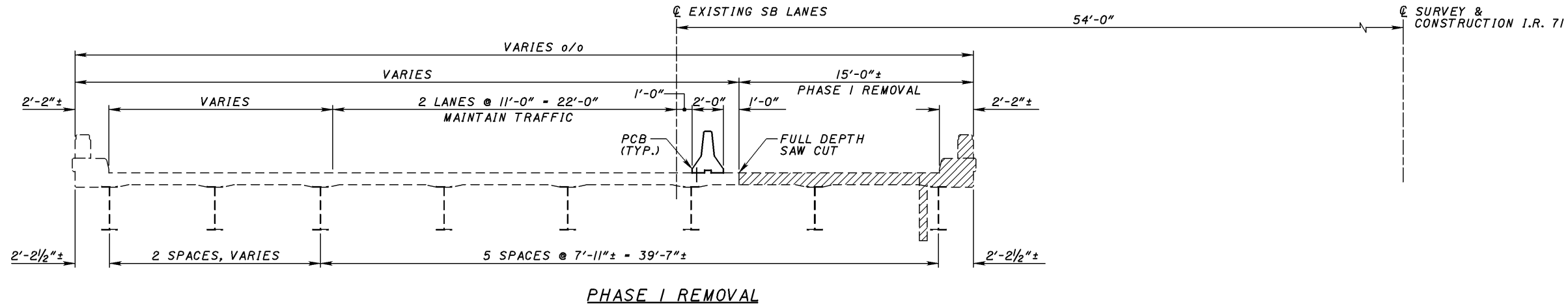
ESTIMATED QUANTITIES
BRIDGE NO. MED-71-0729 L
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID 75657

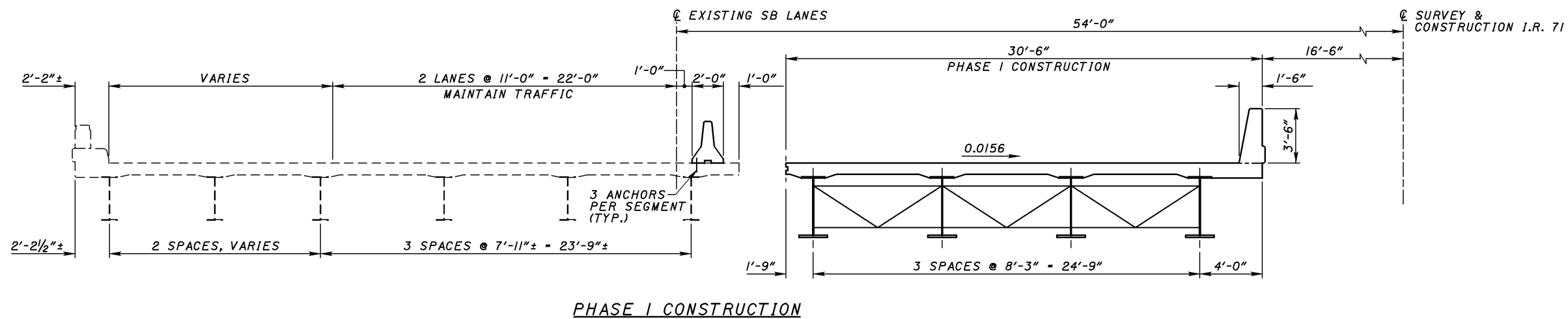
6 / 43

689
1120

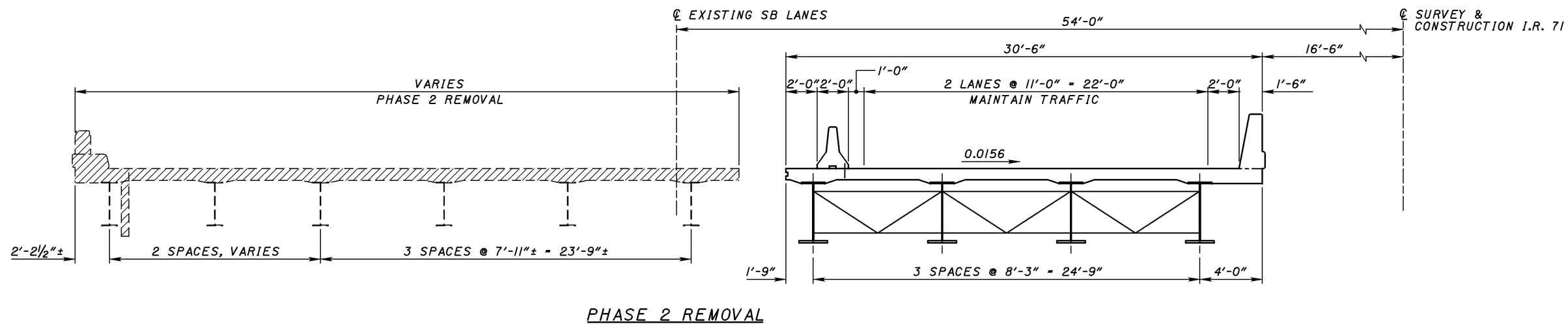
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PHASE I REMOVAL




PHASE I CONSTRUCTION



PHASE 2 REMOVAL

LEGEND:

-  - REMOVALS
- PCB - PORTABLE CONCRETE BARRIER
- C.J. - CONSTRUCTION JOINT

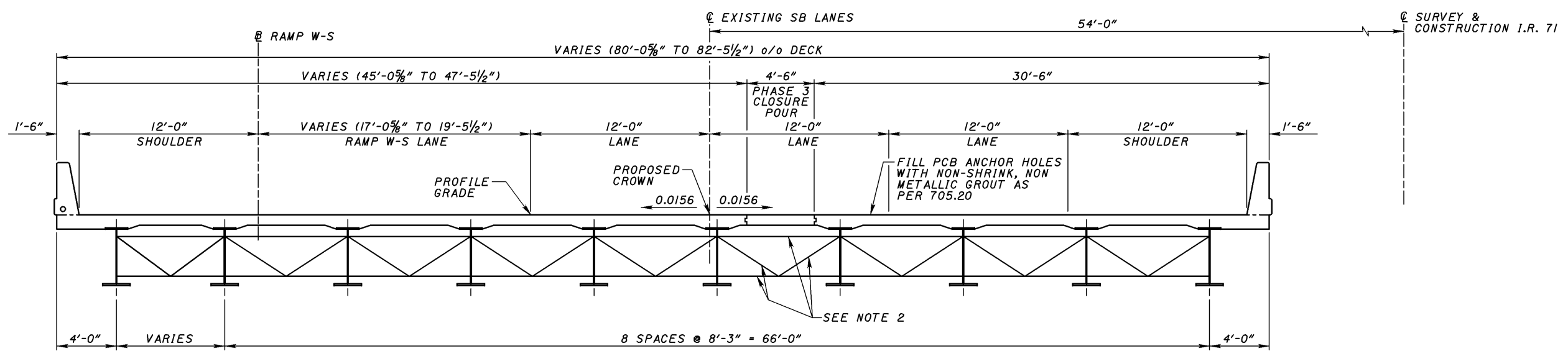
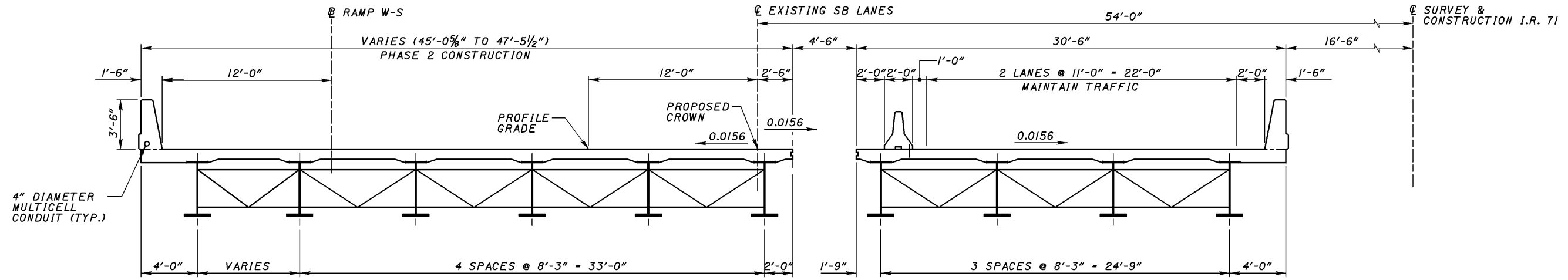
 5085 Reed Road Columbus, Ohio 43220	
DATE	04/04
REVIEWED	TAB
STRUCTURE FILE NUMBER	5202809
DRAWN	CRC
REVISOR	8/8/06
DESIGNED	TTK
CHECKED	WTL
PHASE CONSTRUCTION DETAILS I BRIDGE NO. MED-71-0729 L OVER EXISTING CH. 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
7 / 43	
690 1120	

DESIGNED	TTK	CHECKED	WTL
DRAWN	CRC	REVISED	8/8/06
REVIEWED	TAB	STRUCTURE FILE NUMBER	5202809
DATE	04/04		

PHASE CONSTRUCTION DETAILS 2
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH. 97 (GREENWICH RD)

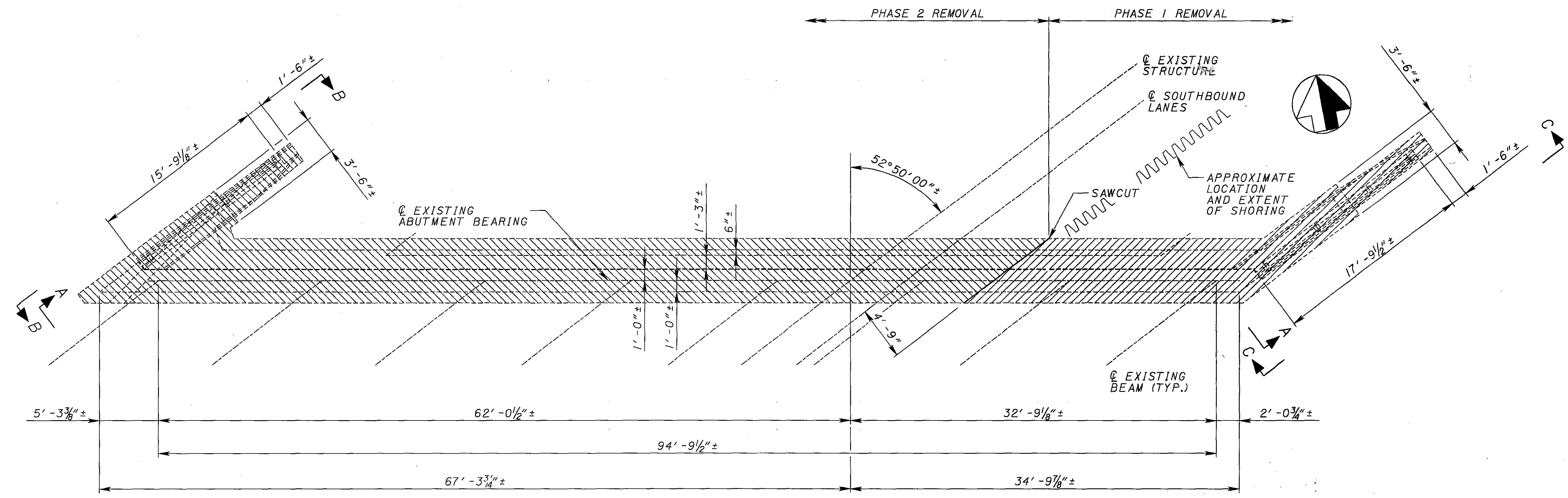
MED-71-6.06
 PID 75657

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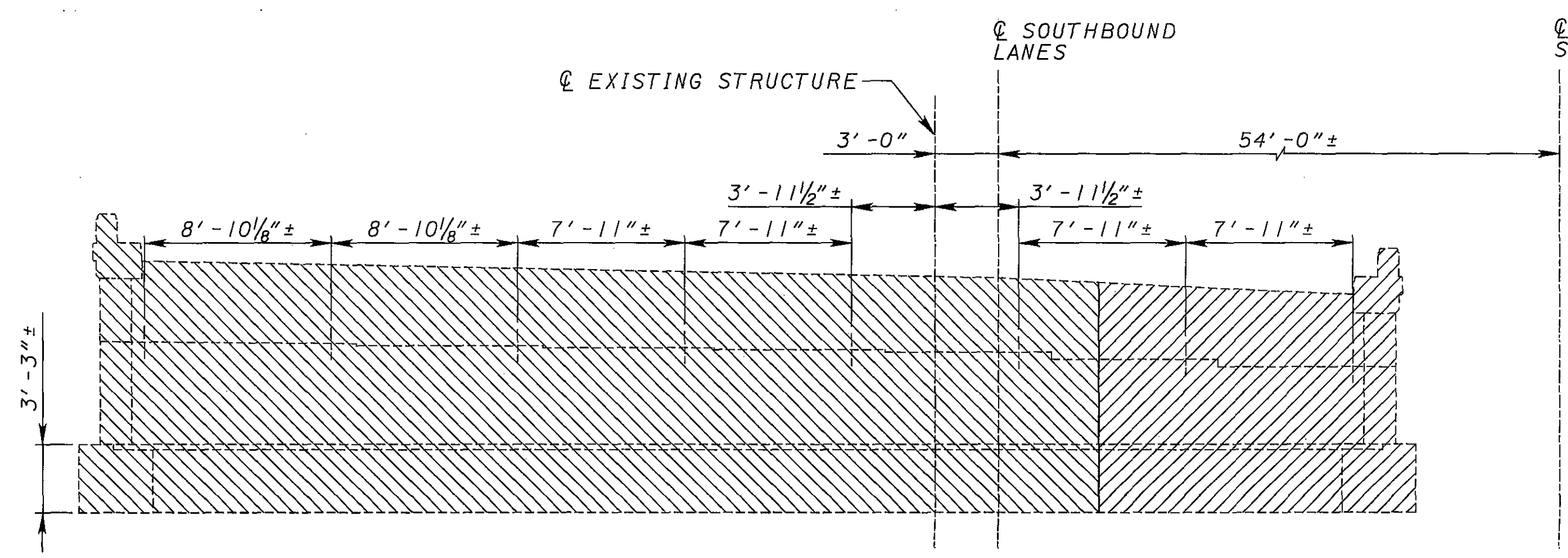


PHASE CONSTRUCTION NOTES:

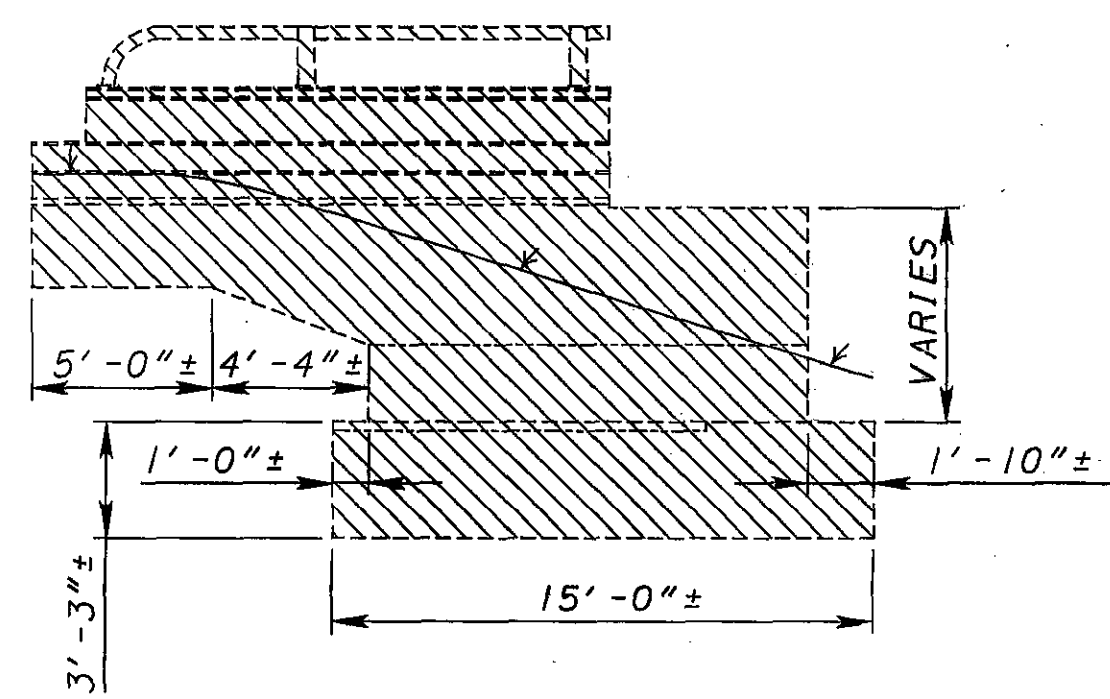
1. ANCHOR TEMPORARY BARRIERS TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS.
2. INSTALL THIS PANEL OF CROSSFRAMES PRIOR TO THE PLACEMENT OF THE PHASE 3 CLOSURE POUR.



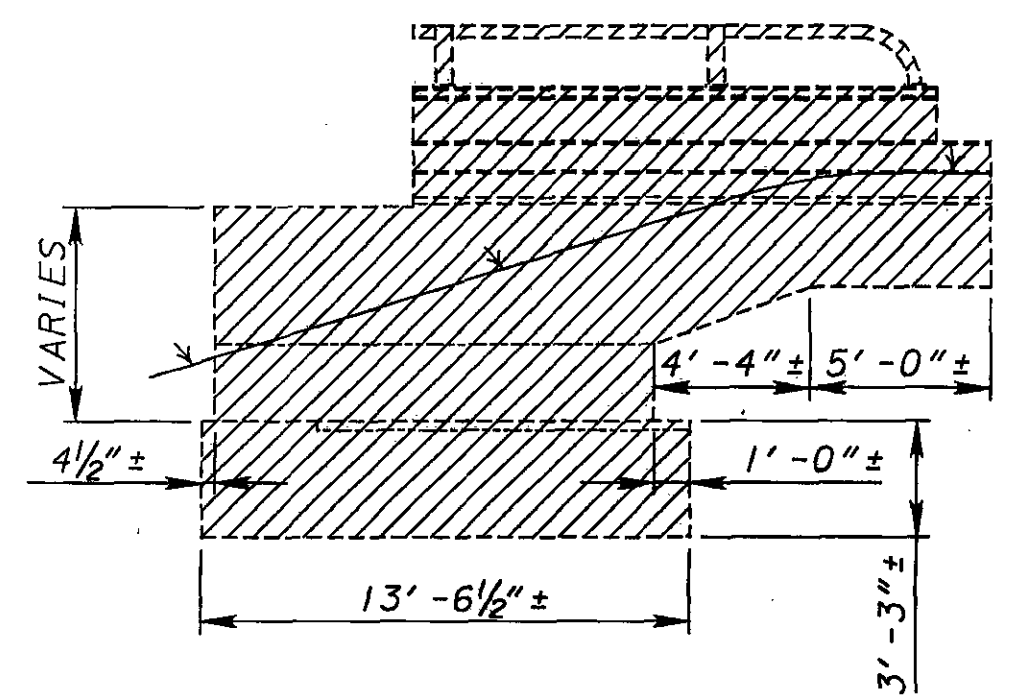
FORWARD ABUTMENT PLAN



VIEW A-A
 (LOOKING PARALLEL TO BEAMS)



VIEW B-B



VIEW C-C

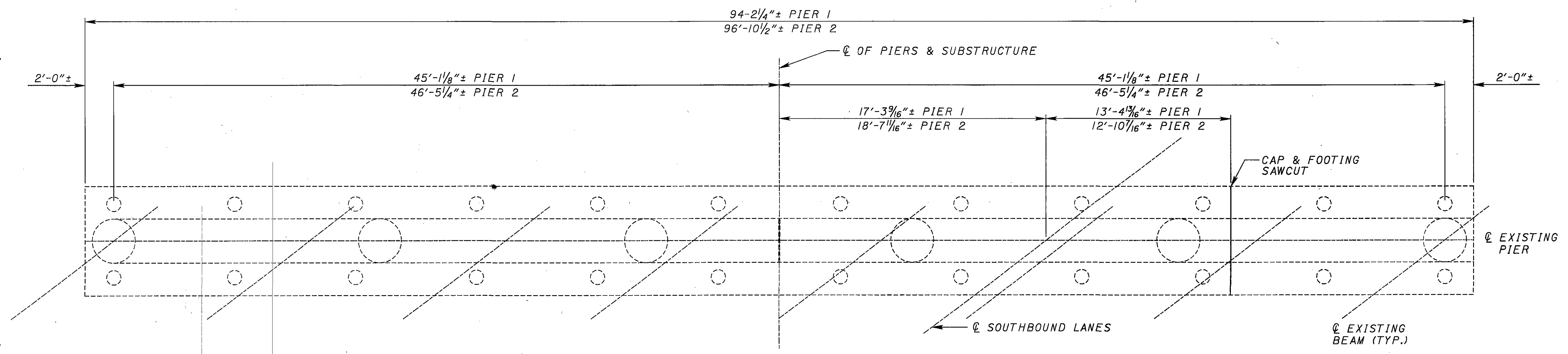
- LEGEND:**
- PHASE 1 REMOVALS
 - PHASE 2 REMOVALS

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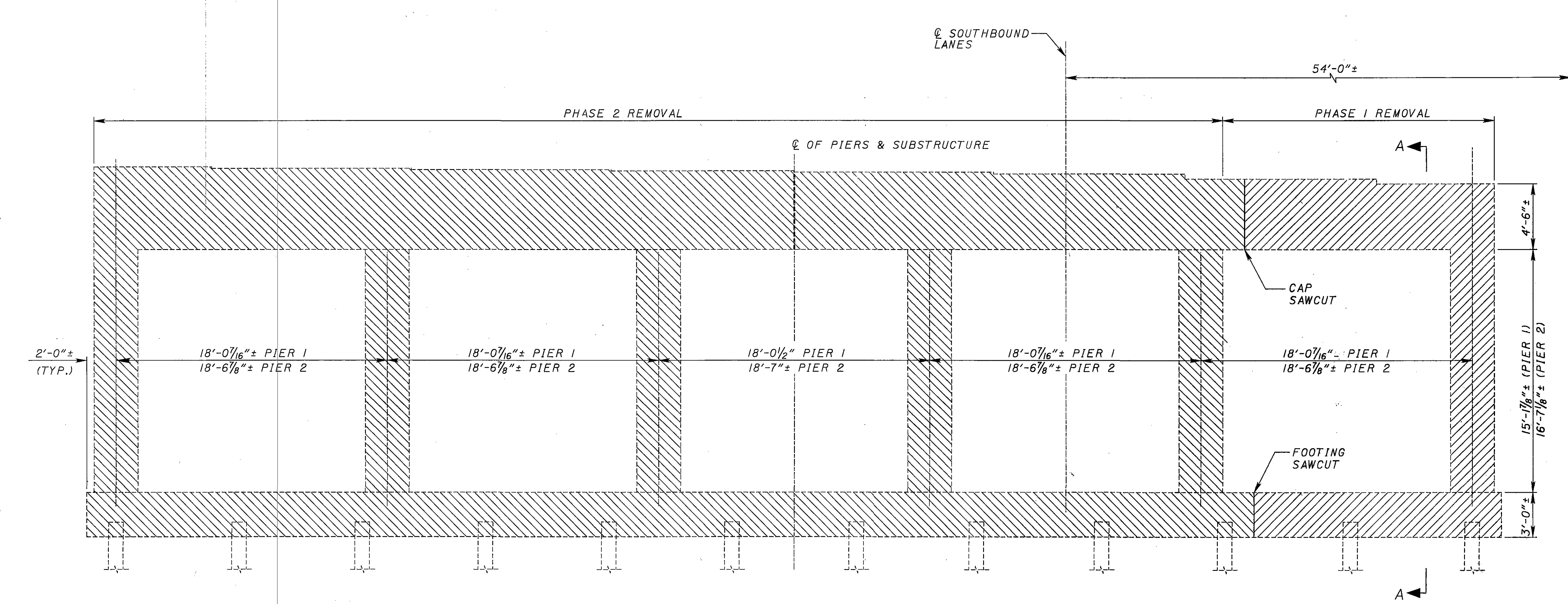
DATE	11/06/04
REVIEWED	DWL
STRUCTURE FILE NUMBER	5202809
DESIGNED	ASK
CHECKED	JAA
DRAWN	ASK
REVISED	

PIER REMOVAL DETAILS
BRIDGE NO. MED-71-0729 L
OVER EXISTING CH 97 (GREENWICH RD)

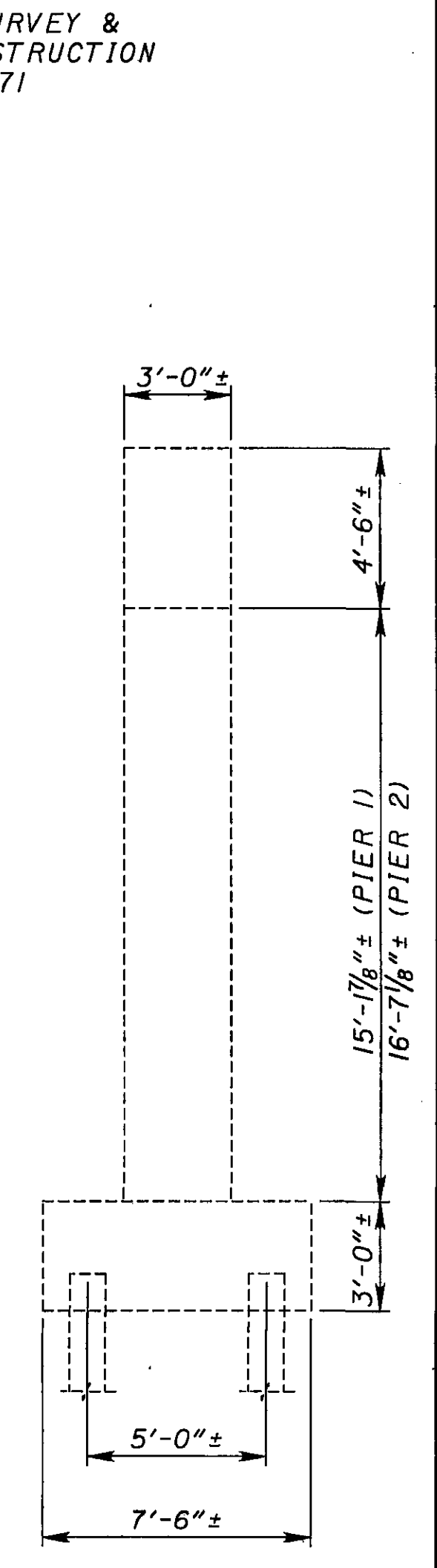
MED-71-6.06
PID 75657



PLAN - PIERS 1 & 2



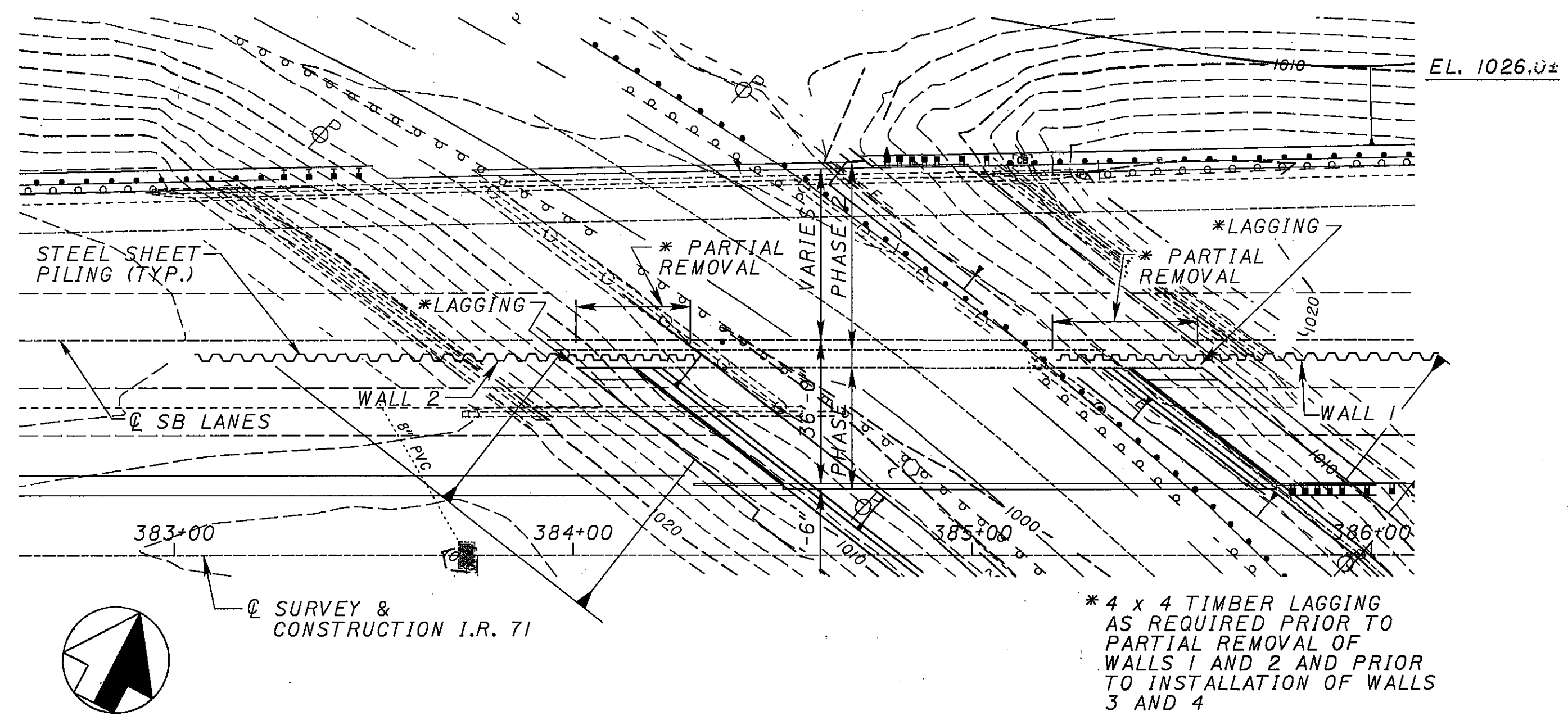
ELEVATION - PIERS 1 & 2



SECTION A-A

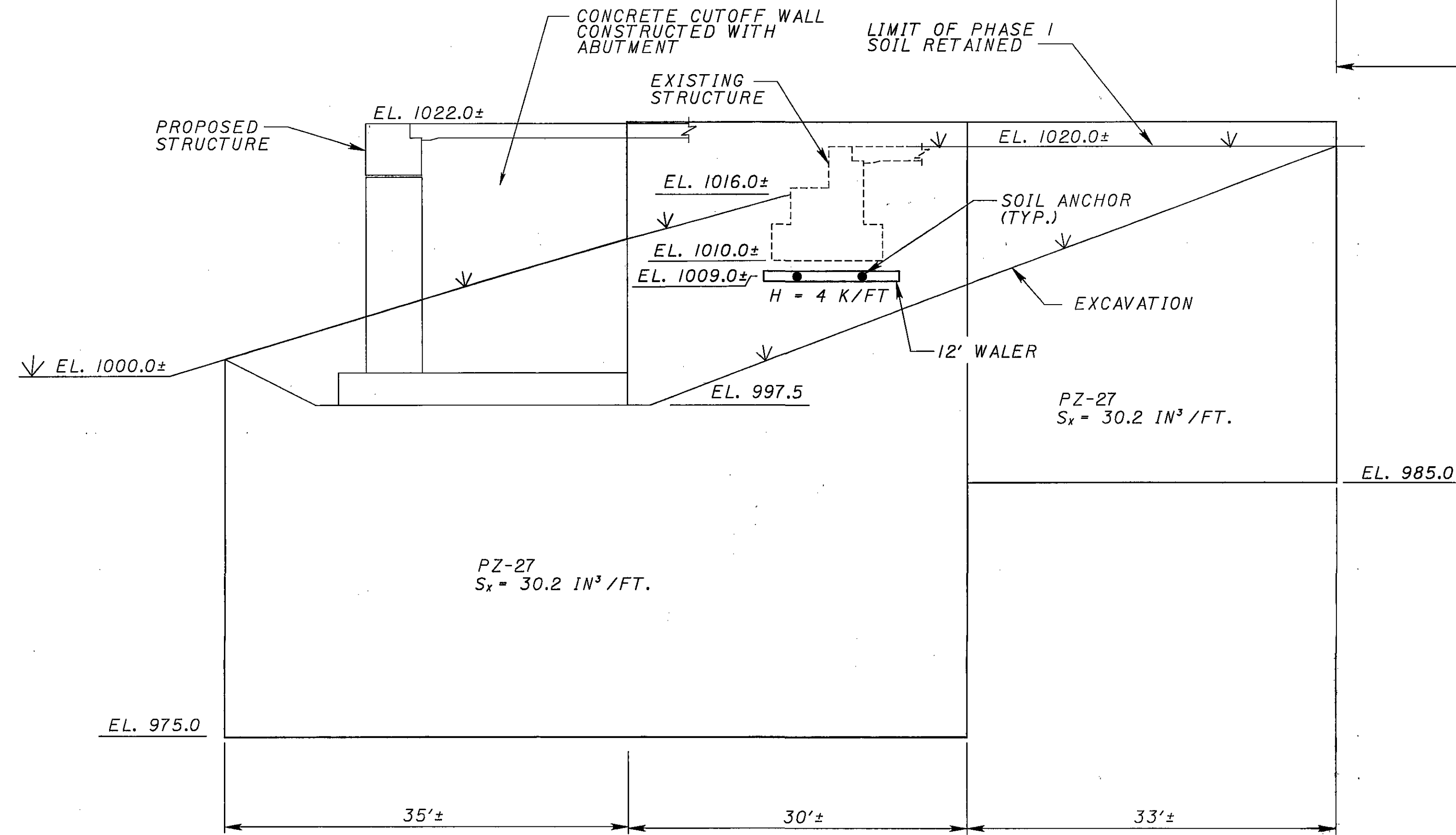
- LEGEND:**
- PHASE 1 REMOVALS
 - PHASE 2 REMOVALS

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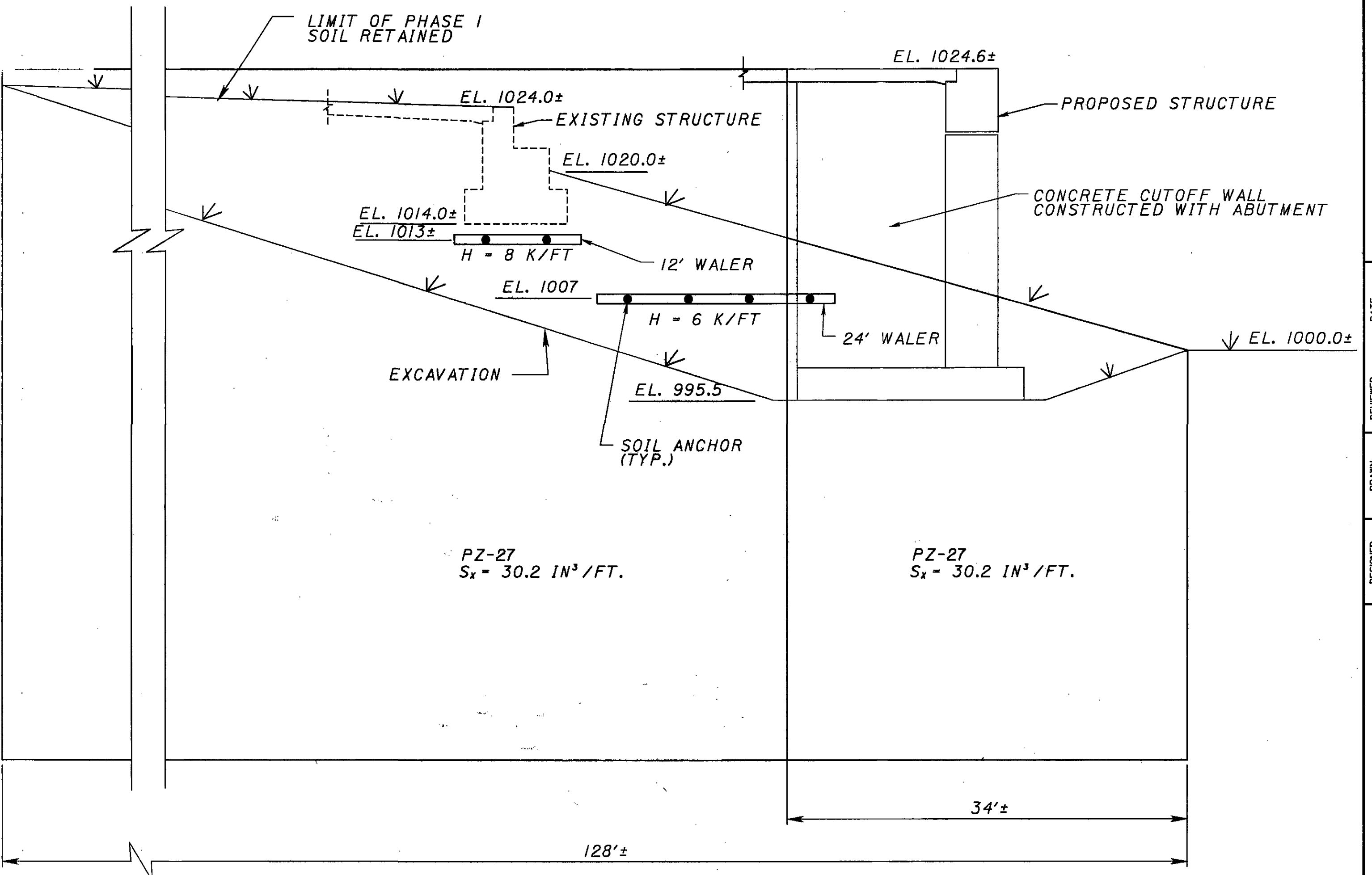


SHORING PLAN
PHASE I

* 4 x 4 TIMBER LAGGING AS REQUIRED PRIOR TO PARTIAL REMOVAL OF WALLS 1 AND 2 AND PRIOR TO INSTALLATION OF WALLS 3 AND 4



ELEVATION - WALL 1
(LOOKING NORTH)



ELEVATION - WALL 2
(LOOKING NORTH)

SHORING SEQUENCE:

REAR AND FORWARD ABUTMENTS -
PHASE I -

1. REMOVE APPROACH SLABS AND PAVEMENT TO ALLOW INSTALLATION OF WALLS 1 & 2.
2. DRIVE SHEETING FOR THE PORTIONS OF WALLS 1 & 2 ADJACENT TO PAVEMENT AND APPROACH SLABS TO SUPPORT TRAFFIC LANES.
3. REMOVE ABUTMENTS.
4. DRIVE THE REMAINING PORTIONS OF SHEETING FOR WALLS 1 & 2.
5. EXCAVATE TO THE DEPTH OF WALERS FOR THE TIEBACKS.
6. INSTALL TIEBACK SYSTEMS (SEE WALL 1 & 2 DETAILS)
7. COMPLETE EXCAVATION FOR THE NEW ABUTMENTS.
8. CONSTRUCT THE NEW ABUTMENTS.
9. INSTALL THE TIMBER LAGGING BETWEEN THE NEW ABUTMENT CUT-OFF WALLS AND WALLS 1 & 2.
10. REMOVE PORTIONS OF WALLS 1 & 2.
11. CONSTRUCT EMBANKMENTS WITHIN THE NEW ABUTMENTS AND WALLS 1 & 2.
12. COMPLETE PHASE I CONSTRUCTION OF THE BRIDGE AND APPROACHES.
13. ROUTE THE TRAFFIC ONTO THE NEW BRIDGE AND APPROACHES.

PHASE 2 -

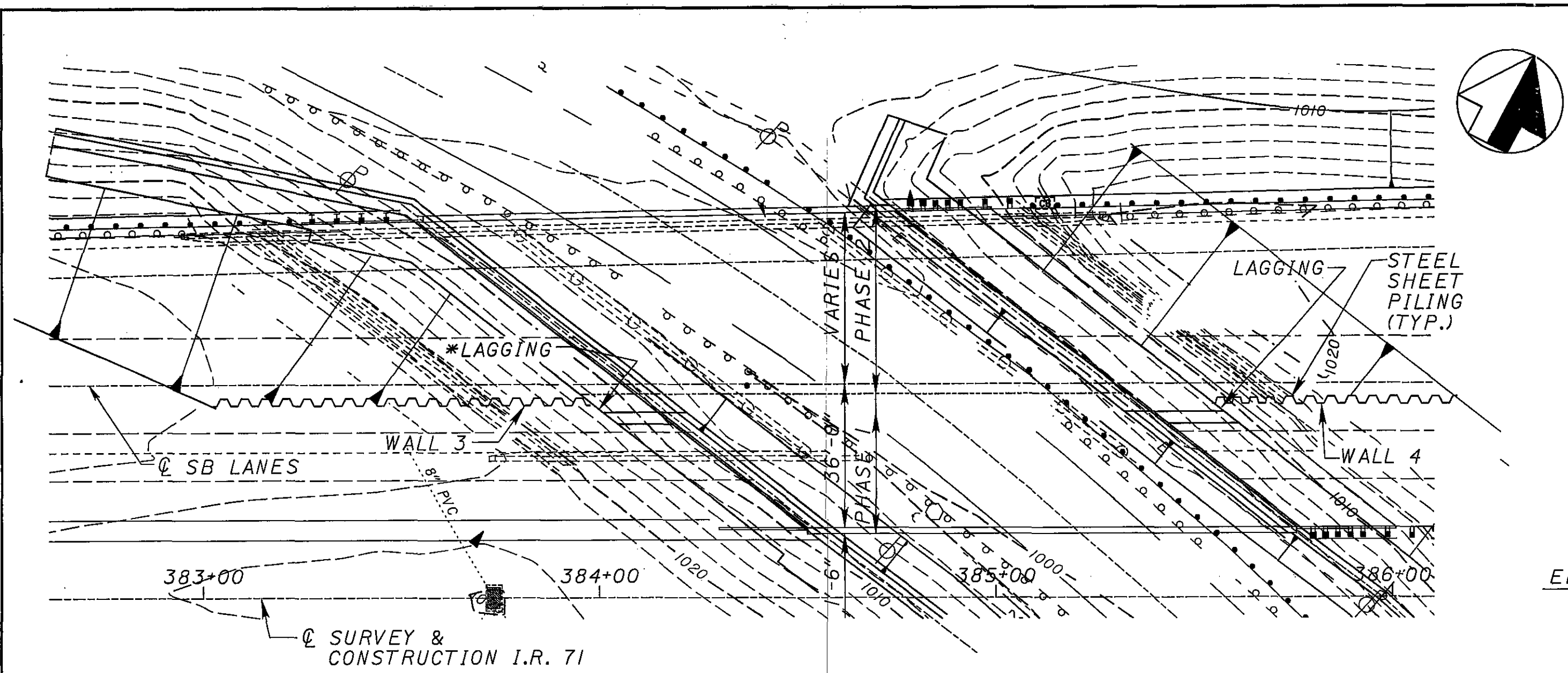
1. REMOVE REMAINING PORTIONS OF APPROACHES AND ABUTMENTS.
2. EXCAVATE TO THE DEPTH OF THE TIEBACKS.
3. INSTALL THE SECOND TIEBACK SYSTEMS (SEE WALL 3 & 4 DETAILS).
4. REMOVE PHASE I TIEBACKS AND COMPLETE EXCAVATION FOR THE NEW ABUTMENTS.
5. COMPLETE PHASE 2 AND 3 CONSTRUCTION OF THE BRIDGE AND APPROACHES.
6. OPEN THE BRIDGE TO FULL TRAFFIC.

LEGEND:

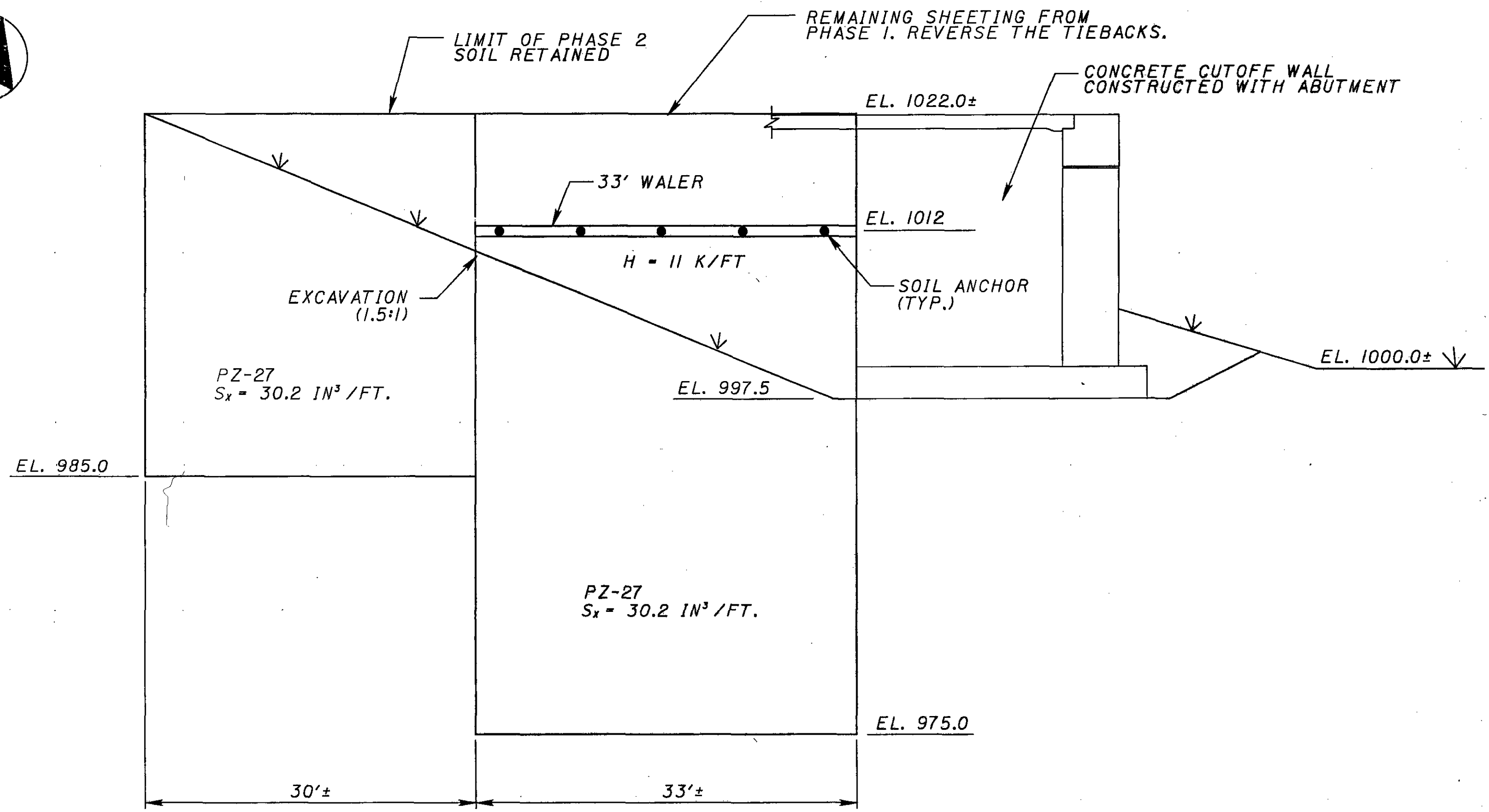
H = HORIZONTAL COMPONENT OF REQUIRED ANCHOR FORCE PER FOOT OF WIDTH.

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DATE	11/04
REVIEWED	WTL
DRAWN	WTL
DESIGNED	CBC
STRUCTURE FILE NUMBER	5202809
CHECKED	VEA
PHASE I SHORING DETAILS BRIDGE NO. MED-71-0729 L OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
12 / 43	
695 1120	

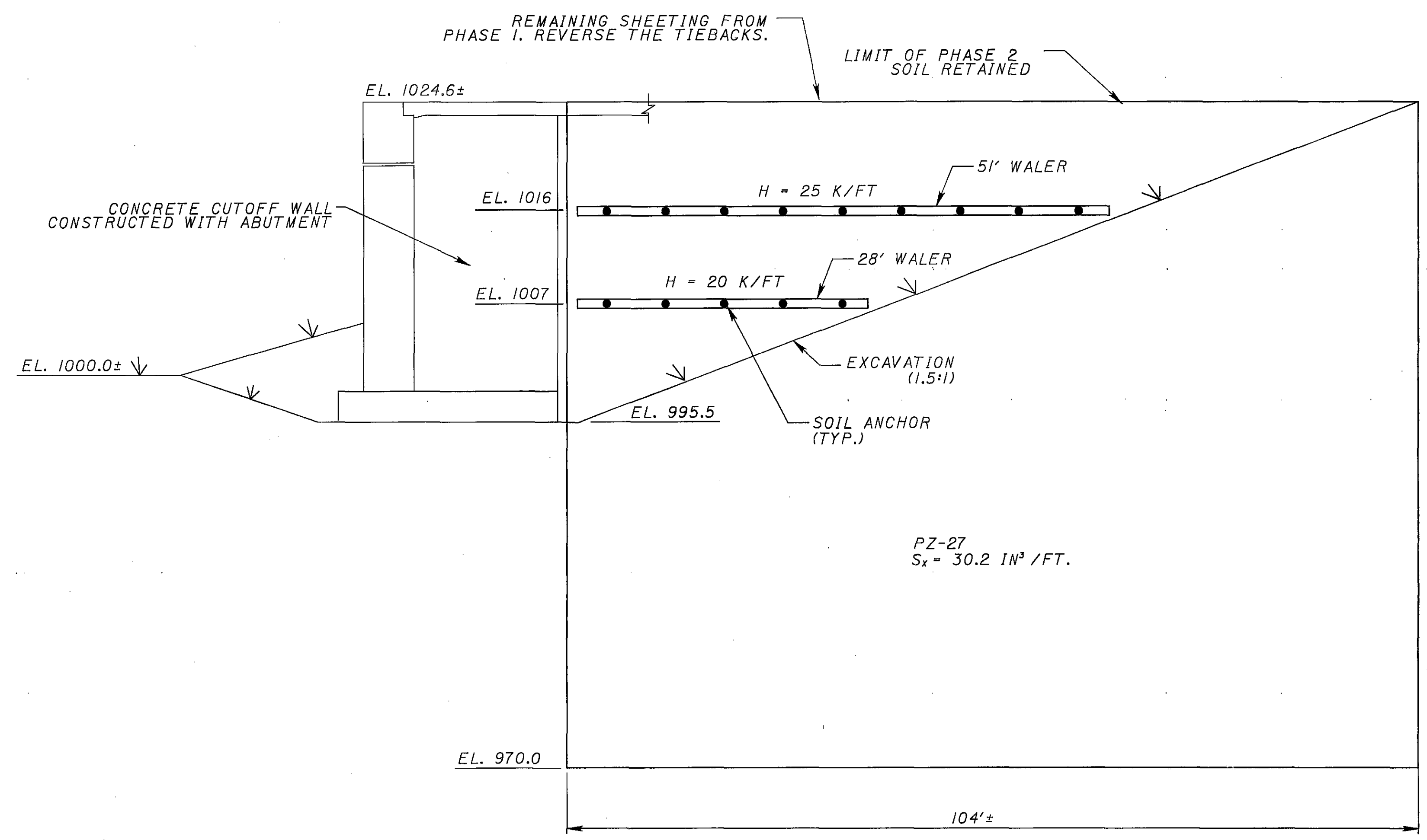


**SHORING PLAN
PHASE 3**



**ELEVATION - WALL 4
(LOOKING SOUTH)**

(NOTE: WALL 4 IS THE REMAINING PORTION OF WALL 1 AFTER REMOVAL OF A PORTION OF THE WALL)



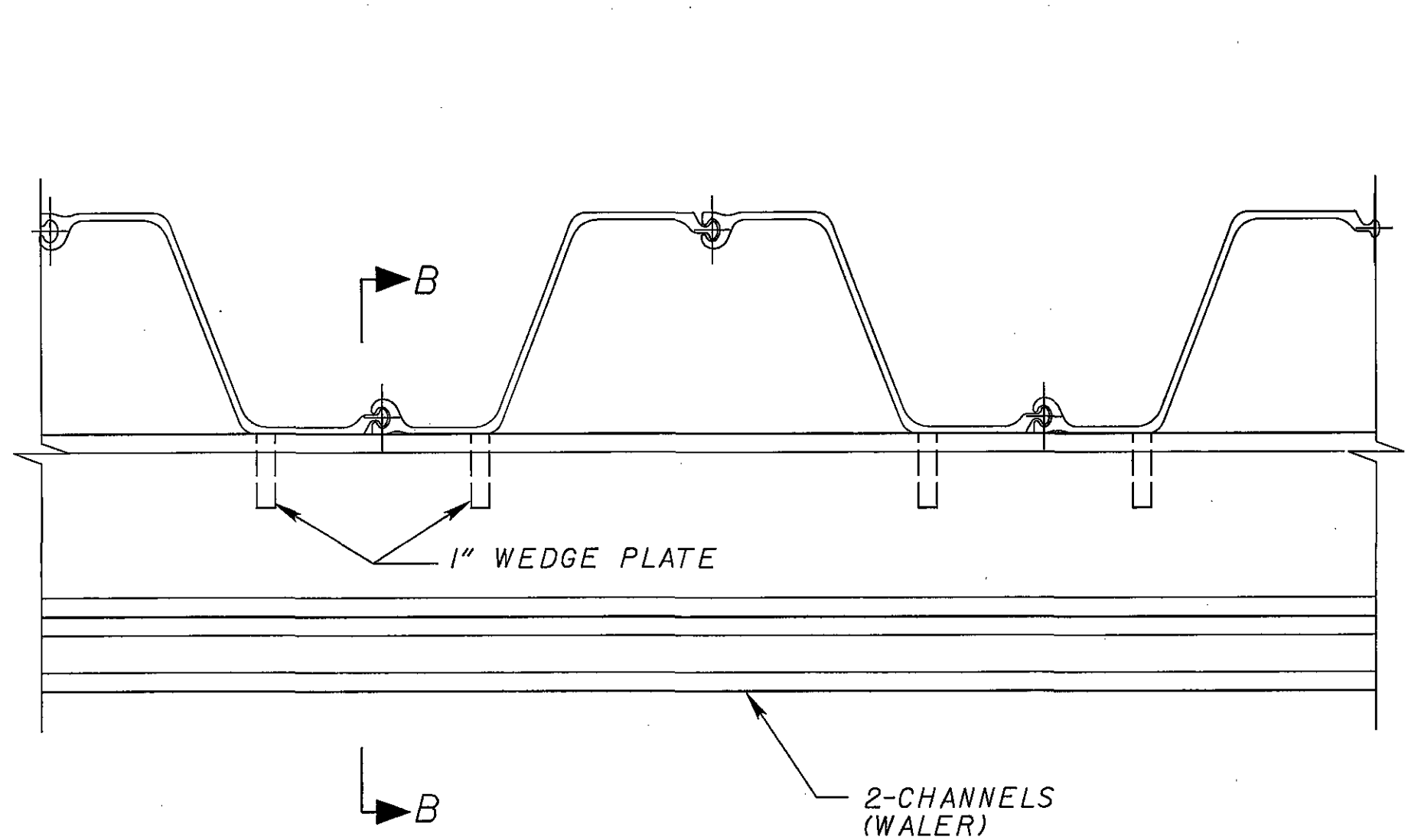
**ELEVATION - WALL 3
(LOOKING SOUTH)**

(NOTE: WALL 3 IS THE REMAINING PORTION OF WALL 2 AFTER REMOVAL OF A PORTION OF THE WALL)

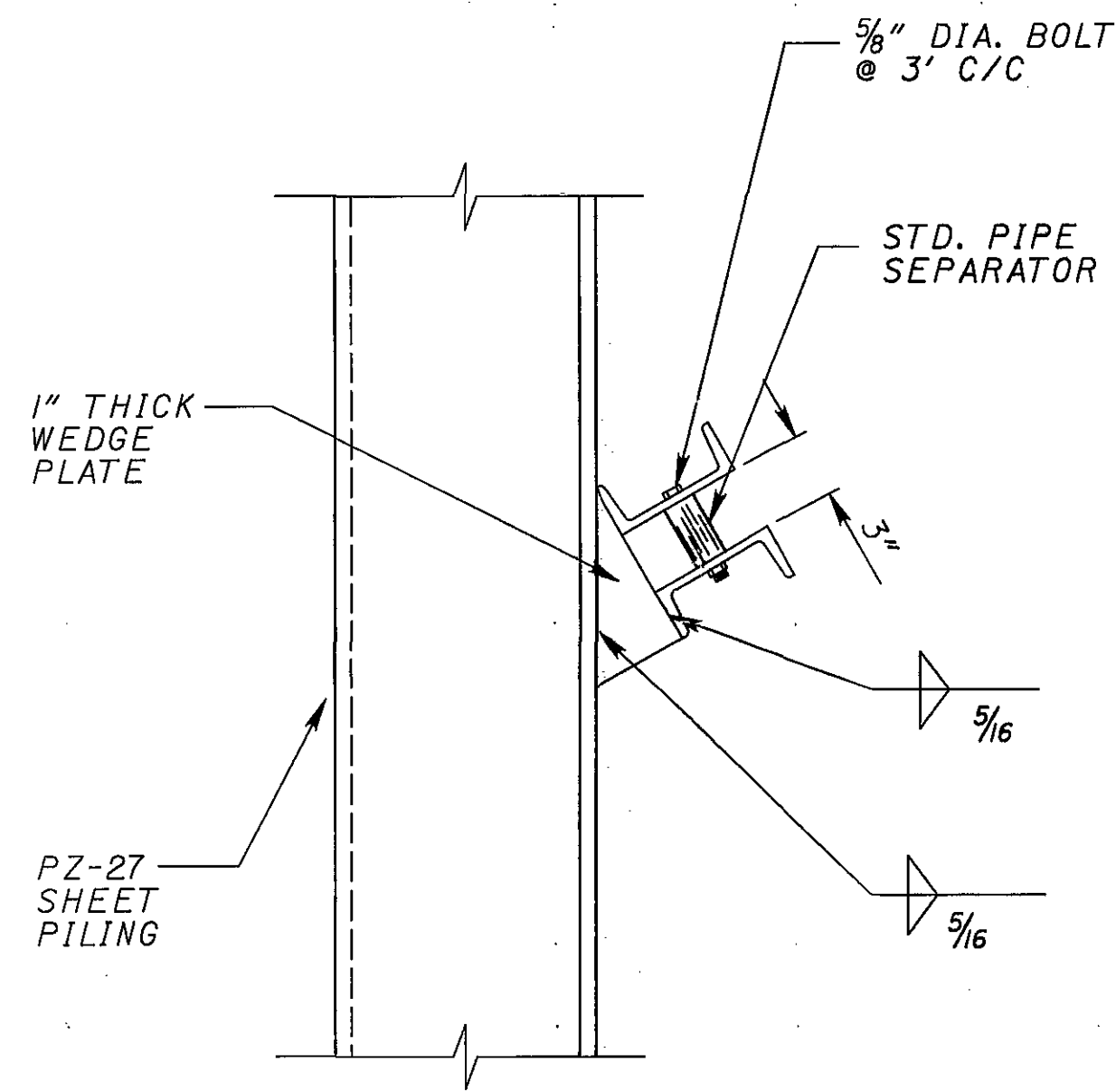
LEGEND:
H = HORIZONTAL COMPONENT OF REQUIRED ANCHOR FORCE PER FOOT OF WIDTH.

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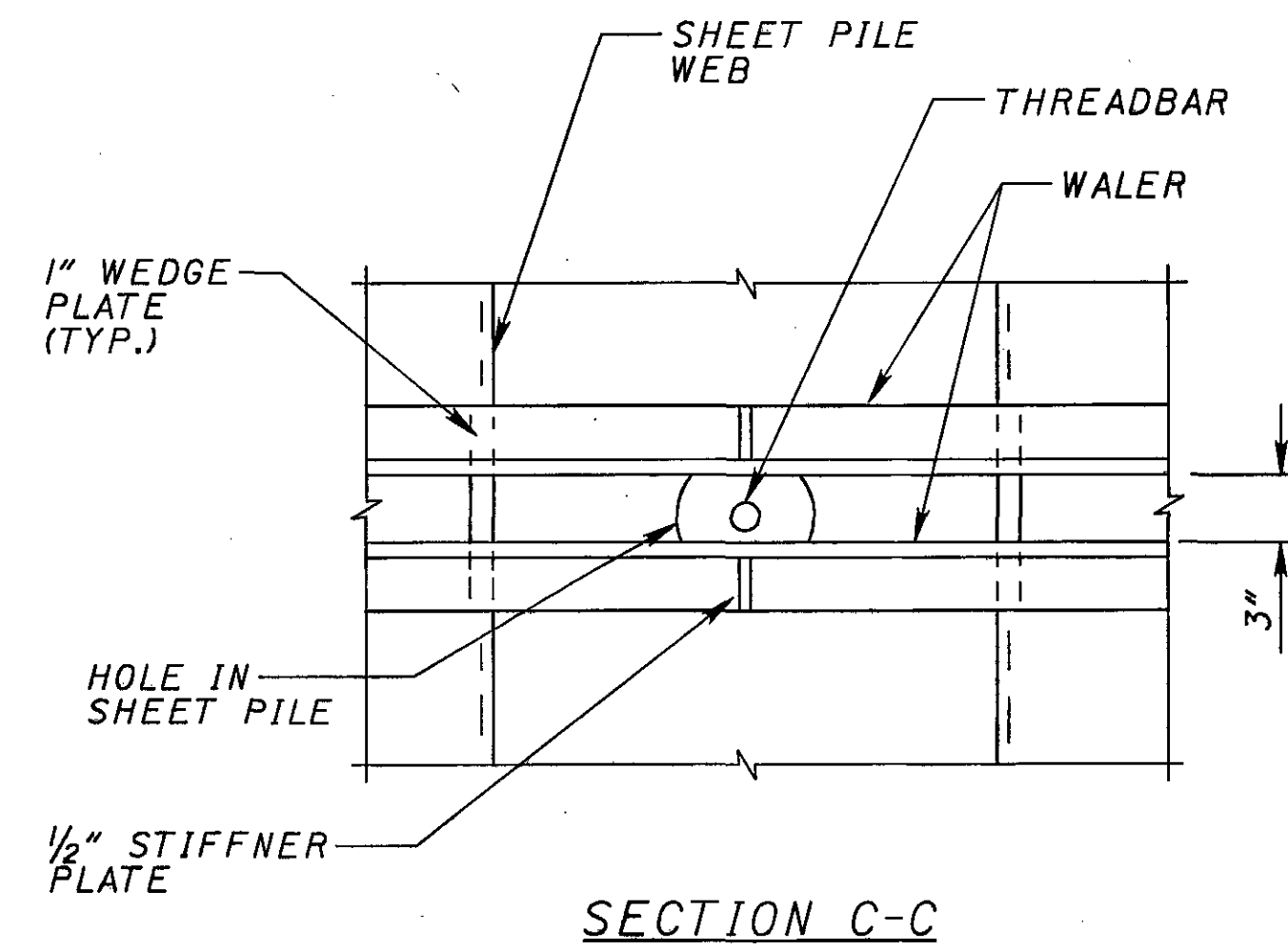
BURGESS & NIPLE	
DATE	11/04
REVIEWED	WTL
DRAWN	WTL
DESIGNED	CBC
CHECKED	VEA
STRUCTURE FILE NUMBER	5202209
PHASE 2 SHORING DETAILS	
BRIDGE NO. MED-71-0729 L	
OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
13 / 43	
696 1120	



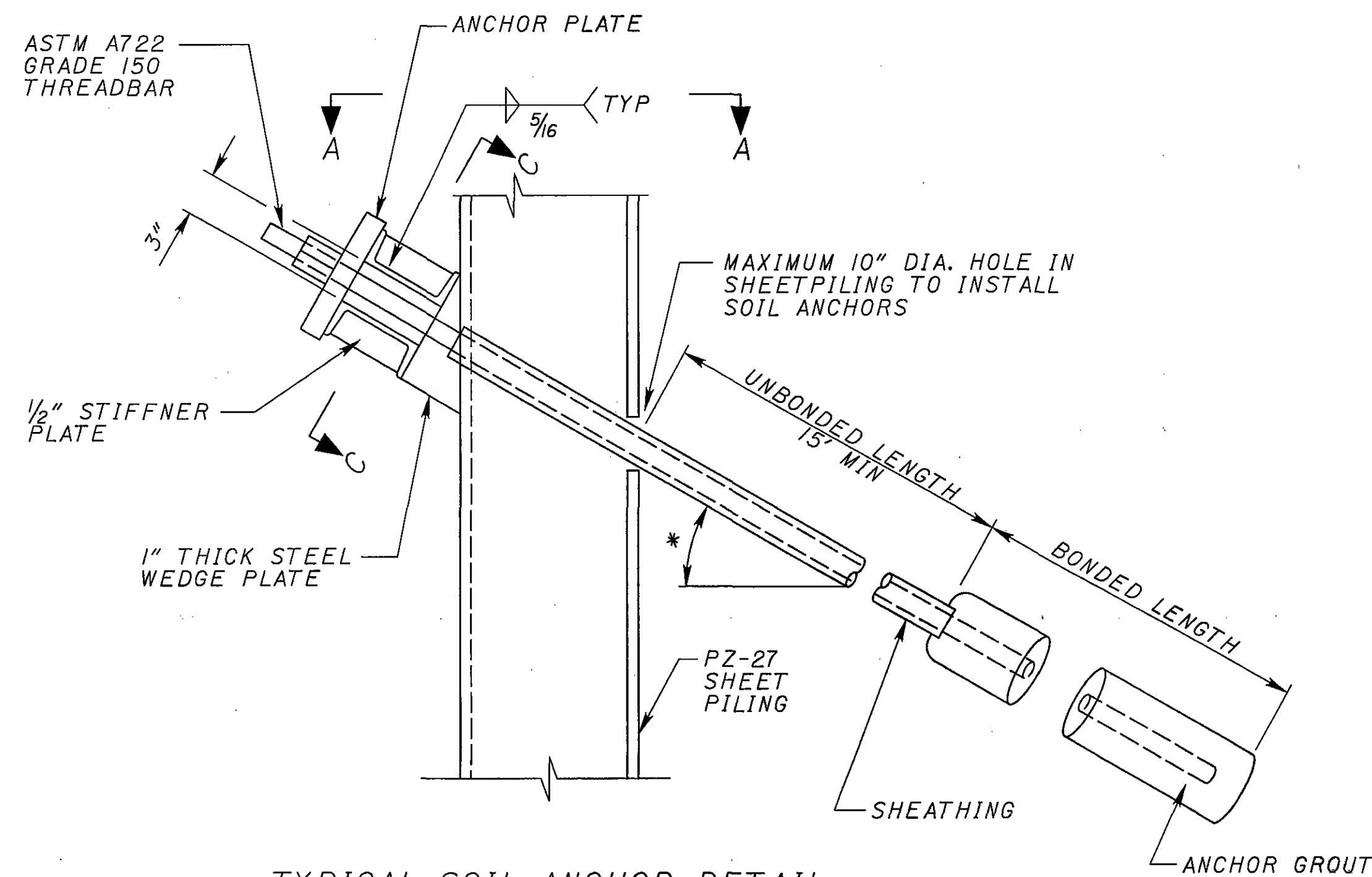
VIEW A-A
(NOTE: ANCHORS NOT SHOWN)



SECTION B-B



SECTION C-C



TYPICAL SOIL ANCHOR DETAIL
* ANGLE MAY VARY BETWEEN 10 AND 30 DEGREES

NOTES:

CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE SOIL ANCHORS, WALERS AND ANCHORAGE DETAILS NECESSARY TO ACCOMMODATE THE HORIZONTAL DESIGN LOAD (H) STATED FOR EACH WALER SHOWN ON THESE PLANS. THE VERTICAL ANGLE OF INCLINATION OF THE SOIL ANCHORS AS WELL AS THE HORIZONTAL BATTER CAN VARY BASED ON THE CONTRACTOR'S INSTALLATION PROCEDURES AND ANY OBSTRUCTIONS BUT MUST BE INCREASED AS NECESSARY TO PROVIDE A REQUIRED HORIZONTAL COMPONENT EQUAL TO THE DESIGN WALER LOAD (H). THE DESIGN OF THE SOIL ANCHORS, WALERS AND ANCHORAGE COMPONENTS SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OHIO. FOR APPROVAL, FIVE COPIES OF DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE DIRECTOR. THE SOIL ANCHOR SPACINGS AND INCLINATIONS SHALL BE DETERMINED BY THE CONTRACTOR SUCH THAT THE MAXIMUM SOIL ANCHOR DESIGN LOAD IS LIMITED TO 142 KIPS.

CONTRACTOR SHALL VERIFY THAT SOIL ANCHORS DO NOT CONFLICT WITH EXISTING UTILITIES AND EXISTING OR PROPOSED STRUCTURES.

SOIL ANCHOR BONDED LENGTH AND DIAMETER TO BE DETERMINED BY THE CONTRACTOR BASED ON PROPOSED METHODS OF INSTALLATION. ANCHOR BOND LENGTH SHALL SAFELY SUPPORT AN ANCHOR DESIGN LOAD WITH A FACTOR OF SAFETY AGAINST PULLOUT OF 2.5. THE MINIMUM BOND LENGTH SHALL BE 20 FEET.

VOID BETWEEN DRILL HOLE AND SHEATHING OF UNBONDED LENGTH SHALL BE FILLED WITH GROUT.

SUBSEQUENT TO INSTALLATION OF SOIL ANCHORS AND ANCHOR TESTING, A 1/2-INCH THICK STEEL PLATE WITH A SMALL HOLE FOR THE TENDON SHALL BE WELDED TO THE SHEET PILING TO PLUG THE HOLE IN THE SHEET PILING REQUIRED TO DRILL THE HOLES FOR THE SOIL ANCHORS. THE STEEL PLATE SHALL BE ESSENTIALLY SQUARE WITH MINIMUM DIMENSIONS 1 INCH GREATER THAN THE DIAMETER OF THE HOLE TO BE PLUGGED EXCEPT FOR NOTCHES CUT TO CLEAR THE PILING INTERLOCKS. THE PLATES SHALL BE INSTALLED AS SOON AS THE EXCAVATION REACHES A POINT WHERE THE WELDING CAN BE PERFORMED. A 1/16-INCH FILLET WELD SHALL BE USED ALONG THE ENTIRE PERIMETER OF THE PLATE.

PZ-27 SHEET PILING SHOWN. EQUIVALENT SHEET PILING WITH MINIMUM SECTION MODULUS OF 30.2 cu. in./lin. ft. OF WALL CAN BE USED.

SOIL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS, 996 EDITION BY THE POST-TENSIONING INSTITUTE" (PTI).

THE FIRST SOIL ANCHOR INSTALLED FOR EACH WALL SHALL BE PERFORMANCE TESTED AND THE REMAINING SOIL ANCHORS SHALL BE PROOF TESTED. THE TEST PROCEDURES USED SHALL BE AS SET FORTH BY PTI RECOMMENDATIONS.

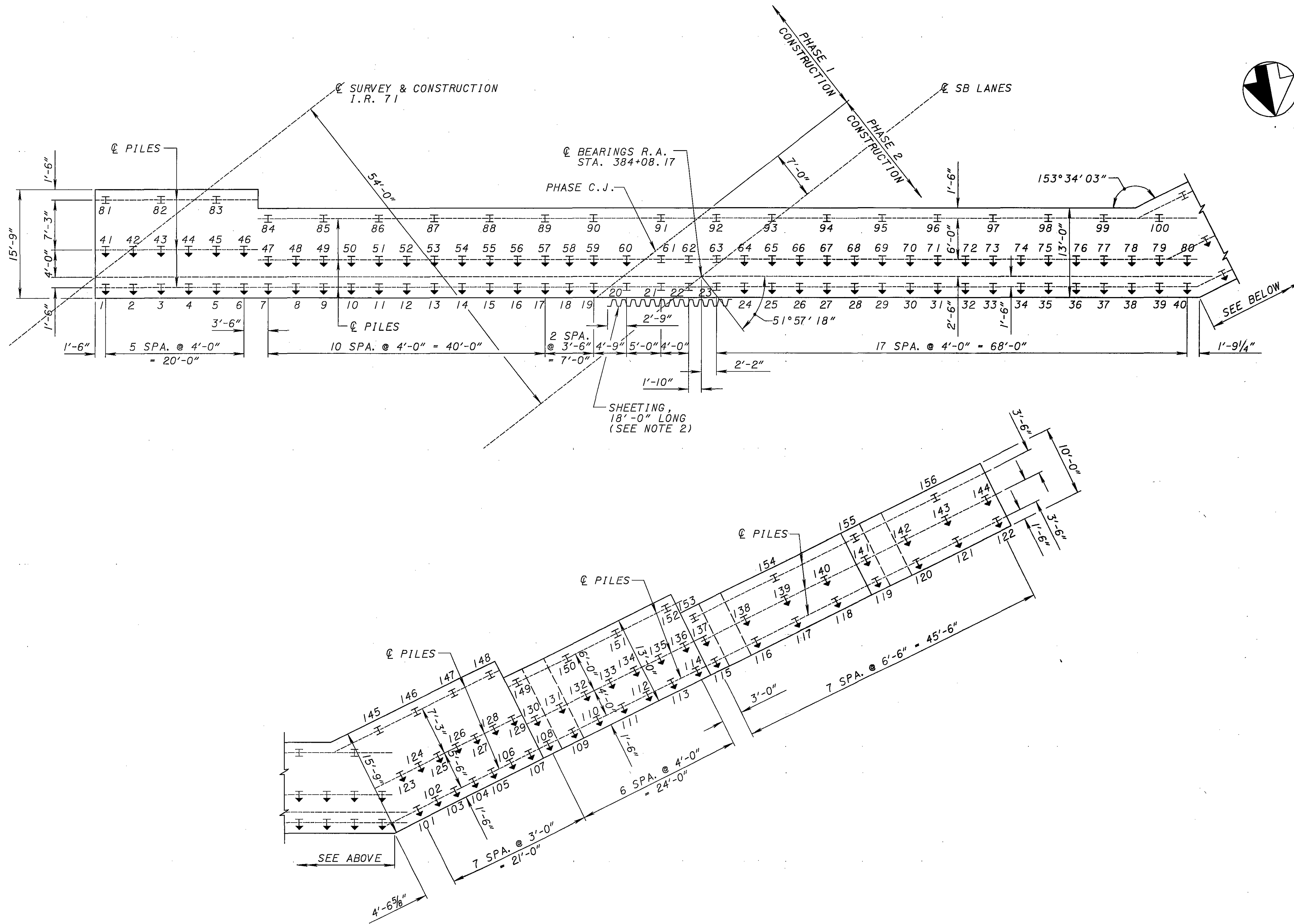
AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE TEMPORARY SHORING CONFIGURATION MAY BE USED. PLANS FOR THE ALTERNATE SHORING SHALL BE DESIGNED BY A REGISTERED (IN OHIO) PROFESSIONAL ENGINEER. FOR APPROVAL, FIVE COPIES OF THE DRAWINGS SHALL BE SUBMITTED TO THE DIRECTOR. CONSTRUCTION SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. IF AN ALTERNATE TYPE OF SHORING IS PROPOSED, THE SHORING SHALL BE SIMILAR IN CONCEPT TO THE SHORING DETAILED IN THE CONTRACT PLANS.

PAYMENT FOR THIS ITEM WILL BE MADE AT THE CONTRACT LUMP SUM PRICE FOR ITEM "COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN"

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DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5202809
DRAWN	WTL
DESIGNED	CBC
CHECKED	VCA
SHORING DETAILS	
BRIDGE NO. MED-71-0729 L	
OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
14 / 43	
697 1120	

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REAR ABUTMENT FOUNDATION PLAN

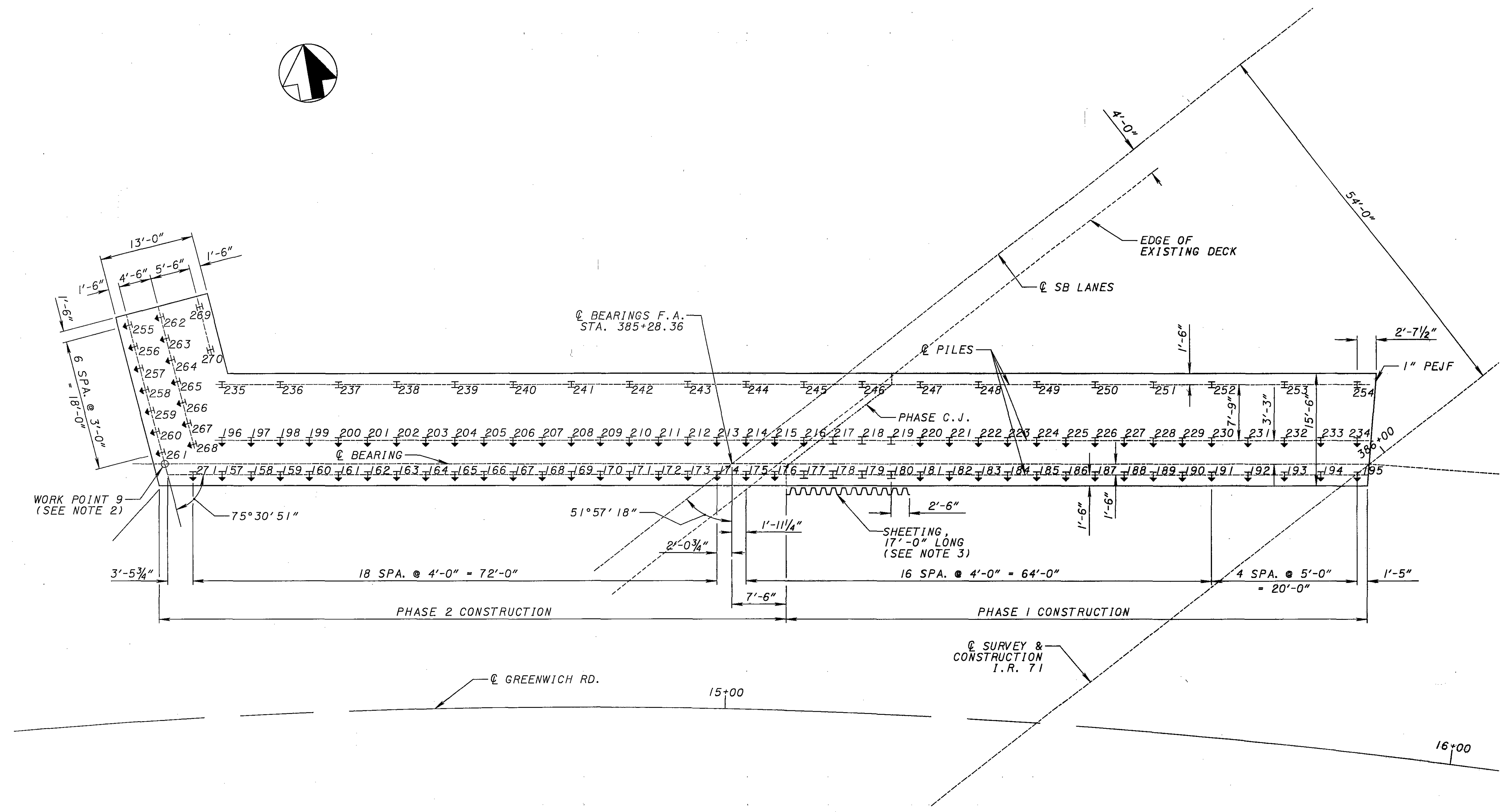
LEGEND:

- I - HP12x53 PILE
- ⊥ - HP12x53 PILE BATTERED AT 3:1
- R.A. - REAR ABUTMENT
- C.J. - CONSTRUCTION JOINT
- XX - PILE NUMBER

NOTES:

1. SEE SHEETS 17 / 43 & 18 / 43 FOR ADDITIONAL REAR ABUTMENT FOOTING DIMENSIONS.
2. SEE SHEET 25 / 43 FOR SHEETING DETAILS.

BURGESS & NIPLÉ Civil Engineers 5202809	
DATE 11/04	REVIEWED RMK
DESIGNED BES	DRAWN AAA
CHECKED JMK	REVISÉ
REAR ABUTMENT FOUNDATION PLAN BRIDGE NO. MED-71-0729 L OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
15 / 43	
698 1120	



FORWARD ABUTMENT FOUNDATION PLAN

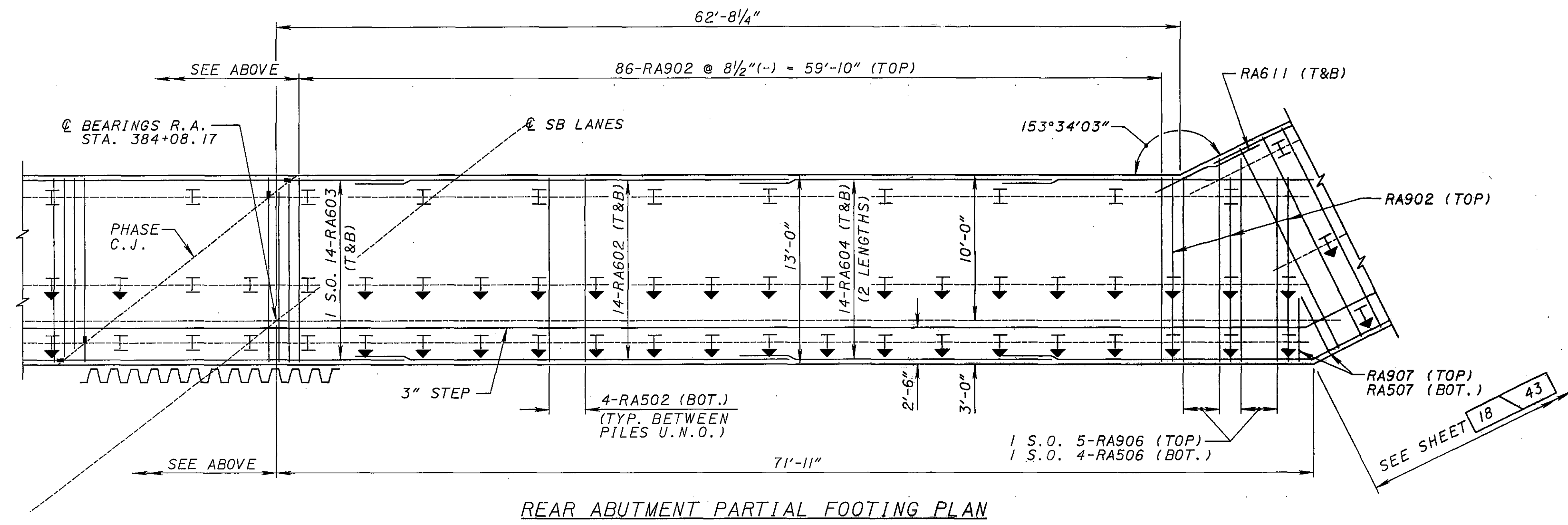
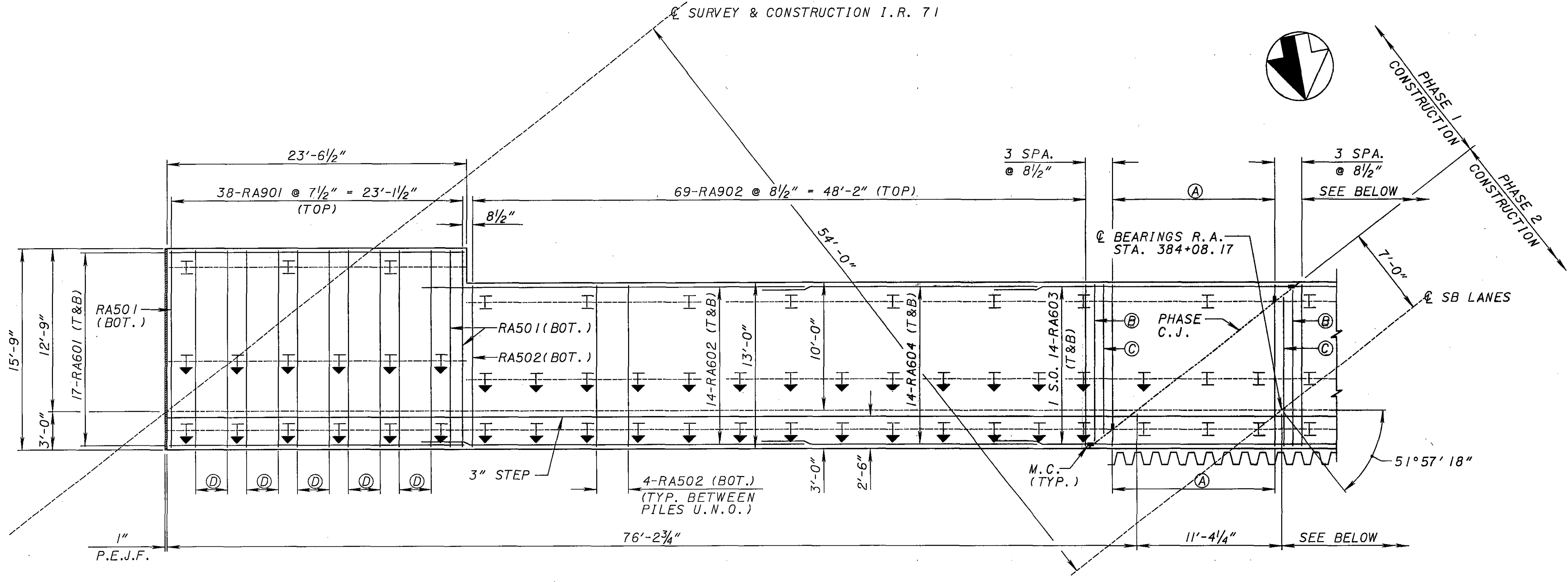
NOTES:

- SEE SHEET 26 / 43 FOR ADDITIONAL FORWARD ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 3 / 43 FOR WORK POINT DETAILS.
- SEE SHEET 28 / 43 FOR SHEETING DETAILS.

LEGEND:

- I - HP 10x42 PILE
- ↓ - HP 10x42 PILE BATTERED AT 3:1
- F.A. - FORWARD ABUTMENT
- XX - PILE NUMBER

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LEGEND:

Ⓐ - 1 S.O. 19-RA905 @ 8 1/2" = 12'-9" (TOP)
 1 S.O. 19-RA505 @ 8 1/2" = 12'-9" (BOT.)

Ⓑ - RA903 (TOP), RA503 (BOT.)

Ⓒ - RA904 (TOP), RA504 (BOT.)

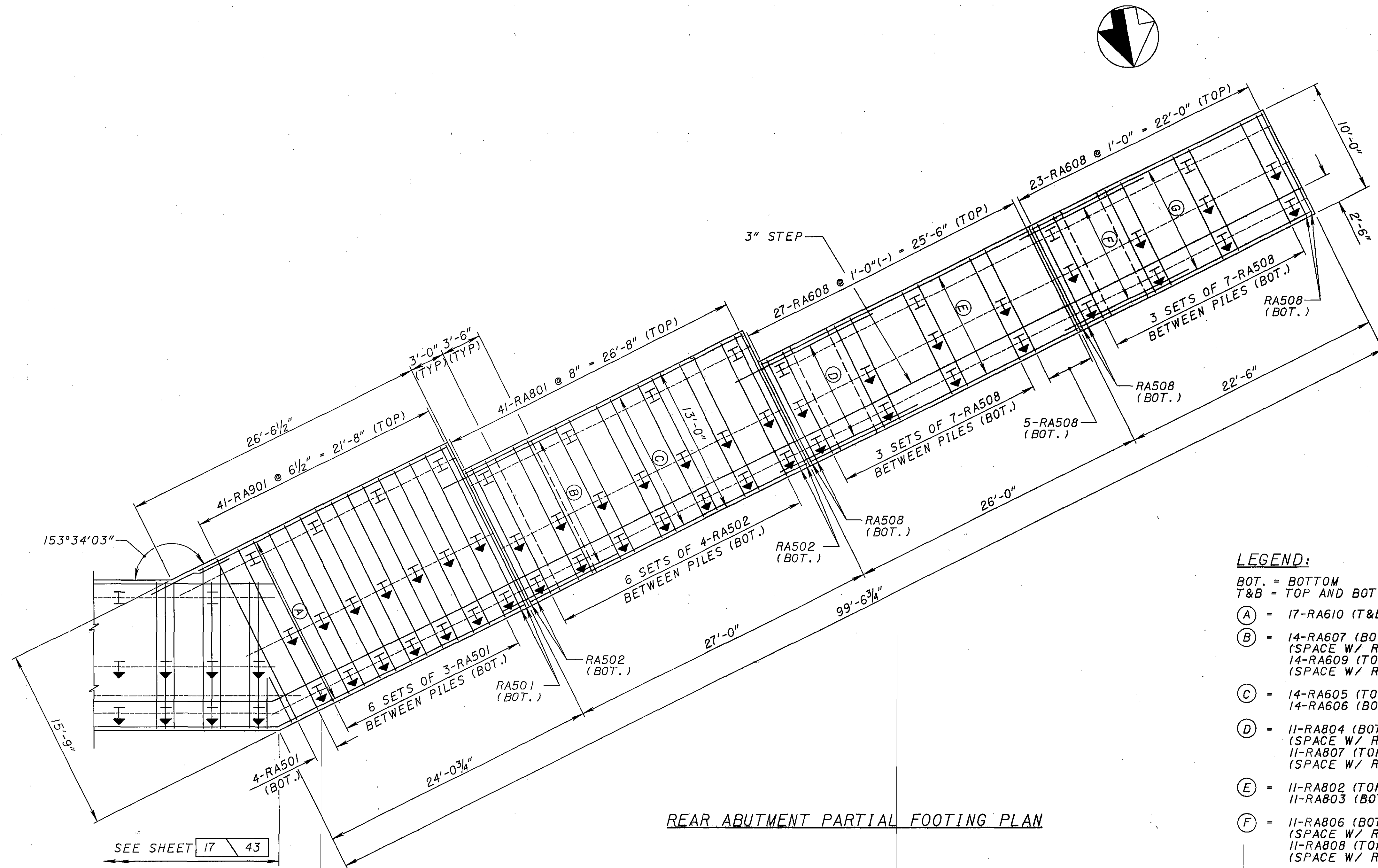
Ⓓ - 4-RA501 (BOT.)

BOT. - BOTTOM
 C.J. - CONSTRUCTION JOINT
 M.C. - MECHANICAL CONNECTOR
 R.A. - REAR ABUTMENT
 S.O. - SERIES OF
 T&B - TOP AND BOTTOM
 U.N.O. - UNLESS NOTED OTHERWISE
 P.E.J.F. - PREFORMED EXPANSION JOINT FILLER

NOTES:

- WALL BARS EMBEDDED IN FOOTING NOT SHOWN, SEE SHEET 19 / 43 TO 25 / 43.
- SEE SHEET 15 / 43 FOR PILE LOCATIONS.
- SEE SHEET 4 / 43 FOR MECHANICAL CONNECTOR NOTE.
- ALL BARS SHALL CLEAR PILES BY 2".
- SPACE ALL REINFORCING CALLED OUT EQUALLY U.N.O.
- MINIMUM STEEL LAP LENGTHS:
 #6 BAR = 3'-4"

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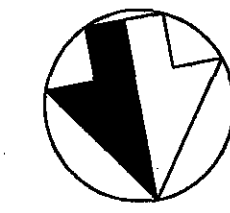
REAR ABUTMENT PARTIAL FOOTING PLAN

LEGEND:

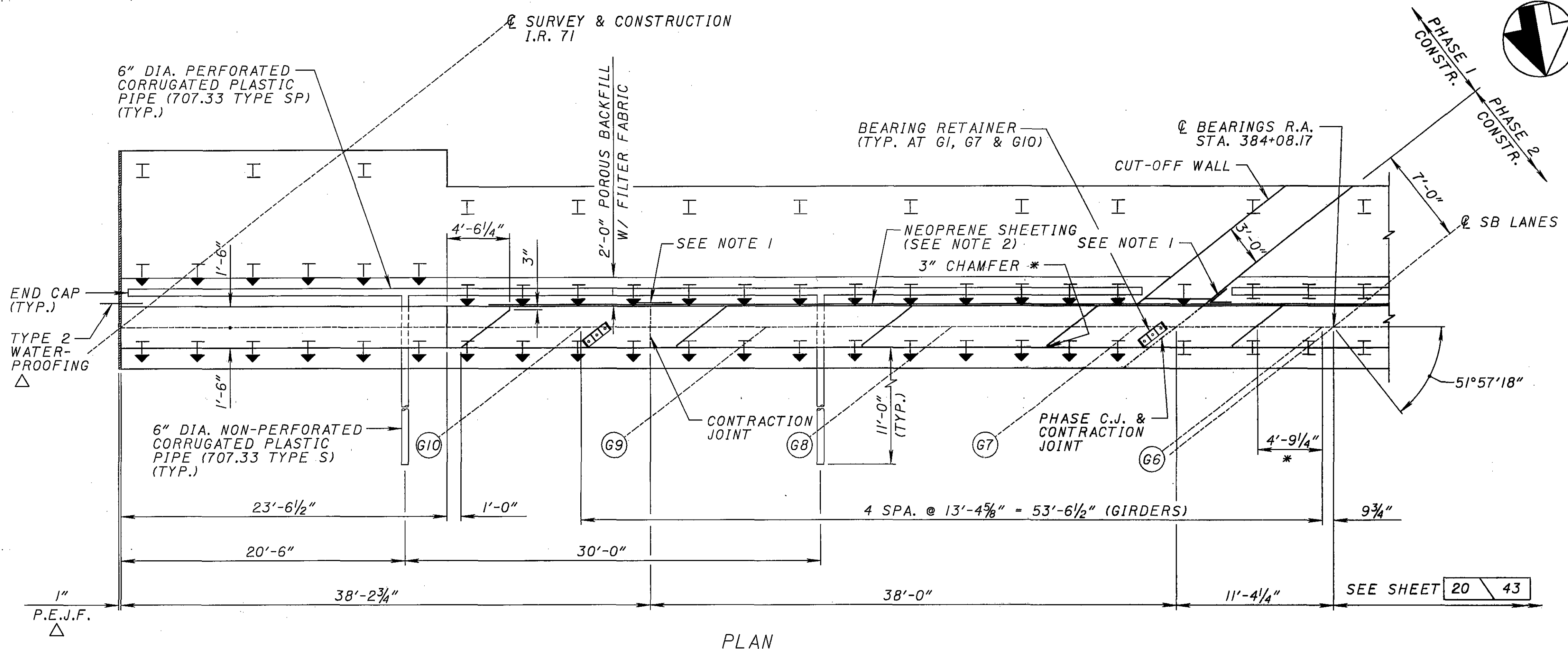
- BOT. = BOTTOM
- T&B = TOP AND BOTTOM
- (A) = 17-RA610 (T&B)
- (B) = 14-RA607 (BOT.)
(SPACE W/ RA606)
14-RA609 (TOP)
(SPACE W/ RA605)
- (C) = 14-RA605 (TOP)
14-RA606 (BOT.)
- (D) = 11-RA804 (BOT.)
(SPACE W/ RA803)
11-RA807 (TOP)
(SPACE W/ RA802)
- (E) = 11-RA802 (TOP)
11-RA803 (BOT.)
- (F) = 11-RA806 (BOT.)
(SPACE W/ RA805)
11-RA808 (TOP)
(SPACE W/ RA809)
- (G) = 11-RA809 (TOP)
11-RA805 (BOT.)

NOTES:

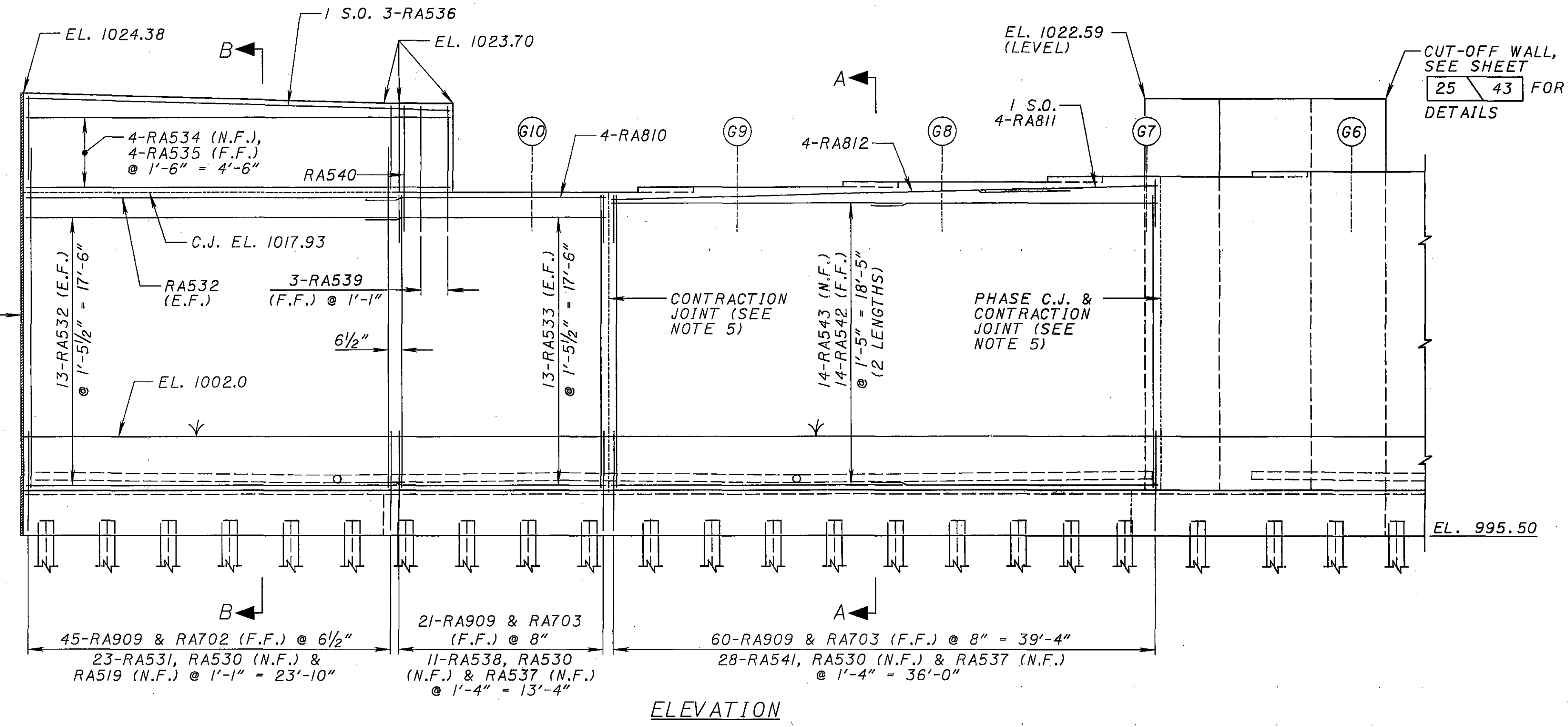
1. WALL BARS EMBEDDED IN FOOTING NOT SHOWN, SEE SHEET 19 / 43 TO 25 / 43.
2. SEE SHEET 15 / 43 FOR PILE LOCATIONS.
3. ALL BARS SHALL CLEAR PILES BY 2".
4. SPACE ALL REINFORCING CALLED OUT EQUALLY U.N.O.
5. MINIMUM STEEL LAP LENGTHS:
#6 BAR = 3'-4"
#8 BAR = 5'-10"



 <small>ES&E, Inc. Reg. Firm Contract No. 43220</small>	
DESIGNED: JMK CHECKED: BES DRAWN: AAA REVISION:	REVIEWED: RMK DATE: 11/04 STRUCTURE FILE NUMBER: 5202809
REAR ABUTMENT FOOTING PLAN 2 BRIDGE NO. MED-71-0729 L. OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
18 / 43	
701 11/20	



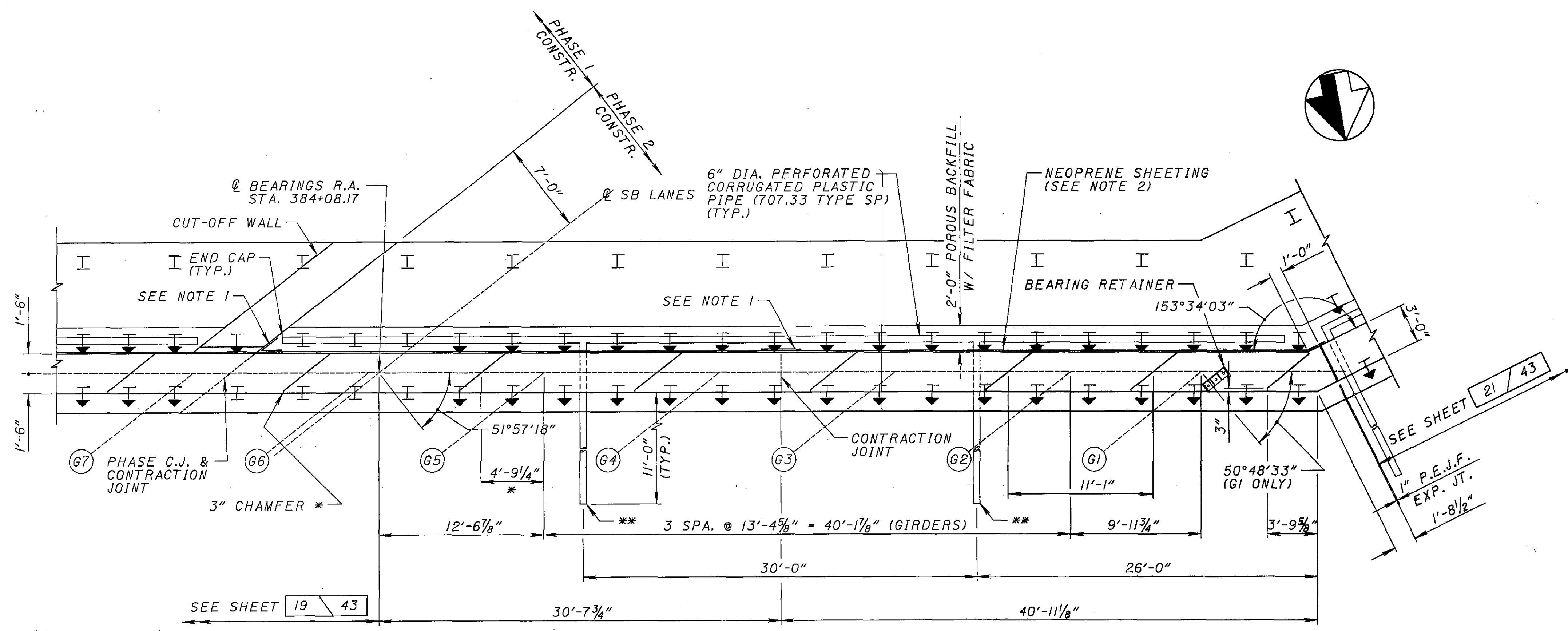
SEAT ELEVATIONS	
GIRDER	ELEVATION
G1	1019.73
G2	1019.67
G3	1019.58
G4	1019.50
G5	1019.41
G6	1019.31
G7	1018.96
G8	1018.62
G9	1018.28
G10	1017.93



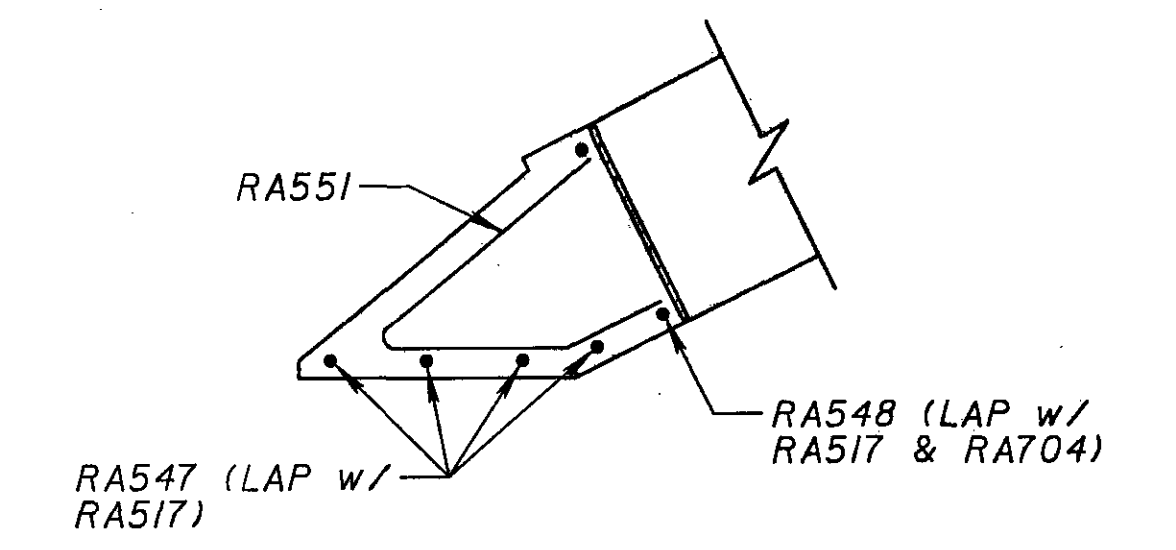
LEGEND:
 Δ = INCLUDED WITH BRIDGE NO. MED-71-0729 R FOR PAYMENT.
 * = TYP. G2-G9
 C.J. = CONSTRUCTION JOINT
 R.A. = REAR ABUTMENT
 E.F. = EACH FACE
 N.F. = NEAR FACE
 F.F. = FAR FACE
 S.O. = SERIES OF
 M.C. = MECHANICAL CONNECTOR
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

- NOTES:**
- PLACE TYPE 2 WATERPROOFING 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION.
 - SEE STD. DWG. SIGD-I-96 AND SECTIONS A-A & B-B FOR NEOPRENE SHEETING LIMITS AND DETAILS.
 - SEE SHEET 22 / 43 FOR SECTIONS A-A & B-B.
 - SEE SHEET 17 / 43 FOR FOOTING REINFORCING NOT SHOWN.
 - SEE SHEET 28 / 43 FOR CONTRACTION JOINT DETAIL.
 - MINIMUM HORIZONTAL STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #8 BAR = 5'-10"

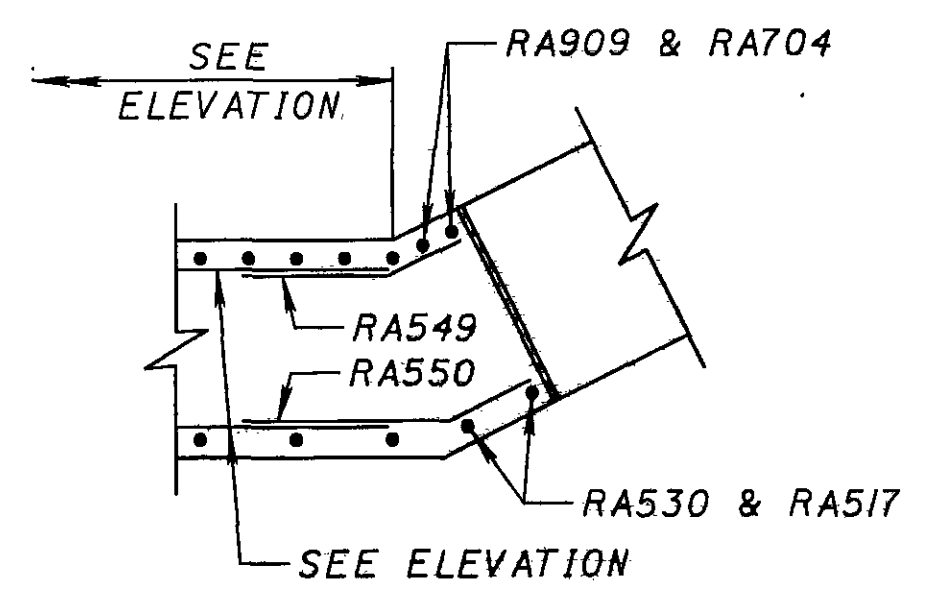
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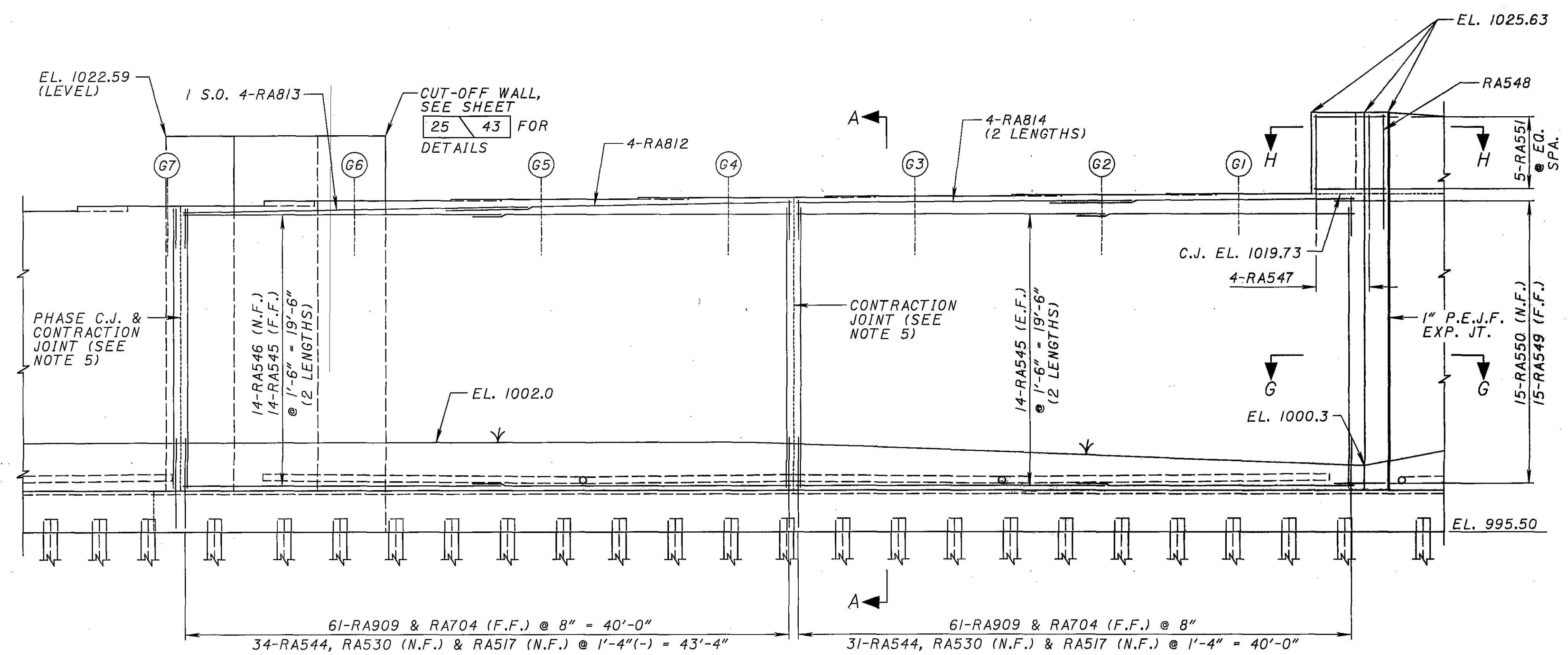
PLAN



SECTION H-H



SECTION G-G



ELEVATION

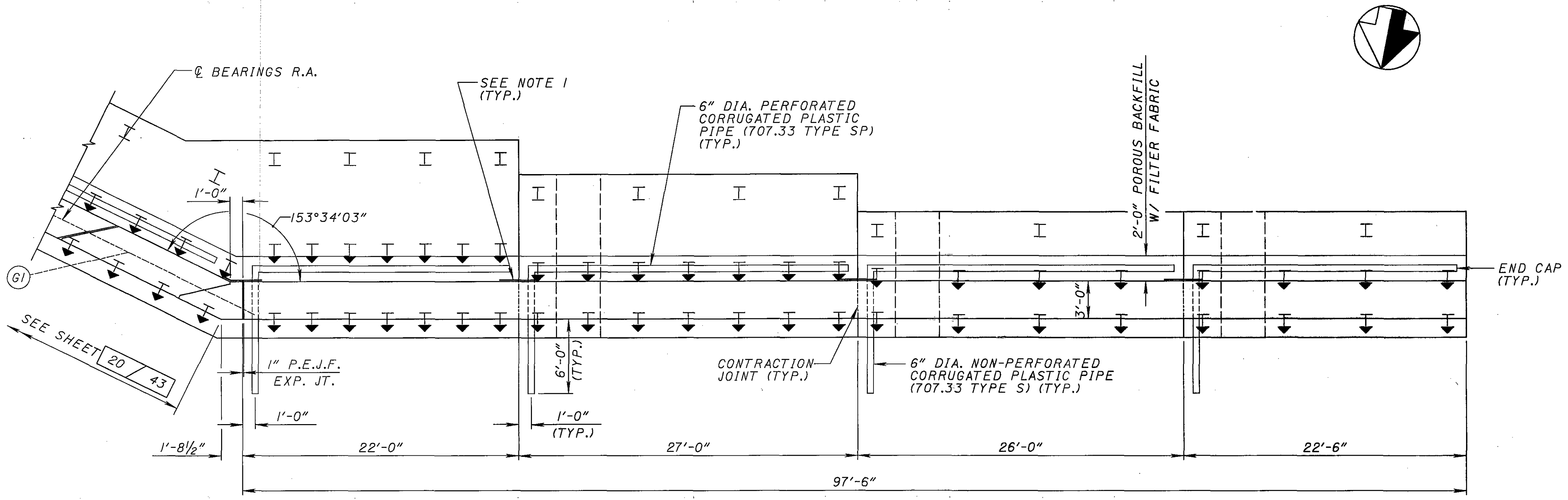
LEGEND:

- * - TYP. G2-G9
- ** - 6" DIA. NON-PERFORATED CORRUGATED PLASTIC PIPE (707.33 TYPE S)
- C.J. - CONSTRUCTION JOINT
- R.A. - REAR ABUTMENT
- E.F. - EACH FACE
- N.F. - NEAR FACE
- F.F. - FAR FACE
- S.O. - SERIES OF
- M.C. - MECHANICAL CONNECTOR
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER

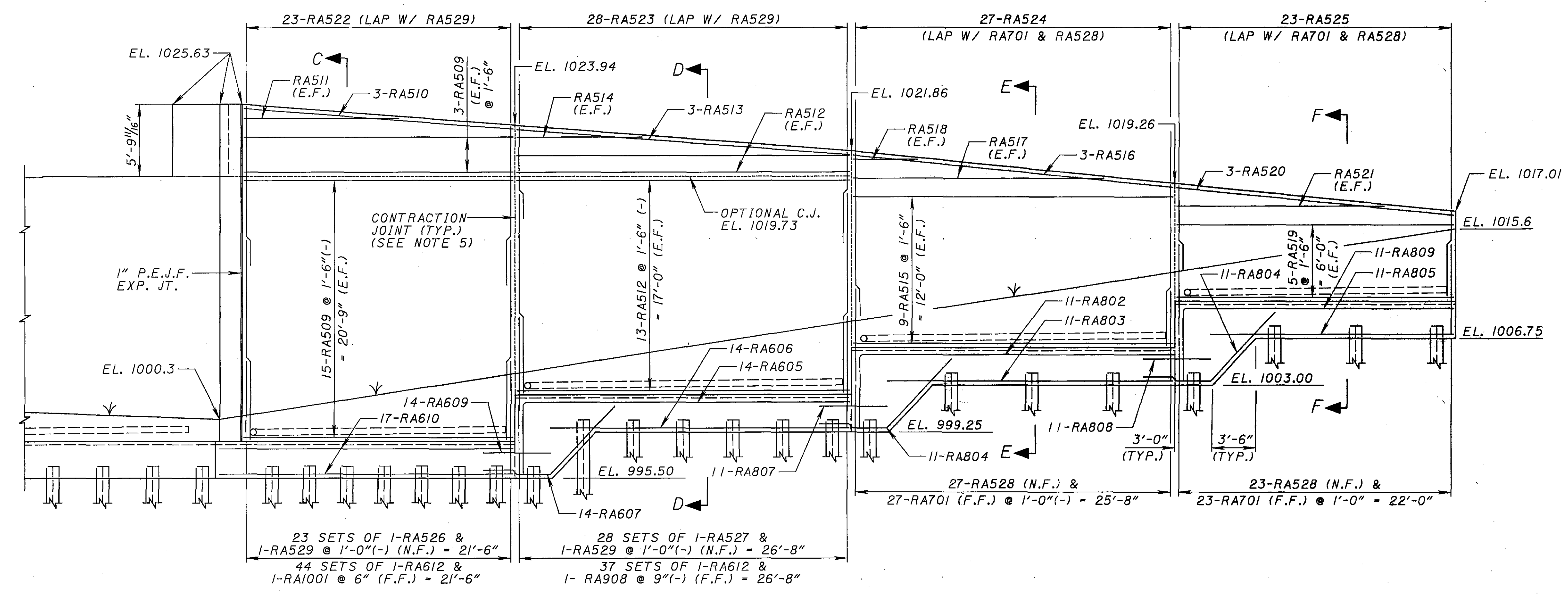
NOTES:

1. PLACE TYPE 2 WATERPROOFING 3" WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION.
2. SEE STD. DWG. SICD-1-96 AND SECTION A-A FOR NEOPRENE SHEETING LIMITS AND DETAILS.
3. SEE SHEET 22 / 43 FOR SECTION A-A.
4. SEE SHEET 17 / 43 FOR FOOTING REINFORCING NOT SHOWN.
5. SEE SHEET 28 / 43 FOR CONTRACTION JOINT DETAILS.
6. SEE SHEET 19 / 43 FOR SEAT ELEVATIONS.
7. MINIMUM HORIZONTAL STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #8 BAR = 5'-10"

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PLAN



ELEVATION

LEGEND:

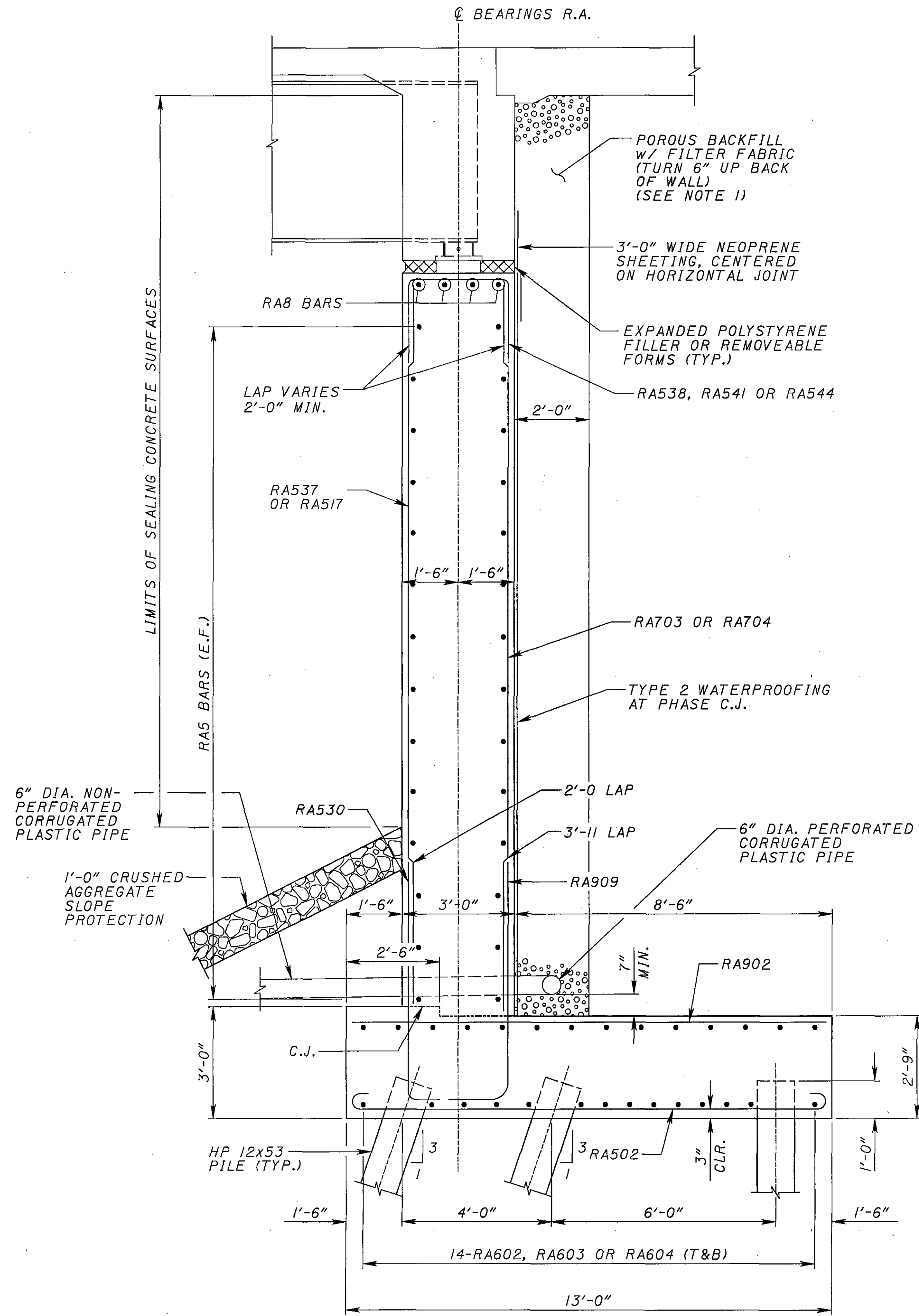
- R.A. - REAR ABUTMENT
- E.F. - EACH FACE
- N.F. - NEAR FACE
- F.F. - FAR FACE
- S.O. - SERIES OF
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER

NOTES:

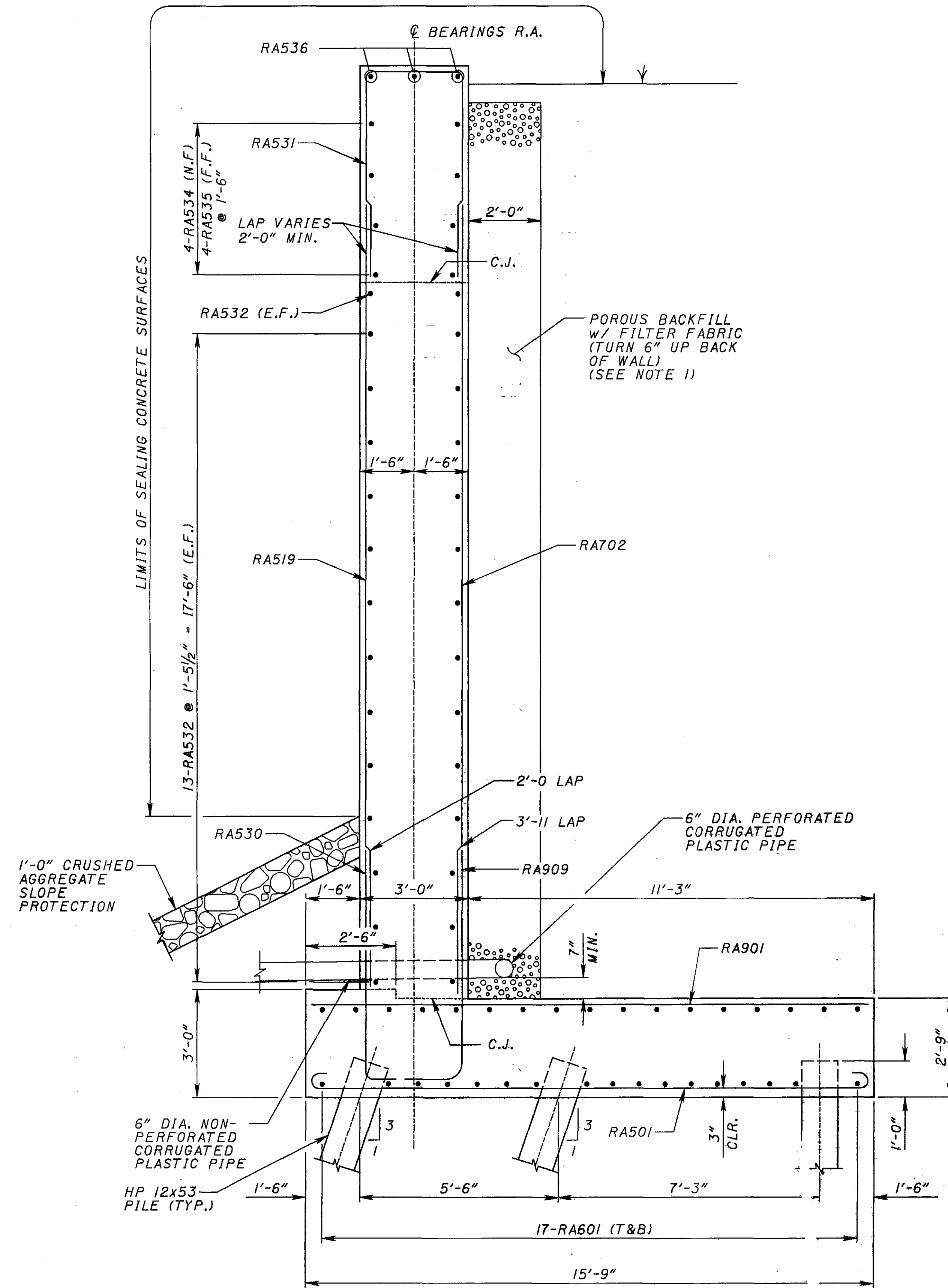
1. PLACE TYPE 2 WATERPROOFING 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO 6" BELOW GROUNDLINE (TYP. AT EXP. JOINT AND ALL CONTRACTION JOINTS).
2. SEE SHEET 23 / 43 FOR SECTIONS C-C AND D-D.
3. SEE SHEET 24 / 43 FOR SECTIONS E-E AND F-F.
4. SEE SHEET 18 / 43 FOR ADDITIONAL FOOTING REINFORCING.
5. SEE SHEET 28 / 43 FOR CONTRACTION JOINT DETAIL.

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SECTION A-A



SECTION B-B

LEGEND:

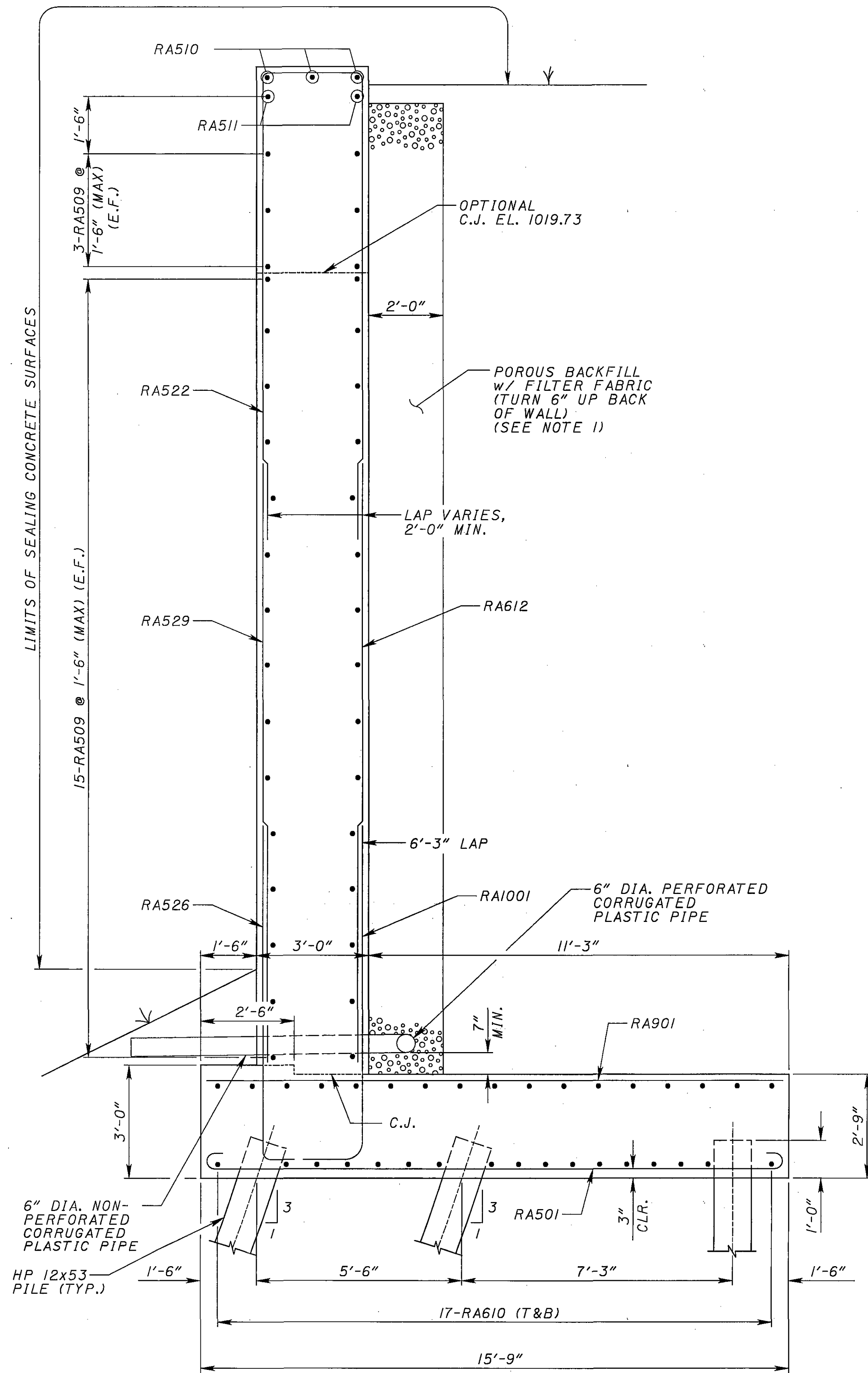
C.J. = CONSTRUCTION JOINT
 CLR. = CLEAR
 E.F. = EACH FACE
 R.A. = REAR ABUTMENT
 T&B = TOP & BOTTOM

NOTES:

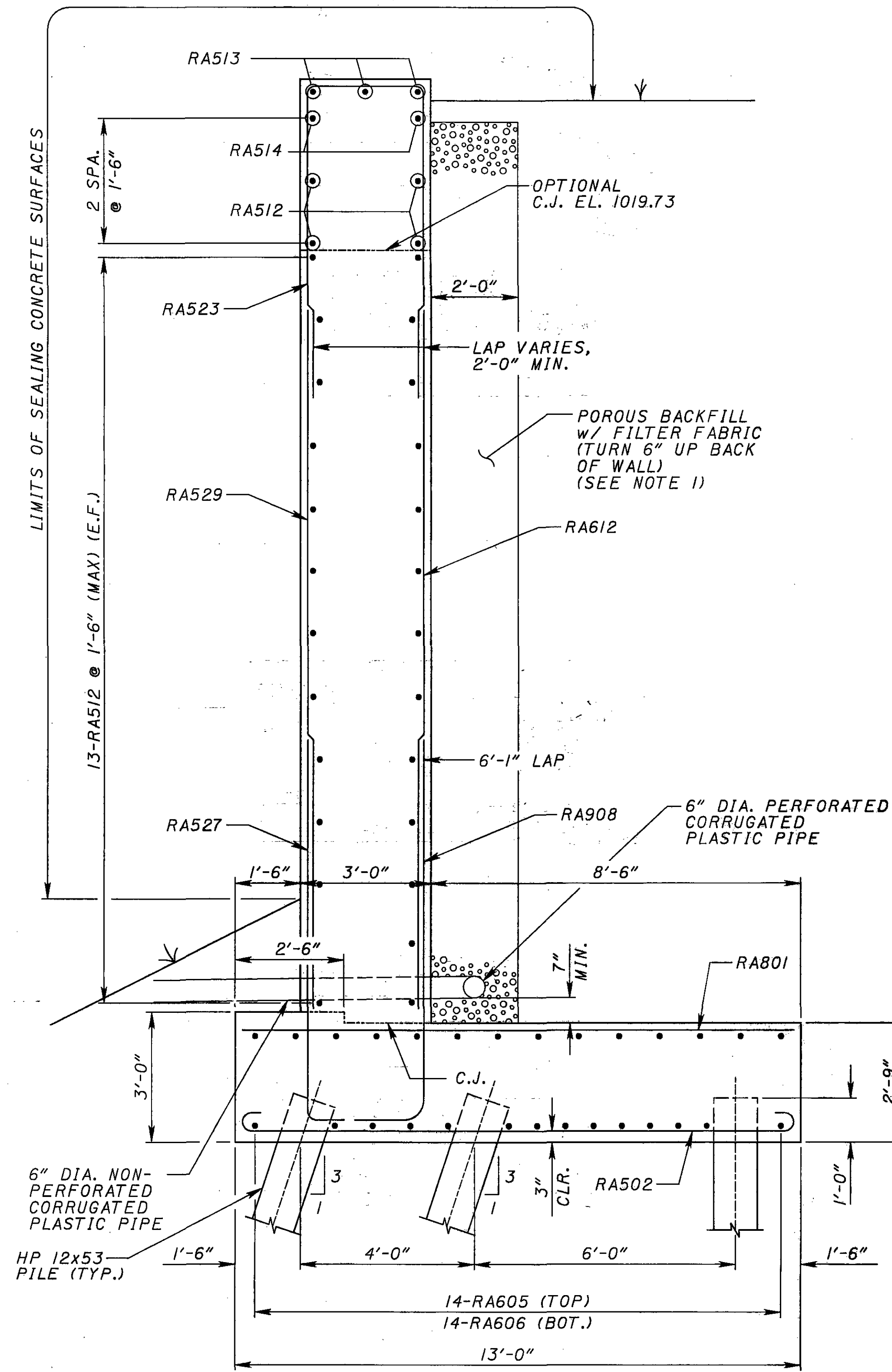
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

DATE	11/04
REVIEWED	RMK
DRAWN	CRC
DESIGNED	JMK
CHECKED	BES
STRUCTURE FILE NUMBER	5202809
REAR ABUTMENT DETAILS I BRIDGE NO. MED-71-0729 L OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
22	43
705 1120	

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SECTION C-C



SECTION D-D

LEGEND:
 BOT. = BOTTOM
 C.J. = CONSTRUCTION JOINT
 CLR. = CLEAR
 E.F. = EACH FACE
 R.A. = REAR ABUTMENT
 T&B = TOP & BOTTOM

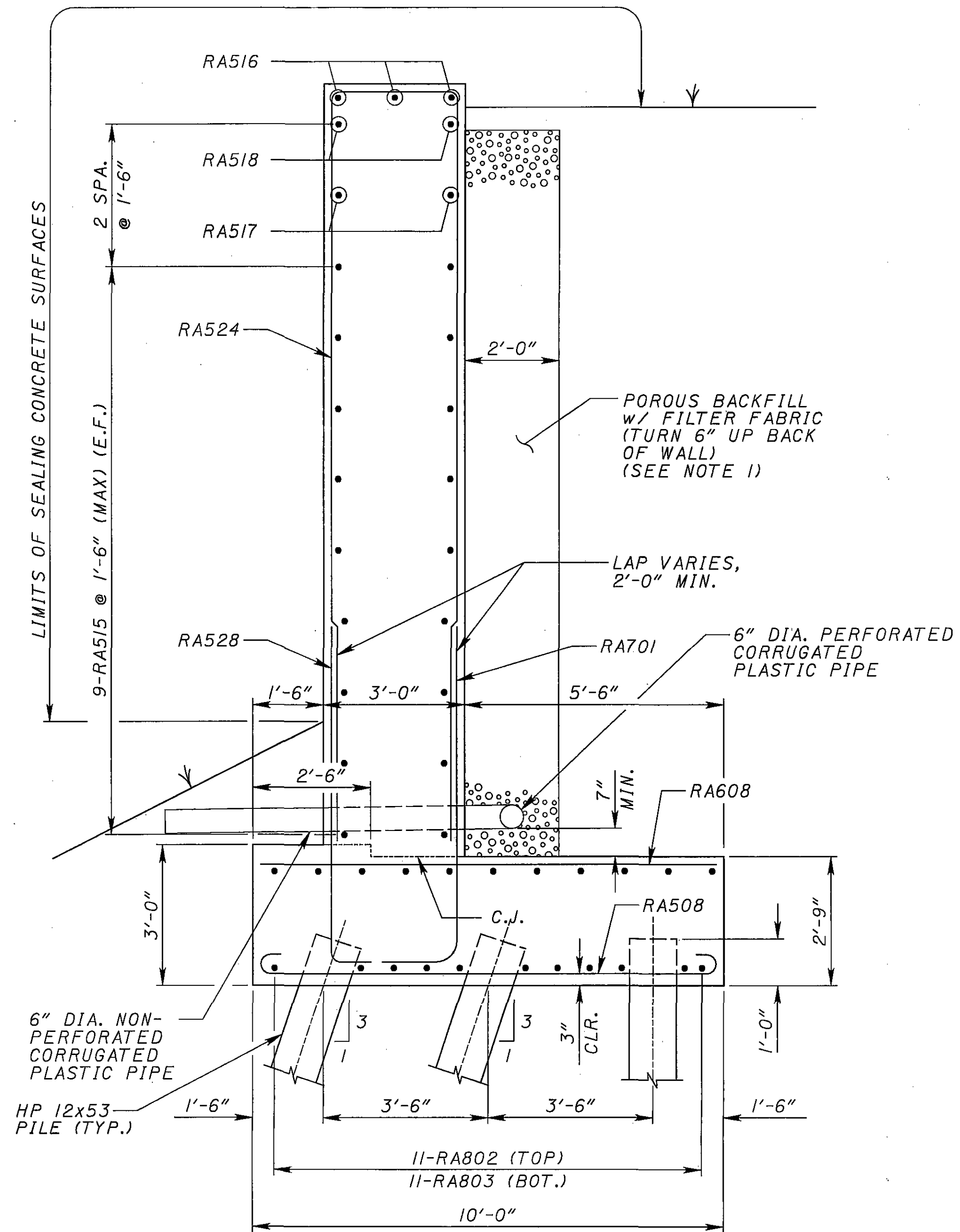
NOTES:
 1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
 2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

DATE	11/04
REVIEWED	FMK
DRAWN	CRC
DESIGNED	JMK
CHECKED	BES
STRUCTURE FILE NUMBER	5202809

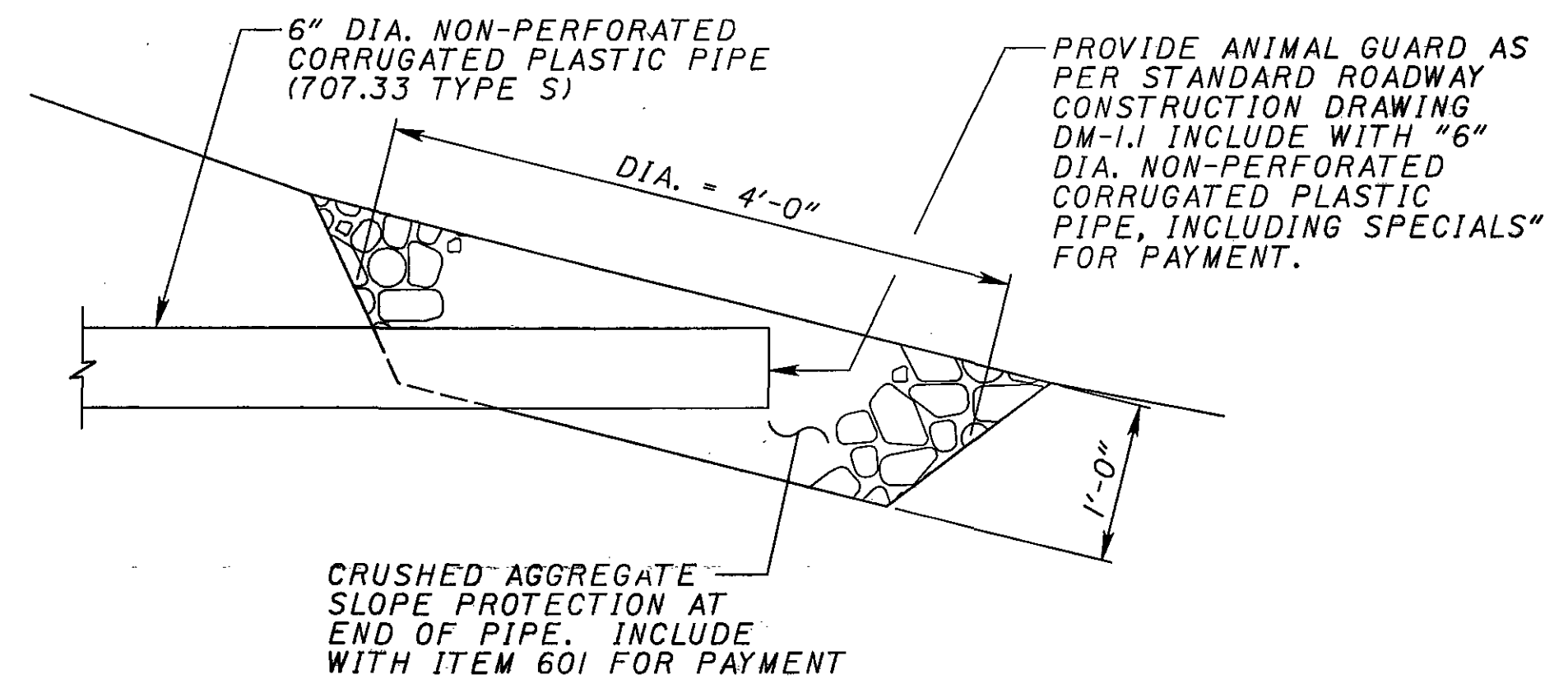
REAR ABUTMENT DETAILS 2
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID 75657

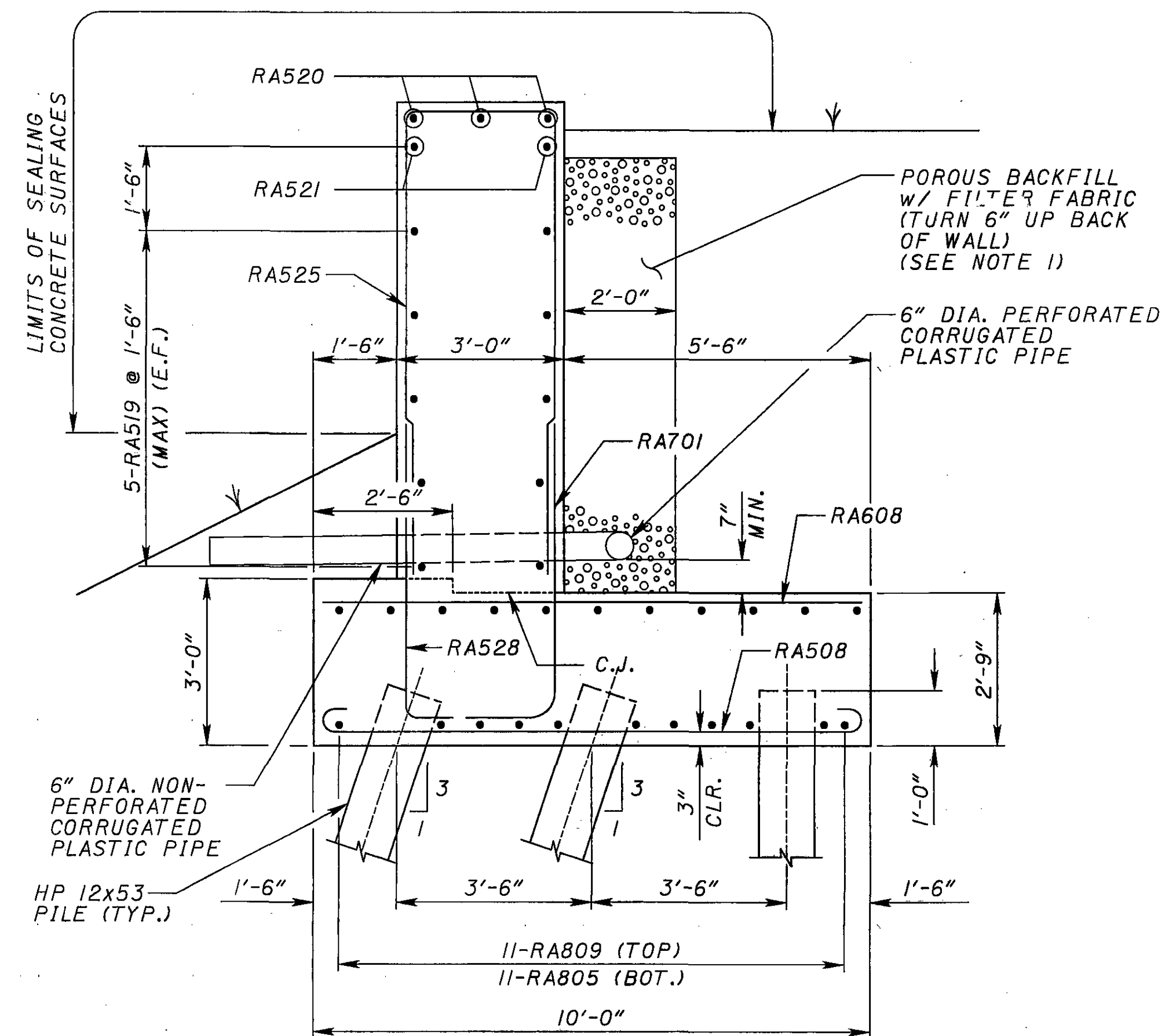
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SECTION E-E



OUTLET DETAIL



SECTION F-F

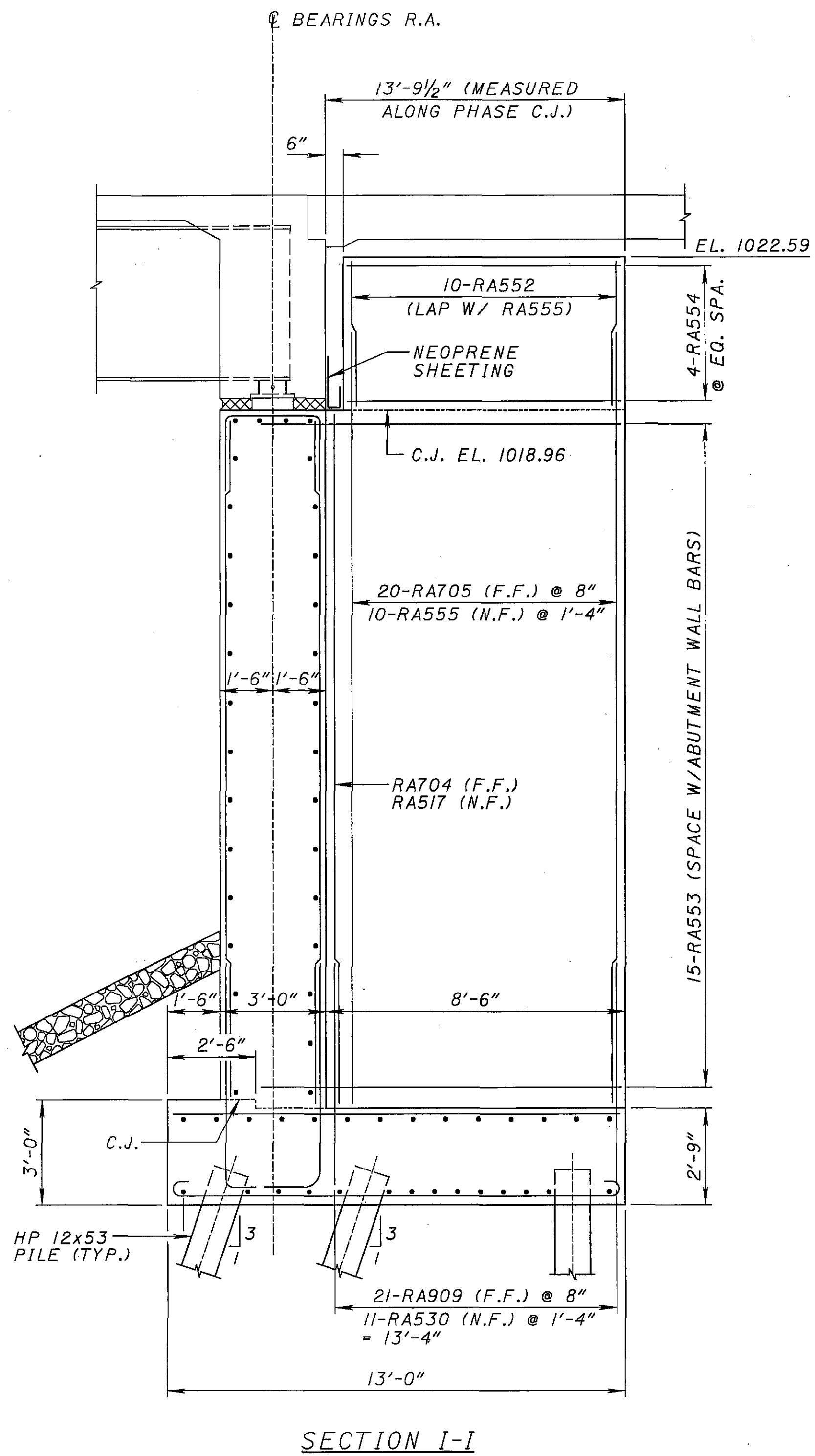
LEGEND:

BOT. = BOTTOM
 C.J. = CONSTRUCTION JOINT
 CLR. = CLEAR
 E.F. = EACH FACE
 R.A. = REAR ABUTMENT
 T&B = TOP & BOTTOM

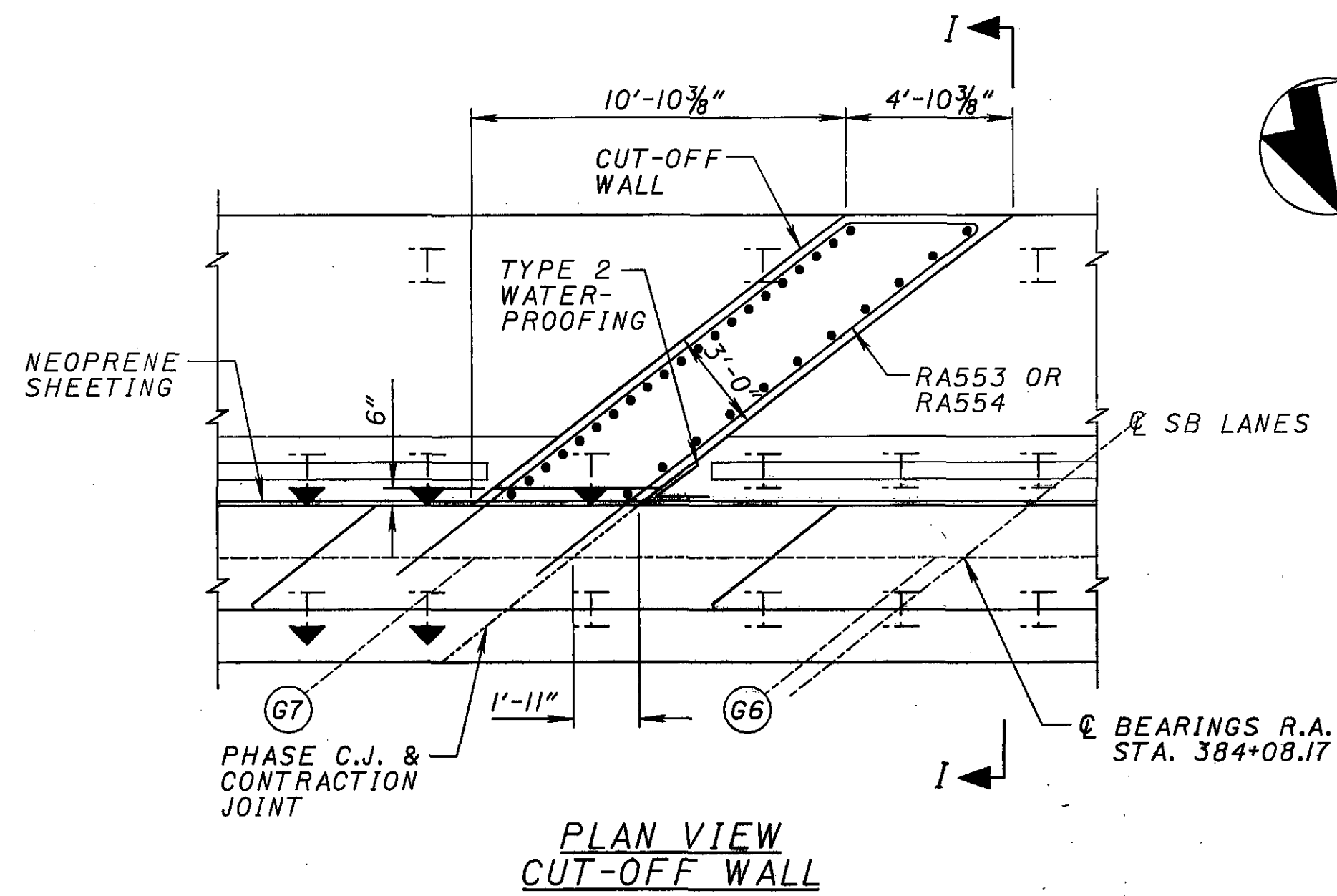
NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

DESIGNED		JMK	CHECKED	BES
DRAWN		CRC	REVISED	
REVIEWED	RMK	STRUCTURE FILE NUMBER	5202809	
DATE	11/04			
REAR ABUTMENT DETAILS 3 BRIDGE NO. MED-71-0729 L OVER EXISTING CH 97 (GREENWICH RD)				
MED-71-6.06		PID 75657		
24		43		
707		1120		
BURGESS & NIPIE				

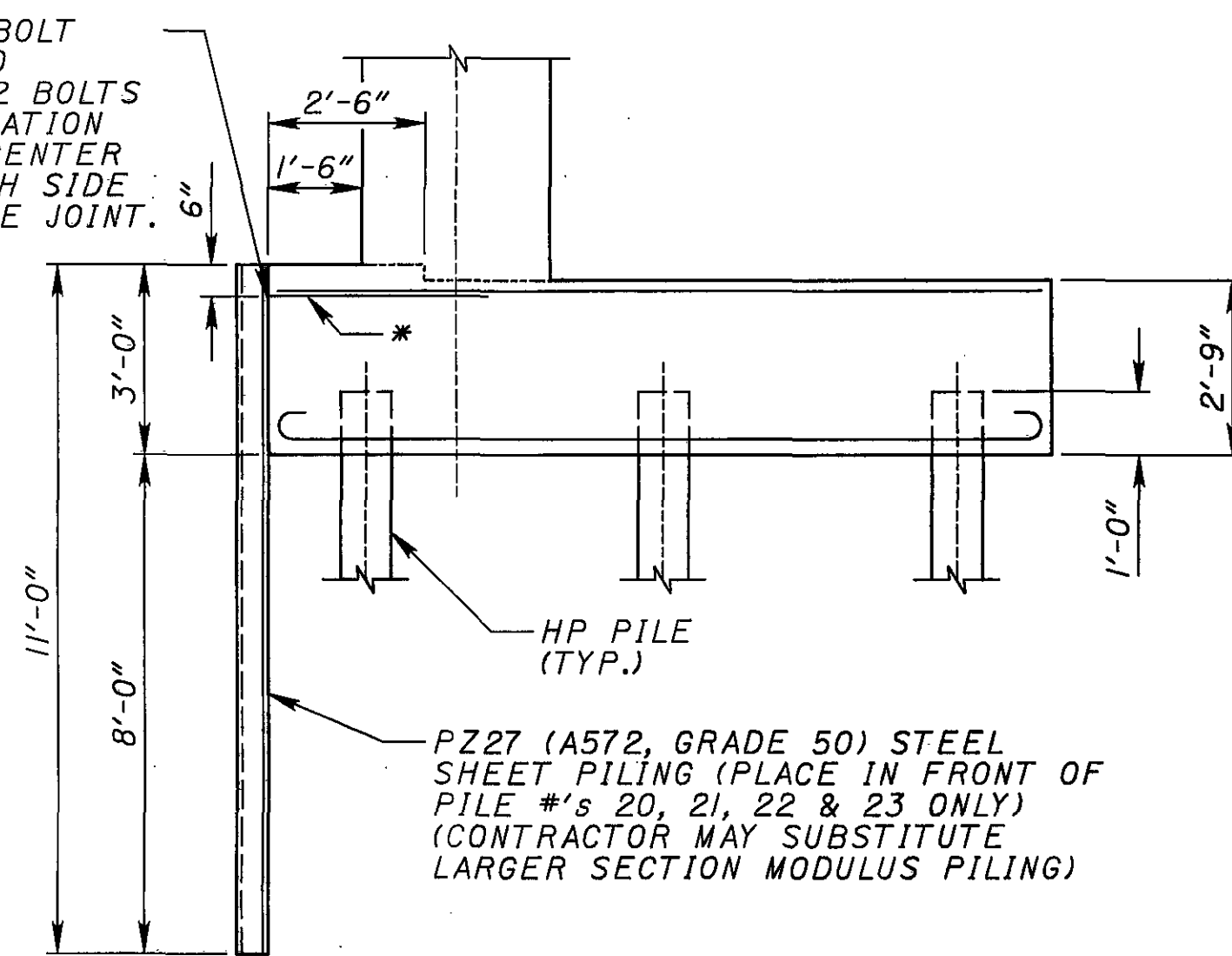


SECTION I-I



PLAN VIEW CUT-OFF WALL

DRILL PILING AND BOLT THREADED BARS TO SHEET PILING W/ 2 BOLTS PER INNER CORRUGATION OF SHEET PILE. CENTER THE BOLTS ON EACH SIDE OF THE SHEET PILE JOINT.



SHEETING DETAIL

* = 12- THREADED #9 BARS 6'-0" LONG. INCLUDE ALL BARS (w/ 2 NUTS PER BAR) WITH STEEL SHEET PILING FOR PAYMENT. DOWEL INTO PHASE I FOOTING PER CMS 510 OR PROVIDE MECHANICAL CONNECTORS.

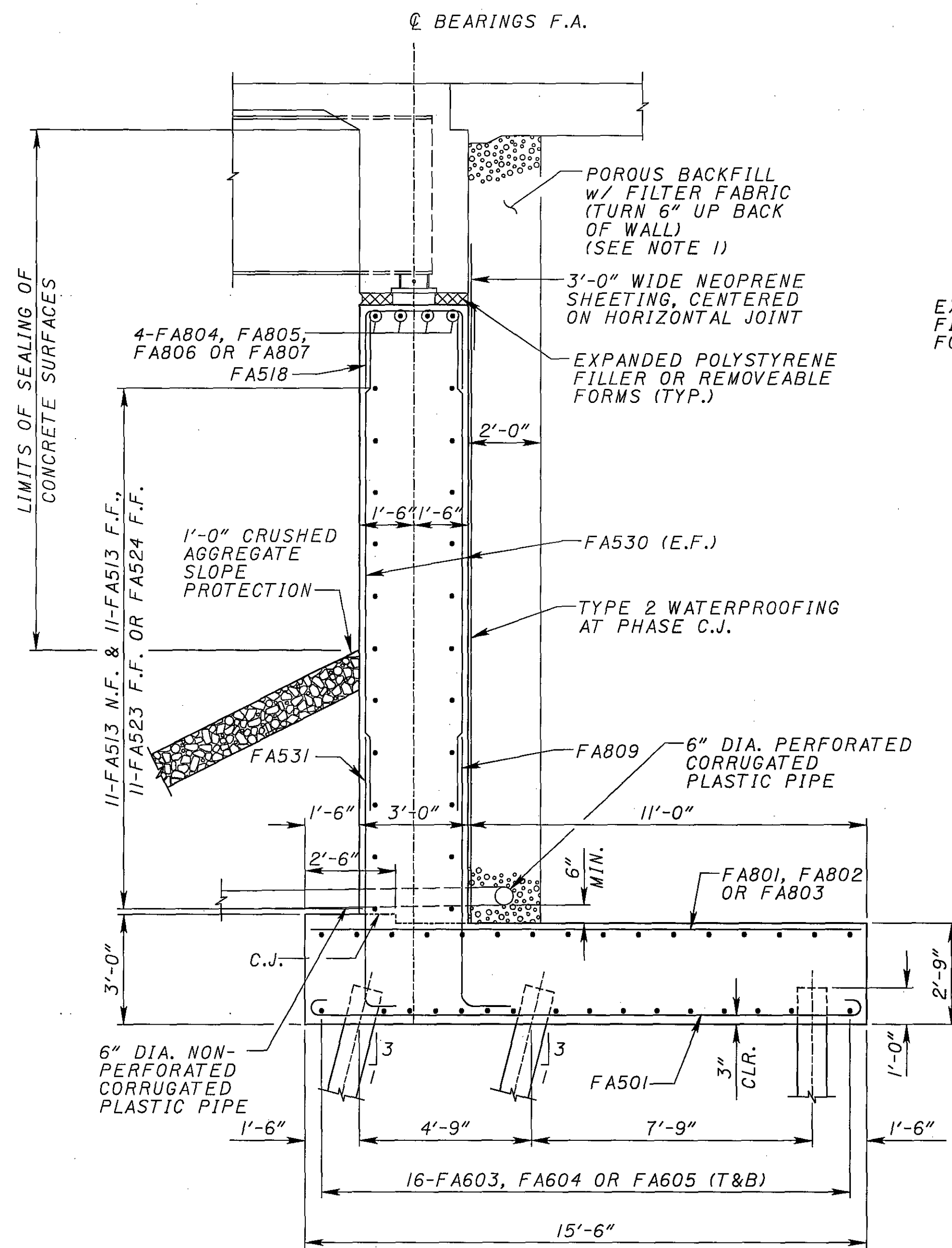
LEGEND:

- C.J. = CONSTRUCTION JOINT
- R.A. = REAR ABUTMENT
- E.F. = EACH FACE
- N.F. = NEAR FACE
- F.F. = FAR FACE

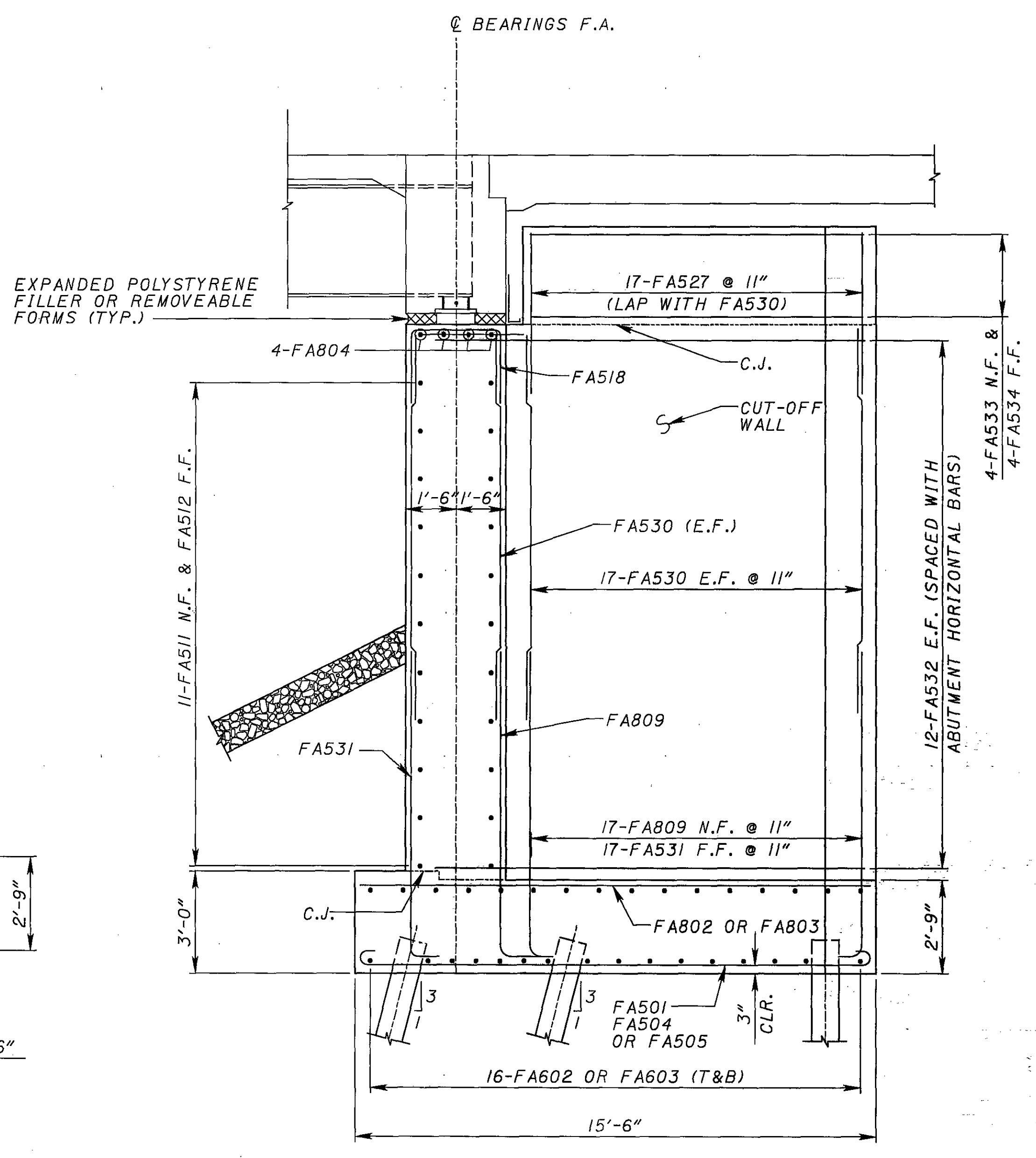
NOTES:

1. SEE SECTION A-A ON SHEET 22 / 43 FOR DETAILS NOT SHOWN.
2. ALL CUT-OFF WALL CONCRETE SHALL BE CLASS C CONCRETE.

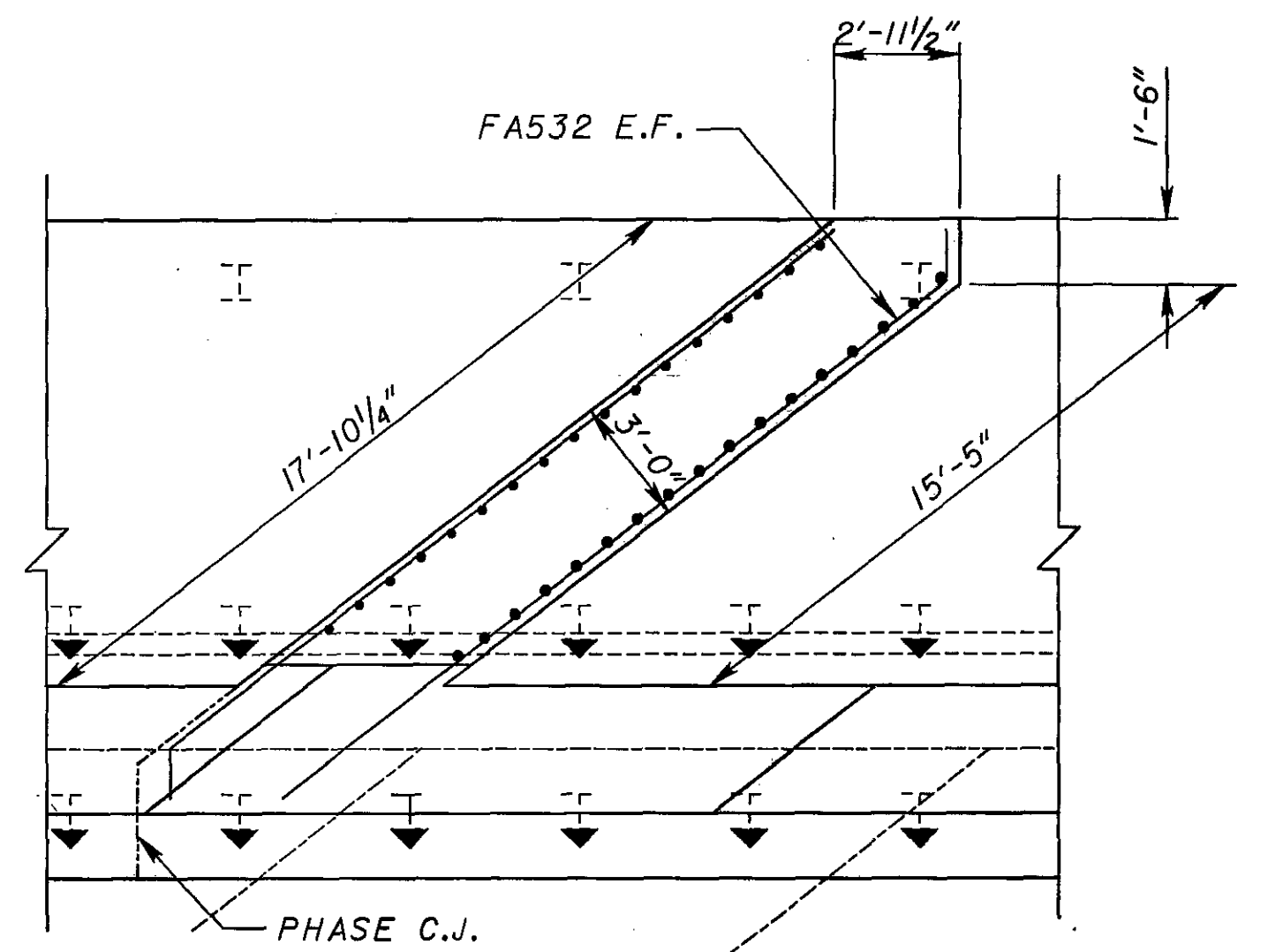
DESIGNED: BES CHECKED: JMK DRAWN: AAA REVIEWED: RMK DATE: 11/04	STRUCTURE FILE NUMBER: 5202809 REAR ABUTMENT DETAILS 4 BRIDGE NO. MED-71-0729 L OVER EXISTING CH 97 (GREENWICH RD)
MED-71-6.06 PID 75657	
25 / 43	
708 1120	



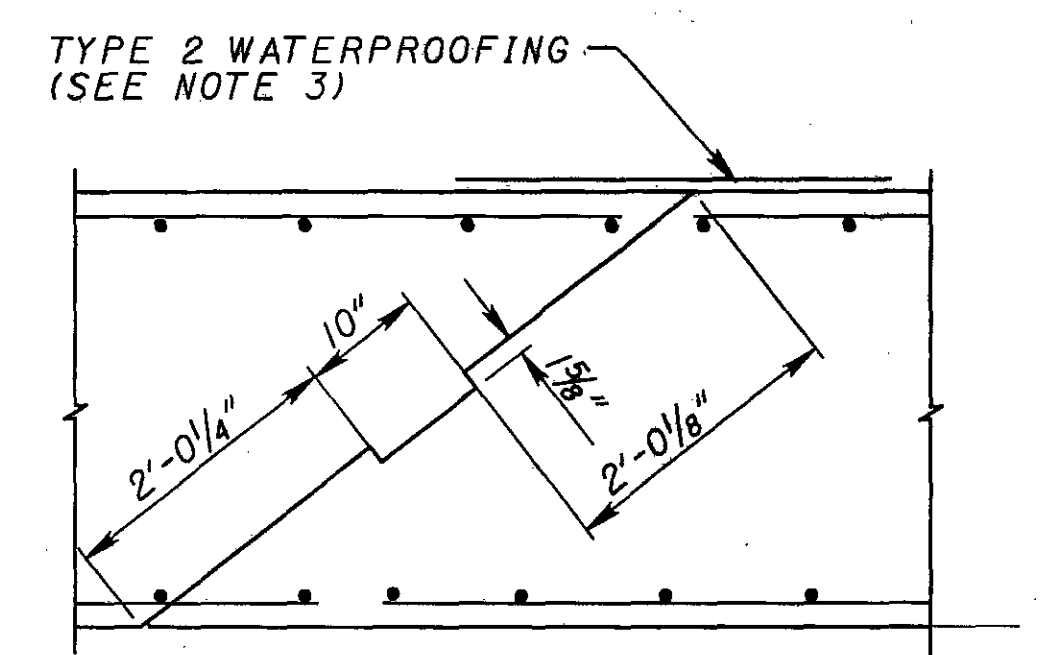
SECTION C-C



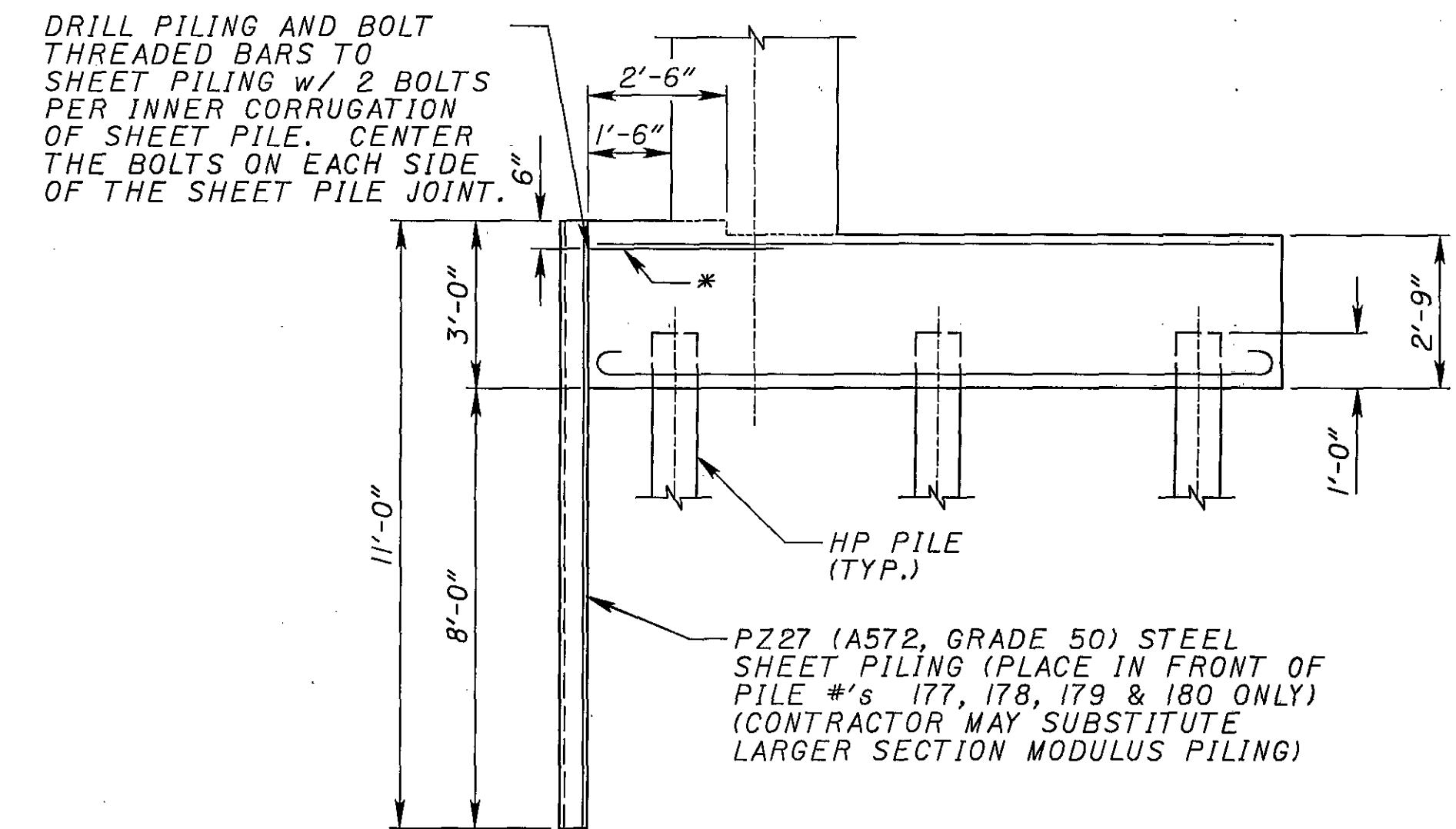
SECTION B-B



PLAN VIEW CUTOFF WALL



CONTRACTION JOINT DETAIL



SHEETING DETAIL

* = 12- THREADED #9 BARS 6'-0" LONG. INCLUDE ALL BARS (w/ 2 NUTS PER BAR) WITH STEEL SHEET PILING FOR PAYMENT. DOWEL INTO PHASE I FOOTING PER CMS 510 OR PROVIDE MECHANICAL CONNECTORS.

NOTES:

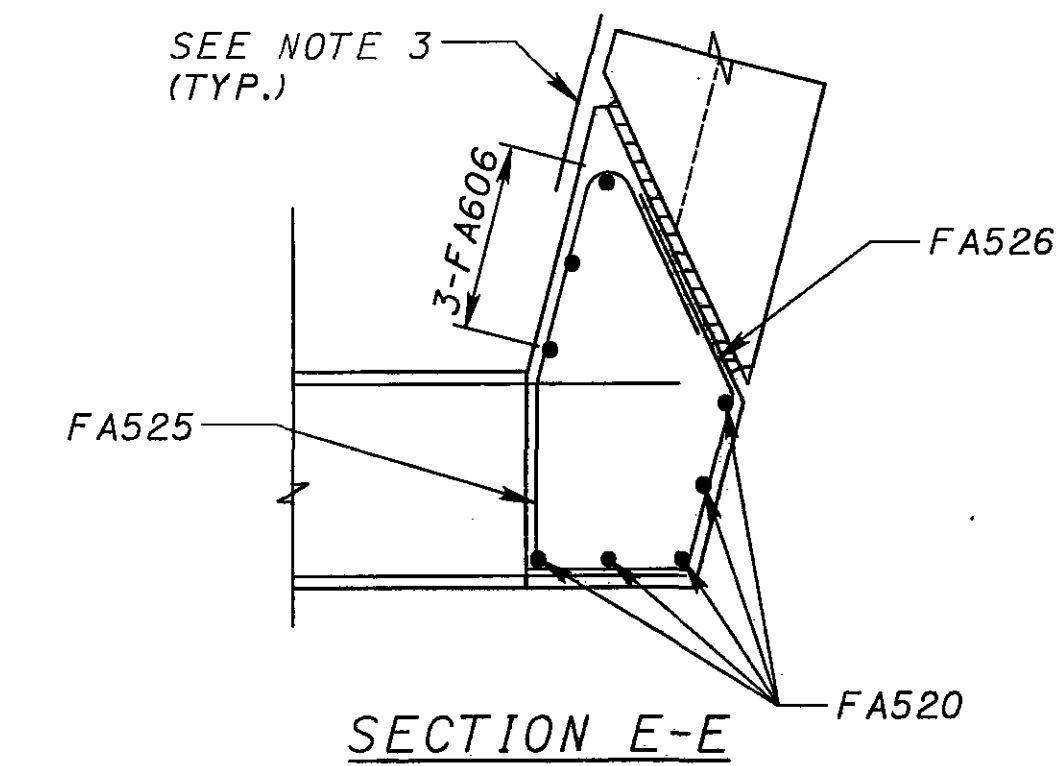
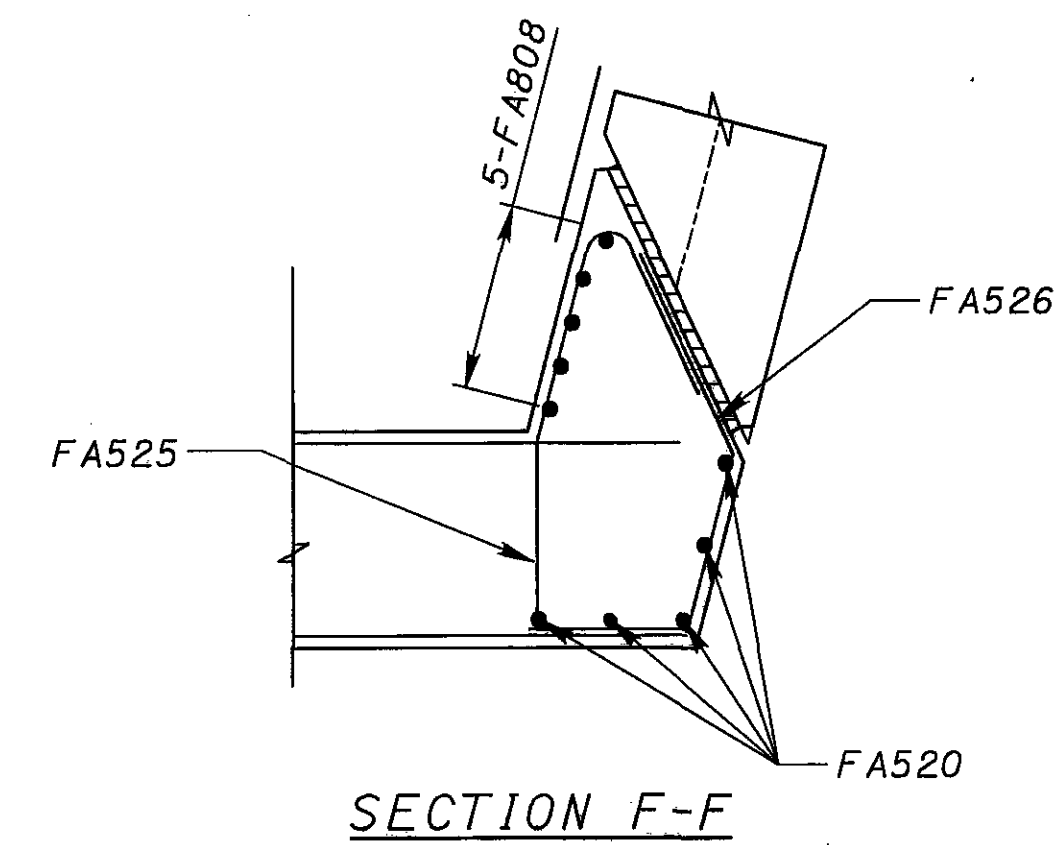
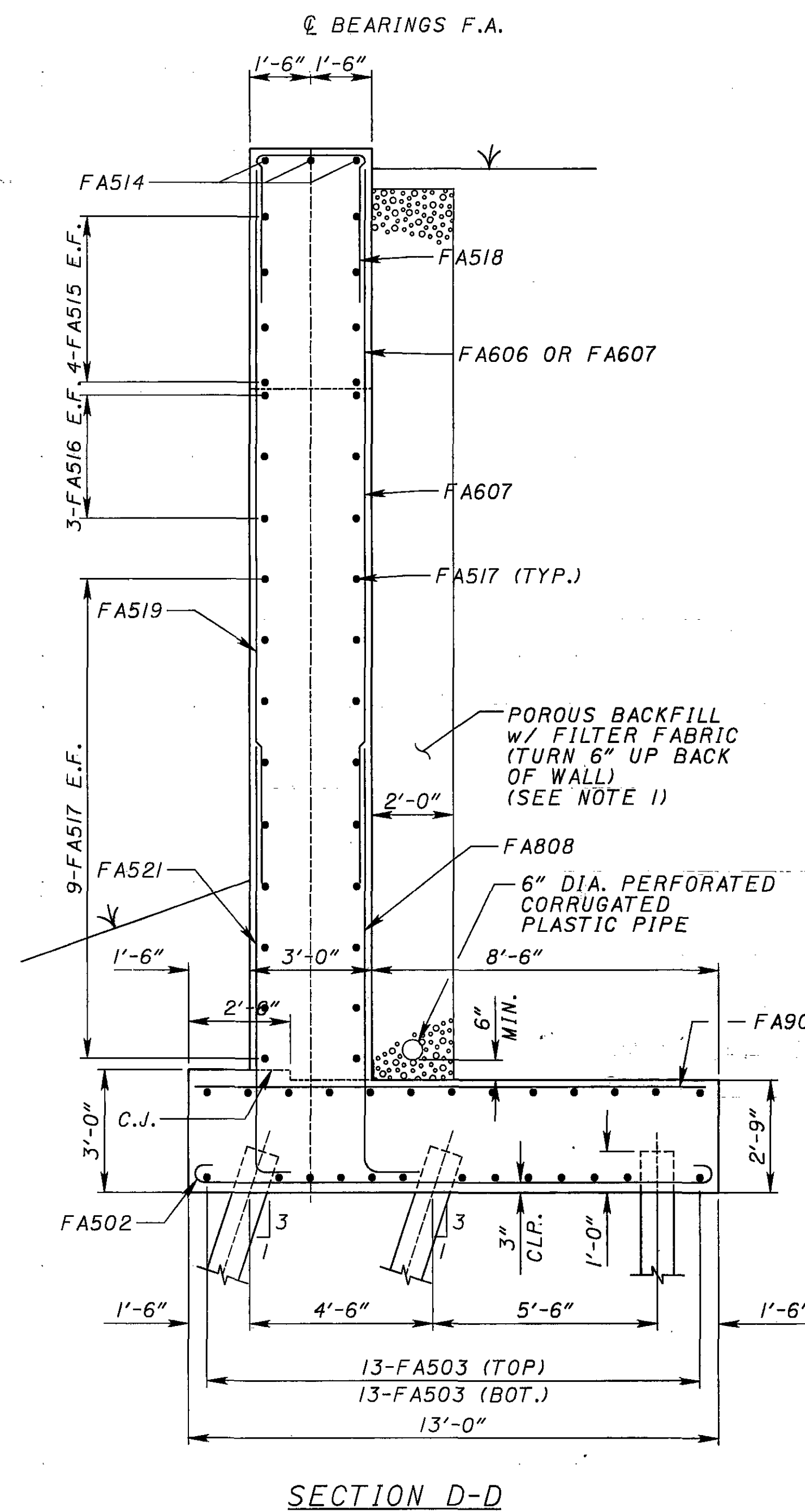
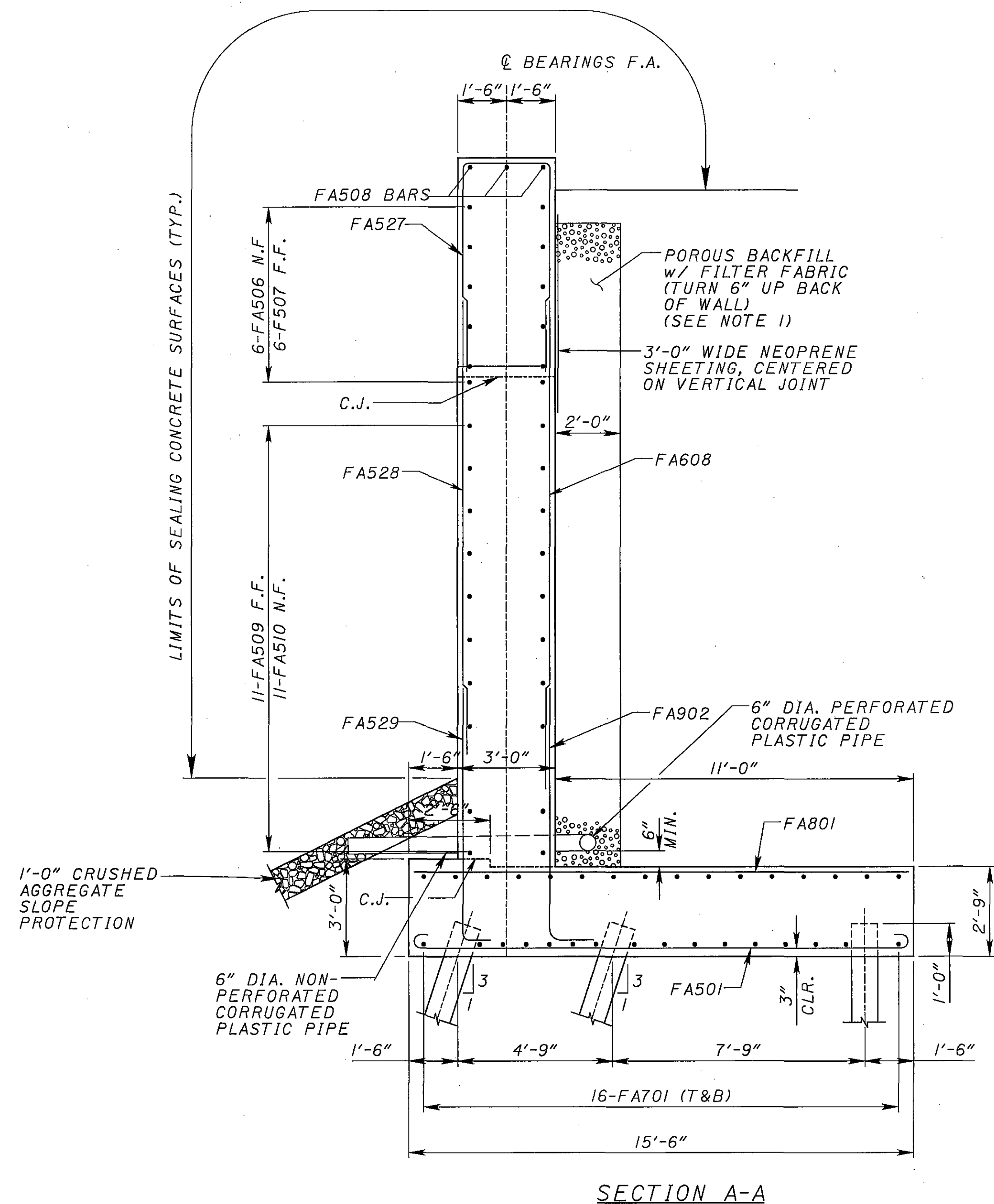
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON EXP. JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION.
4. SEE SHEETS [26/43] & [27/43] FOR LOCATIONS OF SECTIONS
5. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 5 BARS = 2'-1"
NO. 8 BARS = 4'-0"

LEGEND:

- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- F.A. = FORWARD ABUTMENT
- E.F. = EACH FACE
- DIA. = DIAMETER

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NOTES:

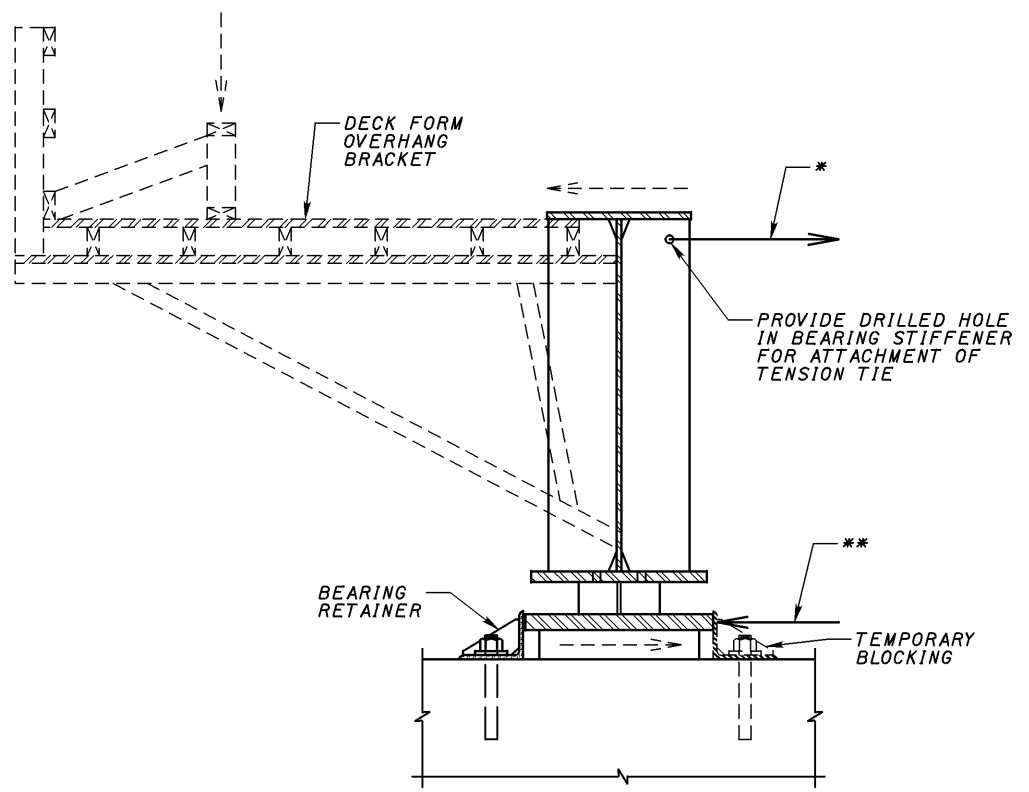
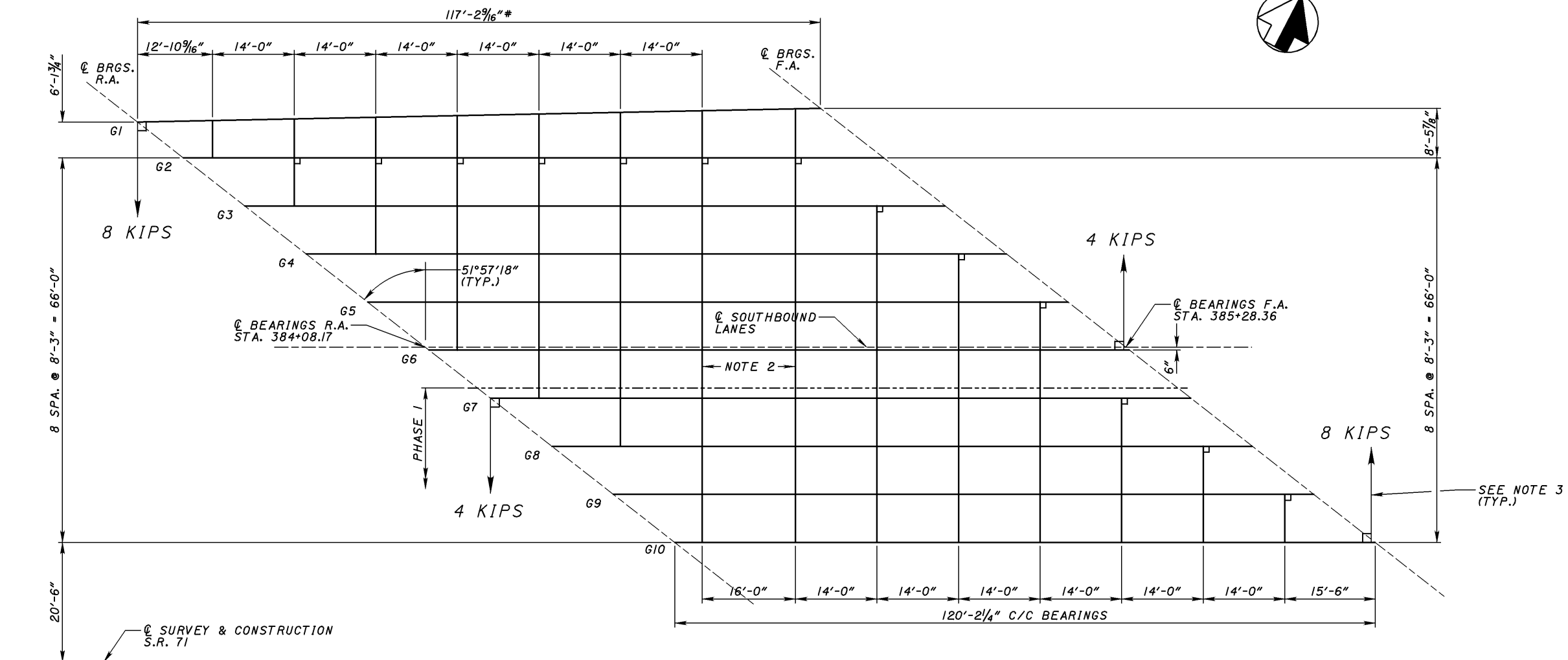
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON EXP. JOINT, FROM TOP OF FOOTING TO 6" BELOW GROUND LINE
4. SEE SHEETS 26/43 & 27/43 FOR LOCATIONS OF SECTIONS
5. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 5 BARS - 2'-1"

LEGEND:

- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- PEJF = PERFORMED EXPANSION JOINT FILLER
- T&B = TOP & BOTTOM
- E.F. = EACH FACE
- DIA. = DIAMETER

BURGESS & NIPLE	
3005 Reed Road COLUMBUS, OH 43220	DATE: 11-1-04
REVIEWED: DWL	STRUCTURE FILE NUMBER: 5202809
DRAWN: MPS	CHECKED: JAA
DESIGNED: MPS	
FORWARD ABUTMENT WINGWALL DETAILS	
BRIDGE NO. MED-71-0729 L OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
29 / 43	712 1120

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TEMPORARY GIRDER BRACING DETAIL

PLAN
(* - MEASURED ALONG GIRDER I)

* - CONTRACTOR TO PROVIDE TENSION TIE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. TIE SHALL BE INSTALLED PERPENDICULAR TO CENTERLINE OF GIRDER. FORCES GIVEN ARE HORIZONTAL (ADJUST AS NECESSARY IF TIE IS NOT HORIZONTAL). REMOVE TENSION TIE PRIOR TO CASTING ABUTMENT DIAPHRAGM. CONTRACTOR SHALL DESIGN TENSION TIE AND ANCHORAGE. CALCULATIONS PERFORMED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. PAYMENT SHALL BE INCLUDED IN PAY ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL 4.

** - CONTRACTOR TO PROVIDE TEMPORARY BLOCKING (SIMILAR TO BEARING RETAINER) TO PROVIDE RESISTANCE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. REMOVE BLOCKING PRIOR TO CASTING OF ABUTMENT DIAPHRAGM. SEE TENSION TIE NOTE (ABOVE) FOR SUBMITTAL, APPROVAL AND PAYMENT INFORMATION.

NOTES:

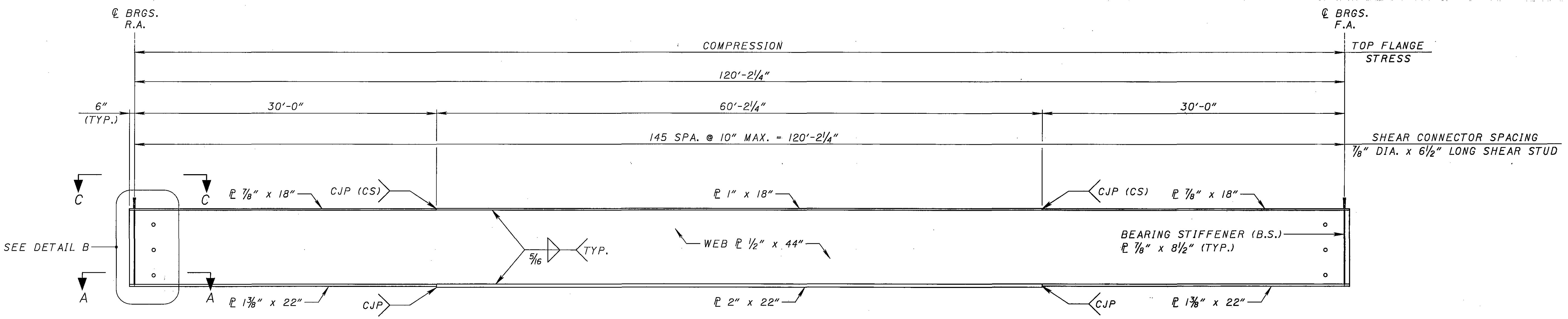
1. SEE SHEET 31A / 43 FOR CROSSFRAME DETAILS.
2. INSTALL CROSSFRAMES IN THIS BAY BETWEEN PHASES 2 & 3.
3. FORCES INDICATED MUST BE RESISTED BY TEMPORARY BRACING DURING DECK POUR DUE TO UNBRACED GIRDER ENDS. FORCES AND DIRECTIONS SHOWN ARE FOR TOP FLANGE TENSION TIES. FORCES AT BLOCKING AT BEARING LOAD PLATES ARE EQUAL AND OPPOSITE. SEE TEMPORARY GIRDER BRACING DETAIL (THIS SHEET) FOR ADDITIONAL INFORMATION.

LEGEND:

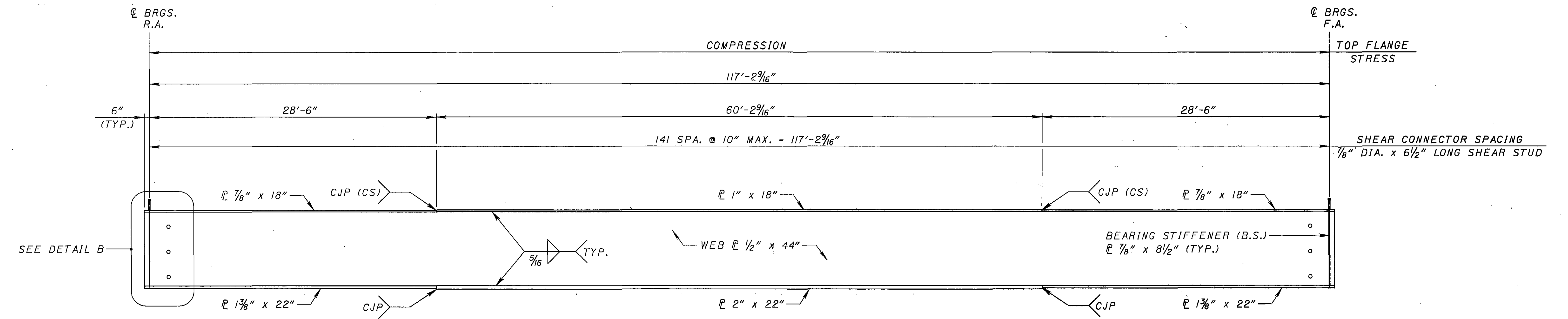
- BRGS. - BEARINGS
- C/C - CENTER TO CENTER
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- SPA. - SPACES
- TYP. - TYPICAL

BURGESS & NIPLE <small>5085 Reed Road Columbus, Ohio 43220</small>	
DESIGNED ASK CHECKED JAA	DATE 11/06/04 REVIEWED DWL DRAWN ASK STRUCTURE FILE NUMBER 5202809 REVISED 8/8/06
FRAMING PLAN BRIDGE NO. MED-71-0729 L OVER EXISTING CH. 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
30 / 43	
713 1120	

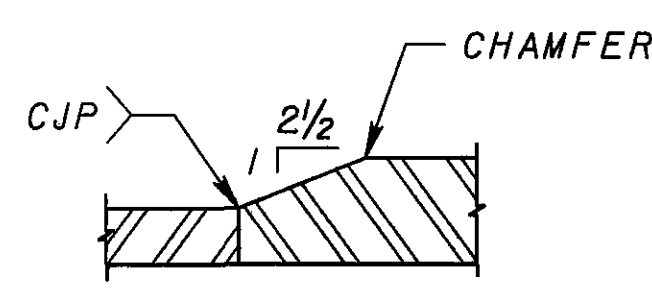
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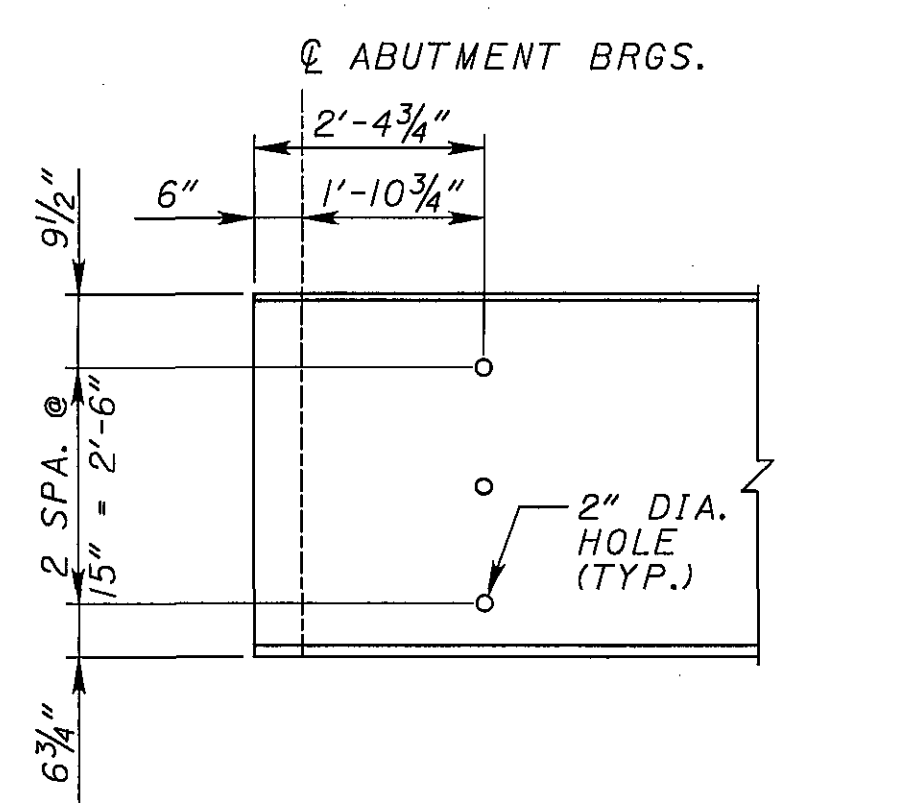
GIRDERS 2 THROUGH 10 ELEVATION



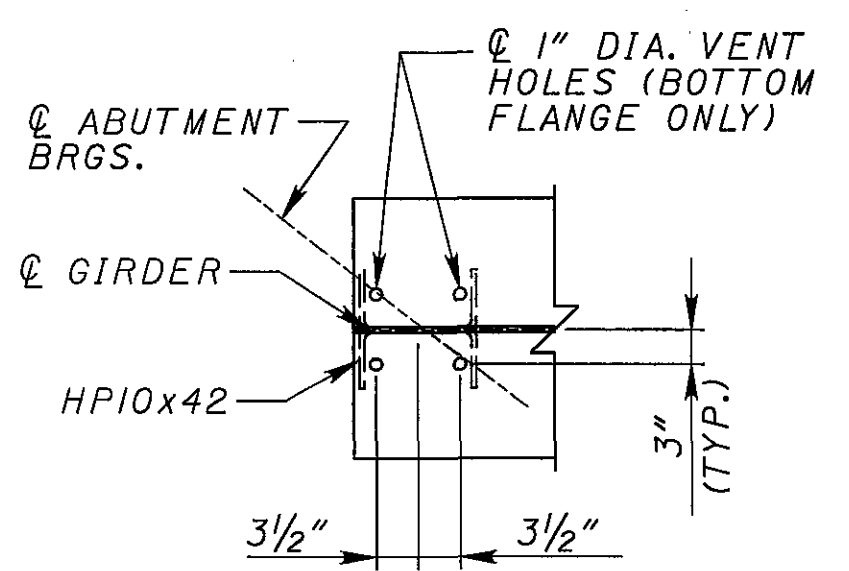
GIRDER 1 ELEVATION



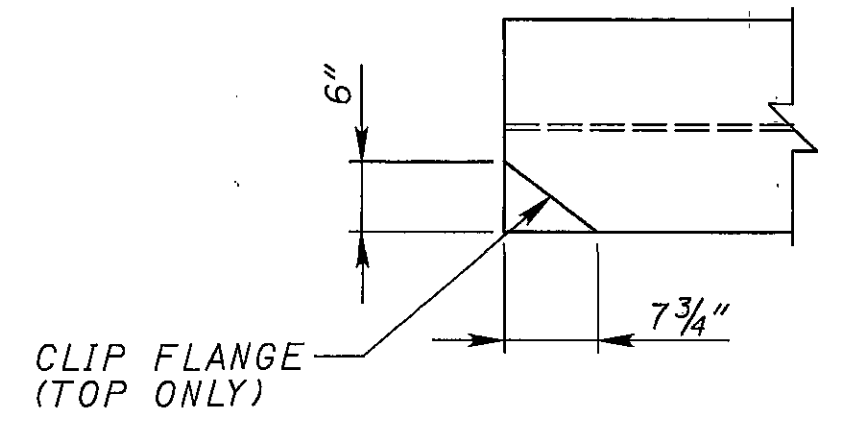
FLANGE WELD DETAIL
(GRIND COMPLETE JOINT PENETRATION WELD SMOOTH IN A LONGITUDINAL DIRECTION TO REMOVE WELD REINFORCEMENT.)



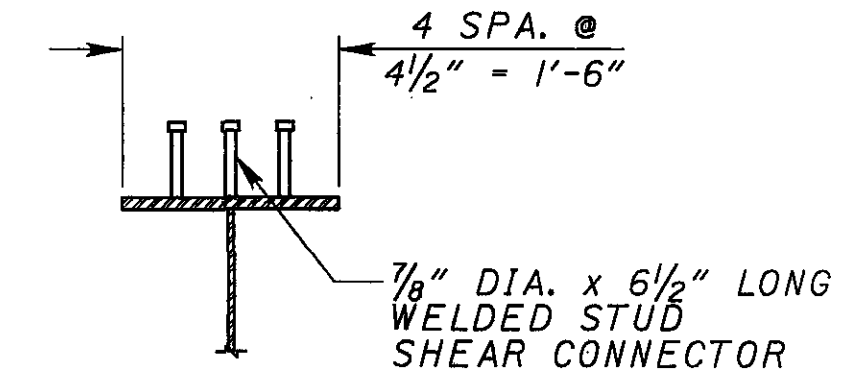
DETAIL B
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)



SECTION A-A
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)



SECTION C-C
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)



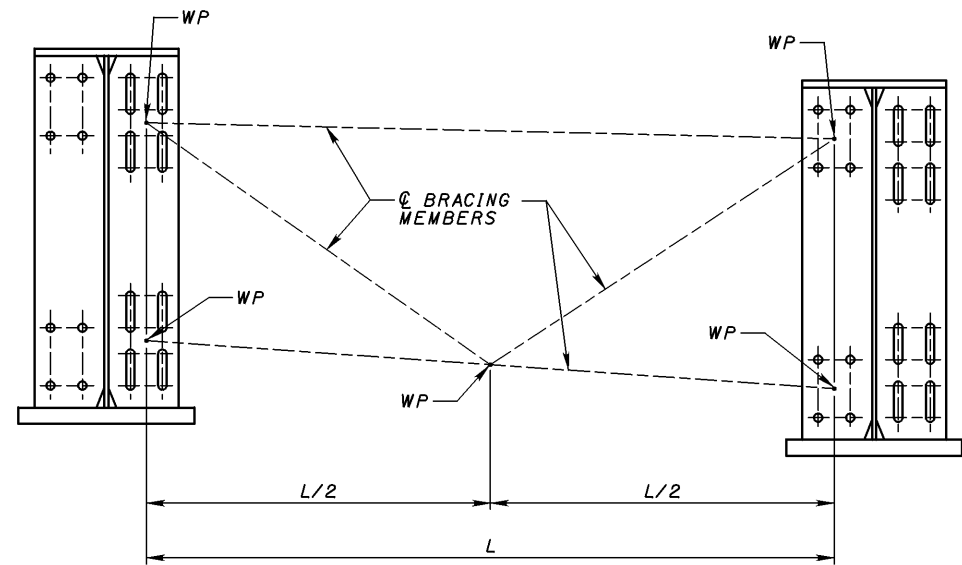
SHEAR CONNECTOR DETAIL

NOTES:

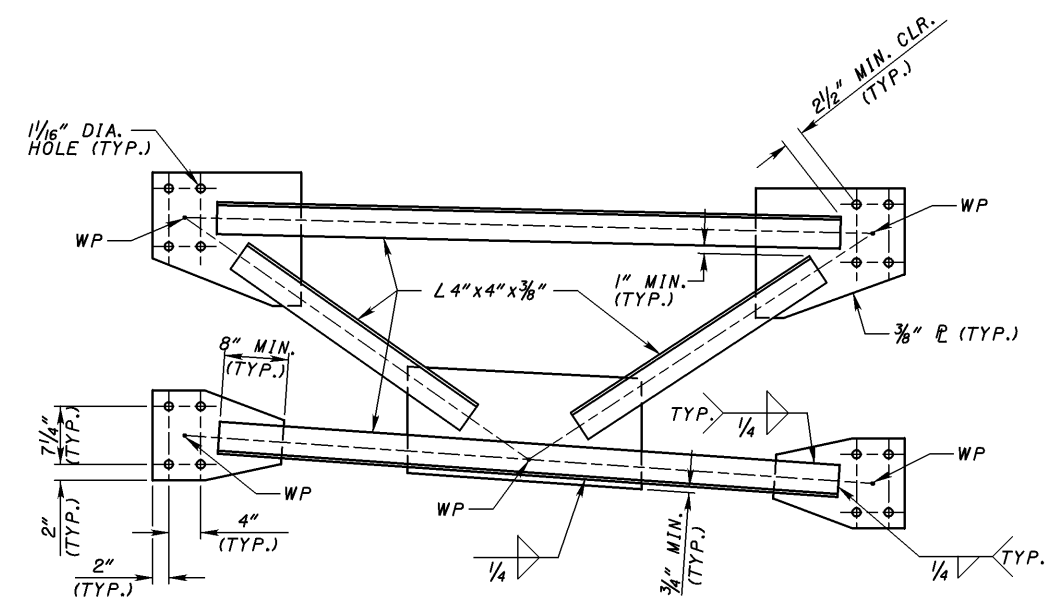
1. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NOT MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
2. ALL GIRDER WEB PLATES AND FLANGE PLATES ARE DESIGNATED CVN AND SHALL MEET MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF CMS.
3. SEE SHEET 34/43 FOR STIFFENER DETAILS.

LEGEND

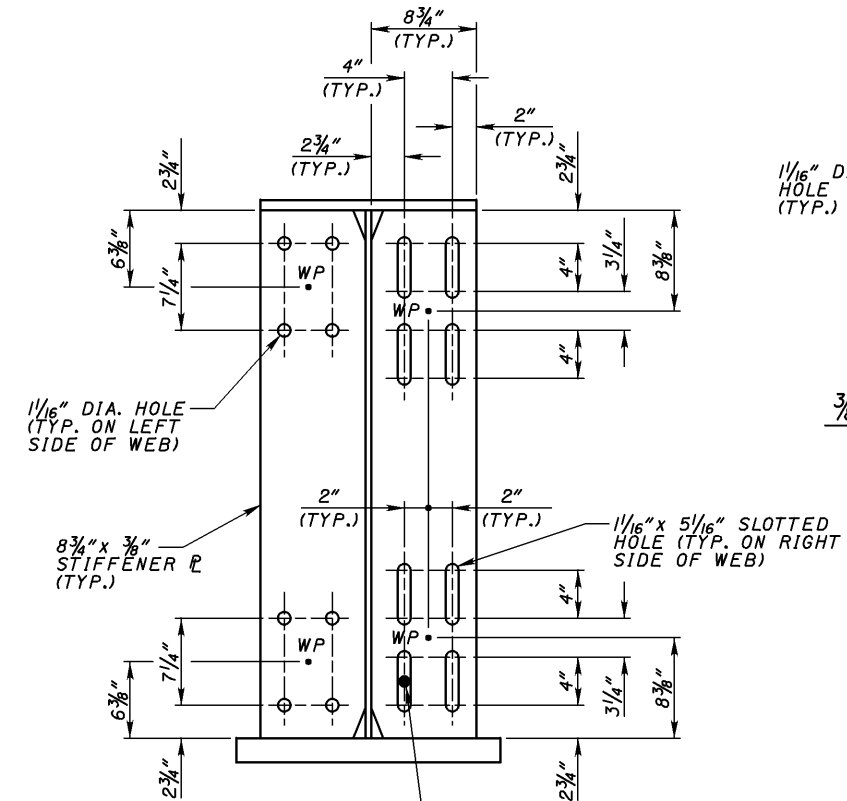
- BRGS. = BEARINGS
- CJP = COMPLETE JOINT PENETRATION
- CS = INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY
- DIA. = DIAMETER
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- SPA. = SPACES



CROSSFRAME ELEVATION

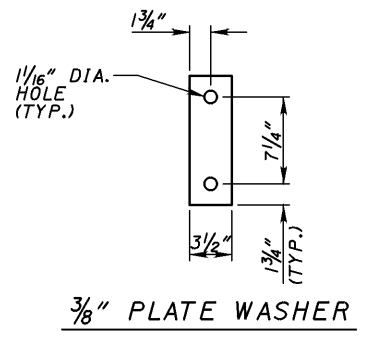


CROSSFRAME DETAIL

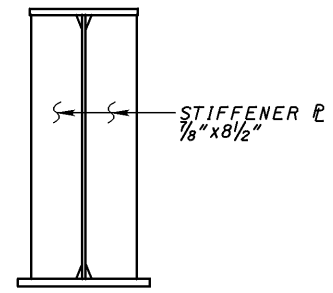


CROSSFRAME STIFFENER

(INTERIOR GIRDER SHOWN, EXTERIOR GIRDERS SHALL HAVE CROSSFRAME STIFFENER AT INSIDE FACE OF WEB ONLY)



3/8" PLATE WASHER



BEARING STIFFENER

LEGEND:

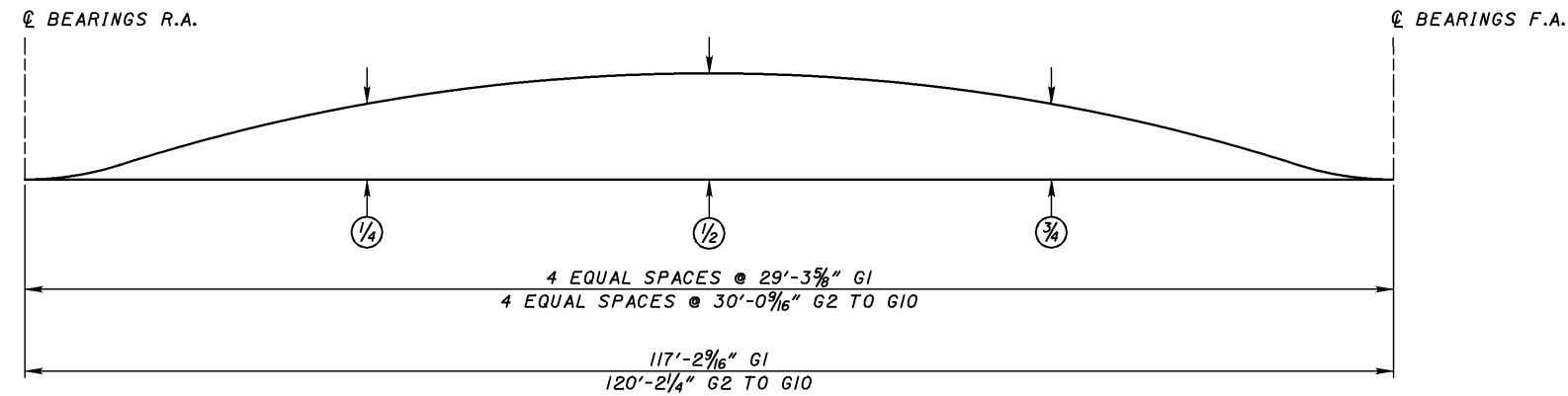
WP - WORK POINT

NOTES:

- SEE STD. DWG. GSD-I-96 FOR ADDITIONAL STIFFENER NOTES.
- BOLT TIGHTENING SEQUENCE: FOR CONNECTIONS WITH SLOTTED HOLES, INSTALL BOLTS AND TIGHTEN TO A SNUG TIGHT FIT AS DEFINED IN CMS 513. DO NOT COMPLETELY TIGHTEN THESE BOLTS UNTIL THE DECK PLACEMENT HAS BEEN COMPLETED. INSTALL AND COMPLETELY TIGHTEN ALL OTHER CONNECTIONS ACCORDING TO CMS 513 PRIOR TO THE DECK PLACEMENT.
- FASTENERS: FURNISH 1" DIAMETER ASTM A325 BOLTS FOR ALL CONNECTIONS. USE TYPE I GALVANIZED BOLTS. CONNECTIONS WITH SLOTTED HOLES SHALL INCLUDE A BOLT, NUT, TWO WASHERS AND 3/8" PLATE WASHER. AT ALL OTHER CONNECTIONS, OMIT THE 3/8" PLATE WASHER.

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BURGESS & NIPLE	
5085 Reed Road Columbus, Ohio 43220	
DATE	5202809
REVIEWED	STRUCTURE FILE NUMBER
DESIGNED	8/8/06
WTL	TTK
WTL	TTK
GIRDER DETAILS BRIDGE NO. MED-71-0729 L OVER EXISTING CH. 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
31A / 43	
714A 1120	



CAMBER DIAGRAM

CAMBER TABLE (VALUES IN INCHES)						
GIRDER NUMBER		REAR ABUT.	1/4 SPAN	MIDSPAN	3/4 SPAN	FWD. ABUT.
G1	DEFLECTION DUE TO WEIGHT OF STEEL	0	5/16	1 1/8	5/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3 7/8	5 7/16	3 7/8	0
	ADJUSTMENT FOR GRADE BREAK	0	0	0	0	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4 13/16	6 13/16	4 13/16	0
G2	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/8	1 9/16	1 1/8	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3 13/16	5 5/16	3 13/16	0
	ADJUSTMENT FOR GRADE BREAK	0	0	0	0	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4 5/16	6 7/8	4 5/16	0
G3	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/8	1 9/16	1 1/8	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3 3/4	5 5/16	3 3/4	0
	ADJUSTMENT FOR GRADE BREAK	0	0	0	0	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4 7/8	6 7/8	4 7/8	0
G4	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/8	1 9/16	1 1/8	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3 5/8	5 1/8	3 5/8	0
	ADJUSTMENT FOR GRADE BREAK	0	0	0	0	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4 3/4	6 11/16	4 3/4	0
G5	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/8	1 9/16	1 1/8	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3 11/16	5 3/16	3 11/16	0
	ADJUSTMENT FOR GRADE BREAK	0	0	0	0	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4 13/16	6 3/4	4 13/16	0

CAMBER TABLE (VALUES IN INCHES)						
GIRDER NUMBER		REAR ABUT.	1/4 SPAN	MIDSPAN	3/4 SPAN	FWD. ABUT.
G6	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/16	1 1/2	1 1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3	4 3/16	3	0
	ADJUSTMENT FOR GRADE BREAK	0	0	1/16	1/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4 1/16	5 3/4	4 1/8	0
G7	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/16	1 1/2	1 1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	2 7/8	4 1/16	2 7/8	0
	ADJUSTMENT FOR GRADE BREAK	0	1/16	1/8	3/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	4	5 1/16	4 1/8	0
G8	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/8	1 9/16	1 1/8	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3 15/16	5 1/2	3 15/16	0
	ADJUSTMENT FOR GRADE BREAK	0	1/8	1/4	3/8	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5 3/16	7 5/16	5 7/16	0
G9	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/8	1 9/16	1 1/8	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	4 1/16	5 11/16	4 1/16	0
	ADJUSTMENT FOR GRADE BREAK	0	3/16	5/16	3/8	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5 3/8	7 3/16	5 5/16	0
G10	DEFLECTION DUE TO WEIGHT OF STEEL	0	1 1/16	1 1/2	1 1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	4 1/2	6 5/16	4 1/2	0
	ADJUSTMENT FOR GRADE BREAK	0	1/4	7/16	3/8	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5 1/16	8 1/4	5 5/16	0

NOTE:

1. SEE SHEET 30 / 43 FOR GIRDER NUMBER LOCATION.
2. ALL CAMBER VALUES ARE POSITIVE (+) UNLESS NOTED OTHERWISE.

LEGEND:

F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT

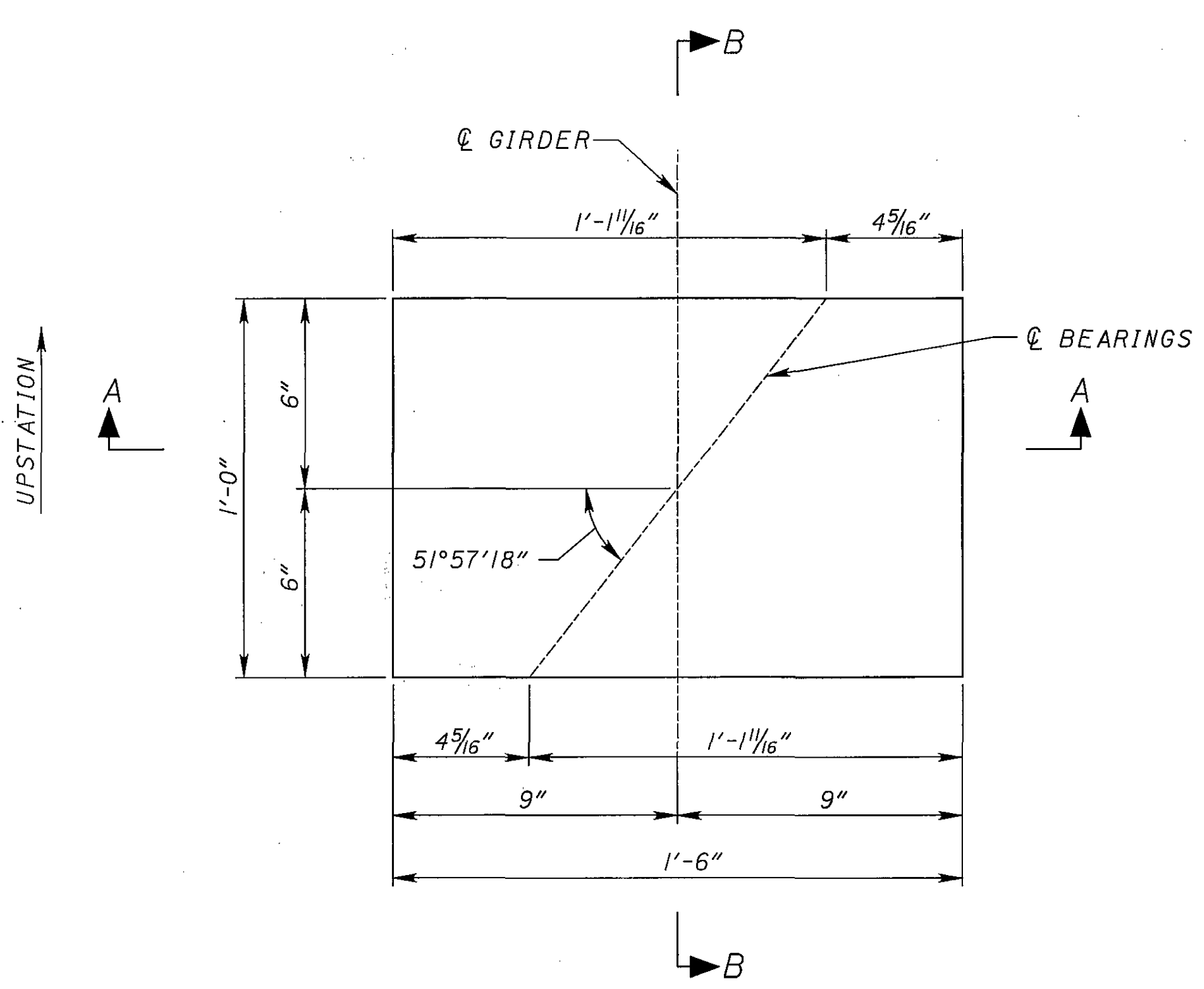
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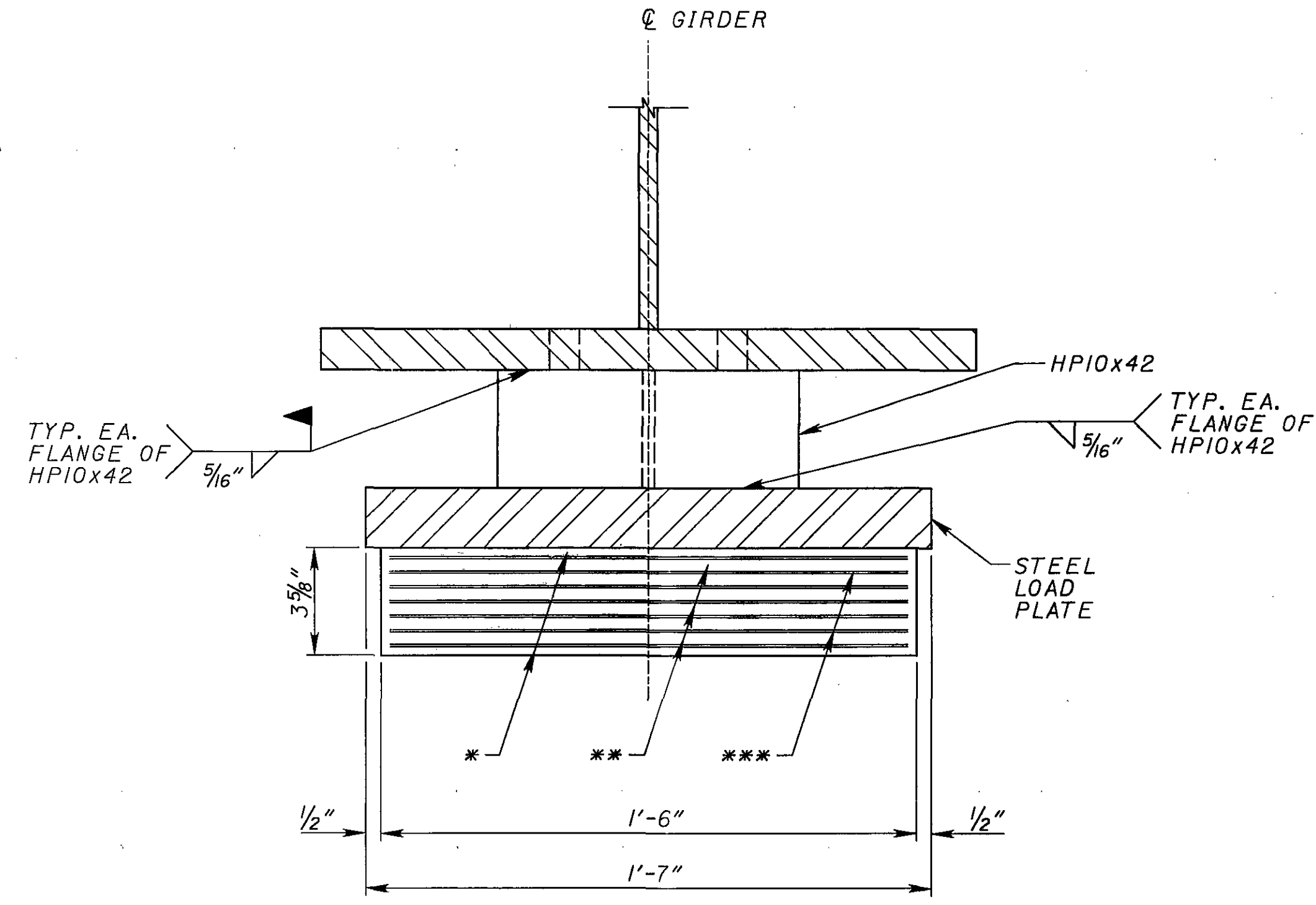
DESIGNED	ASK	JAA
CHECKED	ASK	JAA
DRAWN	ASK	8/8/06
REVIEWED	DWL	5202809
DATE	11/06/04	

CAMBER DETAILS
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH. 97 (GREENWICH RD)

MED-71-6.06
 PID 75657

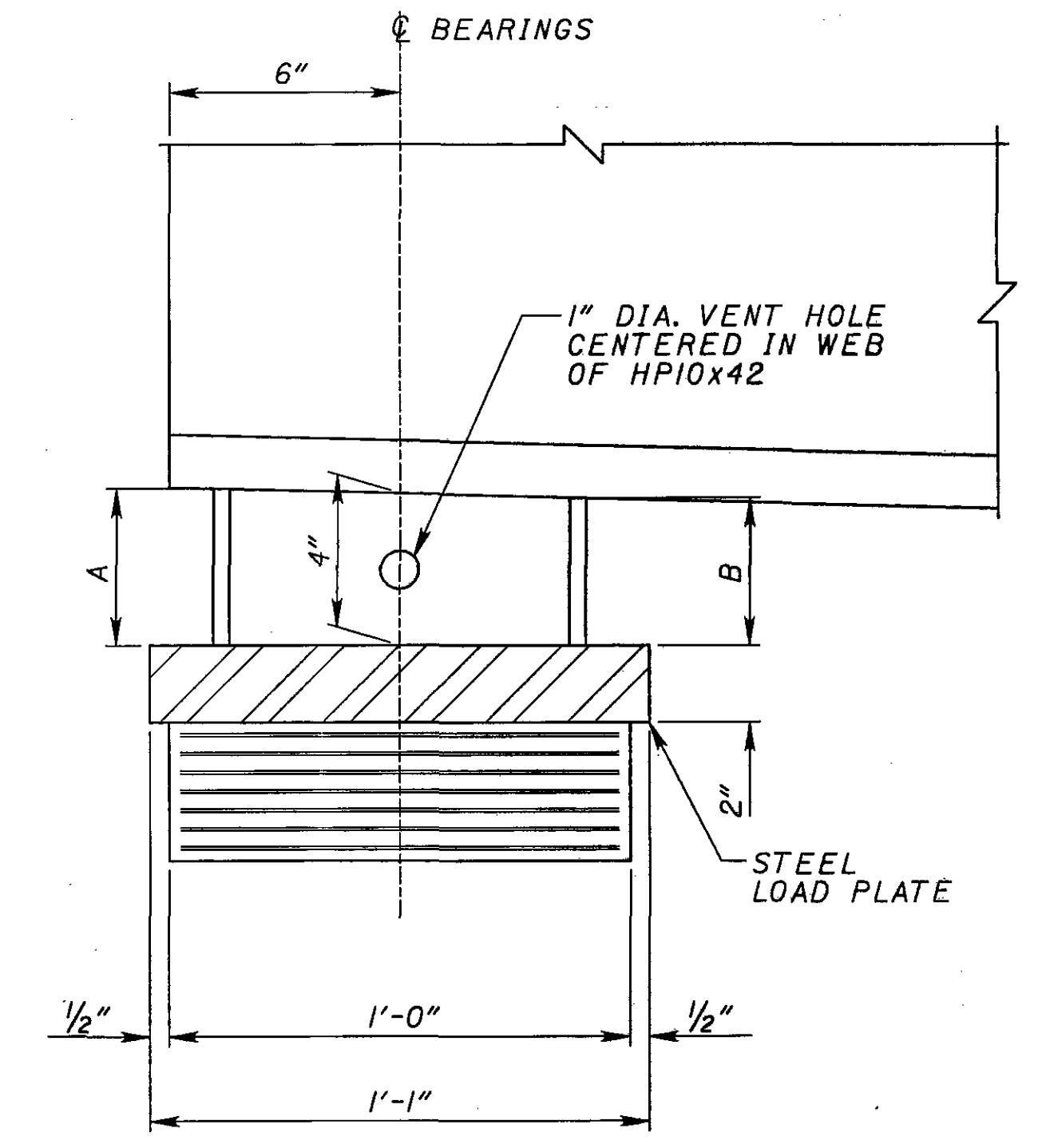


BEARING PLAN
 (LOAD PLATE & GIRDER NOT SHOWN)



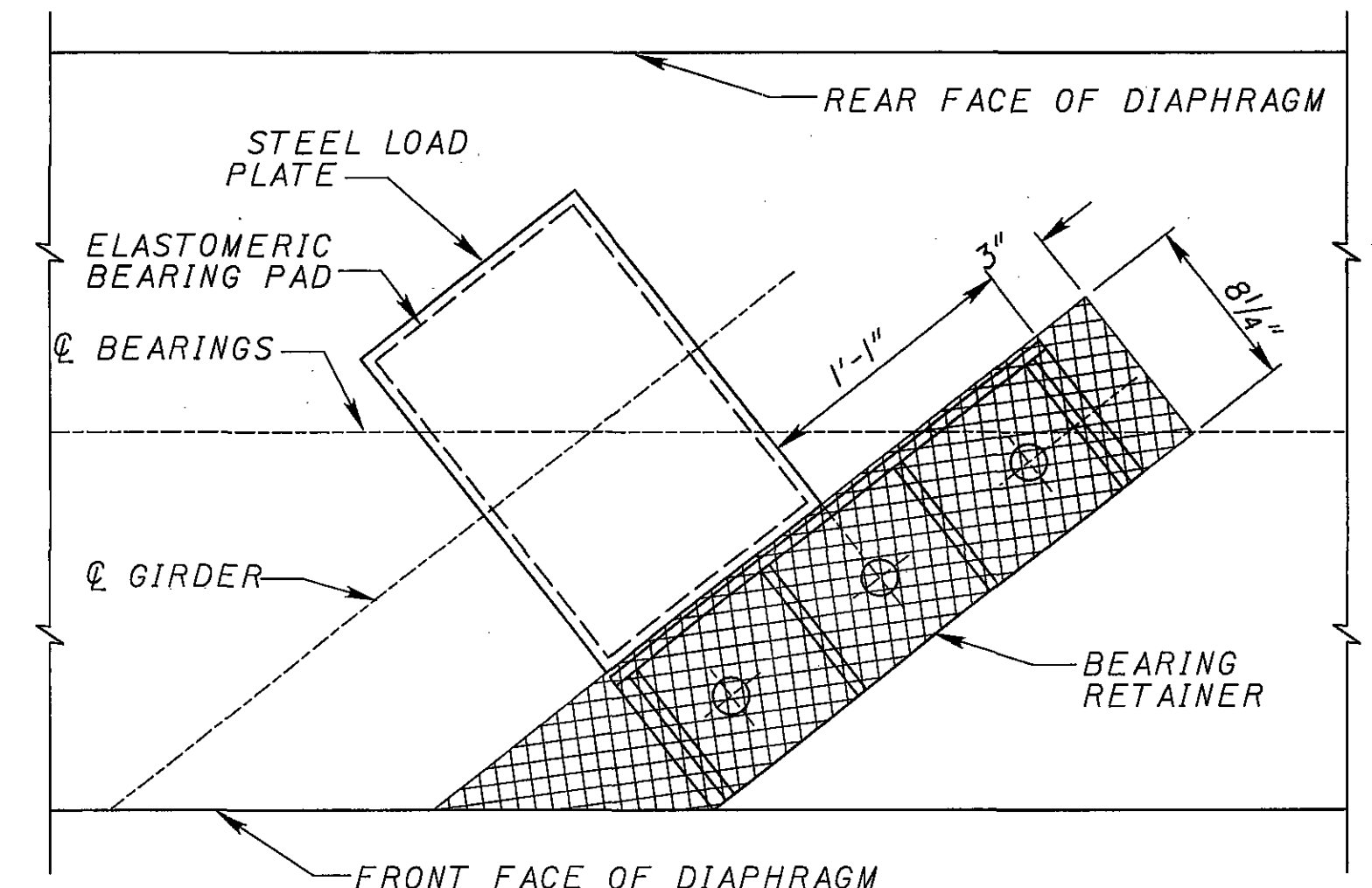
* - 2 EXTERNAL ELASTOMER LAYERS
 THICKNESS = 0.294"
 ** - 6 INTERNAL ELASTOMER LAYERS
 THICKNESS = 0.420"
 *** - 6 INTERNAL STEEL LAMINATES
 THICKNESS = 0.0747"

SECTION A-A

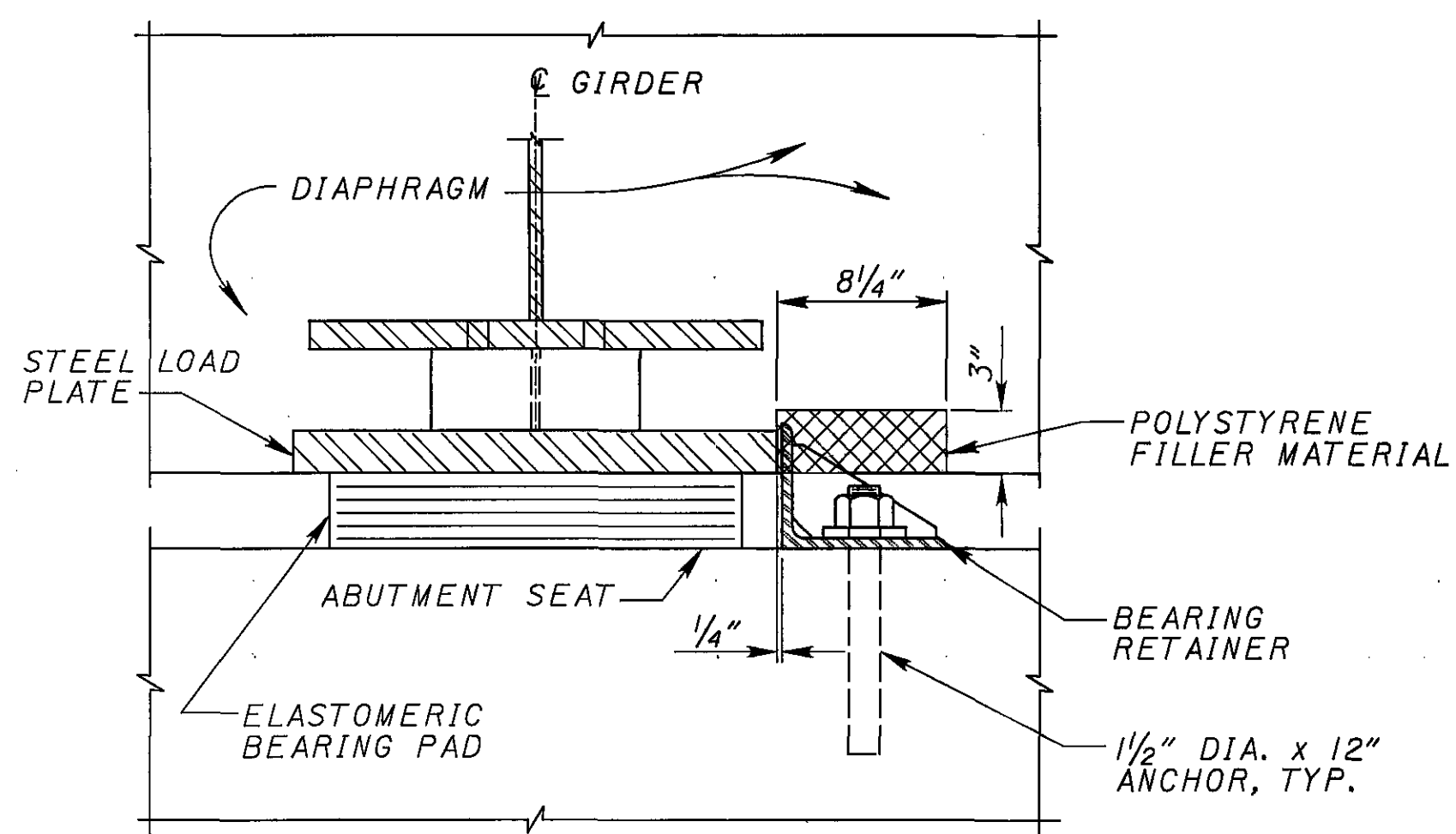


SECTION B-B

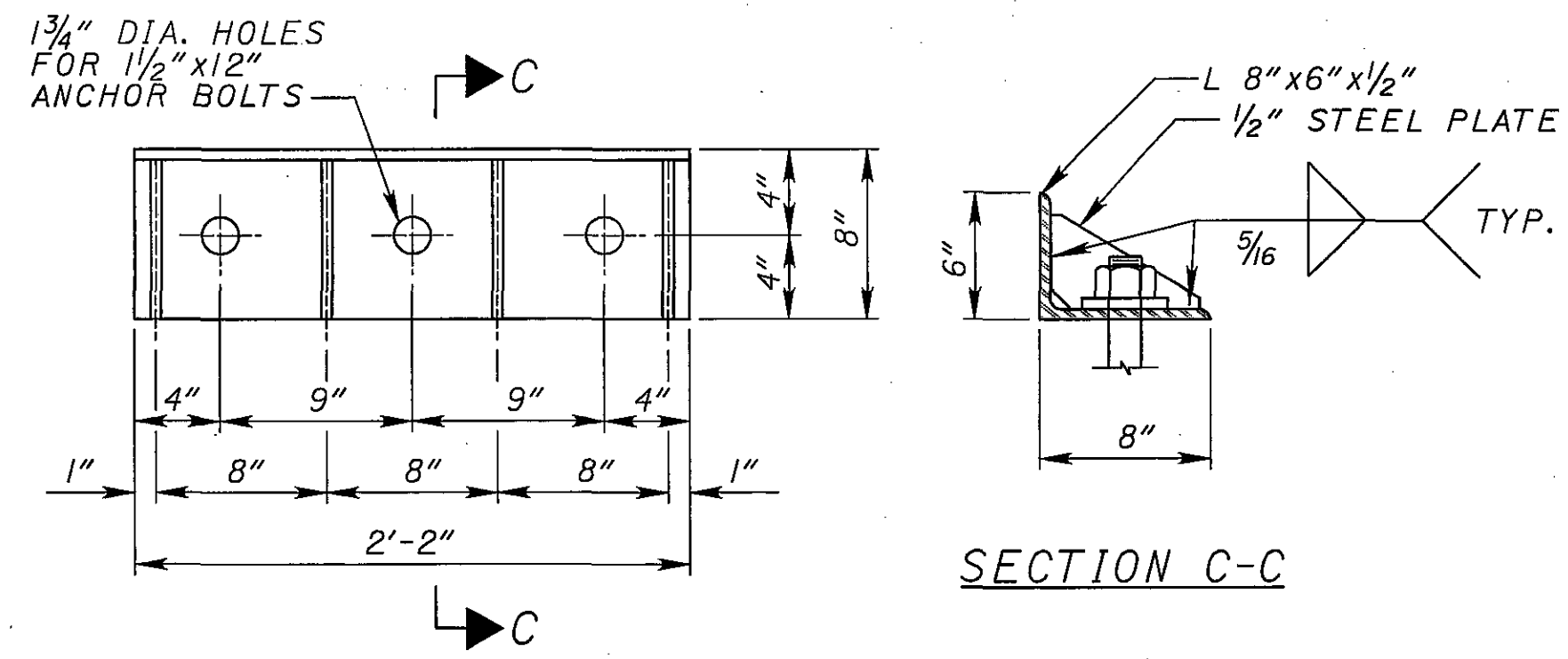
LOCATION	DIMENSION	
	"A"	"B"
REAR ABUTMENT BEAM	4 1/8"	3 3/8"
FORWARD ABUTMENT BEAM	3 3/8"	4 1/8"



PLAN



ELEVATION



BEARING RETAINER

BEARING RETAINER ASSEMBLY
 (SEE NOTE 6)

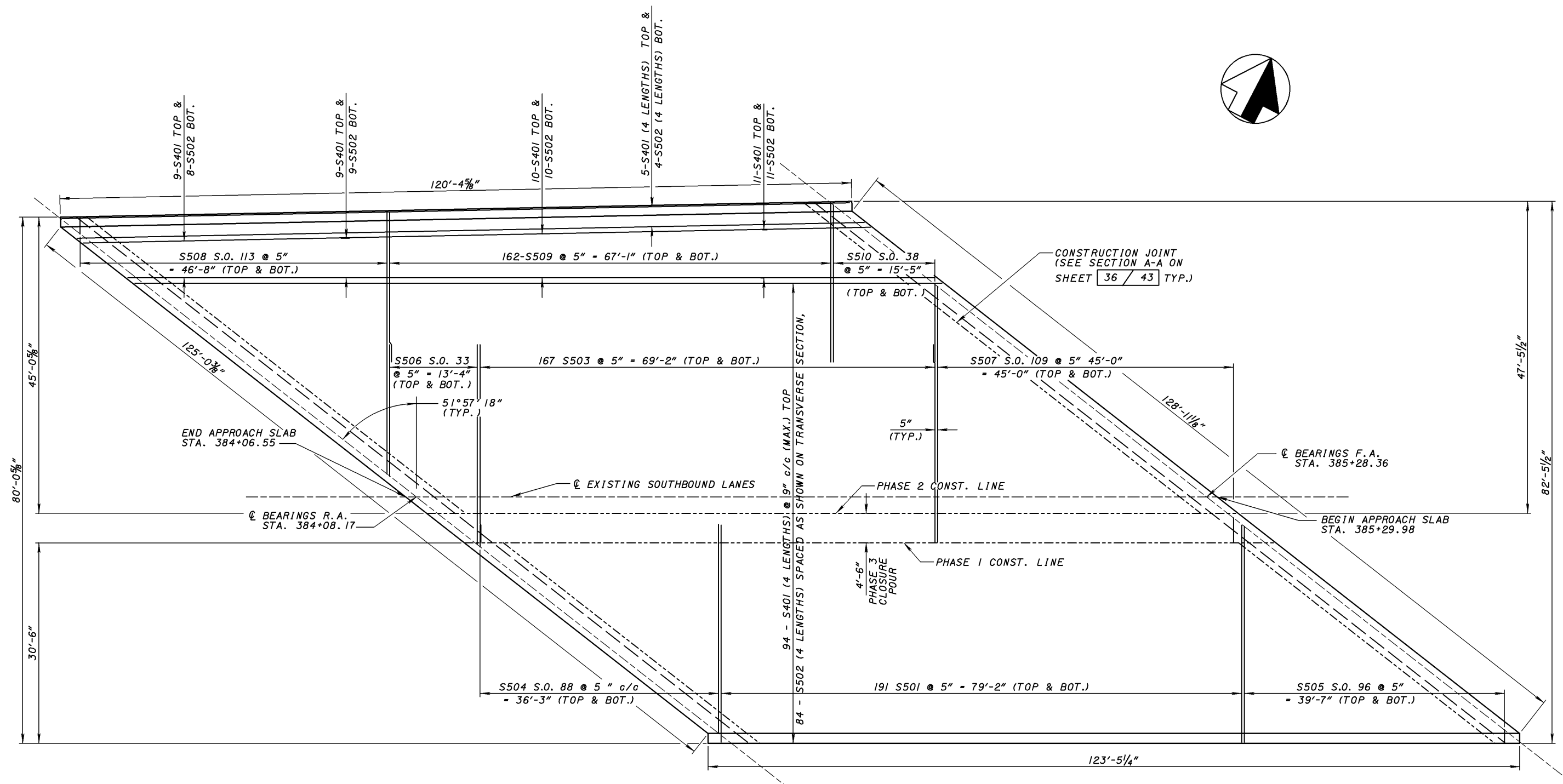
NOTES:

- FOR DETAILS NOT SHOWN SEE STD. DWG. SICD-I-96
- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
- WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND LOCATION (REAR ABUTMENT OR FORWARD ABUTMENT). THE STEEL LOAD PLATES & HP 10x42 ARE ASTM A709 GRADE 50W STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS.
- DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING SERVICE LOADS (KIPS):

	ABUTMENTS
DEAD LOAD	107.5
LIVE LOAD W/O IMPACT	68.1
TOTAL DESIGN LOAD	175.6
- BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES, BEARING RETAINER ASSEMBLY AND HPI0x42. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.

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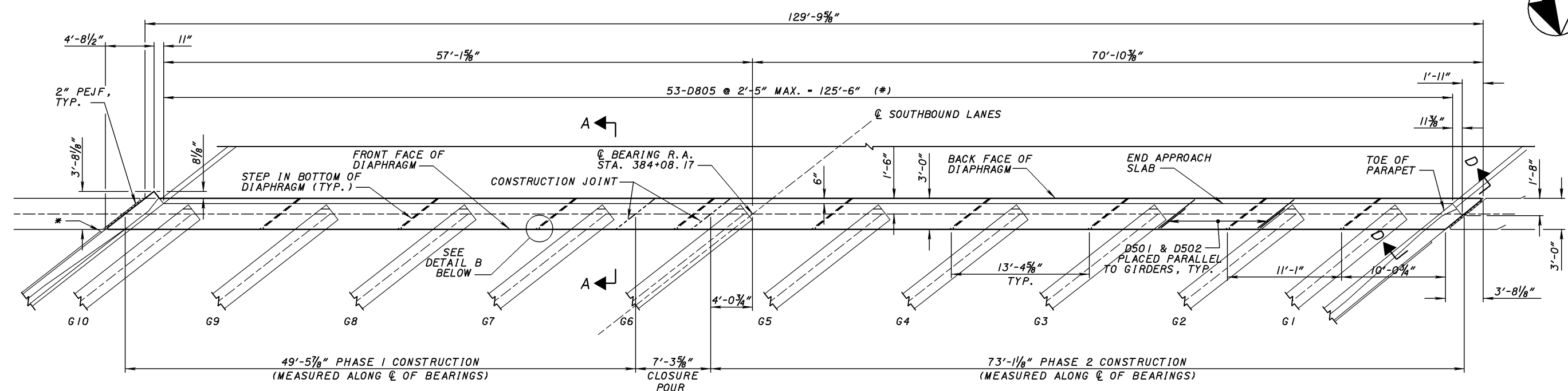


PLAN

NOTES:
 1. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LAP LENGTHS:
 NO. 4 BARS = 2'-0"
 NO. 5 BARS = 2'-7"

LEGEND
 BOT. = BOTTOM
 c/c = CENTER TO CENTER
 F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT
 S.O. = SERIES OF

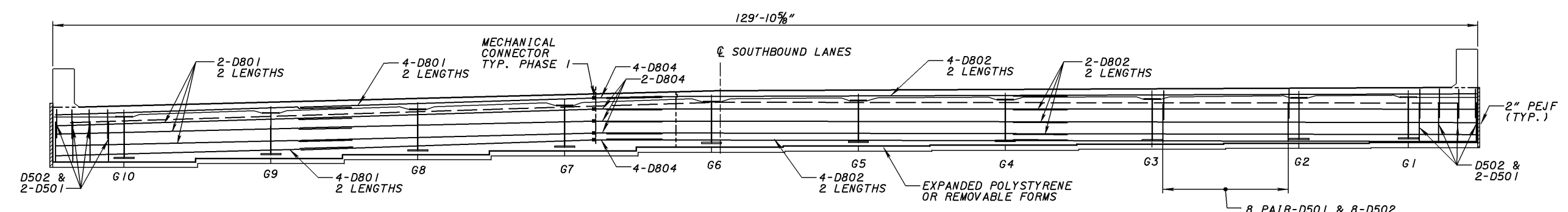
 5085 Reed Road Columbus, Ohio 43220 BURGESS & NIPLE	
DESIGNED DCF CHECKED JAA	DATE 11/08/04 STRUCTURE FILE NUMBER 5202809
DRAWN DCF REVISED 8/8/06	REVIEWED DWL SHEET 36 / 43 TYP.
DECK PLAN BRIDGE NO. MED-71-0729 L OVER EXISTING CH. 97 (GREENWICH RD)	
MED-71-6.06 PID 75657	
35 / 43	



* END 2" OVERHANG A MIN.
 1" CLEAR OF VERTICAL FACE

(* - SPACING MEASURED ALONG ϕ OF BEARING, BARS PLACED PARALLEL TO GIRDERS)

PLAN



ELEVATION
 (TAKEN ALONG ϕ OF BEARING R.A.)

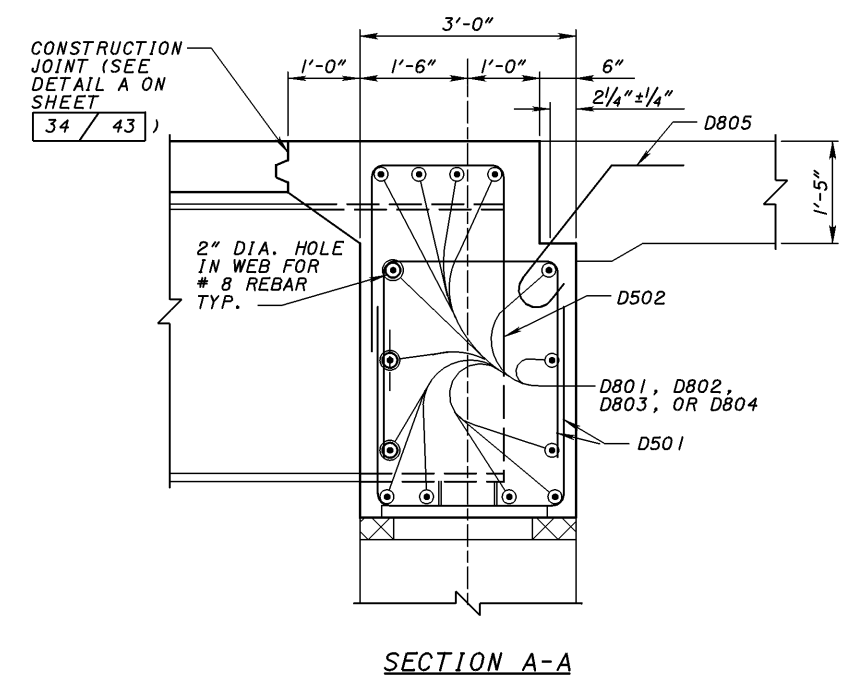
8 PAIR-D501 & 8-D502
 ϕ 1'-6" c/c MAX. SPA.
 BETWEEN GIRDERS, TYP.

NOTES

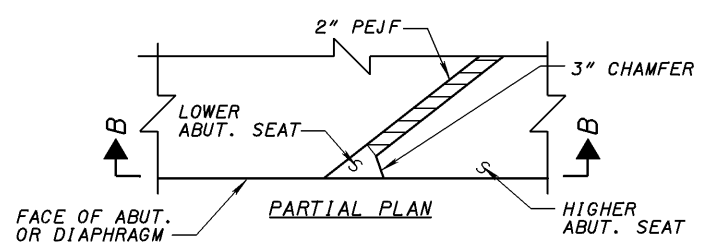
- FOR SECTION D-D SEE SHEET 37 / 43
- FOR DETAILS NOT SHOWN SEE STANDARD DRAWING SICD-I-96
- ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE DECK CONCRETE OF AN INDIVIDUAL PHASE PRIOR TO PLACING ABUTMENT DIAPHRAGM CONCRETE ENCASED STRUCTURAL STEEL MEMBERS OF CORRESPONDING PHASE. PROVIDE CONSTRUCTION JOINTS WITH KEYWAYS AS SHOWN IN SECTION A-A. REMOVE TEMPORARY BLOCKING AND TENSION TIES PRIOR TO PLACEMENT OF ABUTMENT DIAPHRAGM CONCRETE. DECK CONSTRUCTION JOINTS ARE NOT NECESSARY FOR CLOSURE POUR. CLOSURE POUR DECK AND ABUTMENT DIAPHRAGM CONCRETE CAN BE POURED TOGETHER.
- USE 3" CHAMFER AT ACUTE CORNERS, TYPICAL
- LAP REINFORCING THE FOLLOWING MINIMUM LENGTHS:
 NO. 5 BAR - 2'-1"
 NO. 8 BAR - 3'-11"
- SEE SHEET 38 / 43 FOR PARAPET REINFORCING DETAILS.
- SEE SHEET 33 / 43 FOR BEARING DETAILS.
- ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
- SEE MECHANICAL CONNECTOR NOTE, SHEET 4 / 43

LEGEND

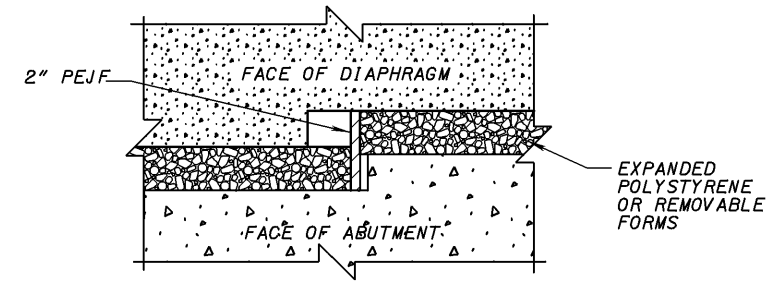
- ABUT. - ABUTMENT
- BRGS. - BEARINGS
- c/c - CENTER TO CENTER
- CLR. - CLEAR
- DIA. - DIAMETER
- F.A. - FORWARD ABUTMENT
- PEJF - PREFORMED EXPANSION JOINT FILLER
- R.A. - REAR ABUTMENT
- SPA. - SPACES
- TYP. - TYPICAL



SECTION A-A



PARTIAL PLAN

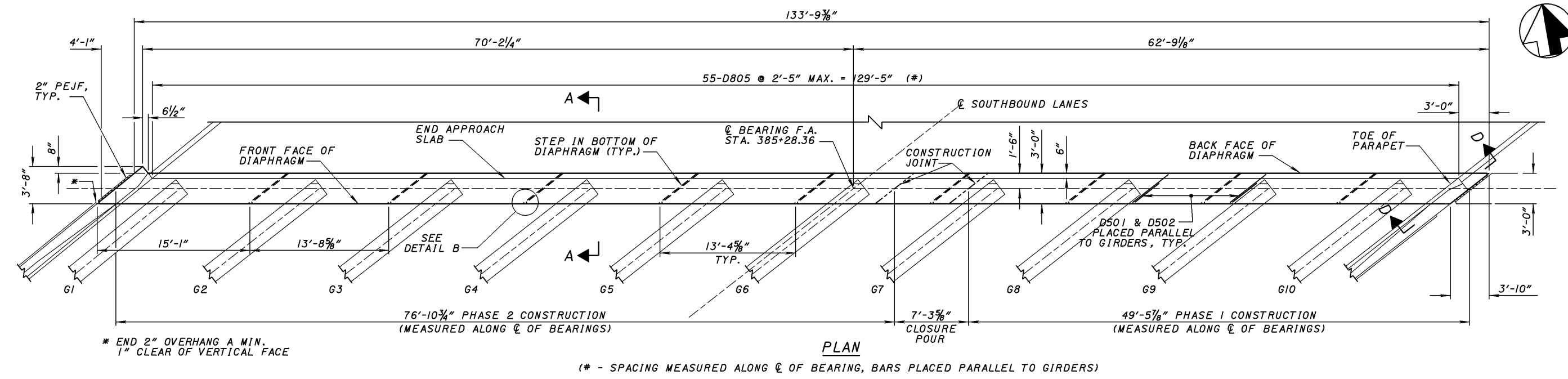


SECTION B-B

DETAIL B

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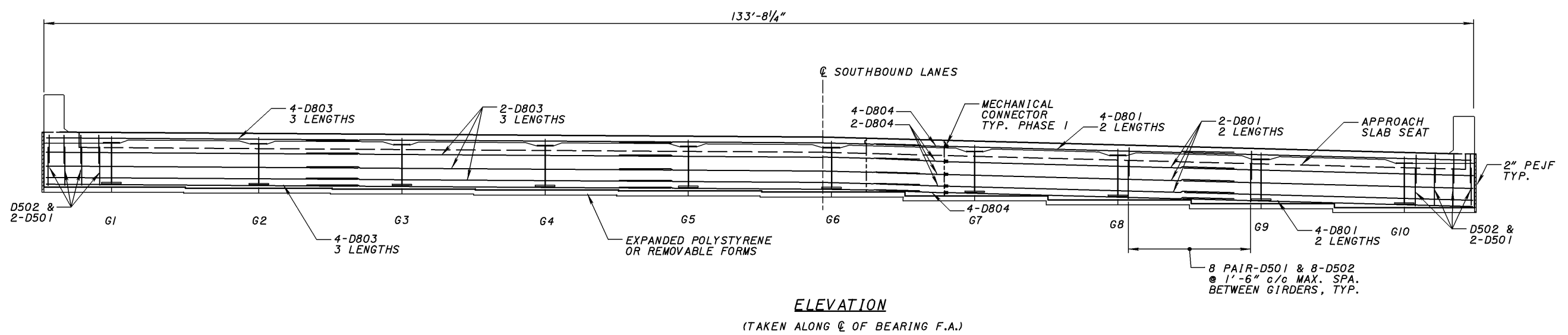
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PLAN

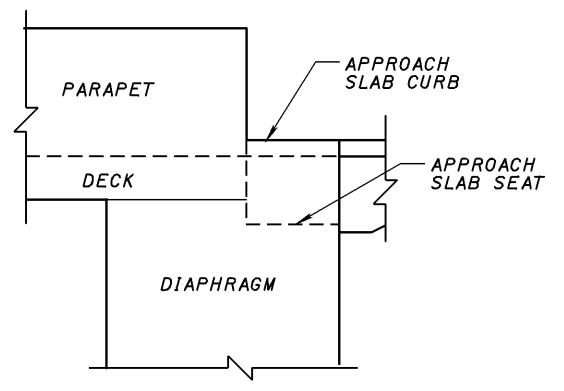
* END 2" OVERHANG A MIN.
 1" CLEAR OF VERTICAL FACE

(* - SPACING MEASURED ALONG ϕ OF BEARING, BARS PLACED PARALLEL TO GIRDERS)



ELEVATION

(TAKEN ALONG ϕ OF BEARING F.A.)



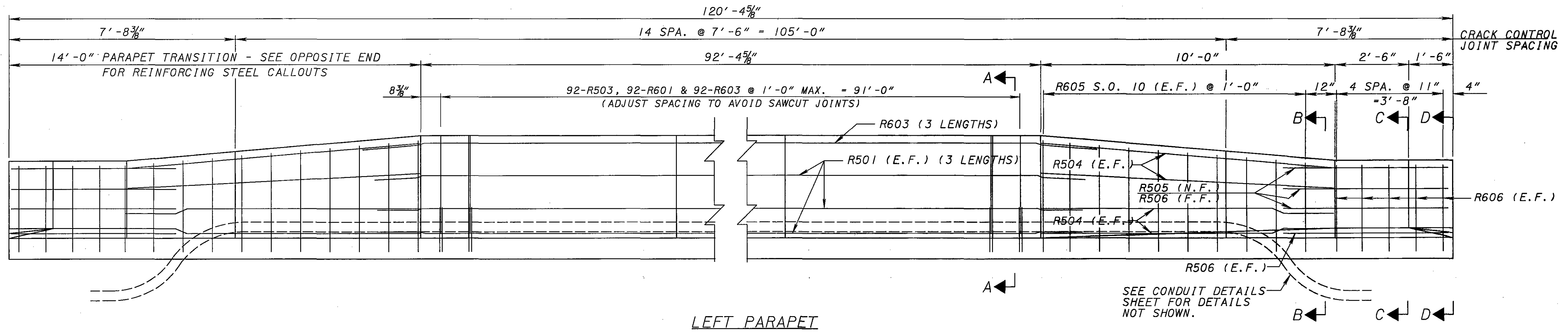
SECTION D-D

LEGEND

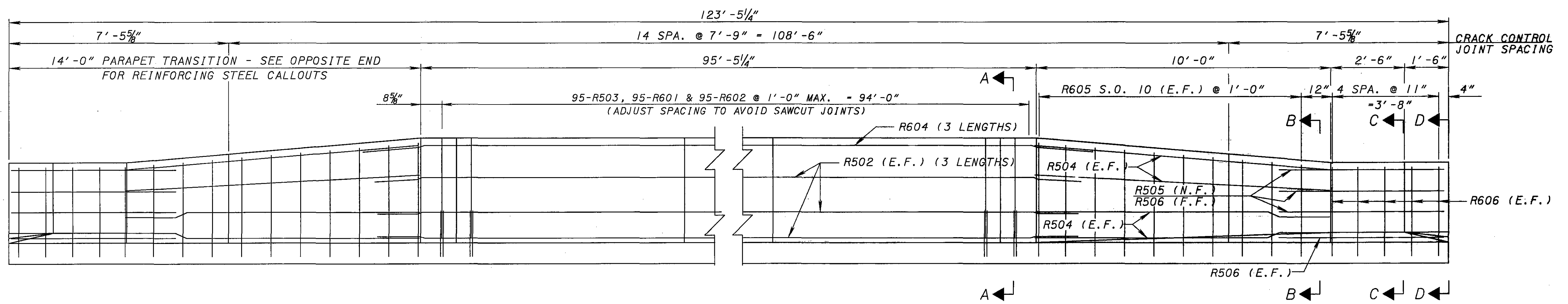
- BRGS. - BEARINGS
- c/c - CENTER TO CENTER
- CLR. - CLEAR
- F.A. - FORWARD ABUTMENT
- PEJF - PREFORMED EXPANSION JOINT FILLER
- R.A. - REAR ABUTMENT
- SPA. - SPACES
- TYP. - TYPICAL

NOTES

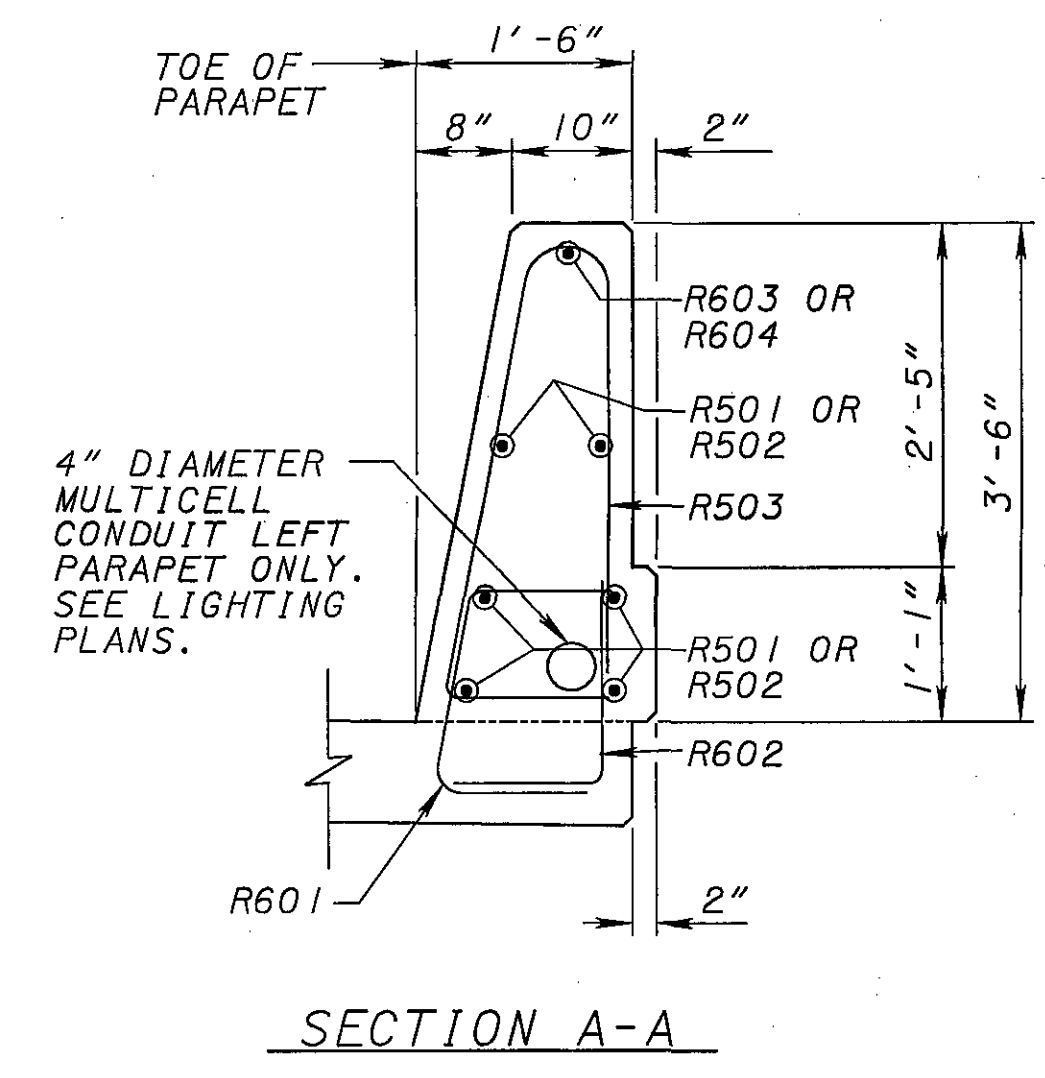
1. FOR DETAIL B AND SECTION A-A SEE SHEET 36 / 43
2. FOR DETAILS NOT SHOWN SEE STANDARD DRAWING SICD-I-96
3. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE DECK CONCRETE OF AN INDIVIDUAL PHASE PRIOR TO PLACING ABUTMENT DIAPHRAGM CONCRETE ENCASED STRUCTURAL STEEL MEMBERS OF CORRESPONDING PHASE. PROVIDE CONSTRUCTION JOINTS WITH KEYWAYS AS SHOWN IN SECTION A-A ON SHEET 36 / 43. REMOVE TEMPORARY BLOCKING AND TENSION TIES PRIOR TO PLACEMENT OF ABUTMENT DIAPHRAGM CONCRETE. DECK CONSTRUCTION JOINTS ARE NOT NECESSARY FOR CLOSURE POUR. CLOSURE POUR DECK AND ABUTMENT DIAPHRAGM CONCRETE CAN BE POURED TOGETHER.
4. USE 3" CHAMFER AT ACUTE CORNERS, TYPICAL
5. LAP REINFORCING THE FOLLOWING MINIMUM LENGTHS:
 NO. 5 BAR - 2'-1"
 NO. 8 BAR - 3'-11"
6. SEE SHEET 38 / 43 FOR PARAPET REINFORCING DETAILS.
7. SEE SHEET 33 / 43 FOR BEARING DETAILS.
8. ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
9. SEE MECHANICAL CONNECTOR NOTE, SHEET 4 / 43.



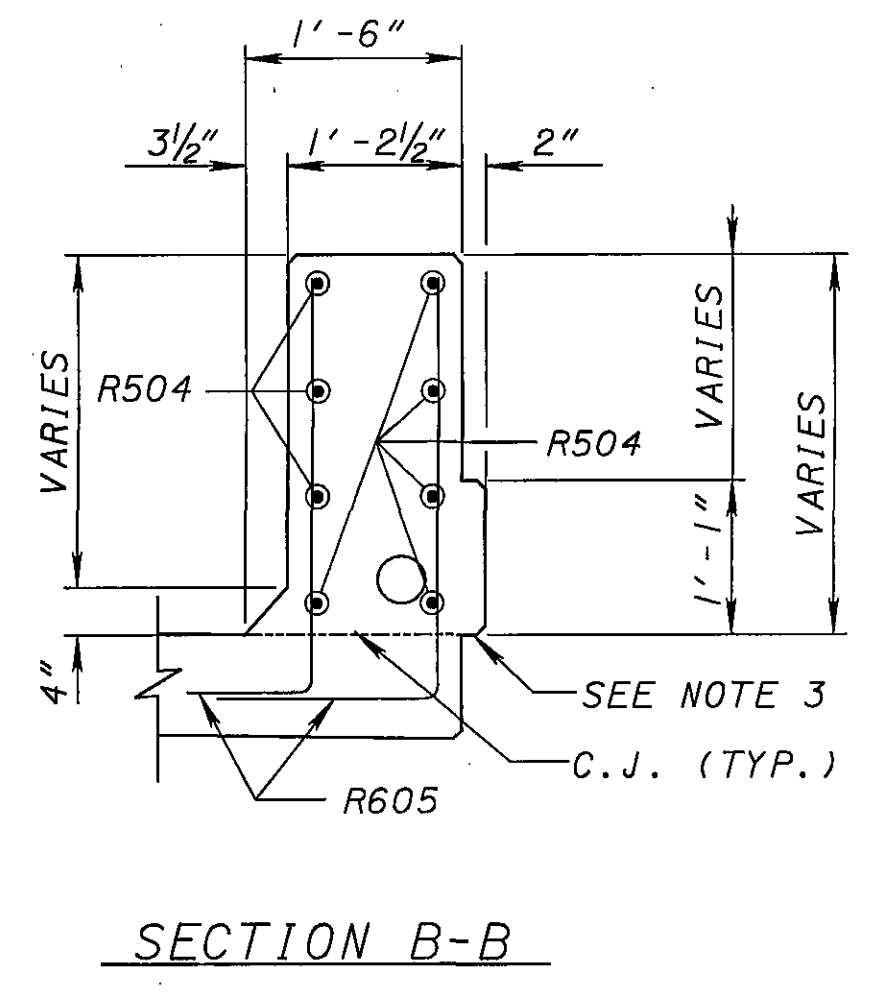
LEFT PARAPET



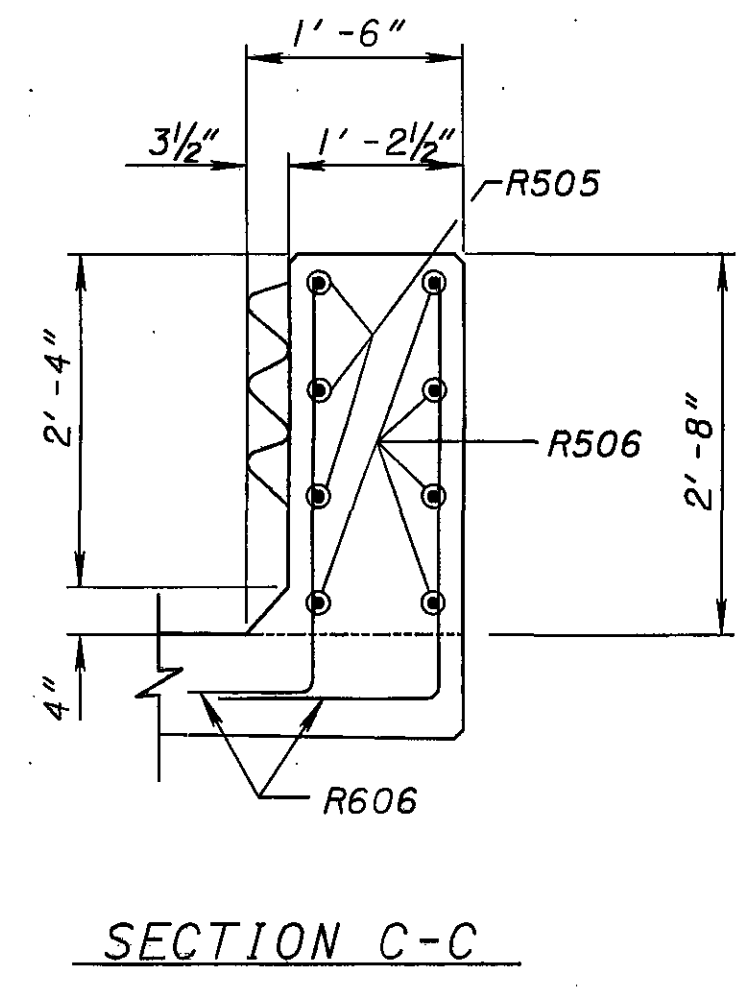
RIGHT PARAPET



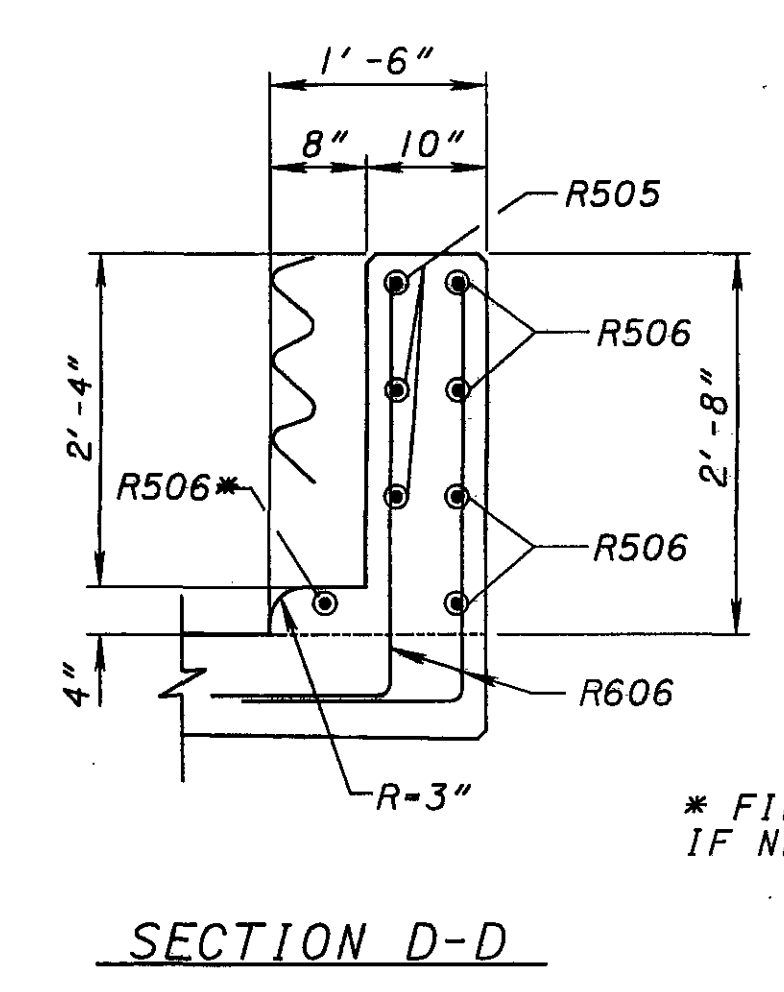
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

- SEE STD. DWG. SBR-1-99 FOR ADDITIONAL NOTES AND DETAILS.
- LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
 NO. 5 = 2'-1"
 NO. 6 = 2'-5"
- END 2" OVERHANG & MINIMUM OF 1" CLEAR OF FACE OF VERTICAL WALL, SEE SHEETS 36 / 43 & 37 / 43.

LEGEND

- C.J. = CONSTRUCTION JOINT
- E.F. = EACH FACE
- F.F. = FAR FACE
- MAX. = MAXIMUM
- N.F. = NEAR FACE
- S.O. = SERIES OF
- SPA. = SPACES
- TYP. = TYPICAL

* FIELD BEND IF NECESSARY

BURGESS & NIPLE
 5085 Reed Road
 Columbus, Ohio 43220

DATE	11/08/04
REVIEWED	DWL
STRUCTURE FILE NUMBER	5202809
DRAWN	DCF
CHECKED	JAA

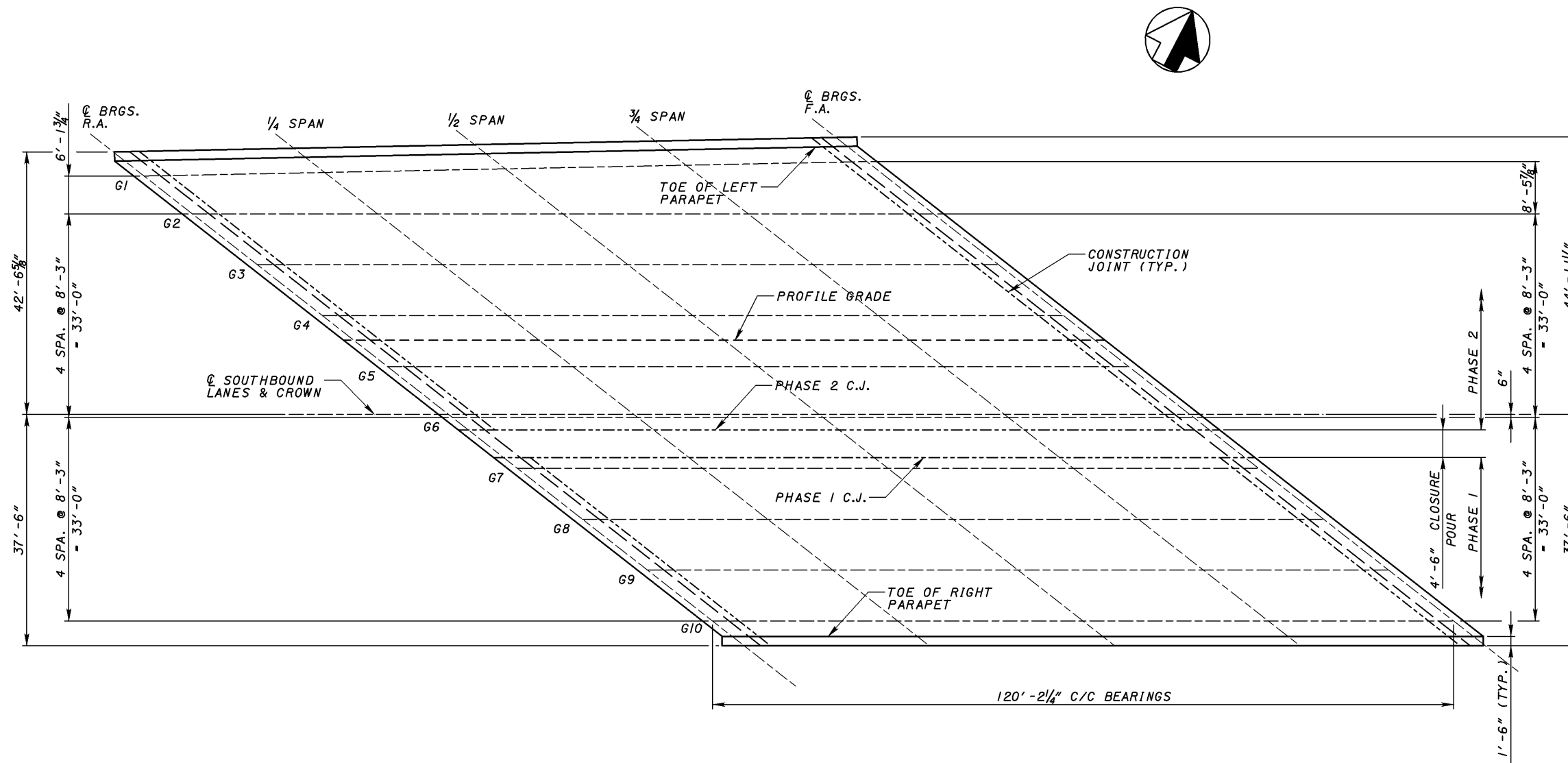
RAILING DETAILS
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID 75657

38 / 43

721
 1120

P:\PR30489\CADD\MED-71-0729\DETAIL DESIGN\0729L\REV-8-8-06\ME07ISD8.DGN



DECK SCREED ELEVATION TABLE

ELEVATION LINE	© BRGS. R.A.		1/4 SPAN		1/2 SPAN		3/4 SPAN		© BRGS. F.A.	
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
TOE OF LEFT PARAPET	383+55.67	1025.30	383+84.97	1024.98	384+14.27	1024.53	384+43.56	1023.82	384+72.86	1022.87
GIRDER 1	383+58.79	1025.28	383+88.08	1024.99	384+17.38	1024.52	384+46.68	1023.78	384+75.97	1022.85
GIRDER 2	383+66.64	1025.21	383+96.69	1024.91	384+26.73	1024.43	384+56.78	1023.69	384+86.83	1022.76
GIRDER 3	383+77.18	1025.12	384+07.23	1024.83	384+37.28	1024.34	384+67.32	1023.60	384+97.37	1022.67
GIRDER 4	383+87.72	1025.04	384+17.77	1024.73	384+47.82	1024.24	384+77.87	1023.50	385+07.91	1022.59
PROFILE GRADE	383+92.84	1025.00	384+22.88	1024.69	384+52.93	1024.20	384+82.98	1023.46	385+13.03	1022.54
GIRDER 5	383+98.27	1024.95	384+28.31	1024.65	384+58.36	1024.16	384+88.41	1023.42	385+18.46	1022.50
CROWN	384+08.17	1024.87	384+38.22	1024.51	384+68.27	1023.99	384+98.31	1023.28	385+28.36	1022.41
GIRDER 6	384+08.81	1024.85	384+38.86	1024.49	384+68.90	1023.97	384+98.95	1023.26	385+29.00	1022.39
PHASE 2 CONSTRUCTION JOINT	384+11.36	1024.77	384+41.41	1024.41	384+71.46	1023.88	385+01.51	1023.16	385+31.55	1022.30
PHASE 1 CONSTRUCTION JOINT	384+17.12	1024.58	384+47.16	1024.19	384+77.21	1023.68	385+07.26	1022.99	385+37.31	1022.11
GIRDER 7	384+19.35	1024.51	384+49.40	1024.13	384+79.45	1023.62	385+09.49	1022.91	385+39.54	1022.03
GIRDER 8	384+29.89	1024.16	384+59.94	1023.88	384+89.99	1023.40	385+20.04	1022.65	385+50.08	1021.67
GIRDER 9	384+40.44	1023.82	384+70.48	1023.54	385+00.53	1023.07	385+30.58	1022.31	385+60.63	1021.31
GIRDER 10	384+50.98	1023.47	384+81.03	1023.24	385+11.07	1022.77	385+41.12	1021.98	385+71.17	1020.95
TOE OF RIGHT PARAPET	384+54.17	1023.37	384+84.22	1023.15	385+14.27	1022.65	385+44.32	1021.83	385+74.36	1020.84

NOTE: SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS

LEGEND
 BRGS. = BEARINGS
 C/C = CENTER TO CENTER
 C.J. = CONSTRUCTION JOINT
 F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT
 TYP. = TYPICAL

BURGESS & NIPLE
 5085 Reed Road
 Columbus, Ohio 43220

DATE 11/08/04
 REVIEWED DWL
 DRAWN ASK
 DESIGNED ASK
 CHECKED JAA
 STRUCTURE FILE NUMBER 5202809
 REVISION 8/8/06

SCREED PLAN & TABLE
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH. 97 (GREENWICH RD)

MED-71-6.06
 PID 75657

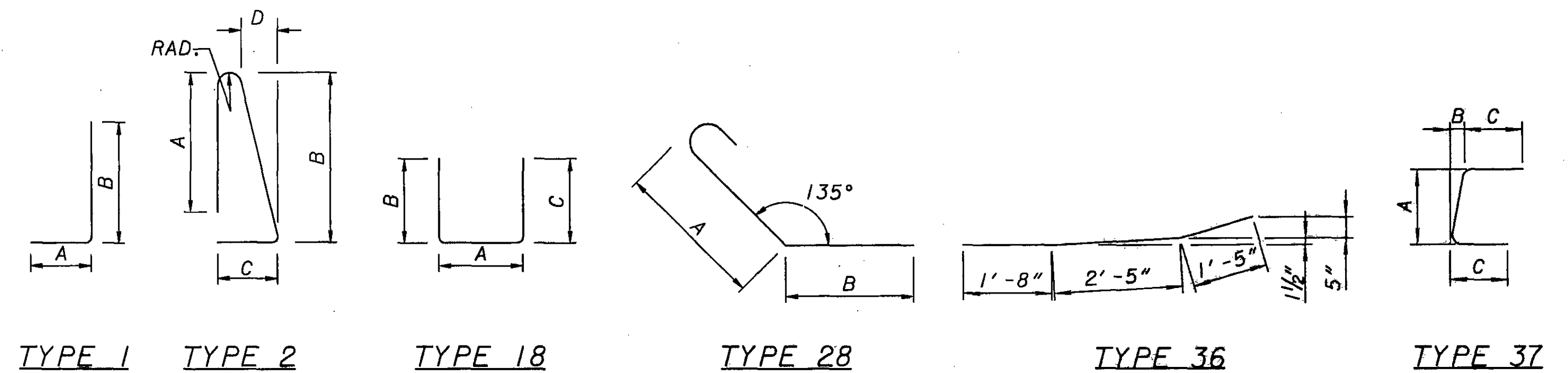
39 / 43

722
 1120

DIAPHRAGM											
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
D501	320	7'-11"	2642	18	2'-7"	2'-9½"	2'-9½"				
D502	160	8'-1"	1348	18	2'-10"	2'-9"	2'-9"				
** D801	56	26'-8"	3987	STR							
D802	28	41'-7"	3108	STR							
D803	42	30'-3"	3392	STR							
* D804	28	6'-0"	448	STR							
D805	108	5'-7"	1610	28	3'-3"	1'-5"					
		TOTAL	16535								

PARAPET											
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
R501	18	33'-8"	632	STR							
R502	18	34'-9"	652	STR							
R503	189	7'-4"	1445	2	3'-0"	3'-2"	1'-1"	0'-7¼"		0'-2¾"	
R504	32	10'-0"	333	STR							
R505	12	5'-6"	68	36							
R506	20	5'-6"	114	STR							
R601	189	3'-5"	969	37	1'-5"	0'-3¼"	1'-1"				
R602	189	2'-4"	662	1	1'-1"	1'-5"					
R603	3	34'-2"	153	STR							
R604	3	35'-2"	158	STR							
	8	4'-0"				3'-1"					
R605	S.O.	TO	525	1	1'-1"	TO				0'-1"	
	10	4'-9"				3'-10"					
R606	40	3'-11"	235	1	1'-1"	3'-0"					
		TOTAL	5946								

DECK											
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
S401	435	32'-4"	9395	STR							
S501	382	33'-1"	13181	STR							
S502	390	32'-9"	13321	STR							
S503	334	30'-0"	10450	STR							
	2	3'-5"									
S504	S.O.	TO	3288	STR							0'-4"
	88	32'-5"									
	2	1'-10"									
S505	S.O.	TO	3437	STR							0'-3¾"
	96	32'-6"									
	2	20'-0"									
S506	S.O.	TO	1732	STR							0'-3¾"
	33	30'-4"									
	2	3'-8"									
S507	S.O.	TO	4803	STR							0'-3¾"
	109	38'-6"									
	2	2'-5"									
S508	S.O.	TO	4969	STR							0'-4"
	113	39'-9"									
S509	324	24'-3"	8194	STR							
	2	11'-9"									
S510	S.O.	TO	1420	STR							0'-4"
	38	24'-1"									
		TOTAL	74190								



NOTES:

BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

EXAMPLE: S1001
 S = SUPERSTRUCTURE BAR
 10 = #10 BAR
 01 = BAR SEQUENCE NUMBER 1

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.

STD WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.

R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

INC INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

ALL REINFORCING STEEL TO BE EPOXY COATED.

* = REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

** = 28-D801 ARE INVOLVED IN A MECHANICAL CONNECTOR SPLICE

BURGESS & NIPLE
5095 Reed Road
COLUMBUS, OHIO 43220

DATE: 11-11-04
 REVIEWED: GWM
 STRUCTURE FILE NUMBER: 5202809

DRAWN: ASK
 CHECKED: JAA

DESIGNED: DCF
 CHECKED: JAA

REINFORCING STEEL LIST 1 OF 3
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID 75657

40 / 43

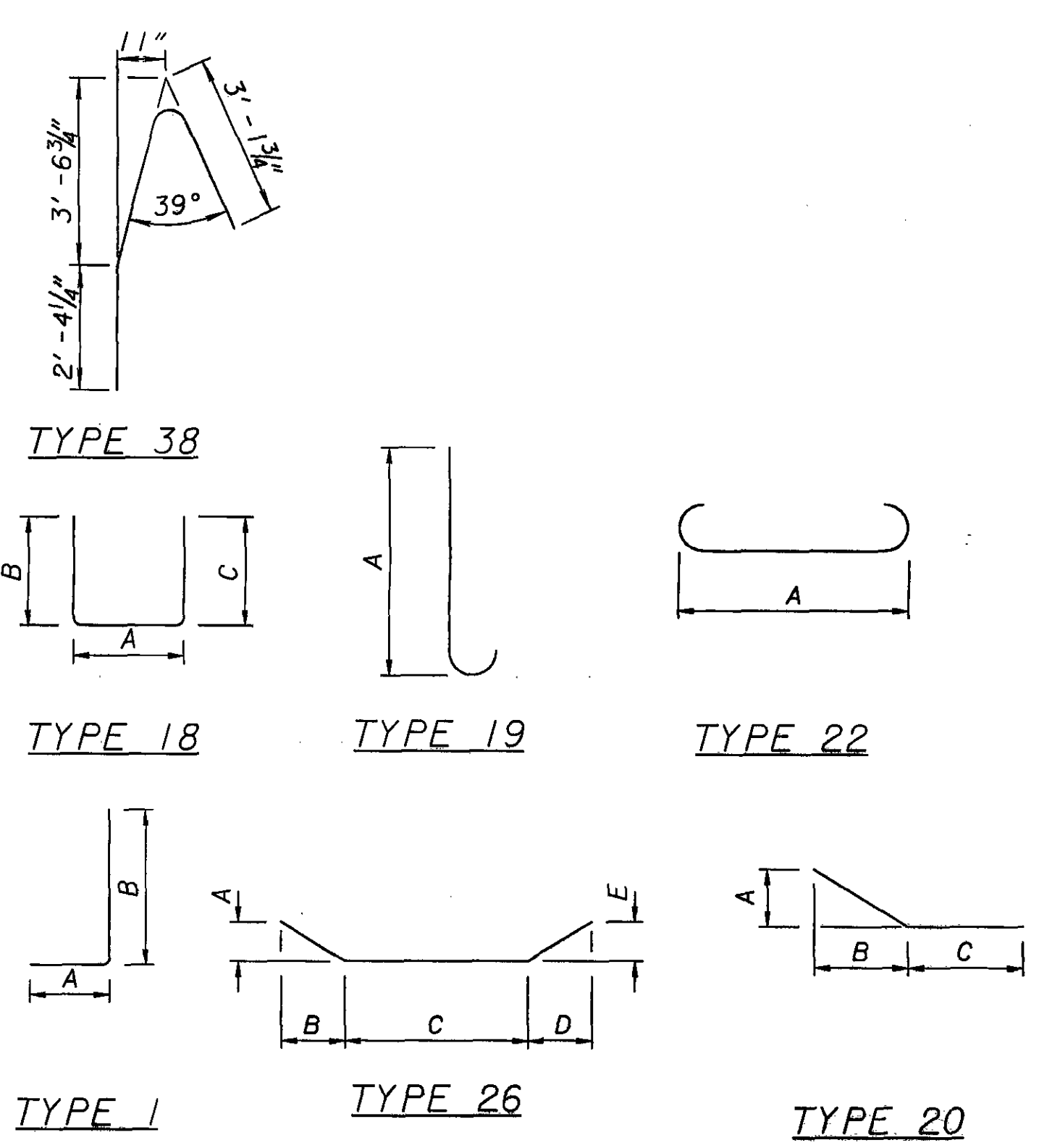
723
1120

FORWARD ABUTMENT

MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS							
					A	B	C	D	E	R	INC.	
FA501	148	16'-2"	2495	22	15'-0"							
FA502	19	13'-8"	270	22	12'-6"							
	2	11'-3"										
FA503	S.O.	T0	470	STR								1'-0"
	13	23'-3"										
	1	3'-2"			2'-7 1/2"							
* FA504	S.O.	T0	132	19	T0							0'-9"
	15	13'-8"			13'-11 1/2"							
	1	2'-5"			1'-10"							
* FA505	S.O.	T0	119	19	T0							0'-9"
	15	12'-11"			12'-4"							
FA506	6	27'-7"	172	STR								
FA507	6	24'-4"	152	STR								
	1	24'-4"										
FA508	S.O.	T0	81	STR								1'-7"
	3	27'-7"										
FA509	11	24'-4"	279	STR								
FA510	11	27'-7"	316	STR								
FA511	22	25'-4"	583	STR								
FA512	22	25'-1"	577	STR								
FA513	44	27'-0"	1239	STR								
FA514	3	15'-0"	47	20	0'-11"	1'-11 1/2"	12'-11"					
	2	5'-5"										
FA515	S.O.	T0	79	STR								2'-9 1/4"
	4	13'-9"										
	2	14'-11"										
FA516	S.O.	T0	113	STR								3'-3"
	3	21'-5"										
FA517	18	22'-4"	419	STR								
FA518	167	4'-7"	798	18	2'-8"	2'-2"						
	1	7'-2"										
FA519	S.O.	T0	196	STR								0'-7 3/8"
	16	16'-5"										
FA520	5	16'-5"	86	STR								
FA521	21	11'-6"	251	1	0'-10"	10'-9 3/4"						
FA522	3	8'-2"	25	STR								
FA523	11	25'-6"	292	STR								
FA524	11	27'-4"	313	STR								
FA525	17	8'-4"	147	38								
FA526	17	7'-7"	134	26	2'-1 1/2"	0'-6 1/2"	2'-6"	2'-4 1/2"	1'-11"			
FA527	50	13'-3"	690	18	2'-8"	5'-5"	5'-5"					
FA528	35	14'-4"	526	STR								
FA529	35	9'-2"	334	1	0'-10"	8'-5 1/2"						
FA530	336	12'-3"	4292	STR								
FA531	168	9'-10"	1723	1	0'-10"	9'-2"						
FA532	24	18'-5"	461	20	0'-11"	0'-8 5/8"	17'-3 1/2"					
FA533	4	15'-1"	62	STR								
FA534	4	17'-6"	73	STR								
FA601	32	30'-0"	1441	STR								
	2	16'-11"										
* FA602	S.O.	T0	1173	STR								1'-0"
	16	31'-11"										
	2	14'-0"										
* FA603	S.O.	T0	1057	STR								1'-0 3/4"
	16	30'-0"										
	2	12'-7"										
FA604	S.O.	T0	702	STR								0'-3 1/4"
	16	16'-8"										

FORWARD ABUTMENT

MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS							
					A	B	C	D	E	R	INC.	
FA605	96	23'-2"	3340	STR								
FA606	3	17'-9"	80	STR								
	1	8'-6"										
FA607	S.O.	T0	315	STR								0'-7 3/8"
	16	17'-9"										
FA608	31	15'-8"	733	STR								
FA609	4	6'-8"	40	20	3'-3 3/4"	0'-10 1/4"	3'-5"					
FA701	32	25'-9"	1684	STR								
FA801	185	15'-0"	7409	STR								
	1	1'-5"										
* FA802	S.O.	T0	332	STR								0'-7 3/4"
	18	12'-5"										
	1	2'-7"										
* FA803	S.O.	T0	390	STR								0'-7 5/8"
	18	13'-7"										
	2	25'-1"										
FA804	S.O.	T0	540	STR								0'-1"
	4	25'-4"										
	1	25'-6"										
FA805	S.O.	T0	280	STR								0'-6"
	4	27'-0"										
FA806	4	27'-0"	288	STR								
	1	27'-4"										
FA807	S.O.	T0	293	STR								0'-1 1/4"
	4	27'-8"										
FA808	36	11'-11"	1145	1	1'-4"	10'-9 3/4"						
FA809	168	10'-4"	4635	1	1'-4"	9'-2"						
	1	25'-8"										
FA810	S.O.	T0	280	STR								0'-4 1/4"
	4	26'-10"										
FA901	14	12'-6"	594	STR								
FA902	31	9'-9"	1027	1	1'-7"	8'-5 1/2"						
			TOTAL									



NOTES:

BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

EXAMPLE: FA801
 FA - SUBSTRUCTURE BAR
 8 - #8 BAR
 01 - BAR SEQUENCE NUMBER 1

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.

STD WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.

R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

INC INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

ALL REINFORCING STEEL TO BE EPOXY COATED.

* - REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

BURGESS & NIPLE
 5095 Reed Road
 Columbus, Ohio 43220

DATE: 11-12-04
 REVIEWED: DWL
 STRUCTURE FILE NUMBER: 5202809

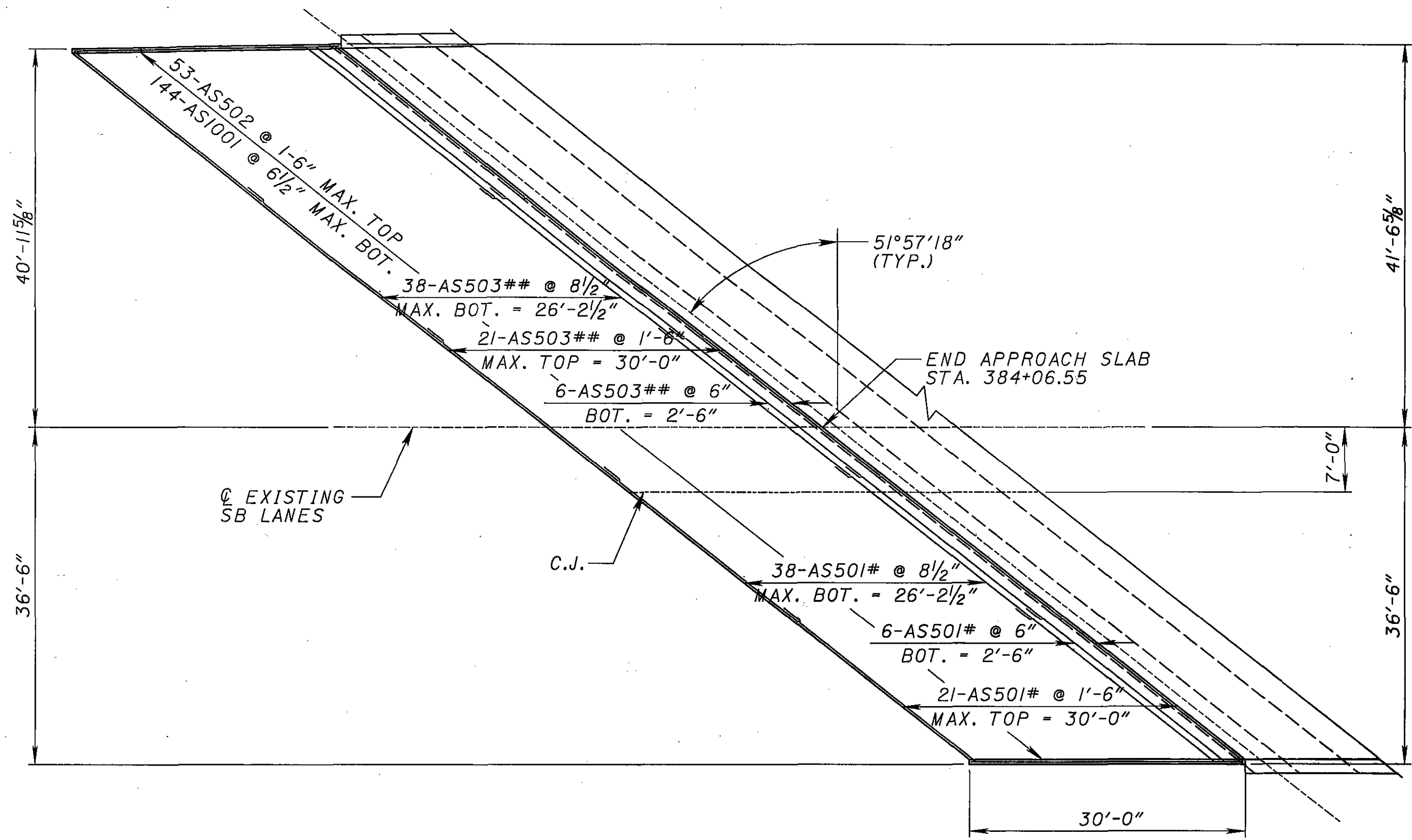
DRAWN: MPS
 CHECKED: ASK

REINFORCING STEEL LIST 3 OF 3
 BRIDGE NO. MED-71-0729 L
 OVER EXISTING CH 97 (GREENWICH RD)

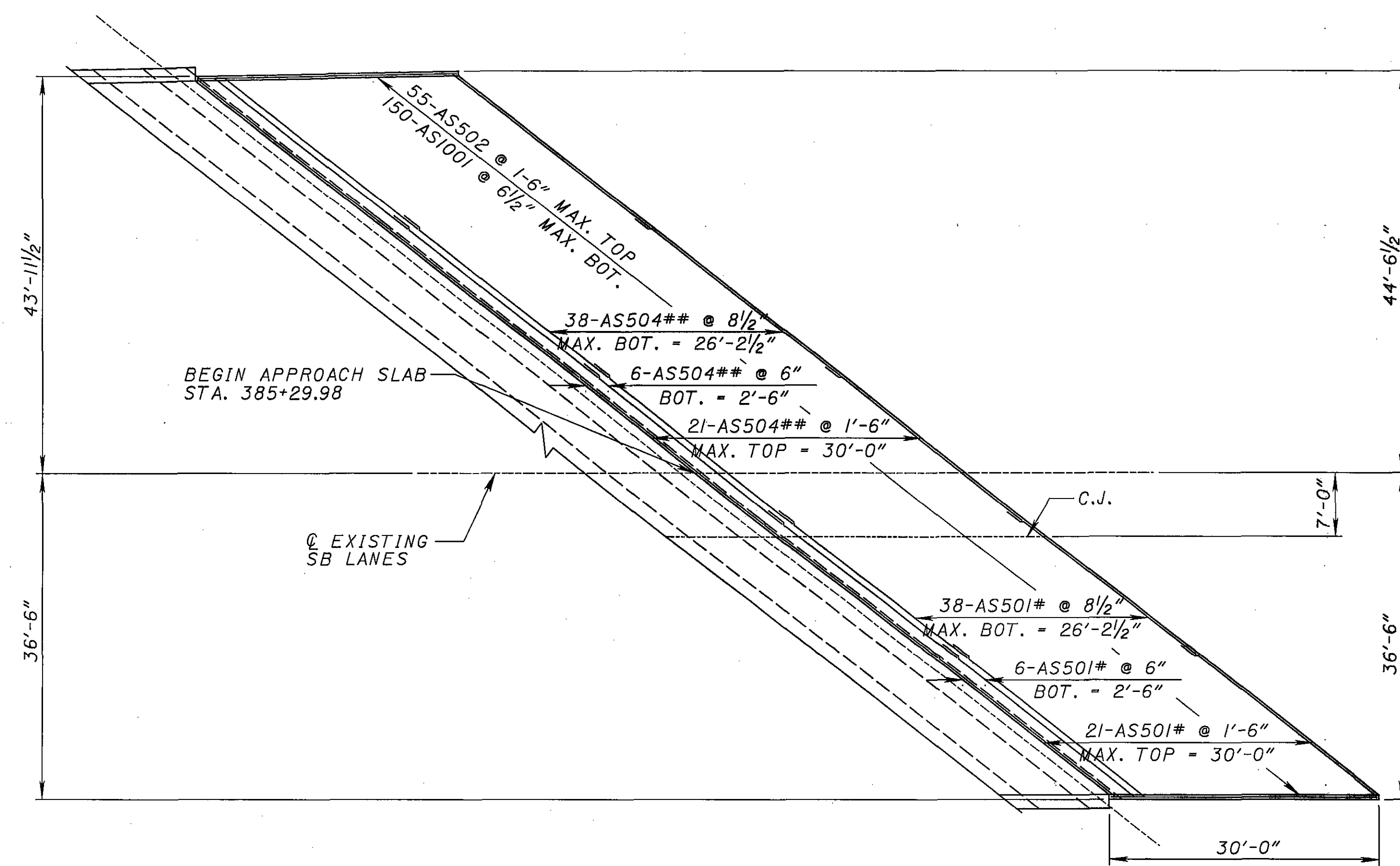
MED-71-6.06
 PID 75657

42 / 43

725
 1120



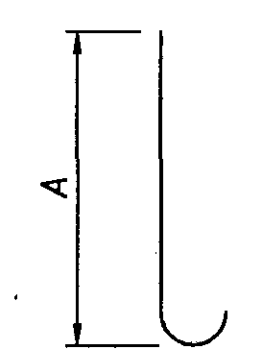
REAR APPROACH SLAB



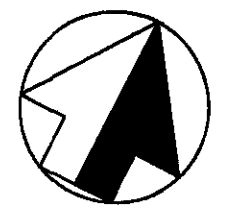
FORWARD APPROACH SLAB

APPROACH SLAB REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A.	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
AS501	260	27'-2"	7367	STR						
AS502	108	29'-6"	3322	STR						
AS503	195	26'-9"	5440	STR						
AS504	195	28'-4"	5762	STR						
AS1001	294	30'-11"	39112	19	29'-6"					



TYPE 19



NOTES

- REFER TO STANDARD DRAWING AS-I-81 (30'-0" LONG, 17" THICK) FOR ADDITIONAL DETAILS.
 - SEE ROADWAY PLANS FOR ADDITIONAL DETAILS.
 - LAP REINFORCING STEEL THE FOLLOWING MINIMUM LAP LENGTHS:
NO. 5 BARS = 2'-1"
 - SEE ROADWAY TYPICAL SECTIONS FOR APPROACH SLAB SECTION.
- # - 2 LENGTHS
- 3 LENGTHS

LEGEND

BOT. - BOTTOM
MAX. - MAXIMUM
TYP. - TYPICAL

P:\PR30489\CADD\MED-71-0729\DETAIL DESIGN\0729L\ME07IASI.DGN

BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE: 11/08/04
REVIEWED: DWL
DRAWN: ASK
DESIGNED: ASK
CHECKED: JAA

STRUCTURE FILE NUMBER: 5202809

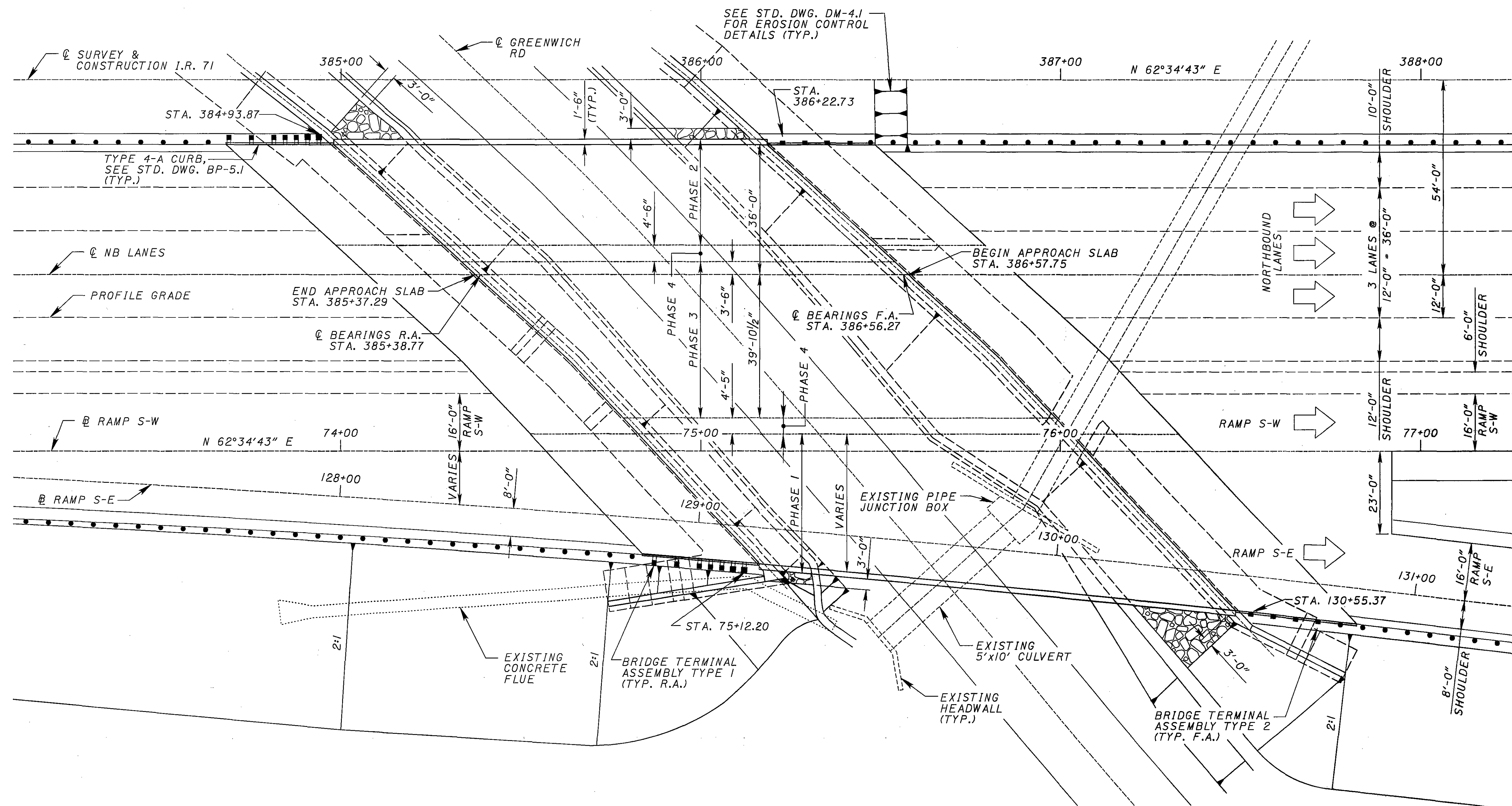
APPROACH SLAB DETAILS
BRIDGE NO. MED-71-0729 L
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID 75657

43 / 43

726
1120

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PLAN

NOTE:
 1. SEE STD. DWG. AS-1-81 AND SHEET 47 / 50 FOR APPROACH SLAB DETAILS.

DATE	11/04
DESIGNED	JHL
DRAWN	JHL
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
GENERAL PLAN	
BRIDGE NO. MED-71-0729 R	
OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06	
PID-75657	
2 / 50	
728	
1120	

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 REVISED 7-19-02 GSD-1-96 REVISED 7-19-02
PCB-91 REVISED 7-19-02 SBR-1-99 REVISED 7-19-02
SICD-1-96 REVISED 7-19-02

AND TO THE FOLLOWING STANDARD ROADWAY CONSTRUCTION DRAWINGS:
DM-1.1 DATED 1-21-05
DM-4.1 DATED 7-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
894 DATED 4-15-05

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25, CASE I AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 PSF.

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL:

ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE USE OF EXPLOSIVES, HEADACHE BALLS OR HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

SUPERSTRUCTURE CONCRETE REMOVAL: FULL DEPTH SAWCUT THROUGH THE DECK IS REQUIRED, BETWEEN THE PHASES.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS: PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805 (PHONE 800-276-4188).

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN: THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES, CONSTRUCT THE BRIDGE APPROACH EMBANKMENT FROM THE TOP OF THE ABUTMENT TOE UP AT A 1:1 SLOPE TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 250 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTING OR DRIVING OF PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND HAS UNDERGONE A 90 DAY WAITING PERIOD. AFTER THE ABUTMENT FOOTING AND BREASTWALL ARE COMPLETED AND PRIOR TO SETTING SUPERSTRUCTURE MEMBERS, CONSTRUCT THE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENT UP TO THE BEAM SEAT ELEVATION AND ON A 1:1 SLOPE UP TO THE SUBGRADE ELEVATION PRIOR TO SETTING THE BEAMS ON THE ABUTMENTS.

PILES TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING HARD BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 140 TONS PER PILE FOR THE REAR ABUTMENT PILES AND 109 TONS FOR THE FORWARD ABUTMENT PILES.

REAR ABUTMENT PILES:

142 HPI2x53 PILES 55 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:

118 HPI0x42 PILES 60 FEET LONG, ORDER LENGTH

10 HPI4x73 PILES 60 FEET LONG, ORDER LENGTH

PHASE CONSTRUCTION AND MAINTENANCE OF TRAFFIC: THE PROPOSED WORK (INCLUDING THE APPROACH SLABS) SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

PHASE 1

FOR PURPOSES OF BRIDGE CONSTRUCTION, WORK PERFORMED DURING ROADWAY MOT STAGE 1 - PHASES 1 AND 2, SHALL BE CALLED PHASE 1.

1. CONSTRUCT RAMP S-E PORTION OF MED-71-0729R

2. PLACE PORTABLE CONCRETE BARRIERS ON INSIDE OF RAMP S-E.

PHASE 2

FOR PURPOSES OF BRIDGE CONSTRUCTION, WORK PERFORMED DURING ROADWAY MOT STAGE 2 + PHASE 1, SHALL BE CALLED PHASE 2.

1. PLACE PORTABLE CONCRETE BARRIERS ON OUTSIDE OF EXISTING NORTHBOUND LANES AND DIVERT TRAFFIC TO INNER LANES OF EXISTING BRIDGE

2. CONSTRUCT PHASE 2 STRUCTURE.

PHASE 3

FOR PURPOSES OF CONSTRUCTION, WORK PERFORMED DURING ROADWAY MOT STAGE 2 + PHASE 2, SHALL BE CALLED PHASE 3.

1. PLACE PORTABLE CONCRETE BARRIERS ON INSIDE OF EXISTING NORTHBOUND LANES AND DIVERT TRAFFIC TO OUTER AREA OF EXISTING BRIDGE.

2. CONSTRUCT PHASE 3 STRUCTURE.

3. COMPLETE CLOSURE POURS.

4. COMPLETE ANY REMAINING WORK ITEMS.

5. OPEN STRUCTURE TO TRAFFIC.

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT:

COLOR SHALL BE LIGHT NEUTRAL MEETING FEDERAL COLOR NUMBER 17778.

ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1-1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES +/-, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D751	0.094 +/- 0.01
BREAKING STRENGTH, GRAB, LBS, MINIMUM (LONG. X TRANS.)	D751	700 X 700
ADHESIVE STRIP, 1" WIDE X 2" LONG, LBS MINIMUM	D751	9
BURST STRENGTH, PSI MINIMUM	D751	1400
HEAT AGING, 70 HR, 212 DEGREES F, 180 DEGREES BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLENESS, 1 HR, 40 DEGREES F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE THE MINIMUM LAP LENGTH FOR THAT BAR AS SHOWN ON THE PLANS.

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM 509.

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DATE 11/04
REVIEWED MAK
DRAWN RMK
DESIGNED RMK
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CHECKED WTL

GENERAL NOTES 1
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:

THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENTITIOUS RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/4" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 8 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A CAULKING MATERIAL CONFORMING TO ASTM C920, TYPE S.

BASIS OF PAYMENT:

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E52000 894E10001	LUMP SUM CUBIC YARD	CLASS HP CONCRETE, TEST SLAB HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

UTILITY LINES

UTILITY LINES: THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

DRIP GROOVES:

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

ITEM 511 CLASS C CONCRETE, _____, AS PER PLAN: COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE): SEALER SHALL BE TINTED TO A NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NUMBER 17778.

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DATE	11/04
REVIEWED	MAK
STRUCTURE FILE NUMBER	5202817
DRAWN	FMK
DESIGNED	FMK
CHECKED	WTL

GENERAL NOTES 2
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

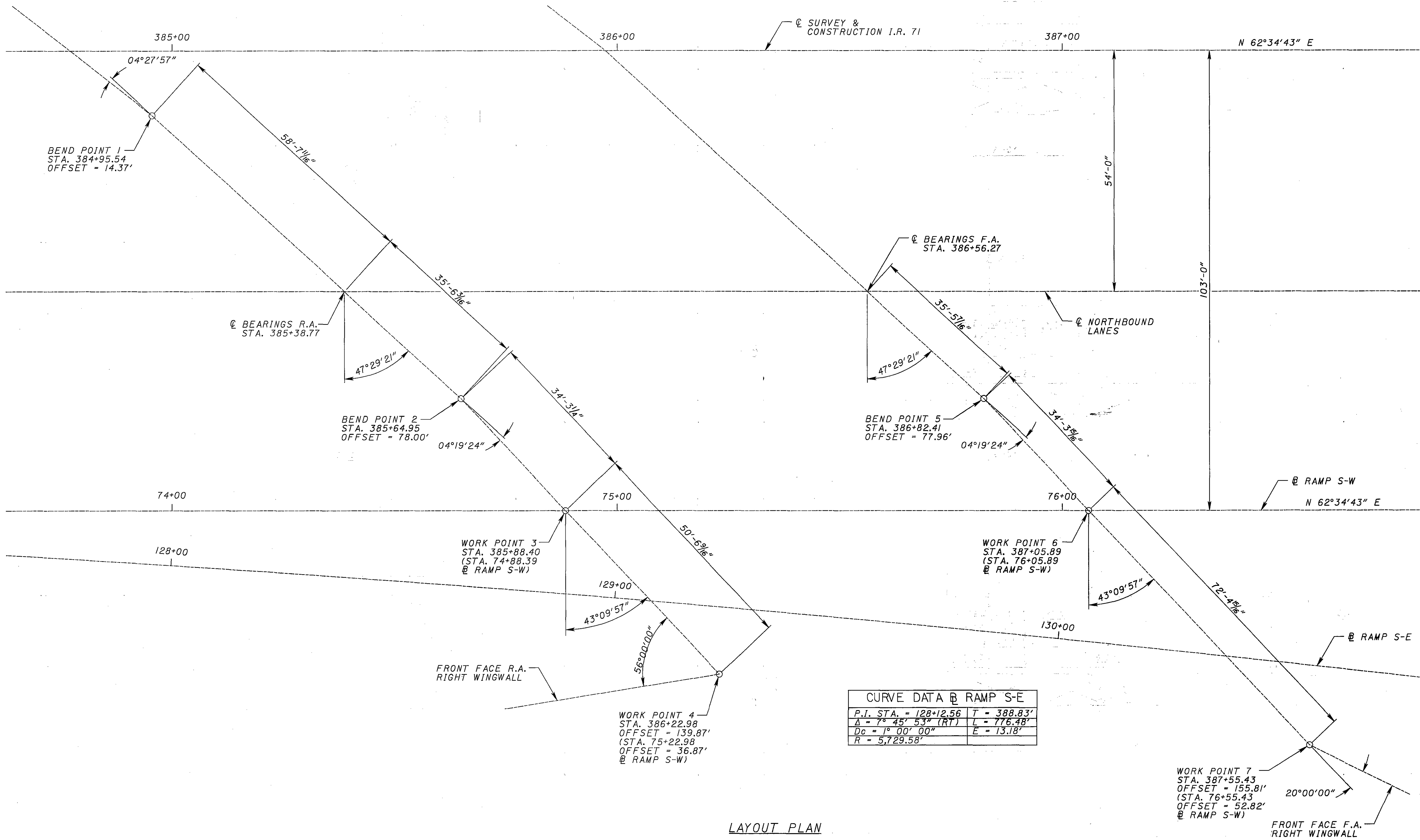
ESTIMATED QUANTITIES						MED-71-0729 R				
ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER.	GENERAL	SHT. REF.
		IM	NHS							
202	11003	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP	3/50
503	11101	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN			LUMP	16/50
503	21301	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP			3/50
504	11100	278	70	348	SQ FT	STEEL SHEET PILING LEFT IN PLACE (MIN. SECTION MODULUS = 52.5 CU. IN. PER FT.)	348			
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION			LUMP	
507	00100	5664	1416	7080	FT	STEEL PILES HPI0X42, FURNISHED *	7080			
507	00150	5192	1298	6490	FT	STEEL PILES HPI0X42, DRIVEN	6490			
507	00200	6248	1562	7810	FT	STEEL PILES HPI2X53, FURNISHED *	7810			
507	00250	5680	1420	7100	FT	STEEL PILES HPI2X53, DRIVEN	7100			
507	00300	480	120	600	FT	STEEL PILES HPI4X73, FURNISHED *	600			
507	00350	440	110	550	FT	STEEL PILES HPI4X73, DRIVEN	550			
509	10000	223,990	55,998	279,988	POUND	EPOXY COATED REINFORCING STEEL *	128,275	151,713		
511	44101	845	211	1056	CU YD	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	1056			4/50
511	46501	566	141	707	CU YD	CLASS C CONCRETE, FOOTING, AS PER PLAN	707			4/50
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB		LUMP		
512	10100	1042	260	1302	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	947	355		
512	33000	79	20	99	SQ YD	TYPE 2 WATERPROOFING	99			
513	10280	463,240	115,810	579,050	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 4 *		579,050		
513	20000	4481	1120	5601	EACH	WELDED STUD SHEAR CONNECTORS		5601		
514	00300	LUMP	LUMP	LUMP		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT		LUMP		
514	00400	LUMP	LUMP	LUMP		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT		LUMP		
514	10000	14	4	18	EACH	FINAL INSPECTION REPAIR		18		
516	13600	287	72	359	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	359			
516	13900	73	18	91	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	91			
516	14021	312	78	390	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	390			3/50
516	44301	26	6	32	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (1'-3/4" DIA. X 4 3/4"), AS PER PLAN	32			37/50
518	21200	566	141	707	CU YD	POROUS BACKFILL WITH FILTER FABRIC	707			
518	40000	378	95	473	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	473			
518	40010	152	38	190	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	190			
526	30001	662	165	827	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN			827	47/50
601	20000	529	132	661	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION			661	
894	10001	518	130	648	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	202	446		4/50

* - SEE PROPOSAL NOTE
 ** - ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS
 FOR APPROACH SLAB REMOVAL, SEE ROADWAY QUANTITIES.

LEGEND:
 F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT

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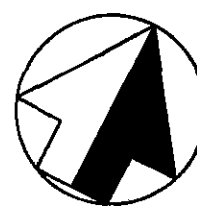


CURVE DATA @ RAMP S-E

P.I. STA. = 128+12.56	T = 388.83'
Δ = 7° 45' 53" (RT)	L = 776.48'
Dc = 1° 00' 00"	E = 13.18'
R = 5,729.58'	

LAYOUT PLAN

LEGEND:
 F.A.= FORWARD ABUTMENT
 R.A.= REAR ABUTMENT



BURGESS & NIPLE
 2985 Red Rock
 Columbia, MO 65203

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REVIEWED	FMK	STRUCTURE FILE NUMBER	5202817
DATE	11/04		

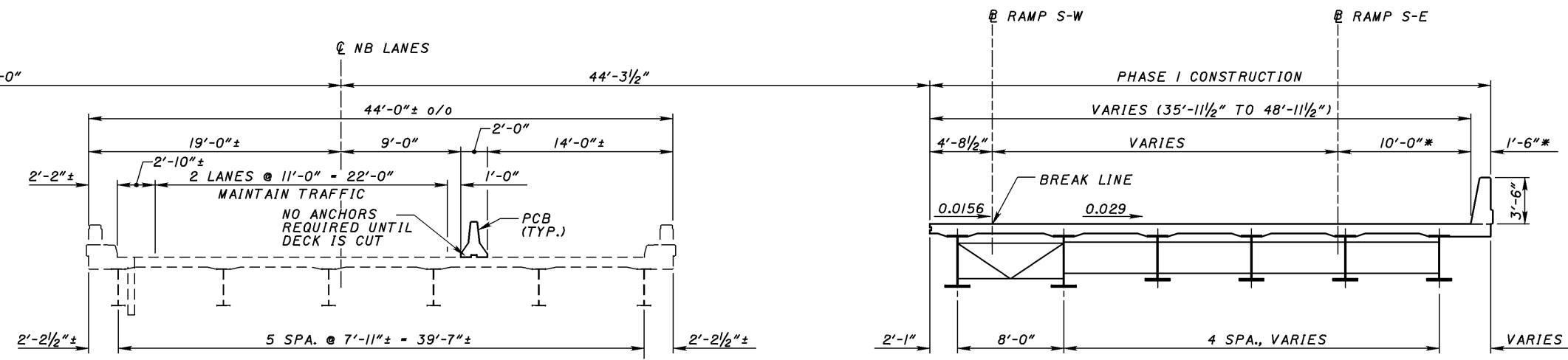
LAYOUT PLAN
 BRIDGE NO. MED-71-0729 R
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID-75657

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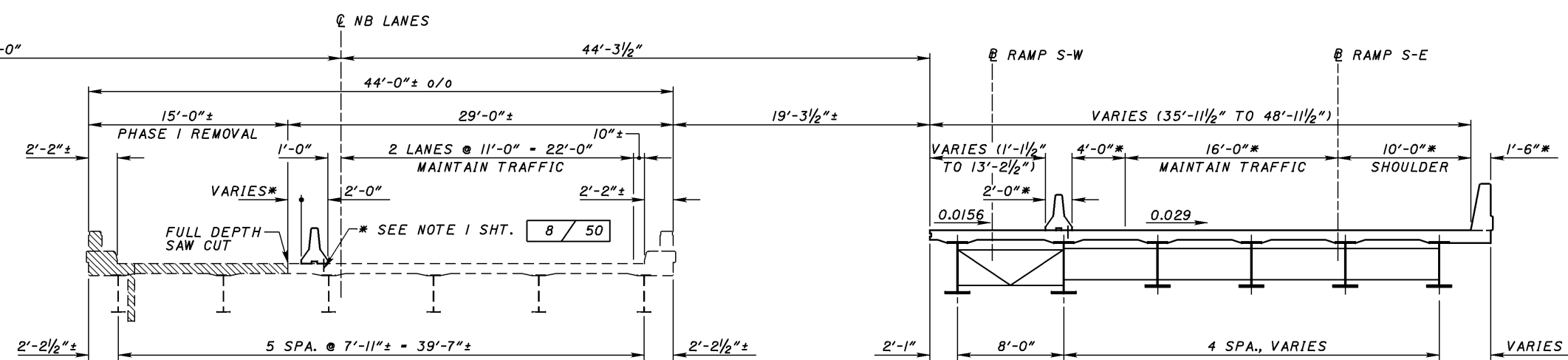
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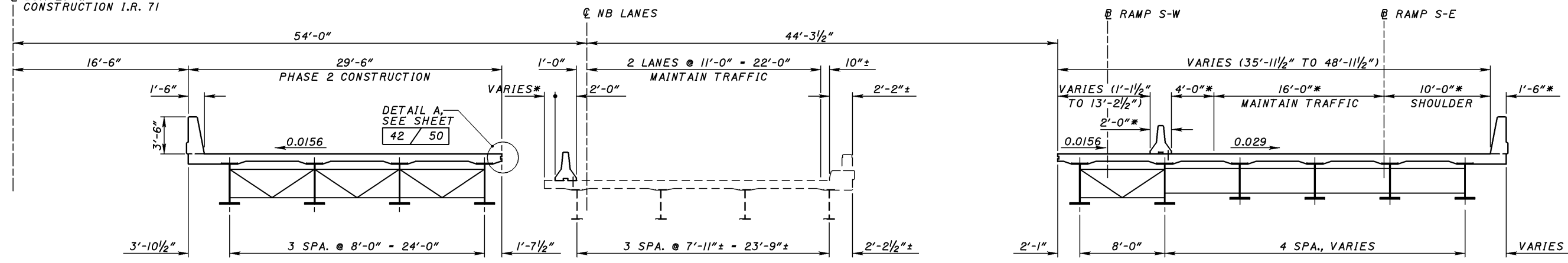
PHASE I CONSTRUCTION

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PHASE I REMOVAL

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PHASE 2 CONSTRUCTION

NOTE:
 1. ALL DIMENSIONS MEASURED PERPENDICULAR TO
 © NORTHBOUND LANES UNLESS NOTED OTHERWISE.

- LEGEND:**
- = REMOVALS
 - PCB - PORTABLE CONCRETE BARRIER
 - SPA. - SPACES
 - * - MEASURED PERPENDICULAR TO © RAMP S-E

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BURGESS & NIPLE
 5085 Reed Road
 Columbus, Ohio 43220

DATE	11/04
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REVISOR	8/8/06

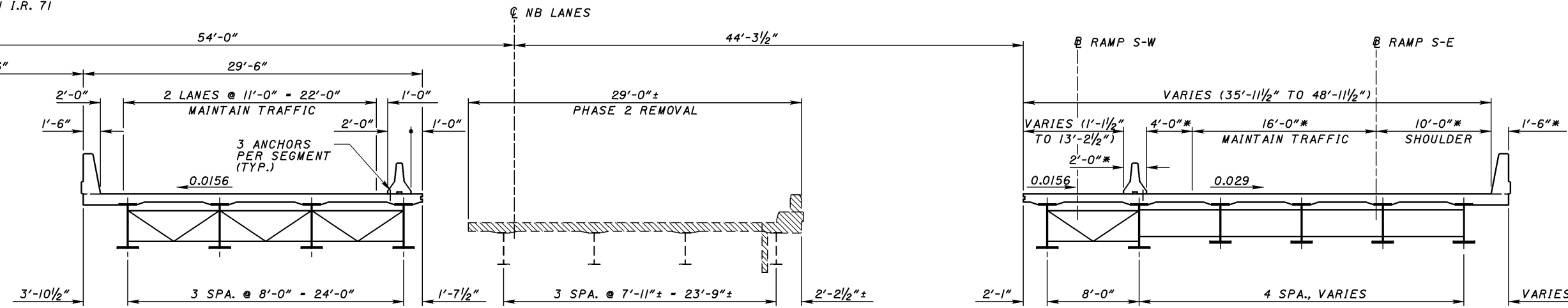
PHASE CONSTRUCTION DETAILS I
 BRIDGE NO. MED-71-0729 R
 OVER EXISTING CH 97 (GREENWICH RD)

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 PID-75657

7 / 50

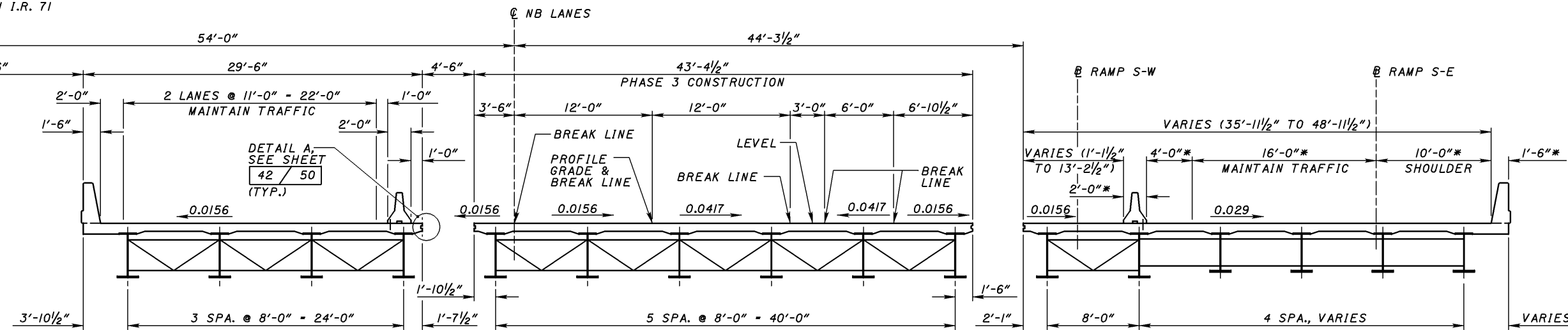
733
 1120

☉ SURVEY & CONSTRUCTION I.R. 71



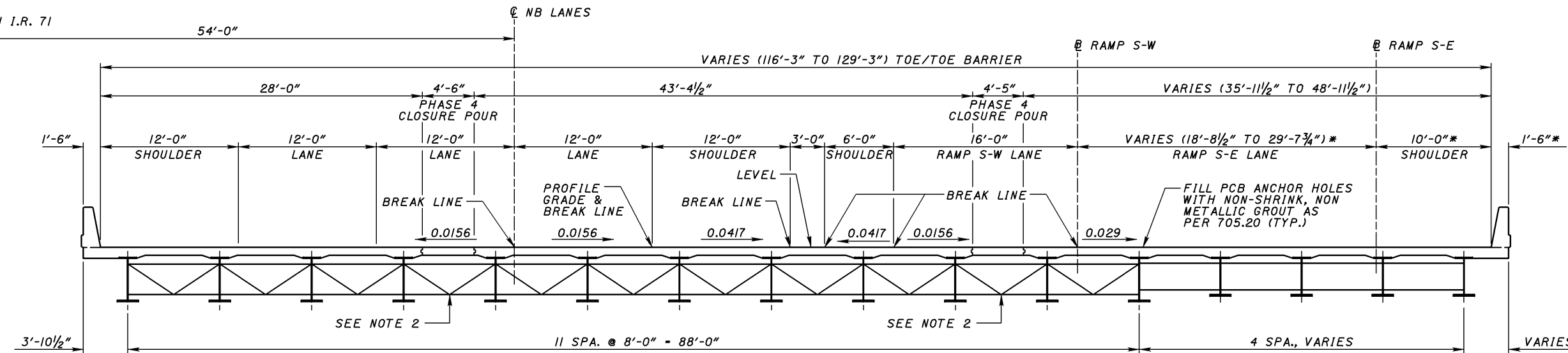
PHASE 2 REMOVAL

☉ SURVEY & CONSTRUCTION I.R. 71



PHASE 3 CONSTRUCTION

☉ SURVEY & CONSTRUCTION I.R. 71



CLOSURE POUR CONSTRUCTION

LEGEND:

- REMOVALS

SPA. - SPACES

* - MEASURED PERPENDICULAR TO @ RAMP S-E

PHASE CONSTRUCTION NOTES:

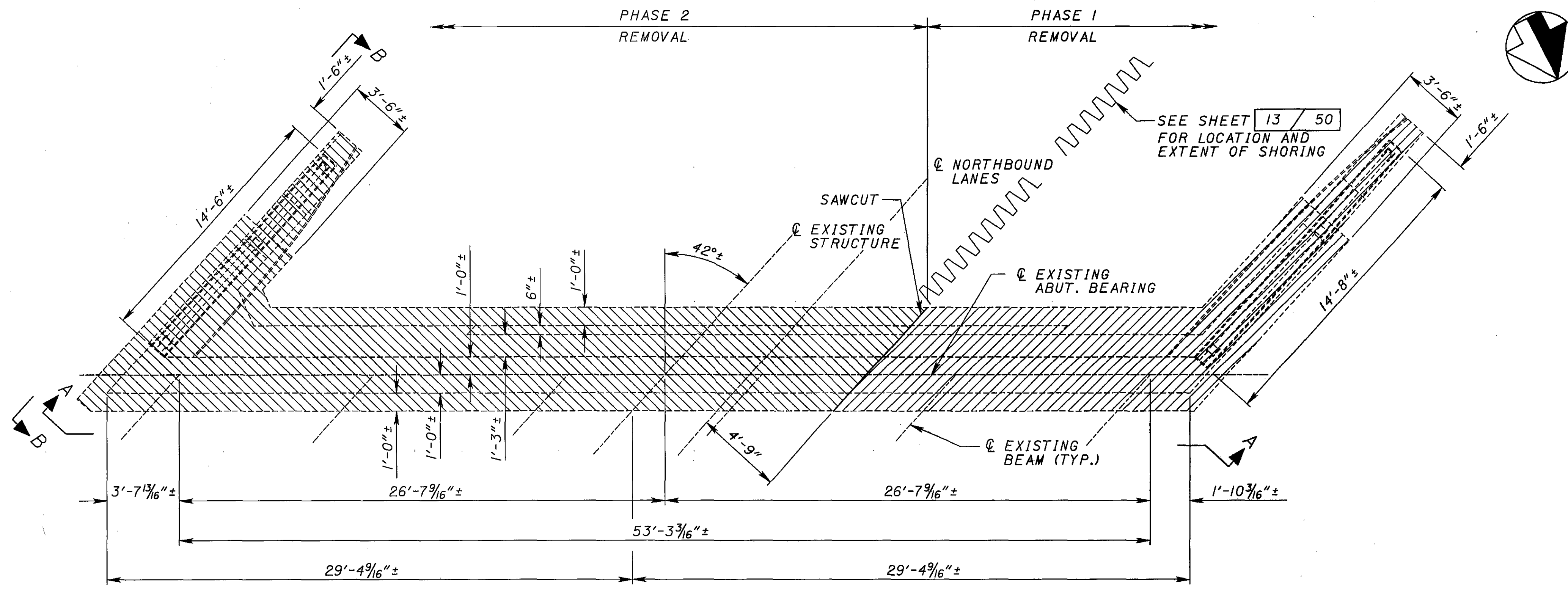
1. ANCHOR TEMPORARY BARRIERS TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED WHERE THERE IS 1 FOOT FROM THE BARRIER TO THE EDGE OF DECK. OTHERWISE USE SIX ANCHORS. ANCHORS PLACED ON THE NON-TRAFFIC SIDE OF THE BARRIER SHALL BE THRU BOLTS. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS. REMOVAL OF ANCHORS AND GROUTING OF ANCHOR HOLES IS INCIDENTAL TO THE PORTABLE CONCRETE BARRIER COSTS.

2. THIS PANEL OF CROSSFRAMES SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE PHASE 4 DECK CLOSURE POUR.
3. ALL DIMENSIONS MEASURED PERPENDICULAR TO @ NORTHBOUND LANES UNLESS NOTED OTHERWISE.

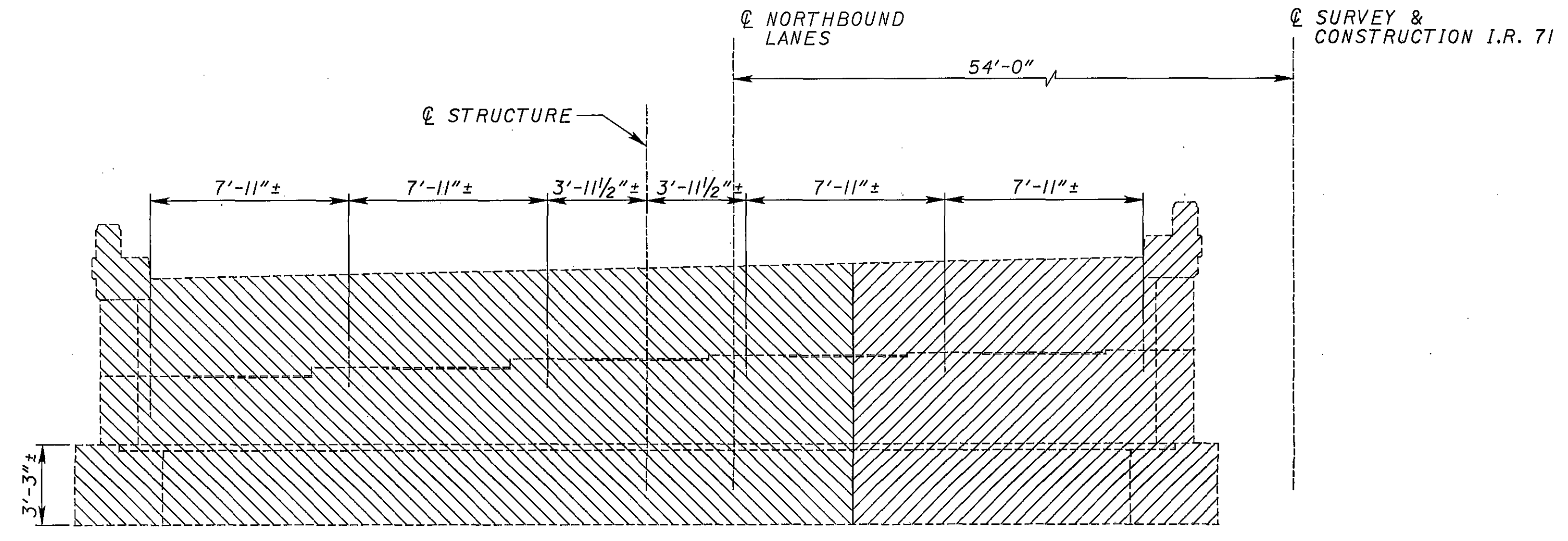
P:\PR30489\CADD\MED-71-0729\Detail Design\0729R\REV-8-8-06\ME07\pc2.dgn

DATE	11/04
DESIGNED	TTK
DRAWN	CRC
REVIEWED	RMK
CHECKED	WTL/AEH
REVISION	8/8/06
STRUCTURE FILE NUMBER	5202817
PHASE CONSTRUCTION DETAILS 2 BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
8 / 50	
734 1120	

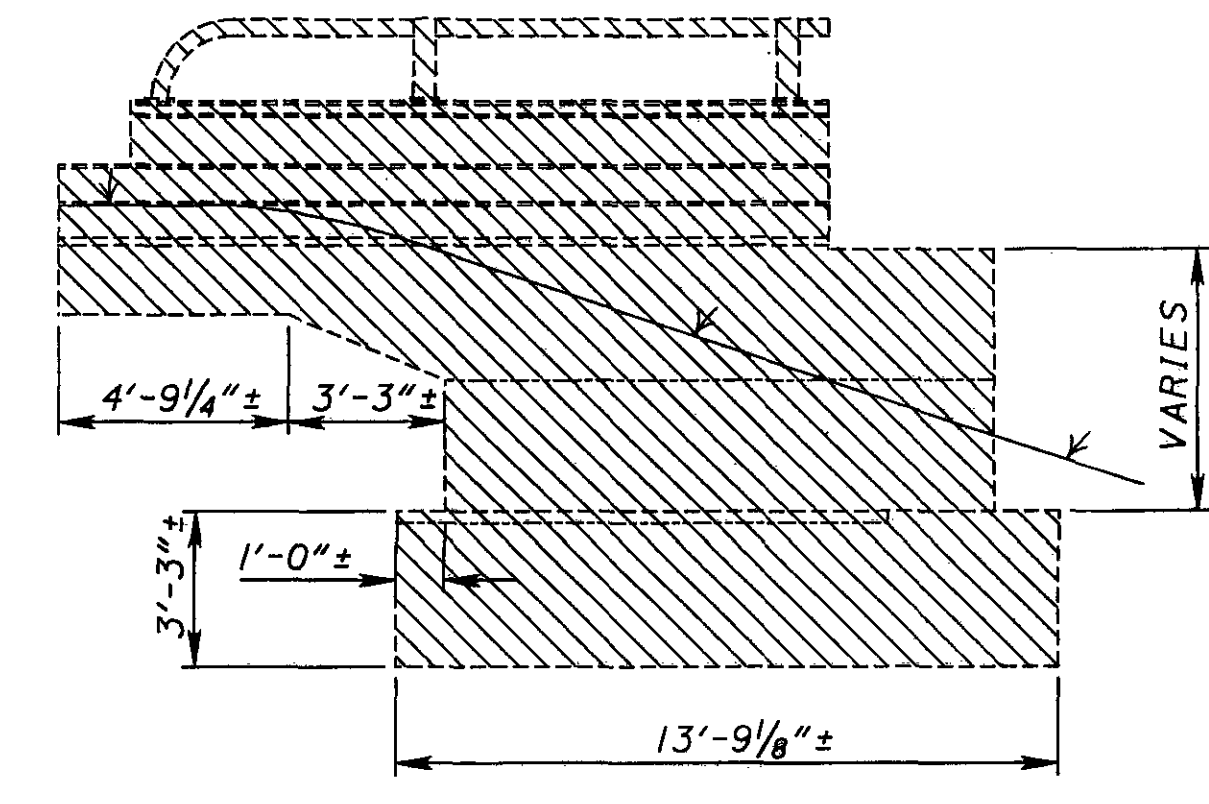
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REAR ABUTMENT PLAN



VIEW A-A
(LOOKING PARALLEL TO BEAMS)

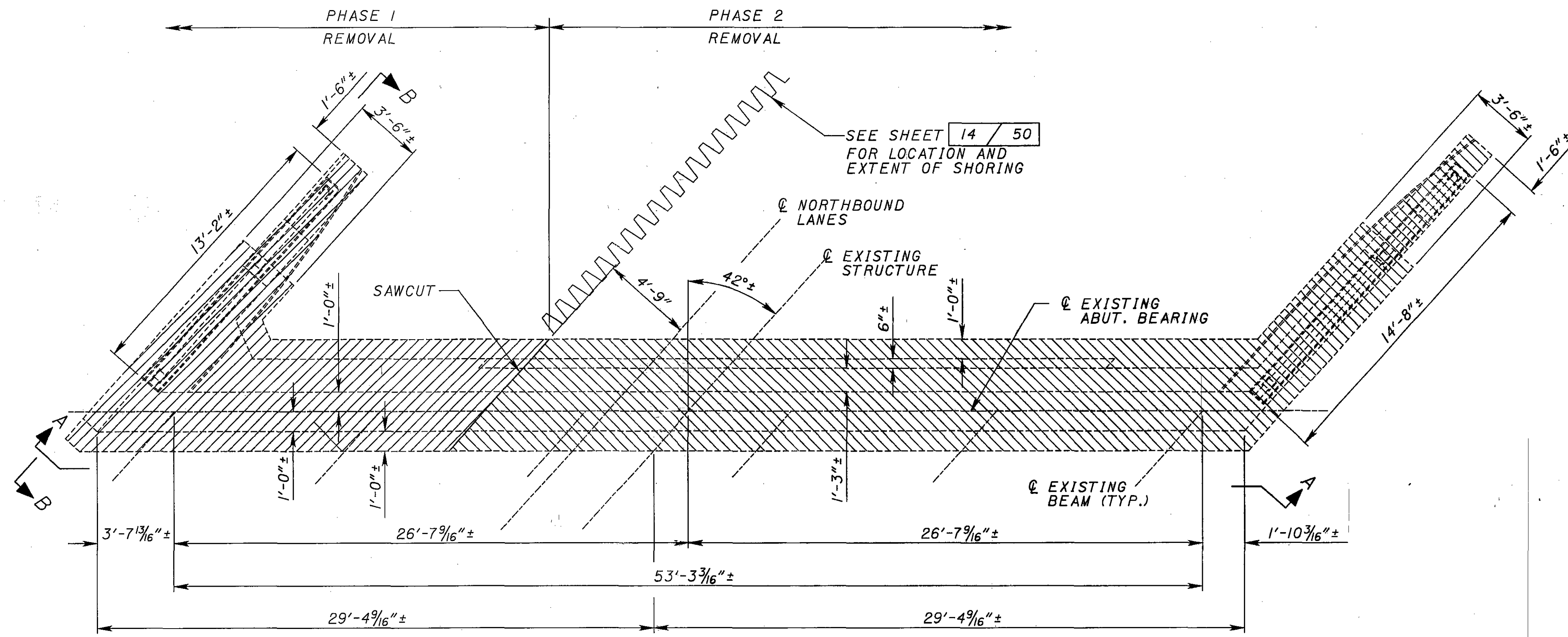


VIEW B-B

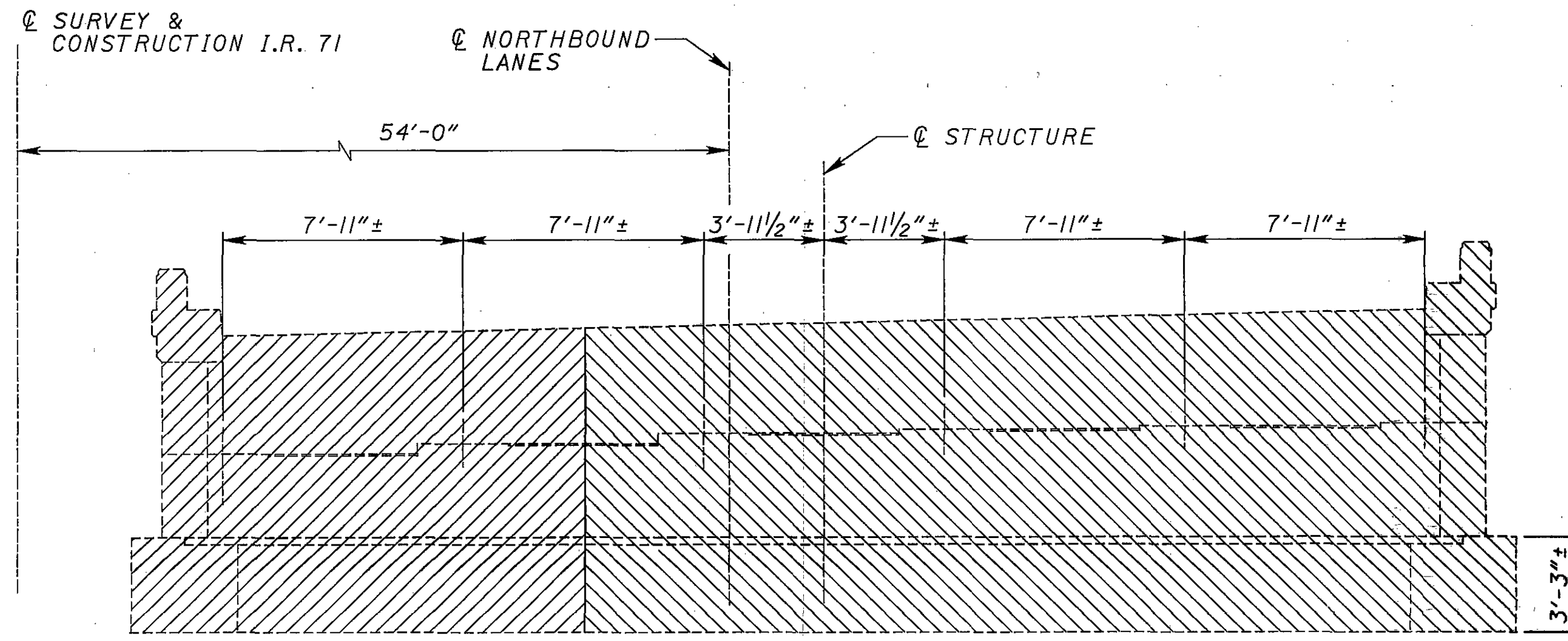
- LEGEND:**
- PHASE 1 REMOVALS
 - PHASE 2 REMOVALS

BURGESS & NIPLE	
5055 Rock Point Columbus, Ohio 43220	DATE 11/04
REVIEWED RMK	STRUCTURE FILE NUMBER 5202817
DRAWN JHL	REVIEWED
DESIGNED JHL	CHECKED WTL
REAR ABUTMENT REMOVAL DETAILS BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
9 / 50	
735 1120	

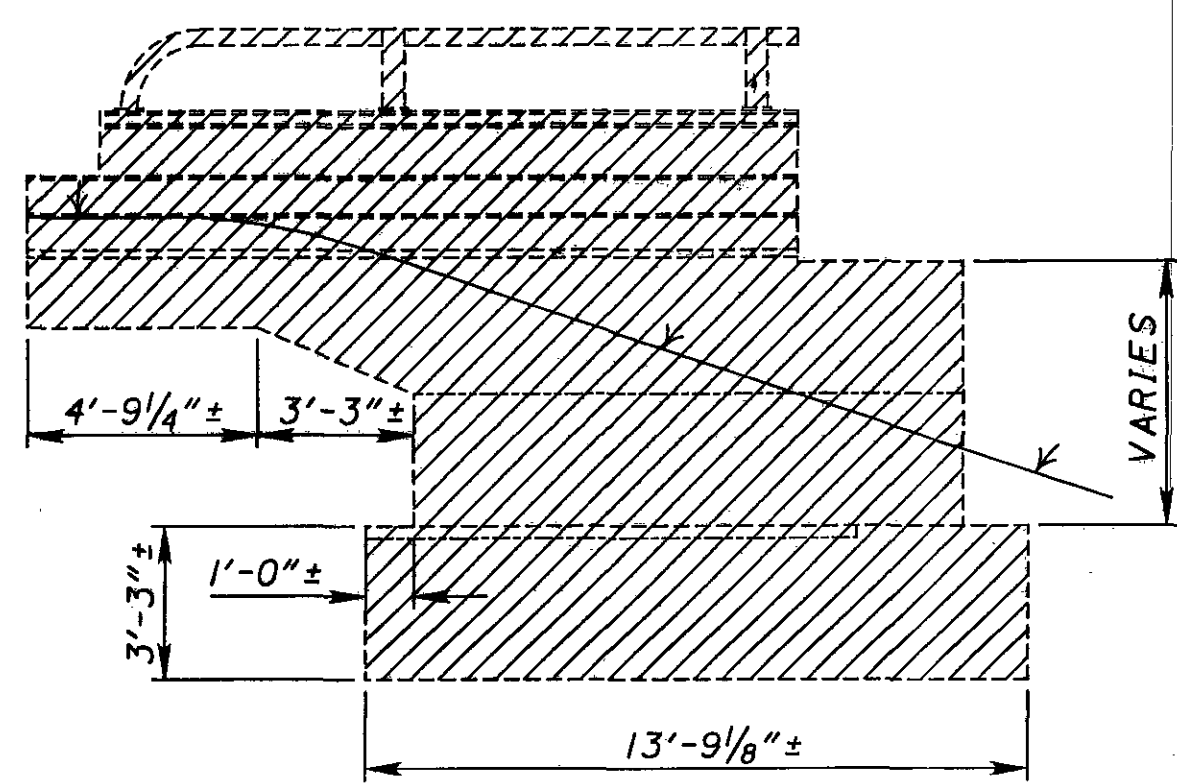
P:\PR30489\CADD\MED-71-0729\Detail Design\0729R\ME07\pc4.dgn



FORWARD ABUTMENT PLAN

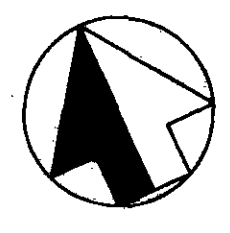


VIEW A-A
(LOOKING PARALLEL TO BEAMS)

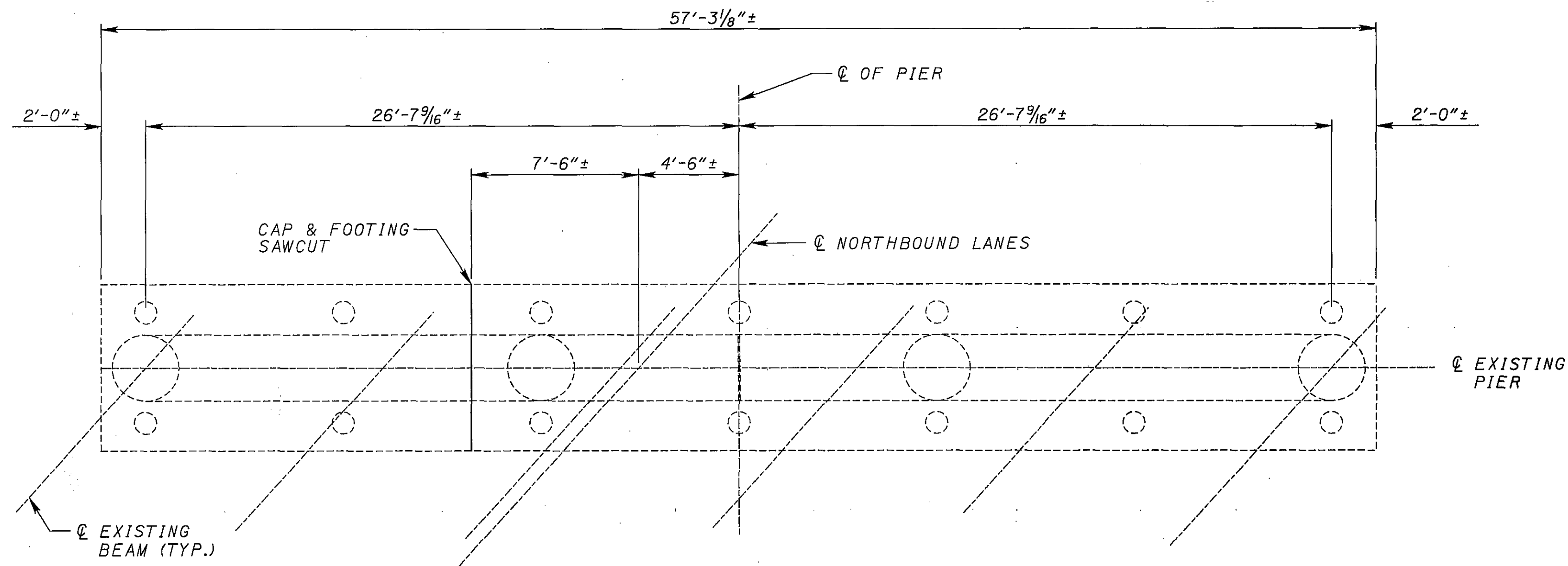


VIEW B-B

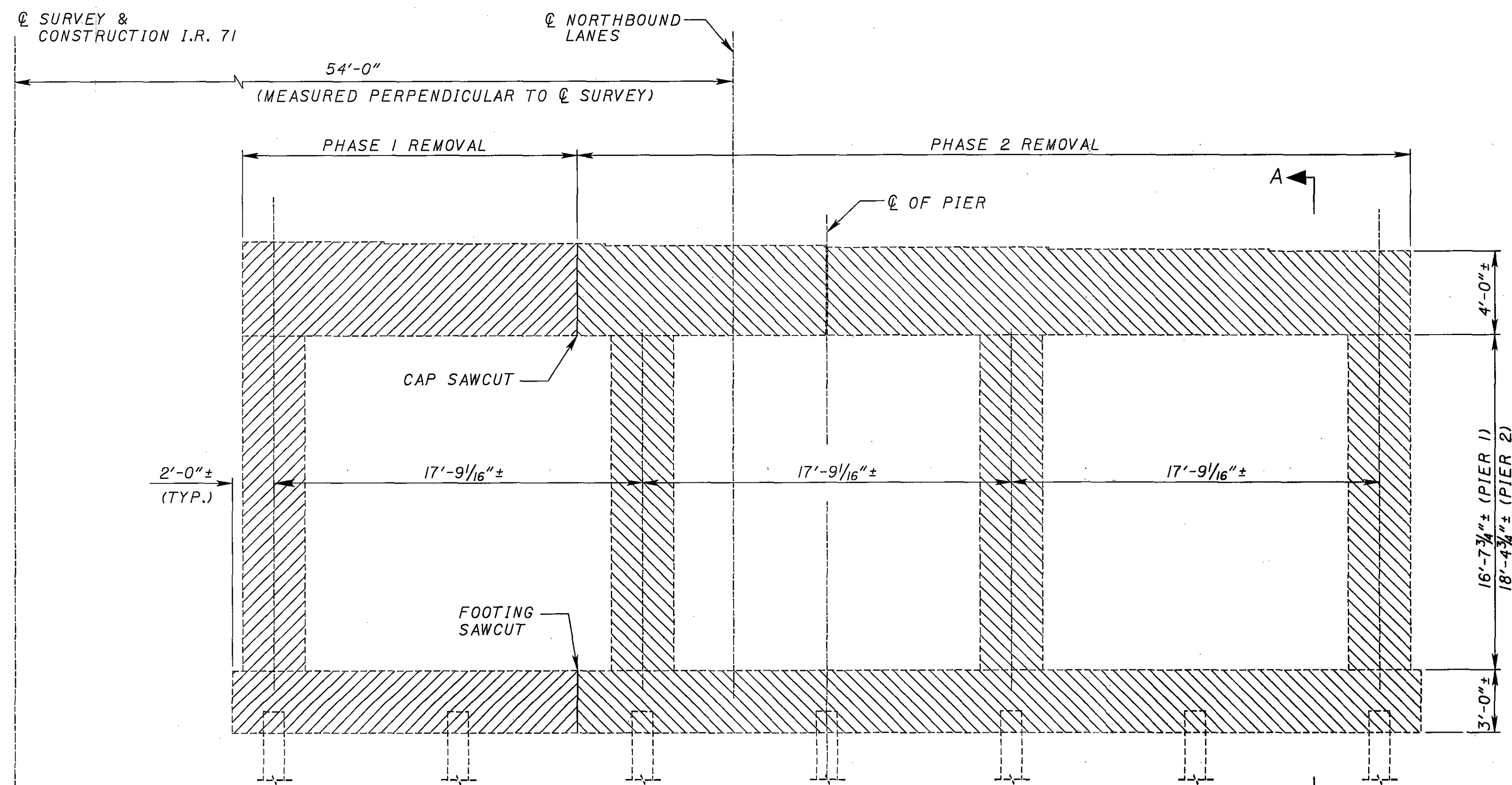
- LEGEND:
- PHASE 1 REMOVALS
 - PHASE 2 REMOVALS



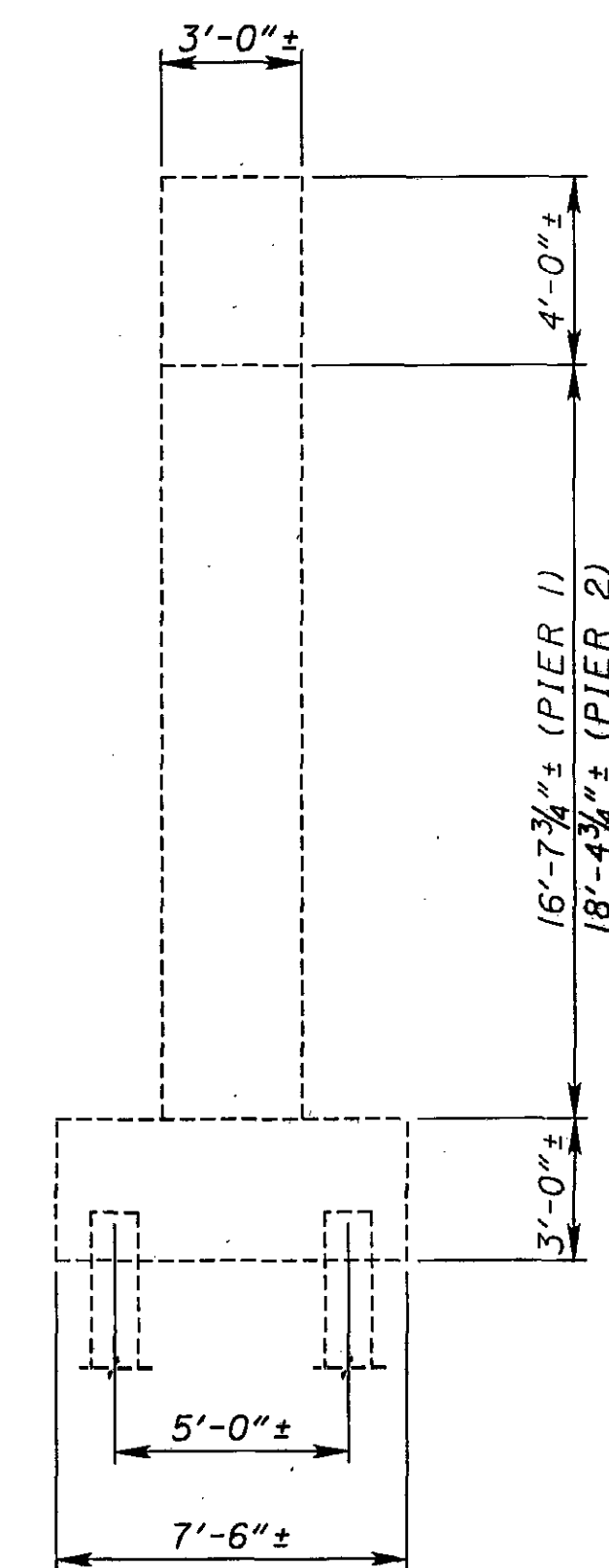
BURNESS & NIPLE	
8005 Park Road COLUMBIA, MO 65202	DATE 11/04
REVIEWED RMK	STRUCTURE FILE NUMBER 5202817
DRAWN JHL	REVISED
DESIGNED JHL	CHECKED WTL
<p>FORWARD ABUTMENT REMOVAL DETAILS</p> <p>BRIDGE NO. MED-71-0729 R</p> <p>OVER EXISTING CH 97 (GREENWICH RD)</p>	
<p>MED-71-6.06</p> <p>PID-75657</p>	
<p>10 / 50</p>	
<p>736</p> <p>1120</p>	



PLAN - PIER 1 & 2

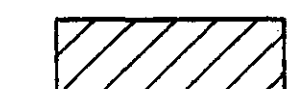



ELEVATION - PIER 1 & 2



SECTION A-A

LEGEND:

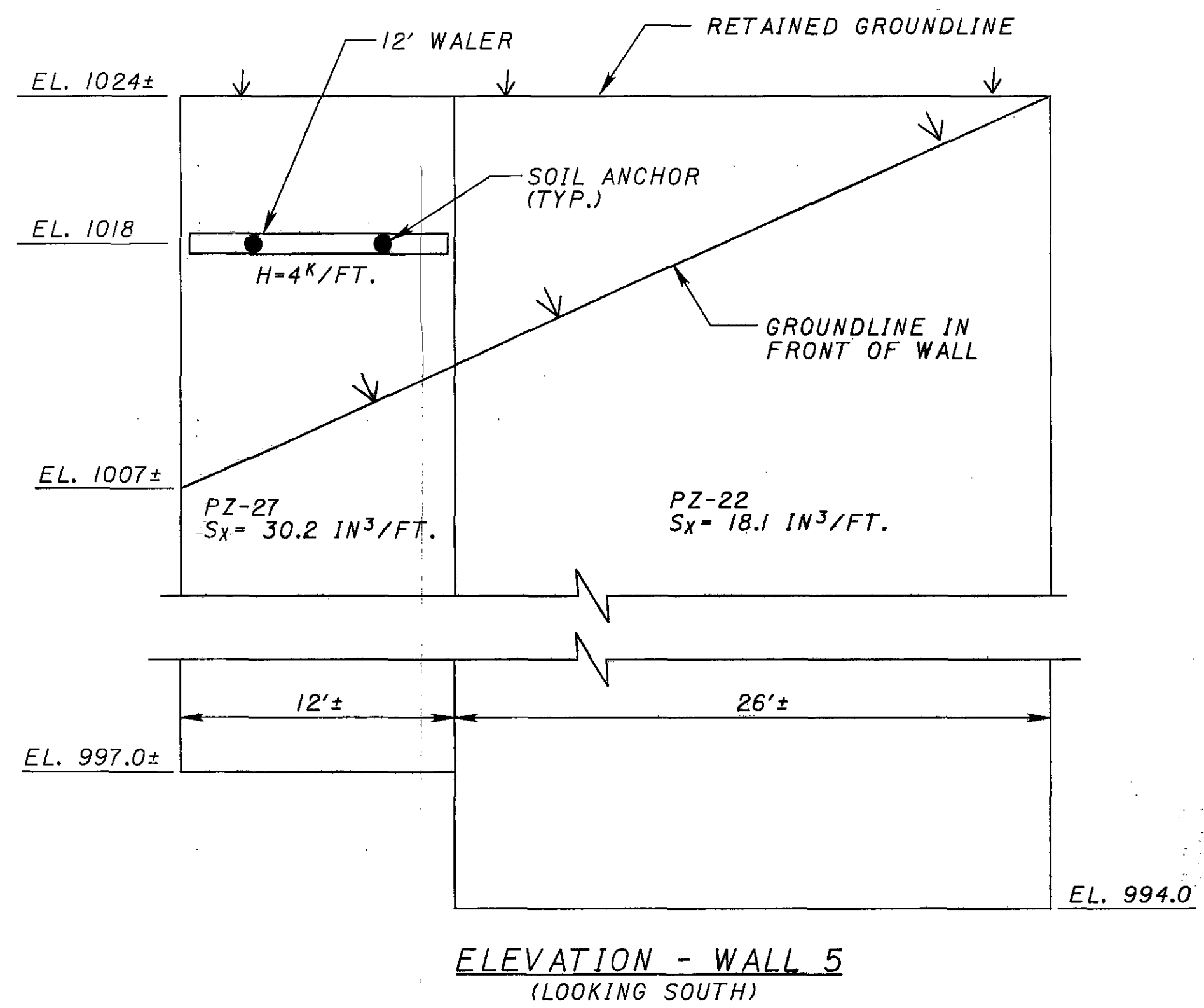
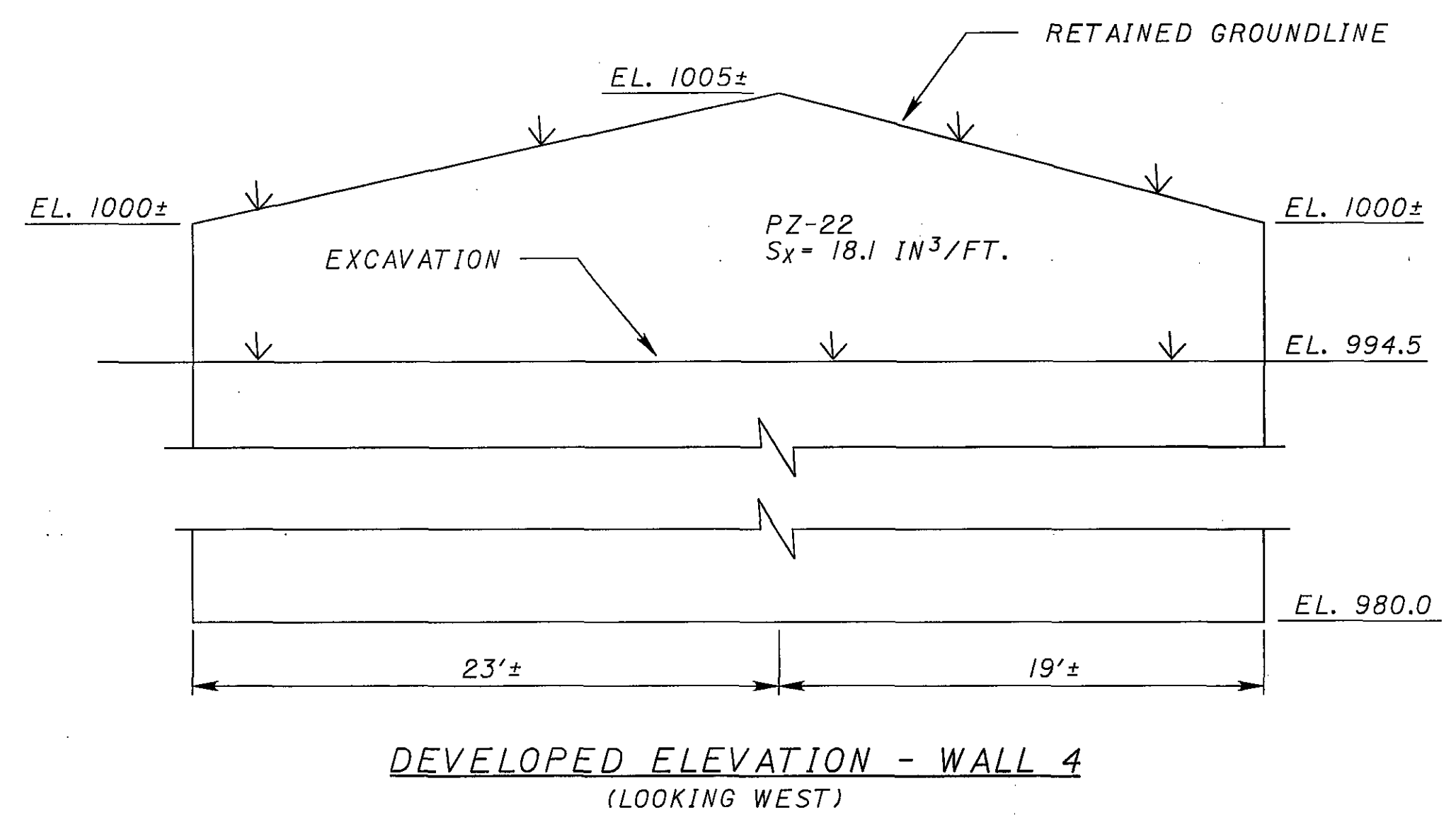
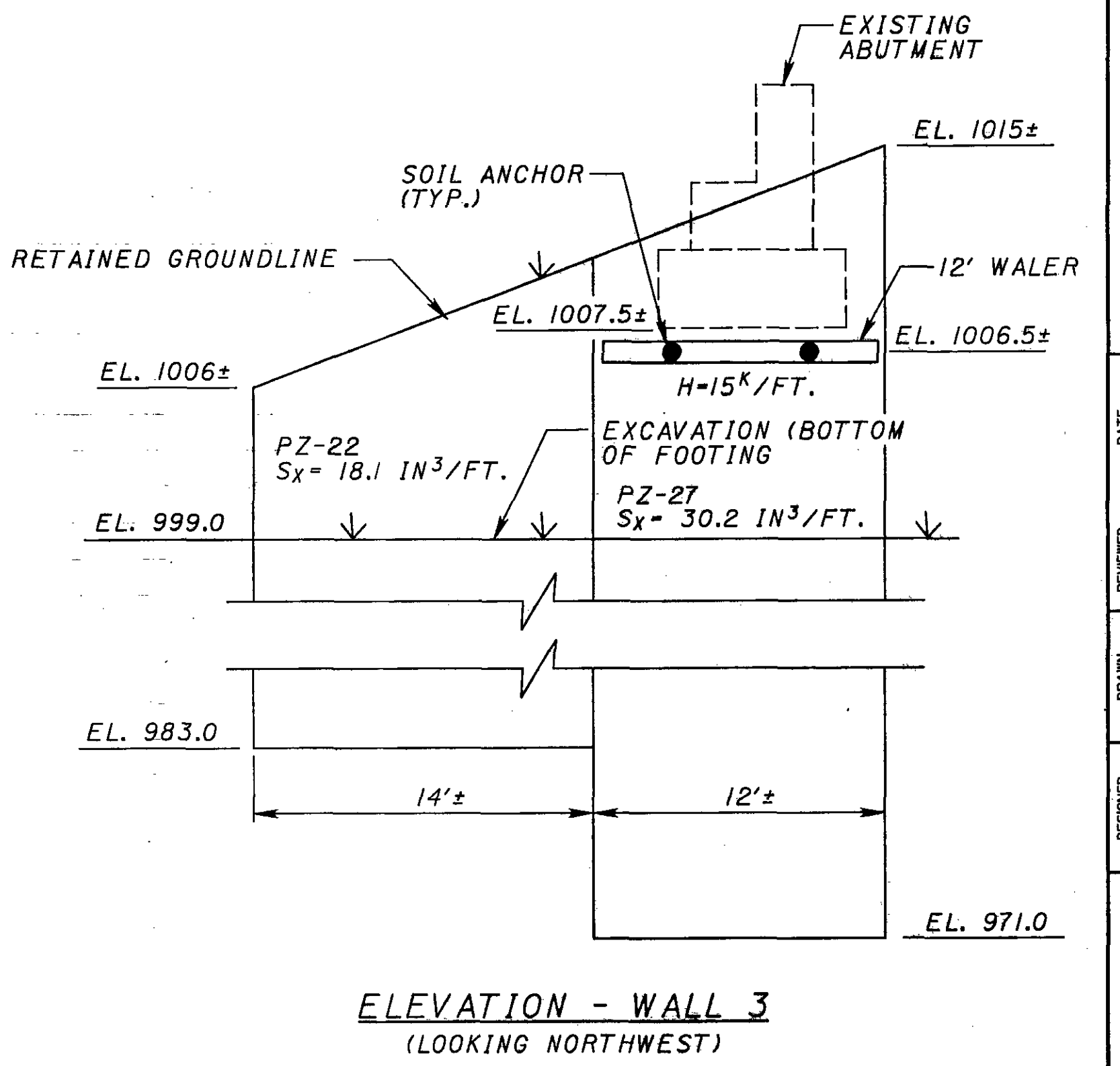
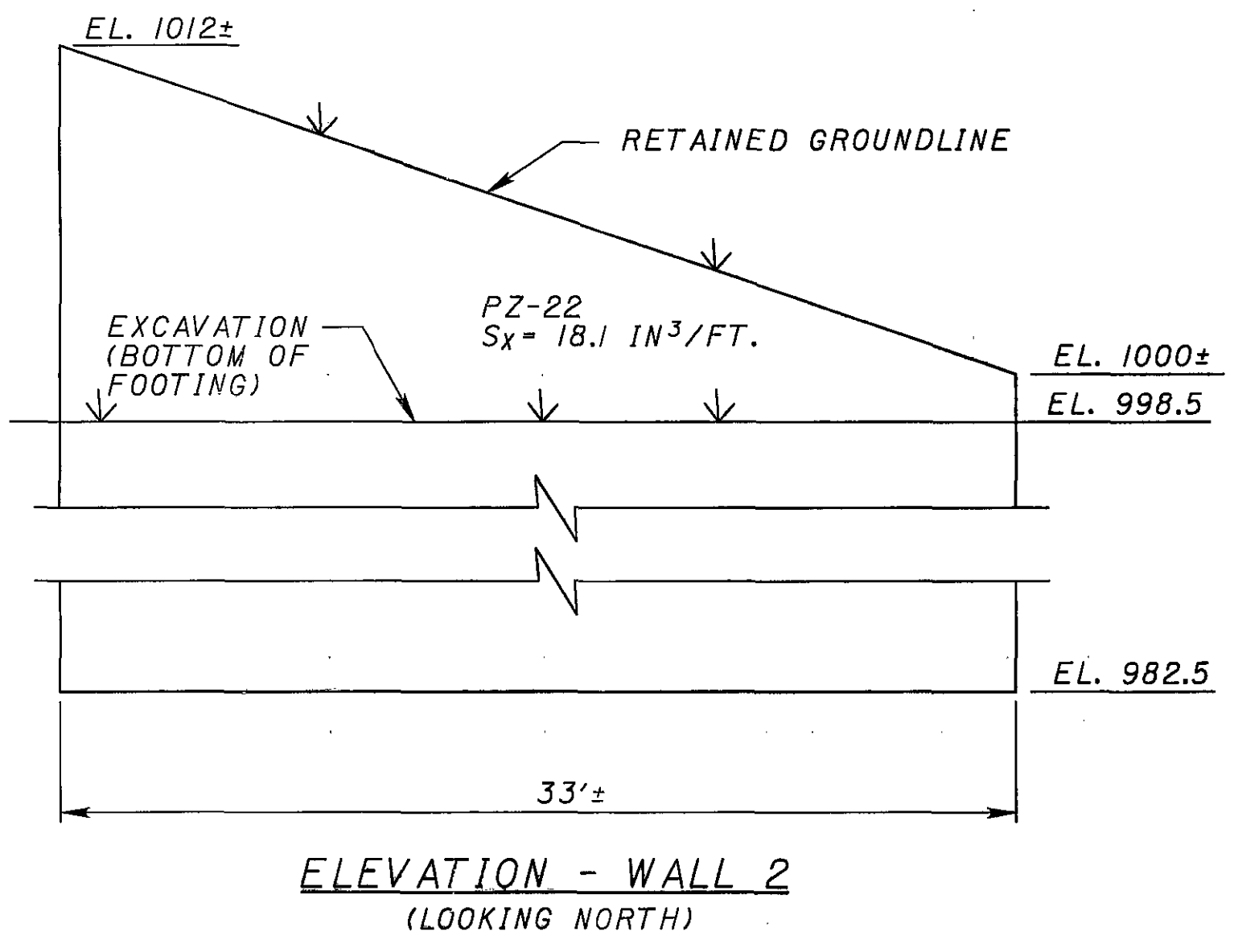
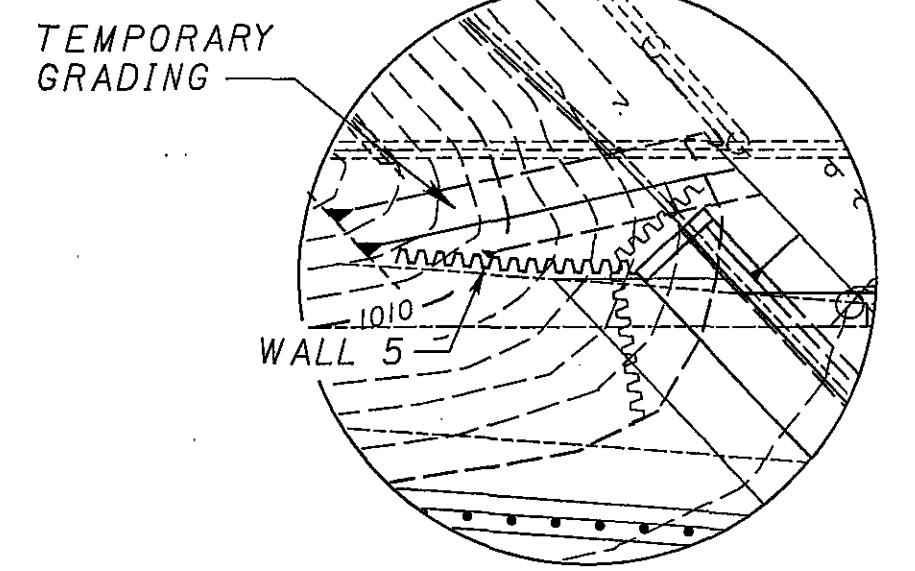
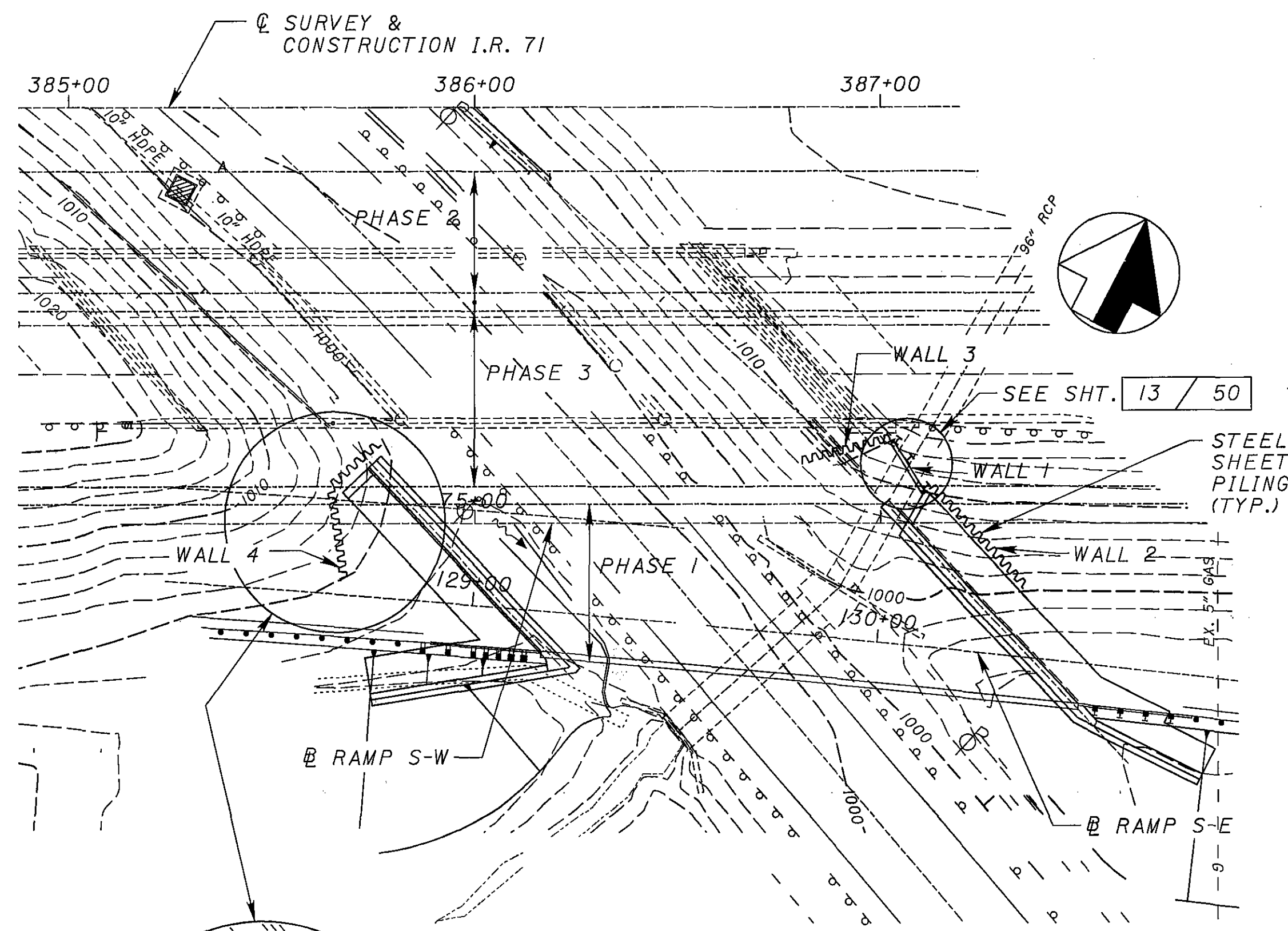
-  = PHASE 1 REMOVALS
-  = PHASE 2 REMOVALS

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DESIGNED	JHL	CHECKED	WTL
DRAWN	JHL	REVIEWED	
REVIEWED	RMK	STRUCTURE FILE NUMBER	5202817
DATE	11/04		

PIER REMOVAL DETAILS
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657



- NOTES:**
- REAR ABUTMENT
1. INSTALL WALL 4
 2. CONSTRUCT PHASE I ABUTMENT
 3. BACKFILL AS REQUIRED TO REMOVE WALL 4.
 4. INSTALL WALL 5.

LEGEND:

H = HORIZONTAL COMPONENT OF REQUIRED ANCHOR FORCE PER FOOT OF WIDTH.

P:\PR30489\CADD\MED-71-0729\Detail Design\0729R\ME07\pc7.dgn

BURGESS & NIPLE
2205 West 10th Street
Oklahoma City, Oklahoma 73106

DATE	11/04
REVIEWED	FMK
DESIGNED	CBC
DRAWN	WTL
CHECKED	VEA
STRUCTURE FILE NUMBER	5202817

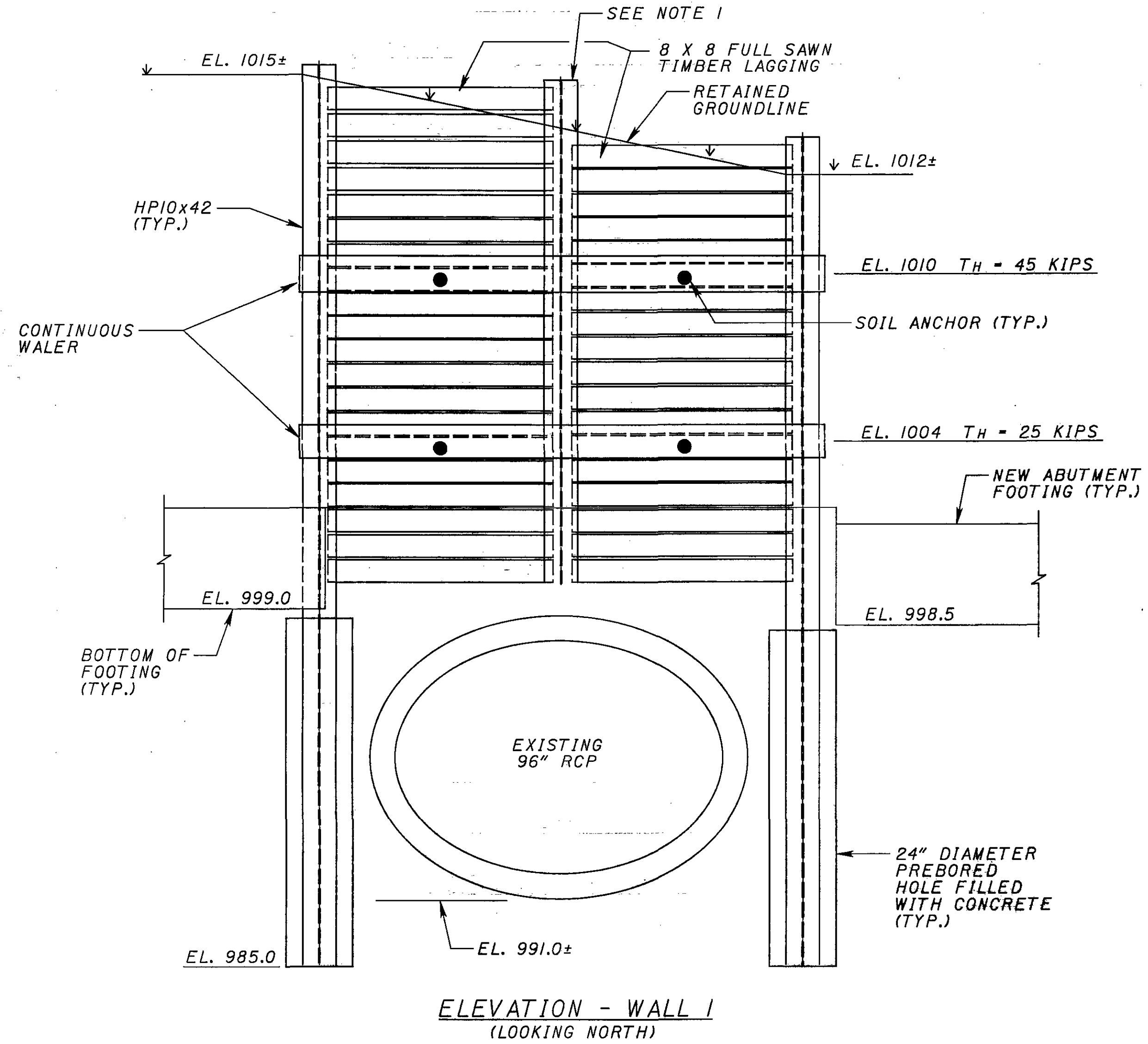
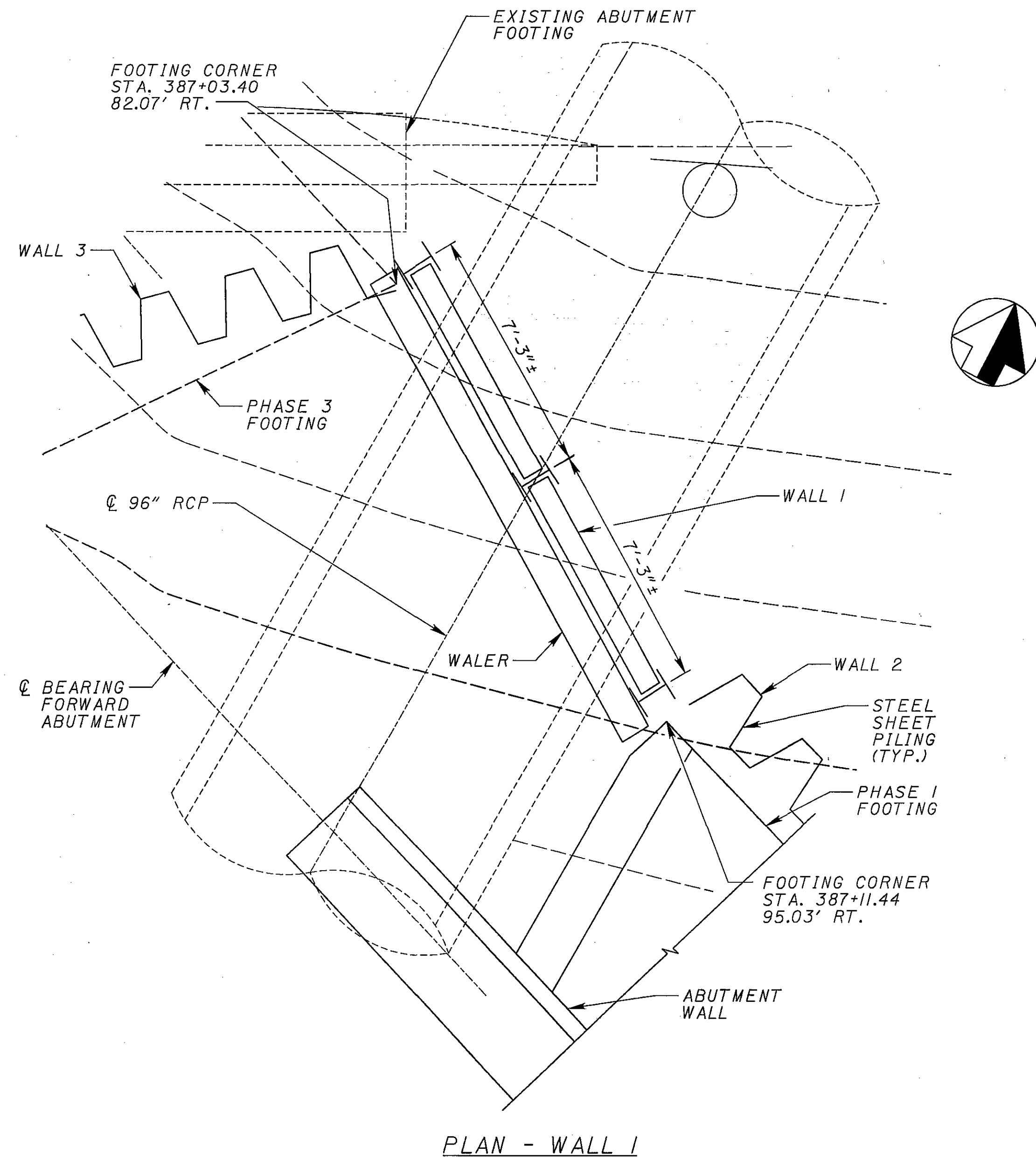
PHASE I SHORING DETAILS I
 BRIDGE NO. MED-71-0729 R
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID-75657

12 / 50

738
1120

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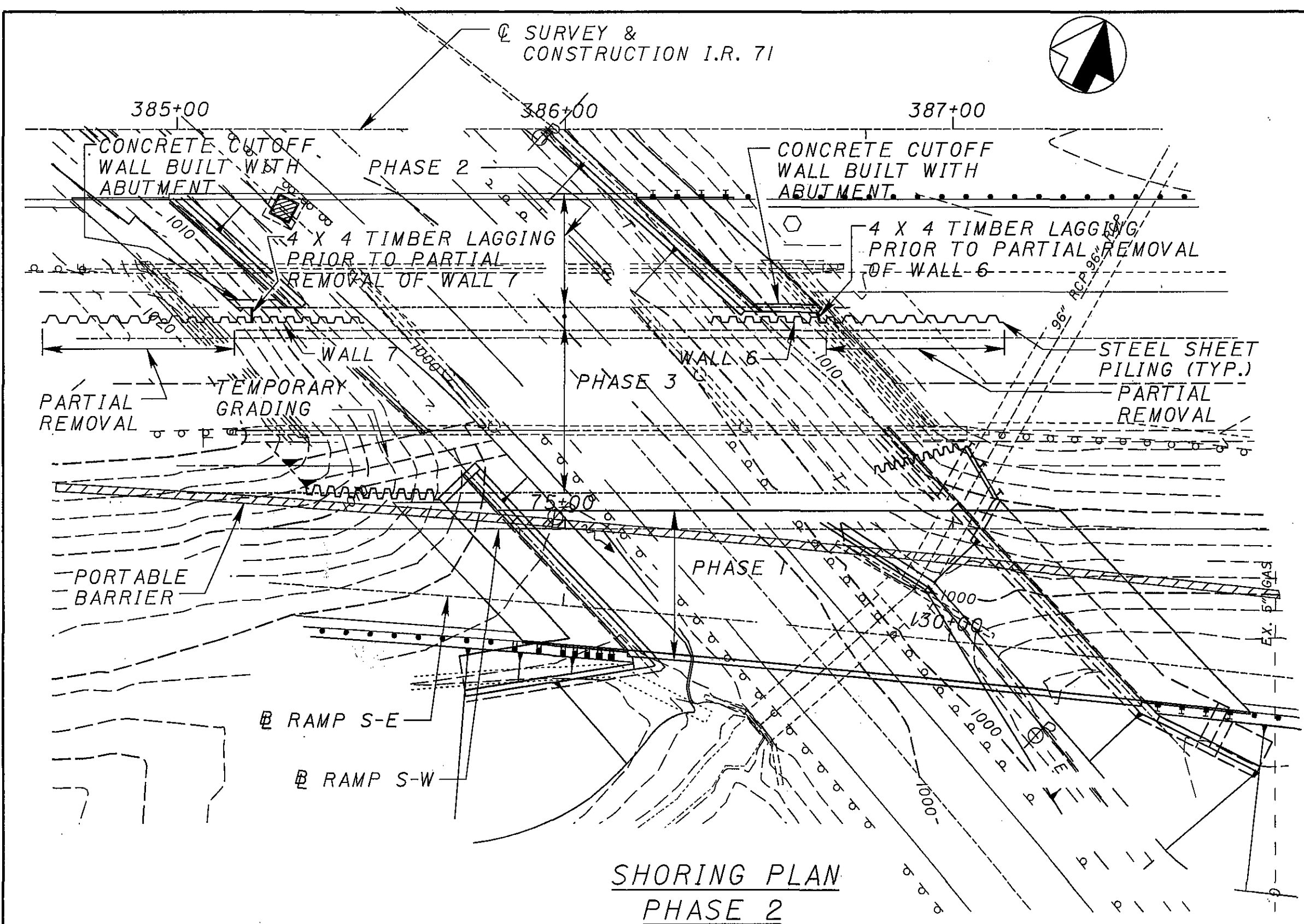


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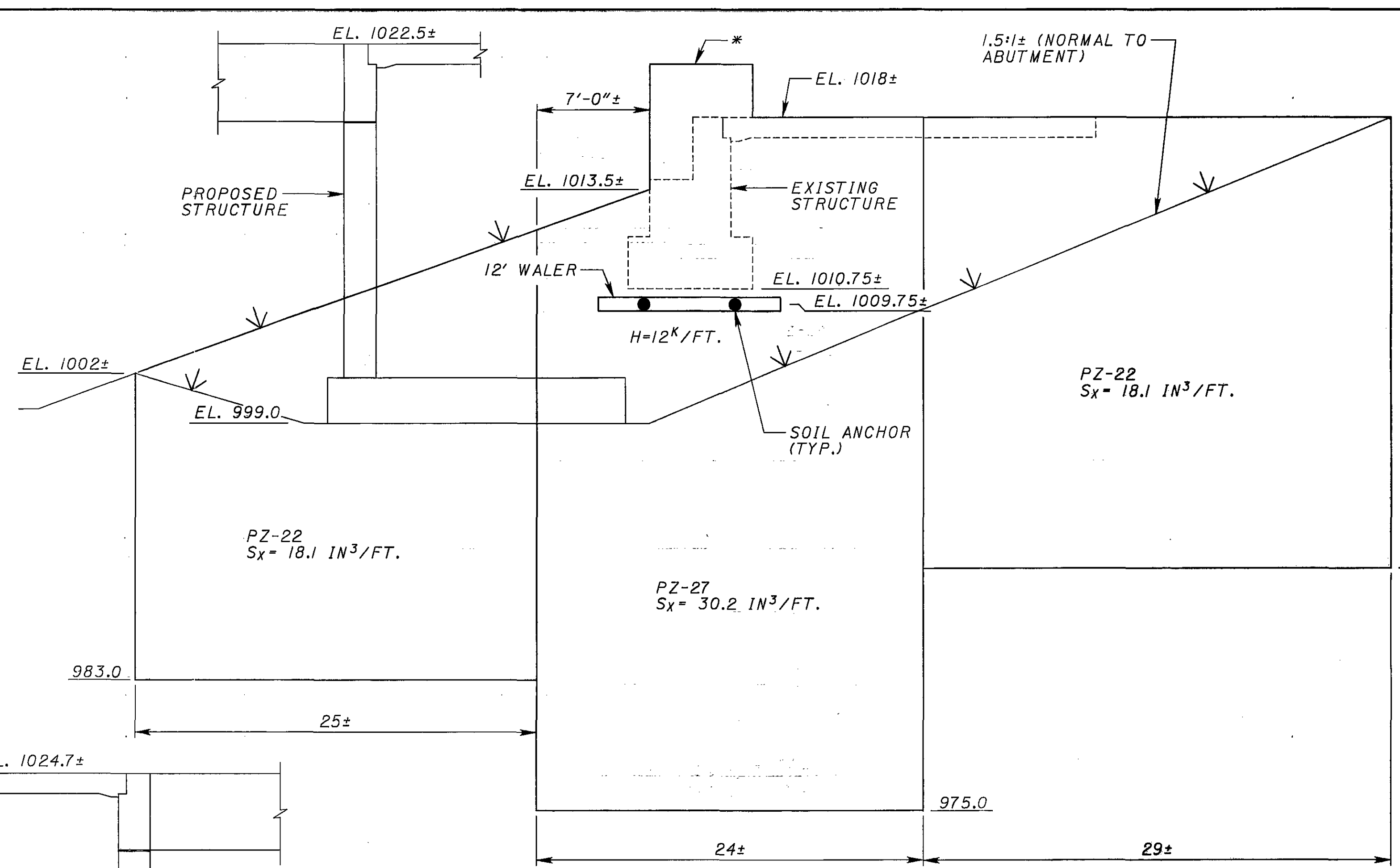
1. A 14-INCH DIAMETER PREBORED HOLE SHALL BE USED TO INSTALL THE CENTER PILE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING PIPE CULVERT DURING CONSTRUCTION.
2. ABOVE THE CONCRETE FILLED PORTION OF THE PREBORED HOLE, ANY VOIDS AROUND THE PILE RESULTING FROM THE PREBORED HOLES SHALL BE FILLED WITH LOW STRENGTH MORTAR BACKFILL AFTER THE PILE IS PLACED.
3. THE HORIZONTAL COMPONENT OF THE FOUR SOIL ANCHORS IS SHOWN AS T_H .
4. SEE SHORING DETAILS SHEET ON 16 / 50.

BURGESS & NIPLE	
DATE 11/04	STRUCTURE FILE NUMBER 5202617
REVIEWED RMK	DRAWN WTL
DESIGNED CBC	CHECKED VEA
PHASE 1 SHORING DETAILS 2 BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06	PID-75657
13 / 50	739 1120

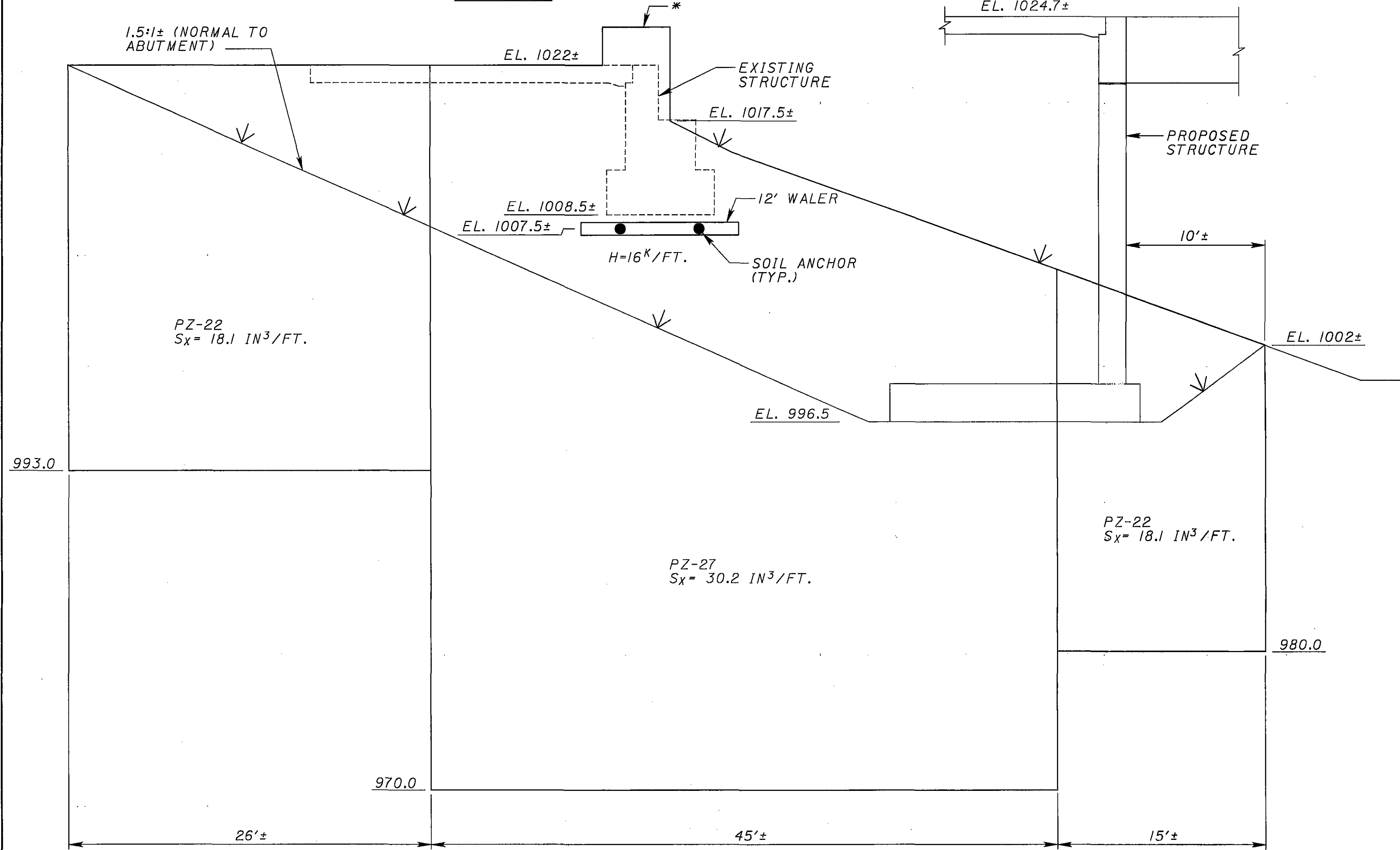
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SHORING PLAN
PHASE 2



ELEVATION - WALL 6
(LOOKING NORTH)

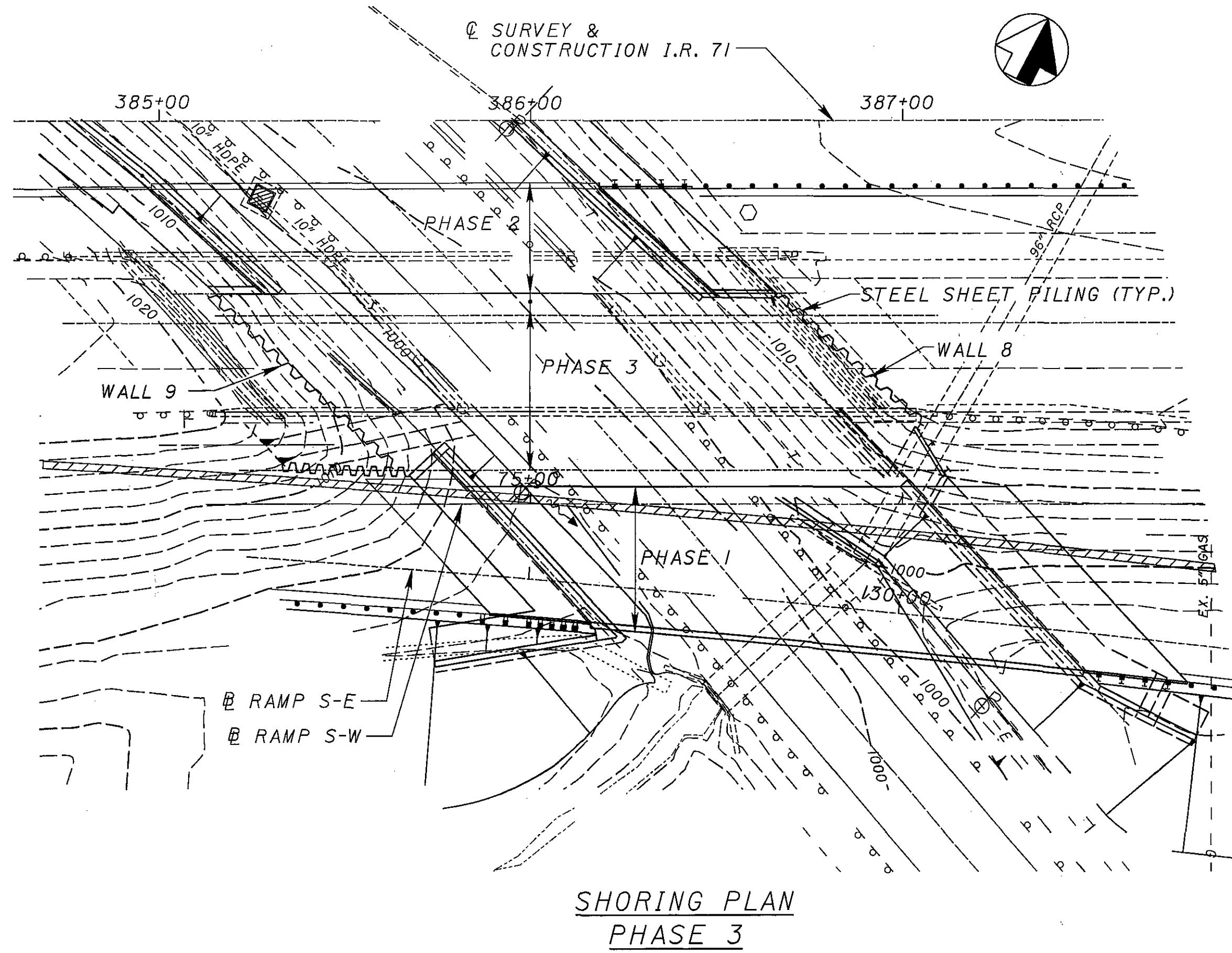


ELEVATION - WALL 7
(LOOKING NORTH)

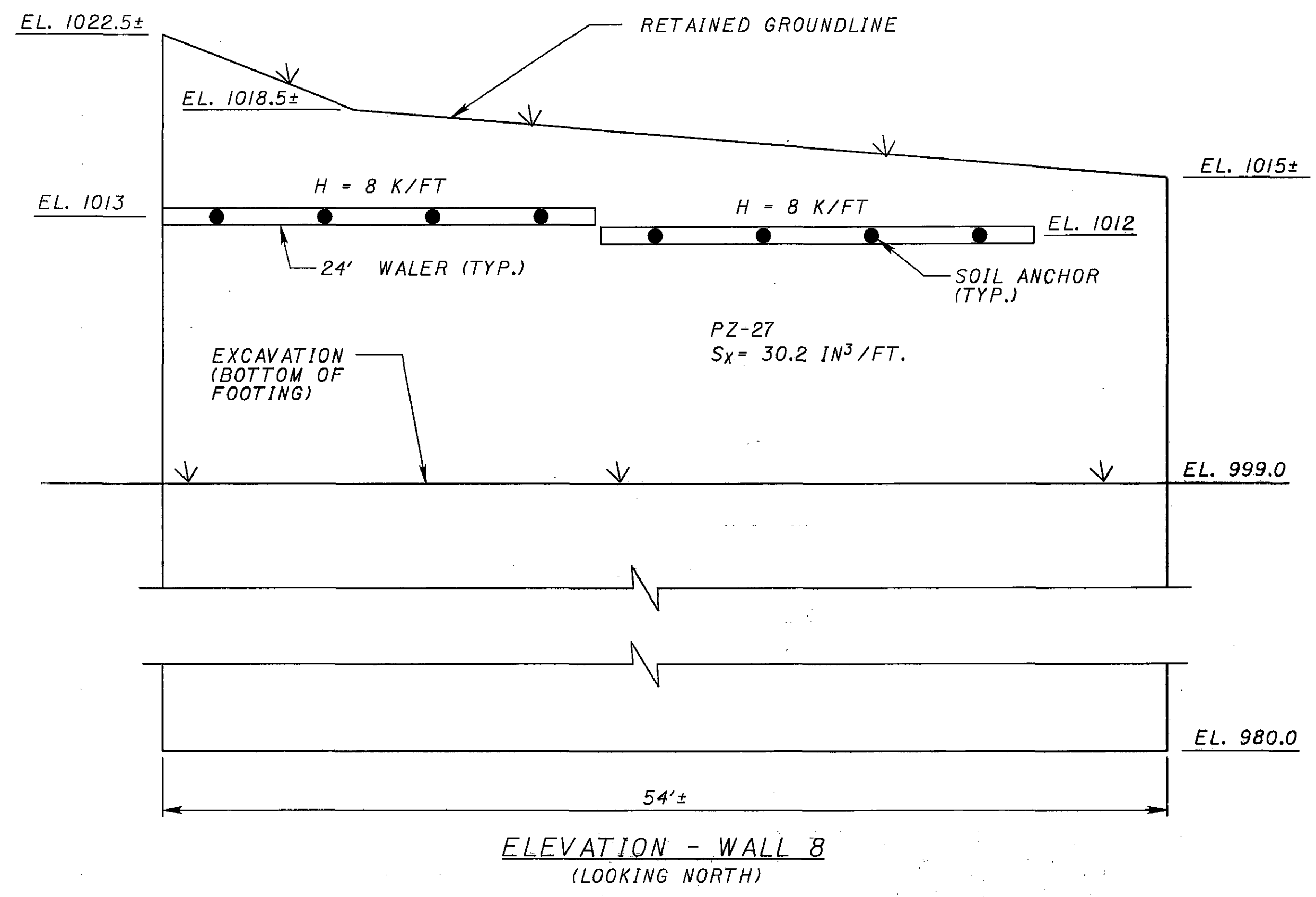
LEGEND:

- H - HORIZONTAL COMPONENT OF REQUIRED ANCHOR FORCE PER FOOT OF WIDTH.
- * - SHEETING TO BOTTOM OF PROPOSED APPROACH SLAB TO ACCOMMODATE TIMBER LAGGING PRIOR TO INSTALLATION OF STAGE 2, PHASE 2 SHEETING

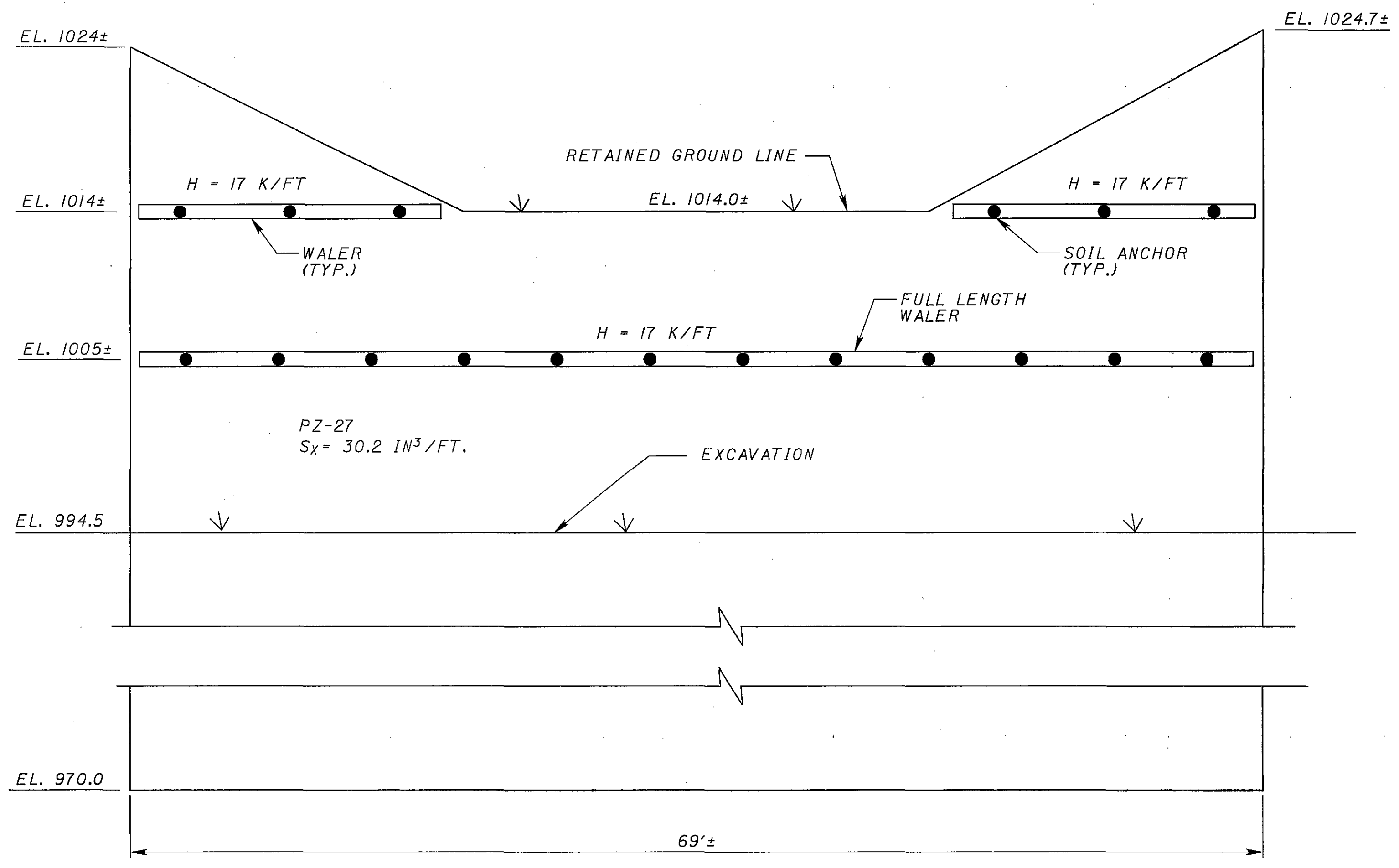
BURGESS & NIPLE	
DATE	11/04
REVIEWED	RMK
DRAWN	WTL
DESIGNED	CBC
CHECKED	VEA
STRUCTURE FILE NUMBER	5202817
PHASE 2 SHORING DETAILS	
BRIDGE NO. MED-71-0729 R	
OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06	
PID-75657	
14 / 50	
740	
1120	



SHORING PLAN
 PHASE 3



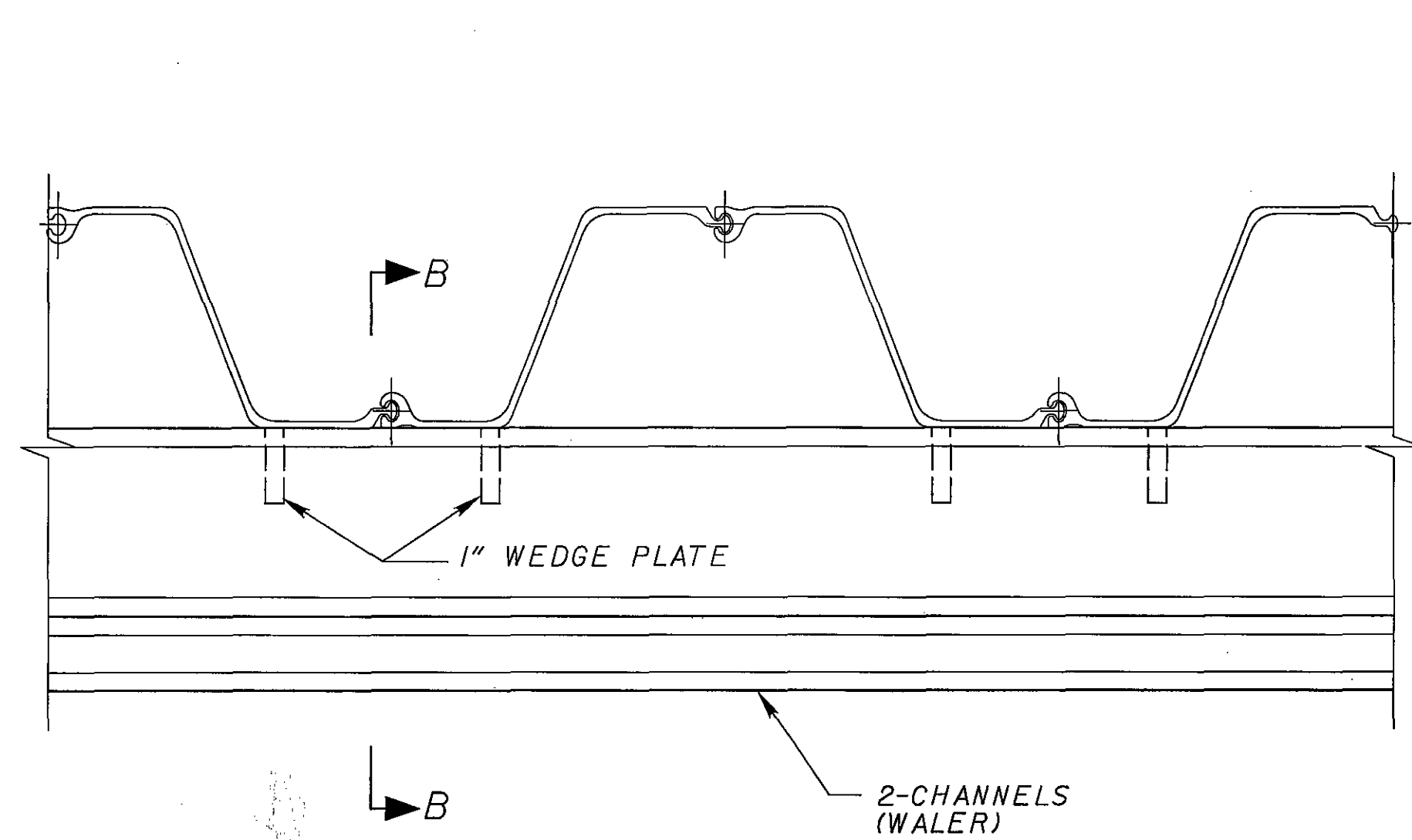
ELEVATION - WALL 8
 (LOOKING NORTH)



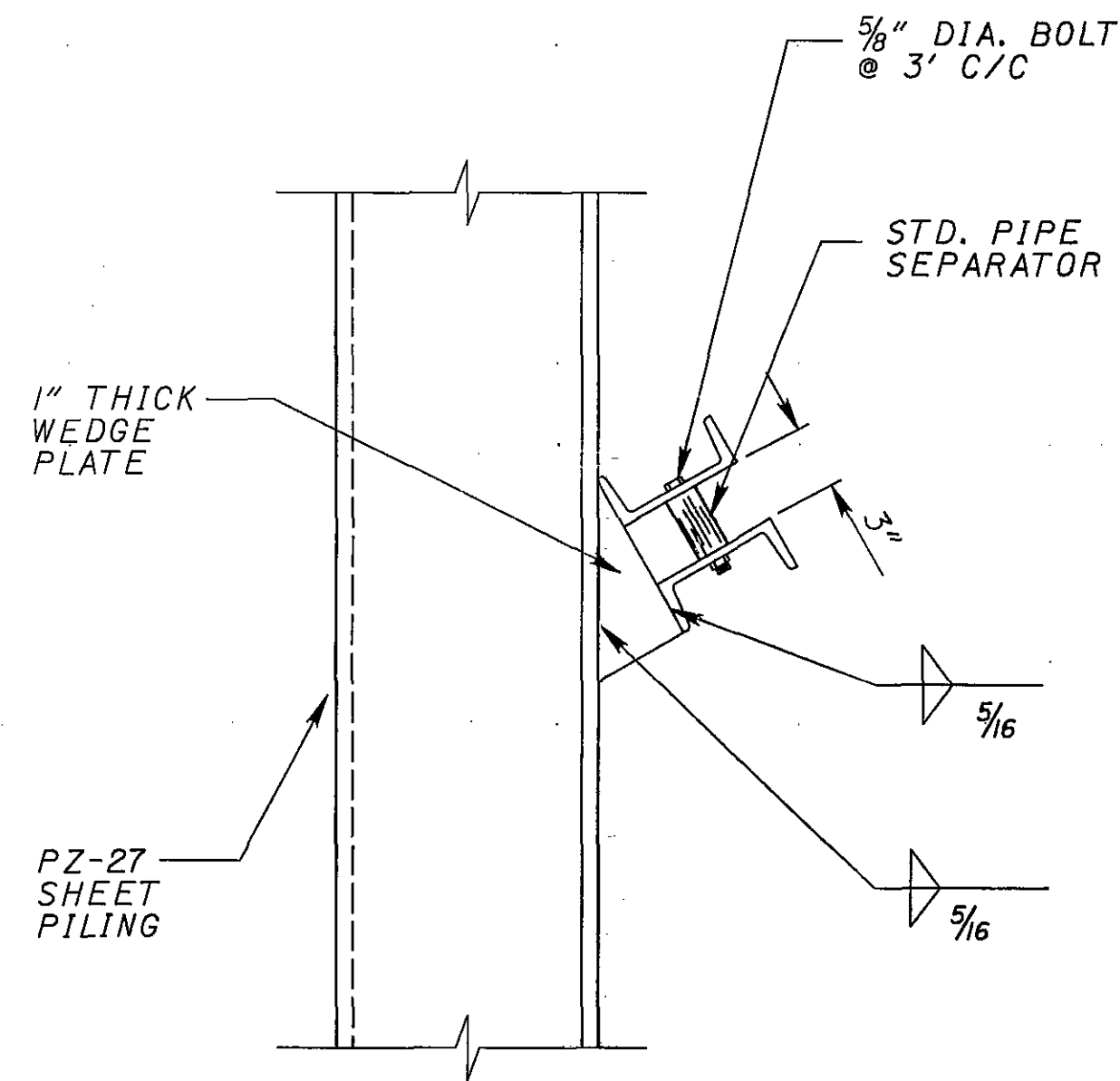
ELEVATION - WALL 9
 (LOOKING SOUTH)

LEGEND:
 H = HORIZONTAL COMPONENT
 OF REQUIRED ANCHOR
 FORCE PER FOOT OF
 WIDTH.

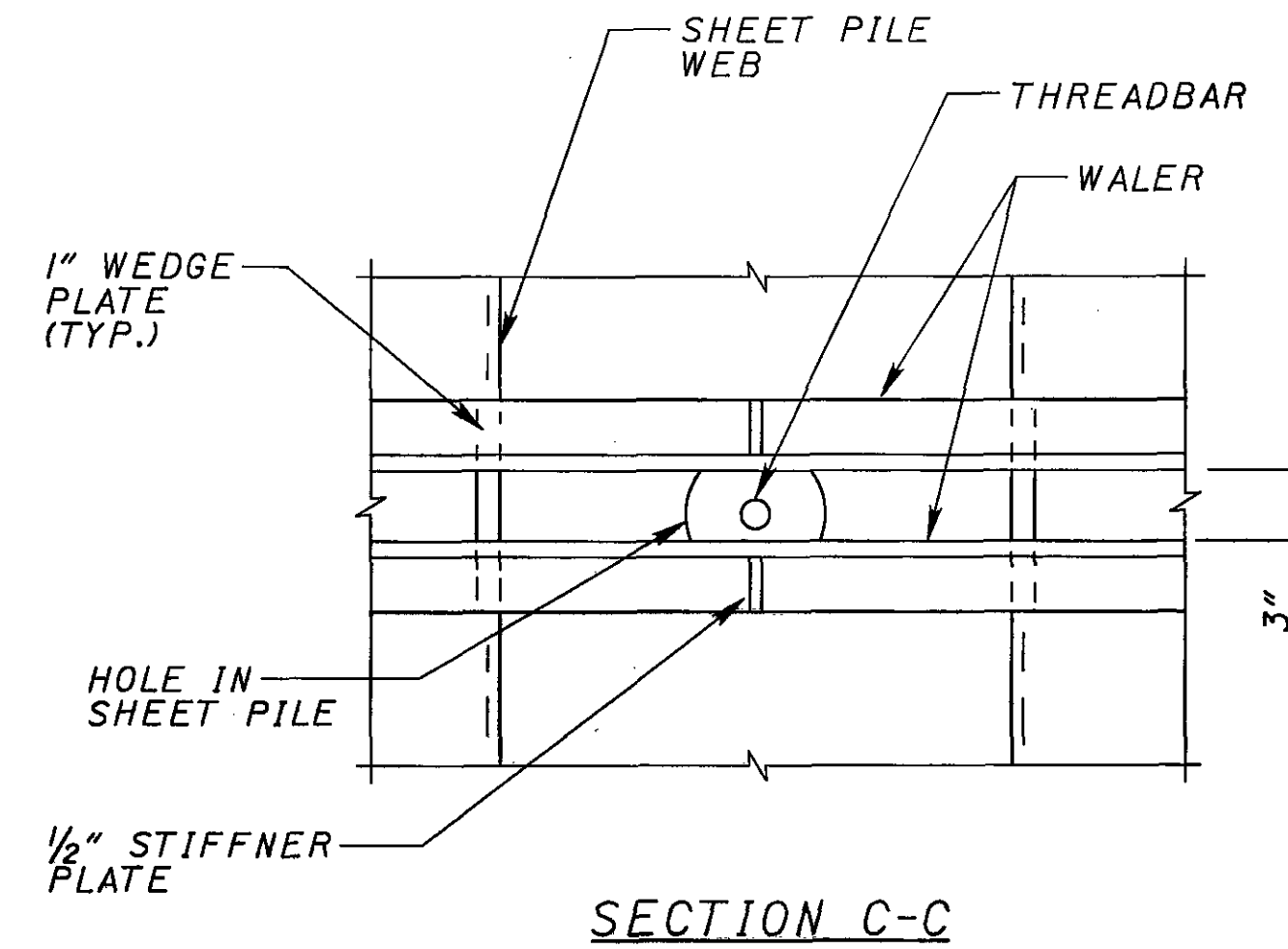
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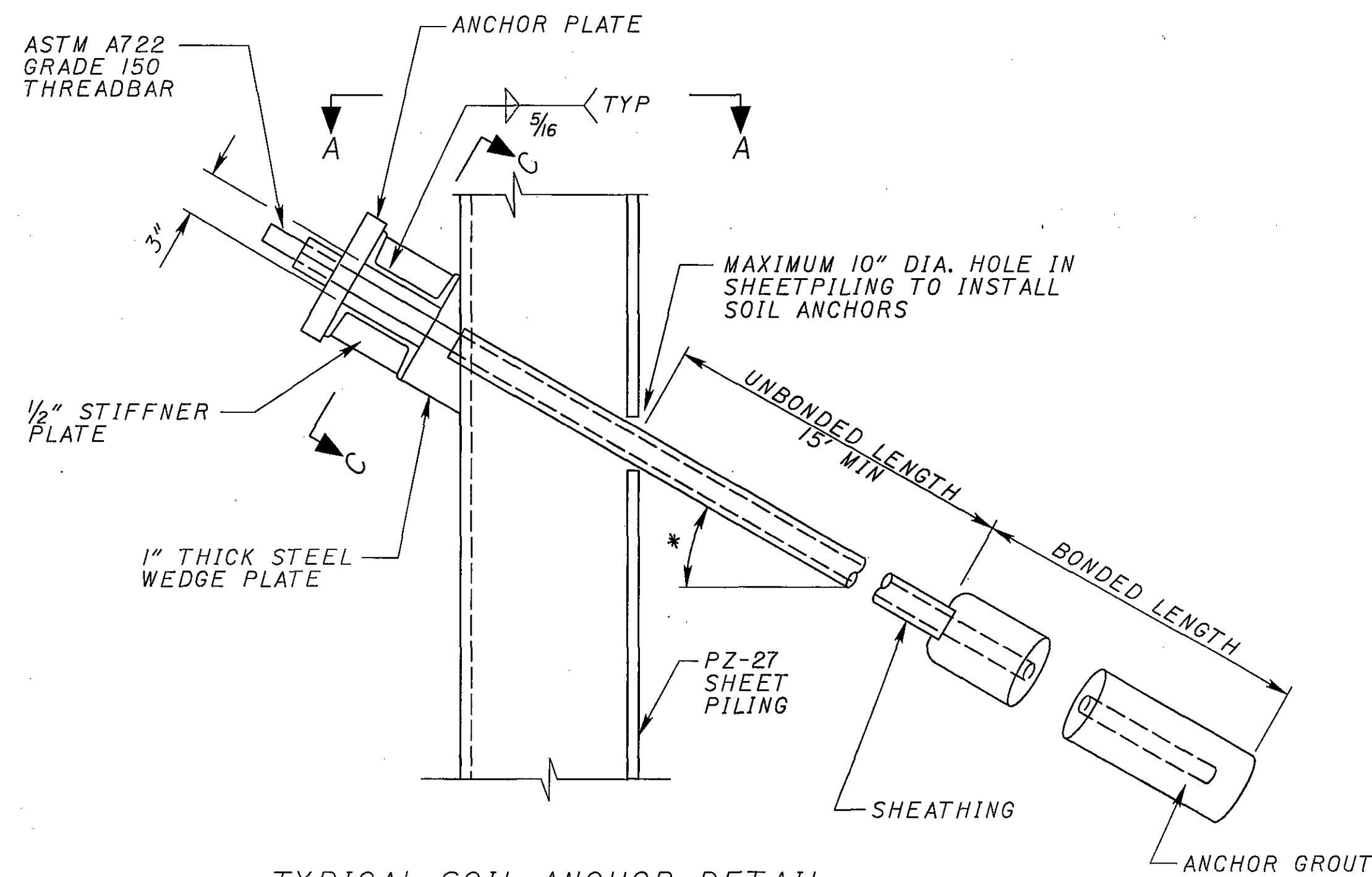
VIEW A-A
(NOTE: ANCHORS NOT SHOWN)



SECTION B-B



SECTION C-C



TYPICAL SOIL ANCHOR DETAIL

* ANGLE MAY VARY BETWEEN 10 AND 30 DEGREES

NOTES:

CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE SOIL ANCHORS, WALERS AND ANCHORAGE DETAILS NECESSARY TO ACCOMMODATE THE HORIZONTAL DESIGN LOAD (H) STATED FOR EACH WALER SHOWN ON THESE PLANS. THE VERTICAL ANGLE OF INCLINATION OF THE SOIL ANCHORS AS WELL AS THE HORIZONTAL BATTER CAN VARY BASED ON THE CONTRACTOR'S INSTALLATION PROCEDURES AND ANY OBSTRUCTIONS BUT MUST BE INCREASED AS NECESSARY TO PROVIDE A REQUIRED HORIZONTAL COMPONENT EQUAL TO THE DESIGN WALER LOAD (H). THE DESIGN OF THE SOIL ANCHORS, WALERS AND ANCHORAGE COMPONENTS SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OHIO. FOR APPROVAL, FIVE COPIES OF DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE DIRECTOR. THE SOIL ANCHOR SPACINGS AND INCLINATIONS SHALL BE DETERMINED BY THE CONTRACTOR SUCH THAT THE MAXIMUM SOIL ANCHOR DESIGN LOAD IS LIMITED TO 142 KIPS.

CONTRACTOR SHALL VERIFY THAT SOIL ANCHORS DO NOT CONFLICT WITH EXISTING UTILITIES AND EXISTING OR PROPOSED STRUCTURES.

SOIL ANCHOR BONDED LENGTH AND DIAMETER TO BE DETERMINED BY THE CONTRACTOR BASED ON PROPOSED METHODS OF INSTALLATION. ANCHOR BOND LENGTH SHALL SAFELY SUPPORT AN ANCHOR DESIGN LOAD WITH A FACTOR OF SAFETY AGAINST PULLOUT OF 2.5. THE MINIMUM BOND LENGTH SHALL BE 20 FEET.

VOID BETWEEN DRILL HOLE AND SHEATHING OF UNBONDED LENGTH SHALL BE FILLED WITH GROUT.

SUBSEQUENT TO INSTALLATION OF SOIL ANCHORS AND ANCHOR TESTING, A 1/2-INCH THICK STEEL PLATE WITH A SMALL HOLE FOR THE TENDON SHALL BE WELDED TO THE SHEET PILING TO PLUG THE HOLE IN THE SHEET PILING REQUIRED TO DRILL THE HOLES FOR THE SOIL ANCHORS. THE STEEL PLATE SHALL BE ESSENTIALLY SQUARE WITH MINIMUM DIMENSIONS 1 INCH GREATER THAN THE DIAMETER OF THE HOLE TO BE PLUGGED EXCEPT FOR NOTCHES CUT TO CLEAR THE PILING INTERLOCKS. THE PLATES SHALL BE INSTALLED AS SOON AS THE EXCAVATION REACHES A POINT WHERE THE WELDING CAN BE PERFORMED. A 1/16-INCH FILLET WELD SHALL BE USED ALONG THE ENTIRE PERIMETER OF THE PLATE.

PZ-27 SHEET PILING SHOWN. EQUIVALENT SHEET PILING WITH MINIMUM SECTION MODULUS OF 30.2 cu. in./lin. ft. OF WALL CAN BE USED.

SOIL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS, 1996 EDITION BY THE POST-TENSIONING INSTITUTE" (PTI).

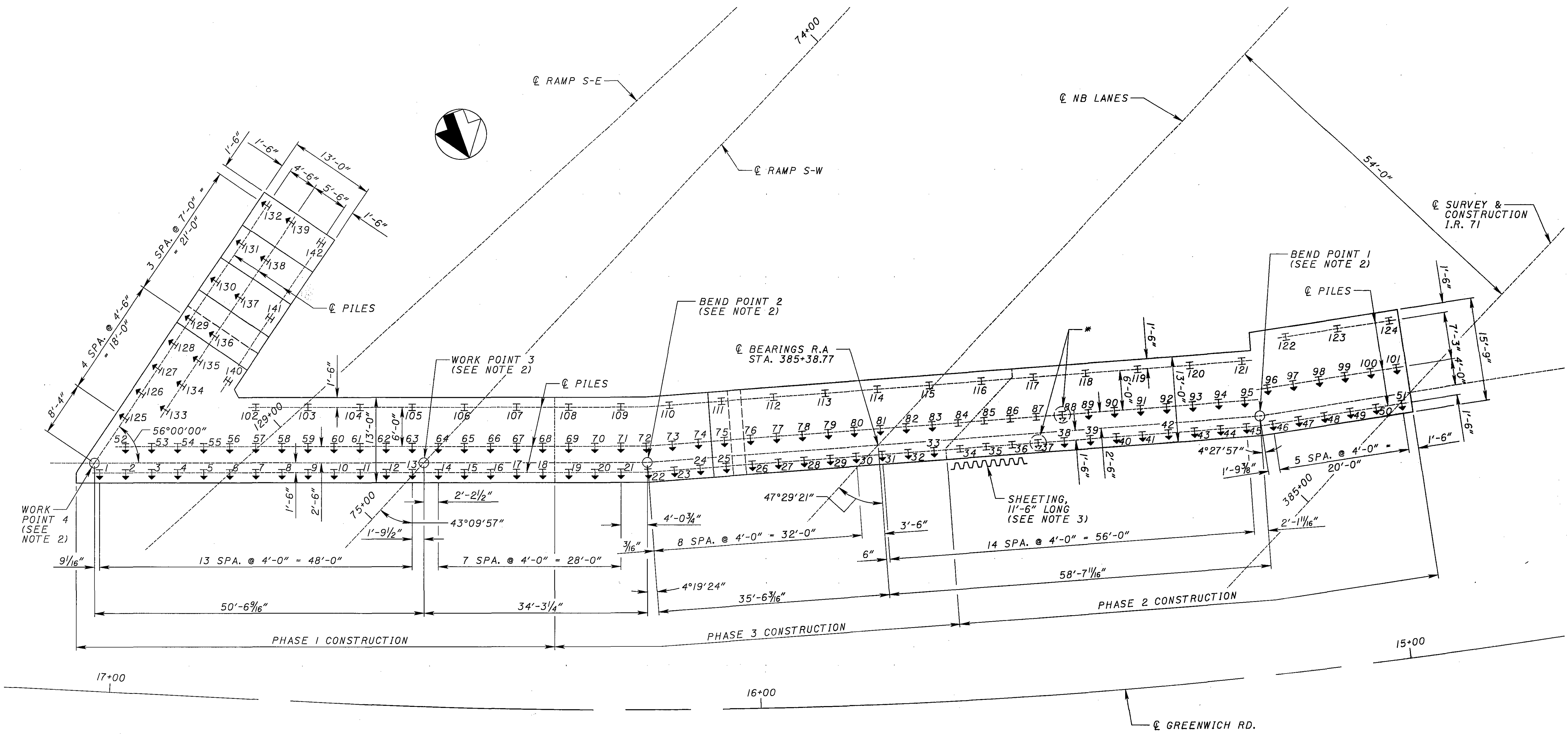
THE FIRST SOIL ANCHOR INSTALLED FOR EACH WALL SHALL BE PERFORMANCE TESTED AND THE REMAINING SOIL ANCHORS SHALL BE PROOF TESTED. THE TEST PROCEDURES USED SHALL BE AS SET FORTH BY PTI RECOMMENDATIONS.

AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE TEMPORARY SHORING CONFIGURATION MAY BE USED. PLANS FOR THE ALTERNATE SHORING SHALL BE DESIGNED BY A REGISTERED (IN OHIO) PROFESSIONAL ENGINEER. FOR APPROVAL, FIVE COPIES OF THE DRAWINGS SHALL BE SUBMITTED TO THE DIRECTOR. CONSTRUCTION SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. IF AN ALTERNATE TYPE OF SHORING IS PROPOSED, THE SHORING SHALL BE SIMILAR IN CONCEPT TO THE SHORING DETAILED IN THE CONTRACT PLANS.

PAYMENT FOR THIS ITEM WILL BE MADE AT THE CONTRACT LUMP SUM PRICE FOR ITEM "COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN".

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REAR ABUTMENT FOUNDATION PLAN

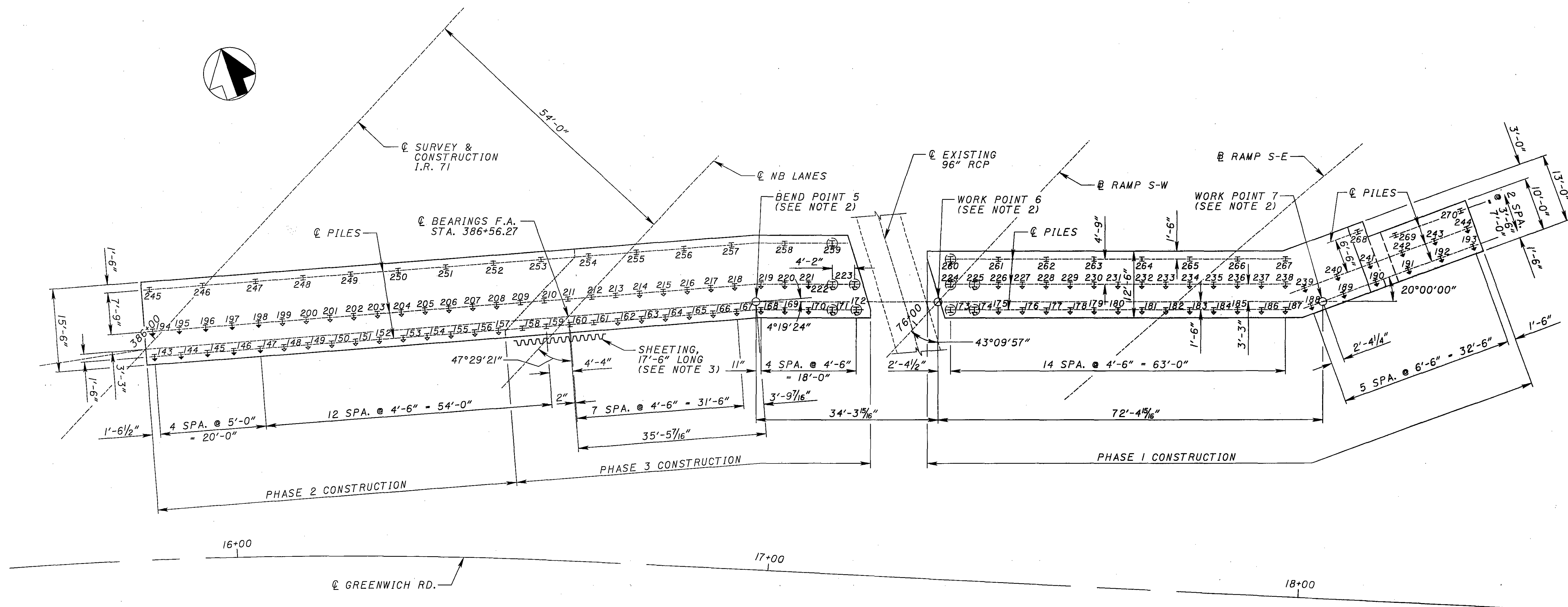
NOTES:

- SEE SHEET 19 / 50 FOR ADDITIONAL REAR ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 6 / 50 FOR BEND POINT AND WORK POINT DETAILS.
- SEE SHEET 31 / 50 FOR SHEETING DETAILS.

LEGEND:

- ⊥ = HP 12x53 PILE
- ⊥ = HP 12x53 PILE BATTERED AT 3:1
- R.A. = REAR ABUTMENT
- XX = PILE NUMBER
- * = PILE BATTERED AT 4:1

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FORWARD ABUTMENT FOUNDATION PLAN

NOTES:

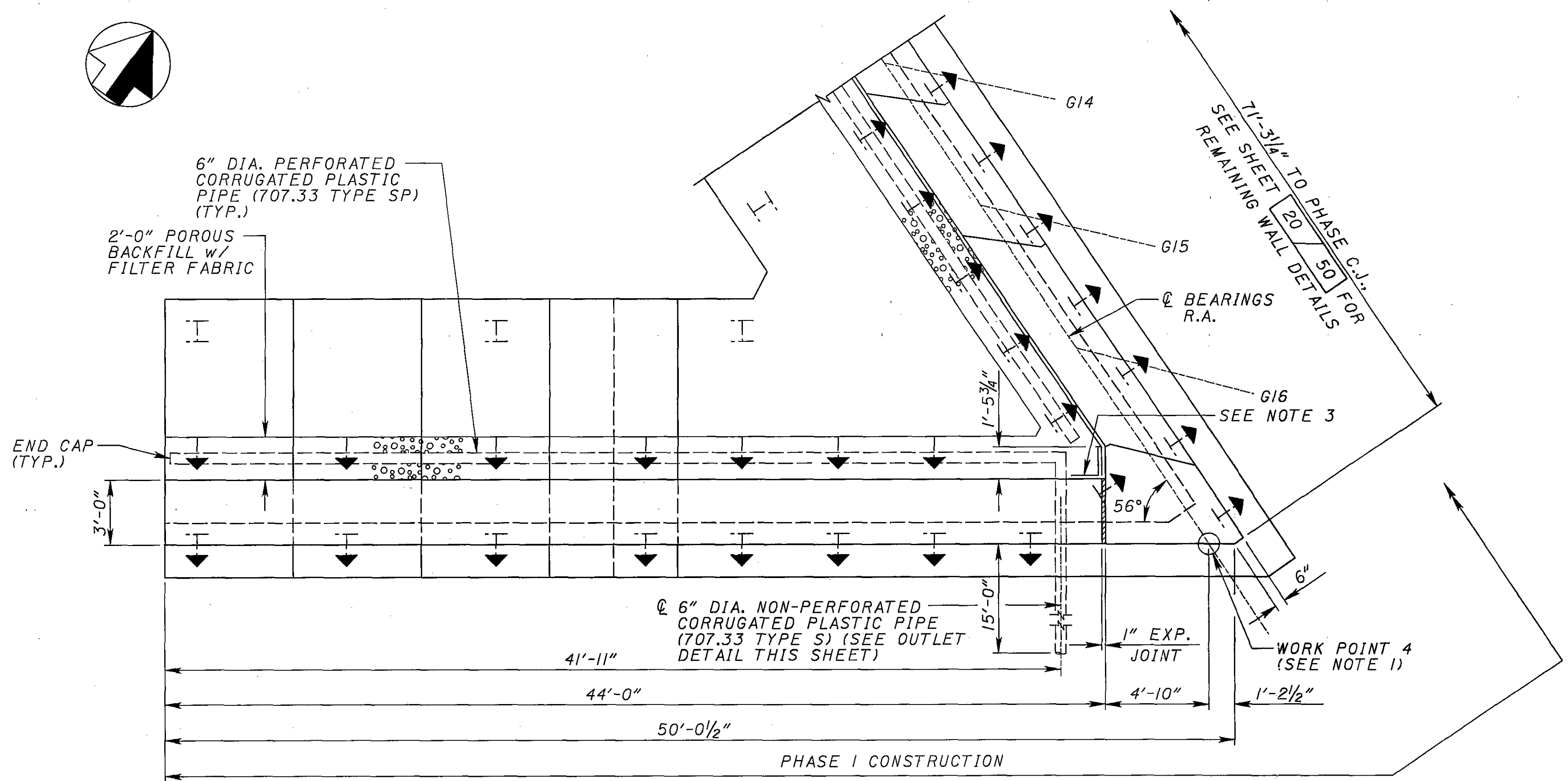
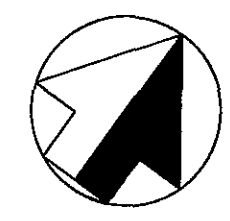
1. SEE SHEET 23 / 50 FOR ADDITIONAL FORWARD ABUTMENT FOOTING DIMENSIONS.
2. SEE SHEET 6 / 50 FOR BEND POINT AND WORK POINT DETAILS.
3. SEE SHEET 31 / 50 FOR SHEETING DETAILS.

LEGEND:

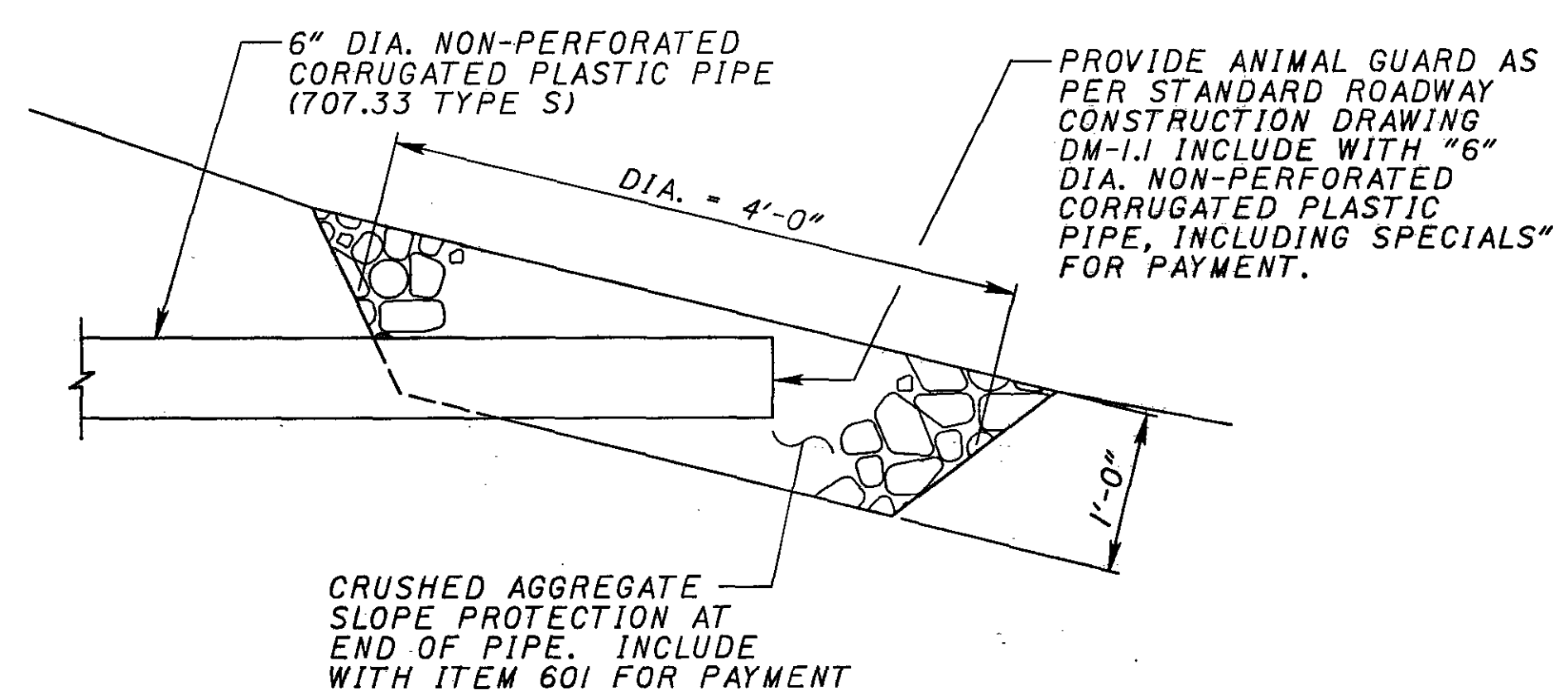
- ⊥ - HP 10x42 PILE
- ⊥ - HP 10x42 PILE BATTERED AT 4:1
- ⊥ - HP 10x42 PILE BATTERED AT 3:1
- ⊥ - HP 14x73 PILE
- ⊥ - HP 14x73 PILE BATTERED AT 4:1
- R.A. - REAR ABUTMENT
- XX - PILE NUMBER

	DATE 11/04
	REVIEWED RMK
DRAWN CRC	STRUCTURE FILE NUMBER 5202817
DESIGNED TTK	CHECKED AEH
FORWARD ABUTMENT FOUNDATION PLAN BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	18 / 50
744 1120	

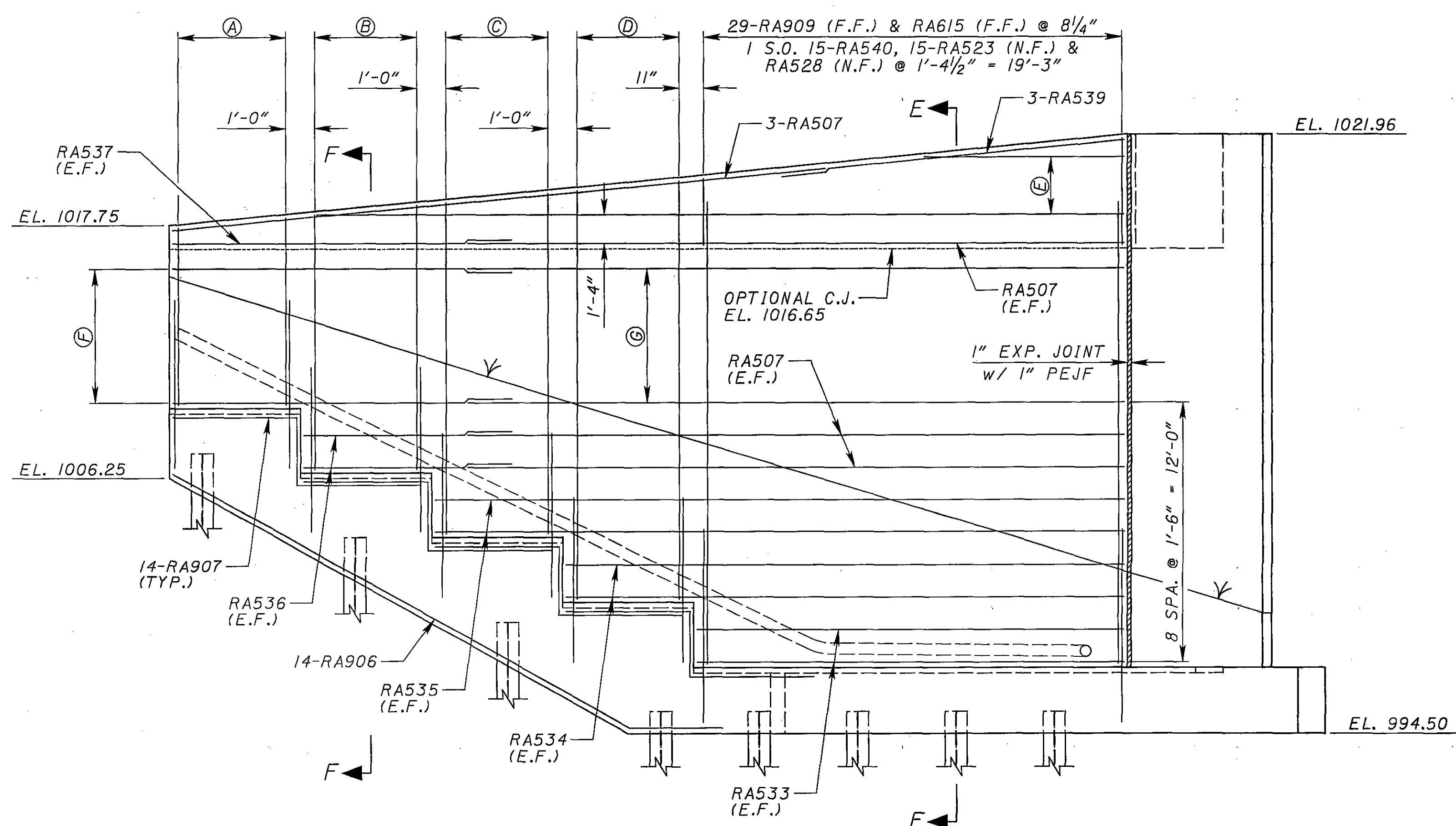
BURGESS & NIPLE
INCORPORATED
5005 Peachtree
Chamblee, GA 30320



PLAN



OUTLET DETAIL
(TYP. REAR AND FORWARD ABUTMENT)



ELEVATION

LEGEND:

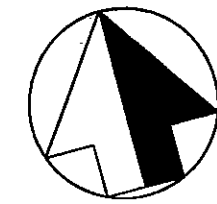
- C.J. = CONSTRUCTION JOINT.
 - E.F. = EACH FACE
 - EXP. = EXPANSION
 - F.F. = FAR FACE
 - G. = GIRDER NUMBER
 - N.F. = NEAR FACE
 - PEJF = PREFORMED EXPANSION JOINT FILLER
 - R.A. = REAR ABUTMENT
 - S.O. = SERIES OF
- (A) = 6-RA806 (F.F.), 1 S.O. 6-RA544 & 6-RA523 (N.F.) @ 1'-0" (+) = 5'-3"
 - (B) = 6-RA806 (F.F.), 1 S.O. 6-RA543 & 6-RA523 (N.F.) @ 1'-0" = 5'-0"
 - (C) = 6-RA806 (F.F.), 1 S.O. 6-RA542 & 6-RA523 (N.F.) @ 1'-0" = 5'-0"
 - (D) = 6-RA806 (F.F.), 1 S.O. 6-RA541 & 6-RA523 (N.F.) @ 1'-0" = 5'-0"
 - (E) = 1 S.O. 3-RA538 (E.F.) @ 1'-4" = 2'-8"
 - (F) = 5-RA537 (E.F.) @ 1'-6" = 6'-0"
 - (G) = 5-RA507 (E.F.) @ 1'-6" = 6'-0"

NOTES:

1. SEE SHEET 6 / 50 FOR BEND POINT & WORK POINT DETAILS.
2. SEE SHEET 29 / 50 FOR SECTIONS E-E & F-F.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON EXP. JOINT, FROM TOP OF FOOTING TO 6" BELOW GROUND LINE BEHIND WALL AT JOINT.
4. SEE SHEET 19 / 50 FOR FOOTING REINFORCEMENT NOT SHOWN.
5. MINIMUM HORIZONTAL STEEL LAP LENGTH: #5 BAR - 2'-0"

P:\PR30489\CADD\MED-71-0729\Detail Design\0729R\MED071r.d3.DGN

BURGESS & NIPLE	
505 Reed Road Columbus, Ohio 43220	
DATE: 11/04	STRUCTURE FILE NUMBER: 5202817
REVIEWED: RMK	DESIGNED: TTK
DRAWN: CRC	CHECKED: MAK
REVISED:	
REAR ABUTMENT WINGWALL PLAN & ELEVATION BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
22 / 50	
748 1120	



CL SURVEY & CONSTRUCTION I.R. 71

81'-11 1/2"

33'-10 1/4"

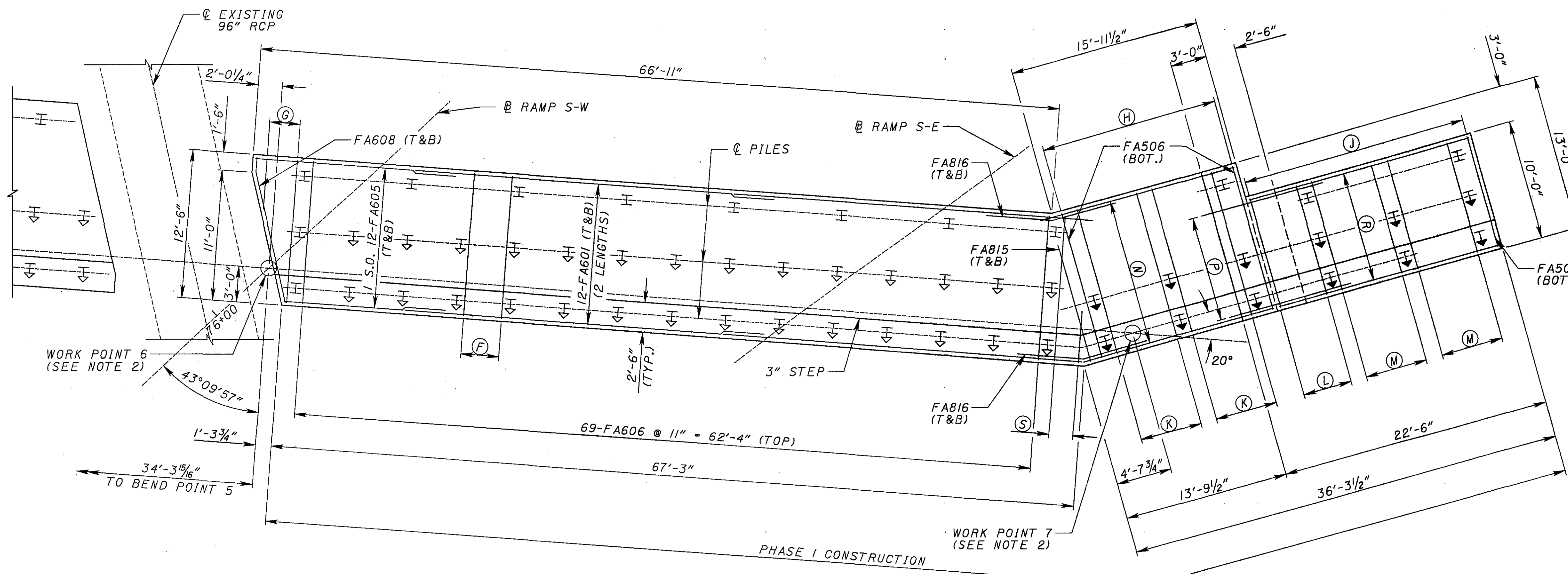
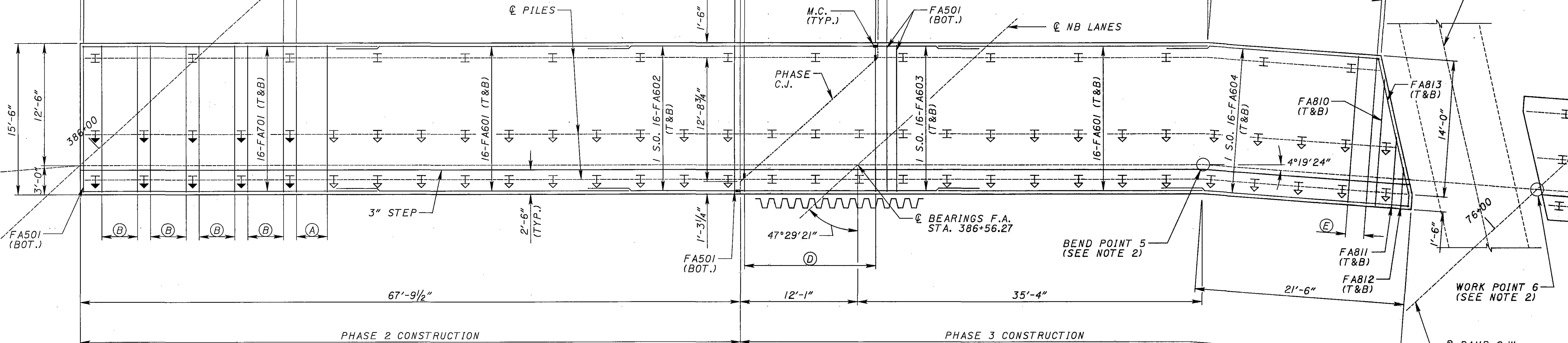
17'-10"

29-FA801 @ 9" = 21'-0" (TOP)

46-FA801 @ 1'-0" = 45'-0" (TOP)

51-FA801 @ 1'-0" = 50'-0" (TOP)

CL EXISTING 96" RCP



LEGEND:

- BOT. - BOTTOM
- C.J. - CONSTRUCTION JOINT
- F.A. - FORWARD ABUTMENT
- M.C. - MECHANICAL CONNECTOR
- S.O. - SERIES OF
- T&B - TOP & BOTTOM
- U.N.O. - UNLESS NOTED OTHERWISE
- (A) - 4-FA501 (BOT.) (TYP. BETWEEN PILES IN PHASE 2 & PHASE 3, U.N.O.)
- (B) - 5-FA501 (BOT.)
- (C) - 1 S.O. 13-FA502 (BOT.)
- (D) - 1 S.O. 14-FA808 (TOP)
- (E) - 1 S.O. 13-FA503 (BOT.)
- (F) - 1 S.O. 14-FA809 (TOP)
- (G) - 3-FA501 (BOT.)
- (H) - 4-FA504 (BOT.) (TYP. BETWEEN PILES IN PHASE 1, U.N.O.)
- (I) - 1 S.O. 4-FA607 (T&B)
- (J) - 15-FA814 (TOP)
- (K) - 19-FA610 (TOP)
- (L) - 6-FA506 (BOT.)
- (M) - 4-FA507 (BOT.)
- (N) - 5-FA507 (BOT.)
- (O) - 15-FA802 (BOT.)
- (P) - 15-FA803 (TOP)
- (Q) - 12-FA806 (BOT.)
- (R) - 12-FA807 (TOP)
- (S) - 12-FA804 (BOT.)
- (T) - 12-FA805 (TOP)
- (U) - 1 S.O. 3-FA505 (BOT.)
- (V) - 1 S.O. 3-FA609 (TOP)

NOTES:

1. WALL BARS EMBEDDED IN FOOTING NOT SHOWN, SEE SHEETS 30 / 50 TO 32 / 50.
2. SEE SHEET 6 / 50 FOR BEND POINT & WORK POINT DETAILS.
3. SEE SHEET 18 / 50 FOR PILE LOCATIONS.
4. ALL BARS SHALL CLEAR PILES BY 2".
5. SPACE ALL REINFORCING CALLED OUT EQUALLY, U.N.O..
6. MINIMUM STEEL LAP LENGTHS:
#6 BAR - 3'-4"
#8 BAR - 5'-9"
7. SEE SHEET 3 / 50 FOR MECHANICAL CONNECTOR NOTE.

FORWARD ABUTMENT FOOTING PLAN

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BURGESS & NIPLE
ENGINEERS, ARCHITECTS
CORPORATION (1922)

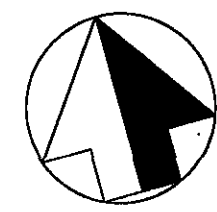
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REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DRAWN	CRC
CHECKED	MAK
DESIGNED	TTK

FORWARD ABUTMENT FOOTING PLAN
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

23 / 50

749
1120



CL SURVEY & CONSTRUCTION I.R. 71

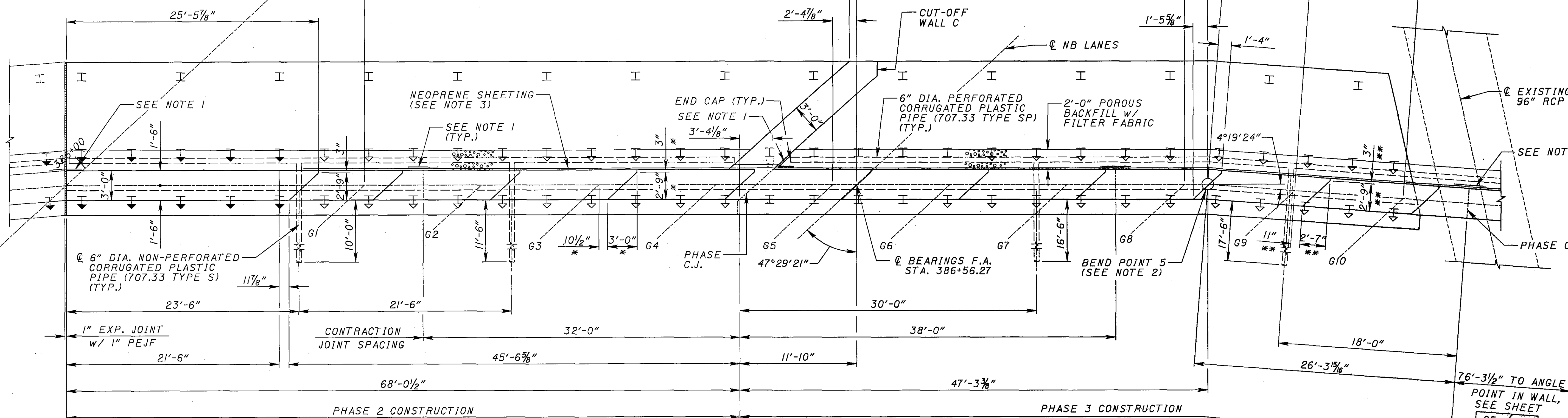
GIRDER SPACING MEASURED ALONG CL BEARINGS F.A.

7 SPA. @ 11'-10 1/16" = 82'-10 7/16"

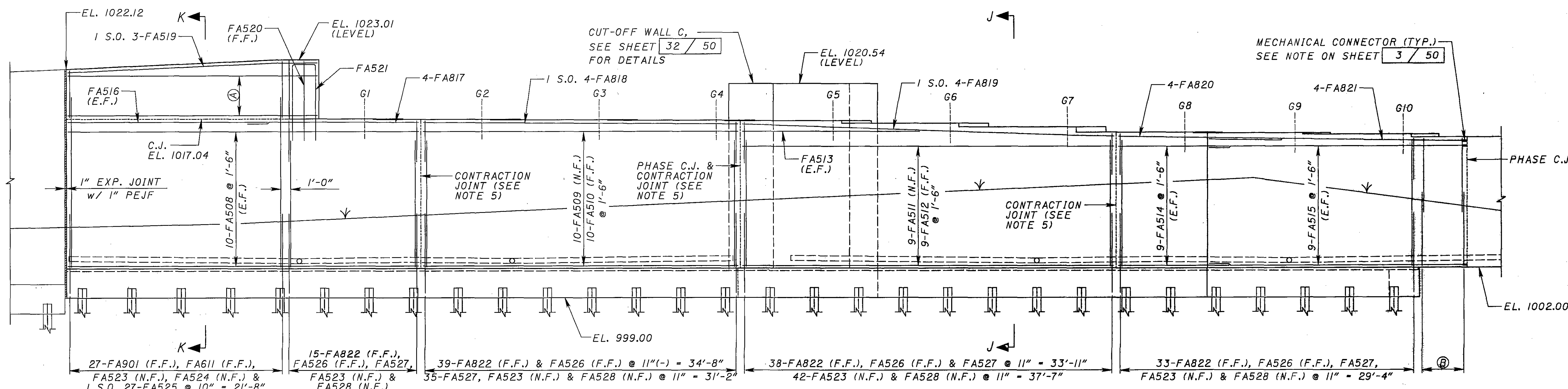
2'-4 1/8"

8'-9 1/16"

10'-11 5/16"



PARTIAL PLAN



PARTIAL ELEVATION

LEGEND:

- C.J. = CONSTRUCTION JOINT
- E.F. = EACH FACE
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- G. = GIRDER NUMBER
- N.F. = NEAR FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- S.O. = SERIES OF
- U.N.O. = UNLESS NOTED OTHERWISE
- * = TYP. G1 - G8 (U.N.O.)
- ** = TYP. G9 - G10

- Ⓐ = 4-FA517 @ 1'-4" (N.F.)
4-FA518 @ 1'-4" (F.F.)
- Ⓑ = 2 SETS OF 7-FA522 @ 11" = 5'-6"

NOTES:

1. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION AT PHASE C.J. AND CONTRACTION JOINT AND FROM TOP OF FOOTING TO 6" BELOW GROUND LINE BEHIND WALL AT JOINT BETWEEN WINGWALLS.
2. SEE SHEET 6 / 50 FOR BEND POINT & WORK POINT DETAILS.
3. SEE STD. DWG. SICD-I-96 AND SECTIONS J-J & K-K FOR NEOPRENE SHEETING LIMITS AND DETAILS.
4. SEE SHEET 30 / 50 FOR SECTIONS J-J & K-K.
5. SEE SHEET 31 / 50 FOR CONTRACTION JOINT DETAILS.
6. SEE SHEET 23 / 50 FOR FOOTING REINFORCEMENT NOT SHOWN.
7. SEE SHEET 25 / 50 FOR SEAT ELEVATIONS.
8. MINIMUM HORIZONTAL STEEL LAP LENGTHS:
#5 BAR = 2'-0"
#8 BAR = 7'-3"

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BURGESS & NIPLE
5055 Road Road
Columbus, Ohio 43220

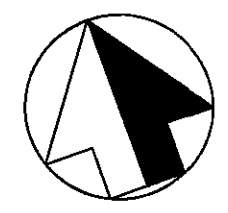
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REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DRAWN	CRC
DESIGNED	TTK
CHECKED	MAK

FORWARD ABUTMENT PLAN & ELEVATION 1
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

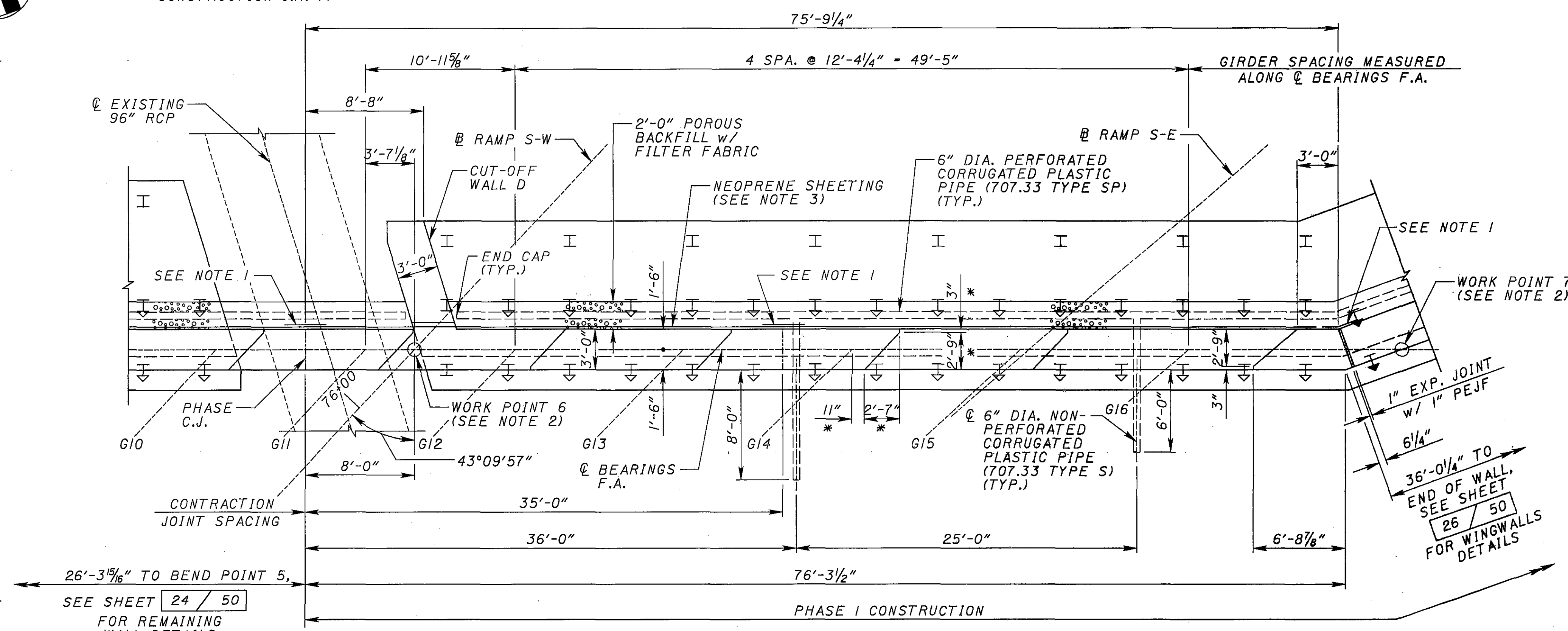
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PID-75657

24 / 50

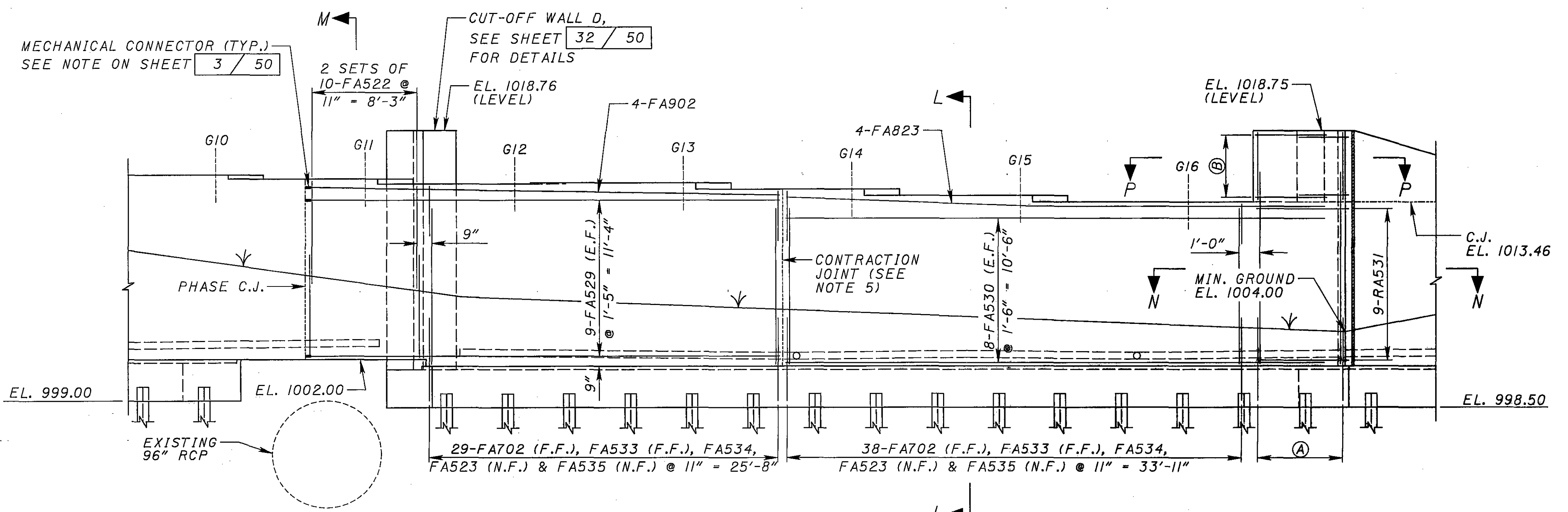
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← SURVEY & CONSTRUCTION I.R. 71



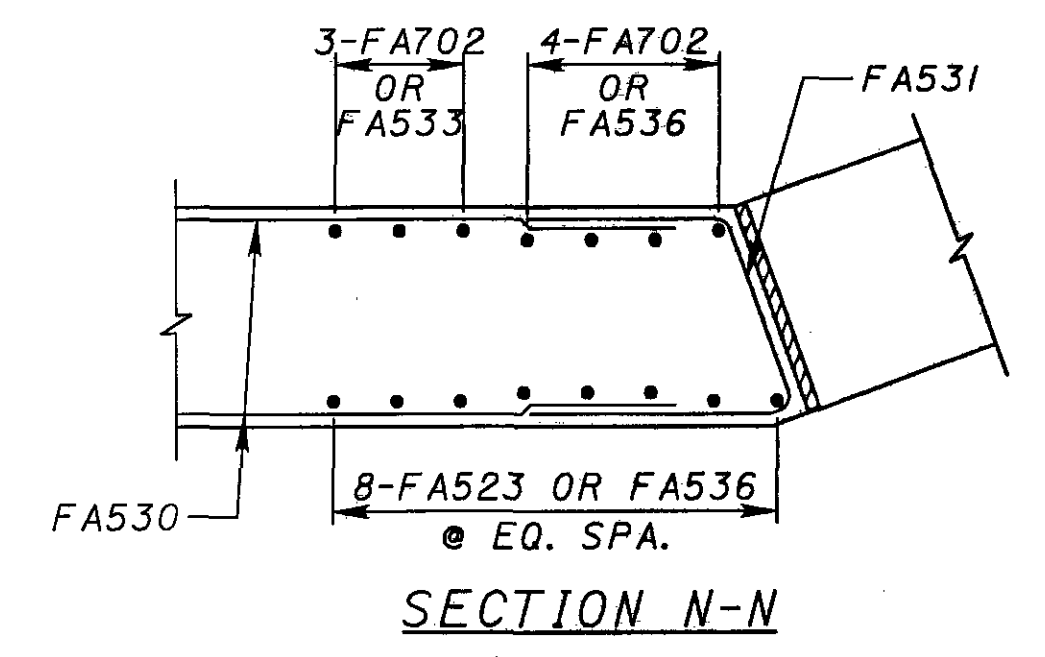
PARTIAL PLAN



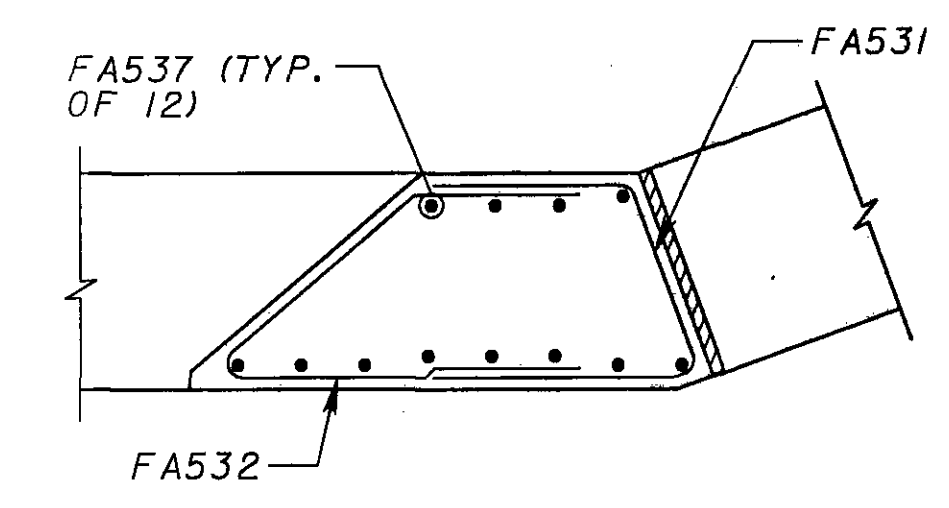
PARTIAL ELEVATION

LEGEND:

- C.J. = CONSTRUCTION JOINT
- E.F. = EACH FACE
- EQ. = EQUAL
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- G. = GIRDER NUMBER
- N.F. = NEAR FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- SPA. = SPACES
- * = TYP. G11- G16
- Ⓐ = 7-FA702, 3-FA533, 8-FA523, 12-FA536 & 12-FA537 (SEE SECTIONS N-N & P-P FOR SPACING)
- Ⓑ = 5-FA531 & FA532 @ EQ. SPA.



SECTION N-N



SECTION P-P

SEAT ELEVATIONS †	
GIRDER	ELEVATION
G1	1017.04
G2	1016.99
G3	1016.94
G4	1016.88
G5	1016.83
G6	1016.57
G7	1016.20
G8	1015.67
G9	1015.58
G10	1015.43
G11	1015.14
G12	1014.77
G13	1014.85
G14	1014.39
G15	1013.92
G16	1013.46

† - MEASURED ALONG @ BEARINGS F.A.

NOTES:

1. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION.
2. SEE SHEET 6 / 50 FOR BEND POINT & WORK POINT DETAILS.
3. SEE STD. DWG. SICD-I-96 AND SECTIONS L-L & M-M FOR NEOPRENE SHEETING LIMITS AND DETAILS.
4. SEE SHEET 31 / 50 FOR SECTIONS L-L & M-M.
5. SEE SHEET 31 / 50 FOR CONTRACTION JOINT DETAILS.
6. SEE SHEET 23 / 50 FOR FOOTING REINFORCEMENT NOT SHOWN.
7. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 1/8 INCHES AT FORWARD ABUTMENT TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
8. MINIMUM HORIZONTAL STEEL LAP LENGTHS: #5 BAR = 2'-0"

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BURGESS & NIPLE
5025 West 104th
Overland Park, MO 66204

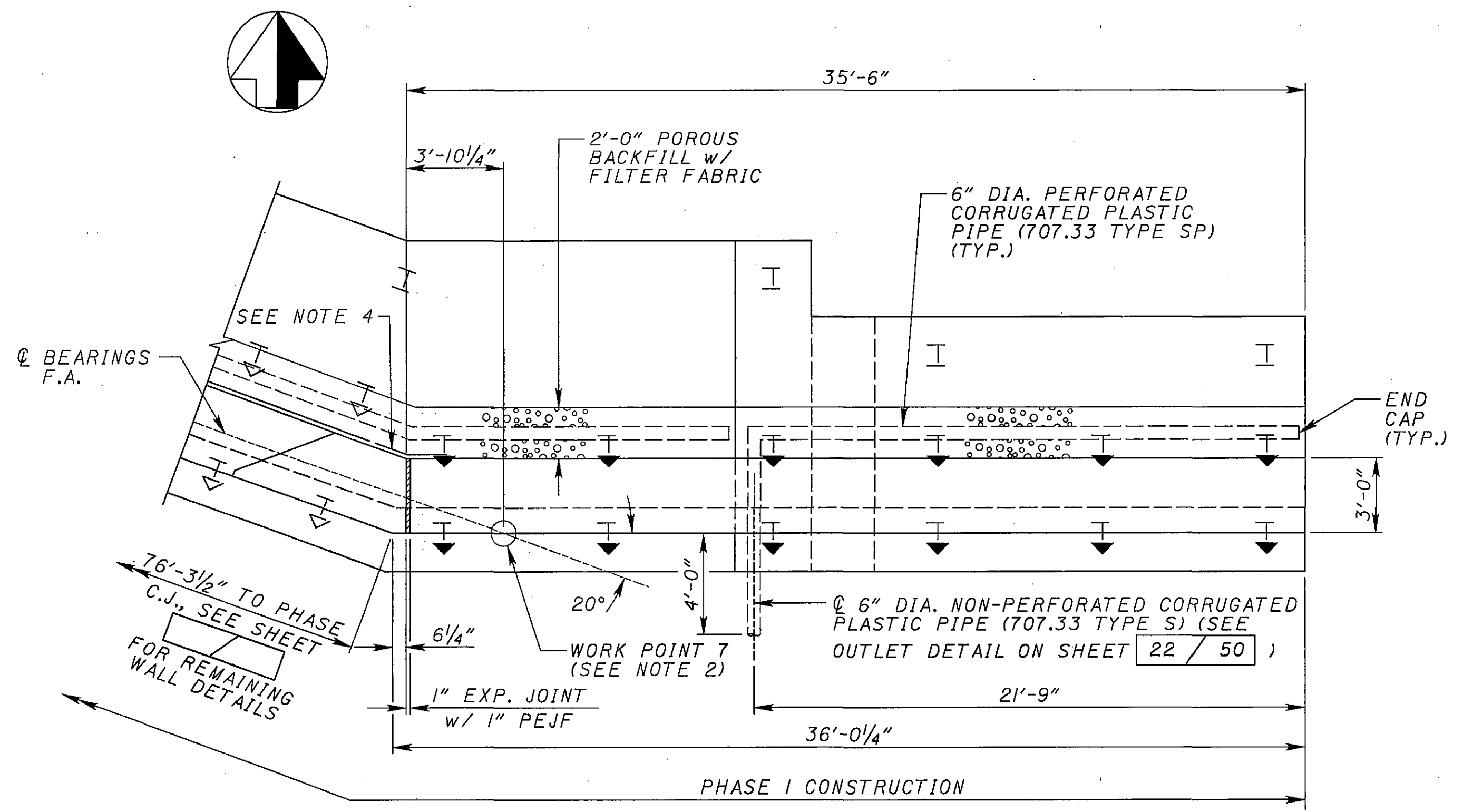
DATE	11/04
REVIEWED	RMK
DRAWN	CRC
DESIGNED	TTK
CHECKED	MAK
STRUCTURE FILE NUMBER	5202817

FORWARD ABUTMENT PLAN & ELEVATION 2
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

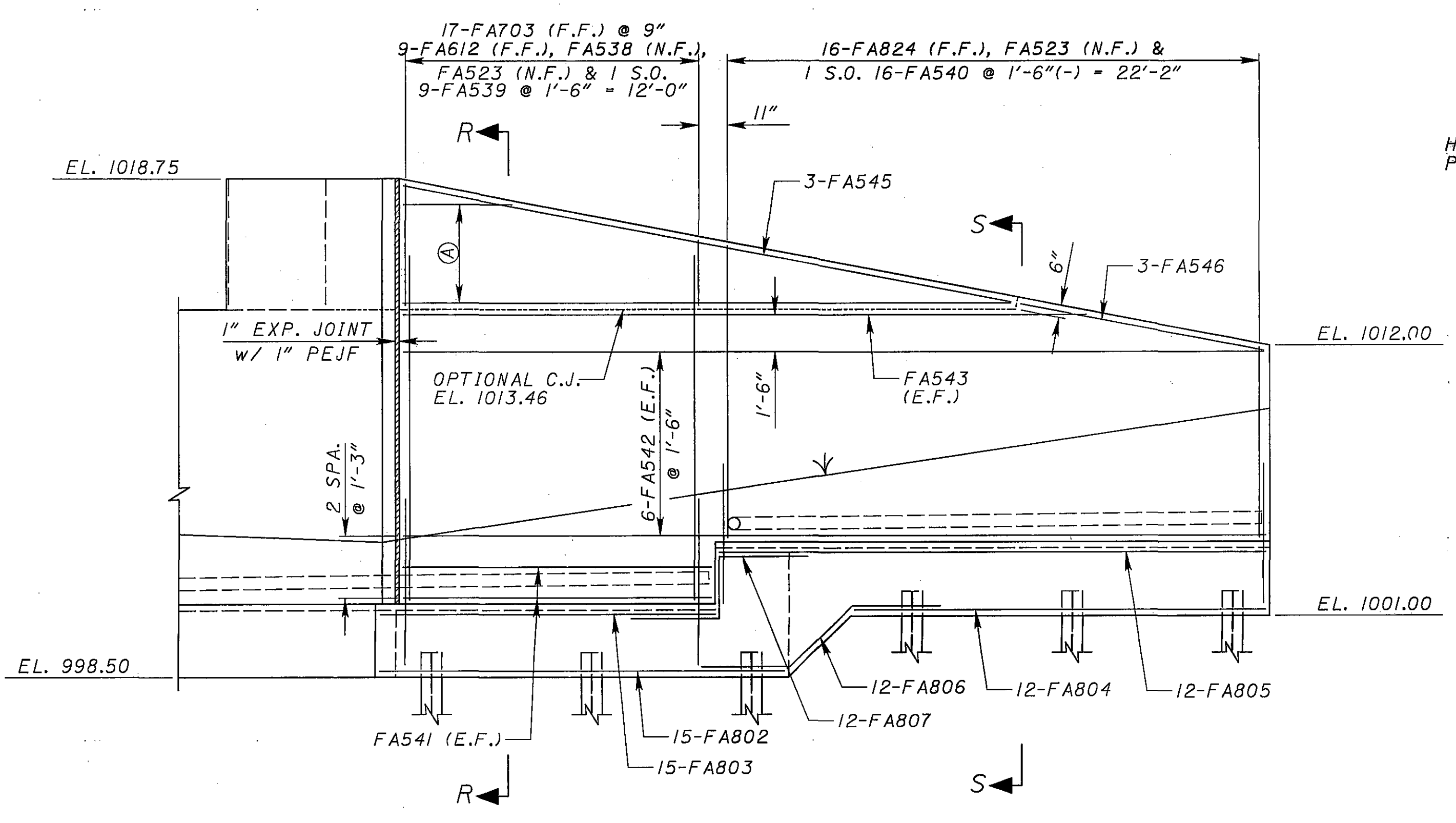
MED-71-6.06
PID-75657

25 / 50

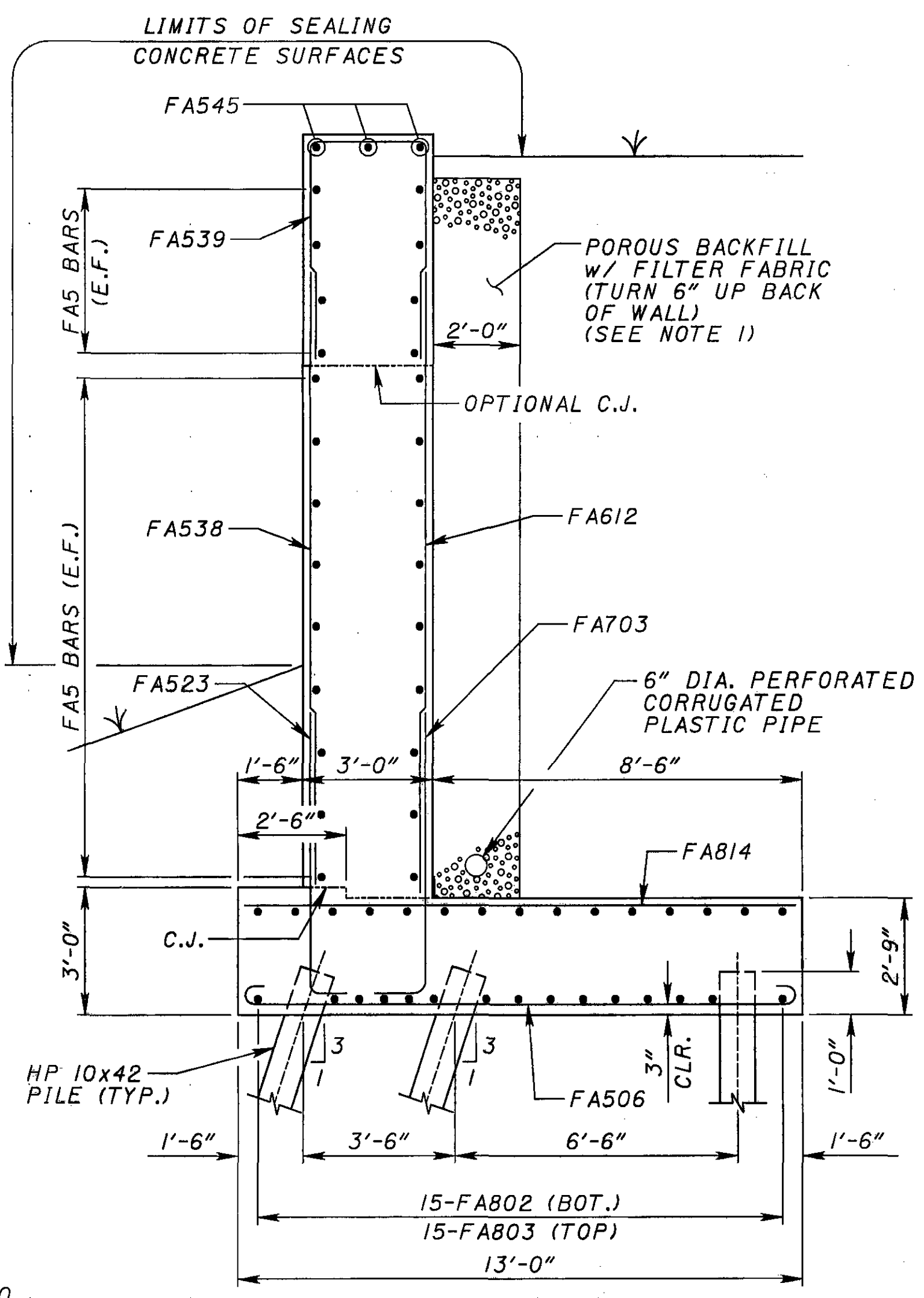
751
1120



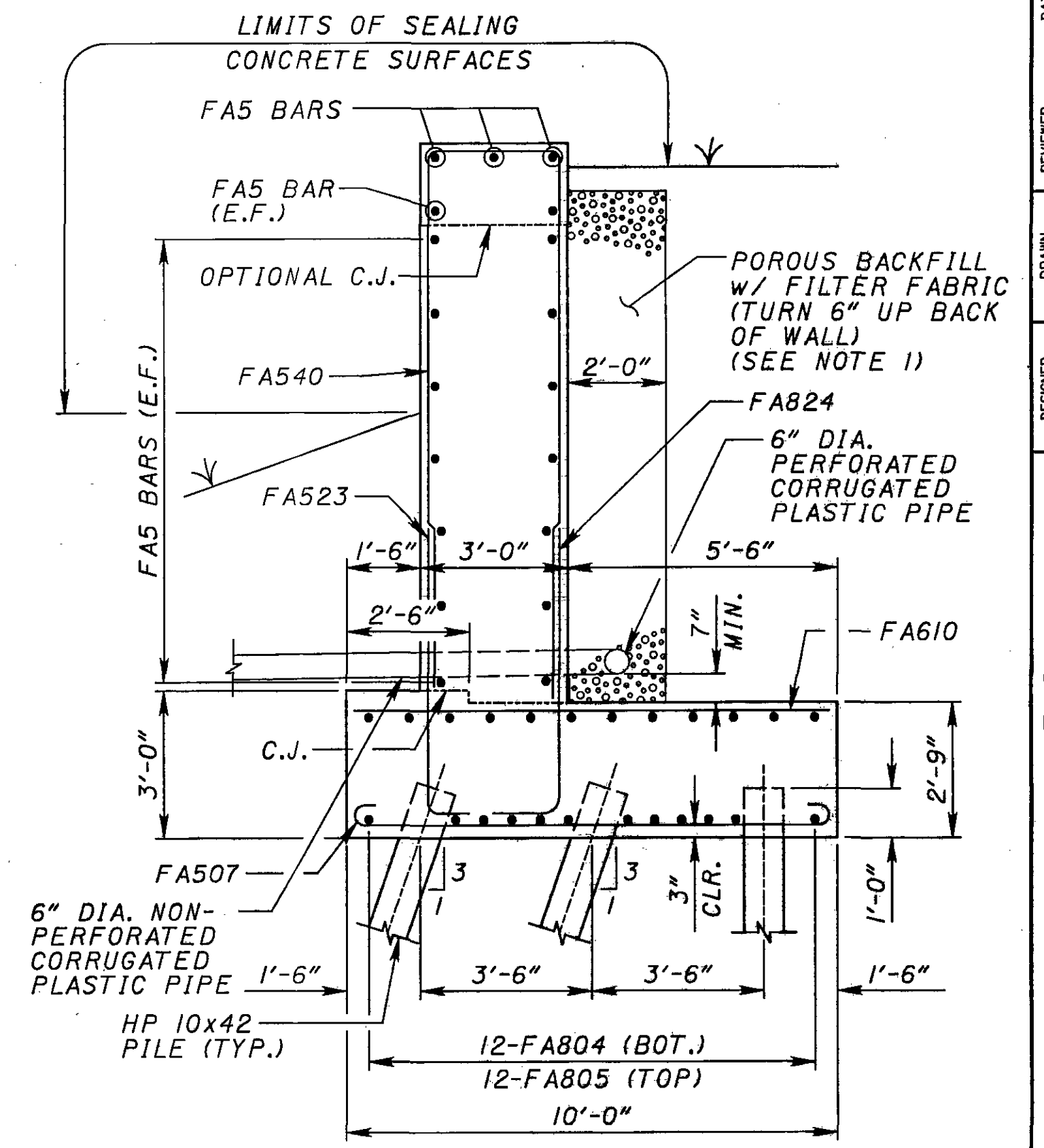
PLAN



ELEVATION



SECTION R-R



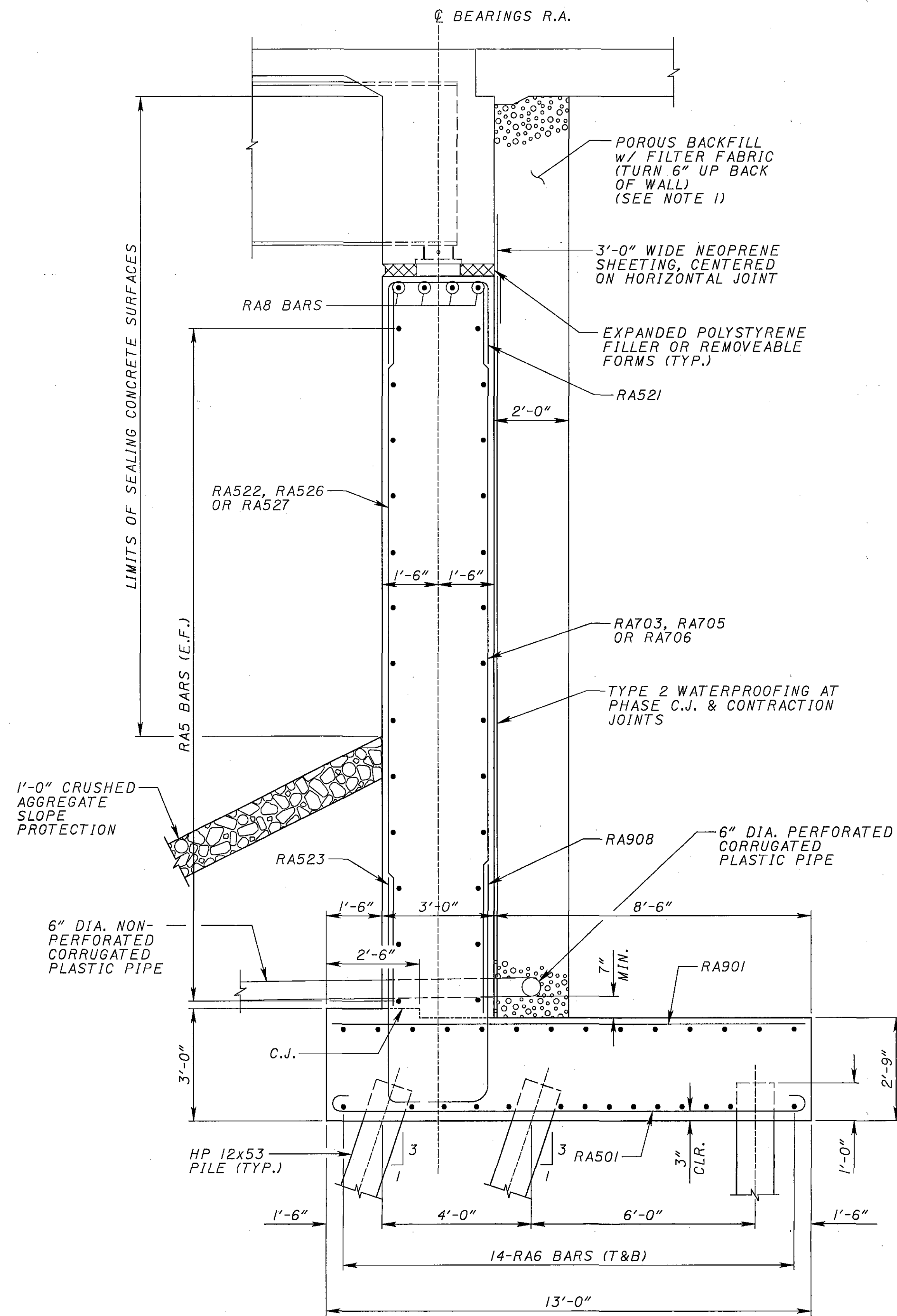
SECTION S-S

LEGEND:
 BOT. - BOTTOM
 C.J. - CONSTRUCTION JOINT
 CLR. - CLEAR
 E.F. - EACH FACE
 EXP. - EXPANSION
 F.A. - FORWARD ABUTMENT
 F.F. - FAR FACE
 N.F. - NEAR FACE
 PEJF - PREFORMED EXPANSION JOINT FILLER
 S.O. - SERIES OF
 (A) - 1 S.O. 4-RA544 (E.F.)
 @ 1'-4" = 4'-0"

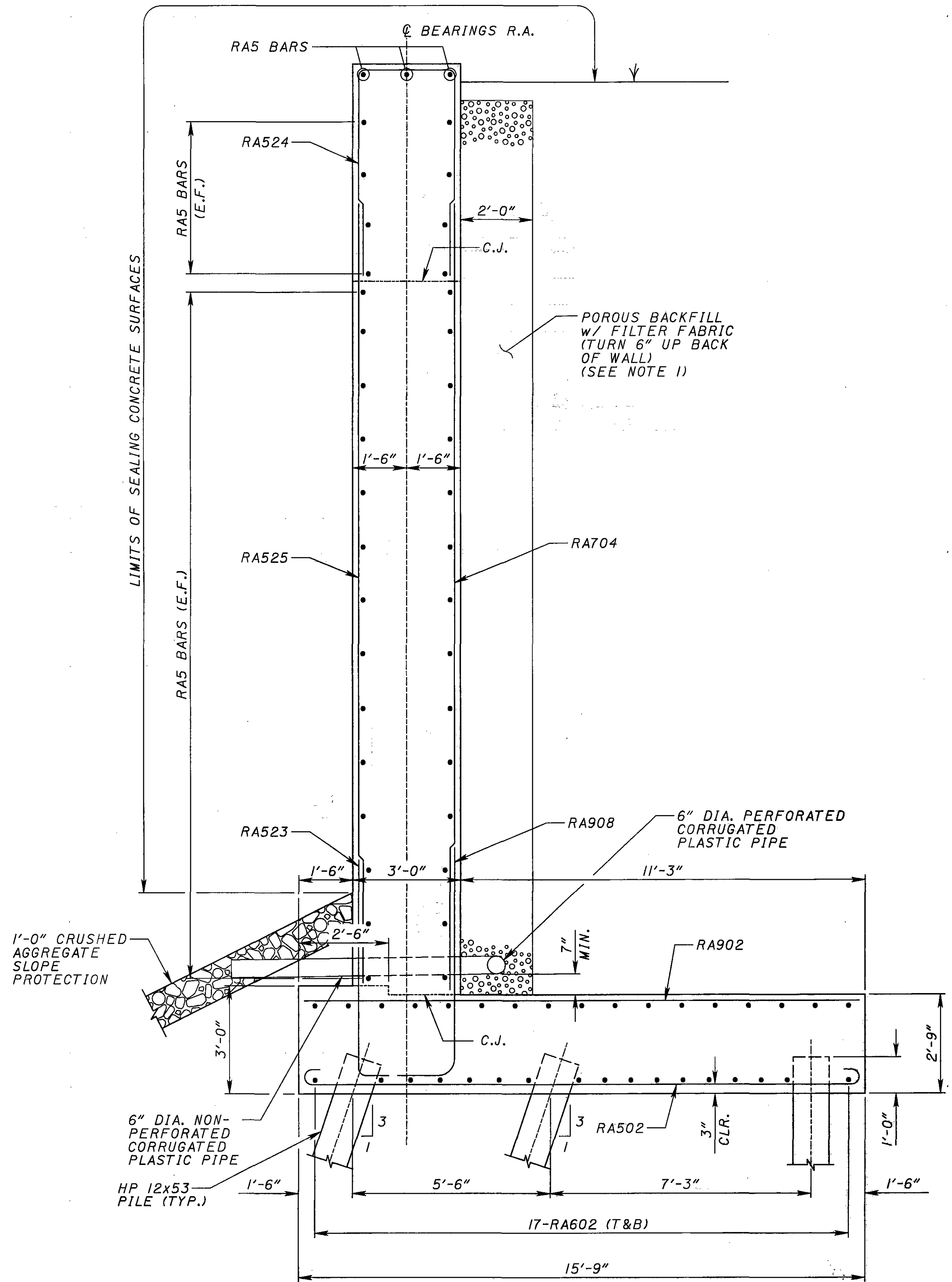
NOTES:
 1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
 2. SEE SHEET 6 / 50 FOR BEND POINT & WORK POINT DETAILS.
 3. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.
 4. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON EXP. JOINT, FROM TOP OF FOOTING TO 6" BELOW GROUNDLINE BEHIND WALL AT JOINT.
 5. SEE SHEET 23 / 50 FOR FOOTING REINFORCEMENT NOT SHOWN.

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SECTION A-A



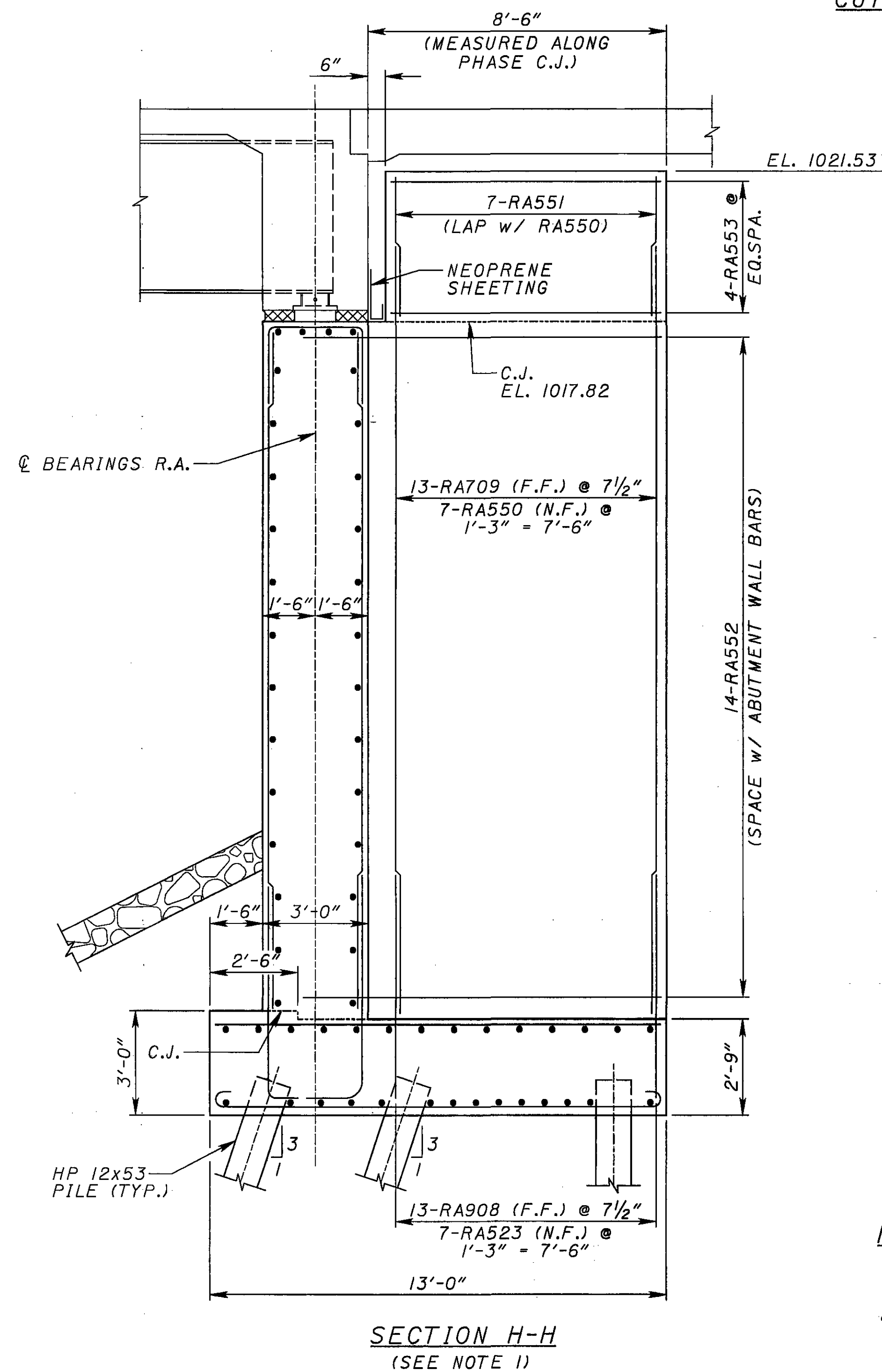
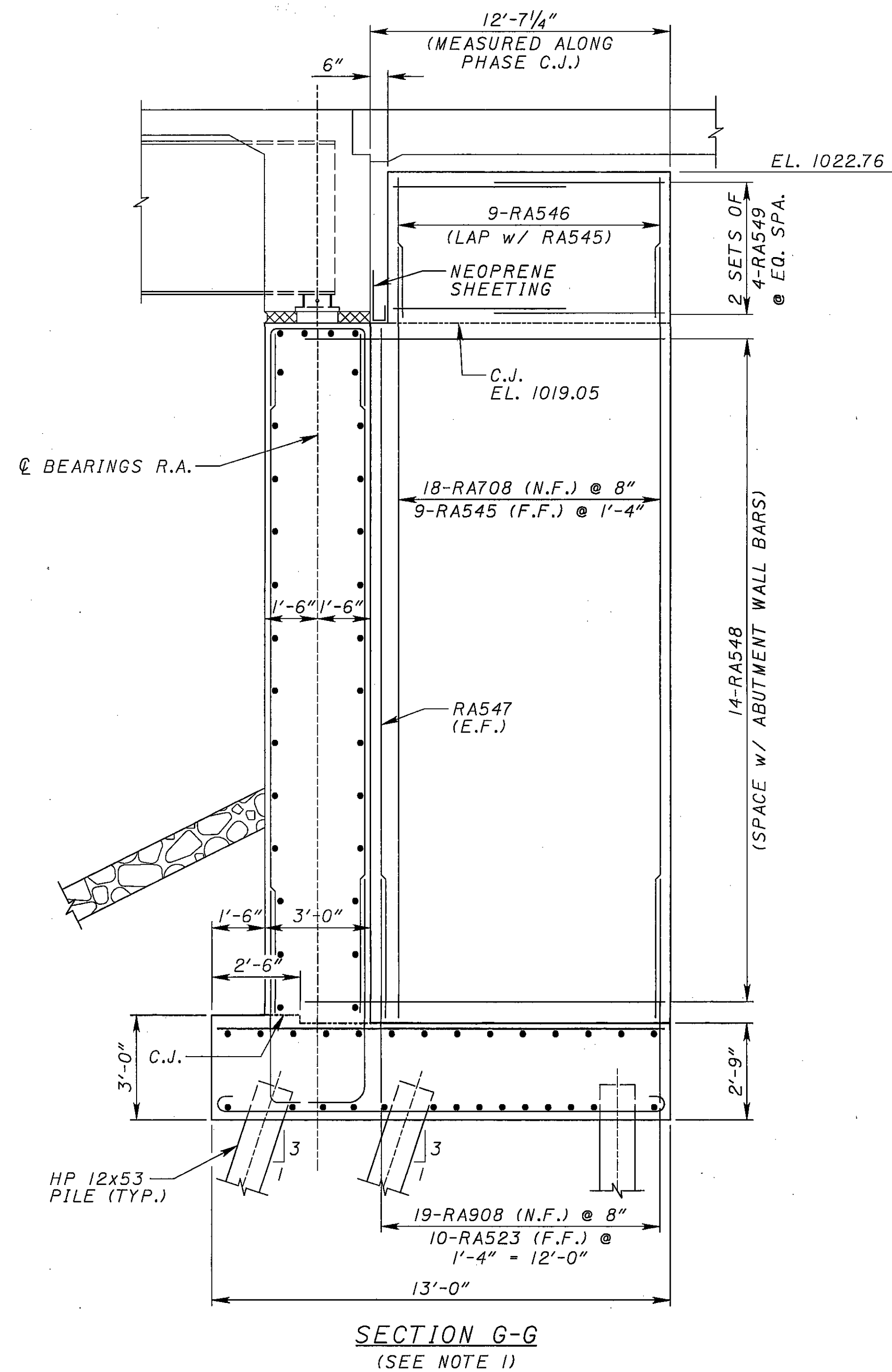
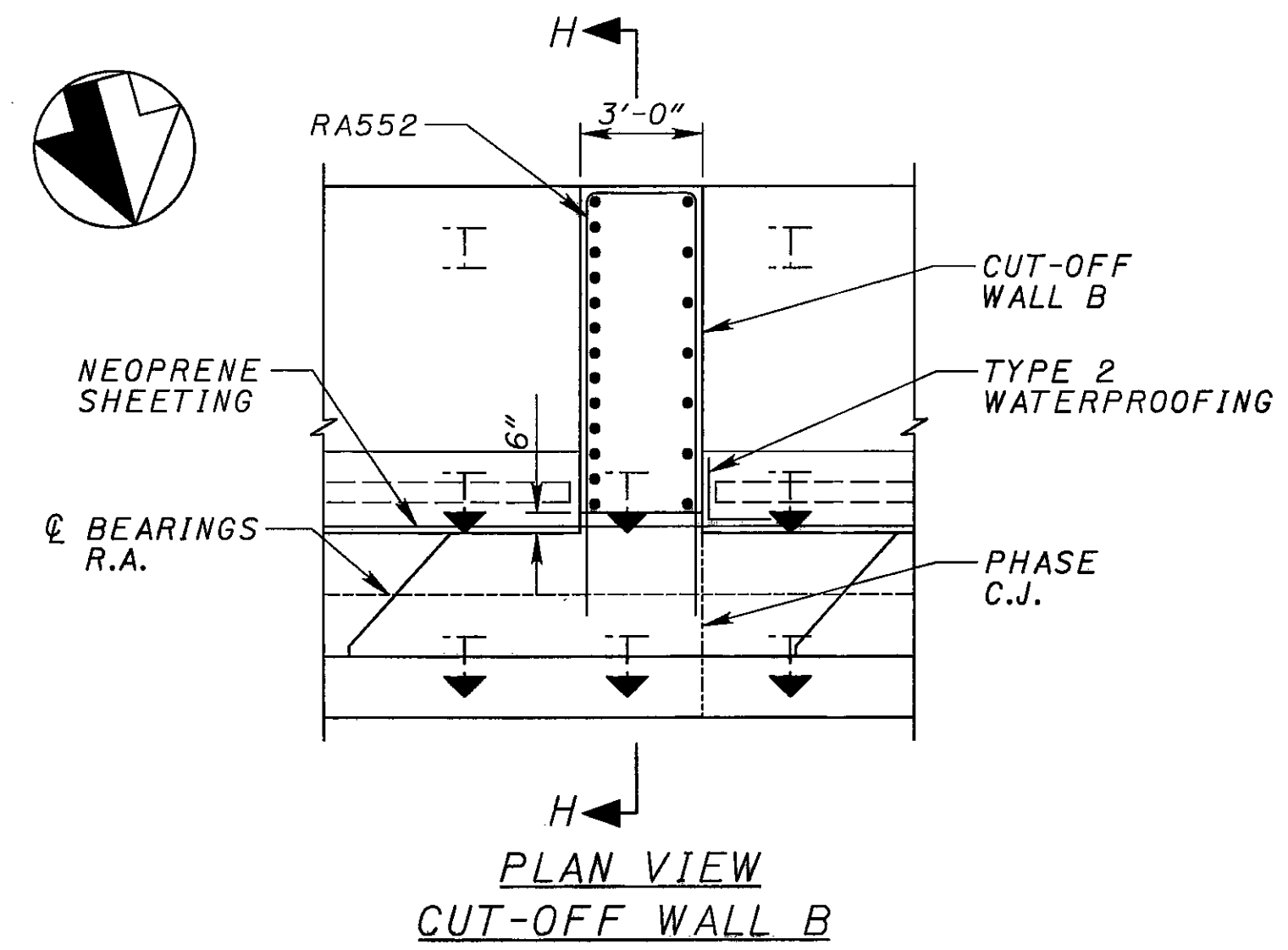
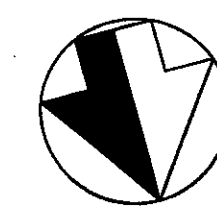
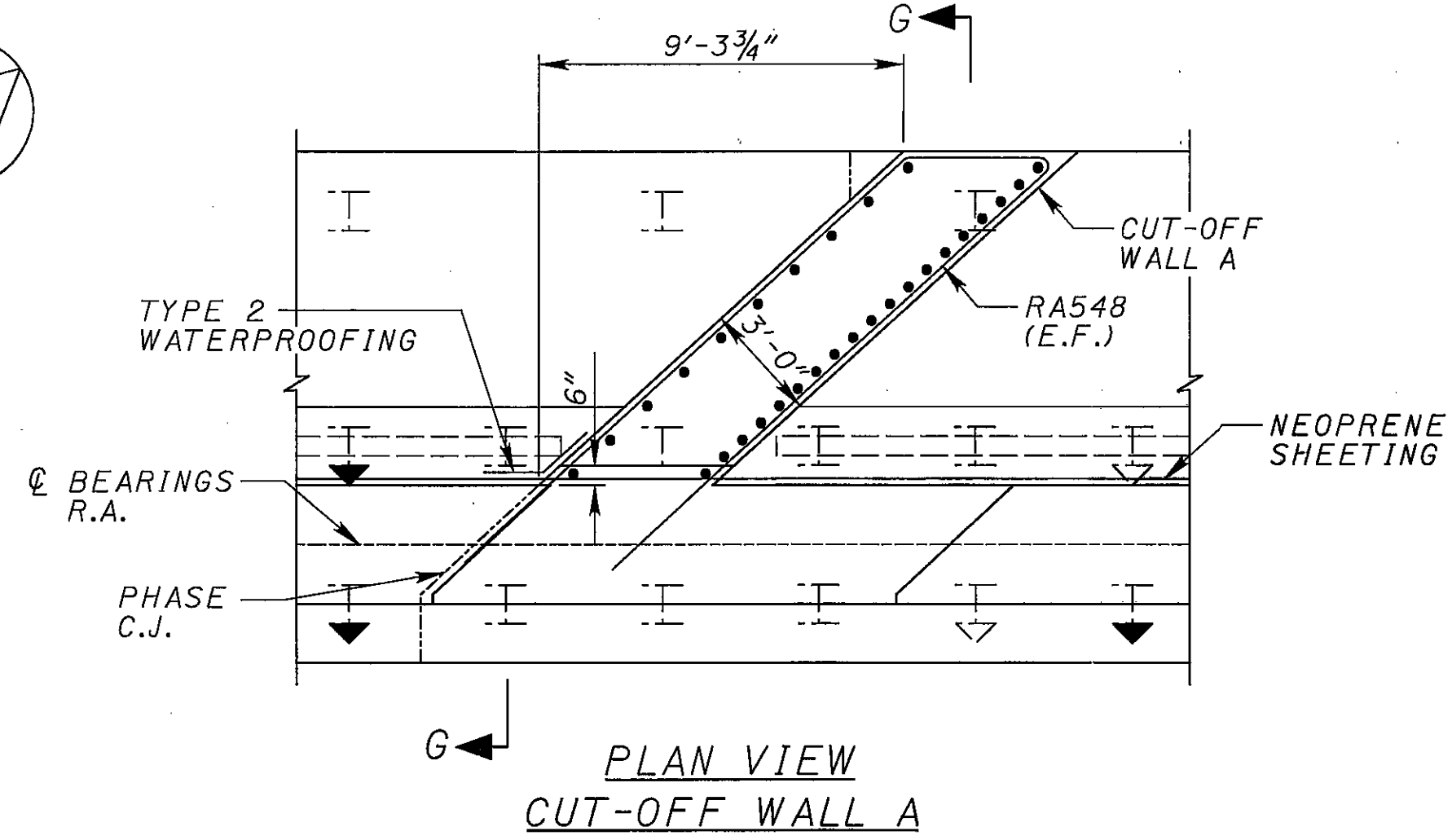
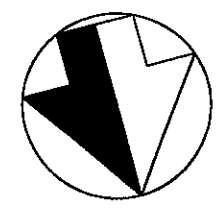
SECTION B-B

LEGEND:
 C.J. = CONSTRUCTION JOINT
 CLR. = CLEAR
 E.F. = EACH FACE
 R.A. = REAR ABUTMENT
 T&B = TOP & BOTTOM

NOTES:
 1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
 2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

DATE	11/04
REVIEWED	RMK
DESIGNED	TTK
DRAWN	CRC
CHECKED	MAK
REVISION	
STRUCTURE FILE NUMBER	5202817
REAR ABUTMENT DETAILS I BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
27	50
753 1120	

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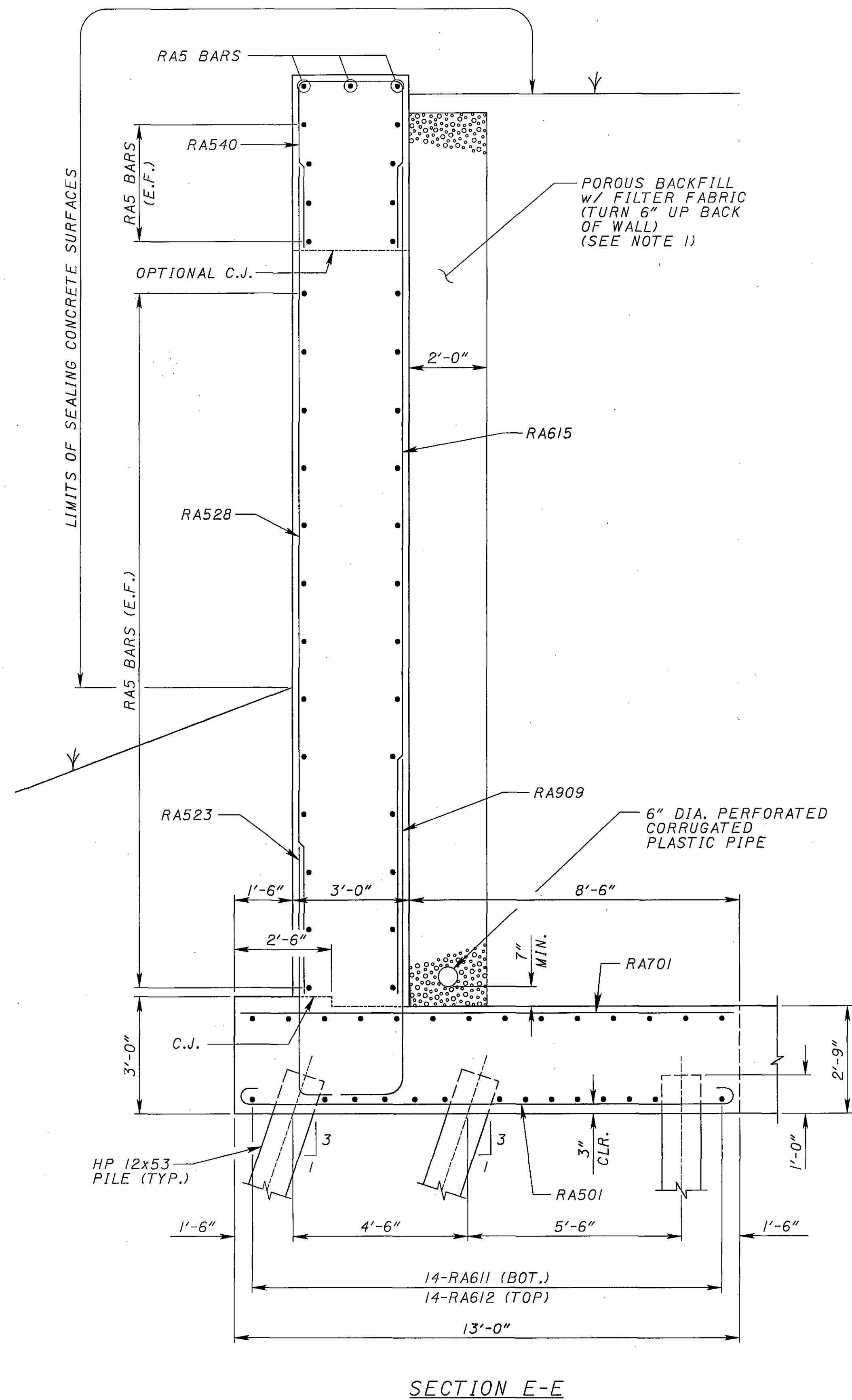


LEGEND:
 C.J. = CONSTRUCTION JOINT
 E.F. = EACH FACE
 EQ. = EQUAL
 F.F. = FAR FACE
 N.F. = NEAR FACE
 R.A. = REAR ABUTMENT

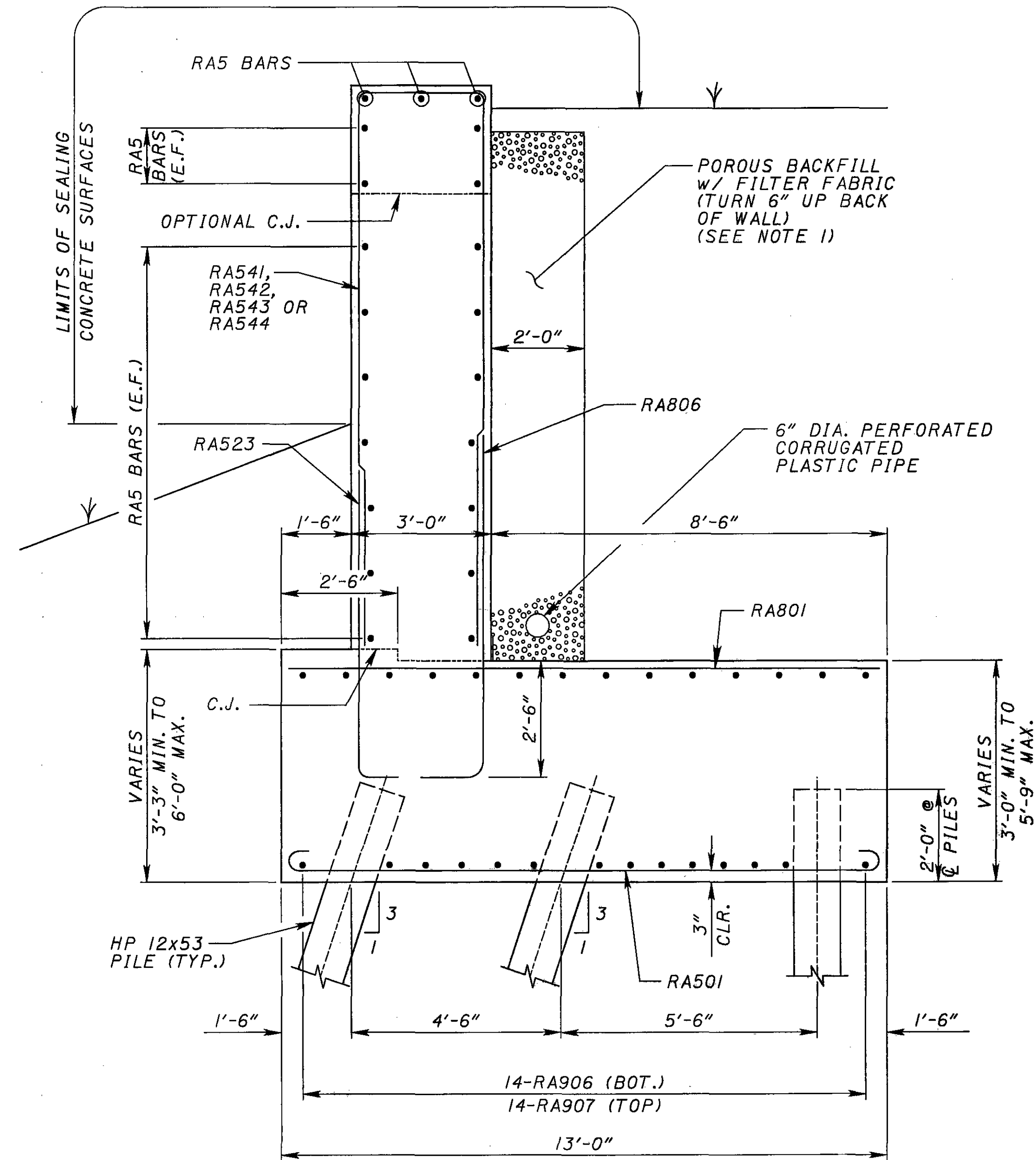
NOTES:
 1. SEE SECTION A-A ON SHEET 27 / 50 FOR DETAILS NOT SHOWN.
 2. ALL CUT-OFF WALL CONCRETE SHALL BE CLASS C CONCRETE.

DATE	11/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DRAWN	CRC
CHECKED	REVIS
DESIGNED	TTK
CHECKED	MAK
REAR ABUTMENT DETAILS 2 BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
28 / 50	
754 1120	

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SECTION E-E



SECTION F-F

LEGEND:

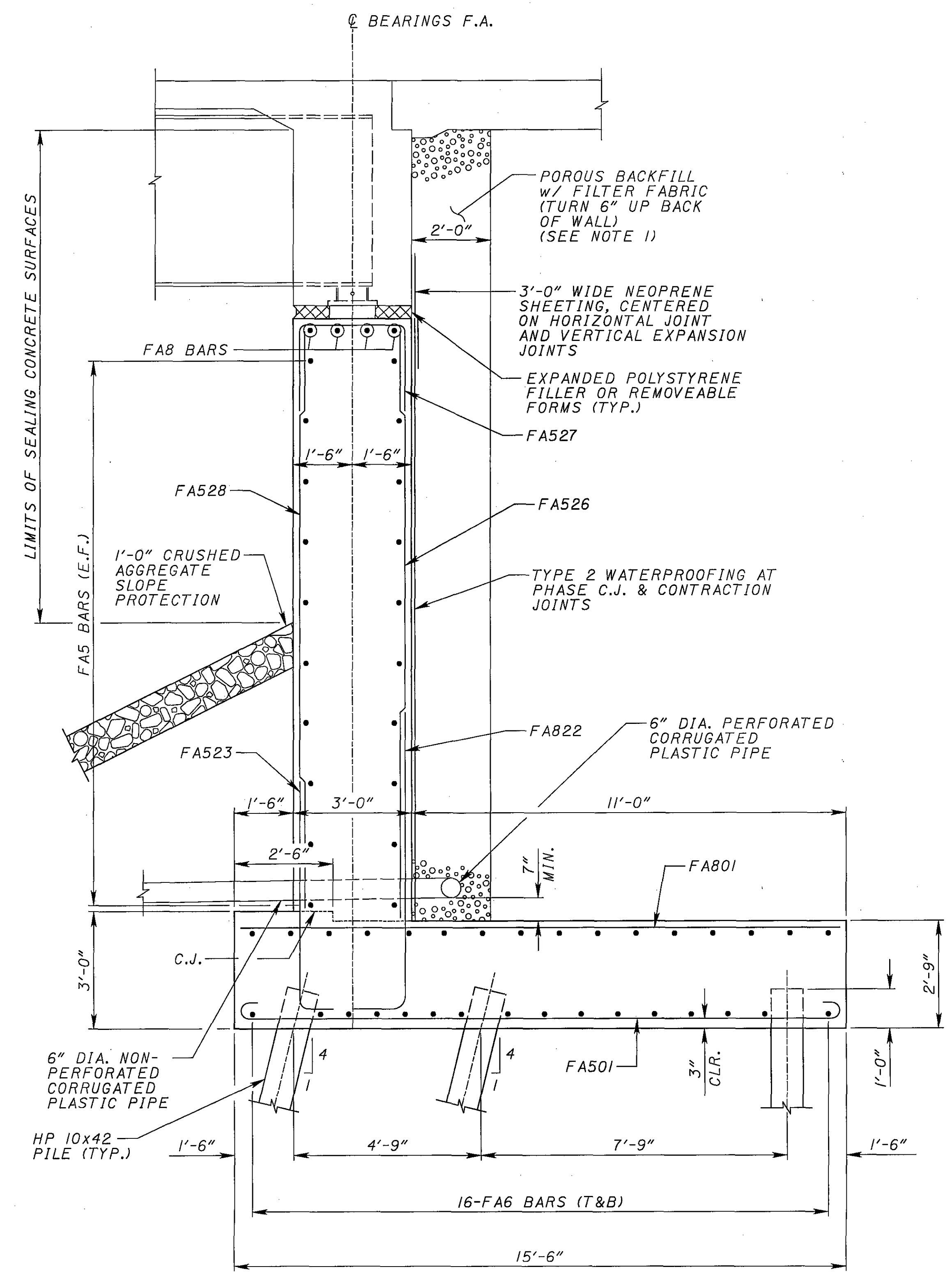
- BOT. = BOTTOM
- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- E.F. = EACH FACE
- R.A. = REAR ABUTMENT
- T&B = TOP & BOTTOM

NOTES:

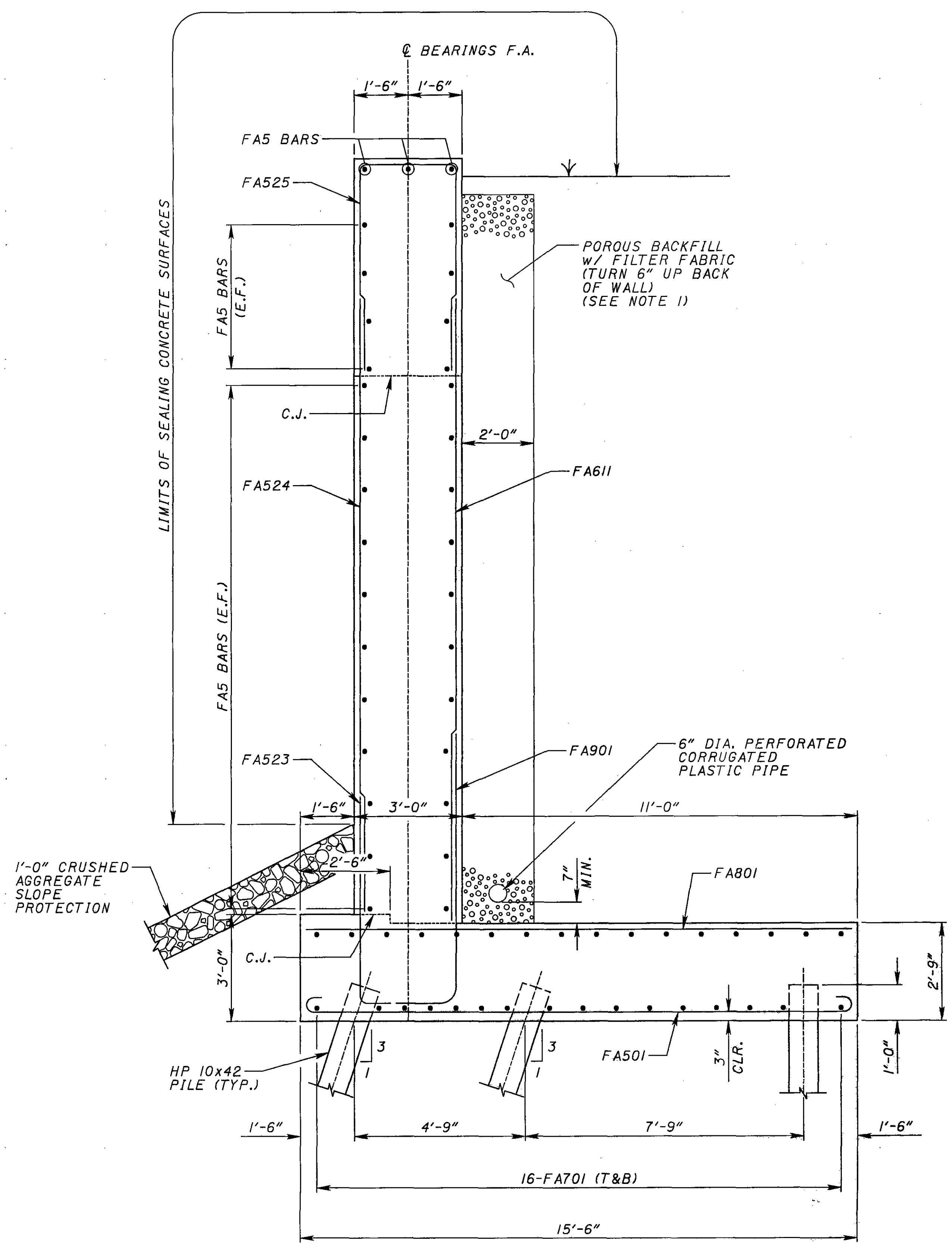
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

DATE	11/04
REVIEWED	RMK
DRAWN	CRC
DESIGNED	TTK
CHECKED	MAK
STRUCTURE FILE NUMBER	5202817
REAR ABUTMENT WINGWALL DETAILS BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
29	50
755 1120	

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SECTION J-J



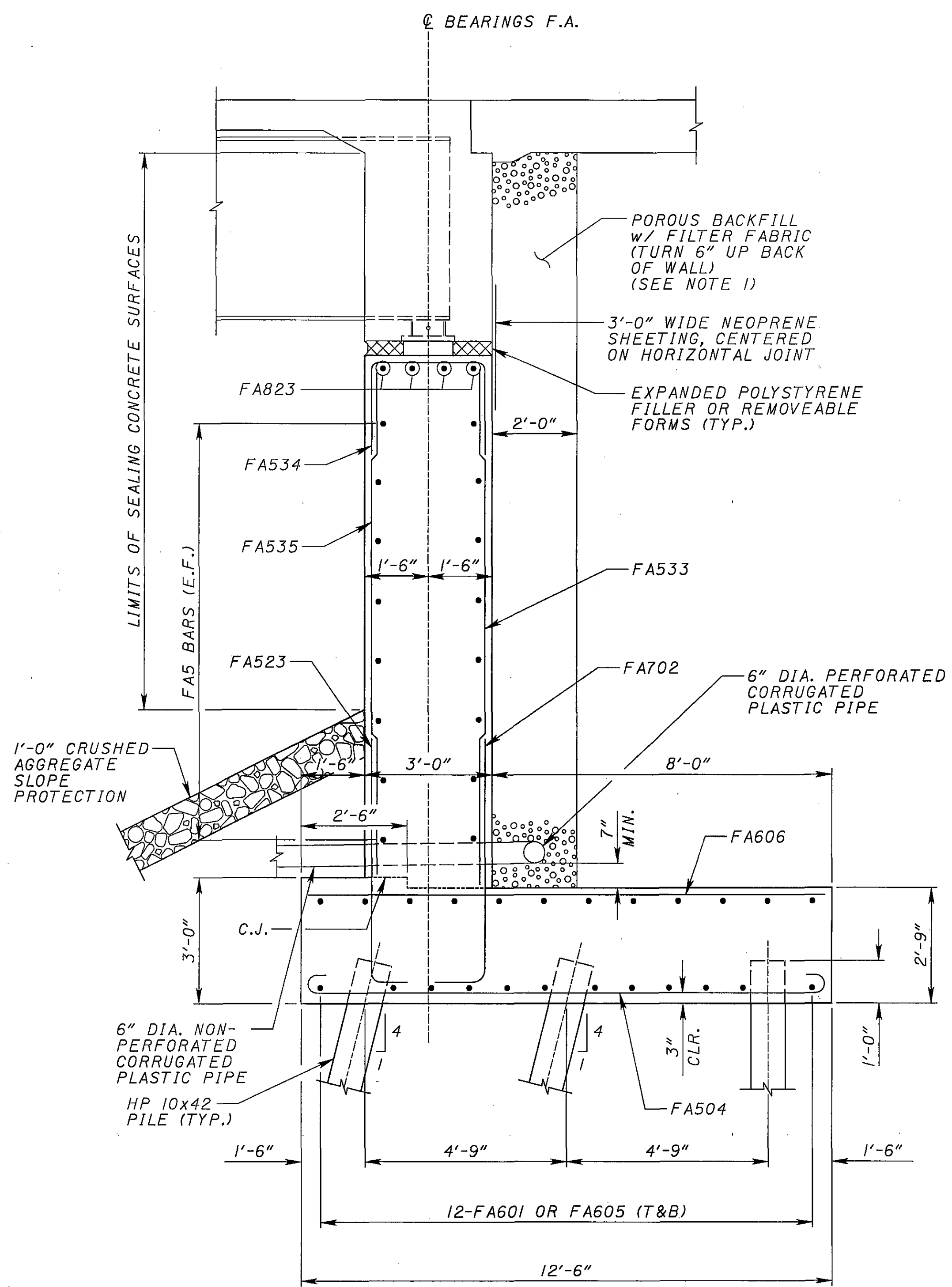
SECTION K-K

LEGEND:
 C.J. = CONSTRUCTION JOINT
 CLR. = CLEAR
 E.F. = EACH FACE
 F.A. = FORWARD ABUTMENT
 T&B = TOP & BOTTOM

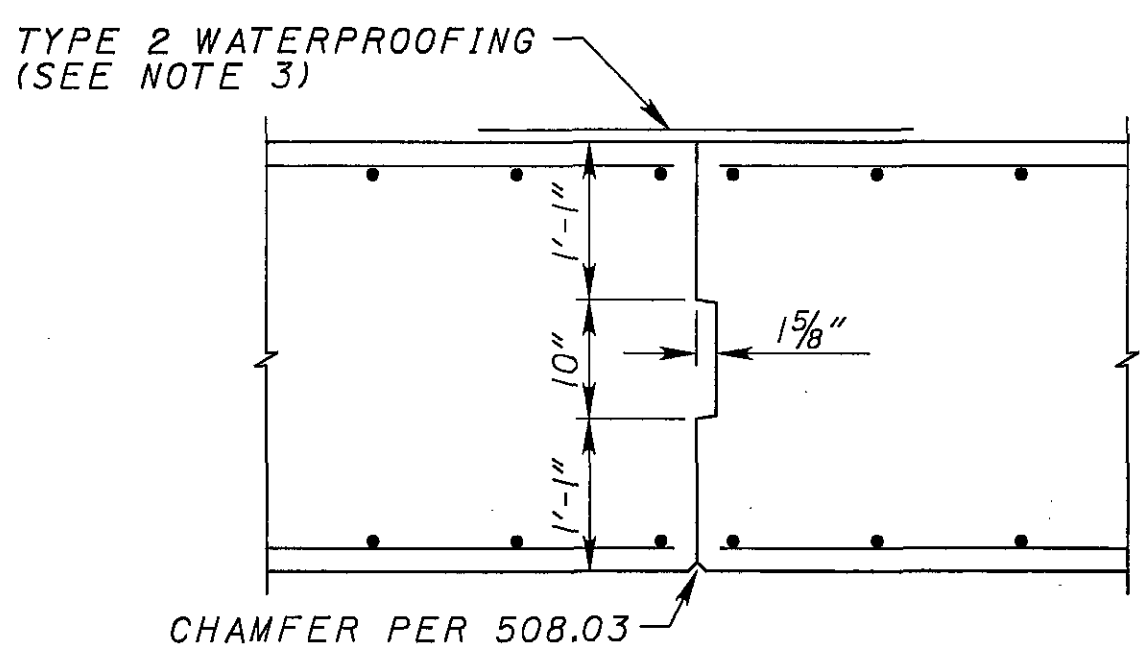
NOTES:
 1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE AND Laterally TO THE ENDS OF THE WINGWALLS.
 2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

<p>DATE 11/04 REVISIONS RMK STRUCTURE FILE NUMBER 5202817</p>		<p>DESIGNED TTK CHECKED MAK</p>
<p>REVIEWED RMK DATE 11/04</p>		
<p>FORWARD ABUTMENT DETAILS I BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)</p>		
<p>MED-71-6.06 PID-75657</p>		<p>30 / 50</p>
<p>756 1120</p>		<p>BURGESS & NIPLE 5035 Reed Road Columbus, Ohio 43220</p>

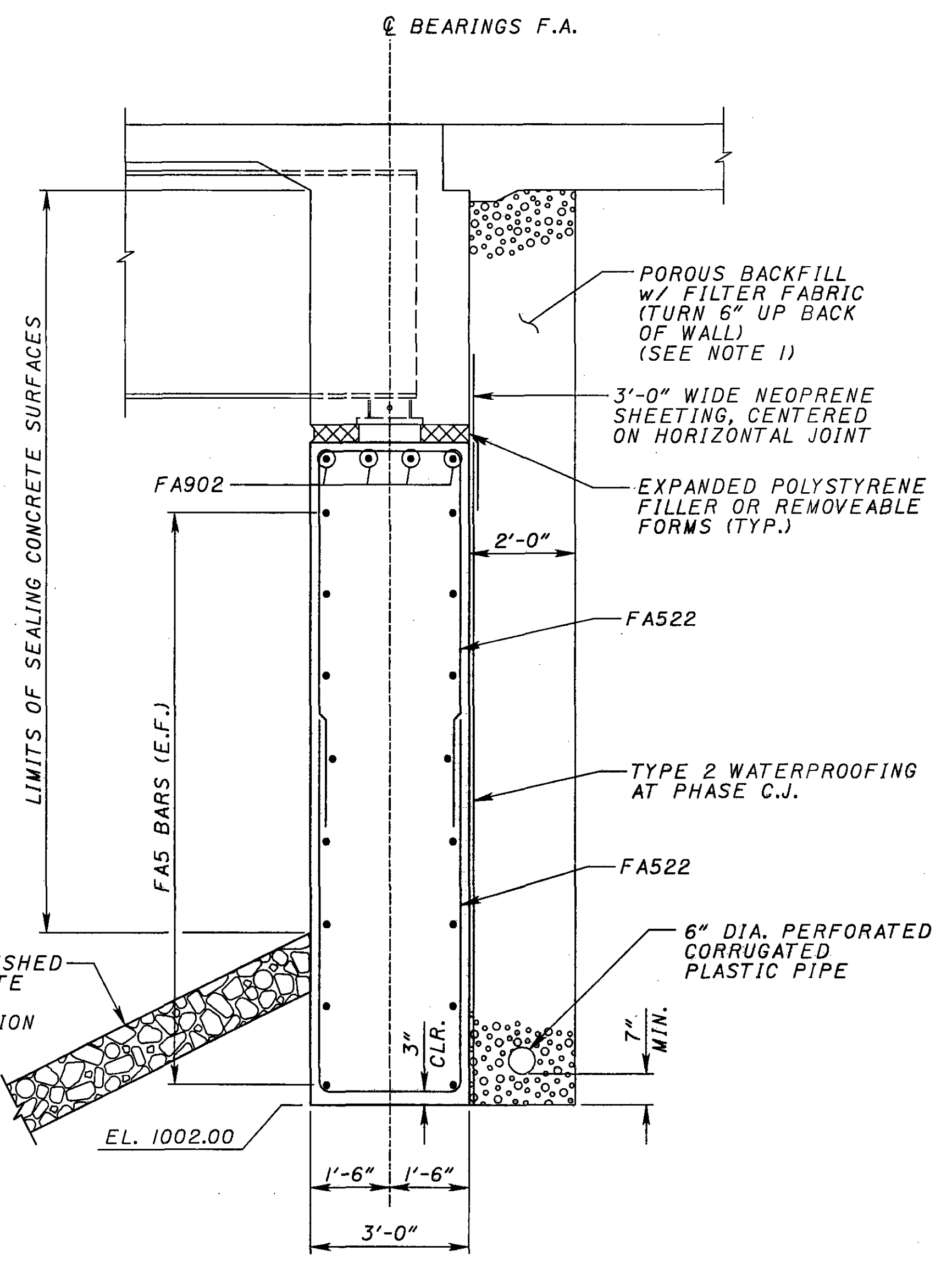
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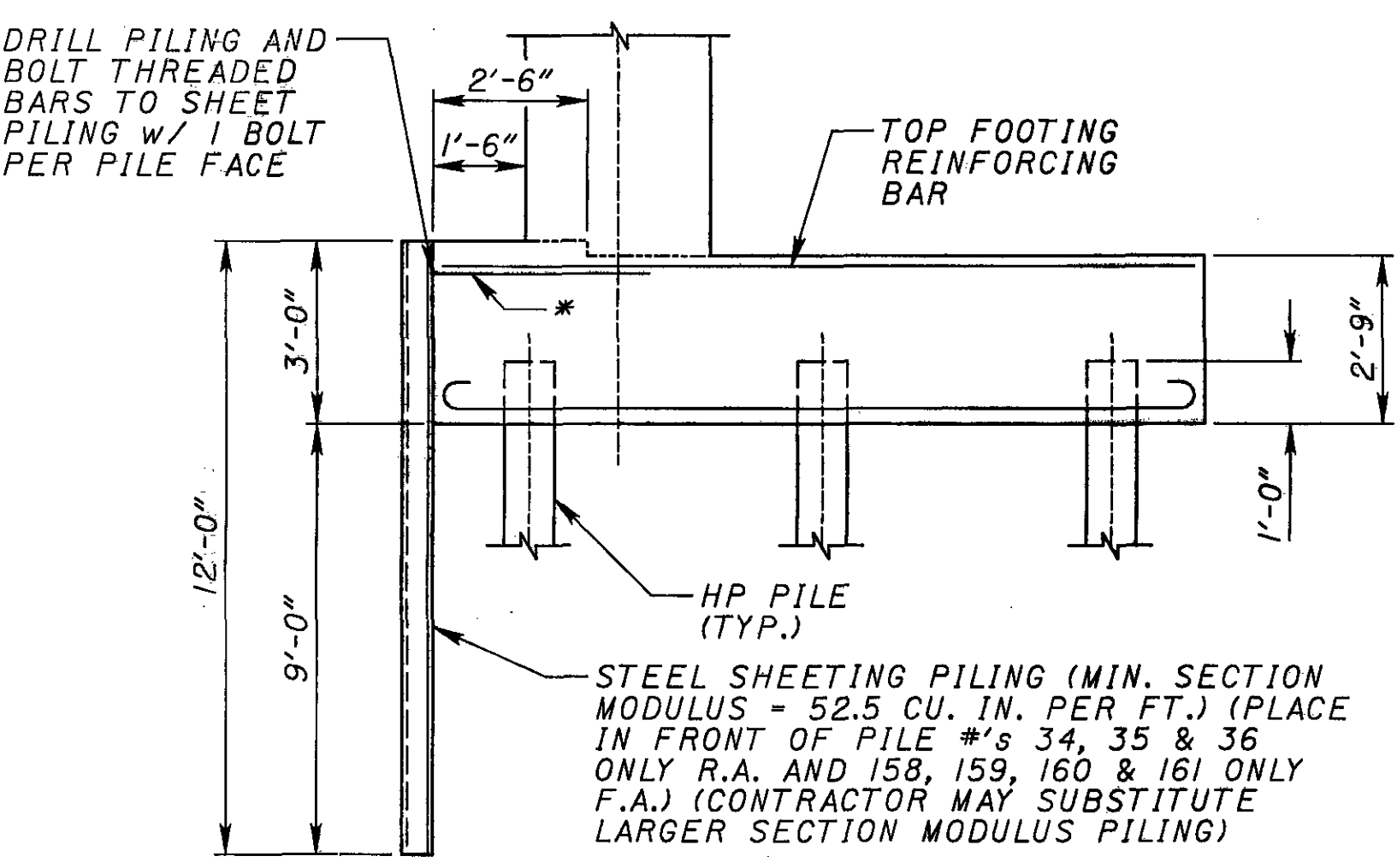
SECTION L-L



CONTRACTION JOINT DETAIL



SECTION M-M



SHEETING DETAIL

* - 17- THREADED #9 BARS PER R.A. & 18- THREADED #9 BARS PER F.A., 4'-6" LONG, LAP WITH TOP FOOTING STEEL. INCLUDE ALL BARS (w/ 2 BOLTS PER BAR) WITH STEEL SHEET PILING FOR PAYMENT

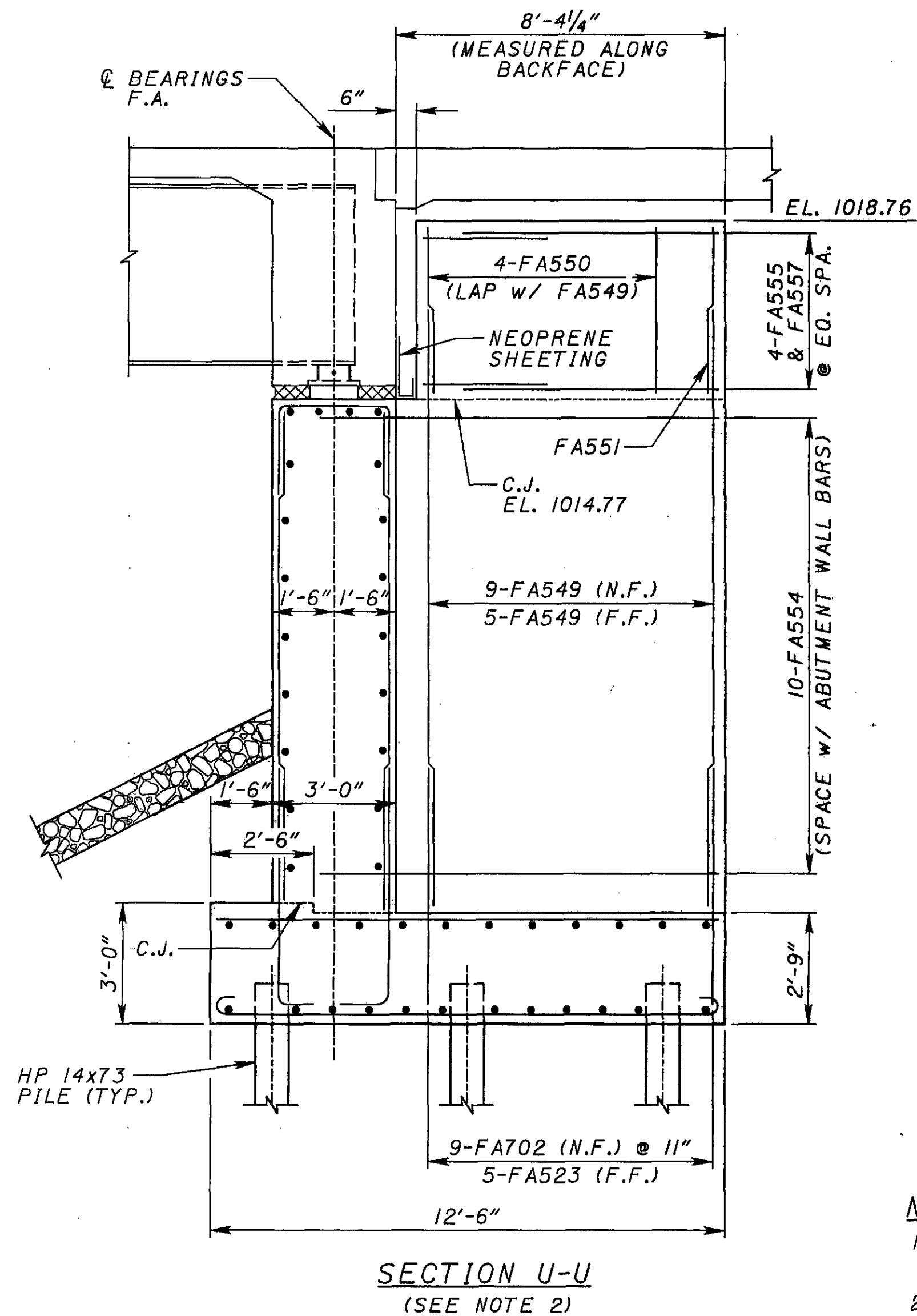
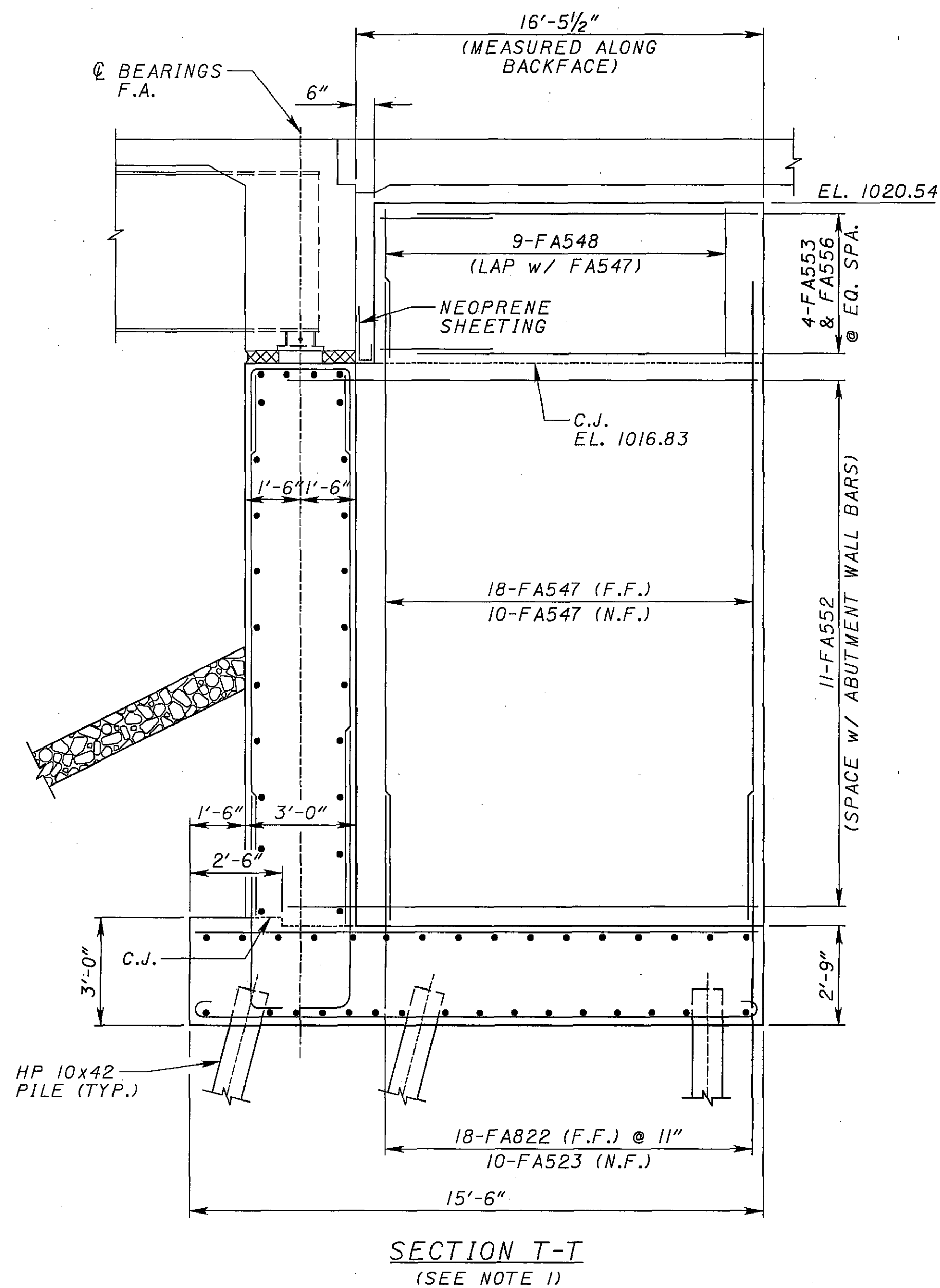
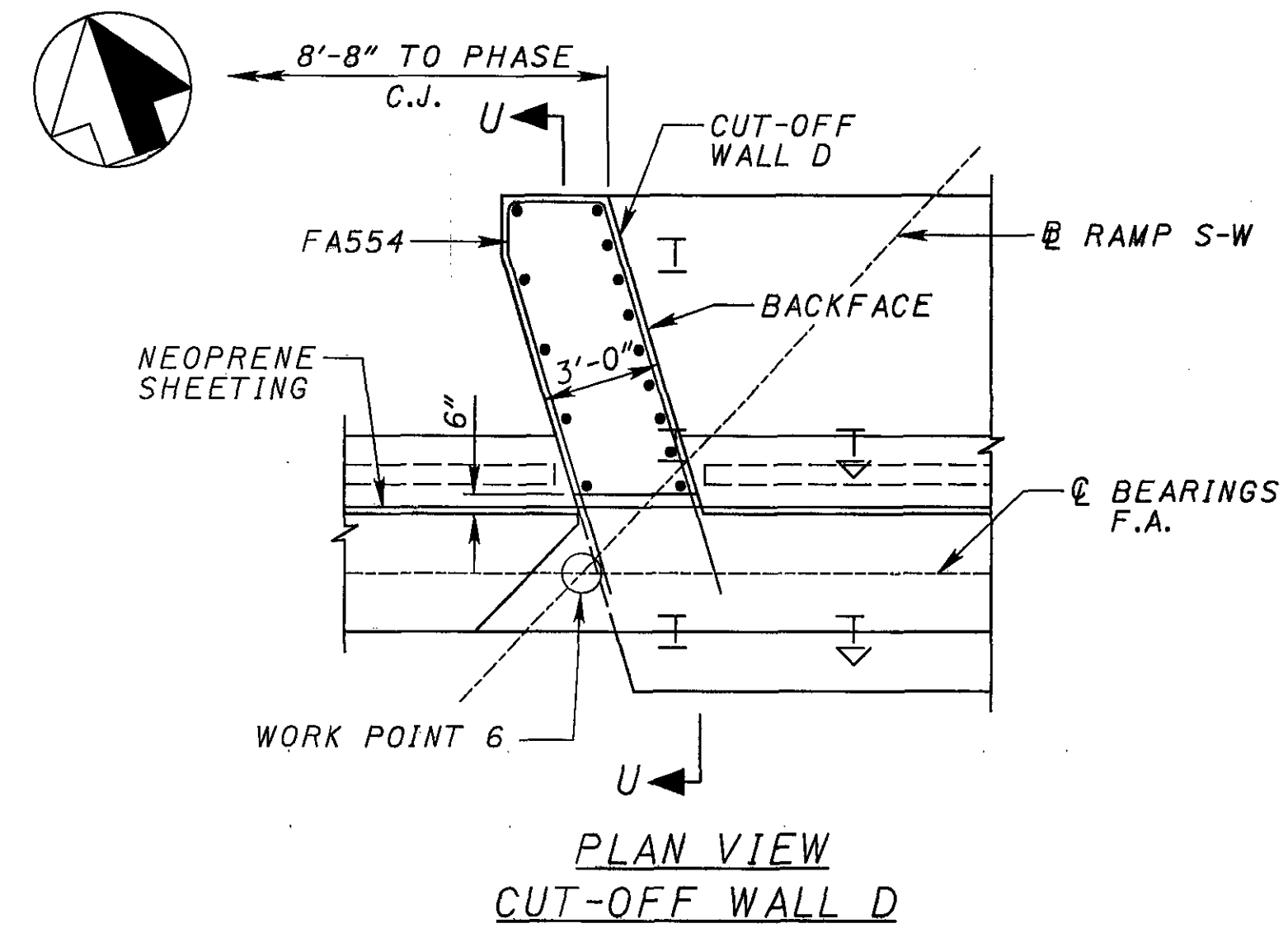
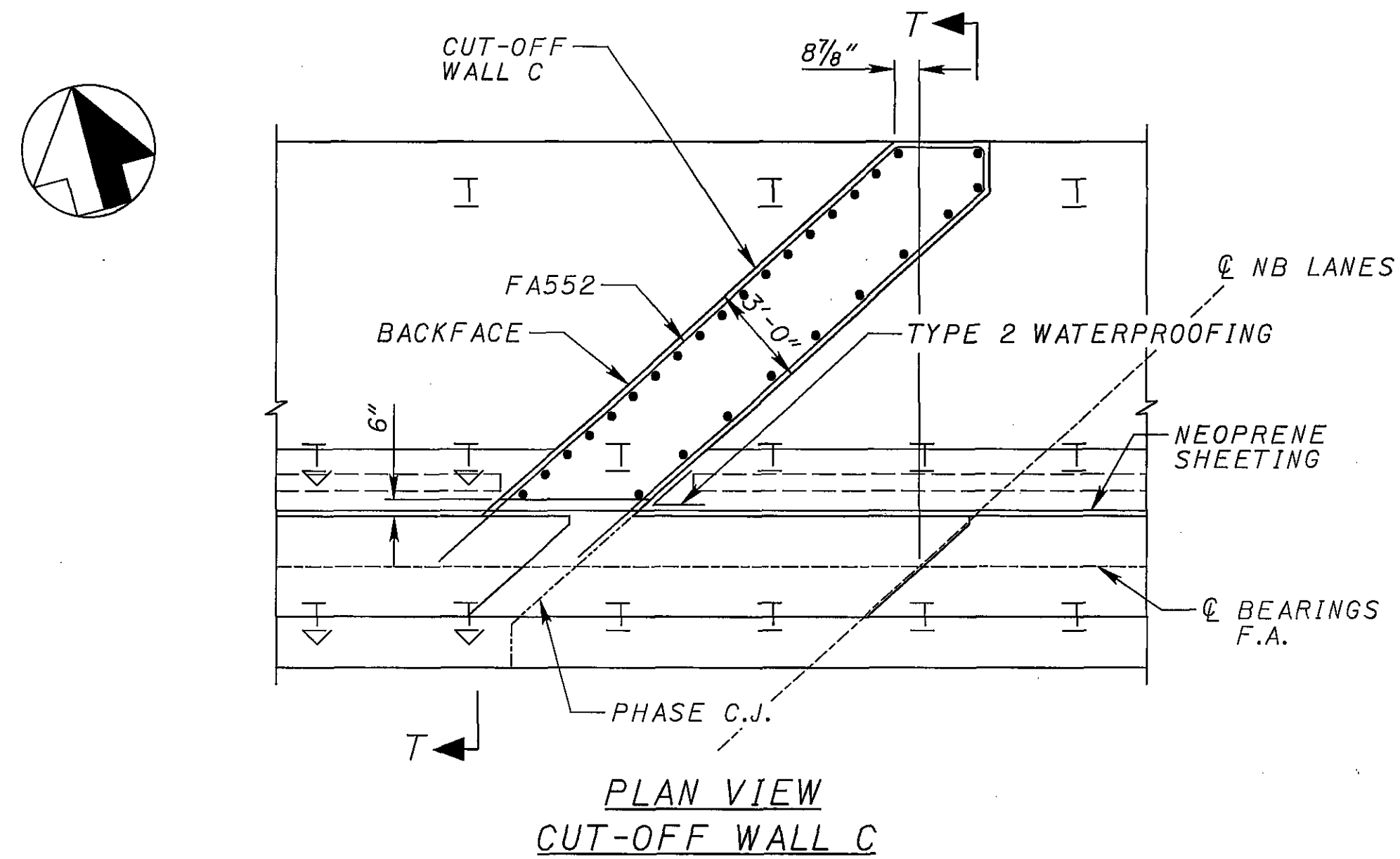
LEGEND:
 C.J. = CONSTRUCTION JOINT
 CLR. = CLEAR
 E.F. = EACH FACE
 F.A. = FORWARD ABUTMENT
 T&B = TOP & BOTTOM

NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION.

BURGESS & NIPLE	
DATE	11/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DESIGNED	TTK
CHECKED	MAK
FORWARD ABUTMENT DETAILS 2	
BRIDGE NO. MED-71-0729 R	
OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06	
PID-75657	
31 / 50	
757	
1120	

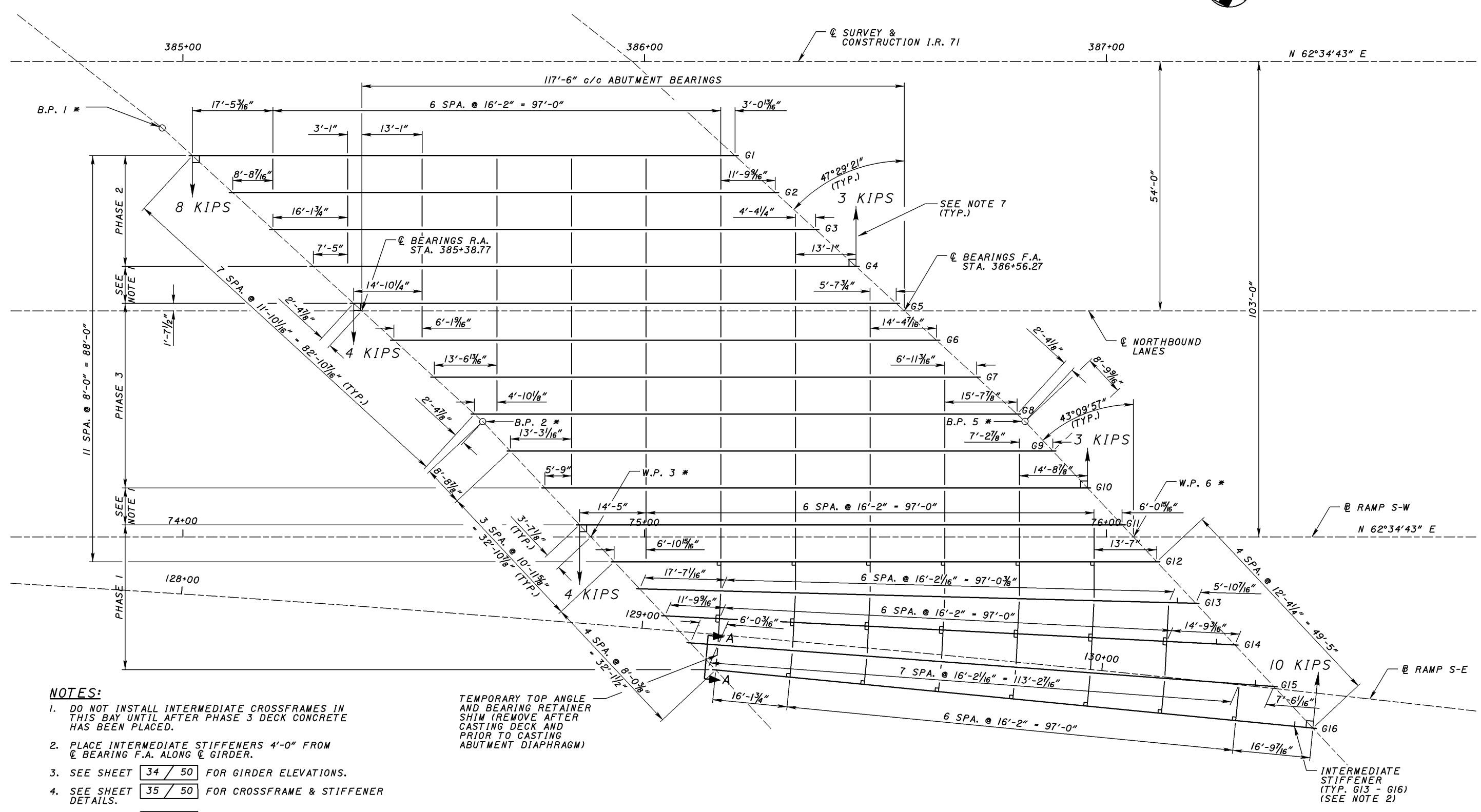
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LEGEND:
 C.J. - CONSTRUCTION JOINT
 EQ. - EQUAL
 F.A. - FORWARD ABUTMENT
 F.F. - FAR FACE
 N.F. - NEAR FACE
 SPA. - SPACES

- NOTES:**
- SEE SECTION J-J ON SHEET 30 / 50 FOR DETAILS NOT SHOWN.
 - SEE SECTION L-L ON SHEET 31 / 50 FOR DETAILS NOT SHOWN.
 - ALL CUT-OFF WALL CONCRETE SHALL BE CLASS C CONCRETE.

BURGESS & NIPLE	
DATE	11/704
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DRAWN	CRC
REVISOR	REVISOR
DESIGNED	TTK
CHECKED	MAK
FORWARD ABUTMENT DETAILS 3	
BRIDGE NO. MED-71-0729 R	
OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06	PID-75657
32 / 50	758 1120



NOTES:

- DO NOT INSTALL INTERMEDIATE CROSSFRAMES IN THIS BAY UNTIL AFTER PHASE 3 DECK CONCRETE HAS BEEN PLACED.
- PLACE INTERMEDIATE STIFFENERS 4'-0" FROM @ BEARING F.A. ALONG @ GIRDER.
- SEE SHEET 34 / 50 FOR GIRDER ELEVATIONS.
- SEE SHEET 35 / 50 FOR CROSSFRAME & STIFFENER DETAILS.
- SEE SHEET 6 / 50 FOR BEND POINT AND WORK POINT DETAILS.
- SEE SHEET 35A / 50 FOR SECTION A-A.
- FORCES INDICATED MUST BE RESISTED BY TEMPORARY BRACING DURING DECK POUR DUE TO UNBRACED GIRDER ENDS. FORCES AND DIRECTIONS SHOWN ARE FOR TOP FLANGE TENSION TIES. FORCES AT BLOCKING AT BEARING LOAD PLATES ARE EQUAL AND OPPOSITE. SEE TEMPORARY GIRDER BRACING DETAIL ON SHEET 35A / 50 FOR ADDITIONAL INFORMATION.

TEMPORARY TOP ANGLE AND BEARING RETAINER SHIM (REMOVE AFTER CASTING DECK AND PRIOR TO CASTING ABUTMENT DIAPHRAGM)

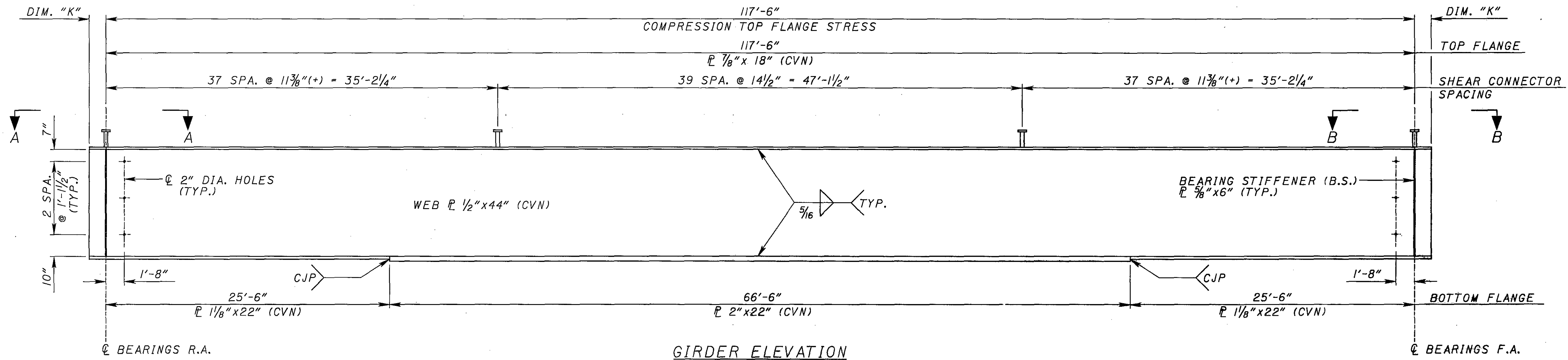
INTERMEDIATE STIFFENER (TYP. G13 - G16) (SEE NOTE 2)

FRAMING PLAN

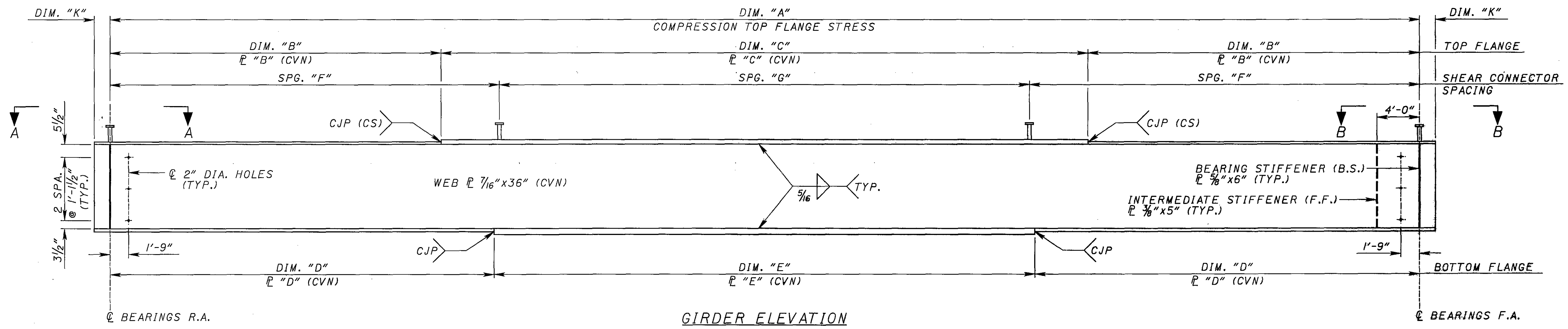
LEGEND:

- B.P. = BEND POINT
- F.A. = FORWARD ABUTMENT
- G_ = GIRDER NUMBER
- R.A. = REAR ABUTMENT
- SPA. = SPACES
- W.P. = WORK POINT
- * = SEE NOTE 5
- = 90°

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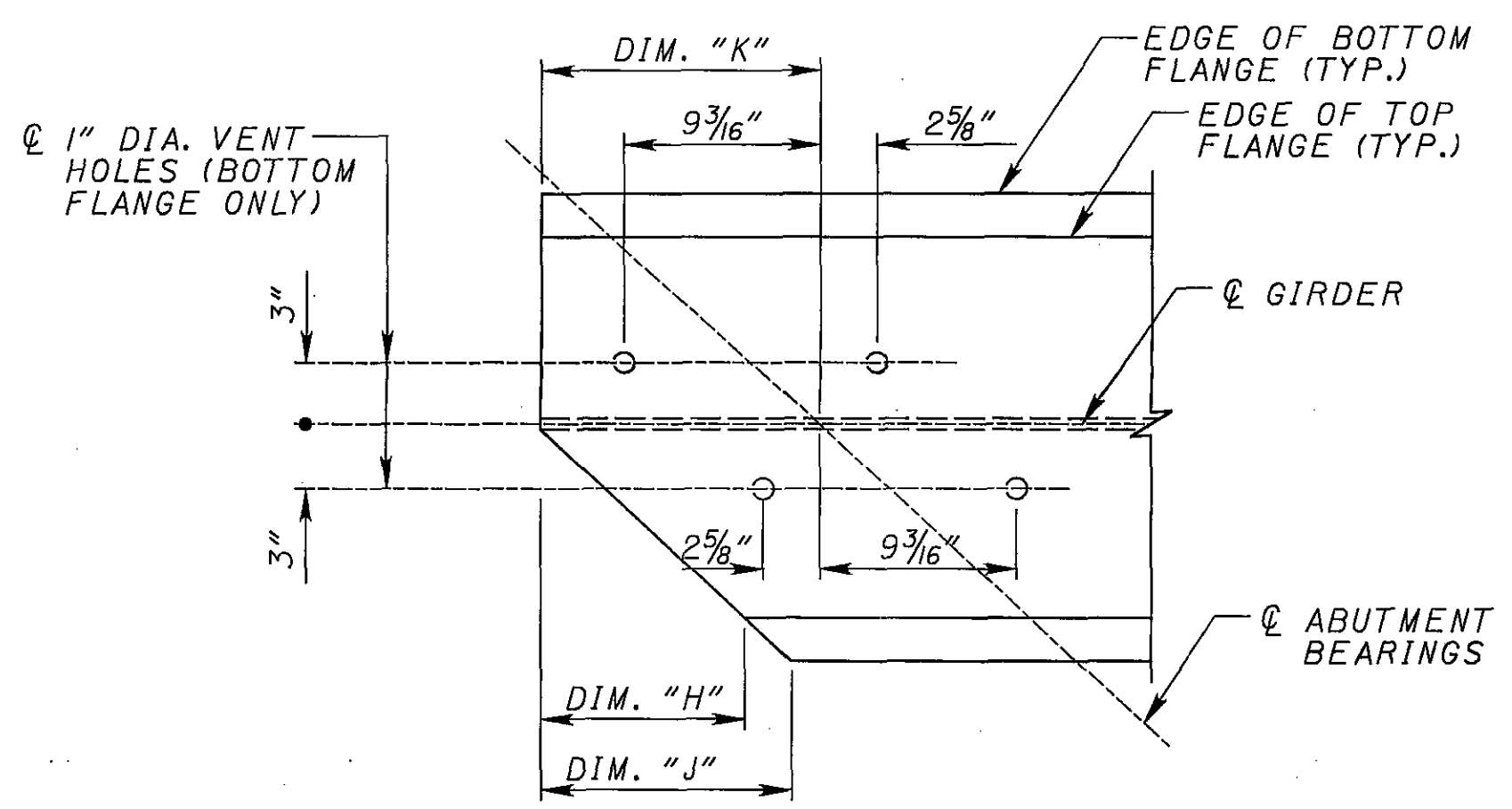
GIRDER ELEVATION
(GIRDERS G1-G12)



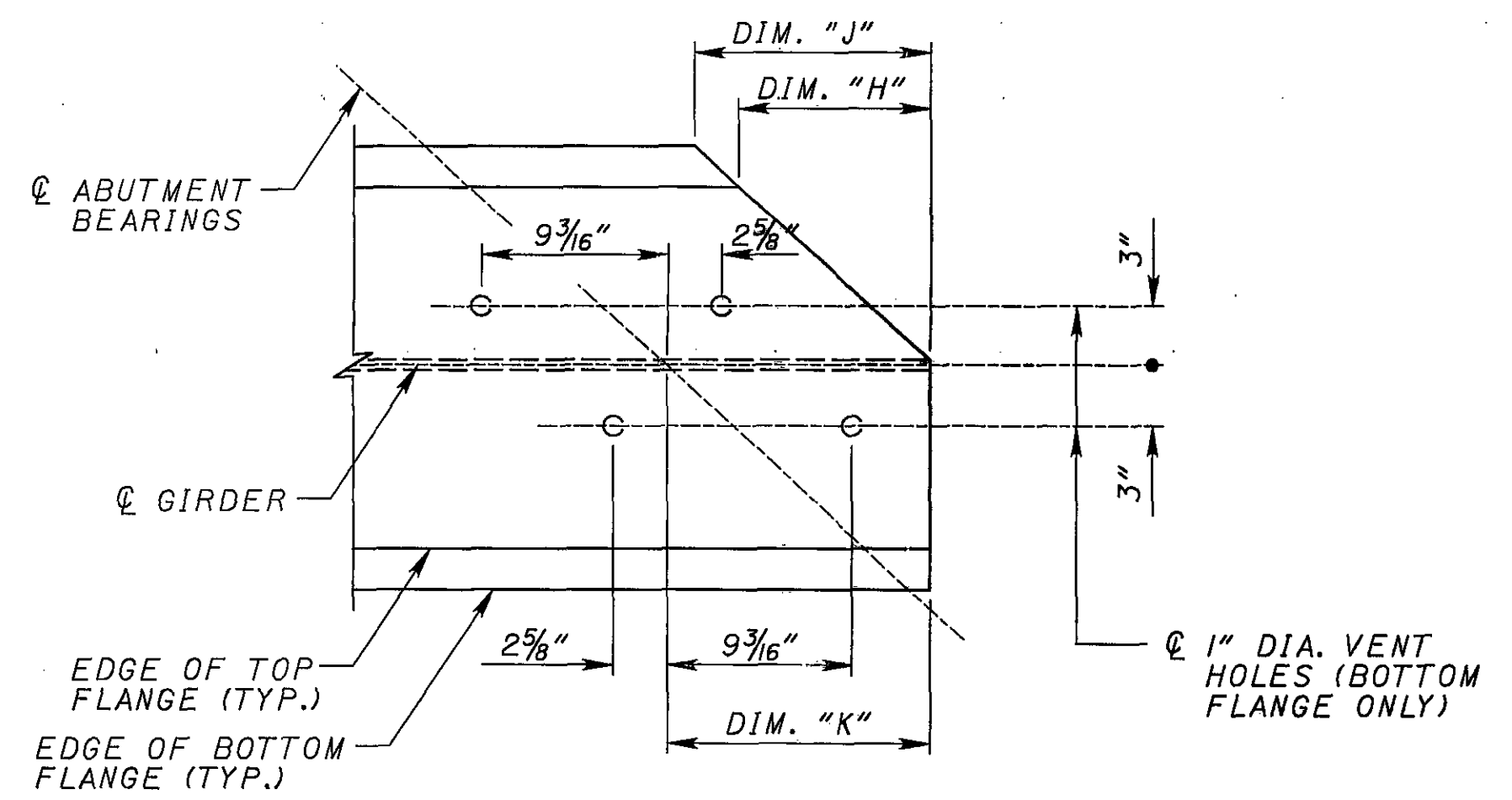
GIRDER ELEVATION
(GIRDERS G13-G16)

GIRDER	DIM. "A"	DIM. "B"	℄ "B"	DIM. "C"	℄ "C"	DIM. "D"	℄ "D"	DIM. "E"	℄ "E"	SPG. "F"	SPG. "G"
G13	120'-6"	31'-3"	1" x 20"	58'-0"	2" x 20"	35'-6"	1 3/8" x 30"	49'-6"	2 5/8" x 30"	45 SPA. @ 10 1/2" (-) = 39'-3"	36 SPA. @ 14" = 42'-0"
G14	123'-6 7/8"	31'-3"	1" x 20"	61'-0 7/8"	2" x 20"	35'-6"	1 3/8" x 30"	52'-6 7/8"	2 5/8" x 30"	41 SPA. @ 10 3/4" (+) = 36'-9 1/16"	40 SPA. @ 15" = 50'-0"
G15	126'-8 5/8"	31'-3"	1 1/8" x 20"	64'-2 5/8"	2 1/4" x 20"	35'-6"	1 3/8" x 30"	55'-8 5/8"	2 5/8" x 30"	39 SPA. @ 10 3/4" (+) = 34'-11 5/16"	44 SPA. @ 15 1/2" = 56'-10"
G16	129'-11 1/4"	31'-3"	1 1/8" x 20"	67'-5 1/4"	2 1/4" x 20"	34'-6"	1 3/8" x 30"	60'-11 1/4"	2 5/8" x 30"	41 SPA. @ 10 5/8" = 36'-3 3/8"	43 SPA. @ 16" = 57'-4"

GIRDER	DIM. "H"	DIM. "J"	DIM. "K"
G1 - G8	9 3/16"	11 3/4"	1'-1 1/16"
G9 - G12	8 3/16"	10 1/16"	1'-0 1/8"
G13	9 1/16"	1'-2 3/8"	1'-0 7/16"
G14	10 3/16"	1'-3 3/8"	1'-0 3/4"
G15	10 5/8"	1'-4 1/8"	1'-1 1/16"
G16	11 1/8"	1'-4 1/8"	1'-1 3/8"



SECTION A-A
(BEARING STIFFENERS NOT SHOWN FOR CLARITY)



SECTION B-B
(BEARING STIFFENERS NOT SHOWN FOR CLARITY)

NOTES:

- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NOT MORE THAN 2" LONG, AND BE AT LEAST 5/16".
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- SEE SHEET 35 / 50 FOR GIRDER DETAILS.

LEGEND:

- B.S. = BOTH SIDES
- CJP = COMPLETE JOINT PENETRATION
- CS = INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- SPA. = SPACES
- F.F. = FAR FACE

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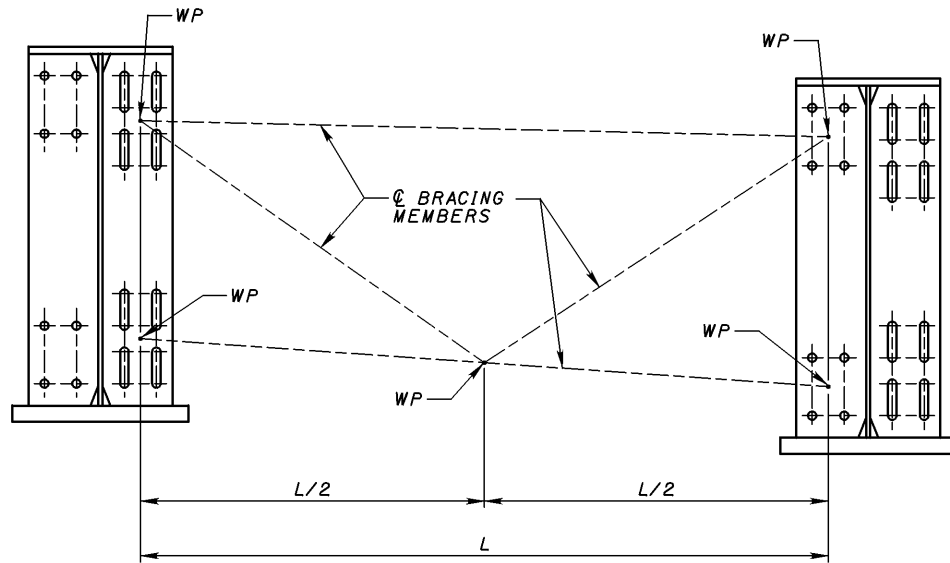
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STRUCTURE FILE NUMBER	5202817
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CHECKED	TTK

GIRDER ELEVATIONS
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

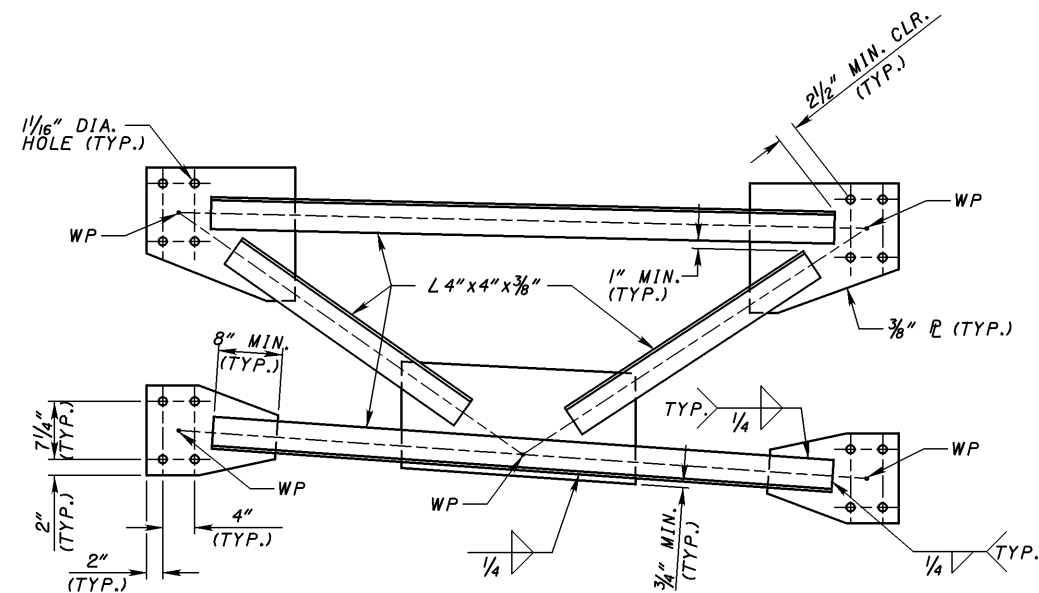
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34 / 50

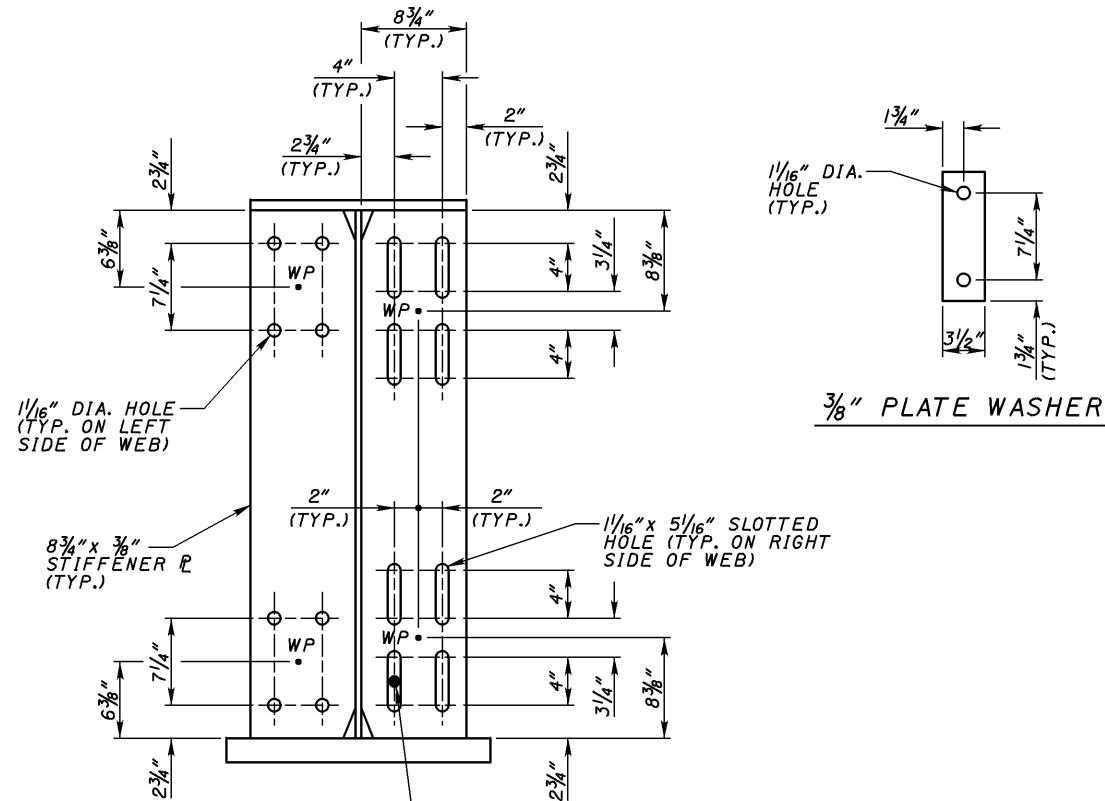
760
1120



TYPE CF-1 CROSSFRAME ELEVATION
(SEE NOTE 4)

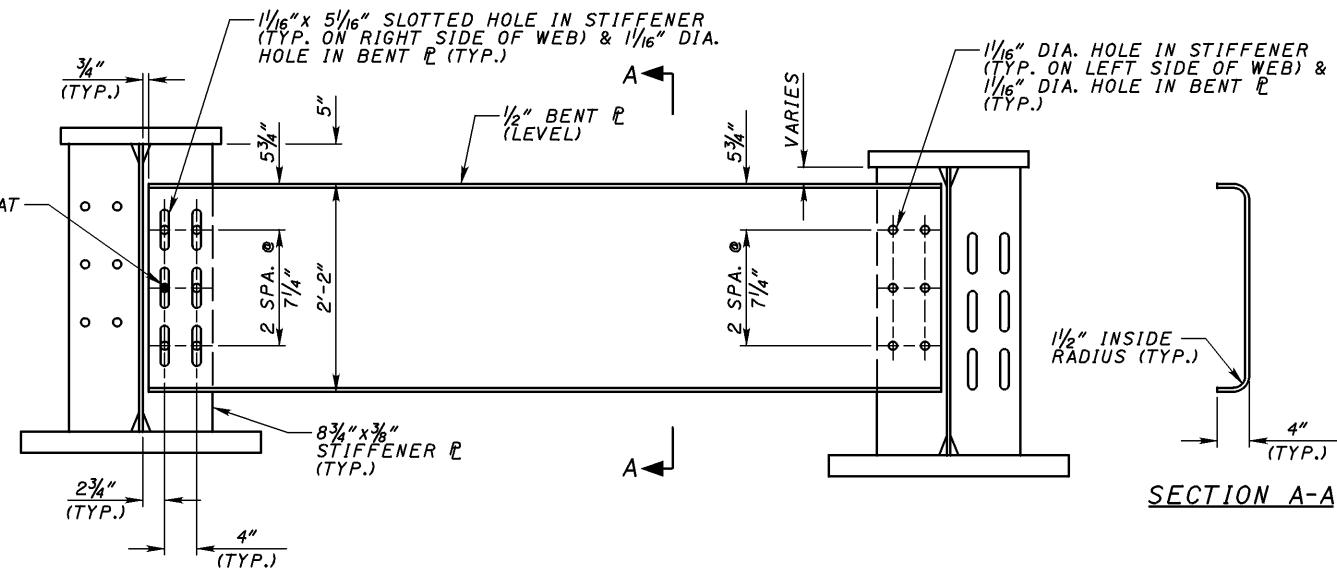


TYPE CF-1 CROSSFRAME DETAIL

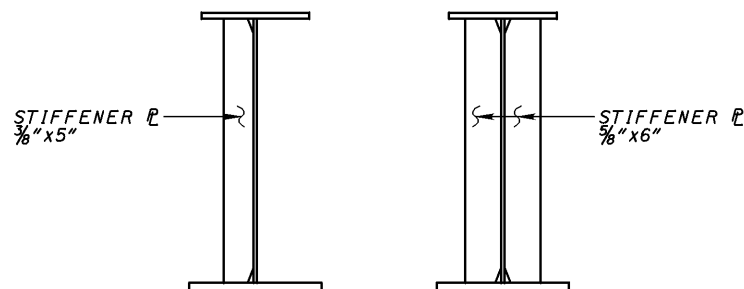


TYPE CF-1 CROSSFRAME STIFFENER
(INTERIOR GIRDER SHOWN, EXTERIOR GIRDERS SHALL
HAVE CROSSFRAME STIFFENER AT INSIDE FACE OF WEB ONLY)

BOLT SHALL BE AT
CENTER OF SLOT
PRIOR TO DECK
POURS (TYP. AT
ALL SLOTS)



TYPE CF-2 CROSSFRAME
(SEE NOTE 4)
(INTERIOR GIRDERS SHOWN, EXTERIOR GIRDERS SHALL
HAVE CROSSFRAME STIFFENER AT INSIDE FACE OF WEB ONLY)



LEGEND:

WP = WORK POINT

NOTES:

- SEE STD. DWG. GSD-I-96 FOR ADDITIONAL STIFFENER NOTES.
- BOLT TIGHTENING SEQUENCE: FOR CONNECTIONS WITH SLOTTED HOLES, INSTALL BOLTS AND TIGHTEN TO A SNUG TIGHT FIT AS DEFINED IN CMS 513. DO NOT COMPLETELY TIGHTEN THESE BOLTS UNTIL THE DECK PLACEMENT HAS BEEN COMPLETED. INSTALL AND COMPLETELY TIGHTEN ALL OTHER CONNECTIONS ACCORDING TO CMS 513 PRIOR TO THE DECK PLACEMENT.
- FASTENERS: FURNISH 1" DIAMETER ASTM A325 BOLTS FOR ALL CONNECTIONS. USE TYPE I GALVANIZED BOLTS. CONNECTIONS WITH SLOTTED HOLES SHALL INCLUDE A BOLT, NUT, TWO WASHERS AND 3/8" PLATE WASHER. AT ALL OTHER CONNECTIONS, OMIT THE 3/8" PLATE WASHER.
- USE TYPE CF-1 CROSSFRAMES BETWEEN GIRDERS G1 AND G12. USE TYPE CF-2 CROSSFRAMES BETWEEN GIRDERS G12 AND G16.

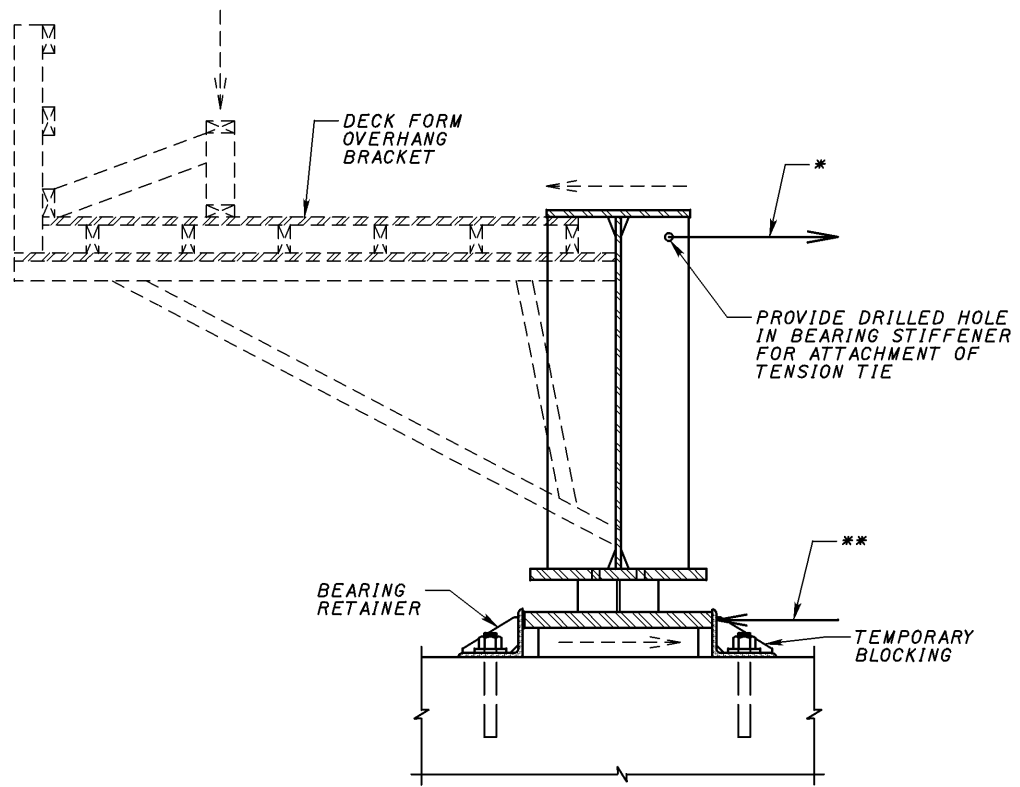
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GIRDER DETAILS I
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

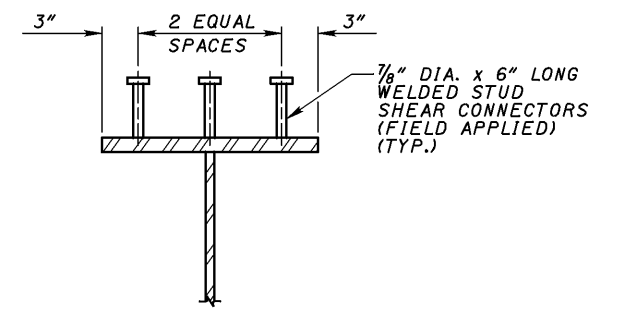
35 / 50



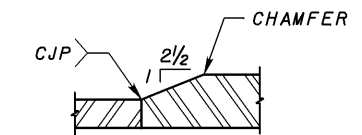
TEMPORARY GIRDER BRACING DETAIL

* - CONTRACTOR TO PROVIDE TENSION TIE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. TIE SHALL BE INSTALLED PERPENDICULAR TO CENTERLINE OF GIRDER. FORCES GIVEN ARE HORIZONTAL (ADJUST AS NECESSARY IF TIE IS NOT HORIZONTAL). REMOVE TENSION TIE PRIOR TO CASTING ABUTMENT DIAPHRAGM. CONTRACTOR SHALL DESIGN TENSION TIE AND ANCHORAGE. CALCULATIONS PERFORMED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. PAYMENT SHALL BE INCLUDED IN PAY ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL 4.

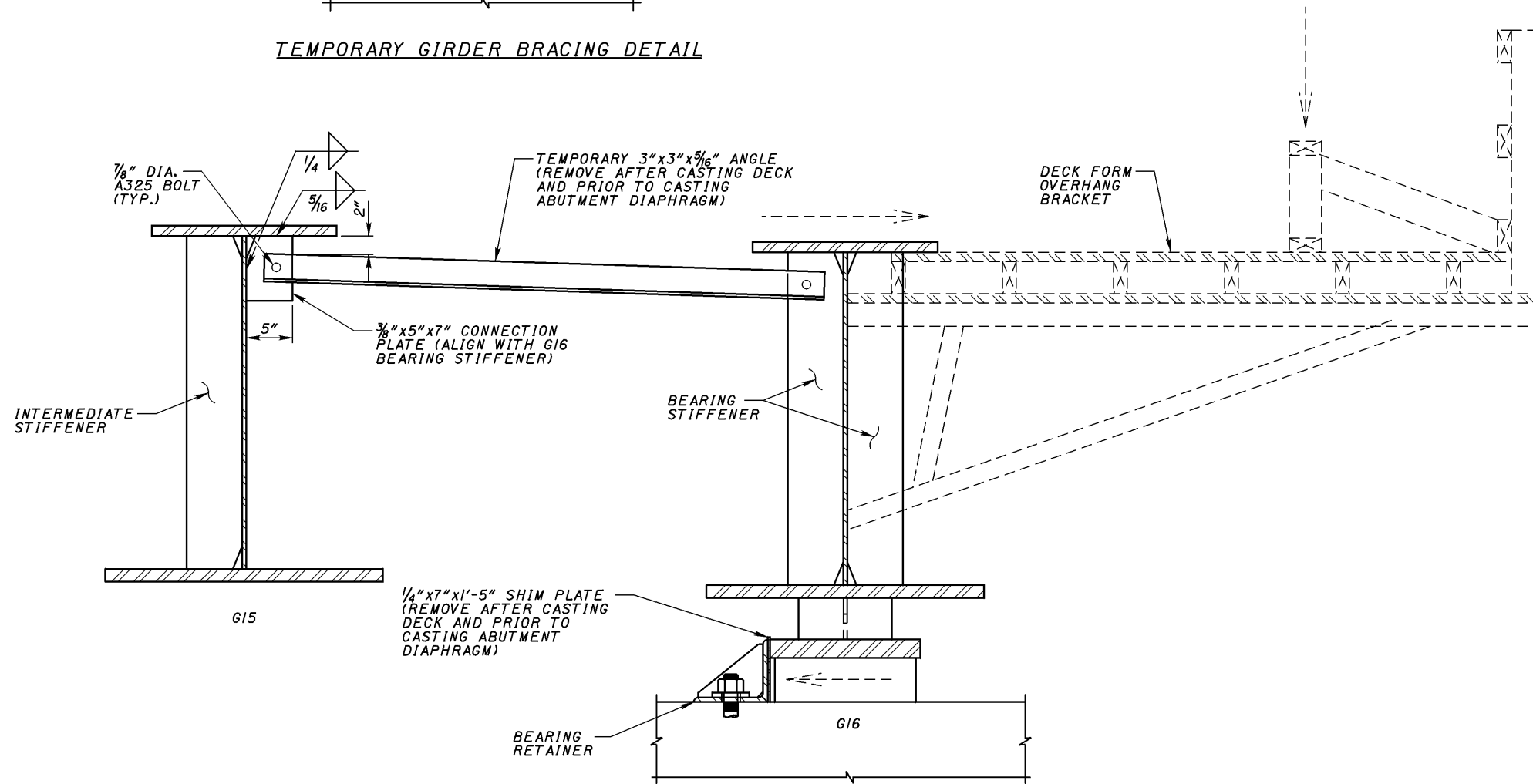
** - CONTRACTOR TO PROVIDE TEMPORARY BLOCKING (SIMILAR TO BEARING RETAINER) TO PROVIDE RESISTANCE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. REMOVE BLOCKING PRIOR TO CASTING OF ABUTMENT DIAPHRAGM. SEE TENSION TIE NOTE (ABOVE) FOR SUBMITTAL, APPROVAL AND PAYMENT INFORMATION.



GIRDER SHEAR CONNECTOR DETAIL



FLANGE WELD DETAIL
(GRIND COMPLETE JOINT PENETRATION WELD SMOOTH IN A LONGITUDINAL DIRECTION TO REMOVE WELD REINFORCEMENT.)



SECTION A-A

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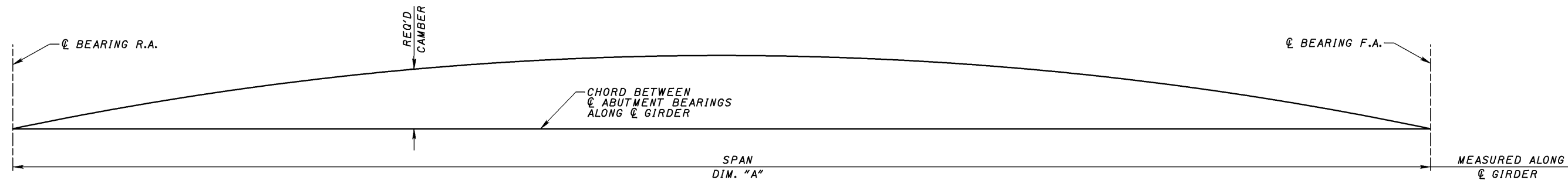
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GIRDER DETAILS 2
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

35A/50

761A
1120



SPAN	
GIRDER	DIM. "A"
G1 - G12	117'-6"
G13	120'-6"
G14	123'-6 ⁷ / ₈ "
G15	126'-8 ⁵ / ₈ "
G16	129'-11 ¹ / ₄ "

CAMBER DIAGRAM

LEGEND:

- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- A - DEFLECTION DUE TO WEIGHT OF STEEL
- B - DEFLECTION DUE TO REMAINING DEAD LOAD
- C - ADJUSTMENT FOR VERTICAL CURVE
- D - TOTAL (REQUIRED SHOP CAMBER)

NOTE:

1. SEE SHEET 33 / 50 FOR GIRDER NUMBER LOCATION.

CAMBER TABLE (VALUES IN INCHES)										
GIRDER NUMBER	REAR ABUT.	SPAN LOCATION								FWD. ABUT.
		1/8 SPAN	1/4 SPAN	3/8 SPAN	MIDSPAN	5/8 SPAN	3/4 SPAN	7/8 SPAN		
G1	A	0	3/16	1	15/16	17/16	15/16	1	9/16	0
	B	0	23/8	41/4	51/2	55/16	51/2	41/4	23/8	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	3/4	53/16	71/2	81/8	71/2	53/16	3/4	0
G2	A	0	9/16	11/16	15/16	17/16	15/16	11/16	9/16	0
	B	0	21/8	33/8	5	53/8	5	33/8	21/8	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	3	51/2	7	71/16	7	51/2	3	0
G3	A	0	3/16	11/16	15/16	17/16	15/16	11/16	9/16	0
	B	0	21/16	33/4	43/8	51/4	43/8	33/4	21/16	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	25/16	53/8	63/16	77/16	63/16	53/8	25/16	0
G4	A	0	3/16	1	15/16	17/16	15/16	1	9/16	0
	B	0	11/2	23/4	31/2	313/16	31/2	23/4	11/2	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	23/8	45/16	51/2	6	51/2	45/16	23/8	0
G5	A	0	3/16	1	15/16	17/16	15/16	1	9/16	0
	B	0	19/16	213/16	35/8	315/16	35/8	213/16	19/16	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	21/16	43/8	55/8	61/8	55/8	43/8	21/16	0
G6	A	0	3/16	11/16	15/16	17/16	15/16	11/16	9/16	0
	B	0	15/16	33/16	43/16	415/16	43/16	33/16	15/16	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	23/16	53/16	63/16	71/8	63/16	53/16	23/16	0
G7	A	0	3/16	11/16	15/16	17/16	15/16	11/16	9/16	0
	B	0	15/16	37/16	47/16	47/8	47/16	37/16	15/16	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	213/16	51/16	67/16	71/16	67/16	51/16	213/16	0
G8	A	0	3/16	11/16	15/16	17/16	15/16	11/16	9/16	0
	B	0	15/16	37/16	47/16	47/8	47/16	37/16	15/16	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	213/16	51/16	67/16	71/16	67/16	51/16	213/16	0

CAMBER TABLE (VALUES IN INCHES)										
GIRDER NUMBER	REAR ABUT.	SPAN LOCATION								FWD. ABUT.
		1/8 SPAN	1/4 SPAN	3/8 SPAN	MIDSPAN	5/8 SPAN	3/4 SPAN	7/8 SPAN		
G9	A	0	3/16	11/16	15/16	17/16	15/16	11/16	9/16	0
	B	0	15/16	33/16	43/16	415/16	43/16	33/16	15/16	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	213/16	53/16	63/16	71/8	63/16	53/16	213/16	0
G10	A	0	3/16	1	15/16	17/16	15/16	1	9/16	0
	B	0	11/2	21/16	37/16	33/4	37/16	21/16	11/2	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	23/8	41/4	51/16	55/16	51/16	41/4	23/8	0
G11	A	0	3/16	1	15/16	17/16	15/16	1	9/16	0
	B	0	15/8	27/8	33/4	41/16	33/4	27/8	15/8	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	21/2	47/16	53/4	61/4	53/4	47/16	21/2	0
G12	A	0	3/16	11/16	13/8	11/2	13/8	11/16	9/16	0
	B	0	17/8	33/8	43/8	43/4	43/8	37/16	17/8	0
	C	0	5/16	9/16	11/16	3/4	11/16	9/16	5/16	0
	D	0	23/4	5	67/16	7	67/16	57/16	23/4	0
G13	A	0	13/16	17/16	13/8	2	13/8	17/16	13/16	0
	B	0	13/4	37/16	313/16	41/8	37/8	37/16	13/4	0
	C	0	3/8	5/8	3/4	13/16	3/4	5/8	3/8	0
	D	0	25/16	51/8	63/8	615/16	67/16	51/8	25/16	0
G14	A	0	7/8	19/16	2	21/8	2	19/16	7/8	0
	B	0	17/8	33/8	41/4	49/16	41/4	33/8	17/8	0
	C	0	3/8	5/8	13/16	7/8	13/16	5/8	3/8	0
	D	0	31/8	59/16	71/16	79/16	71/16	59/16	31/8	0
G15	A	0	5/16	11/16	21/8	21/4	21/8	11/16	5/16	0
	B	0	21/16	35/8	43/16	415/16	43/16	37/16	21/16	0
	C	0	3/8	11/16	13/16	7/8	13/16	11/16	3/8	0
	D	0	33/8	6	71/2	81/16	71/2	67/16	37/16	0
G16	A	0	1	13/16	21/4	27/16	21/4	13/16	1	0
	B	0	23/4	43/16	67/16	69/16	67/8	43/8	23/4	0
	C	0	3/8	11/16	7/8	15/16	7/8	11/16	3/8	0
	D	0	41/8	79/16	93/16	915/16	91/4	73/8	41/8	0

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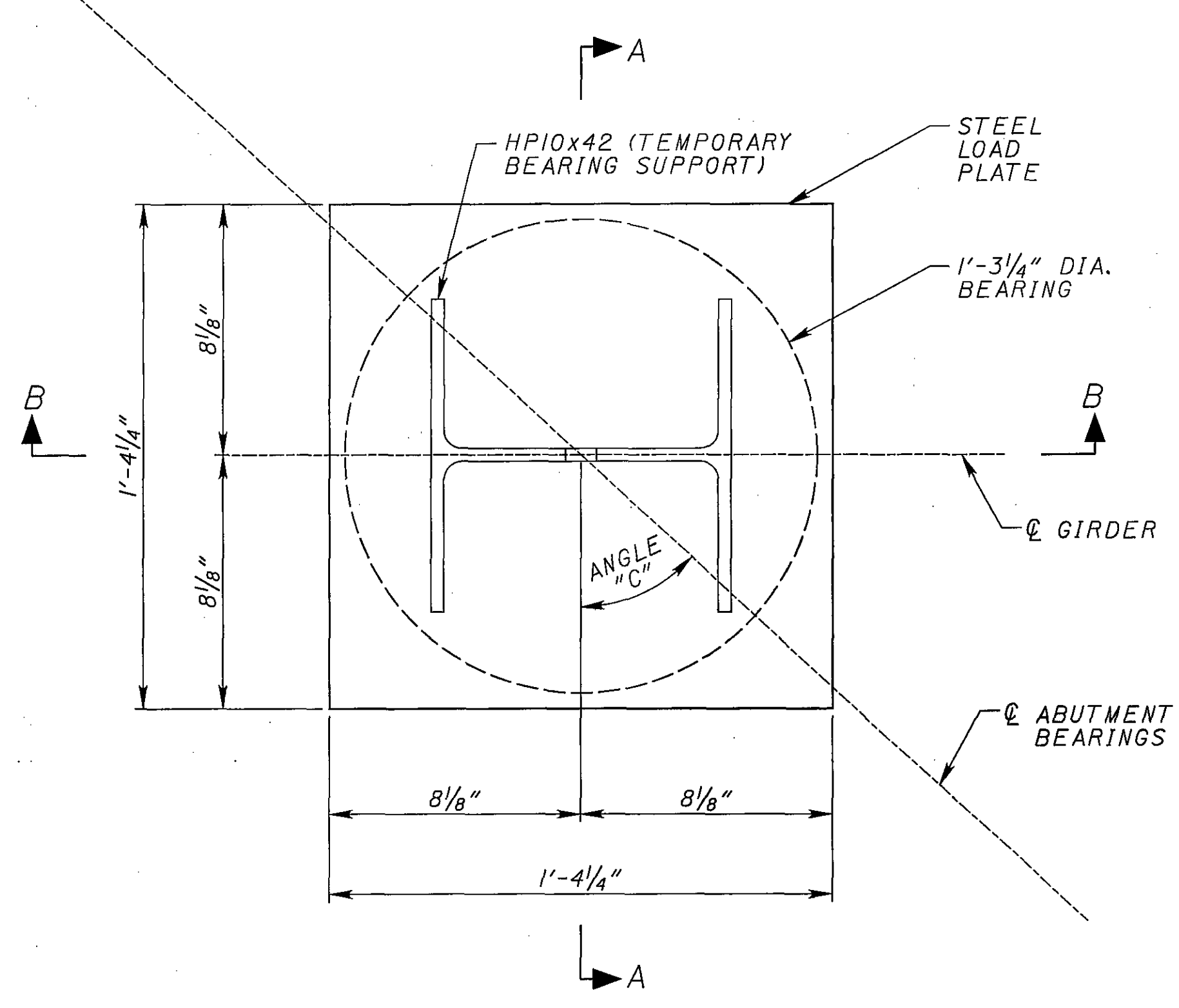
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CAMBER DETAILS
BRIDGE NO. MED-71-0729 R
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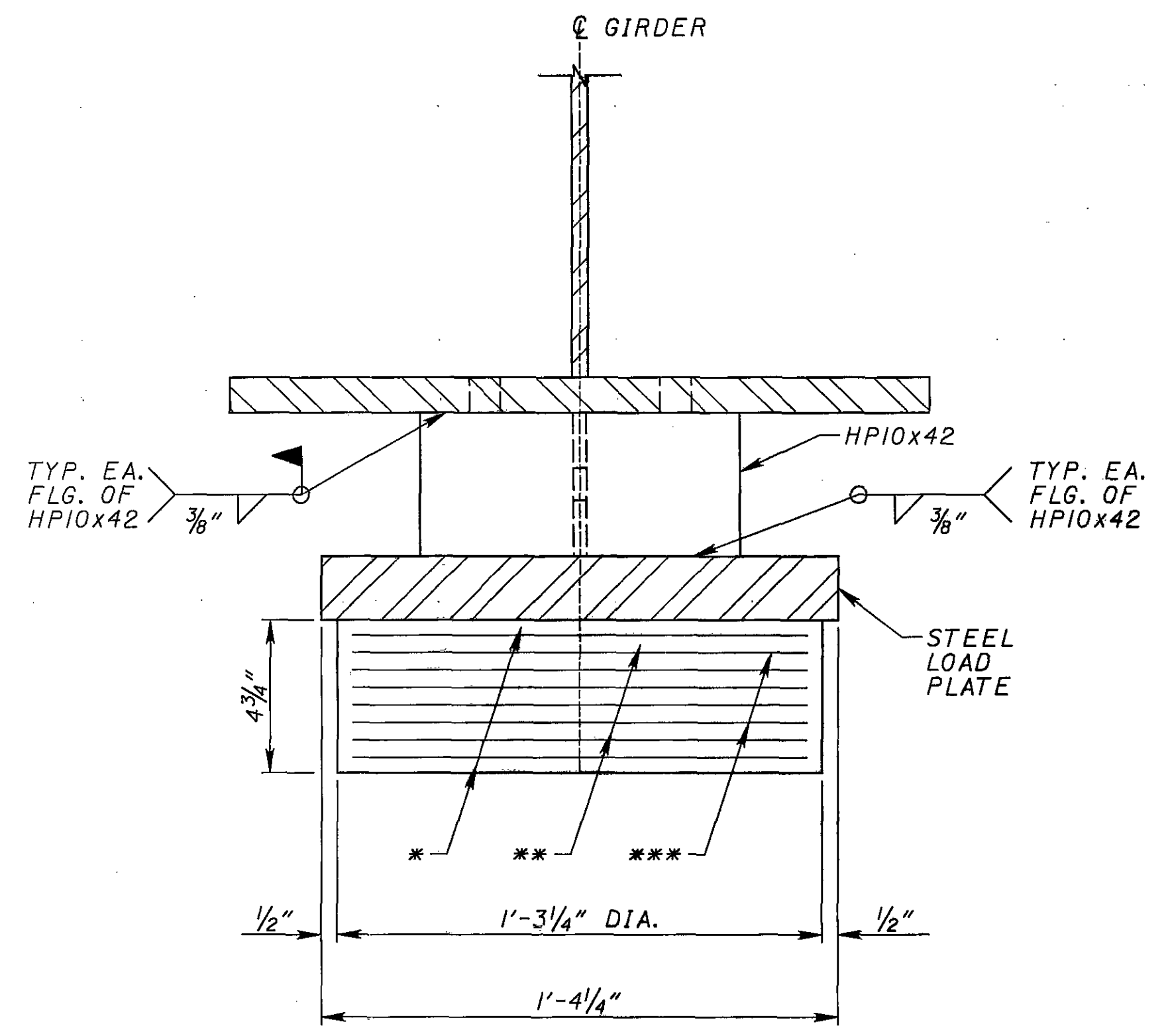
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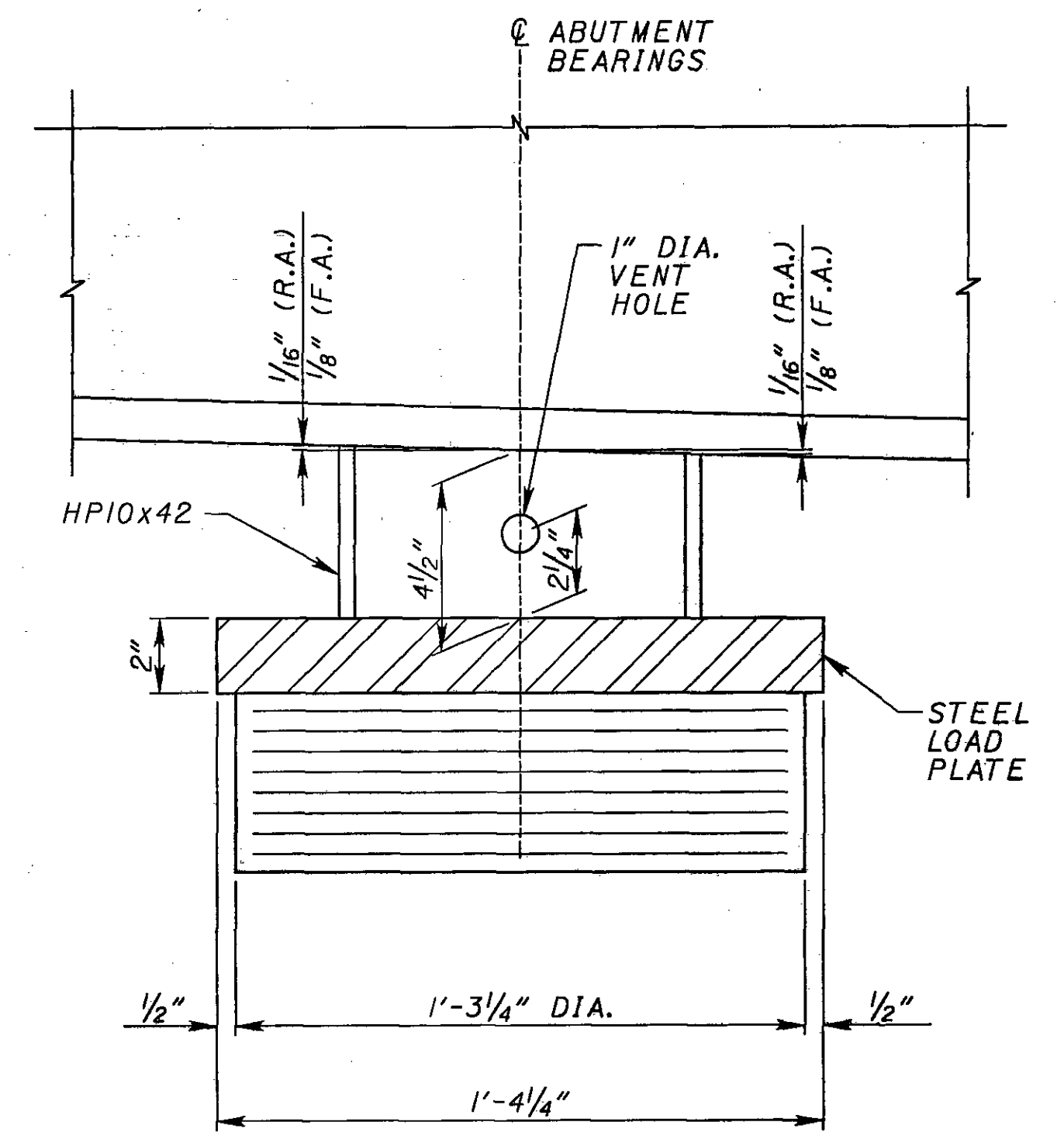


ABUTMENT BEARING PLAN
(EXPANSION)

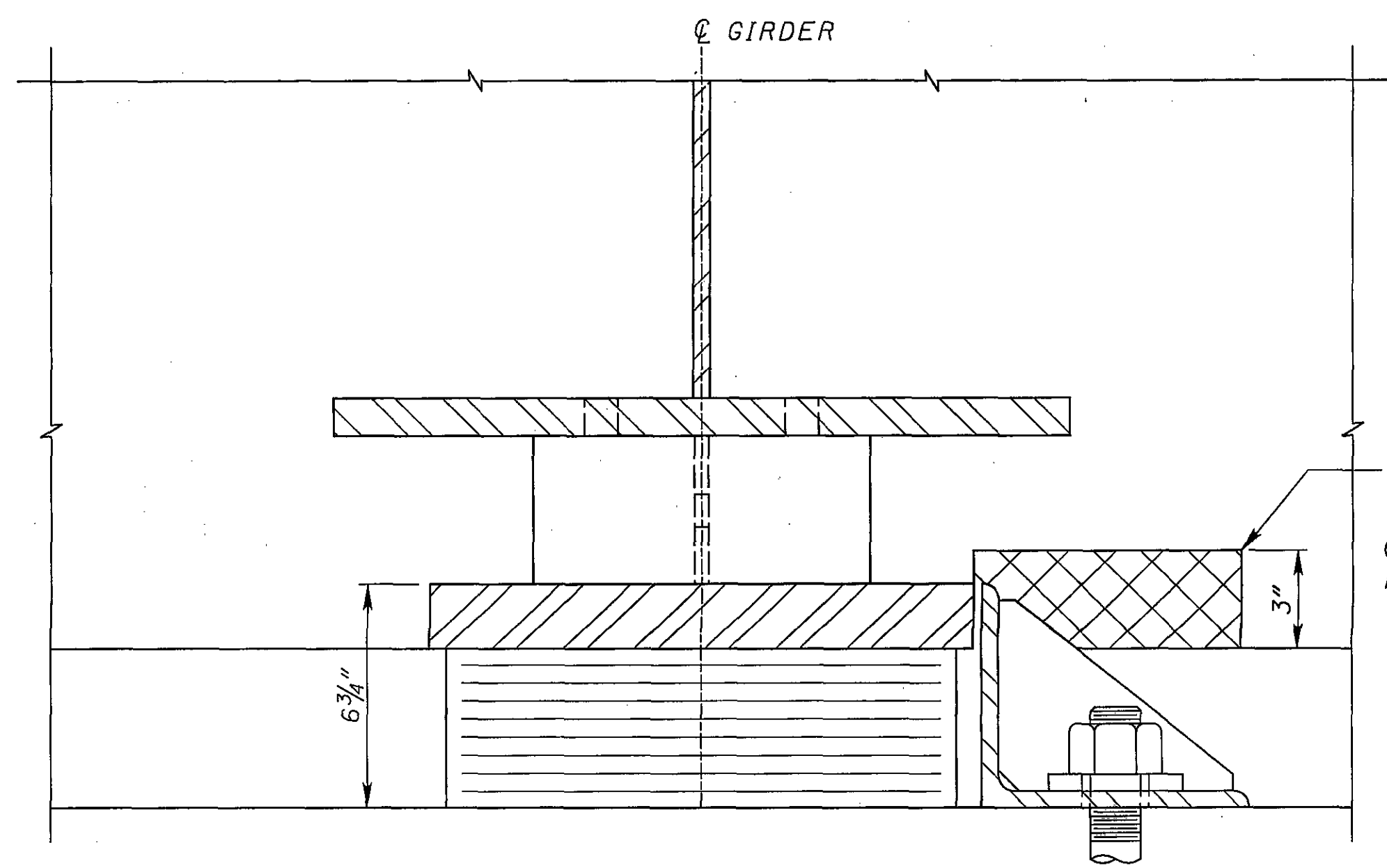


- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.326"
- ** - 7 INTERNAL ELASTOMER LAYERS THICKNESS = 0.500"
- *** - 8 INTERNAL STEEL LAMINATES THICKNESS = 0.0747"

SECTION A-A



SECTION B-B



BEARING RETAINER DETAILS

(PLACE BEARING RETAINER ASSEMBLIES AT G1, G4, G5, G10, G11 & G16)
(SEE STD. DWG. SICD-1-96 FOR DETAILS NOT SHOWN)

POLYSTYRENE FILLER MATERIAL (TYP.)
(SEE SHEET 41 / 50 FOR OTHER DIMENSIONS)

GIRDER	ANGLE C
G1 - G8	47°29'21"
G9 - G12	43°09'57"
G13	44°39'55"
G14	46°05'28"
G15	47°26'48"
G16	48°44'09"

LEGEND:

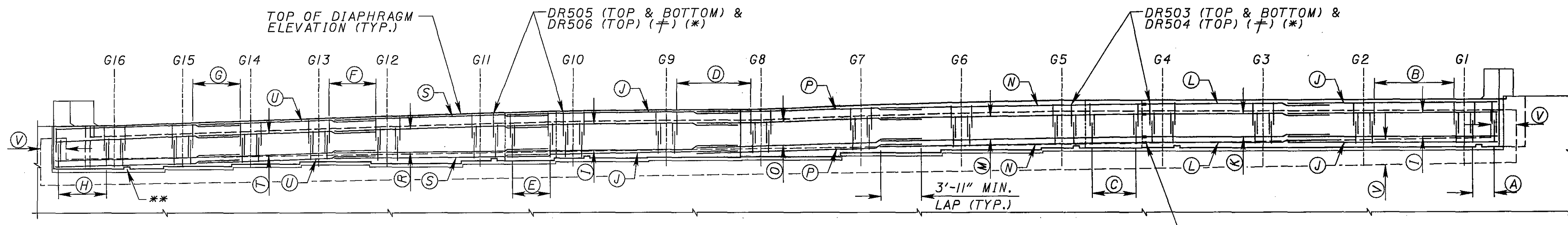
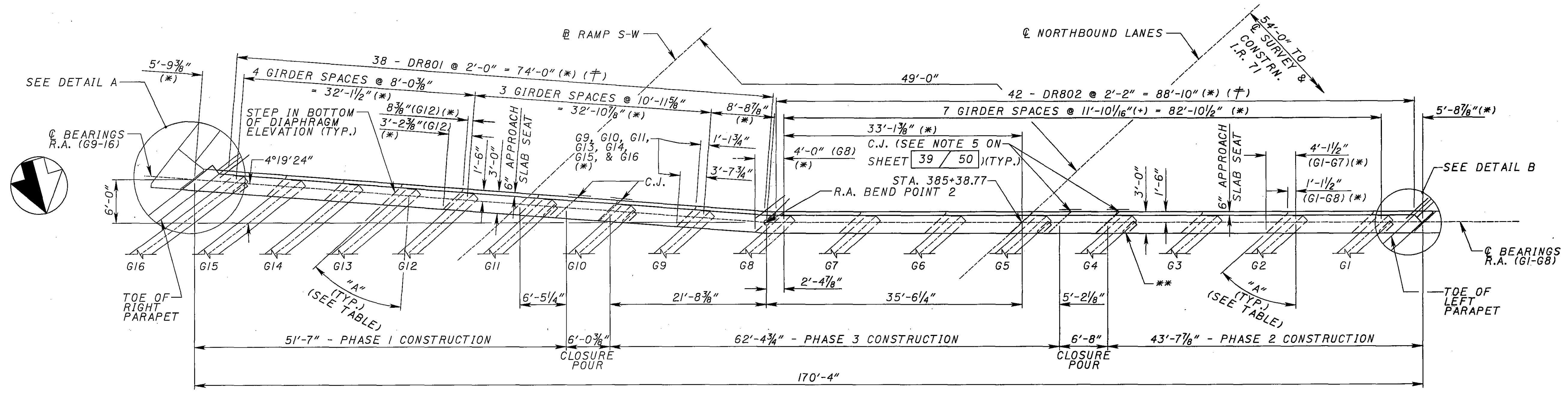
DIA. - DIAMETER
EA. - EACH
FLG. - FLANGE

NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.5 (METHOD B) OF THE ASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. BEARING REPOSITIONING: IF THE BEAMS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
3. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
4. LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND LOCATION (NORTHBOUND, GIRDER NUMBER AND REAR ABUTMENT OR FORWARD ABUTMENT). THE STEEL LOAD PLATES & HP 10x42 TEMPORARY SUPPORT ARE ASTM A709 GRADE 50 STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS. THE HP SHAPE AND STEEL LOAD PLATE SHALL HAVE THE SAME PROTECTIVE COATING AS THE MAIN STRUCTURAL STEEL.
5. DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING SERVICE LOADS (KIPS):

	ABUTMENTS
DEAD LOAD	162
LIVE LOAD W/O IMPACT	58
TOTAL DESIGN LOAD	220
6. BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES, HP 10x42 TEMPORARY SUPPORTS & RETAINER ASSEMBLIES, AND PROTECTIVE SYSTEM. PAYMENT WILL BE INCLUDED WITH ITEM 516, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (1'-3 1/4" DIA. X 4 3/4"), AS PER PLAN.

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LAYOUT INFORMATION ALONG CENTERLINE OF BEARINGS

LOCATION	TOP OF DIAPHRAGM ELEVATION	ANGLE "A" TO LINE PERP. TO C BRGS.
TOE OF LEFT PARAPET	1024.73	47°29'21"
G1	1024.72	
G2	1024.71	
G3	1024.70	
G4	1024.68	
G5	1024.66	
G6	1024.44	
G7	1024.11	43°09'57"
G8	1023.62	
G9	1023.56	
G10	1023.45	
G11	1023.19	
G12	1022.85	44°39'55"
G13	1022.58	
G14	1022.31	
G15	1022.03	
G16	1021.75	48°44'09"
TOE OF RIGHT PARAPET	1021.63	
		48°07'55"

- (A) = 4-DR503 (TOP & BOTTOM) & 4-DR504 (TOP) @ 1'-3" = 3'-9" (#) (*)
- (B) = 6-DR503 (TOP & BOTTOM) & 6-DR504 (TOP) @ 1'-6" = 7'-6" (#) (*) (CENTERED BETWEEN GIRDERS G1-G2, G2-G3, G3-G4, G5-G6, G6-G7 & G7-G8)
- (C) = 5-DR503 (TOP & BOTTOM) & 5-DR504 (TOP) @ 1'-6" = 6'-0" (#) (*)
- (D) = 6-DR505 (TOP & BOTTOM) & 6-DR506 (TOP) @ 1'-6" = 7'-6" (#) (*) (CENTERED BETWEEN GIRDERS G8-G9, G9-G10 & G11-G12)
- (E) = 4-DR505 (TOP & BOTTOM) & 4-DR506 (TOP) @ 1'-6" = 4'-6" (#) (*)
- (F) = 5-DR507 (TOP & BOTTOM) & 5-DR508 (TOP) @ 1'-3" = 5'-0" (#) (*) (CENTERED BETWEEN GIRDERS G12-G13 & G13-G14)
- (G) = 5-DR509 (TOP & BOTTOM) & 5-DR510 (TOP) @ 1'-3" = 5'-0" (#) (*) (CENTERED BETWEEN GIRDERS G14-G15 & G15-G16)
- (H) = 4-DR509 (TOP & BOTTOM) & 4-DR510 (TOP) @ 1'-4" = 4'-0" (#) (*)
- (I) = 3-DR803 (E.F.) (EVENLY SPACED)
- (J) = 4-DR803 (EVENLY SPACED)
- (K) = 3-DR804 (E.F.) (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (L) = 4-DR804 (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (M) = 3-DR805 (E.F.) (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (N) = 4-DR805 (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (O) = 3-DR806 (N.F.) & 3-DR807 (F.F.) (EVENLY SPACED)
- (P) = 1 S.O. 4 DR808 (EVENLY SPACED)
- (R) = 3-DR809 (E.F.) (EVENLY SPACED)
- (S) = 4-DR809 (EVENLY SPACED)
- (T) = 3-DR810 (E.F.) (EVENLY SPACED) (2 LENGTHS)
- (U) = 4-DR810 (EVENLY SPACED) (2 LENGTHS)
- (V) = LIMITS OF 3'-0" WIDE NEOPRENE SHEETING

LEGEND:

- C.J. = CONSTRUCTION JOINT
- E.F. = EACH FACE
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- G = GIRDER NUMBER
- M.C. = MECHANICAL CONNECTOR
- N.F. = NEAR FACE
- * = MEASURED ALONG C BEARINGS R.A.
- ** = FORMED POCKET FOR BEARING RETAINER. SEE STD. DRAWING SICD-I-96 AND SHEET 37 / 50 FOR ADDITIONAL INFO. (TYP. @ G1, G4, G5, G10, G11 & G16) (SEE DETAIL B FOR ADDITIONAL DIMENSIONS)
- # = PLACE PARALLEL WITH C GIRDERS

NOTE:

1. SEE SHEET 39 / 50 FOR NOTES.
1. SEE SHEET 41 / 50 FOR DETAILS.

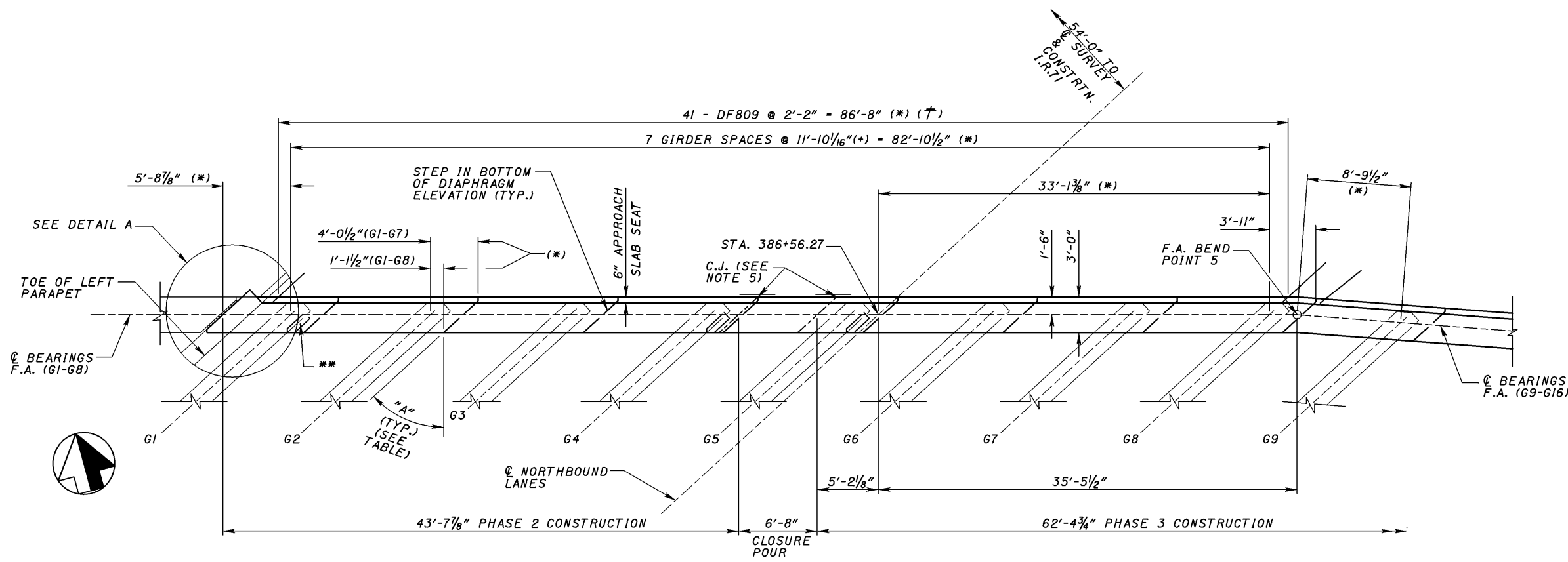
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DATE	11/04
REVIEWED	RWK
STRUCTURE FILE NUMBER	5202817
DESIGNED	MAK
CHECKED	JHL
REVISION	8/8/06

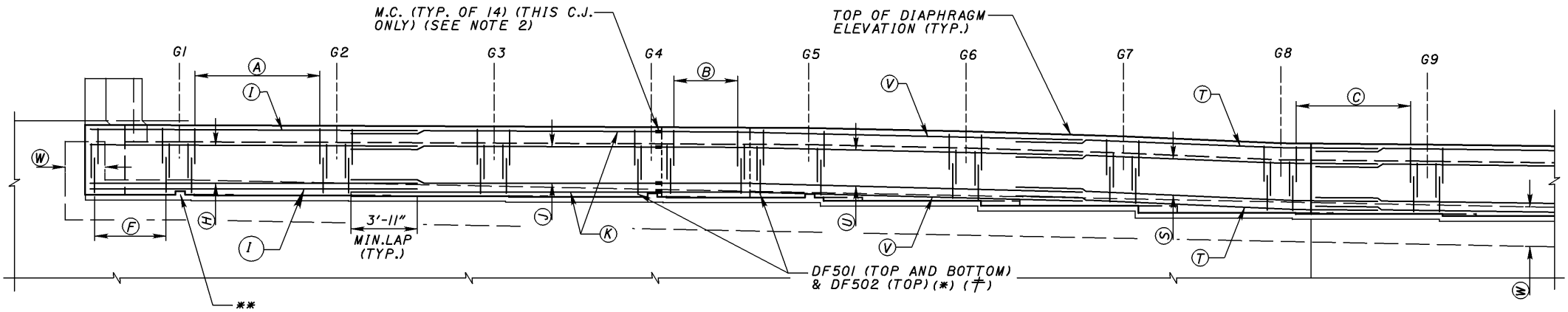
FORWARD ABUTMENT DIAPHRAGM I
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657
39 / 50
765
1120

- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - CLR. - CLEAR
 - E.F. - EACH FACE
 - F.A. - FORWARD ABUTMENT
 - F.F. - FAR FACE
 - G. - GIRDER NUMBER
 - M.C. - MECHANICAL CONNECTOR
 - N.F. - NEAR FACE
 - PEJF - PREFORMED EXPANSION JOINT FILLER
 - SPA. - SPACES
 - * - MEASURED ALONG ϕ BEARINGS F.A.
 - ** - FORMED POCKET FOR BEARING RETAINER. SEE STD. DWG SICD-I-96 AND SHEET 37 / 50
 - † - PLACE PARALLEL WITH ϕ GIRDERS
 - △△ - SAME ELEVATION AS TOP OF WINGWALL



PARTIAL DIAPHRAGM PLAN I



PARTIAL DEVELOPED DIAPHRAGM ELEVATION I

NOTES:

1. ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
2. SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 50.
3. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE DECK CONCRETE OF AN INDIVIDUAL PHASE PRIOR TO PLACING ABUTMENT DIAPHRAGM CONCRETE ENCASEING STRUCTURAL STEEL MEMBERS OF CORRESPONDING PHASE. PROVIDE CONSTRUCTION JOINTS WITH KEYWAYS AS SHOWN IN SECTION A-A ON SHEET 42 / 50. REMOVE TEMPORARY BLOCKING, TENSION TIES AND TEMPORARY TOP ANGLE PRIOR TO PLACEMENT OF ABUTMENT DIAPHRAGM CONCRETE. DECK CONSTRUCTION JOINTS ARE NOT NECESSARY FOR CLOSURE POURS. CLOSURE POUR DECK AND ABUTMENT DIAPHRAGM CONCRETE CAN BE POURED TOGETHER.
4. TOP OF DIAPHRAGM GRADE BREAKS TO ALIGN WITH TOP OF DECK GRADE BREAKS.
5. PLACE A 3'-0" VERTICAL STRIP OF TYPE 2 WATERPROOFING CENTERED ACROSS EACH C.J. FROM THE BOTTOM OF APPROACH SLAB TO THE BOTTOM OF THE DIAPHRAGM.
6. SEE SHEET 41 / 50 FOR DETAILS.

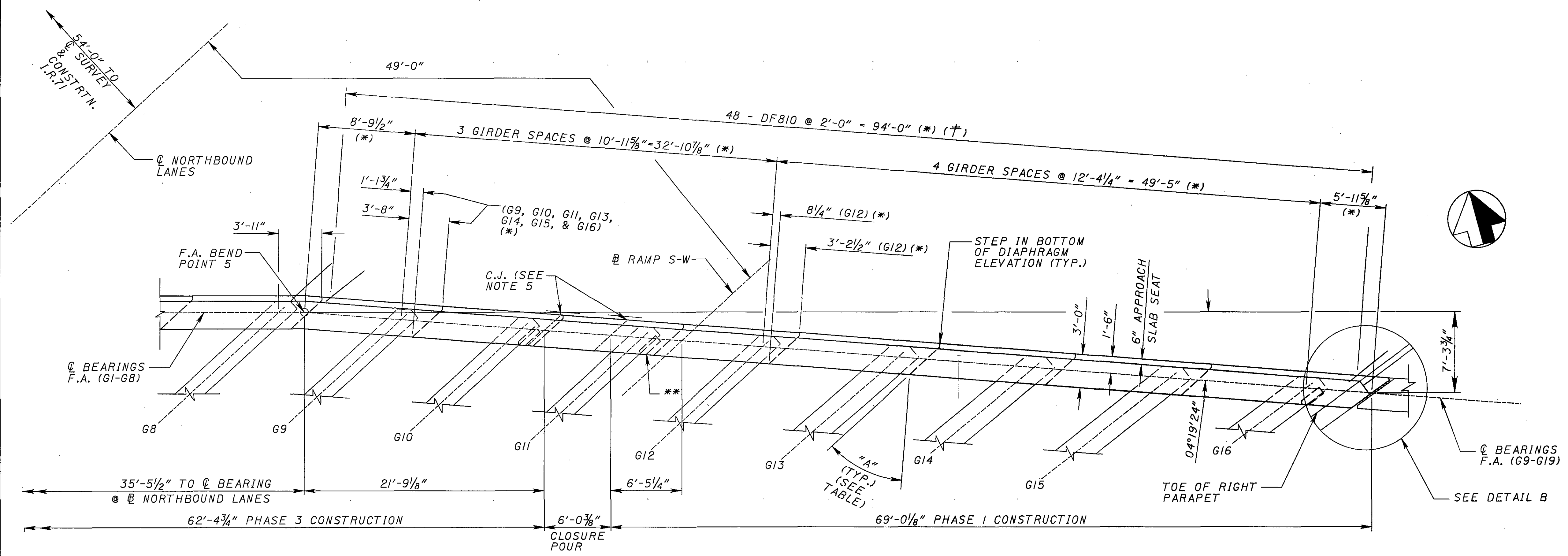
LEGEND:

- (A) - 7-DF501 (TOP & BOTTOM) & 7-DF502 (TOP) @ 1'-6" - 9'-0" (†) (*) (CENTERED BETWEEN GIRDERS G1-G2, G2-G3, G3-G4, G5-G6, G6-G7 & G7-G8)
- (B) - 5-DF501 (TOP & BOTTOM) & 5-DF502 (TOP) @ 1'-6" - 6'-0" (†) (*)
- (C) - 6-DF503 (TOP & BOTTOM) & 6-DF504 (TOP) @ 1'-6" - 7'-6" (†) (*) (CENTERED BETWEEN GIRDERS G8-G9, G9-G10, G11-G12, G12-G13 & G13-G14)
- (F) - 4-DF501 (TOP & BOTTOM) & 4-DF502 (TOP) @ 1'-3" - 3'-9" (†) (*)
- (H) - 3-DF801 (E.F.) (EVENLY SPACED)
- (I) - 4-DF801 (EVENLY SPACED)
- (J) - 3-DF802 (E.F.) (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (K) - 4-DF802 (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (S) - 3-DF806 (N.F.) & 3-DF805 (F.F.) (EVENLY SPACED)
- (T) - 1 S.O. 4-DF807 (EVENLY SPACED)
- (U) - 3-DF808 (E.F.) (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (V) - 4-DF808 (EVENLY SPACED) (CONNECTED TO M.C. @ C.J.)
- (W) - LIMITS OF 3'-0" WIDE NEOPRENE SHEETING

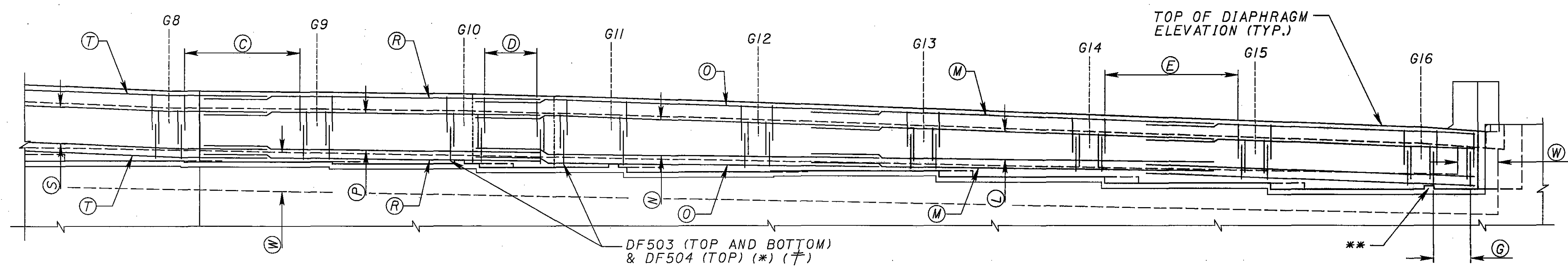
LAYOUT INFORMATION ALONG CENTERLINE OF F.A. BEARINGS

LOCATION	TOP OF DIAPHRAGM ELEVATION	ANGLE "A" TO LINE PERP. ϕ BRGS.
TOE OF LEFT PARAPET	1022.68	47°29'21"
G1	1022.67	
G2	1022.62	
G3	1022.57	
G4	1022.52	
G5	1022.46	
G6	1022.20	
G7	1021.83	
G8	1021.31	

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PARTIAL DIAPHRAGM PLAN 2



PARTIAL DEVELOPED DIAPHRAGM ELEVATION 2

LEGEND:

- (C) - 6-DF503 (TOP & BOTTOM) & 6-DF504 (TOP) @ 1'-6" = 7'-6" (≠) (*) (CENTERED BETWEEN GIRDERS G8-G9, G9-G10, G11-G12, G12-G13 & G13-G14)
- (D) - 4-DF503 (TOP & BOTTOM) & 4-DF504 (TOP) @ 1'-6" = 4'-6" (≠) (*)
- (E) - 6-DF505 (TOP & BOTTOM) & 6-DF506 (TOP) @ 1'-6" = 7'-6" (≠) (*) (CENTERED BETWEEN GIRDERS G14-G15 & G15-G16)
- (G) - 4-DF507 (TOP & BOTTOM) & 4-DF508 (TOP) @ 1'-3" = 3'-9" (≠) (*)
- (L) - 3-DF803 (E.F.) (EVENLY SPACED) (2 LENGTHS)
- (M) - 4-DF803 (EVENLY SPACED) (2 LENGTHS)
- (N) - 3-DF804 (E.F.) (EVENLY SPACED)
- (O) - 4-DF804 (EVENLY SPACED)
- (P) - 3-DF803 (E.F.) (EVENLY SPACED)
- (R) - 4-DF803 (EVENLY SPACED)
- (S) - 3-DF806 (N.F.) & 3-DF805 (F.F.) (EVENLY SPACED)
- (T) - 1 S.O. 4-DF807 (EVENLY SPACED)
- (W) - LIMITS OF 3'-0" WIDE NEOPRENE SHEETING

NOTES:

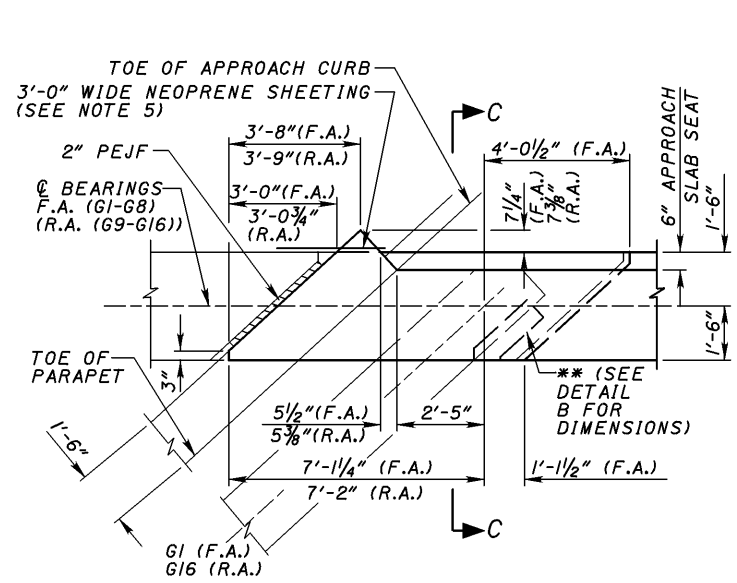
1. SEE SHEET 39 / 50 FOR NOTES AND ADDITIONAL LEGEND INFORMATION.
2. SEE SHEET 41 / 50 FOR DETAILS.

LAYOUT INFORMATION ALONG CENTERLINE OF F.A. BEARINGS

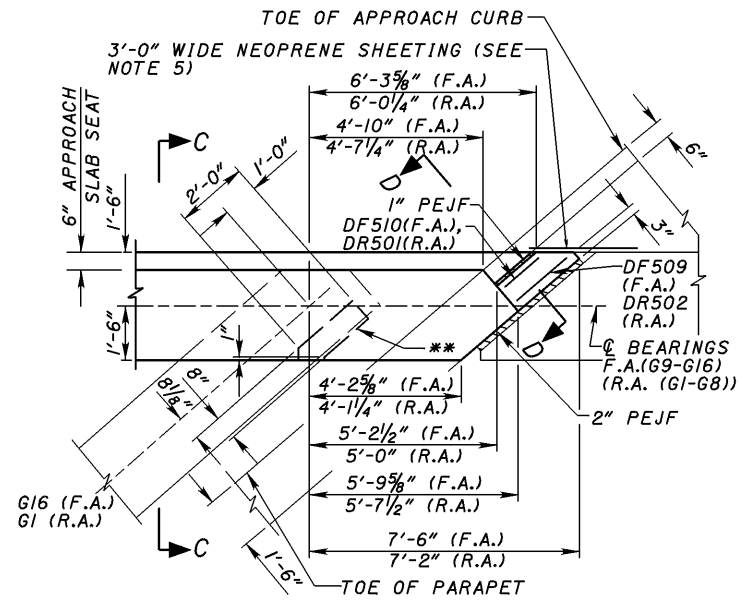
LOCATION	TOP OF DIAPHRAGM ELEVATION	ANGLE "A" TO LINE PERP. Q BRGS.
G9	1021.21	43°09'57"
G10	1021.07	
G11	1020.77	
G12	1020.40	44°39'55"
G13	1019.95	
G14	1019.49	
G15	1019.03	
G16	1018.56	48°44'09"
TOE OF RIGHT PARAPET	1018.42	49°22'59"

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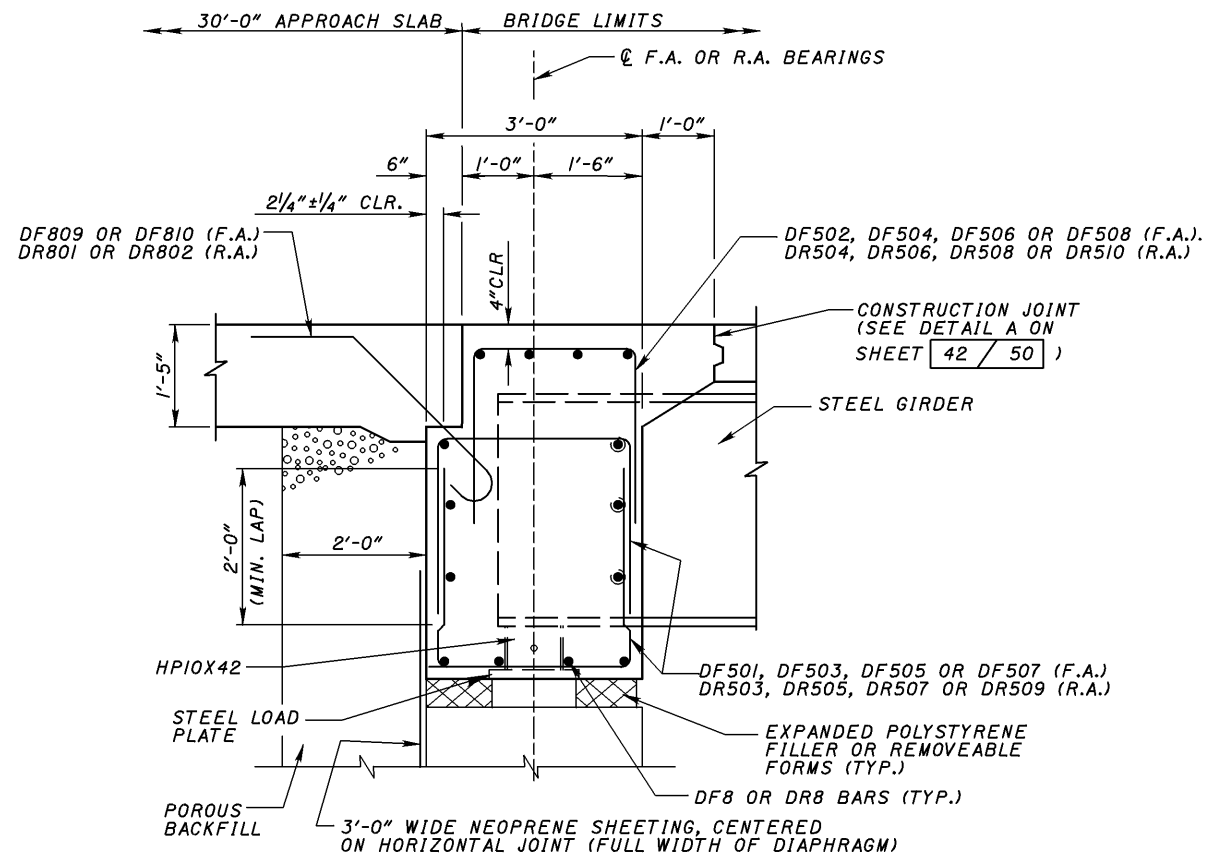
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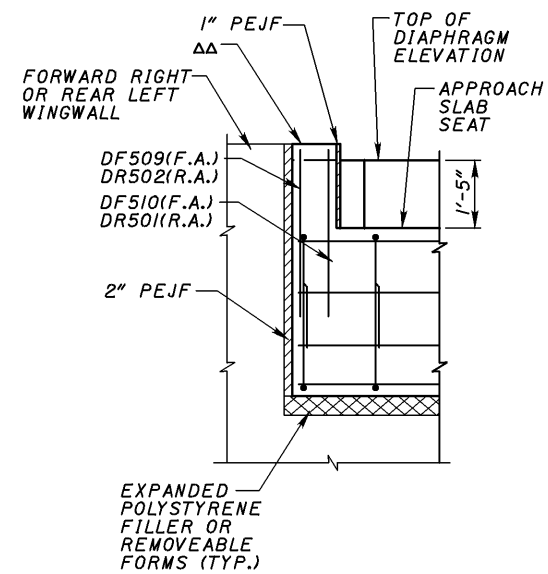
DETAIL A
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR AS MARKED)



DETAIL B
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR AS MARKED)



SECTION C-C



SECTION D-D

NOTE:
SEE SHEET 39 / 50 FOR NOTES AND LEGEND.

BURGESS & NIPLE	
DATE	11/04
REVIEWED	RWK
STRUCTURE FILE NUMBER	5202817
DESIGNED	MAK
CHECKED	JHL
REVISION	8/8/06
ABUTMENT DIAPHRAGM DETAILS BRIDGE NO. MED-71-0729 R OVER EXISTING CH 97 (GREENWICH RD)	
MED-71-6.06 PID-75657	
41 / 50	
767 1120	

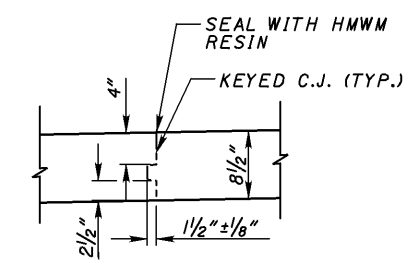
NOTES:

1. ALL HORIZONTAL DIMENSIONS MEASURED PERPENDICULAR TO CL NB LANES UNLESS NOTED OTHERWISE.
2. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 1/4" FOR GIRDERS 1-12 AND 4 1/4" FOR GIRDERS 13-16 AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER IS ± 3 INCHES.

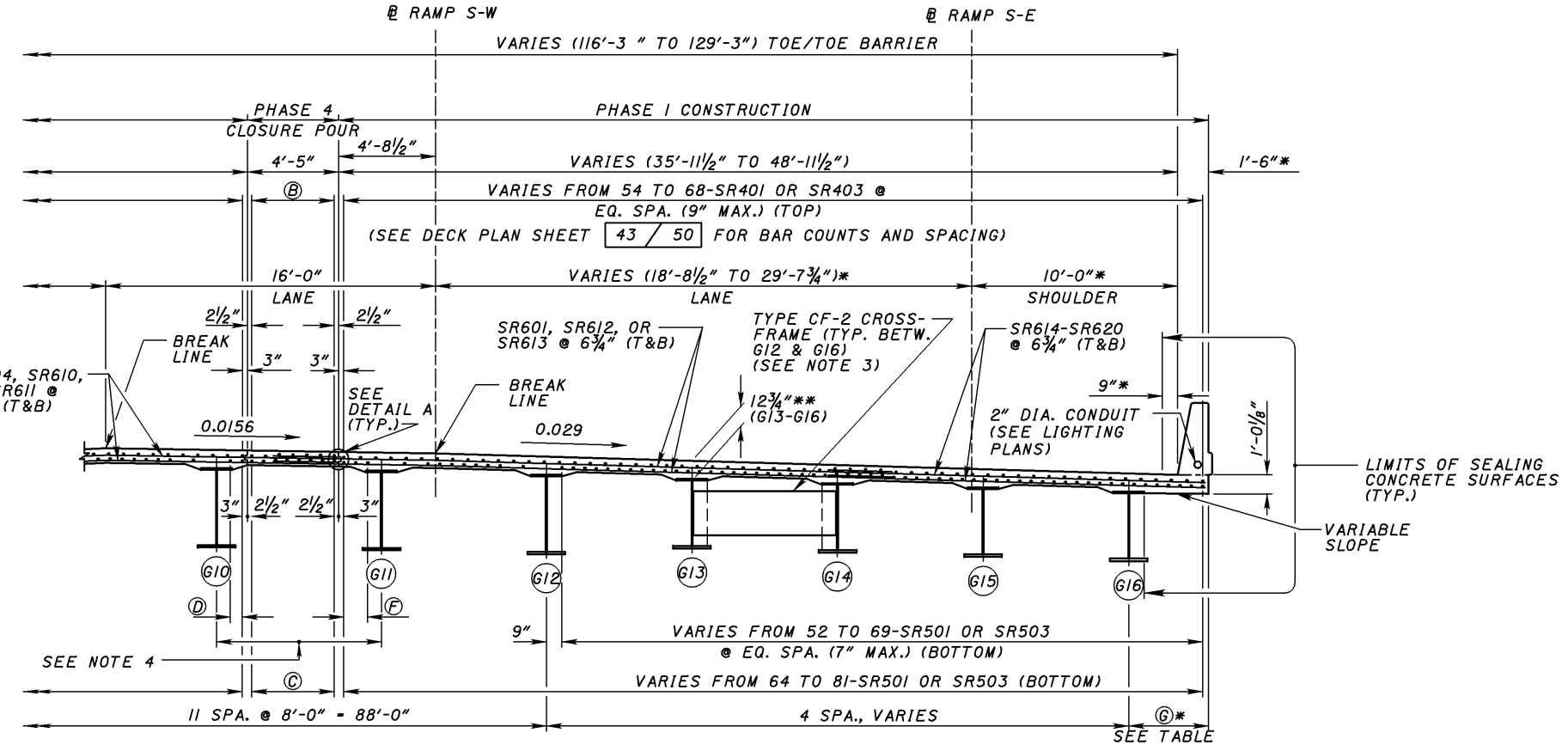
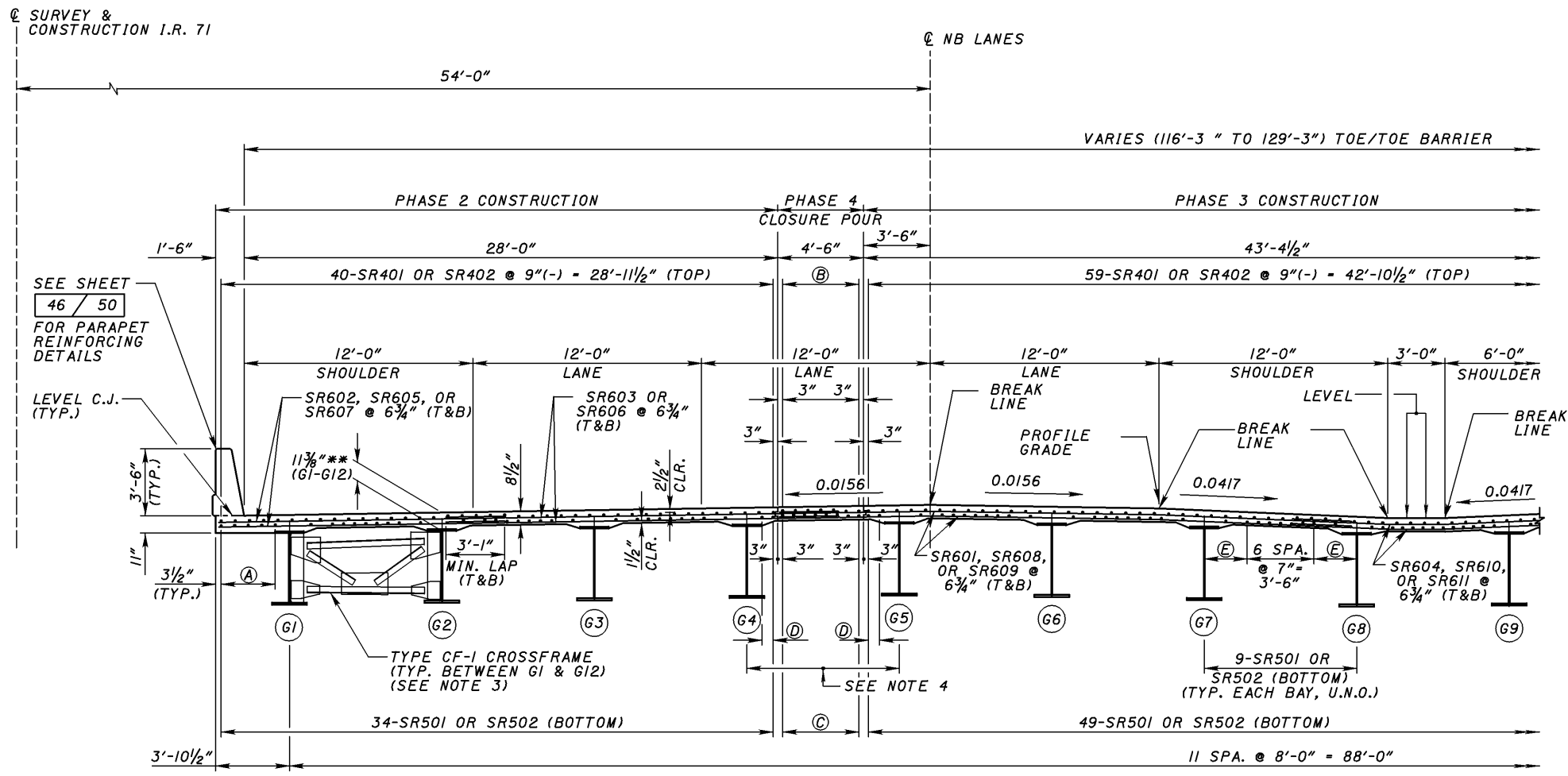
THE HAUNCH THICKNESS WAS MEASURED AT THE CL OF THE GIRDER FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
3. FOR CROSSFRAME AND STIFFENER DETAILS, SEE SHEET 35 / 50.
4. DO NOT INSTALL INTERMEDIATE CROSSFRAMES IN THIS BAY UNTIL AFTER PHASE 3 DECK CONCRETE HAS BEEN PLACED.
5. THE DECK SLAB CONCRETE SHALL BE PLACED AND SCREEDED ALONG THE SKEW.

LEGEND:

- CLR. - CLEAR
 - G - GIRDER NUMBER
 - SPA. - SPACES
 - T&B - TOP AND BOTTOM
 - U.N.O. - UNLESS NOTED OTHERWISE
 - * - MEASURED PERPENDICULAR TO CL RAMP S-E
 - ** - MEASURED FROM TOP OF DECK TO BOTTOM OF TOP FLANGE
- (A) - 5-SR501 OR SR502 @ 8 1/2" - 2'-10" (BOTTOM)
 - (B) - 7-SR401 OR SR402 @ 8" - 4'-0" (TOP)
 - (C) - 8-SR501 OR SR502 @ 7"(-) - 4'-0" (BOTTOM)
 - (D) - 2-SR501 OR SR502 @ 7" (BOTTOM)
 - (E) - 2 SPACES @ 1'-1 1/2" - 2'-3" (BOTTOM)
 - (F) - 3-SR501 OR SR502 @ 7" - 1'-2" (BOTTOM)



LOCATION	CL *
CL R.A.	3'-10 1/4"
1/8 SPAN	3'-8 3/8"
1/4 SPAN	3'-7"
3/8 SPAN	3'-6 1/4"
MIDSPAN	3'-6"
5/8 SPAN	3'-6 1/4"
3/4 SPAN	3'-7 1/8"
7/8 SPAN	3'-8 1/2"
CL F.A.	3'-10 1/2"



TYPICAL SECTION

CL SURVEY & CONSTRUCTION I.R. 71

CL NB LANES

SEE SHEET 46 / 50 FOR PARAPET REINFORCING DETAILS

LEVEL C.J. (TYP.)

TYPE CF-1 CROSSFRAME (TYP. BETWEEN G1 & G12) (SEE NOTE 3)

SEE NOTE 4

CL RAMP S-W

CL RAMP S-E

PHASE 4 CLOSURE POUR

PHASE 1 CONSTRUCTION

SR604, SR610, OR SR611 @ 6 3/4" (T&B)

SR601, SR612, OR SR613 @ 6 3/4" (T&B)

TYPE CF-2 CROSSFRAME (TYP. BETW. G12 & G16) (SEE NOTE 3)

SR614-SR620 @ 6 3/4" (T&B)

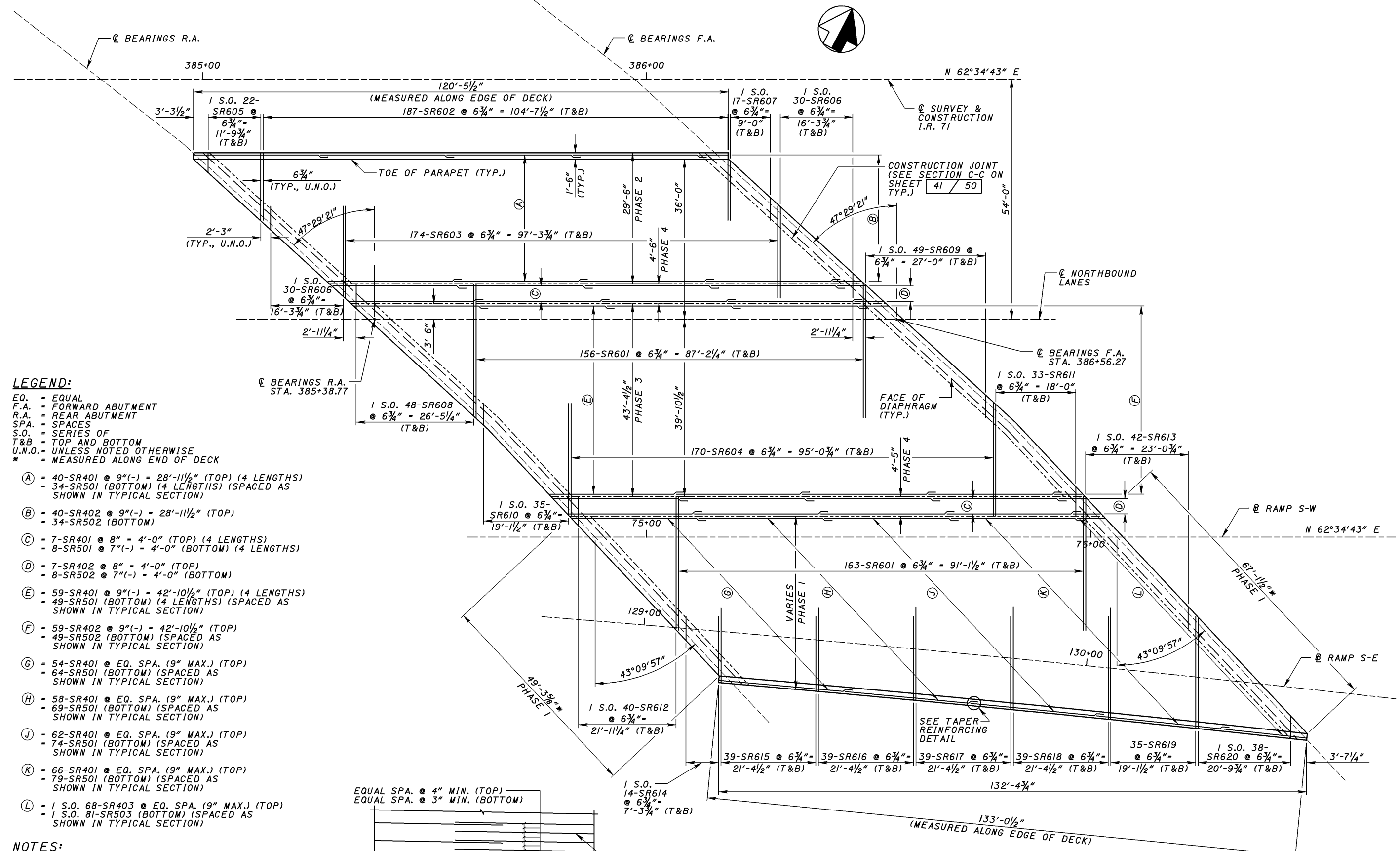
LIMITS OF SEALING CONCRETE SURFACES (TYP.)

VARIABLE SLOPE

SEE NOTE 4

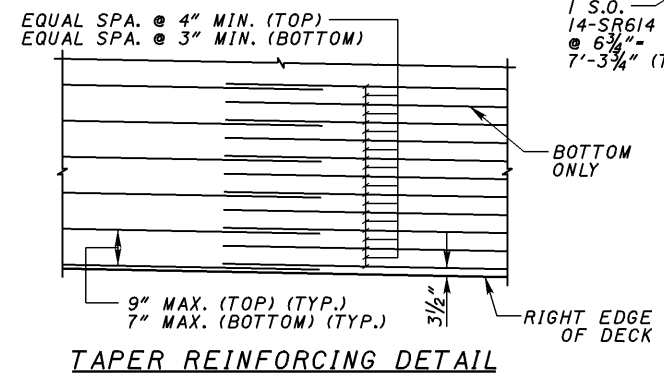
SEE TABLE

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- LEGEND:**
- EQ. - EQUAL
 - F.A. - FORWARD ABUTMENT
 - R.A. - REAR ABUTMENT
 - SPA. - SPACES
 - S.O. - SERIES OF
 - T&B - TOP AND BOTTOM
 - U.N.O. - UNLESS NOTED OTHERWISE
 - * - MEASURED ALONG END OF DECK
- (A) - 40-SR401 @ 9"(-) = 28'-11 1/2" (TOP) (4 LENGTHS)
- 34-SR501 (BOTTOM) (4 LENGTHS) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (B) - 40-SR402 @ 9"(-) = 28'-11 1/2" (TOP)
- 34-SR502 (BOTTOM)
 - (C) - 7-SR401 @ 8" = 4'-0" (TOP) (4 LENGTHS)
- 8-SR501 @ 7"(-) = 4'-0" (BOTTOM) (4 LENGTHS)
 - (D) - 7-SR402 @ 8" = 4'-0" (TOP)
- 8-SR502 @ 7"(-) = 4'-0" (BOTTOM)
 - (E) - 59-SR401 @ 9"(-) = 42'-10 1/2" (TOP) (4 LENGTHS)
- 49-SR501 (BOTTOM) (4 LENGTHS) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (F) - 59-SR402 @ 9"(-) = 42'-10 1/2" (TOP)
- 49-SR502 (BOTTOM) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (G) - 54-SR401 @ EQ. SPA. (9" MAX.) (TOP)
- 64-SR501 (BOTTOM) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (H) - 58-SR401 @ EQ. SPA. (9" MAX.) (TOP)
- 69-SR501 (BOTTOM) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (J) - 62-SR401 @ EQ. SPA. (9" MAX.) (TOP)
- 74-SR501 (BOTTOM) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (K) - 66-SR401 @ EQ. SPA. (9" MAX.) (TOP)
- 79-SR501 (BOTTOM) (SPACED AS SHOWN IN TYPICAL SECTION)
 - (L) - 1 S.O. 68-SR403 @ EQ. SPA. (9" MAX.) (TOP)
- 1 S.O. 81-SR503 (BOTTOM) (SPACED AS SHOWN IN TYPICAL SECTION)

- NOTES:**
1. PLACE TRANSVERSE BARS PERPENDICULAR TO \hat{C} NORTHBOUND LANES.
 2. ALL DIMENSIONS ARE MEASURED PERPENDICULAR OR PARALLEL TO \hat{C} NORTHBOUND LANES UNLESS NOTED OTHERWISE.
 3. SEE SHEET 46/50 FOR PARAPET REINFORCING.
 4. MINIMUM STEEL LAP LENGTHS:
#4 BAR - 1'-7"
#5 BAR - 2'-7"
#6 BAR - 3'-1"

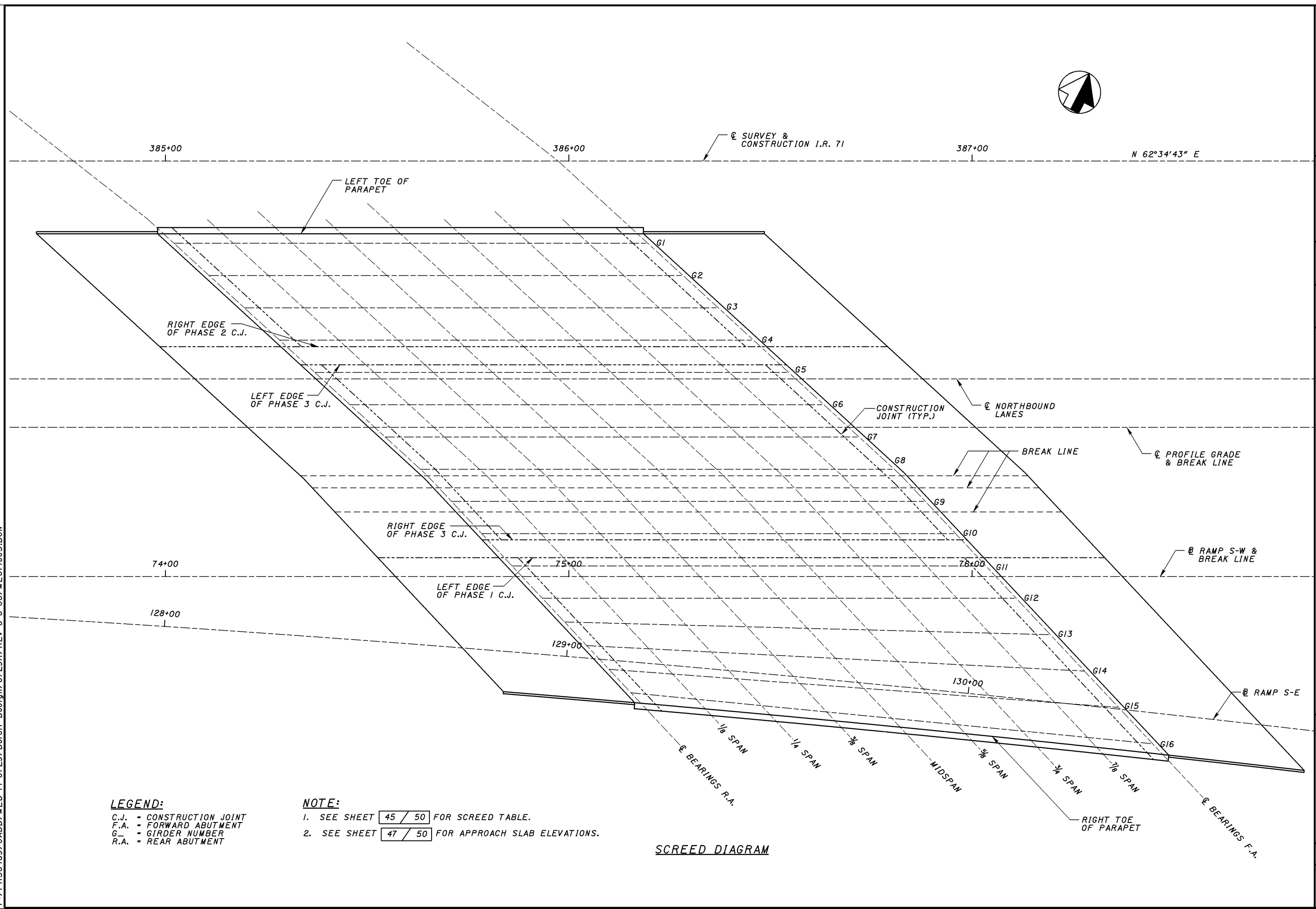


DECK PLAN
(PARAPET REINFORCING NOT SHOWN FOR CLARITY)

DATE	11/04
REVIEWED	RWK
STRUCTURE FILE NUMBER	5202817
DESIGNED	TTK
CHECKED	JHL
DRAWN	TTK
REVISED	8/8/06

SCREED DIAGRAM
 BRIDGE NO. MED-71-0729 R
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID-75657



LEGEND:
 C.J. = CONSTRUCTION JOINT
 F.A. = FORWARD ABUTMENT
 G_ = GIRDER NUMBER
 R.A. = REAR ABUTMENT

NOTE:
 1. SEE SHEET 45 / 50 FOR SCREED TABLE.
 2. SEE SHEET 47 / 50 FOR APPROACH SLAB ELEVATIONS.

SCREED DIAGRAM

P:/PR30489/CADD/MED-71-0729/Detail Design/0729R/REV-8-8-06/ME071sd3.DGN

SCREED TABLE

LOCATION	LEFT TOE OF PARAPET		G1		G2		G3		G4		RIGHT EDGE OF PHASE 2 C.J.		LEFT EDGE OF PHASE 3 C.J.		G5		@ NB LANES	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
☉ BEARINGS R.A.	384+99.50	1024.73	385+02.09	1024.72	385+10.82	1024.71	385+19.54	1024.70	385+28.27	1024.68	385+30.04	1024.68	385+34.95	1024.67	385+37.00	1024.66	385+38.77	1024.66
1/8 SPAN	385+14.18	1024.66	385+16.78	1024.69	385+25.50	1024.66	385+34.23	1024.63	385+42.96	1024.57	385+44.73	1024.57	385+49.64	1024.53	385+51.68	1024.55	385+53.46	1024.55
1/4 SPAN	385+28.87	1024.59	385+31.46	1024.61	385+40.19	1024.56	385+48.92	1024.53	385+57.64	1024.42	385+59.42	1024.42	385+64.33	1024.39	385+66.37	1024.40	385+68.14	1024.40
3/8 SPAN	385+43.56	1024.46	385+46.15	1024.47	385+54.88	1024.40	385+63.60	1024.36	385+72.33	1024.22	385+74.10	1024.22	385+79.01	1024.20	385+81.06	1024.20	385+82.83	1024.21
MIDSPAN	385+58.25	1024.26	385+60.84	1024.26	385+69.57	1024.18	385+78.29	1024.14	385+87.02	1023.98	385+88.79	1023.97	385+93.70	1023.96	385+95.75	1023.96	385+97.52	1023.96
5/8 SPAN	385+72.93	1023.97	385+75.53	1023.96	385+84.25	1023.88	385+92.98	1023.83	386+01.71	1023.68	386+03.48	1023.67	386+08.39	1023.66	386+10.43	1023.65	386+12.21	1023.66
3/4 SPAN	385+87.62	1023.61	385+90.21	1023.59	385+98.94	1023.51	386+07.67	1023.46	386+16.39	1023.33	386+18.17	1023.31	386+23.08	1023.32	386+25.12	1023.30	386+26.89	1023.30
7/8 SPAN	386+02.31	1023.19	386+04.90	1023.15	386+13.63	1023.09	386+22.35	1023.04	386+31.08	1022.94	386+32.85	1022.92	386+37.76	1022.92	386+39.81	1022.90	386+41.58	1022.89
☉ BEARINGS F.A.	386+17.00	1022.68	386+19.59	1022.67	386+28.32	1022.62	386+37.04	1022.57	386+45.77	1022.52	386+47.54	1022.51	386+52.45	1022.48	386+54.50	1022.46	386+56.27	1022.45

SCREED TABLE (CONT'D)

LOCATION	G6		PROFILE GRADE		G7		G8		BREAK LINE		BREAK LINE		G9		BREAK LINE		G10	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
☉ BEARINGS R.A.	385+45.72	1024.44	385+51.86	1024.25	385+54.45	1024.11	385+63.18	1023.62	385+64.95	1023.52	385+67.76	1023.47	385+70.93	1023.56	385+73.39	1023.62	385+78.43	1023.45
1/8 SPAN	385+60.41	1024.36	385+66.55	1024.16	385+69.14	1024.01	385+77.87	1023.52	385+79.64	1023.42	385+82.45	1023.37	385+85.62	1023.46	385+88.08	1023.51	385+93.12	1023.30
1/4 SPAN	385+75.10	1024.23	385+81.24	1024.02	385+83.83	1023.88	385+92.55	1023.38	385+94.32	1023.28	385+97.14	1023.23	386+00.30	1023.31	386+02.77	1023.35	386+07.81	1023.13
3/8 SPAN	385+89.79	1024.04	385+95.92	1023.84	385+98.51	1023.69	386+07.24	1023.19	386+09.01	1023.09	386+11.82	1023.04	386+14.99	1023.12	386+17.45	1023.15	386+22.49	1022.90
MIDSPAN	386+04.47	1023.80	386+10.61	1023.59	386+13.20	1023.44	386+21.93	1022.93	386+23.70	1022.83	386+26.51	1022.78	386+29.68	1022.86	386+32.14	1022.89	386+37.18	1022.63
5/8 SPAN	386+19.16	1023.48	386+25.30	1023.27	386+27.89	1023.12	386+36.62	1022.61	386+38.38	1022.51	386+41.20	1022.45	386+44.36	1022.53	386+46.83	1022.56	386+51.87	1022.31
3/4 SPAN	386+33.85	1023.11	386+39.99	1022.89	386+42.58	1022.74	386+51.30	1022.22	386+53.07	1022.12	386+55.88	1022.06	386+59.05	1022.14	386+61.51	1022.17	386+66.55	1021.93
7/8 SPAN	386+48.54	1022.67	386+54.67	1022.46	386+57.26	1022.30	386+65.99	1021.78	386+67.76	1021.68	386+70.57	1021.62	386+73.74	1021.69	386+76.20	1021.74	386+81.24	1021.52
☉ BEARINGS F.A.	386+63.22	1022.20	386+69.36	1021.99	386+71.95	1021.83	386+80.68	1021.31	386+82.44	1021.20	386+85.26	1021.14	386+88.42	1021.21	386+90.89	1021.26	386+95.93	1021.07

SCREED TABLE (CONT'D)

LOCATION	RIGHT EDGE OF PHASE 3 C.J.		LEFT EDGE OF PHASE 1 C.J.		G11		@ RAMP S-W		G12		G13		G14		G15		G16	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
☉ BEARINGS R.A.	385+79.84	1023.40	385+83.98	1023.26	385+85.94	1023.19	385+88.40	1023.10	385+93.44	1022.85	385+98.94	1022.58	386+04.43	1022.31	386+09.92	1022.03	386+15.42	1021.75
1/8 SPAN	385+94.53	1023.26	385+98.67	1023.10	386+00.62	1023.05	386+03.09	1022.97	386+08.13	1022.73	386+13.99	1022.42	386+19.86	1022.14	386+25.72	1021.86	386+31.58	1021.62
1/4 SPAN	386+09.21	1023.08	386+13.36	1022.93	386+15.31	1022.87	386+17.77	1022.80	386+22.81	1022.57	386+29.05	1022.22	386+35.28	1021.93	386+41.51	1021.64	386+47.75	1021.42
3/8 SPAN	386+23.90	1022.86	386+28.04	1022.72	386+30.00	1022.65	386+32.46	1022.58	386+37.50	1022.36	386+44.10	1021.98	386+50.71	1021.67	386+57.31	1021.35	386+63.91	1021.14
MIDSPAN	386+38.59	1022.58	386+42.73	1022.45	386+44.68	1022.38	386+47.15	1022.31	386+52.19	1022.09	386+59.16	1021.68	386+66.13	1021.35	386+73.11	1021.01	386+80.08	1020.78
5/8 SPAN	386+53.27	1022.25	386+57.42	1022.13	386+59.37	1022.05	386+61.83	1021.98	386+66.87	1021.75	386+74.22	1021.32	386+81.56	1020.97	386+88.90	1020.60	386+96.24	1020.34
3/4 SPAN	386+67.96	1021.87	386+72.10	1021.75	386+74.06	1021.67	386+76.52	1021.59	386+81.56	1021.35	386+89.27	1020.91	386+96.99	1020.53	387+04.70	1020.14	387+12.41	1019.82
7/8 SPAN	386+82.65	1021.45	386+86.79	1021.33	386+88.74	1021.24	386+91.21	1021.15	386+96.25	1020.90	387+04.33	1020.45	387+12.41	1020.03	387+20.49	1019.61	387+28.58	1019.23
☉ BEARINGS F.A.	386+97.33	1021.01	387+01.48	1020.85	387+03.43	1020.77	387+05.89	1020.68	387+10.93	1020.40	387+19.39	1019.95	387+27.84	1019.49	387+36.29	1019.03	387+44.74	1018.56

SCREED TABLE (CONT'D)

LOCATION	RIGHT TOE OF PARAPET	
	STATION	ELEV.
☉ BEARINGS R.A.	386+17.83	1021.63
1/8 SPAN	386+33.84	1021.53
1/4 SPAN	386+49.90	1021.32
3/8 SPAN	386+66.00	1021.03
MIDSPAN	386+82.15	1020.67
5/8 SPAN	386+98.35	1020.21
3/4 SPAN	387+14.60	1019.68
7/8 SPAN	387+30.90	1019.07
☉ BEARINGS F.A.	387+47.24	1018.42

LEGEND:

- C.J. = CONSTRUCTION JOINT
- F.A. = FORWARD ABUTMENT
- G = GIRDER NUMBER
- R.A. = REAR ABUTMENT

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.
2. SEE SHEET 44 / 50 FOR SCREED DIAGRAM.

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BURGESS & NIPLÉ
5085 Reed Road
Channahon, IL 61020

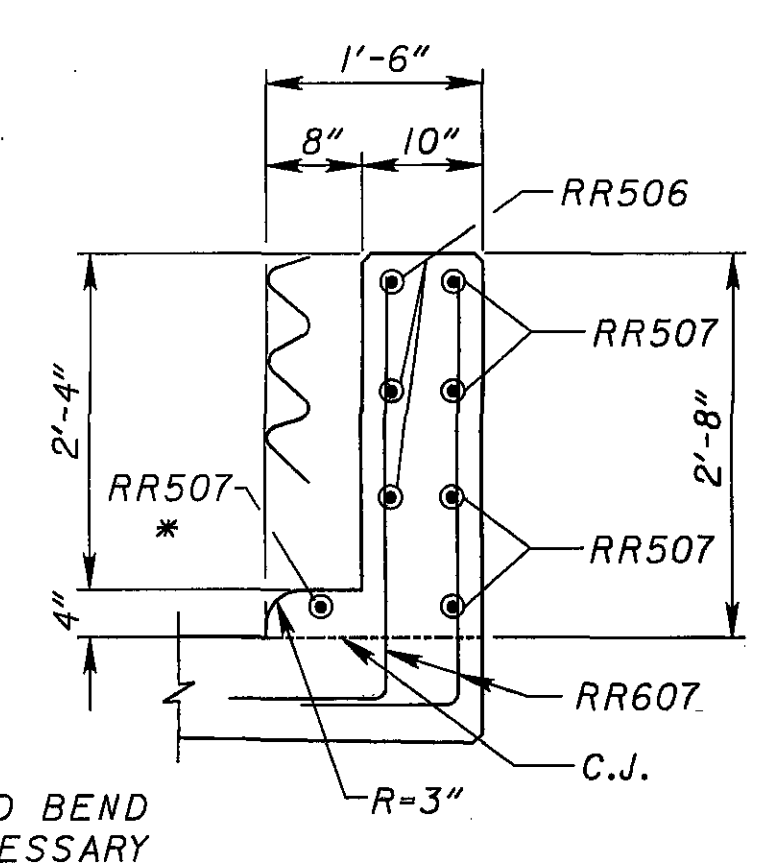
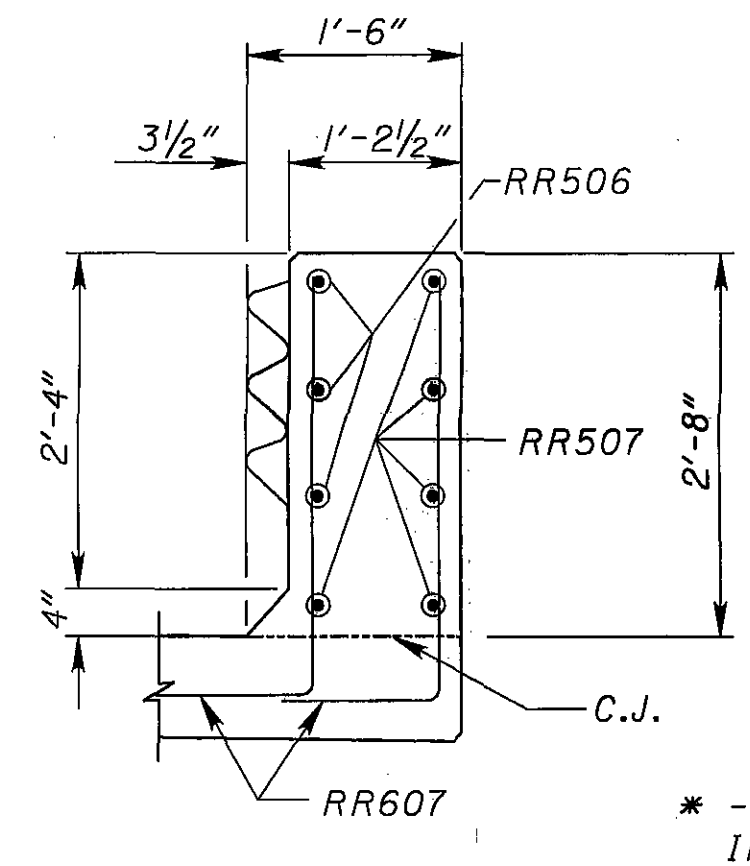
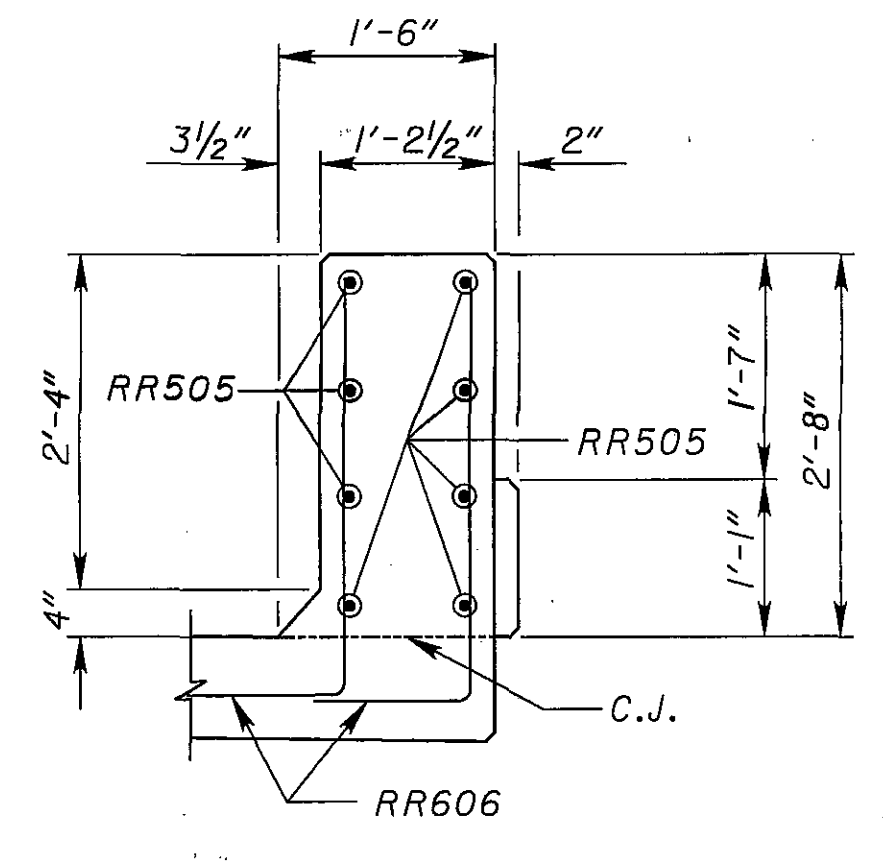
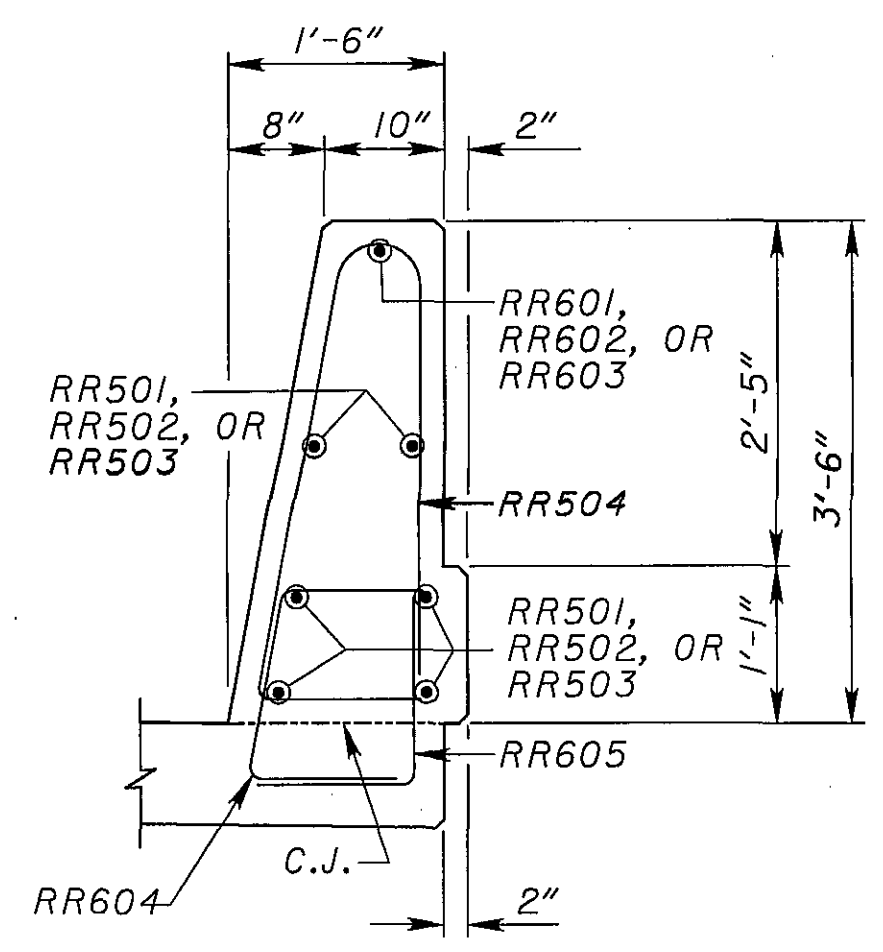
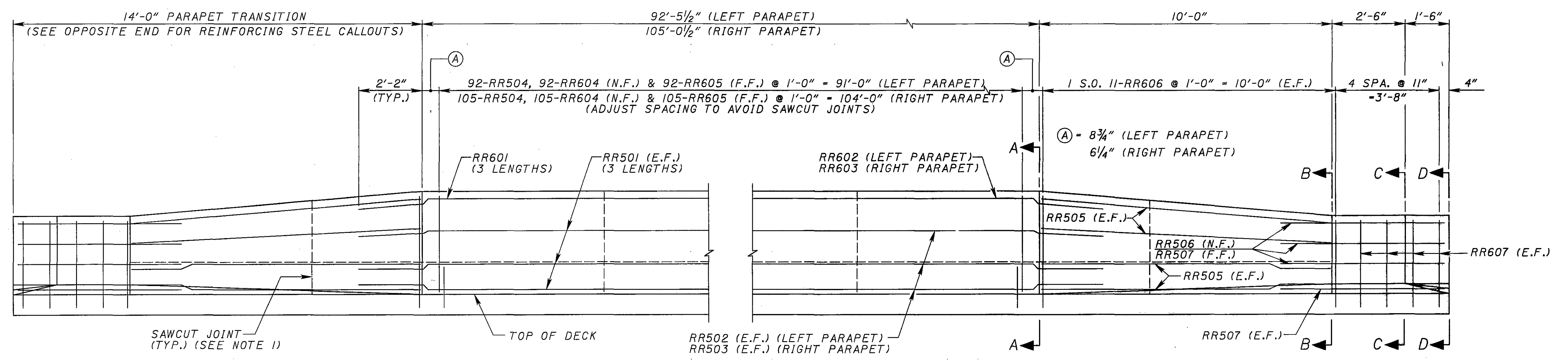
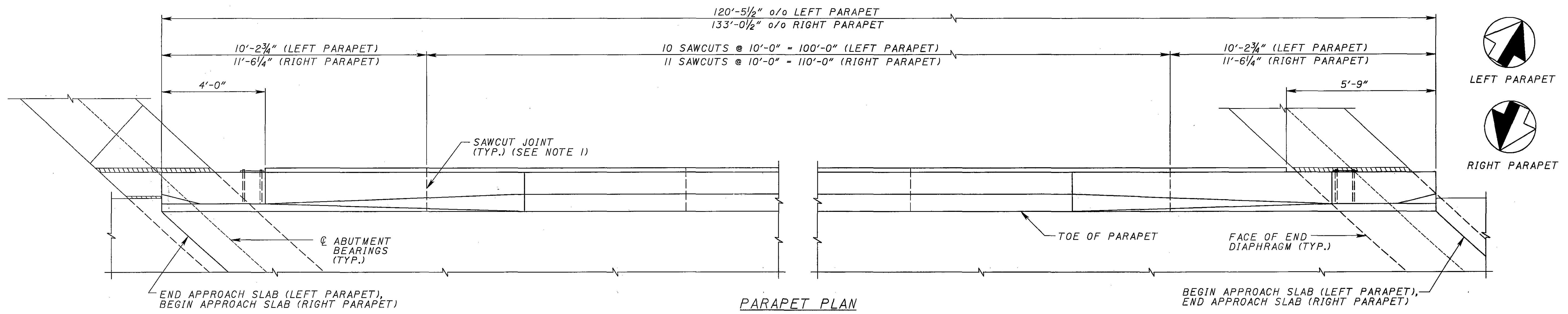
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REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DESIGNED	JHL
CHECKED	MAK
DRAWN	CRC
REVISOR	8/8/06

SCREED TABLE
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

45 / 50

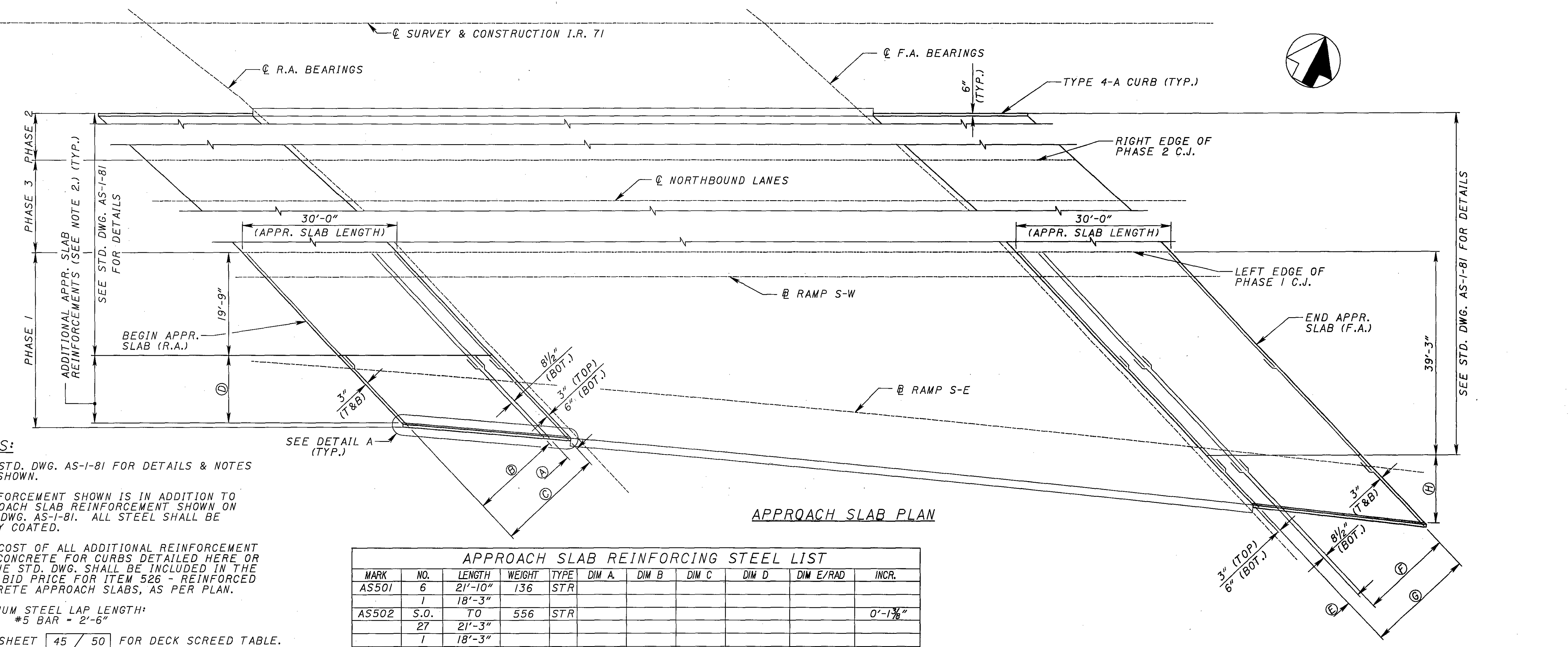
771
1120



- NOTES:
- SEE STANDARD DRAWING SBR-1-99 FOR ADDITIONAL NOTES AND DETAILS.
 - MINIMUM STEEL LAP LENGTHS:
#5 BAR = 2'-0"
#6 BAR = 3'-4"
 - RIGHT PARAPET DIMENSION IS MEASURED ON CURVE ALONG BACK FACE OF BARRIER.

- LEGEND:
- C.J. = CONSTRUCTION JOINT
 - E.F. = EACH FACE
 - F.F. = FAR FACE
 - N.F. = NEAR FACE
 - S.O. = SERIES OF

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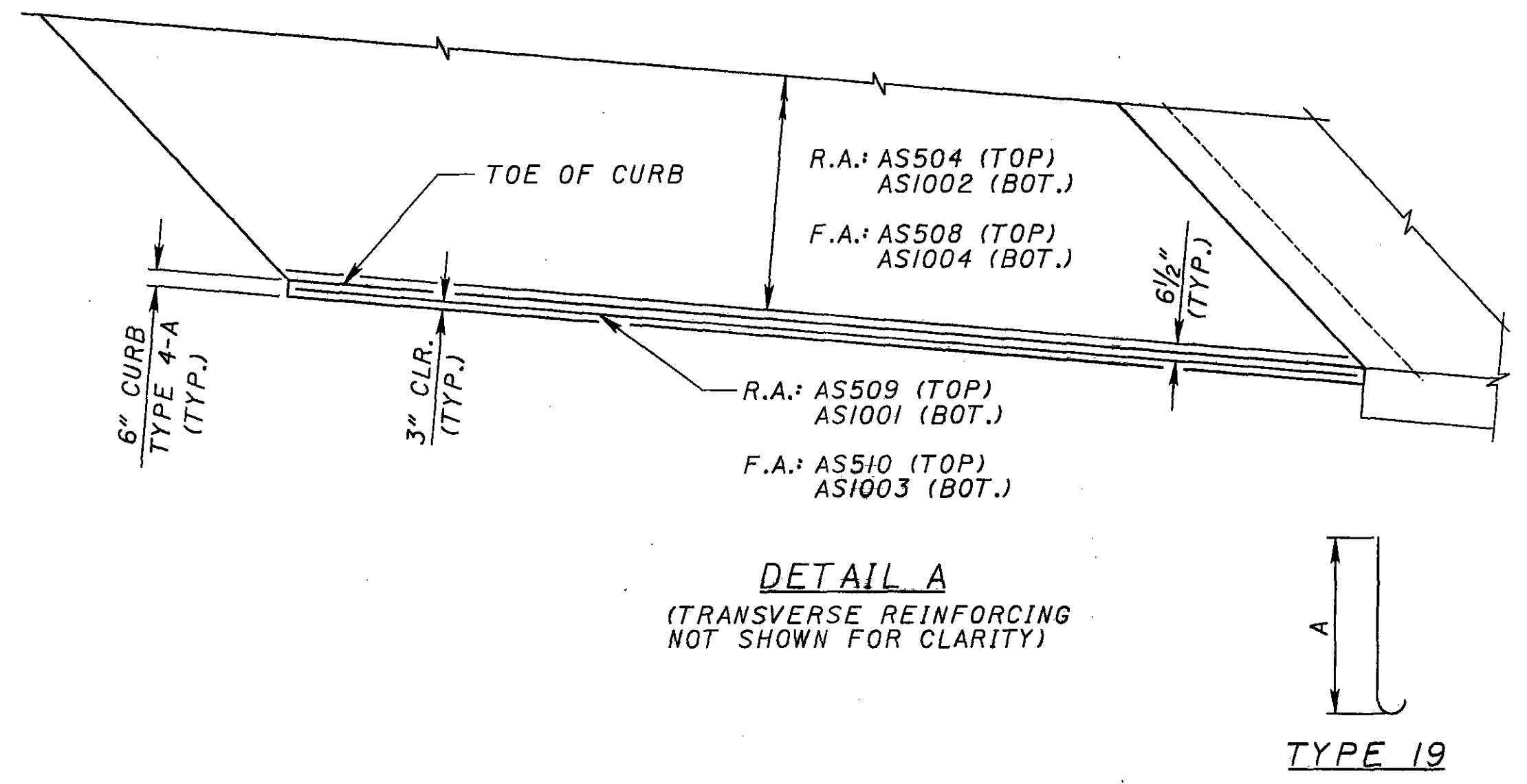


- NOTES:**
- SEE STD. DWG. AS-I-81 FOR DETAILS & NOTES NOT SHOWN.
 - REINFORCEMENT SHOWN IS IN ADDITION TO APPROACH SLAB REINFORCEMENT SHOWN ON STD. DWG. AS-I-81. ALL STEEL SHALL BE EPOXY COATED.
 - THE COST OF ALL ADDITIONAL REINFORCEMENT AND CONCRETE FOR CURBS DETAILED HERE OR IN THE STD. DWG. SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 526 - REINFORCED CONCRETE APPROACH SLABS, AS PER PLAN.
 - MINIMUM STEEL LAP LENGTH:
#5 BAR = 2'-6"
 - SEE SHEET 45 / 50 FOR DECK SCREED TABLE.

- LEGEND:**
- APPR. = APPROACH
BOT. = BOTTOM
CLR. = CLEAR
C.J. = CONSTRUCTION JOINT
EQ. = EQUAL
F.A. = FORWARD ABUTMENT
R.A. = REAR ABUTMENT
SPA. = SPACES
S.O. = SERIES OF
T&B = TOP AND BOTTOM
- (A) - 6-AS501 @ 6" = 2'-6" (BOT.)
 - (B) - 1 S.O. 27-AS502 @ 8 1/2" (-) = 17'-11" (BOT.)
 - (C) - 1 S.O. 16-AS503 @ 1'-6" (-) = 21'-4 1/2" (TOP)
 - (D) - FAN 1 S.O. 12-AS504 @ EQ. SPA. (1'-6" MAX.) (TOP)
FAN 1 S.O. 31-AS1002 @ EQ. SPA. (6 1/2" MAX.) (BOT.)
 - (E) - 6-AS505 @ 6" = 2'-6" (BOT.)
 - (F) - 1 S.O. 27-AS506 @ 8 1/2" (-) = 17'-11" (BOT.)
 - (G) - 1 S.O. 16-AS507 @ 1'-6" (-) = 21'-4 1/2" (TOP)
 - (H) - FAN 1 S.O. 10-AS508 @ EQ. SPA. (1'-6" MAX.) (TOP)
FAN 1 S.O. 26-AS1004 @ EQ. SPA. (6 1/2" MAX.) (BOT.)

APPROACH SLAB REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
AS501	6	21'-10"	136	STR						
	1	18'-3"								
AS502	S.O.	TO	556	STR						0'-1 1/8"
	27	21'-3"								
	1	18'-3"								
AS503	S.O.	TO	334	STR						0'-2 3/4"
	16.	21'-10"								
	1	29'-6"								
AS504	S.O.	TO	385	STR						0'-2 1/8"
	12	32'-2"								
AS505	6	12'-11"	80	STR						
	1	13'-1"								
AS506	S.O.	TO	428	STR						0'-1 1/8"
	27	17'-4"								
	1	12'-4"								
AS507	S.O.	TO	247	STR						0'-4"
	16	17'-4"								
	1	29'-6"								
AS508	S.O.	TO	327	STR						0'-5"
	10	33'-3"								
AS509	1	32'-2"	33	STR						
AS510	1	33'-3"	34	STR						
AS1001	1	33'-7"	144	19	32'-2"					
	1	30'-11"			29'-6"					
AS1002	S.O.	TO	4301	19	TO					0'-1"
	31	33'-7"			32'-2"					
AS1003	1	34'-8"	149	19	33'-3"					
	1	30'-11"			29'-6"					
AS1004	S.O.	TO	3668	19	TO					0'-1 3/4"
	26	34'-8"			33'-3"					



TYPE 19

APPROACH SLAB ELEVATIONS

LOCATION	LEFT TOE OF CURB		RIGHT EDGE OF PHASE 2 C.J.		Q NB LANES		PROFILE GRADE		BREAK LINE		BREAK LINE		BREAK LINE		LEFT EDGE OF PHASE 1 C.J.		RAMP S-W		RIGHT TOE OF CURB	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
BEGIN APPR. SLAB (R.A.)	384+68.02	1025.21	384+98.56	1025.18	385+07.29	1025.17	385+20.38	1024.77	385+33.47	1024.06	385+36.39	1024.01	385+42.02	1024.17	385+52.61	1023.81	385+57.03	1023.66	385+83.79	1022.36
END APPR. SLAB (F.A.)	386+48.48	1022.05	386+79.02	1021.84	386+87.75	1021.77	387+00.84	1021.29	387+13.82	1020.49	387+16.63	1020.43	387+22.26	1020.55	387+32.85	1020.12	387+37.26	1019.94	387+82.32	1017.43

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DECK REINFORCING STEEL LIST

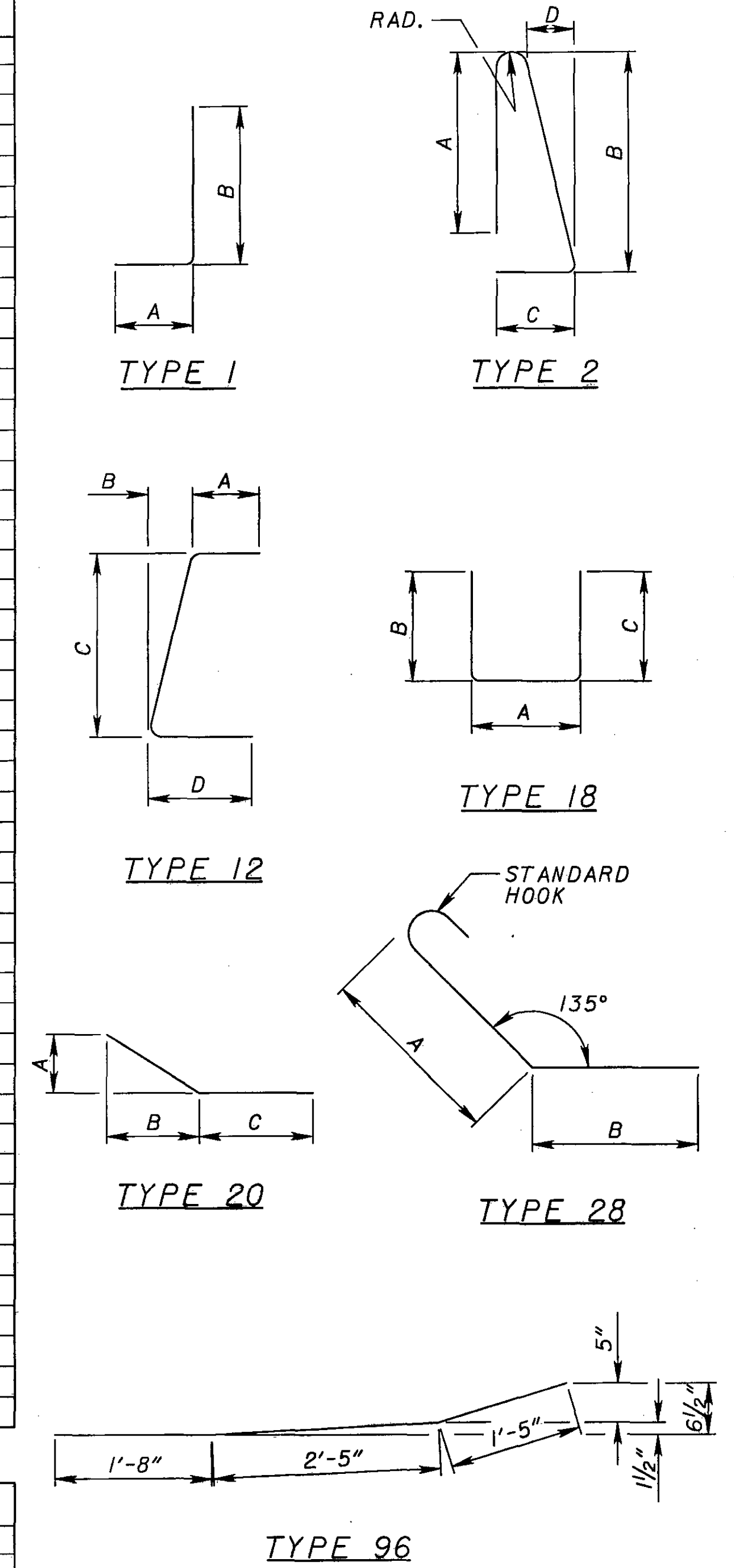
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SR401	692	30'-0"	13867	STR						
SR402	113	6'-6"	490	STR						
SR403	S.O.	T0	581	STR						0'-2 1/4"
	68	19'-1"								
SR501	682	30'-0"	21339	STR						
SR502	99	10'-6"	1084	STR						
	1	10'-6"								
SR503	S.O.	T0	1418	STR						0'-1 7/8"
	81	23'-1"								
SR601	638	30'-0"	28748	STR						
SR602	374	15'-0"	8426	STR						
SR603	348	20'-7"	10758	STR						
SR604	340	9'-8"	4936	STR						
	2	4'-1"								
SR605	S.O.	T0	633	STR						0'-6 1/8"
	22	14'-11"								
	4	5'-3"								
SR606	S.O.	T0	2305	STR						0'-6 1/8"
	30	20'-3"								
	2	4'-10"								
SR607	S.O.	T0	457	STR						0'-6 1/8"
	17	13'-1"								
	2	5'-3"								
SR608	S.O.	T0	2505	STR						0'-6 1/8"
	48	29'-5"								
	2	4'-9"								
SR609	S.O.	T0	2532	STR						0'-6 1/8"
	49	29'-6"								
	2	4'-7"								
SR610	S.O.	T0	1555	STR						0'-7 1/8"
	35	24'-10"								
	2	6'-3"								
SR611	S.O.	T0	1544	STR						0'-6 7/8"
	33	24'-10"								
	2	6'-3"								
SR612	S.O.	T0	2162	STR						0'-7 1/8"
	40	29'-8"								
	2	5'-1"								
SR613	S.O.	T0	2192	STR						0'-7 1/8"
	42	29'-8"								
	2	5'-3"								
SR614	S.O.	T0	383	STR						0'-7 1/8"
	14	13'-0"								
SR615	78	16'-8"	1952	STR						
SR616	78	18'-8"	2186	STR						
SR617	78	20'-10"	2440	STR						
SR618	78	23'-0"	2694	STR						
SR619	70	25'-0"	2628	STR						
	2	4'-8"								
SR620	S.O.	T0	1674	STR						0'-6 3/8"
	38	24'-7"								
		TOTAL	121489							

DIAPHRAGM REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
DF501	106	9'-8"	1068	18	3'-11"	3'-0"	3'-0"			
DF502	53	9'-1"	502	18	3'-2"	3'-1"	3'-1"			
DF503	72	9'-5"	707	18	3'-8"	3'-0"	3'-0"			
DF504	36	8'-10"	331	18	2'-11"	3'-1"	3'-1"			
DF505	24	9'-7"	239	18	3'-10"	3'-0"	3'-0"			
DF506	12	9'-0"	112	18	3'-1"	3'-1"	3'-1"			
DF507	8	9'-9"	81	18	4'-0 1/2"	3'-0"	3'-0"			
DF508	4	9'-2"	38	18	3'-3"	3'-1"	3'-1"			
DF509	1	8'-4"	8	18	1'-9"	3'-5"	3'-5"			
DF510	1	7'-9"	8	18	1'-2"	3'-5"	3'-5"			
DF801	14	27'-4"	1021	STR						
DF802	14	20'-0"	747	STR						
DF803	42	26'-0"	2915	STR						
DF804	14	28'-9"	1074	STR						
DF805	3	27'-2"	217	20	0'-6"	6'-10"	20'-4"			
DF806	3	27'-4"	218	20	0'-4"	4'-4"	23'-0"			
	2	27'-2"			0'-6"	6'-10"	20'-4"			
DF807	S.O.	T0	582	20	T0	T0	T0			0'-0 5/8"
	4	27'-4"			0'-4"	4'-4"	23'-0"			
DF808	14	30'-0"	1121	STR						
DF809	41	6'-6"	711	28	4'-2"	1'-5"				
DF810	48	6'-10"	875	28	4'-6"	1'-5"				
DR501	1	7'-8"	7	18	1'-1"	3'-5"	3'-5"			
DR502	1	8'-3"	8	18	1'-8"	3'-5"	3'-5"			
DR503	94	9'-8"	947	18	3'-11"	3'-0"	3'-0"			
DR504	47	9'-1"	445	18	3'-2"	3'-1"	3'-1"			
DR505	48	9'-4"	467	18	3'-7"	3'-0"	3'-0"			
DR506	24	8'-10"	221	18	2'-11"	3'-1"	3'-1"			
DR507	20	9'-6"	198	18	3'-9"	3'-0"	3'-0"			
DR508	10	8'-11"	93	18	3'-0"	3'-1"	3'-1"			
DR509	28	9'-7"	279	18	3'-10"	3'-0"	3'-0"			
DR510	14	9'-0"	131	18	3'-1"	3'-1"	3'-1"			
DR801	38	6'-10"	693	28	4'-6 1/2"	1'-5"				
DR802	42	6'-6"	728	28	4'-2"	1'-5"				
DR803	28	27'-0"	2018	STR						
DR804	14	20'-6"	766	STR						
DR805	14	30'-0"	1121	STR						
DR806	3	26'-8"	213	20	0'-6 1/2"	6'-10 1/2"	19'-9"			
DR807	3	26'-10"	214	20	0'-4"	4'-5 1/2"	22'-4"			
	2	26'-8"			0'-6 1/2"	6'-10 1/2"	19'-9"			
DR808	S.O.	T0	571	20	T0	T0	T0			0'-0 5/8"
	4	26'-10"			0'-4"	4'-5 1/2"	22'-4"			
DR809	14	24'-0"	897	STR						
DR810	28	20'-0"	1495	STR						
		TOTAL	24087							

PARAPET REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
RR501	36	30'-0"	1126	STR						
RR502	6	12'-10"	80	STR						
RR503	6	25'-5"	159	STR						
RR504	197	7'-4"	1506	2	3'-0"	3'-2"	1'-1"	0'-6 1/2"	0'-2 3/4"	
RR505	32	10'-0"	333	STR						
RR506	12	5'-6"	69	96						
RR507	20	5'-6"	114	STR						
RR601	6	30'-0"	270	STR						
RR602	1	16'-10"	25	STR						
RR603	1	29'-5"	44	STR						
RR604	197	3'-3"	961	12	1'-1"	0'-3 1/4"	1'-5"	1'-1"		
RR605	197	2'-4"	690	1	1'-1"	1'-5"				
	8	3'-11"				3'-0"				
RR606	S.O.	T0	572	1	1'-1"	T0				0'-1"
	11	4'-9"				3'-10"				
RR607	32	3'-11"	188	1	1'-1"	3'-0"				
		TOTAL	6137							



NOTES:
 1. ALL BARS SHALL BE EPOXY COATED.
 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD. INDICATES INSIDE RADIUS.
 * REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

BURGESS & NIPLE
 5025 Rock Road
 Columbus, Ohio 43220

DESIGNED	DATE	REVIEWED	DATE
TTK	11/04	RMK	11/04
CHECKED	STRUCTURE FILE NUMBER	DRAWN	STRUCTURE FILE NUMBER
MAK	5202817	CRC	5202817

REINFORCING STEEL LIST 1
 BRIDGE NO. MED-71-0729 R
 OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
 PID-75657

48 / 50

774
1120

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REAR ABUTMENT REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
RA501	145	13'-10"	2092	22	12'-8"					
RA502	19	16'-7"	328	22	15'-5"					
* RA503	S.O.	T0	62	STR						1'-2 1/4"
	9	11'-5"								
	1	1'-3"								
* RA504	S.O.	T0	56	STR						1'-2 1/4"
	9	10'-10"								
RA505	6	10'-0"	62	STR						
RA506	4	9'-7"	39	19	9'-0"					
RA507	19	30'-0"	594	STR						
RA508	13	34'-8"	470	STR						
RA509	39	31'-8"	1288	STR						
RA510	13	28'-8"	388	STR						
RA511	13	31'-7"	428	STR						
RA512	4	23'-11"	99	STR						
RA513	13	39'-0"	528	STR						
RA514	13	34'-2"	463	STR						
RA515	2	22'-8"	47	STR						
RA516	1	7'-10"	8	STR						
RA517	1	19'-4"	20	18	3'-11"	7'-10"	7'-10"			
RA518	4	27'-3"	113	STR						
RA519	4	24'-2"	100	STR						
	1	24'-2"								
RA520	S.O.	T0	80	STR						1'-6 1/2"
	3	27'-3"								
RA521	130	8'-11"	1209	18	2'-8"	3'-3"	3'-3"			
RA522	66	18'-1"	1244	STR						
RA523	219	5'-11"	1351	1	0'-10"	5'-3"				
RA524	23	12'-5"	297	18	2'-8"	5'-0"	5'-0"			
RA525	23	22'-6"	539	STR						
RA526	19	19'-1"	378	STR						
RA527	48	18'-9"	938	STR						
RA528	22	21'-3"	487	STR						
RA529	7	5'-0"	36	STR						
RA530	13	14'-8"	199	98	6'-6"	6'-2"	2'-7"	1'-9"		
RA531	5	12'-0"	63	98	3'-2"	6'-2"	2'-7"	1'-9"		
RA532	5	10'-0"	52	97	1'-11"	2'-1"	4'-0"	0'-10"	3'-1"	
RA533	4	19'-6"	81	STR						
RA534	4	25'-6"	106	STR						
RA535	4	31'-6"	131	STR						
RA536	4	9'-6"	39	STR						
RA537	12	15'-6"	193	STR						
	2	9'-2"								
RA538	S.O.	T0	143	STR						13'-10"
	3	36'-10"								
RA539	3	15'-9"	49	STR						
	1	8'-9"								
RA540	S.O.	T0	165	18	2'-8"	3'-2"	3'-2"			0'-3 1/8"
	15	12'-5"								
	1	39'-9"								
RA541	S.O.	T0	251	18	2'-8"	T0	T0			0'-2 3/8"
	6	40'-9"								
	1	32'-7"								
RA542	S.O.	T0	207	18	2'-8"	T0	T0			0'-2 3/8"
	6	33'-7"								
	1	25'-5"								
RA543	S.O.	T0	162	18	2'-8"	T0	T0			0'-2 3/8"
	6	26'-5"								
	1	18'-3"								
RA544	S.O.	T0	117	18	2'-8"	T0	T0			0'-2 3/8"
	6	19'-3"								
RA545	9	21'-10"	204	STR						
RA546	9	10'-8"	100	18	4'-1"	3'-5"	3'-5"			
RA547	2	19'-6"	40	STR						
RA548	14	33'-4"	486	12	14'-10"	2'-11"	2'-8"	14'-10"		
RA549	8	17'-2"	143	12	6'-9"	2'-11"	2'-8"	6'-9"		
RA550	7	22'-7"	164	STR						
RA551	7	9'-3"	67	18	2'-8"	3'-5"	3'-5"			
RA552	14	24'-1"	351	18	2'-8"	10'-10"	10'-10"			
RA553	4	21'-2"	88	16	2'-8"	7'-8"				
RA554	24	30'-8"	767	STR						
RA555	26	36'-2"	980	STR						

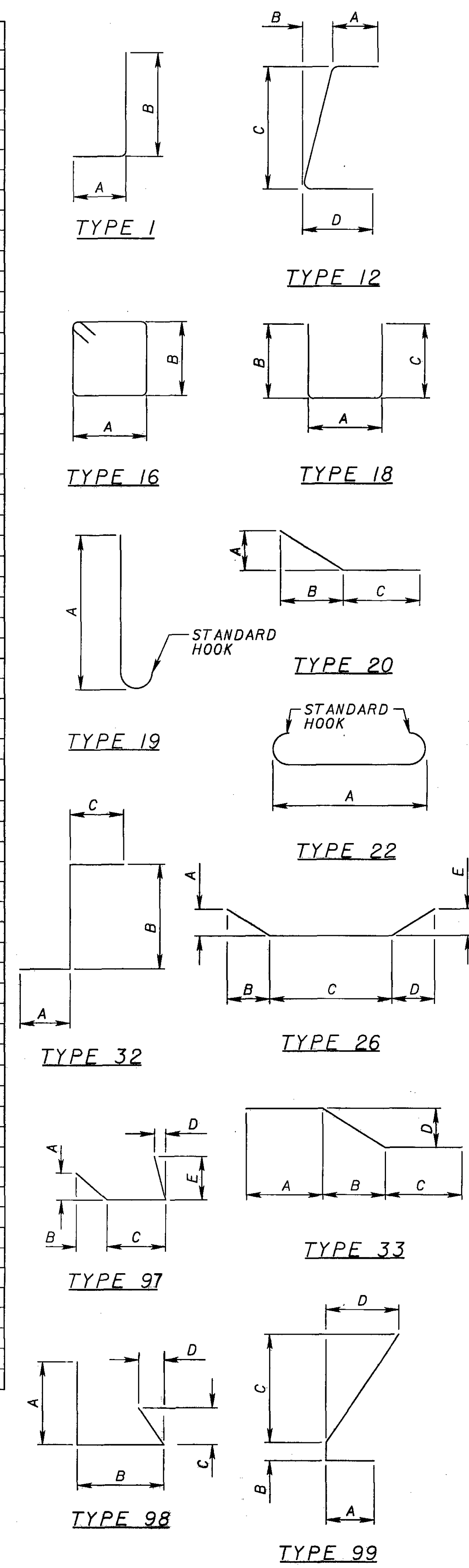
REAR ABUTMENT REINFORCING STEEL LIST (CONT'D)

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
RA601	70	30'-0"	3154	STR						
RA602	34	23'-10"	1217	STR						
	2	12'-2"								
* RA603	S.O.	T0	783	STR						0'-11 7/8"
	14	25'-1"								
	2	9'-0"								
* RA604	S.O.	T0	630	STR						0'-11"
	14	21'-0"								
RA605	14	28'-0"	588	STR						
RA606	14	11'-5"	240	33	4'-4"	2'-0"	4'-4"	2'-0"		
RA607	14	10'-4"	217	32	4'-4"	2'-0"	4'-4"			
RA608	14	26'-4"	553	STR						
RA609	14	23'-6"	494	STR						
	2	12'-4"								
RA610	S.O.	T0	676	STR						0'-6 7/8"
	14	19'-10"								
	1	11'-4"								
RA611	S.O.	T0	380	STR						1'-0 3/8"
	14	24'-10"								
	1	8'-4"								
RA612	S.O.	T0	317	STR						1'-0 3/8"
	14	21'-10"								
RA613	2	8'-5"	25	26	3'-0"	1'-7"	1'-8"	1'-7"	3'-0"	
RA614	2	13'-8"	41	99	3'-4"	1'-3"	7'-6"	5'-1"		
RA615	29	21'-6"	936	STR						
RA616	28	30'-0"	1261	STR						
RA701	23	12'-8"	595	STR						
RA702	9	9'-0"	165	STR						
RA703	128	18'-4"	4796	STR						
RA704	45	23'-5"	2153	STR						
RA705	37	19'-4"	1462	STR						
RA706	96	19'-0"	3728	STR						
RA707	1	21'-9"	44	STR						
RA708	18	21'-10"	803	STR						
RA709	13	22'-7"	600	STR						
RA801	28	12'-8"	946	STR						
RA802	4	30'-8"	327	STR						
	1	28'-8"								
RA803	S.O.	T0	321	STR						0'-11 5/8"
	4	31'-7"								
RA804	4	19'-0"	202	STR						
	1	37'-2"								
RA805	S.O.	T0	406	STR						0'-7"
	4	38'-11"								
RA806	24	8'-5"	539	1	1'-4"	7'-3"				
RA807	8	31'-8"	676	STR						
	1	31'-8"								
RA808	S.O.	T0	354	STR						1'-0"
	4	34'-8"								
RA901	227	12'-8"	9776	STR						
RA902	39	15'-5"	2044	STR						
	1	1'-10"								
* RA903	S.O.	T0	360	STR						0'-7 5/8"
	16	11'-5"								
	1	1'-3"								
* RA904	S.O.	T0	328	STR						0'-7 5/8"
	16	10'-10"								
	2	3'-4"								
RA905	S.O.	T0	209	STR						1'-5"
	5	9'-0"								
RA906	14	28'-0"	1332	20	2'-1"	3'-9"	23'-9"			
RA907	56	13'-9"	2617	32	5'-8"	3'-0"	5'-8"			
RA908	339	7'-10"	9028	1	1'-8"	6'-6"				
RA909	29	10'-1"	994	1	1'-8"	8'-9"				
			TOTAL							75409

NOTES:

- ALL BARS SHALL BE EPOXY COATED.
- BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

* REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.



BURGESS & NIPLE
5985 Reed Road
Columbus, Ohio 43229

DATE	11/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202817
DRAWN	CRC
DESIGNED	TTK
CHECKED	MAK

REINFORCING STEEL LIST 2
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

49 / 50

775
1120

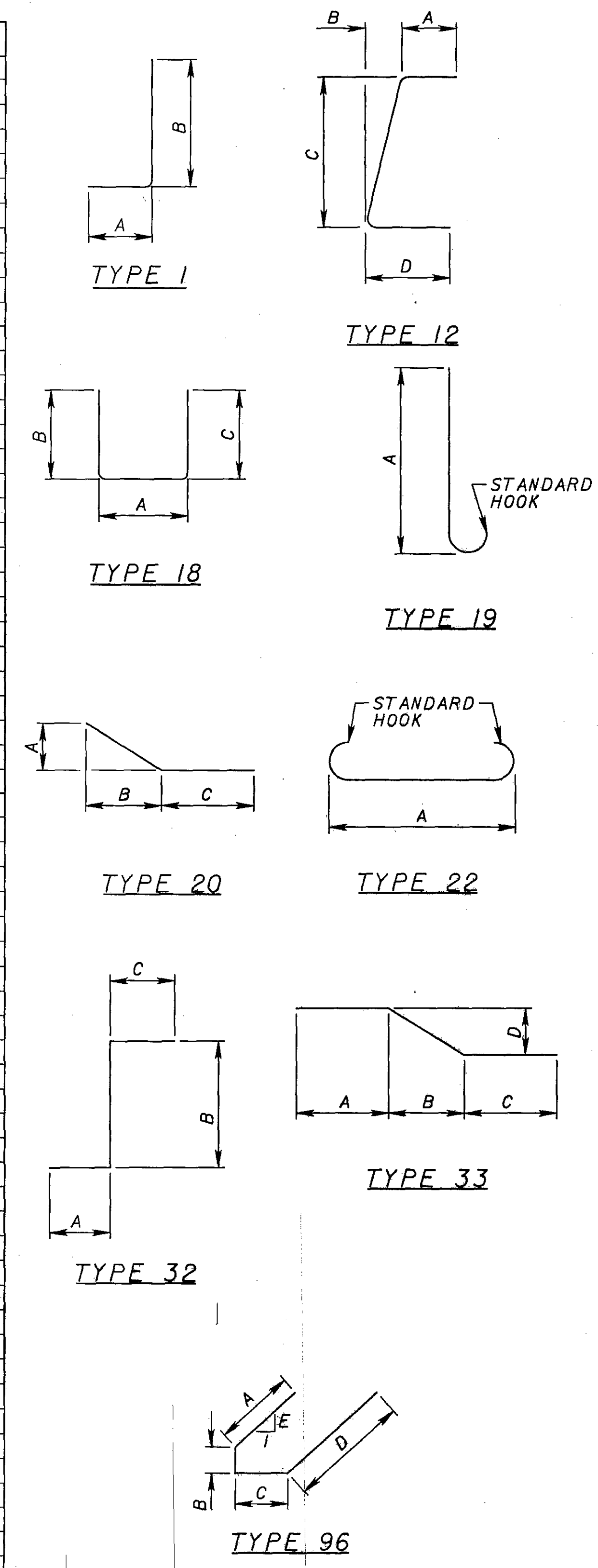
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FORWARD ABUTMENT REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
FA501	107	16'-4"	1822	22	15'-2"					
	1	2'-2"			1'-7"					
* FA502	S.O.	T0	111	19	T0					1'-0"
	13	14'-3"			13'-8"					
	1	2'-1"			1'-6"					
* FA503	S.O.	T0	110	19	T0					1'-0"
	13	14'-2"			13'-7"					
FA504	56	13'-4"	778	22	12'-2"					
	1	5'-7"			5'-0"					
FA505	S.O.	T0	28	19	T0					3'-7"
	3	12'-9"			12'-2"					
FA506	14	13'-10"	201	22	12'-8"					
FA507	15	10'-10"	169	22	9'-8"					
FA508	20	35'-8"	744	STR						
FA509	10	31'-9"	331	STR						
FA510	10	34'-8"	361	STR						
FA511	9	37'-4"	350	STR						
FA512	9	34'-5"	323	STR						
FA513	2	22'-0"	45	STR						
FA514	18	11'-4"	212	STR						
* FA515	18	26'-2"	491	STR						
FA516	2	20'-8"	43	STR						
FA517	4	22'-2"	92	STR						
FA518	4	25'-2"	104	STR						
	1	22'-2"								
FA519	S.O.	T0	74	STR						1'-6"
	3	25'-2"								
FA520	1	8'-0"	8	STR						
FA521	1	19'-8"	20	18	3'-11"	8'-0"	8'-0"			
FA522	34	17'-7"	623	18	2'-8"	7'-7"	7'-7"			
FA523	267	6'-4"	1763	1	0'-10"	5'-8"				
FA524	27	17'-1"	481	STR						
	1	11'-11"				4'-9"	4'-9"			
FA525	S.O.	T0	361	18	2'-8"	T0	T0			0'-0 ³ / ₄ "
	27	13'-9"				5'-8"	5'-8"			
FA526	125	13'-1"	1705	STR						
FA527	121	10'-5"	1314	18	2'-8"	4'-0"	4'-0"			
FA528	125	12'-10"	1673	STR						
* FA529	18	34'-8"	650	STR						
FA530	16	40'-0"	667	STR						
FA531	14	9'-0"	131	12	2'-9"	0'-11"	2'-8"	3'-8"		
FA532	5	11'-2"	58	12	2'-1"	3'-1"	2'-8"	5'-3"		
FA533	70	11'-11"	870	STR						
FA534	67	9'-11"	692	18	2'-8"	3'-9"	3'-9"			
FA535	67	11'-8"	815	STR						
FA536	12	14'-3"	178	STR						
FA537	12	5'-0"	62	STR						
FA538	9	14'-0"	131	STR						
	1	7'-7"				2'-7"	2'-7"			
FA539	S.O.	T0	93	18	2'-8"	T0	T0			0'-7"
	9	12'-3"				4'-11"	4'-11"			
	1	17'-9"				7'-8"	7'-8"			
FA540	S.O.	T0	365	18	2'-8"	T0	T0			0'-6 ⁵ / ₈ "
	16	26'-1"				11'-10"	11'-10"			
FA541	4	12'-6"	52	STR						
FA542	12	35'-1"	439	STR						
FA543	2	27'-8"	57	STR						
	2	4'-5"								
FA544	S.O.	T0	121	STR						6'-9"
	4	24'-8"								
FA545	3	25'-0"	78	STR						
FA546	3	10'-0"	31	STR						
FA547	28	17'-1"	498	STR						
FA548	10	10'-9"	112	18	4'-0"	3'-6"	3'-6"			
FA549	14	15'-6"	226	STR						
FA550	4	9'-6"	39	18	2'-9"	3'-6"	3'-6"			
FA551	1	9'-2"	9	18	2'-5"	3'-6"	3'-6"			
FA552	11	40'-0"	459	96	16'-2"	1'-3"	2'-7"	18'-3"	0'-11"	
FA553	4	30'-8"	128	96	12'-6"	1'-3"	2'-7"	14'-6"	0'-11"	
FA554	10	22'-9"	237	96	8'-10"	1'-3"	2'-5"	10'-2"	3'-3 ¹ / ₂ "	
FA555	4	15'-5"	71	96	5'-3"	1'-3"	2'-5"	6'-8"	3'-3 ¹ / ₂ "	
FA556	4	9'-8"	40	12	3'-0"	2'-11"	2'-8"	3'-0"		
FA557	4	8'-6"	35	12	3'-0"	0'-10"	2'-8"	3'-0"		

FORWARD ABUTMENT REINFORCING STEEL LIST (CONT'D)

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
FA601	112	30'-0"	5046	STR						
	2	14'-4"								
* FA602	S.O.	T0	1025	STR						0'-11 ¹ / ₈ "
	16	28'-4"								
	2	7'-2"								
* FA603	S.O.	T0	676	STR						0'-11"
	16	21'-0"								
	2	21'-2"								
FA604	S.O.	T0	1129	STR						0'-3 ⁵ / ₈ "
	16	25'-10"								
	2	13'-10"								
FA605	S.O.	T0	569	STR						0'-4 ¹ / ₄ "
	12	17'-9"								
FA606	69	12'-2"	1260	STR						
	2	4'-8"								
FA607	S.O.	T0	101	STR						2'-6"
	4	12'-2"								
FA608	2	12'-8"	38	20	0'-5"	1'-3"	11'-4"			
	1	5'-0"								
FA609	S.O.	T0	38	STR						3'-7"
	3	12'-2"								
FA610	19	9'-8"	275	STR						
FA611	27	17'-4"	702	STR						
FA612	9	14'-3"	192	STR						
FA701	32	30'-0"	1962	STR						
FA702	83	6'-11"	1173	1	1'-2"	5'-11"				
FA703	17	7'-8"	266	1	1'-2"	6'-8"				
FA801	126	15'-2"	5102	STR						
FA802	15	16'-7"	664	STR						
FA803	15	13'-9"	550	STR						
FA804	12	16'-9"	536	STR						
FA805	12	22'-2"	710	STR						
FA806	12	15'-6"	496	33	6'-0"	2'-6"	6'-0"	2'-6"		
FA807	12	14'-1"	451	32	6'-0"	2'-6"	6'-0"			
	1	1'-7"								
* FA808	S.O.	T0	285	STR						0'-11 ¹ / ₈ "
	14	13'-8"								
	1	1'-6"								
* FA809	S.O.	T0	281	STR						0'-11 ¹ / ₈ "
	14	13'-7"								
FA810	2	12'-8"	67	STR						
FA811	2	7'-6"	40	STR						
FA812	2	4'-3"	22	STR						
FA813	2	15'-9"	84	20	0'-5"	1'-3"	14'-5"			
FA814	15	12'-8"	507	STR						
FA815	2	10'-3"	54	STR						
FA816	4	11'-8"	124	20	2'-0"	5'-6"	5'-10"			
FA817	4	17'-0"	181	STR						
	1	31'-9"								
FA818	S.O.	T0	354	STR						0'-11 ⁵ / ₈ "
	4	34'-8"								
	1	34'-5"								
FA819	S.O.	T0	382	STR						0'-11"
	4	37'-2"								
FA820	4	16'-7"	177	20	0'-6 ³ / ₄ "	7'-5"	9'-2"			
FA821	4	26'-2"	279	STR						
FA822	143	8'-10"	3372	1	1'-4"	7'-8"				
FA823	4	40'-0"	427	STR						
FA824	16	6'-10"	291	1	1'-4"	5'-8"				
FA901	27	9'-0"	826	1	1'-8"	7'-8"				
* FA902	4	34'-8"	471	STR						
		TOTAL	52,866							



NOTES:

1. ALL BARS SHALL BE EPOXY COATED.
2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

* REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

BURGESS & NIPLE
5995 Reed Road
Columbus, Ohio 43229

DATE 11/04	REVIEWED RMK	STRUCTURE FILE NUMBER 5202817	
DESIGNED TTK	DRAWN AAA	CHECKED MAK	

REINFORCING STEEL LIST 3
BRIDGE NO. MED-71-0729 R
OVER EXISTING CH 97 (GREENWICH RD)

MED-71-6.06
PID-75657

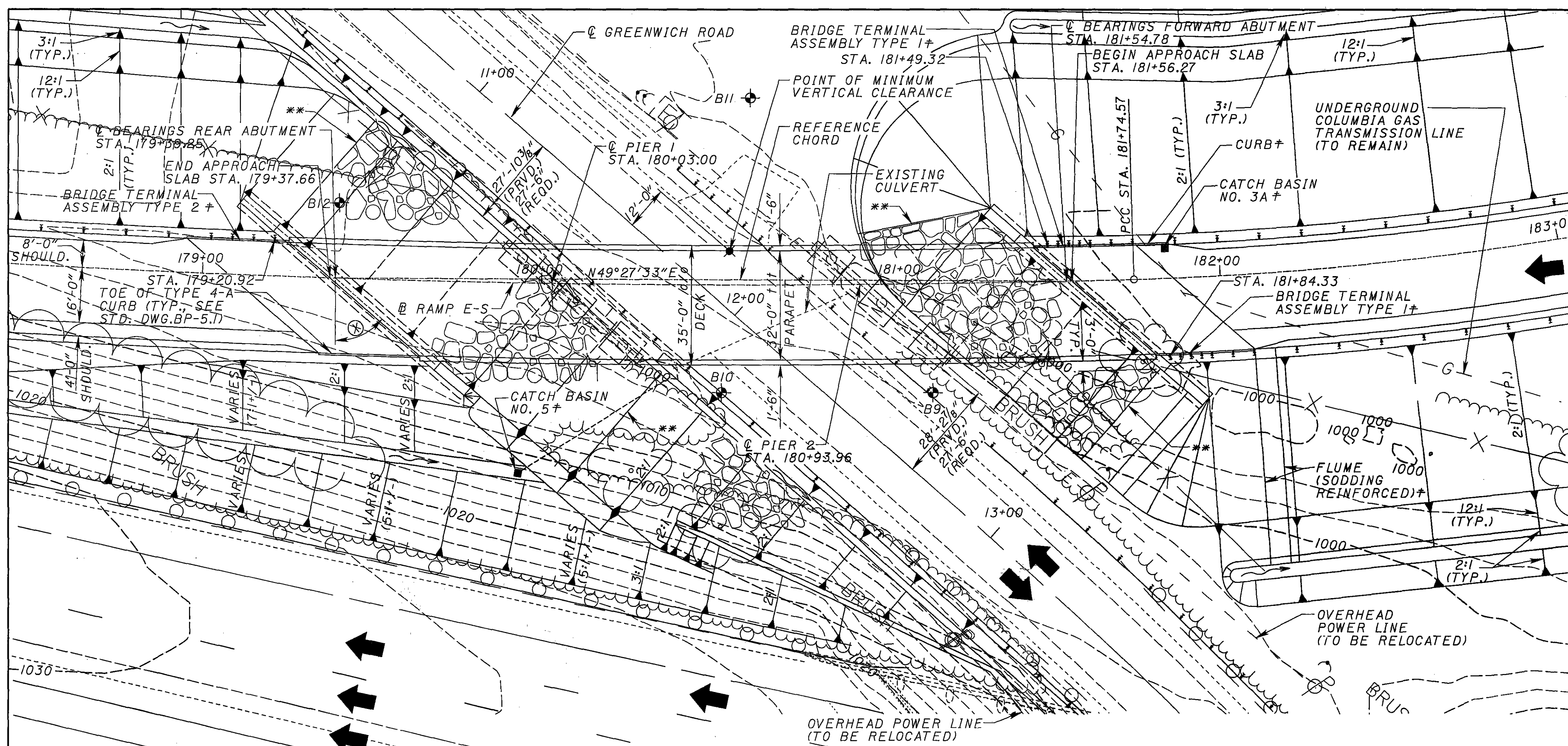
50 / 50

776
1120

CURVE DATA			
P.I. Sta = 177+13.95	P.I. Sta = 186+74.17		
D = 13° 53' 13" (LT)	D = 55° 14' 07" (LT)		
Dc = 1° 30' 00"	Dc = 6° 00' 00"		
R = 3,819.72'	R = 954.93'		
T = 465.18'	T = 499.60'		
L = 925.80'	L = 920.59'		
E = 28.22'	E = 122.80'		

- NOTES:**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO ROADWAY PLAN CROSS-SECTIONS.
 - THE REFERENCE CHORD IS DEVELOPED FROM THE INTERSECTION OF THE BASELINE RAMP ES AND THE CENTERLINE OF ABUTMENT BEARINGS.
 - SPAN LENGTHS ARE MEASURED ALONG REFERENCE CHORDS.
 - BRIDGE LIMITS ARE MEASURED ALONG THE RAMP E-S.
 - SEE SHEET 3 / 22 FOR REFERENCE CHORD SCHEMATIC.
 - ESTIMATED AVERAGE HPI0x42 PILE DRIVEN LENGTH:
 REAR ABUTMENT - 55'-0"
 PIER 1 - 35'-0"
 PIER 2 - 40'-0"
 FORWARD ABUTMENT - 60'-0"
 - SEE STANDARD DRAWING AS-1-B1 FOR APPROACH SLAB DETAILS.

- LEGEND:**
- ◆ - POINT OF MINIMUM VERTICAL CLEARANCE
 - B# - CURRENT FOUNDATION INVESTIGATION BORING
 - * - 1'-0" CRUSHED AGGREGATE SLOPE PROTECTION (SEE PLAN VIEW FOR LIMITS)
 - ** - LIMITS OF 1'-0" CRUSHED AGGREGATE SLOPE PROTECTION
 - T/R - TOP OF ROCK
 - ⊗ - 49°30'29" RIGHT FORWARD SKEW (TYP.) (BASED ON REFERENCE CHORD)
 - † - SEE ROADWAY PLANS FOR DETAILS AND PAYMENT



VERTICAL CLEARANCE		
POINT	REQUIRED	PROVIDED
◆	15'-3"	17'-1 1/2"

SOIL BORING INFORMATION				
BORING NO.	STATION	OFFSET	ELEVATION	APPROX. TOP OF ROCK
B9	181+4.85	32.15' (RT)	1003.57	958.60
B10	180+53.05	31.74' (RT)	1003.23	965.70
B11	180+61.46	55.16' (LT)	1001.50	972.00
B12	179+39.73	22.13' (LT)	1004.12	969.10

BENCHMARK INFORMATION	
BM #3045:	STA 382+13.85; 0.338'R; CL MONUMENT; 495,811.67 N; 2,133,582.97 E; ELEV. 1023.36
BM #3046:	STA 402+33.68; 0.172'R; CL MONUMENT; 496,742.01 N; 2,135,375.78 E; ELEV. 991.19

PROPOSED STRUCTURE

TYPE: STEEL I-BEAM WITH COMPOSITE REINFORCED CONCRETE DECK ON REINFORCED CONCRETE SEMI-INTEGRAL ABUTMENTS.

SPAN: 62'-3", 91'-0", 62'-3" c/c BEARINGS (MEASURED ALONG REFERENCE CHORD)

ROADWAY: 32'-0" t/t PARAPETS (MEASURED RADIALLY)

SKEW: 49°30'29" RIGHT FORWARD (MEASURED WITH RESPECT TO REFERENCE CHORD)

ALIGNMENT: 1°30'00" CURVE LEFT

WEARING SURFACE: MONOLITHIC CONCRETE

DESIGN LOADING: HS25 (CASE 1) AND THE ALTERNATE MILITARY LOADING

FUTURE WEARING SURFACE LOADING: 60 PSF

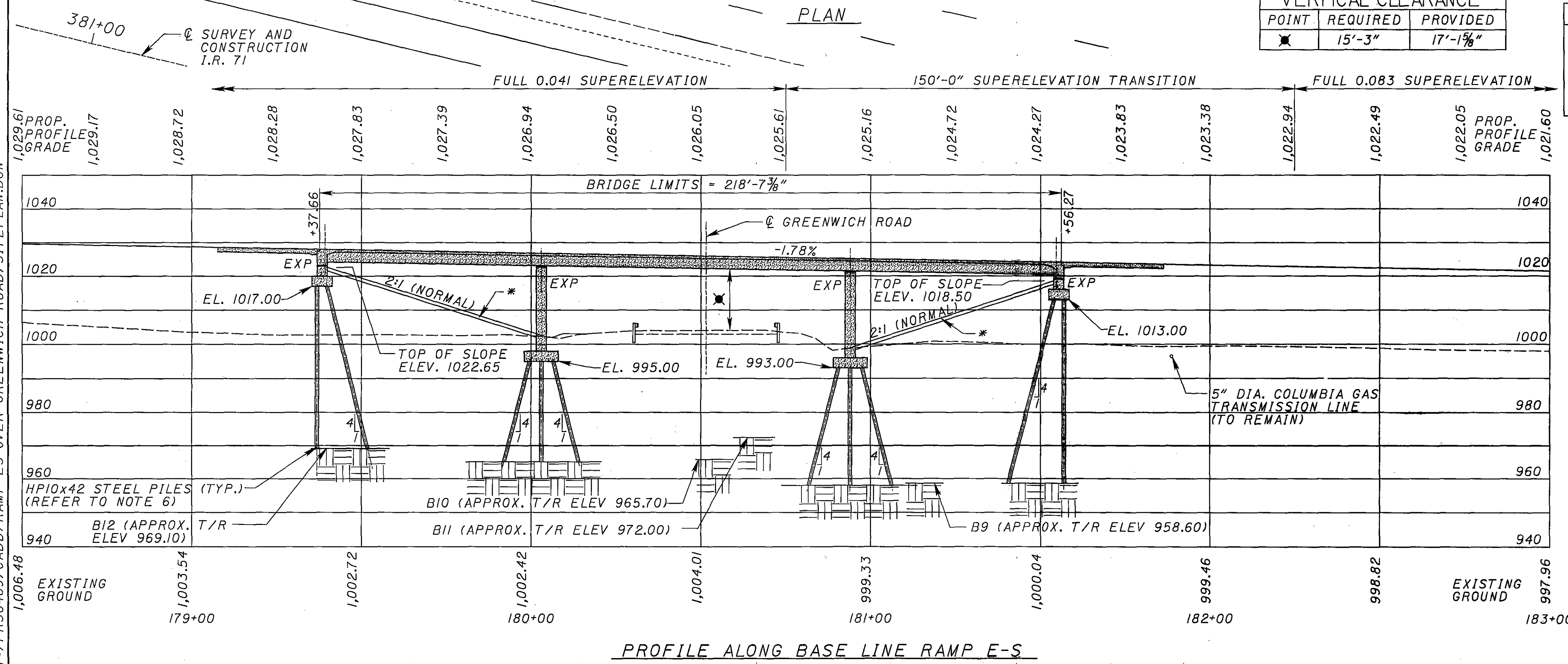
APPROACH SLABS: AS-1-B1 (30'-0" LONG) WITH TYPE 4-A CURBS

SUPERELEVATION: VARIES

ADT (2006): 7890	ADTT (2006): 2762
ADT (2026): 10800	ADTT (2026): 3780

LATITUDE: N 41°01'34"

LONGITUDE: W 81°54'07"



P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\SITEPLAN.DGN
 1,029.61
 1,029.17
 1,028.72
 1,028.28
 1,027.83
 1,027.39
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 1,026.50
 1,026.05
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 1,025.16
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 1,024.27
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 1,023.38
 1,022.94
 1,022.49
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 1,006.48
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 999.46
 998.82
 997.96

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 DATED (REVISED) 7-19-02
 BS-1-93 DATED (REVISED) 7-19-02
 GSD-1-96 DATED (REVISED) 7-19-02
 SBR-1-99 DATED (REVISED) 7-19-02
 SICD-1-96 DATED (REVISED) 7-19-02

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:

DM-4.1 DATED 7-19-02
 BP-5.1 DATED 7-28-00

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

894 DATED 4-15-05

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF THE STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25, CASE 1 AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 PSF.

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER
 CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND HAS UNDERGONE A 180 DAY WAITING PERIOD.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN: THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILES TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING HARD BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH OF BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 94 TONS PER PILE FOR THE HPIOX42 ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 84 TONS PER PILE FOR THE HPIOX42 PIER PILES.

REAR ABUTMENT PILES:
 26 PILES 60 FEET LONG, ORDER LENGTH

PIER 1 PILES:
 24 PILES 40 FEET LONG, ORDER LENGTH

PIER 2 PILES:
 24 PILES 45 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:
 26 PILES 65 FEET LONG, ORDER LENGTH

SPLICES SHALL BE FURNISHED BY THE CONTRACTOR, AT NO EXTRA COST TO THE STATE, FOR PILE LENGTHS IN EXCESS OF 60'.

UTILITY LINES: THE UTILITIES SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN: INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1/4" x #10 GAGE (LENGTH x SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY-DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST ASTM METHOD REQUIREMENT

THICKNESS, INCHES D751 0.094 ±0.01

BREAKING STRENGTH, GRAB, LBS, MINIMUM (LONG. x TRANS.) D751 700 x 700

ADHESIVE STRIP, 1" WIDE x 2" LONG, LBS MINIMUM D751 9

BURST STRENGTH, PSI MINIMUM D751 1400

HEAT AGING, 70 HR, 212°F, 180° BEND WITHOUT CRACKING D2136 NO CRACKING OF COATING

LOW TEMP. BRITTLINESS, 1 HR, -40°F, BEND AROUND 1/4" MANDREL D2136 NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

DRIP GROOVES:
 DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):
 SEALER SHALL BE TINTED TO A NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NUMBER 17778.

ITEM 511 CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN:
ITEM 511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN:
ITEM 511 CLASS C CONCRETE, FOOTING, AS PER PLAN:
 COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:

THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
 QUANTITIES PER CUBIC YARD
 AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENTITIOUS RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 8 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1/2" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

BASIS OF PAYMENT:

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB
894E10001	CUBIC YARD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL FINISH COAT

COLOR SHALL BE LIGHT NEUTRAL MEETING FEDERAL STANDARD COLOR NO. 17778

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BURGESS & NIPLE
 5095 Reed Road
 Columbus, Ohio 43220

DATE 11/04
 STRUCTURE FILE NUMBER 5202841
 REVISIONS
 DRAWN BY JTW
 CHECKED BY CAS

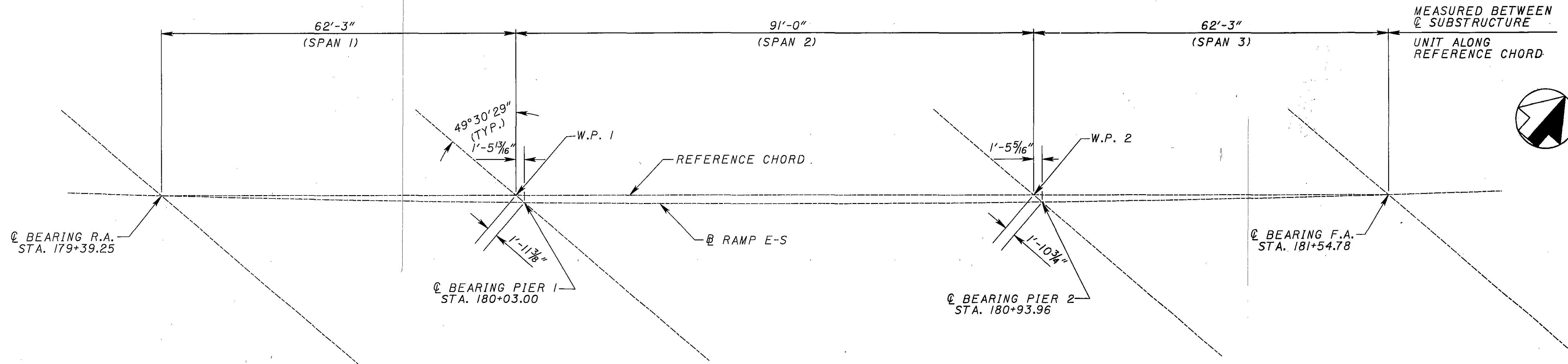
GENERAL NOTES
 BRIDGE MED-71-0729EN
 RAMP E-S OVER GREENWICH ROAD

MED-71-6.06
 PID 75657

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	ABUTS.	PIERS	SUPER.	GENERAL	SHT. REF.
		IM	NHS								
503	21301	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			2/22
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00100	4232	1058	5290	FT	STEEL PILES HPIOX42, FURNISHED *	3250	2040			
507	00150	3832	958	4790	FT	STEEL PILES HPIOX42, DRIVEN	2990	1800			
509	10000	105,050	26,263	131,313	POUND	EPOXY COATED REINFORCING STEEL *	11,574	35,185	84,554		
511	41001	66	16	82	CU YD	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		82			2/22
511	43501	163	41	204	CU YD	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN	204				2/22
511	46501	65	16	81	CU YD	CLASS C CONCRETE, FOOTING, AS PER PLAN		81			2/22
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB			LUMP		
512	10100	705	176	881	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	113	275	493		
513	10260	175,040	43,760	218,800	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3 *			218,800		
513	20000	2093	523	2616	EACH	WELDED STUD SHEAR CONNECTORS			2616		
514	00300	LUMP	LUMP	LUMP		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			LUMP		
514	00400	LUMP	LUMP	LUMP		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			LUMP		
514	10000	6	2	8	EACH	FINAL INSPECTION REPAIR			8		
516	13600	4	1	5	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	5				
516	13900	88	22	110	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	110				
516	14021	104	26	130	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	130				2/22
516	44301	6	2	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (1'-5" x 1'-3" x 4 1/16"), AS PER PLAN	8				16/22
516	44301	6	2	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (1'-11" x 1'-3" x 4 5/16"), AS PER PLAN		8			16/22
518	21200	73	18	91	CU YD	POROUS BACKFILL WITH FILTER FABRIC	91				
518	40000	138	35	173	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	173				
518	40010	48	12	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	60				
526	30000	174	44	218	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=17")				218	
601	20000	730	183	913	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION				913	
894	10001	279	70	349	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	58		291		2/22

* - SEE PROPOSAL NOTE
 ** - ALL QUANTITIES ARE SPLI 80% IM & 20% NHS



REFERENCE CHORD SCHEMATIC

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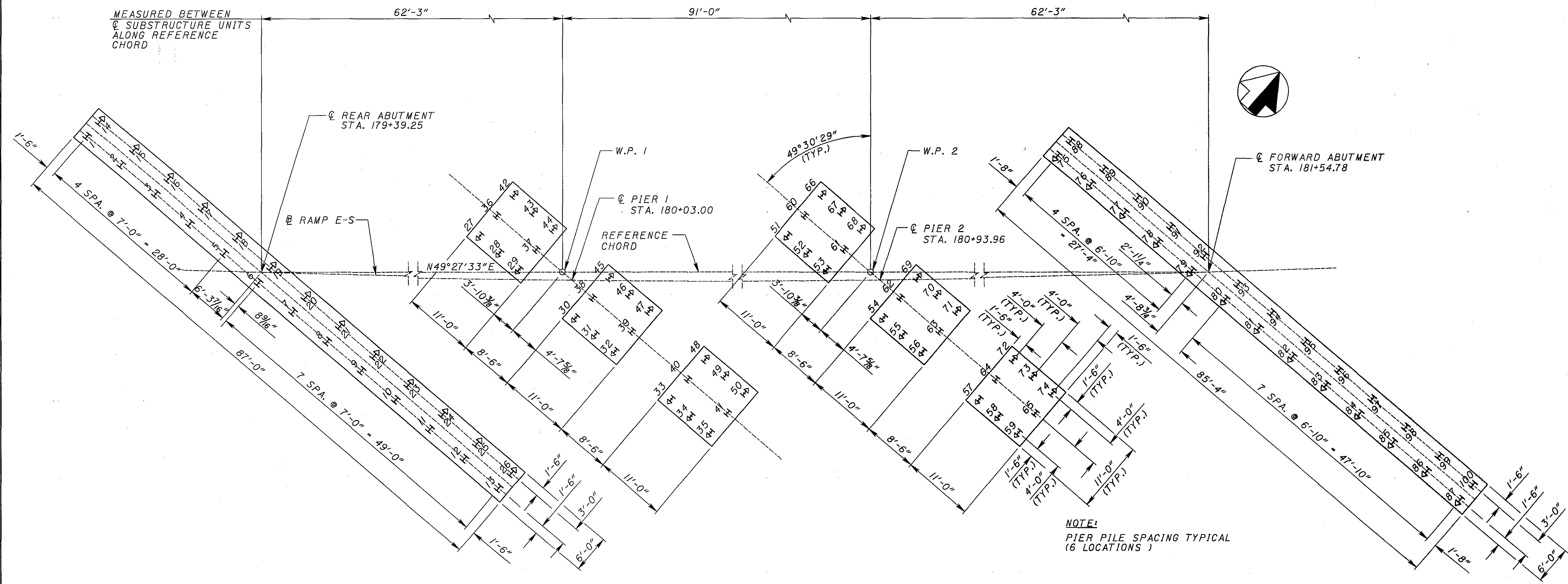
BURGESS & NIPLE
 5055 Rock Road
 Columbus, OH 43220

DATE 11/04
 REVISED WTL
 DRAWN JTW/JHL
 DESIGNED JTW
 CHECKED CAS/JHL
 STRUCTURE FILE NUMBER 5202841

ESTIMATED QUANTITIES
 BRIDGE MED-71-0729EN
 RAMP E-S OVER GREENWICH ROAD

MED-71-6.06
 PID 75657

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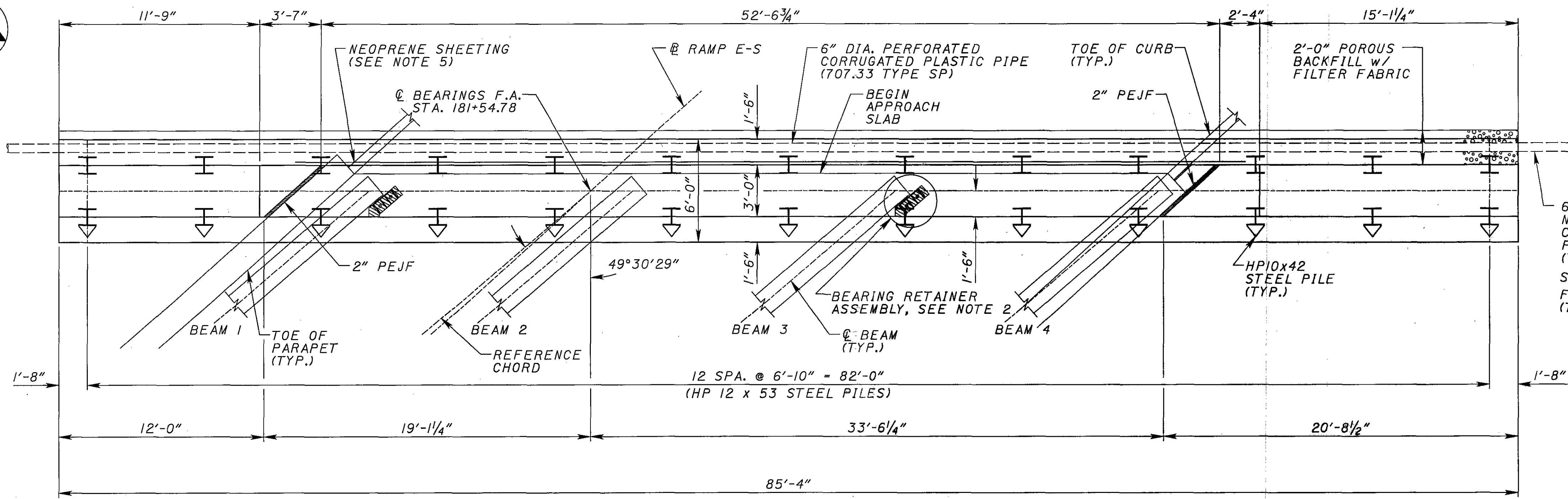
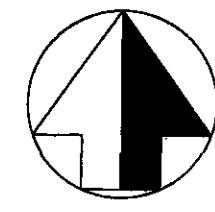
FOUNDATION PLAN
 (OUTSIDE PERIMETER ONLY OF FOOTING SHOWN)

NOTES:

- SEE SHEET 5 / 22 & 6 / 22 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 8 / 22 & 9 / 22 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
- FOR PILE BATTER AND ADDITIONAL DETAILS, SEE SHEET 7 / 22.

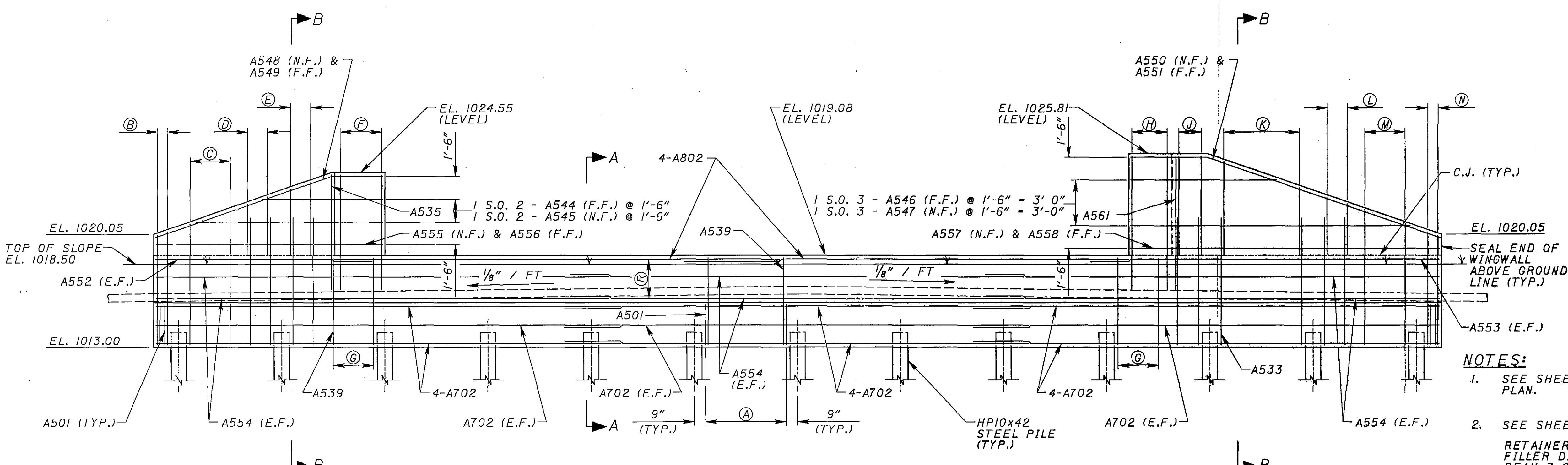
LEGEND:

- H = HPI0x42 STEEL PILES
- HP = BATTERED HPI0x42 STEEL PILES (4:1)
- XX = PILE NUMBER
- W.P. = WORK POINT



PLAN

6" DIA. NON-PERFORATED CORRUGATED PLASTIC PIPE (707.33 TYPE S), SEE SHEET 7 / 22 FOR OUTLET DETAIL. (TYP.)



ELEVATION

(SUPERSTRUCTURE DETAILS NOT SHOWN FOR CLARITY)

- (A) = 5 - A501 & A539 @ 1'-4" = 5'-4" (TYP. BETWEEN PILES, U.N.O.)
- (B) = 2 - A501 & 1 S.O. 2 - A560 @ 8"
- (C) = 1 S.O. 3 - A532 @ EQ. SPA.
- (D) = 2 - A533 & 1 S.O. 2 - A534
- (E) = 2 - A533 & 1 S.O. 2 - A559
- (F) = 3 - A536 @ EQ. SPA. (F.F.)
- (G) = 3 - A539 @ EQ. SPA.
- (H) = 3 - A537 @ EQ. SPA. (N.F.)
- (J) = 2 - A533 & 2 - A538
- (K) = 5 - A533 & 1 S.O. 5 - A540 @ EQ. SPA.
- (L) = 2 - A533 & 1 S.O. 2 - A541
- (M) = 1 S.O. 3 - A542 @ EQ. SPA.
- (N) = 2 - A501 & 1 S.O. 2 - A543 @ 8"
- (R) = 2 SPA. @ 1'-3" = 2'-6"

LEGEND:

- C.J. = CONSTRUCTION JOINT
- E.F. = EACH FACE
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- N.F. = NEAR FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- S.O. = SERIES OF
- SPA. = SPACES
- U.N.O. = UNLESS NOTED OTHERWISE
- EQ. = EQUAL

NOTES:

1. SEE SHEET 4 / 22 FOR FOUNDATION PLAN.
2. SEE SHEET 16 / 22 FOR BEARING RETAINER ASSEMBLY AND POLYSTYRENE FILLER DIMENSIONS (TYP. BEAM 1 & BEAM 3 ONLY). ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING RETAINER ASSEMBLY ANCHOR BOLT HOLES.
3. SEE SHEET 7 / 22 FOR SECTIONS A-A & B-B.
4. MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-5"
 #7 BAR = 3'-0"
 #8 BAR = 6'-10"
5. SEE STD. DWG. SICD-1-96 AND SECTION A-A FOR NEOPRENE SHEETING LIMITS AND DETAILS.

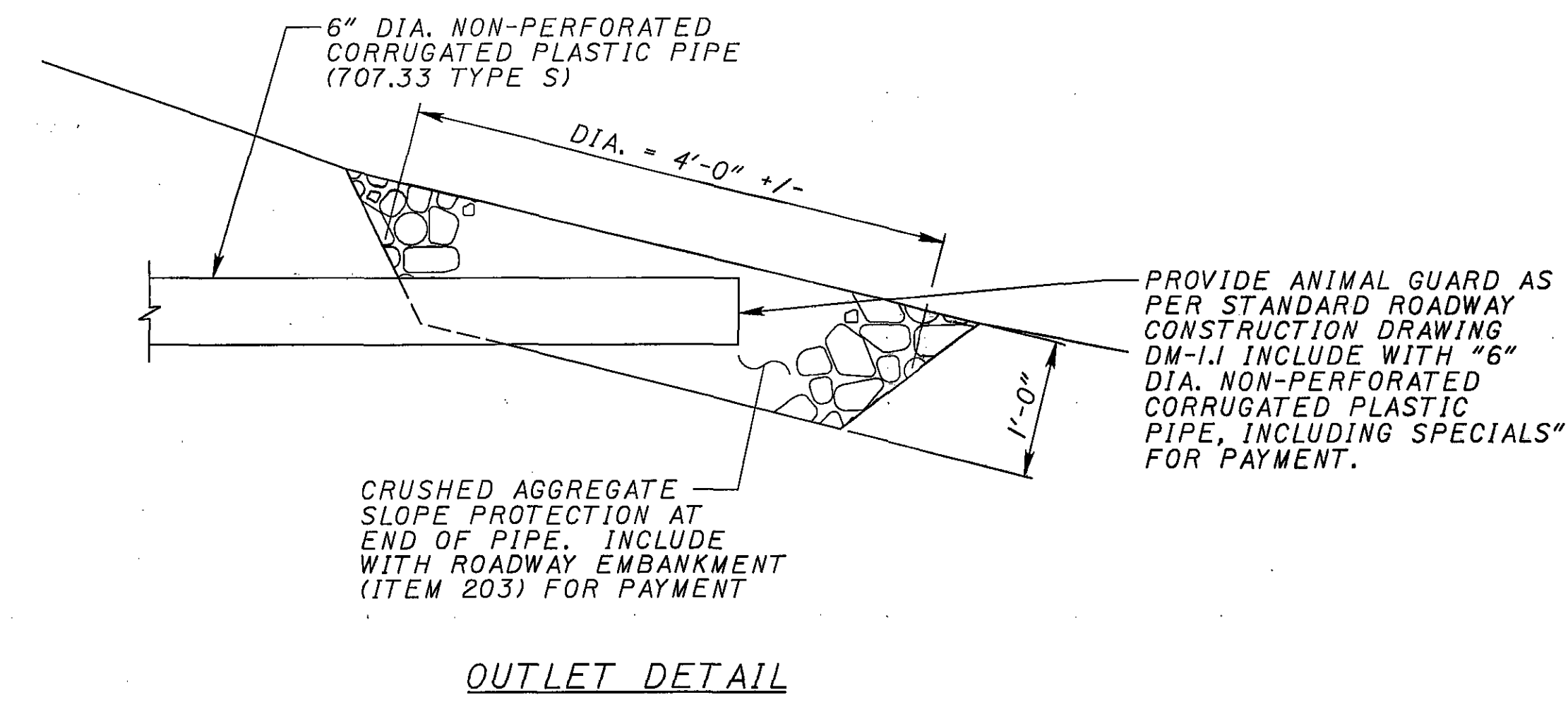
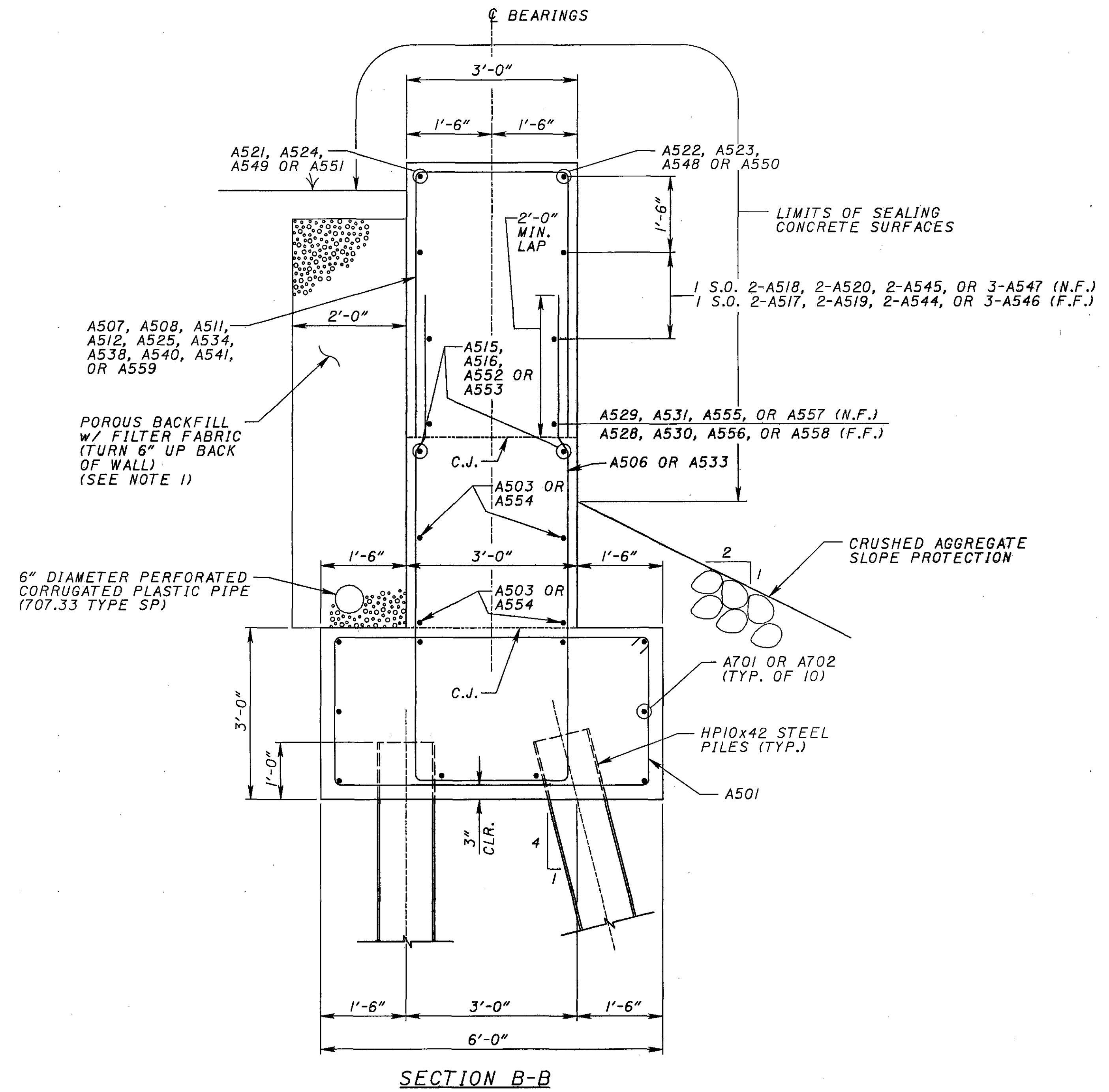
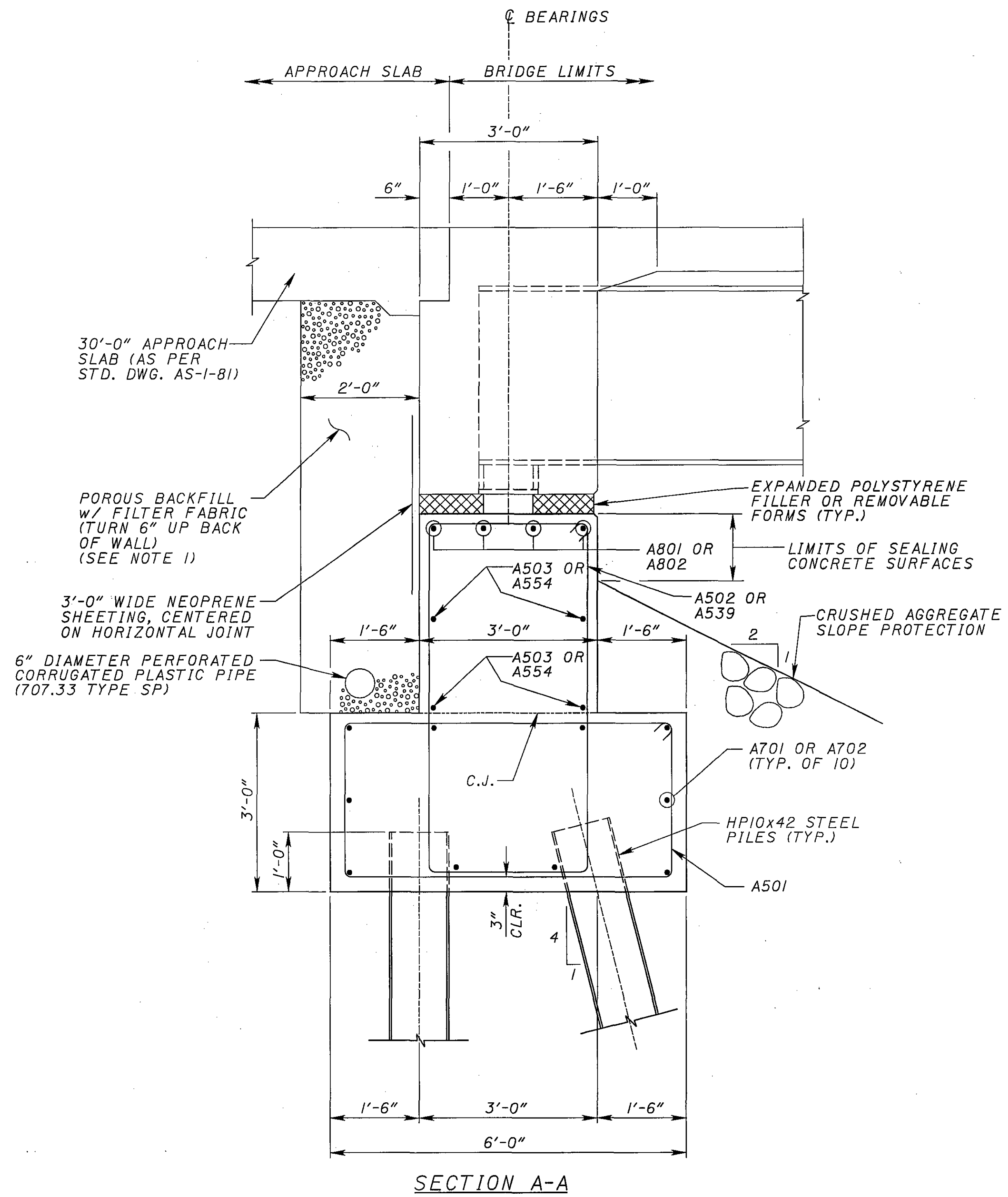
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DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5202841
DRAWN	JTW
DESIGNED	JTW
CHECKED	CAS/JHL

FORWARD ABUTMENT PLAN & ELEVATION
 BRIDGE MED-71-0729EN
 RAMP E-S OVER GREENWICH ROAD

MED-71-6.06
 PID 75657

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LEGEND:

C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
DIA. = DIAMETER
E.F. = EACH FACE
F.F. = FAR FACE
N.F. = NEAR FACE
R.A. = REAR ABUTMENT

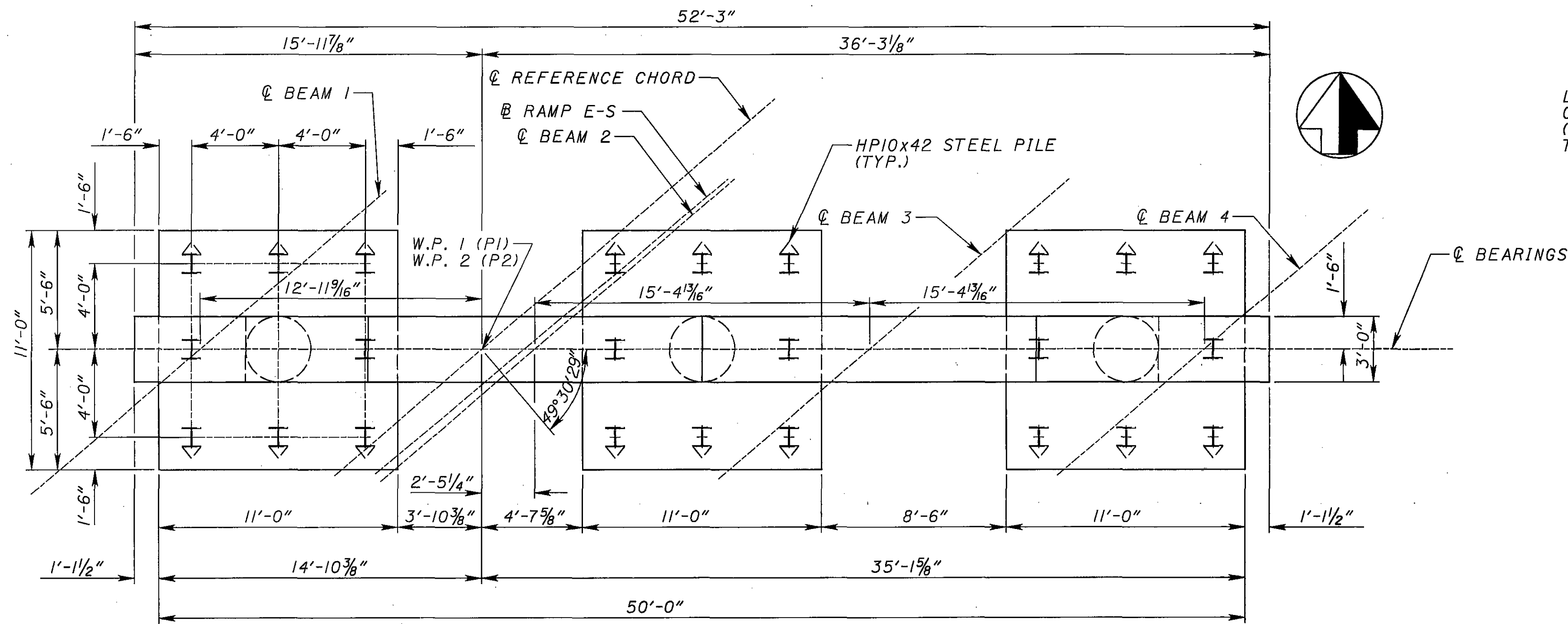
NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.

2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

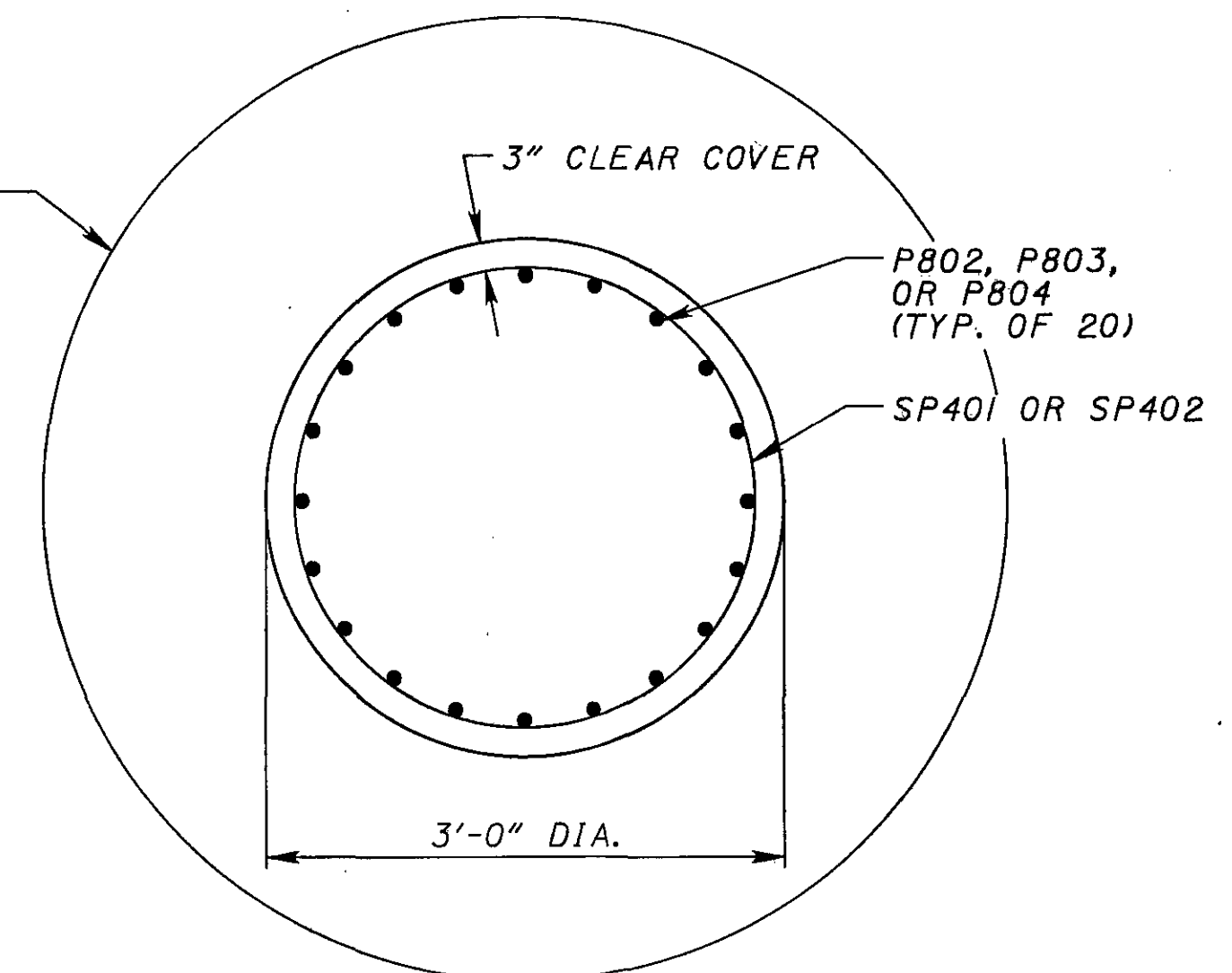
BURGESS & NIPLE	
DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5202841
DESIGNED	JTW
CHECKED	CAS/JHL
ABUTMENT DETAILS	
BRIDGE MED-71-0729EN	
RAMP E-S OVER GREENWICH ROAD	
MED-71-6.06	PID 75657
7	22
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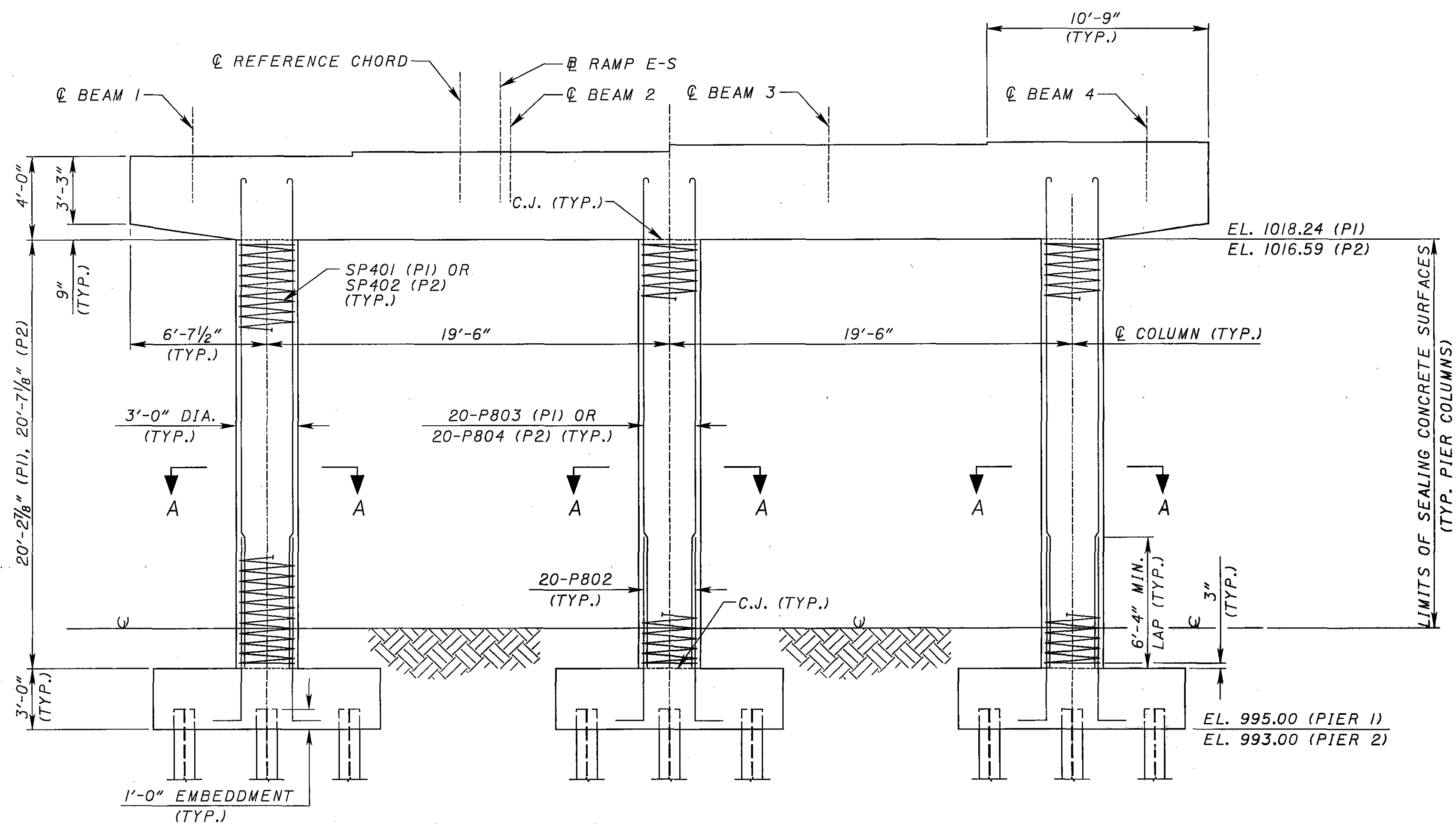


PIER PLAN

LIMITS OF SEALING CONCRETE SURFACES (GROUND LINE TO TOP OF COLUMNS)



SECTION A-A



PIER ELEVATION

(CAP AND FOOTING REINFORCING STEEL NOT SHOWN FOR CLARITY)

BEARING SEAT ELEVATIONS		
BEAM NO.	PIER 1	PIER 2
1	1022.24	1020.59
2	1022.43	1020.82
3	1022.63	1021.12
4	1022.65	1021.23

NOTES:

- SEE SHEET 9 / 22 FOR CAP AND FOOTING DETAILS.
- SEE SHEET 4 / 22 FOR PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
#4 BAR = 1'-11"
#8 BAR = 6'-4"
- ALL PIER CONCRETE SHALL BE CLASS C CONCRETE.

LEGEND:

- C.J. = CONSTRUCTION JOINT
- DIA. = DIAMETER
- P1 = PIER 1
- P2 = PIER 2
- W.P. = WORKING POINT
- H = BATTERED HPI0x42 STEEL PILES (4:1)
- H = HPI0x42 STEEL PILES

BURGESS & NIPLE
5055 New York
College Park, MD 20740

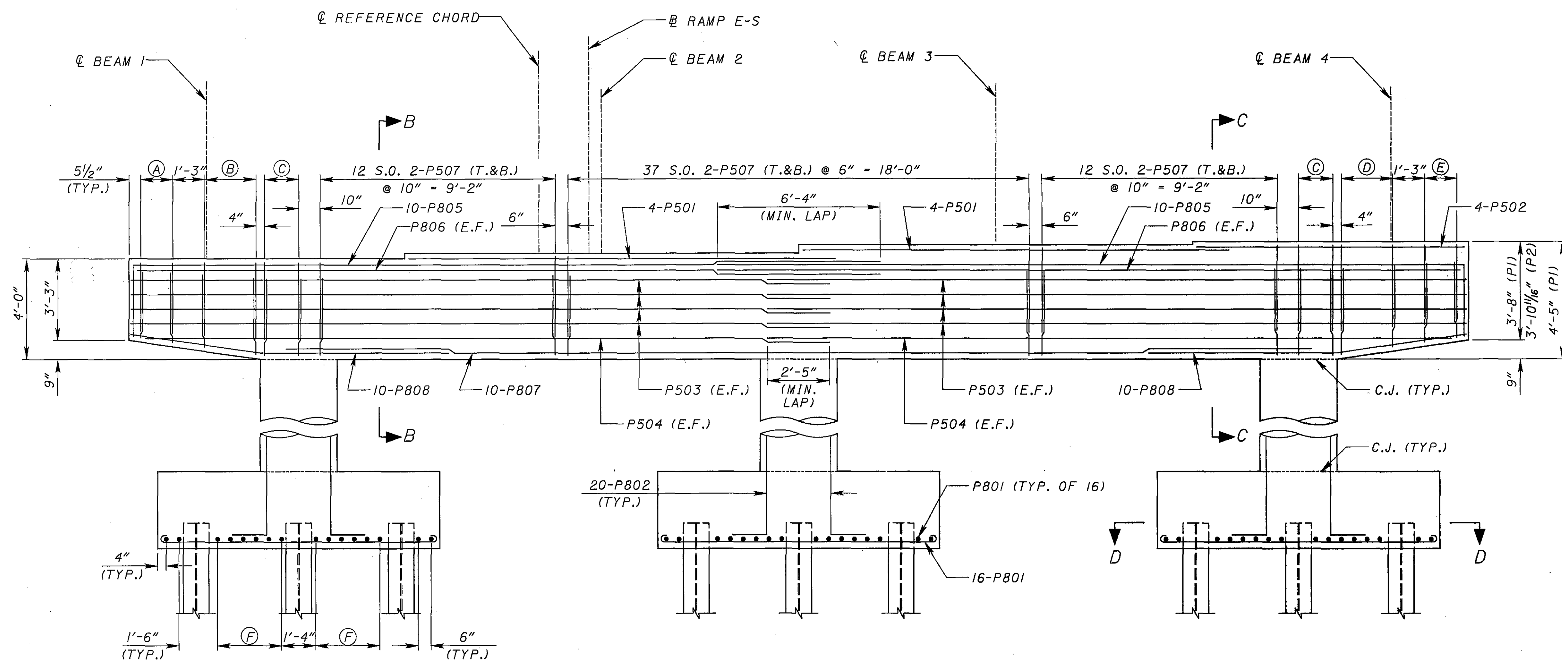
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PIER 1 & 2 PLAN & ELEVATION
BRIDGE MED-71-0729EN
RAMP E-S OVER GREENWICH ROAD

MED-71-6.06
PID 75657

8 / 22

784
1120

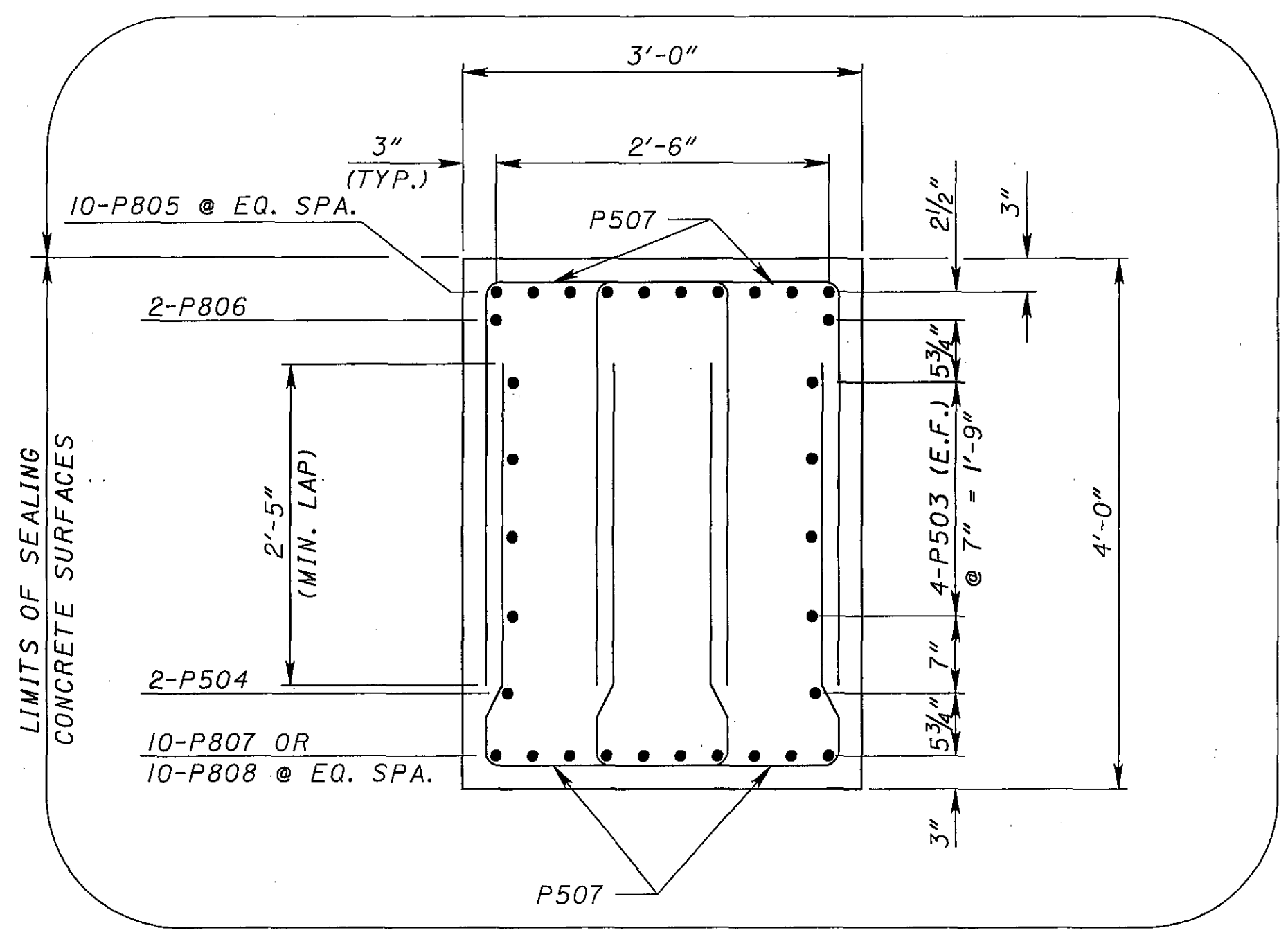


- NOTES:**
- SEE SHEET 8/22 FOR DETAILS AND DIMENSIONS NOT SHOWN ON THIS SHEET.
 - SEE SHEET 4/22 FOR PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 - MINIMUM STEEL LAP LENGTHS:
#5 BAR = 2'-5"
#8 BAR = 6'-4"
 - ALL PIER CONCRETE SHALL BE CLASS C CONCRETE.

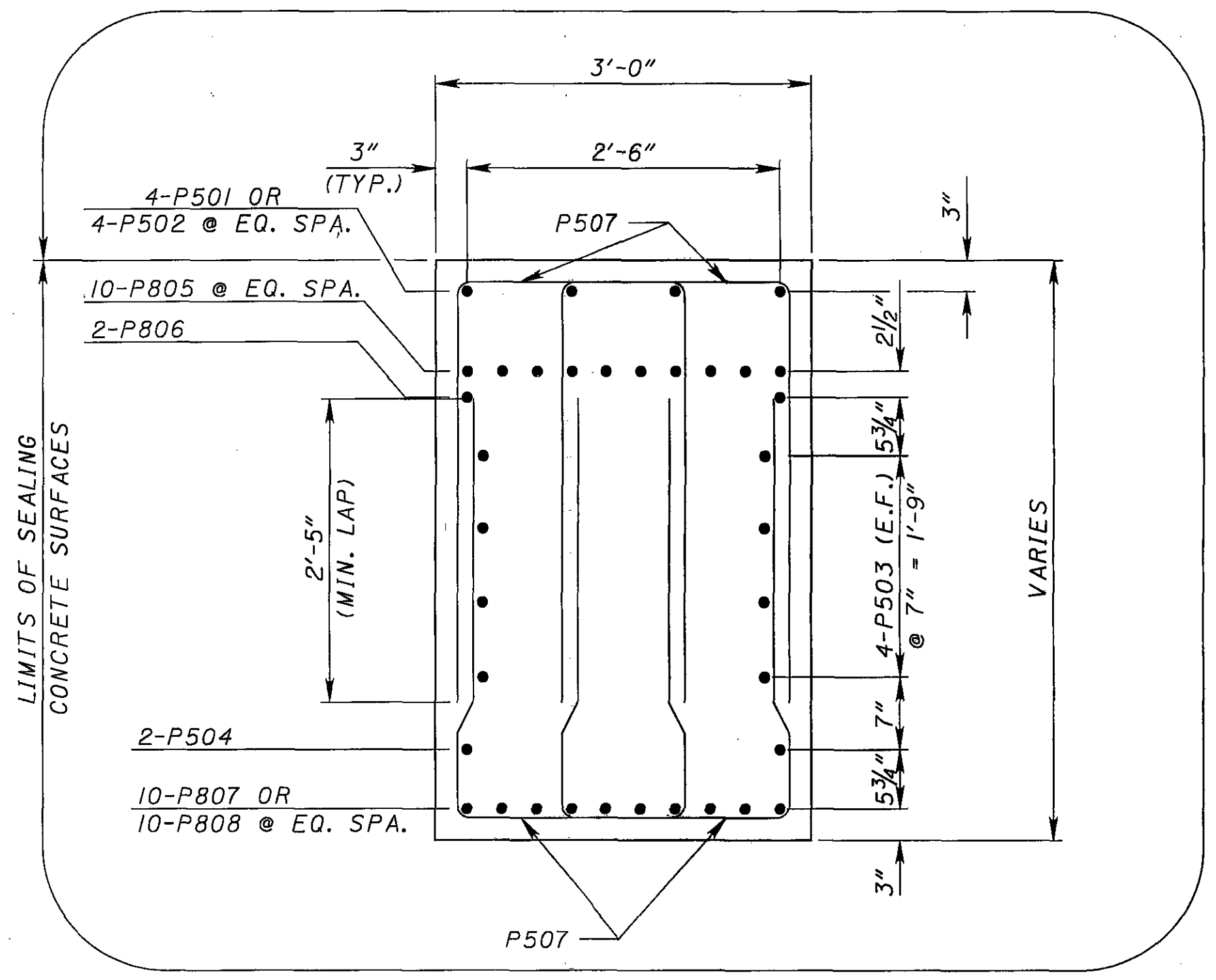
- LEGEND:**
- C.J. = CONSTRUCTION JOINT
 - P1 = PIER 1
 - P2 = PIER 2
 - S.O. = SETS OF
 - E.F. = EACH FACE
 - T.&B. = TOP AND BOTTOM
 - EQ. = EQUAL
 - H = BATTERED HPI0x42 STEEL PILES (4:1)
 - H = HPI0x42 STEEL PILES

- (A) 2 S.O. 2-P505 (T.&B.) @ 1'-3" = 1'-3"
- (B) 7 S.O. 2-P506 (T.&B.) @ 4" = 2'-0"
- (C) 5 S.O. 2-P507 (T.&B.) @ 4" = 1'-4"
- (D) 7 S.O. 2-P507 (T.&B.) @ 4" = 2'-0"
- (E) 2 S.O. 2-P508 (T.&B.) @ 1'-3" = 1'-3"
- (F) 6-P801 @ 6" = 2'-6"

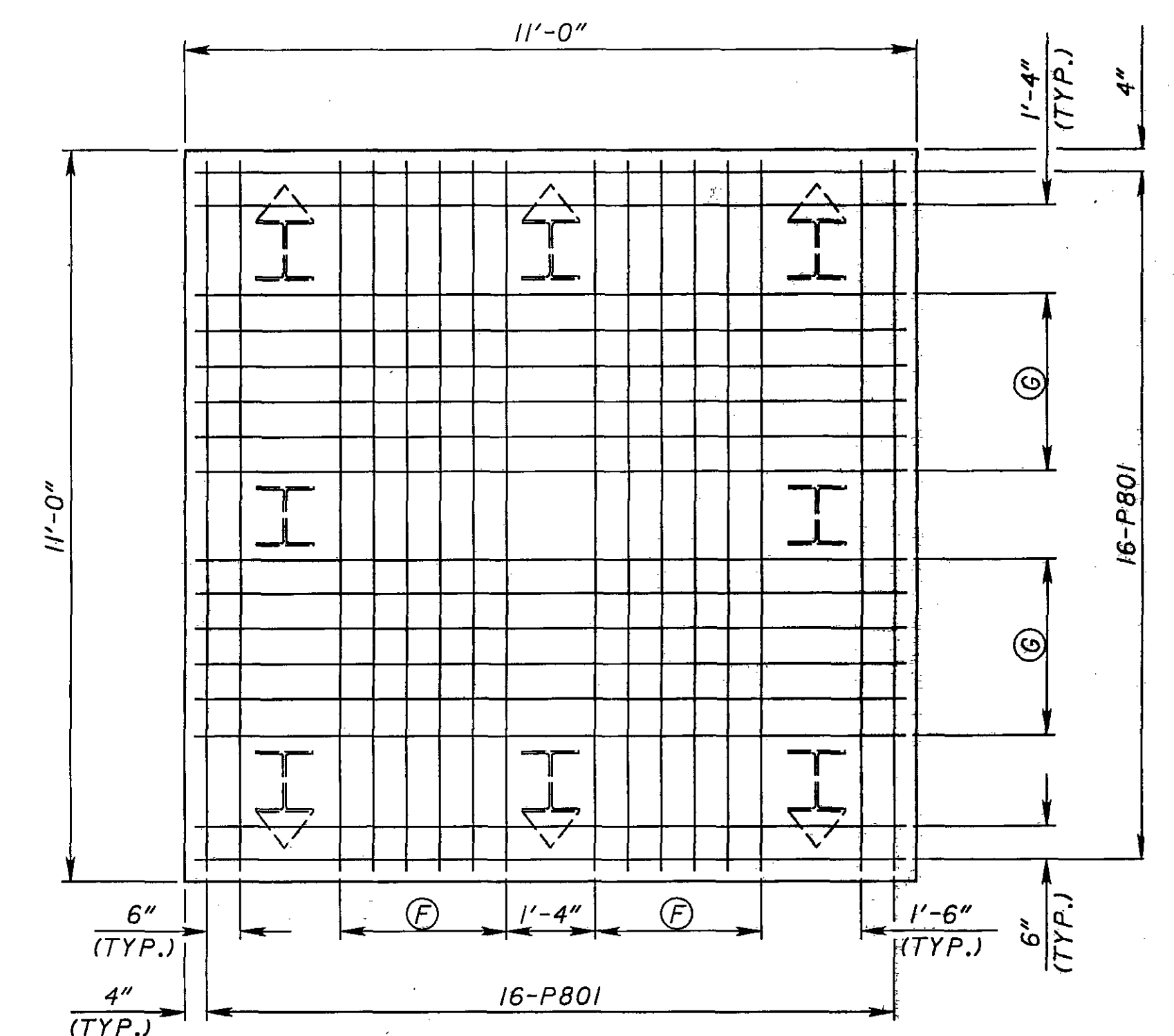
PIER CAP & FOOTING ELEVATION
(COLUMN REINFORCING STEEL NOT SHOWN FOR CLARITY)



SECTION B-B



SECTION C-C



- (F) 6-P801 @ 6" = 2'-6"
 - (G) 6-P801 @ 6 1/2" (-) = 2'-8"
- SECTION D-D**

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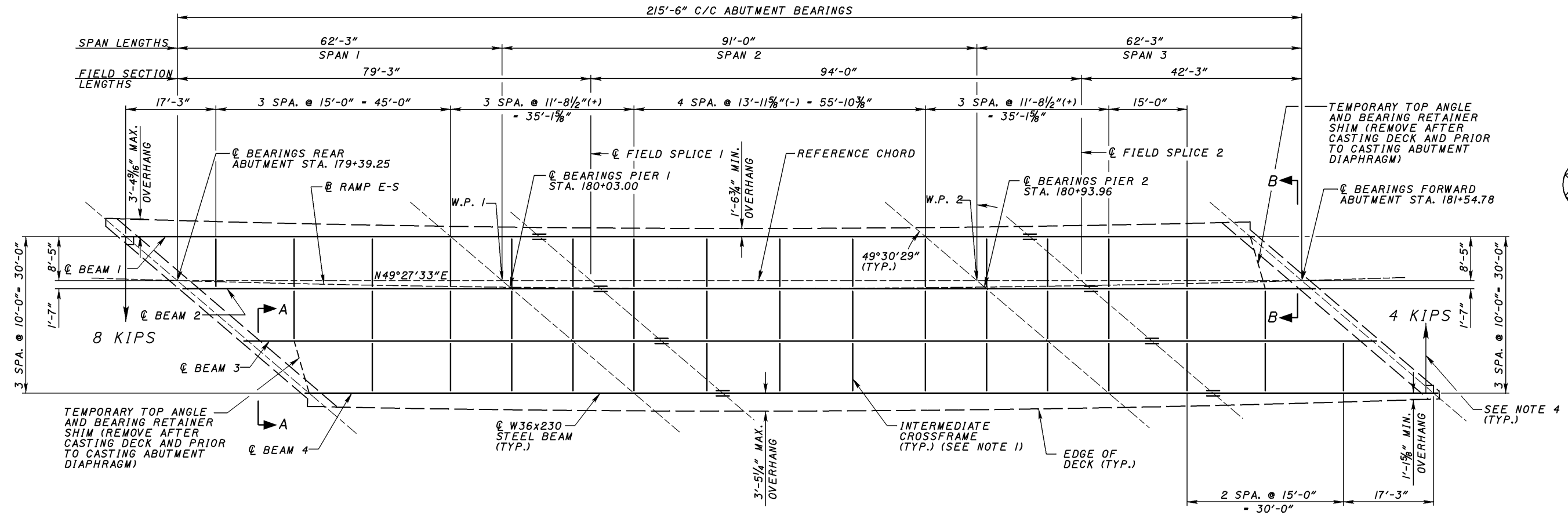
DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	
DRAWN	JTW
REVISED	8/8/06
DESIGNED	JTW
CHECKED	CAS/JHL

FRAMING PLAN
BRIDGE MED-71-0729EN
RAMP E-S OVER GREENWICH ROAD

MED-71-6.06
PID 75657

10/22

786
1120



FRAMING PLAN

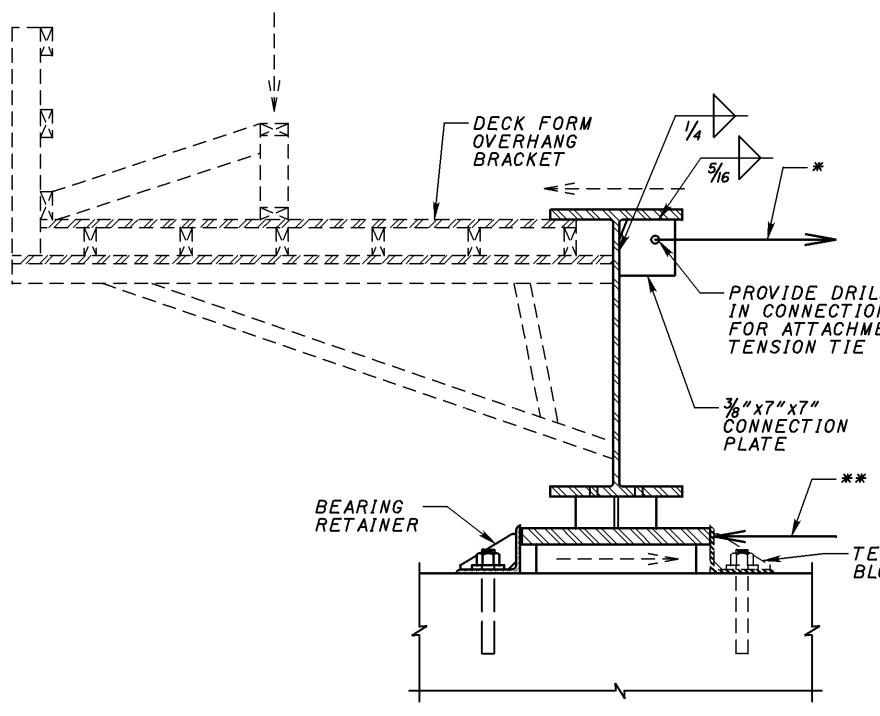
(ALL VERTICAL DIMENSIONS ARE MEASURED PERPENDICULAR TO REFERENCE CHORD, ALL HORIZONTAL DIMENSIONS ARE MEASURED PARALLEL TO THE REFERENCE CHORD)

NOTES:

- FOR CROSSFRAME AND STIFFENER DETAILS, SEE STD. DWG. GSD-1-96, CROSSFRAME TYPE 3 OR TYPE 4.
- SEE SHEET 11 / 22 FOR BEAM DETAILS.
- SEE SHEET 12 / 22 FOR FIELD SPLICE DETAILS.
- FORCES INDICATED MUST BE RESISTED BY TEMPORARY BRACING DURING DECK POUR DUE TO UNBRACED BEAM ENDS. FORCES AND DIRECTIONS SHOWN ARE FOR TOP FLANGE TENSION TIES. FORCES AT BLOCKING AT BEARING LOAD PLATES ARE EQUAL AND OPPOSITE. SEE TEMPORARY BEAM BRACING DETAIL FOR ADDITIONAL INFORMATION.

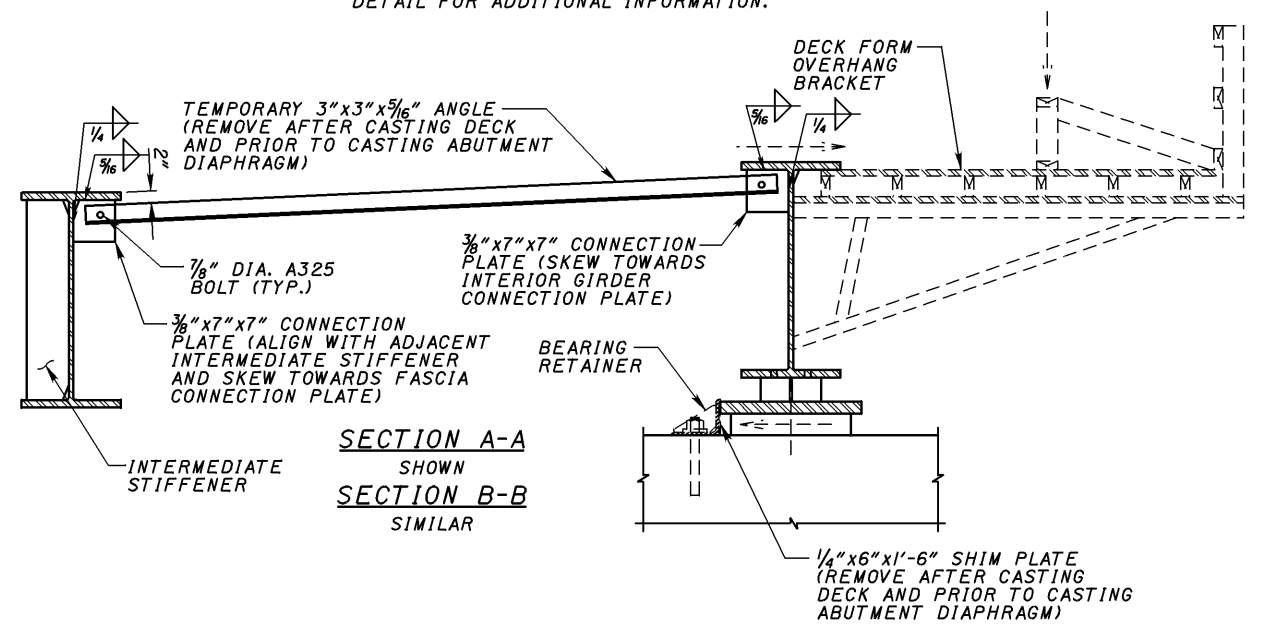
LEGEND:

SPA. - SPACES
W.P. - WORK POINT



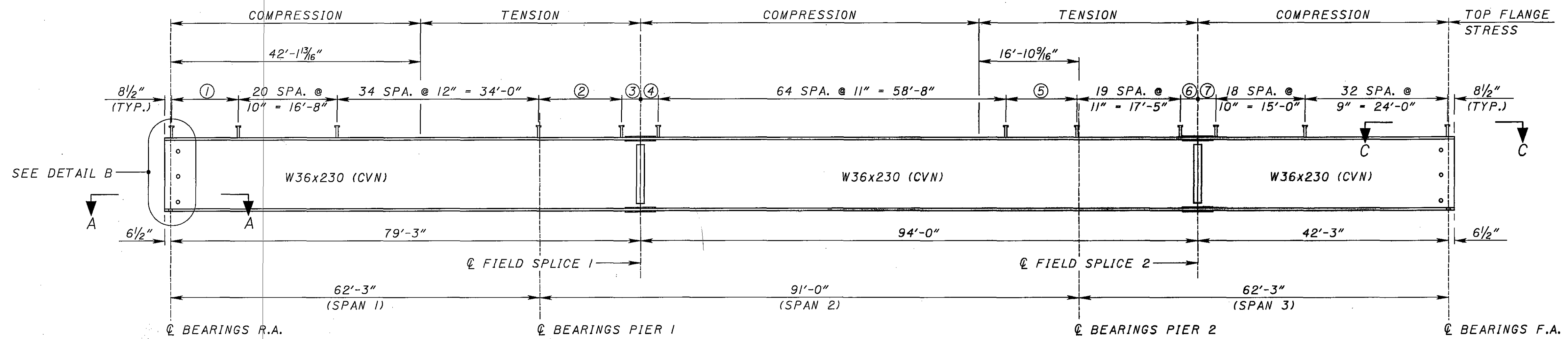
TEMPORARY BEAM BRACING DETAIL

- * - CONTRACTOR TO PROVIDE TENSION TIE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. TIE SHALL BE INSTALLED PERPENDICULAR TO CENTERLINE OF BEAM. FORCES GIVEN ARE HORIZONTAL (ADJUST AS NECESSARY IF TIE IS NOT HORIZONTAL). REMOVE TENSION TIE PRIOR TO CASTING ABUTMENT DIAPHRAGM. CONTRACTOR SHALL DESIGN TENSION TIE AND ANCHORAGE. CALCULATIONS PERFORMED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. PAYMENT SHALL BE INCLUDED IN PAY ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL 3.
- ** - CONTRACTOR TO PROVIDE TEMPORARY BLOCKING (SIMILAR TO BEARING RETAINER) TO PROVIDE RESISTANCE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. REMOVE BLOCKING PRIOR TO CASTING OF ABUTMENT DIAPHRAGM. SEE TENSION TIE NOTE (ABOVE) FOR SUBMITTAL, APPROVAL AND PAYMENT INFORMATION.



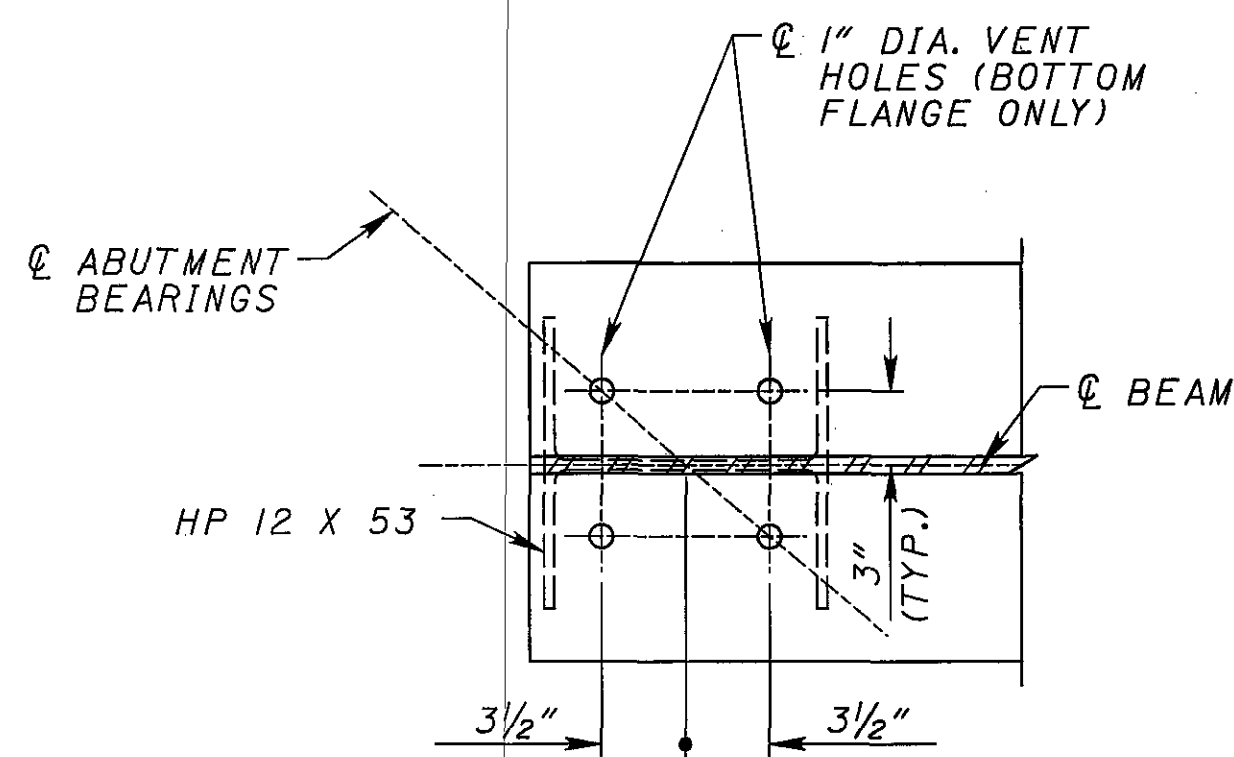
P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\REV-8-06\ME07ISD3.DGN

P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\ME071SD4.DGN

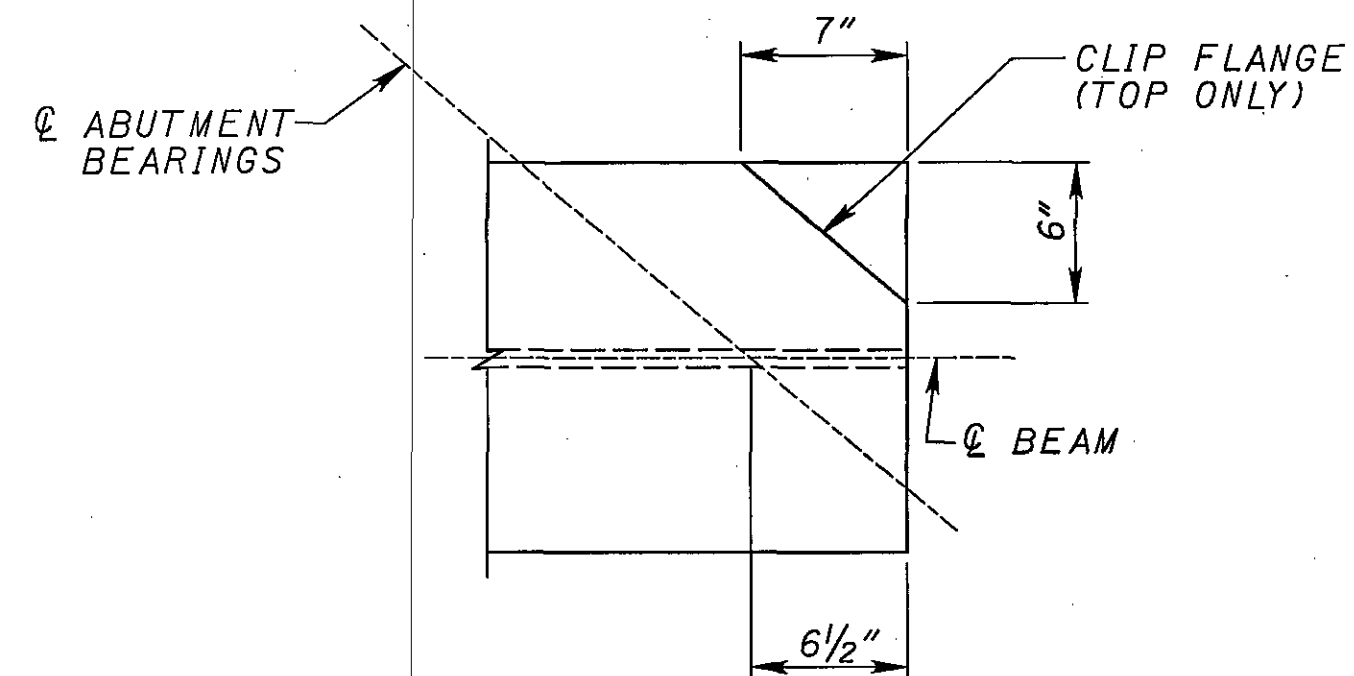


BEAM ELEVATION

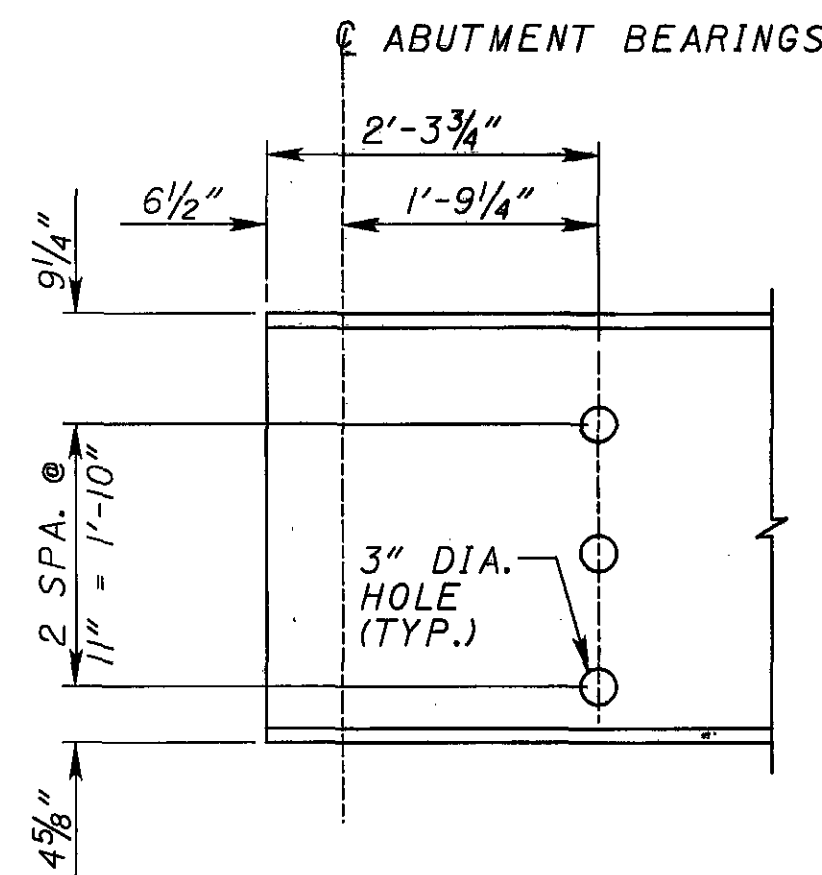
- ① - 15 SPA. @ 9" - 11'-3"
- ② - 7 SPA. @ 24" - 14'-0"
- ③ - 3'-2"
- ④ - 3'-0"
- ⑤ - 6 SPA. @ 24" - 12'-0"
- ⑥ - 2'-11"
- ⑦ - 3'-1"



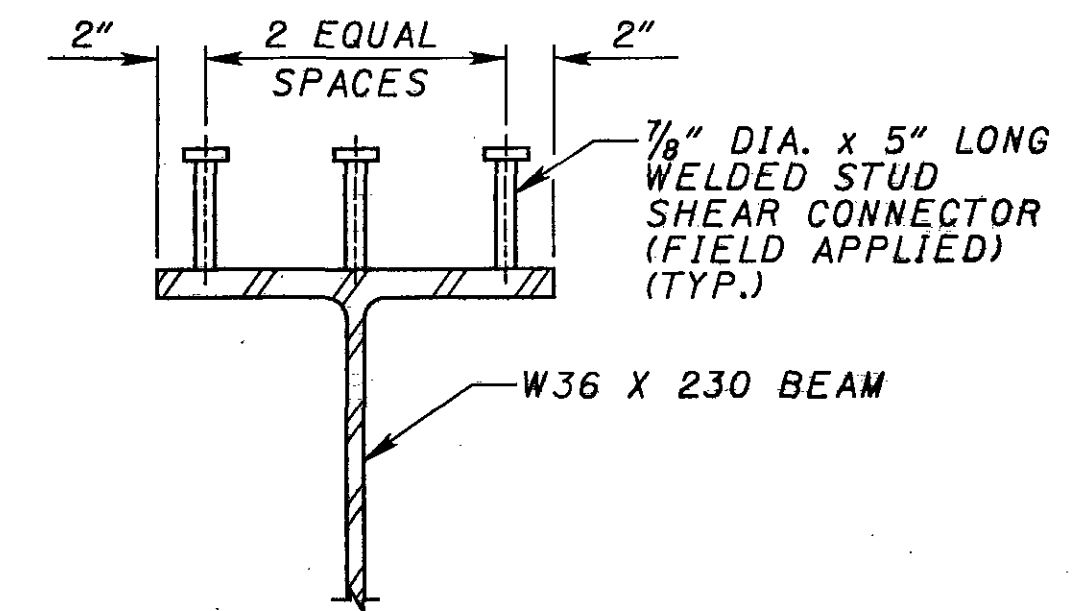
SECTION A-A
(REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND)



VIEW C-C
(FORWARD ABUTMENT SHOWN,
REAR ABUTMENT SIMILAR)



DETAIL B
(REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND)



SHEAR CONNECTOR DETAIL

LEGEND:

- B_ = BEAM NUMBER
- DIA. = DIAMETER
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- SPA. = SPACES

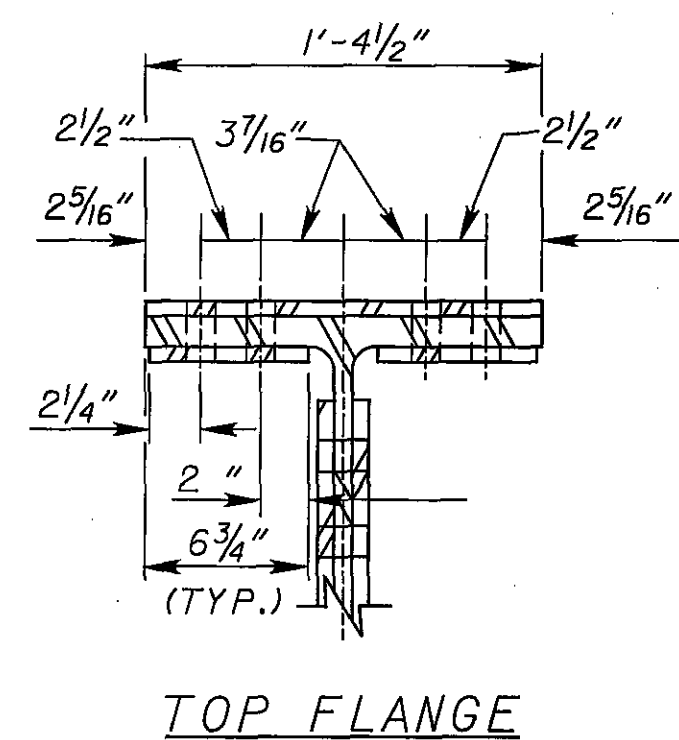
NOTES:

1. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 1" FROM EDGE OF FLANGE, BE NOT MORE THAN 2" LONG AND BE AT LEAST 3/16".

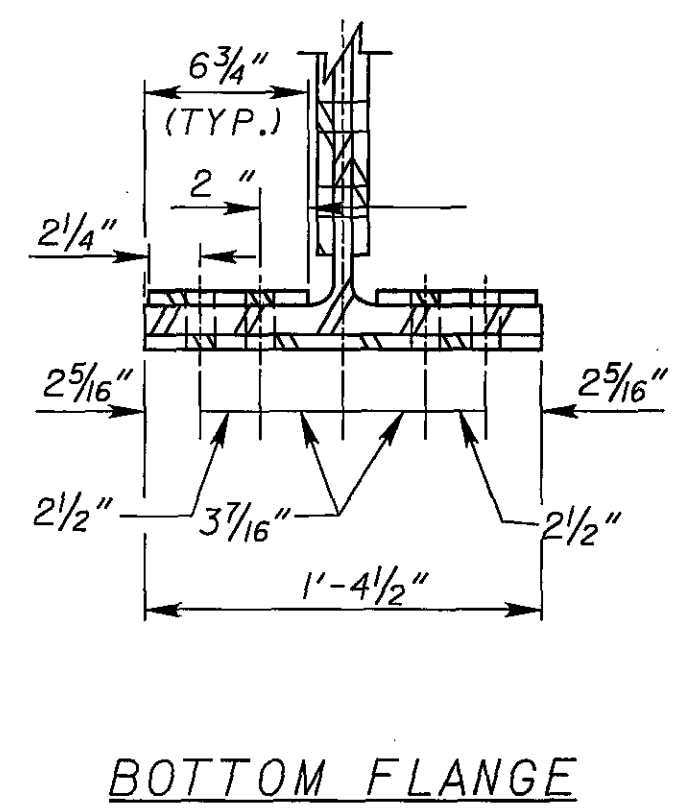
DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5202841
DRAWN	JTW
DESIGNED	JTW
CHECKED	CAS/JHL

BEAM DETAILS
BRIDGE MED-71-0729EN
RAMP E-S OVER GREENWICH ROAD

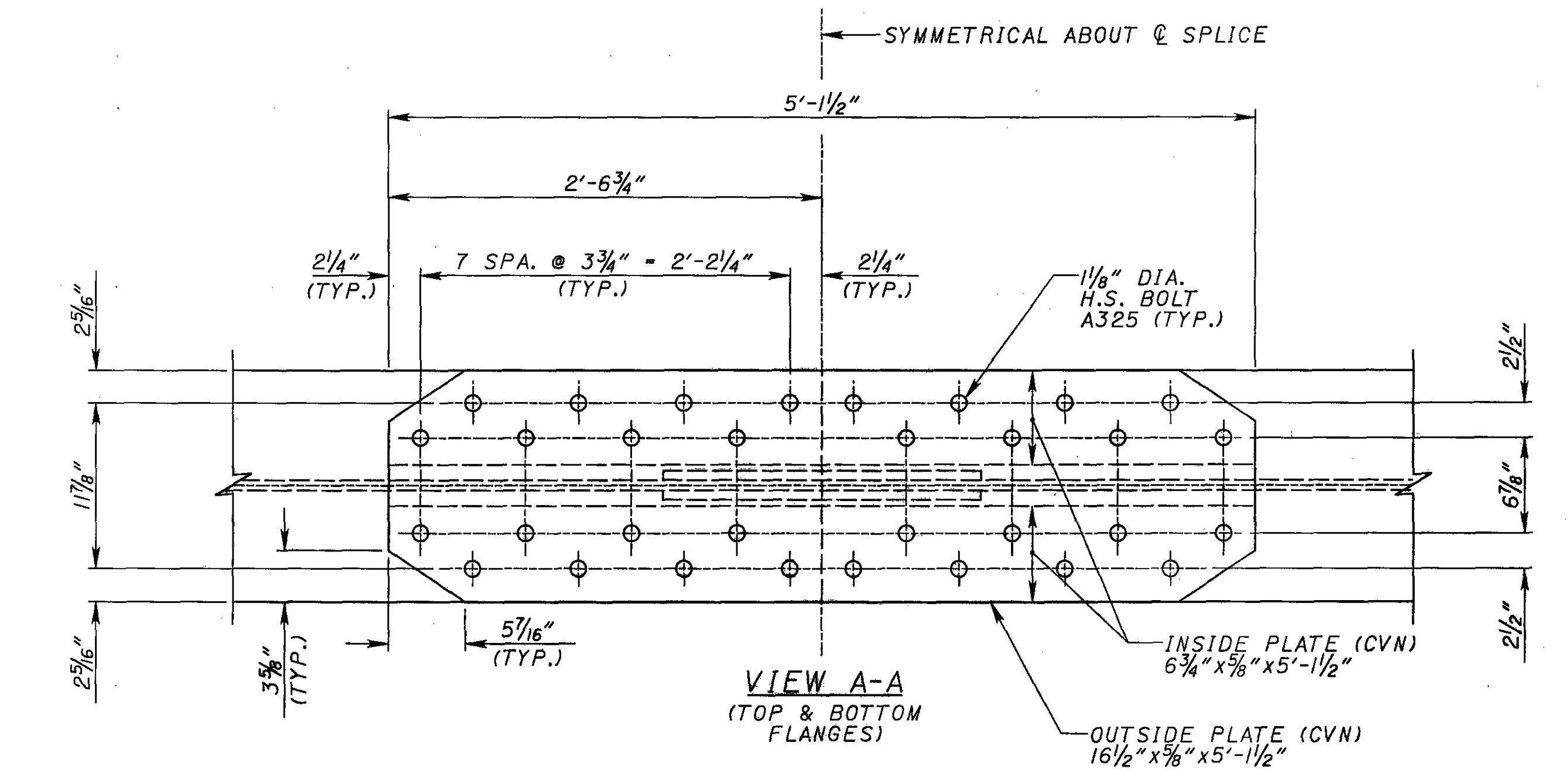
MED-71-6.06
PID 75657



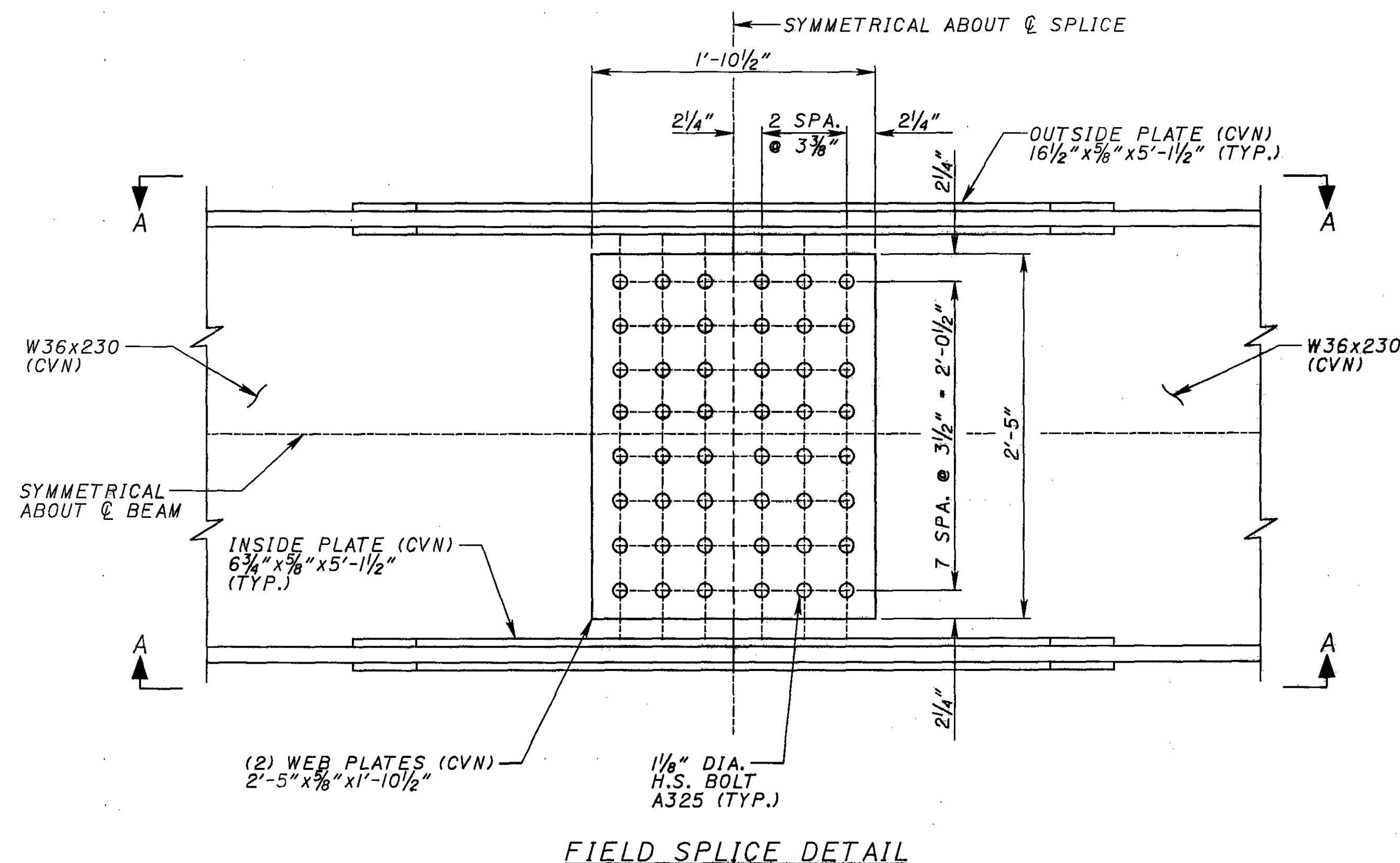
TOP FLANGE



BOTTOM FLANGE



VIEW A-A
(TOP & BOTTOM
FLANGES)



FIELD SPICE DETAIL

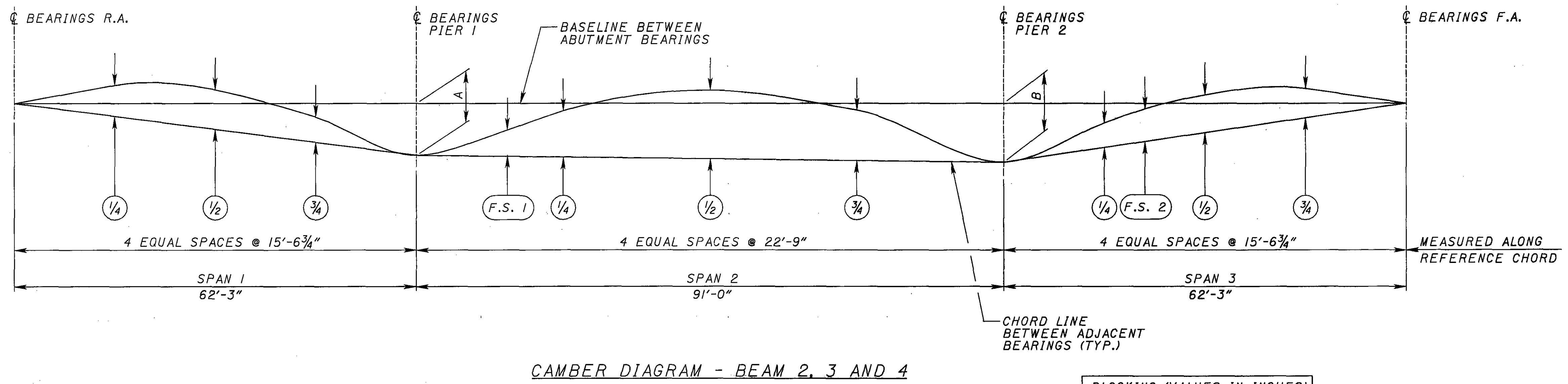
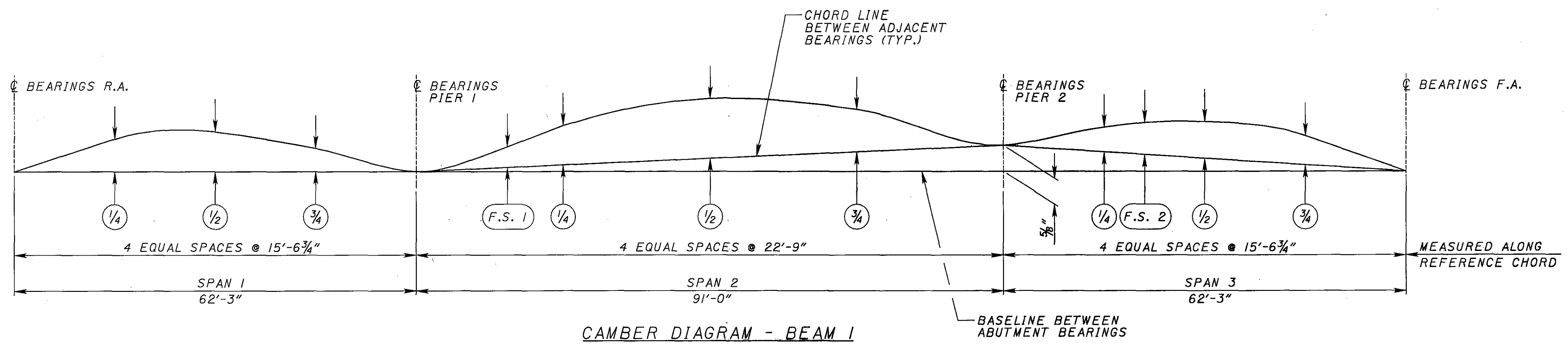
LEGEND:

CVN - CHARPY V-NOTCH TESTING
DIA. - DIAMETER
H.S. - HIGH STRENGTH
SPA. - SPACES

NOTES:

- SEE STD. DWG. BS-1-93 FOR FIELD SPICE DETAILS NOT SHOWN.
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- HIGH STRENGTH BOLTS SHALL BE 1/8" DIAMETER A325, TYPE 3 UNLESS OTHERWISE NOTED.

DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5202841
DESIGNED	JTW
CHECKED	BES
FIELD SPICE DETAILS BRIDGE MED-71-0729EN RAMP E-S OVER GREENWICH ROAD	
MED-71-6.06 PID 75657	
12 / 22	
788 1120	



BLOCKING (VALUES IN INCHES)		
BEAM	DIMENSION	
	A	B
2	11/16	7/8
3	1 1/16	2 3/16
4	1 3/16	1 5/16

CAMBER TABLE (VALUES IN INCHES)																
BEAM NUMBER	CONDITION	REAR ABUT.	SPAN 1			PIER 1	SPAN 2				PIER 2	SPAN 3				FWD. ABUT.
			1/4 SPAN	MIDSPAN	3/4 SPAN		F.S. 1	1/4 SPAN	MIDSPAN	3/4 SPAN		1/4 SPAN	F.S. 2	MIDSPAN	3/4 SPAN	
1 & 4	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/16	0	0	1/8	1/8	1/4	1/8	0	0	0	1/16	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	3/16	1/16	0	1/2	3/4	1 3/16	3/4	0	1/16	1/8	3/16	3/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	1/4	1/4	1/16	0	5/8	7/8	1 7/16	7/8	0	1/16	1/8	1/4	1/4	0
2 & 3	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/16	0	0	1/8	1/8	1/4	1/8	0	0	0	1/16	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/4	3/16	1/16	0	9/16	1 1/16	1 5/16	1 3/16	0	1/16	1/8	3/16	1/4	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5/16	1/4	1/16	0	1 1/16	1 5/16	1 9/16	1 5/16	0	1/16	1/8	1/4	5/16	0

LEGEND:
 F.A. - FORWARD ABUTMENT
 R.A. - REAR ABUTMENT
 F.S. - FIELD SPLICE

NOTE:
 1. SEE SHEET 10 / 22 FOR BEAM NUMBER LOCATION.

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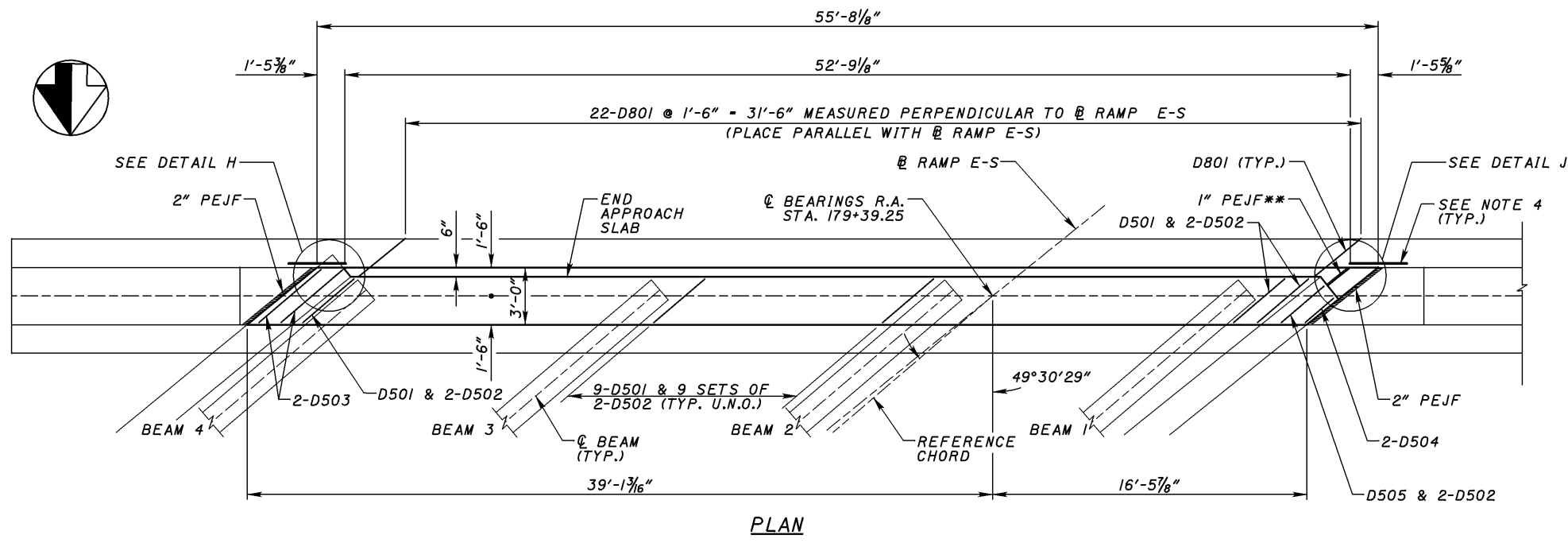
NOTES:

- ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
- PLACE DECK CONCRETE PRIOR TO PLACING ABUTMENT DIAPHRAGM CONCRETE ENCASEING STRUCTURAL STEEL MEMBERS. PROVIDE CONSTRUCTION JOINTS WITH KEYWAYS AS SHOWN IN SECTION A-A ON SHEET 18 / 22. REMOVE TEMPORARY BLOCKING, TENSION TIES AND TEMPORARY TOP ANGLES PRIOR TO PLACEMENT OF ABUTMENT DIAPHRAGM CONCRETE.
- MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #8 BAR = 5'-0"
- PLACE NEOPRENE SHEETING, 3'-0" WIDE, CENTERED ON VERTICAL JOINT, FROM BOTTOM OF APPROACH SLAB TO TOP OF ABUTMENT SEAT.

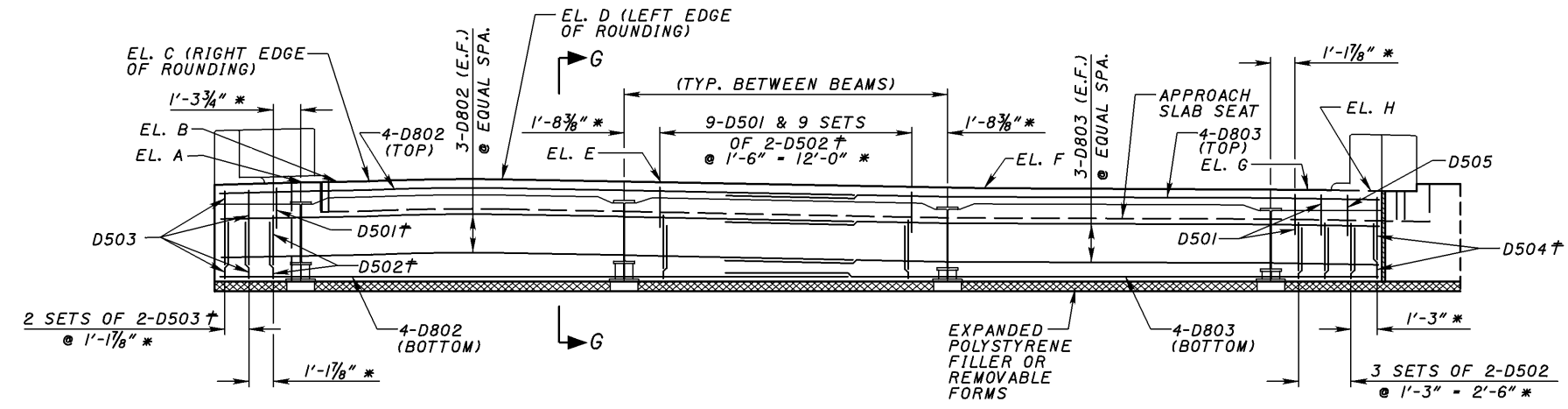
LEGEND:

- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- E.F. = EACH FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- R.A. = REAR ABUTMENT
- SPA. = SPACES
- U.N.O. = UNLESS NOTED OTHERWISE
- * = MEASURED ALONG ϕ
- ** = INCLUDE WITH APPROACH SLAB FOR PAYMENT
- † = PLACE PARALLEL WITH ϕ BEAMS

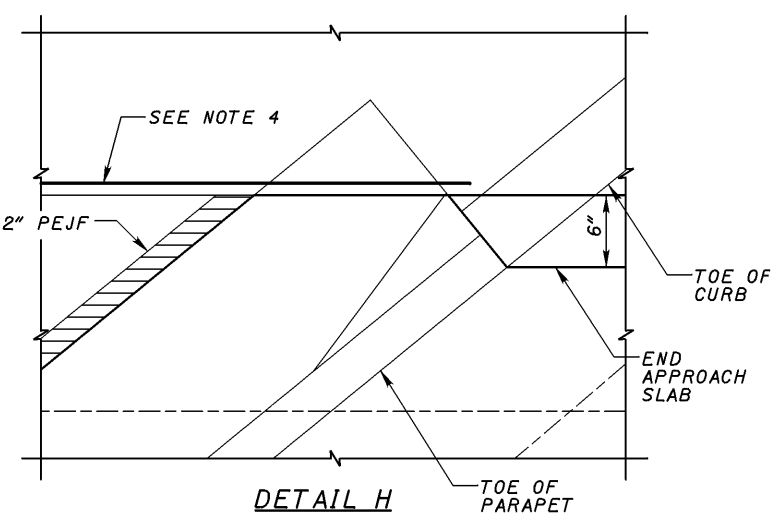
ELEVATIONS (GIVEN ALONG ϕ BEARING R.A.)		
A	1028.11	RIGHT TOE OF PARAPET
B	1028.18	BEAM 4
C	1028.24	RIGHT EDGE OF ROUNDING
D	1028.33	LEFT EDGE OF ROUNDING
E	1028.23	BEAM 3
F	1028.05	BEAM 2
G	1027.87	BEAM 1
H	1027.83	LEFT TOE OF PARAPET



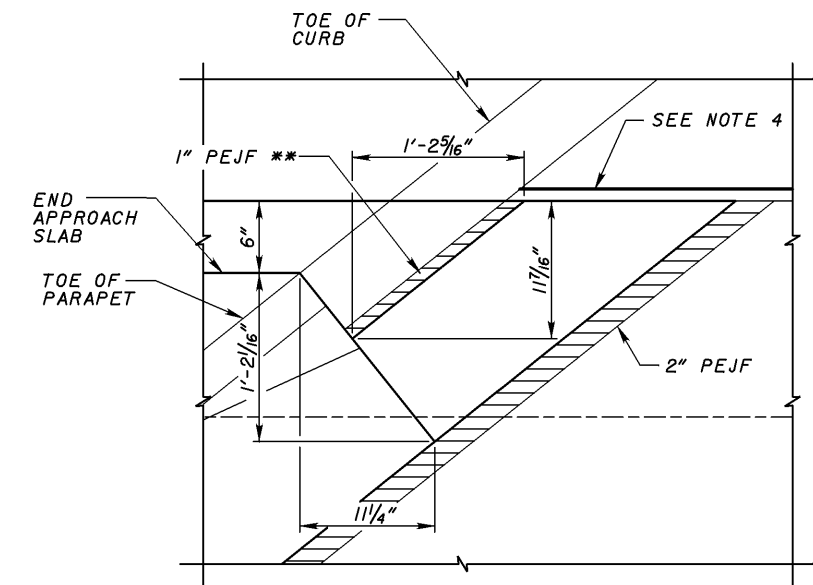
PLAN



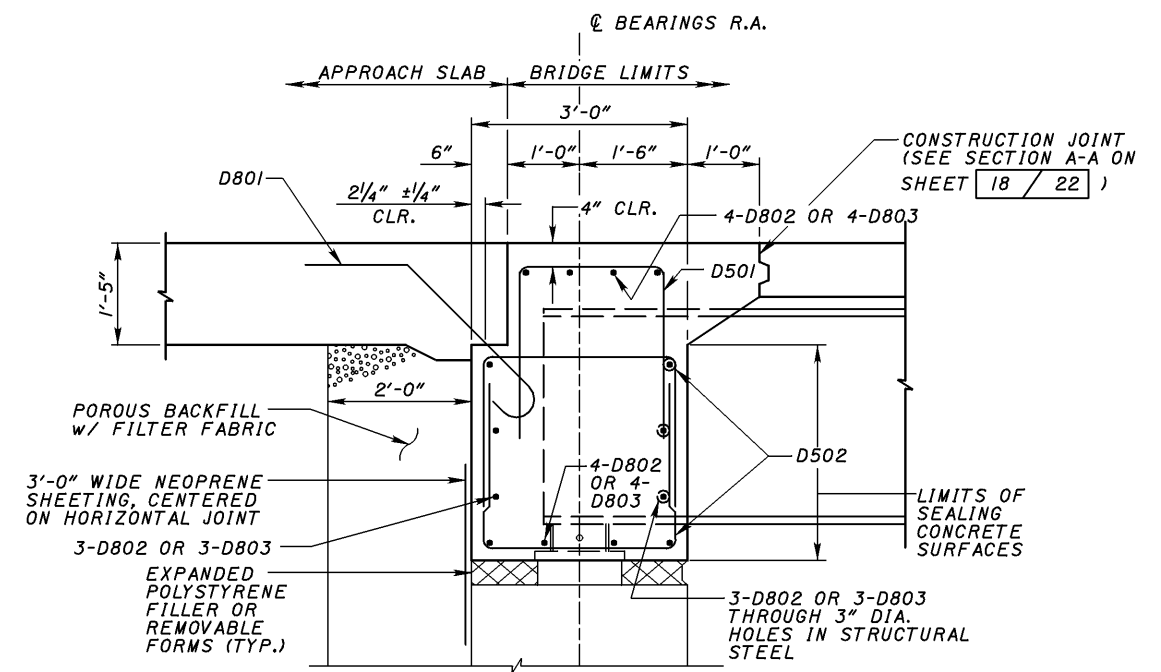
ELEVATION
 (WINGWALLS NOT SHOWN FOR CLARITY)



DETAIL H



DETAIL J



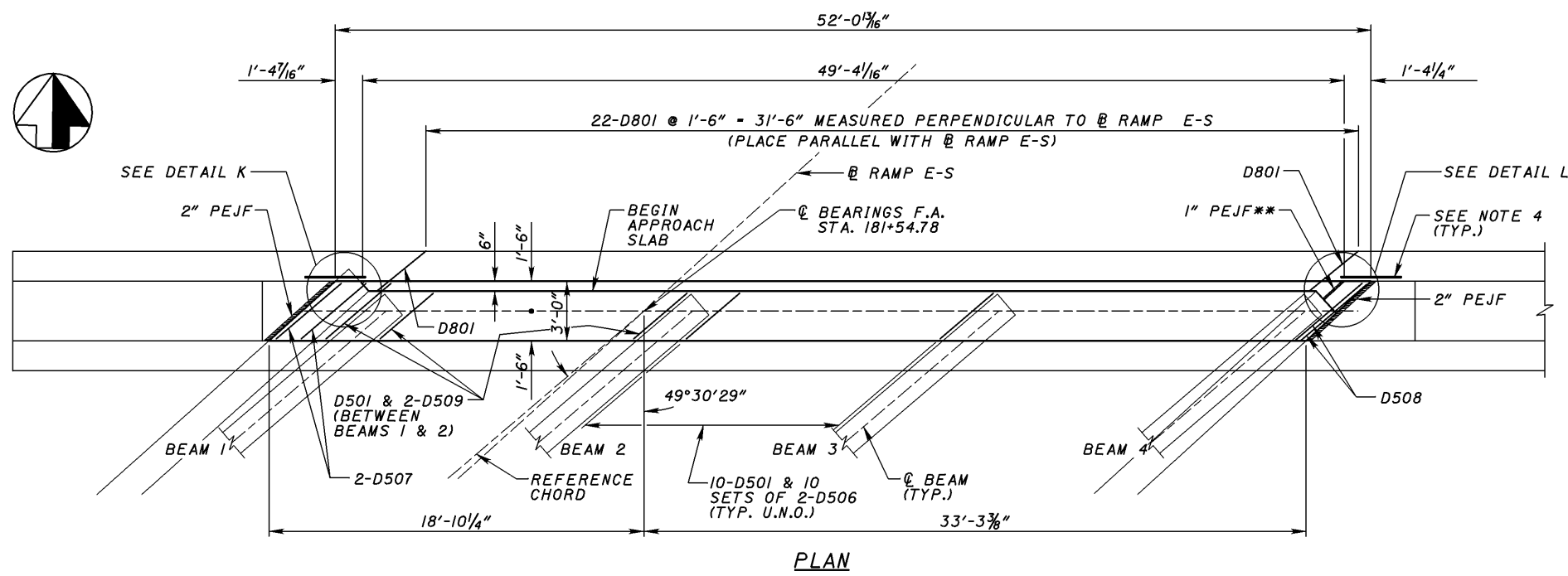
SECTION G-G

NOTES:

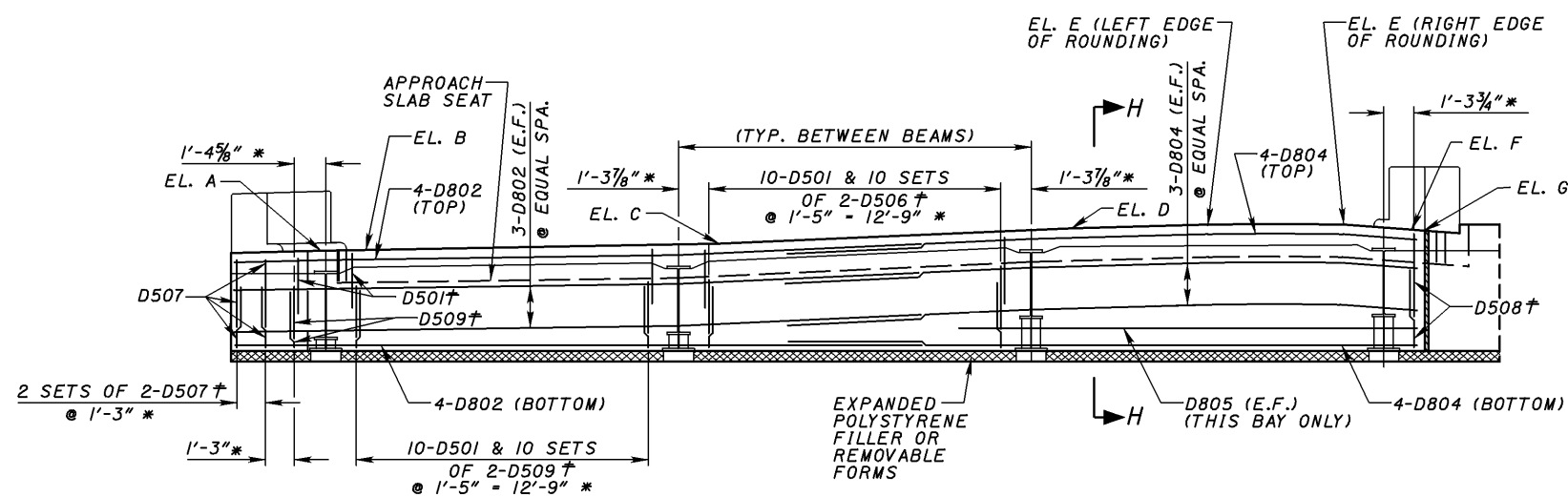
- ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
- PLACE DECK CONCRETE PRIOR TO PLACING ABUTMENT DIAPHRAGM CONCRETE ENCASEING STRUCTURAL STEEL MEMBERS. PROVIDE CONSTRUCTION JOINTS WITH KEYWAYS AS SHOWN IN SECTION A-A ON SHEET 18 / 22. REMOVE TEMPORARY BLOCKING, TENSION TIES AND TEMPORARY TOP ANGLES PRIOR TO PLACEMENT OF ABUTMENT DIAPHRAGM CONCRETE.
- MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #8 BAR = 5'-0"
- PLACE NEOPRENE SHEETING, 3'-0" WIDE, CENTERED ON VERTICAL JOINT, FROM BOTTOM OF APPROACH SLAB TO TOP OF ABUTMENT SEAT.

LEGEND:

- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- E.F. = EACH FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- F.A. = FORWARD ABUTMENT
- SPA. = SPACES
- U.N.O. = UNLESS NOTED OTHERWISE
- * = MEASURED ALONG ϕ
- BEARINGS F.A.
- ** = INCLUDE WITH APPROACH SLAB FOR PAYMENT
- † = PLACE PARALLEL WITH ϕ BEAMS

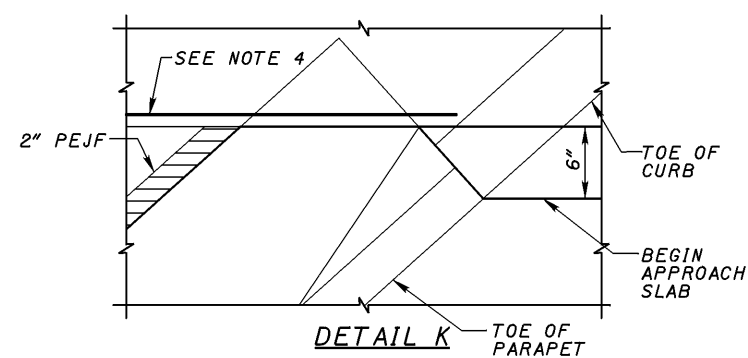


PLAN

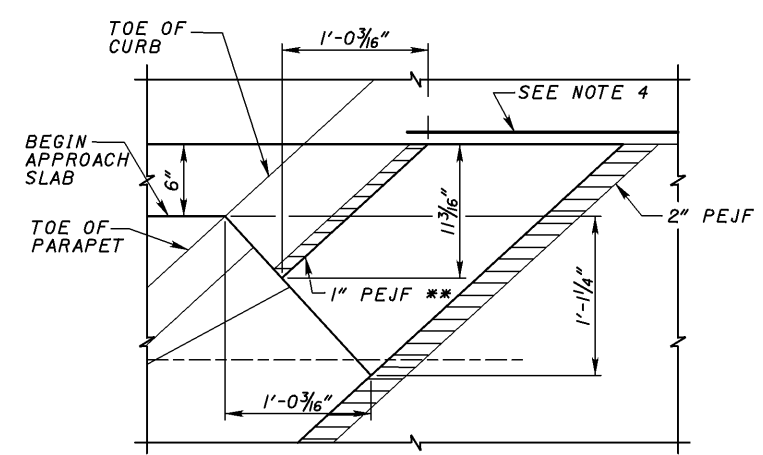


ELEVATION
 (WINGWALLS NOT SHOWN FOR CLARITY)

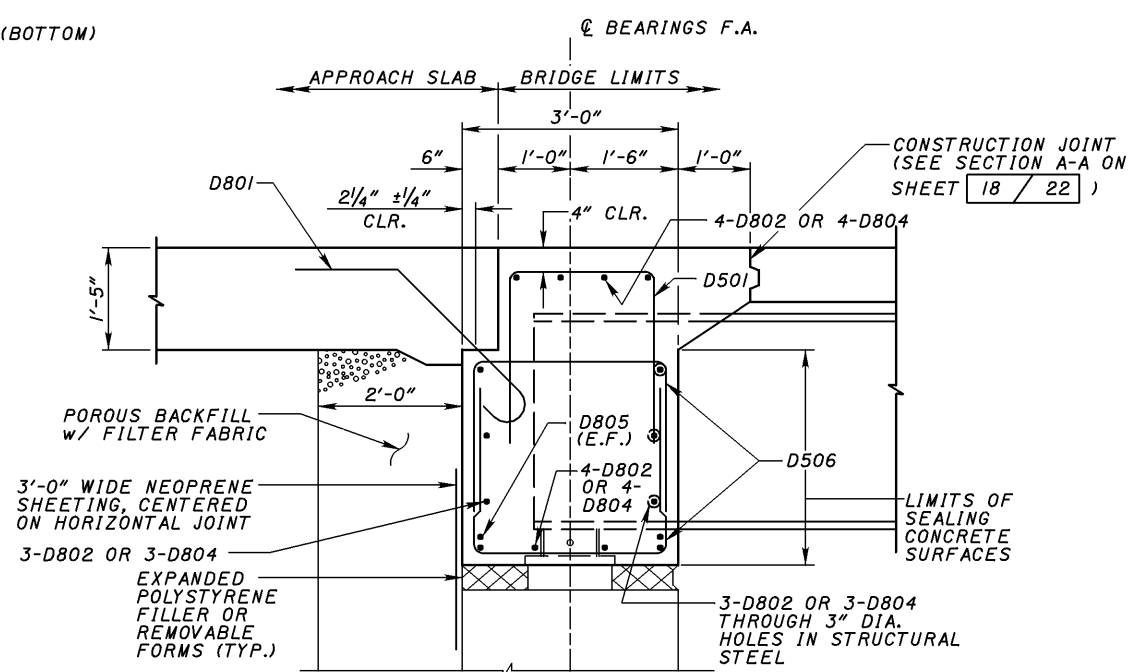
ELEVATIONS (GIVEN ALONG ϕ BEARINGS F.A.)		
A	1023.78	LEFT TOE OF PARAPET
B	1023.83	BEAM 1
C	1024.26	BEAM 2
D	1024.75	BEAM 3
E	1024.96	LEFT AND RIGHT EDGE OF ROUNDING
F	1024.85	RIGHT TOE OF PARAPET
G	1024.83	BEAM 4



DETAIL K

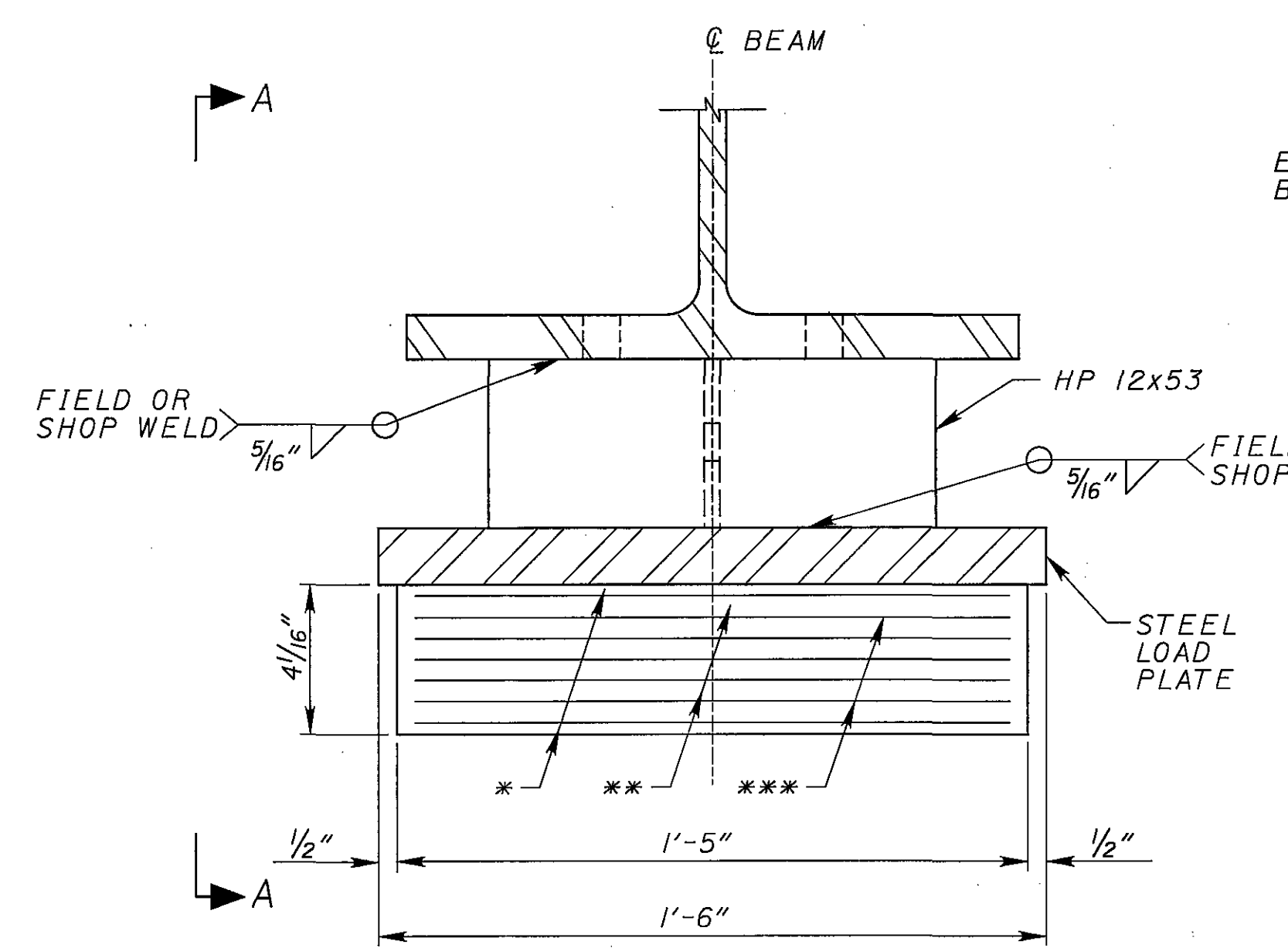


DETAIL L



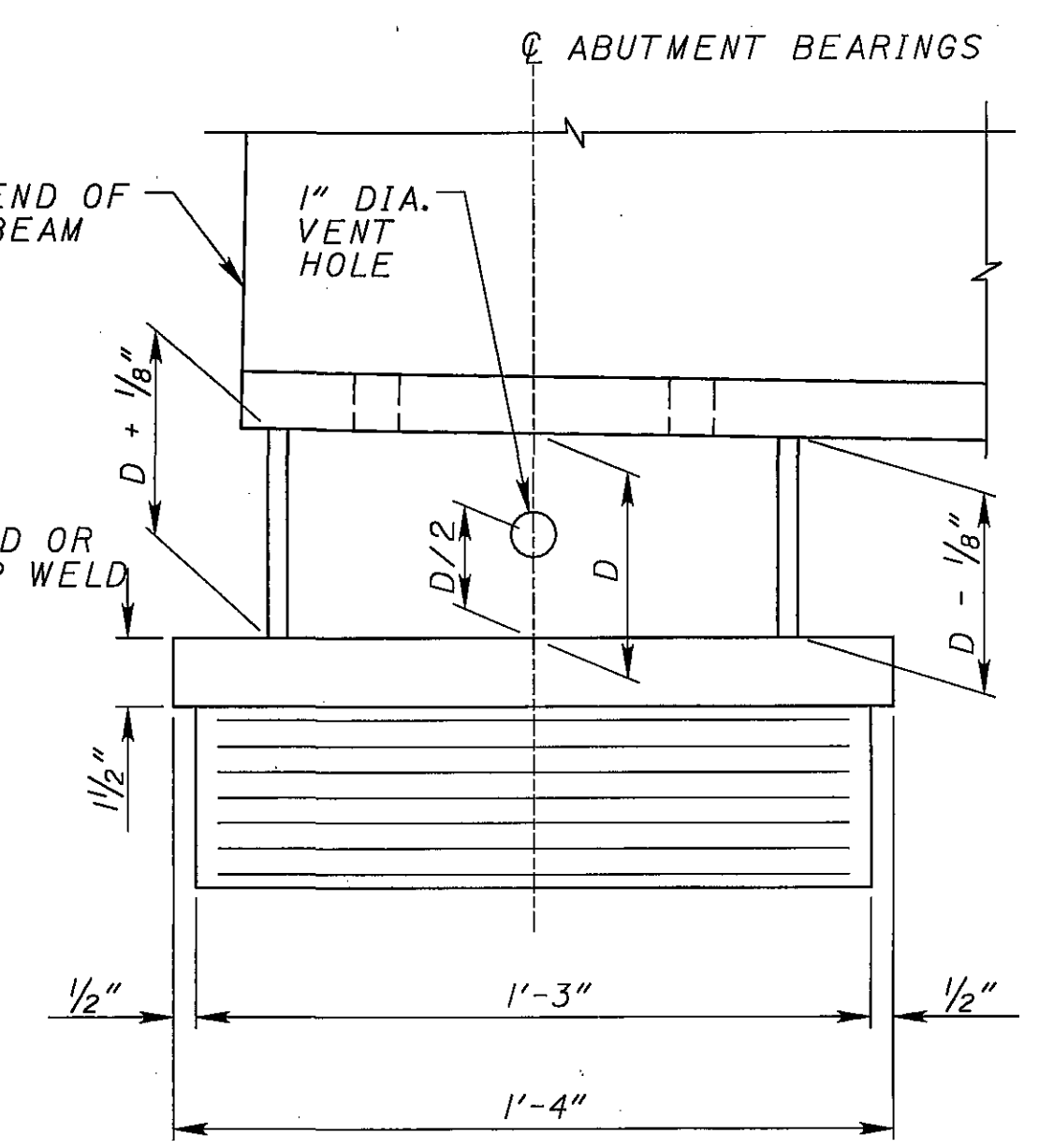
SECTION H-H

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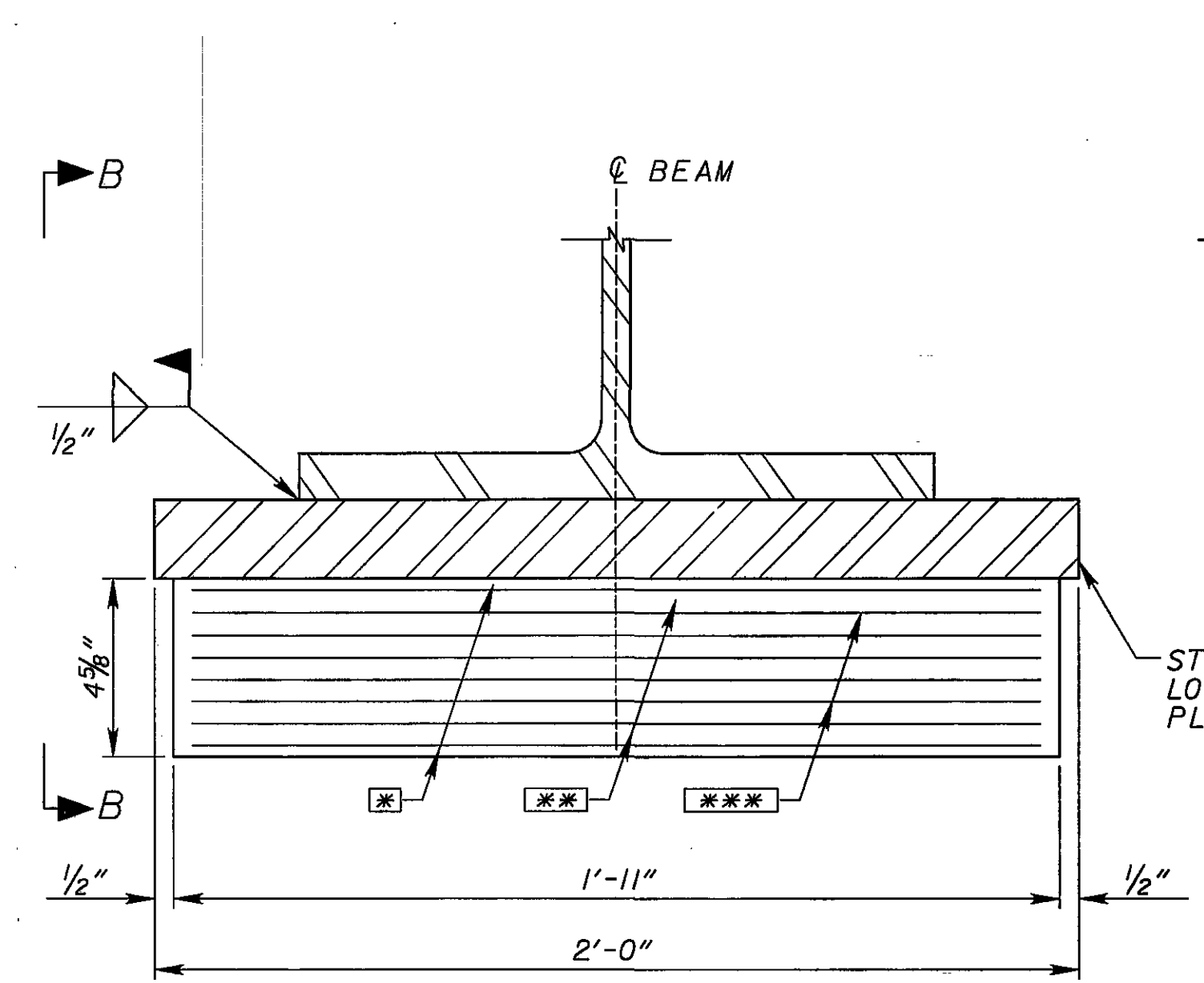
* - 2 EXTERNAL ELASTOMER LAYERS
 THICKNESS = 0.270"
 ** - 6 INTERNAL ELASTOMER LAYERS
 THICKNESS = 0.500"
 *** - 7 INTERNAL STEEL LAMINATES
 THICKNESS = 0.0747"

ABUTMENT BEARING DETAILS
 (EXPANSION)



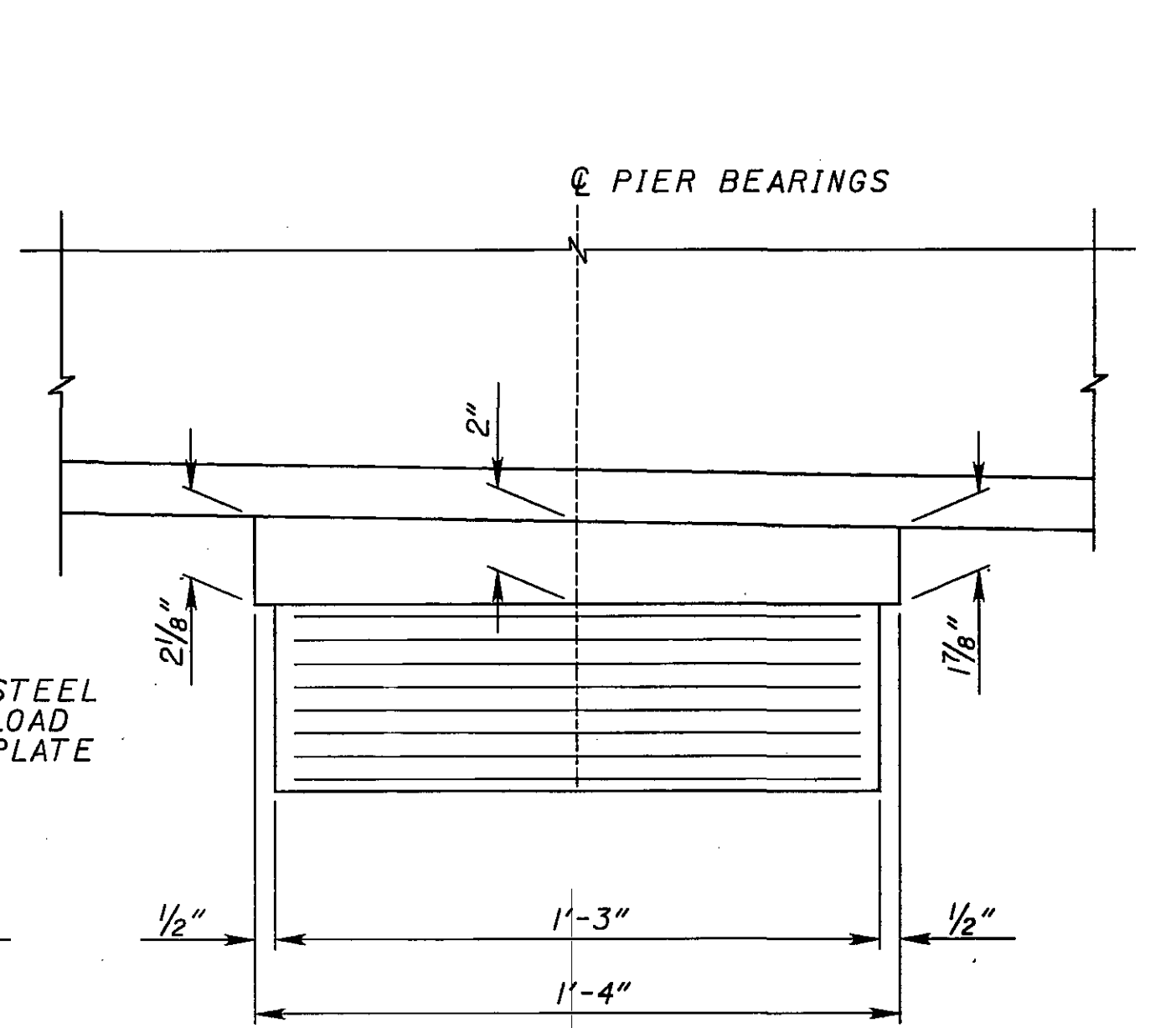
UPSTATION REAR ABUTMENT
 UPSTATION FORWARD ABUTMENT

VIEW A-A



* - 2 EXTERNAL ELASTOMER LAYERS
 THICKNESS = 0.264"
 ** - 7 INTERNAL ELASTOMER LAYERS
 THICKNESS = 0.500"
 *** - 8 INTERNAL STEEL LAMINATES
 THICKNESS = 0.0747"

PIER BEARING DETAILS
 (EXPANSION)



UPSTATION

VIEW B-B

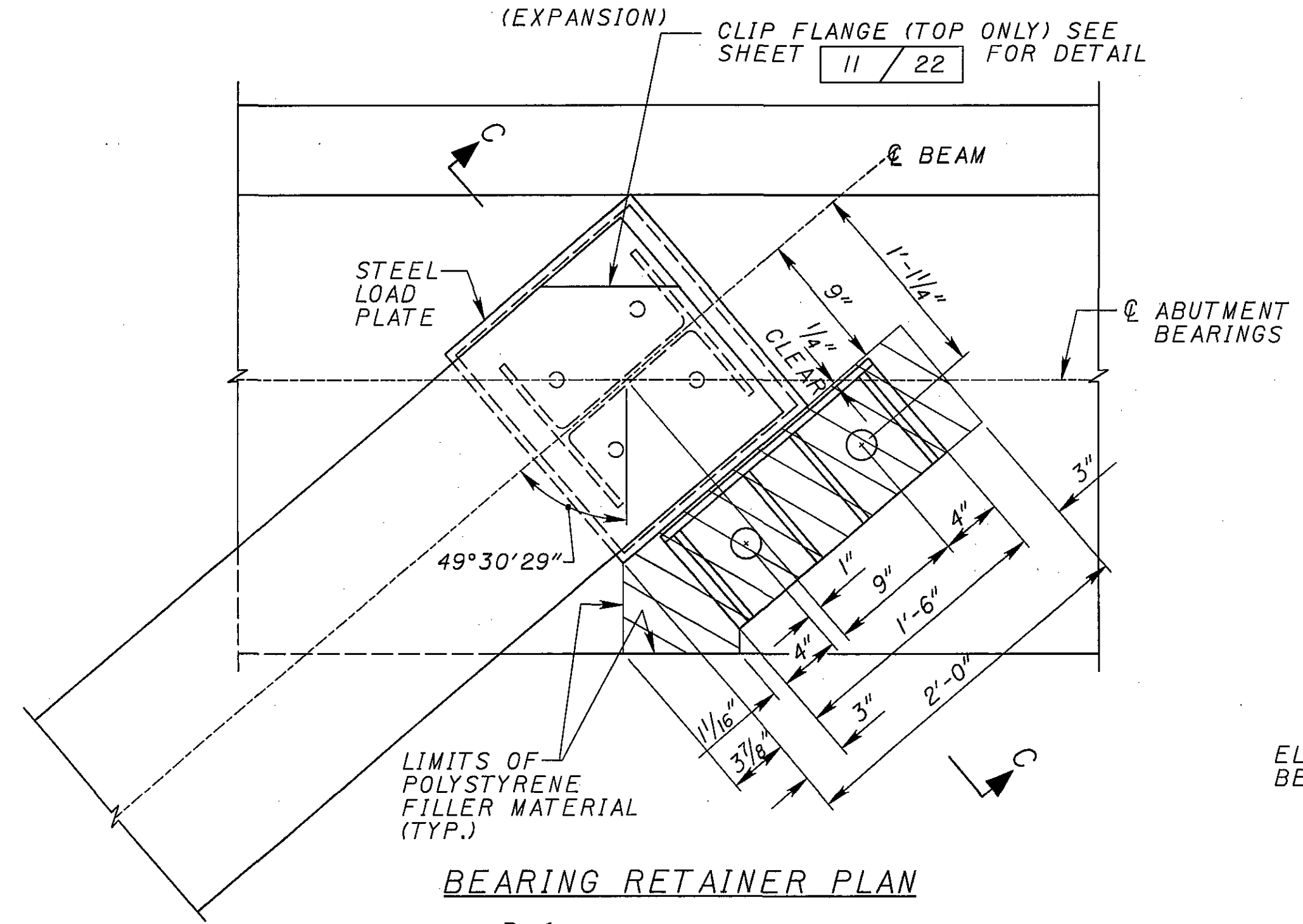
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	DIMENSION D	BEAM	DIMENSION D
B1	4 1/2"	B1	4 1/2"
B2	6 1/8"	B2	9 5/8"
B3	8 7/8"	B3	1'-3 3/16"
B4	8 7/8"	B4	1'-4 1/2"

NOTES:

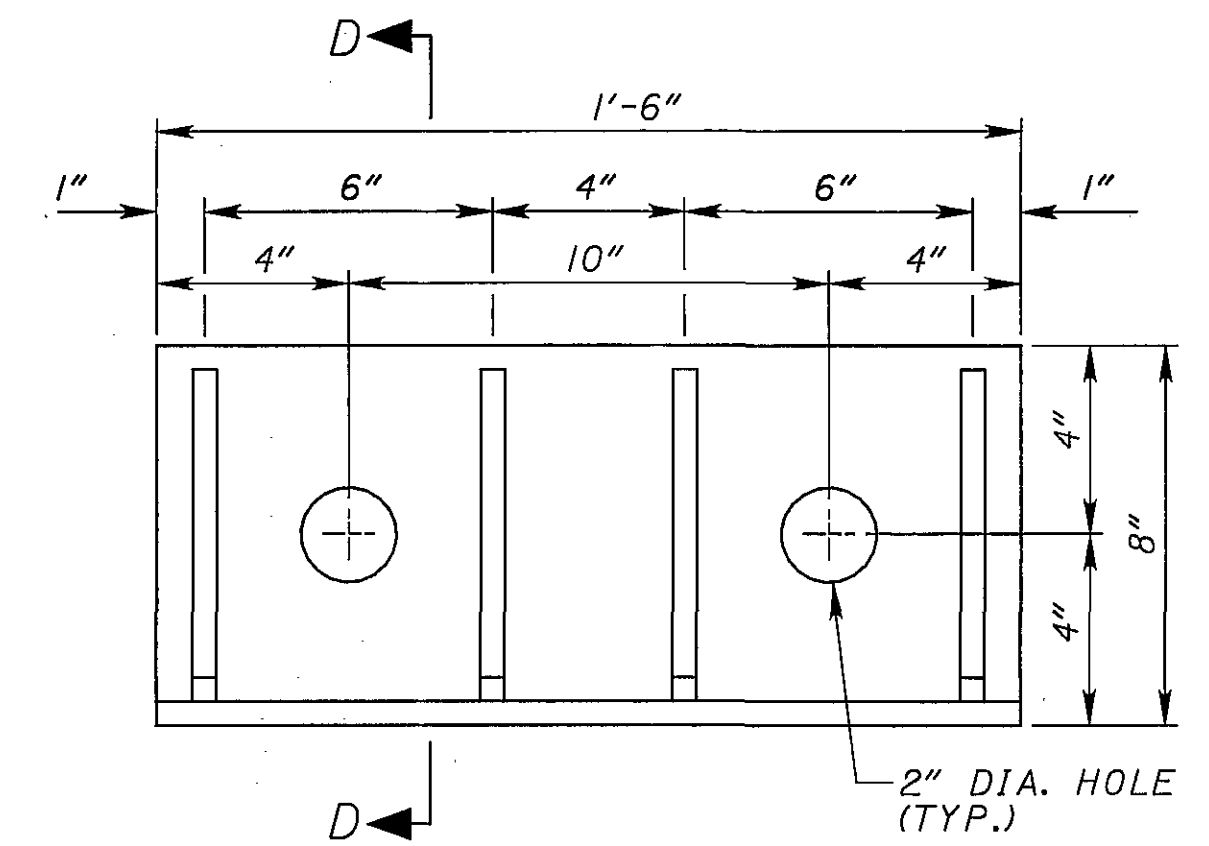
- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- BEARING REPOSITIONING: IF THE BEAMS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
- WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND LOCATION (REAR ABUTMENT, PIER OR FORWARD ABUTMENT). THE STEEL LOAD PLATES, BEARING RETAINER ASSEMBLIES AND HP12X53 TEMPORARY SUPPORT ARE ASTM A709 GRADE 50 STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS. THE HP SHAPE, LOAD PLATES AND BEARING RETAINER SHALL HAVE THE SAME PROTECTIVE COATING AS THE MAIN STRUCTURAL STEEL.
- DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING LOADS (KIPS):

	REAR ABUT.	PIERS	FWD. ABUT.
DEAD LOAD	107	194	108
LIVE LOAD W/O IMPACT	71	96	71
TOTAL DESIGN LOAD	178	290	179

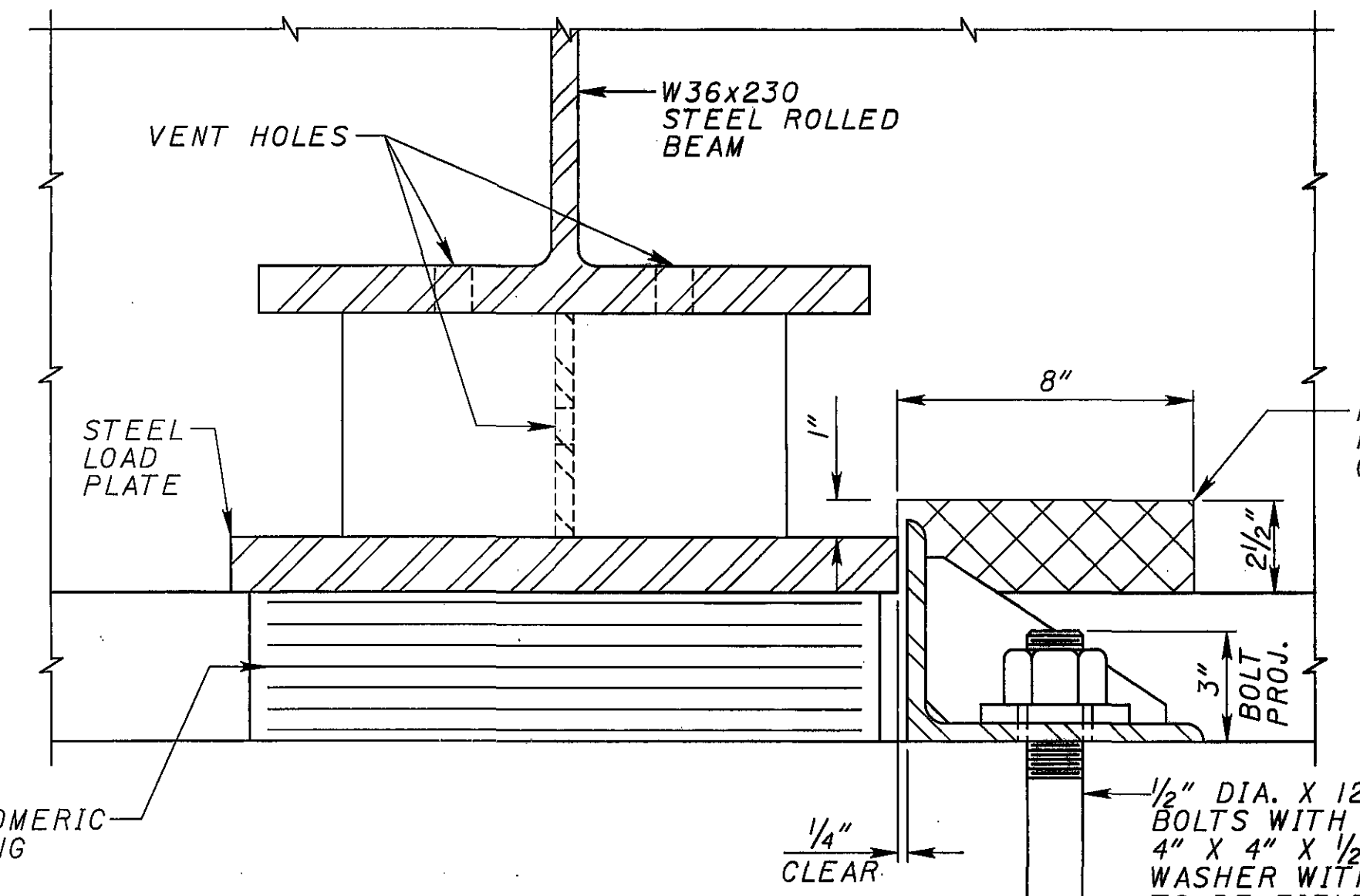
- BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING PROTECTIVE COATING, STEEL LOAD PLATES, PEDESTALS (HP12X53), BEARING RETAINER ASSEMBLIES AND POLYSTYRENE. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.



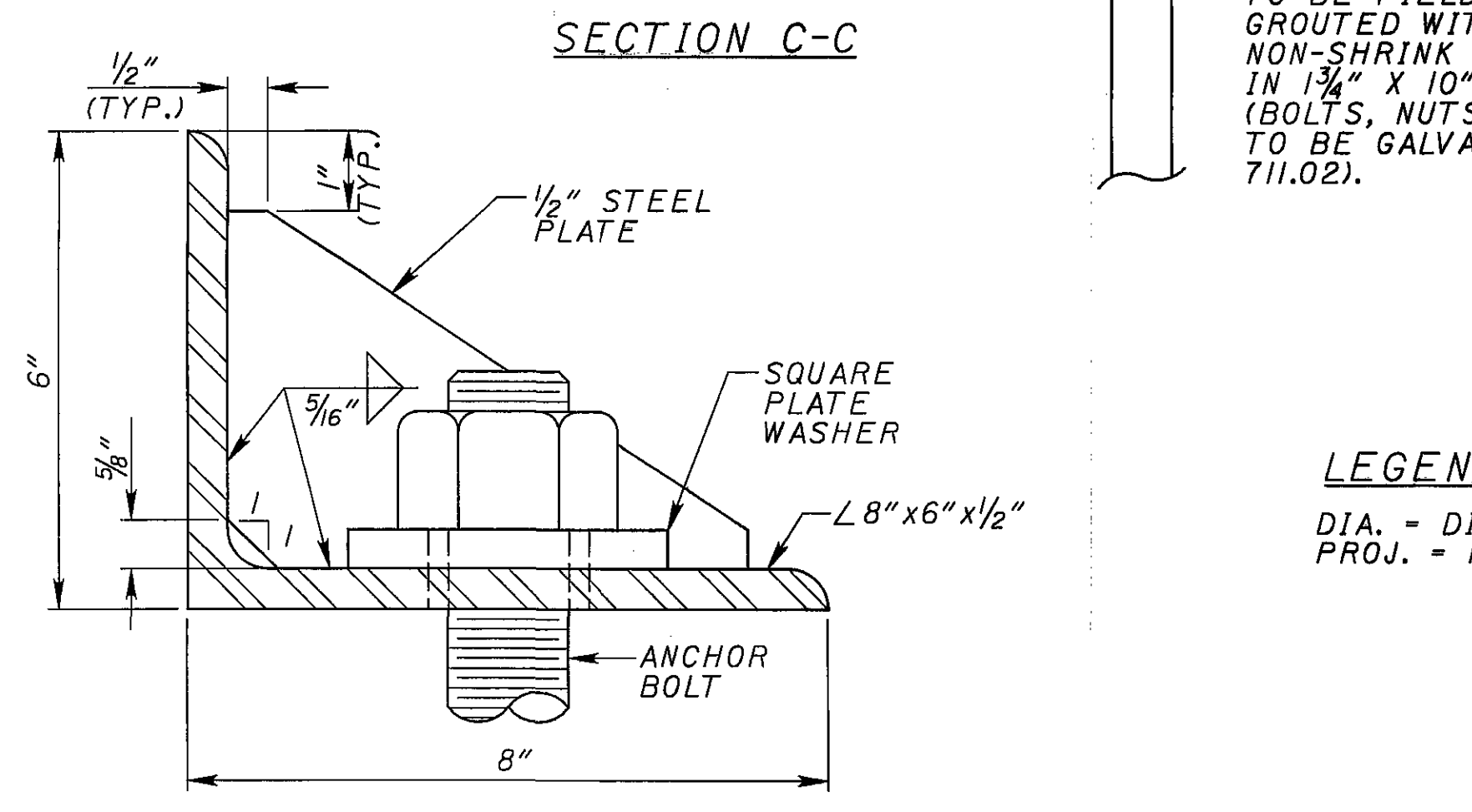
BEARING RETAINER PLAN



BEARING RETAINER ASSEMBLY



SECTION C-C



SECTION D-D

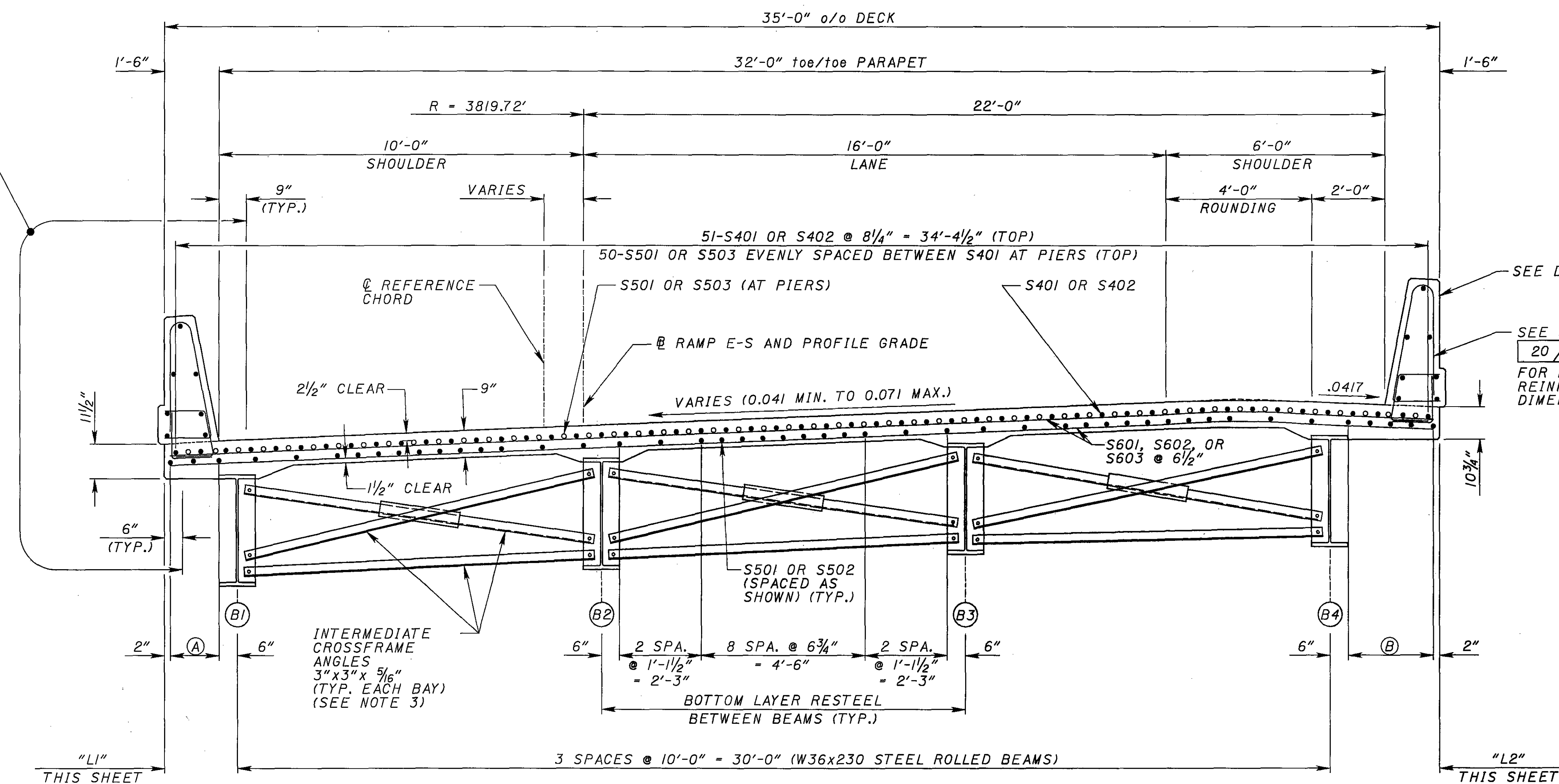
1/2" DIA. X 12" LONG ANCHOR BOLTS WITH NUT AND 4" X 4" X 1/2" SQUARE PLATE WASHER WITH 1 3/4" DIA. HOLES, TO BE FIELD DRILLED AND GROUTED WITH EPOXY NON-SHRINK GROUT, 705.20, IN 1 3/4" X 10" DEEP HOLES. (BOLTS, NUTS AND WASHERS TO BE GALVANIZED ACCORDING 711.02).

LEGEND:

DIA. = DIAMETER
 PROJ. = PROJECTION

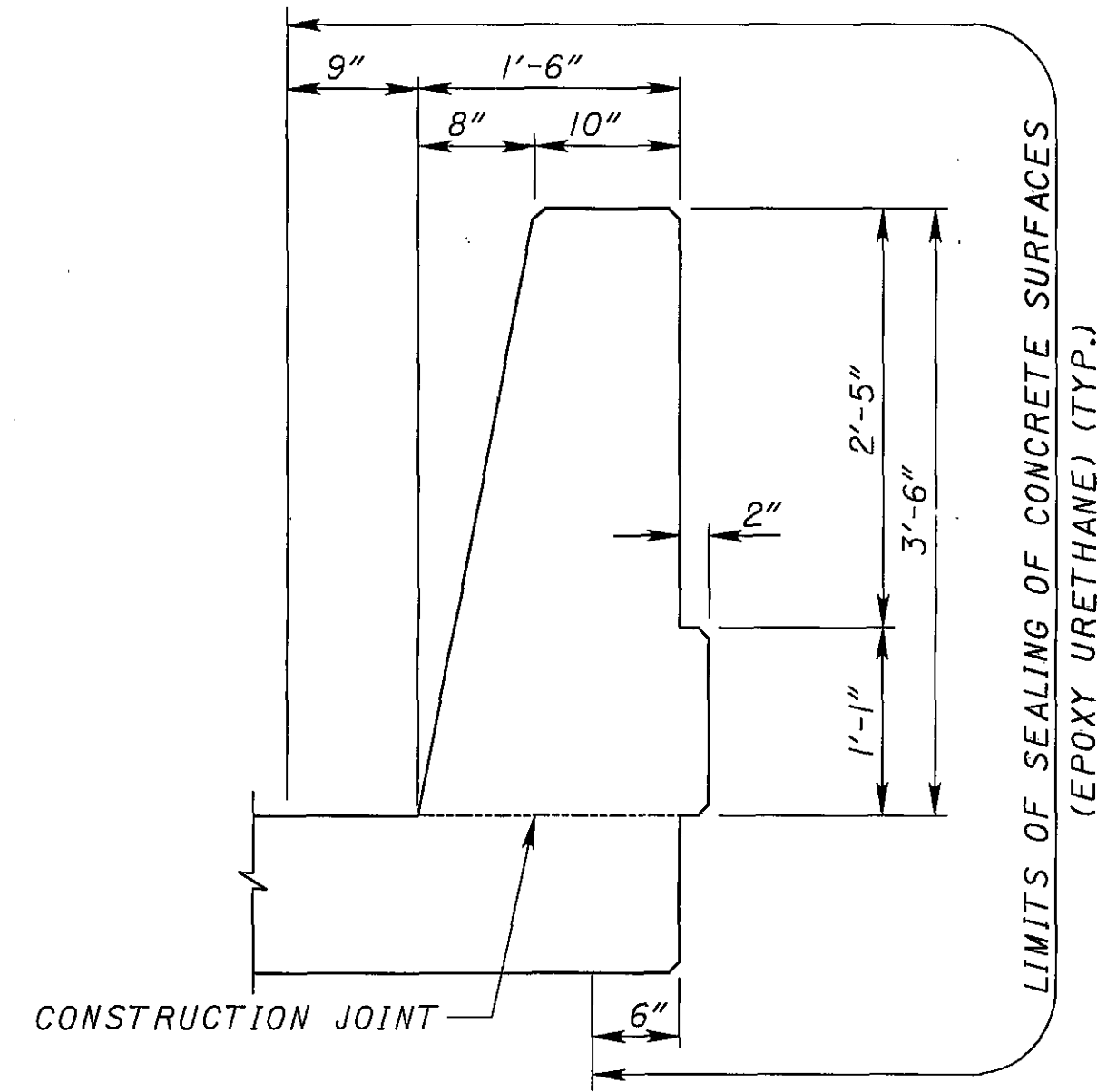
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LOCATION	L1	L2
CL REAR ABUT.	3'-4 9/16"	2'-6 5/8"
1/10 POINT	3'-2 5/16"	2'-8 3/16"
2/10 POINT	3'-0 1/16"	2'-9 7/16"
3/10 POINT	2'-10 3/16"	2'-10 1/8"
4/10 POINT	2'-8 3/16"	3'-0 1/16"
5/10 POINT	2'-6 9/16"	3'-1 1/8"
6/10 POINT	2'-4 15/16"	3'-2 1/16"
7/10 POINT	2'-3 3/8"	3'-2 7/8"
8/10 POINT	2'-2"	3'-3 9/16"
9/10 POINT	2'-0 3/4"	3'-4 1/8"
CL PIER 1	1'-11 9/16"	3'-4 5/8"
1/10 POINT	1'-10 1/8"	3'-5 1/16"
2/10 POINT	1'-8 5/16"	3'-5 1/4"
3/10 POINT	1'-8"	3'-5 3/16"
4/10 POINT	1'-7 7/16"	3'-4 13/16"
5/10 POINT	1'-6 1/16"	3'-4 1/4"
6/10 POINT	1'-6 3/4"	3'-3 3/8"
7/10 POINT	1'-6 1/8"	3'-2 9/16"
8/10 POINT	1'-7 1/4"	3'-0 9/16"
9/10 POINT	1'-7 1/8"	2'-11 5/16"
CL PIER 2	1'-8 3/4"	2'-9 1/16"
1/10 POINT	1'-9 1/2"	2'-8"
2/10 POINT	1'-10 1/16"	2'-6 1/16"
3/10 POINT	1'-11 1/16"	2'-4 3/4"
4/10 POINT	2'-0 9/16"	2'-2 1/16"
5/10 POINT	2'-1 3/16"	2'-1"
6/10 POINT	2'-3 1/8"	1'-11"
7/10 POINT	2'-4 3/8"	1'-8 13/16"
8/10 POINT	2'-6 1/4"	1'-6 9/16"
9/10 POINT	2'-8"	1'-4 1/8"
CL FWD ABUT.	2'-9 7/16"	1'-1 1/8"

ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO CL FASCIA BEAM. TENTH POINTS TAKEN BETWEEN CL ABUT. BRG. AND CL PIER (OR CL PIER AND CL PIER)



DETAIL A
SCALE: 1" = 1'-0"

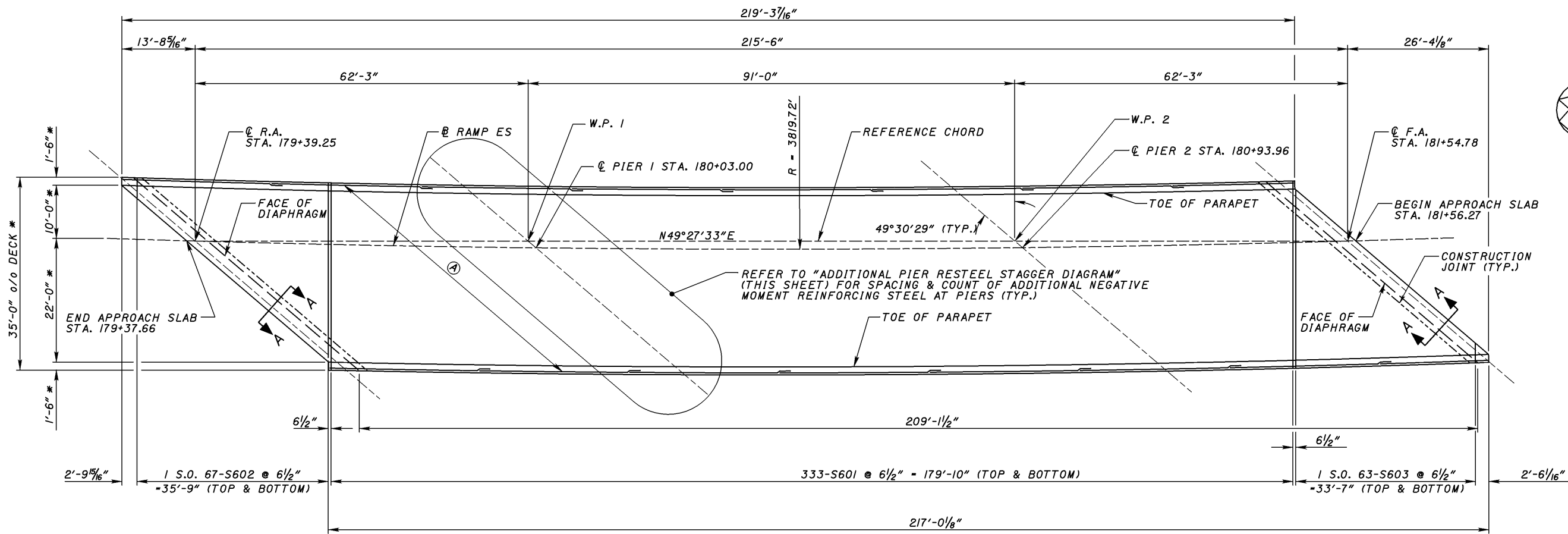
NOTES:

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT 9 INCH DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3/4 INCHES MEASURED FROM TO THE BOTTOM OF THE DECK TO THE BOTTOM OF THE TOP FLANGE (3/4" = 2" + 1/4") AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS +/- 3 INCHES.
2. THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
3. FOR CROSSFRAME AND STIFFENER DETAILS, SEE STD. DWG. GSD-I-96, CROSSFRAME TYPE 3 OR TYPE 4.

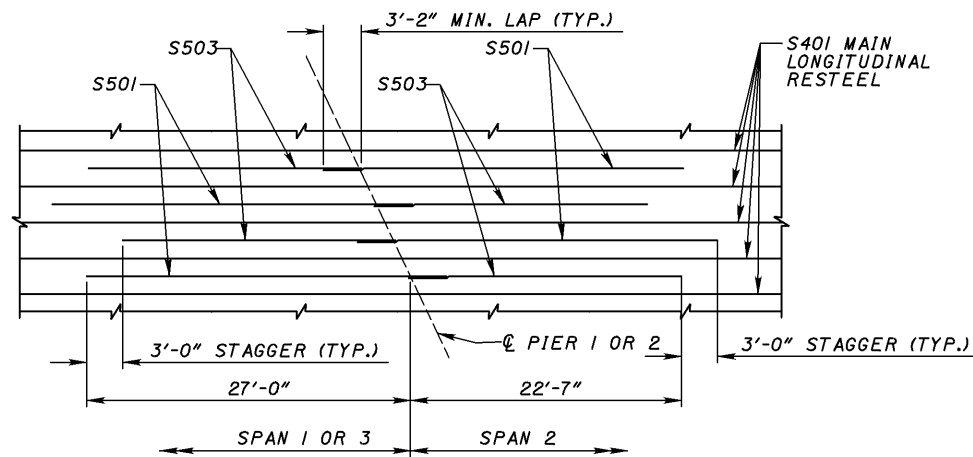
LEGEND:

- (A) 3-S501 OR 3-S502 @ EQUAL SPACES (BOTTOM)
- (B) 5-S501 OR 5-S502 @ EQUAL SPACES (BOTTOM)

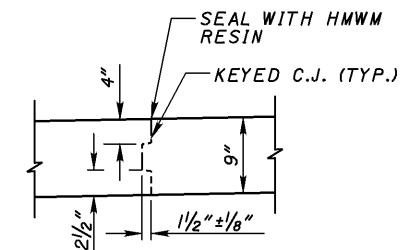
P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\REV-8-8-06\ME07ISDI.DGN



DECK SLAB PLAN
(PARAPET REINFORCING NOT SHOWN FOR CLARITY)



ADDITIONAL PIER RESTEEL STAGGER DIAGRAM
(INSTALL 50-S501 AND 50-S503 BARS AT EACH PIER)



SECTION A-A
(BARS NOT SHOWN FOR CLARITY)

NOTES:

1. PLACE TRANSVERSE BARS PERPENDICULAR TO REFERENCE CHORD. PLACE LONGITUDINAL BARS PARALLEL TO BASELINE RAMP E-S.
2. ALL DIMENSIONS ARE MEASURED PERPENDICULAR OR PARALLEL TO REFERENCE LINE UNLESS NOTED OTHERWISE.
3. SEE SHEET **20 / 22** FOR PARAPET REINFORCING.
4. MINIMUM STEEL LAP LENGTHS:
#4 BAR = 1'-11"
#5 BAR = 3'-2"

LEGEND:

- * - MEASURED RADIAL TO BASELINE OF RAMP ES
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- S.O. = SERIES OF
- W.P. = WORK POINT
- (A) = 51-S401 (TOP) (7 LENGTHS) & 51-S402 (TOP) (1 LENGTH)
47-S501 (BOTTOM) (7 LENGTHS) & 47-S502 (BOTTOM) (1 LENGTH)



BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE	11/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	
DRAWN	JTW
REVISION	8/8/06
DESIGNED	JTW
CHECKED	CAS/JHL

DECK SLAB PLAN
BRIDGE MED-71-0729EN
RAMP E-S OVER GREENWICH ROAD

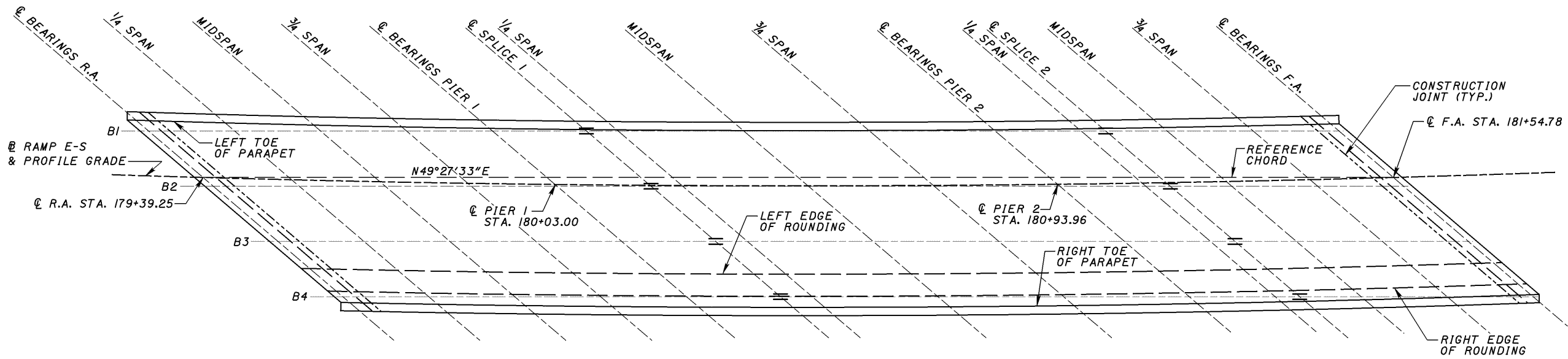
MED-71-6.06
PID 75657

18 / 22

794
1120

SCREED TABLE

LOCATION	LEFT TOE OF PARAPET		B1		RAMP E-S AND PROFILE GRADE		B2		B3		LEFT EDGE OF ROUNDING		RIGHT EDGE OF ROUNDING		B4		RIGHT TOE OF PARAPET	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
© BEARINGS R.A.	179+26.79	1027.83	179+29.14	1027.87	179+39.25	1028.02	179+41.15	1028.05	179+53.10	1028.23	179+58.95	1028.33	179+63.83	1028.24	179+64.99	1028.18	179+66.26	1028.11
¼ SPAN	179+42.96	1027.56	179+44.73	1027.59	179+55.31	1027.76	179+56.70	1027.78	179+68.61	1027.96	179+74.84	1028.06	179+79.68	1027.97	179+80.46	1027.93	179+82.09	1027.85
MIDSPAN	179+59.04	1027.28	179+60.32	1027.30	179+71.29	1027.47	179+72.26	1027.49	179+84.13	1027.68	179+90.65	1027.78	179+95.45	1027.69	179+95.94	1027.67	179+97.85	1027.57
¾ SPAN	179+75.04	1026.98	179+75.92	1026.99	179+87.18	1027.17	179+87.81	1027.18	179+99.65	1027.37	180+06.39	1027.49	180+11.15	1027.40	180+11.42	1027.38	180+13.52	1027.27
© BEARINGS PIER 1	179+90.95	1026.69	179+91.52	1026.70	180+03.00	1026.89	180+03.37	1026.89	180+15.17	1027.09	180+22.04	1027.20	180+26.76	1027.12	180+26.90	1027.11	180+29.11	1026.99
© SPLICE 1	180+08.25	1026.43	180+08.56	1026.43	180+20.19	1026.63	180+20.37	1026.63	180+32.12	1026.83	180+39.06	1026.95	180+43.74	1026.86	180+43.81	1026.86	180+46.07	1026.74
¼ SPAN	180+14.08	1026.34	180+14.32	1026.35	180+25.98	1026.54	180+26.12	1026.55	180+37.86	1026.75	180+44.79	1026.87	180+49.46	1026.78	180+49.53	1026.77	180+51.78	1026.65
MIDSPAN	180+37.04	1025.97	180+37.13	1025.97	180+48.80	1026.18	180+48.87	1026.18	180+60.55	1026.39	180+67.39	1026.51	180+71.99	1026.41	180+72.16	1026.41	180+74.29	1026.29
¾ SPAN	180+59.84	1025.53	180+59.94	1025.53	180+71.46	1025.74	180+71.62	1025.74	180+83.24	1025.97	180+89.82	1026.13	180+94.38	1026.07	180+94.79	1026.05	180+96.65	1025.96
© BEARINGS PIER 2	180+82.49	1025.04	180+82.75	1025.05	180+93.96	1025.27	180+94.37	1025.28	181+05.92	1025.58	181+12.11	1025.77	181+16.61	1025.73	181+17.42	1025.69	181+18.86	1025.62
¼ SPAN	180+97.89	1024.73	180+98.35	1024.74	181+09.27	1025.00	181+09.93	1025.02	181+21.44	1025.36	181+27.28	1025.57	181+31.74	1025.54	181+32.89	1025.48	181+33.97	1025.43
© SPLICE 2	181+02.26	1024.64	181+02.80	1024.65	181+13.62	1024.93	181+14.36	1024.95	181+25.86	1025.31	181+31.59	1025.52	181+36.04	1025.49	181+37.30	1025.42	181+38.26	1025.38
MIDSPAN	181+13.22	1024.43	181+13.95	1024.44	181+24.51	1024.74	181+25.48	1024.77	181+36.95	1025.17	181+42.37	1025.38	181+46.80	1025.36	181+48.36	1025.28	181+49.01	1025.25
¾ SPAN	181+28.48	1024.11	181+29.55	1024.14	181+39.68	1024.47	181+41.04	1024.52	181+52.46	1024.97	181+57.40	1025.18	181+61.79	1025.17	181+63.83	1025.07	181+63.98	1025.06
© BEARINGS F.A.	181+43.67	1023.78	181+45.14	1023.83	181+54.78	1024.18	181+56.59	1024.26	181+67.97	1024.75	181+72.36	1024.96	181+76.69	1024.96	181+79.21	1024.83	181+78.90	1024.85



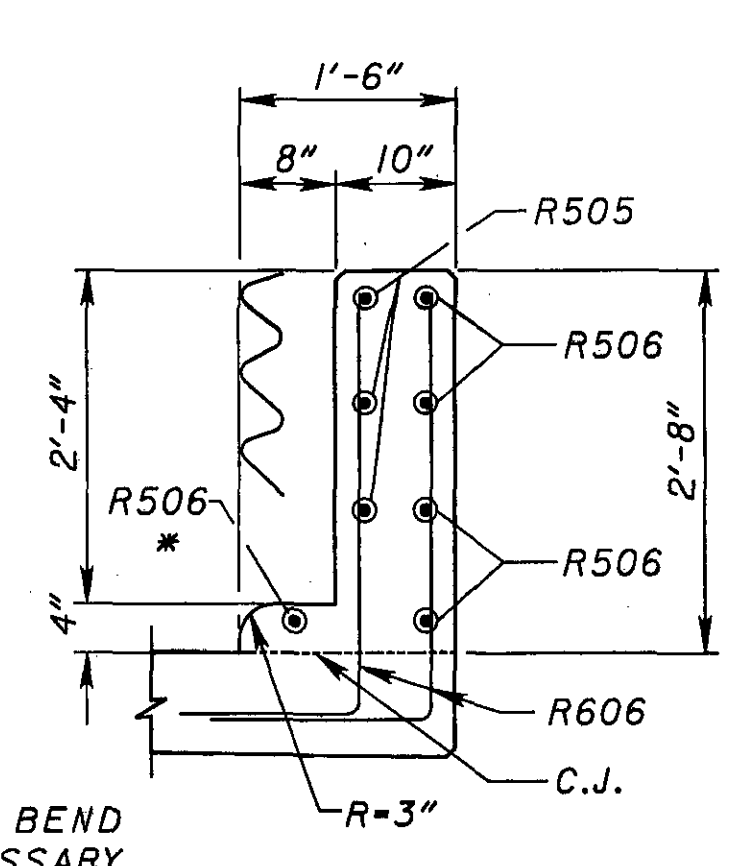
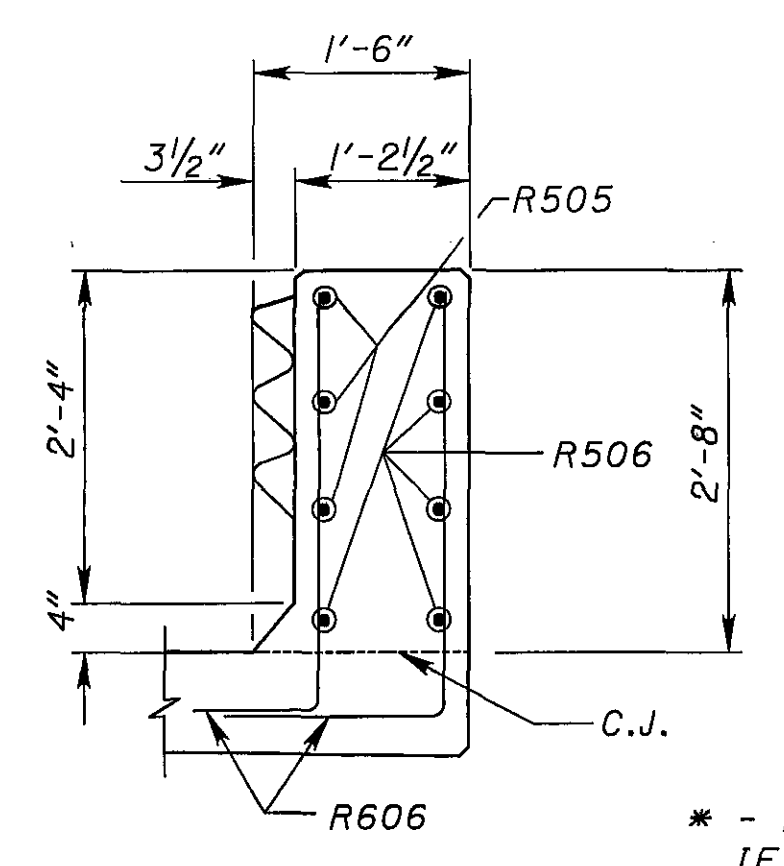
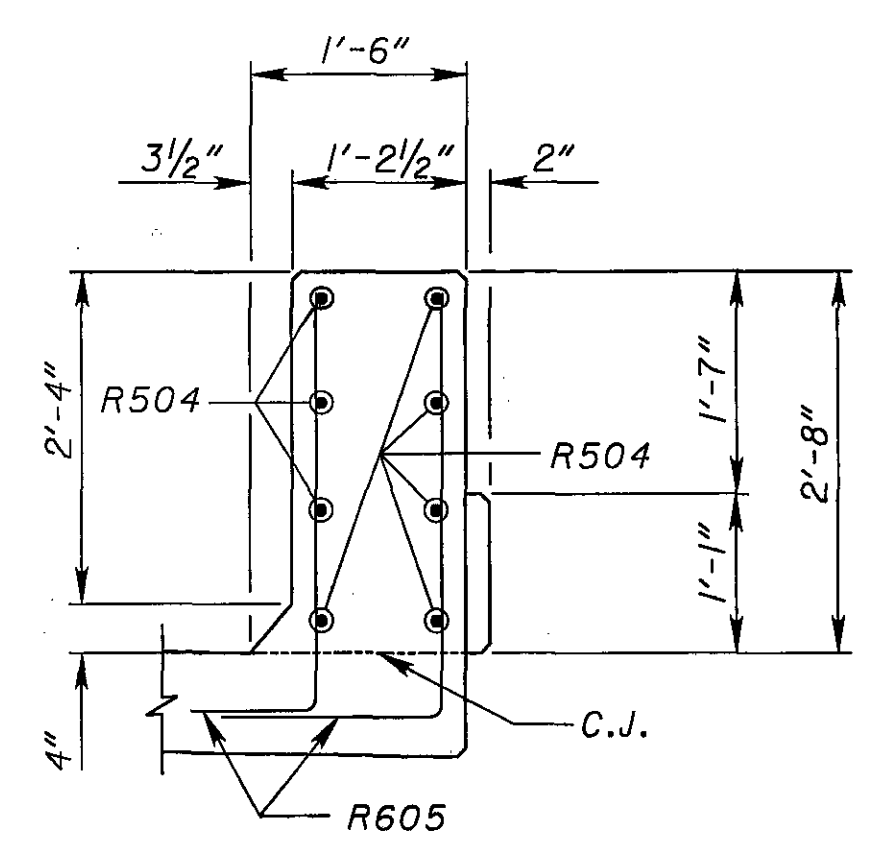
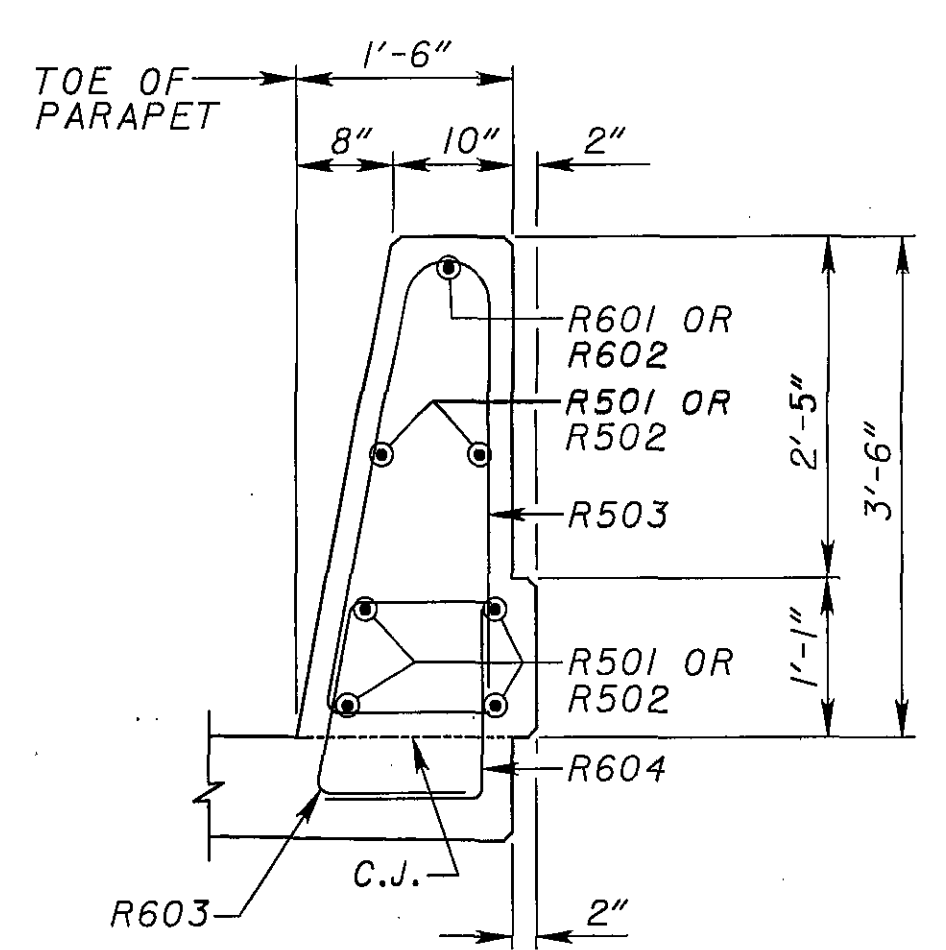
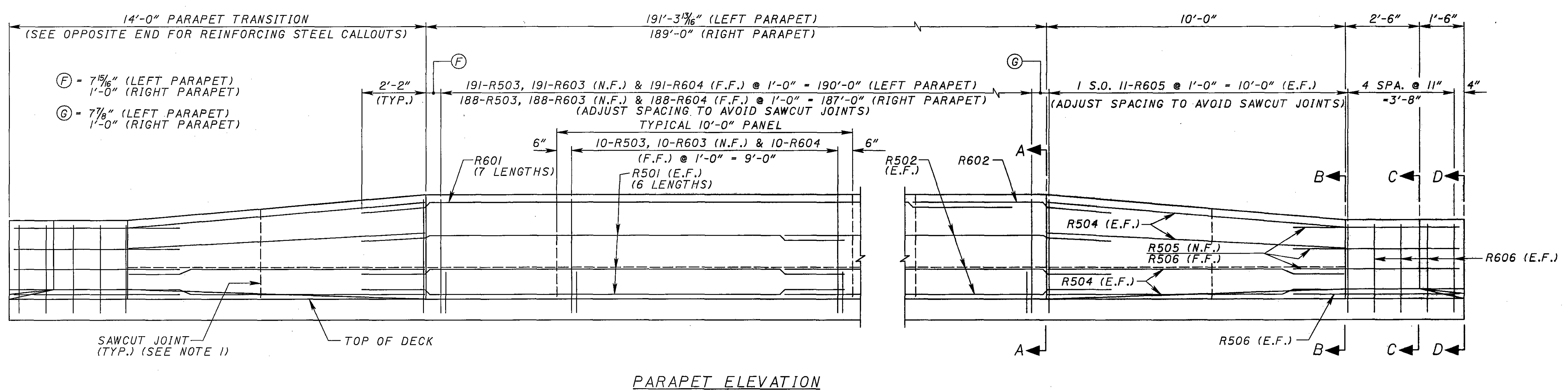
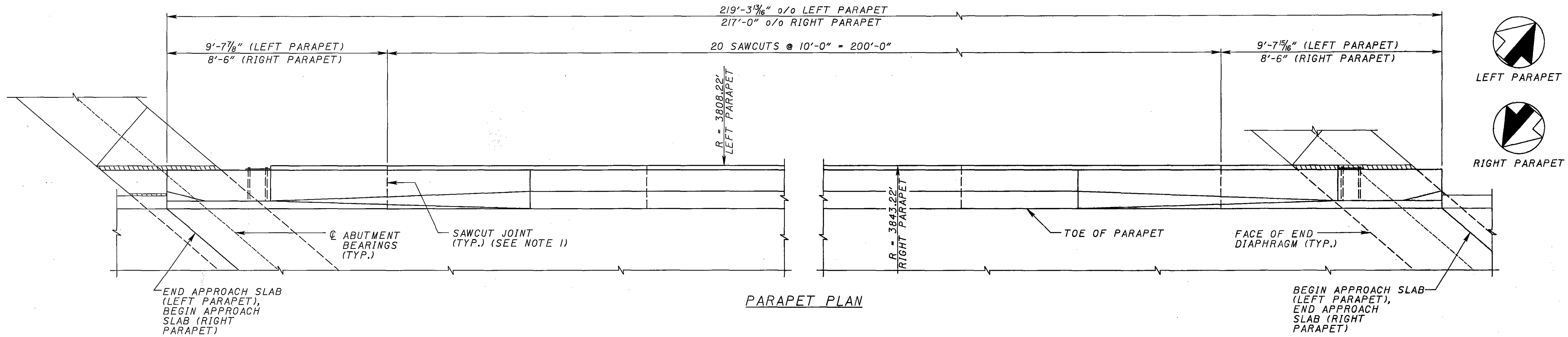
SCREED DIAGRAM

LEGEND:
 B_ = BEAM NUMBER
 F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT

NOTES:
 1. SCREED ELEVATIONS SHOWN ARE FOR THE TOP OF DECK SLAB PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.

P:/PR30489/CADD/RAMP ES OVER GREENWICH ROAD/REV-8-8-06/MEOT/ISD5.DGN

P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\ME0718d2.DGN



* - FIELD BEND IF NECESSARY

- NOTES:**
- SEE STANDARD DRAWING SBR-I-99 FOR ADDITIONAL NOTES AND DETAILS.
 - MINIMUM STEEL LAP LENGTHS:
#5 BAR = 2'-0"
#6 BAR = 3'-4"
 - ALL DIMENSIONS ARE MEASURED ALONG THE CURVE.
 - SEE SHEET 17 / 22 FOR LIMITS OF SEALING.

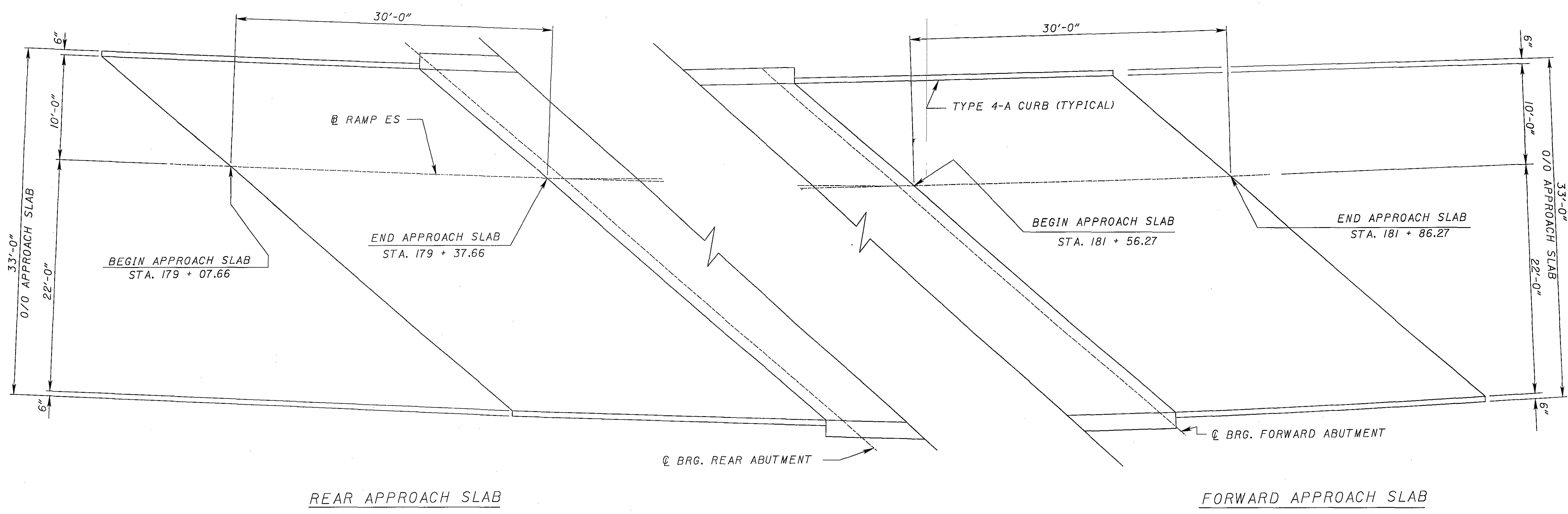
- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - E.F. - EACH FACE
 - F.F. - FAR FACE
 - N.F. - NEAR FACE
 - S.O. - SERIES OF

LEFT PARAPET RIGHT PARAPET		DATE 11/04 REVIEWED WTL STRUCTURE FILE NUMBER 5202841
DRAWN JTJ CHECKED CAS/JHL	DESIGNED JTJ	BURGESS & NIPLE 5005 Reed Road Columbus, Ohio 43220
PARAPET DETAILS BRIDGE MED-71-0729EN RAMP E-S OVER GREENWICH ROAD		
MED-71-6.06 PID 75657		20 / 22 796 1120

DATE	
REVIEWED	STRUCTURE FILE NUMBER
DRAWN	5202841
WTL	REVISED
DESIGNED	CAS
WTL	CHECKED

APPROACH SLAB DETAILS
 BRIDGE MED-71-0729EN
 RAMP E-S OVER GREENWICH ROAD

MED-71-6.06
 PID 75657
 20A / 22
 796A
 1120



SEE STD. DWG. AS - 1 - 81 FOR ADDITIONAL DETAILS

P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\ME07111.DGN

ABUTMENT REINFORCING STEEL LIST

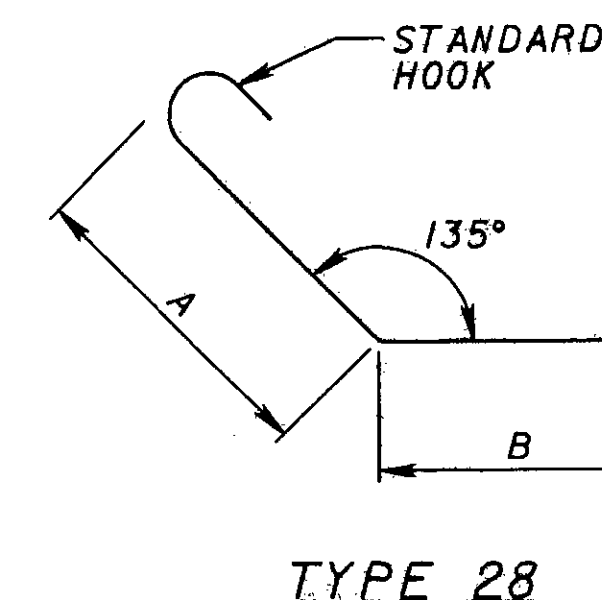
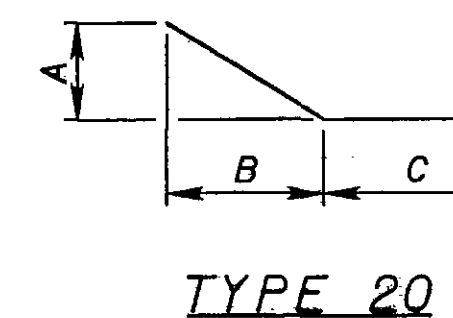
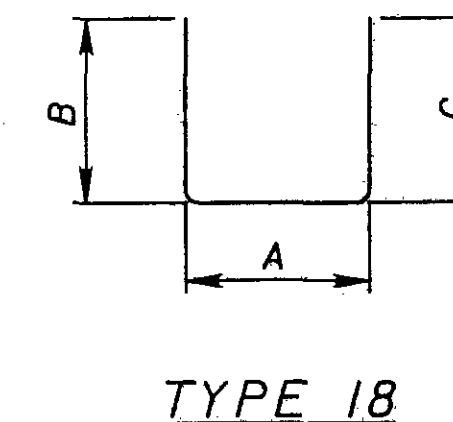
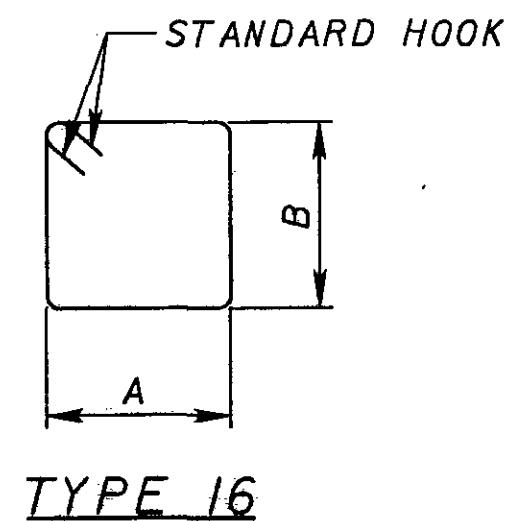
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
A501	128	16'-8"	2225	16	5'-6"	2'-7"				
A502	43	17'-3"	773	16	2'-8"	5'-8 1/4"				
A503	12	30'-6"	381	STR						
	1	20'-4"				7'-2 3/4"				
A504	S.O.	T0	42	16	2'-8"	T0				0'-4"
	2	20'-8"				7'-5"				
	1	22'-1"				8'-1 1/4"				
A505	S.O.	T0	72	16	2'-8"	T0				1'-0 1/2"
	3	24'-2"				9'-2"				
A506	11	19'-1"	218	18	2'-8"	8'-4"	8'-4"			
	1	10'-1"				3'-10"	3'-10"			
A507	S.O.	T0	22	18	2'-8"	T0	T0			1'-0"
	2	11'-1"				4'-4"	4'-4"			
	1	12'-3"				4'-11 1/4"	4'-11 1/4"			
A508	S.O.	T0	26	18	2'-8"	T0	T0			1'-1"
	2	13'-4"				5'-5 3/4"	5'-5 3/4"			
A509	3	7'-4"	22	STR						
A510	3	6'-10"	21	STR						
A511	2	13'-2"	27	18	2'-8"	5'-4 1/2"	5'-4 1/2"			
	1	10'-11"				4'-3"	4'-3"			
A512	S.O.	T0	36	18	2'-8"	T0	T0			0'-10"
	3	12'-7"				5'-1"	5'-1"			
	1	21'-8"				7'-11"	7'-11"			
A513	S.O.	T0	70	16	2'-8"	T0	T0			0'-10 1/2"
	3	23'-5"				8'-9 1/4"	8'-9 1/4"			
	1	20'-4"				7'-3"	7'-3"			
A514	S.O.	T0	42	16	2'-8"	T0	T0			0'-2 7/8"
	2	20'-7"				7'-4 1/2"	7'-4 1/2"			
A515	2	14'-2"	29	STR						
A516	2	17'-7"	36	STR						
	1	8'-1"								
A517	S.O.	T0	20	STR						3'-10"
	2	11'-11"								
	1	4'-5"								
A518	S.O.	T0	13	STR						3'-10"
	2	8'-3"								
	1	7'-7"								
A519	S.O.	T0	20	STR						4'-9 7/8"
	2	12'-5"								
	1	11'-4"								
A520	S.O.	T0	28	STR						4'-9 7/8"
	2	16'-2"								
A521	1	16'-0"	16	20	4'-6"	11'-5 1/4"	3'-9"			
A522	1	12'-3"	12	STR						
A523	1	19'-4"	20	20	4'-0 1/4"	12'-9 1/4"	5'-11"			
A524	1	15'-7"	16	20	4'-0 1/4"	12'-9 1/4"	2'-2"			
	1	9'-1"				3'-4"	3'-4"			
A525	S.O.	T0	19	18	2'-8"	T0	T0			0'-10"
	2	9'-11"				3'-9 1/4"	3'-9 1/4"			
A526	1	17'-1"	17	18	2'-8"	7'-4"	7'-4"			
A527	1	16'-1"	16	18	2'-8"	6'-10"	6'-10"			
A528	1	15'-2"	15	STR						
A529	1	11'-6"	11	STR						
A530	1	14'-11"	15	STR						
A531	1	18'-8"	19	STR						
	1	20'-11"				7'-6 1/2"				
A532	S.O.	T0	68	16	2'-8"	T0				1'-0 1/2"
	3	23'-0"				8'-7"				
A533	13	19'-1"	258	18	2'-8"	8'-4"	8'-4"			
	1	8'-11"				3'-3"	3'-3"			
A534	S.O.	T0	19	18	2'-8"	T0	T0			1'-0"
	2	9'-11"				3'-9"	3'-9"			
A535	1	15'-11"	16	18	2'-8"	6'-9"	6'-9"			
A536	3	6'-9"	21	STR						
A537	3	8'-0"	25	STR						
A538	2	15'-6"	32	18	2'-8"	6'-6 1/2"	6'-6 1/2"			
A539	41	17'-2"	734	16	2'-8"	5'-8"				
	1	11'-0"				4'-3 3/4"	4'-3 3/4"			
A540	S.O.	T0	68	18	2'-8"	T0	T0			1'-0 1/4"
	5	15'-1"				6'-4 1/4"	6'-4 1/4"			
	1	8'-10"				3'-2 3/4"	3'-2 3/4"			
A541	S.O.	T0	19	18	2'-8"	T0	T0			1'-1"
	2	9'-11"				3'-9"	3'-9"			

ABUTMENT REINFORCING STEEL LIST (CONT'D)

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
A542	S.O.	T0	68	16	2'-8"	T0	T0			1'-0 1/2"
	3	23'-0"				8'-6 3/4"	8'-6 3/4"			
	1	19'-1"				6'-7 1/2"	6'-7 1/2"			
A543	S.O.	T0	40	16	2'-8"	T0	T0			0'-6"
	2	19'-7"				6'-10 1/2"	6'-10 1/2"			
	1	7'-9"								
A544	S.O.	T0	20	STR						3'-11"
	2	11'-8"								
	1	4'-5"								
A545	S.O.	T0	13	STR						3'-11"
	2	8'-4"								
	1	6'-7"								
A546	S.O.	T0	32	STR						3'-11"
	3	14'-5"								
	1	9'-10"								
A547	S.O.	T0	43	STR						3'-11"
	3	17'-8"								
A548	1	12'-7"	13	STR						
A549	1	15'-10"	16	20	4'-6"	11'-7"	3'-5"			
A550	1	21'-5"	22	20	5'-9"	14'-11 1/4"	5'-5 1/4"			
A551	1	18'-2"	18	20	5'-9"	14'-11 1/4"	2'-2"			
A552	2	14'-0"	29	STR						
A553	2	19'-9"	41	STR						
A554	12	30'-0"	375	STR						
A555	1	11'-8"	12	STR						
A556	1	15'-0"	15	STR						
A557	1	20'-4"	21	STR						
A558	1	17'-1"	17	STR						
	1	11'-1"				4'-4"	4'-4"			
A559	S.O.	T0	24	18	2'-8"	T0	T0			1'-0"
	2	12'-1"				4'-10"	4'-10"			
	1	19'-3"				6'-8 1/2"	6'-8 1/2"			
A560	S.O.	T0	40	16	2'-8"	T0	T0			0'-6"
	2	19'-9"				6'-11 1/2"	6'-11 1/2"			
A561	1	18'-5"	19	18	2'-8"	8'-0"	8'-0"			
A701	30	30'-10"	1890	STR						
A702	30	30'-4"	1860	STR						
A801	8	33'-6"	715	STR						
A802	8	31'-6"	672	STR						
		TOTAL	11,574							

DIAPHRAGM REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
D501	61	8'-1"	514	18	3'-4"	2'-6"	2'-6"			
D502	62	9'-0"	581	18	4'-1"	2'-7"	2'-7"			
D503	4	10'-0"	41	18	4'-1"	3'-1"	3'-1"			
D504	2	9'-10"	20	18	4'-1"	3'-0"	3'-0"			
D505	1	7'-8"	7	18	2'-11"	2'-6"	2'-6"			
D506	40	9'-8"	403	18	4'-1"	2'-11"	2'-11"			
D507	4	8'-6"	35	18	4'-1"	2'-4"	2'-4"			
D508	2	9'-6"	19	18	4'-1"	2'-10"	2'-10"			
D509	22	8'-10"	202	18	4'-1"	2'-6"	2'-6"			
D801	44	5'-2"	606	28	2'-10"	1'-5"				
D802	28	30'-0"	2242	STR						
D803	14	30'-5"	1136	STR						
D804	14	26'-9"	999	STR						
D805	2	20'-0"	106	STR						
		TOTAL	6911							



NOTES:
 1. ALL BARS SHALL BE EPOXY COATED.
 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

MED-71-6.06
 PID 75657
 REINFORCING STEEL LIST 1
 BRIDGE MED-71-0729EN
 RAMP E-S OVER GREENWICH ROAD
 DATE 11/04
 REVIEWED WTL
 DRAWN JTW
 DESIGNED JTW
 CHECKED JHL
 STRUCTURE FILE NUMBER 5202841
 BURRESS & NIPLÉ
 5035 Reed Road
 Columbus, OH 43229
 21 / 22
 797 / 1120

PIER REINFORCING STEEL LIST

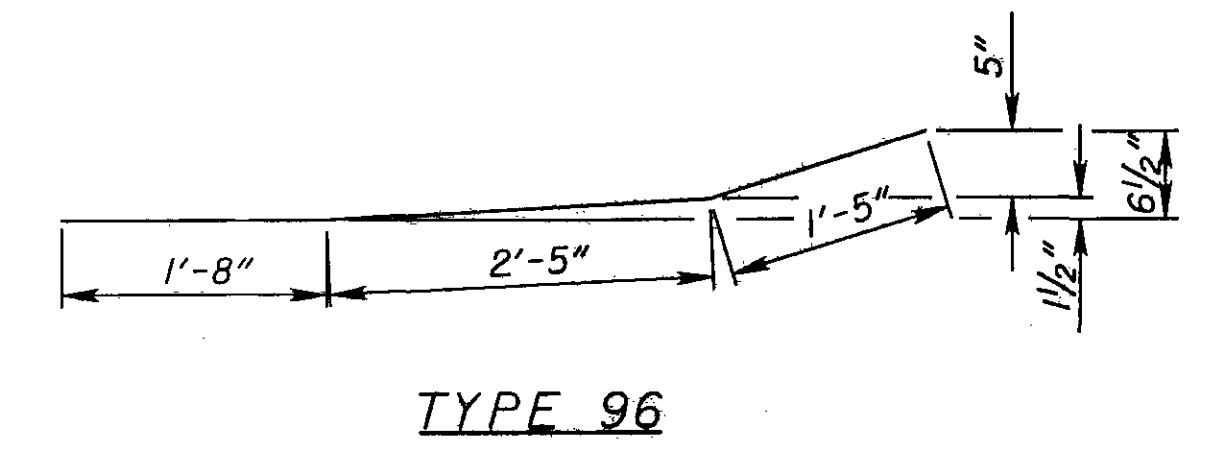
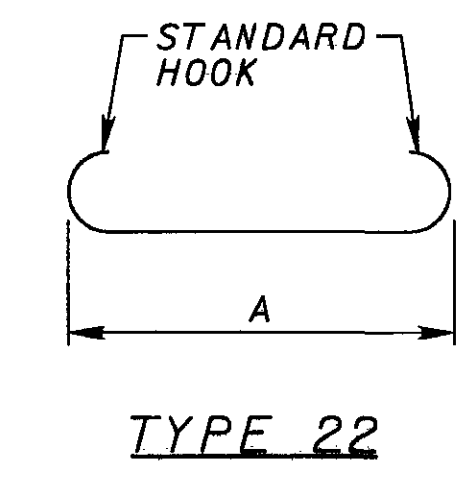
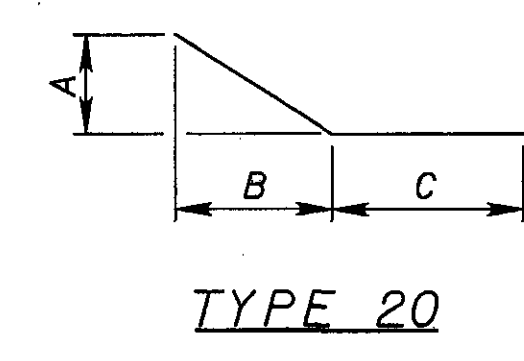
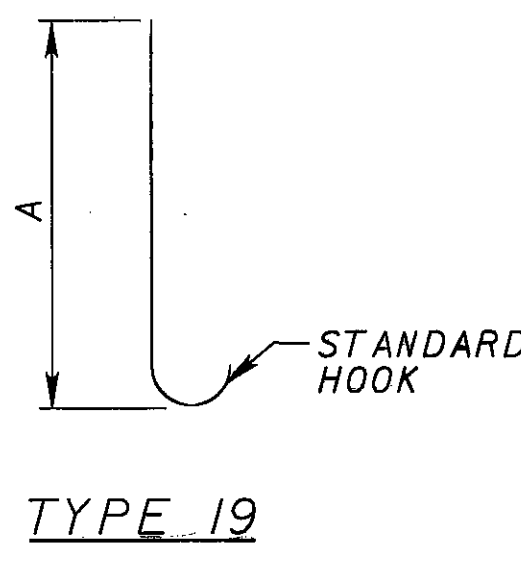
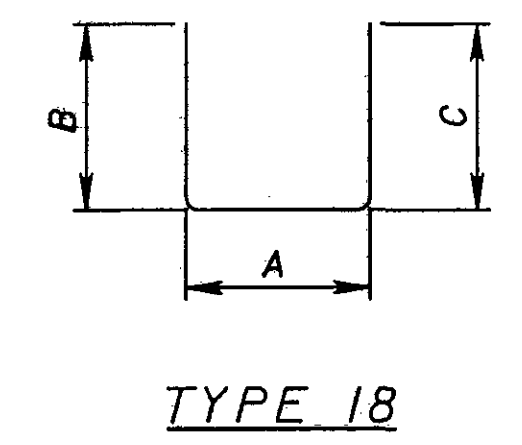
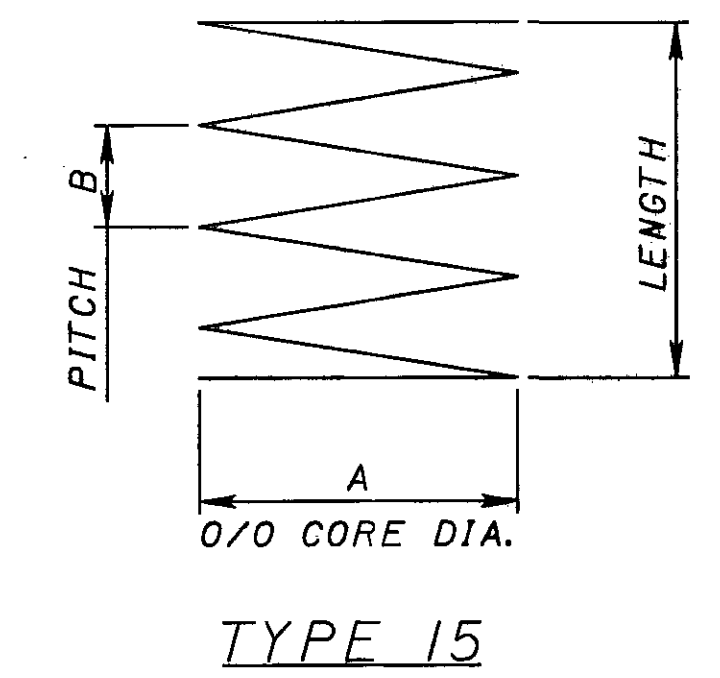
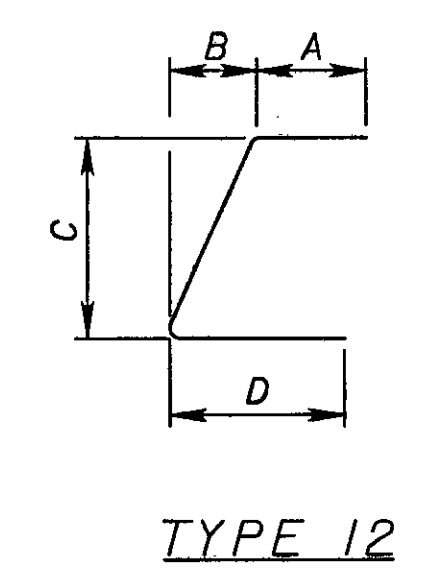
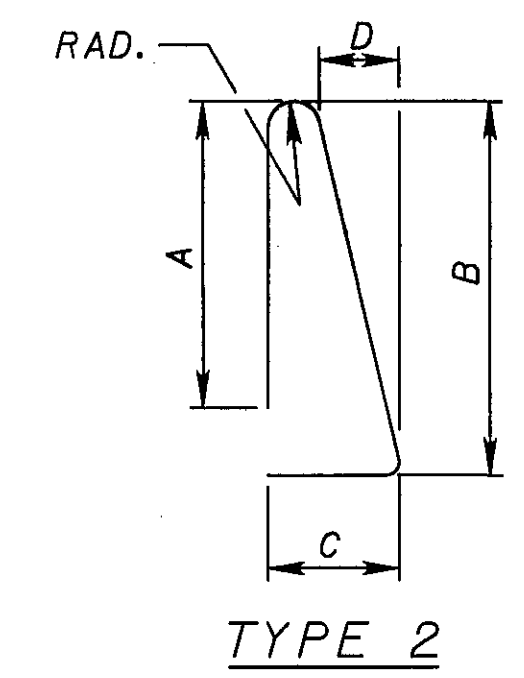
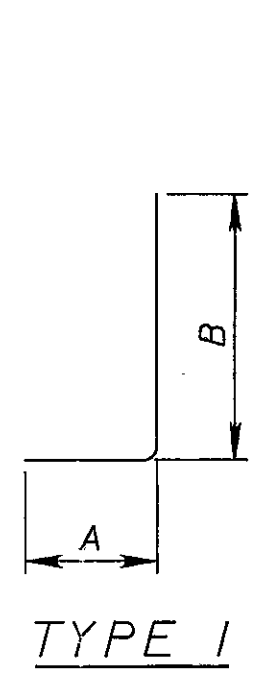
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SP401	3	19'-11"	1072	15	2'-6"	0'-4 1/2"				
SP402	3	20'-3"	1089	15	2'-6"	0'-4 1/2"				
P501	16	17'-8"	294	STR						
P502	8	10'-5"	86	STR						
P503	32	27'-2"	906	STR						
P504	8	27'-1"	225	STR						
P505	16	8'-1"	134	18	2'-8"	2'-10"	2'-10"			
P506	56	8'-7"	501	18	2'-8"	3'-1"	3'-1"			
P507	624	9'-3"	6020	18	2'-8"	3'-5"	3'-5"			
P508	16	8'-9"	146	18	2'-8"	3'-2"	3'-2"			
P801	192	12'-4"	6322	22	10'-6"					
P802	120	10'-8"	3417	1	1'-11"	8'-11"				
P803	60	23'-3"	3724	19	22'-4"					
P804	60	23'-7"	3778	19	22'-8"					
P805	40	31'-10"	3399	1	29'-2"	2'-10"				
P806	8	29'-0"	619	STR						
P807	20	40'-0"	2136	STR						
P808	40	12'-4"	1317	20	0'-9"	4'-11 1/2"	7'-4"			
		TOTAL	35,185							

DECK SLAB REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
S401	357	30'-0"	7154	STR						
S402	51	22'-5"	763	STR						
S501	429	30'-0"	13,423	STR						
S502	47	31'-2"	1527	STR						
S503	100	22'-9"	2372	STR						
S601	666	34'-8"	34,678	STR						
	2	3'-6"								
S602	S.O.	T0	3681	STR						0'-5 3/8"
	67	33'-1"								
	2	3'-4"								
S603	S.O.	T0	3438	STR						0'-5 5/8"
	63	33'-0"								
		TOTAL	67,036							

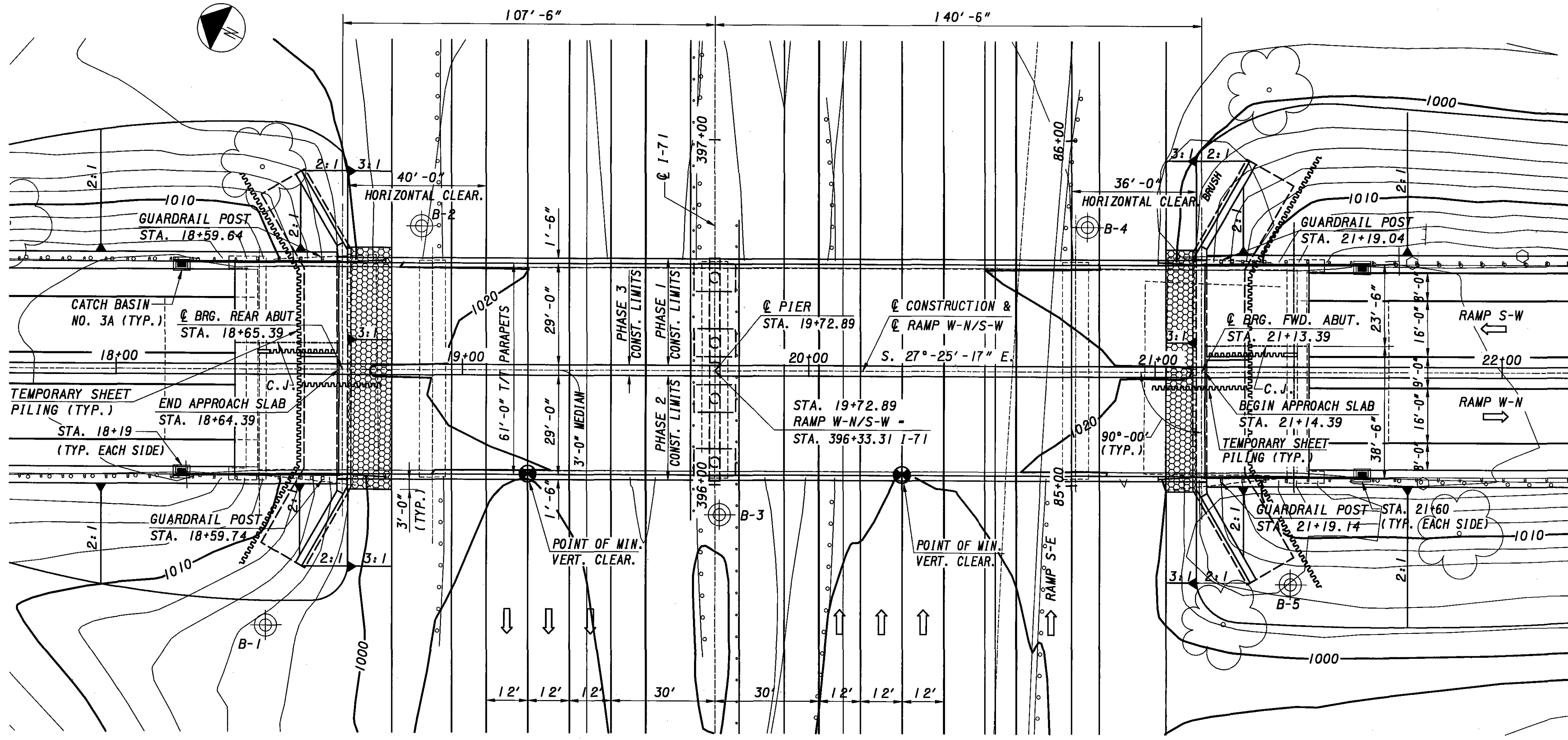
PARAPET REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
R501	72	30'-0"	2252	STR						
R502	12	27'-8"	346	STR						
R503	379	7'-4"	2898	2	3'-0"	3'-2"	1'-1"	0'-6 1/2"	0'-2 3/4"	
R504	32	10'-0"	333	STR						
R505	12	5'-6"	69	96						
R506	20	5'-6"	114	STR						
R601	14	30'-0"	630	STR						
R602	2	9'-0"	27	STR						
R603	379	3'-3"	1850	12	1'-1"	0'-3 1/4"	1'-5"	1'-1"		
R604	379	2'-4"	1328	1	1'-1"	1'-5"				
	8	3'-11"				3'-0"				
R605	S.O.	T0	572	1	1'-1"	T0				0'-1"
	11	4'-9"				3'-10"				
R606	32	3'-11"	188	1	1'-1"	3'-0"				
		TOTAL	10,607							



NOTES:
 1. ALL BARS SHALL BE EPOXY COATED.
 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

P:\PR30489\CADD\RAMP ES OVER GREENWICH ROAD\ME071112.DGN



KEY:
 NEW CRUSHED AGGREGATE SLOPE PROTECTION, 1'-0" THICK
 BORING LOCATION

BENCH MARK No. 38
 CUT SQUARE IN THE CONCRETE BASE FOR THE NORTH LEG OF THE SIGN "EXIT 209" LOCATED 50 FEET NORTHEAST OF THE BRIDGE * MED 71 7.29R
 ELEV. = 1014.81

BENCH MARK No. 39
 TOP OF STEEL POST LOCATED AT AN ANGLE BREAK IN THE RIGHT OF WAY, 100 FEET SOUTHWEST OF BRIDGE * 0750 071 MED
 ELEV. = 1002.51

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE.

SPANS: 50'-0" ±, 81'-6" ±, 104'-2" ±, 63'-0" ±
C/C BEARINGS

ROADWAY: 61'-0" ± TOE/TOE OF PARAPETS

DESIGN LOADING: C.F. 2000 (57)

SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE WITH LATEX MOD. CONCRETE OVERLAY

ALIGNMENT: TANGENT

APPROACH SLABS: 25'-0" LONG

CROWN: 3/16" PER FT.

YEAR BUILT: 1959

CONDITION: FUNCTIONALLY OBSOLETE

DISPOSITION: STRUCTURE TO BE REMOVED & REPLACED

STRUCTURE FILE NUMBER: 5204267

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL GIRDERS (A572) PAINTED WITH REINFORCED CONCRETE DECK ON SEMI-INTEGRAL ABUTMENTS & CAP AND COLUMN PIERS

SPANS: 107'-6", 140'-6" C/C BEARINGS

ROADWAY: 61'-0" TOE TO TOE OF PARAPETS

DESIGN LOADING: HS25 (CASE 11) AND THE ALTERNATE MILITARY LOADING AND A 60 PSF FUTURE WEARING SURFACE

SKEW: NONE

WEARING SURFACE: 1 INCH MONOLITHIC CONCRETE

ALIGNMENT: TANGENT

APPROACH SLABS: AS-1-81, 30' LONG (MODIFIED)

CROWN: .0156" PER FT.

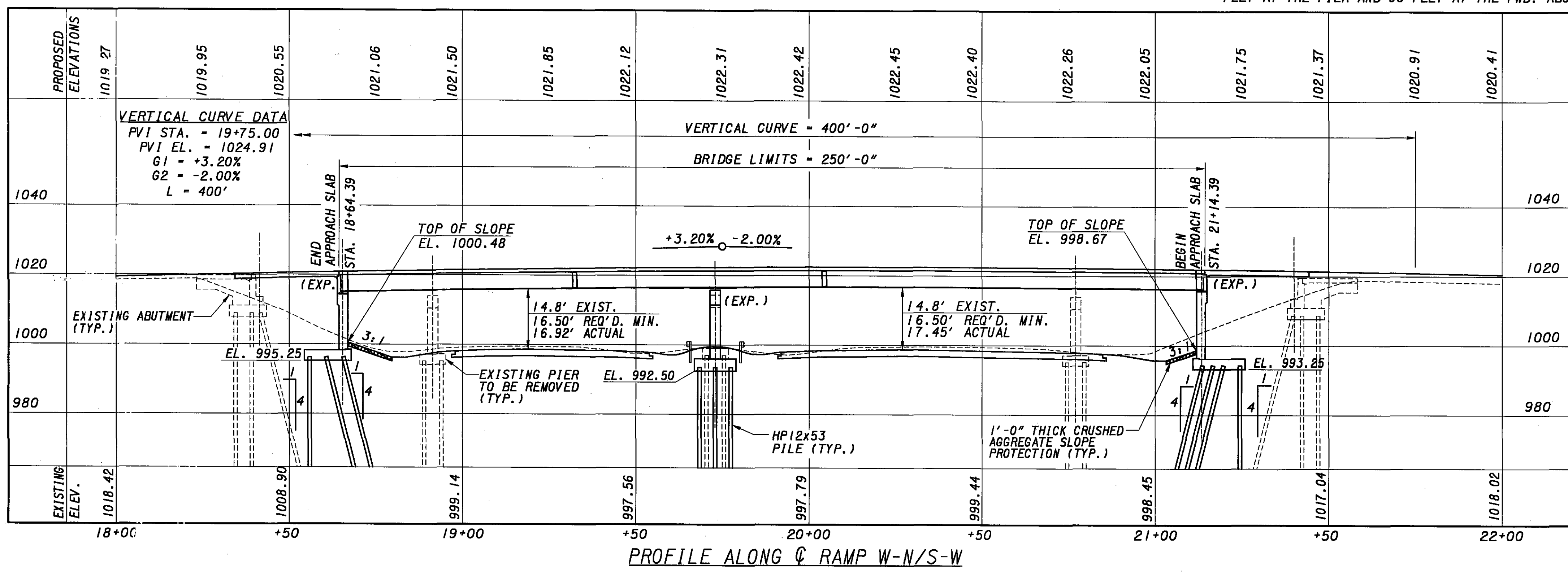
AVERAGE DAILY TRAFFIC: 4650 (2006)
5920 (2026)

AVERAGE DAILY TRUCK TRAFFIC: 1238 (2006)
1568 (2026)

COORDINATES: LAT. N 41°01'39", LONG. W 81°53'52"

PLAN

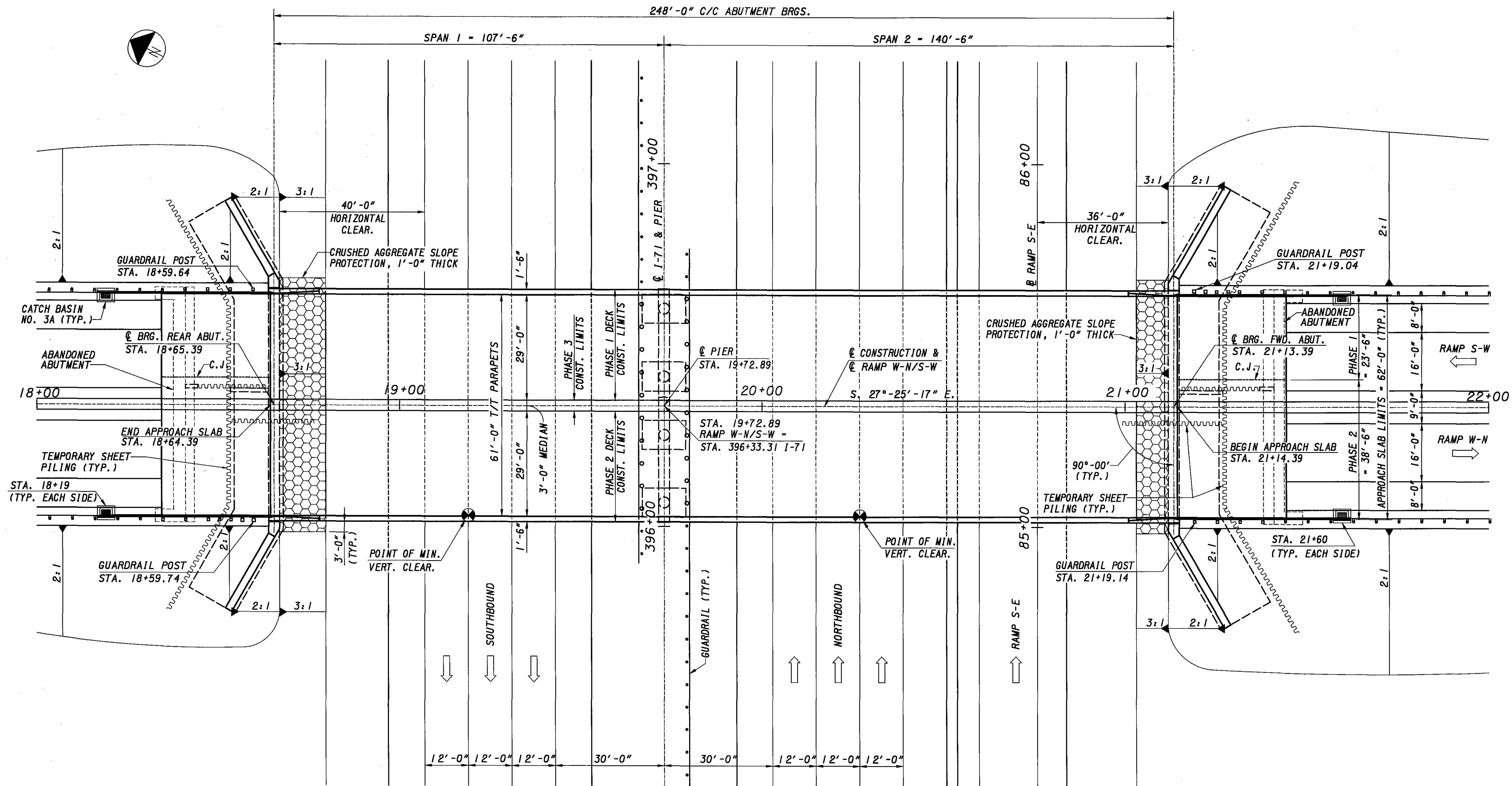
- NOTES:**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
 - THE ESTIMATED AVERAGE DRIVEN PILE LENGTH FOR THE HP12X53 PILES IS 100 FEET AT THE REAR ABUTMENT, 95 FEET AT THE PIER AND 90 FEET AT THE FWD. ABUTMENT



PROFILE ALONG C/RAMP W-N/S-W

T:\DRAWING\08\06419\MED-71\MED71SP1.SC:1'-20" 2-05

T:\DRAWING\08\06419\MED-71\ME071GPI SC:11-15: 2-05



GENERAL PLAN

GENERAL NOTES

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 REVISED 07-19-02 PCB-91 REVISED 07-19-02
 GSD-1-96 REVISED 07-19-02 SBR-1-99 REVISED 07-19-02
 HL-30.32 DATED 04-19-02 SICD-1-96 REVISED 07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

894 DATED 4-15-05

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

DESIGN LOADING:

HS25, CASE II AND THE ALTERNATE MILITARY LOADING.
 FUTURE WEARING SURFACE (FWS) OF 60 P.S.F.

DESIGN STRESSES:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4500 P.S.I. (SUPERSTRUCTURE)
 CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I. (SUBSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I. SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615 STRUCTURAL STEEL
 ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 P.S.I.

DECK PROTECTION METHOD:

CLASS HP CONCRETE
 EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER
 SEALING OF CONCRETE SURFACES

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED UPON RECEIVING PERMISSION FROM THE ENGINEER. SEE SHEETS 5, 6, 7, AND 9 FOR LIMITS AND ITEMS TO BE REMOVED.

PROTECTION OF TRAFFIC:

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

SUBSTRUCTURE CONCRETE REMOVAL:

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN:

THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16C, PLACED AND COMPACTED IN 6" LIFTS.

PILES DRIVEN TO BEDROCK:

PILES DRIVEN TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED TO BE OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING HARD BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 117 TONS PER PILE FOR HP12X53 REAR ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 140 TONS PER PILE FOR HP12X53 FORWARD ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 120 TONS PER PILE FOR THE HP12X53 PIER PILES.

REAR ABUTMENT PILES:

70 PILES 105 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:

79 PILES 95 FEET LONG, ORDER LENGTH

PIER PILES:

32 PILES 100 FEET LONG, ORDER LENGTH

UTILITY LINES:

THE UTILITIES SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 511 - CLASS C CONCRETE, PIER ABOVE FOOTING, AS PER PLAN.

ITEM 511 - CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN.

ITEM 511 - CLASS C CONCRETE, FOOTING, AS PER PLAN:

COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

THE EPOXY-URETHANE SEALER SHALL BE FEDERAL COLOR STANDARD NO. 27778 (LIGHT NEUTRAL).

ITEM 516 - SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1 1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE, WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS, SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHOULD COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST ASTM METHOD REQUIREMENT

THICKNESS, INCHES	D751	0.094" ± .01
BREAKING STRENGTH, GRAB, LBS, MINIMUM (LONG. X TRANS.)	D751	700 X 700
ADHESIVE STRIP, 1" WIDE X 2" LONG, LBS MINIMUM	D751	9
BURST STRENGTH, PSI MINIMUM	D751	1400
HEAT AGING, 70 HR, 212 °F, 180° BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLENESS 1 HR, -40 °F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

ITEM 894 - HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

GENERAL REQUIREMENTS:

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE. THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN:

CONCRETE TABLE (QUANTITIES PER CUBIC YARD, AGGREGATES (SSO))

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)									
AGGREGATE TYPE	FINE AGGREG. (LB.)	#8 COARSE AGGREG. * (LB.)	#57 COARSE AGGREG. * (LB.)	TOTAL AGGREG. (LB.)	CEMENT CONTENT (LB.)	GGBF SLAG (LB.)	MICRO-SILICA (LB.)	WATER/CEMENT RATIO +/- .02	AIR CONTENT +/- 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER, AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSO): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND POURED)

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED)

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11, THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH, WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS

FOR BOTH SLIP FORMED AND FORMED AND POURED PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1 1/4" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT. AND A MAXIMUM OF 8 FT. ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E.

BASIS OF PAYMENT

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
894E10001	C.Y.	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB

MECHANICAL CONNECTORS:

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. CONNECTORS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR THE COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

DRIP GROOVES:

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

EXISTING STRUCTURE PLANS:

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE O.D.O.T. DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805 (PHONE 800-276-4188).

ABBREVIATIONS:

N.F. - NEAR FACE	EL. - ELEVATION
F.F. - FAR FACE	TYP. - TYPICAL
E.F. - EACH FACE	C.I.P. - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT	P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P. - CORRUGATED PLASTIC PIPE	R.A. - REAR ABUTMENT
M.O.T. - MAINTENANCE OF TRAFFIC	F.A. - FORWARD ABUTMENT

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PREPARED BY
ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS
333 EAST REGINA STREET, TOLEDO, OHIO 44001

REVIEWED DATE
GT 2-05
STRUCTURE FILE NUMBER
5204275

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GENERAL NOTES
BRIDGE NO. MED-7 1-0750
OVER 1-71

MED-7 1-6.06
PID 75657

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1120

COMPUTED BY : A.C. DATE : 8-04
 CHECKED BY : W.E.R. DATE : 8-04

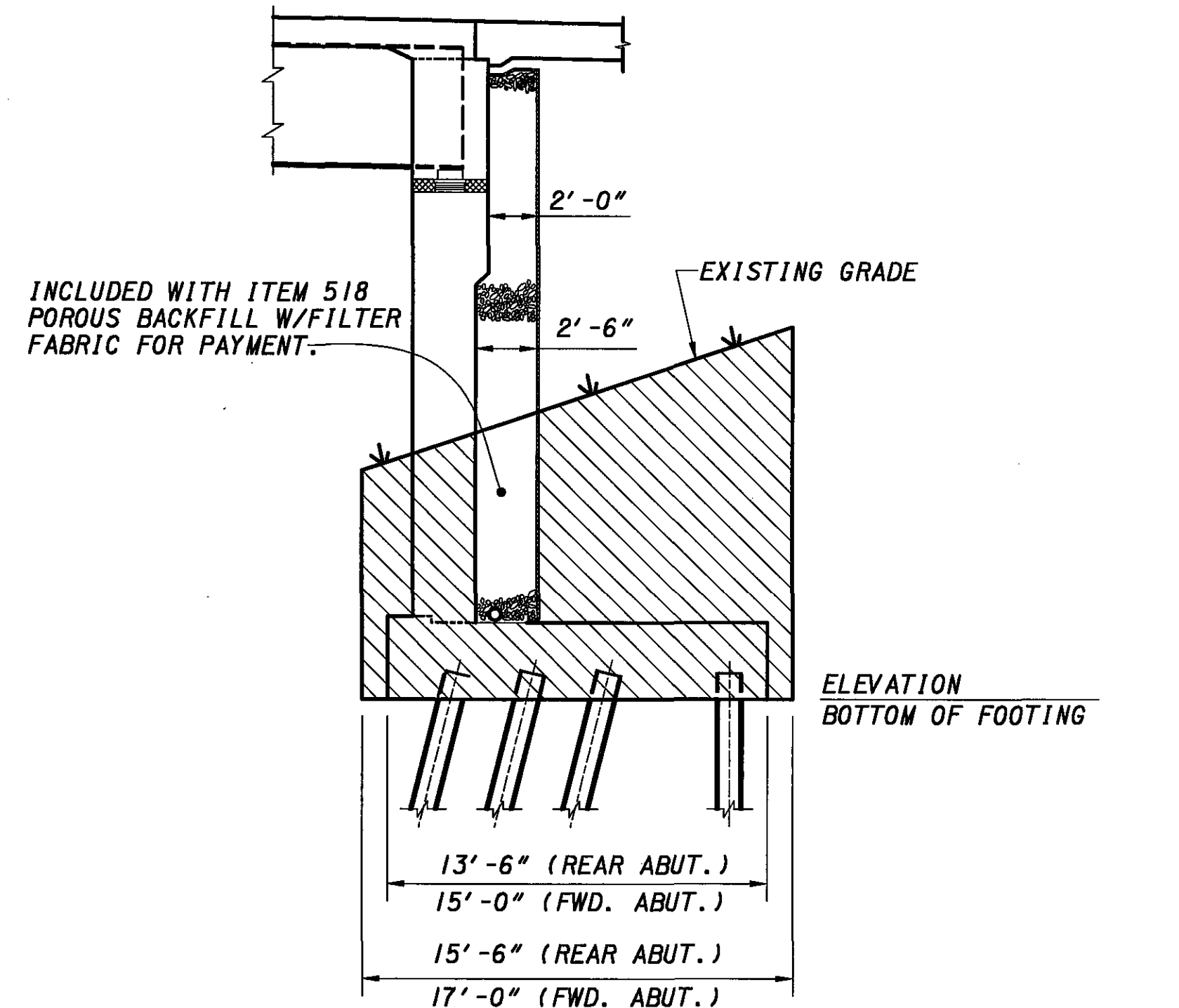
		FUNDING**			ESTIMATED QUANTITIES									
ITEM	ITEM EXT.	IM	NHS	TOTAL	UNIT	DESCRIPTION	ABUTS.	PIERS	SUPER.	GENERAL	NOTE REF. SHEET NO.			
202	11003	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	3, 5, 7, 9			
503	11101	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN				LUMP	6, 7, 8			
503	21101	1232	308	1540	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN	1434	106			4			
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP				
507	00200	14,444	3611	18,055	FT	STEEL PILES HP12 X 53, FURNISHED (SEE PROPOSAL NOTE 525)	14,855	3200						
507	00250	13,720	3430	17,150	FT	STEEL PILES HP12 X 53, DRIVEN	14,110	3040						
509	10000	203,451	50,863	254,314	POUND	EPOXY COATED REINFORCING STEEL (SEE PROPOSAL NOTE 525)	84,892	26,753	142,669					
511	41001	42	11	53	CU YD	CLASS C CONCRETE, PIER ABOVE FOOTING, AS PER PLAN		53			3			
511	44101	324	81	405	CU YD	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	405				3, 11, 13, 14, 15			
511	46501	353	88	441	CU YD	CLASS C CONCRETE, FOOTING, AS PER PLAN	391	50			3			
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB			LUMP					
512	10101	1126	281	1407	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	490	143	774		3			
512	33000	41	10	51	SQ YD	TYPE 2 WATERPROOFING	51							
513	10280	418,448	104,612	523,060	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 4 (A709 GRADE 50) (SEE PROPOSAL NOTE 525)			523,060					
513	20000	3629	907	4536	EACH	WELDED STUD SHEAR CONNECTORS (SEE PROPOSAL NOTE 525)			4536					
▽ 514	00060	26,800	6700	33,500	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			33,500					
▽ 514	00066	26,800	6700	33,500	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			33,500					
▽ 514	10000	14	3	17	EACH	FINAL INSPECTION REPAIR			17					
516	14021	128	32	160	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	160				3			
516	44100	6	2	8	EACH	ELASTOMERIC BEARING (10" X 17" X 2.90") WITH INTERNAL LAMINATES (NEOPRENE) AND LOAD PLATE (11" X 18" X 1.5")	8							
516	44200	6	2	8	EACH	ELASTOMERIC BEARING (16" X 30" X 3.02") WITH INTERNAL LAMINATES (NEOPRENE) AND LOAD PLATE (17" X 31" X 2.13")		8						
516	44300	6	2	8	EACH	ELASTOMERIC BEARING (14" X 23" X 4.49") WITH INTERNAL LAMINATES (NEOPRENE) AND LOAD PLATE (15" X 24" X 1.5")	8							
518	21200	310	77	387	CU YD	POROUS BACKFILL WITH FILTER FABRIC	387							
518	40000	202	50	252	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	252							
518	40011	44	11	55	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	55				15			
526	30001	331	83	414	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T-17"), AS PER PLAN				414	8, 23, 25			
601	20000	142	35	177	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION				177				
*894	10001	511	128	639	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			639		11, 13, 14, 15			

LEGEND:

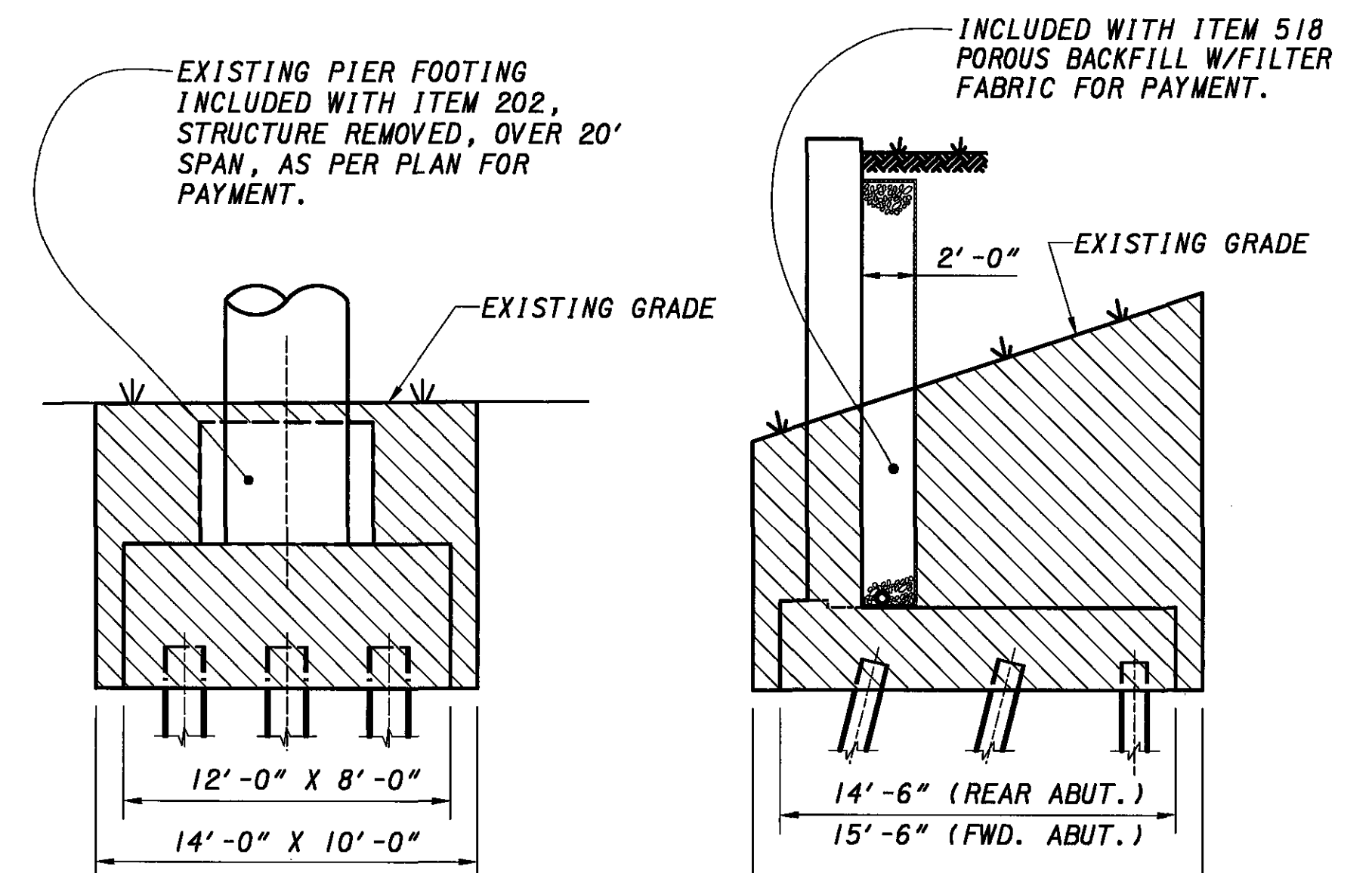
- INCLUDES APPROACH SLAB MEDIAN
- * INCLUDES CONCRETE IN ABUTMENT DIAPHRAGMS AND BRIDGE DECK PARAPETS
- ** ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS
- ▽ FEDERAL COLOR 17778 LIGHT NEUTRAL

NOTE:

SEE ROADWAY PLANS FOR APPROACH SLAB REMOVAL QUANTITY



TYPICAL ABUTMENT SECTION



TYPICAL PIER SECTION

TYPICAL WINGWALL SECTION

PAY LIMITS OF EXCAVATION
 (ITEM 503 - UNCLASSIFIED EXCAVATION)

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ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 333 EAST FEDERAL STREET, TOLEDO, OHIO

REVIEWED DATE 2-05
 GT
 STRUCTURE FILE NUMBER 5204275

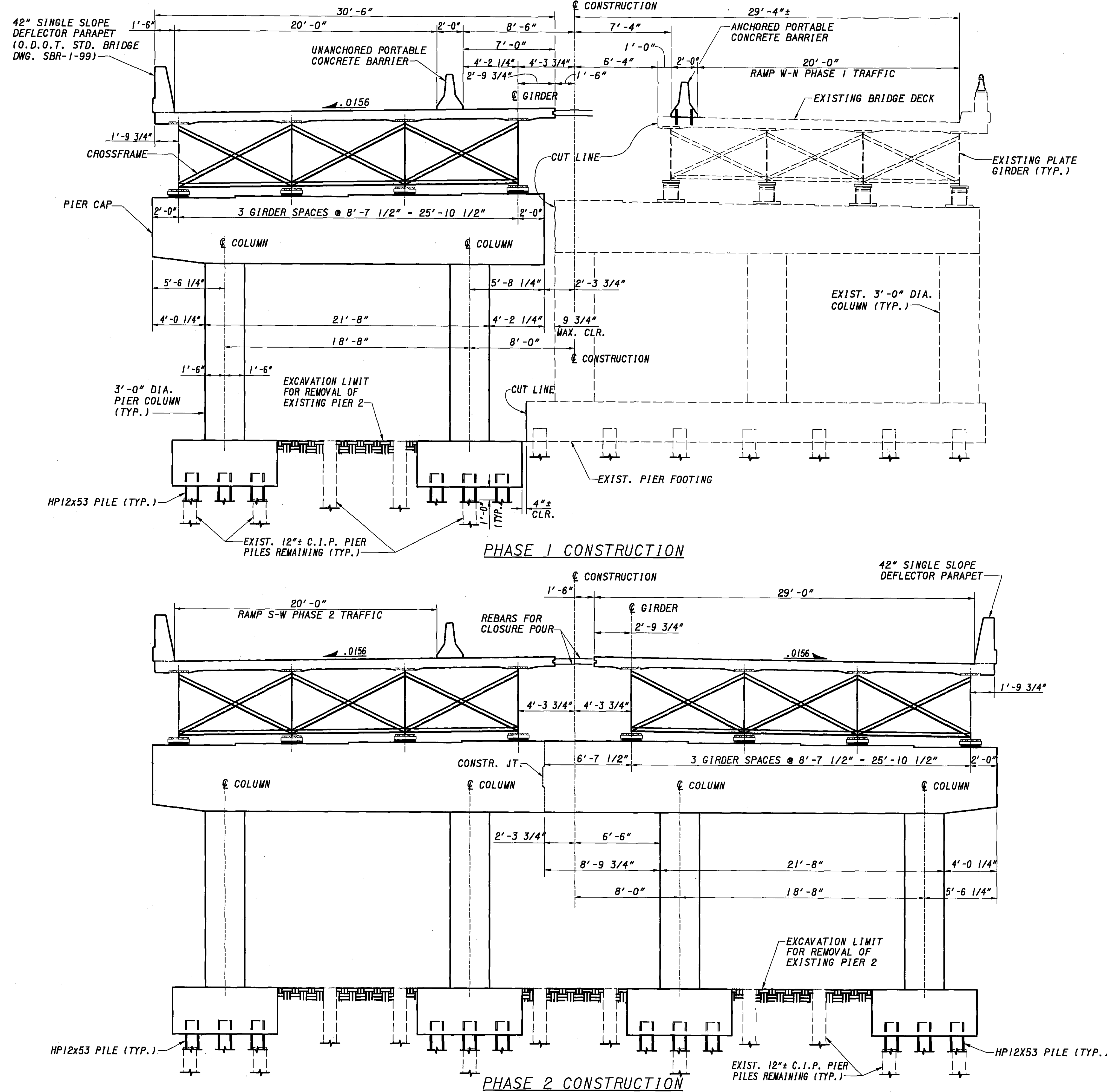
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ESTIMATED QUANTITIES
 BRIDGE NO. MED-71-0750
 OVER I-71

MED-71-6.06
 PID 75657

4 / 26

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 1120



PROPOSED WORK

PHASE 1 CONSTRUCTION: SEE SHEET [7/26] FOR PLAN VIEW

1. PLACE PORTABLE CONCRETE BARRIER AND MAINTAIN TRAFFIC ON THE RIGHT SIDE OF THE EXISTING BRIDGE.
2. INSTALL FALSEDECKING UNDER BOTH SIDES OF BRIDGE. (LEFT SIDE - RAMP S-W)
3. REMOVE PORTIONS OF EXISTING LEFT SIDE DECK, PARAPETS, STRUCTURAL STEEL, APPROACH SLABS AND PIERS AS NOTED ON THE PLANS.
4. EXCAVATE IN FRONT OF EXISTING ABUTMENTS AS INDICATED ON THE PLANS AND CONSTRUCT CUT-OFF WALLS AT EXISTING ABUTMENTS.
5. DRIVE SHEETING LINE 1A, 1B, 1C, 1D & 1E.
6. EXCAVATE AND CONSTRUCT PHASE 1 PORTIONS OF PIER AND ABUTMENTS INCLUDING CUT-OFF WALLS.
7. BACKFILL UNTIL EMBANKMENT LEVEL ON BOTH SIDES OF SHEETING LINES 1A AND 1B IS EQUAL. THEN REMOVE SHEETING LINES 1A AND 1B AND UPPER PORTION OF EXISTING ABUTMENT TO 2'-0" BELOW FINISHED GRADE. PLACE SHEETING LINE 1F AND COMPLETE BACKFILL.
8. INSTALL NEW ELASTOMERIC BEARINGS, STEEL GIRDERS, INTERMEDIATE CROSS FRAMES, AND DIAPHRAGM CONCRETE.
9. PLACE PHASE 1 PORTIONS OF CONCRETE DECK, PARAPETS AND APPROACH SLABS AS NOTED ON PLANS.

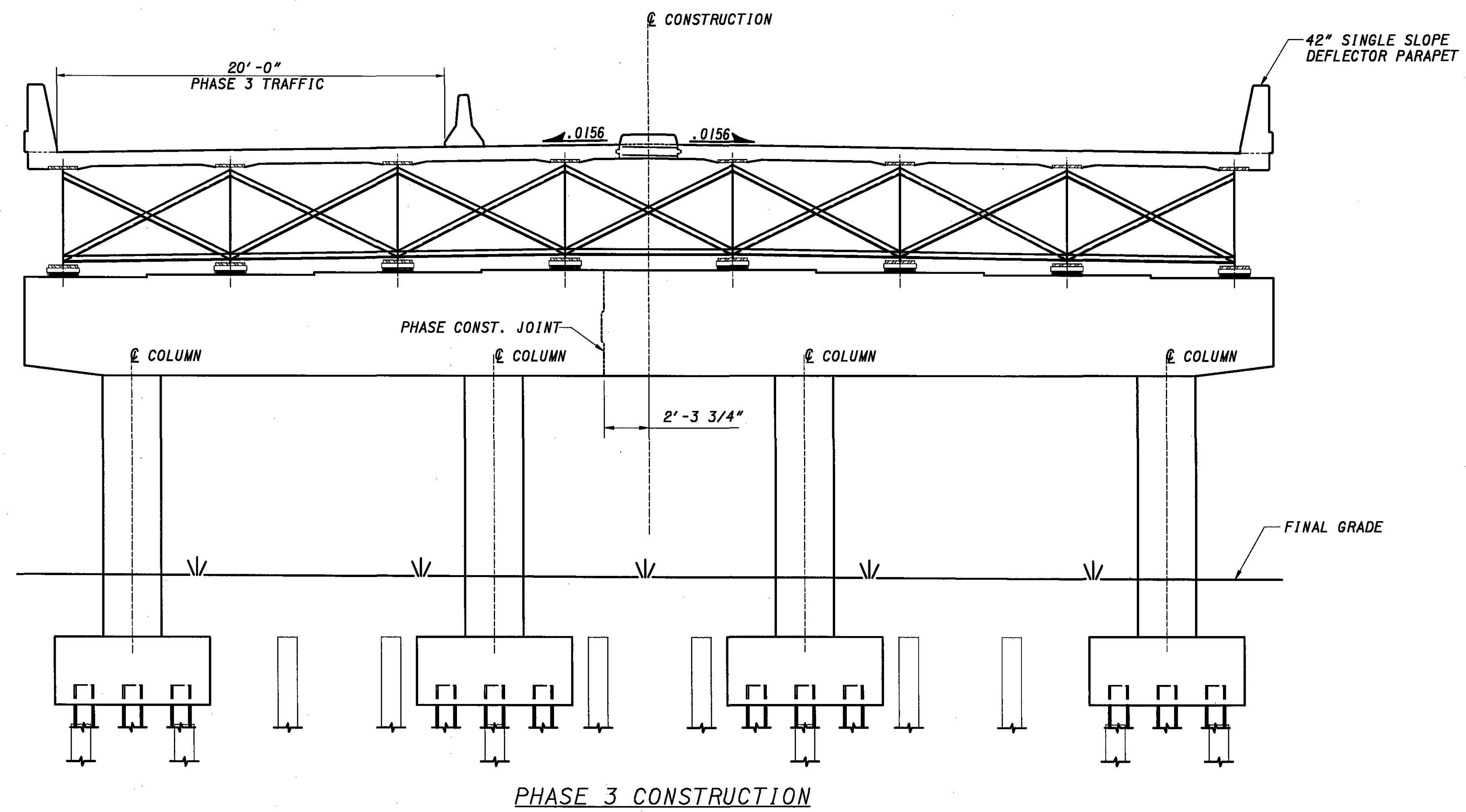
PHASE 2 CONSTRUCTION: SEE SHEET [8/26] FOR PLAN VIEW

1. PLACE PORTABLE CONCRETE BARRIER AND DIVERT AND MAINTAIN TRAFFIC ON THE LEFT SIDE OF THE BRIDGE. (RIGHT SIDE - RAMP W-N)
2. REMOVE THE REMAINING PORTIONS OF EXISTING RIGHT SIDE DECK, PARAPETS, STRUCTURAL STEEL, APPROACH SLABS AND PIERS AS NOTED ON THE PLANS.
3. COMPLETE EXCAVATION IN FRONT OF EXISTING ABUTMENT AS INDICATED ON THE PLANS.
4. DRIVE SHEETING LINE 2A AND 2B TO MEET LINE 1C.
5. EXCAVATE FOR PHASE 2 PORTIONS OF ABUTMENTS.
6. REMOVE SHEETING LINE 1D & CONSTRUCT PHASE 2 PORTIONS OF ABUTMENTS & PIER.
7. BACKFILL UNTIL EMBANKMENT LEVEL ON BOTH SIDES OF SHEETING LINES 1C, 2A & 2B IS EQUAL. THEN REMOVE SHEETING LINES 1C, 2A AND 2B.
8. REMOVE UPPER PORTION OF EXISTING ABUTMENT TO 2'-0" BELOW FINISHED GRADE AND BACKFILL UNTIL EMBANKMENT LEVEL ON BOTH SIDES OF SHEETING LINES 1E & 1F IS EQUAL. THEN REMOVE SHEETING LINES 1E AND 1F AND COMPLETE BACKFILL.
9. PLACE SLOPE PROTECTION ON BOTH SIDES OF BRIDGE.
10. INSTALL NEW ELASTOMERIC BEARINGS, STEEL GIRDERS, INTERMEDIATE CROSSFRAMES, AND DIAPHRAGM CONCRETE. DO NOT PLACE INTERMEDIATE CROSS FRAMES OR ABUTMENT DIAPHRAGM CONCRETE IN THE CLOSURE POUR LOCATION.
11. PLACE PHASE 2 PORTIONS OF CONCRETE DECK AND PARAPETS.

PHASE 3 CONSTRUCTION: SEE SHEET [6/26] AND [8/26]

1. MAINTAIN TRAFFIC ON LEFT SIDE OF BRIDGE.
2. IN THE CLOSURE POUR LOCATION, PLACE INTERMEDIATE CROSS FRAMES, ABUTMENT DIAPHRAGMS, DECK AND MEDIAN.
3. BACKFILL AND CONSTRUCT THE REMAINING PORTIONS OF THE APPROACH SLABS.
4. REMOVE PORTABLE CONCRETE BARRIERS FROM LEFT SIDE OF BRIDGE AND RESUME NORMAL TRAFFIC.

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NOTE:
 1. SEE DESCRIPTION OF PROPOSED WORK ON SHEET 5/26

LEGEND:
 LIMITS OF ABUTMENT REMOVAL

* TO BE PAID FOR WITH ITEM 503, COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN

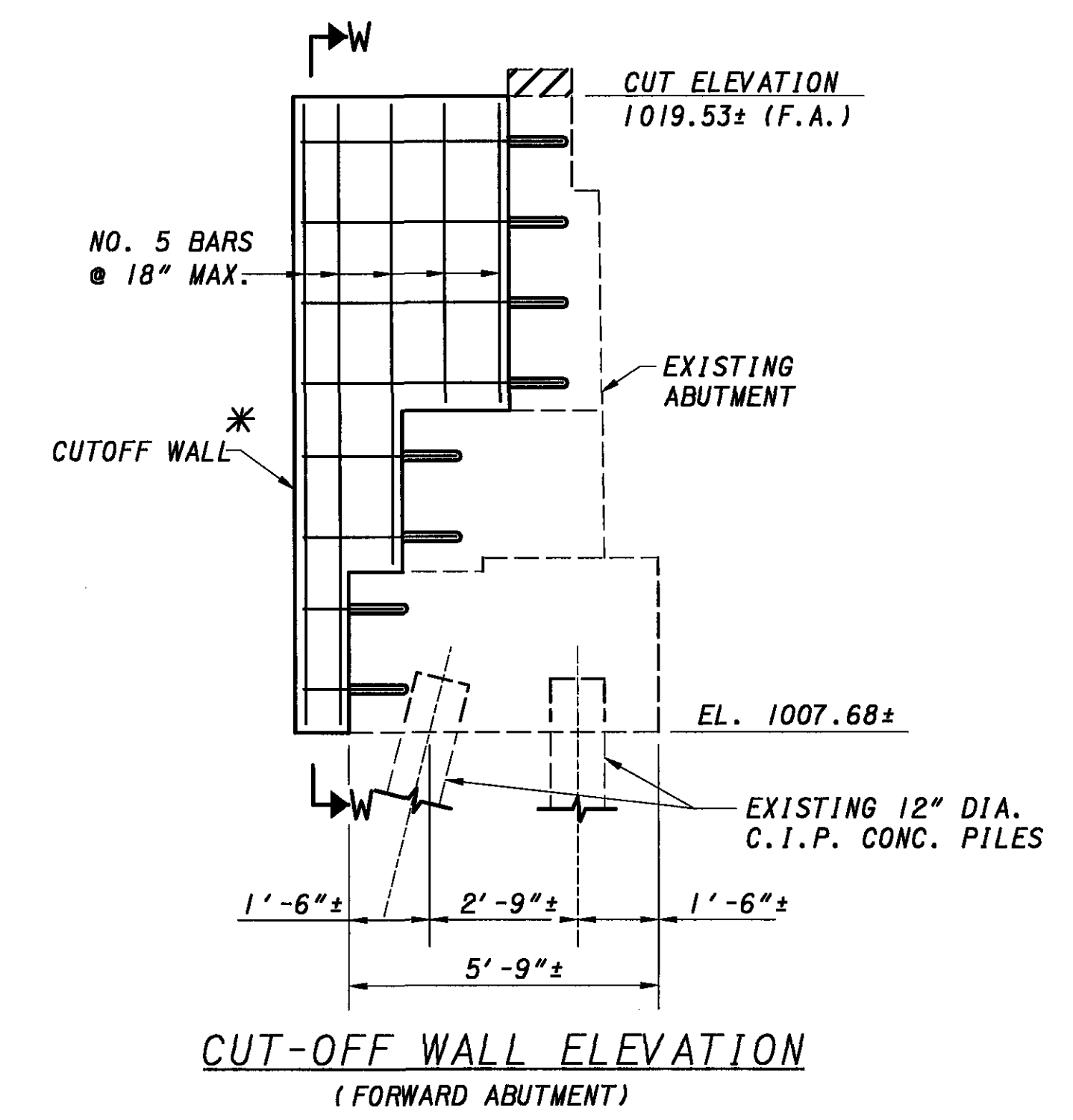
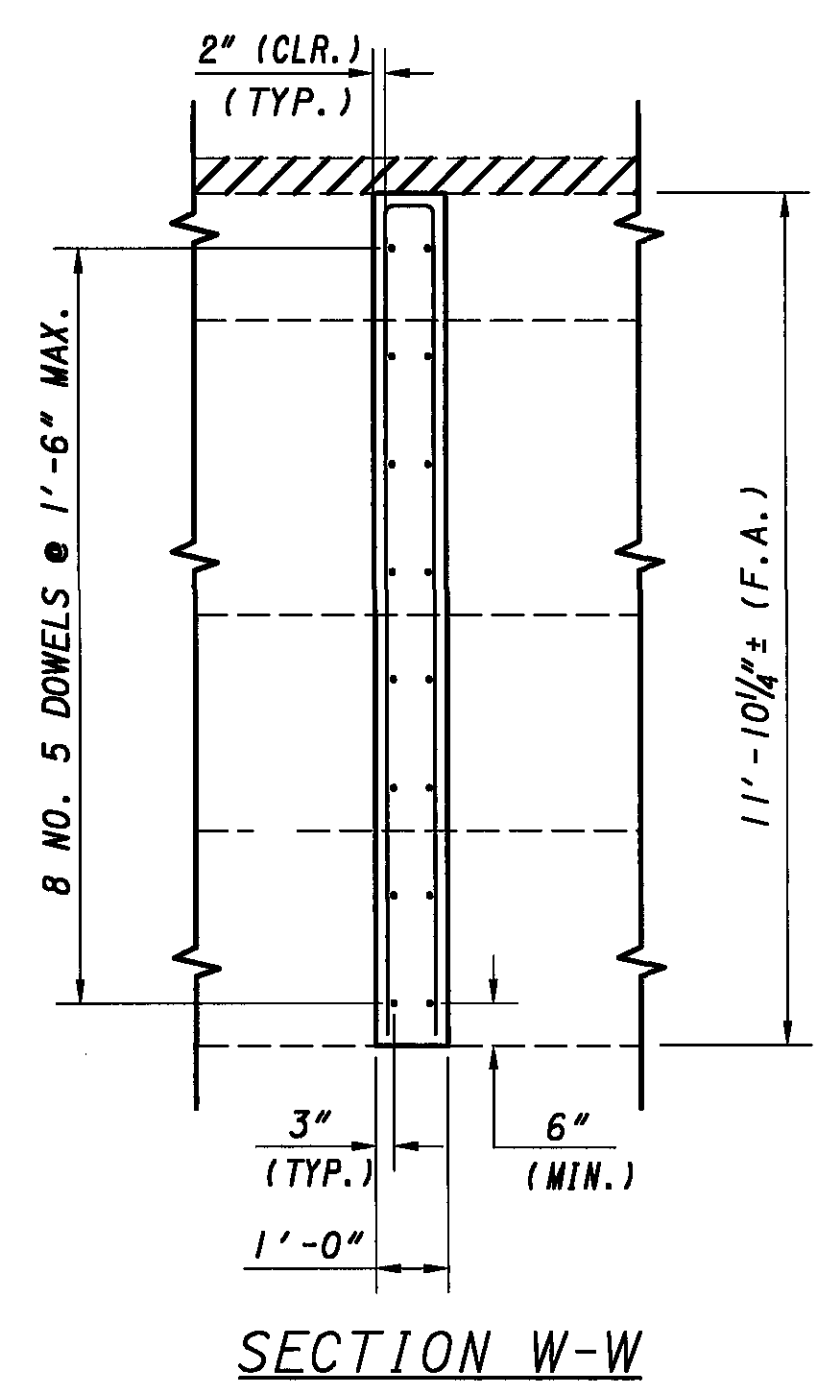
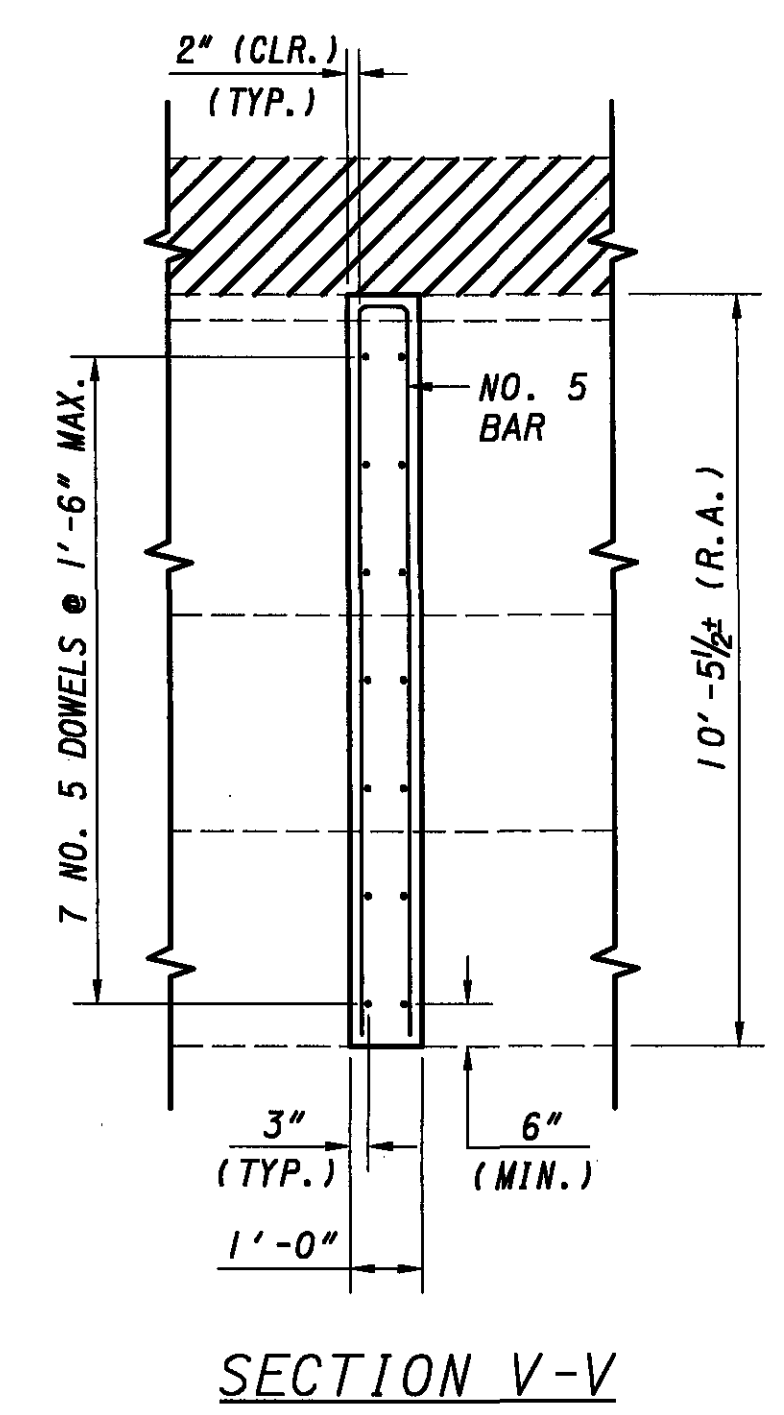
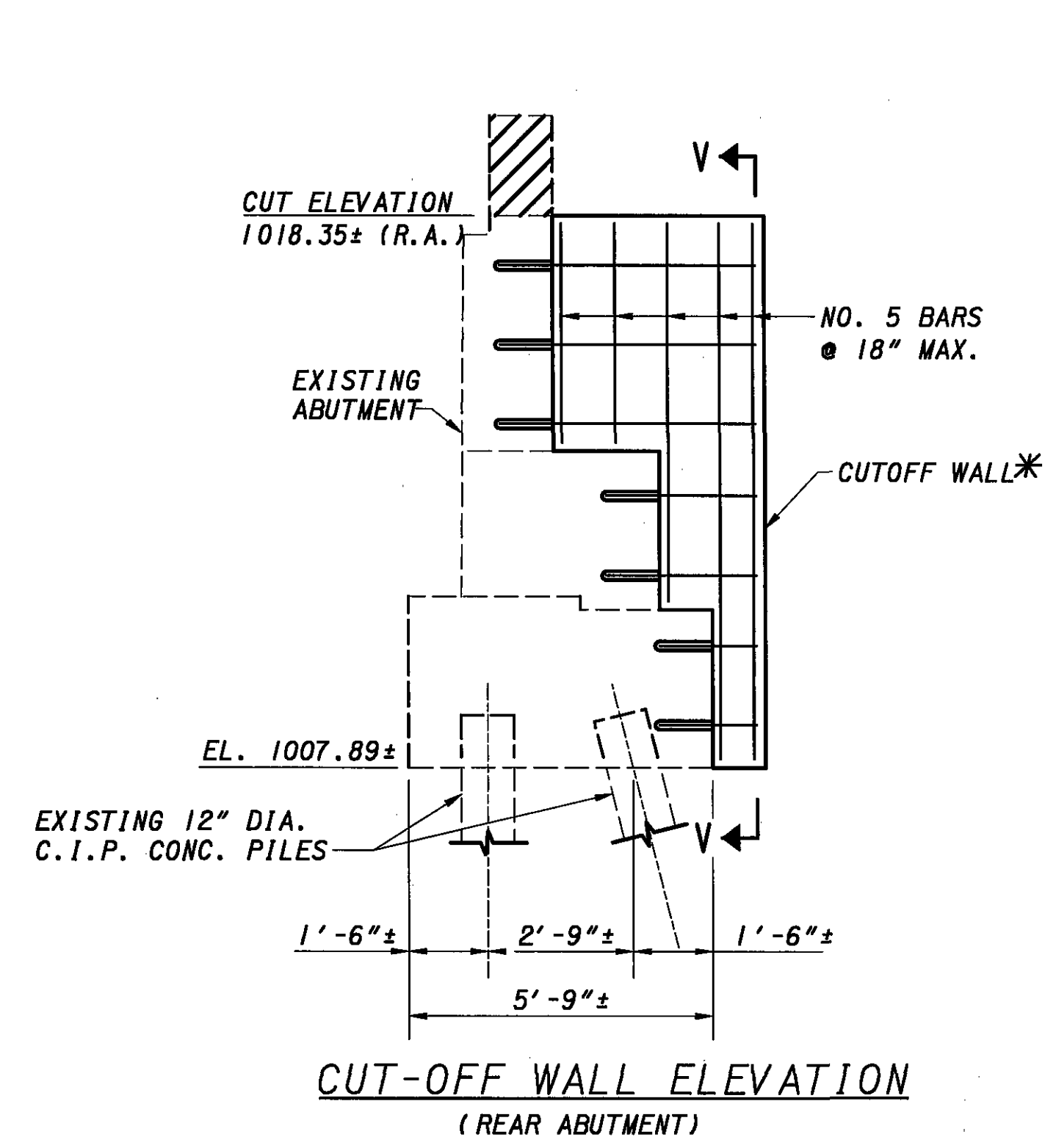
TEMPORARY SHEETING LAYOUT (REAR ABUTMENT)**

SHEETING LINE	BEGINNING STATION	BEGINNING OFFSET	ENDING STATION	ENDING OFFSET	TOP ELEVATION	BOTTOM ELEVATION
1A	18+35.23	59.22' LT.	18+53.39	28.35' LT.	1008.00	973.00
1B	18+53.39	28.35' LT.	18+53.39	5.00' LT.	1008.00	973.00
1C	18+53.39	5.00' LT.	18+53.39	4.00' RT.	1008.00	973.00
1D	18+53.39	4.00' RT.	18+75.00	4.00' RT.	1008.00	973.00
1E	18+44.39	4.50' LT.	18+53.39	4.50' LT.	1018.61	990.60
1F	18+53.39	4.50' LT.	18+63.72	4.50' LT.	1018.61	1007.89
2A	18+53.39	4.00' RT.	18+53.39	28.35' RT.	1008.00	973.00
2B	18+53.39	28.35' RT.	18+33.73	61.82' RT.	1008.00	973.00

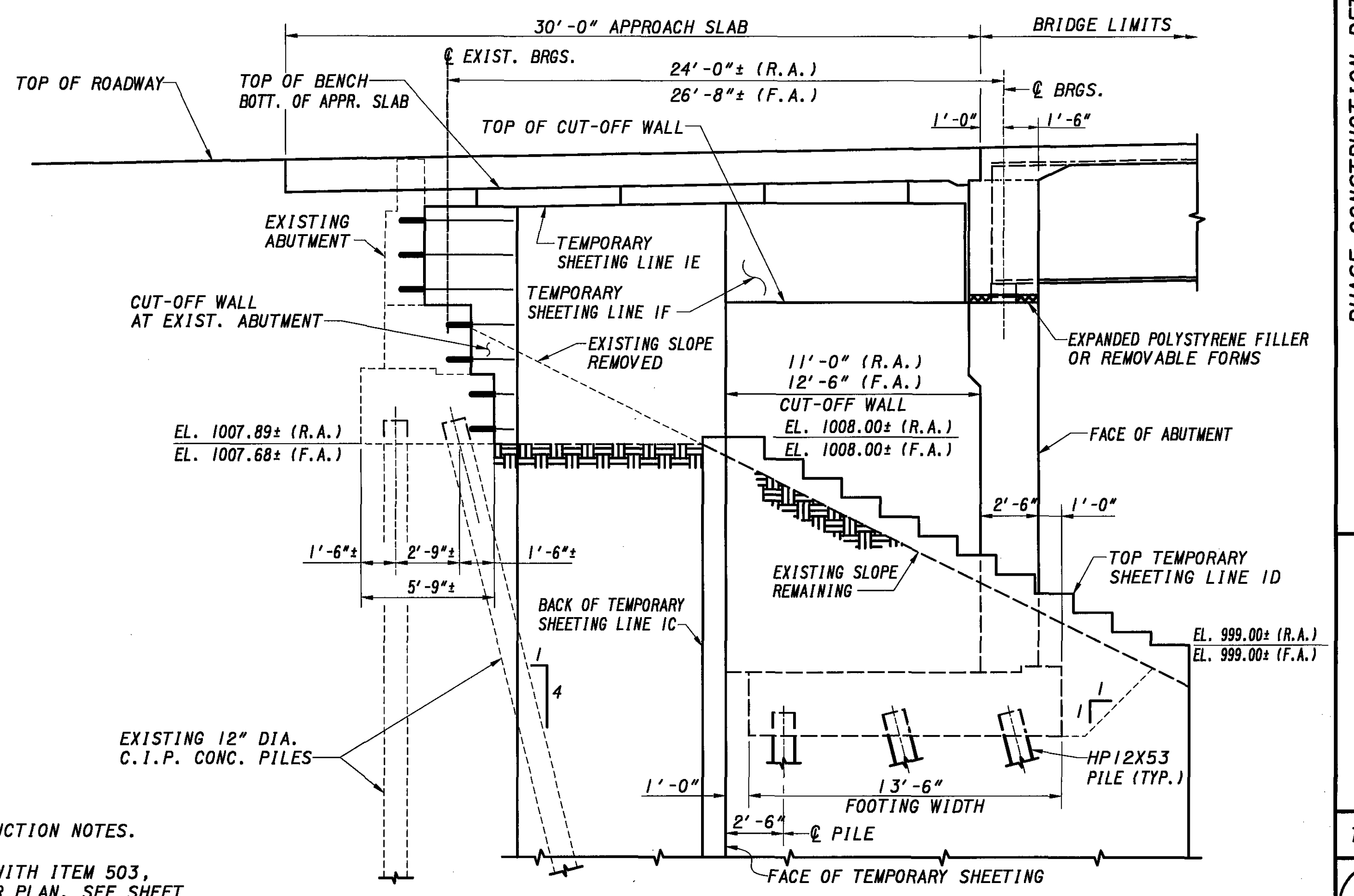
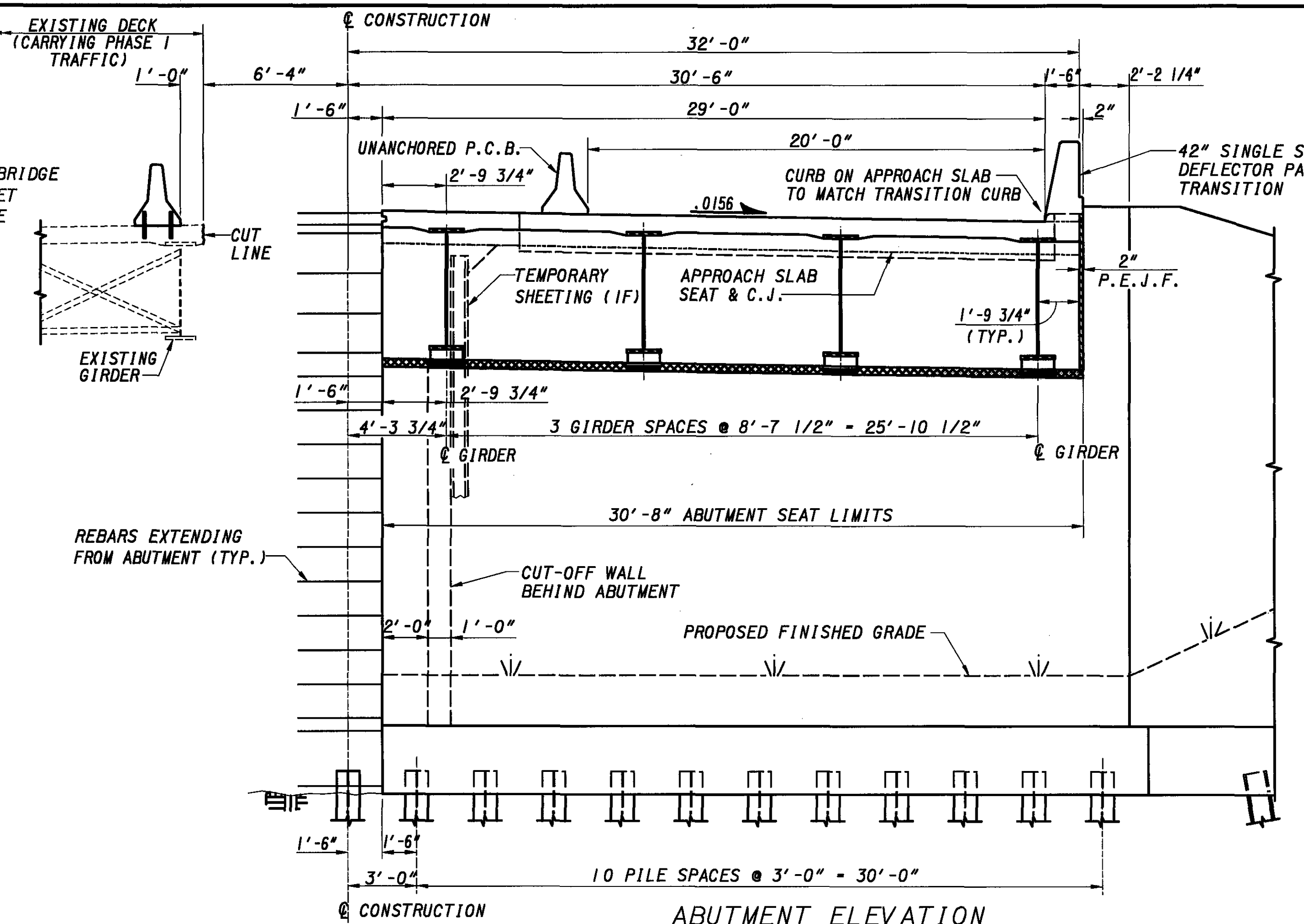
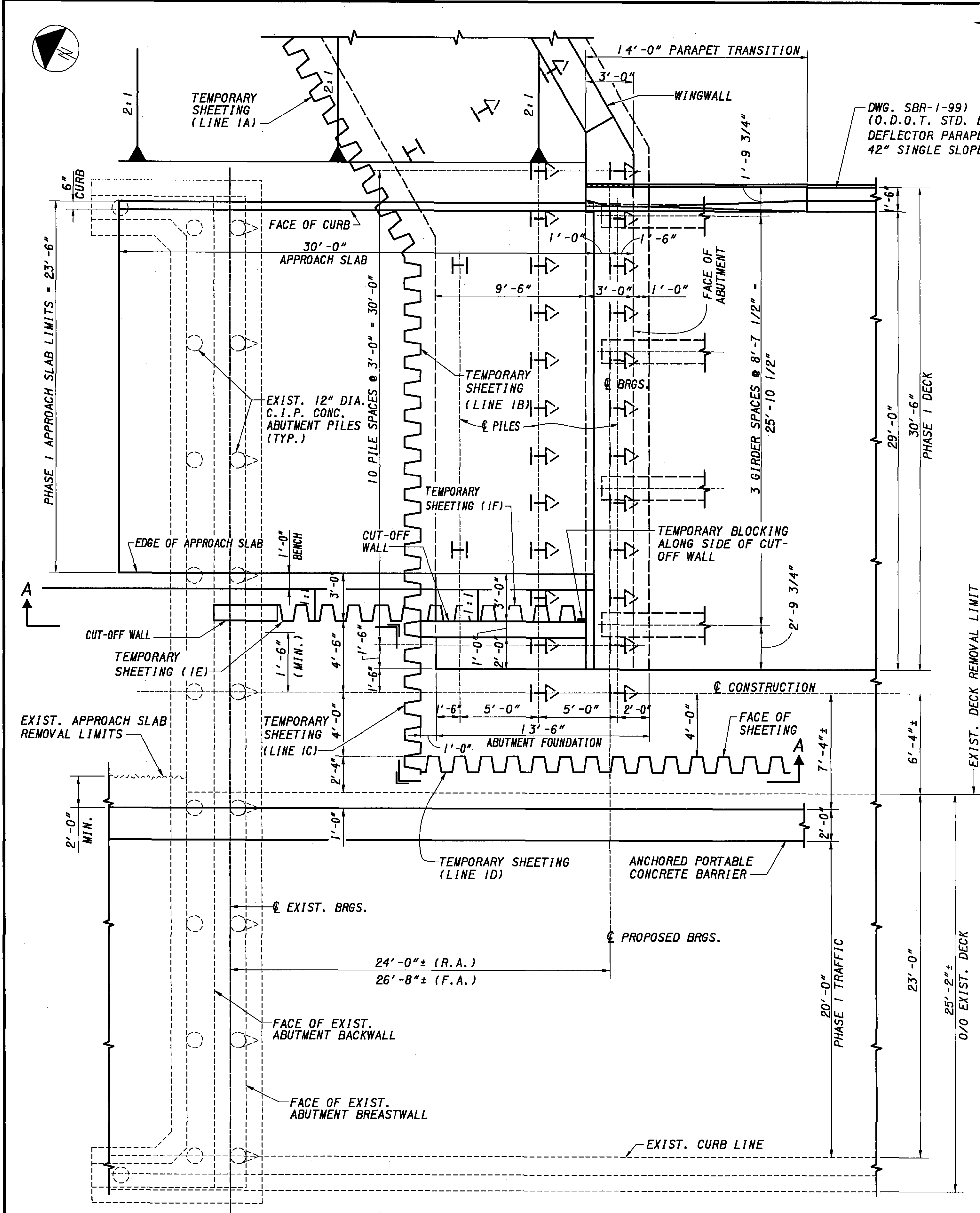
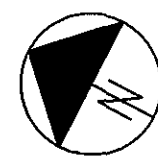
TEMPORARY SHEETING LAYOUT (FORWARD ABUTMENT)**

SHEETING LINE	BEGINNING STATION	BEGINNING OFFSET	ENDING STATION	ENDING OFFSET	TOP ELEVATION	BOTTOM ELEVATION
1A	21+47.39	63.27' LT.	21+26.89	28.86' LT.	1008.00	971.00
1B	21+26.89	28.86' LT.	21+26.89	5.00' LT.	1008.00	971.00
1C	21+26.89	5.00' LT.	21+26.89	4.00' RT.	1008.00	971.00
1D	21+00.00	4.00' RT.	21+26.89	4.00' RT.	1008.00	971.00
1E	21+26.89	4.50' LT.	21+37.06	4.50' LT.	1019.53	991.50
1F	21+15.06	4.50' LT.	21+26.89	4.50' LT.	1019.68	1007.68
2A	21+26.89	4.00' RT.	21+26.89	28.86' RT.	1008.00	971.00
2B	21+26.89	28.86' RT.	21+47.96	64.26' RT.	1008.00	971.00

** STATIONING AND OFFSETS ARE GIVEN TO THE EXPOSED FACE OF SHEETING. TEMPORARY SHEETING SHALL BE ASTM A572 (GRADE 50) STEEL. ALL TEMPORARY SHEETING, EXCEPT LINE 1F, SHALL HAVE A MINIMUM SECTION MODULUS OF 24.0 CUBIC INCHES PER FOOT OF WALL. TEMPORARY SHEETING LINE 1F SHALL HAVE A MINIMUM SECTION MODULUS OF 3.7 CUBIC INCHES PER FOOT OF WALL.



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LEGEND:

⤴ - INDICATES HP12X53 PILES AND DIRECTION OF BATTER @ 4:1

ABUTMENT PLAN PHASE I CONSTRUCTION
 REAR ABUTMENT SHOWN
 FORWARD ABUTMENT SIMILAR
 (GUARDRAIL NOT SHOWN)

NOTES:

1. REFER TO SHEET [5/26] FOR PHASE CONSTRUCTION NOTES.
2. TEMPORARY SHEETING SHALL BE PAID FOR WITH ITEM 503, COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN. SEE SHEET [6/26] FOR ADDITIONAL DETAILS.

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PREPARED BY
ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 333 EAST FEDERAL STREET, YOUNGSTOWN, OHIO

DATE
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 REVIEWED
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 STRUCTURE FILE NUMBER
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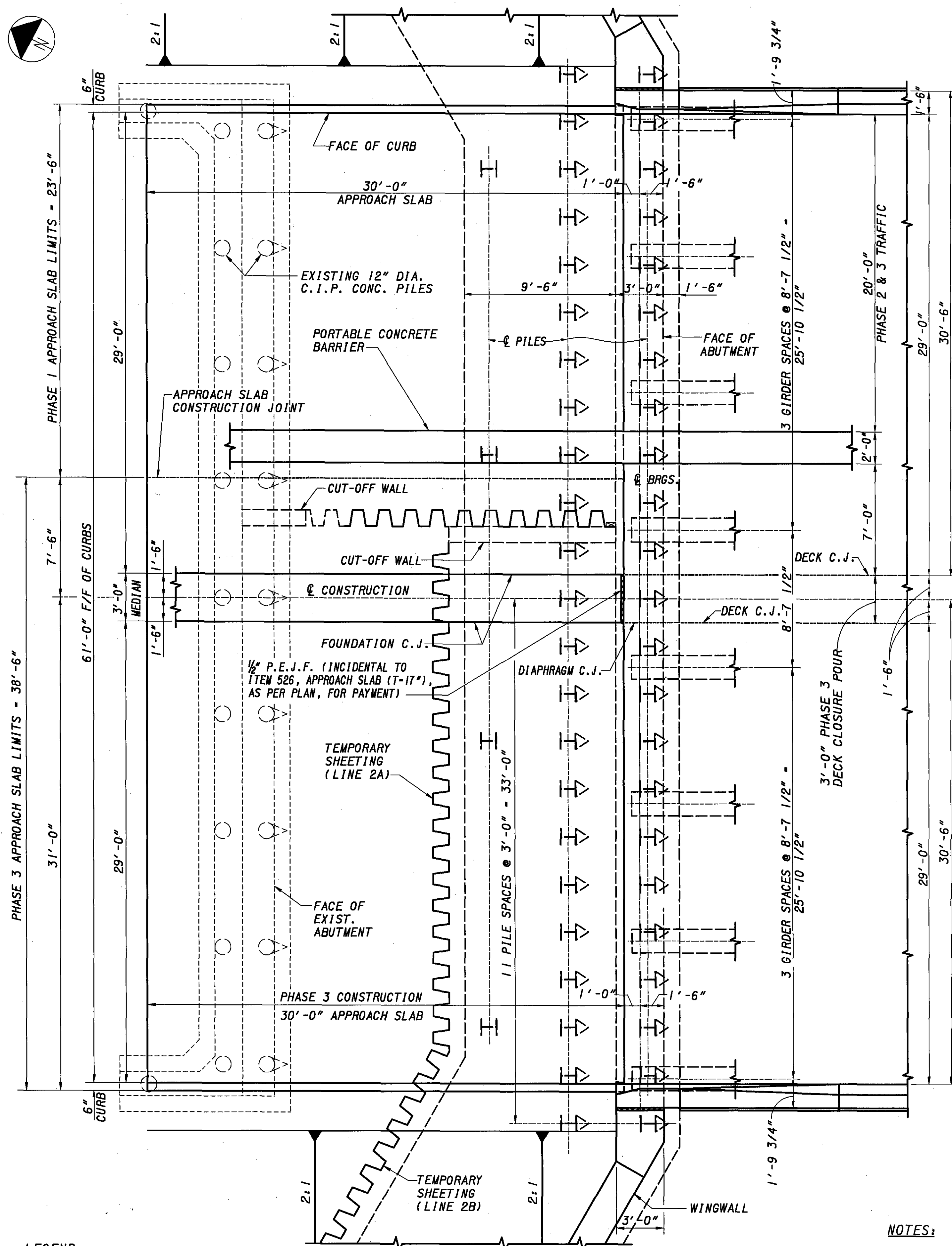
PHASE CONSTRUCTION DETAILS
 BRIDGE NO. MED-71-0750
 OVER 1-71

MED-71-6.06
 PID 75657

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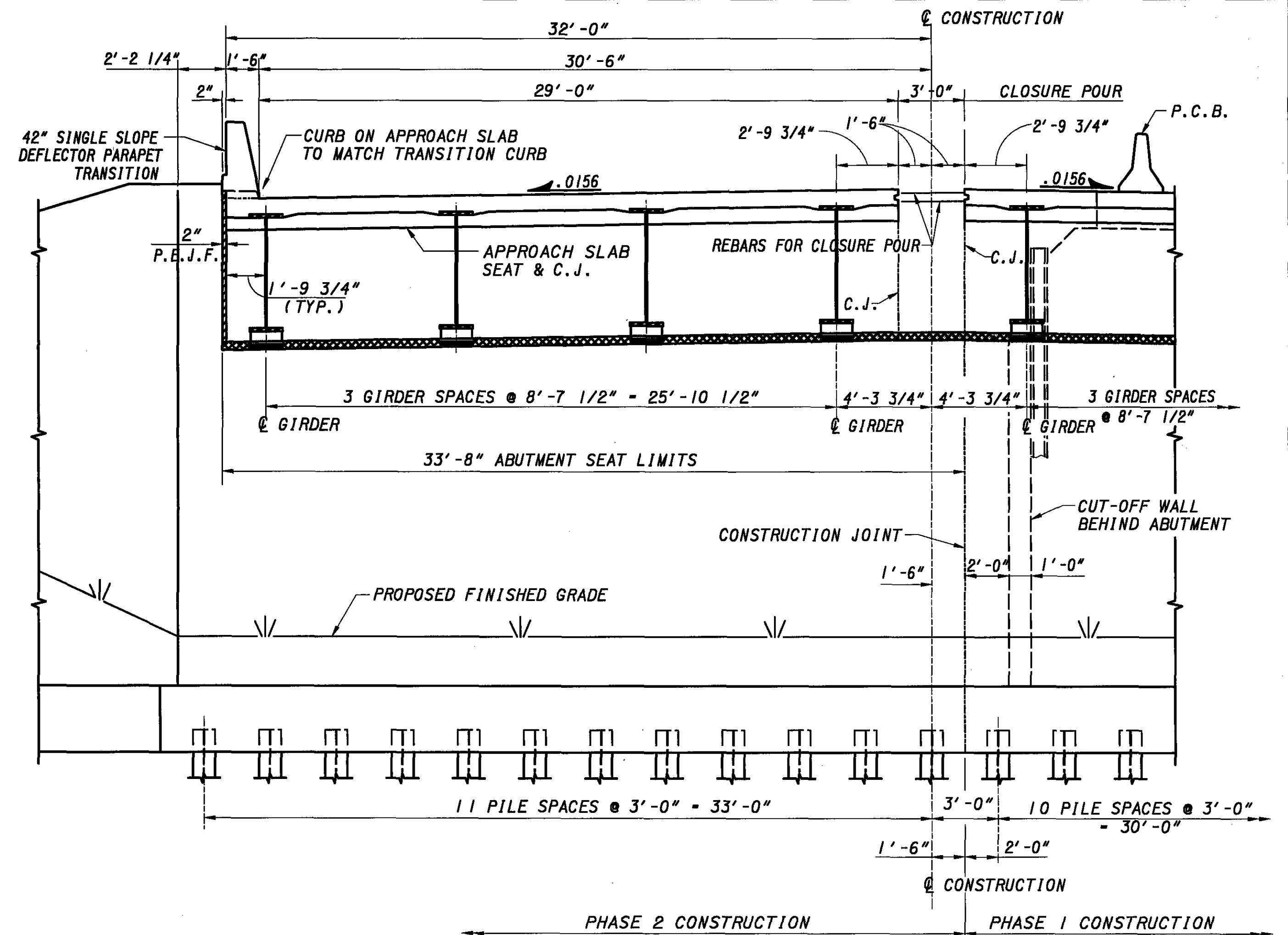
ABUTMENT PLAN - PHASE 2 & 3 CONSTRUCTION
 REAR ABUTMENT SHOWN
 FORWARD ABUTMENT SIMILAR
 (GUARDRAIL NOT SHOWN)

LEGEND:

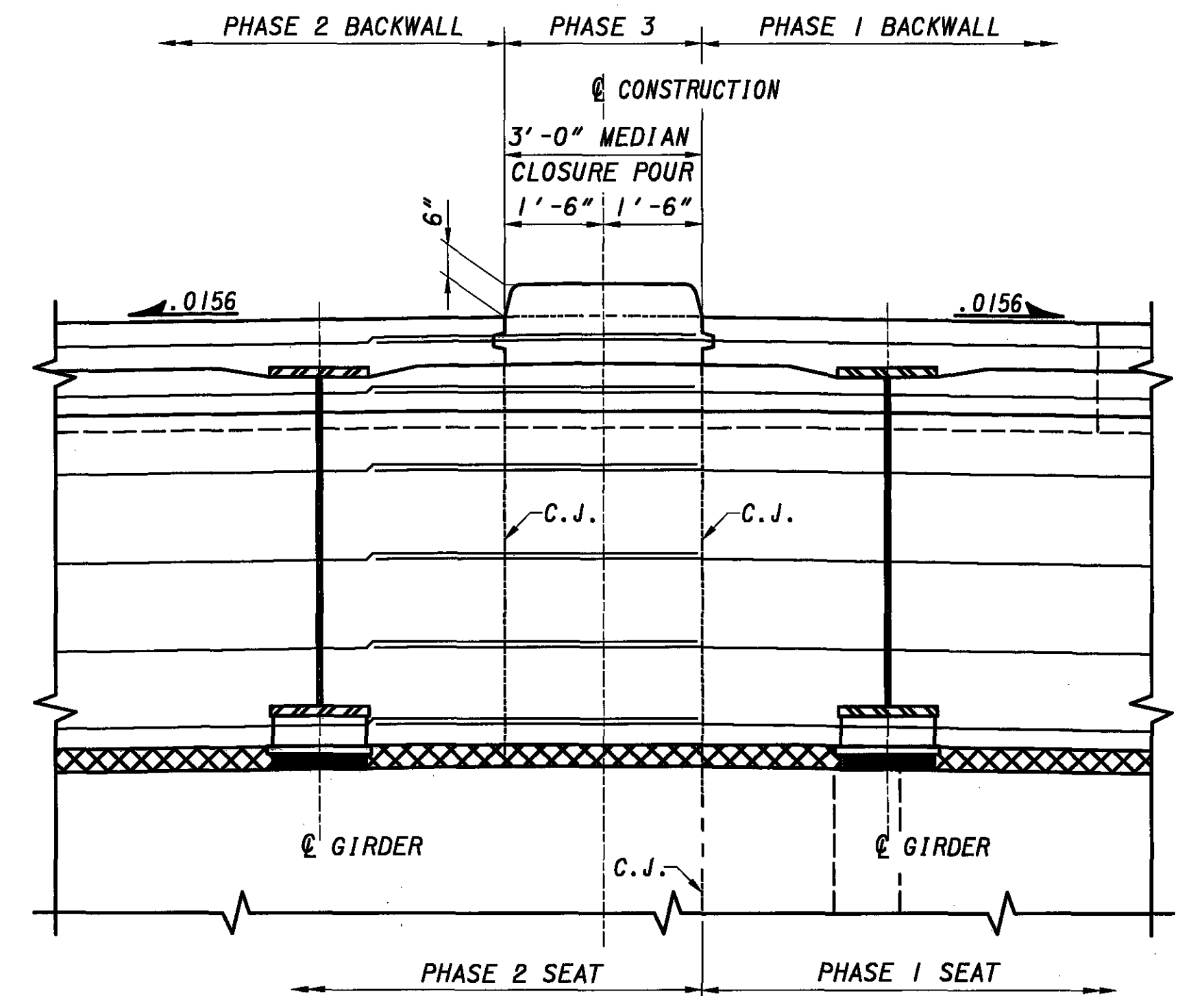
⊃ - INDICATES HP12X53 PILE
 AND DIRECTION OF BATTER @ 4:1

NOTES:

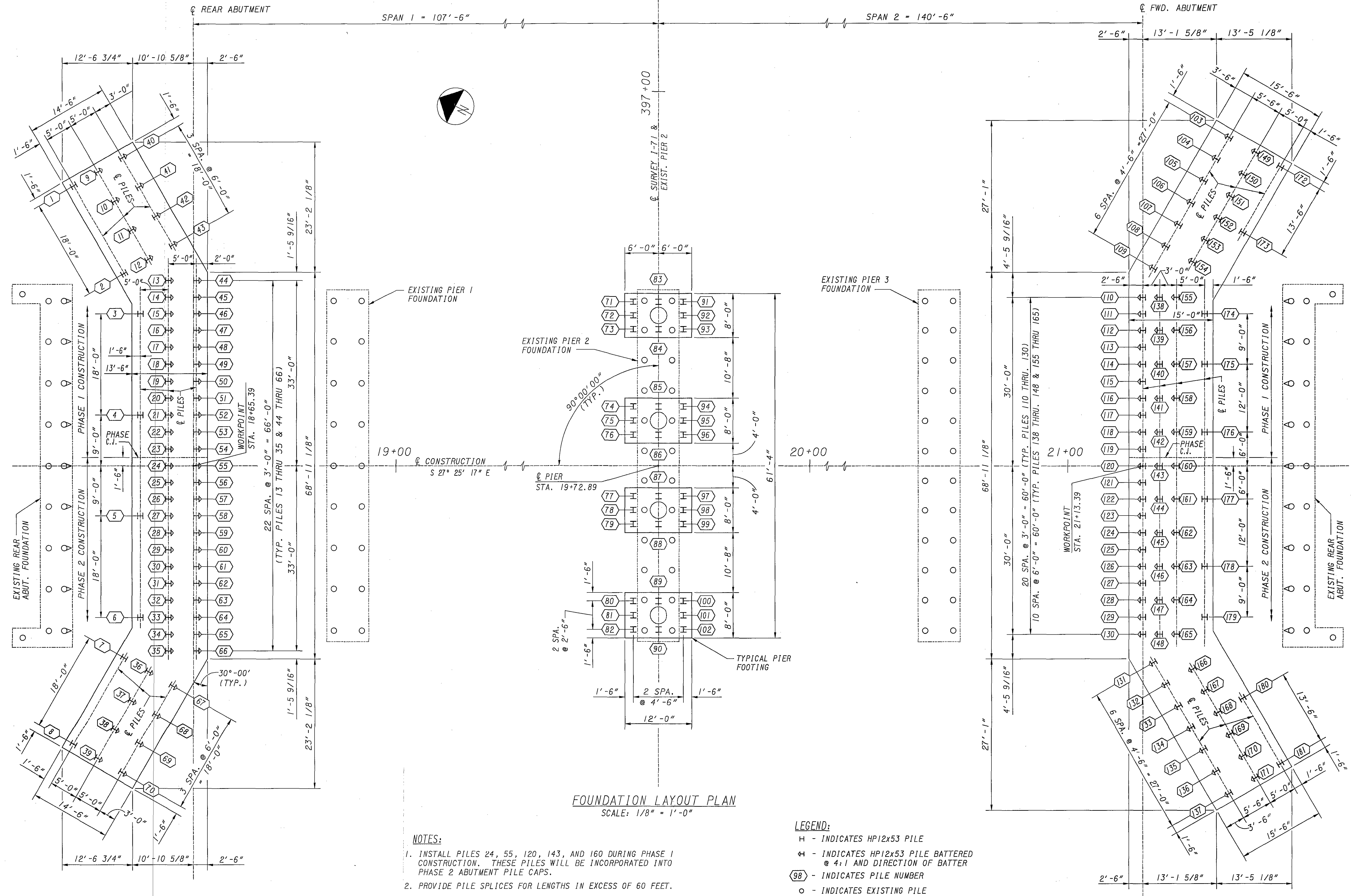
1. REFER TO SHEET **5/26** FOR PHASE CONSTRUCTION NOTES.
2. SEE SHEET **6/26** FOR ADDITIONAL TEMPORARY SHEETING DETAILS.



**ABUTMENT ELEVATION
 PHASE 2 CONSTRUCTION**
 REMAINING PORTION OF APPROACH SLAB TO BE CONSTRUCTED IN PHASE 3.



**CLOSURE POUR DETAIL
 PHASE 3 CONSTRUCTION**



FOUNDATION LAYOUT PLAN
SCALE: 1/8" = 1'-0"

- NOTES:**
- INSTALL PILES 24, 55, 120, 143, AND 160 DURING PHASE 1 CONSTRUCTION. THESE PILES WILL BE INCORPORATED INTO PHASE 2 ABUTMENT PILE CAPS.
 - PROVIDE PILE SPLICES FOR LENGTHS IN EXCESS OF 60 FEET.

- LEGEND:**
- H - INDICATES HP12x53 PILE
 - ⊕ - INDICATES HP12x53 PILE BATTERED @ 4:1 AND DIRECTION OF BATTER
 - (98) - INDICATES PILE NUMBER
 - - INDICATES EXISTING PILE

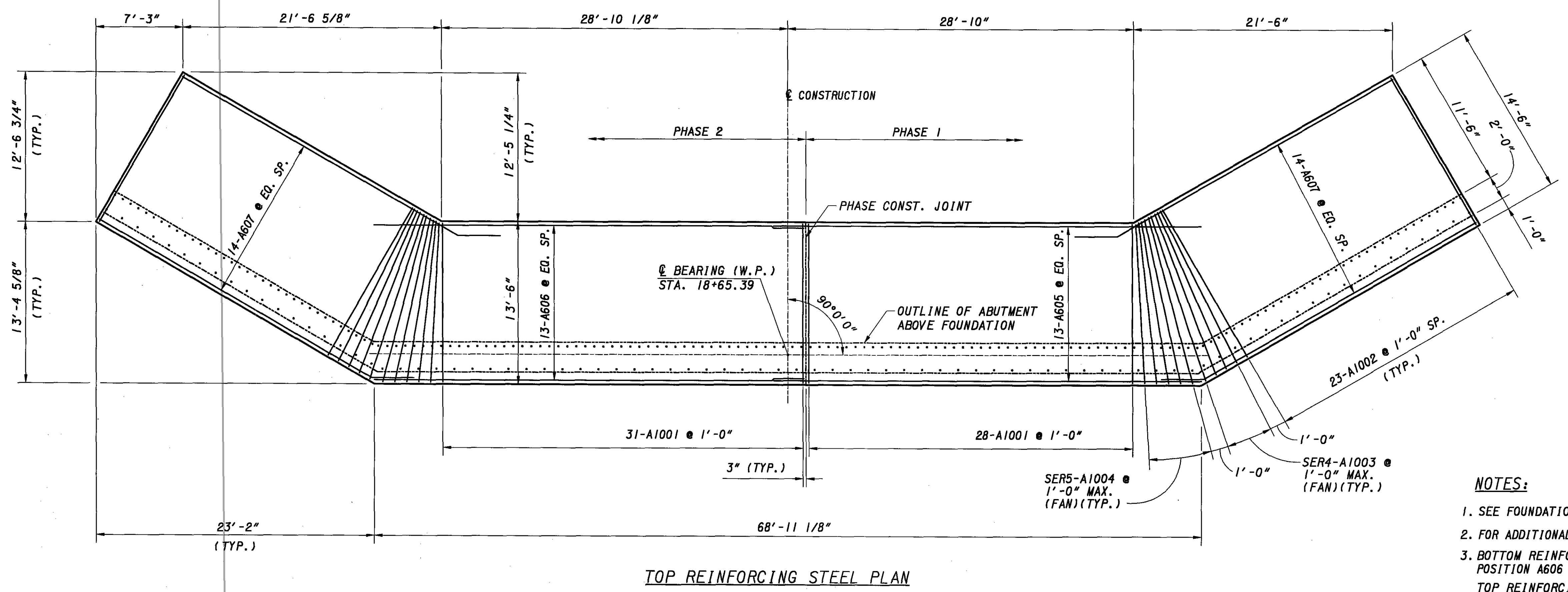
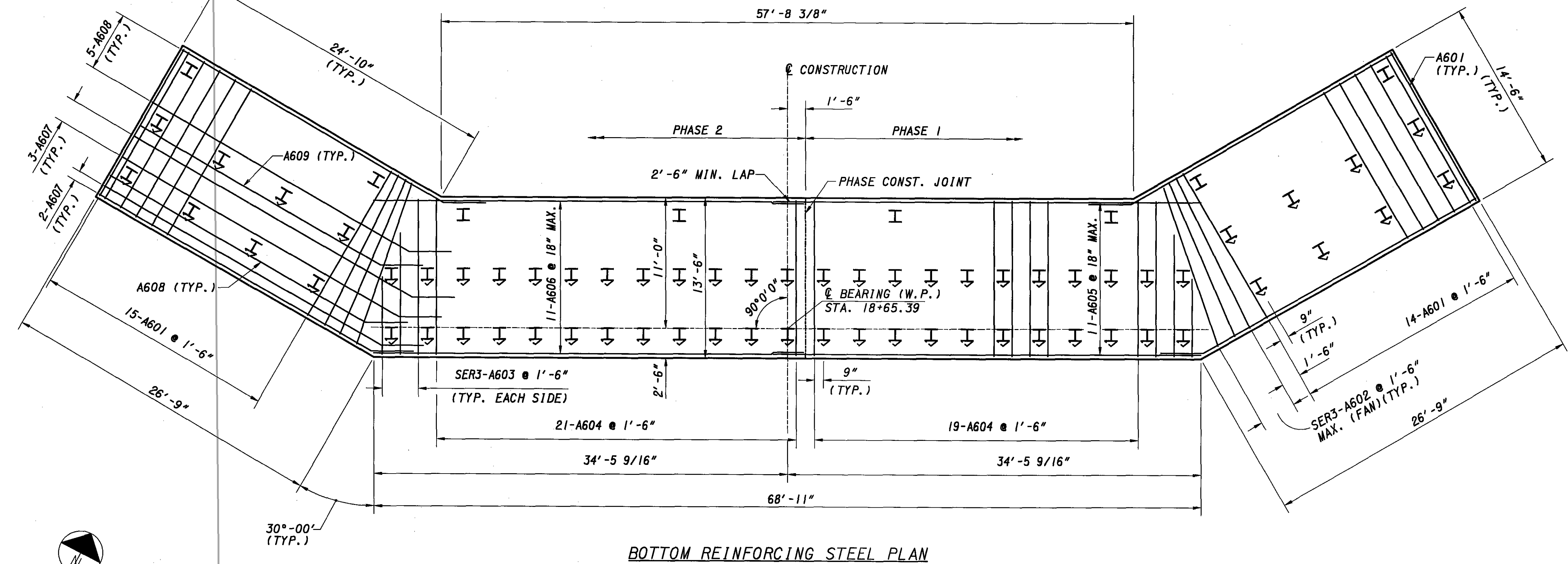
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ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 333 EAST RIVERSIDE STREET, YONKING, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
WER	LAW	GT	2-05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WH		5204275	

FOUNDATION LAYOUT PLAN
 BRIDGE NO. MED-7 1-0750
 OVER I-71

MED-7 1-6.06
 PID 75657

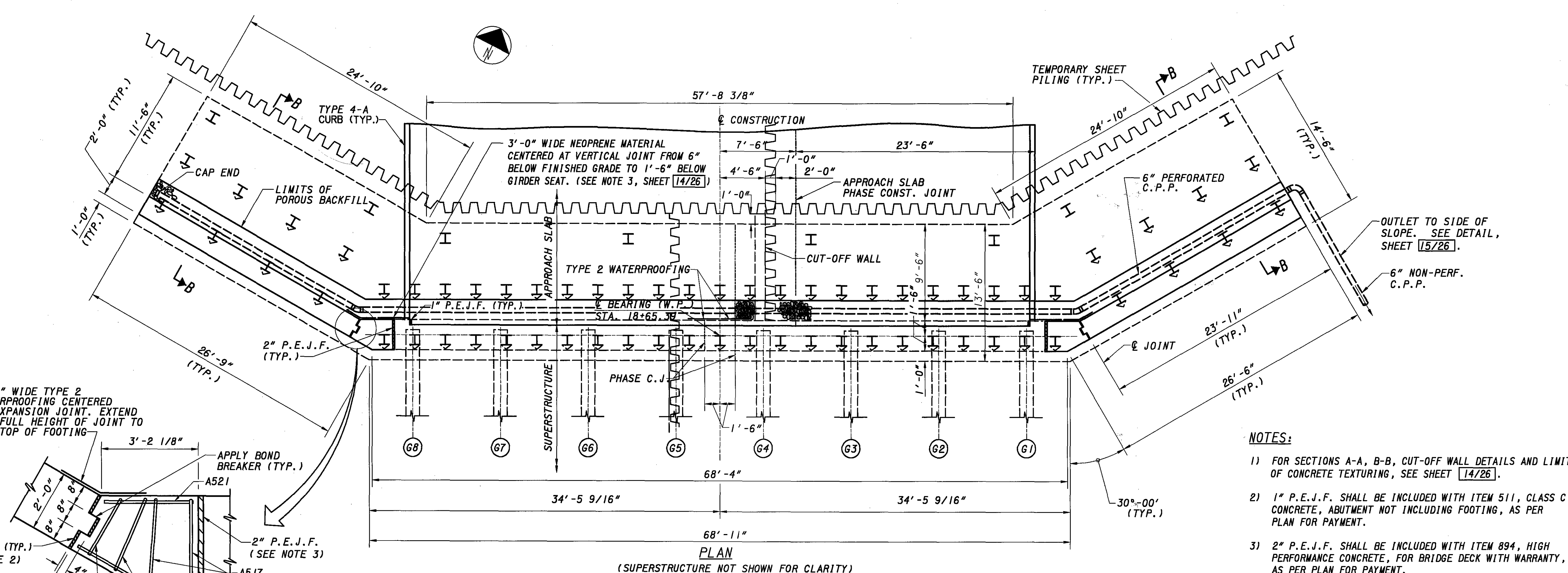
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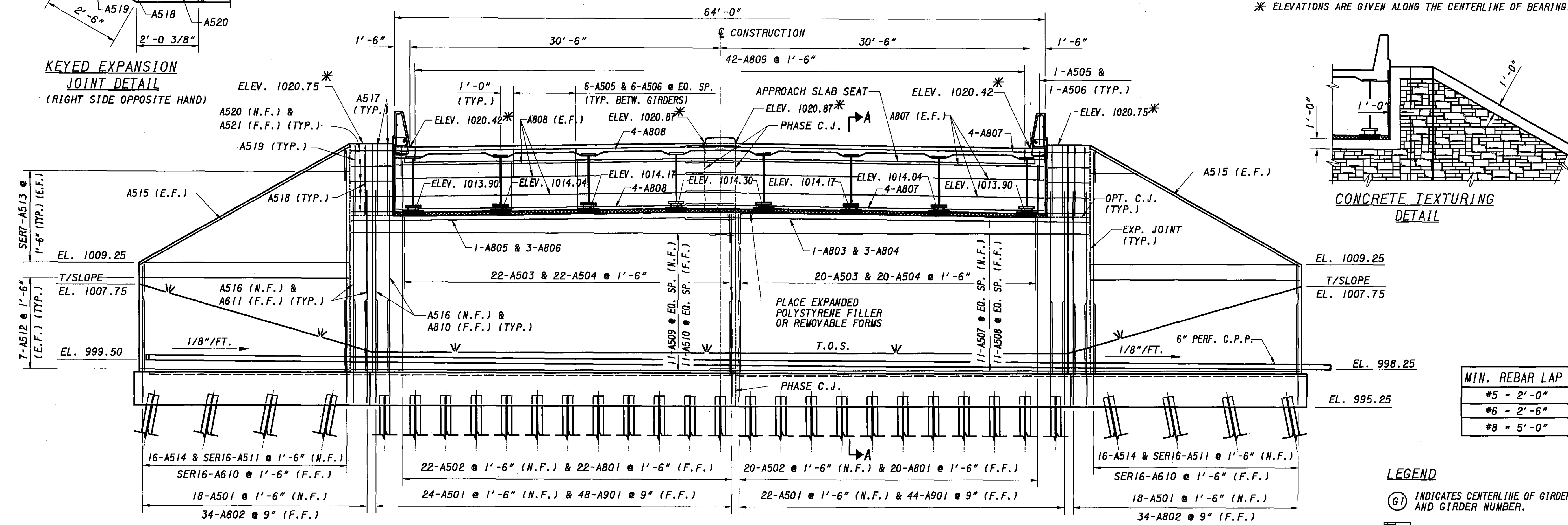
MIN. REBAR LAP	
#5	= 2'-0"
#6	= 2'-6"

- NOTES:**
- SEE FOUNDATION LAYOUT PLAN FOR PILE LAYOUTS.
 - FOR ADDITIONAL INFORMATION, SEE SHEETS 11/26 & 14/26.
 - BOTTOM REINFORCING:
 POSITION A606 BARS BENEATH A607, A608 & A609 BARS.
 TOP REINFORCING:
 POSITION A607 BARS BENEATH A606 BARS.

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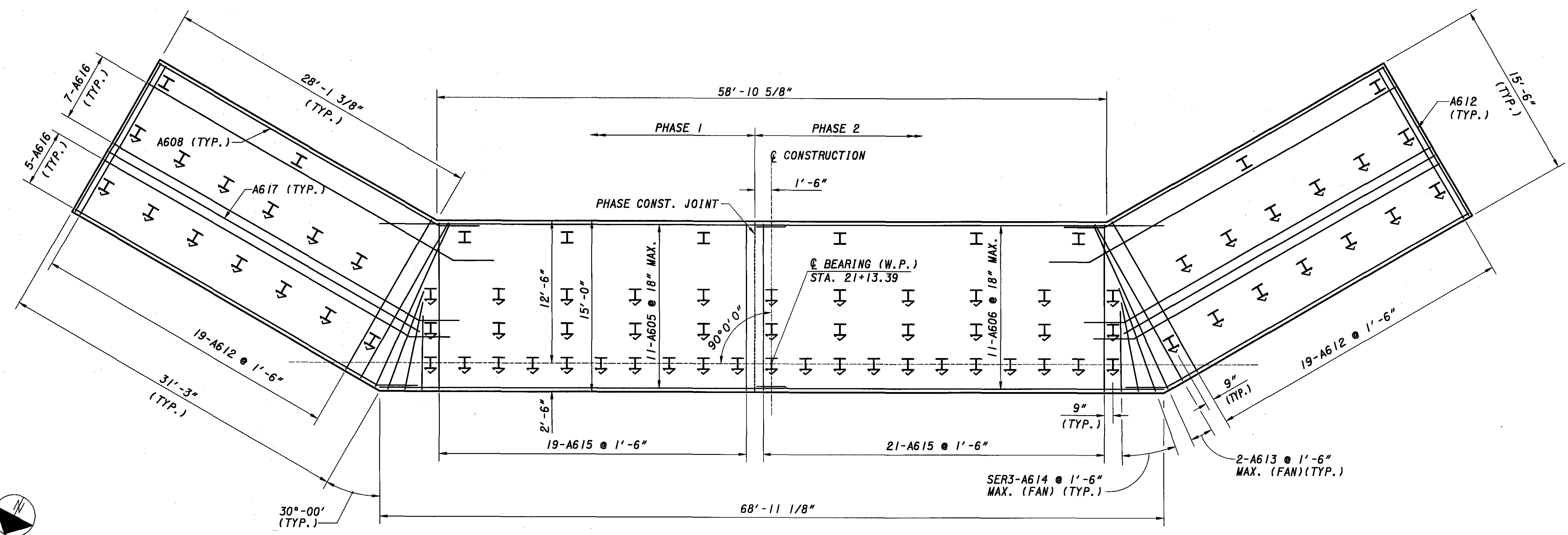
- NOTES:**
- 1) FOR SECTIONS A-A, B-B, CUT-OFF WALL DETAILS AND LIMITS OF CONCRETE TEXTURING, SEE SHEET [14/26].
 - 2) 1" P.E.J.F. SHALL BE INCLUDED WITH ITEM 511, CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN FOR PAYMENT.
 - 3) 2" P.E.J.F. SHALL BE INCLUDED WITH ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN FOR PAYMENT.
- * ELEVATIONS ARE GIVEN ALONG THE CENTERLINE OF BEARING.



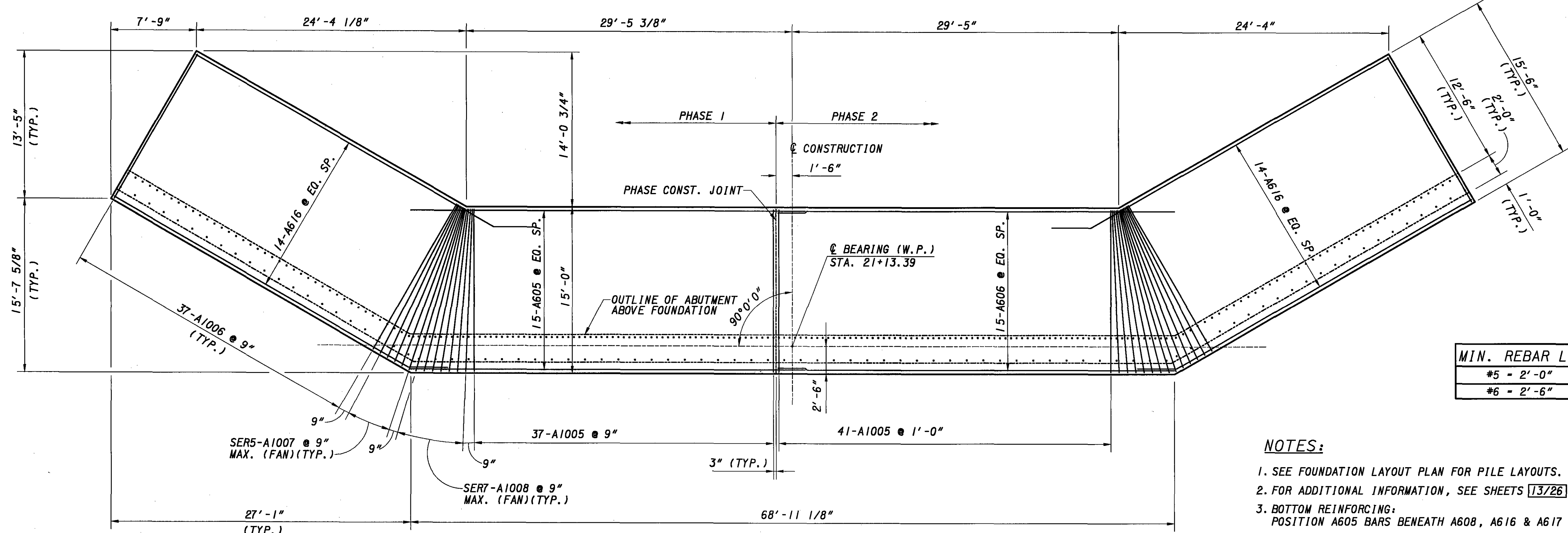
MIN. REBAR LAP	
#5	2'-0"
#6	2'-6"
#8	5'-0"

- LEGEND**
- (G) INDICATES CENTERLINE OF GIRDER AND GIRDER NUMBER.
 - [Hatched Box] CONCRETE TEXTURING

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BOTTOM REINFORCING STEEL PLAN

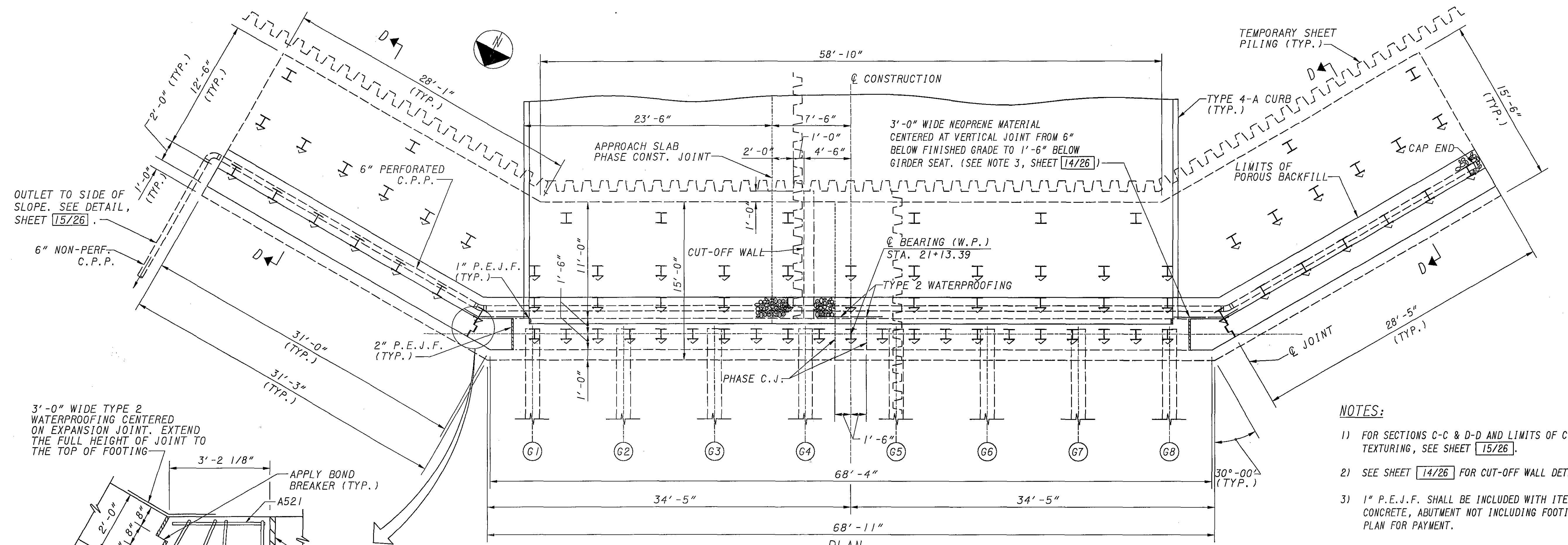


TOP REINFORCING STEEL PLAN

MIN. REBAR LAP	
#5	2'-0"
#6	2'-6"

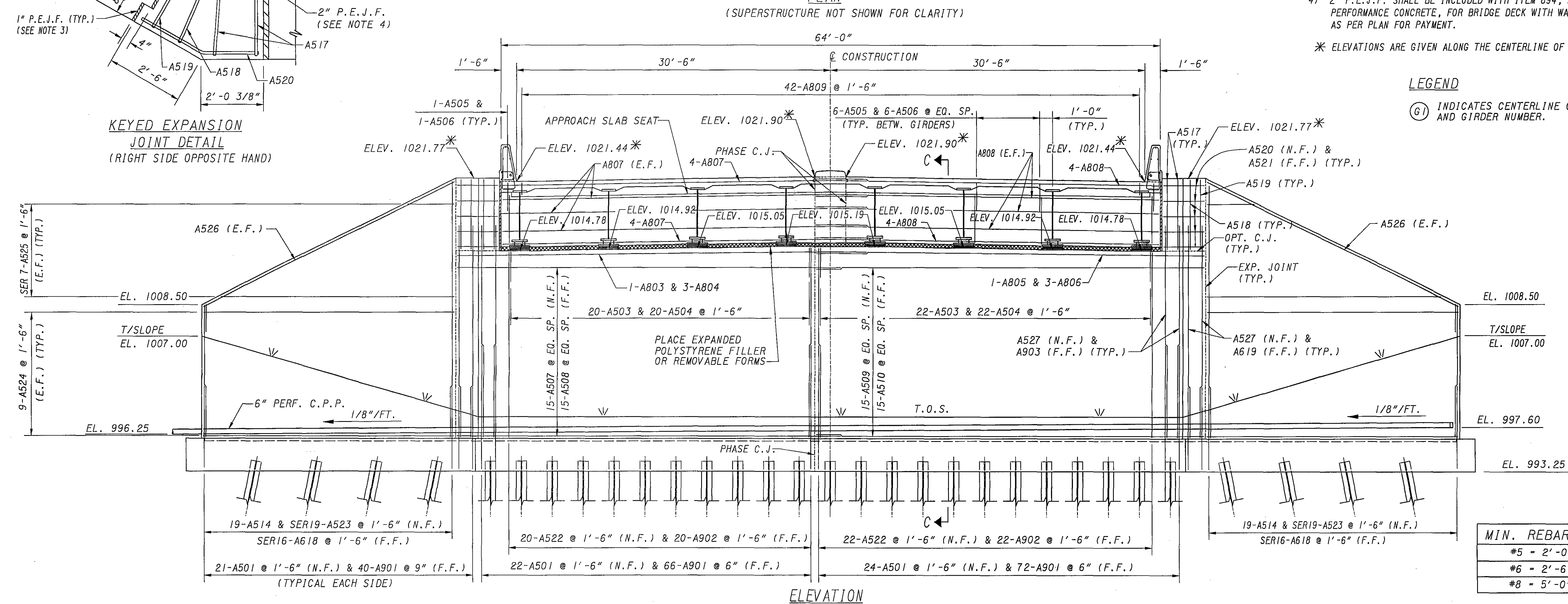
- NOTES:**
- SEE FOUNDATION LAYOUT PLAN FOR PILE LAYOUTS.
 - FOR ADDITIONAL INFORMATION, SEE SHEETS [13/26], [14/26] & [15/26].
 - BOTTOM REINFORCING:
 POSITION A605 BARS BENEATH A608, A616 & A617 BARS.
 TOP REINFORCING:
 POSITION A616 BARS BENEATH A605 BARS.

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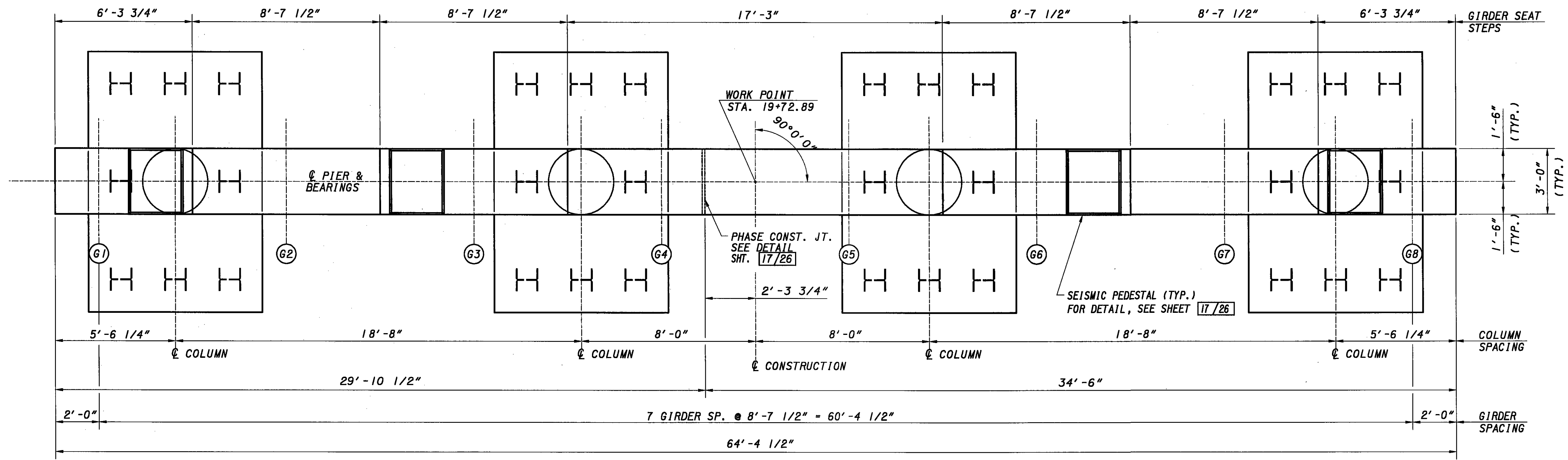
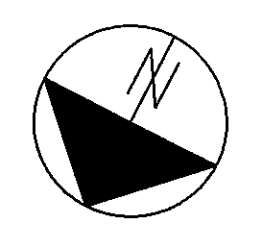


- NOTES:**
- 1) FOR SECTIONS C-C & D-D AND LIMITS OF CONCRETE TEXTURING, SEE SHEET 15/26.
 - 2) SEE SHEET 14/26 FOR CUT-OFF WALL DETAIL.
 - 3) 1" P.E.J.F. SHALL BE INCLUDED WITH ITEM 511, CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN FOR PAYMENT.
 - 4) 2" P.E.J.F. SHALL BE INCLUDED WITH ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN FOR PAYMENT.
- * ELEVATIONS ARE GIVEN ALONG THE CENTERLINE OF BEARING.

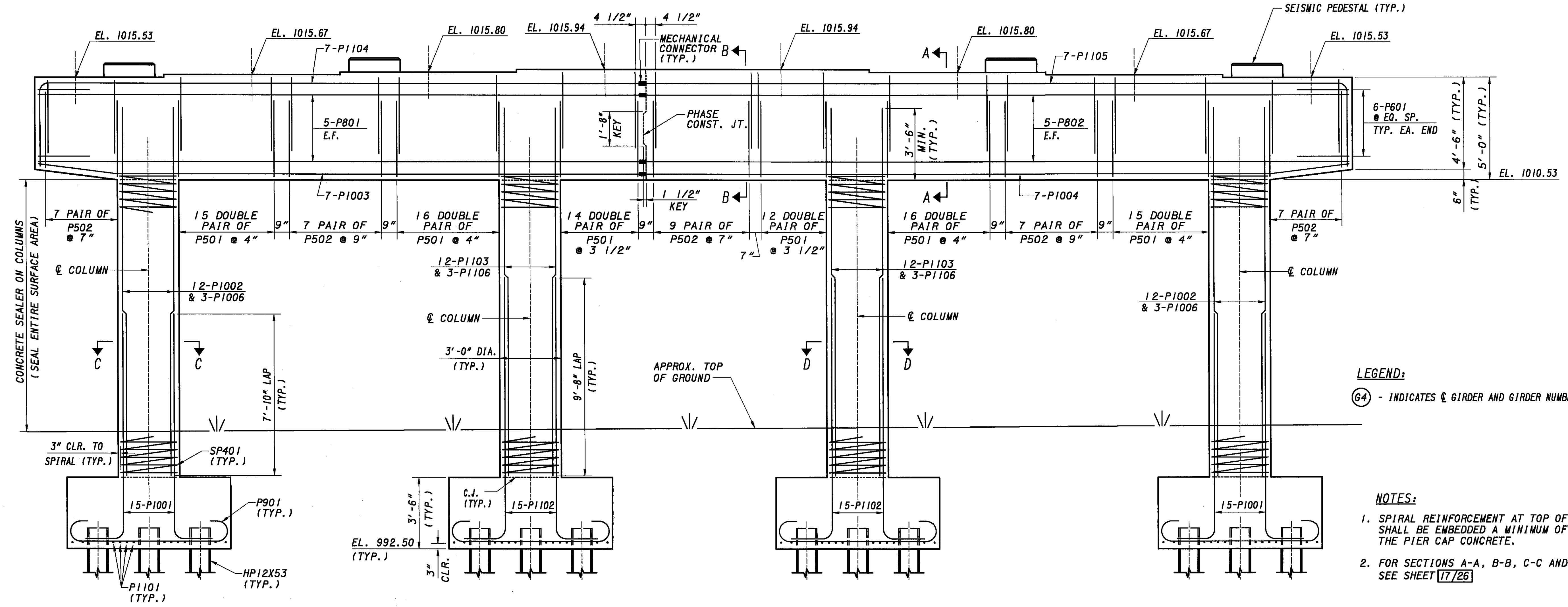
LEGEND
 (G1) INDICATES CENTERLINE OF GIRDER AND GIRDER NUMBER.



MIN. REBAR LAP	
#5	= 2'-0"
#6	= 2'-6"
#8	= 5'-0"



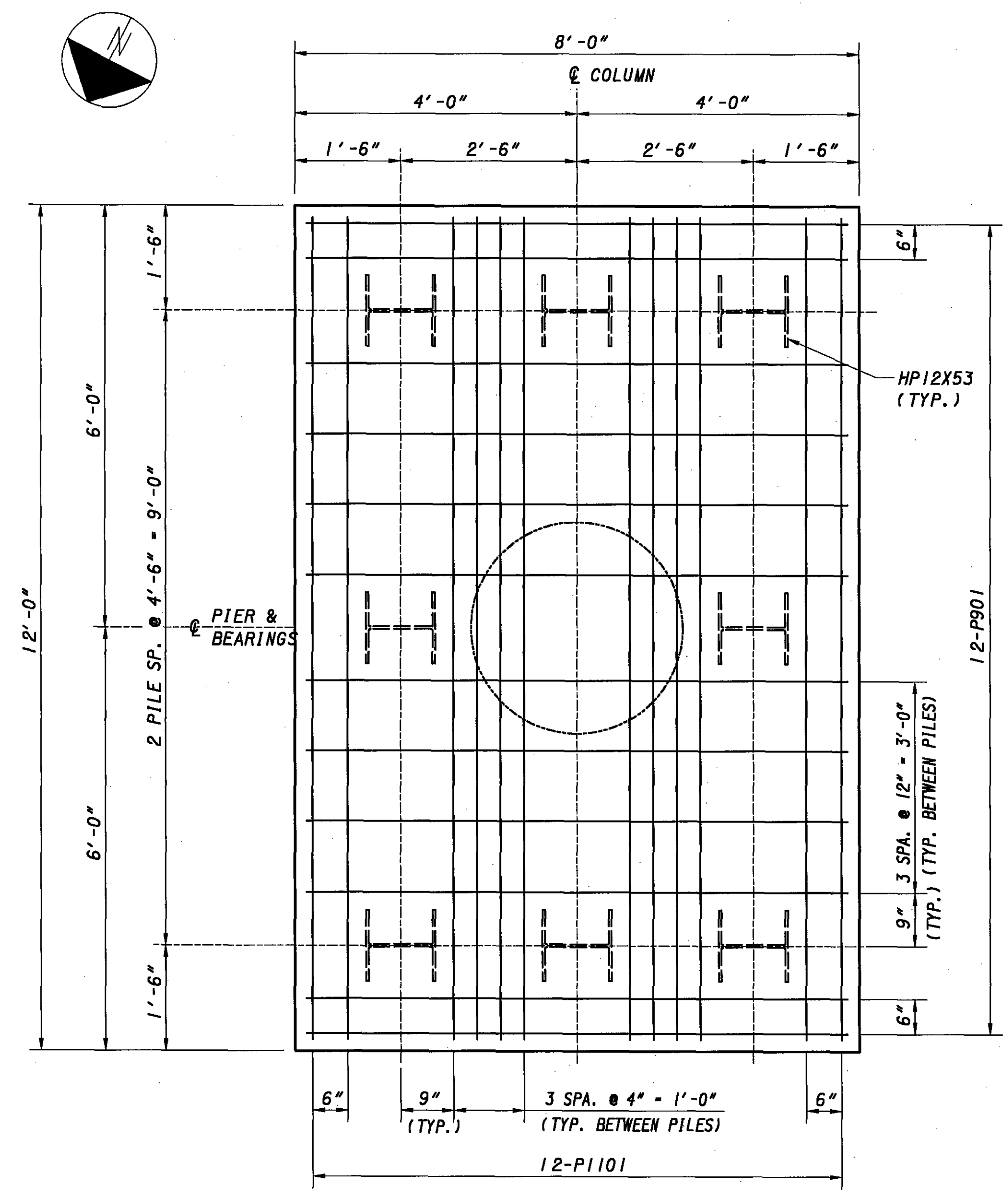
PLAN



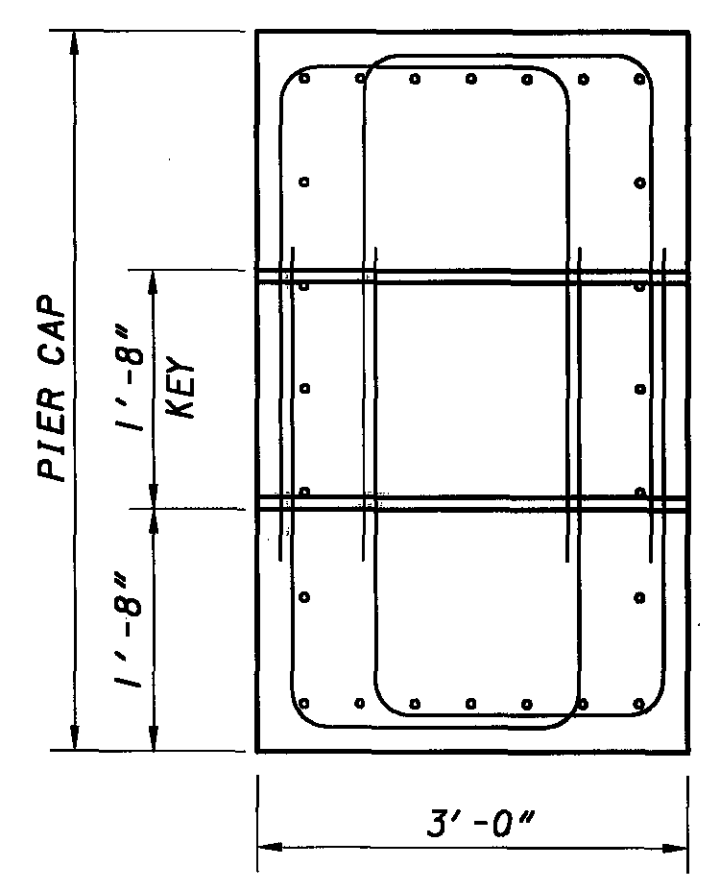
ELEVATION

T:\DRAWING\08\06\419\MED-71\MED71P1 SC-1-32 2-05

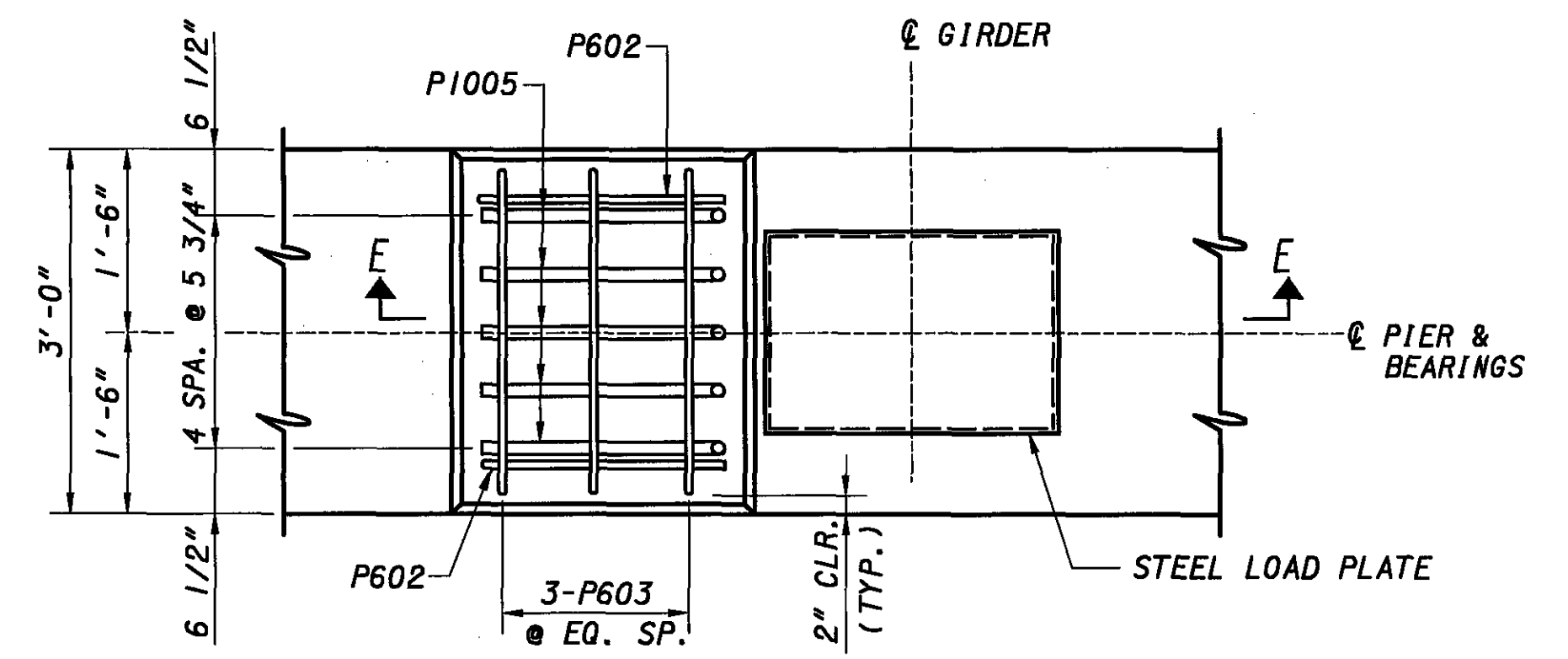
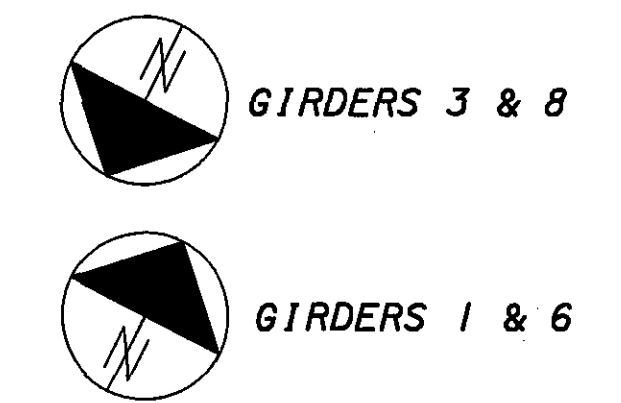
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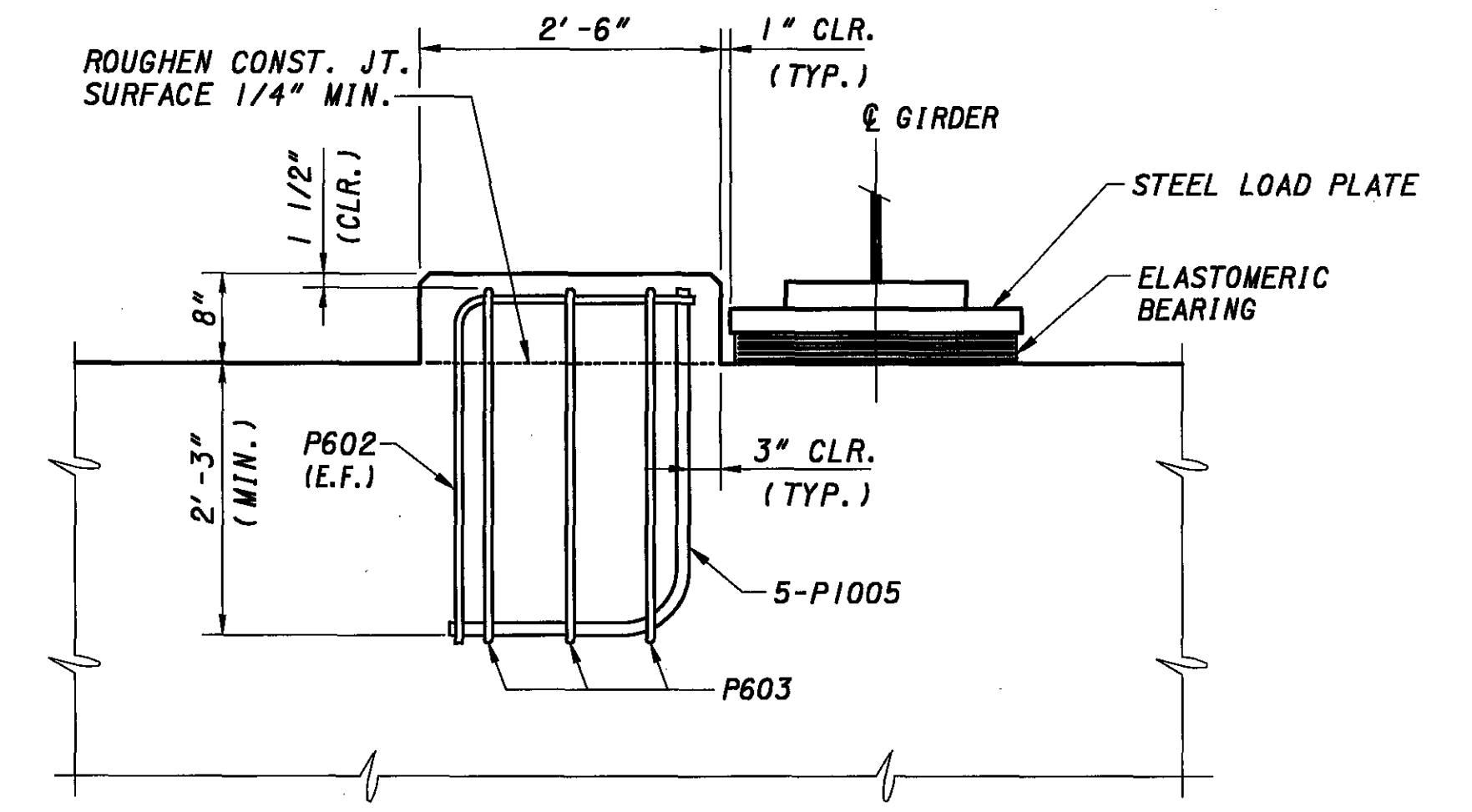
FOOTING PLAN



PHASE CONSTRUCTION JOINT KEY DETAIL

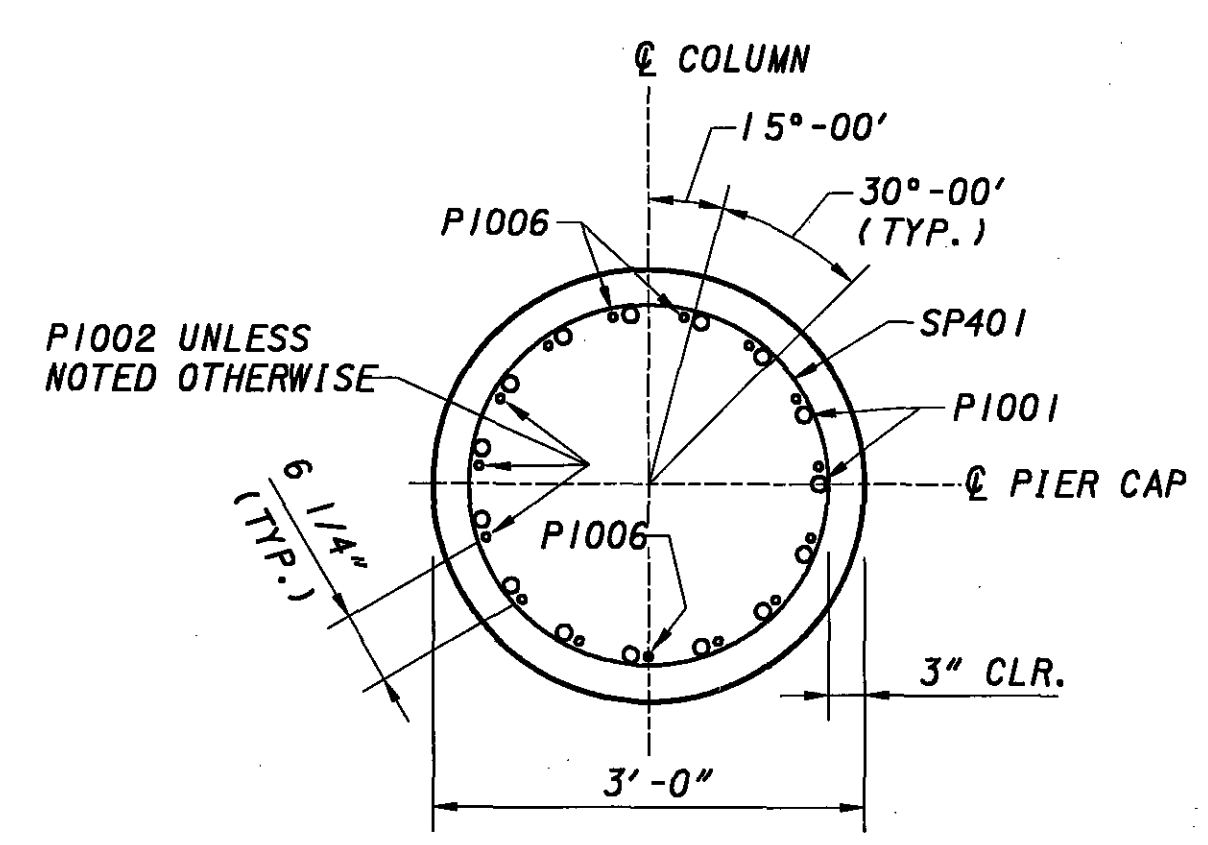


SEISMIC PEDESTAL PLAN

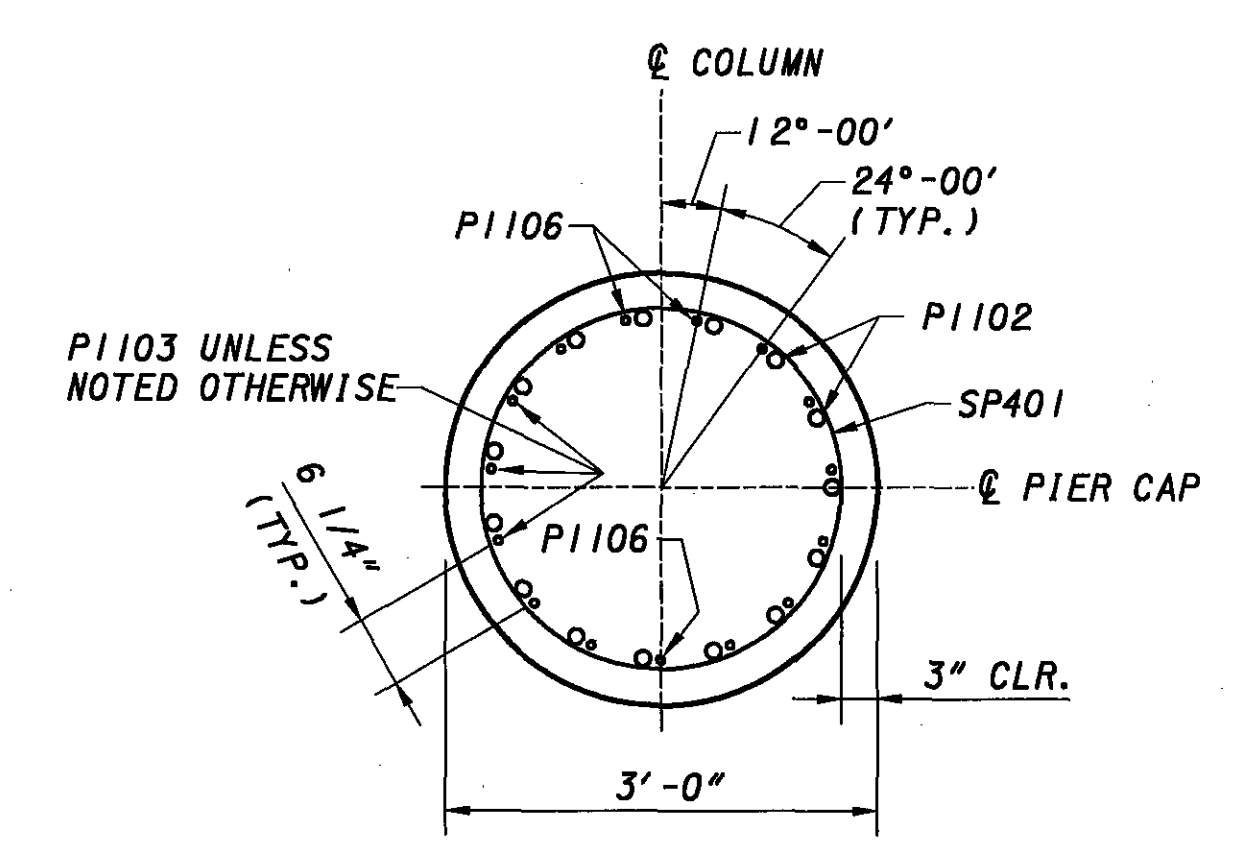


SECTION E-E

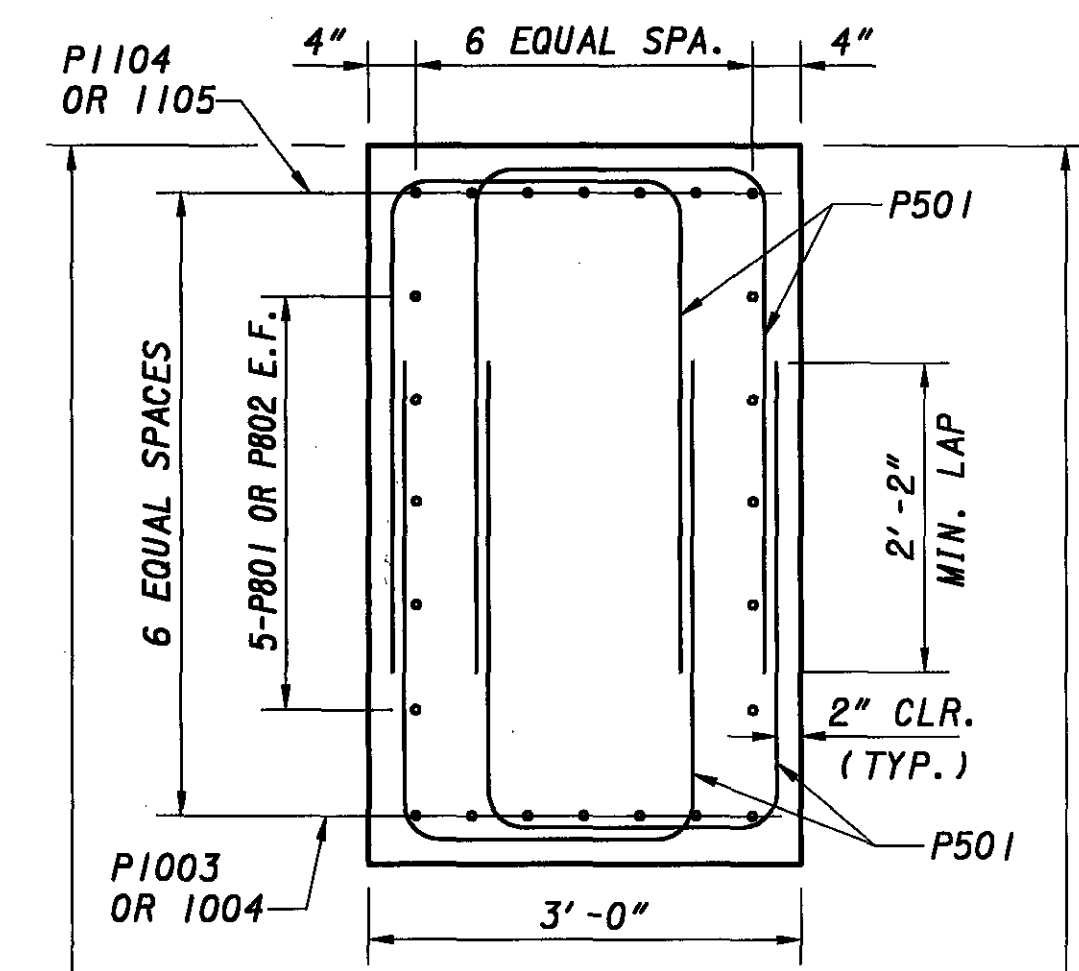
NOTE: ADJUST PIER CAP REINFORCEMENT AS NECESSARY TO PLACE SEISMIC REINFORCEMENT.



SECTION C-C

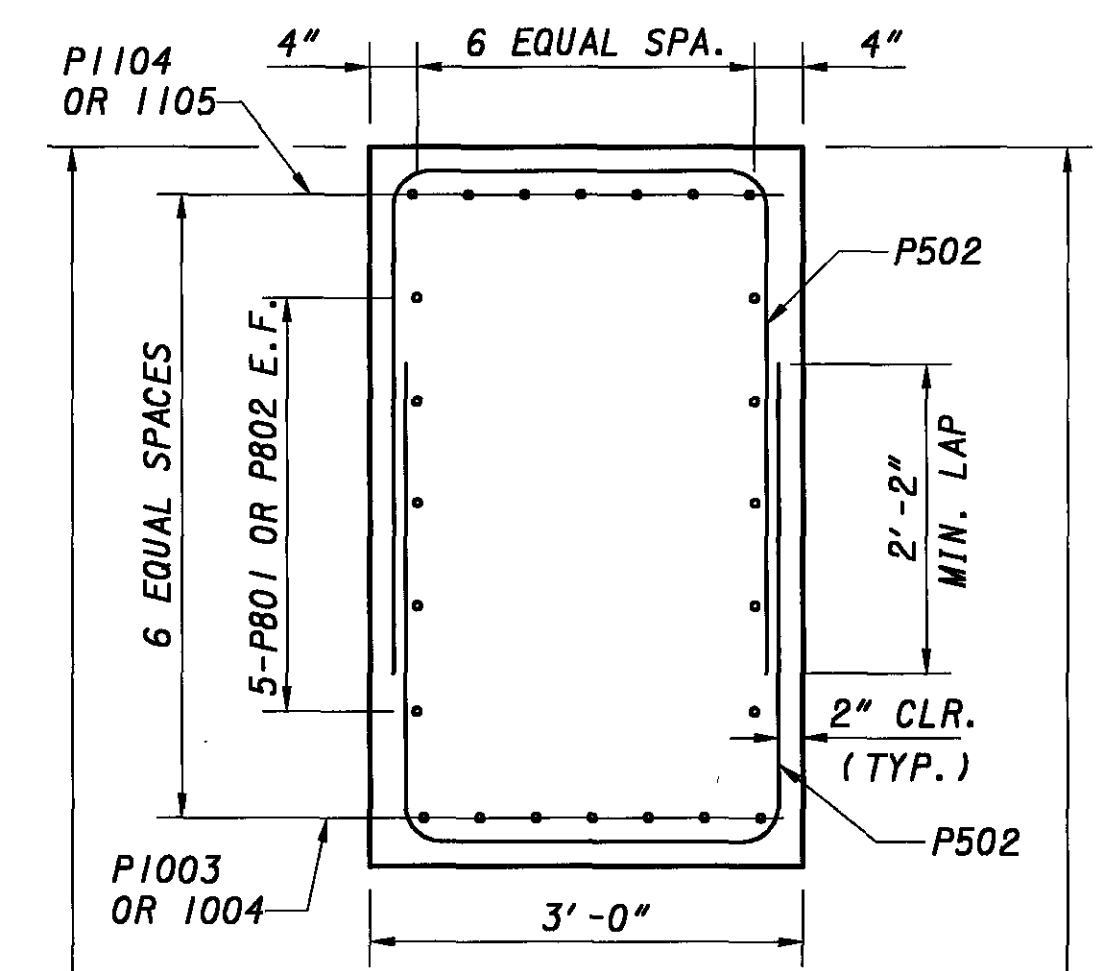


SECTION D-D



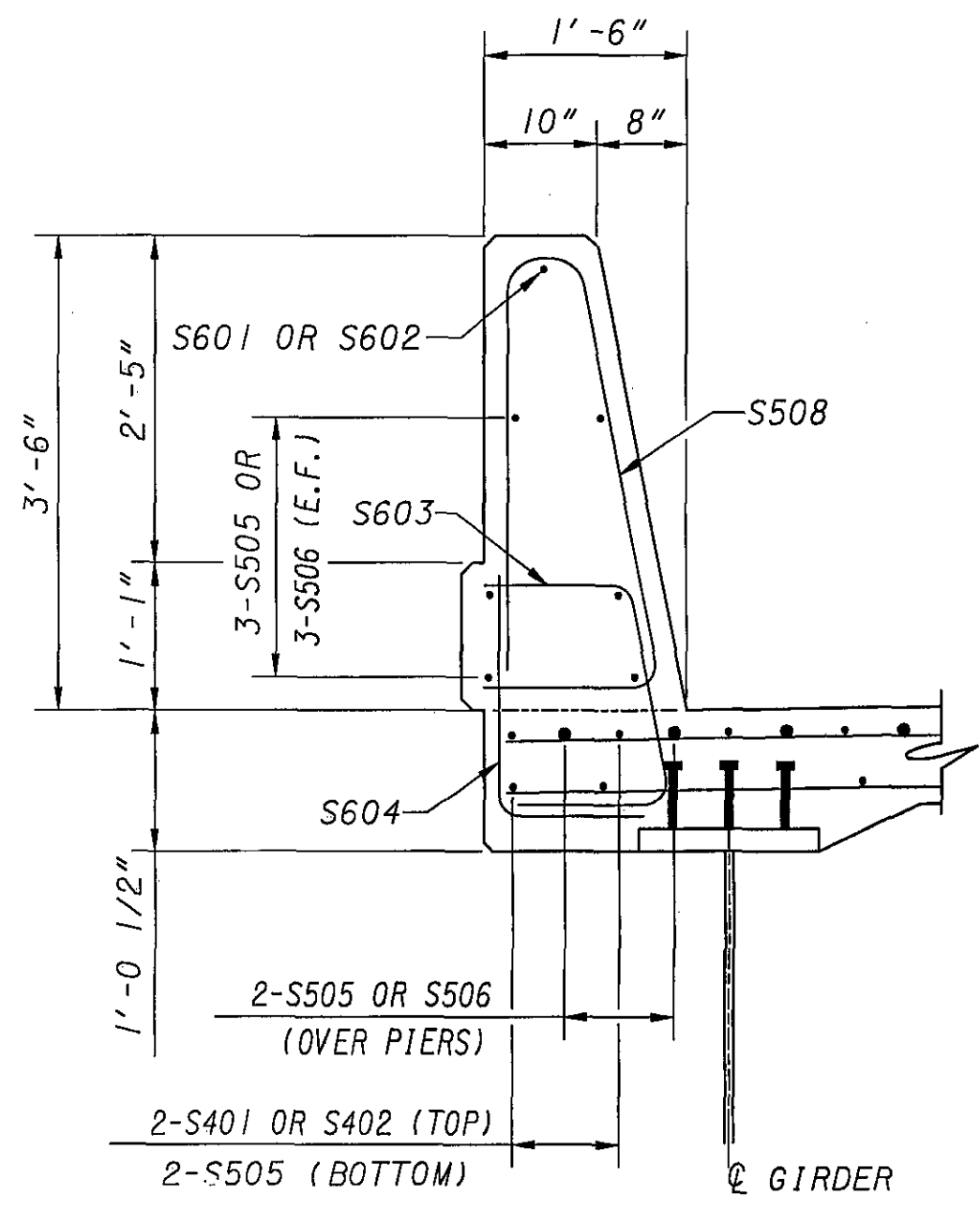
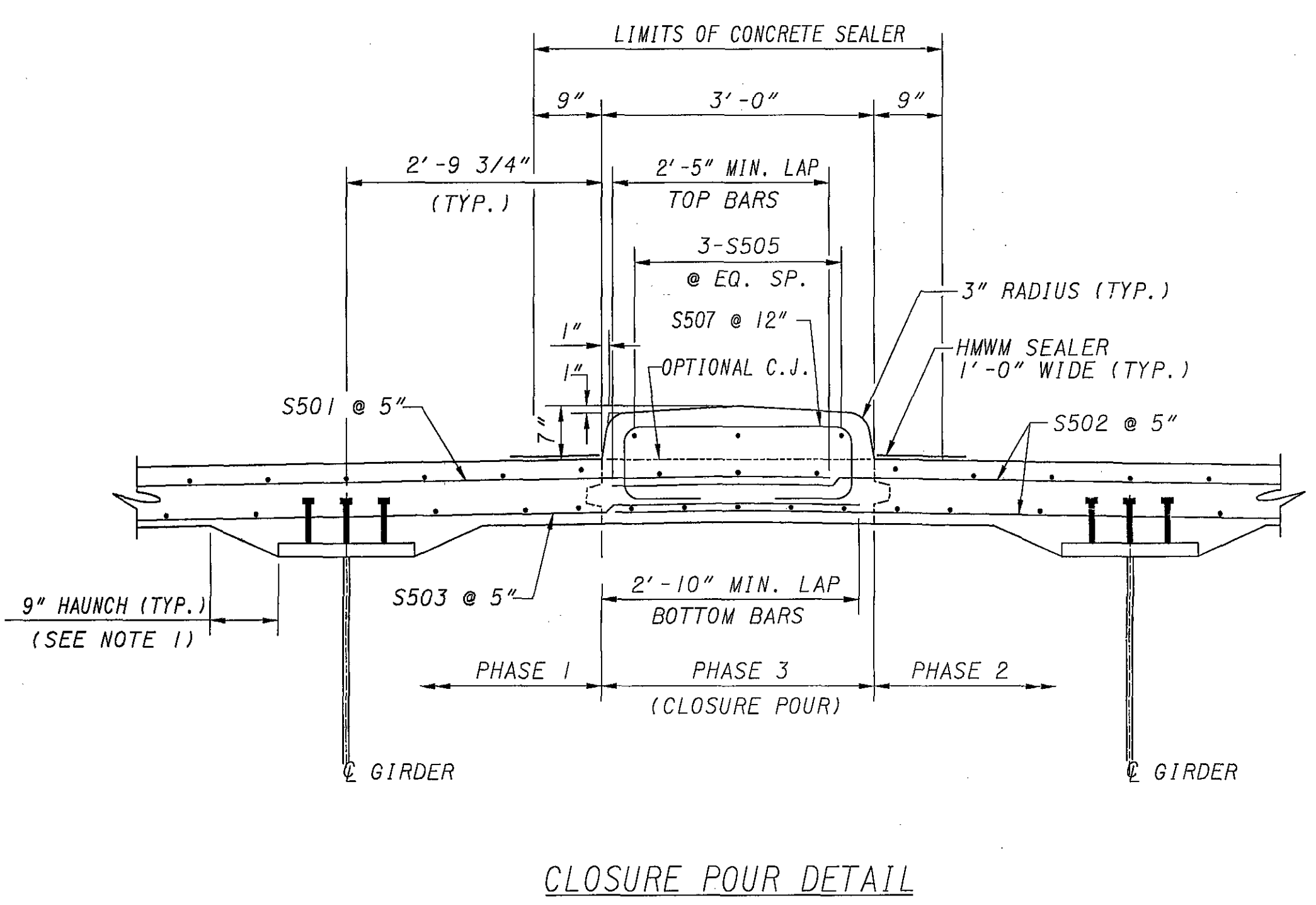
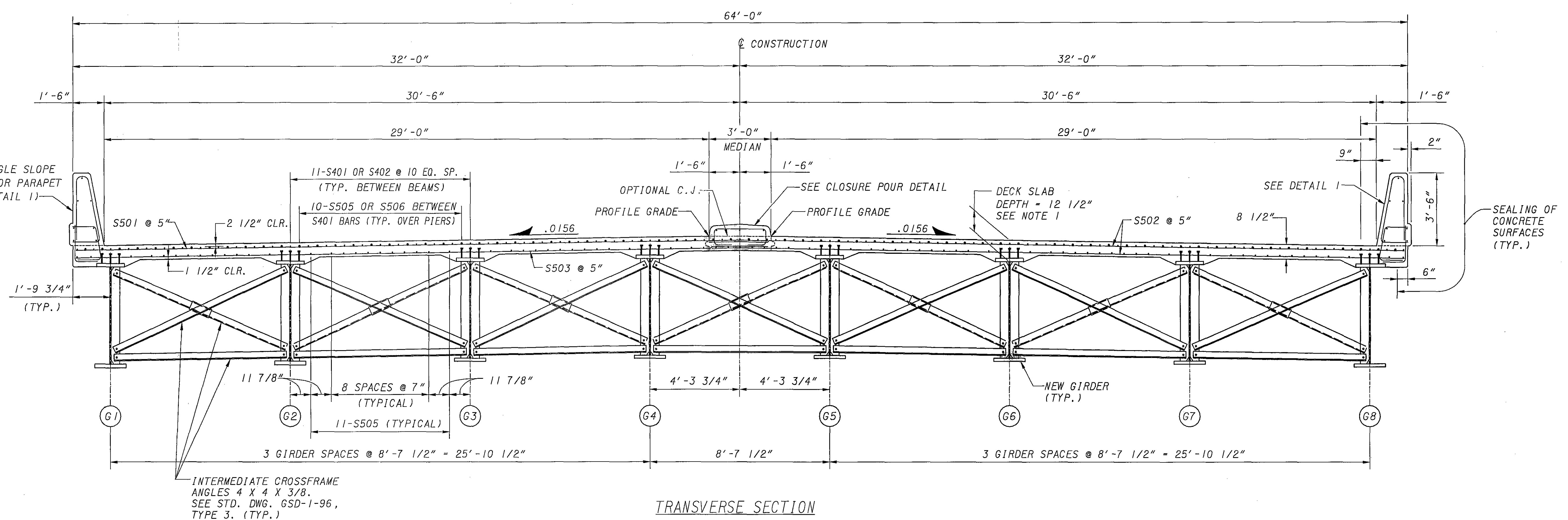
LIMITS OF CONCRETE SEALER

SECTION A-A



LIMITS OF CONCRETE SEALER

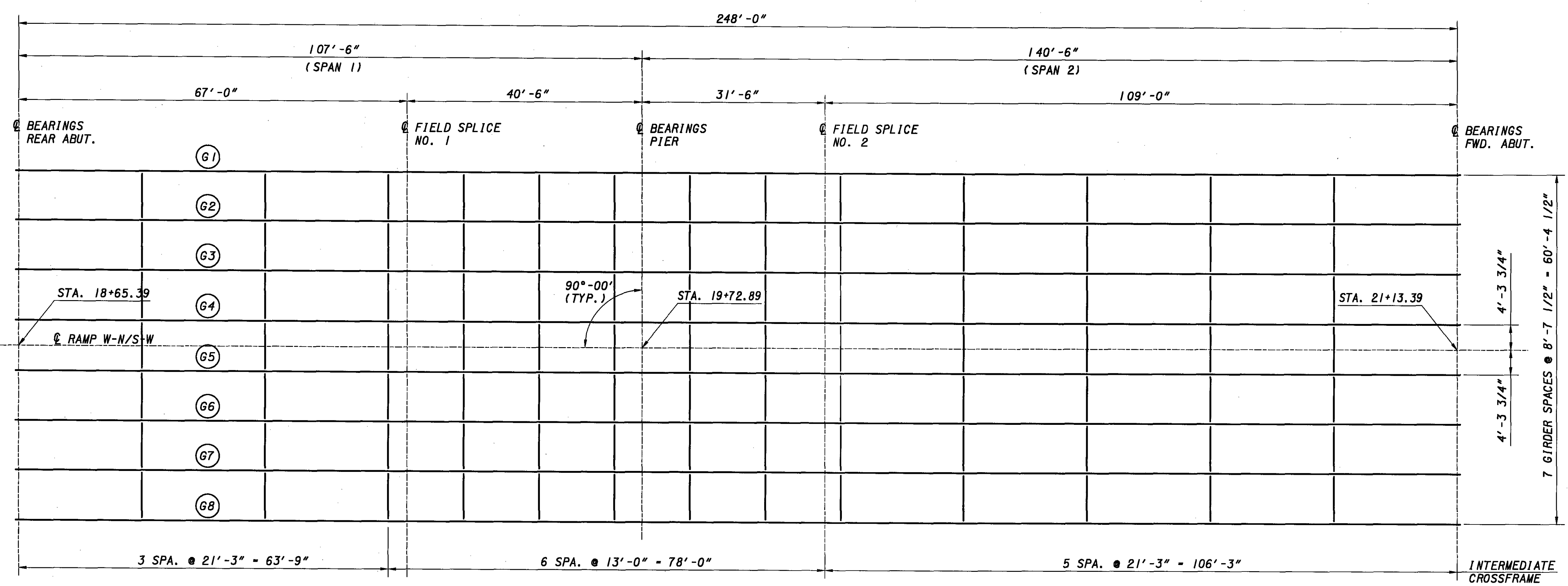
SECTION B-B



- NOTES:**
- DECK SLAB CONCRETE QUANTITY:
THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE IS ± 3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
 - FOR PARAPET DETAILS, REFER TO O.D.O.T. STANDARD SBR-1-99, REV. 7-19-02
 - FOR ADDITIONAL INTERMEDIATE CROSSFRAME DETAILS, SEE STD. DWG. GSD-1-96, TYPE 3.

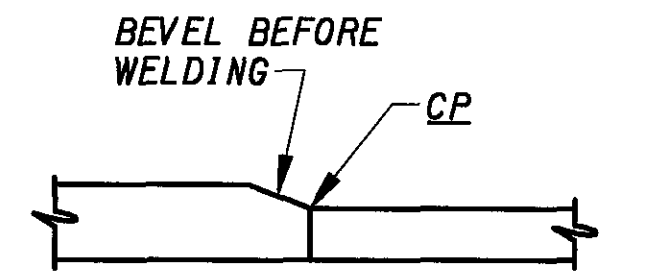
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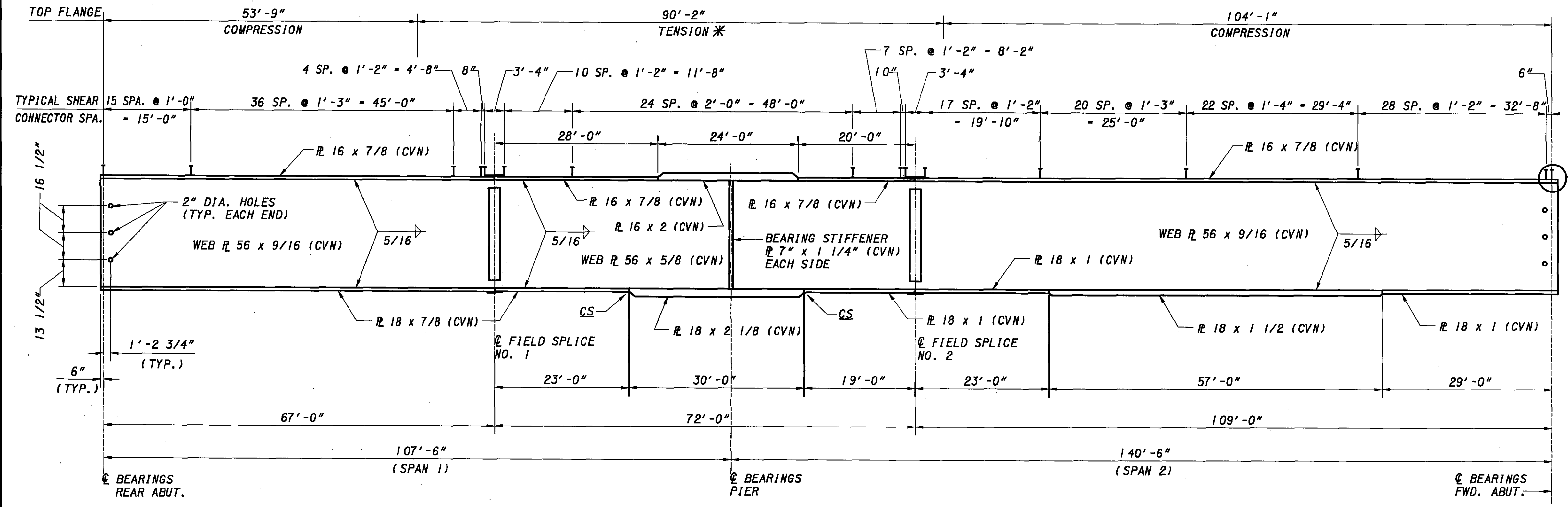
FRAMING PLAN

NOTES:

1. FOR CAMBER DIAGRAM, DEFLECTION AND CAMBER TABLE, STRUCTURE NOTES AND SPLICE DETAILS, SEE SHEET 20/26

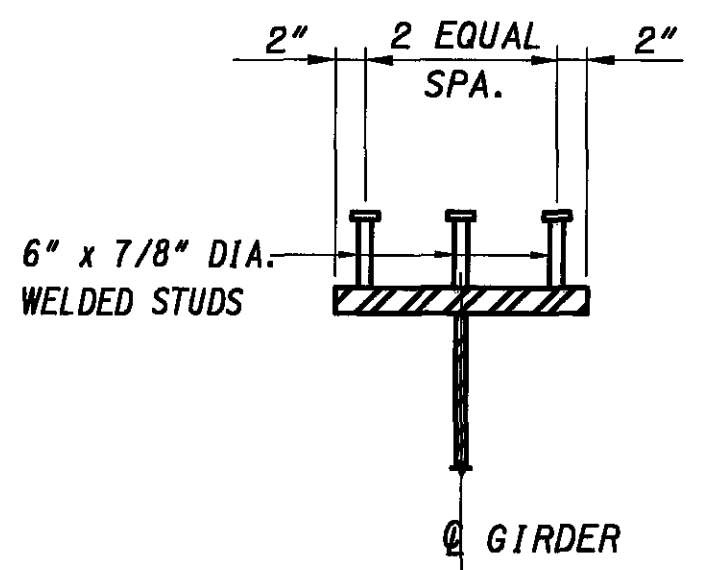


TYPICAL FLANGE SPLICE DETAIL
 (TOP FLANGE SHOWN, BOTTOM SIMILAR)



WELD NOTES:

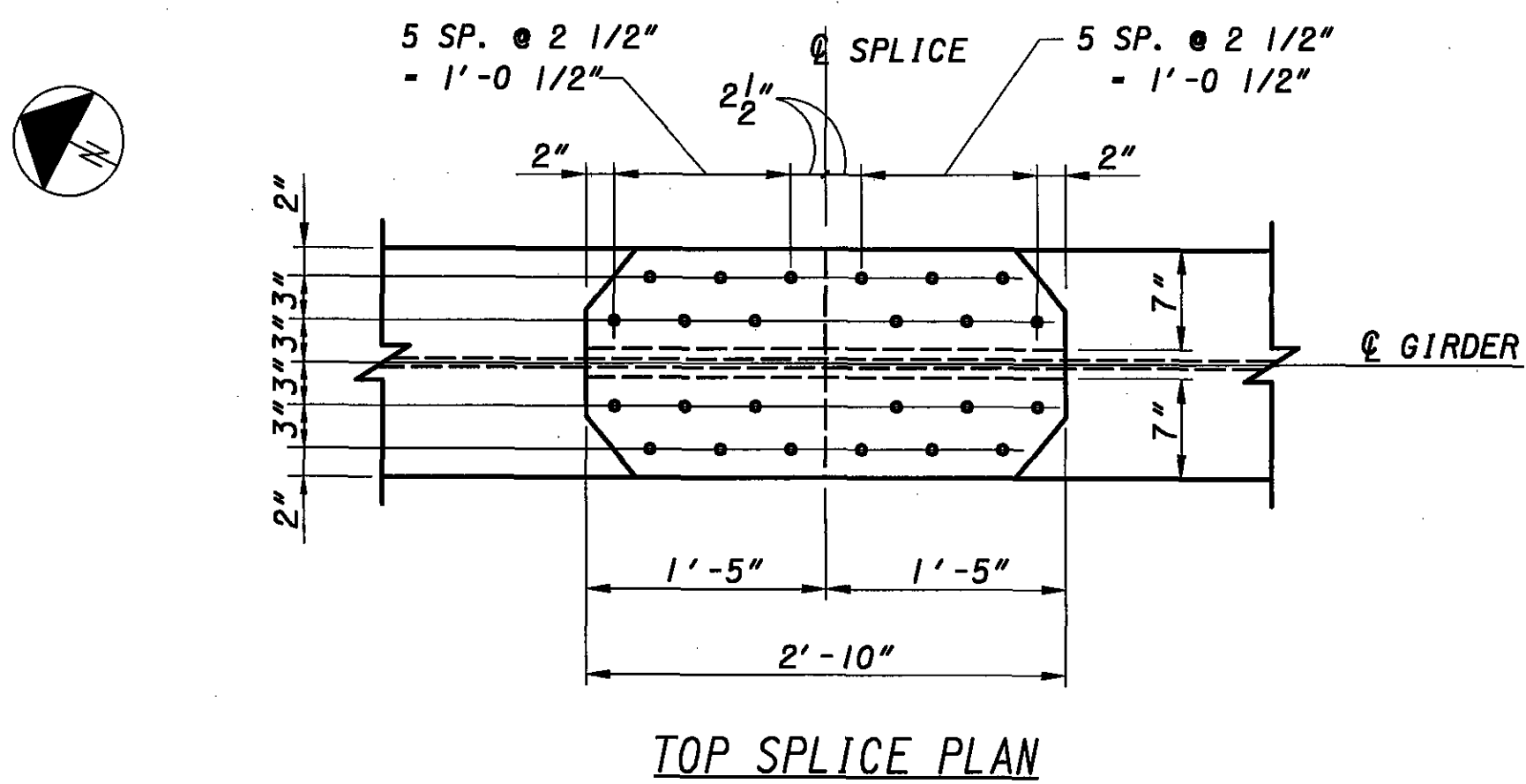
- GIRDER FLANGE WELDS SHALL BE GROUND FLUSH. ALL GRINDING SHALL BE MADE PARALLEL TO THE DIRECTION OF THE STRESS (LENGTHWISE ALONG THE GIRDER)
- CP - COMPLETE JOINT PENETRATION GROOVE WELD
- CS - INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY.



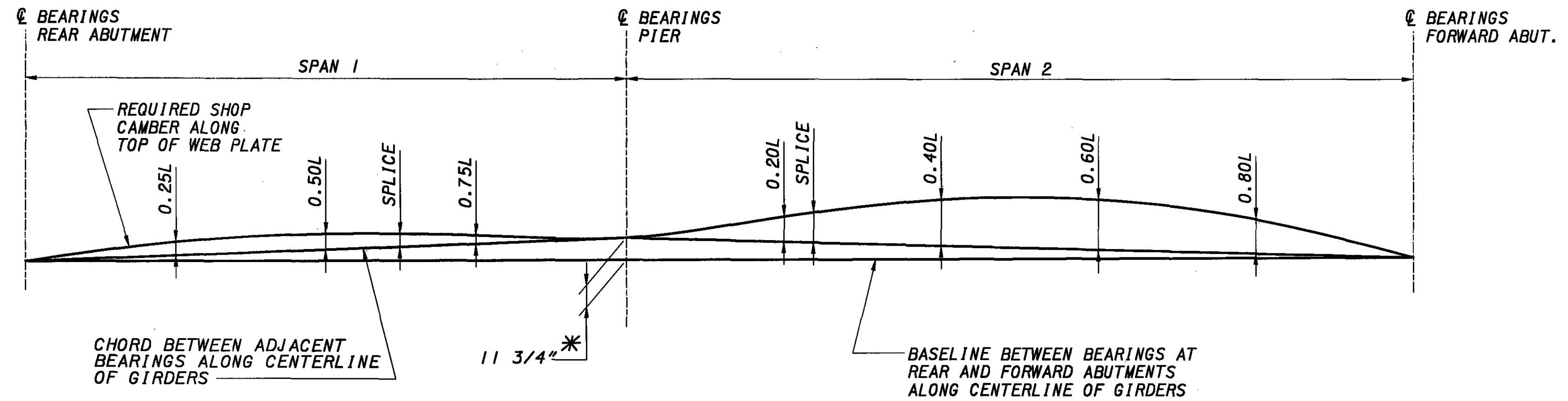
SHEAR CONNECTOR DETAIL

NOTE: SHEAR STUDS SHALL BE LOCATED NO CLOSER THAN 3" FROM EDGE OF GIRDER SPLICE PLATE

T:\DRAWING\08\06418\MED-71\MED71SD1 SC:1128 2-05

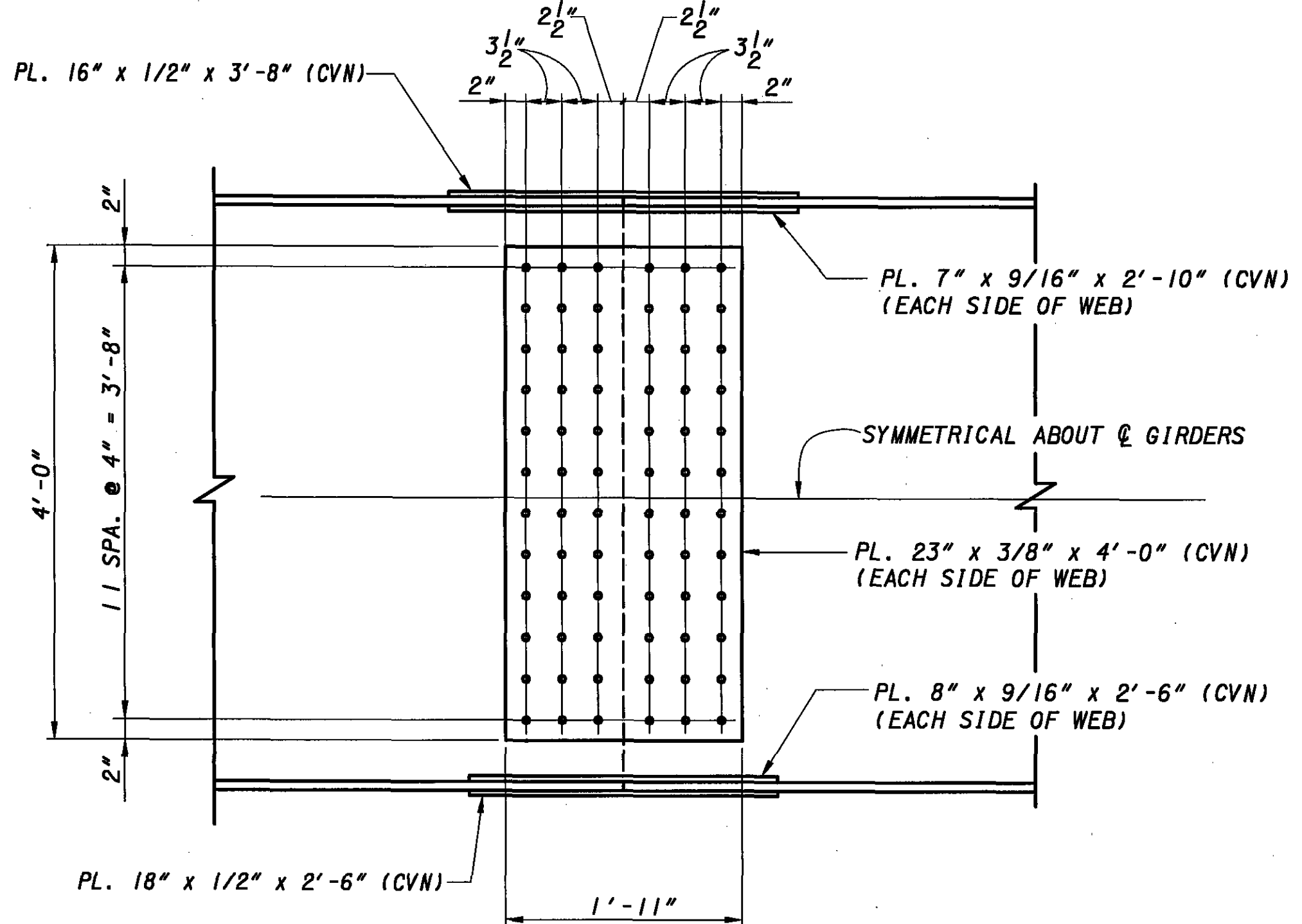


TOP SPLICE PLAN



CAMBER DIAGRAM

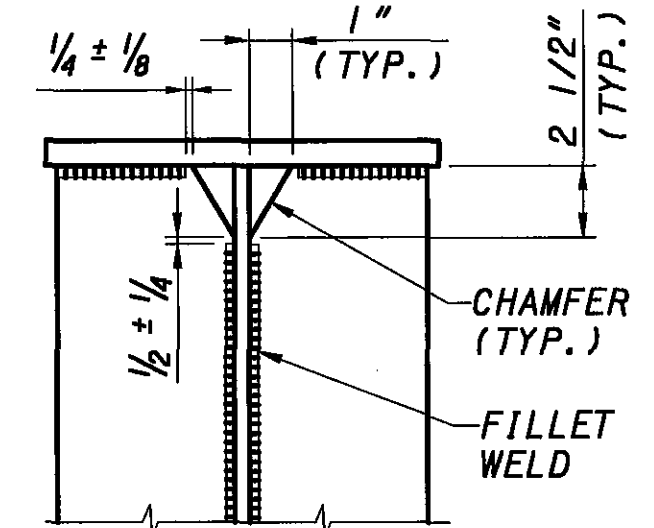
*REQUIRED BLOCKING IS ABOVE THE BASELINE BETWEEN BEARINGS AT REAR AND FORWARD ABUTMENTS.



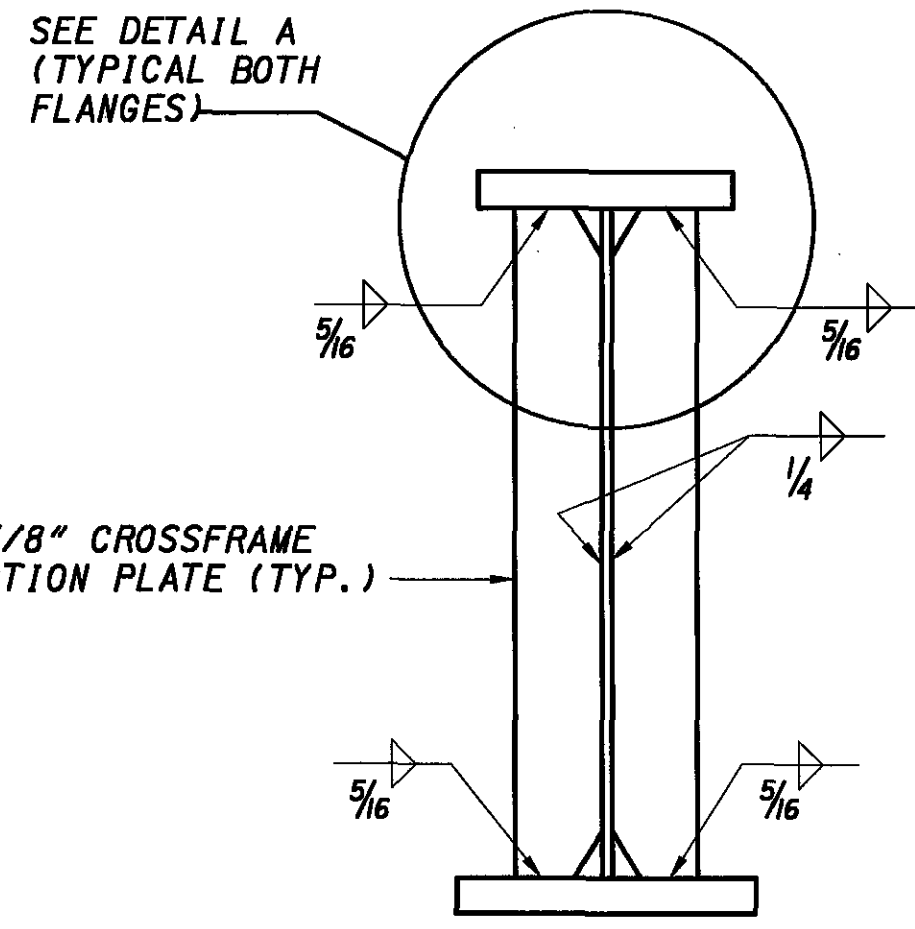
ELEVATION
SPLICE NO. 1 & 2

	SPAN 1				SPAN 2				
	0.25L	0.50L	SPLICE	0.75L	0.20L	SPLICE	0.4L	0.60L	0.8L
DEFLECTION DUE TO WEIGHT OF STEEL	1/8"	1/16"	0"	-1/16"	3/8"	7/16"	7/8"	1"	11/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	9/16"	7/16"	3/16"	-1/8"	1 5/8"	1 7/8"	3 9/16"	4 1/8"	2 7/8"
ADJUSTMENT DUE TO VERTICAL CURVE	1 11/16"	2 1/4"	2 1/8"	1 11/16"	2 7/16"	2 11/16"	3 11/16"	3 11/16"	2 7/16"
TOTAL CAMBER	2 3/8"	2 3/4"	2 5/16"	1 1/2"	4 7/16"	5"	8 1/8"	8 13/16"	6"

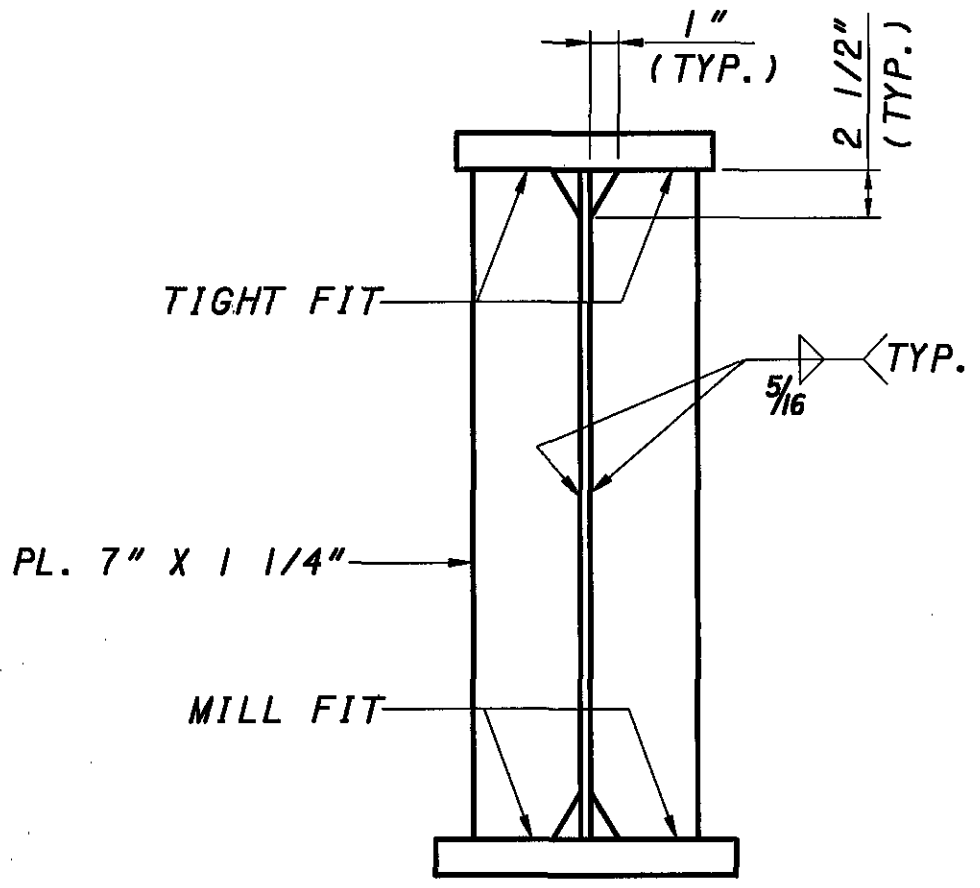
L = SPAN LENGTH
POSITIVE VALUES INDICATE REQUIRED CAMBER IS ABOVE THE CHORD BETWEEN ADJACENT BEARINGS.



DETAIL A



CROSSFRAME CONNECTION PLATE DETAIL

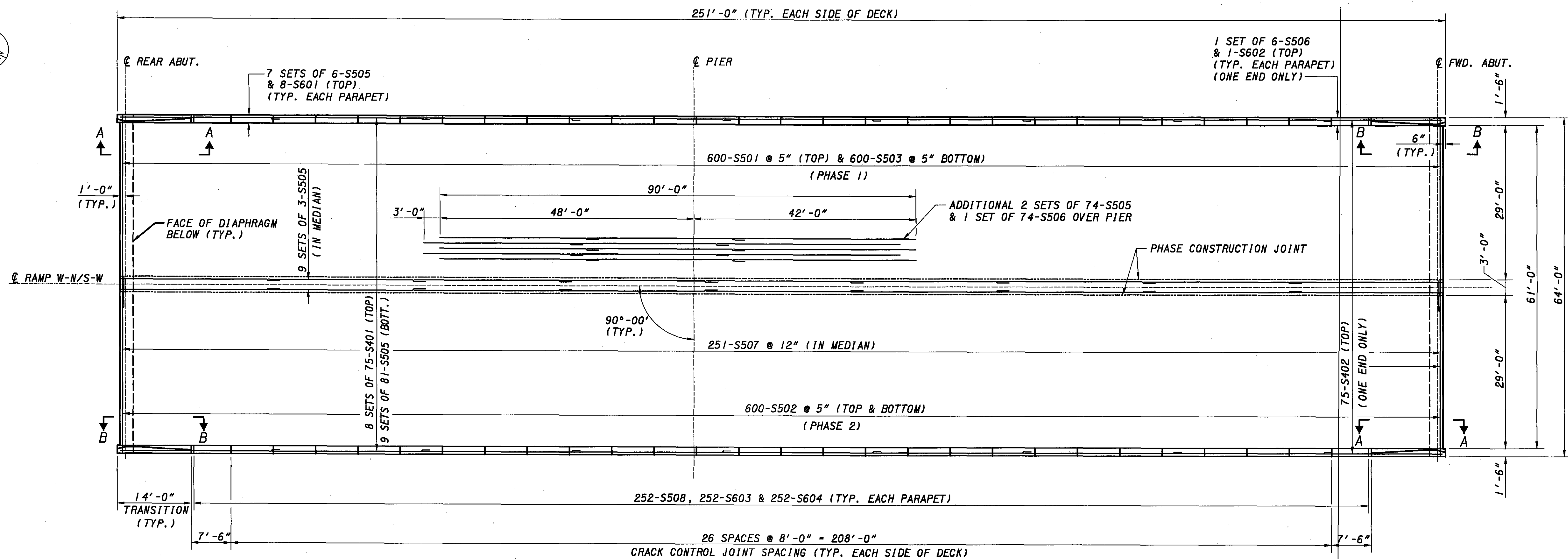


BEARING STIFFENER DETAIL

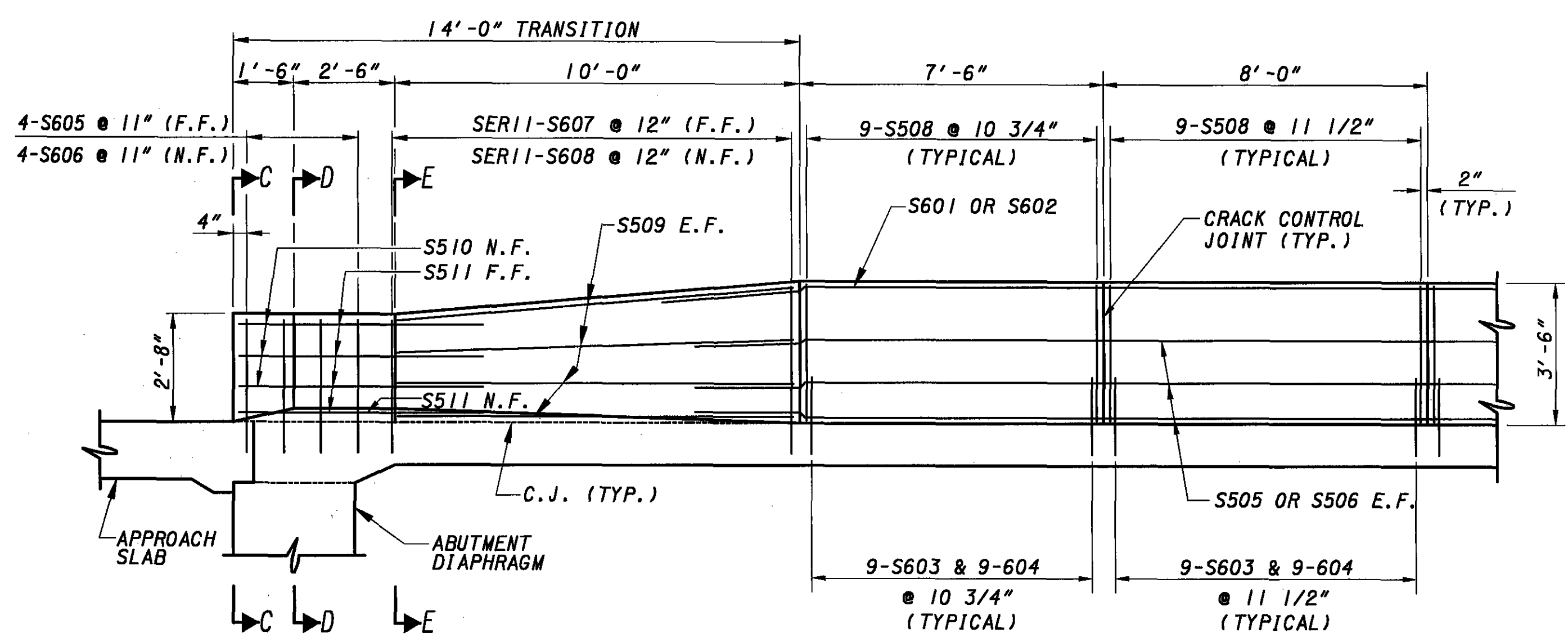
NOTES:

- ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 AND SUBJECT TO LEVEL FOUR (4) FABRICATION REQUIREMENTS OF ODOT CONSTRUCTION AND MATERIAL SPECIFICATION 513 UNLESS NOTED OTHERWISE.
- CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE AT LEAST 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
- HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER ASTM A-325, TYPE 1 GALVANIZED. PLACE BOLT HEADS ON BOTTOM SURFACE OF BOTTOM FLANGE SPLICE AND ON OUTER FACE OF FASCIA GIRDER WEB SPLICES.
- FOR INTERMEDIATE CROSSFRAME DETAILS, REFER TO STANDARD DWG. GSD-1-96. TYPE 3 CROSSFRAMES ARE SHOWN ON THESE PLANS, TYPE 4 MAY BE USED INSTEAD, AT THE CONTRACTOR'S OPTION.
- ALL STRUCTURAL STEEL SHALL BE FIELD PAINTED LIGHT NEUTRAL, FEDERAL COLOR 17778.

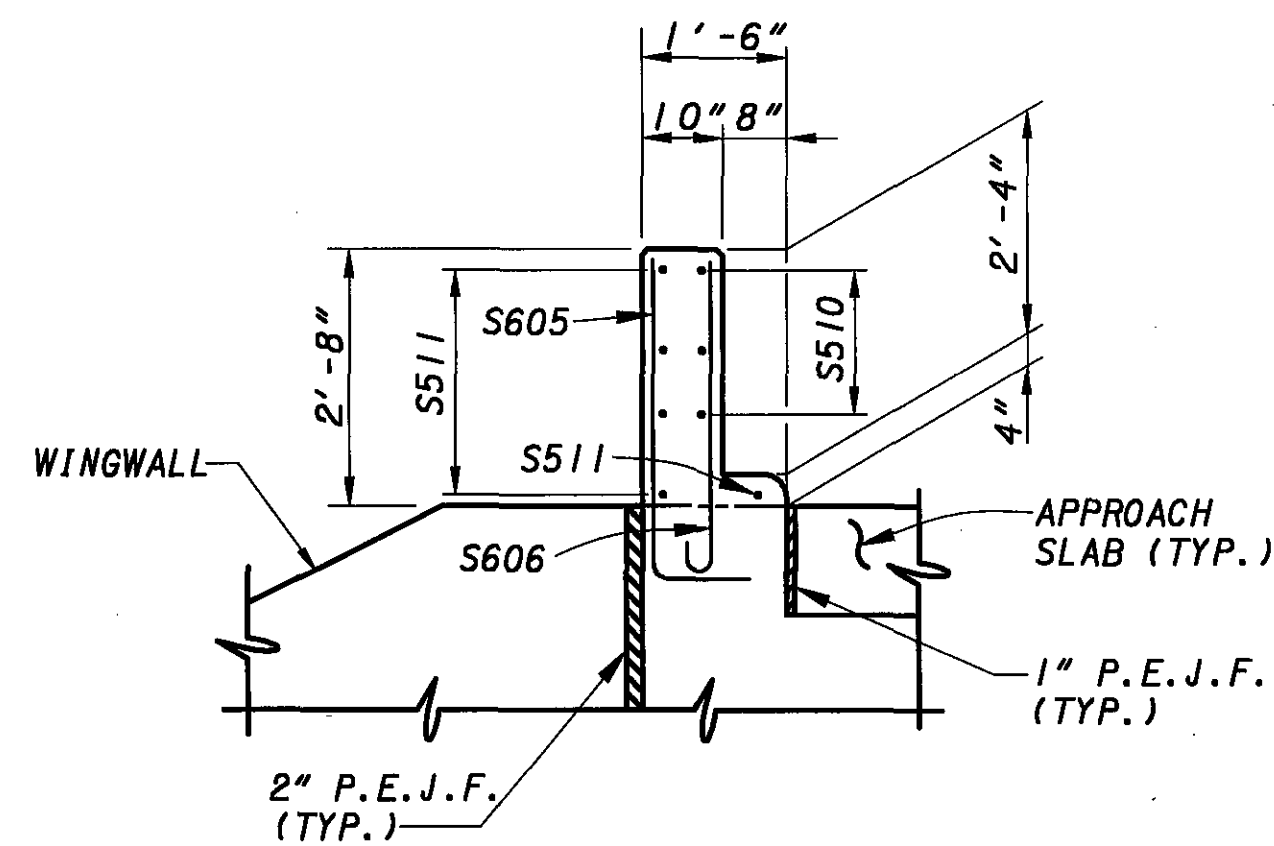
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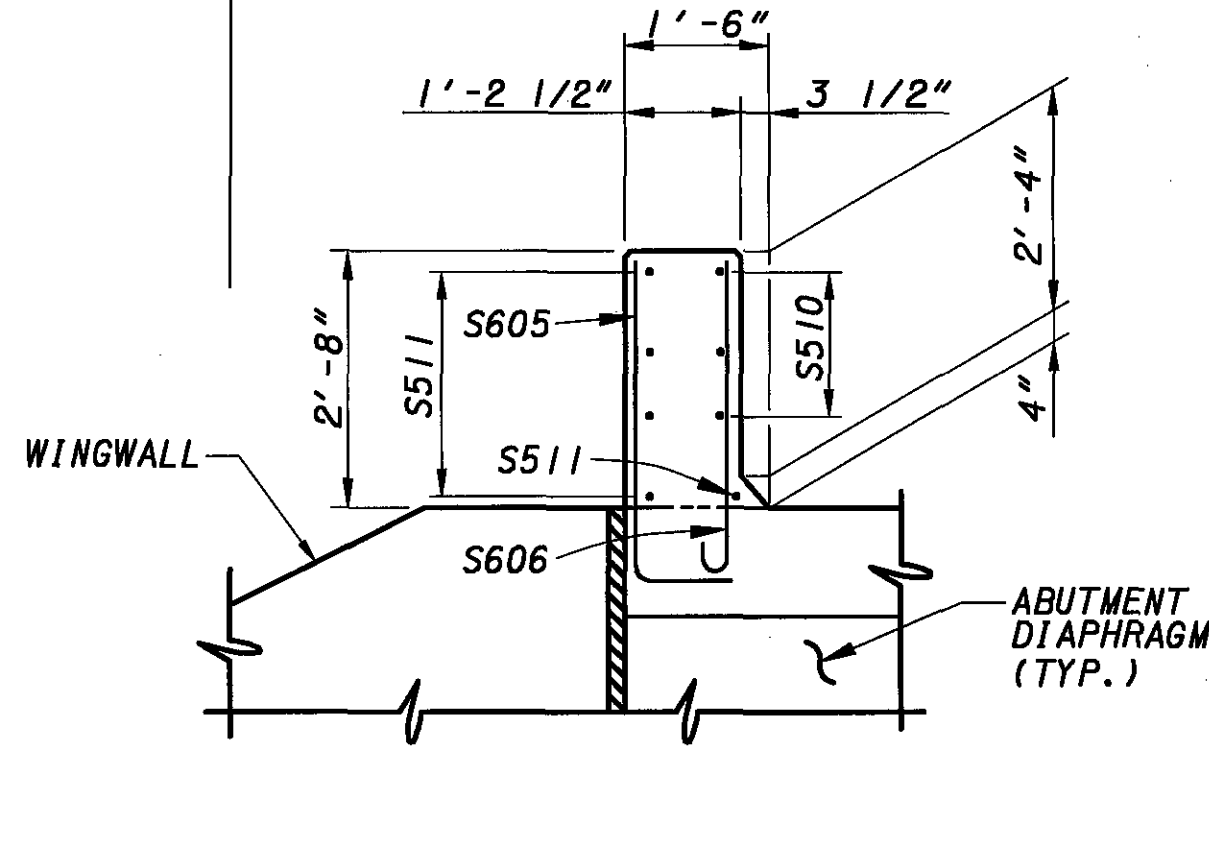
PLAN



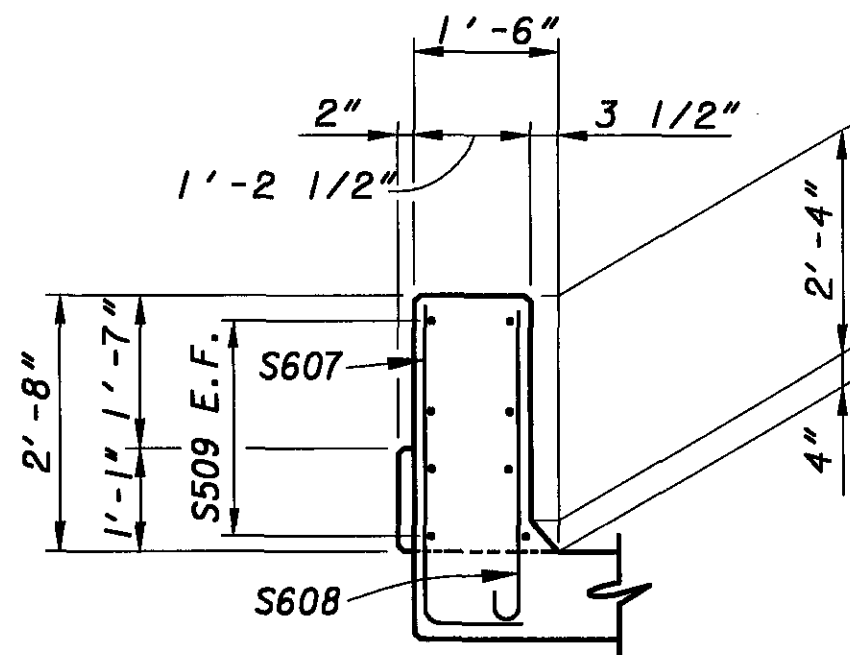
VIEW A-A (AS SHOWN)
VIEW B-B (OPPOSITE HAND)



SECTION C-C



SECTION D-D



SECTION E-E

- NOTES**
- FOR REINFORCEMENT SCHEDULE, SEE SHEET [26/26].
 - MINIMUM REBAR LAPS:
#4 BARS - 1'-7"
#5 BARS - 2'-5"
#6 BARS - 3'-4"
 - FOR SEMI-INTEGRAL DIAPHRAGM DETAILS AND NOTES, SEE SHEETS [14/26] AND [15/26].
 - ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE: PLACE THE CONCRETE ENCASEING THE STRUCTURAL STEEL MEMBERS AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE.

T:\DRAWING\08\06419\MED-71\MED71SD3 SC-1-128 2-05

PROVIDED BY
ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS
333 EAST FEDERAL STREET, YOUNGSTOWN, OHIO

DESIGNED BY	WH
CHECKED BY	WH
DRAWN BY	REVISED
REVIEWED BY	GT
DATE	2-05
STRUCTURE FILE NUMBER	5204275

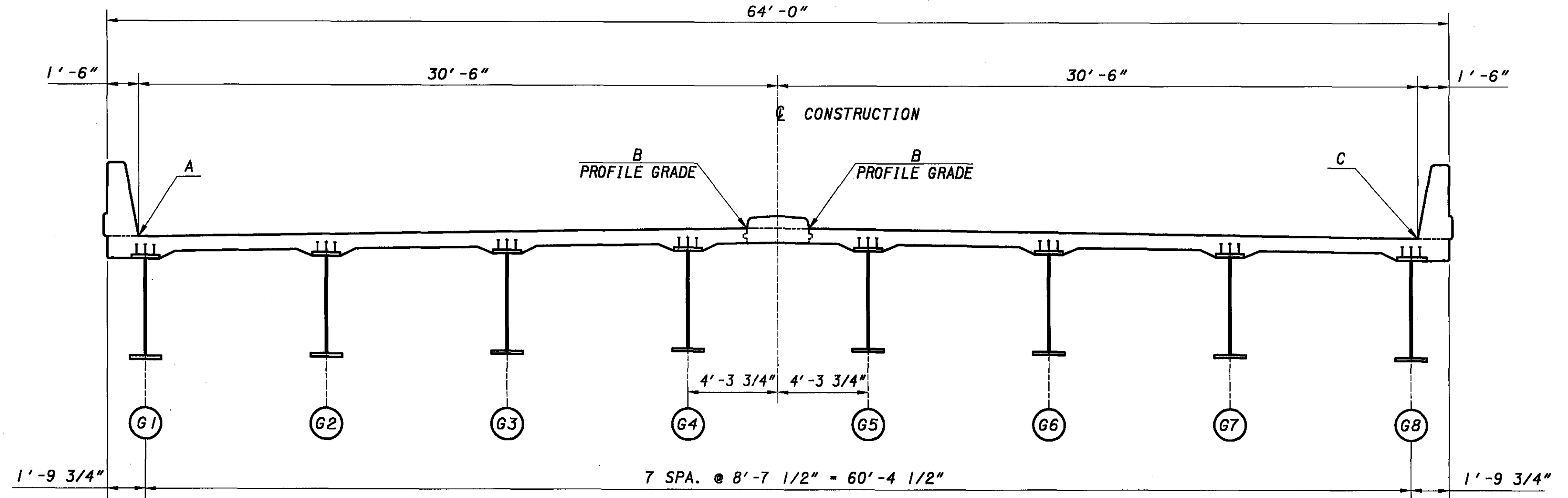
DECK PLAN
BRIDGE NO. MED-71-0750
OVER 1-71

MED-71-6.06
PID 75657

21 / 26
819
1120

SCREED ELEVATIONS TABLE

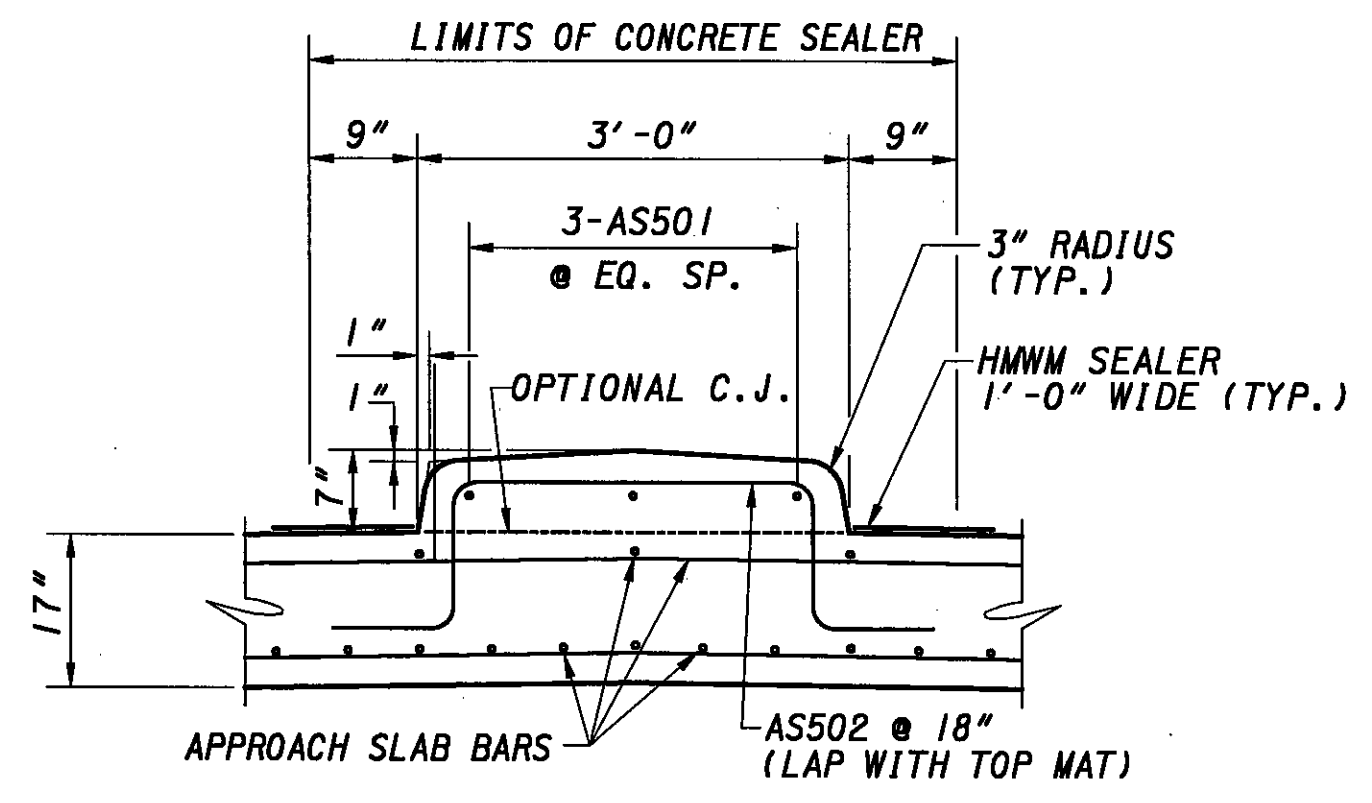
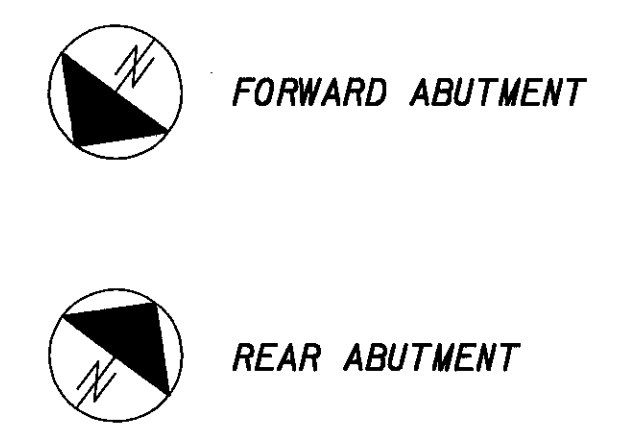
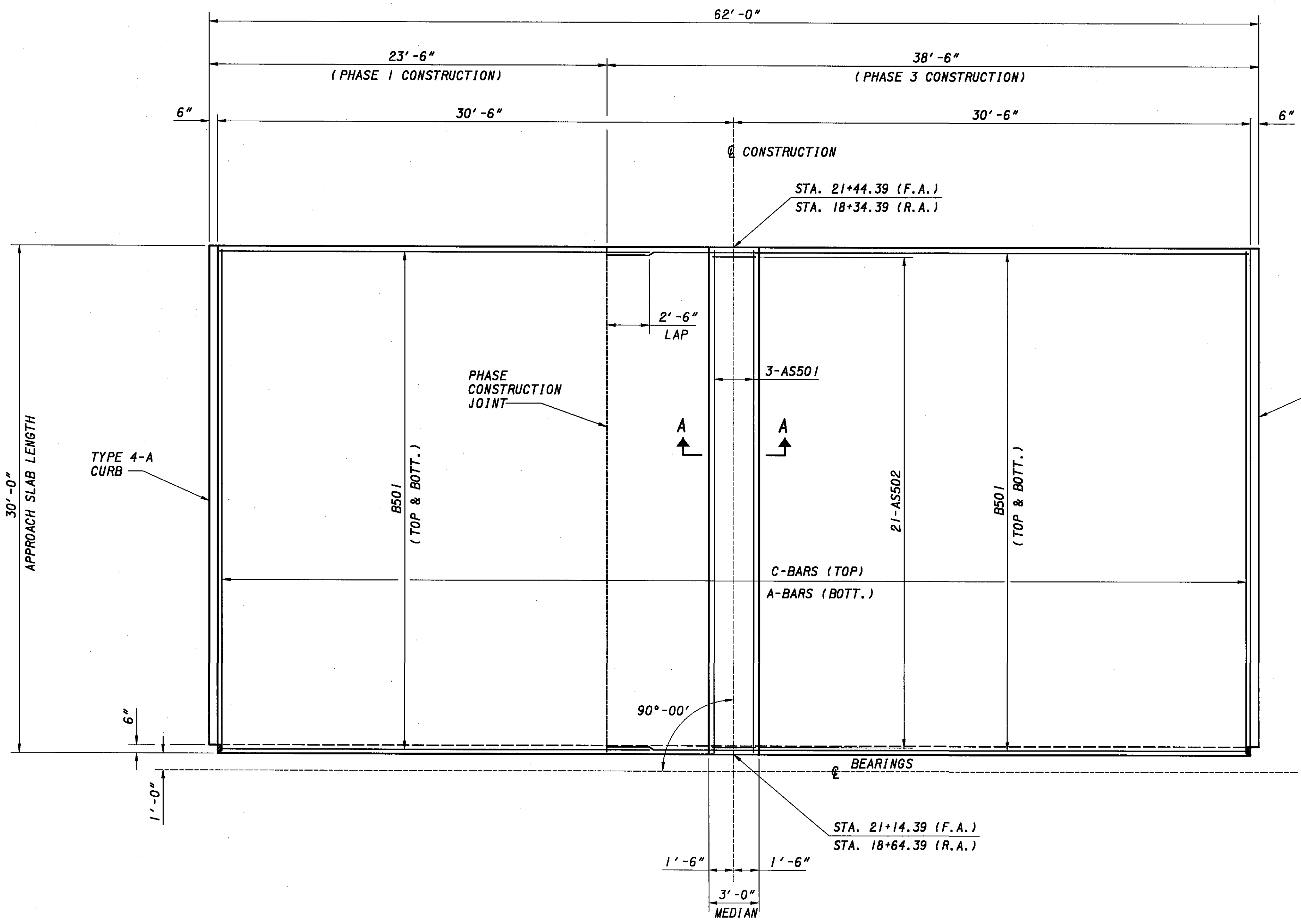
SPAN NO.	LOCATION	STATION	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4	GIRDER 5	GIRDER 6	GIRDER 7	GIRDER 8	A	B	C
1	0.00 L	18+65.39	1020.42	1020.56	1020.69	1020.83	1020.83	1020.69	1020.56	1020.42	1020.42	1020.87	1020.42
	0.25 L	18+92.27	1020.97	1021.10	1021.24	1021.37	1021.37	1021.24	1021.10	1020.97	1020.96	1021.42	1020.96
	0.50 L	19+19.14	1021.36	1021.50	1021.63	1021.77	1021.77	1021.63	1021.50	1021.36	1021.36	1021.81	1021.36
	SPLICE	19+32.39	1021.50	1021.64	1021.77	1021.91	1021.91	1021.77	1021.64	1021.50	1021.50	1021.95	1021.50
	0.75 L	19+46.02	1021.62	1021.76	1021.89	1022.03	1022.03	1021.89	1021.76	1021.62	1021.62	1022.07	1021.62
2	0.00 L	19+72.89	1021.85	1021.98	1022.12	1022.25	1022.25	1022.12	1021.98	1021.85	1021.84	1022.30	1021.84
	0.20 L	20+00.99	1022.11	1022.24	1022.38	1022.51	1022.51	1022.38	1022.24	1022.11	1022.10	1022.56	1022.10
	SPLICE	20+04.39	1022.14	1022.27	1022.41	1022.54	1022.54	1022.41	1022.27	1022.14	1022.13	1022.59	1022.13
	0.40 L	20+29.09	1022.29	1022.43	1022.56	1022.70	1022.70	1022.56	1022.43	1022.29	1022.29	1022.74	1022.29
	0.60 L	20+57.19	1022.26	1022.40	1022.53	1022.67	1022.67	1022.53	1022.40	1022.26	1022.26	1022.71	1022.26
	0.80 L	20+85.29	1021.97	1022.11	1022.24	1022.38	1022.38	1022.24	1022.11	1021.97	1021.97	1022.42	1021.97
	1.00 L	21+13.39	1021.45	1021.58	1021.72	1021.85	1021.85	1021.72	1021.58	1021.45	1021.44	1021.90	1021.44



SCREED LINE LOCATIONS

NOTE:
 1. SCREED ELEVATIONS:
 SCREED ELEVATIONS ARE FOR THE DECK SLAB SURFACE
 PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN
 MADE FOR THE ANTICIPATED CALCULATED DEAD LOAD
 DEFLECTIONS.
 L - SPAN LENGTH

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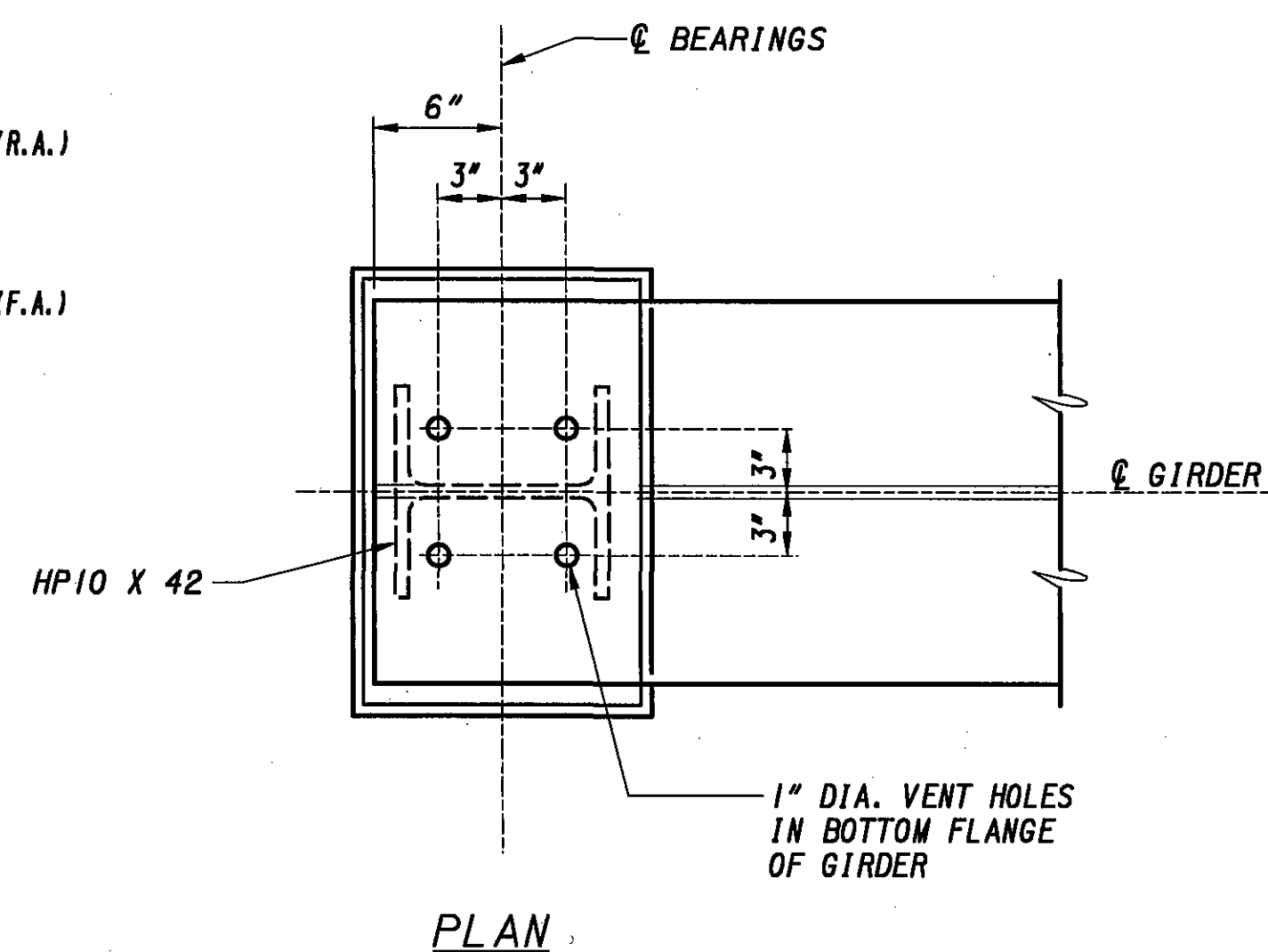
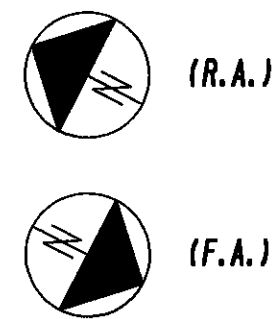


SECTION A-A
(SEE NOTE 2)

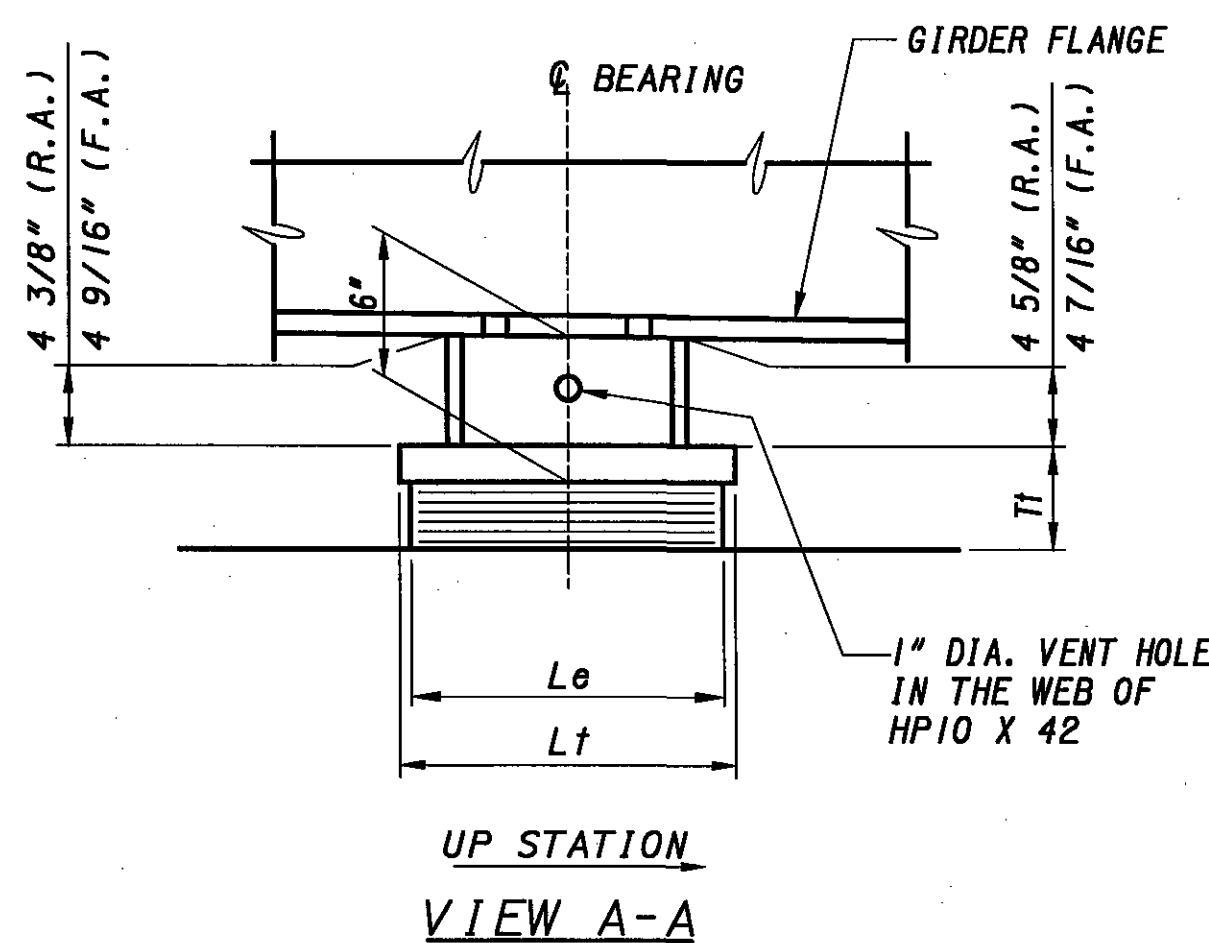
PLAN
FORWARD APPROACH SLAB (AS SHOWN & NOTED)
REAR APPROACH SLAB (OPPOSITE HAND & AS NOTED)

- NOTES:**
- REFER TO STANDARD BRIDGE DRAWING AS-1-81 FOR ADDITIONAL DETAILS.
 - PAYMENT FOR APPROACH SLAB MEDIAN CONCRETE AND REINFORCING STEEL INCLUDING AND IN ADDITION TO THAT SHOWN ON STD. DWG. AS-1-81 SHALL BE INCLUDED WITH ITEM 526, APPROACH SLABS (T-17"), AS PER PLAN.

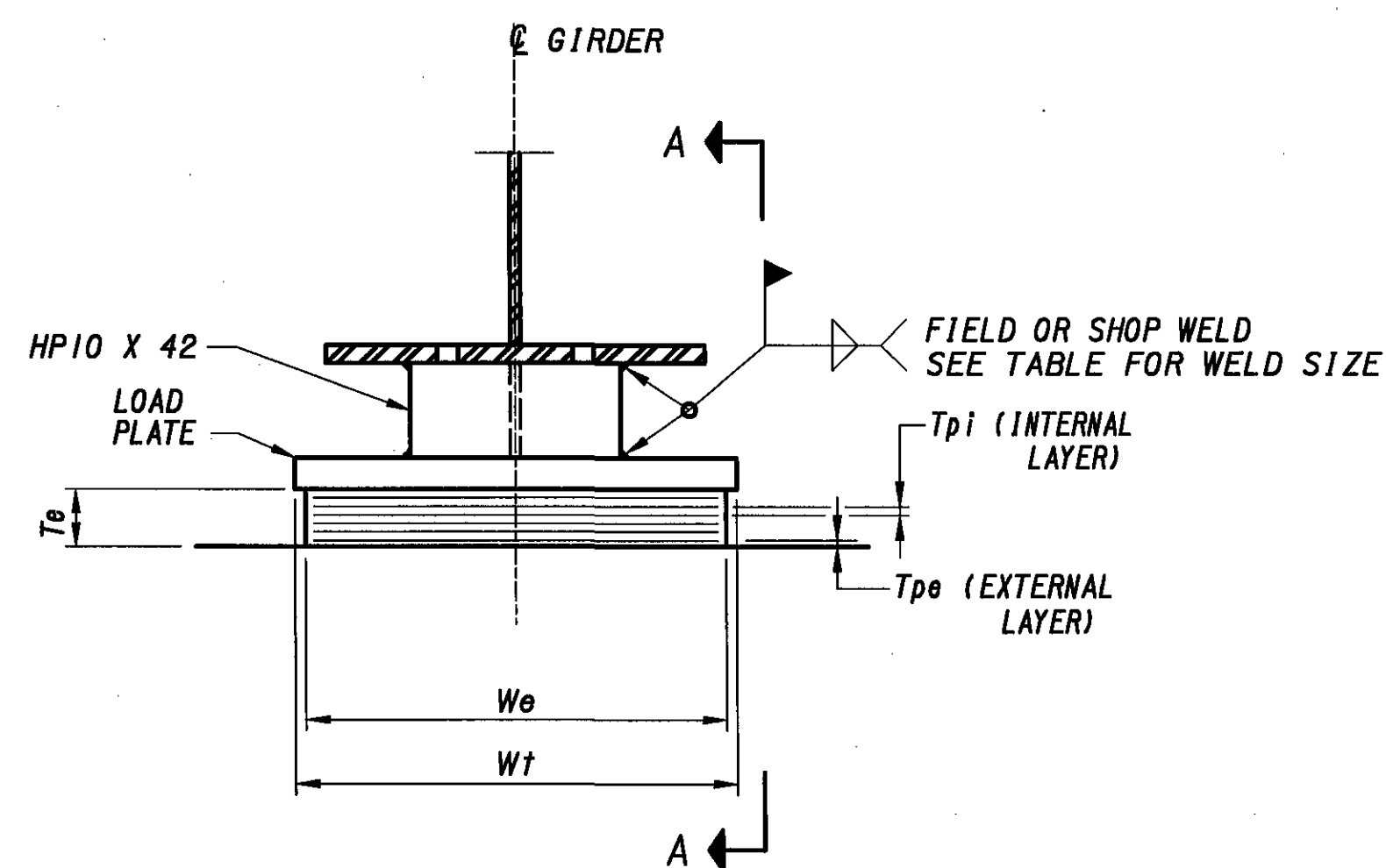
PREPARED BY ms consultants, inc. <small>CONSULTING ENGINEERS & PLANNERS 333 EAST FEDERAL STREET, WYOMING, OHIO</small>	
REVIEWED DATE GT 2-05 STRUCTURE FILE NUMBER 5204275	DRAWN SIR REVISED
DESIGNED WER CHECKED WH	TYPE 4-A CURB
APPROACH SLAB DETAILS BRIDGE NO. MED-71-0750 OVER I-71	
MED-71-6.06 PID 75657	
23 / 26	821 1120



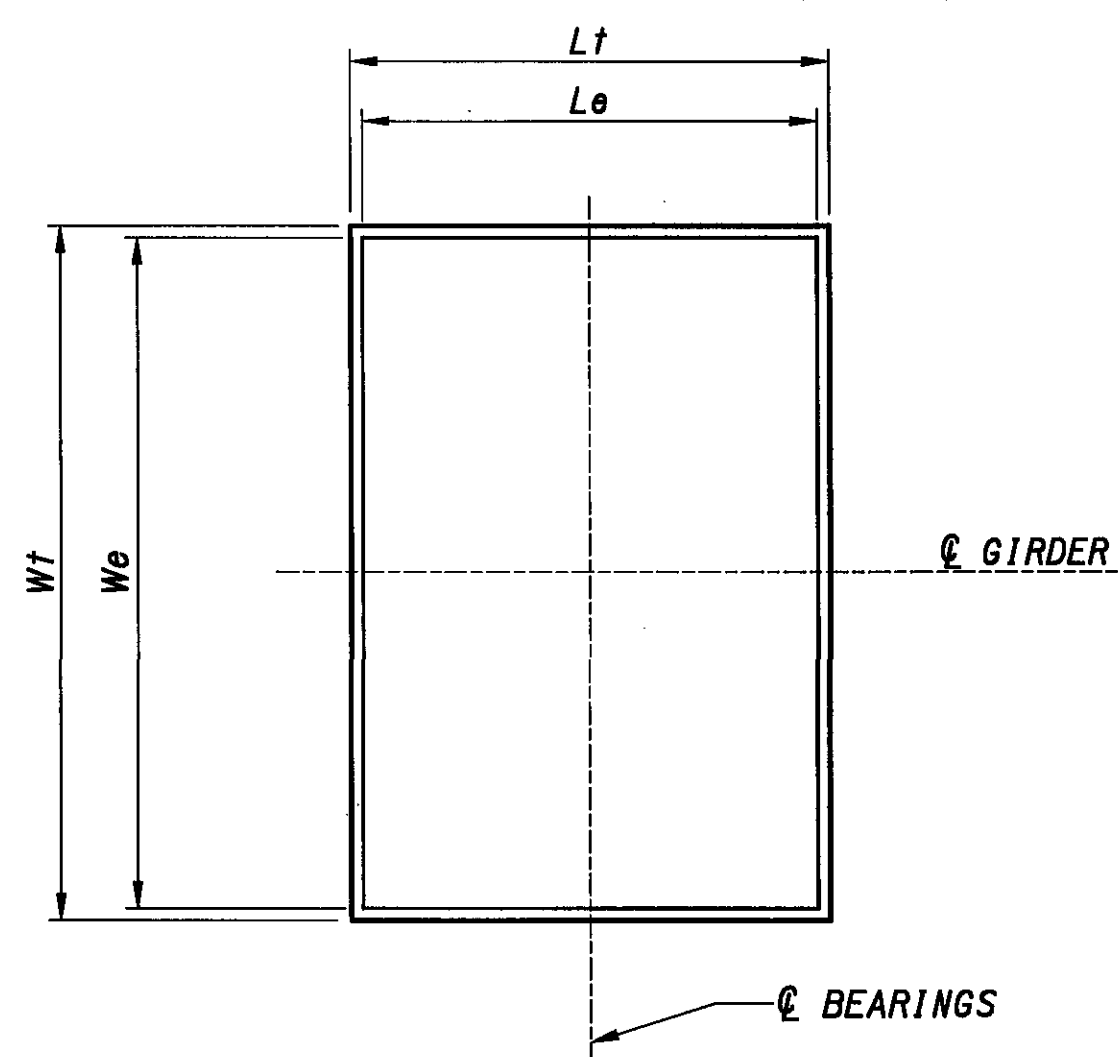
PLAN



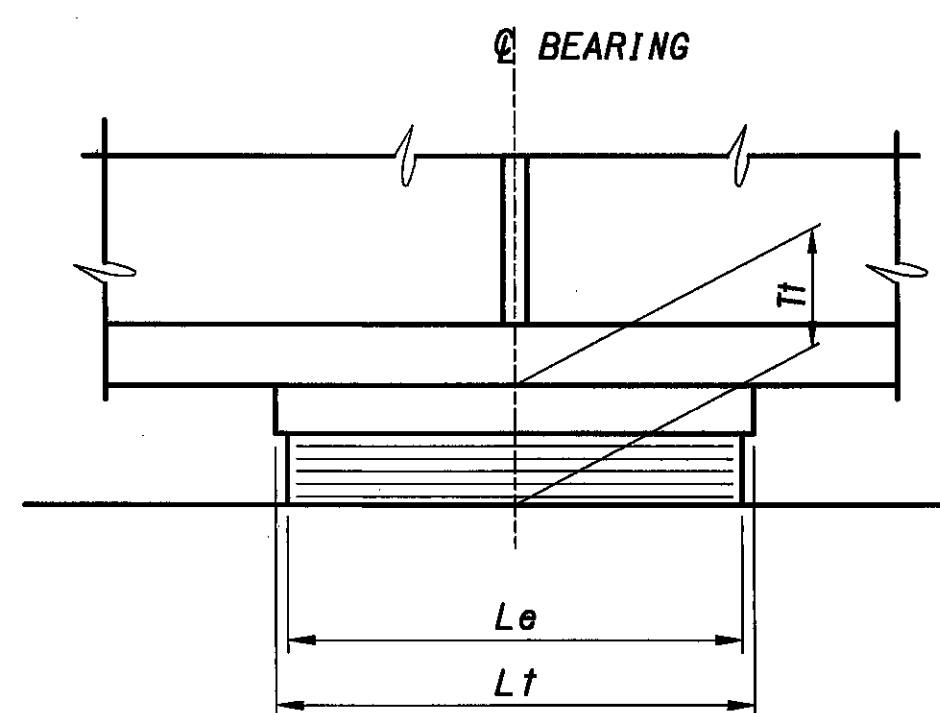
UP STATION
VIEW A-A



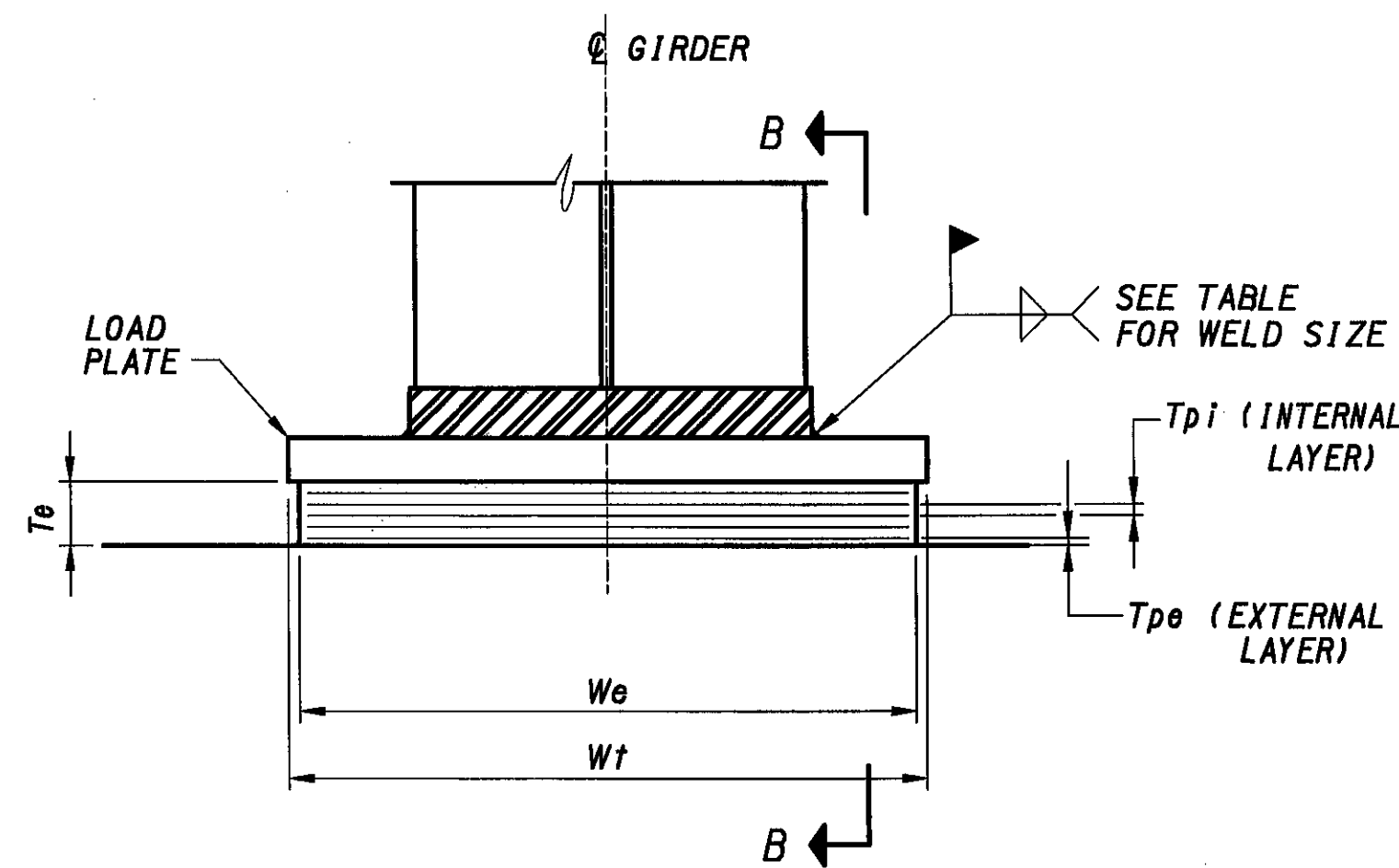
LAMINATED ELASTOMERIC
EXPANSION BEARING
(ABUTMENTS)



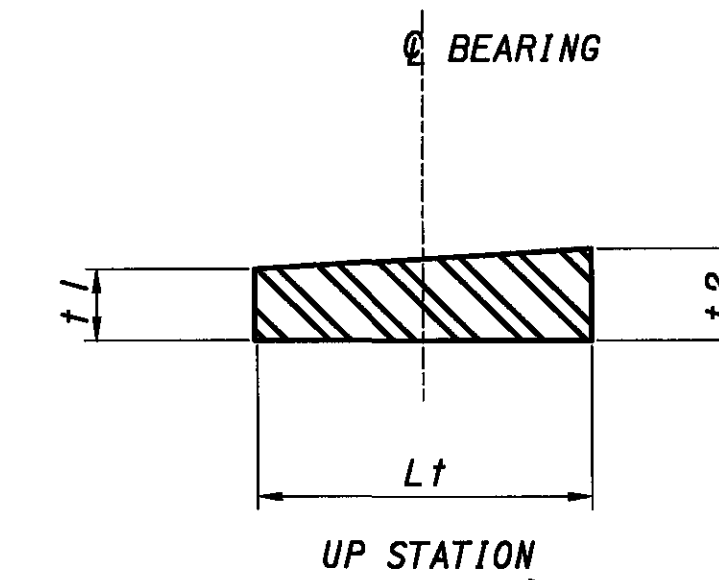
PLAN



VIEW B-B



LAMINATED ELASTOMERIC
EXPANSION BEARING
(PIER)



STEEL LOAD PLATE DETAIL

NOTES:

LOAD PLATE & HP SHAPE

THE STEEL LOAD PLATE AND HP SHAPE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL. THE HP SHAPE IS CONSIDERED A COMPONENT OF THE BEARING.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

WELDING OF THE LOAD PLATE OR THE HP10x42 TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300° F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

ELASTOMERIC BEARINGS

THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

BEARING REPOSITIONING

IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40° F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60° F ± 10° F, THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F ± 10° F.

BASIS OF PAYMENT

THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE).

BEARING LOCATION	BEARING TYPE	NO. REQ'D.	DEAD LOAD KIPS	LIVE LOAD KIPS	TOTAL LOAD (DL+LL) KIPS	Le (inches)	We (inches)	Tpi (inches)	NO. OF Tpi'S	Tpe (inches)	NO. OF 14 GA INTERNAL LAMINATES (0.0747 IN.)	Te (inches)	STEEL LOAD PLATE				Tt (inches)	FILLET WELD SIZE (inches)	RETAINER ANGLE
													Wt (inches)	Lt (inches)	t1 (inches)	t2 (inches)			
REAR ABUTMENT	EXP.	8	101	68	169	10	17	0.31	7	0.21	7	2.90	18	11	1 1/2	1 1/2	4.40	5/16	NONE
PIER	EXP.	8	304	125	429	16	30	0.58	4	0.40	4	3.02	31	17	2 1/16	2 3/16	5.15	1/2	NONE
FORWARD ABUTMENT	EXP.	8	142	70	212	14	23	0.62	6	0.32	6	4.49	24	15	1 1/2	1 1/2	5.99	3/8	NONE

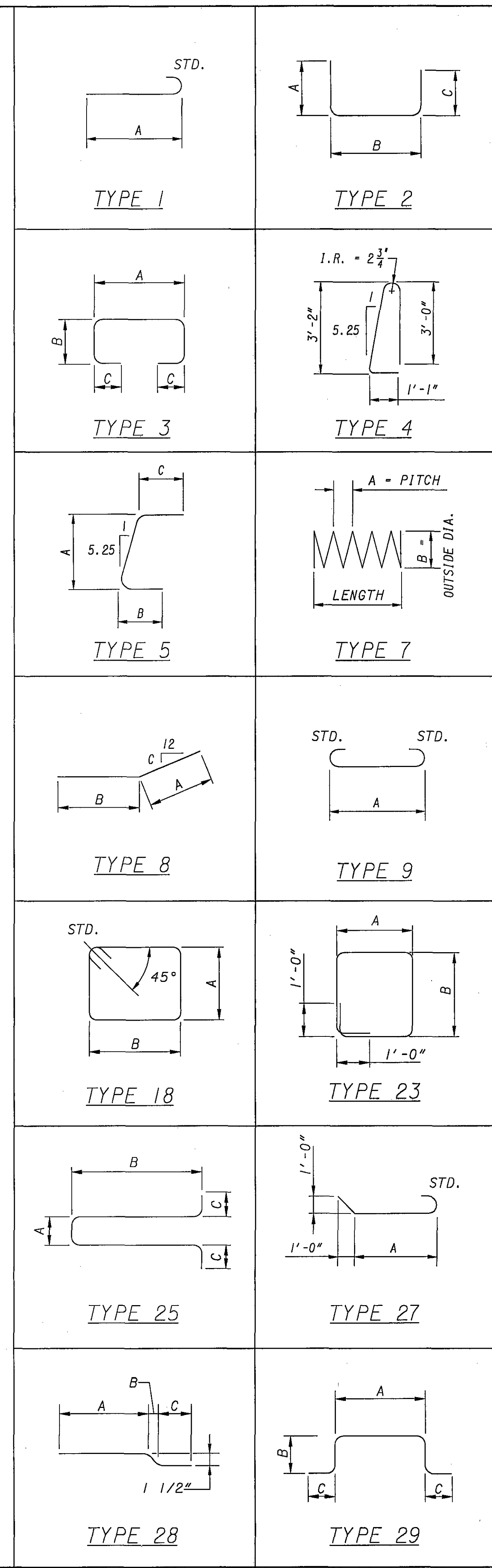
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ABUTMENTS										
MARK	NUMBER		TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS			
	R.A.	F.A.					A	B	C	INC.
A501	82	88	170	6'-0"	1064	ST.				
A502	42		42	15'-2"	664	ST.				
A503	42	42	84	6'-3"	548	8	3'-6"	2'-9"	12	
A504	42	42	84	7'-5"	650	2	2'-6"	2'-8"	2'-6"	
A505	44	44	88	14'-11"	1369	18	4'-6"	2'-8"		
A506	44	44	88	7'-3"	665	2	2'-9"	2'-0"	2'-9"	
A507	11	15	26	37'-6"	1017	8	35'-3"	2'-3"	7	
A508	11	15	26	36'-6"	990	ST.				
A509	11	15	26	37'-9"	1024	8	35'-6"	2'-3"	7	
A510	11	15	26	36'-9"	997	ST.				
A511	2 SER. OF 16		2 SER. OF 16	10'-8" TO 21'-11"	544	ST.				9"
A512	28		28	23'-7"	689	ST.				
A513	4 SER. OF 7		4 SER. OF 7	4'-10" TO 23'-4"	411	ST.				3'-1"
A514	32	38	70	6'-5"	468	2	2'-6"	1'-8"	2'-6"	
A515	4		4	26'-3"	110	ST.				
A516	8		8	17'-9"	148	ST.				
A517	4	4	8	15'-9"	131	2	6'-8"	2'-8"	6'-8"	
A518	2	2	4	15'-5"	64	2	6'-8"	2'-4"	6'-8"	
A519	2	2	4	15'-1"	63	2	6'-8"	2'-0"	6'-8"	
A520	10	10	20	4'-1"	85	8	1'-10"	2'-3"	7	
A521	10	10	20	2'-11"	61	ST.				
A522		42	42	18'-0"	789	ST.				
A523		2 SER. OF 19	2 SER. OF 19	12'-9" TO 24'-9"	743	ST.				8"
A524		36	36	28'-0"	1051	ST.				
A525		4 SER. OF 7	4 SER. OF 7	5'-0" TO 26'-0"	453	ST.				3'-6"
A526		4	4	30'-6"	127	ST.				
A527		8	8	20'-6"	171	ST.				
A601	30		30	15'-4"	691	9	14'-0"			
A602	2 SER. OF 3		2 SER. OF 3	15'-4" TO 15'-7"	139	9	14'-0" TO 14'-3"			1 1/2"
A603	2 SER. OF 3		2 SER. OF 3	7'-2" TO 13'-8"	94	1	6'-6" TO 13'-0"			3'-3"
A604	40		40	14'-4"	861	9	13'-0"			
A605	24	26	50	35'-5"	2660	ST.				
A606	24	26	50	36'-0"	2704	ST.				
A607	38		38	30'-0"	1712	8	26'-6"	3'-6"	7	
A608	12	2	14	28'-0"	589	8	24'-6"	3'-6"	7	
A609	2		2	26'-6"	80	8	23'-0"	3'-6"	7	
A610	2 SER. OF 16		2 SER. OF 16	10'-11" TO 22'-2"	795	ST.				9"
A611	4		4	17'-9"	107	ST.				
A612		40	40	16'-4"	981	9	15'-0"			
A613		4	4	17'-0"	102	9	15'-8"			
A614	2 SER. OF 3	2 SER. OF 3		7'-2" TO 10'-2"	78	1	6'-6" TO 9'-6"			1'-6"
A615	40	40	80	15'-10"	951	9	14'-6"			
A616	52	52	104	33'-6"	2616	8	31'-0"	2'-6"	7	
A617	2		2	31'-6"	95	ST.				
A618	2 SER. OF 16	2 SER. OF 16		13'-1" TO 25'-3"	921	ST.				9 3/4"
A619	4		4	21'-0"	126	ST.				
A620	16		16	29'-2"	701	25	8"	13'-1"	1'-6"	
A621		19	19	32'-2"	918	25	8"	14'-7"	1'-6"	

ABUTMENTS (CONTINUED)										
MARK	NUMBER		TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS			
	R.A.	F.A.					A	B	C	INC.
A801	42		42	15'-2"	1701	ST.				
A802	68		68	10'-8"	1937	1	9'-9"			
A803	1	1	2	40'-0"	214	8	37'-9"	2'-3"	7	
A804	3	3	6	39'-0"	625	ST.				
A805	1	1	2	37'-9"	202	8	35'-6"	2'-3"	7	
A806	3	3	6	36'-9"	589	ST.				
A807	14	14	28	35'-4"	2642	ST.				
A808	14	14	28	33'-4"	2492	ST.				
A809	42	42	84	5'-3"	1177	27	2'-11"			
A810	4		4	17'-9"	190	ST.				
A901	92	218	310	11'-0"	11,594	1	9'-9"			
A902		42	42	18'-3"	2606	ST.				
A903		4	4	21'-0"	286	ST.				
A904	20	24	44	11'-0"	1646	2	1'-9"	9'-6"	0	
A905	22		22	15'-9"	1178	ST.				
A906		26	26	18'-7"	1643	ST.				
A1001	59		59	15'-10"	4020	9	13'-0"			
A1002	46		46	16'-10"	3332	9	14'-0"			
A1003	2 SER. OF 4		2 SER. OF 4	16'-11" TO 17'-2"	587	9	14'-1" TO 14'-4"			1"
A1004	2 SER. OF 5		2 SER. OF 5	16'-0" TO 17'-1"	712	9	13'-2" TO 14'-3"			3 1/4"
A1005		78	78	17'-4"	5818	9	14'-6"			
A1006		74	74	17'-10"	5679	9	15'-0"			
A1007	2 SER. OF 5	2 SER. OF 5		17'-10" TO 18'-2"	775	9	15'-0" TO 15'-4"			1"
A1008	2 SER. OF 7	2 SER. OF 7		17'-4" TO 18'-1"	1067	9	14'-6" TO 15'-3"			1"
TOTAL = 85,729 LB.										

APPROACH SLABS										
MARK	NUMBER		TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS			
	REAR	FORWARD					A	B	C	INC.
AS501	3	3	6	29'-8"	186	ST.				
AS502	21	21	42	6'-4"	277	29	2'-8"	1'-3"	10"	
TOTAL = 463 LB.										
TOTAL WEIGHT INCIDENTAL TO ITEM 526, REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN.										

NOTES:
SEE SHEET 26/26 FOR REINFORCING NOTES.



PREPARED BY
ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 333 EAST FEDERAL STREET, YOUNGSTOWN, OHIO

REVIEWED DATE 2-05
 DRAWN BY GT
 DESIGNED BY WER
 CHECKED BY WH

STRUCTURE FILE NUMBER 5204275

REINFORCING STEEL LIST
 BRIDGE NO. MED-7 I-0750
 OVER I-71

MED-7 I-6.06
 PID 7.5657

25 / 26
 823
 1120

SUPERSTRUCTURE								
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS			
					A	B	C	INC.
S401	600	30'-0"	12,024	ST.				
S402	75	22'-6"	1127	ST.				
S501	600	32'-10"	20,547	ST.				
S502	1200	33'-4"	41,720	ST.				
S503	600	33'-2"	20,756	ST.				
S505	988	30'-0"	30,915	ST.				
S506	86	35'-0"	3139	ST.				
S507	251	5'-6"	1440	3	2'-8"	10"	10"	
S508	504	7'-5"	3899	4				
S509	32	10'-0"	334	ST.				
S510	12	5'-6"	69	24				
S511	20	5'-6"	115	ST.				
S601	16	30'-0"	721	ST.				
S602	2	16'-6"	50	ST.				
S603	504	3'-8"	2776	5	1'-8"	1'-1"	1'-1"	
S604	504	2'-7"	1956	2	1'-1"	1'-8"	0	
S605	16	4'-1"	98	2	3'-2"	1'-1"	0	
S606	16	3'-10"	92	1	3'-2"			
S607	4 SER. OF 11	4'-1" TO 4'-11"	297	2	3'-2" TO 4'-0"	1'-1"	0	1"
S608	4 SER. OF 11	3'-10" TO 4'-8"	281	1	3'-2" TO 4'-0"			1"
TOTAL = 142,356 LB.								

PIER								
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS			
					A	B	C	INC.
SP401	4	14'-9"	874	7	4 1/2"	2'-6"		
P501	352	9'-1"	3335	2	3'-8"	2'-0"	3'-8"	
P502	74	9'-9"	753	2	3'-8"	2'-8"	3'-8"	
P601	12	7'-2"	129	2	2'-6"	2'-6"	2'-6"	
P602	8	4'-9"	57	2	2'-1"	2'-10"	0	
P603	12	12'-2"	219	23	2'-8"	2'-10"		
*P801	10	29'-8"	792	ST.				
*P802	10	34'-4"	917	ST.				
P901	48	10'-2"	1659	9	7'-8"			
P1001	30	12'-6"	1614	2	1'-10"	11'-0"	0	
P1002	24	18'-0"	1859	ST.				
*P1003	7	29'-8"	894	8	3'-10"	25'-10"	1.5	
*P1004	7	34'-4"	1034	8	3'-10"	30'-6"	1.5	
P1005	20	4'-7"	394	2	2'-1"	2'-10"	0	
P1006	6	18'-0"	465	28	14'-6"	3"	3'-3"	
P1101	48	14'-10"	3783	9	11'-8"			
P1102	30	14'-6"	2311	2	2'-0"	12'-10"	0	
P1103	24	18'-0"	2295	ST.				
*P1104	7	33'-4"	1240	2	4'-1"	29'-7"	0	
*P1105	7	38'-0"	1413	2	4'-1"	34'-3"	0	
P1106	6	18'-0"	574	28	14'-6"	3"	3'-3"	
TOTAL = 26,611 LB.								

NOTES:

BAR SIZE THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL BARS TO BE EPOXY COATED.

REINFORCING BAR SAMPLES: REFER TO C.M.S. SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING FOR EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH THE PROJECT PLANS.

SPIRAL REINFORCING BARS:

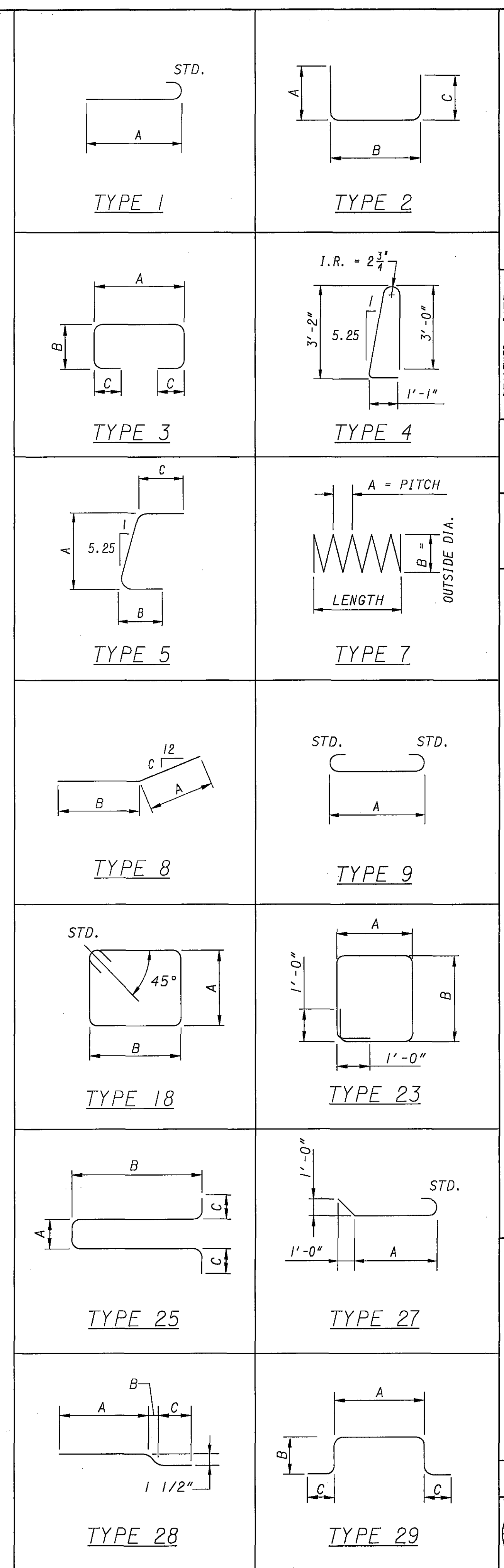
COLUMN LENGTH:
THE LENGTH SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM LAYER OF BARS IN THE PIER CAP.

THE NUMBER OF TURNS SHOWN IS THE LENGTH DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS). EXPRESSED AS THE NEAREST WHOLE NUMBER. SPIRAL REINFORCING BARS MAY HAVE DEFORMATION AND SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 1.01 LB. PER LIN. FT. OF SPACERS, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. INCLUDE SPACERS WITH ITEM 511 FOR PAYMENT.

SPACERS:

CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 10 FEET) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 3 INCH CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN.

* DENOTES BARS REQUIRING MECHANICAL CONNECTORS. LENGTH GIVEN IS TO THE CONSTRUCTION JOINT AND MAY VARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR WHICH IS USED. THERE SHALL BE NO SEPARATE PAYMENT OF THE MECHANICAL SPLICE CONNECTORS. ALL COSTS SHALL BE INCLUDED WITH ITEM 509.



PREPARED BY
ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 333 EAST FEDERAL STREET, TOMBSVILLE, OHIO

REVIEWED DATE 2-05
 GT
 STRUCTURE FILE NUMBER 5204275

DRAWN REVISOR
 WH

DESIGNED CHECKED
 WH

REINFORCING STEEL LIST
 BRIDGE NO. MED-71-0750
 OVER 1-71

MED-71-6.06
 PID 75657

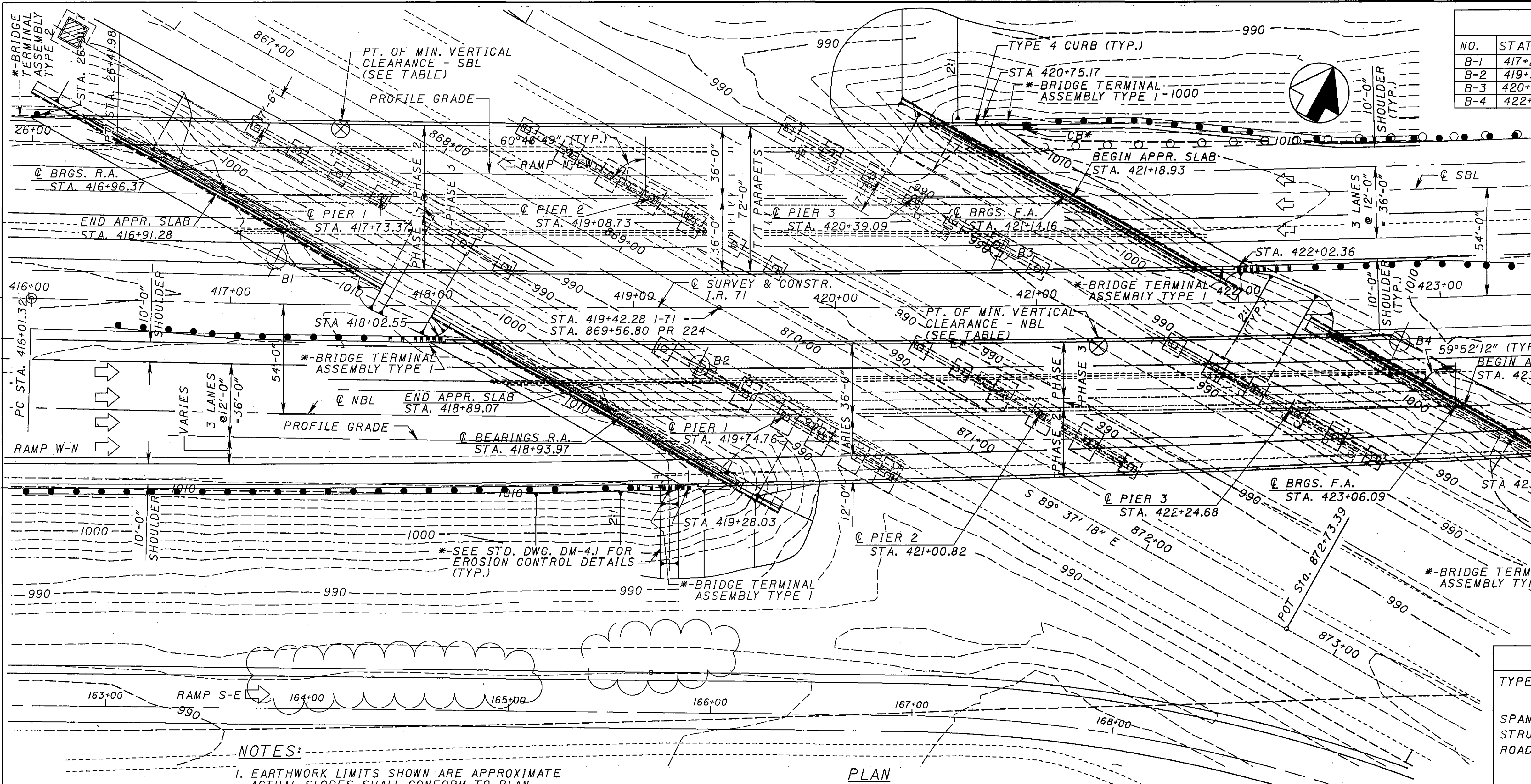
26 / 26
 824
 1120

SOIL BORING INFORMATION				
NO.	STATION	OFFSET	ELEV.	TOP ROCK
B-1	417+22.57	22.43' LT.	1011.74	NONE
B-2	419+32.71	28.44' RT.	989.23	NONE
B-3	420+82.23	27.70' LT.	988.65	NONE
B-4	422+79.34	21.07' RT.	1010.01	NONE

VERTICAL CLEARANCE		
POINT	REQUIRED	PROVIDED
SBL	16.5'	16.96'
NBL	16.5'	17.23'

BENCHMARK INFORMATION	
BM#3047:	STA. 416+01.50, 0.036L, @ MON. 497,372.12 N, 2,136,588.82 E, ELEV. 1009.02
BM#3048:	STA. 422+83.35, 0.022L, @ MON. 497,702.79 N, 2,137,186.02 E, ELEV. 1009.98

- LEGEND:**
- ⊗ - POINT OF MINIMUM VERT. CLEARANCE
 - ⊕ - CURRENT FOUNDATION INVESTIGATION BORING
 - R.A. - REAR ABUTMENT
 - F.A. - FORWARD ABUTMENT
 - NBL - NORTHBOUND LANES
 - SBL - SOUTHBOUND LANES
 - * - SEE ROADWAY PLANS FOR DETAILS AND PAYMENT
 - ** - CRUSHED AGGREGATE SLOPE PROTECTION IN WIDENING AREAS AND AS NEEDED TO RE-ESTABLISH SLOPE IN EXISTING AREAS (TYP.)



HORIZONTAL CURVE DATA			
P.I. STA. = 443+26.96	T = 2,725.64'		
Δ = 25°03'47" (LT.)	L = 5,364.08'		
Dc = 0°28'02"	E = 299.27'		
R = 12,262.63'	S.E. = 0.019		

- NOTES:**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
 - REFERENCE CHORDS ARE MEASURED FROM THE INTERSECTION OF THE C OF LANES AND THE C OF ABUTMENT BEARINGS.
 - SPAN LENGTHS ARE MEASURED ALONG REFERENCE CHORDS.
 - BRIDGE LIMITS ARE MEASURED ALONG THE CS OF THE PROPOSED LANES.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 92' - 115' - 115' - 92' c/c BEARINGS

STRUCTURE FILE NO. 5202914

ROADWAY: NBL - 42'-0" f/f PARAPETS
SBL - 42'-0" f/f PARAPETS PLUS ACCELERATION LANE

ORIGINAL DESIGN LOADING: CF2000 ADEQUATE FOR AASHTO ALTERNATE LOADING

WEARING SURFACE: 1" MONOLITHIC

ALIGNMENT: 0°28'0" LEFT

APPROACH SLABS: 25' AS-1-54

DATE BUILT:

SKEW: 60°36'38" RF

PROPOSED STRUCTURE

TYPE: CONTINUOUS A572 PAINTED STEEL COMPOSITE GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURES

SPANS: NBL - 79'-3", 125'-6 1/8", 125'-6 1/8", 83'-7 3/4" (MEASURED ON REF. CHORD)
SBL - 74'-9", 133'-6", 131'-1", 76'-7" (MEASURED ON REF. CHORD)

ROADWAY: NBL - VARIES
SBL - 72'-0" TOE/TOE BARRIER (RADIAL)

SKEW: NBL - 59°52'12" RF
SBL - 60°46'49" RF
(MEASURED TO REFERENCE CHORD)

ALIGNMENT: 0°28'02" CURVE LEFT

WEARING SURFACE: 1" MONOLITHIC CONCRETE

DESIGN LOADING: HS25 (CASE I) AND THE ALTERNATE MILITARY LOADING

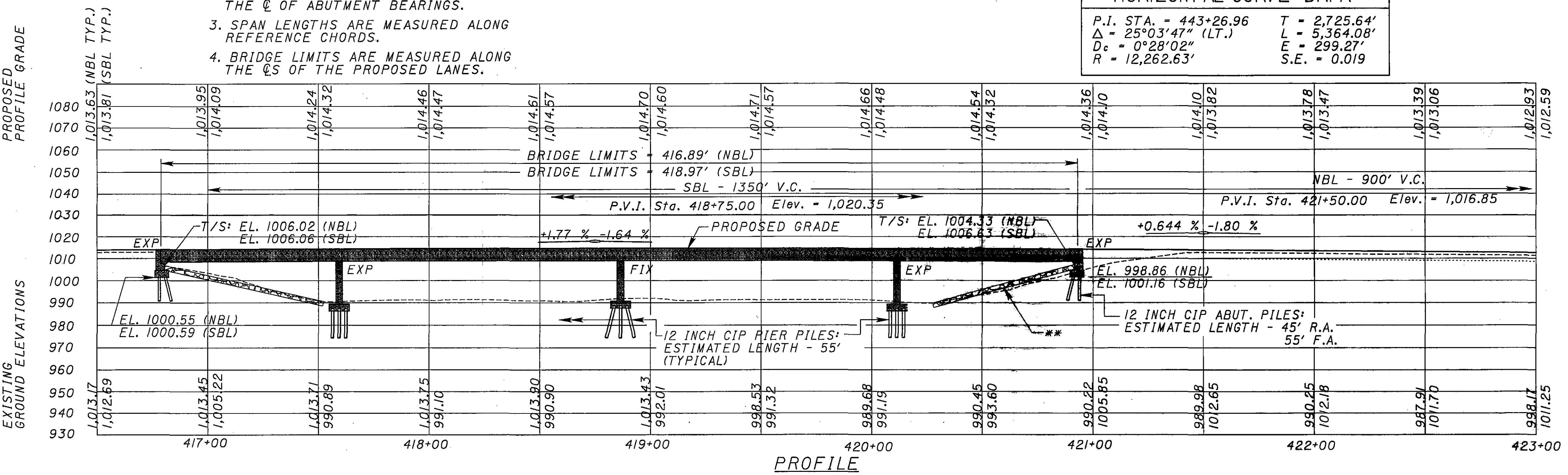
FWS LOADING: 60 PSF

APPROACH SLABS: AS-1-81 (25'-0" LONG)

SUPERELEVATION: 0.019 ft/ft

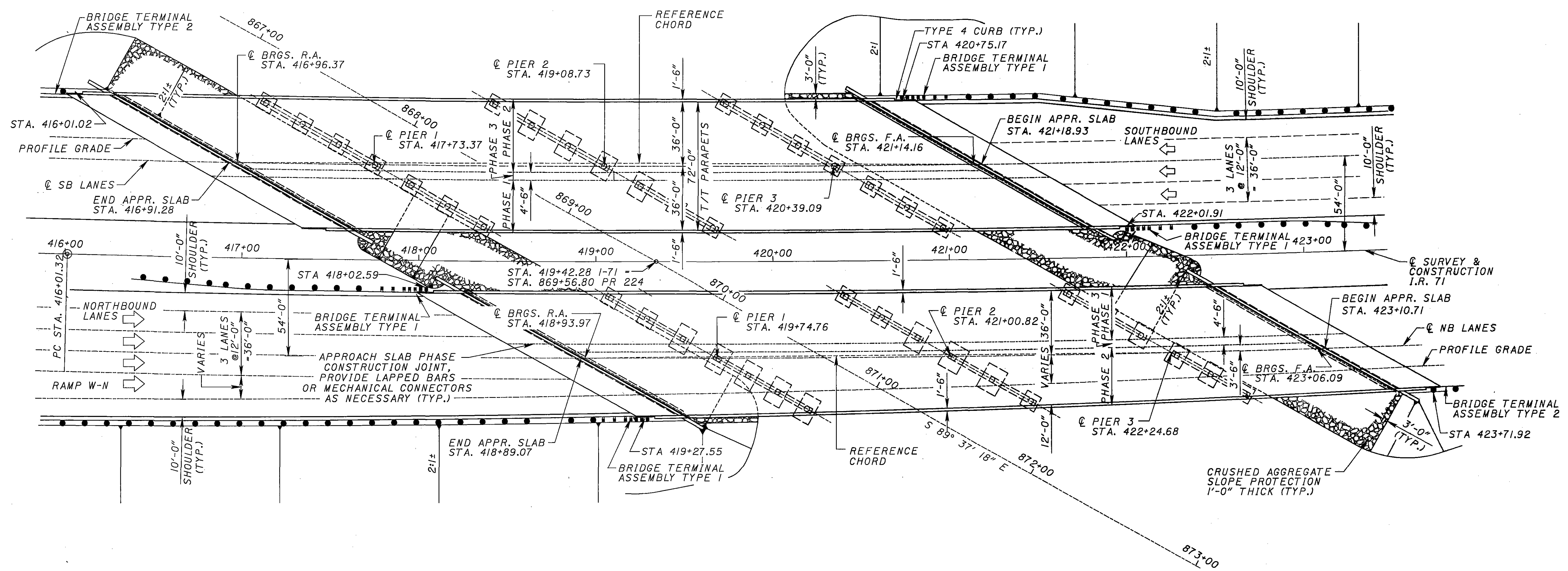
ADT (2006): 42540 ADTT (2006): 10850
ADT (2026): 60040 ADTT (2026): 15310

LATITUDE: N 41°01'49"
LONGITUDE: W 81°53'25"



DATE 9/04
REVIEWED RAK
DRAWN CRC
DESIGNED WTL
CHECKED JMK
MEDINA COUNTY
STA. 416+91.28
STA. 423+10.71
SITE PLAN
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657



PLAN

- NOTES:
- SEE STD. DWG. AS-I-81 FOR APPROACH SLAB DETAILS NOT SHOWN.
 - REFERENCE CHORDS ARE MEASURED FROM THE INTERSECTION OF THE C OF LANES AND THE C OF ABUTMENT BEARINGS.
 - SEE SHTS. 4 / 64, 10 / 64 AND 11 / 64 FOR SHORING SCHEME.

P:\PR30489\CADD\MED-71-0794\ME071gpl.dgn

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 REVISED 7-19-02 EXJ-4-87 REVISED 7-19-02
GSD-1-96 DATED 7-19-02 PCB-91 REVISED 7-19-02
SBR-1-99 REVISED 7-19-02

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWING:

DM-4-1 DATED 7-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

894 DATED 4-15-05

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25, CASE I AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 PSF.

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615

STRUCTURAL STEEL:

ASTM A709 GRADE 50-YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE USE OF EXPLOSIVES, HEADACHE BALLS OR HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

SUPERSTRUCTURE CONCRETE REMOVAL: FULL DEPTH SAWCUT THROUGH THE DECK IS REQUIRED, BETWEEN THE PHASES.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS: PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805 (PHONE 800-276-4188).

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN: THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE): THE ULTIMATE BEARING VALUE IS 91 TONS PER PILE FOR THE 12" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 100 TONS PER PILE FOR THE 12" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE PIER PILES.

REAR ABUTMENT PILES (SOUTHBOUND LANES):
38 PILES 50 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM

PIERS 1, 2 & 3 PILES (SOUTHBOUND LANES):
156 PILES 60 FEET LONG, ORDER LENGTH
1 STATIC LOAD TESTING ITEM
1 DYNAMIC LOAD TESTING ITEM
3 RESTRIKE ITEMS

FORWARD ABUTMENT PILES (SOUTHBOUND LANES):
36 PILES 60 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

REAR ABUTMENT PILES (NORTHBOUND LANES):
39 PILES 50 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

PIERS 1, 2 & 3 PILES (NORTHBOUND LANES):
151 PILES 60 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

FORWARD ABUTMENT PILES (NORTHBOUND LANES):
32 PILES 60 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

BATTERED PILES: THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{1+G^2}}$$

U= COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G= RATE OF BATTER (1/3, 1/4, ETC.)

PHASE CONSTRUCTION AND MAINTENANCE OF TRAFFIC: THE PROPOSED WORK (INCLUDING THE APPROACH SLABS) SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. PLACE PORTABLE CONCRETE BARRIERS ON NORTHBOUND & SOUTHBOUND LANES AND DIVERT TRAFFIC TO OUTER LANES.
2. REMOVE PORTIONS OF THE EXISTING STRUCTURES AS SHOWN ON THESE PLANS OR IN ABSENCE OF PLAN DETAILS OR NOTES, AS NEEDED TO PERMIT PHASE I CONSTRUCTION.
3. CONSTRUCT SUBSTRUCTURE FOR PHASE I.
4. COMPLETE PHASE I CONSTRUCTION.
5. PLACE PORTABLE CONCRETE BARRIERS ON PHASE I CONSTRUCTION AND DIVERT BOTH NORTHBOUND AND SOUTHBOUND TRAFFIC TO PHASE 2 TRAFFIC LANES.
6. REPEAT STEPS 2-4 FOR PHASE 2 REMOVALS AND CONSTRUCTION.
7. COMPLETE REMAINING WORK ITEMS, INCLUDING PHASE 3 CONSTRUCTION.
8. REMOVE PORTABLE CONCRETE BARRIERS AND OPEN STRUCTURE TO TRAFFIC.

FIELD PAINTING STRUCTURAL STEEL, FINISH COAT:

STEEL SHALL BE PAINTED LIGHT NEUTRAL, FEDERAL COLOR NUMBER 17778.

MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPlice TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE THE MINIMUM LAP LENGTH FOR THAT BAR AS SHOWN ON THE PLANS.

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM 509.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

DRIP GROOVES:

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

ITEM 511 CLASS C CONCRETE, _____, AS PER PLAN: COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE): SEALER SHALL BE TINTED TO A NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NUMBER 17778.

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BURGESS & NIPLE
5085 Ross Road
Columbus, Ohio 43220

DATE	9/04
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DRAWN	CRC
CHECKED	TTK
STRUCTURE FILE NUMBER	52029222 - LEFT
	52029257 - RIGHT

GENERAL NOTES 1
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657

3 / 64

827
1120

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:
THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:
ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENTITIOUS RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND POURED):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PREFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND POURED PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/4" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 8 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A CAULKING MATERIAL CONFORMING TO ASTM C920, TYPE S.

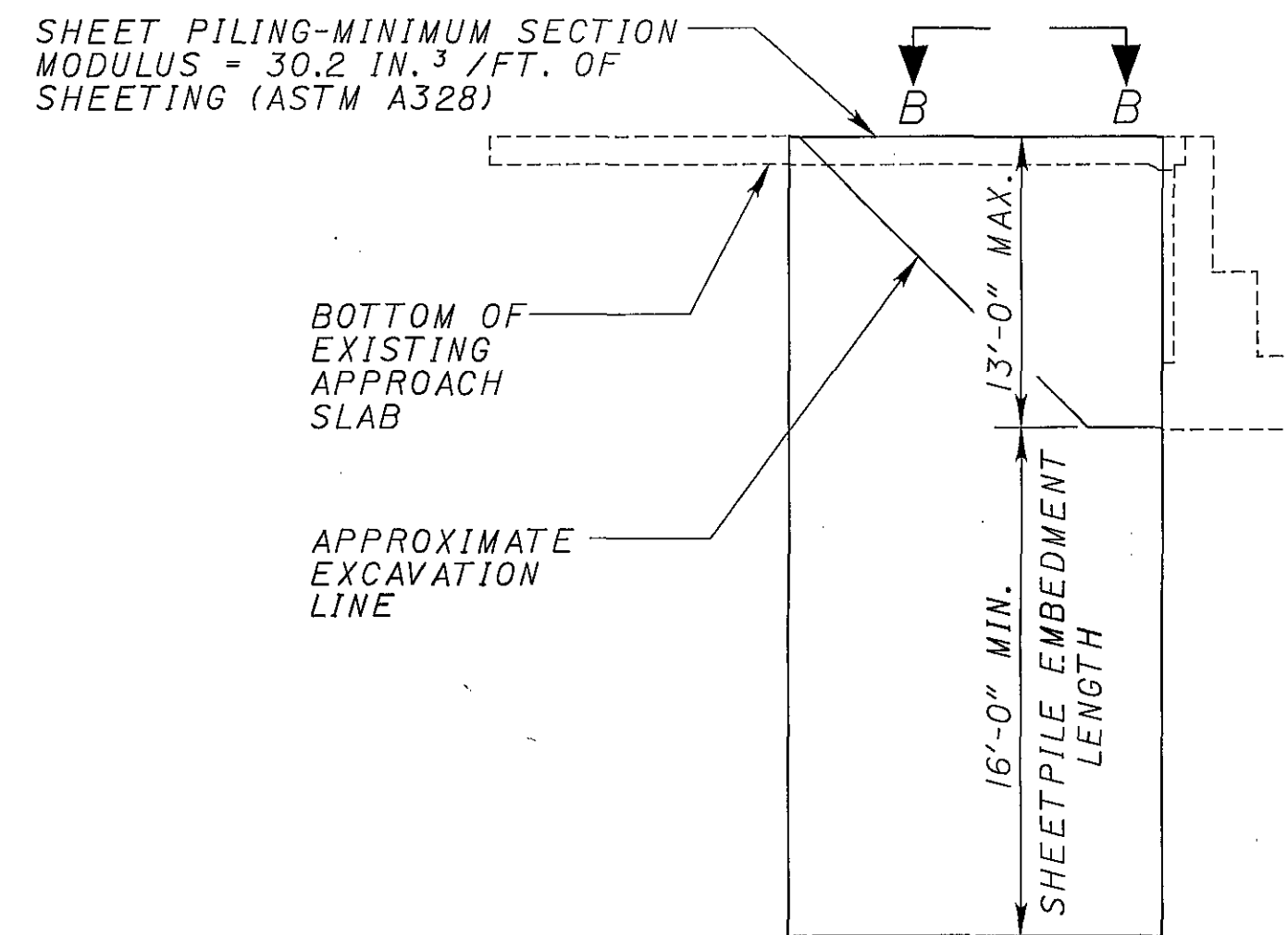
BASIS OF PAYMENT:

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

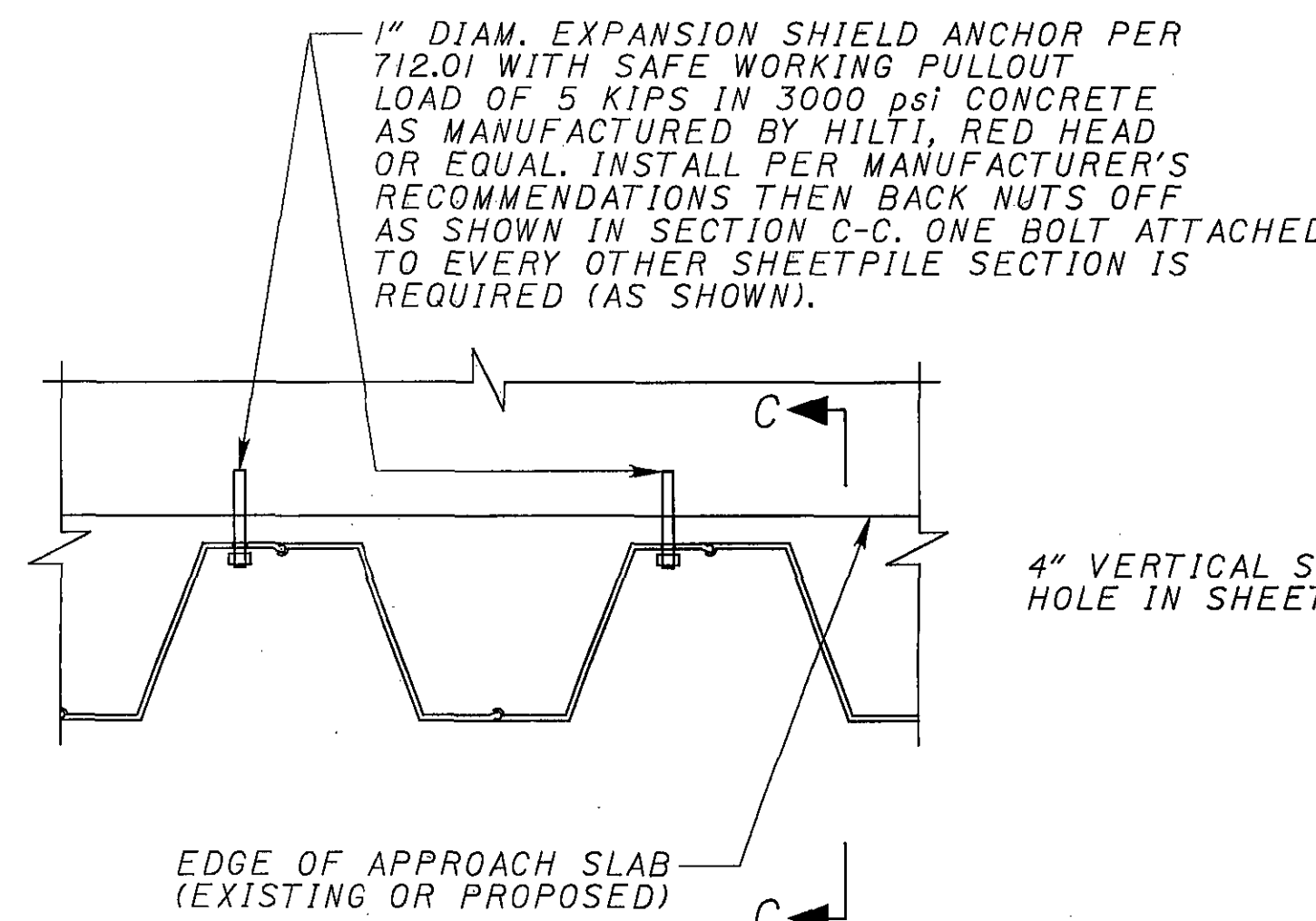
ITEM	UNITS	DESCRIPTION
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB
894E10001	CUBIC YARD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN:

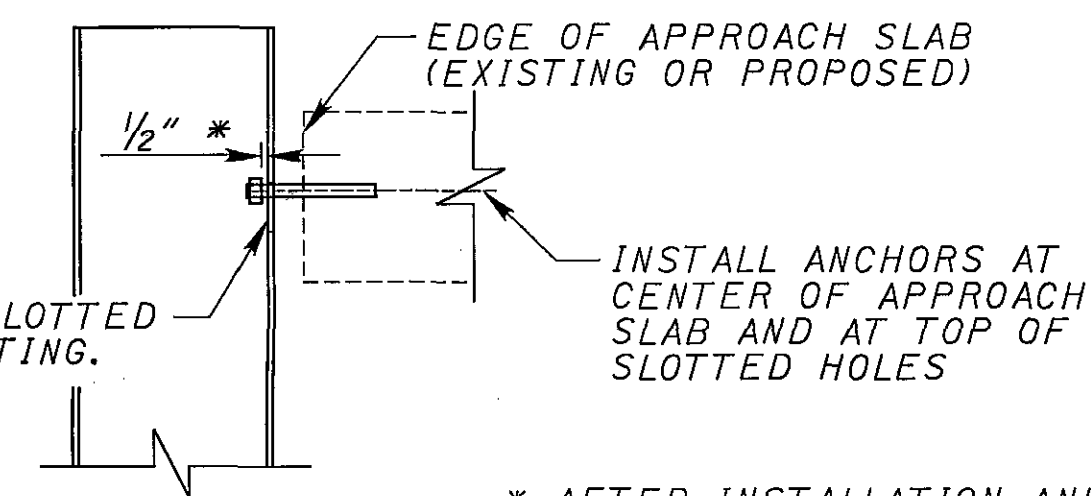
AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE METHOD OF TEMPORARY SHORING FOR PART-WIDTH CONSTRUCTION MAY BE USED. PLANS FOR SUCH SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND CONFORM WITH 501.05. FOR APPROVAL, HAVE A SECOND OHIO REGISTERED PROFESSIONAL ENGINEER CHECK, SIGN, SEAL AND DATE EACH PLAN. THE PREPARER AND CHECKER ARE TWO DIFFERENT ENGINEERS. CONSTRUCTION OF THE SHORING SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. PORTIONS OF THE TEMPORARY SHORING COMPOSED OF STEEL OR CONCRETE MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER.



ELEVATION VIEW



SHORING DETAILS



SECTION C-C

* AFTER INSTALLATION AND TORQUING PER MANUFACTURER'S RECOMMENDATIONS, BACK NUT OFF 1/2" TO ALLOW ACTIVE PRESSURE TO DEVELOP.

(TO BE PAID FOR WITH ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN)

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BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE 9/04
REVIEWED RMK
DRAWN CRC
DESIGNED WTL/AEA
CHECKED TTK
STRUCTURE FILE NUMBER 5202922 - LEFT
5202957 - RIGHT

GENERAL NOTES 2
BRIDGE NO. MED-71-0794 L/R
1-71 OVER 1-76

MED-71-6.06
PID-75657

4 / 64

828
1120

		MED-71-0794 L			MED-71-0794 R			ESTIMATED QUANTITIES											
		FUNDING**		TOTAL	FUNDING**		TOTAL												
ITEM	ITEM EXT.	IM	NHS		IM	NHS		UNIT	DESCRIPTION	ABUTS.	PIERS	SUPER.	GENERAL	SHT. REF.	ABUTS.	PIERS	SUPER.	GENERAL	SHT. REF.
202	11003	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	3/64				LUMP	3/64
503	11101	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN				LUMP	4/64				LUMP	4/64
503	21301	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			3/64	LUMP	LUMP			3/64
505	11100	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP					LUMP	
507	00500	9816	2454	12270	9456	2364	11820	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	3690	8580				3515	8305			
507	00550	10736	2684	13420	10344	2586	12930	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	4060	9360				3870	9060			
509	10000	380000	95000	475000	356315	89079	445394	POUND	EPOXY COATED REINFORCING STEEL *	45703	88334	340963			41327	90356	313711		
511	41001	203	51	254	186	46	232	CU YD	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN							232			3/64
511	43501	517	129	646	474	118	592	CU YD	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN	646					592				3/64
511	46501	201	50	251	246	61	307	CU YD	CLASS C CONCRETE, FOOTING, AS PER PLAN		251					307			3/64
511	52000	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB			LUMP					LUMP		
512	10100	1916	479	2395	1796	449	2245	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	410	925	1060			385	820	1040		
512	33000	7	2	9	7	2	9	SQ YD	TYPE 2 WATERPROOFING	9					9				
513	10280	708552	177138	885690	639010	159752	798762	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 4 *			885690					798762		
513	20000	5897	1474	7371	5299	1325	6624	EACH	WELDED STUD SHEAR CONNECTORS			7371					6624		
514	00060	34078	8520	42598	34159	8540	42699	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			42598					42699		
514	00066	34078	8520	42598	34159	8540	42699	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			42598					42699		
514	10000	21	5	26	20	5	25	EACH	FINAL INSPECTION REPAIR			26					25		
516	11210	246	62	308	216	54	270	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			308					270		
516	44300	11	3	14	10	3	13	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (14 1/2" DIA. x 4 1/4")	14					13				
516	44400	17	4	21	16	4	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (20" DIA. x 6 1/4")		21					20			
518	21200	254	63	317	238	60	298	CU YD	POROUS BACKFILL WITH FILTER FABRIC	317					298				
518	40000	314	79	393	286	72	358	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	393					358				
518	40010	54	14	68	54	14	68	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	68					68				
523	20000	1	1	2				EACH	DYNAMIC LOAD TESTING	1	1								
523	20500	2	1	3				EACH	RESTRIKING		3								
526	25001	334	83	417	300	75	375	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T-15"), AS PER PLAN				417				375	60/64	
601	20000	1062	265	1327	981	245	1226	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION				1327				1226		
894	10001	912	228	1140	828	207	1035	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			1140		4/64			1035		4/64

* - SEE PROPOSAL NOTE

** - ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS

SEE ROADWAY QUANTITIES FOR APPROACH SLAB REMOVAL

BURGESS & NIPL
5095 Reed Road
Columbus, Ohio 43220

DATE 9/04
REVIEWED RMK
DRAWN JHL
DESIGNED WTL/JHL
CHECKED TTK/AEH
STRUCTURE FILE NUMBER 5202922 - LEFT
5202957 - RIGHT

ESTIMATED QUANTITIES
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657

5/64

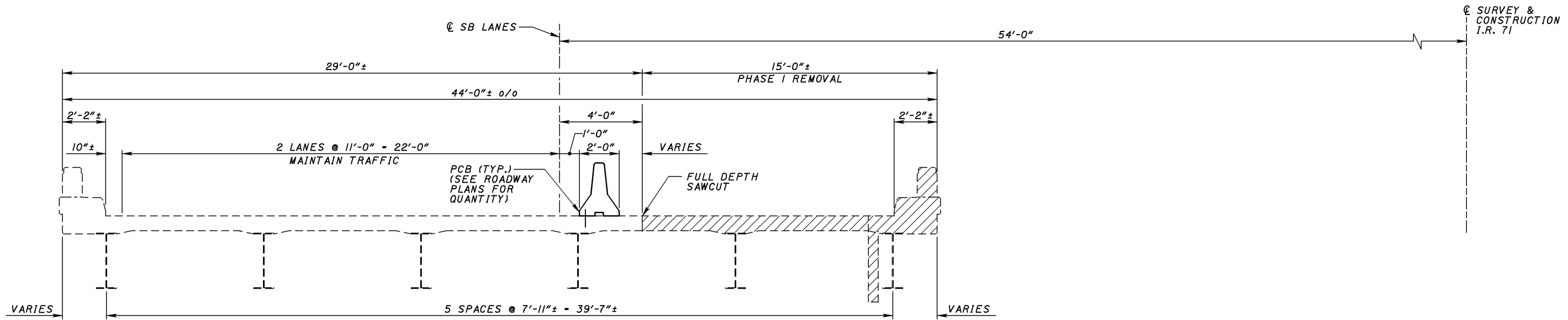
829
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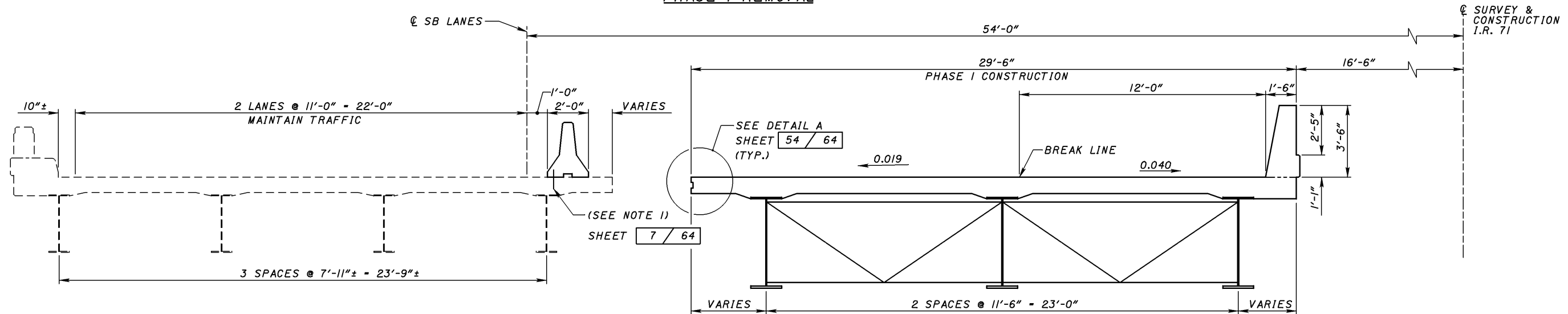
F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT

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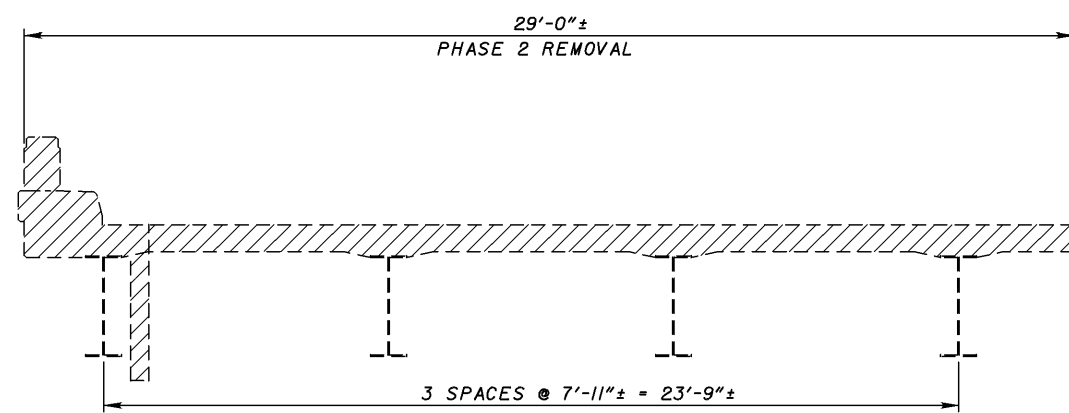
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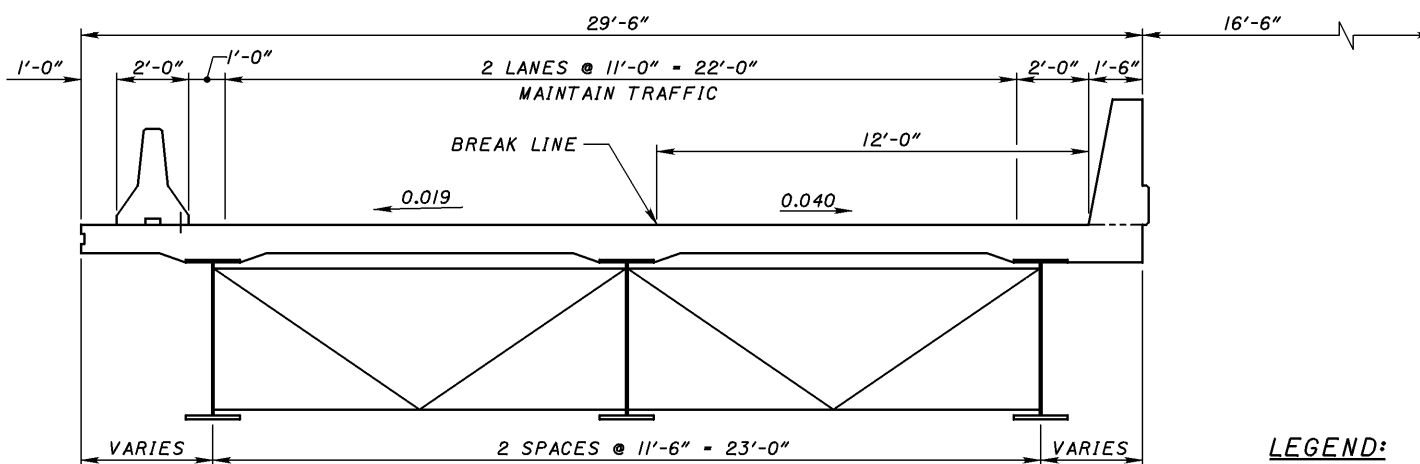
PHASE 1 REMOVAL



PHASE 1 CONSTRUCTION



PHASE 2 REMOVAL




LEGEND:

-  = REMOVALS
- PCB = PORTABLE CONCRETE BARRIER
- C.J. = CONSTRUCTION JOINT

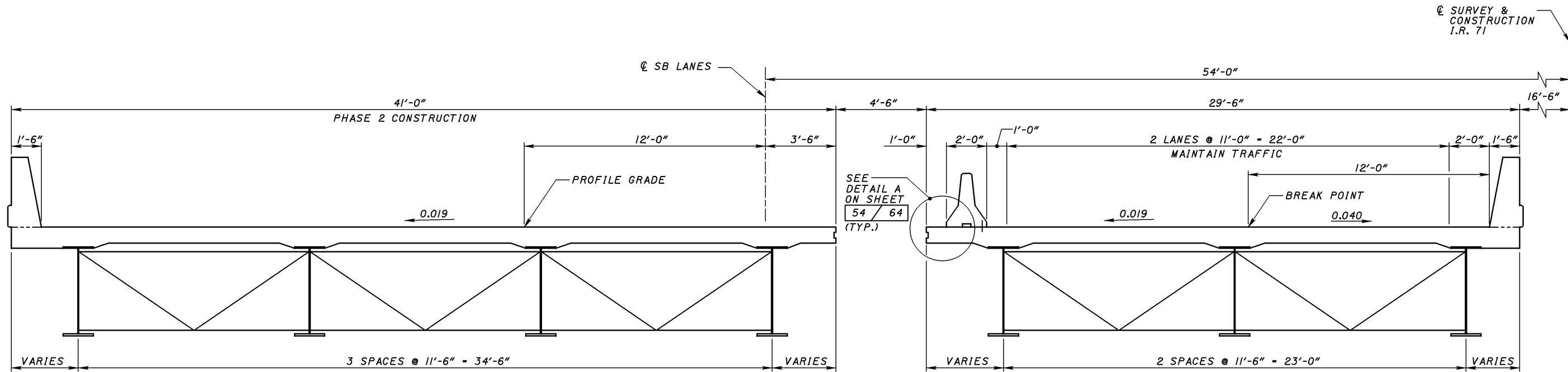
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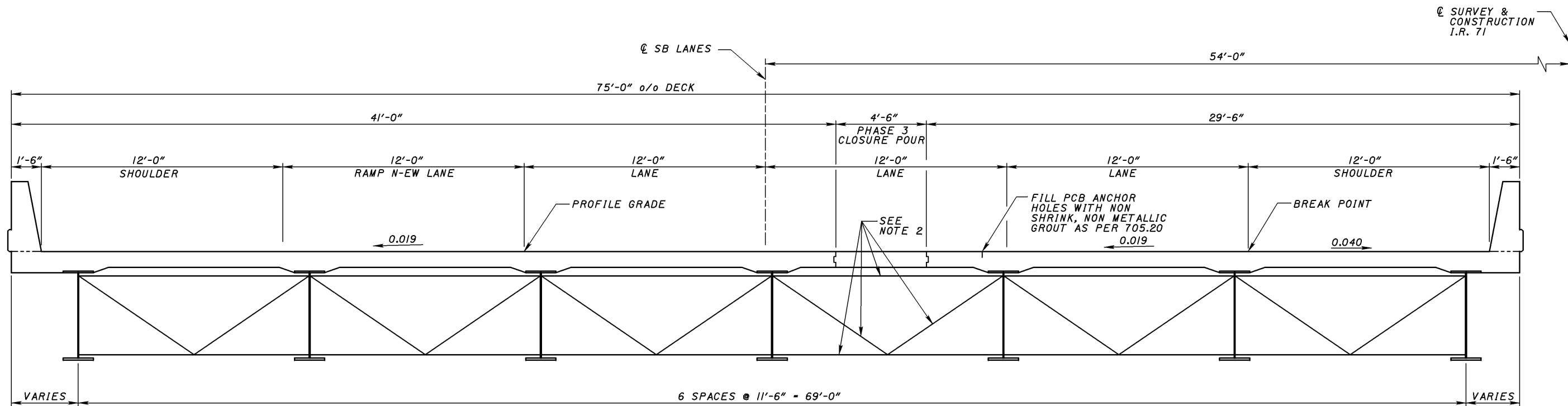
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DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922 - LEFT 5202957 - RIGHT
DRAWN	AAA
REVISED	8/8/06
DESIGNED	TTK
CHECKED	JHL
PHASE CONSTRUCTION DETAILS 1 - SOUTHBOUND BRIDGE NO. MED-71-0794 L/R I-71 OVER I-76	
MED-71-6.06 PID-75657	
6 / 64	
830 1120	

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PHASE 2 CONSTRUCTION



CLOSURE POUR CONSTRUCTION

PHASE CONSTRUCTION NOTES:

1. ANCHOR TEMPORARY BARRIERS TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED WHERE THERE IS 1 FOOT FROM THE BARRIER TO THE EDGE OF DECK. OTHERWISE USE SIX ANCHORS. ANCHORS PLACED ON THE NON-TRAFFIC SIDE OF THE BARRIER SHALL BE THRU BOLTS. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS. REMOVAL OF ANCHORS AND GROUTING OF ANCHOR HOLES IS INCIDENTAL TO THE PORTABLE CONCRETE BARRIER COSTS.
2. THIS PANEL OF CROSSFRAMES SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE PHASE 3 DECK CLOSURE POUR.

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5085 Reed Road
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DATE	9/04
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STRUCTURE FILE NUMBER	5202922 - LEFT
5202957 - RIGHT	
DESIGNED	TTK
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DRAWN	AAA
REVISED	8/8/06

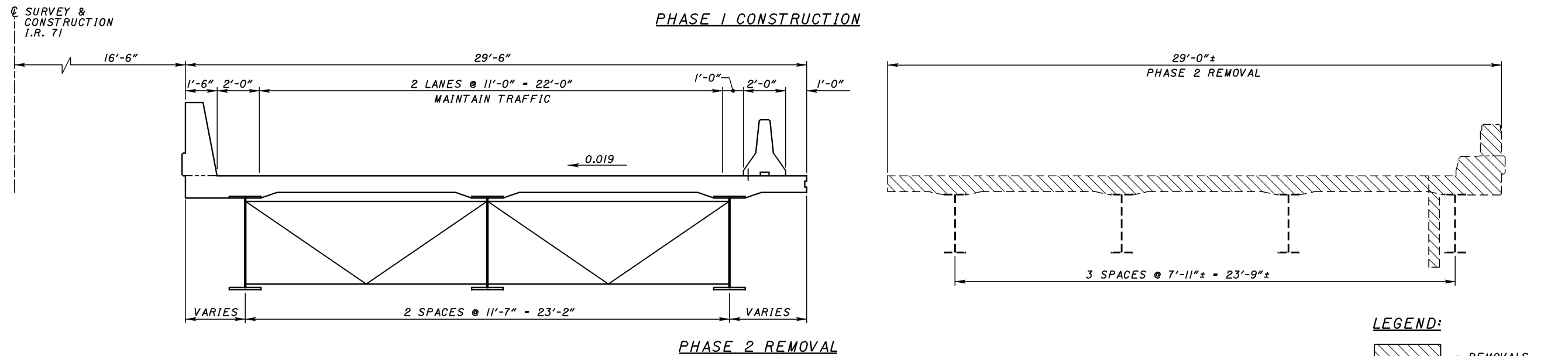
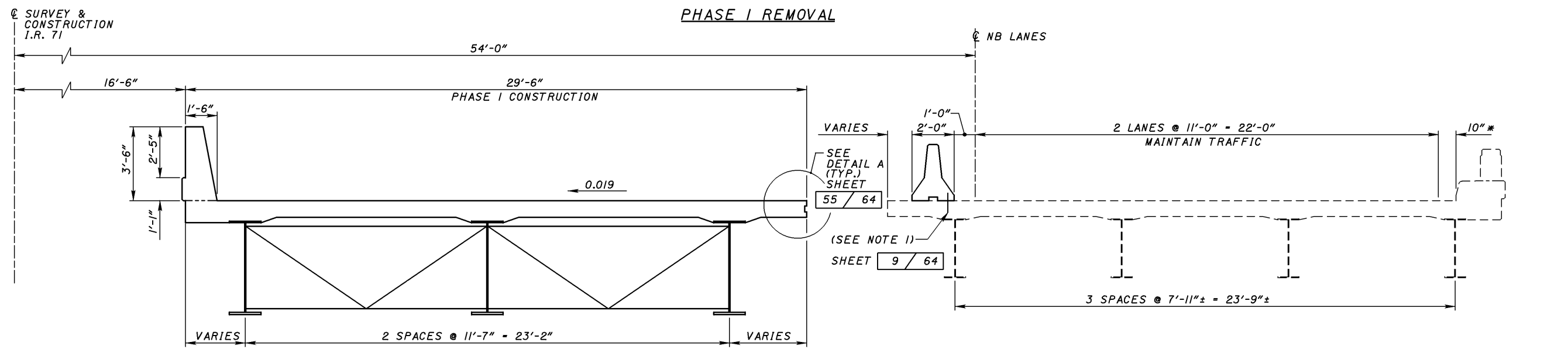
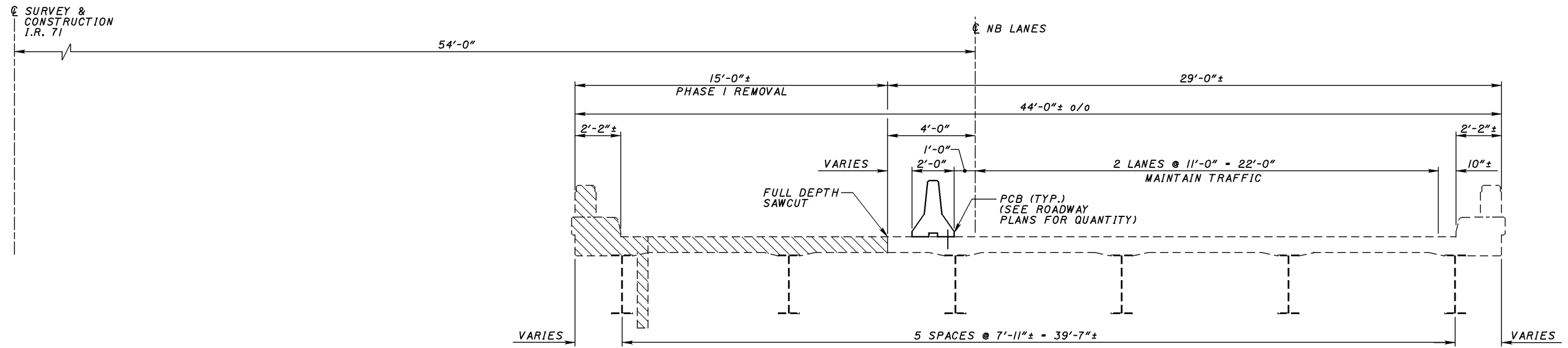
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BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657

7 / 64

831
1120

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LEGEND:
 - REMOVALS
 PCB = PORTABLE CONCRETE BARRIER
 C.J. = CONSTRUCTION JOINT

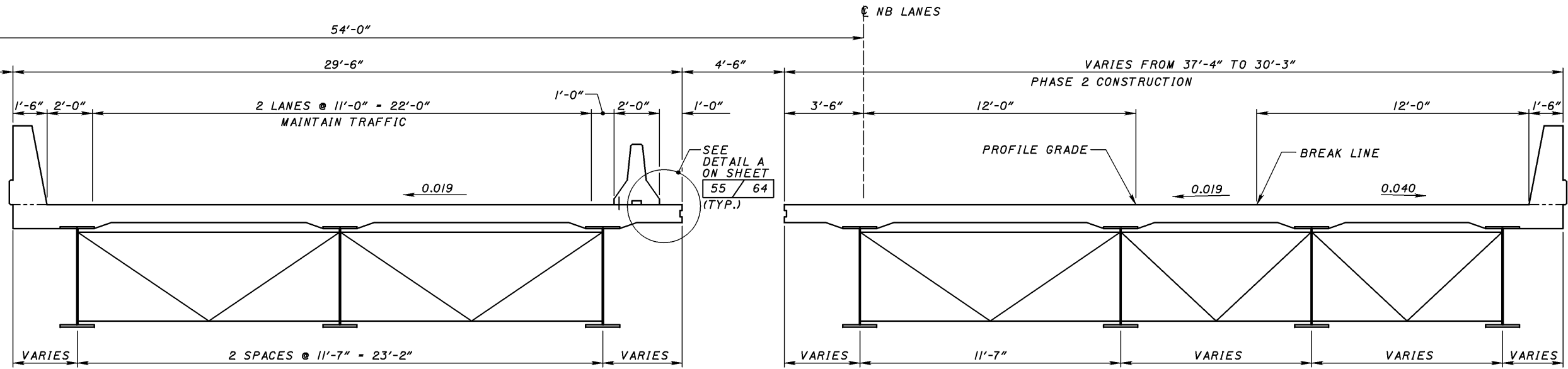
BURGESS & NIPLE <small>5085 Reed Road Columbus, Ohio 43220</small>	
DATE 9/04	REVIEWED RMK
DRAWN AAA	REVISION 8/8/06
DESIGNED TTK	CHECKED JHL
PHASE CONSTRUCTION DETAILS 1 - NORTHBOUND BRIDGE NO. MED-71-0794 L/R I-71 OVER I-76	
MED-71-6.06 PID-75657	
8 / 64	
832 1120	

DESIGNED	TTK	CHECKED	JHL
DRAWN	AAA	REVISED	8/8/06
REVIEWED	RMK	STRUCTURE FILE NUMBER	5202952 - LEFT 5202957 - RIGHT
DATE	9/04		

PHASE CONSTRUCTION DETAILS 2 - NORTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76

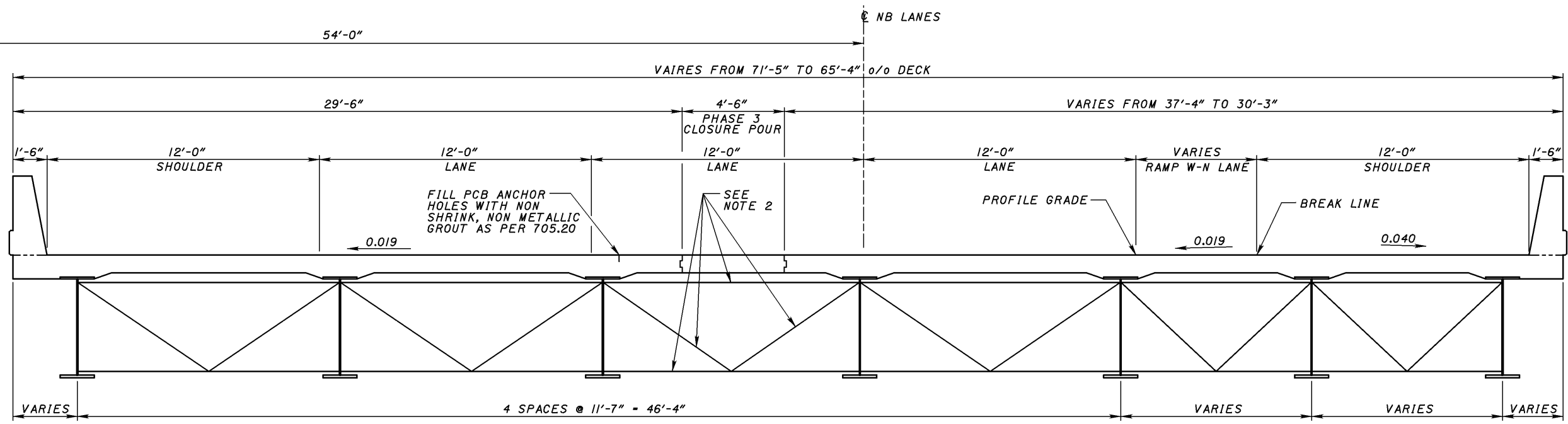
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SURVEY & CONSTRUCTION
 I.R. 71



PHASE 2 CONSTRUCTION

SURVEY & CONSTRUCTION
 I.R. 71



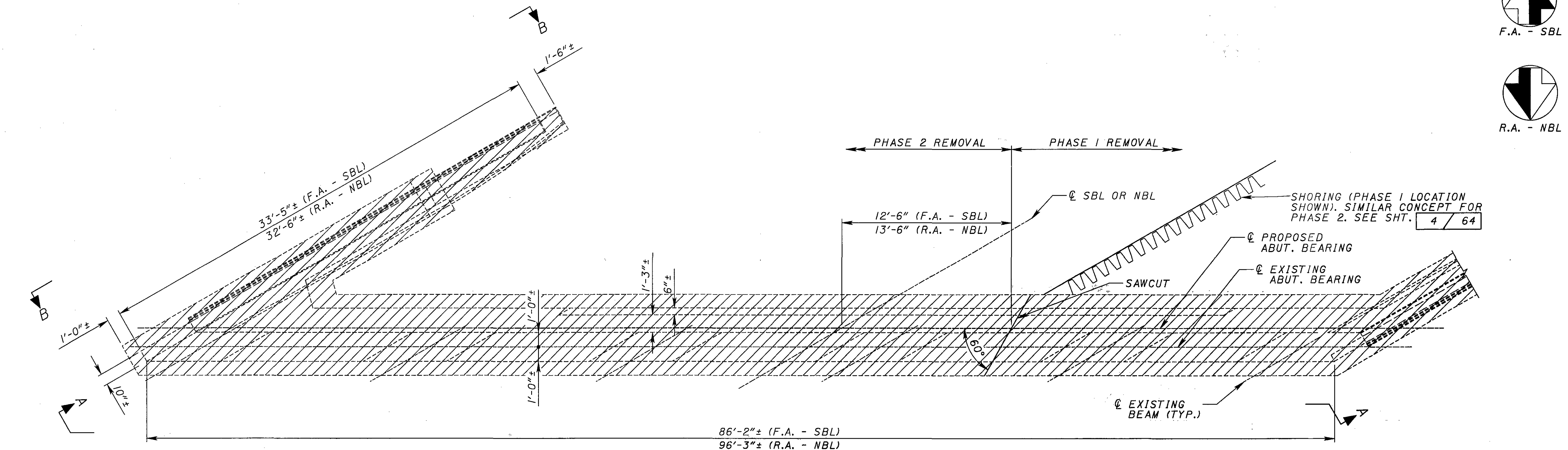
CLOSURE POUR CONSTRUCTION

PHASE CONSTRUCTION NOTES:

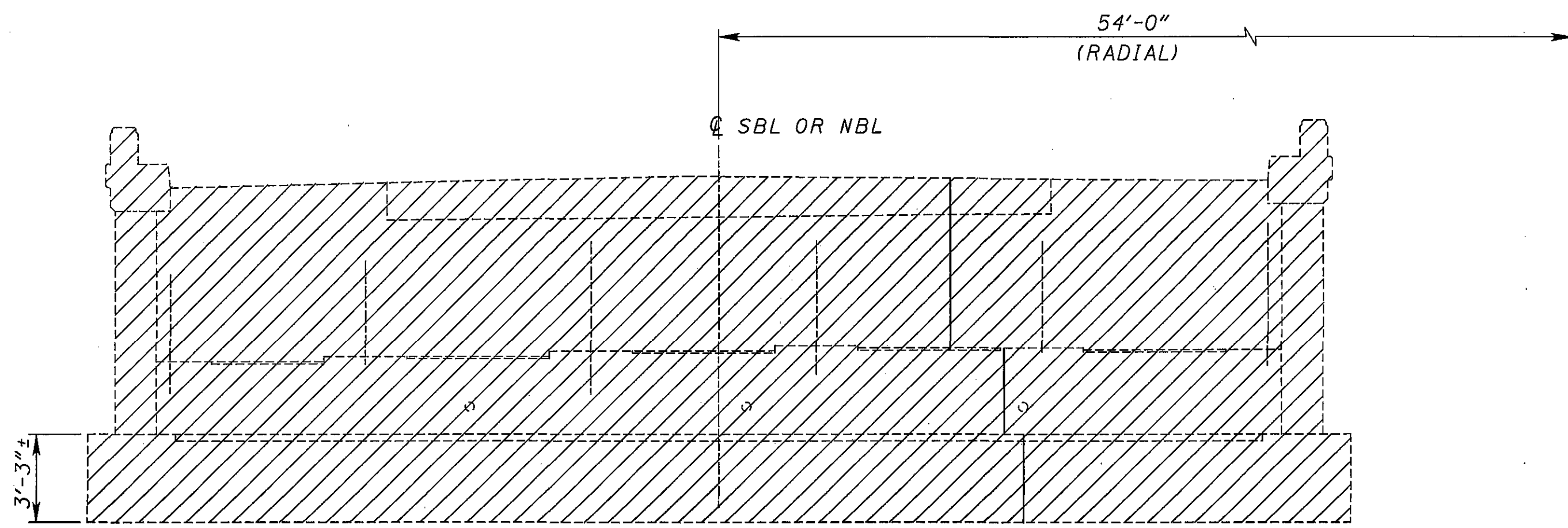
- ANCHOR TEMPORARY BARRIERS TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED WHERE THERE IS 1 FOOT FROM THE BARRIER TO THE EDGE OF DECK. OTHERWISE USE SIX ANCHORS. ANCHORS PLACED ON THE NON-TRAFFIC SIDE OF THE BARRIER SHALL BE THRU BOLTS. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS. REMOVAL OF ANCHORS AND GROUTING OF ANCHOR HOLES IS INCIDENTAL TO THE PORTABLE CONCRETE BARRIER COSTS.
- THIS PANEL OF CROSSFRAMES SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE PHASE 3 DECK CLOSURE POUR.

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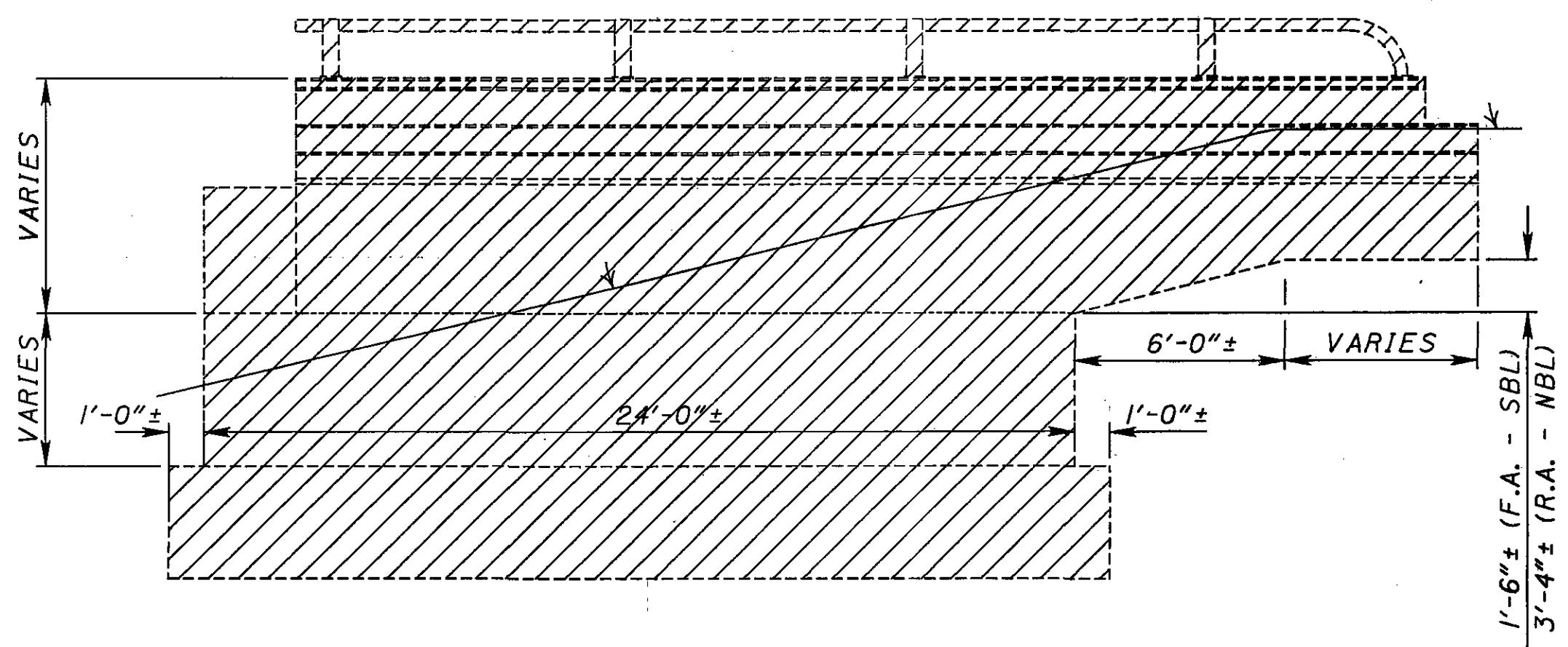
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ABUTMENT PLAN
(FORWARD ABUTMENT - SOUTHBOUND LANES &
REAR ABUTMENT - NORTHBOUND LANES)

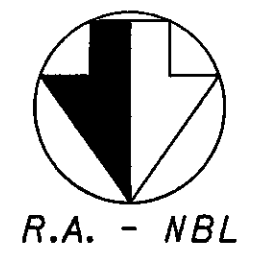
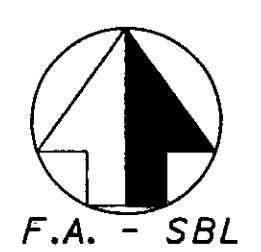


VIEW A-A
(LOOKING PARALLEL TO BEAMS)



VIEW B-B

LEGEND:
 - REMOVALS
 F.A. - FORWARD ABUTMENT
 R.A. - REAR ABUTMENT
 NBL - NORTHBOUND LANES
 SBL - SOUTHBOUND LANES

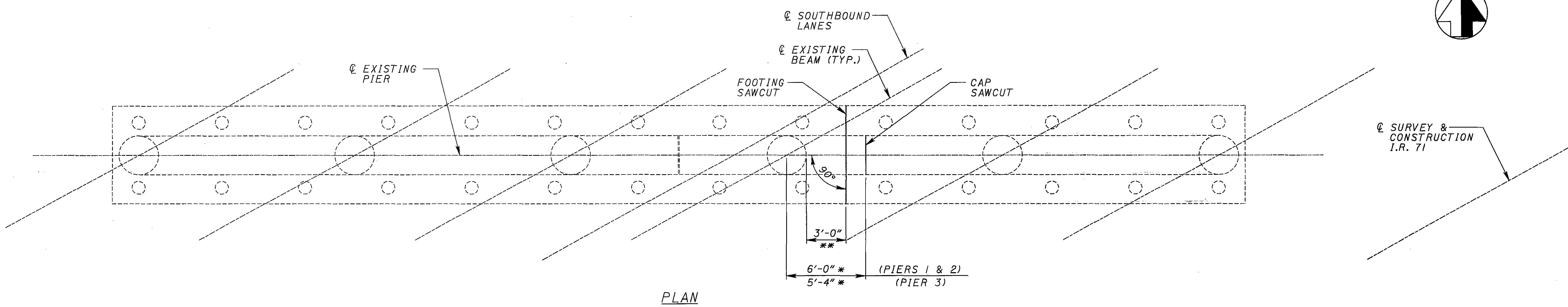
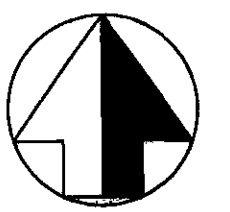


 505 Reed Road Columbus, OH 43260		DATE	9/04
		REVIEWED	RMK
DESIGNED	JMK	CHECKED	TTK
ABUTMENT REMOVAL DETAILS 2 BRIDGE NO. MED-71-0794 L/R I-71 OVER I-76			
MED-71-6.06		PID-75657	
11 / 64		835 1120	

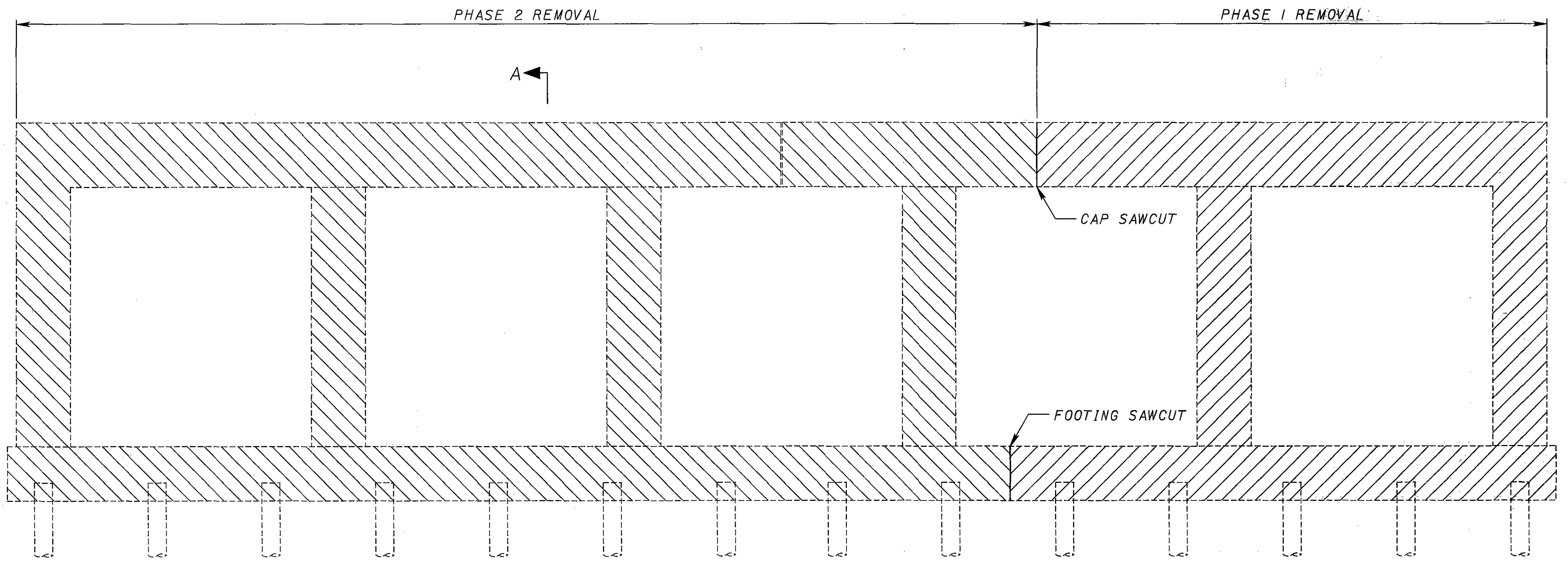
DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	502522 - L/R
PROJECT	9202957 - RIGHT
DRAWN	AAA
REVIS	
DESIGNED	TTK
CHECKED	JHL

PIER REMOVAL DETAILS - SOUTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76

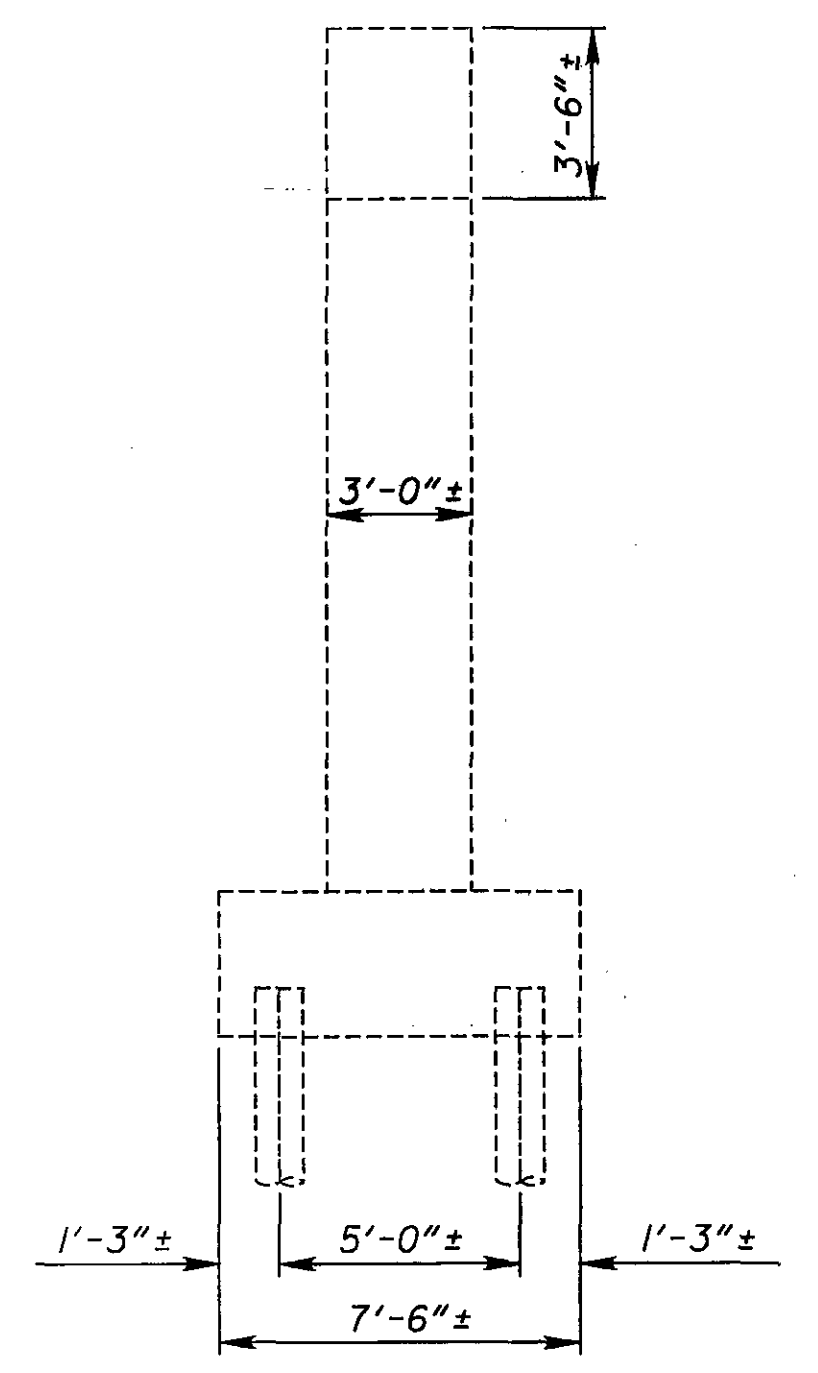
MED-71-6.06
 PID-75657



PLAN



ELEVATION



SECTION A-A

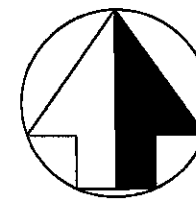
LEGEND:

- * - MEASURED FROM THE INTERSECTION OF ϕ EXISTING BEAM AND ϕ EXISTING PIER
- ** - MEASURED FROM THE INTERSECTION OF FACE OF COLUMN AND ϕ EXISTING PIER
- = PHASE 1 REMOVALS
- = PHASE 2 REMOVALS

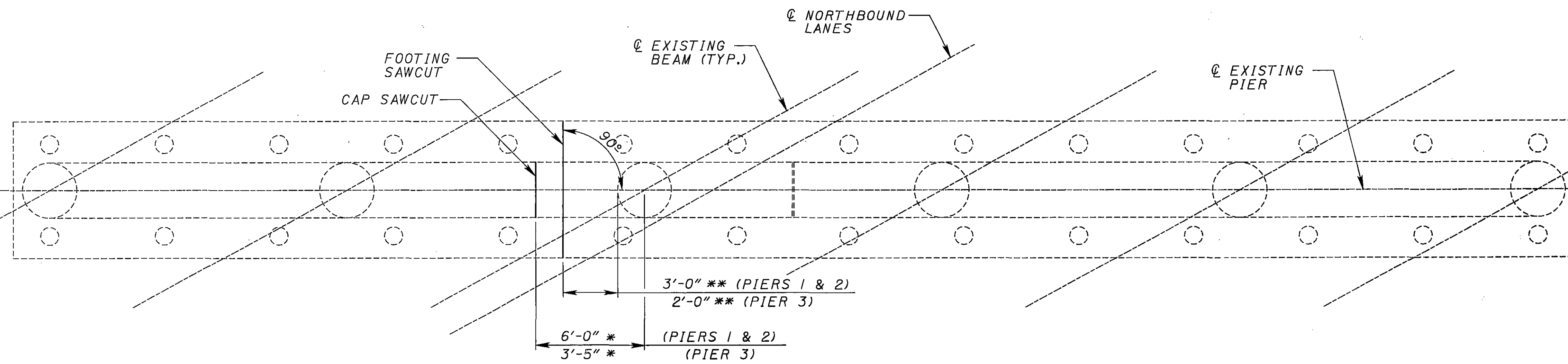
NOTE:

1. SEE SHEETS 14 / 64 & 15 / 64 FOR EXISTING PILE REMOVAL DETAILS.

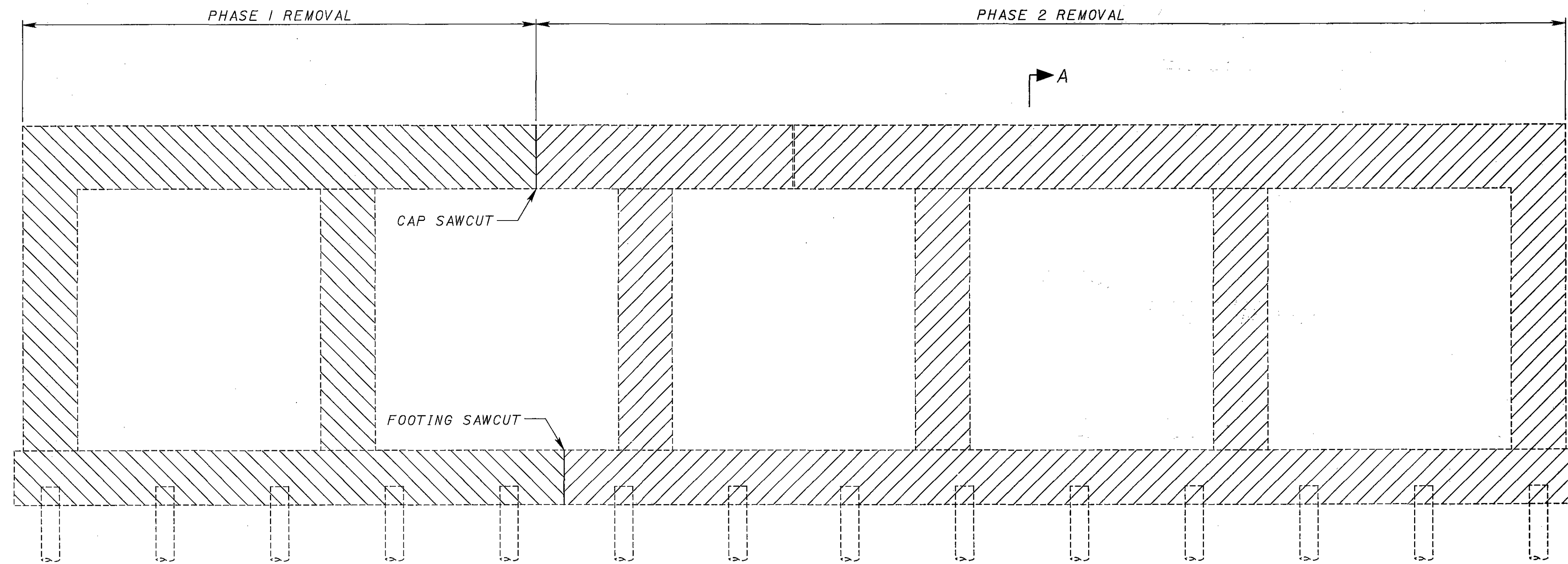
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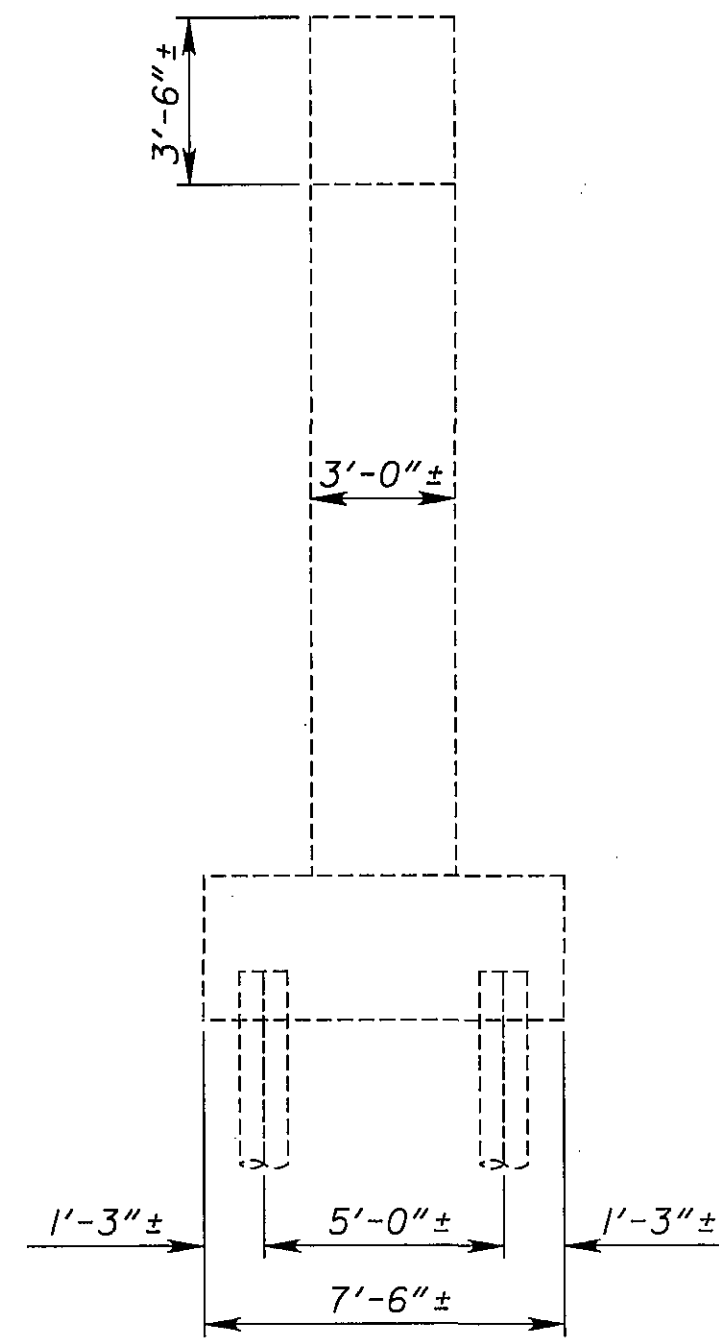
☉ SURVEY & CONSTRUCTION I.R. 71



PLAN



ELEVATION
(PIERS 2 & 3 SHOWN, PIER 1 SIMILIAR)



SECTION A-A

LEGEND:

- * = MEASURED FROM THE INTERSECTION OF ☉ EXISTING BEAM AND ☉ EXISTING PIER
- ** = MEASURED FROM THE INTERSECTION OF FACE OF COLUMN AND ☉ EXISTING PIER
- = PHASE 1 REMOVALS
- = PHASE 2 REMOVALS

NOTE:

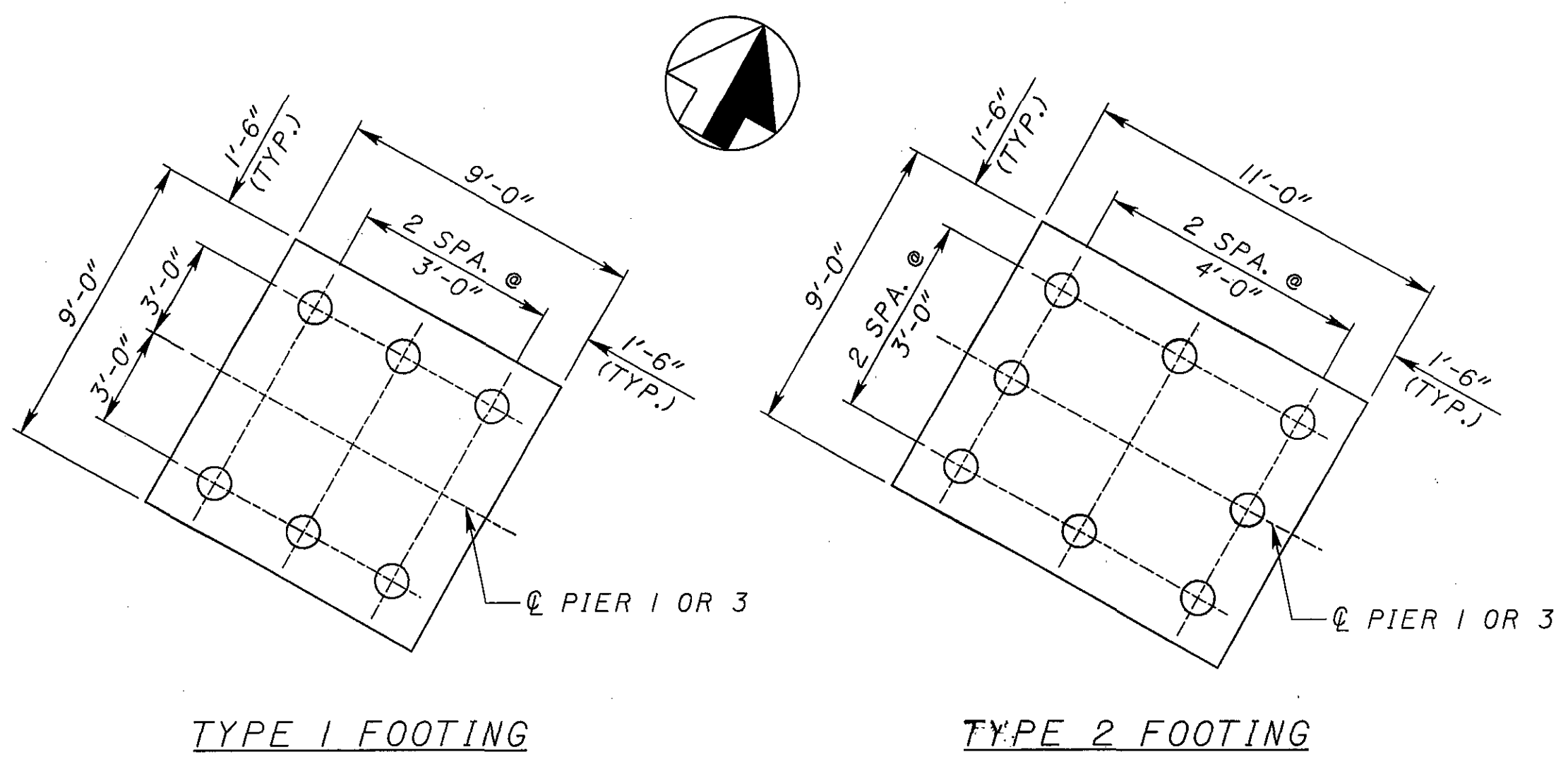
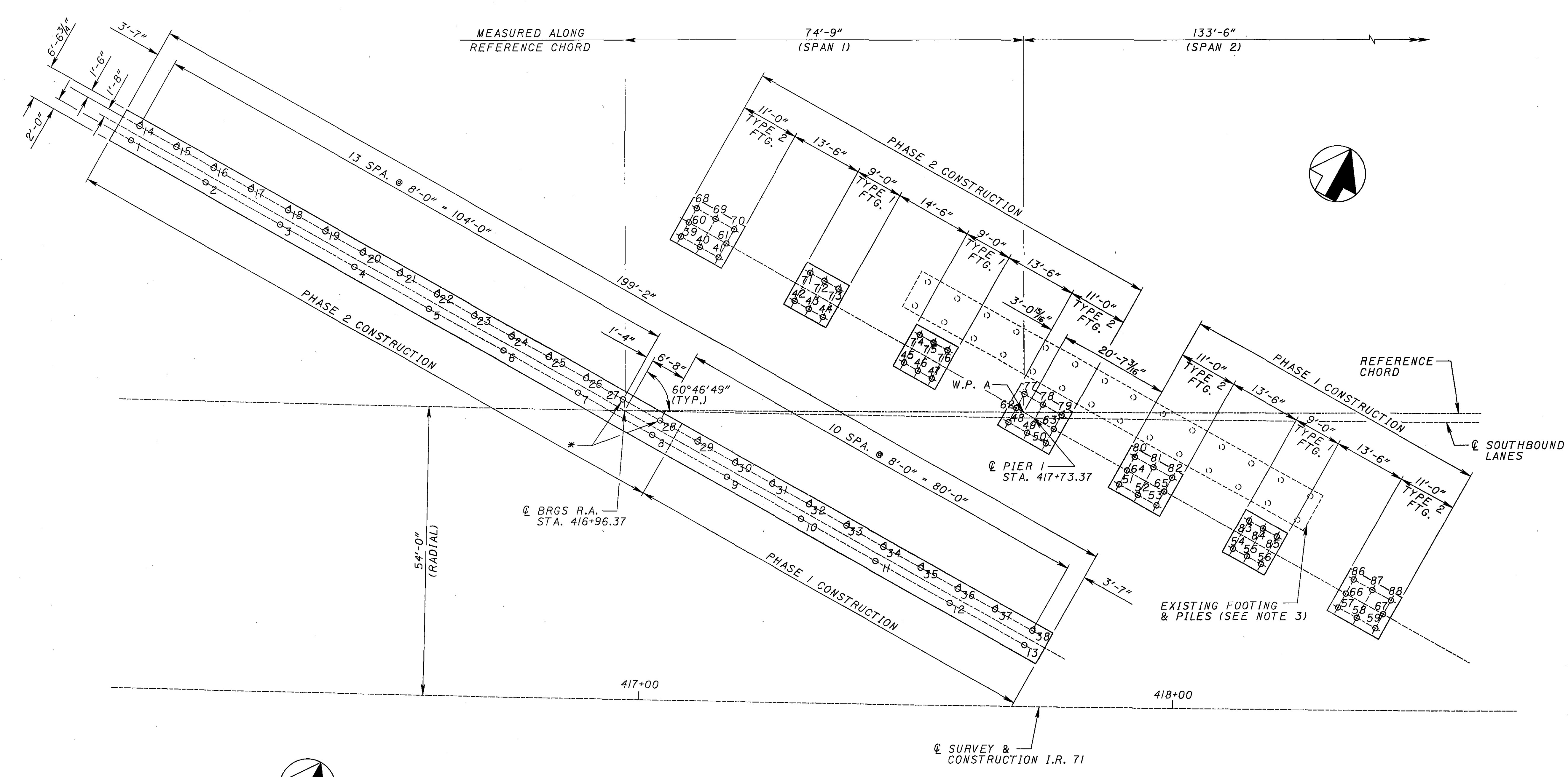
1. SEE SHEETS 16 / 64 & 17 / 64 FOR EXISTING PILE REMOVAL DETAILS.

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DATE	9/04
REVIEWED	RMK
DRAWN	AAA
DESIGNED	TTK
CHECKED	JHL
STRUCTURE FILE NUMBER	920322 - LEFT
REVISED	5202951 - RIGHT

PIER REMOVAL DETAILS - NORTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76

MED-71-6.06
 PID-75657



FOUNDATION PLAN I - SOUTHBOUND

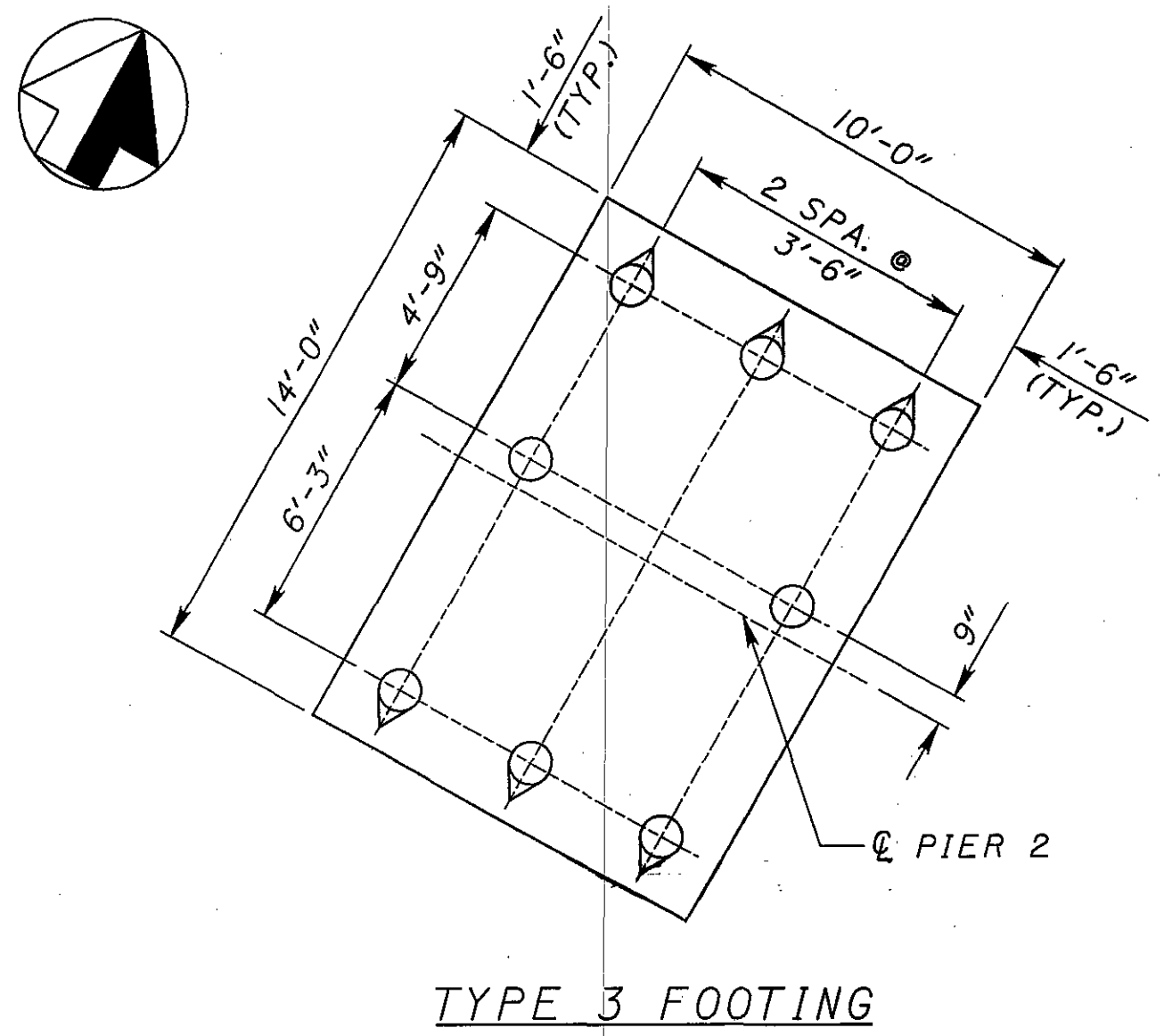
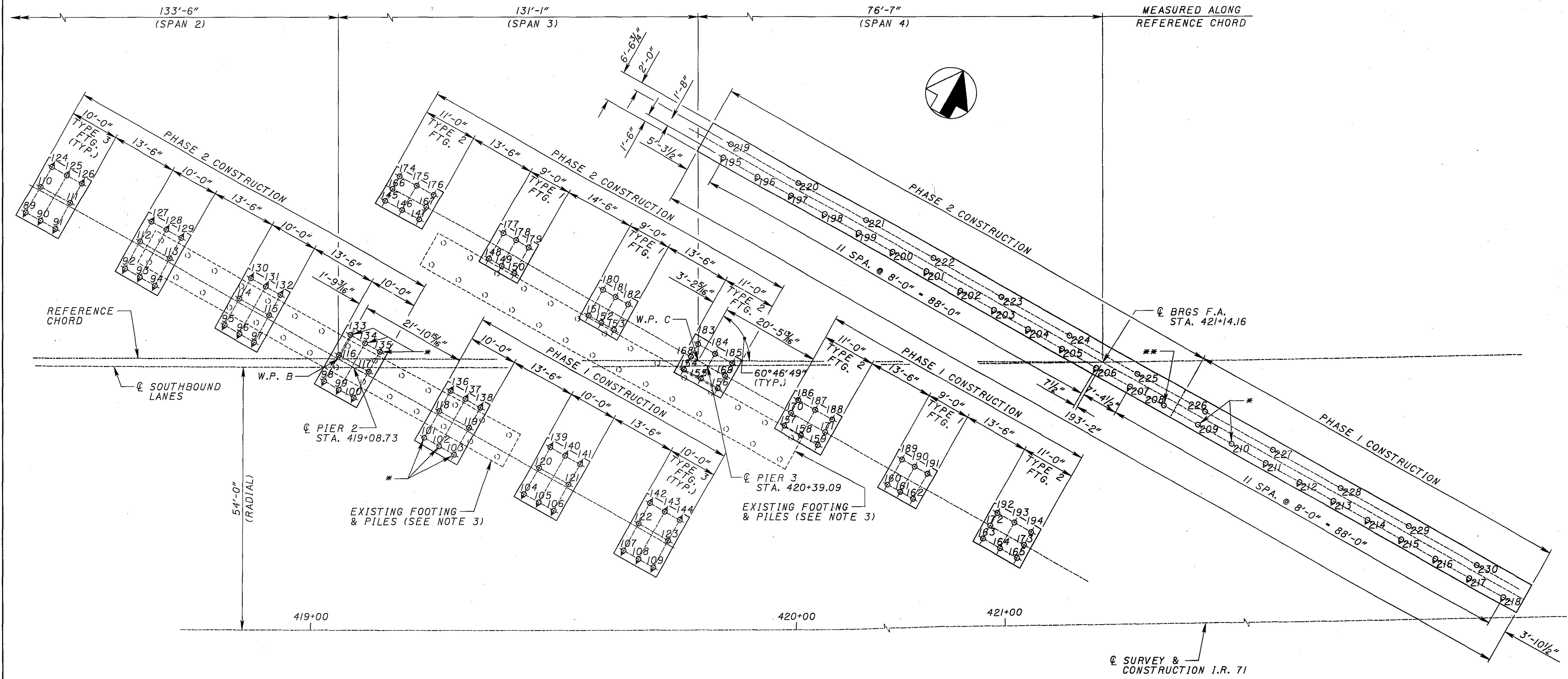
NOTES:

- SEE SHEET 18 / 64 & 19 / 64 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 30 / 64 & 32 / 64 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
- CUT EXISTING PIER PILES 1'-0" BELOW PROPOSED PIER FOOTING ELEVATION AS NEEDED TO CLEAR PROPOSED PIER FOOTING.
- THESE PILES ARE TO BE DRIVEN VERTICAL.

LEGEND:

- = 12" DIA. C.I.P. CONCRETE PILES
- = BATTERED 12" DIA. C.I.P. CONCRETE PILES (1:4)
- = EXISTING 12" C.I.P. CONCRETE PILES
- XX = PILE NUMBER
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- FTG. = FOOTING
- R.A. = REAR ABUTMENT
- W.P. = WORK POINT
- * = SEE NOTE 4

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FOUNDATION PLAN 2 - SOUTHBOUND

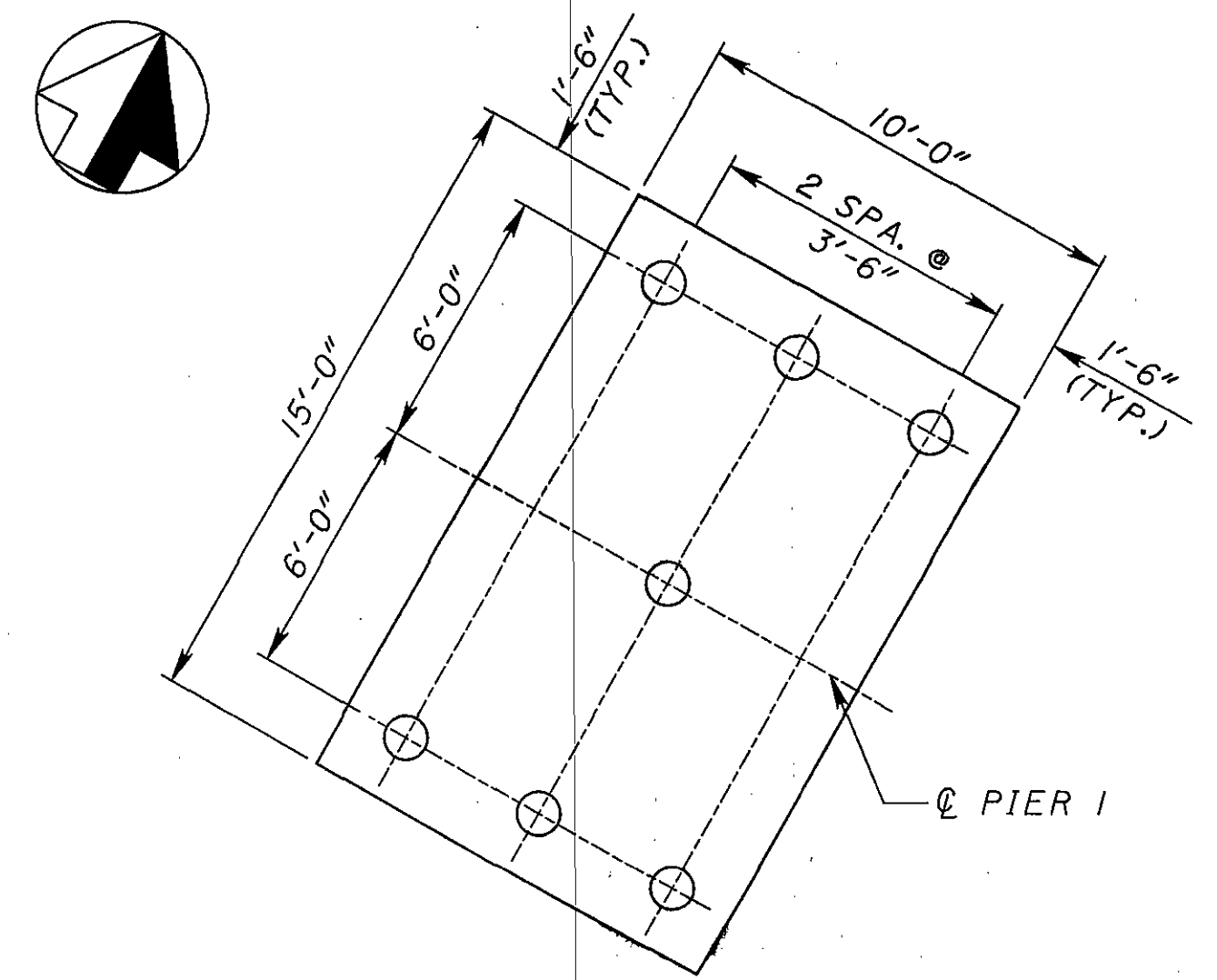
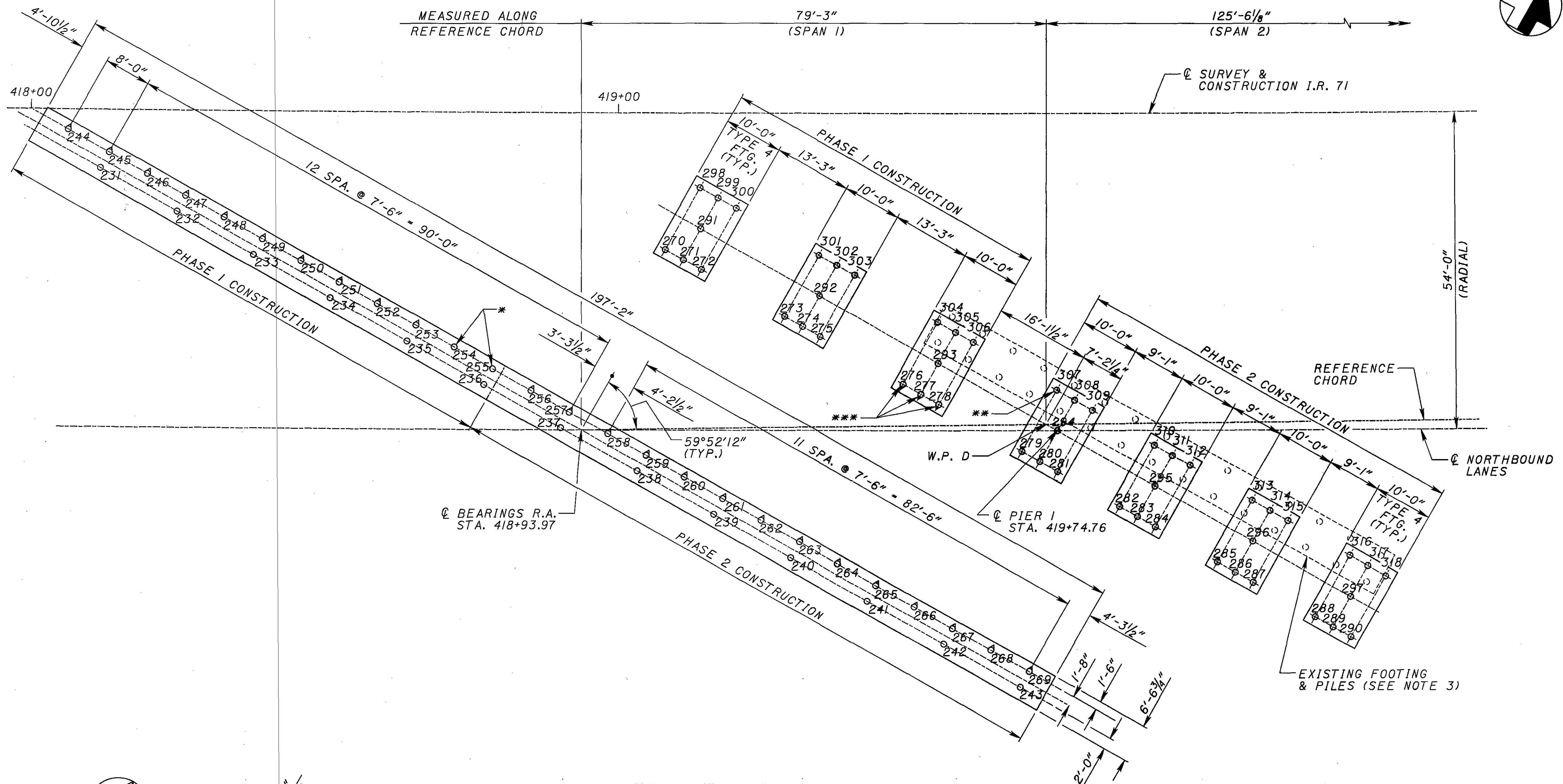
NOTES:

- SEE SHEET 20 / 64 & 21 / 64 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 30 / 64, 31 / 64, 32 / 64 & 33 / 64 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
- CUT EXISTING PIER PILES 1'-0" BELOW PROPOSED PIER FOOTING ELEVATION AS NEEDED TO CLEAR PROPOSED PIER FOOTING.
- THESE PILES ARE TO BE DRIVEN VERTICAL.
- THIS PILE IS TO BE DRIVEN VERTICAL DURING PHASE I CONSTRUCTION.
- SEE SHEET 14 / 64 FOR TYPE 1 & TYPE 2 FOOTINGS.

LEGEND:

- = 12" DIA. C.I.P. CONCRETE PILES
- (with diagonal lines) = BATTERED 12" DIA. C.I.P. CONCRETE PILES (1:4)
- (with horizontal lines) = EXISTING 12" C.I.P. CONCRETE PILES
- XX = PILE NUMBER
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- F.A. = FORWARD ABUTMENT
- FTG. = FOOTING
- W.P. = WORK POINT
- * = SEE NOTE 4
- ** = SEE NOTE 5

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TYPE 4 FOOTING

FOUNDATION PLAN I - NORTHBOUND

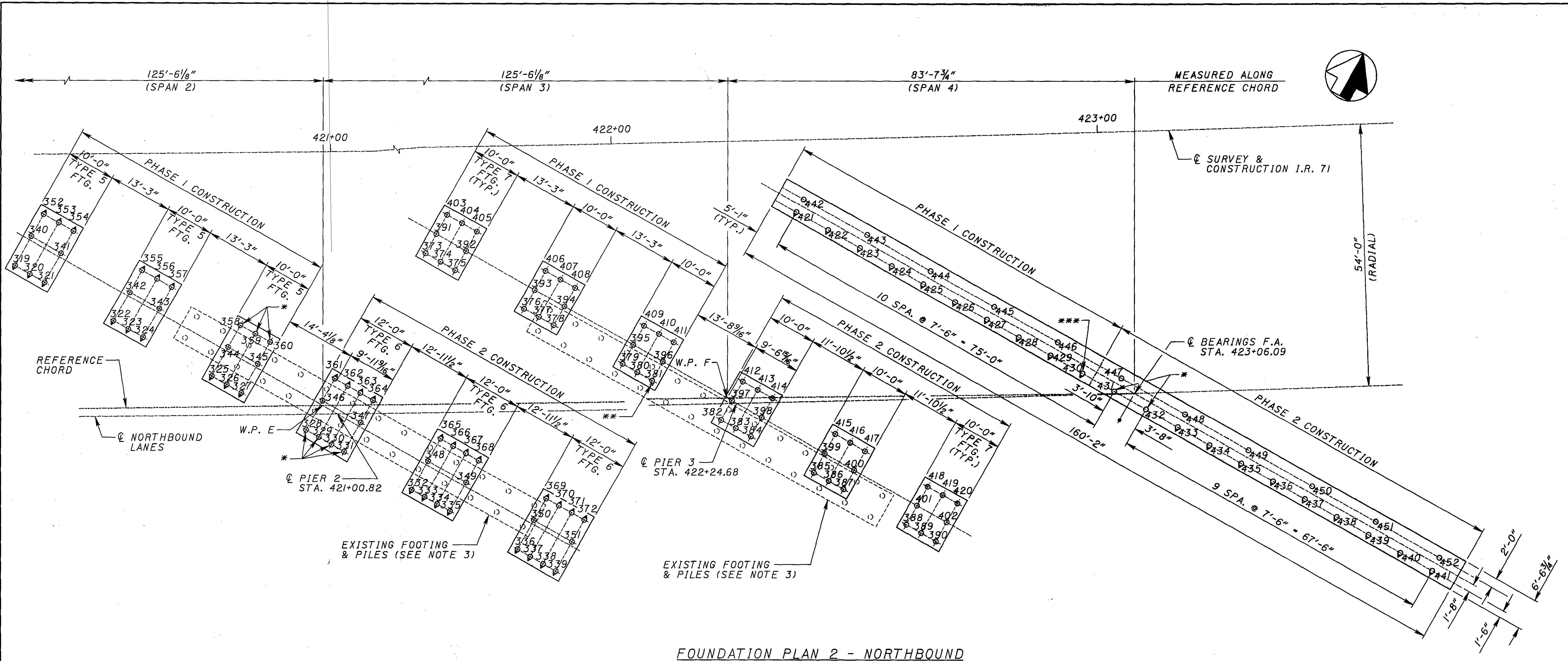
NOTES:

- SEE SHEET 22 / 64 & 23 / 64 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 34 / 64 & 36 / 64 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
- CUT EXISTING PIER PILES 1'-0" BELOW PROPOSED PIER FOOTING ELEVATION AS NEEDED TO CLEAR PROPOSED PIER FOOTING.
- THESE PILES ARE TO BE DRIVEN VERTICAL.
- THIS PILE IS TO BE DRIVEN VERTICAL DURING PHASE I CONSTRUCTION.
- THESE PILES ARE TO BE DRIVEN AT A 1:4 BATTER.

LEGEND:

- = 12" DIA. C.I.P. CONCRETE PILES
- = BATTERED 12" DIA. C.I.P. CONCRETE PILES (1:4)
- = EXISTING 12" C.I.P. CONCRETE PILES
- XX = PILE NUMBER
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- FTG. = FOOTING
- R.A. = REAR ABUTMENT
- W.P. = WORK POINT
- * = SEE NOTE 4
- ** = SEE NOTE 5
- *** = SEE NOTE 6

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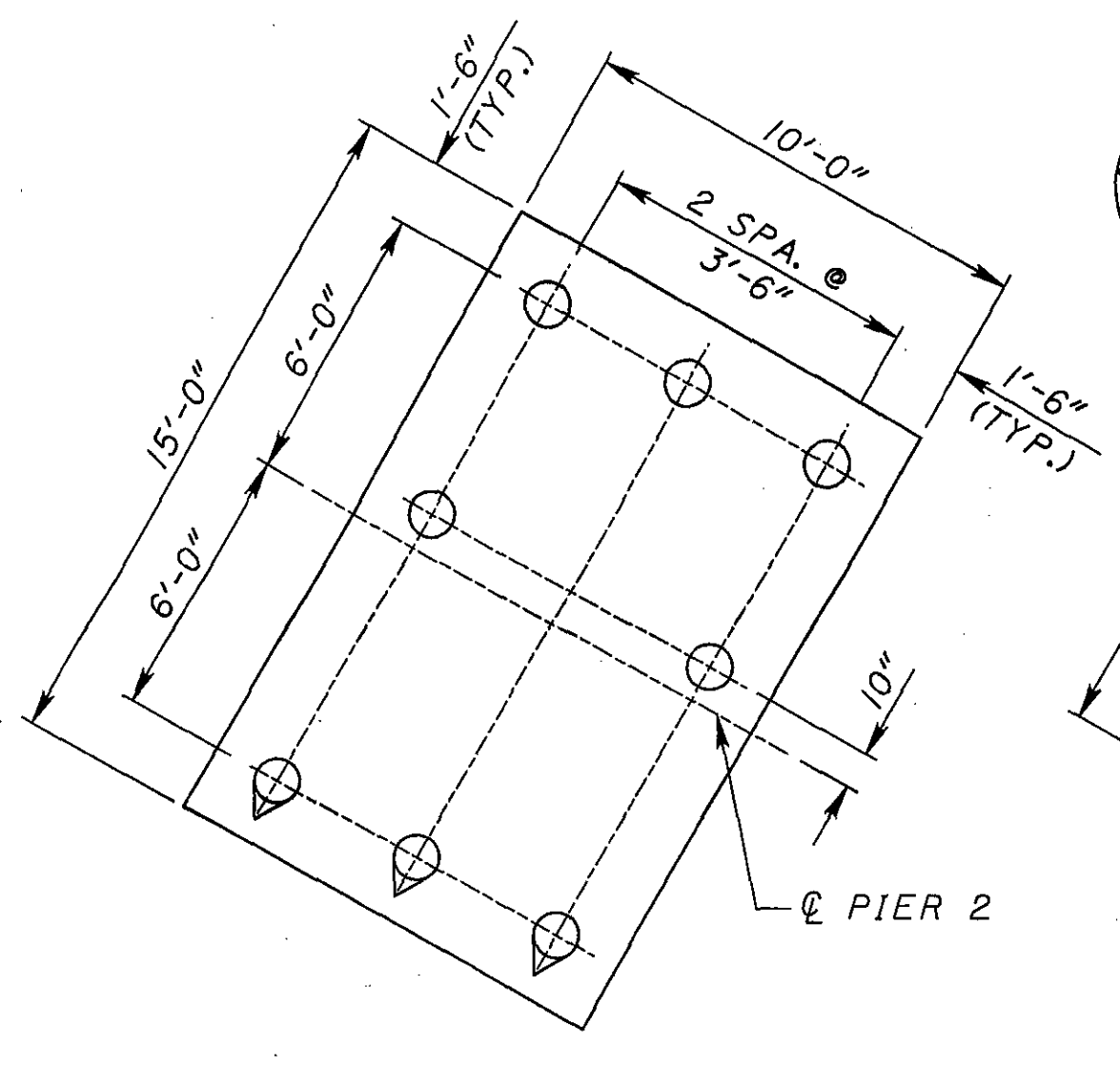
FOUNDATION PLAN 2 - NORTHBOUND

LEGEND:

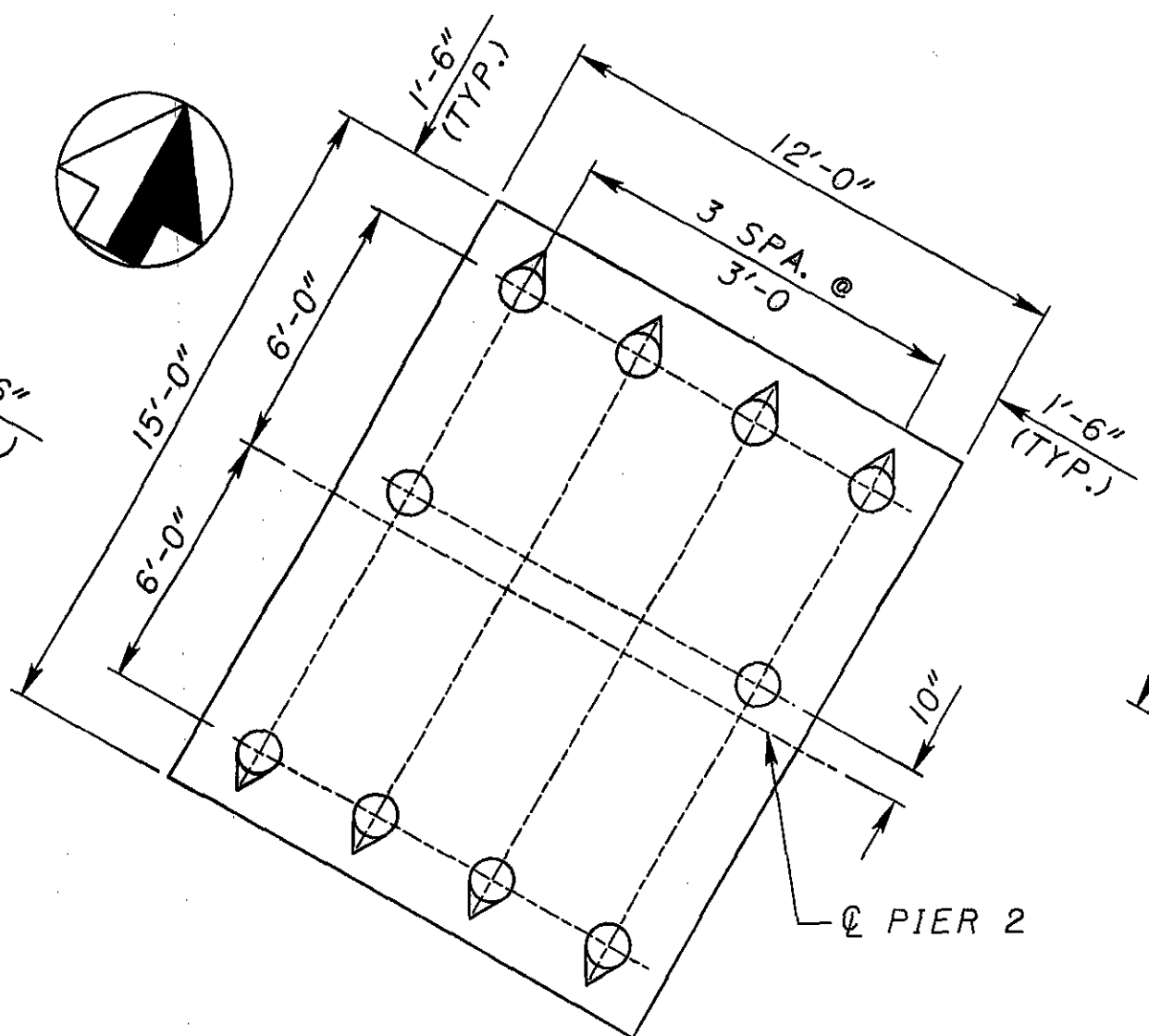
- - 12" DIA. C.I.P. CONCRETE PILES
- ⊙ - BATTERED 12" DIA. C.I.P. CONCRETE PILES (1:4)
- - EXISTING 12" C.I.P. CONCRETE PILES
- XX - PILE NUMBER
- C.I.P. - CAST-IN-PLACE
- DIA. - DIAMETER
- F.A. - FORWARD ABUTMENT
- FTG. - FOOTING
- W.P. - WORK POINT
- * - SEE NOTE 4
- ** - SEE NOTE 5
- *** - SEE NOTE 6

NOTES:

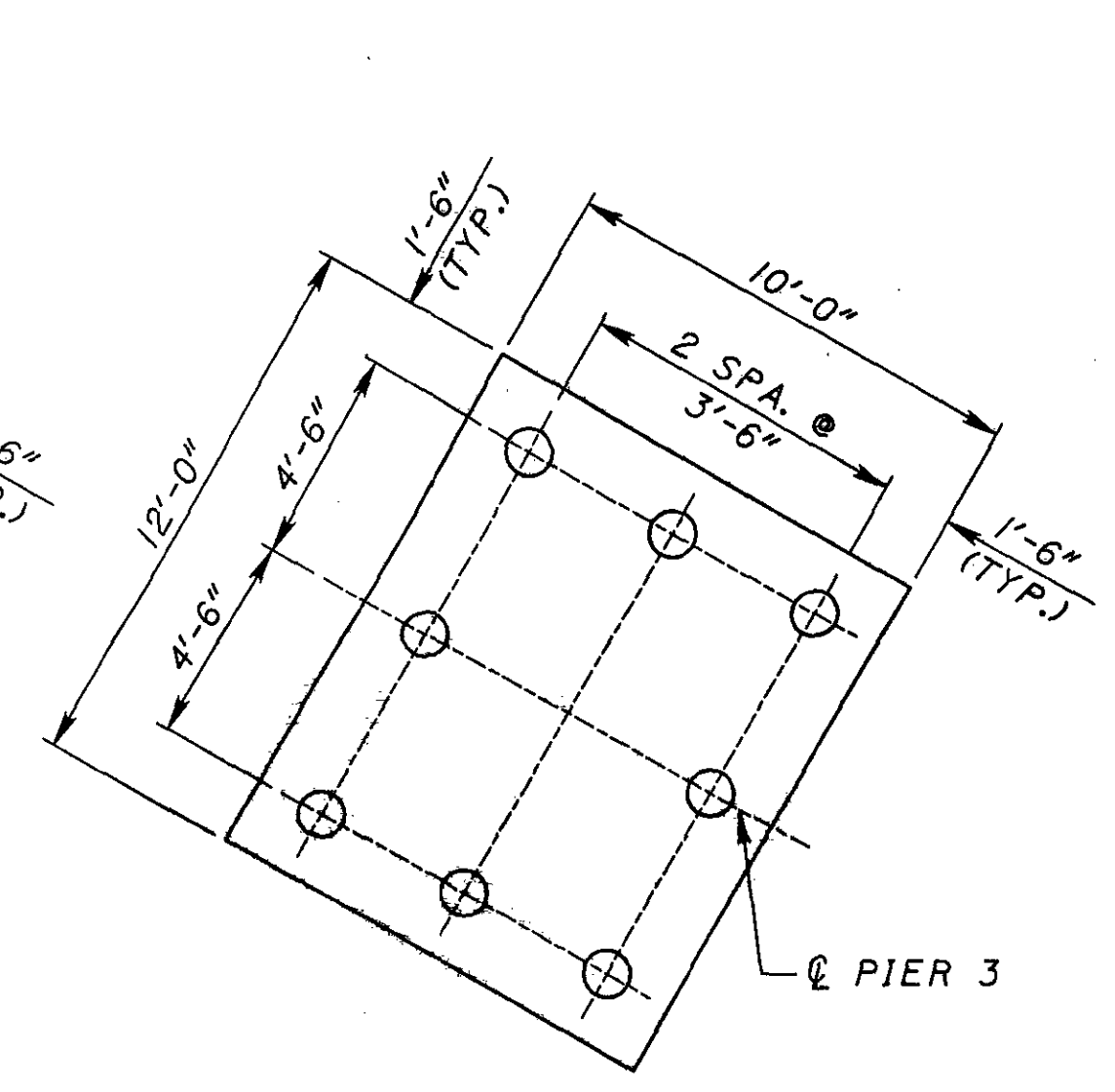
1. SEE SHEET 24 / 64 & 25 / 64 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
2. SEE SHEET 34 / 64, 35 / 64, 37 / 64 & 38 / 64 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
3. CUT EXISTING PIER PILES 1'-0" BELOW PROPOSED PIER FOOTING ELEVATION AS NEEDED TO CLEAR PROPOSED PIER FOOTING.
4. THESE PILES ARE TO BE DRIVEN VERTICAL.
5. THIS PILE IS TO BE DRIVEN AT A 1:4 BATTER IN A DIRECTION THAT AVOIDS THE EXISTING PILES.
6. THIS PILE IS TO BE DRIVEN AT A 1:3 BATTER TO AVOID THE EXISTING DECK.



TYPE 5 FOOTING

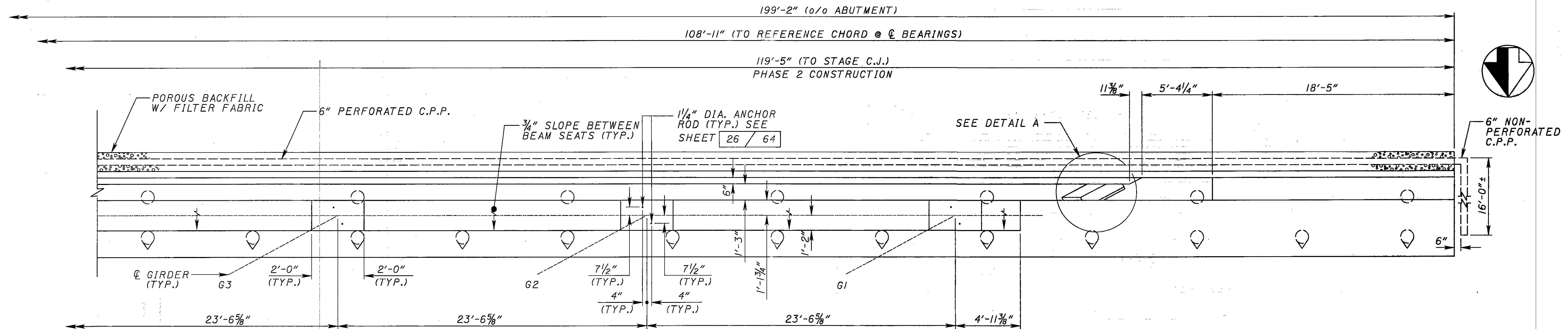


TYPE 6 FOOTING

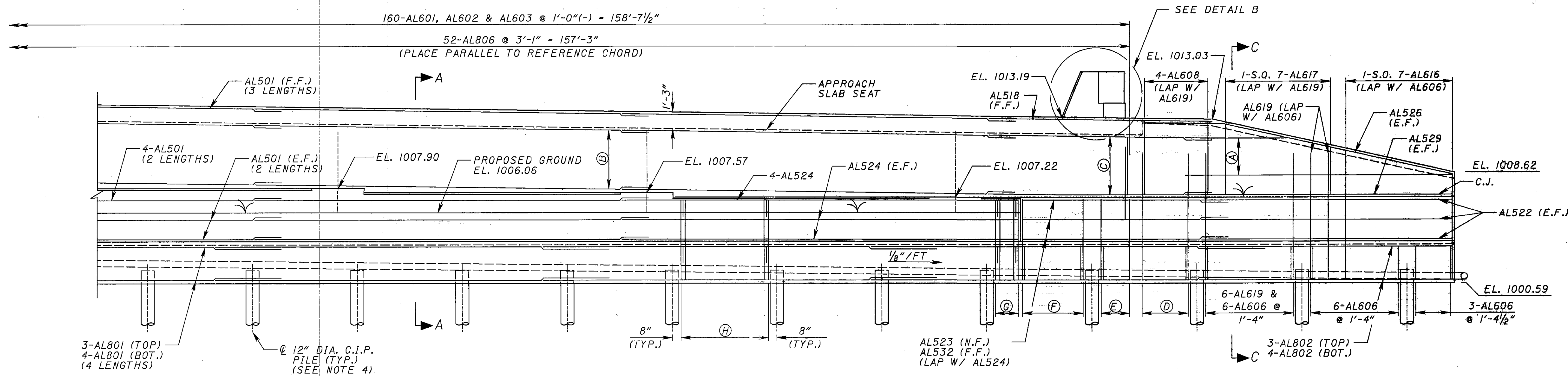


TYPE 7 FOOTING

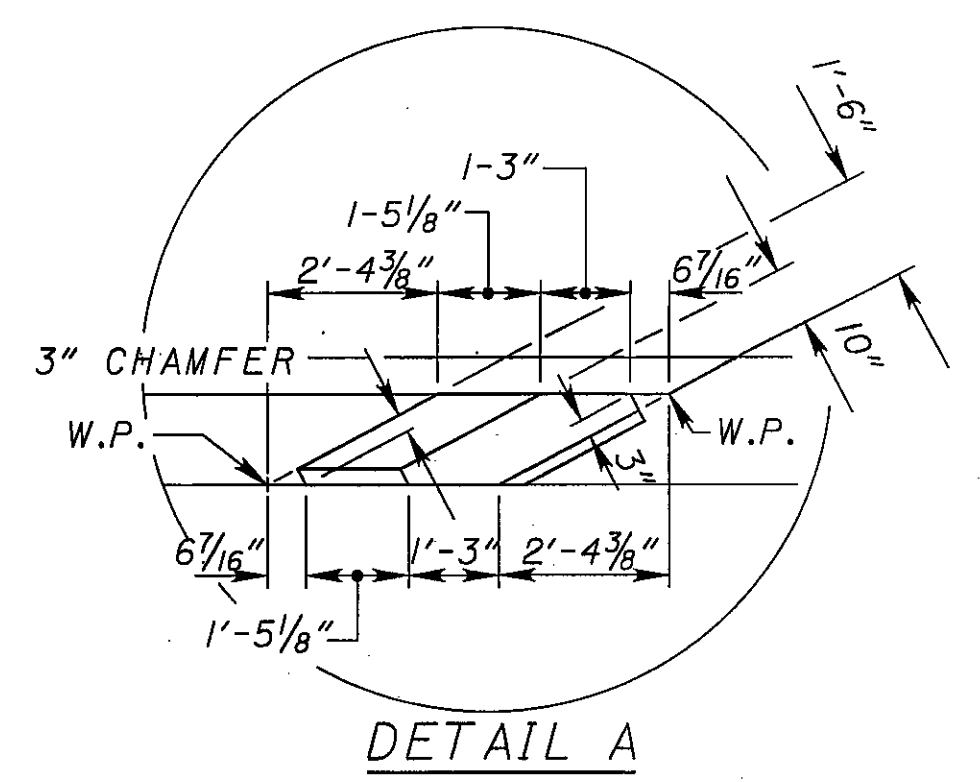
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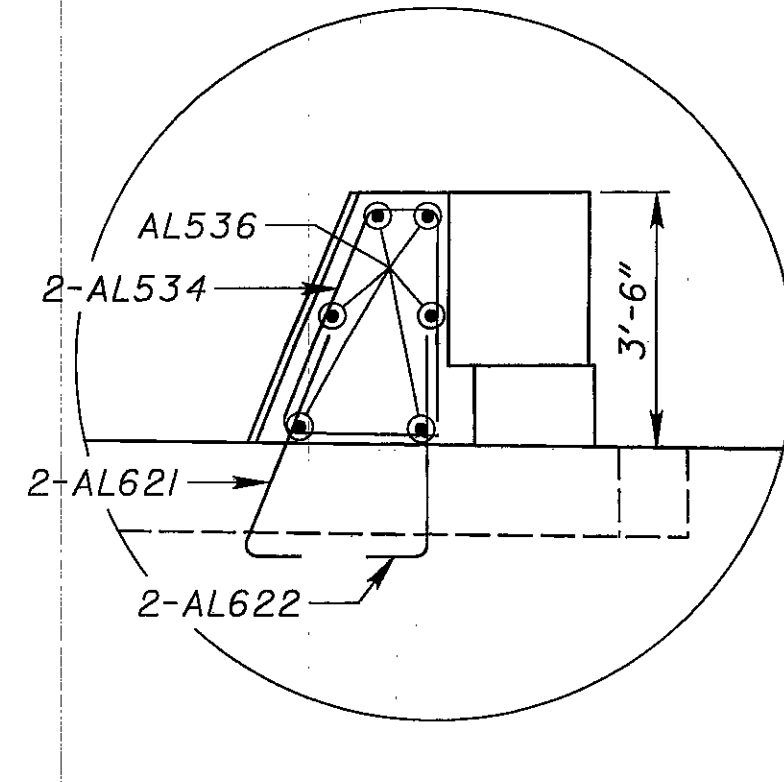
PLAN



ELEVATION



DETAIL A



DETAIL B

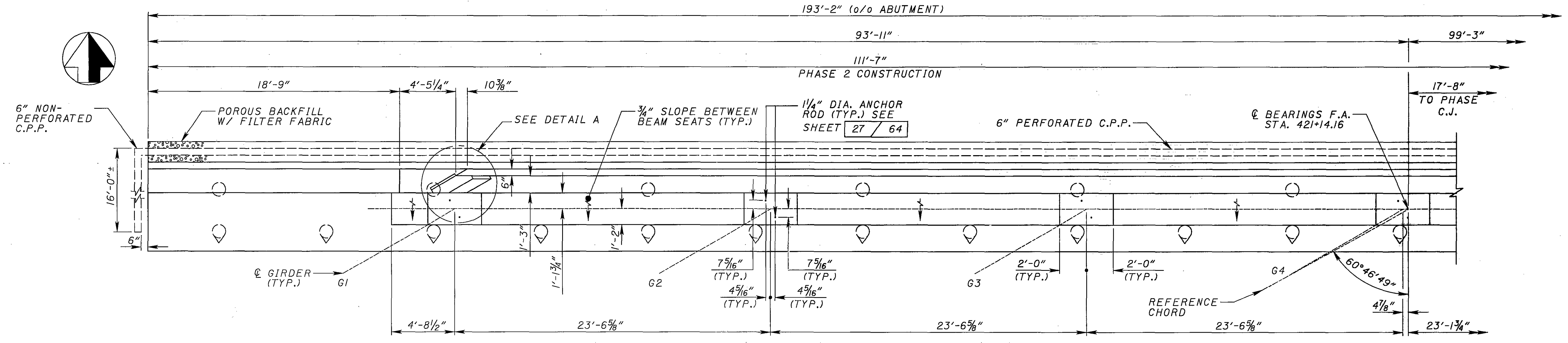
- LEGEND:**
- (A) - 1 S.O. 3-AL525 @ 1'-6" (MAX.) (E.F.)
 - (B) - 4-AL501 @ 1'-6" (MAX.) (E.F.) (3 LENGTHS)
 - (C) - 4-AL518 @ 1'-6" (MAX.) (E.F.)
 - (D) - 4-AL619 & 4-AL606 @ 1'-2"
 - (E) - 3-AL606 & 3-AL618 @ 1'-0"
 - (F) - 5-AL606 & 5-AL618 @ 1'-6" (-)
 - (G) - 2 SETS OF 1-AL612, 1-AL511, 1-AL528 & AL533 @ 1'-4" (+)
 - (H) - 6 SETS OF 1-AL612, 1-AL511, 1-AL528 & 1-AL533 @ 1'-4" (TYP. BETWEEN PILES, U.N.O.)

- LEGEND:**
- BOT. - BOTTOM
 - C.I.P. - CAST-IN-PLACE
 - C.J. - CONSTRUCTION JOINT
 - C.P.P. - CORRUGATED PLASTIC PIPE
 - DIA. - DIAMETER
 - E.F. - EACH FACE
 - F.F. - FAR FACE
 - G. - GIRDER NUMBER
 - N.F. - NEAR FACE
 - S.O. - SERIES OF
 - U.N.O. - UNLESS NOTED OTHERWISE
 - W.P. - WORK POINT

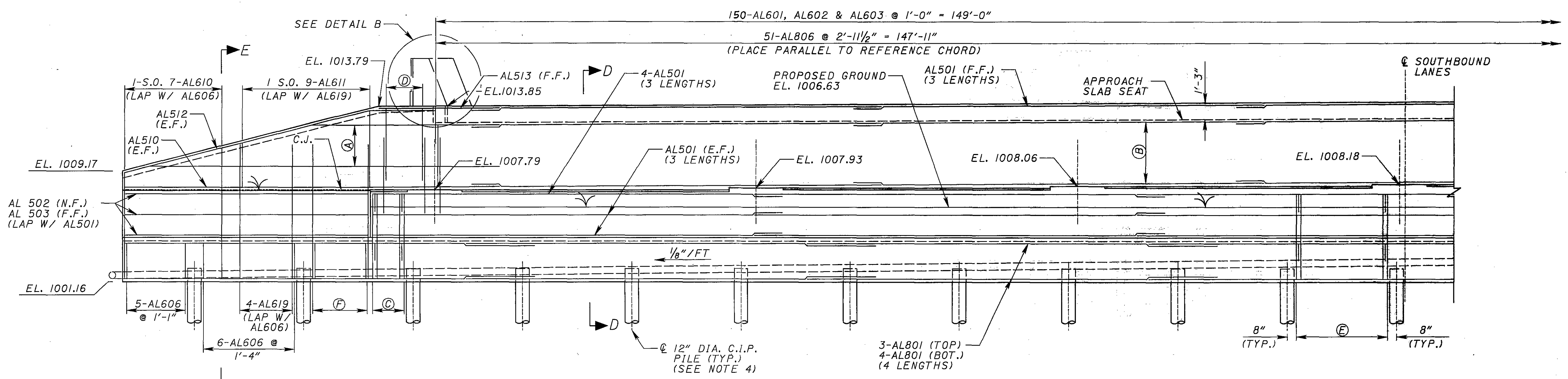
- NOTES:**
1. BACKWALL CONCRETE: IN ADDITION TO 51110, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
 2. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
 3. SEE SHEET 26 / 64 FOR SECTIONS A-A & C-C.
 4. SEE SHEET 14 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 5. MINIMUM STEEL LAP LENGTHS:
 *5 BAR = 2'-0"
 *6 BAR = 3'-1"
 *8 BAR = 5'-0"

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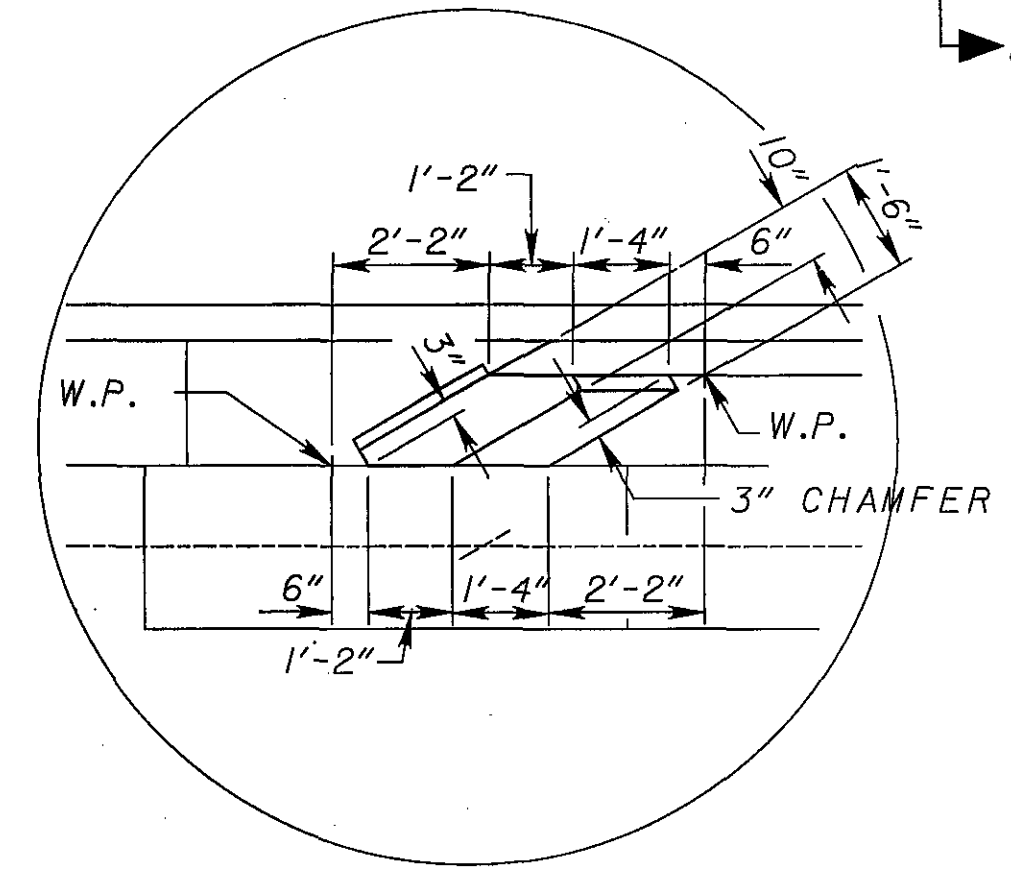
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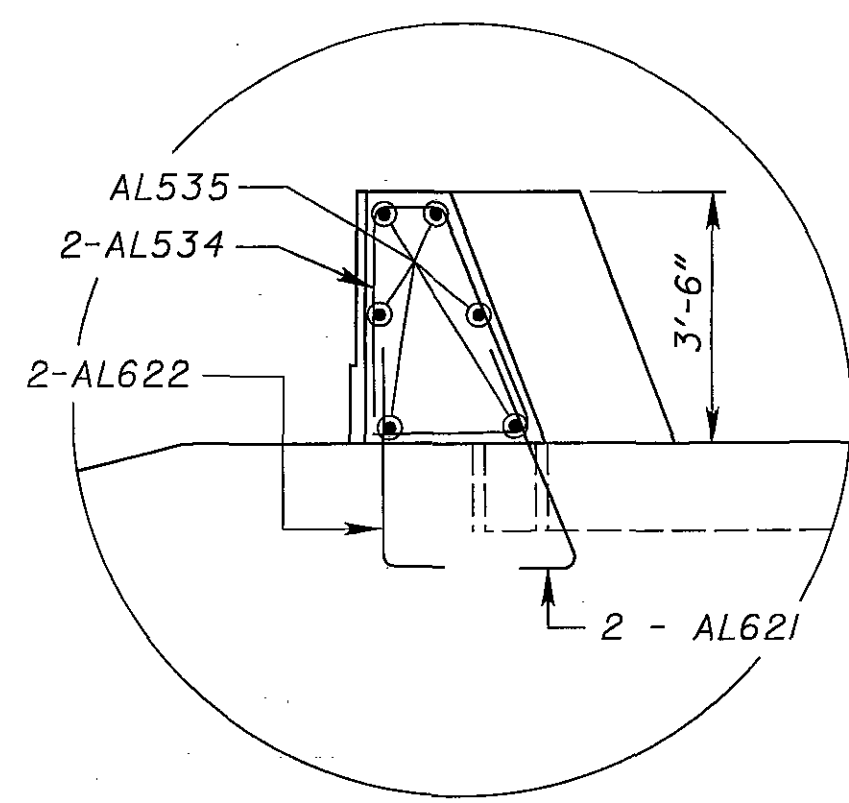
PLAN



ELEVATION



DETAIL A



DETAIL B

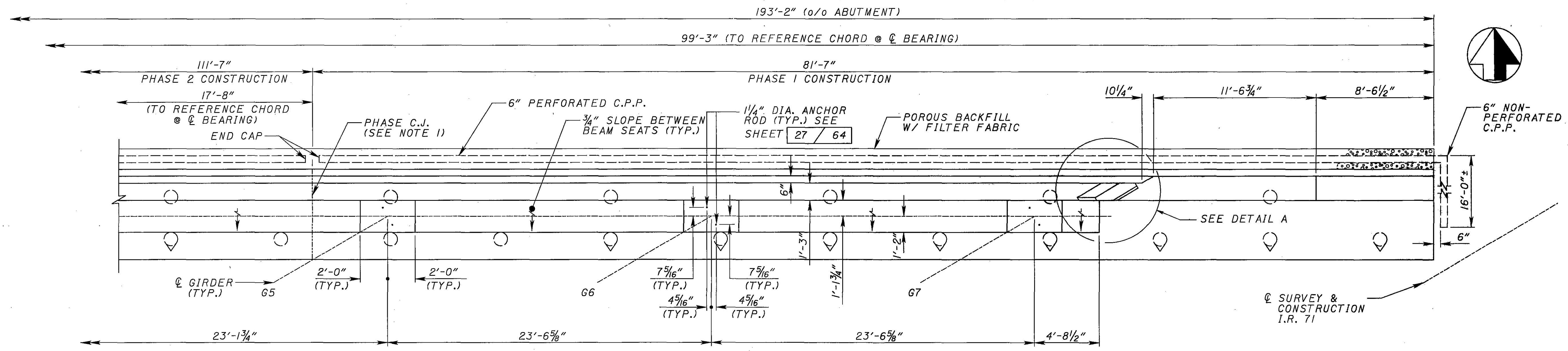
- (A) - 1 S.O. 3-AL505 @ 1'-6" (MAX.) (E.F.)
- (B) - 4-AL501 @ 1'-6" (MAX.) (E.F.) (3 LENGTHS)
- (C) - 3 SETS OF 1-AL612, 1-AL511, 1-AL528 & 1-AL533 @ 1'-2"
- (D) - 3 SETS OF 2-AL603 @ 1'-4"
- (E) - 6 SETS OF 1-AL612, 1-AL511, 1-AL528 & 1-AL533 @ 1'-4" (TYP. BETWEEN PILES, U.N.O.)
- (F) - 5-AL619 & 5-AL606 @ 1'-0"

LEGEND:

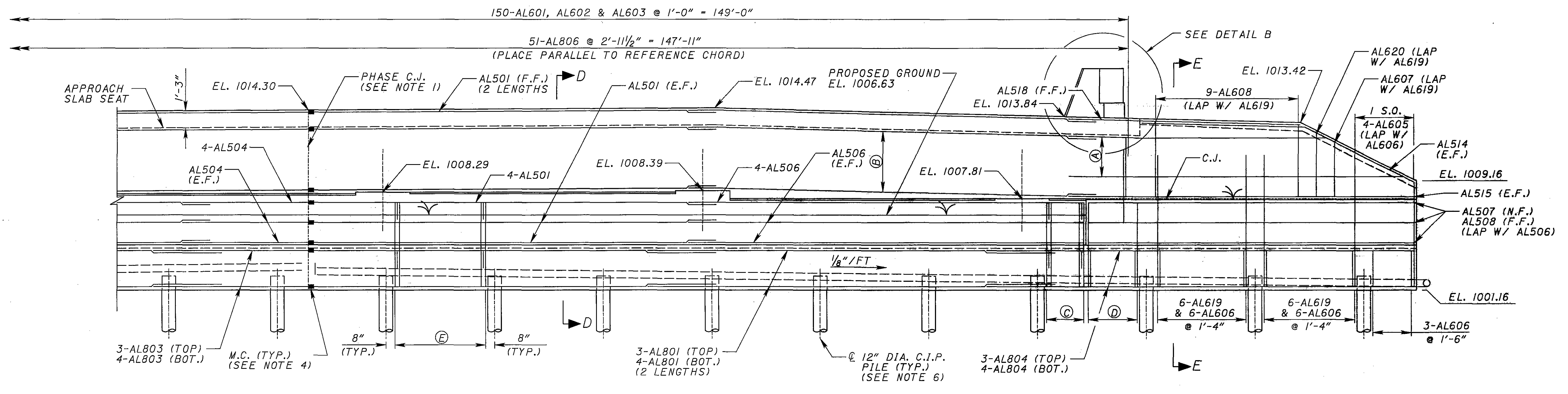
- BOT. = BOTTOM
- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- C.P.P. = CORRUGATED PLASTIC PIPE
- DIA. = DIAMETER
- E.F. = EACH FACE
- F.F. = FAR FACE
- G. = GIRDER NUMBER
- N.F. = NEAR FACE
- S.O. = SERIES OF
- U.N.O. = UNLESS NOTED OTHERWISE
- W.P. = WORK POINT

NOTES:

1. BACKWALL CONCRETE: IN ADDITION TO SH.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
2. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
3. SEE SHEET 27 / 64 FOR SECTIONS D-D & E-E.
4. SEE SHEET 15 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
5. MINIMUM STEEL LAP LENGTHS:
#5 BAR = 2'-0"
#6 BAR = 3'-1"
#8 BAR = 5'-0"



PLAN



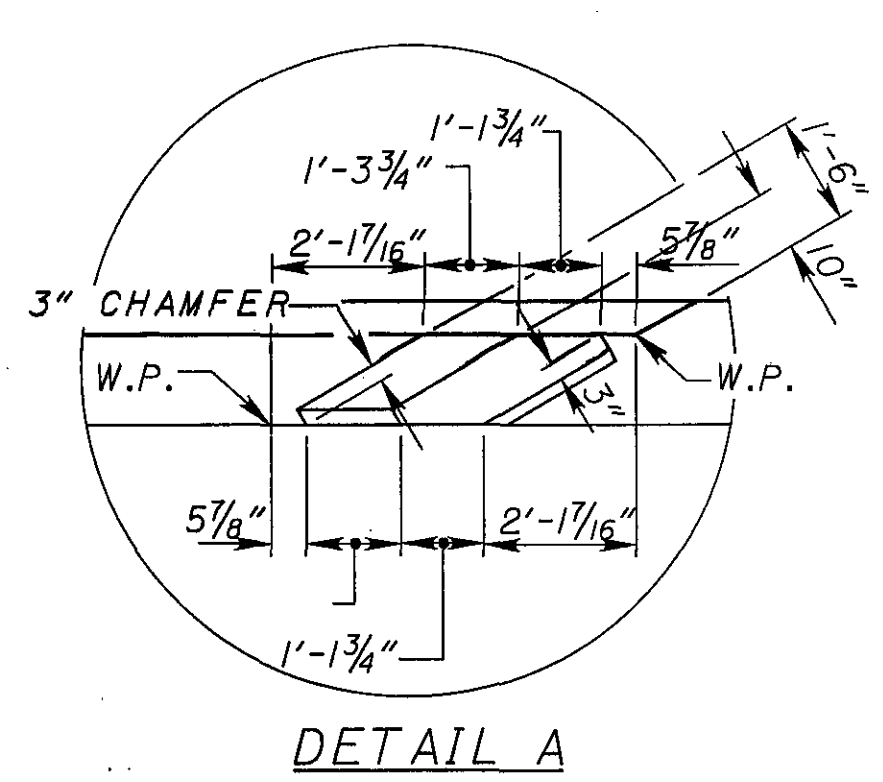
ELEVATION

LEGEND:

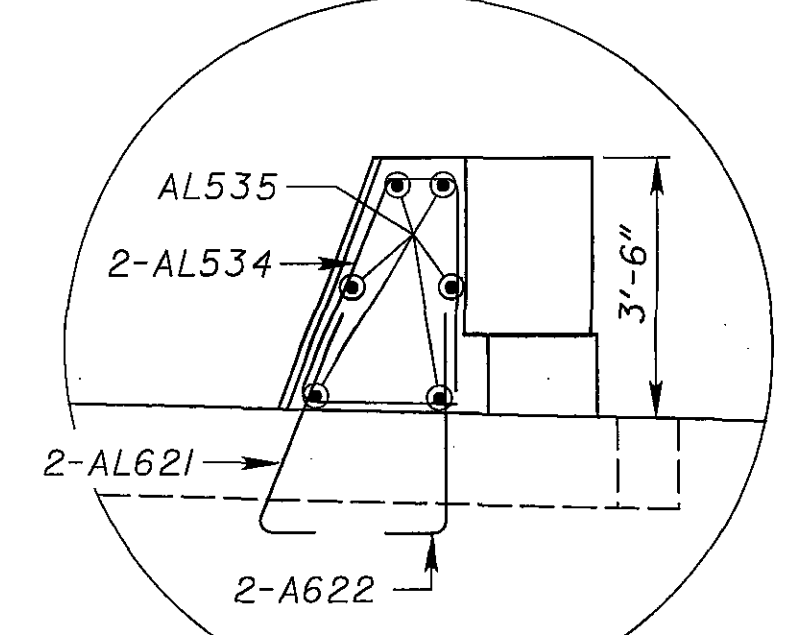
- (A) = 1 S.O. 3-AL509 @ 1'-6" (MAX.) (E.F.)
 - (B) = 4-AL501 @ 1'-6" (MAX.) (E.F.) (2 LENGTHS)
 - (C) = 3 SETS OF 1-AL612, 1-AL511, 1-AL528 & 1-AL533 @ 1'-4 1/2"
 - (D) = 4-AL609 & 4-AL606 @ 1'-2"
 - (E) = 6 SETS OF 1-AL612, 1-AL511, 1-AL528 & 1-AL533 @ 1'-4" (TYP. BETWEEN PILES, U.N.O.)
- BOT. = BOTTOM
 C.I.P. = CAST-IN-PLACE
 C.J. = CONSTRUCTION JOINT
 C.P.P. = CORRUGATED PLASTIC PIPE
 DIA. = DIAMETER
 E.F. = EACH FACE
 F.F. = FAR FACE
 G. = GIRDER NUMBER
 M.C. = MECHANICAL CONNECTOR
 N.F. = NEAR FACE
 S.O. = SERIES OF
 U.N.O. = UNLESS NOTED OTHERWISE
 W.P. = WORK POINT

NOTES:

1. PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT, FROM BOTTOM OF FOOTING TO BOTTOM OF APPROACH SLAB.
2. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
3. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
4. SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 64.
5. SEE SHEET 27 / 64 FOR SECTIONS D-D & E-E.
6. SEE SHEET 15 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
7. MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #8 BAR = 5'-0"

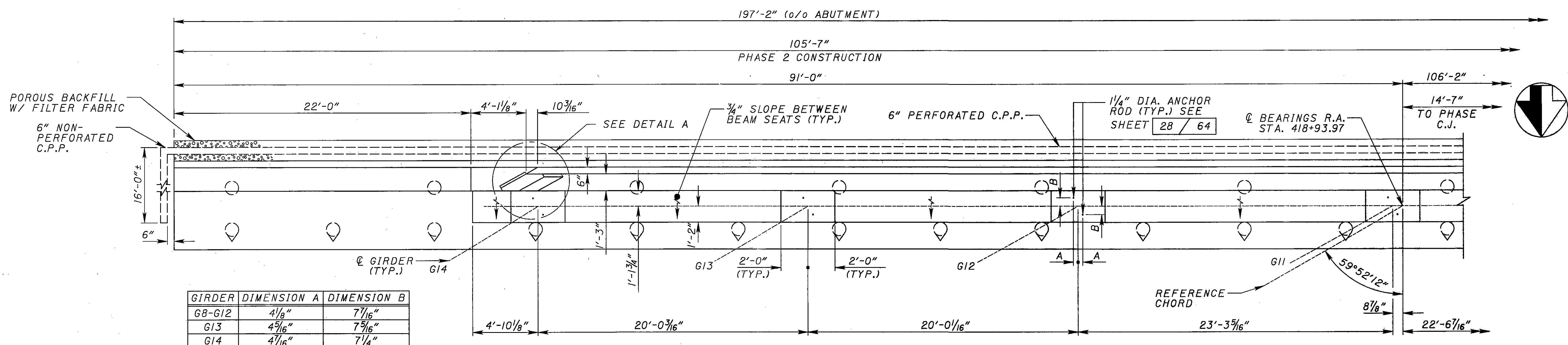


DETAIL A

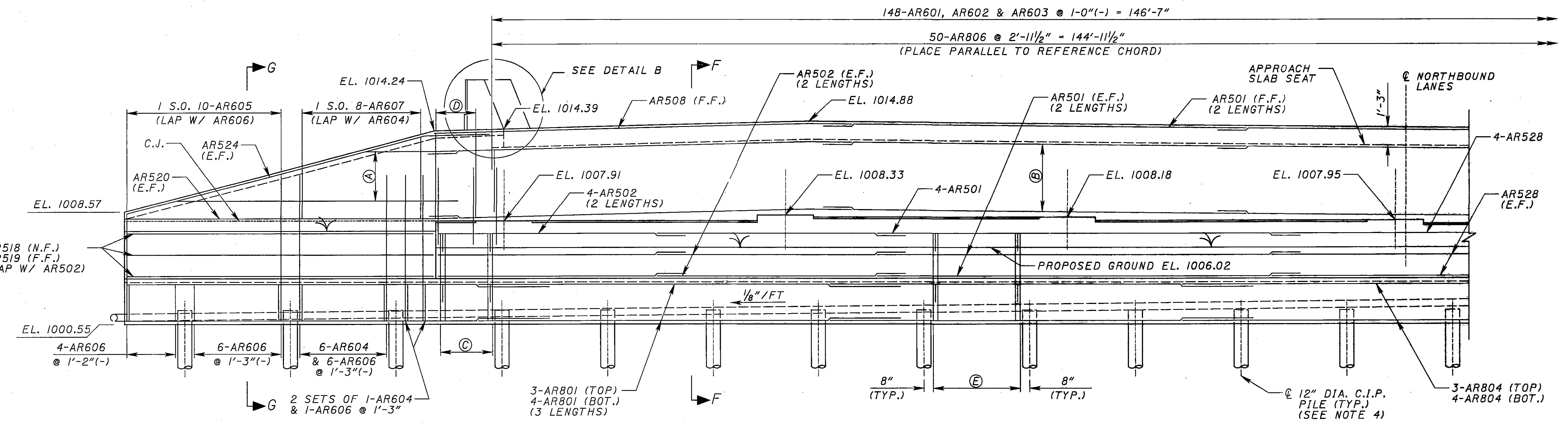


DETAIL B

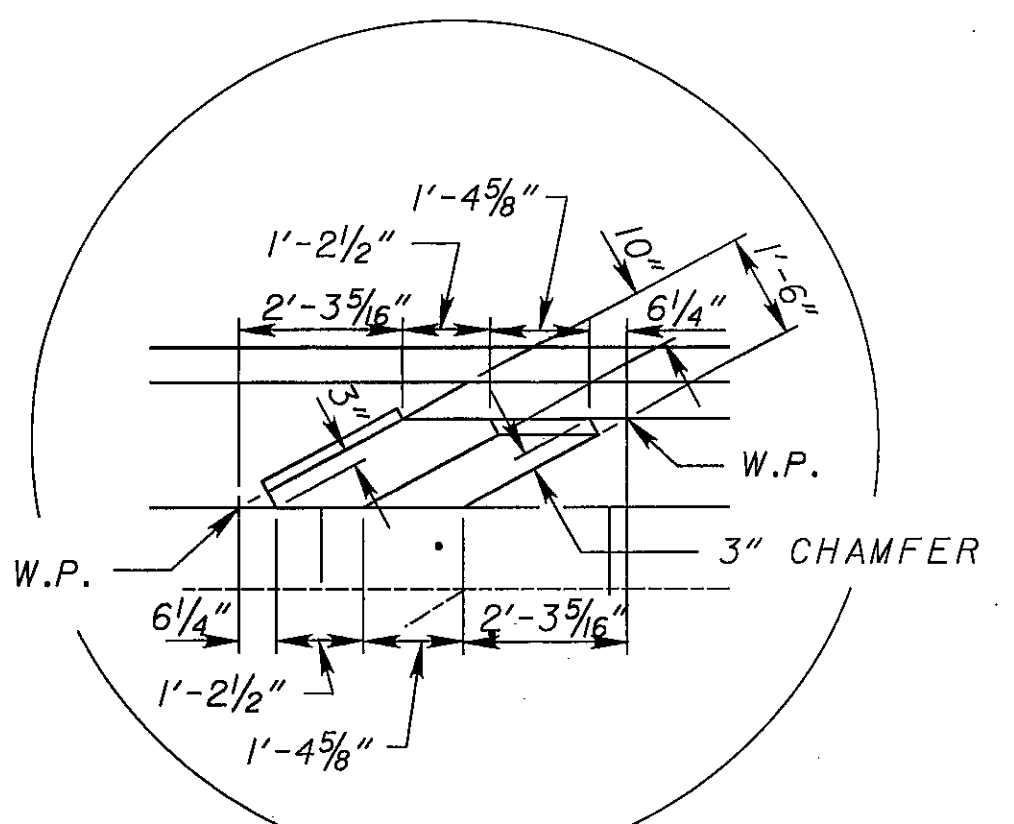
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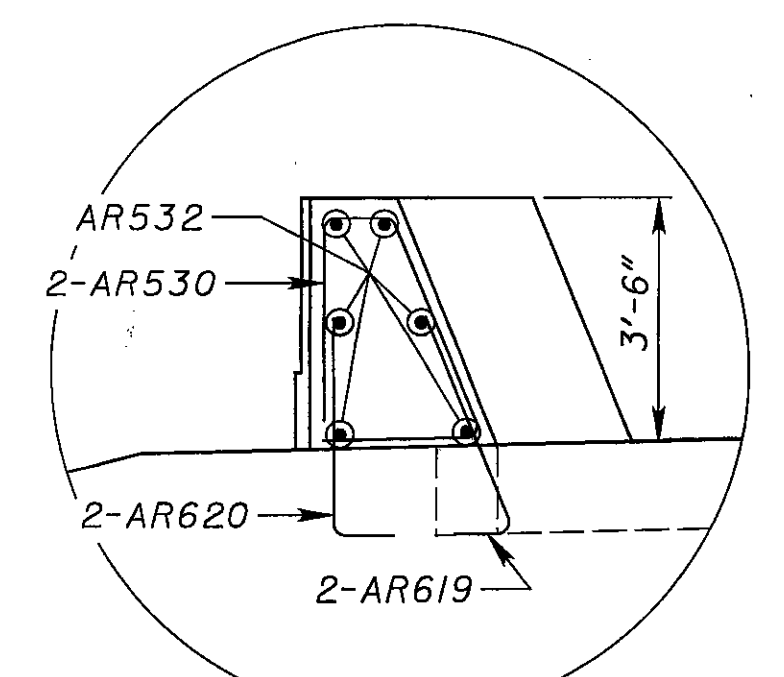
PLAN



ELEVATION



DETAIL A



DETAIL B

- (A) = 1 S.O. 4-AR522 @ 1'-3"(-)
- (B) = 5-AR501 @ 1'-3"(-) (E.F.) (3 LENGTHS)
- (C) = 4 SETS OF 1-AR612, AR511, 1-AR526 & 1-AR529 @ 1'-3"(-)
- (D) = 4 SETS OF 1-AR603 & 1-AR618 @ 1'-0"(-)
- (E) = 6 SETS OF 1-AR612, AR511, 1-AR526 & 1-AR529 @ 1'-3"(-) (TYP. BETWEEN PILES, U.N.O.)

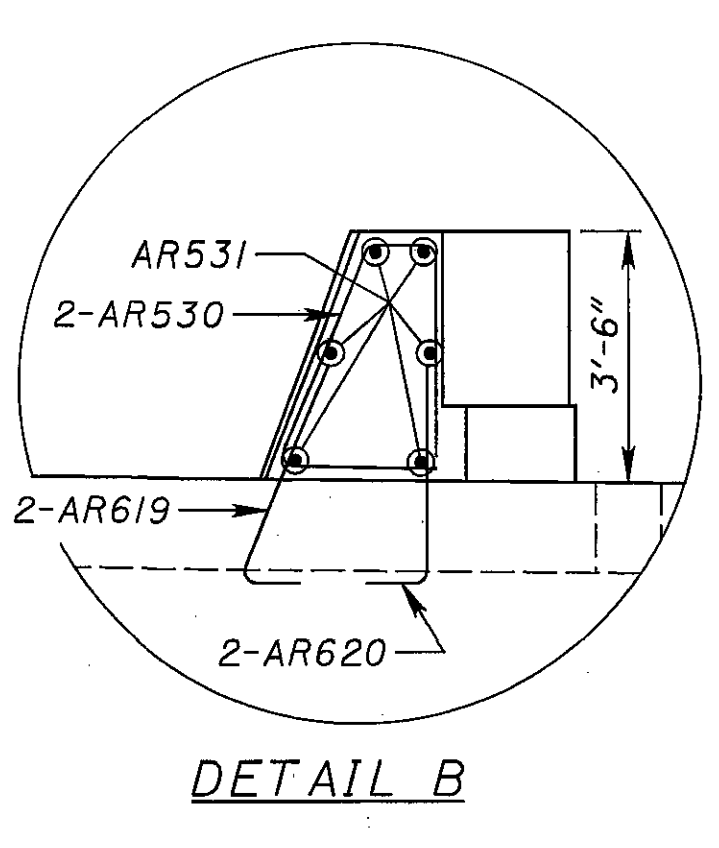
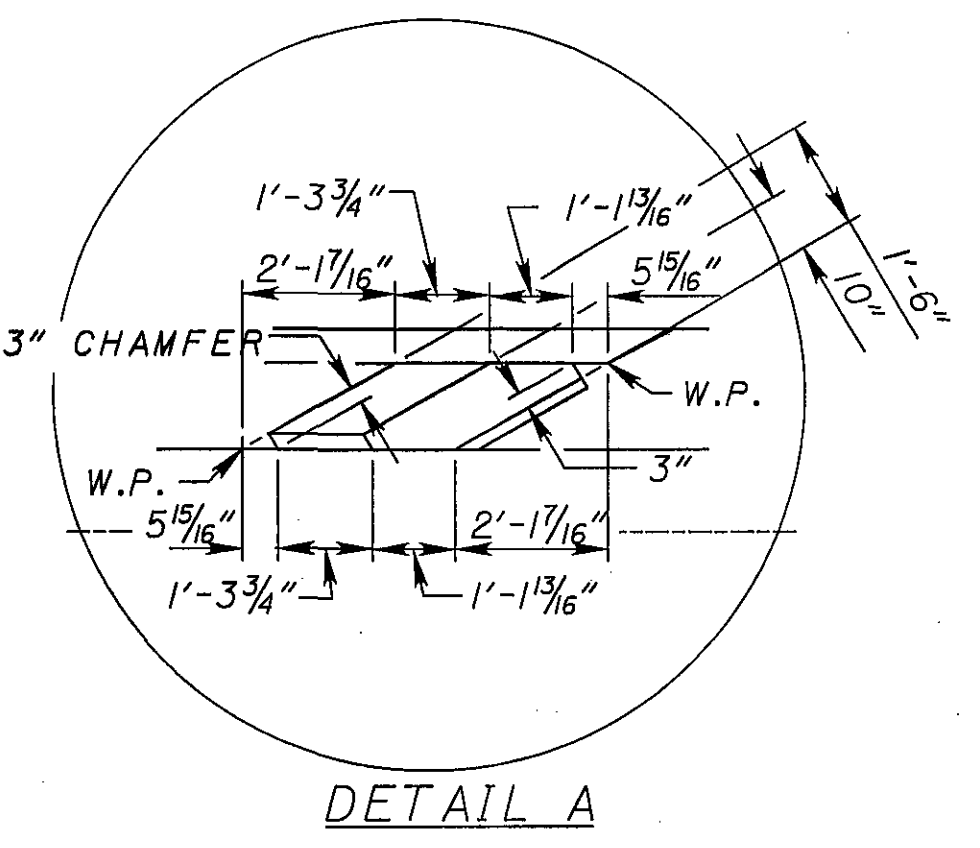
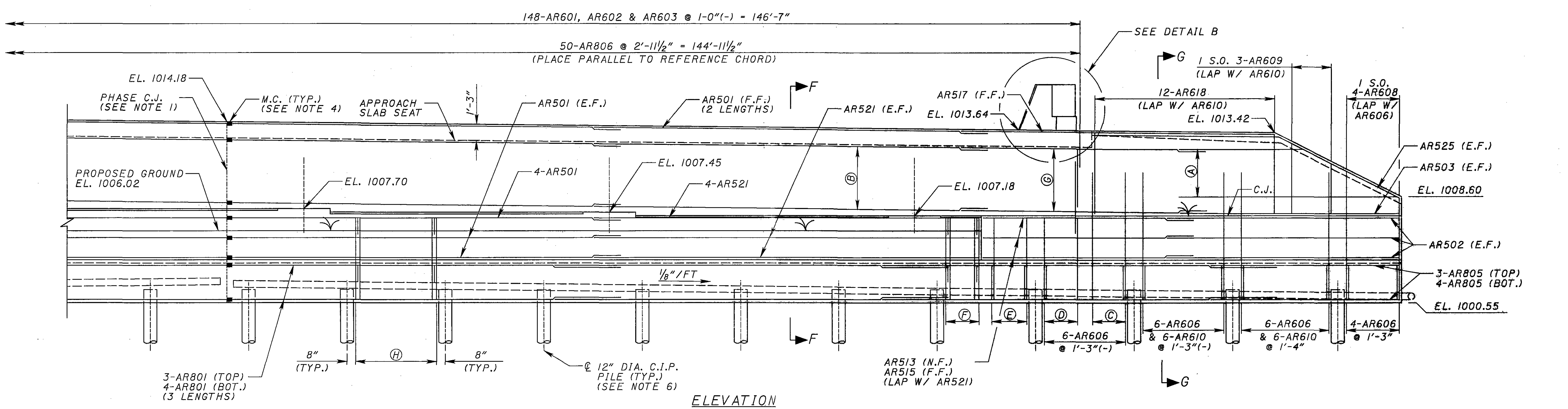
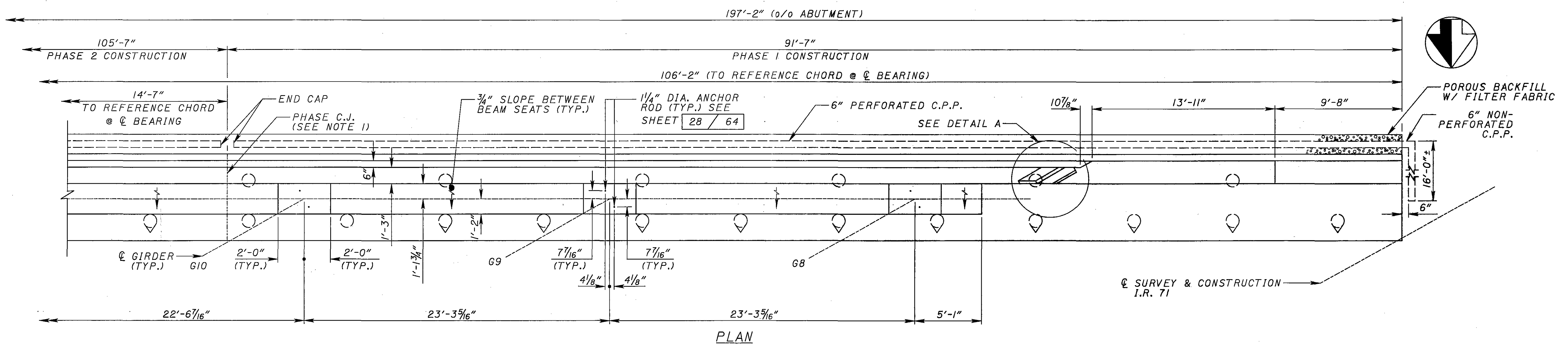
LEGEND:

- BOT. = BOTTOM
- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- C.P.P. = CORRUGATED PLASTIC PIPE
- DIA. = DIAMETER
- E.F. = EACH FACE
- F.F. = FAR FACE
- N.F. = NEAR FACE
- S.O. = SERIES OF
- U.N.O. = UNLESS NOTED OTHERWISE
- W.P. = WORK POINT

NOTES:

1. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
2. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
3. SEE SHEET 28 / 64 FOR SECTIONS F-F & G-G.
4. SEE SHEET 16 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
5. MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #8 BAR = 5'-0"

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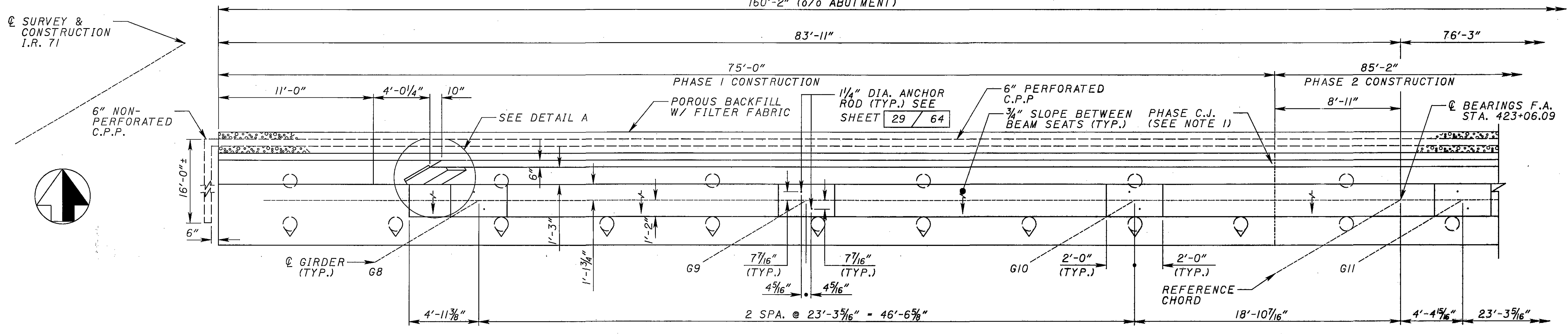


- LEGEND:
- (A) = 1 S.O. 4-AR523 @ 1'-3"(-) = 3'-9" (E.F.)
 - (B) = 5-AR501 @ 1'-3"(-) (E.F.) (2 LENGTHS)
 - (C) = 3-AR610 (LAP W/ AR606)
 - (D) = 3-AR611 (LAP W/ AR606)
 - (E) = 3 SETS OF 1-AR606 & 1-AR611 @ 1'-3"(+)
 - (F) = 3 SETS OF 1-AR612, AR511, 1-AR526 & 1-AR529 @ 1'-3"(-)
 - (G) = 5-AR507 @ 1'-3" (E.F.)
 - (H) = 6 SETS OF 1-AR612, AR511, 1-AR526 & 1-AR529 @ 1'-3"(-) (TYP. BETWEEN PILES, U.N.O.)

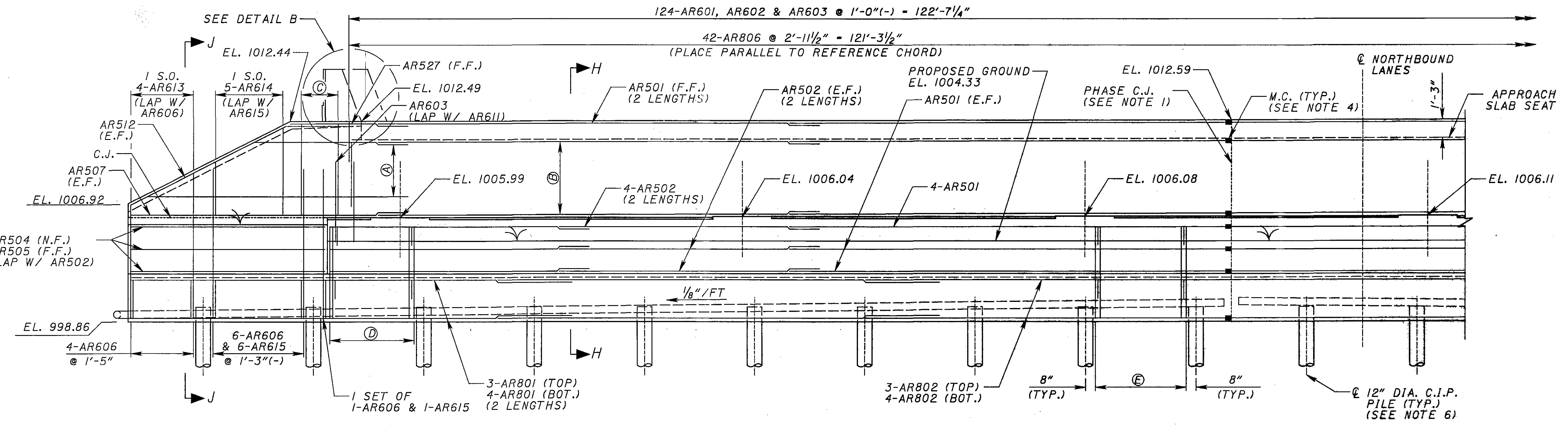
- LEGEND:
- BOT. = BOTTOM
 - C.I.P. = CAST-IN-PLACE
 - C.J. = CONSTRUCTION JOINT
 - C.P.P. = CORRUGATED PLASTIC PIPE
 - DIA. = DIAMETER
 - E.F. = EACH FACE
 - F.F. = FAR FACE
 - N.F. = NEAR FACE
 - S.O. = SERIES OF
 - U.N.O. = UNLESS NOTED OTHERWISE
 - W.P. = WORK POINT

- NOTES:
1. PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT, FROM BOTTOM OF FOOTING TO BOTTOM OF APPROACH SLAB.
 2. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
 3. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
 4. SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 64.
 5. SEE SHEET 28 / 64 FOR SECTIONS F-F & G-G.
 6. SEE SHEET 16 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 7. MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #8 BAR = 5'-0"

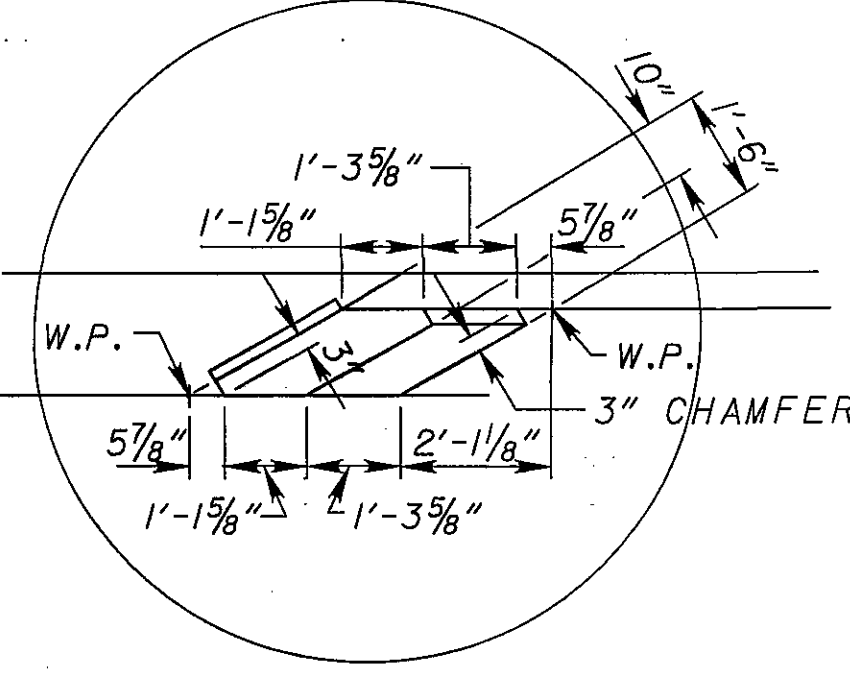
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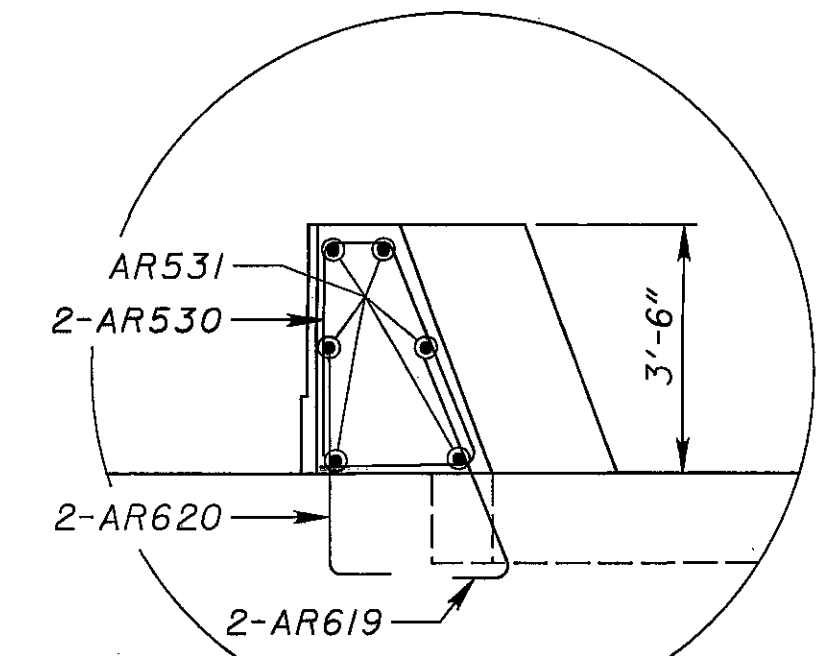
PLAN



ELEVATION



DETAIL A



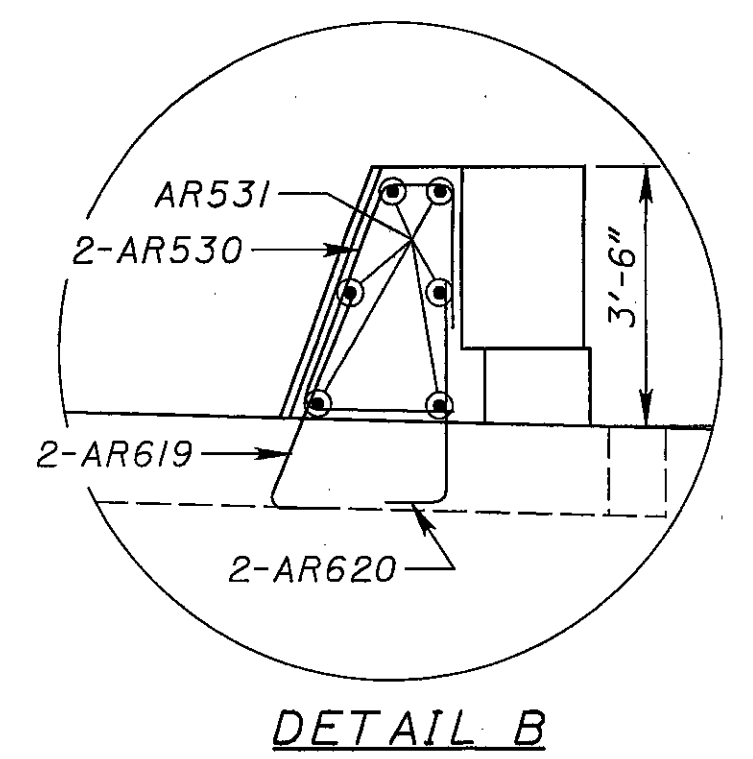
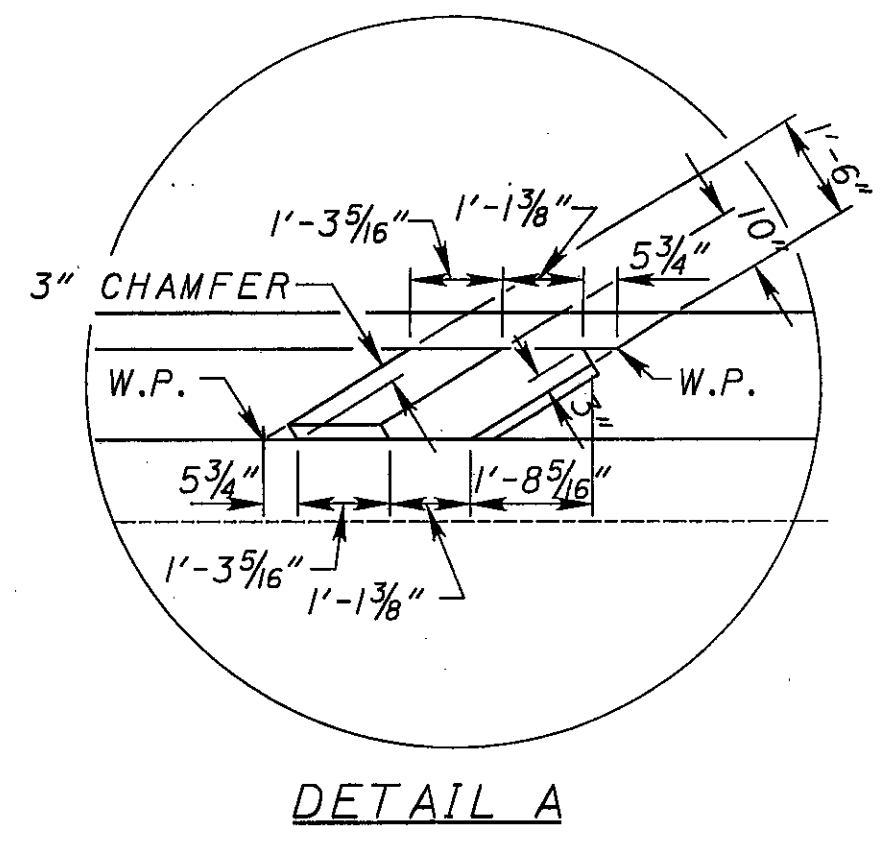
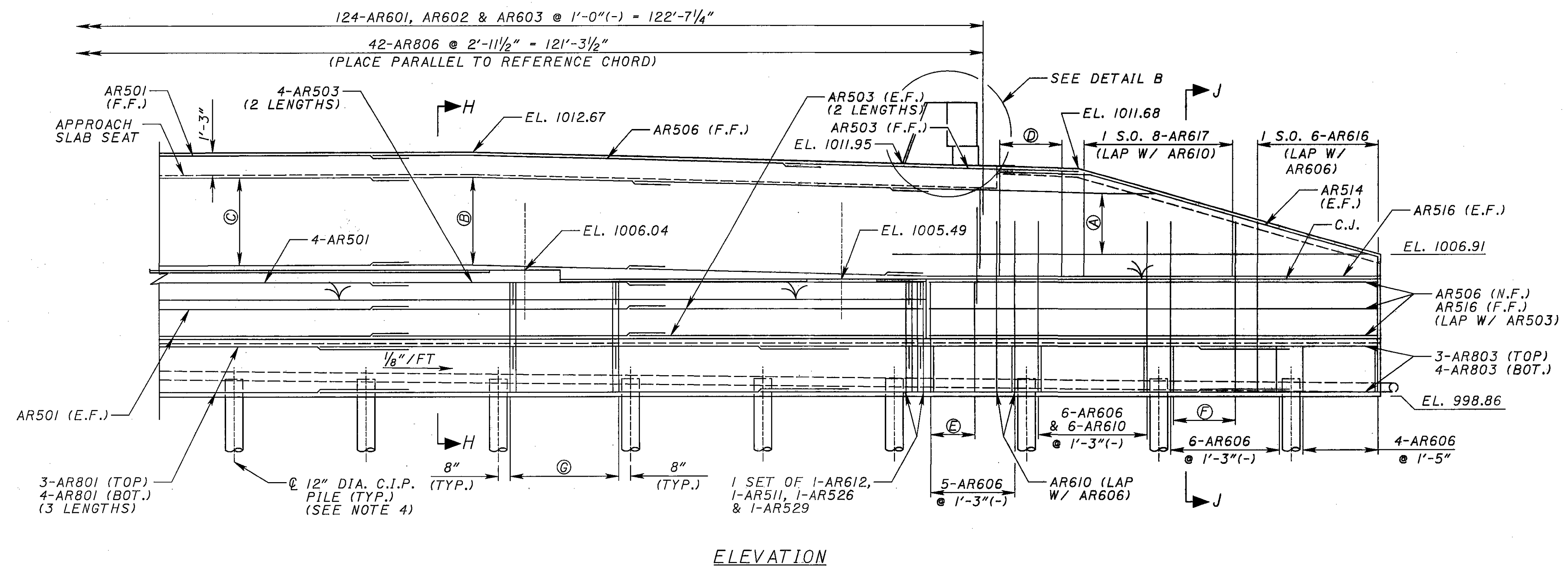
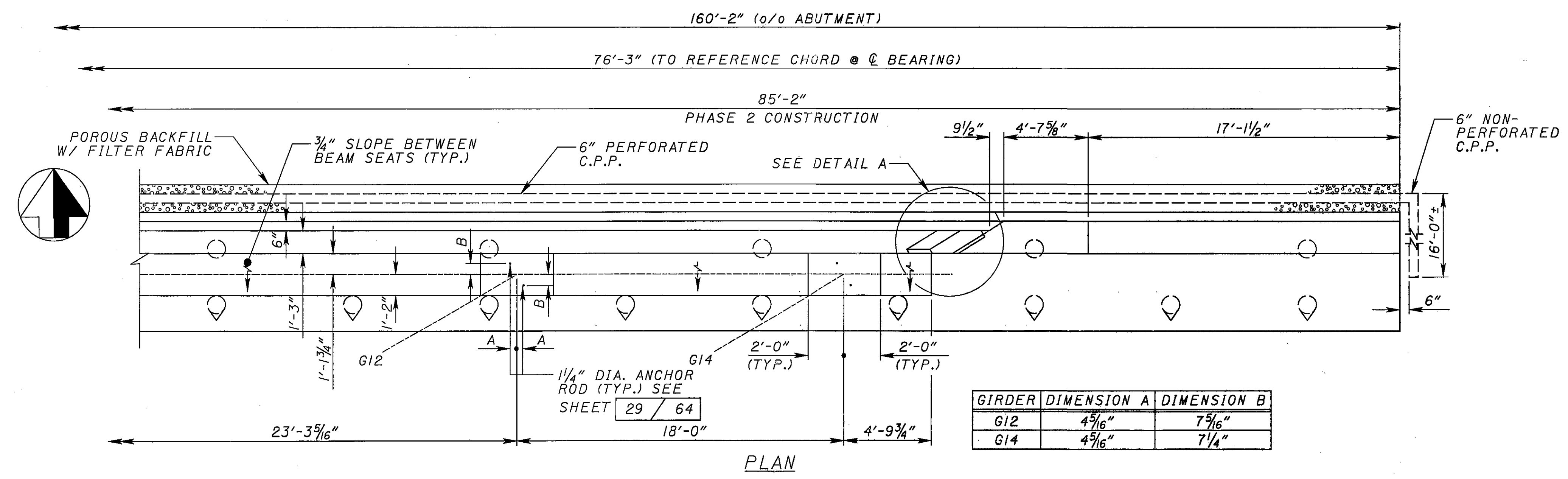
DETAIL B

- (A) - 1 S.O. 4-AR509 @ 1'-3"(-) (E.F.)
- (B) - 5-AR501 @ 1'-3"(-) (E.F.) (2 LENGTHS)
- (C) - 3-AR611 (LAP W/ AR615 OR AR603)
- (D) - 5 SETS OF 1-AR612, 1-AR511, 1-AR526 & 1-AR529 @ 1'-5"
- (E) - 6 SETS OF 1-AR612, AR511, 1-AR526 & 1-AR529 @ 1'-3"(-) (TYP. BETWEEN PILES, U.N.O.)

- LEGEND:**
- BOT. - BOTTOM
 - C.I.P. - CAST-IN-PLACE
 - C.J. - CONSTRUCTION JOINT
 - C.P.P. - CORRUGATED PLASTIC PIPE
 - DIA. - DIAMETER
 - E.F. - EACH FACE
 - F.F. - FAR FACE
 - G. - GIRDER NUMBER
 - M.C. - MECHANICAL CONNECTOR
 - N.F. - NEAR FACE
 - S.O. - SERIES OF
 - U.N.O. - UNLESS NOTED OTHERWISE
 - W.P. - WORK POINT

- NOTES:**
1. PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT, FROM BOTTOM OF FOOTING TO BOTTOM OF APPROACH SLAB.
 2. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
 3. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
 4. SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 64.
 5. SEE SHEET 29 / 64 FOR SECTIONS H-H & J-J.
 6. SEE SHEET 17 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 7. MINIMUM STEEL LAP LENGTHS:
*5 BAR = 2'-0"
*6 BAR = 3'-1"
*8 BAR = 5'-0"

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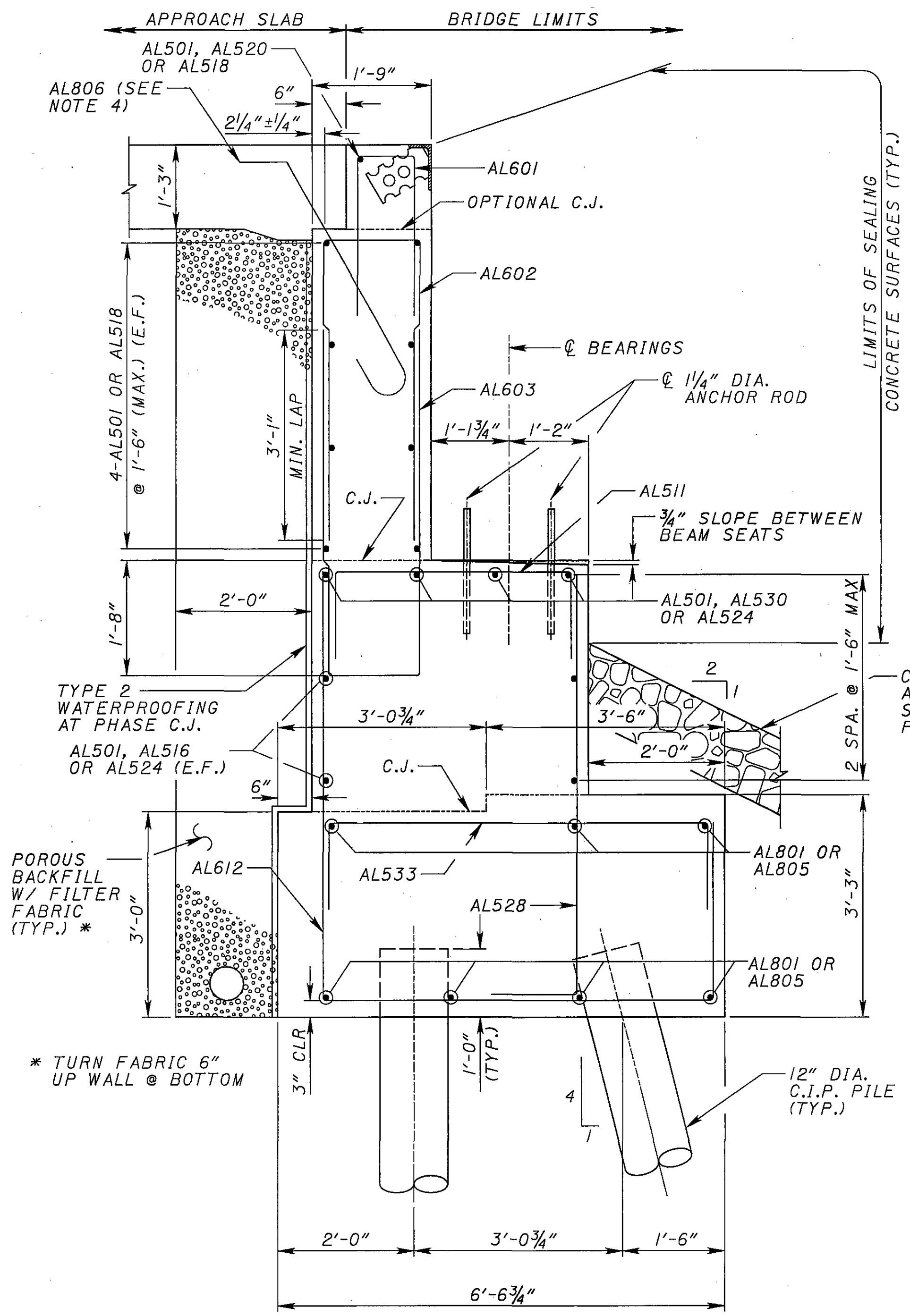
- (A) = 1 S.O. 4-AR510 @ 1'-3"(-) (E.F.)
- (B) = 5-AR503 @ 1'-3"(-) (E.F.) (2 LENGTHS)
- (C) = 5-AR501 @ 1'-3"(-) (E.F.)
- (D) = 4-AR618 (LAP W/ AR610)
- (E) = 3-AR611 (LAP W/ AR606)
- (F) = 4-AR610 (LAP W/ AR606)
- (G) = 6 SETS OF 1-AR612, AR511, 1-AR526 & 1-AR529 @ 1'-3"(-) (TYP. BETWEEN PILES, U.N.O.)

- LEGEND:**
- BOT. = BOTTOM
 - C.I.P. = CAST-IN-PLACE
 - C.J. = CONSTRUCTION JOINT
 - C.P.P. = CORRUGATED PLASTIC PIPE
 - DIA. = DIAMETER
 - E.F. = EACH FACE
 - F.F. = FAR FACE
 - G. = GIRDER NUMBER
 - N.F. = NEAR FACE
 - S.O. = SERIES OF
 - U.N.O. = UNLESS NOTED OTHERWISE
 - W.P. = WORK POINT

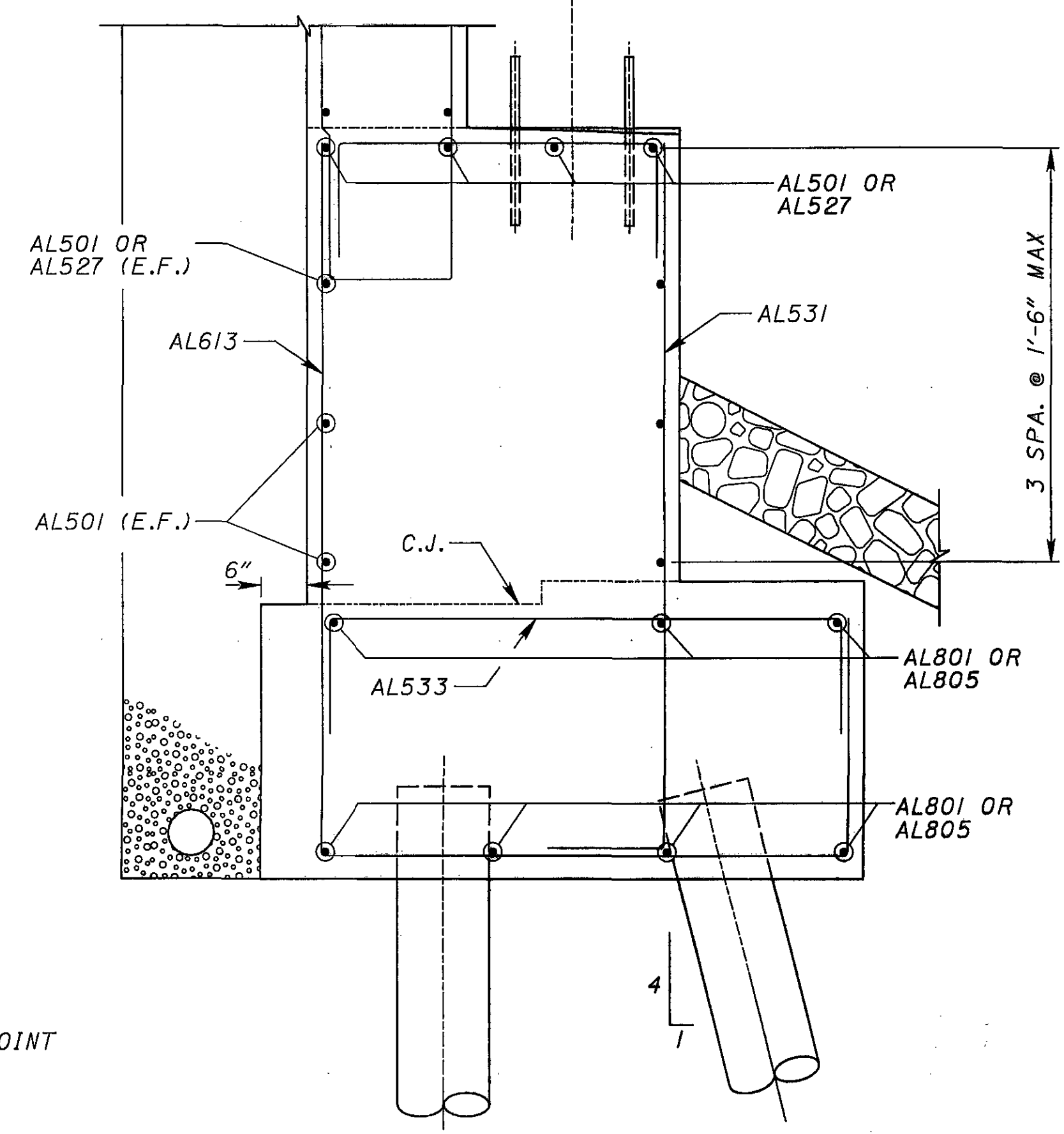
- NOTES:**
1. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
 2. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
 3. SEE SHEET 29 / 64 FOR SECTIONS H-H & J-J.
 4. SEE SHEET 17 / 64 FOR FOOTING LOCATION & DETAILS.
 PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 5. MINIMUM STEEL LAP LENGTHS:
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #8 BAR = 5'-0"

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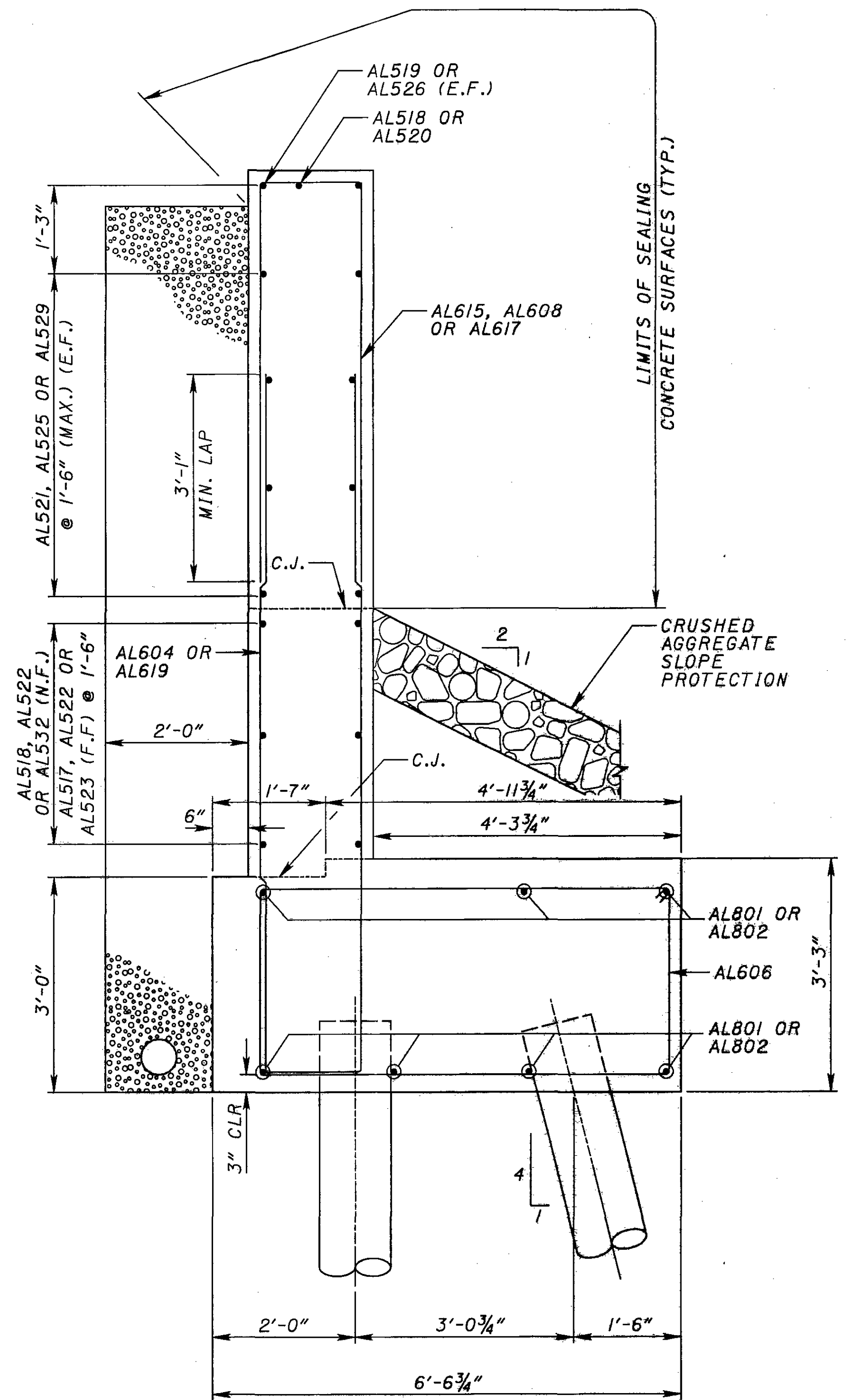


SECTION A-A



SECTION B-B

SEE SECTION A-A FOR DIMENSIONS NOT SHOWN

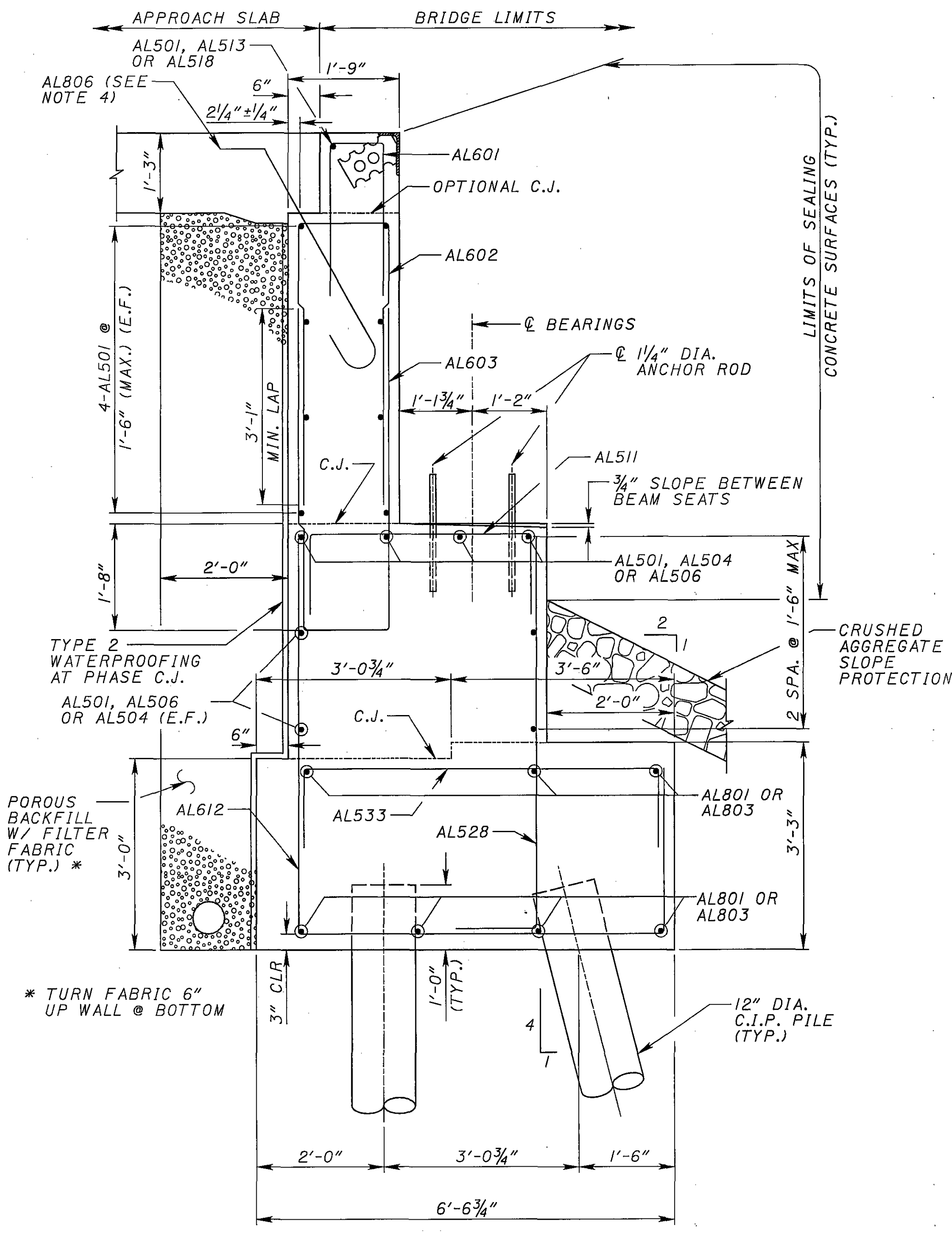


SECTION C-C

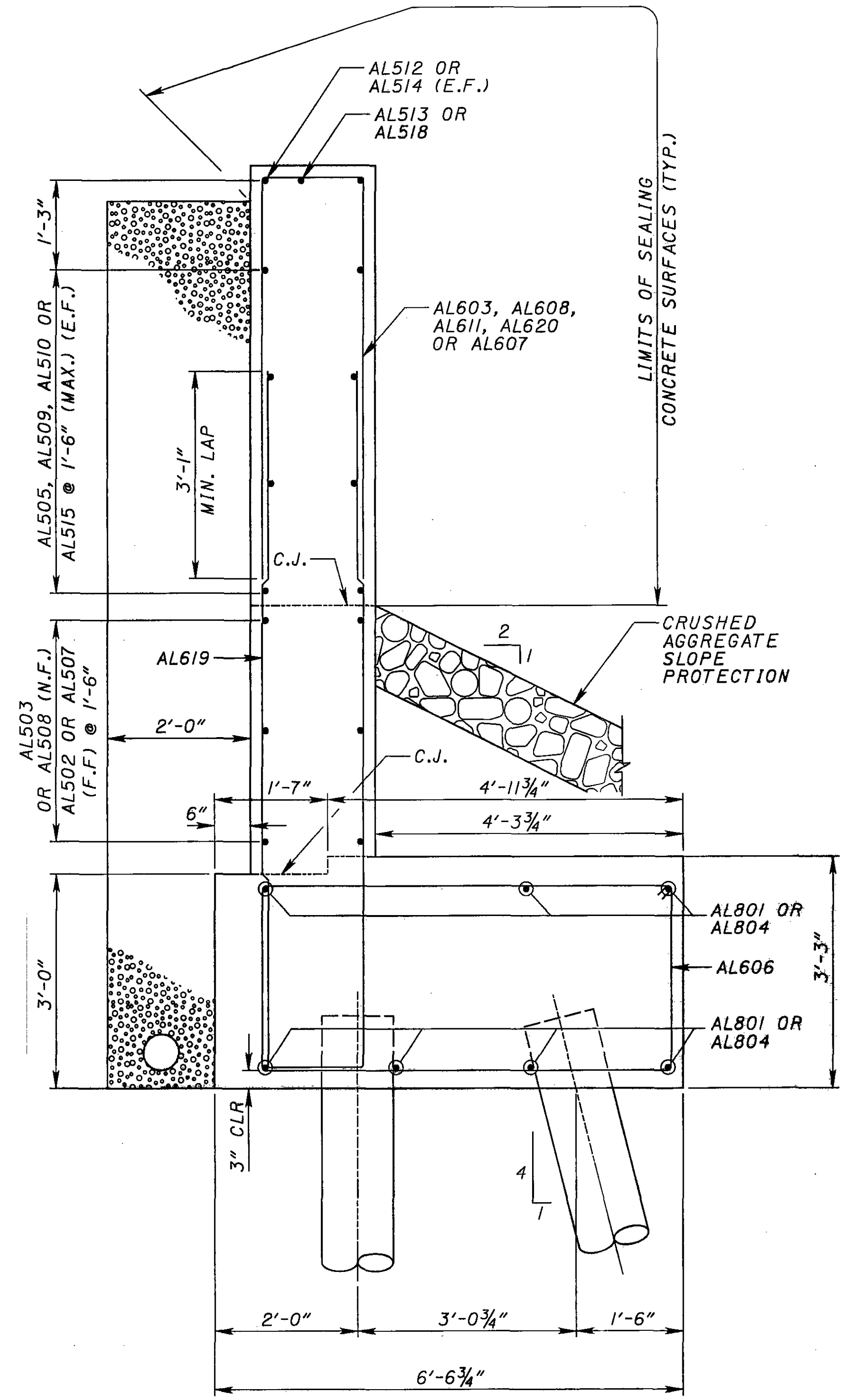
LEGEND:
 C.I.P. = CAST-IN-PLACE
 C.J. = CONSTRUCTION JOINT
 DIA. = DIAMETER
 E.F. = EACH FACE
 F.F. = FAR FACE
 N.F. = NEAR FACE

- NOTES:**
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
 2. SEALING OF BEAM SEATS: PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
 3. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
 4. PLACE BARS PARALLEL TO REFERENCE CHORD.

BURGESS & NIPLE	
505 West Road Columbus, Ohio 43260	
DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922 - LEFT
CHECKED	AEH
DESIGNED	JMK
DRAWN	JMK
REVISIONS	
REAR ABUTMENT DETAILS - SOUTHBOUND	
BRIDGE NO. MED-71-0794 L/R	
I-71 OVER I-76	
MED-71-6.06	
PID-75657	
26 / 64	
850	
1120	



SECTION D-D



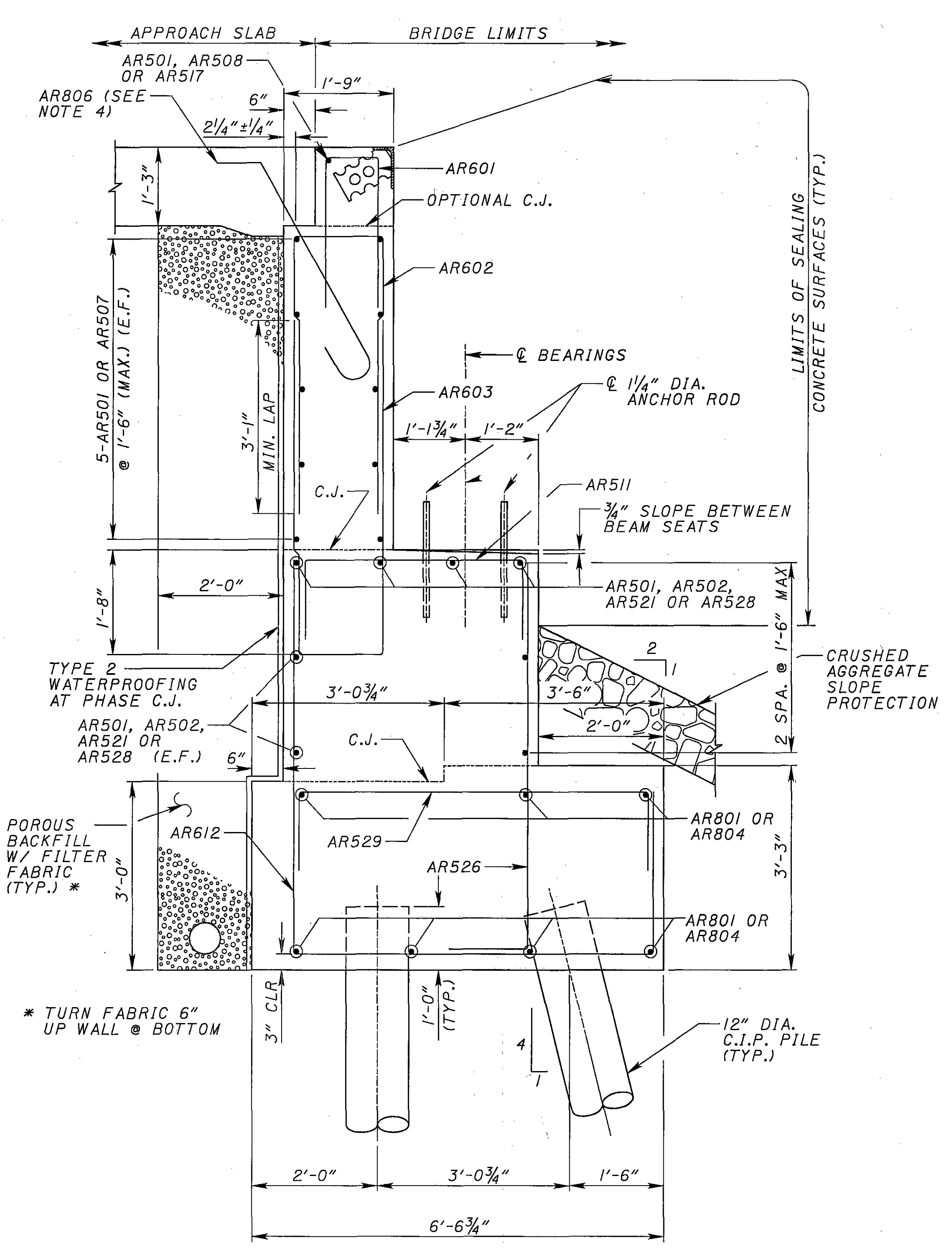
SECTION E-E

LEGEND:
 C.I.P. - CAST-IN-PLACE
 C.J. - CONSTRUCTION JOINT
 DIA. - DIAMETER
 E.F. - EACH FACE
 F.F. - FAR FACE
 N.F. - NEAR FACE

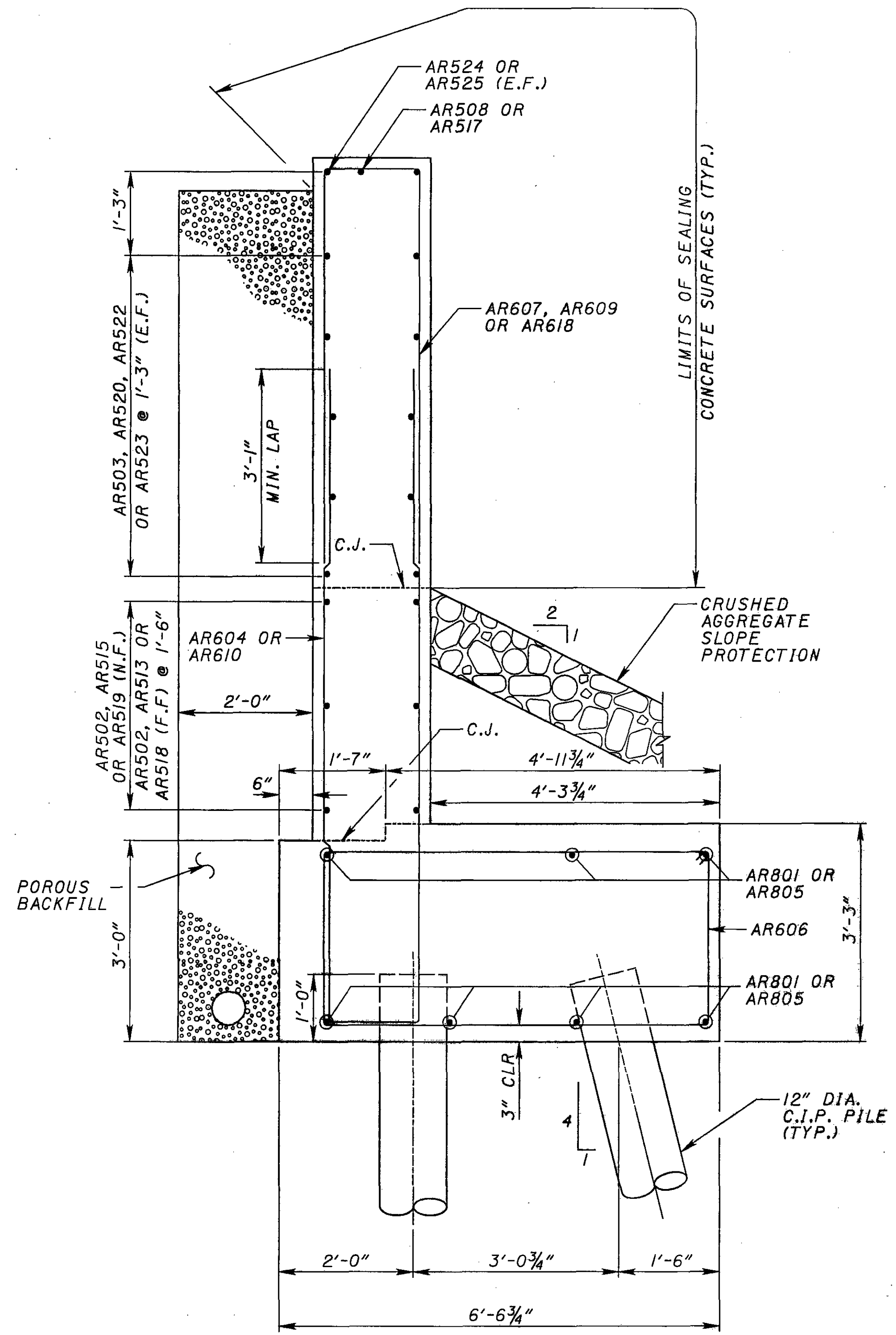
- NOTES:**
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
 2. SEALING OF BEAM SEATS: PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
 3. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
 4. PLACE BARS PARALLEL TO REFERENCE CHORD.

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BURGESS & NIPLE	
DESIGNED	DATE
JMK	9/04
CHECKED	REVIEWED
AEH	RJK
STRUCTURE FILE NUMBER	DATE
5202922 - LEFT	9/04
5202957 - RIGHT	
FORWARD ABUTMENT DETAILS - SOUTHBOUND	
BRIDGE NO. MED-71-0794 L/R	
I-71 OVER I-76	
MED-71-6.06	27 / 64
PID-75657	
851	
1120	



SECTION F-F



SECTION G-G

LEGEND:

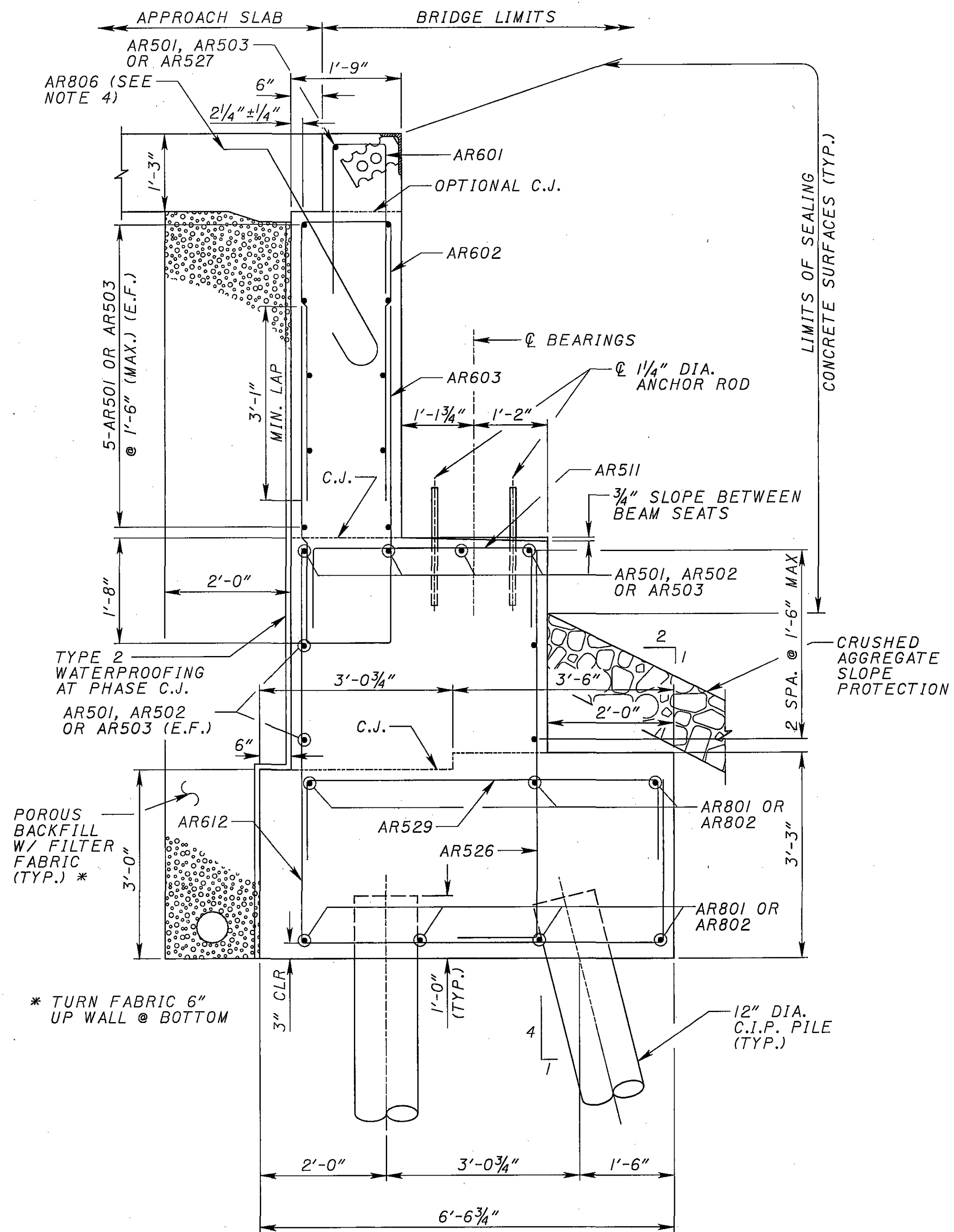
- C.I.P. - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- DIA. - DIAMETER
- E.F. - EACH FACE
- F.F. - FAR FACE
- N.F. - NEAR FACE

NOTES:

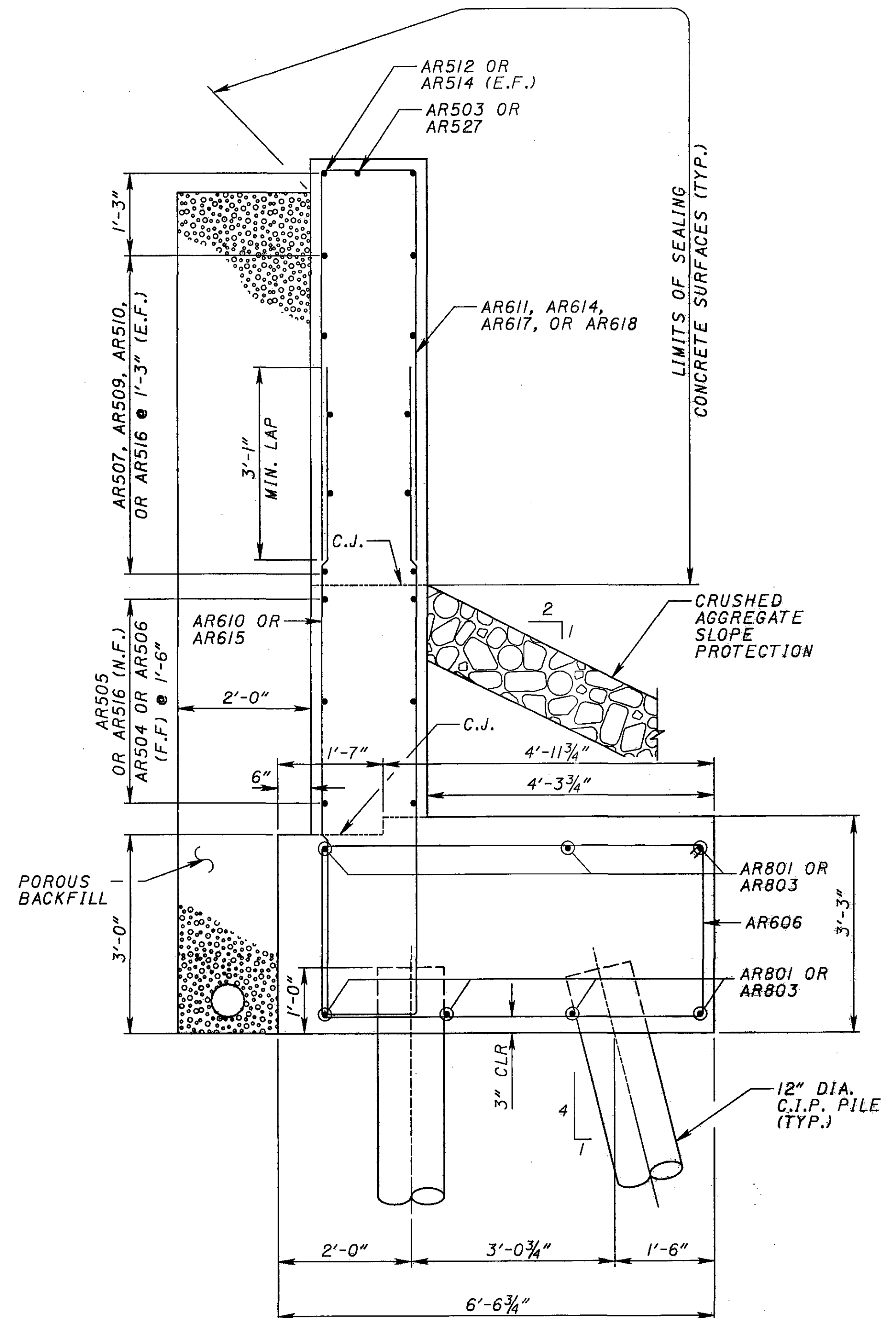
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. SEALING OF BEAM SEATS: PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
3. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
4. PLACE BARS PARALLEL TO REFERENCE CHORD.

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SECTION H-H



SECTION J-J

LEGEND:

C.I.P. - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT
DIA. - DIAMETER
E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE

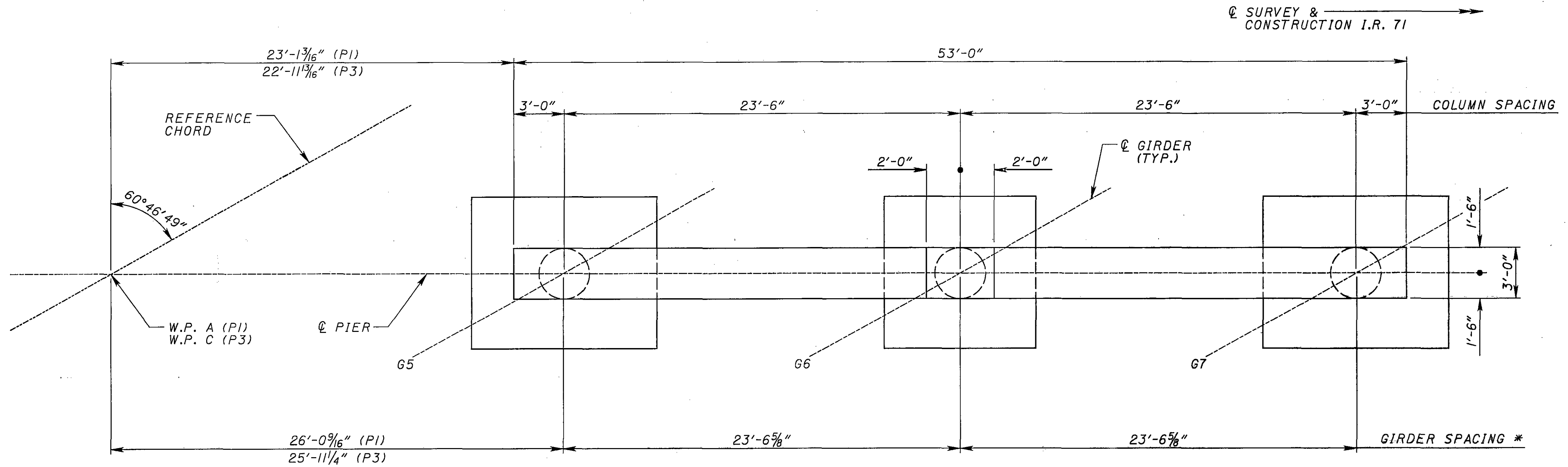
NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. SEALING OF BEAM SEATS: PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
3. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
4. PLACE BARS PARALLEL TO REFERENCE CHORD.

DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922 - LCFT
PROJECT NUMBER	5202951 - RIGHT
DRAWN	JMK
REVIEWED	
DESIGNED	JMK
CHECKED	AEH

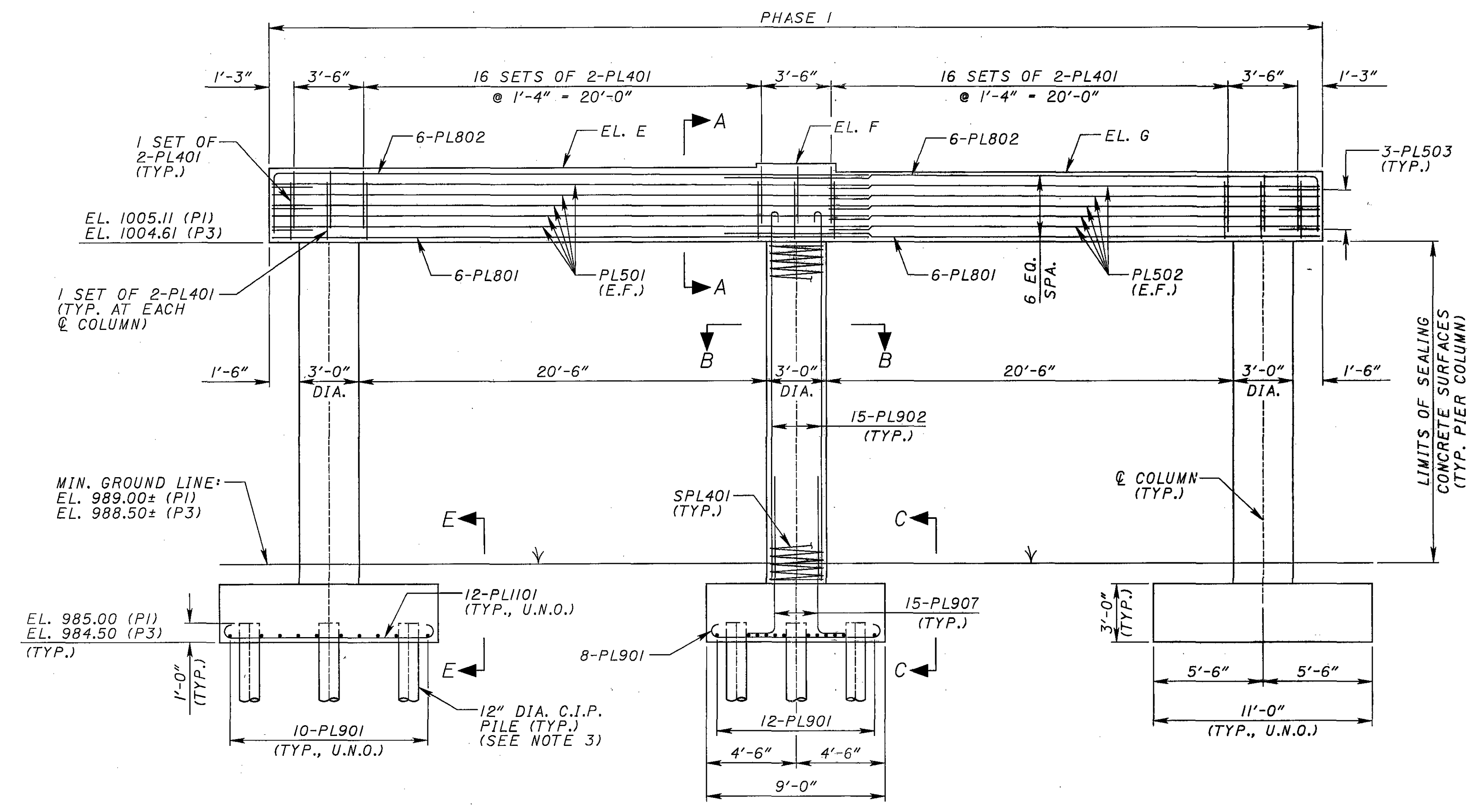
FORWARD ABUTMENT DETAILS - NORTHBOUND
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657



PLAN - PIER 1 & 3 SOUTHBOUND

ELEVATION	PIER 1	PIER 3
E	1008.69	1008.52
F	1008.96	1008.66
G	1008.61	1008.11



ELEVATION
(PILES NOT SHOWN AT ALL FOOTINGS)

NOTES:

- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.7 INCHES AT PIER 1 AND 0.16 INCHES AT PIER 3 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET 39 / 64 FOR SECTIONS A-A, B-B, C-C AND E-E.
- SEE SHEET 14 / 64 & 15 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
#4 BAR - 1'-7"
#5 BAR - 2'-0"
#8 BAR - 7'-3"
#9 BAR - 8'-1"

LEGEND:

- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- E.F. = EACH FACE
- EQ. = EQUAL
- G. = GIRDER NUMBER
- P1 = PIER 1
- P3 = PIER 3
- SPA. = SPACES
- U.N.O. = UNLESS NOTED OTHERWISE
- W.P. = WORK POINT
- * = MEASURED FROM INTERSECTION OF ϕ GIRDER AND ϕ PIER

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DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202957 - RIGHT
DESIGNED	TTK
CHECKED	JMK
DRAWN	TTK
REVISED	

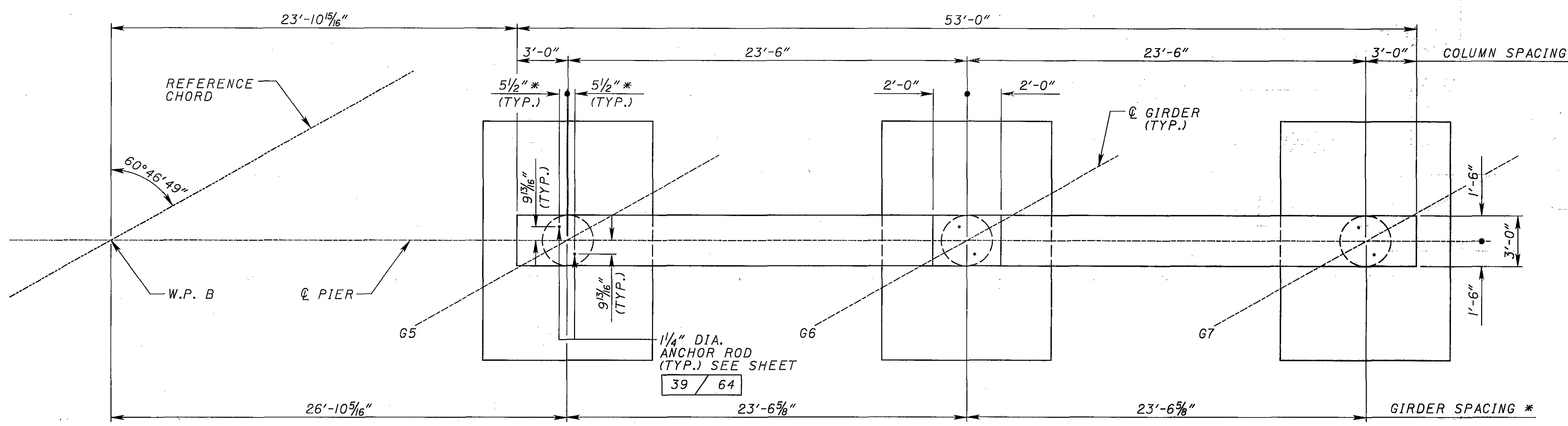
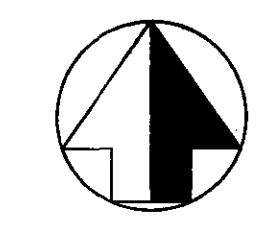
PHASE I PIER 2 PLAN & ELEVATION - SOUTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76

MED-71-6.06
 PID-75657

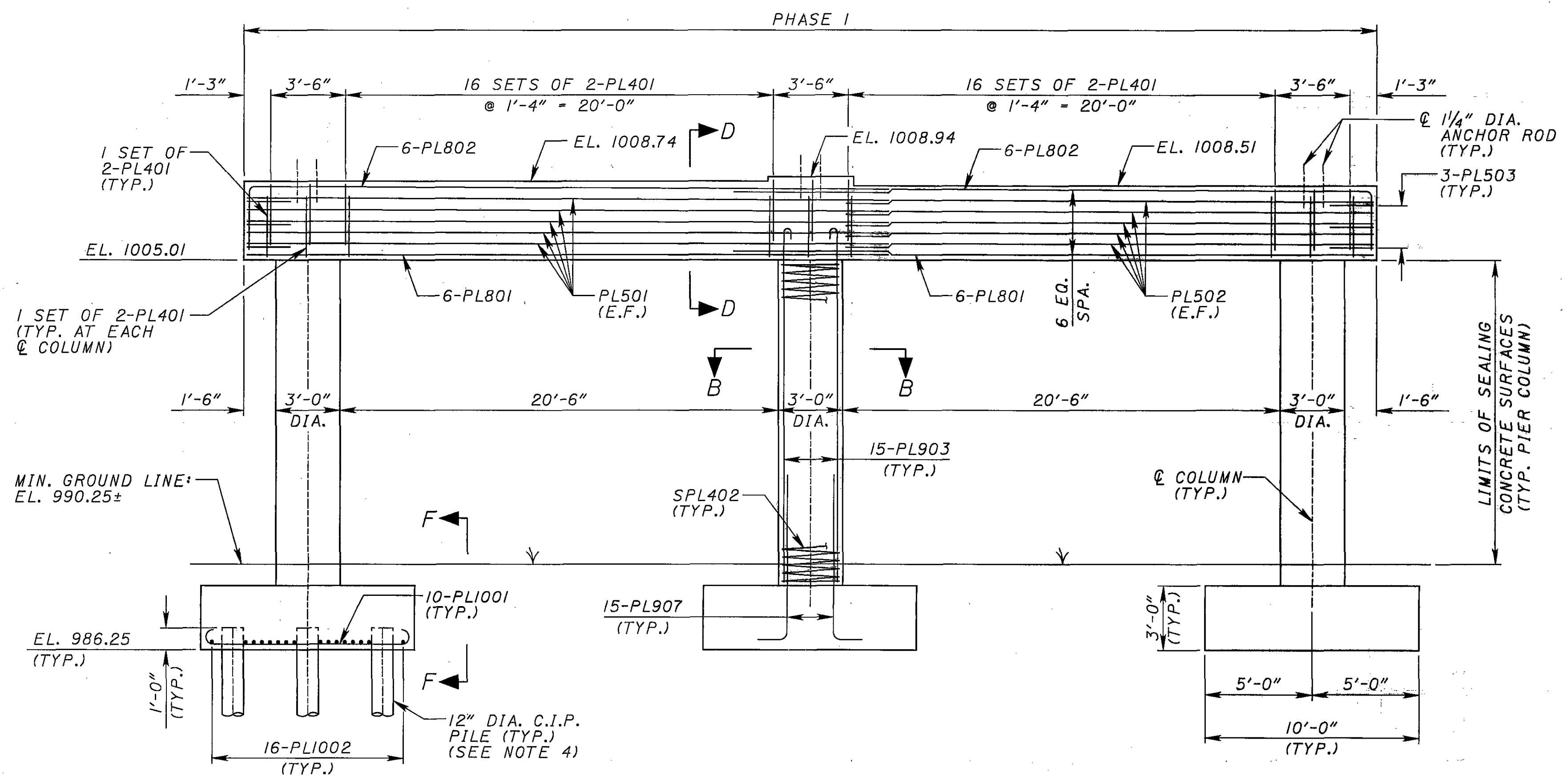
31 / 64

855
 1120

☉ SURVEY & CONSTRUCTION I.R. 71



PLAN - PIER 2 SOUTHBOUND



ELEVATION
 (PILES NOT SHOWN AT ALL FOOTINGS)

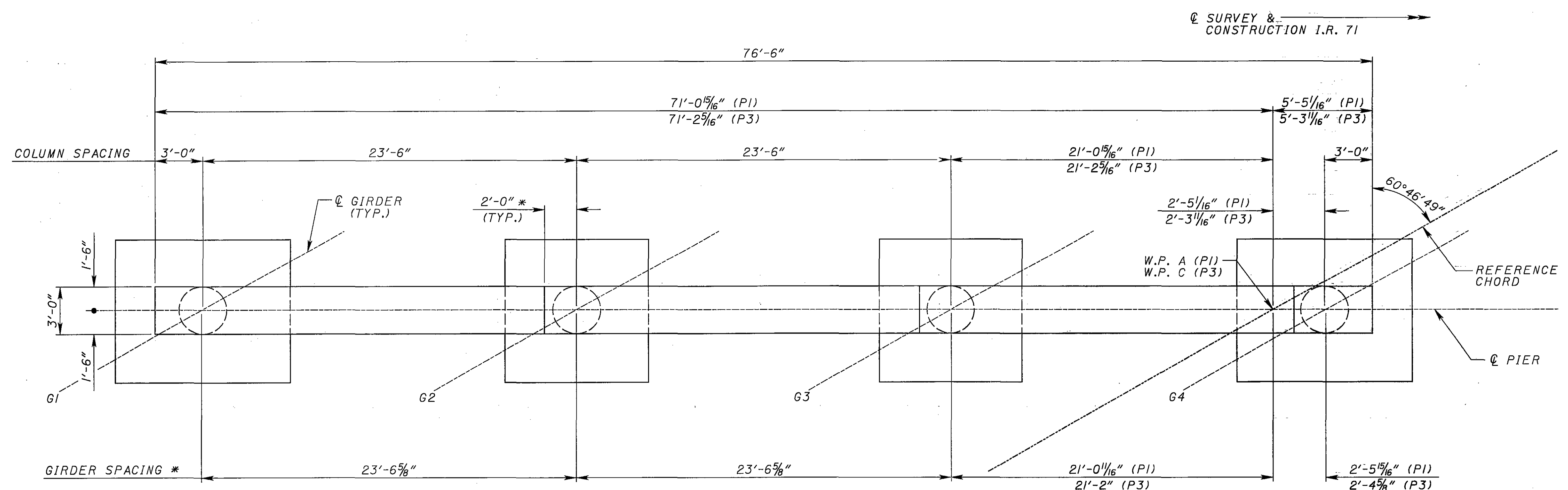
NOTES:

- BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.21 INCHES AT PIER 2 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET **39 / 64** FOR SECTIONS B-B, D-D AND F-F.
- SEE SHEET **15 / 64** FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #8 BAR = 7'-3"
 #9 BAR = 8'-1"

LEGEND:

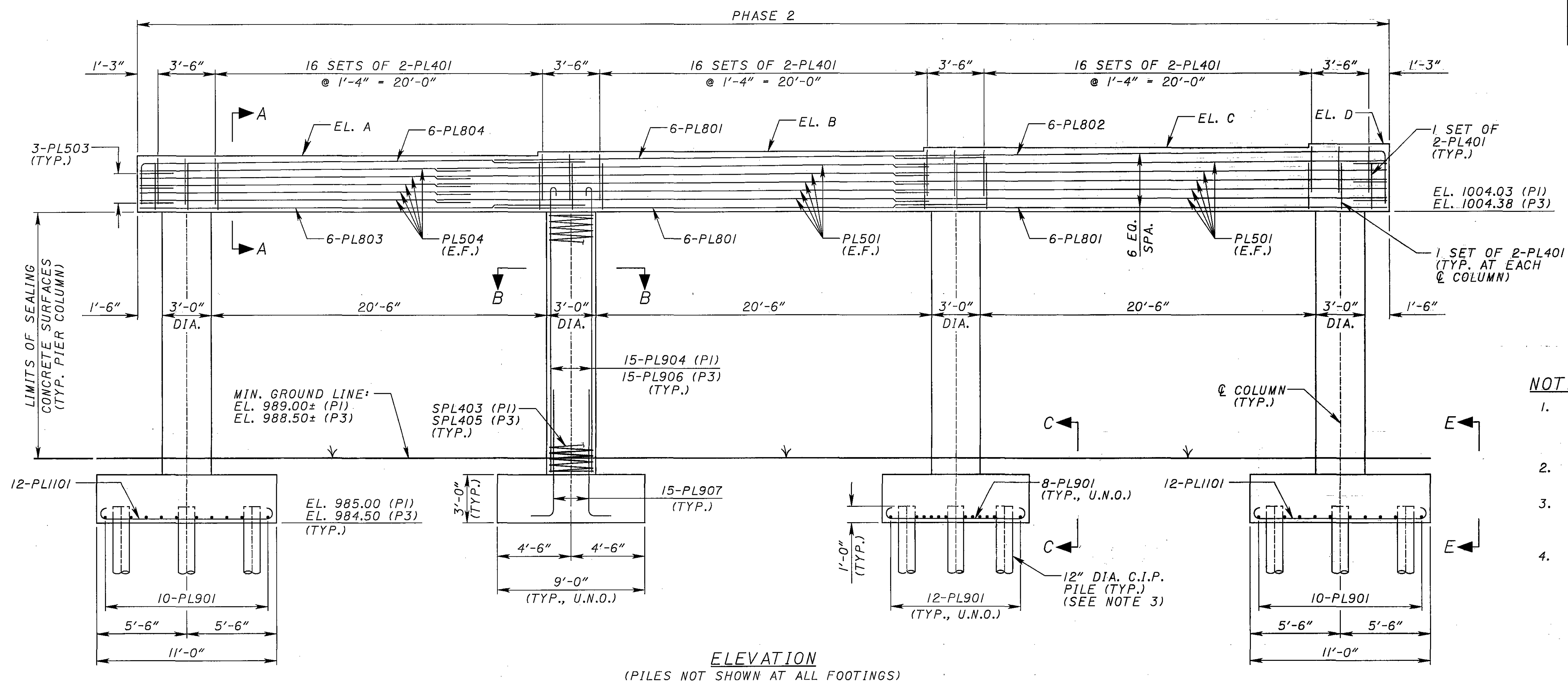
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- E.F. = EACH FACE
- EQ. = EQUAL
- G. = GIRDER NUMBER
- SPA. = SPACES
- W.P. = WORK POINT
- * = MEASURED FROM INTERSECTION OF ☉ GIRDER AND ☉ PIER

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PLAN - PIER 1 & 3 SOUTHBOUND

ELEVATION	PIER 1	PIER 3
A	1007.53	1007.88
B	1007.83	1008.05
C	1008.13	1008.22
D	1008.42	1008.38

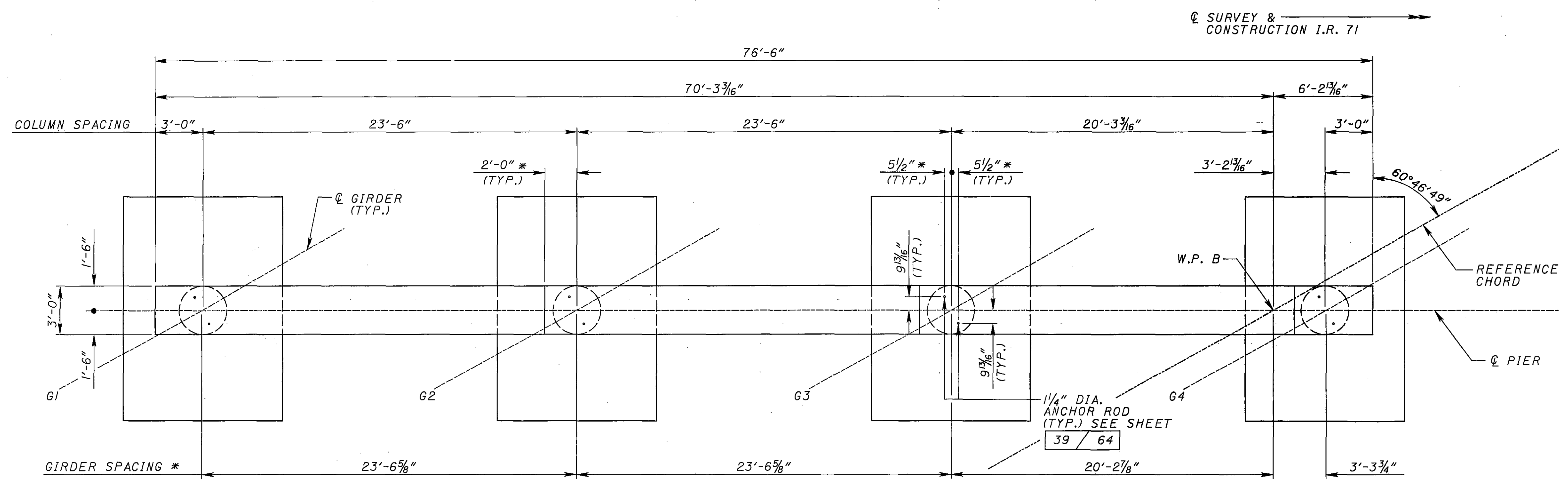


ELEVATION
 (PILES NOT SHOWN AT ALL FOOTINGS)

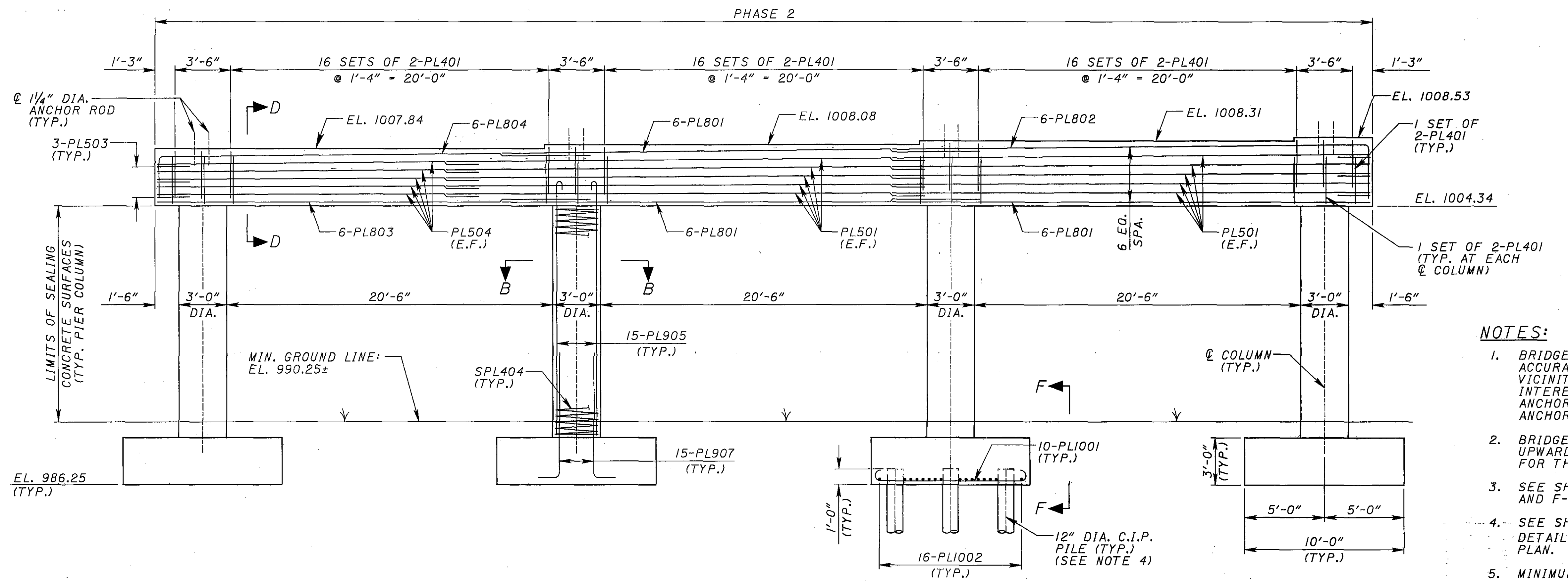
- LEGEND:**
- C.I.P. = CAST-IN-PLACE
 - DIA. = DIAMETER
 - E.F. = EACH FACE
 - EQ. = EQUAL
 - G. = GIRDER NUMBER
 - P1 = PIER 1
 - P3 = PIER 3
 - SPA. = SPACES
 - U.N.O. = UNLESS NOTED OTHERWISE
 - W.P. = WORK POINT
 - * = MEASURED FROM INTERSECTION OF Q GIRDER AND Q PIER

- NOTES:**
1. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.17 INCHES AT PIER 1 AND 0.16 INCHES AT PIER 3 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
 2. SEE SHEET 39 / 64 FOR SECTIONS A-A, B-B, C-C AND E-E.
 3. SEE SHEET 14 / 64 & 15 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 4. MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #8 BAR = 7'-3"
 #9 BAR = 8'-1"

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PLAN - PIER 2 SOUTHBOUND

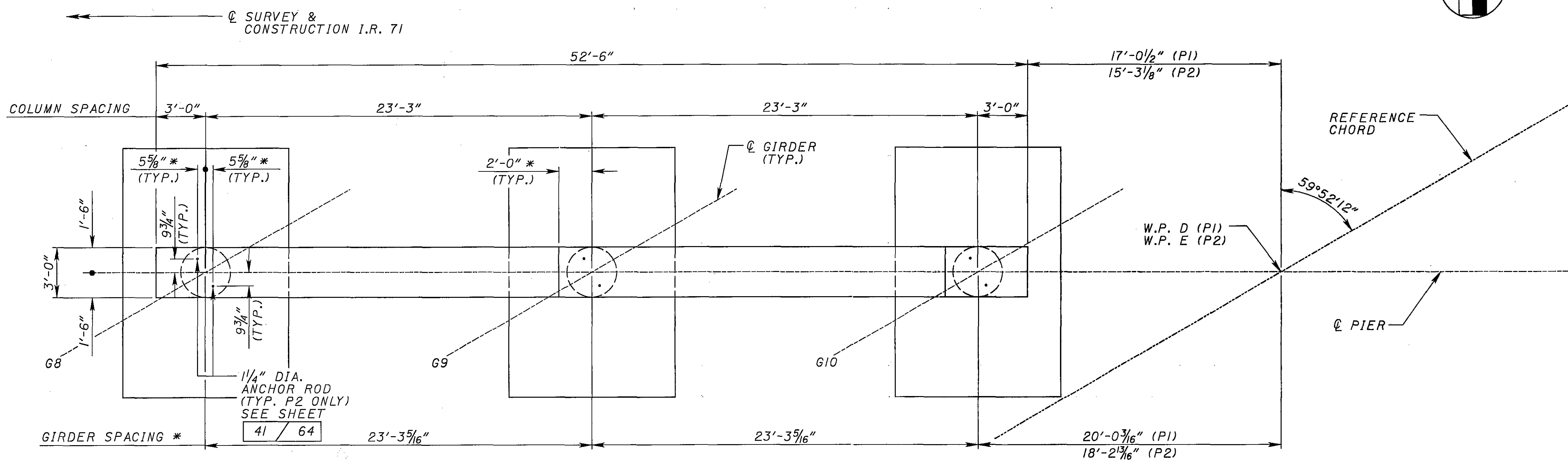


ELEVATION
(PILES NOT SHOWN AT ALL FOOTINGS)

LEGEND:
 C.I.P. - CAST-IN-PLACE
 DIA. - DIAMETER
 E.F. - EACH FACE
 EQ. - EQUAL
 G. - GIRDER NUMBER
 SPA. - SPACES
 W.P. - WORK POINT
 * - MEASURED FROM INTERSECTION OF ϕ GIRDER AND ϕ PIER

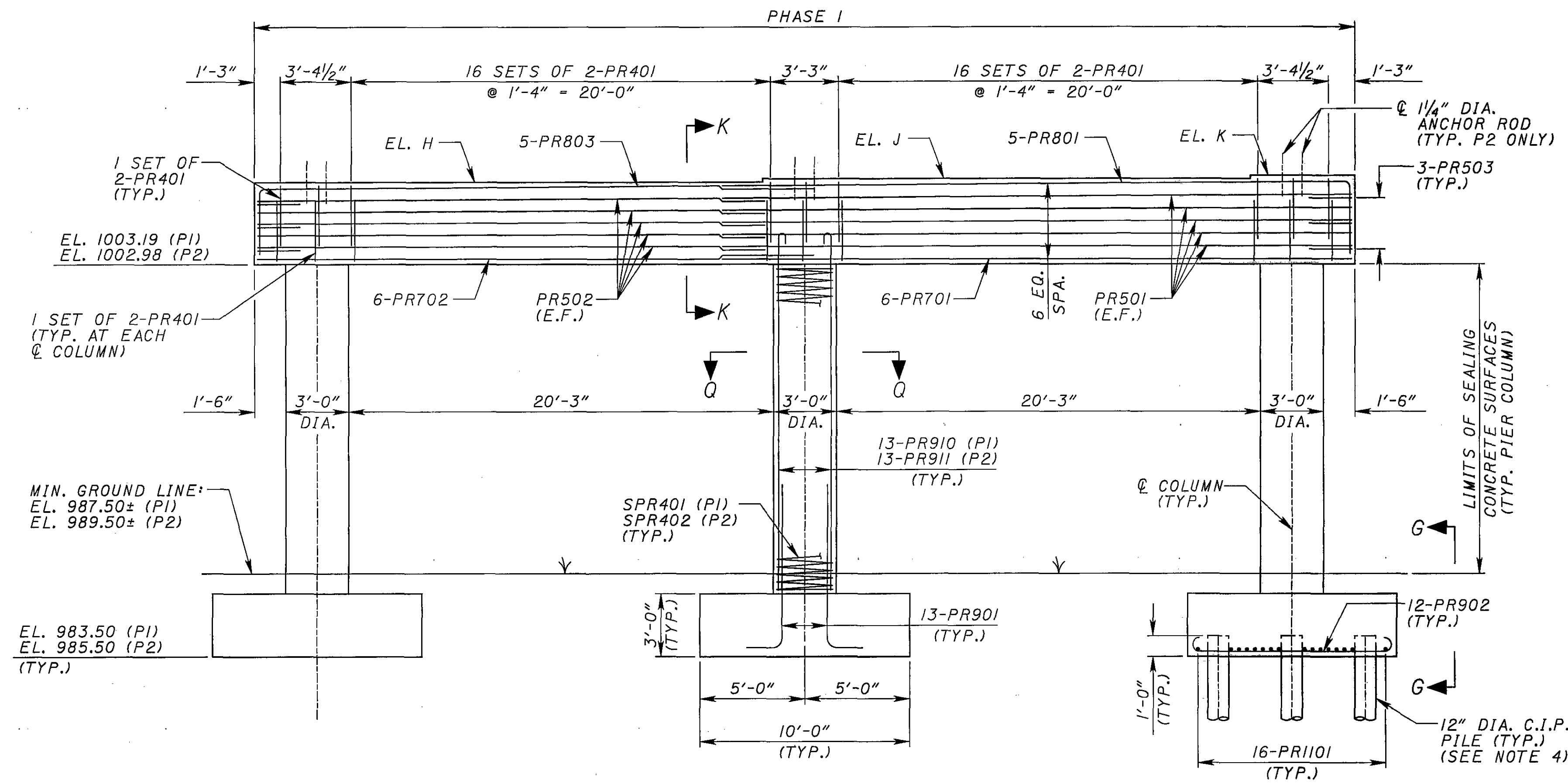
- NOTES:**
- BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
 - BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.21 INCHES AT PIER 2 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
 - SEE SHEET 39 / 64 FOR SECTIONS B-B, D-D AND F-F.
 - SEE SHEET 15 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
 - MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #8 BAR = 7'-3"
 #9 BAR = 8'-1"

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PLAN - PIER 1 & 2 NORTHBOUND

ELEVATION	PIER 1	PIER 2
H	1007.19	1006.98
J	1007.41	1007.14
K	1007.62	1007.28



ELEVATION
(PILES NOT SHOWN AT ALL FOOTINGS)

NOTES:

- BRIDGE SEAT REINFORCING, SETTING ANCHORS, ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.17 INCHES AT PIER 1 AND 0.19 INCHES AT PIER 2 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET 40 / 64 FOR SECTION G-G AND SHEET 41 / 64 FOR SECTIONS K-K & Q-Q.
- SEE SHEET 16 / 64 & 17 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
#4 BAR = 1'-7"
#5 BAR = 2'-0"
#7 BAR = 4'-10"
#8 BAR = 7'-3"
#9 BAR = 8'-1"

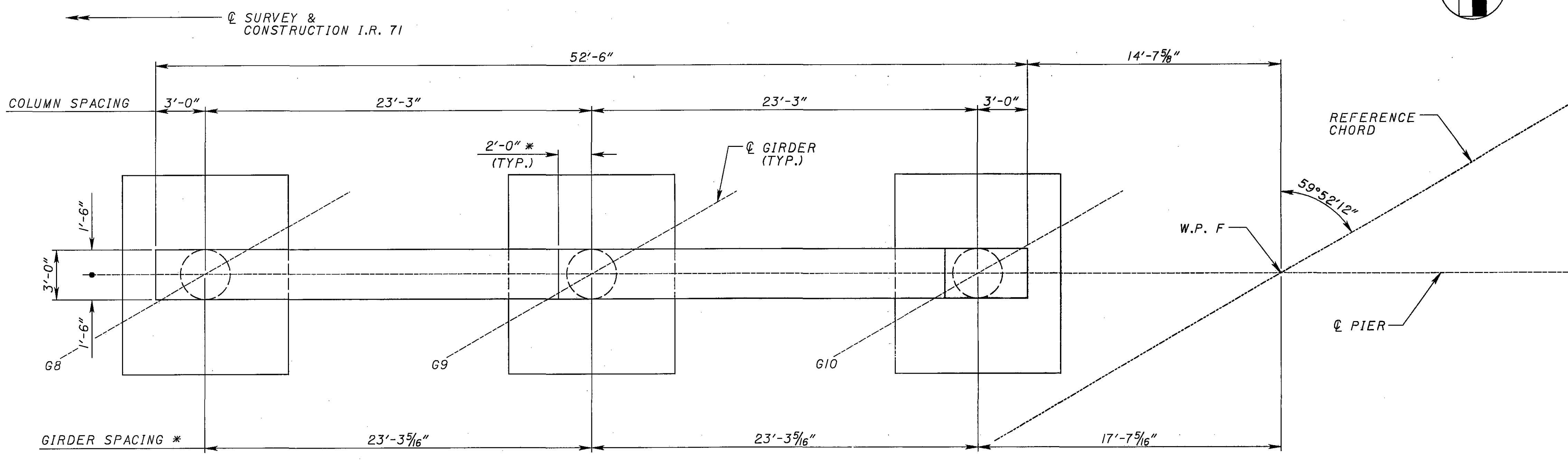
LEGEND:

- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- E.F. = EACH FACE
- EQ. = EQUAL
- G = GIRDER NUMBER
- P1 = PIER 1
- P2 = PIER 2
- SPA. = SPACES
- W.P. = WORK POINT
- * = MEASURED FROM INTERSECTION OF G GIRDER AND G PIER

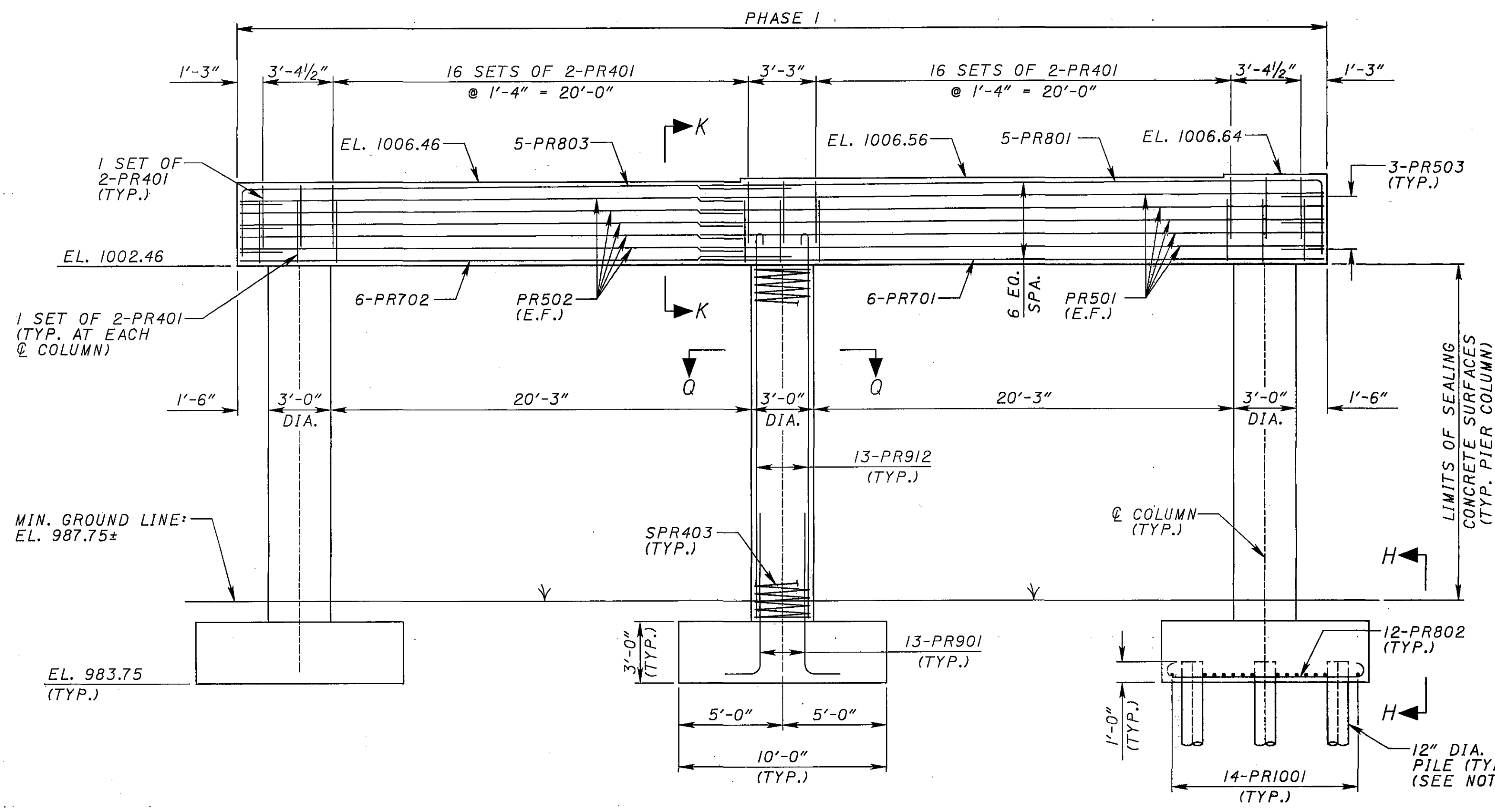
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DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922
LEFT	5202957
RIGHT	
DRAWN	TTK
DESIGNED	TTK
CHECKED	JMK

PHASE I PIER 3 PLAN & ELEVATION - NORTHBOUND
BRIDGE NO. MED-71-0794 L/R
1-71 OVER 1-76



PLAN - PIER 3 NORTHBOUND



ELEVATION
(PILES NOT SHOWN AT ALL FOOTINGS)

NOTES:

- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.17 INCHES AT PIER 3 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET 40 / 64 FOR SECTION H-H AND SHEET 41 / 64 FOR SECTIONS K-K & Q-Q.
- SEE SHEET 17 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 - #4 BAR = 1'-7"
 - #5 BAR = 2'-0"
 - #7 BAR = 4'-10"
 - #8 BAR = 7'-3"
 - #9 BAR = 8'-1"

LEGEND:

- C.I.P. - CAST-IN-PLACE
- DIA. - DIAMETER
- E.F. - EACH FACE
- EQ. - EQUAL
- G. - GIRDER NUMBER
- SPA. - SPACES
- W.P. - WORK POINT
- * - MEASURED FROM INTERSECTION OF G GIRDER AND PIER

P-1/PR30489/CADD/MED-71-0794/ME071.pia.dgn

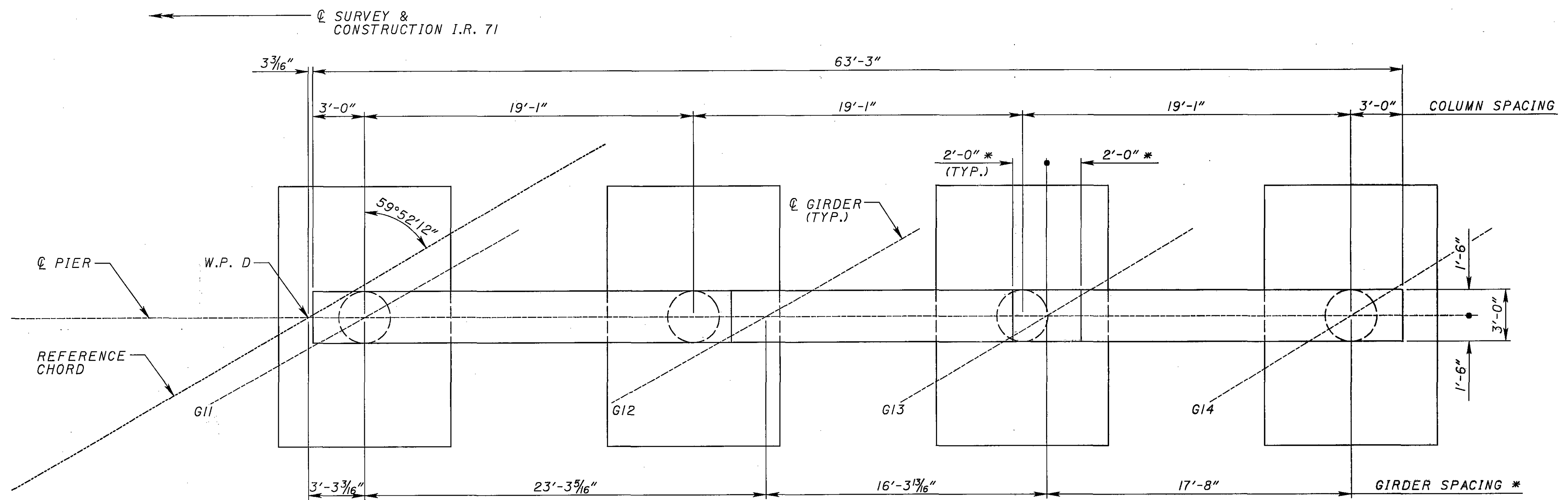
DATE	9/04
REVIEWED	RMK
DRAWN	TTK
DESIGNED	TTK
CHECKED	JMK
SYMBOLS FILE NUMBER	SC05252 - ELEV
PROJECT NUMBER	SE02557 - RIGHT

PHASE 2 PIER 1 PLAN & ELEVATION - NORTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76

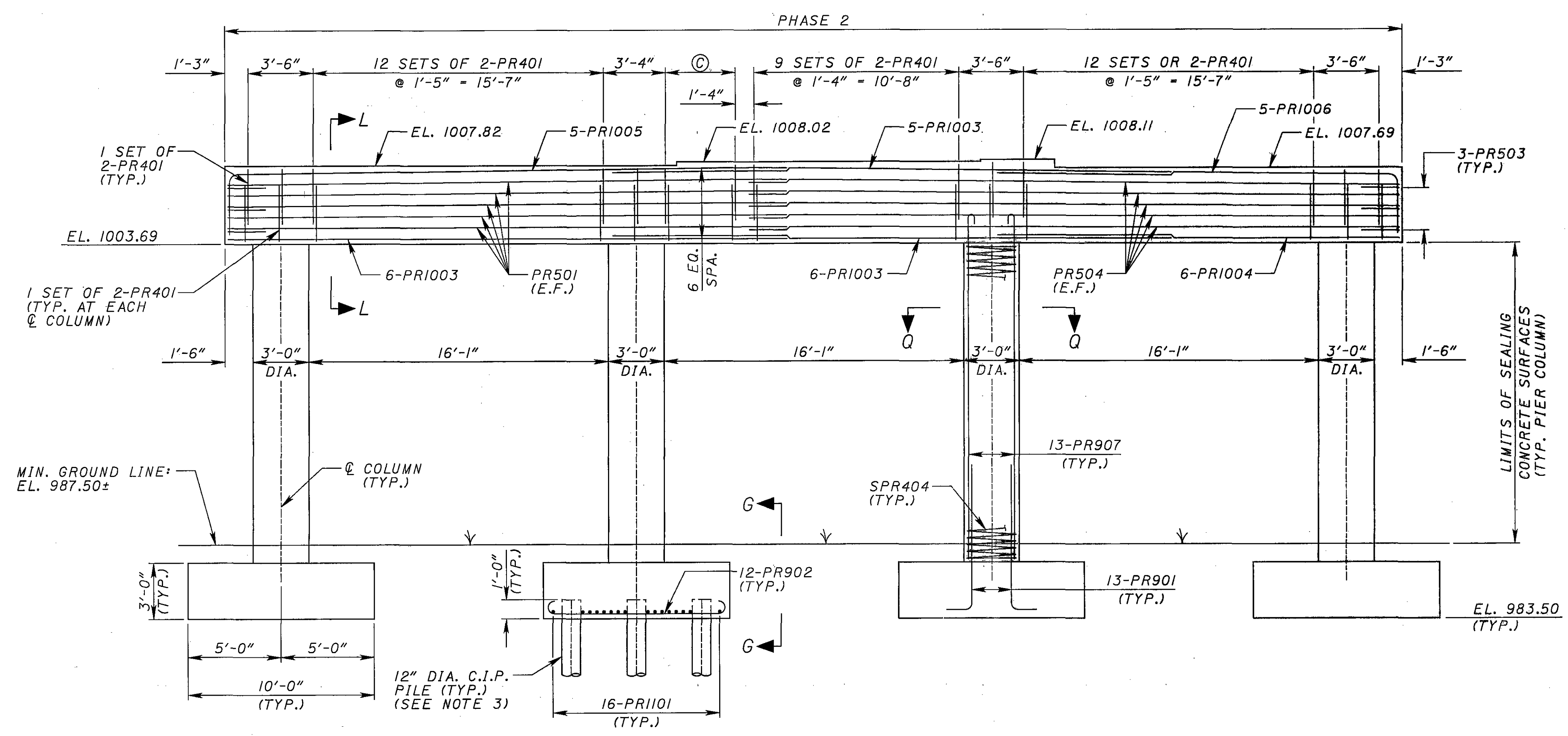
MED-71-6.06
 PID-75657

36 / 64

860
 1120



PLAN - PIER 1 NORTHBOUND



ELEVATION
 (PILES NOT SHOWN AT ALL FOOTINGS)

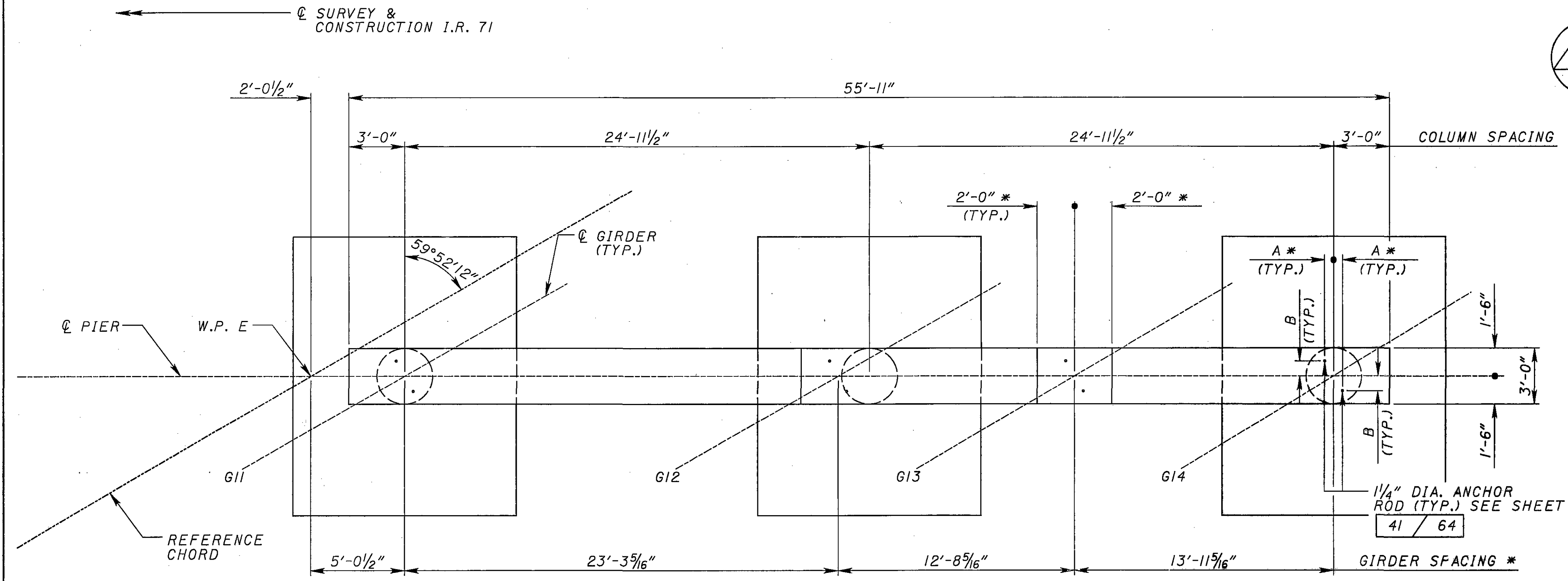
NOTES:

- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.17 INCHES AT PIER 1 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET 40 / 64 FOR SECTION G-G AND SHEET 41 / 64 FOR SECTIONS L-L & Q-Q.
- SEE SHEET 16 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #6 BAR = 3'-10"
 #9 BAR = 8'-1"
 #10 BAR = 11'-7"

LEGEND:

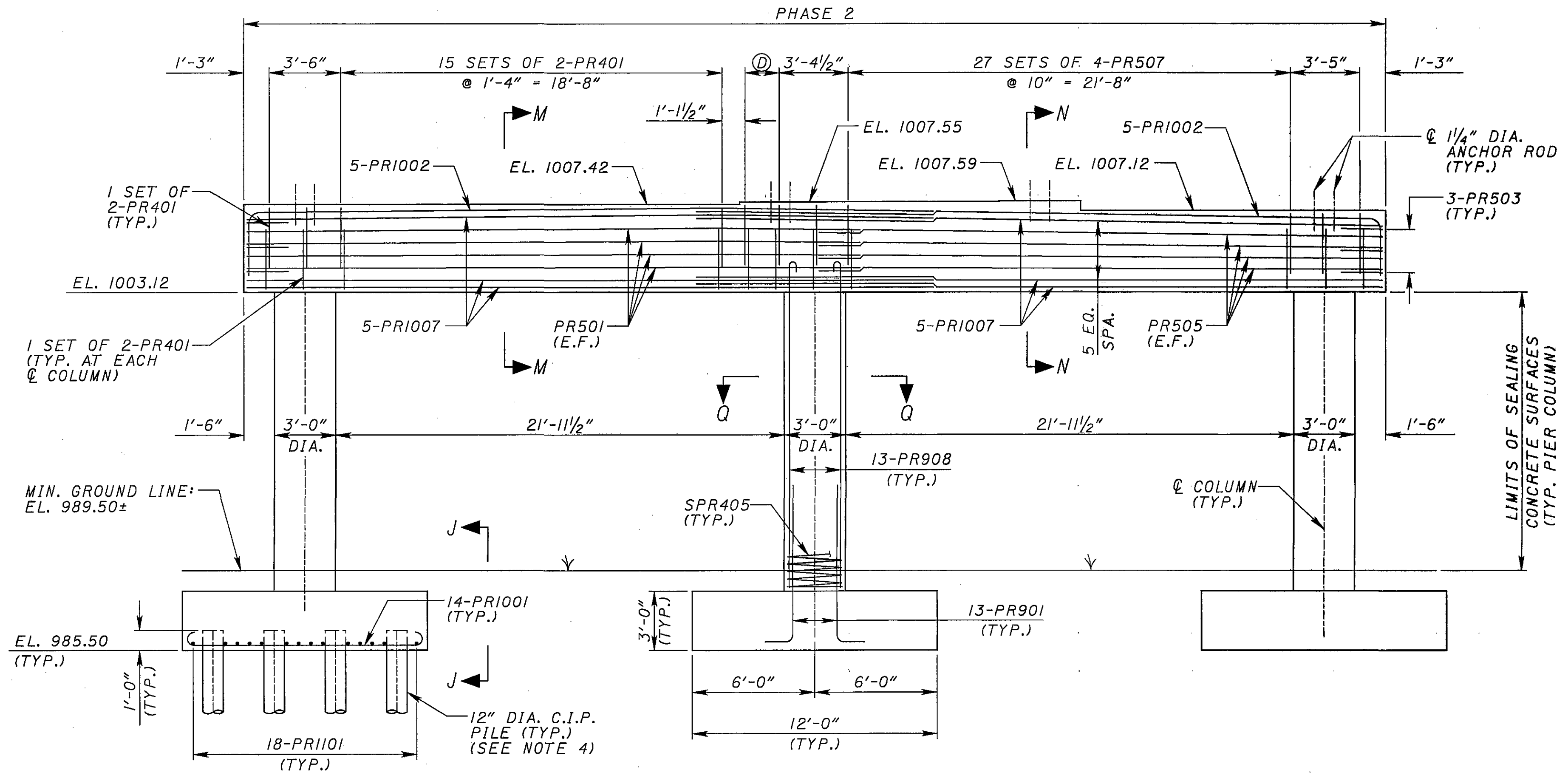
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- E.F. = EACH FACE
- EQ. = EQUAL
- G. = GIRDER NUMBER
- SPA. = SPACES
- W.P. = WORK POINT
- * = MEASURED FROM INTERSECTION OF G GIRDER AND G PIER
- © = 11 SETS OF 2-PR603 @ 4 1/2" = 3'-9"

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PLAN - PIER 2 NORTHBOUND

GIRDER	DIMENSION A	DIMENSION B
G11	5 5/8"	9 3/4"
G12	5 5/8"	9 3/4"
G13	5 3/4"	9 1/16"
G14	5 7/8"	9 5/8"



ELEVATION
(PILES NOT SHOWN AT ALL FOOTINGS)

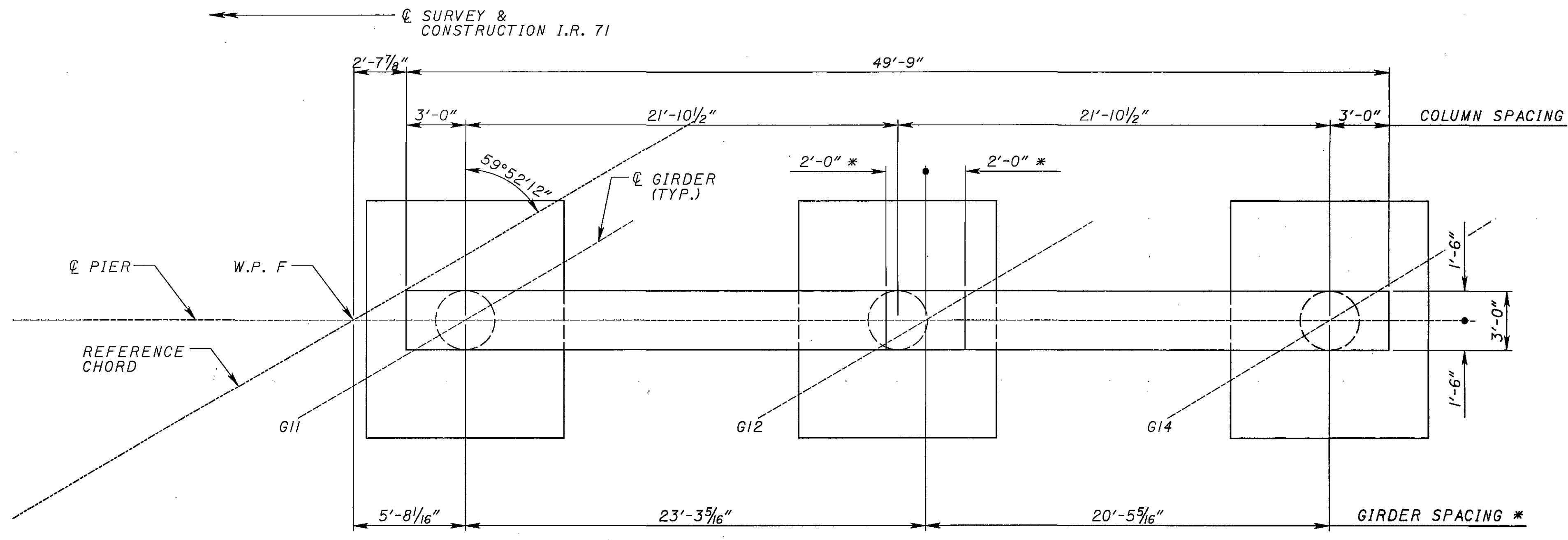
NOTES:

- BRIDGE SEAT REINFORCING, SETTING ANCHORS ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.19 INCHES AT PIER 2 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET 40 / 64 FOR SECTION J-J AND SHEET 41 / 64 FOR SECTIONS M-M, N-N & Q-Q.
- SEE SHEET 17 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 *4 BAR = 1'-7"
 *5 BAR = 2'-0"
 *6 BAR = 3'-10"
 *9 BAR = 8'-1"
 *10 BAR = 11'-7"

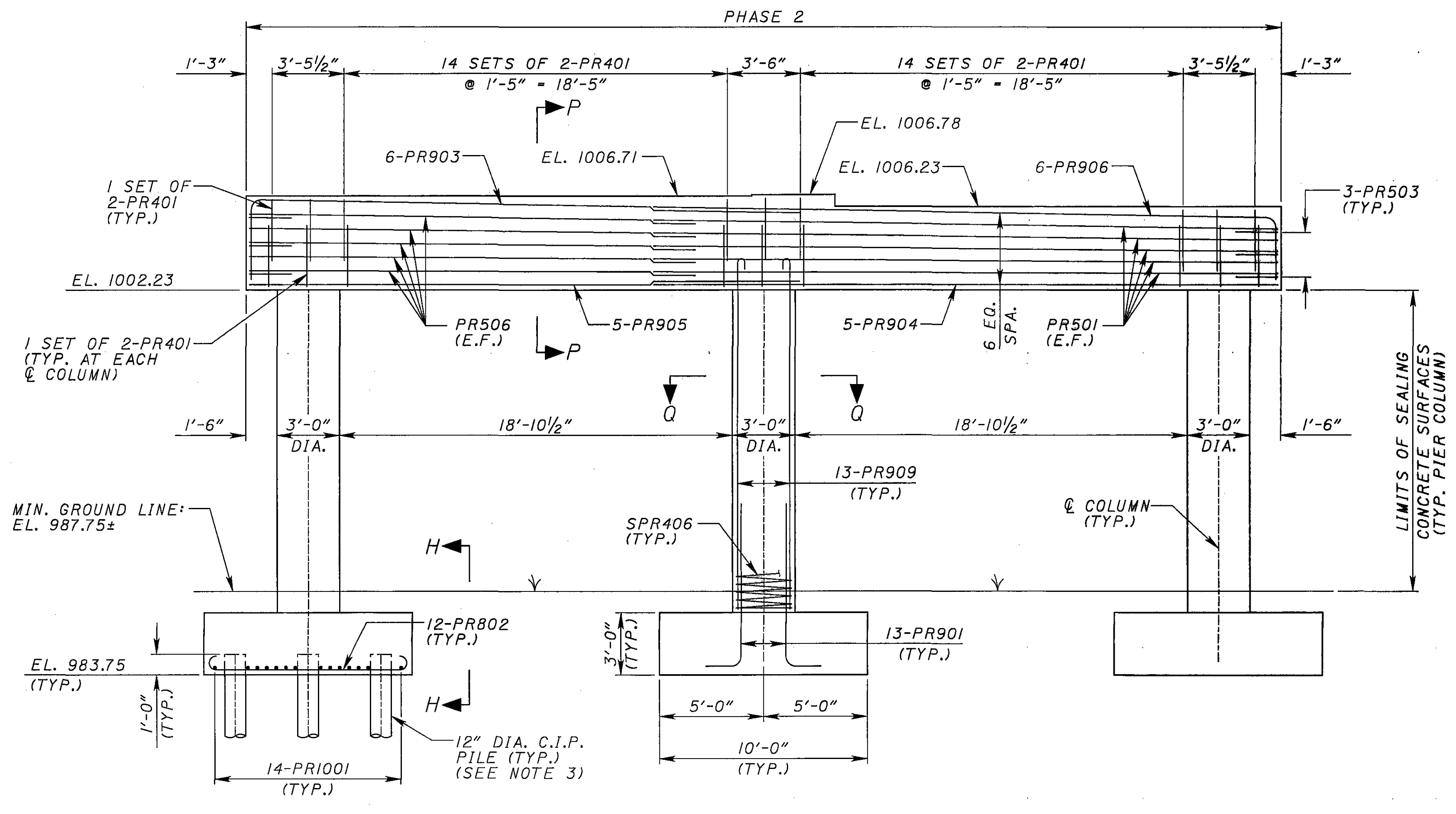
LEGEND:

- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- E.F. = EACH FACE
- EQ. = EQUAL
- G. = GIRDER NUMBER
- SPA. = SPACES
- W.P. = WORK POINT
- * = MEASURED FROM INTERSECTION OF GIRDER AND PIER
- ⊙ = 5 SETS OF 4-PR604 @ 5" = 1'-8"

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PLAN - PIER 3 NORTHBOUND



ELEVATION
 (PILES NOT SHOWN AT ALL FOOTINGS)

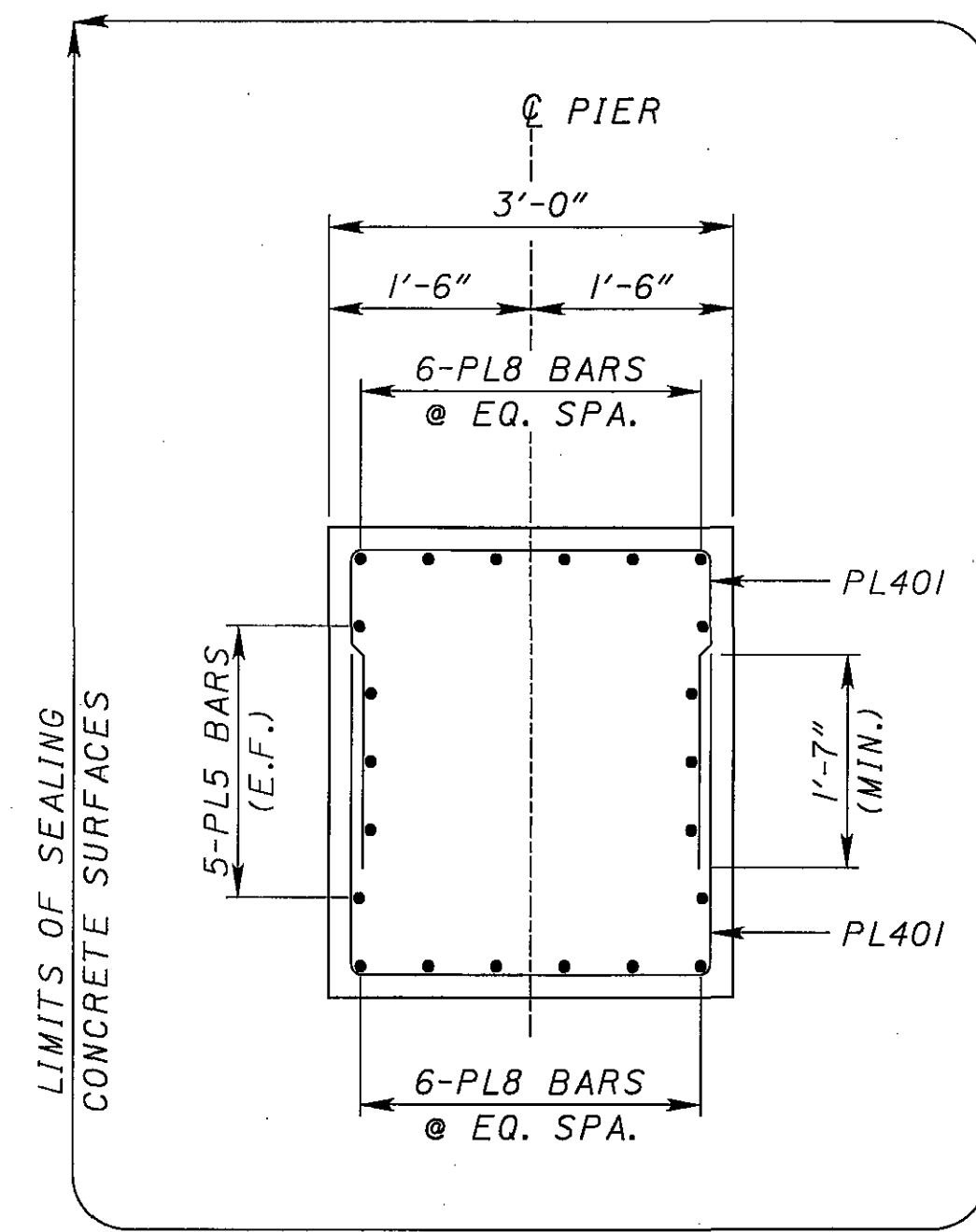
NOTES:

- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.17 INCHES AT PIER 3 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
- SEE SHEET 40 / 64 FOR SECTION H-H AND SHEET 41 / 64 FOR SECTIONS P-P & Q-Q.
- SEE SHEET 17 / 64 FOR FOOTING LOCATION & DETAILS, PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 *4 BAR = 1'-7"
 *5 BAR = 2'-0"
 *9 BAR = 8'-1" (VERTICAL)
 *9 BAR = 9'-2" (HORIZONTAL)

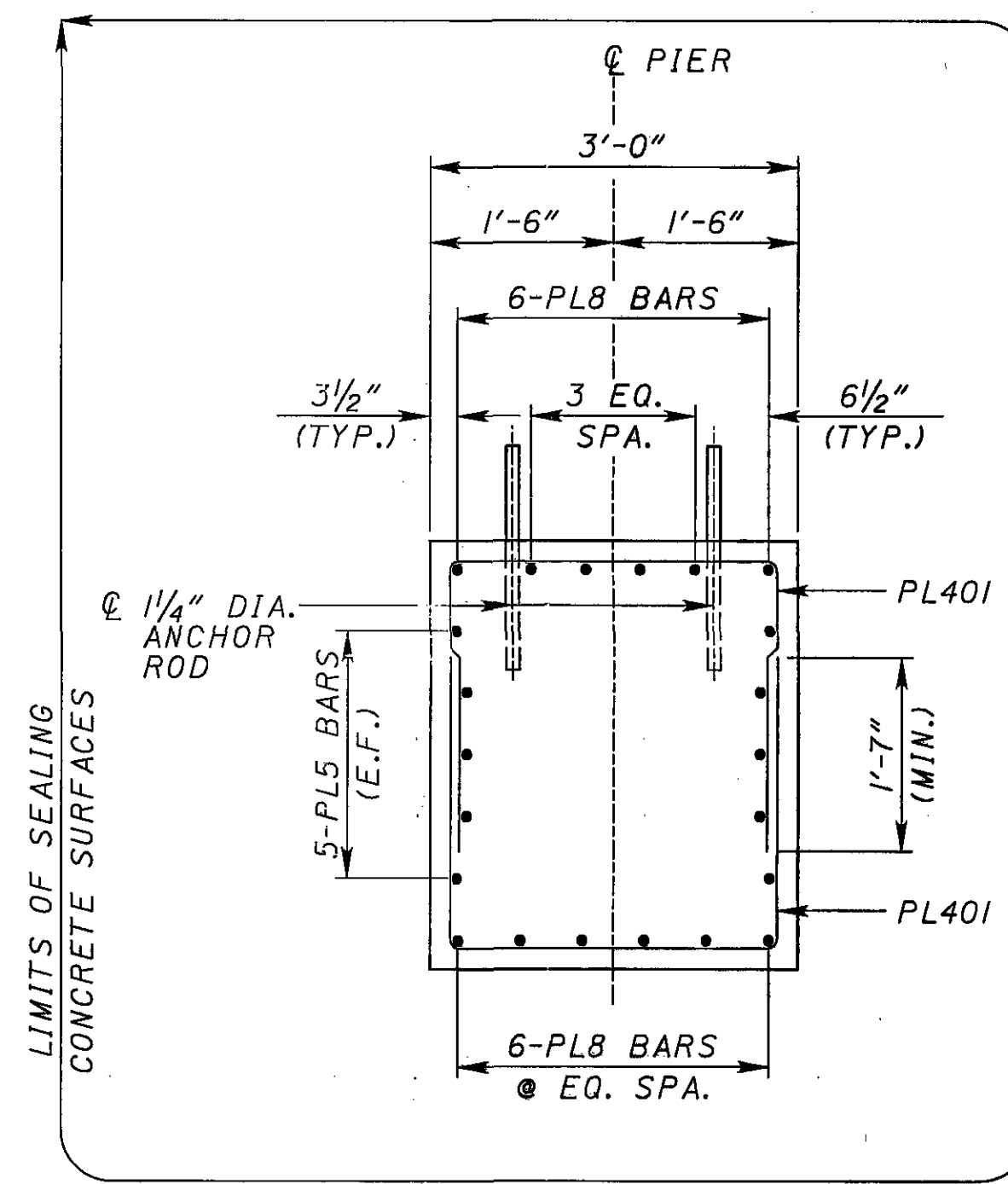
LEGEND:

- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- E.F. = EACH FACE
- EQ. = EQUAL
- G. = GIRDER NUMBER
- SPA. = SPACES
- W.P. = WORK POINT
- * = MEASURED FROM INTERSECTION OF GIRDER AND PIER

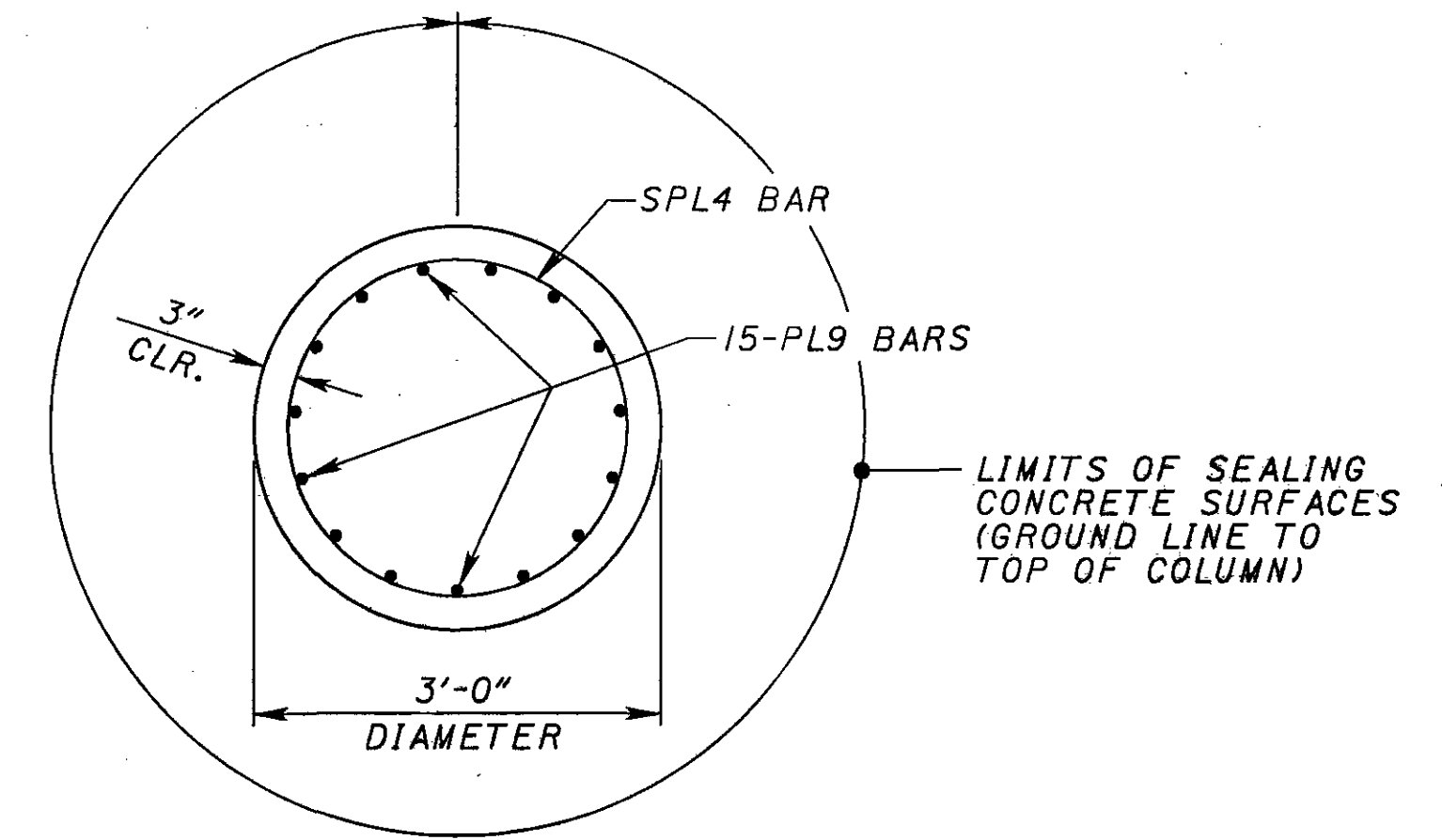
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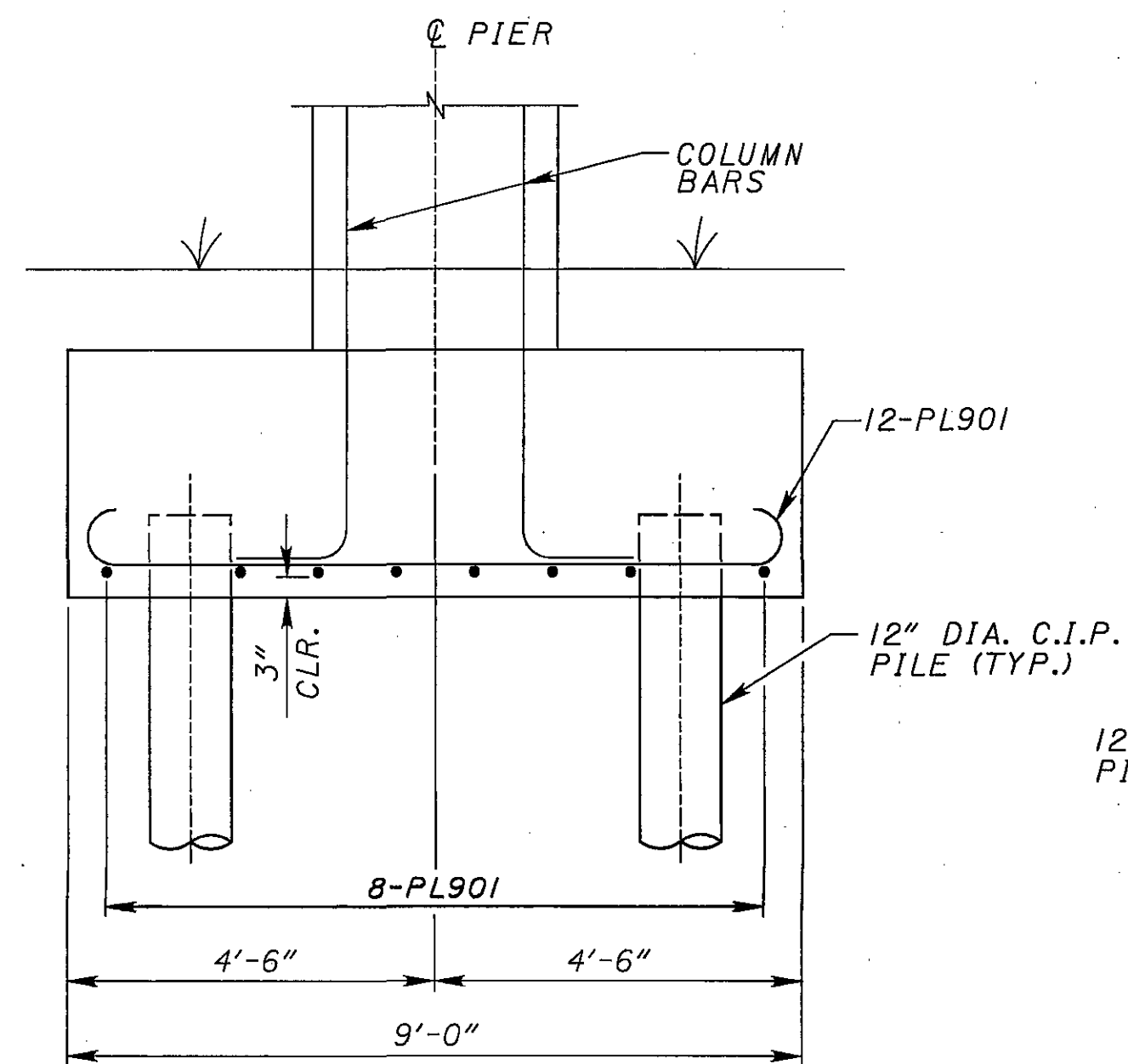
SECTION A-A



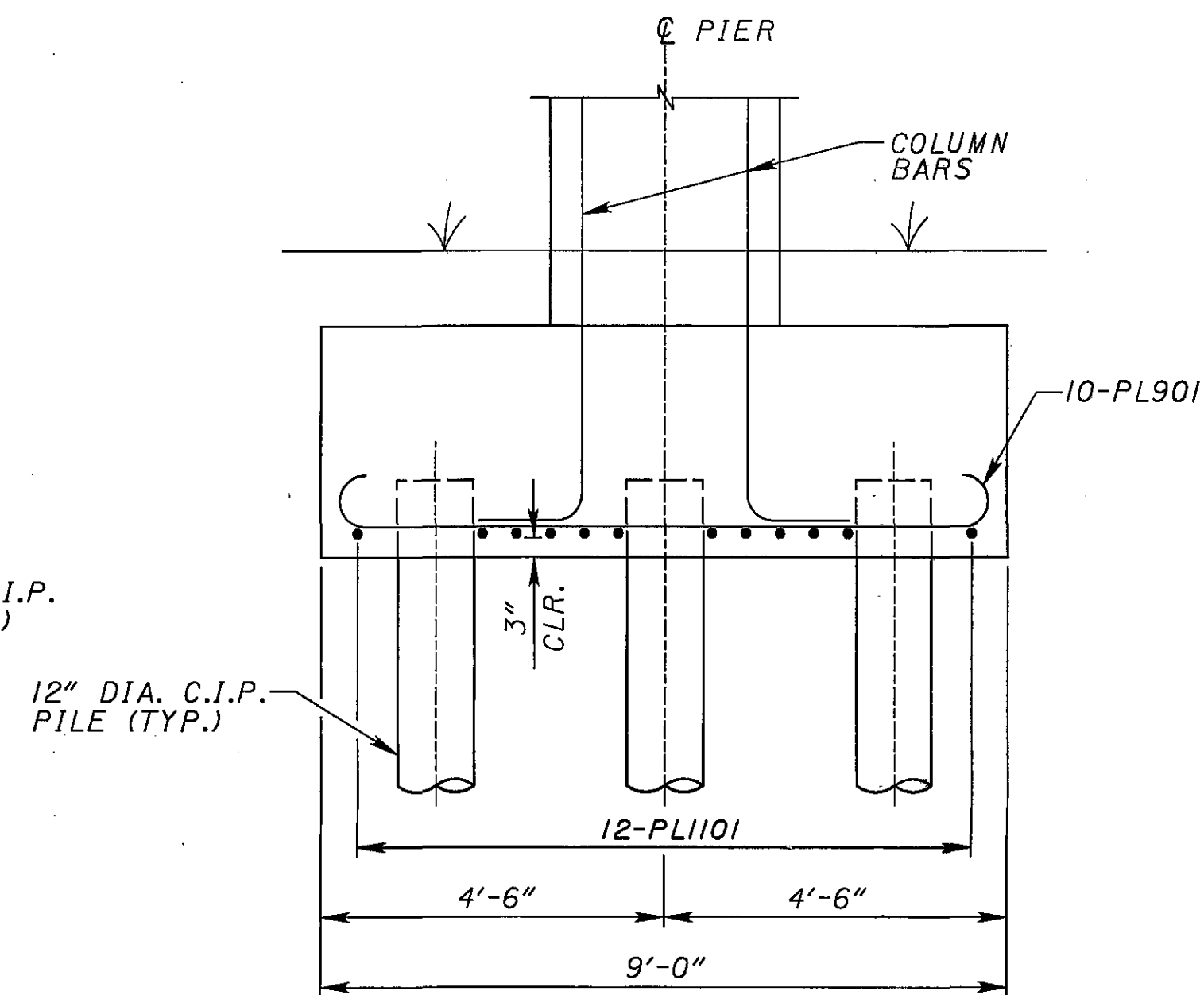
SECTION D-D



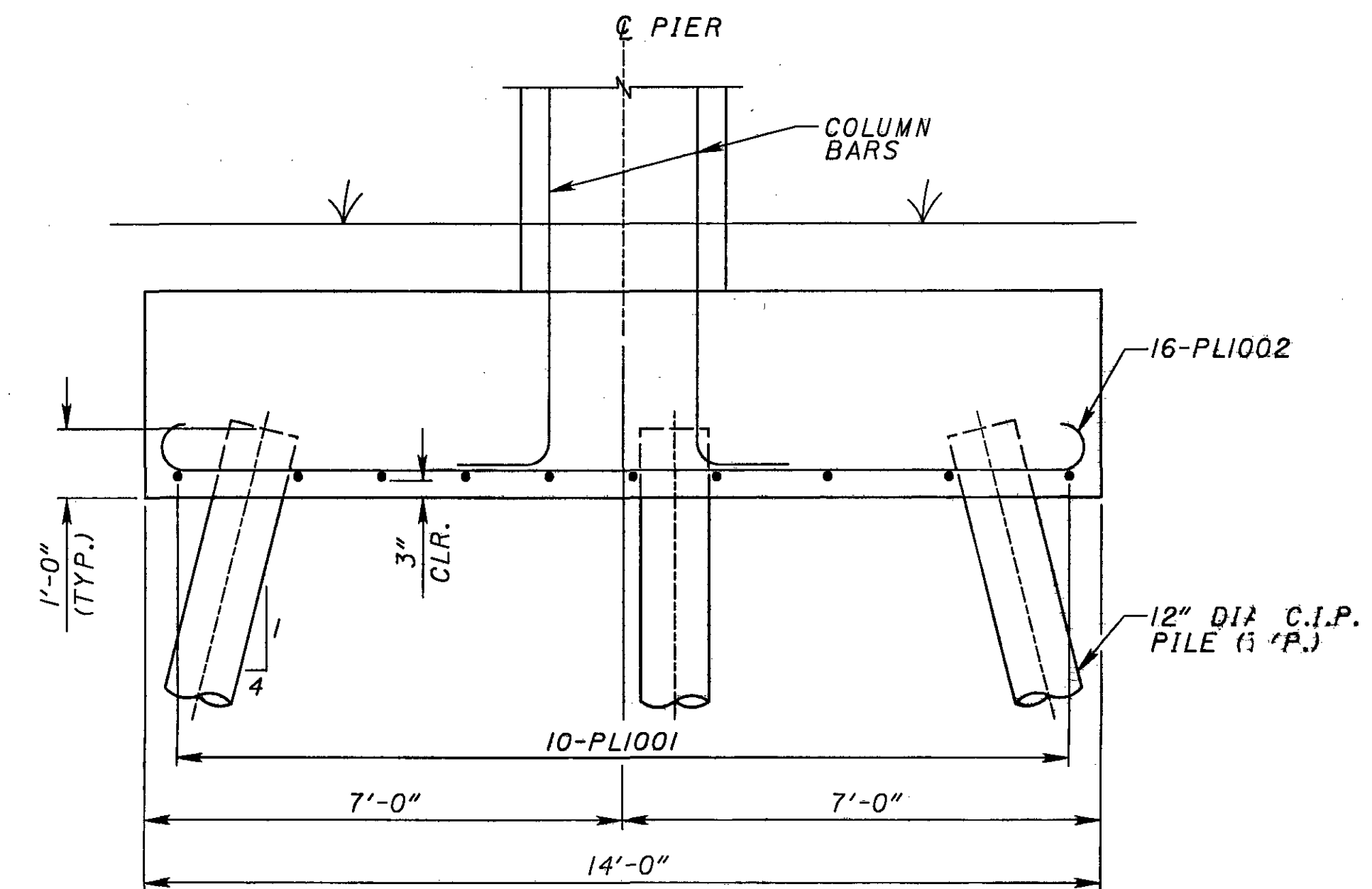
SECTION B-B



SECTION C-C



SECTION E-E



SECTION F-F

- LEGEND:**
- C.I.P. = CAST-IN-PLACE
 - CLR. = CLEAR
 - DIA. = DIAMETER
 - E.F. = EACH FACE
 - EQ. = EQUAL
 - SPA = SPACES

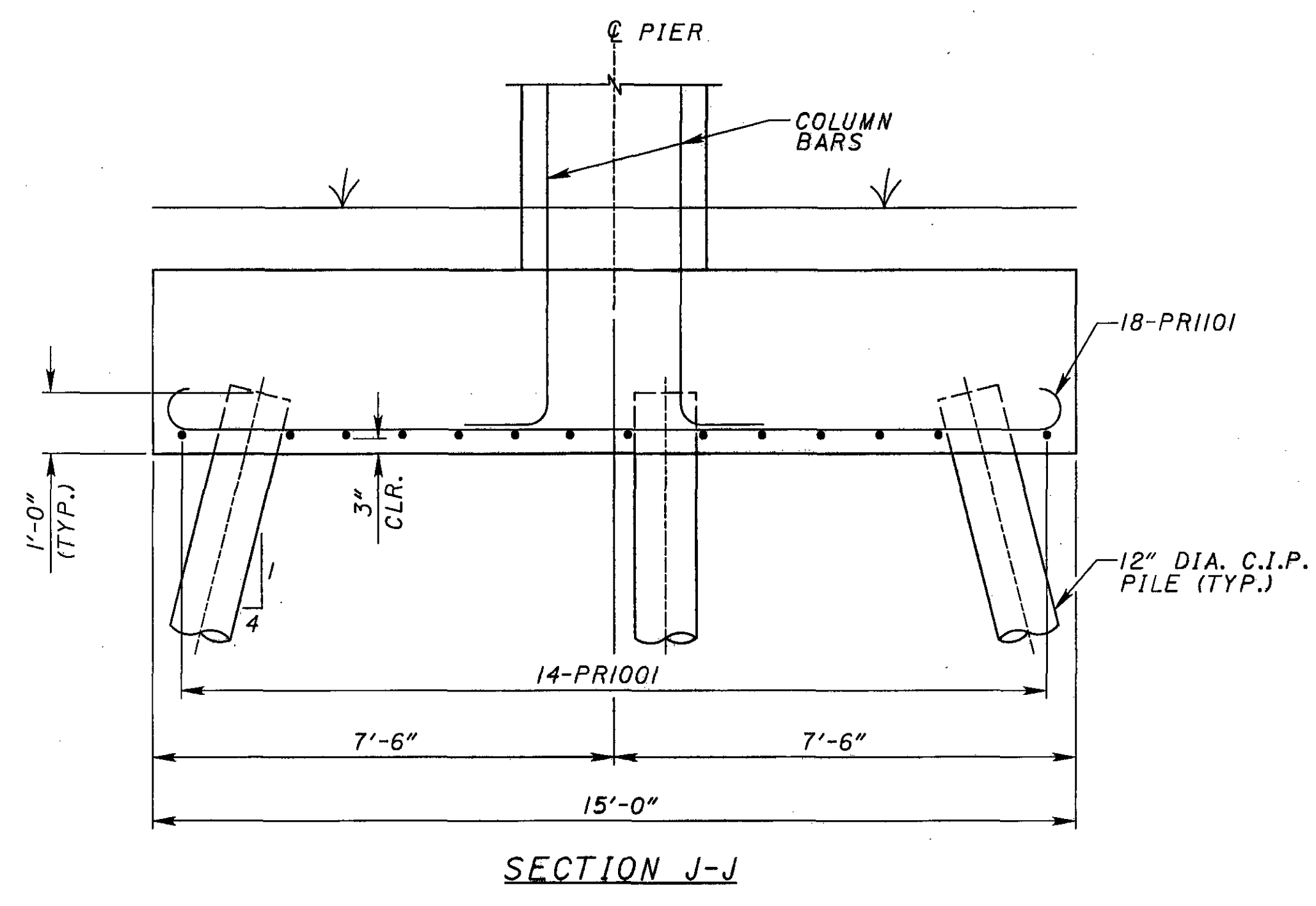
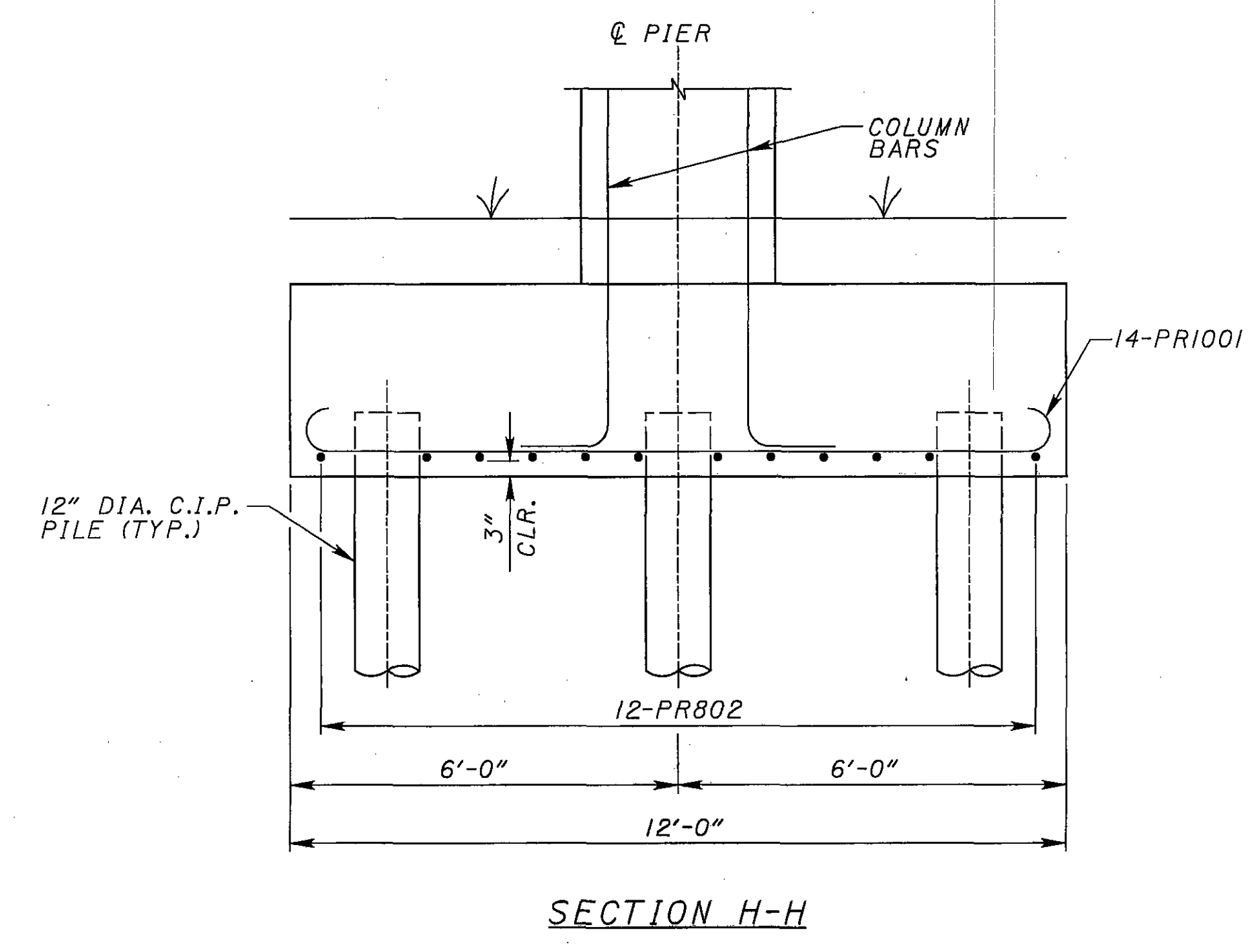
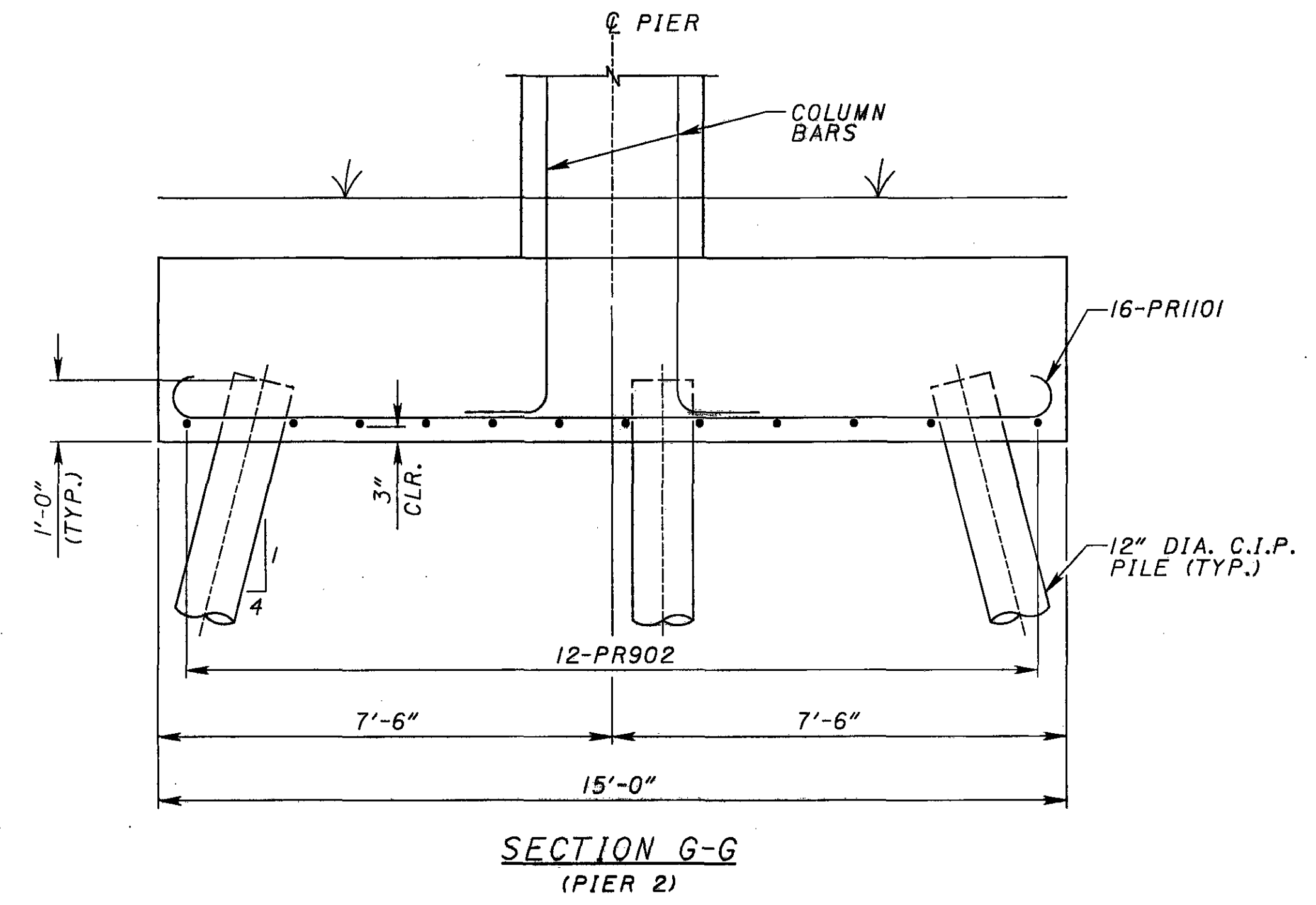
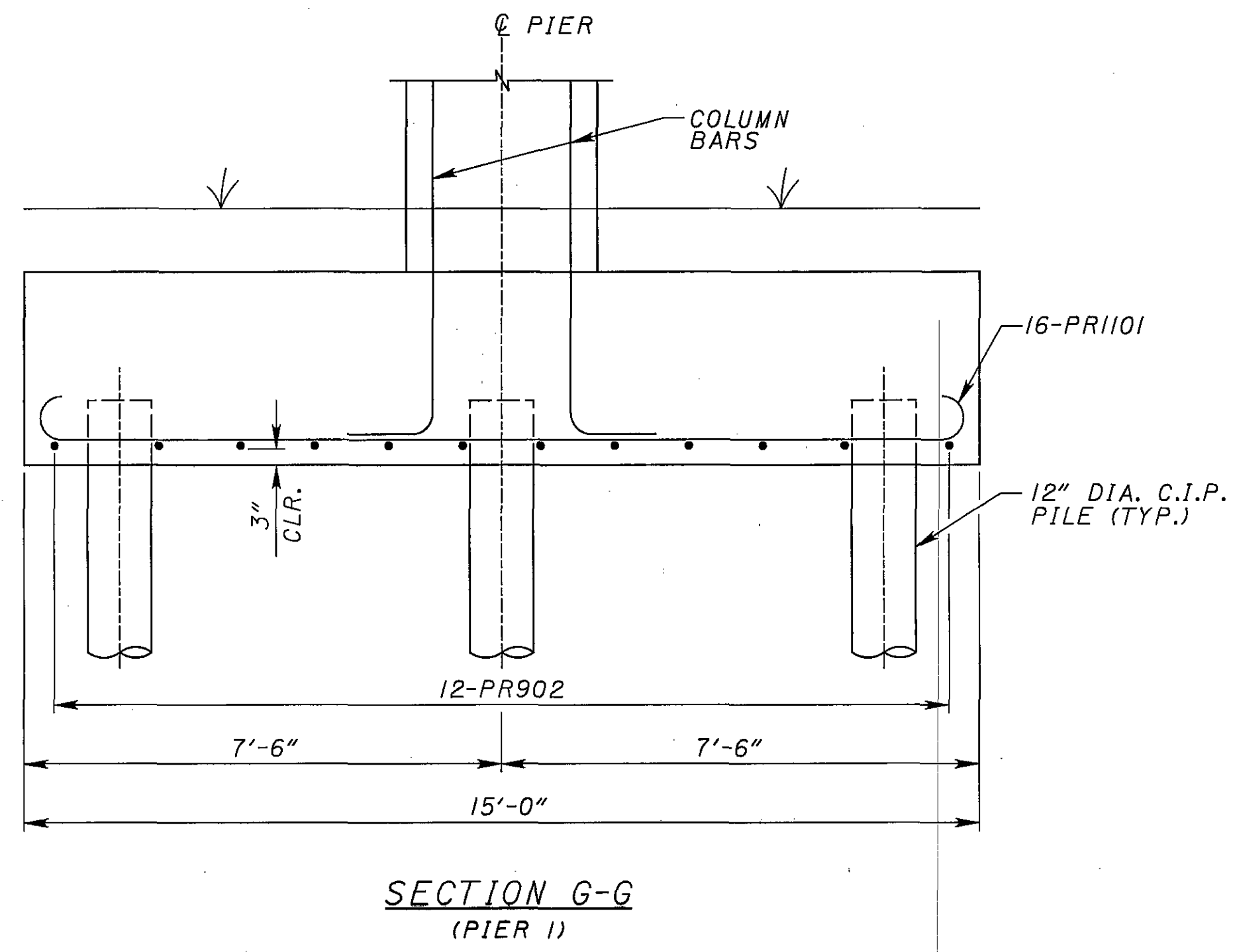
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DESIGNED	TTK	CHECKED	JMK
DRAWN	AAA	REVIEWED	
REVISED	RMK	DATE	9/04
STRUCTURE FILE NUMBER	5202922 - LEFT		
PROJECT NUMBER	5202957 - RIGHT		

PIER DETAILS - SOUTHBOUND
BRIDGE NO. MED-71-0794 L/R
1-71 OVER 1-76

MED-71-6.06
PID-75657

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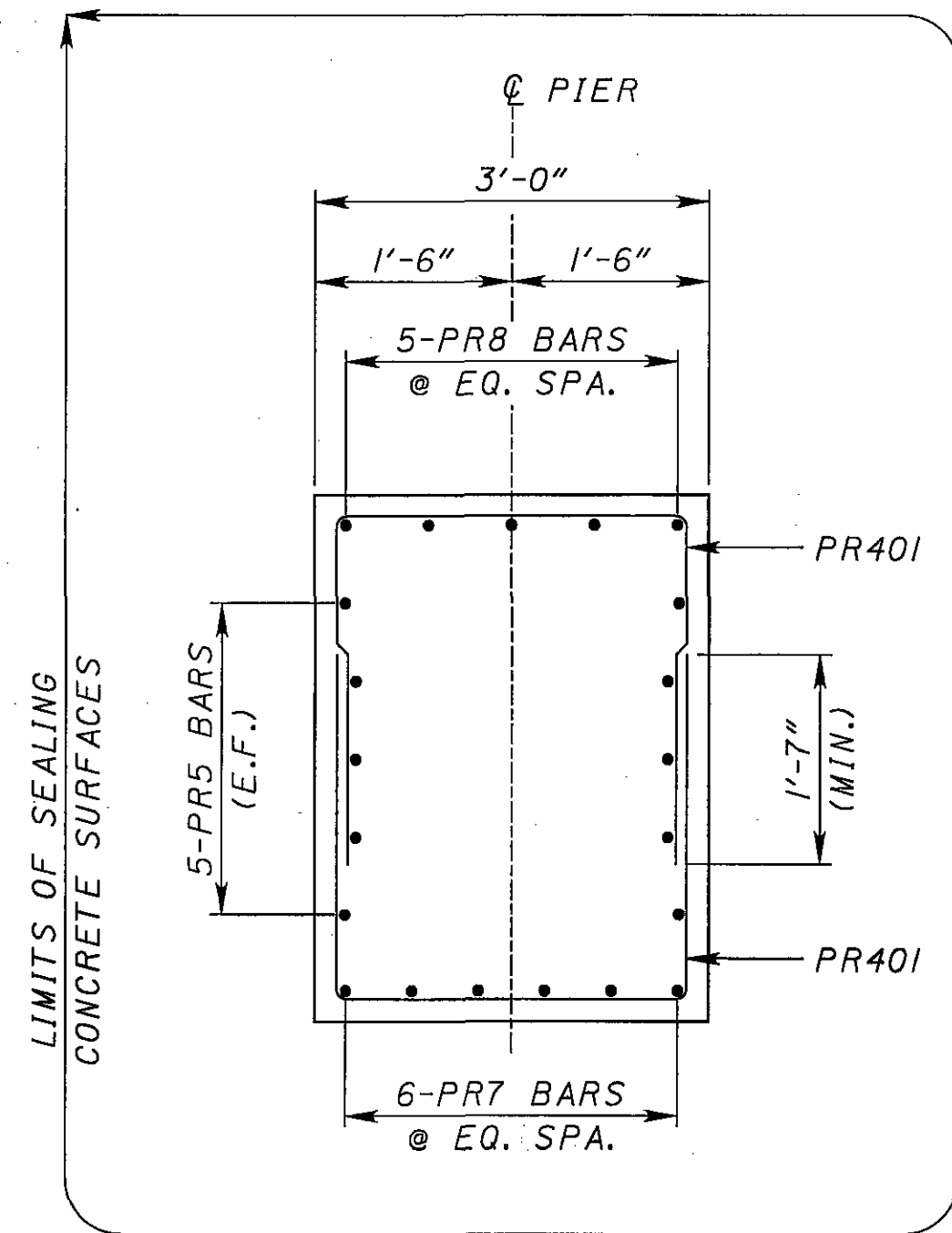


LEGEND:
 C.I.P. - CAST-IN-PLACE
 CLR. - CLEAR
 DIA. - DIAMETER

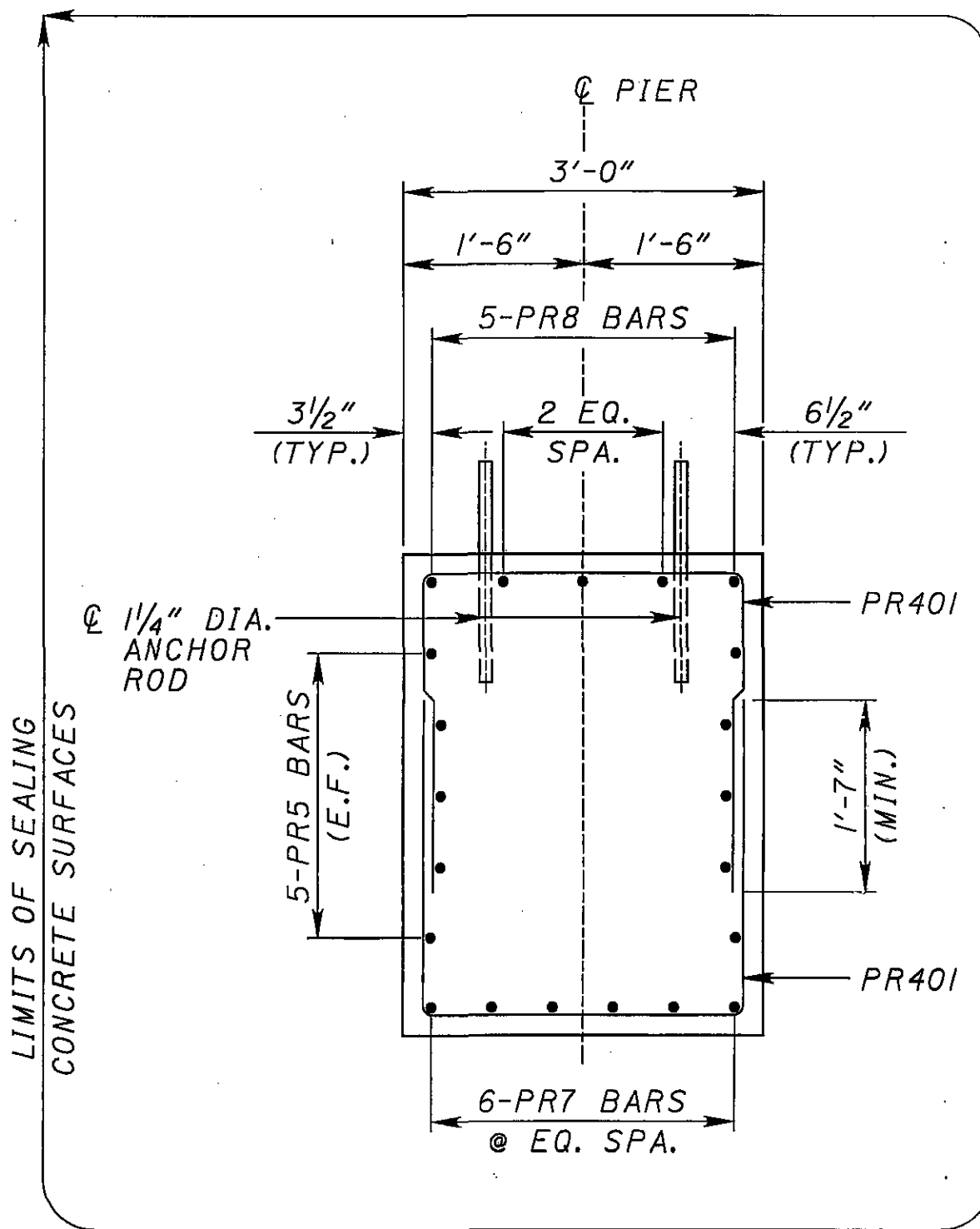
DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922 - LEFT
REVISION	5202957 - RIGHT
DRAWN	AAA
DESIGNED	TTK
CHECKED	JMK

PIER DETAILS 1 - NORTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 1-71 OVER 1-76

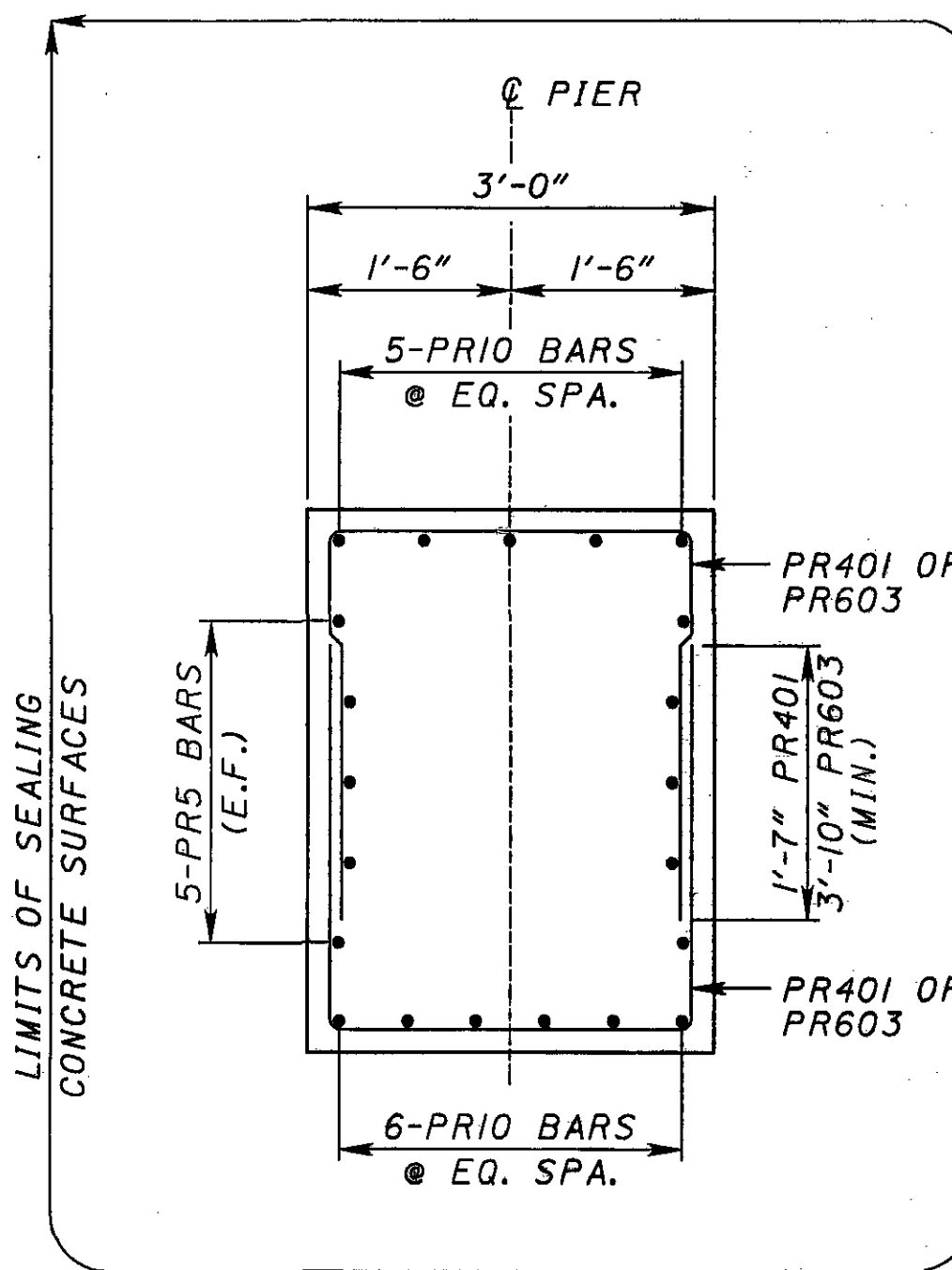
MED-71-6.06
 PID-75657



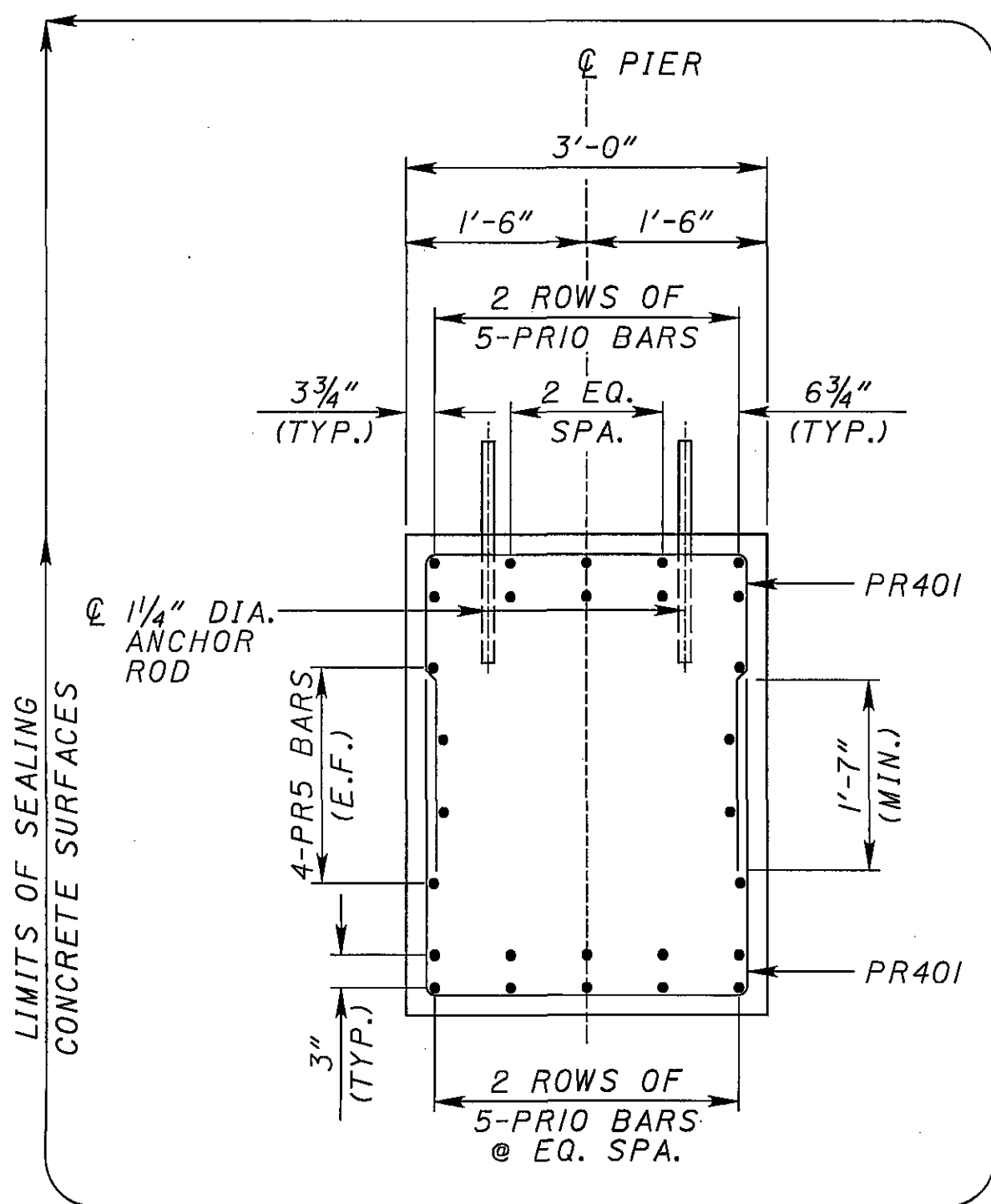
SECTION K-K
(PIERS 1 & 3)



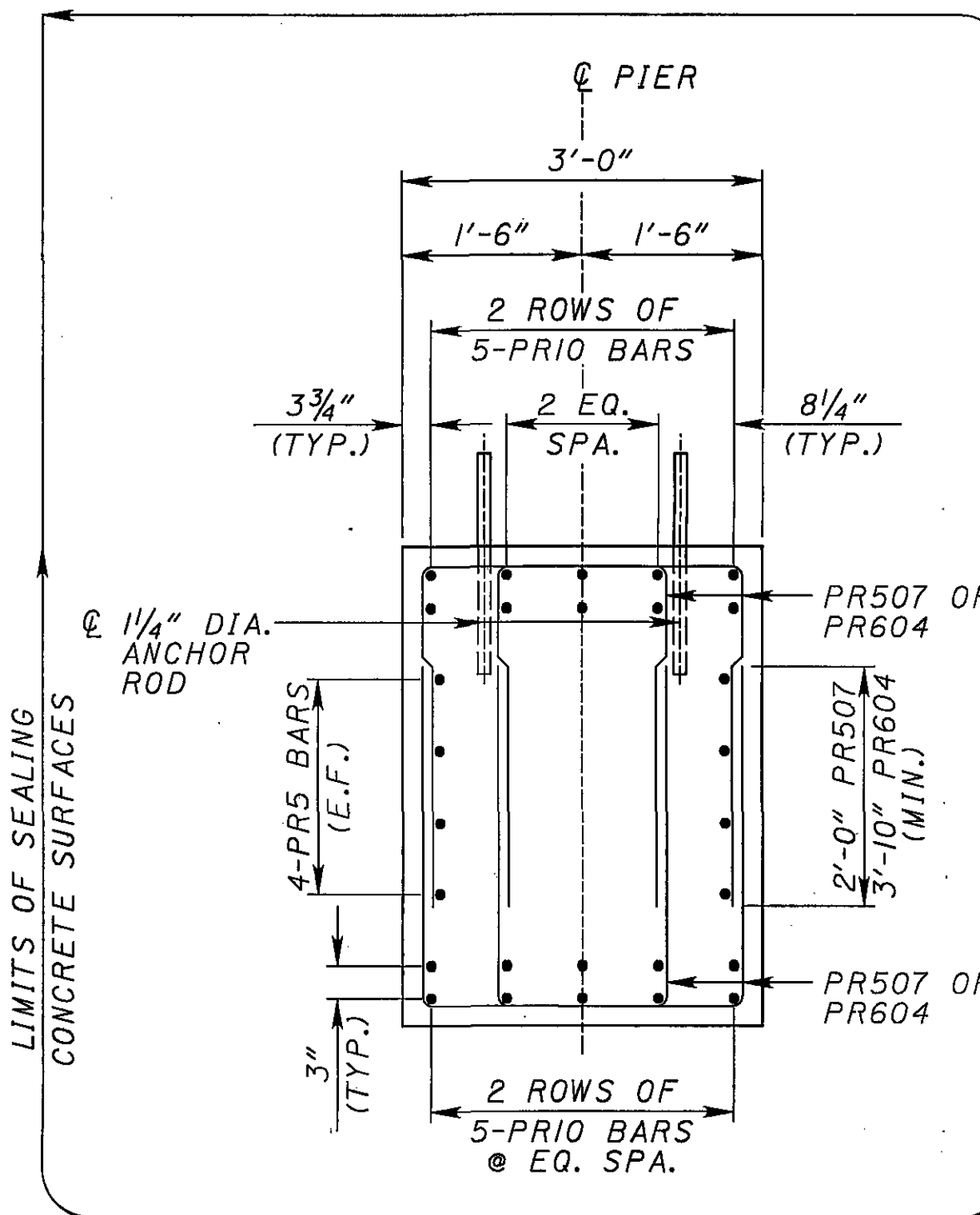
SECTION K-K
(PIER 2)



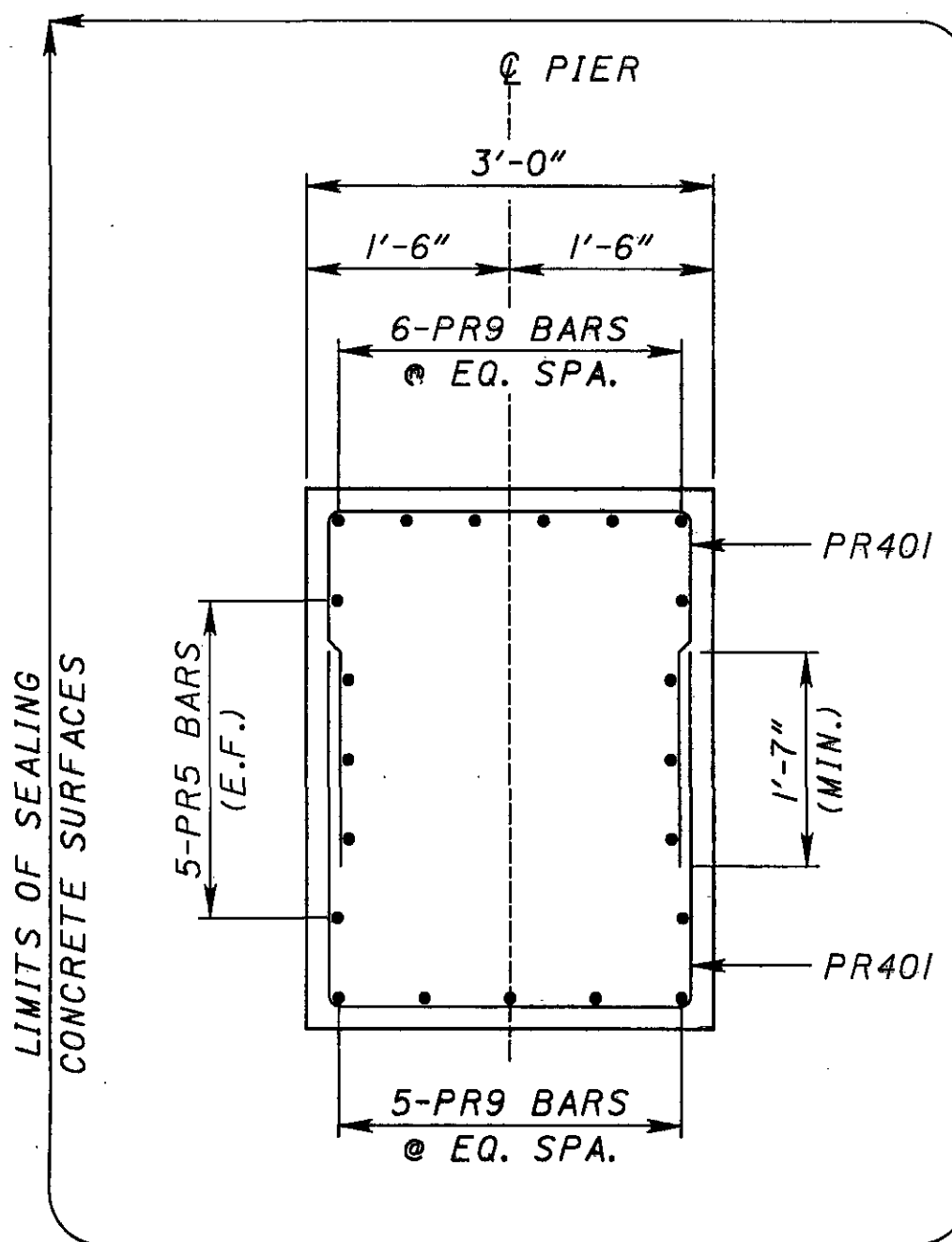
SECTION L-L



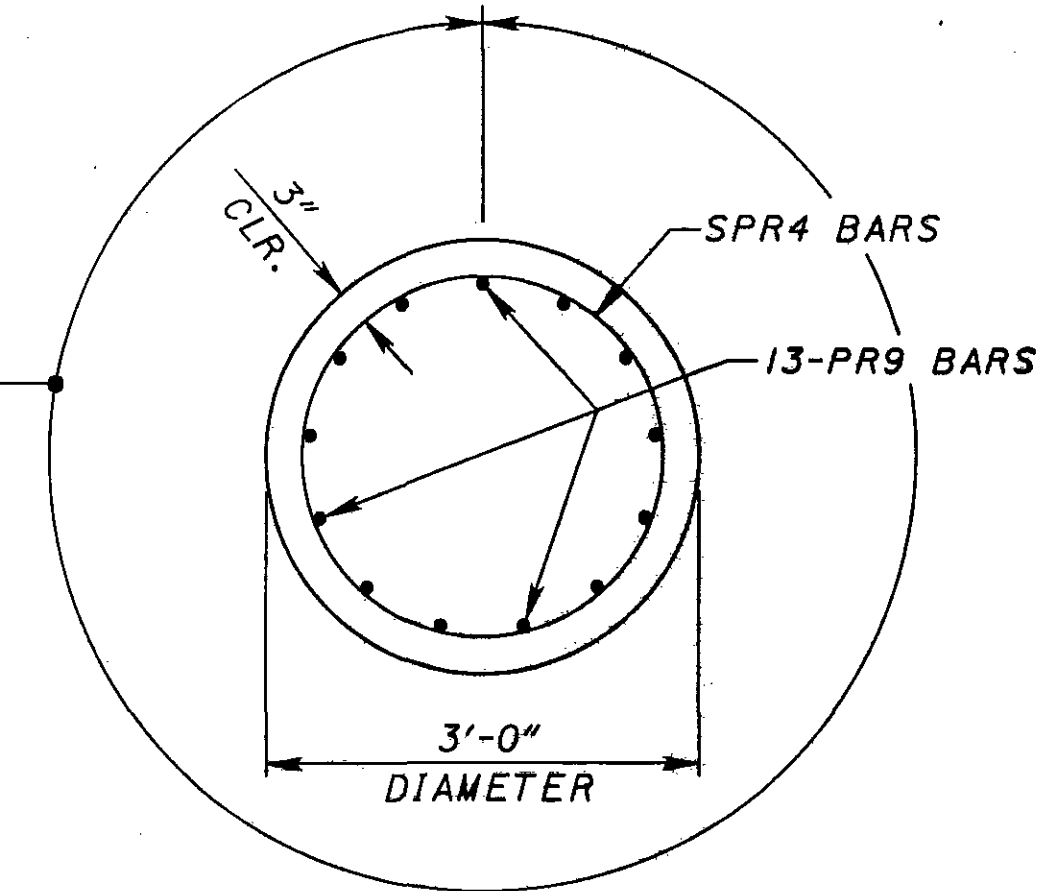
SECTION M-M



SECTION N-N



SECTION P-P



SECTION Q-Q

LEGEND:

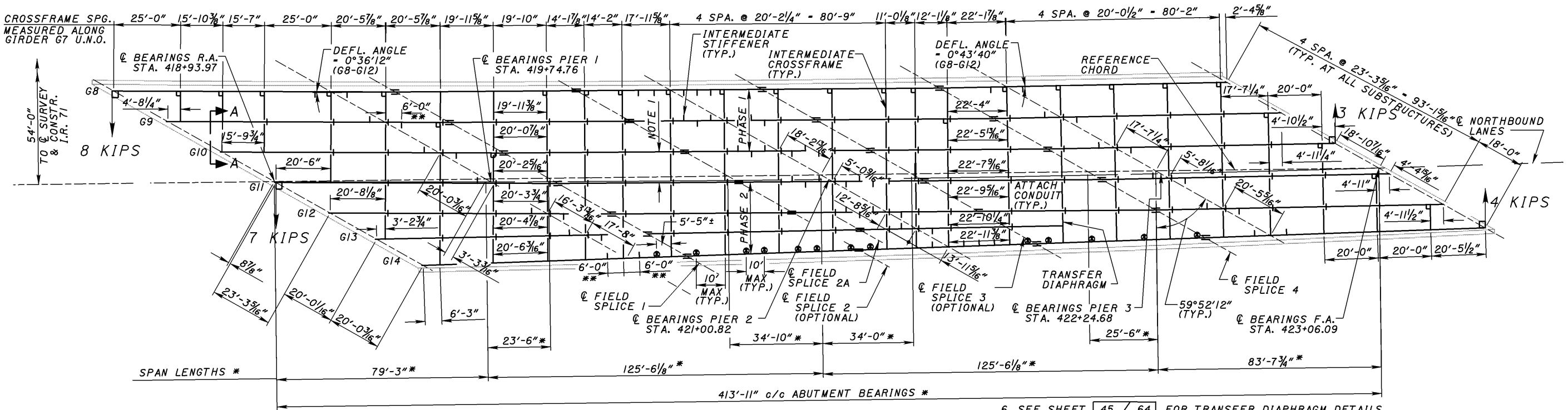
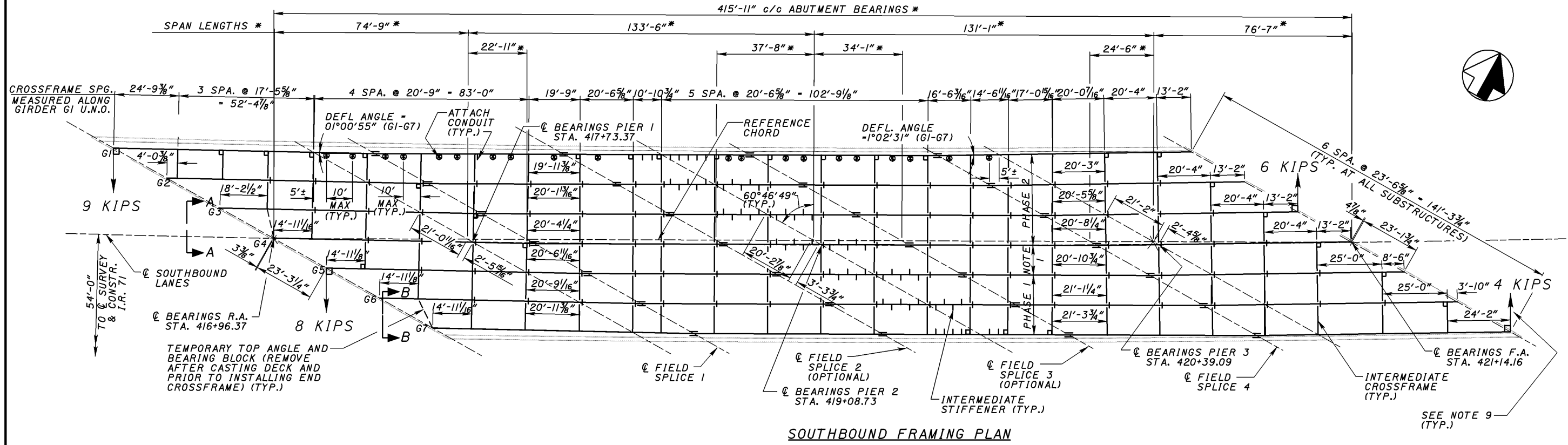
- E.F. - EACH FACE
- EQ. - EQUAL
- SPA. - SPACES

BURNESS & NIPLE 500 Reed Road Columbus, Ohio 43220	
DESIGNED: TTK CHECKED: JMK	DRAWN: AAA REVISED:
REVISIONS:	DATE: 9/04 STRUCTURE FILE NUMBER: 5202922 - LEFT 5202957 - RIGHT
PIER DETAILS 2 - NORTHBOUND BRIDGE NO. MED-71-0794 L/R 1-71 OVER 1-76	
MED-71-6.06 PID-75657	41 / 64
865 1120	

DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922 - LEFT
DESIGNED	BES
DRAWN	WTL
CHECKED	BES
REVISION	8/8/06

FRAMING PLAN
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657



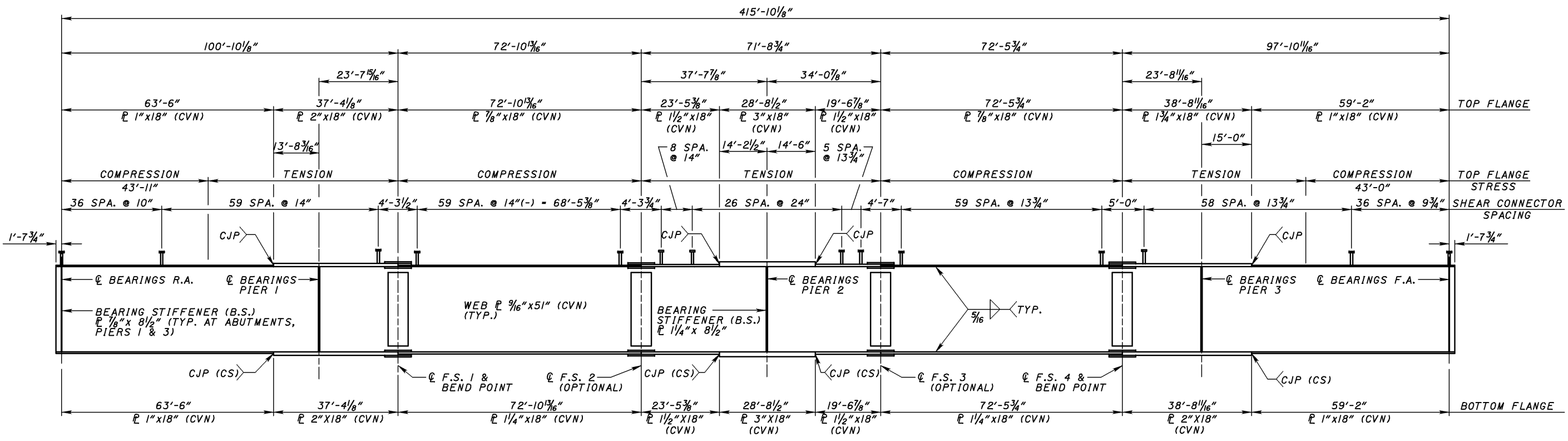
LEGEND:
 DEFL. - DEFLECTION
 G - GIRDER NUMBER
 F.A. - FORWARD ABUTMENT
 R.A. - REAR ABUTMENT
 * - MEASURED ALONG REFERENCE CHORD
 ** - TYP. AT PIERS 1 & 3 NORTHBOUND
 □ - 90°
 ⊗ - PLATE FOR ELECTRICAL CONDUIT SUPPORT. SEE SHT. 43 / 64

NOTES:
 1. DO NOT INSTALL INTERMEDIATE CROSSFRAMES IN THIS BAY UNTIL AFTER PHASE 2 DECK CONCRETE HAS BEEN PLACED.
 2. SPACE INTERMEDIATE STIFFENERS EQUALLY BETWEEN CROSSFRAMES, OR BETWEEN ADJACENT BEARING STIFFENER AND CROSSFRAME, UNLESS NOTED OTHERWISE.
 3. SEE SHEET 44 / 64 FOR EXPANSION JOINT OPENING.
 4. SEE SHEET 48 / 64 FOR END CROSSFRAME DETAILS.
 5. SEE STD. DWG. EXJ-4-87 FOR EXPANSION JOINT DETAILS.

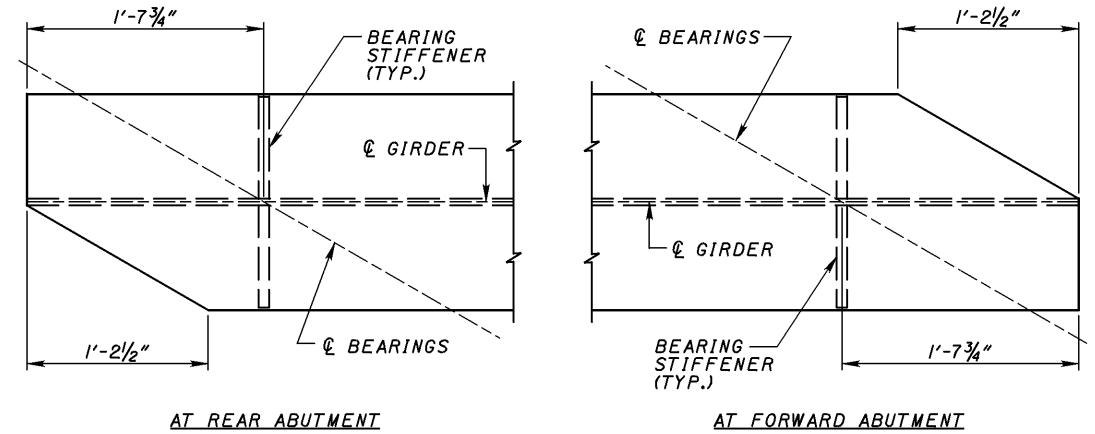
6. SEE SHEET 45 / 64 FOR TRANSFER DIAPHRAGM DETAILS.
 7. SEE SHEET 48 / 64 FOR INTERMEDIATE AND END CROSSFRAME DETAILS.
 8. STATIONING IS MEASURED ALONG @ SURVEY & CONSTRUCTION I.R. 71.
 9. FORCES INDICATED MUST BE RESISTED BY TEMPORARY BRACING DURING DECK POUR DUE TO UNBRACED GIRDER ENDS. FORCES AND DIRECTIONS SHOWN ARE FOR TOP FLANGE TENSION TIES. FORCES AT BLOCKING AT BEARING LOAD PLATES ARE EQUAL AND OPPOSITE. SEE TEMPORARY GIRDER BRACING DETAIL ON SHEET 48A / 64 FOR ADDITIONAL INFORMATION.

10. SEE SHEET 48A / 64 FOR SECTIONS A-A AND B-B.

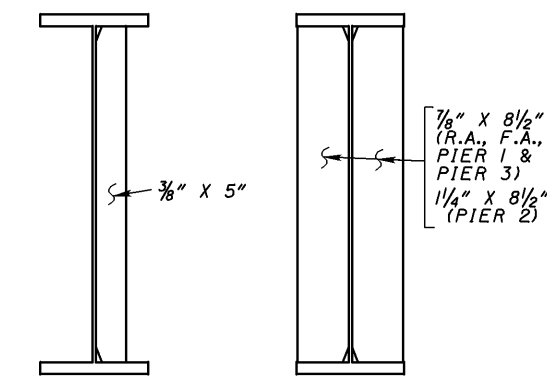
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GIRDER ELEVATION - SOUTHBOUND
GIRDERS GI-G7



GIRDER END PLAN

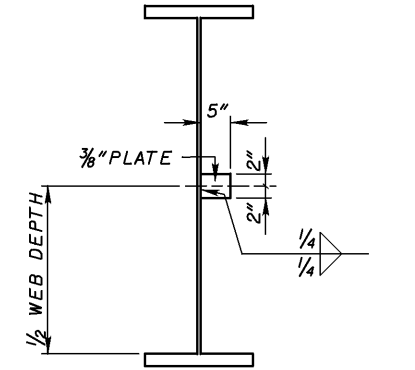


INTERMEDIATE STIFFENER
BEARING STIFFENER

LEGEND:
B.S. - BOTH SIDES
F.S. - FIELD SPLICE
CJP - COMPLETE JOINT PENETRATION
CS - INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY
F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT

NOTES:

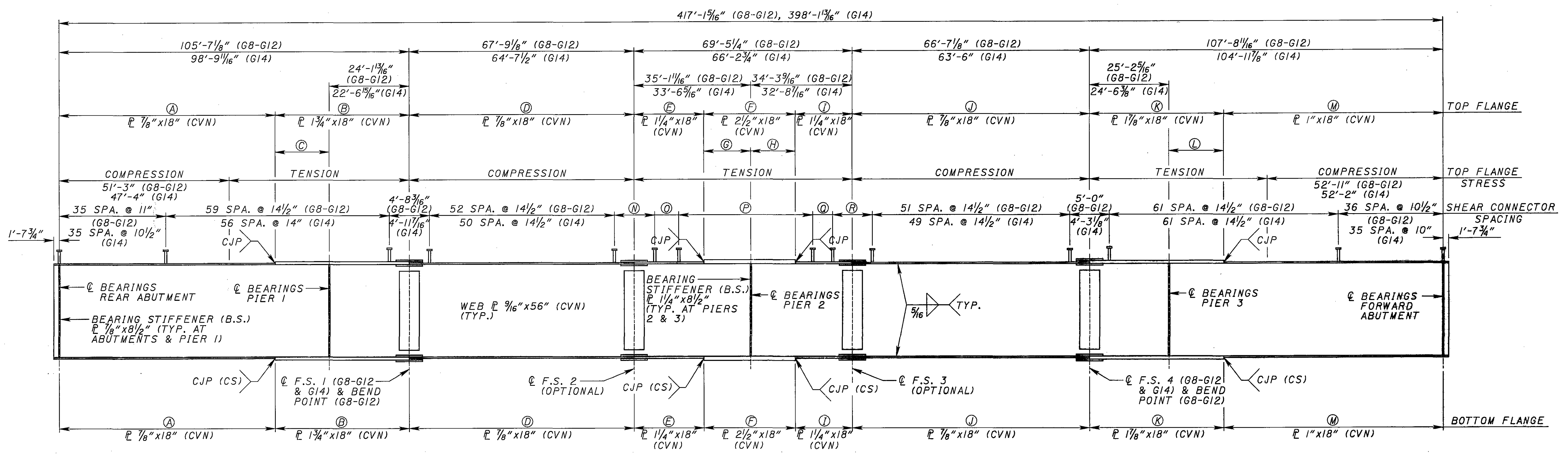
1. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NOT MORE THAN 2" LONG, AND BE AT LEAST 5/16".
2. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
3. INTERMEDIATE STIFFENERS NOT SHOWN IN ELEVATION. SEE FRAMING PLAN FOR LOCATIONS.
4. SEE STD. DWG. EXJ-4-87 FOR STRIP SEAL EXPANSION JOINT DETAILS.
5. SEE SHT. 44 / 64 FOR REQUIRED JOINT OPENING VS. INSTALLATION TEMPERATURE.
6. SEE SHT. 48 / 64 FOR CROSSFRAME STIFFENER DETAILS.



ATTACHMENT PLATE FOR ELECTRICAL CONDUIT
(INSIDE FACE OF GI AND G14)
(SEE SHEET 42 / 64)

(CONDUIT STRAPS NOT SHOWN - TO BE INCLUDED WITH CONDUIT FOR PAYMENT)

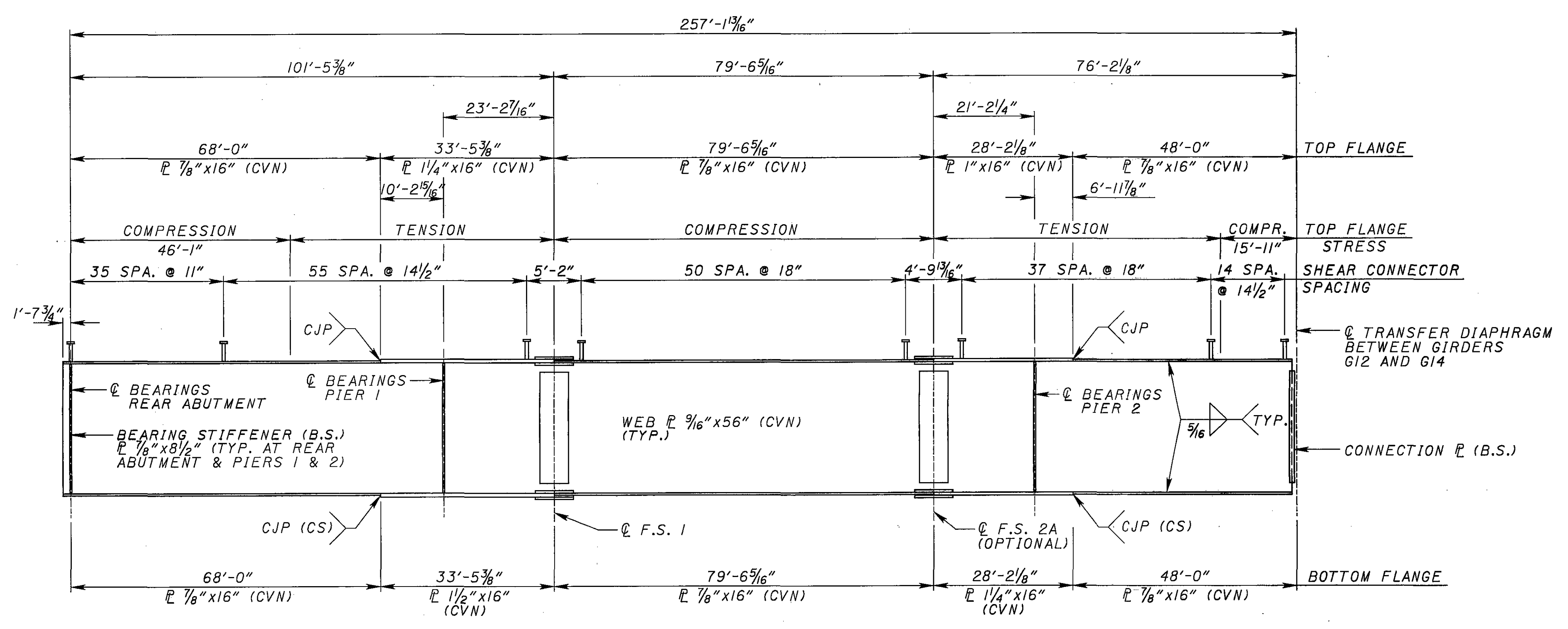
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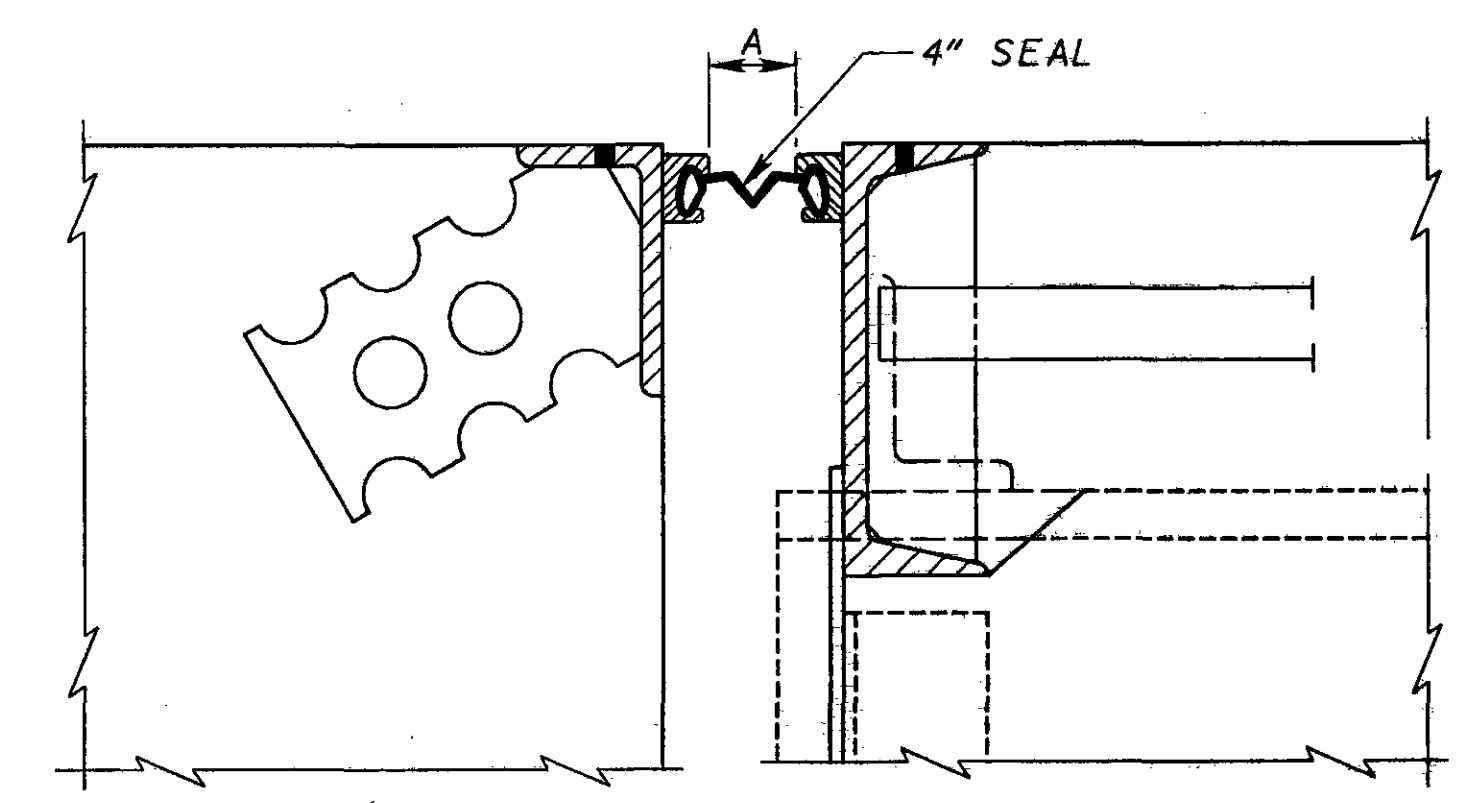
GIRDER ELEVATION - NORTHBOUND
GIRDERS G8-G12 & G14

DETAIL DIMENSIONS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
G8 - G12	65'-2"	40'-5 ¹ / ₈ "	16'-3 ⁵ / ₁₆ "	67'-9 ¹ / ₈ "	21'-6 ¹¹ / ₁₆ "	27'-7"	13'-7"	14'-0"	20'-3 ⁹ / ₁₆ "	66'-7 ¹ / ₈ "	41'-8 ³ / ₁₆ "	16'-5 ¹ / ₈ "	66'-0 ¹ / ₂ "	4'-6 ¹ / ₁₆ "	6 SPA. @ 14 ¹ / ₂ "	26 SPA. @ 24"	5 SPA. @ 14 ¹ / ₂ "	4'-6 ¹¹ / ₁₆ "
G14	59'-11"	38'-10 ¹ / ₁₆ "	16'-3 ³ / ₄ "	64'-7 ¹ / ₂ "	19'-11 ¹ / ₁₆ "	27'-7"	13'-7"	14'-0"	18'-8 ¹ / ₁₆ "	63'-6"	41'-0 ⁷ / ₈ "	16'-6"	63'-11 ¹ / ₂ "	4'-1 ¹ / ₈ "	10 SPA. @ 14 ¹ / ₂ "	19 SPA. @ 24"	10 SPA. @ 14 ¹ / ₂ "	4'-2 ¹ / ₈ "



GIRDER ELEVATION - NORTHBOUND
GIRDER G13

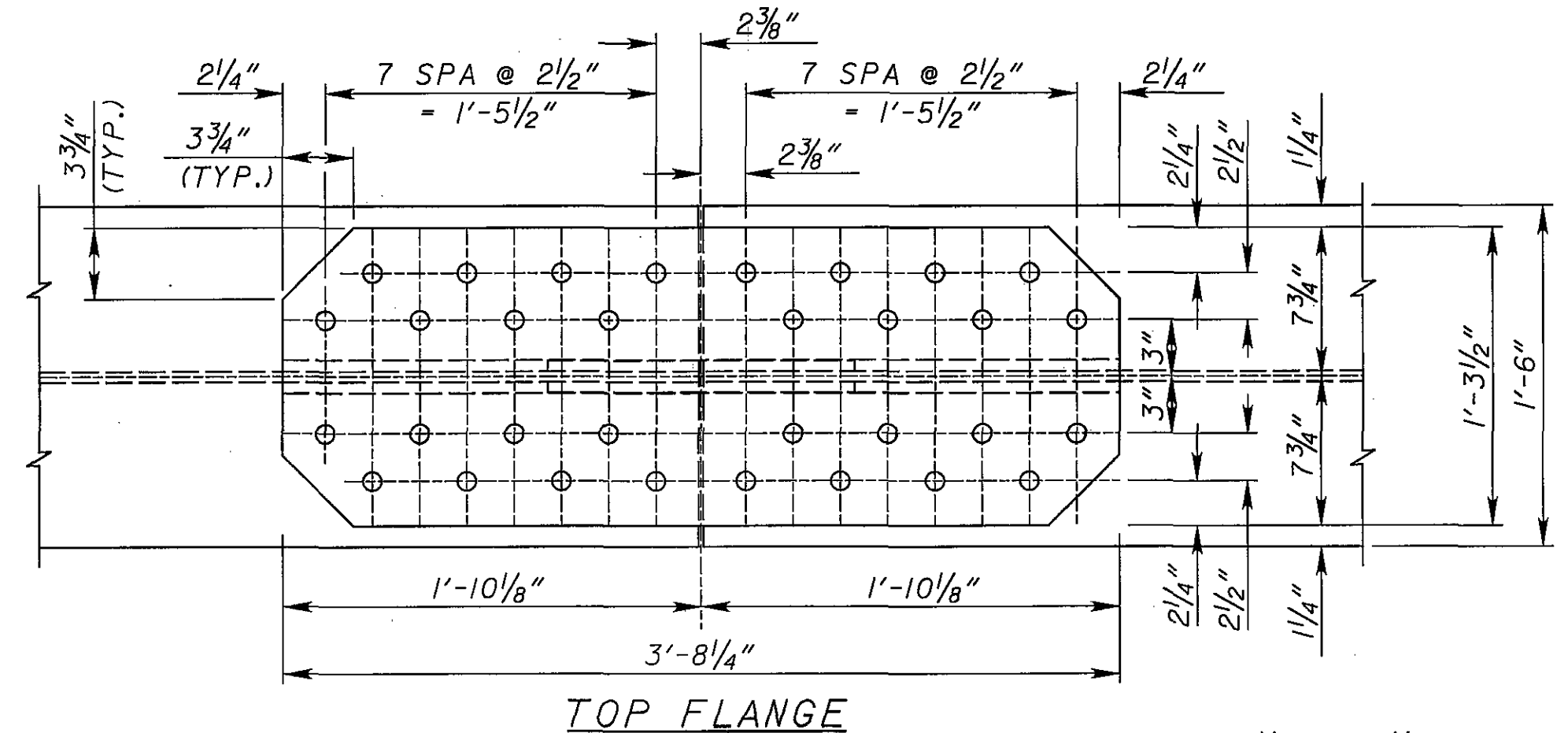


TEMPERATURE	DIM. "A"
30°	2 ⁵ / ₁₆ "
40°	2 ¹ / ₄ "
50°	2 ³ / ₁₆ "
60°	2 ¹ / ₈ "
70°	2 ¹ / ₁₆ "
80°	2"
90°	1 ¹⁵ / ₁₆ "

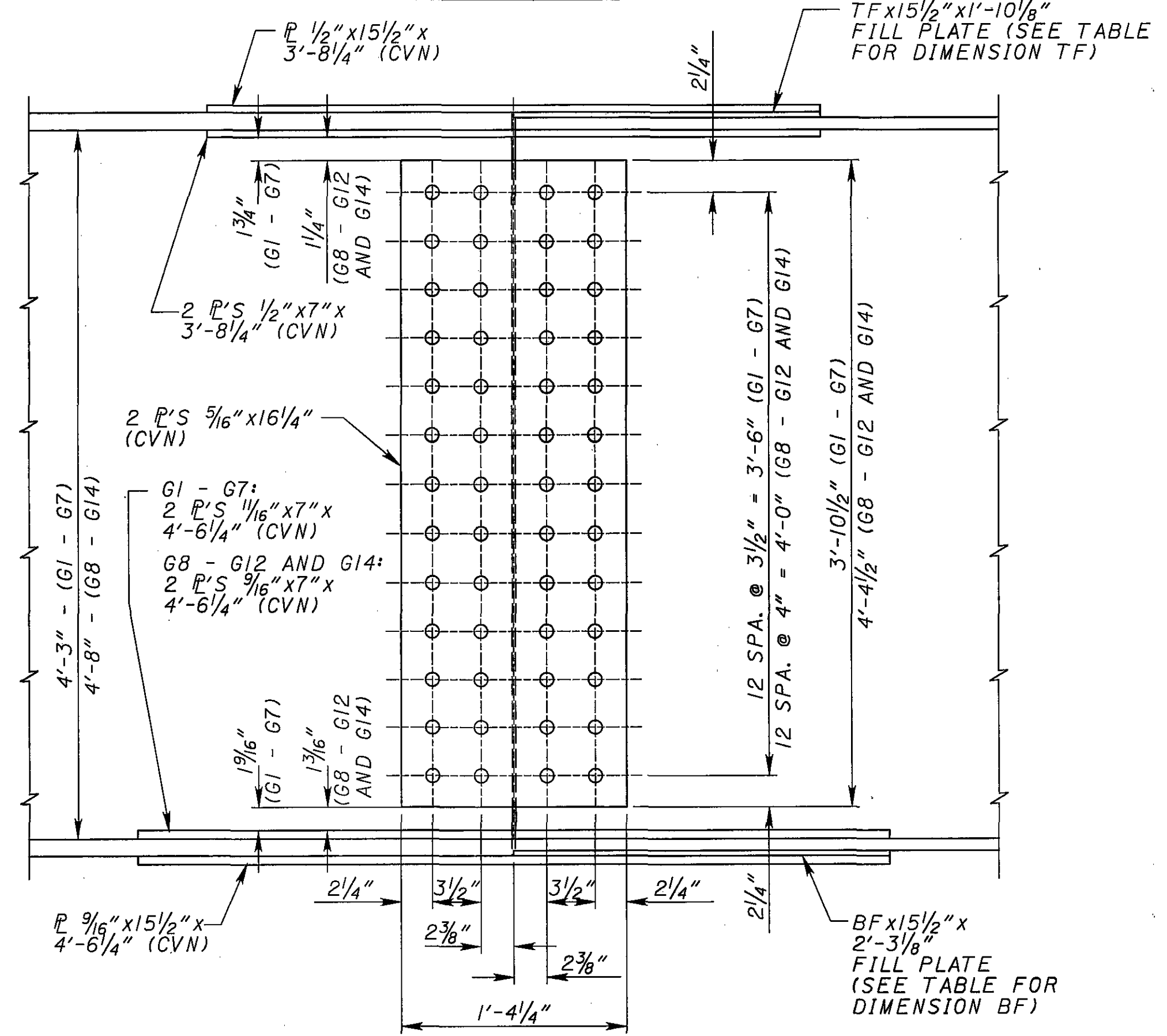
- NOTES:
- SEE SHEET 43 / 64 FOR GIRDER END PLAN AND STIFFENER DETAILS.
 - SEE SHEET 48 / 64 FOR SHEAR CONNECTOR DETAIL, FLANGE WELD DETAIL, AND END CROSSFRAME DETAILS.

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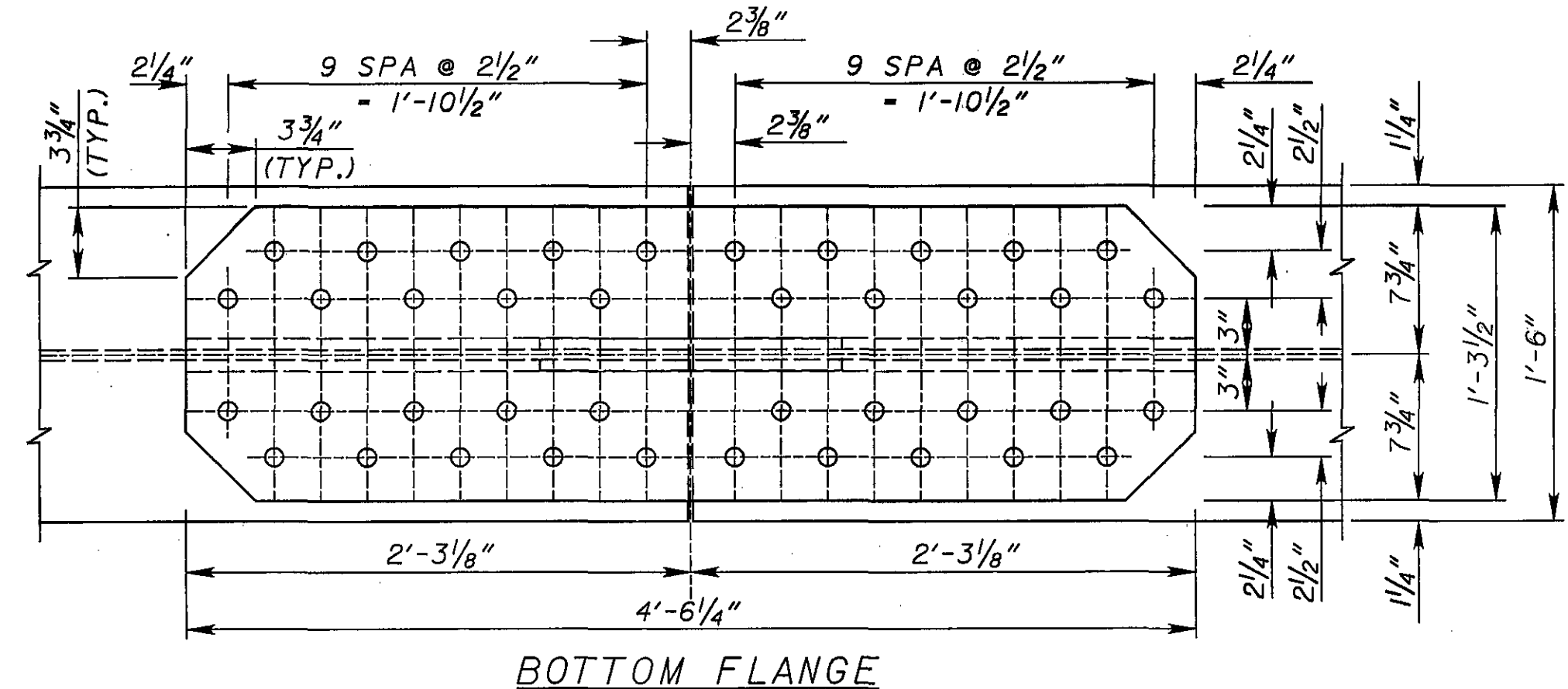
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TOP FLANGE



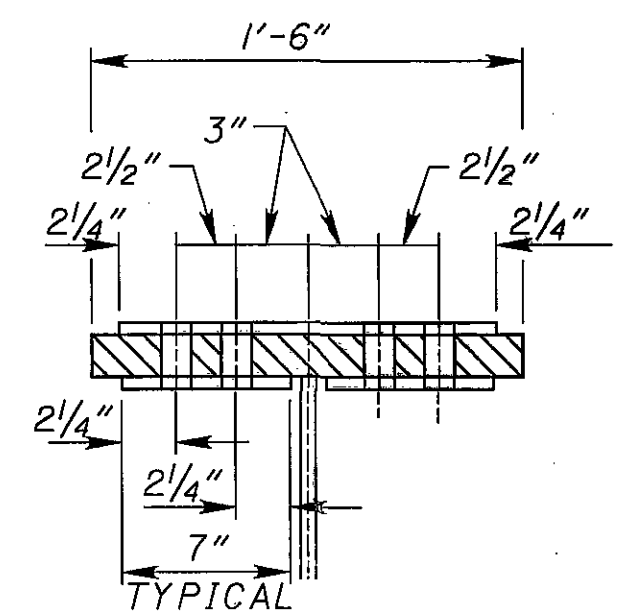
GIRDER FIELD SPLICE - F.S. 2 & 3
(G1 - G12, G14)



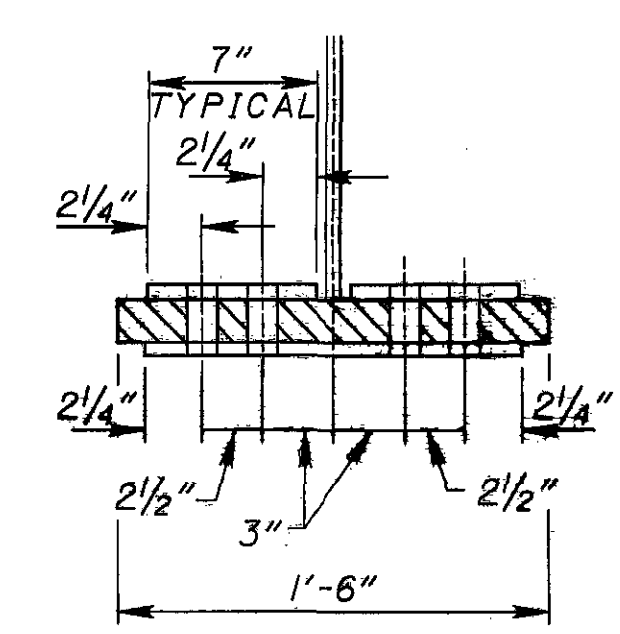
BOTTOM FLANGE

FILL PLATE THICKNESS			
GIRDER	F.S.	TF	BF
G1 - G7	1	1 1/8"	3/4"
G1 - G7	2	5/8"	1/4"
G1 - G7	3	5/8"	1/4"
G1 - G7	4	7/8"	3/4"
G8 - G12, G14	1	7/8"	7/8"
G8 - G12, G14	2	3/4"	3/8"
G8 - G12, G14	3	3/8"	3/8"
G8 - G12, G14	4	1"	1"

DEFLECTION ANGLE		
GIRDER	F.S.	ANGLE
G1 - G7	1	1°00'55"
G1 - G7	4	1°02'32"
G8 - G12	1	0°36'12"
G8 - G12	4	0°43'40"

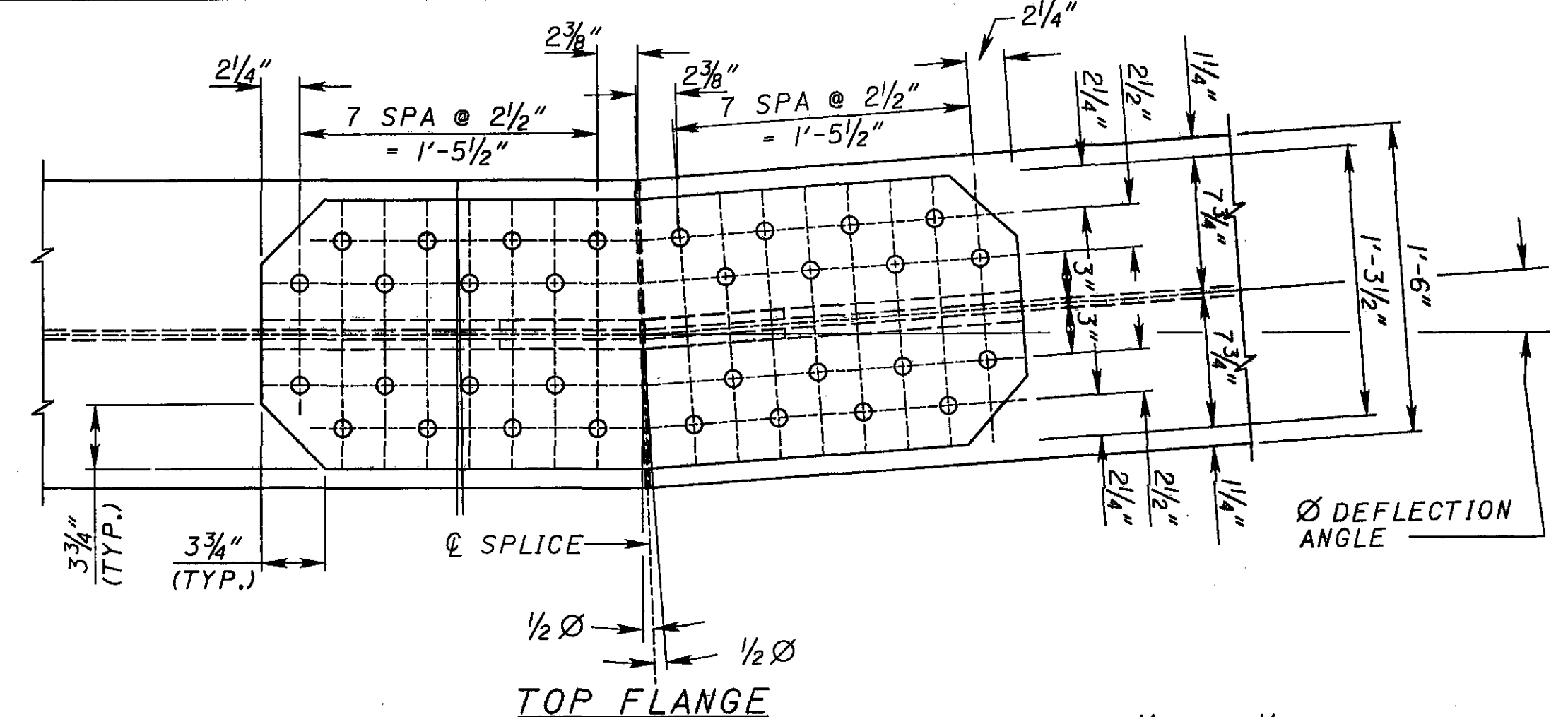


TOP FLANGE

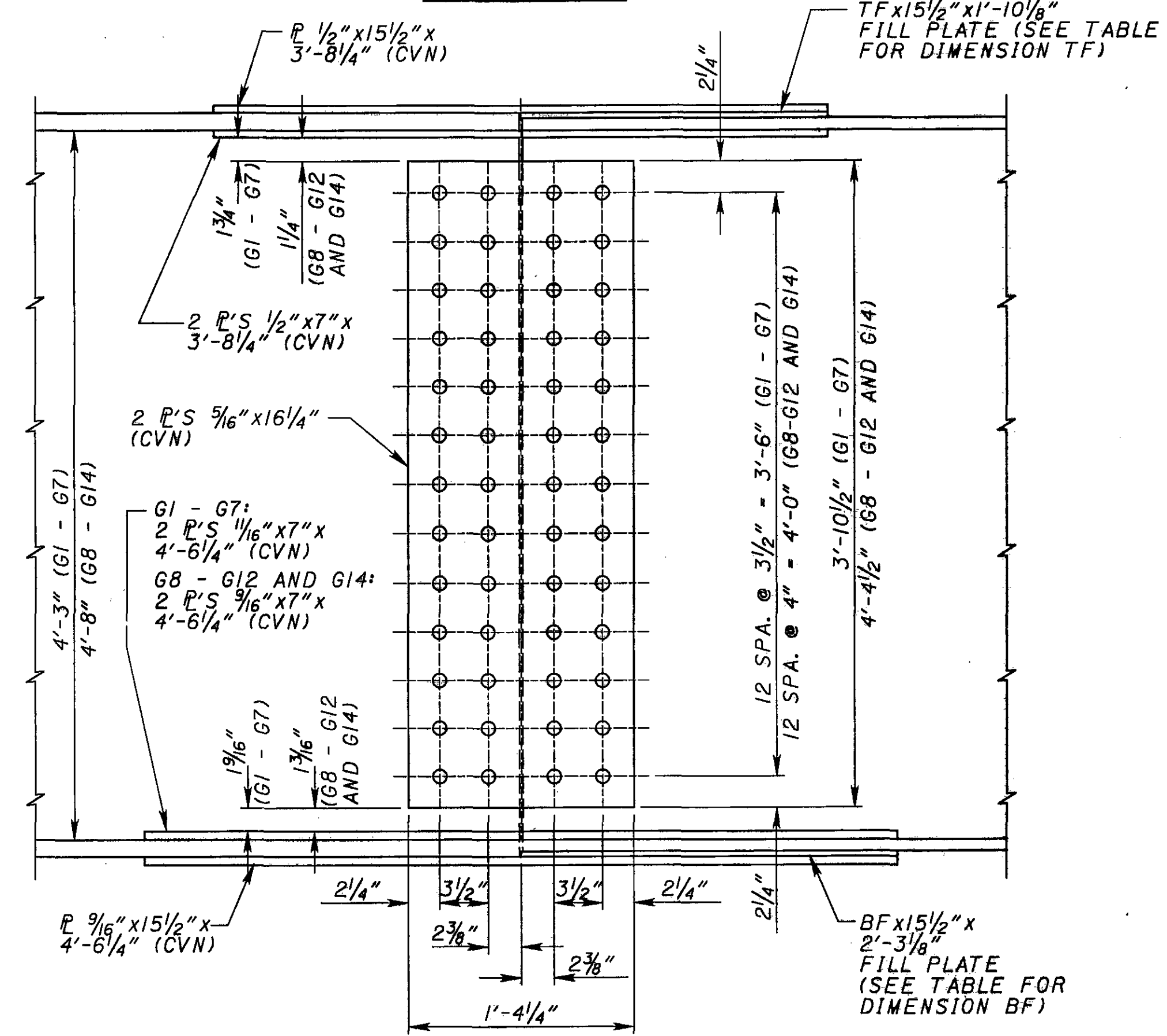


BOTTOM FLANGE

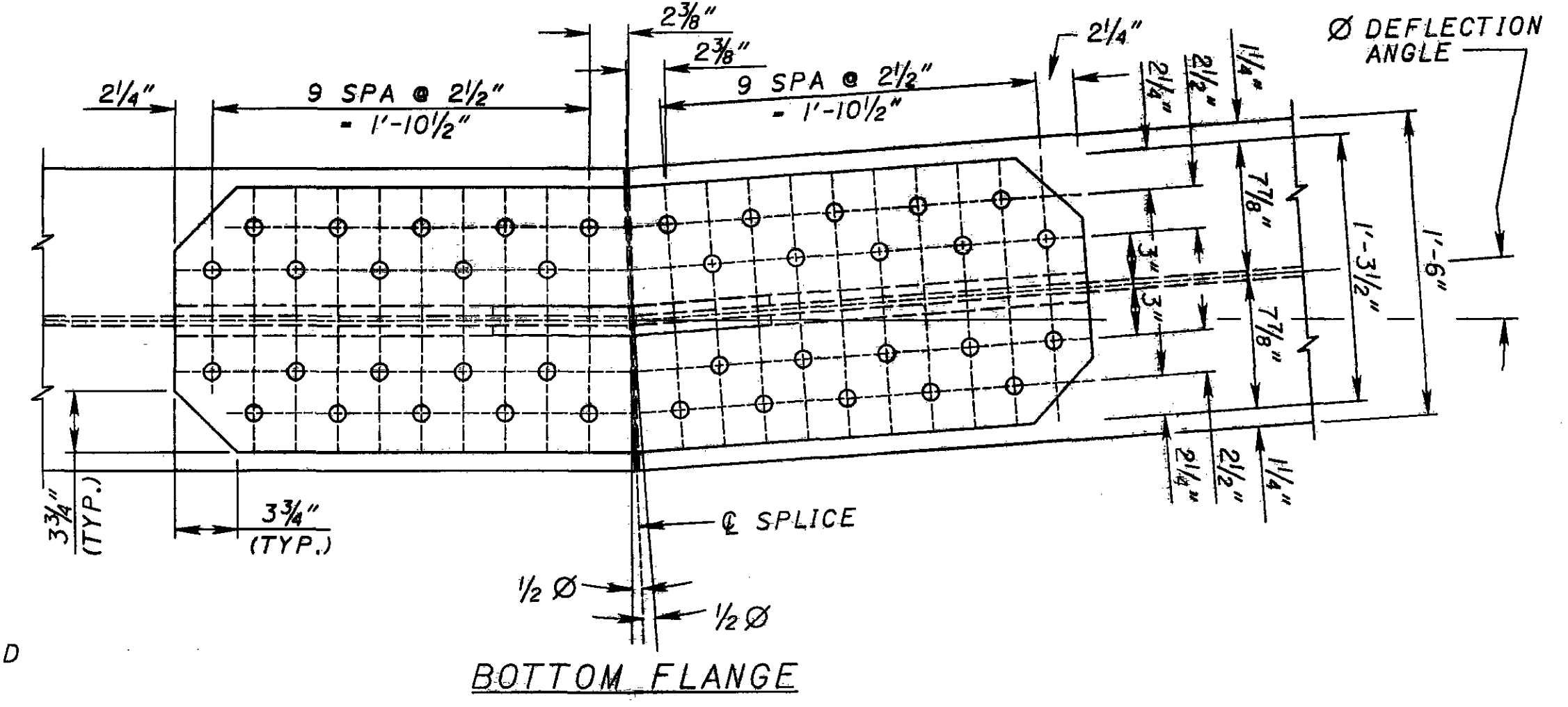
NOTE:
SEE SHEET 47 / 64 FOR NOTES AND LEGEND



TOP FLANGE



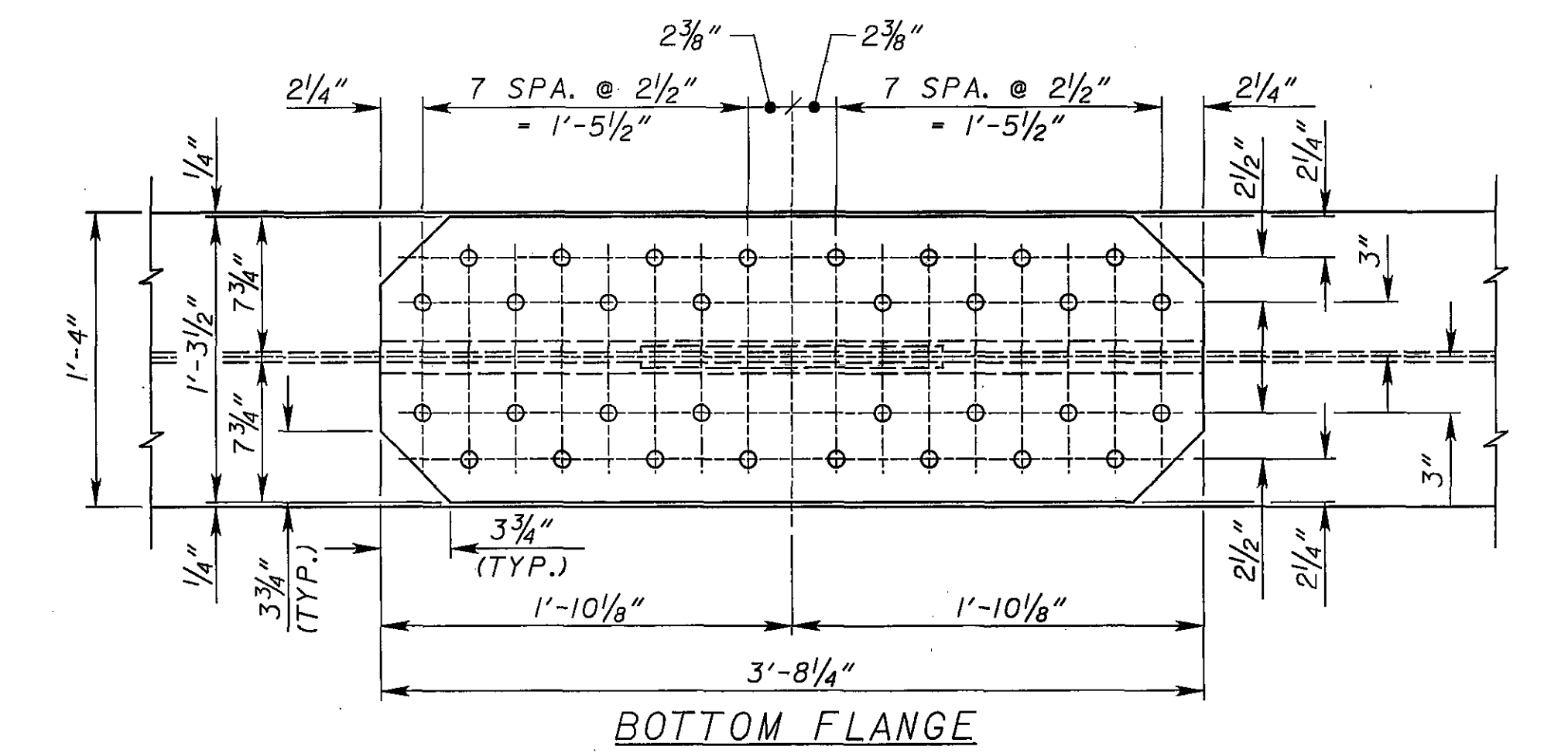
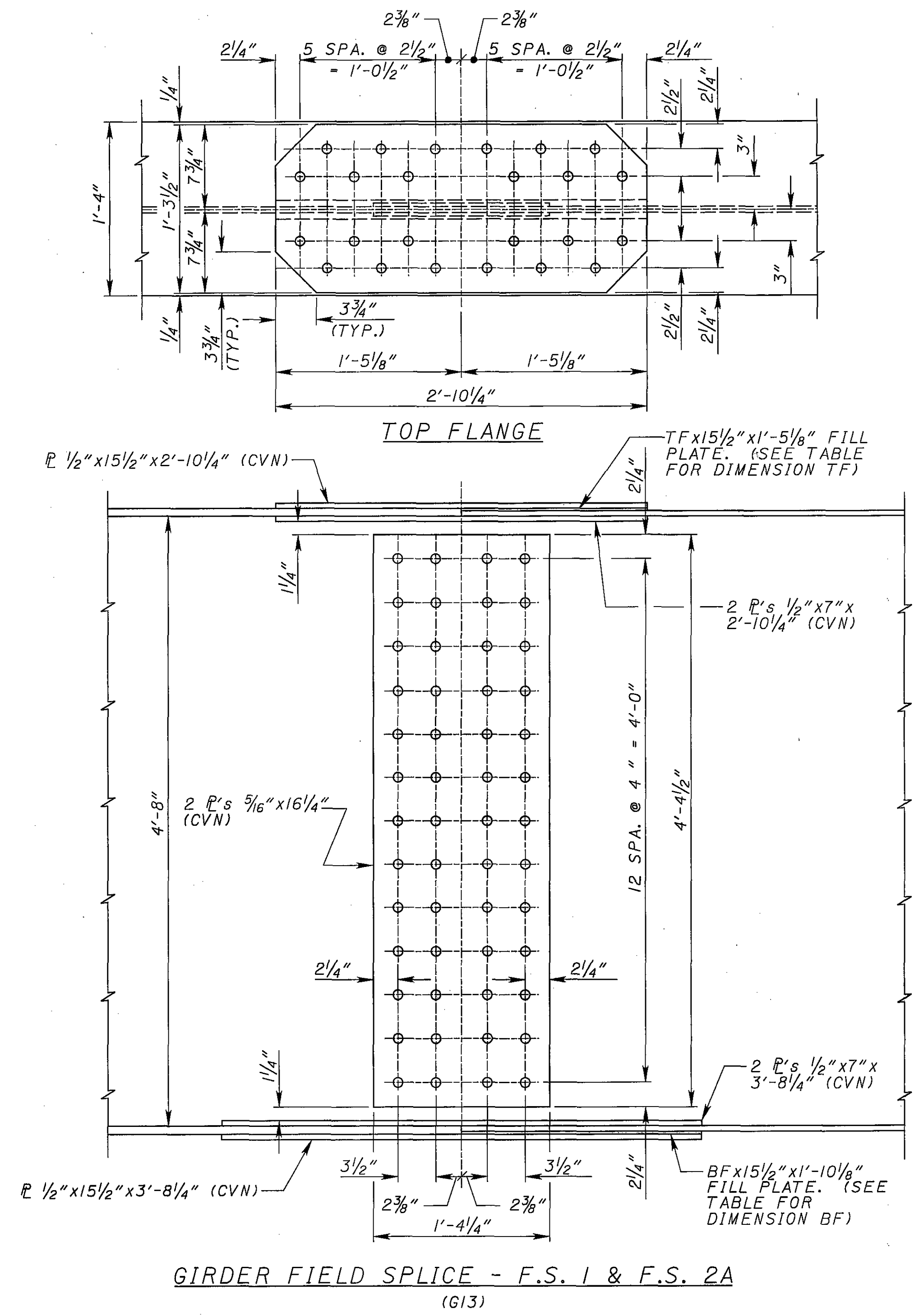
GIRDER FIELD SPLICE - F.S. 1 & 4
(G1 - G12, G14) (F.S. 1 SHOWN F.S. 4 OPPOSITE HAND)



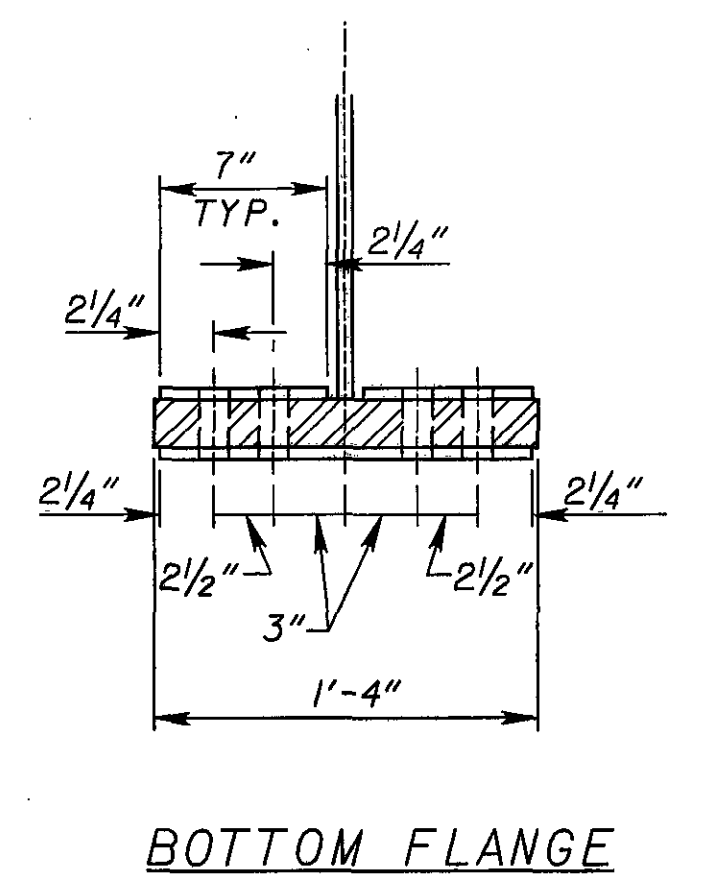
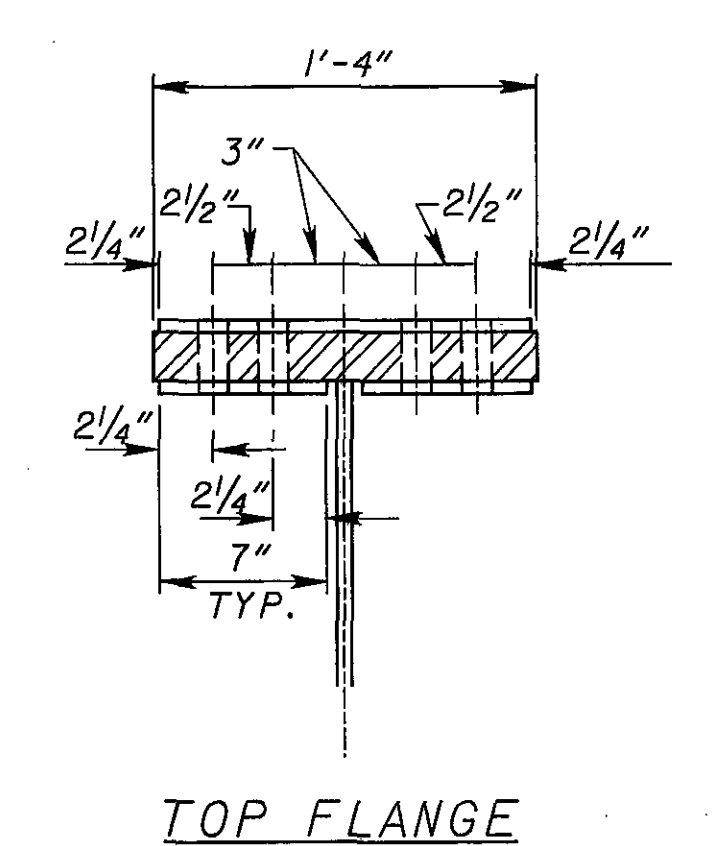
BOTTOM FLANGE

BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE	9/04
REVIEWED	RMK
STRUCTURE FILE NUMBER	5202922 - LEFT
5202957 - RIGHT	
DRAWN	CRC
DESIGNED	WTL
CHECKED	BES
SPlice DETAILS I BRIDGE NO. MED-71-0794 L/R I-71 OVER I-76	
MED-71-6.06	PID-75657
46	64
870	1120



FILL PLATE THICKNESS			
GIRDER	F.S.	TF	BF
G13	1	3/8"	3/8"
G13	2A	1/8"	3/8"



LEGEND:

G = GIRDER NUMBER
F.S. = FIELD SPLICE

NOTES:

- ALL BOLTS SHALL BE 1/8" DIA. HIGH STRENGTH BOLTS, ASTM A325 TYPE 1, GALVANIZED.
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.

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BURGESS & NIPLE
2005 Reed Road
Channahon, IL 61220

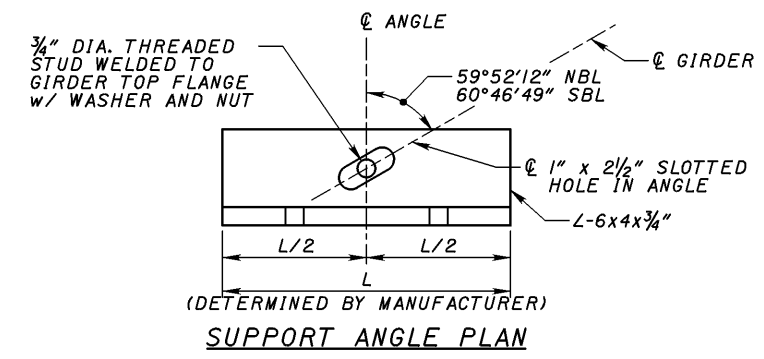
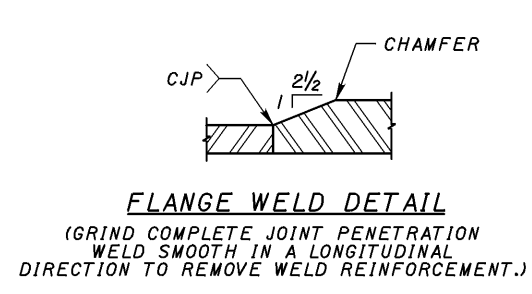
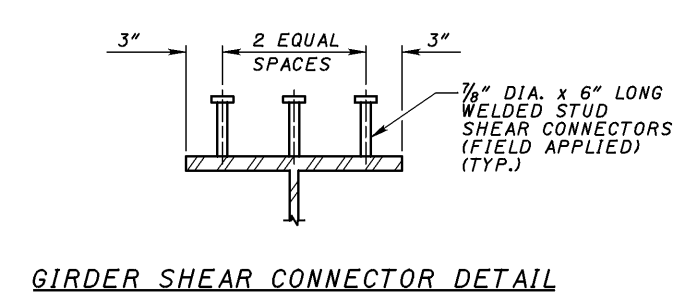
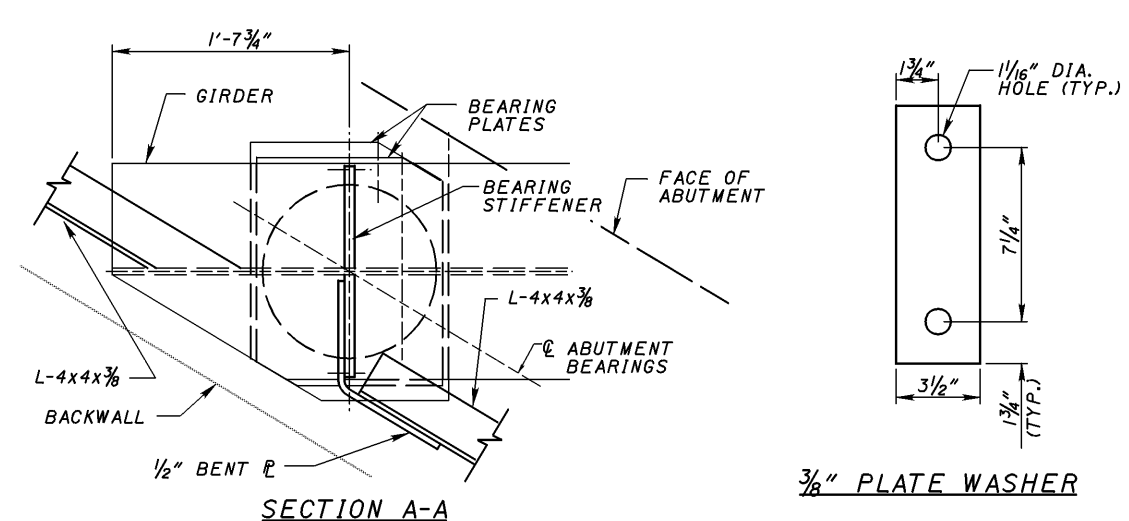
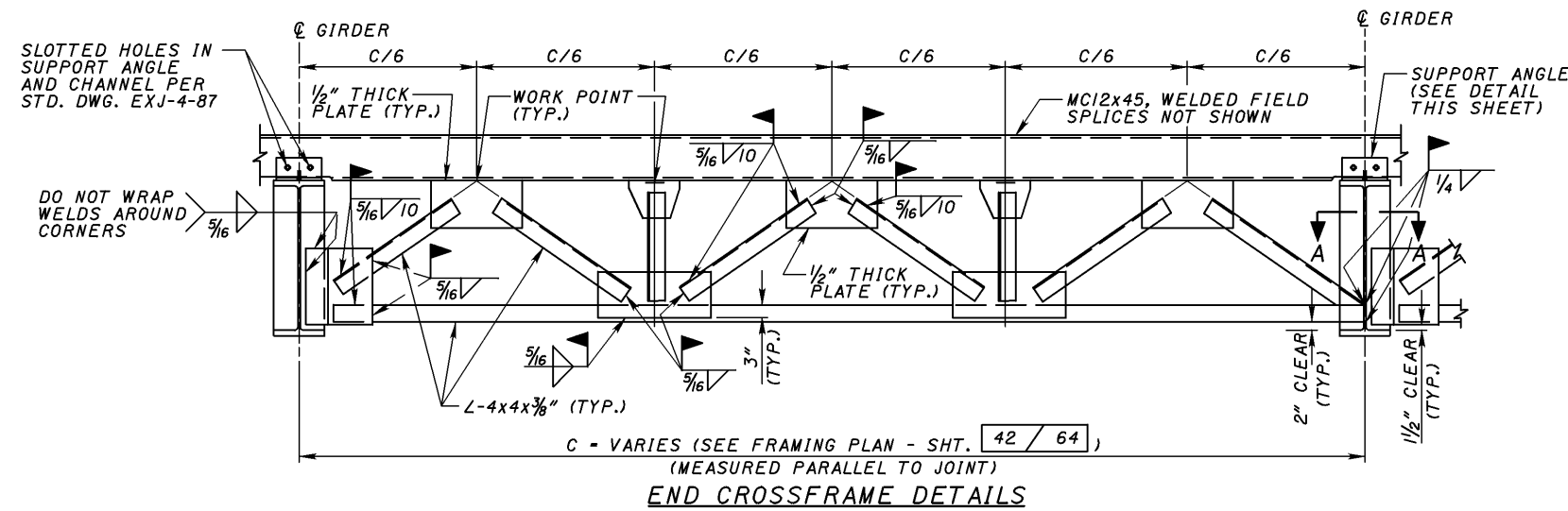
DESIGNED	WTL	CHECKED	BES
DRAWN	AAA	REVIEWED	
REVISED	RMK	DATE	9/04
STRUCTURE FILE NUMBER	5202922 - LCF		
PROJECT FILE NUMBER	5202931 - RIGHT		

SPLICE DETAILS 2
BRIDGE NO. MED-71-0794 L/R
1-71 OVER 1-76

MED-71-6.06
PID-75657

47 / 64

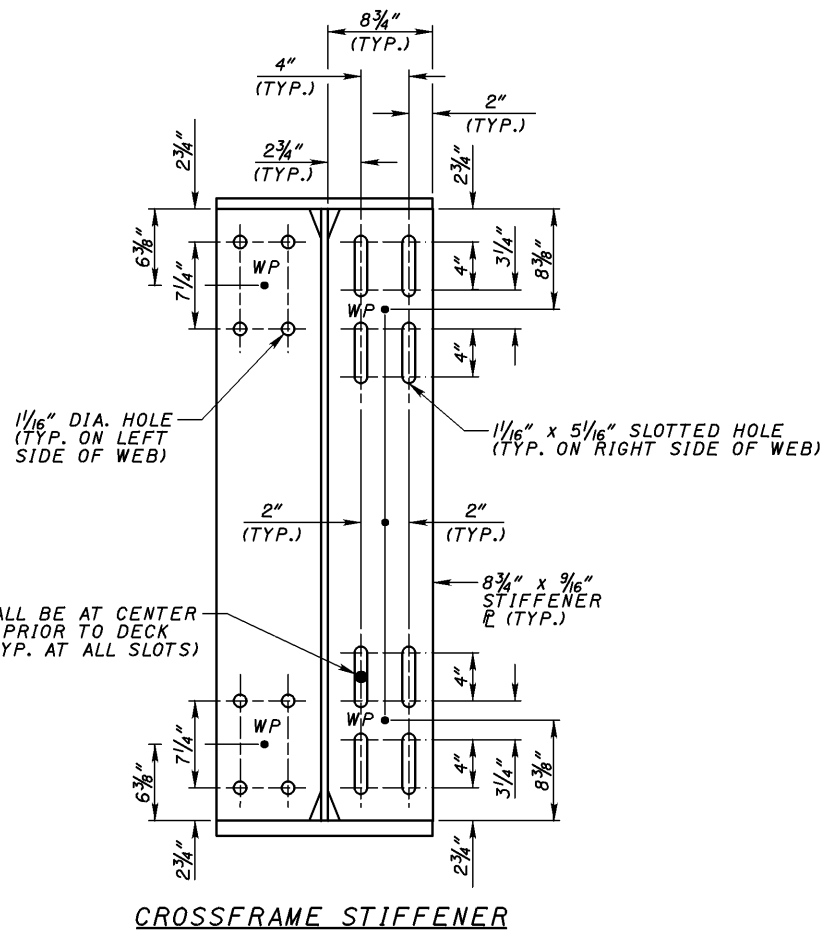
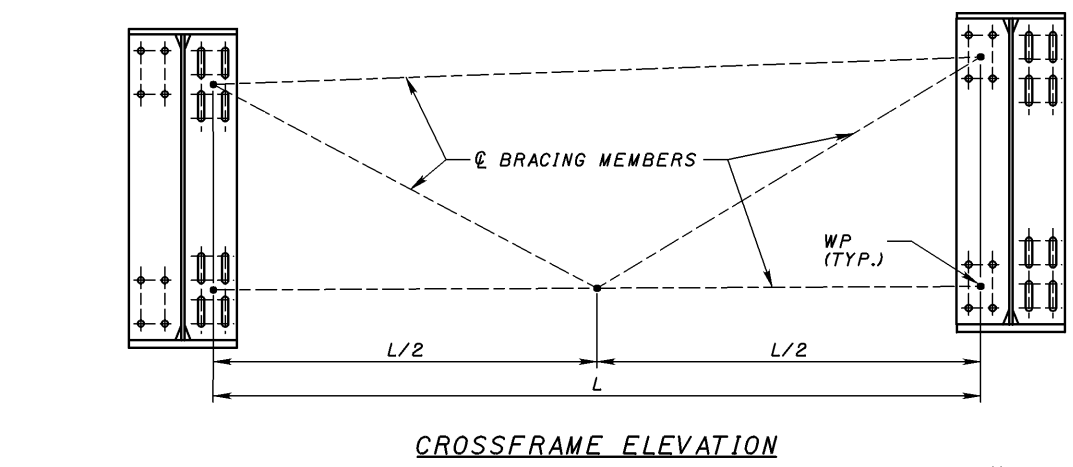
871
1120



EXPANSION JOINT AND END CROSSFRAME CONSTRUCTION SEQUENCE:

NOTE TO JOINT FABRICATOR: THE DECK PHASING NECESSITATES THAT THE JOINT ARMOR BE FABRICATED IN THREE SEPARATE SEGMENTS. ADDITIONALLY, THE LENGTH OF THE PHASED SEGMENTS SHALL EXTEND SUFFICIENT DISTANCE BEYOND THE DECK CONSTRUCTION JOINTS TO FACILITATE THE SPLICE WELDING OF THE SEGMENTS.

1. ERECT PHASE I EXPANSION JOINT ASSEMBLY. DO NOT INSTALL END CROSSFRAMES.
2. SUPPORT ANGLES FOR GIRDERS G5 THROUGH G7 (SOUTHBOUND) AND G8 THROUGH G10 (NORTHBOUND) SHALL HAVE A SNUG FIT (DO NOT FULLY TORQUE) ON THE BOLT FOR THE THREADED STUD THAT EXTENDS FROM THE TOP FLANGE OF THE GIRDER.
3. PHASE I EXPANSION JOINT ASSEMBLY (AND SUCCESSIVE PHASES) SHALL BE BLOCKED TO PREVENT UNINTENDED MOVEMENT WHEN PLACING AND VIBRATING THE DECK CONCRETE.
4. PLACE PHASE I DECK CONCRETE.
5. INSTALL END CROSSFRAMES IN PHASE I BAYS ONLY BY WELDING AS SHOWN.
6. INSTALL PHASE 2 EXPANSION JOINT ASSEMBLY. SNUG FIT THE THREADED STUD NUTS (SEE STEP 2). DO NOT INSTALL END CROSSFRAMES IN PHASE 2 BAYS.
7. POUR PHASE 2 DECK CONCRETE.
8. INSTALL AND WELD REMAINING END CROSSFRAMES.
9. INSTALL (FIELD WELD) PHASE 3 EXPANSION JOINT ASSEMBLY SEGMENT.
10. POUR PHASE 3 DECK CONCRETE.
11. INSTALL STRIP SEAL GLAND AS ONE CONTINUOUS PIECE AT EACH ABUTMENT.



LEGEND:

CJP = COMPLETE JOINT PENETRATION
WP = WORK POINT

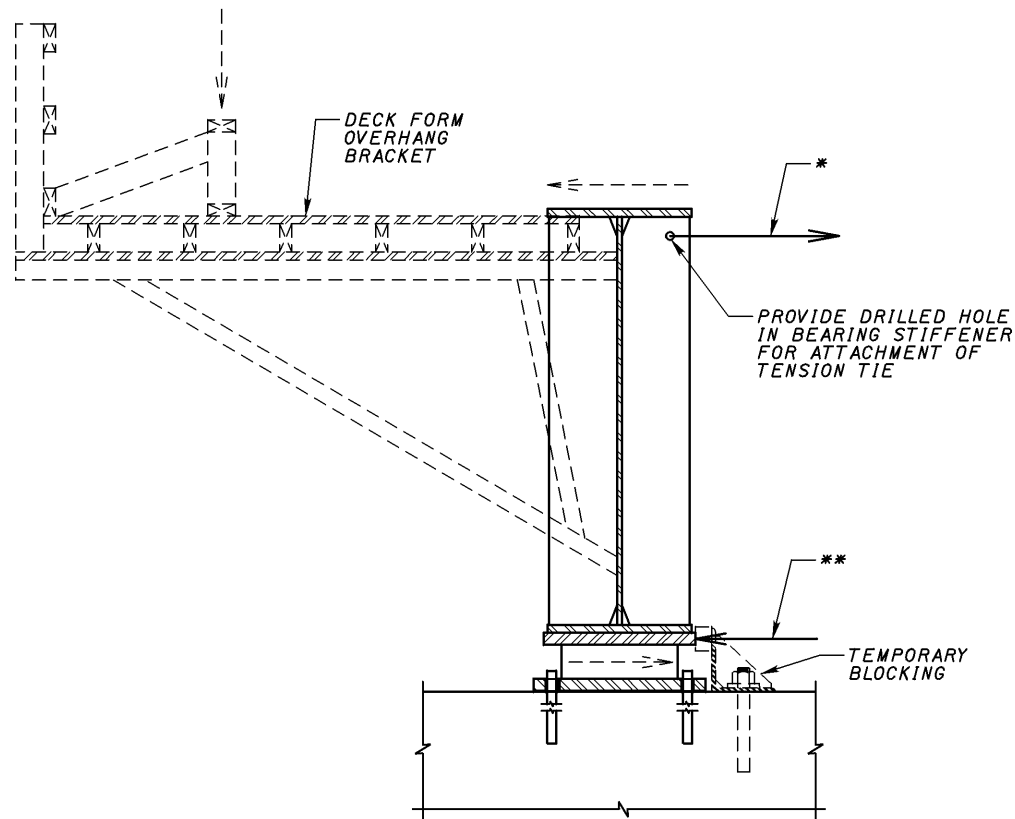
NOTES:

1. SEE STD. DWGS. EXJ-4-87 AND GSD-I-96 FOR DETAILS NOT SHOWN.
2. ELASTOMERIC STRIP SEAL GLAND SHALL BE ONE CONTINUOUS PIECE AND SHALL BE PLACED AFTER ALL DECK POUR PHASES ARE COMPLETED.
3. BOLT TIGHTENING SEQUENCE: FOR CONNECTIONS WITH SLOTTED HOLES, INSTALL BOLTS AND TIGHTEN TO A SNUG TIGHT FIT AS DEFINED IN CMS 513. DO NOT COMPLETELY TIGHTEN THESE BOLTS UNTIL THE DECK PLACEMENT HAS BEEN COMPLETED. INSTALL AND COMPLETELY TIGHTEN ALL OTHER CONNECTIONS ACCORDING TO CMS 513 PRIOR TO THE DECK PLACEMENT.
4. FASTENERS: FURNISH 1\"/>

(INTERIOR GIRDER SHOWN, EXTERIOR GIRDER SHALL HAVE CROSSFRAME STIFFENER AT INSIDE FACE OF WEB ONLY)

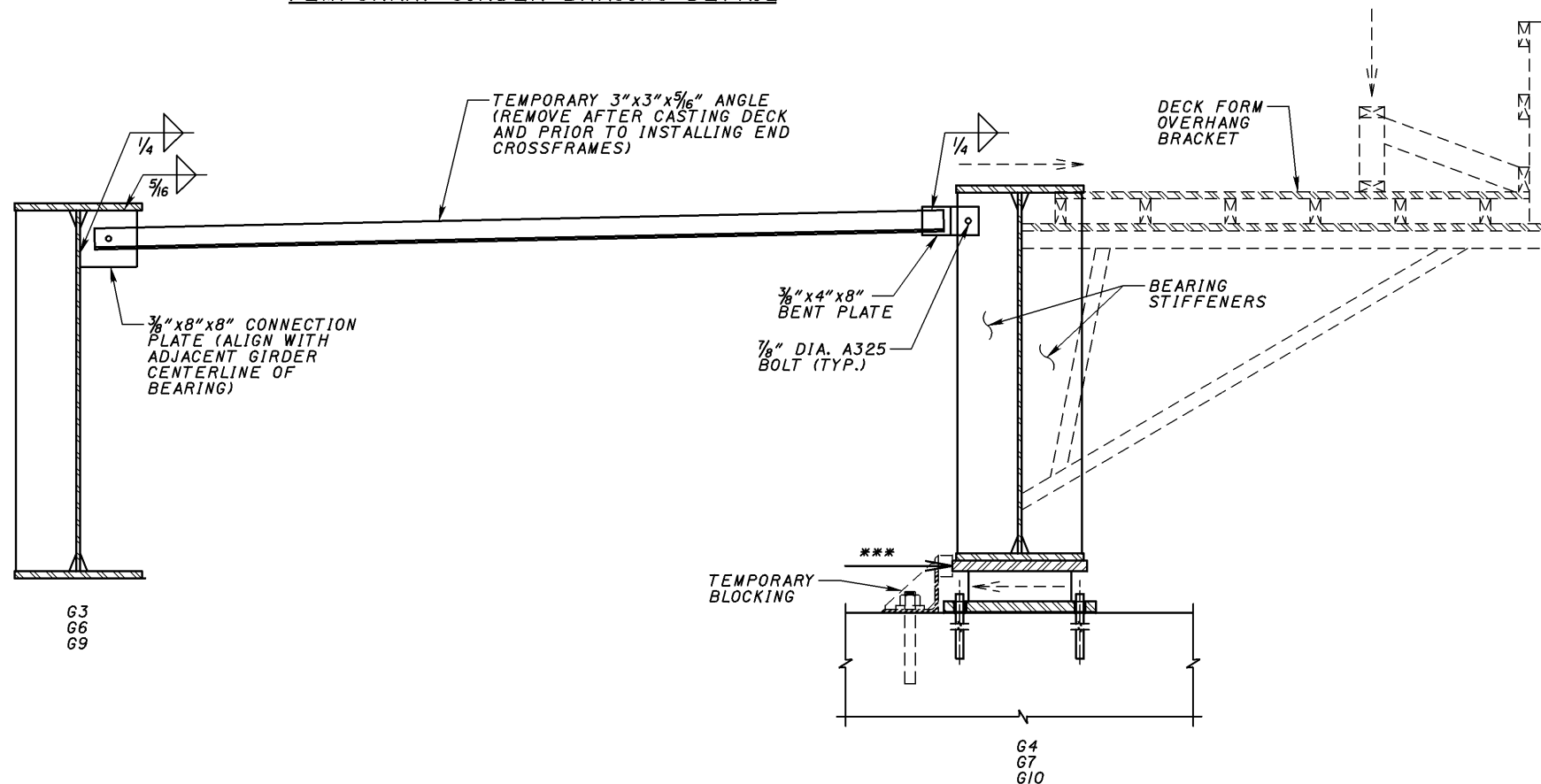
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BURGESS & NIPLE	
DATE	9/04
REVIEWED	RMK
DESIGNED	WTL
CHECKED	BES
STRUCTURE FILE NUMBER	5202922 - LEFT
REVISION	8/8/06
FILE NUMBER	5202957 - RIGHT
MISCELLANEOUS GIRDER DETAILS	
BRIDGE NO. MED-71-0794 L/R	
I-71 OVER I-76	
MED-71-6.06	PID-75657
48	64
872	
1120	



TEMPORARY GIRDER BRACING DETAIL

- * - CONTRACTOR TO PROVIDE TENSION TIE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. TIE SHALL BE INSTALLED PERPENDICULAR TO CENTERLINE OF GIRDER. FORCES GIVEN ARE HORIZONTAL (ADJUST AS NECESSARY IF TIE IS NOT HORIZONTAL). REMOVE TENSION TIE PRIOR TO INSTALLING END CROSSFRAMES. CONTRACTOR SHALL DESIGN TENSION TIE AND ANCHORAGE. CALCULATIONS PERFORMED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. PAYMENT SHALL BE INCLUDED IN PAY ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL 4.
- ** - CONTRACTOR TO PROVIDE TEMPORARY BLOCKING TO PROVIDE RESISTANCE OF FORCE INDICATED ON FRAMING PLAN AT LOCATIONS SHOWN. TEMPORARY BLOCKING SHALL ENGAGE BEARING LOAD PLATE (NOT MASONRY PLATE). REMOVE BLOCKING PRIOR TO INSTALLING END CROSSFRAME. SEE TENSION TIE NOTE (ABOVE) FOR SUBMITTAL, APPROVAL AND PAYMENT INFORMATION.
- *** - CONTRACTOR TO PROVIDE TEMPORARY BLOCKING TO PROVIDE 8 KIPS RESISTANCE. TEMPORARY BLOCKING SHALL ENGAGE BEARING LOAD PLATE (NOT MASONRY PLATE). REMOVE BLOCKING PRIOR TO INSTALLING END CROSSFRAM. SEE TENSION TIE NOTE (ABOVE) FOR SUBMITTAL, APPROVAL AND PAYMENT INFORMATION.



SECTION A-A
SHOWN
SECTION B-B
SIMILAR

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BURGESS & NIPLE
5085 Reed Road
Channahon, IL 61020

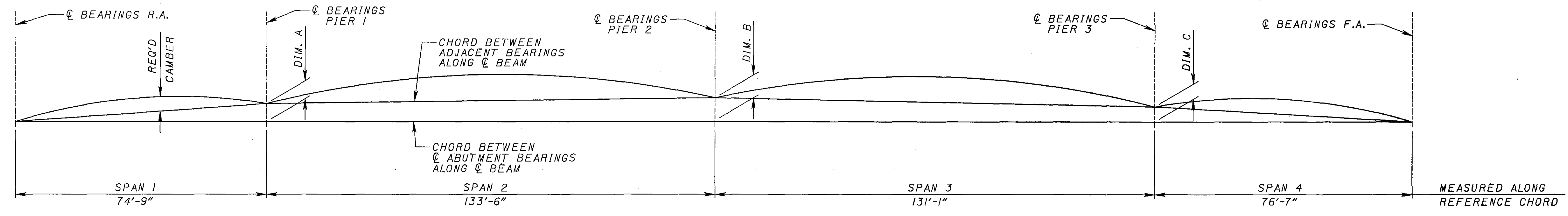
DESIGNED	CAS	CHECKED	BES
DRAWN	CRC	REVIS	B/B/06
REVIEWED	RMK	STRUCTURE FILE NUMBER	5202922 - LEFT 5202957 - RIGHT
DATE	9/04		

MISCELLANEOUS GIRDER DETAILS
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657

48A / 64

872A
1120



CAMBER AND BLOCKING DIAGRAM

CAMBER TABLE (VALUES IN INCHES)																
GIRDER NUMBER		REAR ABUT.	SPAN 1			PIER 1	SPAN 2							PIER 2		
			1/4 SPAN	MIDSPAN	3/4 SPAN		1/8 SPAN	SPL. 1	1/4 SPAN	3/8 SPAN	MIDSPAN	5/8 SPAN	SPL. 2		3/4 SPAN	7/8 SPAN
1, 2 & 3	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	-1/16	0	1/8	3/16	5/16	3/8	7/16	3/8	1/4	3/16	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	0	-1/8	0	5/8	7/8	13/8	15/16	21/16	11/16	11/8	15/16	5/16	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	3/16	3/16	0	3/8	7/16	9/16	11/16	11/16	5/8	9/16	1/2	5/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5/16	3/16	0	0	11/8	11/2	21/4	3	33/16	21/16	15/16	15/8	11/16	0
4, 5 & 6	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	-1/16	0	1/8	3/16	5/16	3/8	7/16	3/8	1/4	3/16	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	0	-1/8	0	5/8	7/8	13/8	15/16	21/16	11/16	11/8	15/16	5/16	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	3/16	3/16	0	3/8	7/16	9/16	11/16	11/16	5/8	9/16	1/2	5/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5/16	3/16	0	0	11/8	11/2	21/4	3	33/16	21/16	15/16	15/8	11/16	0
7	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	-1/16	0	1/8	3/16	5/16	3/8	7/16	3/8	1/4	3/16	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	0	-1/8	0	5/8	7/8	13/8	15/16	21/16	11/16	11/8	15/16	5/16	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	1/4	3/16	0	1/4	1/4	7/16	5/8	11/16	5/8	9/16	1/2	5/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5/16	1/4	0	0	1	15/16	21/8	215/16	33/16	21/16	15/16	15/8	11/16	0

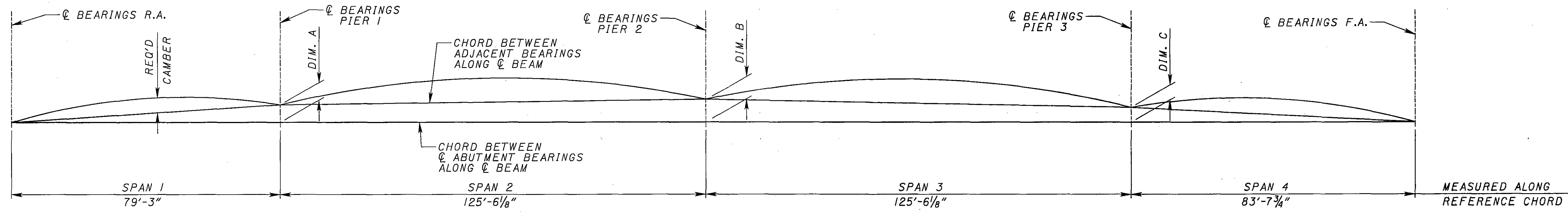
CAMBER TABLE (VALUES IN INCHES) (CONT'D)																
GIRDER NUMBER		PIER 2	SPAN 3							PIER 3	SPAN 4			FWD. ABUT.		
			1/8 SPAN	1/4 SPAN	SPL. 3	3/8 SPAN	MIDSPAN	5/8 SPAN	3/4 SPAN		SPL. 4	7/8 SPAN	1/4 SPAN		MIDSPAN	3/4 SPAN
1, 2 & 3	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/8	1/8	1/4	5/16	5/16	1/4	3/16	1/8	0	-1/16	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	11/16	3/4	15/16	11/16	19/16	11/8	13/16	1/2	0	-1/8	1/16	1/8	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	5/16	1/2	1/2	3/8	11/16	3/8	1/2	7/16	3/16	0	1/8	3/16	1/8	0
	TOTAL (REQUIRED SHOP CAMBER)	0	3/16	15/16	13/8	23/16	21/16	21/2	17/8	17/16	15/16	0	-1/16	1/4	1/4	0
4, 5 & 6	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/8	1/8	1/4	5/16	5/16	1/4	3/16	1/8	0	-1/16	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	11/16	3/4	15/16	11/16	19/16	11/8	13/16	1/2	0	-1/8	1/16	1/8	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/4	1/2	1/2	3/8	11/16	3/8	1/2	7/16	3/16	0	1/8	3/16	1/8	0
	TOTAL (REQUIRED SHOP CAMBER)	0	1/2	15/16	13/8	23/16	21/16	21/2	17/8	17/16	15/16	0	-1/16	1/4	1/4	0
7	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/8	1/8	1/4	5/16	5/16	1/4	3/16	1/8	0	-1/16	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	11/16	3/4	15/16	11/16	19/16	11/8	13/16	1/2	0	-1/8	1/16	1/8	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	1/2	1/2	3/8	11/16	3/8	1/2	7/16	3/16	0	3/16	1/4	3/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	3/16	15/16	13/8	23/16	21/16	21/2	17/8	17/16	15/16	0	0	5/16	5/16	0

BLOCKING (VALUES IN INCHES)			
GIRDER	DIM. A	DIM. B	DIM. C
1	4 1/16	6 5/8	3 15/16
2	4 1/16	6 5/8	3 15/16
3	4 1/16	6 5/8	3 15/16
4	4 1/16	6 5/8	3 15/16
5	4 1/16	6 5/8	3 15/16
6	4 1/16	6 9/16	3 15/16
7	3 13/16	6 9/16	3 15/16

NOTES:
1. SEE SHEET 42 / 64 FOR GIRDER NUMBER LOCATION.
2. POSITIVE CAMBER VALUES DENOTE UPWARD CAMBER.

LEGEND:
F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT
SPL. - SPLICE

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CAMBER AND BLOCKING DIAGRAM
(G8 - G12, G14)

GIRDER NUMBER		REAR ABUT.	CAMBER TABLE (VALUES IN INCHES)													
			SPAN 1			PIER 1	SPAN 2								PIER 2	
			1/4 SPAN	MIDSPAN	3/4 SPAN		1/8 SPAN	SPL. 1	1/4 SPAN	3/8 SPAN	MIDSPAN	5/8 SPAN	SPL. 2	3/4 SPAN		7/8 SPAN
8, 9, 10 & 11	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	0	-0	0	1/16	1/8	3/16	1/4	5/16	1/4	1/8	1/8	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/4	1/4	-0	0	3/8	1/16	15/16	1 3/8	1 1/2	1 3/16	1 1/8	1/4	0	
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	1/4	3/16	0	5/16	7/16	1/2	5/8	5/8	1/2	1/2	1/4	0	
	TOTAL (REQUIRED SHOP CAMBER)	0	1/2	1/2	3/16	0	3/4	1 1/4	1 5/8	2 1/4	2 7/16	2 1/16	1 7/16	1 5/16	9/16	0
12	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	0	-0	0	1/16	1/8	3/16	1/4	5/16	1/4	1/8	1/8	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/4	3/16	0	0	5/16	9/16	3/4	1 1/8	1 1/4	1	1 1/16	3/16	0	
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	1/4	3/16	0	5/16	7/16	1/2	5/8	5/8	5/8	1/2	1/2	1/4	0
	TOTAL (REQUIRED SHOP CAMBER)	0	1/2	7/16	3/16	0	1 1/16	1 1/8	1 7/16	2	2 3/16	1 7/8	1 5/16	1 3/16	1/2	0
14	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	-0	0	1/16	1/8	1/8	3/16	1/4	3/16	1/8	1/8	1/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	1/8	-0	0	1/4	7/16	5/8	15/16	1	13/16	1/2	7/16	1/8	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	1/4	3/16	0	5/16	3/8	1/2	5/8	1 1/16	5/8	1/2	1/2	5/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	3/8	3/8	3/16	0	5/8	1 5/16	1 1/4	1 3/4	1 5/16	1 5/8	1 1/8	1 1/16	1/2	0

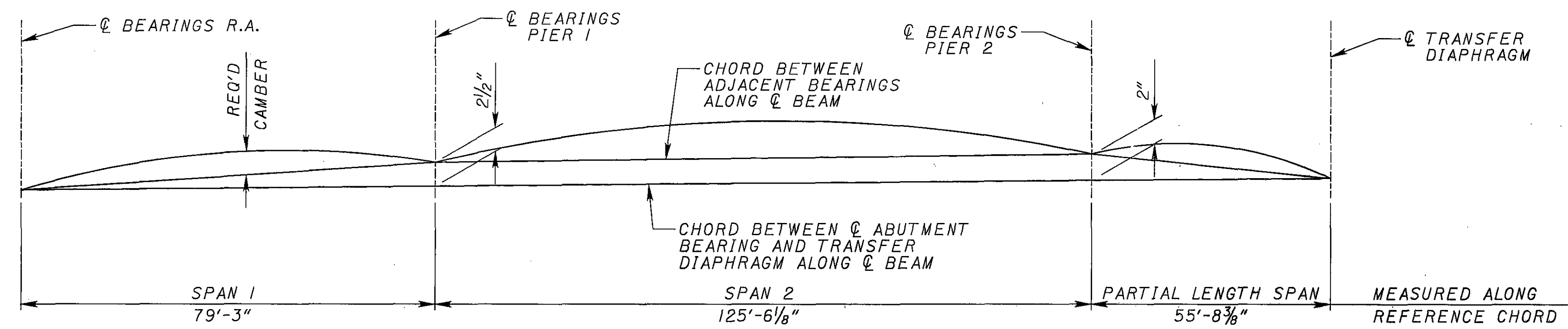
GIRDER NUMBER		PIER 2	CAMBER TABLE (VALUES IN INCHES) (CONT'D)										PIER 3	SPAN 4			FWD. ABUT.
			SPAN 3					SPAN 4									
			1/8 SPAN	1/4 SPAN	SPL. 3	3/8 SPAN	MIDSPAN	5/8 SPAN	3/4 SPAN	SPL. 4	7/8 SPAN	1/4 SPAN		MIDSPAN	3/4 SPAN		
8, 9, 10 & 11	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/8	1/8	3/16	1/4	1/4	3/16	1/8	1/16	0	-0	1/16	1/16	0	
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	5/8	1 1/16	1 1/16	1 3/8	1 1/4	7/8	1 1/16	3/8	0	0	1/4	5/16	0	
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/4	1/2	1/2	5/8	5/8	5/8	1/2	7/16	5/16	0	3/16	1/4	3/16	0	
	TOTAL (REQUIRED SHOP CAMBER)	0	1/2	1 1/4	1 3/16	1 7/8	2 1/4	2 1/8	1 9/16	1 1/4	3/4	0	3/16	9/16	9/16	0	
12	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/16	1/8	1/8	3/16	1/4	1/4	3/16	1/8	1/16	0	-0	1/16	1/16	0	
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	1/2	5/8	1 5/16	1 3/16	1 1/16	3/4	9/16	5/16	0	0	3/16	1/4	0	
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/4	1/2	1/2	9/16	5/8	5/8	1/2	7/16	5/16	0	1/2	9/16	3/8	0	
	TOTAL (REQUIRED SHOP CAMBER)	0	1/2	1 1/8	1 1/4	1 11/16	2 1/16	1 15/16	1 7/16	1 1/8	1 1/16	0	1/2	1 1/16	1 1/16	0	
14	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/8	1/8	3/16	3/16	3/16	1/8	1/8	1/16	0	0	1/16	1/16	0	
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	7/16	1/2	13/16	1	7/8	5/8	7/16	1/4	0	0	3/16	1/4	0	
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	5/16	1/2	1/2	5/8	1 1/16	5/8	1/2	7/16	5/16	0	1/4	5/16	3/16	0	
	TOTAL (REQUIRED SHOP CAMBER)	0	7/16	1 1/16	1 1/8	1 5/8	1 7/8	1 11/16	1 1/4	1	5/8	0	1/4	9/16	1/2	0	

BLOCKING (VALUES IN INCHES)			
GIRDER	PIER 1	PIER 2	PIER 3
8	4 3/8	6 15/16	4 7/16
9	4 3/8	6 15/16	4 7/16
10	4 3/8	6 15/16	4 7/16
11	4 3/8	6 7/8	4 7/16
12	4 9/16	7 7/16	5 5/16
14	4 7/16	7 1/8	4 5/8

NOTES:
1. SEE SHEET 42 / 64 FOR GIRDER NUMBER LOCATION.
2. POSITIVE CAMBER VALUES DENOTE UPWARD CAMBER.

LEGEND:
F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT
SPL. - SPLICE

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CAMBER AND BLOCKING DIAGRAM
(G13)

GIRDER NUMBER	REAR ABUT.	CAMBER TABLE (VALUES IN INCHES)																	
		SPAN 1			PIER 1	SPAN 2						PIER 2	PARTIAL LENGTH SPAN						
		1/4 SPAN	MIDSPAN	3/4 SPAN		1/8 SPAN	SPL. 1	1/4 SPAN	3/8 SPAN	MIDSPAN	5/8 SPAN		3/4 SPAN	SPL. 2A	7/8 SPAN	1/8 SPAN	1/4 SPAN	3/8 SPAN	TRANS. DIA.
13	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	1/8	3/16	1/4	3/8	3/8	3/8	1/4	1/4	1/8	0	-1/16	-1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	1/16	-1/8	0	7/16	1 1/16	1 1/16	1 5/16	1 1/2	1 1/16	1 5/16	1/2	0	-3/16	-1/8	-1/16	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	3/16	1/4	3/16	0	5/16	7/16	1/2	5/8	1 1/16	3/8	1/2	3/8	5/16	1/8	1/8	1/8	0
	TOTAL (REQUIRED SHOP CAMBER)	0	5/16	5/16	1/16	0	7/8	1 7/16	1 3/4	2 1/16	2 1/16	2 1/2	1 9/16	1 9/16	1 5/16	-1/8	-1/16	1/16	0

NOTES:

- SEE SHEET 42 / 64 FOR GIRDER NUMBER LOCATION
- CAMBER VALUES ARE CALCULATED BASED ON GIRDER ERECTION SEQUENCE STARTING AT THE FORWARD ABUTMENT AND PROCEEDING TOWARD THE REAR ABUTMENT. IF GIRDER ERECTION SEQUENCE IS DIFFERENT, THEN CAMBER VALUES IN PARTIAL LENGTH SPAN OF G13 MAY BE DIFFERENT.
- POSITIVE CAMBER VALUES DENOTE UPWARD CAMBER.

LEGEND:

- DIA. = DIAPHRAGM
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- SPL. = SPLICE
- TRANS. = TRANSFER

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BURGESS & NIPLE
505 Reed Road
Channahon, IL 61420

DATE 9/04
REVIEWED RMK
DESIGNED TTK
CHECKED JHL

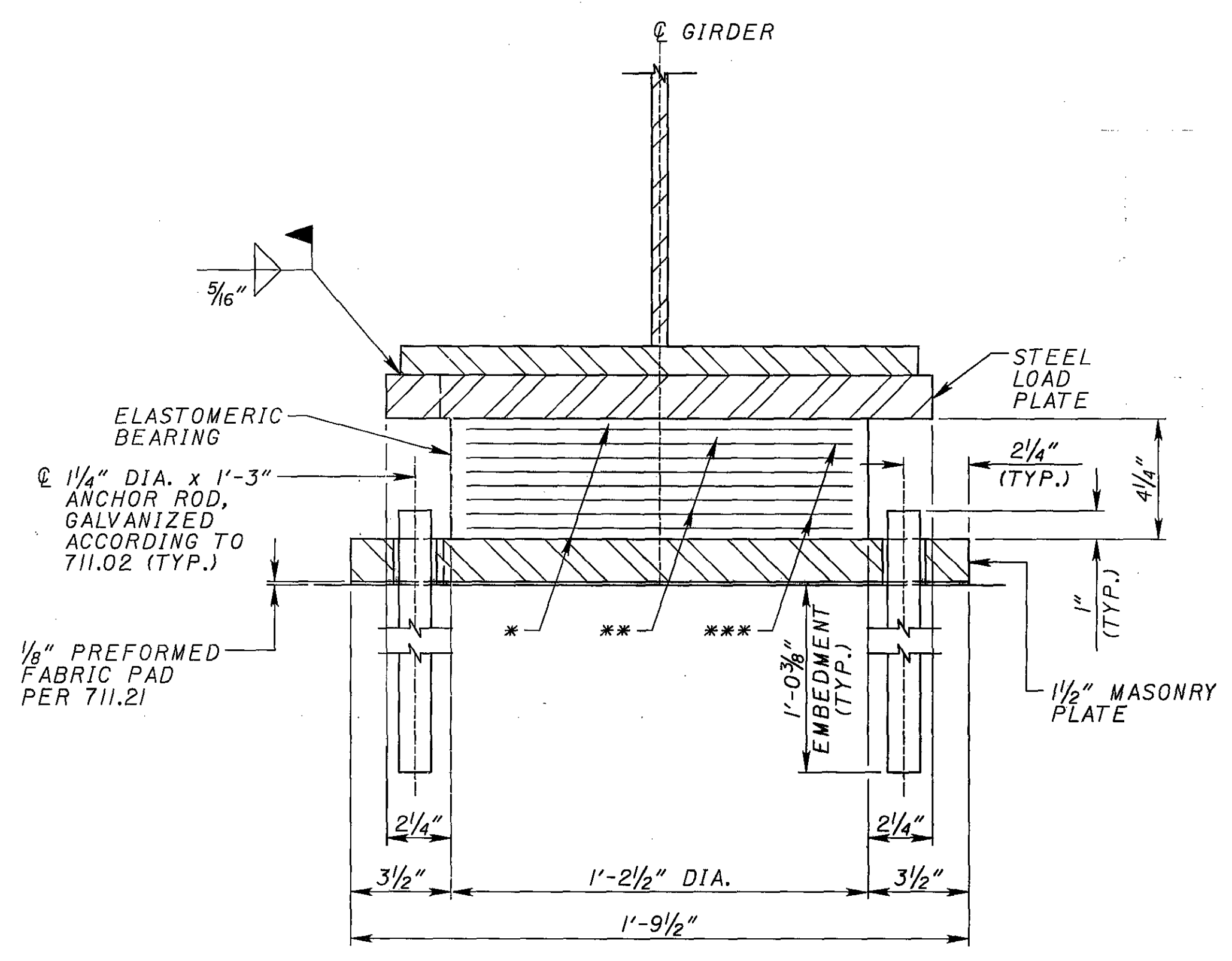
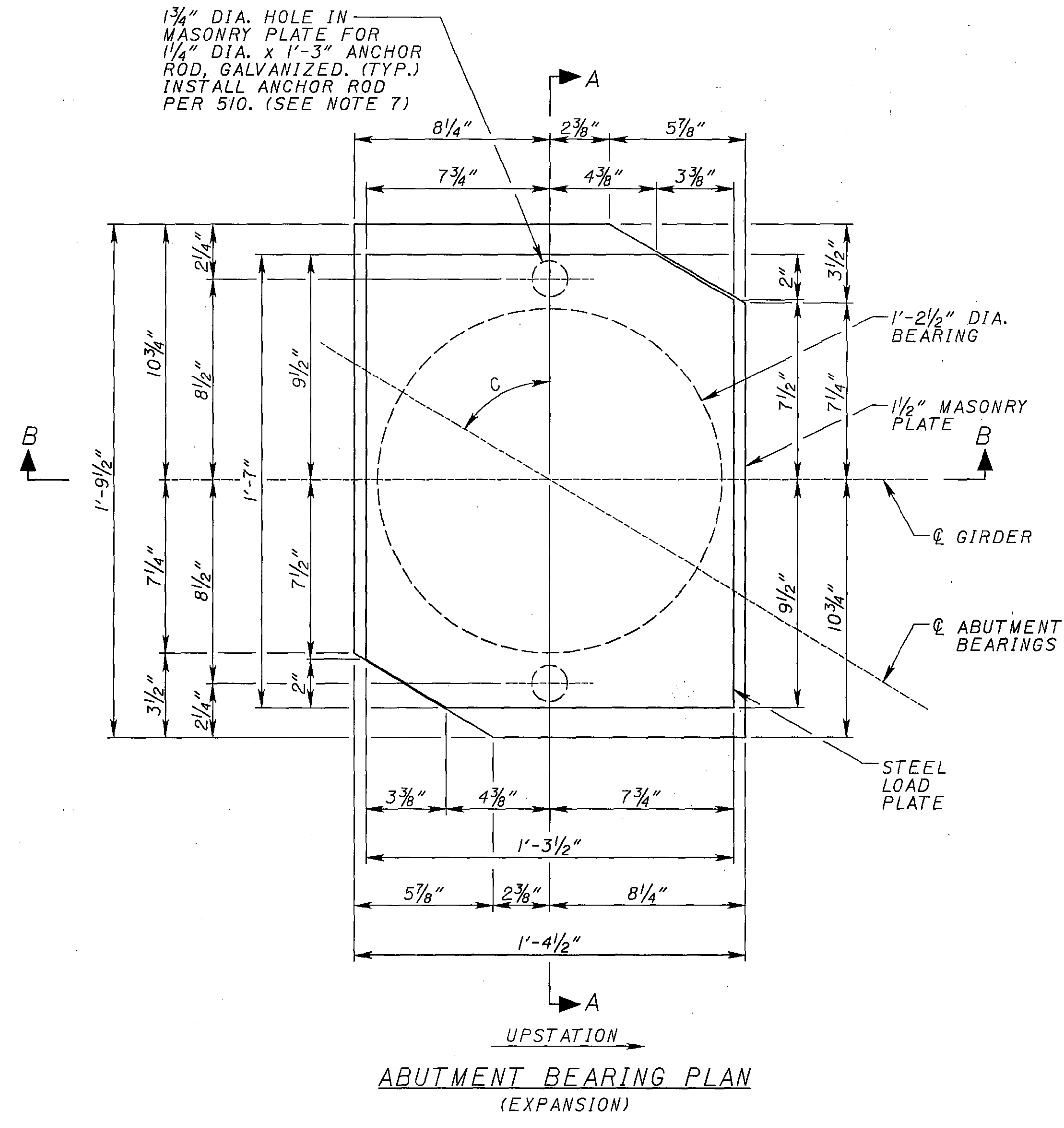
PROJECT FILE NUMBER
5202957 - RIGHT

CAMBER DETAILS 2 - NORTHBOUND
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

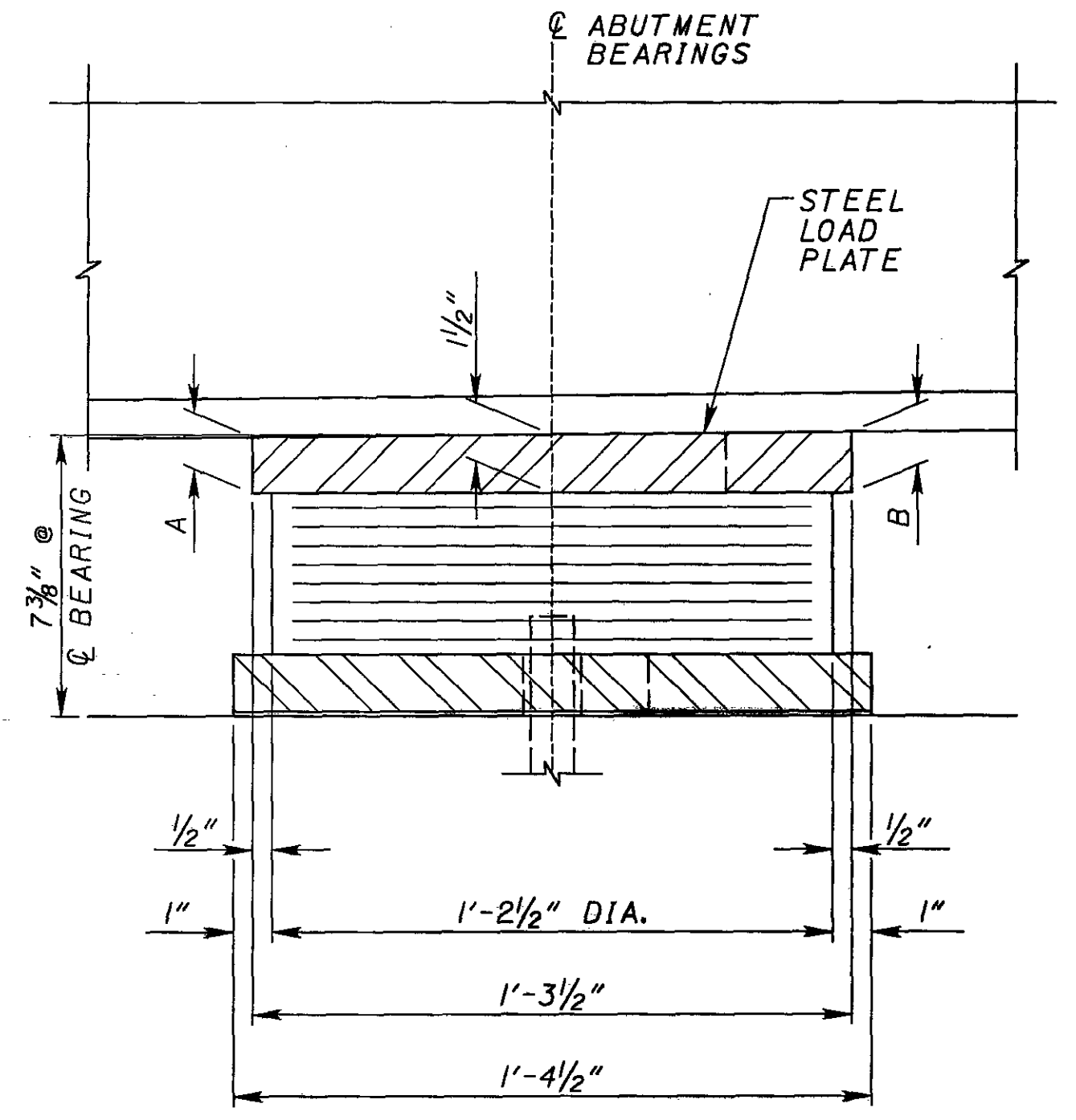
MED-71-6.06
PID-75657

51 / 64

875
1120



- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.272" PER LAYER
- ** - 7 INTERNAL ELASTOMER LAYERS THICKNESS = 0.444" PER LAYER
- *** - 8 INTERNAL STEEL LAMINATES THICKNESS = 0.0747" PER LAMINATE



NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.5 (METHOD B) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. BEARING REPOSITIONING: IF THE BEAMS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
3. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
4. LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND LOCATION (NORTHBOUND OR SOUTHBOUND, GIRDER NUMBER AND REAR ABUTMENT, PIER 1, PIER 2, PIER 3 OR FORWARD ABUTMENT). THE STEEL LOAD PLATES & MASONRY PLATES ARE ASTM A709 GRADE 50 STRUCTURAL STEEL AND SHALL BE PAINTED WITH THE SAME COATING SYSTEM AS THE MAIN STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE & MASONRY PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS.
5. DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING SERVICE LOADS (KIPS):

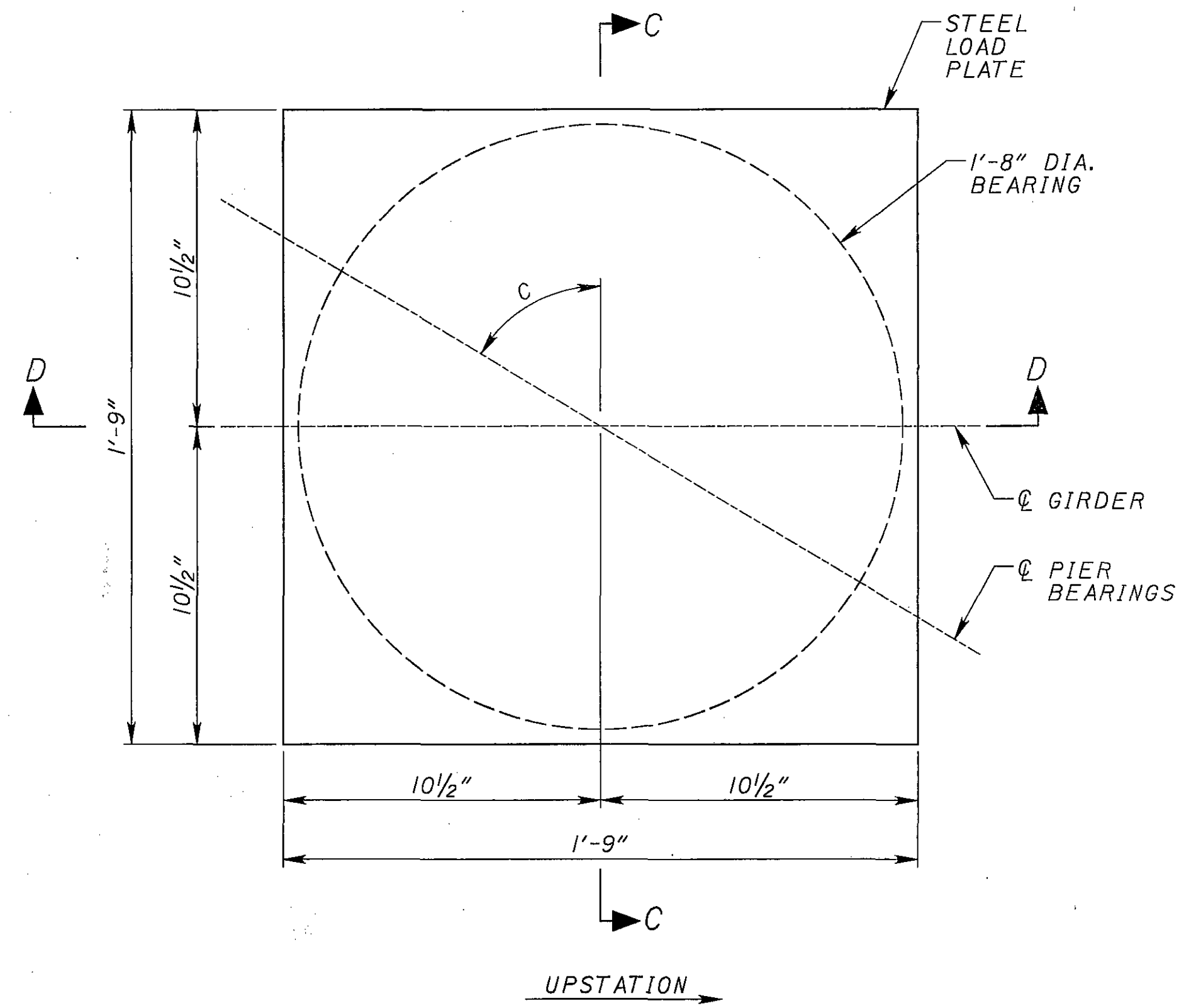
	ABUTMENTS	PIERS
DEAD LOAD	72	377
LIVE LOAD W/O IMPACT	84	160
TOTAL DESIGN LOAD	156	537
6. BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES, MASONRY PLATES, ANCHOR RODS, PREFORMED FABRIC PADS & PLATE HOLES, AND PROTECTIVE COATING. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.
7. ANCHOR RODS ARE ASTM A193, GRADE B7.

SOUTHBOUND										
LOCATION	REAR ABUTMENT		PIER 1		PIER 2		PIER 3		FORWARD ABUTMENT	
GIRDER	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B
G1	1 1/16"	1 9/16"	1 15/16"	2 1/16"	2"	2"	2"	2"	1 1/2"	1 1/2"
G2	1 1/16"	1 9/16"	1 15/16"	2 1/16"	2"	2"	2"	2"	1 9/16"	1 7/16"
G3	1 1/16"	1 9/16"	1 15/16"	2 1/16"	2"	2"	2 1/16"	1 15/16"	1 9/16"	1 7/16"
G4	1 1/16"	1 9/16"	1 15/16"	2 1/16"	2"	2"	2 1/16"	1 15/16"	1 9/16"	1 7/16"
G5	1 1/16"	1 9/16"	2"	2"	2"	2"	2 1/16"	1 15/16"	1 9/16"	1 7/16"
G6	1 1/16"	1 9/16"	2"	2"	2"	2"	2 1/16"	1 15/16"	1 9/16"	1 7/16"
G7	1 1/2"	1 1/2"	2"	2"	2"	2"	2 1/16"	1 15/16"	1 9/16"	1 7/16"

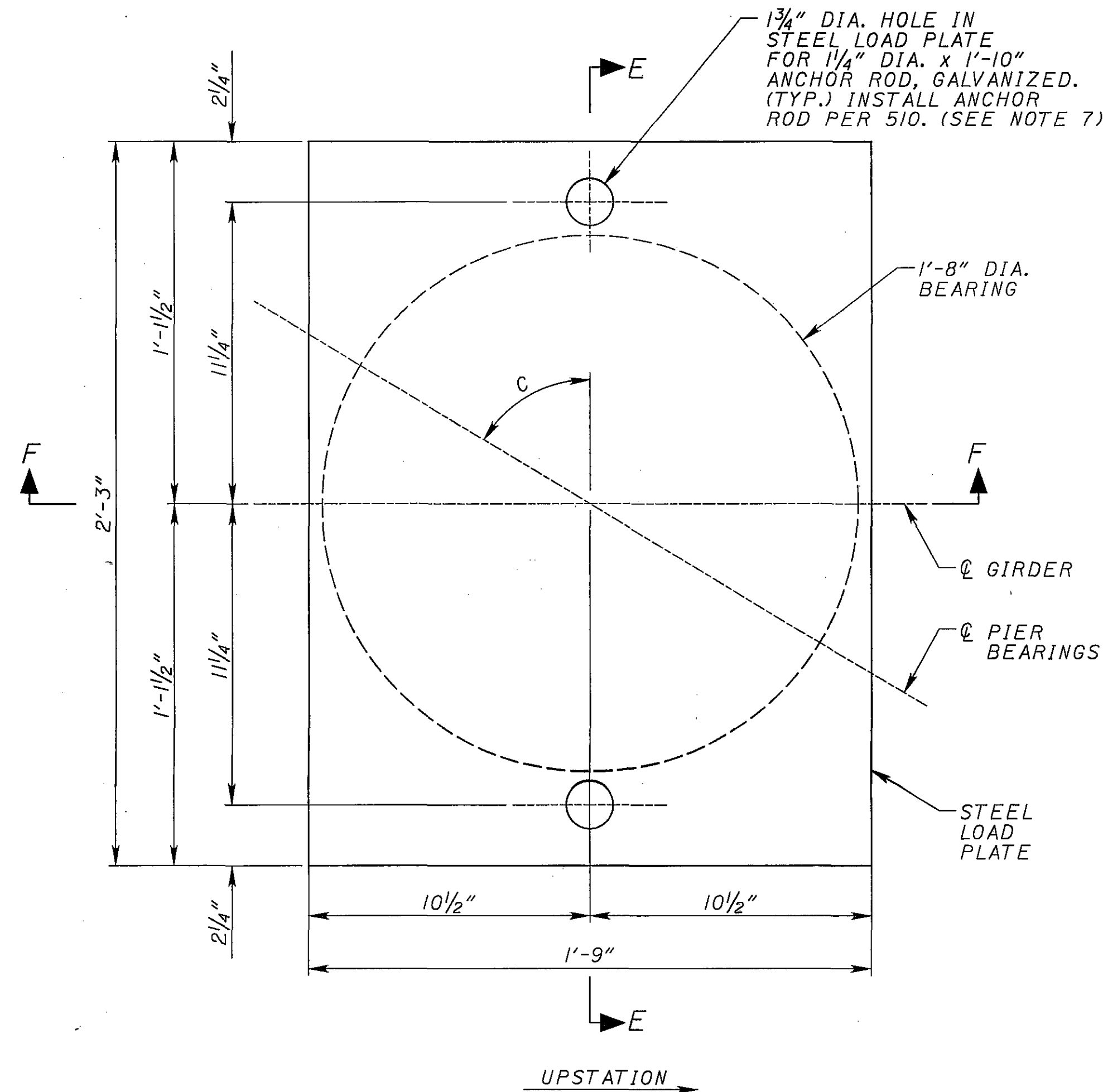
NORTHBOUND										
LOCATION	REAR ABUTMENT		PIER 1		PIER 2		PIER 3		FORWARD ABUTMENT	
GIRDER	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B
G8	1 1/2"	1 1/2"	2"	2"	2"	2"	2 1/16"	1 15/16"	1 9/16"	1 7/16"
G9	1 1/2"	1 1/2"	2"	2"	2 1/16"	1 15/16"	2 1/16"	1 9/16"	1 9/16"	1 7/16"
G10	1 1/2"	1 1/2"	2"	2"	2 1/16"	1 15/16"	2 1/16"	1 9/16"	1 9/16"	1 7/16"
G11	1 1/2"	1 1/2"	2"	2"	2 1/16"	1 15/16"	2 1/16"	1 9/16"	1 9/16"	1 7/16"
G12	1 1/2"	1 1/2"	2"	2"	2 1/16"	1 15/16"	2 1/16"	1 9/16"	1 9/16"	1 7/16"
G13	1 1/2"	1 1/2"	2"	2"	2 1/16"	1 15/16"	---	---	---	---
G14	1 1/2"	1 1/2"	2"	2"	2 1/16"	1 15/16"	2 1/16"	1 9/16"	1 9/16"	1 7/16"

DIMENSION C					
GIRDER	REAR ABUTMENT	PIER 1	PIER 2	PIER 3	FORWARD ABUTMENT
G1-G7	61° 47' 11"	61° 47' 11"	60° 46' 15"	59° 43' 44"	59° 43' 44"
G8-G12	60° 45' 43"	60° 45' 43"	60° 9' 31"	59° 25' 51"	59° 25' 51"
G13	59° 26' 33"	59° 26' 33"	59° 26' 33"	---	---
G14	58° 32' 41"	58° 32' 41"	58° 32' 41"	58° 32' 41"	58° 32' 41"

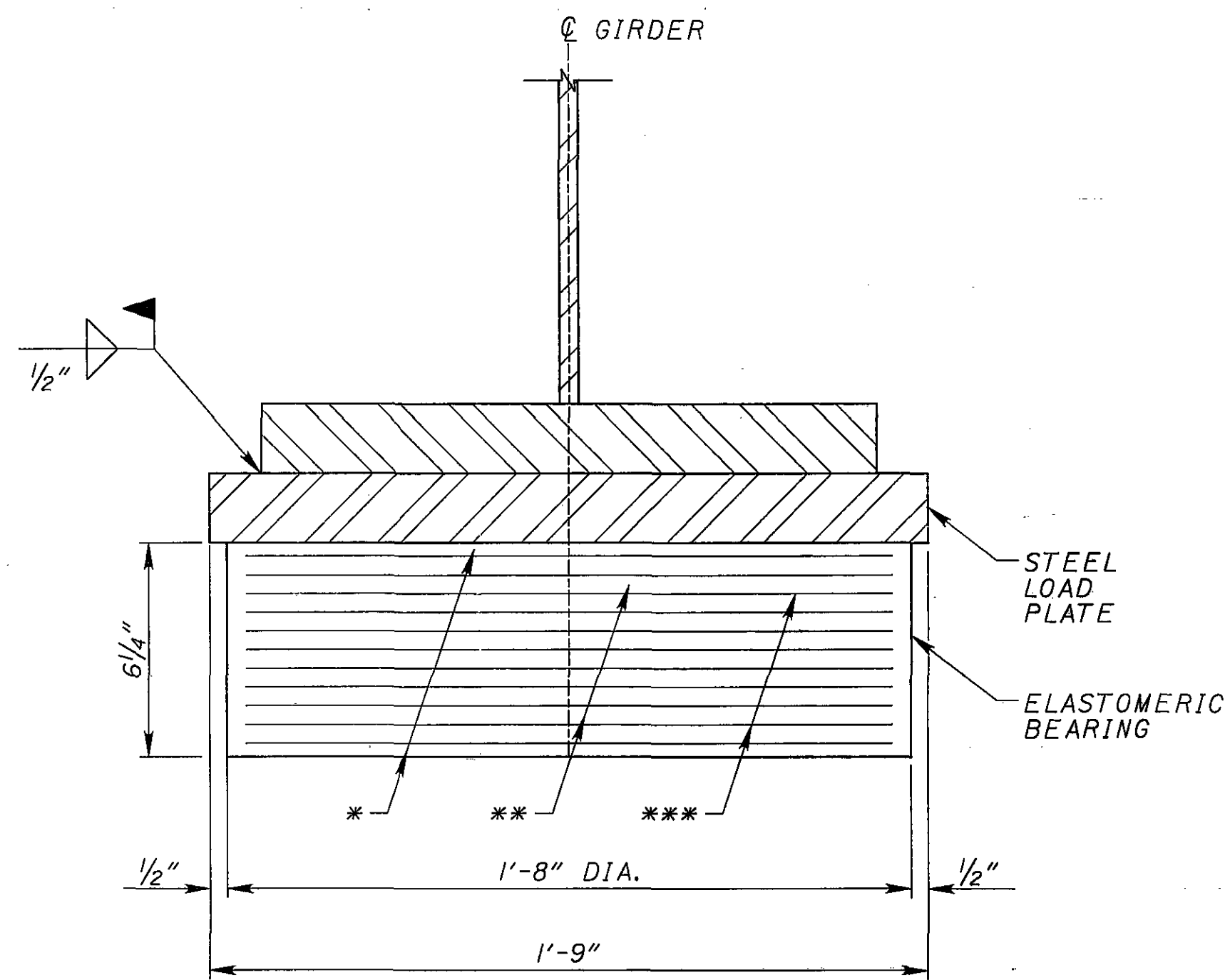
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PIERS 1 & 3 BEARING PLAN
(EXPANSION)

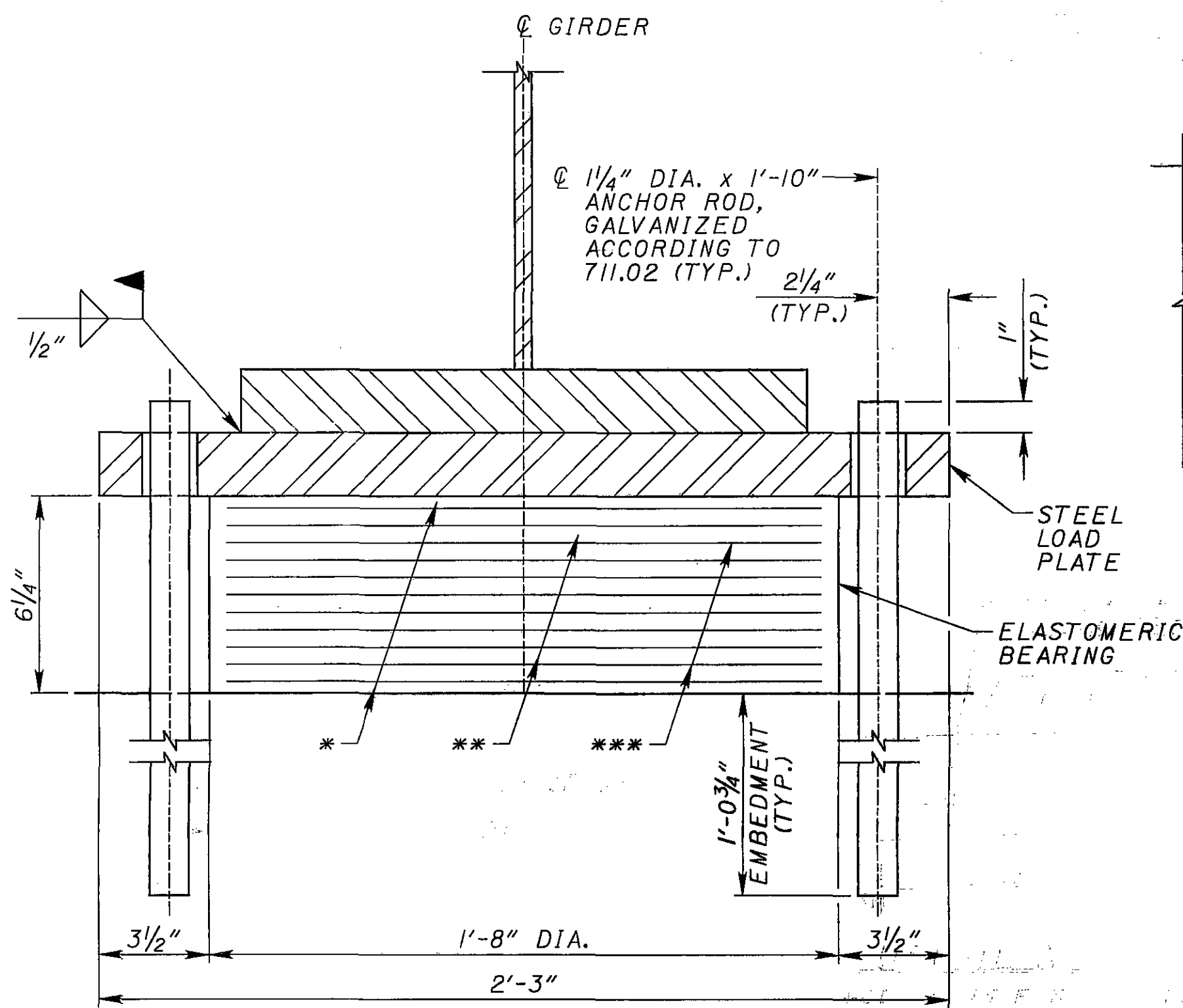


PIER 2 BEARING PLAN
(FIXED)



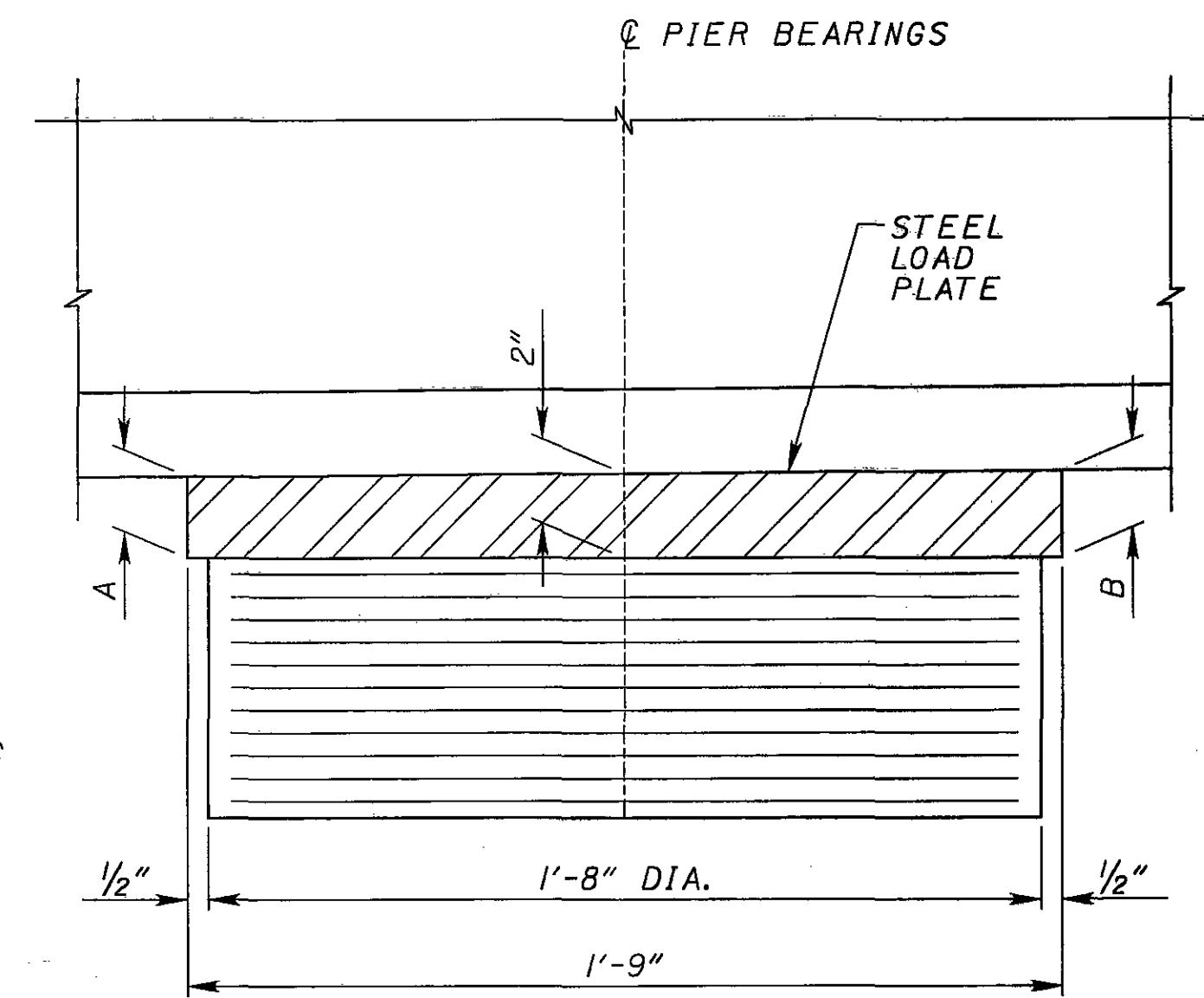
- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.329"
- ** - 10 INTERNAL ELASTOMER LAYERS THICKNESS = 0.477"
- *** - 11 INTERNAL STEEL LAMINATES THICKNESS = 0.0747"

SECTION C-C

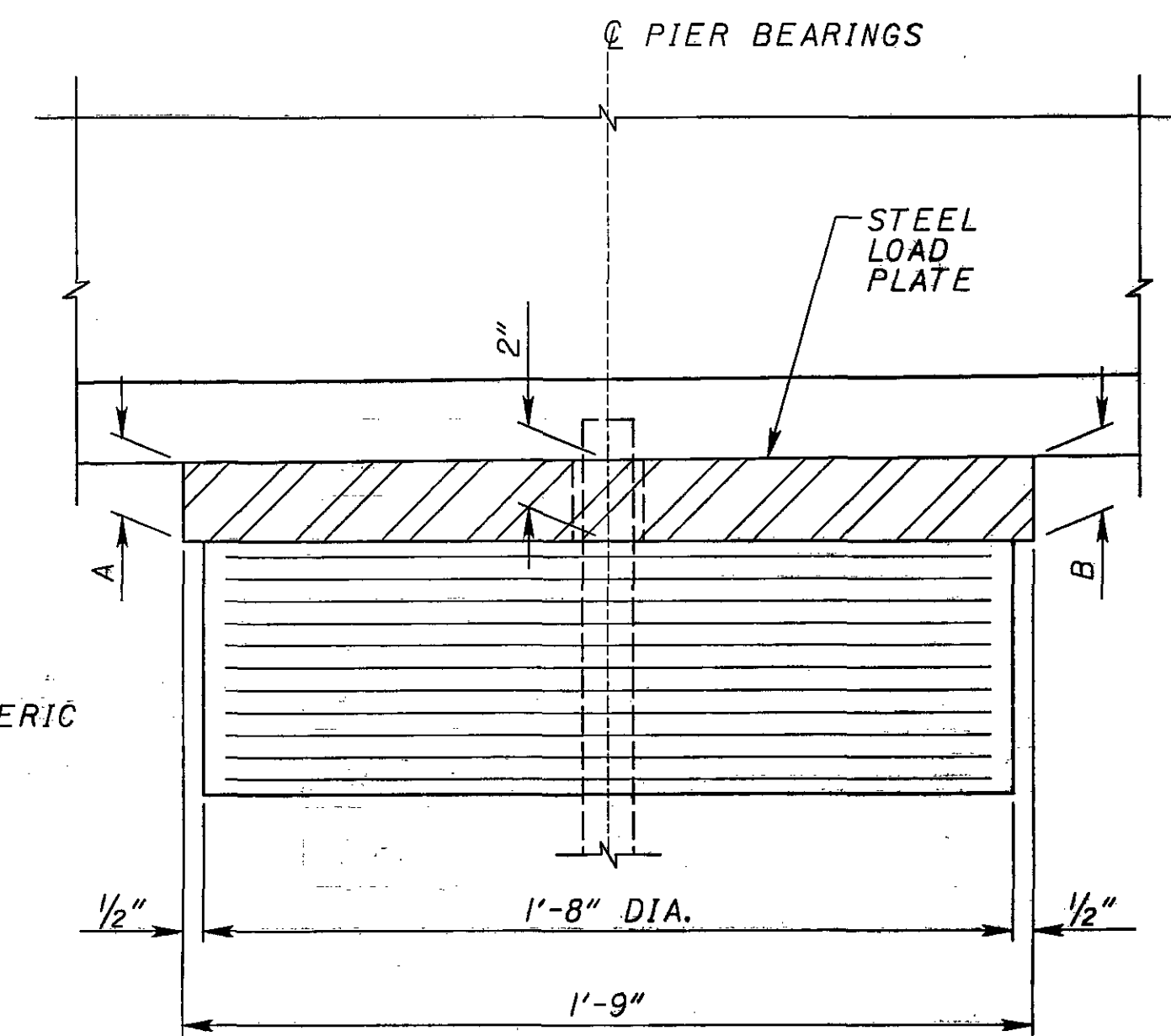


- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.329"
- ** - 10 INTERNAL ELASTOMER LAYERS THICKNESS = 0.477"
- *** - 11 INTERNAL STEEL LAMINATES THICKNESS = 0.0747"

SECTION E-E



SECTION D-D



SECTION F-F

NOTE:

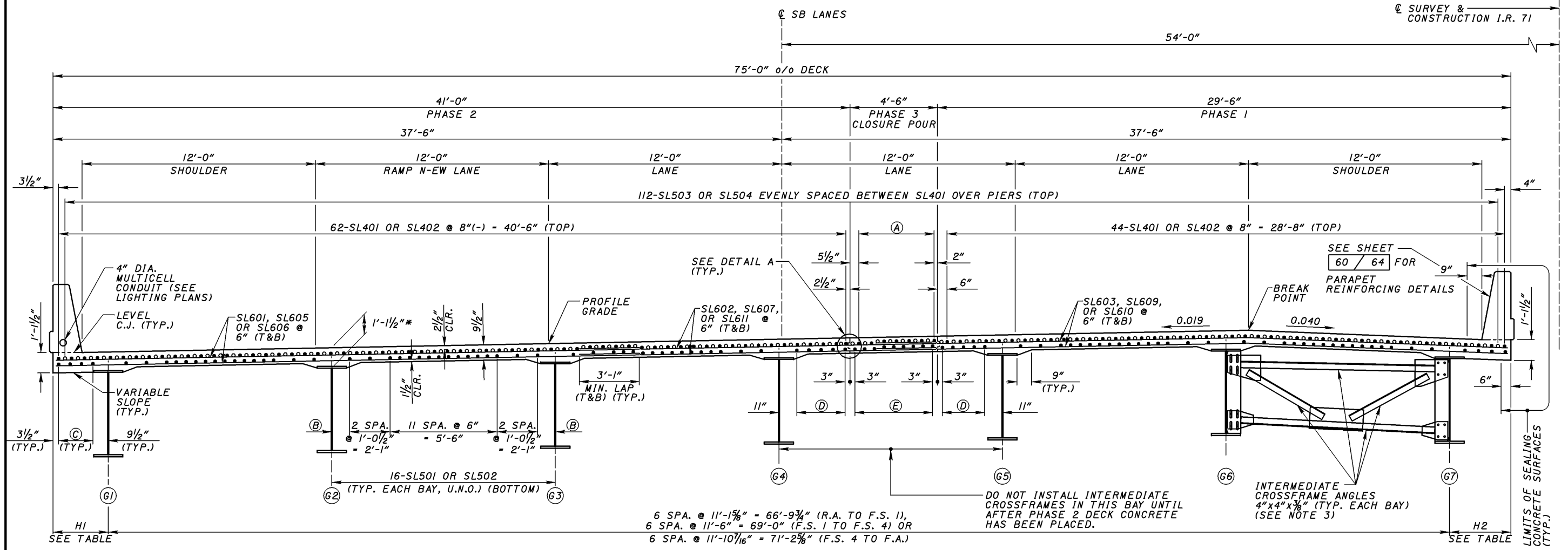
1. SEE SHEET 52 / 64 FOR BEARING NOTES AND DIMENSIONS A, B & C.

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DESIGNED	TTK	CHECKED	JMK
DRAWN	TTK	REVISED	
REVIEWED	RMK	DATE	9/04
STRUCTURE FILE NUMBER	5202922 - LEFT		
PROJECT NUMBER	5202957 - RIGHT		

BEARING DETAILS 2
BRIDGE NO. MED-71-0794 L/R
1-71 OVER 1-76

MED-71-6.06
PID-75657



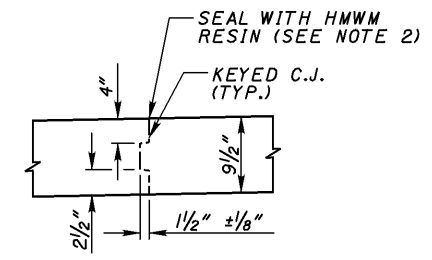
TRANSVERSE SECTION - SOUTHBOUND

NOTES:

- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS ±3 INCHES.
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
- SEE GENERAL NOTES (SHEET 3 / 64) FOR SEALING WITH HMWM RESIN NOTE.
- FOR CROSSFRAME AND STIFFENER DETAILS SEE SHEET 48 / 64.
- H1 AND H2 DIMENSIONS ARE MEASURED PERPENDICULAR TO C FASCIA BEAM.
- THE DECK SLAB CONCRETE SHALL BE PLACED AND SCREEDED ALONG THE SKEW.

LEGEND:

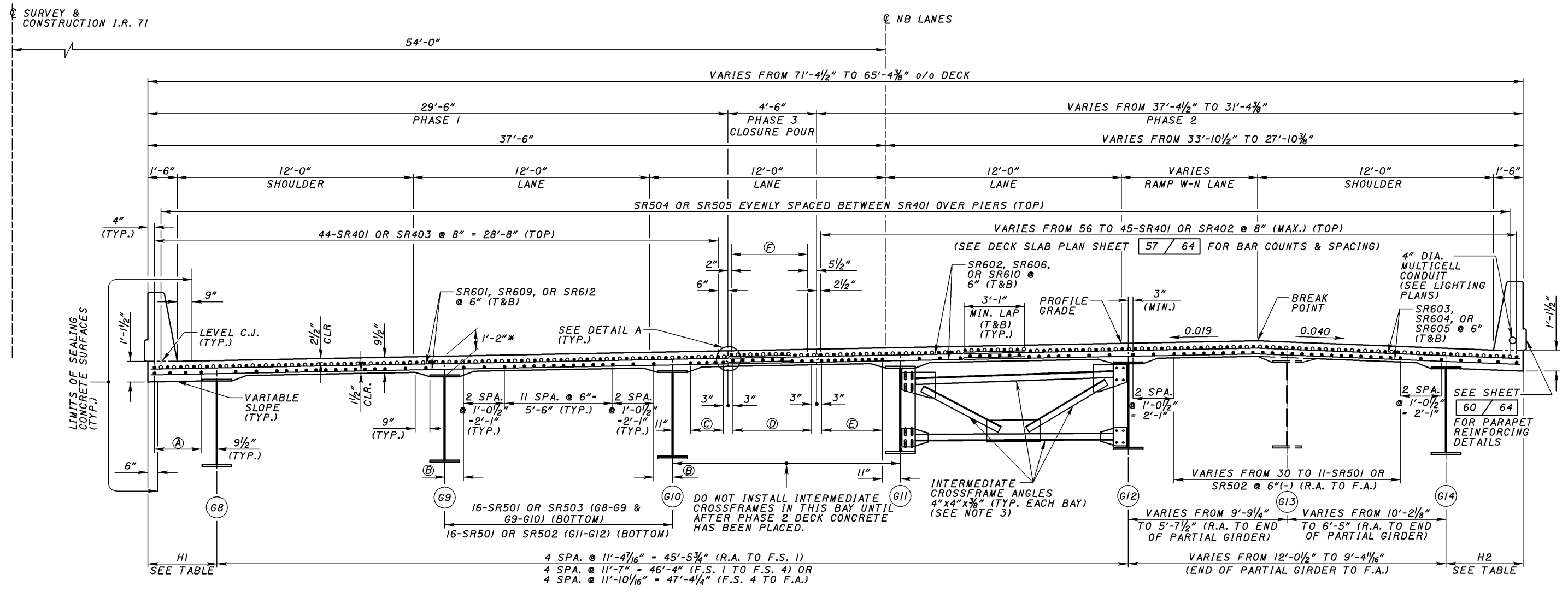
- C.J. - CONSTRUCTION JOINT
 - CLR. - CLEAR
 - EQ. - EQUAL
 - F.A. - FORWARD ABUTMENT
 - F.S. - FIELD SPLICE
 - HMWM - HIGH MOLECULAR WEIGHT METHACRYLATE
 - R.A. - REAR ABUTMENT
 - T&B - TOP & BOTTOM
 - U.N.O. - UNLESS NOTED OTHERWISE
 - * - MEASURED FROM TOP OF DECK TO TOP OF WEB
- (A) - 7-SL401 OR SL402 @ 7 3/4" - 3'-10 1/2" (TOP)
 - (B) - 8 1/8" (R.A. TO F.S. 1)
-11" (F.S. 1 TO F.S. 4)
-1'-0 1/8" (-) (F.S. 4 TO F.A.)
 - (C) - 4-SL501 OR SL502 @ 3 EQUAL SPACES (BOTTOM)
 - (D) - 5-SL501 OR SL502 @ 4 EQUAL SPACES (BOTTOM)
 - (E) - 9-SL501 OR SL502 @ 6" - 4'-0" (BOTTOM)



DETAIL A
(BARS NOT SHOWN FOR CLARITY)

LOCATION	H1	H2
Q R.A.	4'-1 1/8"	4'-0 1/2"
1/4 SPAN	4'-0 1/4"	3'-11"
MIDSPAN	3'-11 3/4"	3'-9 1/4"
3/4 SPAN	3'-11 5/8"	3'-7"
Q PIER 1	3'-11 7/8"	3'-4 3/8"
1/8 SPAN	4'-0 3/8"	3'-17/8"
1/4 SPAN	3'-10 7/8"	3'-1 1/4"
3/8 SPAN	3'-8 3/8"	3'-1 5/8"
MIDSPAN	3'-6 1/8"	3'-17/8"
5/8 SPAN	3'-4 1/4"	3'-1 3/4"
3/4 SPAN	3'-2 1/2"	3'-1 1/2"
7/8 SPAN	3'-1 1/8"	3'-0 7/8"
Q PIER 2	3'-0"	3'-0"

LOCATION	H1	H2
Q PIER 2	3'-0"	3'-0"
1/8 SPAN	2'-11 1/8"	2'-10 3/4"
1/4 SPAN	2'-10 1/2"	2'-9 3/8"
3/8 SPAN	2'-10 1/4"	2'-7 3/4"
MIDSPAN	2'-10 1/8"	2'-5 3/4"
5/8 SPAN	2'-10 3/8"	2'-3 5/8"
3/4 SPAN	2'-10 7/8"	2'-1 1/8"
7/8 SPAN	2'-9 7/8"	2'-0 1/4"
Q PIER 3	2'-7 3/8"	2'-0 3/4"
1/4 SPAN	2'-4 3/4"	2'-1 1/8"
MIDSPAN	2'-2 1/2"	2'-1 1/8"
3/4 SPAN	2'-0 5/8"	2'-0 7/8"
Q F.A.	1'-11"	2'-0 1/4"



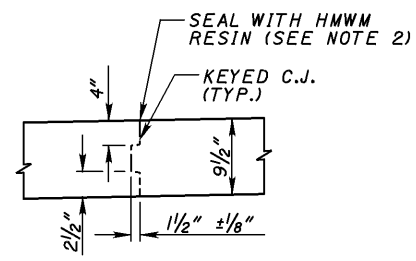
TRANSVERSE SECTION - NORTHBOUND

NOTES:

- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 1/2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS ±3 INCHES.
 THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
- SEE GENERAL NOTES (SHEET 3 / 64) FOR SEALING WITH HMWM RESIN NOTE.
- FOR CROSSFRAME AND STIFFENER DETAILS SEE SHEET 48 / 64.
- H1 AND H2 DIMENSIONS ARE MEASURED PERPENDICULAR TO © FASCIA BEAM.
- THE DECK SLAB CONCRETE SHALL BE PLACED AND SCREEDED ALONG THE SKEW.

LEGEND:

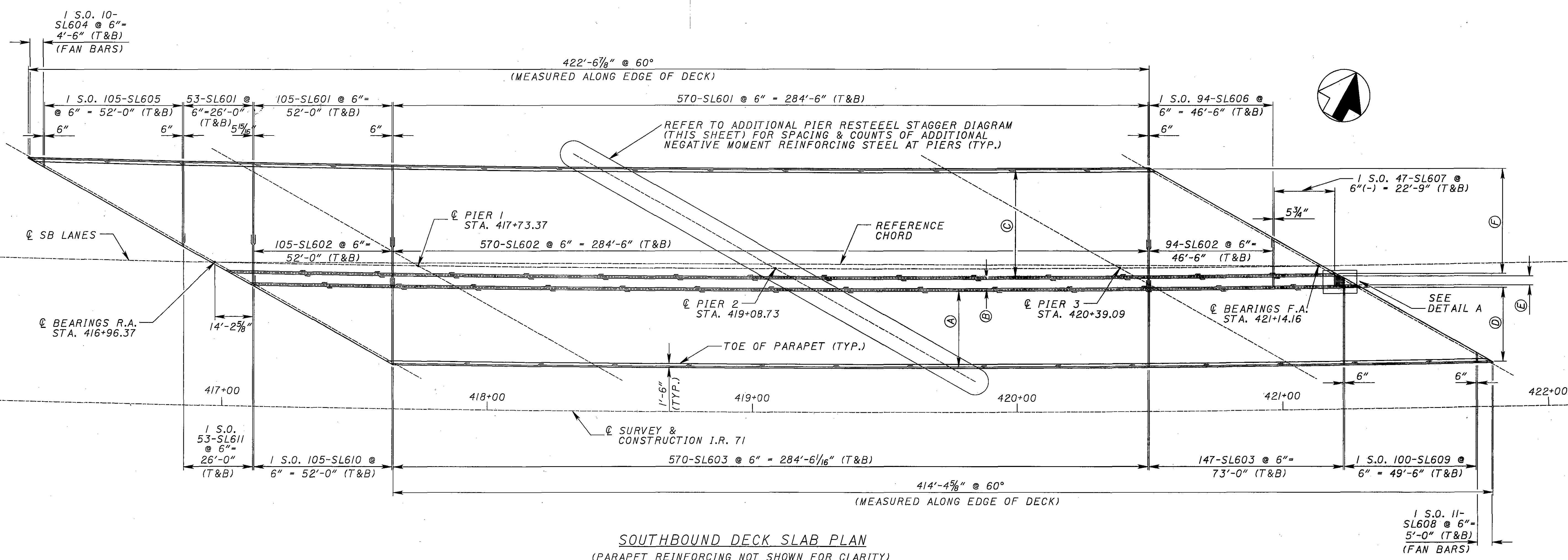
- C.J. - CONSTRUCTION JOINT
 - CLR. - CLEAR
 - EQ. - EQUAL
 - F.A. - FORWARD ABUTMENT
 - F.S. - FIELD SPLICE
 - HMWM - HIGH MOLECULAR WEIGHT METHACRYLATE
 - R.A. - REAR ABUTMENT
 - T&B - TOP & BOTTOM
 - U.N.O. - UNLESS NOTED OTHERWISE
 - * - MEASURED FROM TOP OF DECK TO TOP OF WEB
- (A) - 4-SR501, SR502, OR SR503 @ 3 EQUAL SPACES (BOTTOM) (TYP.)
 - (B) - 10 3/16" (R.A. TO F.S.1)
 - 11 1/2" (F.S.1 TO F.S.4)
 - 1'-1" (F.S.4 TO F.A.)
 - (C) - 5-SR501 OR SR503 @ 4 EQUAL SPACES (BOTTOM)
 - (D) - 9-SR501 OR SR503 @ 6" - 4'-0" (BOTTOM)
 - (E) - 10-SR501 OR SR502 @ 9 EQUAL SPACES (BOTTOM)
 - (F) - 7-SR401 OR SR403 @ 7 3/4" - 3'-10 1/2" (TOP)



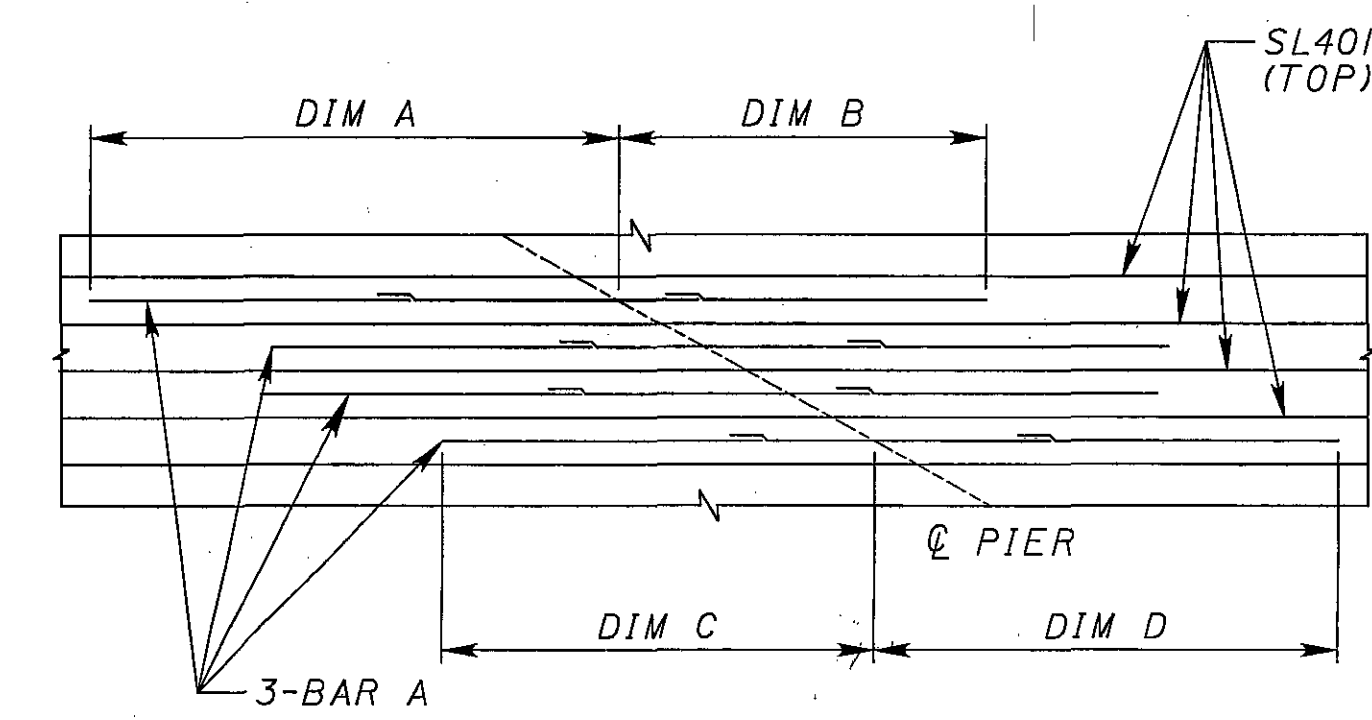
DETAIL A
 (BARS NOT SHOWN FOR CLARITY)

LOCATION	H1	H2
© R.A.	3'-11 3/4"	2'-6 1/8"
1/4 SPAN	3'-10 3/8"	2'-9 1/2"
MIDSPAN	3'-9 1/2"	3'-0 1/2"
3/4 SPAN	3'-9"	3'-3 1/8"
© PIER 1	3'-9"	3'-5 1/2"
1/8 SPAN	3'-9 1/8"	3'-7 1/8"
1/4 SPAN	3'-8 5/8"	3'-8 1/2"
3/8 SPAN	3'-7 3/8"	3'-9 5/8"
MIDSPAN	3'-6 1/4"	3'-10 1/2"
5/8 SPAN	3'-5 1/2"	3'-11 1/4"
3/4 SPAN	3'-4 7/8"	3'-11 3/4"
7/8 SPAN	3'-4 3/8"	4'-0"
© PIER 2	3'-4 1/2"	4'-0"

LOCATION	H1	H2
© PIER 2	3'-4 1/2"	4'-0"
1/8 SPAN	3'-4 3/8"	3'-11 1/8"
1/4 SPAN	3'-5 1/8"	3'-11 3/8"
3/8 SPAN	3'-5 5/8"	3'-10 3/4"
MIDSPAN	3'-6 3/4"	3'-10"
5/8 SPAN	3'-7 1/8"	3'-8 7/8"
3/4 SPAN	3'-9 1/4"	3'-7 5/8"
7/8 SPAN	3'-9 3/8"	3'-6 1/8"
© PIER 3	3'-8 7/8"	3'-4 3/8"
1/4 SPAN	3'-8 5/8"	3'-1 5/8"
MIDSPAN	3'-8 5/8"	2'-10 5/8"
3/4 SPAN	3'-9 1/4"	2'-7 1/4"
© F.A.	3'-10 1/8"	2'-3 3/8"

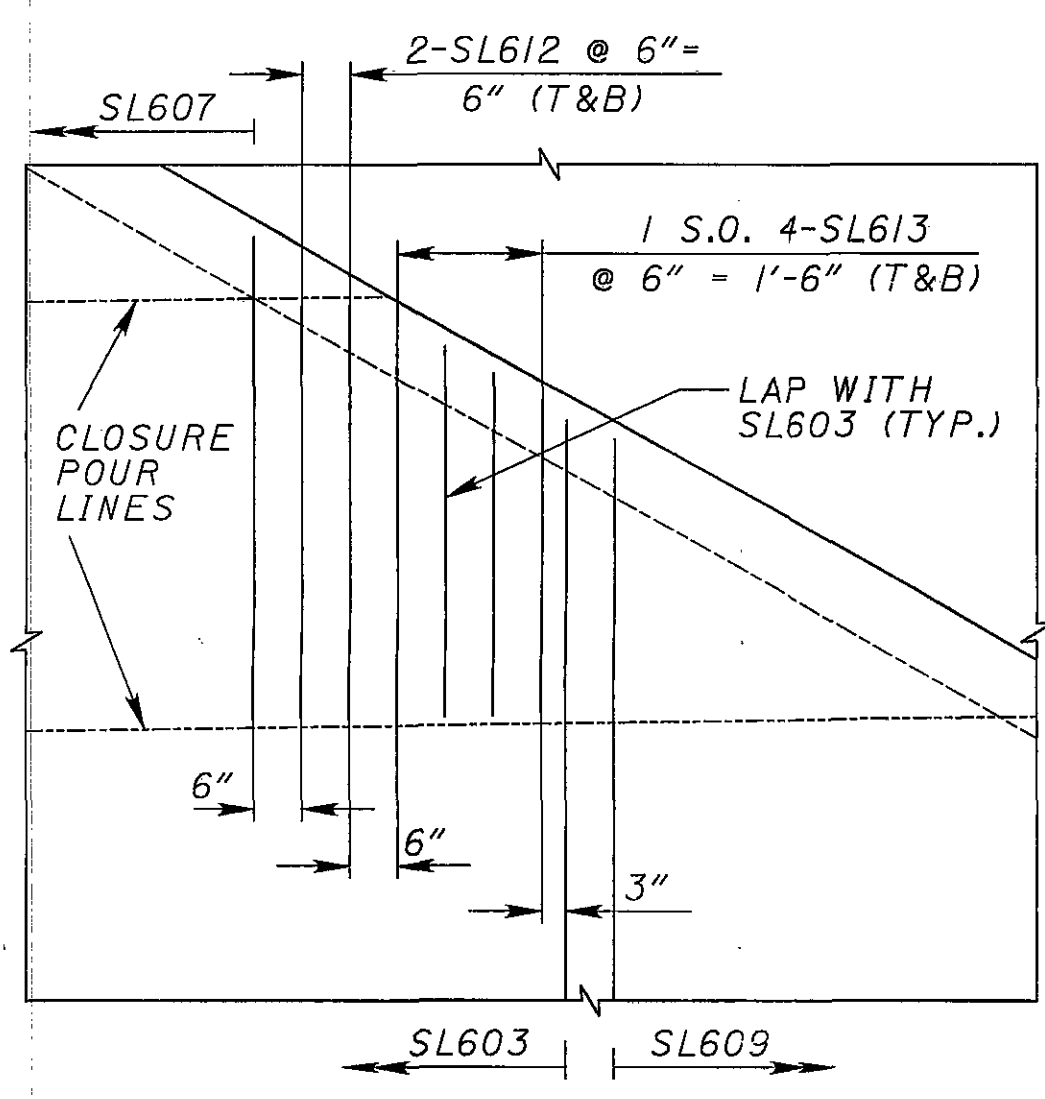


SOUTHBOUND DECK SLAB PLAN
(PARAPET REINFORCING NOT SHOWN FOR CLARITY)



LOCATION	DIM A	DIM B	DIM C	DIM D	BAR A	NO.
PIER 1	41'-6"	33'-1"	38'-6"	36'-1"	SL503	336
PIER 2	45'-1"	43'-6"	42'-1"	46'-6"	SL504	336
PIER 3	33'-1"	41'-6"	36'-1"	38'-6"	SL503	336

ADDITIONAL PIER RESTEEL STAGGER DIAGRAM



DETAIL A

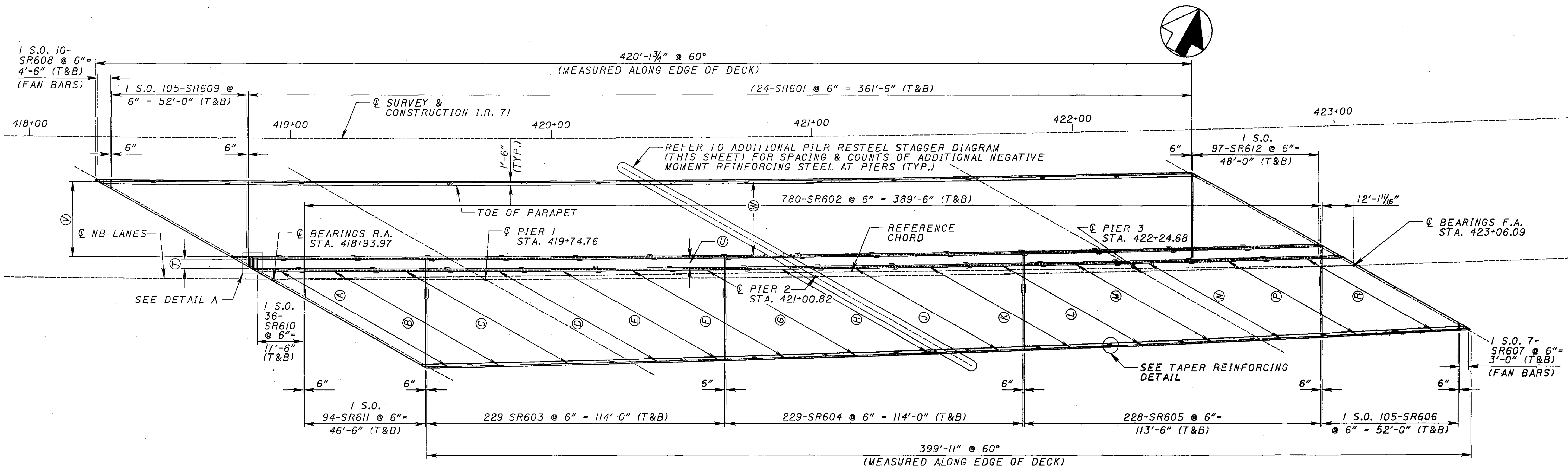
NOTES:

1. PLACE TRANSVERSE BARS PERPENDICULAR TO RADIAL LINES UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE MEASURED PERPENDICULAR OR PARALLEL TO REFERENCE CHORD UNLESS NOTED OTHERWISE.
3. SEE SHEET 60 / 64 FOR PARAPET REINFORCING.
4. MINIMUM STEEL LAP LENGTHS:
#4 BAR = 1'-7"
#5 BAR = 2'-7"
#6 BAR = 3'-1"

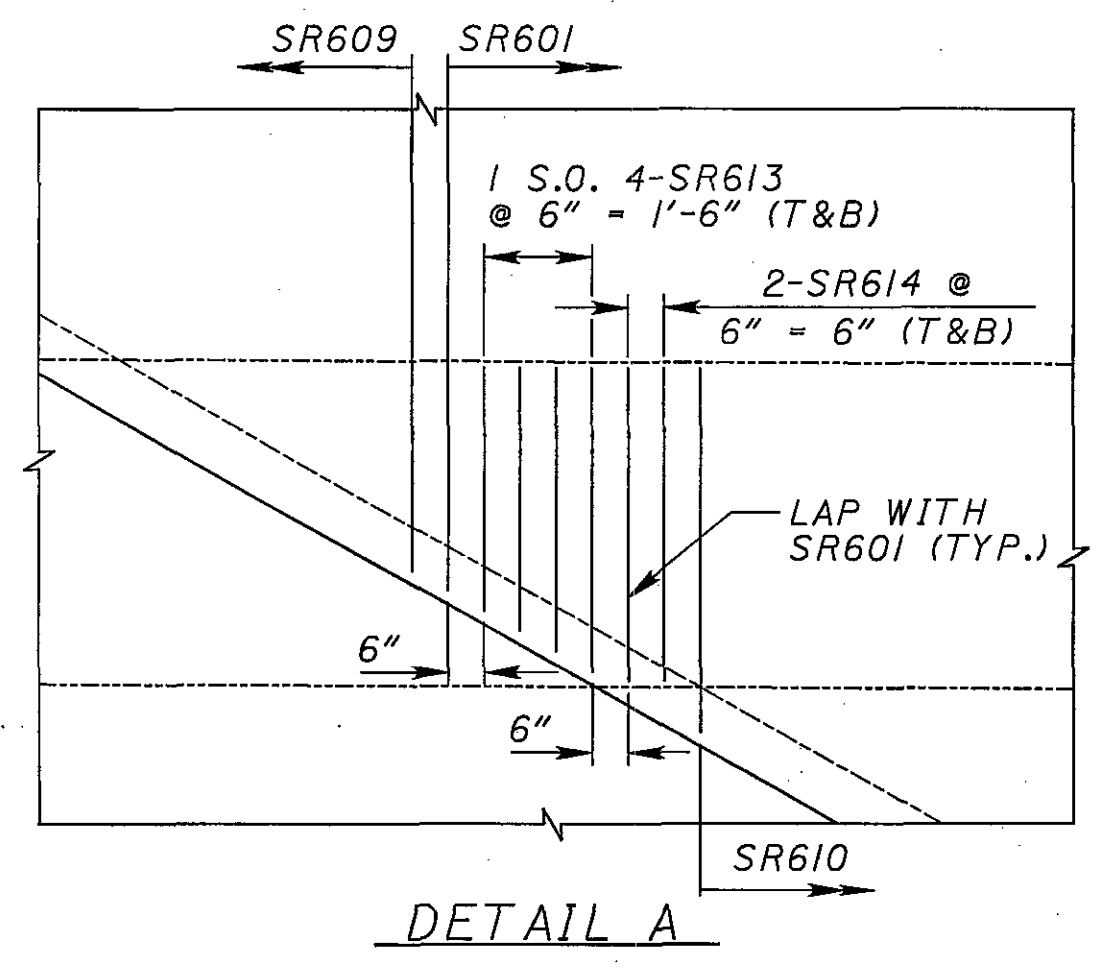
LEGEND:

- F.A. = FORWARD ABUTMENT
R.A. = REAR ABUTMENT
S.O. = SERIES OF
T&B = TOP & BOTTOM
- (A) = 44-SL401 @ 8" = 28'-8" (TOP) (14 LENGTHS) (REFER TO TYPICAL SECTION FOR MORE DETAIL)
41-SL501 (BOTTOM) (15 LENGTHS) (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (B) = 7-SL401 @ 7 3/4" = 3'-10 1/2" (TOP) (14 LENGTHS) (REFER TO TYPICAL SECTION FOR MORE DETAIL)
9-SL501 @ 6" = 4'-0" (BOTTOM) (15 LENGTHS)
 - (C) = 62-SL401 @ 8"(-) = 40'-6" (TOP) (14 LENGTHS) (REFER TO TYPICAL SECTION FOR MORE DETAIL)
57-SL501 (BOTTOM) (15 LENGTHS) (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (D) = 44-SL402 @ 8" = 28'-8" (TOP)
41-SL502 (BOTTOM) (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (E) = 7-SL402 @ 7 3/4" = 3'-10 1/2" (TOP)
9-SL502 @ 6" = 4'-0" (BOTTOM)
 - (F) = 62-SL402 @ 8"(-) = 40'-6" (TOP)
57-SL502 (BOTTOM) (SPACED AS SHOWN IN TRANSVERSE SECTION)

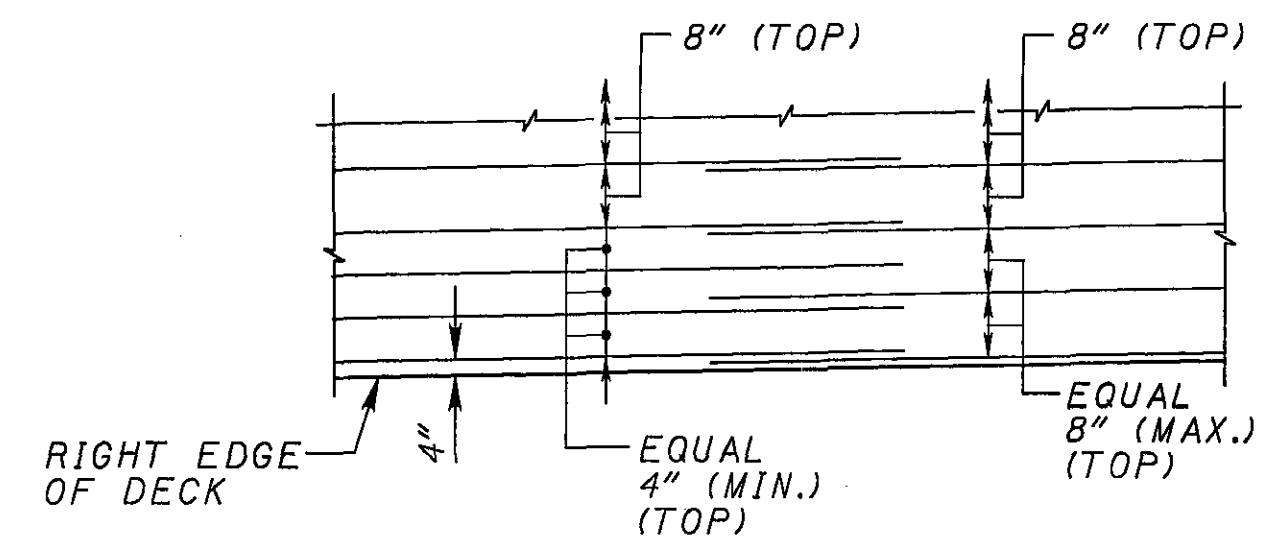
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NORTHBOUND DECK SLAB PLAN
 (PARAPET REINFORCING NOT SHOWN FOR CLARITY)



DETAIL A



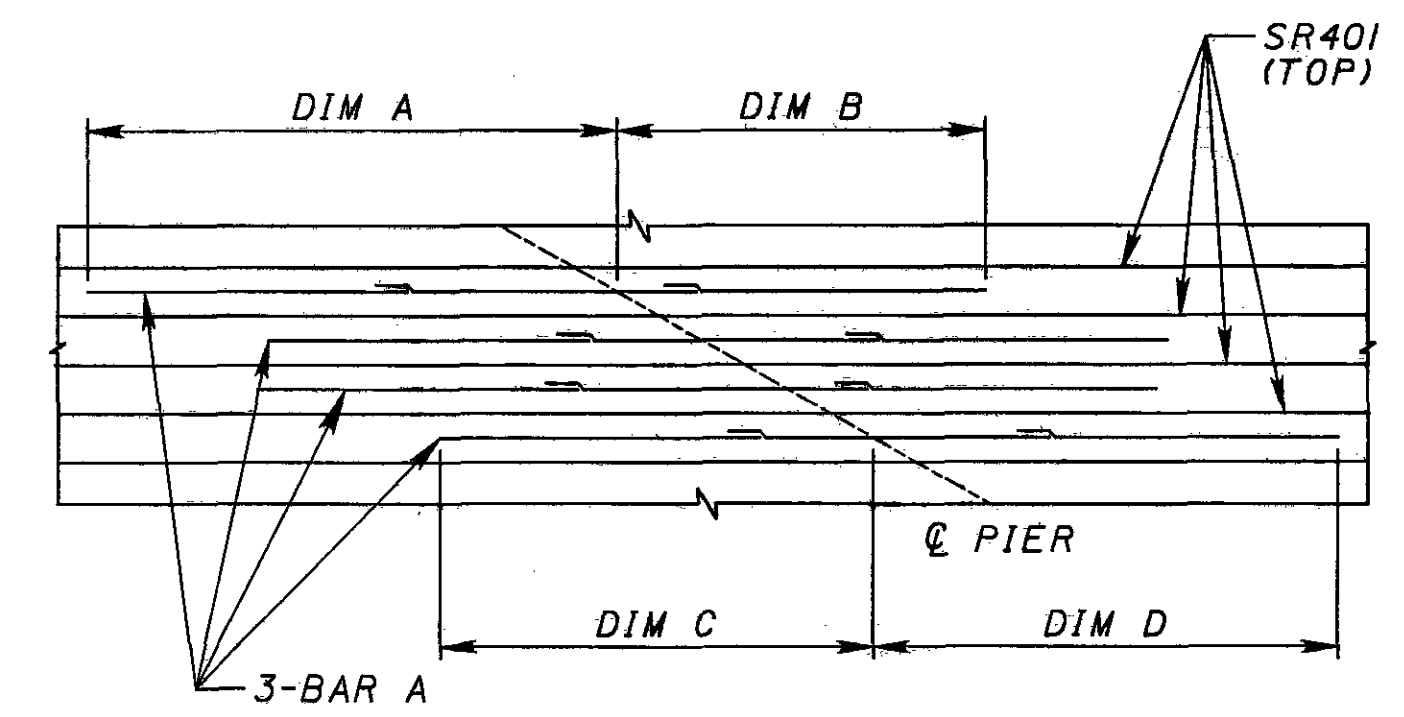
TAPER REINFORCING DETAIL

NOTES:

1. PLACE TRANSVERSE BARS PERPENDICULAR TO REFERENCE CHORD.
2. ALL DIMENSIONS ARE MEASURED PERPENDICULAR OR PARALLEL TO RADIAL LINES UNLESS NOTED OTHERWISE.
3. SEE SHEET 60 / 64 FOR PARAPET REINFORCING.
4. MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-7"
 #6 BAR = 3'-1"

LEGEND:

- F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT
 S.O. = SERIES OF
 T&B = TOP & BOTTOM
- (A) = 1 S.O. 56-SR402 @ 8" (MAX.) (TOP)
 = 1 S.O. 64-SR502 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (B) = 56-SR401 @ 8" (MAX.) (TOP)
 = 63-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (C) = 55-SR401 @ 8" (MAX.) (TOP)
 = 61-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (D) = 54-SR401 @ 8" (MAX.) (TOP)
 = 59-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (E) = 53-SR401 @ 8" (MAX.) (TOP)
 = 57-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (F) = 53-SR401 @ 8" (MAX.) (TOP)
 = 56-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (G) = 52-SR401 @ 8" (MAX.) (TOP)
 = 54-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (H) = 51-SR401 @ 8" (MAX.) (TOP)
 = 53-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (J) = 50-SR401 @ 8" (MAX.) (TOP)
 = 52-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (K) = 49-SR401 @ 8" (MAX.) (TOP)
 = 50-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (L) = 49-SR401 @ 8" (MAX.) (TOP)
 = 49-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (M) = 48-SR401 @ 8" (MAX.) (TOP)
 = 47-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (N) = 47-SR401 @ 8" (MAX.) (TOP)
 = 46-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (P) = 46-SR401 @ 8" (MAX.) (TOP)
 = 45-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (R) = 45-SR401 @ 8" (MAX.) (TOP)
 = 45-SR501 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (T) = 7-SR403 @ 7 3/4" = 3'-10 1/2" (TOP)
 = 9-SR503 @ 6" = 4'-0" (BOTTOM)
 - (U) = 7-SR401 @ 7 3/4" = 3'-10 1/2" (TOP) (14 LENGTHS)
 = 9-SR501 @ 6" = 4'-0" (BOTTOM) (15 LENGTHS)
 - (V) = 44-SR403 @ 8" = 28'-8" (TOP)
 = 41-SR503 (BOTTOM)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)
 - (W) = 44-SR401 @ 8" = 28'-8" (TOP) (14 LENGTHS)
 = 41-SR501 (BOTTOM) (15 LENGTHS)
 (SPACED AS SHOWN IN TRANSVERSE SECTION)



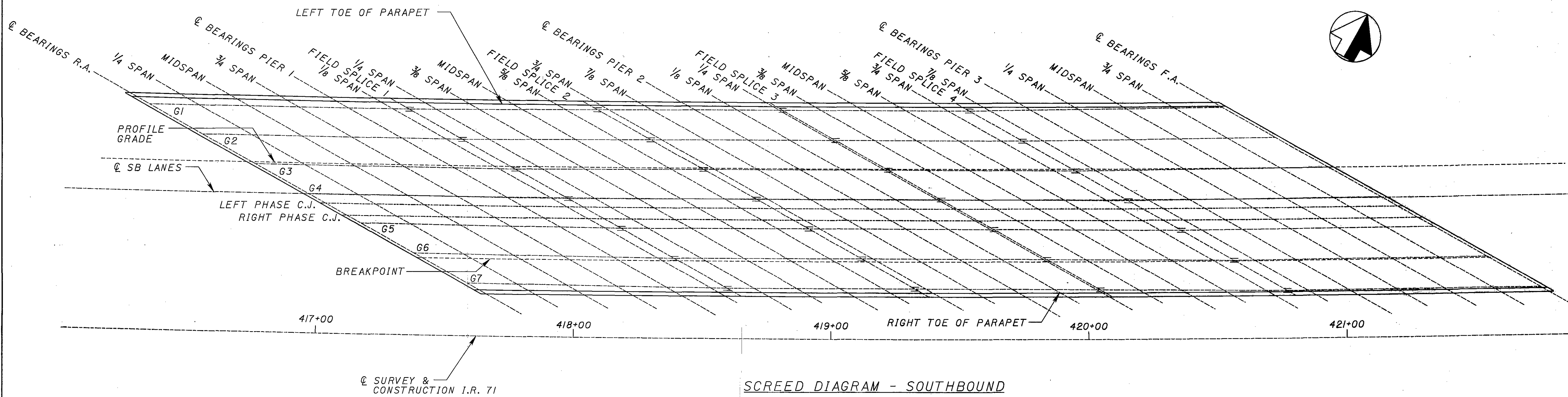
LOCATION	DIM A	DIM B	DIM C	DIM D	BAR A	NO.
PIER 1	41'-6"	33'-1"	38'-6"	36'-1"	SR504	312
PIER 2	45'-1"	43'-6"	42'-1"	46'-6"	SR505	303
PIER 3	33'-1"	41'-6"	36'-1"	38'-6"	SR504	291

ADDITIONAL PIER RESTEEL STAGGER DIAGRAM

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SOUTHBOUND SCREED TABLE

LOCATION	LEFT TOE OF PARAPET		G1		G2		G3		G4		LEFT PHASE C.J.		RIGHT PHASE C.J.		G5		G6		BREAKPOINT		G7		RIGHT TOE OF PARAPET	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
BRG. R.A.	416+28.51	1013.21	416+33.43	1013.29	416+54.37	1013.64	416+75.26	1013.98	416+96.12	1014.30	417+02.91	1014.40	417+11.30	1014.53	417+16.94	1014.61	417+37.73	1014.92	417+41.01	1014.97	417+58.47	1014.65	417+63.15	1014.57
1/4 SPAN	416+48.10	1013.35	416+52.87	1013.43	416+73.78	1013.77	416+94.66	1014.09	417+15.50	1014.41	417+22.22	1014.51	417+30.58	1014.63	417+36.31	1014.71	417+57.07	1015.01	417+60.17	1015.05	417+77.80	1014.72	417+82.23	1014.64
MIDSPAN	416+67.63	1013.46	416+72.30	1013.54	416+93.20	1013.86	417+14.06	1014.18	417+34.89	1014.49	417+41.47	1014.58	417+49.80	1014.70	417+55.67	1014.78	417+76.42	1015.07	417+79.29	1015.10	417+97.12	1014.77	418+01.26	1014.69
3/4 SPAN	416+87.11	1013.56	416+91.74	1013.63	417+12.62	1013.95	417+33.46	1014.25	417+54.27	1014.55	417+60.67	1014.64	417+68.97	1014.75	417+75.03	1014.83	417+95.76	1015.11	417+98.34	1015.14	418+16.45	1014.79	418+20.24	1014.71
BRG. PIER 1	417+06.53	1013.67	417+11.17	1013.74	417+32.03	1014.05	417+52.86	1014.34	417+73.65	1014.63	417+79.81	1014.71	417+88.08	1014.82	417+94.40	1014.91	418+15.11	1015.17	418+17.35	1015.20	418+35.78	1014.83	418+39.16	1014.76
1/8 SPAN	417+23.82	1013.80	417+28.53	1013.87	417+49.37	1014.17	417+70.18	1014.46	417+90.95	1014.74	417+96.86	1014.81	418+05.10	1014.92	418+11.69	1015.00	418+32.38	1015.26	418+34.27	1015.28	418+53.03	1014.90	418+56.02	1014.83
1/4 SPAN	417+30.26	1013.85	417+35.00	1013.92	417+55.85	1014.22	417+76.65	1014.50	417+97.41	1014.78	418+03.21	1014.85	418+11.44	1014.96	418+18.14	1015.04	418+38.83	1015.30	418+40.58	1015.32	418+59.48	1014.92	418+62.30	1014.86
3/8 SPAN	417+41.07	1013.94	417+45.53	1014.00	417+66.37	1014.29	417+87.16	1014.57	418+07.92	1014.84	418+13.87	1014.92	418+22.08	1015.02	418+28.63	1015.10	418+49.31	1015.35	418+51.15	1015.37	418+69.95	1014.97	418+72.83	1014.91
1/2 SPAN	417+58.27	1014.05	417+62.34	1014.11	417+83.15	1014.39	418+03.93	1014.66	418+24.67	1014.92	418+30.83	1015.00	418+39.01	1015.10	418+45.37	1015.17	418+66.03	1015.41	418+67.99	1015.43	418+86.66	1015.03	418+89.60	1014.97
MIDSPAN	417+75.43	1014.12	417+79.14	1014.17	417+99.94	1014.44	418+20.70	1014.71	418+41.43	1014.96	418+47.75	1015.03	418+55.91	1015.13	418+62.11	1015.20	418+82.76	1015.43	418+84.79	1015.46	419+03.37	1015.05	419+06.33	1014.98
3/8 SPAN	417+92.54	1014.14	417+95.94	1014.18	418+16.73	1014.45	418+37.48	1014.70	418+58.18	1014.95	418+64.62	1015.02	418+72.76	1015.11	418+78.85	1015.18	418+99.49	1015.40	419+01.55	1015.43	419+20.08	1015.01	419+23.02	1014.94
1/4 SPAN	418+05.23	1014.13	418+08.42	1014.17	418+29.20	1014.43	418+49.94	1014.68	418+70.63	1014.91	418+77.14	1014.99	418+85.25	1015.08	418+91.29	1015.14	419+11.91	1015.36	419+13.98	1015.38	419+32.49	1014.96	419+35.39	1014.89
3/4 SPAN	418+09.62	1014.12	418+12.75	1014.16	418+33.52	1014.42	418+54.25	1014.67	418+74.94	1014.90	418+81.46	1014.97	418+89.57	1015.06	418+95.60	1015.13	419+16.21	1015.34	419+18.27	1015.36	419+36.79	1014.94	419+39.67	1014.87
BRG. PIER 2	418+26.64	1014.11	418+29.55	1014.14	418+50.30	1014.39	418+71.02	1014.63	418+91.70	1014.85	418+98.26	1014.92	419+06.34	1015.01	419+12.34	1015.07	419+32.94	1015.28	419+34.95	1015.30	419+53.50	1014.86	419+56.28	1014.80
1/8 SPAN	418+43.63	1014.11	418+46.35	1014.14	418+67.09	1014.38	418+87.79	1014.61	419+08.46	1014.83	419+15.01	1014.90	419+23.06	1014.98	419+29.08	1015.04	419+49.66	1015.24	419+51.58	1015.26	419+70.21	1014.81	419+72.85	1014.74
1/4 SPAN	418+60.26	1014.14	418+62.85	1014.17	418+83.58	1014.40	419+04.26	1014.63	419+24.91	1014.84	419+31.42	1014.90	419+39.45	1014.98	419+45.52	1015.04	419+66.08	1015.23	419+67.88	1015.25	419+86.61	1014.79	419+89.08	1014.73
3/8 SPAN	418+76.86	1014.20	418+79.35	1014.23	419+00.06	1014.45	419+20.73	1014.66	419+41.36	1014.87	419+47.79	1014.93	419+55.80	1015.00	419+61.95	1015.06	419+82.51	1015.24	419+84.14	1015.26	420+03.02	1014.79	420+05.27	1014.73
1/2 SPAN	418+78.19	1014.21	418+80.67	1014.23	419+01.38	1014.46	419+22.05	1014.67	419+42.68	1014.87	419+49.10	1014.93	419+57.10	1015.01	419+63.27	1015.06	419+83.82	1015.25	419+85.44	1015.26	420+04.33	1014.79	420+06.57	1014.73
3/4 SPAN	418+93.42	1014.26	418+95.85	1014.28	419+16.55	1014.50	419+37.20	1014.70	419+57.82	1014.90	419+64.12	1014.96	419+72.10	1015.03	419+78.39	1015.08	419+98.93	1015.26	420+00.36	1015.27	420+19.43	1014.78	420+21.43	1014.73
MIDSPAN	419+09.93	1014.29	419+12.35	1014.31	419+33.03	1014.52	419+53.67	1014.72	419+74.27	1014.90	419+80.42	1014.96	419+88.37	1015.03	419+94.83	1015.08	420+15.35	1015.25	420+16.54	1015.26	420+35.83	1014.76	420+37.55	1014.71
1/8 SPAN	419+26.41	1014.27	419+28.85	1014.30	419+49.52	1014.50	419+70.14	1014.68	419+90.72	1014.86	419+96.67	1014.91	420+04.61	1014.98	420+11.27	1015.03	420+31.77	1015.19	420+32.69	1015.20	420+52.24	1014.68	420+53.63	1014.64
3/8 SPAN	419+42.84	1014.22	419+45.35	1014.24	419+66.00	1014.43	419+86.61	1014.62	420+07.17	1014.79	420+12.89	1014.83	420+20.80	1014.90	420+27.70	1014.95	420+48.19	1015.10	420+48.80	1015.10	420+68.64	1014.57	420+69.67	1014.54
1/4 SPAN	419+51.13	1014.18	419+53.68	1014.21	419+74.32	1014.40	419+94.92	1014.57	420+15.48	1014.74	420+21.07	1014.78	420+28.96	1014.85	420+36.00	1014.90	420+56.48	1015.05	420+56.91	1015.05	420+76.92	1014.50	420+77.76	1014.48
3/4 SPAN	419+59.24	1014.15	419+61.60	1014.17	419+82.23	1014.35	420+02.82	1014.53	420+23.37	1014.69	420+29.07	1014.73	420+36.96	1014.79	420+43.88	1014.84	420+64.36	1014.99	420+64.87	1014.99	420+84.79	1014.44	420+85.68	1014.42
BRG. PIER 3	419+75.60	1014.08	419+77.58	1014.09	419+98.19	1014.27	420+18.77	1014.44	420+39.31	1014.59	420+45.22	1014.63	420+53.08	1014.69	420+59.81	1014.74	420+80.26	1014.87	420+80.90	1014.88	421+00.68	1014.33	421+01.65	1014.30
1/8 SPAN	419+94.67	1014.03	419+96.25	1014.04	420+16.85	1014.21	420+37.41	1014.36	420+57.93	1014.51	420+64.03	1014.55	420+71.87	1014.61	420+78.41	1014.65	420+98.85	1014.78	420+99.59	1014.78	421+19.25	1014.22	421+20.27	1014.19
MIDSPAN	420+13.68	1013.99	420+14.93	1014.00	420+35.51	1014.16	420+56.05	1014.31	420+76.55	1014.44	420+82.80	1014.48	420+90.61	1014.53	420+97.02	1014.57	421+17.44	1014.69	421+18.24	1014.70	421+37.82	1014.13	421+38.84	1014.10
3/4 SPAN	420+32.64	1013.94	420+33.61	1013.95	420+54.17	1014.09	420+74.69	1014.23	420+95.18	1014.36	421+01.52	1014.40	421+09.30	1014.45	421+15.62	1014.48	421+36.03	1014.59	421+36.83	1014.59	421+56.39	1014.02	421+57.37	1013.99
BRG. F.A.	420+51.55	1013.86	420+52.28	1013.87	420+72.83	1014.01	420+93.33	1014.13	421+13.80	1014.25	421+20.19	1014.29	421+27.94	1014.33	421+34.23	1014.36	421+54.61	1014.47	421+55.38	1014.47	421+74.96	1013.88	421+75.84	1013.85



SCREED DIAGRAM - SOUTHBOUND

LEGEND:
 BRG. - BEARINGS
 C.J. - CONSTRUCTION JOINT
 F.A. - FORWARD ABUTMENT
 G - GIRDER NUMBER
 R.A. - REAR ABUTMENT

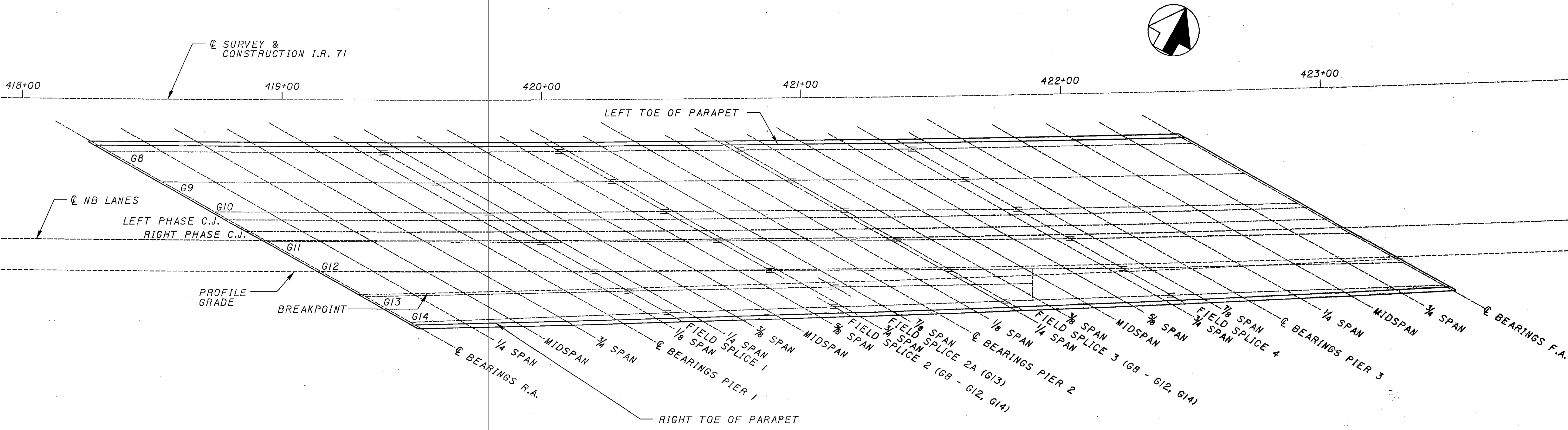
NOTE:
 1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.

BURGESS & NIPLE
 5005 Reed Road
 Columbus, Ohio 43220
 DATE 9/04
 REVIEWED RANK
 DRAWN CRC
 DESIGNED TTK
 CHECKED JHL
 STRUCTURE FILE NUMBER 5202922 - LEFT
 5202957 - RIGHT
 SCREED TABLE - SOUTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76
 MED-71-6.06
 PID-75657
 58 / 64
 882
 1120

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NORTHBOUND SCREED TABLE

LOCATION	LEFT TOE OF PARAPET		G8		G9		G10		LEFT PHASE C.J.		RIGHT PHASE C.J.		G11		G12		BREAKPOINT		G13		G14		RIGHT TOE OF PARAPET	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
BRG. R.A.	418+29.26	1013.65	418+33.73	1013.71	418+54.06	1013.97	418+74.36	1014.23	418+79.68	1014.29	418+87.72	1014.39	418+94.61	1014.47	419+14.83	1014.70	419+30.76	1014.88	419+32.17	1014.85	419+49.50	1014.43	419+51.21	1014.39
1/4 SPAN	418+49.80	1013.72	418+54.06	1013.78	418+74.37	1014.03	418+94.65	1014.28	419+00.02	1014.34	419+08.03	1014.43	419+14.88	1014.51	419+35.08	1014.73	419+50.22	1014.89	419+51.61	1014.85	419+68.41	1014.44	419+70.60	1014.38
MIDSPAN	418+70.27	1013.76	418+74.39	1013.81	418+94.68	1014.06	419+14.94	1014.29	419+20.30	1014.35	419+28.28	1014.44	419+35.15	1014.51	419+55.33	1014.72	419+69.62	1014.87	419+71.05	1014.82	419+87.33	1014.42	419+89.93	1014.35
3/4 SPAN	418+90.69	1013.77	418+94.71	1013.82	419+14.99	1014.06	419+35.22	1014.28	419+40.52	1014.34	419+48.47	1014.42	419+55.42	1014.49	419+75.58	1014.69	419+88.98	1014.82	419+90.49	1014.78	420+06.25	1014.38	420+09.22	1014.30
BRG. PIER 1	419+11.05	1013.79	419+15.04	1013.84	419+35.30	1014.06	419+55.51	1014.28	419+60.68	1014.33	419+68.61	1014.41	419+75.69	1014.48	419+95.84	1014.67	420+08.29	1014.78	420+09.93	1014.74	420+25.17	1014.34	420+28.45	1014.25
1/8 SPAN	419+27.12	1013.84	419+31.14	1013.88	419+51.38	1014.09	419+71.58	1014.30	419+76.61	1014.35	419+84.51	1014.42	419+91.74	1014.49	420+11.87	1014.67	420+23.54	1014.77	420+25.33	1014.73	420+40.15	1014.32	420+43.65	1014.23
SPLICE 1	419+39.11	1013.86	419+39.15	1013.90	419+59.38	1014.11	419+79.58	1014.31	419+84.52	1014.36	419+92.41	1014.43	419+99.74	1014.50	420+19.86	1014.67	420+31.12	1014.77	420+32.99	1014.74	420+47.62	1014.31	420+51.20	1014.22
1/4 SPAN	419+43.16	1013.88	419+47.09	1013.92	419+67.31	1014.13	419+87.50	1014.33	419+92.50	1014.37	420+00.37	1014.45	420+07.65	1014.51	420+27.76	1014.67	420+38.76	1014.76	420+40.72	1014.73	420+55.14	1014.31	420+58.81	1014.20
3/8 SPAN	419+59.16	1013.91	419+62.88	1013.95	419+83.10	1014.15	420+03.27	1014.33	420+08.35	1014.38	420+16.20	1014.45	420+23.40	1014.51	420+43.50	1014.66	420+53.95	1014.74	420+56.12	1014.71	420+70.12	1014.28	420+73.95	1014.17
MIDSPAN	419+75.13	1013.91	419+78.68	1013.94	419+98.88	1014.13	420+19.04	1014.31	420+24.16	1014.36	420+31.99	1014.42	420+39.16	1014.48	420+59.24	1014.62	420+69.11	1014.69	420+71.51	1014.66	420+85.11	1014.22	420+89.05	1014.11
5/8 SPAN	419+91.05	1013.86	419+94.48	1013.90	420+14.67	1014.08	420+34.81	1014.25	420+39.95	1014.29	420+47.75	1014.36	420+54.91	1014.41	420+74.98	1014.55	420+84.23	1014.61	420+86.91	1014.58	421+00.10	1014.14	421+04.13	1014.02
SPLICE 2	420+03.45	1013.81	420+06.80	1013.84	420+26.97	1014.02	420+47.11	1014.18	420+52.23	1014.22	420+60.01	1014.28	420+67.20	1014.34	420+87.25	1014.47	420+96.01	1014.53	---	---	421+11.79	1014.06	421+15.86	1013.94
3/4 SPAN	420+06.94	1013.80	420+10.28	1013.83	420+30.45	1014.00	420+50.58	1014.16	420+55.69	1014.20	420+63.47	1014.26	420+70.67	1014.32	420+90.72	1014.45	420+99.33	1014.51	421+02.31	1014.46	421+15.09	1014.04	421+19.17	1013.92
SPLICE 2A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	421+12.04	1014.40	---	---	---	---
7/8 SPAN	420+22.80	1013.72	420+26.08	1013.75	420+46.24	1013.92	420+66.35	1014.07	420+71.40	1014.11	420+79.16	1014.17	420+86.43	1014.22	421+06.46	1014.35	421+14.40	1014.40	421+17.71	1014.33	421+30.08	1013.93	421+34.18	1013.81
BRG. PIER 2	420+38.62	1013.66	420+41.89	1013.69	420+62.02	1013.85	420+82.12	1014.00	420+87.08	1014.03	420+94.81	1014.08	421+02.18	1014.13	421+22.20	1014.26	421+29.44	1014.30	421+33.10	1014.19	421+45.07	1013.83	421+49.17	1013.71
1/8 SPAN	420+54.41	1013.63	420+57.69	1013.66	420+77.81	1013.81	420+97.89	1013.95	421+02.72	1013.98	421+10.43	1014.03	421+17.94	1014.08	421+37.94	1014.19	421+44.44	1014.23	421+48.50	1014.08	421+60.06	1013.75	421+64.12	1013.62
1/4 SPAN	420+70.15	1013.61	420+73.49	1013.64	420+93.59	1013.78	421+13.66	1013.91	421+18.33	1013.94	421+26.02	1013.99	421+33.69	1014.03	421+53.68	1014.14	421+59.42	1014.17	421+63.90	1013.97	421+75.05	1013.68	421+79.05	1013.55
SPLICE 3	420+72.78	1013.61	420+76.13	1013.64	420+96.23	1013.78	421+16.30	1013.91	421+20.93	1013.93	421+28.62	1013.98	421+36.33	1014.03	421+56.32	1014.13	421+61.92	1014.16	---	---	421+77.56	1013.66	421+81.54	1013.54
3/8 SPAN	420+85.87	1013.59	420+89.29	1013.62	421+09.38	1013.75	421+29.43	1013.87	421+33.90	1013.90	421+41.57	1013.94	421+49.45	1013.99	421+69.42	1014.08	421+74.37	1014.10	421+79.30	1013.87	421+90.04	1013.60	421+93.95	1013.47
MIDSPAN	421+01.55	1013.55	421+05.09	1013.57	421+25.16	1013.70	421+45.20	1013.81	421+49.44	1013.84	421+57.09	1013.88	421+65.20	1013.92	421+85.16	1014.00	421+89.29	1014.02	---	---	422+05.04	1013.50	422+08.81	1013.37
5/8 SPAN	421+17.20	1013.47	421+20.89	1013.49	421+40.95	1013.61	421+60.97	1013.71	421+64.95	1013.73	421+72.57	1013.77	421+80.96	1013.81	422+00.90	1013.88	422+04.18	1013.90	---	---	422+20.03	1013.37	422+23.65	1013.25
3/4 SPAN	421+32.81	1013.35	421+36.69	1013.38	421+56.73	1013.49	421+76.74	1013.59	421+80.42	1013.60	421+88.02	1013.64	421+96.71	1013.67	422+16.64	1013.74	422+19.05	1013.75	---	---	422+35.02	1013.22	422+38.46	1013.10
SPLICE 4	421+38.65	1013.31	421+42.61	1013.33	421+62.65	1013.44	421+82.65	1013.53	421+86.21	1013.55	421+93.80	1013.58	422+02.61	1013.62	422+22.54	1013.69	422+24.61	1013.69	---	---	422+40.64	1013.16	422+44.01	1013.04
7/8 SPAN	421+48.38	1013.23	421+52.28	1013.25	421+72.31	1013.35	421+92.30	1013.44	421+95.86	1013.46	422+03.44	1013.49	422+12.25	1013.52	422+32.17	1013.59	422+33.88	1013.60	---	---	422+50.02	1013.05	422+53.25	1012.94
BRG. PIER 3	421+63.93	1013.11	421+67.73	1013.12	421+87.75	1013.22	422+07.73	1013.30	422+11.26	1013.32	422+18.82	1013.34	422+27.67	1013.38	422+47.57	1013.44	422+48.69	1013.44	---	---	422+65.01	1012.89	422+68.00	1012.79
1/4 SPAN	421+84.59	1012.97	421+88.34	1012.99	422+08.34	1013.07	422+28.29	1013.15	422+31.75	1013.16	422+39.28	1013.18	422+48.21	1013.21	422+68.09	1013.26	422+68.38	1013.26	---	---	422+85.00	1012.69	422+87.62	1012.60
MIDSPAN	422+05.20	1012.85	422+08.95	1012.86	422+28.92	1012.94	422+48.86	1013.00	422+52.18	1013.01	422+59.68	1013.03	422+68.76	1013.05	422+88.62	1013.07	422+88.02	1013.09	---	---	423+04.99	1012.49	423+07.20	1012.42
3/4 SPAN	422+25.75	1012.70	422+29.55	1012.71	422+49.51	1012.77	422+69.42	1012.82	422+72.55	1012.83	422+80.02	1012.85	422+89.30	1012.87	423+09.14	1012.84	423+07.61	1012.89	---	---	423+24.98	1012.27	423+26.72	1012.21
BRG. F.A.	422+46.24	1012.51	422+50.16	1012.52	422+70.09	1012.57	422+89.99	1012.61	422+92.86	1012.62	423+00.31	1012.63	423+09.85	1012.64	423+29.67	1012.57	423+27.15	1012.67	---	---	423+44.97	1012.02	423+46.20	1011.97



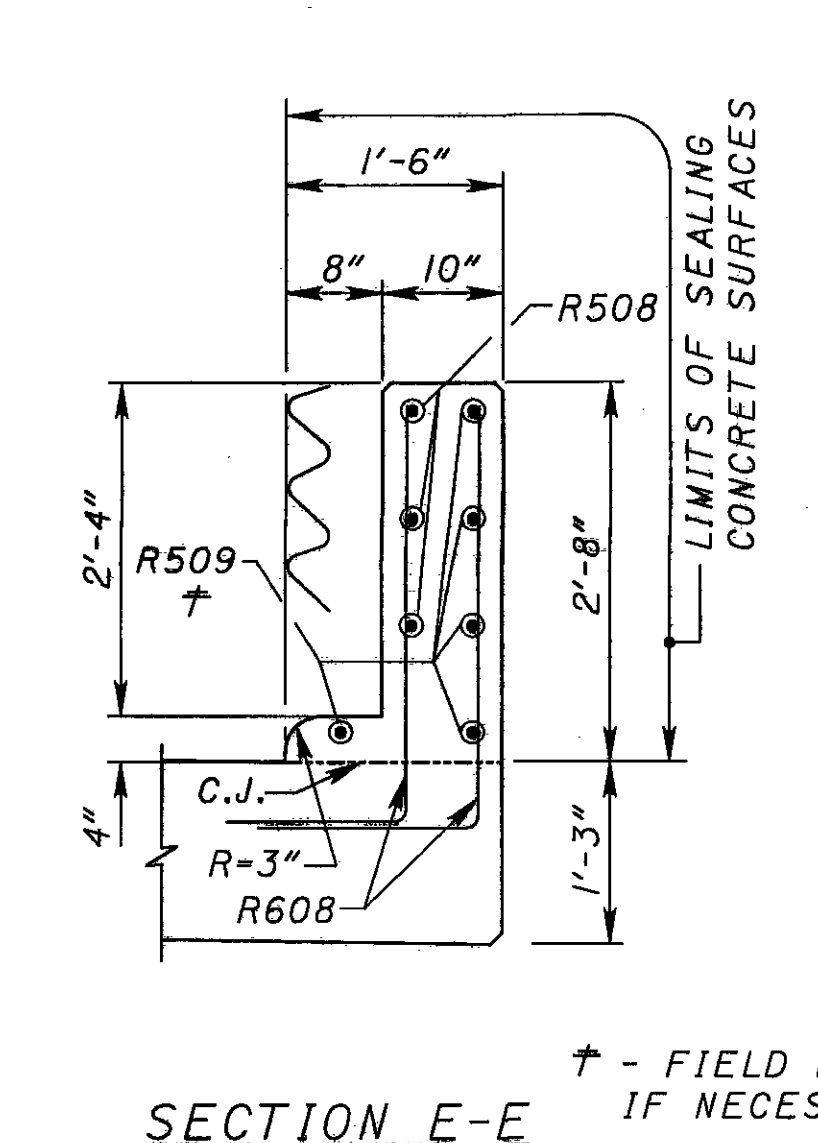
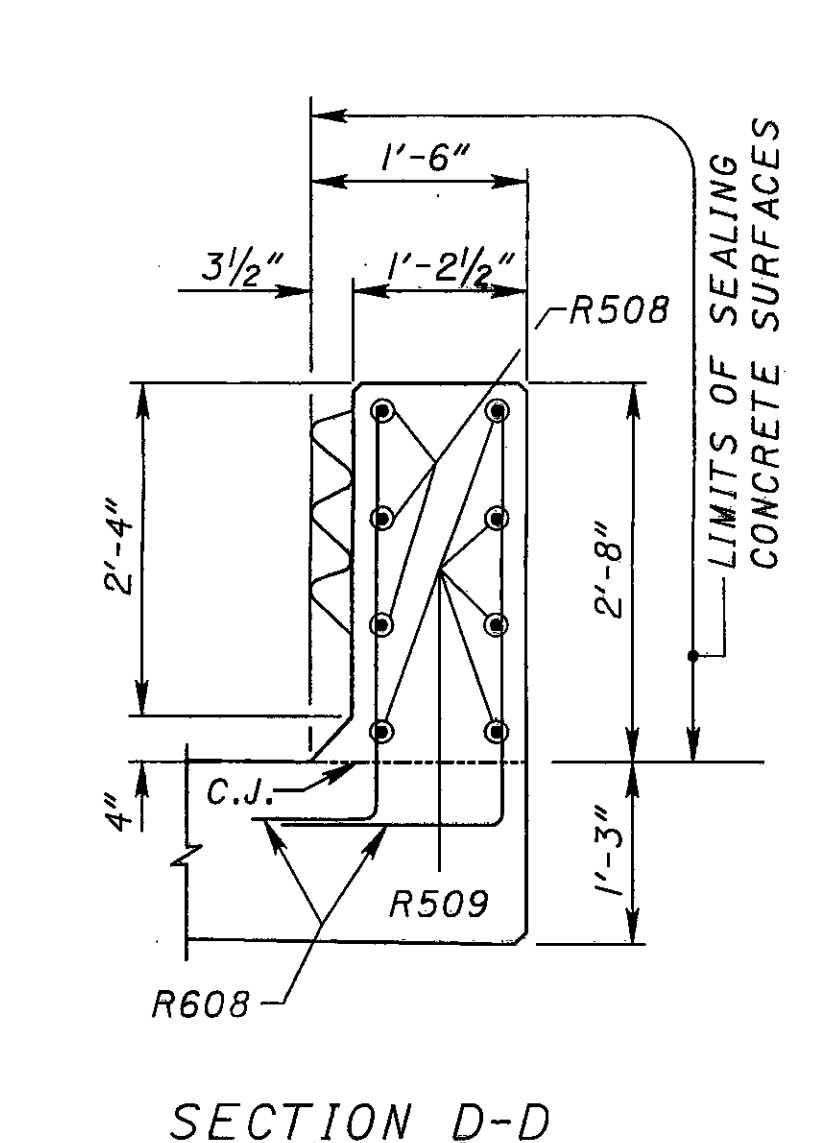
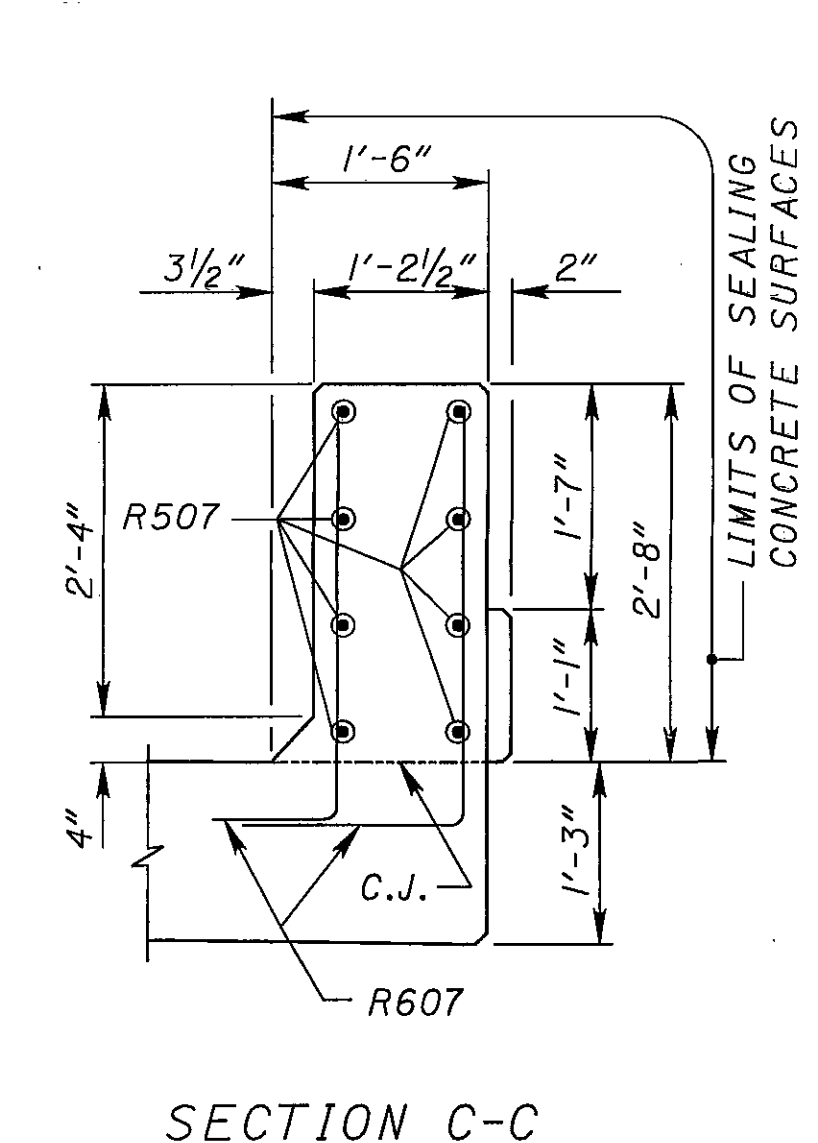
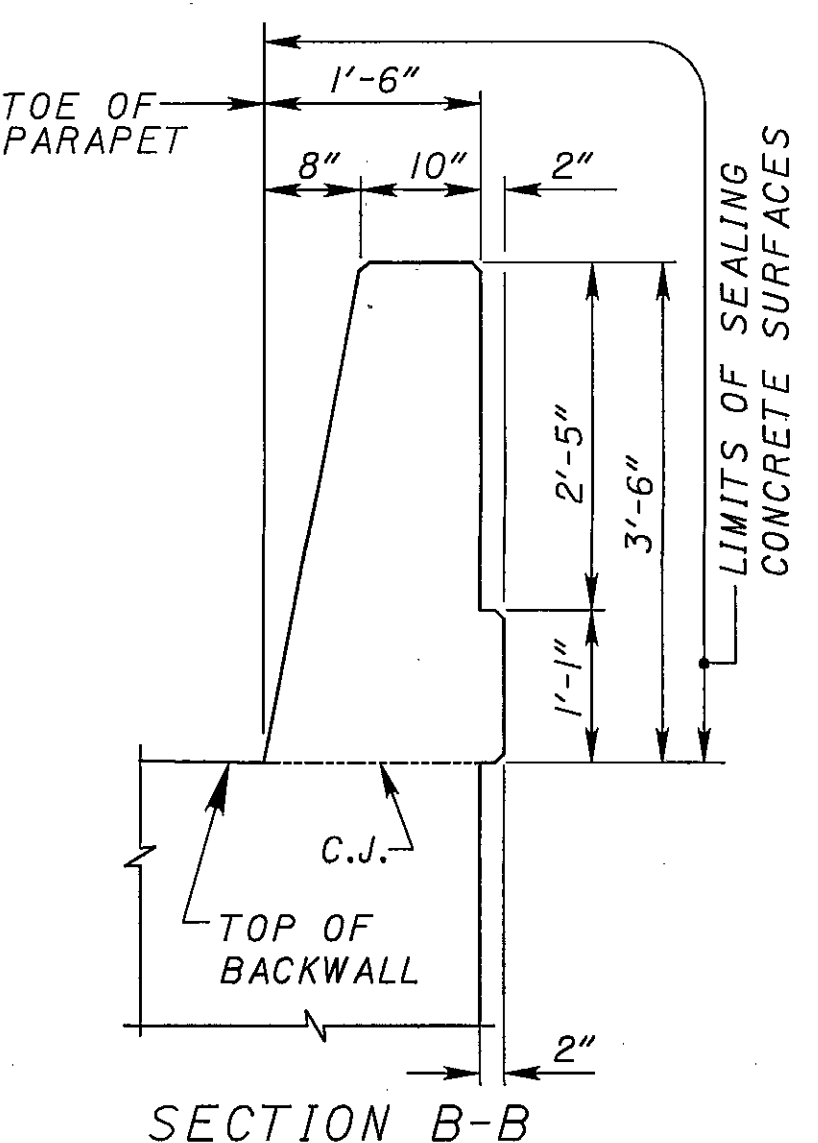
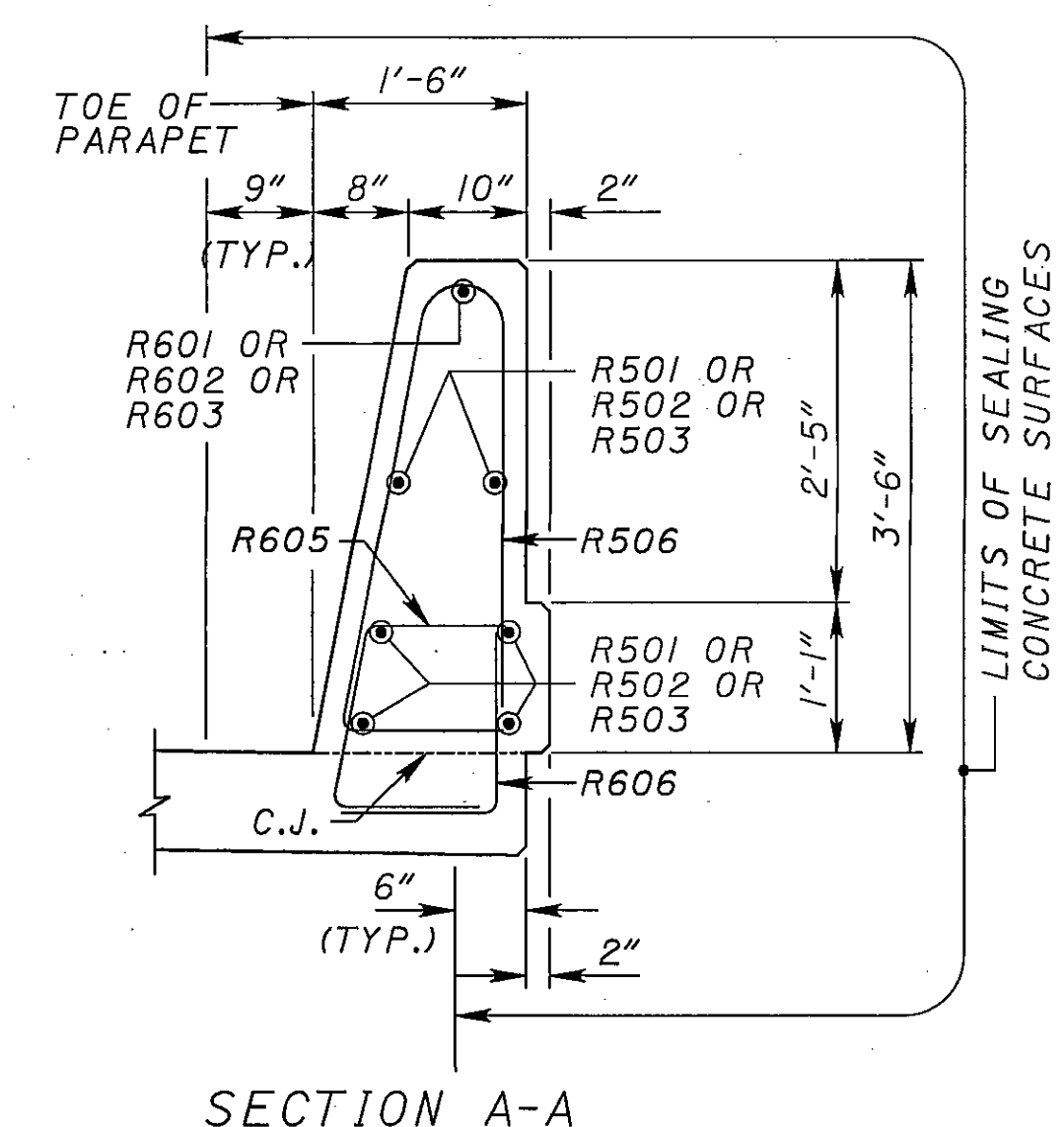
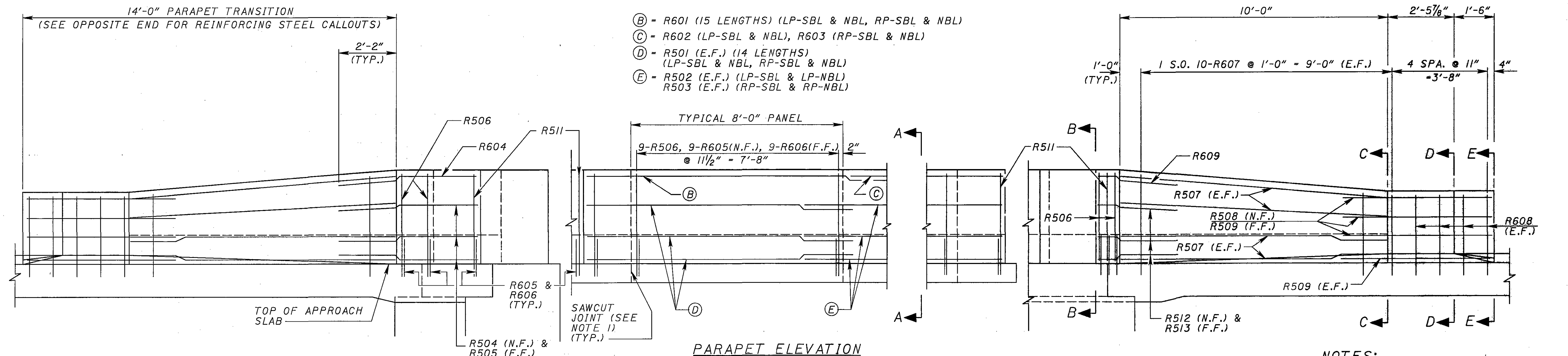
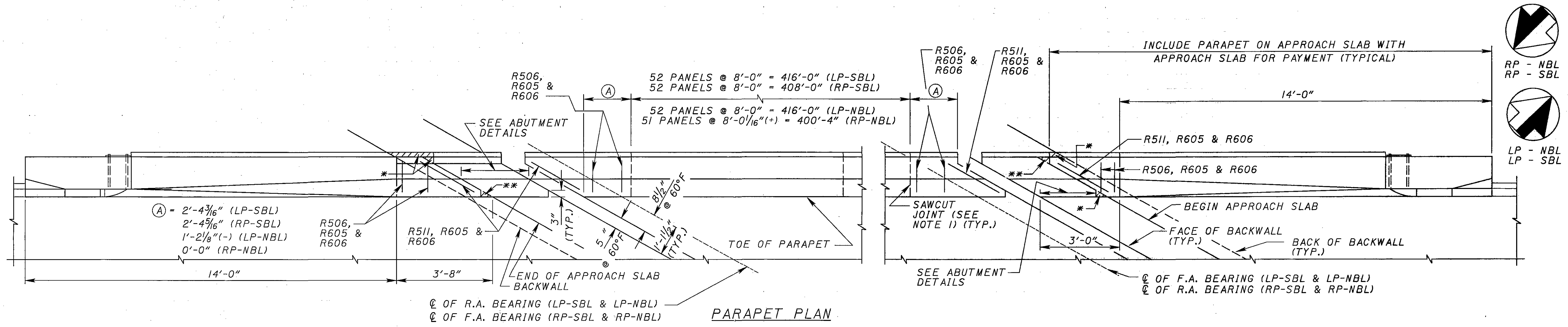
SCREED DIAGRAM - NORTHBOUND

LEGEND:
 BRG. = BEARINGS
 C.J. = CONSTRUCTION JOINT
 F.A. = FORWARD ABUTMENT
 G_ = GIRDER NUMBER
 R.A. = REAR ABUTMENT

NOTE:
 1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.

DATE 9/04
 DRAWN CRC
 CHECKED JHL
 REVISIONS
 STRUCTURE FILE NUMBER 5202922 - LEFT
 5202951 - RIGHT
 MED-71-6.06
 PID-75657
 59/64
 883
 1120
 BURGESS & NIPLE
 5000 Reed Road
 Columbus, Ohio 43220

P:/PR30489/CADD/MED-71-0794/ME071sdc.dgn



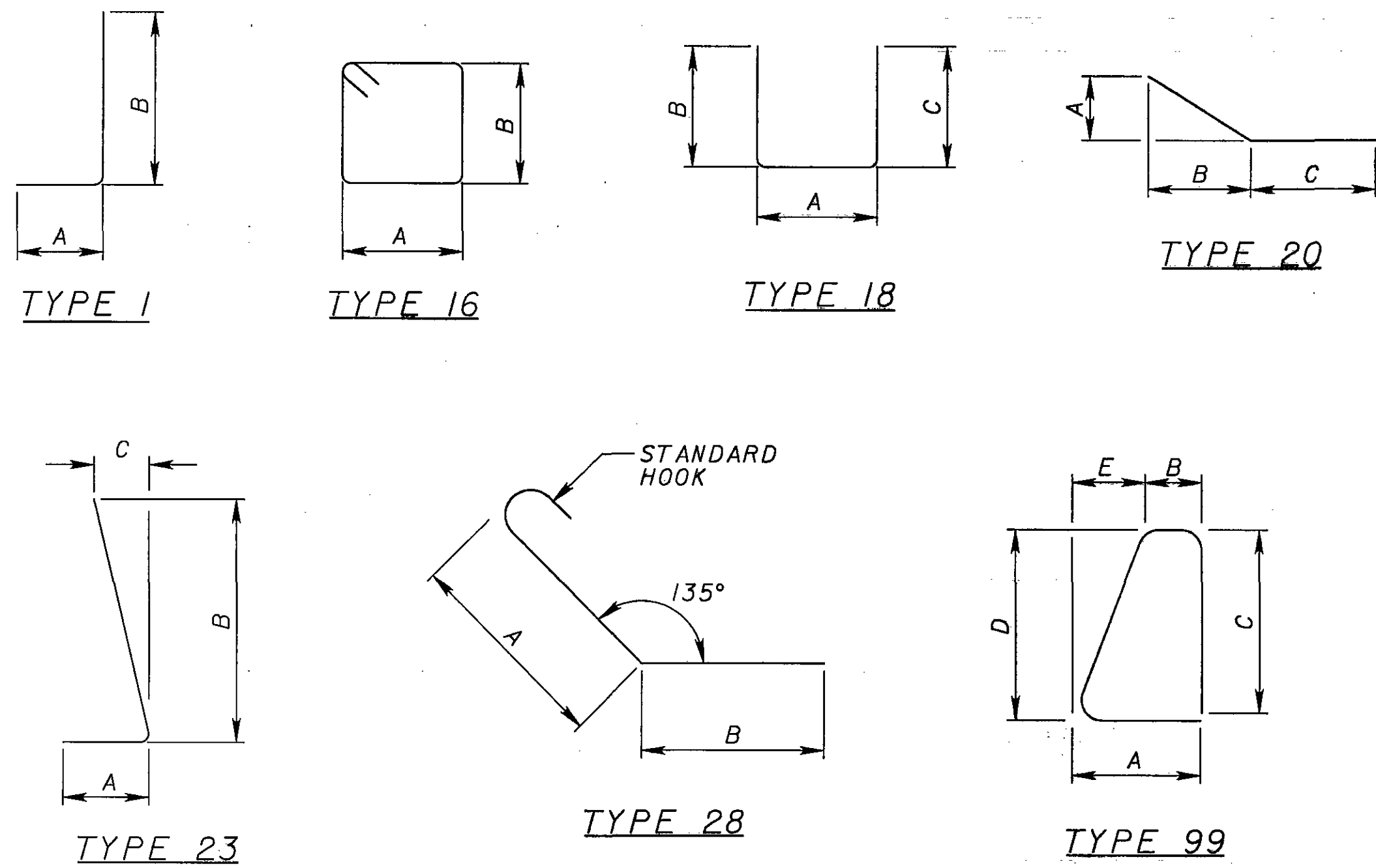
- NOTES:**
- SEE STANDARD DRAWING SBR-1-99 FOR ADDITIONAL NOTES AND DETAILS.
 - MINIMUM STEEL LAP LENGTHS:
#5 BAR - 2'-0"
#6 BAR - 3'-4"
 - ALL DIMENSIONS ARE MEASURED BY CURVE.
 - INCLUDE PEJF WITH APPROACH SLAB FOR PAYMENT.
 - INCLUDE PARAPET ON APPROACH SLAB WITH APPROACH SLAB FOR PAYMENT.
- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - E.F. - EACH FACE
 - F.F. - FAR FACE
 - N.F. - NEAR FACE
 - NBL - NORTHBOUND LANES
 - SBL - SOUTHBOUND LANES
 - S.O. - SERIES OF
 - LP - LEFT PARAPET
 - RP - RIGHT PARAPET
 - * - 1/2" PEJF BETWEEN TOP OF BACKWALL AND BOTTOM OF PARAPET
 - ** - 1/2" PEJF BETWEEN TOP OF APPROACH SLAB AND BOTTOM OF PARAPET
 - PEJF - PREFORMED EXPANSION JOINT FILLER
 - † - FIELD BEND IF NECESSARY

ABUTMENT REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
*	AL501	152	30'-0"	4756	STR					
	AL502	3	17'-10"	55	STR					
	AL503	3	20'-2"	63	STR					
*	AL504	8	9'-4"	77	STR					
		2	13'-9"							
	AL505	S.O.	T0	123	STR					5'-11"
		3	25'-7"							
	AL506	8	29'-2"	243	STR					
	AL507	3	23'-11"	75	STR					
	AL508	3	26'-4"	82	STR					
		2	18'-11"							
	AL509	S.O.	T0	136	STR					2'-10"
		3	24'-7"							
	AL510	2	27'-6"	57	STR					
	AL511	228	6'-3"	1506	18	3'-8 3/4"	1'-5"	1'-5"		
	AL512	2	23'-2"	48	20	4'-8 1/2"	18'-7 3/4"	3'-11 1/2"		
	AL513	1	8'-10"	9	STR					
	AL514	2	21'-0"	43	20	4'-2 1/2"	8'-5"	11'-7 1/4"		
	AL515	2	25'-6"	53	STR					
*	AL516	4	8'-8"	36	STR					
	AL517	4	14'-7"	60	STR					
	AL518	14	17'-0"	248	STR					
	AL519	2	17'-2"	35	20	5'-6"	11'-0"	4'-10 3/4"		
	AL520	1	12'-1"	12	STR					
		2	14'-6"							
	AL521	S.O.	T0	157	STR					2'-10 5/8"
		4	23'-2"							
	AL522	6	19'-1"	119	STR					
	AL523	3	15'-8"	49	STR					
	AL524	8	30'-4"	253	STR					
		2	7'-11"							
	AL525	S.O.	T0	88	STR					6'-3"
		3	20'-5"							
	AL526	2	23'-10"	49	20	3'-11 1/4"	18'-3 1/2"	5'-1 3/4"		
	AL527	6	25'-9"	161	STR					
	AL528	187	7'-3"	1414	1	1'-3"	6'-2"			
	AL529	2	20'-4"	42	STR					
*	AL530	4	13'-0"	54	STR					
	AL531	41	8'-7"	367	1	1'-3"	7'-5 1/4"			
	AL532	3	18'-0"	56	STR					
	AL533	228	7'-11"	1902	18	5'-8 3/4"	1'-3"	1'-3"		
	AL534	8	9'-0"	75	99	2'-1 1/2"	0'-11 1/4"	3'-0"	3'-1 1/2"	1'-2 1/2"
	AL535	12	1'-8"	21	STR					
	AL536	12	1'-10"	23	STR					
	AL601	310	5'-9"	2677	18	0'-11"	2'-7"	2'-7"		
	AL602	310	9'-11"	4617	18	1'-5"	4'-5"	4'-5"		
	AL603	316	11'-9"	5576	18	1'-5"	5'-4"	5'-4"		
	AL604	6	23'-3"	209	18	1'-5"	11'-1"	11'-1"		
		1	18'-8"				7'-8 1/2"			
	AL605	S.O.	T0	125	16	1'-5"	T0			1'-5 1/4"
		4	23'-0"				9'-10 1/2"			
	AL606	74	17'-0"	1898	16	5'-8 3/4"	2'-7"			
	AL607	1	9'-1"	13	18	1'-5"	4'-0"	4'-0"		
	AL608	17	12'-1"	308	18	1'-5"	5'-6"	5'-6"		
	AL609	4	15'-6"	93	16	1'-5"	6'-1 1/2"			
		1	18'-6"				7'-7 1/2"			
	AL610	S.O.	T0	213	16	1'-5"	T0			0'-7 1/4"
		7	22'-1"				9'-5 1/4"			
		1	7'-6"				3'-2 1/2"	3'-2 1/2"		
	AL611	S.O.	T0	133	18	1'-5"	T0	T0		0'-7"
		9	12'-3"				5'-7"	5'-7"		
	AL612	187	14'-2"	3979	18	5'-8 3/4"	6'-2"	2'-7"		
	AL613	41	15'-5"	949	18	5'-8 3/4"	7'-5 1/4"	2'-7"		
		1	18'-5"				7'-7"			
	AL614	S.O.	T0	196	16	1'-5"	T0			1'-4 3/8"
		6	25'-3"				11'-0"			

ABUTMENT REINFORCING STEEL LIST (CONT'D)

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
		1	7'-6"		3'-11"	3'-11"				
AL615	S.O.	T0	39	18	T0	T0				1'-4"
		3	10'-2"		5'-3"	5'-3"				
		1	19'-6"			8'-1 1/2"				
AL616	S.O.	T0	223	16	1'-5"	T0				0'-7"
		7	23'-0"			9'-10 1/2"				
		1	8'-2"			3'-6 3/4"	3'-6 3/4"			
AL617	S.O.	T0	104	18	1'-5"	T0	T0			0'-6 3/4"
		7	11'-7"			5'-3 1/4"	5'-3 1/4"			
AL618	8	13'-7"	163	18	1'-5"	6'-3"	6'-3"			
AL619	33	20'-5"	1011	18	1'-5"	9'-8"	9'-8"			
AL620	1	10'-5"	15	18	1'-5"	4'-8"	4'-8"			
AL621	8	3'-10"	46	23	0'-9"	3'-0 1/2"	1'-2"			
AL622	8	3'-9"	45	1	0'-10"	3'-1"				
*	AL801	84	30'-0"	6728	STR					
	AL802	7	19'-3"	359	STR					
*	AL803	7	11'-5"	213	STR					
	AL804	7	31'-5"	587	STR					
*	AL805	7	29'-7"	552	STR					
	AL806	103	7'-7"	2085	28	5'-3"	1'-5"			
			TOTAL	45703						



- NOTES:
- ALL BARS SHALL BE EPOXY COATED.
 - BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.
- * 52 OUT OF 152 AL501, 8 OUT OF 8 AL504, 4 OUT OF 4 AL516, 4 OUT OF 4 AL530, 14 OUT OF 84 AL801, 7 OUT OF 7 AL803 & 7 OUT OF 7 AL805 REINFORCING BARS UTILIZE A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

BURGESS & NIPLE
 2006 Reed Road
 CHARLOTTE, NC 28220
 DATE: 9/04
 REVISION: 9/04
 STRUCTURE FILE NUMBER: 5202922 - LCF1
 CHECKED: JMK
 DESIGNED: TTK
 DRAWN: CRC
 REVISION: 5202951 - RIGHT
 REINFORCING STEEL LIST 1 - SOUTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 1-71 OVER 1-76
 MED-71-6.06
 PID-75657
 61 / 64
 885
 1/20

SUPERSTRUCTURE REINFORCING STEEL LIST

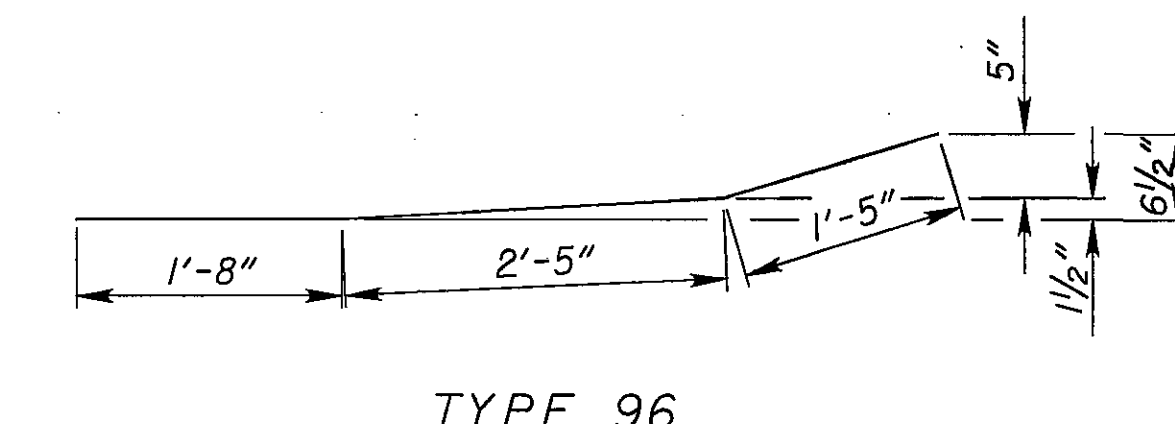
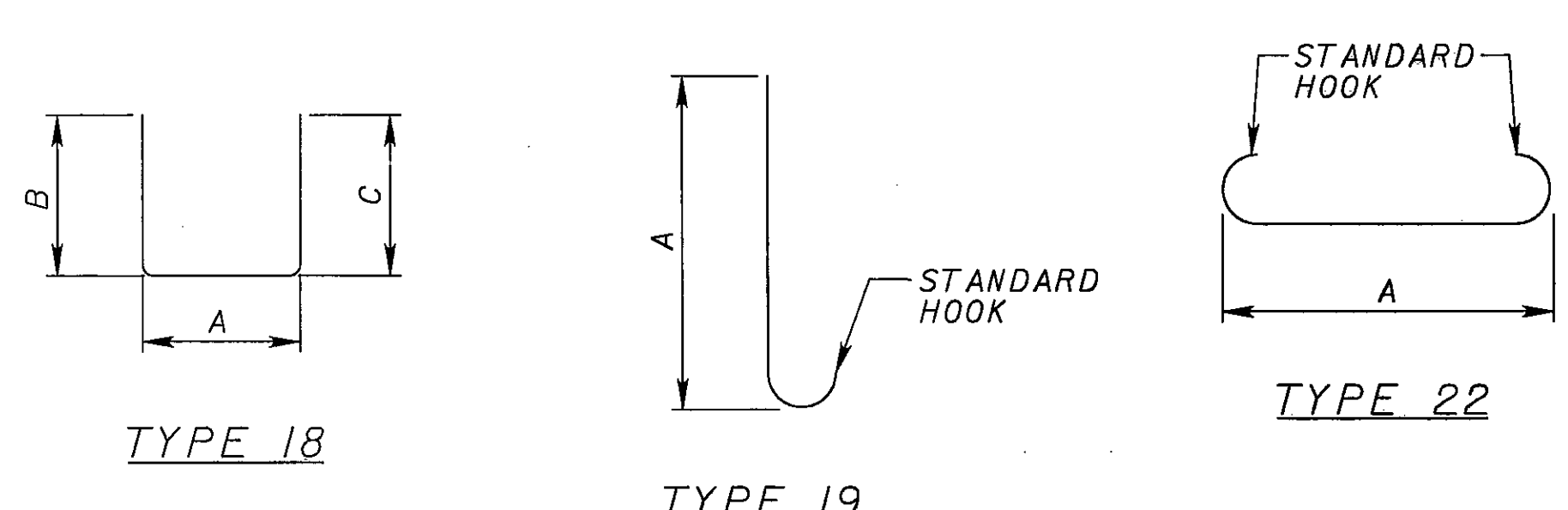
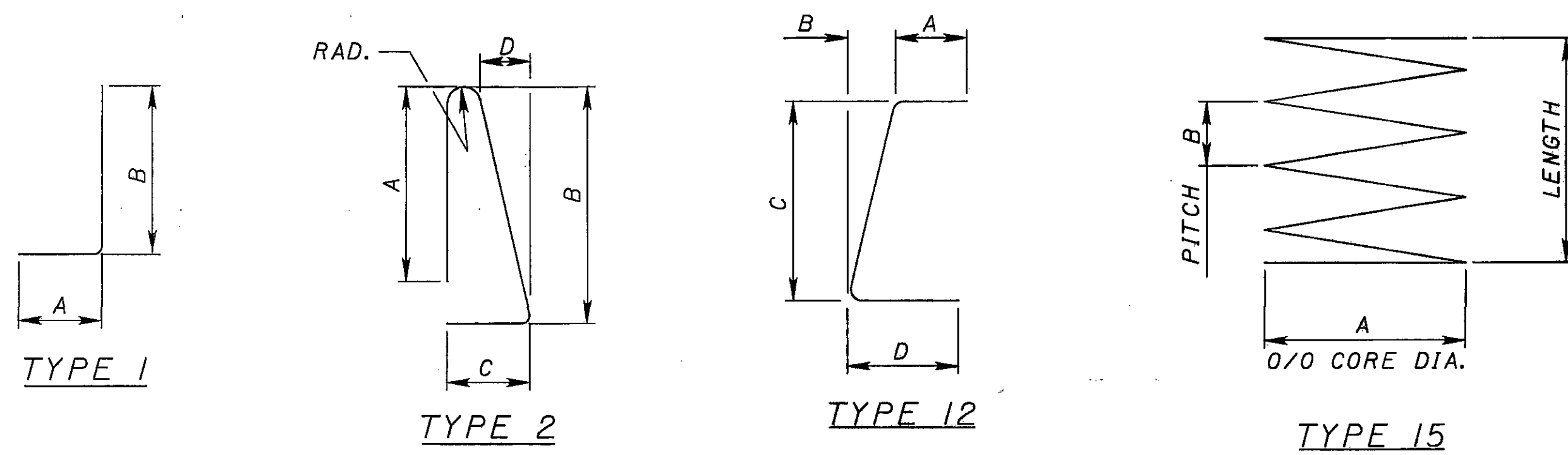
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SL401	1582	30'-0"	31703	STR						
SL402	113	24'-6"	1849	STR						
SL501	1605	30'-0"	50220	STR						
SL502	107	11'-0"	1227	STR						
SL503	672	26'-7"	18632	STR						
SL504	336	31'-3"	10951	STR						
SL601	1456	30'-0"	65607	STR						
SL602	1538	18'-4"	42351	STR						
SL603	1434	32'-6"	70000	STR						
	2	2'-5"								
SL604	S.O.	T0	80	STR						0'-0 5/8"
	10	2'-11"								
	2	3'-2"								
SL605	S.O.	T0	5440	STR						0'-3 1/8"
	105	31'-3"								
	2	3'-2"								
SL606	S.O.	T0	4682	STR						0'-3 3/8"
	94	29'-11"								
	2	5'-0"								
SL607	S.O.	T0	1635	STR						0'-3 3/8"
	47	18'-0"								
	2	2'-4"								
SL608	S.O.	T0	93	STR						0'-1 1/8"
	11	3'-3"								
	2	3'-7"								
SL609	S.O.	T0	5394	STR						0'-3 3/8"
	100	32'-3"								
	2	3'-9"								
SL610	S.O.	T0	5690	STR						0'-3 1/4"
	105	32'-2"								
	2	4'-8"								
SL611	S.O.	T0	1830	STR						0'-3 1/8"
	53	18'-4"								
SL612	4	4'-4"	26	STR						
	2	3'-3"								
SL613	S.O.	T0	45	STR						0'-3 1/4"
	4	4'-2"								
		TOTAL	317455							

PARAPET REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
R501	168	30'-0"	5256	STR						
R502	6	29'-0"	181	STR						
R503	6	22'-0"	137	STR						
R504	6	5'-2"	32	STR						
R505	6	3'-6"	21	STR						
R506	943	7'-4"	7209	2	3'-0"	3'-2"	1'-1"	0'-6 1/2"	0'-2 3/4"	
R507	32	10'-0"	333	STR						
R508	12	5'-6"	96							
R509	20	5'-6"	114	STR						
R510				NOT USED						
R511	8	8'-10"	74	2	3'-0"	3'-9"	1'-10"	1'-4"	0'-2 3/4"	
R512	6	2'-8"	16	STR						
R513	6	4'-6"	28	STR						
R601	30	30'-0"	1351	STR						
R602	1	22'-0"	33	STR						
R603	1	14'-0"	21	STR						
R604	2	4'-11"	14	STR						
R605	951	3'-3"	4642	12	1'-1"	0'-3 1/4"	1'-5"	1'-1"		
R606	951	2'-4"	3328	1	1'-1"	1'-5"				
	8	3'-11"				3'-0"				
R607	S.O.	T0	520	1	1'-1"	T0				0'-1"
	10	4'-9"				3'-10"				
R608	32	3'-11"	188	1	1'-1"	3'-0"				
R609	2	3'-7"	10	STR						
		TOTAL	23508							

PIER REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
PL401	546	8'-2"	2978	18	2'-8"	2'-10"	2'-10"			
PL501	90	30'-0"	2816	STR						
PL502	30	24'-8"	771	STR						
PL503	36	6'-5"	240	18	2'-8"	2'-0"	2'-0"			
PL504	30	20'-2"	631	STR						
PL801	90	30'-0"	7209	STR						
PL802	54	32'-7"	4697	1	2'-9"	30'-0"				
PL803	18	30'-8"	1473	STR						
PL804	18	33'-3"	1597	1	2'-9"	30'-8"				
PL901	200	11'-2"	7593	22	8'-8"					
PL902	90	19'-11"	6094	19	18'-8"					
PL903	45	18'-7"	2843	19	17'-4"					
PL904	60	18'-10"	3841	19	17'-7"					
PL905	60	17'-11"	3654	19	16'-8"					
PL906	60	19'-8"	4011	19	18'-5"					
PL907	315	12'-2"	13030	1	1'-8"	10'-10"				
PLI001	70	12'-6"	3765	22	9'-8"					
PLI002	112	16'-6"	7951	22	13'-8"					
PLI101	96	13'-10"	7055	22	10'-8"					
SPL401	6	16'-10"	1827	15	2'-6"	0'-4 1/2"				
SPL402	3	15'-5"	840	15	2'-6"	0'-4 1/2"				
SPL403	4	15'-9"	1144	15	2'-6"	0'-4 1/2"				
SPL404	4	14'-9"	1073	15	2'-6"	0'-4 1/2"				
SPL405	4	16'-7"	1201	15	2'-6"	0'-4 1/2"				
		TOTAL	88334							



NOTES:
 1. ALL BARS SHALL BE EPOXY COATED.
 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

P:\PR30489\CADD\MED-71-0794\ME071112.DGN

BURRESS & NIPLÉ
 505 Reed Road
 Columbus, Ohio 43220

DATE: 9/04
 REVIEWED: RMK
 STRUCTURE FILE NUMBER: 5202922 - LEFT, 5202957 - RIGHT
 DRAWN: CRC
 DESIGNED: TTK
 CHECKED: JMK

REINFORCING STEEL LIST 2 - SOUTHBOUND
 BRIDGE NO. MED-71-0794 L/R
 I-71 OVER I-76

MED-71-6.06
 PID-75657

62 / 64

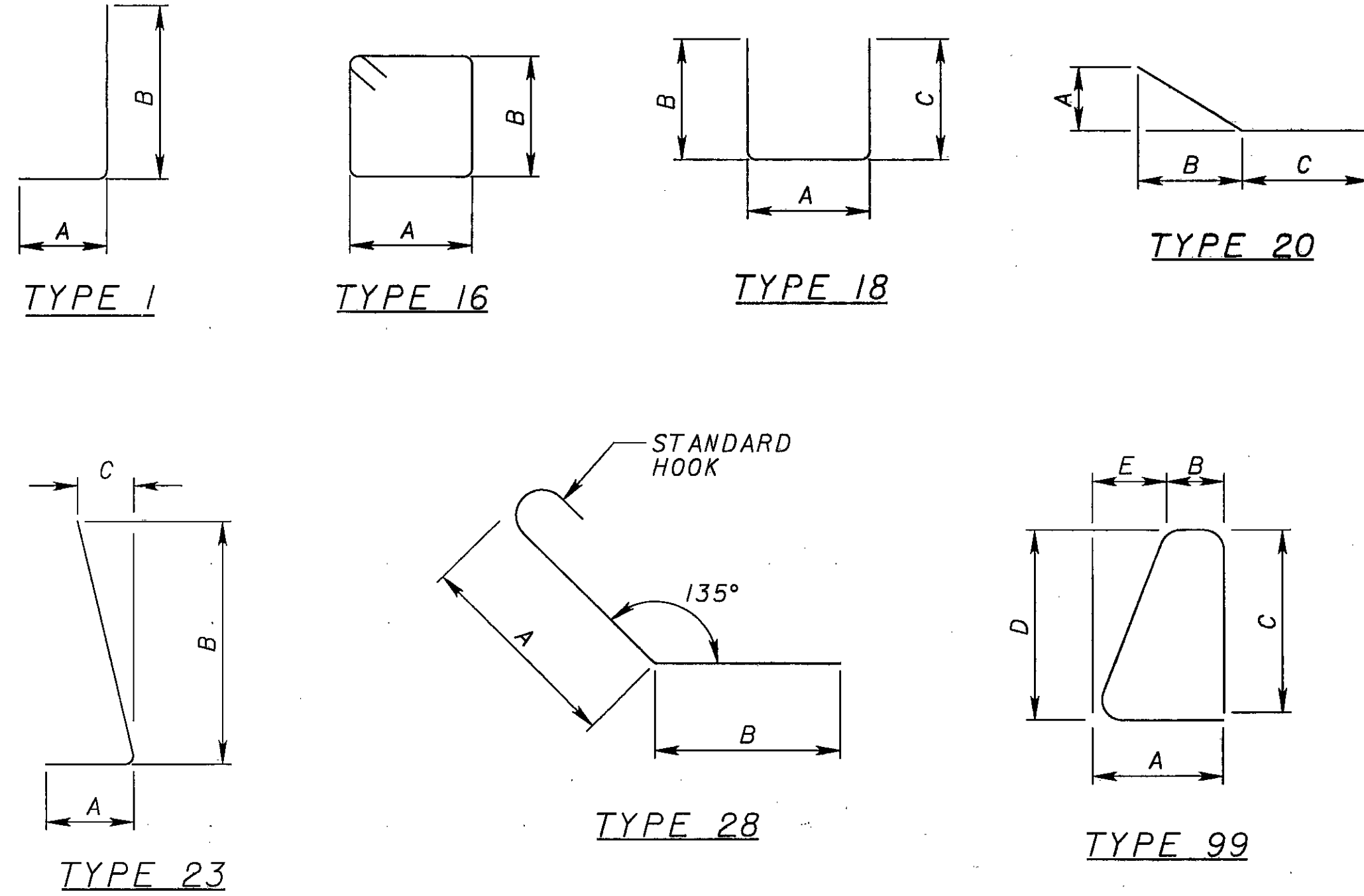
886
 1120

ABUTMENT REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
* AR501	123	30'-0"	3848	STR						
AR502	38	17'-8"	700	STR						
AR503	39	16'-8"	677	STR						
AR504	3	13'-2"	41	STR						
AR505	3	15'-7"	48	STR						
AR506	4	25'-5"	106	STR						
AR507	12	18'-10"	235	STR						
AR508	1	29'-8"	30	STR						
	2	10'-5"								
AR509	S.O.	T0	117	STR						2'-5 1/4"
	4	17'-9"								
	2	15'-0"								
AR510	S.O.	T0	175	STR						4'-0 5/8"
	4	27'-2"								
AR511	212	5'-11"	1326	18	3'-8 3/4"	1'-3"	1'-3"			
AR512	2	15'-11"	33	20	5'-6"	10'-10 1/2"	3'-9 1/2"			
AR513	3	16'-0"	50	STR						
AR514	7	22'-1"	161	20	4'-9 1/2"	17'-0"	4'-5 1/2"			
AR515	3	18'-4"	57	STR						
AR516	5	27'-10"	145	STR						
AR517	1	23'-11"	24	STR						
AR518	3	21'-9"	68	STR						
AR519	3	24'-2"	75	STR						
AR520	2	23'-7"	49	STR						
AR521	8	28'-3"	235	STR						
	2	6'-5"								
AR522	S.O.	T0	110	STR						4'-6 1/4"
	4	20'-0"								
	2	9'-6"								
AR523	S.O.	T0	108	STR						2'-4 1/4"
	4	16'-7"								
AR524	2	26'-5"	55	20	5'-7 1/2"	21'-10"	3'-10 3/4"			
AR525	2	24'-4"	50	20	4'-9"	9'-6"	13'-9"			
AR526	212	7'-4"	1621	1	1'-3"	6'-2 1/2"				
AR527	1	8'-0"	8	STR						
* AR528	8	26'-3"	219	STR						
AR529	212	7'-11"	1768	18	5'-8 3/4"	1'-3"	1'-3"			
AR530	8	9'-0"	75	99	2'-11 1/2"	0'-11 1/4"	3'-0"	3'-1 1/2"	1'-2 1/2"	
AR531	18	1'-8"	31	STR						
AR532	6	1'-9"	11	STR						
AR601	272	5'-9"	2349	18	0'-11"	2'-7"	2'-7"			
AR602	272	9'-11"	4051	18	1'-5"	4'-5"	4'-5"			
AR603	277	11'-9"	4888	18	1'-5"	5'-4"	5'-4"			
AR604	8	21'-10"	262	18	1'-5"	10'-4 1/2"	10'-4 1/2"			
	1	18'-6"				7'-7 3/4"				
AR605	S.O.	T0	321	16	1'-5"	T0				0'-7 3/8"
	10	24'-2"				10'-5 1/2"				
AR606	75	17'-0"	1924	16	5'-8 3/4"	2'-7"				
	1	8'-2"				3'-6 1/2"	3'-6 1/2"			
AR607	S.O.	T0	124	18	1'-5"	T0	T0			0'-7 1/2"
	8	12'-7"				5'-9"	5'-9"			
	1	18'-8"				7'-8 1/2"				
AR608	S.O.	T0	124	16	1'-5"	T0				1'-4"
	4	22'-8"				9'-8 1/2"				
	1	8'-7"				3'-9"	3'-9"			
AR609	S.O.	T0	45	18	1'-5"	T0	T0			1'-6 1/2"
	3	11'-7"				5'-3 1/4"	5'-3 1/4"			
AR610	27	20'-4"	824	18	1'-5"	9'-7 1/2"	9'-7 1/2"			
AR611	12	13'-6"	243	18	1'-5"	6'-2 1/2"	6'-2 1/2"			
AR612	212	9'-10"	3157	18	1'-5"	6'-2 1/2"	2'-7"			
	1	18'-8"				7'-8 1/2"				
AR613	S.O.	T0	125	16	1'-5"	T0				1'-5 1/4"
	4	22'-11"				9'-10 1/4"				
	1	6'-10"				3'-7"	3'-7"			
AR614	S.O.	T0	68	18	T0	T0				1'-2"
	5	11'-6"				5'-11"	5'-11"			
AR615	7	21'-5"	225	18	1'-5"	10'-2"	10'-2"			
	1	18'-6"				7'-7 3/4"				
AR616	S.O.	T0	185	16	1'-5"	T0				0'-9 3/8"
	6	22'-6"				9'-7 1/2"				
	1	7'-11"				3'-5 1/4"	3'-5 1/4"			
AR617	S.O.	T0	124	18	1'-5"	T0	T0			0'-8 1/8"
	8	12'-8"				5'-9 3/4"	5'-9 3/4"			

ABUTMENT REINFORCING STEEL LIST (CONT'D)

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
AR618	20	12'-11"	388	18	1'-5"	5'-11"	5'-11"			
AR619	8	3'-10"	46	23	0'-9"	3'-0 1/2"	1'-2"			
AR620	8	3'-9"	45	1	0'-10"	3'-1"				
* AR801	77	30'-0"	6167	STR						
* AR802	7	24'-10"	464	STR						
AR803	7	10'-0"	186	STR						
AR804	7	32'-6"	607	STR						
AR805	7	14'-4"	267	STR						
AR806	92	7'-7"	1862	28	5'-3"	1'-5"				
		TOTAL	41327							



- NOTES:
- ALL BARS SHALL BE EPOXY COATED.
 - BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.
- * 68 OUT OF 123 AR501, 8 OUT OF 8 AR528, 14 OUT OF 77 AR801, 7 OUT OF 7 AR802 & 7 OUT OF 7 AR804 REINFORCING BARS UTILIZE A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

BURGESS & NIPLE
505 West Road
Channahon, IL 61020

DATE: 9/04
REVIEWED: RMK
DRAWN: CRC
DESIGNED: TTK
CHECKED: JMK

STRUCTURE FILE NUMBER: 5202922 - LEFT
5202937 - RIGHT

REINFORCING STEEL LIST 3 - NORTHBOUND
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657

63 / 64

887
1120

SUPERSTRUCTURE REINFORCING STEEL LIST

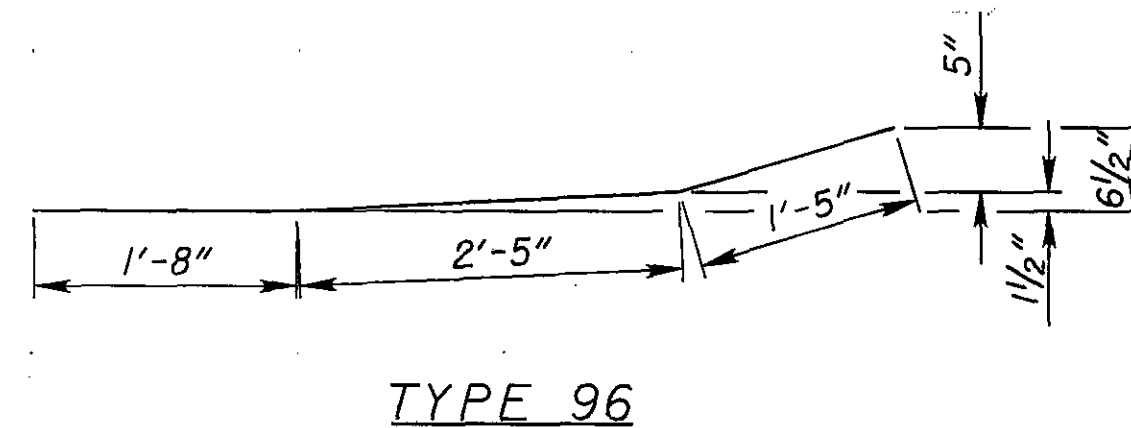
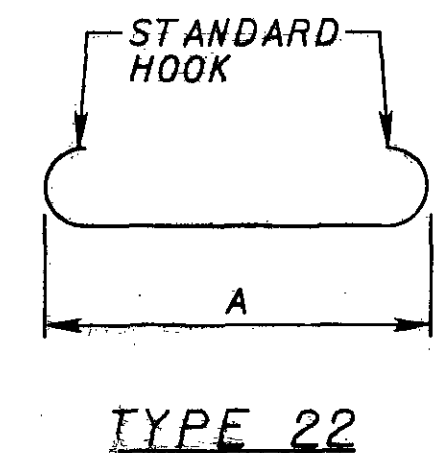
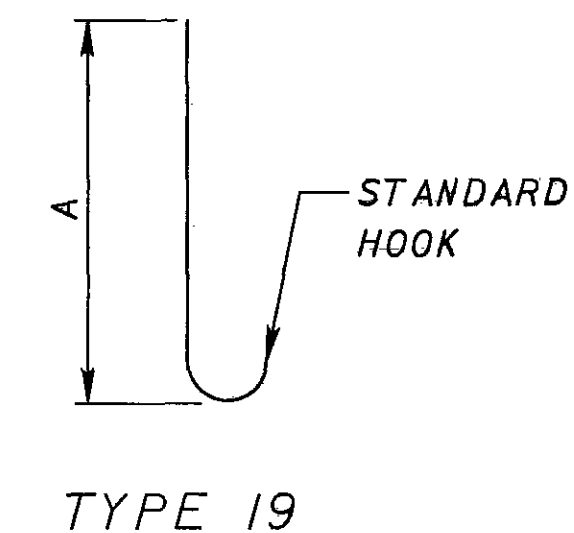
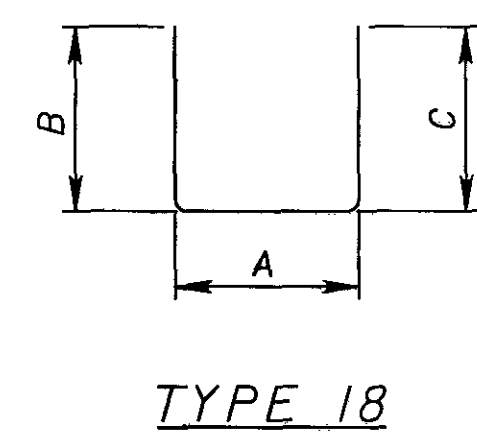
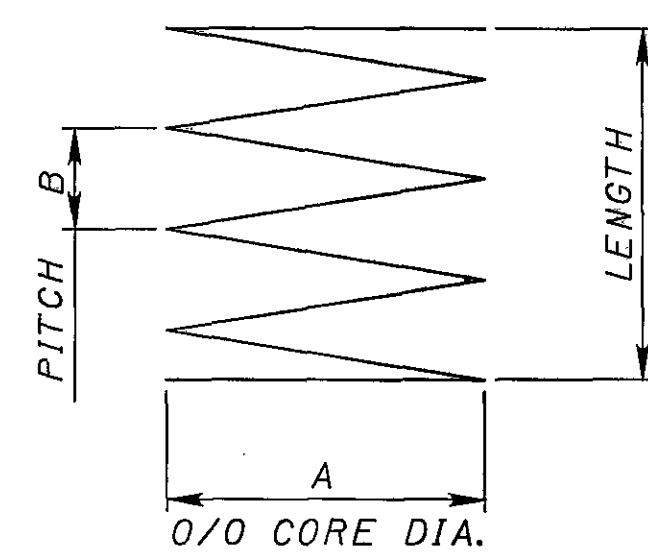
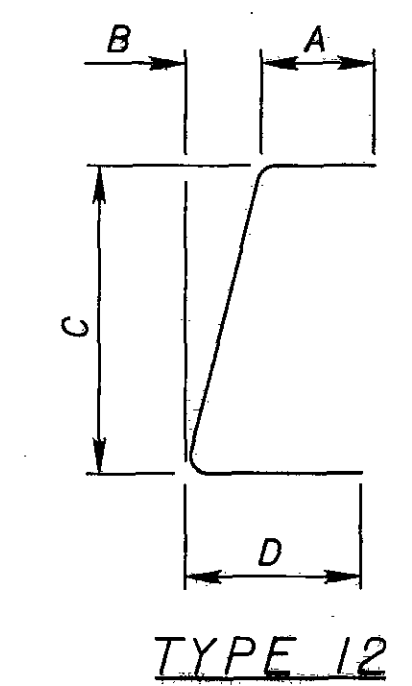
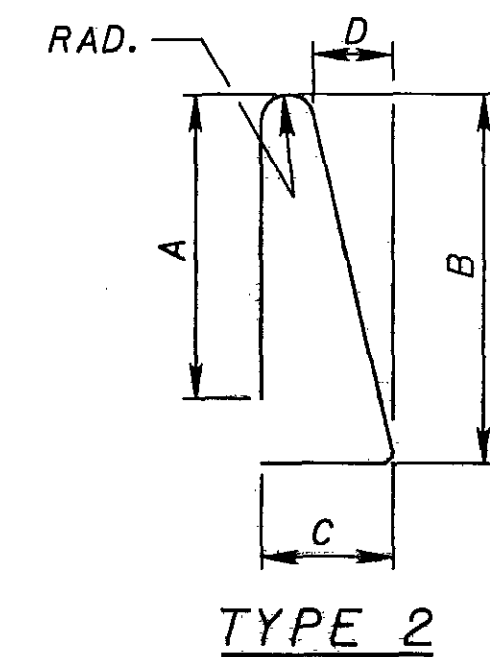
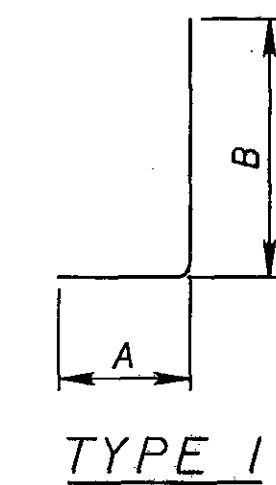
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SR401	1422	30'-0"	28496	STR						
	1	2'-0"								
SR402	S.O.	T0	392	STR						0'-3 5/8"
	56	19'-0"								
SR403	51	22'-6"	766	STR						
SR501	1487	30'-0"	46528	STR						
	1	15'-11"								
SR502	S.O.	T0	1621	STR						0'-3 1/8"
	64	32'-8"								
SR503	50	8'-8"	451	STR						
SR504	603	26'-7"	16719	STR						
SR505	303	31'-3"	9875	STR						
SR601	1448	32'-6"	70684	STR						
SR602	1560	15'-0"	35146	STR						
SR603	458	29'-7"	20408	STR						
SR604	458	27'-4"	18860	STR						
SR605	456	26'-0"	17807	STR						
	2	2'-8"								
SR606	S.O.	T0	5900	STR						0'-3 5/8"
	105	34'-7"								
	2	1'-5"								
SR607	S.O.	T0	41	STR						0'-1 3/4"
	7	2'-4"								
	2	2'-0"								
SR608	S.O.	T0	76	STR						0'-1 1/8"
	10	3'-0"								
	2	3'-3"								
SR609	S.O.	T0	5611	STR						0'-3 1/4"
	105	32'-2"								
	2	5'-0"								
SR610	S.O.	T0	1076	STR						0'-3 1/4"
	36	14'-10"								
	2	3'-2"								
SR611	S.O.	T0	4612	STR						0'-3 3/8"
	94	29'-4"								
	2	3'-10"								
SR612	S.O.	T0	5269	STR						0'-3 1/2"
	97	32'-2"								
	2	3'-4"								
SR613	S.O.	T0	46	STR						0'-3 1/4"
	4	4'-2"								
SR614	4	4'-4"	26	STR						
		TOTAL	290410							

PARAPET REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
R501	168	30'-0"	5256	STR						
R502	6	29'-0"	181	STR						
R503	6	22'-0"	137	STR						
R504	6	5'-2"	32	STR						
R505	6	3'-6"	21	STR						
R506	930	7'-4"	7110	2	3'-0"	3'-2"	1'-1"	0'-6 1/2"	0'-2 3/4"	
R507	32	10'-0"	333	STR						
R508	12	5'-6"	96							
R509	20	5'-6"	114	STR						
R510				NOT USED						
R511	8	8'-10"	74	2	3'-0"	3'-9"	1'-10"	1'-4"	0'-2 3/4"	
R512	6	2'-8"	16	STR						
R513	6	4'-6"	28	STR						
R601	30	30'-0"	1351	STR						
R602	1	22'-0"	33	STR						
R603	1	14'-0"	21	STR						
R604	2	4'-11"	14	STR						
R605	938	3'-3"	4579	12	1'-1"	0'-3 1/4"	1'-5"	1'-1"		
R606	938	2'-4"	3283	1	1'-1"	1'-5"				
	8	3'-11"				3'-0"				
R607	S.O.	T0	520	1	1'-1"	T0				0'-1"
	10	4'-9"				3'-10"				
R608	32	3'-11"	188	1	1'-1"	3'-0"				
R609	2	3'-7"	10	STR						
		TOTAL	23301							

PIER REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
PR401	406	8'-4"	2260	18	2'-8"	2'-11"	2'-11"			
PR501	58	30'-0"	1814	STR						
PR502	30	24'-2"	756	STR						
PR503	36	6'-5"	240	18	2'-8"	2'-0"	2'-0"			
PR504	10	34'-11"	364	STR						
PR505	8	27'-7"	230	STR						
PR506	10	21'-5"	223	STR						
PR507	108	7'-11"	891	18	2'-0"	3'-1"	3'-1"			
PR701	18	30'-0"	1103	STR						
PR702	18	27'-0"	993	STR						
PR801	15	33'-1"	1324	1	3'-3"	30'-0"				
PR802	72	11'-6"	2210	22	9'-8"					
PR803	15	32'-6"	1301	1	3'-3"	29'-5"				
PR901	247	12'-2"	10217	1	1'-8"	10'-10"				
PR902	120	12'-2"	4963	22	9'-8"					
PR903	6	31'-6"	642	1	3'-3"	28'-7"				
PR904	5	30'-0"	509	STR						
PR905	5	28'-7"	485	STR						
PR906	6	32'-11"	671	1	3'-3"	30'-0"				
PR907	52	20'-0"	3535	19	18'-9"					
PR908	39	17'-5"	2309	19	16'-2"					
PR909	39	18'-3"	2419	19	17'-0"					
PR910	39	19'-6"	2585	19	18'-3"					
PR911	39	17'-3"	2287	19	16'-0"					
PR912	39	18'-6"	2453	19	17'-3"					
PR1001	126	14'-6"	7861	22	11'-8"					
PR1002	10	36'-3"	1559	1	3'-0"	33'-7"				
PR1003	17	30'-0"	2194	STR						
PR1004	6	26'-1"	673	STR						
PR1005	5	32'-11"	708	1	3'-3"	30'-0"				
PR1006	5	29'-0"	623	1	3'-3"	26'-1"				
PR1007	30	33'-7"	4335	STR						
PR1101	214	17'-10"	20276	22	14'-8"					
SPR401	3	16'-5"	892	15	2'-6"	0'-4 1/2"				
SPR402	3	14'-2"	775	15	2'-6"	0'-4 1/2"				
SPR403	3	15'-5"	840	15	2'-6"	0'-4 1/2"				
SPR404	4	16'-11"	1224	15	2'-6"	0'-4 1/2"				
SPR405	3	14'-4"	784	15	2'-6"	0'-4 1/2"				
SPR406	3	15'-2"	828	15	2'-6"	0'-4 1/2"				
		TOTAL	90356							



NOTES:

- ALL BARS SHALL BE EPOXY COATED.
- BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

P:\PR30489\CADD\MED-71-0794\ME07114.DGN

BURGESS & NIPLE
5085 Reed Road
COLUMBUS, OHIO 43220

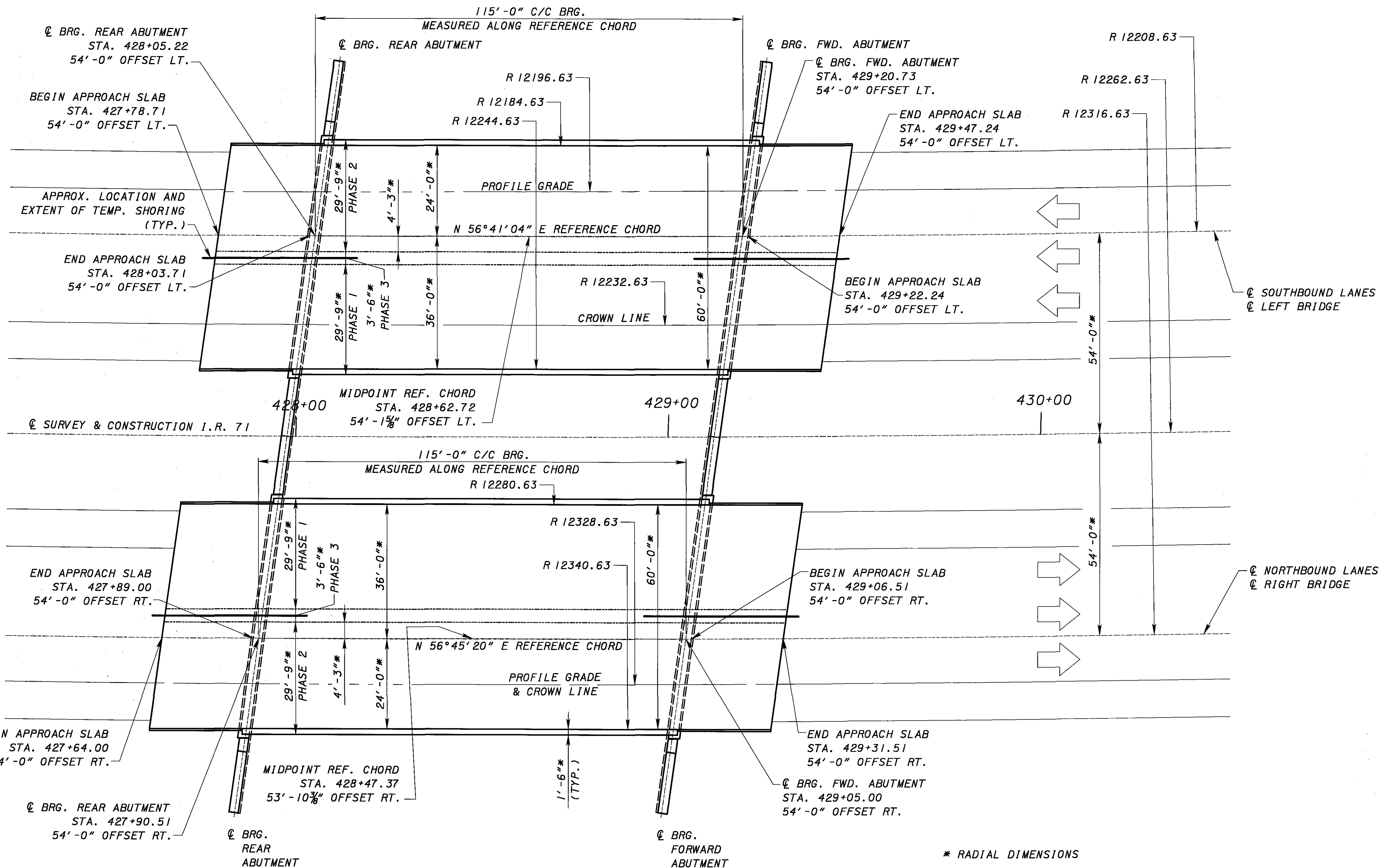
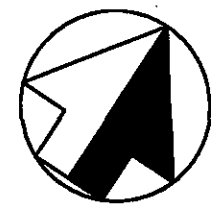
DATE 9/04
REVIEWED RMK
STRUCTURE FILE NUMBER 5202922 - LEFT
DESIGNED TTK CHECKED JMK
5202957 - RIGHT

REINFORCING STEEL LIST 4 - NORTHBOUND
BRIDGE NO. MED-71-0794 L/R
I-71 OVER I-76

MED-71-6.06
PID-75657

64/64

888
1120



* RADIAL DIMENSIONS

**REFERENCE CHORD SCHEMATIC
GENERAL PLAN**
(NOT TO SCALE)

NOTE:
THE CENTERLINE OF SURVEY & CONSTRUCTION, I.R. 71 HAS A CURVED ALIGNMENT AND THE BRIDGE DECK AND APPROACH SLAB MATCHES THIS CURVE AS SHOWN. EACH REFERENCE LINE IS ESTABLISHED BY CONNECTING THE INTERSECTION OF THE CENTERLINE OF LANES OF EACH BRIDGE WITH THE CENTERLINE OF BEARING OF THE REAR AND FORWARD ABUTMENTS WITH A STRAIGHT LINE. THE PRESTRESSED CONCRETE I-BEAMS ARE PARALLEL TO THE REFERENCE LINE. THEREFORE, THE DECK OVERHANG DIMENSIONS ON EITHER SIDE OF EACH BRIDGE VARY. SEE SHEET 24/29 FOR LEFT BRIDGE DECK OFFSETS. SEE SHEET 25/29 FOR RIGHT BRIDGE DECK OFFSETS.

ABBREVIATIONS

ABUT.	ABUTMENT
ADD'L.	ADDITIONAL
BOT. OR BOTT.	BOTTOM
BRG.	BEARING
⊙	CENTERLINE
C.J.	CONSTRUCTION JOINT
C/C	CENTER TO CENTER
CLR.	CLEAR OR CLEARANCE
COL.	COLUMN
CONSTR. OR CONST.	CONSTRUCTION
DIA.	DIAMETER
DWG.	DRAWING
E.F.	EACH FACE
EA.	EACH
ELEV. OR EL.	ELEVATION
EQ.	EQUAL
EX. OR EXIST.	EXISTING
EXT.	EXTERIOR
F.A.	FORWARD ABUTMENT
F.F.	FAR FACE
FDN.	FOUNDATION
FT.	FEET OR FOOT
FTG.	FOOTING
FWD.	FORWARD
GRD.	GROUND
INT.	INTERIOR
JT.	JOINT
LB.	POUND
LIN. FT.	LINEAL FOOT
LT.	LEFT
MAX.	MAXIMUM
MFR. OR MANUF.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MSE	MECHANICALLY STABILIZED EARTH WALL
N.F.	NEAR FACE
O/C	ON CENTERS
O/O	OUT TO OUT
P	PLATE
PCB	PORTABLE CONCRETE BARRIER
PEJF	PREFORMED EXPANSION JOINT FILLER
PROP.	PROPOSED
R.A.	REAR ABUTMENT
REF.	REFERENCE
RT.	RIGHT
SER.	SERIES
SHLDR.	SHOULDER
SHT.	SHEET
SP. OR SPA.	SPACE OR SPACES
STA.	STATION
STD.	STANDARD
STR.	STRAIGHT
T & B	TOP AND BOTTOM
T/S OR T.O.S.	TOP OF SLOPE
TEMP.	TEMPORARY
TYP.	TYPICAL
W/	WITH

GENERAL NOTES

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81	REVISED	07/19/02
ICD-1-82	REVISED	07/19/02
PCB-91	REVISED	07/19/02
PSID-1-99	REVISED	07/18/03
SBR-1-99	REVISED	07/19/02

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:

DM-4.1	REVISED	07/19/02
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AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

894 DATED 04/15/05

DESIGN LOADING:

HS25, AND THE ALTERNATE MILITARY LOADING
FUTURE WEARING SURFACE (FWS) OF 60 LBS/FT²

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL:

ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

CONCRETE FOR PRESTRESSED BEAMS:

COMPRESSIVE STRENGTH (FINAL) - 7000 PSI
COMPRESSIVE STRENGTH (RELEASE) - 5500 PSI

PRESTRESSING STRAND:

AREA - 0.167 IN²
ULTIMATE STRESS - 270 KSI
INITIAL STRESS - 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD:

CLASS HP CONCRETE
EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

ASSUMED FOR DESIGN PURPOSES TO BE 1" THICK.

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN:

THE COLOR OF THE EPOXY-URETHANE SEALER SHALL BE FEDERAL COLOR STANDARD NO. 27778 (LIGHT NEUTRAL).

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

SEE SHEET 1/29 FOR LIMITS OF SUPERSTRUCTURE REMOVAL.

PROTECTION OF TRAFFIC:

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

ITEM 503, COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN:

AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE METHOD OF TEMPORARY SHORING FOR PHASE CONSTRUCTION MAY BE USED. PLANS FOR SUCH SHORING SHALL BE DESIGNED BY A OHIO REGISTERED PROFESSIONAL ENGINEER AND CONFORM WITH 501.05. HAVE A SECOND OHIO REGISTERED ENGINEER CHECK, SIGN, SEAL, AND DATE EACH PLAN. THE PREPARER AND CHECKER ARE TWO DIFFERENT ENGINEERS. PORTIONS OF THE TEMPORARY SHORING COMPOSED OF STEEL OR CONCRETE MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. PORTIONS COMPOSED OF OTHER MATERIALS SHALL BE REMOVED PRIOR TO COMPLETION OF THE WORK.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE FOR THE 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES IS 128 TONS FOR ABUTMENTS.

REAR ABUTMENT PILES, RIGHT BRIDGE:

23 - 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
95 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES, RIGHT BRIDGE:

23 - 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
105 FEET LONG, ORDER LENGTH

REAR ABUTMENT PILES, LEFT BRIDGE:

23 - 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
95 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES, LEFT BRIDGE:

23- 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
105 FEET LONG, ORDER LENGTH

1 DYNAMIC LOAD TESTING ITEM

ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN:

COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

UTILITY LINES:

THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR THE COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

DRIP GROOVES:

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

EXISTING STRUCTURE PLANS:

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805. (PHONE 800-276-4188)

ITEM 516 INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1 1/4"x#10 GAGE (LENGTH x SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

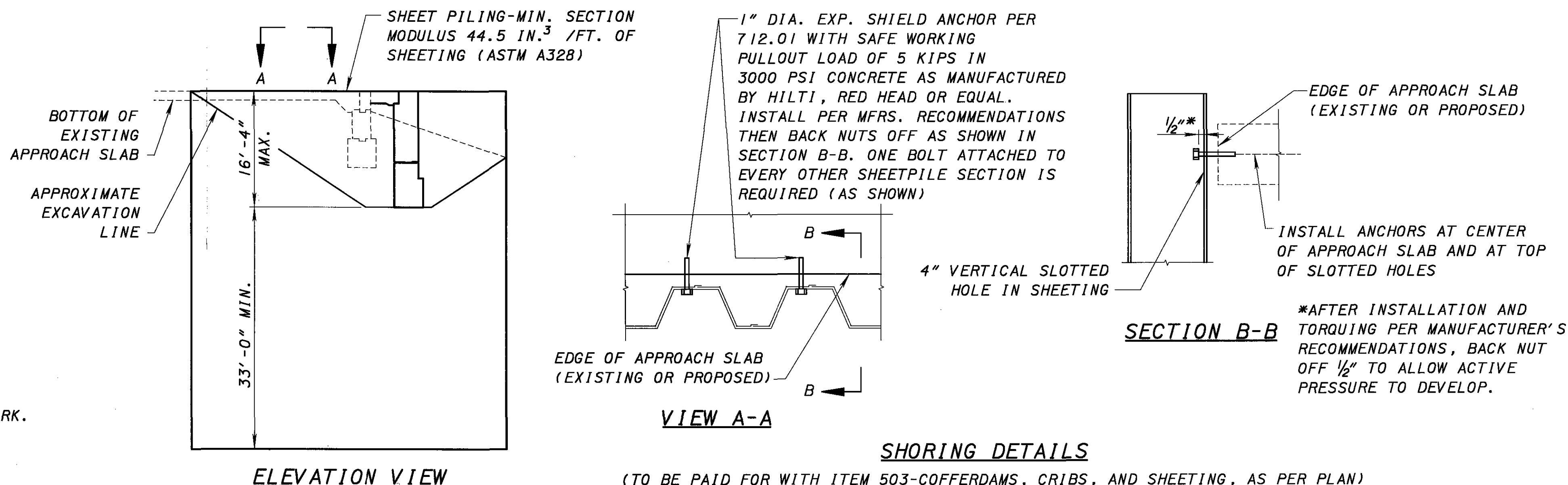
THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D 751	0.094" +/- .01
BREAKING STRENGTH, GRAB, LBS, MIN.	D 751	700 x 700
ADHESIVE STRIP 1"x2" LONG, LBS MIN.	D 751	9
BURST STRENGTH PSI, MIN.	D 751	1400
HEAT AGING 70 HOURS 212°F, 180° BEND WITHOUT CRACKING	D 2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLINESS 1 HOUR AT -40°F, BEND AROUND 1/4" MANDREL	D 2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.



ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS
222 SOUTH MAIN, COLUMBUS, OHIO 43260

DATE: 02/2005
REVISION: PAS
DRAWN: KYM
DESIGNED: PAS
CHECKED: JNS

GENERAL NOTES
BRIDGE NO. MED-71-0810 L/R
I-71 OVER CHIPPEWA DITCH

MED-71-6.06
PID 75657

3/29

891
1120

ESTIMATED QUANTITIES

CALC BY: GKL DATE: 05/13/03

CHECK BY: JNS DATE: 05/20/03

ITEM	ITEM EXT.	LEFT 5202973			RIGHT 5203007			UNIT	DESCRIPTION	SUPER.		ABUT. REAR		ABUT. FWD.		GENERAL		AS PER PLAN SHEET REFERENCE
		FUNDING**	FUNDING**	TOTAL	FUNDING**	FUNDING**	TOTAL			LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
202	11003	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN									1, 5, 16 / 29
503	11101	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN									3 / 29
503	21301	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN									3 / 29
505	11100	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION									
507	00600	3496	874	4370	3496	874	4370	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN			2,070	2,070	2,300	2,300			
507	00650	3680	920	4600	3680	920	4600	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED			2,185	2,185	2,415	2,415			
509	10000	74,731	18,683	93,414	74,691	18,673	93,364	POUND	EPOXY COATED REINFORCING STEEL (SEE PROPOSAL NOTE 525)	70,024	70,024	11,695	11,670	11,695	11,670			
511	43501	172	43	215	156	39	195	CU. YD.	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN			109	96	106	99			3
511	52000	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB	LUMP	LUMP							
512	10101	621	155	776	605	151	756	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	628	628	74	64	74	64			
512	33000	10	2	12	10	2	12	SQ. YD.	TYPE 2 WATERPROOFING			8 Δ	4	4	8 Δ			
515	15040	6	2	8	6	2	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (66")	8	8							
515	20000	17	4	21	17	4	21	EACH	INTERMEDIATE DIAPHRAGMS	21	21							
516	14015	144	36	180	144	36	180	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN			90	90	90	90			3 / 29
516	44100	6	2	8	6	2	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.823" x 12" x 20" BEARING WITH 2.0" x 14" x 22" LOAD PLATE			8	8					
516	44100	6	2	8	6	2	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.823" x 12" x 20" BEARING WITH 2.0" x 14" x 22" BEVELED LOAD PLATE					8	8			
518	21230	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC							LUMP	LUMP	
518	40000	165	41	206	165	41	206	FT	6" PERFORATED CORRUGATED PLASTIC PIPE			103	103	103	103			
518	40010	61	15	76	61	15	76	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS			33	33	43	43			
523	20000	1		1				EACH	DYNAMIC LOAD TESTING							1		
526	25000	272	68	340	272	68	340	SQ. YD.	REINFORCED CONCRETE APPROACH SLABS (T=15")			170	170	170	170			
601	32204	366	92	458	366	92	458	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC							458	458	
																		3 / 29
* 894	10001	293	73	366	293	73	366	CU. YD.	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	366	366							4 / 29

NOTE: SEE ROADWAY PLANS FOR APPROACH SLAB REMOVAL QUANTITY.

* THIS QUANTITY INCLUDES CONCRETE IN ABUTMENT DIAPHRAGMS.

** ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS

Δ THIS QUANTITY INCLUDES TYPE 2 WATER PROOFING AT EXPANSION JOINT BETWEEN LEFT AND RIGHT BRIDGES.

ITEM 894 HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

GENERAL REQUIREMENTS.

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS.

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN).

ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)									
AGGREGATE TYPE	FINE AGGRE. (LB)	* #8 COARSE AGGRE. (LB)	* #57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICROSILICA (LB)	WATER/CEMENT RATIO +/- .02	AIR CONTENT +/- 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

*ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER, AS DEFINED PER ASTM C127 THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20 AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured)

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED)

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SHIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH, WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATION FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT. AND A MAXIMUM OF 8 FT. ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1/2" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

BASIS OF PAYMENT.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
894E10001	C.Y.	HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK, AS PER PLAN
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB

ESTIMATED QUANTITIES & GENERAL NOTES

BRIDGE NO. MED-71-0810 L/R
I-71 OVER CHIPPEWA DITCH

MED-71-6.06
PID 75657

4 / 29

892
120

PREPARED BY
ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS
10000 W. 100th St.
Overland Park, MO 66214

DATE
02/20/05
REVIEWED
PAS
STRUCTURE FILE NUMBER
5202965
LEFT
5203015 - RIGHT

DRAWN
KVM
REVISED

DESIGNED
JNS
CHECKED
GKL

PROPOSED WORK

PHASE 1 CONSTRUCTION:

1. PLACE PORTABLE CONCRETE BARRIER AND MAINTAIN TRAFFIC ON THE LEFT SIDE OF THE EXISTING BRIDGE.
2. REMOVE PORTIONS OF EXISTING RIGHT SIDE DECK, PARAPETS, APPROACH SLABS, ABUTMENTS AND PIERS AS NOTED ON THE PLANS.
3. DRIVE SHEET PILING.
4. EXCAVATE AND CONSTRUCT PHASE 1 PORTIONS OF ABUTMENTS.
5. BACKFILL.
6. PLACE CHANNEL PROTECTION ON RIGHT SIDE.
7. CONSTRUCT PHASE 1 STRUCTURE PORTIONS ON RIGHT SIDE.

PHASE 2 CONSTRUCTION:

1. PLACE PORTABLE CONCRETE BARRIER AND DIVERT AND MAINTAIN TRAFFIC ON THE RIGHT SIDE OF THE BRIDGE.
2. REMOVE THE REMAINING PORTIONS OF EXISTING LEFT SIDE DECK, PARAPETS, APPROACH SLABS, ABUTMENTS AND PIERS, AS NOTED ON THE PLANS.
3. EXCAVATE FOR PHASE 2 PORTIONS OF ABUTMENTS.
4. CONSTRUCT PHASE 2 PORTIONS OF ABUTMENTS.
5. BACKFILL.
6. PLACE CHANNEL PROTECTION ON RIGHT SIDE OF BRIDGE.
7. CONSTRUCT PHASE 2 STRUCTURE PORTIONS ON LEFT SIDE.*


PHASE 3 CONSTRUCTION:

1. MAINTAIN TRAFFIC ON RIGHT SIDE OF BRIDGE.
2. CONSTRUCT PHASE 3 STRUCTURE PORTIONS.*
3. BACKFILL AND CONSTRUCT THE REMAINING PORTIONS OF THE APPROACH SLABS.
4. REMOVE PORTABLE CONCRETE BARRIERS FROM THE BRIDGE.

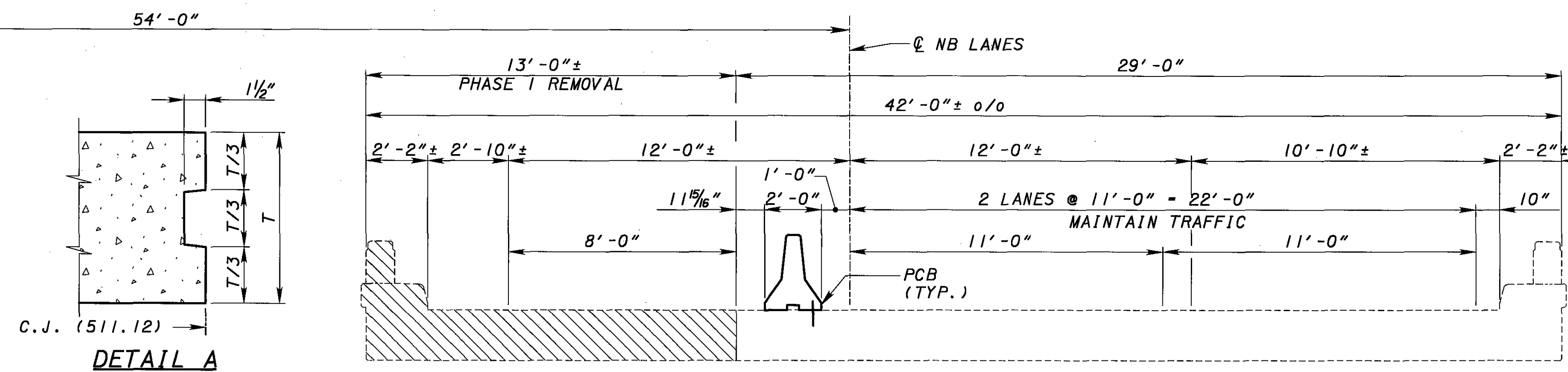
*THE CROSSFRAMES IN THE CONNECTION BAY BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION SHOULD NOT BE INSTALLED UNTIL AFTER ALL THE DECK CONCRETE, EXCEPT FOR THE CLOSURE SECTION, HAS BEEN PLACED. CONCRETE FOR THE CLOSURE SECTION SHOULD BE PLACED AFTER PLACEMENT OF THE LEFT SIDE OF THE BRIDGE IN PHASE 2 CONSTRUCTION AND INSTALLATION OF THE CROSSFRAMES IN THE CONNECTION BAY HAS TAKEN PLACE.

FALSEWORK FOR PHASE 2 CONSTRUCTION SHOULD BE COMPLETELY DIVORCED FROM PHASE 1 CONSTRUCTION, I.E. THE SLAB FOR PHASE 2 SHOULD NOT BE SUPPORTED BY FALSEWORK WHICH IS CONNECTED TO FALSEWORK, BEAMS, OR SUPERSTRUCTURE CONCRETE IN PHASE 1.

LEGEND:

-  = REMOVALS
- PCB = PORTABLE CONCRETE BARRIER
- C.J. = CONSTRUCTION JOINT

CONSTRUCTION I.R. 71

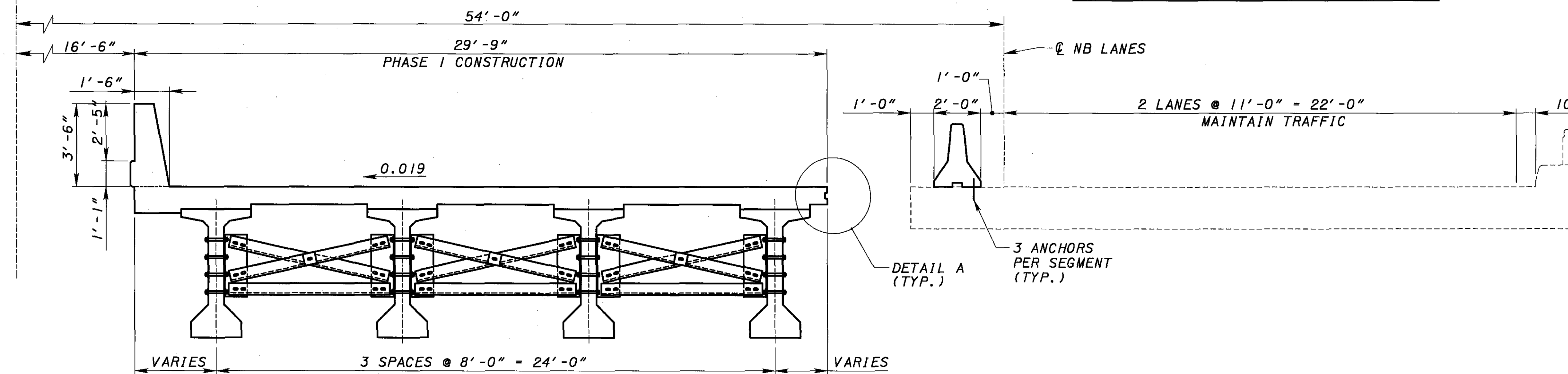


PHASE 1 REMOVAL

(NORTHBOUND LANES SHOWN, SOUTHBOUND SIMILAR)

SEE SHEET 16/29 FOR LIMITS OF ABUTMENT REMOVAL AND ADDITIONAL INFORMATION.

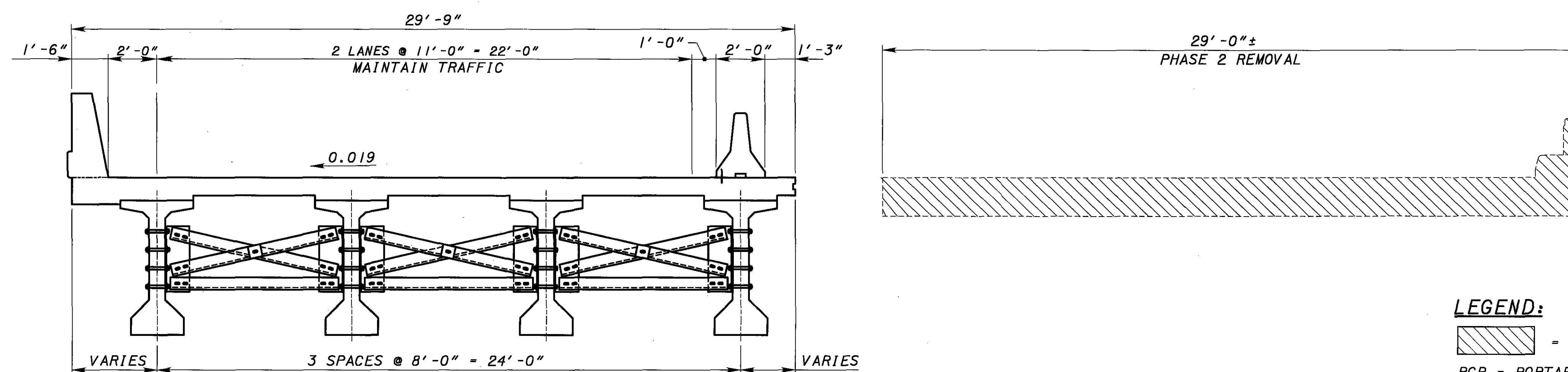
CONSTRUCTION I.R. 71



PHASE 1 CONSTRUCTION

(NORTHBOUND LANES SHOWN, SOUTHBOUND SIMILAR)

CONSTRUCTION I.R. 71



PHASE 2 REMOVAL

(NORTHBOUND LANES SHOWN, SOUTHBOUND SIMILAR)

DESIGNED BY
ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS
1000 W. CHIPPewa DITCH

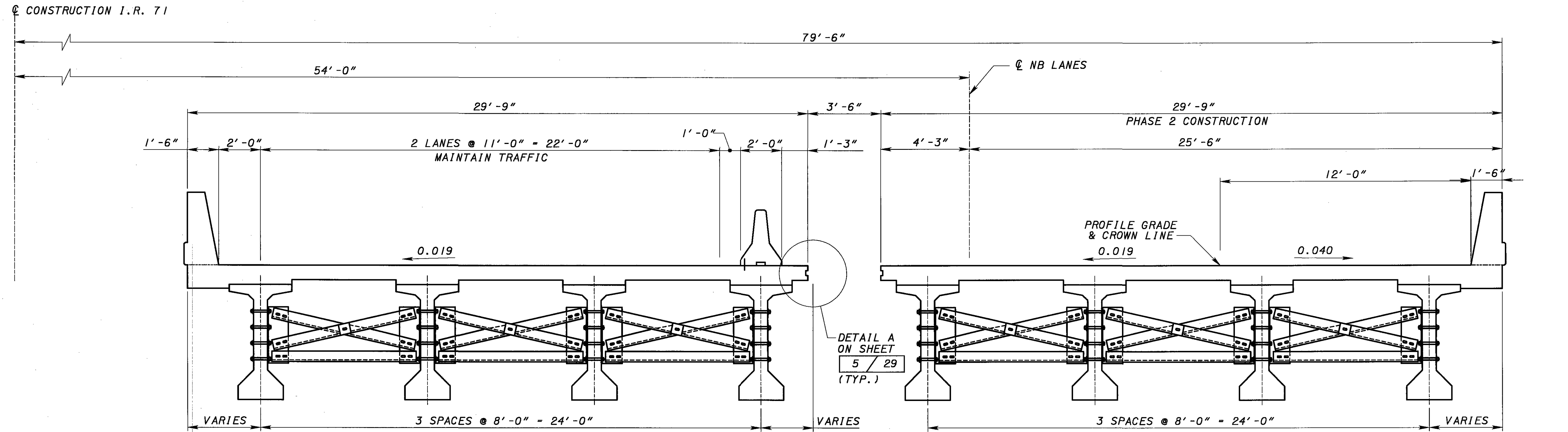
DATE
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REVIEWED
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JNS
DESIGNED
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FILE NUMBER
5202965
LEFT
5203015 - RIGHT

PHASE CONSTRUCTION DETAILS - I
BRIDGE NO. MED-71-0810 L/R
1-71 OVER CHIPPEWA DITCH

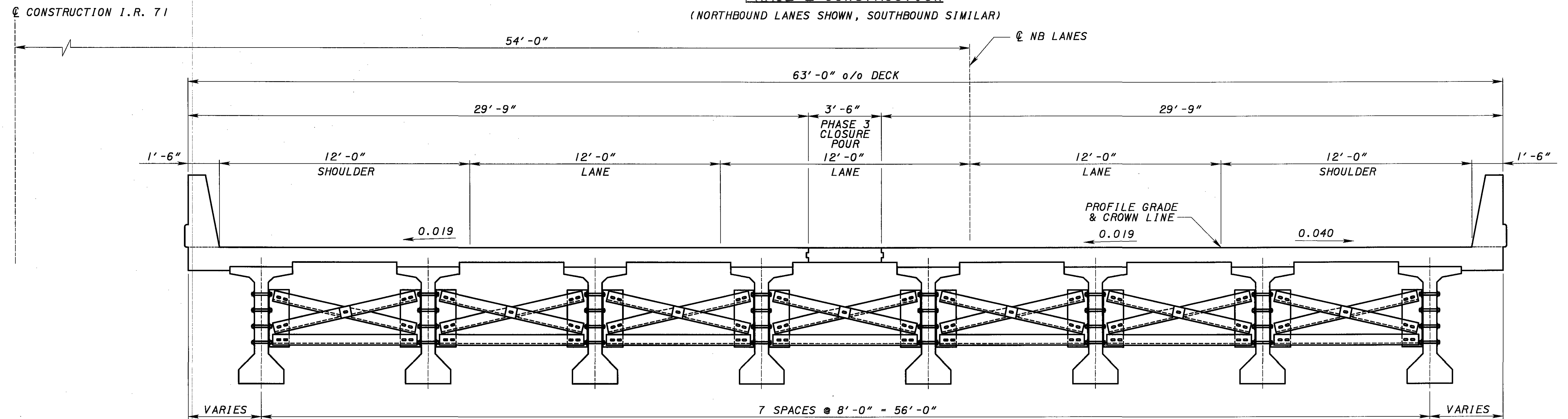
MED-71-6.06
PID 75657

5/29

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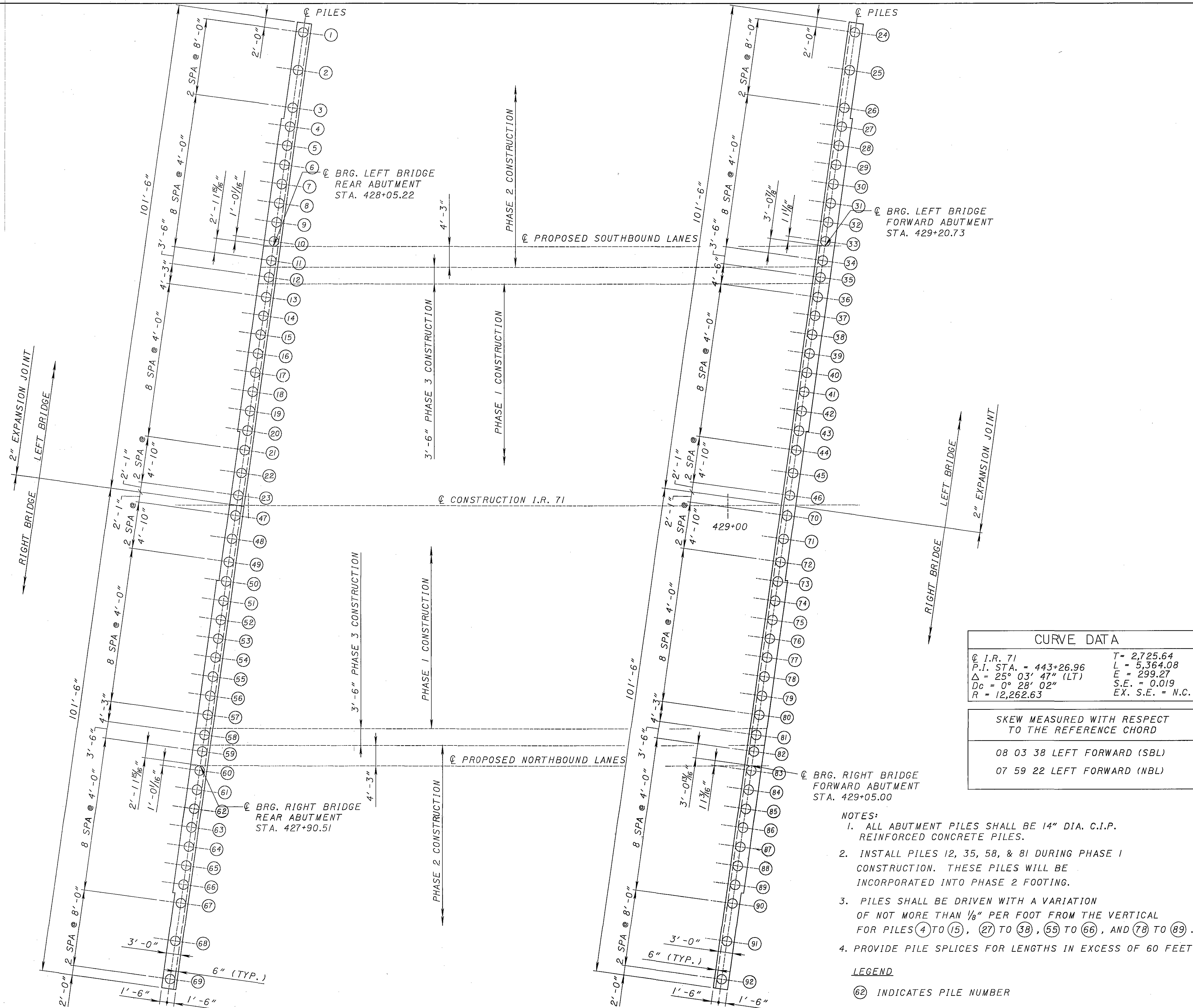
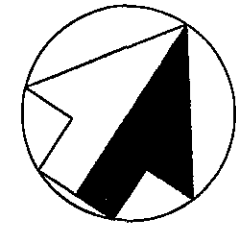
PHASE 2 CONSTRUCTION
 (NORTHBOUND LANES SHOWN, SOUTHBOUND SIMILAR)



CLOSURE POUR CONSTRUCTION
 (NORTHBOUND LANES SHOWN, SOUTHBOUND SIMILAR)

PHASE CONSTRUCTION NOTES:
 TEMPORARY BARRIERS SHALL BE ANCHORED TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS

DATE	02/2005
REVIEWED	PAS
DRAWN	KVM
DESIGNED	PAS
CHECKED	JNS
STATUS	FILE NUMBER 5202065
REVISION	5203015 - RIGHT

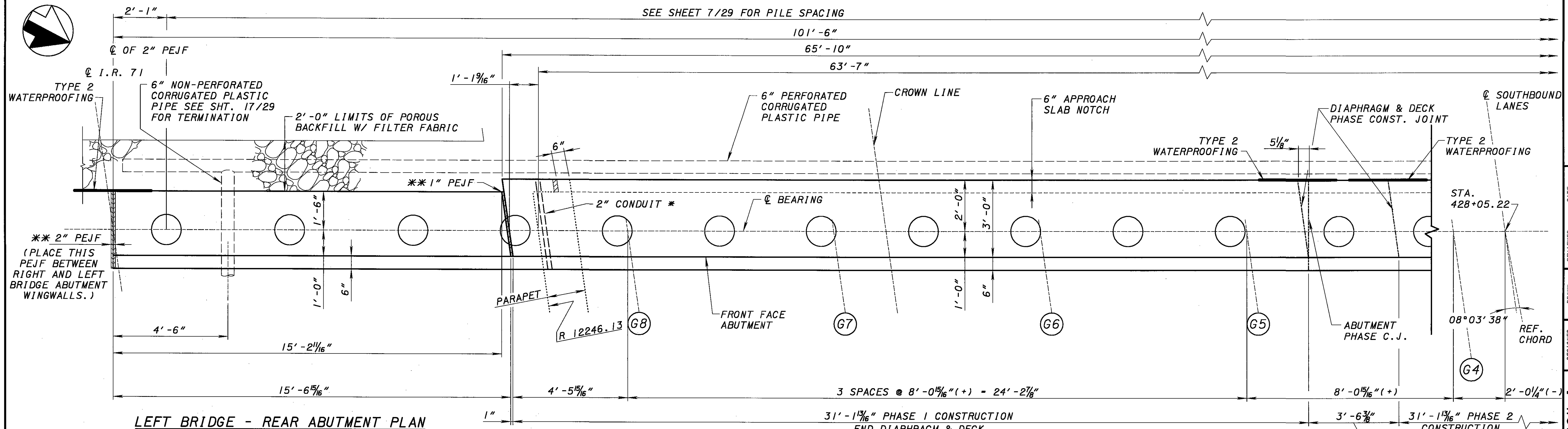


CURVE DATA	
@ I.R. 71	T = 2,725.64
P.I. STA. = 443+26.96	L = 5,364.08
$\Delta = 25^\circ 03' 47''$ (LT)	E = 299.27
Dc = 0° 28' 02"	S.E. = 0.019
R = 12,262.63	EX. S.E. = N.C.

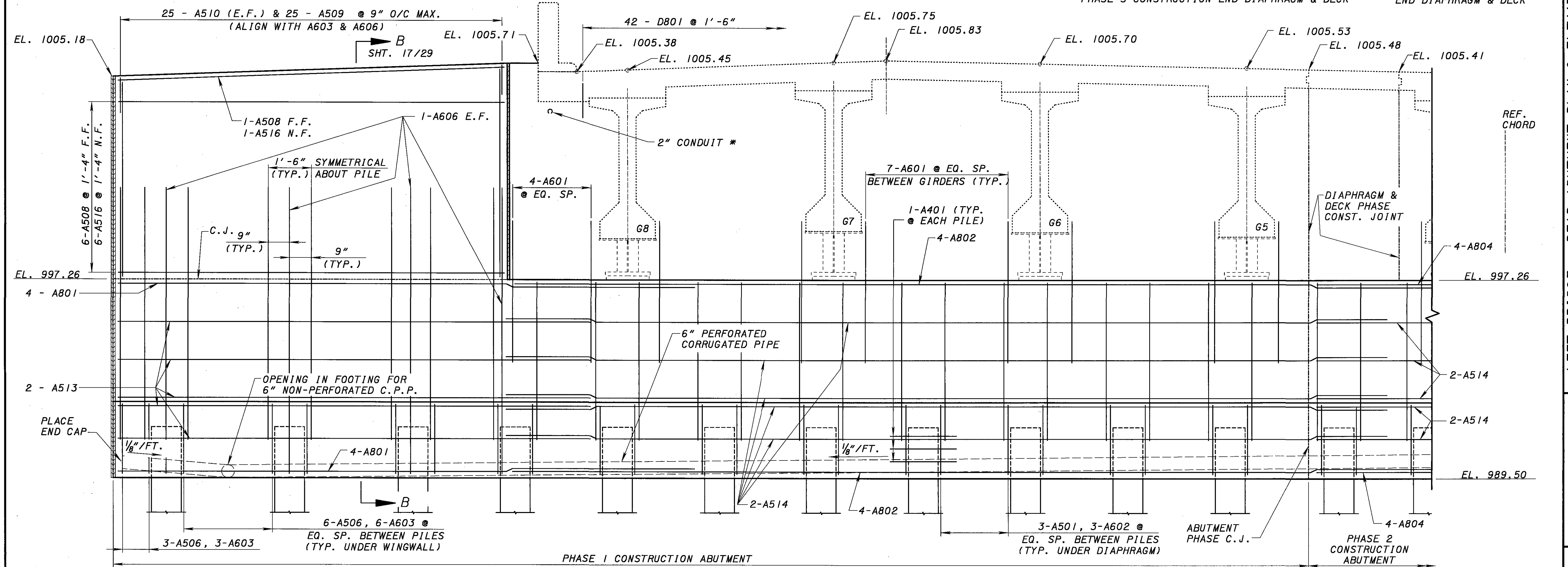
SKEW MEASURED WITH RESPECT TO THE REFERENCE CHORD	
08 03 38 LEFT FORWARD (SBL)	
07 59 22 LEFT FORWARD (NBL)	

- NOTES:
- ALL ABUTMENT PILES SHALL BE 14" DIA. C.I.P. REINFORCED CONCRETE PILES.
 - INSTALL PILES 12, 35, 58, & 81 DURING PHASE 1 CONSTRUCTION. THESE PILES WILL BE INCORPORATED INTO PHASE 2 FOOTING.
 - PILES SHALL BE DRIVEN WITH A VARIATION OF NOT MORE THAN 1/8" PER FOOT FROM THE VERTICAL FOR PILES (4) TO (15), (27) TO (38), (55) TO (66), AND (78) TO (89).
 - PROVIDE PILE SPLICES FOR LENGTHS IN EXCESS OF 60 FEET.

LEGEND
 (62) INDICATES PILE NUMBER



LEFT BRIDGE - REAR ABUTMENT PLAN



LEFT BRIDGE - REAR ABUTMENT ELEVATION

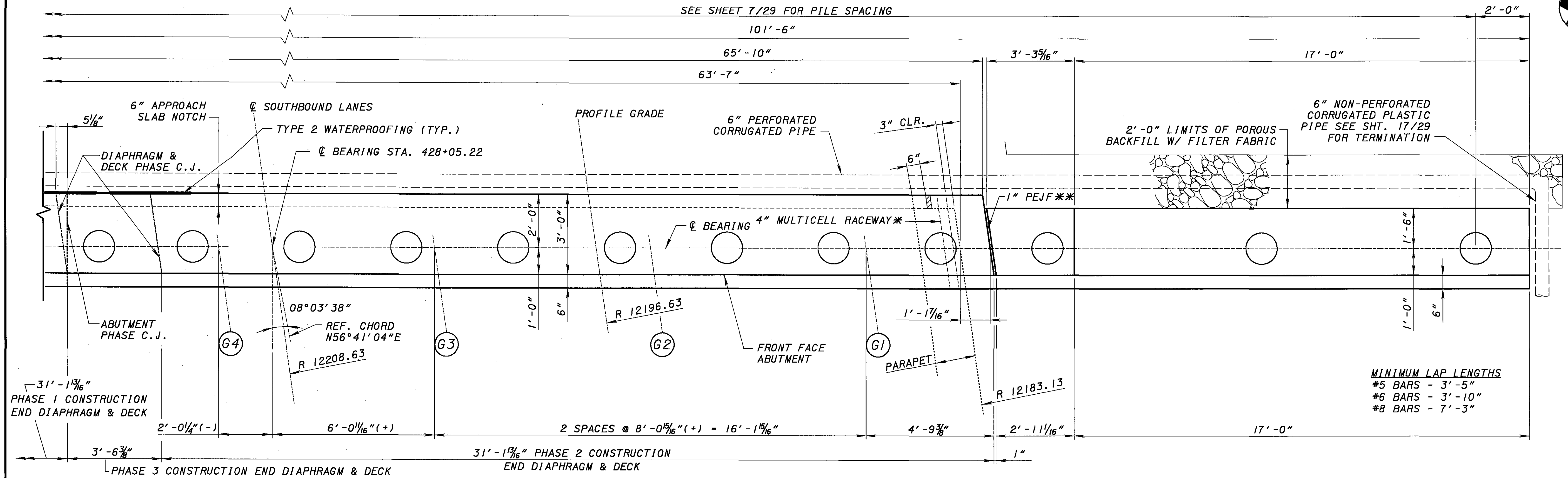
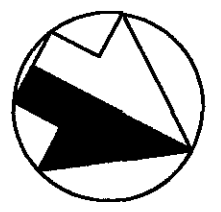
MINIMUM LAP LENGTHS
 #5 BARS - 3'-5"
 #6 BARS - 3'-10"
 #8 BARS - 7'-3"

NOTES:
 1. TOP OF DECK ELEVATIONS ARE GIVEN @ C. BEARING.
 2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.

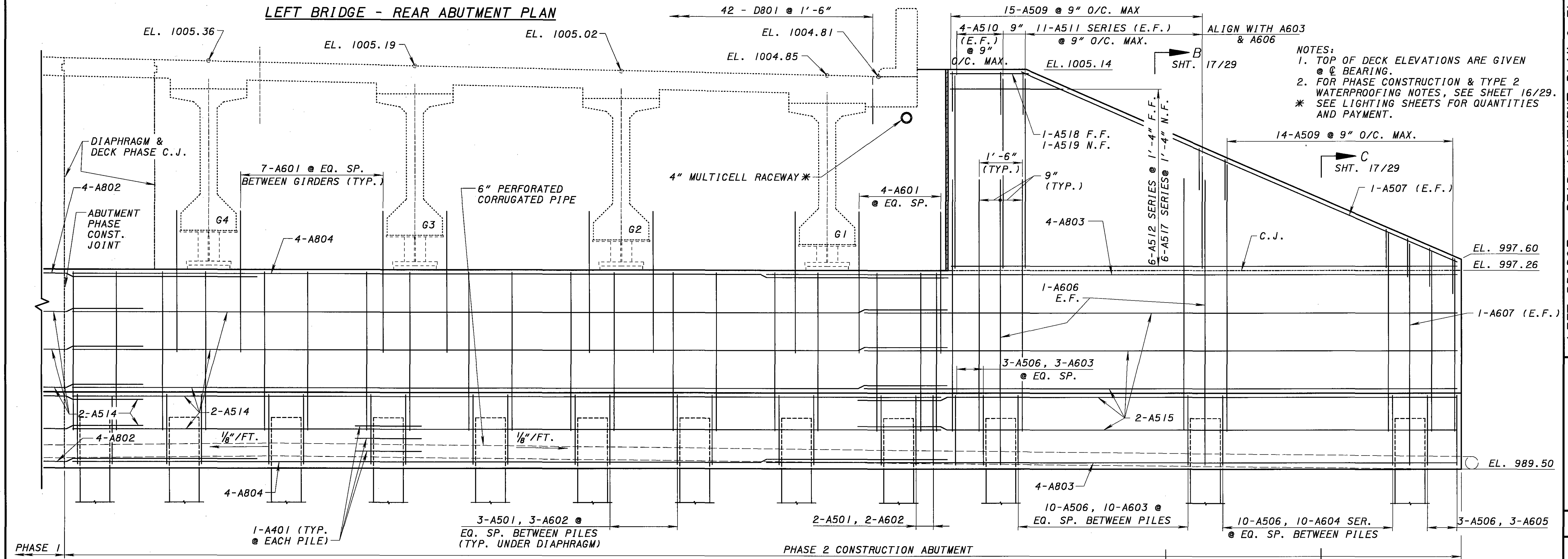
* SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT
 ** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

DESIGNED BY JNS
 CHECKED BY GKL
 DRAWN BY KVM
 REVISIONS
 DATE 02/2005
 PAS
 STRUCTURE FILE NUMBER 5202965
 MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 222 WEST WASHINGTON, CHICAGO, IL 60601
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH
 MED-71-6.06
 PID 75657
 8 / 29
 896
 1120

** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.



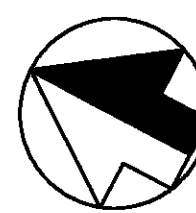
LEFT BRIDGE - REAR ABUTMENT PLAN



LEFT BRIDGE - REAR ABUTMENT ELEVATION

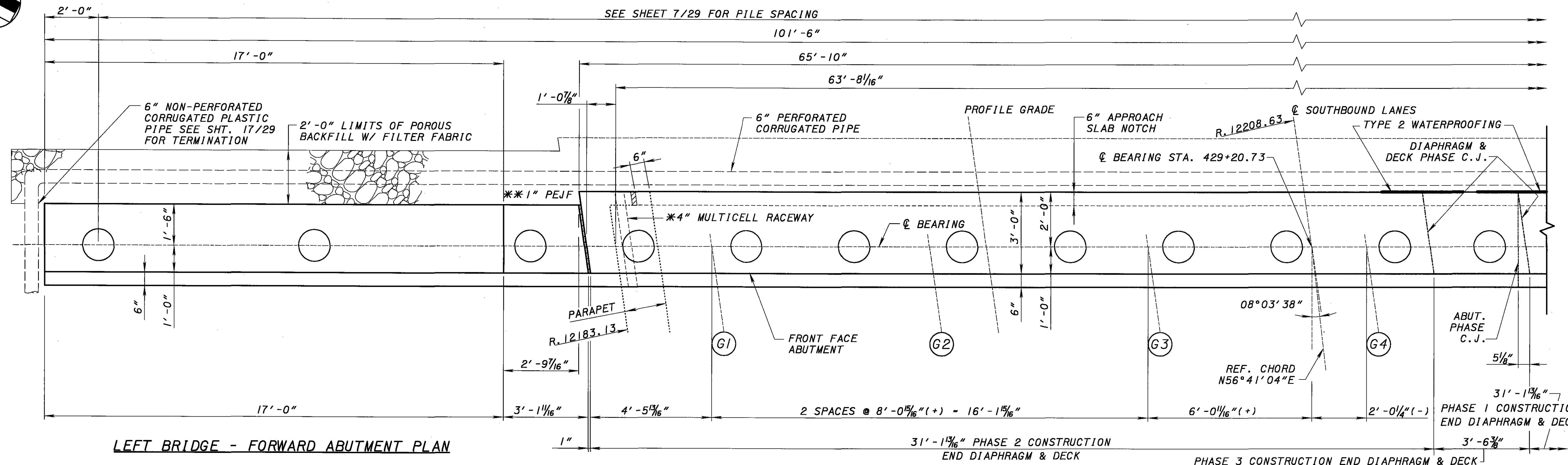
NOTES:
 1. TOP OF DECK ELEVATIONS ARE GIVEN @ C.BEARING.
 2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.
 * SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT.

PREPARED BY: MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 222 SOUTH MAIN STREET, SUITE 200, MEMPHIS, TN 38102
 DATE: 02/2005
 REVIEWED: PAS
 STRUCTURE FILE NUMBER: 5202965
 DRAWN: KVM
 REVISED:
 DESIGNED: JNS
 CHECKED: GKL
 LEFT BRIDGE - REAR ABUTMENT PLAN & ELEVATION II
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH
 MED-71-6.06
 PID 75657
 9 / 29
 897
 1120



PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, **
CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

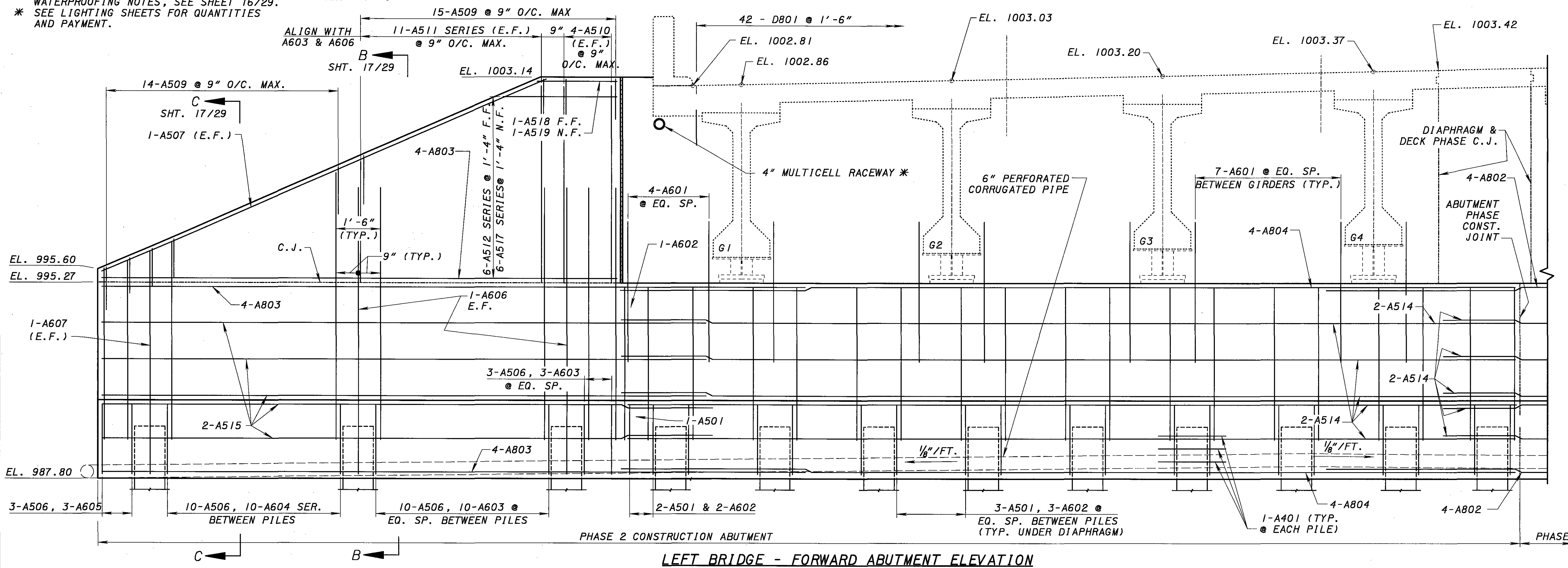
SEE SHEET 7/29 FOR PILE SPACING



LEFT BRIDGE - FORWARD ABUTMENT PLAN

- NOTES:
- TOP OF DECK ELEVATIONS ARE GIVEN @ ϕ BEARING.
 - FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.
 - SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT.

- MINIMUM LAP LENGTHS
- #5 BARS - 3'-5"
 - #6 BARS - 3'-10"
 - #8 BARS - 7'-3"

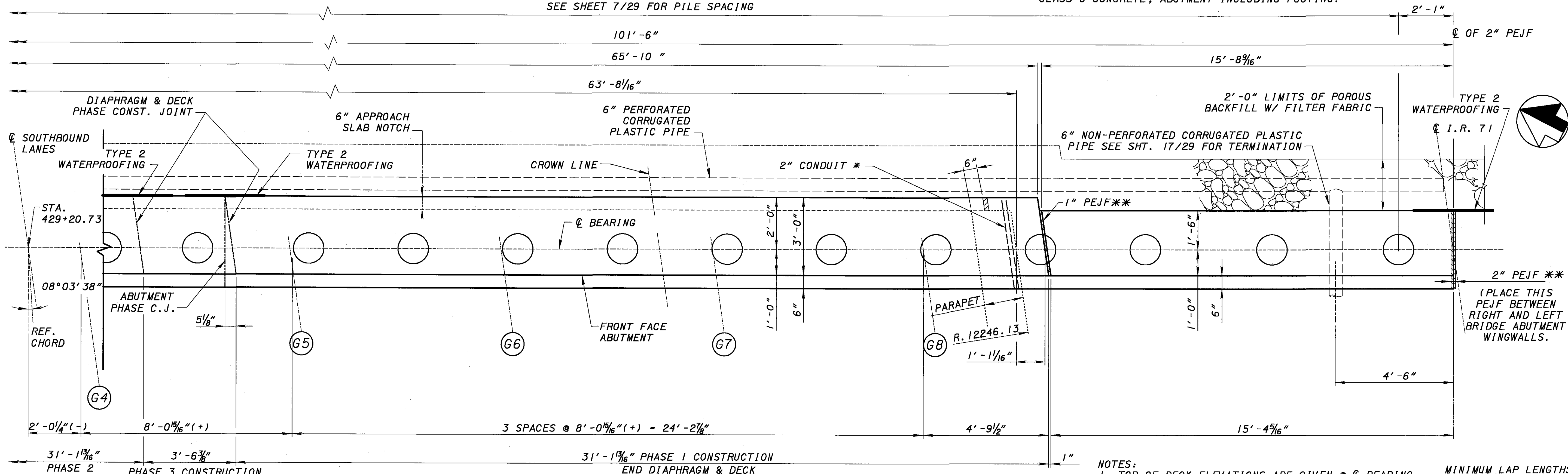


LEFT BRIDGE - FORWARD ABUTMENT ELEVATION

PREPARED BY: **ms consultants, inc.**
 CONSULTING ENGINEERS & PLANNERS
 1000 W. CHIPPewa DITCH
 CHICAGO, IL 60606
 DATE: **02/2005**
 REVIEWED: **PAS**
 DRAWN: **KVM**
 DESIGNED: **JMS**
 CHECKED: **GKL**
 STRUCTURE FILE NUMBER: **5202965 - LEFT**
LEFT BRIDGE - FORWARD ABUTMENT PLAN & ELEVATION I
 BRIDGE NO. **MED-71-0810 L/R**
1-71 OVER CHIPPEWA DITCH
MED-71-6.06
PID 75657
 10/29
 898
 120

* SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENTS. ** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

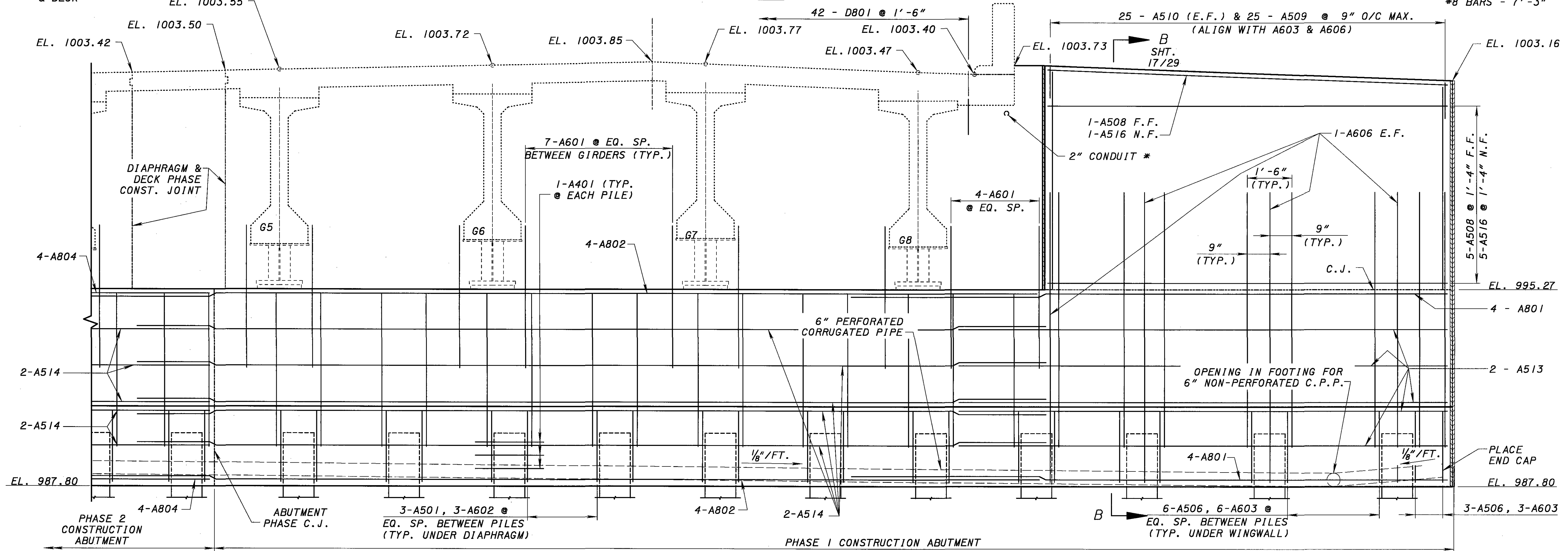
SEE SHEET 7/29 FOR PILE SPACING



LEFT BRIDGE - FORWARD ABUTMENT PLAN

NOTES:
 1. TOP OF DECK ELEVATIONS ARE GIVEN @ BEARING.
 2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.

MINIMUM LAP LENGTHS
 #5 BARS - 3'-5"
 #6 BARS - 3'-10"
 #8 BARS - 7'-3"



LEFT BRIDGE - FORWARD ABUTMENT ELEVATION

ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 5202965 - LEFT

DATE 02/2005
 REVIEWED PAS
 DRAWN KVM
 DESIGNED JNS
 CHECKED GKL

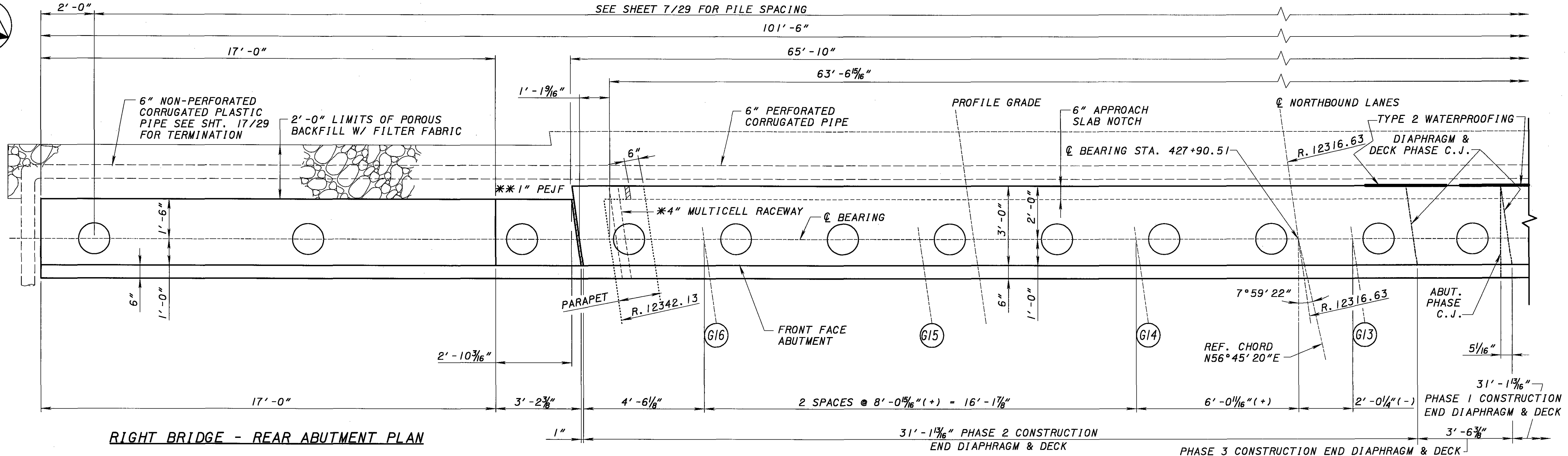
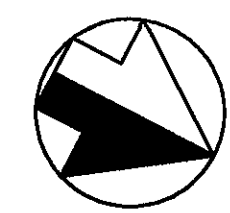
LEFT BRIDGE - FORWARD ABUTMENT PLAN & ELEVATION 11
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

11/29
 899
 1120

PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, **
CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

SEE SHEET 7/29 FOR PILE SPACING

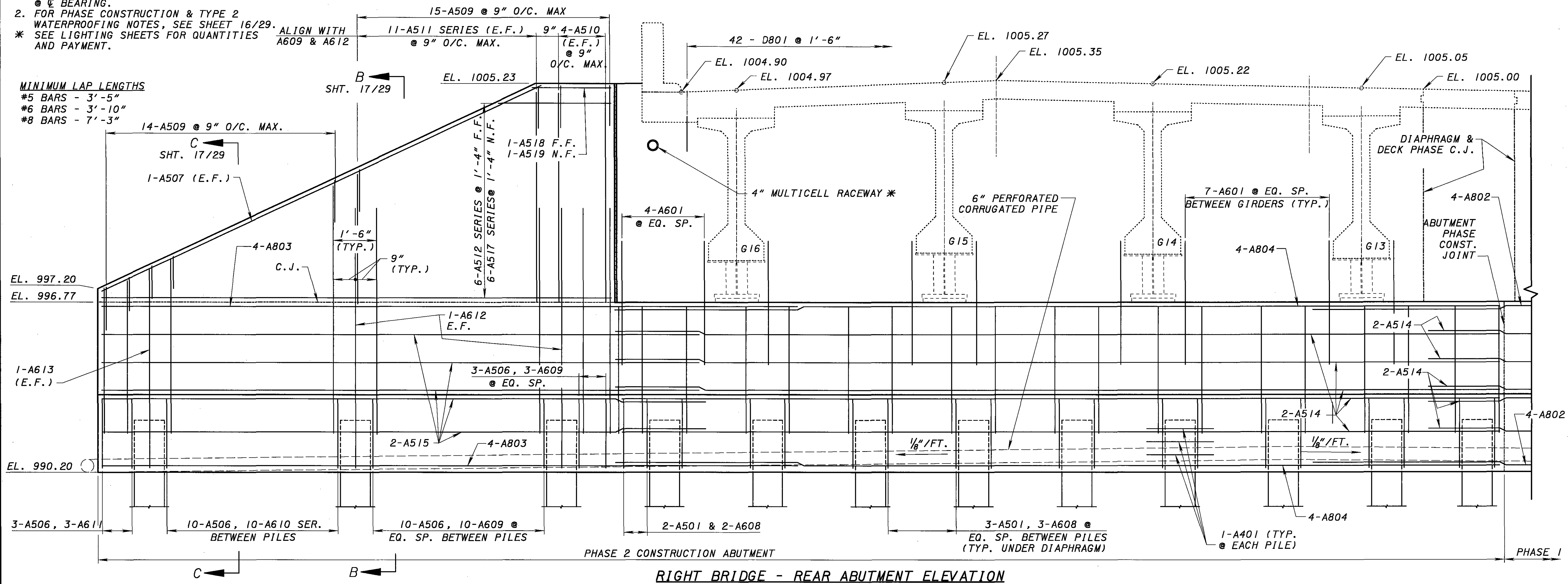


RIGHT BRIDGE - REAR ABUTMENT PLAN

- NOTES:
1. TOP OF DECK ELEVATIONS ARE GIVEN
@ ϕ BEARING.
2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.
* SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT.

MINIMUM LAP LENGTHS

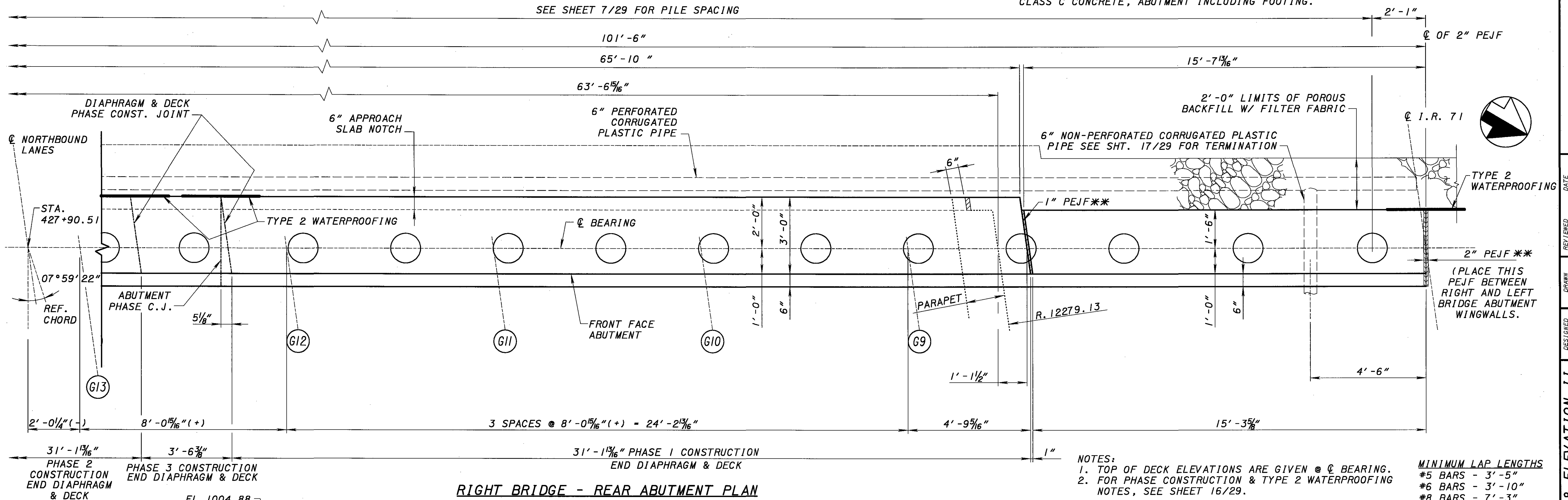
- #5 BARS - 3'-5"
- #6 BARS - 3'-10"
- #8 BARS - 7'-3"



RIGHT BRIDGE - REAR ABUTMENT ELEVATION

DESIGNED BY JNS
 CHECKED BY GKL
 DRAWN BY KVM
 REVISED BY
 PAS
 DATE 02/2005
 STRUCTURE FILE NUMBER 5203015 - RIGHT
 MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 12/29
 900
 1120
 MED-71-6.06
 PID 75657
 RIGHT BRIDGE - REAR ABUTMENT PLAN & ELEVATION I
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH

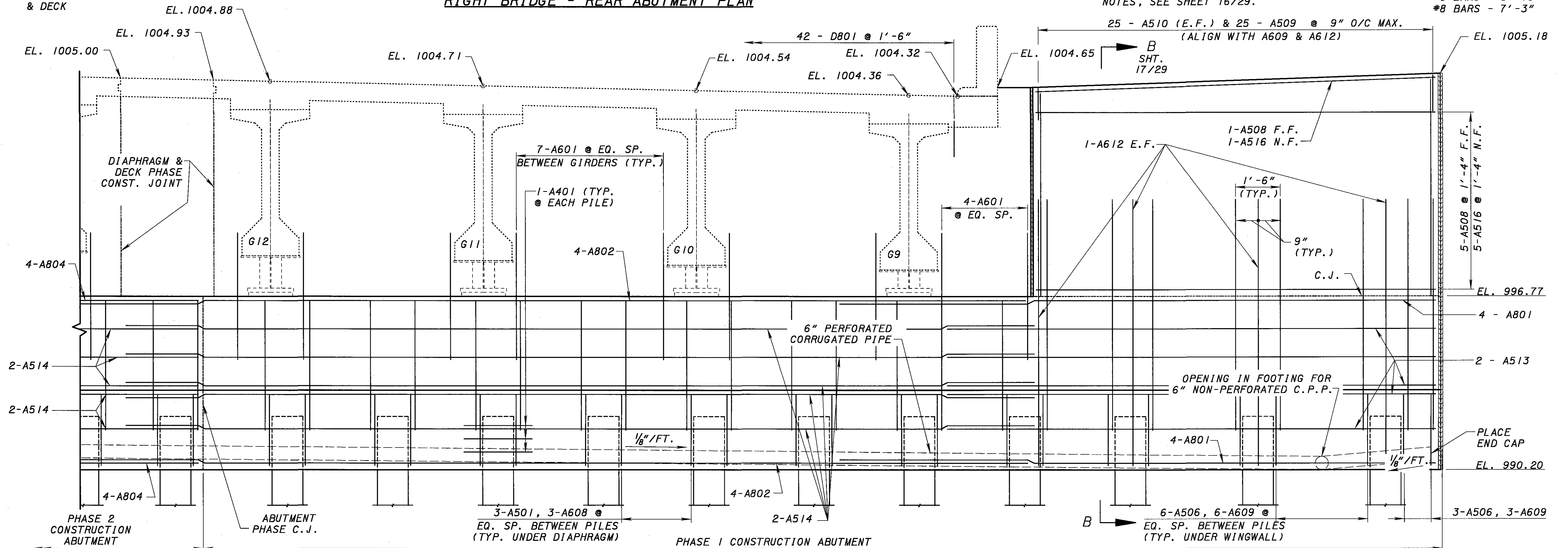
** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.



RIGHT BRIDGE - REAR ABUTMENT PLAN

NOTES:
 1. TOP OF DECK ELEVATIONS ARE GIVEN @ C BEARING.
 2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.

MINIMUM LAP LENGTHS
 #5 BARS - 3'-5"
 #6 BARS - 3'-10"
 #8 BARS - 7'-3"



RIGHT BRIDGE - REAR ABUTMENT ELEVATION

DESIGNED BY
 JNS
 CHECKED
 GKL

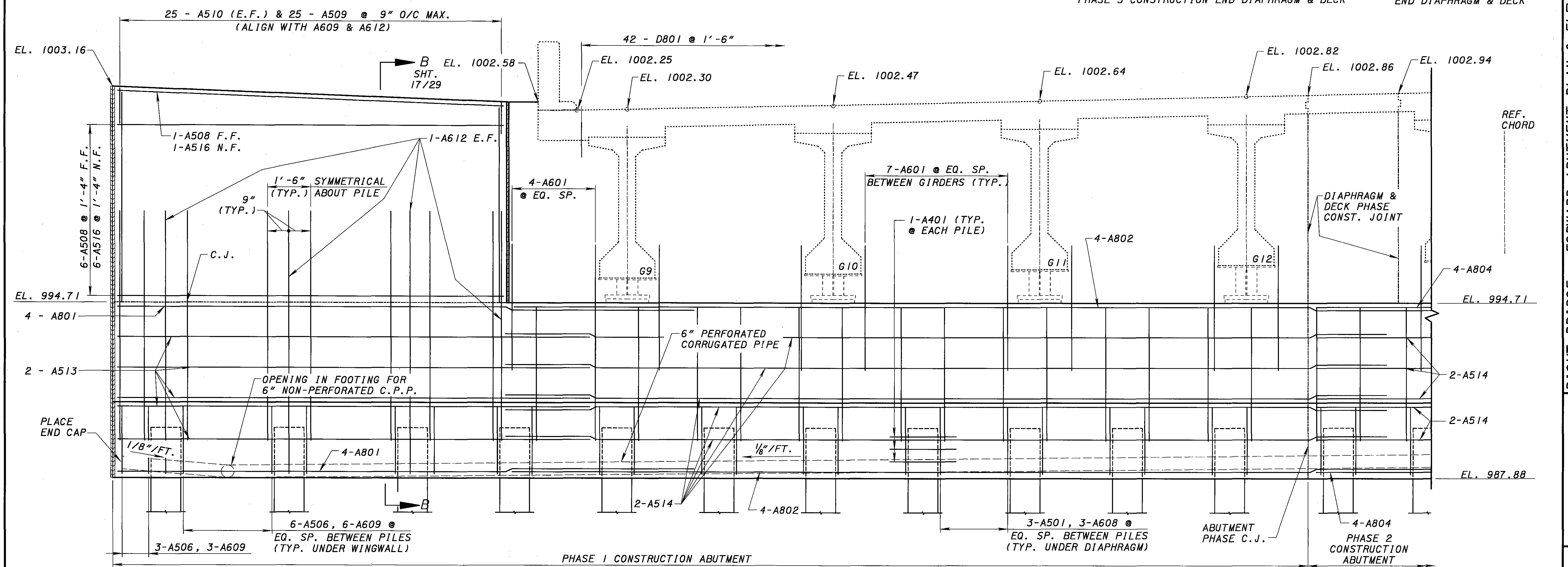
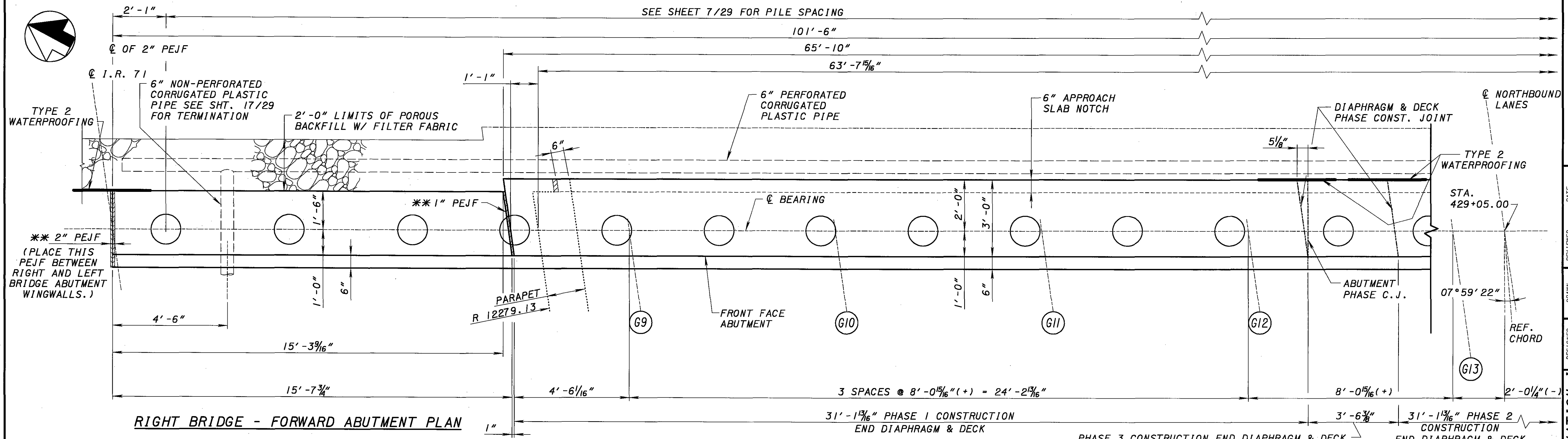
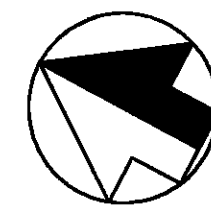
DATE
 02/2005
 REVIEWED
 PAS
 DRAWN
 KVM
 REVISIONS
 STRUCTURE FILE NUMBER
 5203015 - RIGHT

RIGHT BRIDGE - REAR ABUTMENT PLAN & ELEVATION II
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

13/29

901
 1120



MINIMUM LAP LENGTHS
 #5 BARS - 3'-5"
 #6 BARS - 3'-10"
 #8 BARS - 7'-3"

NOTES:
 1. TOP OF DECK ELEVATIONS ARE GIVEN @ C. BEARING.
 2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.

** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

DESIGNED BY JNS
 CHECKED BY GKL
 DRAWN BY KVM
 REVISED BY
 REVIEWED BY PAS
 DATE 02/2005
 STRUCTURE FILE NUMBER 5203015 - RIGHT
 PROVIDED BY MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 17100 W. BROADWAY, SUITE 200
 DENVER, CO 80233

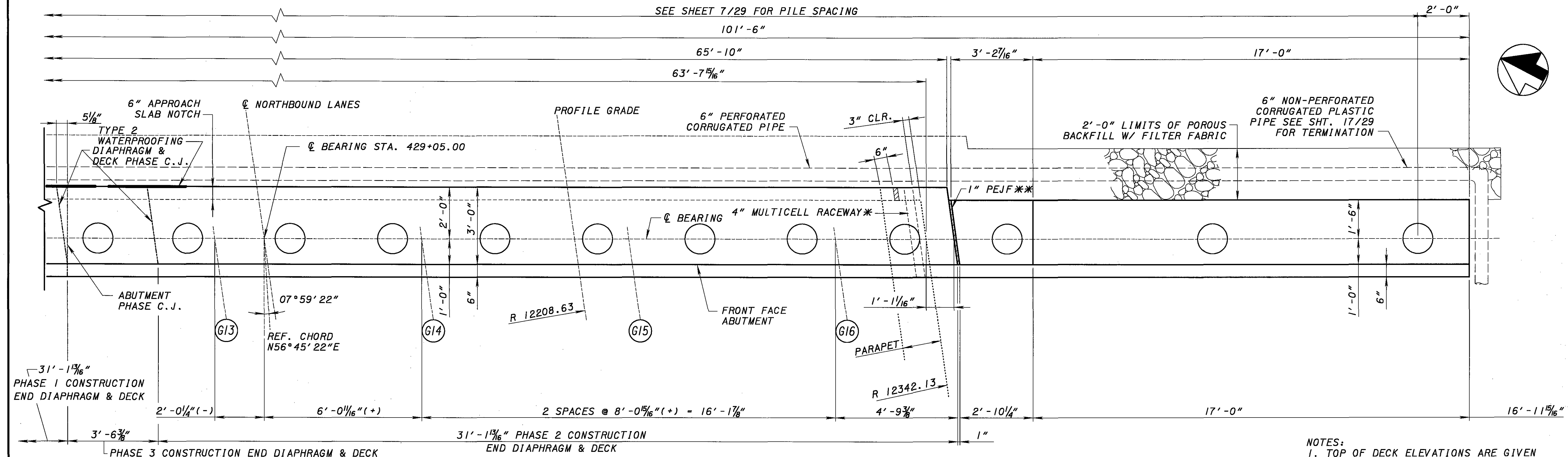
RIGHT BRIDGE - FORWARD ABUTMENT PLAN & ELEVATION 1
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

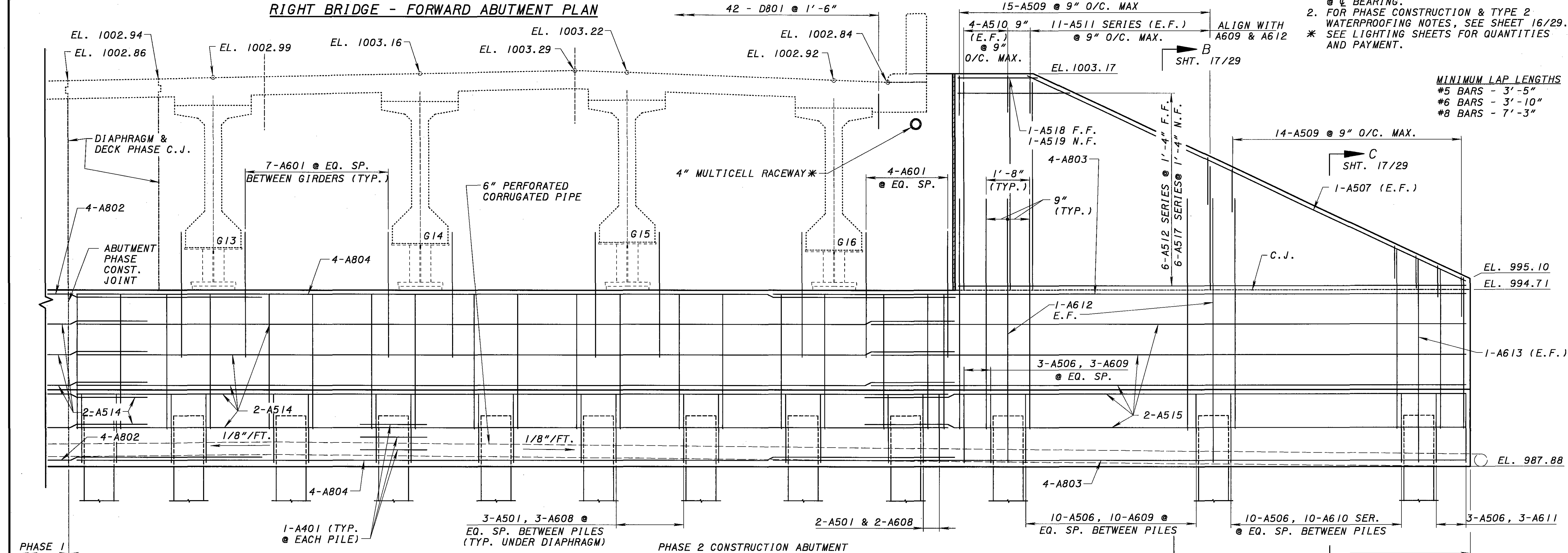
14 / 29
 902 / 120

** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

SEE SHEET 7/29 FOR PILE SPACING



RIGHT BRIDGE - FORWARD ABUTMENT PLAN

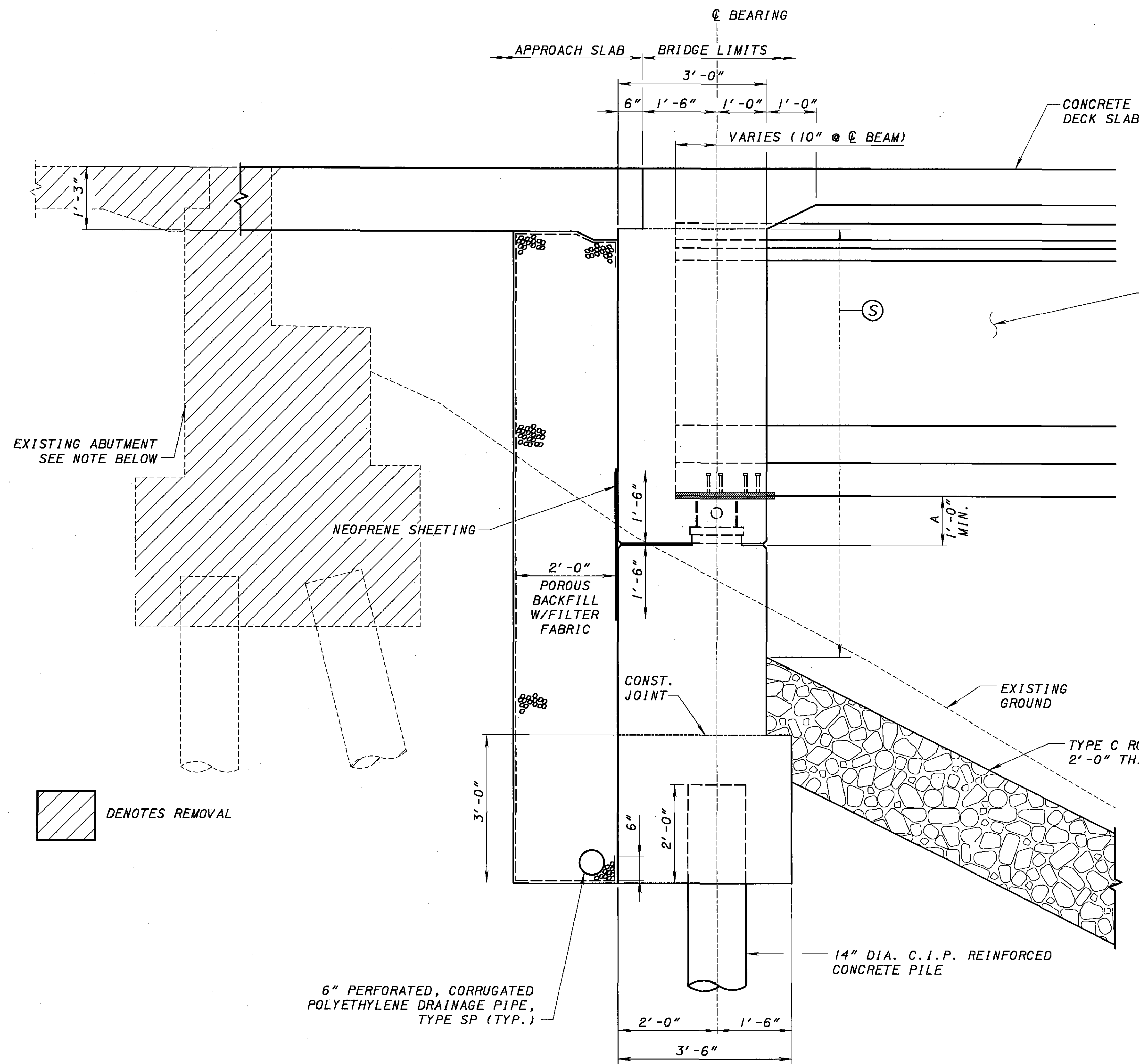


RIGHT BRIDGE - FORWARD ABUTMENT ELEVATION

- NOTES:
1. TOP OF DECK ELEVATIONS ARE GIVEN @ BEARING.
 2. FOR PHASE CONSTRUCTION & TYPE 2 WATERPROOFING NOTES, SEE SHEET 16/29.
- * SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT.

MINIMUM LAP LENGTHS
 #5 BARS - 3'-5"
 #6 BARS - 3'-10"
 #8 BARS - 7'-3"

DESIGNED BY JNS
 CHECKED BY GKL
 DRAWN BY KVM
 REVISED
 REVIEWED BY PAS
 DATE 02/2005
 STRUCTURE FILE NUMBER 5203015 - RIGHT
 PREPARED BY MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 222 SOUTH MAIN STREET, SUITE 200
 MEDFORD, MA 02155
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH
 MED-71-6.06
 PID 75657
 15/29
 903
 1120

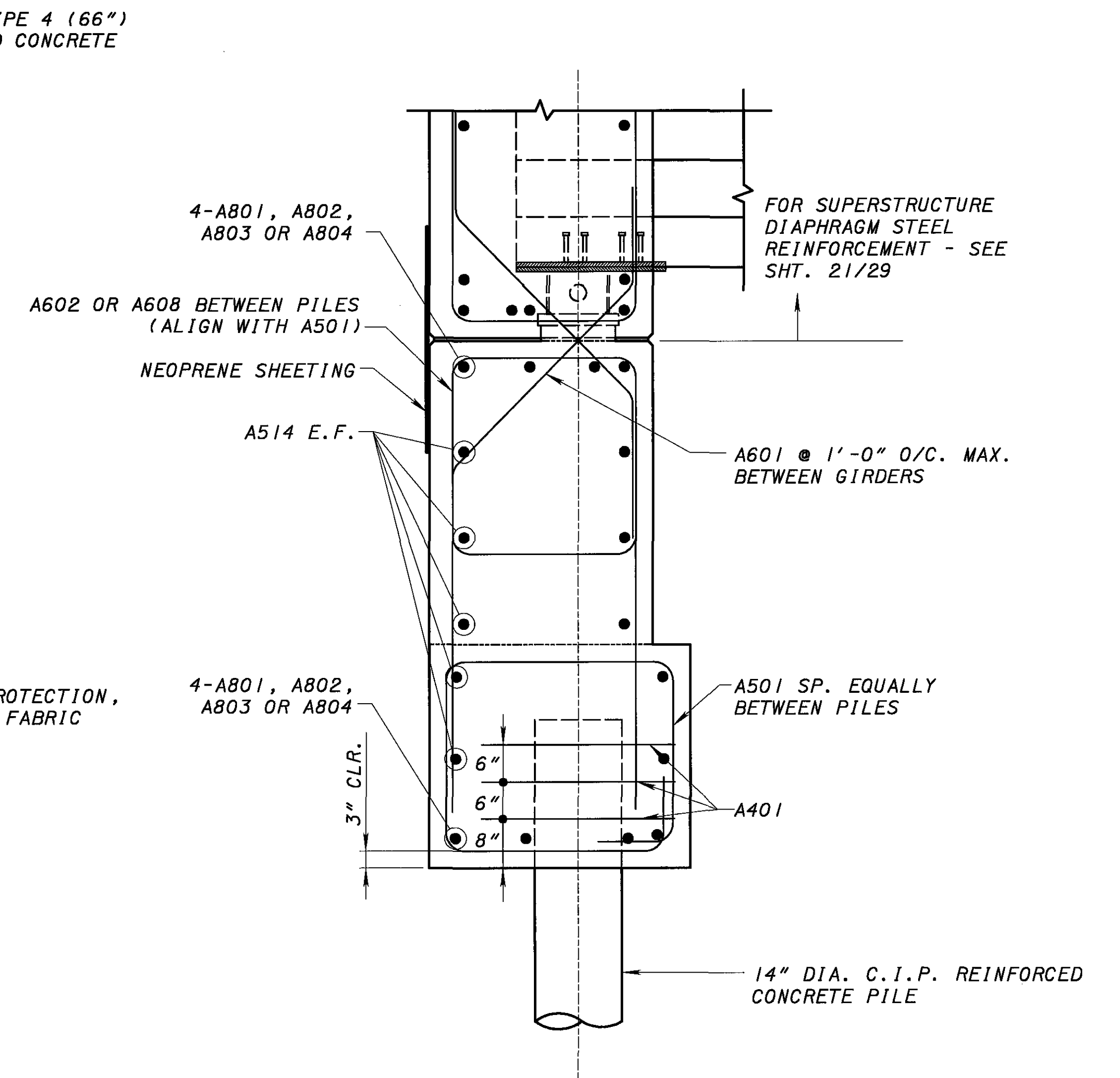


TYPICAL SECTION THRU PROPOSED ABUTMENT (DIMENSIONS)

Ⓢ DENOTES CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE.

NOTES:

1. SEE STD. DWG. ICD-1-82 FOR DETAILS NOT SHOWN.
2. IN ADDITION TO THE 4" MULTICELL RACEWAY, EXPANSION FITTING AND DEFLECTION JOINT PER MANUFACTURER DETAILED ON SHTS. 9, 10, 12, 15, 21/29, A 24" PULLBOX IS REQUIRED OFF THE BRIDGE LIMITS ON EITHER END OF THE LEFT SIDE OF THE LEFT BRIDGE AND THE RIGHT SIDE OF THE RIGHT BRIDGE. PAYMENT FOR THESE ITEMS TO BE INCLUDED WITH ITEM 625-30707, PULLBOX, 725.08, 24" AS PER PLAN.



TYPICAL SECTION THRU PROPOSED ABUTMENT (REINFORCING)

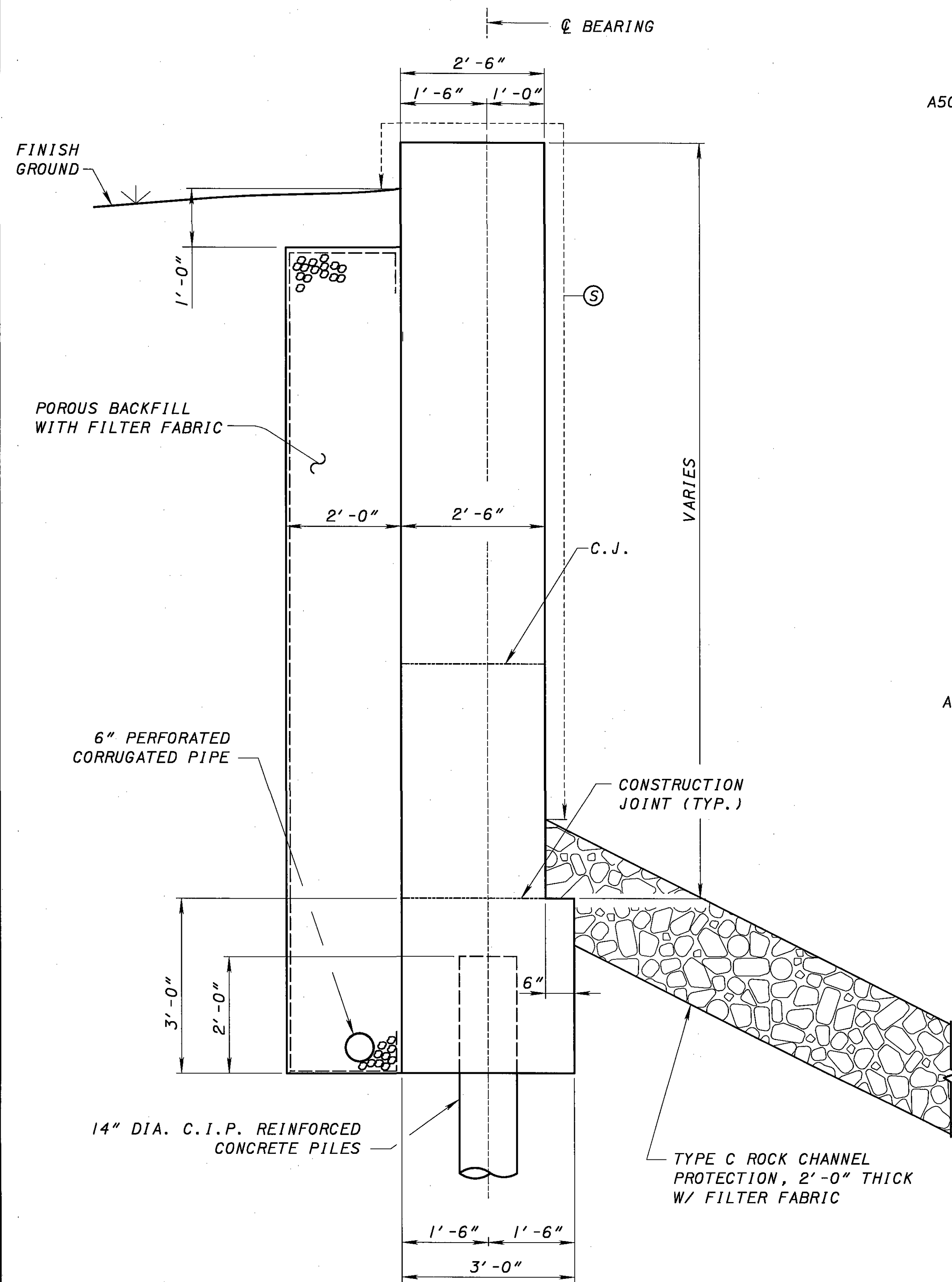
PHASED CONSTRUCTION AND TYPE 2 WATERPROOFING NOTES:

PLACE ABUTMENT DIAPHRAGM CONCRETE ENCASEING PRESTRESSED I-BEAM MEMBERS AT THE SAME TIME AS THE DECK CONCRETE OF AN INDIVIDUAL CONSTRUCTION PHASE TO ALLOW FOR EXPECTED DEAD LOAD ROTATION AT THE ABUTMENTS.

UNLESS OTHERWISE NOTED, HORIZONTAL BARS IN THE ABUTMENT DIAPHRAGM WILL PROTRUDE FROM PHASE I CONSTRUCTION, THRU PHASE III CONSTRUCTION AND INTO PHASE II CONSTRUCTION. SEE SHT. 21/29 FOR NOTES SPECIFIC TO PLACEMENT OF S803, S804 BARS.

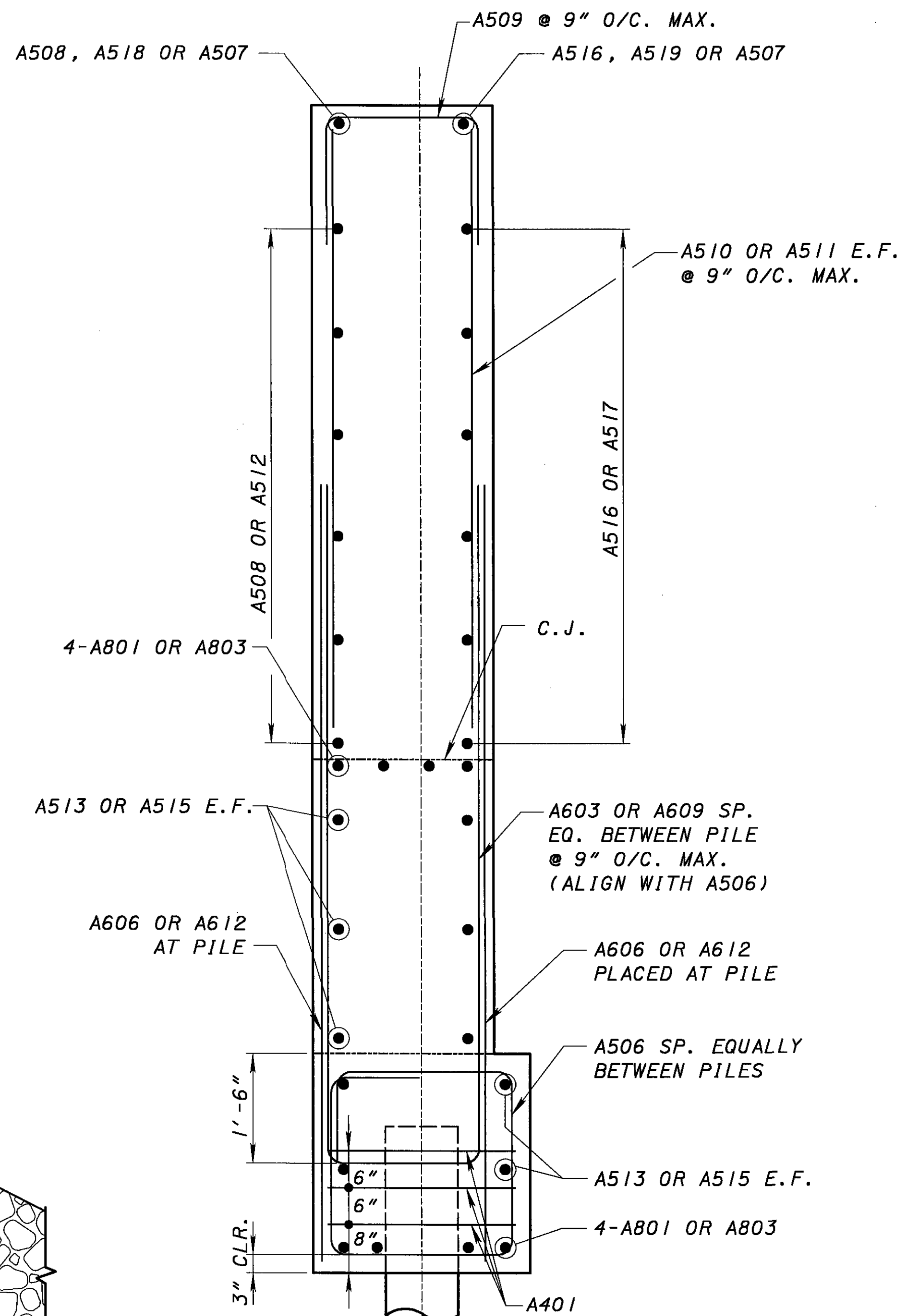
SEAL EACH VERTICAL JOINT BETWEEN CONSTRUCTION PHASES ON THE BACKSIDE OF ABUTMENT BREASTWALL AND DIAPHRAGMS FROM TOP OF FOOTING TO THE APPROACH SLAB SEAT WITH ITEM 512, TYPE 2 WATERPROOFING, 3' WIDE CENTERED ON THE JOINT.

SEAL EACH VERTICAL JOINT BETWEEN LEFT BRIDGE & RIGHT BRIDGE ON THE BACKSIDE OF THE WINGWALLS EXTENDING THE FULL HEIGHT OF THE JOINT TO TOP OF FOOTING WITH ITEM 512, TYPE 2 WATERPROOFING, 3'-0" WIDE CENTERED OVER THE JOINT.

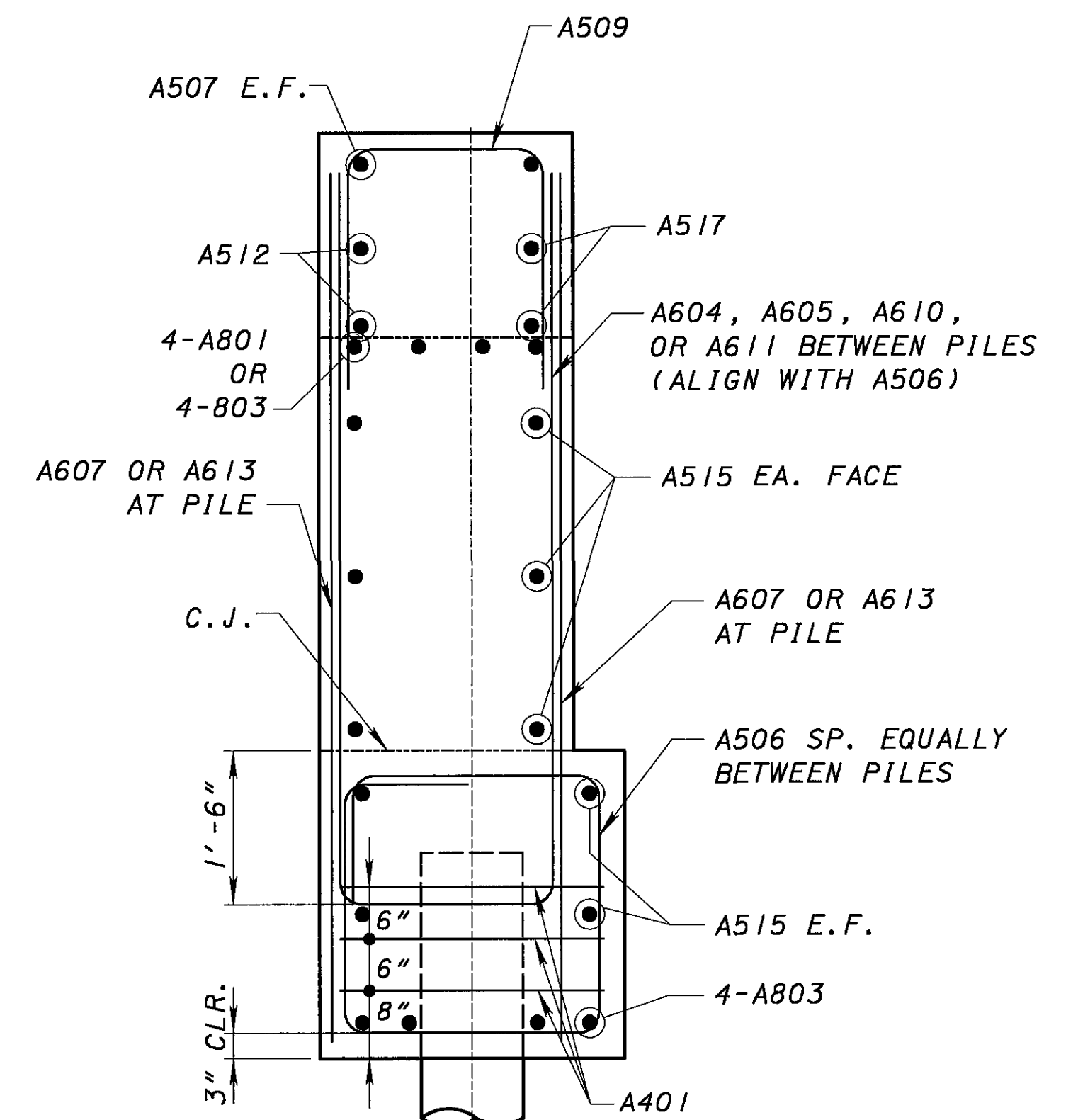


WINGWALL SECTIONS B-B, C-C (DIMENSIONS)

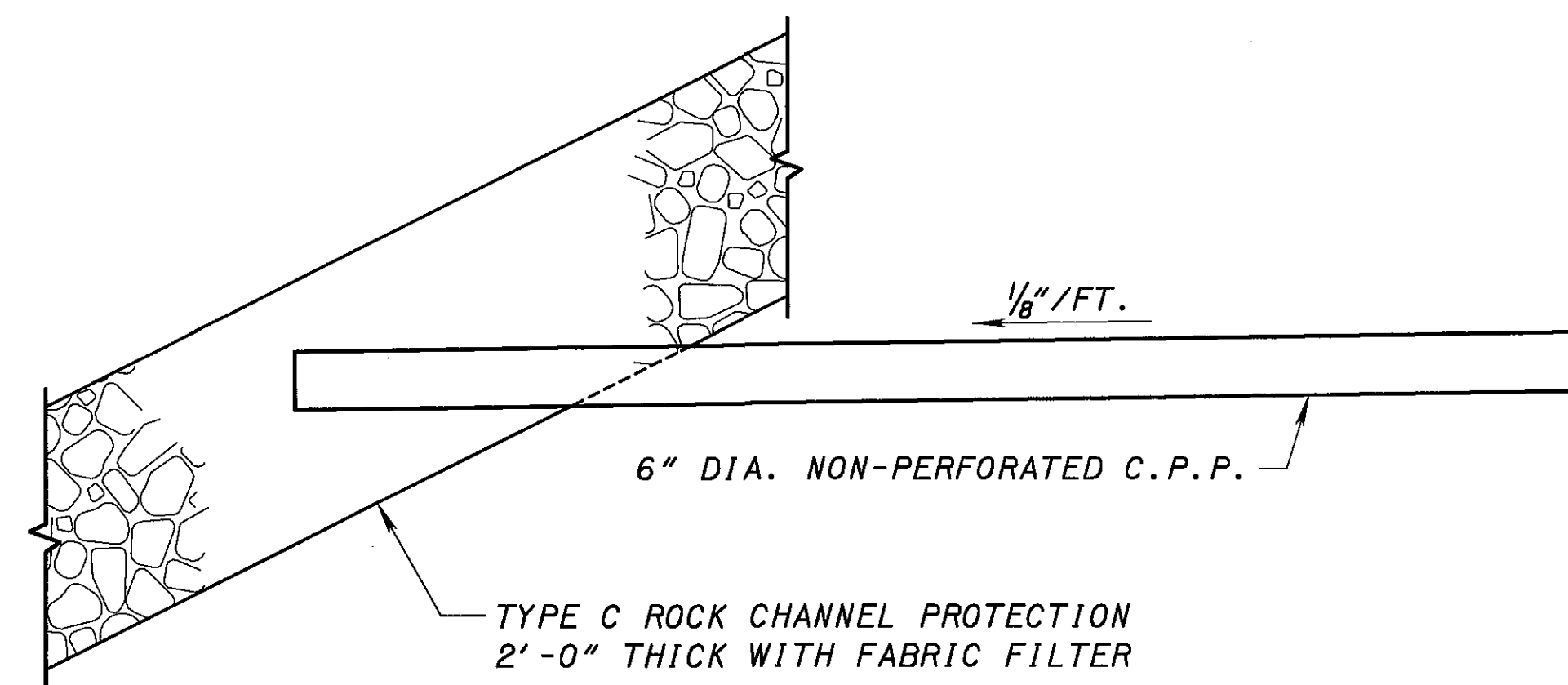
Ⓢ DENOTES CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE.



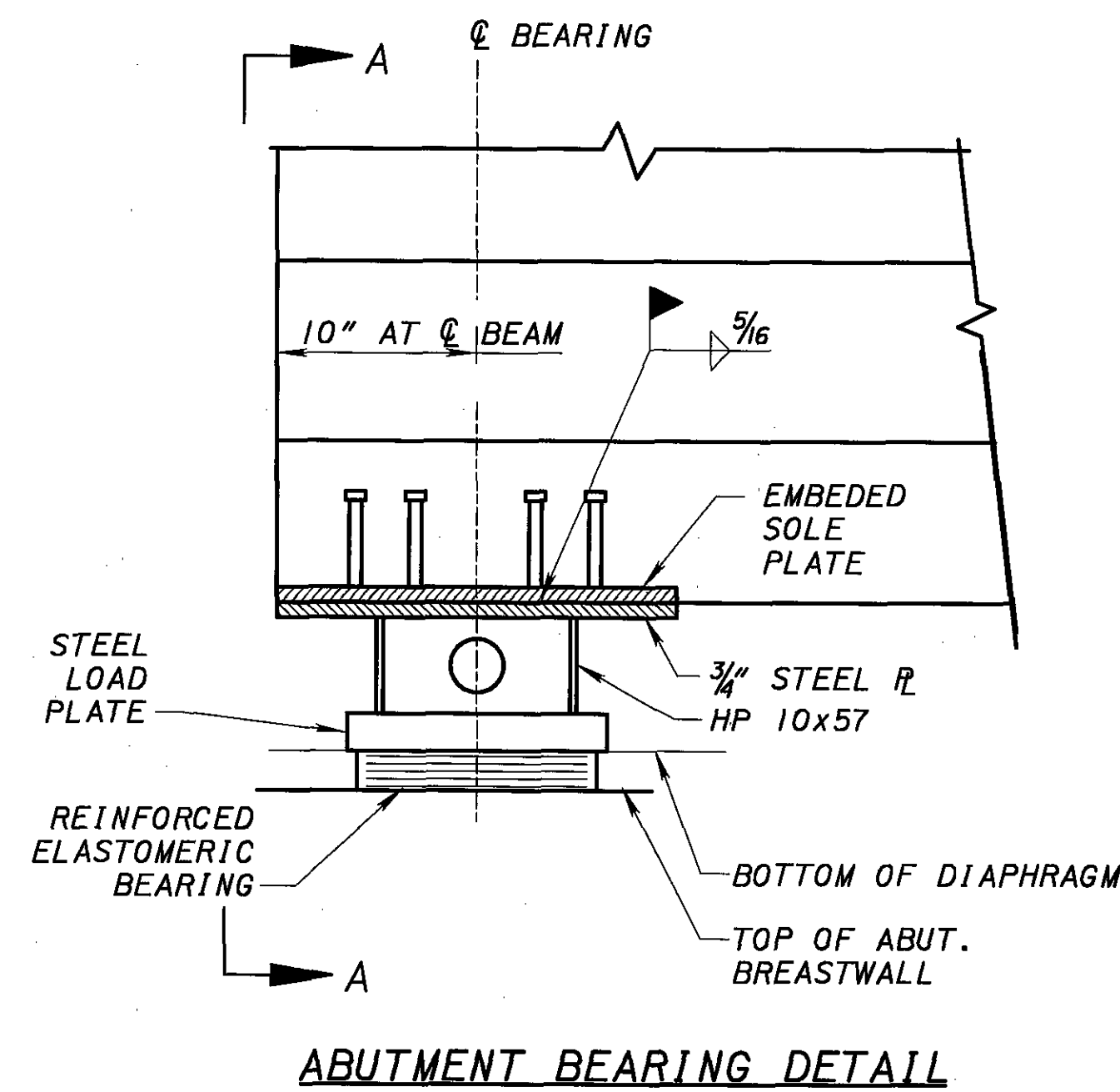
WINGWALL SECTION B-B (REINFORCING)



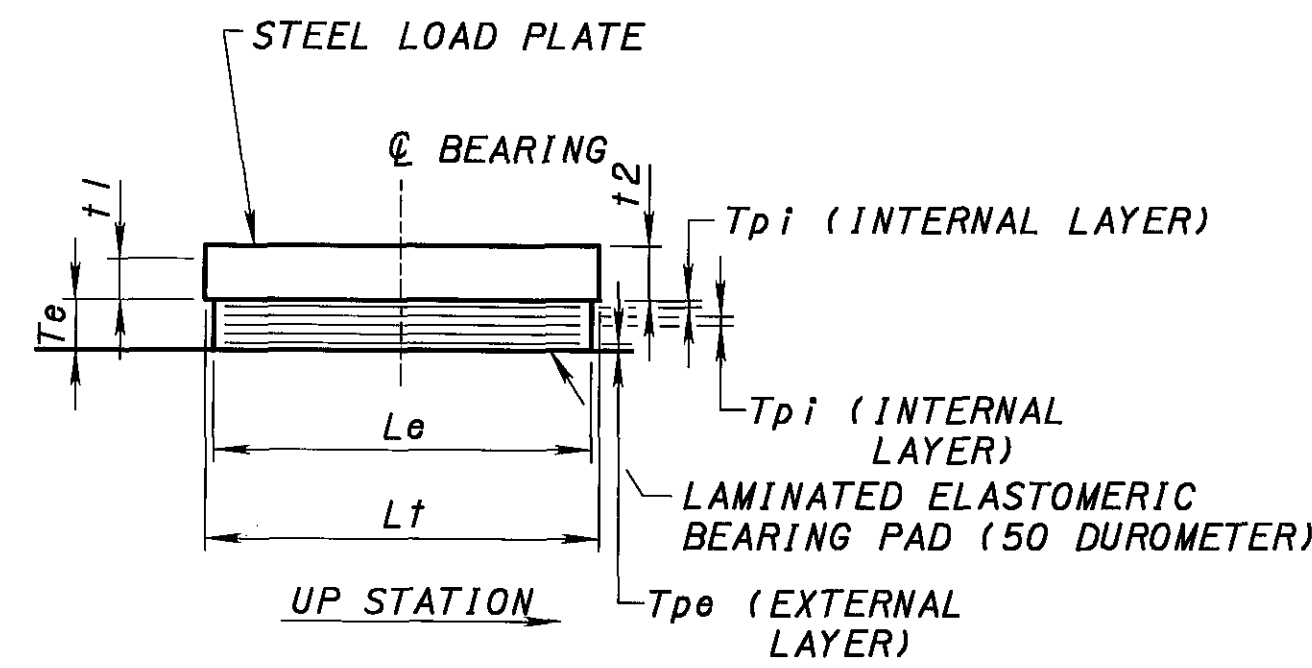
WINGWALL SECTION C-C (REINFORCING)



TERMINATION OF 6" N.P.C.P.P. DETAIL



ABUTMENT BEARING DETAIL



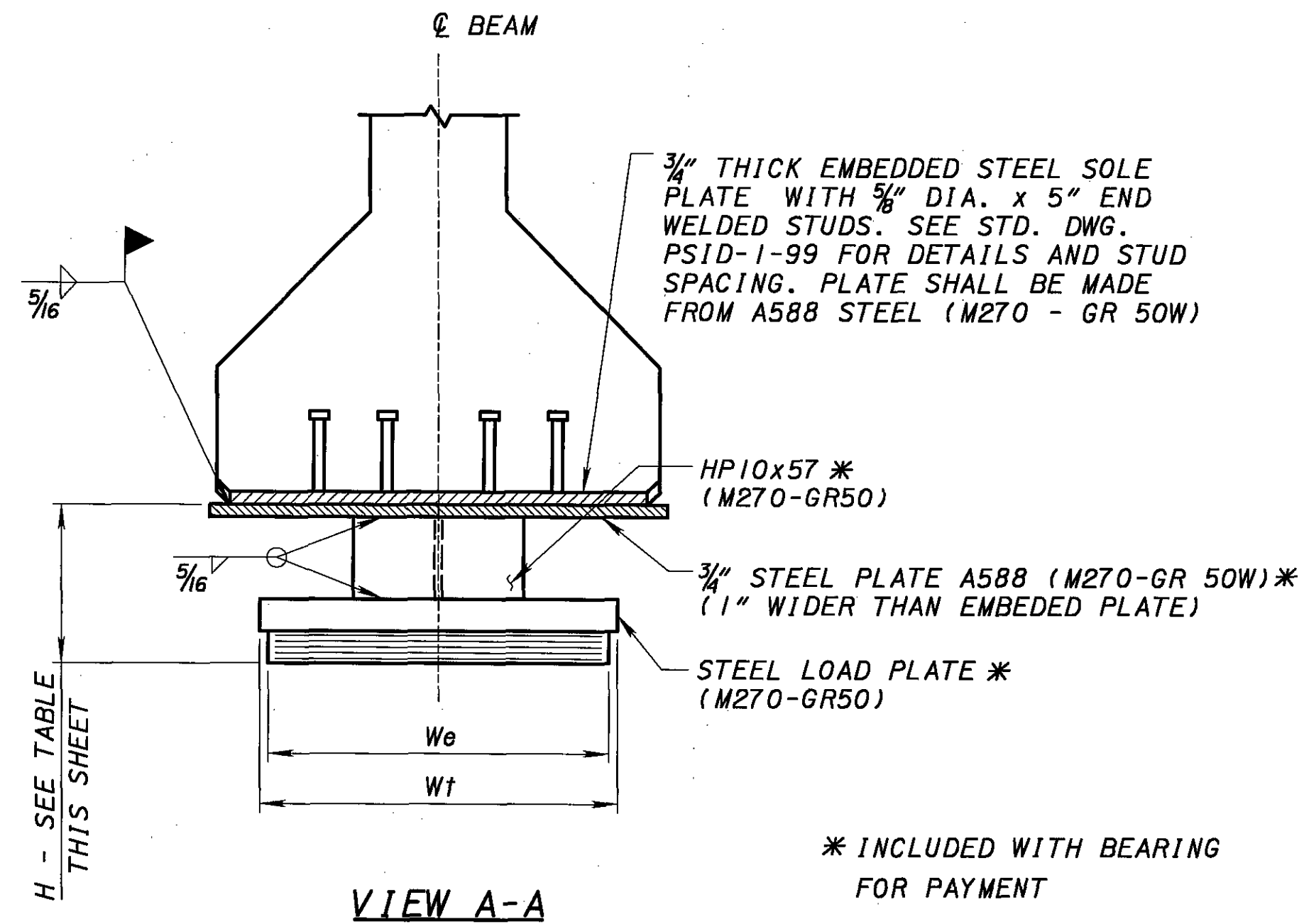
STEEL LOAD PLATE & BEARING PAD DETAIL

NOTES:

WELDING:
CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMERIC BONDED SURFACE DOES NOT EXCEED 300 DEGREES FARENHEIT AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE DEVICES.

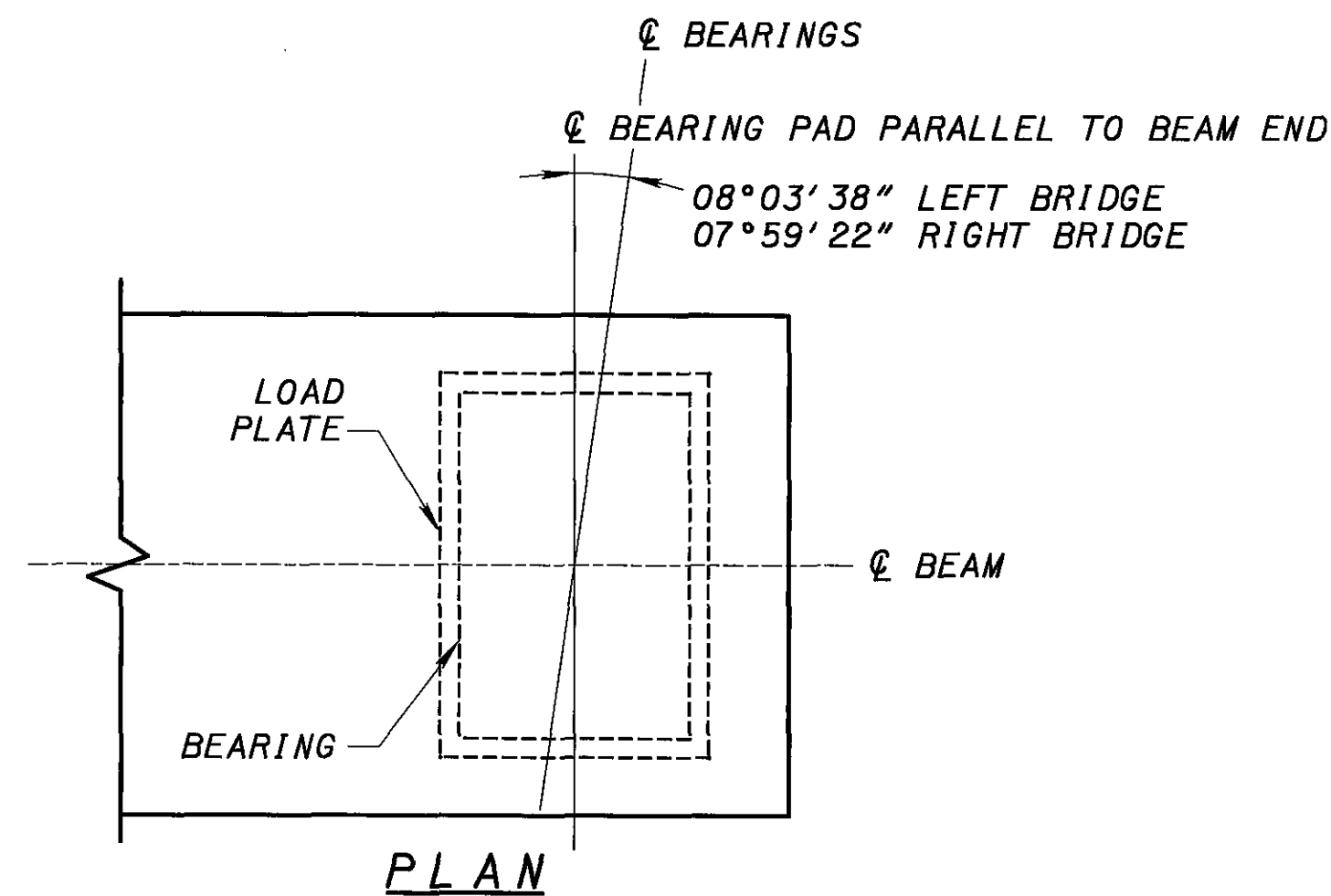
ELASTOMERIC BEARINGS:
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.



VIEW A-A

* INCLUDED WITH BEARING FOR PAYMENT

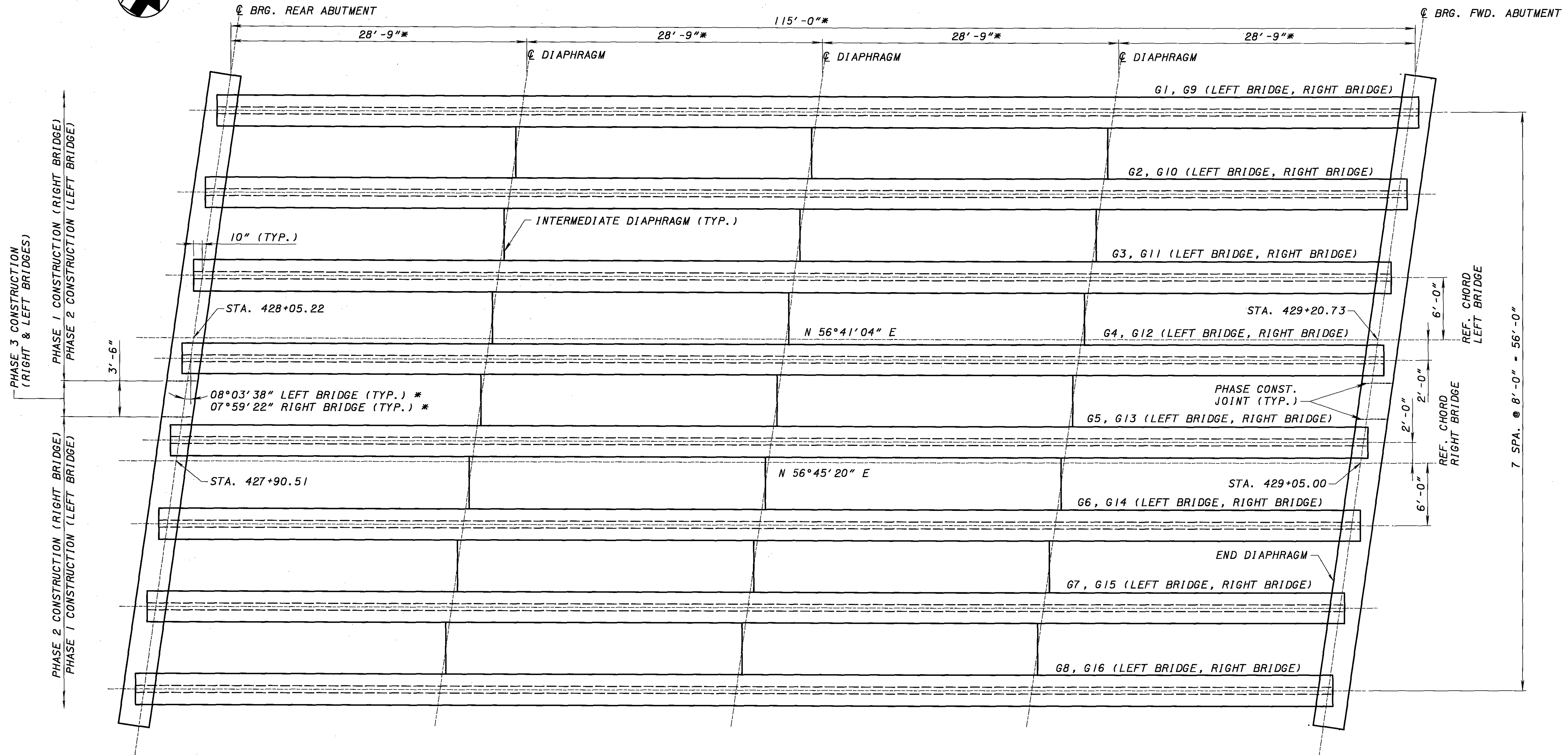
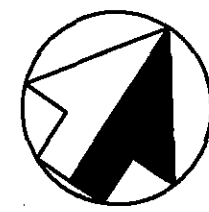


PLAN

BEARING ASSEMBLY HEIGHT "H" REAR & FORWARD ABUTMENTS							
G1, G9	G2, G10	G3, G11	G4, G12	G5, G13	G6, G14	G7, G15	G8, G16
1'-0"	1'-2 1/8"	1'-4 1/8"	1'-6 3/16"	1'-8 1/4"	1'-10 1/4"	1'-10 5/16"	1'-7 5/16"

BEARING LOCATION	BEARING TYPE	NO. REQ'D.	UNFACTORED LOADS			Le (inches)	We (inches)	Tpi (inches)	NO. OF Tpi's	Tpe (1 @ BOT) (inches)	NUMBER OF INTERNAL STEEL LAMINATES (14 GAGE)	Te (inches)	STEEL LOAD PLATE			
			DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (DL + LL) (KIPS)								Lt (inches)	Wt (inches)	t1 (inches)	t2 (inches)
LEFT BRIDGE REAR ABUTMENT	REINFORCED ELASTOMERIC	8	151.31	72.36	223.67	12	20	.375	6	0.125	6	2.823	14	22	2	2
LEFT BRIDGE FORWARD ABUTMENT	REINFORCED ELASTOMERIC	8	151.31	72.36	223.67	12	20	.375	6	0.125	6	2.823	14	22	2.25	2
RIGHT BRIDGE REAR ABUTMENT	REINFORCED ELASTOMERIC	8	151.31	72.36	223.67	12	20	.375	6	0.125	6	2.823	14	22	2	2
RIGHT BRIDGE FORWARD ABUTMENT	REINFORCED ELASTOMERIC	8	151.31	72.36	223.67	12	20	.375	6	0.125	6	2.823	14	22	2.25	2

ms consultants, inc.
 CONSULTING ENGINEERS & ARCHITECTS
 5202965 - LEFT
 5203015 - RIGHT
 DATE 02/2005
 REVISED PAS
 STRUCTURE FILE NUMBER 5202965
 DRAWN KVM
 DESIGNED PAS
 CHECKED JVS
 BEARING DETAILS
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH
 MED-71-6.06
 PID 75657
 18/29
 906
 1120



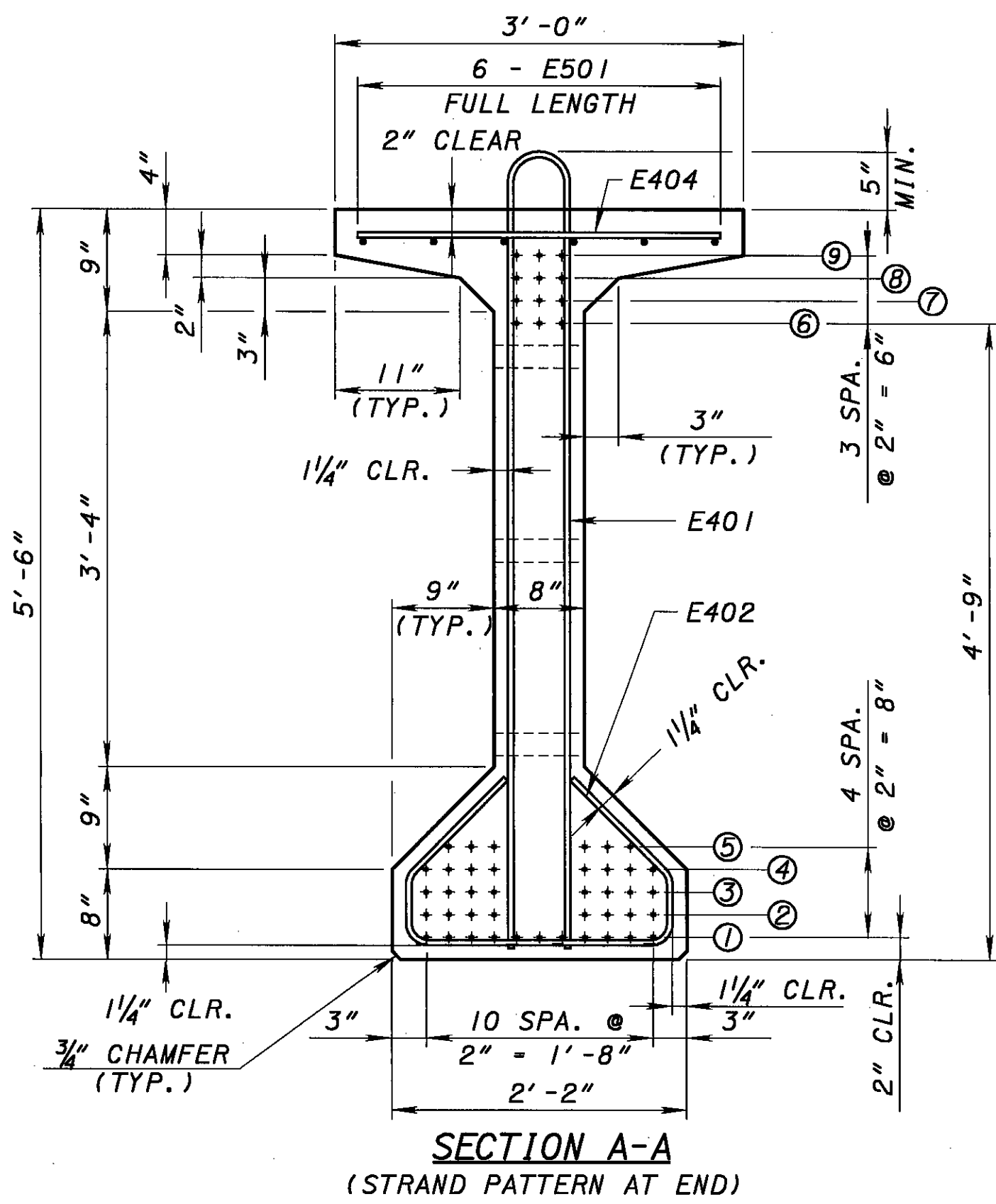
PHASE 3 CONSTRUCTION (RIGHT & LEFT BRIDGES)
 PHASE 1 CONSTRUCTION (RIGHT BRIDGE)
 PHASE 2 CONSTRUCTION (LEFT BRIDGE)
 PHASE 2 CONSTRUCTION (RIGHT BRIDGE)
 PHASE 1 CONSTRUCTION (LEFT BRIDGE)

FRAMING PLAN
 * MEASURED WITH RESPECT TO REFERENCE CHORD

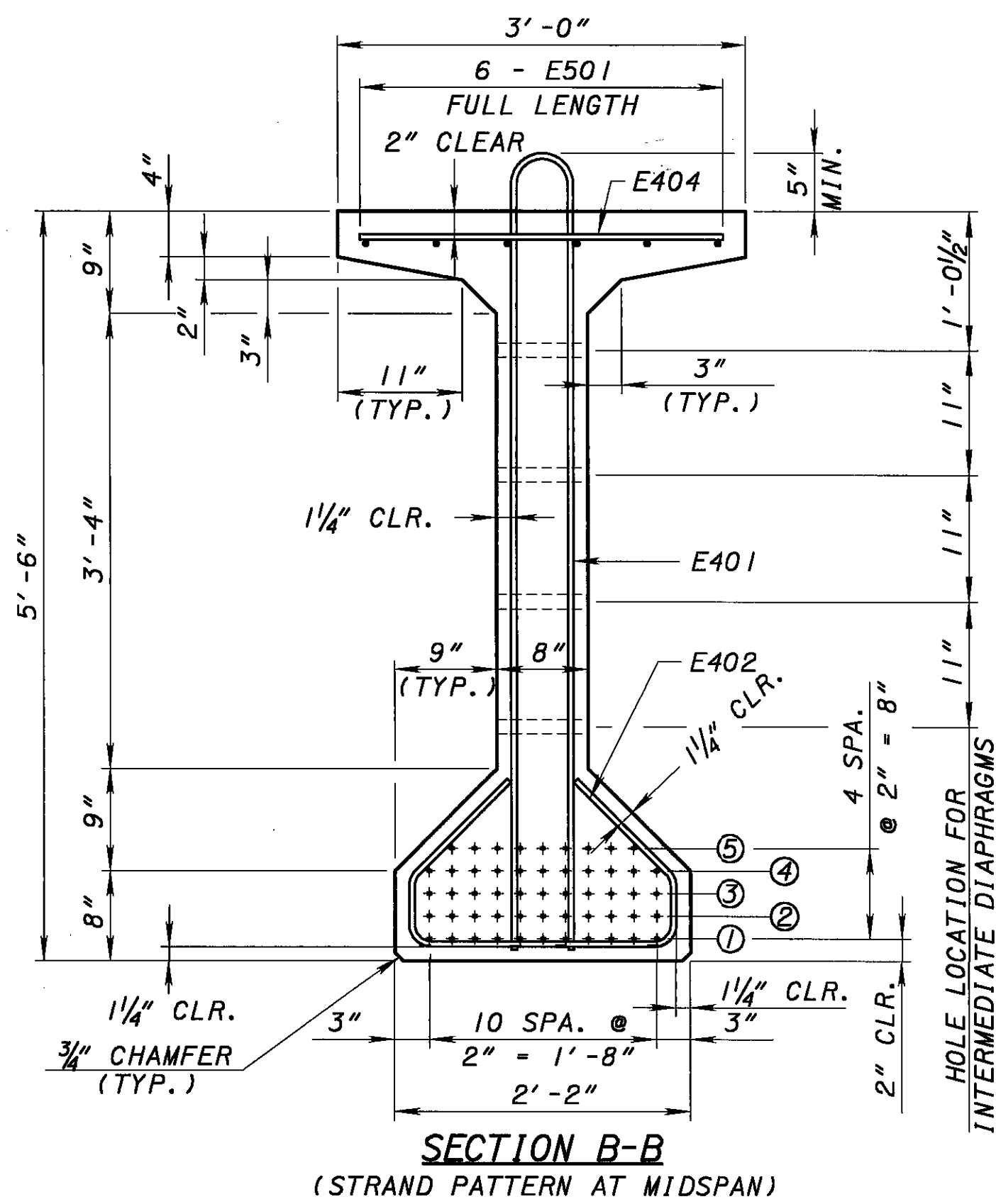
DATE	02/2005
REVIEWED	PAS
DESIGNED	PAS
CHECKED	JWS
DRAWN	KVM
REVISED	
STRUCTURE FILE NUMBER	5202965 - LEFT
	5203015 - RIGHT

FRAMING PLAN
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657



SECTION A-A
(STRAND PATTERN AT END)



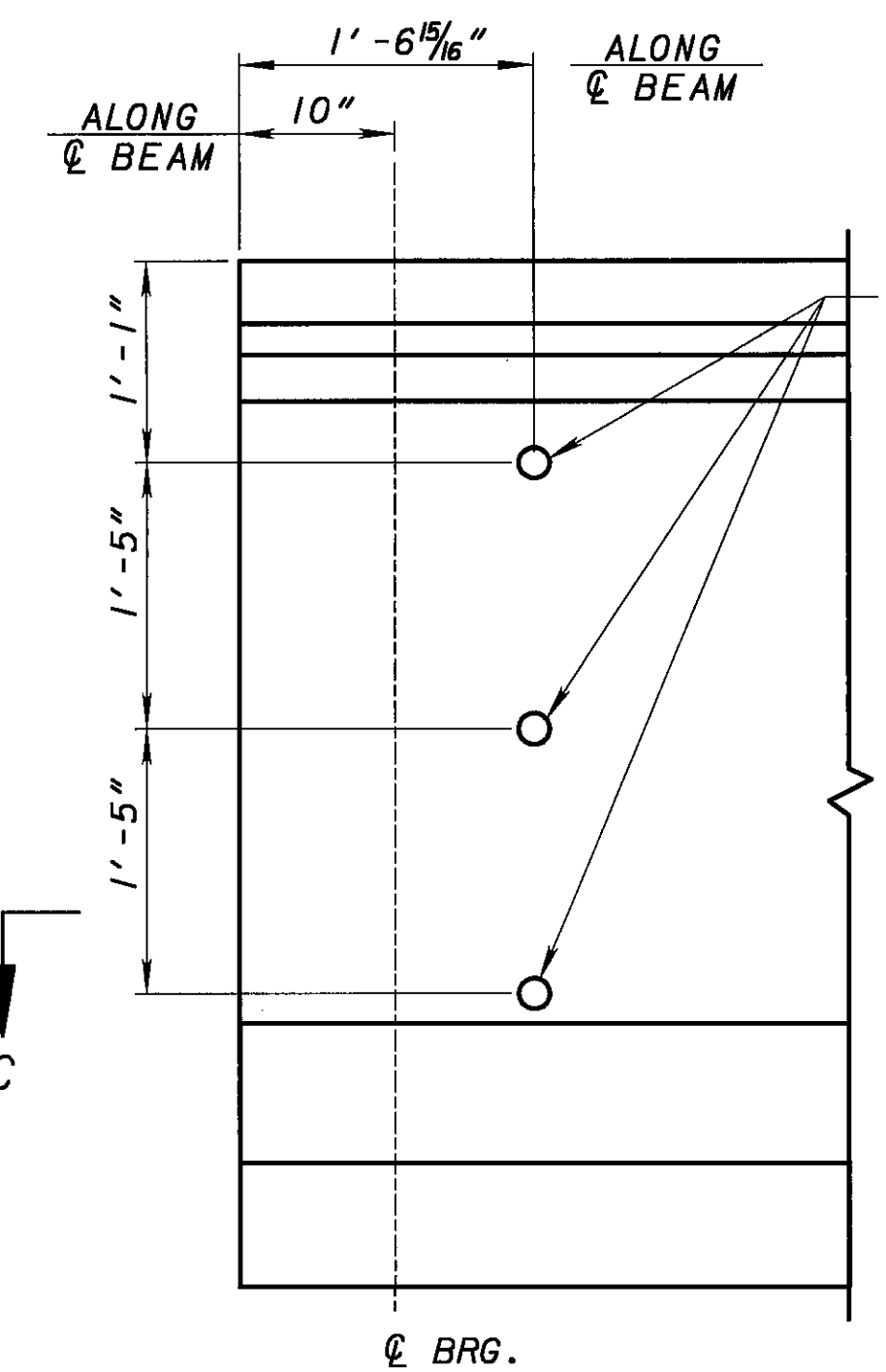
SECTION B-B
(STRAND PATTERN AT MIDSPAN)

STRAND DATA

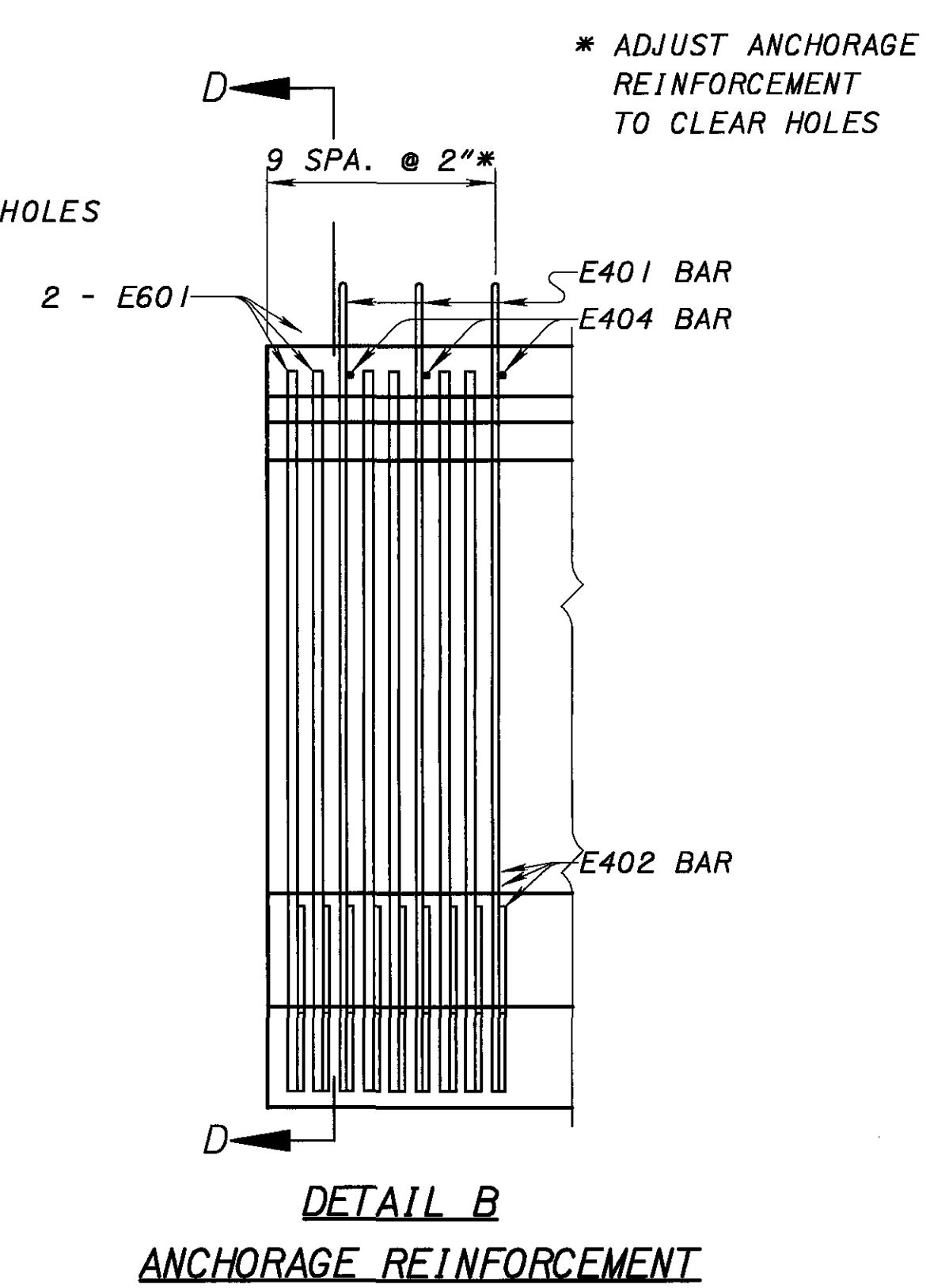
STRANDS SHALL BE LOW-RELAXATION 1/2 INCH DIAMETER (As=0.167 IN²) SEVEN WIRE UNCOATED STRANDS, ASTM A416, GRADE 270.

BEAM MARK	LOCATION	NUMBER OF STRANDS PER ROW									TOTAL STRANDS	CONCRETE STRENGTHS		E401 BARS REQ'D	E402 BARS REQ'D	E404 BARS REQ'D	E601 BARS REQ'D
		①	②	③	④	⑤	⑥	⑦	⑧	⑨		f'ci	f'c				
G1-G16	AT ENDS	11	8	8	8	6	3	3	3	3	53	5.5	7	117	117	117	24
G1-G16	MIDSPAN	11	11	11	11	9	-	-	-	-	53						

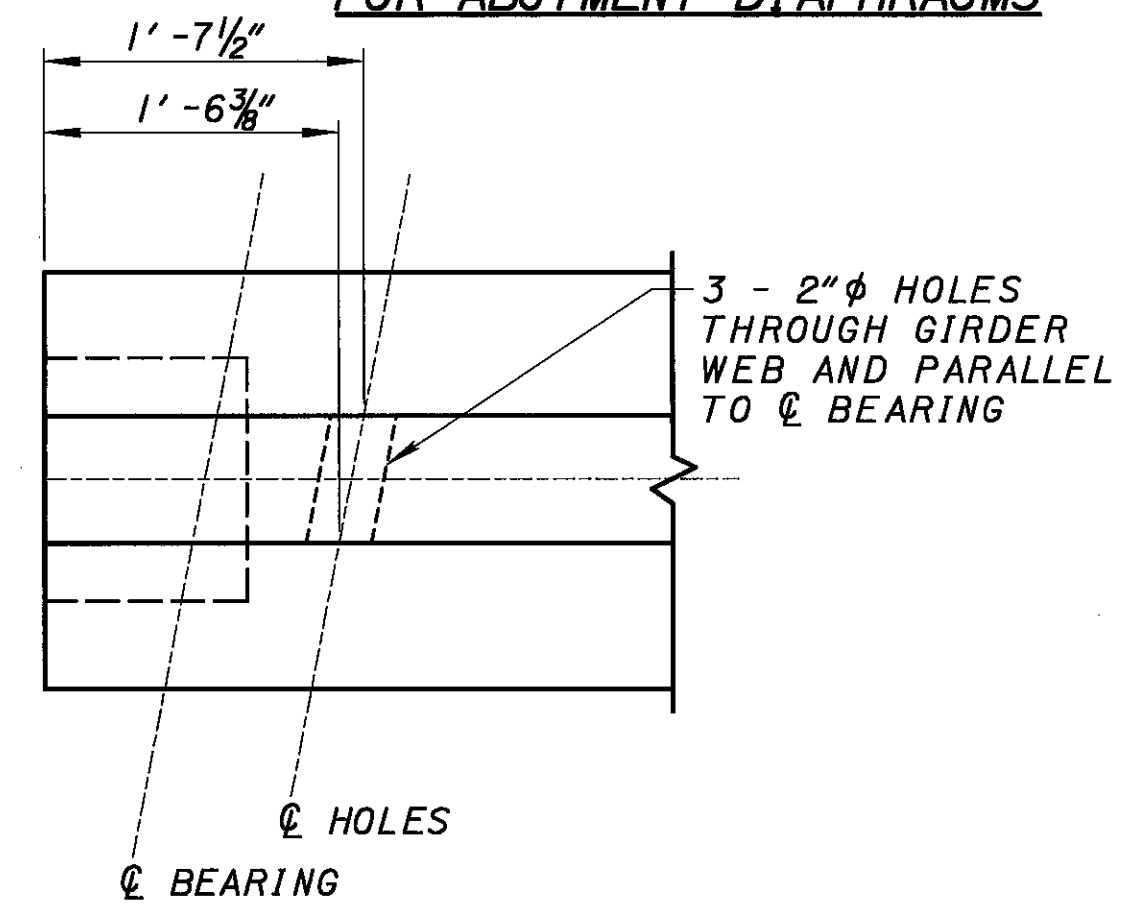
- NOTE:
 1. SEE STANDARD DRAWING PSID-1-99 FOR ADDITIONAL DETAILS.
 2. FOR INTERMEDIATE STEEL DIAPHRAGM LOCATIONS, SEE FRAMING PLAN, SHEET 19/29. FOR HOLE DETAILS, SEE STD. DWG. PSID-1-99.



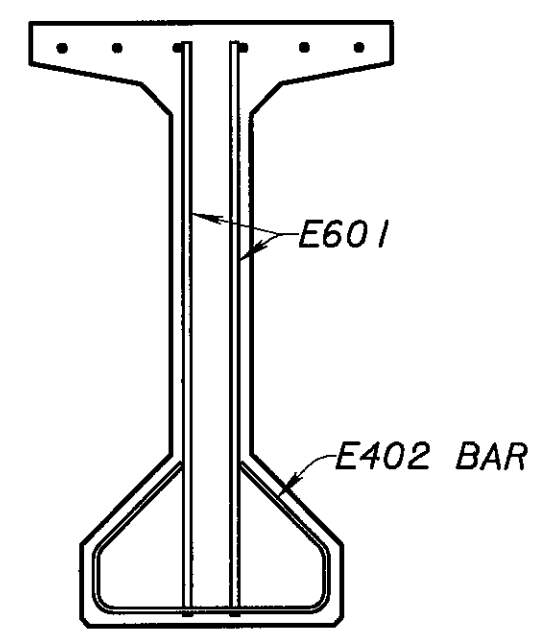
DETAIL A
HOLE LOCATIONS AT BEAM ENDS FOR ABUTMENT DIAPHRAGMS



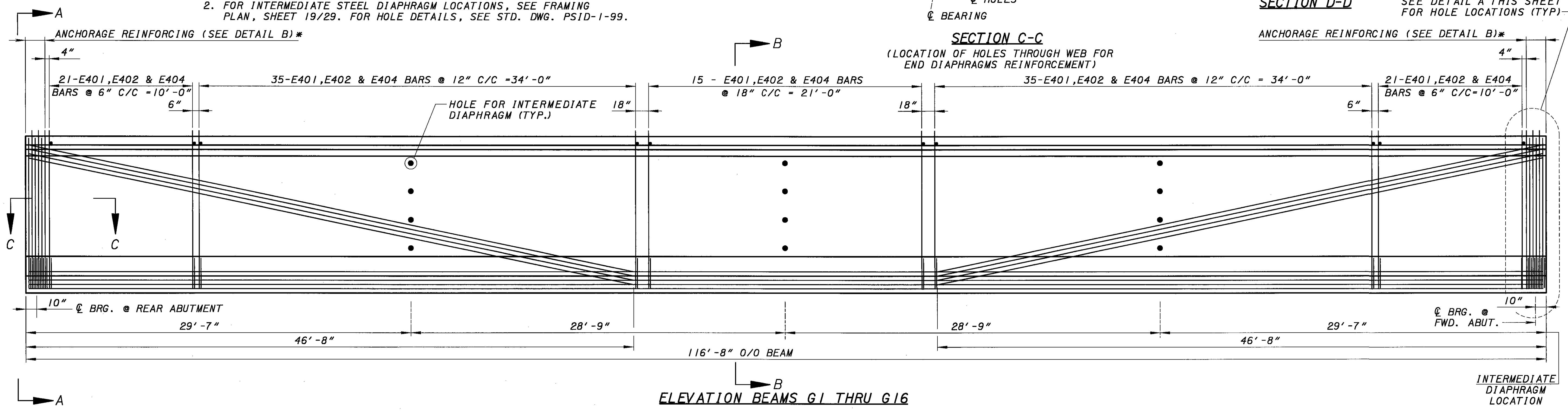
DETAIL B
ANCHORAGE REINFORCEMENT



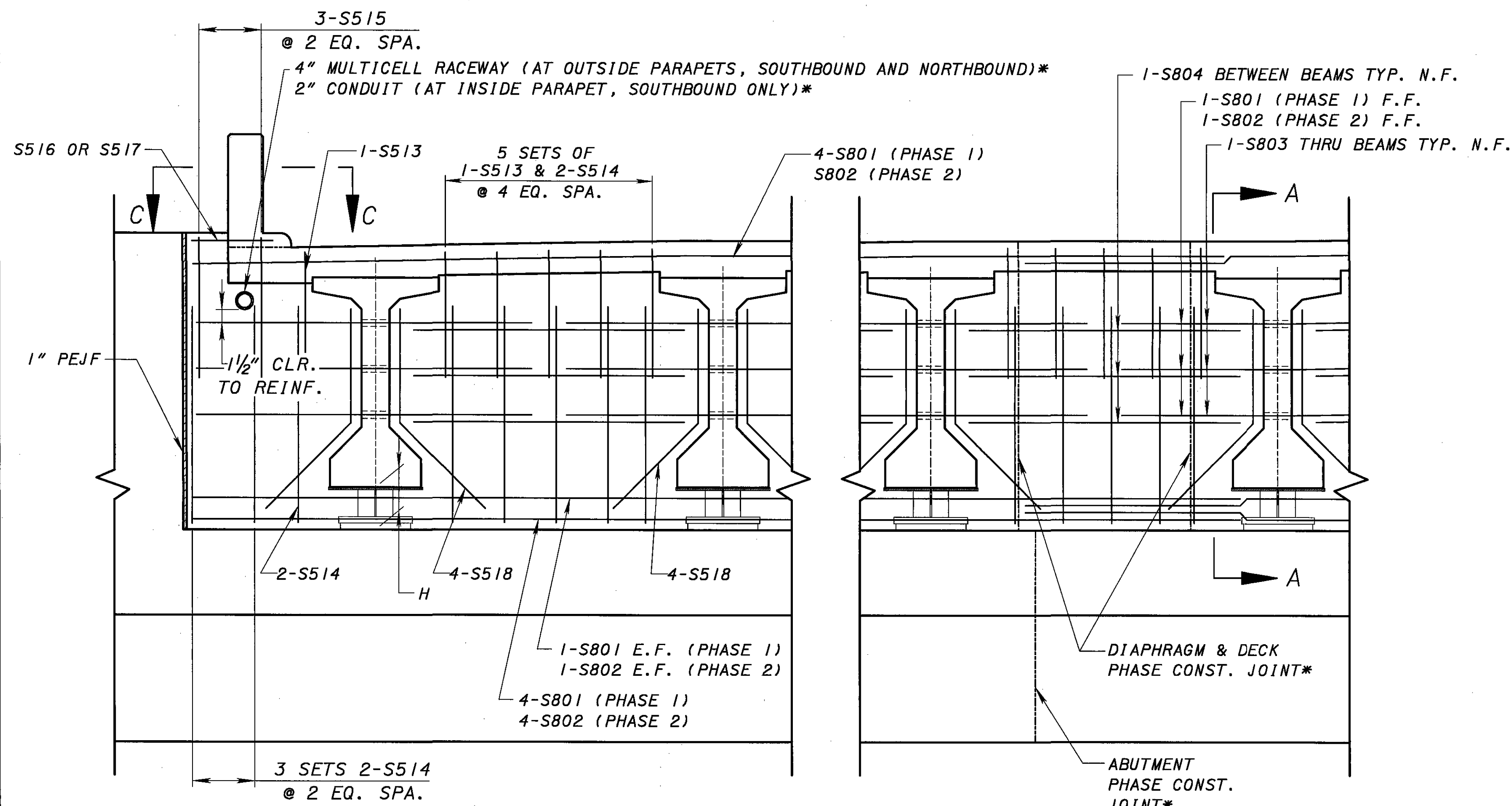
SECTION C-C
(LOCATION OF HOLES THROUGH WEB FOR END DIAPHRAGMS REINFORCEMENT)



SECTION D-D
ANCHORAGE REINFORCEMENT (SEE DETAIL B)*



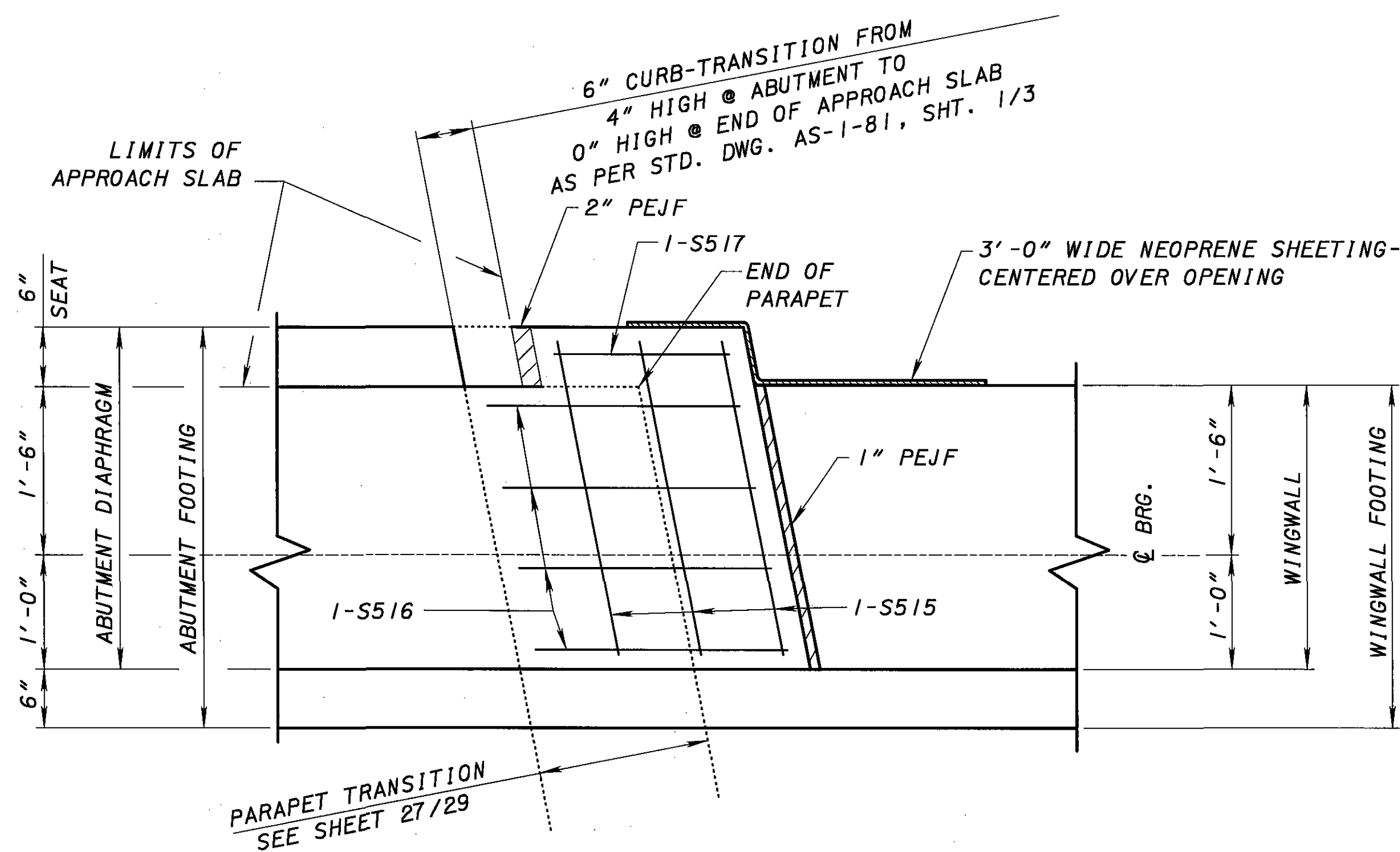
ELEVATION BEAMS G1 THRU G16



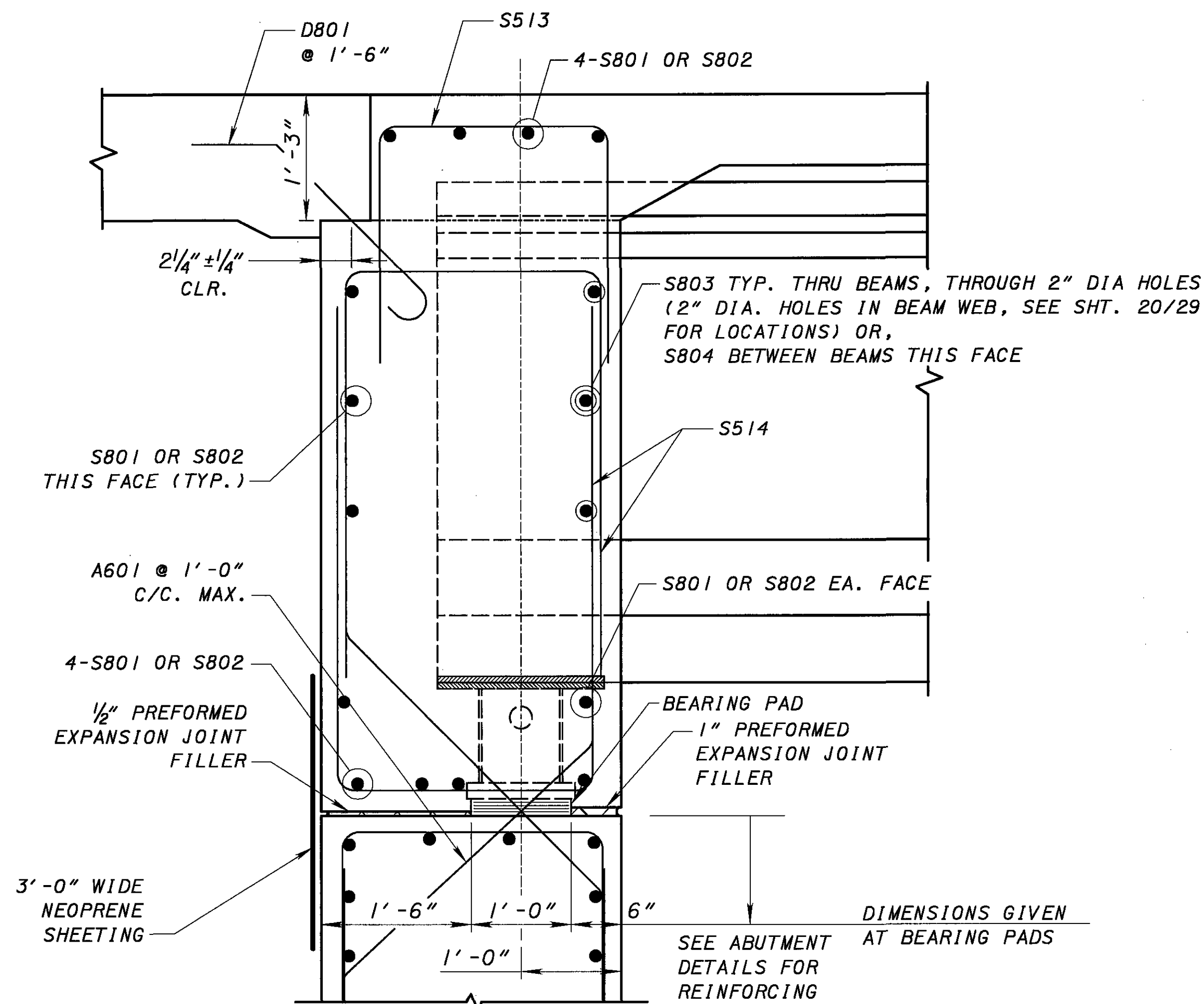
REINFORCING @ ABUTMENT DIAPHRAGM (TYP.)

NOTES:

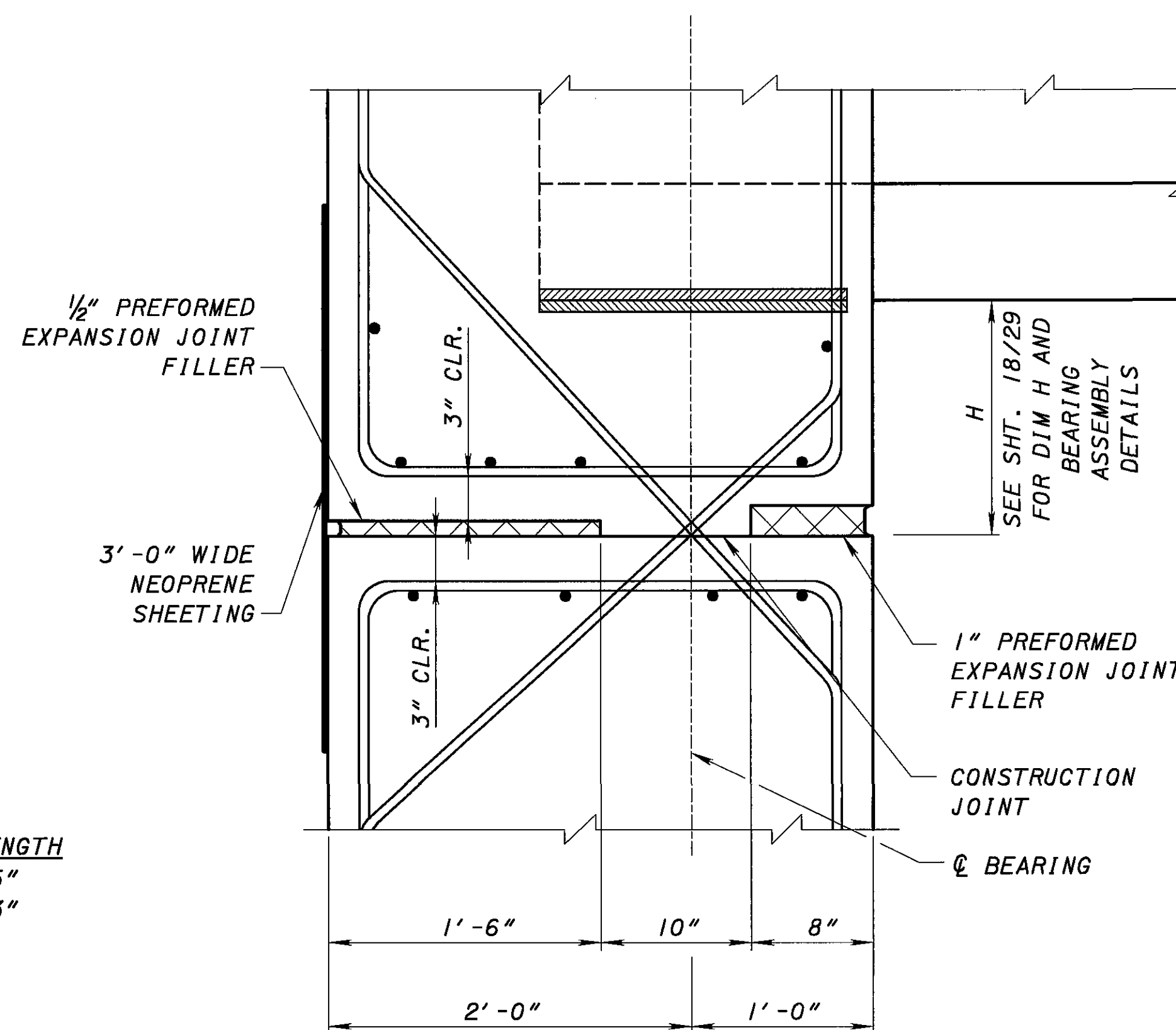
1. AT PHASE CONSTRUCTION JOINT, S803 THRU G5 (LEFT BRIDGE), G12 (RIGHT BRIDGE) WILL PROTRUDE FROM PHASE I CONSTRUCTION INTO PHASE III CONSTRUCTION. S803 THRU G4 (LEFT BRIDGE), G13 (RIGHT BRIDGE) WILL PROTRUDE FROM PHASE II CONSTRUCTION INTO PHASE III CONSTRUCTION. S804 BETWEEN G4 & G5 (LEFT BRIDGE), G12 & G13 (RIGHT BRIDGE) WILL PROTRUDE FROM PHASE I CONSTRUCTION THRU PHASE III CONSTRUCTION, AND INTO PHASE II CONSTRUCTION. SEE SHT. 16/29 FOR ADDITIONAL NOTES ON HORIZONTAL BARS IN ABUTMENT DIAPHRAGM.
 2. PLACE ABUTMENT DIAPHRAGM CONCRETE ENCASING PRESTRESSED I-BEAM MEMBERS AT THE SAME TIME AS THE DECK CONCRETE OF AN INDIVIDUAL CONSTRUCTION PHASE TO ALLOW FOR EXPECTED DEAD LOAD ROTATION AT THE ABUTMENTS.
- * SEE SHEETS 8, 9, 10, 11, 12, 15, & 27/29 FOR PLACEMENT OF THESE ITEMS. SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT.



SECTION C-C



SECTION A-A



DETAIL B

(SHOWN BETWEEN BEARING PADS)

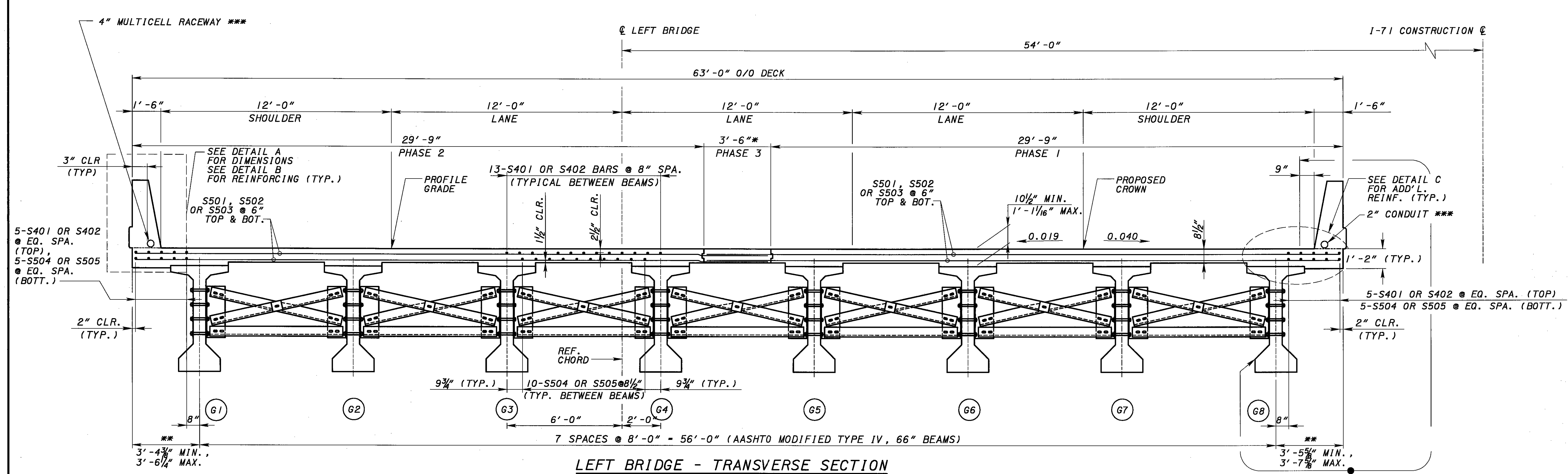
MINIMUM LAP LENGTH
 #5 BARS - 3'-5"
 #6 BARS - 7'-3"

DESIGNED BY JNS
 CHECKED BY GKL
 DRAWN BY KVM
 REVISED BY
 REVIEWED BY PAS
 DATE 02/2005
 PROJECT FILE NUMBER 5002063
 SHEET NUMBER 5033019 - RIGHT
 MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 222 WEST MAIN STREET, SUITE 200
 CHICAGO, ILLINOIS 60601
 (312) 467-1000
 FAX (312) 467-1001
 WWW.MSCONSULTANTS.COM

ABUTMENT DIAPHRAGM DETAILS
 BRIDGE NO. MED-7 1-0810 L/R
 I-71 OVER CHIPPEWA DITCH

MED-7 1-6.06
 PID 75657

21/29
 909
 1120



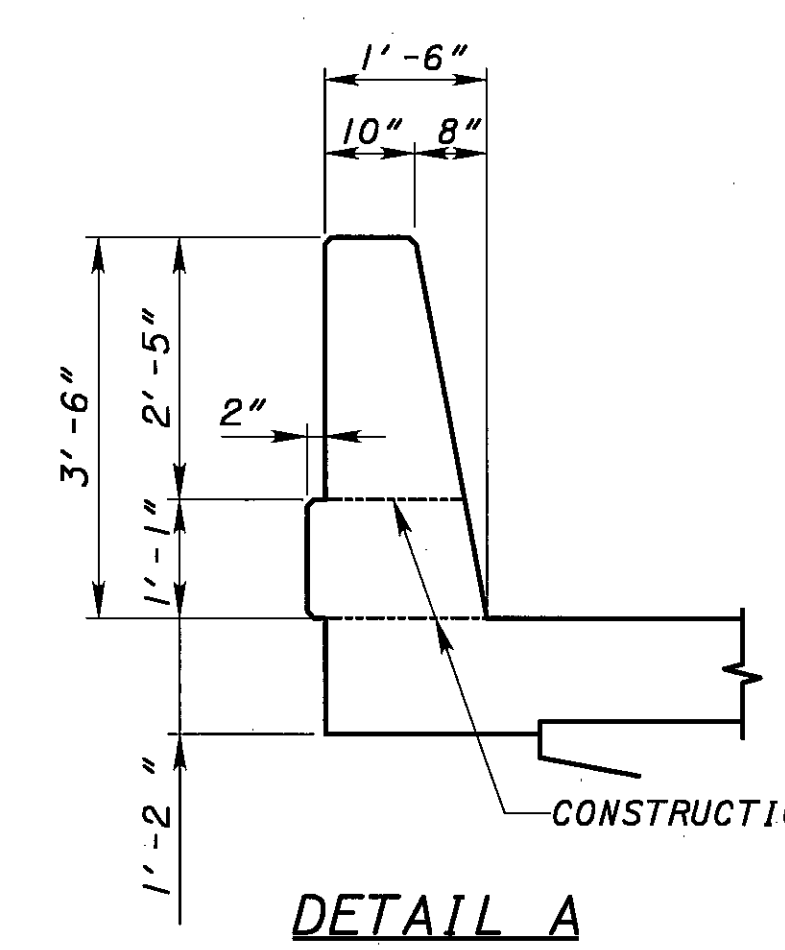
LEFT BRIDGE - TRANSVERSE SECTION

SOUTHBOUND LANES

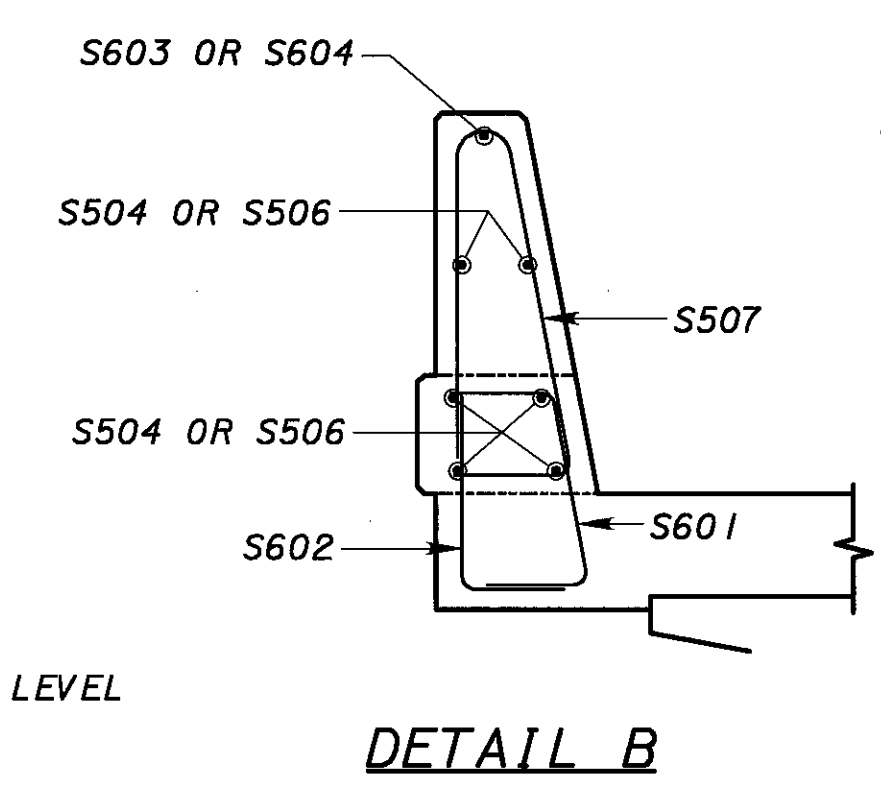
- * SEE SHEET 23/29 FOR PHASE CONSTRUCTION JOINT DETAIL
- ** MIN., MAX. OVERHANGS AT ONE SIDE DO NOT OCCUR AT STATIONS CONCURRENT WITH OTHER SIDE'S MIN., MAX. STATIONS.
- *** SEE LIGHTING SHEETS FOR DETAILS, QUANTITIES, AND PAYMENT.

NOTES:

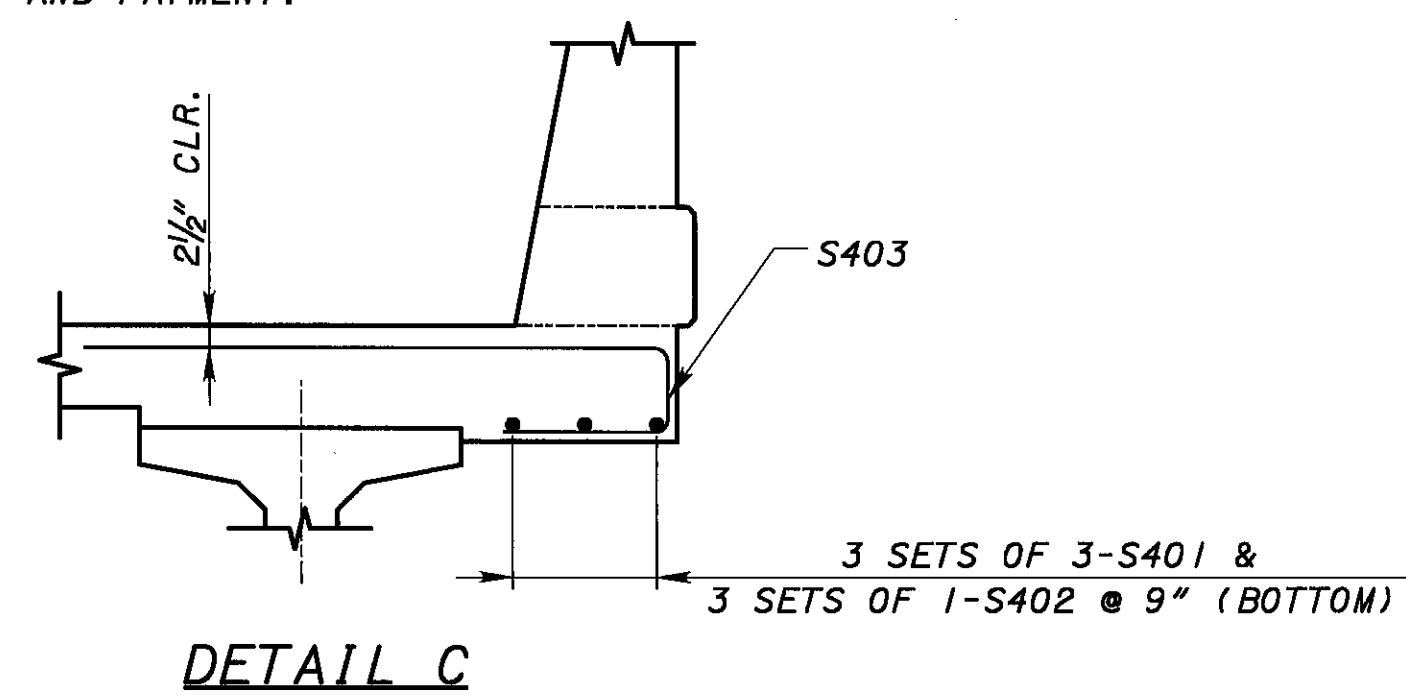
1. SEE STD. DWG. PSID-1-99 FOR FURTHER DETAILS.
2. SEE FRAMING PLAN, SHEET 19/29 FOR INTERMEDIATE DIAPHRAGM LOCATIONS.
3. INTERMEDIATE DIAPHRAGMS INTERMEDIATE DIAPHRAGMS SHALL BE STEEL PER STD. DWG. PSID-1-99 AND IN LIEU OF THE OPTION GIVEN THEREIN. STEEL DIAPHRAGMS SHALL BE INCLUDED WITH "ITEM 515 INTERMEDIATE DIAPHRAGMS" FOR PAYMENT.
4. DECK SLAB THICKNESS FOR CONCRETE QUANTITY; THE TOPPING THICKNESSES SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE TOP FLANGE ALONG THE CENTERLINE OF THE I-BEAM ARE THEORETICAL DIMENSIONS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. THE DEPARTMENT WILL PAY FOR THE SUPERSTRUCTURE CONCRETE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE THEORETICAL HAUNCH DEPTHS AT MID-SPAN AND AT EACH BEAM BEARING EVEN THOUGH DEVIATION FROM THE DIMENSIONS SHOWN MAY BE NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE ACTUAL CAMBER FOR EACH MEMBER WILL BE THE TOP OF BEAM ELEVATION AT MID-SPAN MINUS THE AVERAGE TOP OF BEAM ELEVATION AT EACH BEARING. THE ACTUAL TOPPING THICKNESS AT MID-SPAN WILL BE THE THEORETICAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.



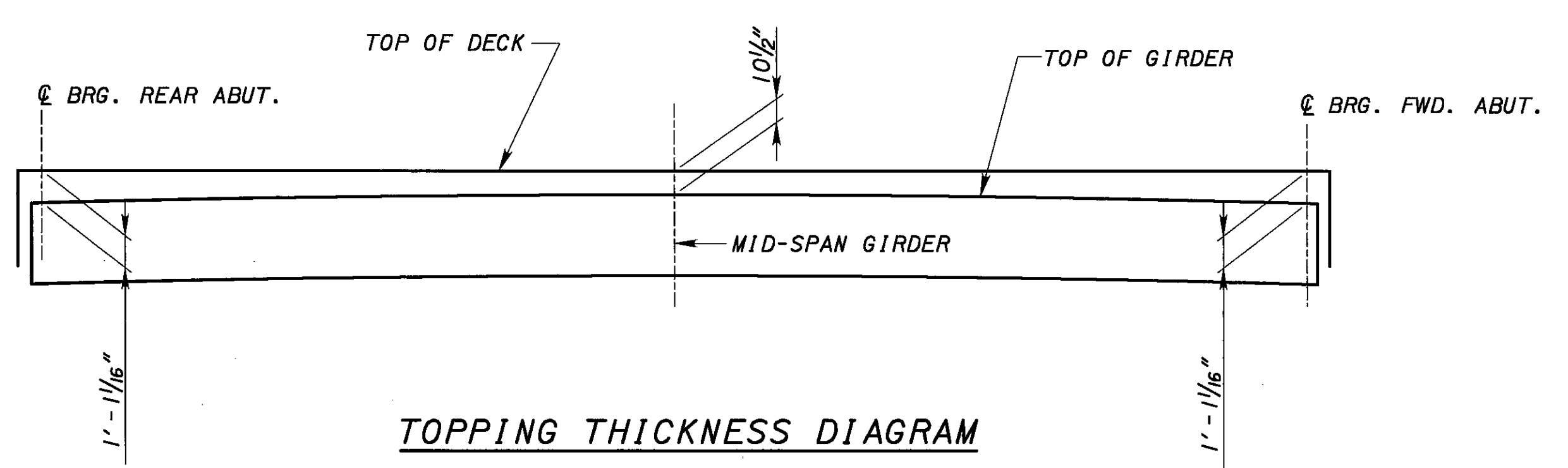
DETAIL A



DETAIL B



DETAIL C

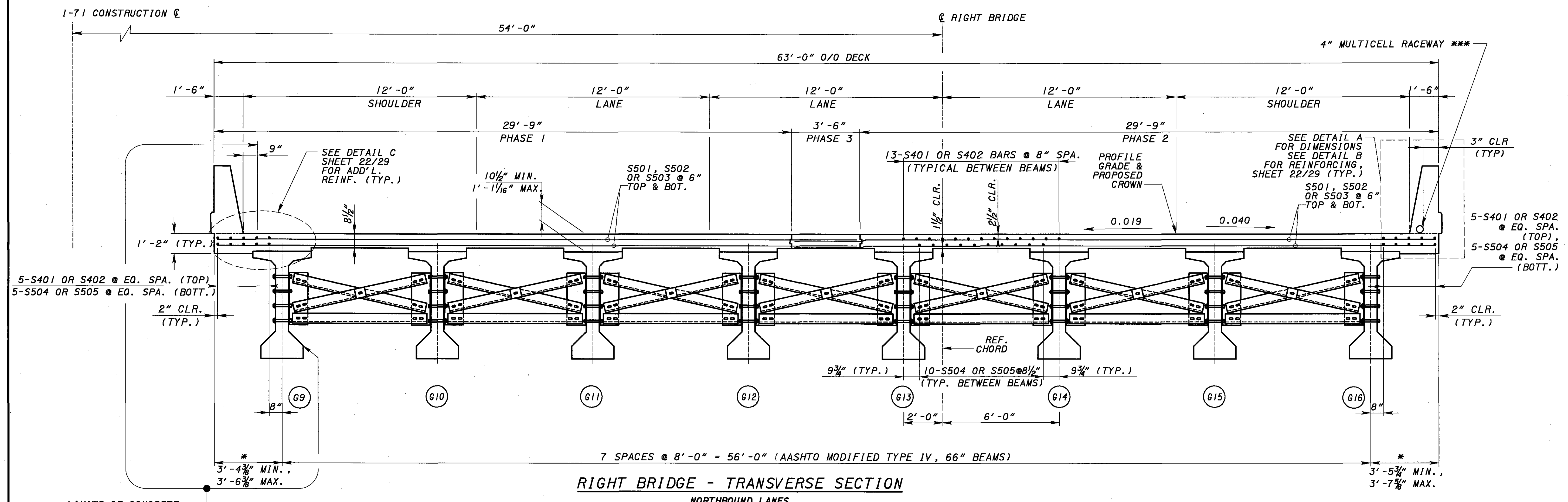


TOPPING THICKNESS DIAGRAM

(SEE NOTE 4)

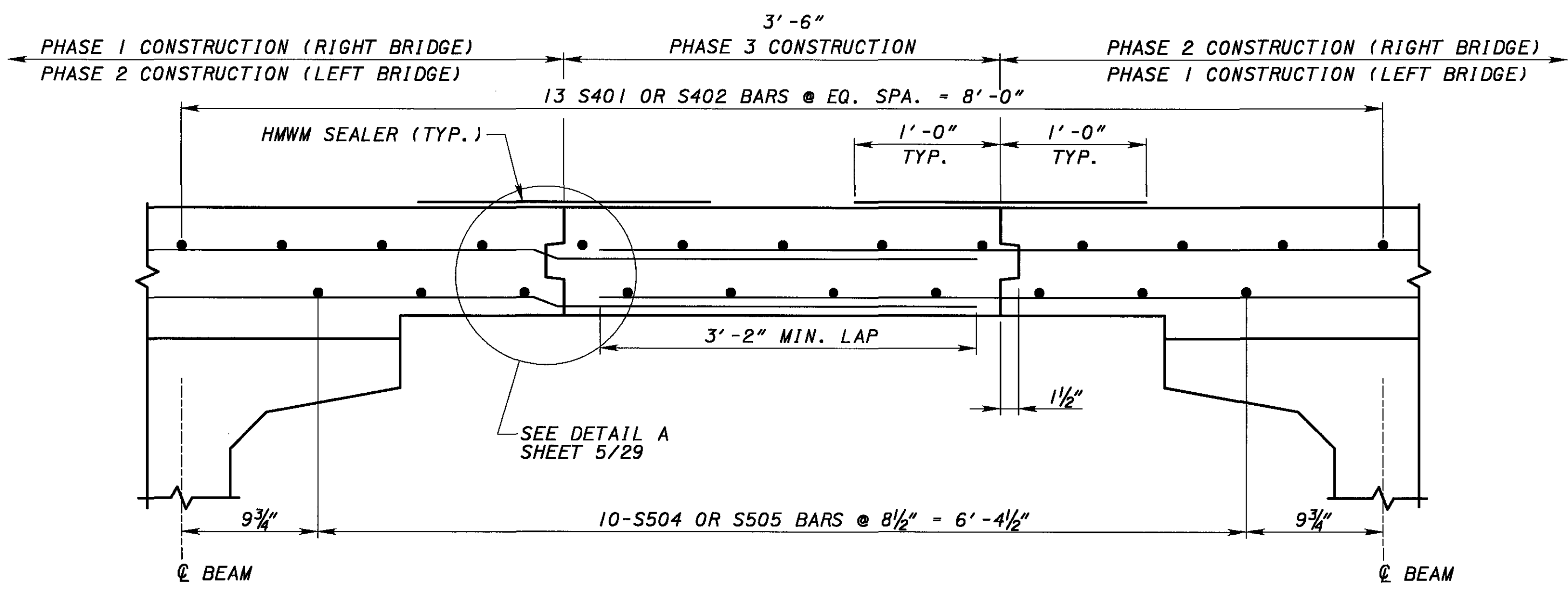
CAMBER AT MID-SPAN (INCHES)		
AT RELEASE (B - C)	AT ERECTION (1.8B - 1.85C)	LONG TERM (2.45B - 2.40C)
2.340	4.129	5.815

- B - ANTICIPATED TOTAL MID-SPAN CAMBER DUE TO THE DESIGN PRESTRESSING FORCE AT TIME OF RELEASE.
- C - MID-SPAN DEFLECTION DUE TO THE SELF WEIGHT OF THE BEAM.



RIGHT BRIDGE - TRANSVERSE SECTION
NORTHBOUND LANES

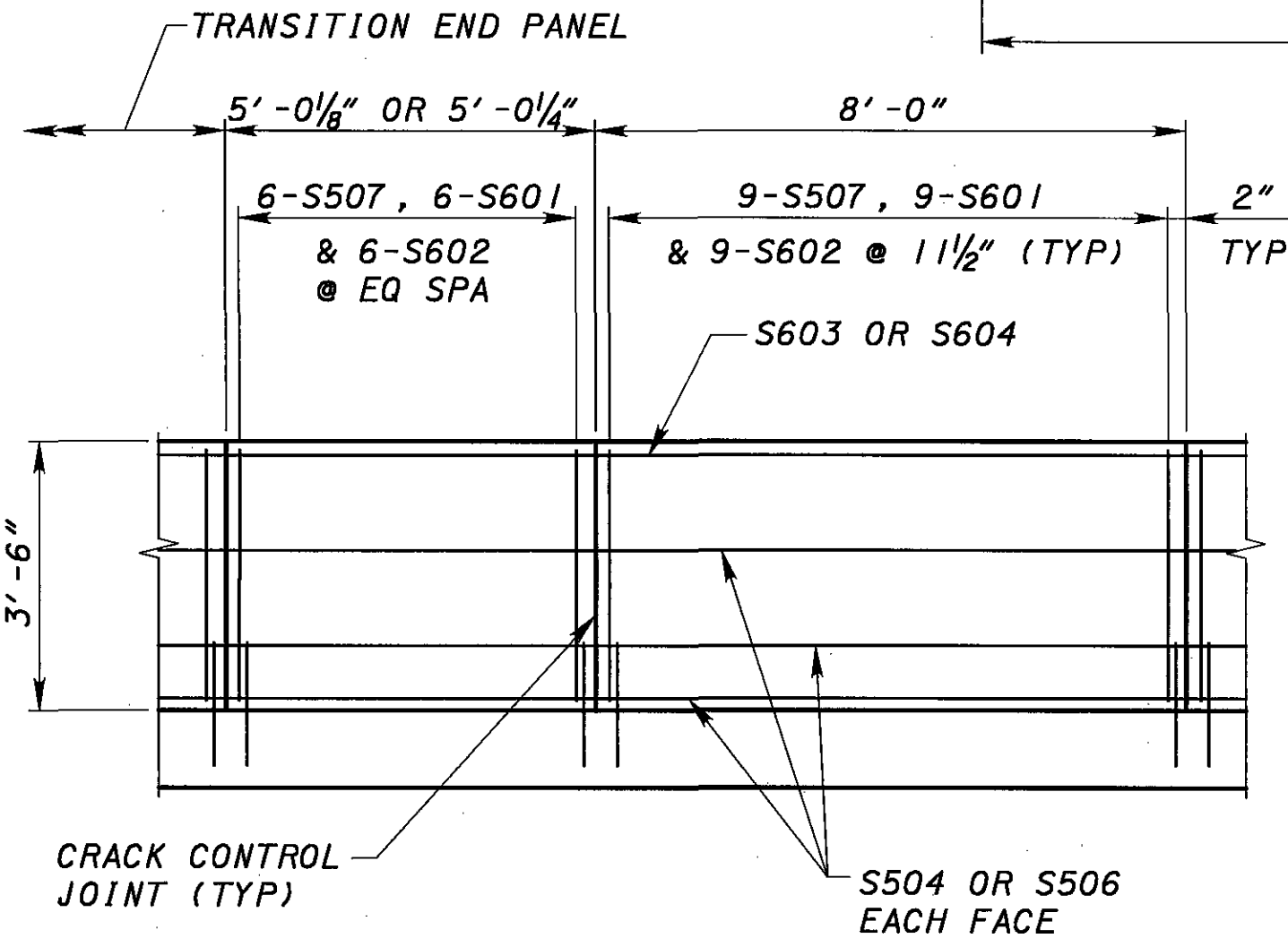
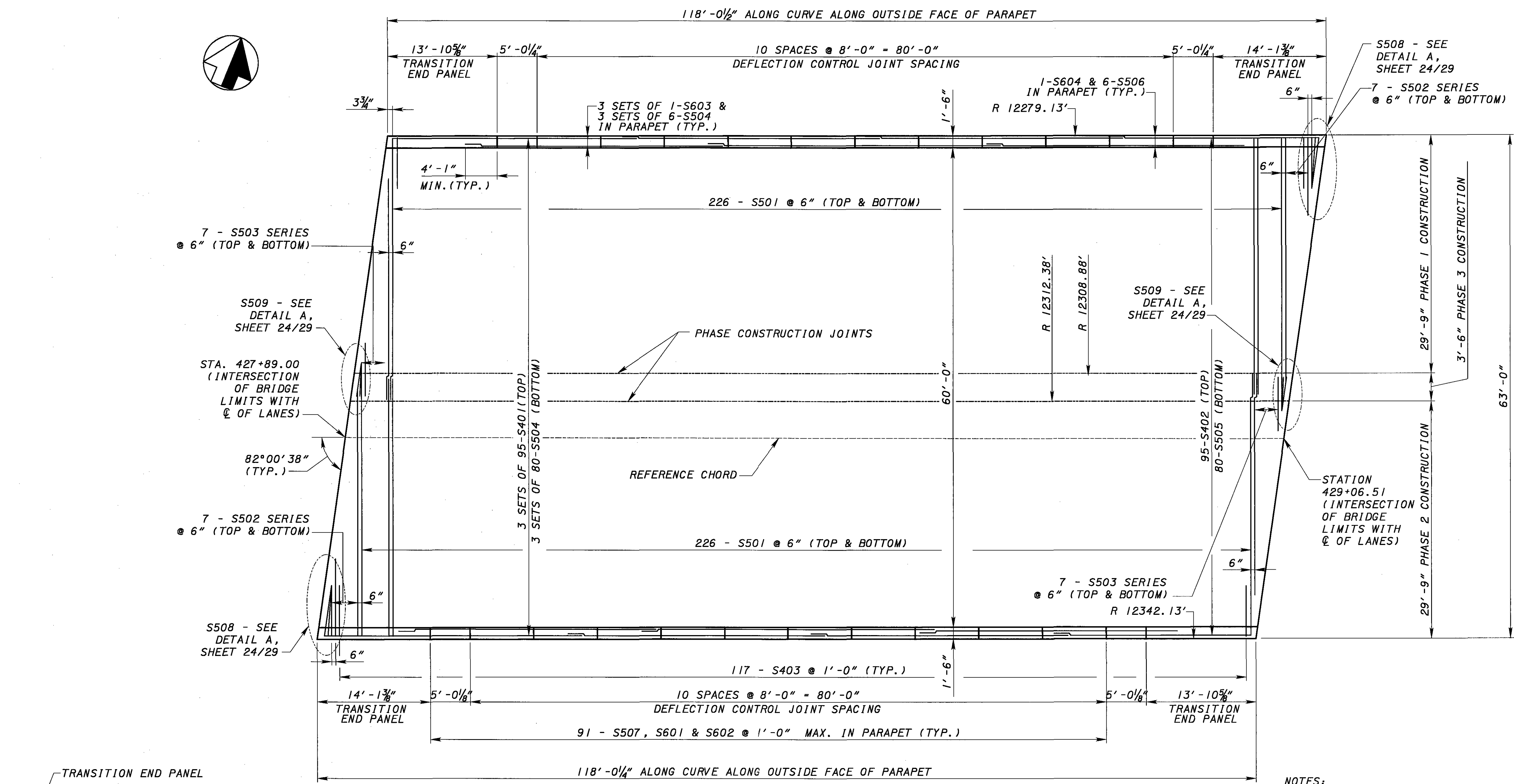
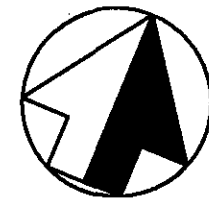
* MIN., MAX. OVERHANGS AT ONE SIDE DO NOT OCCUR AT STATIONS CONCURRENT WITH OTHER SIDE'S MIN., MAX. STATIONS.
** SEE LIGHTING SHEETS FOR DETAILS, QUANTITIES, AND PAYMENT.



PHASE CONSTRUCTION JOINT DETAIL

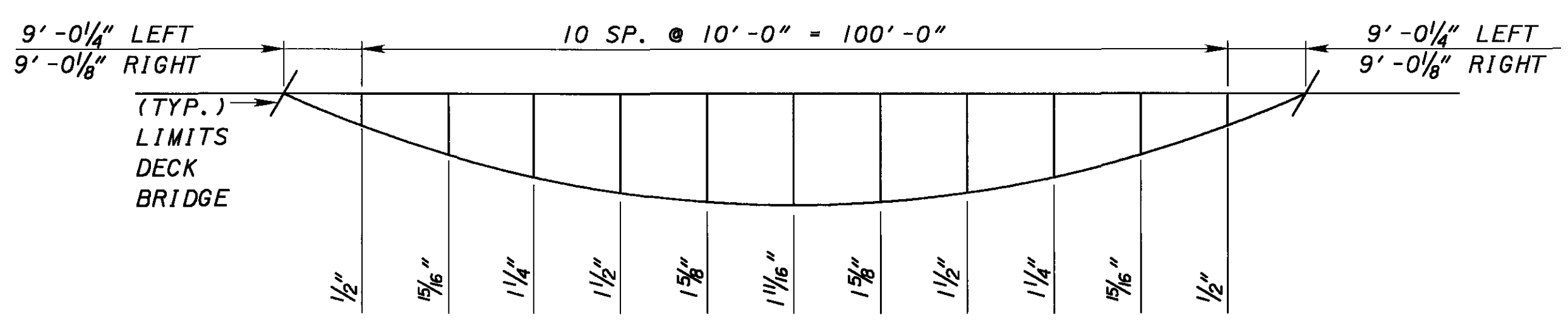
NOTES:
1. SEE NOTES, SHEET 22/29.
2. FOR TOPPING THICKNESS DIAGRAM AND CAMBER TABLE, SEE SHEET 22/29.

LIMITS OF CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE (TYP.)



TYPICAL PARAPET PANEL REINFORCEMENT DETAIL

RIGHT BRIDGE - DECK REINFORCING PLAN



CURVE OFFSETS - RIGHT BRIDGE

(ALONG LEFT & RIGHT DECK OVERHANG) CURVE EXAGGERATED FOR CLARITY

NOTE: BRIDGE DECK LIMITS DEFINED AS THE END OF PARAPET ALONG THE OUTSIDE FACE.

NOTES:

- FOR DEFLECTION CONTROL JOINT NOTES SEE SHEET 4/29. FOR ADDITIONAL DETAILS, SEE STD. DWG. SBR-1-99.
- FOR REINFORCEMENT IN PARAPET TRANSITION END PANEL, SEE PARAPET TRANSITION DETAIL, SHEET 27/29.
- FOR REINFORCEMENT SCHEDULE, SEE SHT. 29/29.
- TRANSVERSE REINFORCING SHALL BE PLACED PERPENDICULAR TO REFERENCE CHORD UNLESS OTHERWISE NOTED.

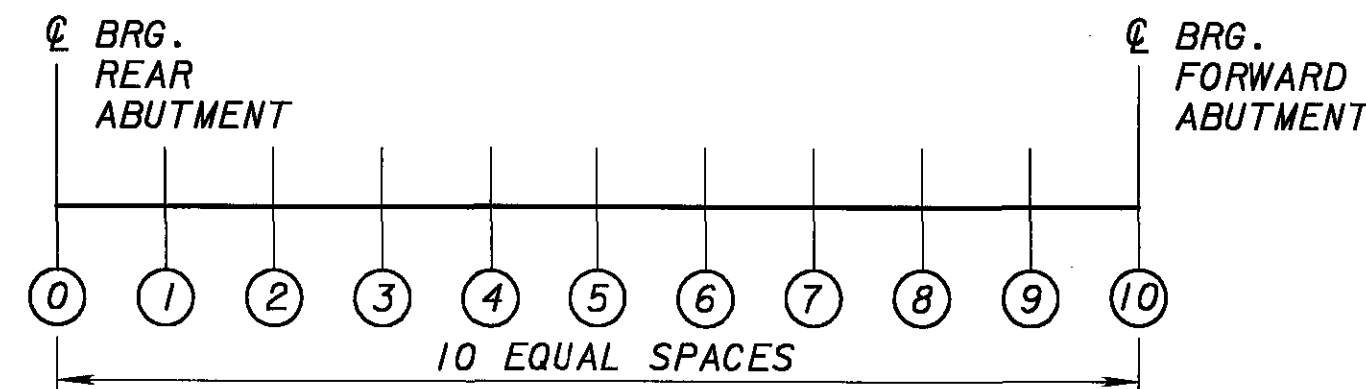
MINIMUM LAP LENGTHS

- #4 BARS - 1'-11"
- #5 BARS - 3'-2"
- #6 BARS - 4'-1"

POINT	A0		A1		A2		A3		A4		A5		A6		A7		A8		A9		A10	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
E	427+95.38	1004.32	428+06.87	1004.21	428+18.35	1004.10	428+29.83	1003.96	428+41.32	1003.80	428+52.80	1003.61	428+64.28	1003.39	428+75.77	1003.13	428+87.25	1002.86	428+98.73	1002.56	429+10.22	1002.25
G9	427+95.12	1004.36	428+06.60	1004.25	428+18.08	1004.14	428+29.56	1004.00	428+41.04	1003.84	428+52.52	1003.65	428+64.00	1003.43	428+75.49	1003.18	428+86.97	1002.90	428+98.45	1002.60	429+09.93	1002.30
G10	427+94.03	1004.54	428+05.50	1004.43	428+16.98	1004.32	428+28.45	1004.19	428+39.93	1004.03	428+51.40	1003.84	428+62.87	1003.62	428+74.35	1003.36	428+85.82	1003.08	428+97.29	1002.78	429+08.77	1002.47
G11	427+92.95	1004.71	428+04.41	1004.60	428+15.88	1004.49	428+27.34	1004.36	428+38.81	1004.20	428+50.28	1004.01	428+61.74	1003.79	428+73.21	1003.54	428+84.68	1003.25	428+96.14	1002.95	429+07.61	1002.64
G12	427+91.86	1004.88	428+03.32	1004.77	428+14.78	1004.66	428+26.24	1004.53	428+37.70	1004.38	428+49.16	1004.19	428+60.62	1003.96	428+72.07	1003.71	428+83.53	1003.43	428+94.99	1003.12	429+06.45	1002.82
F	427+91.56	1004.93	428+03.01	1004.82	428+14.47	1004.71	428+25.93	1004.58	428+37.38	1004.43	428+48.84	1004.24	428+60.30	1004.01	428+71.75	1003.76	428+83.21	1003.48	428+94.66	1003.17	429+06.12	1002.86
G	427+91.08	1005.00	428+02.54	1004.90	428+13.99	1004.79	428+25.44	1004.66	428+36.90	1004.50	428+48.35	1004.31	428+59.80	1004.09	428+71.26	1003.83	428+82.71	1003.55	428+94.16	1003.25	429+05.61	1002.94
G13	427+90.78	1005.05	428+02.23	1004.94	428+13.68	1004.84	428+25.13	1004.71	428+36.59	1004.55	428+48.04	1004.36	428+59.49	1004.14	428+70.94	1003.88	428+82.39	1003.60	428+93.84	1003.30	429+05.30	1002.99
G14	427+89.70	1005.22	428+01.14	1005.12	428+12.59	1005.01	428+24.03	1004.88	428+35.48	1004.72	428+46.92	1004.53	428+58.36	1004.31	428+69.81	1004.05	428+81.25	1003.77	428+92.70	1003.47	429+04.14	1003.16
PGL & CROWN	427+88.89	1005.35	428+00.33	1005.25	428+11.77	1005.14	428+23.20	1005.01	428+34.64	1004.85	428+46.08	1004.66	428+57.52	1004.44	428+68.96	1004.18	428+80.39	1003.90	428+91.83	1003.60	429+03.27	1003.29
G15	427+88.62	1005.27	428+00.06	1005.17	428+11.49	1005.07	428+22.93	1004.94	428+34.37	1004.78	428+45.80	1004.59	428+57.24	1004.37	428+68.68	1004.11	428+80.11	1003.83	428+91.55	1003.53	429+02.99	1003.22
G16	427+87.54	1004.97	427+98.97	1004.87	428+10.40	1004.75	428+21.83	1004.62	428+33.26	1004.46	428+44.69	1004.27	428+56.12	1004.05	428+67.55	1003.80	428+78.98	1003.52	428+90.41	1003.22	429+01.84	1002.92
H	427+87.28	1004.90	427+98.70	1004.79	428+10.13	1004.68	428+21.56	1004.54	428+32.98	1004.38	428+44.41	1004.19	428+55.83	1003.97	428+67.26	1003.72	428+78.69	1003.44	428+90.11	1003.14	429+01.54	1002.84

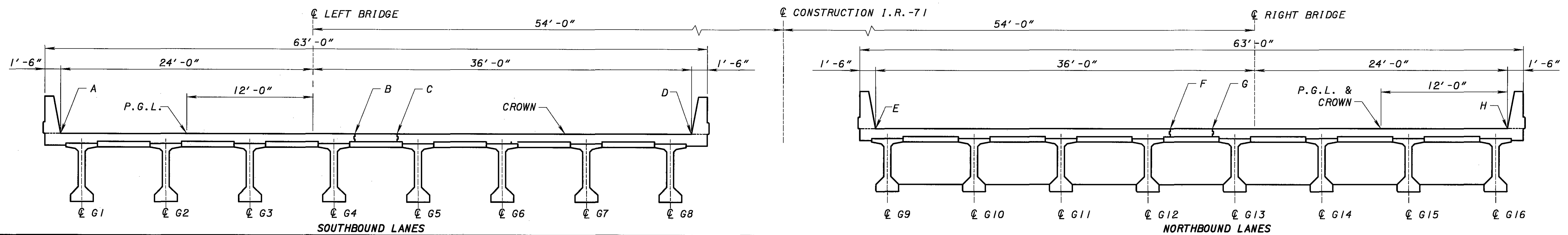
POINT	A0		A1		A2		A3		A4		A5		A6		A7		A8		A9		A10	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
A	428+08.52	1004.81	428+20.10	1004.70	428+31.67	1004.59	428+43.25	1004.47	428+54.82	1004.32	428+66.40	1004.13	428+77.97	1003.92	428+89.54	1003.67	429+01.12	1003.40	429+12.69	1003.11	429+24.27	1002.81
G1	428+08.25	1004.85	428+19.82	1004.74	428+31.39	1004.64	428+42.97	1004.51	428+54.54	1004.36	428+66.11	1004.17	428+77.68	1003.96	428+89.25	1003.71	429+00.83	1003.44	429+12.40	1003.15	429+23.97	1002.86
G2	428+07.15	1005.02	428+18.71	1004.92	428+30.28	1004.82	428+41.84	1004.70	428+53.40	1004.55	428+64.97	1004.36	428+76.53	1004.15	428+88.10	1003.90	428+99.66	1003.63	429+11.23	1003.33	429+22.79	1003.03
PGL	428+06.87	1005.06	428+18.43	1004.96	428+30.00	1004.86	428+41.56	1004.74	428+53.12	1004.59	428+64.68	1004.41	428+76.25	1004.19	428+87.81	1003.95	428+99.37	1003.67	429+10.93	1003.37	429+22.50	1003.07
G3	428+06.05	1005.19	428+17.60	1005.09	428+29.16	1004.99	428+40.72	1004.87	428+52.27	1004.72	428+63.83	1004.54	428+75.39	1004.32	428+86.94	1004.07	428+98.50	1003.80	429+10.05	1003.50	429+21.61	1003.20
G4	428+04.95	1005.36	428+16.49	1005.26	428+28.04	1005.16	428+39.59	1005.04	428+51.14	1004.89	428+62.69	1004.71	428+74.24	1004.49	428+85.79	1004.24	428+97.34	1003.97	429+08.89	1003.67	429+20.44	1003.37
B	428+04.64	1005.41	428+16.18	1005.31	428+27.73	1005.21	428+39.28	1005.09	428+50.82	1004.94	428+62.37	1004.76	428+73.92	1004.54	428+85.46	1004.29	428+97.01	1004.02	429+08.56	1003.72	429+20.11	1003.42
C	428+04.16	1005.48	428+15.70	1005.39	428+27.24	1005.29	428+38.79	1005.16	428+50.33	1005.01	428+61.87	1004.83	428+73.42	1004.62	428+84.96	1004.37	428+96.50	1004.09	429+08.05	1003.80	429+19.59	1003.50
G5	428+03.85	1005.53	428+15.39	1005.43	428+26.93	1005.33	428+38.47	1005.21	428+50.01	1005.06	428+61.55	1004.88	428+73.09	1004.66	428+84.64	1004.42	428+96.18	1004.14	429+07.72	1003.85	429+19.26	1003.55
G6	428+02.75	1005.70	428+14.28	1005.60	428+25.82	1005.50	428+37.35	1005.38	428+48.88	1005.23	428+60.42	1005.05	428+71.95	1004.83	428+83.49	1004.59	428+95.02	1004.31	429+06.55	1004.02	429+18.09	1003.72
CROWN	428+01.93	1005.83	428+13.46	1005.73	428+24.98	1005.63	428+36.51	1005.51	428+48.04	1005.36	428+59.57	1005.18	428+71.10	1004.97	428+82.62	1004.72	428+94.15	1004.44	429+05.68	1004.15	429+17.21	1003.85
G7	428+01.65	1005.75	428+13.18	1005.66	428+24.70	1005.56	428+36.23	1005.44	428+47.76	1005.29	428+59.28	1005.11	428+70.81	1004.90	428+82.34	1004.65	428+93.86	1004.37	429+05.39	1004.08	429+16.92	1003.77
G8	428+00.56	1005.45	428+12.08	1005.35	428+23.59	1005.25	428+35.11	1005.12	428+46.63	1004.97	428+58.15	1004.79	428+69.67	1004.58	428+81.19	1004.33	428+92.71	1004.06	429+04.23	1003.77	429+15.75	1003.47
D	428+00.29	1005.38	428+11.80	1005.28	428+23.32	1005.17	428+34.84	1005.05	428+46.35	1004.89	428+57.87	1004.71	428+69.39	1004.50	428+80.90	1004.25	428+92.42	1003.98	429+03.93	1003.69	429+15.45	1003.40

SCREED ELEVATION TABLES

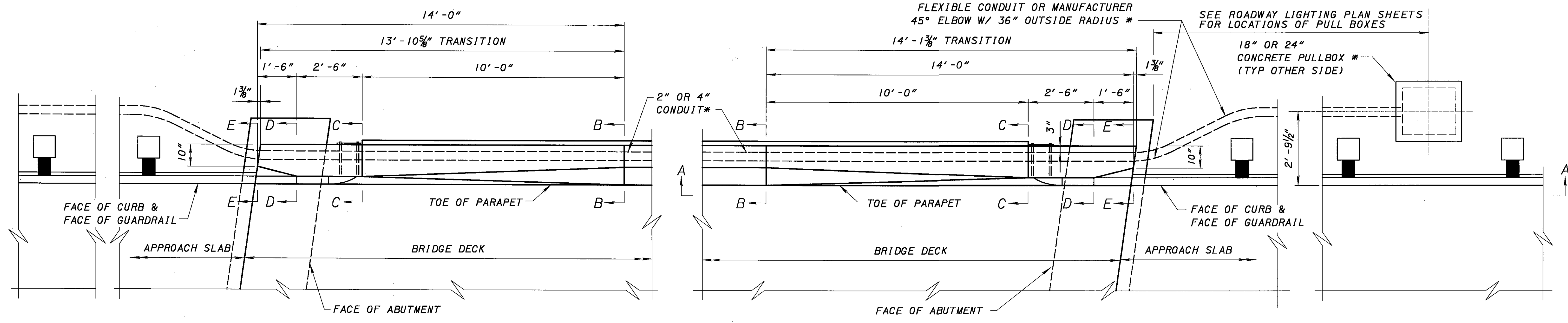


SCREED POINT LOCATIONS

- NOTES:
- SCREED ELEVATIONS ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR THE ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
 - FOR TOPPING THICKNESS DIAGRAM AND CAMBER TABLE SEE SHEET 22/29.



DESIGNED BY: GKL
 CHECKED BY: JMS
 DRAWN BY: KVM
 REVISED BY: JMS
 REVIEWED BY: PAS
 DATE: 02/20/05
 PROJECT FILE NUMBER: 590266-D
 SHEET NO.: 26/29
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH
 MED-71-6.06
 PID 75657
 914
 120

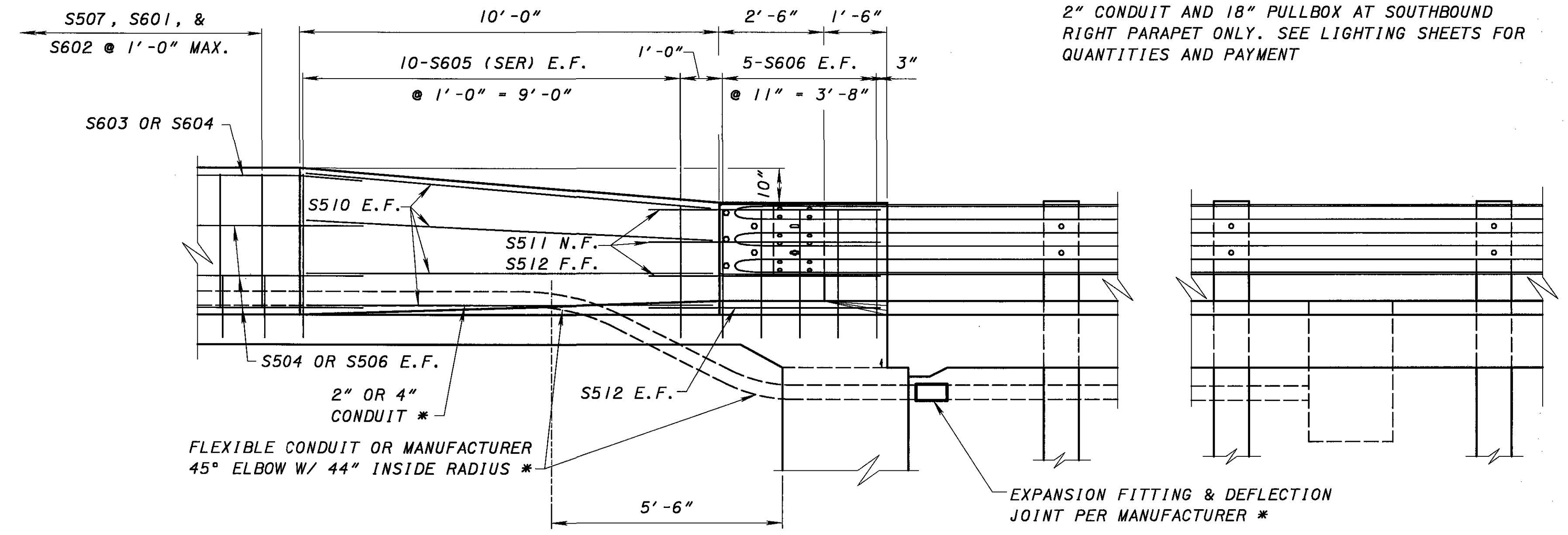


PARAPET TRANSITION PLAN

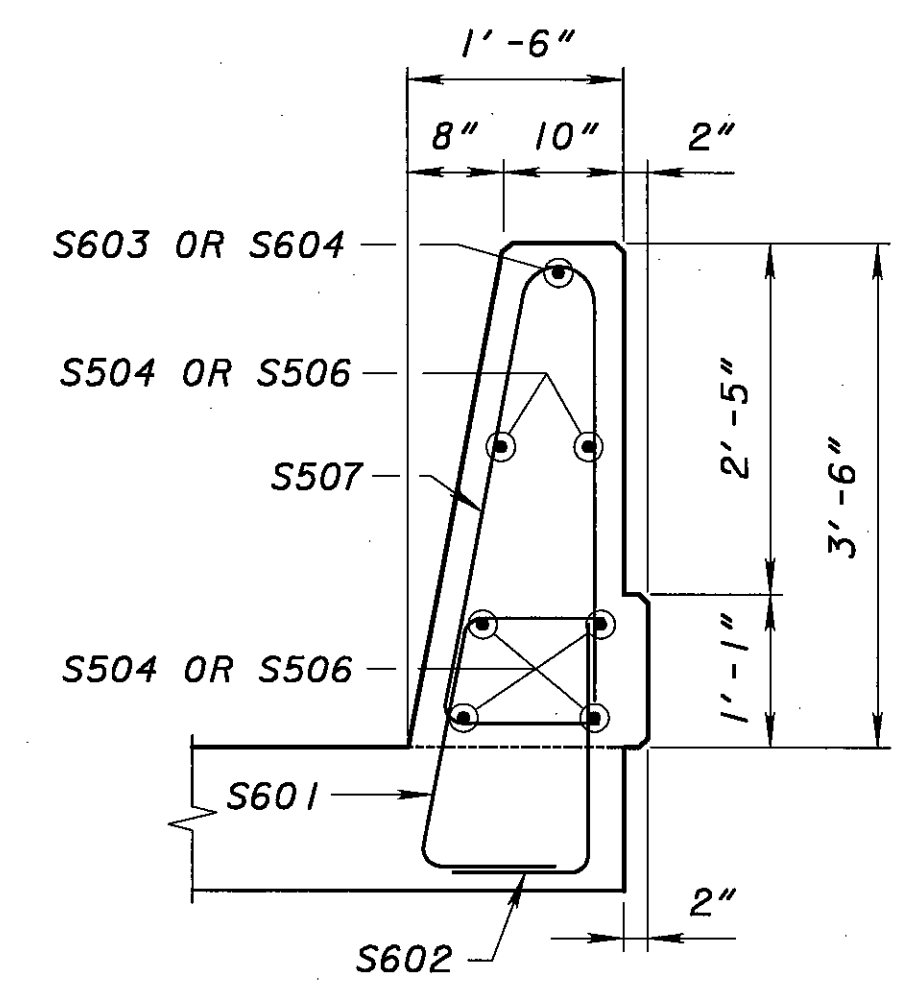
LEFT PARAPET SHOWN
RIGHT PARAPET SIMILAR

NOTES:

1. REFER TO SITE PLAN SHEET 1/29 FOR GUIDE RAIL ASSEMBLY.
2. REFER TO LIGHTING SHEETS L34 AND L46.

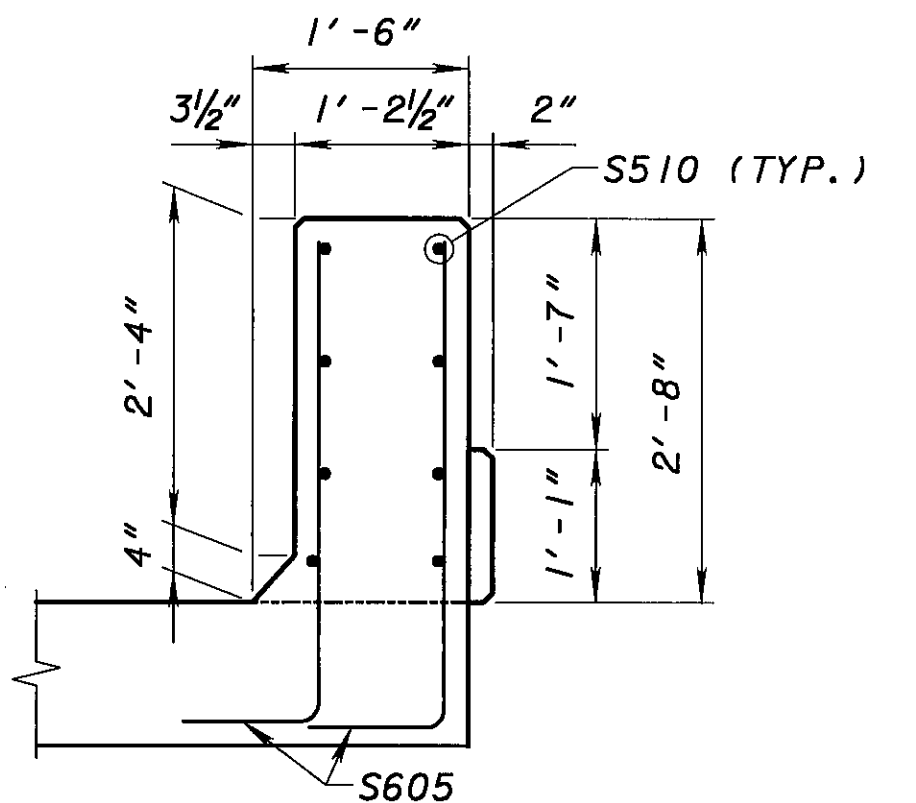


* 4" CONDUIT AND 24" PULLBOX AT SOUTHBOUND LEFT PARAPET AND NORTHBOUND RIGHT PARAPET. 2" CONDUIT AND 18" PULLBOX AT SOUTHBOUND RIGHT PARAPET ONLY. SEE LIGHTING SHEETS FOR QUANTITIES AND PAYMENT

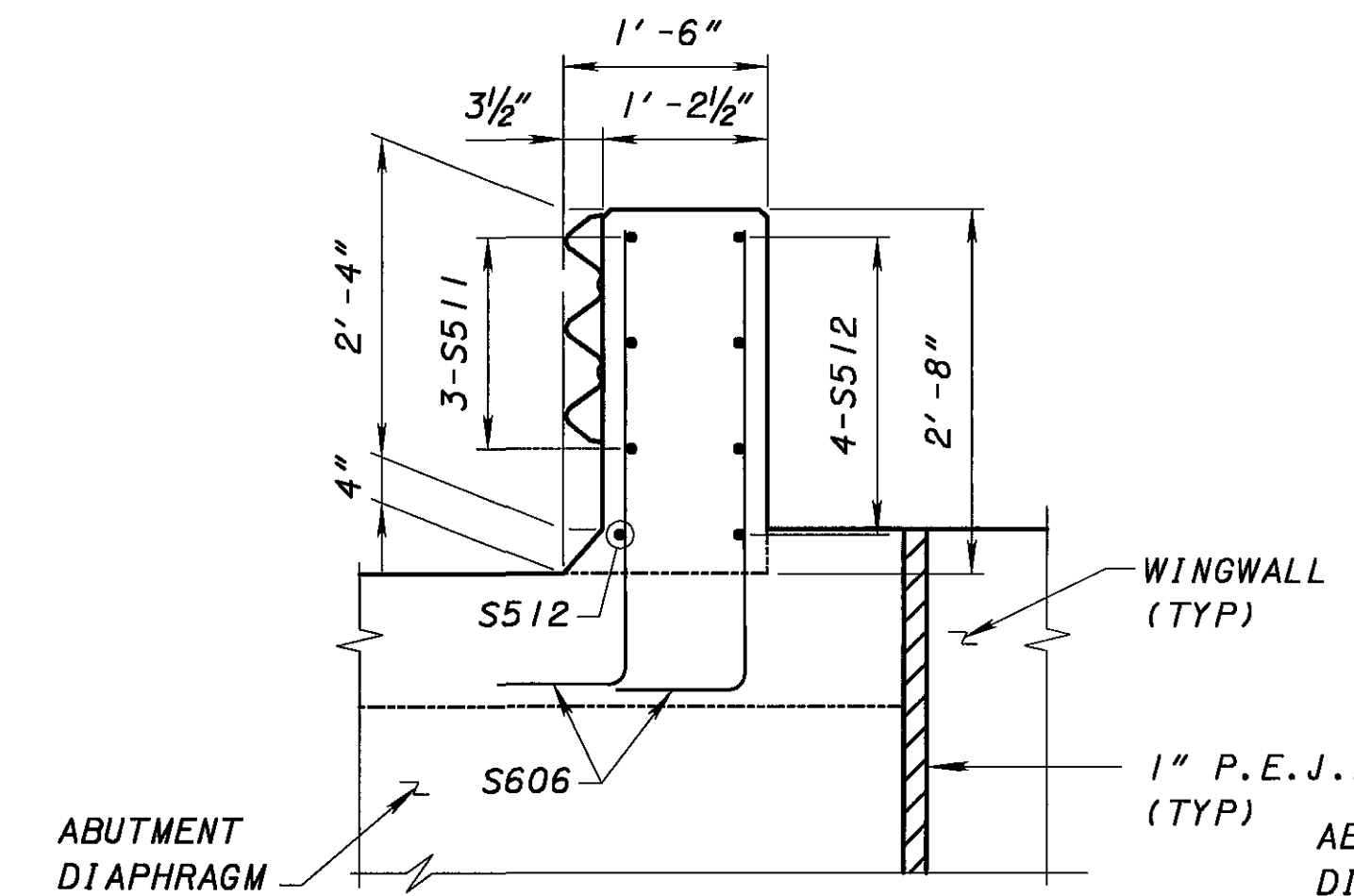


SECTION B-B

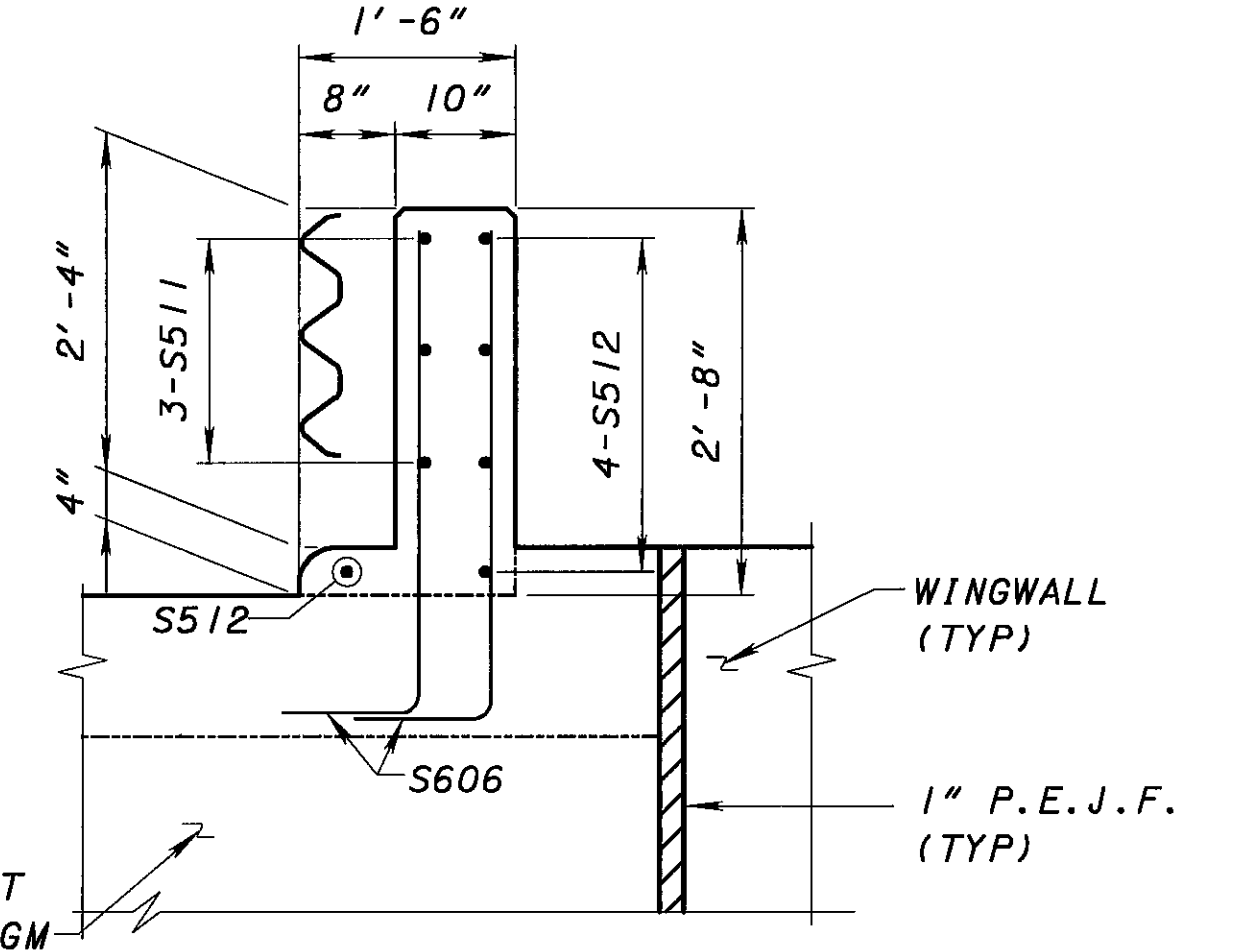
MINIMUM LAP LENGTHS
#5 BARS - 3'-2"
#6 BARS - 4'-1"



SECTION C-C

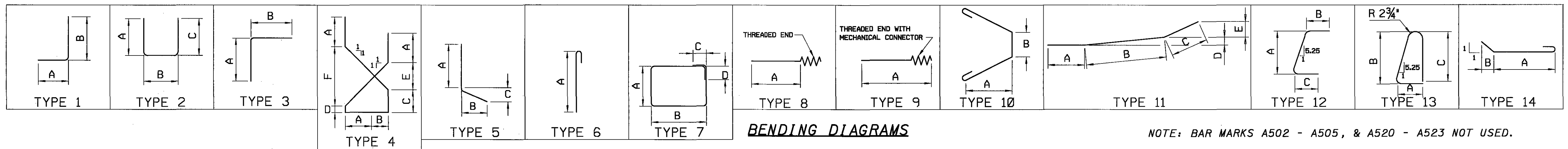


SECTION D-D



SECTION E-E

ABUTMENT REINFORCING																										
MARK	QUANTITY							WEIGHT							TYPE	DIMENSIONS										
	LEFT BRIDGE			RIGHT BRIDGE			GRAND TOTAL	LENGTH	LEFT BRIDGE			RIGHT BRIDGE				GRAND TOTAL	A	B	C	D	E	F	R	INC		
	REAR	FWD	TOTAL	REAR	FWD	TOTAL			REAR	FWD	TOTAL	REAR	FWD	TOTAL												
A401	69	69	138	69	69	138	276	9' - 7"	442	442	884	690	690	1,380	2264	7	2' - 6 ³ / ₄ "	1' - 9"	0' - 8"	0' - 8"						
A501	50	50	100	50	50	100	200	12' - 7"	657	657	1,314	657	657	1,314	2628	7	2' - 7"	3' - 2"	0' - 10"	0' - 10"						
A506	47	47	94	47	47	94	188	11' - 7"	568	568	1,136	568	568	1,136	2272	7	2' - 7"	2' - 8"	0' - 10"	0' - 10"						
A507	2	2	4	2	2	4	8	18' - 3"	39	39	78	39	39	78	156	STR.										
A508	7	7	14	7	7	14	28	14' - 10"	109	109	218	109	109	218	436	STR.										
A509	54	54	108	54	54	108	216	7' - 3"	409	409	818	409	409	818	1636	2	2' - 8"	2' - 2"	2' - 8"							
A510	58	58	116	58	58	116	232	7' - 7"	459	459	918	459	459	918	1836	STR.										
SER	2	2	4	2	2	4	8	4' - 6"																		
A511	SER OF 11	SER OF 11	SER OF 11	SER OF 11	SER OF 11	SER OF 11	SER OF 11	TO 7' - 5"	137	137	274	137	137	274	548	STR.										0' - 3 ¹ / ₂ "
SER	1	1	2	1	1	2	4	4' - 10"																		
A512	SER OF 6	SER OF 6	SER OF 6	SER OF 6	SER OF 6	SER OF 6	SER OF 6	TO 19' - 10"	78	78	156	78	78	156	312	STR.										3' - 0"
A513	10	10	20	10	10	20	40	19' - 1"	200	200	400	200	200	400	800	STR.										
A514	20	20	40	20	20	40	80	34' - 7"	722	722	1444	722	722	1444	2888	STR.										
A515	10	10	20	10	10	20	40	23' - 9"	248	248	496	248	248	496	992	STR.										
A516	7	7	14	7	7	14	28	15' - 2"	111	111	222	111	111	222	444	STR.										
SER	1	1	2	1	1	2	4	3' - 5"																		
A517	SER OF 6	SER OF 6	SER OF 6	SER OF 6	SER OF 6	SER OF 6	SER OF 6	TO 19' - 8"	73	73	146	73	73	146	292	STR.										3' - 3"
A518	1	1	2	1	1	2	4	2' - 11"	4	4	8	4	4	8	16	STR.										
A519	1	1	2	1	1	2	4	2' - 7"	3	3	6	3	3	6	12	STR.										
A601	57	57	114	57	57	114	228	16' - 9"	1,435	1,435	2870	1,435	1,435	2870	5740	4	1' - 10"	0' - 10"	2' - 5"	1' - 5"	1' - 8"	3' - 8"				
A602	50	50	100				100	16' - 4"	1,227	1,227	2454				2454	2	7' - 0"	2' - 8"	7' - 0"							
A603	34	34	68				68	22' - 4"	1,141	1,141	2282				2282	2	10' - 3"	2' - 2"	10' - 3"							
SER	1	1	2				2	16' - 10"																		
A604	SER OF 10	SER OF 10	SER OF 10				SER OF 10	TO 22' - 10"	298	298	596				596	2	TO 10' - 6"	2' - 2"	TO 10' - 6"						A INC- C INC-	0' - 4"
A605	3	3	6				6	14' - 10"	67	67	134				134	2	6' - 6"	2' - 2"	6' - 6"							
A606	12	12	24				24	11' - 6"	208	208	416				416	STR.										
A607	2	2	4				4	8' - 8"	27	27	54				54	STR.										
A608				50	50	100	100	14' - 6"				1,089	1,089	2178	2178	2	6' - 1"	2' - 8"	6' - 1"							
A609				34	34	68	68	20' - 6"				1,047	1,047	2094	2094	2	9' - 4"	2' - 2"	9' - 4"							
SER				1	1	2	2	15' - 4"																		
A610				SER OF 10	SER OF 10	SER OF 10	SER OF 10	TO 21' - 4"				276	276	552	552	2	TO 9' - 9"	2' - 2"	TO 9' - 9"						A INC- C INC-	0' - 4"
A611				3	3	6	6	14' - 8"				67	67	134	134	2	6' - 5"	2' - 2"	6' - 5"							
A612				12	12	24	24	10' - 8"				193	193	386	386	STR.										
A613				2	2	4	4	7' - 7"				23	23	46	46	STR.										
A801	8	8	16	8	8	16	32	22' - 9"	486	486	972	486	486	972	1944	STR.										
A802	8	8	16	8	8	16	32	38' - 5"	821	821	1642	821	821	1,642	3284	STR.										
A803	8	8	16	8	8	16	32	27' - 7"	590	590	1180	590	590	1,180	2360	STR.										
A804	8	8	16	8	8	16	32	34' - 4"	734	734	1468	734	734	1,468	2936	STR.										
D801	42	42	84	42	42	84	168	3' - 7"	402	402	804	402	402	804	1608	14	1' - 3"	1' - 0"								
TOTAL									11,695	11,695	23,390	11,670	11,670	23,340	46,730											



DESIGNED BY: JNS
 CHECKED BY: GKL
 DRAWN BY: KVM
 REVISED BY:
 REVIEWED BY: PAS
 DATE: 02/2005
 STRUCTURE FILE NUMBER: 5203019 - RIGHT
 MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 222 EAST MAIN, CHICAGO, IL 60601

ABUTMENT REINFORCING STEEL LIST
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

28 / 29

916
1120

SUPERSTRUCTURE REINFORCING

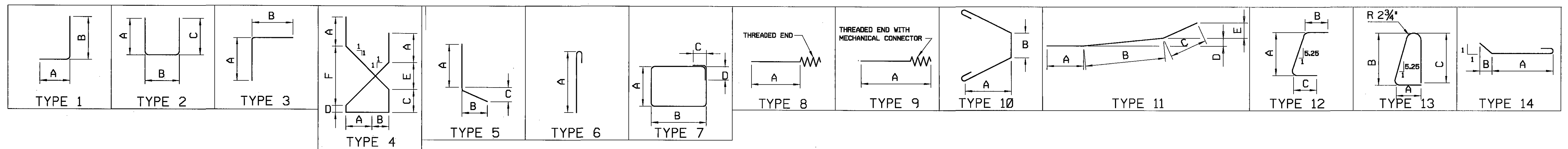
MARK	QUANTITY			LENGTH	WEIGHT			TYPE	DIMENSIONS							
	LEFT BRIDGE	RIGHT BRIDGE	TOTAL		LEFT BRIDGE	RIGHT BRIDGE	TOTAL		A	B	C	D	E	R	INC	
S401	303	303	606	30' - 0"	6073	6073	12146	STR								
S402	101	101	202	33' - 5"	2255	2255	4510	STR								
S403	234	234	468	10' - 1"	1577	1577	3154	2	7' - 0"	0' - 10"	2' - 6"					
S501	904	904	1808	32' - 11"	31,037	31,037	62074	STR								
SER	4	4	8	11' - 0"												
S502	SER OF 7	SER OF 7	SER OF 7	TO 32' - 0"	628	628	1256	STR								3' - 6"
SER	4	4	8	9' - 6"												
S503	SER OF 7	SER OF 7	SER OF 7	TO 30' - 6"	585	585	1170	STR								3' - 6"
S504	276	276	552	30' - 0"	8637	8637	17274	STR								
S505	80	80	160	37' - 2"	3102	3102	6204	STR								
S506	12	12	24	18' - 0"	226	226	452	STR								
S507	204	204	408	7' - 5"	1579	1579	3158	13	1' - 1"	3' - 2"	3' - 0"					2 3/4"
S508	12	12	24	7' - 5"	93	93	186	STR								
S509	12	12	24	6' - 9"	85	85	170	STR								
S510	32	32	64	10' - 0"	334	334	668	STR								
S511	12	12	24	7' - 0"	88	88	176	11	1' - 8"	2' - 5"	1' - 5"	1 1/2"	5"			
S512	20	20	40	7' - 0"	147	147	294	STR								
S513	74	74	148	6' - 9"	521	521	1042	2	2' - 5"	2' - 2"	2' - 5"					
S514	172	172	344	12' - 5"	2228	2228	4456	2	5' - 0"	2' - 8"	5' - 0"					
S515	12	12	24	7' - 11"	100	100	200	2	2' - 9"	2' - 8"	2' - 9"					
S516	16	16	32	2' - 4"	39	39	78	STR.								
S517	4	4	8	1' - 8"	7	7	14	STR.								
S518	128	128	256	5' - 9"	768	768	1536	5	3' - 0"	2' - 0"	2' - 0"					
S601	204	204	408	3' - 9"	1150	1150	2300	12	1' - 9"	1' - 1"	1' - 1"					
S602	204	204	408	2' - 8"	818	818	1636	1	1' - 9"	1' - 1"						
S603	6	6	12	30' - 0"	271	271	542	STR								
S604	2	2	4	20' - 9"	63	63	126	STR								
SER	8	8	16	4' - 5"					1' - 1"	3' - 6"						
S605	SER OF 10	SER OF 10	SER OF 10	TO 5' - 2"	576	576	1152	1	1' - 1"	4' - 3"						0' - 1"
S606	40	40	80	4' - 4"	261	261	522	1	1' - 1"	3' - 5"						
S801	26	26	52	38' - 5"	2667	2667	5334	STR.								
S802	26	26	52	34' - 4"	2384	2384	4768	STR.								
S803	48	48	96	7' - 3"	930	930	1860	STR.								
S804	42	42	84	7' - 1"	795	795	1590	STR.								
				TOTAL	70,024	70,024	140,048									

NOTES:

BAR SIZE:
 THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

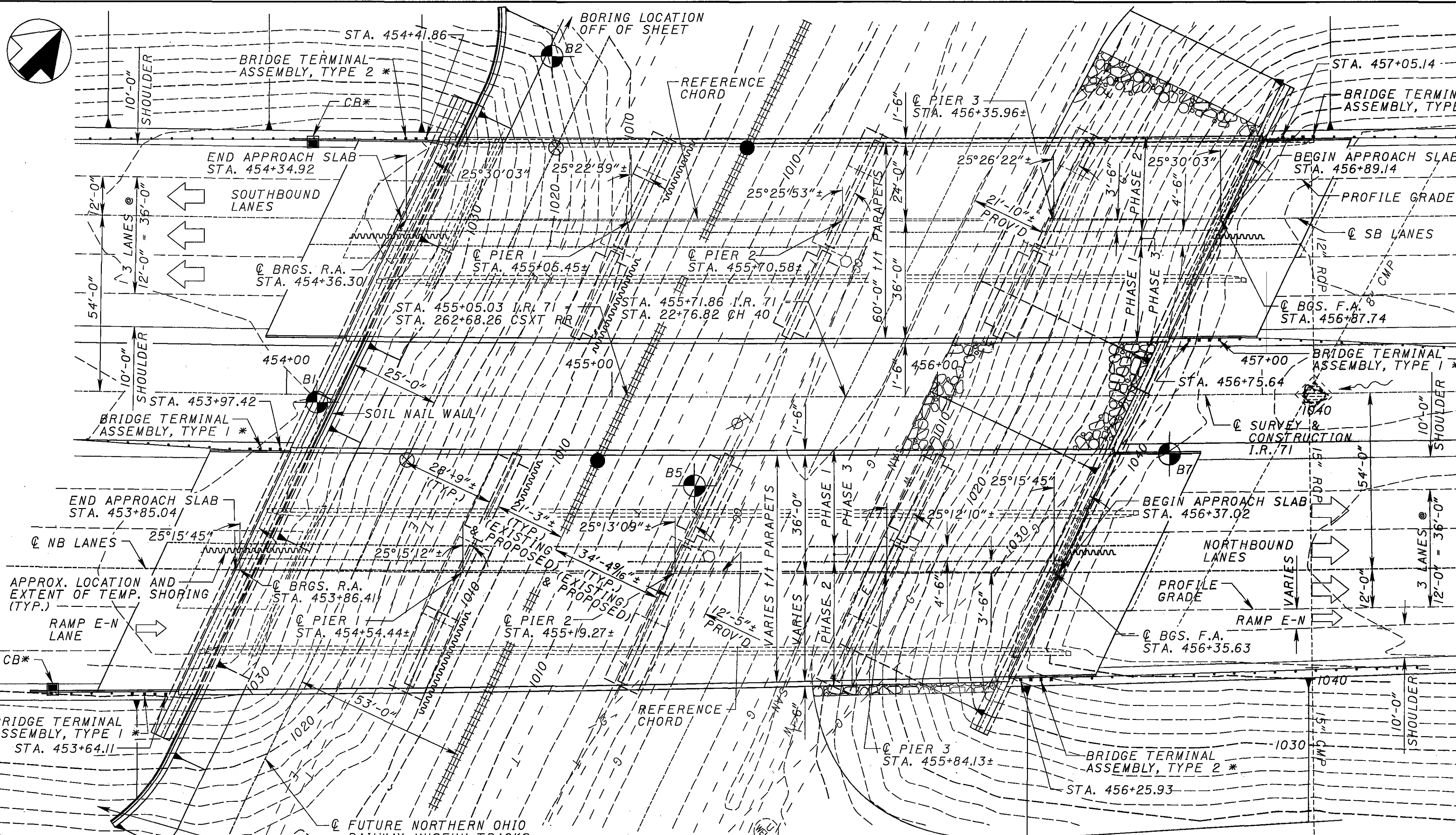
ALL BARS TO BE EPOXY COATED.

REINFORCING BAR SAMPLES:
 REFER TO C.M.S. SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING FOR EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH THE PROJECT PLANS.

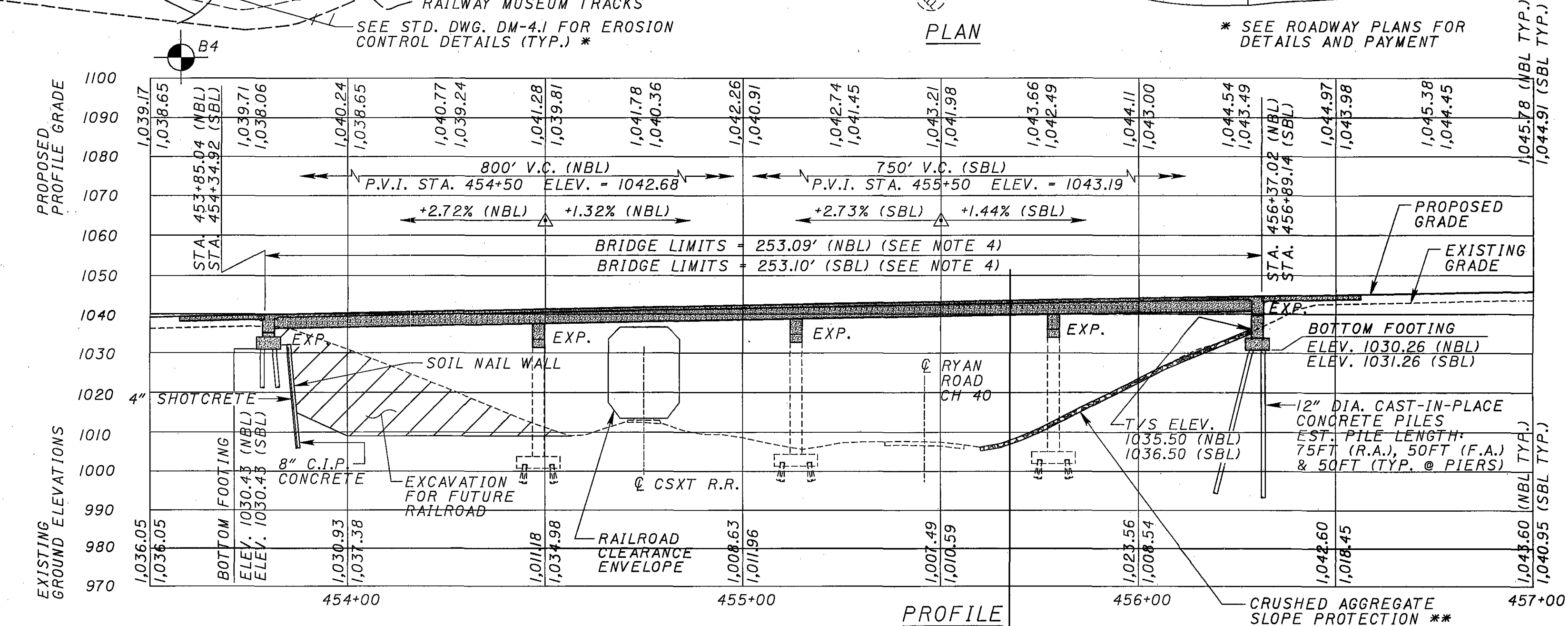


BENDING DIAGRAMS

SUPERSTRUCTURE REINFORCING STEEL LIST
 BRIDGE NO. MED-71-0810 L/R
 I-71 OVER CHIPPEWA DITCH
 CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 202 EAST BROAD ST., SUITE 200
 RICHMOND, VA 23219



PLAN * SEE ROADWAY PLANS FOR DETAILS AND PAYMENT



PROFILE

CURVE DATA	
@ I.R. 71	
P.I. Sta = 443+26.96	
$\Delta = 25^{\circ}03'47''$ (LT)	
$D_c = 00^{\circ}28'02''$	
$R = 12,262.63'$	
$T = 2,725.64'$	
$L = 5,364.08'$	
$E = 299.27'$	
S.E. = 0.019	
EX. S.E. = N.C.	

** 1'-0" THICK IN WIDENED AND MEDIAN AREAS. THICKNESS AS NEEDED IN EXISTING AREAS TO RE-ESTABLISH SLOPE.

NOTES:

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
- REFERENCE CHORDS ARE MEASURED FROM THE INTERSECTION OF THE CENTERLINES OF LANES AND THE CENTERLINES OF ABUTMENT BEARINGS.
- SPAN LENGTHS ARE MEASURED ALONG REFERENCE CHORDS.
- BRIDGE LIMITS ARE MEASURED ALONG THE @ PROPOSED LANES - NOT @ SURVEY & CONSTRUCTION I.R. 71.

LEGEND:

- ⊗ = POINT OF MIN. VERTICAL CLEARANCE (PROPOSED TRACKS)
- = POINT OF MIN. VERTICAL CLEARANCE (EXISTING TRACKS)
- BI = CURRENT FOUNDATION INVESTIGATION BORING
- R.A. = REAR ABUTMENT
- F.A. = FORWARD ABUTMENT
- NBL = NORTHBOUND LANES
- SBL = SOUTHBOUND LANES

VERTICAL CLEARANCE				
	PROPOSED TRACKS		EXISTING TRACKS	
POINT	REQUIRED	PROVIDED	REQUIRED	PROVIDED
NBL	23'-0"	23'-0"	23'-0"	24'-3"
SBL	23'-0"	23'-0"	23'-0"	24'-1 1/4"

SOIL BORING INFORMATION			
BORING NO.	STATION	OFFSET	ELEVATION
B1	454+09.38	2.40' (RT)	1036.27
B2	454+97.32	133.02' (LT)	1005.79
B4	453+60.00	155.00' (RT)	1003.00
B5	455+15.50	27.35' (RT)	1006.11
B7	456+71.34	18.14' (RT)	1042.24

BENCHMARK INFORMATION	
BM #0268:	STA. 454+72.36, 26.29'R, O.C. SET I.P.'S, 499,644.71 N, 2,139,708.69 E, ELEV. 1010.33
BM #3053:	STA. 457+82.04, 0.026'L, @ MONUMENT, 499,886.78 N, 2,139,904.13 E, ELEV. 1041.02

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.

SPANS: 52'-0", 65'-0", 65'-0", 52'-0" ± c/c BEARINGS

STRUCTURE FILE NO.: 5203031 & 5203066

ROADWAY: 42'-0" ± f/f PARAPETS

ORIGINAL DESIGN LOADING: CF 2000, ADEQUATE FOR AASHTO ALTERNATE LOADING.

WEARING SURFACE: 1" MONOLITHIC

ALIGNMENT: 00°28'00" ± CURVE LEFT

SUPERELEVATION: NONE

APPROACH SLABS: 25'-0" ± LONG

DATE BUILT: 1959

SKEW: 25°13'44" ± LEFT FORWARD

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL ROLLED BEAMS WITH COMPOSITE REINFORCED CONCRETE DECK ON MODIFIED WALL TYPE CONCRETE PIERS AND SEMI-INTEGRAL CONCRETE ABUTMENTS.

SPAN: 68'-6 3/4" ±, 65'-2 1/8" ±, 65'-0 1/2" ±, 51'-6 1/2" ± (NBL)
69'-1" ±, 64'-10 1/8" ±, 64'-11 3/8" ±, 51'-4 1/4" ± (SBL)
(MEASURED ALONG REFERENCE CHORD)

ROADWAY: 60'-0" ± f/f PARAPETS (SBL)
VARIES (NBL)

SKEW: SEE PLAN VIEW (MEASURED WITH RESPECT TO REFERENCE CHORD)

ALIGNMENT: 00°28'02" CURVE LEFT

WEARING SURFACE: MONOLITHIC CONCRETE

DESIGN LOADING: HS25 (CASE I) AND THE ALTERNATE MILITARY LOADING

FWS LOADING: 60 PSF

APPROACH SLABS: AS-1-81 (25'-0" LONG)

SUPERELEVATION: 0.019 FT/FT

ADT (2006): 42540 ADTT (2006): 10850

ADT (2026): 60040 ADTT (2026): 15310

LATITUDE: N 41°02'11"

LONGITUDE: W 81°52'48"

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07\isp1.dgn

BURGESS & NIPLE
5005 Reed Road
Columbus, OH 43220

DATE: 6/04
REVIEWED: BES
DRAWN: CRC
DESIGNED: WTL
CHECKED: TTK

MEDINA COUNTY
STA. 453+85.04R
STA. 456+37.02R

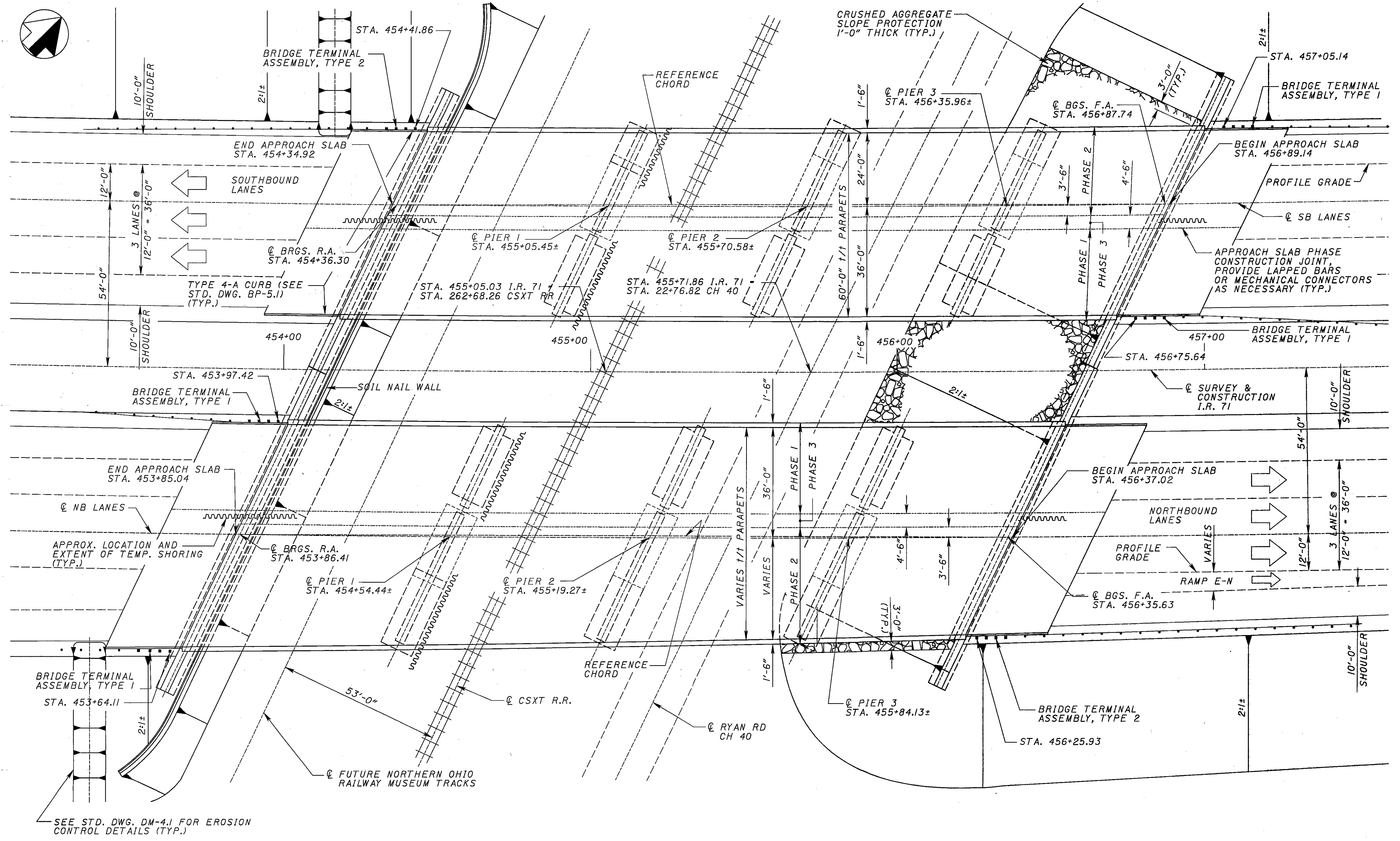
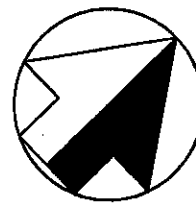
MEDINA COUNTY
STA. 454+34.92L
STA. 456+89.14L

SITE PLAN
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

1/65

918
1120



PLAN

NOTE:
 1. SEE STD. DWG. AS-1-B1 FOR APPROACH SLAB DETAILS NOT SHOWN.

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07\sp1.DGN

DATE	6/04
REVIEWED	BES
DRAWN	JMK
CHECKED	JHL
STRUCTURE FILE NUMBER	5203031 - LEFT
FILE NUMBER	5203066 - RIGHT

GENERAL PLAN
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR. AND RYAN ROAD C.H. 40

MED-71-6.06
 PID-75657

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 DATED (REVISED) 7-19-02 PCB-91 DATED (REVISED) 7-19-02
BS-1-93 DATED (REVISED) 7-19-02 SBR-1-99 DATED (REVISED) 7-19-02
GSD-1-96 DATED (REVISED) 7-19-02 SICD-1-96 DATED (REVISED) 7-19-02

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:
DM-4.1 DATED 7-20-01

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
894 DATED 4-15-05

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF THE STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25, CASE I AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 PSF.

DESIGN DATA:

- CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI
STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50,000 psi

DECK PROTECTION METHOD:
EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER.

T-TYPE PIER CAP REMOVAL: FOR REMOVAL OF THE T-TYPE PIER CAPS, THE CONTRACTOR HAS THE OPTION OF USING A FULL DEPTH SAW CUT WITH SUBSEQUENT DOWEL INSTALLATION OR REMOVAL USING PNEUMATIC HAMMERS AND SALVAGING EXISTING RESTEEL. IF PNEUMATIC HAMMERS ARE USED, THE REQUIREMENTS UNDER "SUBSTRUCTURE CONCRETE REMOVAL", BELOW, SHALL BE FOLLOWED.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE USE OF EXPLOSIVES, HEADACHE BALLS OR HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. ANY BACKFILL OF EXCAVATIONS FOR REMOVAL OF EXISTING REAR ABUTMENTS SHALL BE COHESIVE MATERIAL (A-6 OR A-7-6 SOIL) MEETING THE REQUIREMENTS OF ITEM 203.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUPERSTRUCTURE CONCRETE REMOVAL: FULL DEPTH SAWCUT THROUGH THE DECK IS REQUIRED.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN: THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE): THE ULTIMATE BEARING VALUE IS 80 TONS PER PILE FOR THE 12" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE REAR ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 100 TONS PER PILE FOR THE 12" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE FORWARD ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 80 TONS PER PILE FOR THE 12" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE PIER PILES.

SPICES SHALL BE FURNISHED BY THE CONTRACTOR, AT NO EXTRA COST TO THE STATE, FOR PILE LENGTHS IN EXCESS OF 25'.

REAR ABUTMENT PILES (SOUTHBOUND LANES):
26 PILES 80 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM

PIERS 1, 2 & 3 PILES (SOUTHBOUND LANES):
89 PILES 55 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

FORWARD ABUTMENT PILES (SOUTHBOUND LANES):
26 PILES 55 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM

REAR ABUTMENT PILES (NORTHBOUND LANES):
30 PILES 80 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

PIERS 1, 2 & 3 PILES (NORTHBOUND LANES):
115 PILES 55 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

FORWARD ABUTMENT PILES (NORTHBOUND LANES):
30 PILES 55 FEET LONG, ORDER LENGTH
NO ADDITIONAL DYNAMIC LOAD TESTING ITEM

BATTERED PILES: THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

D = (1-UG) / sqrt(1+G^2)

U= COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G= RATE OF BATTER (1/3, 1/4, ETC.)

ITEM 507, PREBORED HOLES, AS PER PLAN: PREBORED HOLES EXTENDING TO ELEVATION 1008.00 SHALL BE PROVIDED FOR EACH PILE FOR THE REAR ABUTMENT. THE DIAMETER OF THE PREBORED HOLE SHALL BE 12 INCHES. THE CUTTINGS FROM THE PREBORED HOLE SHALL BE REMOVED PRIOR TO PLACING THE PILE IN THE PREBORED HOLE. AFTER PLACING THE PILES IN THE PREBORED HOLES, ANY REMAINING VOIDS SHALL BE FILLED WITH DRY SAND PRIOR TO DRIVING THE PILES AS SPECIFIED.

UTILITY LINES: THE UTILITIES SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS: PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805 (PHONE 800-276-4188).

ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN: INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1/4" x #10 GAGE (LENGTH x SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, +/- FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, +/- FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY-DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

Table with 3 columns: DESCRIPTION OF TEST, ASTM METHOD, REQUIREMENT. Rows include THICKNESS, INCHES; BREAKING STRENGTH, GRAB, LBS, MINIMUM (LONG. x TRANS.); ADHESIVE STRIP, 1" WIDE x 2" LONG, LBS MINIMUM; BURST STRENGTH, PSI MINIMUM; HEAT AGING, 70 HR, 212°F, 180° BEND WITHOUT CRACKING; LOW TEMP. BRITTLINESS, 1 HR, -40°F, BEND AROUND 1/4" MANDREL.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE THE MINIMUM LAP LENGTH FOR THAT BAR AS SHOWN ON THE PLANS.

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM 509.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

DRIP GROOVES:

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

ITEM 511 CLASS C CONCRETE, _____, AS PER PLAN: COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE): SEALER SHALL BE TINTED TO A NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NUMBER 17778.

STRUCTURAL STEEL MEMBERS, LEVEL 3, AS PER PLAN and FIELD PAINTING STRUCTURAL STEEL, _____ COAT, AS PER PLAN

PARTIAL PAINTING OF A709 GRADE 50W STEEL: PAINT THE LAST 10 FT. OF EACH BEAM/GIRDER END ADJACENT TO THE ABUTMENTS INCLUDING ALL CROSSFRAMES AND OTHER STEEL WITHIN THESE LIMITS. THE PRIME COAT SHALL BE 708.01. THE TOP COAT COLOR SHALL CLOSELY APPROACH FEDERAL STANDARD NO. 595B - 20045 OR 20059 (THE COLOR OF WEATHERING STEEL).

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BURGESS & NIPLE
5205 Reed Road
Columbus, Ohio 43220

DATE 6/04
REVIEWED BES
DRAWN CRC
DESIGNED TTK
STRUCTURE FILE NUMBER 5203031 - LEFT
5203066 - RIGHT

GENERAL NOTES 1
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

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PHASE CONSTRUCTION AND MAINTENANCE OF TRAFFIC: THE PROPOSED WORK (INCLUDING THE APPROACH SLABS) SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. PLACE PORTABLE CONCRETE BARRIERS ON NORTHBOUND & SOUTHBOUND LANES AND DIVERT TRAFFIC TO OUTER LANES.
2. INSTALL PHASE 1 T-TYPE PIER SUPPORTS AT EACH PIER.
3. REMOVE PORTIONS OF THE EXISTING STRUCTURES AS SHOWN ON THESE PLANS OR IN ABSENCE OF PLAN DETAILS OR NOTES, AS NEEDED TO PERMIT PHASE 1 CONSTRUCTION.
4. CONSTRUCT SUBSTRUCTURE FOR PHASE 1.
5. COMPLETE PHASE 1 CONSTRUCTION.
6. PLACE PORTABLE CONCRETE BARRIERS ON PHASE 1 CONSTRUCTION AND DIVERT BOTH NORTHBOUND AND SOUTHBOUND TRAFFIC TO PHASE 2 TRAFFIC LANES.
7. REPEAT STEPS 3-5 FOR PHASE 2 REMOVALS AND CONSTRUCTION.
8. COMPLETE REMAINING WORK ITEMS, INCLUDING PHASE 3 CONSTRUCTION.
9. REMOVE PORTABLE CONCRETE BARRIERS AND OPEN STRUCTURE TO TRAFFIC.
10. CONSTRUCT SOIL NAIL WALL AFTER THE COMPLETION OF NORTHBOUND AND SOUTHBOUND BRIDGES. IT IS THE INTENT OF THESE PLANS TO COMPLETELY CONSTRUCT THE NEW BRIDGE PRIOR TO CONSTRUCTION OF THE SOIL NAIL WALL.

ITEM 530, SPECIAL - STRUCTURE, MISC.: ESTABLISH PIER CENTERLINES:
PRIOR TO THE START OF ANY WORK, THE CONTRACTOR SHALL ESTABLISH THE PROPOSED PIER CENTERLINES. A REGISTERED PROFESSIONAL SURVEYOR SHALL PERFORM THIS WORK. CENTERLINE OF PIERS SHALL BE BASED ON LOCATING THE CENTERLINE OF THE EXISTING PIER CAPS. THIS LINE SHALL BECOME THE PROPOSED CENTERLINE OF EACH PIER.

IF THE ANGLE BETWEEN THE INTERSECTION OF CENTERLINE OF BEARINGS AT THE PIERS AND THE REFERENCE CHORD OR THE DIMENSIONS BETWEEN THE CENTERLINES ALONG THE REFERENCE CHORD DIFFER FROM INFORMATION SHOWN ON THE PLANS, BEAM LENGTH ADJUSTMENT MAY BE REQUIRED TO COMPENSATE FOR THIS DIFFERENCE.

SURVEY RESULTS (INCLUDING PROPOSED SPAN LENGTHS MEASURED ALONG THE REFERENCE CHORD) SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. ALL COSTS ASSOCIATED WITH PERFORMING THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PAY ITEM "SPECIAL-STRUCTURE, MISC.: ESTABLISH PIER CENTERLINES."

ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN:
AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE METHOD OF TEMPORARY SHORING FOR PART-WIDTH CONSTRUCTION AND/OR FOR RAILROAD MAY BE USED. RAILROAD SHORING SHALL BE DESIGNED TO RESIST A VERTICAL LIVE LOAD SURCHARGE OF 1800 LBS. PER SQUARE FOOT, IN ADDITION TO ACTIVE EARTH PRESSURE. THE SURCHARGE SHALL BE ASSUMED TO ACT ON A CONTINUOUS STRIP, 8'-6" WIDE. LATERAL PRESSURES DUE TO SURCHARGE SHALL BE COMPUTED USING THE STRIP LOAD FORMULA SHOWN IN AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8, PART 20.

ALLOWABLE STRESSES IN MATERIALS SHALL BE IN ACCORDANCE WITH AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 7, 8, AND 15.

A CONSTRUCTION PROCEDURE FOR TEMPORARY SHORING SHALL BE SHOWN ON THE DRAWING.

SAFETY RAILING SHALL BE INSTALLED WHEN TEMPORARY SHORING IS WITHIN 12 FEET OF TRACK.

A MINIMUM DISTANCE OF 10 FEET FROM CENTERLINE OF TRACK TO FACE OF NEAREST POINT OF SHORING SHALL BE MAINTAINED.

THE CONTRACTOR SHALL SUBMIT THE FOLLOWING DRAWINGS AND CALCULATIONS FOR RAILROAD REVIEW AND APPROVAL. SEE ALSO CSXT RAILROAD REQUIREMENTS.

1. THREE (3) SETS OF DETAILED DRAWINGS OF THE SHORING SYSTEMS SHOWING SIZES OF ALL STRUCTURAL MEMBERS, DETAILS OF CONNECTIONS, AND DISTANCES FROM CENTERLINE OF TRACK TO FACE OF SHORING. DRAWING SHALL SHOW A SECTION SHOWING HEIGHT OF SHORING AND TRACK ELEVATION IN RELATION TO BOTTOM OF EXCAVATION.
2. ONE SET OF CALCULATIONS OF THE SHORING DESIGN.

PLANS FOR SUCH SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND CONFORM WITH 501.05. FOR APPROVAL, FIVE COPIES OF THE DRAWINGS SHALL BE SUBMITTED TO THE DIRECTOR AND CONCURRENTLY, ONE COPY TO THE OFFICE OF STRUCTURAL ENGINEERING. CONSTRUCTION OF THE SHORING SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. PORTIONS OF THE TEMPORARY SHORING COMPOSED OF STEEL OR CONCRETE MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. PORTIONS COMPOSED OF OTHER MATERIALS SHALL BE REMOVED PRIOR TO COMPLETION OF THE WORK. ALL TEMPORARY SHORING AT THE REAR ABUTMENT SHALL BE COMPLETELY REMOVED WHEN NO LONGER REQUIRED.

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:
THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:
ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENTITIOUS RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE SLAG	1245	360	1335	2940	400	170	30	0.42	7
	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND POURED):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

ANCHOR BOLTS FOR FENCE POSTS SHALL BE CAST IN PLACE.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

ALL ANCHOR BOLTS FOR FENCE POSTS SHALL BE CAST IN PLACE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND POURED PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 8 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1/2" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

BASIS OF PAYMENT:
PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB
894E10001	CUBIC YARD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

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BURGESS & NIPLE
5095 Reed Road
Columbus, OH 43220

DATE 6/04
REVIEWED BES
DRAWN CRC
DESIGNED TTK
STRUCTURE FILE NUMBER 5203031 - LEFT
5203066 - RIGHT

GENERAL NOTES 2
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

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CSX TRANSPORTATION RAILROAD REQUIREMENTS:
ALL REFERENCE TO "THE RAILROAD" OR "THE RAILROAD COMPANY" HEREIN SHALL BE MEANT TO APPLY TO THE CSX TRANSPORTATION RAILROAD (CSXT)

A. GENERAL

FOR ADDITIONAL REQUIREMENTS PERTAINING TO THE RAILROADS, SEE SPECIAL CLAUSES IN THE PROPOSAL.

THE CONTRACTOR SHALL:

1. COOPERATE AT ALL TIMES WITH THE LOCAL OFFICIALS OF THE RAILROAD COMPANIES.
2. USE CARE AND DILIGENCE IN THE WORK IN ORDER TO AVOID ACCIDENTS, DAMAGE, OR UNNECESSARY DELAY TO, OR INTERFERENCE WITH TRAINS AND OTHER PROPERTY OF THE RAILROAD COMPANIES.
3. CONDUCT WORK IN A MANNER SATISFACTORY TO THE CHIEF ENGINEER OF THE RAILROAD COMPANIES OR THEIR AUTHORIZED REPRESENTATIVES, IN SUCH MANNER AND AT SUCH TIME AS TO NOT UNNECESSARILY INTERFERE WITH THE MOVEMENT OF TRAINS OR RAILROAD TRAFFIC, AND TO HOLD THE WORK AT ALL TIMES OPEN TO INSPECTION BY RAILROAD COMPANY INSPECTORS.
4. COOPERATE WITH RAILROAD COMPANIES OR OTHER ORGANIZATIONS HAVING OCCASION TO DO WORK ON AND IN CONNECTION WITH THE IMPROVEMENT.
5. AVOID USE OF RAILROAD PROPERTY WITHOUT WRITTEN PERMISSION OF THE RAILROAD COMPANIES AND LEAVE RAILROAD RAIL BED AND PROPERTY IN A CONDITION ACCEPTABLE TO THE CHIEF ENGINEER OF THE RAILROAD COMPANIES.

PRIOR TO COMMENCING ANY WORK INVOLVING THE REMOVAL OF THE EXISTING STRUCTURE, THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR FOR APPROVAL BY THE DIRECTOR AND RAILROADS, COMPLETE DETAILS OF THE PROPOSED METHOD FOR REMOVING THE EXISTING STRUCTURE, INCLUDING THE METHOD OF TRACK PROTECTION, THE SEQUENCE OF DEMOLITION, AND THE PROCEDURES AND EQUIPMENT TO BE USED. NO DEMOLITION SHALL BEGIN UNTIL AFTER WRITTEN APPROVAL IS RECEIVED FROM THE DIRECTOR.

ALL WORK ABOVE OR DIRECTLY ADJACENT TO RAILROAD TRACKS SHALL BE SUBJECT TO THE APPROVAL OF THE RAILROAD COMPANIES AND TO INSPECTION AT ALL TIMES BY THEIR PROPERLY DESIGNATED REPRESENTATIVES. SAFETY AND CONTINUITY OF OPERATIONS OF RAILROAD TRAFFIC AND THE PROTECTION OF RAILROAD COMMUNICATION AND POWER LINES (IF PRESENT) SHALL BE OF MAJOR IMPORTANCE AND SHALL AT ALL TIMES BE PROTECTED AND SAFEGUARDED. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE DIRECTOR AND DULY AUTHORIZED REPRESENTATIVES OF THE RAILROADS AT LEAST TEN WORKING DAYS IN ADVANCE OF THE TIME THE CONTRACTOR INTENDS TO COMMENCE ANY WORK ABOVE OR DIRECTLY ADJACENT TO TRACKS. WHENEVER PERFORMING ANY WORK SUCH AS CONSTRUCTION OF PIERS OR SETTING OF NEW BEAMS WHICH, IN THE OPINION OF THE ENGINEER, COULD AFFECT RAILROAD OPERATION, THE CONTRACTOR SHALL SUBMIT COMPLETE PLANS AND DETAILS OF THE PROPOSED WORK TO THE ENGINEER FOR APPROVAL BY THE DEPARTMENT AND RAILROAD COMPANIES. NO SUCH WORK SHALL BE COMMENCED OR PROSECUTED WITHOUT PRIOR APPROVAL. APPROVAL OF SUCH WORK SHALL NOT BE CONSTRUED AS A RELEASE FROM RESPONSIBILITY OR LIABILITY FOR ANY DAMAGE THAT RAILROADS MAY SUFFER.

THE CONTRACTOR SHALL NOT AT ANY TIME PERMIT EQUIPMENT IN HIS USE TO ENTER UPON OR FOUL THE RAILROADS TRACKS EXCEPT WHEN SUCH EQUIPMENT IS PROTECTED BY AUTHORIZED EMPLOYEES OF THE RAILROADS. NO DEBRIS SHALL BE ALLOWED TO FALL ON RAILROAD PROPERTY.

RAILROAD AERIAL LINES (IF PRESENT) WILL BE RELOCATED BY THE RAILROADS. THE CONTRACTOR SHALL USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND SHALL COOPERATE WITH THE RAILROADS IN THE RELOCATION OF THESE LINES. THE COST OF THE RELOCATION SHALL BE INCLUDED IN RAILROAD FORCE ACCOUNT WORK.

SHORING SHALL BE PROVIDED ADJACENT TO THE RAILROAD, EXCEPT AS NOTED BELOW. SHORING WILL NOT BE REQUIRED IF THE FOLLOWING CONDITION IS SATISFIED:

EXCAVATION DOES NOT ENCRANCH ON A 1 1/2 HORIZONTAL TO 1 VERTICAL THEORETICAL SLOPE LINE STARTING 1'-6" BELOW TOP OF RAIL AND AT 12'-0" FROM CENTERLINE OF THE TRACK.

CROSS SECTIONS AT PIER 2, WHICH SHOW THE THEORETICAL SLOPE LINE AND THE APPROXIMATE EXCAVATION LIMITS, ARE PROVIDED ON THIS SHEET. THESE CROSS SECTIONS INDICATE THAT SHORING IS NOT REQUIRED AT THIS LOCATION. THE CONTRACTOR SHALL VERIFY WHETHER HIS ACTUAL EXCAVATION WILL ENCRANCH ON THIS THEORETICAL SLOPE LINE AND PROVIDE TEMPORARY SHORING IF REQUIRED.

CROSS SECTIONS AT PIER 1 INDICATE THAT SHORING IS REQUIRED. SHORING DETAILS, FOR BIDDING PURPOSES, FOR THIS LOCATION ARE GIVEN ON SHEET

22 / 65

SEE REQUIREMENTS UNDER ITEM 503, COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN.

RAILROAD SUBMITTAL OF ALL PLANS, DETAILS, CALCULATIONS AND PROCEDURES WILL REQUIRE A MINIMUM OF 30 DAYS FOR RAILROAD REVIEW AND ARE TO BE SENT TO CSX TRANSPORTATION INC., DAVE FETTE, DISTRICT PROJECT ENGINEER, 1717 DIXIE HIGHWAY, SUITE 400, FT. WRIGHT, KENTUCKY 41011 (PHONE 859-344-8137). NO SUCH WORK SHALL BE COMMENCED OR PROSECUTED WITHOUT PRIOR APPROVAL. APPROVAL OF SUCH WORK SHALL NOT BE CONSTRUED AS A RELEASE FROM RESPONSIBILITY OR LIABILITY FOR ANY DAMAGE THAT RAILROADS MAY SUFFER.

B. CONSTRUCTION ADJACENT TO TRACKS

THE FOLLOWING CONSTRUCTION CLEARANCES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION OF THE NEW STRUCTURE:

HORIZONTALLY FROM THE CENTER OF THE TRACK:
CSXT 14'-0"

VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL AND 6 FEET FROM THE CENTER OF TRACKS:
CSXT 22'-0"

NO OBSTRUCTIONS CLOSER TO THE TRACK THAN PERMITTED BY CONSTRUCTION CLEARANCES SHALL EXTEND ABOVE THE TOP OF RAIL. DURING REMOVAL OF THE EXISTING STRUCTURE, THE HORIZONTAL AND VERTICAL CLEARANCE SHALL NOT BE LESS THAN THE EXISTING OR THE PROPOSED CLEARANCE, WHICHEVER IS LESS.

SHORT DURATION INFRINGEMENTS ON THE ABOVE STATED CONSTRUCTION CLEARANCES SHALL BE DONE ONLY WITH APPROVAL FROM THE RAILROAD AND UNDER THE DIRECTION OF RAILROAD FLAGGERS OR AUTHORIZED PERSONNEL. UPON COMPLETION OF CONSTRUCTION OF THE PROPOSED STRUCTURE, THE CONTRACTOR SHALL REQUEST THE ENGINEER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH THE RAILROAD'S DIVISION ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.

RAILROAD INSURANCE INFORMATION:

OWNER OF THIS RAILROAD CROSSING IS CSX TRANSPORTATION. THE NUMBER OF TRAINS OPERATING THROUGH THE IMPROVEMENT IS ESTIMATED TO BE:

X PASSENGER TRAINS PER DAY @ XX MILES PER HOUR.

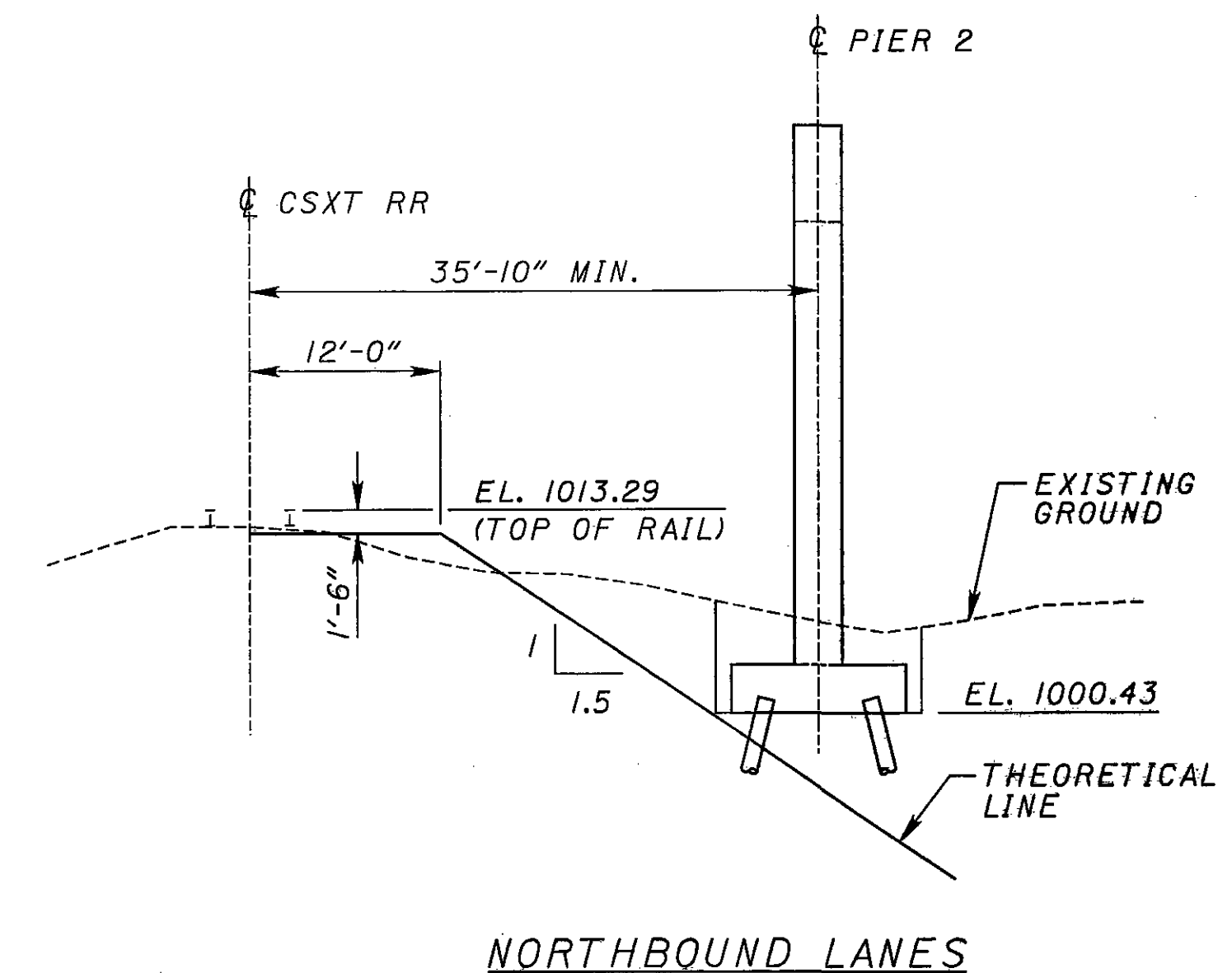
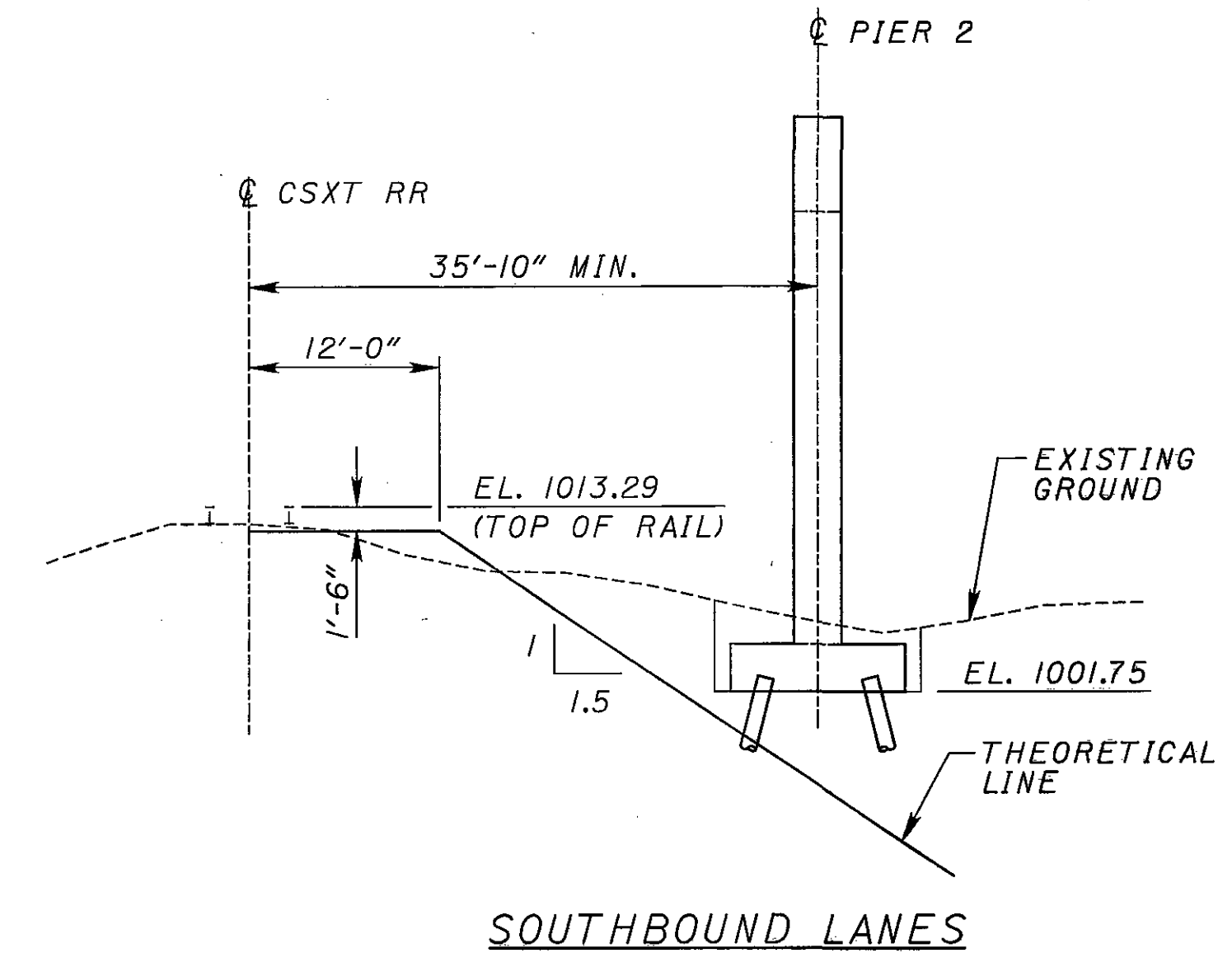
XX FREIGHT TRAINS PER DAY @ XX MILES PER HOUR.

HAZARDOUS MATERIAL: VARIOUS (LIST PROVIDED UPON REQUEST)

THE IDENTIFICATION OF THE CROSSING IS KNOWN AS:
MILEPOST: XXX
AARDOT NO: XXX

LOCAL CONTACT PERSON FOR FLAGGING: XXXX XXXX
PHONE: XXX-XXX-XXXX

CSXT RAILWAY COMPANY MAY REQUIRE ADVANCE NOTICE WHEN FLAGGING SERVICES ARE REQUIRED.



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BURGESS & NIPLE
2005 Reed Road
Chattanooga, TN 37420

DATE	6/04
REVIEWED	BES
DRAWN	CAC
DESIGNED	TTK
CHECKED	WTL
PROJECT FILE NUMBER	5203031 - LET 1
PROJECT NUMBER	5203066 - RIGHT

GENERAL NOTES 3
BRIDGE NO. MED-71-0860 L/R
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SOIL NAIL WALL NOTES:

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES - SEVENTEENTH EDITION" ADOPTED BY AASHTO 2002; THE ODOT BRIDGE DESIGN MANUAL; THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL (2002) (CMS), AND THE FEDERAL HIGHWAY ADMINISTRATION PUBLICATION NO. FHWA-SA-96-069R, MANUAL FOR DESIGN AND CONSTRUCTION MONITORING OF SOIL NAIL WALLS, OCTOBER 1998.

DESIGN DATA

RETAINING WALLS ARE DESIGNED ASSUMING AN ANGLE OF INTERNAL FRICTION OF 28 DEGREES FOR THE RETAINED SOIL. THE DESIGN ULTIMATE SOIL NAIL BOND STRESS IS 7 PSI. THE REQUIRED ALLOWABLE SOIL NAIL PULLOUT RESISTANCE IS 0.75 KIPS PER LINEAL FOOT.

DESIGN STRESSES

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (C.I.P. WALL FACING)
SHOTCRETE - COMPRESSIVE STRENGTH 4,000 PSI
REINFORCING STEEL - ASTM A615, A616 OR A617 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI
SOIL NAILS - ASTM A615, A616 GRADE 60 OR 75
STRUCTURAL STEEL - A36 - YIELD STRENGTH 36,000 PSI.

LOCATIONS OF ABUTMENT PILING

THE PROPOSED ABUTMENT PILING SHALL BE AVOIDED AT ALL TIMES. AS BUILT LOCATIONS OF THE ABUTMENT PILING SHALL BE RECORDED TO THE SATISFACTION OF THE PROJECT ENGINEER SO THAT THE PILING LOCATION SHALL BE KNOWN PRIOR TO SOIL NAIL WALL OPERATIONS. IF THE CONTRACTOR STRIKES A PILE, THE CONTRACTOR SHALL STOP PLACEMENT OF THE NAIL, FILL THE ABANDONED DRILLHOLE WITH GROUT AND RELOCATE THE NAIL AT NO ADDITIONAL COST TO THE STATE.

CONSTRUCTION CONSIDERATIONS

IN GENERAL, THE CONTRACTOR SHALL FOLLOW THE FOLLOWING RECOMMENDED CONSTRUCTION SEQUENCE:

1. CONSTRUCT THE ABUTMENT SECTIONS BEHIND THE SOIL NAIL WALL TO BE INSTALLED.
2. EXCAVATE DOWN THROUGH EXISTING EMBANKMENT SOILS TO INSTALL FIRST ROW OF SOIL NAILS.
3. INSTALL ROW OF SOIL NAILS.
4. INSTALL THE GEOCOMPOSITE DRAINSTRIPS AND REINFORCING AGAINST THE EXCAVATED SOIL FACE, ANCHORING THEM TO RESIST THE SHOTCRETE APPLICATION FORCES.
5. APPLY FOUR (4) INCH THICK LAYER OF SHOTCRETE. INSTALL BEARING PLATES, NUTS, AND ANY ADDITIONAL HARDWARE AND ALLOW TO CURE UNTIL AT LEAST 50% OF THE DESIGN STRENGTH IS ACHIEVED.
6. REPEAT STEPS 2 THROUGH 5 FOR SUBSEQUENT ROWS OF SOIL NAILS AND SHOTCRETE.
7. PLACE THE FINAL EIGHT (8) INCHES OF THE CAST-IN-PLACE CONCRETE FACING FOR THE ENTIRE PROPOSED WALL AREA AND ALLOW TO CURE UNTIL AT LEAST 50% OF THE DESIGN STRENGTH IS ACHIEVED.
8. ONCE THE CONCRETE FACING HAS CURED AND THE BACK FORMS ARE REMOVED, BACKFILL THE AREAS BEHIND AND AT THE TOP OF THE PROPOSED CAST-IN-PLACE WALL WITH ITEM 203 EMBANKMENT AS SHOWN IN THE PLANS. THE BACKFILL SHALL BE INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE CONSTRUCTION SEQUENCE TO THE PROJECT ENGINEER. THE PROJECT ENGINEER WILL APPROVE OR REJECT THE ALTERNATIVE CONSTRUCTION SEQUENCE PROPOSAL BEFORE THE CONTRACTOR CAN INITIATE THE ALTERNATIVE CONSTRUCTION SEQUENCE.

IN ADDITION TO THE PAY ITEMS BELOW, COST INVOLVED WITH THE RECOMMENDED CONSTRUCTION SEQUENCE SHALL BE INCLUDED WITH THE CONTRACT PRICE FOR "ITEM SPECIAL, RETAINING WALL, MISC.: SHOTCRETE CONSTRUCTION FACING AND WALL DRAINAGE"; ITEM 511 "CLASS C CONCRETE"; ITEM 503 "UNCLASSIFIED EXCAVATION, AS PER PLAN"

ITEM SPECIAL - RETAINING WALL, MISC.: PERMANENT SOIL NAILS
ITEM SPECIAL - RETAINING WALL, MISC.: VERIFICATION TESTS
ITEM SPECIAL - RETAINING WALL, MISC.: PROOF TESTS

1.0 DESCRIPTION. THE WORK SHALL CONSIST OF CONSTRUCTING PERMANENT SOIL NAIL RETAINING WALLS AS SPECIFIED HEREIN AND SHOWN ON THE PLANS. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR COMPLETING THE WORK. THE CONTRACTOR SHALL SELECT THE METHOD OF EXCAVATION, DRILLING METHOD AND EQUIPMENT, FINAL DRILL HOLE DIAMETER(S), AND GROUTING PROCEDURES TO MEET THE PERFORMANCE REQUIREMENTS SPECIFIED HEREIN.

THE TERM "SOIL NAIL" AS USED IN THESE SPECIFICATIONS IS INTENDED AS A GENERIC TERM AND REFERS TO A REINFORCING BAR GROUTED INTO A DRILLED HOLE INSTALLED IN ANY TYPE OF GROUND. SOIL NAIL WALLS ARE BUILT FROM THE TOP DOWN IN EXISTING GROUND.

SOIL NAILING WORK SHALL INCLUDE EXCAVATING IN ACCORDANCE WITH THE STAGED LIFTS INDICATED IN THE PLANS; DRILLING SOIL NAIL DRILLHOLES TO THE SPECIFIED MINIMUM LENGTH AND ORIENTATION INDICATED ON THE PLANS; PROVIDING, PLACING AND GROUTING THE ENCAPSULATED NAIL BAR TENDONS INTO THE DRILLHOLES; PLACING DRAINAGE ELEMENTS; PLACING SHOTCRETE REINFORCEMENT; APPLYING SHOTCRETE FACING OVER THE REINFORCEMENT; ATTACHING BEARING PLATES, BEVELED WASHERS, NUTS, AND SHEAR STUDS, AND PERFORMING NAIL TESTING. SHOTCRETE FACING AND WALL DRAINAGE CONSTRUCTION IS COVERED BY THE SHOTCRETE FACING AND WALL DRAINAGE SPECIFICATION. CAST IN PLACE CONCRETE FACING CONSTRUCTION IS COVERED BY THE STANDARD SPECIFICATIONS.

WHERE THE IMPERATIVE MOOD IS USED WITHIN THIS SPECIFICATION FOR CONCISENESS, "THE CONTRACTOR SHALL" IS IMPLIED.

1.1 CONSTRUCTION SITE SURVEY. BEFORE BIDDING THE WORK, THE CONTRACTOR SHALL REVIEW THE AVAILABLE SUBSURFACE INFORMATION AND VISIT THE SITE TO ASSESS THE SITE GEOMETRY, EQUIPMENT ACCESS CONDITIONS, AND LOCATION OF EXISTING STRUCTURES AND ABOVE GROUND FACILITIES.

THE CONTRACTOR IS RESPONSIBLE FOR: FIELD LOCATING AND VERIFYING THE LOCATION OF ALL UTILITIES SHOWN ON THE PLANS PRIOR TO STARTING THE WORK; MAINTAINING UNINTERRUPTED SERVICE FOR THOSE UTILITIES DESIGNATED TO REMAIN IN SERVICE THROUGHOUT THE WORK; AND NOTIFYING THE ENGINEER OF ANY UTILITY LOCATIONS DIFFERENT FROM SHOWN ON THE PLANS THAT MAY REQUIRE NAIL RELOCATIONS OR WALL DESIGN MODIFICATION.

PRIOR TO START OF ANY WALL CONSTRUCTION ACTIVITY, THE CONTRACTOR AND ENGINEER SHALL JOINTLY INSPECT THE SITE TO OBSERVE AND DOCUMENT THE PRE-CONSTRUCTION CONDITION OF THE SITE, EXISTING STRUCTURES AND FACILITIES. DURING CONSTRUCTION, THE CONTRACTOR SHALL OBSERVE THE CONDITIONS ABOVE THE SOIL NAIL WALL ON A DAILY BASIS FOR SIGNS OF GROUND MOVEMENT IN THE VICINITY OF THE WALL. IMMEDIATELY NOTIFY THE ENGINEER IF SIGNS OF MOVEMENTS SUCH AS NEW CRACKS IN STRUCTURES, INCREASED SIZE OF OLD CRACKS OR SEPARATION OF JOINTS IN STRUCTURES, FOUNDATIONS, STREETS OR PAVED AND UNPAVED SURFACES ARE OBSERVED.

2.0 SUBMITTALS. PRIOR TO THE COMMENCEMENT OF SOIL NAILING WORK, THE CONTRACTOR SHALL SUBMIT TO THE PROJECT ENGINEER A REPORT WHICH IDENTIFIES THE CONTRACTOR'S PERSONNEL WHO WILL BE PERFORMING AND SUPERVISING THE SOIL NAILING WORK. THE REPORT SHALL INCLUDE THE NAMES OF A SOIL NAIL ENGINEER, SOIL NAIL SITE SUPERVISOR, AND DRILL OPERATORS. THE REPORT SHALL ALSO CONTAIN A LIST OF EMPLOYER'S NAMES AND TELEPHONE NUMBERS, LOCATION AND DATES OF PREVIOUS PERMANENT SOIL NAILING OR TIEBACK PROJECTS, AND THE EXTENT OF WORK PERFORMED. THIS INFORMATION MUST BE VERIFIABLE. SOIL NAILING WORK SHALL BE DEFINED AS ALL ACTIVITIES RELATED TO THE SOIL NAILING, INCLUDING FURNISHING, FABRICATING, DRILLING, INSTALLING, AND TESTING. FURTHER, IN ORDER TO MEET THE REQUIREMENTS OF ODOT SPECIFICATION 108.05, THE PERSONNEL PERFORMING SOIL NAILING WORK SHALL HAVE ACQUIRED WORK EXPERIENCE WHICH IS NOT LESS THAN THE LEVEL OF EXPERIENCE AS DEFINED BELOW:

THE ENGINEER WILL APPROVE OR REJECT THE CONTRACTOR'S PERSONNEL WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING THE SUBMISSION OF THE REPORT OF NAMES AND VERIFIABLE RESUME INFORMATION. SOIL NAILING WORK SHALL NOT COMMENCE UNTIL THE PROJECT ENGINEER HAS PROVIDED A WRITTEN LETTER OF APPROVAL. IN THE EVENT THE CONTRACTOR ELECTS TO SUBSTITUTE PERSONNEL, VERIFIABLE RESUME INFORMATION SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO THAT INDIVIDUAL'S PERFORMANCE OF SOIL NAILING WORK. THE PROJECT ENGINEER WILL APPROVE OR REJECT THE CONTRACTOR'S PROPOSED SUBSTITUTE WITHIN FIFTEEN (15) CALENDAR DAYS. THE PROJECT ENGINEER WILL TAKE ACTION AFFORDED TO HIM PURSUANT TO ODOT SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO SPECIFICATION 108.05, IN ORDER TO BE ASSURED THAT ALL PERSONNEL HAVE THE SUFFICIENT AND REQUISITE SKILL AND EXPERIENCE TO PERFORM PROPERLY THE WORK ASSIGNED TO THEM.

2.1 SOIL NAIL ENGINEER. THE SOIL NAIL ENGINEER SHALL BE A REGISTERED PROFESSIONAL ENGINEER AND SHALL BE RESPONSIBLE FOR OVERSEEING THE SOIL NAILING WORK AND VERIFYING THE RESULTS OF THE TESTING. THE SOIL NAIL ENGINEER SHALL HAVE THREE (3) YEARS OF CONSTRUCTION EXPERIENCE IN THE INSTALLATION OF PERMANENT SOIL NAILS OR TIEBACKS AND SHALL HAVE OVERSEEN THE SUCCESSFUL INSTALLATION OF OVER 100 PERMANENT SOIL NAILS OR TIEBACKS. THE WORK EXPERIENCE TIME PERIOD IS COMPUTED BY THE ADDITION OF ALL DOCUMENTED DURATIONS OF SOIL NAILING OR TIEBACK WORK TIME ON CONSTRUCTION PROJECTS.

2.2 SOIL NAIL SITE SUPERVISOR. THE SOIL NAIL SITE SUPERVISOR SHALL BE PRESENT AT THE JOB SITE AT ALL TIMES DURING THE PERFORMANCE OF SOIL NAILING WORK. THE SOIL NAIL SITE SUPERVISOR SHALL HAVE ONE (1) YEAR OF CONSTRUCTION EXPERIENCE IN THE INSTALLATION OF PERMANENT SOIL NAILS OR TIEBACKS AND SHALL HAVE SUPERVISED THE SUCCESSFUL INSTALLATION OF OVER 100 PERMANENT SOIL NAILS OR TIEBACKS. THE WORK EXPERIENCE TIME PERIOD IS COMPUTED BY THE ADDITION OF ALL DOCUMENTED DURATIONS OF SOIL NAILING OR TIEBACK WORK TIME ON CONSTRUCTION PROJECTS.

2.3 DRILL OPERATORS. DRILL OPERATORS SHALL HAVE SUCCESSFULLY INSTALLED 50 PERMANENT SOIL NAILS OR TIEBACKS.

2.4 CONSTRUCTION SUBMITTALS. UPON APPROVAL OF THE SOIL NAILING CONTRACTOR'S QUALIFICATIONS SUBMITTAL SET FORTH IN SECTION 2.0 TO 2.3, SUBMIT 5 COPIES OF THE FOLLOWING INFORMATION, IN WRITING, TO THE ENGINEER FOR REVIEW AND APPROVAL.

PROVIDE SUBMITTAL ITEM NUMBERS 1 THROUGH 10 AT LEAST 15 CALENDAR DAYS PRIOR TO INITIATING THE NAIL WALL CONSTRUCTION AND SUBMITTAL ITEMS 2 THROUGH 6 AT LEAST 15 CALENDAR DAYS PRIOR TO START OF NAIL INSTALLATION OR INCORPORATION OF THE RESPECTIVE MATERIAL INTO THE WORK:

1. THE PROPOSED START DATE AND PROPOSED DETAILED WALL CONSTRUCTION SEQUENCE INCLUDING:
 - 1A. PLAN DESCRIBING HOW SURFACE WATER WILL BE DIVERTED, CONTROLLED AND DISPOSED OF.
 - 1B. PROPOSED METHODS AND EQUIPMENT FOR EXCAVATING THE SOIL AND/OR ROCK TO THE STAGED EXCAVATION LIFTS INDICATED IN THE PLANS, INCLUDING THE PROPOSED GRADE ELEVATIONS FOR EACH EXCAVATION LIFT SHOWN ON A WALL ELEVATION VIEW.
 - 1C. MEASURES TO ENSURE WALL AND SLOPE STABILITY DURING VARIOUS STAGES OF WALL CONSTRUCTION AND EXCAVATION WHERE DISCONTINUOUS ROWS OF NAILS WILL BE INSTALLED (IF APPLICABLE); INFORMATION ON SPACE REQUIREMENTS FOR INSTALLATION EQUIPMENT; TEMPORARY SHORING PLANS (IF APPLICABLE); INFORMATION ON PROVISIONS FOR WORKING IN THE PROXIMITY OF UNDERGROUND FACILITIES OR UTILITIES (IF APPLICABLE).
 - 1D. PROPOSED NAIL DRILLING METHODS AND EQUIPMENT INCLUDING DRILLHOLE DIAMETER PROPOSED TO ACHIEVE THE SPECIFIED PULLOUT RESISTANCE VALUES AND ANY VARIATION OF THESE ALONG THE WALL ALIGNMENT.

2. NAIL GROUT MIX DESIGN INCLUDING:

TYPE OF PORTLAND CEMENT, AGGREGATE SOURCE AND GRADATION, PROPORTIONS OF MIX BY WEIGHT AND WATER-CEMENT RATIO, MANUFACTURER, BRAND NAME AND TECHNICAL LITERATURE FOR PROPOSED ADMIXTURES, COMPRESSIVE STRENGTH TEST RESULTS (PER AASHTO T106/ASTM C109) SUPPLIED BY A QUALIFIED INDEPENDENT TESTING LAB VERIFYING THE SPECIFIED MINIMUM 3 AND 28-DAY GROUT COMPRESSIVE STRENGTHS, PREVIOUS TEST RESULTS FOR THE PROPOSED GROUT MIX COMPLETED WITHIN ONE YEAR OF THE START OF GROUTING MAY BE SUBMITTED FOR INITIAL VERIFICATION AND ACCEPTANCE OF THE REQUIRED COMPRESSIVE STRENGTHS AND START OF PRODUCTION WORK.

3. PROPOSED NAIL GROUT PLACEMENT PROCEDURES AND EQUIPMENT.

4. PROPOSED NAIL TESTING METHODS AND EQUIPMENT SETUP INCLUDING:

DETAILS OF THE JACKING FRAME AND APPURTENANT BRACING, DETAILS SHOWING METHODS OF ISOLATING TEST NAILS DURING SHOTCRETE APPLICATION (I.E., METHODS TO PREVENT BONDING OF THE SOIL NAIL BAR AND THE SHOTCRETE FACING DURING TESTING), DETAILS SHOWING METHODS OF PROVIDING THE TEMPORARY UNBONDED LENGTH AND OF GROUTING THE TEMPORARY UNBONDED LENGTH OF TEST NAILS AFTER COMPLETION OF TESTING, EQUIPMENT LIST

5. IDENTIFICATION NUMBER AND CERTIFIED CALIBRATION RECORDS FOR EACH TEST JACK AND PRESSURE GAUGE AND LOAD CELL TO BE USED. JACK AND PRESSURE GAUGE SHALL BE CALIBRATED AS A UNIT. CALIBRATION RECORDS SHALL INCLUDE THE DATE TESTED, DEVICE IDENTIFICATION NUMBER, AND THE CALIBRATION TEST RESULTS AND SHALL BE CERTIFIED FOR AN ACCURACY OF AT LEAST 2 PERCENT OF THE APPLIED CERTIFICATION LOADS BY A QUALIFIED INDEPENDENT TESTING LABORATORY WITHIN 90 DAYS PRIOR TO SUBMITTAL.

6. MANUFACTURER CERTIFICATES OF COMPLIANCE FOR THE SOIL NAIL CENTRALIZERS AND ENCAPSULATION.

THE ENGINEER WILL APPROVE OR REJECT THE CONTRACTOR'S SUBMITTALS WITHIN 15 CALENDAR DAYS AFTER RECEIPT OF A COMPLETE SUBMISSION. THE CONTRACTOR WILL NOT BE ALLOWED TO BEGIN WALL CONSTRUCTION OR INCORPORATE MATERIALS INTO THE WORK UNTIL THE SUBMITTAL REQUIREMENTS ARE SATISFIED AND FOUND ACCEPTABLE TO THE ENGINEER. CHANGES OR DEVIATIONS FROM THE APPROVED SUBMITTALS MUST BE RESUBMITTED FOR APPROVAL. NO ADJUSTMENTS IN CONTRACT TIME WILL BE ALLOWED DUE TO INCOMPLETE SUBMITTALS.

UPON DELIVERY OF NAIL BARS TO THE PROJECT SITE, PROVIDE CERTIFIED MILL TEST RESULTS FOR NAIL BARS FROM EACH HEAT SPECIFYING THE ULTIMATE STRENGTH, YIELD STRENGTH, ELONGATION AND COMPOSITION.

2.5 PRE-CONSTRUCTION MEETING. A PRE-CONSTRUCTION MEETING MAY BE SCHEDULED BY THE PROJECT ENGINEER AND HELD PRIOR TO THE START OF WALL CONSTRUCTION. THE PROJECT ENGINEER, PRIME CONTRACTOR, AND SOIL NAIL SPECIALTY CONTRACTOR SHALL ATTEND THE MEETING. THE EXCAVATION CONTRACTOR, SHOTCRETE CONTRACTOR AND SURVEY CONTRACTOR, IF DIFFERENT THAN THE PRIME OR SOIL NAIL SPECIALTY CONTRACTOR, SHALL ALSO ATTEND. THE PRE-CONSTRUCTION MEETING WILL BE CONDUCTED TO CLARIFY THE CONSTRUCTION REQUIREMENTS FOR THE WORK, COORDINATE THE CONSTRUCTION SCHEDULE AND ACTIVITIES, AND TO IDENTIFY CONTRACTUAL RELATIONSHIPS AND DELINEATION OF RESPONSIBILITIES AMONGST THE PRIME CONTRACTOR AND THE VARIOUS SUBCONTRACTORS - PARTICULARLY THOSE PERTAINING TO WALL EXCAVATION, NAIL INSTALLATION AND TESTING, EXCAVATION AND WALL ALIGNMENT, SURVEY CONTROL, AND SHOTCRETE AND CAST IN PLACE FACING CONSTRUCTION. SOIL NAIL WALL CONSTRUCTION REQUIRES EXCAVATION IN STAGED LIFTS AND EXCAVATION, IN THE VICINITY OF THE WALL FACE REQUIRES SPECIAL CARE AND EFFORT COMPARED TO GENERAL EARTHWORK EXCAVATION.

3.0 DEFINITIONS

3.1 SOIL NAIL. THE INDIVIDUAL STEEL BAR TENDON WITH ENCAPSULATION.

3.2 BONDED TEST LENGTH. THE LENGTH OF THE TEST NAIL TENDON THAT IS BONDED TO THE GROUND WITH GROUT AND DEVELOPS ADHESION DURING TESTING.

3.3 UNBONDED TEST LENGTH. THE LENGTH OF THE TEST NAIL TENDON THAT IS NOT BONDED TO THE GROUND WITH GROUT AND IS FREE TO ELONGATE DURING TESTING.

3.4 ANCHORAGE. THE BEARING PLATE, NUT, SHEAR STUDS, AND BEVELED WASHER THAT SECURE THE CONCRETE FACING TO THE SOIL NAIL.

3.5 SOIL NAIL GROUT. CEMENT GROUT THAT IS INJECTED INTO THE DRILLED HOLE BY TREMIE METHODS TO COVER THE FULL LENGTH OF THE SOIL NAIL AND PROVIDE BONDING OF THE SOIL NAIL TO THE SURROUNDING GROUND.

3.6 DESIGN LOAD. THE PRODUCT OF THE MINIMUM SOIL NAIL LENGTH AND ALLOWABLE PULLOUT RESISTANCE AS SPECIFIED IN THE PLANS.

3.7 MAXIMUM PERMISSIBLE LOAD. THE MAXIMUM PERMISSIBLE LOAD IS THE MAXIMUM LOAD THAT MAY BE APPLIED TO THE SOIL NAIL DURING ANY STAGE OF THE WORK. THIS LOAD IS 1.30 TIMES THE DESIGN LOAD UNLESS A LOWER LOAD IS NOTED ON THE PLANS.

3.8 PROOF LOAD. THE LARGEST LOAD APPLIED TO THE SOIL NAIL WHEN STRESSING DURING A LOAD VERIFICATION TEST. THIS LOAD IS A DEFINED PERCENTAGE INCREASE IN THE DESIGN LOAD.

3.9 ALIGNMENT LOAD. THE LOAD MAINTAINED ON A SOIL NAIL DURING TESTING TO ASSURE THAT THE TESTING EQUIPMENT REMAINS IN PROPER POSITION, NOT TO EXCEED 5 PERCENT OF THE DESIGN TEST LOAD.

3.10 PROOF TEST. A SOIL NAIL LOAD TEST THAT REQUIRES THE APPLICATION OF DEFINED INCREMENTAL LOADS TO THE TEST SOIL NAIL. THE MOVEMENT OF THE NAIL TENDON IS RECORDED AT EACH LOAD INCREMENT.

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BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43229

DATE	6/04
REVIEWED	WTL
DRAWN	CRC
DESIGNED	MAK
CHECKED	VEA
STRUCTURE FILE NUMBER	5203031
PROJECT NUMBER	5203066
PROJECT NAME	OVER CSXT RR AND RYAN ROAD C.H. 40

GENERAL NOTES 4
BRIDGE NO. MED-71-0860 L/R

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3.11 VERIFICATION TEST. THIS LOAD TEST REQUIRES THE APPLICATION OF DEFINED INCREMENTAL LOADING AND UNLOADING OF THE TEST SOIL NAIL. THE MOVEMENT OF THE PRESTRESSING STEEL IS RECORDED AT EACH LOADING AND UNLOADING INCREMENT. THE MAXIMUM LOAD APPLIED DURING THIS TEST IS MAINTAINED CONSTANT FOR A DEFINED TIME PERIOD WHILE MOVEMENTS ARE RECORDED.

3.12 CREEP MOVEMENT. THE TIME-DEPENDENT MOVEMENTS OF THE SOIL NAIL TENDON AT A CONSTANT LOAD.

3.13 CREEP CURVE. A SEMILOGARITHMIC PLOT OF THE CREEP MOVEMENT VERSUS TIME, WITH THE UNITS OF TIME PLOTTED ON THE LOGARITHMIC AXIS.

3.14 CREEP RATE. THE SLOPE OF THE CREEP CURVE PER LOG CYCLE OF TIME OVER THE FINAL DECADE OF THE OBSERVATION PERIOD.

4.0 MATERIALS. MATERIALS FOR SOIL NAIL STRUCTURES SHALL CONSIST OF THE FOLLOWING:

4.1 SOLID BAR NAIL TENDONS: AASHTO M31/ASTM A615, GRADE 60 OR 75. DEFORMED BAR, CONTINUOUS WITHOUT SPLICES OR WELDS, NEW, STRAIGHT, UNDEFORMED, ENCAPSULATED AS SHOWN ON THE PLANS. THREADED A MINIMUM OF 12 INCHES ON THE WALL ANCHORAGE END TO ALLOW PROPER ATTACHMENT OF BEARING PLATE AND NUT. THREADING MAY BE CONTINUOUS SPIRAL DEFORMED RIBBING PROVIDED BY THE BAR DEFORMATIONS (E.G. DWIDAG OR WILLIAMS CONTINUOUS THREADBARS) OR MAY BE CUT INTO A REINFORCING BAR. IF THREADS ARE CUT INTO A REINFORCING BAR, PROVIDE THE NEXT LARGER BAR NUMBER DESIGNATION FROM THAT SHOWN ON THE PLANS, AT NO ADDITIONAL COST.

4.2 BEARING PLATE. THE BEARING PLATE SHALL CONFORM TO REQUIREMENTS OF ODOT CMS 711.

4.3 ANCHORAGE. THE ANCHORAGE SHALL BE THE STANDARD PRODUCT OF THE BAR MANUFACTURER AND CONFORM TO THE REQUIREMENTS OF ODOT CMS 711. IT SHALL BE CAPABLE OF TRANSFERRING 100 PERCENT OF THE GUARANTEED ULTIMATE TENSILE STRENGTH (GUTS) FROM THE SOIL NAIL TENDON TO THE BEARING PLATE.

4.4 CENTRALIZERS. CENTRALIZERS SHALL BE FABRICATED FROM SCHEDULE 40 PVC PIPE OR TUBE, STEEL OR OTHER MATERIAL NONDETRIMENTAL TO THE SOIL NAIL STEEL. THEY SHALL POSITION THE SOIL NAILS WITHIN 1 INCH OF THE CENTER OF THE DRILLED HOLE SO AS TO PROVIDE A MINIMUM REQUIRED GROUT COVER OF 1 INCH, ALLOW TREMIE PIPE INSERTION TO THE BOTTOM OF THE DRILLHOLE, AND ALLOW GROUT TO FREELY FLOW UP THE DRILLHOLE. SPACING OF CENTRALIZERS ALONG THE SOIL NAIL SHALL NOT EXCEED 10 FEET.

4.5 GROUT. THE CEMENT FOR THE GROUT SHALL BE TYPE I, TYPE II, TYPE III, OR TYPE IV CONFORMING TO ASTM C150. THE GROUT SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF ODOT CMS 510. GROUT ADDITIVES SHOULD BE AVOIDED. CHEMICAL ADDITIVES WHICH CAN CONTROL BLEED AND/OR RETARD SET MAY BE USED IN THE ANCHOR GROUT AS DIRECTED BY THE ENGINEER. THE GROUT SHALL CONSIST OF A NEAT CEMENT OR SAND/CEMENT MIXTURE WITH A MINIMUM 3-DAY COMPRESSIVE STRENGTH OF 1500 PSI AND A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 SI PER AASHTO T106/ASTM C109.

ADMITTURES: AASHTO M194/ASTM C494. ADMIXTURES WHICH CONTROL BLEED, IMPROVE FLOWABILITY, REDUCE WATER CONTENT AND RETARD SET MAY BE USED IN THE GROUT SUBJECT TO REVIEW AND ACCEPTANCE BY THE ENGINEER. ACCELERATORS ARE NOT PERMITTED. EXPANSIVE ADMIXTURES MAY ONLY BE USED IN GROUT USED FOR FILLING SEALED ENCAPSULATIONS. ADMIXTURES SHALL BE COMPATIBLE WITH THE GROUT AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

FILM PROTECTION: POLYETHYLENE FILM PER ASSHTO M171.

4.6 ENCAPSULATION. MINIMUM 0.0394 IN. (1 MM) THICK CORRUGATED HDPE TUBE CONFORMING TO AASHTO M252 OR CORRUGATED PVC TUBE CONFORMING TO ASTM D1784, CLASS 13464-B. ENCAPSULATION SHALL PROVIDE AT LEAST 0.2 INCHES OF GROUT COVER OVER THE NAIL BAR. FACTORY FABRICATION OF THE ENCAPSULATION IS PREFERRED. UPON THE ENGINEER'S APPROVAL, THE ENCAPSULATION MAY BE FIELD FABRICATED IF DONE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE ENCAPSULATION SHALL BE:

- RESISTANT TO CHEMICAL ATTACK FROM AGGRESSIVE ENVIRONMENTS, GROUT, OR GREASE.
- FABRICATED FROM MATERIALS NONDETRIMENTAL TO THE PRESTRESSING STEEL.
- CAPABLE OF WITHSTANDING ABRASION, IMPACT, AND BENDING DURING HANDLING AND INSTALLATION.
- FREE OF FLAWS WHICH WOULD PERMIT WATER TO ENTER INTO THE SOIL NAIL SYSTEM.
- CAPABLE OF TRANSFERRING STRESSES FROM THE GROUT INSIDE THE CAPSULE TO THE GROUT OUTSIDE THE CAPSULE.
- RESISTANT TO ULTRA VIOLET LIGHT DEGRADATION.

4.7 MATERIALS HANDLING AND STORAGE. STORE CEMENT TO PREVENT MOISTURE DEGRADATION AND PARTIAL HYDRATION. DO NOT USE CEMENT THAT HAS BECOME CAKED OR LUMPY. STORE AGGREGATES SO THAT SEGREGATION AND INCLUSION OF FOREIGN MATERIALS ARE PREVENTED. DO NOT USE THE BOTTOM 6 IN. (150 MM) OF AGGREGATE PILES IN CONTACT WITH THE GROUND.

STORE STEEL REINFORCEMENT ON SUPPORTS TO KEEP THE STEEL FROM CONTACTING THE GROUND. DAMAGE TO THE NAIL STEEL AS A RESULT OF ABRASION, CUTS, NICKS, WELDS, AND WELD SPLATTER SHALL BE CAUSE FOR REJECTION. DO NOT GROUND WELDING LEADS TO NAIL BARS. PROTECT NAIL STEEL FROM DIRT, RUST, AND OTHER DELETERIOUS SUBSTANCES PRIOR TO INSTALLATION. HEAVY CORROSION OR PITTING OF NAILS SHALL BE CAUSE FOR REJECTION. LIGHT RUST THAT HAS NOT RESULTED IN PITTING IS ACCEPTABLE. PLACE PROTECTIVE WRAP OVER ANCHORAGE END OF NAIL BAR TO WHICH BEARING PLATE AND NUT WILL BE ATTACHED TO PROTECT DURING HANDLING, INSTALLATION, GROUTING AND SHOTCRETING.

DO NOT MOVE OR TRANSPORT ENCAPSULATED NAILS UNTIL THE ENCAPSULATION GROUT HAS REACHED SUFFICIENT STRENGTH TO RESIST DAMAGE DURING HANDLING. HANDLE ENCAPSULATED NAILS IN A MANNER THAT WILL PREVENT LARGE DEFLECTIONS, DISTORTIONS OR DAMAGE. REPAIR ENCAPSULATED NAILS THAT ARE DAMAGED OR DEFECTIVE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR REMOVE THEM FROM THE SITE.

5.0 CONSTRUCTION REQUIREMENTS

5.1 SITE DRAINAGE CONTROL.

PROVIDE POSITIVE CONTROL AND DISCHARGE OF ALL SURFACE WATER THAT WILL AFFECT CONSTRUCTION OF THE SOIL NAIL RETAINING WALL. MAINTAIN ALL PIPES OR CONDUITS USED TO CONTROL SURFACE WATER DURING CONSTRUCTION. REPAIR DAMAGE CAUSED BY SURFACE WATER AT NO ADDITIONAL COST. UPON SUBSTANTIAL COMPLETION OF THE WALL, REMOVE SURFACE WATER CONTROL PIPES OR CONDUITS FROM THE SITE. ALTERNATIVELY, WITH THE APPROVAL OF THE ENGINEER, PIPES OR CONDUITS THAT ARE LEFT IN PLACE, MAY BE FULLY GROUTED AND ABANDONED OR LEFT IN A WAY THAT PROTECTS THE STRUCTURE AND ALL ADJACENT FACILITIES FROM MIGRATION OF FINES THROUGH THE PIPE OR CONDUIT AND POTENTIAL GROUND LOSS.

5.2 EXCAVATION. COORDINATE THE WORK AND THE EXCAVATION SO THE SOIL NAIL WALL IS SAFELY CONSTRUCTED. PERFORM THE WALL CONSTRUCTION AND EXCAVATION SEQUENCE IN ACCORDANCE WITH THE PLANS AND APPROVED SUBMITTALS. NO EXCAVATIONS STEEPER THAN THOSE SPECIFIED HEREIN OR SHOWN ON THE PLANS WILL BE MADE ABOVE OR BELOW THE SOIL NAIL WALL WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

EXCAVATE TO THE FINAL WALL FACE USING PROCEDURES THAT: (1) PREVENT OVER EXCAVATION; (2) PREVENT GROUND LOSS, SWELLING, AIR SLAKING, OR LOOSENING; (3) PREVENT LOSS OF SUPPORT FOR COMPLETED PORTIONS OF THE WALL; (4) PREVENT LOSS OF SOIL MOISTURE AT THE FACE AND (5) AND PREVENT GROUND FREEZING. COSTS ASSOCIATED WITH ADDITIONAL THICKNESS OF SHOTCRETE OR CONCRETE OR OTHER REMEDIAL MEASURES REQUIRED DUE TO IRREGULARITIES IN THE CUT FACE, EXCAVATION OVERBREAK OR INADVERTENT OVER EXCAVATION, SHALL BE BORNE BY THE CONTRACTOR.

THE EXPOSED UNSUPPORTED FINAL EXCAVATION FACE CUT HEIGHT SHALL NOT EXCEED THE VERTICAL NAIL SPACING PLUS THE REQUIRED REINFORCING LAP OR THE SHORT-TERM STAND-UP HEIGHT OF THE GROUND, WHICHEVER IS LESS. COMPLETE EXCAVATION TO THE FINAL WALL EXCAVATION LINE AND APPLICATION OF THE SHOTCRETE IN THE SAME WORK SHIFT UNLESS OTHERWISE APPROVED BY THE ENGINEER. APPLICATION OF THE SHOTCRETE MAY BE DELAYED UP TO 24 HOURS IF THE CONTRACTOR CAN SHOW THAT THE DELAY WILL NOT ADVERSELY AFFECT THE EXCAVATION FACE STABILITY. A POLYETHYLENE FILM OVER THE FACE OF THE EXCAVATION MAY REDUCE DEGRADATION OF THE CUT FACE CAUSED BY CHANGES IN MOISTURE.

AT THE CONTRACTOR'S OPTION AND EXPENSE, DURING EACH EXCAVATION LIFT, NAILS MAY BE DRILLED AND INSTALLED THROUGH A TEMPORARY STABILIZING BERM. PURPOSE OF THE STABILIZING BERM IS TO PREVENT OR MINIMIZE INSTABILITY OR SLOUGHING OF THE FINAL EXCAVATION FACE DUE TO GROUND CONDITIONS AND/OR DRILLING ACTION. THE STABILIZING BERM GEOMETRY SHALL BE AS DETERMINED BY THE CONTRACTOR. FOLLOWING THE INSTALLATION OF NAILS IN THAT LIFT, EXCAVATE THE TEMPORARY STABILIZING BERM TO THE FINAL WALL FACE EXCAVATION LINE AND CLEAN THE FINAL EXCAVATION FACE OF ALL LOOSE MATERIALS, MUD, REBOUND AND OTHER FOREIGN MATTER WHICH COULD PREVENT OR REDUCE SHOTCRETE BOND. ENSURE THAT INSTALLED NAILS AND CORROSION PROTECTION ARE NOT DAMAGED DURING EXCAVATION OF THE STABILIZING BERM. REPAIR OR REPLACE NAILS OR CORROSION PROTECTION DAMAGED OR DISTURBED DURING EXCAVATION OF THE STABILIZING BERM, TO THE ENGINEER'S SATISFACTION, AT NO ADDITIONAL COST. DO NOT EXCAVATE THE STABILIZING BERM UNTIL THE NAIL GROUT HAS AGED FOR AT LEAST 24 HOURS. REMOVE HARDENED NAIL GROUT PROTRUDING FROM THE FINAL WALL EXCAVATION LINE MORE THAN 2 IN. IN A MANNER THAT PREVENTS FRACTURING THE GROUT AT THE NAIL HEAD. SLEDGE HAMMER REMOVAL OF THE GROUT IS NOT ALLOWED. THE USE OF HAND HELD ROCK CHIPPERS IS ACCEPTABLE PROVIDED THEIR USE DOES NOT DAMAGE OR DISTURB THE REMAINING GROUT AT THE NAIL HEAD, THE NAIL BAR OR CORROSION PROTECTION. ALTERNATE EXCAVATION AND SOIL NAIL INSTALLATION METHODS THAT MEET THESE OBJECTIVES MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH THE SUBMITTAL SECTION.

EXCAVATION TO THE NEXT LIFT SHALL NOT PROCEED UNTIL NAIL INSTALLATION, REINFORCED SHOTCRETE PLACEMENT ATTACHMENT OF BEARING PLATES, WASHERS, AND NUTS AND NAIL TESTING HAS BEEN COMPLETED AND ACCEPTED IN THE CURRENT LIFT. NAIL GROUT AND SHOTCRETE SHALL HAVE CURED FOR AT LEAST 72 HOURS OR ATTAINED AT LEAST THEIR SPECIFIED 3-DAY COMPRESSIVE STRENGTH BEFORE EXCAVATING THE NEXT UNDERLYING LIFT. EXCAVATING THE NEXT LIFT IN LESS THAN 72 HOURS WILL ONLY BE ALLOWED IF THE CONTRACTOR SUBMITS COMPRESSIVE STRENGTH TEST RESULTS, FOR TESTS PERFORMED BY A QUALIFIED INDEPENDENT TESTING LAB, VERIFYING THAT THE NAIL GROUT AND SHOTCRETE MIXES BEING USED WILL PROVIDE THE SPECIFIED 3-DAY COMPRESSIVE STRENGTHS IN THE LESSER TIME.

NOTIFY THE ENGINEER IMMEDIATELY IF RAVELING OR LOCAL INSTABILITY OF THE FINAL WALL FACE EXCAVATION OCCURS. UNSTABLE AREAS SHALL BE TEMPORARILY STABILIZED BY MEANS OF BUTTRESSING THE EXPOSED FACE WITH AN EARTH BERM OR OTHER METHODS. SUSPEND WORK IN UNSTABLE AREAS UNTIL REMEDIAL MEASURES ARE DEVELOPED.

5.3 EXCAVATION FACE PROTRUSIONS, VOIDS OR OBSTRUCTIONS. REMOVE ALL OR PORTIONS OF COBBLES, BOULDERS, RUBBLE OR OTHER SUBSURFACE OBSTRUCTIONS ENCOUNTERED AT THE WALL FINAL EXCAVATION FACE WHICH WILL PROTRUDE INTO THE DESIGN SHOTCRETE FACING. DETERMINE METHOD OF REMOVAL OF FACE PROTRUSIONS, INCLUDING METHOD TO SAFELY SECURE REMNANT PIECES LEFT BEHIND THE EXCAVATION FACE AND FOR PROMPTLY BACKFILLING VOIDS RESULTING FROM REMOVAL OF PROTRUSIONS EXTENDING BEHIND THE EXCAVATION FACE. NOTIFY THE ENGINEER OF THE ROPOSED METHOD(S) FOR REMOVAL OF FACE PROTRUSIONS AT LEAST 24 HOURS PRIOR TO BEGINNING REMOVAL. VOIDS, OVERBREAK, OR OVER-EXCAVATION BEYOND THE PLAN WALL EXCAVATION LINE RESULTING FROM THE REMOVAL OF FACE PROTRUSIONS OR EXCAVATION OPERATIONS SHALL BE BACKFILLED WITH SHOTCRETE OR CONCRETE, AS APPROVED BY THE ENGINEER. REMOVAL OF FACE PROTRUSIONS AND BACKFILLING OF VOIDS OR OVER-EXCAVATION IS CONSIDERED INCIDENTAL TO THE WORK. COST DUE TO REMOVAL OF UNANTICIPATED MAN-MADE OBSTRUCTIONS WILL BE PAID AS EXTRA WORK.

5.4 NAIL INSTALLATION. DETERMINE THE REQUIRED DRILLHOLE DIAMETER(S), DRILLING METHOD, GROUT COMPOSITION AND INSTALLATION METHOD NECESSARY TO ACHIEVE THE NAIL PULLOUT RESISTANCE(S) SPECIFIED HEREIN OR ON THE PLANS, IN ACCORDANCE WITH THE NAIL TESTING ACCEPTANCE CRITERIA IN THE NAIL TESTING SECTION.

NO DRILLING OR INSTALLATION OF PRODUCTION NAILS WILL BE PERMITTED IN ANY SOIL/ROCK UNIT UNTIL SUCCESSFUL PRE-PRODUCTION VERIFICATION TESTING OF NAILS IS COMPLETED IN THAT UNIT AND APPROVED BY THE ENGINEER. INSTALL VERIFICATION TEST NAILS USING THE SAME EQUIPMENT, METHODS, NAIL INCLINATION AND DRILLHOLE DIAMETER AS PLANNED FOR THE PRODUCTION NAILS. PERFORM PRE-PRODUCTION VERIFICATION TESTS IN ACCORDANCE WITH THE VERIFICATION TESTING SECTION PRIOR TO STARTING WALL EXCAVATION AND PRIOR TO INSTALLATION OF PRODUCTION NAILS IN THE SPECIFIC LIFT IN WHICH THE DESIGNATED VERIFICATION TEST NAILS ARE LOCATED. THE NUMBER AND LOCATION OF THE VERIFICATION TESTS WILL BE AS INDICATED ON THE PLANS OR SPECIFIED HEREIN. VERIFICATION TEST NAILS MAY BE INSTALLED THROUGH EITHER THE EXISTING SLOPE FACE PRIOR TO START OF WALL EXCAVATION, DRILL PLATFORM WORK BENCH, STABILIZATION BERM OR INTO SLOT CUTS MADE FOR THE PARTICULAR LIFT IN WHICH THE VERIFICATION TEST NAILS ARE LOCATED. SLOT CUTS WILL ONLY BE LARGE ENOUGH TO SAFELY ACCOMMODATE THE DRILL AND TEST NAIL REACTION SETUP. SUBJECT TO THE ENGINEER'S APPROVAL, VERIFICATION TEST NAILS MAY ALSO BE INSTALLED AT ANGLE ORIENTATIONS OTHER THAN PERPENDICULAR TO THE WALL FACE OR AT DIFFERENT LOCATIONS THAN SPECIFIED, AS LONG AS THE CONTRACTOR CAN DEMONSTRATE THAT THE TEST NAILS WILL BE BONDED INTO GROUND WHICH IS REPRESENTATIVE OF THE GROUND AT THE VERIFICATION TEST NAIL LOCATIONS DESIGNATED ON THE PLANS OR HEREIN. INSTALL THE PRODUCTION SOIL NAILS BEFORE THE APPLICATION OF THE REINFORCED SHOTCRETE FACING. AT THE CONTRACTOR'S REQUEST AND SUBJECT TO THE ENGINEER'S WRITTEN APPROVAL, THE SHOTCRETE FACING MAY BE PLACED BEFORE DRILLING AND INSTALLING THE NAILS. PROVIDE A BLOCKOUT THROUGH THE SHOTCRETE FACING AT DRILLHOLE LOCATIONS USING PVC PIPE OR OTHER SUITABLE MATERIAL, TO PREVENT DAMAGE TO THE FACING DURING DRILLING. AS PART OF THE REQUIRED CONSTRUCTION SUBMITTALS, PROVIDE THE ENGINEER WITH ACCEPTABLE STRUCTURAL DESIGN CALCULATIONS DEMONSTRATING THAT THE FACING STRUCTURAL CAPACITY WILL NOT BE REDUCED AND THAT THE BEARING PLATES ARE ADEQUATE TO SPAN THE NAIL DRILLHOLE BLOCKOUT THROUGH THE CONSTRUCTION FACING. IF THIS REQUIRES LARGER SIZE BEARING PLATES AND/OR ADDITIONAL REINFORCEMENT BEYOND THAT DETAILED ON THE PLANS, THE EXTRA COST WILL BE INCIDENTAL.

WHERE NECESSARY FOR STABILITY OF THE EXCAVATION FACE, THE CONTRACTOR SHALL HAVE THE OPTION OF PLACING A SEALING LAYER (FLASHCOAT) OF UNREINFORCED SHOTCRETE OR STEEL FIBER REINFORCED SHOTCRETE OR OF DRILLING AND GROUTING OF NAILS THROUGH A TEMPORARY STABILIZING BERM OF NATIVE SOIL TO PROTECT AND STABILIZE THE FACE OF THE EXCAVATION PER SECTION 3.2.3 WALL STRUCTURE EXCAVATION. COST SHALL BE INCIDENTAL TO THE WORK.

5.5 DRILLING. THE DRILL HOLES FOR THE SOIL NAILS SHALL BE MADE AT THE LOCATIONS, ORIENTATIONS, AND LENGTHS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. SELECT DRILLING EQUIPMENT AND METHODS SUITABLE FOR THE GROUND CONDITIONS DESCRIBED IN THE GEOTECHNICAL REPORT AND SHOWN IN THE BORING LOGS. SELECT DRILLHOLE DIAMETER(S) REQUIRED TO DEVELOP THE SPECIFIED PULLOUT RESISTANCE AND TO ALSO PROVIDE A MINIMUM 1 IN. GROUT COVER OVER BARE OR EPOXY COATED BARS OR MINIMUM 0.5 IN. GROUT COVER OVER THE ENCAPSULATION OF ENCAPSULATED NAILS. A MINIMUM REQUIRED DRILLHOLE DIAMETER IS SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE FINAL DRILLHOLE DIAMETER(S) REQUIRED TO PROVIDE THE SPECIFIED PULLOUT RESISTANCE. USE OF DRILLING MUDS SUCH AS BENTONITE SLURRY TO ASSIST IN DRILL CUTTING REMOVAL IS NOT ALLOWED BUT AIR MAY BE USED. WITH THE ENGINEER'S APPROVAL, THE CONTRACTOR MAY BE ALLOWED TO USE WATER OR FOAM FLUSHING UPON SUCCESSFUL DEMONSTRATION, AT THE CONTRACTOR'S COST, THAT THE INSTALLATION METHOD STILL PROVIDES ADEQUATE NAIL PULLOUT RESISTANCE. IF CAVING GROUND IS ENCOUNTERED, USE CASED DRILLING METHODS TO SUPPORT THE SIDES OF THE DRILLHOLES. WHERE HARD DRILLING CONDITIONS SUCH AS ROCK, COBBLES, BOULDERS, OR OBSTRUCTIONS ARE DESCRIBED ELSEWHERE IN THE CONTRACT DOCUMENTS OR PROJECT GEOTECHNICAL REPORT, PERCUSSION OR OTHER SUITABLE DRILLING EQUIPMENT CAPABLE OF DRILLING AND MAINTAINING STABLE DRILLHOLES THROUGH SUCH MATERIALS, WILL BE USED.

IMMEDIATELY SUSPEND OR MODIFY DRILLING OPERATIONS IF GROUND SUBSIDENCE IS OBSERVED, IF THE SOIL NAIL WALL IS ADVERSELY AFFECTED, OR IF ADJACENT STRUCTURES ARE DAMAGED FROM THE DRILLING OPERATION. IMMEDIATELY STABILIZE THE ADVERSE CONDITIONS AT NO ADDITIONAL COST.

5.6 NAIL BAR INSTALLATION. PROVIDE NAIL BARS IN ACCORDANCE WITH THE SCHEDULES INCLUDED IN THE PLANS. PROVIDE CENTRALIZERS SIZED TO POSITION THE BAR WITHIN 1 IN. OF THE CENTER OF THE DRILLHOLE. POSITION CENTRALIZERS AS SHOWN ON THE PLANS SO THEIR MAXIMUM CENTER-TO-CENTER SPACING DOES NOT EXCEED 10 FT. ALSO LOCATE CENTRALIZERS WITHIN 2 FT FROM THE TOP AND BOTTOM OF THE DRILLHOLE. SECURELY ATTACH CENTRALIZERS TO THE BAR SO THEY WILL NOT SHIFT DURING HANDLING OR INSERTION INTO THE DRILL HOLE YET WILL STILL ALLOW GROUT TREMIE PIPE INSERTION TO THE BOTTOM OF DRILLHOLE AND ALLOW GROUT TO FLOW FREELY UP THE HOLE.

INSPECT EACH NAIL BAR BEFORE INSTALLATION AND REPAIR OR REPLACE DAMAGED BARS OR CORROSION PROTECTION. CHECK UNCASD DRILLHOLES FOR CLEANLINESS PRIOR TO INSERTION OF THE SOIL NAIL BAR. INSERT NAIL BARS WITH CENTRALIZERS INTO THE DRILL HOLE TO THE REQUIRED LENGTH WITHOUT DIFFICULTY AND IN A WAY THAT PREVENTS DAMAGE TO THE DRILL HOLE, BAR, OR CORROSION PROTECTION. DO NOT DRIVE OR FORCE PARTIALLY INSERTED SOIL NAILS INTO THE HOLE. REMOVE NAILS WHICH CANNOT BE FULLY INSERTED TO THE DESIGN DEPTH AND CLEAN THE DRILL HOLE TO ALLOW UNOBSTRUCTED INSTALLATION.

WHEN USING CASED OR HOLLOW STEM AUGER DRILLING EQUIPMENT WHICH DOES NOT ALLOW FOR THE CENTRALIZERS TO PASS THROUGH THE CASING OR AUGER STEM, THE CONTRACTOR MAY DELETE THE CENTRALIZERS IF THE NEAT CEMENT GROUT PUMPED THROUGH THE CASING IS PLACED USING GROUT PRESSURES GREATER THAN 150 PSI OR IF THE SAND-CEMENT GROUT PLACED THROUGH THE STEM OF THE AUGER HAS A SLUMP OF 9 INCHES OR LESS.

5.7 NAIL INSTALLATION TOLERANCES. NAILS SHALL NOT EXTEND BEYOND THE RIGHT-OF-WAY OR EASEMENT LIMITS SHOWN ON THE PLANS. NAIL LOCATION AND ORIENTATION TOLERANCES ARE:

NAIL HEAD LOCATION, DEVIATION FROM PLAN DESIGN LOCATION; 6 IN. IN ANY DIRECTION.
 NAIL INCLINATION, DEVIATION FROM PLAN; + OR - 3 DEGREES.
 LOCATION TOLERANCES ARE APPLICABLE TO ONLY ONE NAIL AND NOT ACCUMULATIVE OVER LARGE WALL AREAS. CENTER NAIL BARS WITHIN 1 IN. OF THE CENTER OF THE DRILLHOLE.

SOIL NAILS WHICH DO NOT SATISFY THE SPECIFIED TOLERANCES, DUE TO THE CONTRACTOR'S INSTALLATION METHODS, WILL BE REPLACED AT NO ADDITIONAL COST. BACKFILL ABANDONED NAIL DRILL HOLES WITH TREMIED GROUT. NAILS WHICH ENCOUNTER UNANTICIPATED OBSTRUCTIONS DURING DRILLING SHALL BE RELOCATED, AS APPROVED BY THE ENGINEER. COST OF DRILLING AND BACKFILLING DRILLHOLES ABANDONED DUE TO UNANTICIPATED OBSTRUCTIONS WILL BE PAID AS EXTRA WORK.

6.0 GROUTING

6.1 GROUT MIX DESIGN. USE A NEAT CEMENT GROUT OR A SAND-CEMENT GROUT. SUBMIT THE PROPOSED NAIL GROUT MIX DESIGN TO THE ENGINEER FOR REVIEW AND APPROVAL IN ACCORDANCE WITH THE SUBMITTAL SECTION. THE DESIGN MIX SUBMITTAL SHALL INCLUDE COMPRESSIVE STRENGTH TEST RESULTS VERIFYING THAT THE PROPOSED MIX WILL HAVE A MINIMUM 3-DAY COMPRESSIVE STRENGTH OF 1,500 PSI AND MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

6.2 GROUT TESTING. PREVIOUS TEST RESULTS FOR THE PROPOSED GROUT MIX COMPLETED WITHIN ONE YEAR OF THE START OF WORK MAY BE SUBMITTED FOR INITIAL VERIFICATION OF THE REQUIRED COMPRESSIVE STRENGTHS FOR INSTALLATION OF PRE-PRODUCTION VERIFICATION TEST NAIL AND INITIAL PRODUCTION NAILS. DURING PRODUCTION, NAIL GROUT SHALL BE TESTED BY THE CONTRACTOR IN ACCORDANCE WITH AASHTO T106/ASTM C109 AT A FREQUENCY OF NO LESS THAN ONE TEST FOR EVERY 50 CUBIC YARDS OF GROUT PLACED. PROVIDE GROUT CUBE TEST RESULTS TO THE ENGINEER WITHIN 24 HOURS OF TESTING.

6.3 GROUTING EQUIPMENT. GROUT EQUIPMENT SHALL PRODUCE A UNIFORMLY MIXED GROUT FREE OF LUMPS AND UNDISPERSED CEMENT, AND BE CAPABLE OF CONTINUOUSLY AGITATING THE MIX. USE A POSITIVE DISPLACEMENT GROUT PUMP EQUIPPED WITH A PRESSURE GAUGE WHICH CAN MEASURE AT LEAST TWICE BUT NO MORE THAN THREE TIMES THE INTENDED GROUT PRESSURE. SIZE THE GROUTING EQUIPMENT TO ENABLE THE ENTIRE NAIL TO BE GROUTED IN ONE CONTINUOUS OPERATION. PLACE THE GROUT WITHIN 60 MINUTES AFTER MIXING OR WITHIN THE TIME RECOMMENDED BY THE ADMIXTURE MANUFACTURER, IF ADMIXTURES ARE USED. GROUT NOT PLACED IN THE ALLOWED TIME LIMIT WILL BE REJECTED.

6.4 GROUTING METHODS. GROUT THE DRILLHOLE AFTER INSTALLATION OF THE NAIL BAR. EACH DRILLHOLE WILL BE GROUTED WITHIN 2 HOURS OF COMPLETION OF DRILLING, UNLESS OTHERWISE APPROVED BY THE ENGINEER. INJECT THE GROUT AT THE LOWEST POINT OF EACH DRILL HOLE THROUGH A GROUT TUBE, CASING, HOLLOW-STEM AUGER, OR DRILL RODS. KEEP THE OUTLET END OF THE CONDUIT DELIVERING THE GROUT BELOW THE SURFACE OF THE GROUT AS THE CONDUIT IS WITHDRAWN TO PREVENT THE CREATION OF VOIDS. COMPLETELY FILL THE DRILLHOLE IN ONE CONTINUOUS OPERATION. COLD JOINTS IN THE GROUT COLUMN ARE NOT ALLOWED EXCEPT AT THE TOP OF THE TEST BOND LENGTH OF PROOF TESTED PRODUCTION NAILS. AT THE CONTRACTOR'S OPTION, THE GROUT TUBE MAY REMAIN IN THE HOLE PROVIDED IT IS FILLED WITH GROUT. GROUTING BEFORE INSERTION OF THE NAIL IS ALLOWED PROVIDED THE NAIL BAR IS IMMEDIATELY INSERTED THROUGH THE GROUT TO THE SPECIFIED LENGTH WITHOUT DIFFICULTY.

DURING CASING REMOVAL FOR DRILLHOLES ADVANCED BY EITHER CASED OR HOLLOW-STEM AUGER METHODS, MAINTAIN SUFFICIENT GROUT LEVEL WITHIN THE CASING TO OFFSET THE EXTERNAL GROUNDWATER/SOIL PRESSURE AND PREVENT HOLE CAVING. MAINTAIN GROUT HEAD OR GROUT PRESSURES SUFFICIENT TO ENSURE THAT THE DRILLHOLE WILL BE COMPLETELY FILLED WITH GROUT AND TO PREVENT UNSTABLE SOIL OR GROUNDWATER FROM CONTAMINATING OR DILUTING THE GROUT. RECORD THE GROUT PRESSURES FOR SOIL NAILS INSTALLED USING PRESSURE GROUTING TECHNIQUES. CONTROL GROUT PRESSURES TO PREVENT EXCESSIVE GROUT HEAVE OR FRACTURING.

REMOVE THE GROUT AND NAIL IF GROUTING IS SUSPENDED FOR MORE THAN 30 MINUTES OR DOES NOT SATISFY THE REQUIREMENTS OF THIS SPECIFICATION OR THE PLANS, AND REPLACE WITH FRESH GROUT AND UNDAAMAGED NAIL BAR AT NO ADDITIONAL COST.

7.0 TESTING

7.1 NAIL TESTING. PERFORM BOTH VERIFICATION AND PROOF TESTING OF DESIGNATED TEST NAILS. PERFORM PRE-PRODUCTION VERIFICATION TESTS ON SACRIFICIAL TEST NAILS AT LOCATIONS SHOWN ON THE PLANS OR LISTED HEREIN. PERFORM PROOF TESTS ON PRODUCTION NAILS AT LOCATIONS SELECTED BY THE ENGINEER. REQUIRED NAIL TEST DATA SHALL BE RECORDED BY THE ENGINEER. DO NOT PERFORM NAIL TESTING UNTIL THE NAIL GROUT AND SHOTCRETE FACING HAVE CURED FOR AT LEAST 72 HOURS AND ATTAINED AT LEAST THEIR SPECIFIED 3-DAY COMPRESSIVE STRENGTH. TESTING IN LESS THAN 72 HOURS WILL ONLY BE ALLOWED IF THE CONTRACTOR SUBMITS COMPRESSIVE STRENGTH TEST RESULTS, FOR TESTS PERFORMED BY A QUALIFIED INDEPENDENT TESTING LAB, VERIFYING THAT THE NAIL GROUT AND SHOTCRETE MIXES BEING USED WILL PROVIDE THE SPECIFIED 3-DAY COMPRESSIVE STRENGTHS IN THE LESSER TIME.

7.2 PROOF TEST NAIL UNBONDED LENGTH. PROVIDE TEMPORARY UNBONDED LENGTHS FOR EACH TEST NAIL ISOLATE THE TEST NAIL BAR FROM THE SHOTCRETE FACING AND/OR THE REACTION FRAME USED DURING TESTING. ISOLATION OF A TEST NAIL THROUGH THE SHOTCRETE FACING SHALL NOT AFFECT THE LOCATION OF THE REINFORCING STEEL UNDER THE BEARING PLATE. ACCEPTED PROOF TEST NAILS MAY BE INCORPORATED AS PRODUCTION NAILS PROVIDED THE TEMPORARY TEST UNBONDED LENGTH IS FULLY GROUTED SUBSEQUENT TO TESTING. SUBMIT THE PROPOSED TEST NAIL ISOLATION METHODS, METHODS FOR PROVIDING AN UNBONDED TEST LENGTH AND METHODS FOR GROUTING THE UNBONDED LENGTH SUBSEQUENT TO TESTING TO THE ENGINEER FOR REVIEW AND APPROVAL IN ACCORDANCE WITH THE SUBMITTALS SECTION. WHERE TEMPORARY CASING OF THE UNBONDED LENGTH OF THE NAIL AND/OR THE STRESSING APPARATUS.

7.3 TESTING EQUIPMENT. TESTING EQUIPMENT SHALL INCLUDE DIAL GAUGES, DIAL GAUGE SUPPORT, JACK AND PRESSURE GAUGE, ELECTRONIC LOAD CELL, AND A REACTION FRAME. THE LOAD CELL IS REQUIRED ONLY FOR THE CREEP TEST PORTION OF THE VERIFICATION TEST. PROVIDE DESCRIPTION OF TEST SETUP AND JACK, PRESSURE GAUGE AND LOAD CELL CALIBRATION CURVES IN ACCORDANCE WITH SUBMITTALS SECTION.

DESIGN THE TESTING REACTION FRAME TO BE SUFFICIENTLY RIGID AND OF ADEQUATE DIMENSIONS SUCH THAT EXCESSIVE DEFORMATION OF THE TESTING EQUIPMENT DOES NOT OCCUR. IF THE REACTION FRAME WILL BEAR DIRECTLY ON THE SHOTCRETE FACING, DESIGN IT TO PREVENT CRACKING OF THE SHOTCRETE. INDEPENDENTLY SUPPORT AND CENTER THE JACK OVER THE NAIL BAR SO THAT THE BAR DOES NOT CARRY THE WEIGHT OF THE TESTING EQUIPMENT. ALIGN THE JACK, BEARING PLATES, AND STRESSING ANCHORAGE WITH THE BAR SUCH THAT UNLOADING AND REPOSITIONING OF THE EQUIPMENT WILL NOT BE REQUIRED DURING THE TEST.

APPLY AND MEASURE THE TEST LOAD WITH A HYDRAULIC JACK AND PRESSURE GAUGE. THE PRESSURE GAUGE SHALL BE GRADUATED IN 50 PSI INCREMENTS OR LESS. THE JACK AND PRESSURE GAUGE SHALL HAVE A PRESSURE RANGE NOT EXCEEDING TWICE THE ANTICIPATED MAXIMUM TEST PRESSURE. JACK RAM TRAVEL SHALL BE SUFFICIENT TO ALLOW THE TEST TO BE DONE WITHOUT RESETTING THE EQUIPMENT. MONITOR THE NAIL LOAD DURING VERIFICATION TESTS WITH BOTH THE PRESSURE GAUGE AND THE LOAD CELL. USE THE LOAD CELL TO MAINTAIN CONSTANT LOAD HOLD DURING THE CREEP TEST LOAD HOLD INCREMENT OF THE VERIFICATION TEST.

MEASURE THE NAIL HEAD MOVEMENT WITH A DIAL GAUGE CAPABLE OF MEASURING TO 0.001 IN. THE DIAL GAUGE SHALL HAVE A TRAVEL SUFFICIENT TO ALLOW THE TEST TO BE DONE WITHOUT HAVING TO RESET THE GAUGE. VISUALLY ALIGN THE GAUGE TO BE PARALLEL WITH THE AXIS OF THE NAIL AND SUPPORT THE GAUGE INDEPENDENTLY FROM THE JACK, WALL OR REACTION FRAME. USE TWO DIAL GAUGES WHEN THE TEST SETUP REQUIRES REACTION AGAINST A SOIL CUT FACE.

7.4 PRE-PRODUCTION VERIFICATION TESTING OF SACRIFICIAL TEST NAILS. PRE-PRODUCTION VERIFICATION TESTING SHALL BE PERFORMED PRIOR TO INSTALLATION OF PRODUCTION NAILS TO VERIFY THE CONTRACTOR'S INSTALLATION METHODS AND NAIL PULLOUT RESISTANCE. PERFORM PRE-PRODUCTION VERIFICATION TESTS AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE PLANS OR HEREIN AND PER NAIL INSTALLATION SECTION 5.4, UNLESS OTHERWISE APPROVED BY THE ENGINEER. PERFORM A MINIMUM OF 2 VERIFICATION TESTS IN EACH DIFFERENT SOIL/ROCK UNIT AND FOR EACH DIFFERENT DRILLING/GROUTING METHOD PROPOSED TO BE USED, AT EACH WALL LOCATION. VERIFICATION TEST NAILS WILL BE SACRIFICIAL AND NOT INCORPORATED AS PRODUCTION NAILS. BARE BARS CAN BE USED FOR THE SACRIFICIAL VERIFICATION TEST NAILS.

DEVELOP AND SUBMIT THE DETAILS OF THE VERIFICATION TESTING ARRANGEMENT INCLUDING THE METHOD OF DISTRIBUTING TEST LOAD PRESSURES TO THE EXCAVATION SURFACE (REACTION FRAME), TEST NAIL BAR SIZE, GROUTED DRILLHOLE DIAMETER AND REACTION FRAME DIMENSIONING TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH SUBMITTALS SECTION. CONSTRUCT VERIFICATION TEST NAILS USING THE SAME EQUIPMENT, INSTALLATION METHODS, NAIL INCLINATION, AND DRILLHOLE DIAMETER AS PLANNED FOR THE PRODUCTION NAILS. CHANGES IN THE DRILLING OR INSTALLATION METHOD MAY REQUIRE ADDITIONAL VERIFICATION TESTING AS DETERMINED BY THE ENGINEER AND SHALL BE PROVIDED AT NO ADDITIONAL COST. PAYMENT FOR ADDITIONAL VERIFICATION TESTS REQUIRED DUE TO DIFFERING SITE CONDITIONS, IF DETERMINED BY THE ENGINEER, SHALL BE PER THE CONTRACT UNIT PRICE.

TEST NAILS SHALL HAVE BOTH BONDED AND TEMPORARY UNBONDED LENGTHS. PRIOR TO TESTING ONLY THE BONDED LENGTH OF THE TEST NAIL SHALL BE GROUTED. THE TEMPORARY UNBONDED LENGTH OF THE TEST NAIL SHALL BE AT LEAST 3 FT. THE BONDED LENGTH OF THE TEST NAIL SHALL BE DETERMINED BASED ON THE PRODUCTION NAIL BAR GRADE AND SIZE SUCH THAT THE ALLOWABLE BAR STRUCTURAL LOAD IS NOT EXCEEDED DURING TESTING, BUT SHALL NOT BE LESS THAN 10 FT. THE ALLOWABLE BAR STRUCTURAL LOAD DURING TESTING SHALL NOT BE GREATER THAN 90 PERCENT OF THE YIELD STRENGTH FOR GRADE 60 AND GRADE 75 BARS. THE CONTRACTOR SHALL PROVIDE LARGER VERIFICATION TEST BAR SIZES, IF REQUIRED TO SAFELY ACCOMMODATE THE 10 FT. MINIMUM TEST BOND LENGTH AND TESTING TO 2 TIMES THE ALLOWABLE PULLOUT RESISTANCE REQUIREMENTS, AT NO ADDITIONAL COST.

THE VERIFICATION TEST BONDED LENGTH L_{bv} SHALL NOT EXCEED THE TEST ALLOWABLE BAR STRUCTURAL LOAD DIVIDED BY 2 TIMES THE ALLOWABLE PULLOUT RESISTANCE VALUE. THE FOLLOWING EQUATION SHALL BE USED FOR DETERMINING THE VERIFICATION TEST NAIL MAXIMUM BONDED LENGTH TO BE USED TO AVOID STRUCTURALLY OVERSTRESSING THE VERIFICATION TEST NAIL BAR SIZE:

$$L_{bv} = C F_r A_s / 2 Q_b, \text{ OR } 10 \text{ FT.}, \text{ WHICHEVER IS GREATER.}$$

- L_{bv} - MAXIMUM VERIFICATION TEST NAIL BONDED LENGTH (FT.)
- C - 0.9 FOR GRADE 60 AND 75 BARS
- F_r - BAR YIELD OR ULTIMATE STRESS (KSI)
(= 60 KSI FOR GRADE 60 BARS AND 75 FOR GRADE 75 BARS)
- A_s - BAR STEEL AREA (SQUARE INCHES)
- 2 - PULLOUT RESISTANCE SAFETY FACTOR
- Q_b - ALLOWABLE PULLOUT RESISTANCE (KIPS PER LINEAL FOOT OF GROUTED NAIL LENGTH, SPECIFIED HEREIN OR ON THE PLANS)

THE DESIGN TEST LOAD (DTL) DURING VERIFICATION TESTING SHALL BE DETERMINED BY THE FOLLOWING EQUATION:

$$DTL = \text{DESIGN TEST LOAD (KIPS)} = L_{bv} \times Q$$

- L_{bv} - AS-BUILT BONDED TEST LENGTH (FT.)
- Q_b - ALLOWABLE PULLOUT RESISTANCE (KIPS PER LINEAL FOOT OF GROUTED NAIL LENGTH, SPECIFIED HEREIN OR ON THE PLANS)
- MTL - 2.0 x DTL - MAXIMUM TEST LOAD (KIPS)

VERIFICATION TEST NAILS SHALL BE INCREMENTALLY LOADED TO A MAXIMUM TEST LOAD OF 200 PERCENT OF THE DESIGN TEST LOAD (DTL) IN ACCORDANCE WITH THE FOLLOWING LOADING SCHEDULE. THE SOIL NAIL MOVEMENTS SHALL BE RECORDED AT EACH LOAD INCREMENT.

VERIFICATION TEST LOADING SCHEDULE

LOAD	HOLD TIME
AL (.05 DTL MAX.)	1 MINUTE
0.25 DTL	10 MINUTES
0.50 DTL	10 MINUTES
0.75 DTL	10 MINUTES
1.00 DTL	10 MINUTES
1.25 DTL	10 MINUTES
1.50 DTL (CREEP TEST)	60 MINUTES
1.75 DTL	10 MINUTES
2.00 DTL (MAX. TEST LOAD)	10 MINUTES

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS AND SHOULD NOT EXCEED 5 PERCENT OF THE DESIGN TEST LOAD (DTL). DIAL GAUGES SHOULD BE SET TO "ZERO" AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

EACH LOAD INCREMENT SHALL BE HELD FOR AT LEAST 10 MINUTES. THE VERIFICATION TEST NAIL SHALL BE MONITORED FOR CREEP AT THE 1.50 DTL LOAD INCREMENT. NAIL MOVEMENTS DURING THE CREEP PORTION OF THE TEST SHALL BE MEASURED AND RECORDED AT 1 MINUTE, 2, 3, 5, 10, 20, 30, 50, AND 60 MINUTES. THE LOAD DURING THE CREEP TEST SHALL BE MAINTAINED WITHIN 2 PERCENT OF THE INTENDED LOAD BY USE OF THE LOAD CELL.

7.5 PROOF TESTING OF PRODUCTION NAILS. PERFORM PROOF TESTING ON 5 PERCENT (1 IN 20) OF THE PRODUCTION NAILS IN EACH NAIL ROW OR MINIMUM OF 1 PER ROW. THE LOCATIONS SHALL BE DESIGNATED BY THE ENGINEER. A VERIFICATION TEST NAIL SUCCESSFULLY COMPLETED DURING PRODUCTION WORK SHALL BE CONSIDERED EQUIVALENT TO A PROOF TEST NAIL AND SHALL BE ACCOUNTED FOR IN DETERMINING THE NUMBER OF PROOF TESTS REQUIRED IN THAT PARTICULAR ROW.

PRODUCTION PROOF TEST NAILS SHALL HAVE BOTH BONDED AND TEMPORARY UNBONDED LENGTHS. PRIOR TO TESTING ONLY THE BONDED LENGTH OF THE TEST NAIL SHALL BE GROUTED. THE TEMPORARY UNBONDED LENGTH OF THE TEST NAIL SHALL BE AT LEAST 3 FT. THE BONDED LENGTH OF THE TEST NAIL SHALL BE DETERMINED BASED ON THE PRODUCTION NAIL BAR GRADE AND SIZE SUCH THAT THE ALLOWABLE BAR STRUCTURAL LOAD IS NOT EXCEEDED DURING TESTING, BUT SHALL NOT BE LESS THAN 10 FT. PRODUCTION PROOF TEST NAILS SHORTER THAN 13 FT. IN LENGTH MAY BE CONSTRUCTED WITH LESS THAN THE MINIMUM 10 FT. BOND LENGTH WITH THE UNBONDED LENGTH LIMITED TO 3 FT. THE ALLOWABLE BAR STRUCTURAL LOAD DURING TESTING SHALL NOT BE GREATER THAN 90 PERCENT OF THE YIELD STRENGTH FOR GRADE 60 AND GRADE 75 BARS.

THE PROOF TEST BONDED LENGTH L_{bp} SHALL NOT EXCEED THE TEST ALLOWABLE BAR LOAD DIVIDED BY 1.5 TIMES THE ALLOWABLE PULLOUT RESISTANCE VALUE, OR ABOVE MINIMUM LENGTHS, WHICHEVER IS GREATER. THE FOLLOWING EQUATION SHALL BE USED FOR SIZING THE PROOF TEST NAIL BONDED LENGTH TO AVOID OVERSTRESSING THE PRODUCTION NAIL BAR SIZE:

$$L_{bp} = C F_r A_s / 1.5 Q_b, \text{ OR ABOVE MINIMUM LENGTHS, WHICHEVER IS GREATER.}$$

- L_{bp} - MAXIMUM PROOF TEST NAIL BONDED LENGTH (FT.)
- C - 0.9 FOR GRADE 60 AND 75 BARS
- F_r - BAR YIELD OR ULTIMATE STRESS (KSI)
(= 60 KSI FOR GRADE 60 BARS AND 75 FOR GRADE 75 BARS)
- A_s - BAR STEEL AREA (SQUARE INCHES)
- 1.5 - PULLOUT RESISTANCE SAFETY FACTOR
- Q_b - ALLOWABLE PULLOUT RESISTANCE (KIPS PER LINEAL FOOT OF GROUTED NAIL LENGTH, SPECIFIED HEREIN OR ON THE PLANS)

THE DESIGN TEST LOAD (DTL) DURING PROOF TESTING SHALL BE DETERMINED BY THE FOLLOWING EQUATION:

- DTL - DESIGN TEST LOAD (KIPS) = $L_{bv} \times QD$
- L_{bv} - AS-BUILT BONDED TEST LENGTH (FT.)
- Q_b - ALLOWABLE PULLOUT RESISTANCE (KIPS PER LINEAL FEET OF GROUTED NAIL LENGTH, SPECIFIED HEREIN OR ON THE PLANS)
- MTL - 1.5 x DTL - MAXIMUM TEST LOAD (KIPS)

PROOF TESTS SHALL BE PERFORMED BY INCREMENTALLY LOADING THE PROOF TEST NAIL TO A MAXIMUM TEST LOAD OF 150 PERCENT OF THE DESIGN TEST LOAD (DTL). THE NAIL MOVEMENT AT EACH LOAD SHALL BE MEASURED AND RECORDED BY THE ENGINEER IN THE SAME MANNER AS FOR VERIFICATION TESTS. THE TEST LOAD SHALL BE MONITORED BY A JACK PRESSURE GAUGE WITH A SENSITIVITY AND RANGE MEETING THE REQUIREMENTS OF PRESSURE GAUGES USED FOR VERIFICATION TEST NAILS. AT LOAD INCREMENTS OTHER THAN MAXIMUM TEST LOAD, THE LOAD SHALL BE HELD LONG ENOUGH TO OBTAIN A STABLE READING. INCREMENTAL LOADING FOR PROOF TESTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING LOADING SCHEDULE. THE SOIL NAIL MOVEMENTS SHALL BE RECORDED AT EACH LOAD INCREMENT.

PROOF TEST LOADING SCHEDULE

LOAD	HOLD TIME
AL (.05 DTL MAX.)	UNTIL STABLE
0.25 DTL	UNTIL STABLE
0.50 DTL	UNTIL STABLE
0.75 DTL	UNTIL STABLE
1.00 DTL	UNTIL STABLE
1.25 DTL	UNTIL STABLE
1.50 DTL (MAX. TEST LOAD)	SEE BELOW

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS AND SHOULD NOT EXCEED 5 PERCENT OF THE DESIGN TEST LOAD (DTL). DIAL GAUGES SHOULD BE SET TO "ZERO" AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

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BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE 6/04
REVIEWED WTL
DRAWN CRC
DESIGNED M/AK
CHECKED VEA

GENERAL NOTES 6
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

8 / 65
925
1120

ALL LOAD INCREMENTS SHALL BE MAINTAINED WITHIN 5 PERCENT OF THE INTENDED LOAD. DEPENDING ON PERFORMANCE, EITHER 10 MINUTE OR 60 MINUTE CREEP TESTS SHALL BE PERFORMED AT THE MAXIMUM TEST LOAD (1.50 DTL). THE CREEP PERIOD SHALL START AS SOON AS THE MAXIMUM TEST LOAD IS APPLIED AND THE NAIL MOVEMENT SHALL BE MEASURED AND RECORDED AT 1 MINUTE, 2, 3, 5, 6, AND 10 MINUTES. WHERE THE NAIL MOVEMENT BETWEEN 1 MINUTE AND 10 MINUTES EXCEEDS 0.04 INCHES, THE MAXIMUM TEST LOAD SHALL BE MAINTAINED AN ADDITIONAL 50 MINUTES AND MOVEMENTS SHALL BE RECORDED AT 20 MINUTES, 30, 50, AND 60 MINUTES.

7.6 TEST NAIL ACCEPTANCE CRITERIA. A TEST NAIL SHALL BE CONSIDERED ACCEPTABLE WHEN:

- FOR VERIFICATION TESTS, A TOTAL CREEP MOVEMENT OF LESS THAN 0.08 INCH PER LOG CYCLE OF TIME BETWEEN THE 6 AND 60 MINUTE READINGS IS MEASURED DURING CREEP TESTING AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD.
- FOR PROOF TESTS, A TOTAL CREEP MOVEMENT OF LESS THAN 0.04 INCH IS MEASURED BETWEEN THE 1 AND 10 MINUTE READINGS OR A TOTAL CREEP MOVEMENT OF LESS THAN 0.08 INCH IS MEASURED BETWEEN THE 6 AND 60 MINUTE READINGS AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD.
- THE TOTAL MEASURED MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS 80 PERCENT OF THE THEORETICAL ELASTIC ELONGATION OF THE TEST NAIL UNBONDED LENGTH.
- A PULLOUT FAILURE DOES NOT OCCUR AT THE MAXIMUM TEST LOAD. PULLOUT FAILURE IS DEFINED AS THE LOAD AT WHICH ATTEMPTS TO FURTHER INCREASE THE TEST LOAD SIMPLY RESULT IN CONTINUED PULLOUT MOVEMENT OF THE TEST NAIL. THE PULLOUT FAILURE LOAD SHALL BE RECORDED AS PART OF THE TEST DATA.

SUCCESSFUL PROOF TESTED NAILS MEETING THE ABOVE TEST ACCEPTANCE CRITERIA MAY BE INCORPORATED AS PRODUCTION NAILS, PROVIDED THAT (1) THE UNBONDED LENGTH OF THE TEST NAIL DRILLHOLE HAS NOT COLLAPSED DURING TESTING, (2) THE MINIMUM REQUIRED DRILLHOLE DIAMETER HAS BEEN MAINTAINED, (3) THE SPECIFIED CORROSION PROTECTION IS PROVIDED, AND (4) THE TEST NAIL LENGTH IS EQUAL TO OR GREATER THAN THE SCHEDULED PRODUCTION NAIL LENGTH. TEST NAILS MEETING THESE REQUIREMENTS SHALL BE COMPLETED BY SATISFACTORILY GROUTING THE UNBONDED TEST LENGTH. MAINTAINING THE TEMPORARY UNBONDED TEST LENGTH FOR SUBSEQUENT GROUTING IS THE CONTRACTOR'S RESPONSIBILITY. IF THE UNBONDED TEST LENGTH OF PRODUCTION PROOF TEST NAILS CANNOT BE SATISFACTORILY GROUTED SUBSEQUENT TO TESTING, THE PROOF TEST NAIL SHALL BECOME SACRIFICIAL AND SHALL BE REPLACED WITH AN ADDITIONAL PRODUCTION NAIL INSTALLED AT NO ADDITIONAL COST.

7.7 TEST NAIL REJECTION. IF A TEST NAIL DOES NOT SATISFY THE ACCEPTANCE CRITERION, THE CONTRACTOR SHALL DETERMINE THE CAUSE.

7.8 VERIFICATION TEST NAILS. THE ENGINEER WILL EVALUATE THE RESULTS OF EACH VERIFICATION TEST. INSTALLATION METHODS WHICH DO NOT SATISFY THE NAIL TESTING REQUIREMENTS SHALL BE REJECTED. THE CONTRACTOR SHALL PROPOSE ALTERNATIVE METHODS AND INSTALL REPLACEMENT VERIFICATION TEST NAILS. REPLACEMENT TEST NAILS SHALL BE INSTALLED AND TESTED AT NO ADDITIONAL COST.

7.9 PROOF TEST NAILS. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REPLACE SOME OR ALL OF THE INSTALLED PRODUCTION NAILS BETWEEN A FAILED PROOF TEST NAIL AND THE ADJACENT PASSING PROOF TEST NAIL. ALTERNATIVELY, THE ENGINEER MAY REQUIRE THE INSTALLATION AND TESTING OF ADDITIONAL PROOF TEST NAILS TO VERIFY THAT ADJACENT PREVIOUSLY INSTALLED PRODUCTION NAILS HAVE SUFFICIENT LOAD CARRYING CAPACITY. CONTRACTOR MODIFICATIONS MAY INCLUDE, BUT ARE NOT LIMITED TO; THE INSTALLATION OF ADDITIONAL PROOF TEST NAILS INCREASING THE DRILLHOLE DIAMETER TO PROVIDE INCREASED CAPACITY; MODIFYING THE INSTALLATION OR GROUTING METHODS; REDUCING THE PRODUCTION NAIL SPACING FROM THAT SHOWN ON THE PLANS AND INSTALLING MORE PRODUCTION NAILS AT A REDUCED CAPACITY; OR INSTALLING LONGER PRODUCTION NAILS IF SUFFICIENT RIGHT-OF-WAY IS AVAILABLE AND THE PULLOUT CAPACITY BEHIND THE FAILURE SURFACE CONTROLS THE ALLOWABLE NAIL DESIGN CAPACITY. THE NAILS MAY NOT BE LENGTHENED BEYOND THE TEMPORARY CONSTRUCTION EASEMENTS OR THE PERMANENT RIGHT-OF-WAY SHOWN ON THE PLANS. INSTALLATION AND TESTING OF ADDITIONAL PROOF TEST NAILS OR INSTALLATION OF ADDITIONAL OR MODIFIED NAILS AS A RESULT OF PROOF TEST NAIL FAILURE(S) WILL BE AT NO ADDITIONAL COST.

7.10 NAIL INSTALLATION RECORDS. RECORDS DOCUMENTING THE SOIL NAIL WALL CONSTRUCTION WILL BE MAINTAINED BY THE ENGINEER, UNLESS SPECIFIED OTHERWISE. TYPICAL RECORDS MAINTAINED BY THE ENGINEER SHOULD INCLUDE THE FOLLOWING:

- CONTRACTOR'S NAME
- DRILL RIG OPERATOR'S NAME
- DATE AND TIME OF START AND FINISH OF DRILLING
- DRILLING DIFFICULTIES
- CAVING OR SLOUGHING OF EXCAVATION OR DRILLHOLE
- GROUNDWATER CONDITIONS
- DRILL CASING REQUIREMENTS
- INSTALLED NAIL DRILLHOLE AND BAR DIAMETER
- DESIGN NAIL LENGTH
- INSTALLED NAIL LENGTH
- AS-BUILT NAIL LOCATION AND DEVIATION FROM SPECIFIED TOLERANCES
- DATE, TIME AND METHOD GROUT WAS PLACED INCLUDING GROUT PRESSURE (IF APPLICABLE)
- DESIGN CHANGES

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH AS-BUILT DRAWINGS SHOWING AS-BUILT NAIL LOCATIONS AND AS-BUILT SHOTCRETE FACING LINE AND GRADE WITHIN 5 DAYS AFTER COMPLETION OF THE SHOTCRETE FACING AND AS-BUILT CIP FACING LINE AND GRADE WITHIN 5 DAYS AFTER COMPLETION OF THE CAST IN PLACE CONCRETE FACING.

8.0 METHOD OF MEASUREMENT

STRUCTURE EXCAVATION FOR SOIL NAIL WALL IS INCLUDED FOR PAYMENT WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

8.1 ITEM SPECIAL - RETAINING WALL, MISC. PERMANENT SOIL NAILS SHALL BE MEASURED PER EACH SOIL NAIL AUTHORIZED AND ACCEPTED. THIS ITEM SHALL BE PAID AT THE CONTRACT UNIT PRICE AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK. THE MAJOR ITEMS INCLUDED IN THIS ITEM ARE THE DRILLING, CASING, BARS, GROUT, ENCAPSULATION, AND ANCHORAGE.

8.2 ITEM SPECIAL - RETAINING WALL, MISC. VERIFICATION TESTS SHALL BE MEASURED AS THE ACTUAL NUMBER OF VERIFICATION TESTS AUTHORIZED AND ACCEPTED. THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK.

8.3 ITEM SPECIAL - RETAINING WALL, MISC. PROOF TESTS SHALL BE MEASURED AS THE ACTUAL NUMBER OF PROOF TESTS AUTHORIZED AND ACCEPTED. THIS ITEM SHALL BE PAID FOR AT THE CONTACT UNIT PRICE PER EACH AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK.

9.0 BASIS OF PAYMENT

ITEM	DESCRIPTION	UNIT
SPECIAL	RETAINING WALL, MISC: PERMANENT SOIL NAILS	EACH
SPECIAL	RETAINING WALL, MISC.: VERIFICATION TESTS	EACH
SPECIAL	RETAINING WALL, MISC.: PROOF TESTS	EACH
SPECIAL	RETAINING WALL, MISC.: SHOTCRETE CONSTRUCTION	SQ FT
511	FACING AND WALL DRAINAGE	CU YD
503	CLASS C CONCRETE	CU YD
	UNCLASSIFIED EXCAVATION, AS PER PLAN	CU YD

ITEM SPECIAL - RETAINING WALL MISC.: SHOTCRETE CONSTRUCTION FACING AND WALL DRAINAGE

1.0 DESCRIPTION. SHOTCRETE FACING AND WALL DRAINAGE WORK CONSISTS OF FURNISHING ALL MATERIALS AND LABOR REQUIRED FOR PLACING AND SECURING GEOCOMPOSITE DRAINAGE MATERIAL, CONNECTION PIPES, REINFORCING STEEL AND SHOTCRETE FOR THE TEMPORARY SHOTCRETE CONSTRUCTION FACING FOR THE SOIL NAIL WALLS SHOWN ON THE PLANS. THE WORK SHALL INCLUDE ANY PREPARATORY TRIMMING AND CLEANING OF SOIL/ROCK SURFACES AND SHOTCRETE COLD JOINTS TO RECEIVE NEW SHOTCRETE.

SHOTCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ACI 506.2, "SPECIFICATIONS FOR MATERIALS, PROPORTIONING AND APPLICATION OF SHOTCRETE", EXCEPT AS OTHERWISE SPECIFIED. SHOTCRETE SHALL CONSIST OF AN APPLICATION OF ONE OR MORE LAYERS OF CONCRETE CONVEYED THROUGH A HOSE AND PNEUMATICALLY PROJECTED AT A HIGH VELOCITY AGAINST A PREPARED SURFACE.

SHOTCRETE MAY BE PRODUCED BY EITHER A WET-MIX OR DRY-MIX PROCESS. THE WET-MIX PROCESS CONSISTS OF THOROUGHLY MIXING ALL THE INGREDIENTS EXCEPT ACCELERATING ADMIXTURES, BUT INCLUDING THE MIXING WATER, INTRODUCING THE MIXTURE INTO THE DELIVERY EQUIPMENT AND DELIVERING IT, BY POSITIVE DISPLACEMENT, TO THE NOZZLE. THE WET-MIX SHOTCRETE SHALL THEN BE AIR JETTED FROM THE NOZZLE AT HIGH VELOCITY ONTO THE SURFACE. THE DRY-MIX PROCESS CONSISTS OF SHOTCRETE WITHOUT MIXING WATER WHICH IS CONVEYED THROUGH THE HOSE PNEUMATICALLY WITH THE MIXING WATER INTRODUCED AT THE NOZZLE. FOR ADDITIONAL DESCRIPTIVE INFORMATION, THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE AMERICAN CONCRETE INSTITUTE ACI 506R "GUIDE TO SHOTCRETE". EXPERIENCE ON AT LEAST 3 PROJECTS IN THE PAST 3 YEARS IN SIMILAR SHOTCRETE WHERE THE IMPERATIVE MOOD IS USED WITHIN THIS SPECIFICATION FOR CONCISENESS, "THE CONTRACTOR SHALL" IS IMPLIED.

1.1 CONTRACTOR'S EXPERIENCE REQUIREMENTS. WORKERS, INCLUDING FOREMEN, NOZZLEMEN, AND DELIVERY EQUIPMENT OPERATORS, SHALL BE FULLY EXPERIENCED TO PERFORM THE WORK. ALL SHOTCRETE NOZZLEMEN ON THIS PROJECT SHALL HAVE

APPLICATION WORK AND SHALL DEMONSTRATE ABILITY TO SATISFACTORILY PLACE THE SHOTCRETE.

INITIAL QUALIFICATION OF NOZZLEMEN WILL BE BASED EITHER ON PREVIOUS ACI CERTIFICATION OR SATISFACTORY COMPLETION OF PRECONSTRUCTION TEST PANELS. THE REQUIREMENT FOR NOZZLEMEN TO SHOOT PRECONSTRUCTION QUALIFICATION TEST PANELS WILL BE WAIVED FOR NOZZLEMEN WHO CAN SUBMIT DOCUMENTED PROOF THEY HAVE BEEN CERTIFIED IN ACCORDANCE WITH THE ACI 506.3R GUIDE TO CERTIFICATION OF SHOTCRETE NOZZLEMEN. THE CERTIFICATION SHALL HAVE BEEN DONE BY AN ACI RECOGNIZED SHOTCRETE TESTING LAB AND/OR RECOGNIZED SHOTCRETE CONSULTANT AND HAVE COVERED THE TYPE OF SHOTCRETE TO BE USED (PLAIN WET-MIX, PLAIN DRY-MIX OR STEEL FIBER REINFORCED). ALL NOZZLEMEN WILL BE REQUIRED TO PERIODICALLY SHOOT PRODUCTION TEST PANELS DURING THE COURSE OF THE WORK AT THE FREQUENCY SPECIFIED HEREIN. ACHIEVING THE SPECIFIED 3-DAY AND 28-DAY COMPRESSIVE STRENGTH REQUIREMENTS NOTIFY THE ENGINEER NOT LESS THAN 2 DAYS PRIOR TO THE SHOOTING OF PRECONSTRUCTION TEST PANELS TO BE USED TO QUALIFY NOZZLEMEN WITHOUT PREVIOUS ACI CERTIFICATION. USE THE SAME SHOTCRETE MIX AND EQUIPMENT TO MAKE QUALIFICATION TEST PANELS AS THOSE TO BE USED FOR THE SOIL NAIL WALL SHOTCRETE FACING. INITIAL QUALIFICATION OF THE NOZZLEMEN WILL BE BASED ON A VISUAL INSPECTION OF THE SHOTCRETE DENSITY AND VOID STRUCTURE AND ON

DETERMINED FROM TEST SPECIMENS EXTRACTED FROM THE PRECONSTRUCTION TEST PANELS. PRECONSTRUCTION AND PRODUCTION TEST PANELS, CORE EXTRACTION AND COMPRESSIVE STRENGTH TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ACI 506.2 AND AASHTO T24/ASTM C42, UNLESS OTHERWISE SPECIFIED HEREIN. NOZZLEMAN WITHOUT ACI CERTIFICATION WILL BE ALLOWED TO BEGIN PRODUCTION SHOOTING BASED ON SATISFACTORY COMPLETION OF THE PRECONSTRUCTION TEST PANELS AND PASSING 3-DAY STRENGTH TEST REQUIREMENTS. CONTINUED QUALIFICATION WILL BE SUBJECT TO PASSING THE 28-DAY STRENGTH TESTS AND SHOOTING SATISFACTORY DURING PRODUCTION TEST PANELS.

1.2 CONSTRUCTION SUBMITTALS

AT LEAST 15 CALENDAR DAYS BEFORE THE PLANNED START OF SHOTCRETE PLACEMENT OR CIP FACING PLACEMENT (IF APPLICABLE), SUBMIT 5 COPIES OF THE FOLLOWING INFORMATION, IN WRITING, TO THE ENGINEER FOR REVIEW:

- WRITTEN DOCUMENTATION OF THE NOZZLEMEN'S QUALIFICATIONS INCLUDING PROOF OF ACI CERTIFICATION (IF APPLICABLE).
- PROPOSED METHODS OF SHOTCRETE PLACEMENT AND OF CONTROLLING AND MAINTAINING FACING ALIGNMENT AND LOCATION AND SHOTCRETE THICKNESS.

C. SHOTCRETE MIX DESIGN INCLUDING: TYPE OF PORTLAND CEMENT AGGREGATE SOURCE AND GRADATION PROPORTIONS OF MIX BY WEIGHT AND WATER-CEMENT RATIO. PROPOSED ADMIXTURES, MANUFACTURER, DOSAGE, TECHNICAL LITERATURE. PREVIOUS STRENGTH TEST RESULTS FOR THE PROPOSED SHOTCRETE MIX COMPLETED WITHIN ONE YEAR OF THE START OF SHOTCRETING MAY BE SUBMITTED FOR INITIAL VERIFICATION OF THE REQUIRED COMPRESSIVE STRENGTHS AT START OF PRODUCTION WORK.

D. CERTIFICATES OF COMPLIANCE, MANUFACTURERS' ENGINEERING DATA AND INSTALLATION INSTRUCTIONS FOR THE DRAINAGE GEOTEXTILE, GEOCOMPOSITE DRAIN STRIP, DRAIN GRATE AND ACCESSORIES.

E. CERTIFICATES OF COMPLIANCE FOR DRAINAGE AGGREGATE AND PVC DRAIN PIPING

F. FORMWORK DIMENSIONS AND DETAILS FOR PLACING THE CIP CONCRETE FACING OVER THE SHOTCRETE CONSTRUCTION FACING. INCLUDE DETAILS FOR FORMWORK CONNECTIONS TO THE SHOTCRETE FACING AND/OR NAILS (IF APPLICABLE), PROPOSED CONCRETE PLACEMENT METHOD AND PLACEMENT RATES, AND ACCOMPANYING STRUCTURAL CALCULATIONS VERIFYING THE STRUCTURAL ADEQUACY OF THE FORMWORK, CONNECTIONS, AND SHOTCRETE FACING AND/OR NAILS TO SUPPORT THE LOADING INDUCED BY THE FLUID CIP CONCRETE. WHEN ANCHORS EMBEDDED INTO THE SHOTCRETE FACING WILL BE USED TO SUPPORT THE I-SIDED CIP CONCRETE FACE FORM, INCLUDE CALCULATIONS ILLUSTRATING THE ANCHOR DESIGN LOAD (CALCULATED AS THE DESIGN CONCRETE FLUID PRESSURE TIMES THE ANCHOR TRIBUTARY AREA). THE STRUCTURAL CALCULATIONS SHALL BE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER PROFICIENT IN STRUCTURAL DESIGN AND LICENSED IN THE STATE OF OHIO.

THE ENGINEER WILL APPROVE OR REJECT THE CONTRACTOR'S SUBMITTALS WITHIN 10 CALENDAR DAYS AFTER RECEIPT OF A COMPLETE SUBMISSION. THE CONTRACTOR WILL NOT BE ALLOWED TO BEGIN WALL CONSTRUCTION OR INCORPORATE MATERIALS INTO THE WORK UNTIL THE SUBMITTAL REQUIREMENTS ARE SATISFIED AND FOUND ACCEPTABLE TO THE ENGINEER. CHANGES OR DEVIATIONS FROM THE APPROVED SUBMITTALS MUST BE RE-SUBMITTED FOR APPROVAL. NO ADJUSTMENTS IN CONTRACT TIME WILL BE ALLOWED DUE TO INCOMPLETE SUBMITTALS.

UPON DELIVERY TO THE PROJECT SITE, PROVIDE CERTIFIED MILL TEST RESULTS FOR ALL REINFORCING STEEL SPECIFYING THE MINIMUM ULTIMATE STRENGTH, YIELD STRENGTH, ELONGATION AND CHEMICAL COMPOSITION.

1.3 PRE-CONSTRUCTION MEETING.

A PRE-CONSTRUCTION MEETING SCHEDULED BY THE ENGINEER WILL BE HELD PRIOR TO THE START OF WALL CONSTRUCTION. ATTENDANCE IS MANDATORY. THE SHOTCRETE CONTRACTOR, IF DIFFERENT THAN THE SOIL NAIL SPECIALTY CONTRACTOR, SHALL ATTEND. SEE SECTION 2.5 OF THE PERMANENT SOIL NAIL AND WALL EXCAVATION SPECIFICATION (IN THESE NOTES).

2.0 MATERIALS. ALL MATERIALS FOR SHOTCRETE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

CEMENT	AASHTO M85/ ASTM C150, TYPE I, II, III OR V.
FINE AGGREGATE	AASHTO M6/ASTM C33 CLEAN, NATURAL.
COARSE AGGREGATE	AASHTO M80, CLASS B FOR QUALITY
WATER	CLEAN AND POTABLE. AASHTO M157/ASTM C94
CHEMICAL ADMIXTURES	
ACCELERATOR	FLUID TYPE, APPLIED AT NOZZLE, MEETING REQUIREMENTS OF AASHTO M194/ASTM C494/ASTM C1141.
WATER-REDUCER AND SUPERPLASTISIZER	AASHTO M194/ASTM C494 TYPE A, C, D, E, F, OR G
RETARDERS	AASHTO M194/ ASTM C494 TYPE B OR D.
MINERAL ADMIXTURES	
FLY ASH	AASHTO M295/ASTM C618 TYPE F OR C, CEMENT REPLACEMENT UP TO 35 PERCENT BY WEIGHT OF CEMENT.
SILICA FUME	ASTM C1240, 90 PERCENT MINIMUM SILICON DIOXIDE SOLIDS CONTENT, NOT TO EXCEED 12 PERCENT BY WEIGHT OF CEMENT.
WELDED WIRE FABRIC	AASHTO M55/ASTM A185 OR A497.
REINFORCING BARS FOR SHOTCRETE FACING	AASHTO M31/ASTM A615, GRADE 60 DEFORMED
PREPACKAGED SHOTCRETE	ASTM C928
DRAINAGE GEOTEXTILE FOR DRAIN STRIP	AASHTO M288 CLASS 3, PERMITTIVITY MIN.02 PER SECOND; AOS 0.01 INCH MAX.
GEOCOMPOSITE DRAIN STRIP	MIRADRAIN 6000, AMERDRAIN 500 OR APPROVED EQUAL.
FILM PROTECTION	POLYETHYLENE FILMS PER AASHTO M-171.

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BURGESS & NIPLE
5205 Road Road Columbus, Ohio 43220

DATE	6/04	REVISION	WTL	DRAWN	CFC	DESIGNED	MAK
STRUCTURE FILE NUMBER	52030371	REVISION	52030366	REVISION	VEA	GENERAL NOTES 7	BRIDGE NO. MED-71-0860 L/R
						OVER CSXT RR AND RYAN ROAD C.H. 40	
						MED-71-6.06	PID-75657
						9/65	926 1120

PVC CONNECTOR AND DRAIN PIPES:

PIPE	ASTM I785 SCHEDULE 40 PVC, SOLID AND PERFORATED WALL, CELL CLASSIFICATION I2454-B OR I2354-C, WALL THICKNESS SDR 35, WITH SOLVENT WELD OR ELASTOMERIC GASKET JOINTS.
FITTINGS	ASTM D3034, CELL CLASSIFICATION I2454-B OR I2454-C, WALL THICKNESS SDR35, WITH SOLVENT WELD OR ELASTOMERIC GASKET JOINTS.
SOLVENT CEMENT	ASTM D2564
PRIMER	ASTM F656

MATERIALS SHALL BE DELIVERED, STORED AND HANDLED TO PREVENT CONTAMINATION, SEGREGATION, CORROSION OR DAMAGE. STORE LIQUID ADMIXTURES TO PREVENT EVAPORATION AND FREEZING.

DRAINAGE GEOTEXTILE AND GEOCOMPOSITE DRAIN STRIPS SHALL BE PROVIDED IN ROLLS WRAPPED WITH A PROTECTIVE COVERING AND STORED IN A MANNER WHICH PROTECTS THE FABRIC FROM MUD, DIRT, DEBRIS, AND SHOTCRETE REBOUND. PROTECTIVE WRAPPING SHALL NOT BE REMOVE UNTIL IMMEDIATELY BEFORE THE GEOTEXTILE OR DRAIN STRIP IS INSTALLED. EXTENDED EXPOSURE TO ULTRA-VIOLET LIGHT SHALL BE AVOIDED. EACH ROLL OF GEOTEXTILE OR DRAIN STRIP IN THE SHIPMENT SHALL BE LABELLED TO IDENTIFY THE PRODUCTION RUN.

2.1 SHOTCRETE MIX DESIGN. THE CONTRACTOR MUST RECEIVE NOTIFICATION FROM THE ENGINEER THAT THE PROPOSED MIX DESIGN AND METHOD OF PLACEMENT ARE ACCEPTABLE BEFORE SHOTCRETE PLACEMENT CAN BEGIN.

2.1.1 AGGREGATE. AGGREGATE FOR SHOTCRETE SHALL MEET THE STRENGTH AND DURABILITY REQUIREMENTS OF AASHTO M6/M80 AND THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
1/2 IN.	100
3/8 IN.	90-100
NO. 4	70-85
NO. 8	50-70
NO. 16	35-55
NO. 30	20-35
NO. 50	8-20
NO. 100	2-10

2.1.2 PROPORTIONING AND USE OF ADMIXTURES. PROPORTION THE SHOTCRETE TO BE PUMPABLE WITH THE CONCRETE PUMP FURNISHED FOR THE WORK, WITH A CEMENTING MATERIALS CONTENT OF AT LEAST 720 LBS. PER CUBIC YARD AND WATER/CEMENT RATIO NOT GREATER THAN 0.50. DO NOT USE ADMIXTURES UNLESS APPROVED BY THE ENGINEER. THOROUGHLY MIX ADMIXTURES INTO THE SHOTCRETE AT THE RATE SPECIFIED BY THE MANUFACTURER. ACCELERATORS (IF USED) SHALL BE COMPATIBLE WITH THE CEMENT USED, BE NON-CORROSIVE TO STEEL AND NOT PROMOTE OTHER DETRIMENTAL EFFECTS SUCH AS CRACKING OR EXCESSIVE SHRINKAGE. THE MAXIMUM ALLOWABLE CHLORIDE ION CONTENT OF ALL INGREDIENTS SHALL NOT EXCEED 0.10% WHEN TESTED TO AASHTO T260.

2.1.3 AIR ENTRAINMENT. AIR ENTRAINMENT IS NOT REQUIRED FOR TEMPORARY SHOTCRETE CONSTRUCTION FACINGS.

2.1.4 STRENGTH REQUIREMENTS. PROVIDE A SHOTCRETE MIX CAPABLE OF ATTAINING 2,000 PSI COMPRESSIVE STRENGTH IN 3 DAYS AND 4,000 PSI IN 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF EACH SET OF THREE TEST CORES EXTRACTED FROM TEST PANELS OR WALL FACE MUST EQUAL OR EXCEED 85 PERCENT OF THE SPECIFIED COMPRESSIVE STRENGTH, WITH NO INDIVIDUAL CORE LESS THAN 75 PERCENT OF THE SPECIFIED COMPRESSIVE STRENGTH, IN ACCORDANCE WITH ACI 506.2.

2.1.5 MIXING AND BATCHING. AGGREGATE AND CEMENT MAY BE BATCHED BY WEIGHT OR BY VOLUME IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C94 OR AASHTO M241/ASTM C685. MIXING EQUIPMENT SHALL THOROUGHLY BLEND THE MATERIALS IN SUFFICIENT QUANTITY TO MAINTAIN PLACING CONTINUITY. READY MIX SHOTCRETE SHALL COMPLY WITH AASHTO M157. SHOTCRETE SHALL BE BATCHED, DELIVERED, AND PLACED WITHIN 90 MINUTES OF MIXING. THE USE OF RETARDING ADMIXTURES MAY EXTEND APPLICATION TIME BEYOND 90 MINUTES IF APPROVED BY THE ENGINEER.

PREMIXED AND PACKAGED SHOTCRETE MIX MAY BE PROVIDED FOR ON-SITE MIXING. THE PACKAGES SHALL CONTAIN MATERIALS CONFORMING TO THE MATERIALS SECTION OF THIS SPECIFICATION. PLACING TIME LIMIT AFTER MIXING SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS.

2.2 FIELD QUALITY CONTROL. BOTH PRECONSTRUCTION TEST PANELS (FOR NOZZLEMEN WITHOUT PREVIOUS ACI CERTIFICATION) AND PRODUCTION TEST PANELS OR TEST CORES FROM THE WALL FACING ARE REQUIRED. SHOTCRETING AND CORING OF TEST PANELS SHALL BE PERFORMED BY QUALIFIED PERSONNEL IN THE PRESENCE OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS, AND PERSONNEL AS NECESSARY TO OBTAIN SHOTCRETE CORES FOR TESTING INCLUDING CONSTRUCTION OF TEST PANEL BOXES, FIELD CURING REQUIREMENTS AND CORING. COMPRESSIVE STRENGTH TESTING WILL BE PERFORMED BY THE ENGINEER. SHOTCRETE FINAL ACCEPTANCE WILL BE BASED ON THE 28-DAY STRENGTH.

SHOTCRETE PRODUCTION WORK MAY COMMENCE UPON INITIAL APPROVAL OF THE DESIGN MIX AND NOZZLEMEN AND CONTINUE IF THE SPECIFIED STRENGTHS ARE OBTAINED. THE SHOTCRETE WORK BY A CREW WILL BE SUSPENDED IF THE TEST RESULTS FOR THEIR WORK DOES NOT SATISFY THE STRENGTH REQUIREMENTS. THE CONTRACTOR SHALL CHANGE ALL OR SOME OF THE FOLLOWING: THE MIX, THE CREW, THE EQUIPMENT, OR THE PROCEDURES. BEFORE RESUMING WORK, THE CREW MUST SHOOT ADDITIONAL TEST PANELS AND DEMONSTRATE THAT THE SHOTCRETE IN THE PANELS SATISFIES THE SPECIFIED STRENGTH REQUIREMENTS. THE COST OF ALL WORK REQUIRED TO OBTAIN SATISFACTORY STRENGTH TESTS WILL BE BORNE BY THE CONTRACTOR.

2.2.1 PRECONSTRUCTION TEST PANELS. EACH NOZZLEMAN WITHOUT PREVIOUS ACI CERTIFICATION SHALL FURNISH AT LEAST ONE PRECONSTRUCTION TEST PANEL FOR EACH PROPOSED MIXTURE BEING CONSIDERED AND FOR EACH SHOOTING POSITION TO BE ENCOUNTERED ON THE JOB. PRECONSTRUCTION TEST PANELS SHALL BE MADE PRIOR TO THE COMMENCEMENT OF PRODUCTION WORK USING THE SAME EQUIPMENT, MATERIALS, MIXTURE PROPORTIONS AND PROCEDURES PROPOSED FOR THE JOB.

MAKE PRECONSTRUCTION TEST PANELS WITH MINIMUM DIMENSIONS OF 30 X 30 SQUARE INCHES AND AT LEAST 4 INCHES THICK. SLOPE THE SIDES OF PRECONSTRUCTION AND PRODUCTION TEST PANELS AT 45 DEGREES OVER THE FULL PANEL THICKNESS TO RELEASE REBOUND.

2.2.2 PRODUCTION TEST PANELS. FURNISH AT LEAST ONE PRODUCTION TEST PANEL OR, IN LIEU OF PRODUCTION TEST PANELS, SIX 3 INCH DIAMETER CORES TAKEN FROM THE SHOTCRETE FACING, DURING THE FIRST PRODUCTION APPLICATION OF SHOTCRETE AND HENCEFORTH FOR EVERY 2,500 SQUARE FEET OF SHOTCRETE PLACED. CONSTRUCT THE PRODUCTION TEST PANELS SIMULTANEOUSLY WITH THE SHOTCRETE FACING INSTALLATION AT TIMES DESIGNATED BY THE ENGINEER. MAKE PRODUCTION TEST PANELS WITH MINIMUM DIMENSIONS OF 18 X 18 SQUARE INCHES AND AT LEAST 4 INCHES THICK.

2.2.3 TEST PANEL CURING, TEST SPECIMEN EXTRACTION AND TESTING.

IMMEDIATELY AFTER SHOOTING, FIELD MOIST CURE THE TEST PANELS BY COVERING AND TIGHTLY WRAPPING WITH A SHEET OF MATERIAL MEETING THE REQUIREMENTS OF ASTM C171 UNTIL THEY ARE DELIVERED TO THE TESTING LAB OR TEST SPECIMENS ARE EXTRACTED. DO NOT IMMERSE THE TEST PANELS IN WATER. DO NOT FURTHER DISTURB TEST PANELS FOR THE FIRST 24 HOURS AFTER SHOOTING. PROVIDE AT LEAST SIX 3 INCH DIAMETER CORE SAMPLES CUT FROM EACH PRECONSTRUCTION TEST PANEL AND PRODUCTION TEST PANEL. CONTRACTOR HAS THE OPTION OF EXTRACTING TEST SPECIMENS FROM TEST PANELS IN THE FIELD OR TRANSPORTING TO ANOTHER LOCATION FOR EXTRACTION. KEEP PANELS IN THEIR FORMS WHEN TRANSPORTED. DO NOT TAKE CORES FROM THE OUTER 6 INCHES OF TEST PANEL MEASURED IN FROM THE TOP OUTSIDE EDGES OF THE PANEL FORM. TRIM THE ENDS OF THE CORES TO PROVIDE TEST CYLINDERS AT LEAST 3 INCHES LONG. IF THE CONTRACTOR CHOOSES TO TAKE CORES FROM THE WALL FACE IN LIEU OF MAKING PRODUCTION TEST PANELS, LOCATIONS WILL BE DESIGNATED BY THE ENGINEER. CLEARLY MARK THE CORES AND CONTAINER TO IDENTIFY THE CORE LOCATIONS AND WHETHER THEY ARE FOR PRECONSTRUCTION OR PRODUCTION TESTING. IF FOR PRODUCTION TESTING, MARK THE SECTION OF THE WALL REPRESENTED BY THE CORES ON THE CORES AN CONTAINER. IMMEDIATELY WRAP CORES IN WET BURLAP OR MATERIAL MEETING REQUIREMENTS OF ASTM C171 AND SEAL IN A PLASTIC BAG. DELIVER CORES TO THE ENGINEER OR TESTING LAB, AS DIRECTED BY THE ENGINEER, WITHIN 48 HOURS OF SHOOTING THE PANELS. THE REMAINDER OF THE PANELS WILL BECOME THE PROPERTY OF THE CONTRACTOR. COMPRESSIVE STRENGTH TESTING WILL BE PERFORMED BY THE ENGINEER. UPON DELIVERY TO THE TESTING LAB, SAMPLES WILL BE PLACED IN THE MOIST ROOM UNTIL THE TIME OF TEST. WHEN THE TEST LENGTH OF A CORE IS LESS THAN TWICE THE DIAMETER, THE CORRECTION FACTORS GIVEN IN AASHTO T24/ASTM C42 WILL BE APPLIED TO OBTAIN THE COMPRESSIVE STRENGTH OF INDIVIDUAL CORES. THREE CORES WILL BE TESTED AT 3 DAYS AND THREE CORES WILL BE TESTED AT 28 DAYS IN ACCORDANCE WITH AASHTO T24/ASTM C42.

FILL CORE HOLES IN THE WALL BY DRY-PACKING WITH NON-SHRINK PATCHING MORTAR AFTER THE HOLES ARE CLEANED AND DAMPENED. DO NOT FILL CORE HOLES WITH SHOTCRETE.

3.0 CONSTRUCTION REQUIREMENTS

3.1 WALL DRAINAGE NETWORK. INSTALL AND SECURE ALL ELEMENTS OF THE WALL DRAINAGE NETWORK AS SHOWN ON THE PLANS, SPECIFIED HEREIN, OR AS REQUIRED BY THE ENGINEER TO SUIT THE SITE CONDITIONS. THE DRAINAGE NETWORK SHALL CONSIST OF INSTALLING GEOCOMPOSITE DRAIN STRIPS, PVC CONNECTION PIPES AND WALL FOOTING DRAINS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. EXCLUSIVE OF THE WALL FOOTING DRAINS, ALL ELEMENTS OF THE DRAINAGE NETWORK SHALL BE INSTALLED PRIOR TO SHOTCRETING. UNANTICIPATED SUBSURFACE DRAINAGE FEATURES EXPOSED IN THE EXCAVATION CUT FACE SHALL BE CAPTURED INDEPENDENTLY OF THE WALL DRAINAGE NETWORK AND SHALL BE MITIGATED PRIOR TO SHOTCRETE APPLICATION IN ACCORDANCE WITH SECTION 5.1 OF THE SOIL NAIL AND WALL EXCAVATION SPECIFICATION. COSTS DUE TO THE REQUIRED MITIGATION WILL BE PAID FOR AS EXTRA WORK.

3.1.1 GEOCOMPOSITE DRAIN STRIPS. INSTALL GEOCOMPOSITE DRAIN STRIPS CENTERED BETWEEN THE COLUMNS OF NAILS AS SHOWN ON THE PLANS. INSTALL GEOCOMPOSITE DRAIN STRIPS AS SHOWN IN THE PLANS AND WHERE ZONES OF LOCALIZED GROUNDWATER SEEPAGE IS ENCOUNTERED DURING CONSTRUCTION. THE DRAIN STRIPS SHALL BE AT LEAST 24 INCHES WIDE AND PLACED WITH THE GEOTEXTILE SIDE AGAINST THE GROUND. SECURE THE STRIPS TO THE EXCAVATION FACE AND PREVENT SHOTCRETE FROM CONTAMINATING THE GROUND SIDE OF THE GEOTEXTILE. DRAIN STRIPS WILL BE CONTINUOUS. SPLICES SHALL BE MADE WITH A 12 IN. MINIMUM OVERLAP SUCH THAT THE FLOW OF WATER IS NOT IMPEDED. REPAIR DAMAGE TO THE GEOCOMPOSITE DRAIN STRIP, WHICH MAY INTERRUPT THE FLOW OF WATER.

3.1.2 FOOTING DRAINS. INSTALL FOOTING DRAINS AT THE BOTTOM OF EACH WALL AS SHOWN ON THE PLANS. THE DRAINAGE GEOTEXTILE SHALL ENVELOPE THE FOOTING DRAIN AGGREGATE AND PIPE AND CONFORM TO THE DIMENSIONS OF THE TRENCH. OVERLAP THE DRAINAGE GEOTEXTILE ON TOP OF THE DRAINAGE AGGREGATE AS SHOWN ON THE PLANS. REPLACE OR REPAIR DAMAGED OR DEFECTIVE DRAINAGE GEOTEXTILE.

3.1.3 CONNECTION PIPES AND WEEPHOLES. INSTALL CONNECTION PIPES AS SHOWN ON THE PLANS. CONNECTION PIPES ARE LENGTHS OF SOLID PVC PIPE INSTALLED TO DIRECT WATER FROM THE GEOCOMPOSITE DRAIN STRIPS INTO A FOOTING DRAIN OR TO THE EXPOSED FACE OF THE WALL. CONNECT THE CONNECTION PIPES TO THE DRAIN STRIPS USING EITHER PREFABRICATED DRAIN GRATES AS SHOWN ON THE PLANS OR USING THE ALTERNATE CONNECTION METHOD DESCRIBED BELOW. INSTALL THE DRAIN GRATE PER THE MANUFACTURER'S RECOMMENDATIONS. THE JOINT BETWEEN THE DRAIN GRATE AND THE DRAIN STRIP AND THE DISCHARGE END OF THE CONNECTOR PIPE SHALL BE SEALED TO PREVENT SHOTCRETE INTRUSION. CONNECTION PIPES THAT END AT THE FOOTING DRAIN SHALL BE EXTENDED TO THE EDGE OF THE DRAIN. DO NOT PUNCTURE THE DRAINAGE FABRIC AROUND THE FOOTING DRAIN.

THE ALTERNATIVE ACCEPTABLE METHOD FOR CONNECTION OF THE CONNECTOR PIPE TO THE DRAIN STRIP INVOLVES CUTTING A HOLE SLIGHTLY LARGER THAN THE DIAMETER OF THE PIPE INTO THE STRIP PLASTIC CORE BUT NOT THROUGH THE GEOTEXTILE. WRAP BOTH ENDS OF THE CONNECTION PIPE IN GEOTEXTILE IN A MANNER THAT PREVENTS MIGRATION OF FINES THROUGH THE PIPE. TAPE OR SEAL THE INLET END OF THE PIPE WHERE IT PENETRATES THE DRAIN STRIP AND THE DISCHARGE END OF THE CONNECTOR PIPE IN A MANNER THAT PREVENTS PENETRATION OF SHOTCRETE INTO THE DRAIN STRIP OR PIPE. TO ASSURE PASSAGE OF GROUNDWATER FROM THE DRAIN STRIP INTO THE CONNECTOR PIPE, SLOT THE INLET END OF THE CONNECTOR PIPE AT EVERY 45 DEGREES AROUND THE PERIMETER OF THE PIPE TO A DEPTH OF 0.25 INCHES.

WEEPHOLES SHALL BE PROVIDED THROUGH THE CONSTRUCTION FACING TO DRAIN WATER FROM BEHIND THE FACING. INSTALL AS SHOWN ON THE PLANS. USE PVC PIPE TO FORM THE WEEPHOLE THROUGH THE SHOTCRETE AND PERMANENT CONCRETE FACING. COVER THE END OF THE PIPE CONTACTING THE SOIL WITH A DRAINAGE GEOTEXTILE. PREVENT SHOTCRETE INTRUSION INTO THE DISCHARGE END OF THE PIPE.

3.2 TEMPORARY SHOTCRETE CONSTRUCTION FACING

3.2.1 SHOTCRETE ALIGNMENT AND THICKNESS CONTROL. ENSURE THAT THE THICKNESS OF SHOTCRETE SATISFIES THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS USING SHOOTING WIRES, THICKNESS CONTROL PINS, OR OTHER DEVICES ACCEPTABLE TO THE ENGINEER. INSTALL THICKNESS CONTROL DEVICES NORMAL TO THE SURFACE SUCH THAT THEY PROTRUDE THE REQUIRED SHORCRETE THICKNESS OUTSIDE THE SURFACE. ENSURE THAT THE FRONT FACE OF THE SHOTCRETE DOES NOT EXTEND BEYOND THE LIMITS SHOWN ON THE PLANS.

3.2.2 SURFACE PREPARATION. CLEAN THE FACE OF THE EXCAVATION AND OTHER SURFACES TO BE SHOTCRETED OF LOOSE MATERIALS, MUD, REBOUND, OVERSPRAY OR OTHER FOREIGN MATTER THAT COULD PREVENT OR REDUCE SHOTCRETE BOND. PROTECT ADJACENT SURFACES FROM OVERSPRAY DURING SHOOTING. AVOID LOOSENING, CRACKING, OR SHATTERING THE GROUND DURING EXCAVATION AND CLEANING. REMOVE ANY SURFACE MATERIAL WHICH IS SO LOOSENED OR DAMAGED, TO A SUFFICIENT DEPTH TO PROVIDE A BASE THAT IS SUITABLE TO RECEIVE THE SHOTCRETE. REMOVE MATERIAL THAT LOOSENS AS THE SHOTCRETE IS APPLIED. COST OF ADDITIONAL SHOTCRETE IS INCIDENTAL TO THE WORK. DIVERT WATER FLOW AND REMOVE STANDING WATER SO THAT SHOTCRETE PLACEMENT WILL NOT BE DETRIMENTALLY AFFECTED BY STANDING WATER. DO NOT PLACE SHOTCRETE ON FROZEN SURFACES.

3.2.3 DELIVERY AND APPLICATION. MAINTAIN A CLEAN, DRY, OIL-FREE SUPPLY OF COMPRESSED AIR SUFFICIENT FOR MAINTAINING ADEQUATE NOZZLE VELOCITY AT ALL TIMES. THE EQUIPMENT SHALL BE CAPABLE OF DELIVERING THE PREMIXED MATERIAL ACCURATELY, UNIFORMLY, AND CONTINUOUSLY THROUGH THE DELIVERY HOSE. CONTROL SHOTCRETE APPLICATION THICKNESS, NOZZLE TECHNIQUE, AIR PRESSURE, AND RATE OF SHOTCRETE PLACEMENT TO PREVENT SAGGING OR SLOUGHING OF FRESHLY-APPLIED SHOTCRETE.

APPLY THE SHOTCRETE FROM THE LOWER PART OF THE AREA UPWARDS TO PREVENT ACCUMULATION OF REBOUND. ORIENT NOZZLE AT A DISTANCE AND APPROXIMATELY PERPENDICULAR TO THE WORKING FACE SO THAT REBOUND WILL BE MINIMAL AND COMPACTION WILL BE MAXIMIZED. PAY SPECIAL ATTENTION TO ENCAPSULATING REINFORCEMENT. DO NOT WORK REBOUND BACK INTO THE CONSTRUCTION. WHERE SHOTCRETE IS USED TO COMPLETE THE TOP UNGROUTED ZONE OF THE NAIL DRILL HOLE NEAR THE FACE, POSITION THE NOZZLE INTO THE MOUTH OF THE DRILLHOLE TO COMPLETELY FILL THE VOID.

A CLEARLY DEFINED PATTERN OF CONTINUOUS HORIZONTAL OR VERTICAL RIDGES OR DEPRESSIONS AT THE REINFORCING ELEMENTS AFTER THEY ARE COVERED WITH SHOTCRETE WILL BE CONSIDERED AN INDICATION OF INSUFFICIENT REINFORCEMENT COVER OR POOR NOZZLE TECHNIQUES. IN THIS CASE THE APPLICATION OF SHOTCRETE SHALL BE IMMEDIATELY SUSPENDED AND THE CONTRACTOR SHALL IMPLEMENT CORRECTIVE MEASURES BEFORE RESUMING THE SHOTCRETE OPERATIONS. THE SHOTCRETING PROCEDURE MAY BE CORRECTED BY ADJUSTING THE NOZZLE DISTANCE AND ORIENTATION BY INSURING ADEQUATE COVER OVER THE REINFORCEMENT, BY ADJUSTING THE WATER CONTENT OF THE SHOTCRETE MIX OR OTHER MEANS. ADJUSTMENT IN WATER CONTENT OF WET-MIX WILL REQUIRE REQUALIFYING THE SHOTCRETE MIX.

3.2.4 DEFECTIVE SHOTCRETE. REPAIR SHOTCRETE SURFACE DEFECTS AS SOON AS POSSIBLE AFTER PLACEMENT. REMOVE AND REPLACE SHOTCRETE WHICH EXHIBITS SEGREGATION, HONEYCOMBING, LAMINATION, VOIDS, OR SAND POCKETS. IN-PLACE SHOTCRETE DETERMINED NOT TO MEET THE SPECIFIED STRENGTH REQUIREMENT WILL BE SUBJECT TO REMEDIATION AS DETERMINED BY THE ENGINEER. POSSIBLE REMEDIATION OPTIONS INCLUDE PLACEMENT OF ADDITIONAL SHOTCRETE THICKNESS OR REMOVAL AND REPLACEMENT, AT THE CONTRACTOR'S COST.

3.2.5 CONSTRUCTION JOINTS. TAPER CONSTRUCTION JOINTS UNIFORMLY TOWARD THE EXCAVATION FACE OVER A MINIMUM DISTANCE EQUAL TO THE THICKNESS OF THE SHOTCRETE LAYER. PROVIDE A MINIMUM REINFORCEMENT OVERLAP AT REINFORCEMENT SPLICE JOINTS AS SHOWN ON THE PLAN CLEAN AND WET THE SURFACE OF A JOINT BEFORE ADJACENT SHOTCRETE IS APPLIED. WHERE SHOTCRETE IS USED TO COMPLETE THE TOP UNGROUTED ZONE OF THE NAIL DRILL HOLE NEAR THE FACE, TO THE MAXIMUM EXTENT PRACTICAL, CLEAN AND DAMPEN THE UPPER GROUT SURFACE TO RECEIVE SHOTCRETE, SIMILAR TO A CONSTRUCTION JOINT.

3.2.6 FINISH. SHOTCRETE FINISH SHALL BE EITHER AN UNDISTURBED GUN FINISH AS APPLIED FROM THE NOZZLE OR A ROUGH SCREEDED FINISH. REMOVE SHOTCRETE EXTENDING INTO THE CIP CONCRETE FINISH FACE SECTION BEYOND THE TOLERANCES SHOWN ON THE PLANS OR SPECIFIED HEREIN.

3.2.7 ATTACHMENT OF NAIL HEAD BEARING PLATE AND NUT. ATTACH A BEARING PLATE AND NUT TO EACH NAIL HEAD AS SHOWN ON THE PLANS. WHILE THE SHOTCRETE IS STILL PLASTIC AND BEFORE ITS INITIAL SET, UNIFORMLY SEAT THE PLATE ON THE SHOTCRETE BY HAND WRENCH TIGHTENING THE NUT. WHERE UNIFORM CONTACT BETWEEN THE PLATE AND THE SHOTCRETE CANNOT BE PROVIDED, SET THE PLATE IN A BED OF GROUT. AFTER GROUT HAS SET FOR 24 HOURS, HAND WRENCH TIGHTEN THE NUT. ENSURE BEARING PLATES WITH HEADED STUDS ARE IN INTIMATE CONTACT TH THE CONSTRUCTION FACING AND THE STUDS ARE LOCATED WITHIN THE TOLERANCES SHOWN ON THE PLANS OR SPECIFIED HEREIN.

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BURGESS & NIPLE
5205 Road Road
Columbus, Ohio 43220

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OVER CSXT RR AND RYAN ROAD C.H. 40

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3.2.8 WEATHER LIMITATIONS. PROTECT THE SHOTCRETE IF IT MUST BE PLACED WHEN THE AMBIENT TEMPERATURE IS BELOW 32 DEG. F AND FALLING OR WHEN IT IS LIKELY TO BE SUBJECT TO FREEZING TEMPERATURES BEFORE GAINING SUFFICIENT STRENGTH. MAINTAIN COLD WEATHER PROTECTION UNTIL THE IN-PLACE COMPRESSIVE STRENGTH OF THE SHOTCRETE IS GREATER THAN 700 PSI. COLD WEATHER PROTECTION INCLUDES BLANKETS, HEATING UNDER TENTS, OR OTHER MEANS ACCEPTABLE TO THE ENGINEER. THE TEMPERATURE OF THE SHOTCRETE MIX, WHEN DEPOSITED, SHALL BE NOT LESS THAN 50 DEG. F OR MORE THAN 95 DEG. F.

SUSPEND SHOTCRETE APPLICATION DURING HIGH WINDS AND HEAVY RAINS UNLESS SUITABLE PROTECTIVE COVERS, ENCLOSURES OR WIND BREAKS ARE INSTALLED. REMOVE AND REPLACE NEWLY PLACED SHOTCRETE EXPOSED TO RAIN THAT WASHES OUT CEMENT OR OTHERWISE MAKES THE SHOTCRETE UNACCEPTABLE. PROVIDE A POLYETHYLENE FILM OR EQUIVALENT TO PROTECT THE WORK FROM EXPOSURE TO ADVERSE WEATHER.

3.2.9 CURING. CURING IS NOT REQUIRED FOR TEMPORARY CONSTRUCTION FACINGS TO BE COVERED BY A CIP CONCRETE FACING OR WHOSE SERVICE LIFE IS LESS THAN 36 MONTHS.

3.2.10 CONSTRUCTION FACING TOLERANCES. CONSTRUCTION TOLERANCES FOR THE TEMPORARY SHOTCRETE CONSTRUCTION FACING ARE AS FOLLOWS:

HORIZONTAL LOCATION OF WIRE MESH; REBAR; HEADED STUDS ON BEARING PLATES, FROM PLAN LOCATION; + OR - 0.5 IN.

HEADED STUDS LOCATION ON BEARING PLATE, FROM PLAN LOCATION: 0.25 IN.

SPACING BETWEEN REINFORCING BARS, FROM PLAN DIMENSION; 1.0 IN.

REINFORCING LAP, FROM SPECIFIED DIMENSION: - 1.0 IN.

THICKNESS OF SHOTCRETE; - 0.375 IN.

NAIL HEAD BEARING PLATE, DEVIATION FROM PARALLEL TO WALL FACE: 10 DEGREES

3.3 BACKFILLING BEHIND WALL FACING UPPER CANTILEVER. COMPACT BACKFILL BEHIND THE WALL FACING UPPER CANTILEVER USING LIGHT MECHANICAL TAMPERS.

3.4 SAFETY REQUIREMENTS. NOZZLEMEN AND HELPERS SHALL BE EQUIPPED WITH GLOVES, EYE PROTECTION, AND ADEQUATE PROTECTIVE CLOTHING DURING THE APPLICATION OF SHOTCRETE. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL FEDERAL, STATE AND LOCAL SAFETY CODE REQUIREMENTS.

3.5 CAST IN PLACE CONCRETE FORM CONNECTION TO SHOTCRETE FACING. WHEN MECHANICAL, GROUTED, OR EPOXIED ANCHORS EMBEDDED INTO THE SHOTCRETE FACING ARE USED TO SUPPORT A ONE-SIDED CIP CONCRETE FACE FORM, PERFORM PULLOUT TESTING OF THE EMBEDDED ANCHORS IN ACCORDANCE WITH ASTM C900 AND AS MODIFIED HEREIN. PERFORM PULLOUT TESTING OF INSTALLED ANCHORS PRIOR TO ATTACHMENT OF THE FACE FORM. SELECT TEST ANCHOR LOCATIONS TO BE REPRESENTATIVE OF THE FULL WALL SURFACE AREA TO BE COVERED.

FOR FACING AREAS UP TO 5,000 SQUARE FEET, PERFORM A MINIMUM OF THREE FLEXURE/SHEAR PULLOUT TESTS WITH THE ANCHOR LOCATED APPROXIMATELY MID-SPAN BETWEEN TWO ADJACENT NAIL HEADS AND WITH THE NAIL HEADS OR OTHER REACTION POINTS LOCATED APPROXIMATELY ONE-HALF THE NAIL SPACING FROM THE ANCHOR. FOR FACING AREAS IN EXCESS OF 5,000 SQUARE FEET, PERFORM ONE ADDITIONAL FLEXURE/SHEAR PULLOUT TEST FOR EACH ADDITIONAL 2,500 SQUARE FEET OF FACE AREA. TEST THESE ANCHORS TO 1.5 TIMES THEIR REQUIRED DESIGN LOAD (CALCULATED AS THE DESIGN CONCRETE FLUID PRESSURE TIMES THE ANCHOR TRIBUTARY AREA).

PERFORM LOCAL PUNCHING SHEAR PULLOUT TESTING ON 2 PERCENT OF THE INSTALLED ANCHORS. PLACE THE LOAD REACTION SUPPORT NO CLOSER TO THE EDGE OF THE ANCHOR THAN THE EMBEDMENT DEPTH OF THE ANCHOR INTO THE CONSTRUCTION FACING. TEST THESE ANCHORS TO 2.0 TIMES THEIR REQUIRED DESIGN LOAD.

MODIFY THE ANCHOR AND/OR FACE FORM SUPPORT SYSTEM IF THE TESTED ANCHORS DO NOT MEET THE ABOVE TEST ACCEPTANCE CRITERIA. MODIFIED ANCHOR INSTALLATION WILL REQUIRE RE-TESTING IN ACCORDANCE WITH THE ABOVE TESTING CRITERIA. COST OF ANCHOR PULLOUT TESTING IS INCIDENTAL TO THE WORK.

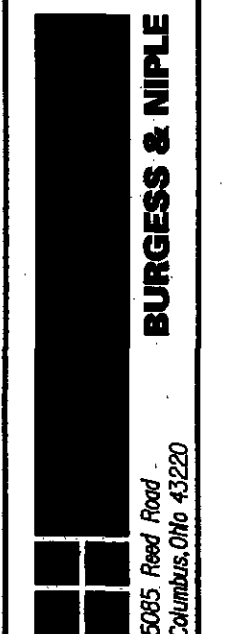
4.0 METHOD OF MEASUREMENT. THE SHOTCRETE FACING WILL BE MEASURED IN SQUARE FEET OF THE SHOTCRETE AREA COMPLETED AND ACCEPTED IN THE FINAL WORK. THE NET AREA LYING IN A PLANE OF THE OUTSIDE FRONT FACE OF THE STRUCTURE AS SHOWN ON THE PLANS WILL BE MEASURED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR ADDITIONAL SHOTCRETE OR CIP CONCRETE NEEDED TO FILL VOIDS CREATED BY IRREGULARITIES IN THE CUT FACE, EXCAVATION OVERBREAK OR INADVERTENT EXCAVATION BEYOND THE PLAN FINAL WALL FACE EXCAVATION LINE, OR FAILURE TO CONSTRUCT THE FACING TO THE SPECIFIED LINE AND GRADE AND TOLERANCES. THE FINAL PAY QUANTITY SHALL INCLUDE ALL STRUCTURAL SHOTCRETE, ADMIXTURES, REINFORCEMENT, WELDED WIRE MESH, WIRE HOLDING DEVICES, EMBEDDED CIP CONCRETE FACE FORM SUPPORT ANCHORS (IF APPLICABLE), WALL DRAINAGE MATERIALS, TEST PANELS AND ALL SAMPLING, TESTING AND REPORTING REQUIRED BY THE PLANS AND THIS SPECIFICATION. THE FINAL PAY QUANTITY SHALL BE THE DESIGN QUANTITY INCREASED OR DECREASED BY ANY CHANGES AUTHORIZED BY THE ENGINEER.

5.0 BASIS OF PAYMENT. THE ACCEPTED QUANTITY MEASURED AS PROVIDED ABOVE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT. PAYMENT WILL BE FULL COMPENSATION FOR FURNISHING ALL EQUIPMENT, MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED AND AS DETAILED ON THE PLANS, INCLUDING THE WORK REQUIRED TO PROVIDE THE PROPER SHOTCRETE FACING ALIGNMENT AND THICKNESS CONTROL. ALL WALL DRAINAGE MATERIALS INCLUDING GEOCOMPOSITE DRAIN STRIPS, CONNECTION PIPES, DRAIN GRATES, POROUS BACKFILL W/ FILTER FABRIC, ANIMAL GUARDS, FITTINGS, AND ACCESSORIES ARE CONSIDERED INCIDENTAL TO THE SHOTCRETE FACING AND WILL NOT BE PAID SEPARATELY.

PAYMENT WILL BE MADE FOR THE FOLLOWING BID ITEM INCLUDED IN THE BID FORM:

<u>PAY ITEM</u>	<u>MEASUREMENT UNIT</u>
ITEM SPECIAL - RETAINING WALL, MISC.: SHOTCRETE CONSTRUCTION FACING AND WALL DRAINAGE	SQUARE FEET

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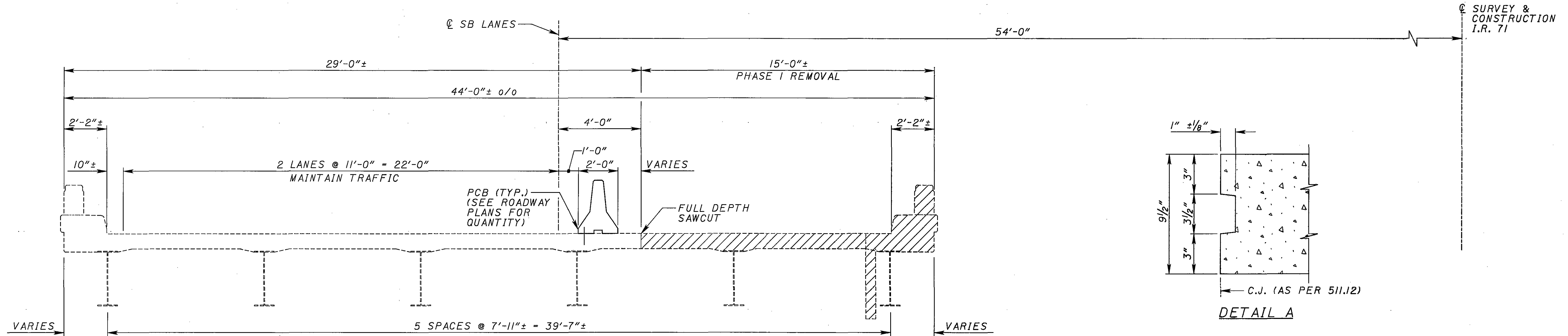


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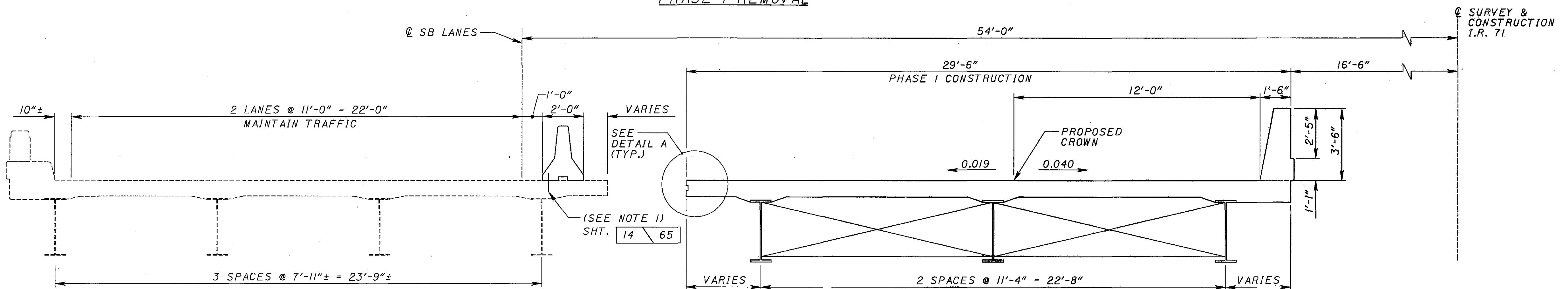
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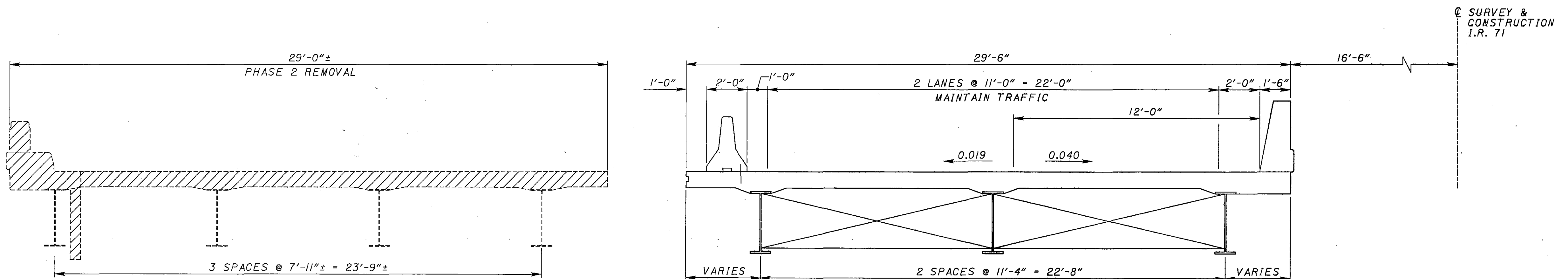
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PHASE I REMOVAL



PHASE I CONSTRUCTION



PHASE 2 REMOVAL

LEGEND:

- REMOVALS

PCB - PORTABLE CONCRETE BARRIER

C.J. - CONSTRUCTION JOINT

SURVEY & CONSTRUCTION I.R. 71

DATE 6/04

REVIEWED BES

DRAWN CRC

DESIGNED TTK

STRUCTURE FILE NUMBER 5203031 - LEFT

REVISED JHL

5203066 - RIGHT

BURGESS & NIPLE

5025 Reed Road Columbus, Ohio 43220

PHASE CONSTRUCTION DETAILS I - SOUTHBOUND

BRIDGE NO. MED-71-0860 L/R

OVER CSXT RR AND RYAN ROAD C.H. 40

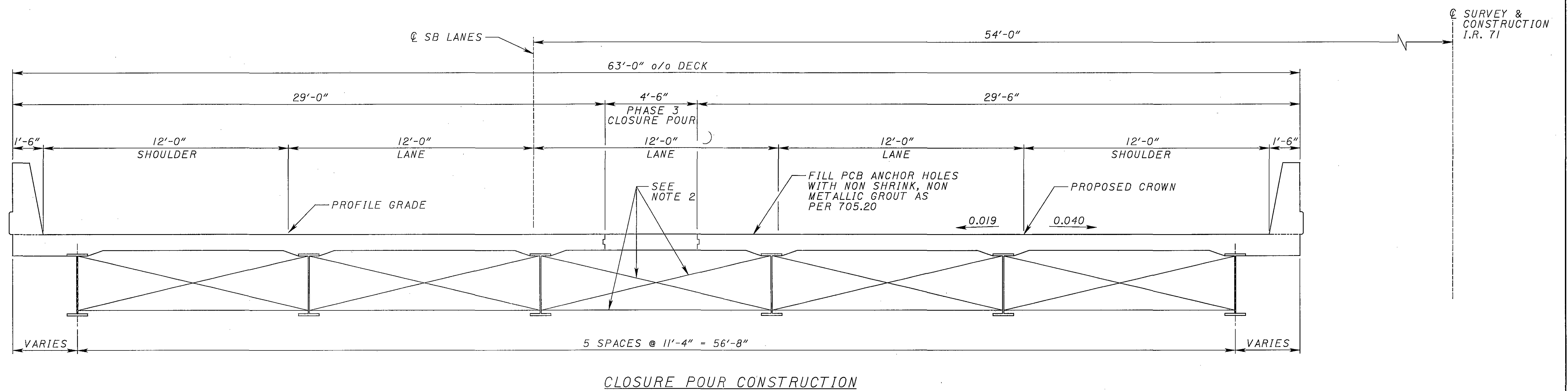
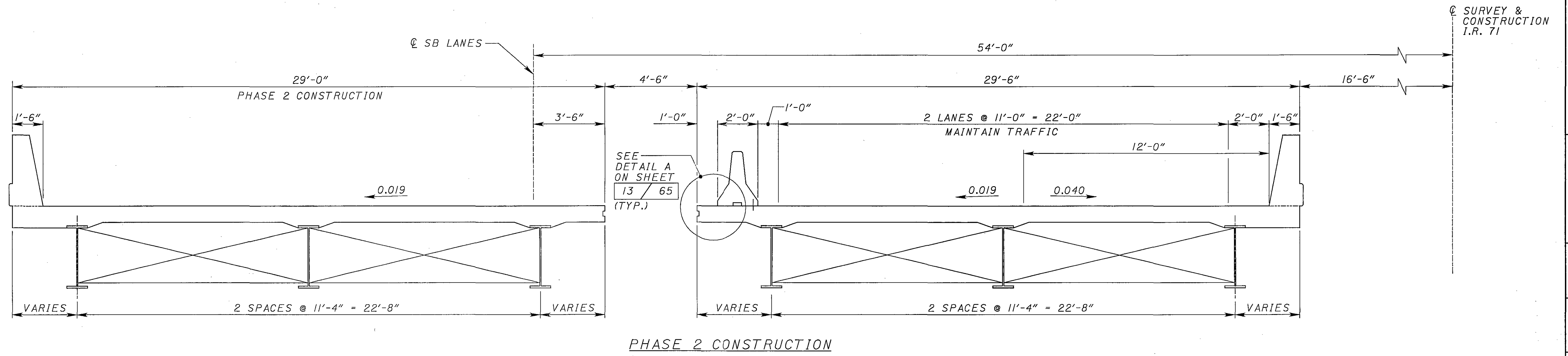
MED-71-6.06

PID-75657

13 / 65

930

1120



2.

PHASE CONSTRUCTION NOTES:

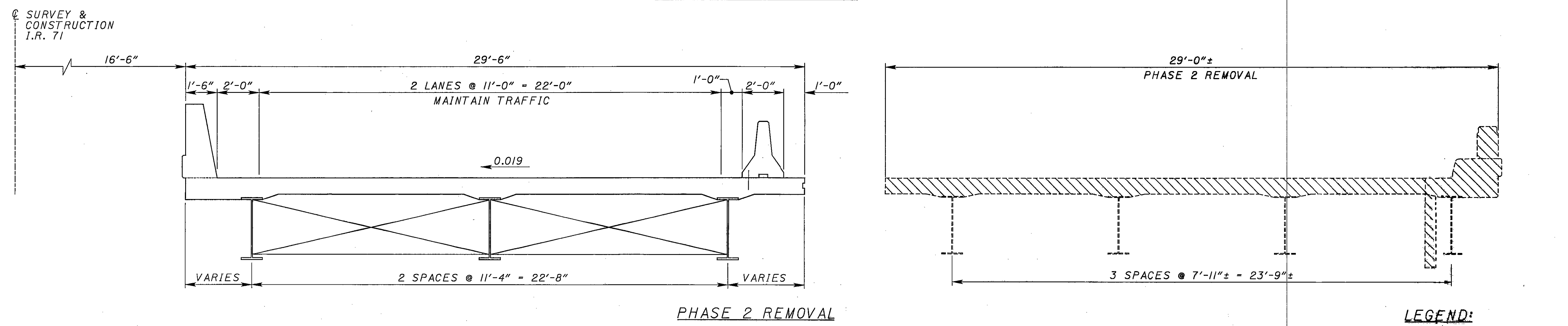
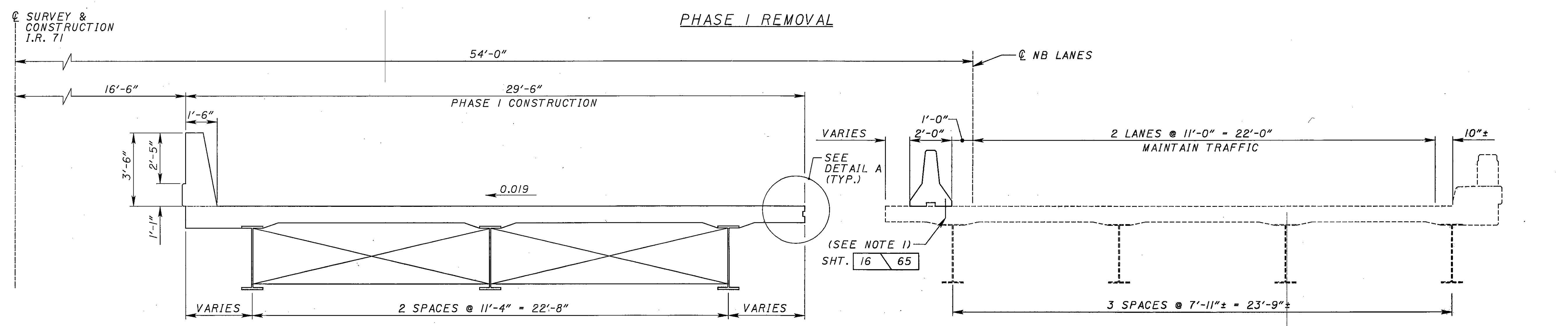
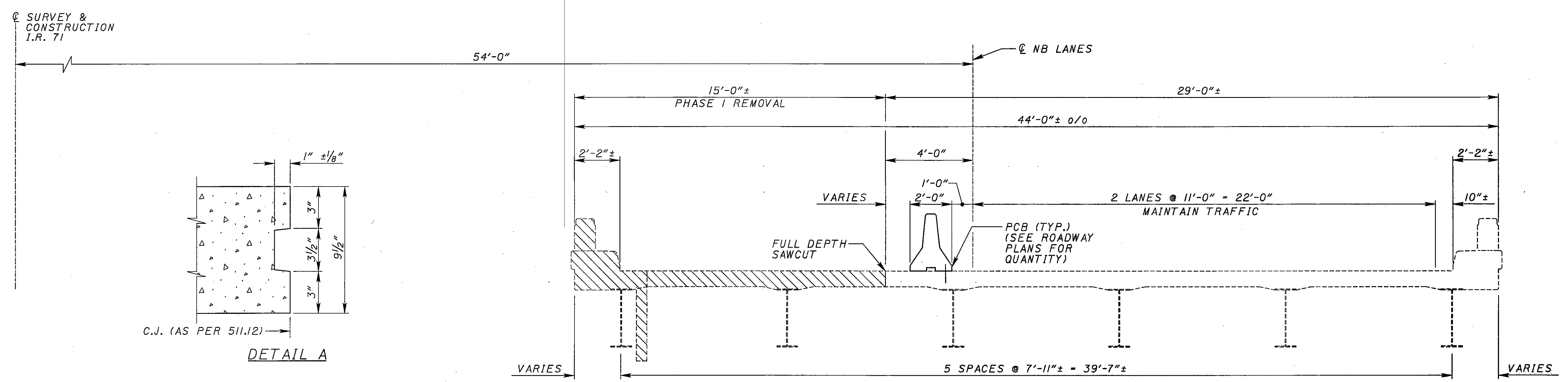
- ANCHOR TEMPORARY BARRIERS TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED WHERE THERE IS 1 FOOT FROM THE BARRIER TO THE EDGE OF DECK. OTHERWISE USE SIX ANCHORS. ANCHORS PLACED ON THE NON-TRAFFIC SIDE OF THE BARRIER SHALL BE THRU-BOLTS. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS. REMOVAL OF ANCHORS AND GROUTING OF ANCHOR HOLES IS INCIDENTAL TO THE PORTABLE CONCRETE BARRIER COSTS.
- THIS PANEL OF CROSSFRAMES SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE PHASE 3 DECK CLOSURE POUR AND AFTER THE PHASE 2 DECK IS PLACED.

DATE	6/04
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STRUCTURE FILE NUMBER	52030371 - LEFT
REVISION	52030366 - RIGHT
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CHECKED	JHL
DESIGNED	TTK

PHASE CONSTRUCTION DETAILS 2 - SOUTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

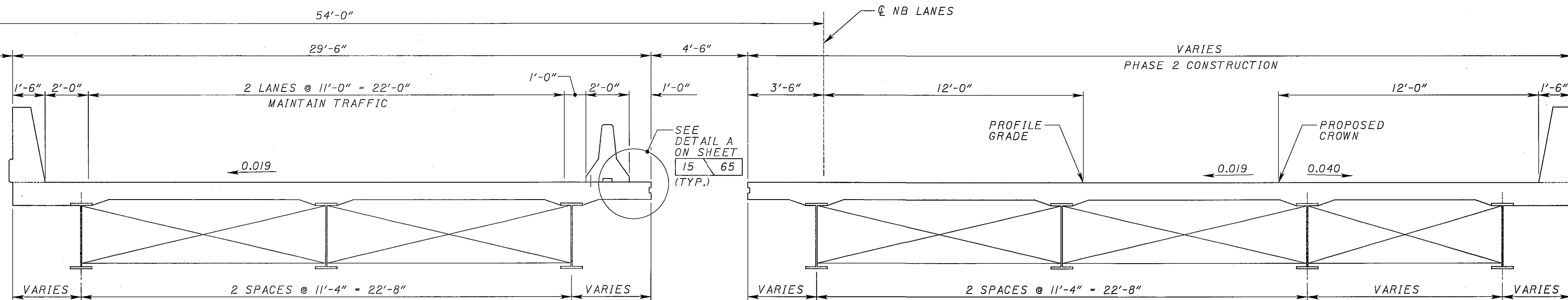
MED-71-6.06
PID-75657

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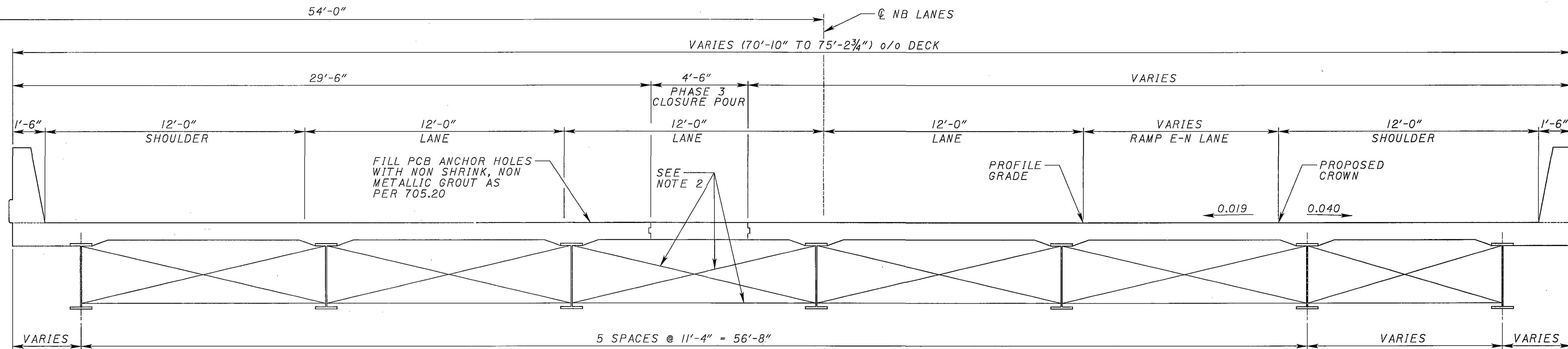
LEGEND:
 - REMOVALS
 PCB - PORTABLE CONCRETE BARRIER
 C.J. - CONSTRUCTION JOINT

CL SURVEY & CONSTRUCTION I.R. 71



PHASE 2 CONSTRUCTION

CL SURVEY & CONSTRUCTION I.R. 71



CLOSURE POUR CONSTRUCTION

PHASE CONSTRUCTION NOTES:

- ANCHOR TEMPORARY BARRIERS TO EXISTING AND PROPOSED BRIDGE DECKS. THREE ANCHORS PER BARRIER SEGMENT ARE REQUIRED WHERE THERE IS 1 FOOT FROM THE BARRIER TO THE EDGE OF DECK. OTHERWISE USE SIX ANCHORS. ANCHORS PLACED ON THE NON-TRAFFIC SIDE OF THE BARRIER SHALL BE THRU BOLTS. THE ANCHOR BOLT PATTERN SHALL BE SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. SEE STANDARD DRAWING PCB-91 FOR ADDITIONAL DETAILS. REMOVAL OF ANCHORS AND GROUTING OF ANCHOR HOLES IS INCIDENTAL TO THE PORTABLE CONCRETE BARRIER COSTS.
- THIS PANEL OF CROSSFRAMES SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE PHASE 3 DECK CLOSURE POUR AND AFTER THE PHASE 2 DECK IS PLACED.

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BURGESS & NIPLE

5905 Reed Road
Columbus, Ohio 43220

DATE 6/04
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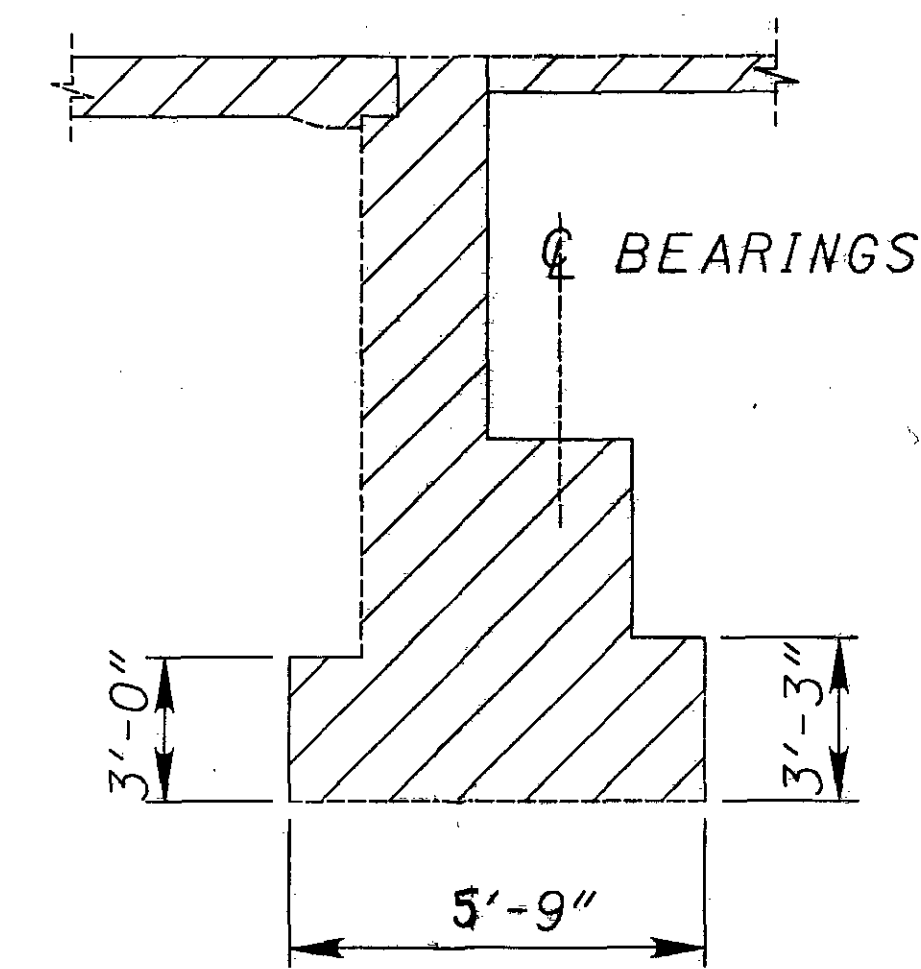
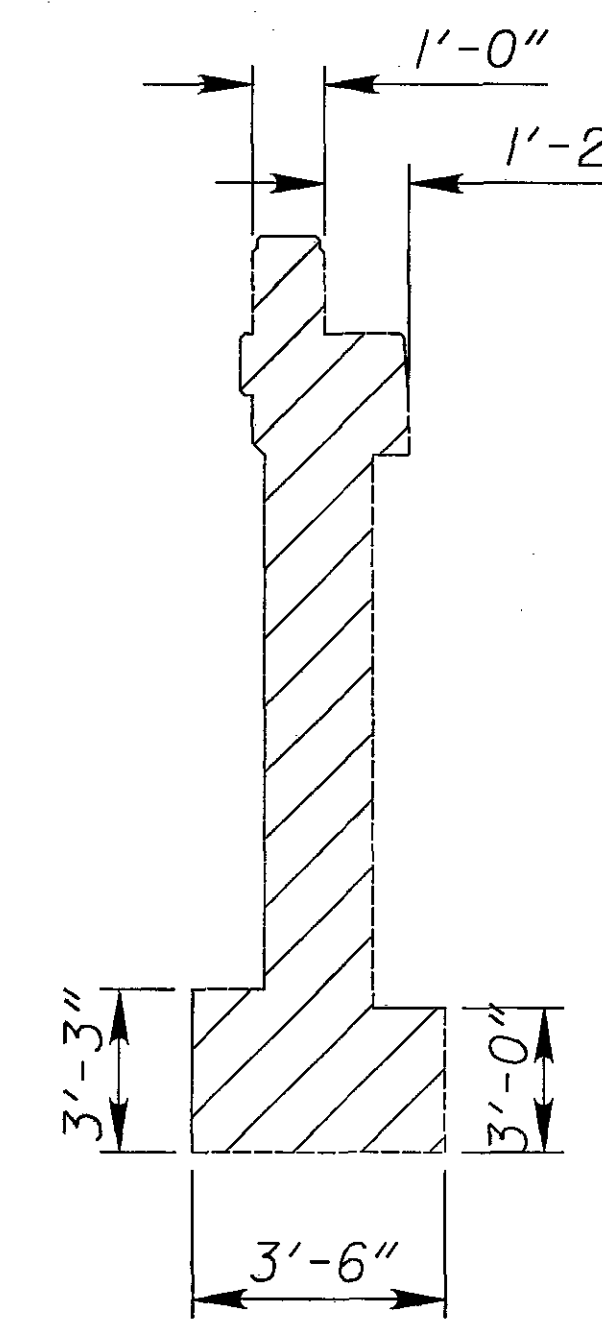
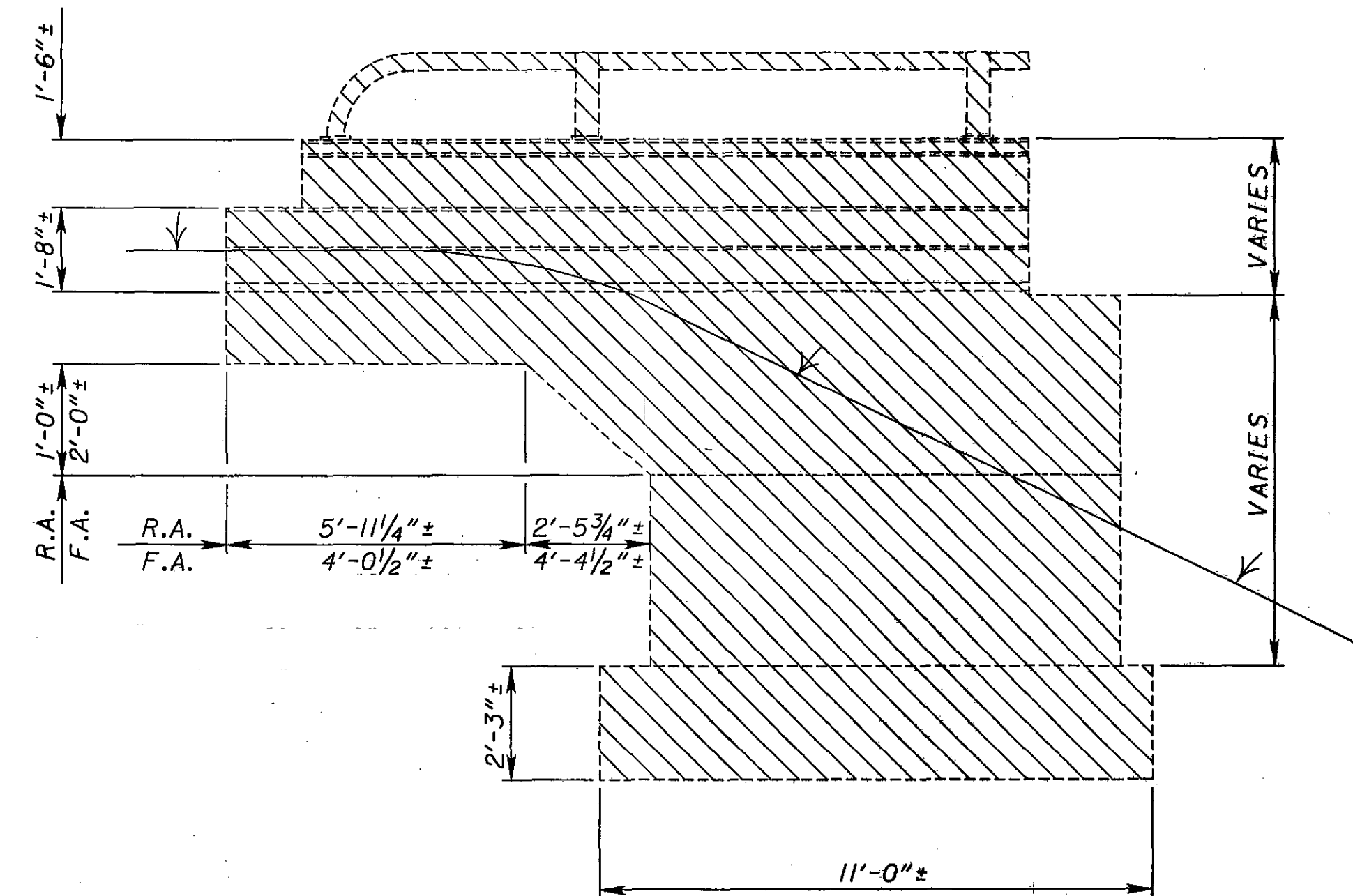
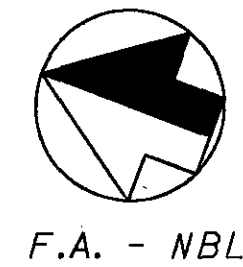
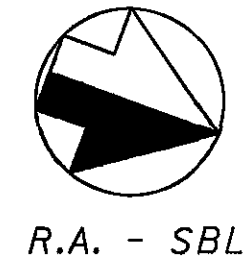
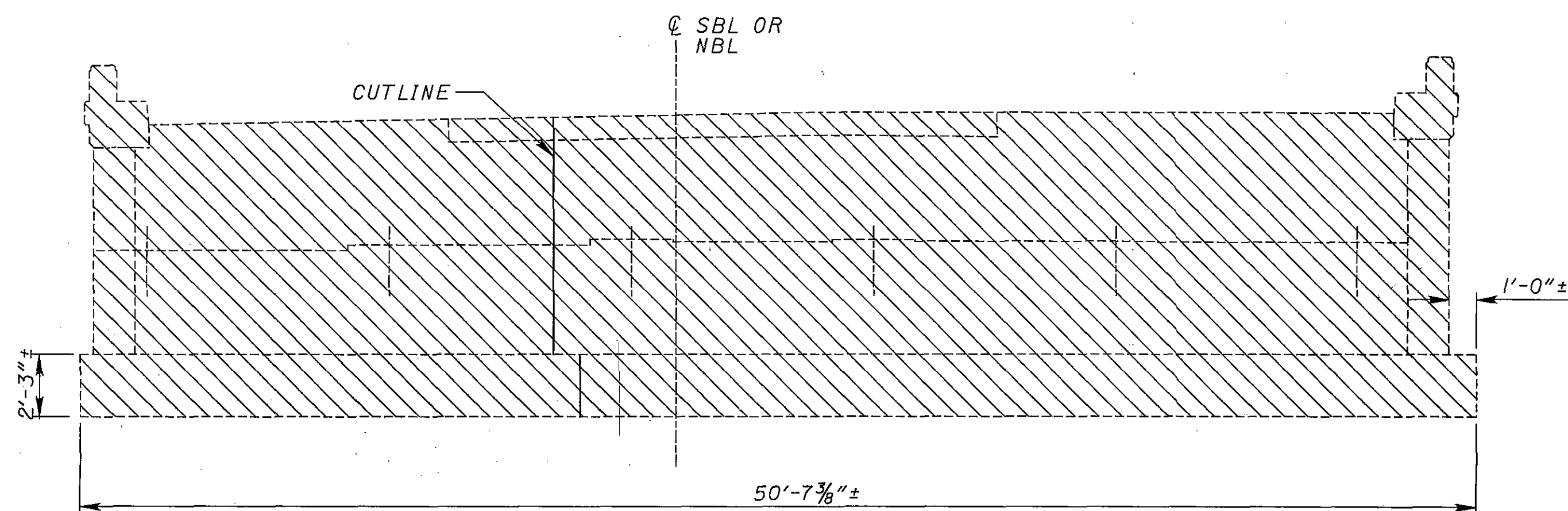
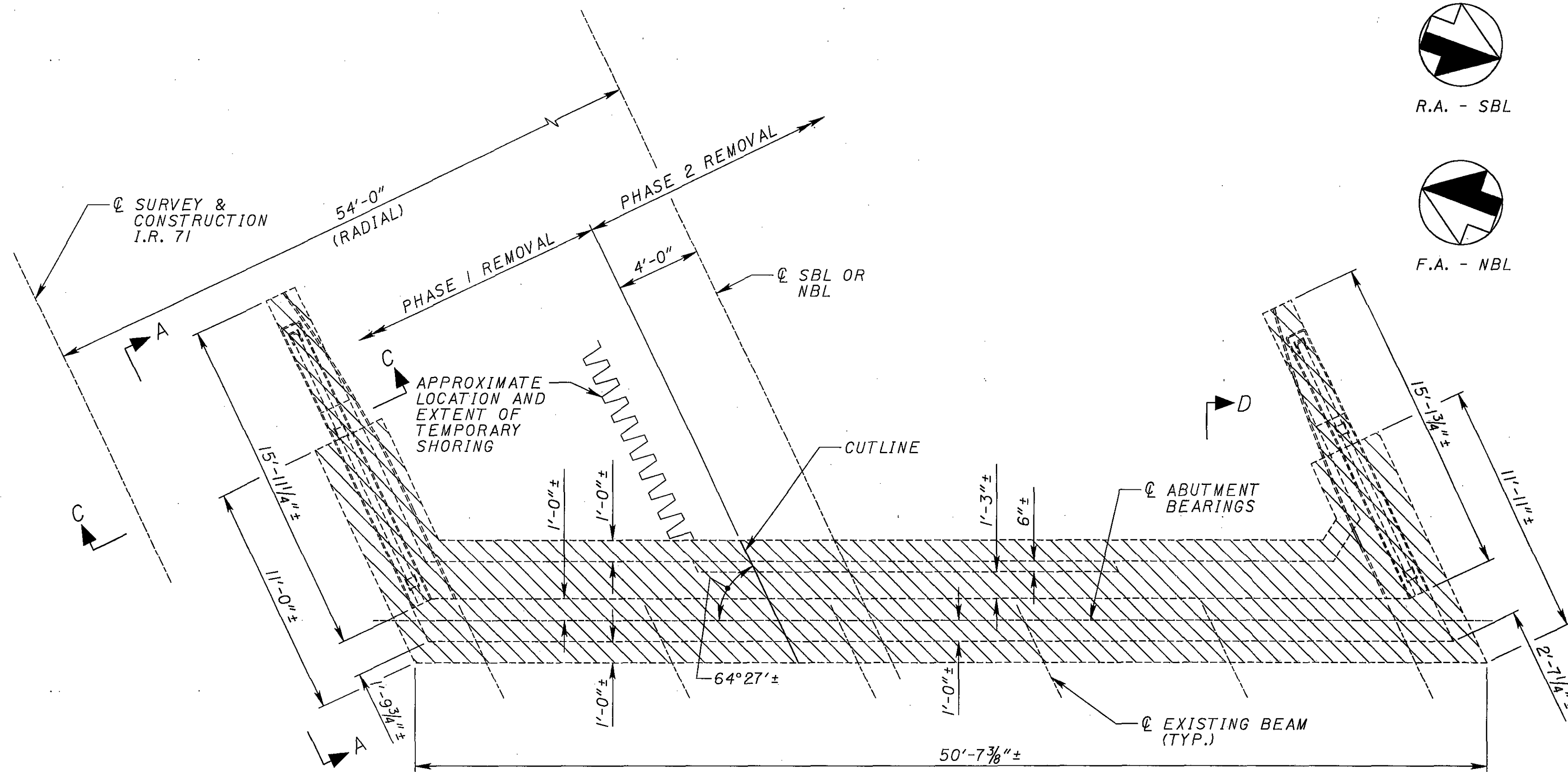
PHASE CONSTRUCTION DETAILS 2 - NORTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

16/65

933
1120

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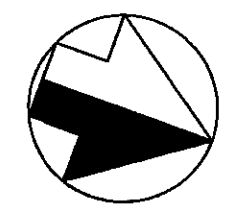


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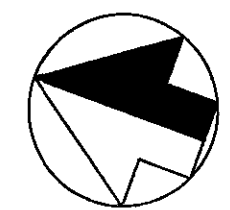


F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT
NBL - NORTHBOUND LANES
SBL - SOUTHBOUND LANES

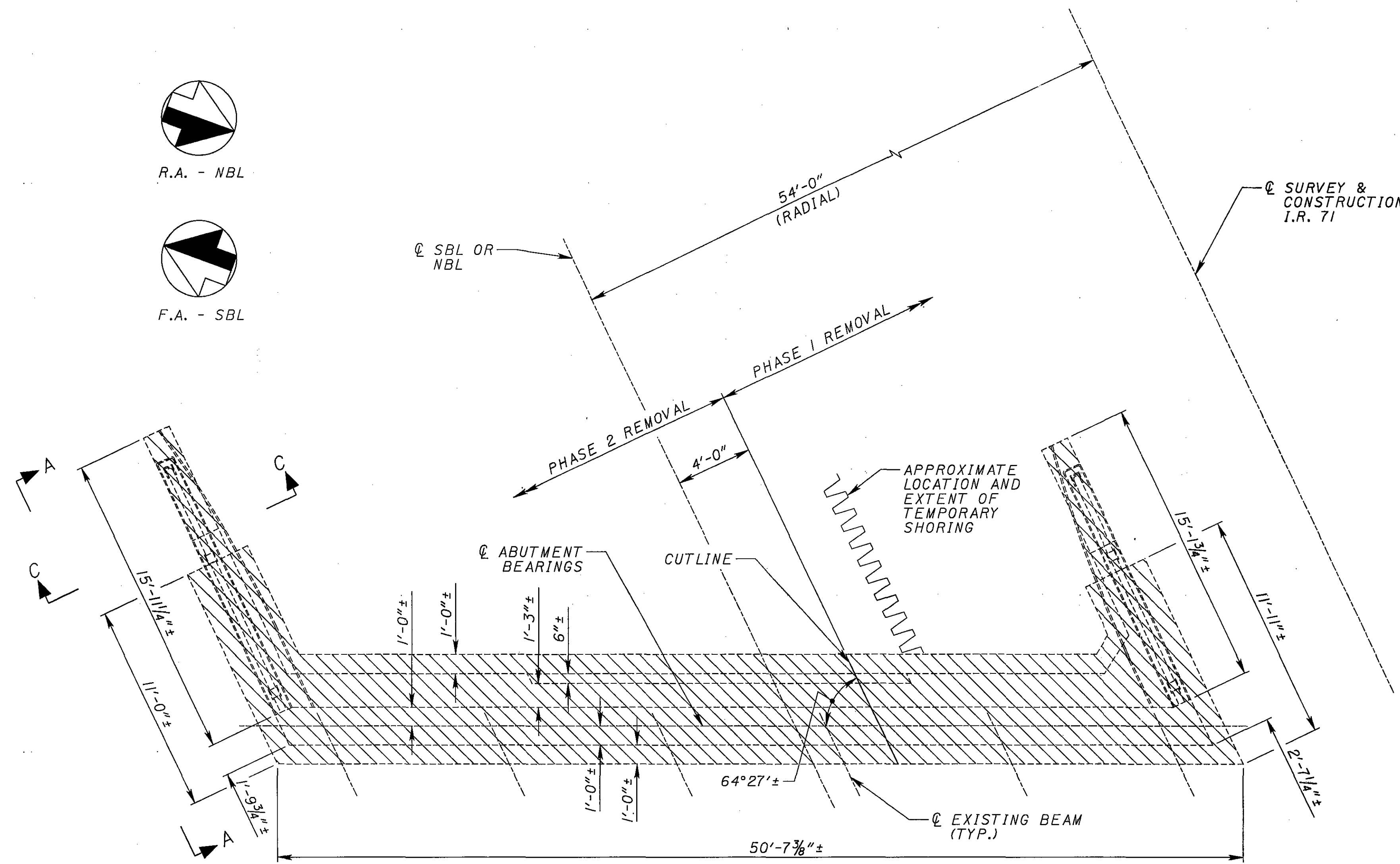
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ABUTMENT REMOVAL DETAILS I BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40		
MED-71-6.06 PID-75657		
17 / 65		
934 1120		



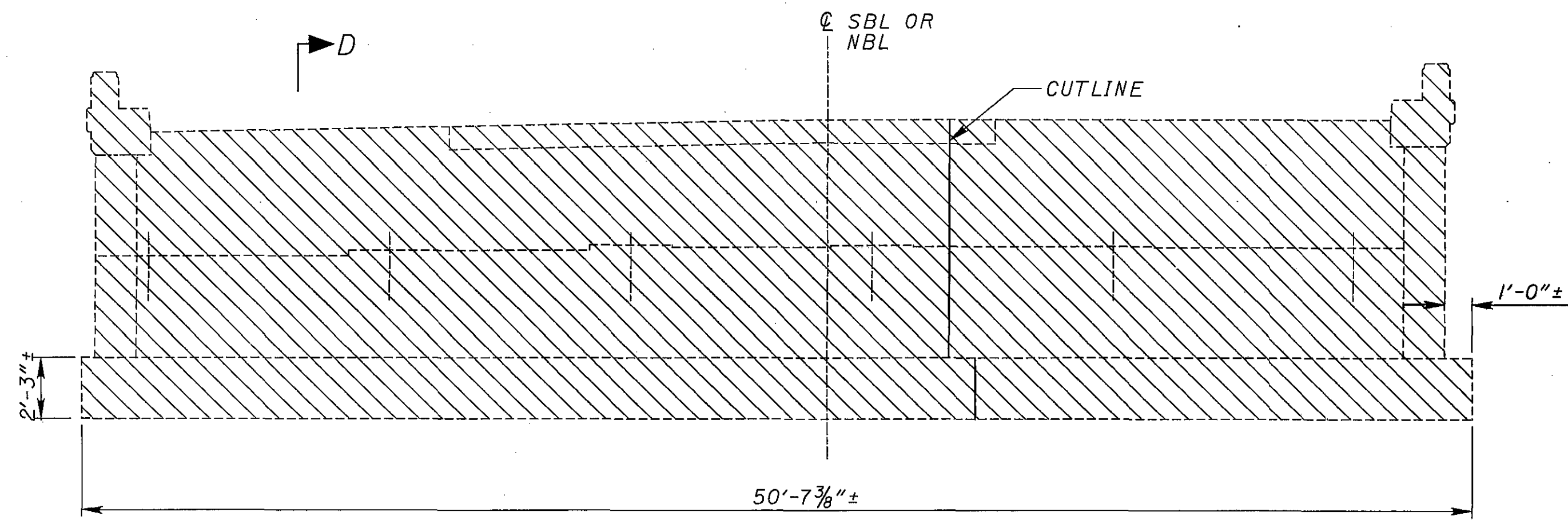
R.A. - NBL



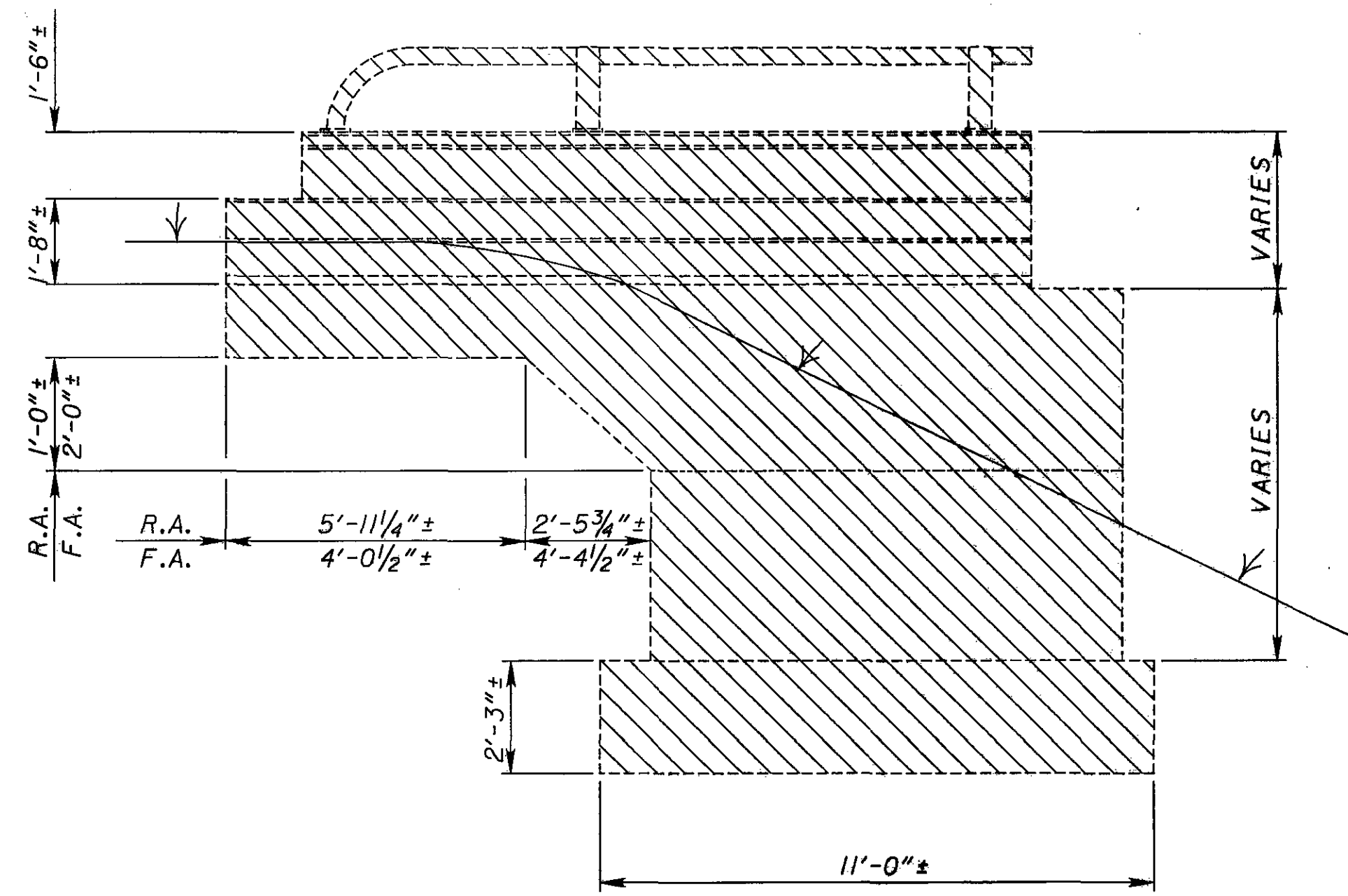
F.A. - SBL



ABUTMENT PLAN
 (FORWARD ABUTMENT - SOUTHBOUND LANES &
 REAR ABUTMENT - NORTHBOUND LANES)



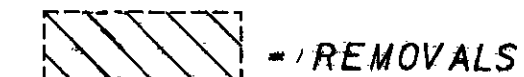
ABUTMENT ELEVATION



VIEW A-A

SEE SHT. 17 / 65 FOR SECTIONS C-C AND D-D.

LEGEND:



- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- NBL - NORTHBOUND LANES
- SBL - SOUTHBOUND LANES

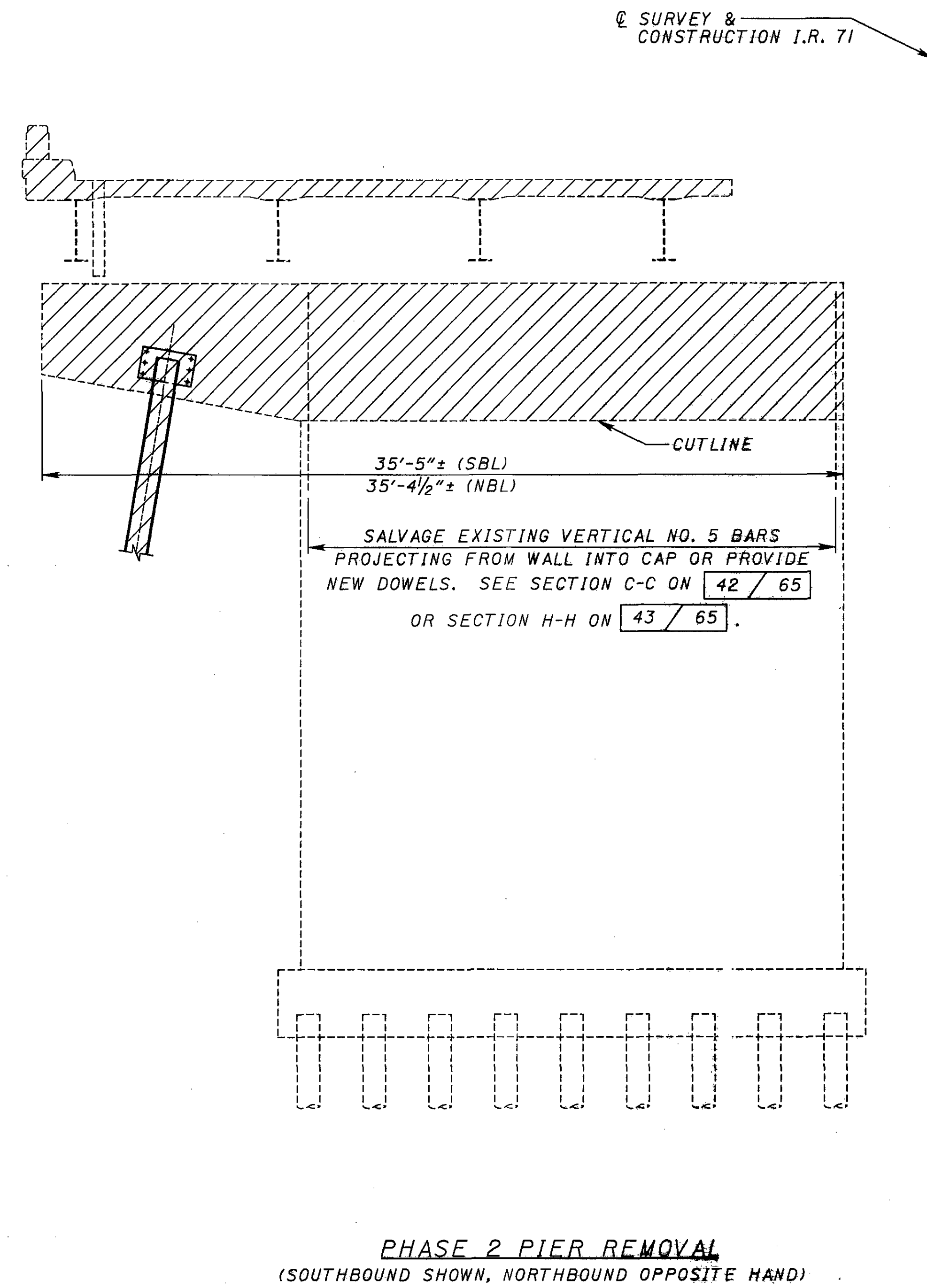
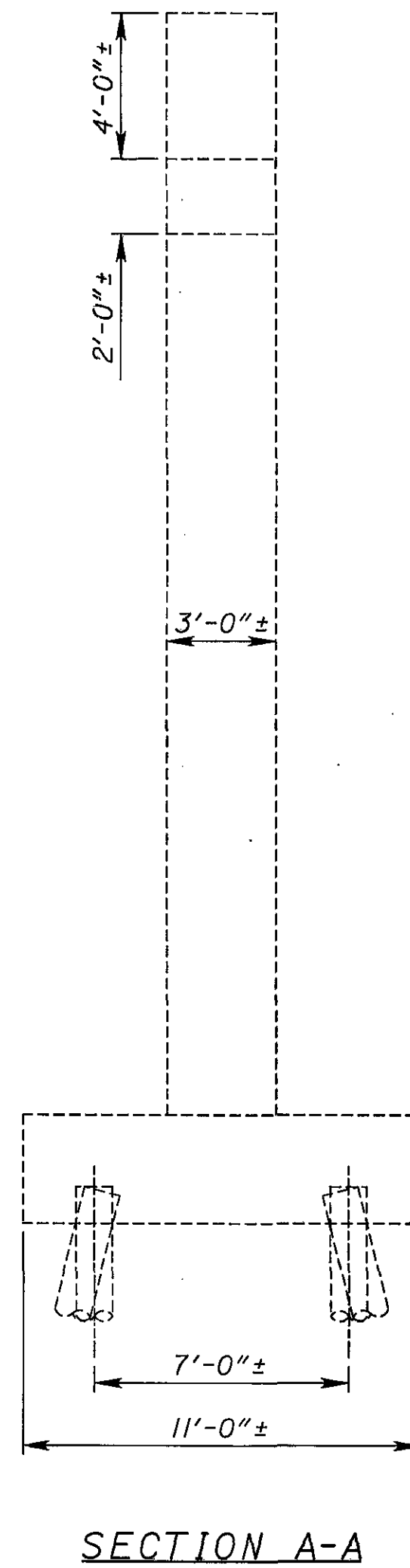
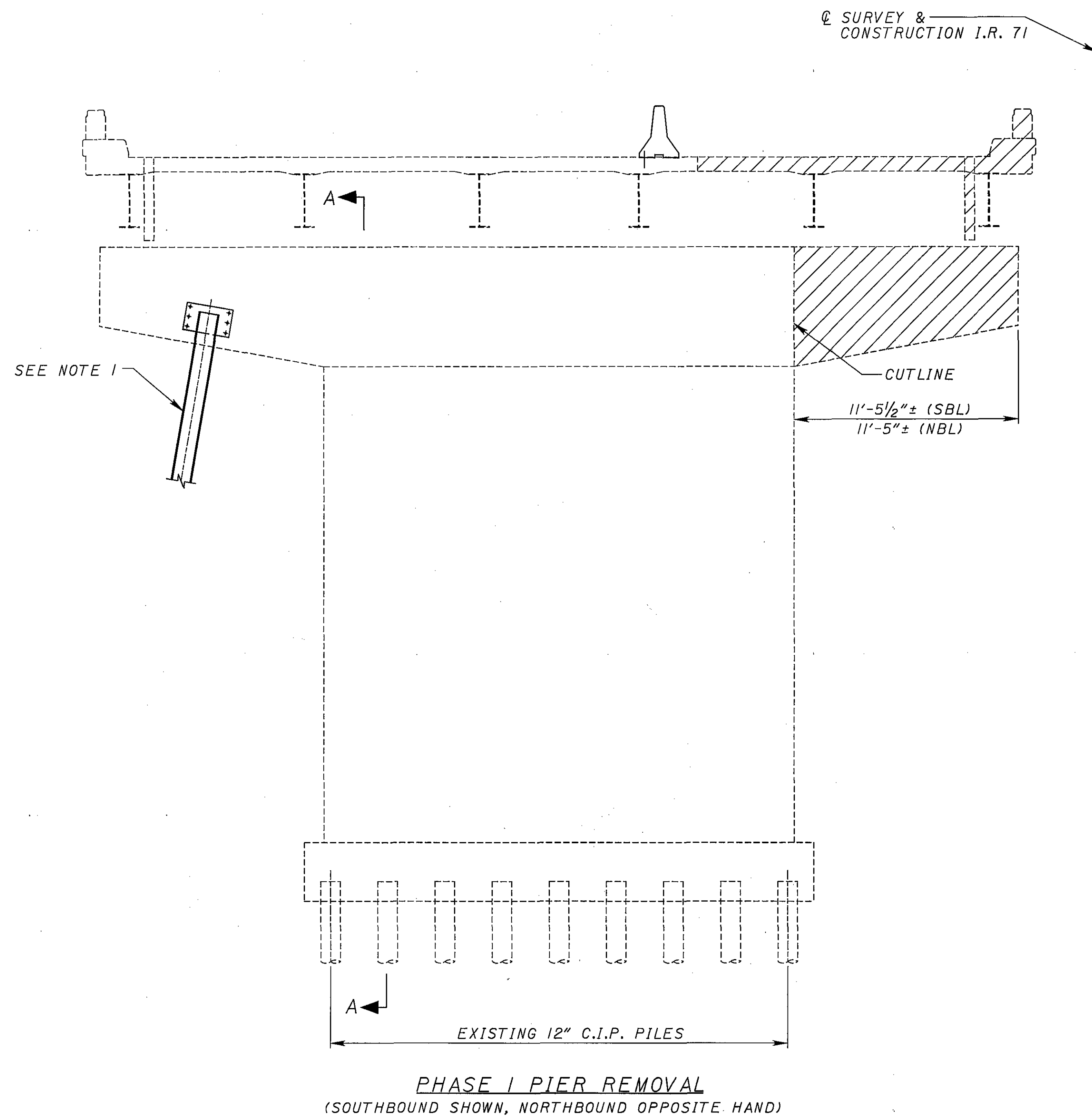
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REVIEWED	BES
STRUCTURE FILE NUMBER	5203031
LEFT	5203066
RIGHT	
DESIGNED	TTK
CHECKED	JHL
DRAWN	CRC
REVISION	

ABUTMENT REMOVAL DETAILS 2
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
 PID-75657

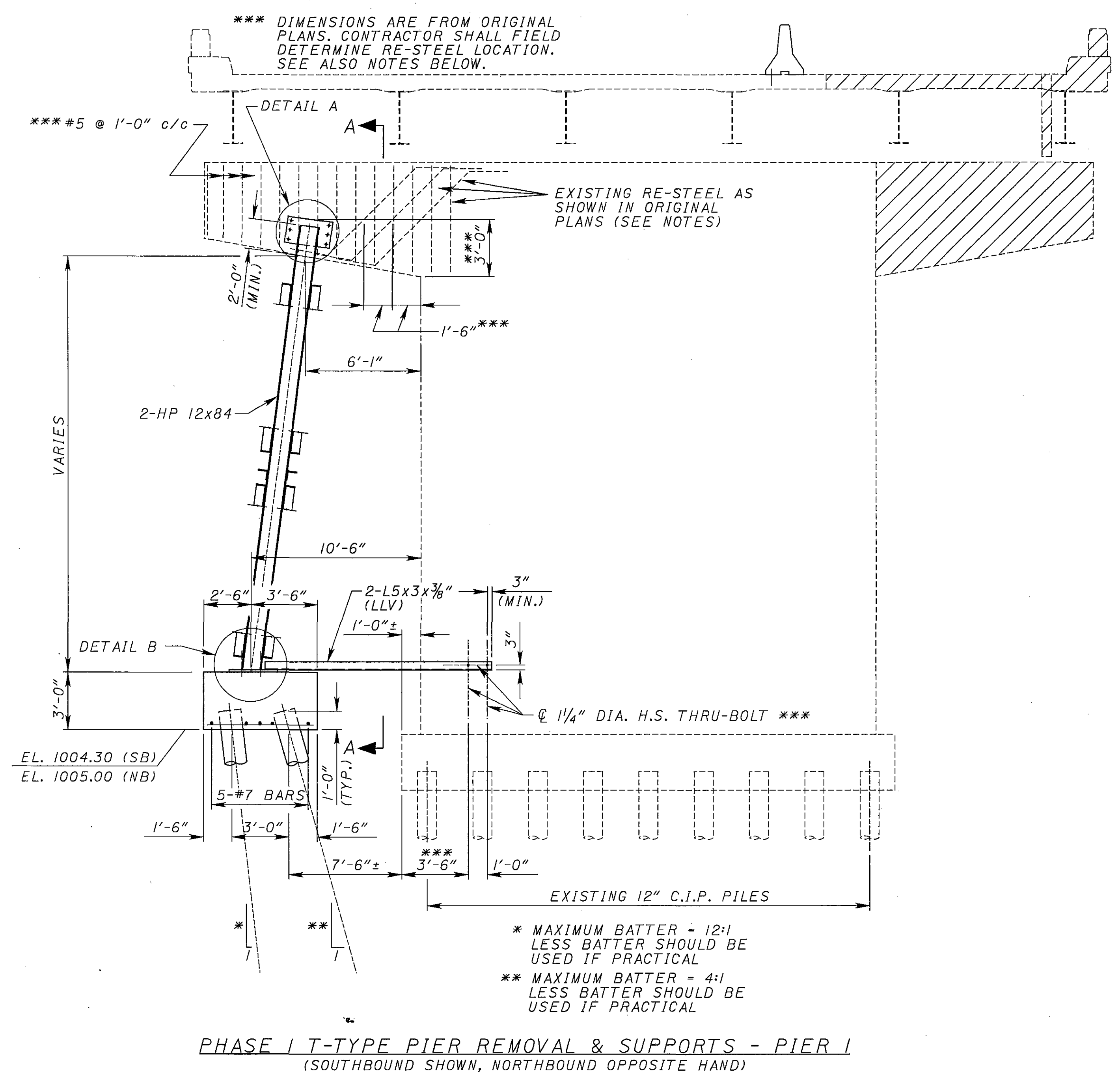
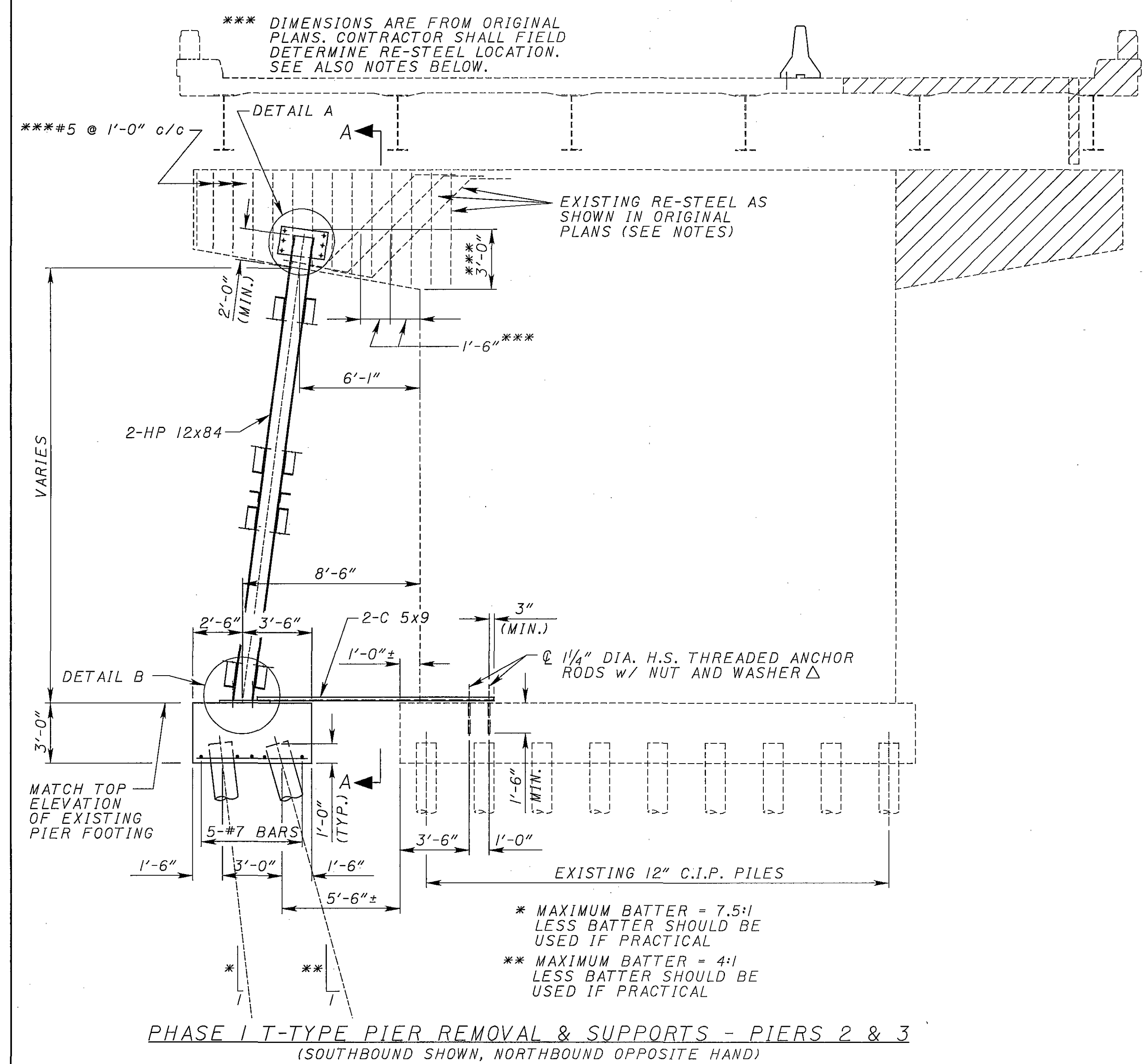
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NOTE:
1. SEE SHEETS 20 / 65 & 21 / 65 FOR TEMPORARY SUPPORT DETAILS.

LEGEND:
 - REMOVALS
 NBL - NORTHBOUND LANES
 SBL - SOUTHBOUND LANES

 BURGESS & NIPLE <small>5085 Reed Road Columbus, Ohio 43220</small>	
DESIGNED	TTK
CHECKED	TTK
DRAWN	CRC
REVIEWED	WTL
DATE	6/04
STRUCTURE FILE NUMBER	5203031 - LEFT 5203066 - RIGHT
PIER REMOVAL DETAILS BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40	
MED-71-6.06 PID-75657	
19 / 65	
936 1120	



NOTES:

MATERIALS:
STEEL SHALL BE ASTM A36 OR BETTER. USED STRUCTURAL STEEL IN GOOD CONDITION MAY BE PROVIDED. HIGH STRENGTH BOLTS AND ANCHOR RODS SHALL BE NEW 1" DIA. AND 1/4" DIA. ASTM A325. WELDING ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI.

EXISTING RE-STEEL:
LOCATE THE EXISTING REINFORCING STEEL AND ADJUST THE LOCATION OF THE BOLTS OR ANY OTHER DIMENSIONS NECESSARY TO AVOID INTERFERENCE.

OPTIONAL DESIGN:
IN LIEU OF THE TEMPORARY SUPPORT DESIGN SPECIFIED BY THESE PLANS, THE CONTRACTOR HAS THE OPTION OF PROVIDING ANOTHER SYSTEM, PROVIDED THAT SUCH SYSTEM IS DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND IS APPROVED BY THE DIRECTOR PRIOR TO ITS FABRICATION AND INSTALLATION. THE TOTAL SERVICE LOAD REACTION TO BOTH HP12x84 COLUMNS IS AS FOLLOWS:

VERTICAL
DL = 142 KIPS
LL = 49 KIPS

HORIZONTAL
DL = 19 KIPS
LL = 7 KIPS

MOMENT AT TOP OF COLUMNS (TOTAL TO BOTH)
DL = 23 FT. KIPS
LL = 9 FT. KIPS

PILING:
THE PILING IN THIS SCHEME ARE 12" DIA. C.I.P. PILES AND ARE INTENDED TO BE USED IN THE PERMANENT FOOTING. THESE PILING ARE INCLUDED WITH THE 12" CAST-IN-PLACE REINFORCED CONCRETE PILE PAY ITEMS FOR PAYMENT. SEE GENERAL NOTES FOR PILE INFORMATION.

CONSTRUCTION SEQUENCE:
REMOVE THE CROSSHATCHED AREA AFTER THE PIER SUPPORTS HAVE BEEN PLACED

REMOVAL OF PHASE I T-TYPE PIER SUPPORTS:
AFTER PHASE 2 REMOVAL OF SUPERSTRUCTURE IS COMPLETE, REMOVE ALL PORTIONS OF PIER SUPPORTS, INCLUDING FOOTING. TAKE CARE NOT TO DAMAGE PILING USED IN THE PERMANENT FOOTING. THE METHOD OF REMOVAL SHALL BE APPROVED BY THE ENGINEER.

WELDING:
CONTRACTOR MAY CHOOSE WHICH, IF ANY, WELDS ARE PERFORMED IN THE SHOP.

PAYMENT:
INCLUDE PAYMENT FOR THE PHASE I T-TYPE PIER SUPPORTS WITH THE LUMP SUM PAY ITEM FOR "REMOVAL MISC.: PHASE I T-TYPE PIER SUPPORT". INCLUDE THE COSTS FOR ALL STRUCTURAL STEEL, NUTS, BOLTS, WASHERS, PLATES WELDING, CONCRETE, REINFORCING STEEL AND ANY OTHER LABOR OR MATERIALS NECESSARY TO COMPLETE THE INSTALLATION AND SUBSEQUENT REMOVAL OF THE SUPPORTS.

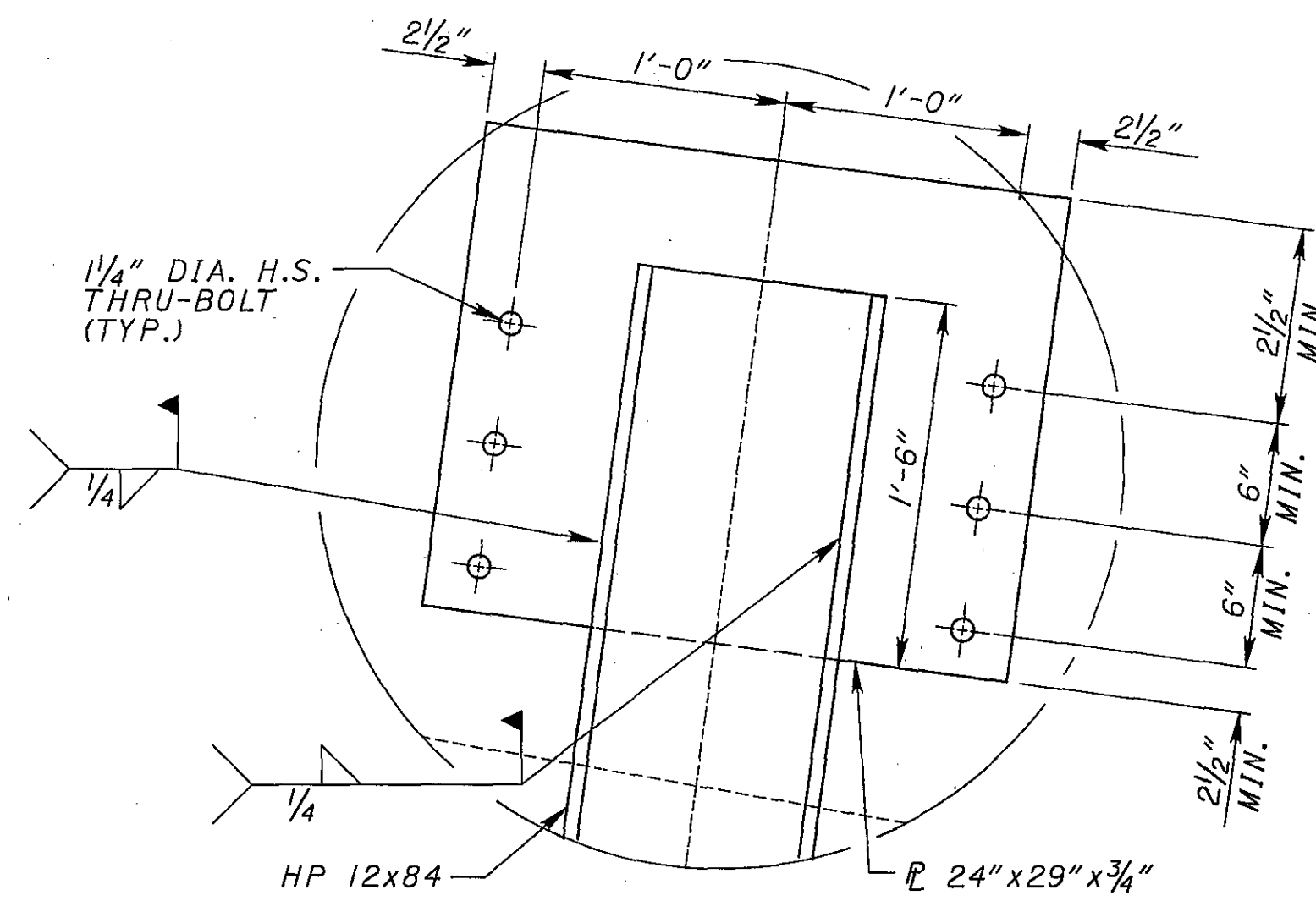
SEE SHEET 21 / 65 FOR ADDITIONAL DETAILS.

LEGEND:

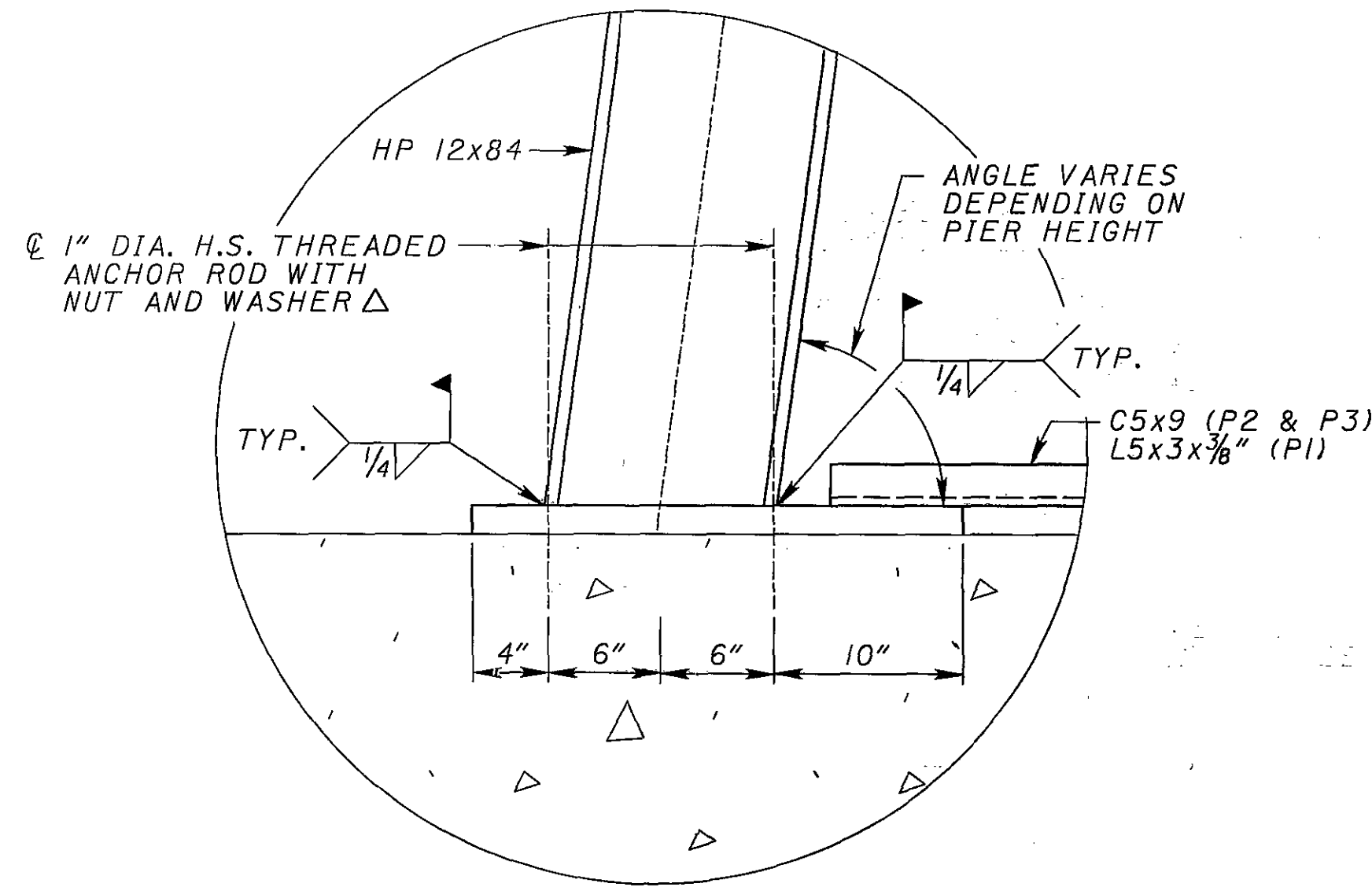
△ = INSTALL PER 510 USING NONSHRINK, NONMETALLIC GROUT. INCLUDE DRILLING, GROUTING AND HARDWARE WITH PIER SUPPORTS FOR PAYMENT.

SB = SOUTHBOUND
NB = NORTHBOUND
LLV = LONG LEG VERTICAL
P1 = PIER 1
P2 = PIER 2
P3 = PIER 3
H.S. = HIGH STRENGTH

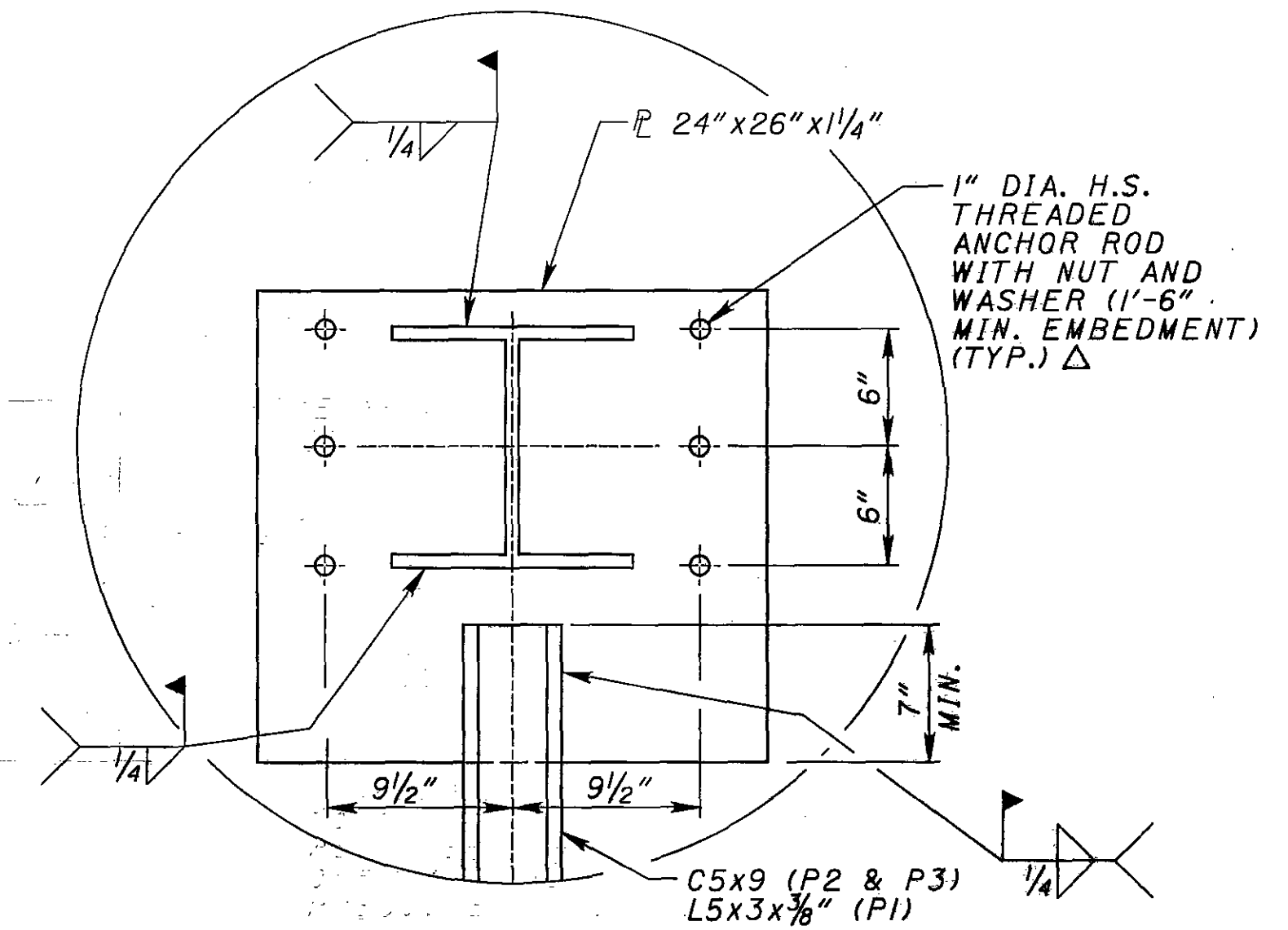
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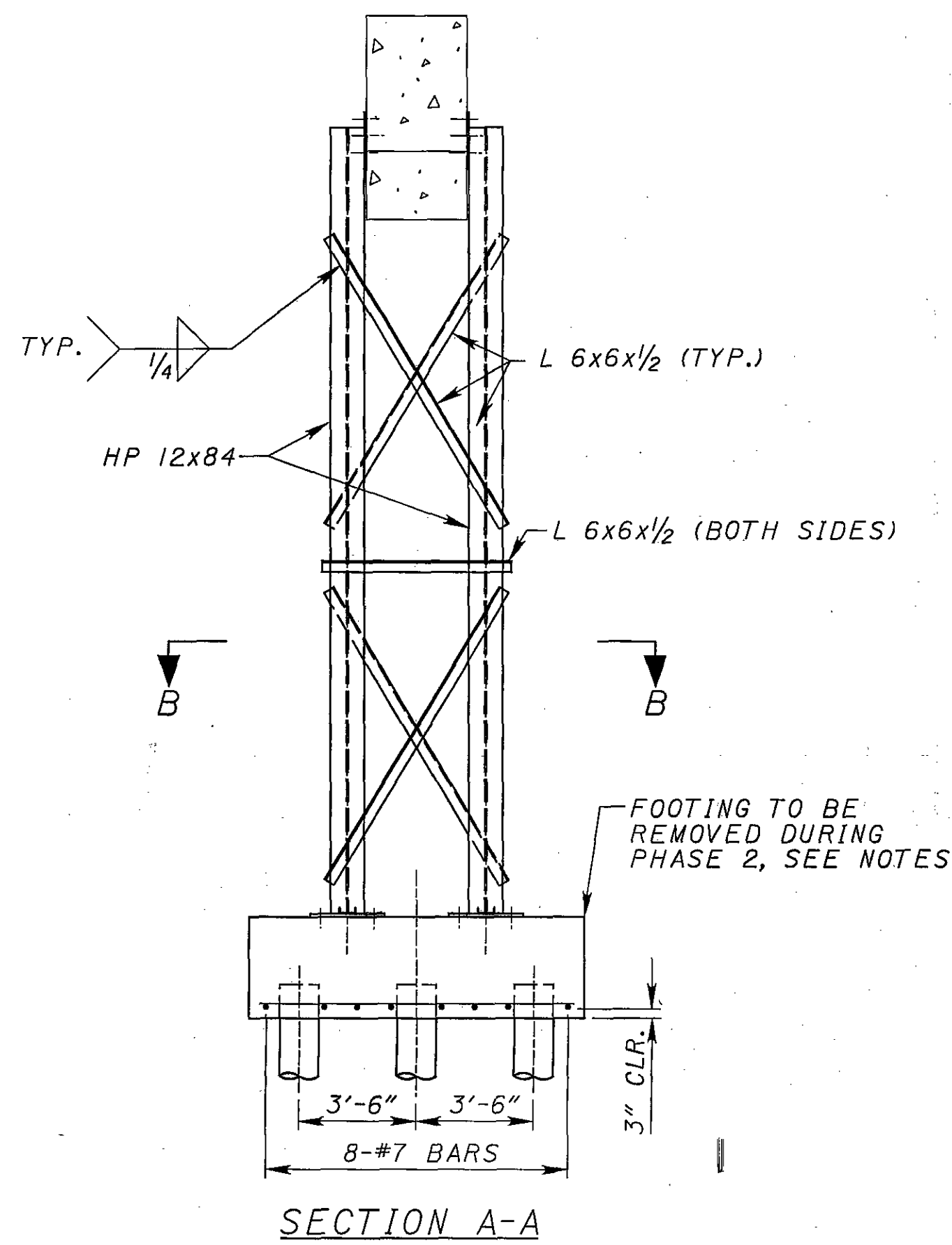
DETAIL A



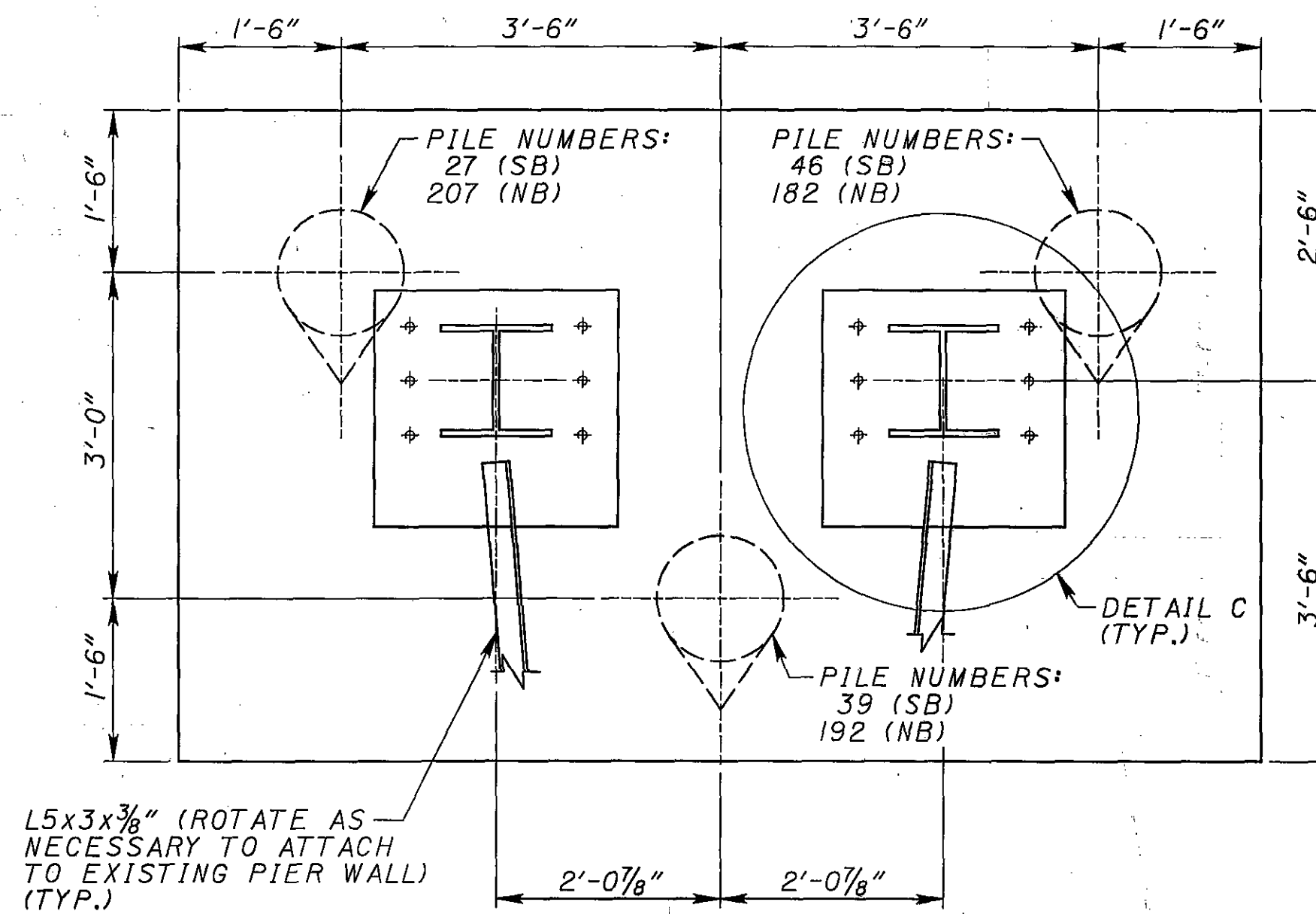
DETAIL B



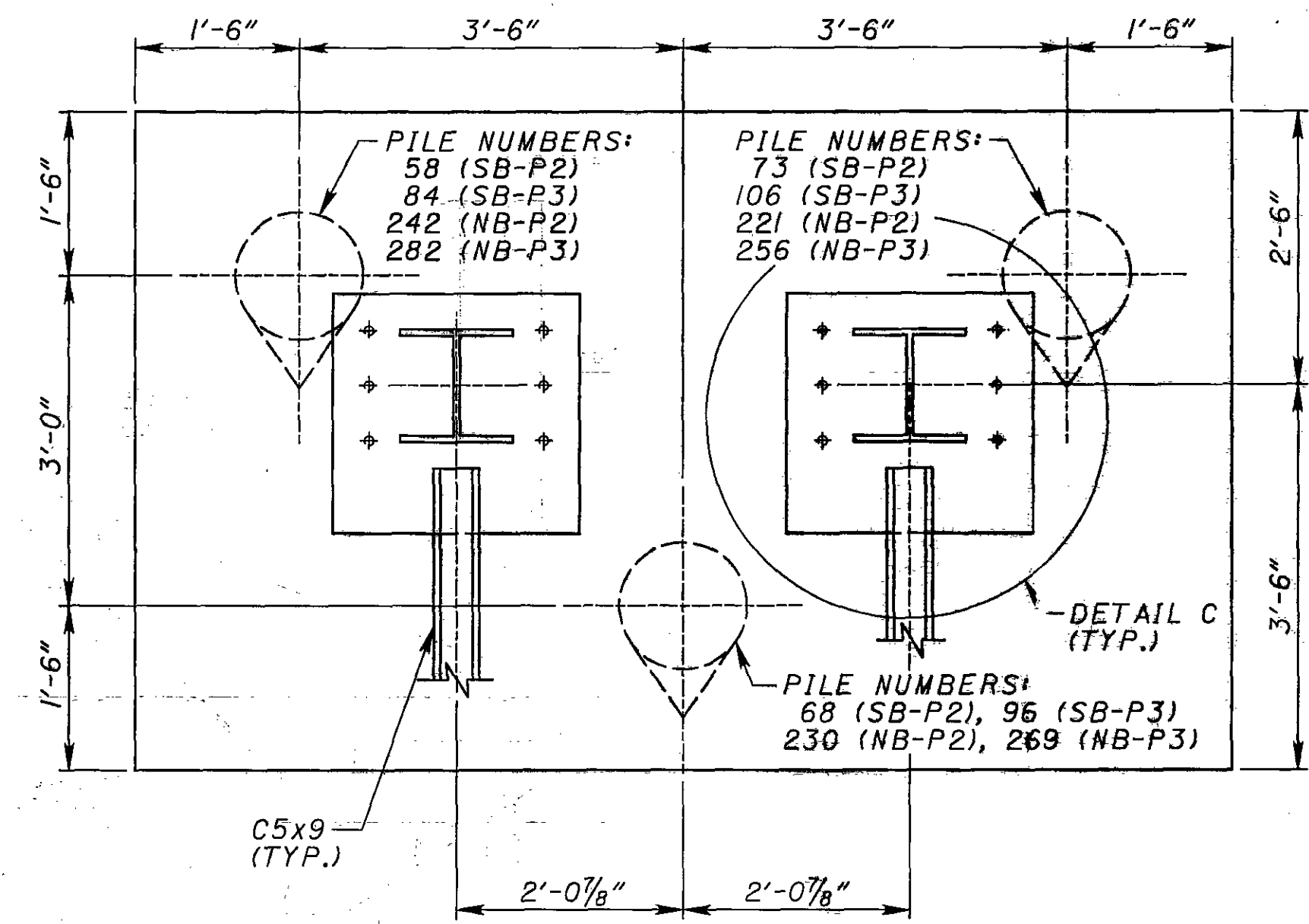
DETAIL C
(P2 & P3 SHOWN, P1 SIMILAR)



SECTION A-A



SECTION B-B
(P1)



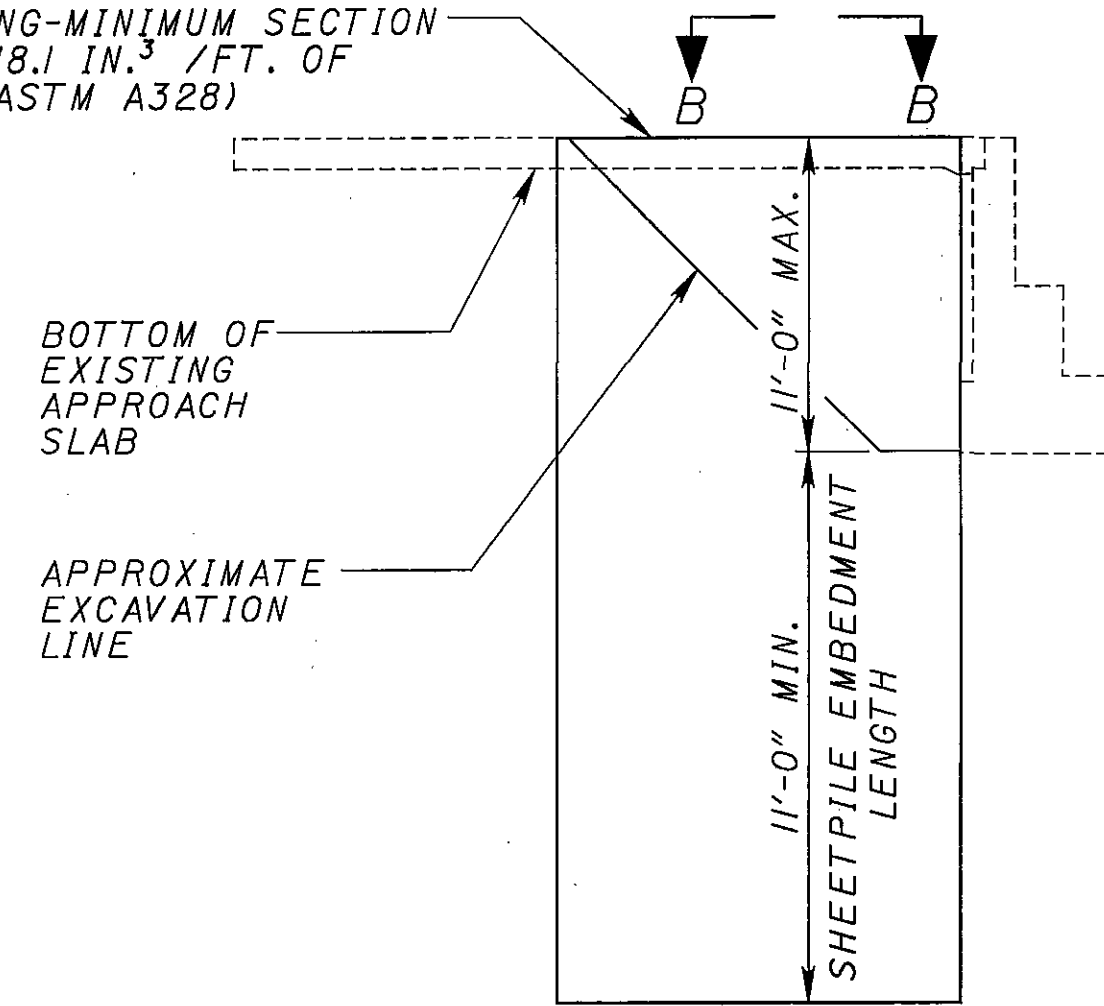
SECTION B-B
(P2 & P3)

NOTES:

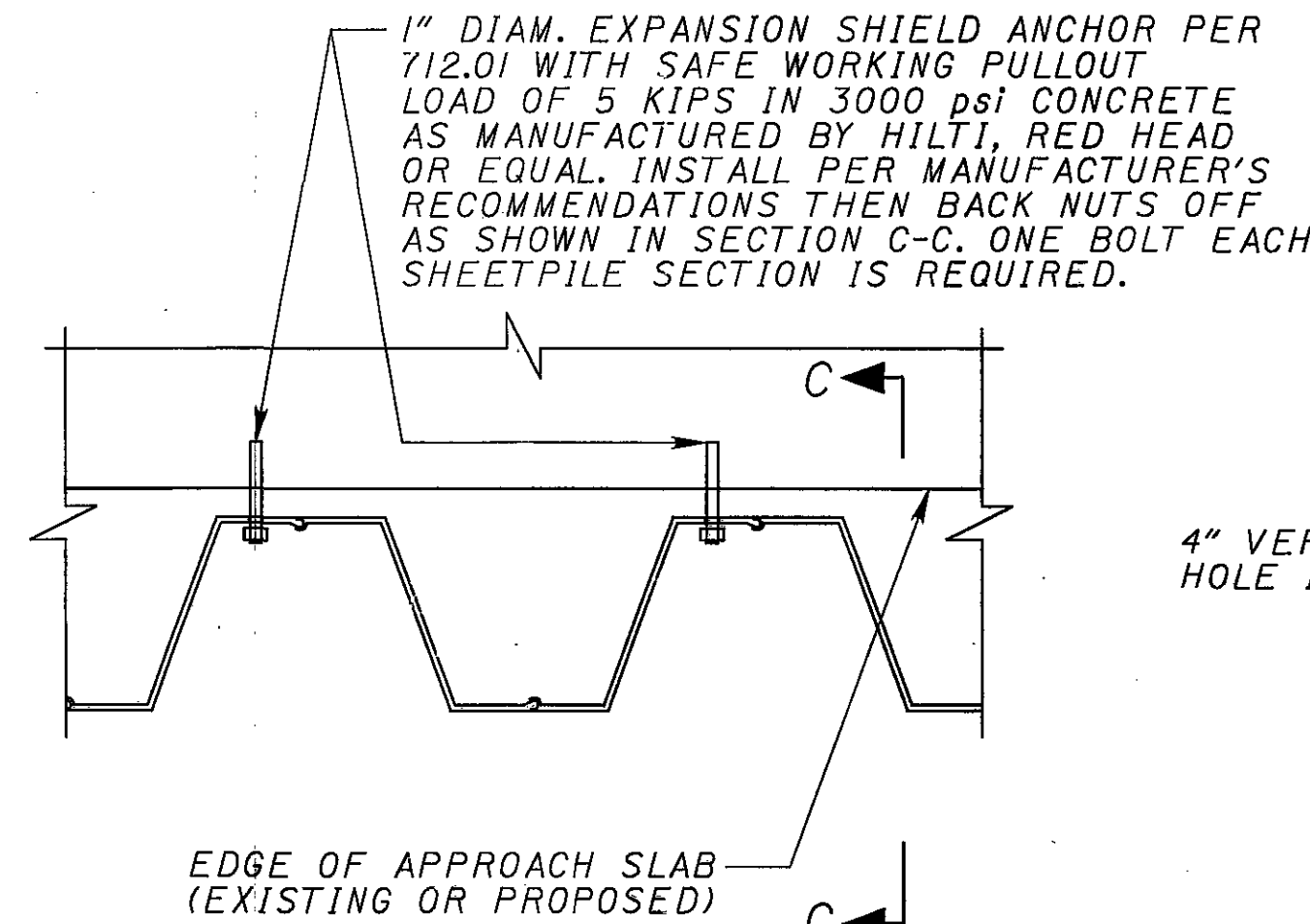
- SEE SHEET 20 / 65 FOR NOTES AND LEGEND.
- SEE SHEET 23 / 65 FOR SOUTHBOUND FOUNDATION PLAN AND SHEET 24 / 65 FOR NORTHBOUND FOUNDATION PLAN.

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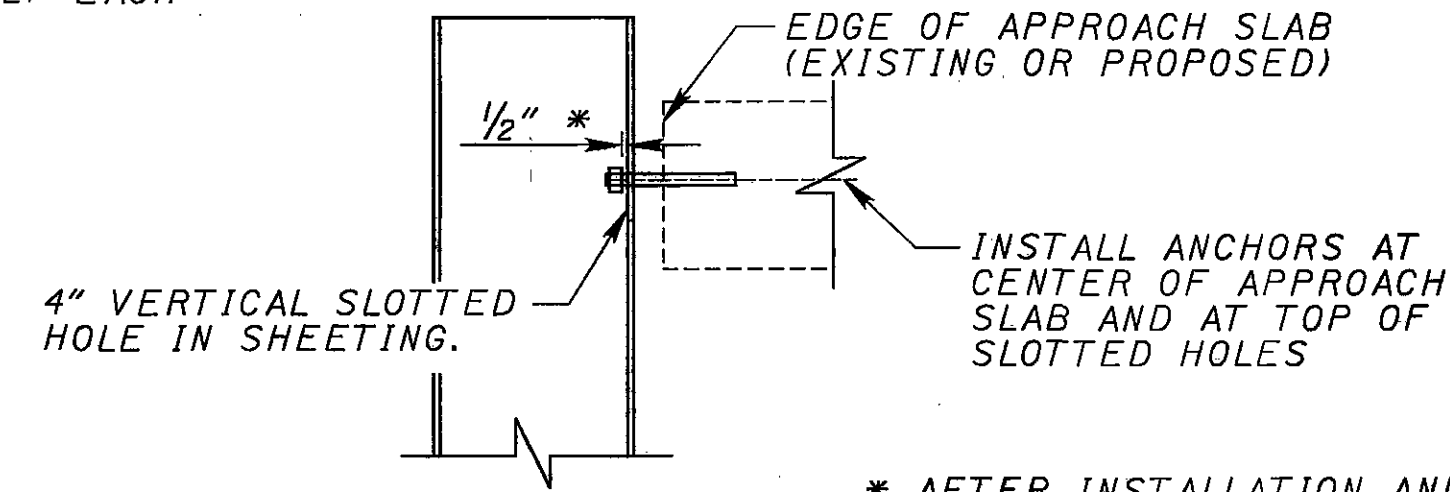
SHEET PILING-MINIMUM SECTION MODULUS = 18.1 IN.³/FT. OF SHEETING (ASTM A328)



ELEVATION VIEW AT ABUTMENTS



VIEW B-B

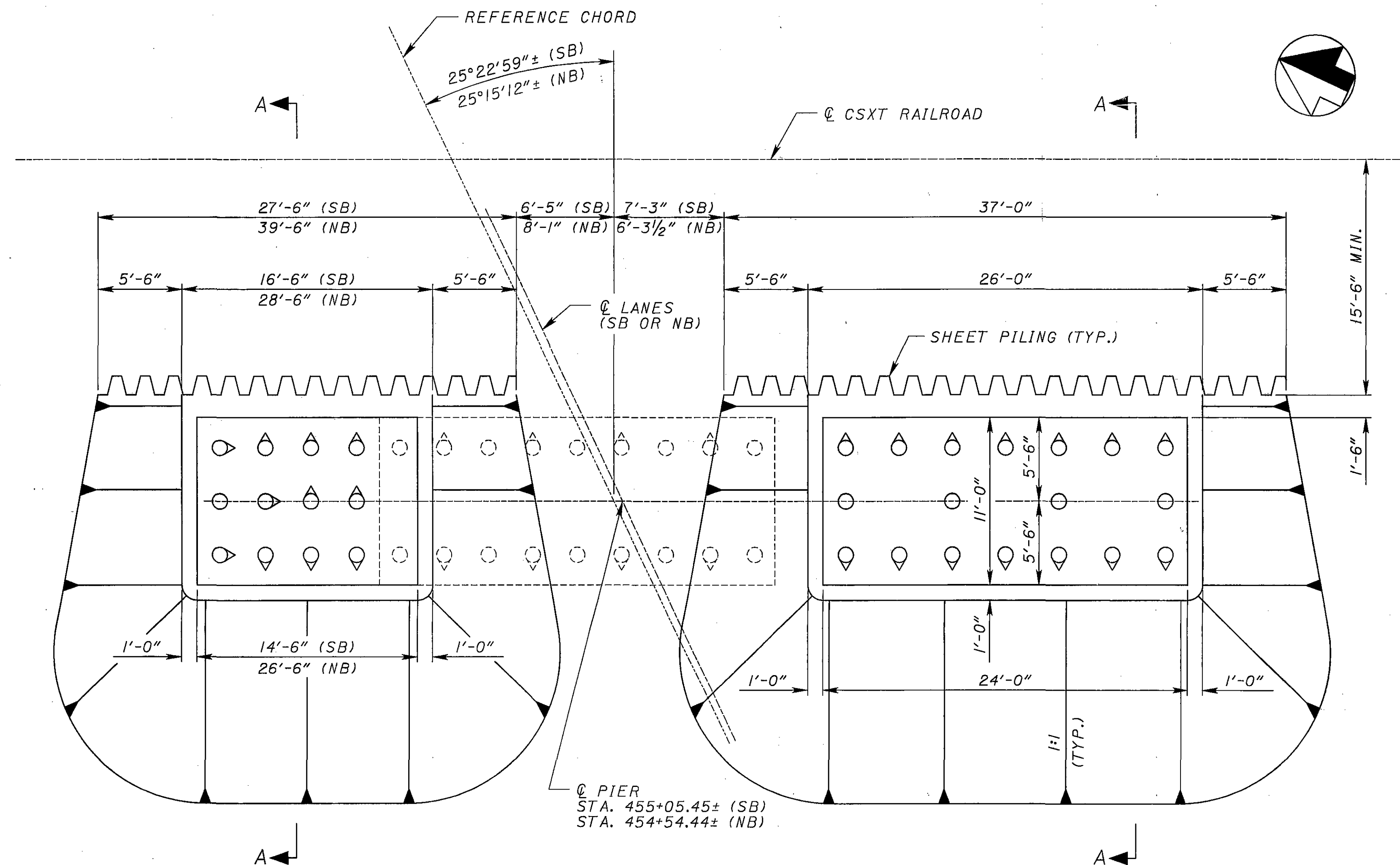


SECTION C-C

* AFTER INSTALLATION AND TORQUING PER MANUFACTURER'S RECOMMENDATIONS, BACK NUT OFF 1/2" TO ALLOW ACTIVE PRESSURE TO DEVELOP.

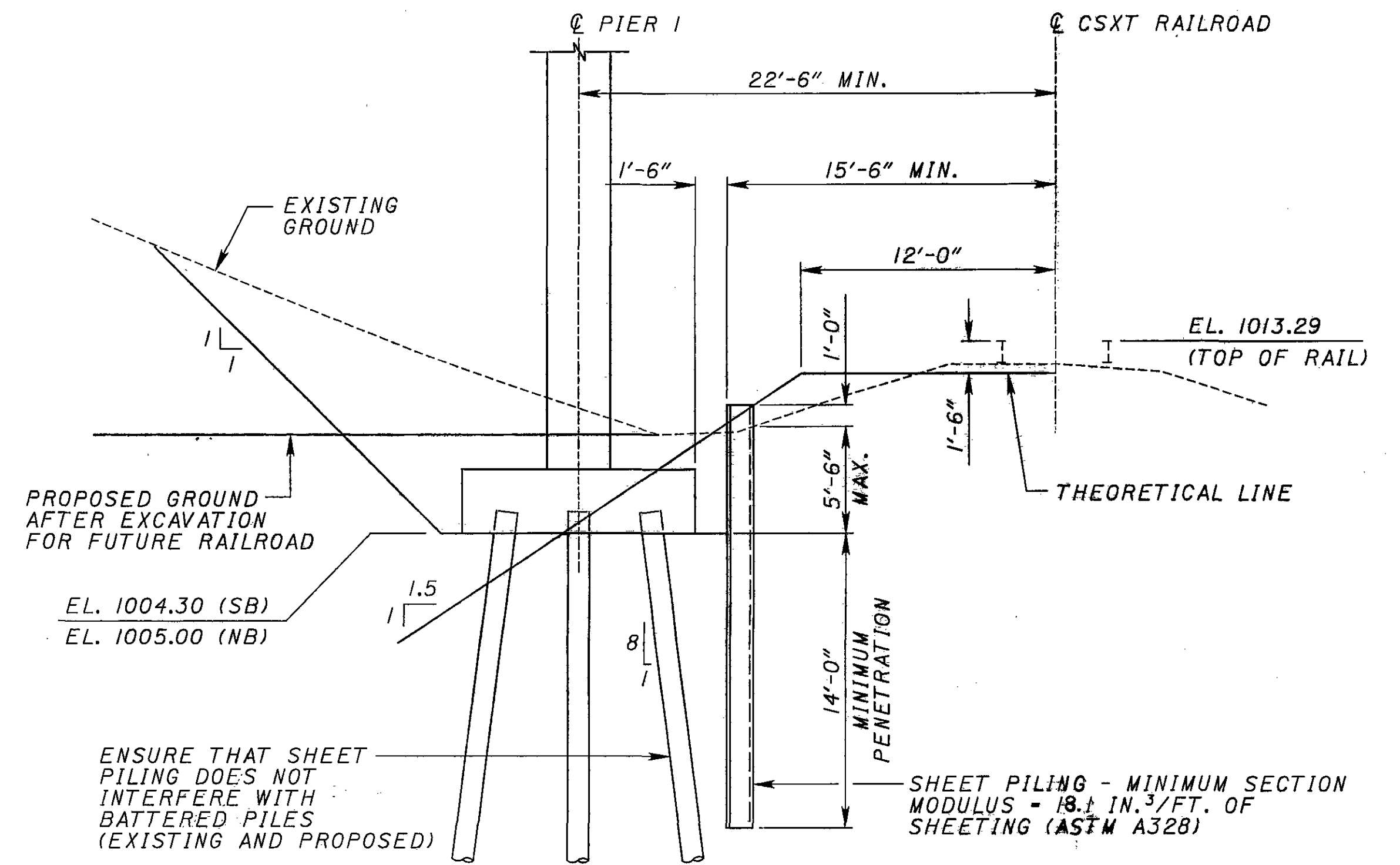
NOTE:
1. ALL TEMPORARY SHORING TO BE PAID FOR WITH ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN. SHEET 4 / 65.

LEGEND:
SB = SOUTHBOUND
NB = NORTHBOUND



PIER 1 SHEET PILING PLAN

(SOUTHBOUND SHOWN, NORTHBOUND OPPOSITE HAND AND AS NOTED)



SECTION A-A

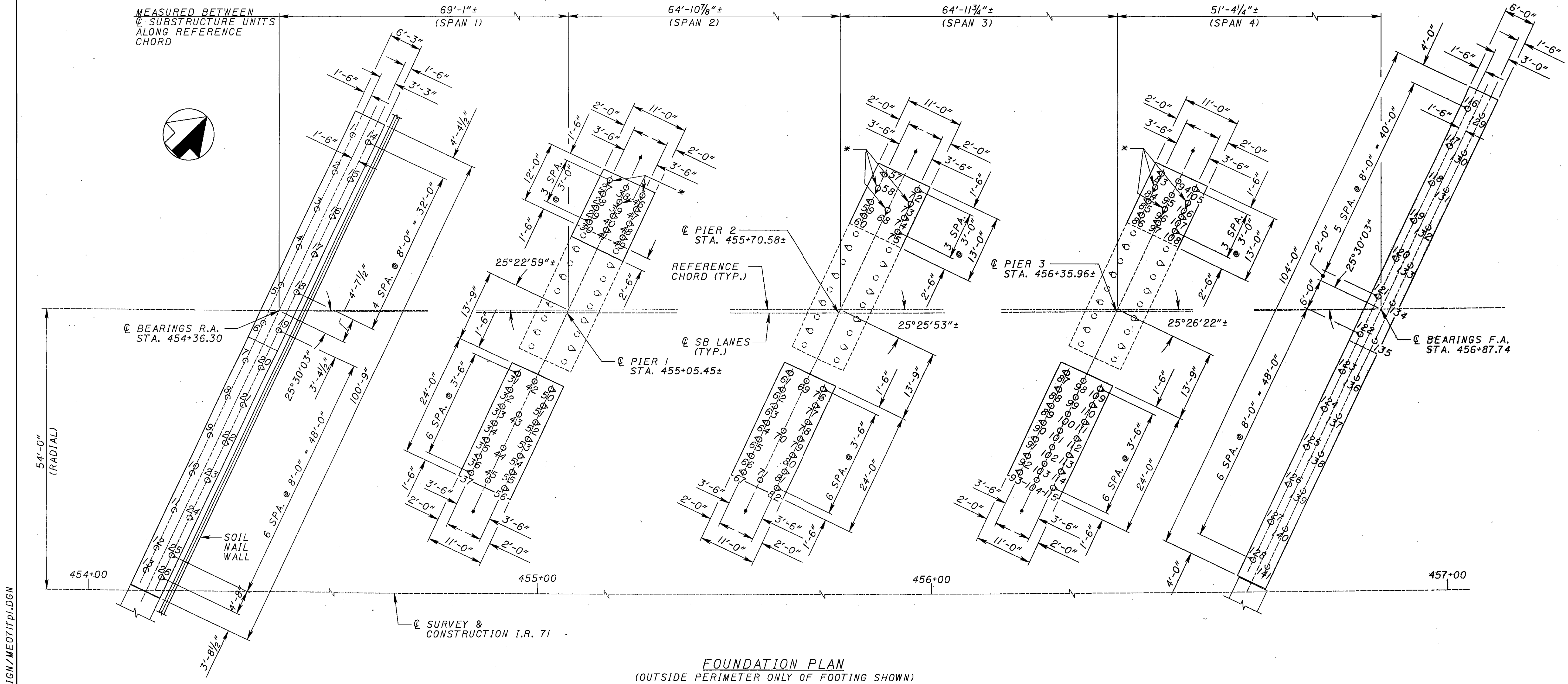
BURGESS & NIPLE
 5995 Reed Road
 Columbus, Ohio 43220
 DATE 6/04
 REVIEWED BES
 STRUCTURE FILE NUMBER 5203031 - LEFT
 5203066 - RIGHT
 DRAWN CRC
 REVISIONS
 DESIGNED VEA
 CHECKED WTL
 SHORING DETAILS
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40
 MED-71-6.06
 PID-75657
 22 / 65
 939
 1120

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DATE	6/04
REVIEWED	BES
STRUCTURE FILE NUMBER	5203031 - LEFT
DESIGNED	TTK
DRAWN	CRC
CHECKED	JHL/BES
REVISION	5203066 - RIGHT

FOUNDATION PLAN - SOUTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657



FOUNDATION PLAN
(OUTSIDE PERIMETER ONLY OF FOOTING SHOWN)

NOTES:

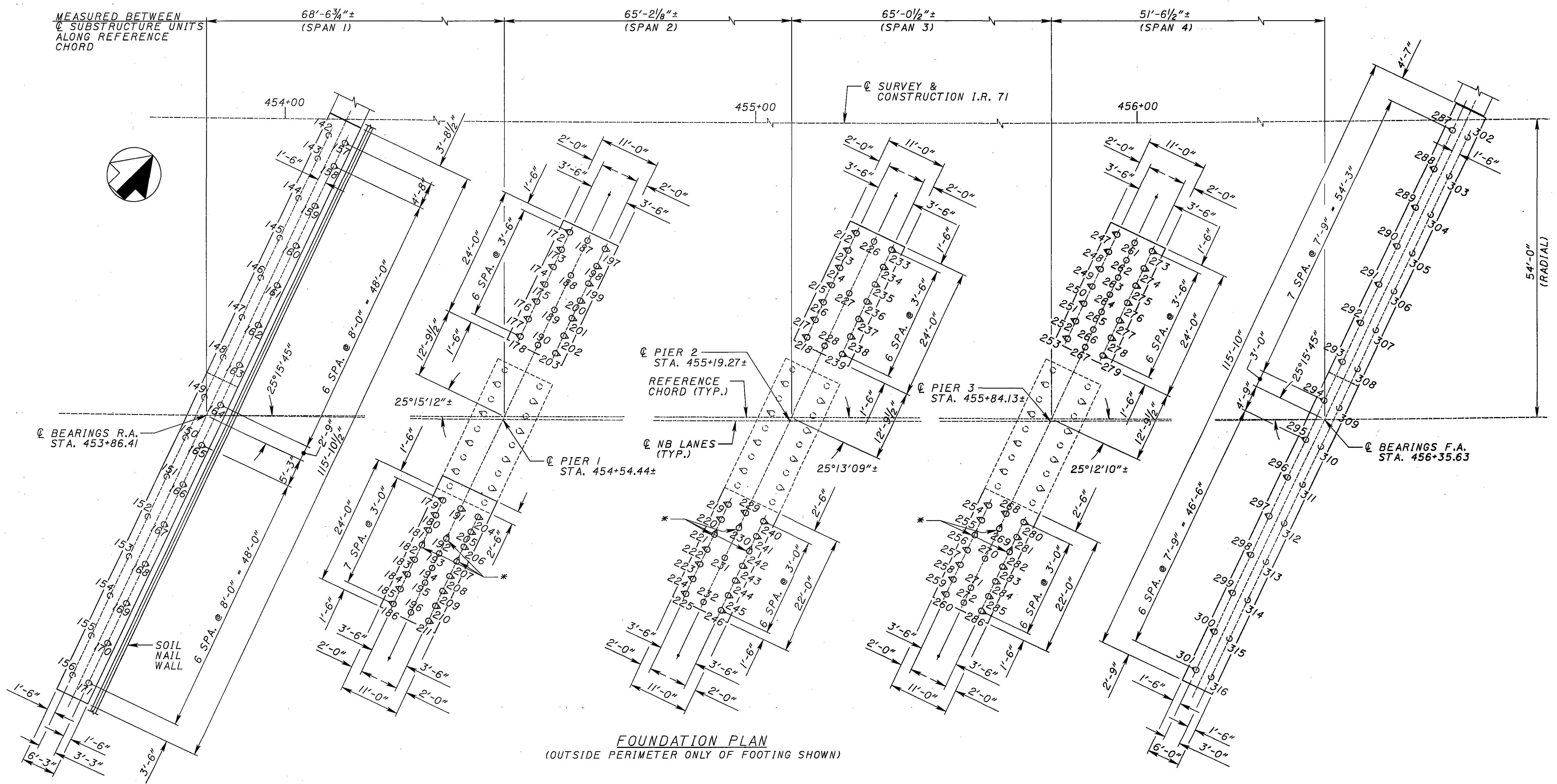
- SEE SHEET 25 / 65 & 26 / 65 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 38 / 65 & 39 / 65 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
- THESE PILES ARE DRIVEN PRIOR TO PHASE I REMOVAL FOR PHASE I T-TYPE PIER SUPPORT AND WILL REMAIN AS PART OF PERMANENT FOOTING. FOR PILE BATTER AND ADDITIONAL DETAILS, SEE SHEET 20 / 65.

LEGEND:

- = 12" DIA. C.I.P. CONCRETE PILES
- ⊗ = BATTERED 12" DIA. C.I.P. CONCRETE PILES, (1:12 R.A.), (1:4 F.A.) & (1:8 ALL PIERS)
- = EXISTING 12" C.I.P. CONCRETE PILES
- XX = PILE NUMBER
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- * = SEE NOTE 3

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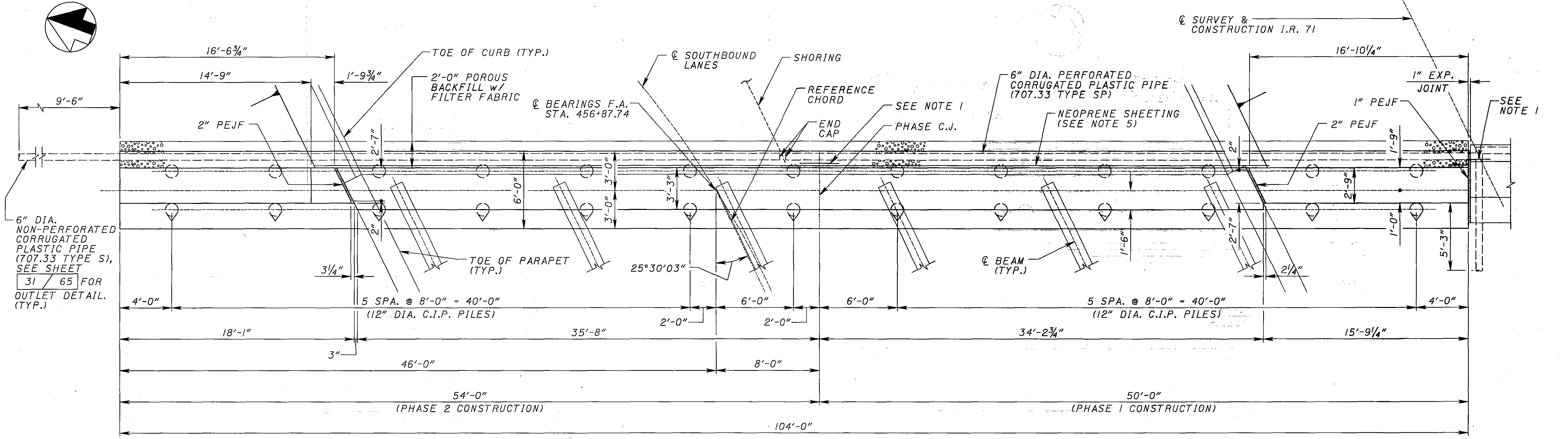
FOUNDATION PLAN
(OUTSIDE PERIMETER ONLY OF FOOTING SHOWN)

NOTES:

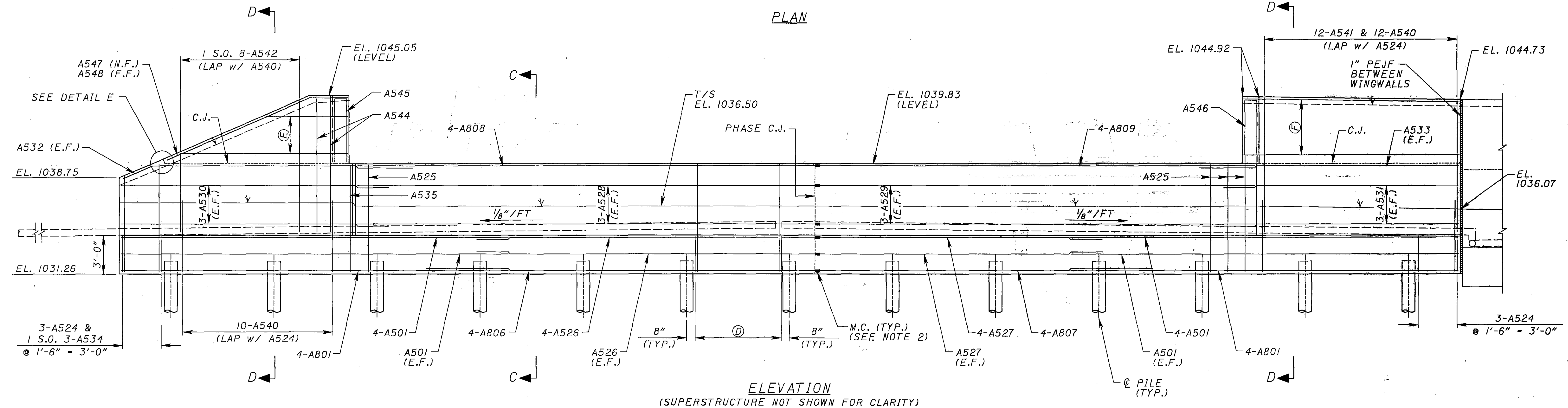
- SEE SHEET 27 / 65 & 28 / 65 FOR ADDITIONAL ABUTMENT FOOTING DIMENSIONS.
- SEE SHEET 40 / 65 & 41 / 65 FOR ADDITIONAL PIER FOOTING DIMENSIONS.
- THESE PILES ARE DRIVEN PRIOR TO PHASE I REMOVAL FOR PHASE I T-TYPE PIER SUPPORT AND WILL REMAIN AS PART OF PERMANENT FOOTING. FOR PILE BATTER AND ADDITIONAL DETAILS, SEE SHEET 20 / 65.

LEGEND:

- = 12" DIA. C.I.P. CONCRETE PILES
- ⊙ = BATTERED 12" DIA. C.I.P. CONCRETE PILES, (1:12 R.A.), (1:4 F.A.) & (1:8 ALL PIERS)
- ⊘ = EXISTING 12" C.I.P. CONCRETE PILES
- XX = PILE NUMBER
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- * = SEE NOTE 3



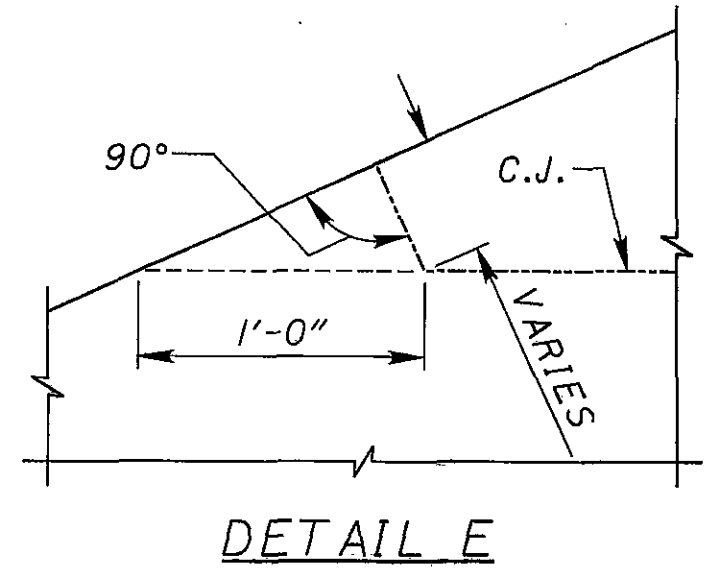
PLAN



ELEVATION
(SUPERSTRUCTURE NOT SHOWN FOR CLARITY)

- Ⓧ - 6-A524 & 6-A525 @ 1'-4" = 6'-8" (TYP. BETWEEN PILES, U.N.O.)
- Ⓨ - 1 S.O. 3-A536 (N.F.) 1 S.O. 3-A537 (F.F.) @ 1'-5" = 2'-10"
- Ⓩ - 4-A538 (N.F.) 4-A539 (F.F.) @ 1'-5" = 4'-3"

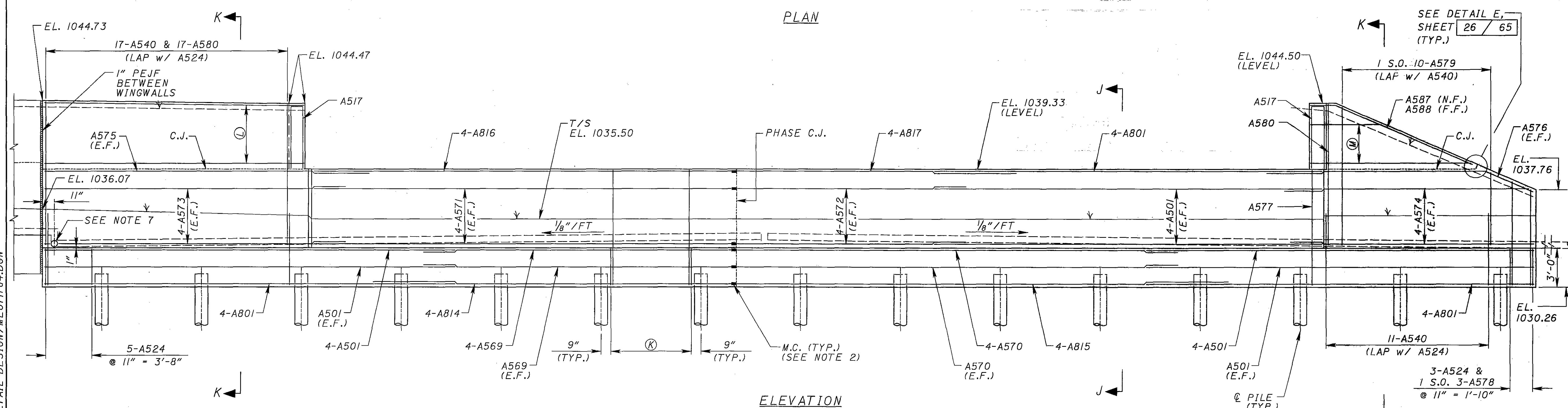
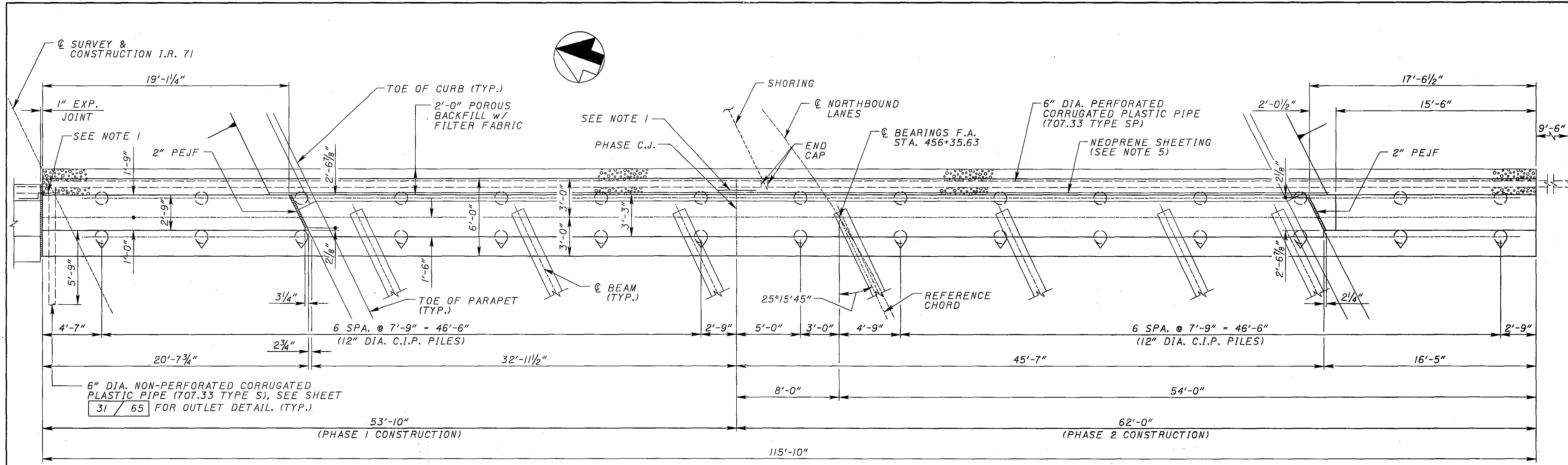
LEGEND:
C.I.P. = CAST-IN-PLACE
C.J. = CONSTRUCTION JOINT
DIA. = DIAMETER
E.F. = EACH FACE
EXP. = EXPANSION
F.A. = FORWARD ABUTMENT
F.F. = FAR FACE
M.C. = MECHANICAL CONNECTOR
N.F. = NEAR FACE
PEJF = PREFORMED EXPANSION JOINT FILLER
S.O. = SERIES OF
SPA. = SPACES
T/S = TOP OF SLOPE
U.N.O. = UNLESS NOTED OTHERWISE



NOTES:

1. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION AT PHASE C.J., AND FROM TOP OF FOOTING TO GROUND LINE BEHIND WALL AT JOINT BETWEEN WINGWALLS.
2. SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 65.
3. SEE SHEET 30 / 65 FOR SECTIONS C-C & D-D.
4. MINIMUM HORIZONTAL STEEL LAP LENGTHS:
#5 BAR = 2'-5"
#8 BAR = 6'-4"
5. SEE STD. DWG SICD-I-96 AND SECTIONS C-C & D-D FOR NEOPRENE SHEETING LIMITS AND DETAILS.
6. SEE SHEET 24 / 65 FOR FOUNDATION PLAN.

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ELEVATION
(SUPERSTRUCTURE NOT SHOWN FOR CLARITY)

NOTES:

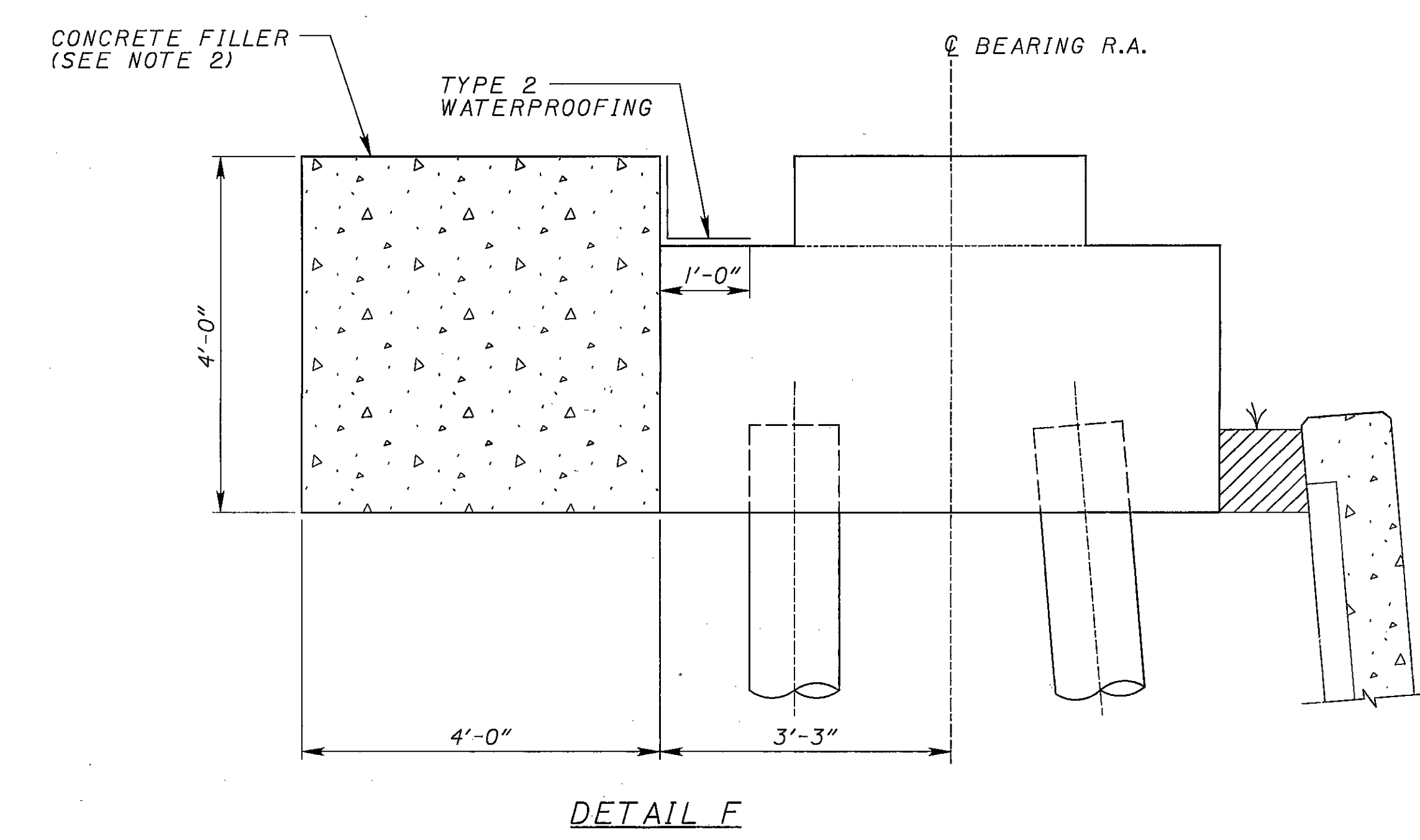
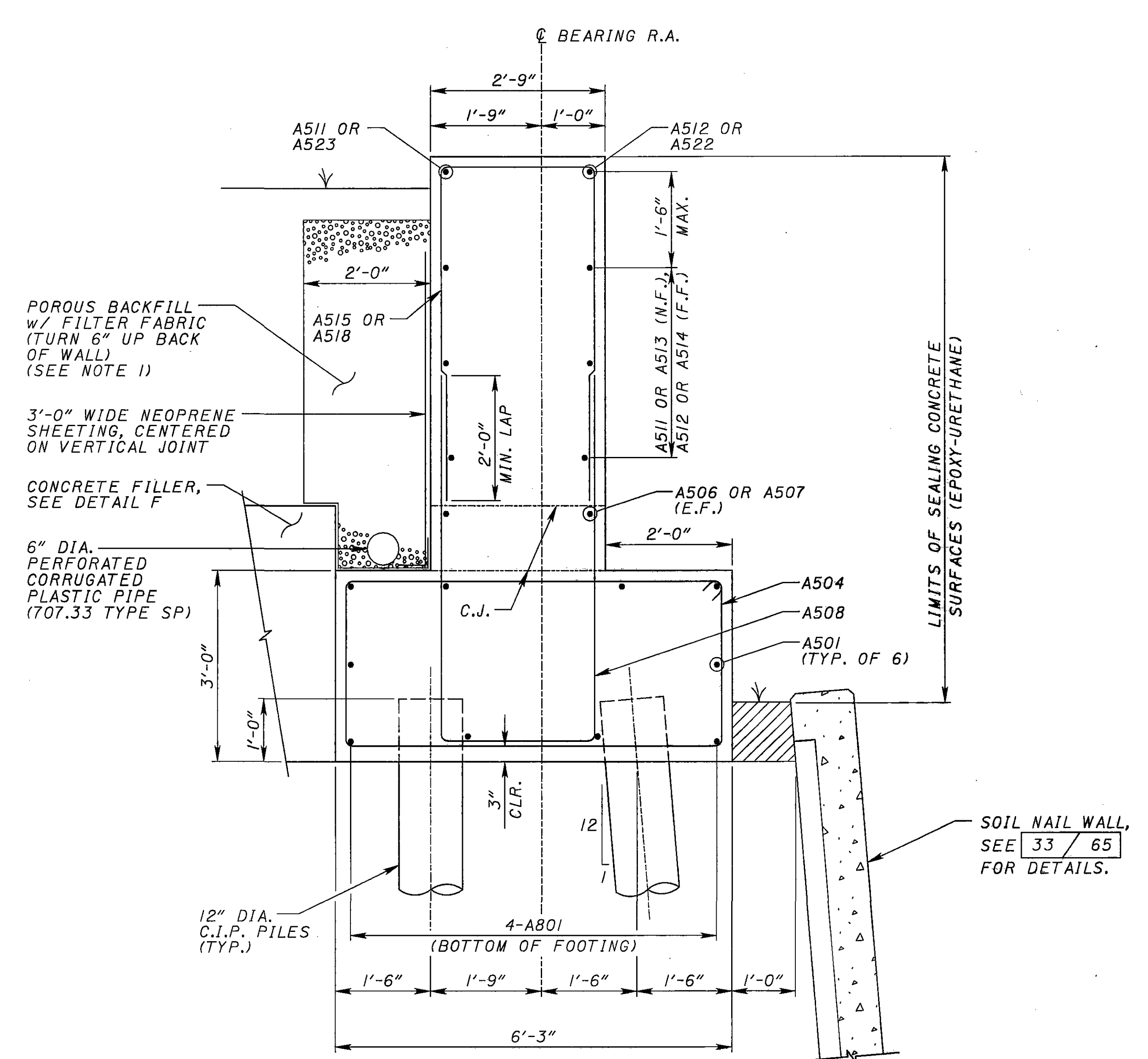
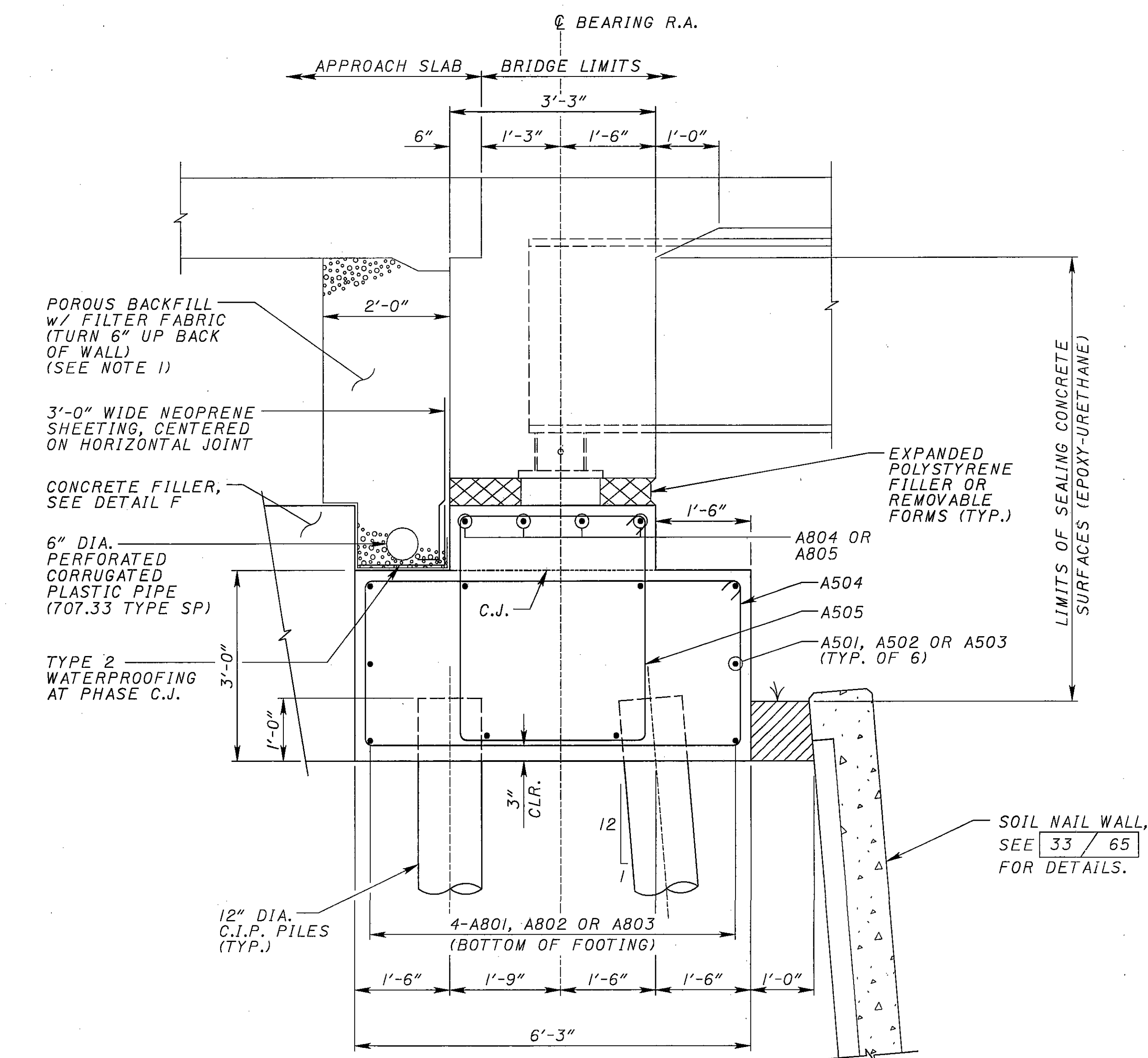
- PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO SEAT ELEVATION AT PHASE C.J., AND FROM TOP OF FOOTING TO GROUND LINE BEHIND WALL AT JOINT BETWEEN WINGWALLS.
- SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 65.
- SEE SHEET 32 / 65 FOR SECTIONS J-J & K-K.
- MINIMUM HORIZONTAL STEEL LAP LENGTHS:
#5 BAR = 2'-5"
#8 BAR = 6'-4"
- SEE STD. DWG. SICD-1-96 AND SECTIONS J-J & K-K FOR NEOPRENE SHEETING LIMITS AND DETAILS.
- SEE SHEET 24 / 65 FOR FOUNDATION PLAN.
- FIELD CUT HORIZONTAL BAR AS NECESSARY TO CLEAR 6" DIA. NON-PERFORATED PIPE OUTLET.

LEGEND:

- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- DIA. = DIAMETER
- E.F. = EACH FACE
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- M.C. = MECHANICAL CONNECTOR
- N.F. = NEAR FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- S.O. = SERIES OF
- SPA. = SPACES
- T/S = TOP OF SLOPE
- U.N.O. = UNLESS NOTED OTHERWISE

- (K) = 6-A524 & 6-A577 @ 1'-3" = 6'-3" (TYP. BETWEEN PILES, U.N.O.)
- (L) = 4-A581 (N.F.)
4-A582 (F.F.) @ 1'-6" = 4'-6"
- (M) = 1 S.O. 3-A583 (N.F.)
1 S.O. 3-A584 (F.F.) @ 1'-6" = 3'-0"

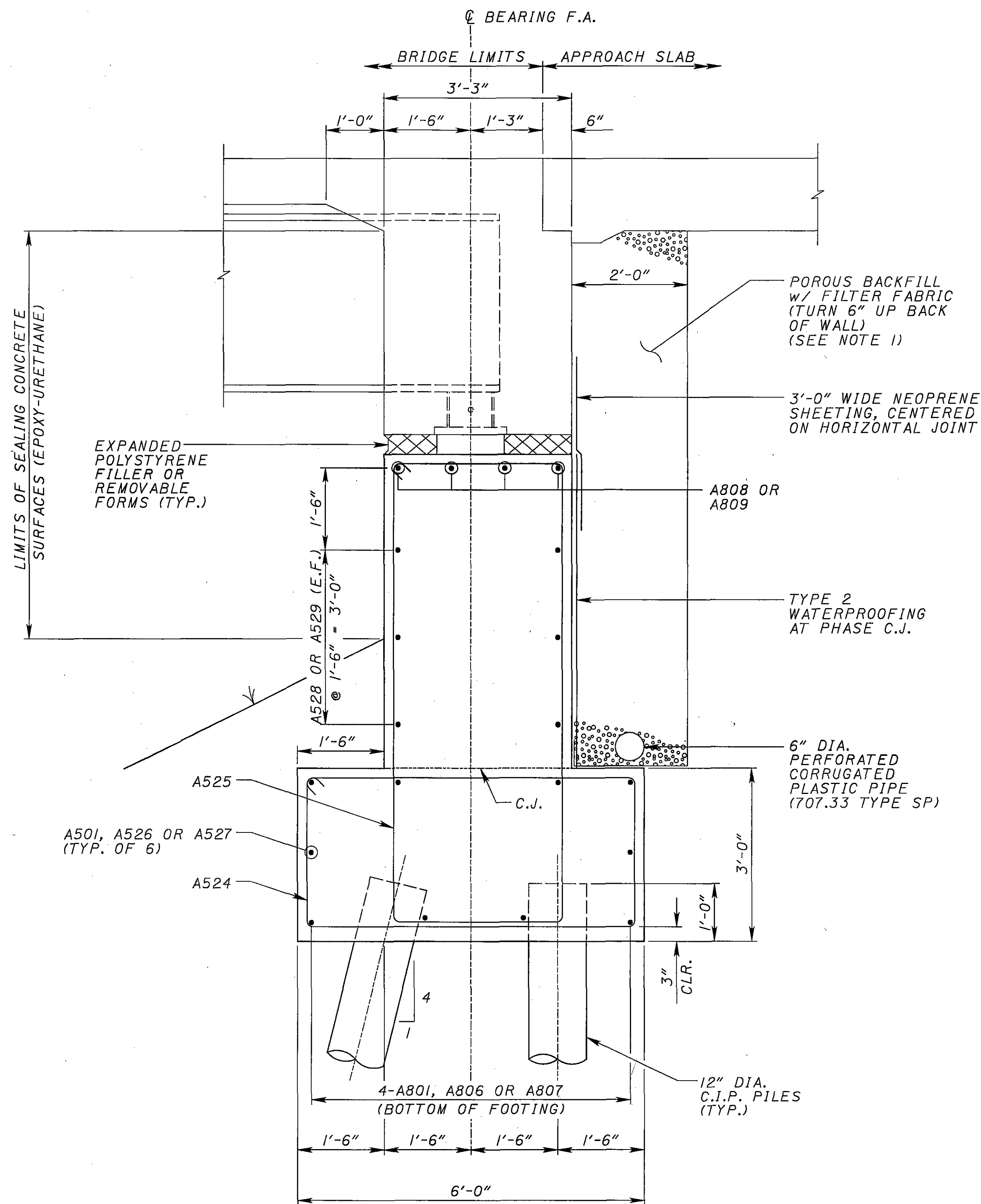
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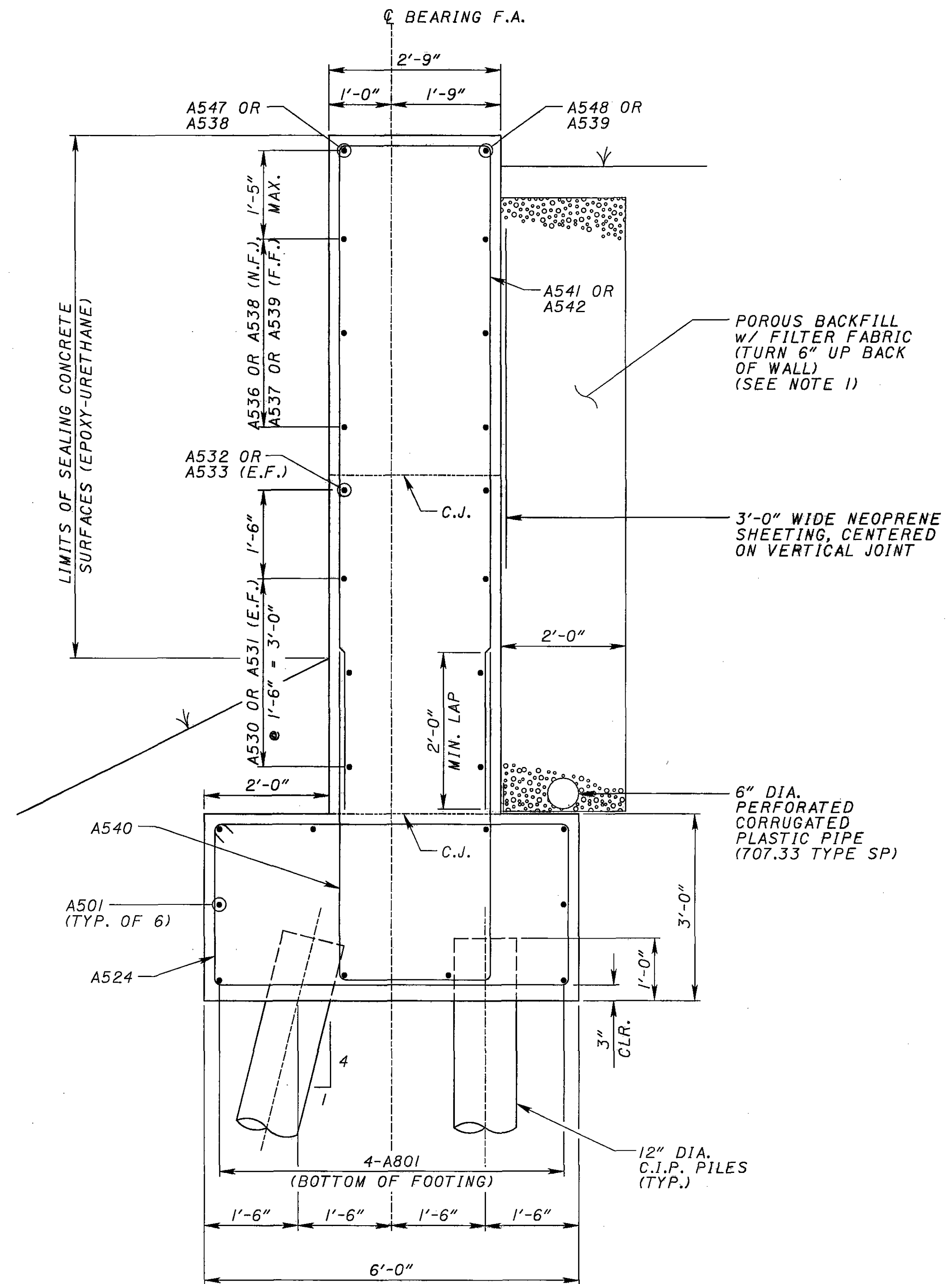
- LEGEND:**
- C.I.P. = CAST-IN-PLACE
 - C.J. = CONSTRUCTION JOINT
 - CLR. = CLEAR
 - DIA. = DIAMETER
 - E.F. = EACH FACE
 - F.F. = FAR FACE
 - N.F. = NEAR FACE
 - R.A. = REAR ABUTMENT

- NOTES:**
1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
 2. PLACE CONCRETE FILLER IMMEDIATELY FOLLOWING THE PLACEMENT OF EACH PHASE OF ABUTMENT FOOTING CONCRETE. CONCRETE FILLER SHALL BE CLASS C CONCRETE AND SHALL EXTEND THE ENTIRE LENGTH OF ABUTMENT FOOTING. PLACE TYPE 2 WATERPROOFING, 2' WIDE FOR THE ENTIRE LENGTH OF ABUTMENT FOOTING, CENTERED ON HORIZONTAL JOINT BETWEEN ABUTMENT FOOTING AND CONCRETE FILLER. ALL EQUIPMENT, LABOR AND MATERIAL NECESSARY TO PLACE CONCRETE FILLER SHALL BE INCLUDED WITH ITEM 511 "CONCRETE, MISC." CONCRETE FILLER" FOR PAYMENT.
 3. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

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SECTION C-C



SECTION D-D

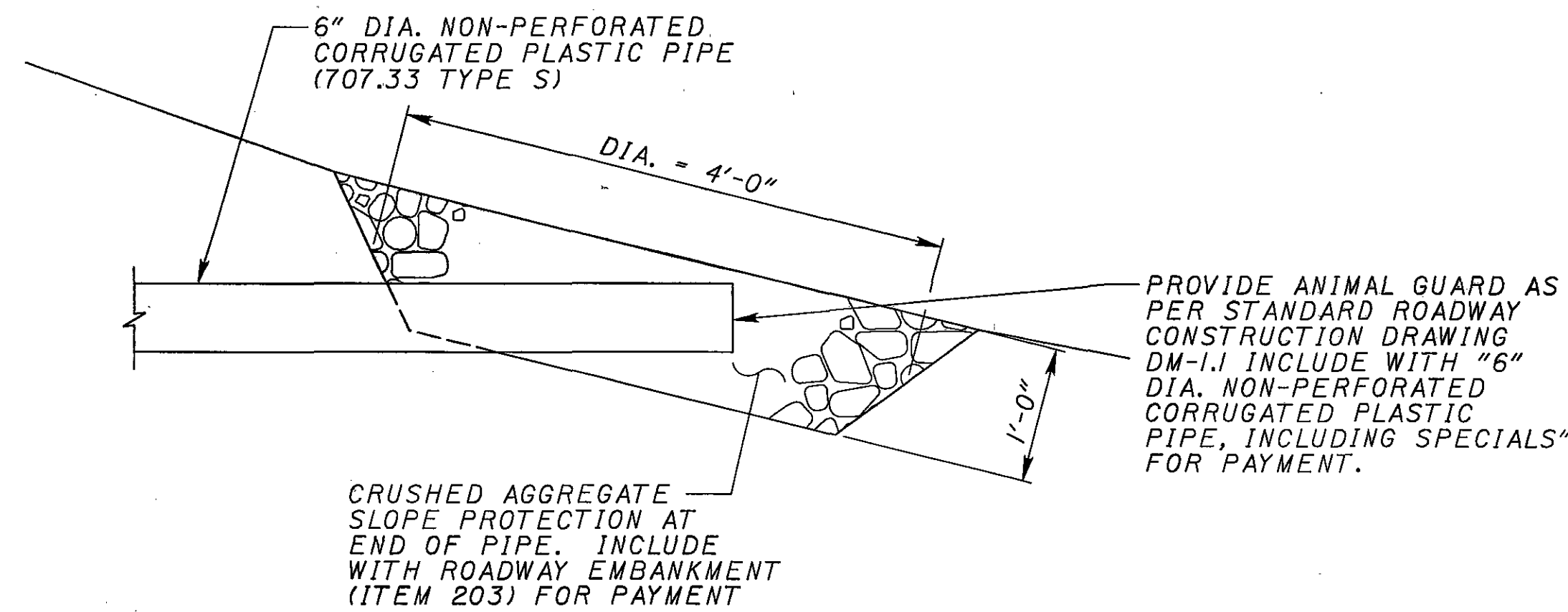
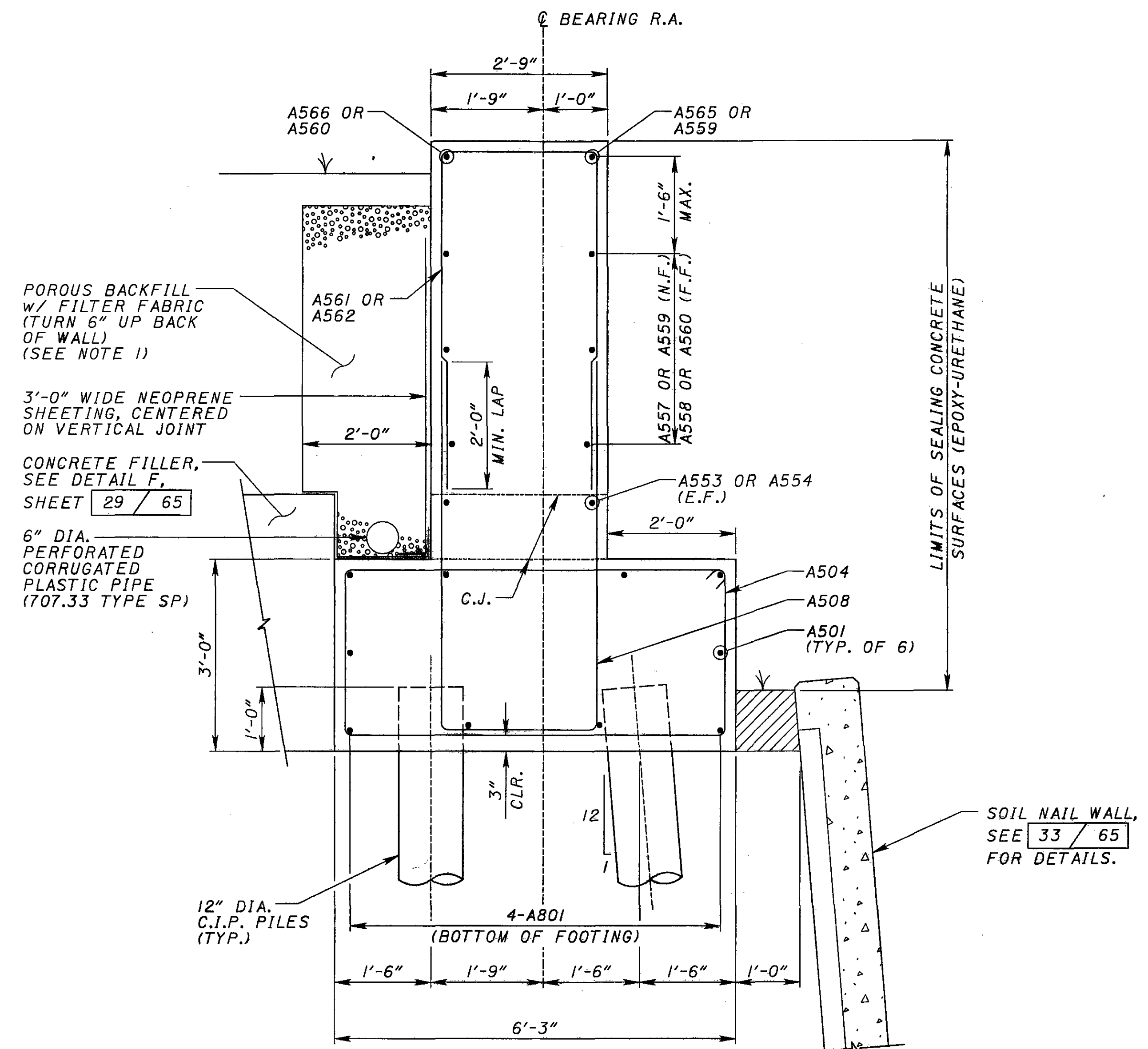
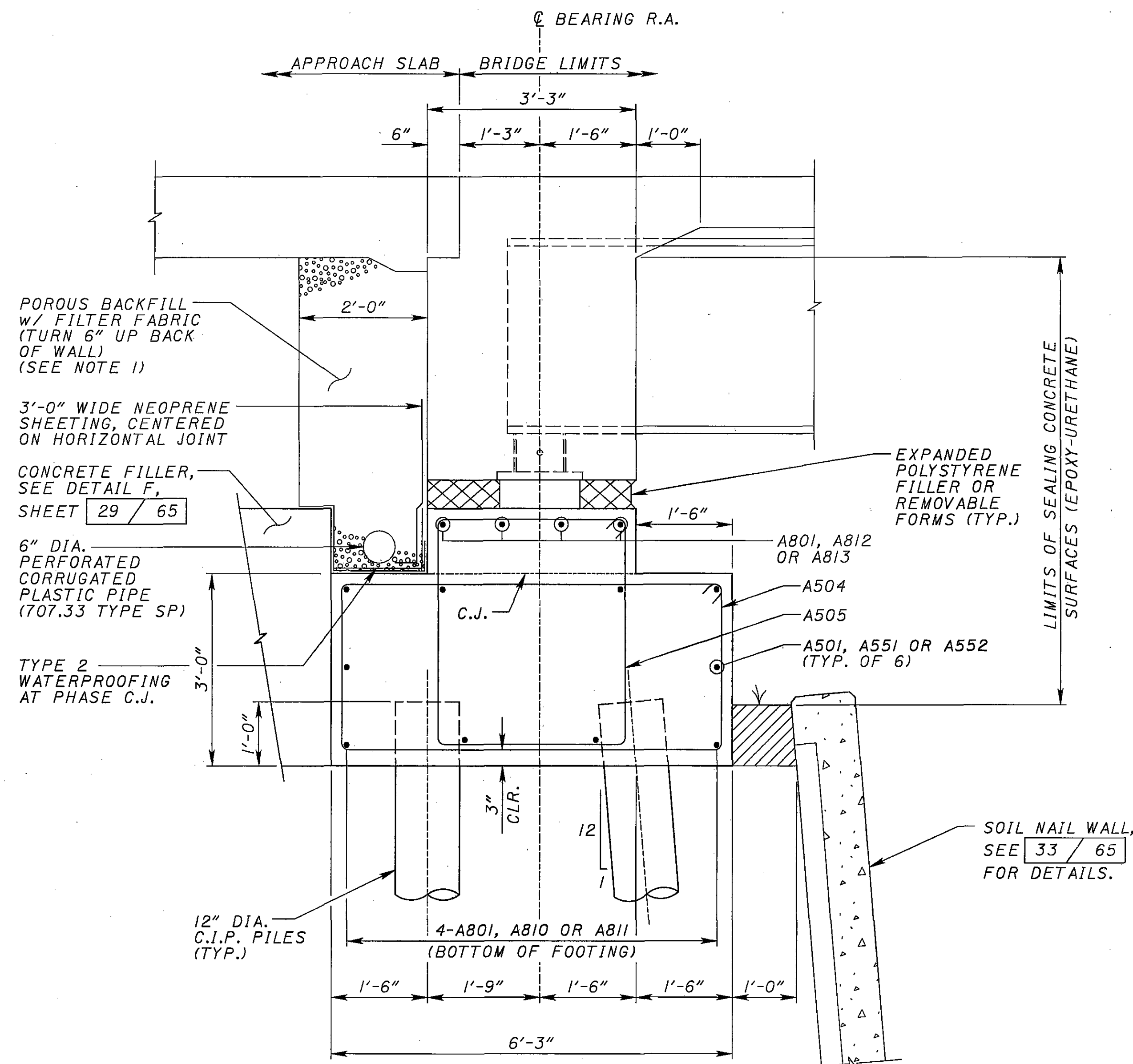
LEGEND:

- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- DIA. = DIAMETER
- E.F. = EACH FACE
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- N.F. = NEAR FACE

NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

<p>DATE: 6/04</p> <p>REVIEWED: BES</p> <p>DESIGNED: TTK</p> <p>CHECKED: JTW/JHL</p>		<p>STRUCTURE FILE NUMBER: 5203031 - LEFT</p> <p>5203066 - RIGHT</p>
<p>FORWARD ABUTMENT DETAILS - SOUTHBOUND</p> <p>BRIDGE NO. MED-71-0860 L/R</p> <p>OVER CSXT RR AND RYAN ROAD C.H. 40</p>		
<p>MED-71-6.06</p> <p>PID-75657</p>		<p>30 / 65</p>
<p>947</p> <p>1120</p>		<p>BURGESS & NIPLE</p> <p>5095 Reed Road</p> <p>Columbus, OH 43220</p>



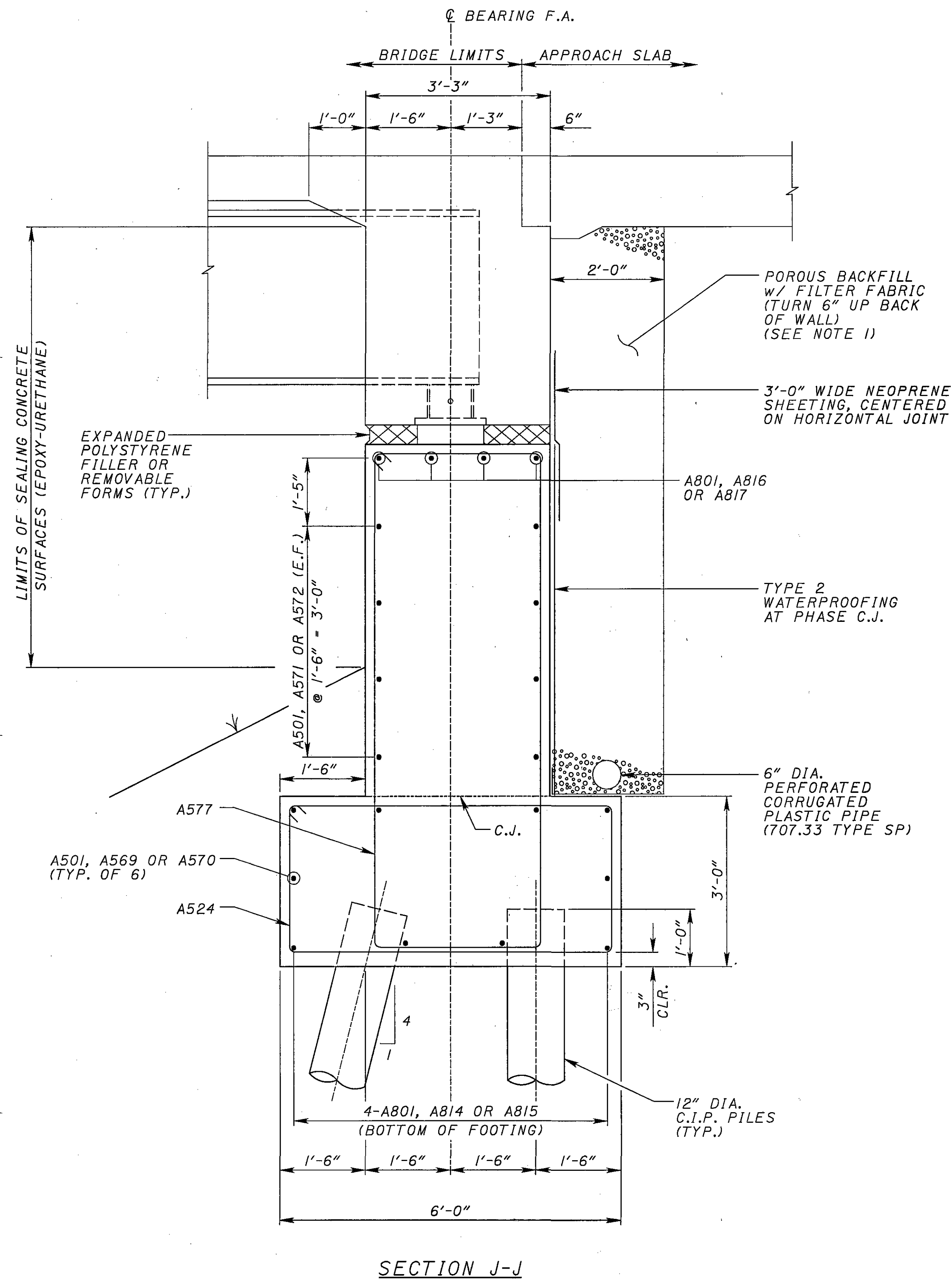
LEGEND:

- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- DIA. = DIAMETER
- E.F. = EACH FACE
- F.F. = FAR FACE
- N.F. = NEAR FACE
- R.A. = REAR ABUTMENT

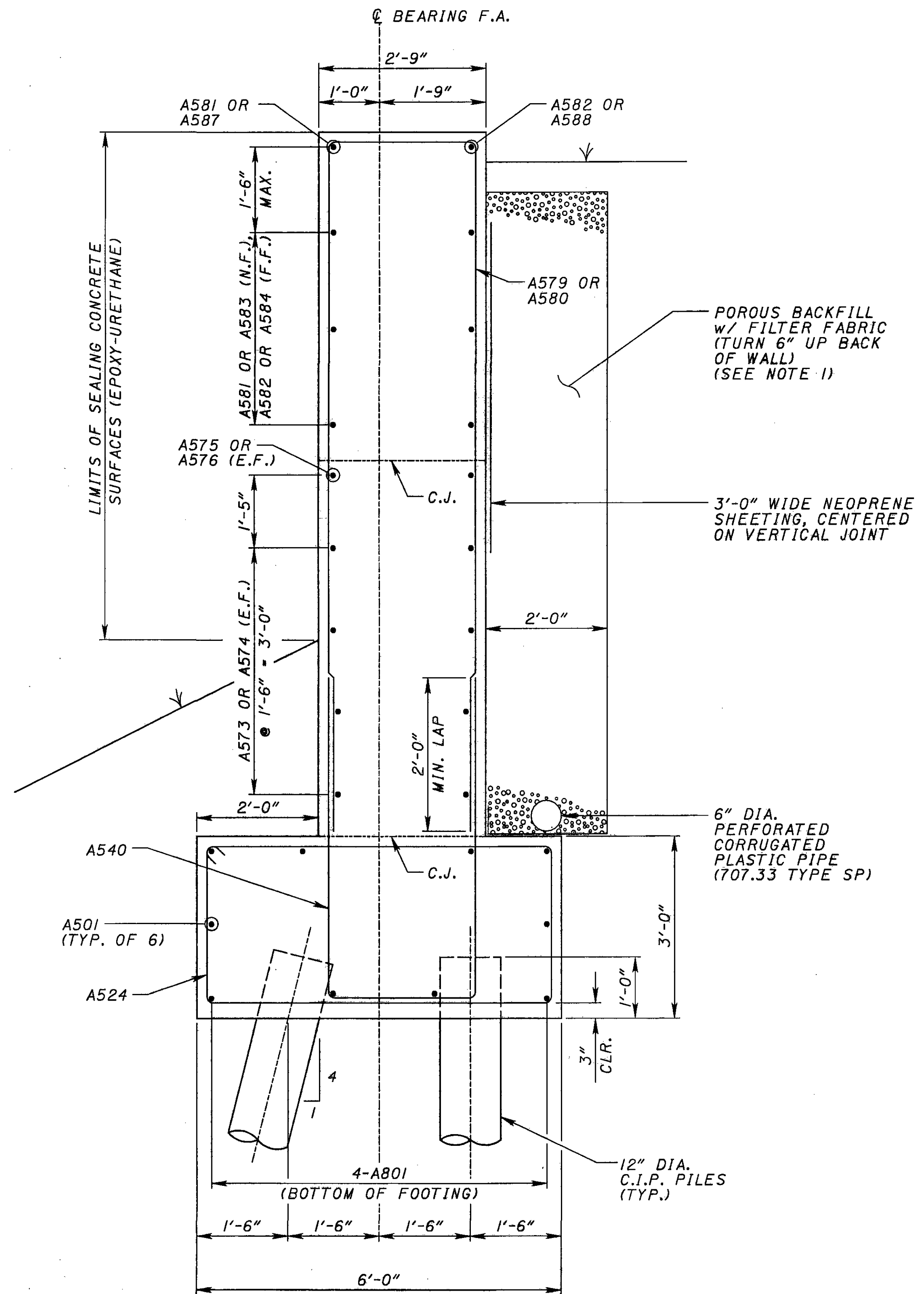
NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

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SECTION J-J



SECTION K-K

LEGEND:

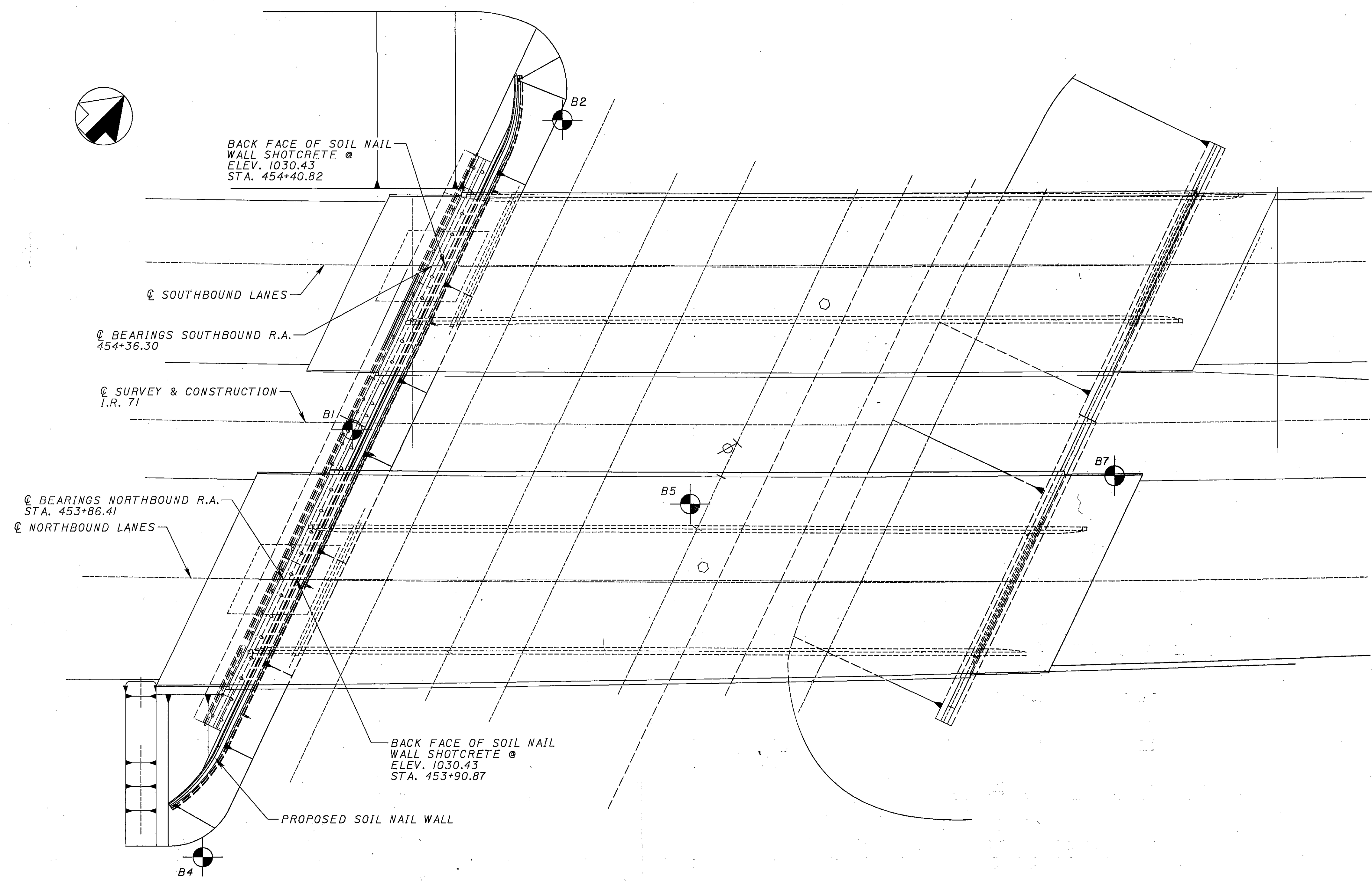
- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- DIA. = DIAMETER
- E.F. = EACH FACE
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- N.F. = NEAR FACE

NOTES:

1. EXTEND POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. ALL ABUTMENT CONCRETE SHALL BE CLASS C CONCRETE.

<p>FORWARD ABUTMENT DETAILS - NORTHBOUND</p> <p>BRIDGE NO. MED-71-0860 L/R</p> <p>OVER CSXT RR AND RYAN ROAD C.H. 40</p>		<p>DATE 6/04</p> <p>REVIEWED BES</p> <p>STRUCTURE FILE NUMBER 5203031 - LEFT</p> <p>5203066 - RIGHT</p>	<p>DESIGNED TTK</p> <p>CHECKED JHL</p>	<p>DRAWN TTK</p> <p>REVISIONS</p>	<p>BURGESS & NIPLE</p> <p>5095 Reed Road</p> <p>Columbus, Ohio 43220</p>
<p>MED-71-6.06</p> <p>PID-75657</p>		<p>32 / 65</p>		<p>949</p> <p>1120</p>	

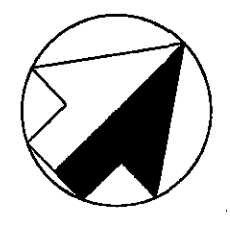
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GENERAL SOIL NAIL WALL PLAN

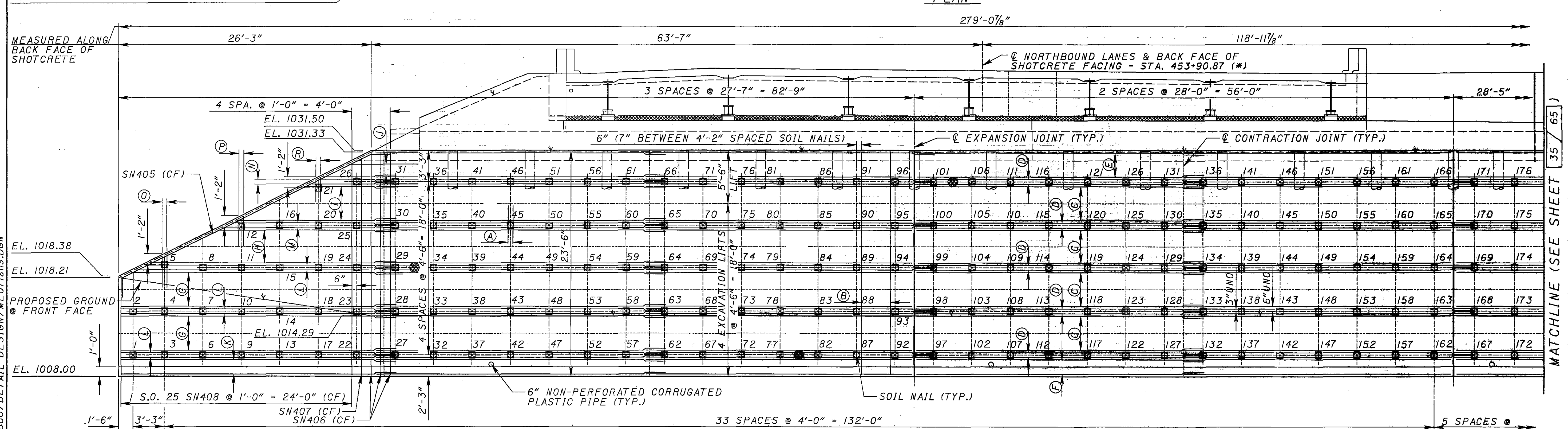
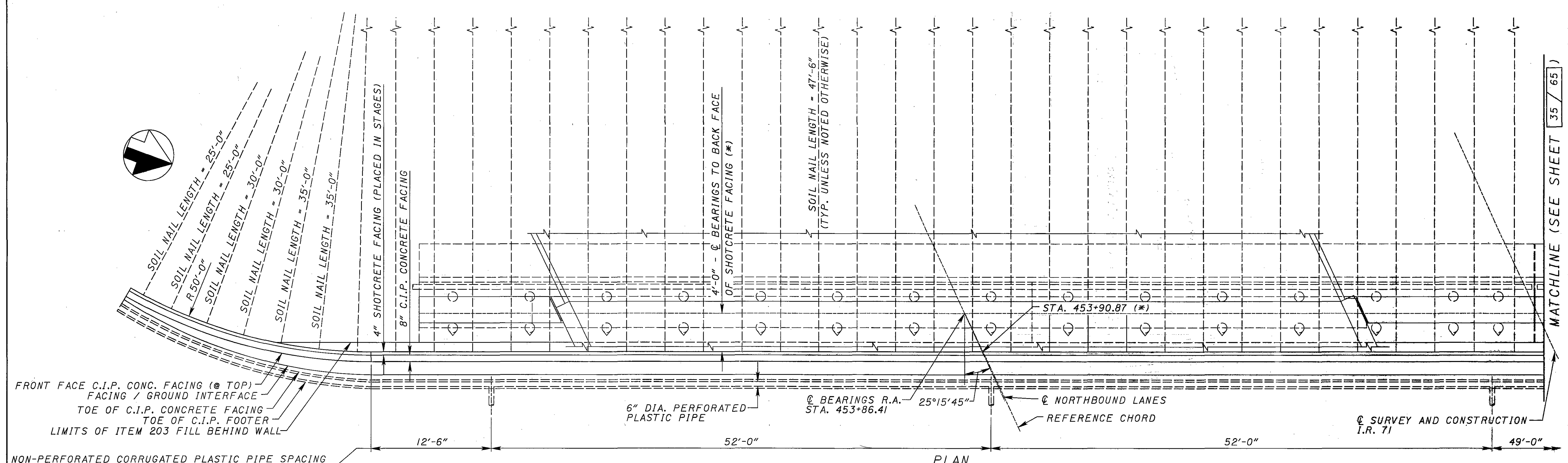
NOTES
1. SEE ROADWAY PLANS FOR RIGHT-OF-WAY LIMITS

LEGEND
- INDICATES BORING LOCATION



DATE 6/04		STRUCTURE FILE NUMBER 5203061 - LEFT 5203066 - RIGHT	
REVISIONS WTL	DRAWN MAK	DESIGNED VEA	CHECKED MAK
SOIL NAIL WALL GENERAL PLAN BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40			
MED-71-6.06 PID-75657		33 / 65	
950 1120			

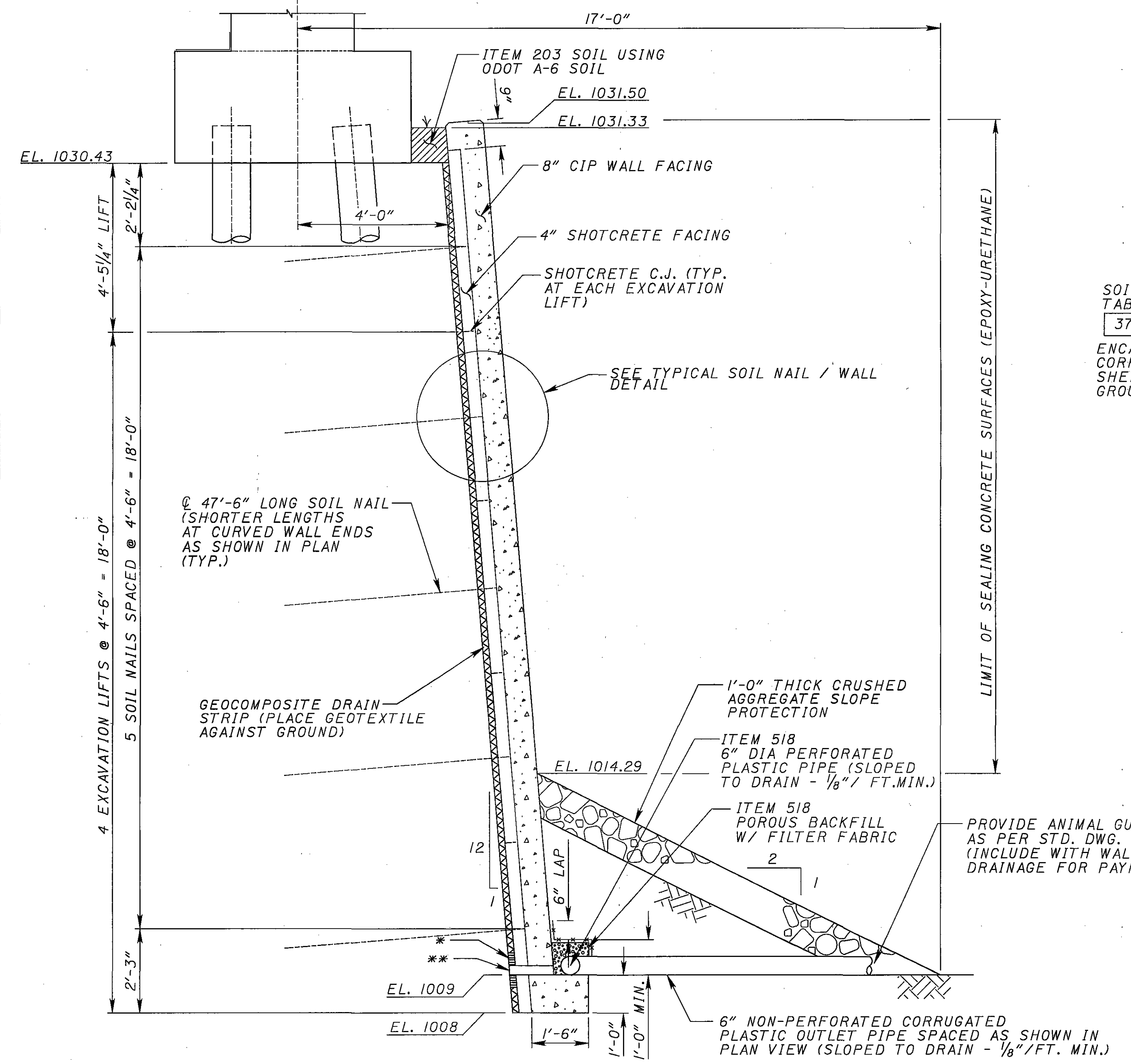
BURGESS & NIPLÉ
5095 Reed Road
Columbus, Ohio 43220



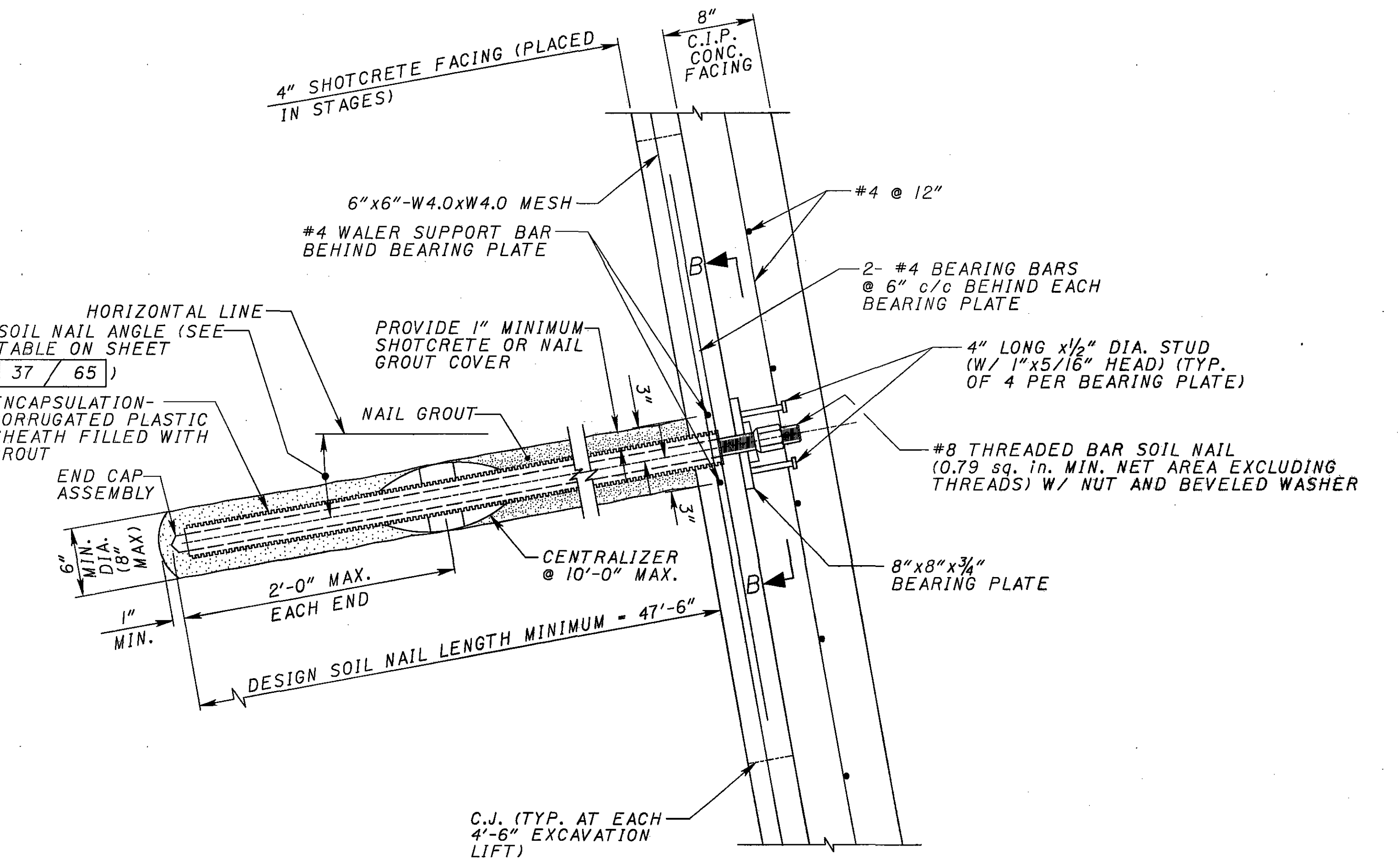
- NOTES:**
1. WORK THIS SHEET WITH SHEET 35 / 65
 2. WIRE MESH REINFORCING NOT SHOWN FOR CLARITY
 3. MIN. LAP: CONTINUOUS #4's - 2'-0", WIRE MESH - 9"
 4. FIELD BEND #4 BARS ALONG RADIUS
- LEGEND:**
- ⊙ = VERIFICATION NAIL
 - * = MEASURED @ ELEVATION 1030.43 (BOTTOM OF ABUTMENT FOOTING)
 - CF = WITHIN C.I.P. CONCRETE FACING
 - C.I.P. = CAST-IN-PLACE
 - SF = WITHIN SHOTCRETE FACING
 - U.N.O. = UNLESS NOTED OTHERWISE
- REAR SOIL NAIL WALL - 1**
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40

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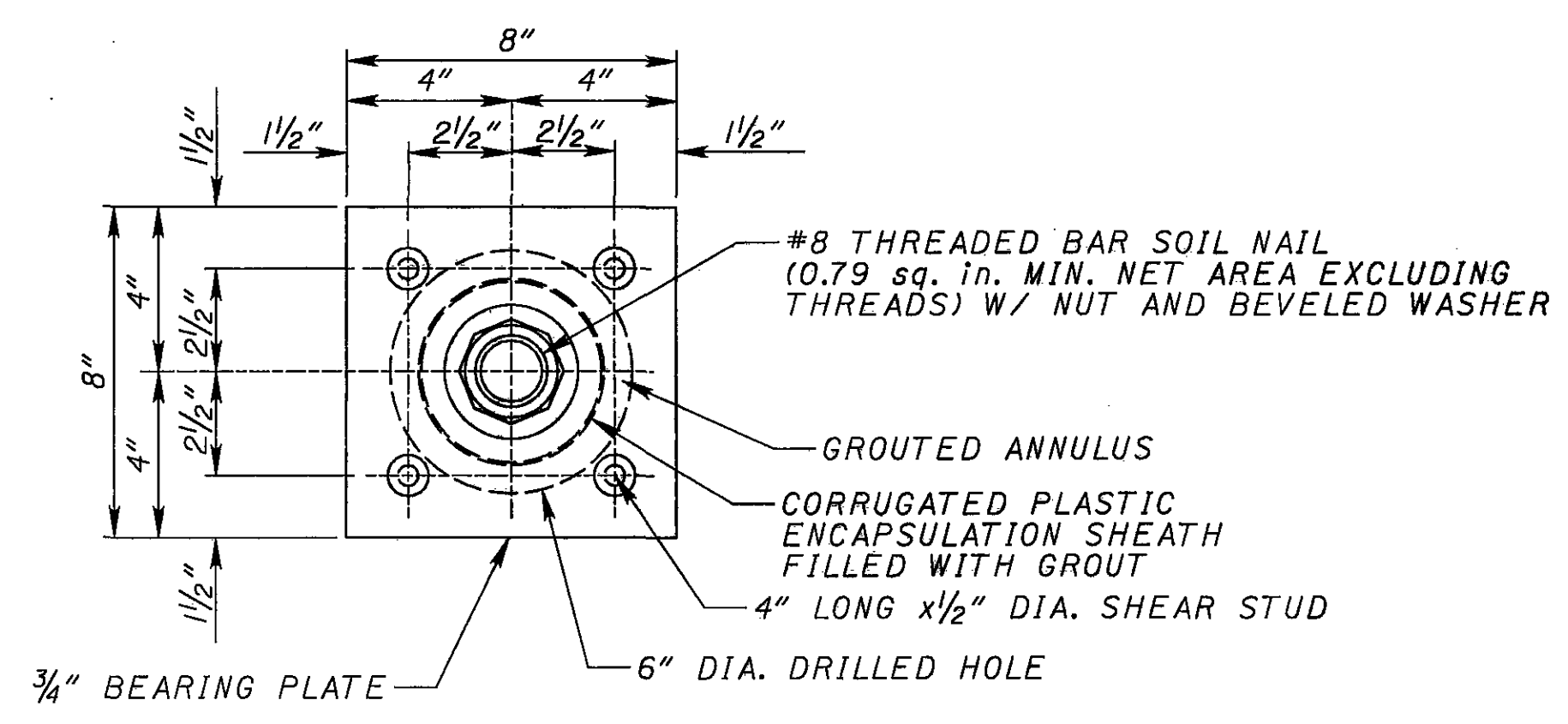
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SOIL NAIL WALL TYPICAL SECTION



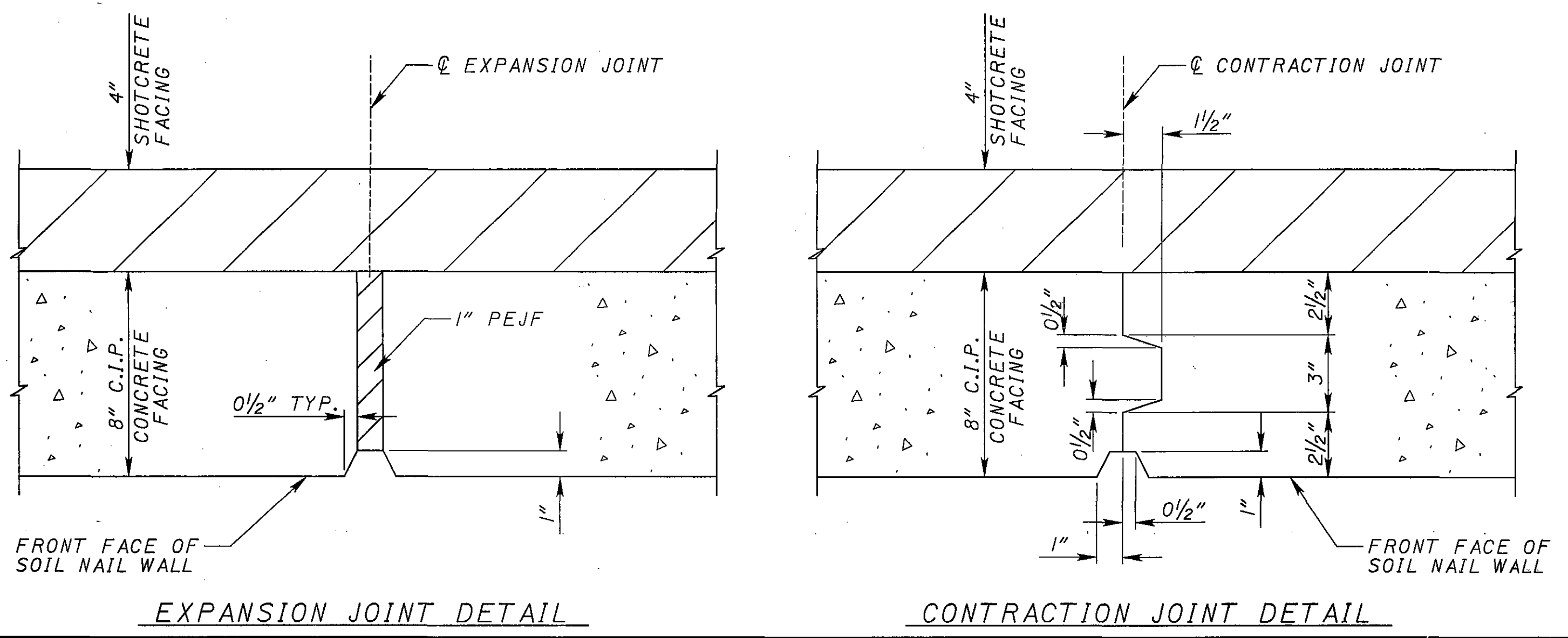
TYPICAL SOIL NAIL / WALL DETAIL



SECTION B-B

NOTES:
 1. ALL REINFORCING STEEL (EXCLUDING SOIL NAILS) SHALL BE EPOXY COATED

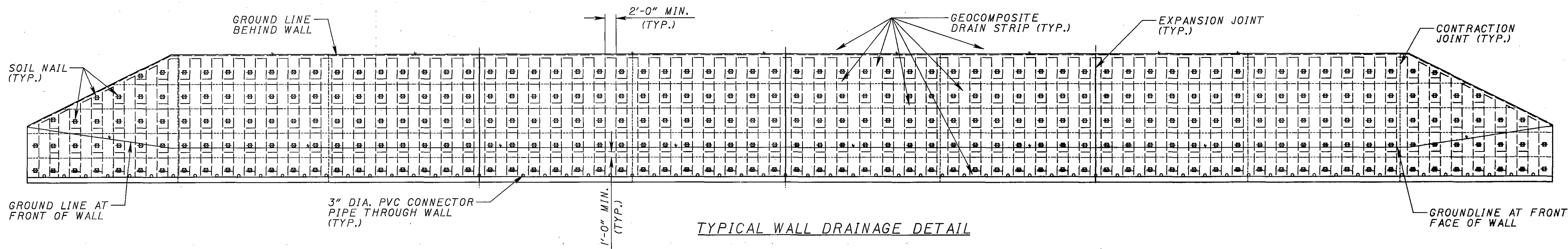
LEGEND:
 c/c - CENTER TO CENTER
 C.I.P. - CAST-IN-PLACE
 CONC. - CONCRETE
 P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
 UNO - UNLESS NOTED OTHERWISE
 * - PREFABRICATED DRAIN GRATE ATTACHED TO DRAIN STRIP
 ** - 3\"/>



EXPANSION JOINT DETAIL

CONTRACTION JOINT DETAIL

		DATE	6/04
		REVIEWED	WTL
DESIGNED	VEA	CHECKED	MAK
DRAWN	AAA/MAK	REVISIONS	
STRUCTURE FILE NUMBER	5203031	LEFT	RIGHT
PROJECT NUMBER	5203066		
REAR SOIL NAIL WALL DETAILS I BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40			
MED-71-6.06		PID-75657	
36		65	
953		1120	



TYPICAL WALL DRAINAGE DETAIL

SOIL NAIL DESIGN DATA TABLE				
SOIL NAIL NO.	A		B	A x B
	MINIMUM LENGTH (LIN. FT.)	ANGLE (DEGREES)	ALLOWABLE PULLOUT RESISTANCE, DESIGN ADHESION (LBS./FT.)	DESIGN LOAD (LBS.)
1, 2, 331, 332	25'-0"	15	750	18,750
3-5, 328-330	25'-0"	12	750	18,750
6-8, 325-327	30'-0"	15	750	22,500
9-12, 321-324	30'-0"	12	750	22,500
13-16, 317-320	35'-0"	15	750	26,250
17-21, 312-316	35'-0"	12	750	26,250
22-311	47'-6"	15	750	35,625

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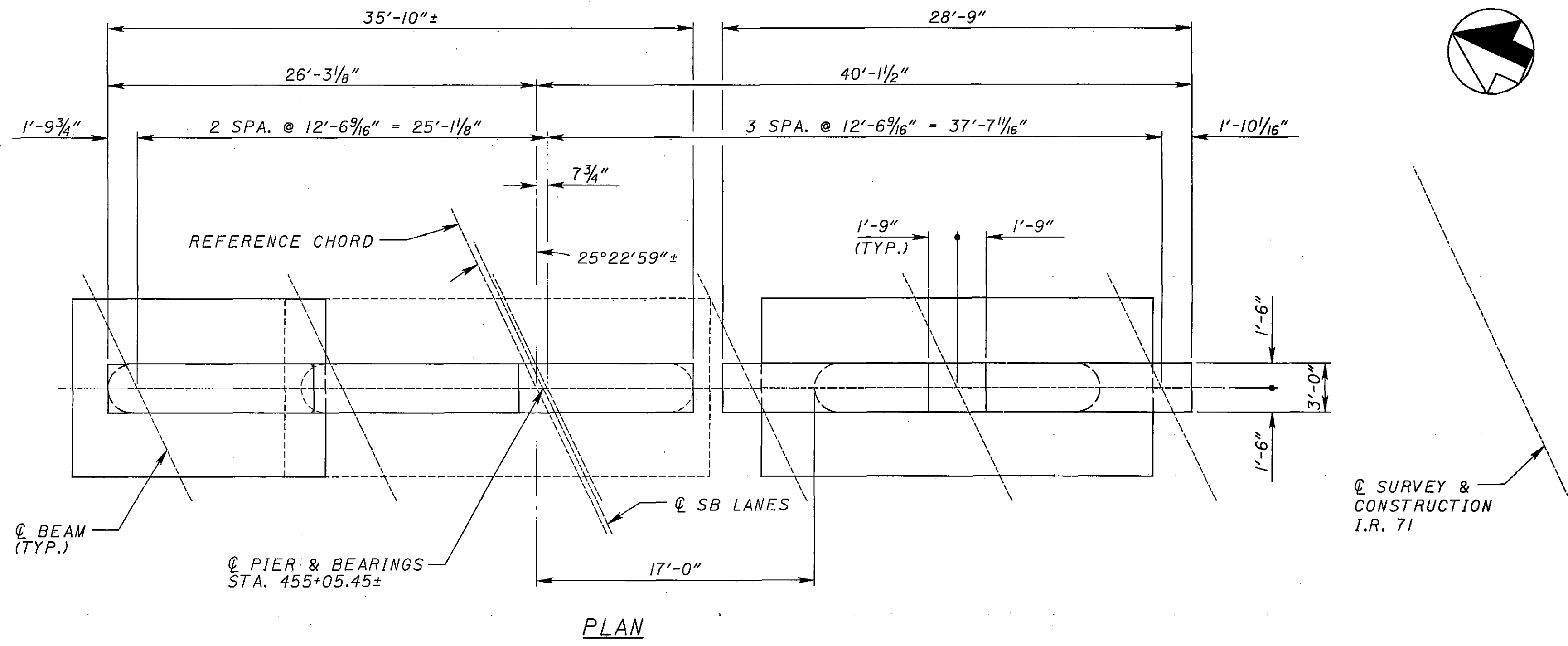
DESIGNED VEA	CHECKED MAK	DRAWN AAA/MAK	REVIEWED WTL	DATE 6/04
STRUCTURE FILE NUMBER 5203031 - LEFT			5203066 - RIGHT	

REAR SOIL NAIL WALL DETAILS 2
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

37 / 65

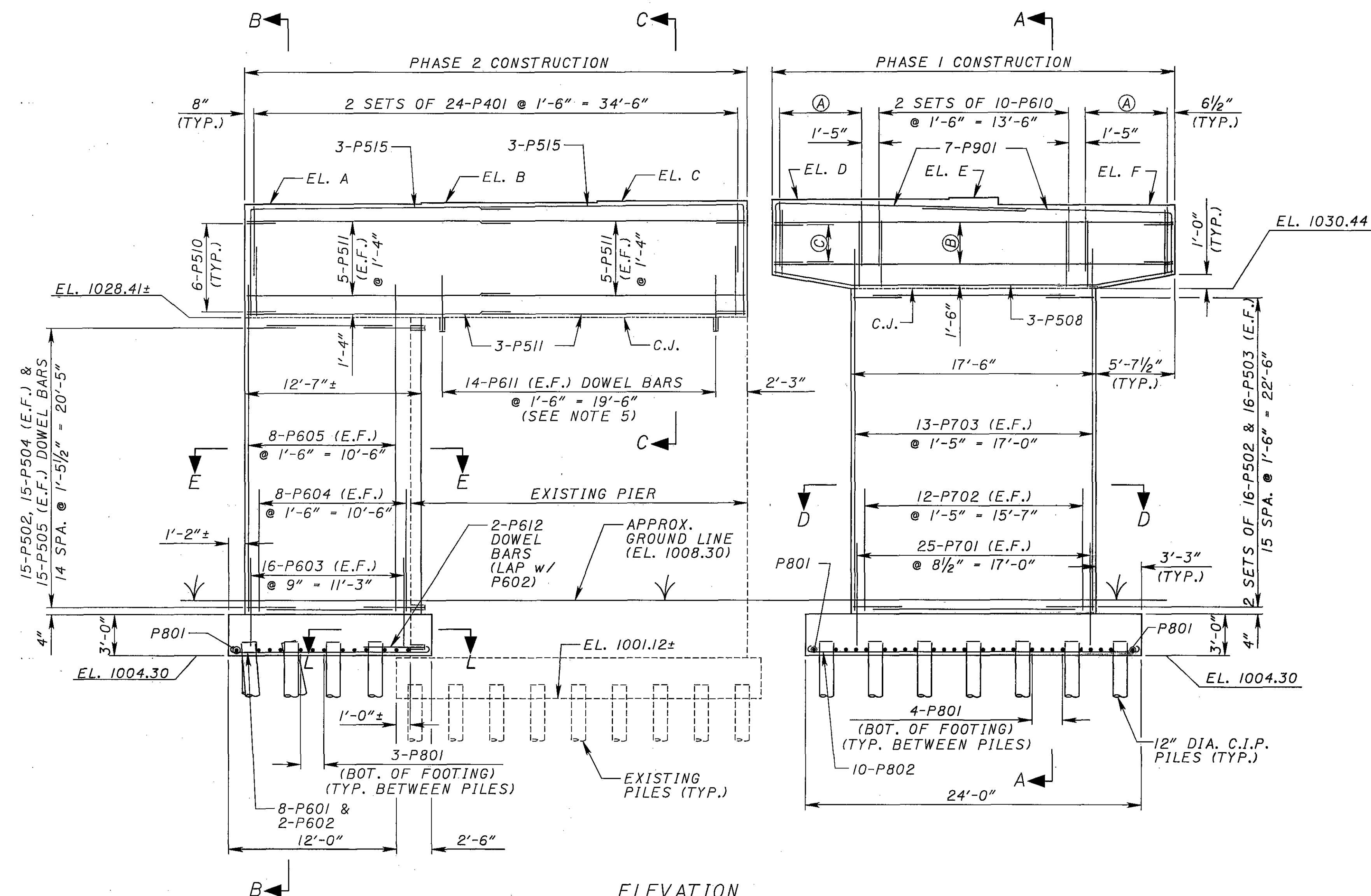
954
1120



ELEVATION	PIER 1
A	1036.56
B	1036.66
C	1036.77
D	1036.86
E	1036.96
F	1036.47

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PLAN



ELEVATION

(LATERAL TIES NOT SHOWN FOR CLARITY, SEE SHEET 42 / 65)

NOTES:

1. EMBED ALL DOWEL BARS 1'-0" INTO EXISTING STRUCTURE.
2. SEE SHEET 42 / 65 FOR SECTIONS A-A, B-B, C-C, D-D, E-E & L-L.
3. SEE SHEET 23 / 65 FOR PILING LAYOUT DETAILS AND FOUNDATION PLAN.
4. MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #7 BAR = 3'-11"
 #9 BAR = 7'-0"
5. SEE SHEET 42 / 65 FOR ADDITIONAL NOTES CONCERNING VERTICAL DOWEL BARS.

LEGEND:

- SB = SOUTHBOUND
- BOT. = BOTTOM
- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- DIA. = DIAMETER
- E.F. = EACH FACE

- Ⓐ = 2 SETS OF 9-P610 @ 8 1/2" = 5'-8"
- Ⓑ = 3-P509 (E.F.) @ 1'-6"
- Ⓒ = 3-P510 (TYP. EACH END)

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505 Res Road
Columbus, Ohio 43220

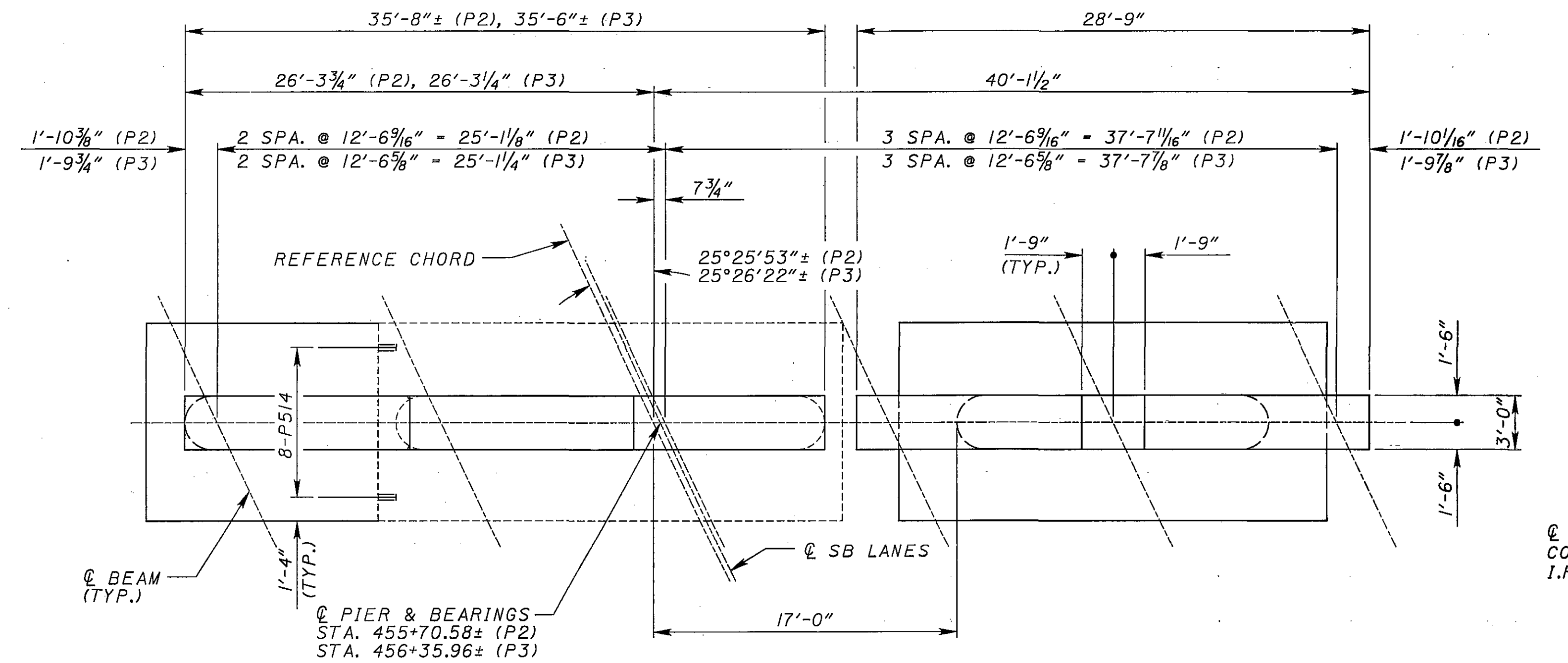
DATE	6/04
REVIEWED	WTL
DESIGNED	BES
DRAWN	CRC
CHECKED	TTK
STRUCTURE FILE NUMBER	5203031 - LEFT
	5203066 - RIGHT

PIER 1 PLAN & ELEVATION - SOUTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

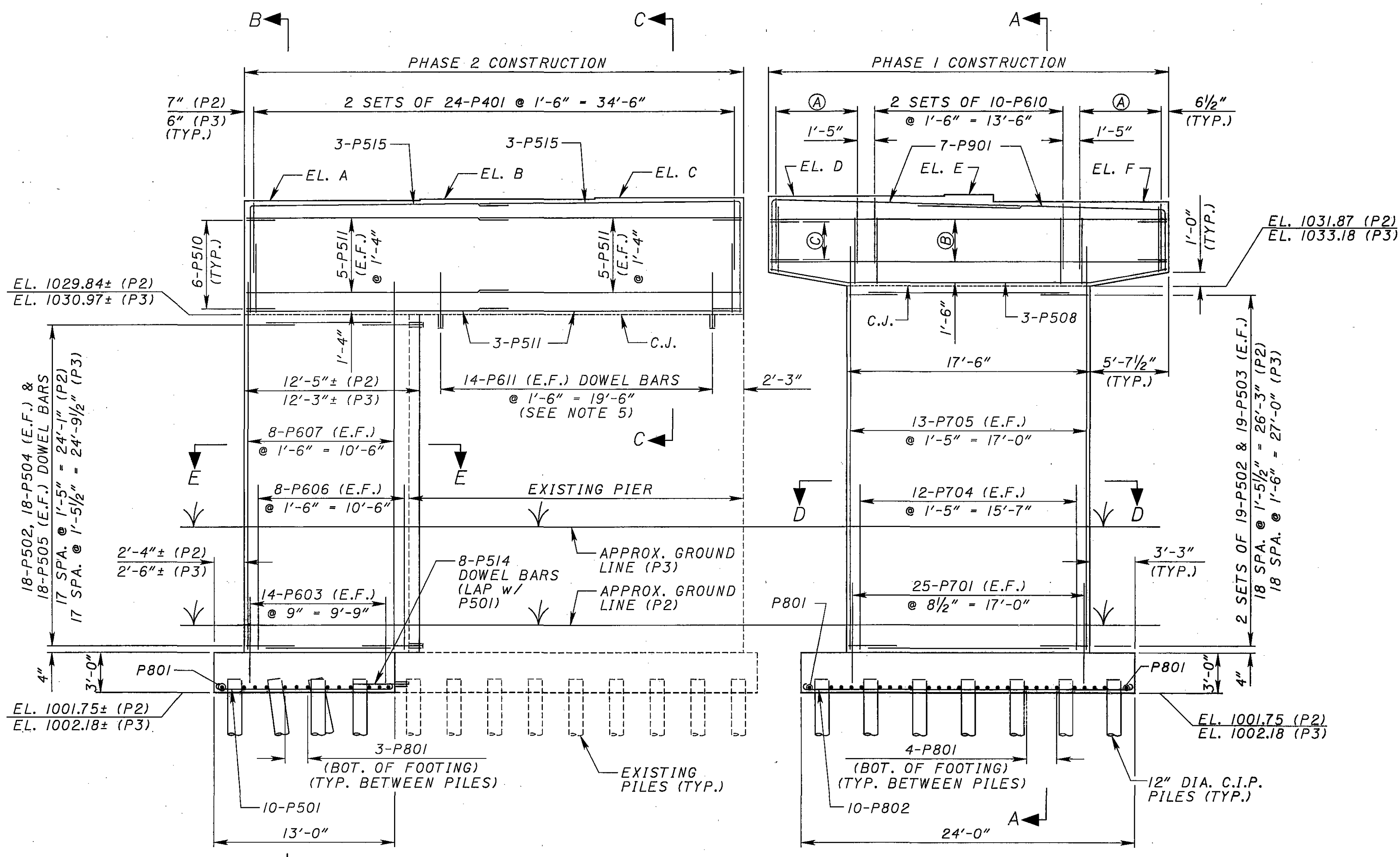
38 / 65

955
1120



ELEVATION	PIER 2	PIER 3
A	1037.94	1039.24
B	1038.04	1039.35
C	1038.15	1039.45
D	1038.25	1039.56
E	1038.36	1039.67
F	1037.87	1039.18

PLAN



ELEVATION

(LATERAL TIES NOT SHOWN FOR CLARITY, SEE SHEET 42 / 65)

NOTES:

- EMBED ALL DOWEL BARS 1'-0" INTO EXISTING STRUCTURE.
- SEE SHEET 42 / 65 FOR SECTIONS A-A, B-B, C-C, D-D & E-E.
- SEE SHEET 23 / 65 FOR PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #7 BAR = 3'-11"
 #9 BAR = 7'-0"
- SEE SHEET 42 / 65 FOR ADDITIONAL NOTES CONCERNING VERTICAL DOWEL BARS.

LEGEND:

- SB = SOUTHBOUND
- BOT. = BOTTOM
- C.I.P. = CAST-IN-PLACE
- C.J. = CONSTRUCTION JOINT
- DIA. = DIAMETER
- E.F. = EACH FACE
- P2 = PIER 2
- P3 = PIER 3

- (A) = 2 SETS OF 9-P610 @ 8 1/2" = 5'-8"
- (B) = 3-P509 (E.F.) @ 1'-6"
- (C) = 3-P510 (TYP. EACH END)

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BURGESS & NIPLE
 5085 Reed Road
 Columbus, Ohio 43220

DATE 6/04
 REVIEWED WTL
 STRUCTURE FILE NUMBER 5203031
 DESIGNED BES
 CHECKED TTK

PIERS 2 & 3 PLAN & ELEVATION - SOUTHBOUND
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
 PID-75657

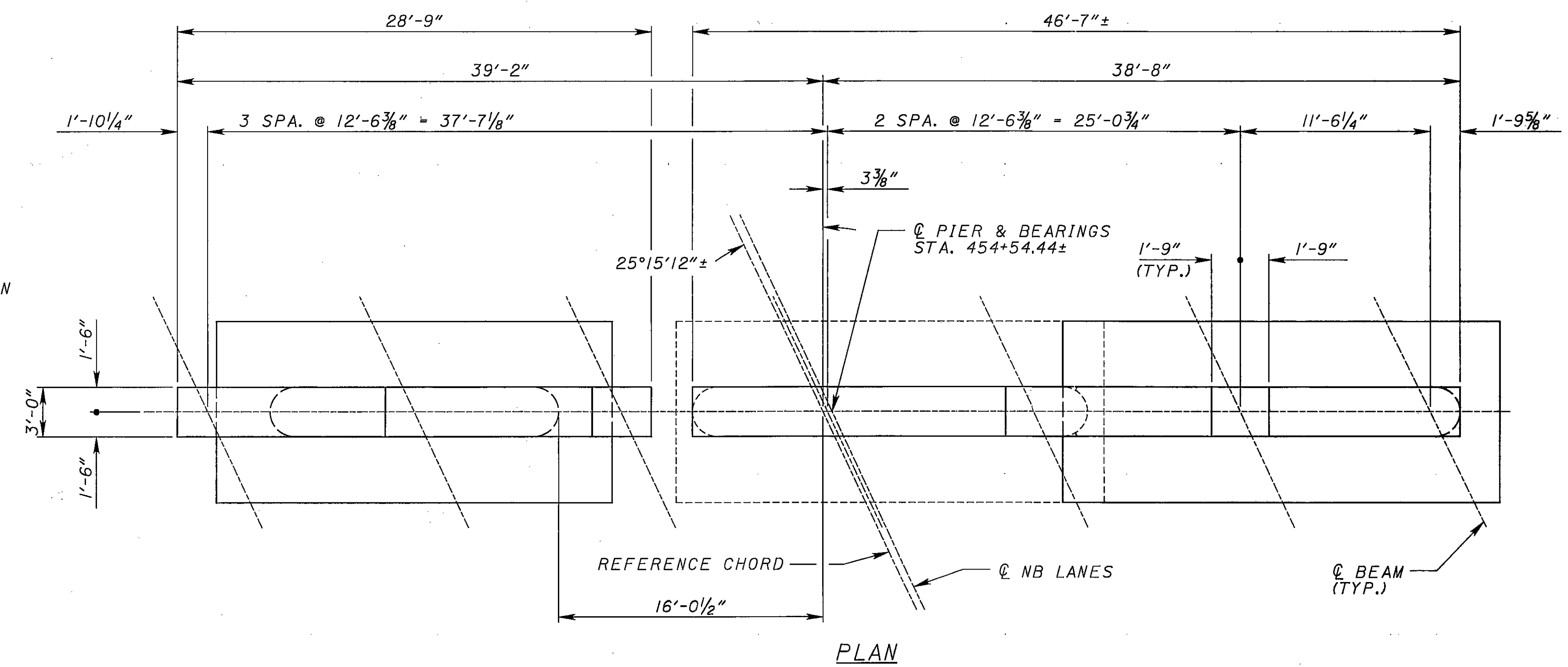
39 / 65

956
 1120

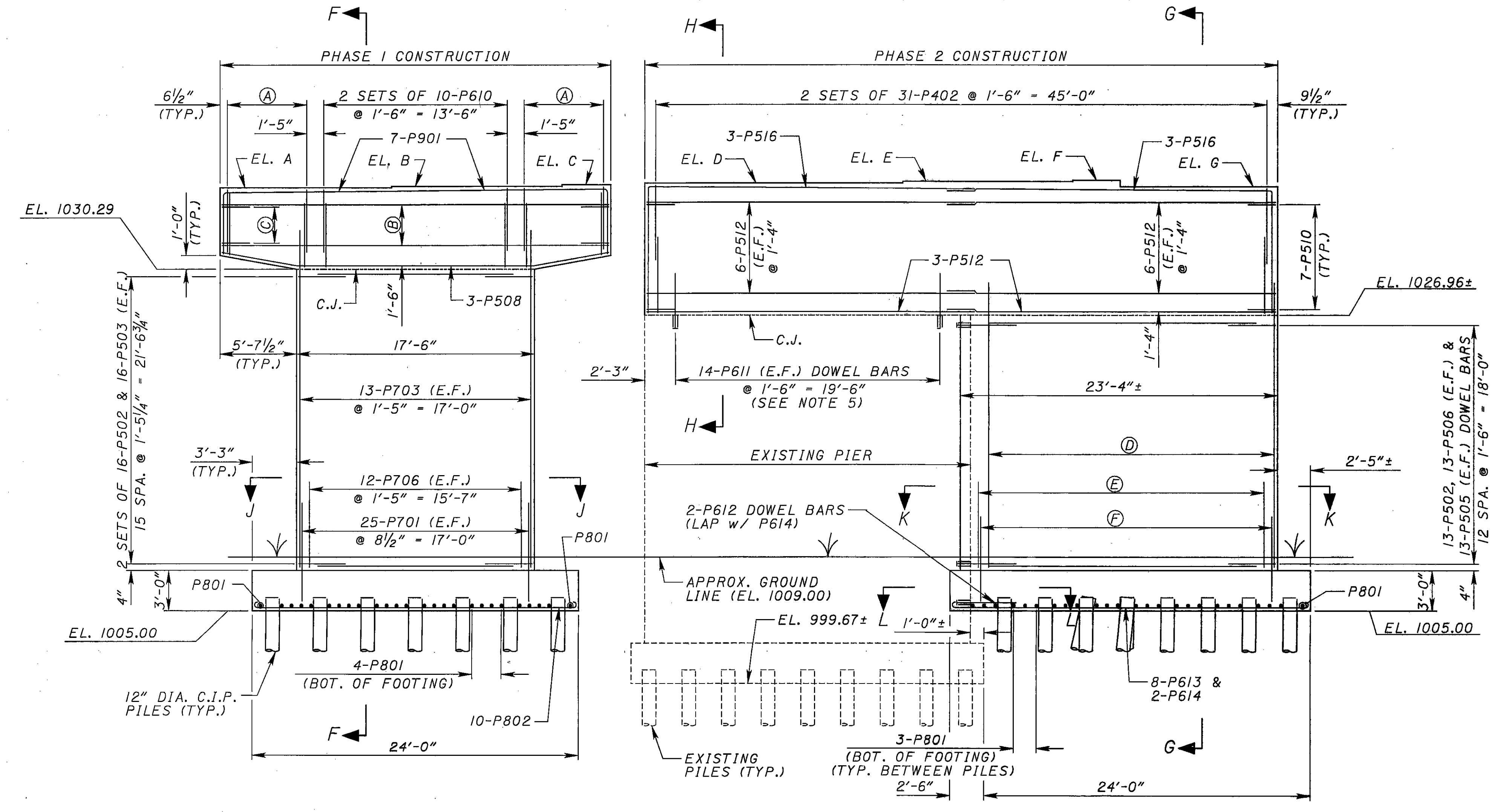
DESIGNED	BES	CHECKED	TTK
DRAWN	CRC	REVIEWED	
REVIEWED	WTL	STRUCTURE FILE NUMBER	5203031 - LEFT 5203066 - RIGHT
DATE	6/04		

PIER 1 PLAN & ELEVATION - NORTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657



ELEVATION	PIER 1
A	1036.31
B	1036.42
C	1036.53
D	1036.64
E	1036.75
F	1036.86
G	1036.40



NOTES:

- EMBED ALL DOWEL BARS 1'-0" INTO EXISTING STRUCTURE.
- SEE SHEET **43 / 65** FOR SECTIONS F-F, G-G, H-H, J-J & K-K AND SHEET **42 / 65** FOR SECTION L-L.
- SEE SHEET **24 / 65** FOR PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
 #4 BAR = 1'-7"
 #5 BAR = 2'-0"
 #6 BAR = 3'-1"
 #7 BAR = 3'-H"
 #9 BAR = 7'-0"
- SEE SHEET **43 / 65** FOR ADDITIONAL NOTES CONCERNING VERTICAL DOWEL BARS.

LEGEND:

- NB - NORTHBOUND
- BOT. - BOTTOM
- C.I.P. - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- DIA. - DIAMETER
- E.F. - EACH FACE
- Ⓐ - 2 SETS OF 9-P610 @ 8 1/2" = 5'-8"
- Ⓑ - 3-P509 (E.F.) @ 1'-6"
- Ⓒ - 3-P510 (TYP. EACH END)
- Ⓓ - 15-P609 (E.F.) @ 1'-6" = 21'-0"
- Ⓔ - 15-P608 (E.F.) @ 1'-6" = 21'-0"
- Ⓕ - 30-P603 (E.F.) @ 9" = 21'-9"

ELEVATION
(LATERAL TIES NOT SHOWN FOR CLARITY, SEE SHEET **43 / 65**)

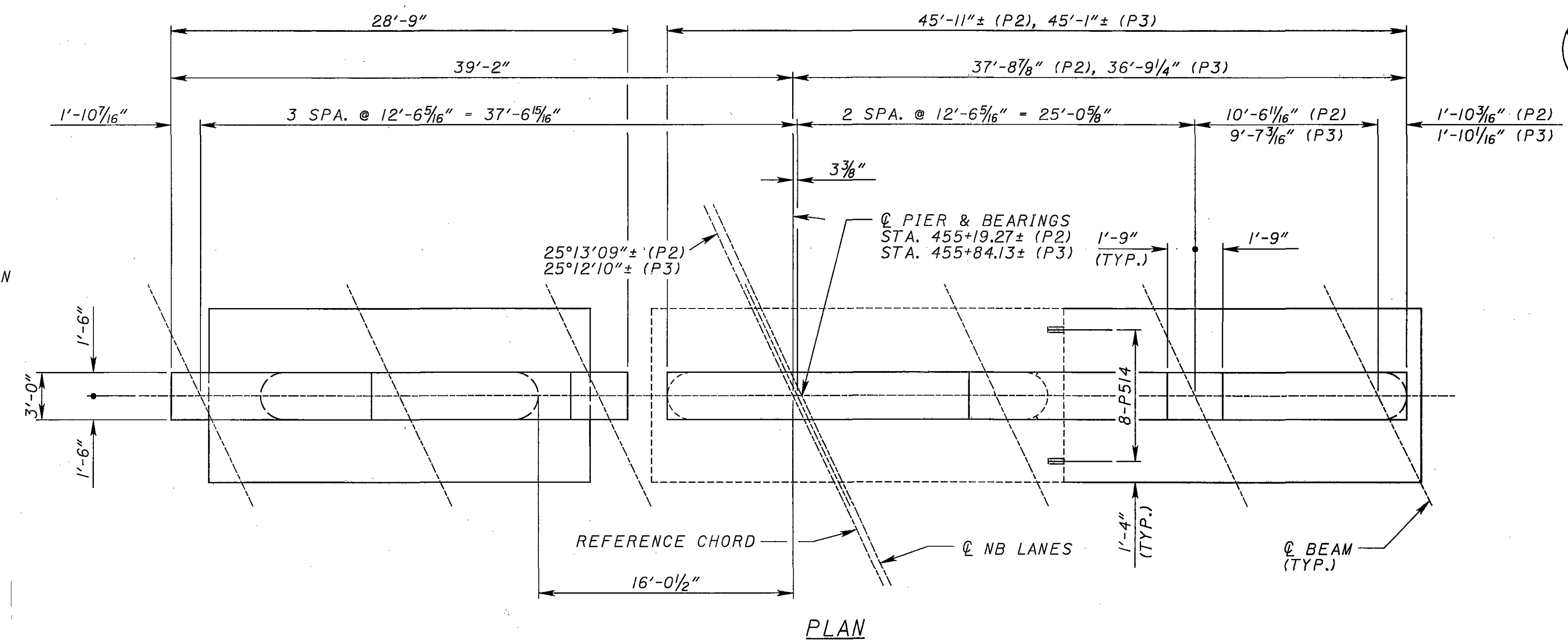
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Q SURVEY & CONSTRUCTION I.R. 71

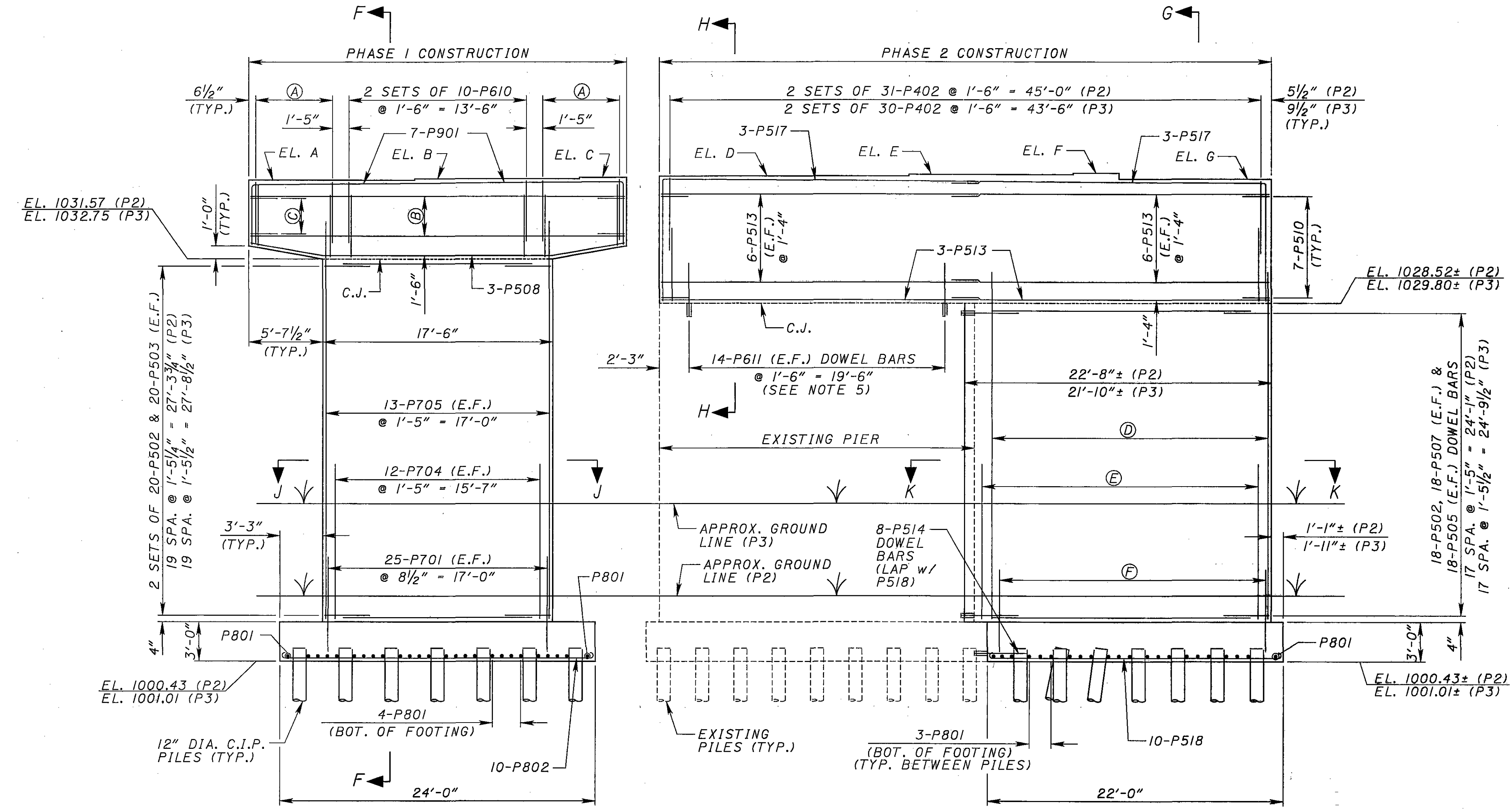
DATE	6/04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5203031 - LEFT
REVISION	5203036 - RIGHT
DESIGNED	BES
CHECKED	TTK

PIERS 2 & 3 PLAN & ELEVATION - NORTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657



ELEVATION	PIER 2	PIER 3
A	1037.58	1038.76
B	1037.69	1038.88
C	1037.81	1039.00
D	1037.92	1039.12
E	1038.03	1039.24
F	1038.14	1039.26
G	1037.67	1038.83



ELEVATION
(LATERAL TIES NOT SHOWN FOR CLARITY, SEE SHEET 43 / 65)

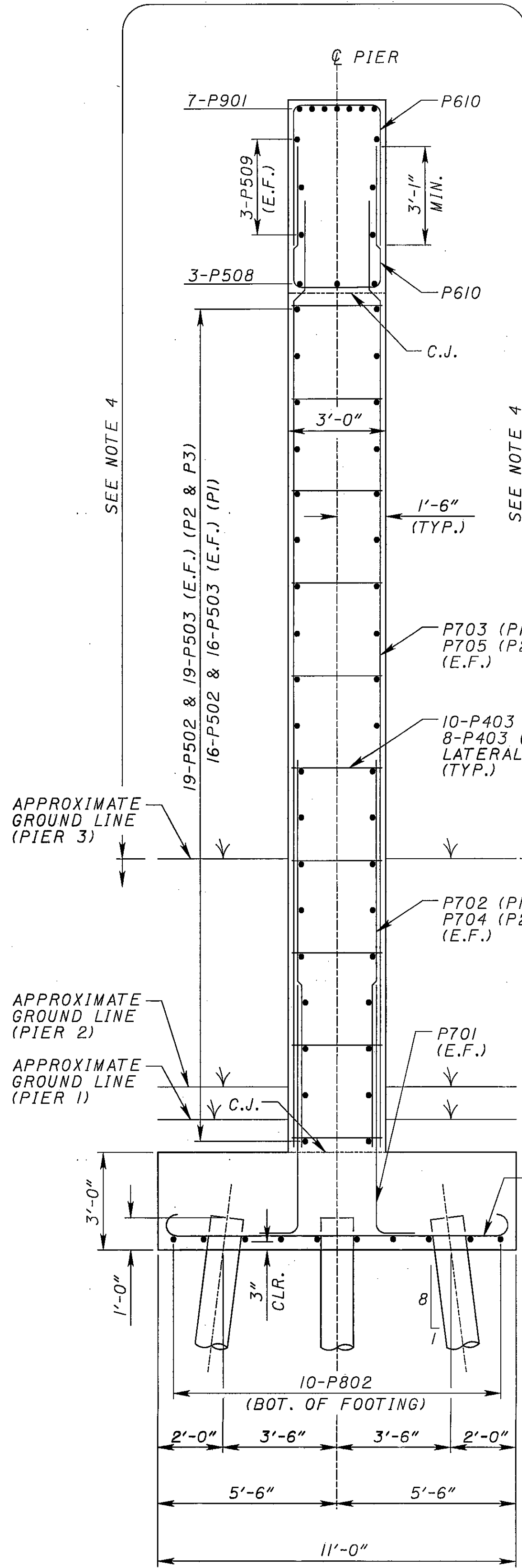
NOTES:

- EMBED ALL DOWEL BARS 1'-0" INTO EXISTING STRUCTURE.
- SEE SHEET 43 / 65 FOR SECTIONS F-F, G-G, H-H, J-J & K-K.
- SEE SHEET 24 / 65 FOR PILING LAYOUT DETAILS AND FOUNDATION PLAN.
- MINIMUM STEEL LAP LENGTHS:
#4 BAR = 1'-7"
#5 BAR = 2'-0"
#6 BAR = 3'-1"
#7 BAR = 3'-11"
#9 BAR = 7'-0"
- SEE SHEET 43 / 65 FOR ADDITIONAL NOTES CONCERNING VERTICAL DOWEL BARS.

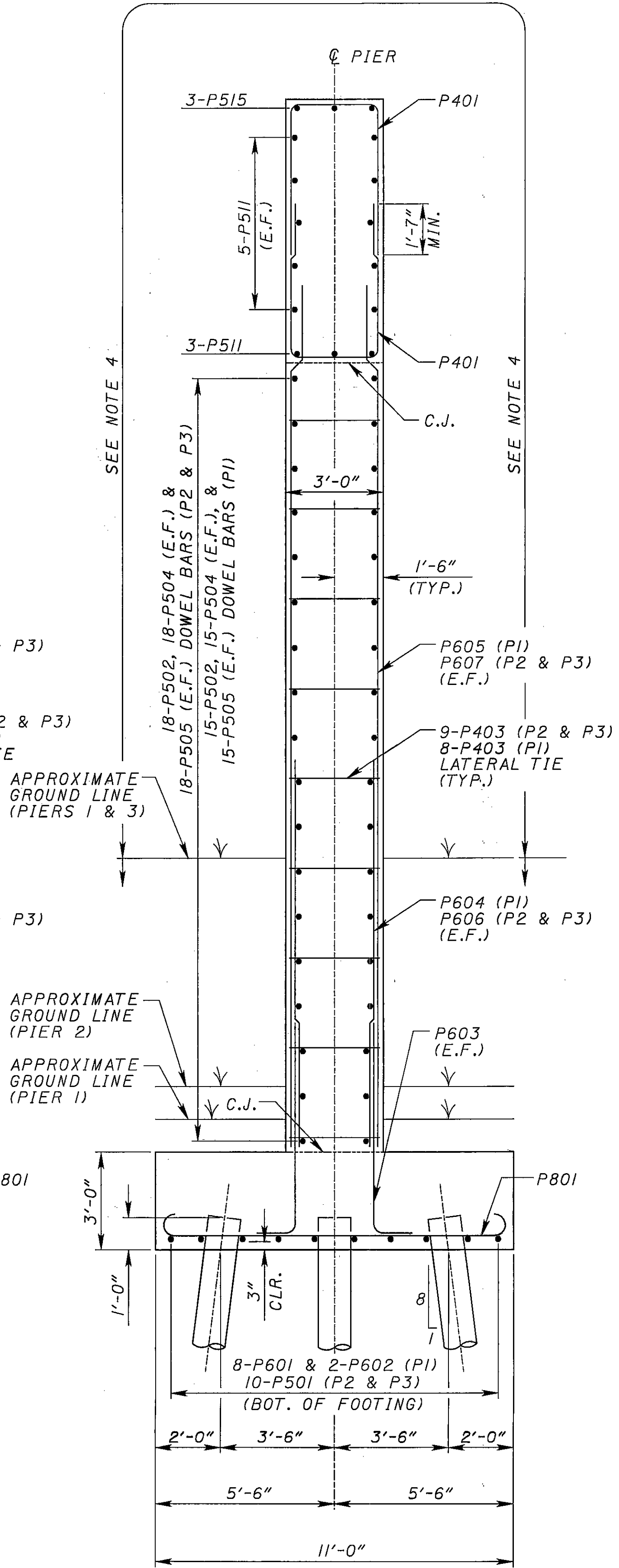
LEGEND:

- NB - NORTHBOUND
 - BOT. - BOTTOM
 - C.I.P. - CAST-IN-PLACE
 - C.J. - CONSTRUCTION JOINT
 - DIA. - DIAMETER
 - E.F. - EACH FACE
 - P2 - PIER 2
 - P3 - PIER 3
- (A) - 2 SETS OF 9-P610 @ 8 1/2" = 5'-8"
 - (B) - 3-P509 (E.F.) @ 1'-6"
 - (C) - 3-P510 (TYP. EACH END)
 - (D) - 15-P607 (E.F.) @ 1'-6" = 21'-0" (P2)
15-P607 (E.F.) @ 1'-5" = 19'-10" (P3)
 - (E) - 15-P606 (E.F.) @ 1'-6" = 21'-0" (P2)
15-P606 (E.F.) @ 1'-5" = 19'-10" (P3)
 - (F) - 28-P603 (E.F.) @ 9" = 20'-3" (P2)
28-P603 (E.F.) @ 8 1/2" = 19'-11 1/2" (P3)

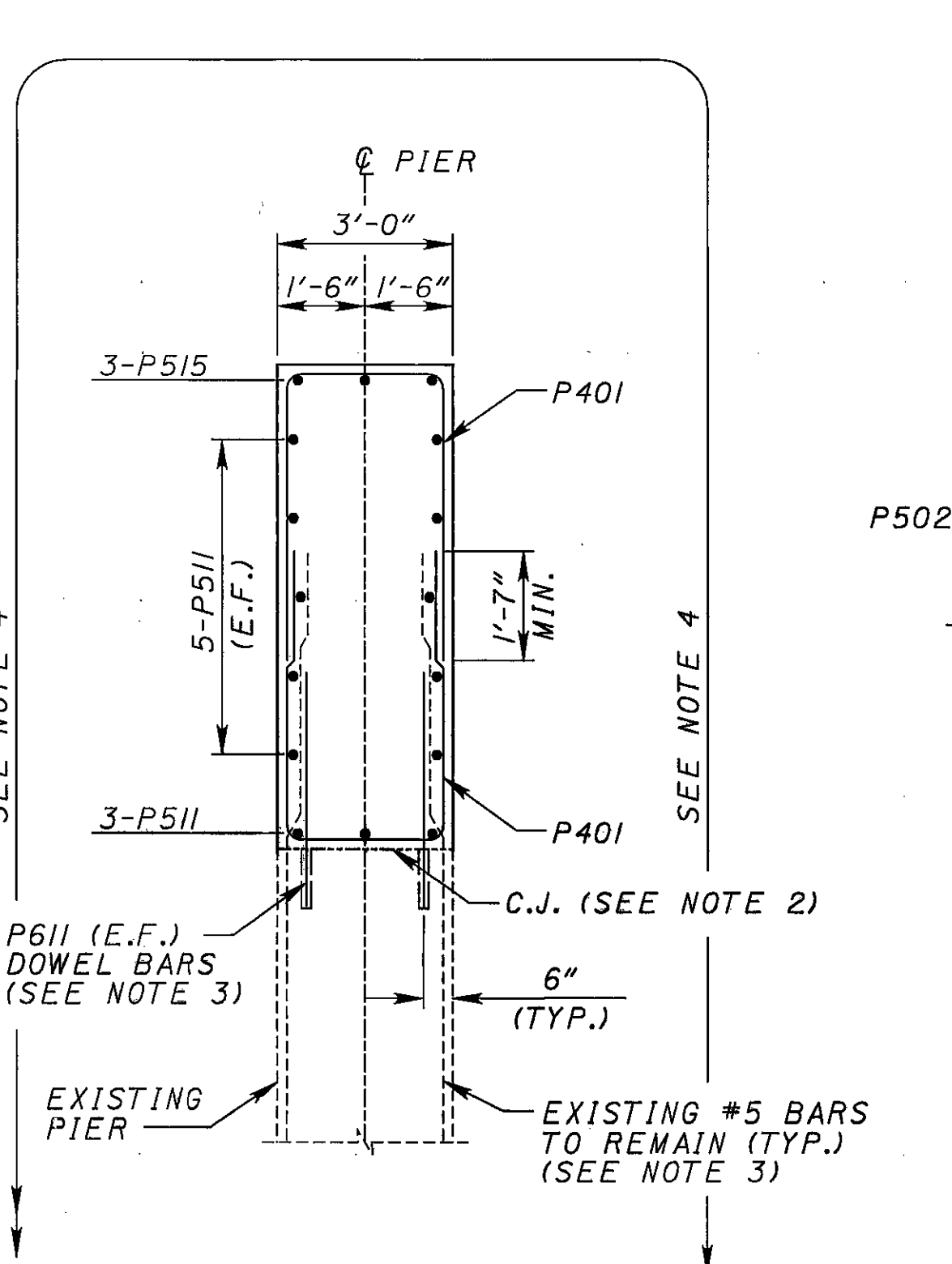
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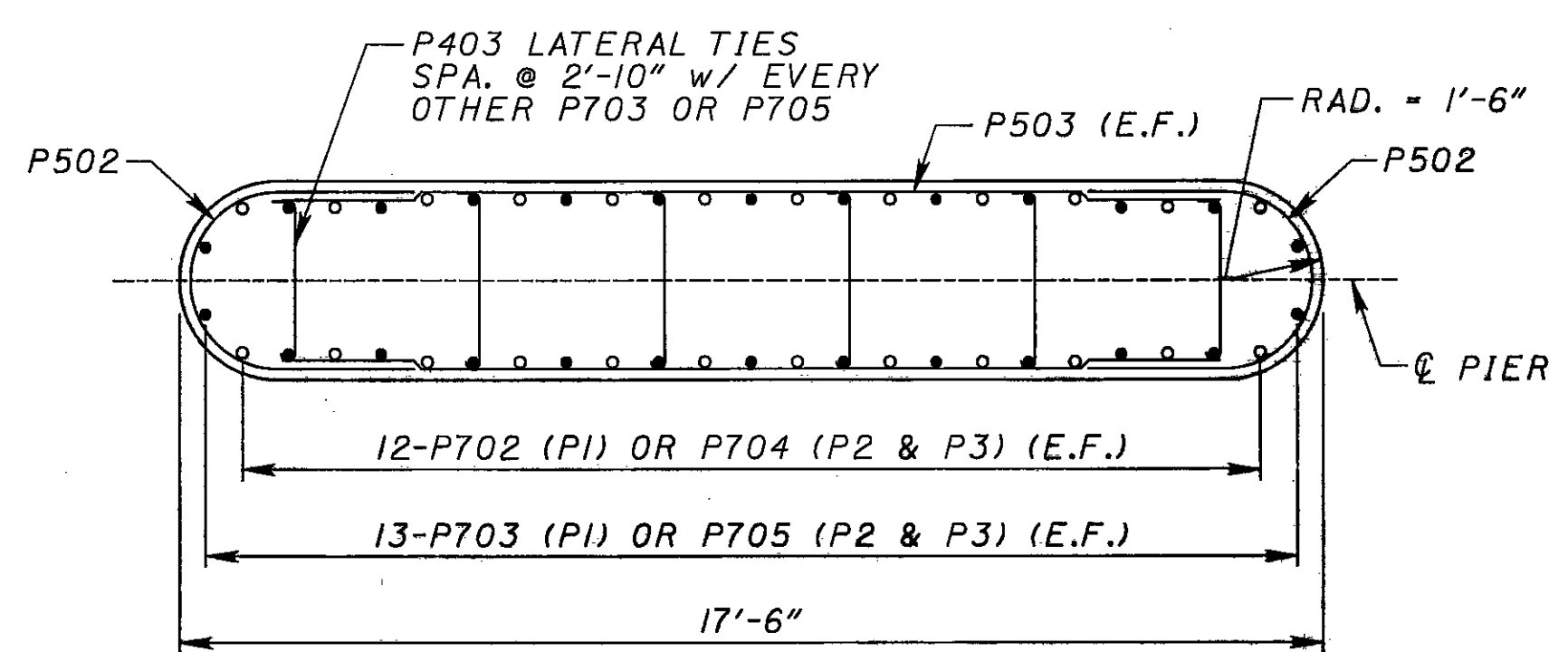
SECTION A-A



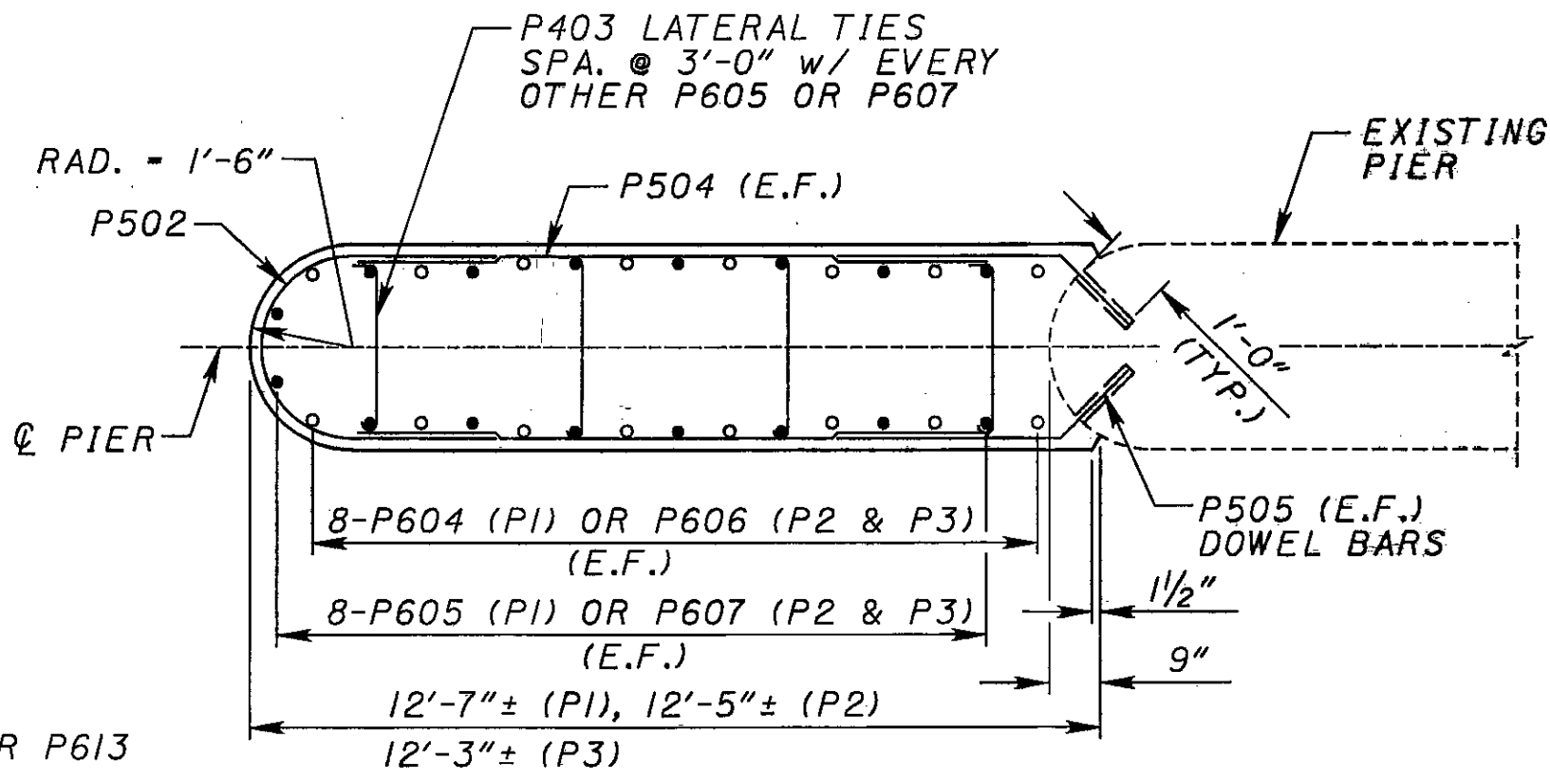
SECTION B-B



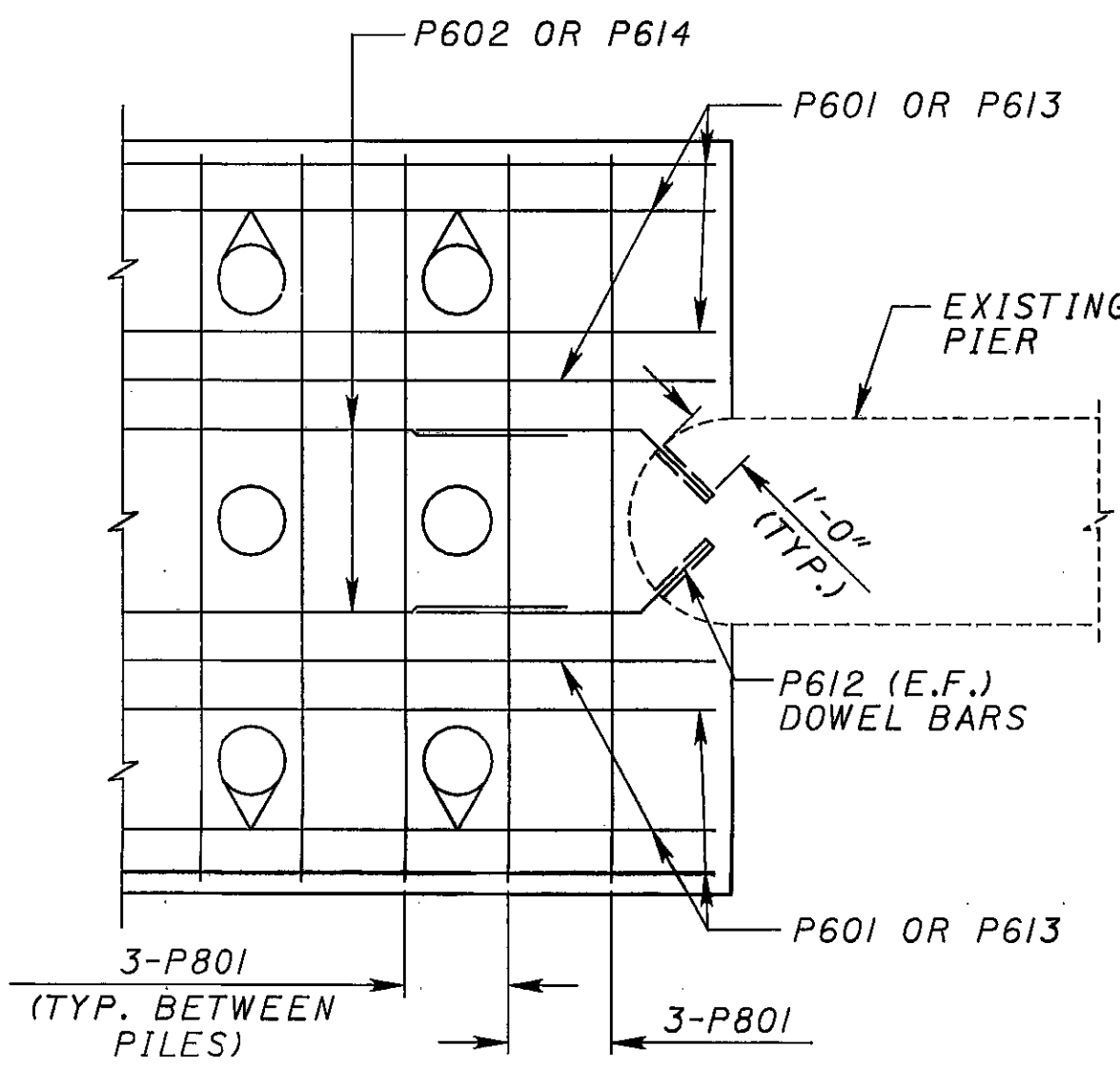
SECTION C-C



SECTION D-D
(FOOTING NOT SHOWN)



SECTION E-E
(FOOTING NOT SHOWN)

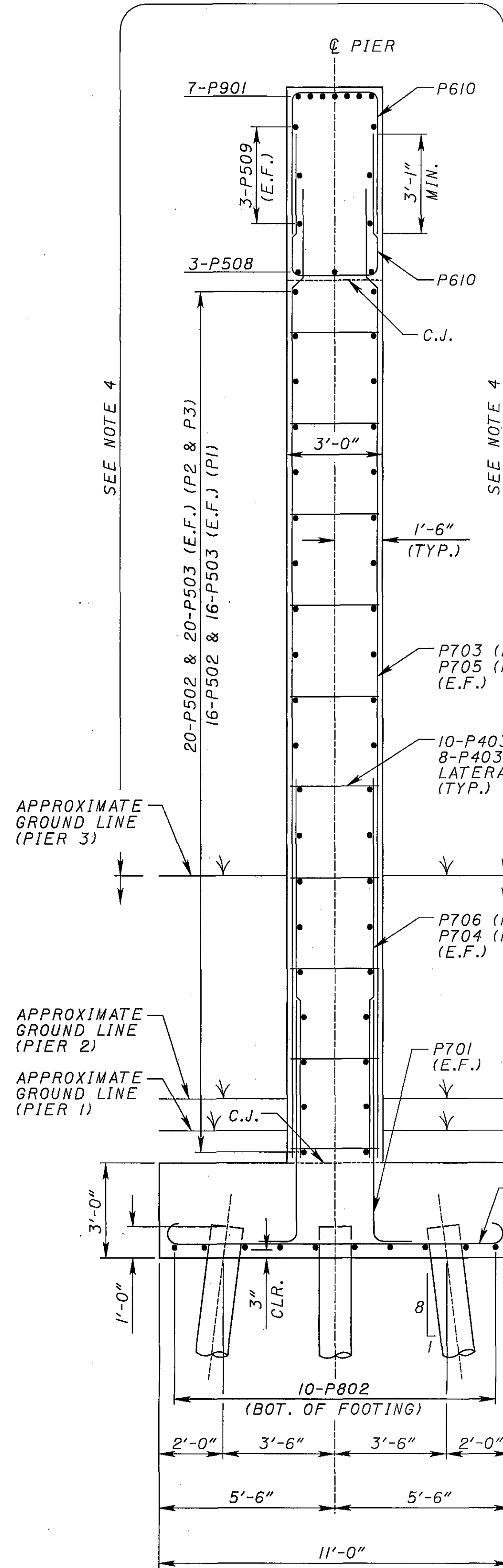


SECTION L-L
(EXISTING FOOTING NOT SHOWN)

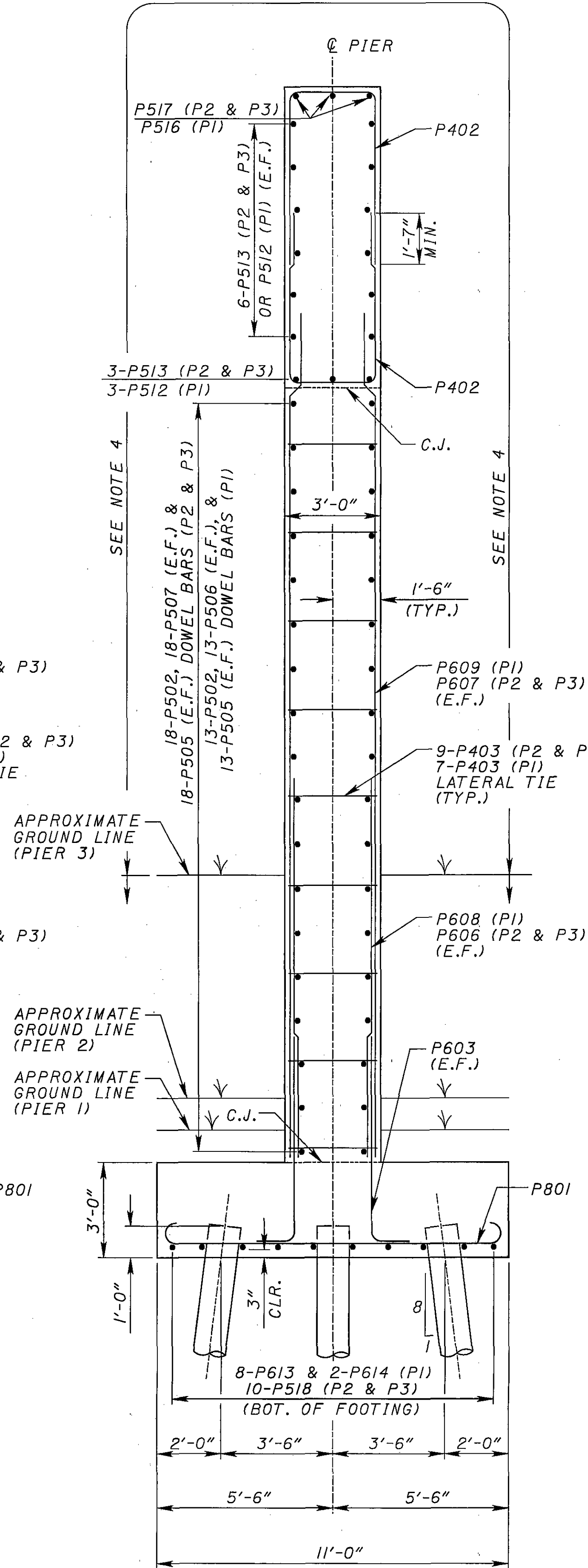
- NOTES:**
- EMBED ALL DOWEL BARS 1'-0" INTO EXISTING STRUCTURE
 - THE EXPOSED EXISTING HORIZONTAL CONCRETE SURFACE THAT IS TO BE COVERED WITH NEW CONCRETE SHALL BE ROUGH AND IRREGULAR WITH AN AMPLITUDE OF 1/4" OR MORE.
 - THE CONTRACTOR HAS THE OPTION OF SALVAGING EXISTING VERTICAL NO. 5 BARS THAT PROJECT FROM WALL INTO CAP OR PROVIDING NEW NO. 5 DOWELS. IF NEW DOWELS ARE PROVIDED, INSTALL PER 510 USING NONSHRINK, NONMETALLIC GROUT. IF EXISTING BARS ARE RE-USED, FIELD-CUT (IF NECESSARY) TO PROVIDE 2" MIN. CLEAR COVER TO TOP OF PROPOSED CONCRETE CAP. EXISTING BARS SHALL PROJECT AT LEAST 2'-0" ABOVE THE REMOVAL LINE. INCLUDE FIELD-CUTTING WITH ITEM 202 FOR PAYMENT.
 - LIMITS OF SEALING (EPOXY-URETHANE). SEAL ALL SURFACES ABOVE GROUND.

- LEGEND:**
- BOT. = BOTTOM
 - C.J. = CONSTRUCTION JOINT
 - CLR. = CLEAR
 - E.F. = EACH FACE
 - RAD. = RADIUS
 - P1 = PIER 1
 - P2 = PIER 2
 - P3 = PIER 3

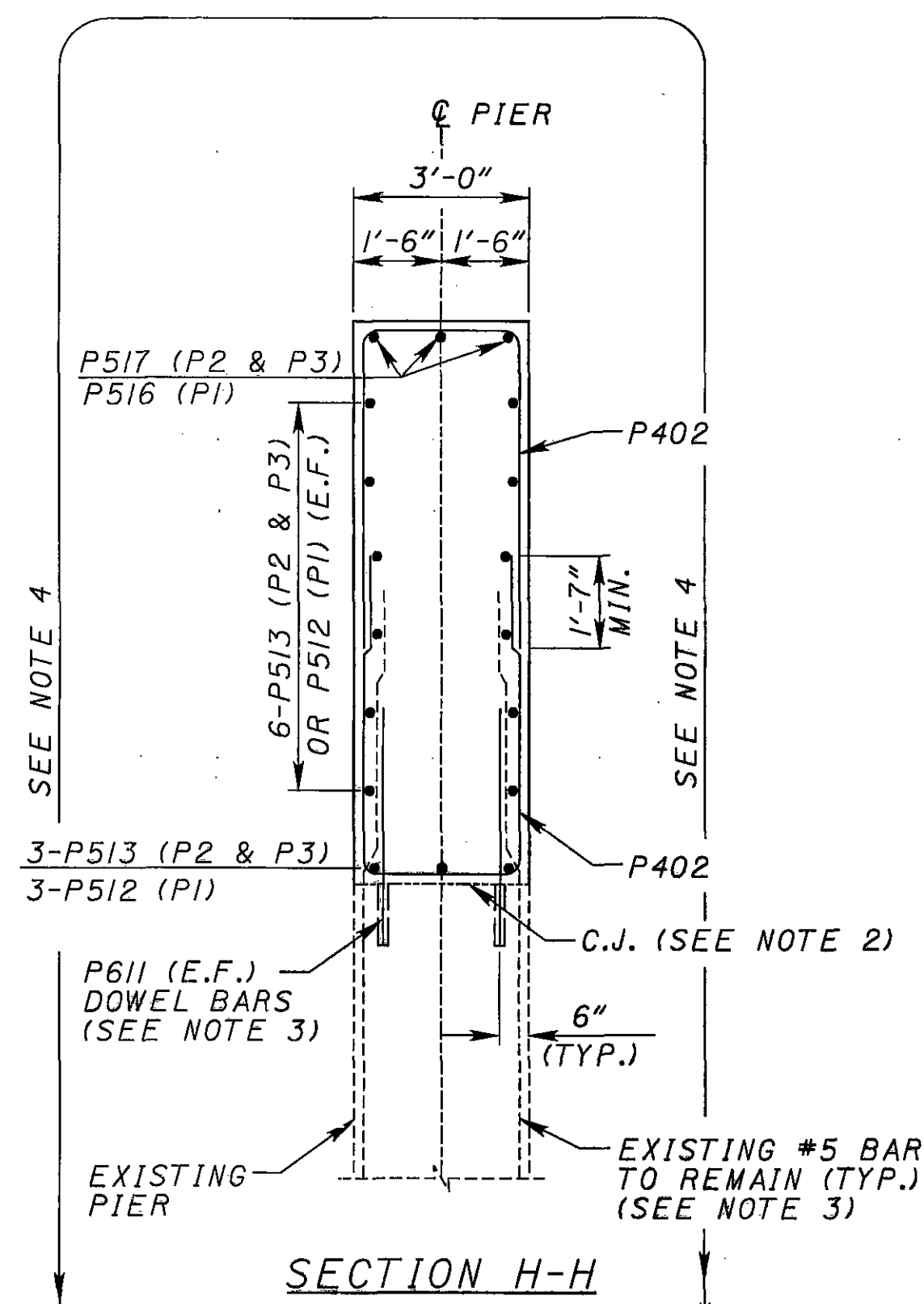
BURGESS & NIPLE	
DATE	6/04
REVIEWED	WTL
DESIGNED	BES
DRAWN	BES
CHECKED	TTK
STRUCTURE FILE NUMBER	5203031 - LEFT
	5203066 - RIGHT
PIER DETAILS - SOUTHBOUND BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40	
MED-71-6.06	PID-75657
42	65
959	1120



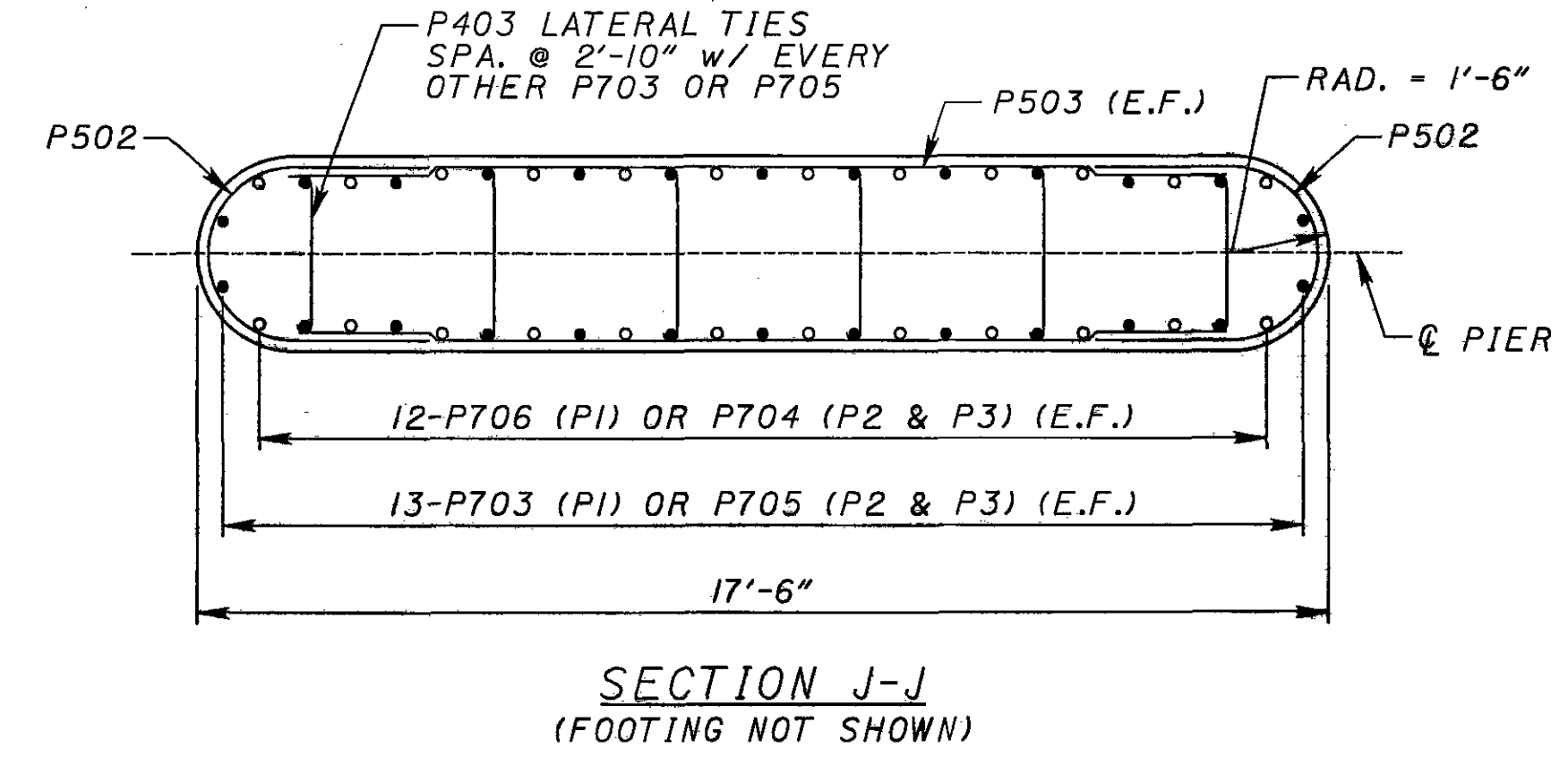
SECTION F-F



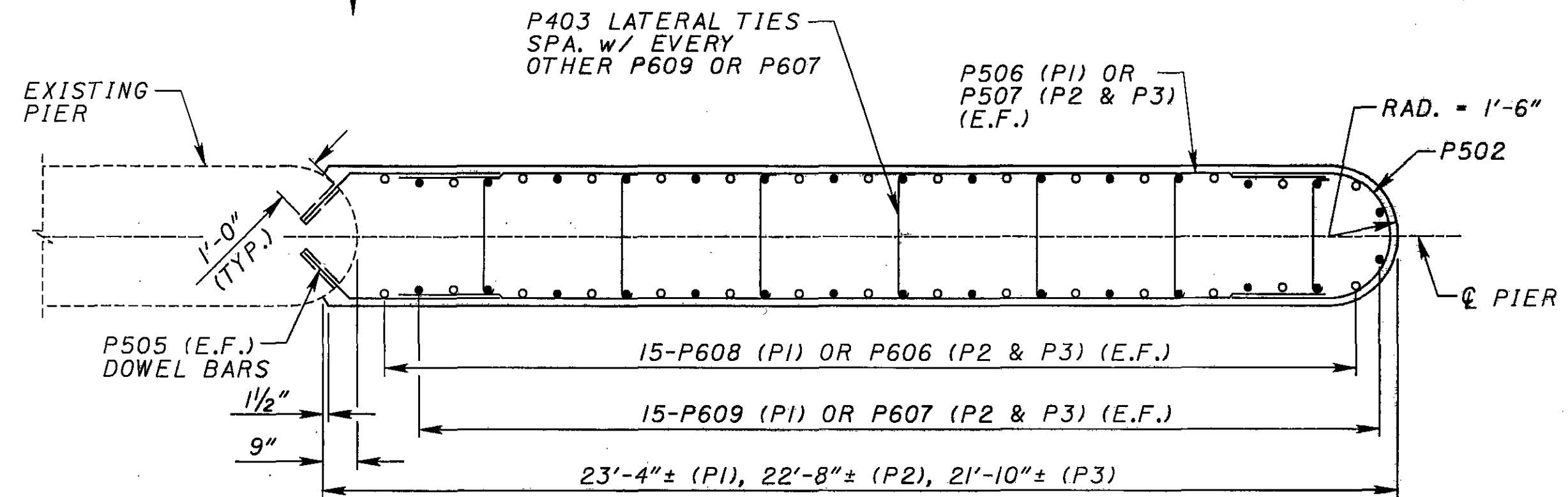
SECTION G-G



SECTION H-H



SECTION J-J
(FOOTING NOT SHOWN)



SECTION K-K
(FOOTING NOT SHOWN)

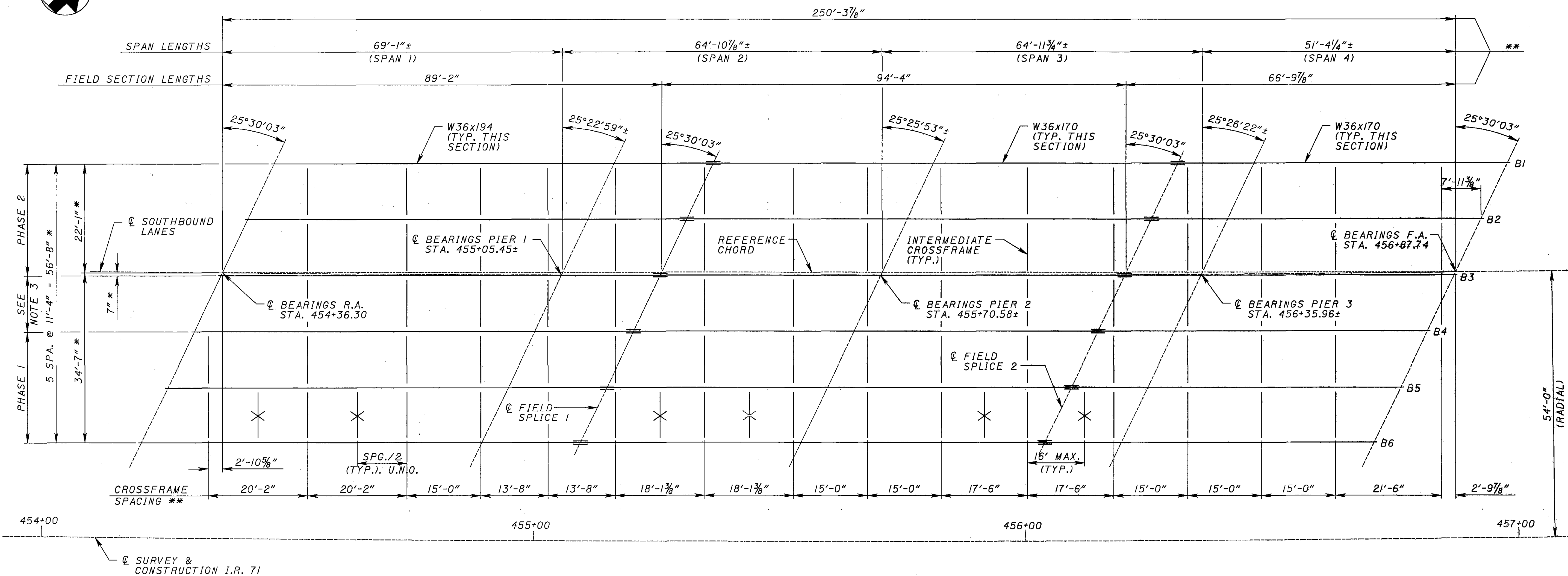
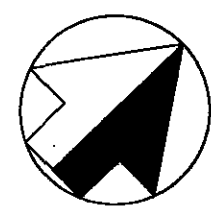
NOTES:

1. EMBED ALL DOWEL BARS 1'-0" INTO EXISTING STRUCTURE.
2. THE EXPOSED EXISTING HORIZONTAL CONCRETE SURFACE THAT IS TO BE COVERED WITH NEW CONCRETE SHALL BE ROUGH AND IRREGULAR WITH AN AMPLITUDE OF 1/4" OR MORE.
3. THE CONTRACTOR HAS THE OPTION OF SALVAGING EXISTING VERTICAL NO. 5 BARS THAT PROJECT FROM WALL INTO CAP OR PROVIDING NEW NO. 6 DOWELS. IF NEW DOWELS ARE PROVIDED, INSTALL PER 510 USING NONSHRINK, NONMETALLIC GROUT. IF EXISTING BARS ARE RE-USED, FIELD-CUT (IF NECESSARY) TO PROVIDE 2" MIN. CLEAR COVER TO TOP OF PROPOSED CONCRETE CAP. EXISTING BARS SHALL PROJECT AT LEAST 2'-0" ABOVE THE REMOVAL LINE. INCLUDE FIELD-CUTTING WITH ITEM 202 FOR PAYMENT.
4. LIMITS OF SEALING (EPOXY-URETHANE). SEAL ALL SURFACES ABOVE GROUND.

LEGEND:

- BOT. = BOTTOM
- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- E.F. = EACH FACE
- RAD. = RADIUS
- P1 = PIER 1
- P2 = PIER 2
- P3 = PIER 3

BURGESS & NIPLE	
DATE	6/04
REVIEWED	WTL
DRAWN	BES
DESIGNED	BES
CHECKED	TTK
STRUCTURE FILE NUMBER	5203061 - LEFT
5203066 - RIGHT	
PIER DETAILS - NORTHBOUND BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40	
MED-71-6.06	PID-75657
43	65
960	1120



FRAMING PLAN

LEGEND:

- B- - BEAM NUMBER
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- SPA. - SPACES
- * - MEASURED PERPENDICULAR TO REFERENCE CHORD
- ** - MEASURED PARALLEL TO REFERENCE CHORD
- U.N.O. - UNLESS NOTED OTHERWISE

✕ - INTERMEDIATE SUPPORT FOR ELECTRICAL CONDUIT. SEE SHT. 55 / 65 .

NOTES:

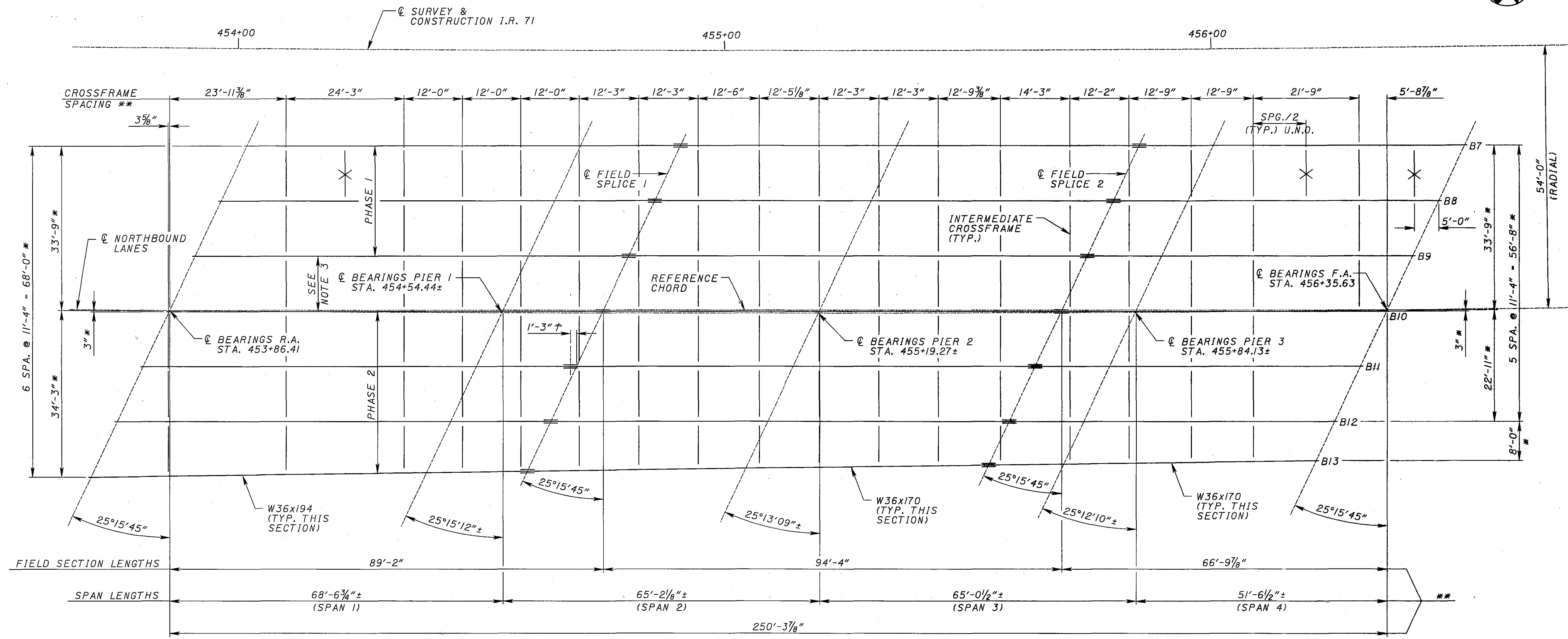
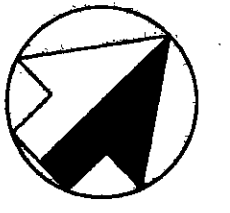
1. SEE SHEET 46 / 65 FOR BEAM DETAILS.
2. SEE SHEET 55 / 65 FOR CROSSFRAME DETAILS.
3. DO NOT INSTALL INTERMEDIATE CROSSFRAMES IN THIS BAY UNTIL AFTER PHASE 2 DECK CONCRETE HAS BEEN PLACED.

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DATE	6/04
REVIEWED	BES
DESIGNED	TTK
CHECKED	EMC
STRUCTURE FILE NUMBER	5203031 - LEFT
5203066 - RIGHT	

FRAMING PLAN - SOUTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657



FRAMING PLAN

LEGEND:

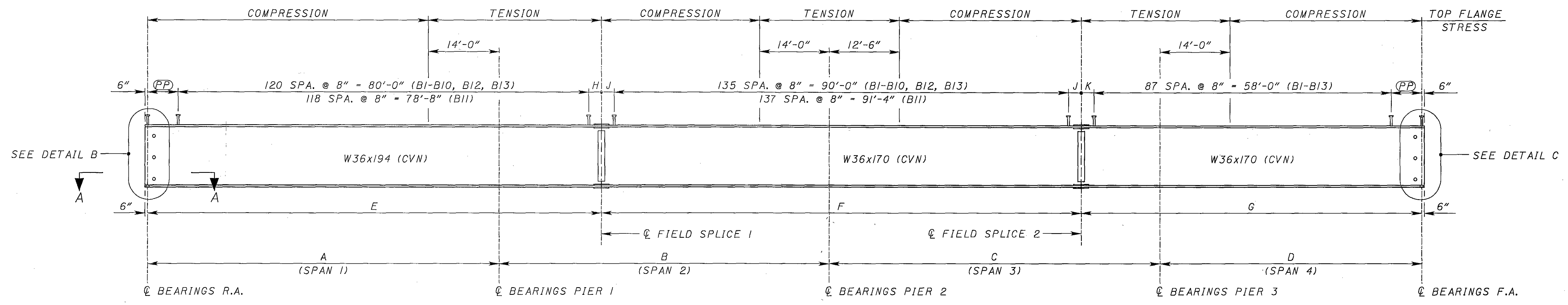
- B_ - BEAM NUMBER
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- SPA. - SPACES
- * - MEASURED PERPENDICULAR TO REFERENCE CHORD
- ** - MEASURED PARALLEL TO REFERENCE CHORD
- † - FOR B11 ONLY, OFFSET FIELD SPLICE 1 A DISTANCE OF 1'-3" AS SHOWN
- U.N.O. - UNLESS NOTED OTHERWISE

* - INTERMEDIATE SUPPORT FOR ELECTRICAL CONDUIT. SEE SHT. 56 / 65 .

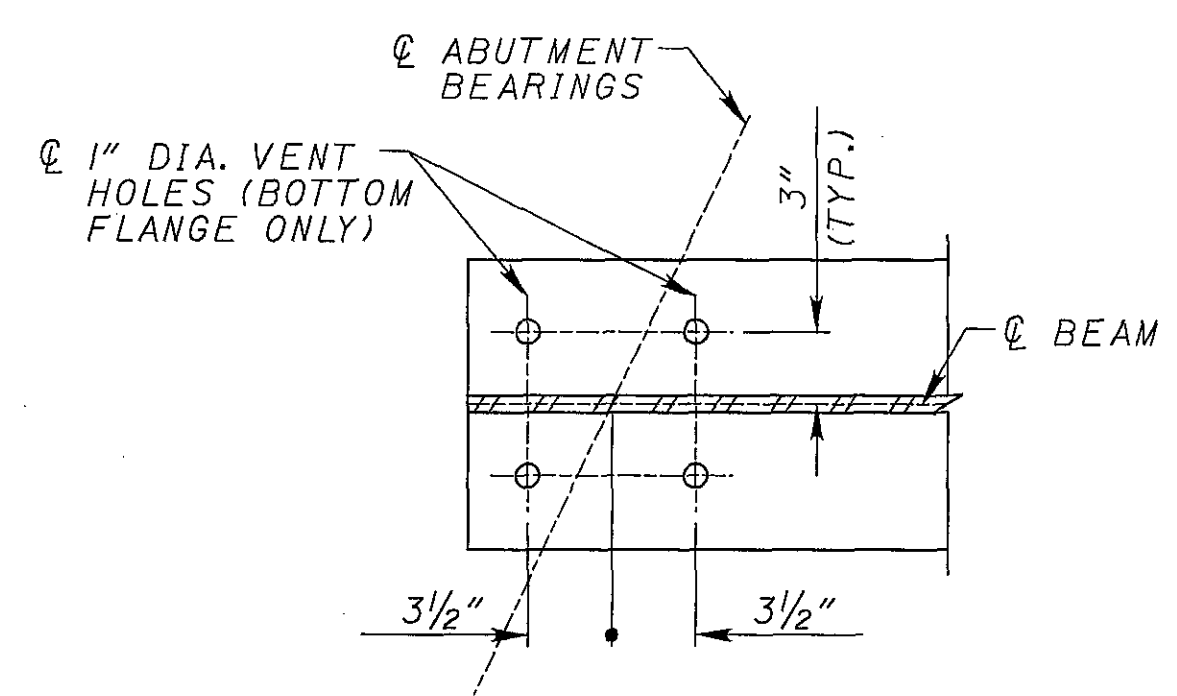
NOTES:

1. SEE SHEET 46 / 65 FOR BEAM DETAILS.
2. SEE SHEET 56 / 65 FOR CROSSFRAME DETAILS.
3. DO NOT INSTALL INTERMEDIATE CROSSFRAMES IN THIS BAY UNTIL AFTER PHASE 2 DECK CONCRETE HAS BEEN PLACED.

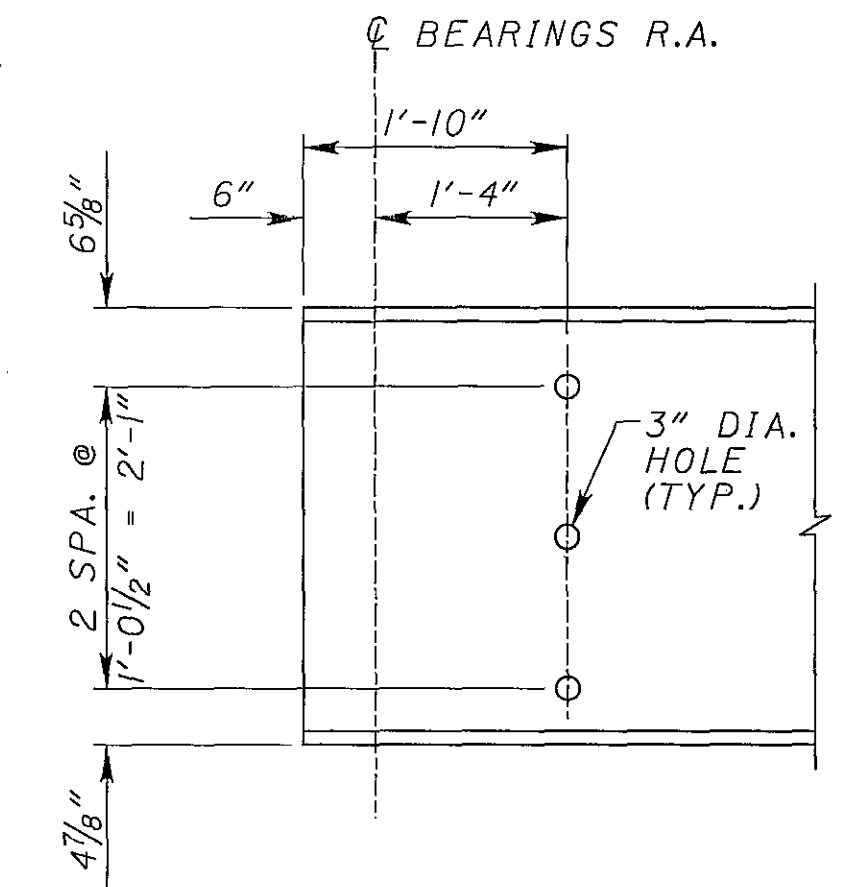
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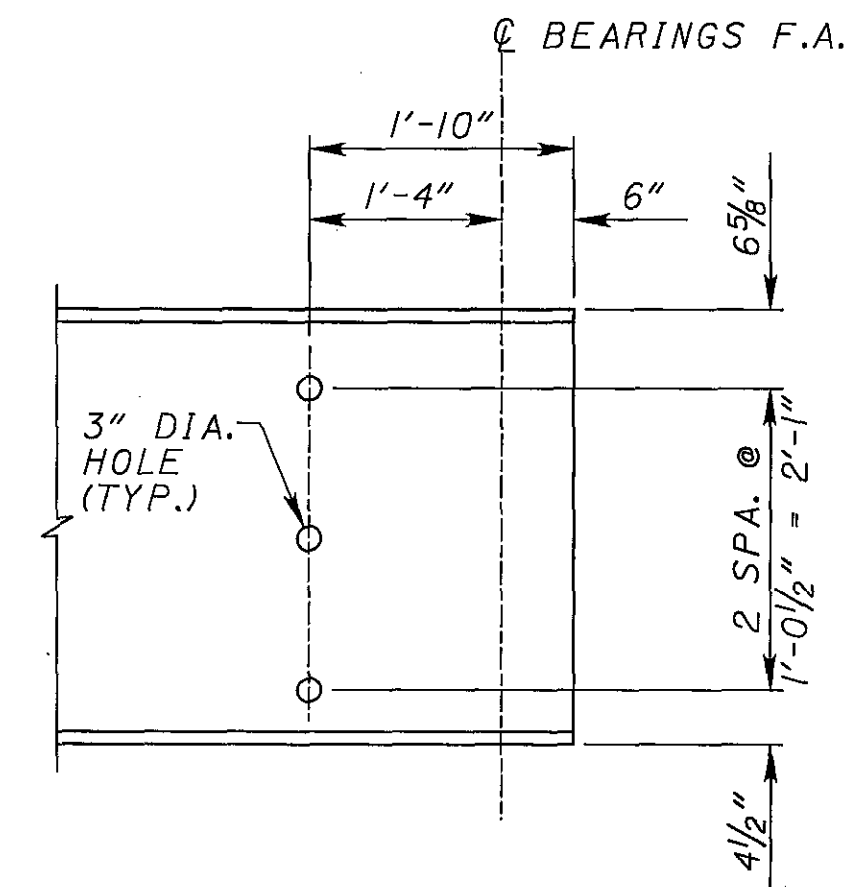
BEAM ELEVATION



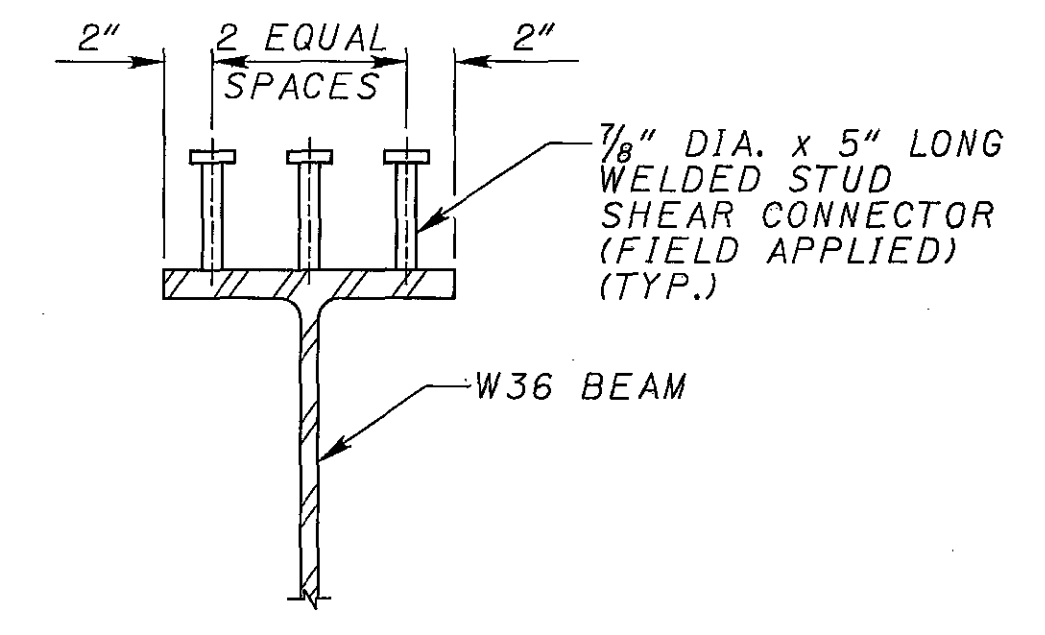
SECTION A-A
(REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND)



DETAIL B
(SHEAR CONNECTORS NOT SHOWN)



DETAIL C
(SHEAR CONNECTORS NOT SHOWN)



SHEAR CONNECTOR DETAIL

BEAM NUMBER	SPAN LENGTHS			
	A	B	C	D
B1	69'-0 7/16"	64'-11 3/16"	64'-11 3/16"	51'-4 9/16"
B2	69'-0 7/16"	64'-11 1/16"	64'-11 1/16"	51'-4 3/8"
B3	69'-1"	64'-10 7/8"	64'-11 1/4"	51'-4 3/16"
B4	69'-1 5/16"	64'-10 3/4"	64'-11 3/4"	51'-4 1/16"
B5	69'-1 1/16"	64'-10 5/8"	64'-11 1/4"	51'-3 3/8"
B6	69'-2"	64'-10 1/2"	64'-11 1/8"	51'-3 11/16"
B7	68'-6 3/4"	65'-1 7/8"	65'-0 1/4"	51'-7"
B8	68'-6 3/4"	65'-1 15/16"	65'-0 3/8"	51'-6 3/16"
B9	68'-6 3/16"	65'-2 1/16"	65'-0 3/8"	51'-6 5/8"
B10	68'-6 3/16"	65'-2 3/16"	65'-0 1/16"	51'-6 1/16"
B11	68'-6 3/16"	65'-2 1/4"	65'-0 1/2"	51'-6 5/16"
B12	68'-6 1/8"	65'-2 3/8"	65'-0 1/2"	51'-6 1/8"
B13	69'-0 1/8"	65'-7 1/16"	65'-5 1/2"	51'-9 5/16"

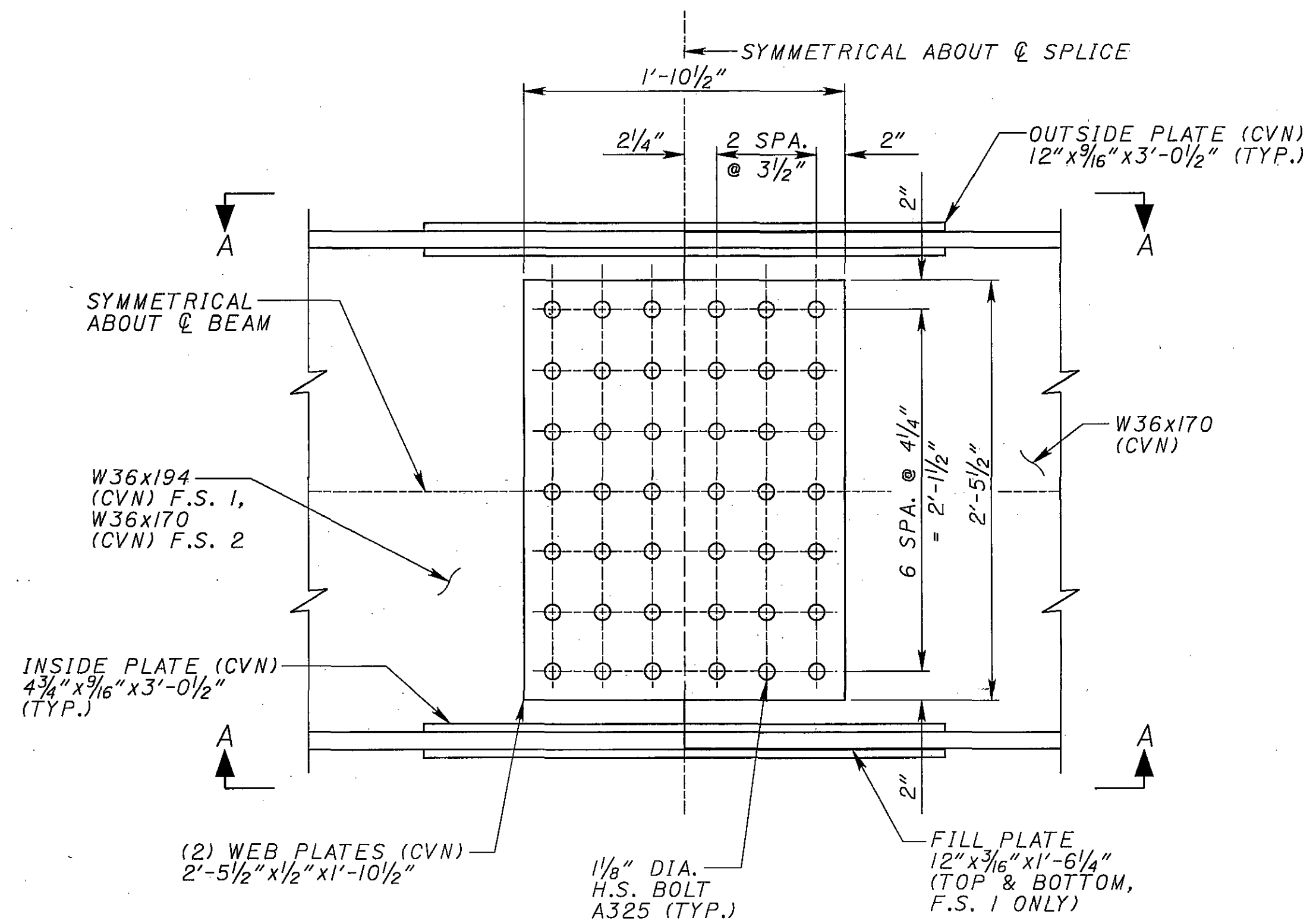
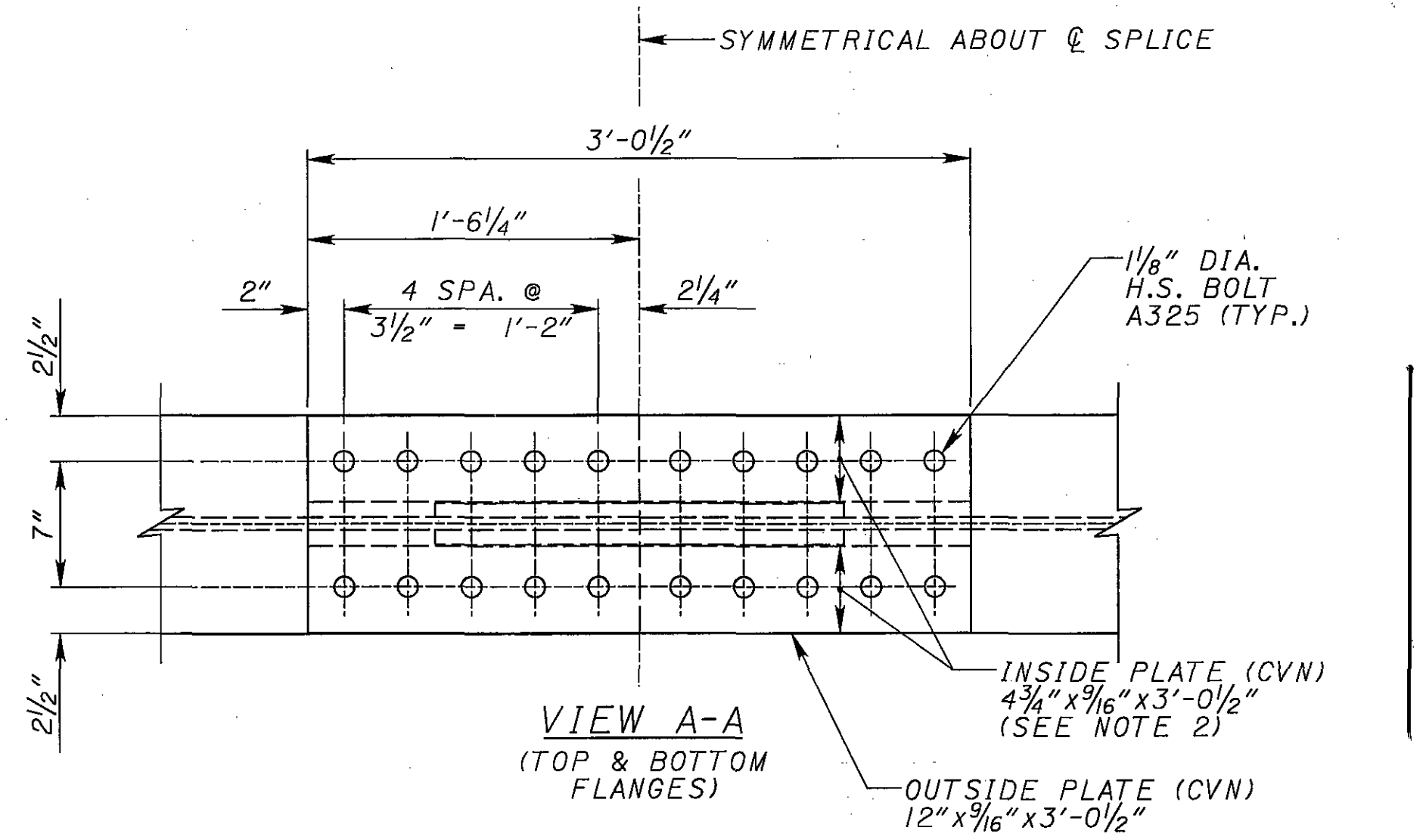
BEAM NUMBER	BEAM LENGTHS			SHEAR STUD SPACING		
	E	F	G	H	J	K
B1-B10, B12	89'-2"	94'-4"	66'-9 7/8"	2'-2"	2'-2"	1'-9 7/8"
B11	87'-11"	95'-7"	66'-9 7/8"	2'-3"	2'-1 1/2"	1'-9 7/8"
B13	89'-8 1/16"	94'-11 1/4"	67'-2 5/16"	2'-8 1/16"	2'-5 5/8"	2'-2 5/16"

LEGEND:

- B - BEAM NUMBER
- CVN - CHARPY V-NOTCH TESTING
- DIA. - DIAMETER
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- SPA. - SPACES
- (PP) - 12 SPA. @ 7" = 7'-0"

NOTES:

1. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER, THAN 3/4" THICK.



FIELD SPLICE DETAIL
(F.S. 1 SHOWN, F.S. 2 SIMILAR, EXCEPT AS NOTED)

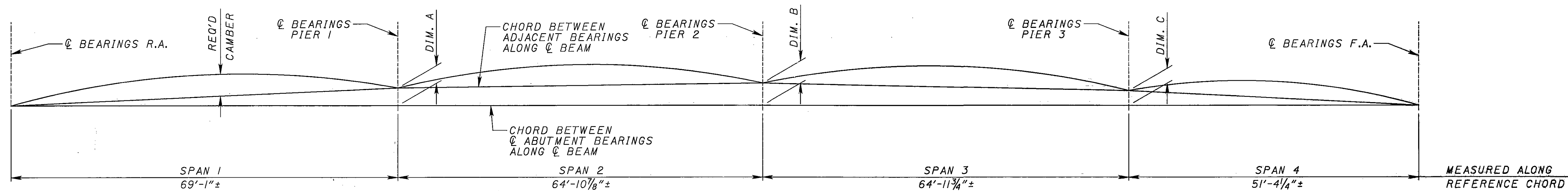
LEGEND:

CVN = CHARPY V-NOTCH TESTING
DIA. = DIAMETER
F.S. = FIELD SPLICE
H.S. = HIGH STRENGTH
SPA. = SPACES

NOTES:

1. SEE STD. DWG. BS-I-93 FOR FIELD SPLICE DETAILS NOT SHOWN.
2. PLACE INSIDE PLATE FLUSH AGAINST FLANGE EDGE TO AVOID BEAM FILLET.
3. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.

		DATE 6/04
REVISION BES	STRUCTURE FILE NUMBER 5203031 - LEFT 5203066 - RIGHT	DRAWN EMC
DESIGNED EMC	CHECKED TTK	BRIDGE NO. MED-71-0860 L/R OVER CSXT RR AND RYAN ROAD C.H. 40
MED-71-6.06 PID-75657		47 / 65
964 1120		



CAMBER AND BLOCKING DIAGRAM

CAMBER TABLE (VALUES IN INCHES)																				
BEAM NUMBER		REAR ABUT.	SPAN 1			PIER 1	SPAN 2				PIER 2	SPAN 3				PIER 3	SPAN 4			FWD. ABUT.
			1/4 SPAN	MIDSPAN	3/4 SPAN		1/4 SPAN	SP. 1	MIDSPAN	3/4 SPAN		1/4 SPAN	MIDSPAN	3/4 SPAN	SP. 2		1/4 SPAN	MIDSPAN	3/4 SPAN	
1, 2, 3, 4 & 5	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/8	3/16	1/16	0	0	0	0	0	0	1/16	1/16	1/16	1/16	0	0	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	7/8	11/16	5/8	0	0	1/16	3/16	1/8	0	1/4	7/16	1/4	1/4	0	1/8	1/4	1/4	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/16	1/8	1/16	0	1/16	1/16	1/8	1/16	0	1/16	1/8	1/16	1/16	0	1/16	1/16	1/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	11/16	13/8	3/4	0	1/16	1/8	5/16	3/16	0	3/8	5/8	3/8	3/8	0	3/16	3/8	5/16	0
6	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/8	3/16	1/16	0	0	0	0	0	0	1/16	1/16	1/16	1/16	0	0	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	7/8	11/16	5/8	0	0	1/16	3/16	1/8	0	1/4	7/16	1/4	1/4	0	1/8	1/4	1/4	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/8	1/8	1/8	0	1/8	1/8	1/8	1/8	0	1/8	1/8	1/8	1/8	0	1/16	1/16	1/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	11/8	13/8	13/16	0	1/8	3/16	5/16	1/4	0	7/16	5/8	7/16	7/16	0	3/16	3/8	5/16	0

BLOCKING (VALUES IN INCHES)			
BEAM	DIM. A	DIM. B	DIM. C
1	13/16	1 1/2	1
2	13/16	1 1/2	1
3	13/16	1 1/2	15/16
4	13/16	1 1/2	15/16
5	13/16	1 1/2	15/16
6	19/16	1 5/16	1 1/4

NOTE:
1. SEE SHEET 44 / 65 FOR BEAM NUMBER LOCATION.

LEGEND:
F.A. = FORWARD ABUTMENT
R.A. = REAR ABUTMENT
SP. = SPLICE

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME071sda.dgn

BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE 6/04
REVIEWED BES
DRAWN CRC
DESIGNED TTK
CHECKED JHL

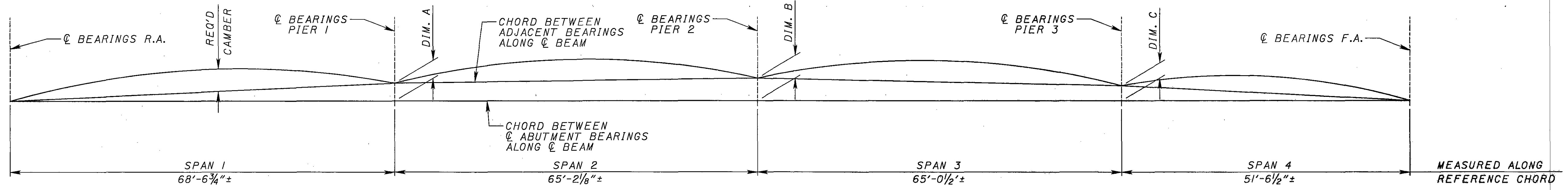
STRUCTURE FILE NUMBER 5203031
LEFT - RIGHT 5203066

CAMBER DETAILS - SOUTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-7.5657

48 / 65

965
1120



CAMBER AND BLOCKING DIAGRAM

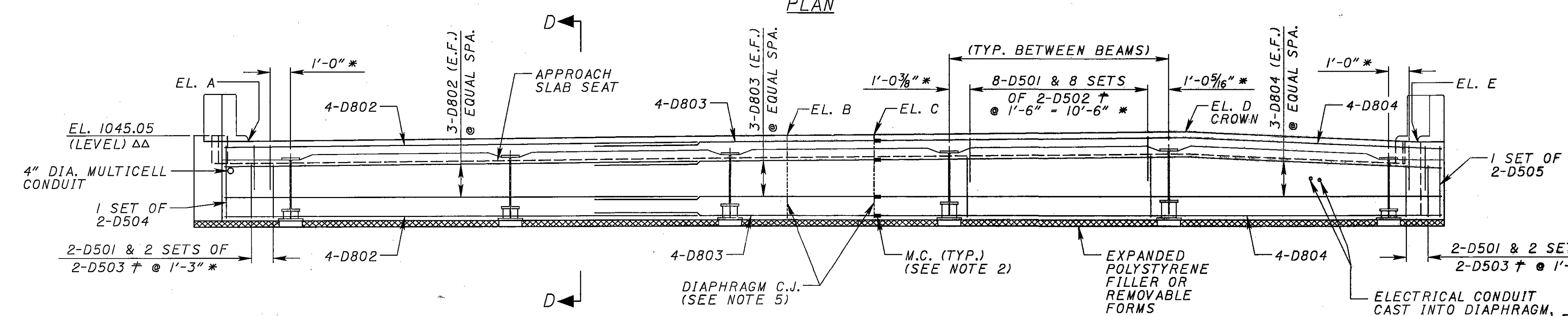
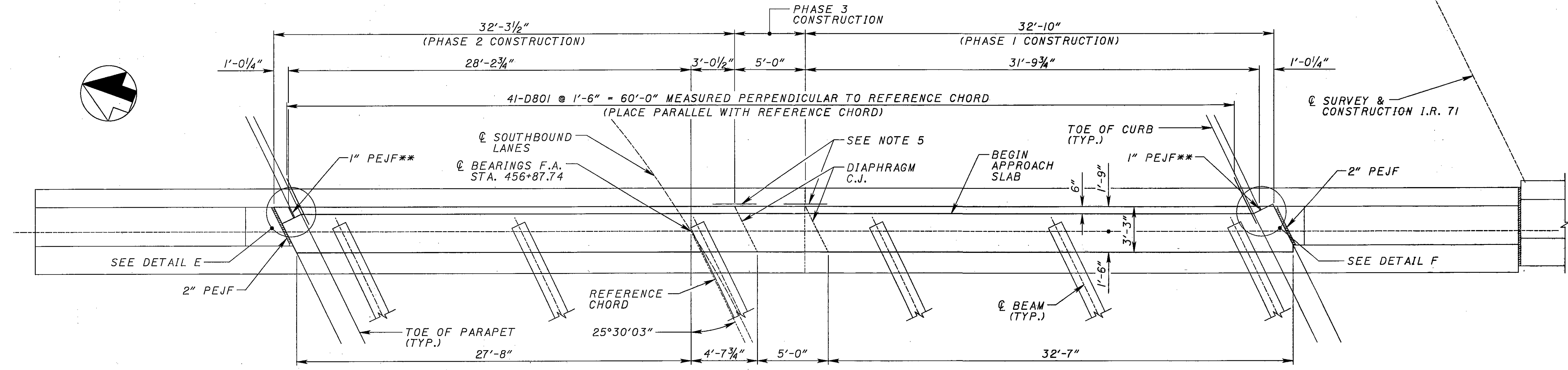
CAMBER TABLE (VALUES IN INCHES)																				
BEAM NUMBER		REAR ABUT.	SPAN 1			PIER 1	SPAN 2				PIER 2	SPAN 3				PIER 3	SPAN 4			FWD. ABUT.
			1/4 SPAN	MIDSPAN	3/4 SPAN		1/4 SPAN	SP. 1	MIDSPAN	3/4 SPAN		1/4 SPAN	MIDSPAN	3/4 SPAN	SP. 2		1/4 SPAN	MIDSPAN	3/4 SPAN	
7, 8, 9, 10 & 11	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/8	1/8	1/16	0	0	0	0	0	0	1/16	1/16	1/16	0	0	0	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	11/16	9/16	0	1/16	1/16	3/16	1/8	0	1/4	7/16	1/4	1/4	0	1/8	1/4	1/4	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/16	1/8	1/16	0	1/16	1/16	1/8	1/16	0	1/16	1/8	1/16	1/16	0	1/16	1/16	1/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	1	15/16	1/16	0	1/8	1/8	5/16	3/16	0	3/8	5/8	3/8	5/16	0	3/16	3/8	5/16	0
12	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/8	1/8	1/16	0	0	0	0	0	0	1/16	1/16	1/16	0	0	0	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	11/16	9/16	0	1/16	1/16	3/16	1/8	0	1/4	7/16	1/4	1/4	0	1/8	1/4	1/4	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/16	1/8	1/16	0	1/16	1/16	3/16	3/16	0	1/8	1/8	1/8	1/8	0	1/16	1/16	1/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	1	15/16	1/16	0	3/16	3/16	3/8	5/16	0	7/16	5/8	7/16	3/8	0	3/16	3/8	5/16	0
13	DEFLECTION DUE TO WEIGHT OF STEEL	0	1/8	1/8	1/16	0	0	0	0	0	0	1/16	1/16	1/16	0	0	0	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	3/16	11/16	9/16	0	1/16	1/16	3/16	1/8	0	1/4	7/16	1/4	1/4	0	1/8	1/4	1/4	0
	ADJUSTMENT FOR VERTICAL & HORIZONTAL CURVE	0	1/8	1/8	1/8	0	1/8	1/8	1/8	1/8	0	1/8	1/8	1/8	1/8	0	1/16	1/16	1/16	0
	TOTAL (REQUIRED SHOP CAMBER)	0	11/16	15/16	3/4	0	3/16	3/16	5/16	1/4	0	7/16	5/8	7/16	3/8	0	3/16	3/8	5/16	0

BLOCKING (VALUES IN INCHES)			
BEAM	DIM. A	DIM. B	DIM. C
7	13/16	1 1/2	1
8	13/16	1 1/2	1
9	13/16	1 1/2	1
10	13/16	1 1/2	1
11	13/16	1 1/2	1
12	1 3/4	2 1/2	1 1/2
13	1 9/16	1 9/16	1 1/4

NOTE:
1. SEE SHEET 45 / 65 FOR BEAM NUMBER LOCATION.

LEGEND:
F.A. = FORWARD ABUTMENT
R.A. = REAR ABUTMENT
SP. = SPLICE

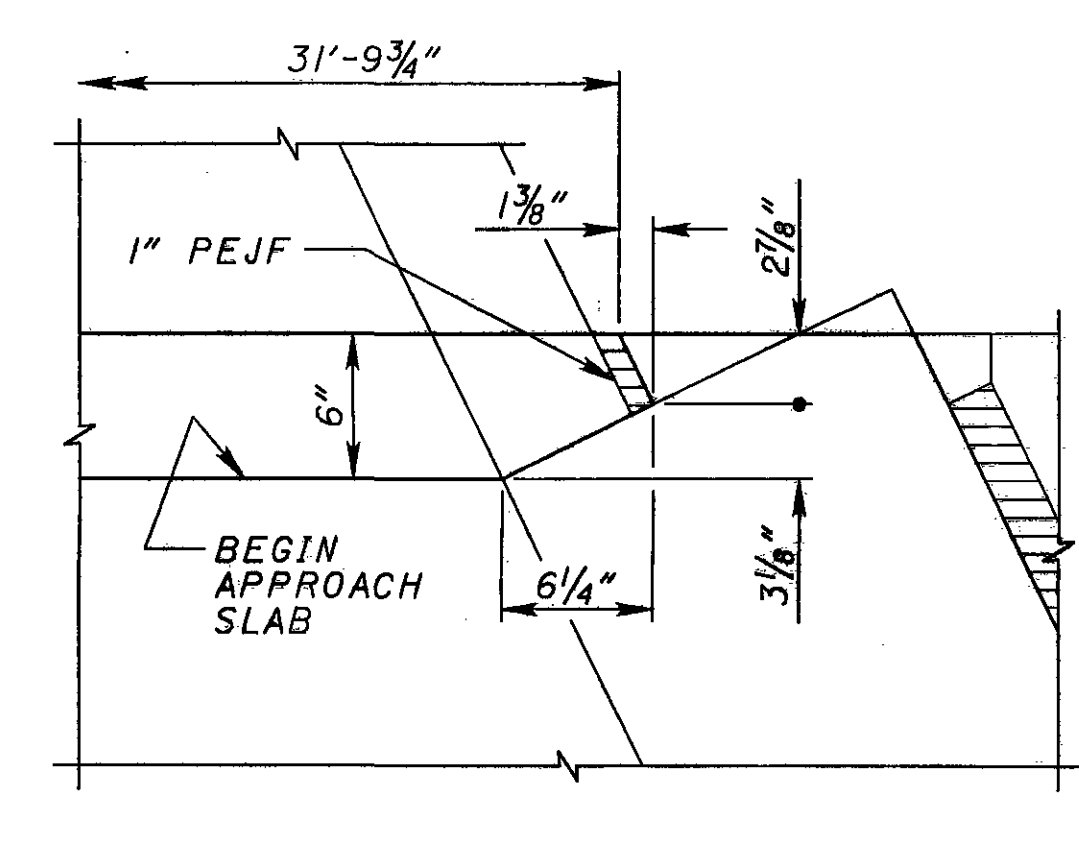
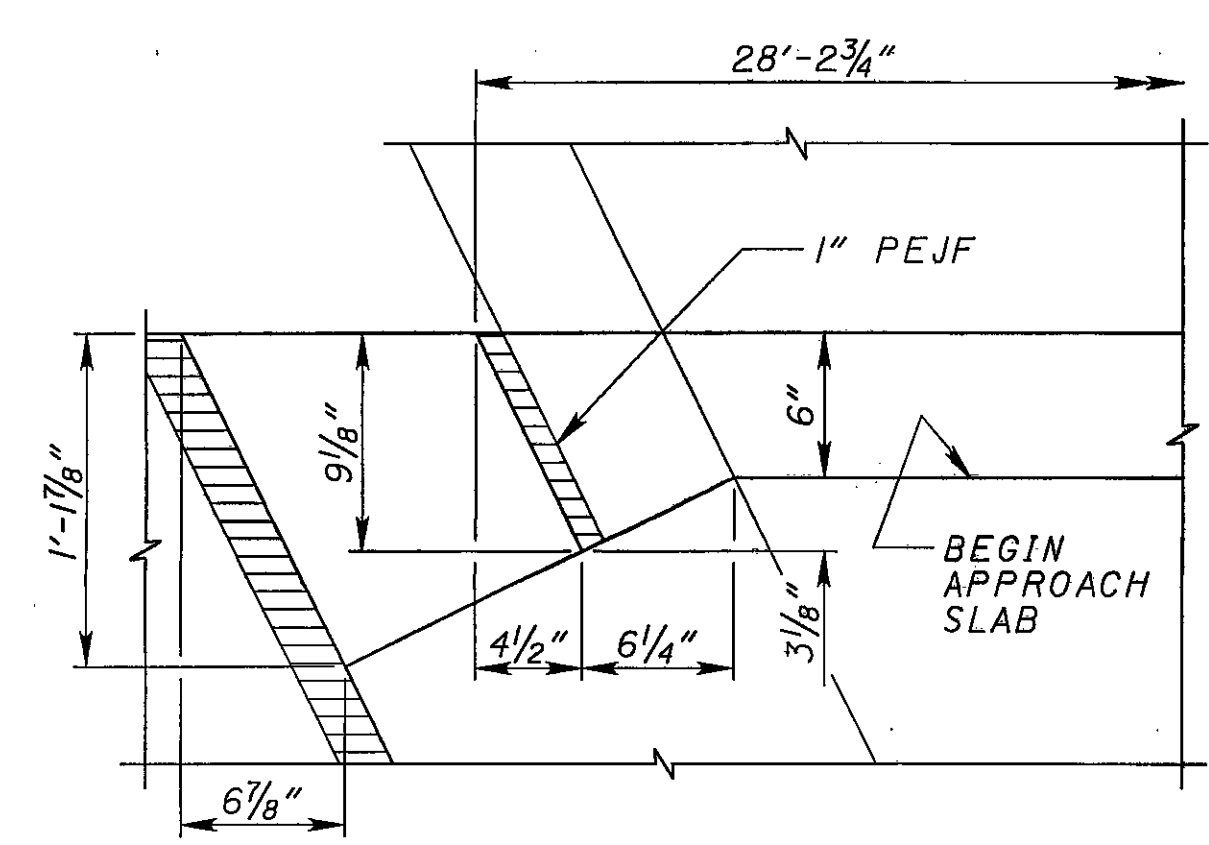
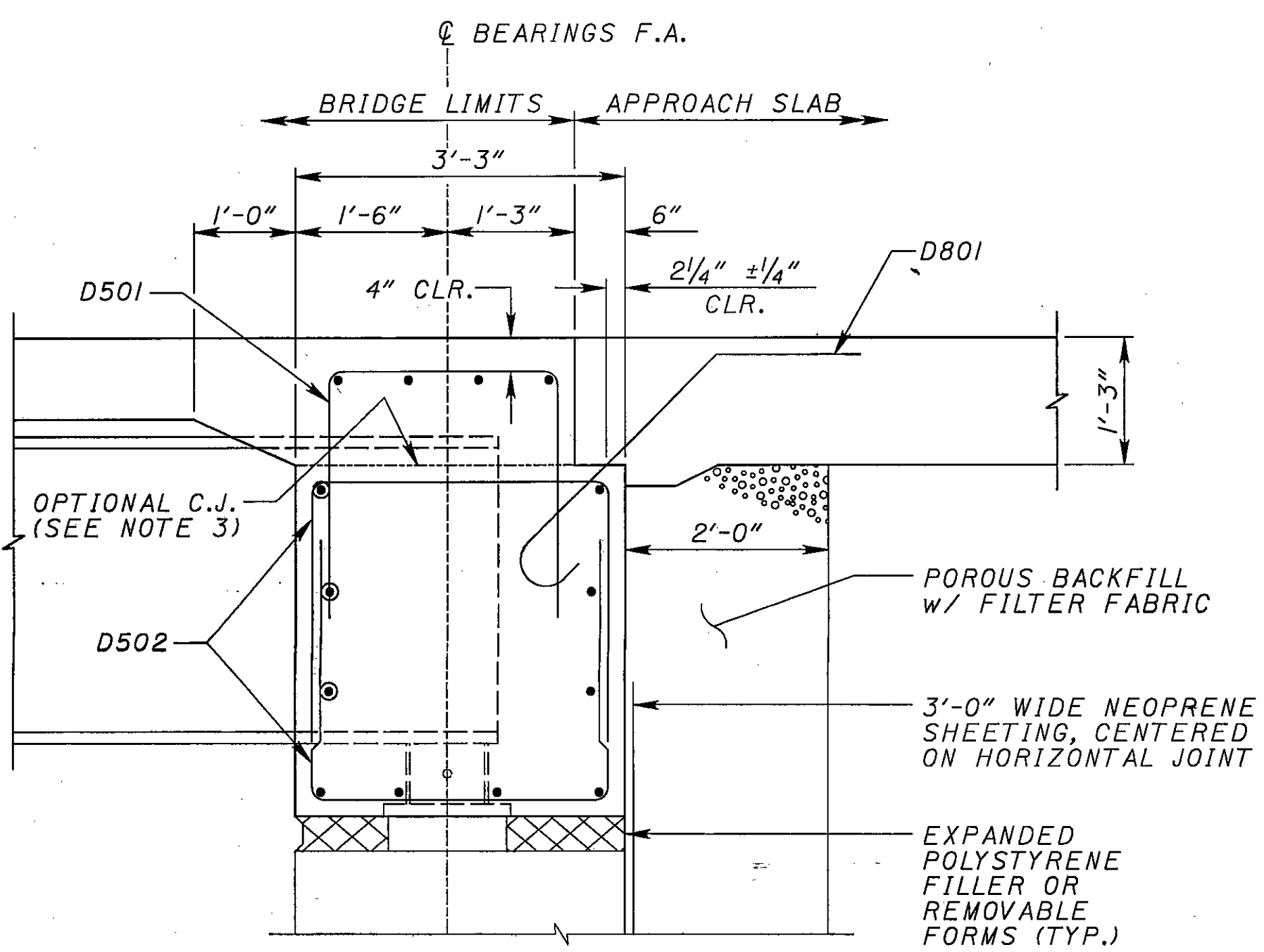
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ELEVATIONS Δ	
A	1044.68
B	1044.95
C	1045.00
D	1045.15
E	1044.56

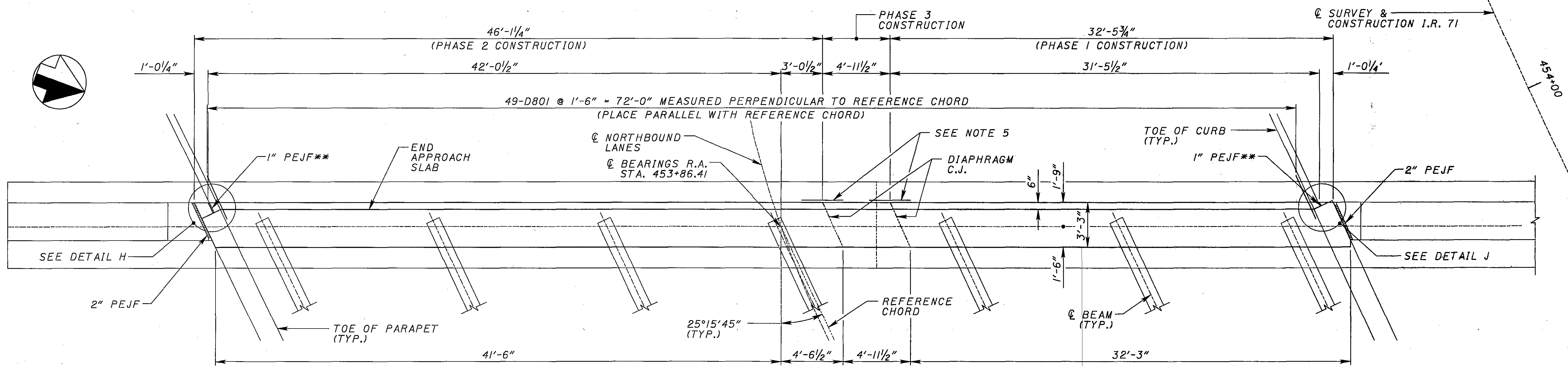
Δ - GIVEN ALONG Q BEARINGS F.A.

- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - CLR. - CLEAR
 - E.F. - EACH FACE
 - F.A. - FORWARD ABUTMENT
 - M.C. - MECHANICAL CONNECTOR
 - PEJF - PREFORMED EXPANSION JOINT FILLER
 - SPA. - SPACES
 - * - MEASURED ALONG Q BEARINGS F.A.
 - ** - INCLUDE WITH APPROACH SLAB FOR PAYMENT
 - † - PLACE PARALLEL WITH Q BEAMS
 - ΔΔ - SAME ELEVATION AS TOP OF WINGWALL

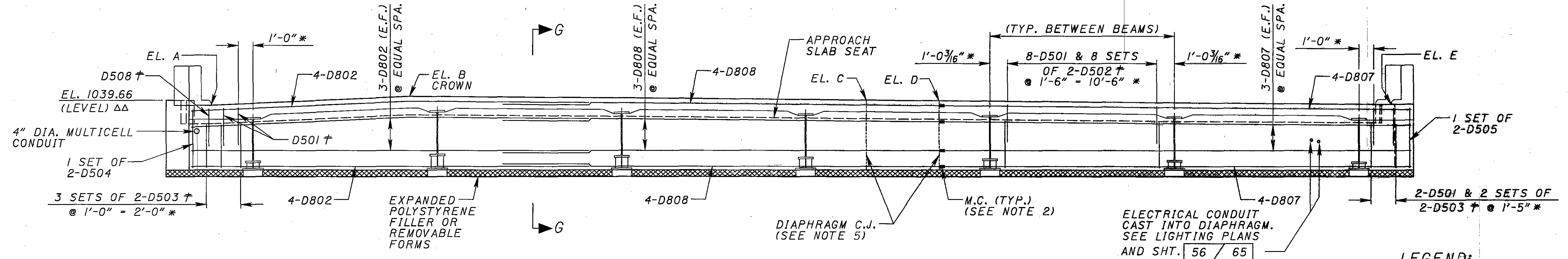


- NOTES:**
- ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
 - SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 65.
 - ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE THE CONCRETE IN THE ABUTMENT DIAPHRAGM ENCASED STRUCTURAL STEEL MEMBERS OF AN INDIVIDUAL PHASE SEPARATELY OR WITH THE DECK CONCRETE OF THAT PHASE. IF THE DIAPHRAGM CONCRETE IS PLACED SEPARATELY, ALLOW AT LEAST 48 HOURS OF SET TIME BEFORE PLACING DECK CONCRETE. LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
 - MINIMUM STEEL LAP LENGTHS:
#5 BAR = 2'-0"
#8 BAR = 5'-10"
 - PLACE TYPE 2 WATERPROOFING, 3'-0" WIDE CENTERED ON JOINT, FROM BOTTOM OF APPROACH SLAB TO TOP OF ABUTMENT SEAT.

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PLAN

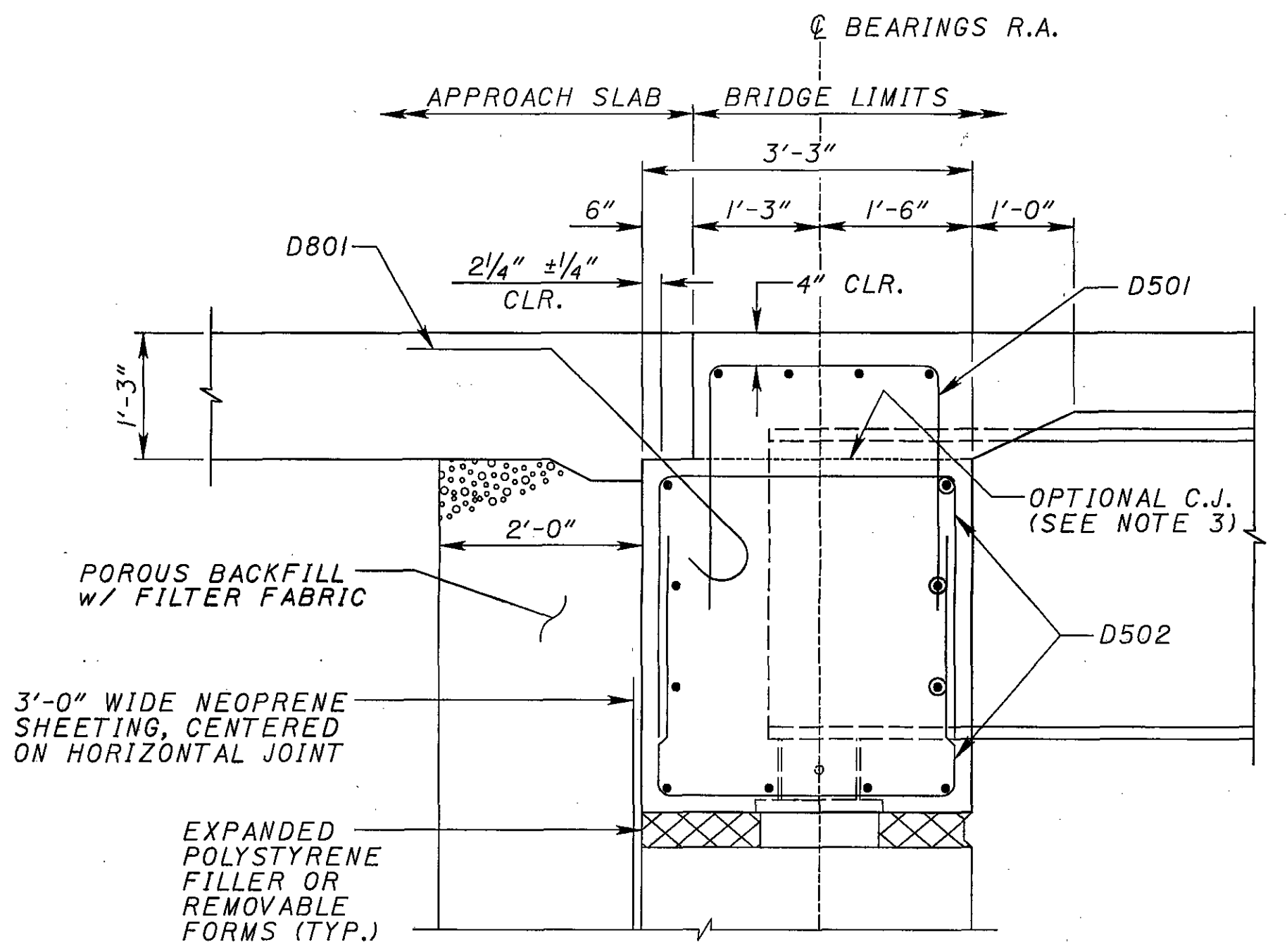


ELEVATION
(WINGWALLS NOT SHOWN FOR CLARITY)

ELEVATIONS Δ	
A	1039.36
B	1039.96
C	1039.70
D	1039.66
E	1039.40

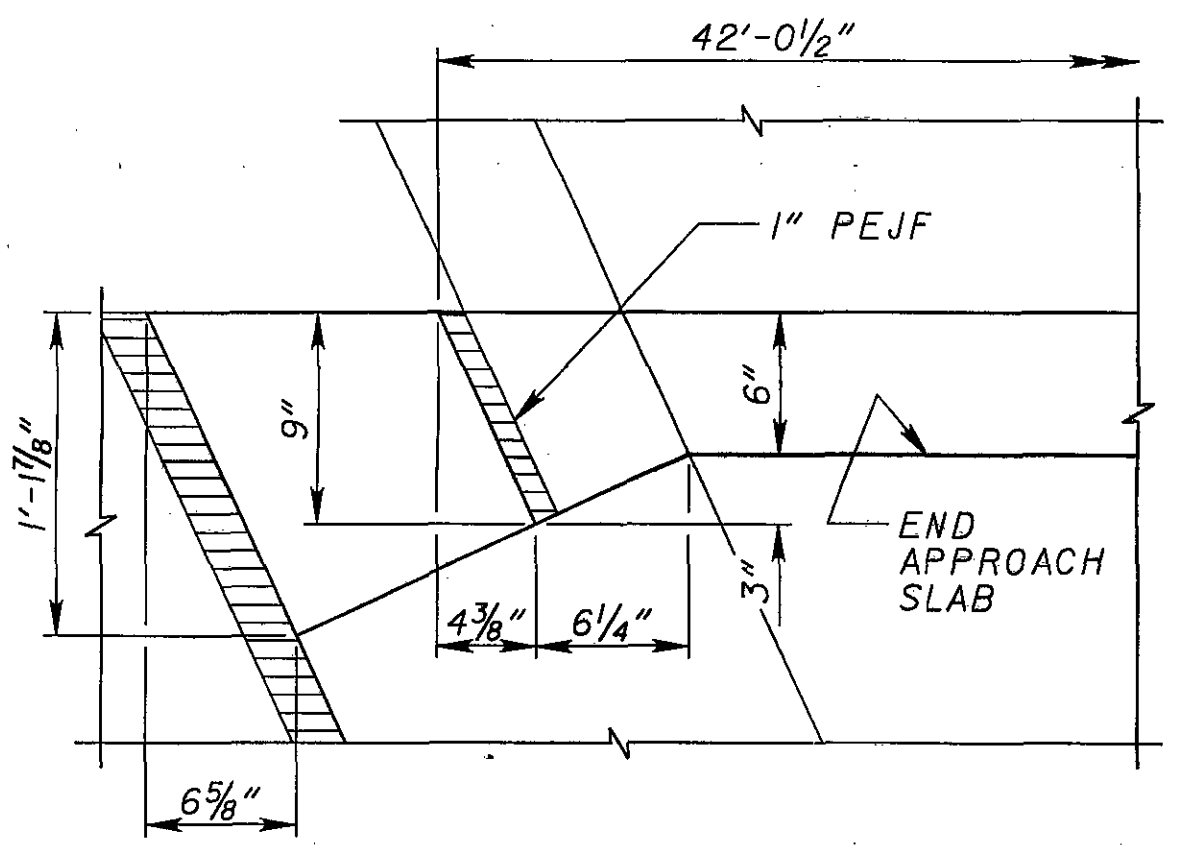
Δ - GIVEN ALONG Q BEARINGS R.A.

- LEGEND:**
- C.J. - CONSTRUCTION JOINT
 - CLR. - CLEAR
 - E.F. - EACH FACE
 - M.C. - MECHANICAL CONNECTOR
 - PEJF - PREFORMED EXPANSION JOINT FILLER
 - R.A. - REAR ABUTMENT
 - SPA. - SPACES
 - * - MEASURED ALONG Q BEARINGS R.A.
 - ** - INCLUDE WITH APPROACH SLAB FOR PAYMENT
 - † - PLACE PARALLEL WITH Q BEAMS
 - ΔΔ - SAME ELEVATION AS TOP OF WINGWALL

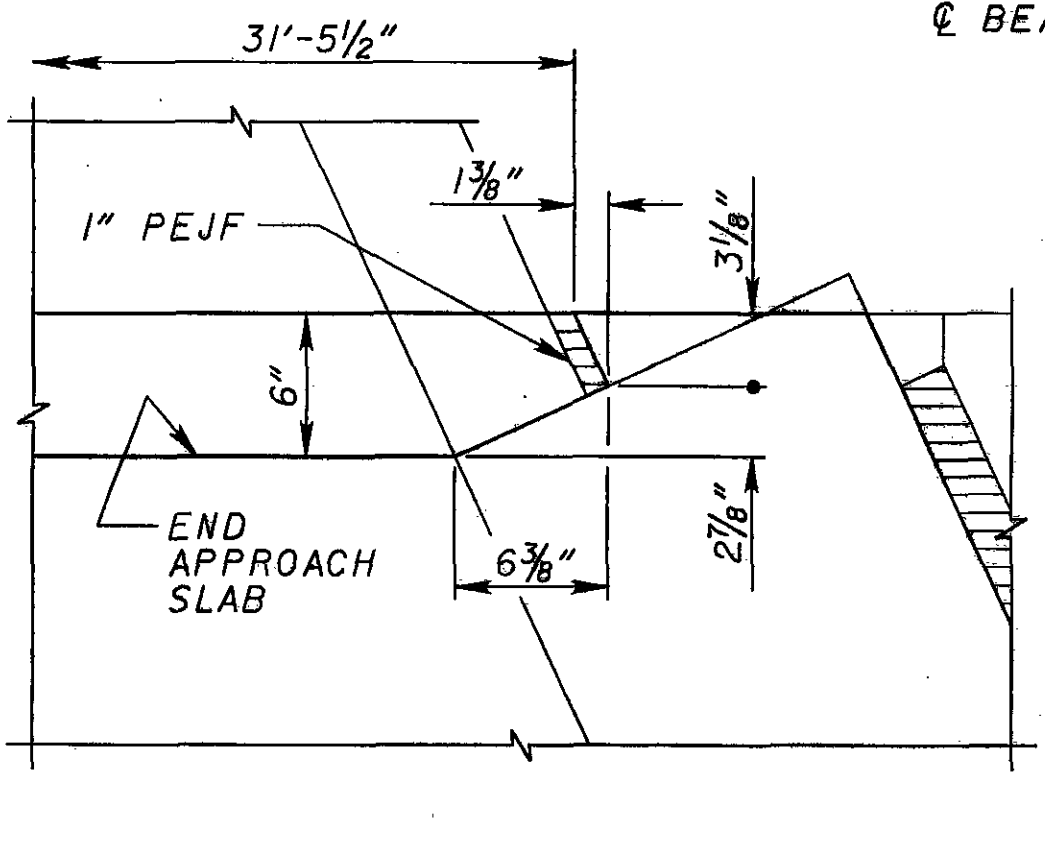


SECTION G-G

(ALL BARS NORMAL TO SECTION ARE D802, D807 OR D808)



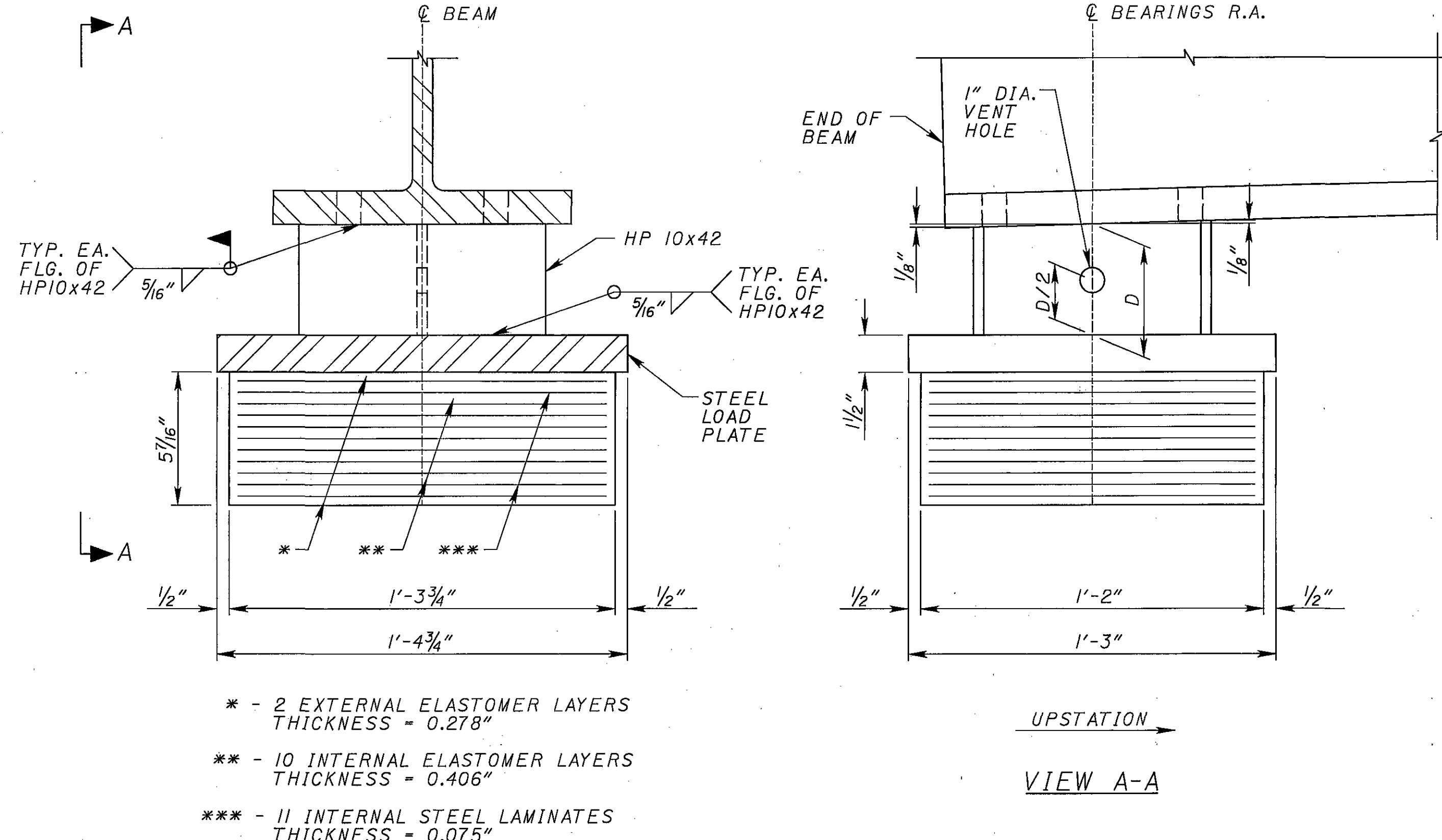
DETAIL H



DETAIL J

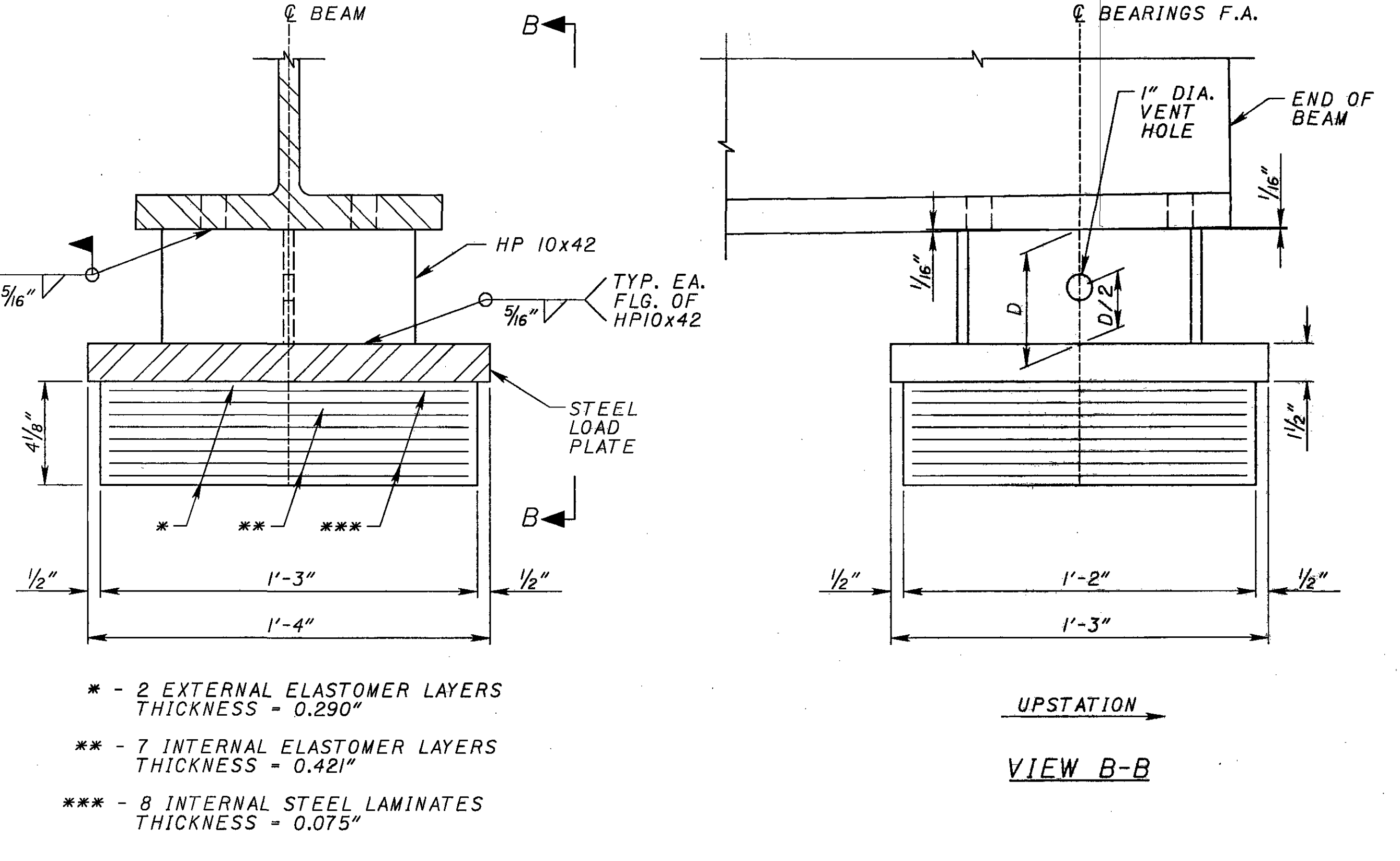
- NOTES:**
1. ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
 2. SEE MECHANICAL CONNECTOR NOTE, SHEET 3 / 65.
 3. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE THE CONCRETE IN THE ABUTMENT DIAPHRAGM ENCASED STRUCTURAL STEEL MEMBERS OF AN INDIVIDUAL PHASE SEPARATELY OR WITH THE DECK CONCRETE OF THAT PHASE. IF THE DIAPHRAGM CONCRETE IS PLACED SEPARATELY, ALLOW AT LEAST 48 HOURS OF SET TIME BEFORE PLACING DECK CONCRETE. LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
 4. MINIMUM STEEL LAP LENGTHS:
#5 BAR - 2'-0"
#8 BAR - 5'-10"
 5. PLACE TYPE 2 WATERPROOFING, 3'-0" WIDE CENTERED ON JOINT, FROM BOTTOM OF APPROACH SLAB TO TOP OF ABUTMENT SEAT.

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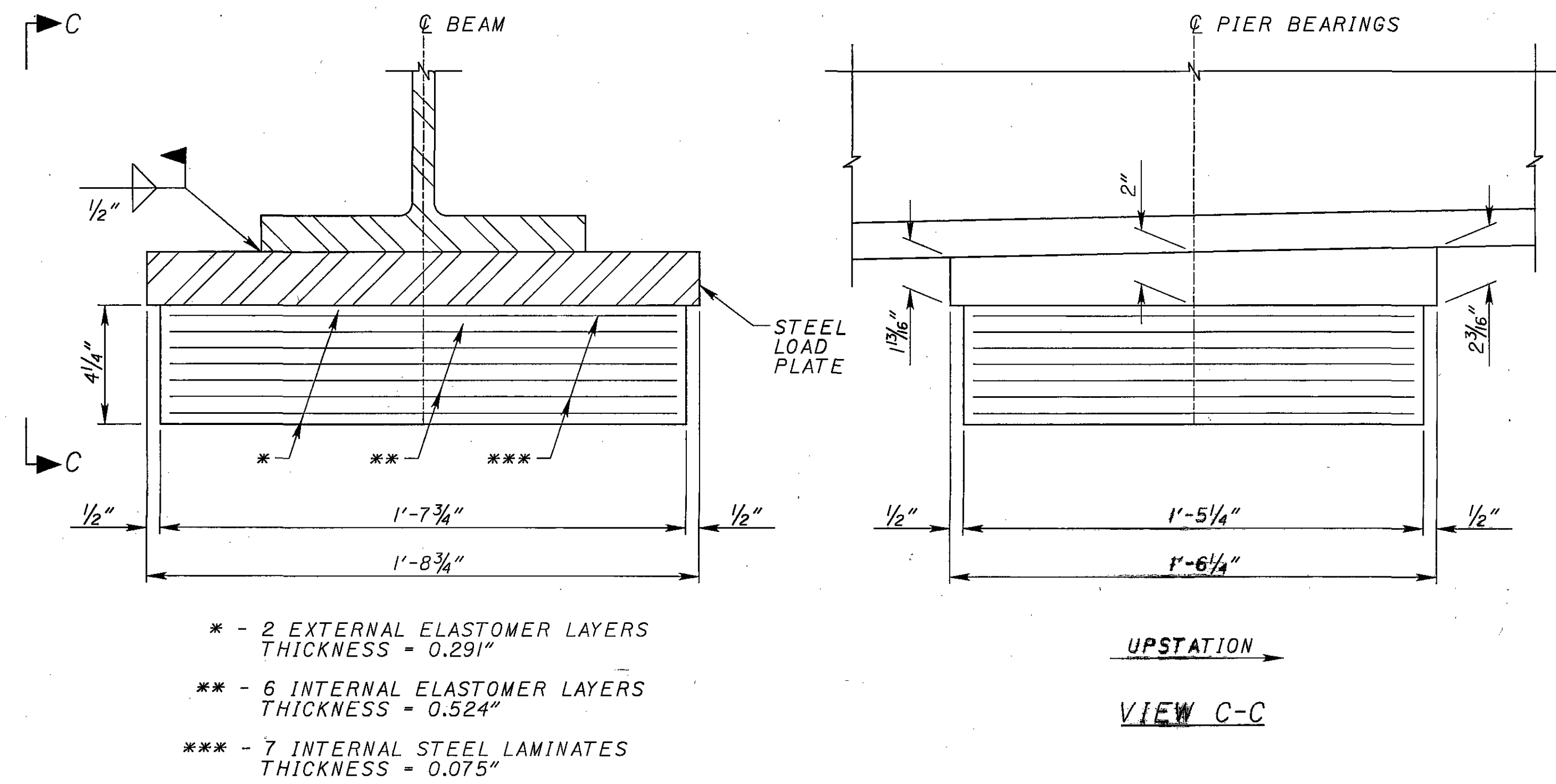
REAR ABUTMENT BEARING DETAILS
(EXPANSION)

- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.278"
- ** - 10 INTERNAL ELASTOMER LAYERS THICKNESS = 0.406"
- *** - 11 INTERNAL STEEL LAMINATES THICKNESS = 0.075"



FORWARD ABUTMENT BEARING DETAILS
(EXPANSION)

- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.290"
- ** - 7 INTERNAL ELASTOMER LAYERS THICKNESS = 0.421"
- *** - 8 INTERNAL STEEL LAMINATES THICKNESS = 0.075"

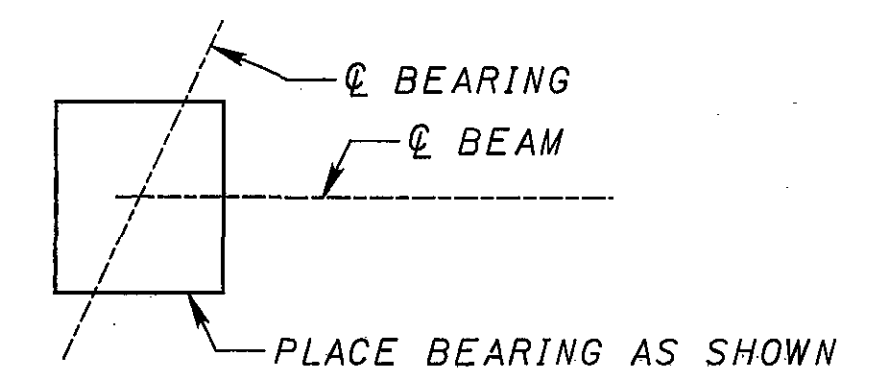


PIER BEARING DETAILS
(EXPANSION)

- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.291"
- ** - 6 INTERNAL ELASTOMER LAYERS THICKNESS = 0.524"
- *** - 7 INTERNAL STEEL LAMINATES THICKNESS = 0.075"

SOUTHBOUND			
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	DIMENSION D	BEAM	DIMENSION D
B1	6 7/16"	B1	5 3/16"
B2	7 9/16"	B2	6 1/2"
B3	8 11/16"	B3	7 7/8"
B4	9 3/16"	B4	9 3/16"
B5	11"	B5	10 9/16"
B6	4 1/2"	B6	4 1/2"

NORTHBOUND			
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	DIMENSION D	BEAM	DIMENSION D
B7	4 1/2"	B7	4 1/2"
B8	5 3/4"	B8	6"
B9	7 1/16"	B9	7 7/16"
B10	8 9/16"	B10	8 9/16"
B11	9 9/16"	B11	10 3/8"
B12	10 1/16"	B12	9 1/16"
B13	5 1/4"	B13	5 1/16"



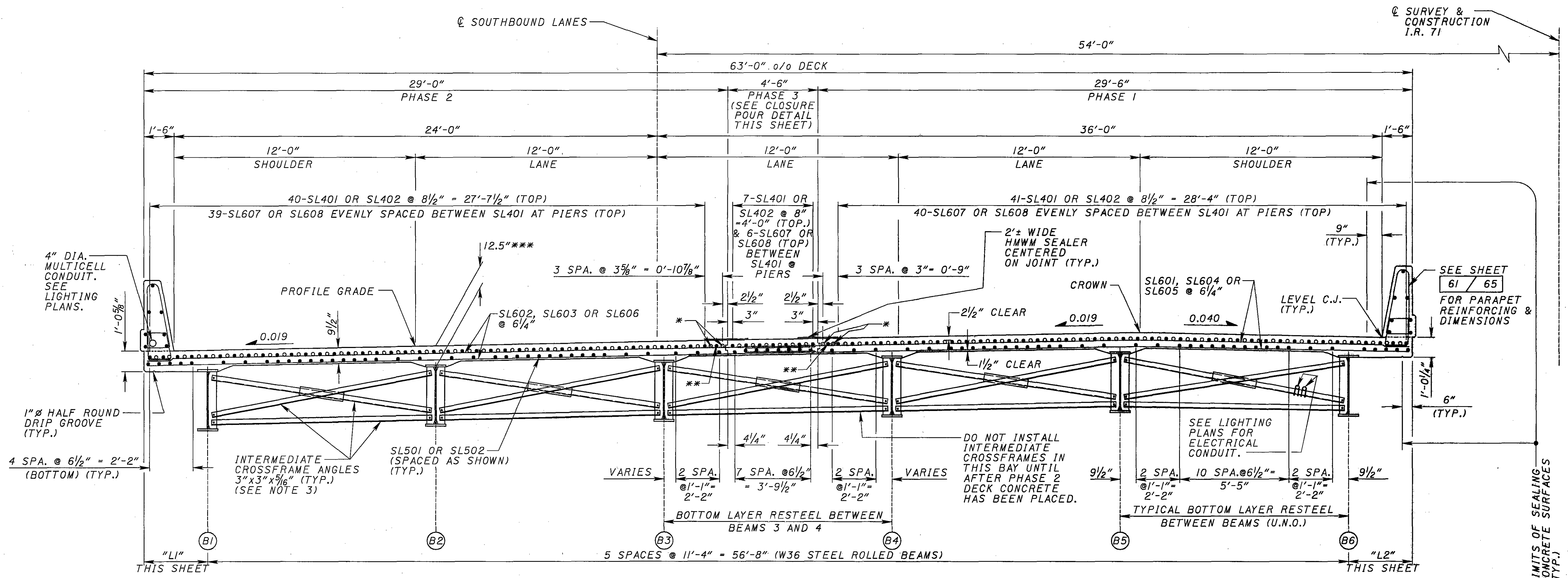
BEARING ORIENTATION DIAGRAM

NOTES:

- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- BEARING REPOSITIONING: IF THE BEAMS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
- WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND LOCATION (REAR ABUTMENT, PIER OR FORWARD ABUTMENT). THE STEEL LOAD PLATES AND HP 10x42 TEMPORARY SUPPORT ARE ASTM A709 GRADE 50W STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS.
- DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING LOADS (KIPS):

	REAR ABUT.	PIERS	FWD. ABUT.
DEAD LOAD	110	183	89
LIVE LOAD W/O IMPACT	81	101	76
TOTAL DESIGN LOAD	191	284	165
- BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES AND PEDESTALS. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.

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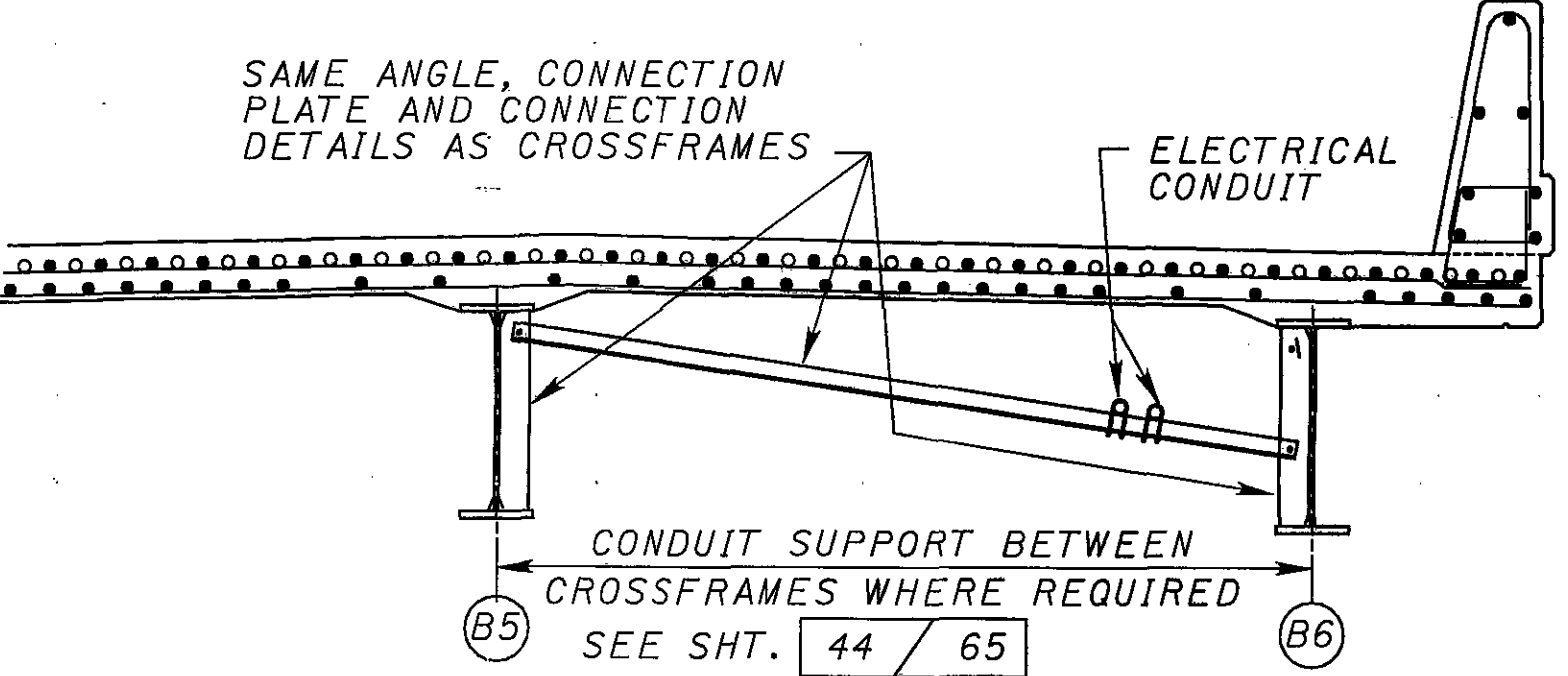


TRANSVERSE SECTION
SOUTHBOUND LANES

LOCATION	L1	L2
REAR ABUT.	3'-3 3/4"	2'-8 1/8"
1/10 POINT	3'-3"	2'-9 13/16"
2/10 POINT	3'-2 5/16"	2'-10 1/16"
3/10 POINT	3'-1 9/16"	2'-11 3/16"
4/10 POINT	3'-1"	3'-0 5/16"
5/10 POINT	3'-0 1/16"	3'-1 1/16"
6/10 POINT	2'-11 15/16"	3'-1 13/16"
7/10 POINT	2'-11 1/16"	3'-2 1/16"
8/10 POINT	2'-11"	3'-3 1/16"
9/10 POINT	2'-10 5/8"	3'-3 5/8"
PIER 1	2'-10 3/16"	3'-4 1/8"
1/10 POINT	2'-10 1/16"	3'-4 9/16"
2/10 POINT	2'-9 9/16"	3'-5"
3/10 POINT	2'-9 3/8"	3'-5 5/16"
4/10 POINT	2'-9 1/2"	3'-5 3/4"
5/10 POINT	2'-9 3/8"	3'-5 5/16"
6/10 POINT	2'-9 9/16"	3'-6 3/16"
7/10 POINT	2'-9 1/16"	3'-6 7/16"
8/10 POINT	2'-9 5/16"	3'-6 1/2"
9/10 POINT	2'-9 3/8"	3'-6 5/8"
PIER 2	2'-9 1/2"	3'-6 1/16"

LOCATION	L1	L2
PIER 2	2'-9 1/2"	3'-6 1/16"
1/10 POINT	2'-9 9/8"	3'-6 11/16"
2/10 POINT	2'-9 3/8"	3'-6 11/16"
3/10 POINT	2'-10 1/16"	3'-6 5/8"
4/10 POINT	2'-10 5/16"	3'-6 9/16"
5/10 POINT	2'-10 3/8"	3'-6 7/16"
6/10 POINT	2'-10 15/16"	3'-6 1/4"
7/10 POINT	2'-11 3/16"	3'-6"
8/10 POINT	2'-11 13/16"	3'-5 3/4"
9/10 POINT	3'-0 1/4"	3'-5 1/16"
PIER 3	3'-0 1/8"	3'-5 1/8"
1/10 POINT	3'-1 1/4"	3'-4 13/16"
2/10 POINT	3'-1 1/16"	3'-4 1/2"
3/10 POINT	3'-2 3/16"	3'-4 1/8"
4/10 POINT	3'-2 1/16"	3'-3 3/4"
5/10 POINT	3'-3 1/4"	3'-3 5/16"
6/10 POINT	3'-3 3/16"	3'-2 7/8"
7/10 POINT	3'-4 1/16"	3'-2 1/16"
8/10 POINT	3'-5 1/16"	3'-1 15/16"
9/10 POINT	3'-5 3/8"	3'-1 1/16"
FWD ABUT.	3'-6 3/8"	3'-0 15/16"

ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO C FASCIA BEAM.
TENTH POINTS TAKEN BETWEEN C ABUT. BRG. AND C PIER (OR C PIER AND C PIER)



NOTES:

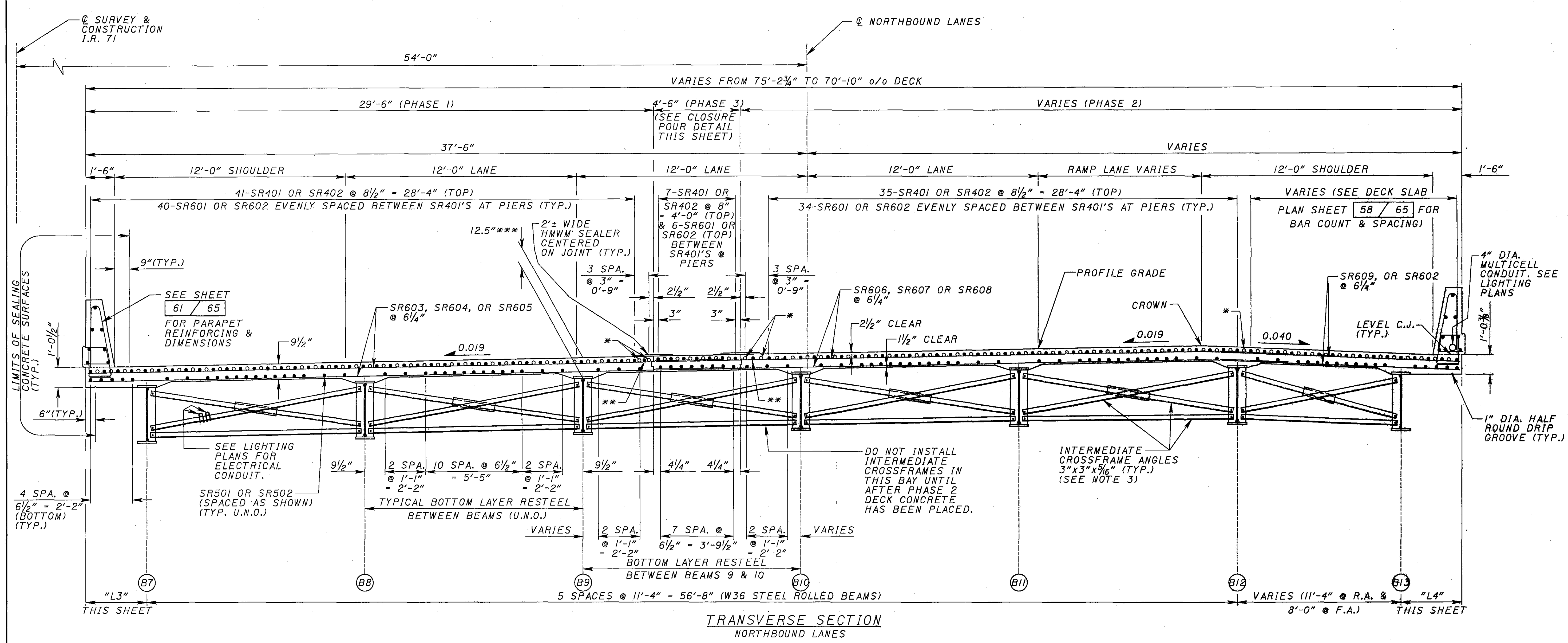
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS ±3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 5H.24.
- SEE GENERAL NOTES (SHEET 3 / 65) FOR SEALING WITH HMWM RESIN NOTE.
- FOR CROSSFRAME AND STIFFENER DETAILS, SEE STD. DWG. GSD-1-96, CROSSFRAME TYPE 3 OR TYPE 4.

LEGEND:

- C.J. = CONSTRUCTION JOINT
- HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE
- U.N.O. = UNLESS NOTED OTHERWISE
- * = SL607 OR SL608 (AT PIERS)
- ** = SL401 OR SL402
- *** = MEASURED FROM TOP OF DECK TO TOP OF WEB

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TRANSVERSE SECTION
NORTHBOUND LANES

LOCATION	L3	L4
Q REAR ABUT	3'-7 ³ / ₁₆ "	4'-0 ¹ / ₄ "
1/10 POINT	3'-6 ¹ / ₂ "	4'-0 ⁹ / ₁₆ "
2/10 POINT	3'-5 ¹³ / ₁₆ "	4'-0 ¹ / ₈ "
3/10 POINT	3'-5 ³ / ₁₆ "	4'-1 ¹ / ₈ "
4/10 POINT	3'-4"	4'-1 ⁹ / ₁₆ "
5/10 POINT	3'-4 ¹ / ₈ "	4'-1 ¹ / ₂ "
6/10 POINT	3'-3 ³ / ₈ "	4'-1 ⁵ / ₈ "
7/10 POINT	3'-3 ³ / ₁₆ "	4'-1 ¹ / ₁₆ "
8/10 POINT	3'-2 ³ / ₁₆ "	4'-1 ¹ / ₁₆ "
9/10 POINT	3'-2 ¹ / ₁₆ "	4'-1 ¹ / ₁₆ "
Q PIER 1	3'-2 ³ / ₁₆ "	4'-1 ⁹ / ₁₆ "
1/10 POINT	3'-1 ¹⁵ / ₁₆ "	4'-1 ¹ / ₂ "
2/10 POINT	3'-1 ³ / ₄ "	4'-1 ⁹ / ₁₆ "
3/10 POINT	3'-1 ¹ / ₁₆ "	4'-1 ¹ / ₈ "
4/10 POINT	3'-1 ¹ / ₁₆ "	4'-0 ⁹ / ₁₆ "
5/10 POINT	3'-1 ³ / ₈ "	4'-0 ⁵ / ₈ "
6/10 POINT	3'-1 ¹ / ₈ "	4'-0 ⁵ / ₈ "
7/10 POINT	3'-1 ³ / ₈ "	3'-11 ¹⁵ / ₁₆ "
8/10 POINT	3'-1 ¹ / ₁₆ "	3'-11 ⁹ / ₁₆ "
9/10 POINT	3'-1 ¹ / ₂ "	3'-11 ¹ / ₈ "
Q PIER 2	3'-1 ¹ / ₁₆ "	3'-10 ³ / ₈ "

LOCATION	L3	L4
Q PIER 2	3'-1 ¹⁵ / ₁₆ "	3'-10 ³ / ₈ "
1/10 POINT	3'-1 ¹³ / ₁₆ "	3'-10 ¹ / ₁₆ "
2/10 POINT	3'-2 ¹ / ₁₆ "	3'-9 ¹ / ₂ "
3/10 POINT	3'-2 ⁹ / ₁₆ "	3'-8 ¹⁵ / ₁₆ "
4/10 POINT	3'-2 ⁵ / ₈ "	3'-8 ¹ / ₄ "
5/10 POINT	3'-2 ¹ / ₁₆ "	3'-7 ⁷ / ₁₆ "
6/10 POINT	3'-3 ³ / ₁₆ "	3'-6 ¹ / ₁₆ "
7/10 POINT	3'-3 ³ / ₄ "	3'-6 ¹ / ₁₆ "
8/10 POINT	3'-4 ³ / ₁₆ "	3'-5 ¹ / ₄ "
9/10 POINT	3'-4 ³ / ₄ "	3'-4 ³ / ₈ "
Q PIER 3	3'-5 ¹ / ₄ "	3'-3 ¹ / ₂ "
1/10 POINT	3'-5 ³ / ₄ "	3'-2 ³ / ₄ "
2/10 POINT	3'-6 ¹ / ₄ "	3'-1 ⁹ / ₁₆ "
3/10 POINT	3'-6 ³ / ₄ "	3'-1 ³ / ₁₆ "
4/10 POINT	3'-7 ³ / ₁₆ "	3'-0 ⁹ / ₁₆ "
5/10 POINT	3'-7 ¹ / ₈ "	2'-11 ¹ / ₂ "
6/10 POINT	3'-8 ¹ / ₁₆ "	2'-10 ³ / ₁₆ "
7/10 POINT	3'-9 ¹ / ₁₆ "	2'-9 ¹ / ₁₆ "
8/10 POINT	3'-9 ¹ / ₁₆ "	2'-8 ¹ / ₁₆ "
9/10 POINT	3'-10 ³ / ₁₆ "	2'-7 ³ / ₁₆ "
Q FWD ABUT	3'-11 ¹ / ₁₆ "	2'-6 ¹ / ₈ "

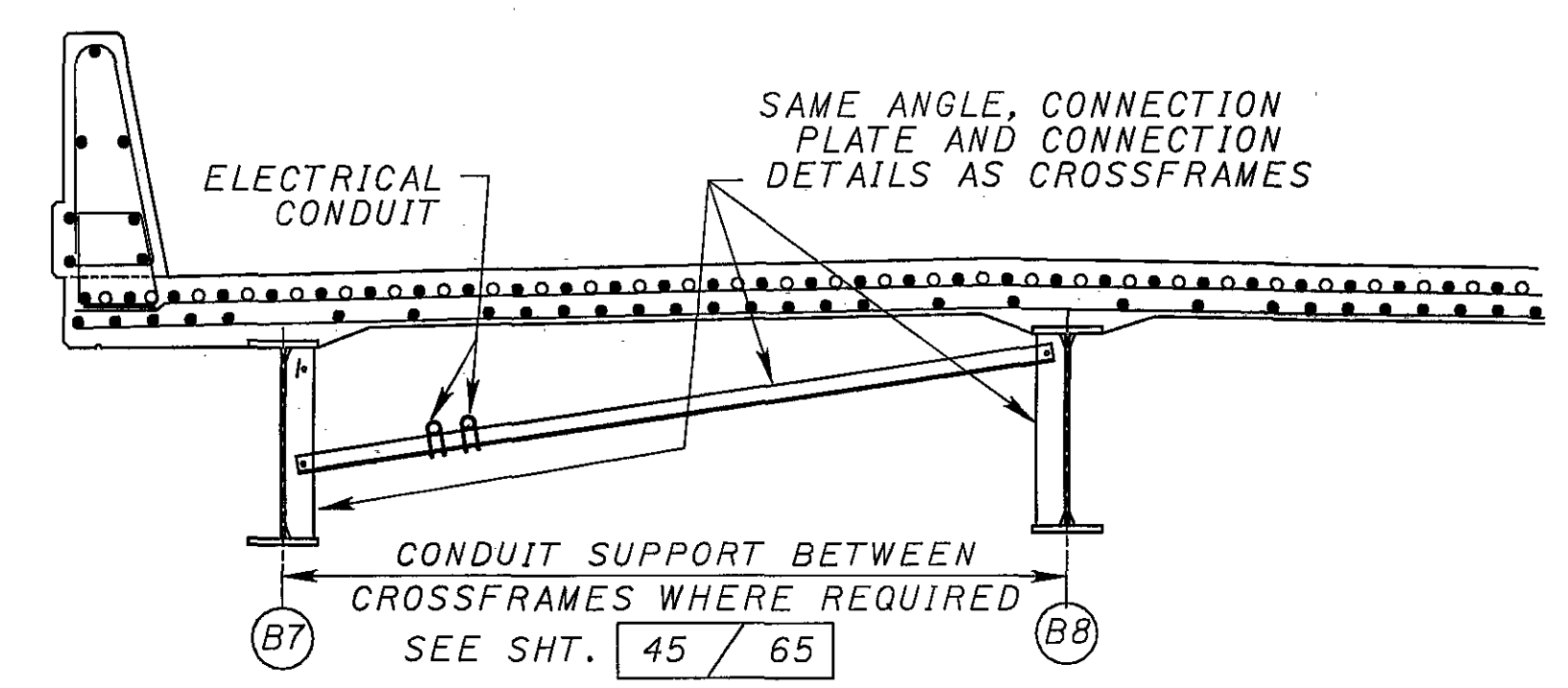
NOTES:

- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS ±3 INCHES.
- THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
- SEE GENERAL NOTES (SHEET 3/65) FOR SEALING WITH HMWM RESIN NOTE.
- FOR CROSSFRAME AND STIFFENER DETAILS. SEE STD. DWG. GSD-I-96, CROSSFRAME TYPE 3 OR TYPE 4.

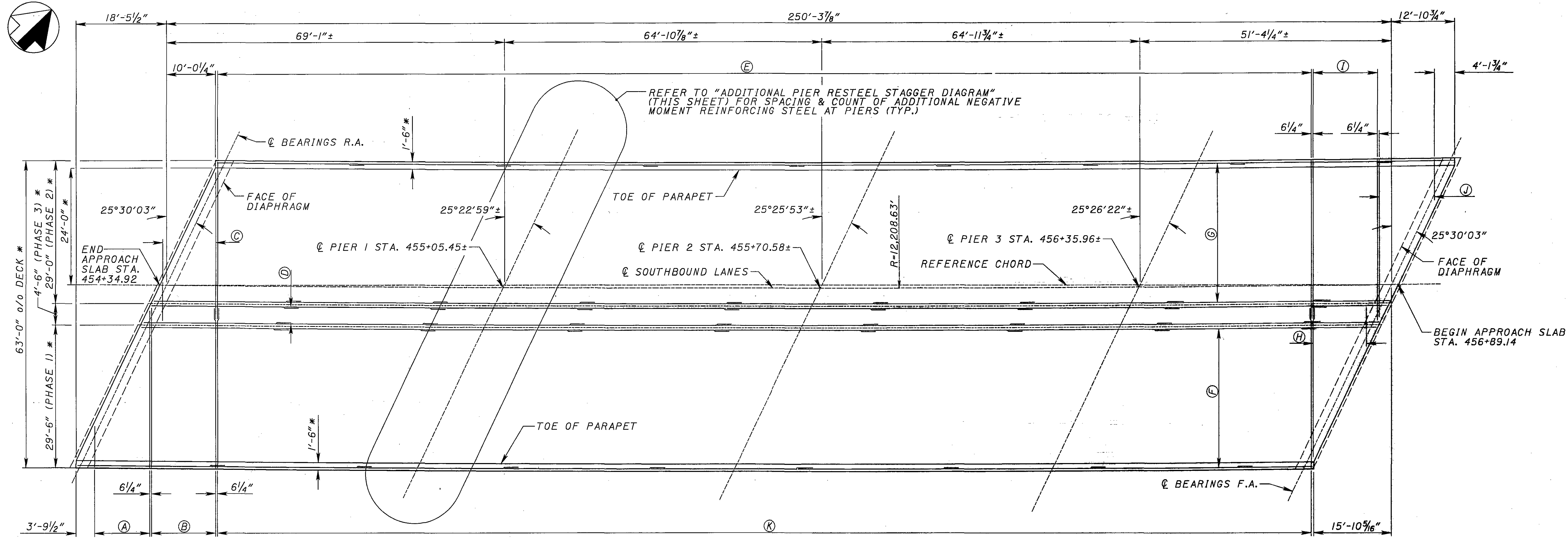
LEGEND:

- C.J. - CONSTRUCTION JOINT
- F.A. - FORWARD ABUTMENT
- HMWM - HIGH MOLECULAR WEIGHT METHACRYLATE
- R.A. - REAR ABUTMENT
- U.N.O. - UNLESS NOTED OTHERWISE
- * - SR601 OR SR603 (AT PIERS)
- ** - SR401 OR SR402
- *** - TOP OF DECK TO TOP OF WEB

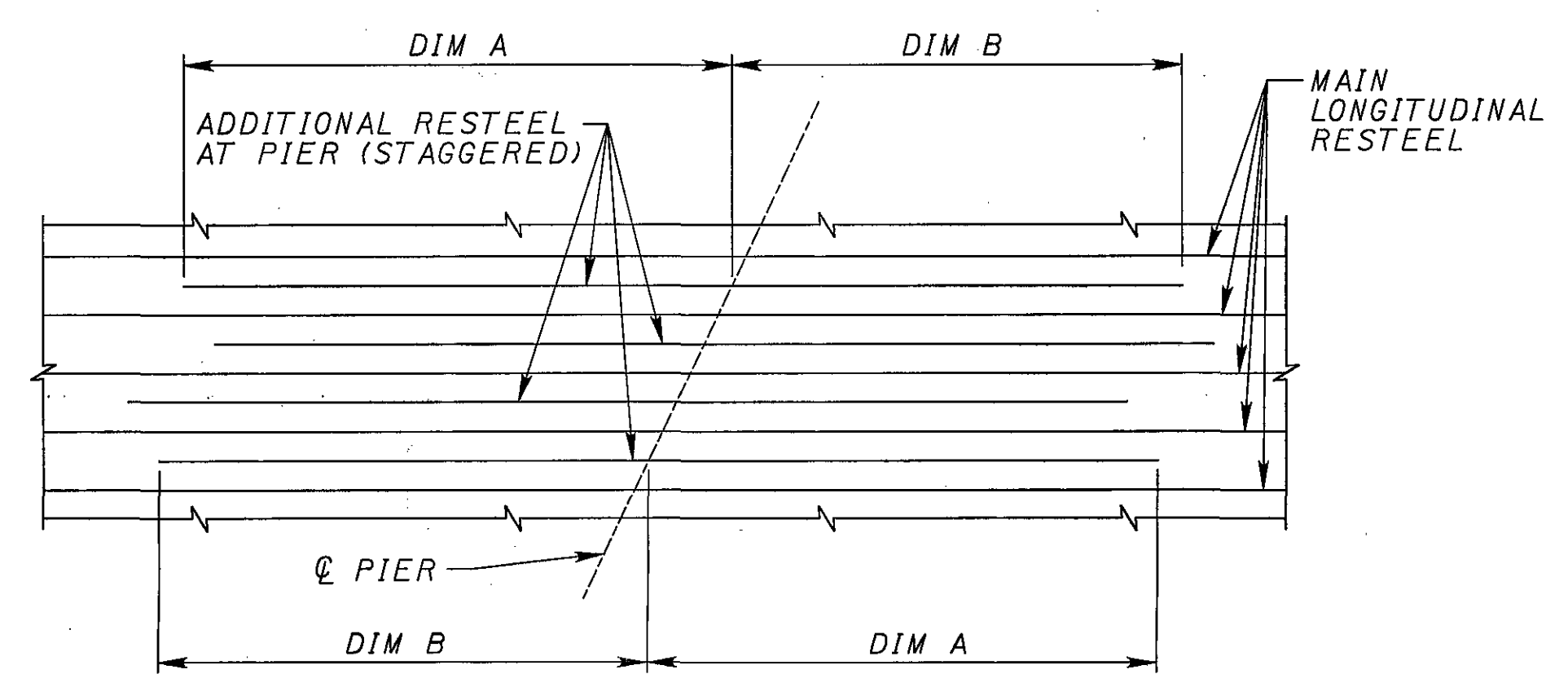
ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO Q FASCIA BEAM.
TENTH POINTS TAKEN BETWEEN Q ABUT. BRG. AND Q PIER (OR Q PIER AND Q PIER)



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SOUTHBOUND DECK SLAB PLAN
(PARAPET REINFORCING NOT SHOWN FOR CLARITY)



ADDITIONAL PIER RESTEEL STAGGER DIAGRAM

LOCATION	BAR	DIM. A	DIM. B
PIER 1	89-SL607 (34'-6")	18'-9"	15'-9"
PIER 2 & PIER 3	89-SL608 (32'-10")	17'-11"	14'-11"

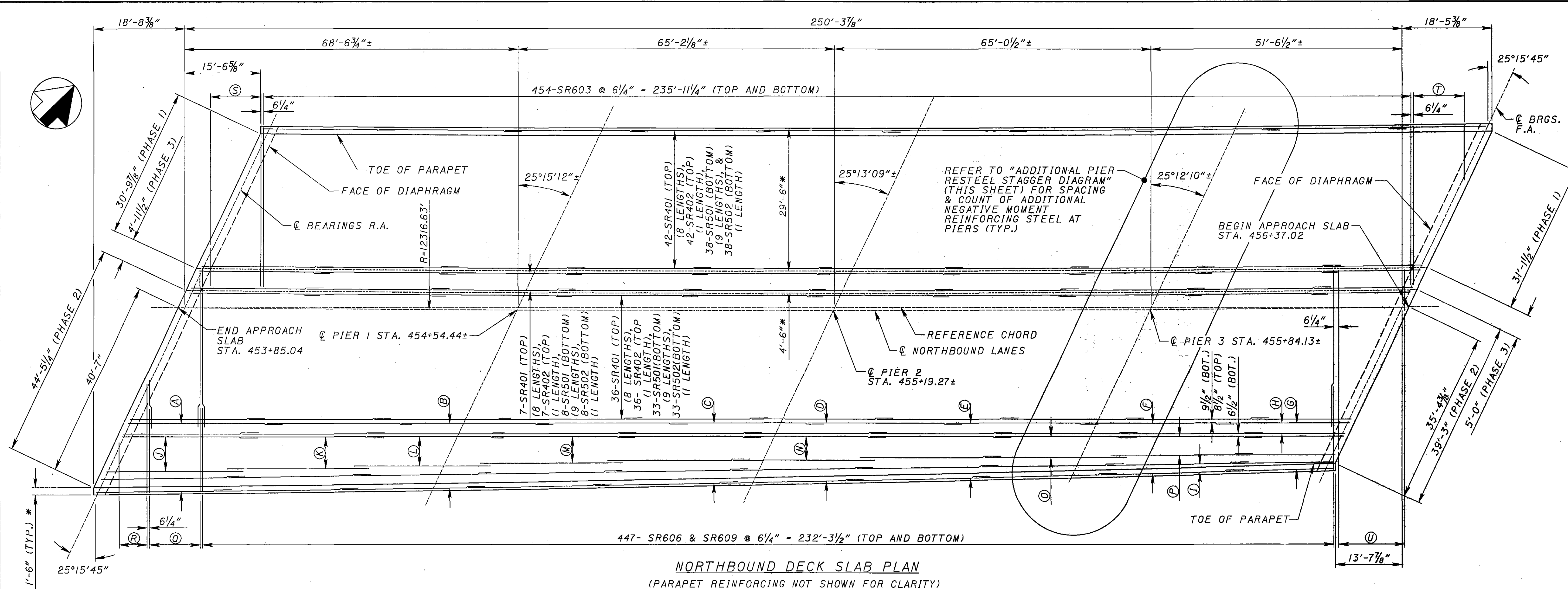
NOTES:

1. PLACE TRANSVERSE BARS PERPENDICULAR TO REFERENCE CHORD.
2. ALL DIMENSIONS ARE MEASURED PERPENDICULAR OR PARALLEL TO REFERENCE CHORD UNLESS NOTED OTHERWISE.
3. SEE SHEET 61/65 FOR PARAPET REINFORCING.
4. MINIMUM STEEL LAP LENGTHS:
#4 BAR = 1'-11"
#5 BAR = 3'-2"

LEGEND:

- * - MEASURED RADIAL TO CENTERLINE OF SOUTHBOUND LANES
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- S.O. - SERIES OF
- (A) - 1 S.O. 23-SL604 @ 6/4" = 11'-5 1/2" (TOP & BOTTOM)
- (B) - 25-SL601 @ 6/4" = 12'-6" (TOP & BOTTOM)
- (C) - 1 S.O. 21-SL603 @ 6/4" = 10'-5" (TOP & BOTTOM) (LAP W/ SL601)
- (D) - 7-SL401 @ 8" = 4'-0" (TOP) (8 LENGTHS) & 7-SL402 @ 8" = 4'-0" (TOP) (1 LENGTH)
8-SL501 @ 6/2" = 3'-9 1/2" (BOTTOM) (9 LENGTHS) & 8-SL502 @ 6/2" = 3'-9 1/2" (BOTTOM) (1 LENGTH)
- (E) - 431-SL602 @ 6/4" = 223'-11 1/2" (TOP & BOTTOM) (LAP W/ SL601)
- (F) - 42-SL401 (TOP) (8 LENGTHS) & 42-SL402 (TOP) (1 LENGTH) (REFER TO TYPICAL SECTION FOR MORE DETAIL)
38-SL501 (BOTTOM) (9 LENGTHS) & 38-SL502 (BOTTOM) (1 LENGTH) (SPACED AS SHOWN IN TRANSVERSE SECTION)
- (G) - 41-SL401 (TOP) (8 LENGTHS) & 41-SL402 (TOP) (1 LENGTH) (REFER TO TYPICAL SECTION FOR MORE DETAIL)
38-SL501 (BOTTOM) (9 LENGTHS) & 38-SL502 (BOTTOM) (1 LENGTH) (SPACED AS SHOWN IN TRANSVERSE SECTION)
- (H) - 1 S.O. 21-SL605 @ 6/4" = 10'-5" (TOP & BOTTOM)
- (I) - 25-SL602 @ 6/4" = 12'-6" (TOP & BOTTOM) (LAP W/ SL605)
- (J) - 1 S.O. 23-SL606 @ 6/4" = 11'-5 1/2" (TOP & BOTTOM)
- (K) - 431-SL601 @ 6/4" = 223'-11 1/2" (TOP & BOTTOM)

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07.isd5.dgn



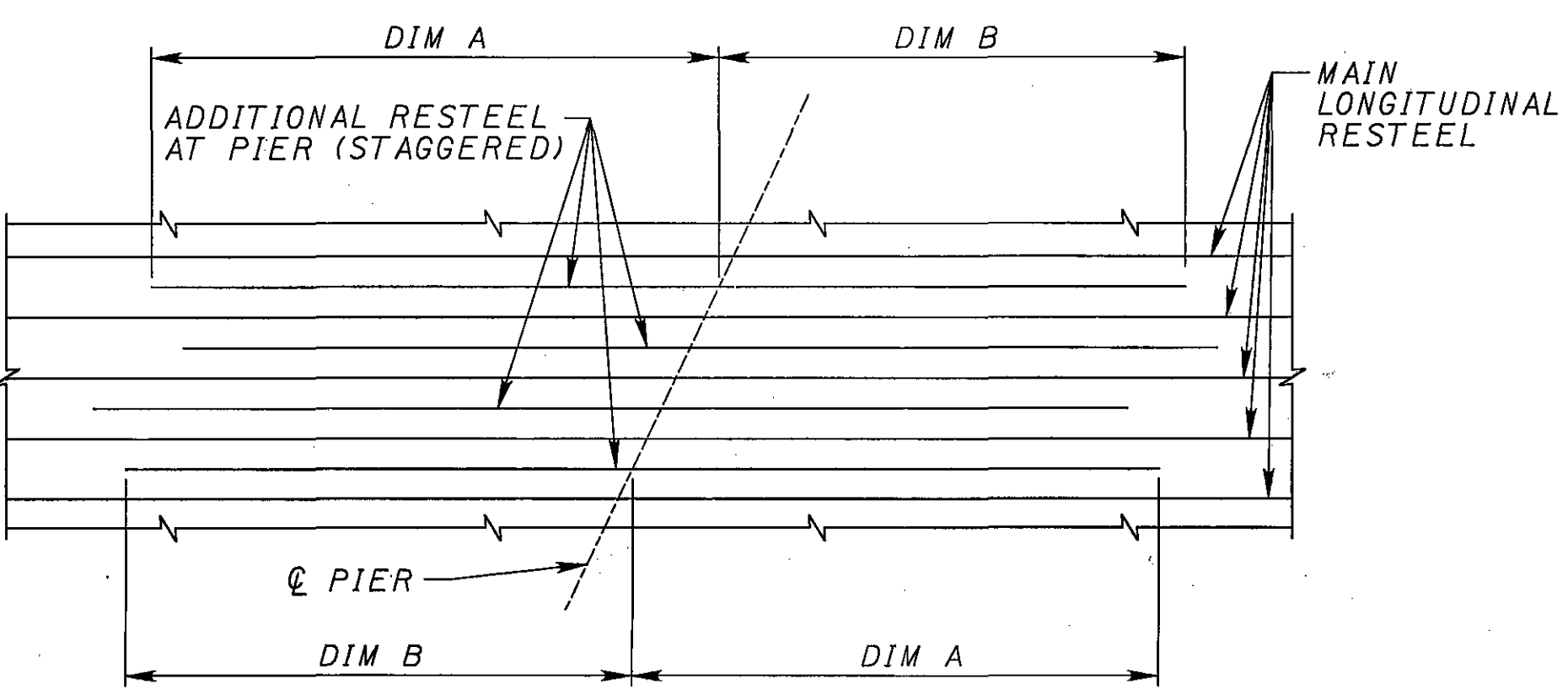
NORTHBOUND DECK SLAB PLAN
(PARAPET REINFORCING NOT SHOWN FOR CLARITY)

LEGEND:

- * - MEASURED RADIAL TO CENTERLINE OF NORTHBOUND LANES
- BRGS. = BEARINGS
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- S.O. = SERIES OF
- Ⓐ - 21- SR401 @ 8 1/2" (MAX.) (TOP) (2 LENGTHS)
- Ⓑ - 20- SR401 @ 8 1/2" (MAX.) (TOP) (LAP W/ Ⓐ BARS) (2 LENGTHS)
- Ⓒ - 19- SR401 @ 8 1/2" (MAX.) (TOP) (LAP W/ Ⓑ BARS)
- Ⓓ - 18- SR401 @ 8 1/2" (MAX.) (TOP) (LAP W/ Ⓒ BARS)
- Ⓔ - 17- SR401 @ 8 1/2" (MAX.) (TOP) (LAP W/ Ⓓ BARS)
- Ⓕ - 16- SR401 @ 8 1/2" (MAX.) (TOP) (LAP W/ Ⓔ BARS)
- Ⓖ - 15- SR401 @ 8 1/2" (MAX.) (TOP) (LAP W/ Ⓕ BARS)
- Ⓗ - 3- SR501 @ 1'-1" = 2'-2" (BOTTOM) (9 LENGTHS) & 3-SR502 @ 1'-1" = 2'-2" (BOTTOM) (1 LENGTH)
- Ⓙ - 5- SR501 @ 6 1/2" = 2'-2" (BOTTOM) (9 LENGTHS) & 5-SR503 @ 6 1/2" = 2'-2" (BOTTOM) (1 LENGTH)
- Ⓝ - 14- SR501 @ 6 1/2" = 7'-0 1/2" (BOTTOM)
- Ⓚ - 13- SR501 @ 6 1/2" = 6'-6" (BOTTOM) (LAP W/ Ⓝ BARS)
- Ⓛ - 12- SR501 @ 6 1/2" = 5'-11 1/2" (BOTTOM) (LAP W/ Ⓚ BARS)
- Ⓜ - 11- SR501 @ 6 1/2" = 5'-5" (BOTTOM) (LAP W/ Ⓛ BARS)
- Ⓨ - 10- SR501 @ 6 1/2" = 4'-10 1/2" (BOTTOM) (2 LENGTHS) (LAP W/ Ⓜ BARS)
- Ⓟ - 9- SR501 @ 6 1/2" = 4'-4" (BOTTOM) (2 LENGTHS) (LAP W/ Ⓨ BARS)
- Ⓟ - 8- SR501 @ 6 1/2" = 3'-9 1/2" (BOTTOM) (LAP W/ Ⓟ BARS) & 8-SR503 @ 6 1/2" = 3'-9 1/2" (BOTTOM) (LAP W/ 8-SR501's)
- Ⓠ - 21- SR609 & 1 S.O. 21- SR607 @ 6 1/4" = 10'-5" (TOP AND BOTTOM)
- Ⓡ - 1 S.O. 12- SR602 @ 6 1/4" = 5'-8 3/4" (TOP AND BOTTOM)
- Ⓢ - 1 S.O. 21- SR604 @ 6 1/4" = 10'-5" (TOP AND BOTTOM)
- Ⓣ - 1 S.O. 21- SR605 @ 6 1/4" = 10'-5" (TOP AND BOTTOM)
- Ⓤ - 1 S.O. 28- SR608 @ 6 1/4" = 14'-0 3/4" (TOP AND BOTTOM)

NOTES:

1. PLACE TRANSVERSE BARS PERPENDICULAR TO REFERENCE CHORD.
2. ALL DIMENSIONS ARE MEASURED PERPENDICULAR OR PARALLEL TO REFERENCE CHORD UNLESS NOTED OTHERWISE.
3. SEE SHEET 61 / 65 FOR PARAPET REINFORCING.
4. MINIMUM REINFORCING STEEL LAP LENGTHS:
 #4 BAR = 1'-11"
 #5 BAR = 3'-2"
 #6 BAR = 3'-5"



ADDITIONAL PIER RESTEEL STAGGER DIAGRAM

LOCATION	BAR	DIM. A	DIM. B
PIER 1	104-SR601 (34'-6")	18'-9"	15'-9"
PIER 2	102-SR603 (32'-10")	17'-11"	14'-11"
PIER 3	101-SR603 (32'-10")	17'-11"	14'-11"

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07s06.dgn

BURGESS & NIPLE
5205 Reed Road
Columbus, Ohio 43220

DATE	6/04
REVIEWED	BES
DESIGNED	MAK
DRAWN	JHL/MAK
REVISIONS	5203031 - LEFT 5203066 - RIGHT

DECK SLAB PLAN - NORTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

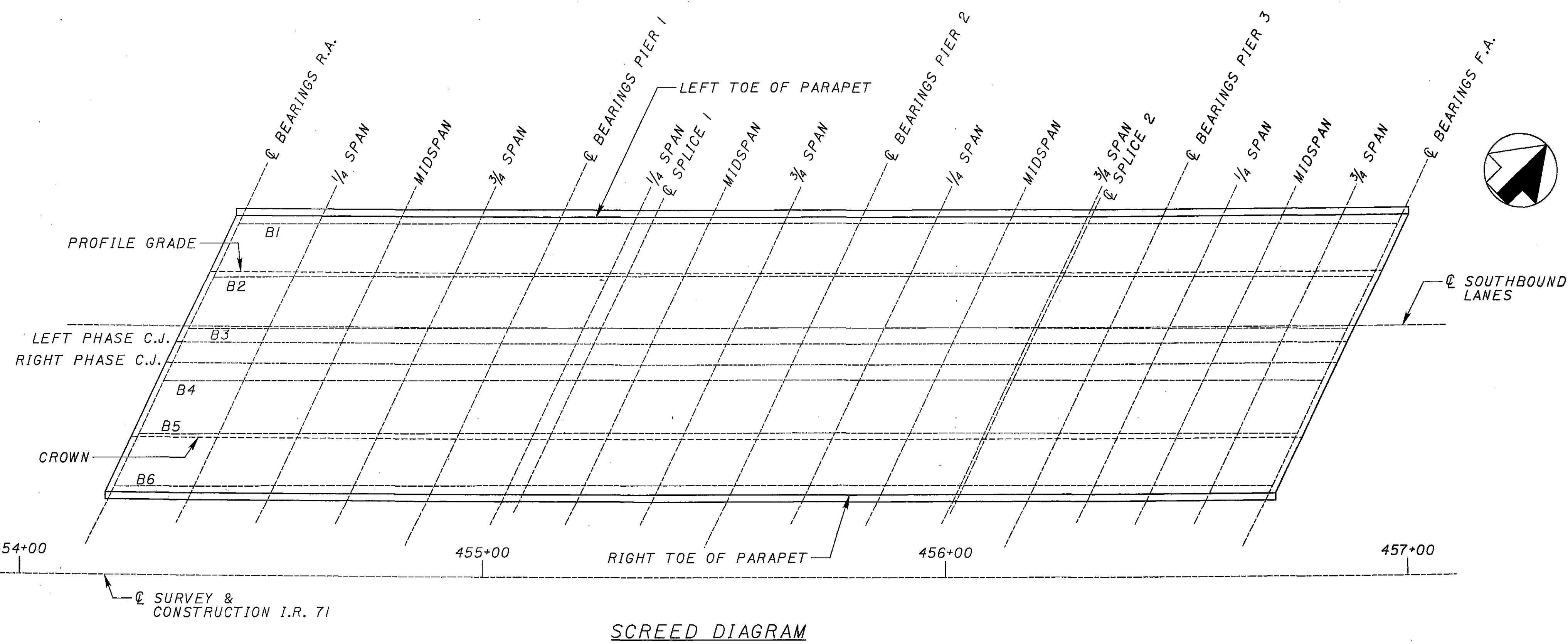
MED-71-6.06
PID-75657

58 / 65

975
1120

SOUTHBOUND SCREED TABLE

LOCATION	LEFT TOE OF PARAPET		B1		B2		B3		LEFT PHASE C.J.		RIGHT PHASE C.J.		B4		B5		CROWN		B6		RIGHT TOE OF PARAPET	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
Q BEARINGS R.A.	454+47.53	1039.53	454+46.68	1039.54	454+41.35	1039.64	454+36.03	1039.73	454+34.67	1039.76	454+32.57	1039.79	454+30.72	1039.83	454+25.43	1039.92	454+25.13	1039.93	454+20.14	1039.38	454+19.56	1039.32
1/4 SPAN	454+64.82	1039.99	454+64.04	1040.00	454+58.70	1040.10	454+53.38	1040.19	454+51.94	1040.22	454+49.84	1040.26	454+48.06	1040.29	454+42.75	1040.38	454+42.37	1040.39	454+37.46	1039.86	454+36.79	1039.78
MIDSPAN	454+82.13	1040.39	454+81.40	1040.40	454+76.06	1040.50	454+70.72	1040.60	454+69.21	1040.62	454+67.11	1040.66	454+65.40	1040.69	454+60.08	1040.79	454+59.63	1040.80	454+54.78	1040.28	454+54.03	1040.19
3/4 SPAN	454+99.45	1040.73	454+98.77	1040.74	454+93.41	1040.84	454+88.07	1040.94	454+86.50	1040.97	454+84.39	1041.01	454+82.73	1041.04	454+77.41	1041.13	454+76.89	1041.14	454+72.09	1040.63	454+71.29	1040.54
Q BEARING PIER 1	455+16.78	1041.05	455+16.13	1041.06	455+10.77	1041.16	455+05.42	1041.26	455+03.80	1041.29	455+01.68	1041.33	455+00.07	1041.36	454+94.74	1041.46	454+94.17	1041.47	454+89.41	1040.96	454+88.55	1040.87
1/4 SPAN	455+33.09	1041.40	455+32.47	1041.41	455+27.09	1041.51	455+21.71	1041.61	455+20.06	1041.64	455+17.94	1041.68	455+16.35	1041.71	455+11.00	1041.82	455+10.40	1041.83	455+05.66	1041.32	455+04.75	1041.23
Q SPLICE 1	455+37.02	1041.49	455+36.40	1041.50	455+30.99	1041.60	455+25.59	1041.70	455+23.92	1041.73	455+21.79	1041.77	455+20.20	1041.80	455+14.82	1041.90	455+14.20	1041.91	455+09.45	1041.41	455+08.53	1041.31
MIDSPAN	455+49.41	1041.75	455+48.80	1041.77	455+43.40	1041.87	455+38.01	1041.97	455+36.34	1042.00	455+34.20	1042.04	455+32.63	1042.07	455+27.26	1042.17	455+26.63	1042.19	455+21.90	1041.69	455+20.96	1041.59
3/4 SPAN	455+65.75	1042.09	455+65.14	1042.10	455+59.72	1042.20	455+54.31	1042.31	455+52.62	1042.34	455+50.48	1042.38	455+48.91	1042.41	455+43.53	1042.51	455+42.87	1042.52	455+38.15	1042.03	455+37.18	1041.92
Q BEARING PIER 2	455+82.09	1042.41	455+81.47	1042.42	455+76.04	1042.53	455+70.61	1042.63	455+68.91	1042.67	455+66.76	1042.71	455+65.20	1042.74	455+59.79	1042.84	455+59.13	1042.85	455+54.39	1042.36	455+53.42	1042.26
1/4 SPAN	455+98.46	1042.77	455+97.82	1042.78	455+92.37	1042.88	455+86.93	1042.99	455+85.23	1043.02	455+83.07	1043.06	455+81.50	1043.09	455+76.08	1043.20	455+75.41	1043.21	455+70.66	1042.72	455+69.68	1042.61
MIDSPAN	456+14.84	1043.11	456+14.17	1043.12	456+08.70	1043.23	456+03.25	1043.33	456+01.57	1043.37	455+99.40	1043.41	455+97.80	1043.44	455+92.36	1043.55	455+91.71	1043.56	455+86.94	1043.06	455+85.96	1042.96
3/4 SPAN	456+31.23	1043.41	456+30.52	1043.43	456+25.04	1043.53	456+19.56	1043.64	456+17.91	1043.67	456+15.73	1043.72	456+14.10	1043.75	456+08.65	1043.85	456+08.02	1043.87	456+03.21	1043.37	456+02.25	1043.27
Q SPLICE 2	456+32.04	1043.43	456+31.33	1043.44	456+25.83	1043.55	456+20.34	1043.65	456+18.68	1043.69	456+16.50	1043.73	456+14.86	1043.76	456+09.39	1043.87	456+08.76	1043.88	456+03.93	1043.38	456+02.98	1043.29
Q BEARING PIER 3	456+47.63	1043.71	456+46.87	1043.72	456+41.37	1043.83	456+35.88	1043.94	456+34.26	1043.97	456+32.08	1044.01	456+30.40	1044.05	456+24.93	1044.16	456+24.34	1044.17	456+19.48	1043.67	456+18.55	1043.57
1/4 SPAN	456+60.61	1043.96	456+59.79	1043.98	456+54.28	1044.09	456+48.77	1044.20	456+47.19	1044.23	456+45.00	1044.27	456+43.28	1044.31	456+37.80	1044.42	456+37.24	1044.43	456+32.32	1043.93	456+31.43	1043.83
MIDSPAN	456+73.59	1044.22	456+72.72	1044.24	456+67.19	1044.35	456+61.67	1044.46	456+60.13	1044.49	456+57.93	1044.53	456+56.16	1044.57	456+50.66	1044.68	456+50.14	1044.69	456+45.17	1044.18	456+44.31	1044.10
3/4 SPAN	456+86.58	1044.46	456+85.64	1044.48	456+80.10	1044.59	456+74.56	1044.70	456+73.07	1044.73	456+70.87	1044.77	456+69.04	1044.81	456+63.52	1044.92	456+63.05	1044.93	456+58.02	1044.42	456+57.20	1044.34
Q BEARINGS F.A.	456+99.57	1044.68	456+98.57	1044.70	456+93.01	1044.81	456+87.46	1044.92	456+86.02	1044.95	456+83.81	1045.00	456+81.91	1045.03	456+76.38	1045.15	456+75.96	1045.15	456+70.86	1044.64	456+70.09	1044.56



LEGEND:
 B_ = BEAM NUMBER
 C.J. = CONSTRUCTION JOINT
 F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT

NOTE:
 1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07.sdt.DGN

DESIGNED: TTK
 CHECKED: JHL
 DRAWN: CRC
 REVISION: 1
 REVIEWED: BES
 DATE: 6/04
 STRUCTURE FILE NUMBER: 5203066
 LEFT - RIGHT: 5203066 - RIGHT
 BURGESS & NIPLE
 505 Reed Road
 Columbus, Ohio 43220

SCREED TABLE - SOUTHBOUND
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
 PID-75657

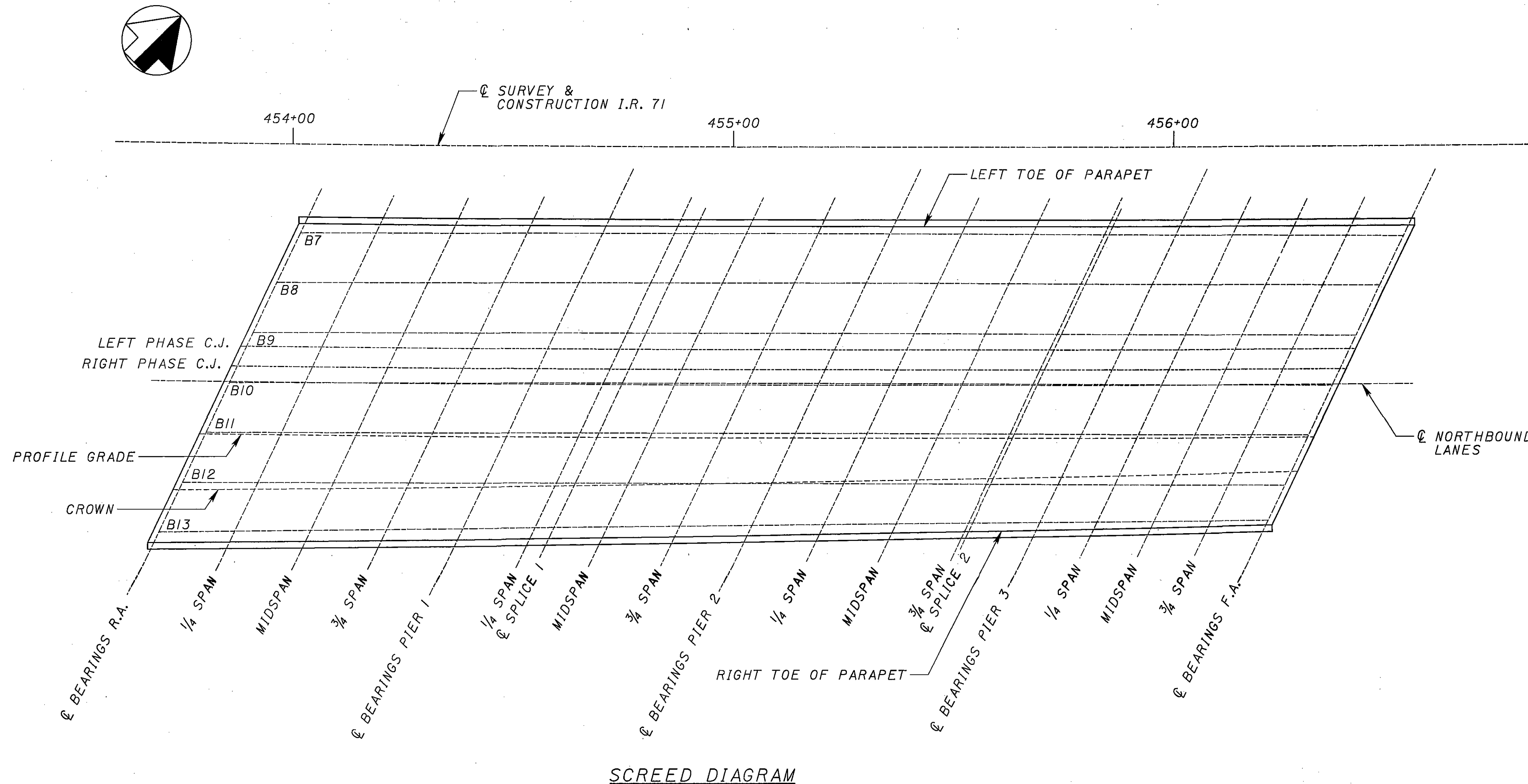
59 / 65
 976
 1120

NORTHBOUND SCREED TABLE

LOCATION	LEFT TOE OF PARAPET		B7		B8		B9		LEFT PHASE C.J.		RIGHT PHASE C.J.		B10		B11		CROWN		B12		B13	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
⊙ BEARINGS R.A.	454+02.93	1039.40	454+01.97	1039.42	453+96.73	1039.52	453+91.51	1039.63	453+90.07	1039.66	453+88.01	1039.70	453+86.29	1039.73	453+81.09	1039.84	453+75.11	1039.96	453+75.89	1039.94	453+70.71	1039.48
1/4 SPAN	454+19.98	1039.82	454+19.08	1039.84	454+13.83	1039.95	454+08.59	1040.05	454+07.08	1040.09	454+05.01	1040.13	454+03.36	1040.16	453+98.14	1040.27	453+92.22	1040.39	453+92.93	1040.37	453+87.83	1039.91
MIDSPAN	454+37.04	1040.19	454+36.19	1040.21	454+30.93	1040.32	454+25.67	1040.43	454+24.09	1040.46	454+22.02	1040.50	454+20.43	1040.53	454+15.19	1040.64	454+09.34	1040.76	454+09.96	1040.75	454+04.96	1040.29
3/4 SPAN	454+54.12	1040.50	454+53.30	1040.52	454+48.02	1040.62	454+42.75	1040.73	454+41.12	1040.77	454+39.03	1040.81	454+37.49	1040.84	454+32.24	1040.95	454+26.47	1041.07	454+27.00	1041.06	454+22.09	1040.60
⊙ BEARING PIER 1	454+71.20	1040.79	454+70.41	1040.81	454+65.12	1040.92	454+59.83	1041.03	454+58.16	1041.06	454+56.06	1041.11	454+54.56	1041.14	454+49.29	1041.25	454+43.61	1041.37	454+44.04	1041.36	454+39.21	1040.90
1/4 SPAN	454+87.44	1041.11	454+86.68	1041.13	454+81.37	1041.24	454+76.07	1041.35	454+74.36	1041.39	454+72.26	1041.43	454+70.78	1041.46	454+65.50	1041.58	454+59.92	1041.69	454+60.23	1041.69	454+55.50	1041.22
⊙ SPLICE 1	454+91.75	1041.20	454+90.99	1041.22	454+85.67	1041.33	454+80.36	1041.44	454+78.65	1041.48	454+76.55	1041.52	454+75.07	1041.55	454+69.78	1041.66	454+64.50	1041.78	454+64.50	1041.77	454+59.79	1041.31
MIDSPAN	455+03.70	1041.44	455+02.94	1041.46	454+97.62	1041.57	454+92.31	1041.68	454+90.57	1041.72	454+88.47	1041.77	454+87.01	1041.80	454+81.71	1041.91	454+76.25	1042.02	454+76.43	1042.02	454+71.79	1041.55
3/4 SPAN	455+19.96	1041.75	455+19.20	1041.76	455+13.87	1041.88	455+08.54	1041.99	455+06.80	1042.03	455+04.69	1042.07	455+03.23	1042.10	454+97.93	1042.22	454+92.58	1042.33	454+92.63	1042.33	454+88.07	1041.86
⊙ BEARINGS PIER 2	455+36.24	1042.04	455+35.46	1042.06	455+30.12	1042.18	455+24.78	1042.29	455+23.03	1042.33	455+20.92	1042.37	455+19.45	1042.41	455+14.14	1042.52	455+08.92	1042.63	455+08.83	1042.62	455+04.36	1042.15
1/4 SPAN	455+52.49	1042.37	455+51.69	1042.39	455+46.33	1042.50	455+40.98	1042.62	455+39.24	1042.66	455+37.12	1042.70	455+35.64	1042.73	455+30.31	1042.85	455+25.24	1042.96	455+24.99	1042.93	455+20.61	1042.48
MIDSPAN	455+68.76	1042.68	455+67.92	1042.70	455+62.55	1042.82	455+57.19	1042.93	455+55.46	1042.97	455+53.34	1043.02	455+51.83	1043.05	455+46.49	1043.17	455+41.57	1043.27	455+41.15	1043.23	455+36.86	1042.79
3/4 SPAN	455+85.03	1042.96	455+84.15	1042.98	455+78.77	1043.09	455+73.39	1043.21	455+71.70	1043.25	455+69.56	1043.30	455+68.02	1043.33	455+62.66	1043.45	455+57.91	1043.55	455+57.31	1043.49	455+53.12	1043.06
⊙ SPLICE 2	455+86.05	1042.97	455+85.17	1042.99	455+79.77	1043.11	455+74.37	1043.23	455+72.68	1043.27	455+70.54	1043.31	455+68.99	1043.35	455+63.62	1043.46	455+58.87	1043.57	455+58.25	1043.50	455+54.05	1043.07
⊙ BEARINGS PIER 3	456+01.31	1043.22	456+00.38	1043.24	455+94.98	1043.36	455+89.59	1043.48	455+87.94	1043.52	455+85.79	1043.57	455+84.21	1043.60	455+78.83	1043.72	455+74.26	1043.82	455+73.47	1043.74	455+69.37	1043.32
1/4 SPAN	456+14.24	1043.46	456+13.26	1043.48	456+07.84	1043.60	456+02.43	1043.72	456+00.82	1043.76	455+98.67	1043.81	455+97.03	1043.84	455+91.65	1043.96	455+87.22	1044.06	455+86.27	1043.96	455+82.23	1043.55
MIDSPAN	456+27.17	1043.70	456+26.13	1043.72	456+20.70	1043.84	456+15.28	1043.96	456+13.70	1044.00	456+11.55	1044.04	456+09.86	1044.08	456+04.46	1044.20	456+00.18	1044.30	455+99.07	1044.18	455+95.10	1043.78
3/4 SPAN	456+40.11	1043.91	456+39.01	1043.94	456+33.56	1044.06	456+28.12	1044.18	456+26.60	1044.21	456+24.43	1044.26	456+22.69	1044.30	456+17.27	1044.42	456+13.16	1044.51	456+11.86	1044.38	456+07.97	1043.99
⊙ BEARINGS F.A.	456+53.06	1044.11	456+51.88	1044.14	456+46.41	1044.26	456+40.96	1044.38	456+39.50	1044.41	456+37.33	1044.46	456+35.52	1044.50	456+30.08	1044.62	456+26.14	1044.71	456+24.66	1044.57	456+20.84	1044.18

NORTHBOUND SCREED TABLE (CONT'D)

LOCATION	RIGHT TOE OF PARAPET	
	STATION	ELEV.
⊙ BEARINGS R.A.	453+69.60	1039.36
1/4 SPAN	453+86.69	1039.79
MIDSPAN	454+03.79	1040.16
3/4 SPAN	454+20.90	1040.47
⊙ BEARING PIER 1	454+38.02	1040.77
1/4 SPAN	454+54.32	1041.10
⊙ SPLICE 1	454+58.61	1041.18
MIDSPAN	454+70.62	1041.43
3/4 SPAN	454+86.94	1041.74
⊙ BEARINGS PIER 2	455+03.26	1042.04
1/4 SPAN	455+19.56	1042.37
MIDSPAN	455+35.87	1042.68
3/4 SPAN	455+52.19	1042.96
⊙ SPLICE 2	455+53.13	1042.98
⊙ BEARINGS PIER 3	455+68.52	1043.23
1/4 SPAN	455+81.46	1043.47
MIDSPAN	455+94.41	1043.71
3/4 SPAN	456+07.36	1043.93
⊙ BEARINGS F.A.	456+20.32	1044.13



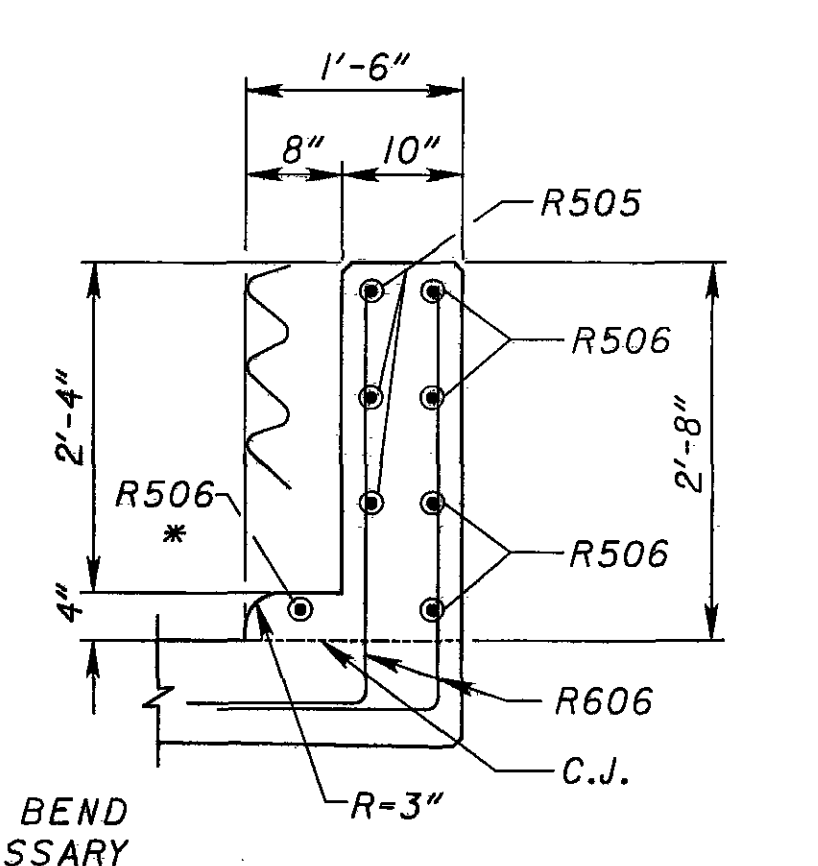
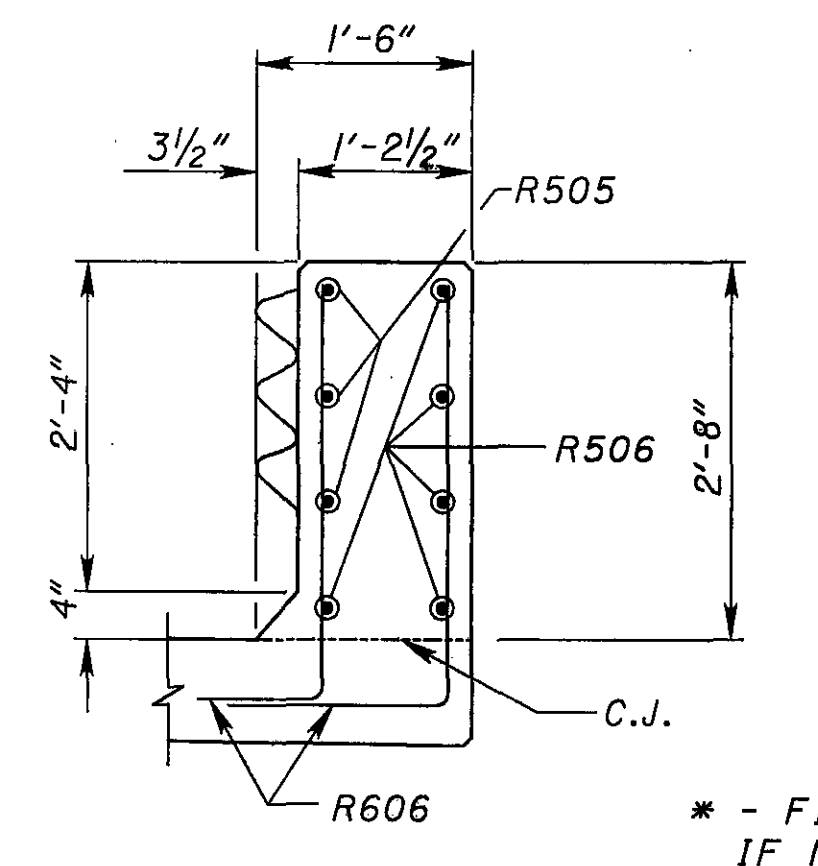
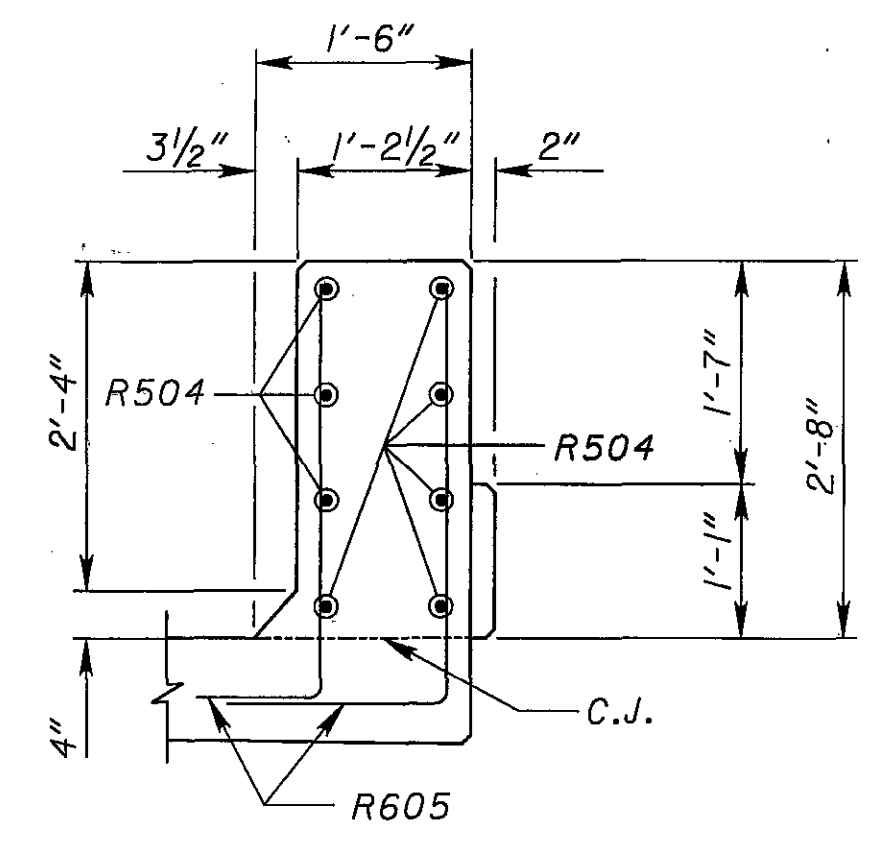
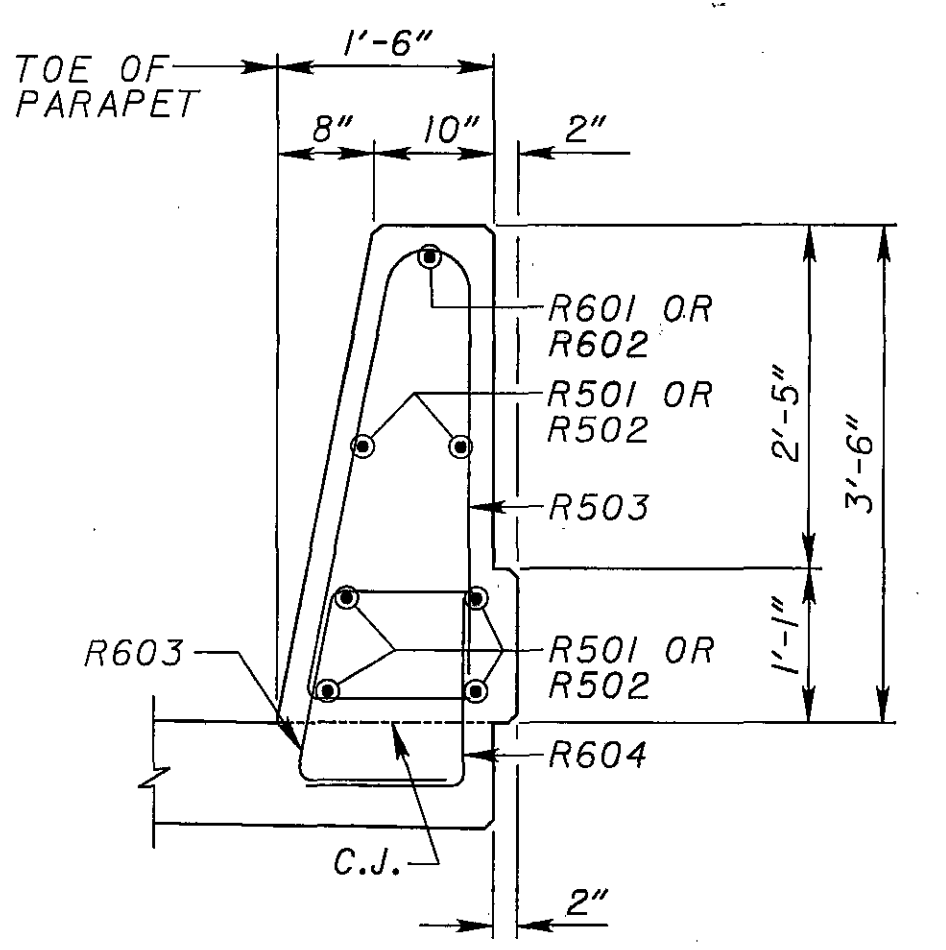
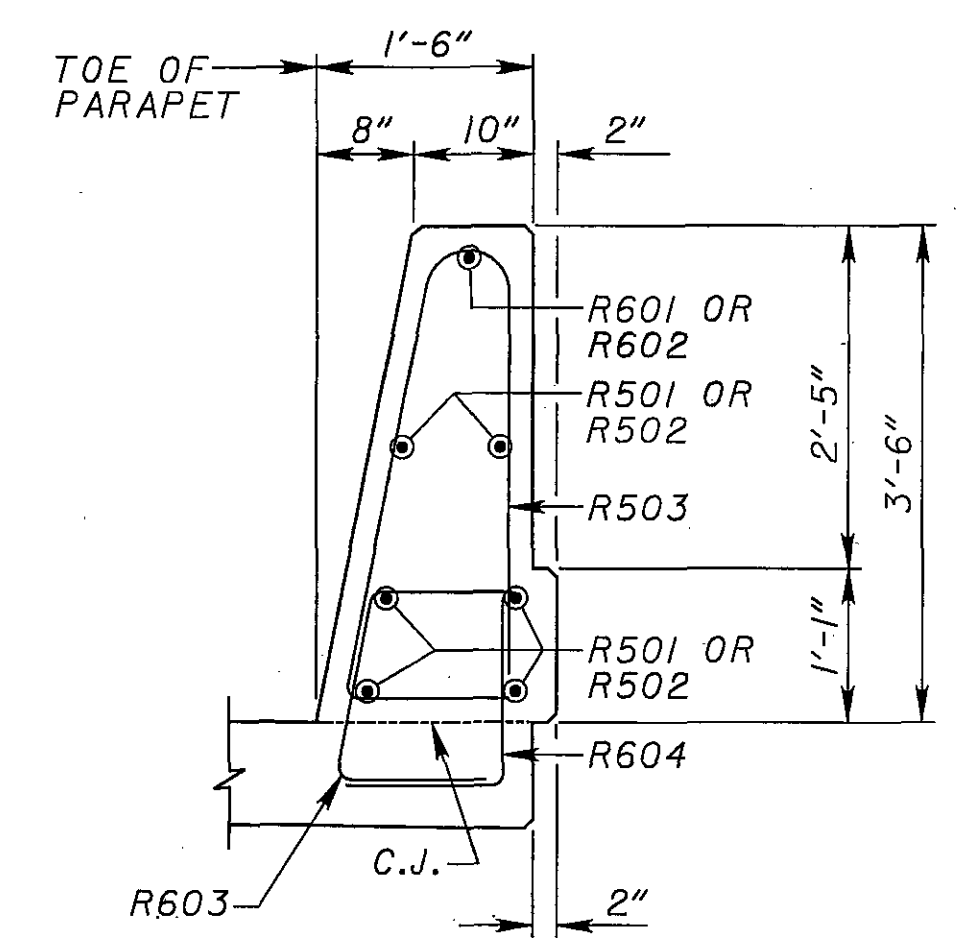
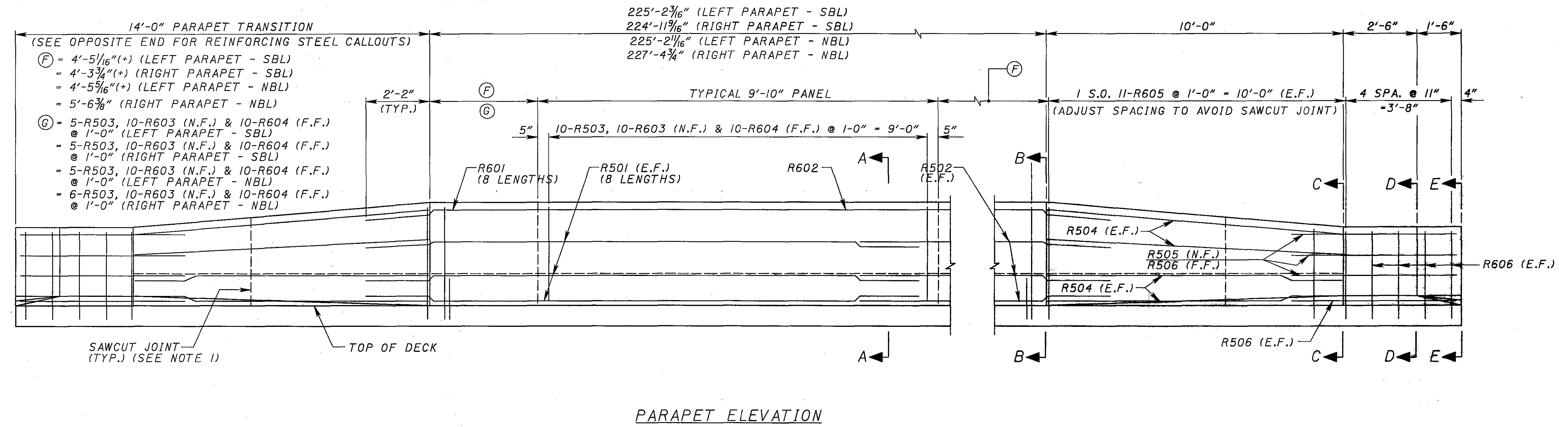
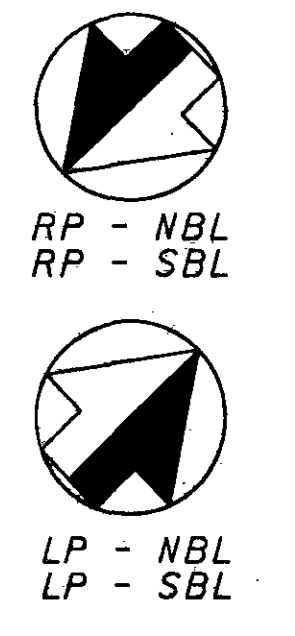
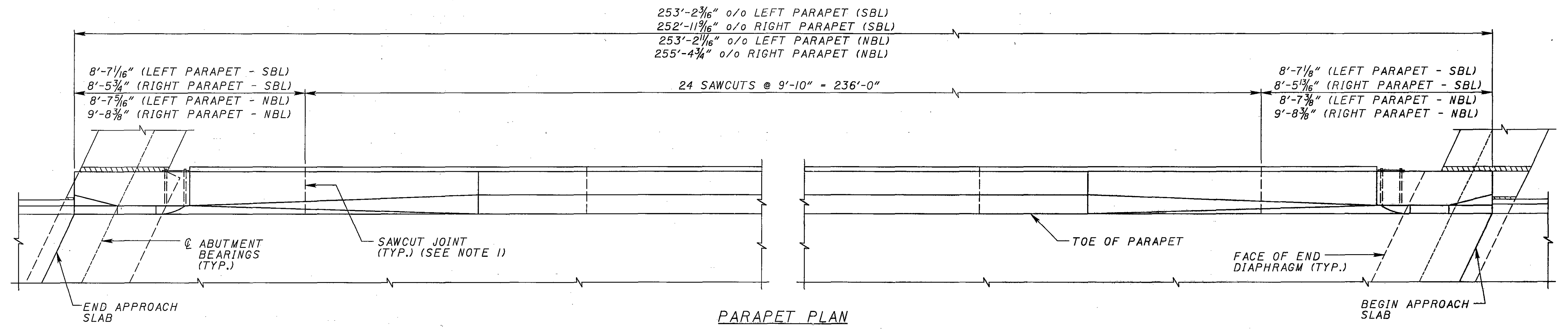
SCREED DIAGRAM

LEGEND:
 B_ = BEAM NUMBER
 C.J. = CONSTRUCTION JOINT
 F.A. = FORWARD ABUTMENT
 R.A. = REAR ABUTMENT

NOTE:
 1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07scd8.dgn

DESIGNED: TTK
 CHECKED: JHL
 DRAWN: CRC
 REVISIONS:
 DATE: 6/04
 BESS: 5203031 - LEFT
 5203066 - RIGHT
 STRUCTURE FILE NUMBER: 5203066
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40
 MED-71-6.06
 PID-75657
 60/65
 977
 1120
 BURGESS & NIPLE
 5095 Fleet Road
 Columbus, Ohio 43229



* - FIELD BEND IF NECESSARY

- NOTES:**
- SEE STANDARD DRAWING SBR-1-99 FOR ADDITIONAL NOTES AND DETAILS.
 - MINIMUM STEEL LAP LENGTHS:
#5 BAR = 2'-0"
#6 BAR = 3'-4"
 - SEE SHT. [] FOR SEALING REQUIREMENTS
- LEGEND:**
- C.J. = CONSTRUCTION JOINT
 - E.F. = EACH FACE
 - F.F. = FAR FACE
 - N.F. = NEAR FACE
 - NBL = NORTHBOUND LANES
 - SBL = SOUTHBOUND LANES
 - S.O. = SERIES OF
 - LP = LEFT PARAPET
 - RP = RIGHT PARAPET

P:/PR30489/CADD/MED-71-0860/DETAIL DESIGN/ME071sd9.DGN

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07111.DGN

ABUTMENT REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
A501	24	30'-0"	750	STR						
A502	6	25'-0"	156	STR						
A503	6	20'-3"	126	STR						
A504	77	17'-6"	1405	16	5'-11"	2'-7"				
A505	52	13'-6"	732	16	2'-11"	3'-7"				
A506	2	23'-5"	48	STR						
A507	2	16'-9"	34	STR						
A508	20	13'-10"	288	18	2'-5"	5'-10"	5'-10"			
	1	12'-10"				3'-9"				
A509	S.O.	T0	59	16	2'-5"	T0				1'-0"
	4	15'-10"				5'-3"				
A510	1	12'-6"	13	16	2'-5"	3'-7"				
A511	4	18'-3"	76	STR						
A512	4	17'-1"	71	STR						
	1	3'-8"								
A513	S.O.	T0	22	STR						3'-3 3/8"
	3	10'-4"								
	1	4'-10"								
A514	S.O.	T0	25	STR						3'-3 3/8"
	3	11'-5"								
A515	14	12'-0"	175	18	2'-5"	4'-11"	4'-11"			
A516										NOT USED
A517	1	12'-3"	12	18	2'-8"	4'-11"	4'-11"			
	1	6'-3"				2'-0 1/2"	2'-0 1/2"			
A518	S.O.	T0	58	18	2'-5"	T0	T0			1'-2 3/4"
	6	12'-5"				5'-1 1/2"	5'-1 1/2"			
A519	1	12'-8"	13	18	2'-8"	5'-1 1/2"	5'-1 1/2"			
A520										NOT USED
A521										NOT USED
A522	1	12'-8"	13	20	5'-1"	11'-2"	0'-5"			
A523	1	13'-9"	14	20	5'-1"	11'-2"	1'-6 1/2"			
A524	78	17'-0"	1383	16	5'-8"	2'-7"				
A525	52	22'-7"	1224	16	2'-11"	8'-1 1/2"				
A526	6	26'-3"	164	STR						
A527	6	22'-3"	139	STR						
A528	6	35'-6"	222	STR						
A529	6	34'-0"	212	STR						
A530	6	20'-9"	129	STR						
A531	6	18'-3"	114	STR						
A532	2	22'-8"	47	20	1'-0"	2'-3"	20'-3"			
A533	2	20'-0"	41	STR						
	1	19'-8"				7'-2"				
A534	S.O.	T0	64	16	2'-5"	T0				1'-1"
	3	21'-10"				8'-3"				
A535	1	21'-6"	22	16	2'-5"	8'-1"				
	1	6'-2"								
A536	S.O.	T0	29	STR						3'-3 3/8"
	3	12'-9"								
	1	5'-0"								
A537	S.O.	T0	26	STR						3'-3 3/8"
	3	11'-7"								
A538	4	15'-5"	64	STR						
A539	4	16'-6"	68	STR						
A540	22	13'-4"	305	18	2'-5"	5'-7"	5'-7"			
A541	12	22'-6"	281	18	2'-5"	10'-2"	10'-2"			
	1	14'-6"				6'-2"	6'-2"			
A542	S.O.	T0	154	18	2'-5"	T0	T0			1'-1 5/8"
	8	22'-6"				10'-2"	10'-2"			
A543										NOT USED
A544	2	23'-2"	48	18	2'-5"	10'-6"	10'-6"			
A545	1	12'-3"	12	18	2'-8"	4'-11"	4'-11"			
A546	1	12'-1"	12	18	2'-8"	4'-10"	4'-10"			
A547	1	14'-10"	15	20	4'-9"	11'-1"	2'-10"			
A548	1	13'-8"	14	20	4'-9"	11'-1"	1'-8"			
A549										NOT USED
A550										NOT USED

ABUTMENT REINFORCING STEEL LIST (CONT'D)

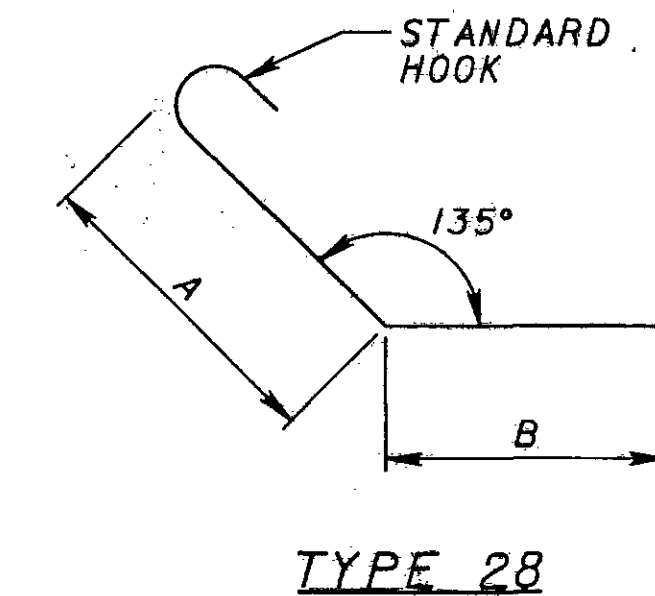
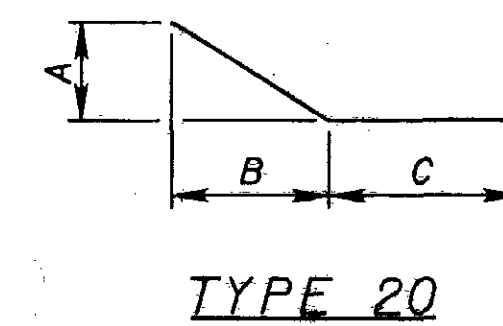
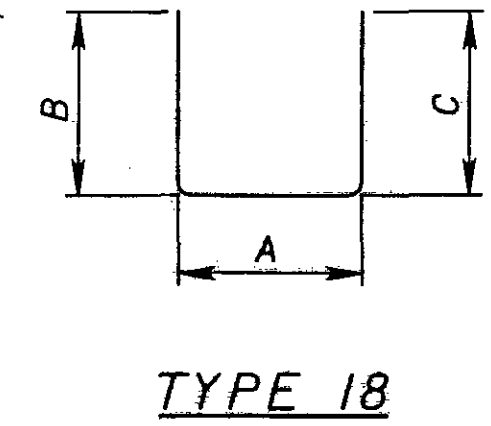
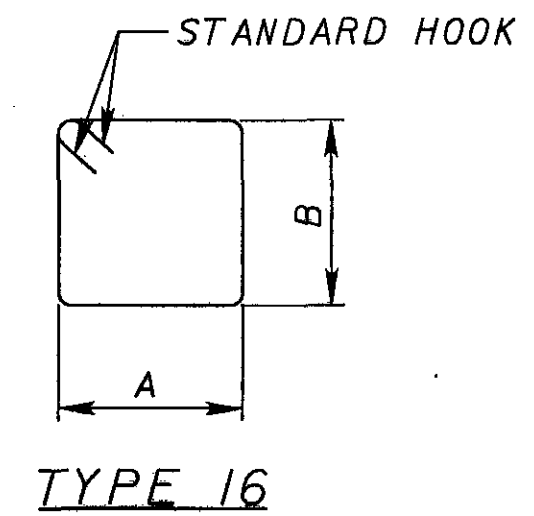
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
A801	16	30'-0"	1281	STR						
A802	4	28'-11"	308	STR						
A803	4	24'-2"	258	STR						
A804	4	33'-6"	357	STR						
A805	4	35'-5"	378	STR						
A806	4	30'-2"	322	STR						
A807	4	26'-2"	279	STR						
A808	4	35'-6"	379	STR						
A809	4	34'-0"	363	STR						
		TOTAL	12804							

DECK REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SL401	720	30'-0"	14428	STR						
SL402	90	28'-0"	1683	STR						
SL501	756	30'-0"	23655	STR						
SL502	84	11'-2"	978	STR						
SL601	912	32'-10"	44975	STR						
SL602	912	33'-3"	45546	STR						
	2	9'-2"								
SL603	S.O.	T0	1272	STR						1'-1 1/8"
	21	31'-2"								
	2	8'-9"								
SL604	S.O.	T0	1433	STR						1'-1"
	23	32'-9"								
	2	8'-6"								
SL605	S.O.	T0	1222	STR						1'-1"
	21	30'-3"								
	2	9'-2"								
SL606	S.O.	T0	1459	STR						1'-1"
	23	33'-1"								
SL607	89	34'-6"	4611	STR						
SL608	178	32'-10"	8778	STR						
		TOTAL	150040							

DIAPHRAGM REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
D501	87	7'-3"	657	18	2'-8"	2'-5"	2'-5"			
D502	80	8'-5"	709	18	3'-2 3/4"	2'-9"	2'-9"			
D503	16	8'-1"	136	18	3'-2 3/4"	2'-7"	2'-7"			
D504	4	9'-1"	38	18	3'-2 3/4"	3'-1"	3'-1"			
D505	4	8'-10"	36	18	2'-11"	3'-1"	3'-1"			
D506	80	8'-7"	723	18	3'-2 3/4"	2'-10"	2'-10"			
D507	1	7'-0"	7	18	2'-5"	2'-5"	2'-5"			
D801	82	5'-2"	1131	28	2'-10 1/2"	1'-5"				
D802	28	27'-0"	2018	STR						
D803	14	16'-0"	598	STR						
D804	14	32'-5"	1211	STR						
D805	14	15'-8"	585	STR						
D806	14	32'-4"	1208	STR						
		TOTAL	9057							



NOTES:

- ALL BARS SHALL BE EPOXY COATED.
 - BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.
- * REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

DATE: 6/04
REVIEWED: BES
DRAWN: CRC
DESIGNED: TTK
CHECKED: JHL

STRUCTURE FILE NUMBER: 5203031 - LEFT
5203066 - RIGHT

REINFORCING STEEL LIST 1 - SOUTHBOUND
BRIDGE NO. MED-71-0860 L/R
OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
PID-75657

62 / 65

979
1120

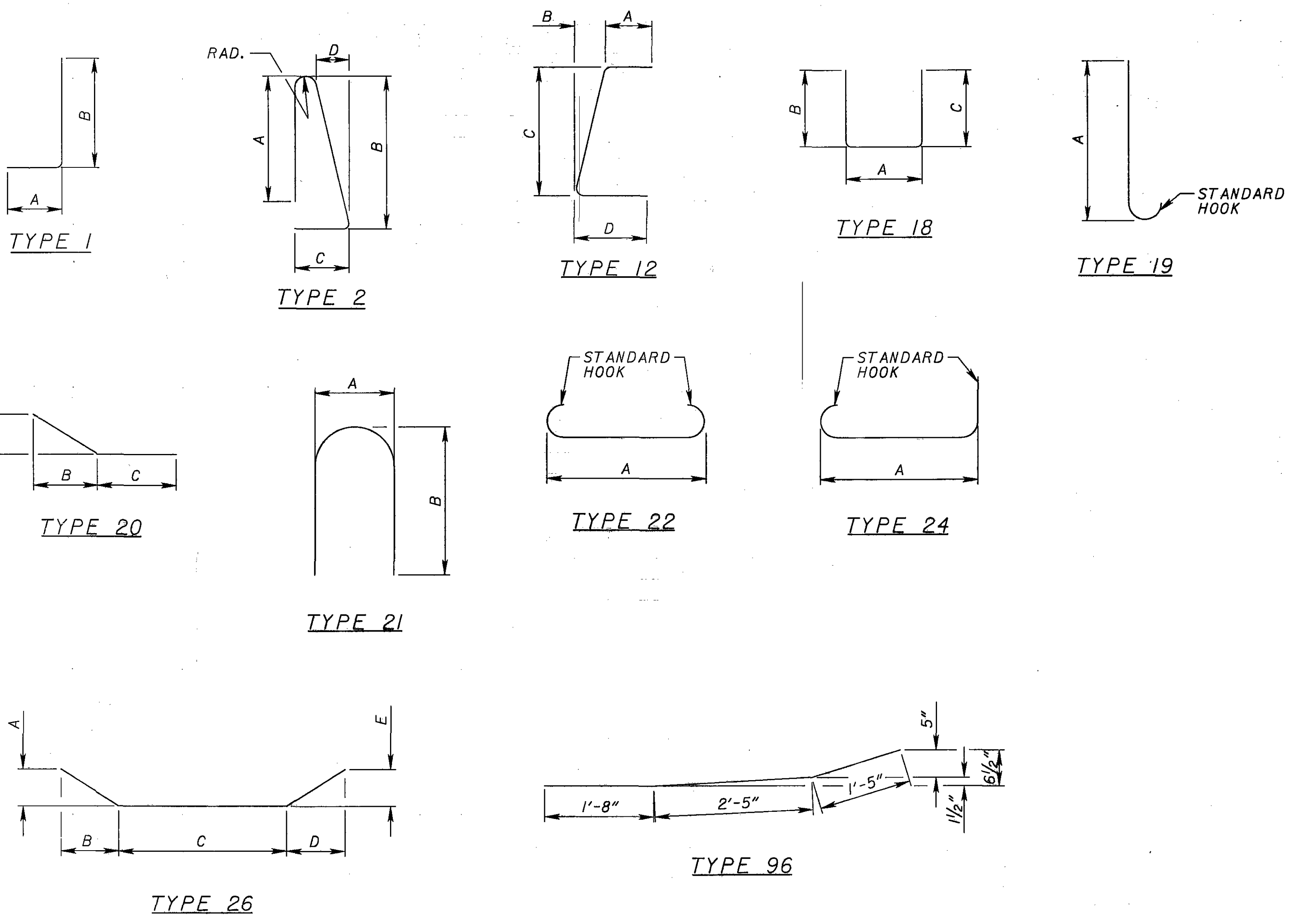
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PARAPET REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
R501	96	30'-0"	3003	STR						
R502	12	7'-9"	96	STR						
R503	922	7'-4"	7052	2	3'-0"	3'-2"	1'-1"	0'-6 1/2"	0'-2 3/4"	
R504	32	10'-0"	333	STR						
R505	12	5'-6"	69	96						
R506	20	5'-6"	114	STR						
R601	16	30'-0"	720	STR						
R602	2	18'-5"	55	STR						
R603	922	3'-8"	5078	12	1'-1"	0'-3 1/4"	1'-5"	1'-1"		
R604	922	2'-4"	3231	1	1'-1"	1'-5"				
	8	3'-11"				3'-0"				
R605	S.O.	T0	572	1	1'-1"	T0				0'-1"
	11	4'-9"				3'-10"				
R606	32	3'-11"	188	1	1'-1"	3'-0"				
		TOTAL	20511							

PIER REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
P401	144	12'-4"	1186	18	2'-8"	4'-11"	4'-11"			
P403	272	3'-9"	681	24	2'-8"					
P501	20	13'-10"	288	22	12'-8"					
P502	159	8'-4"	1381	21	2'-8"	3'-5"				
P503	108	14'-6"	1633	STR						
P504	102	9'-10"	1046	STR						
P505	102	4'-7"	496	20	1'-0"	1'-0"	3'-3"			
P508	9	28'-7"	268	26	1'-0"	5'-6"	17'-5"	5'-6"	1'-0"	
P509	18	28'-5"	533	STR						
P510	54	6'-5"	361	18	2'-8"	2'-0"	2'-0"			
P511	78	19'-0"	1545	STR						
P514	16	4'-0"	66	STR						
P515	18	26'-4"	494	1	7'-6"	19'-0"				
P601	8	15'-6"	186	22	14'-2"					
P602	2	12'-8"	38	19	12'-0"					
P603	88	6'-10"	903	1	1'-0"	6'-0"				
P604	16	8'-10"	212	STR						
P605	16	23'-6"	564	STR						
P606	32	12'-0"	576	STR						
P607	32	28'-2"	1353	STR						
P610	168	11'-6"	2901	18	2'-8"	4'-7"	4'-7"			
P611	84	4'-0"	504	STR						
P612	2	5'-8"	17	20	1'-0"	1'-0"	4'-4"			
P701	150	8'-0"	2452	1	1'-2"	7'-0"				
P702	24	8'-10"	433	STR						
P703	26	26'-0"	1381	STR						
P704	48	12'-0"	1177	STR						
P705	52	31'-8"	3365	STR						
P801	117	12'-6"	3904	22	10'-8"					
P802	30	25'-6"	2042	22	23'-8"					
P901	42	21'-9"	3105	1	4'-4"	17'-9"				
		TOTAL	35091							



NOTES:
 1. ALL BARS SHALL BE EPOXY COATED.
 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

BURGESS & NIPLE
 5005 Reed Road
 Columbus, Ohio 43220

DATE: 6/04
 REVIEWED: BES
 DESIGNED: TTK
 CHECKED: JHL

STANDARD FILE NUMBER: 5203031
 LEFT: 5203066
 RIGHT: 5203066

REINFORCING STEEL LIST 2 - SOUTHBOUND
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
 PID-75657

63/65

980
 1120

ABUTMENT REINFORCING STEEL LIST

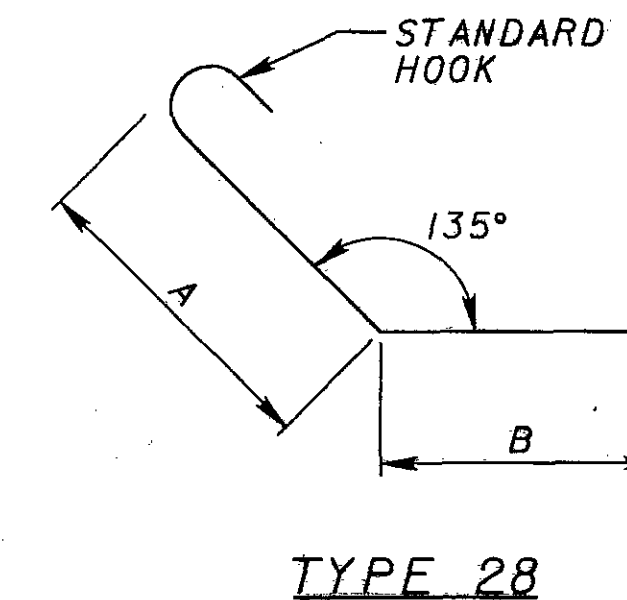
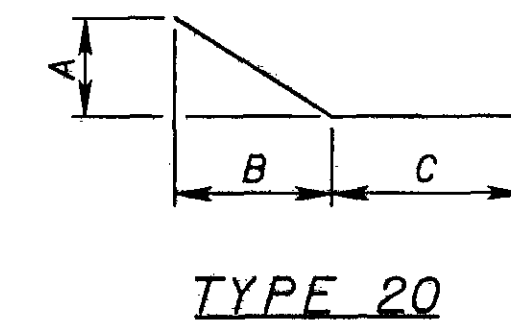
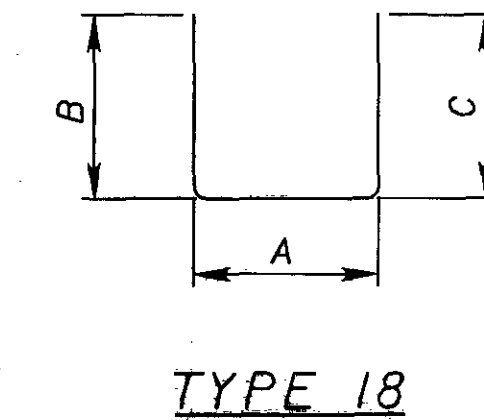
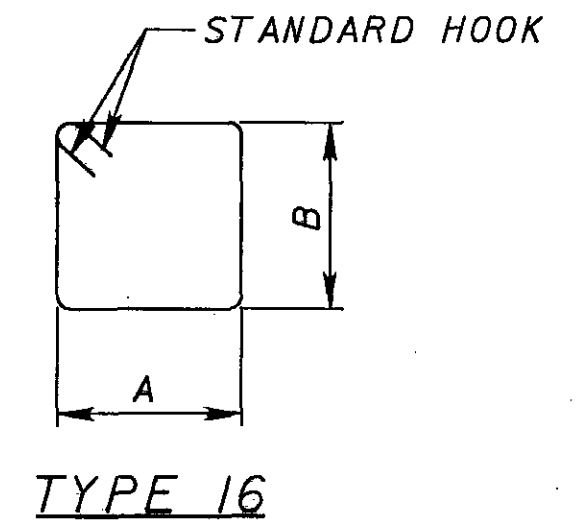
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
A501	38	30'-0"	1189	STR						
A504	88	17'-6"	1606	16	5'-11"	2'-7"				
A505	62	13'-6"	872	16	2'-11"	3'-7"				
A508	21	13'-10"	302	18	2'-5"	5'-10"	5'-10"			
A510	1	12'-6"	13	16	2'-5"	3'-7"				
A517	2	12'-3"	25	18	2'-8"	4'-11"	4'-11"			
A524	92	17'-0"	1631	16	5'-8"	2'-7"				
A540	28	13'-4"	389	18	2'-5"	5'-7"	5'-7"			
A551	6	8'-5"	52	STR						
A552	6	24'-5"	152	STR						
A553	2	19'-8"	41	STR						
A554	2	21'-8"	45	STR						
	1	13'-5"				4'-0 1/2"				
A555	S.O.	T0		16	2'-5"	T0				1'-0 1/2"
	3	15'-6"				5'-1"				
A556	1	16'-4"	17	16	2'-5"	5'-6"				
	1	6'-5"								
A557	S.O.	T0	31	STR						3'-7 7/8"
	3	13'-9"								
	1	5'-3"								
A558	S.O.	T0	27	STR						3'-7 7/8"
	3	12'-7"								
A559	4	16'-10"	70	STR						
A560	4	18'-0"	75	STR						
	1	6'-9"				2'-3 1/2"	2'-3 1/2"			
A561	S.O.	T0	46	18	2'-5"	T0	T0			1'-1 1/2"
	5	11'-3"				4'-6 1/2"	4'-6 1/2"			
A562	14	12'-0"	175	18	2'-5"	4'-11"	4'-11"			
A563	2	12'-1"	25	18	2'-5"	4'-11 1/2"	4'-11 1/2"			
A564	2	12'-4"	25	18	2'-8"	4'-11 1/2"	4'-11 1/2"			
A565	1	15'-0"	15	20	4'-8"	11'-4"	2'-9"			
A566	1	13'-9"	14	20	4'-8"	11'-4"	1'-6"			
A567										NOT USED
A568										NOT USED
A569	6	26'-7"	163	STR						
A570	6	34'-3"	214	STR						
A571	8	32'-9"	273	STR						
A572	8	17'-10"	148	STR						
A573	8	23'-4"	194	STR						
A574	8	19'-0"	158	STR						
A575	2	25'-3"	52	STR						
A576	2	20'-10"	43	20	1'-7"	3'-7"	17'-0"			
A577	61	23'-7"	1500	16	2'-11"	8'-7 1/2"				
	1	19'-8"				7'-2"				
A578	S.O.	T0	63	16	2'-5"	T0				0'-9"
	3	21'-2"				7'-11"				
	1	13'-8"				5'-9"	5'-9"			
A579	S.O.	T0	194	18	2'-5"	T0	T0			1'-1 1/4"
	10	23'-8"				10'-9"	10'-9"			
A580	18	24'-2"	453	18	2'-5"	11'-0"	11'-0"			
A581	4	20'-0"	83	STR						
A582	4	18'-9"	78	STR						
	1	4'-0"								
A583	S.O.	T0	23	STR						3'-5 3/8"
	3	10'-11"								
	1	5'-3"								
A584	S.O.	T0	27	STR						3'-5 3/8"
	3	12'-2"								
A585										NOT USED
A586										NOT USED
A587	1	12'-1"	12	20	4'-7"	10'-7"	0'-7"			
A588	1	13'-4"	13	20	4'-7"	10'-7"	1'-10"			
A801	28	30'-0"	2242	STR						
A810	4	16'-3"	173	STR						
A811	4	28'-4"	302	STR						
A812	4	24'-8"	263	STR						
A813	4	34'-6"	368	STR						
A814	4	30'-0"	320	STR						
A815	4	38'-2"	407	STR						
A816	4	32'-9"	349	STR						
A817	4	21'-9"	232	STR						
		TOTAL	15229							

DECK REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SR401	847	30'-0"	16973	STR						
SR402	85	28'-7"	1622	STR						
SR501	879	30'-0"	27503	STR						
SR502	82	11'-9"	1004	STR						
SR503	13	13'-6"	183	STR						
SR601	104	34'-6"	5389	STR						
	2	10'-3"								
SR602	S.O.	T0	585	STR						1'-1"
	12	22'-3"								
SR603	1111	32'-10"	54789	STR						
	2	7'-10"								
SR604	S.O.	T0	1235	STR						1'-2"
	21	31'-4"								
	2	11'-1"								
SR605	S.O.	T0	1385	STR						1'-1"
	21	32'-10"								
SR606	894	30'-0"	40283	STR						
	2	7'-0"								
SR607	S.O.	T0	1167	STR						1'-1 3/4"
	21	30'-0"								
	2	8'-3"								
SR608	S.O.	T0	1997	STR						1'-1 3/4"
	28	39'-3"								
SR609	936	19'-5"	27297	STR						
		TOTAL	181412							

DIAPHRAGM REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
D501	101	7'-3"	763	18	2'-8"	2'-5"	2'-5"			
D502	188	8'-5"	1666	18	3'-2 3/4"	2'-9"	2'-9"			
D503	18	8'-1"	153	18	3'-2 3/4"	2'-7"	2'-7"			
D504	4	9'-1"	38	18	3'-2 3/4"	3'-1"	3'-1"			
D505	4	8'-10"	36	18	2'-11"	3'-1"	3'-1"			
D508	2	7'-2"	14	18	2'-7"	2'-5"	2'-5"			
D801	95	5'-2"	1310	28	2'-10 1/2"	1'-5"				
D802	14	27'-0"	1009	STR						
D807	14	32'-1"	1199	STR						
D808	14	29'-8"	1108	STR						
D809	14	32'-7"	1217	STR						
D810	14	30'-0"	1121	STR						
D811	14	21'-7"	806	STR						
		TOTAL	10440							



NOTES:

- ALL BARS SHALL BE EPOXY COATED.
 - BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.
- * REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT OR END OF CONNECTOR AS APPLICABLE. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

P:\PR30489\CADD\MED-71-0860\DETAIL DESIGN\ME07114.DGN

PARAPET REINFORCING STEEL LIST

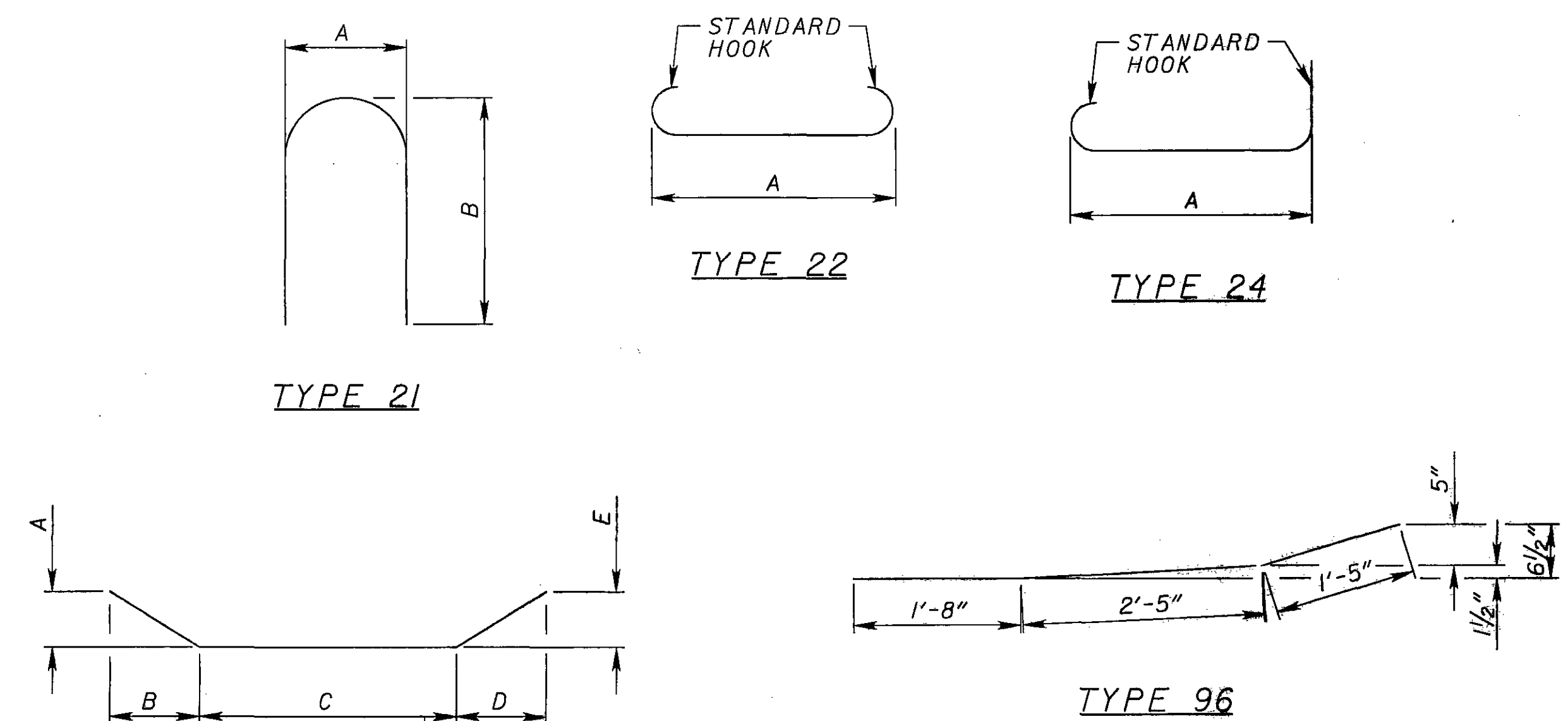
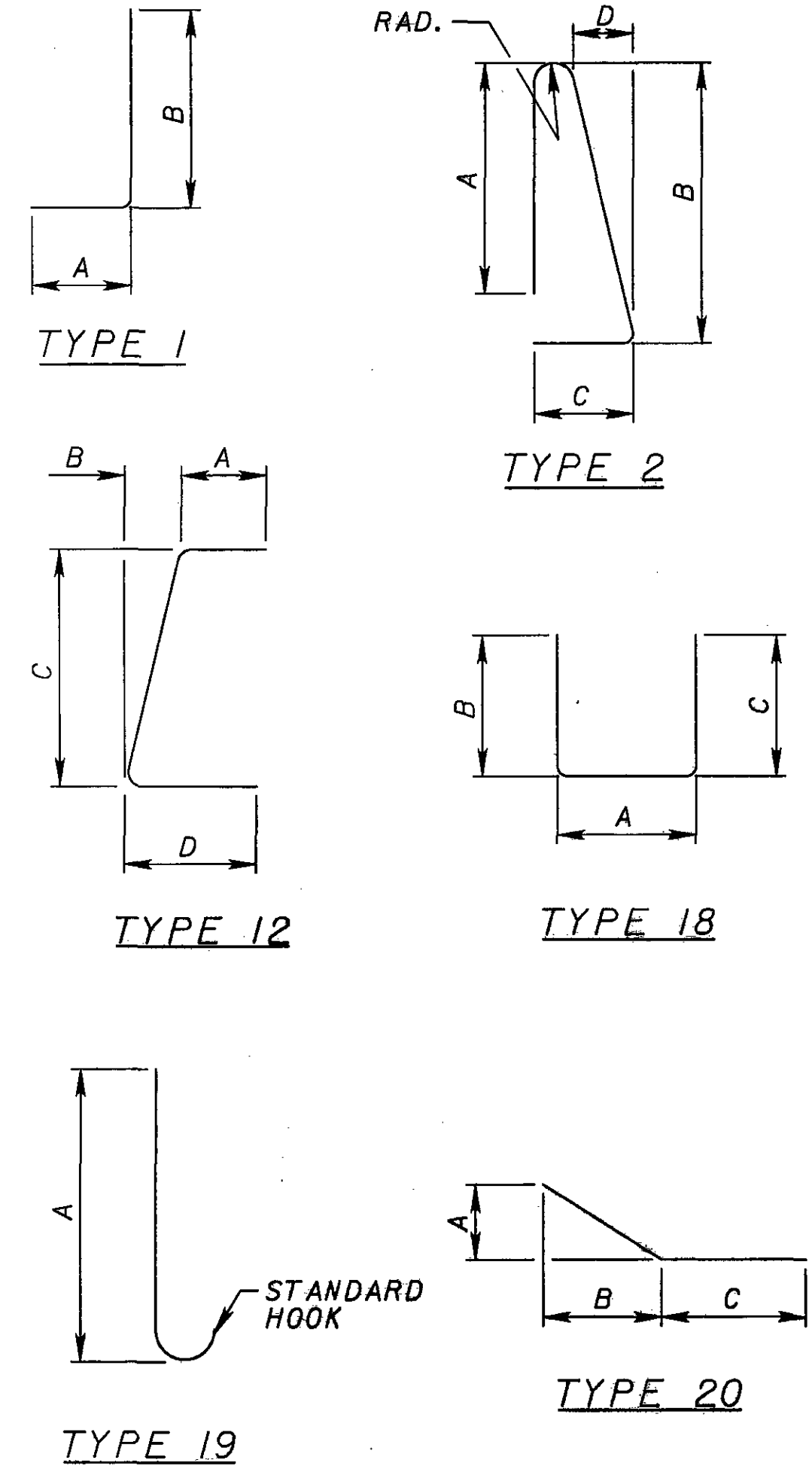
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
R501	96	30'-0"	3003	STR						
R502	12	7'-9"	96	STR						
R503	452	7'-4"	3457	2	3'-0"	3'-2"	1'-1"	0'-6 1/2"	0'-2 3/4"	
R504	32	10'-0"	333	STR						
R505	12	5'-6"	69	96						
R506	20	5'-6"	114	STR						
R601	16	30'-0"	720	STR						
R602	2	18'-5"	55	STR						
R603	452	3'-8"	2489	12	1'-1"	0'-3 1/4"	1'-5"	1'-1"		
R604	452	2'-4"	1584	1	1'-1"	1'-5"	3'-0"			
R605	S.O.	T0	572	1	1'-1"	T0				0'-1"
R606	32	3'-11"	188	1	1'-1"	3'-0"				
		TOTAL	12680							

PIER REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
P402	184	13'-6"	1659	18	2'-8"	5'-6"	5'-6"			
P403	343	3'-9"	859	24	2'-8"					
P502	161	8'-4"	1399	21	2'-8"	3'-5"				
P503	112	14'-6"	1693	STR						
P505	98	4'-7"	476	20	1'-0"	1'-0"	3'-3"			
P506	26	20'-7"	558	STR						
P507	72	19'-6"	1464	STR						
P508	9	28'-7"	268	26	1'-0"	5'-6"	17'-5"	5'-6"	1'-0"	
P509	18	28'-5"	533	STR						
P510	60	6'-5"	401	18	2'-8"	2'-0"	2'-0"			
P512	30	24'-5"	763	STR						
P513	60	24'-1"	1507	STR						
P514	16	4'-0"	66	STR						
P516	6	33'-0"	206	1	8'-9"	24'-5"				
P517	12	32'-3"	403	1	8'-4"	24'-1"				
P518	20	22'-10"	476	22	21'-8"					
P603	172	6'-10"	1765	1	1'-0"	6'-0"				
P606	60	12'-0"	1081	STR						
P607	60	28'-2"	2538	STR						
P608	30	6'-8"	300	STR						
P609	30	21'-6"	968	STR						
P610	168	11'-6"	2901	18	2'-8"	4'-7"	4'-7"			
P611	84	4'-0"	504	STR						
P612	2	5'-8"	17	20	1'-0"	1'-0"	4'-4"			
P613	8	27'-6"	330	22	26'-2"					
P614	2	24'-8"	74	19	24'-0"					
P701	150	8'-0"	2452	1	1'-2"	7'-0"				
P703	26	26'-0"	1381	STR						
P704	48	12'-0"	1177	STR						
P705	52	31'-8"	3365	STR						
P706	24	6'-8"	327	STR						
P801	147	12'-6"	4906	22	10'-8"					
P802	30	25'-6"	2042	22	23'-8"					
P901	42	21'-9"	3105	1	4'-4"	17'-9"				
		TOTAL	41964							

SOIL NAIL WALL REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
SN401	642	4'-0"	1715	STR						
SN402	S.O.	T0	9	STR						0'-3"
	2	3'-3"								
	3	2'-10"								
SN403	S.O.	T0	11	STR						0'-3"
	2	3'-1"								
	1	2'-3"								
SN404	S.O.	T0	3	STR						0'-3"
	2	2'-6"								
SN405	2	33'-2"	44	26	0'-10 3/4"	1'-9 1/2"	29'-2 1/2"	0'-10 3/4"	1'-9 1/2"	
SN406	226	23'-0"	3472	STR						
SN407	1	22'-6"	15	STR						
	1	9'-11"								
SN408	S.O.	T0	266	STR						0'-6"
	25	22'-0"								
SN409	1	22'-10"	15	STR						
	1	10'-4"								
SN410	S.O.	T0	272	STR						0'-6"
	25	22'-4"								
SN411	1	10'-0"	6	STR						
SN412	296	30'-0"	5931	STR						
SN413	34	28'-6"	647	STR						
	2	18'-9"								
SN414	S.O.	T0	146	STR						1'-6 3/4"
	5	25'-0"								
	2	9'-9"								
SN415	S.O.	T0	88	STR						1'-9"
	5	16'-9"								
	2	4'-9"								
SN416	S.O.	T0	25	STR						1'-6"
	3	7'-9"								
SN417	4	18'-3"	48	STR						
SN418	4	9'-3"	24	STR						
		TOTAL	12737							



NOTES:
 1. ALL BARS SHALL BE EPOXY COATED.
 2. BAR DIMENSIONS SHOWN ARE OUT TO OUT AND RAD INDICATES INSIDE RADIUS.

BURGESS & NIPLE
 5065 Reed Road
 Columbus, Ohio 43220

DATE: 6/04
 REVIEWED: BES
 DRAWN: CRC
 DESIGNED: TTK/MAX
 CHECKED: JHL

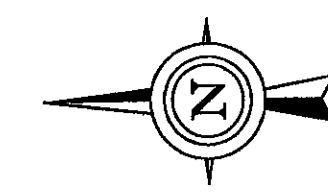
STRUCTURE FILE NUMBER: 5203031 - LEFT
 5203066 - RIGHT

REINFORCING STEEL LIST 4 - NORTHBOUND
 BRIDGE NO. MED-71-0860 L/R
 OVER CSXT RR AND RYAN ROAD C.H. 40

MED-71-6.06
 PID-75657

65 / 65

982
 1120



VERTICAL CURVE DATA

P.V.I. STA. 31+50.00
 P.V.I. ELEV. = 1018.25
 G1 = +2.72%
 G2 = -1.52%
 L = 400'

HORIZONTAL ALIGNMENT DATA

BEARING = S 00° 22' 41" W

BENCH MARK

BM #38 - CUT SQUARE IN THE CONCRETE BASE FOR THE NORTH LEG OF THE SIGN "EXIT 209" LOCATED 50 FEET NORTHEAST OF THE BRIDGE #MED-71-7.29R ELEVATION = 1014.81

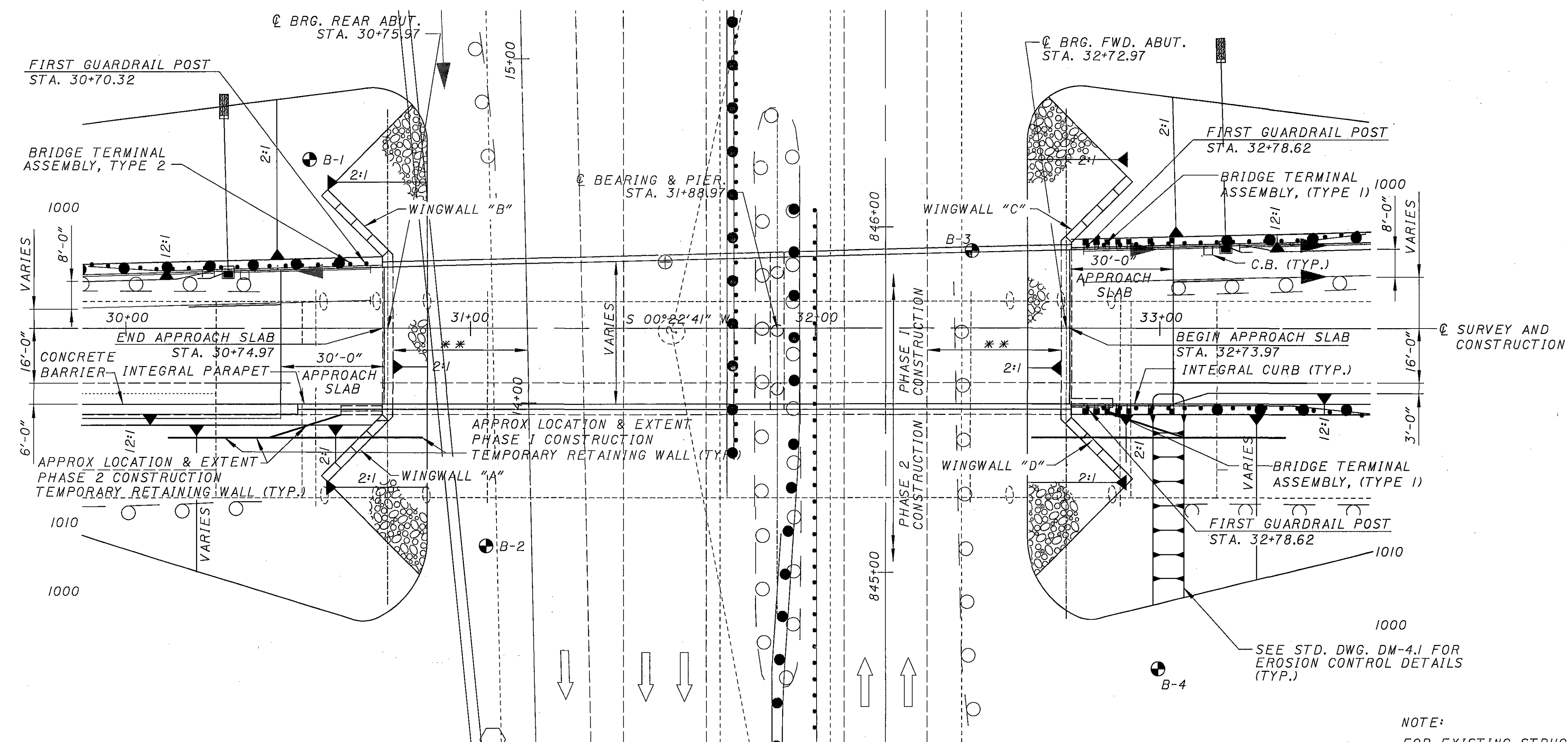
BM #39 - TOP OF A STEEL POST LOCATED AT AN ANGLE BREAK IN THE RIGHT OF WAY, 100 FEET SOUTHWEST OF THE BRIDGE #0750-071-MED ELEVATION = 1002.51

EXISTING STRUCTURE

TYPE: 4 SPAN CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURES
 SPANS: 51'-0" (±), 84'-0" (±), 56'-0" (±), 45'-0" (±)
 C/C BEARINGS
 ROADWAY: 2 - 27'-10" FACE/FACE CURBS
 DESIGN LOADING: C.F. = 2000 (57)
 SKEW: NONE
 WEARING SURFACE: 1" MONOLITHIC CONCRETE WITH LATEX MODIFIED CONCRETE OVERLAY
 ALIGNMENT: TANGENT
 APPROACH SLAB: 25'-0" LONG
 DATE CONSTRUCTED: 1959
 CONDITION: STRUCTURALLY DEFICIENT
 DISPOSITION: TO BE REMOVED & REPLACED
 STRUCTURE FILE NUMBER: 5204259

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS STEEL PLATE GIRDER (A572, GRADE 50, PAINTED) COMPOSITE WITH REINFORCED CONCRETE DECK ON SEMI-INTEGRAL ABUTMENTS AND CAP & COLUMN PIER.
 SPANS: 113'-0", 84'-0" C/C BRG
 ROADWAY: VARIES (40' TO 45') TOE/TOE OF PARAPETS
 DESIGN LOADING: HS25 (CASE 11) & ALTERNATE MILITARY LOAD
 FUTURE WEARING SURFACE LOADING: 60 PSF
 SKEW: NONE
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 ALIGNMENT: TANGENT
 APPROACH SLAB: AS-1-81, 30'-0" LONG (MODIFIED)
 SUPERELEVATION: 0.0156 FT./FT.
 AVERAGE DAILY TRAFFIC: 4270 (2006)
 5390 (2026)
 AVG. DAILY TRUCK TRAFFIC: 1136 (2006)
 1444 (2026)
 COORDINATES: LAT. 41°01'51" LONG. 81°53'57"



PLAN

KEY

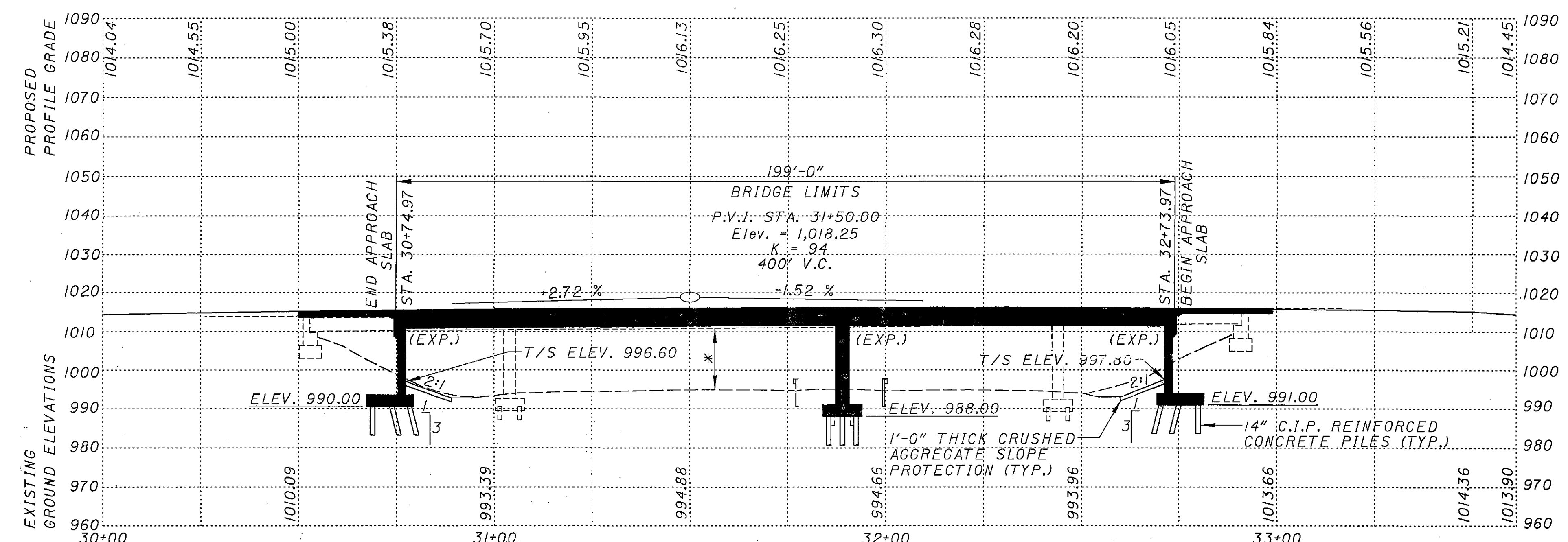
NOTES:

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
- THE ESTIMATED PILE LENGTHS ARE AS FOLLOWS:
 REAR ABUT. = 60 FT.
 FORWARD ABUT. = 70 FT.
 PIER = 75 FT.

- ⊕ INDICATES POINT OF MINIMUM VERTICAL CLEARANCE
- * REQUIRED MINIMUM VERTICAL CLEARANCE = 16'-6"
- PROPOSED MINIMUM VERTICAL CLEARANCE = 16'-9"
- ** PROPOSED MINIMUM HORIZONTAL CLEARANCE = 38'-6"

B-2 ⊕ BORING LOCATION

NOTE:
 FOR EXISTING STRUCTURE REMOVAL LIMITS, SEE PHASE CONSTRUCTION DETAILS, SHEET 6/27



PROFILE ALONG ϕ SURVEY AND CONSTRUCTION

DESIGNED BY
 MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 2222 W. COLLEGE, SUITE 200
 DENVER, CO 80202

DATE
 PA 02/2005
 REVISIONS
 STRUCTURE FILE NUMBER
 5204240

DRAWN
 KVM
 DESIGNED
 JNS
 CHECKED
 GKL

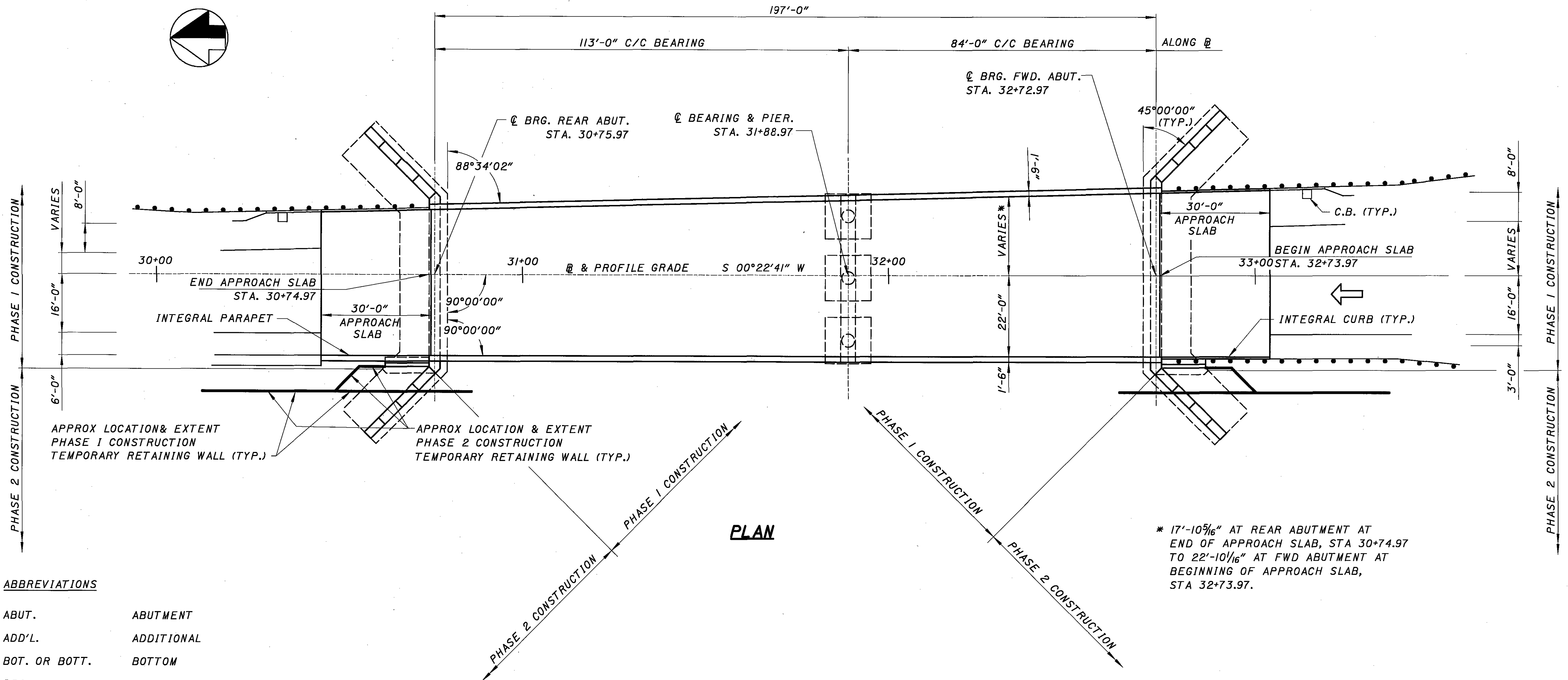
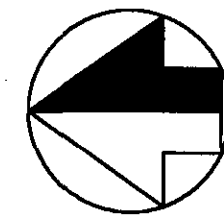
MEDINA COUNTY
 STA. 30+74.97
 STA. 32+73.97

SITE PLAN
 BRIDGE NO. MED-76-0061L
 OVER US 224

MED-71-6.06
 PID 75657

1/27

983
 1120

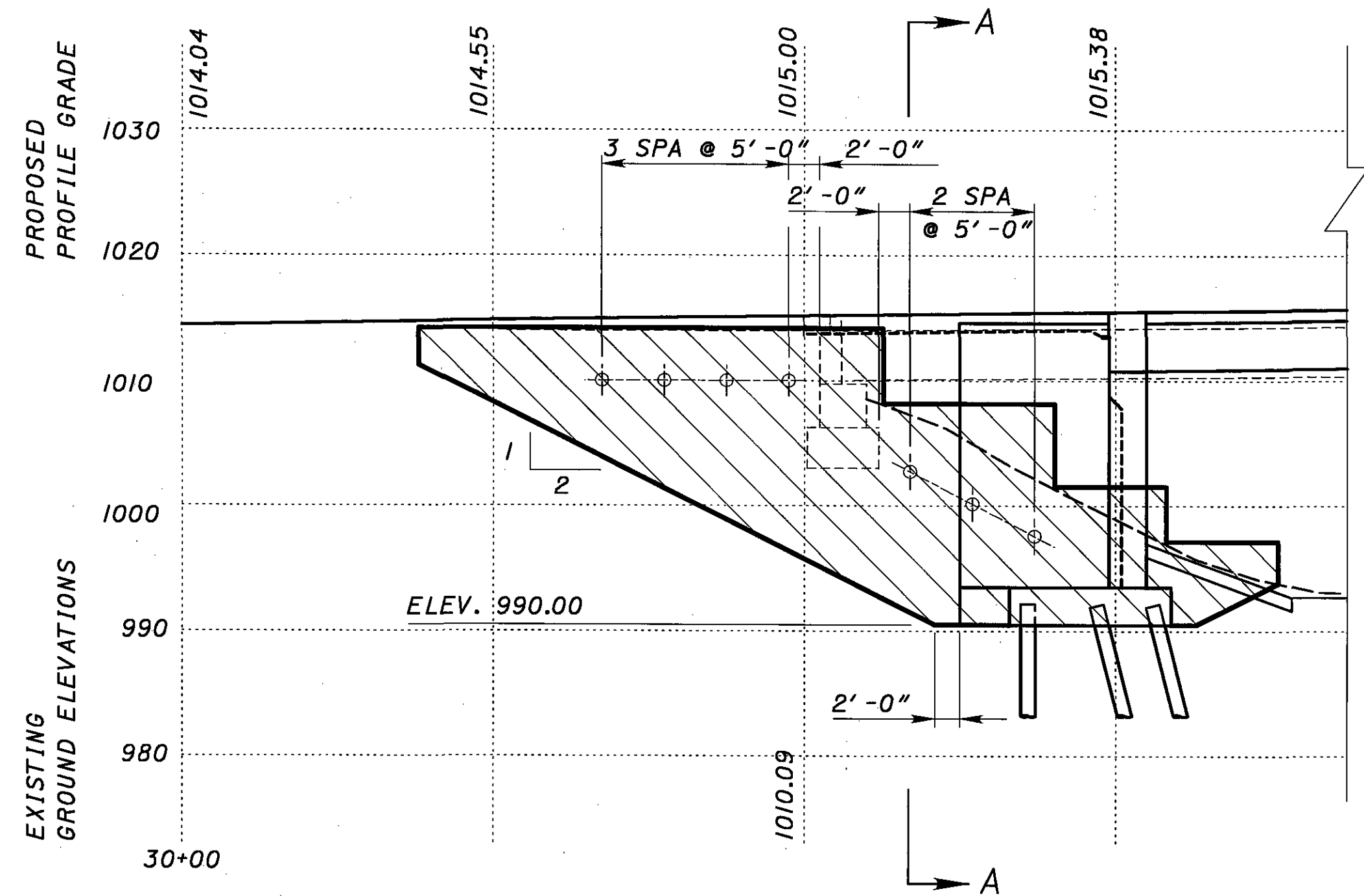


PLAN

* 17'-10⁵/₁₆" AT REAR ABUTMENT AT END OF APPROACH SLAB, STA 30+74.97 TO 22'-10¹/₁₆" AT FWD ABUTMENT AT BEGINNING OF APPROACH SLAB, STA 32+73.97.

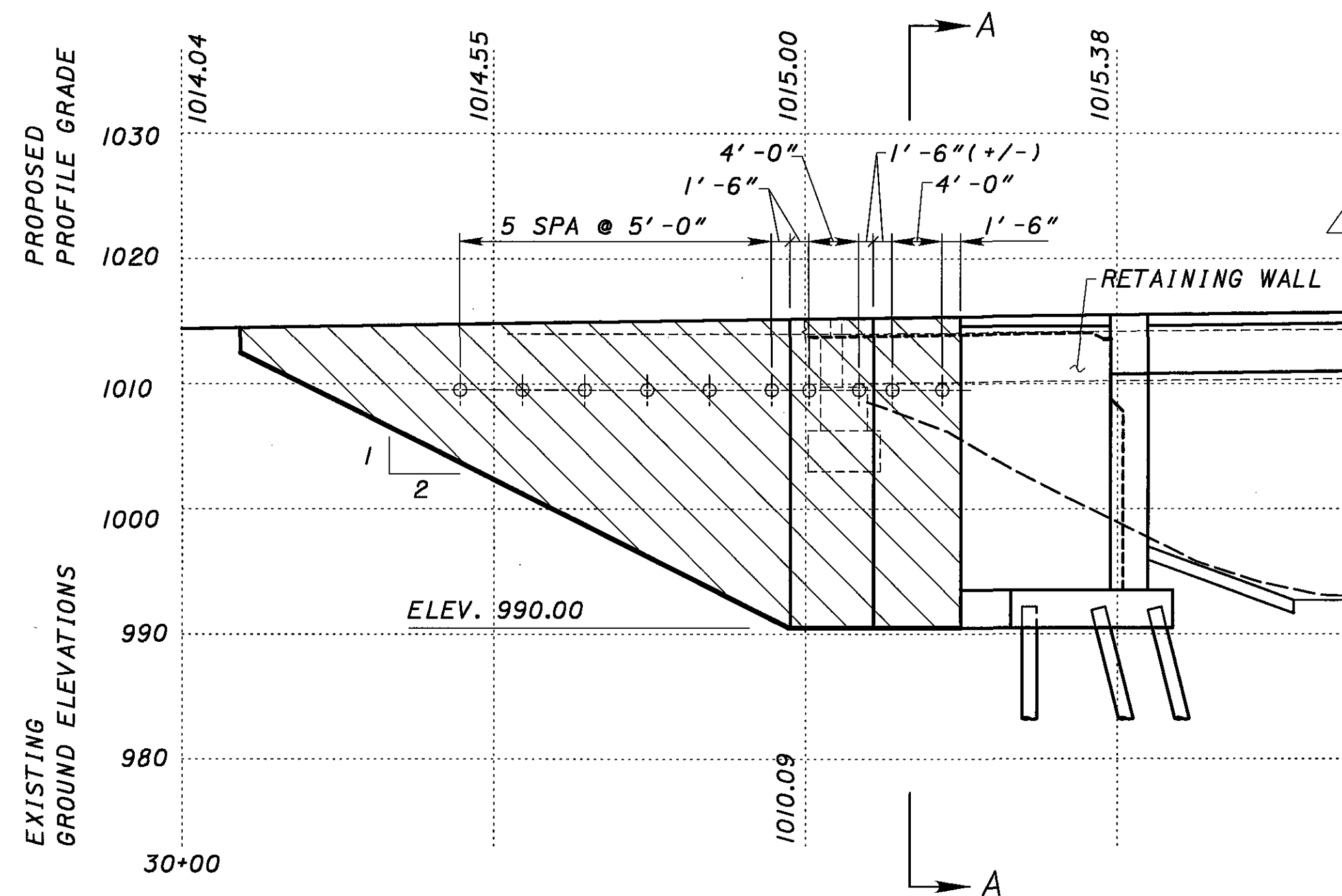
ABBREVIATIONS

ABUT.	ABUTMENT						
ADD'L.	ADDITIONAL						
BOT. OR BOTT.	BOTTOM						
BRG.	BEARING						
Ⓞ	CENTERLINE						
C.J.	CONSTRUCTION JOINT						
C/C	CENTER TO CENTER	F.F.	FAR FACE	MIN.	MINIMUM	SER.	SERIES
CLR.	CLEAR OR CLEARANCE	FDN.	FOUNDATION	MISC.	MISCELLANEOUS	SHLDR.	SHOULDER
COL.	COLUMN	FT.	FEET OR FOOT	MSE	MECHANICALLY STABILIZED EARTH WALL	SHT.	SHEET
CONSTR. OR CONST.	CONSTRUCTION	FTG.	FOOTING	N.F.	NEAR FACE	SP. OR SPA.	SPACE OR SPACES
DIA.	DIAMETER	FWD.	FORWARD	O/C	ON CENTERS	STA.	STATION
DWG.	DRAWING	GRD.	GROUND	O/O	OUT TO OUT	STD.	STANDARD
E.F.	EACH FACE	INT.	INTERIOR	Ⓞ	PLATE	STR.	STRAIGHT
EA.	EACH	JT.	JOINT	PCB	PORTABLE CONCRETE BARRIER	T & B	TOP AND BOTTOM
ELEV. OR EL.	ELEVATION	LB.	POUND	PEJF	PREFORMED EXPANSION JOINT FILLER	T/S OR T.O.S.	TOP OF SLOPE
EQ.	EQUAL	LIN. FT.	LINEAL FOOT	PROP.	PROPOSED	TEMP.	TEMPORARY
EX. OR EXIST.	EXISTING	LT.	LEFT	R.A.	REAR ABUTMENT	TYP.	TYPICAL
EXT.	EXTERIOR	MAX.	MAXIMUM	REF.	REFERENCE	W/	WITH
F.A.	FORWARD ABUTMENT	MFR. OR MANUF	MANUFACTURER	RT.	RIGHT		



PHASE 1 CONSTRUCTION TIEBACK WALL ELEVATION

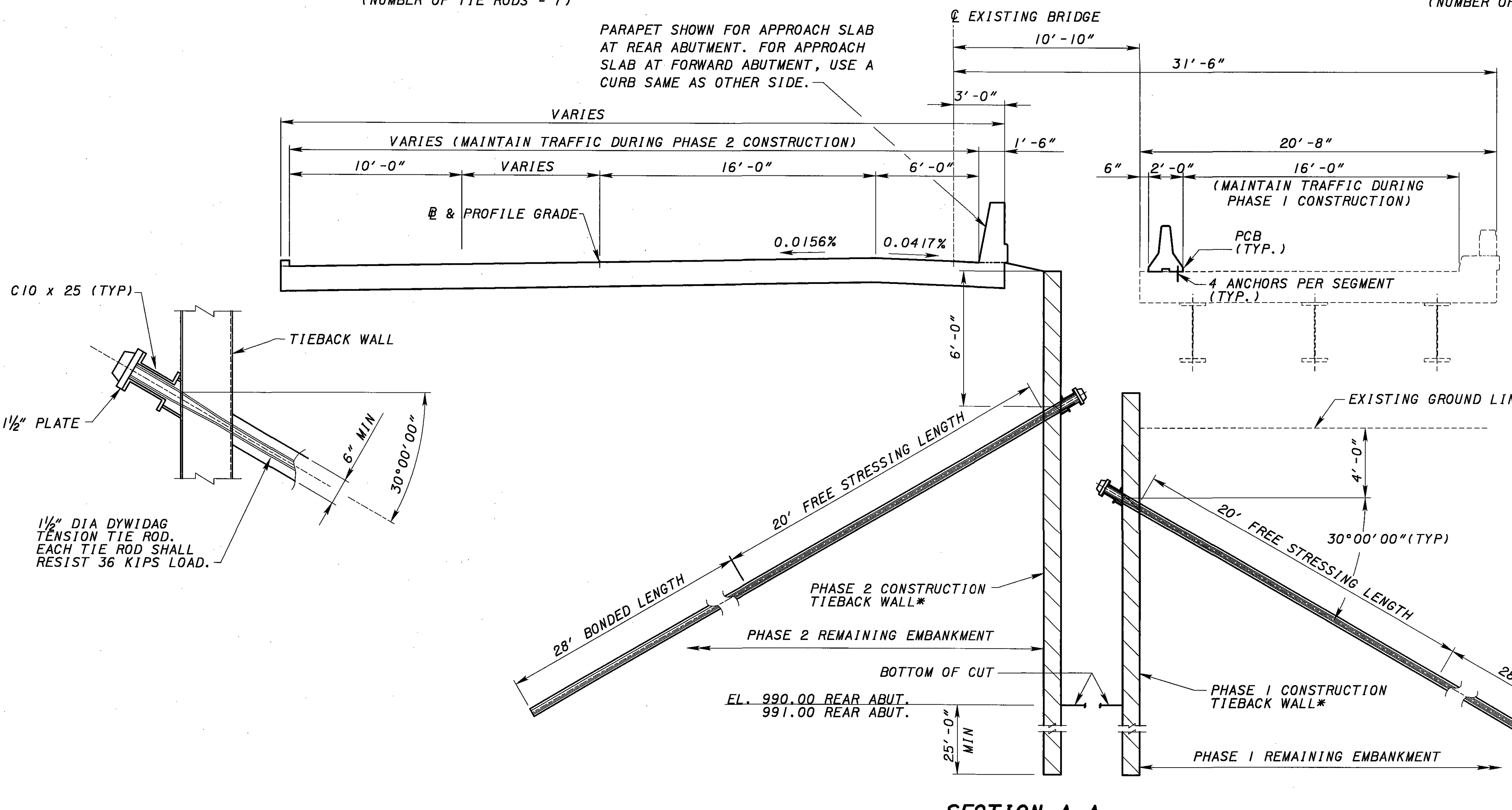
REAR ABUTMENT SHOWN. FORWARD ABUTMENT SIMILAR.
(NUMBER OF TIE RODS = 7)



PHASE 2 CONSTRUCTION TIEBACK WALL ELEVATION

REAR ABUTMENT SHOWN. FORWARD ABUTMENT SIMILAR.
(NUMBER OF TIE RODS = 10)

PARAPET SHOWN FOR APPROACH SLAB AT REAR ABUTMENT. FOR APPROACH SLAB AT FORWARD ABUTMENT, USE A CURB SAME AS OTHER SIDE.



LEGEND:
 TEMPORARY TIEBACK WALL
 PCB PORTABLE CONCRETE BARRIER

* SHEET PILING - MINIMUM SECTION MODULUS 40.5 IN³/FT OF SHEETING (ASTM A328)

NOTES:
 1. SEE SHT 2/27 FOR TEMPORARY RETAINING WALL APPROXIMATE LOCATION.
 2. SEE SHT 6/27 FOR PHASE CONSTRUCTION NOTES.

SECTION A-A

DATE: 8/28/2005 8:31:01 AM
 FILENAME: I:\drawing\060505\060505.dwg
 USER: jms
 PLOT: 8/28/2005 8:31:01 AM

PREPARED BY: JMS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 222 SOUTH MAIN, COLUMBIA, MO
 DESIGNED BY: JNS
 CHECKED BY: GKL
 DRAWN BY: MLH
 REVISED BY:
 REVIEWED BY: PA
 DATE: 02/2005
 STRUCTURE FILE NUMBER: 5204240
 BRIDGE NO. MED-76-006 IL
 OVER US 224
 TEMPORARY TIEBACK WALL ELEVATION & SECTION
 MED-71-6.06
 PID 75657
 3/27
 985
 1120

GENERAL NOTES

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81	REVISED	07/19/02
GSD-1-96	REVISED	07/19/02
ICD-1-82	REVISED	07/19/02
PCB-91	REVISED	07/19/02
SBR-1-99	REVISED	07/19/02
SICD-1-96	REVISED	07/19/02

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:

DM-4.1	REVISED	07/19/02
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AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

894 DATED 04/15/05

DESIGN LOADING:

HS25, CASE 11 AND THE ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE (FWS) OF 60 LBS/FT²

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL:

ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI, SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615

STRUCTURAL STEEL:

ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

CLASS HP CONCRETE
EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

SEE SHEET 1/27 & 6/27 FOR LIMITS OF SUPERSTRUCTURE REMOVAL.

PROTECTION OF TRAFFIC:

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

ITEM 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT TYPE B GRANULAR MATERIAL, 703.16.C, IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 28+25.00 TO 30+75.00 AND BETWEEN 32+74.00 TO 35+24.00 AND FOR FILLING THE EXCAVATION VOID CREATED BY REMOVAL OF THE EXISTING ABUTMENTS.

THE NEW EMBANKMENT ON THE EAST SIDE OF THE BRIDGE SHALL BE CONSTRUCTED TO THE LEVEL OF THE PROPOSED PAVEMENT GRADE FOR A MINIMUM DISTANCE OF 250 FEET BEHIND EACH ABUTMENT IN ADVANCE OF EXCAVATION FOR THE NEW ABUTMENT AND ABUTMENT PILE DRIVING OPERATIONS. A MINIMUM WAITING PERIOD OF 180 DAYS SHALL ELAPSE FROM THE TIME OF COMPLETION OF THE NEW EMBANKMENT AND THE EXCAVATION FOR THE PROPOSED ABUTMENT AND THE DRIVING OF PILES. THREE SETTLEMENT MONITORING PINS DRIVEN A MINIMUM DISTANCE OF 4 FEET BELOW GRADE SHALL BE PLACED ON THE TOP SURFACE OF EACH APPROACH EMBANKMENT UPON COMPLETION OF THE EMBANKMENT BY THE CONTRACTOR AT LOCATIONS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SURVEY THE MONITORING PINS EVERY 14 DAYS DURING THE WAITING PERIOD TO MONITOR SETTLEMENT ON THE EMBANKMENT. SETTLEMENT READINGS SHALL BE SUPPLIED TO THE ENGINEER WITHIN 2 DAYS OF TAKING THE READINGS.

DO NOT BEGIN THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED. AFTER THE FOOTING AND THE BREASTWALL HAVE BEEN CONSTRUCTED, CONSTRUCT THE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENTS UP TO THE BEAM SEAT ELEVATION AND ON A 1:1 SLOPE UP TO THE SUBGRADE ELEVATION PRIOR TO SETTING THE BEAMS ON THE ABUTMENTS.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

ITEM 503, COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN:

THE TEMPORARY WALL NEEDED TO CONSTRUCT THE BRIDGE OVER US224 SHALL BE DRIVEN SHEET PILING WITH TIEBACKS. APPROXIMATE LIMITS OF THE WALL ARE SHOWN ON SHEETS 2/27 AND 3/27.

AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE METHOD OF TEMPORARY SHORING FOR PHASED CONSTRUCTION MAY BE USED. PLANS FOR SUCH SHORING SHALL BE DESIGNED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER AND CONFORM WITH 501.05. HAVE A SECOND OHIO REGISTERED PROFESSIONAL ENGINEER CHECK, SIGN, SEAL, AND DATE EACH PLAN. THE PREPARER AND CHECKER ARE TWO DIFFERENT ENGINEERS.

ITEM 511, CLASS C CONCRETE, PIER ABOVE FOOTINGS - CAP & COLUMN, AS PER PLAN:

ITEM 511, CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN:

ITEM 511, CLASS C CONCRETE, FOOTING, AS PER PLAN:

COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 140.0 TONS PER PILE FOR THE 14 INCH CAST-IN-PLACE REINFORCED CONCRETE ABUTMENT PILES AND PIER PILES.

REAR ABUTMENT PILES:

- 51 - 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
- 65 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES :

- 53 - 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
- 75 FEET LONG, ORDER LENGTH

PIER PILES:

- 27 - 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES
- 80 FEET LONG, ORDER LENGTH

I DYNAMIC LOAD TESTING ITEM

BATTERED PILES:

THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1 - UG}{\sqrt{1 + G^2}}$$

- U - COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.
- G - RATE OF BATTER (ABUTMENTS - 1/3, PIER - 1/6)

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

EXISTING STRUCTURE PLANS:

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 3 OFFICES, 906 NORTH CLARK ST., ASHLAND, OHIO 44805. (PHONE 800-276-4188)

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR THE COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN:

THE COLOR OF THE EPOXY-URETHANE SEALER SHALL BE FEDERAL COLOR STANDARD NO. 27778 (LIGHT NEUTRAL).

UTILITY LINES:

THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

DRIP GROOVES:

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

MECHANICAL CONNECTORS:

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES.

CONNECTORS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1/4"x#10 GAGE (LENGTH x SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, ±, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D 751	0.094" +/- .01
BREAKING STRENGTH, GRAB, LBS, MIN.	D 751	700 x 700
ADHESIVE STRIP 1"x2" LONG, LBS MIN.	D 751	9
BURST STRENGTH PSI, MIN.	D 751	1400
HEAT AGING 70 HOURS 212°F, 180° BEND WITHOUT CRACKING	D 2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLENESS 1 HOUR AT -40°F, BEND AROUND 1/4" MANDREL	D 2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 02/2005
 PA
 STRUCTURE FILE NUMBER
 5204240
 GENERAL NOTES
 BRIDGE NO. MED-76-0061L
 OVER US 224
 MED-71-6.06
 PID 75657
 4 / 27
 986
 1120

ESTIMATED QUANTITIES

CALC BY: GKL
CHECK BY: PA

DATE: 05/13/03
DATE: 05/20/03

ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT. REAR	ABUT. FWD.	PIER	GENERAL	AS PER PLAN SHEET REFERENCE
		IM	NHS									
202	11003	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LUMP	1,4,6
503	21301	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN					LUMP	4
503	11101	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN					LUMP	2,3,4
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION					LUMP	
507	00600	7036	1754	8795	FOOT	14" CAST IN PLACE REINFORCED CONCRETE PILES, DRIVEN		3060	3710	2025		
507	00650	7560	1890	9450	FOOT	14" CAST IN PLACE REINFORCED CONCRETE PILES, FURNISHED		3315	3975	2160		
509	10000	196479	49120	245599	POUND	EPOXY COATED REINFORCING STEEL (SEE PROPOSAL NOTE 525)	116783	52972	55354	20490		
511	41001	42	11	53	CU. YD.	CLASS C CONCRETE, PIER ABOVE FOOTINGS - CAP AND COLUMN, AS PER PLAN				53		4
511	44101	300	75	375	CU. YD.	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN		185	190			4,8,9,10
511	46501	264	66	330	CU. YD.	CLASS C CONCRETE, FOOTING, AS PER PLAN		135	142	53		4
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB	LUMP					
512	10101	809	202	1011	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	501	198	199	113		4
512	33000	13	3	16	SQ. YD.	TYPE 2 WATERPROOFING		8	8			
513	10280	234400	58600	293000	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 4 (SEE PROPOSAL NOTE 525)	LUMP					
513	20000	3456	864	4320	EACH	WELDED STUD SHEAR CONNECTORS (SEE PROPOSAL NOTE 525)	4320					
514	00060	10158	2540	12698	SQ. FT.	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	12698					
514	00066	10158	2540	12698	SQ. FT.	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	12698					
514	10000	10	2	12	EACH	FINAL INSPECTION REPAIR	12					
516	14021	94	23	117	FOOT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN		56	61			4
516	44100	4	1	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.823" x 12" x 16.5" BEARING WITH 1.5" x 14" x 18.5" LOAD PLATE			5			
516	44100	4	1	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.823" x 12" x 16.5" BEARING WITH 1.5" x 14" x 18.5" BEVELED LOAD PLATE		5				
516	44200	4	1	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (3.198" x 16" x 24" BEARING WITH 1.5" x 18" x 26" LOAD PLATE				5		
518	21230	LUMP	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC					LUMP	
518	40000	170	43	213	FOOT	6" PERFORATED CORRUGATED PLASTIC PIPE		104	109			
518	40010	25	6	31	FOOT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		15	16			
523	20000	1		1	EACH	DYNAMIC LOAD TESTING					1	
526	30001	234	58	292	SQ. YD.	REINFORCED CONCRETE APPROACH SLABS (T-17"), AS PER PLAN					292	24
601	20000	142	36	178	CU. YD.	CRUSHED AGGREGATE SLOPE PROTECTION					178	
*894	10001	309	77	386	CU. YD.	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	386					4

NOTE: SEE ROADWAY PLANS FOR APPROACH SLAB REMOVAL QUANTITY.

* THIS QUANTITY INCLUDES CONCRETE IN ABUTMENT DIAPHRAGMS.

** ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS

▽ FEDERAL COLOR 17778 LIGHT NEUTRAL

ITEM 894 HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

GENERAL REQUIREMENTS.

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS.

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN).

ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)									
AGGREGATE TYPE	FINE AGGRE. (LB)	* #8 COARSE AGGRE. (LB)	* #57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICROSILICA (LB)	WATER/CEMENT RATIO +/- .02	AIR CONTENT +/- 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

*ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER, AS DEFINED PER ASTM C127 THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20 AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured)

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED)

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH, WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT. AND A MAXIMUM OF 8 FT. ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1 1/2" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

BASIS OF PAYMENT.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
894E10001	C.Y.	HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK, AS PER PLAN
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB

ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS

DATE 02/2005
REVIEWED PA
STRUCTURE FILE NUMBER 5204240

DRAWN MLH
REVISOR
DESIGNED JNS
CHECKED GKL

ESTIMATED QUANTITIES
BRIDGE NO. MED-76-0061L
OVER US 224

MED-71-6.06
PID 75657

5/27

987
1120

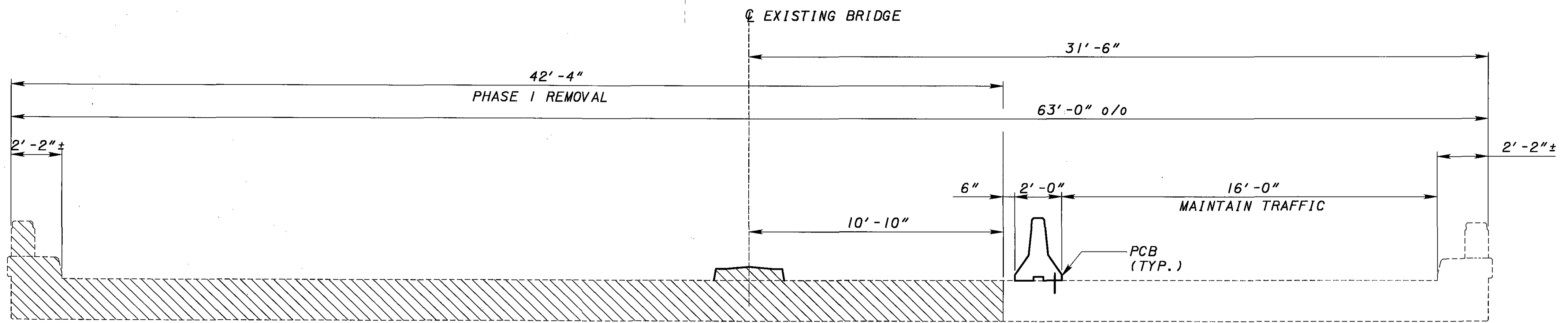
PHASE 1 REMOVAL
 REMOVE PORTIONS OF EXISTING STRUCTURE TO THE LIMITS INDICATED WHILE TRAFFIC IS MAINTAINED ON REMAINING PORTIONS OF ABUTMENTS, PIERS & SUPERSTRUCTURE. PHASE 1 CONSTRUCTION TEMPORARY RETAINING WALL IS REQUIRED AT REMAINING PORTIONS OF EXISTING ABUTMENTS AS INDICATED ON SITE PLAN. PORTIONS OF EXISTING ABUTMENTS & EXISTING PIER 2 TO BE REMOVED TO BOTTOM OF FOOTING. PORTIONS OF EXISTING PIERS 1 & 3 TO BE REMOVED TO 1'-0" BELOW FINISHED GROUND LINE.

PHASE 1 CONSTRUCTION
 CONSTRUCT PROPOSED BRIDGE EXCEPT FOR WINGWALLS A & D.

PHASE 2 REMOVAL
 SHIFT TRAFFIC TO NEW BRIDGE, REMOVE REMAINING PORTION OF EXISTING ABUTMENT AND REMAINING PORTION OF EXISTING PIERS TO 1'-0" BELOW FINISHED GROUND LINE. PHASE 2 CONSTRUCTION TEMPORARY RETAINING WALL IS REQUIRED AT NEW ABUTMENTS AS INDICATED ON SITE PLAN.

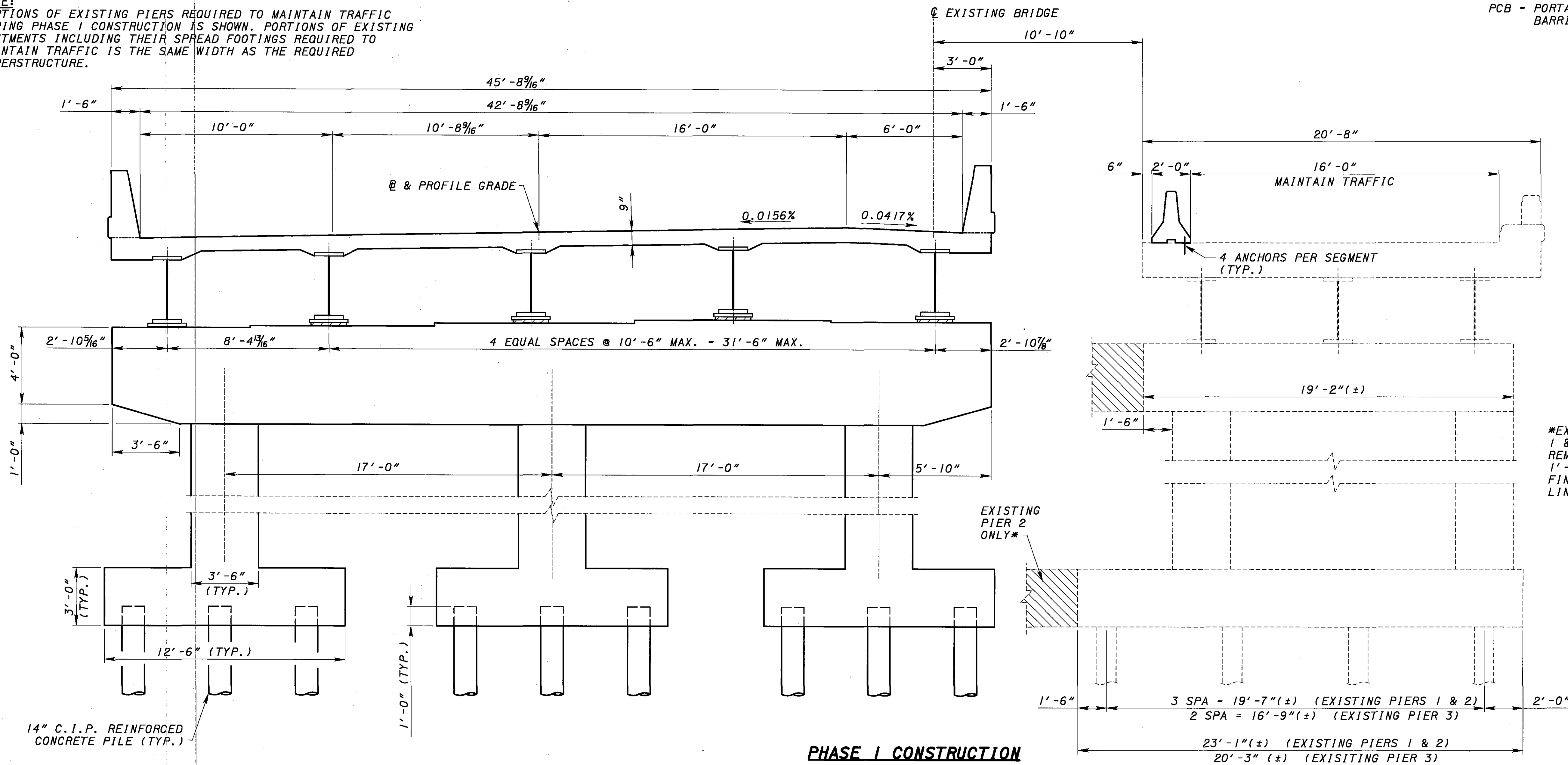
PHASE 2 CONSTRUCTION
 CONSTRUCT PROPOSED WINGWALLS A & D.

NOTE:
 PORTIONS OF EXISTING PIERS REQUIRED TO MAINTAIN TRAFFIC DURING PHASE 1 CONSTRUCTION IS SHOWN. PORTIONS OF EXISTING ABUTMENTS INCLUDING THEIR SPREAD FOOTINGS REQUIRED TO MAINTAIN TRAFFIC IS THE SAME WIDTH AS THE REQUIRED SUPERSTRUCTURE.



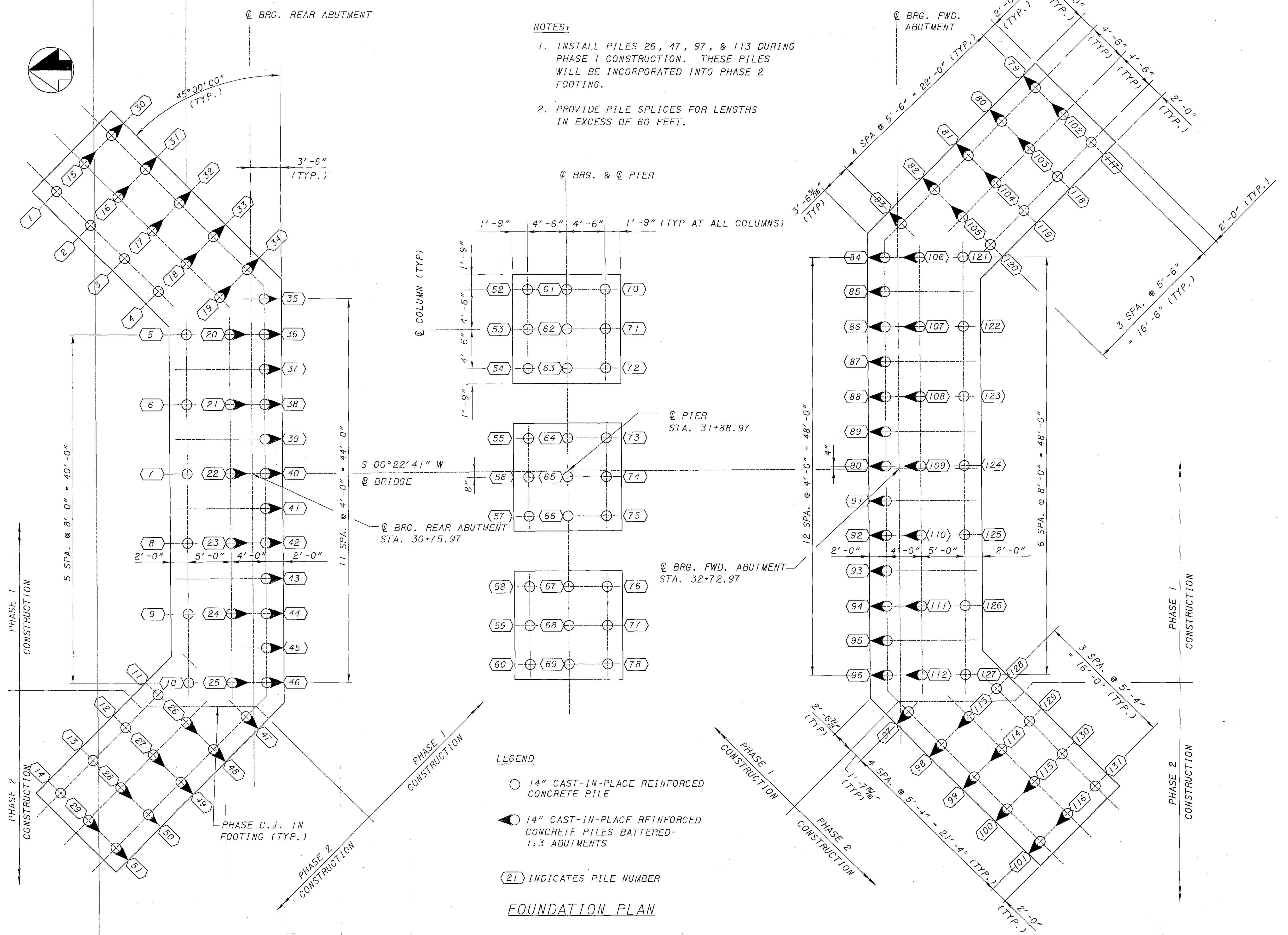
PHASE 1 REMOVAL

LEGEND:
 - PHASE 1 REMOVAL
 PCB - PORTABLE CONCRETE BARRIER



PHASE 1 CONSTRUCTION

DATE: 8/25/2005 8:31:04 AM
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- NOTES:
1. INSTALL PILES 26, 47, 97, & 113 DURING PHASE 1 CONSTRUCTION. THESE PILES WILL BE INCORPORATED INTO PHASE 2 FOOTING.
 2. PROVIDE PILE SPLICES FOR LENGTHS IN EXCESS OF 60 FEET.

- LEGEND
- 14" CAST-IN-PLACE REINFORCED CONCRETE PILE
 - ◐ 14" CAST-IN-PLACE REINFORCED CONCRETE PILES BATTERED-1:3 ABUTMENTS
 - ②① INDICATES PILE NUMBER

FOUNDATION PLAN

PREPARED BY
ms consultants, inc.
CONSULTING ENGINEERS & PLANNERS

DATE 02/2005
REVIEWED PA
STRUCTURE FILE NUMBER 5204240

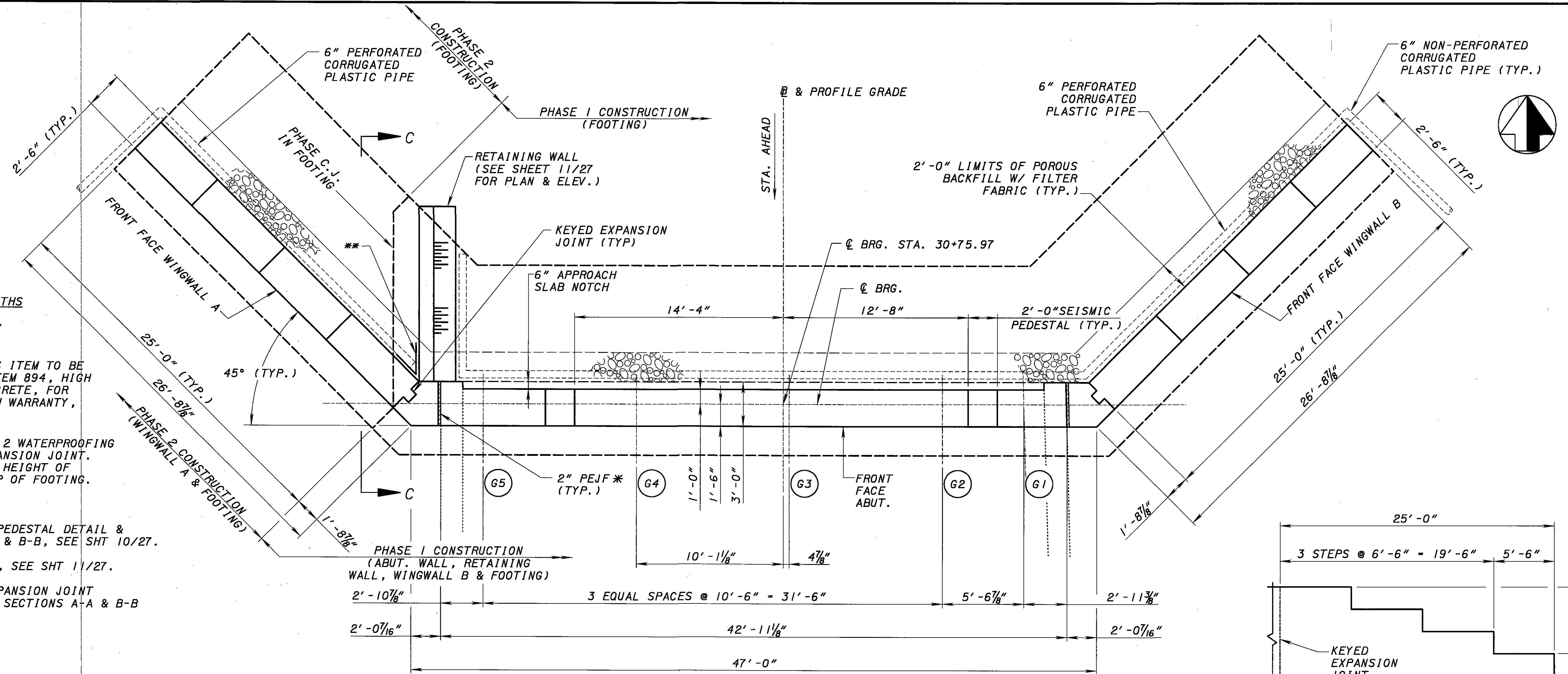
DESIGNED PA
CHECKED JNS
DRAWN KVM
REVISED

FOUNDATION PLAN
BRIDGE NO. MED-76-0061L
OVER US 224

MED-71-6.06
PID 7.5657

7 / 27

989
120

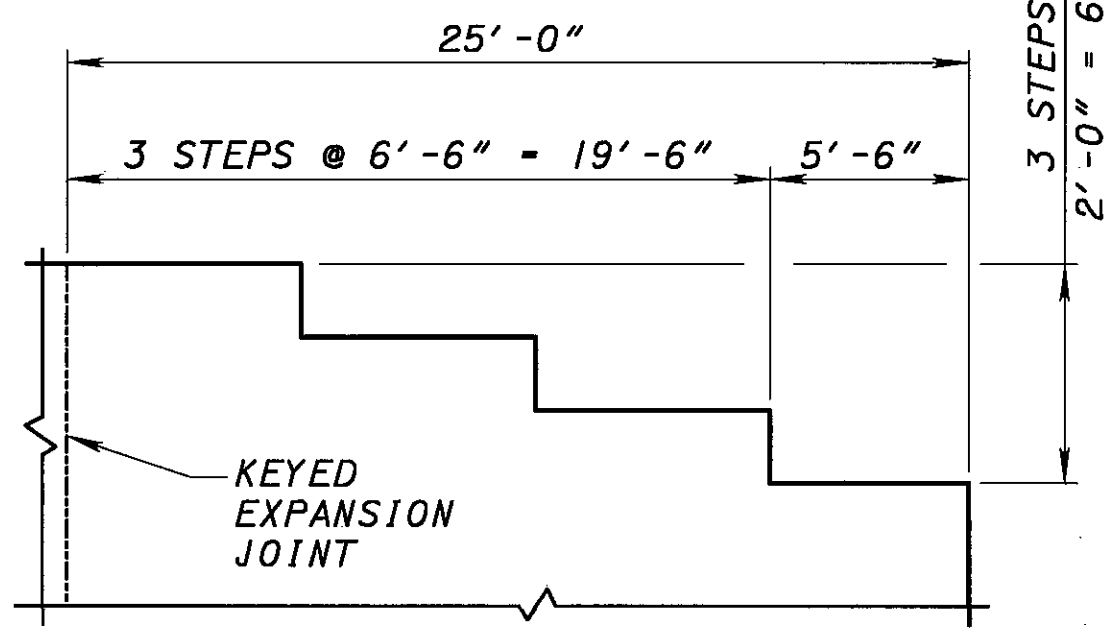


MINIMUM LAP LENGTHS
 #5 BARS - 3'-2"
 #6 BARS - 3'-10"
 #9 BARS - 8'-1"

* PAYMENT FOR THIS ITEM TO BE INCLUDED WITH ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN.

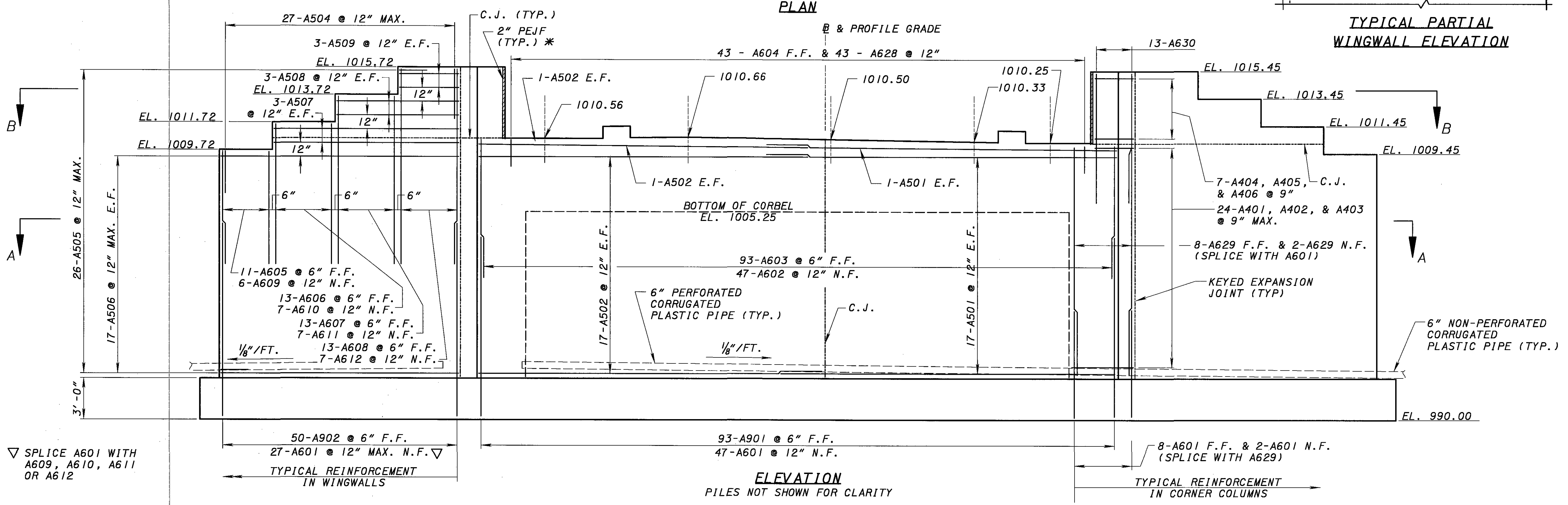
** 3'-0" WIDE TYPE 2 WATERPROOFING CENTERED ON EXPANSION JOINT. EXTEND THE FULL HEIGHT OF JOINT TO THE TOP OF FOOTING.

- NOTES:**
1. FOR SEISMIC PEDESTAL DETAIL & SECTIONS A-A & B-B, SEE SHT 10/27.
 2. FOR VIEW C-C, SEE SHT 11/27.
 3. FOR KEYED EXPANSION JOINT DETAILS, SEE SECTIONS A-A & B-B SHT 10/27.



PLAN

TYPICAL PARTIAL WINGWALL ELEVATION



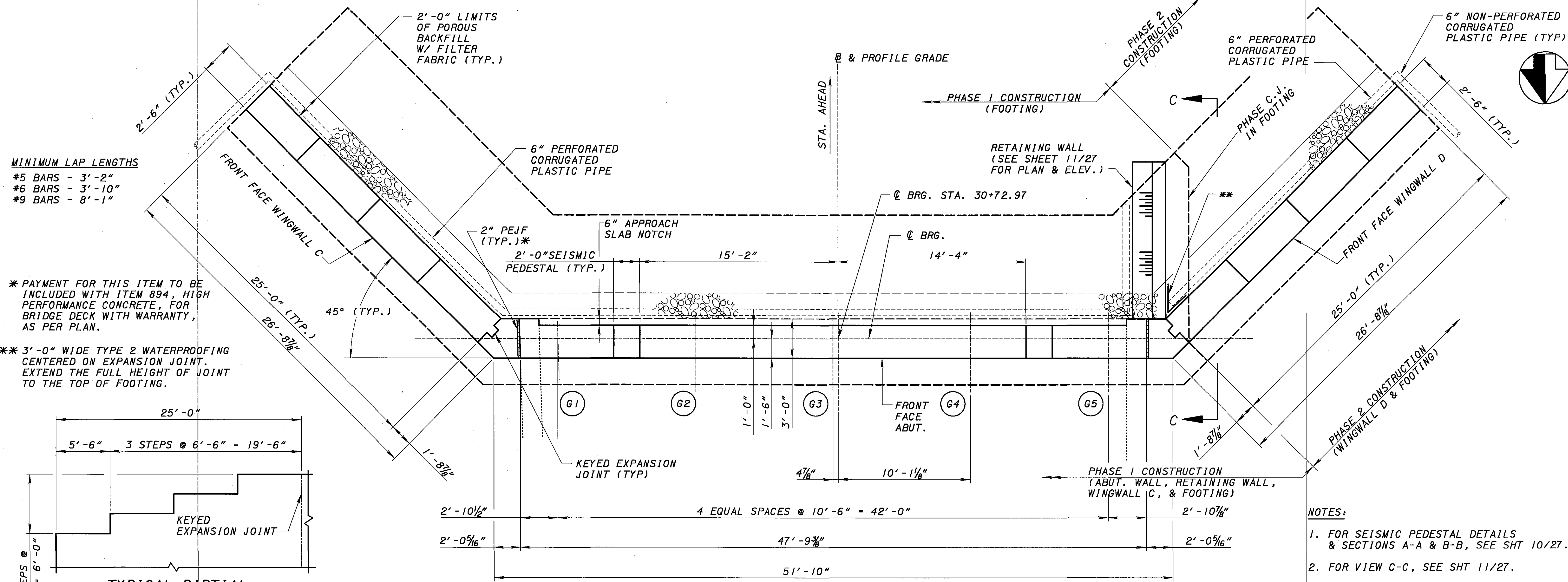
ELEVATION

PILES NOT SHOWN FOR CLARITY

TYPICAL REINFORCEMENT IN CORNER COLUMNS

TYPICAL REINFORCEMENT IN WINGWALLS

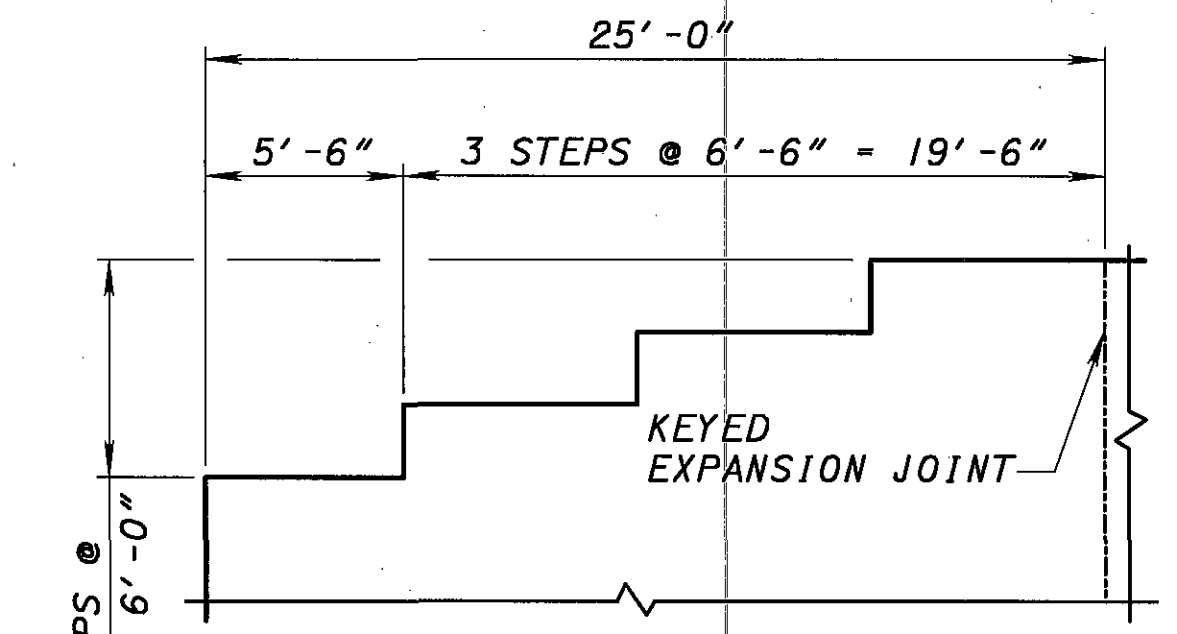
▽ SPLICE A601 WITH A609, A610, A611 OR A612



MINIMUM LAP LENGTHS
 #5 BARS - 3'-2"
 #6 BARS - 3'-10"
 #9 BARS - 8'-1"

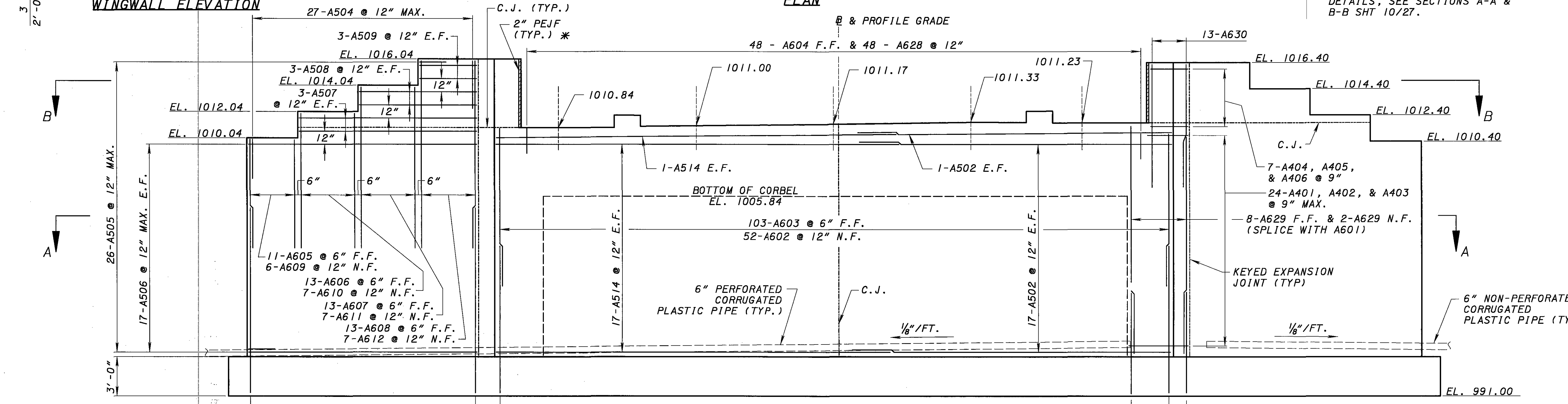
* PAYMENT FOR THIS ITEM TO BE INCLUDED WITH ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN.

** 3'-0" WIDE TYPE 2 WATERPROOFING CENTERED ON EXPANSION JOINT. EXTEND THE FULL HEIGHT OF JOINT TO THE TOP OF FOOTING.



TYPICAL PARTIAL WINGWALL ELEVATION

PLAN



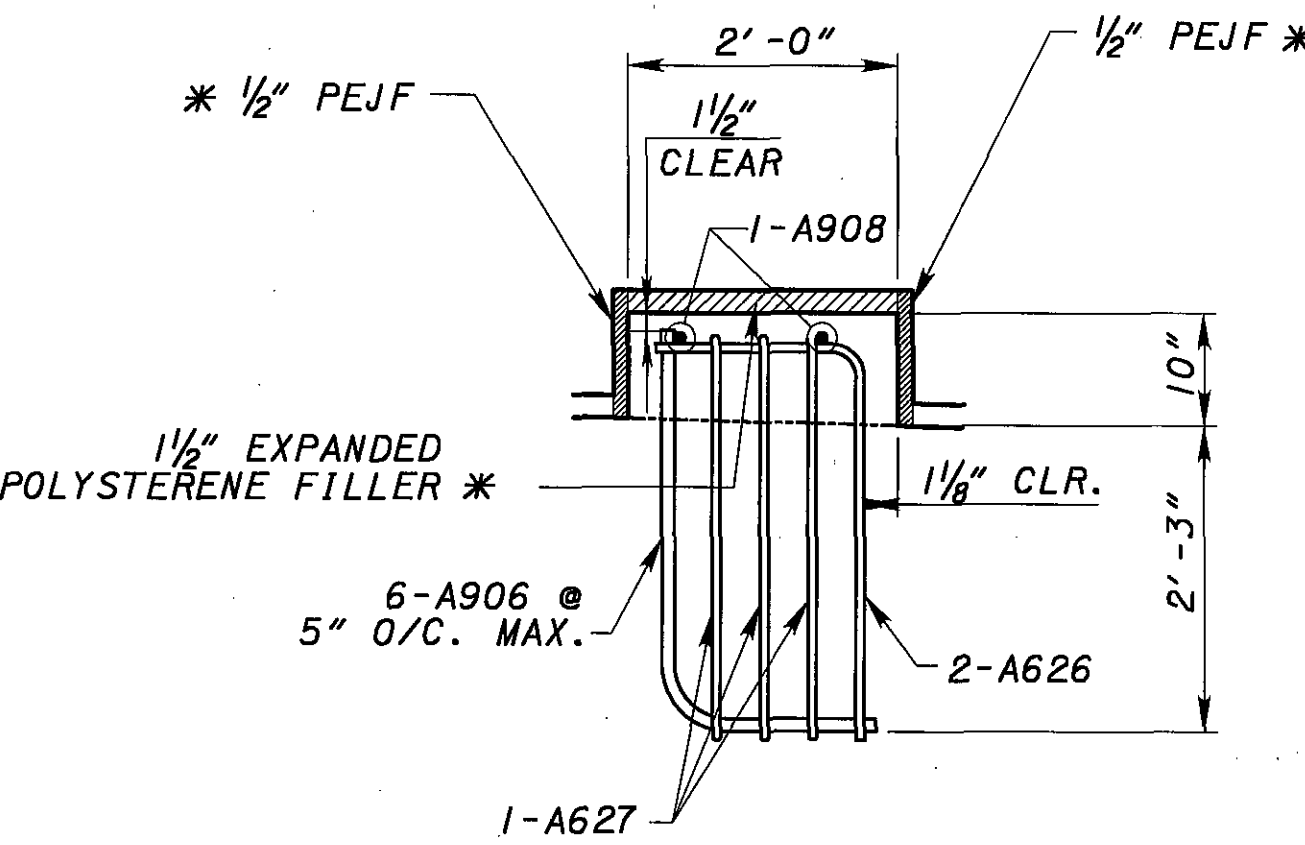
ELEVATION
PILES NOT SHOWN FOR CLARITY

- NOTES:**
1. FOR SEISMIC PEDESTAL DETAILS & SECTIONS A-A & B-B, SEE SHT 10/27.
 2. FOR VIEW C-C, SEE SHT 11/27.
 3. FOR KEYED EXPANSION JOINT DETAILS, SEE SECTIONS A-A & B-B SHT 10/27.

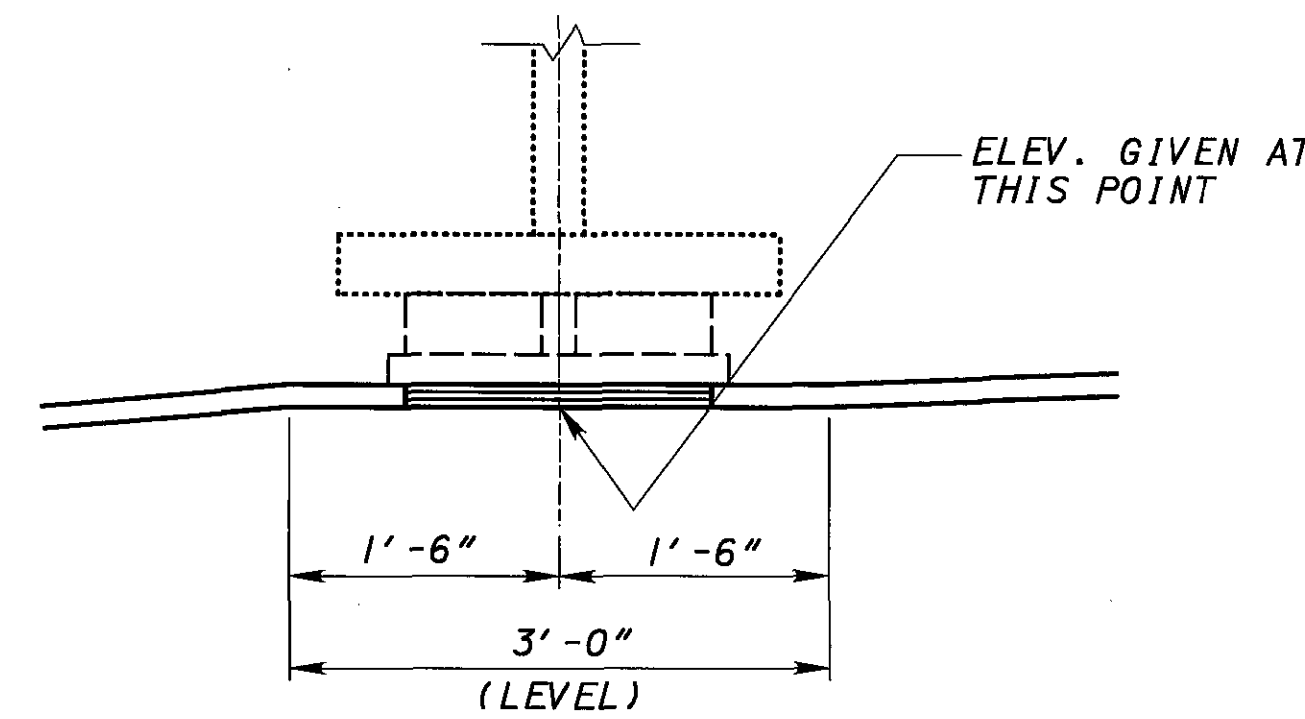
▽ SPLICE A601 WITH A609, A610, A611 OR A612

TYPICAL REINFORCEMENT IN WINGWALLS

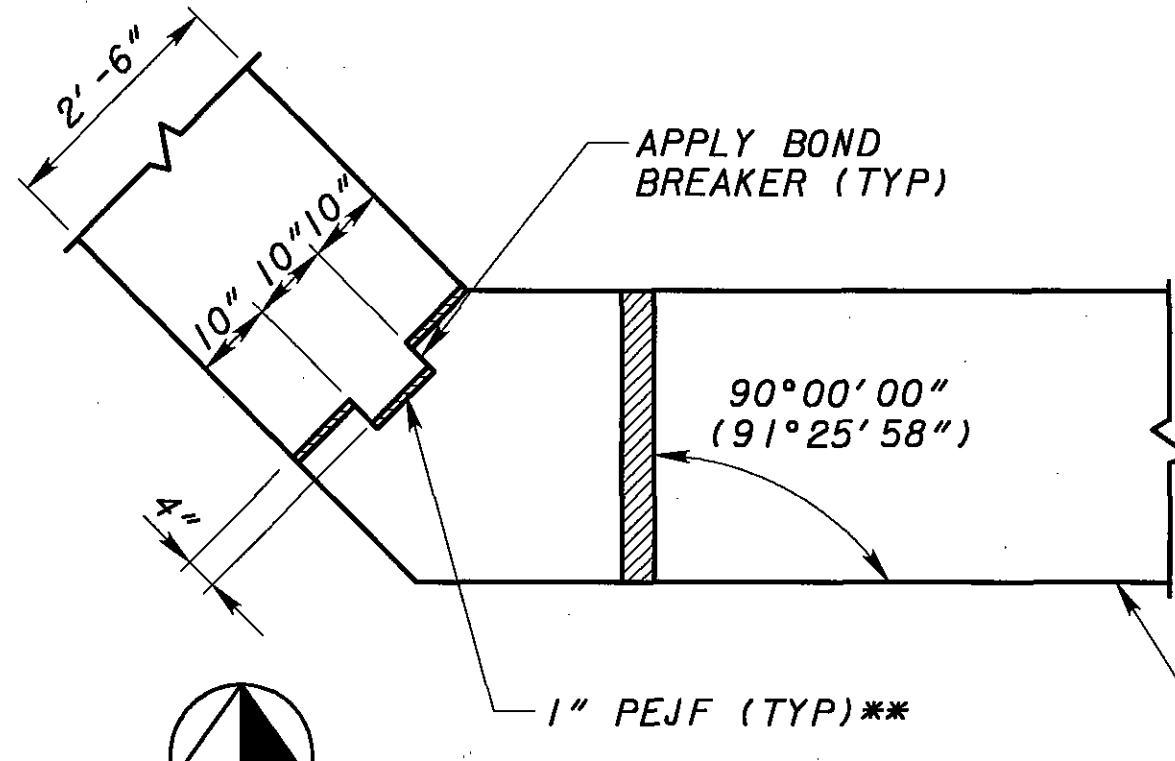
TYPICAL REINFORCEMENT IN CORNER COLUMNS



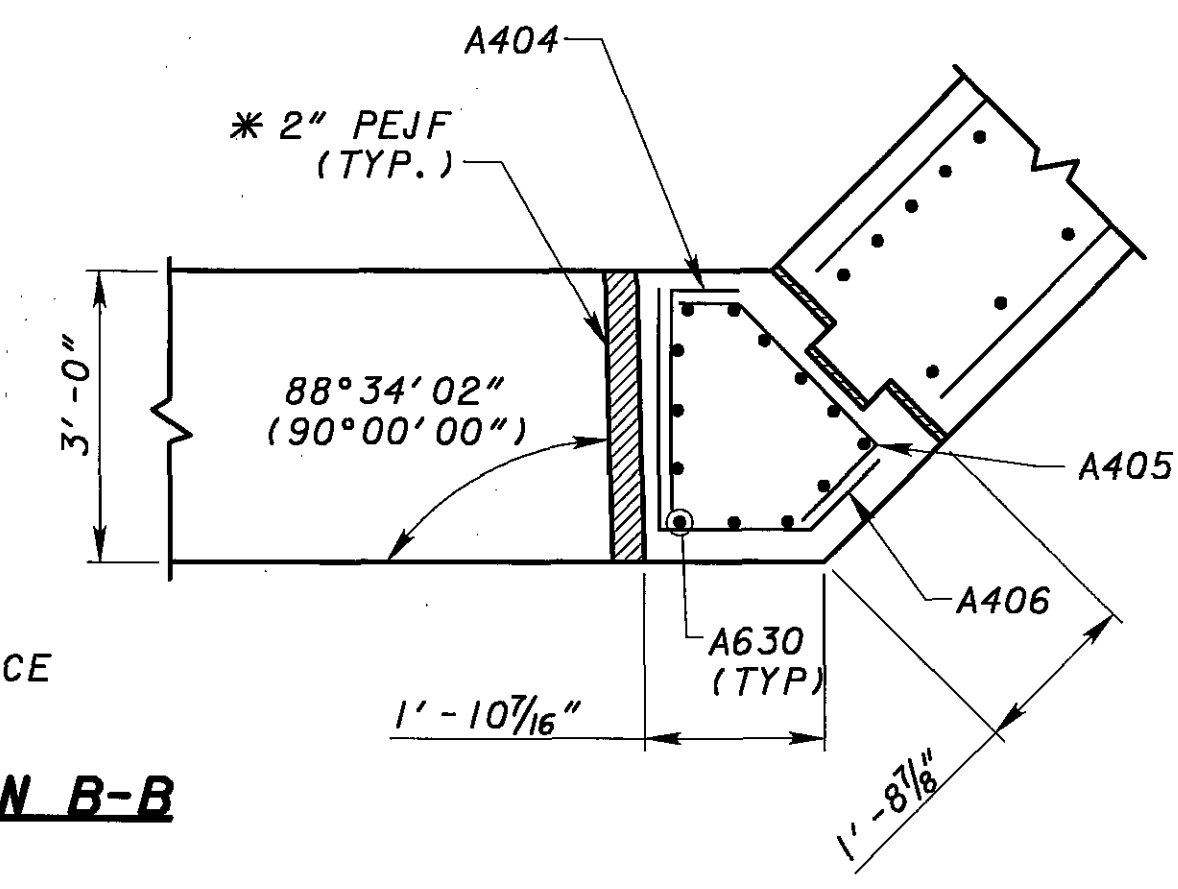
SEISMIC PEDESTAL DETAIL



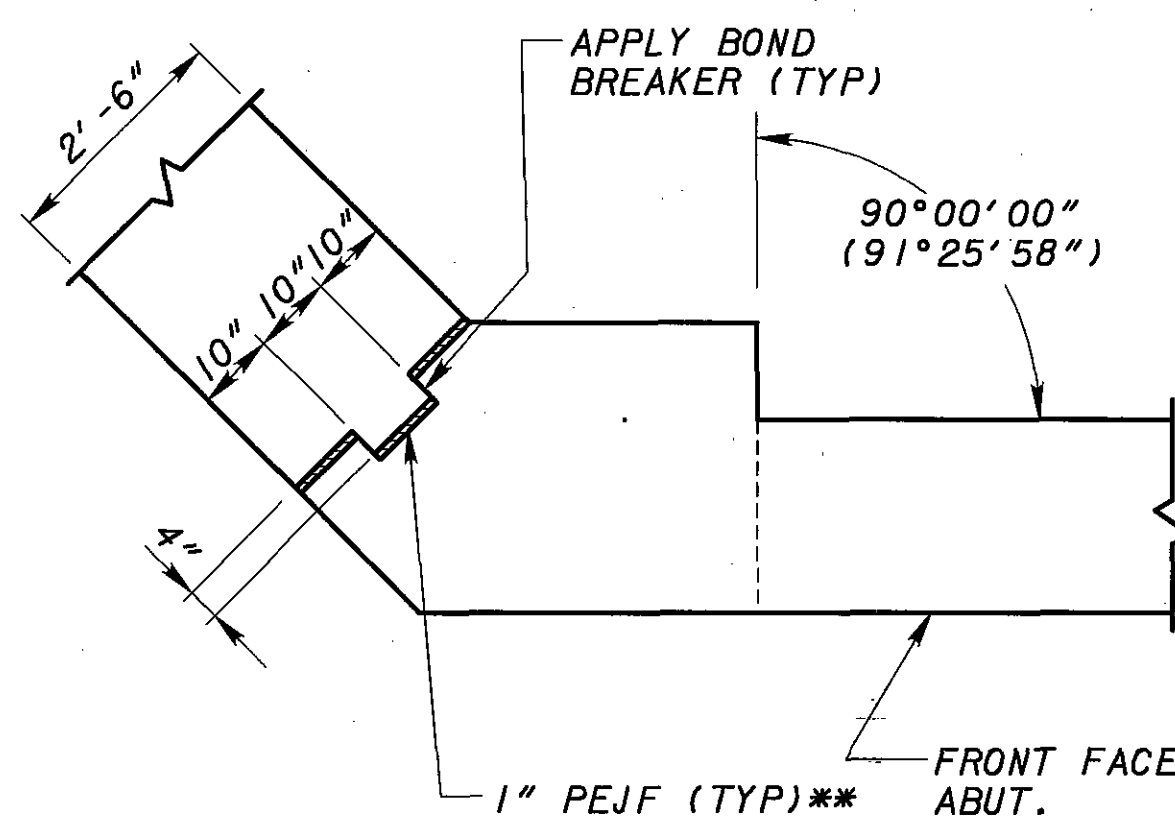
**BEAM SEAT DETAIL
(INTERIOR GIRDER SHOWN)**



SECTION B-B



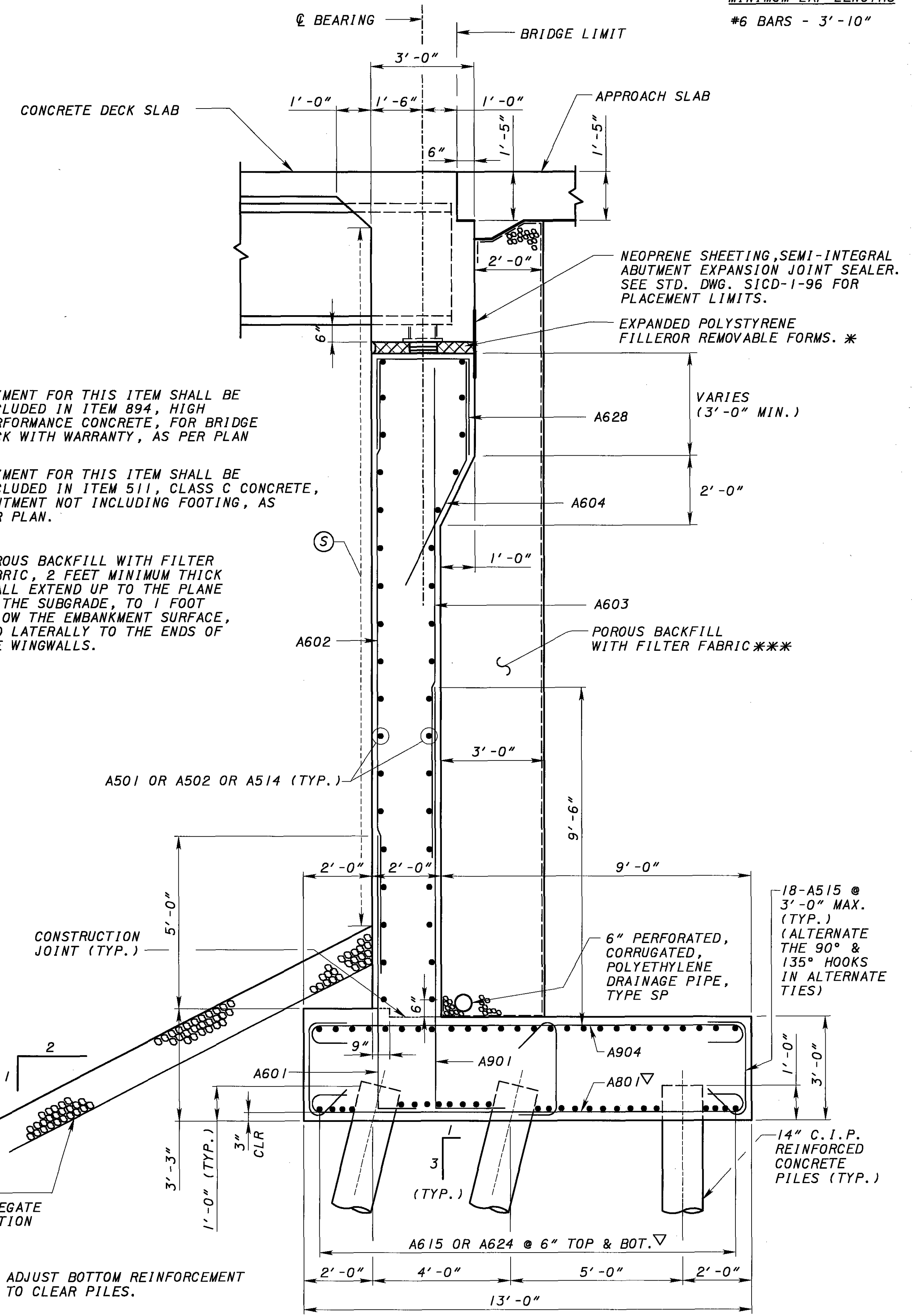
SECTION A-A



SECTION A-A

NOTES FOR SECTIONS A-A & B-B:

1. REAR ABUT. SHOWN, FWD. ABUT. SIMILAR EXCEPT AS INDICATED IN ().
2. DETAILS ON BOTH SIDES ARE TYPICAL.
3. RETAINING WALL AT THE BACK OF THE ABUTMENT NOT SHOWN.



ABUTMENT TYPICAL SECTION

* PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

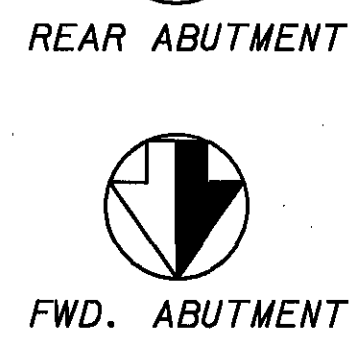
** PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 511, CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN.

*** POROUS BACKFILL WITH FILTER FABRIC, 2 FEET MINIMUM THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.

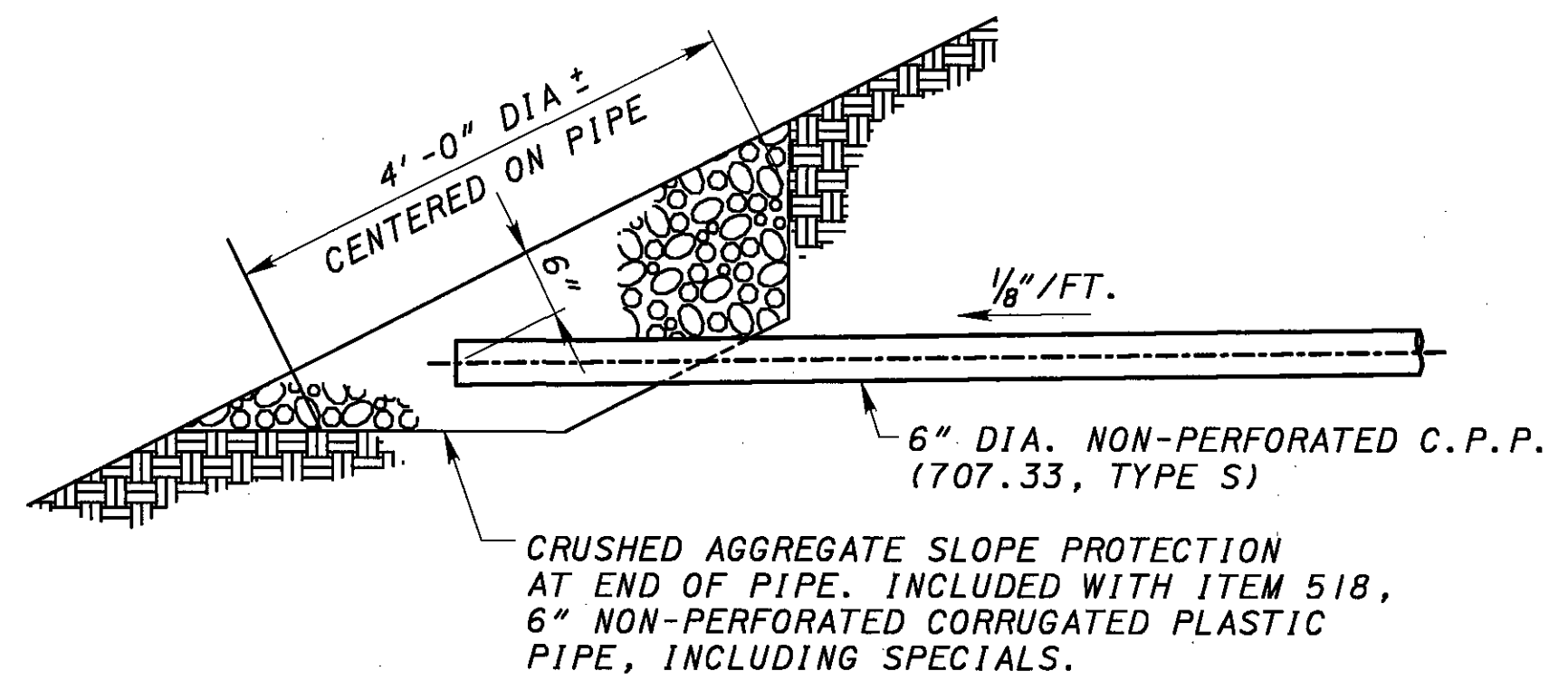
▽ ADJUST BOTTOM REINFORCEMENT TO CLEAR PILES.

Ⓢ DENOTES CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE.

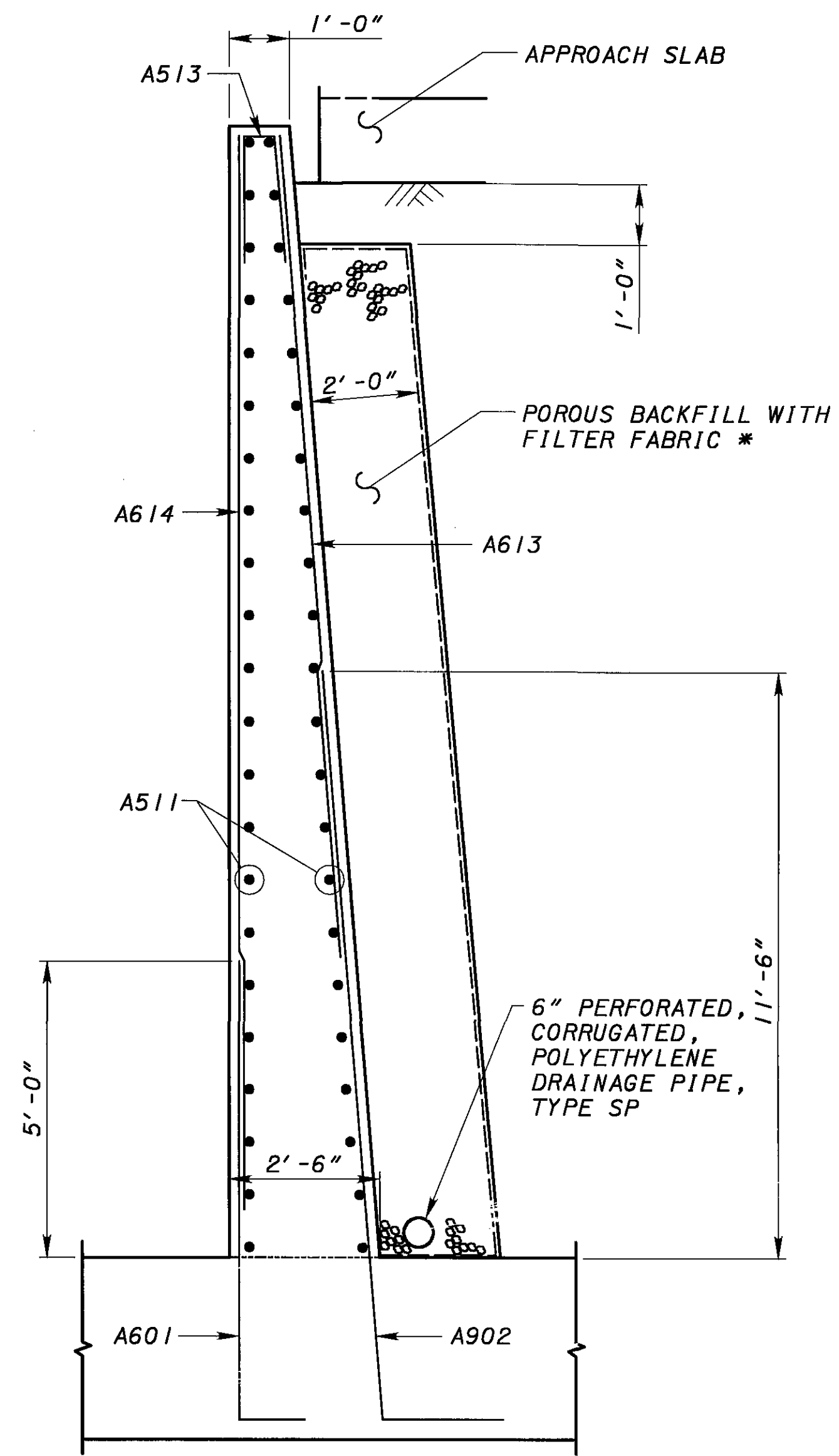
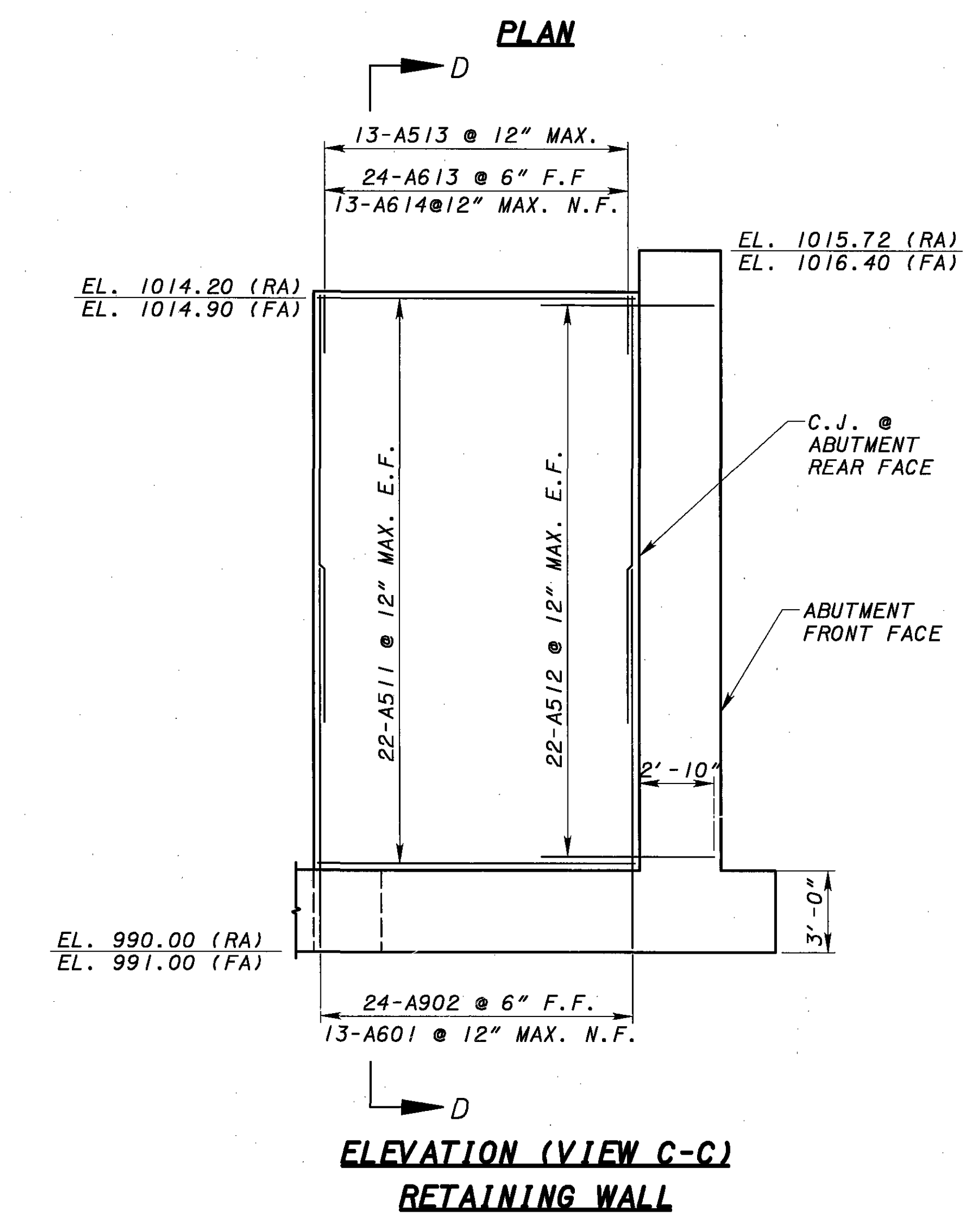
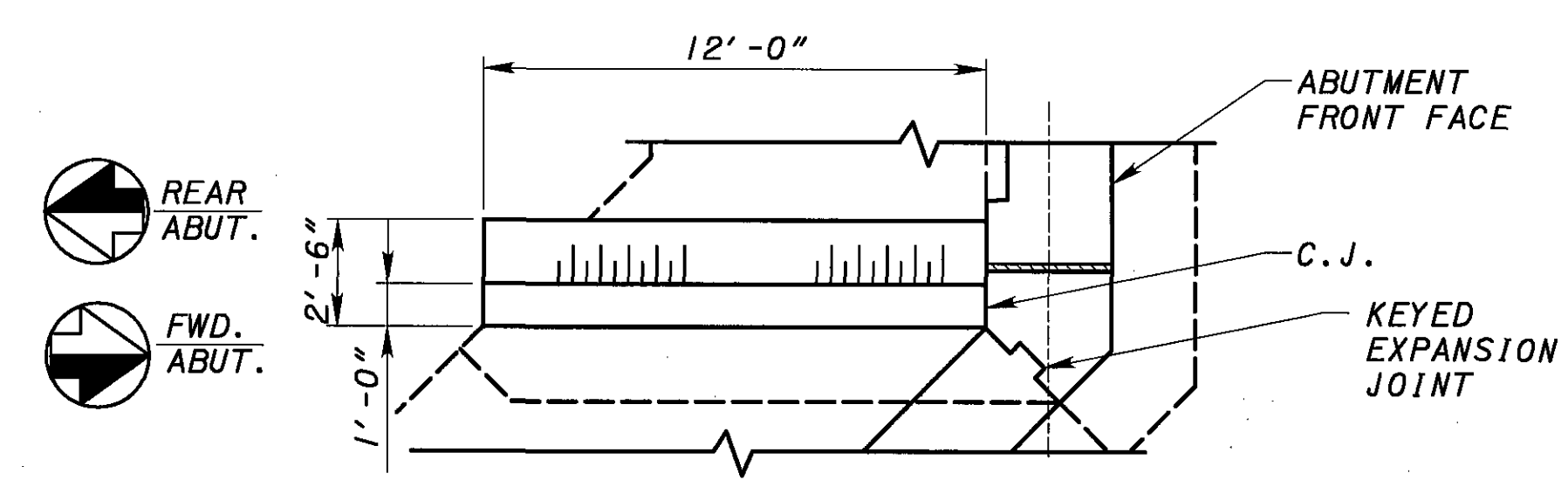
MINIMUM LAP LENGTHS
#6 BARS - 3'-10"



NOTE: FOR PILE LAYOUT, SEE FOUNDATION PLAN SHEET 7/27.



TERMINATION OF 6" N.P.C.P.P. DETAIL

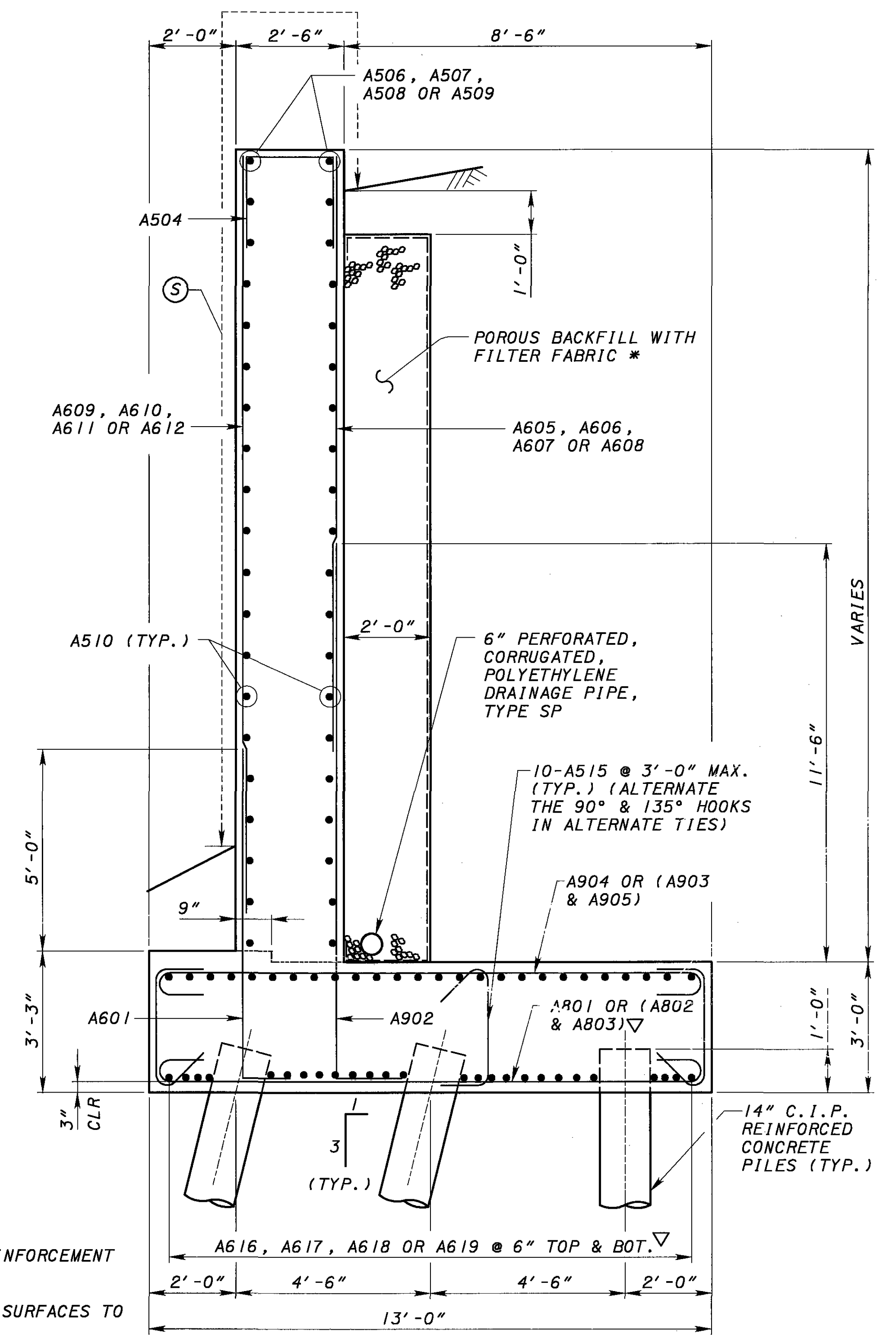


SECTION D-D

* POROUS BACKFILL WITH FILTER FABRIC, 2 FEET MINIMUM THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.

▽ ADJUST BOTTOM REINFORCEMENT TO CLEAR PILES.
 (S) DENOTES CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE.

MINIMUM LAP LENGTHS
 #6 BARS - 3'-10"



WINGWALL TYPICAL SECTION

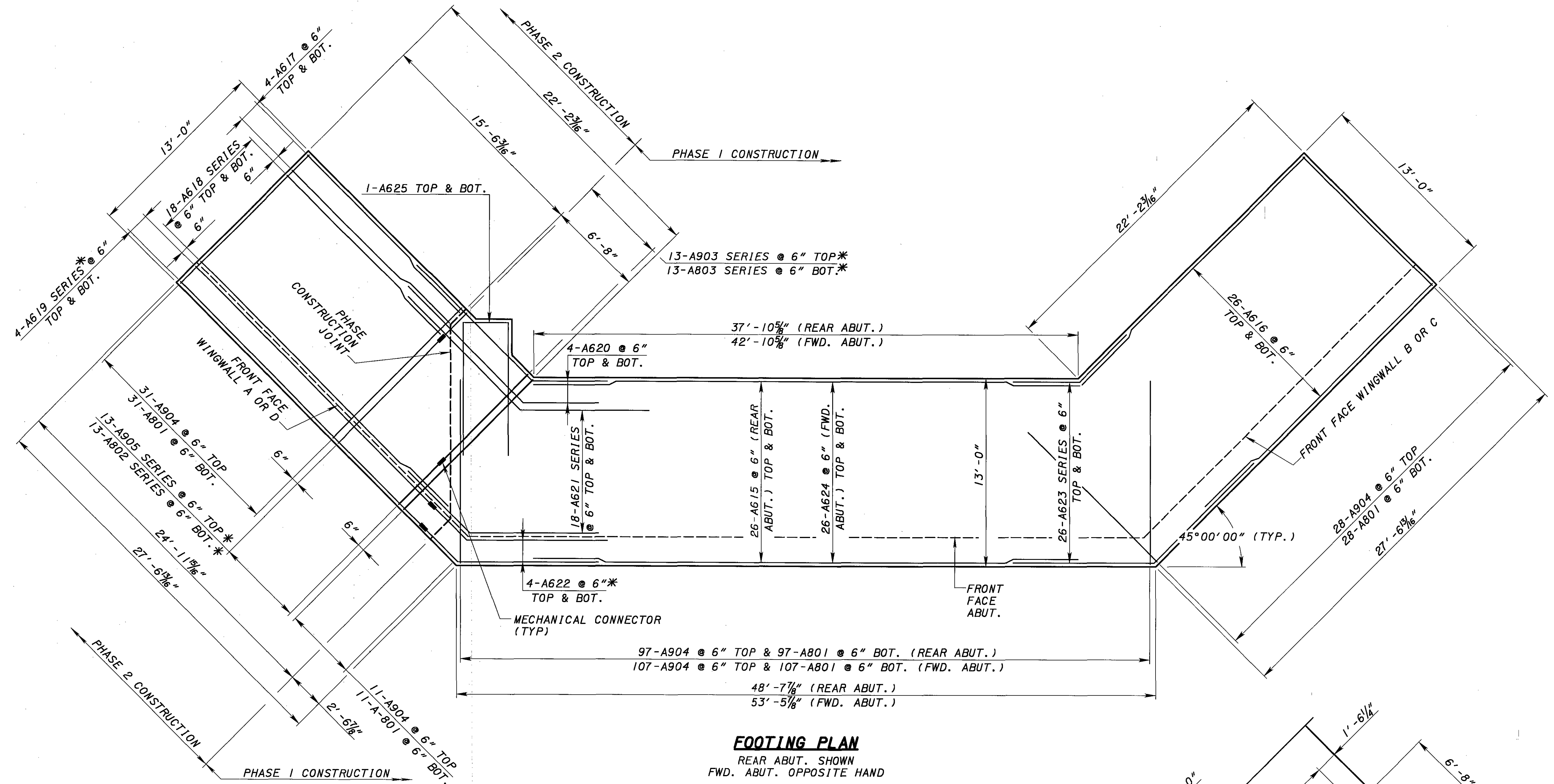
NOTE:
 FOR PILE LAYOUT, SEE FOUNDATION PLAN SHEET 7/27.

DESIGNED BY: JMS
 CHECKED: GKL
 DRAWN: KVM
 REVISIONS: 5204240
 DATE: 02/2005
 REVIEWED: PA
 PREPARED BY: MS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 2021 SOUTH MAIN, SUITE 200
 DENVER, CO 80202

ABUTMENT DETAILS - 2
 BRIDGE NO. MED-76-006 IL
 OVER US 224

MED-71-6.06
 PID 75657

11/27
 993
 1120



FOOTING PLAN

REAR ABUT. SHOWN
FWD. ABUT. OPPOSITE HAND

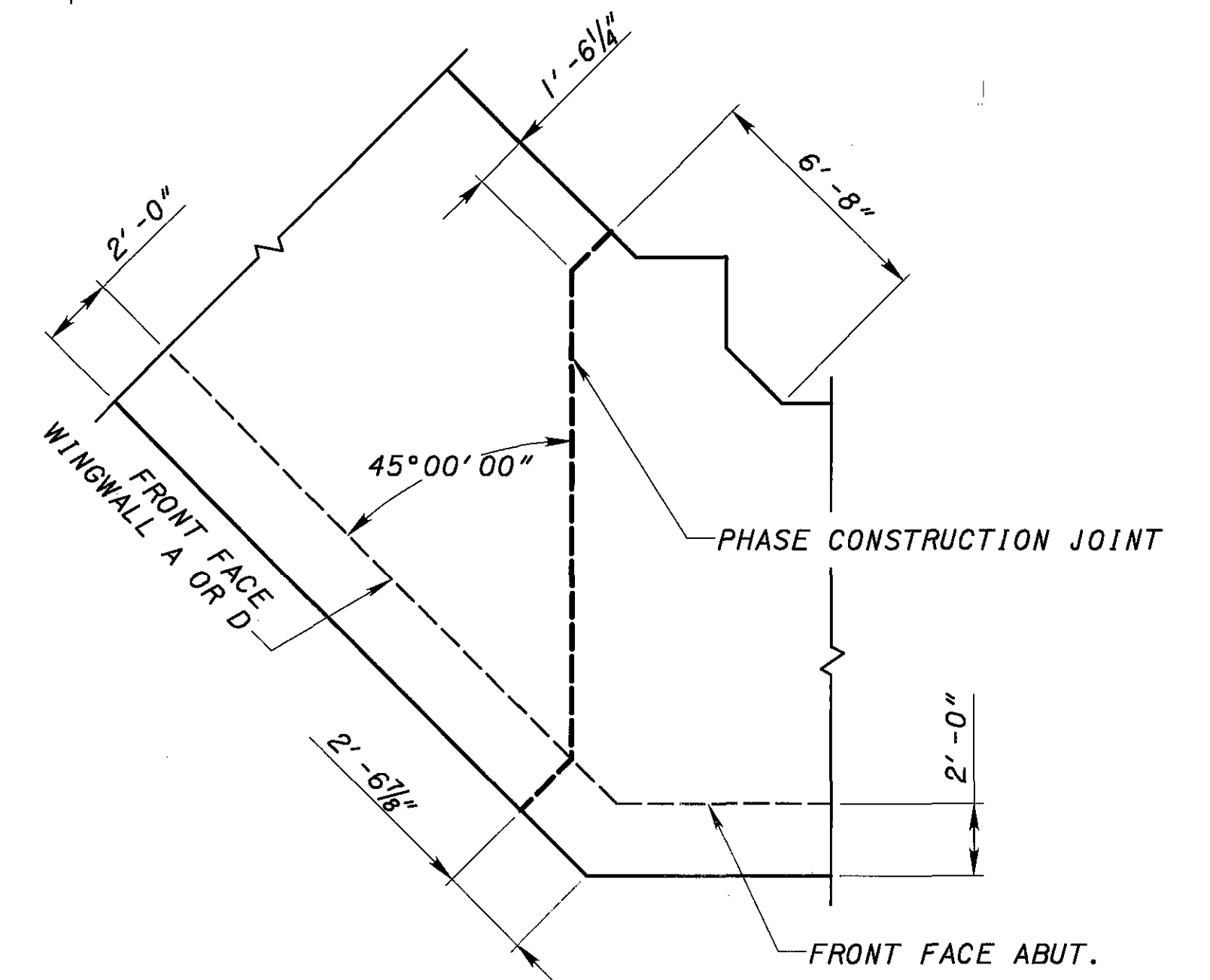
* INDICATES BARS WITH MECHANICAL CONNECTORS.

NOTES:

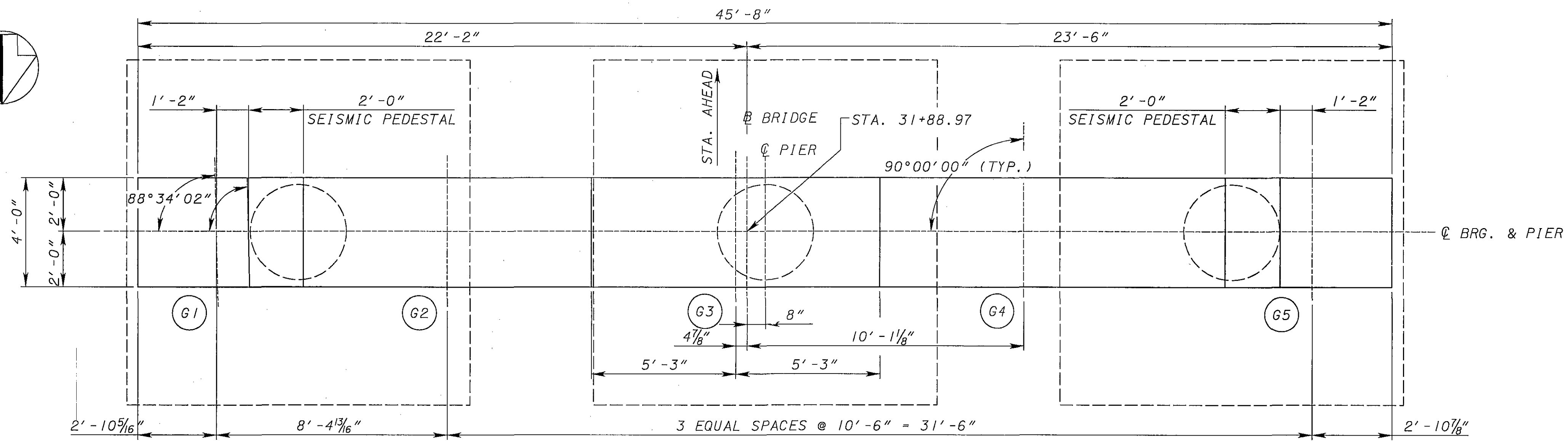
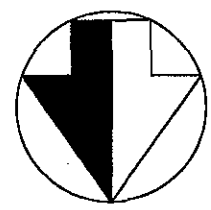
1. ADJUST BOTTOM REINFORCEMENT TO CLEAR PILES.
2. MECHANICAL CONNECTORS ARE PLACED OUTSIDE PHASE CONSTRUCTION JOINT. THE DISTANCE FROM THE PHASE CONSTRUCTION JOINT TO END OF CONNECTOR IS 1'-8" (+) FOR A803 & A903 AND 1'-8" MIN FOR A622.
3. FOR PILE LAYOUT, SEE FOUNDATION PLAN SHEET 7/27.

MINIMUM LAP LENGTHS

#6 BARS - 4'-4"



PHASE CONSTRUCTION JOINT DETAIL



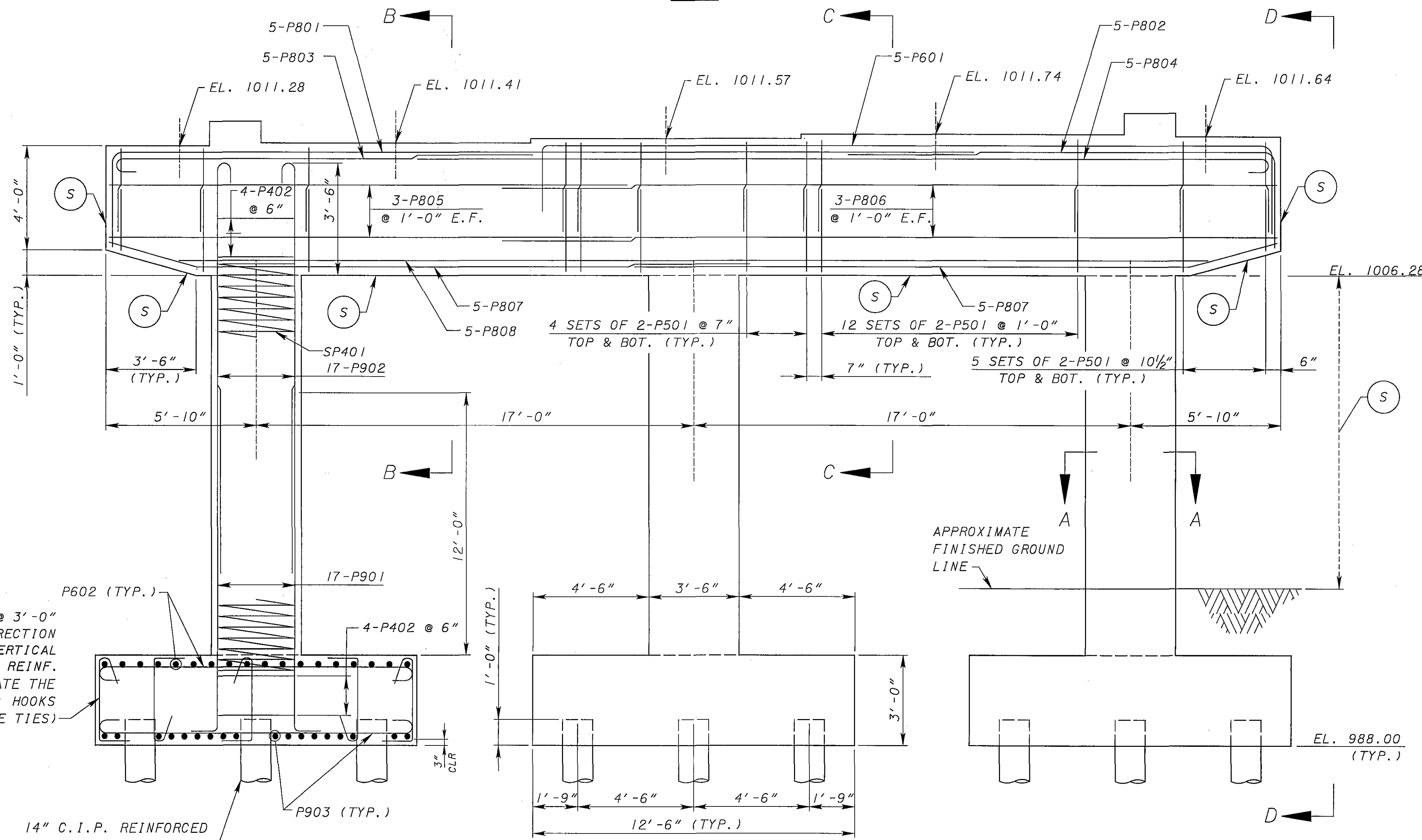
PLAN

NOTES:

1. SPIRAL REINFORCEMENT SHALL BE EMBEDDED 8" INTO PIER CAP CONCRETE AT TOP AND FOOTING CONCRETE AT BOTTOM.
2. FOR SEISMIC PEDESTAL DETAILS AND SECTIONS A-A, B-B, & C-C, SEE SHEET 14/27.

MINIMUM LAP LENGTHS

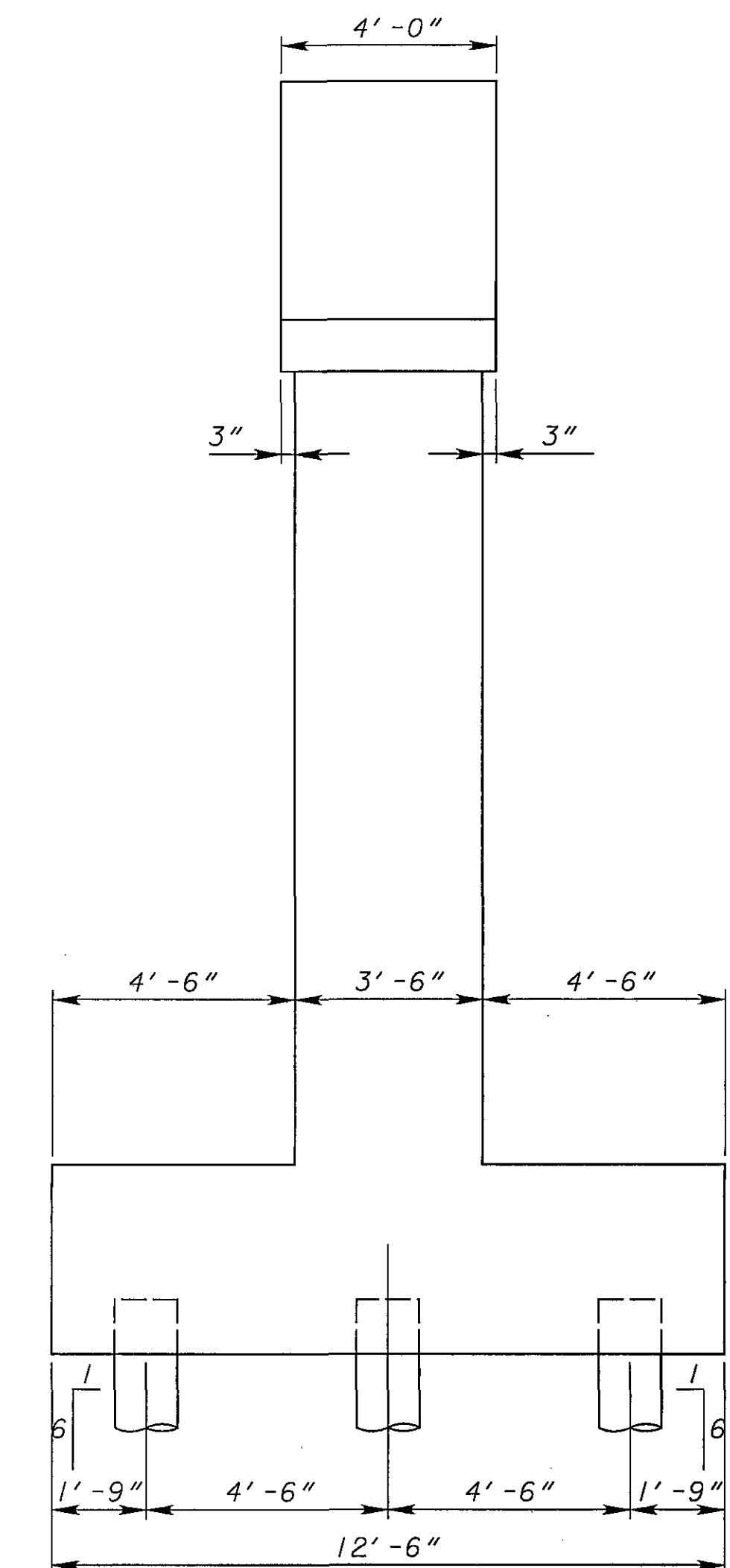
- #6 BARS - 4'-1"
- #8 BARS - 7'-3"
- #9 BARS - 8'-1"



ELEVATION

NOTE: COLUMN & FOOTING DIMENSIONS & REINFORCEMENT ARE TYPICAL.

(S) DENOTES CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE.

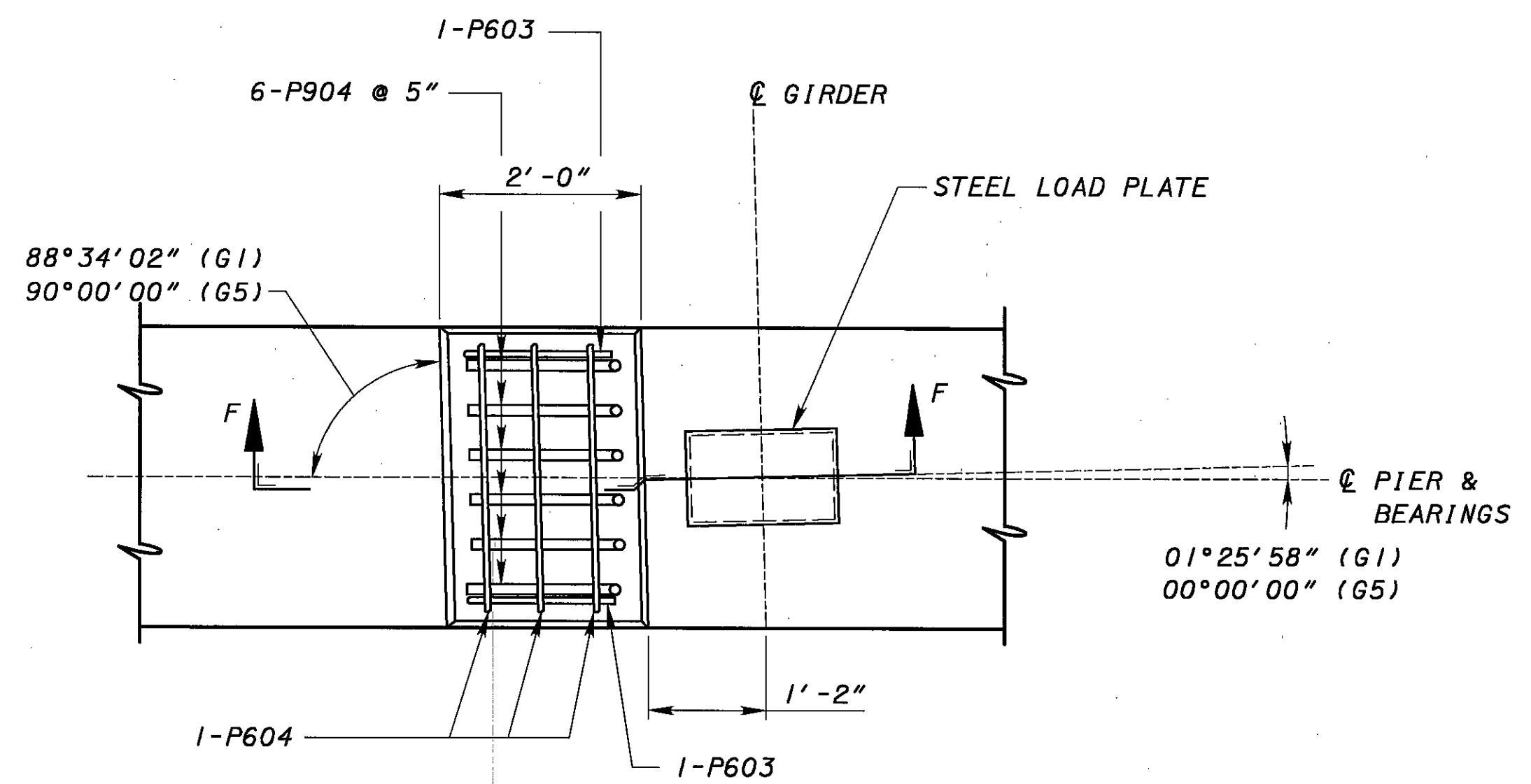


VIEW D-D

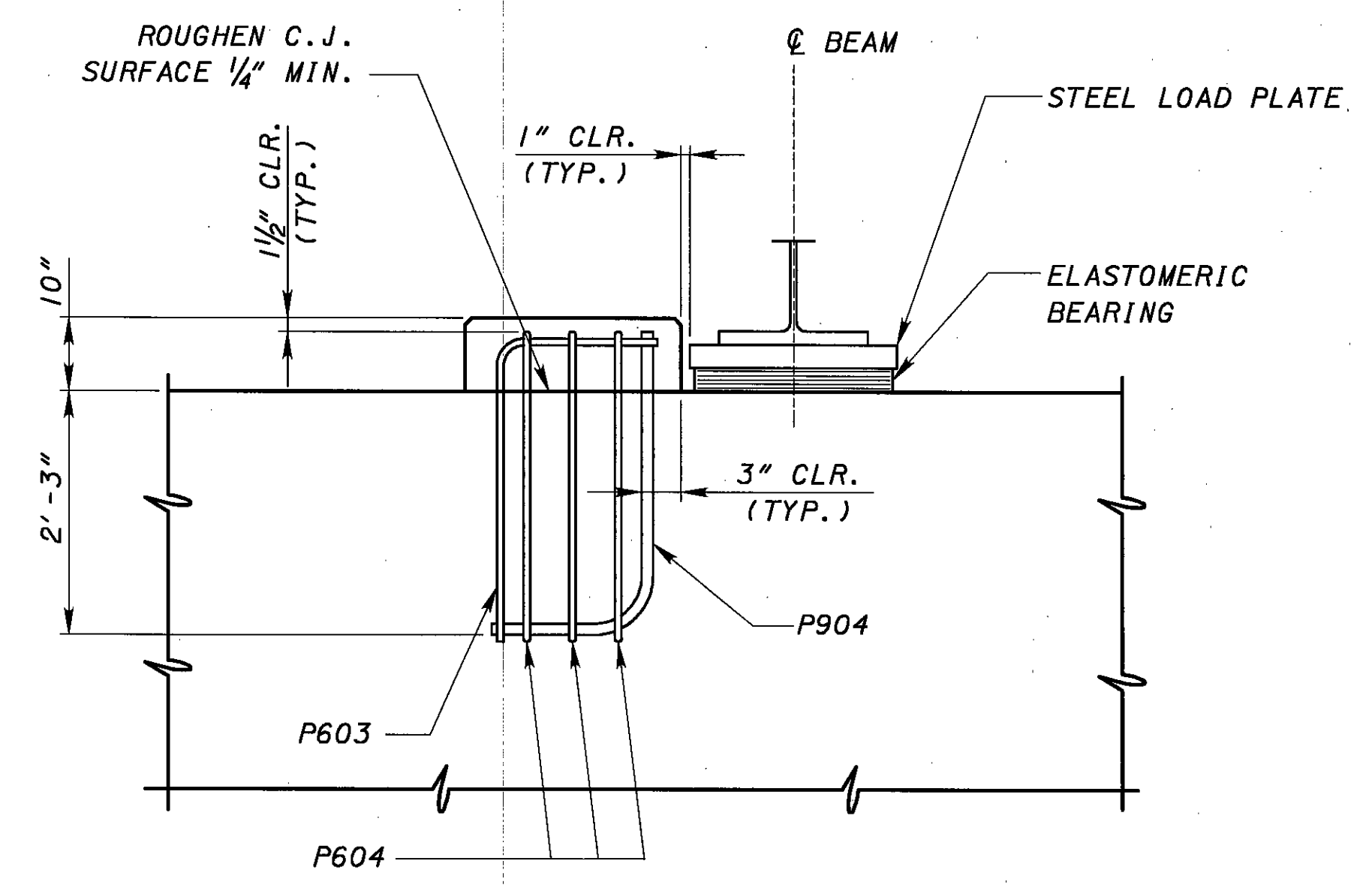
24-P502 @ 3'-0" EACH DIRECTION OUTSIDE VERTICAL COLUMN REINF. (ALTERNATE THE 90° & 135° HOOKS IN ALTERNATE TIES)

14" C.I.P. REINFORCED CONCRETE PILE (TYP.)

NOTE: FOR PILE LAYOUT, SEE FOUNDATION PLAN SHEET 7/27.

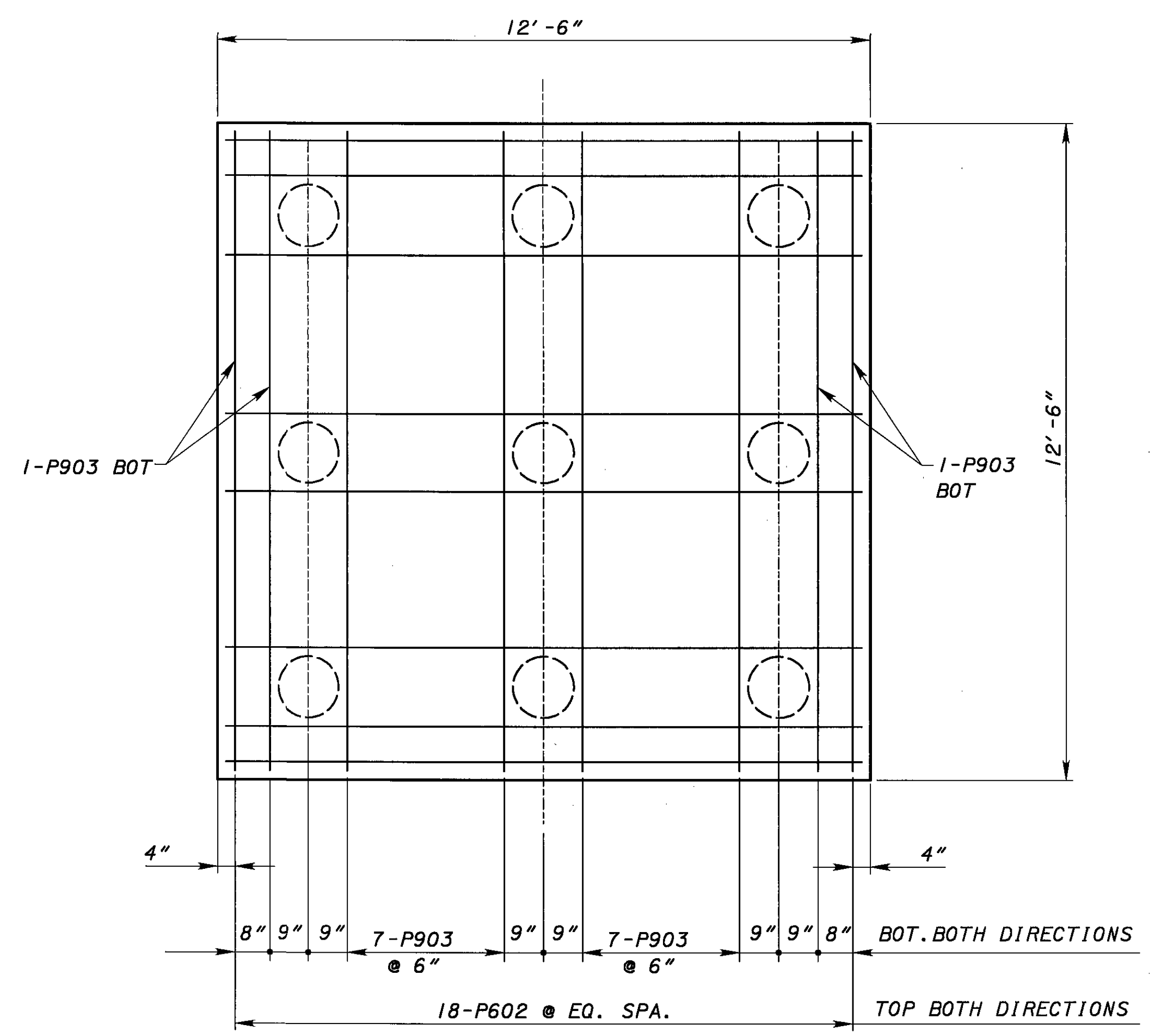


SEISMIC PEDESTAL PLAN



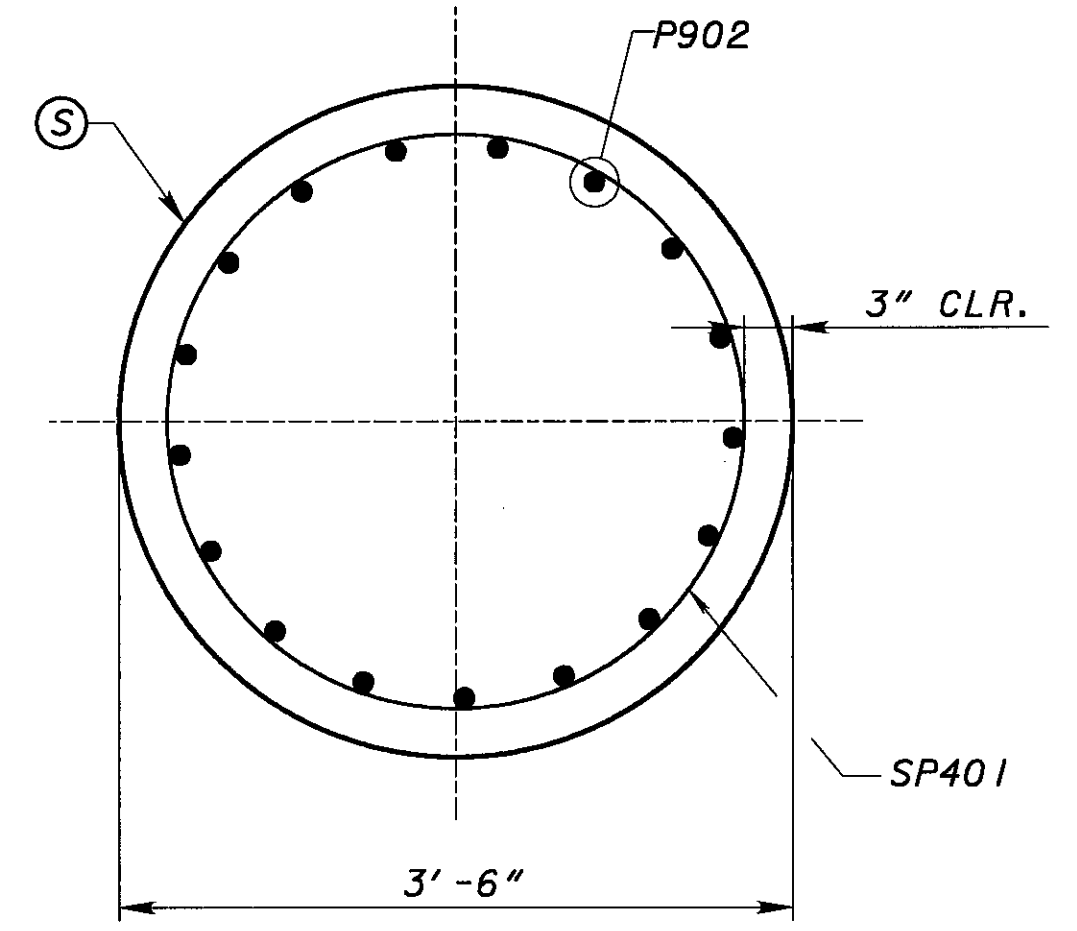
SECTION F-F

NOTE: ADJUST PIER CAP REINFORCEMENT NECESSARY TO PLACE SEISMIC REINFORCEMENT.

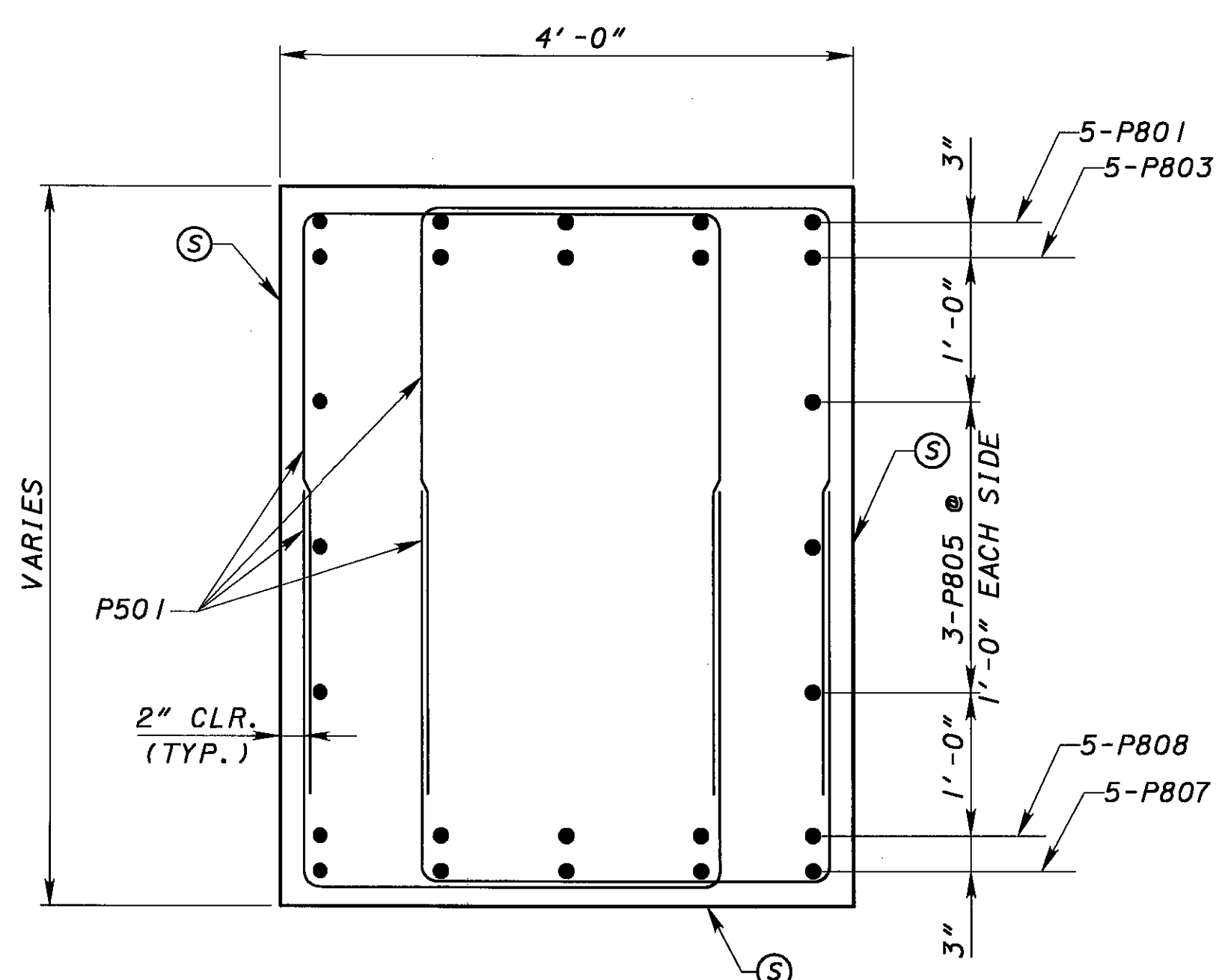


FOOTING PLAN

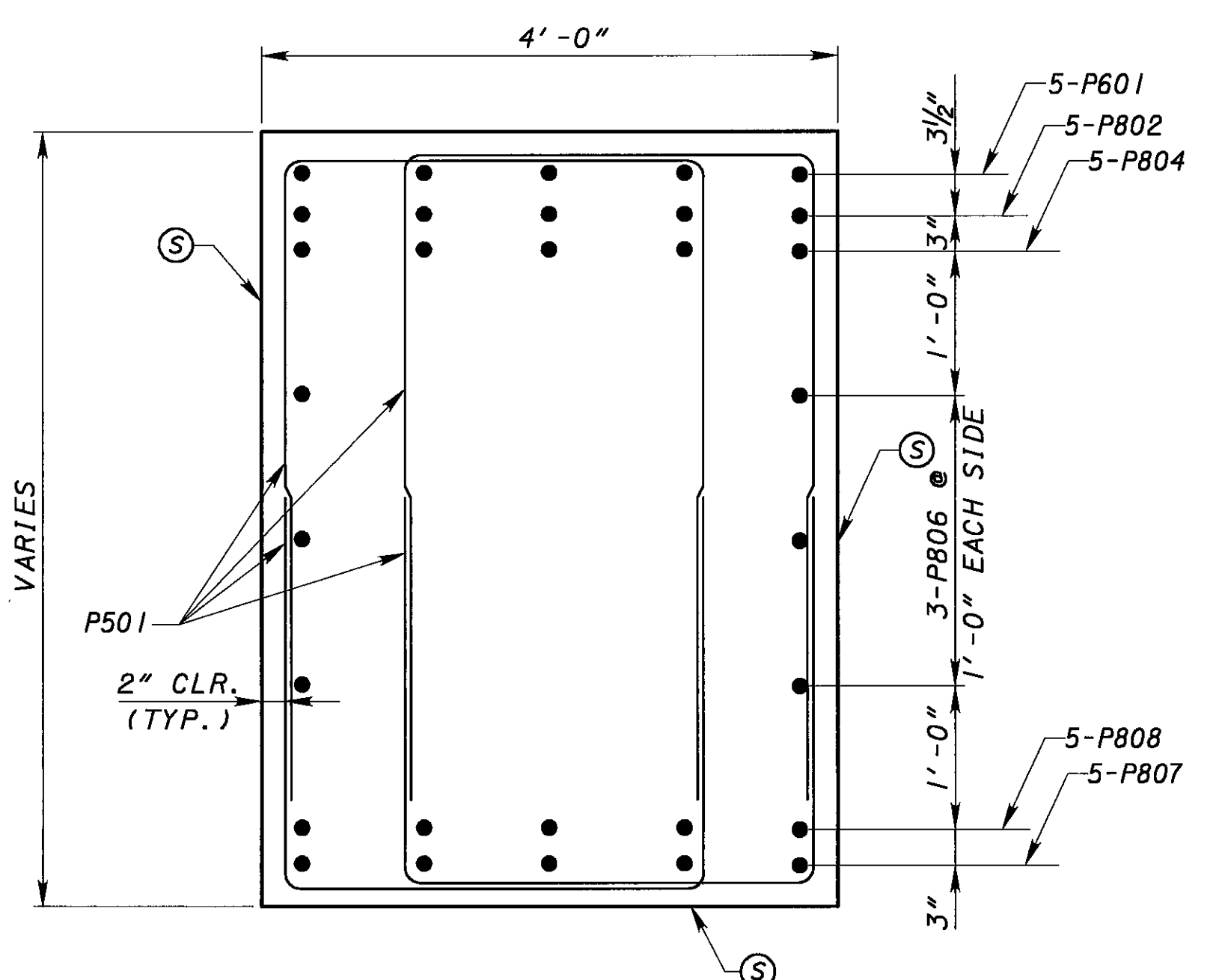
NOTE: FOR PILE LAYOUT, SEE PLAN SHEET 7/27.



SECTION A-A

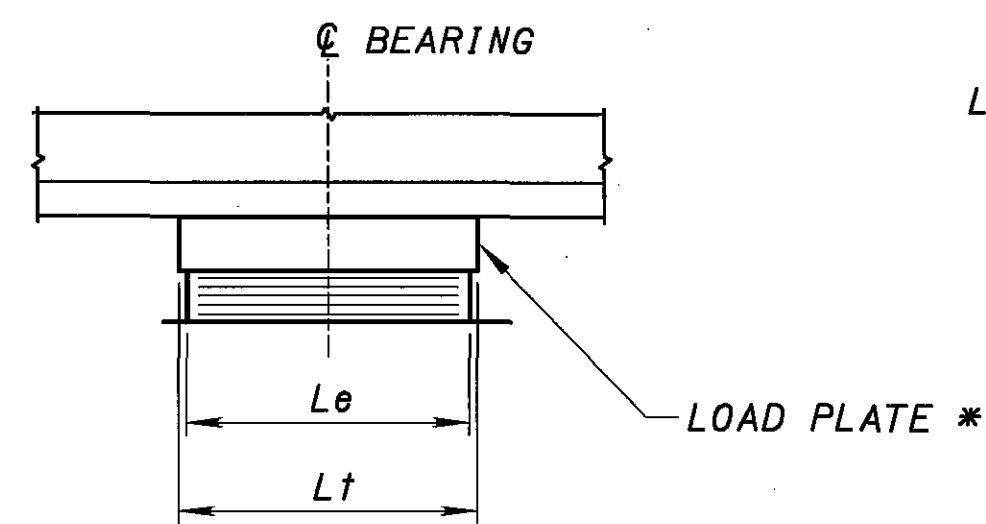


SECTION B-B

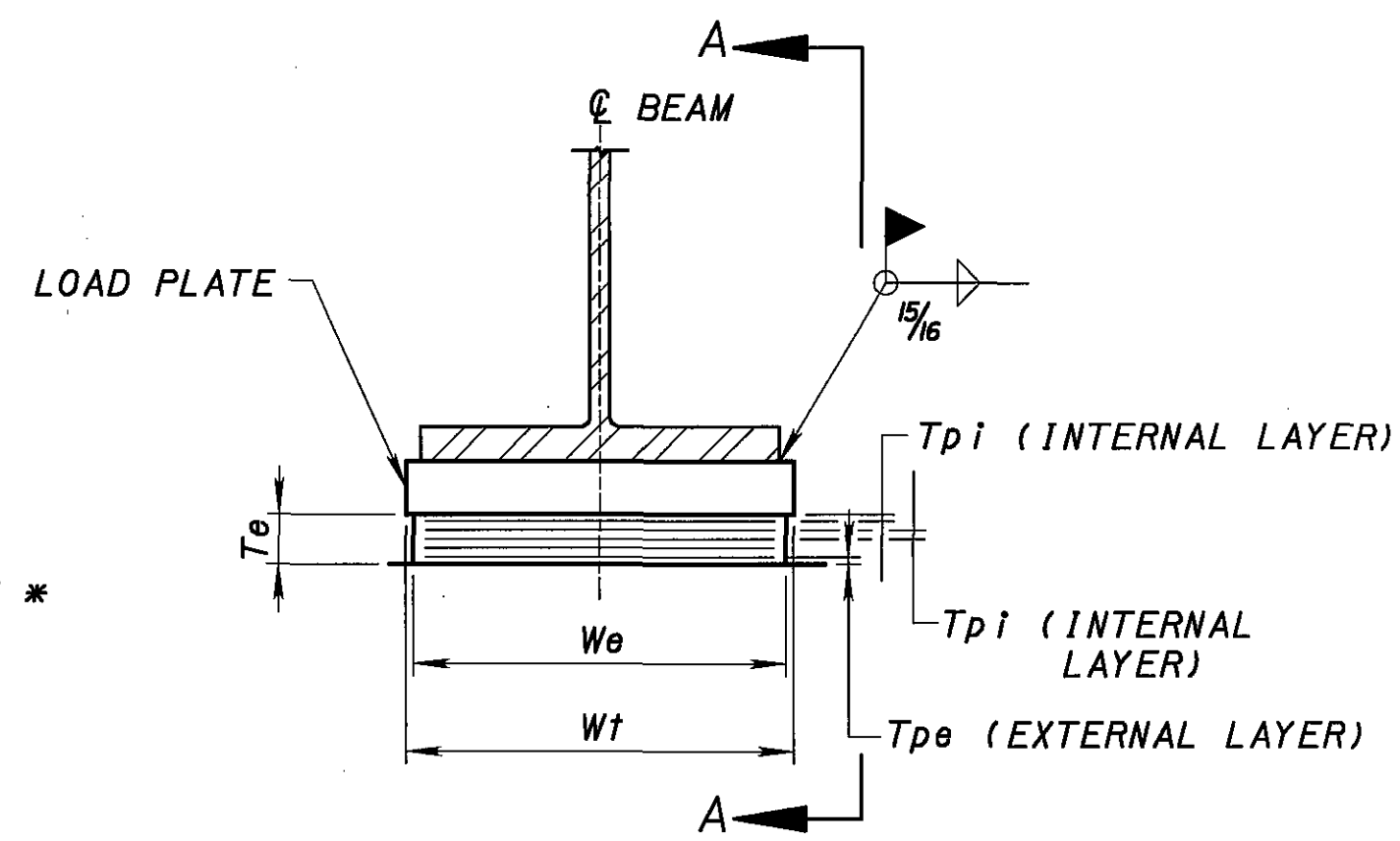


SECTION C-C

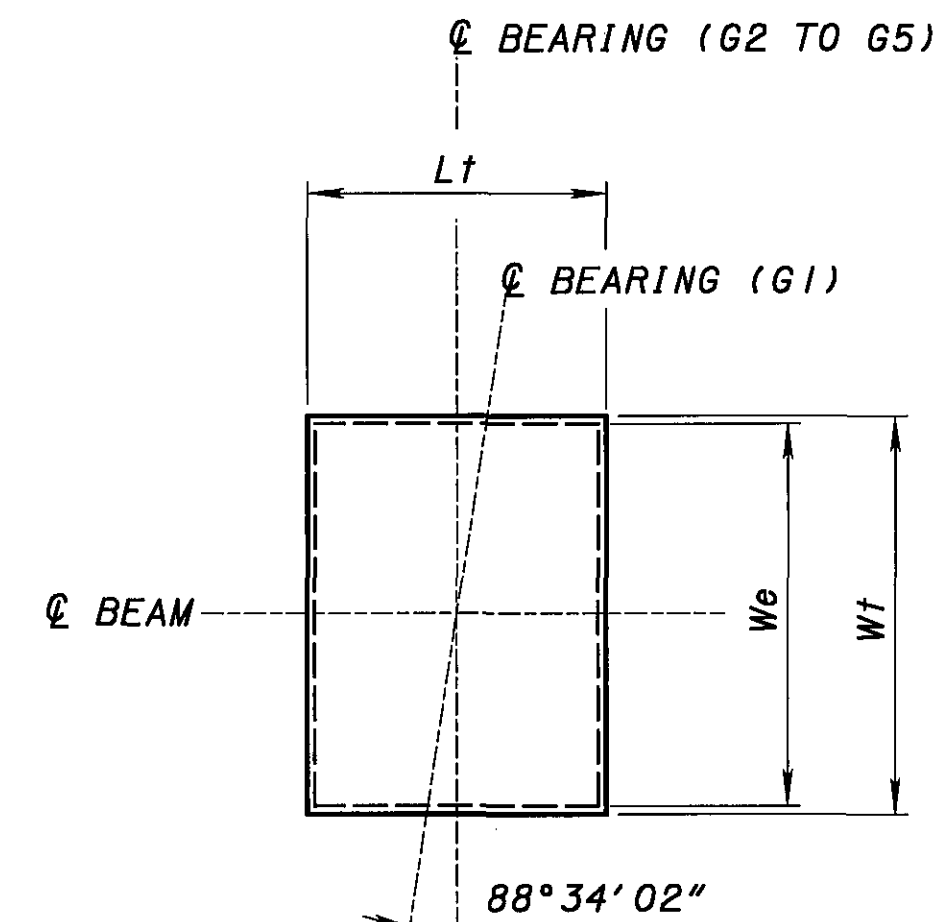
Ⓢ DENOTES CONCRETE SURFACES TO BE SEALED WITH EPOXY-URETHANE



VIEW A-A
SCALE: NOT TO SCALE



LAMINATED ELASTOMERIC BEARING AT PIER
SCALE: NOT TO SCALE



PLAN
SCALE: NOT TO SCALE

NOTES:

LOAD PLATE

THE STEEL LOAD PLATE AND THE HP 10x57 SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

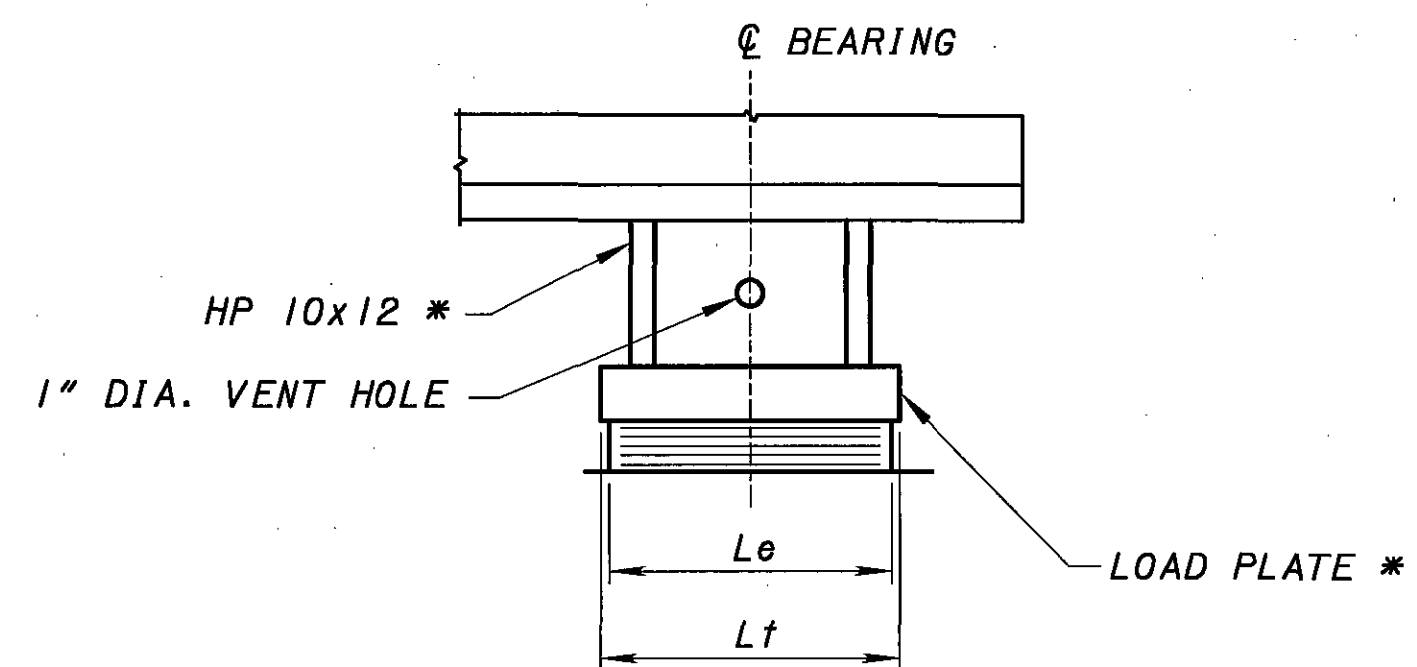
CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

ELASTOMERIC BEARINGS

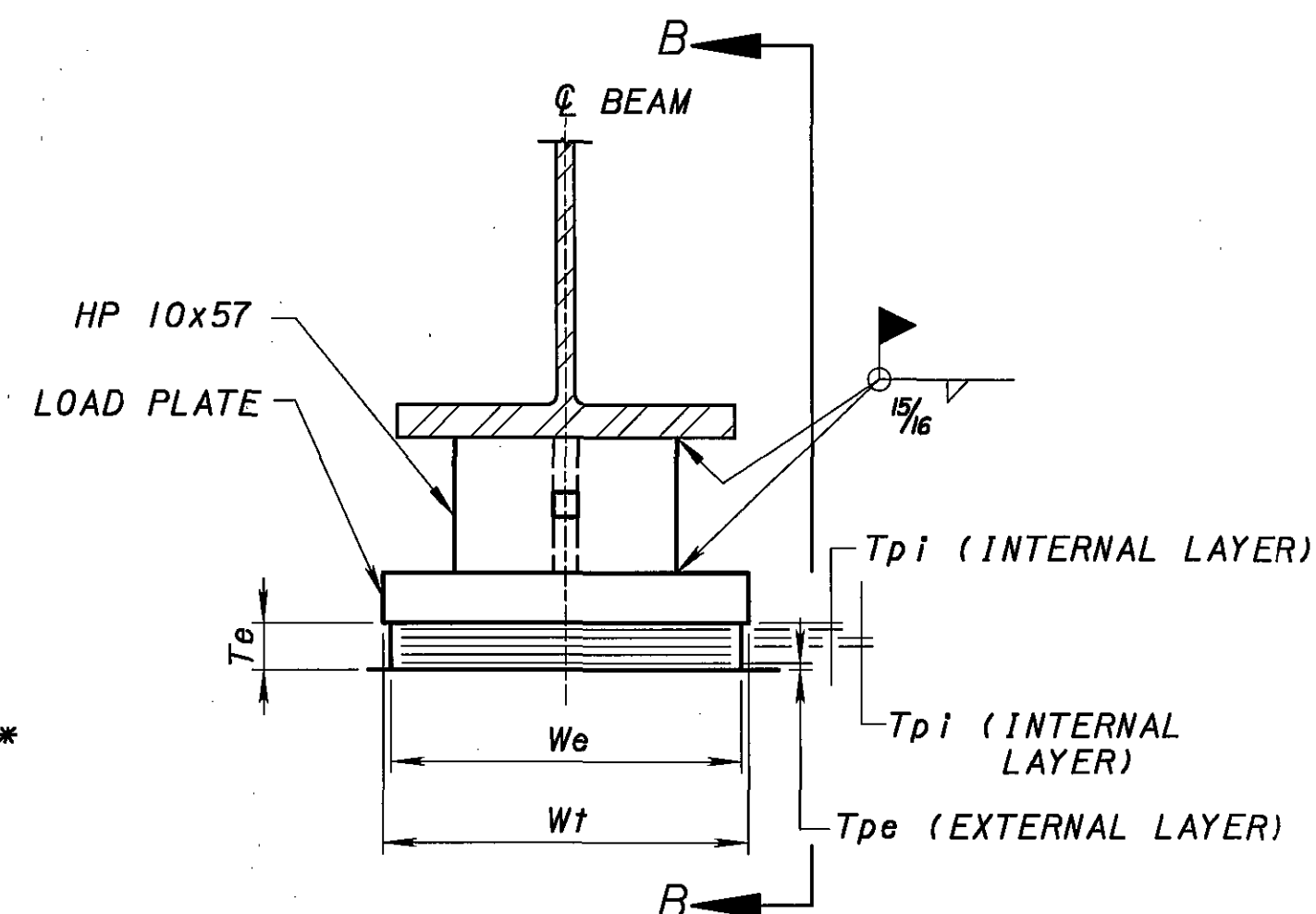
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

BEARING REPOSITIONING

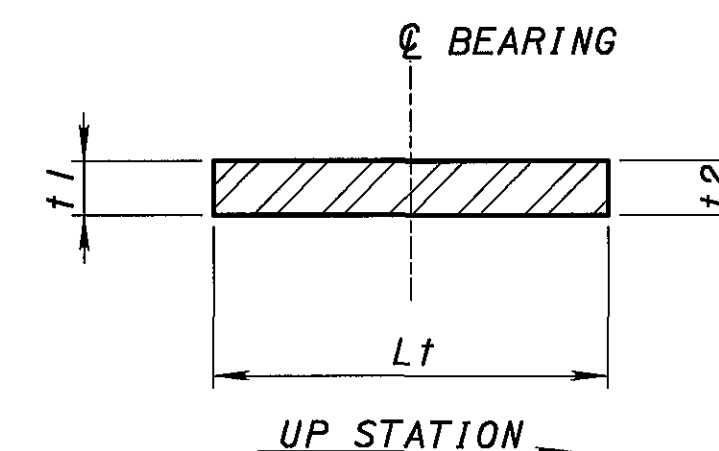
IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.



VIEW B-B
SCALE: NOT TO SCALE



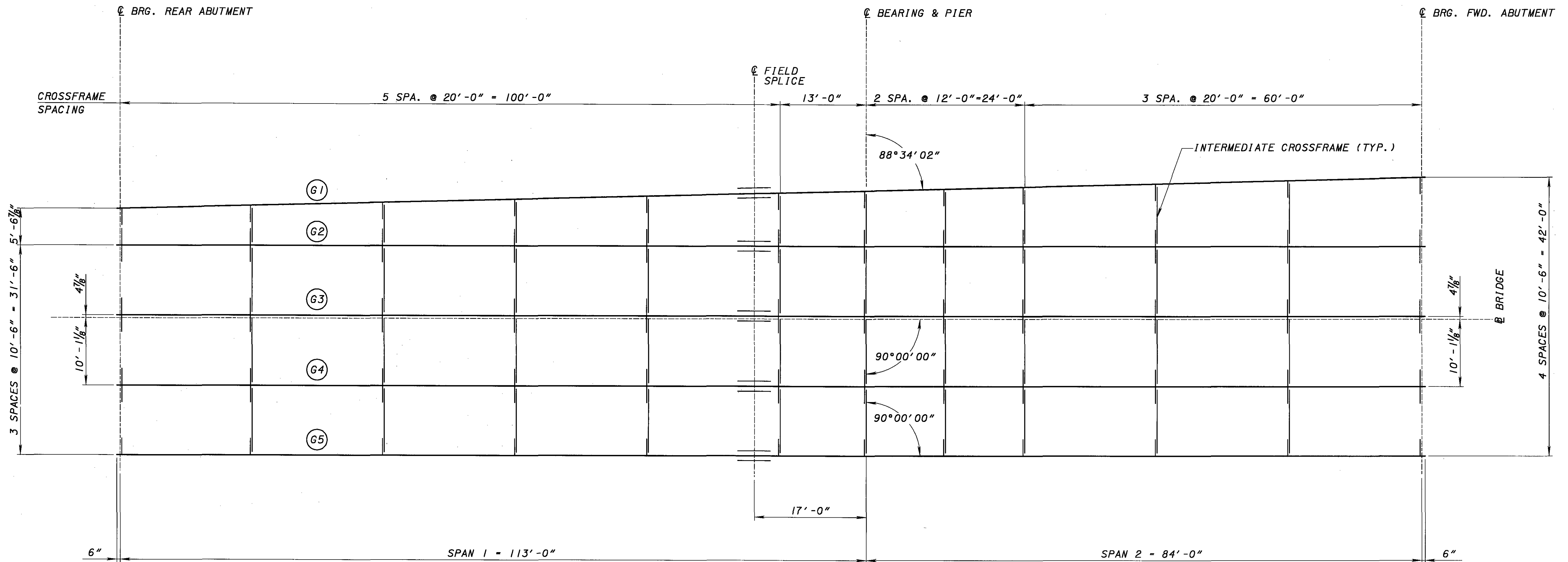
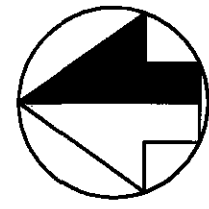
LAMINATED ELASTOMERIC BEARING AT ABUTMENTS
SCALE: NOT TO SCALE



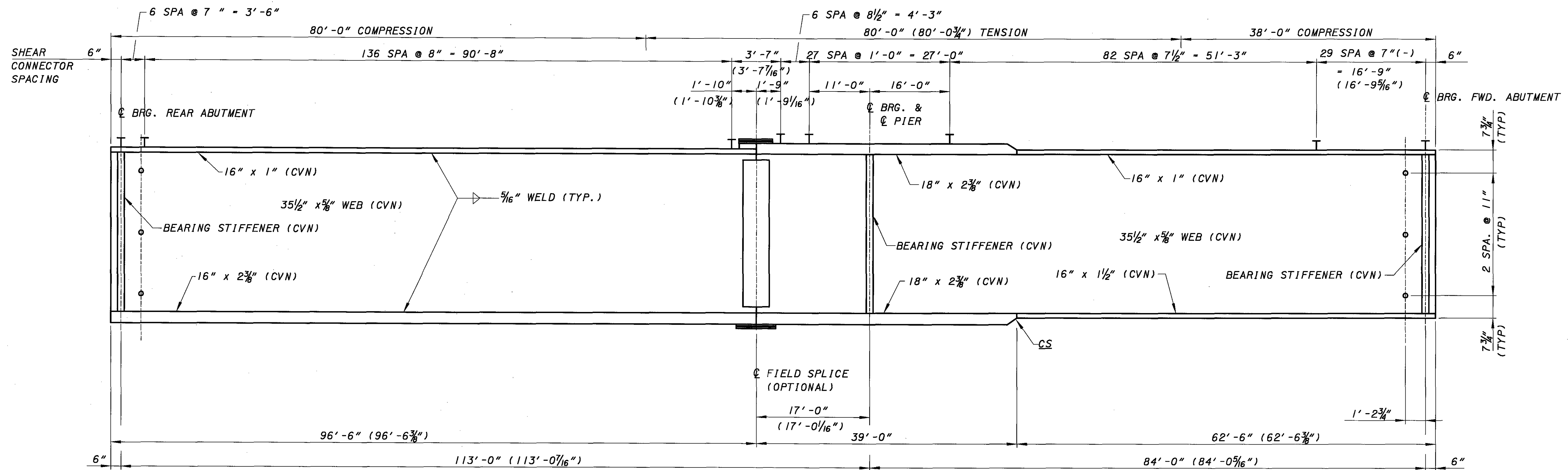
STEEL LOAD PLATE
SCALE: NOT TO SCALE

* INCLUDED WITH ITEM 516 ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE FOR PAVEMENT.

BEARING LOCATION	BEARING TYPE	NO. REQ'D.	DEAD LOAD KIPS	LIVE LOAD KIPS	TOTAL LOAD (DL + LL) KIPS	Le (inches)	We (inches)	TpI (inches)	NO. OF TpI's	Tpe (1 @ BOT) (inches)	NUMBER OF INTERNAL LAMINATES (14 GAGE)	Te (inches)	STEEL LOAD PLATE				
													Lt (inches)	Wt (inches)	t1 (inches)	t2 (inches)	
LEFT BRIDGE																	
REAR ABUTMENT	EXP.	5	84.00	88.00	172.00	12	16.50	0.375	6	0.125	6	2.823	14	18.50	1/2	1 1/16	
PIER	EXP.	5	257.93	112.43	370.36	16	24	0.4375	6	0.125	6	3.198	18	26	2	2	
FWD. ABUTMENT	EXP.	5	84.00	88.00	172.00	12	16.50	0.375	6	0.125	6	2.823	14	18.50	1/2	1 1/2	



FRAMING PLAN

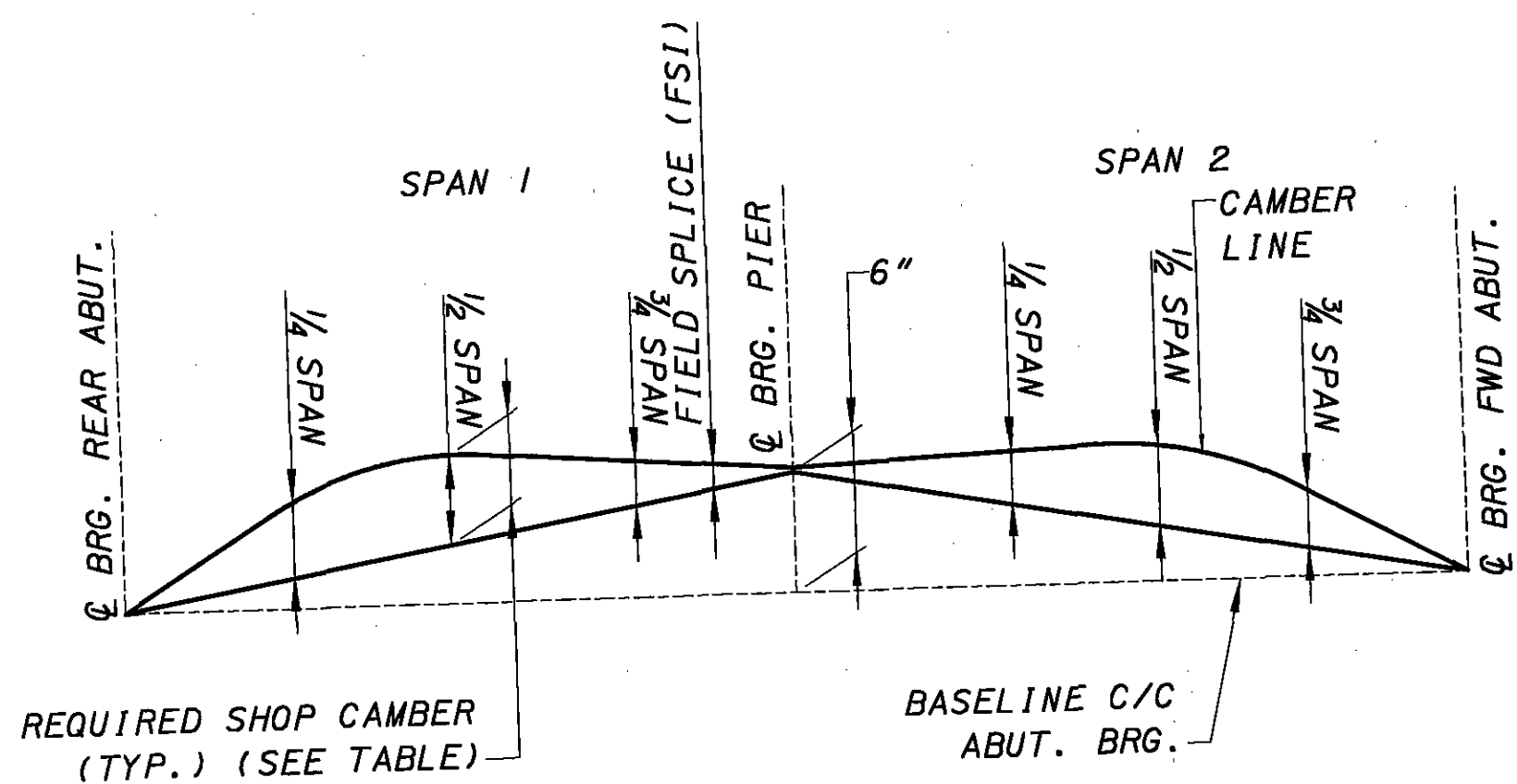


GIRDER ELEVATION
NOT TO SCALE

NOTE: () INDICATE GIRDER G1

NOTES:

1. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1 INCH FROM EDGE OF FLANGE, BE AT LEAST 2 INCHES LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 3/8" FOR GREATER THAN 3/4" THICK.
2. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
3. SEE SHEET 18/27 FOR SPLICE DETAILS.
4. ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50.
5. FOR ADDITIONAL DETAILS REFER TO STANDARD DRAWING GSD-1-96.
6. ALL STRUCTURAL STEEL SHALL BE FIELD PAINTED LIGHT NEUTRAL, FEDERAL COLOR 17778.

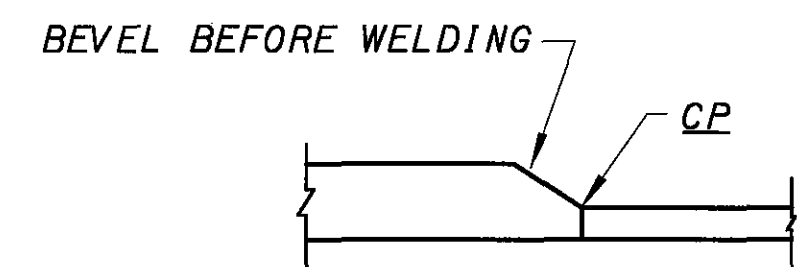


CAMBER DIAGRAM

DEFLECTION AND CAMBER TABLE

POINT	GIRDER #	SPAN 1							SPAN 2		
		1/4 SPAN	1/2 SPAN	3/4 SPAN	FSI	1/4 SPAN	1/2 SPAN	3/4 SPAN	1/4 SPAN	1/2 SPAN	3/4 SPAN
		INCH	INCH	INCH	INCH	INCH	INCH	INCH	INCH	INCH	INCH
DEFLECTION DUE TO WEIGHT OF STEEL	1 - 5	1 1/8"	1 7/16"	0 3/4"	0 7/16"	-0 1/8"	0	0 1/16"			
DEFLECTION DUE TO REMAINING DL	1	2 3/16"	2 1/16"	1 3/8"	0 3/8"	-0 1/16"	0 1/4"	0 3/8"			
	2	2 7/16"	3 1/16"	1 9/16"	0 7/8"	-0 1/16"	0 1/4"	0 7/16"			
	3, 4	2 7/8"	3 9/16"	1 7/8"	1"	-0 1/8"	0 5/16"	0 7/16"			
	5	2 3/4"	3 1/2"	1 7/8"	1"	-0 1/4"	0 1/8"	0 3/16"			
ADJUSTMENT REQ'D. FOR VERTICAL CURVE	1 - 5	0	0 3/16"	0 1/8"	0 1/16"	0 1/16"	0 1/16"	0 1/16"			
REQUIRED SHOP CAMBER	1	3 9/16"	4 5/16"	2 1/4"	1 1/4"	-0 1/8"	0 5/16"	0 1/2"			
	2	3 9/16"	4 1/16"	2 7/16"	1 3/8"	-0 1/16"	0 5/16"	0 9/16"			
	3, 4	4	5 3/16"	2 3/4"	1 1/2"	-0 3/16"	0 3/8"	0 9/16"			
	5	3 7/8"	5 1/8"	2 3/4"	1 1/2"	-0 5/16"	0 3/16"	0 5/16"			

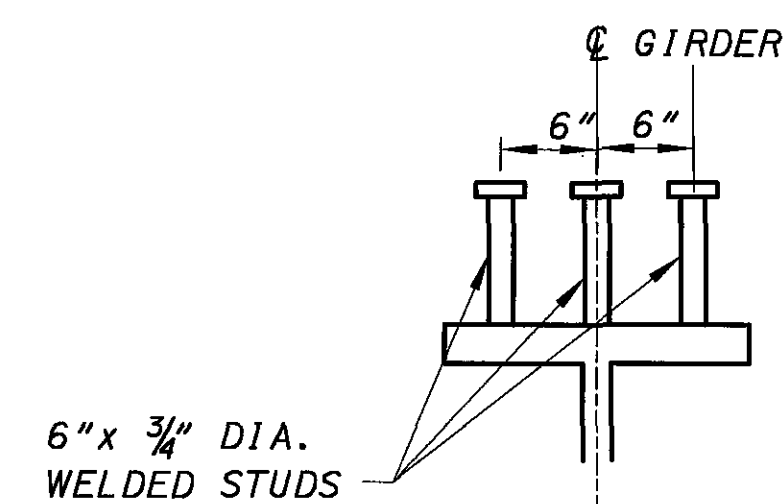
POSITIVE VALUE INDICATES REQUIRED CAMBER IS ABOVE THE CHORD BETWEEN ADJACENT BEARINGS



TYPICAL FLANGE SPLICE DETAIL
(TOP FLANGE SHOWN, BOTTOM SIMILAR)

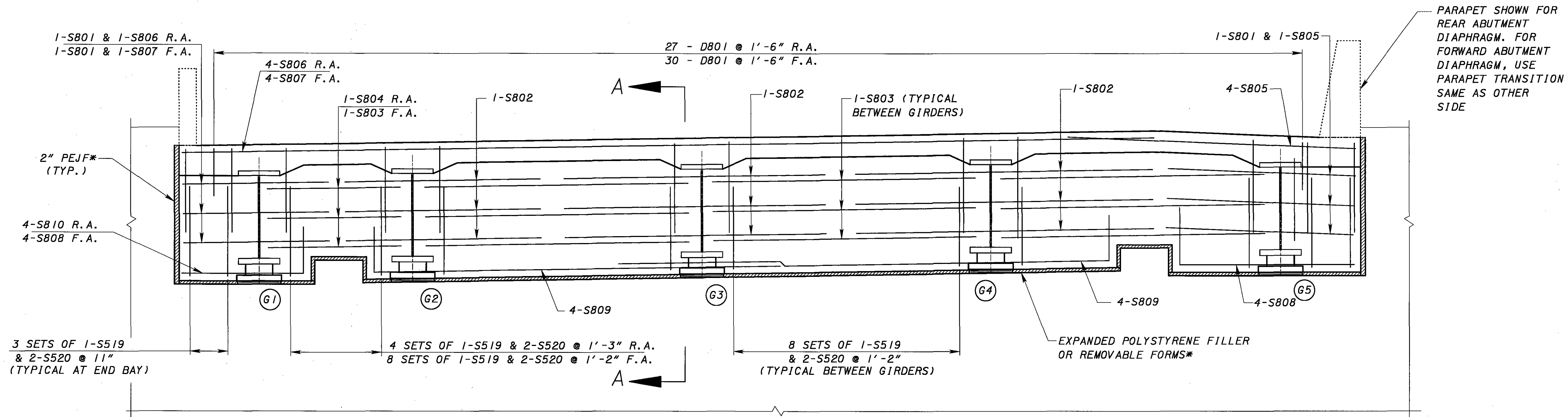
WELD NOTES:

1. GIRDER FLANGE WELDS SHALL BE GROUND FLUSH. ALL GRINDING SHALL BE MADE PARALLEL TO THE DIRECTION OF THE STRESS (LENGTHWISE ALONG THE GIRDER)
2. CP - COMPLETE JOINT PENETRATION GROOVE WELD
3. CS - INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY



SHEAR CONNECTOR DETAIL

PREPARED BY: **ms consultants, inc.**
 CONSULTING ENGINEERS & PLANNERS
 5204240
 DATE: **02/2005**
 REVIEWED: **PA**
 STRUCTURE FILE NUMBER: **5204240**
 DRAWN: **KVM**
 REVISED:
 DESIGNED: **JMS**
 CHECKED: **GKL**
GIRDER ELEVATIONS AND DETAILS
 BRIDGE NO. **MED-76-006 IL**
 OVER US 224
MED-71-6.06
PID 75657
 17 / 27
 999
 120



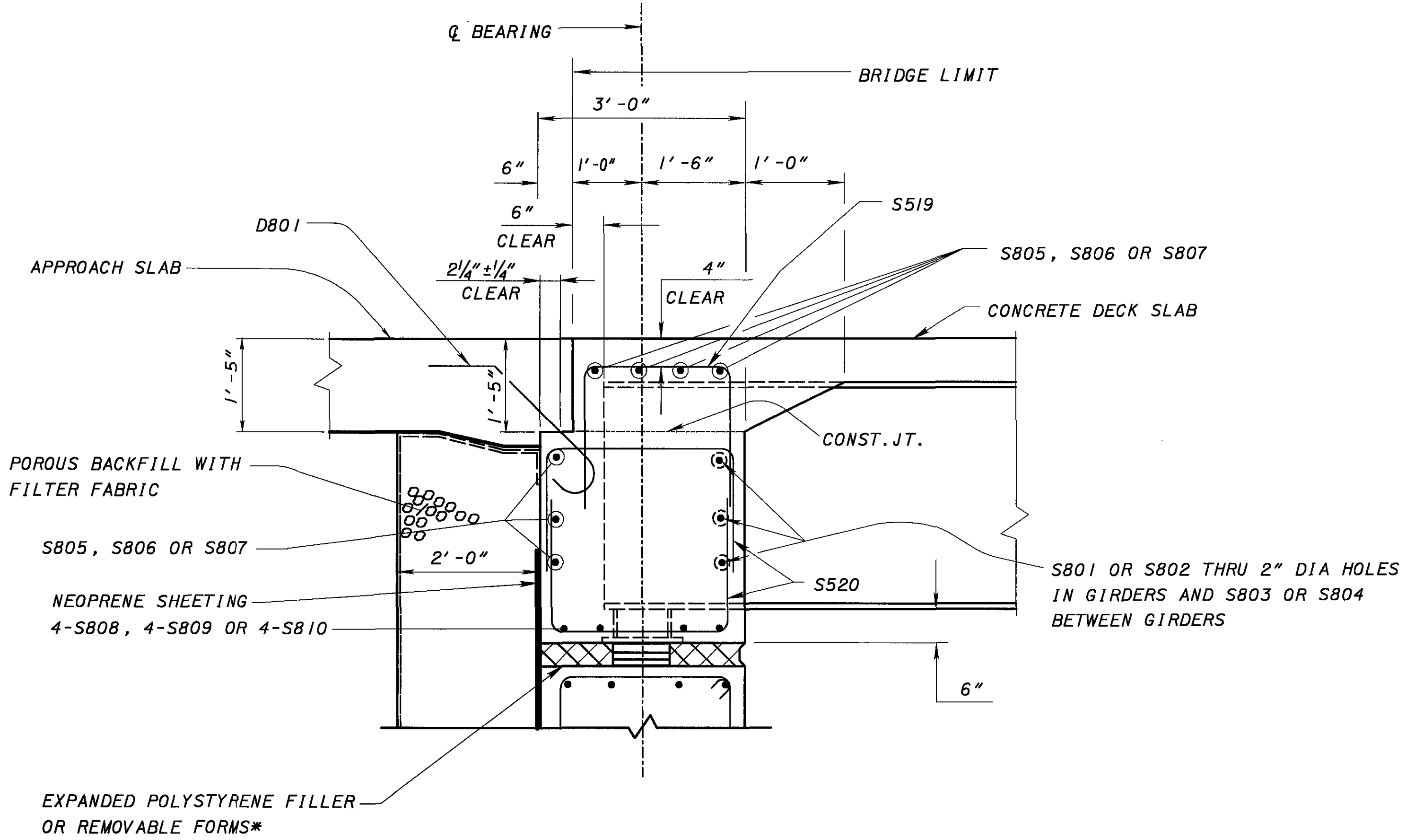
PARAPET SHOWN FOR REAR ABUTMENT DIAPHRAGM. FOR FORWARD ABUTMENT DIAPHRAGM, USE PARAPET TRANSITION SAME AS OTHER SIDE

ABUTMENT DIAPHRAGM

REAR ABUT. SHOWN. FWD. ABUT. SIMILAR (LOOKING AHEAD STATION)

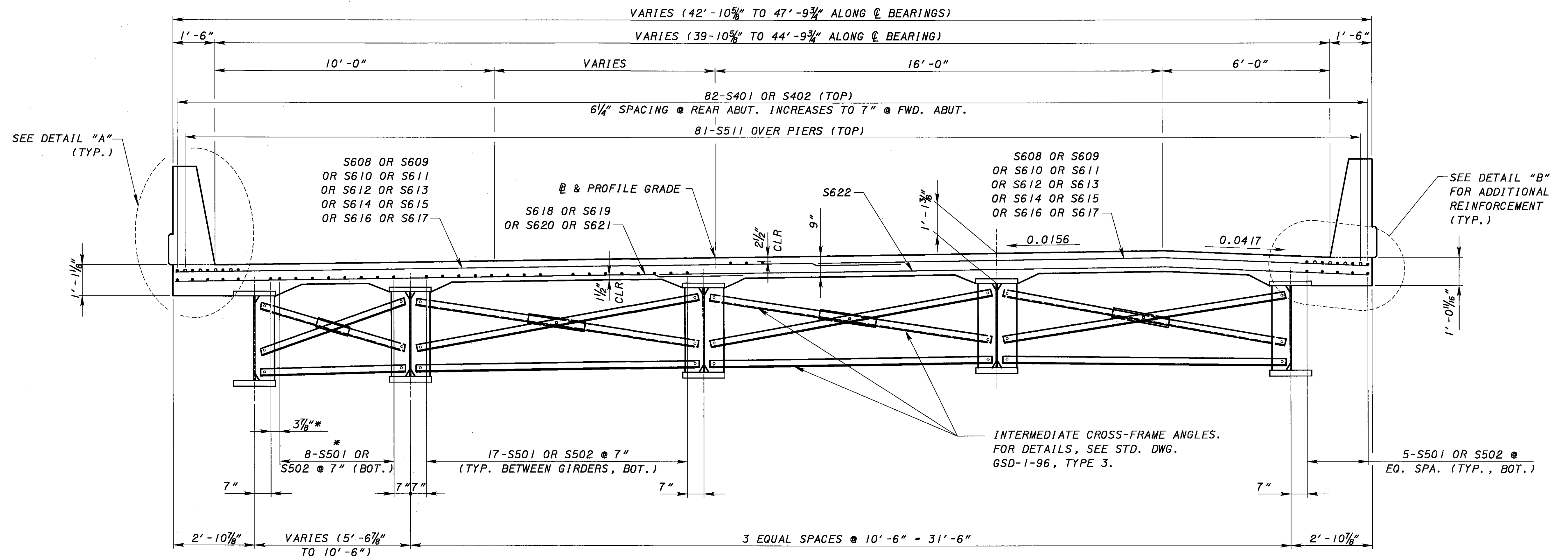
* PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

NOTE:
 ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE :
 PLACE THE CONCRETE ENCASING THE STRUCTURAL STEEL MEMBERS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE.



SECTION A-A

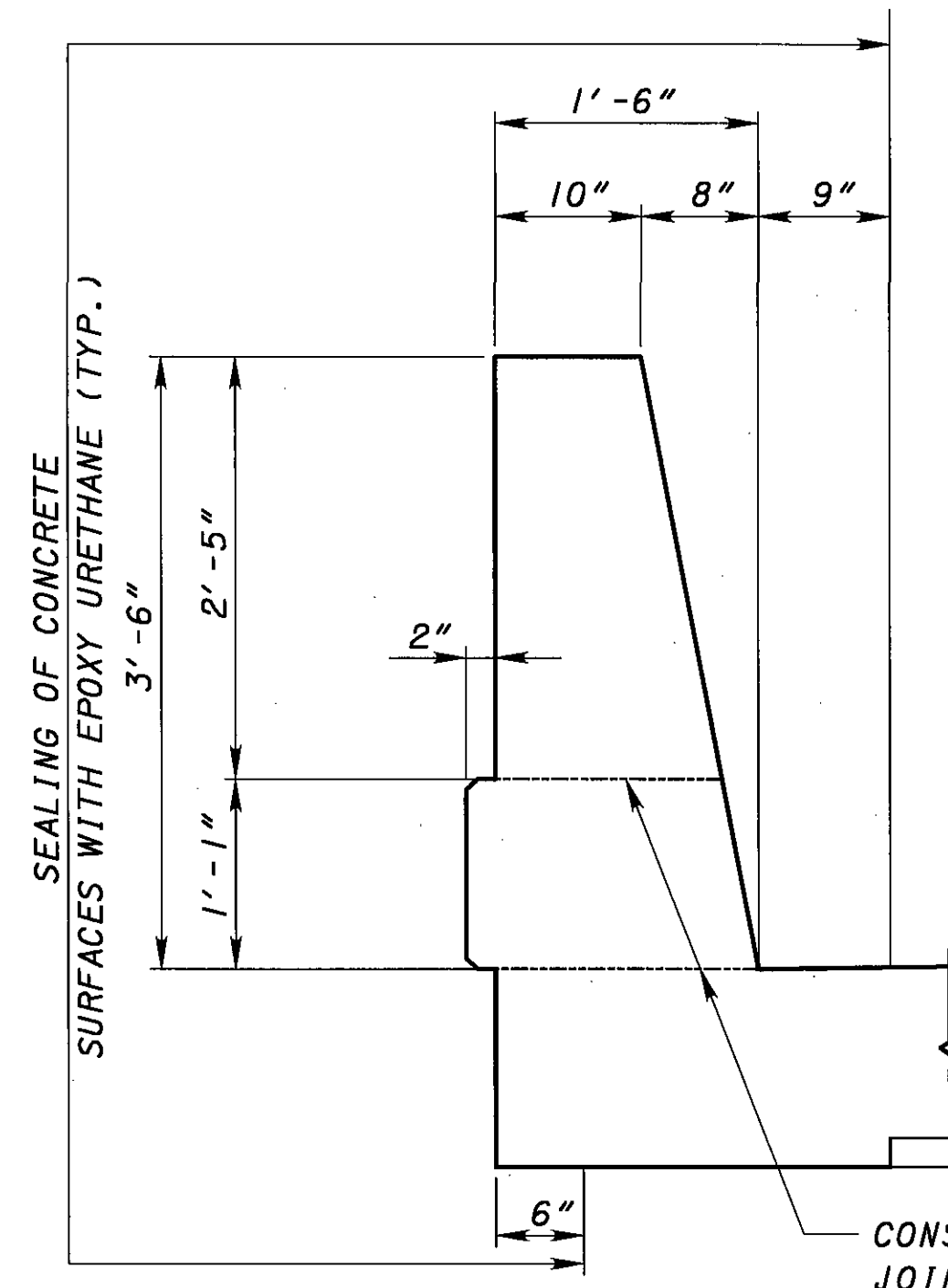
DESIGNED BY: JNS
 CHECKED BY: GKL
 DRAWN BY: KVM
 REVISED BY:
 REVIEWED BY: PA
 DATE: 02/2005
 STRUCTURE FILE NUMBER: 5204240
 PREPARED BY: ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 19/27
 MED-71-6.06
 PID 75657
 DIAPHRAGM DETAILS
 BRIDGE NO. MED-76-0061L
 OVER US 224



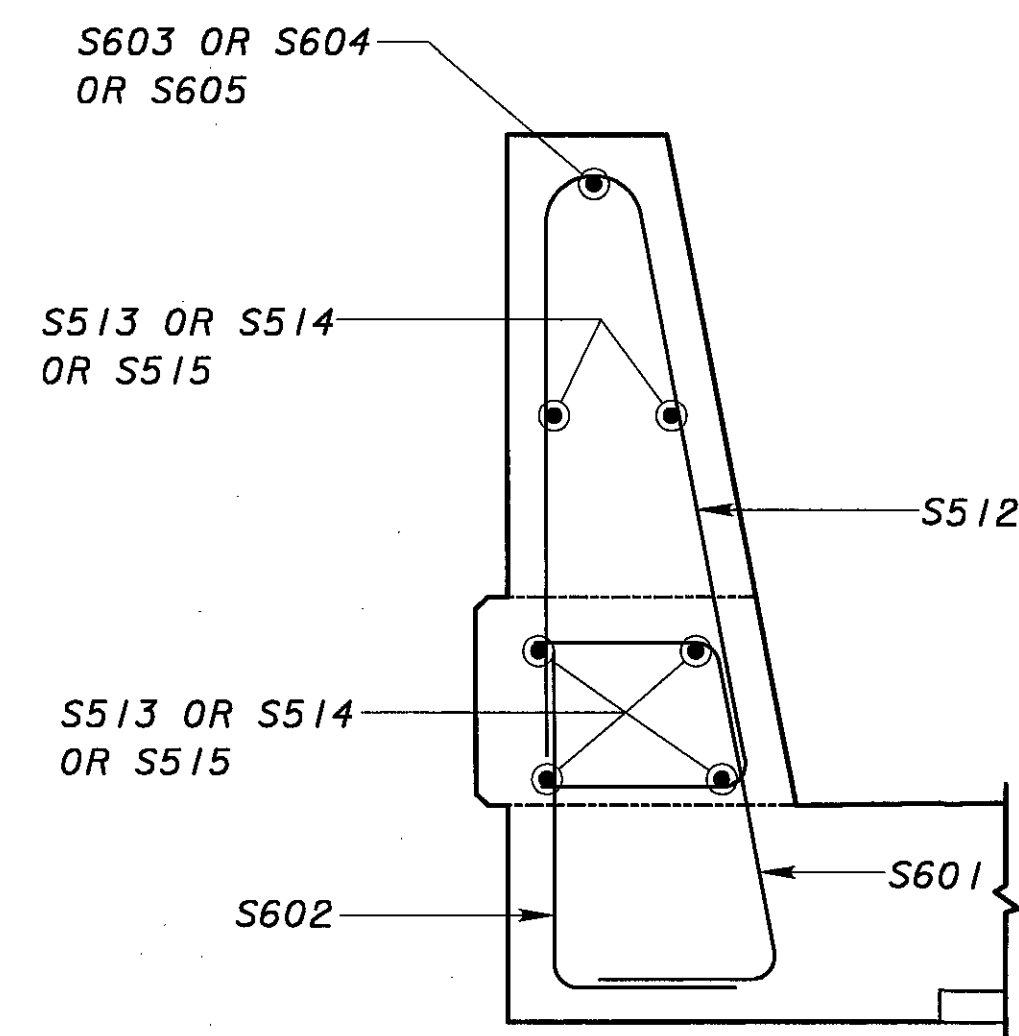
TRANSVERSE SECTION

*INDICATES ϕ BRG. REAR ABUTMENT. BOTTOM LONGITUDINAL REINFORCEMENT IN THIS BAY IS SHOWN AT ϕ BRG. REAR ABUTMENT. FOR ADDITIONAL LONGITUDINAL REINFORCEMENT AT OTHER SECTIONS, SEE PARTIAL DECK REINFORCEMENT PLAN.

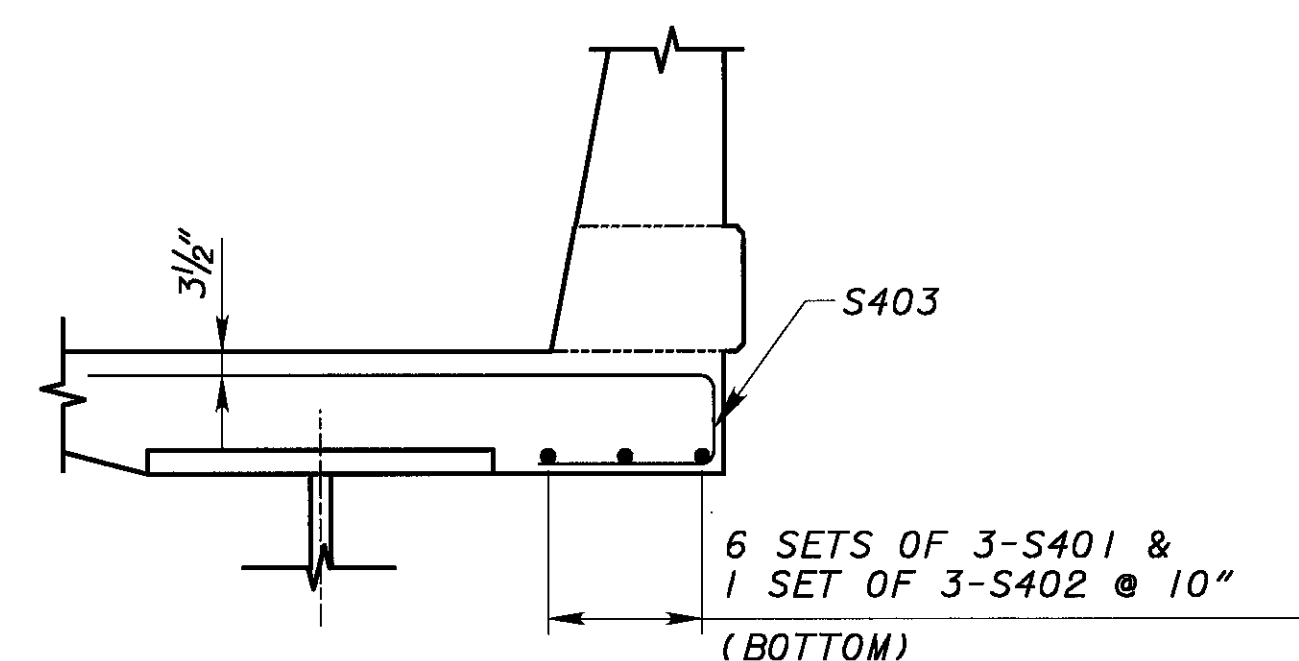
MINIMUM LAP LENGTHS
 #4 BARS - 2'-9"
 #5 BARS - 3'-5"
 #6 BARS - 4'-1"



DETAIL "A"
(DIMENSIONS)

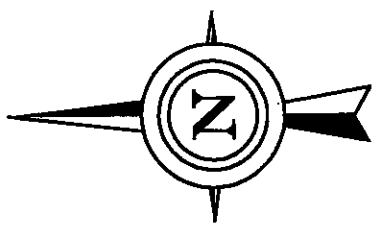


DETAIL "A"
(REINFORCING)



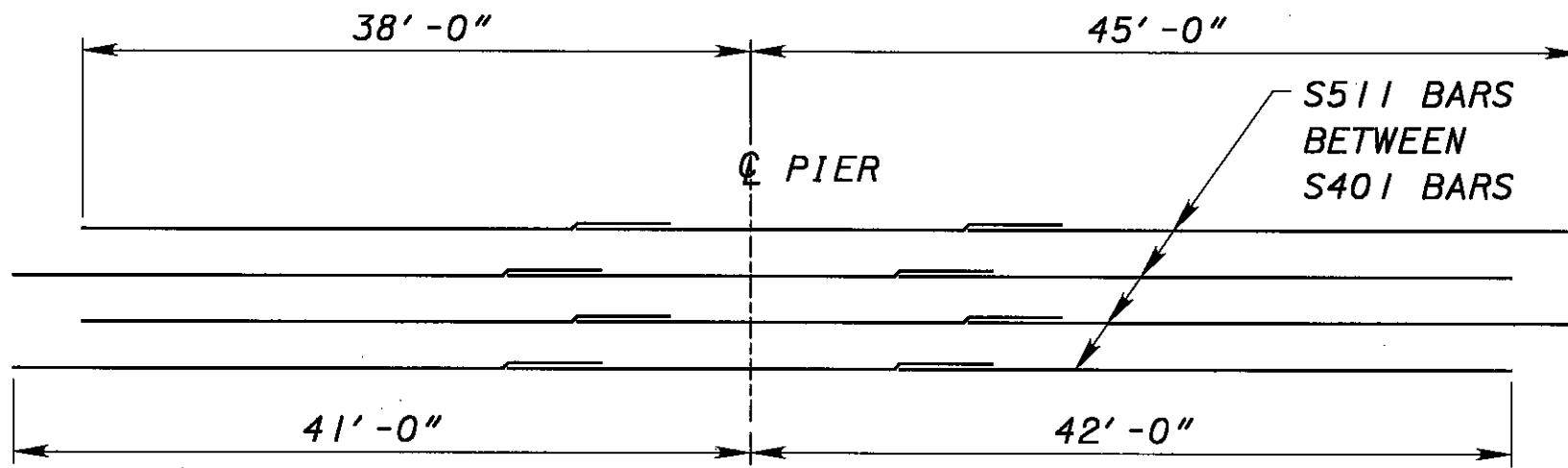
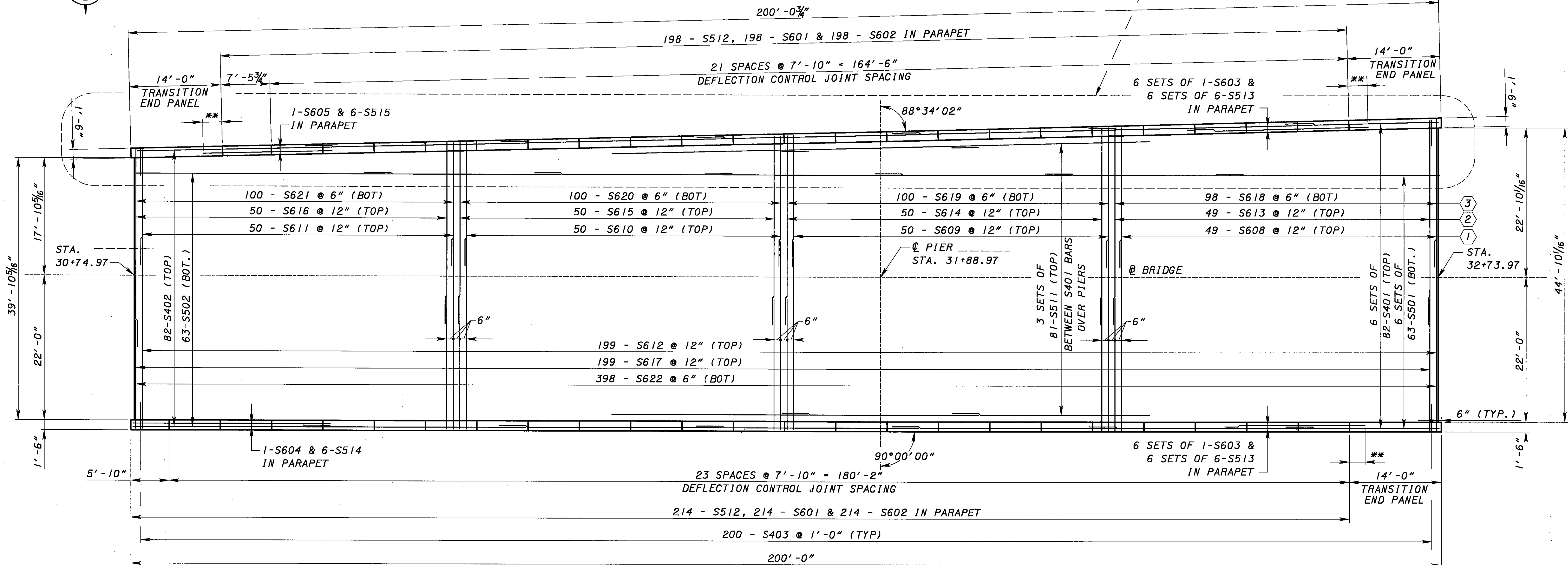
DETAIL B

DECK SLAB CONCRETE QUANTITY:
 THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4³/₈ INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS +/- 3 INCHES. THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.



** INDICATES LAP LENGTH FOR BARS
S603, S604, S605, S513, S514 OR S515

SEE PARTIAL DECK REINFORCEMENT
PLAN FOR ADDITIONAL BOTTOM
LONGITUDINAL REINFORCEMENT



ADDITIONAL TOP LONGITUDINAL BARS OVER PIER BETWEEN S401 BARS

SCALE: NOT TO SCALE

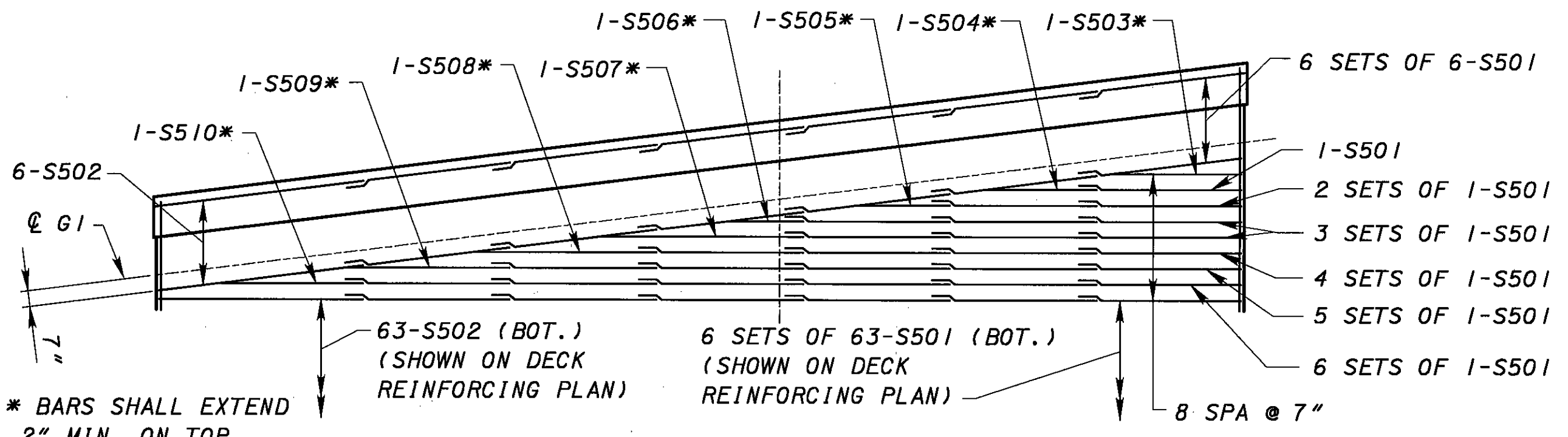
MINIMUM LAP LENGTHS
#4 BARS - 2'-9"
#5 BARS - 3'-5"
#6 BARS - 4'-1"

DECK REINFORCING PLAN

- ① BARS S608, S609, S610, & S611 SPLICE WITH BAR S612.
- ② BARS S613, S614, S615, & S616 SPLICE WITH BAR S617.
- ③ BARS S618, S619, S620, & S621 SPLICE WITH BAR S622.

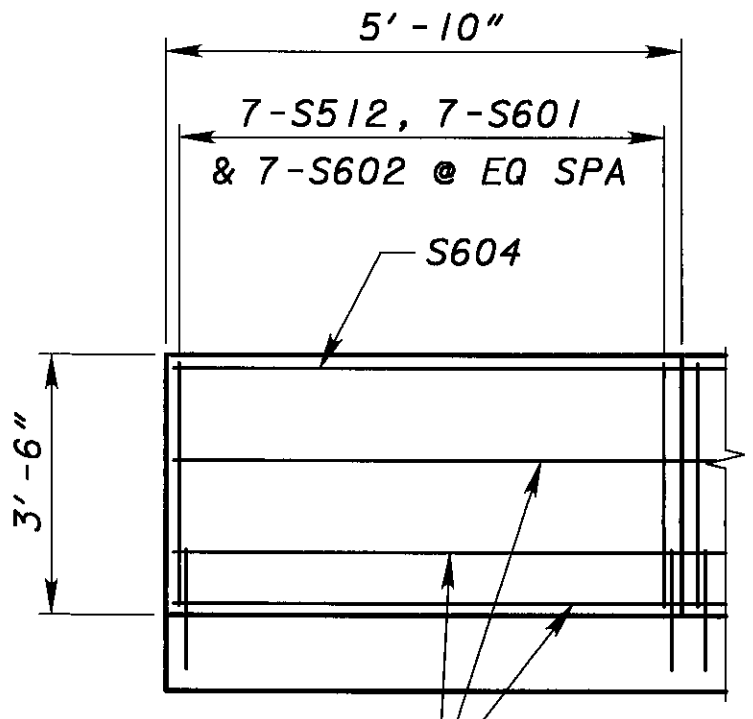
NOTES:

1. FOR DEFLECTION CONTROL JOINT NOTES SEE SHEET 5/27. FOR ADDITIONAL DETAILS, SEE STD. DWG. SBR-1-99.
2. FOR REINFORCEMENT IN PARAPET TRANSITION END PANEL, SEE PARAPET TRANSITION DETAIL, SHEET 23/27.
3. FOR REINFORCEMENT SCHEDULE, SEE SHT. 26/27.
4. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE: PLACE THE CONCRETE ENCASING THE STRUCTURAL STEEL MEMBERS WITH THE DECK CONCRETE OR AT LEAST 48 HOUR BEFORE PLACEMENT OF THE DECK CONCRETE.

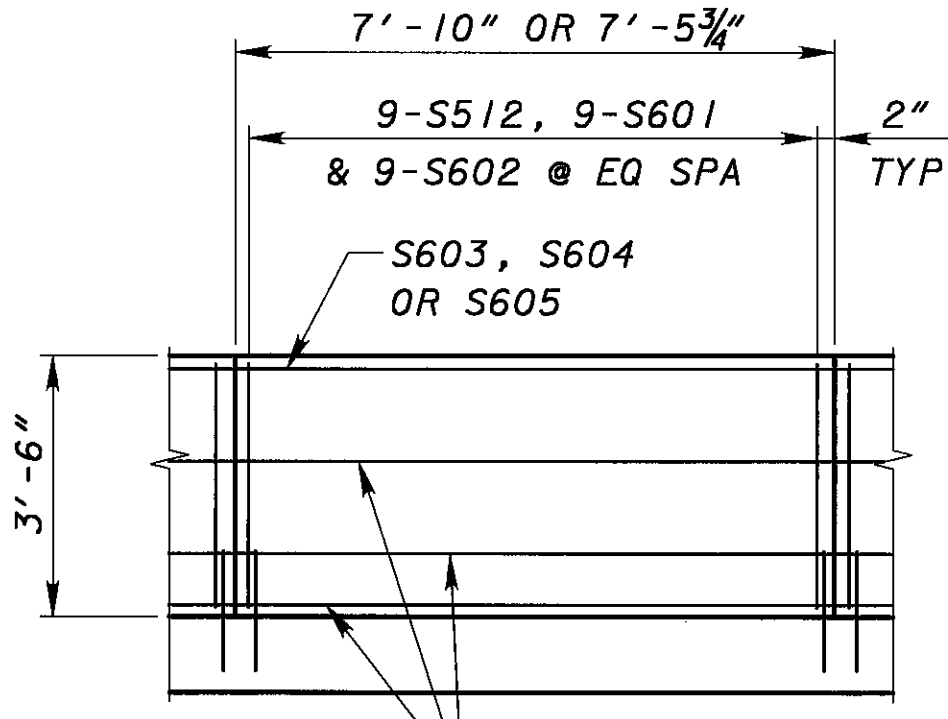


PARTIAL DECK REINFORCING PLAN

(ADDITIONAL BOTTOM LONGITUDINAL REINFORCEMENT)
SCALE: NOT TO SCALE



END PARAPET PANEL REINFORCEMENT DETAIL
(NORTHWEST CORNER ONLY)

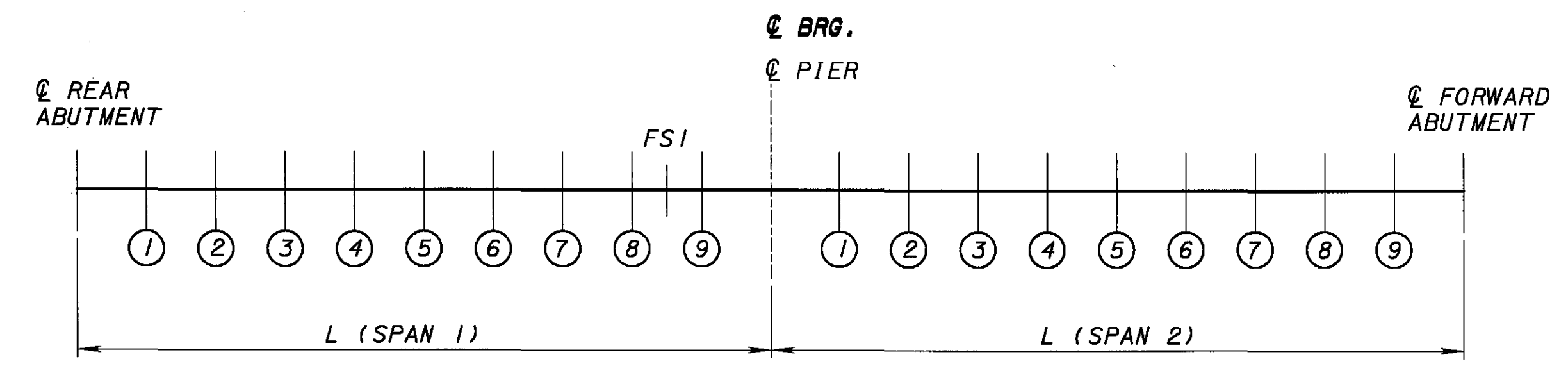


TYPICAL PARAPET PANEL REINFORCEMENT DETAIL

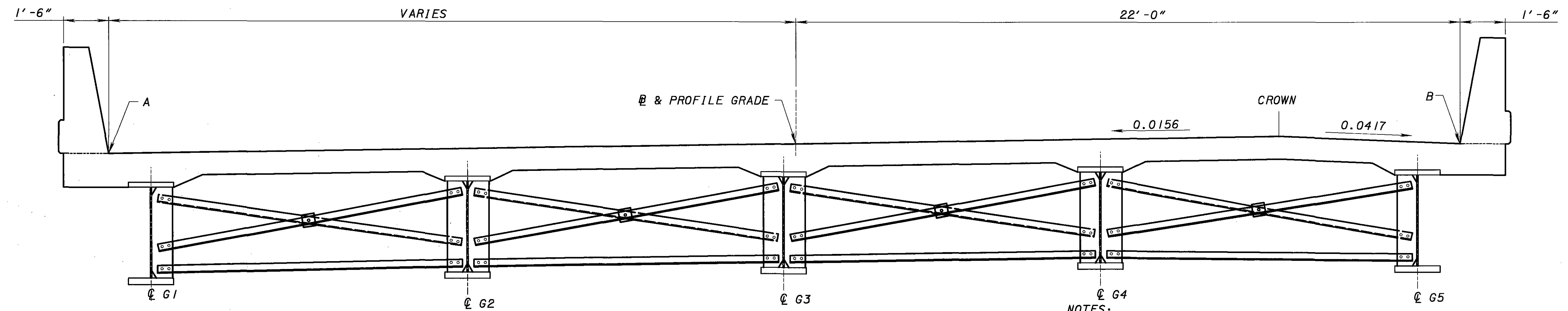
POINT	SCREED ELEVATIONS - SPAN 1																							
	0.0L		0.1L		0.2L		0.3L		0.4L		0.5L		0.6L		0.7L		0.8L		FS1		0.9L		1.0L	
	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV
A	30+75.97	1015.12	30+87.27	1015.35	30+98.57	1015.55	31+09.87	1015.72	31+21.17	1015.85	31+32.47	1015.93	31+43.77	1015.98	31+55.07	1015.99	31+66.37	1015.99	---	---	31+77.67	1015.97	31+88.97	1015.96
G1	30+75.97	1015.14	30+87.27	1015.37	30+98.57	1015.57	31+09.87	1015.74	31+21.17	1015.87	31+32.47	1015.95	31+43.77	1016.00	31+55.07	1016.01	31+66.37	1016.01	31+71.97	1016.00	31+77.67	1015.99	31+88.97	1015.98
G2	30+75.97	1015.23	30+87.27	1015.47	30+98.57	1015.69	31+09.87	1015.87	31+21.17	1016.00	31+32.47	1016.09	31+43.77	1016.14	31+55.07	1016.15	31+66.37	1016.15	31+71.97	1016.14	31+77.67	1016.13	31+88.97	1016.11
G3	30+75.97	1015.39	30+87.27	1015.65	30+98.57	1015.88	31+09.87	1016.06	31+21.17	1016.20	31+32.47	1016.29	31+43.77	1016.34	31+55.07	1016.34	31+66.37	1016.32	31+71.97	1016.31	31+77.67	1016.29	31+88.97	1016.28
BL & PG	30+75.97	1015.40	30+87.27	1015.66	30+98.57	1015.88	31+09.87	1016.07	31+21.17	1016.21	31+32.47	1016.30	31+43.77	1016.34	31+55.07	1016.35	31+66.37	1016.33	---	---	31+77.67	1016.30	31+88.97	1016.28
G4	30+75.97	1015.55	30+87.27	1015.82	30+98.57	1016.05	31+09.87	1016.23	31+21.17	1016.38	31+32.47	1016.47	31+43.77	1016.51	31+55.07	1016.51	31+66.37	1016.49	31+71.97	1016.48	31+77.67	1016.46	31+88.97	1016.44
CROWN	30+75.97	1015.64	30+87.27	1015.90	30+98.57	1016.12	31+09.87	1016.30	31+21.17	1016.44	31+32.47	1016.53	31+43.77	1016.58	31+55.07	1016.59	31+66.37	1016.57	---	---	31+77.67	1016.55	31+88.97	1016.53
G5	30+75.97	1015.45	30+87.27	1015.72	30+98.57	1015.94	31+09.87	1016.12	31+21.17	1016.27	31+32.47	1016.36	31+43.77	1016.40	31+55.07	1016.41	31+66.37	1016.39	31+71.97	1016.38	31+77.67	1016.36	31+88.97	1016.34
B	30+75.97	1015.39	30+87.27	1015.66	30+98.57	1015.88	31+09.87	1016.07	31+21.17	1016.21	31+32.47	1016.30	31+43.77	1016.34	31+55.07	1016.35	31+66.37	1016.33	---	---	31+77.67	1016.30	31+88.97	1016.28

POINT	SCREED ELEVATIONS - SPAN 2																					
	0.0L		0.1L		0.2L		0.3L		0.4L		0.5L		0.6L		0.7L		0.8L		0.9L		1.0L	
	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV
A	31+88.97	1015.96	31+97.37	1015.96	32+05.77	1015.96	32+14.17	1015.96	32+22.57	1015.96	32+30.97	1015.95	32+39.37	1015.93	32+47.77	1015.90	32+56.17	1015.85	32+64.57	1015.79	32+72.97	1015.71
G1	31+88.97	1015.98	31+97.37	1015.98	32+05.77	1015.98	32+14.17	1015.98	32+22.57	1015.98	32+30.97	1015.97	32+39.37	1015.95	32+47.77	1015.92	32+56.17	1015.87	32+64.57	1015.81	32+72.97	1015.73
G2	31+88.97	1016.11	31+97.37	1016.11	32+05.77	1016.12	32+14.17	1016.13	32+22.57	1016.13	32+30.97	1016.12	32+39.37	1016.11	32+47.77	1016.08	32+56.17	1016.03	32+64.57	1015.97	32+72.97	1015.90
G3	31+88.97	1016.28	31+97.37	1016.28	32+05.77	1016.28	32+14.17	1016.29	32+22.57	1016.29	32+30.97	1016.29	32+39.37	1016.27	32+47.77	1016.24	32+56.17	1016.20	32+64.57	1016.14	32+72.97	1016.06
BL & PG	31+88.97	1016.28	31+97.37	1016.28	32+05.77	1016.29	32+14.17	1016.29	32+22.57	1016.30	32+30.97	1016.29	32+39.37	1016.28	32+47.77	1016.25	32+56.17	1016.20	32+64.57	1016.14	32+72.97	1016.07
G4	31+88.97	1016.44	31+97.37	1016.44	32+05.77	1016.44	32+14.17	1016.44	32+22.57	1016.45	32+30.97	1016.44	32+39.37	1016.43	32+47.77	1016.40	32+56.17	1016.36	32+64.57	1016.30	32+72.97	1016.22
CROWN	31+88.97	1016.53	31+97.37	1016.53	32+05.77	1016.53	32+14.17	1016.53	32+22.57	1016.53	32+30.97	1016.53	32+39.37	1016.51	32+47.77	1016.48	32+56.17	1016.44	32+64.57	1016.39	32+72.97	1016.32
G5	31+88.97	1016.34	31+97.37	1016.34	32+05.77	1016.33	32+14.17	1016.34	32+22.57	1016.33	32+30.97	1016.33	32+39.37	1016.31	32+47.77	1016.29	32+56.17	1016.25	32+64.57	1016.19	32+72.97	1016.12
B	31+88.97	1016.28	31+97.37	1016.28	32+05.77	1016.28	32+14.17	1016.28	32+22.57	1016.28	32+30.97	1016.27	32+39.37	1016.25	32+47.77	1016.23	32+56.17	1016.19	32+64.57	1016.13	32+72.97	1016.07

SCREED ELEVATION TABLES

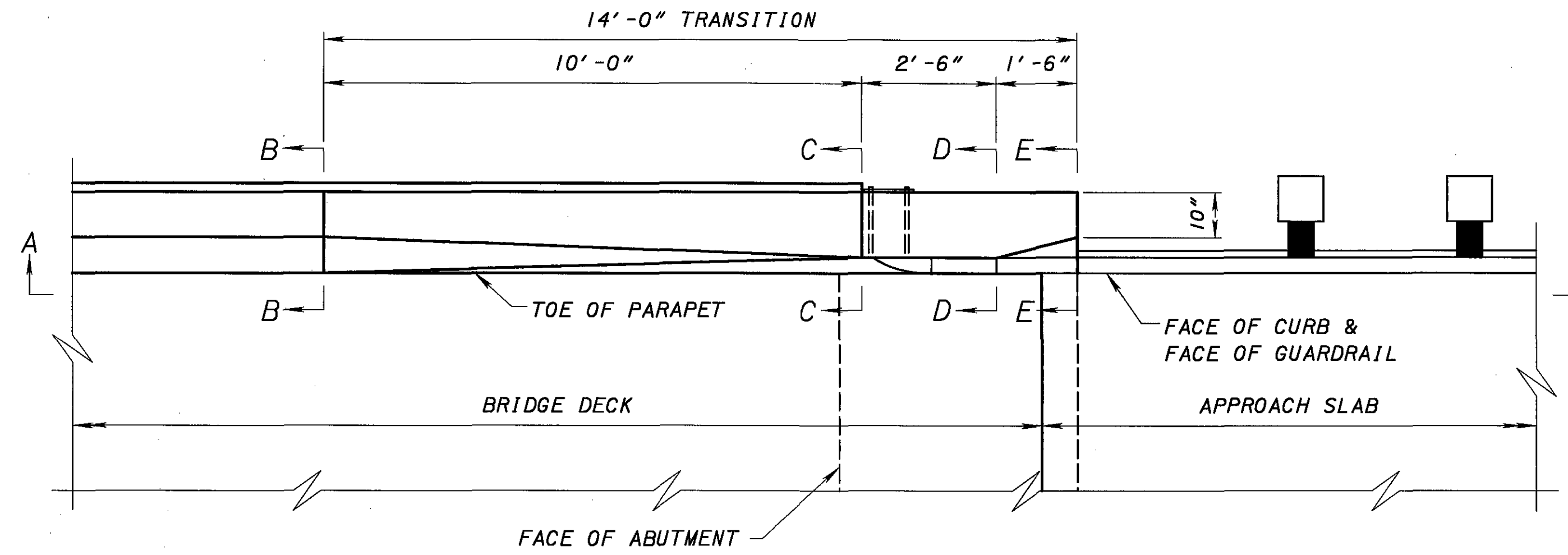


SCREED POINT LOCATIONS

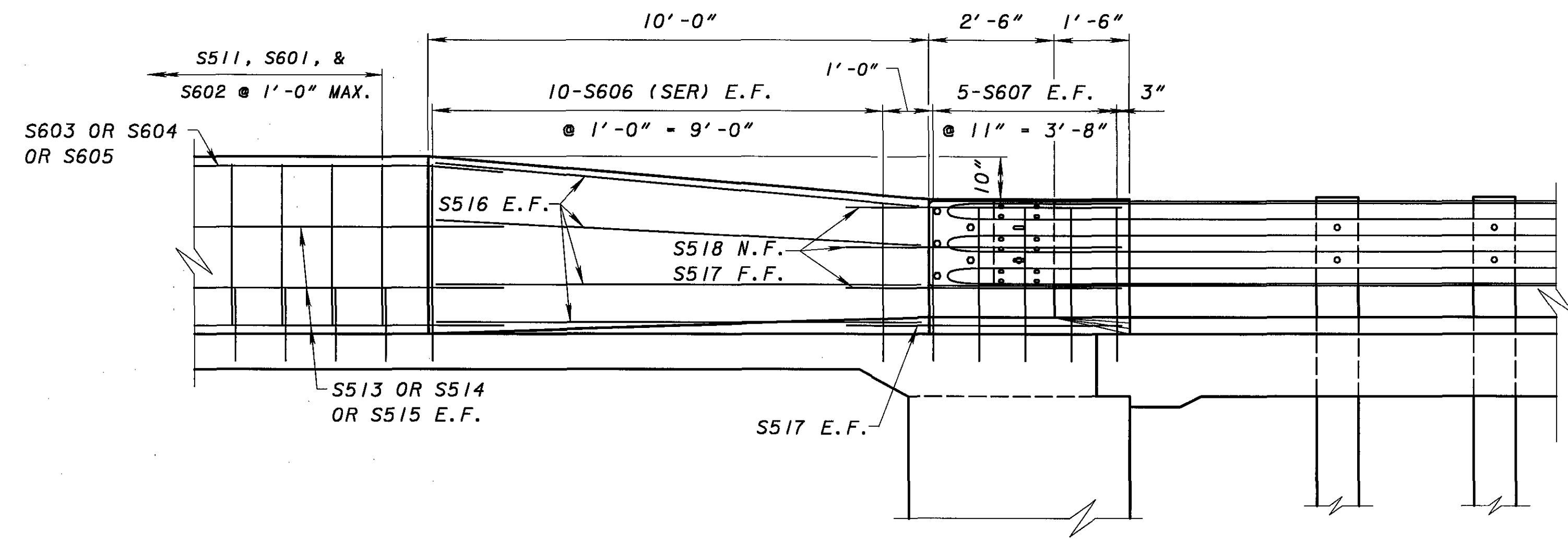


SCREED LINE LOCATIONS

NOTES:
 SCREED ELEVATIONS ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT.
 ALLOWANCE HAS BEEN MADE FOR THE ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
 L - SPAN LENGTH

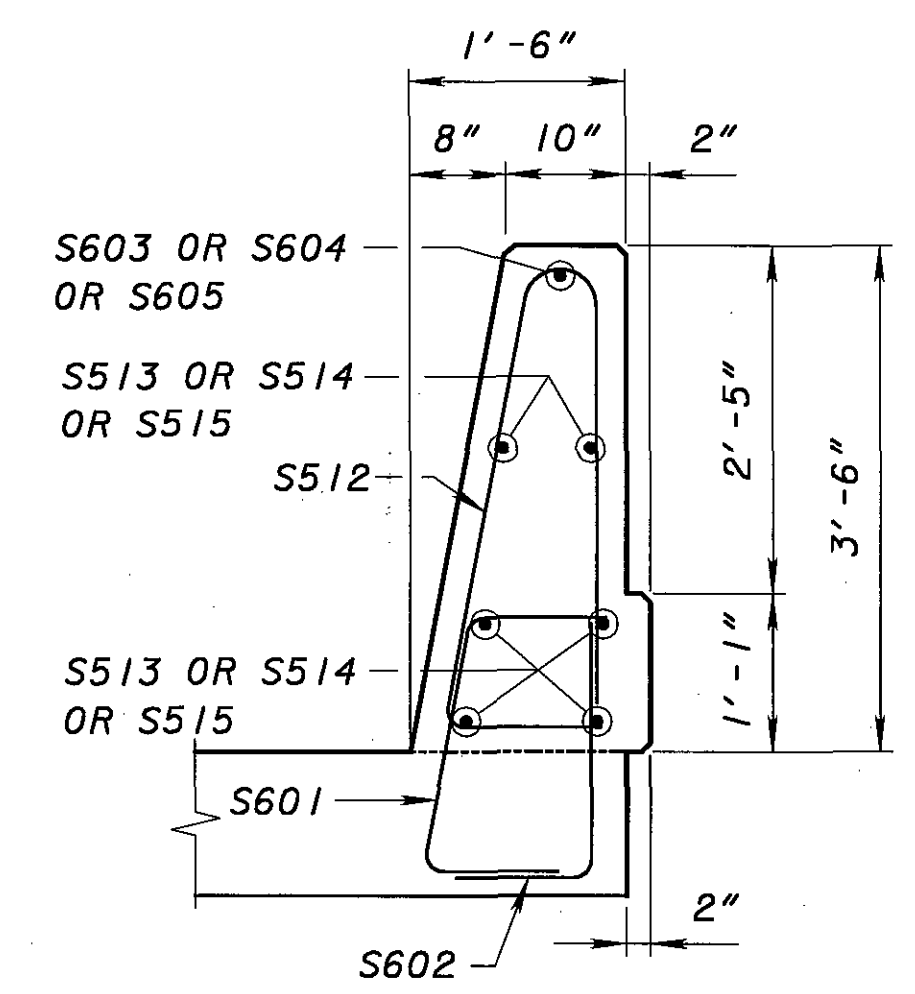


PART PLAN AT ABUTMENT

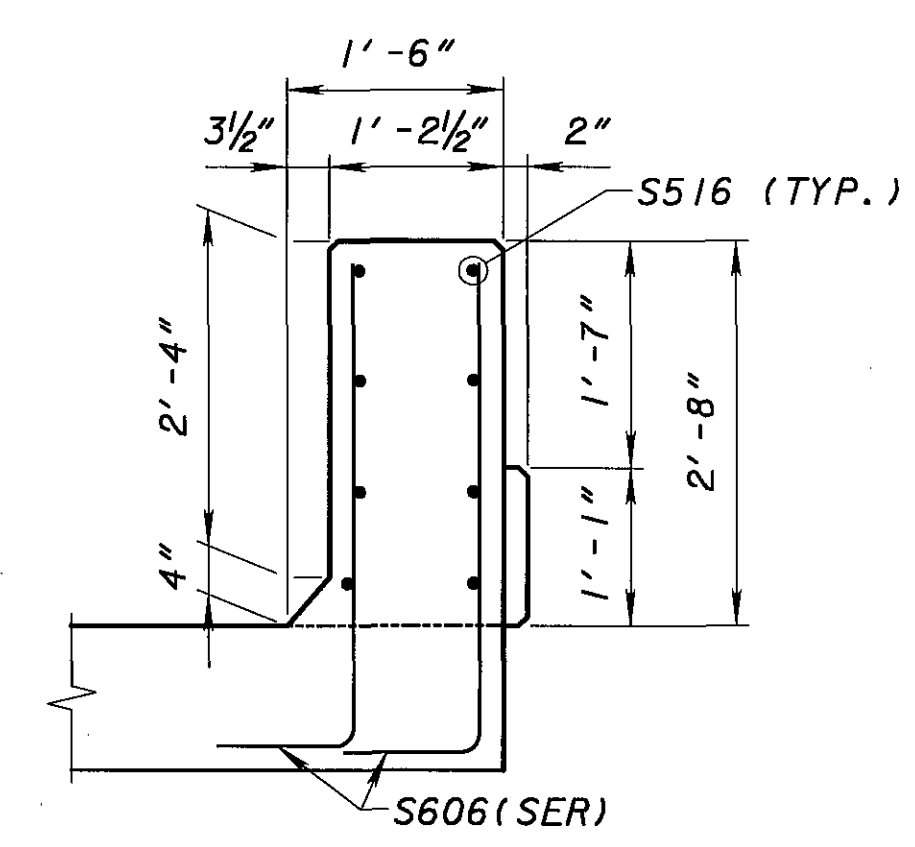


SECTION A-A

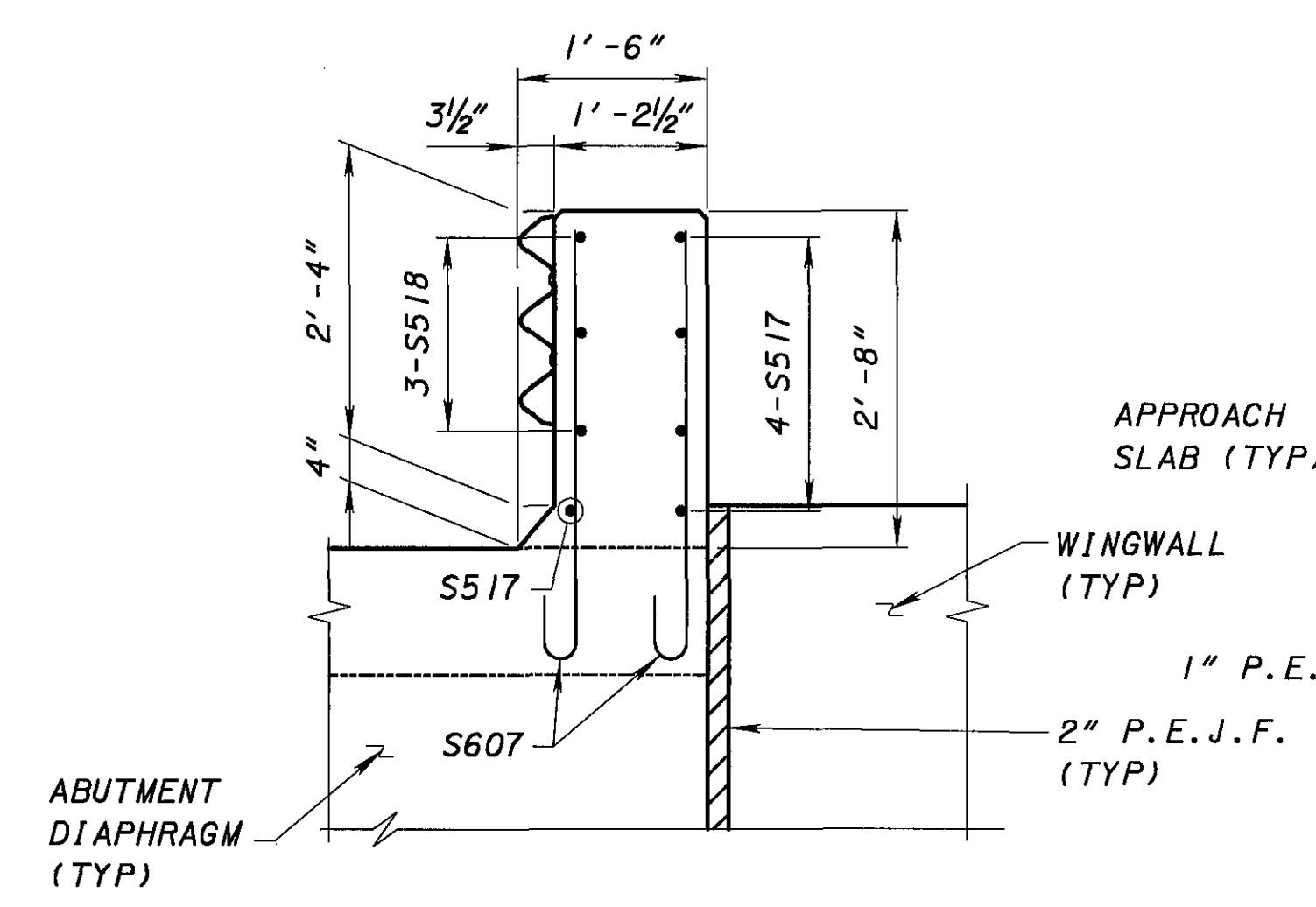
MINIMUM LAP LENGTHS
 #5 BARS - 3'-2"
 #6 BARS - 4'-1"



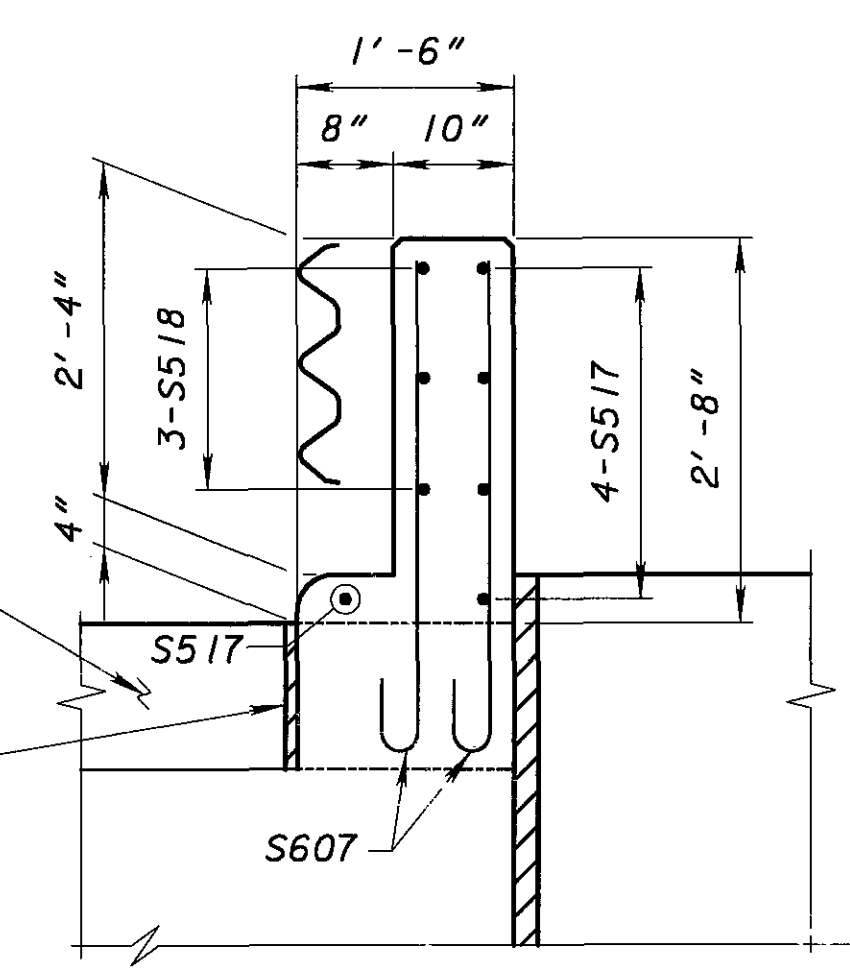
SECTION B-B



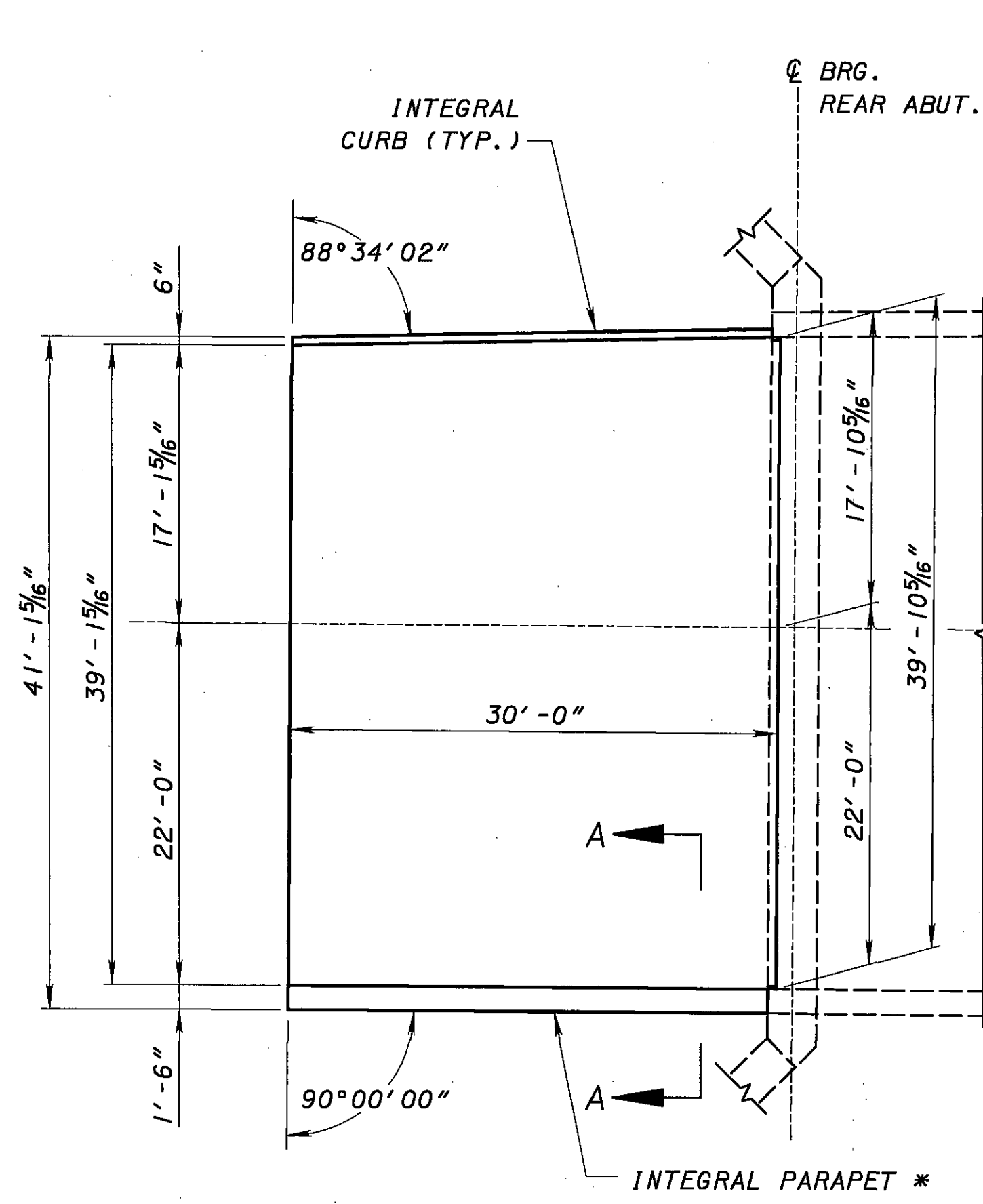
SECTION C-C



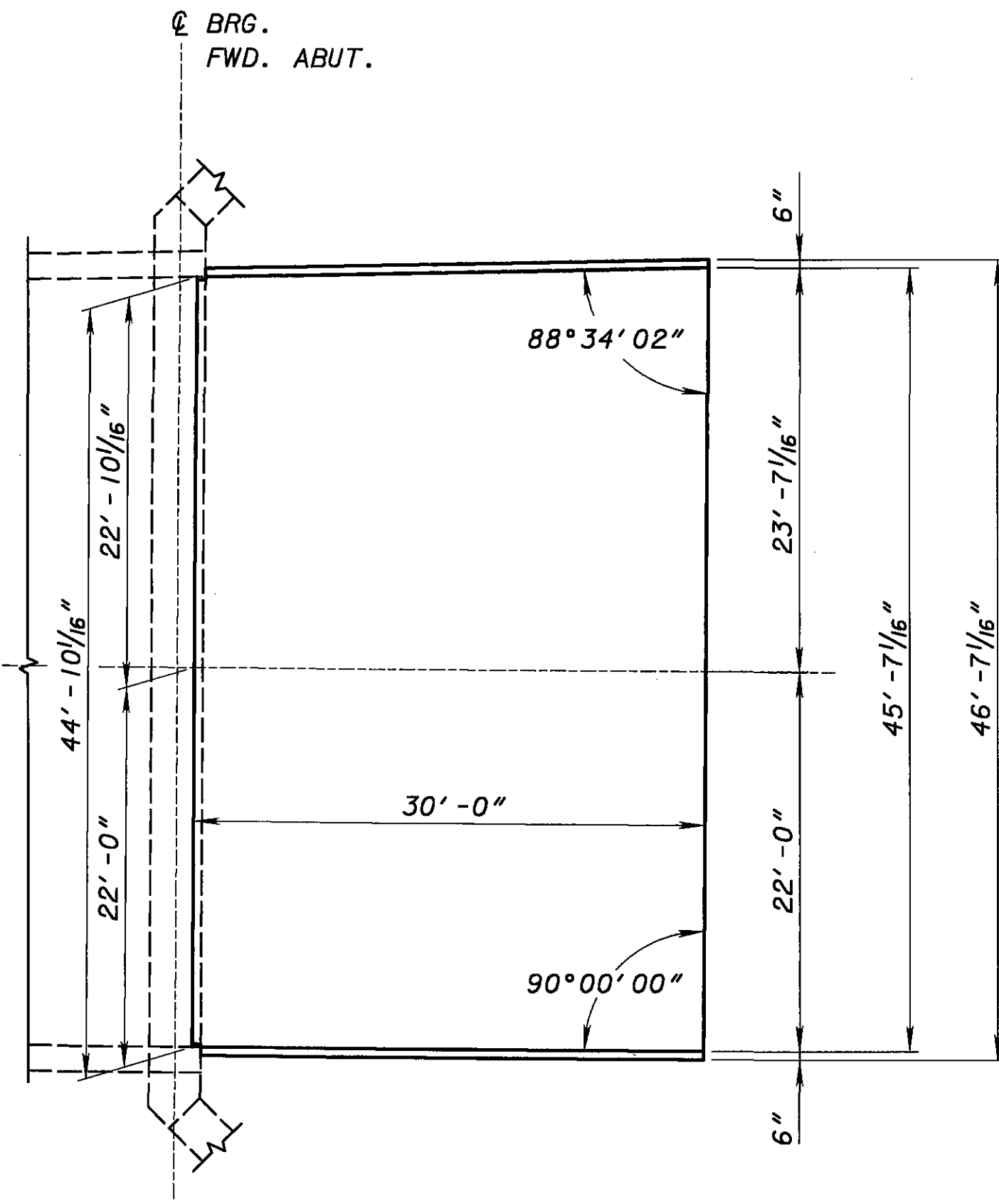
SECTION D-D



SECTION E-E

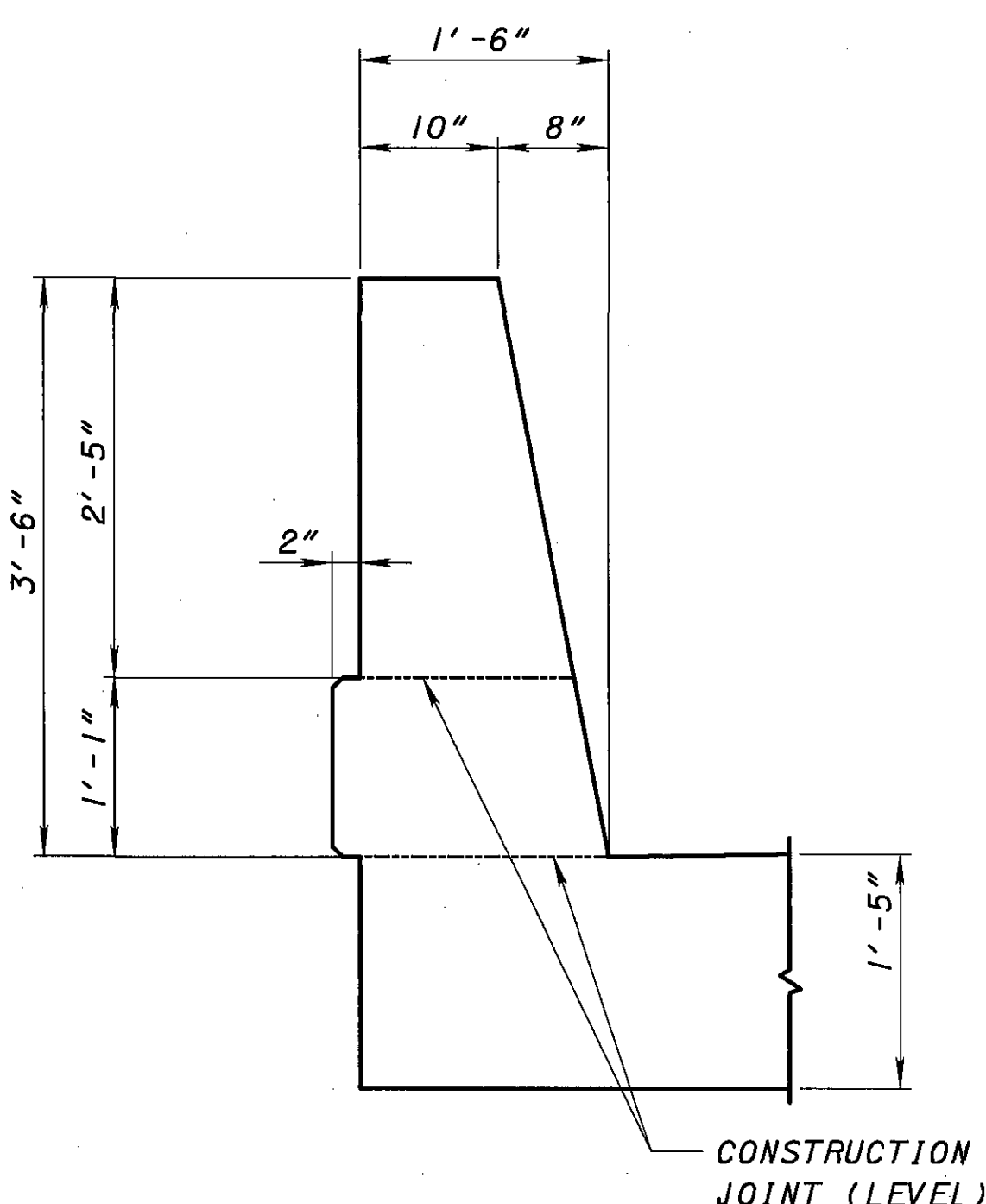


REAR APPROACH SLAB PLAN

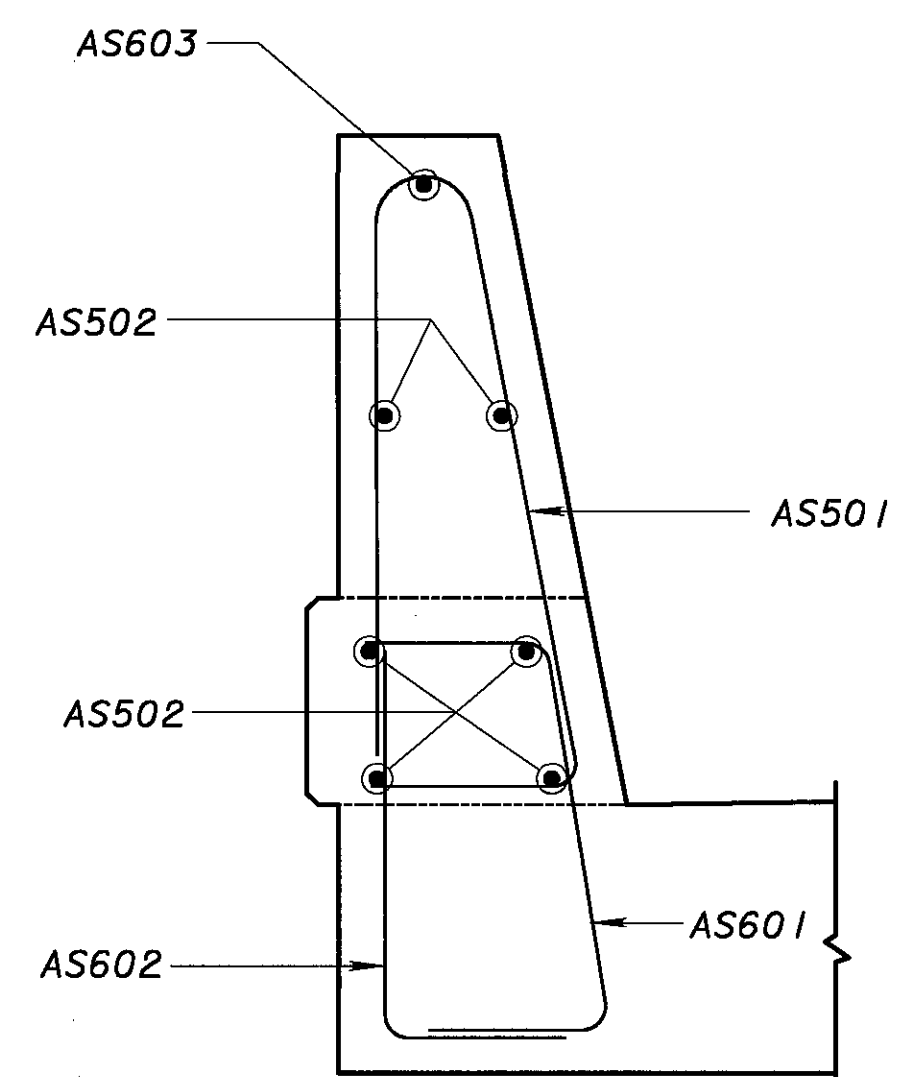


FORWARD APPROACH SLAB PLAN

* INCLUDED WITH ITEM 526, REINFORCED CONCRETE APPROACH SLAB (T-17"), AS PER PLAN FOR PAYMENT



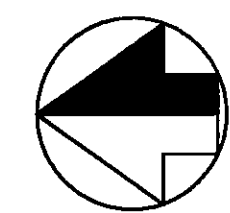
SECTION A-A (DIMENSIONS)



SECTION A-A (REINFORCING)

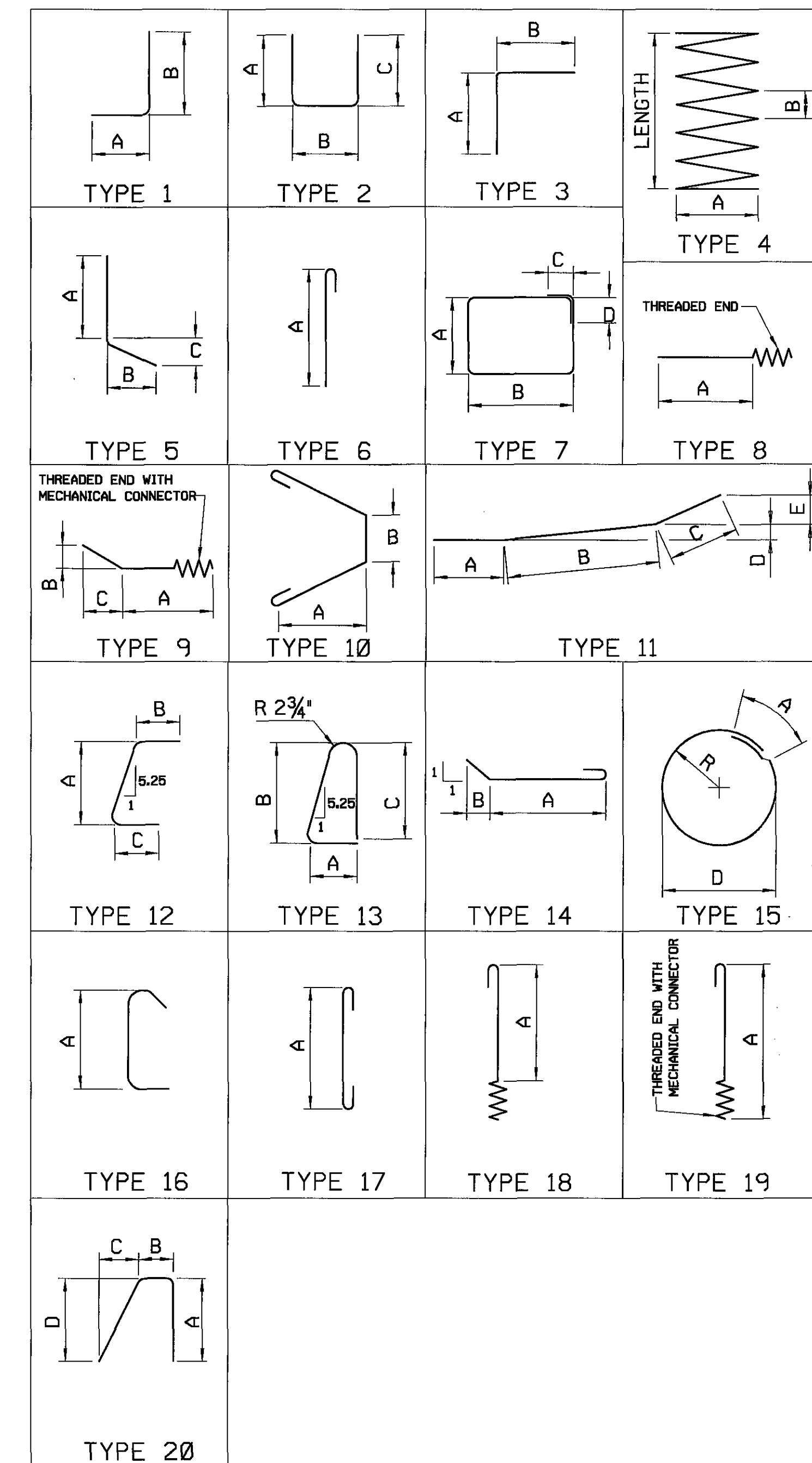
APPROACH SLAB PARAPET REINFORCING *											
MARK	QUANTITY	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
AS501	30	7' - 5"	232	13	1' - 1"	3' - 2"	3' - 0"			2 3/4"	
AS502	6	29' - 2"	183	STR							
AS601	30	4' - 3"	192	12	2' - 3"	1' - 1"	1' - 1"				
AS602	30	3' - 2"	143	1	2' - 3"	1' - 1"					
AS603	1	29' - 2"	44	STR							
TOTAL			793								

- NOTES:
- FOR APPROACH SLAB REINFORCEMENT AND ADDITIONAL DETAILS, SEE STANDARD DRAWING AS-1-81.
 - FOR REINFORCING NOTES & BENDING DIAGRAMS, SEE SHEET 25/27.



SUPERSTRUCTURE REINFORCING

MARK	TOTAL	LENGTH	WEIGHT (POUNDS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
S401	528	30' - 0"	10,581	STR.							
S402	88	36' - 2"	2,126	STR.							
S403	400	6' - 7"	1,759	2	1' - 10"	0' - 8"	4' - 3"				
S501	438	30' - 0"	13,705	STR.							
S502	69	40' - 0"	2,879	STR.							
S503	1	24' - 6"	26	STR.							
S504	1	22' - 2"	23	STR.							
S505	1	18' - 0"	19	STR.							
S506	1	14' - 11"	16	STR.							
S507	1	40' - 0"	42	STR.							
S508	1	35' - 2"	37	STR.							
S509	1	32' - 0"	33	STR.							
S510	1	28' - 10"	30	STR.							
S511	243	30' - 0"	7,603	STR.							
S512	412	7' - 5"	3,187	13	1' - 1"	3' - 2"	3' - 0"				
S513	72	30' - 0"	2,253	STR.							
S514	6	29' - 7"	185	STR.							
S515	6	19' - 4"	121	STR.							
S516	24	10' - 0"	250	STR.							
S517	15	5' - 6"	86	STR.							
S518	9	5' - 6"	52	11	1' - 8"	2' - 5"	1' - 5"	0' - 2"	0' - 5"		
S519	72	8' - 11"	670	2	3' - 6"	2' - 2"	3' - 6"				
S520	144	7' - 5"	1,114	2	2' - 6"	2' - 8"	2' - 6"				
S601	412	3' - 9"	2,321	12	1' - 9"	1' - 1"	1' - 1"				
S602	412	2' - 8"	1,650	1	1' - 9"	1' - 1"					
S603	12	30' - 0"	541	STR.							
S604	1	34' - 5"	52	STR.							
S605	1	24' - 8"	37	STR.							
SER	6	4' - 4"	424	1	1' - 1"	3' - 5"					
S606	SER OF 10	5' - 1"			1' - 1"	4' - 2"				0' - 1"	
S607	30	4' - 0"	180	6	3' - 4"						
S608	49	21' - 7"	1,588	STR.							
S609	50	20' - 4"	1,527	STR.							
S610	50	19' - 1"	1,433	STR.							
S611	50	17' - 11"	1,346	STR.							
S612	199	30' - 0"	8,967	STR.							
S613	49	30' - 0"	2,208	STR.							
S614	50	28' - 9"	2,159	STR.							
S615	50	27' - 5"	2,059	STR.							
S616	50	26' - 4"	1,978	STR.							
S617	199	21' - 7"	6,451	STR.							
S618	98	25' - 10"	3,803	STR.							
S619	100	24' - 7"	3,692	STR.							
S620	100	23' - 4"	3,505	STR.							
S621	100	22' - 2"	3,329	STR.							
S622	398	25' - 9"	15,393	STR.							
S801	12	8' - 0"	256	STR.							
S802	18	10' - 5"	501	STR.							
S803	21	10' - 2"	570	STR.							
S804	3	5' - 5"	43	STR.							
S805	14	14' - 9"	551	STR.							
S806	7	35' - 3"	659	STR.							
S807	7	40' - 0"	748	STR.							
S808	12	9' - 0"	290	1	2' - 6"	6' - 9"					
S809	16	20' - 6"	874	1	2' - 6"	18' - 2"					
S810	4	6' - 8"	71	1	2' - 6"	4' - 4"					
D801	57	5' - 1"	780	14	2' - 10"	1' - 0"					
		TOTAL	116,783								



BENDING DIAGRAMS

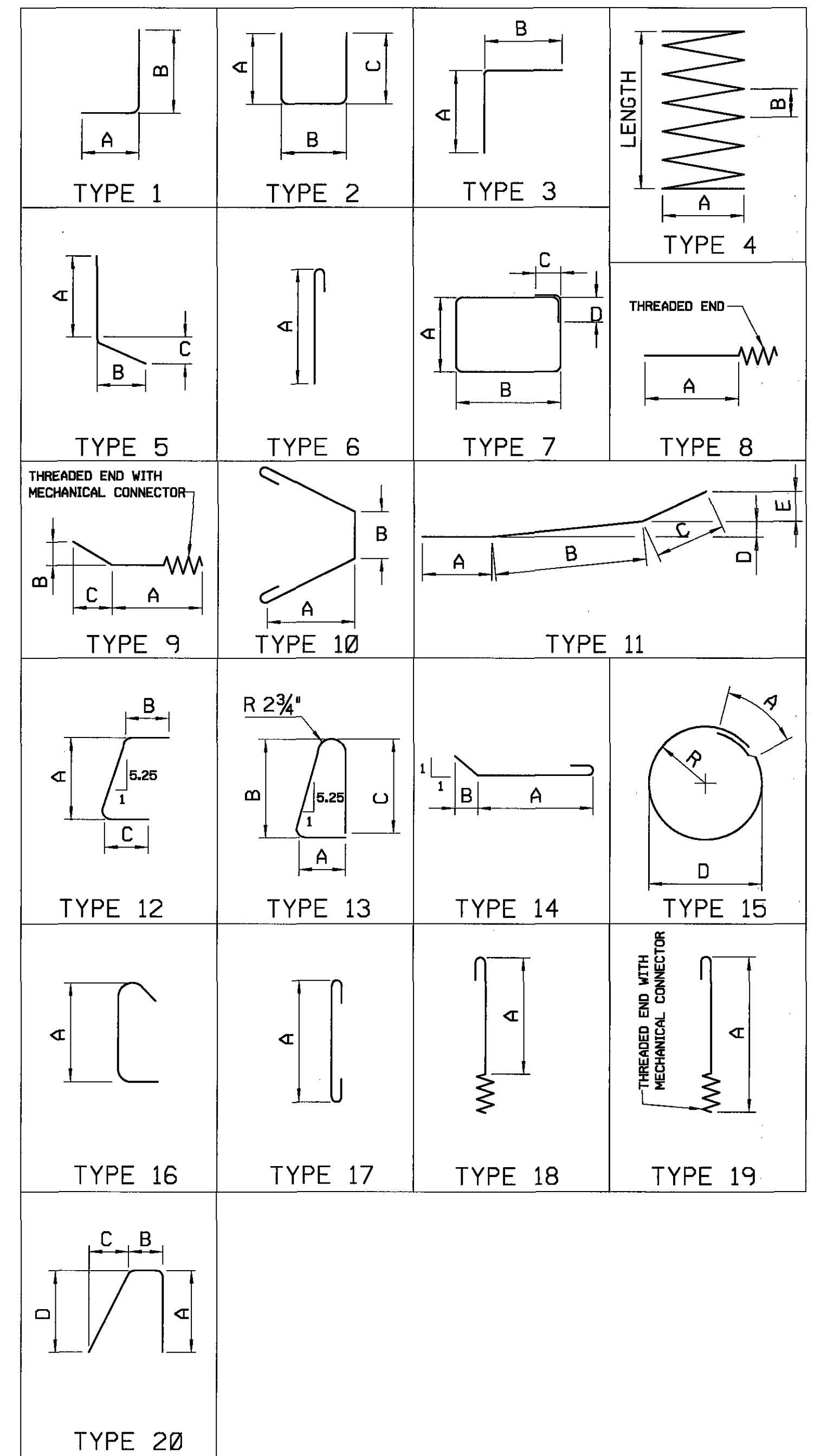
NOTES:

BAR SIZE:
 THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL BARS TO BE EPOXY COATED.

REINFORCING BAR SAMPLES:
 REFER TO C.M.S. SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING FOR EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH THE PROJECT PLANS.

ABUTMENT REINFORCING																
MARK	NUMBER			LENGTH	WEIGHT (POUNDS)			TYPE	DIMENSIONS							
	REAR	FWD.	TOTAL		REAR	FWD.	TOTAL		A	B	C	D	E	R	INC	
A401	24	24	48	5' - 3"	84	84	168	1	2' - 8"	2' - 8"						
A402	24	24	48	5' - 6"	88	88	176	20	1' - 1"	2' - 2"	1' - 9"	1' - 9"				
A403	24	24	48	6' - 11"	111	111	222	20	2' - 8"	3' - 1"	1' - 0"	1' - 0"				
A404	14	14	28	3' - 7"	34	34	68	1	1' - 0"	2' - 8"						
A405	14	14	28	3' - 11"	37	37	74	20	1' - 1"	2' - 2"	0' - 8"	0' - 8"				
A406	14	14	28	5' - 5"	51	51	102	20	2' - 8"	1' - 7"	1' - 0"	1' - 0"				
A501	36		36	24' - 10"	932		932	STR.								
A502	36	36	72	25' - 3"	948	948	1896	STR.								
A503				NOT USED												
A504	54	54	108	5' - 10"	329	329	658	2	2' - 0"	2' - 2"	2' - 0"					
A505	52	52	104	5' - 10"	316	316	632	2	2' - 0"	2' - 2"	2' - 0"					
A506	68	68	136	24' - 8"	1,749	1,749	3498	STR.								
A507	12	12	24	19' - 2"	240	240	480	STR.								
A508	12	12	24	12' - 8"	159	159	318	STR.								
A509	12	12	24	6' - 6"	81	81	162	STR.								
A510				NOT USED												
A511	44	44	88	11' - 8"	535	535	1070	STR.								
A512	44	44	88	6' - 2"	283	283	566	STR.								
A513	13	13	26	4' - 5"	60	60	120	20	2' - 0"	0' - 8"	0' - 2"	2' - 0"				
A514		36	36	30' - 0"		1,126	1126	STR.								
A601	121	121	242	8' - 7"	1,560	1,560	3120	1	7' - 9"	1' - 0"						
A602	47	52	99	16' - 7"	1,171	1,295	2466	STR.								
A603	93	103	196	11' - 10"	1,653	1,831	3484	STR.								
A604	43	48	91	7' - 8"	495	553	1048	2	2' - 8"	2' - 8"	2' - 8"					
A605	22	22	44	9' - 0"	297	297	594	STR.								
A606	26	26	52	11' - 0"	430	430	860	STR.								
A607	26	26	52	13' - 0"	508	508	1016	STR.								
A608	26	26	52	15' - 0"	586	586	1172	STR.								
A609	12	12	24	15' - 5"	278	278	556	STR.								
A610	14	14	28	17' - 5"	366	366	732	STR.								
A611	14	14	28	19' - 5"	408	408	816	STR.								
A612	14	14	28	21' - 5"	450	450	900	STR.								
A613	24	24	48	15' - 5"	556	556	1112	STR.								
A614	13	13	26	20' - 7"	402	402	804	STR.								
A615	52		52	37' - 9"	2,948		2948	STR.								
A616	52	52	104	22' - 0"	1,718	1,718	3436	STR.								
A617	8	8	16	15' - 2"	182	182	364	STR.								
SER	2	2	4	15' - 11"												
A618	SER OF 18	SER OF 18	SER OF 18	TO 24' - 5"	1,090	1,090	2180	STR.								0' - 6"
SER	2	2	4	23' - 0"												
A619	SER OF 4	SER OF 4	SER OF 4	TO 23' - 6"	279	279	558	8								0' - 2"
A620	8	8	16	16' - 6"	198	198	396	5	11' - 4"	3' - 9"	3' - 9"					
SER	2	2	4	15' - 5"												
A621	SER OF 18	SER OF 18	SER OF 18	TO 21' - 1"	988	988	1976	5	6' - 5"	6' - 6"	6' - 6"					0' - 4"
A622	4	4	8	13' - 5"	81	81	162	9	12' - 1"	6' - 6"	6' - 6"					
SER	2	2	4	8' - 10"												
A623	SER OF 26	SER OF 26	SER OF 26	TO 21' - 4"	1,176	1,176	2352	5	4' - 6"	3' - 2"	3' - 2"					A INC = 0' - 3"
A624		52	52	42' - 9"		3,339	3339	STR.	TO	TO	TO					B INC = 0' - 2"
A625	2	2	4	14' - 4"	43	43	86	2	10' - 9"	7' - 7"	7' - 7"					C INC = 0' - 2"
A626	4	4	8	4' - 4"	26	26	52	1	5' - 6"	3' - 8"	5' - 6"					
A627	6	6	12	12' - 3"	110	110	220	7	3' - 0"	1' - 6"						
A628	43	48	91	8' - 1"	523	583	1106	5	3' - 0"	2' - 8"	0' - 10"	0' - 10"				
A629	20	20	40	16' - 7"	498	498	996	STR.	2' - 8"	5' - 0"	2' - 6"					
A630	26	26	52	9' - 0"	351	351	702	STR.								



BENDING DIAGRAMS

NOTES:

BAR SIZE:

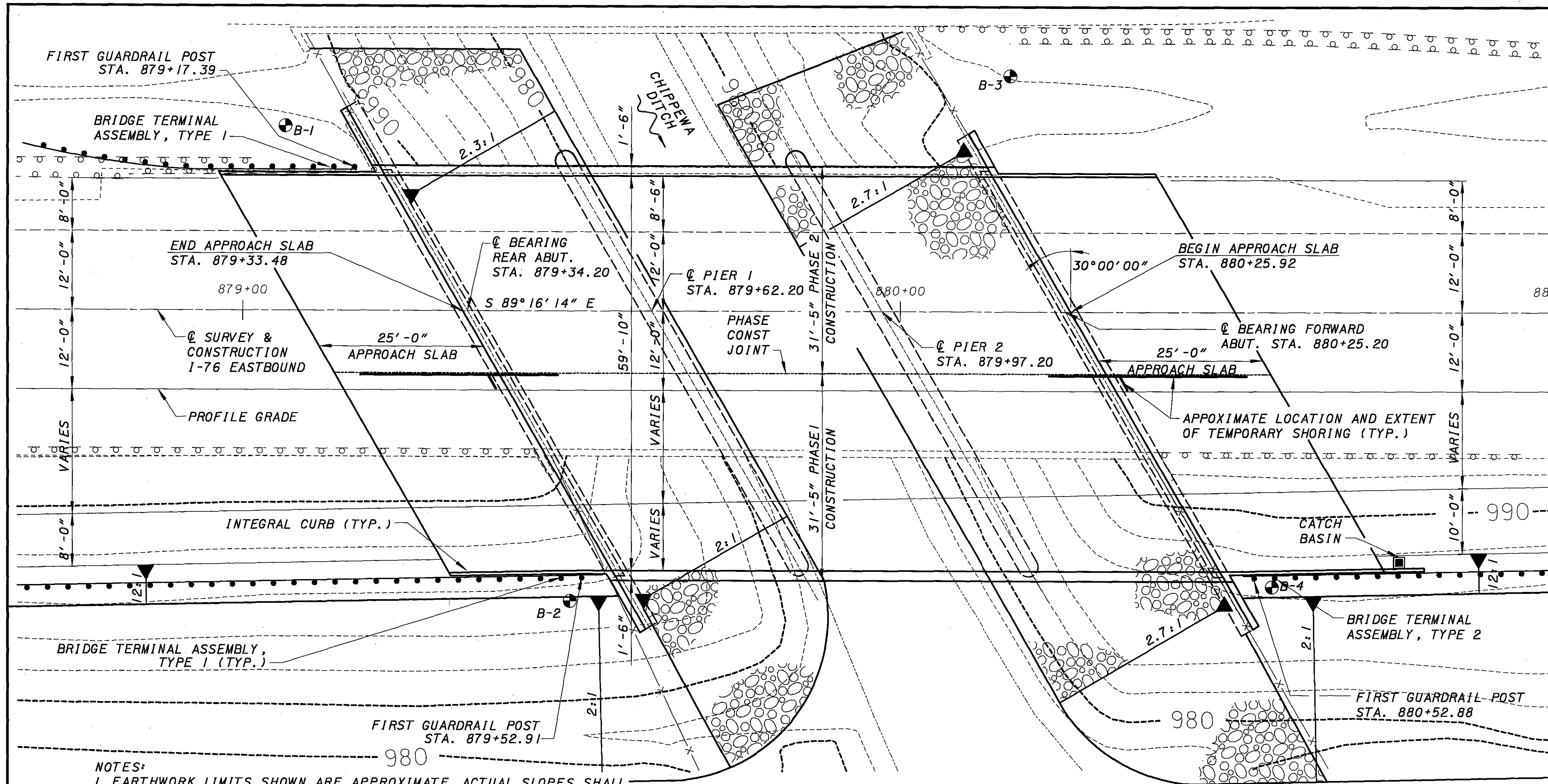
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DESIGNED BY: JNS
 CHECKED BY: GKL
 DRAWN BY: MLH
 REVISED BY:
 REVISIONS:
 DATE: 02/2005
 FILE NUMBER: 5204240
 STRUCTURE: PA
 PREPARED BY: M.S. CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 1008
 1120
 MED-71-6.06
 PID 75657
 REINFORCING STEEL LIST
 BRIDGE NO. MED-76-0061L
 OVER US 224
 26 / 27

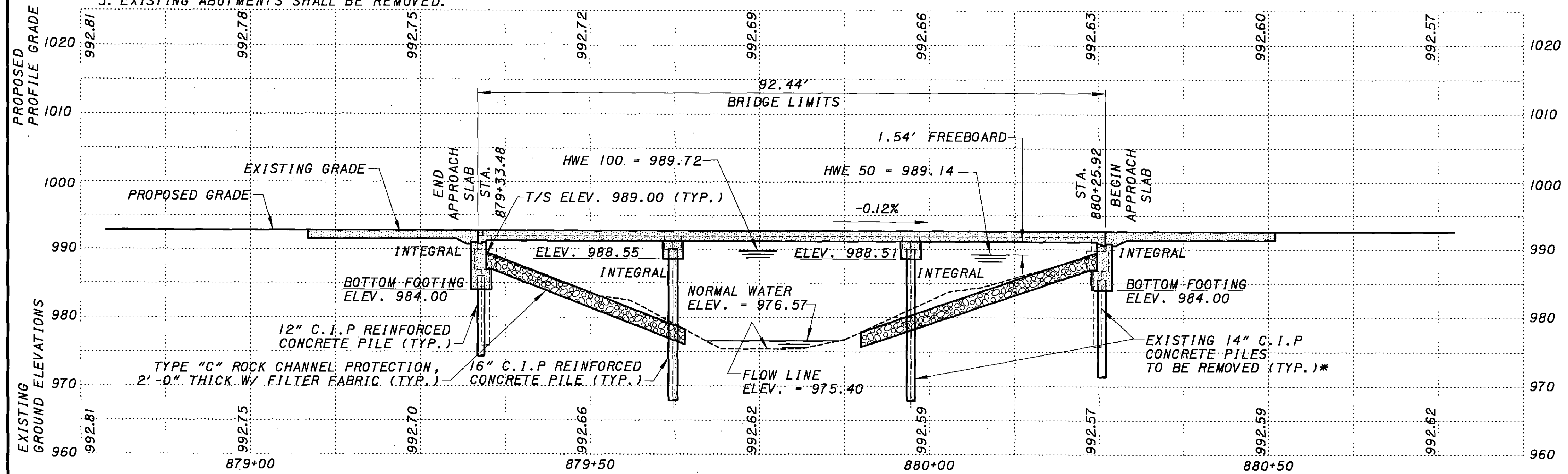


PLAN

KEY

B-1 BORING LOCATION

- NOTES:
1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
 2. THE ESTIMATED PILE LENGTHS ARE AS FOLLOWS:
 ABUTMENTS - 55 FT.
 PIERS - 70 FT.
 IN ALL CASES, ALL PILES SHALL BE DRIVEN TO ELEVATION 935.00 OR LOWER.
 3. EXISTING ABUTMENTS SHALL BE REMOVED.



PROFILE ALONG GRADE LINE

* EXIST. ABUT. PILES TO BE REMOVED TO 1'-0" BELOW PROPOSED ABUT. BOTTOM FOOTING ELEVATION, EXIST. PIER PILES TO BE REMOVED TO BELOW CONCRETE ENCASUREMENT OR 1'-0" BELOW GROUND, WHICHEVER IS GREATER.

HORIZONTAL ALIGNMENT DATA
 BEARING - S 89° 16' 14" E

HYDRAULIC DATA

Q₅₀ = 2358 CFS V₅₀ = 4.31 FT/S
 Q₁₀₀ = 2529 CFS V₁₀₀ = 4.37 FT/S
 DRAINAGE AREA = 10.65 SQ MI

BENCHMARK INFORMATION

- BM #51:** CUT SQUARE ON THE SOUTHWEST CORNER OF THE SOUTHWEST WINGWALL OF I-76 WESTBOUND BRIDGE OVER CHIPPEWA DITCH
- BM #52:** CUT SQUARE ON THE SOUTHWEST CORNER OF THE SOUTHWEST WINGWALL OF I-76 WESTBOUND BRIDGE OVER CHIPPEWA DITCH

EXISTING STRUCTURE

TYPE: CONTINUOUS REINFORCED CONCRETE SLAB ON CAPPED PILE SUBSTRUCTURES

SPANS: 28'-0" (±), 35'-0" (±), 28'-0" (±)

ROADWAY: 41'-0" TOE/ TOE PARAPET

DESIGN LOADING: CF2000 (51)

SKEW: 30°00'00" RIGHT FORWARD

WEARING SURFACE: CONCRETE OVERLAY

ALIGNMENT: TANGENT

APPROACH SLAB: AS-1-81 (25'-0" LONG)

DATE CONSTRUCTED: 1959

CONDITION: FUNCTIONALLY OBSOLETE

DISPOSITION: STRUCTURE TO BE REMOVED & REPLACED

STRUCTURE FILE NUMBER: 5204380

PROPOSED STRUCTURE

TYPE: CONTINUOUS REINFORCED CONCRETE SLAB ON CAPPED PILE SUBSTRUCTURES

SPANS: 28'-0", 35'-0", 28'-0"

ROADWAY: 59'-10" TOE/ TOE PARAPET

DESIGN LOADING: H25 AND THE ALTERNATE MILITARY LOADING

FUTURE WEARING SURFACE LOADING: 60 PSF

SKEW: 30°00'00" RIGHT FORWARD

WEARING SURFACE: 1" MONOLITHIC CONCRETE

ALIGNMENT: TANGENT

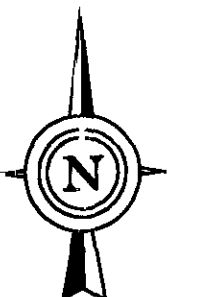
APPROACH SLAB: AS-1-81, 25'-0" LONG (MODIFIED)

CROWN: 0.0156 FT./ FT.

AVERAGE DAILY TRAFFIC: 16140 (2006)
 21450 (2026)

AVG. DAILY TRUCK TRAFFIC: 5648 (2006)
 7508 (2026)

COORDINATES: LAT. 41°01'48"
 LONG. 81°53'12"



DESIGNED BY
 ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 10000 W. 10TH AVENUE
 DENVER, CO 80202

DATE
 02/2005

REVIEWED BY
 PA

STRUCTURE FILE NUMBER
 5204399

DRAWN
 KVM

REVISED

DESIGNED
 JMS

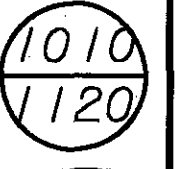
CHECKED
 GKL

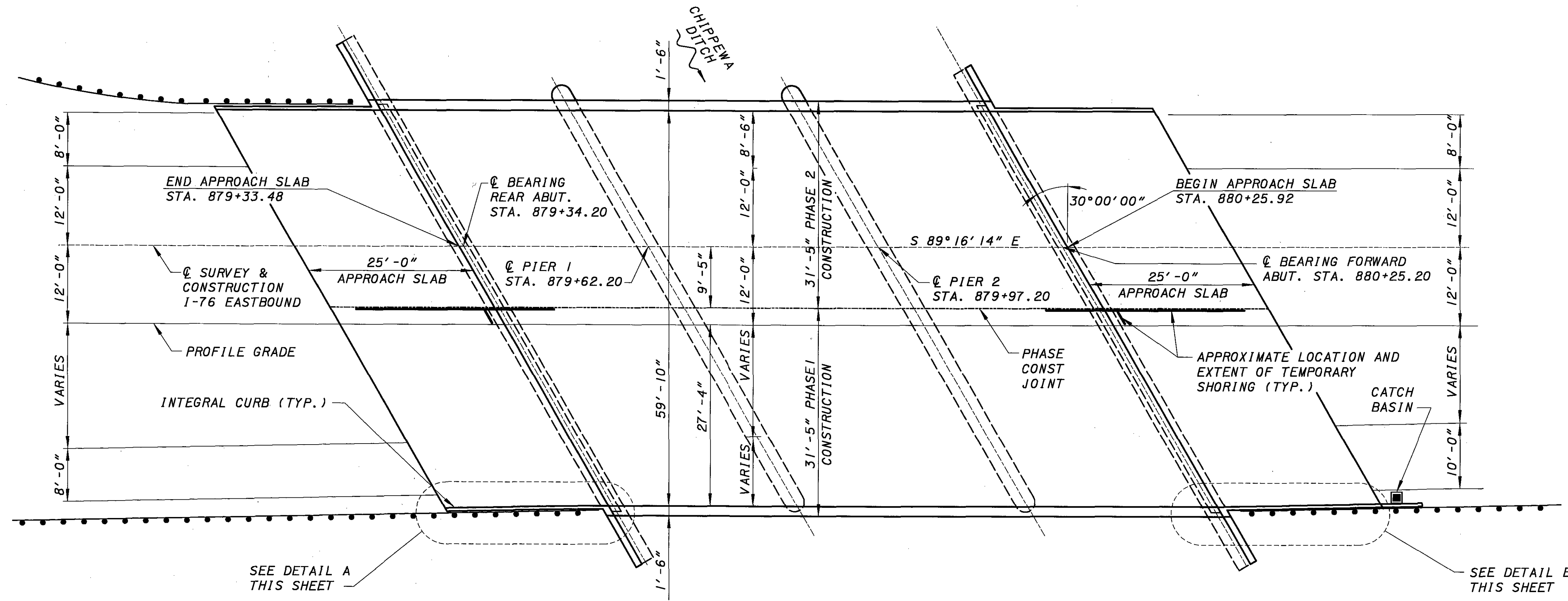
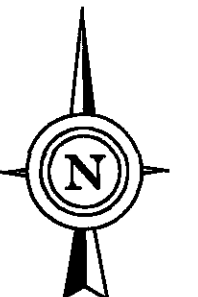
MEDINA COUNTY
 STA. 879+33.48
 STA. 880+25.92

S I T E P L A N
 BRIDGE NO. MED-76-0112R
 I-76 EASTBOUND OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

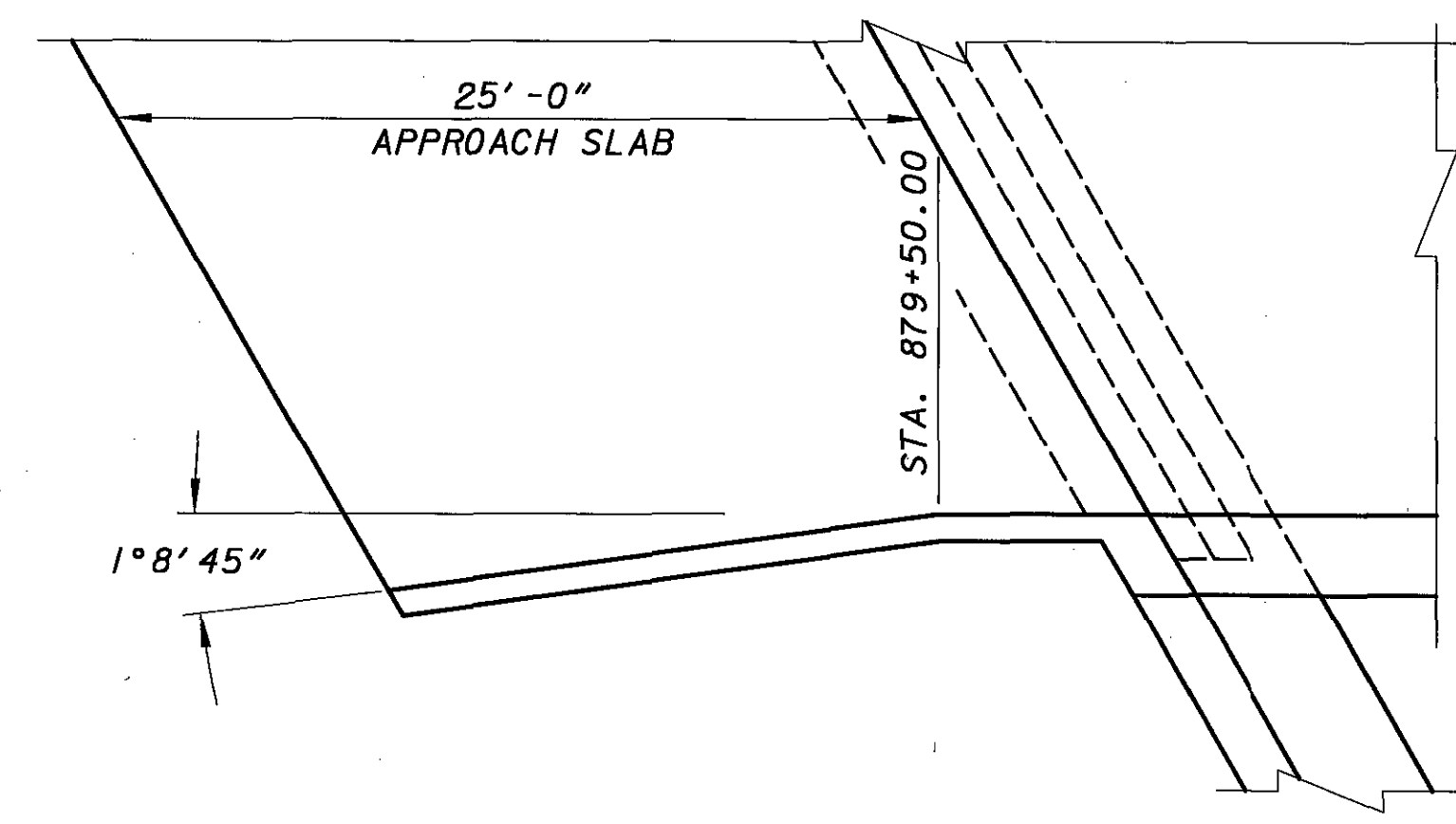
1 / 18



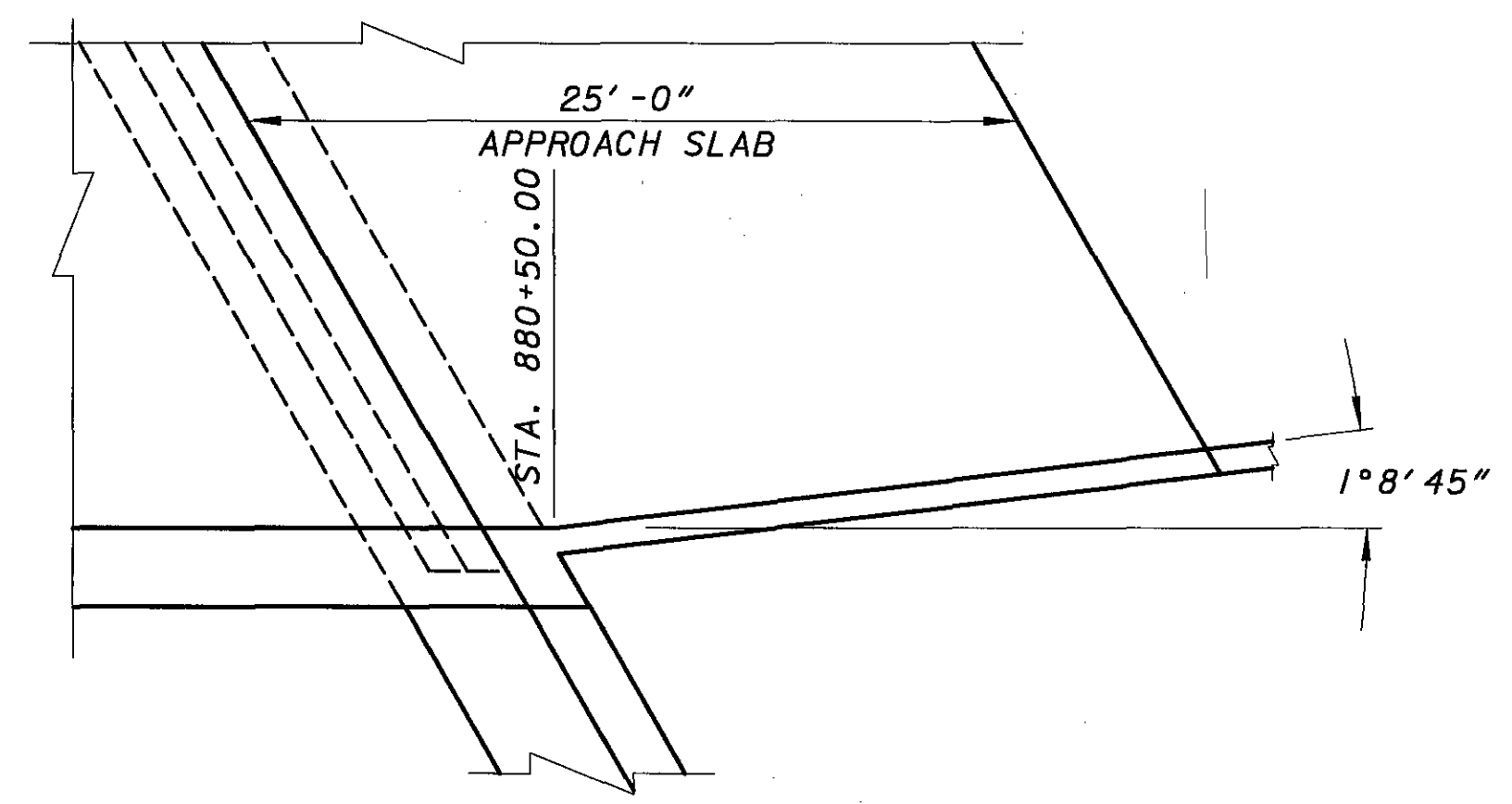


PLAN

NOTE:
 THE BRIDGE DECK SLAB HAS A CONSTANT ROADWAY WIDTH OF 59'-10" TOE/TOE PARAPET. BOTH GUTTER LINES ARE PARALLEL TO \bar{C} SURVEY BETWEEN STATION 879+50.00 AND STATION 880+50.00. THE SOUTH GUTTER LINE BEFORE STATION 879+50.00 AND AFTER STATION 880+50.00 ARE NOT PARALLEL TO \bar{C} SURVEY. (SEE DETAILS A & B THIS SHEET).



DETAIL A
 NOT TO SCALE



DETAIL B
 NOT TO SCALE

DESIGNED BY JMS	CHECKED GKL	DRAWN KVM	REVISED	DATE 02/2005	FILE NUMBER 5204399
REVIEWED PA		PREPARED BY ms consultants, inc. CONSULTING ENGINEERS & PLANNERS 222 W. MAIN ST. SUITE 200 MEDINA, OH 44028			
GENERAL PLAN					
MEDINA COUNTY STA. 879+33.48 STA. 880+25.92					
BRIDGE NO. MED-76-0112R 1-76 EASTBOUND OVER CHIPPEWA DITCH					
MED-71-6.06 PID 75657					
2 / 18					
1011 1120					

ESTIMATED QUANTITIES										CALC BY: GKL			DATE: 05/13/03	
										CHECK BY: PA			DATE: 05/20/03	
ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT. REAR	ABUT. FWD.	PIER 1	PIER 2	GENERAL	AS PER PLAN SHEET REFERENCE	
		IM	NHS											
202	11003	LUMP	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN						LUMP	1, 3, 5, 6	
503	11101	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN						LUMP	1, 2, 3	
503	21301	LUMP	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN						LUMP	3	
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION						LUMP		
507	00500	1232	308	1540	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		770	770					
507	00550	1344	336	1680	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		840	840					
507	00700	1680	420	2100	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN				1050	1050			
507	00750	1800	450	2250	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED				1125	1125			
509	10000	80239	20060	100299	POUND	EPOXY COATED REINFORCING STEEL (SEE PROPOSAL NOTE 525)	83586	6153	6156	2202	2202			
511	34450	30	8	38	CU YD	CLASS S CONCRETE, MISC: PIER CAP				19	19			
511	43501	99	25	124	CU YD	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN							3, 8, 9, 10	
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB	LUMP							
512	10101	256	64	320	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	217	43	42	9	9		3	
512	33000	11	3	14	SQ YD	TYPE 2 WATERPROOFING		7	7					
518	21230	LUMP	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC						LUMP		
518	40000	147	37	184	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		92	92					
518	40010	39	10	49	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		22	27					
523	20000	1		1	EACH	DYNAMIC LOAD TESTING						1		
526	25001	266	66	332	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN						332	10, 15, 16	
601	32200	530	133	663	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC						663		
*894	10001	288	72	360	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	360						4	

* THIS QUANTITY INCLUDES CONCRETE IN PARAPETS.
 ** ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS.

ITEM 894 HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

GENERAL REQUIREMENTS.

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS.

ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN).
 ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
 QUANTITIES PER CUBIC YARD
 AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)									
AGGREGATE TYPE	FINE AGGREG. (LB)	* #8 COARSE AGGREG. (LB)	* #57 COARSE AGGREG. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICROSILICA (LB)	WATER/CEMENT RATIO +/- .02	AIR CONTENT +/- 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

*ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER, AS DEFINED PER ASTM C127 THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20 AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND POURED)

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED)

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

THE CONTRACTOR IS ONLY ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS OVER NON-TRAVELED WAYS, AND ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED. THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH, WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS

FOR BOTH SLIP FORMED AND FORMED AND POURED PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT. AND A MAXIMUM OF 8 FT. ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1/2" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

BASIS OF PAYMENT.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
894E10001	C.Y.	HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK, AS PER PLAN
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB

ABBREVIATIONS

ABUT.	ABUTMENT	FDN.	FOUNDATION	PEJF	PREFORMED EXPANSION
ADD'L.	ADDITIONAL	FT.	FEET OR FOOT		JOINT FILLER
BOT. OR BOTT.	BOTTOM	FTG.	FOOTING	PROP.	PROPOSED
BRG.	BEARING	FWD.	FORWARD	R.A.	REAR ABUTMENT
@	CENTERLINE	GRD.	GROUND	REF.	REFERENCE
C.J.	CONSTRUCTION JOINT	INT.	INTERIOR	RT.	RIGHT
C/C	CENTER TO CENTER	JT.	JOINT	SER.	SERIES
CLR.	CLEAR OR CLEARANCE	LB.	POUND	SHLDR.	SHOULDER
COL.	COLUMN	LIN. FT.	LINEAL FOOT	SHT.	SHEET
CONSTR. OR CONST.	CONSTRUCTION	LT.	LEFT	SP. OR SPA.	SPACE OR SPACES
DIA.	DIAMETER	MAX.	MAXIMUM	STA.	STATION
DWG.	DRAWING	MFR. OR MANUF	MANUFACTURER	STD.	STANDARD
E.F.	EACH FACE	MIN.	MINIMUM	STR.	STRAIGHT
EA.	EACH	MISC.	MISCELLANEOUS	T & B	TOP AND BOTTOM
ELEV. OR EL.	ELEVATION	N.F.	NEAR FACE	T/S OR T.O.S.	TOP OF SLOPE
EQ.	EQUAL	O/C	ON CENTERS	TEMP.	TEMPORARY
EX. OR EXIST.	EXISTING	O/O	OUT TO OUT	TYP.	TYPICAL
EXT.	EXTERIOR	PL	PLATE	W/	WITH
F.A.	FORWARD ABUTMENT				
F.F.	FAR FACE				

ESTIMATED QUANTITIES & GENERAL NOTES
 BRIDGE NO. MED-76-0112R
 I-76 EASTBOUND OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

4/18

1013
 1120

ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 2250 EAST WISCONSIN AVENUE
 MILWAUKEE, WI 53212

DATE REVIEWED PA 02/2005
 STRUCTURE FILE NUMBER 5204399

DESIGNED JNS
 CHECKED GKL

PROPOSED WORK

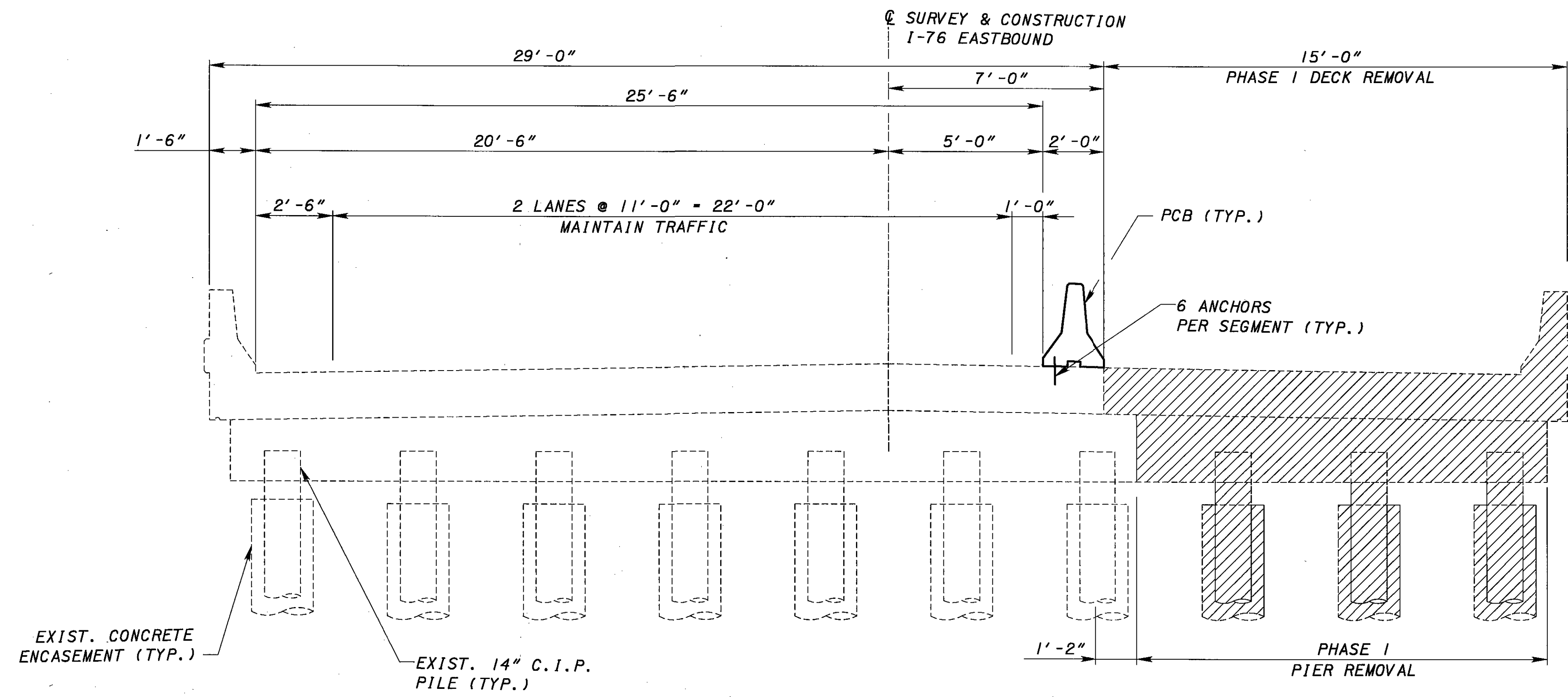
(FOR SHEETING LINES A, B, C, & D SEE TEMPORARY SHORING LAYOUT ON SHEET 3/18)

PHASE 1 CONSTRUCTION:

1. PLACE PORTABLE CONCRETE BARRIER AND MAINTAIN TRAFFIC ON THE LEFT SIDE OF THE EXISTING BRIDGE.
2. REMOVE PORTIONS OF EXISTING RIGHT SIDE DECK, PARAPETS, APPROACH SLABS AND PIERS AS NOTED ON THE PLANS.
3. DRIVE SHEETING LINE A & C.
4. EXCAVATE AROUND EXISTING ABUTMENTS TO THE BOTTOM OF EXISTING FOOTING ELEVATION AT RIGHT SIDE.
5. REMOVE PORTION OF EXISTING ABUTMENT ON THE RIGHT SIDE.
6. DRIVE SHEETING LINE B.
7. EXCAVATE AND CONSTRUCT PHASE 1 PORTIONS OF PIER AND ABUTMENTS.
8. DRIVE SHEETING LINE D.
9. BACKFILL.
10. PLACE SLOPE PROTECTION ON RIGHT SIDE.
11. PLACE PHASE 1 PORTIONS OF CONCRETE DECK, PARAPETS AND APPROACH SLABS AS NOTED ON PLANS.

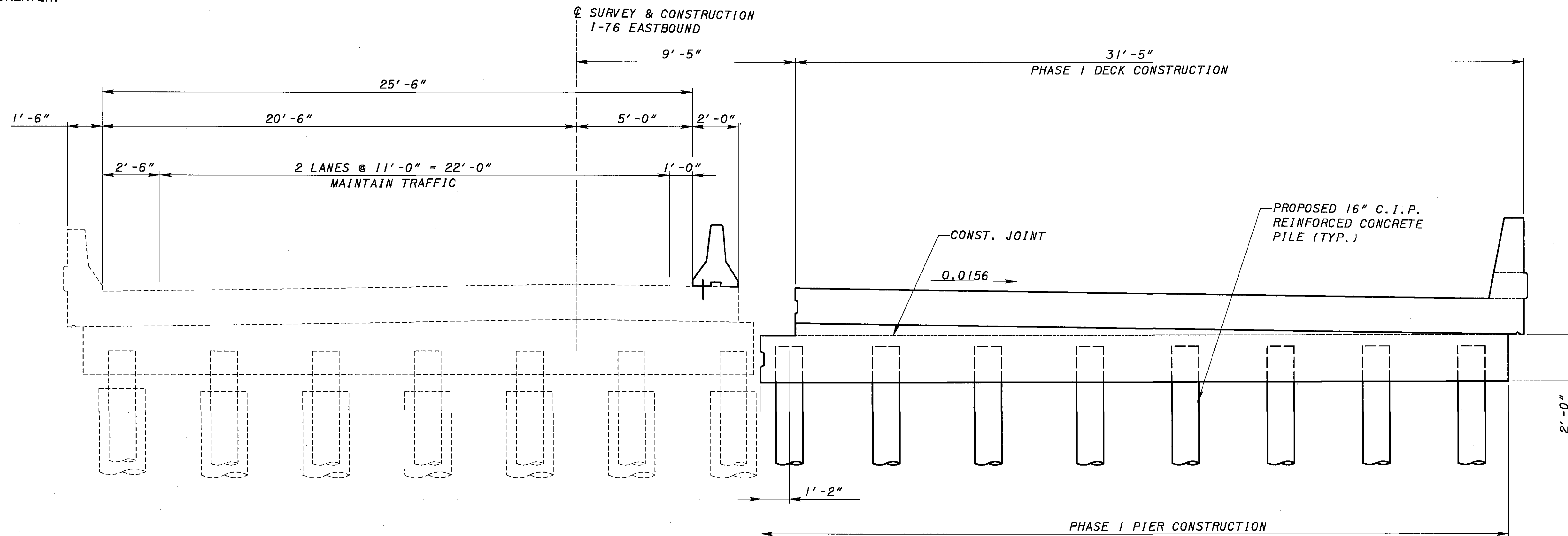
PHASE 2 CONSTRUCTION:

1. PLACE PORTABLE CONCRETE BARRIER AND DIVERT AND MAINTAIN TRAFFIC ON THE RIGHT SIDE OF THE BRIDGE.
2. REMOVE THE REMAINING PORTIONS OF EXISTING LEFT SIDE DECK, PARAPETS, APPROACH SLABS AND PIERS AS NOTED ON THE PLANS.
3. EXCAVATE FOR PHASE 2 PORTIONS OF ABUTMENTS AND REMOVE ABUTMENTS.
4. REMOVE SHEETING LINE B.
5. CONSTRUCT PHASE 2 PORTIONS OF PIERS AND ABUTMENTS.
6. BACKFILL.
7. PLACE SLOPE PROTECTION ON RIGHT SIDE OF BRIDGE.
8. PLACE PHASE 2 PORTIONS OF CONCRETE DECK, PARAPETS, AND APPROACH SLAB.



PHASE 1 REMOVAL

NOTE:
EXISTING PILES AT PIERS TO BE REMOVED TO BELOW THE CONCRETE ENCASMENT OR 1'-0" BELOW GROUND, WHICHEVER IS GREATER.



PHASE 1 CONSTRUCTION

LEGEND:

REMOVAL

PCB PORTABLE CONCRETE BARRIER

DESIGNED BY
MS CONSULTANTS, INC.
CONSULTING ENGINEERS & PLANNERS
222 WEST 10TH STREET, SUITE 200
DENVER, CO 80202

DATE
02/2005
REVIEWED
PA
STRUCTURE FILE NUMBER
5204399

DRAWN
KVM
REVISED

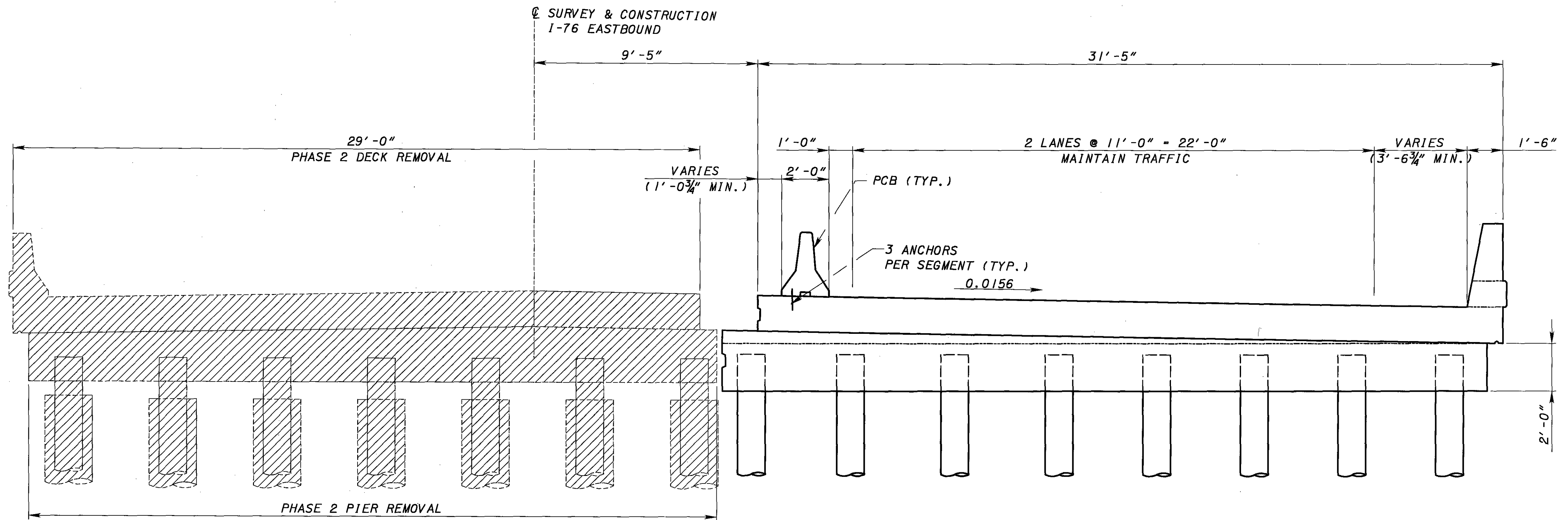
DESIGNED
JNS
CHECKED
GKL

PHASE CONSTRUCTION DETAILS - 1
BRIDGE NO. MED-76-0112R
1-76 EASTBOUND OVER CHIPPEWA DITCH

MED-71-6.06
PID 75657

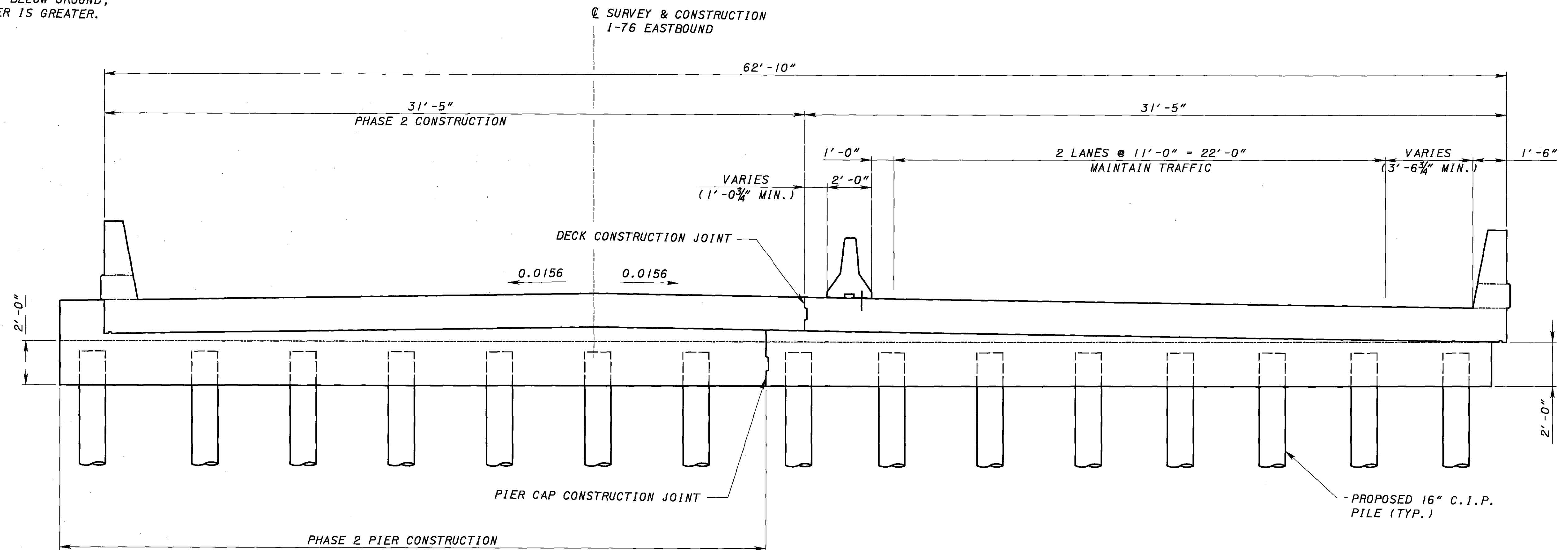
5/18

1014
120



PHASE 2 REMOVAL

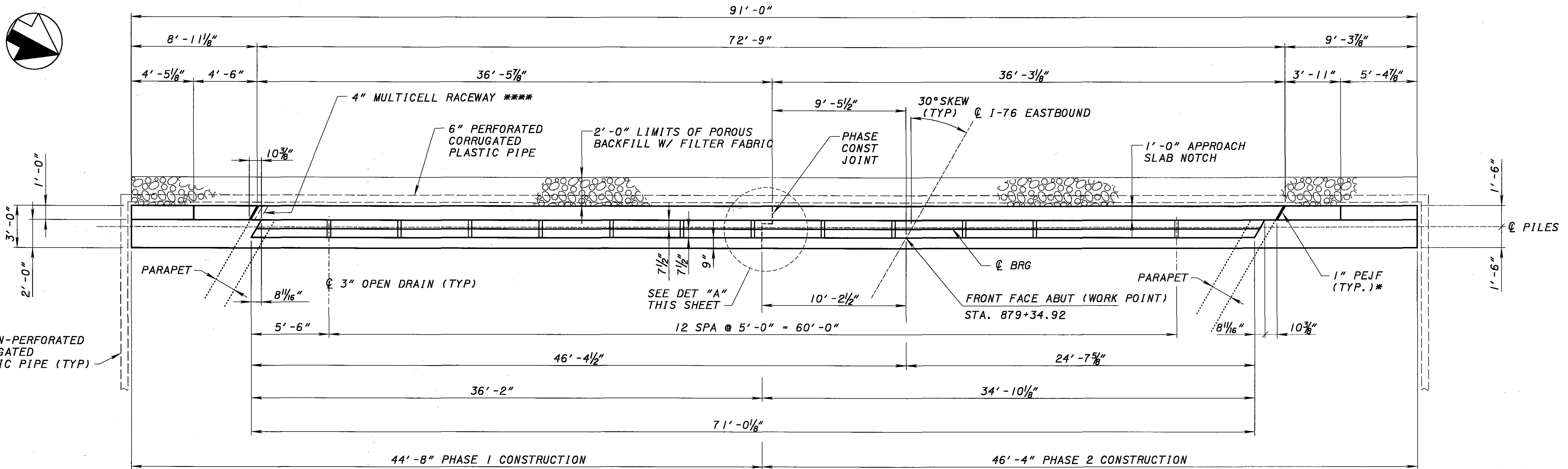
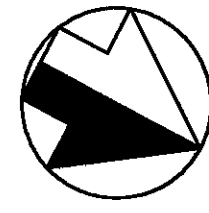
NOTE:
EXISTING PILES AT PIERS TO
BE REMOVED TO BELOW
THE CONCRETE ENCASEMENT
OR 1'-0" BELOW GROUND,
WHICHEVER IS GREATER.



PHASE 2 CONSTRUCTION

LEGEND:

- REMOVAL
- PCB PORTABLE CONCRETE BARRIER



PLAN
(PILES NOT SHOWN FOR CLARITY)

* 1" PEJF SHALL BE INCLUDED WITH ITEM 511, CLASS C CONCRETE ABUTMENT INCLUDING FOOTING, AS PER PLAN.

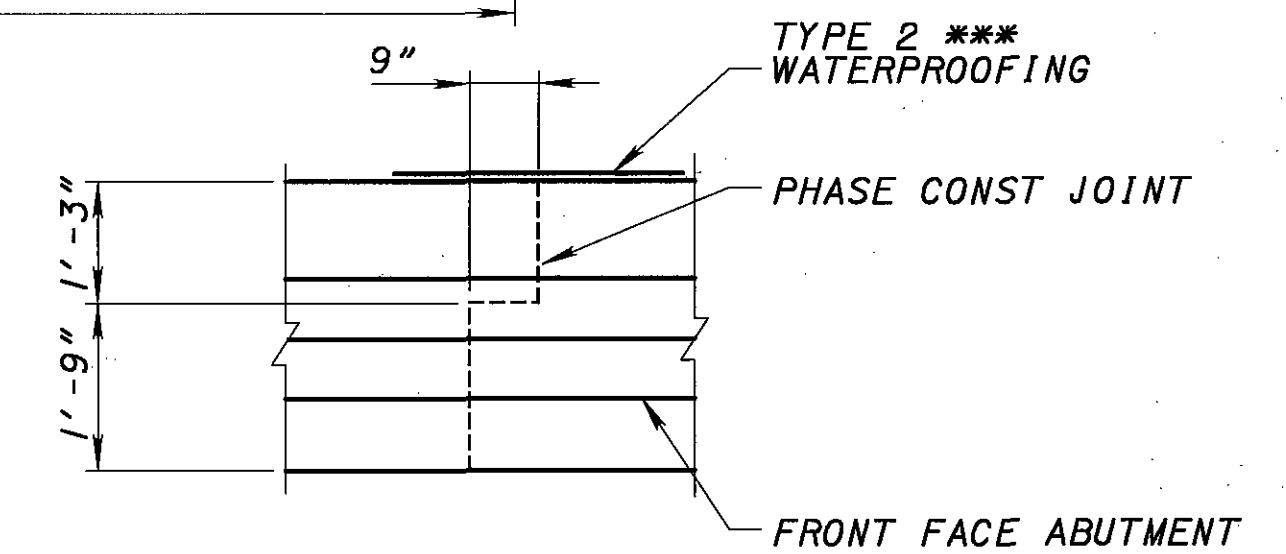
** MECHANICAL CONNECTOR IS PLACED AT PHASE CONSTRUCTION JOINT.

*** SEAL VERTICAL JOINT BETWEEN CONSTRUCTION PHASES ON THE BACKSIDE OF ABUTMENT BREASTWALL FROM TOP OF FOOTING TO THE APPROACH SLAB SEAT WITH ITEM 512, TYPE 2 WATERPROOFING, 3 FEET WIDE CENTERED OVER JOINT.

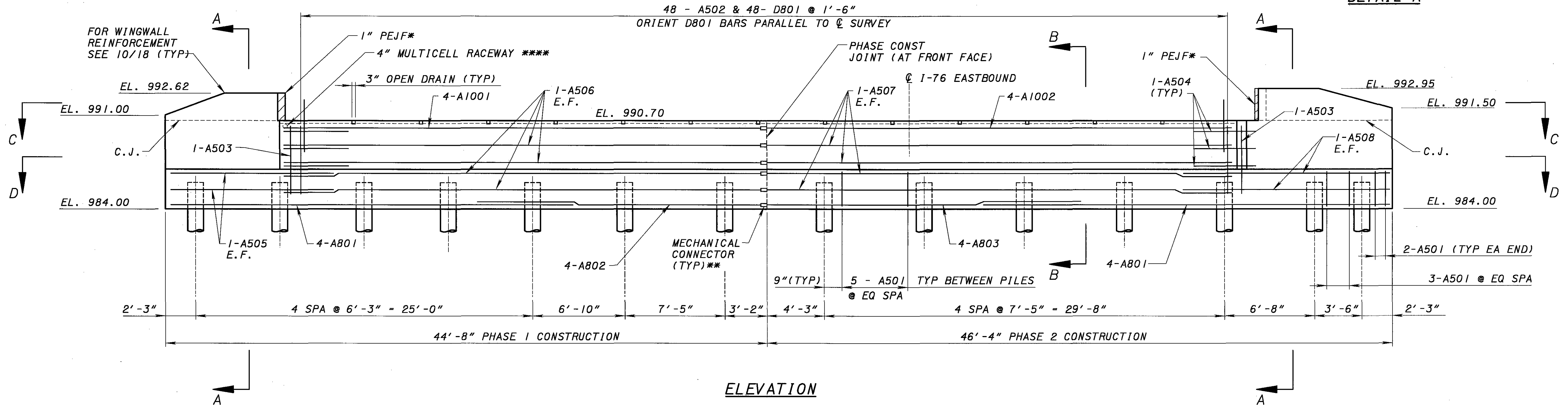
**** SEE LIGHTING SHEETS FOR QUANTITIES & PAYMENT.

MINIMUM LAP LENGTH

#5 BAR - 3'-5"
#8 BAR - 7'-3"



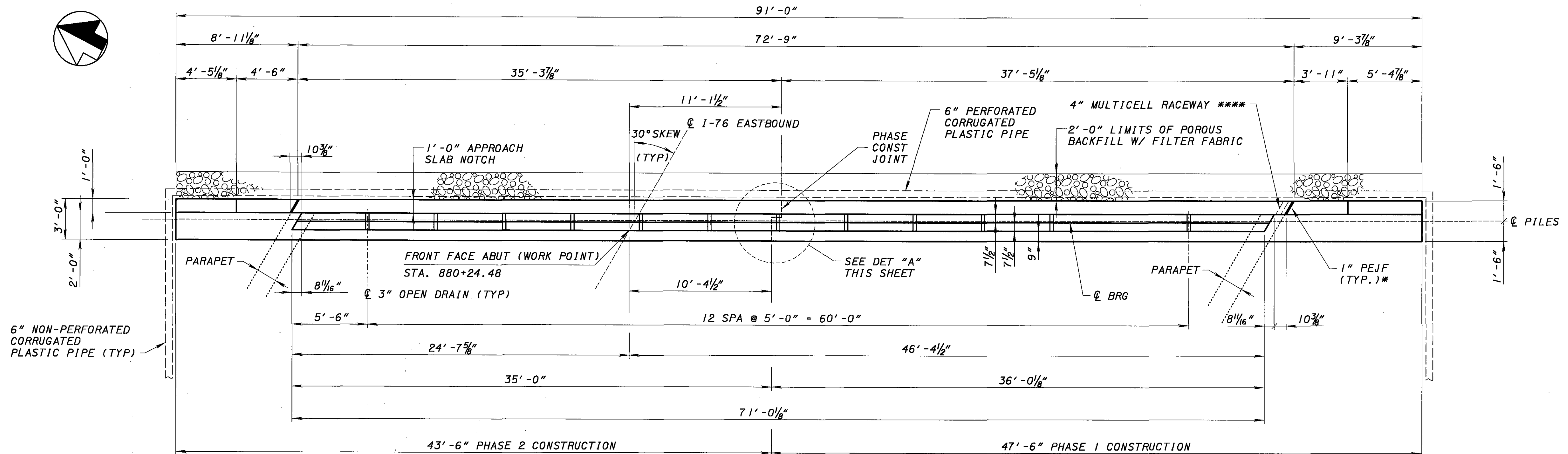
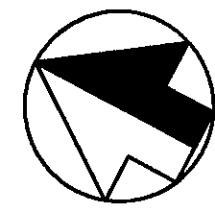
DETAIL A



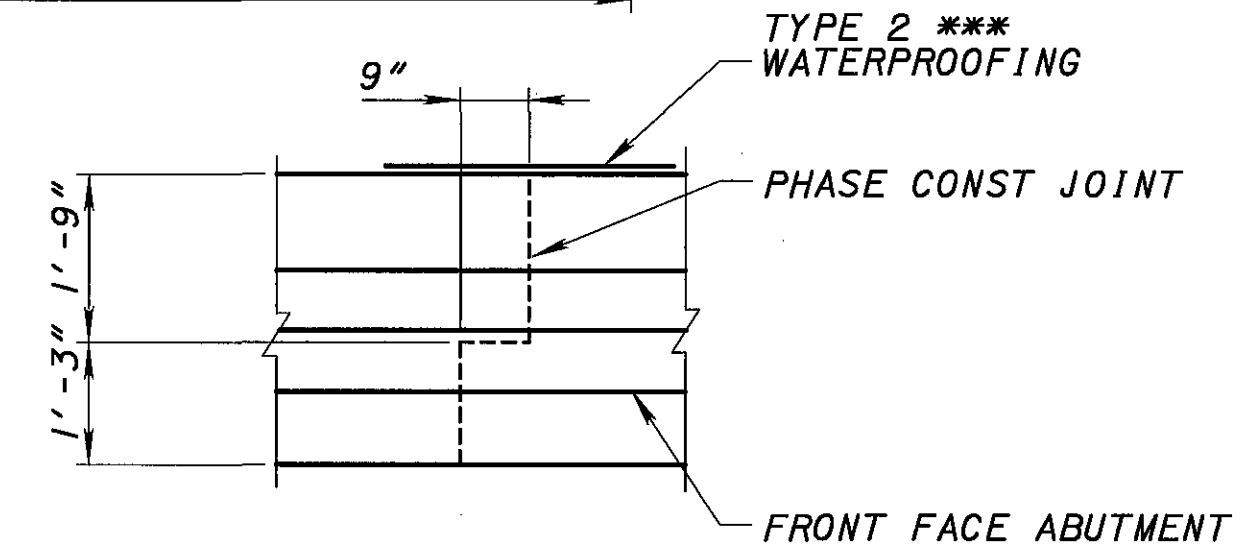
ELEVATION

NOTES

1. FOR SECTIONS A-A, B-B, C-C, & D-D SEE SHEET 10/18.

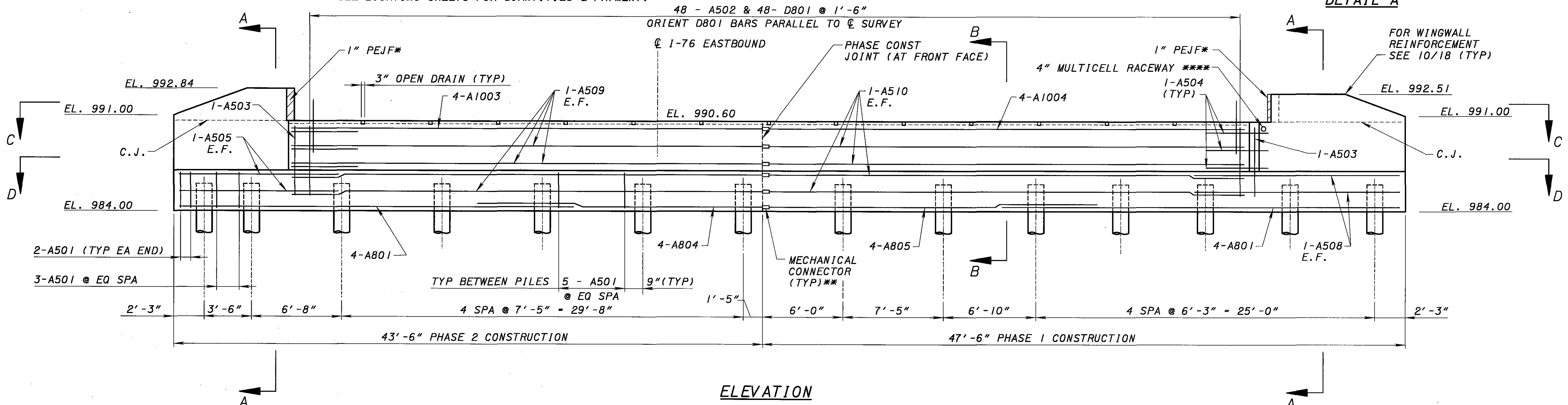


PLAN
(PILES NOT SHOWN FOR CLARITY)



DETAIL A

- * 1" PEJF SHALL BE INCLUDED WITH ITEM 511, CLASS C CONCRETE ABUTMENT INCLUDING FOOTING, AS PER PLAN.
 - ** MECHANICAL CONNECTOR IS PLACED AT PHASE CONSTRUCTION JOINT.
 - *** SEAL VERTICAL JOINT BETWEEN CONSTRUCTION PHASES ON THE BACKSIDE OF ABUTMENT BREASTWALL FROM TOP OF FOOTING TO THE APPROACH SLAB SEAT WITH ITEM 512, TYPE 2 WATERPROOFING, 3 FEET WIDE CENTERED OVER JOINT.
 - **** SEE LIGHTING SHEETS FOR QUANTITIES & PAYMENT.
- MINIMUM LAP LENGTH**
 #5 BAR - 3'-5"
 #8 BAR - 7'-3"



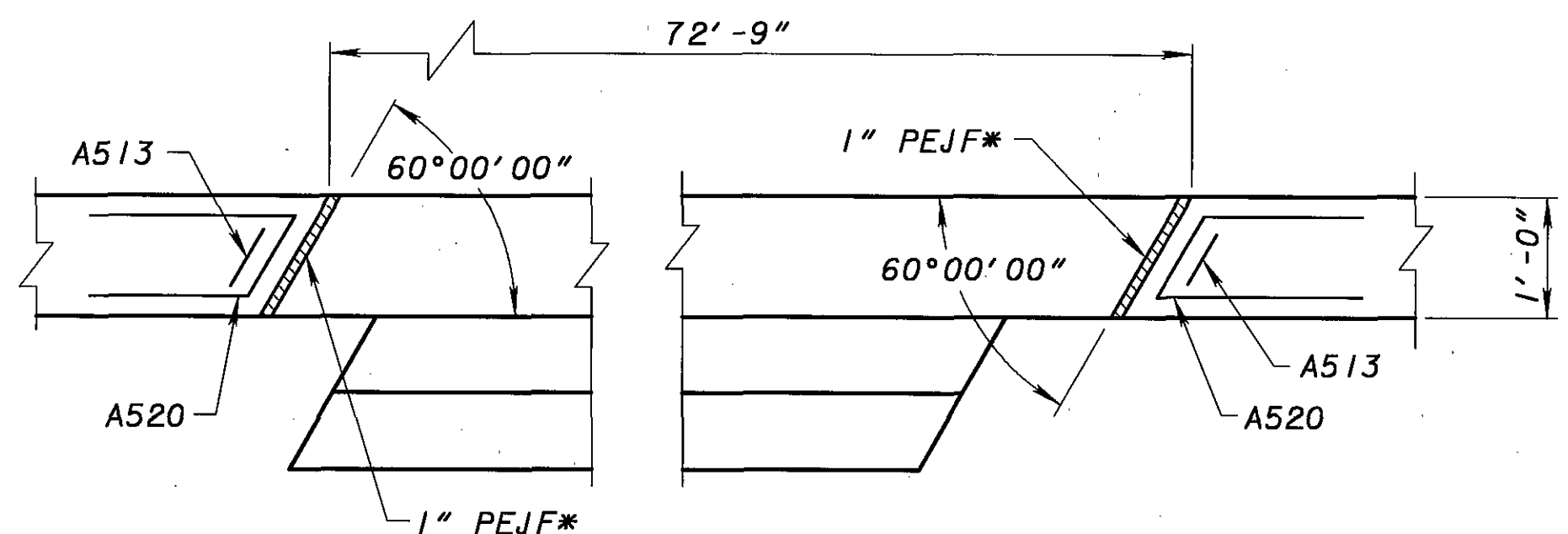
ELEVATION

NOTES
 1. FOR SECTIONS A-A, B-B, C-C, & D-D, SEE SHEET 10/18.

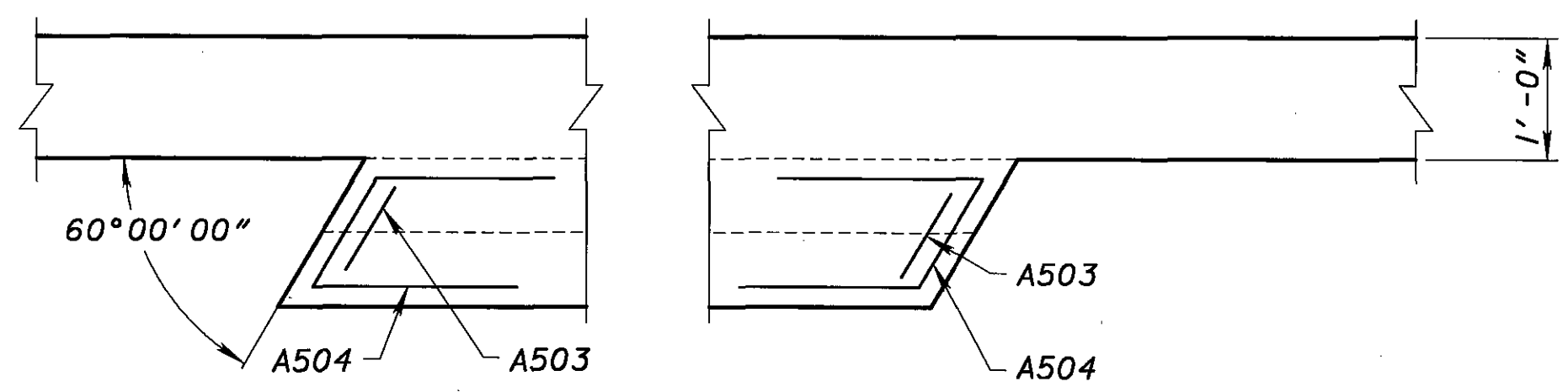
MED-71-6.06
 P1D75657
 9/18
 1018
 120

FORWARD ABUTMENT PLAN & ELEVATION
 BRIDGE NO. MED-76-0112R
 1-76 EASTBOUND OVER CHIPPEWA DITCH

DESIGNED	JMS	CHECKED	GKL
DRAWN	MLH	REVIS	
REVIEWED	PA	DATE	02/2005
STRUCTURE FILE NUMBER	5204399	CONSULTANTS, INC.	CONSULTING ENGINEERS & PLANNERS



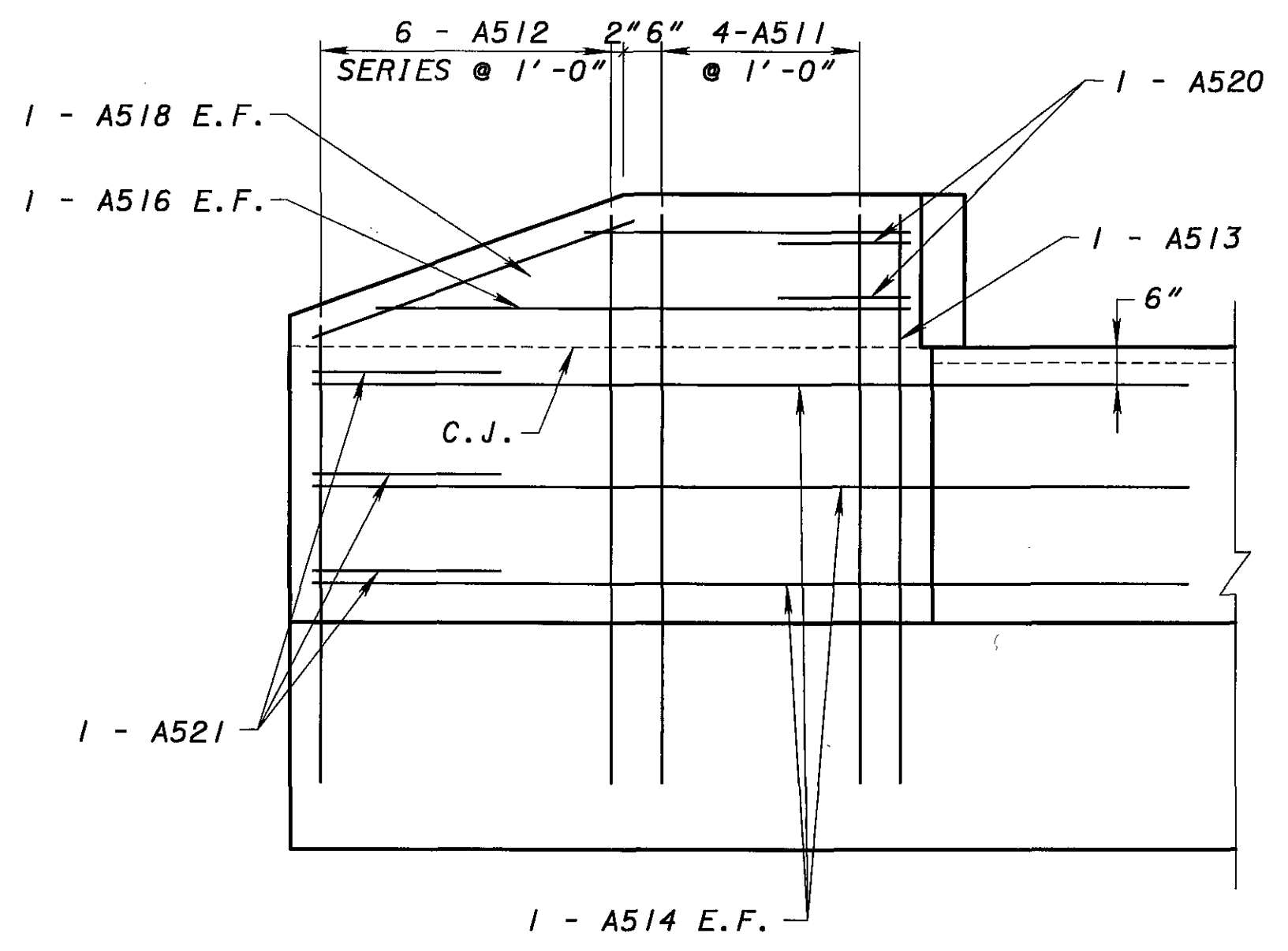
SECTION C-C



SECTION D-D

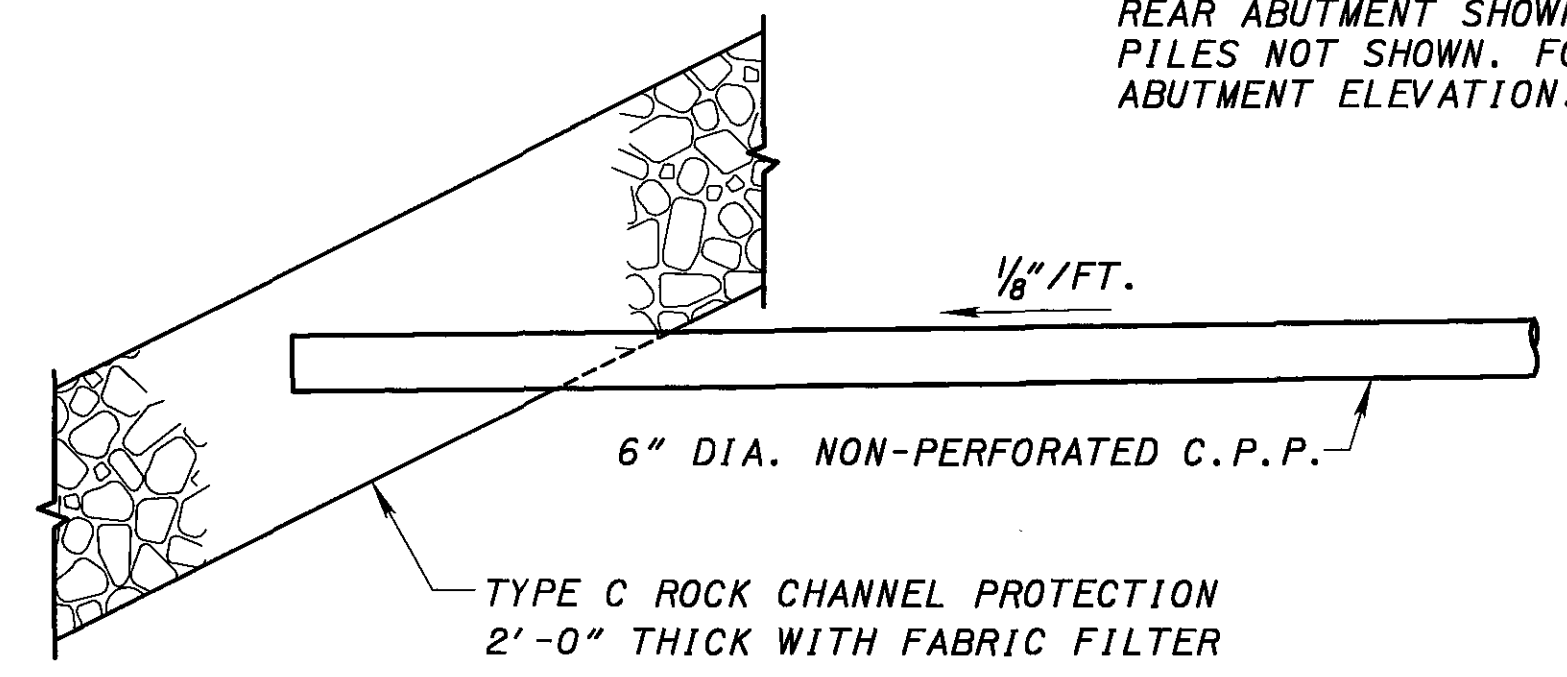
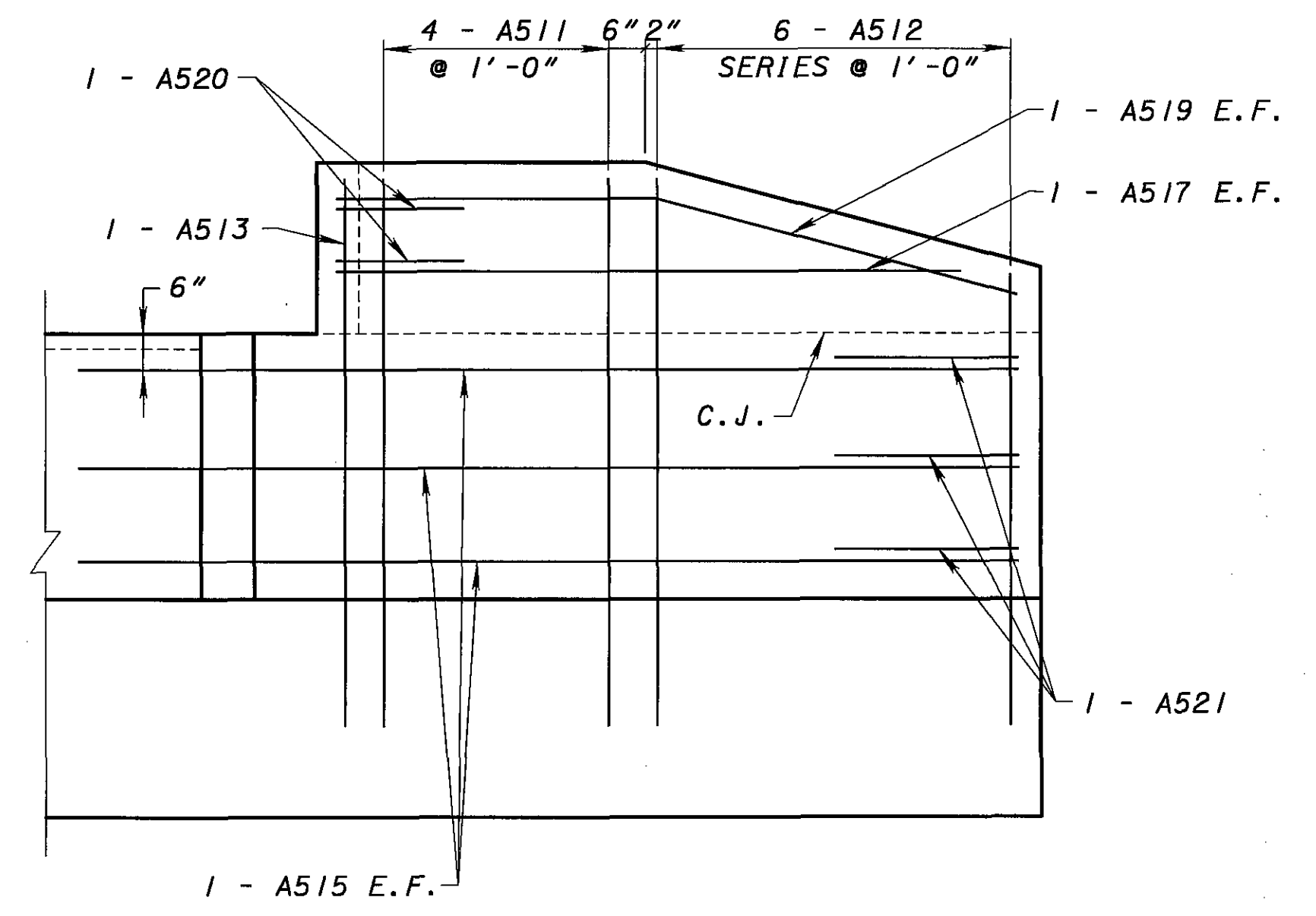
SEE ABUTMENT ELEVATION FOR COMPLETE REINFORCEMENT

* 1" PEJF SHALL BE INCLUDED WITH ITEM 511, CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN

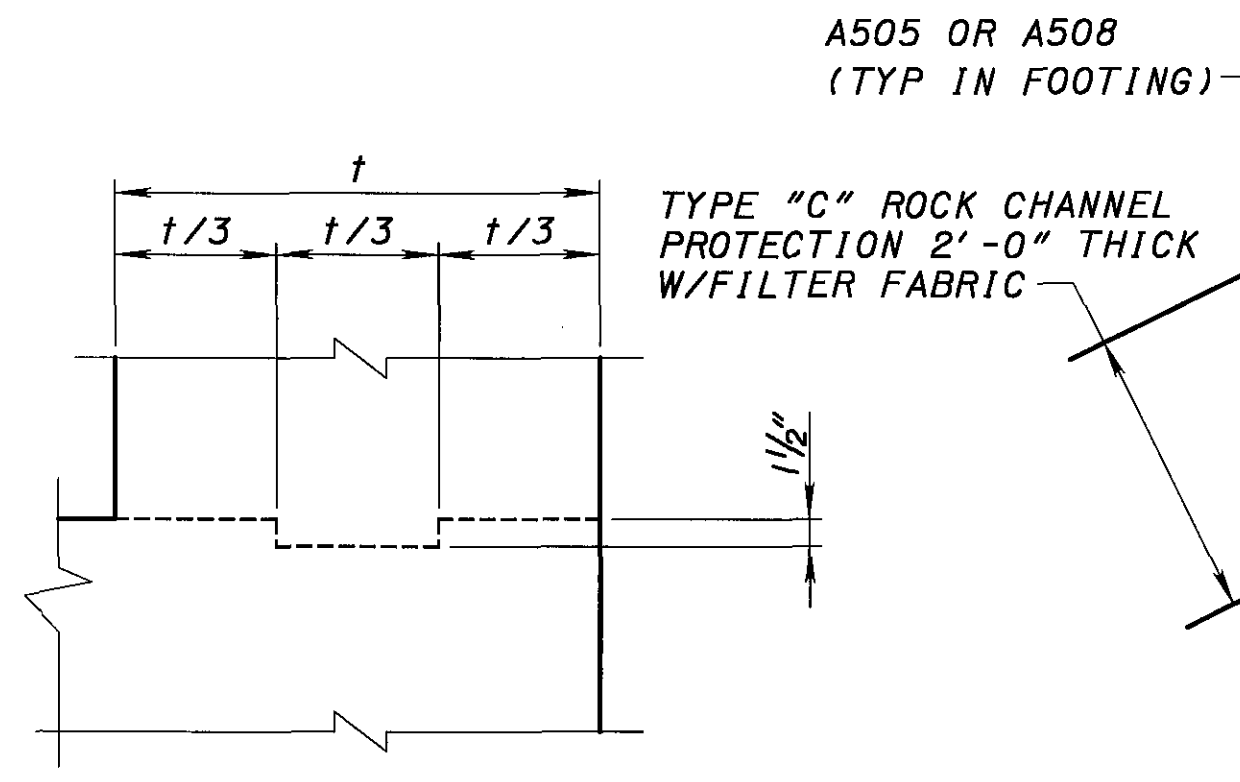


WINGWALL REINFORCEMENT

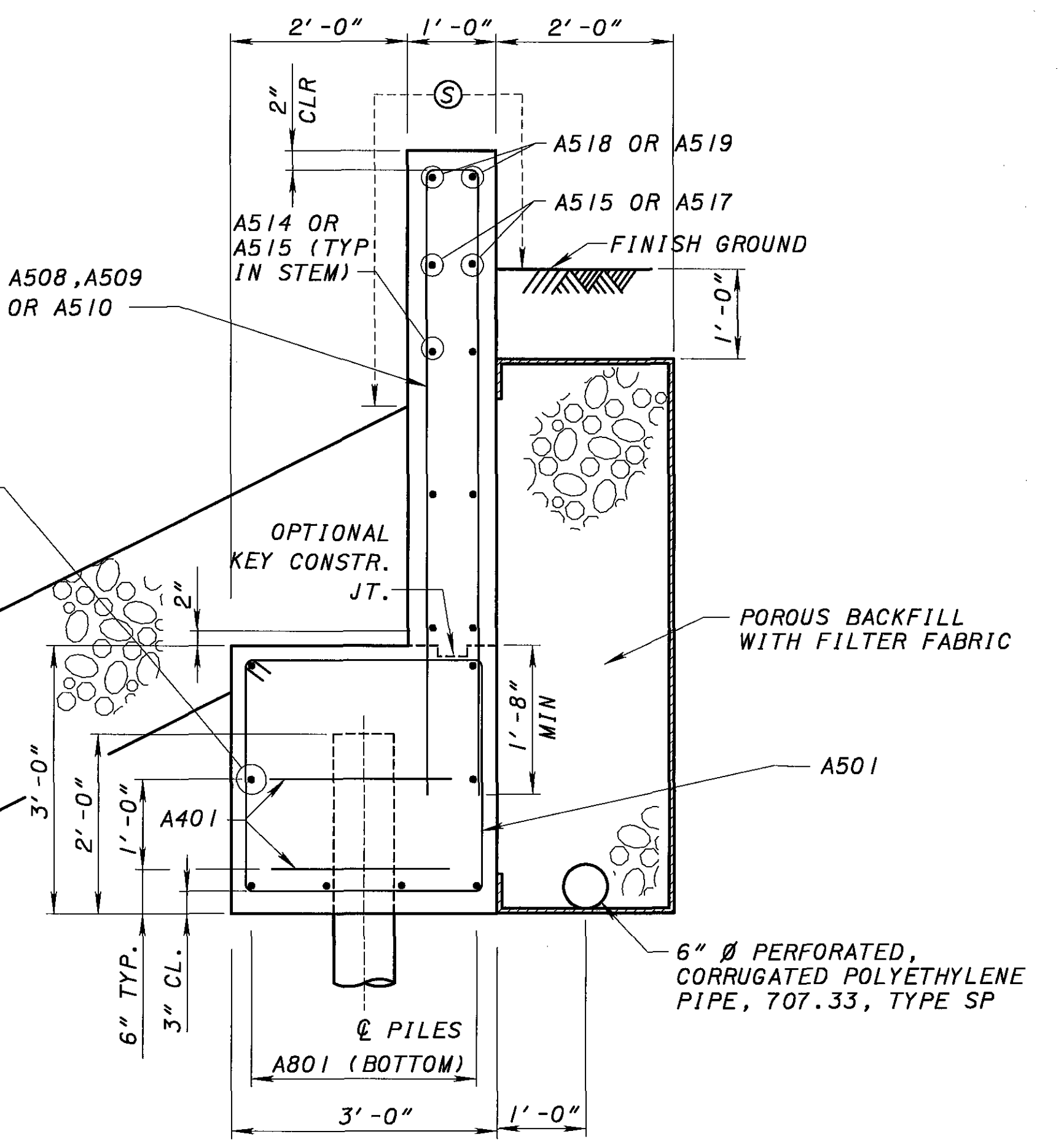
REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND PILES NOT SHOWN. FOR REINFORCEMENT IN BREASTWALL, SEE ABUTMENT ELEVATION.



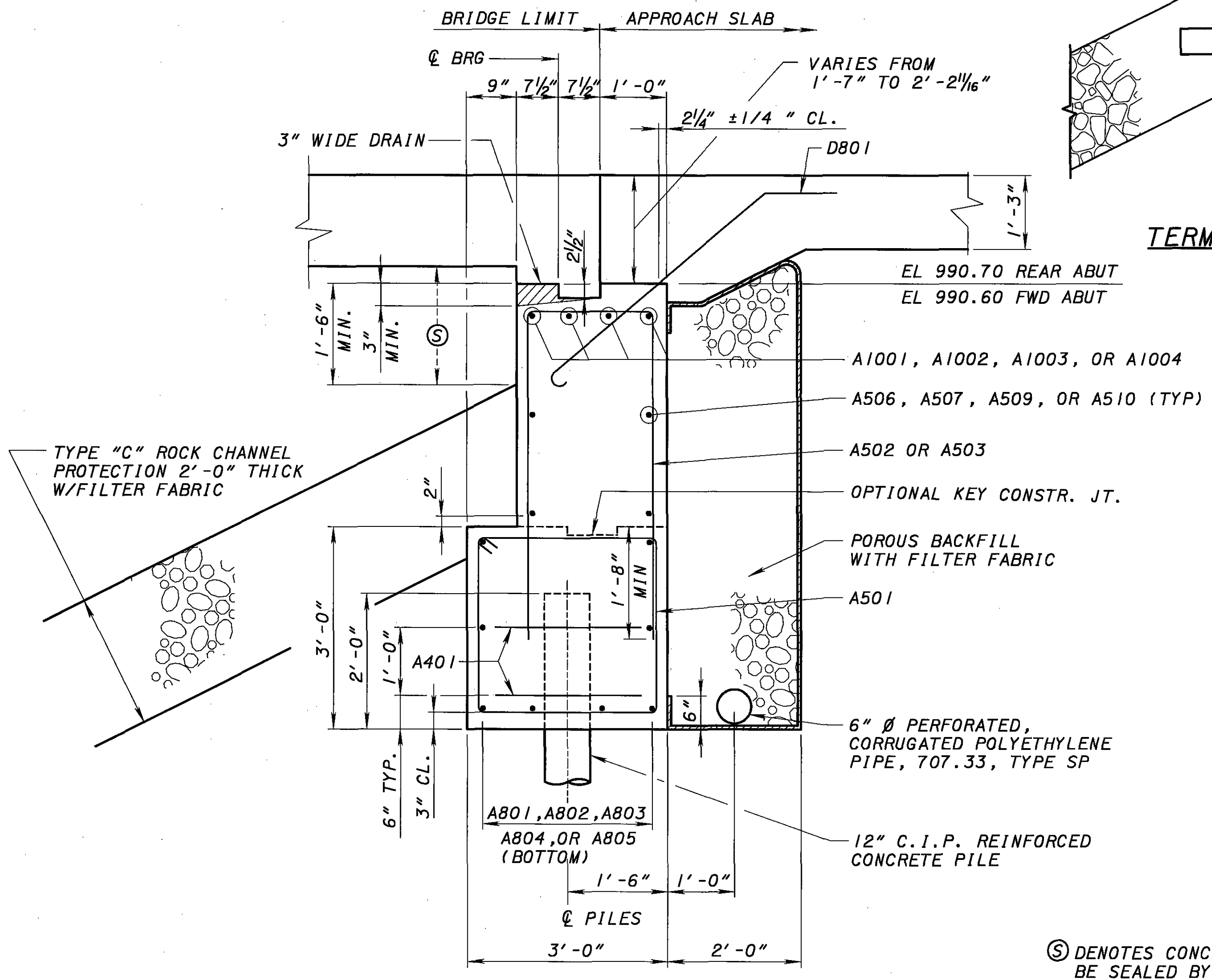
TERMINATION OF 6" N.P.C.P.P. DETAIL



KEY CONSTRUCTION JOINT DETAIL

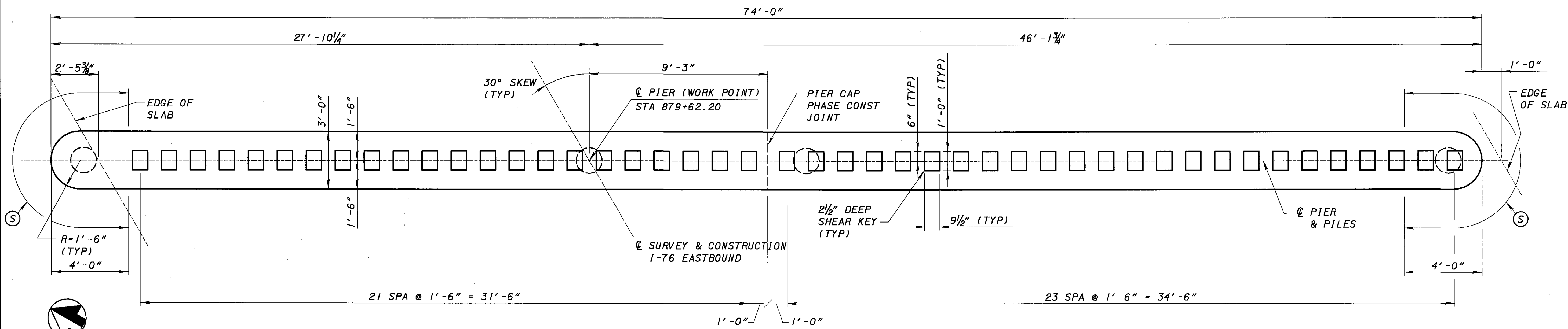


SECTION A-A

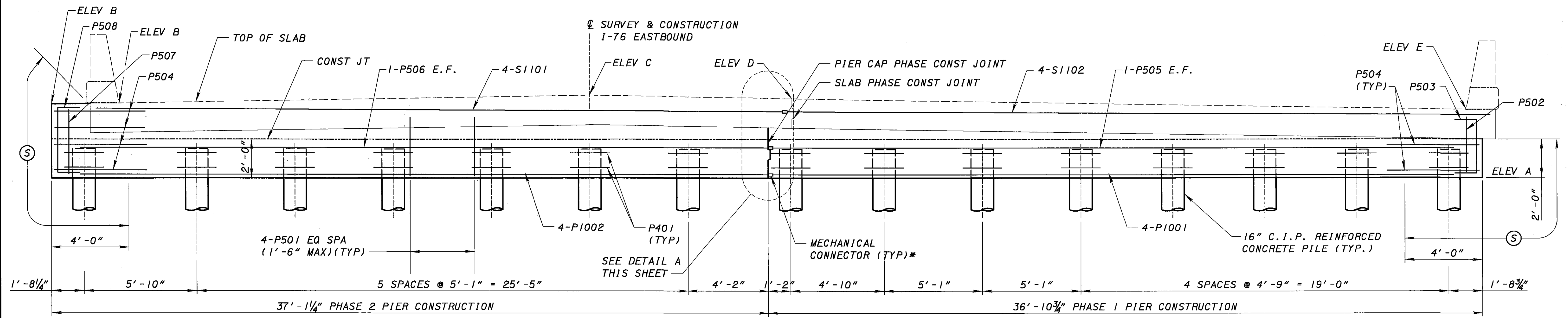


SECTION B-B

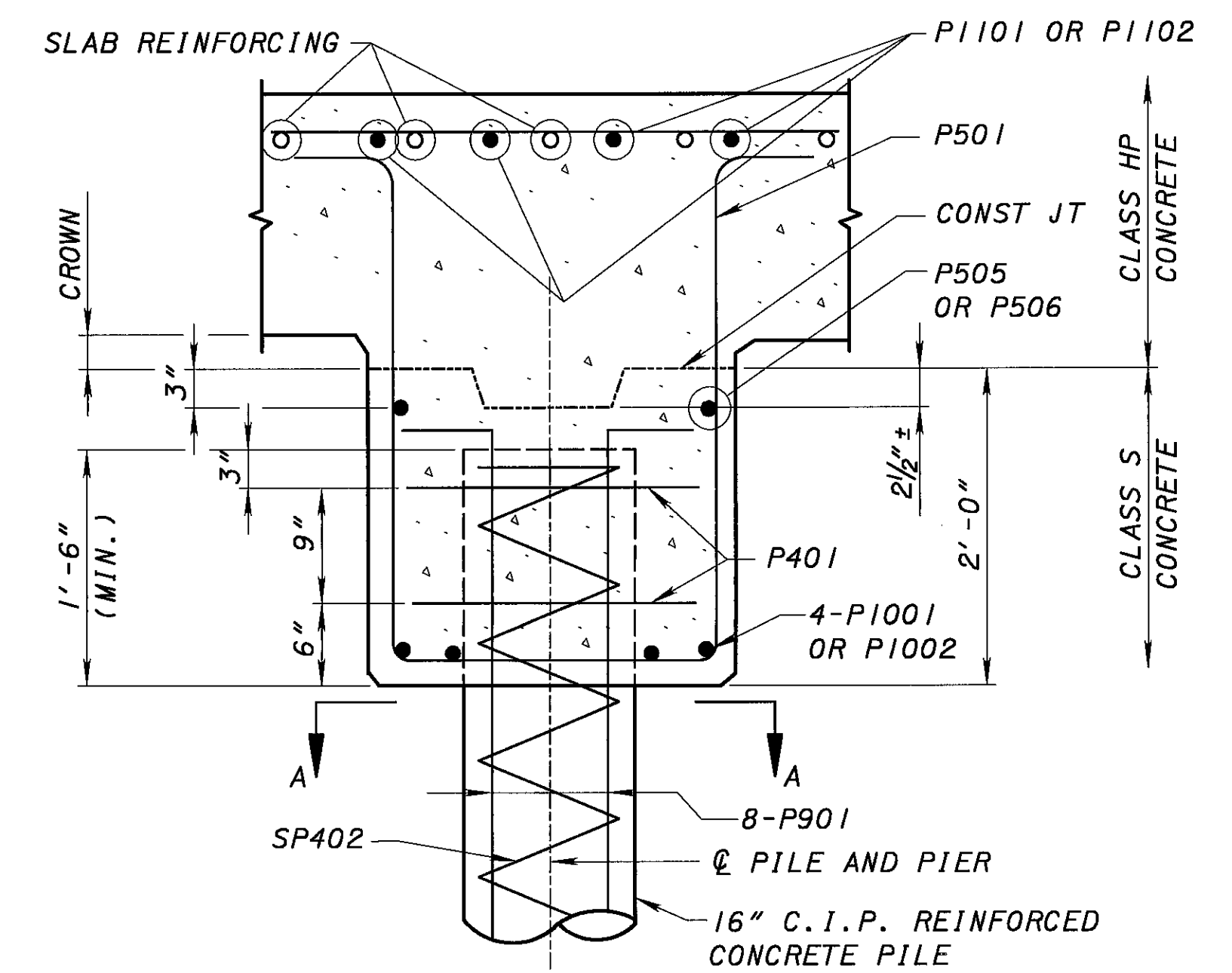
Ⓢ DENOTES CONCRETE SURFACES TO BE SEALED BY EPOXY URETHANE.



PIER PLAN



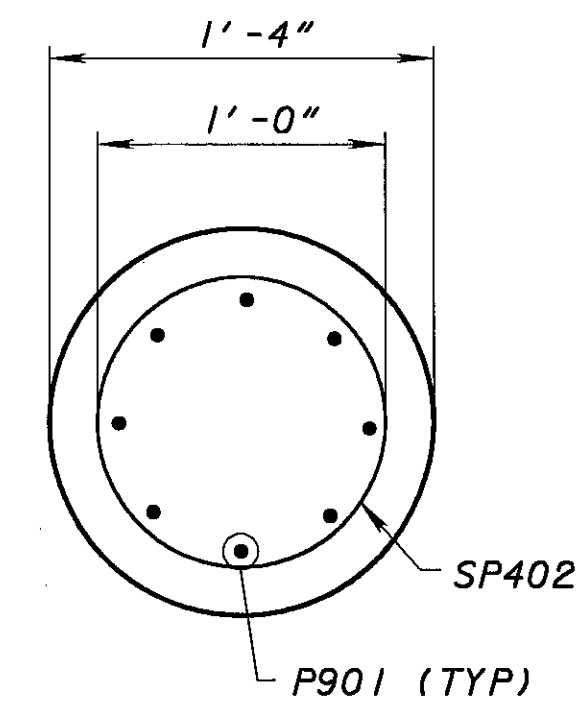
PIER ELEVATION



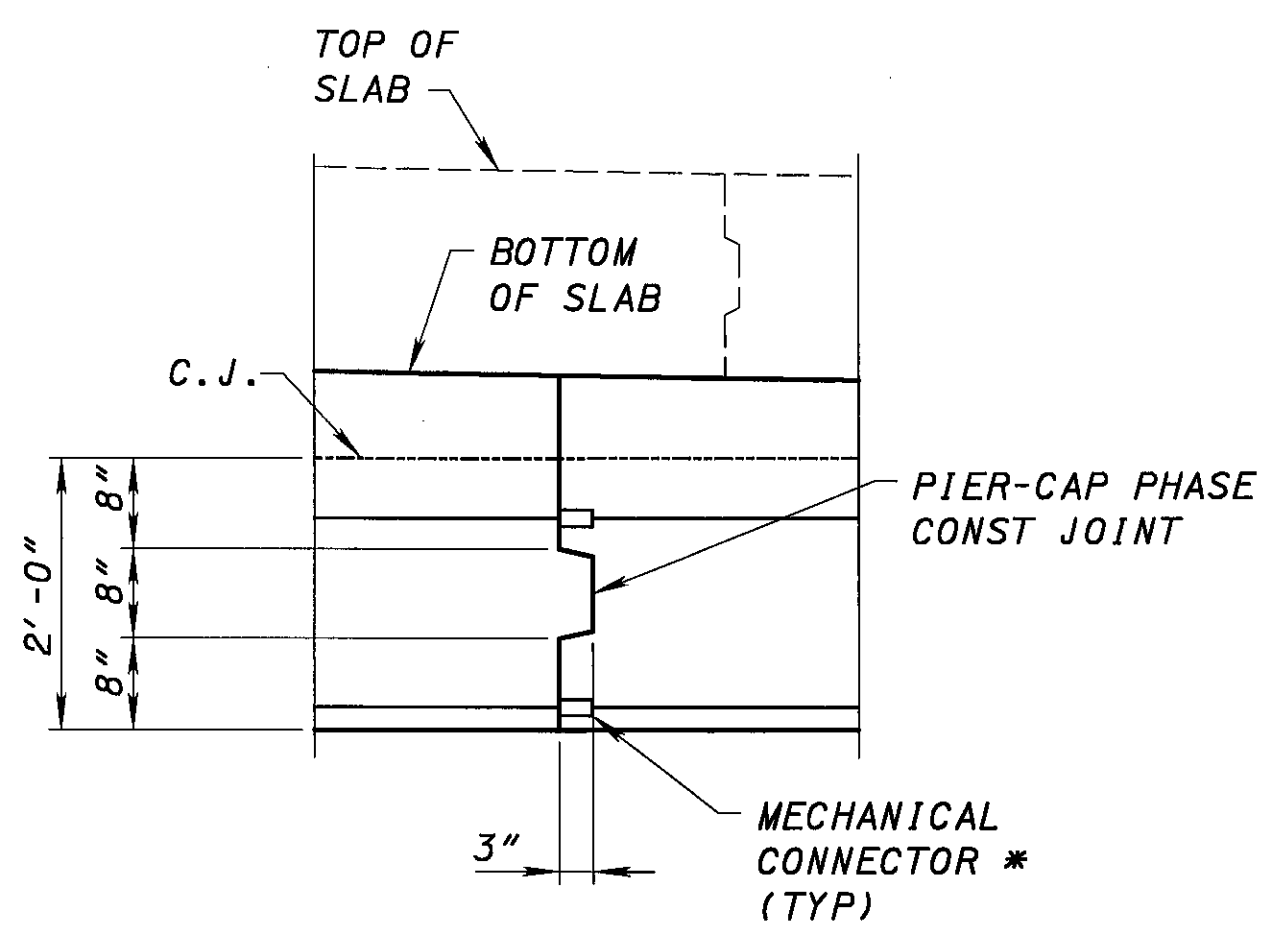
TYPICAL SECTION AT PIER
SCALE: NOT TO SCALE

* MECHANICAL CONNECTOR IN PIER CAP IS PLACED AT PHASE CONSTRUCTION JOINT. MECHANICAL CONNECTOR IN SLAB IS PLACED OUTSIDE PHASE CONSTRUCTION JOINT. DISTANCE FROM JOINT TO END OF CONNECTOR FOR #11 BARS IS 1'-3".

Ⓢ DENOTES CONCRETE SURFACES TO BE SEALED BY EPOXY URETHANE



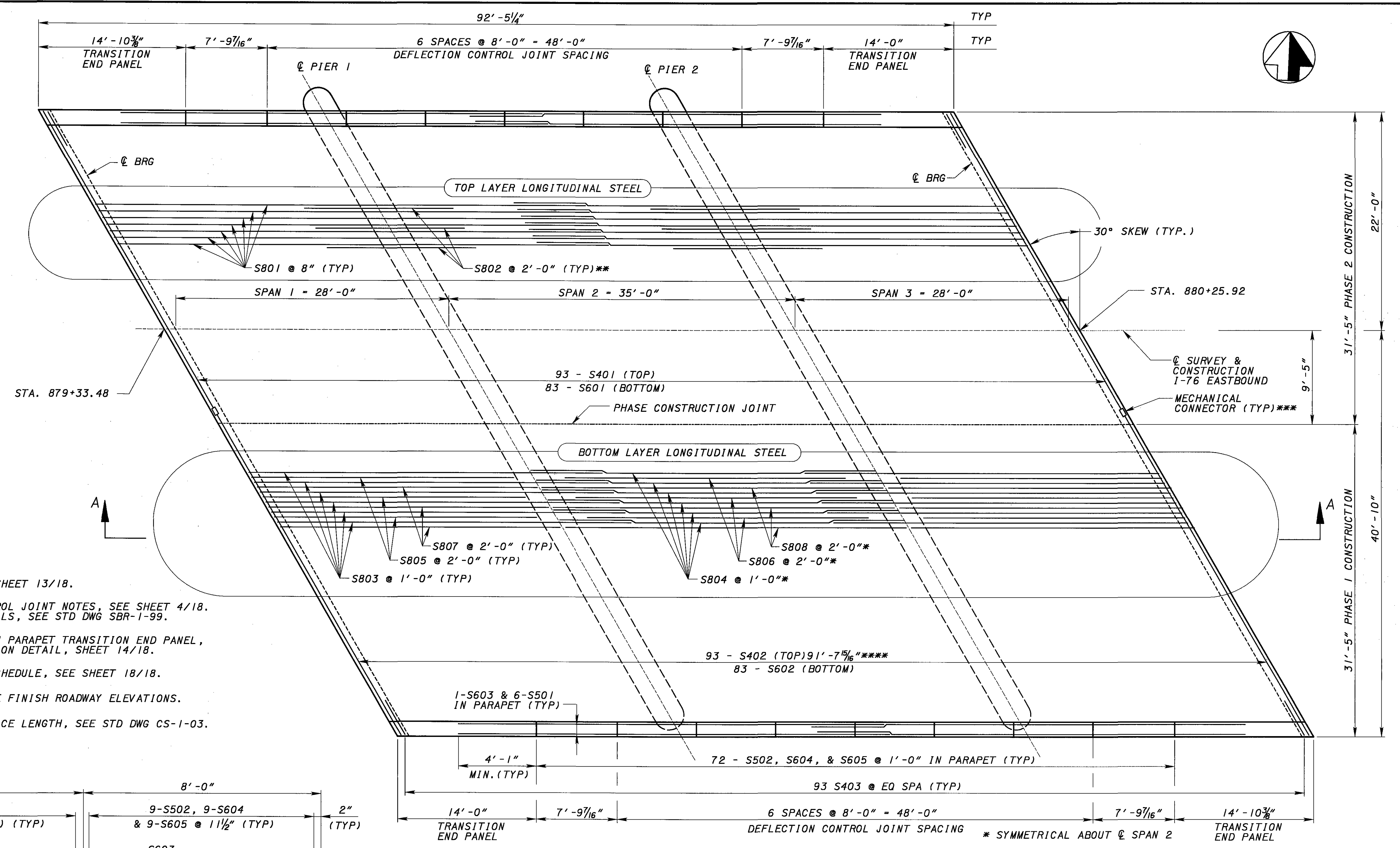
SECTION A-A



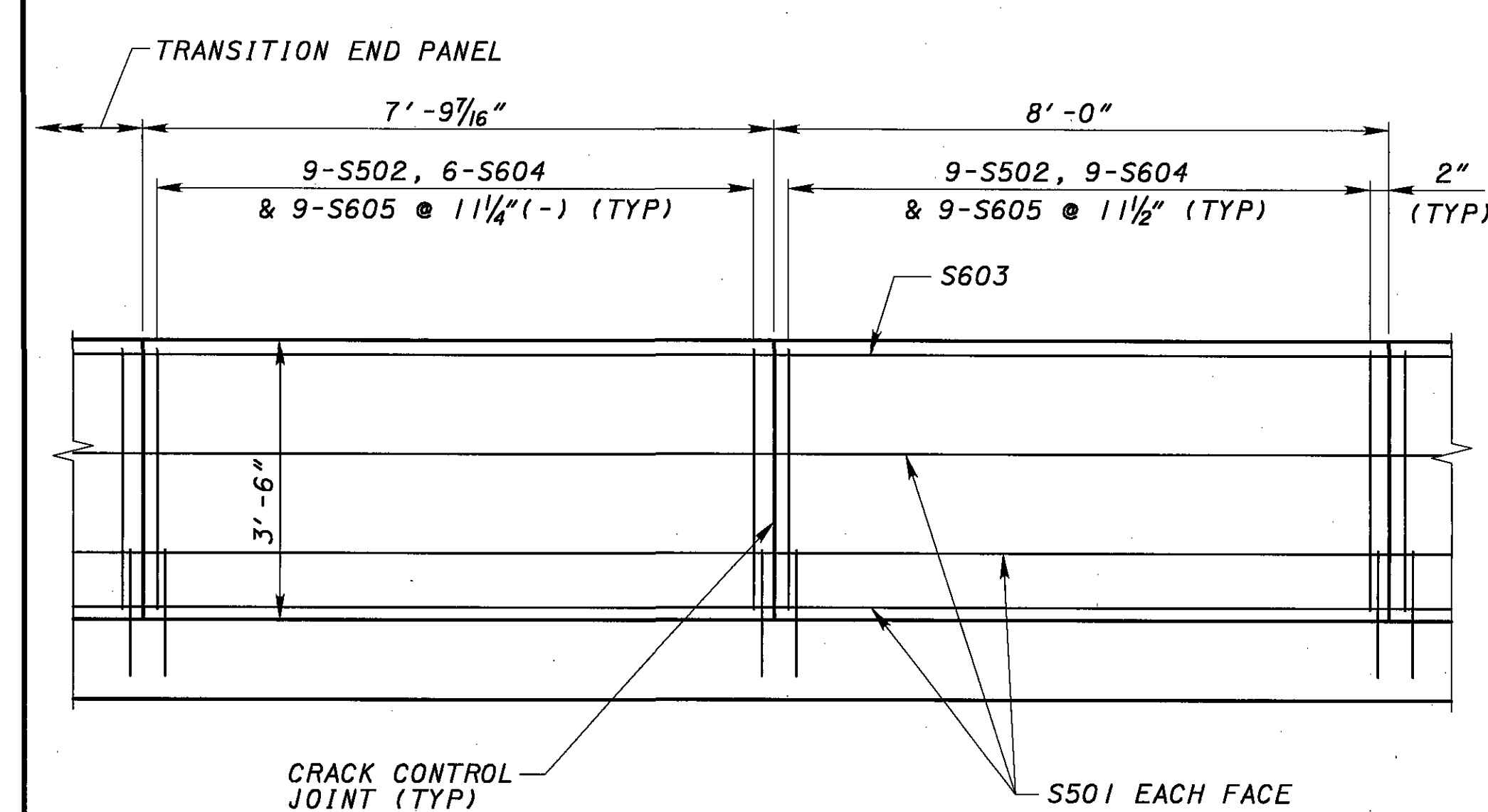
DETAIL A

ELEV	A	B	C	D	E
PIER 1	988.75	992.59	992.89	992.74	992.25
PIER 2	988.71	992.54	992.85	992.70	992.21

ELEVATION TAKEN AT Ⓢ PIER



- NOTES:**
1. FOR SECTION A-A SEE SHEET 13/18.
 2. FOR DEFLECTION CONTROL JOINT NOTES, SEE SHEET 4/18. FOR ADDITIONAL DETAILS, SEE STD DWG SBR-1-99.
 3. FOR REINFORCEMENT IN PARAPET TRANSITION END PANEL, SEE PARAPET TRANSITION DETAIL, SHEET 14/18.
 4. FOR REINFORCEMENT SCHEDULE, SEE SHEET 18/18.
 5. ELEVATIONS SHOWN ARE FINISH ROADWAY ELEVATIONS.
 6. FOR MINIMUM LAP SPLICE LENGTH, SEE STD DWG CS-1-03.



TYPICAL PARAPET PANEL REINFORCEMENT DETAIL

NOTE:
 BUILD CAMBER INTO THE FALSEWORK TO COMPENSATE FOR FALSEWORK DEFLECTION & SLAB DEFLECTION IN ACCORDANCE WITH 508.02.

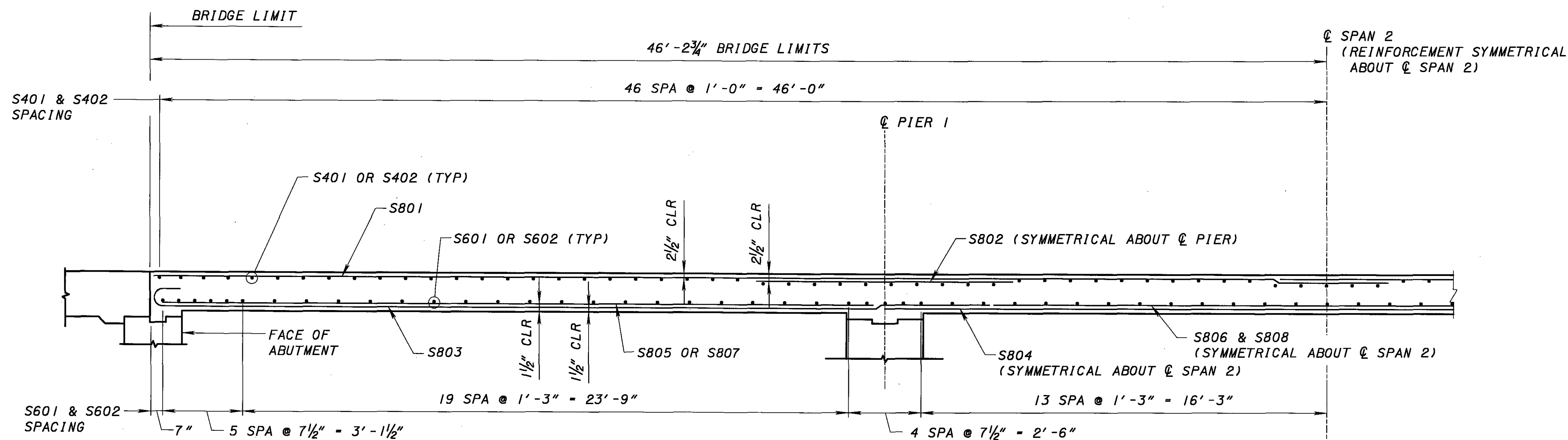
SLAB PLAN

TOP OF SLAB ELEVATION						TOP OF SLAB ELEVATION						TOP OF SLAB ELEVATION					
SPAN 1						SPAN 2						SPAN 3					
	C BRG	1/4 L	1/2 L	3/4 L	C PIER		C PIER	1/4 L	1/2 L	3/4 L	C PIER		C PIER	1/4 L	1/2 L	3/4 L	C BRG
L.G.	992.62	992.61	992.60	992.60	992.59	L.G.	992.59	992.58	992.57	992.56	992.54	L.G.	992.54	992.54	992.53	992.52	992.51
CROWN	992.93	992.92	992.91	992.90	992.89	CROWN	992.89	992.88	992.87	992.86	992.85	CROWN	992.85	992.84	992.83	992.83	992.82
C.J.	992.77	992.76	992.76	992.75	992.74	C.J.	992.74	992.73	992.72	992.71	992.70	C.J.	992.70	992.69	992.68	992.67	992.66
P.G.	992.73	992.72	992.71	992.71	992.70	P.G.	992.70	992.69	992.68	992.67	992.66	P.G.	992.66	992.65	992.64	992.63	992.62
R.G.	992.29	992.28	992.27	992.26	992.25	R.G.	992.25	992.24	992.23	992.22	992.21	R.G.	992.21	992.20	992.19	992.18	992.18

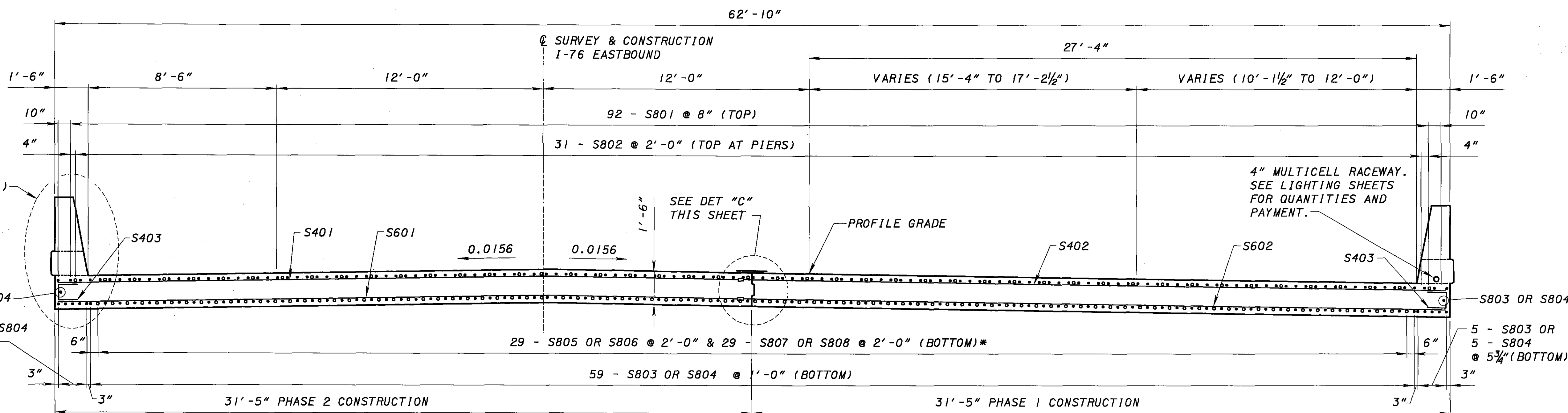
L=SPAN LENGTH

L=SPAN LENGTH

L=SPAN LENGTH



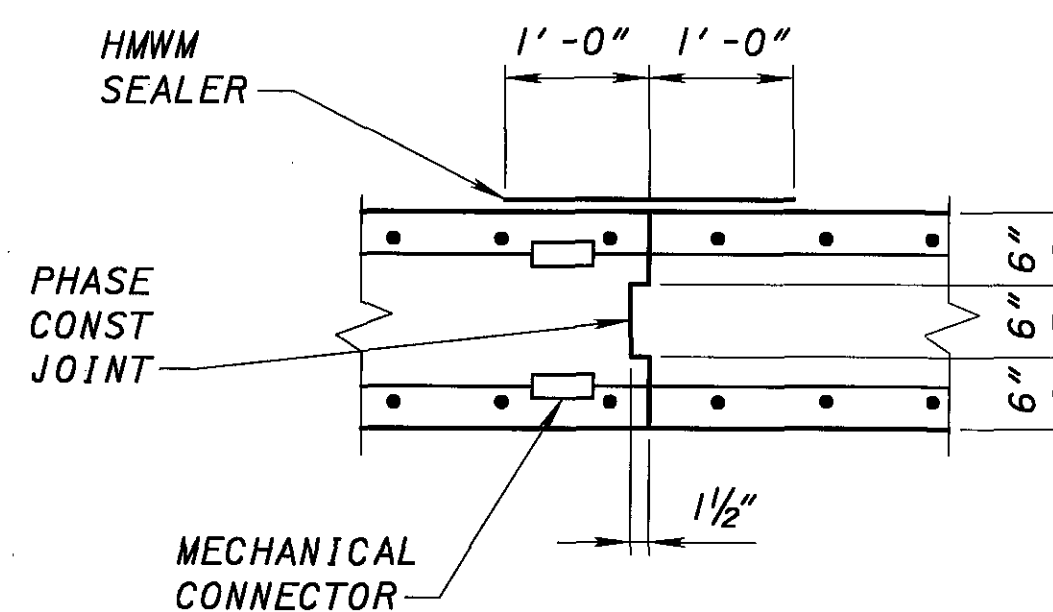
HALF SECTION A-A



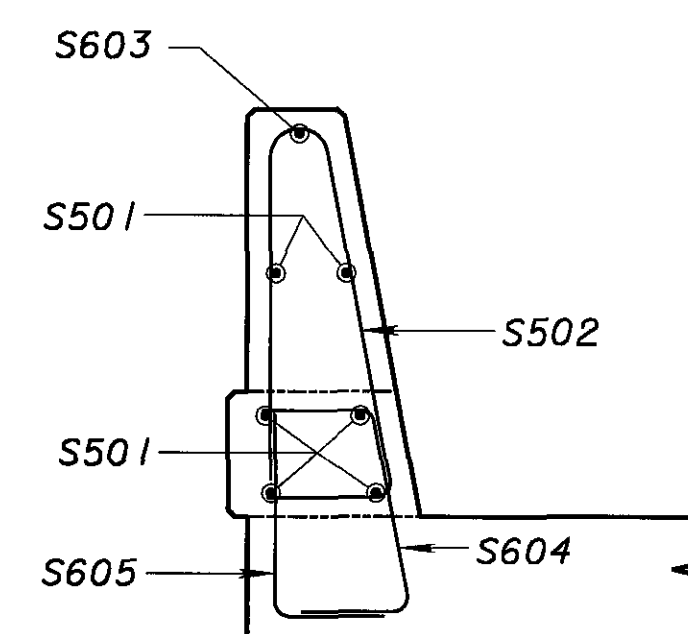
TRANSVERSE SECTION

* ALTERNATE S805 WITH S807 & S806 WITH S808

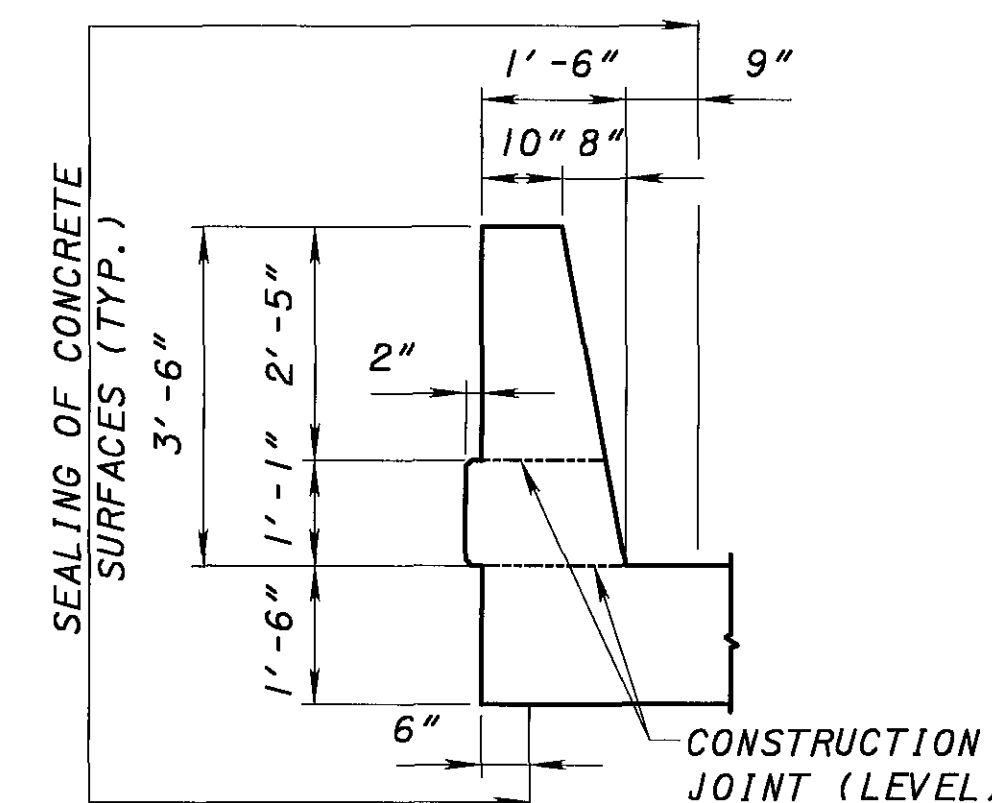
NOTE:
FOR MINIMUM LAP SPLICE LENGTH,
SEE STD DWG CS-1-03.



DETAIL C



DETAIL B



DETAIL A

SUPERSTRUCTURE DETAILS
 BRIDGE NO. MED-76-0112R
 1-76 EASTBOUND OVER CHIPPEWA DITCH

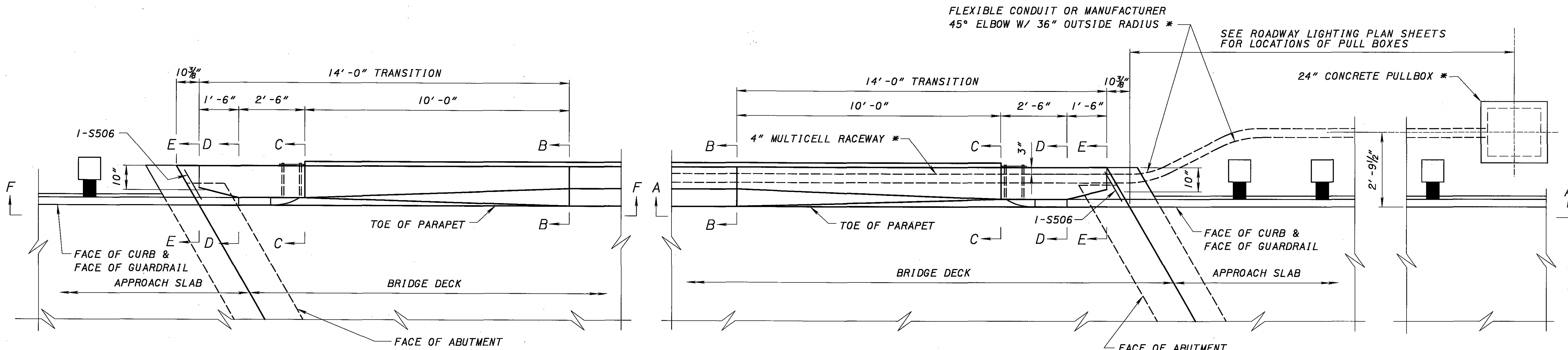
MED-71-6.06
 PID 75657

13/18

1022
1120

PREPARED BY
 ms consultants, inc.
 CONSULTING ENGINEERS & PLANNERS
 200 WEST WASHINGTON AVENUE
 MILWAUKEE, WISCONSIN 53233

DESIGNED	JNS	CHECKED	GKL
DRAWN	MLH	REVISED	
REVIEWED	PA	STRUCTURE FILE NUMBER	5204399
DATE	02/2005		



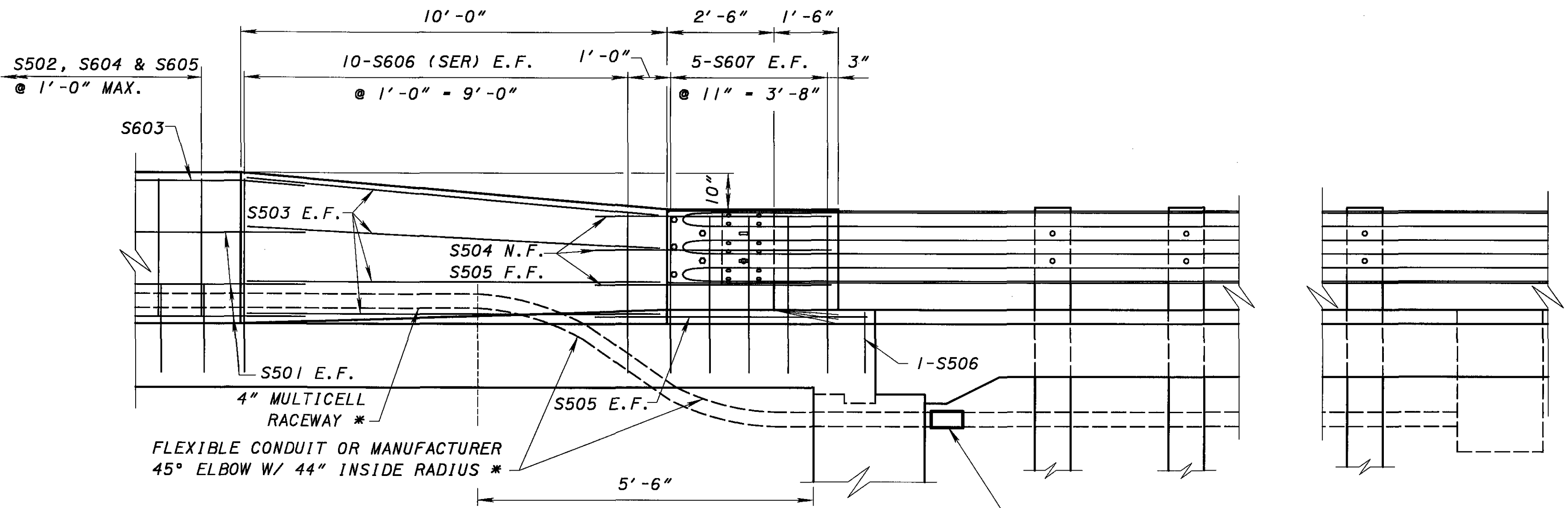
PARAPET TRANSITION PLAN
 LEFT CORNER AT REAR ABUTMENT SHOWN
 RIGHT CORNER AT FWD ABUTMENT SIMILAR
 (CONDUIT AND PULLBOX NOT SHOWN)

PARAPET TRANSITION PLAN
 LEFT CORNER AT FWD ABUTMENT SHOWN
 RIGHT CORNER AT REAR ABUTMENT SIMILAR

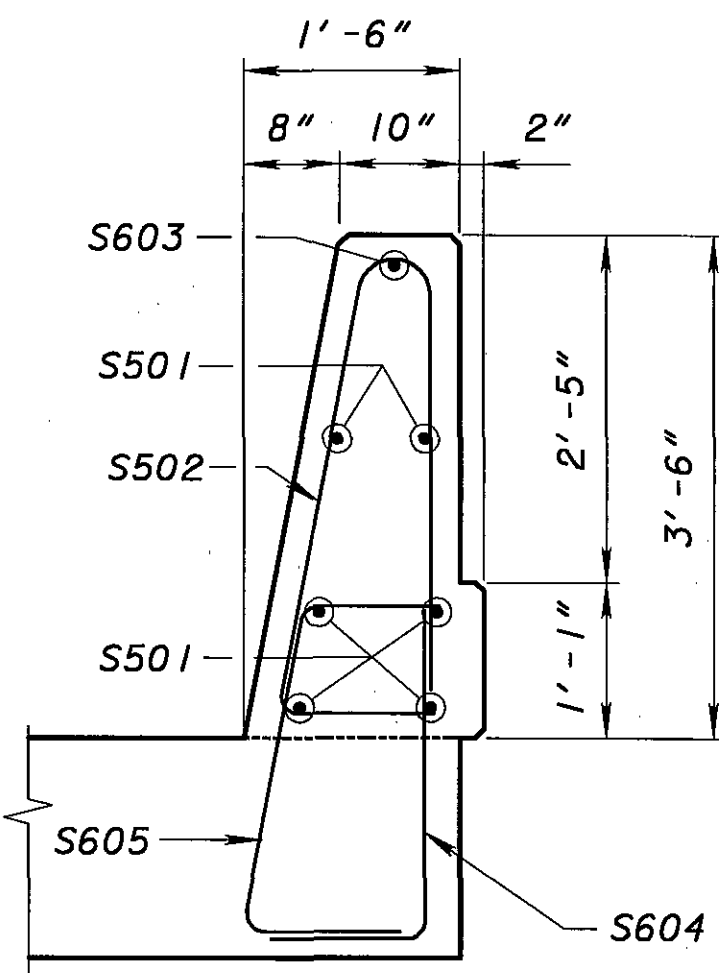
* AT RIGHT PARAPET ONLY. SEE LIGHTING SHEETS FOR QUANTITIES & PAYMENTS.

- NOTES:**
- REFER TO LIGHTING SHEETS L42 & L46.
 - REFER TO SITE PLAN SHEET 1/18 FOR GUIDRAIL ASSEMBLY.

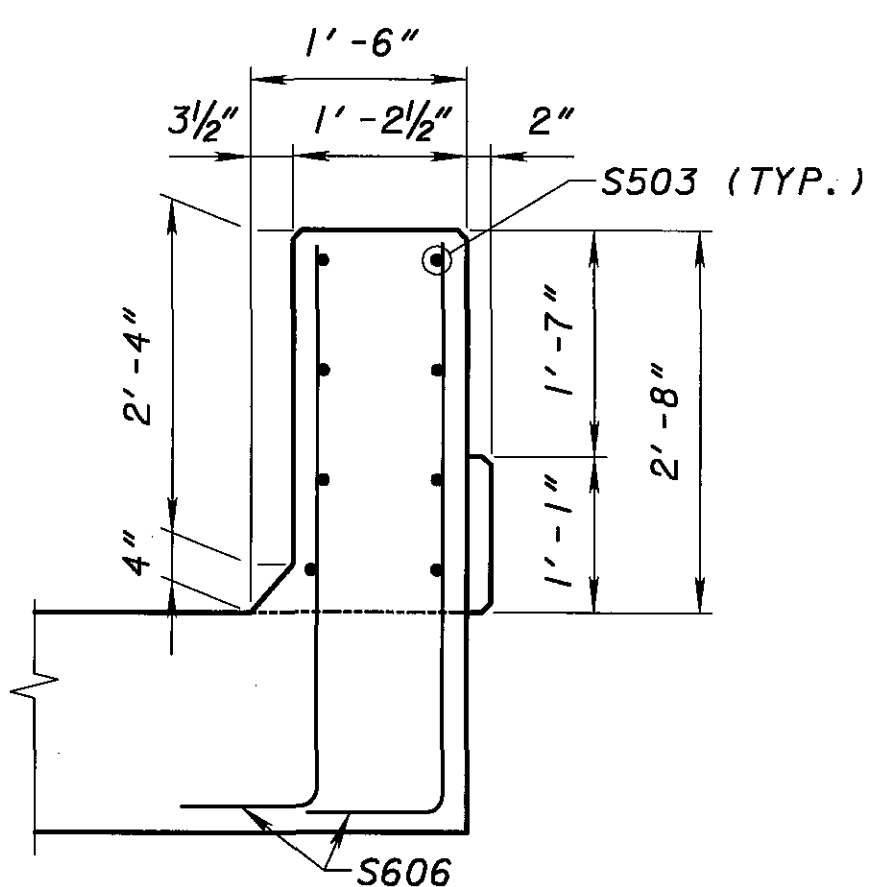
MINIMUM LAP LENGTHS
 #5 BARS - 3'-2"
 #6 BARS - 4'-1"



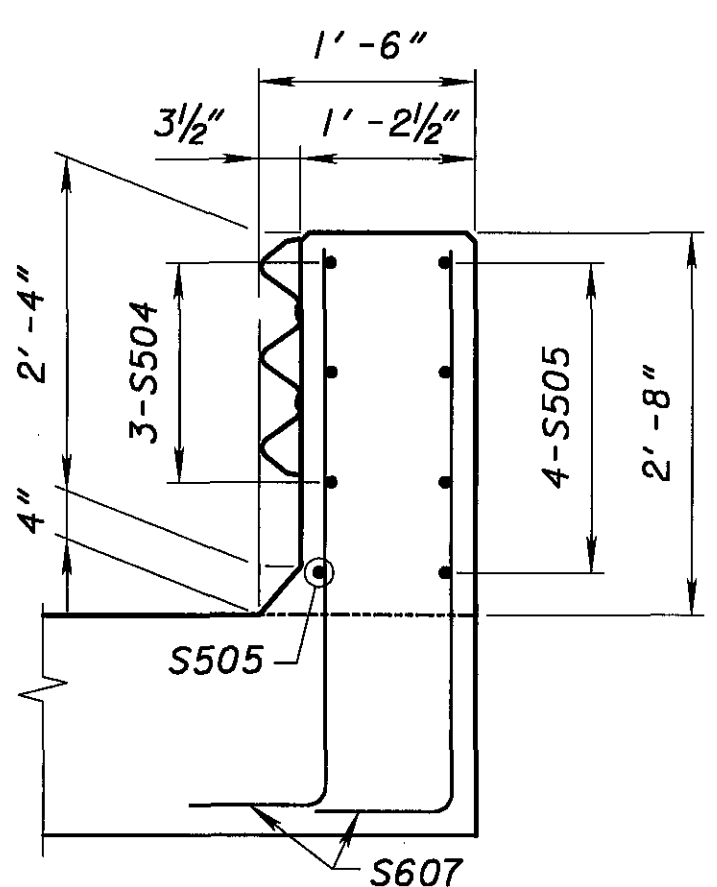
SECTION A-A
SECTION F-F (OPPOSITE HAND)



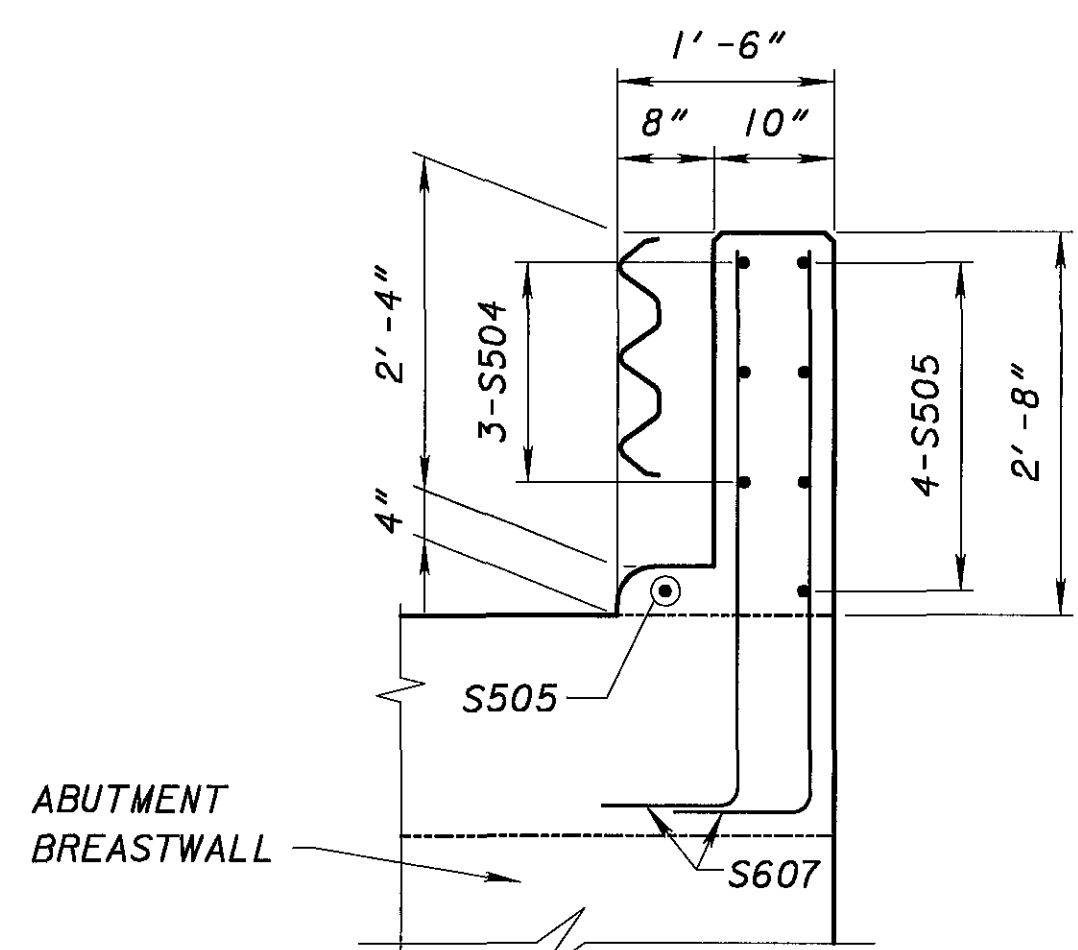
SECTION B-B



SECTION C-C



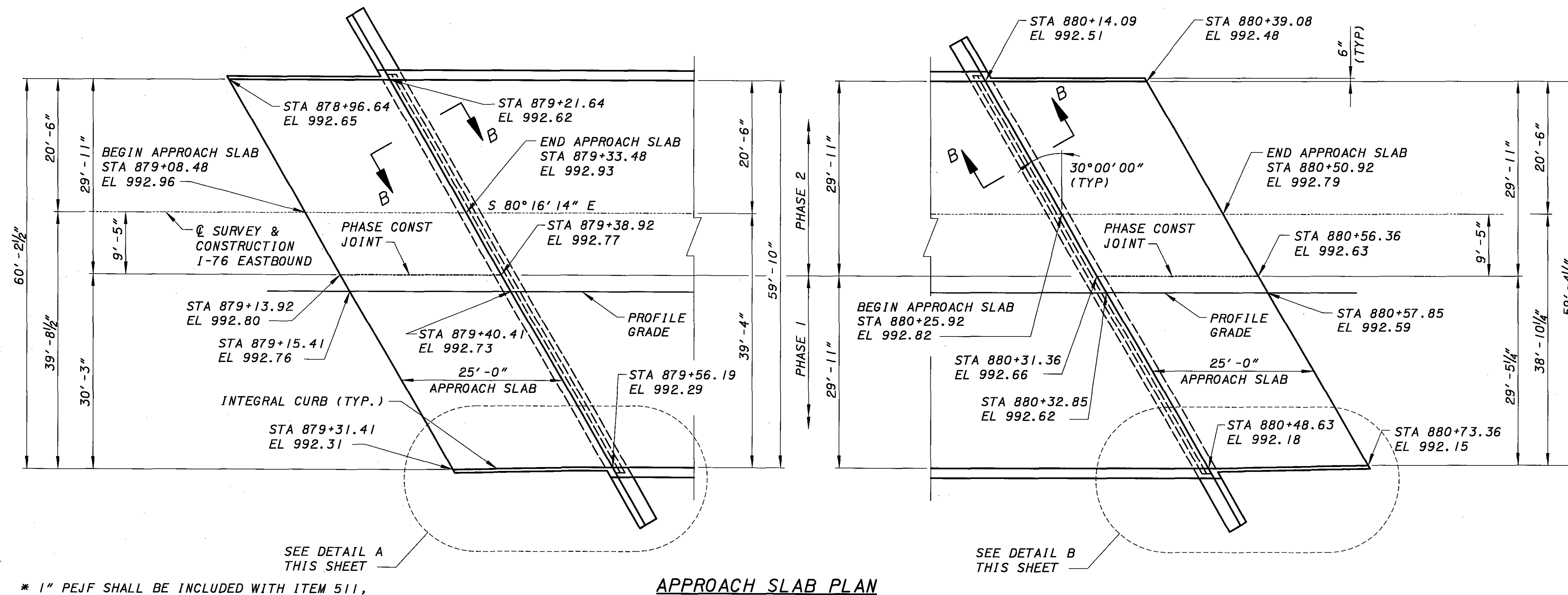
SECTION D-D



SECTION E-E

ABUTMENT BREASTWALL

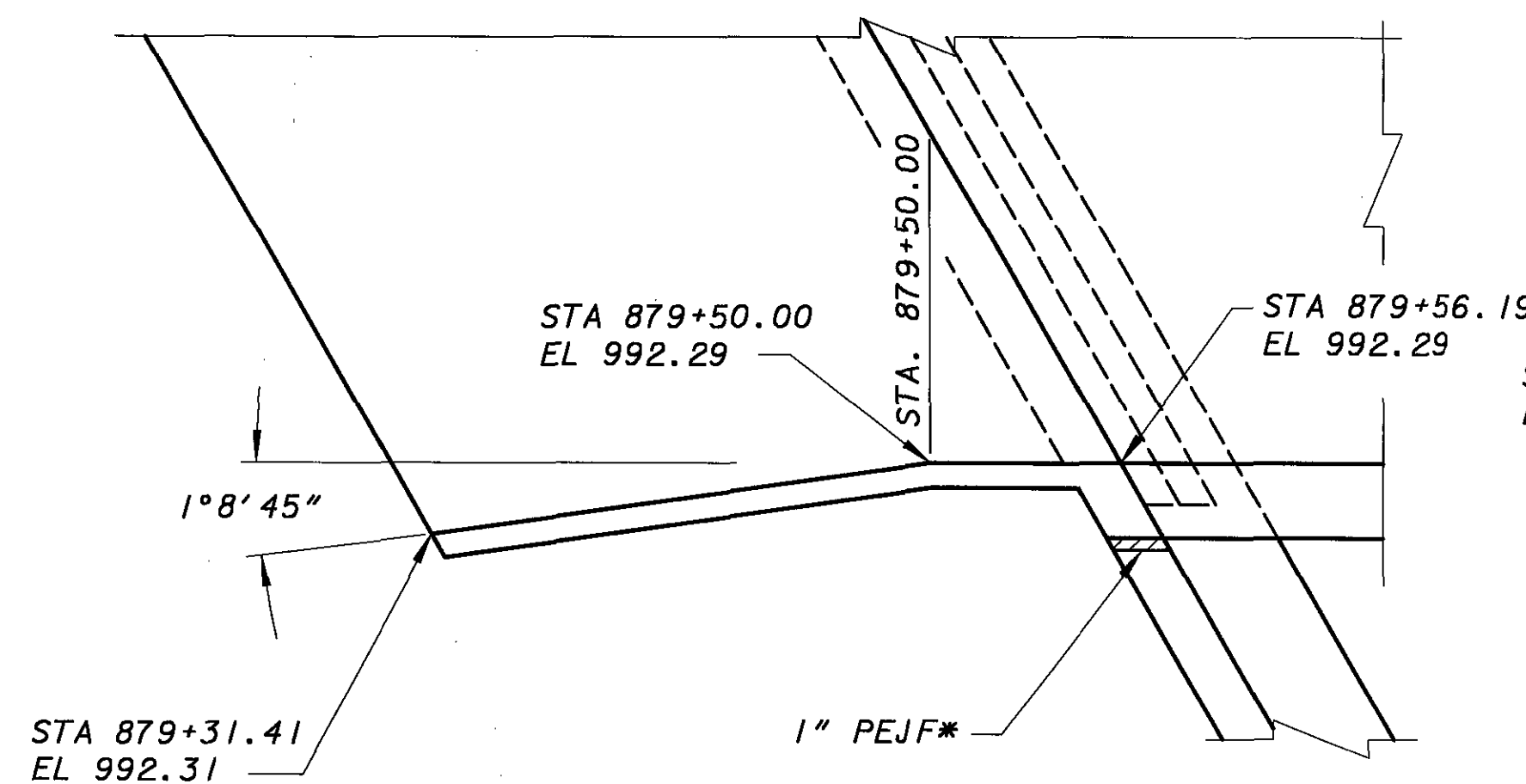
PREPARED BY: MS CONSULTANTS, INC. CONSULTING ENGINEERS & PLANNERS
 DATE: 02/2005
 REVIEWED: PA
 DRAWN: KVM
 DESIGNED: JMS
 CHECKED: GKL
 STRUCTURE FILE NUMBER: 5204399
 BRIDGE NO. MED-76-0112R
 1-76 EASTBOUND OVER CHIPPEWA DITCH
 MED-71-6.06
 PID 75657
 14/18
 1023
 120



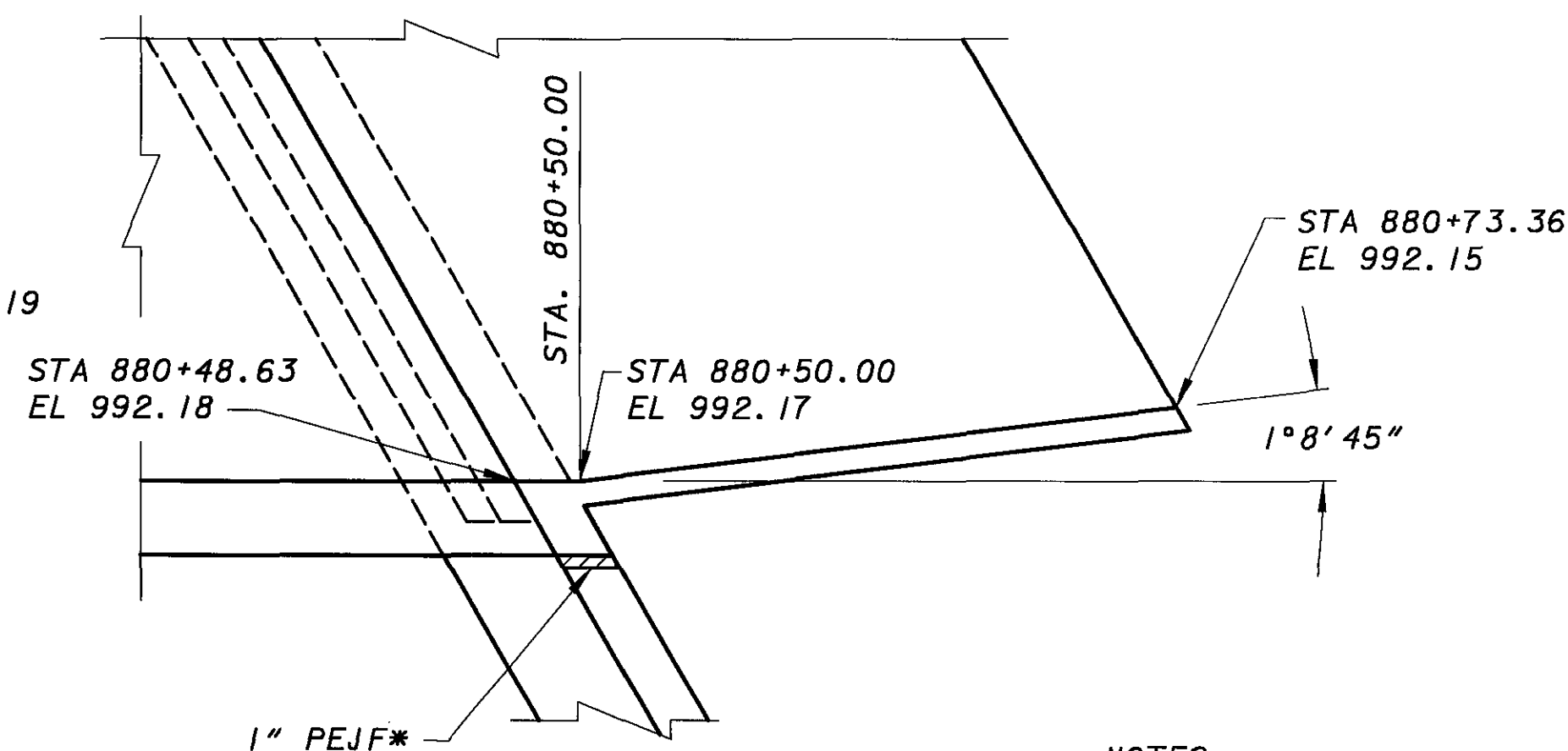
* 1" PEJF SHALL BE INCLUDED WITH ITEM 511, CLASS C CONCRETE ABUTMENT INCLUDING FOOTING, AS PER PLAN.

APPROACH SLAB PLAN

NOTE:
FOR SECTION B-B, SEE SHEET 10/18.



DETAIL A
NOT TO SCALE

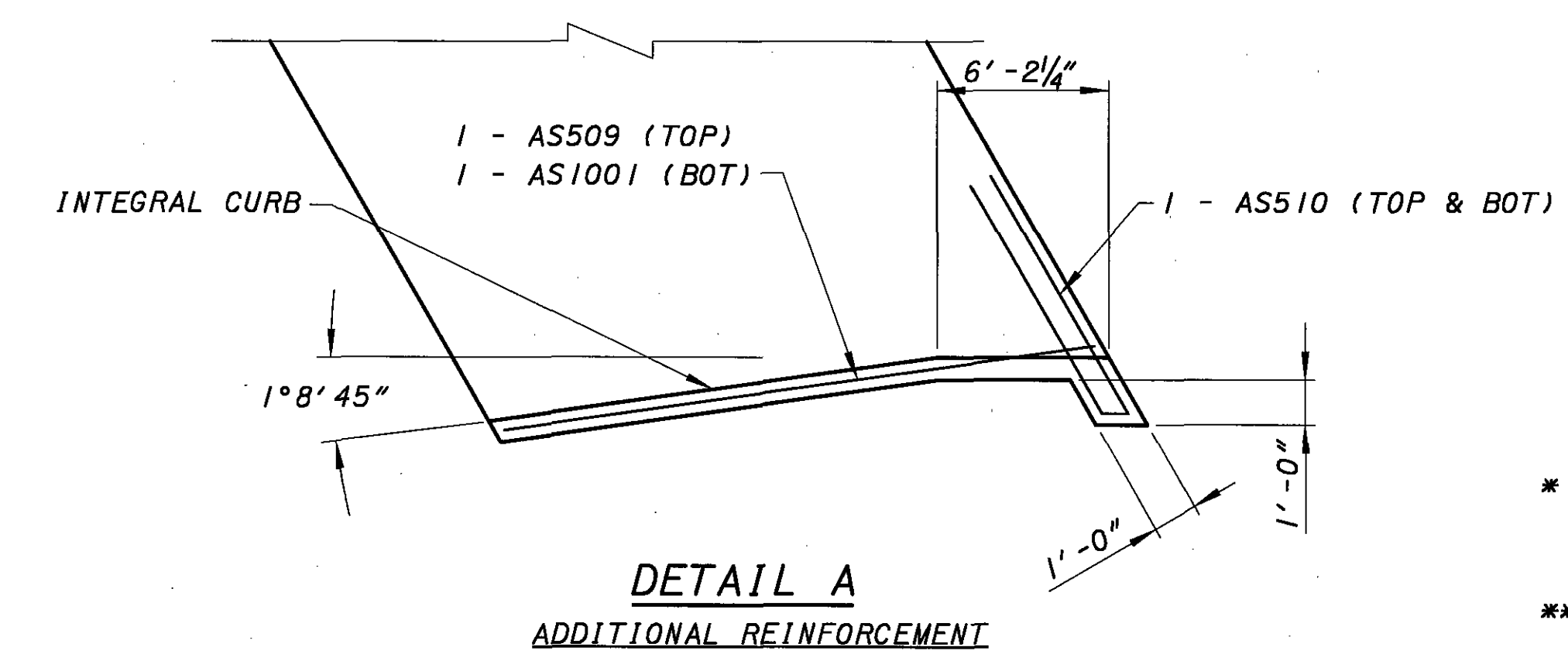
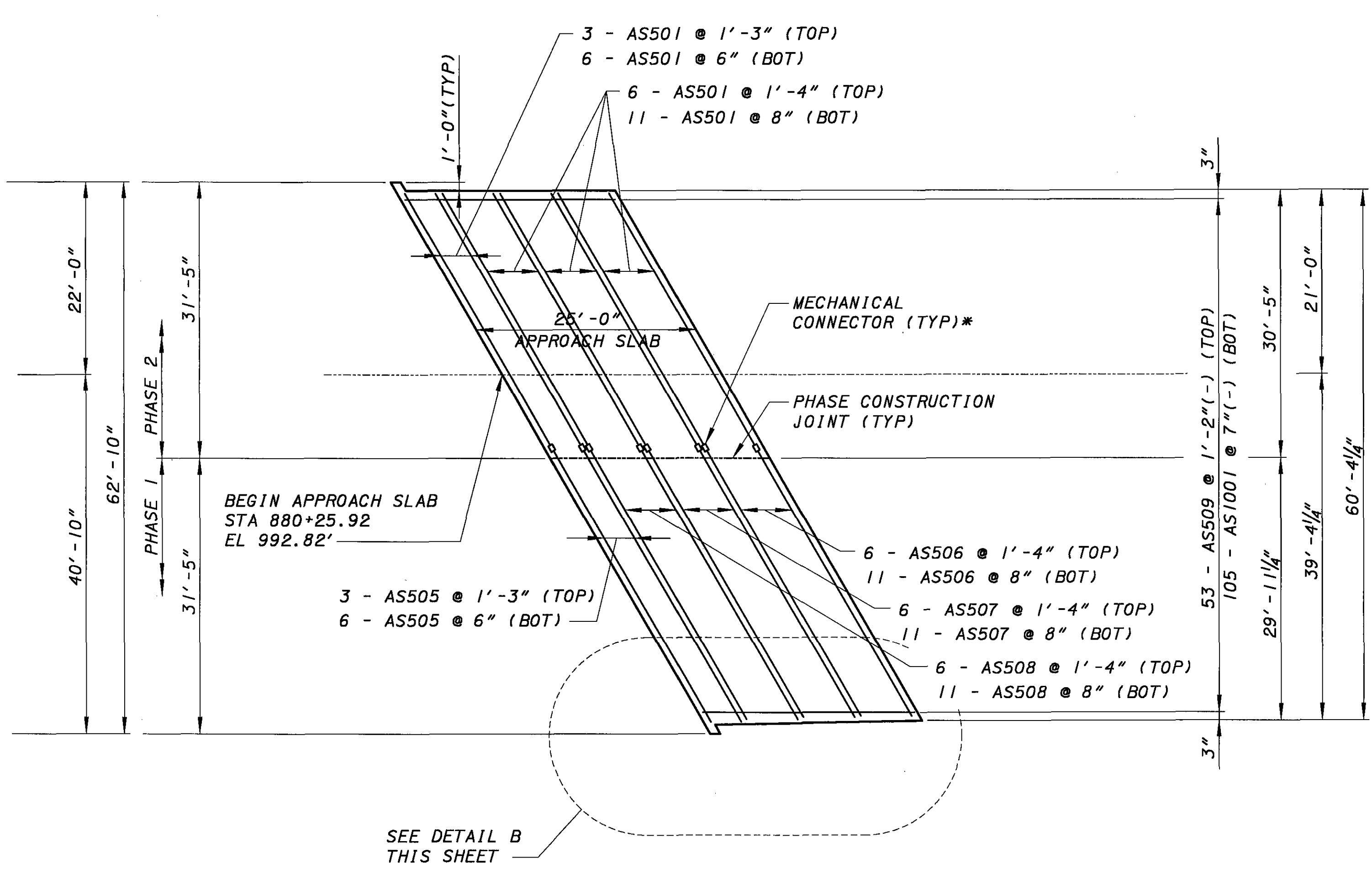
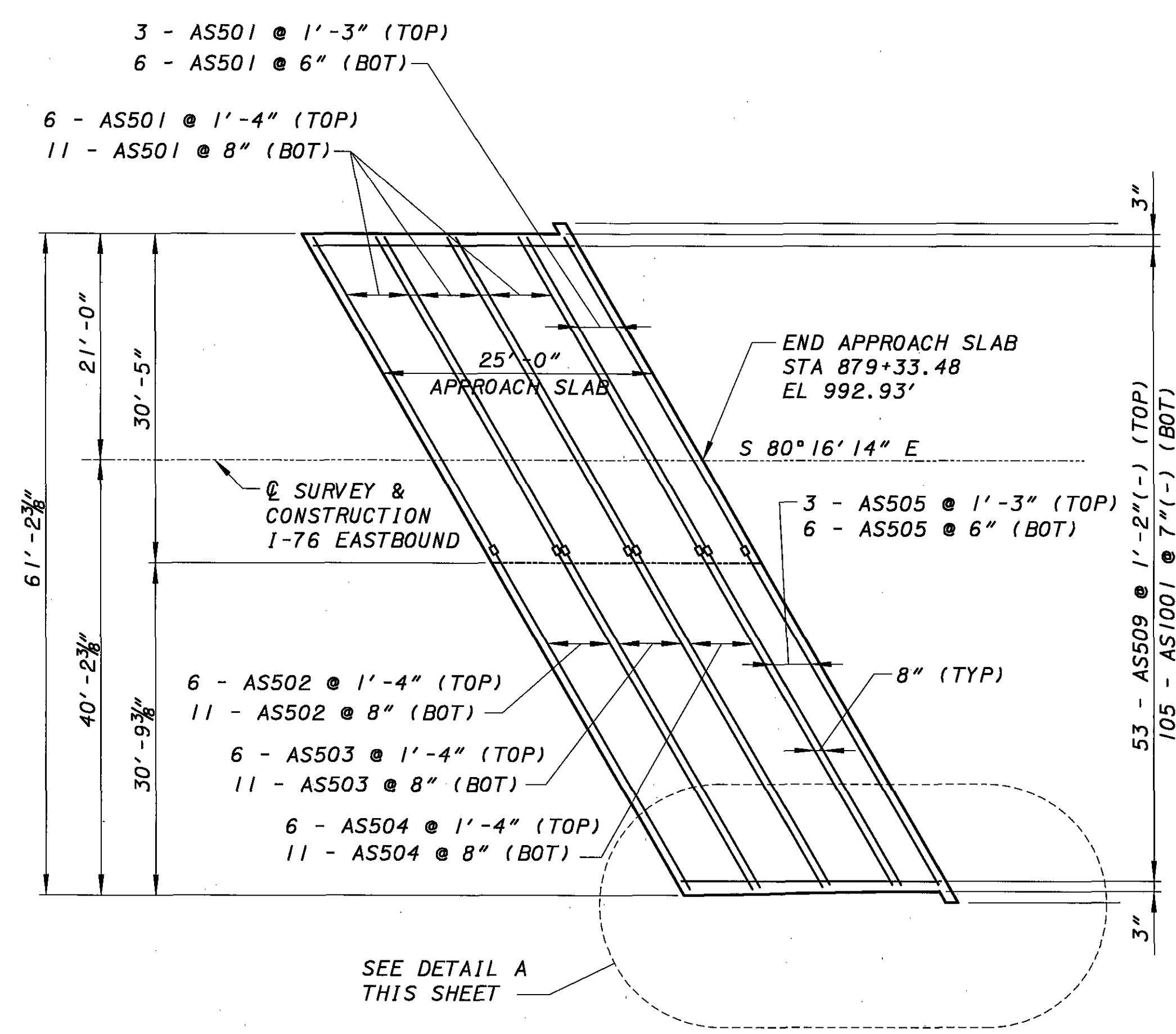
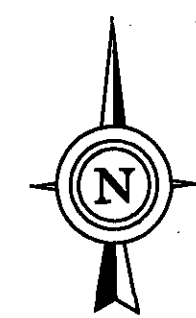


DETAIL B

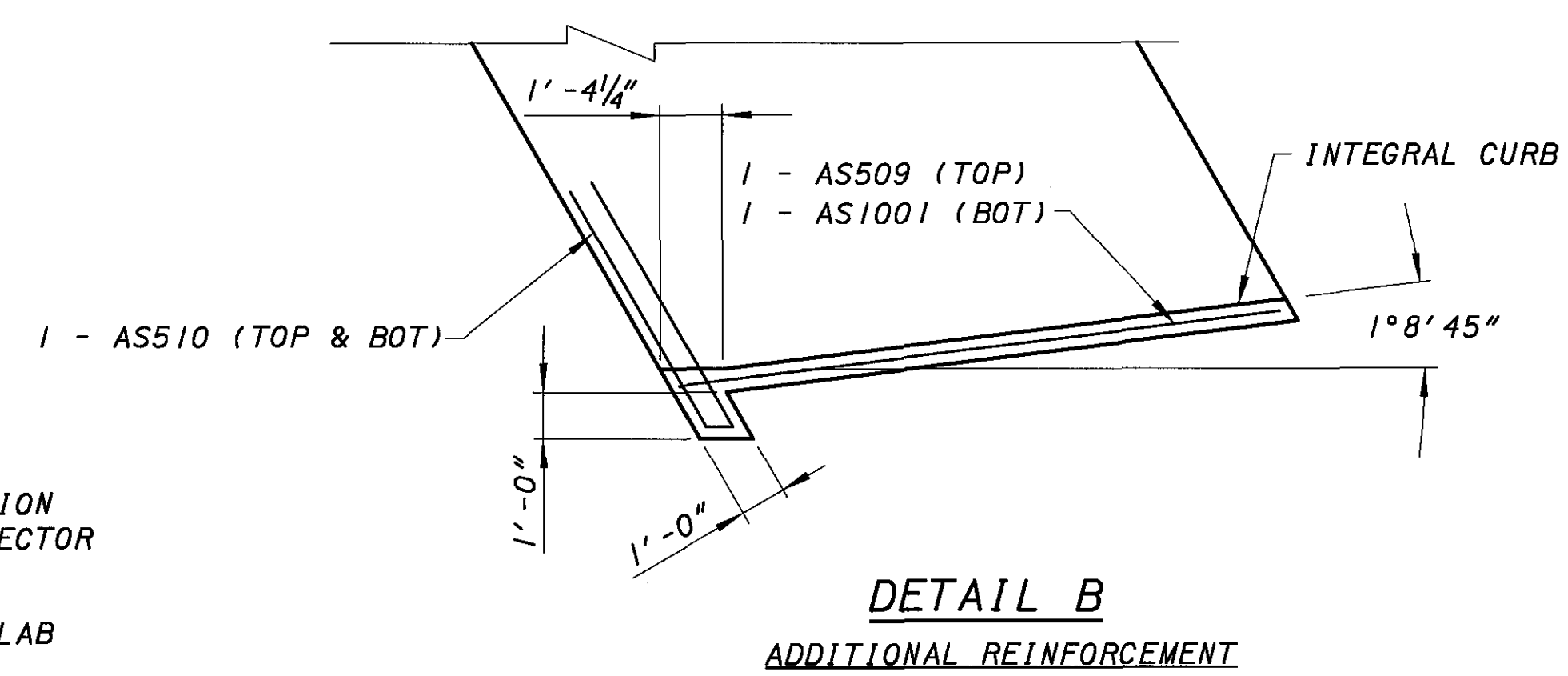
NOTES:
FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING AS-1-81.



DESIGNED BY JNS	CHECKED BY GKL	DRAWN BY MLH	REVISED BY	REVIEWED BY PA	DATE 02/2005	STRUCTURE FILE NUMBER 5204599	PREPARED BY IMS CONSULTANTS, INC. CONSULTING ENGINEERS & PLANNERS 200 W. BROADWAY, SUITE 1000 NEW YORK, NY 10038
STA. 879+29.78				APPROACH SLAB PLAN			
STA. 880+22.22				BRIDGE NO. MED-76-0112R			
				1-76 EASTBOUND OVER CHIPPEWA DITCH			
MED-71-6.06				15/18			
PID 75657				1024			
				1120			



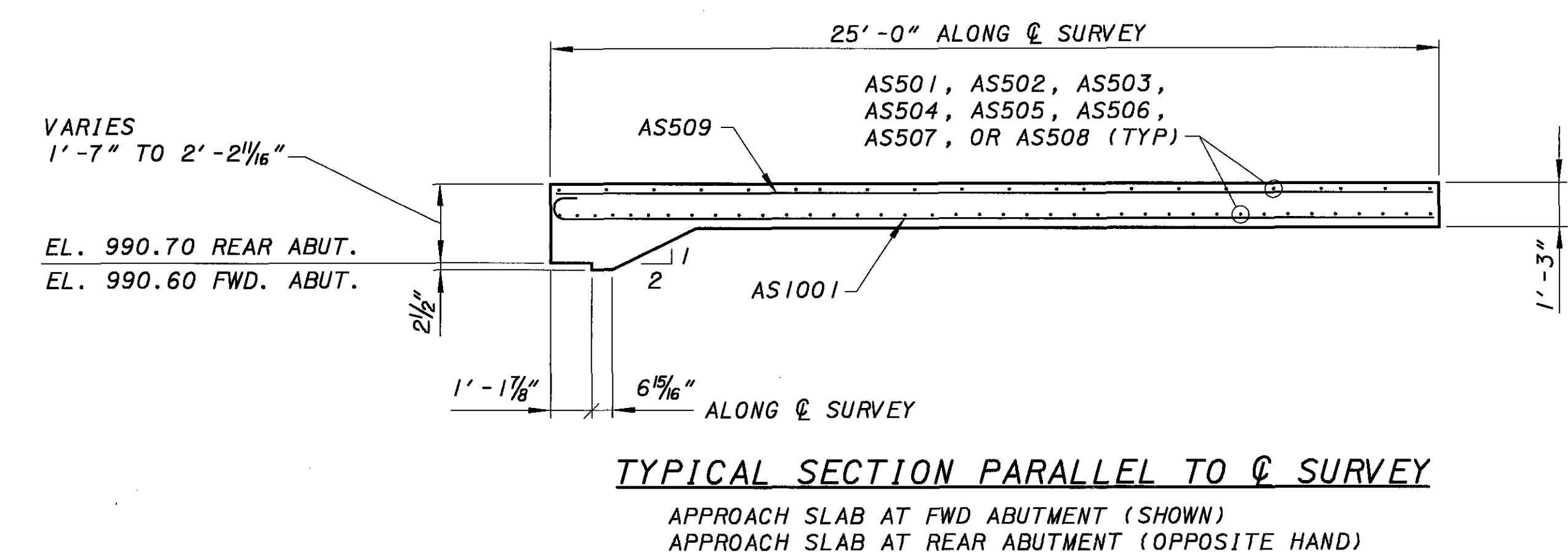
APPROACH SLAB REINFORCING PLAN
CURB NOT SHOWN FOR CLARITY



* MECHANICAL CONNECTOR IS PLACED OUTSIDE PHASE CONSTRUCTION JOINT. THE DISTANCE FROM THE JOINT TO THE END OF CONNECTOR IS 1'-0".
** INCLUDED WITH ITEM 526, REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN FOR PAYMENT.

MARK	TOTAL	LENGTH	WEIGHT (POUNDS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
AS501	120	33' - 11"	4,245	8							
AS502	17	36' - 2"	641	9							
AS503	17	36' - 1"	640	9							
AS504	17	35' - 11"	637	9							
AS505	18	35' - 11"	674	9							
AS506	17	35' - 5"	628	9							
AS507	17	35' - 7"	631	9							
AS508	17	35' - 9"	634	9							
AS509	108	24' - 6"	2,760	STR.							
AS510	8	9' - 8"	80	18	4' - 8"	0' - 3"	0' - 6"				
AS1001	212	25' - 11"	23,642	6	24' - 6"						
		TOTAL	35,212								

NOTES:
1. FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING AS-1-81.
2. FOR REINFORCING NOTES AND BENDING DIAGRAMS, SEE SHEET 17/18.

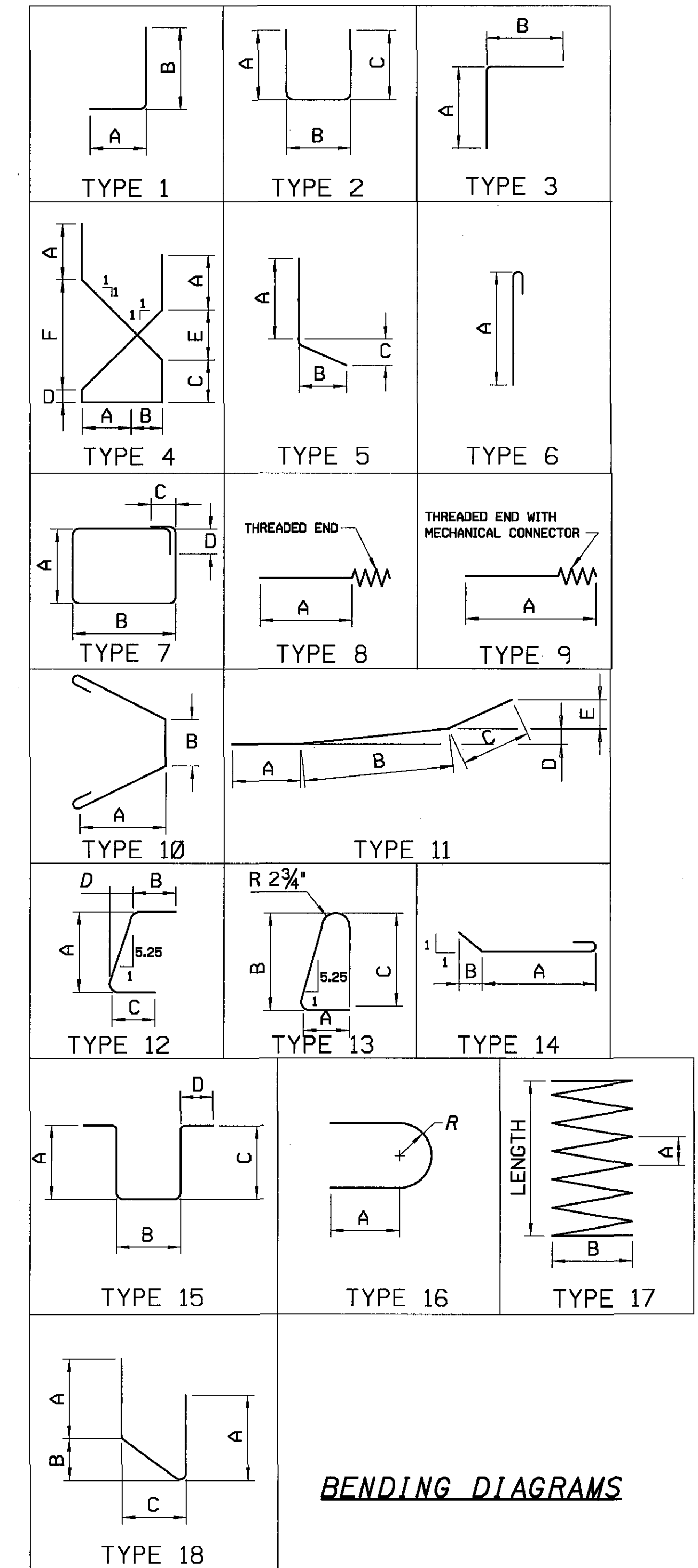


TYPICAL SECTION PARALLEL TO Q SURVEY
APPROACH SLAB AT FWD ABUTMENT (SHOWN)
APPROACH SLAB AT REAR ABUTMENT (OPPOSITE HAND)

PIER REINFORCING												
MARK	NUMBER		LENGTH	WEIGHT (POUNDS)		TYPE	DIMENSIONS					
	PIER 1	PIER 2		PIER 1	PIER 2		A	B	C	D	E	R
P401	30	30	10' - 0"	200	200	7	2' - 0"	2' - 6"	0' - 10"	0' - 10"		
P402	15	15	253' - 4"	*	*	17	0' - 6"	1' - 0"				
P501	56	56	9' - 6"	553	553	15	2' - 10"	2' - 8"	2' - 10"	0' - 10"		
P502	1	1	9' - 3"	10	10	15	2' - 10"	2' - 6"	2' - 10"	0' - 10"		
P503	1	1	4' - 3"	4	4	2	0' - 10"	2' - 10"	0' - 10"			
P504	6	6	9' - 3"	58	58	16	3' - 5"				1' - 3"	
P505	2	2	35' - 2"	73	73	9						
P506	2	2	35' - 5"	74	74	8						
P507	1	1	9' - 9"	10	10	15	3' - 1"	2' - 6"	3' - 1"	0' - 10"		
P508	1	1	4' - 6"	5	5	2	0' - 10"	3' - 1"	0' - 10"			
P901	120	120	41' - 1"	*	*	1	1' - 4"					
P1001	4	4	35' - 2"	605	605	9						
P1002	4	4	35' - 5"	610	610	8						
TOTAL				2,202	2,202							

* PAYMENT FOR BARS P402, P901 SHALL BE INCLUDED WITH ITEM 507, 16" CAST IN PLACE REINFORCED CONCRETE PILES, DRIVEN FOR PAYMENT

ABUTMENT REINFORCING													
MARK	NUMBER		TOTAL	LENGTH	WEIGHT (POUNDS)		TYPE	DIMENSIONS					
	REAR	FWD.			REAR	FWD.		A	B	C	D	E	R
A401	28	28	56	9' - 0"	168	168	7	1' - 9"	2' - 6"	0' - 10"	0' - 10"		
A501	67	67	134	11' - 0"	769	769	7	2' - 7"	2' - 8"	0' - 10"	0' - 10"		
A502	48	48	96	11' - 5"	572	572	2	4' - 11"	1' - 11"	4' - 11"			
A503	2	2	4	11' - 9"	24	24	2	4' - 11"	2' - 3"	4' - 11"			
A504	6	6	12	9' - 11"	62	62	12	1' - 11"	4' - 2"	4' - 2"	0' - 10"		
A505	4	4	8	13' - 2"	55	55	STR.						
A506	8		8	35' - 7"	297		9						
A507	8		8	34' - 4"	287		8						
A508	4	4	8	15' - 3"	64	64	STR.						
A509		8	8	34' - 10"		291	8						
A510		8	8	35' - 6"		296	9						
A511	8	8	16	15' - 8"	130	130	2	7' - 7"	0' - 8"	7' - 7"			
SER	2	2	4	12' - 9"			2	6' - 2"	0' - 8"	6' - 2"			0' - 7"
A512	6	6	6	15' - 6"	176	176	2	7' - 6"	0' - 8"	7' - 6"			
A513	2	2	4	15' - 9"	33	33	2	7' - 7"	0' - 9"	7' - 7"			
A514	6	6	12	12' - 5"	78	78	STR.						
A515	6	6	12	13' - 4"	83	83	STR.						
A516	2	2	4	8' - 6"	18	18	STR.						
A517	2	2	4	9' - 5"	20	20	STR.						
A518	2	2	4	8' - 7"	18	18	5	4' - 2"	1' - 9"	4' - 1"			
A519	2	2	4	8' - 10"	18	18	5	3' - 7"	1' - 6"	5' - 1"			
A520	4	4	8	8' - 9"	36	36	12	0' - 8"	4' - 2"	4' - 2"	0' - 5"		
A521	6	6	12	7' - 3"	45	45	2	3' - 5"	0' - 8"	3' - 5"			
A801	8	8	16	30' - 0"	641	641	STR.						
A802	4		4	22' - 7"	241		9						
A803	4		4	23' - 5"	250		8						
A804		4	4	21' - 4"		228	8						
A805		4	4	24' - 7"		263	9						
A1001	4		4	35' - 7"	612		9						
A1002	4		4	34' - 8"	597		8						
A1003		4	4	34' - 5"		592	8						
A1004		4	4	35' - 10"		617	9						
D801	48	48	96	6' - 8"	859	859	14	4' - 5"	1' - 0"				
TOTAL					6,153	6,156							



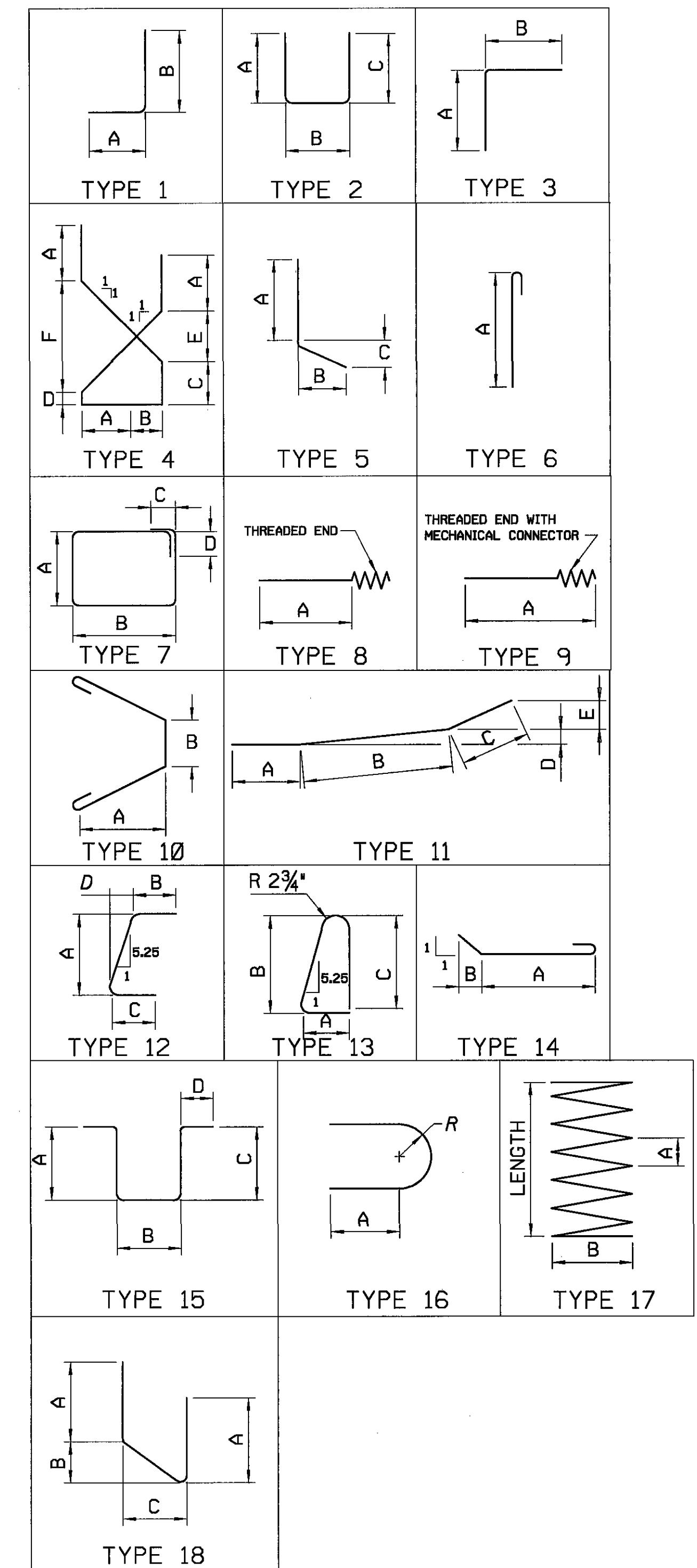
NOTES:

BAR SIZE:
THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL BARS TO BE EPOXY COATED.

REINFORCING BAR SAMPLES:
REFER TO C.M.S. SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING FOR EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH THE PROJECT PLANS.

SUPERSTRUCTURE REINFORCING											
MARK	TOTAL	LENGTH	WEIGHT (POUNDS)	TYPE	DIMENSIONS						INC
					A	B	C	D	E	R	
S401	93	35' - 1"	2,180	8							
S402	93	37' - 1"	2,304	9							
S403	252	3' - 10"	645	2	1' - 6"	1' - 0"	1' - 6"				
S501	24	38' - 0"	951	STR.							
S502	144	7' - 5"	1,114	13	1' - 1"	3' - 2"	3' - 0"				
S503	32	10' - 0"	334	STR.							
S504	12	5' - 6"	69	11	1' - 8"	2' - 5"	1' - 5"	0' - 2"	0' - 5"		
S505	20	6' - 6"	136	STR.							
S506	4	4' - 1"	17	2	1' - 6"	1' - 4"	1' - 6"				
S601	83	35' - 1"	4,374	8							
S602	83	37' - 1"	4,623	9							
S603	4	38' - 4"	230	STR.							
S604	144	4' - 2"	901	12	2' - 2"	1' - 1"	1' - 1"	0' - 5"			
S605	144	3' - 1"	667	1	2' - 2"	1' - 1"					
SER	8	4' - 9"			1' - 1"	3' - 10"					
S606	SER OF 10	TO 5' - 6"	616	1	1' - 1"	4' - 7"				0' - 1"	
S607	40	5' - 4"	320	1	1' - 9"	3' - 9"					
S801	188	49' - 8"	24,931	STR.							
S802	62	15' - 0"	2,483	STR.							
S803	142	36' - 7"	13,870	6	35' - 8"						
S804	66	34' - 9"	6,124	STR.							
S805	58	26' - 7"	4,117	STR.							
S806	29	28' - 10"	2,233	STR.							
S807	58	29' - 4"	4,543	STR.							
S808	29	35' - 4"	2,736	STR.							
S1101	8	34' - 10"	1,481	8							
S1102	8	37' - 4"	1,587	9							
		TOTAL	83,586								



BENDING DIAGRAMS

NOTES:

BAR SIZE:
 THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL BARS TO BE EPOXY COATED.

REINFORCING BAR SAMPLES:
 REFER TO C.M.S. SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING FOR EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH THE PROJECT PLANS.

DESIGNED BY: JNS
 CHECKED BY: GKL
 DRAWN BY: MLH
 REVISED BY:
 REVIEWED BY: PA
 STRUCTURE FILE NUMBER: 5204399
 DATE: 02/2005
 PREPARED BY: IMS CONSULTANTS, INC.
 CONSULTING ENGINEERS & PLANNERS
 200 W. BROAD ST. CHICAGO, IL 60601

SUPERSTRUCTURE REINFORCING STEEL LIST
 BRIDGE NO. MED-76-0112R
 1-76 EASTBOUND OVER CHIPPEWA DITCH

MED-71-6.06
 PID 75657

18/18
 1027
 1120

NOTES:
1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

LEGEND:
BOT. = BOTTOM
C.I.P. = CAST-IN-PLACE
DIA. = DIAMETER
EXP. = EXPANSION
F.A. = FORWARD ABUTMENT
FTG. = FOOTING
INT. = INTEGRAL
R.A. = REAR ABUTMENT
RCP = REINFORCED CONCRETE PIPE
T/S = TOP OF SLOPE
T/T = TOE-TO-TOE

⊗ - MINIMUM VERTICAL CLEARANCE LOCATION
⊕ - FOUNDATION INVESTIGATION BORING LOCATION
* - SEE ROADWAY PLANS FOR DETAILS AND PAYMENT

EXISTING SOIL BORING INFORMATION

BORING #	STATION	OFFSET	ELEVATION	APPROX. TOP OF ROCK
B-1	903+62.00	32.0' (LT)	1032.00	NONE
B-2	904+80.00	30.0' (LT)	1006.00	NONE
B-3	906+26.00	35.0' (LT)	1031.80	NONE

BENCHMARK INFORMATION

BM #0268: STA. 454+72.36, 26.29'R, O.C. SET I.P.'S, 499,644.71 N, 2,139,708.69 E, ELEV. 1010.33

BM #3053: STA. 457+82.04, 0.026'L, @ MONUMENT, 499,866.78 N, 2,139,904.13 E, ELEV. 1041.02

EXISTING STRUCTURE

TYPE: 4-SPAN CONTINUOUS STEEL BEAM BRIDGE WITH REINFORCED CONCRETE DECK, CAP AND COLUMN PIERS & INTEGRAL ABUTMENTS

SPANS: 48'-0"±, 60'-0"±, 60'-0"±, 48'-0"±
c/o BEARINGS

ROADWAY: 40'-0"± T/T PARAPETS
SKEW: NONE
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
DESIGN LOADING: HS20-44 (CASE I) AND THE ALTERNATE MILITARY LOADING
APPROACH SLABS: AS-1-81 (25'-0"± LONG)
CROWN: 0.0156±
STRUCTURE FILE NO.: 5204429
DATE BUILT: 1993

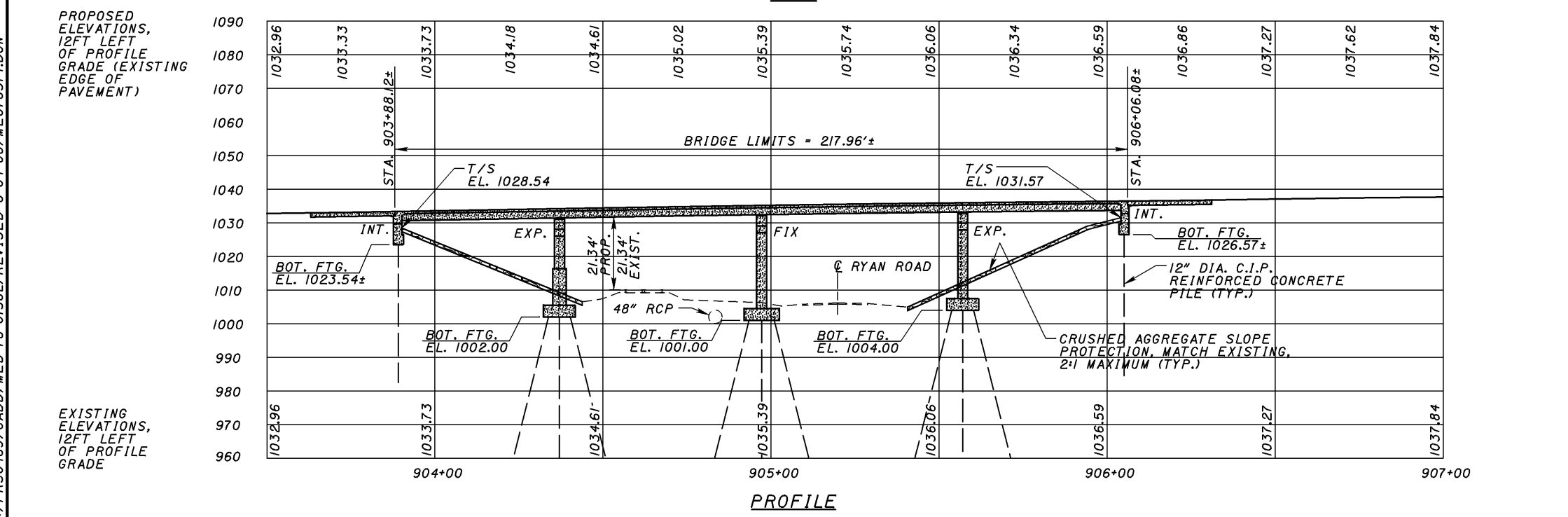
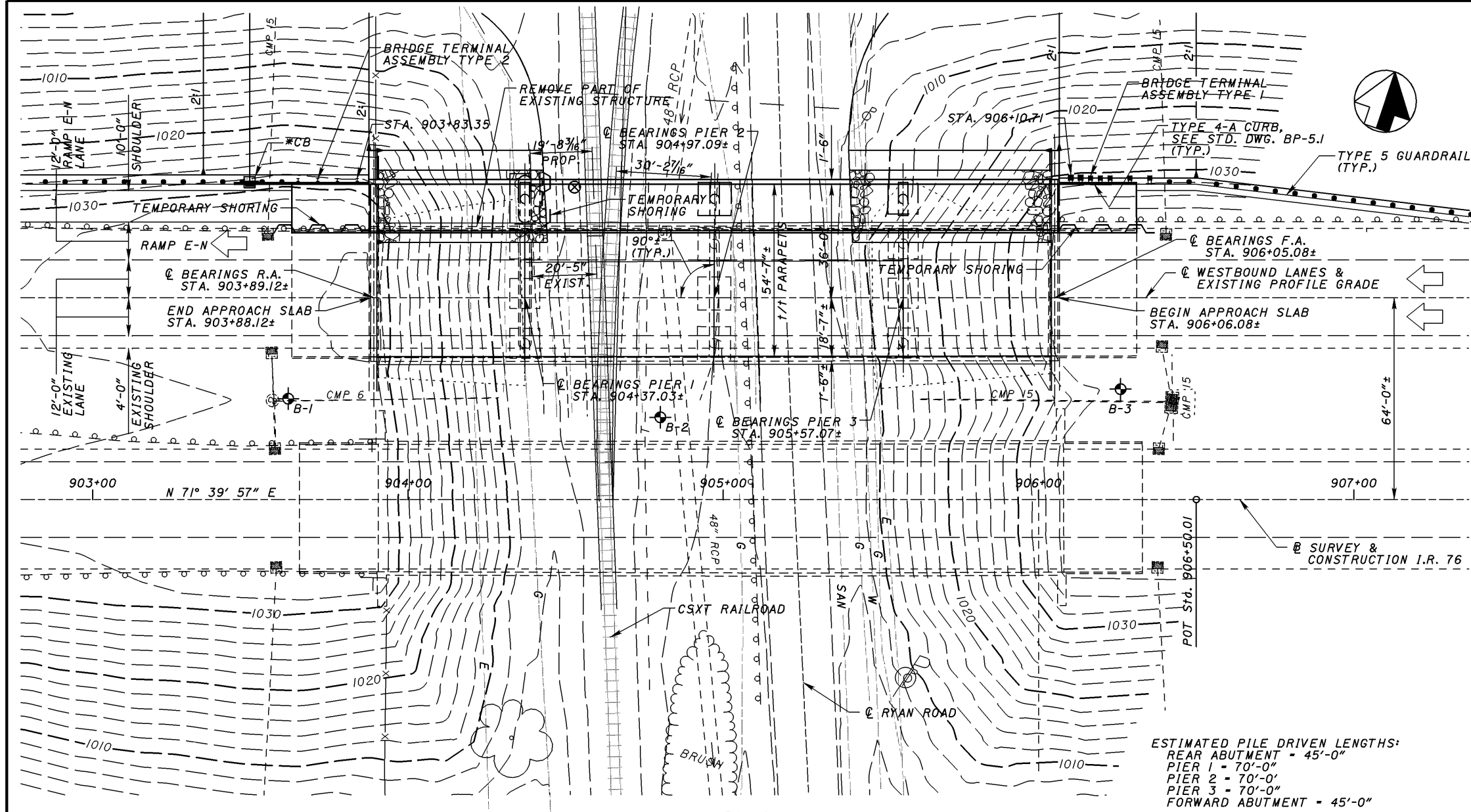
PROPOSED STRUCTURE

PROPOSED WORK: WIDENING IN KIND OF EXISTING 4-SPAN CONTINUOUS A572 STEEL BEAM BRIDGE WITH REINFORCED CONCRETE DECK, T-TYPE PIERS & INTEGRAL ABUTMENT

SPANS: 47'-11"±, 60'-0"±, 59'-11"±, 48'-0"±
c/o BEARINGS

ROADWAY: 54'-7"± T/T PARAPETS
SKEW: NONE
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
DESIGN LOADING: HS20-44 (CASE I) AND THE ALTERNATE MILITARY LOADING
FWS LOADING: 60 PSF
APPROACH SLABS: AS-1-81 (25'-0" LONG)
CROWN: 0.0156

ADT (2006): 16090 ADTT (2006): 5632
ADT (2026): 21280 ADTT (2026): 7448
RAILROAD TRAIN ACTIVITY: 6 TO 10 TRAINS PER DAY
LATITUDE: N 41°01'54"
LONGITUDE: W 81°52'40"



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PROPOSED ELEVATIONS, 12FT LEFT OF PROFILE GRADE (EXISTING EDGE OF PAVEMENT)

EXISTING ELEVATIONS, 12FT LEFT OF PROFILE GRADE

ESTIMATED PILE DRIVEN LENGTHS:
REAR ABUTMENT - 45'-0"
PIER 1 - 70'-0"
PIER 2 - 70'-0"
PIER 3 - 70'-0"
FORWARD ABUTMENT - 45'-0"

PROPOSAL NOTES

PAINTING OF STRUCTURAL STEEL

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-81 DATED 10-25-94 / REVISED 7-19-02
- BR-1 DATED 5-29-79 / REVISED 7-19-02
- GSD-1-96 DATED 2-12-97 / REVISED 9-19-02
- ICD-1-82 DATED 3-20-95 / REVISED 7-19-02

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

- 894 DATED 4-15-05

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE 2004 ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

DESIGN LOADING: HS20, CASE I AND THE ALTERNATE MILITARY LOADING.

FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

DESIGN DATA

HIGH PERFORMANCE - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL (EXISTING OR NEW)- ASTM A615, A616 OR A617, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI. SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615.

STRUCTURAL STEEL - ASTM A572 GRADE 50, MINIMUM YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL, 2 1/2" CONCRETE COVER, CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

MAINTENANCE OF TRAFFIC

FOR MAINTENANCE OF TRAFFIC DETAILS, SEE THE ROADWAY PLANS.

EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK:

1. REMOVE PORTIONS OF EXISTING CONCRETE DECK, APPROACH SLABS, RAILINGS, AND PARAPET.
2. CONSTRUCT A WIDENED DECK ON NEW BEAMS AND PIERS TO PROVIDE A 54'-7"± WIDE ROADWAY.
3. WIDEN THE EXISTING INTEGRAL ABUTMENTS, AND EXPAND THE EXISTING ABUTMENT DRAINAGE SYSTEM.
4. PROTECT AND MAINTAIN INTERSTATE 76, RYAN ROAD, AND CSXT RAILROAD TRAFFIC DURING ALL PHASES OF CONSTRUCTION.
5. INSTALL SHEAR CONNECTORS ALONG NEW STEEL BEAMS.
6. SEAL THE NEW CONCRETE PARAPET AND ALL NEW SUBSTRUCTURE UNITS WITH EPOXY-URETHANE.
7. CONSTRUCT WIDENED APPROACH SLABS.
8. EXTEND CRUSHED AGGREGATE SLOPE PROTECTION.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

PILE DESIGN LOADS (ULTIMATE BEARING VALUE): THE ULTIMATE BEARING VALUE IS 70 TONS PER 12" DIAMETER CAST-IN-PLACE PILE FOR THE 4 ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 70 TONS PER 12" DIAMETER CAST-IN-PLACE PILE FOR THE 29 PIER PILES.

SPLICES SHALL BE FURNISHED BY THE CONTRACTOR, AT NO EXTRA COST TO THE STATE, FOR PILE LENGTHS IN EXCESS OF 25'.

ABUTMENT PILES:

- 4 PILES 50 FEET LONG, ORDER LENGTH
- 1 DYNAMIC LOAD TESTING ITEM

PIER PILES:

- 29 PILES 75 FEET LONG, ORDER LENGTH
- 1 DYNAMIC LOAD TESTING ITEM

BATTERED PILES

BATTERED PILES: THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{(1+G^2)}}$$

U = COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G = RATE OF BATTER (1/4)

PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING PILES, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT AND PIER PILES, FOR PIERS 1 AND 3, UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

CONSTRUCTION CLEARANCE

CONSTRUCTION CLEARANCE: MAINTAIN A CONSTRUCTION CLEARANCE OF 10 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 21 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL.

UTILITY LINES

UTILITY LINES: THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

EXISTING STRUCTURE PLANS

THE ORIGINAL DESIGN AND UPGRADING PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 3 OFFICE, 906 NORTH CLARK, ASHLAND, OH. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE DRAWINGS.

MECHANICAL CONNECTORS FOR REINFORCING STEEL:

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED WHERE REQUIRED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL BAR LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE AS SHOWN ON THE PLAN.

CONNECTORS AND DOWEL BARS SHALL BE EPOXY COATED. COATING FOR BOTH THE CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY, AND UNIFORMITY, MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEETS THE SPECIFICATIONS.

CONNECTOR AND DOWEL BAR EXTENSIONS SHALL CONFORM WITH ITEM 509.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPERATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. THE METHOD OF REMOVAL AND WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER BRIDGE MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER BRIDGE MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STEEL MEMBERS.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

LOADING LIMITATIONS: NO PART OF THE STRUCTURE SHALL BE SUBJECT TO UNIT STRESSES THAT EXCEED 136.5% OF ALLOWABLE UNIT STRESSES AS DEFINED IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DUE EITHER TO DEMOLITION, ERECTION OR CONSTRUCTION METHODS; OR TO THE USE OR MOVEMENT OF DEMOLITION OR ERECTION EQUIPMENT ON OR ACROSS THE STRUCTURE. SUBMIT STRUCTURAL ANALYSIS COMPUTATIONS, BY AN OHIO REGISTERED PROFESSIONAL ENGINEER, SHOWING THE ALLOWABLE STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE REMOVAL METHODS OR EQUIPMENT TO THE DIRECTOR AT LEAST 20 DAYS BEFORE CONSTRUCTION BEGINS.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

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BURGESS & NIPLE
5095 Reed Road
Columbus, Ohio 43220

DATE	6-10-04
REVIEWED	DWL
DRAWN	ASK
DESIGNED	MPH
CHECKED	JAA
STRUCTURE FILE NUMBER	5204429

STRUCTURE NOTES 1 OF 3
BRIDGE NO. MED-76-0158 L
OVER CSXT RAILROAD & RYAN ROAD

MED-71-6.06
PID 75657

2 / 22

1029
1120

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ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH CMS ITEM 503 EXCEPT THAT THE BACKFILL MATERIAL SHALL BE MATERIAL CONFORMING TO CMS 703.17 (CMS 304 MATERIAL) AND MEET THE COMPACTION REQUIREMENTS OF CMS 304.05. IN ADDITION, THE BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.

REPLACEMENT OF EXISTING REINFORCING STEEL

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 516 INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1-1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D751	0.094 +/- 0.01
BREAKING STRENGTH, GRAB, LBS, MINIMUM (LONG. X TRANS.)	D751	700 X 700
ADHESIVE STRIP, 1" WIDE X 2" LONG, LBS MINIMUM	D751	9
BURST STRENGTH, PSI MINIMUM	D751	1400
HEAT AGING, 70 HR, 212 DEGREES F, 180 DEGREES BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLENESS, 1 HR, 40 DEGREES F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

ITEM 503 - COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN:

TEMPORARY SHEETING SHALL BE USED WHERE NECESSARY TO ACCOMPLISH THE PROPOSED CONSTRUCTION IN STAGES. THE DESIGN OF THE TEMPORARY SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER, AND CONFORM WITH 501.04. FOR APPROVAL, FIVE COPIES OF THE DRAWINGS SHALL BE SUBMITTED TO THE DIRECTOR. CONSTRUCTION OF THE SHEETING SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. PORTIONS OF THE TEMPORARY SHEETING COMPOSED OF STEEL OR CONCRETE MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. PORTIONS COMPOSED OF OTHER MATERIALS SHALL BE REMOVED PRIOR TO COMPLETION OF THE WORK. SHORING WILL BE REQUIRED AROUND THE PIERS ADJACENT TO THE CSX RAILROAD TRACKS AND NEAR THE ABUTMENTS. SEE "COOPERATION WITH RAILROADS" NOTE ON SHEET 4/22 FOR ADDITIONAL REQUIREMENTS.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 3, AS PER PLAN

THE CONTRACTOR SHALL VERIFY THE EXISTING CROSSFRAME AND BEARING LOCATIONS IN THE FIELD PRIOR TO FABRICATION OF THE BEAMS. COST FOR THIS FIELD WORK SHALL BE INCLUDED UNDER THIS ITEM FOR PAYMENT.

ITEM 864 - SEALING OF CONCRETE SURFACES

THE COLOR OF THE URETHANE TOP COAT SHALL BE FEDERAL COLOR STANDARD NO. 17778.

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:
THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:
ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENTITIOUS RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

ANCHOR BOLTS FOR FENCE POSTS SHALL BE CAST IN PLACE.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

ALL ANCHOR BOLTS FOR FENCE POSTS SHALL BE CAST IN PLACE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 8 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN WITH FORM LINERS OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1/2" WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

BASIS OF PAYMENT:
PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB
894E10001	CUBIC YARD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

BURGESS & NIPLE
5095 Reed Road
Columbus, Ohio 43229

DATE: 6-10-04
REVIEWED: DWL
DRAWN: ASK
DESIGNED: MPH
CHECKED: JAA
STRUCTURE FILE NUMBER: 5204429

STRUCTURE NOTES 2 OF 3
BRIDGE NO. MED-76-0158 L
OVER CSXT RAILROAD & RYAN ROAD

MED-71-6.06
PID 75657

3 / 22

1030
1120

COOPERATION WITH RAILROADS - CSX TRANSPORTATION, INC.

THE CONTRACTOR SHALL COOPERATE AT ALL TIMES WITH THE LOCAL OFFICIALS OF THE RAILROAD COMPANY. HE SHALL USE ALL REASONABLE CARE AND DILIGENCE IN THE WORK IN ORDER TO AVOID ACCIDENTS, DAMAGE OR UNNECESSARY DELAY TO, OR INTERFERENCE WITH, THE TRAINS AND OTHER PROPERTY OF THE RAILROAD. THE CONTRACTOR SHALL NOTIFY THE LOCAL OFFICIALS OF THE RAILROAD, PRIOR TO STARTING, OF WORK THAT MAY AFFECT RAILROAD PROPERTY AND FACILITIES AND SHALL PAY THE RAILROAD COMPANY THE COST OF FLAGMEN FURNISHED BY THE RAILROAD COMPANY AND MADE NECESSARY BECAUSE OF ANY OF THE CONTRACTOR'S OPERATIONS OVER AND ADJACENT TO THE TRACKS.

NO SCAFFOLD, PLANKS OR OTHER EQUIPMENT SHALL BE SUSPENDED OR ERRECTED ABOVE OR WITHIN 14 FEET OF A RAIL OVER WHICH TRAINS ARE OPERATING WITHOUT PRIOR WRITTEN APPROVAL OF THE CHIEF ENGINEER OF THE RAILROAD COMPANY, OR HIS AUTHORIZED REPRESENTATIVE.

FAILURE TO NOTIFY THE RAILROAD COMPANY AS NOTED ABOVE SHALL BE CAUSE FOR STOPPING WORK UNTIL ALL PROVISIONS FOR PROTECTING RAILROAD PROPERTY HAVE BEEN PROVIDED.

THE ACCESS ROADWAY MUST REMAIN UNOBSTRUCTED DURING CONSTRUCTION SO MAINTENANCE PERSONNEL MAY HAVE ACCESS ALONG THE RIGHT-OF-WAY. NO MATERIAL OR EQUIPMENT MAY BE STORED ON CSXT RIGHT-OF-WAY.

A CSXT FLAGMAN WILL BE REQUIRED WHEN WORK IS PERFORMED ON, AROUND OR ABOUT THE CSXT RIGHT OF WAY THAT MAY INTERFERE WITH TRAIN OPERATION. FLAGMEN WILL BE PRESENT TO PROTECT THE RAILROAD AND ITS PROPERTY. CSXT OR ITS DESIGNATED REPRESENTATIVE WILL DETERMINE WHEN FLAGGING PROTECTION IS REQUIRED. THE REQUEST FOR FLAGGING IS TO BE MADE TO THE CSXT ROADMASTER, MR. DAN KINNER, 330-948-2225, 30 DAYS IN ADVANCE.

A MINIMUM OF FIVE DAYS NOTICE BEFORE COMMENCEMENT OF WORK IS NECESSARY TO SCHEDULE A FLAGMAN. THE CONTRACTOR MUST ALSO CONTACT THE CSXT ROADMASTER WELL IN ADVANCE OF ORDERING A FLAGGER FOR THE FIRST TIME TO PROVIDE INFORMATION TO THE RAILROAD FOR BILLING PURPOSES. FLAGGERS WILL NOT BE DISPATCHED WITHOUT INITIATION AND APPROVAL OF A BILLING ACCOUNT. REIMBURSEMENT IS REQUIRED FOR A FULL 8-HOUR DAY FOR ANY FLAGMAN FURNISHED. IN THE EVENT THAT A FLAGMAN IS REQUIRED FOR MORE THAN AN 8-HOUR DAY, REIMBURSEMENT WILL BE AT ONE AND ONE-HALF TIMES THE HOURLY RATE IN EXCESS OF 8 HOURS, MONDAY THROUGH FRIDAY. ACTUAL COSTS FOR TRAVEL, MEALS, LODGING AND TRANSPORTATION WILL BE BILLED AT ACTUAL COSTS.

WHEN WORKING ON CSXT RIGHT OF WAY OR WITHIN THE SAFETY ZONE SURROUNDING THE LOCATION, THE CONTRACTOR'S EMPLOYEES WILL PARTICIPATE IN A JOB BRIEFING THAT WILL BE CONDUCTED BY THE CSXT FLAGMAN. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR'S SUPERVISORY PERSONNEL TO CARRY THROUGH FOR THE ENTIRE WORKDAY ALL OF THE ITEMS DISCUSSED DURING THE SAFETY BRIEFING.

SHORING PROTECTION SHALL BE PROVIDED WHEN EXCAVATION ENCROACHES ON A 1/2 HORIZONTAL TO 1 VERTICAL THEORETICAL SLOPE LINE STARTING 1'-6" BELOW TOP OF RAIL AND AT 12'-0" MINIMUM FROM CENTERLINE OF THE TRACK. IT IS ANTICIPATED THAT SHORING WILL BE REQUIRED ADJACENT TO PIER 1 AND A SUGGESTED SCHEME IS PROVIDED ON SHEET [13 / 22] FOR BIDDING PURPOSES.

AT THE OPTION OF THE CONTRACTOR AN ALTERNATE METHOD OF SHORING MEETING THE FOLLOWING REQUIREMENTS CAN BE PROVIDED.

A. SHORING SHALL BE DESIGNED TO RESIST A VERTICAL LIVE LOAD SURCHARGE OF 1800 LBS. PER SQUARE FOOT, IN ADDITION TO ACTIVE EARTH PRESSURE. THE SURCHARGE SHALL BE ASSUMED TO ACT ON A CONTINUOUS STRIP, 8'-6" WIDE. LATERAL PRESSURES DUE TO SURCHARGE SHALL BE COMPUTED USING THE STRIP LOAD FORMULA SHOWN IN AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8, PART 20.

B. ALLOWABLE STRESSES IN MATERIALS SHALL BE IN ACCORDANCE WITH AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTERS 7, 8, AND 15.

C. A CONSTRUCTION PROCEDURE FOR TEMPORARY SHORING SHALL BE SHOWN ON THE DRAWING.

D. SAFETY RAILING SHALL BE INSTALLED WHEN TEMPORARY SHORING IS WITHIN 12 FEET OF TRACK.

E. A MINIMUM DISTANCE OF 10 FEET FROM CENTERLINE OF THE TRACK TO FACE OF NEAREST POINT OF SHORING SHALL BE MAINTAINED.

THE CONTRACTOR SHALL SUBMIT THE FOLLOWING DRAWINGS AND CALCULATIONS FOR RAILROAD REVIEW AND APPROVAL.

1. THREE (3) SETS OF DETAILED DRAWINGS OF THE SHORING SYSTEMS SHOWING SIZES OF ALL STRUCTURAL MEMBERS, DETAILS OF CONNECTIONS, AND DISTANCES FROM CENTERLINE OF TRACK TO FACE OF SHORING. DRAWINGS SHALL SHOW A SECTION SHOWING HEIGHT OF SHORING AND TRACK ELEVATION IN RELATION TO BOTTOM OF EXCAVATION.

2. ONE SET OF CALCULATIONS OF THE SHORING DESIGN.

THE DRAWINGS AND CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN OHIO AND SHALL BEAR HIS SEAL AND SIGNATURE. SHORING PLANS SHALL BE APPROVED BY THE DIRECTOR OF STRUCTURAL ENGINEERING. THE CONTRACTOR MUST PROVIDE A SURVEY CREW TO MONITOR ELEVATION AND ALIGNMENT OF THE RAILROAD TRACK DURING THE INSTALLATION OF TEMPORARY SHEETING AND PILES. COSTS OF SHORING AND MONITORING SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN.

DEMOLITION PROCEDURE: THE CONTRACTOR SHALL SUBMIT A DEMOLITION PROCEDURE. FULL FALSEWORK SHALL BE INSTALLED BETWEEN THE BEAMS AND GIRDERS, 20 FEET EITHER SIDE OF THE CENTERLINE OF TRACK, TO PROTECT THE RAILROAD. THE RAILROAD TRACKS SHALL BE PROTECTED FROM DAMAGE DURING DEMOLITION OF EXISTING STRUCTURE AND PLACEMENT OF DECK SLABS. DURING DEMOLITION OF THE DECK, A PROTECTION SHIELD SHALL BE ERRECTED OVER THE TRACK TO CATCH FALLING DEBRIS. THE PROTECTION SHIELD SHALL BE SUPPORTED FROM GIRDERS OR BEAMS AND SHALL NOT BE LOWER THAN ALLOWED TEMPORARY CLEARANCE. THE DECK SHALL BE REMOVED BY CUTTING IT IN SECTIONS AND LIFTING OUT. LARGE PIECES OF DECK SHALL NOT BE ALLOWED TO FALL ON PROTECTION SHIELD. BLASTING WILL NOT BE PERMITTED TO DEMOLISH A STRUCTURE OVER OR WITHIN RAILROAD RIGHT-OF-WAY. THE PROCEDURE SHALL INDICATE THE CAPACITY OF CRANES USING A SAFETY FACTOR OF 1.5 OF ACTUAL WEIGHT OF PICK, LOCATION OF CRANES WITH RESPECT TO THE TRACK AND ESTIMATED LIFTING LOADS. DEMOLITION PROCEDURE SHALL BE PREPARED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO CSXT DISTRICT ENGINEER OR HIS REPRESENTATIVE FOR APPROVAL. COST OF PROTECTIVE FALSEWORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ERECTION PROCEDURE: THE CONTRACTOR SHALL SUBMIT A DETAILED PROCEDURE FOR ERECTING THE SPANS OVER RAILROAD TRACK. THE PROCEDURE SHALL INDICATE THE CAPACITY OF CRANES USING A SAFETY FACTOR OF 1.5 OF ACTUAL WEIGHT OF PICK, LOCATION OF CRANES WITH RESPECT TO THE TRACK AND ESTIMATED LIFTING LOADS. THE ERECTION PROCEDURE SHALL BE PREPARED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO CSXT DISTRICT ENGINEER OR HIS REPRESENTATIVE FOR APPROVAL.

ALL SUBMITTALS FOR SHORING, DEMOLITION OF EXISTING STRUCTURE AND ERECTION PROCEDURES ARE TO BE PREPARED, SIGNED AND SEALED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER AND ARE TO BE SUBMITTED TO MR. D. J. FETTE, REGIONAL DIRECTOR OF RIGHT-OF-WAY CONSTRUCTION, OR HIS REPRESENTATIVE, CSX TRANSPORTATION, 1717 DIXIE HIGHWAY, SUITE 400, FORT WRIGHT, KY 41011, 859-344-8137. A MINIMUM OF SIX (6) COPIES WILL BE SUBMITTED FOR REVIEW AND APPROVAL. THE CONTRACTOR IS TO BE AWARE THAT REVIEW TIME, WITHOUT REVISIONS, MAY TAKE UP TO 30 DAYS TO COMPLETE.

ALL OTHER METHODS AND PROCEDURES FOR PERFORMING WORK ON PROPERTY OF CSX TRANSPORTATION, INC., MUST BE APPROVED BY MR. HAL GIBSON, PUBLIC IMPROVEMENTS ADMINISTRATOR, CSX TRANSPORTATION, INC., RAIL TRANSPORT GROUP - ENGINEERING DEPARTMENT, 4901 BELFORT ROAD, SUITE 130, JACKSONVILLE, FLORIDA 32256, TELEPHONE: 904-245-1048.

RAILROAD PROTECTIVE LIABILITY INSURANCE:

THE CONTRACTOR SHALL FURNISH EVIDENCE TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) THAT, WITH RESPECT TO THE OPERATIONS HE OR ANY OF HIS SUB-CONTRACTORS PERFORM, HE HAS PROVIDED FOR AND ON BEHALF OF CSX TRANSPORTATION, INC., C/O MR. WALTER TYLER, MANAGER - INSURANCE, 500 WATER STREET, 11TH FLOOR JACKSONVILLE, FLORIDA 32202, TELEPHONE: 904-366-5090, A SINGLE RAILROAD PROTECTIVE LIABILITY POLICY OF INSURANCE, NAMING CSX TRANSPORTATION, AND HAVING LIMITS OF \$5,000,000 COMBINED SINGLE LIMIT PER OCCURRENCE FOR BODILY INJURY LIABILITY AND PROPERTY DAMAGE LIABILITY WITH AN AGGREGATE LIMIT OF \$10,000,000 OVER THE LIFE OF THE POLICY AS SET FORTH IN FEDERAL-AID POLICY GUIDE, CHAPTER 1, SUBCHAPTER G, PART 646, SUBPART A (23 CFR 646A).

THE INSURANCE HEREIN BEFORE SPECIFIED SHALL BE WITH AN ACCEPTABLE INSURANCE COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE OF OHIO, AND SHALL BE TAKEN OUT BEFORE EXECUTION OF THE CONTRACT BY ODOT AND KEPT IN EFFECT UNTIL ALL WORK REQUIRED TO BE PERFORMED UNDER THE TERMS OF THE CONTRACT IS SATISFACTORILY COMPLETED AS EVIDENCED BY THE FORMAL ACCEPTANCE BY ODOT. SUCH POLICY SHALL INCLUDE A THIRTY (30) DAYS CANCELING NOTICE.

"EVIDENCE" AS ABOVE SET FORTH SHALL CONSIST OF FURNISHING THE ENGINEER THREE (3) CERTIFIED COPIES OF THE POLICY.

PAYMENT SHALL BE MADE AT THE LUMP SUM CONTRACT PRICE BID FOR ITEM SPECIAL-PREMIUM ON RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE.

RAILROAD TRAIN ACTIVITY:

THE CONTRACTOR IS HEREBY ALERTED THAT TRAIN TRAFFIC THROUGH THE PROJECT SITE IS APPROXIMATELY 6 TO 10 TRAINS PER DAY. BIDDING ESTIMATES AND CONSTRUCTION ACTIVITIES SHOULD BE ADJUSTED ACCORDINGLY.

ITEM 511 CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN
ITEM 511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
ITEM 511 CLASS C CONCRETE FOOTING, AS PER PLAN

COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

DRIP GROOVES

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

SURVEY DISC ON STRUCTURE

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR THE COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

BURGESS & NIPLÉ	
DATE	6-10-04
REVIEWED	DWL
DRAWN	ASK
DESIGNED	MPH
CHECKED	JAA
STRUCTURE FILE NUMBER	5204429
STRUCTURE NOTES 3 OF 3	
BRIDGE NO. MED-76-0158 L	
OVER CSXT RAILROAD & RYAN ROAD	
MED-71-6.06	
PID 75657	
4 / 22	
1031	
1120	

ESTIMATED QUANTITIES

AS PER
PLAN
REFERENCE
SHEET

ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	SUPER	ABUT	PIERS	GEN'L	
		IM	NHS								
202	11201	LUMP	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN				LUMP	2/22
503	11101	LUMP	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN				LUMP	3/22
503	21101	120	30	150	CU. YD.	UNCLASSIFIED EXCAVATION, AS PER PLAN		41	109		3/22
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00500	1768	442	2210	FT.	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		180	2030		
507	00550	1900	475	2375	FT.	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		200	2175		
509	10000	33601	8400	42001	POUND	EPOXY COATED REINFORCING STEEL	29801	2588	9441		
510	10000	16	4	20	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	20				
511	41001	42	10	52	CU. YD.	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN			52		4/22
511	43501	28	7	35	CU. YD.	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN		35			4/22
511	46501	30	7	37	CU. YD.	CLASS C CONCRETE, FOOTING, AS PER PLAN			37		4/22
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB				LUMP	
512	10100	194	49	243	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	214	29			
513	10261	64,437	16,109	80,546	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3, AS PER PLAN *	80546				3/22
513	20000	1430	358	1788	EACH	WELDED STUD SHEAR CONNECTORS	1788				
514	00800	64,437	16,109	80,546	POUND	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	80546				
514	00850	64,437	16,109	80,546	POUND	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	80546				
514	10000	3	1	4	EACH	FINAL INSPECTION REPAIR	4				
516	13200	23	6	29	SQ. FT.	1/2" PREFORMED EXPANSION JOINT FILLER		29			
516	13600	36	9	45	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER		45			
516	14015	23	6	29	FT.	INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN		29			3/22
516	44200	3	1	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (13" x 16" x 3.398" WITH 14" x 17" x 1 5/8" MAX. LOAD PLATE)			4		
516	44200	1	1	2	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (13" x 16" x 3.398" WITH 14" x 22" x 1 5/8" MAX. LOAD PLATE)			2		
516	46900	3	1	4	EACH	BEARING DEVICE, MISC.: INTEGRAL ABUTMENT BEARING ASSEMBLY		4			
518	21200	14	3	17	CU. YD.	POROUS BACKFILL WITH FILTER FABRIC		17			
518	40000	37	9	46	FT.	6" PERFORATED CORRUGATED PLASTIC PIPE		46			
518	40010	10	3	13	FT.	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		13			
523	20000	1	1	2	EACH	DYNAMIC LOAD TESTING				2	
526	25000	70	18	88	SQ. YD.	REINFORCED CONCRETE APPROACH SLAB (T-15")				88	
601	20000	264	66	330	SQ. YD.	CRUSHED AGGREGATE SLOPE PROTECTION				330	
894	10001	98	24	122	CU. YD.	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN	122				3/22

* - SEE PROPOSAL NOTE
 ** - ALL QUANTITIES ARE SPLIT 80% IM & 20% NHS

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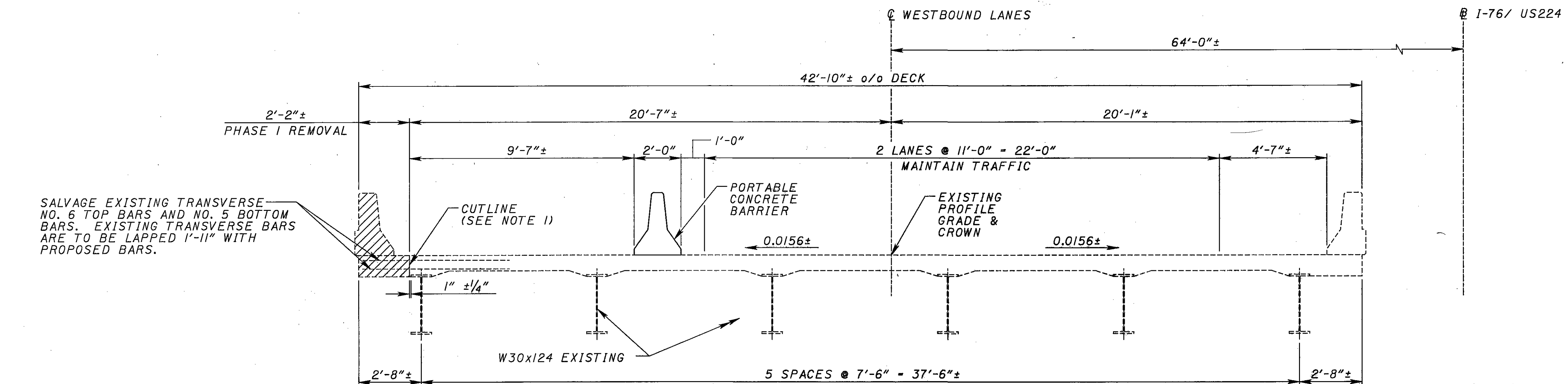
BURGESS & NIPLE
 5095 Reed Road
 Columbus, Ohio 43220

DATE 06-14-04
 REVIEWED DWL
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 DESIGNED GWM
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 CHECKED ASK

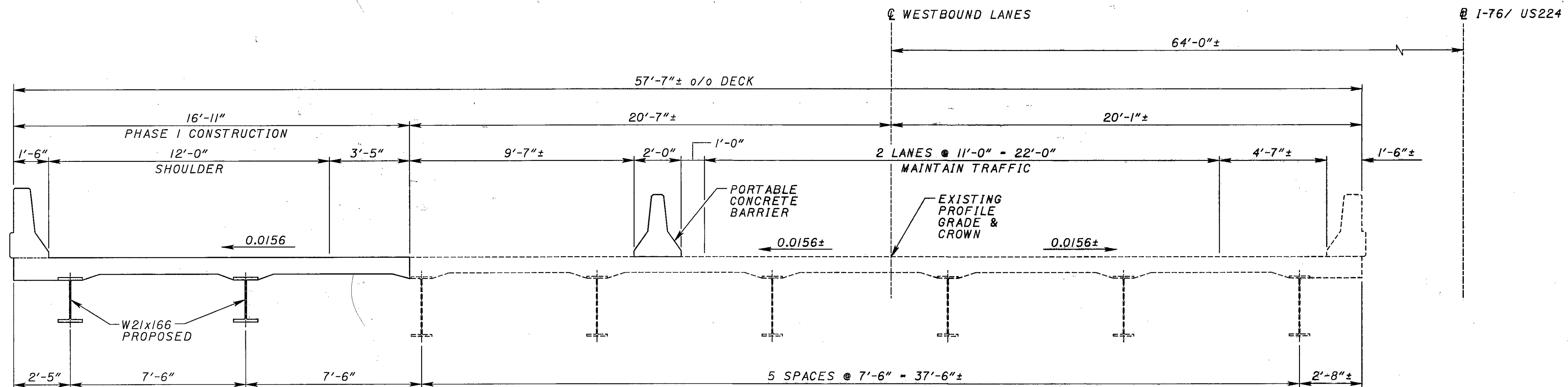
ESTIMATED QUANTITIES
 BRIDGE NO. MED-76-0158 L
 OVER CSXT RAILROAD & RYAN ROAD

MED-71-6.06
 PID 75657

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PHASE I REMOVAL



PHASE I CONSTRUCTION

NOTES:

1. THE EXPOSED EXISTING VERTICAL CONCRETE SURFACE THAT IS TO COVERED WITH NEW CONCRETE SHALL BE ROUGH AND IRREGULAR WITH AN AMPLITUDE OF 1/4" OR MORE.

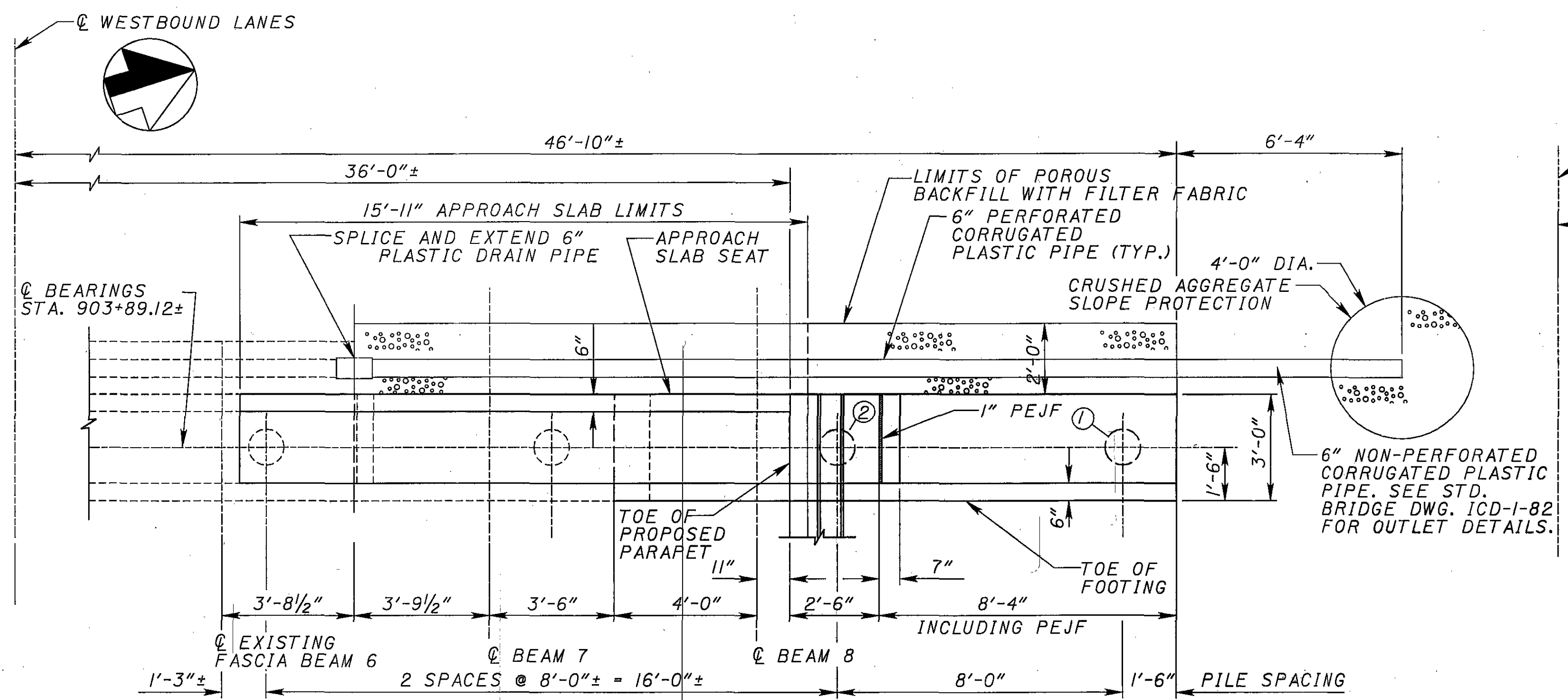
LEGEND:

- o/o - OUT-TO-OUT
- REMOVALS

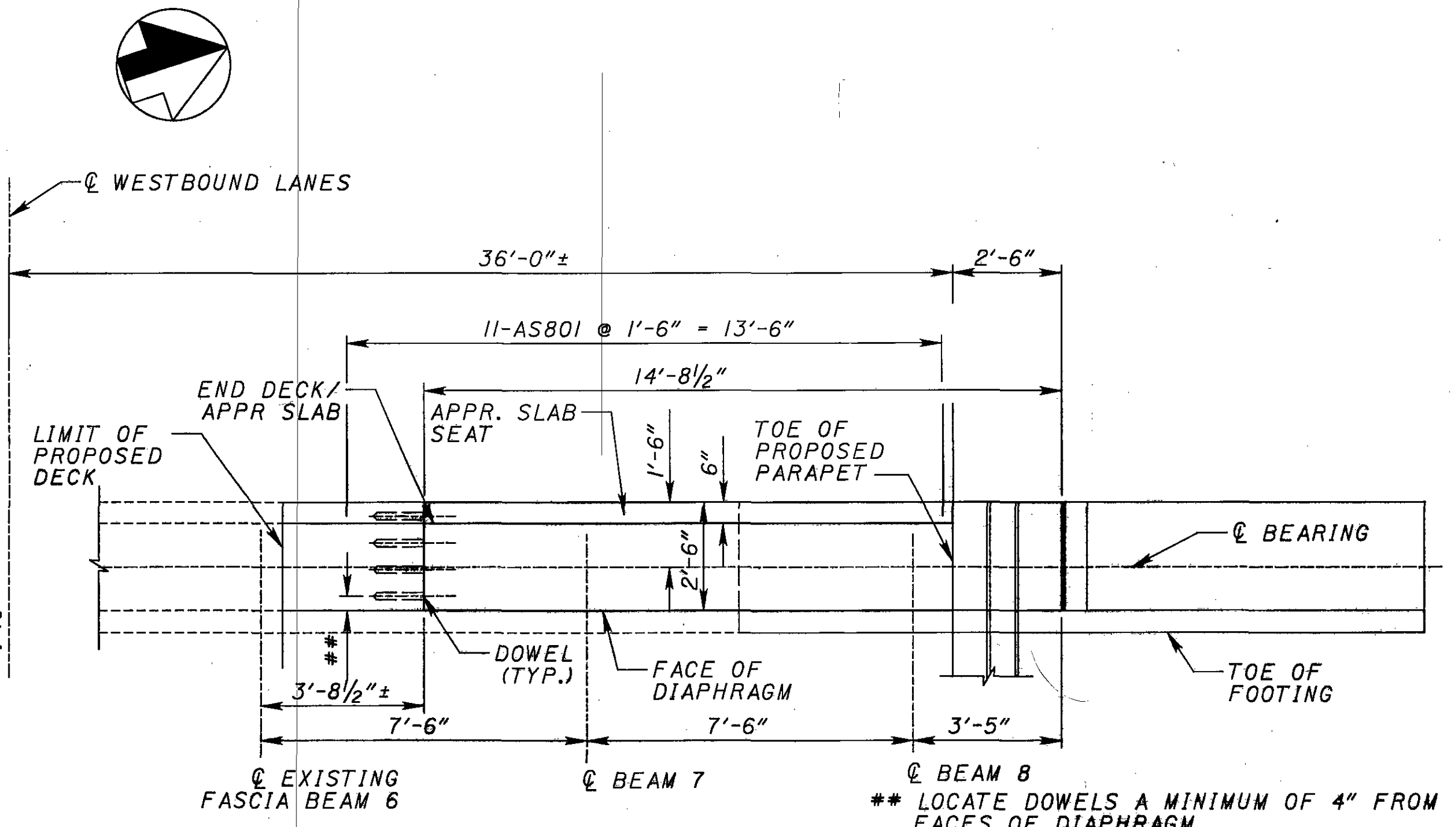
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REVIEWED	DWL
STRUCTURE FILE NUMBER	5204429
DRAWN	TTK
DESIGNED	WTL
CHECKED	JAA

PHASE CONSTRUCTION DETAILS
BRIDGE NO. MED-76-0158 L
OVER CSXT RAILROAD & RYAN ROAD

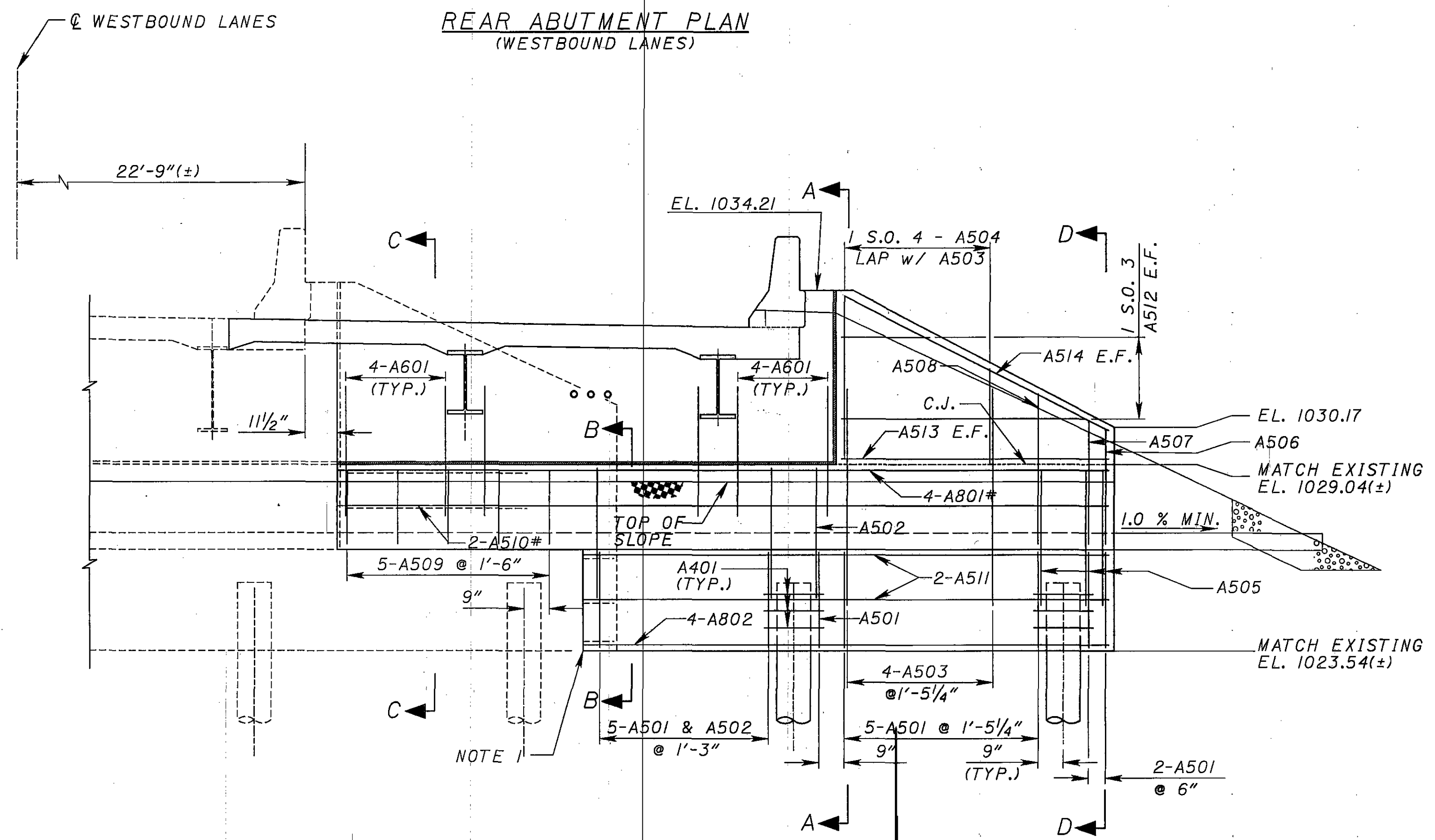
MED-71-6.06
PID 75657



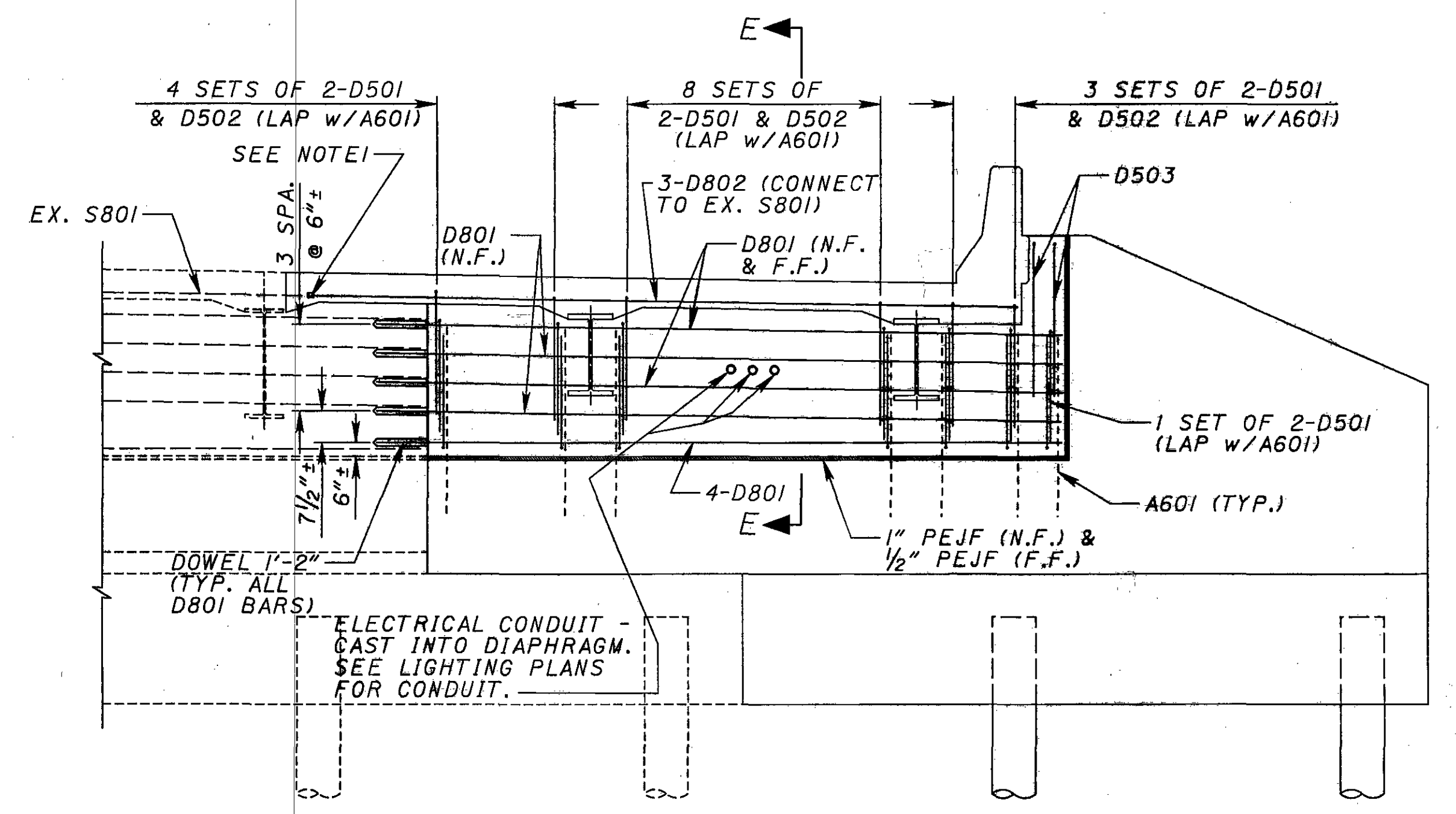
REAR ABUTMENT PLAN
(WESTBOUND LANES)



REAR DIAPHRAGM PLAN
(WESTBOUND LANES)



REAR ABUTMENT ELEVATION
(WESTBOUND LANES)



REAR DIAPHRAGM ELEVATION
(WESTBOUND LANES)

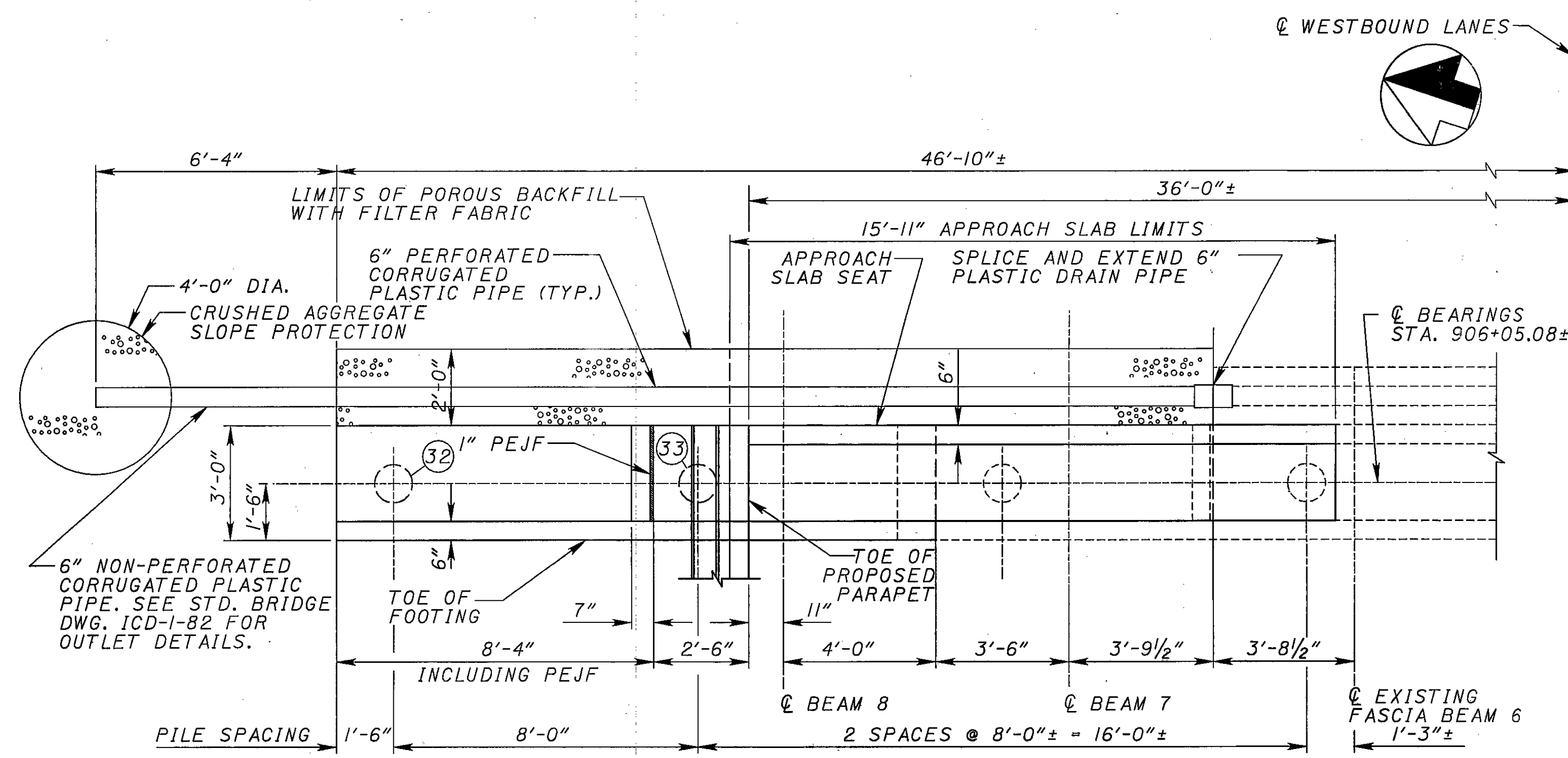
NOTES:

- UTILIZE MECHANICAL CONNECTORS TO CONNECT EXISTING PROTRUDING REINFORCING STEEL TO NEW REINFORCING STEEL. THE CONTRACTOR MAY DOWEL THE NO. 8 BARS 1'-2" AND THE NO. 5 BARS 8 INCHES INTO THE EDGE OF THE EXISTING CONCRETE WITH EPOXY MORTAR AT NO ADDITIONAL COST TO THE STATE IN LIEU OF MECHANICAL CONNECTIONS.
- ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE: PLACE THE CONCRETE ENCASE THE STRUCTURAL STEEL MEMBERS WITH THE CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE.
- LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 8 BARS = 5'-8"
NO. 5 BARS = 2'-1"
- FOR DETAILS NOT SHOWN SEE STANDARD BRIDGE DRAWING ICD-1-82
- SEE SHEETS 9 / 22 FOR SECTIONS A-A, B-B, C-C, D-D & E-E.

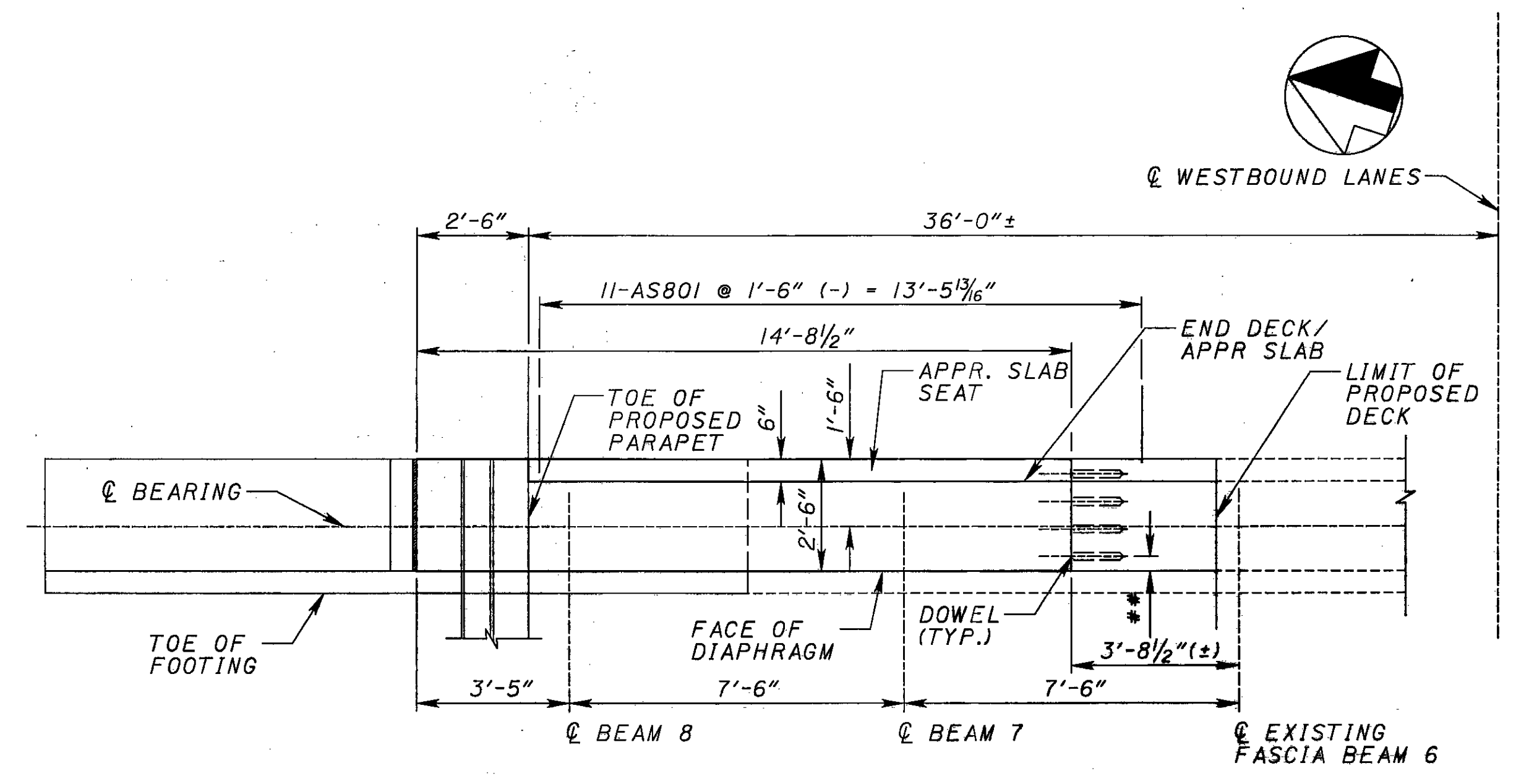
LEGEND

- APPR. - APPROACH
- EX. - EXISTING
- F.F. - FAR FACE
- N.F. - NEAR FACE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- TYP. - TYPICAL
- E.F. - EACH FACE
- * - LAP WITH SALVAGED HORIZONTAL REINFORCING STEEL
- ⊙ - VERTICAL 12" C.I.P. PILE NUMBER

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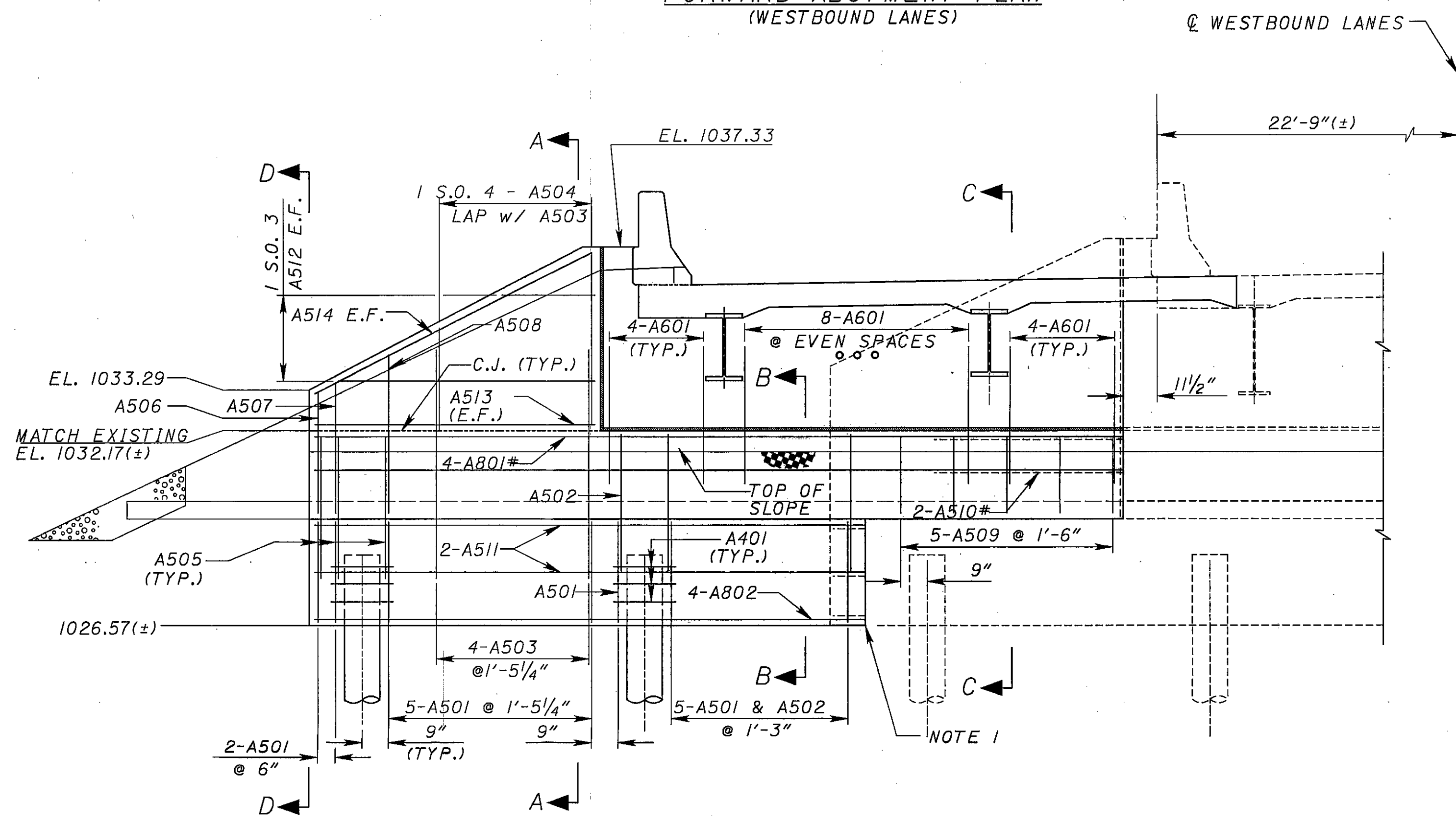


FORWARD ABUTMENT PLAN
(WESTBOUND LANES)

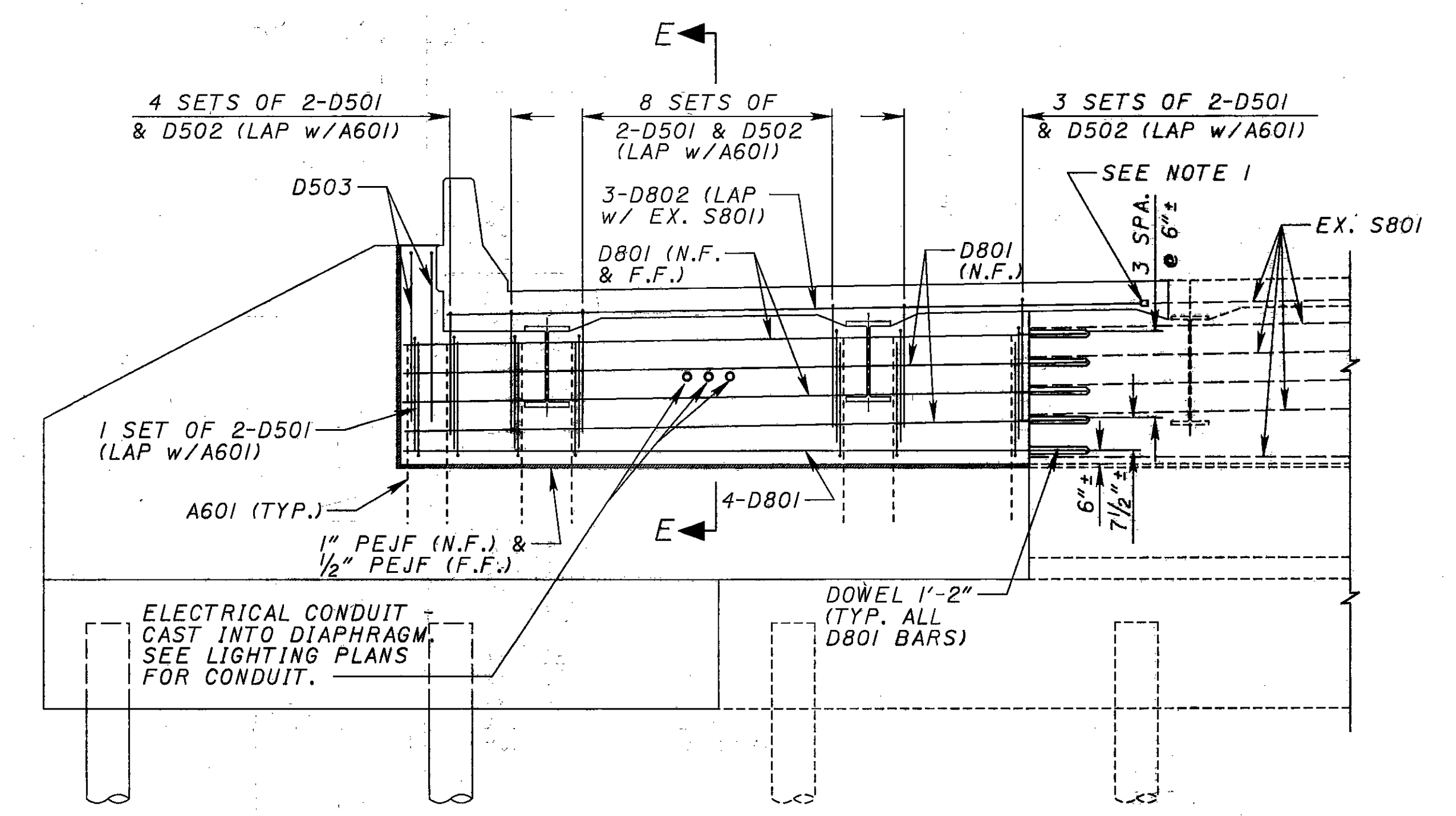


FORWARD DIAPHRAGM PLAN
(WESTBOUND LANES)

** LOCATE DOWELS A MINIMUM OF 4" FROM FACES OF DIAPHRAGM.



FORWARD ABUTMENT ELEVATION
(WESTBOUND LANES)



FORWARD DIAPHRAGM ELEVATION
(WESTBOUND LANES)

NOTES:

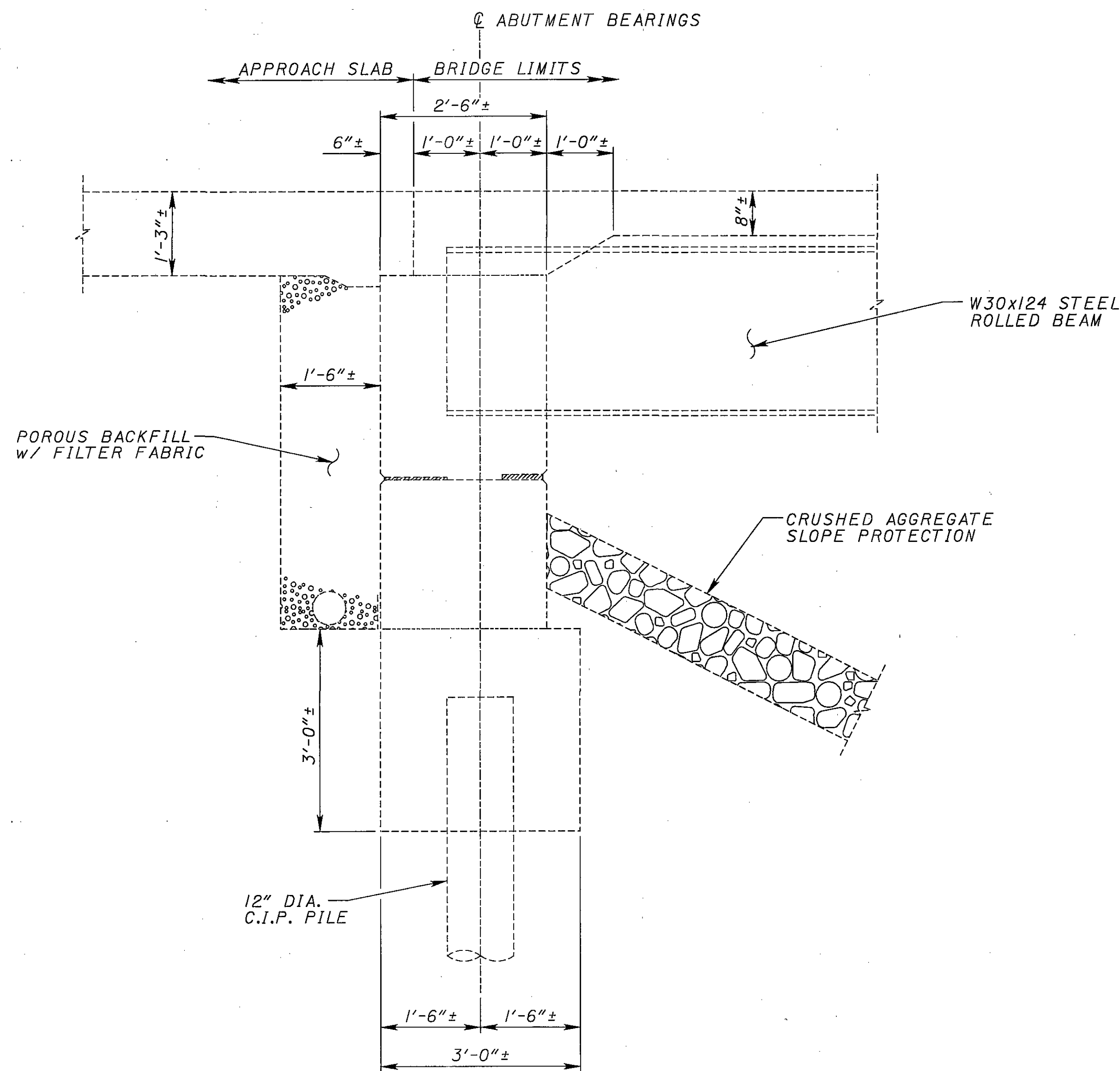
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- SEE SHEETS 9 / 22 FOR SECTIONS A-A, B-B, C-C, D-D & E-E.

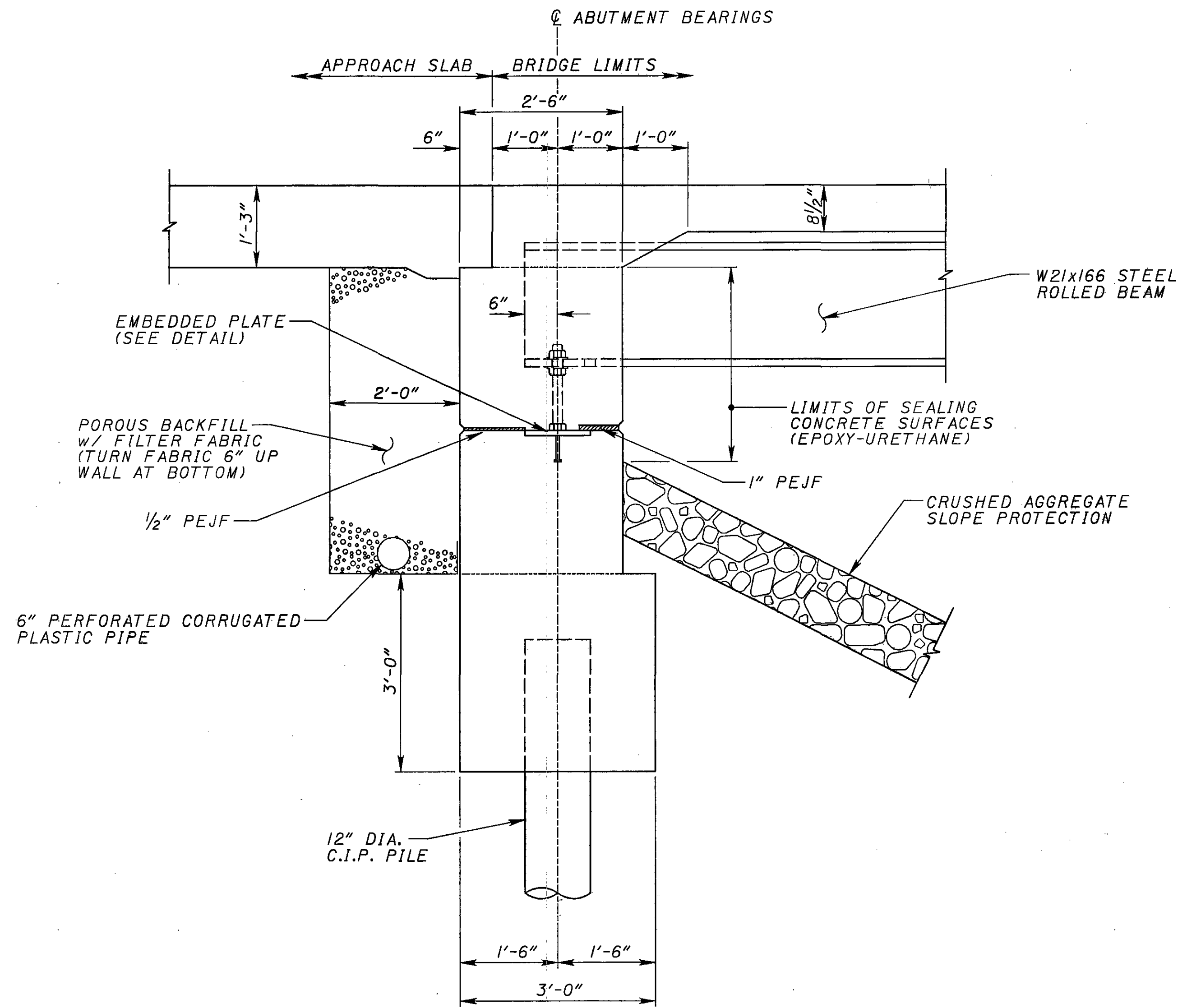
LEGEND

- APPR. - APPROACH
- EX. - EXISTING
- F.F. - FAR FACE
- N.F. - NEAR FACE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- TYP. - TYPICAL
- E.F. - EACH FACE
- * - LAP WITH SALVAGED HORIZONTAL REINFORCING STEEL
- ⊙ - VERTICAL 12" C.I.P. PILE NUMBER

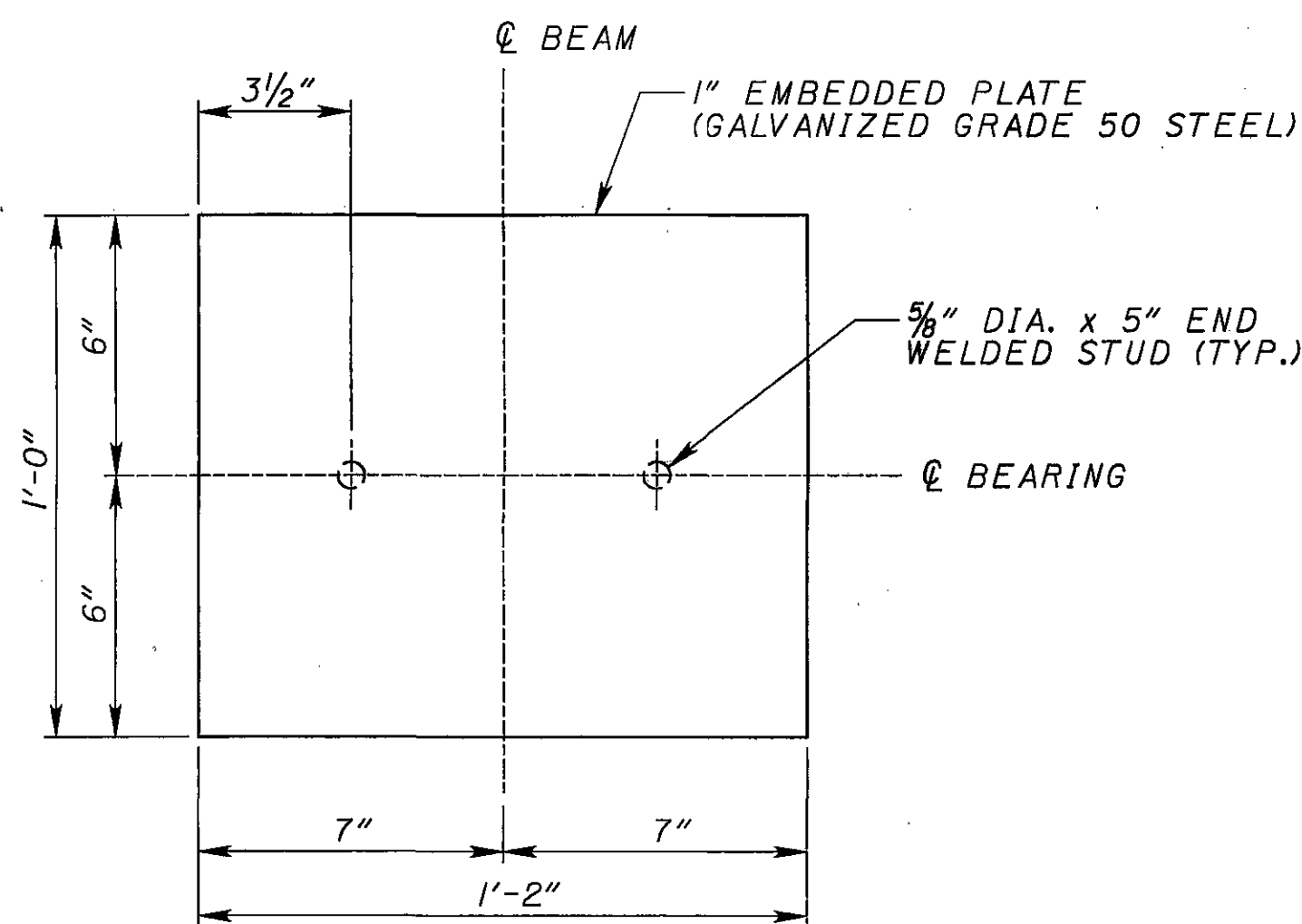
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TYPICAL SECTION THRU EXISTING ABUTMENT



TYPICAL SECTION THRU PROPOSED ABUTMENT WIDENING



PLAN VIEW - EMBEDDED STEEL PLATE
 (TOP OF PLATE SHALL BE FLUSH WITH ABUTMENT SEAT)
 (INCLUDE WITH ITEM 516- BEARING DEVICE, MISC.:
 INTEGRAL ABUTMENT BEARING ASSEMBLY)

NOTE:

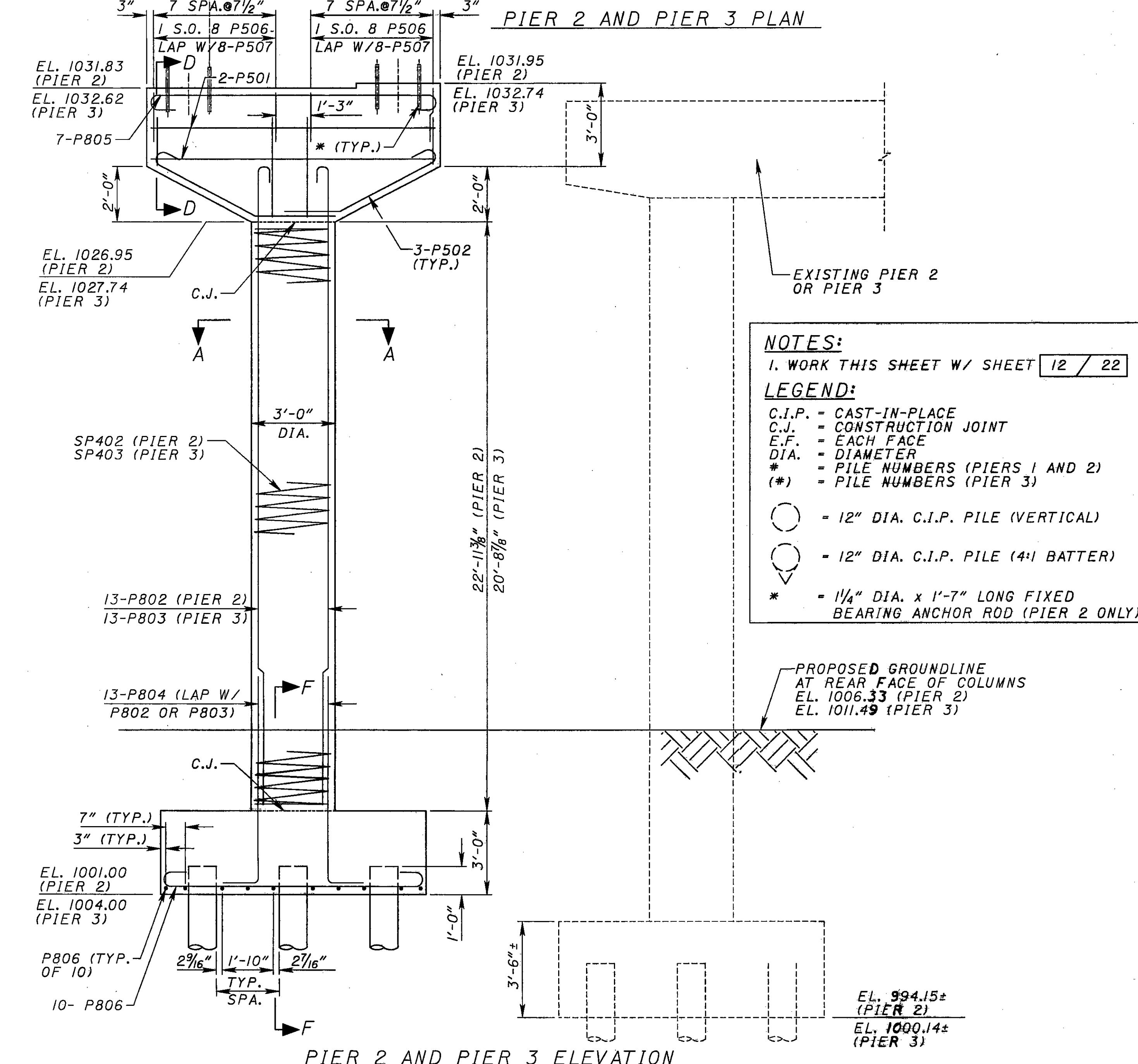
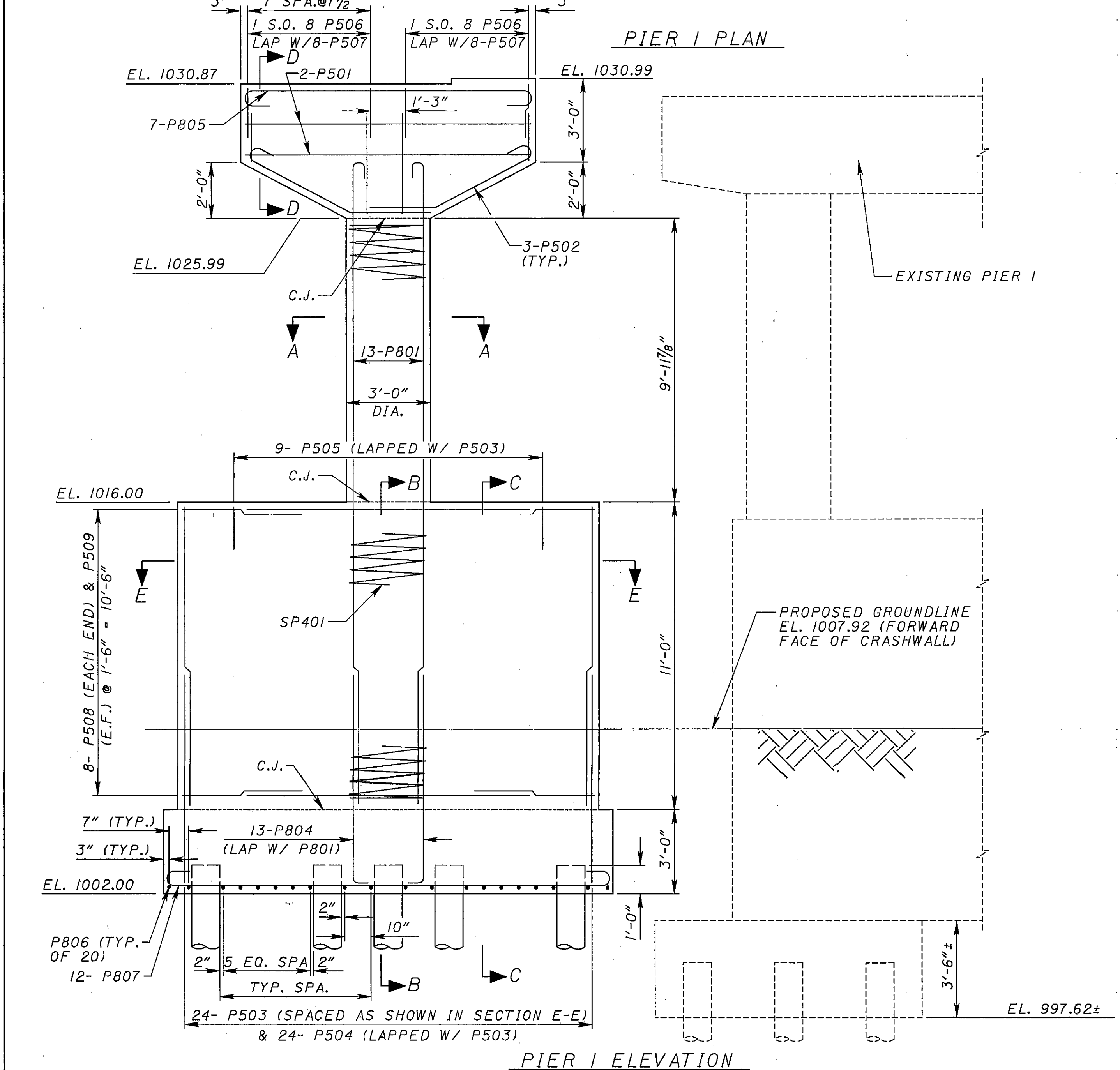
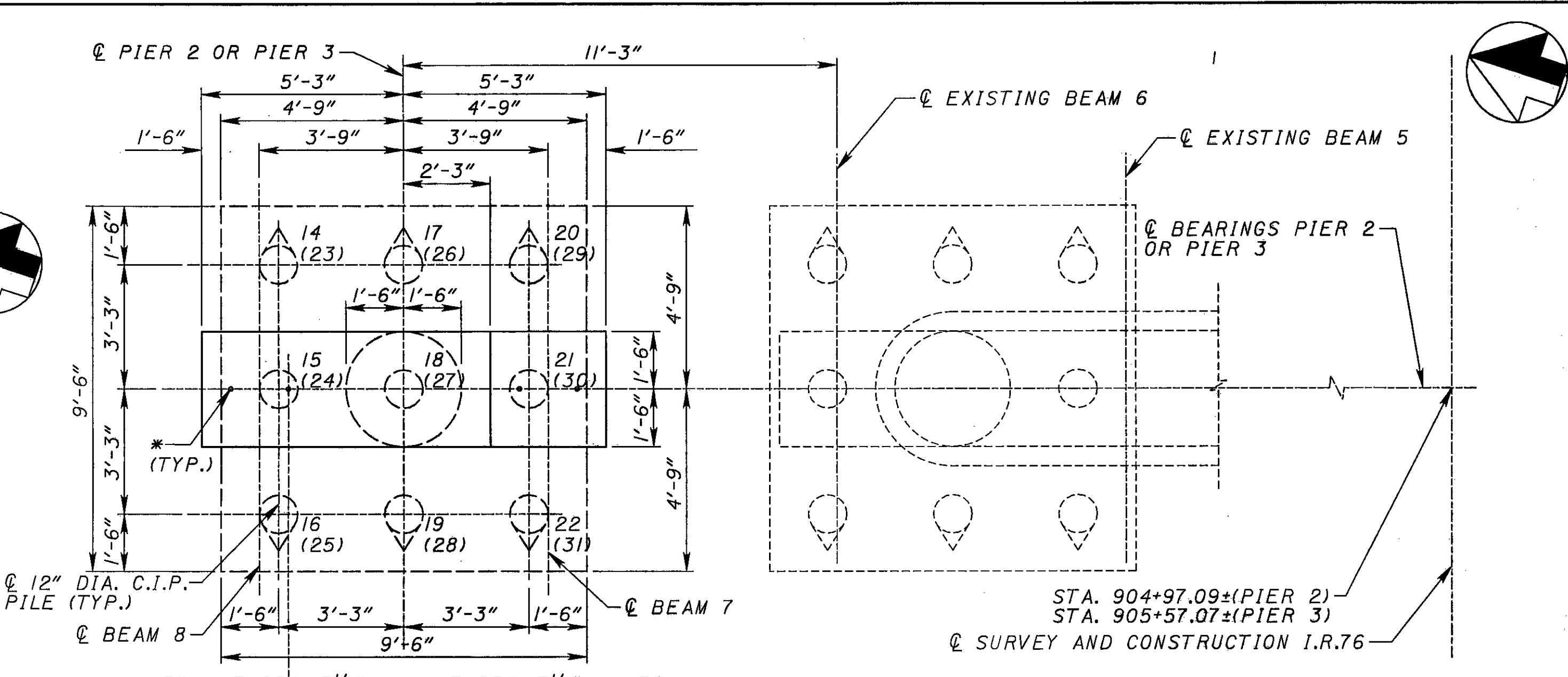
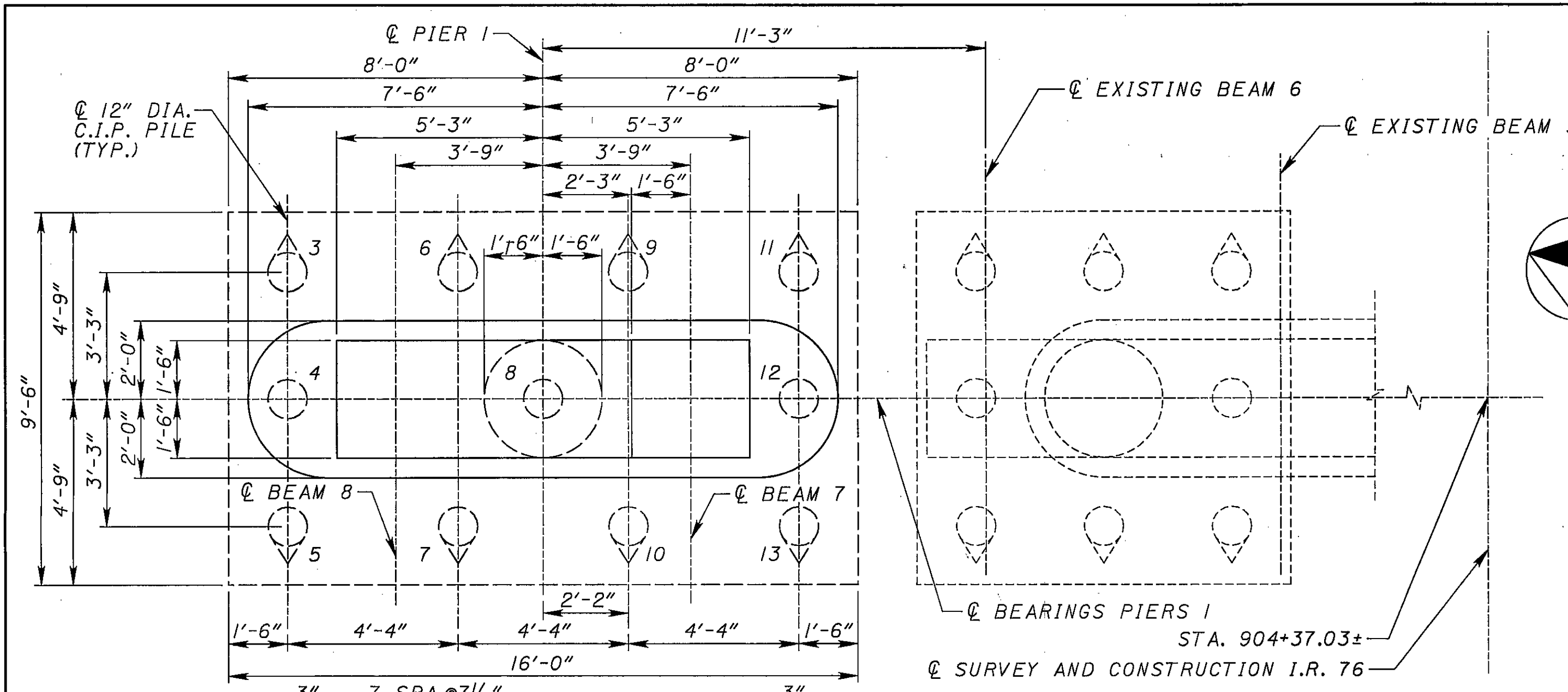
- SEE STD. DWG. 100-1-82 FOR PROPOSED ABUTMENT WIDENING DETAILS NOT SHOWN.
- POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.

LEGEND:

- C.I.P. = CAST-IN-PLACE
 PEJF = PREFORMED EXPANSION JOINT FILLER
 DIA. = DIAMETER
 TYP. = TYPICAL

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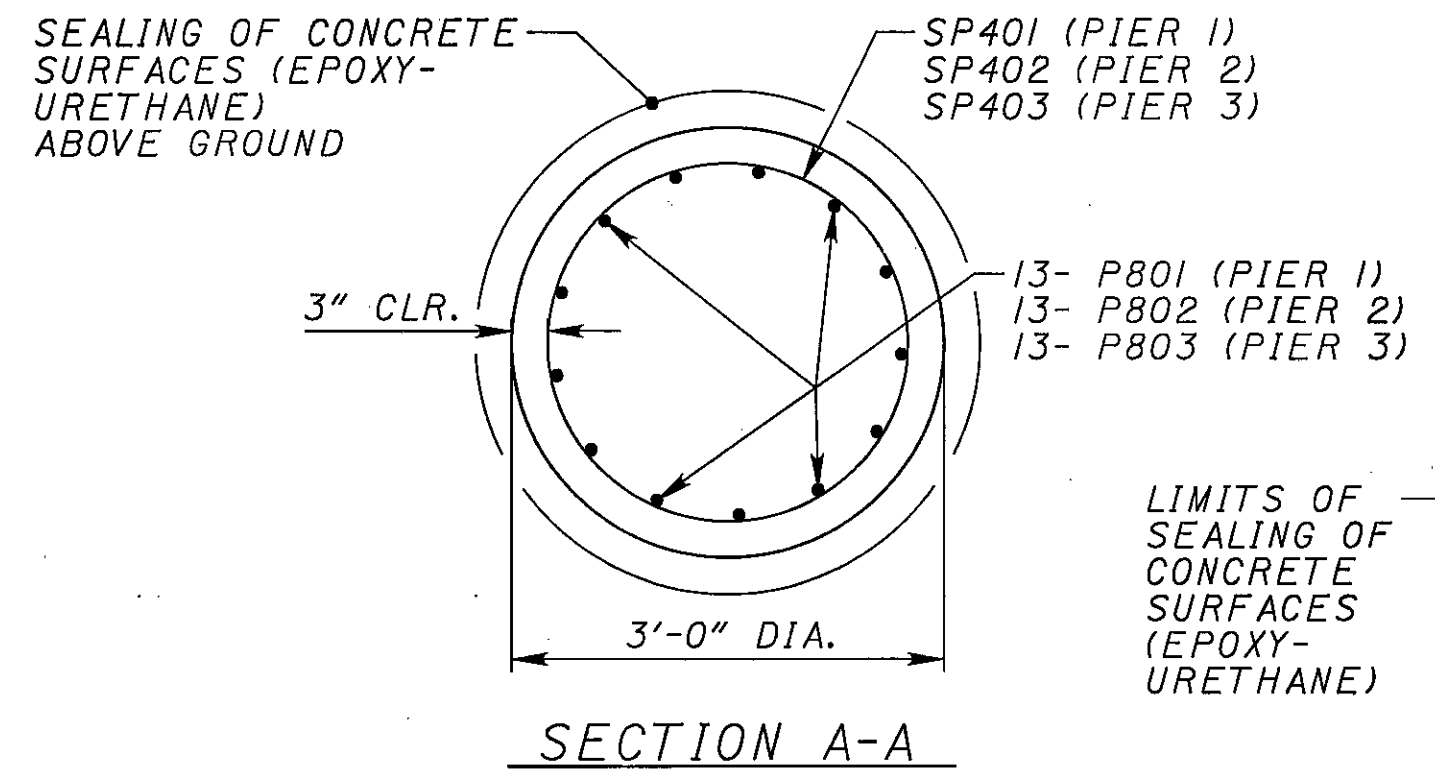
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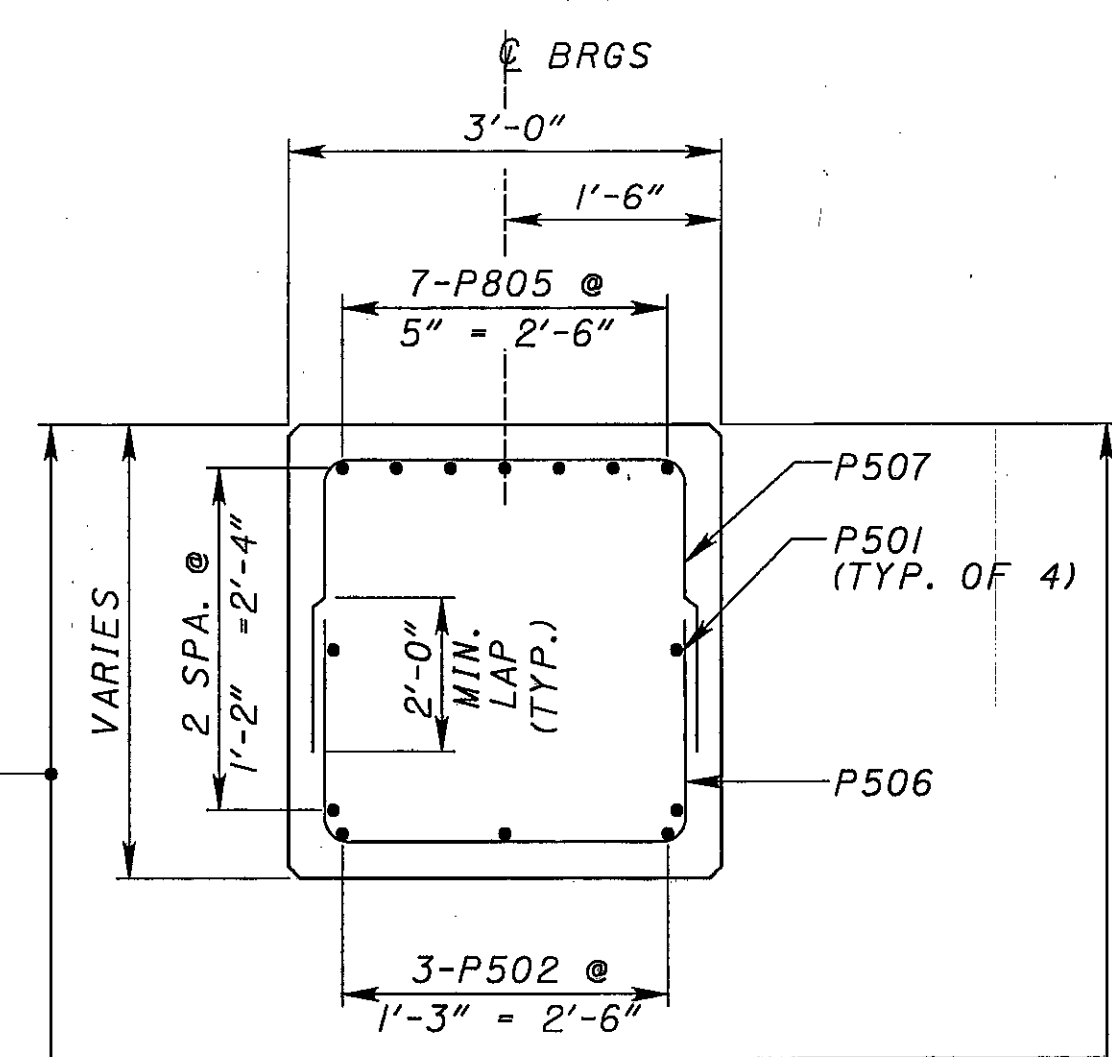
NOTES:
 1. WORK THIS SHEET W/ SHEET 12 / 22

LEGEND:
 C.I.P. - CAST-IN-PLACE
 C.J. - CONSTRUCTION JOINT
 E.F. - EACH FACE
 DIA. - DIAMETER
 # - PILE NUMBERS (PIERS 1 AND 2)
 (*) - PILE NUMBERS (PIER 3)

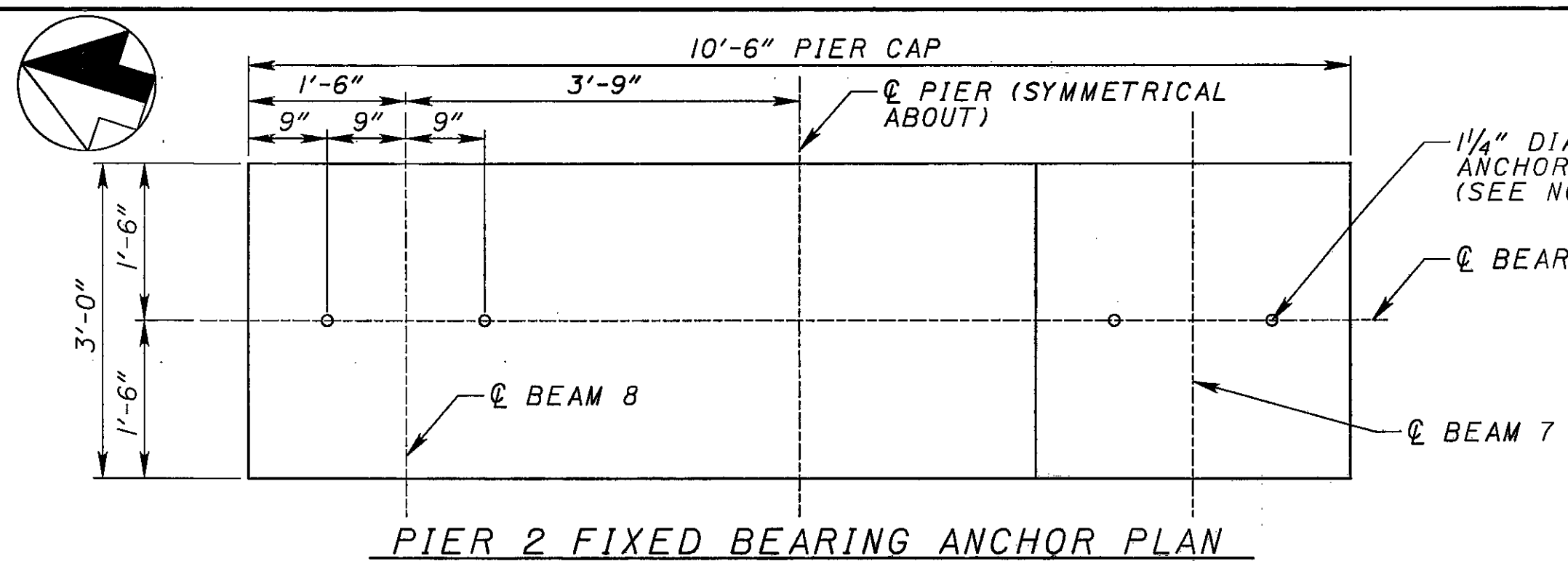
○ - 12" DIA. C.I.P. PILE (VERTICAL)
 ⊙ - 12" DIA. C.I.P. PILE (4:1 BATTER)
 * - 1/4" DIA. x 1'-7" LONG FIXED BEARING ANCHOR ROD (PIER 2 ONLY)



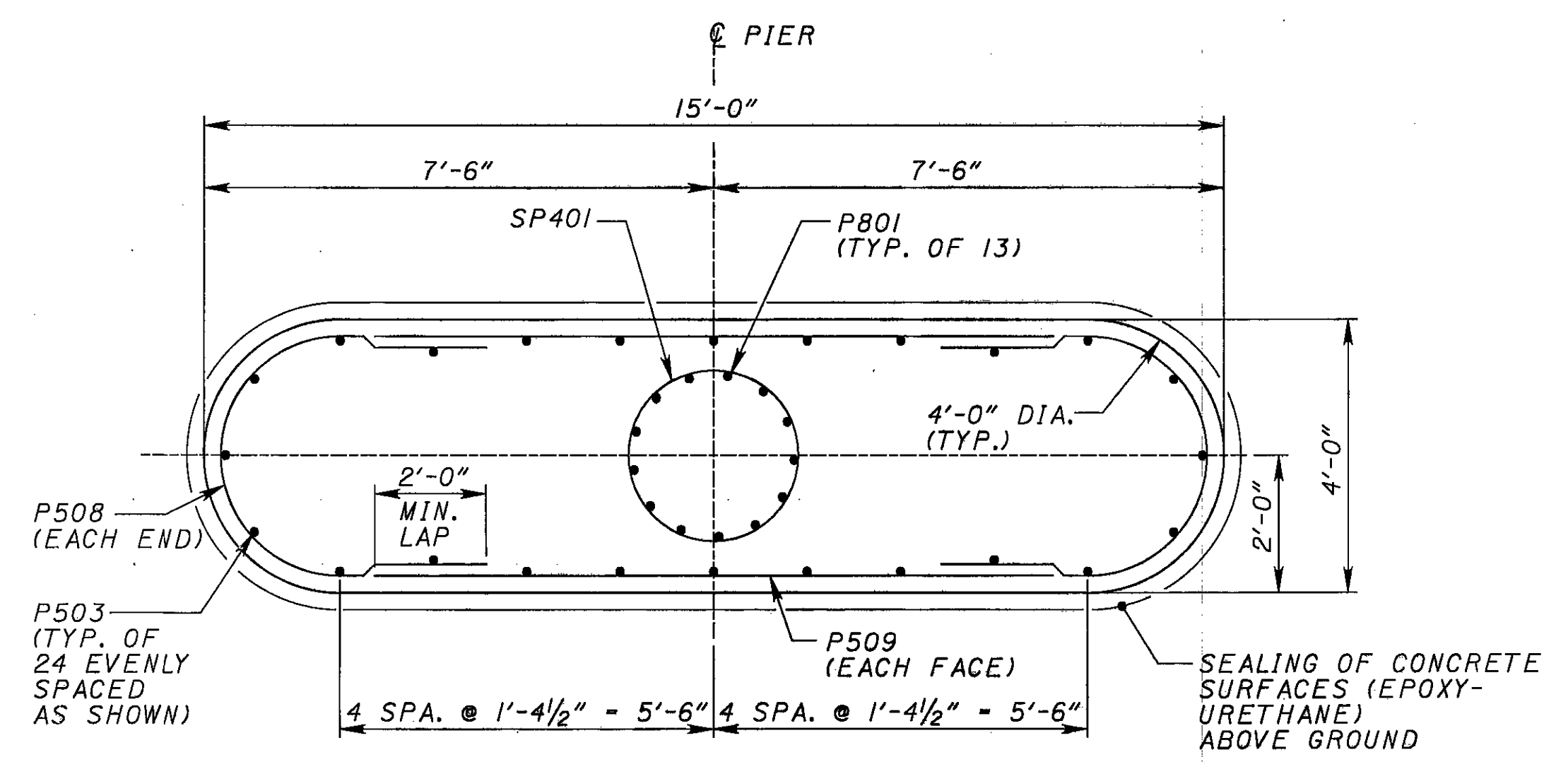
SECTION A-A



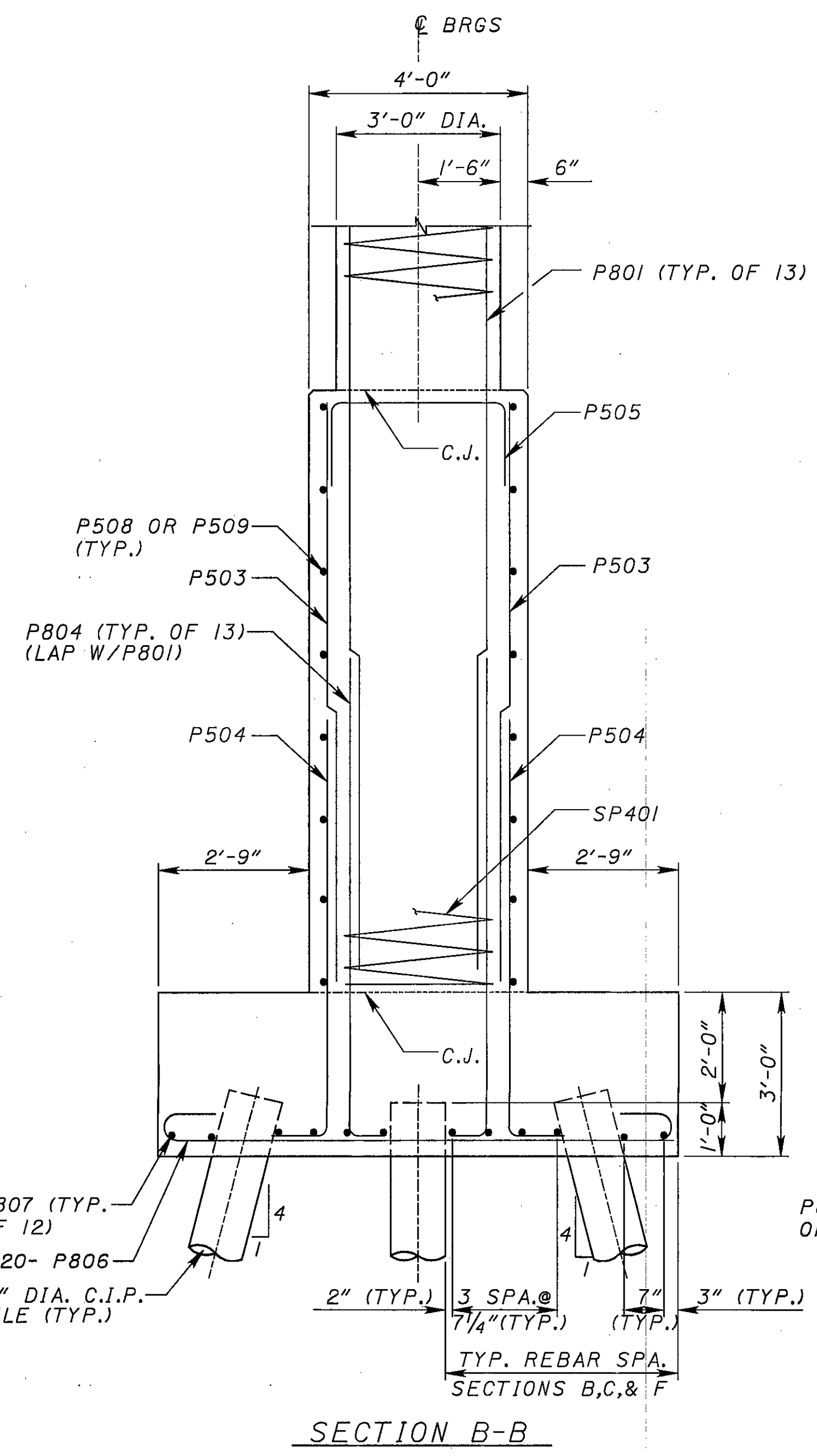
SECTION D-D



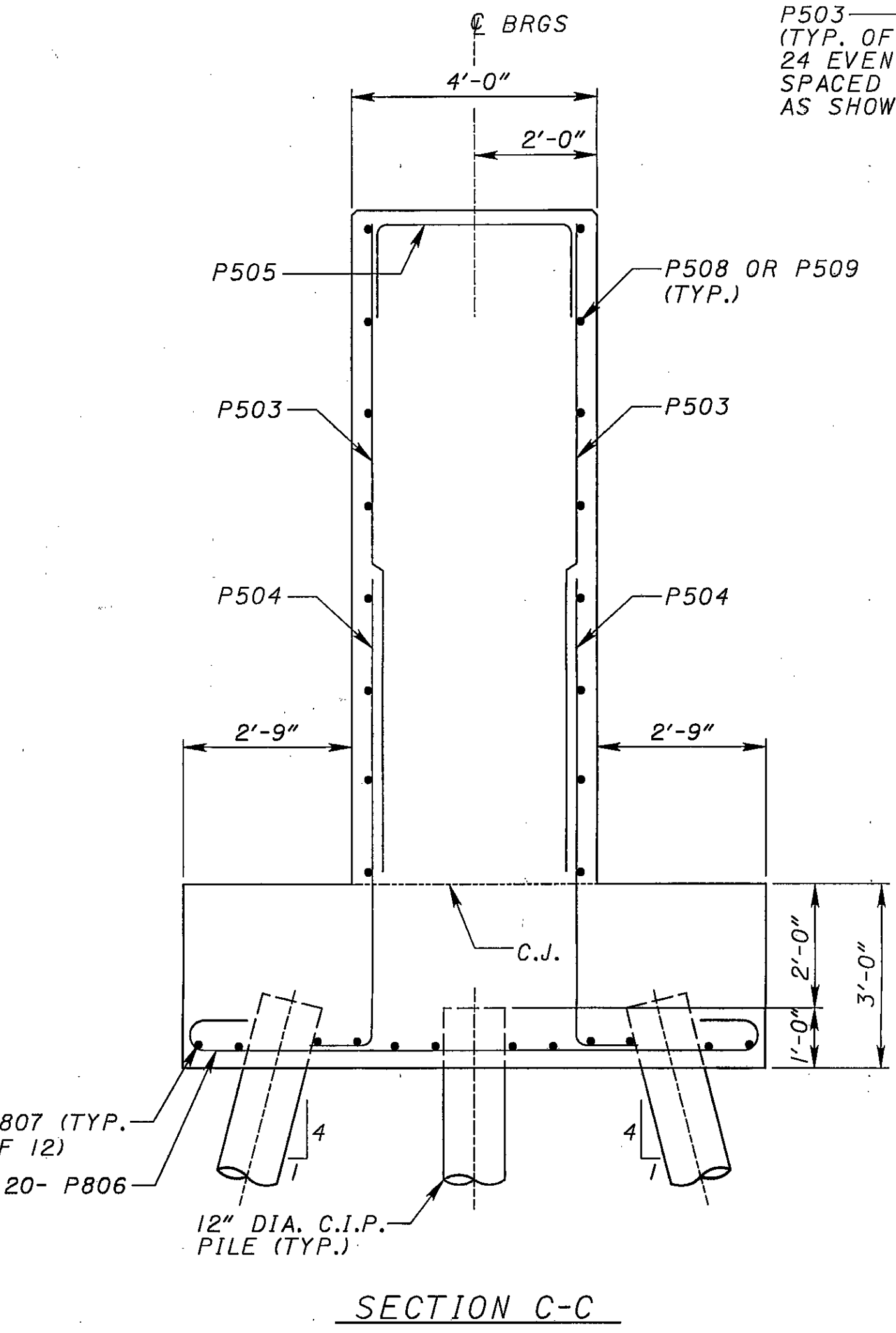
PIER 2 FIXED BEARING ANCHOR PLAN



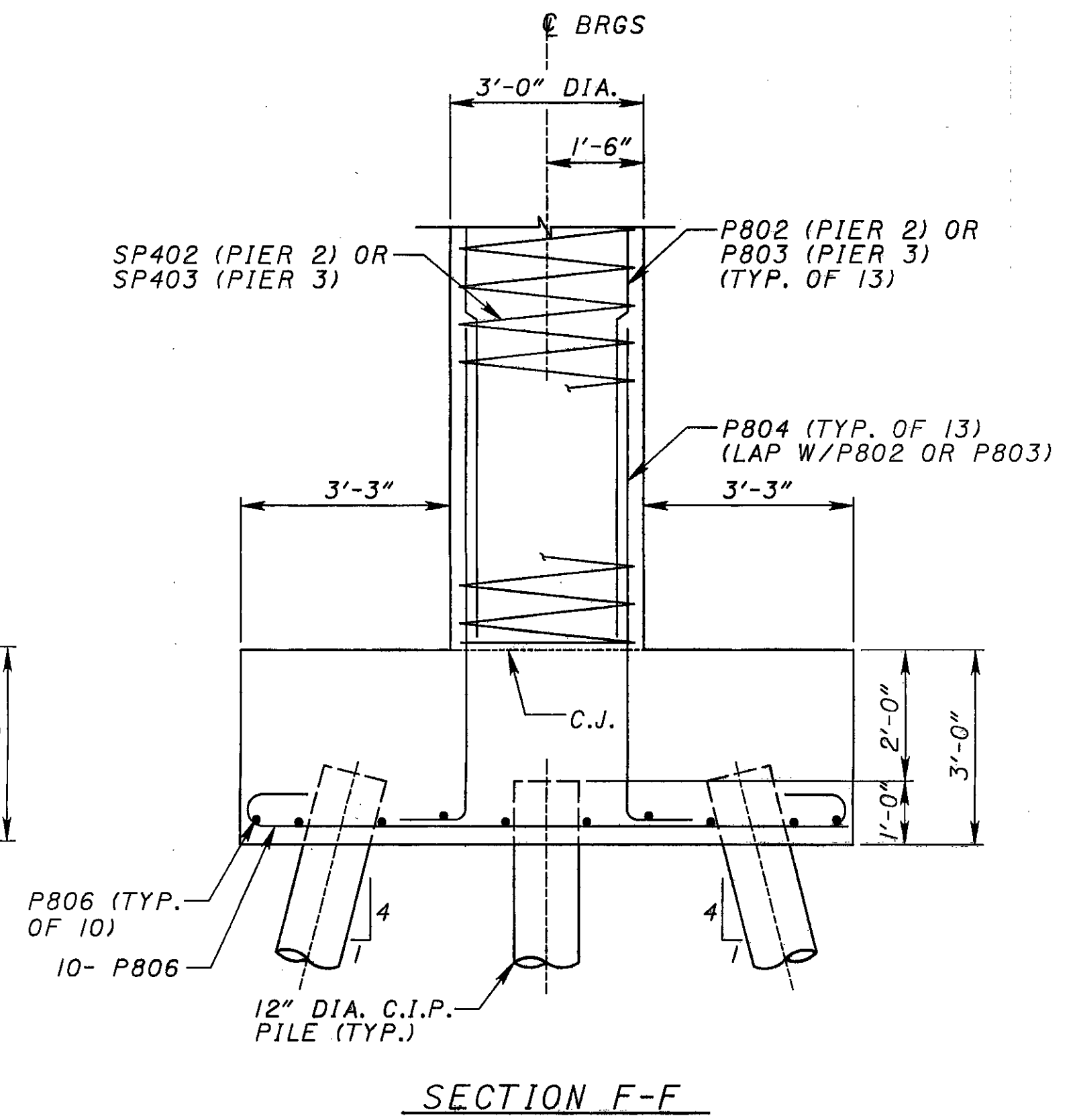
SECTION E-E



SECTION B-B



SECTION C-C



SECTION F-F

LEGEND:

- BRGS - BEARINGS
- C.I.P. - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- DIA. - DIAMETER

NOTES:

1. WORK THIS SHEET WITH 11 / 22.
2. MIN. LAP LENGTHS (UNLESS NOTED OTHERWISE):
 #5's - 2'-6"
 #8's - 6'-4"
3. FIXED BEARING ANCHOR RODS SHALL BE GALVANIZED ACCORDING TO 711.02. AT THE OPTION OF THE CONTRACTOR, RODS MAY EITHER BE INSTALLED PER CMS 510, OR CAST-IN-PLACE WITH PIER. ADJUST LOCATION OF CENTER P805 BAR TO AVOID INTERFERENCE.

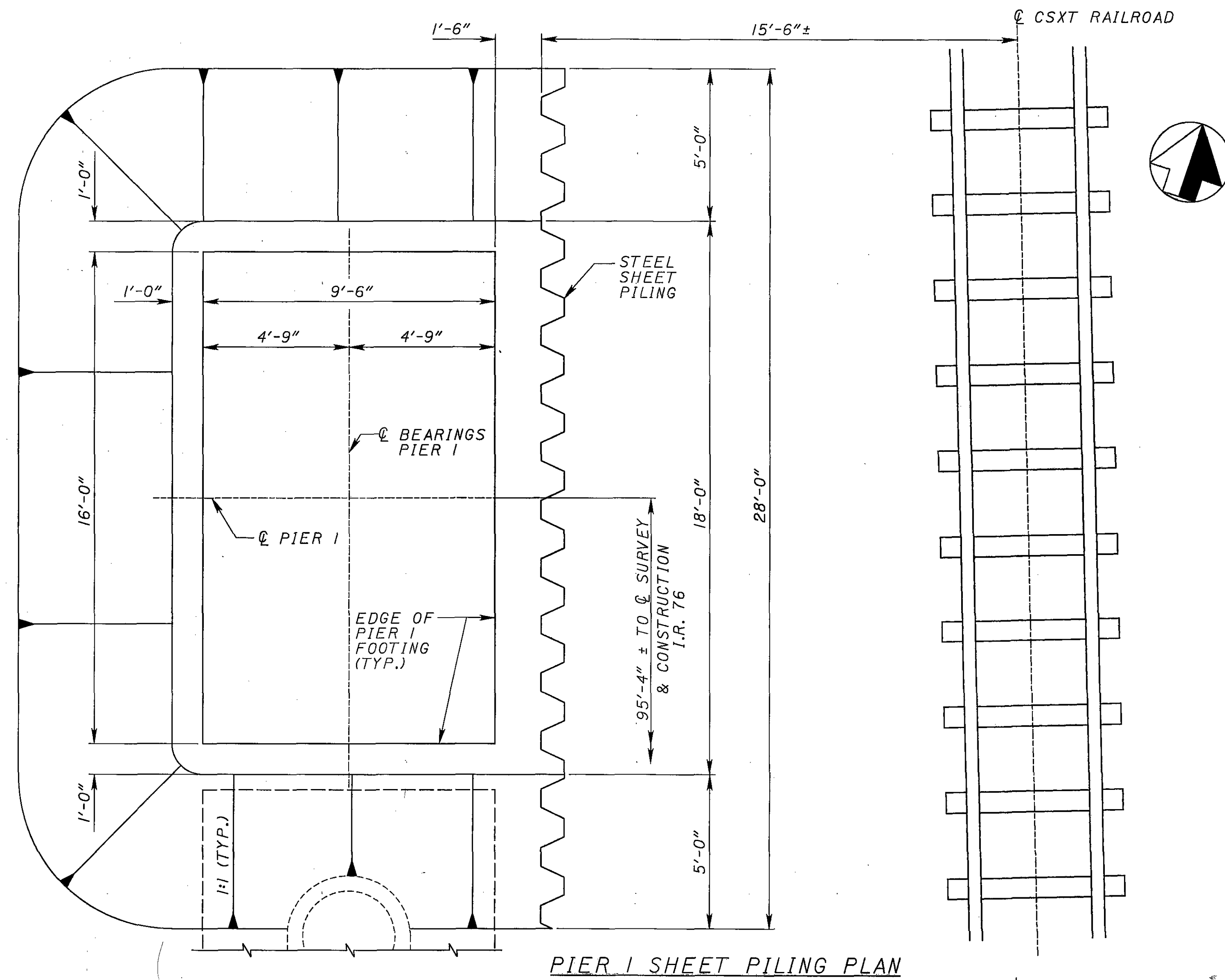
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DATE	6-10-04
REVIEWED	WTL
STRUCTURE FILE NUMBER	5204429
DRAWN	MAK
CHECKED	MAK
DESIGNED	CAS

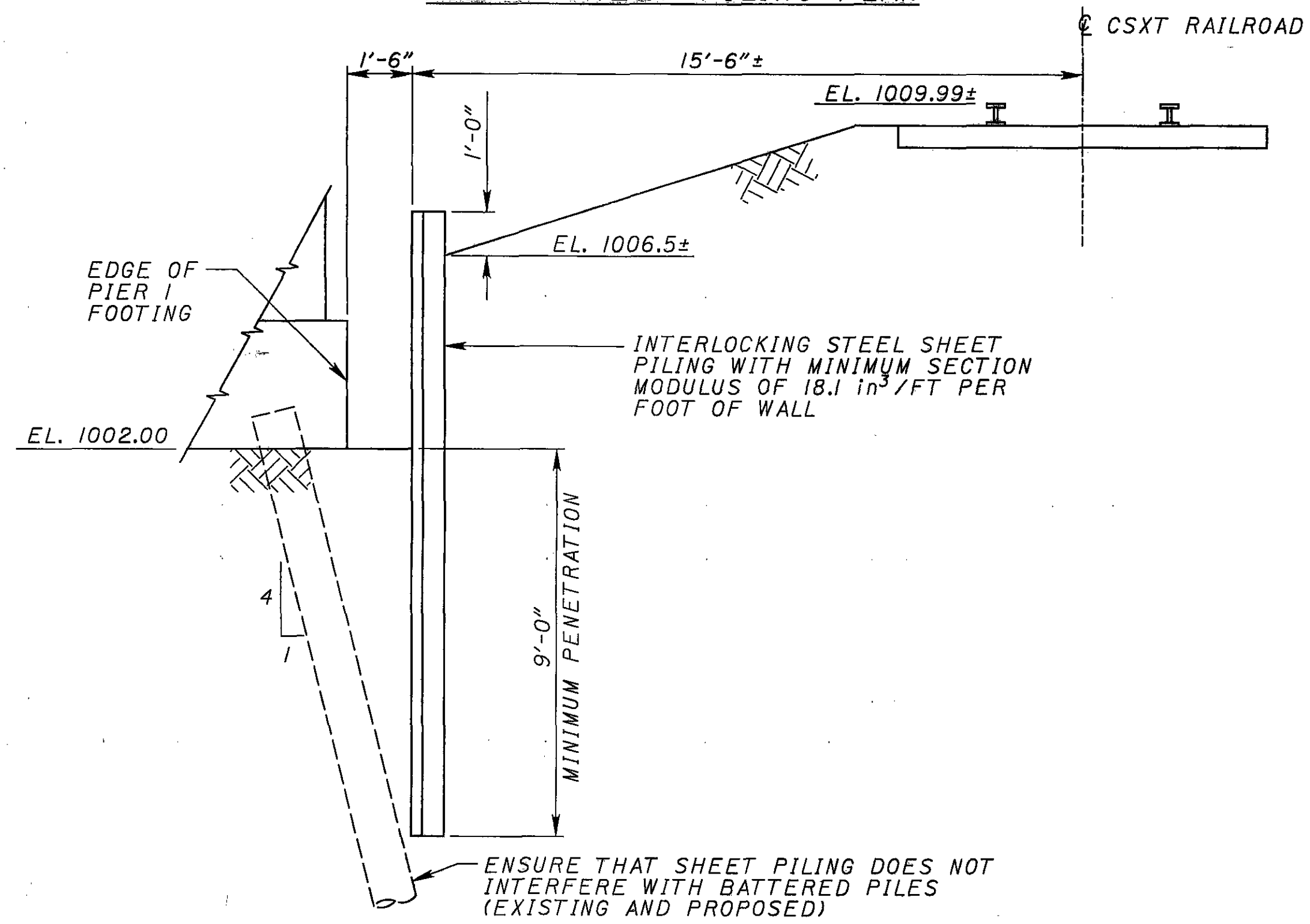
PIER DETAILS 2 OF 2
BRIDGE NO. MED-76-0158 L
OVER CSXT RAILROAD & RYAN ROAD

MED-71-6.06
PID 75657

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PIER 1 SHEET PILING PLAN

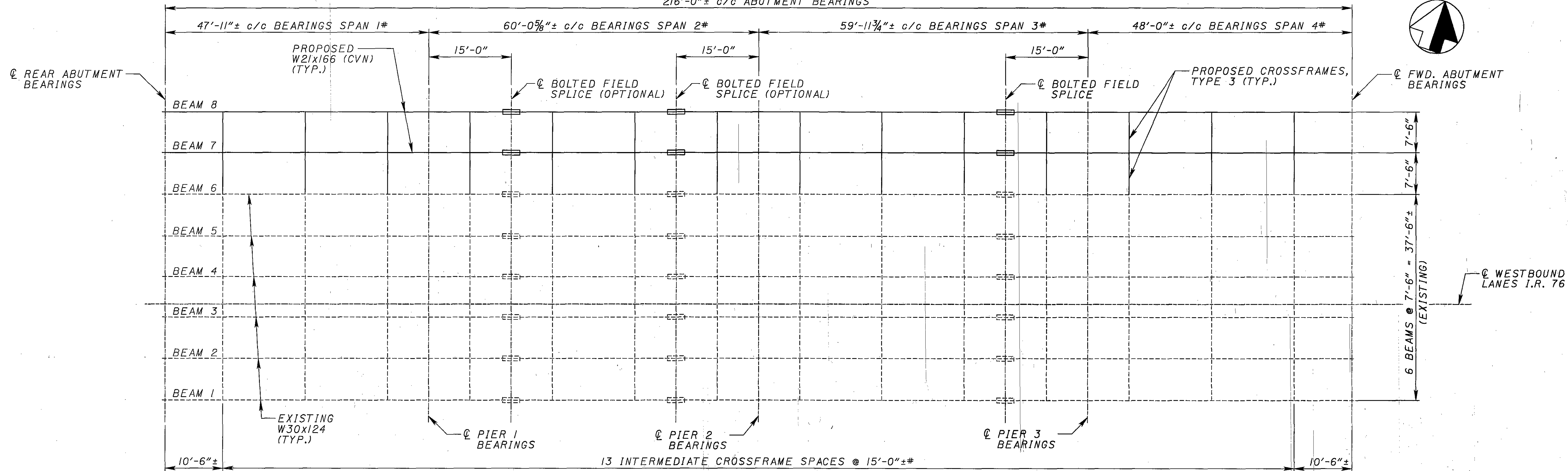


PIER 1 SHEET PILING ELEVATION

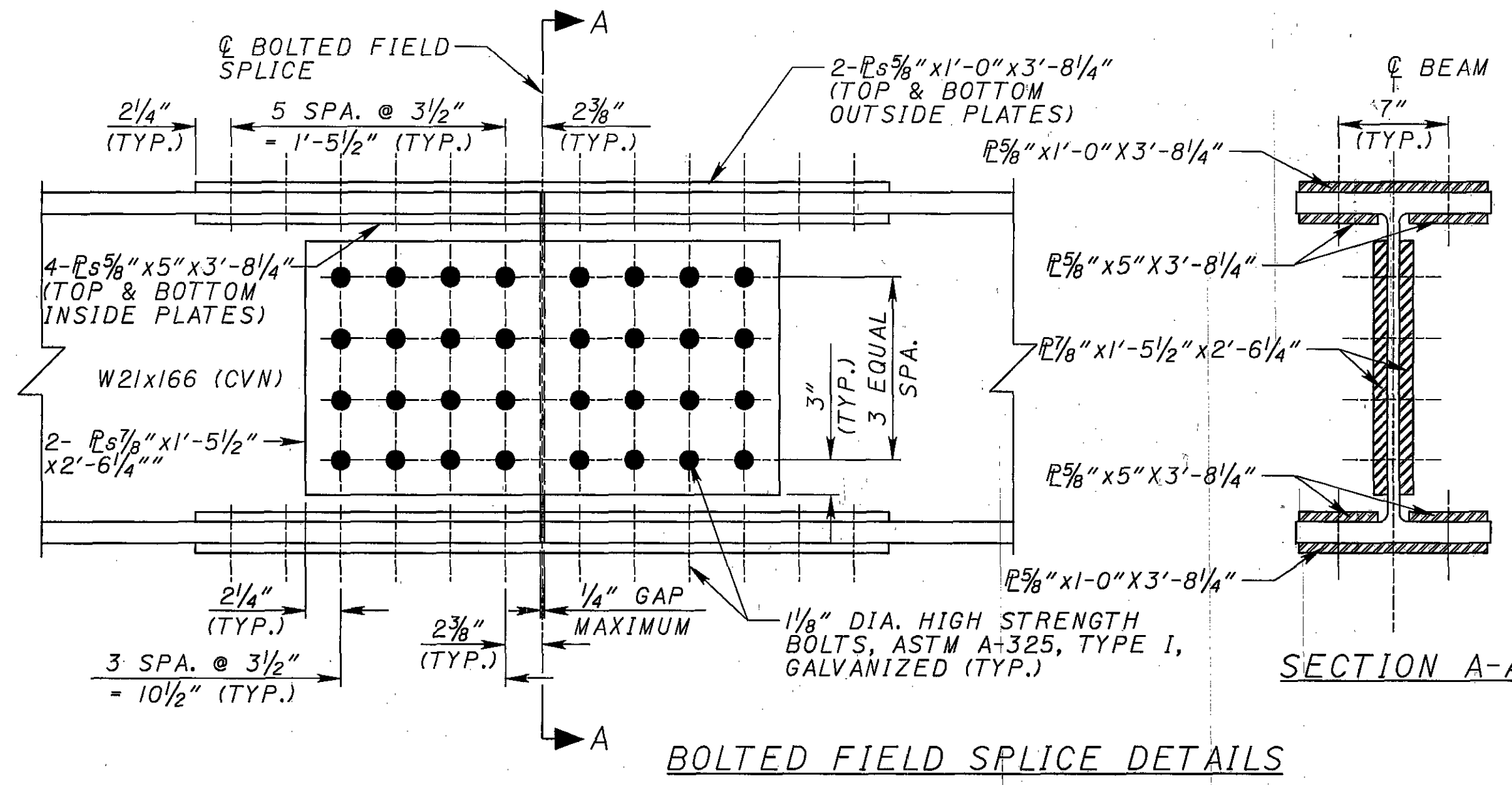
NOTES:

1. ALL WORK, LABOR, AND MATERIALS REQUIRED TO CONSTRUCT THE PIER 1 SHORING SHALL BE PAID FOR UNDER ITEM 503, COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN.
2. SEE COOPERATION WITH RAILROADS NOTE ON SHEET 4 / 22

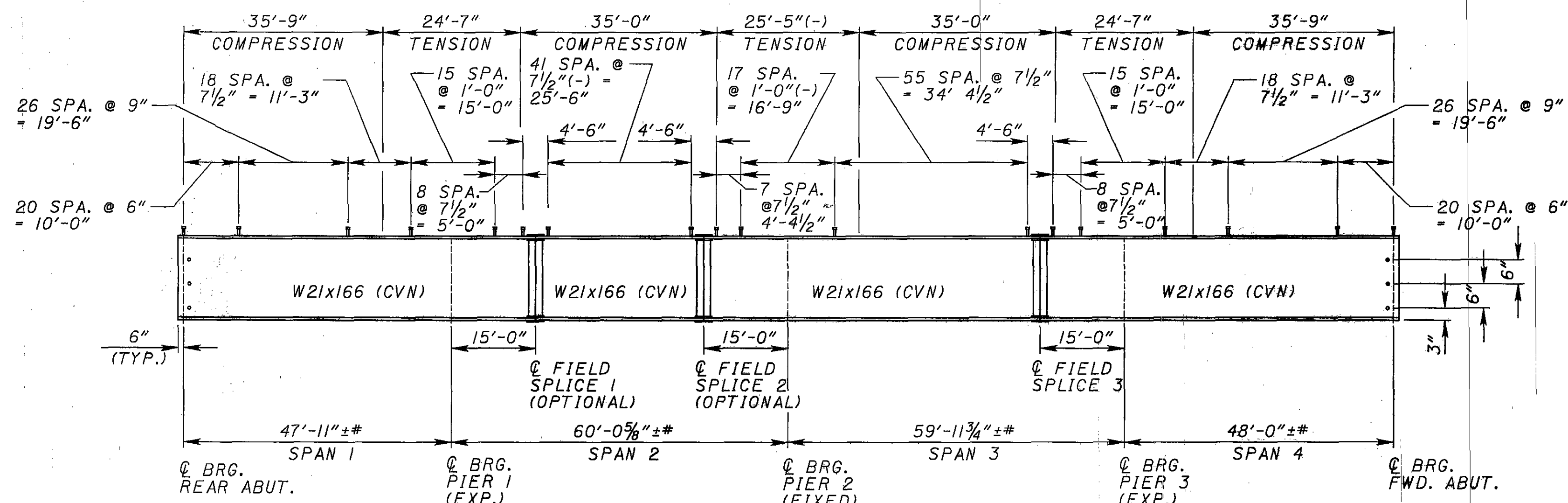
216'-0"± c/c ABUTMENT BEARINGS



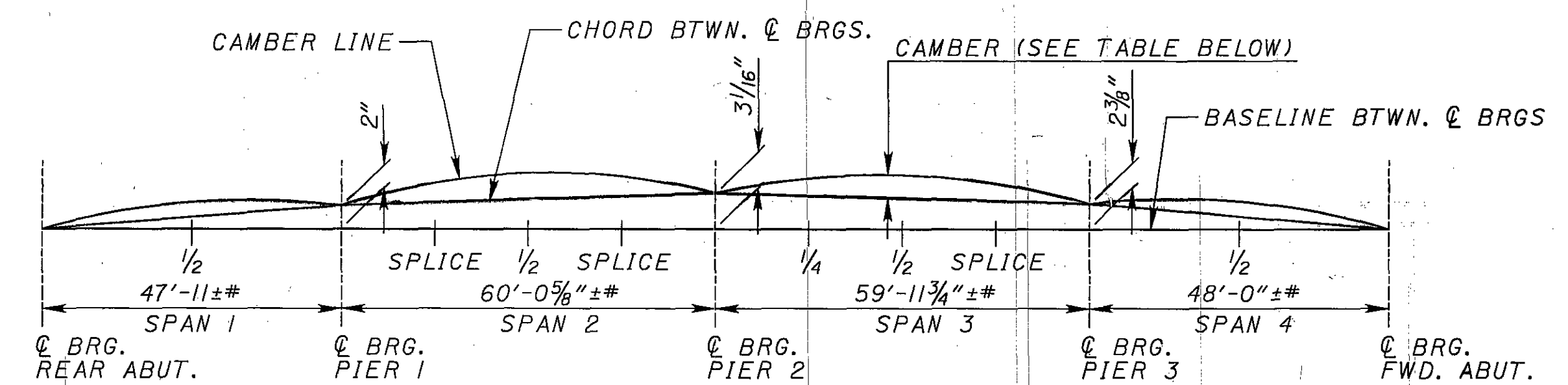
FRAMING PLAN (WESTBOUND)



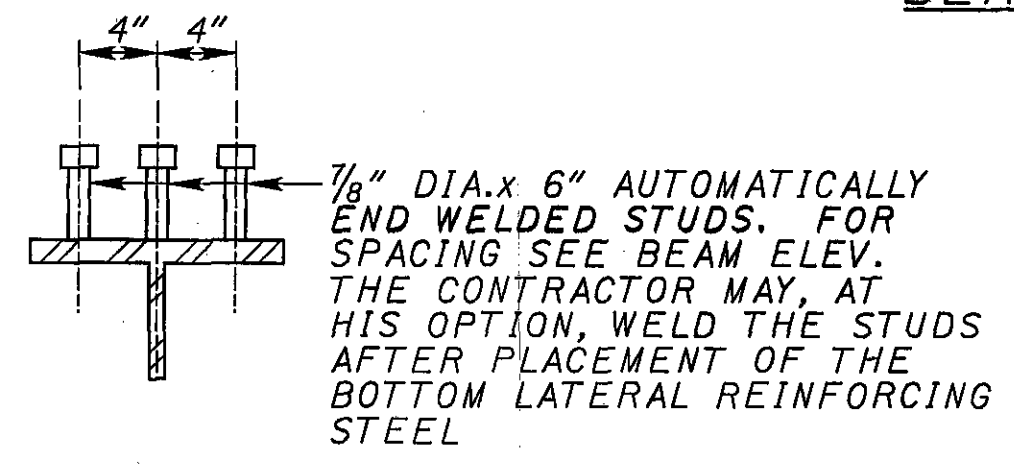
BOLTED FIELD SPLICE DETAILS



BEAM ELEVATION



BLOCKING AND CAMBER



SHEAR STUD CONNECTOR

NOTES:

- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE AT LEAST 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
- FOR CROSSFRAME CONNECTION DETAILS, SEE SHEET 16 / 22.
- SEE STD. DWG. GSD-I-96 FOR CROSSFRAME DETAILS NOT SHOWN.
- ALL SHAPES AND PLATES ARE DESIGNATED (CVN), AND SHALL MEET THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.
- NEW CROSSFRAMES SHALL BE IN LINE WITH EXISTING CROSSFRAMES.
- DO NOT TENSION CROSSFRAME BOLTS UNTIL THE CONCRETE HAS BEEN PLACED.
- * CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD PRIOR TO FABRICATION. SEE NOTE ON SHEET 3 / 22.

LEGEND:

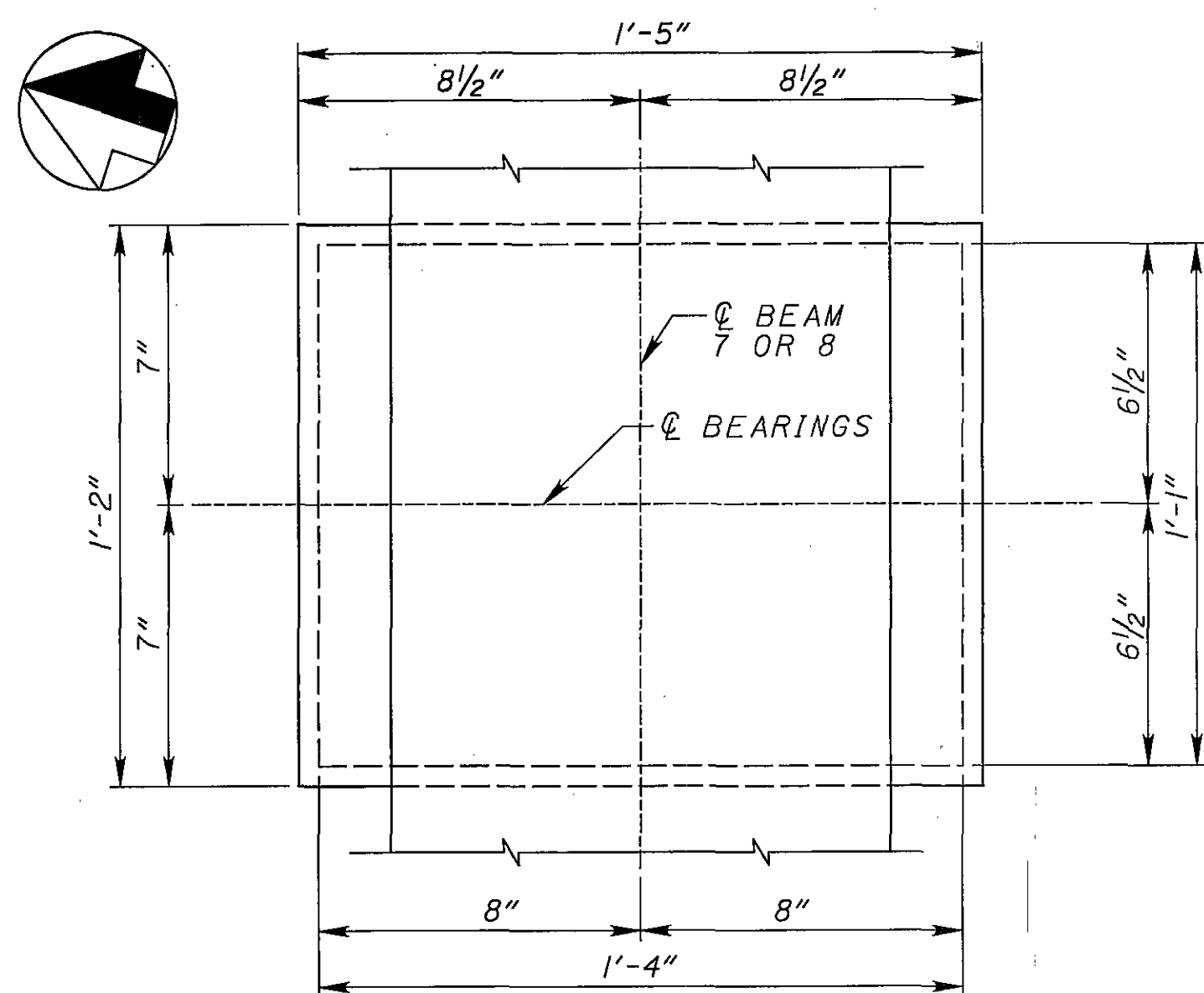
- ABUT. = ABUTMENT
- BRG. = BEARING
- BTWN. = BETWEEN
- DIA. = DIAMETER
- EXP. = EXPANSION
- FWD. = FORWARD
- SPA. = SPACES
- TYP. = TYPICAL

DEFLECTION AND CAMBER (INCHES)

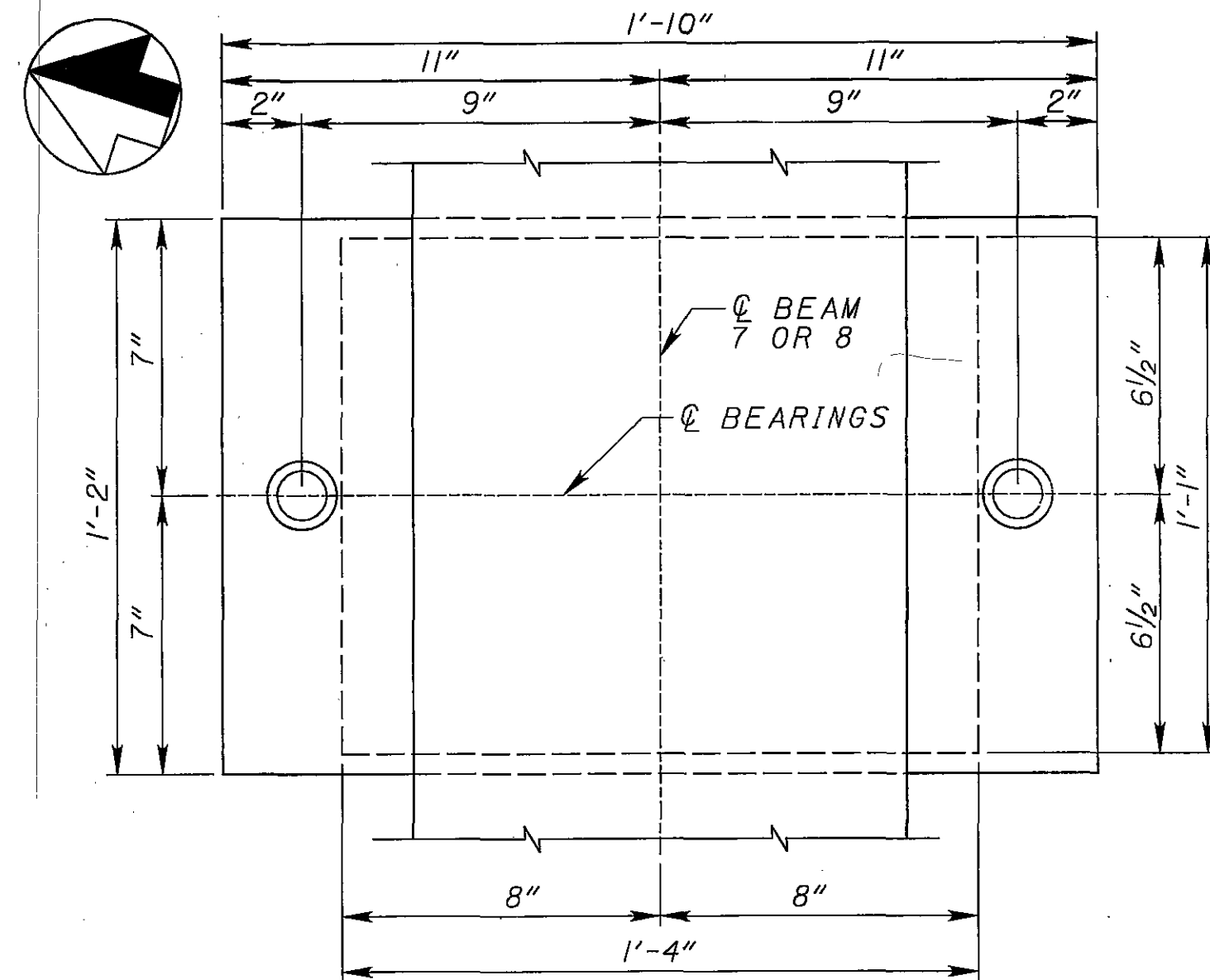
DESCRIPTION	(SPAN 1)		PIER		(SPAN 2)		PIER		(SPAN 3)		PIER		(SPAN 4)	
	1/2	NO. 1	SPLICE	1/2	SPLICE	NO. 2	1/4	1/2	SPLICE	NO. 3	1/2	1/2	NO. 4	
PROPOSED BEAMS														
DEFLECTION DUE TO STEEL WEIGHT	1/16	0	1/16	1/16	1/16	0	1/16	1/16	1/16	0	1/16	1/16	0	1/16
DEFLECTION DUE TO SLAB WEIGHT	3/8	0	1/4	1/16	1/4	0	1/4	1/16	1/4	0	1/4	1/16	0	3/8
ADJUSTMENT FOR VERTICAL CURVE	-1/8	0	1/16	3/16	3/16	0	1/8	1/8	1/8	0	1/8	1/8	0	1/16
REQUIRED SHOP CAMBER	3/16	0	3/8	1/16	1/2	0	1/16	3/8	1/16	0	1/16	3/8	0	1/2

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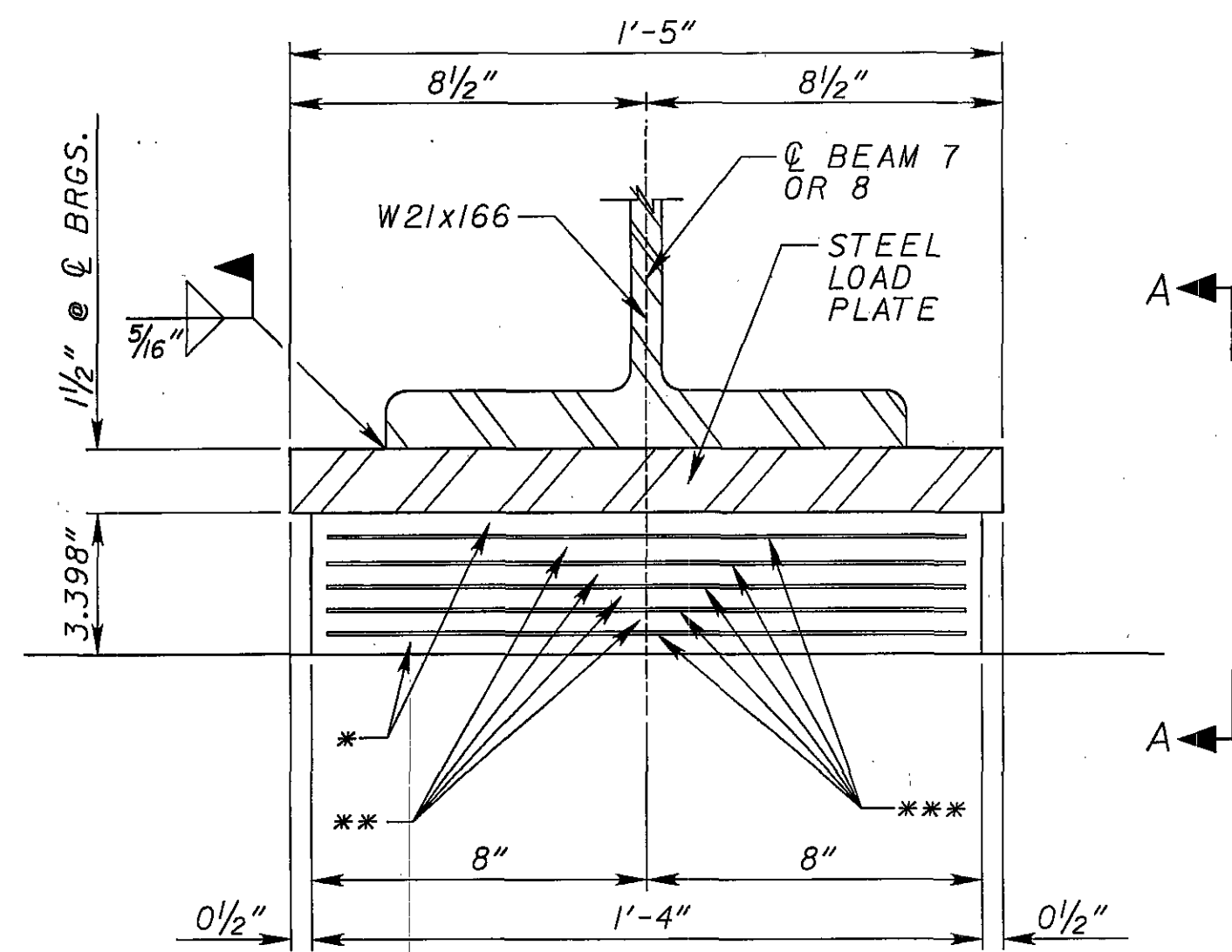
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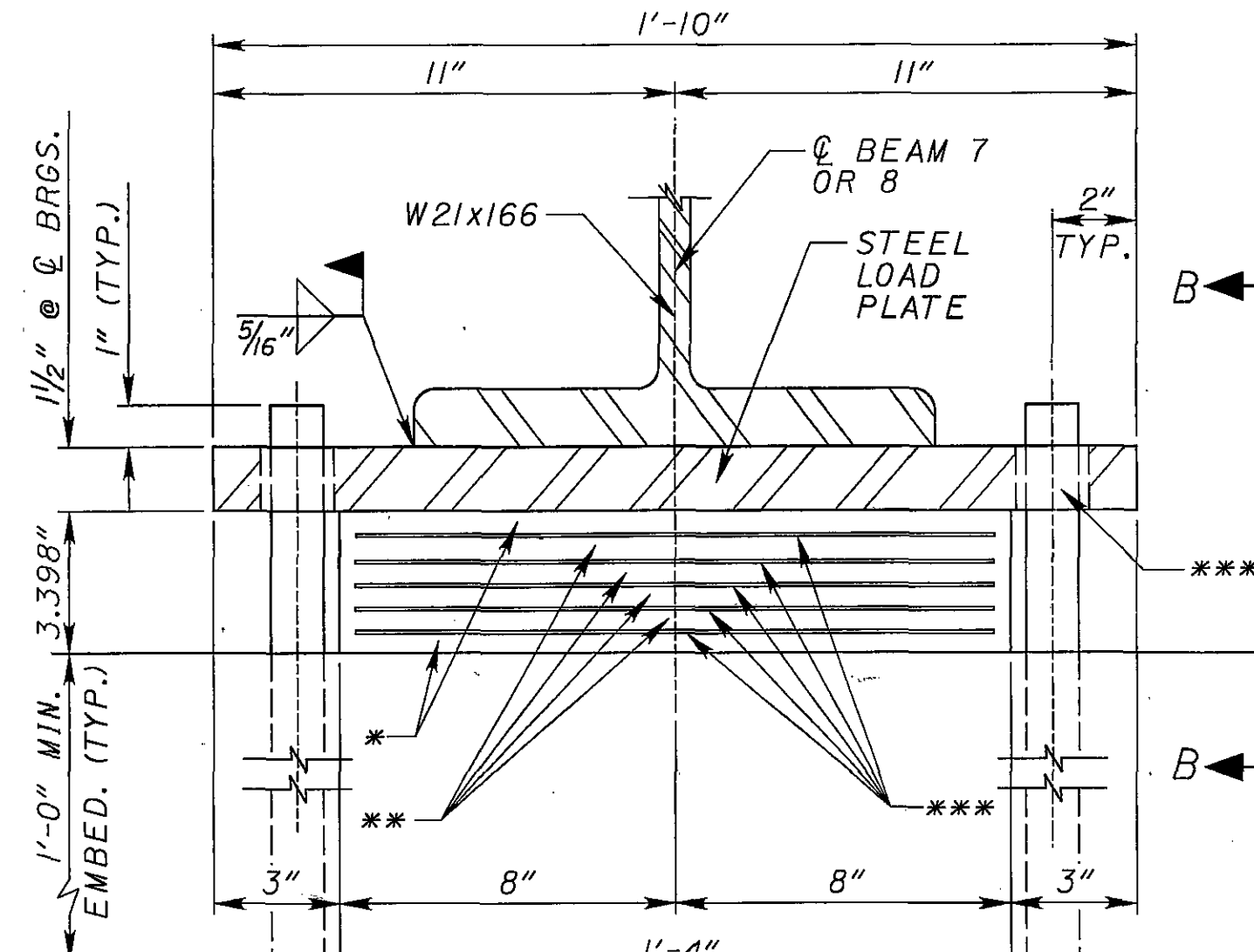
PIERS 1 AND 3 BEARING PLAN



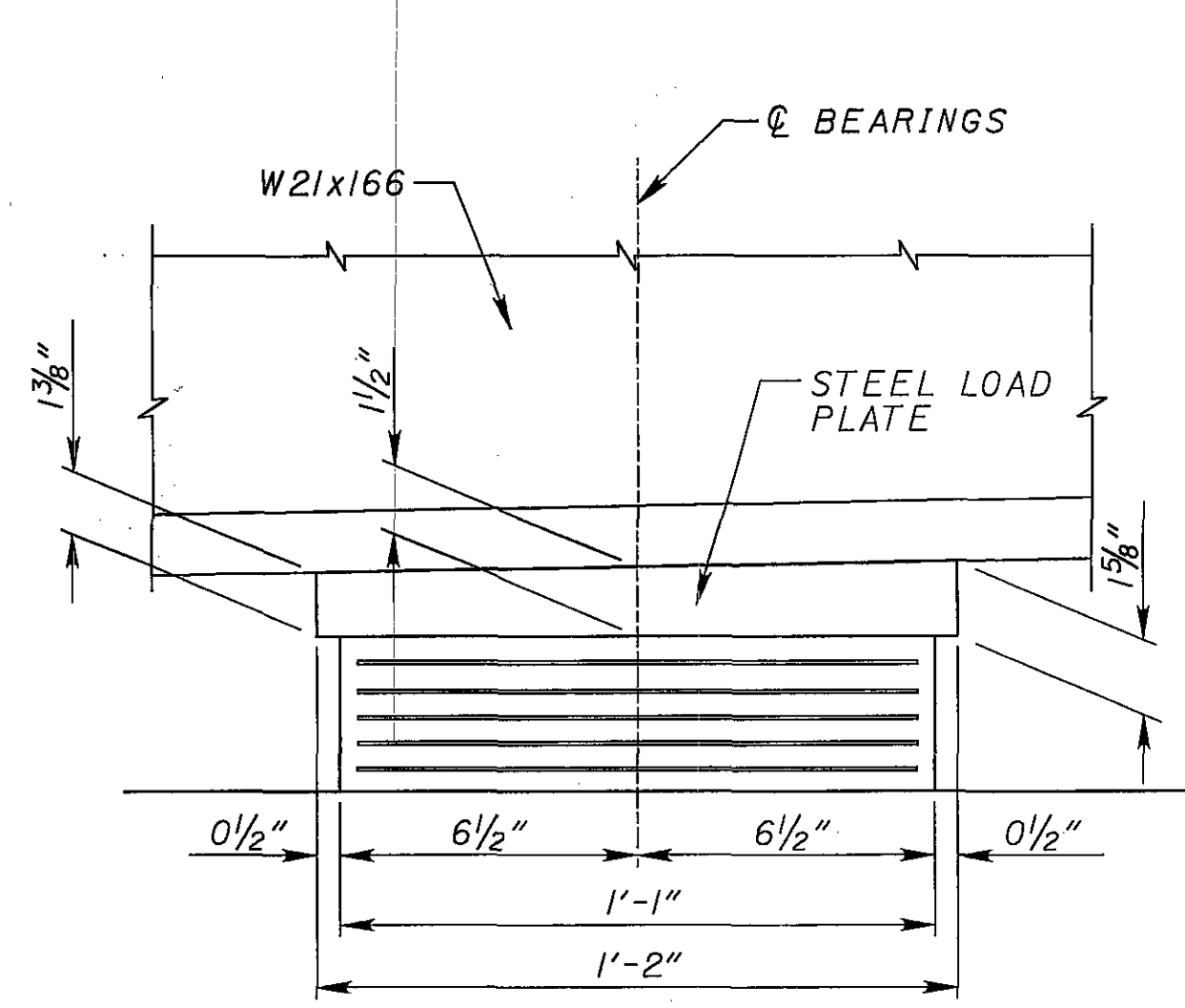
PIER 2 BEARING PLAN



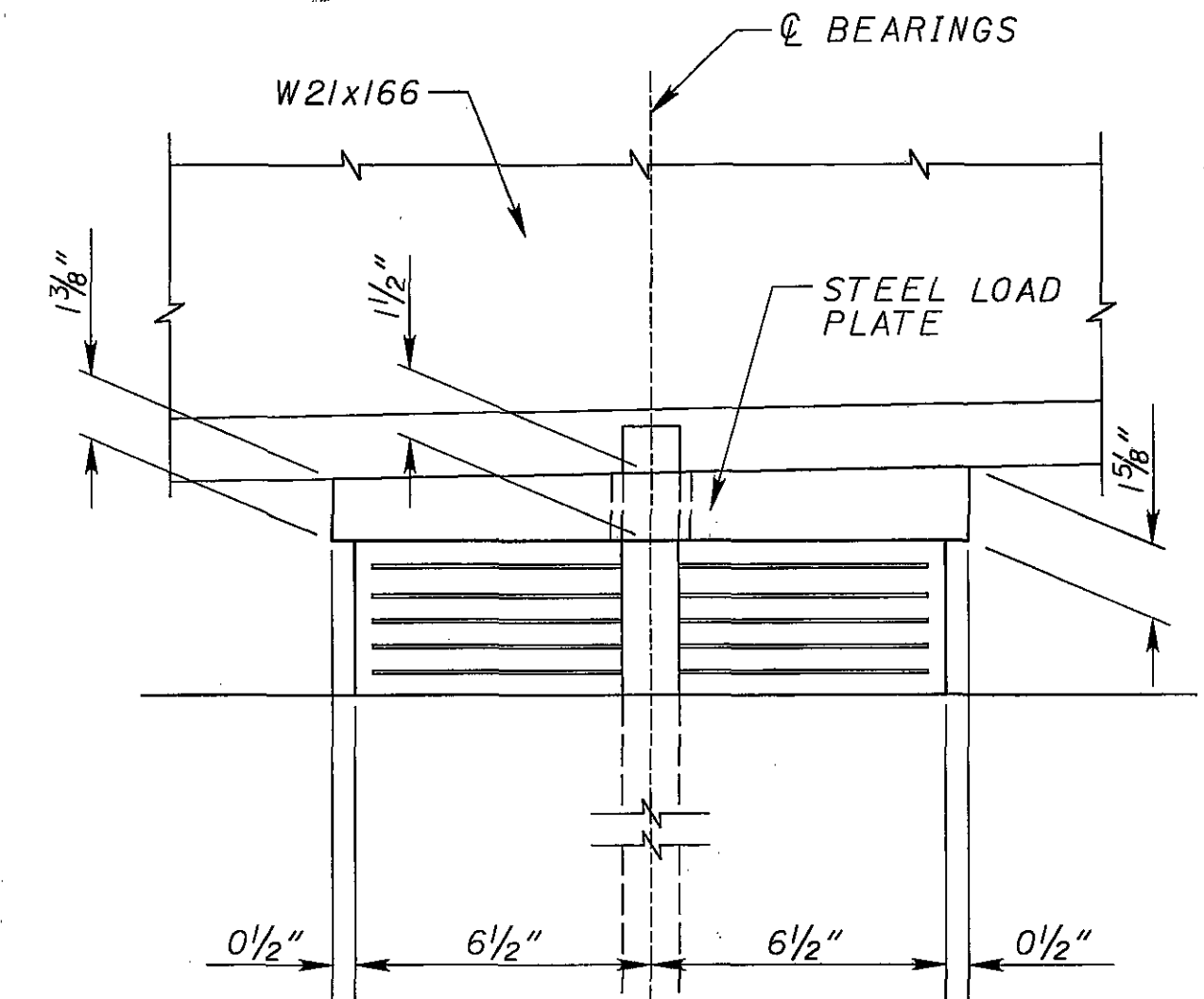
PIERS 1 AND 3 BEARING ELEVATION (EXPANSTION) (LOOKING UPSTATION)



PIER 2 BEARING ELEVATION (FIXED) (LOOKING UPSTATION)



VIEW A-A



VIEW B-B

NOTES:

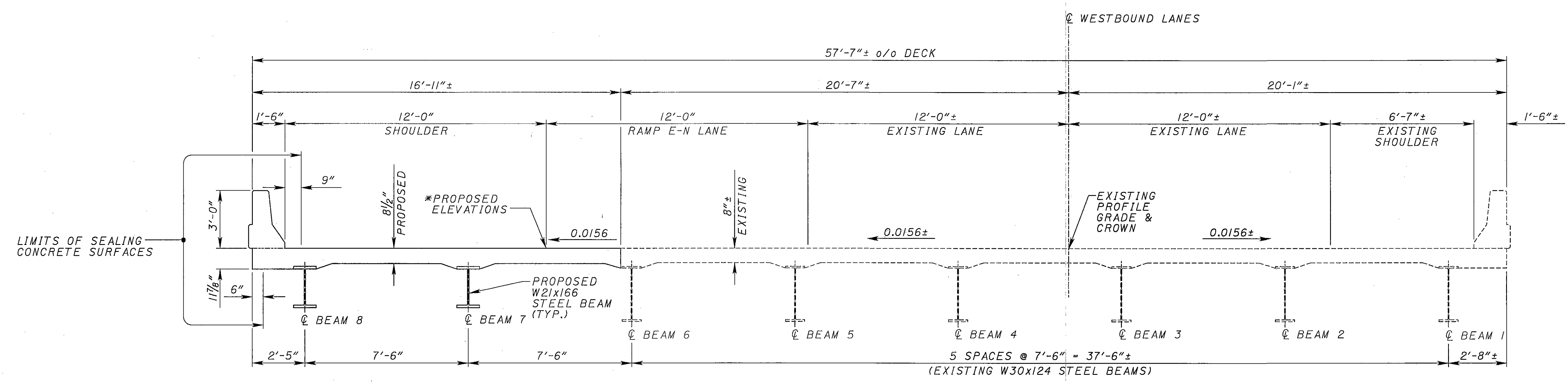
- ELASTOMERIC BEARINGS:** THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- BEARING REPOSITIONING:** IF THE BEAMS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
- WELDING:** CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- LOAD PLATES:** SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND PIER NUMBER. THE STEEL LOAD PLATE IS ASTM A572 STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS. LOAD PLATES SHALL HAVE THE SAME PROTECTIVE COATING AS THE MAIN STRUCTURAL STEEL.
- DESIGN LOADING:** BEARINGS ARE DESIGNED FOR THE FOLLOWING LOADS (KIPS):

	PIERS
DEAD LOAD	93
LIVE LOAD W/O IMPACT	64
TOTAL DESIGN LOAD	157
- BASIS OF PAYMENT:** THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES, ANCHOR RODS, AND PROTECTIVE COATING. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.

LEGEND:

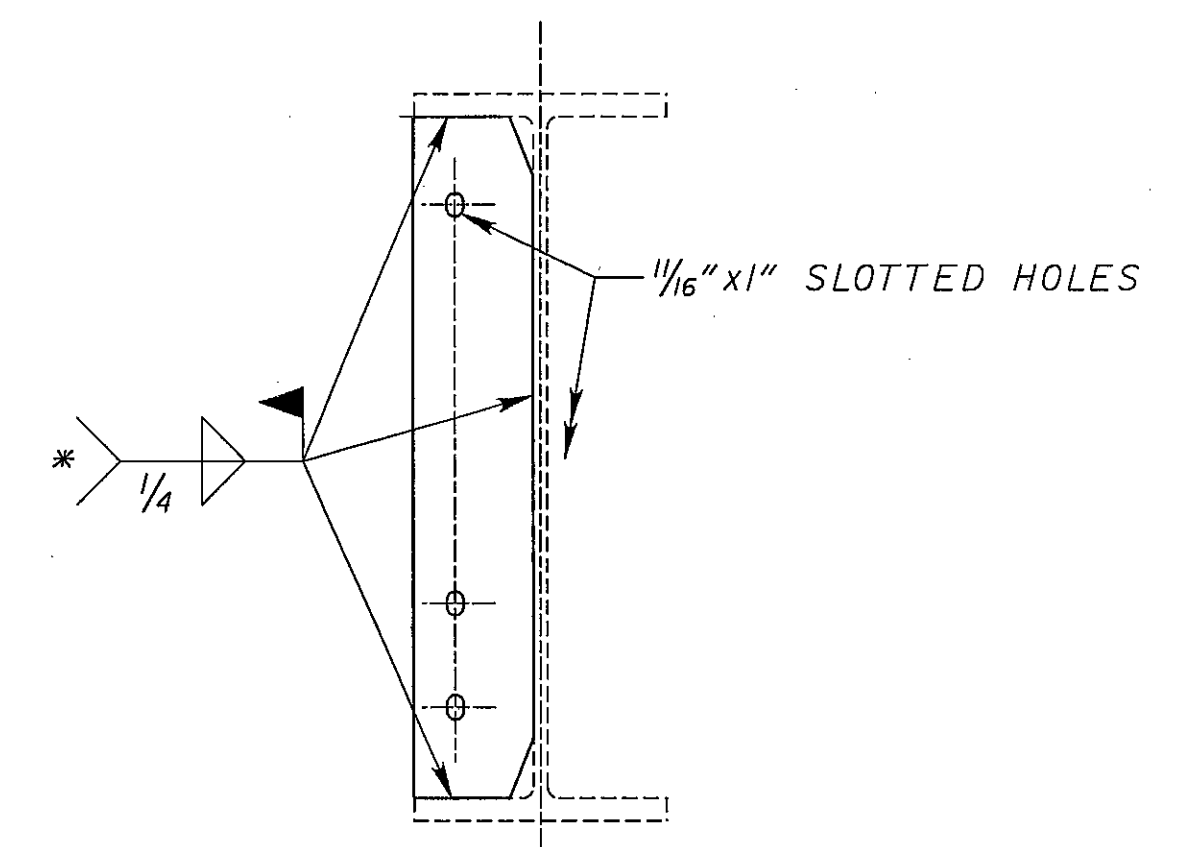
- BRGS. = BEARINGS
 - DIA. = DIAMETER
 - EMBED. = EMBEDMENT
 - MIN. = MINIMUM
 - TYP. = TYPICAL
- * = 2 EXTERNAL ELASTOMER LAYERS (0.392" THICK EACH)
 - ** = 4 INTERNAL ELASTOMER LAYERS (0.560" THICK EACH)
 - *** = 5 INTERNAL STEEL LAMINATES (0.075" THICK EACH)
 - ***** = 1/4" DIA. HOLE IN STEEL LOAD PLATE FOR 1/4" DIA. x 1'-7" LONG ANCHOR ROD, GALVANIZED ACCORDING TO 711.02. INSTALL ANCHOR ROD PER 510. INCLUDE DOWEL HOLES AND ANCHOR RODS WITH ITEM 516 FOR PAYMENT. AT THE OPTION OF THE CONTRACTOR, BEARING ANCHOR RODS (OR FORMED HOLES), LOCATED AND SUPPORTED BY TEMPLATES, MAY BE CAST-IN-PLACE.

BURGESS & NIPLE	
5005 186th Road Cedar Rapids, IA 52429	
DATE 6-10-04	REVIEWED DWL
DRAWN MAK	STRUCTURE FILE NUMBER 5204429
DESIGNED MAK	CHECKED JAA
BEARING DETAILS	
BRIDGE NO. MED-76-0158 L	
OVER CSXT RAILROAD & RYAN ROAD	
MED-71-6.06	
PID 75657	
15 / 22	
1042	
1120	



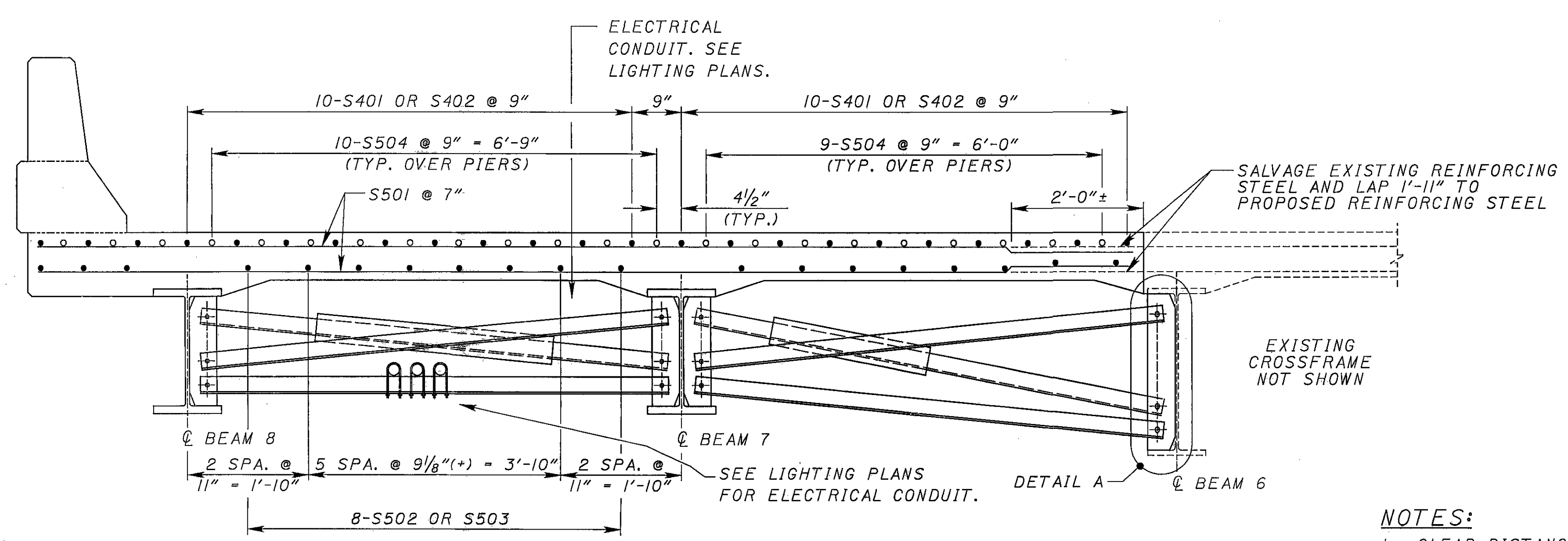
*ADJUST AS REQUIRED TO MEET THE EXISTING DECK.

TYPICAL SECTION



DETAIL A

* INCLUDE WELDS IN ITEM 513 FOR PAYMENT



TRANSVERSE SECTION DETAILS

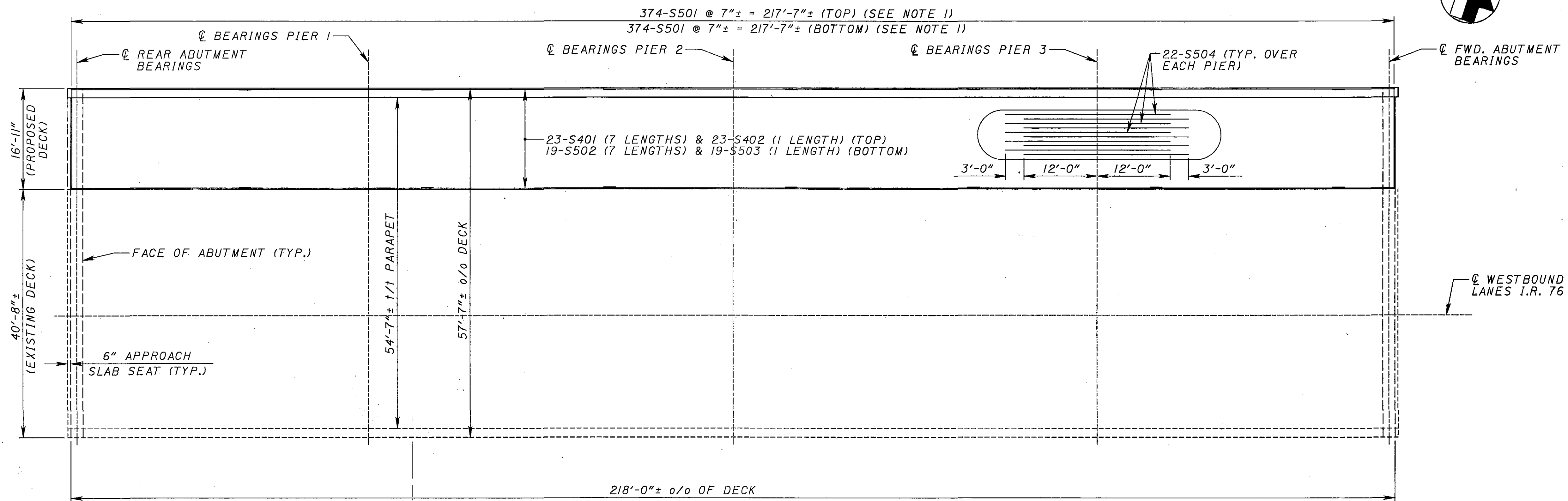
NOTES:

- CLEAR DISTANCE FOR PROPOSED BOTTOM TRANSVERSE REINFORCING STEEL IS 2".
- FOR CROSSFRAME AND STIFFENER DETAILS NOT SHOWN, SEE STANDARD DRAWINGS GSD-I-96.
- FOR PARAPET DETAILS SEE SHEET 18 / 22.

LEGEND:

o/o = OUT-TO-OUT
SPA. = SPACES
TYP. = TYPICAL

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DECK PLAN
(WESTBOUND)

LAP LENGTHS

LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
 S401 & S402 - 2'-0"
 S502 & S503 - 2'-7"

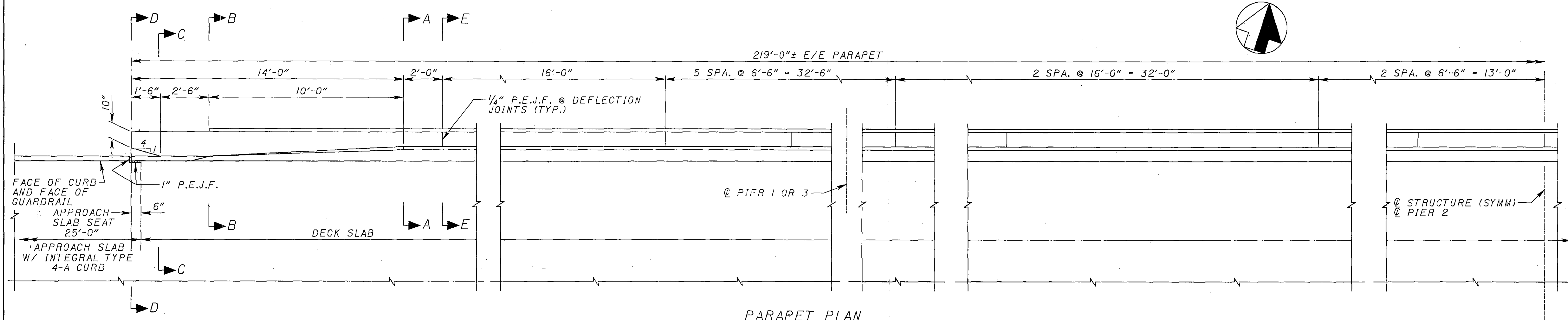
NOTES

1. LAP S501 BARS WITH EXISTING BARS. MINIMUM LAP LENGTH - 1'-11".

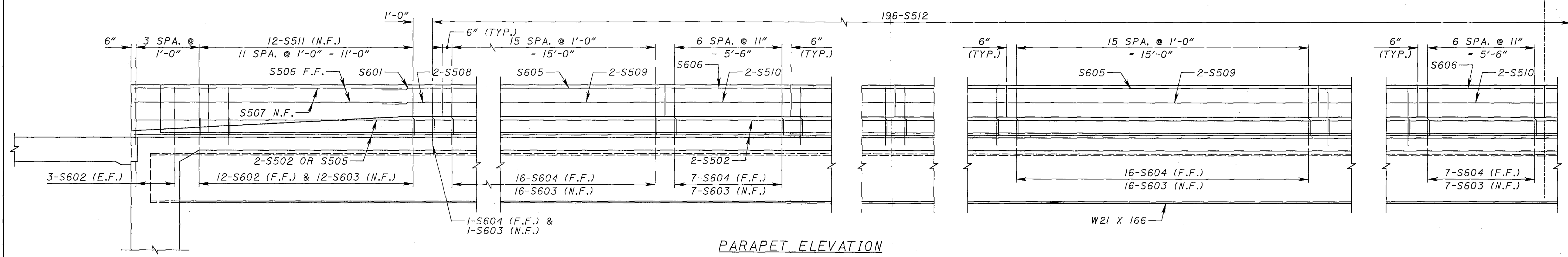
LEGEND

FWD. = FORWARD
 o/o = OUT TO OUT
 TYP. = TYPICAL
 t/t = TOE TO TOE

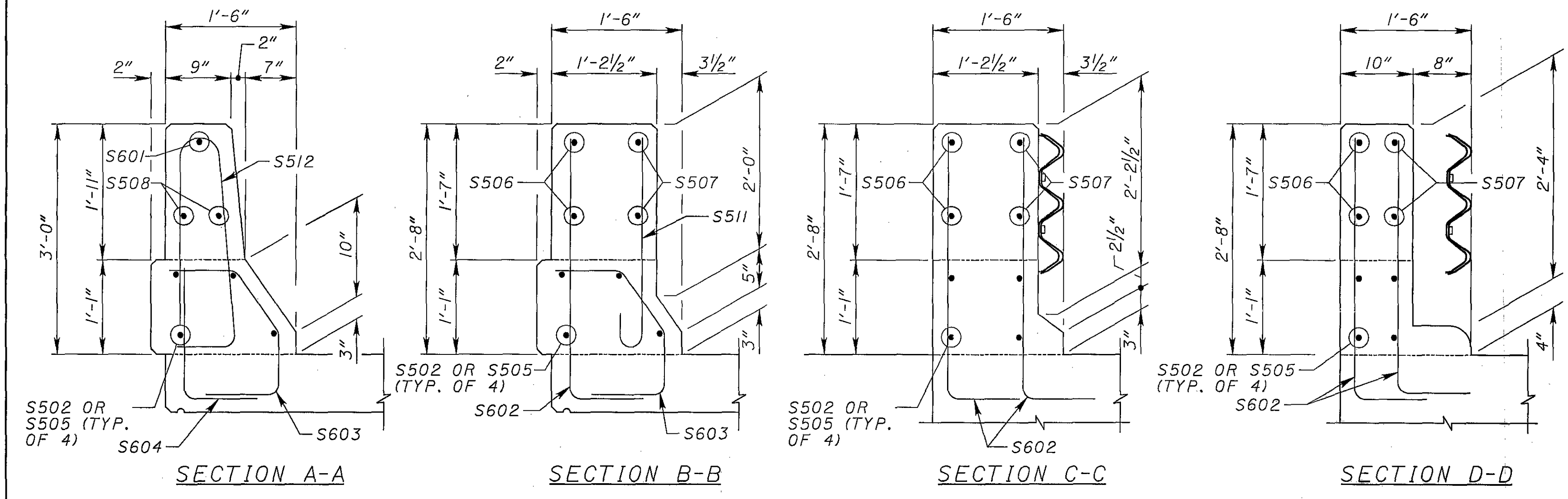
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PARAPET PLAN



PARAPET ELEVATION



LEGEND:

- E/E = END TO END
- E.F. = EACH FACE
- F.F. = FAR FACE
- N.F. = NEAR FACE
- SPA. = SPACES
- TYP. = TYPICAL

NOTES:

SEE STD. DWG. BR-1 FOR ADDITIONAL NOTES AND DETAILS

DATE	6-14-04
REVIEWED	DWL
STRUCTURE FILE NUMBER	5204429
DRAWN	MPH
REVISION	
DESIGNED	TTK/MPH
CHECKED	JAA

PARAPET DETAILS
BRIDGE NO. MED-76-0158 L
OVER CSXT RAILROAD & RYAN ROAD

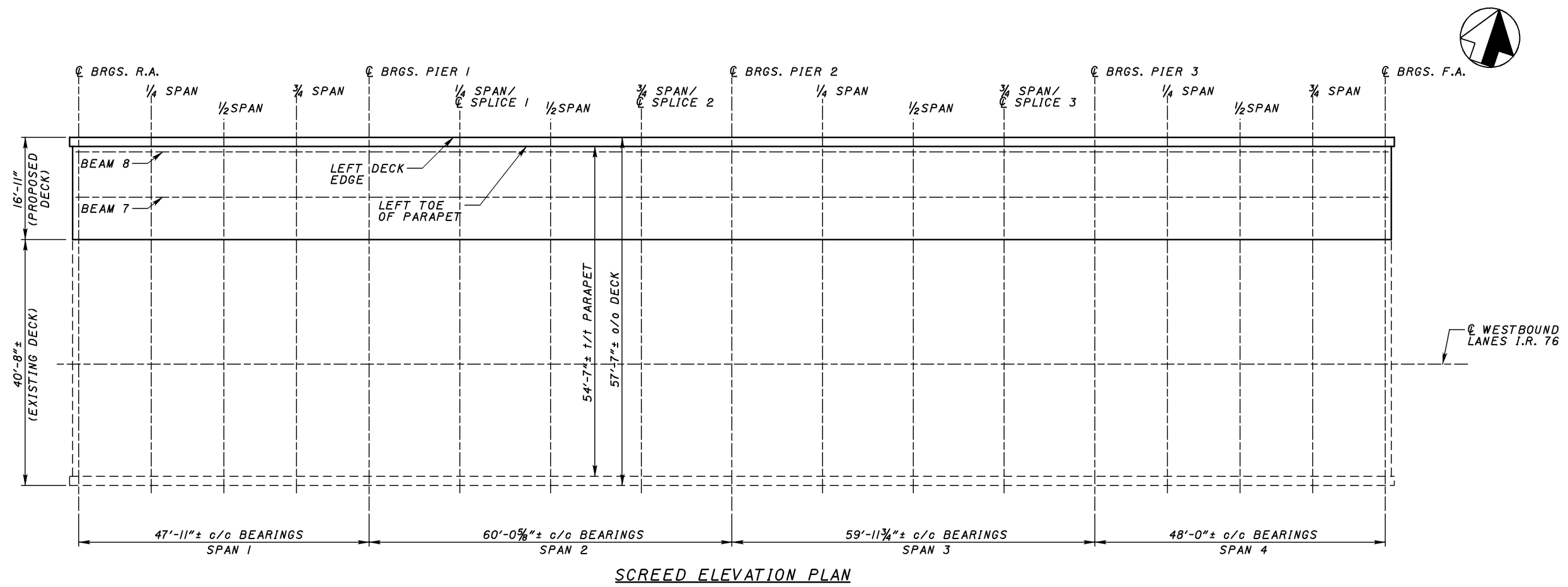
MED-71-6.06
PID 75657

DECK SCREED ELEVATION TABLE														
ELEVATION LINE	SPAN 1						SPAN 2							
	C BRGS. R.A.		1/4 SPAN		1/2 SPAN		3/4 SPAN		C BRGS. PIER 1		1/4 SPAN (FIELD SPLICE 1)		1/2 SPAN	
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
LEFT DECK EDGE	903+89.12	1033.15	904+01.10	1033.39	904+13.08	1033.60	904+25.06	1033.80	904+37.04	1034.00	904+52.05	1034.27	904+67.06	1034.53
LEFT TOE OF PARAPET	903+89.12	1033.18	904+01.10	1033.41	904+13.08	1033.62	904+25.06	1033.82	904+37.04	1034.03	904+52.05	1034.30	904+67.06	1034.55
BEAM 8	903+89.12	1033.19	904+01.10	1033.42	904+13.08	1033.63	904+25.06	1033.84	904+37.04	1034.04	904+52.05	1034.31	904+67.06	1034.57
BEAM 7	903+89.12	1033.31	904+01.10	1033.54	904+13.08	1033.75	904+25.06	1033.96	904+37.04	1034.16	904+52.05	1034.43	904+67.06	1034.68

DECK SCREED ELEVATION TABLE													
ELEVATION LINE	SPAN 3												
	3/4 SPAN (FIELD SPLICE 2)		C BRGS. PIER 2		1/4 SPAN		1/2 SPAN		3/4 SPAN (FIELD SPLICE 3)		C BRGS. PIER 3		
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	
LEFT DECK EDGE	904+82.08	1034.75	904+97.09	1034.95	905+12.08	1035.18	905+27.08	1035.40	905+42.07	1035.59	905+57.07	1035.75	
LEFT TOE OF PARAPET	904+82.08	1034.78	904+97.09	1034.97	905+12.08	1035.21	905+27.08	1035.42	905+42.07	1035.61	905+57.07	1035.78	
BEAM 8	904+82.08	1034.79	904+97.09	1034.99	905+12.08	1035.22	905+27.08	1035.44	905+42.07	1035.62	905+57.07	1035.79	
BEAM 7	904+82.08	1034.91	904+97.09	1035.11	905+12.08	1035.34	905+27.08	1035.56	905+42.07	1035.74	905+57.07	1035.91	

DECK SCREED ELEVATION TABLE								
ELEVATION LINE	SPAN 4			3/4 SPAN		C BRGS. F.A.		
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION		
LEFT DECK EDGE	905+69.07	1035.91	905+81.07	1036.03	905+93.07	1036.14	906+05.07	1036.24
LEFT TOE OF PARAPET	905+69.07	1035.93	905+81.07	1036.05	905+93.07	1036.17	906+05.07	1036.27
BEAM 8	905+69.07	1035.95	905+81.07	1036.07	905+93.07	1036.18	906+05.07	1036.28
BEAM 7	905+69.07	1036.06	905+81.07	1036.19	905+93.07	1036.30	906+05.07	1036.40

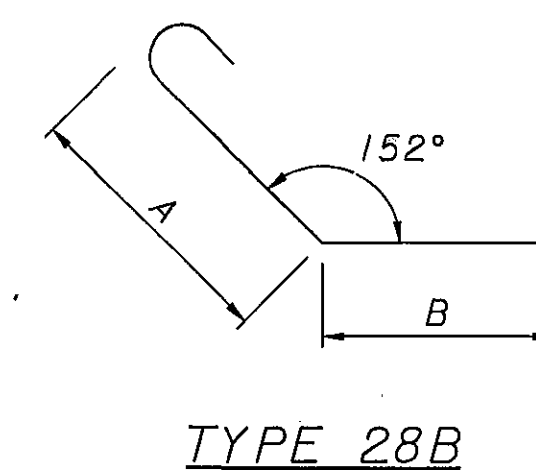
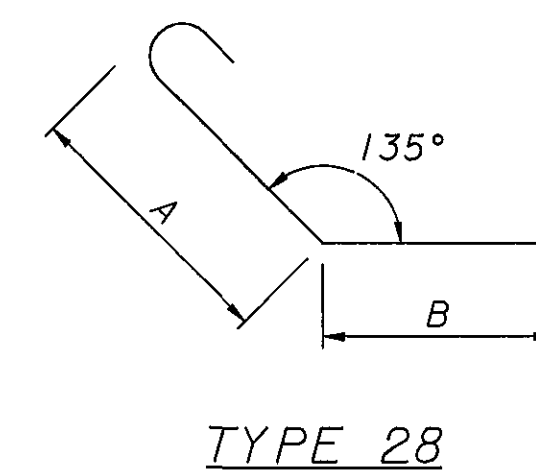
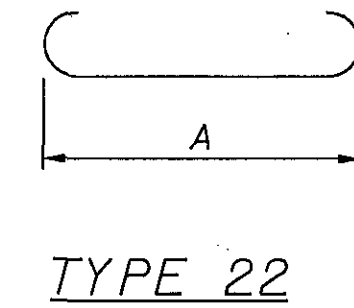
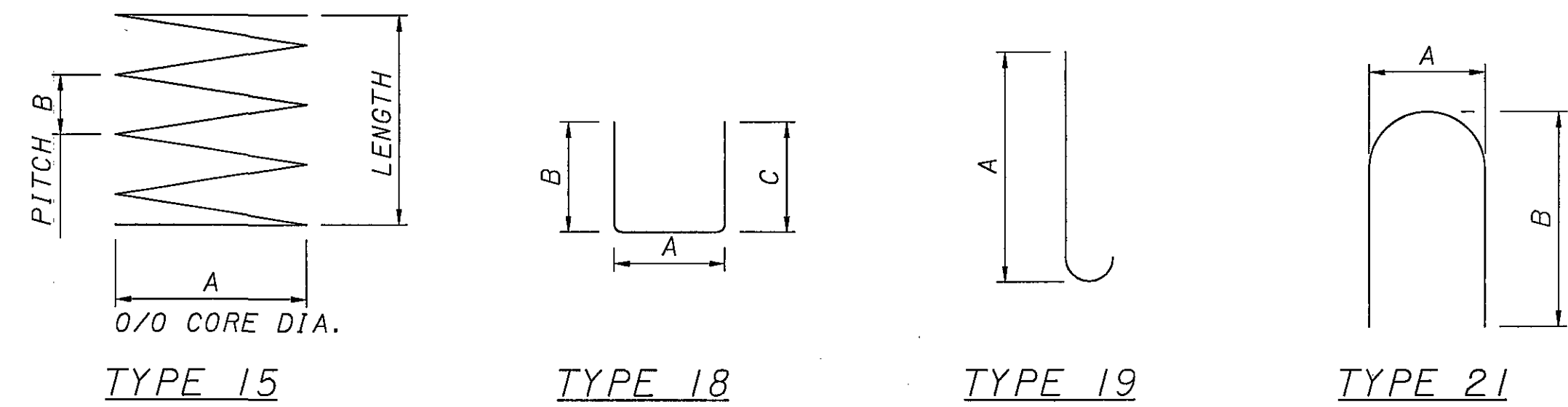
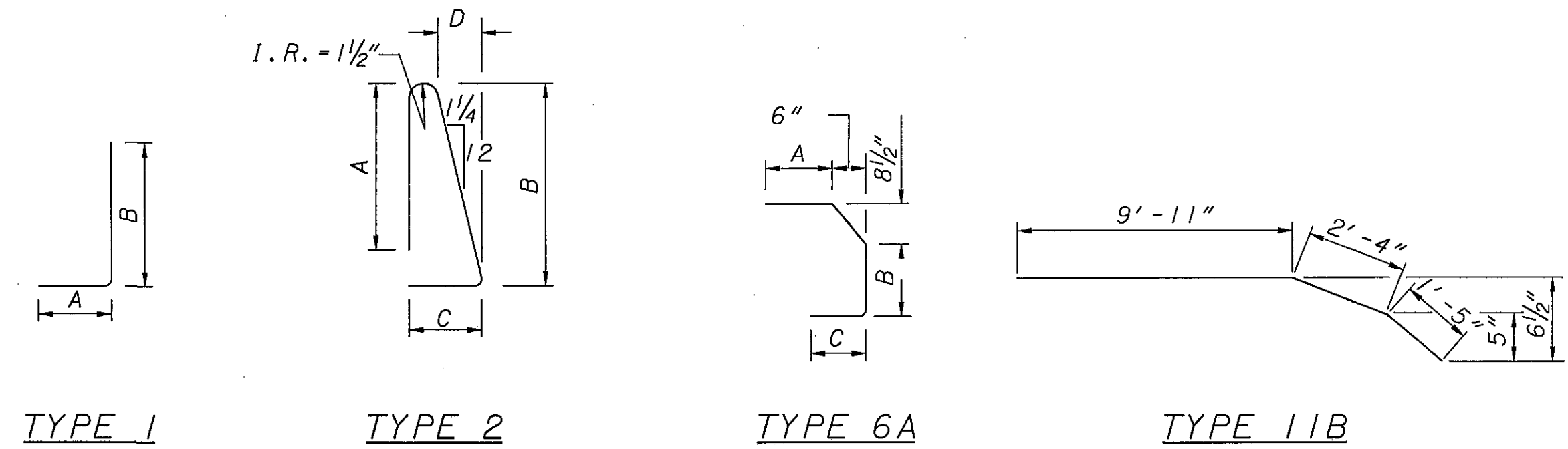
NOTES: 1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS.
2. SCREED ELEVATIONS HAVE BEEN DETERMINED BASED ON INTERPOLATION OF THE ELEVATIONS SHOWN ON THE SITE PLAN AT 12 FEET LEFT OF PROFILE GRADE.



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SUPERSTRUCTURE											
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
AS801	11	4'-11"	144	28	2'-7"	1'-5"					
D501	64	7'-1"	472	18	2'-2"	2'-7"	2'-7"				
D502	30	8'-7"	268	18	1'-8"	3'-7"	3'-7"				
D503	4	10'-3"	42	18	2'-2"	4'-2"	4'-2"				
D801	20	15'-8"	836	STR							
D802	6	16'-8"	267	STR							
S401	161	30'-0"	3226	STR							
S402	23	21'-9"	334	STR							
S501	748	16'-8"	13002	STR							
S502	161	30'-0"	5037	STR							
S503	19	25'-10"	511	STR							
S504	66	27'-0"	1858	STR							
S505	4	26'-11"	112	STR							
S506	4	13'-8"	57	STR							
S507	4	13'-8"	57	11B							
S508	4	3'-0"	12	STR							
S509	12	15'-8"	196	STR							
S510	28	6'-2"	180	STR							
S511	24	3'-0"	75	19	2'-5"						
S512	196	6'-0"	1227	2	2'-6"	2'-9"	0'-8"				
S601	2	3'-0"	9	STR							
S602	36	3'-9"	207	1	0'-11"	3'-0 1/2"					
S603	220	3'-0"	991	6A	0'-9"	0'-9"	0'-10 1/2"				
S604	196	2'-3"	686	1	0'-11"	1'-6 1/2"					
S605	6	15'-8"	141	STR							
S606	14	6'-2"	129	STR							
		TOTAL	30076								

PIERS											
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
P501	12	10'-0"	125	STR							
P502	18	7'-4"	137	28B	4'-0"	2'-9"					
P503	24	10'-9"	269	STR							
P504	24	6'-10"	171	1	1'-6"	5'-6"					
P505	9	6'-3"	58	18	3'-6"	1'-6"	1'-6"				
	6	4'-8"				2'-5 1/2"					
P506	S.O.	T0	281	18	2'-6"	T0					0'-3 1/4"
	8	6'-7"				4'-4"					
P507	48	6'-3"	312	18	2'-6"	2'-0"	2'-0"				
P508	16	13'-0"	216	21	3'-6"	5'-6"					
P509	16	11'-0"	183	STR.							
P801	13	23'-4"	809	19	22'-5"						
P802	13	25'-4"	879	19	24'-5"						
P803	13	23'-0"	798	19	22'-1"						
P804	39	10'-7"	1102	1	1'-6"	9'-3"					
P805	21	11'-10"	663	22	10'-0"						
P806	60	10'-10"	1735	22	9'-0"						
P807	12	17'-4"	555	22	15'-6"						
SP401	1	20'-10"	373	15	2'-6"	0'-4 1/2"					
SP402	1	22'-9"	406	15	2'-6"	0'-4 1/2"					
SP403	1	20'-7"	369	15	2'-6"	0'-4 1/2"					
		TOTAL	9441								



SPIRALS:

AN ADDITIONAL 1 1/2 COILS SHALL BE INCLUDED AT EACH END OF SPIRAL REINFORCEMENT.

NOTES:

BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

EXAMPLE: S801
S = SUPERSTRUCTURE BAR
8 = #8 BAR
01 = BAR SEQUENCE NUMBER 1

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.

STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.

R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

INC INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

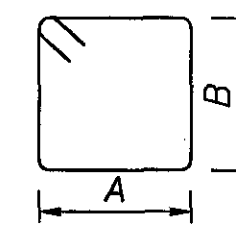
ALL REINFORCING STEEL TO BE EPOXY COATED.

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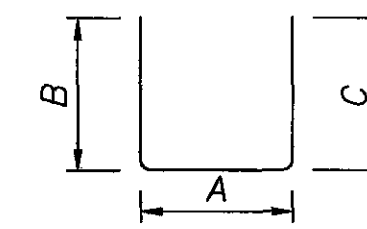
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ABUTMENTS

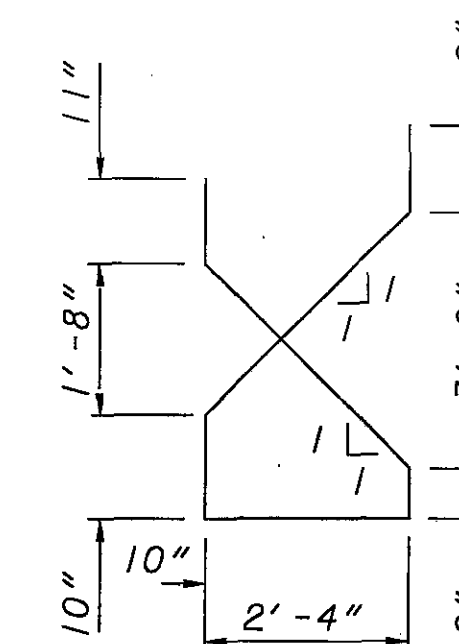
MARK	NUMBER			LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS								
	REAR	FWD	TOTAL				A	B	C	D	E	R	INC.		
A401	6	6	12	9'-1"	72	16	2'-6 ³ / ₄ "	1'-9"							
A501	13	13	26	11'-0"	298	16	2'-8"	2'-7"							
A502	6	6	12	10'-1"	126	18	2'-2"	4'-1 ¹ / ₄ "	4'-1 ¹ / ₄ "						
A503	4	4	8	14'-9"	123	18	2'-2"	6'-5"	6'-5"						
	1	1	2	7'-7"				2'-10"	2'-10"						
A504	S.O.	S.O.	S.O.	T0	82	18	2'-2"	T0	T0						1'-6"
	4	4	4	12'-1"				5'-1"	5'-1"						
A505	3	3	6	9'-11"	62	18	2'-2"	4'-0"	4'-0"						
A506	1	1	2	8'-8"	18	18	2'-2"	3'-4 ³ / ₄ "	3'-4 ³ / ₄ "						
A507	1	1	2	9'-3"	19	18	2'-2"	3'-8"	3'-8"						
A508	1	1	2	10'-9"	22	18	2'-2"	4'-5 ³ / ₈ "	4'-5 ³ / ₈ "						
A509	5	5	10	6'-3"	65	18	2'-2"	2'-2"	2'-2"						
A510	2	2	4	22'-9"	95	STR									
A511	4	4	8	15'-6"	129	STR									
	2	2	4	2'-7"											
A512	S.O.	S.O.	S.O.	T0	62	STR									2'-3 ³ / ₈ "
	3	3	3	7'-3"											
A513	2	2	4	7'-11"	33	STR									
A514	2	2	4	8'-9"	36	STR									
A601	16	16	32	11'-0"	528	31A									
A801	4	4	8	22'-9"	487	STR									
A802	4	4	8	15'-6"	331	STR									
				TOTAL	2588										



TYPE 16



TYPE 18



TYPE 31A

NOTES:

BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

EXAMPLE: A801
 A - ABUTMENT BAR
 8 - #8 BAR
 01 - BAR SEQUENCE NUMBER 1

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.

STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.

R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

INC INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

ALL REINFORCING STEEL TO BE EPOXY COATED.

BURGESS & NIPLE
 5395 West Park
 Colorado, 80420

REINFORCING STEEL SCHEDULE 2 OF 2
 BRIDGE NO. MED-76-0158 L
 OVER CSXT RAILROAD & RYAN ROAD

MED-71-6.06
 PID 75657

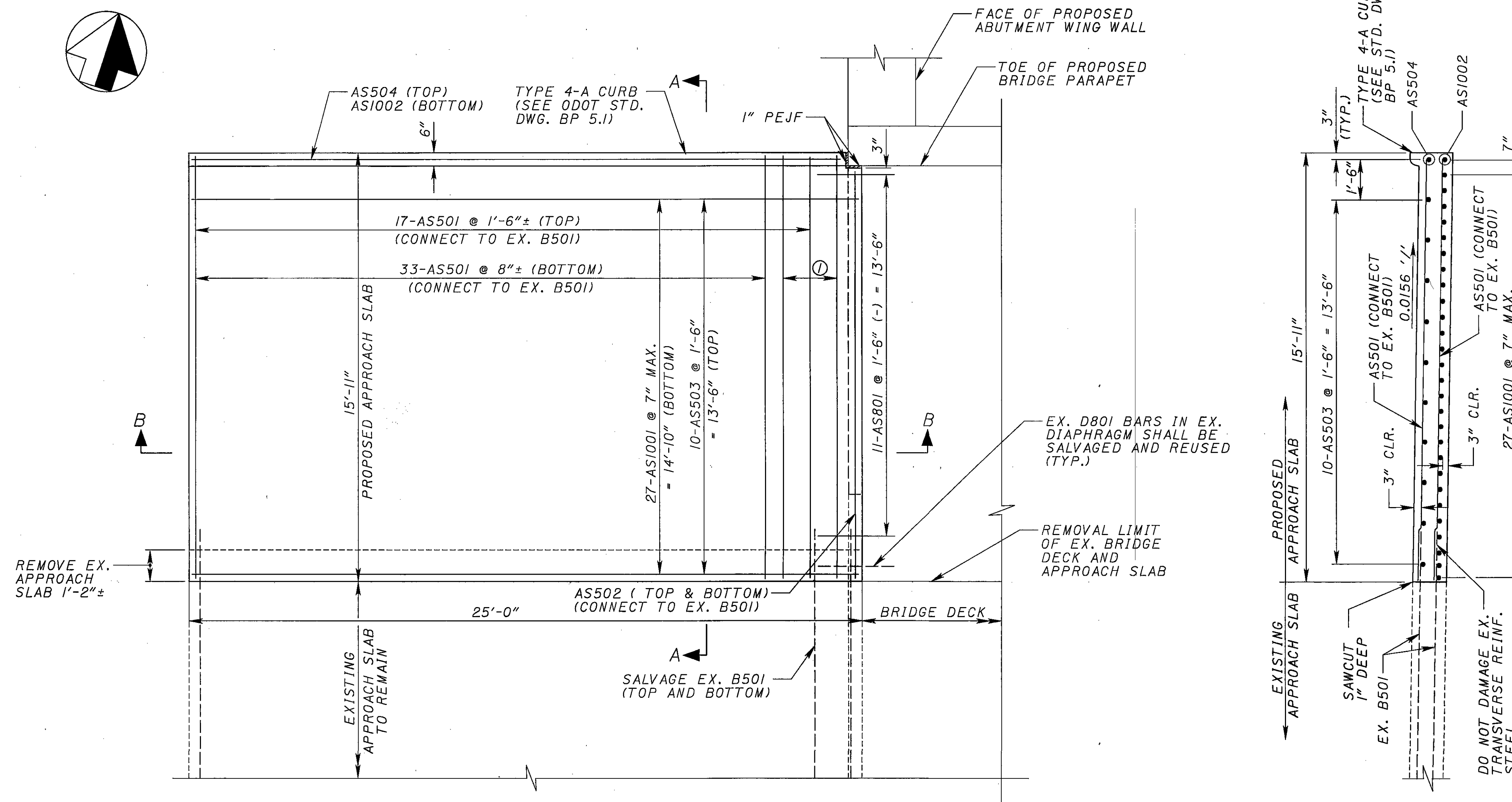
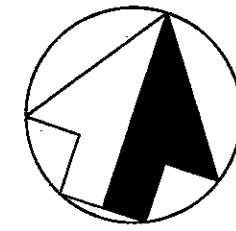
DESIGNED: MPS
 CHECKED: JAA

DRAWN: MPS
 REVISED:

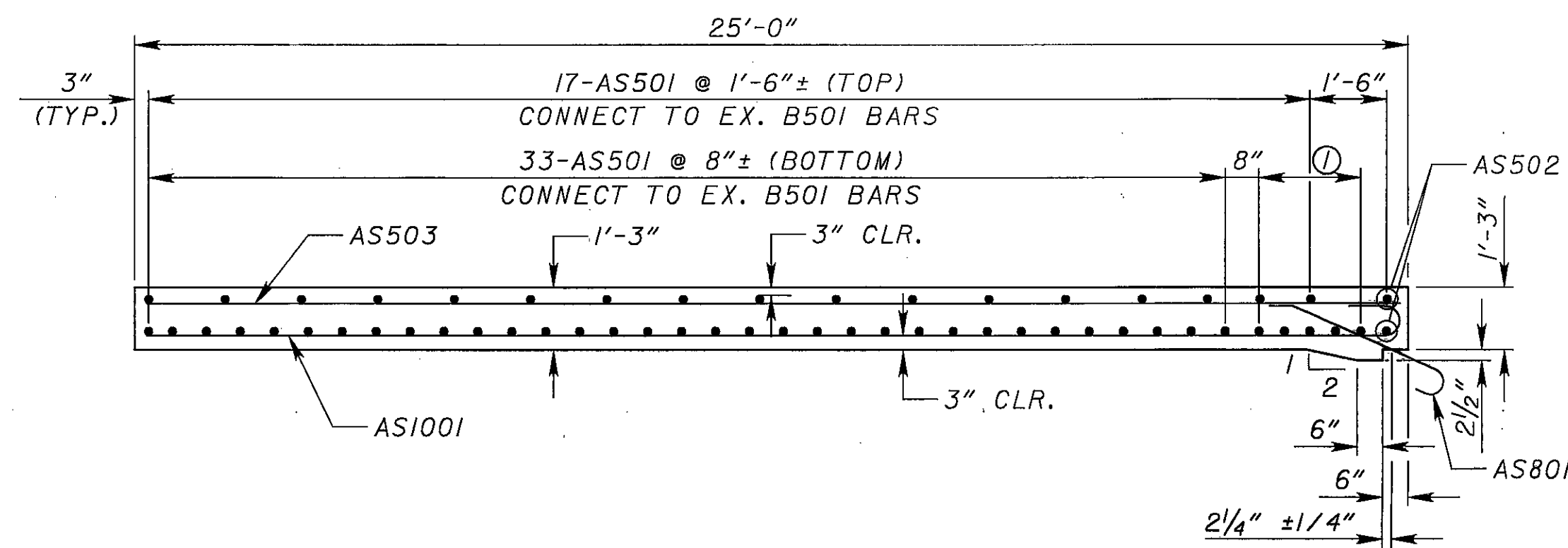
REVIEWED: DATE
 STRUCTURE FILE NUMBER: 5204429

21 / 22

1048
 1120



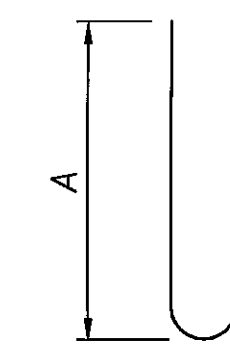
PLAN
REAR APPROACH SLAB SHOWN
FORWARD APPROACH SLAB SIMILAR



SECTION B-B
① 5-AS501 @ 6"± (BOTTOM). CONNECT TO EX. B501 BARS.

REINFORCING SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
AS501	110	15'-9"	1806	STR							
AS502	4	15'-2"	63	STR							
AS503	20	24'-6"	511	STR							
AS504	2	24'-0"	50	STR							
AS1001	54	25'-11"	6022	19	24'-6"						
AS1002	2	25'-5"	218	19	24'-0"						
		TOTAL	8670								



NOTES

- FOR INFORMATION NOT SHOWN REFER TO STD. BRIDGE DWG. AS-1-81 AND STD. CONSTRUCTION DWG. BP-5.1.
- UTILIZE MECHANICAL CONNECTORS TO CONNECT EXISTING PROTRUDING REINFORCING STEEL TO NEW REINFORCING STEEL.
- FOR AS801 BARS SEE SUPERSTRUCTURE REINFORCING SCHEDULE ON SHEET 20 / 22.

LEGEND

- CLR. = CLEARANCE
EX. = EXISTING
MAX. = MAXIMUM
TYP. = TYPICAL

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NOTES:

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
- REFERENCE CHORD IS MEASURED FROM THE INTERSECTION OF THE BASELINE OF RAMP ES AND THE CENTERLINES OF ABUTMENT BEARINGS.
- SPAN LENGTHS ARE MEASURED ALONG REFERENCE CHORD.
- BRIDGE LIMITS ARE MEASURED ALONG THE RAMP ES.
- SEE SHEET 4 / 24 FOR REFERENCE CHORD SCHEMATIC.
- SEE SHEET 17 / 24 FOR SUPERELEVATION TRANSITION DIAGRAM.

LEGEND:

- BOT. = BOTTOM
- C.I.P. = CAST-IN-PLACE
- DIA. = DIAMETER
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- FTG. = FOOTING
- R.A. = REAR ABUTMENT
- REQ. = REQUIRED
- T/S = TOP OF SLOPE
- 1/1 = TOE-TO-TOE
- ⊗ = MINIMUM VERTICAL CLEARANCE (17.4')
- ⊙ = FOUNDATION INVESTIGATION BORING LOCATION

CURVE DATA

RAMP ES
P.I. Sta = 204+75.83
Δ = 99°09'59" (RT)
Dc = 07°45'00"
R = 739.30'
T = 868.16'
L = 1,279.56'
E = 400.99'

SOIL BORING INFORMATION

BORING #	STATION	OFFSET	ELEVATION	APPROX. TOP OF ROCK
B-1E	198+84.46	65.26' (LT)	991.47	NONE
B-2E	198+63.08	24.86' (RT)	992.97	NONE
B-3E	197+69.89	0.73' (LT)	996.44	NONE
B-4E	196+87.93	43.32' (LT)	993.80	NONE
B-5E	196+45.14	33.21' (RT)	993.02	NONE

BENCHMARK INFORMATION

BM #3045:	STA. 382+13.85, ⊕ MONUMENT	ELEV. 1023.36
BM #3046:	STA. 402+33.67, ⊕ MONUMENT	ELEV. 991.19

PROPOSED STRUCTURE

TYPE: PRESTRESSED CONCRETE I-BEAM WITH COMPOSITE REINFORCED CONCRETE DECK ON WALL TYPE ABUTMENTS.

SPAN: 118'-4¹/₁₆" , 106'-4¹/₁₆" (MEASURED ALONG REFERENCE CHORD)

ROADWAY: 32'-0" 1/1 PARAPETS (MEASURED PERPENDICULAR TO RAMP ES)

SKEW: 04°35'21" RIGHT FORWARD (MEASURED WITH RESPECT TO REFERENCE CHORD)

ALIGNMENT: 07°45'00" CURVE RIGHT

WEARING SURFACE: 1" MONOLITHIC CONCRETE

DESIGN LOADING: HS25 AND THE ALTERNATE MILITARY LOADING

FWS LOADING: 60 PSF

APPROACH SLABS: AS-1-81, 30'-0" LONG (MODIFIED)

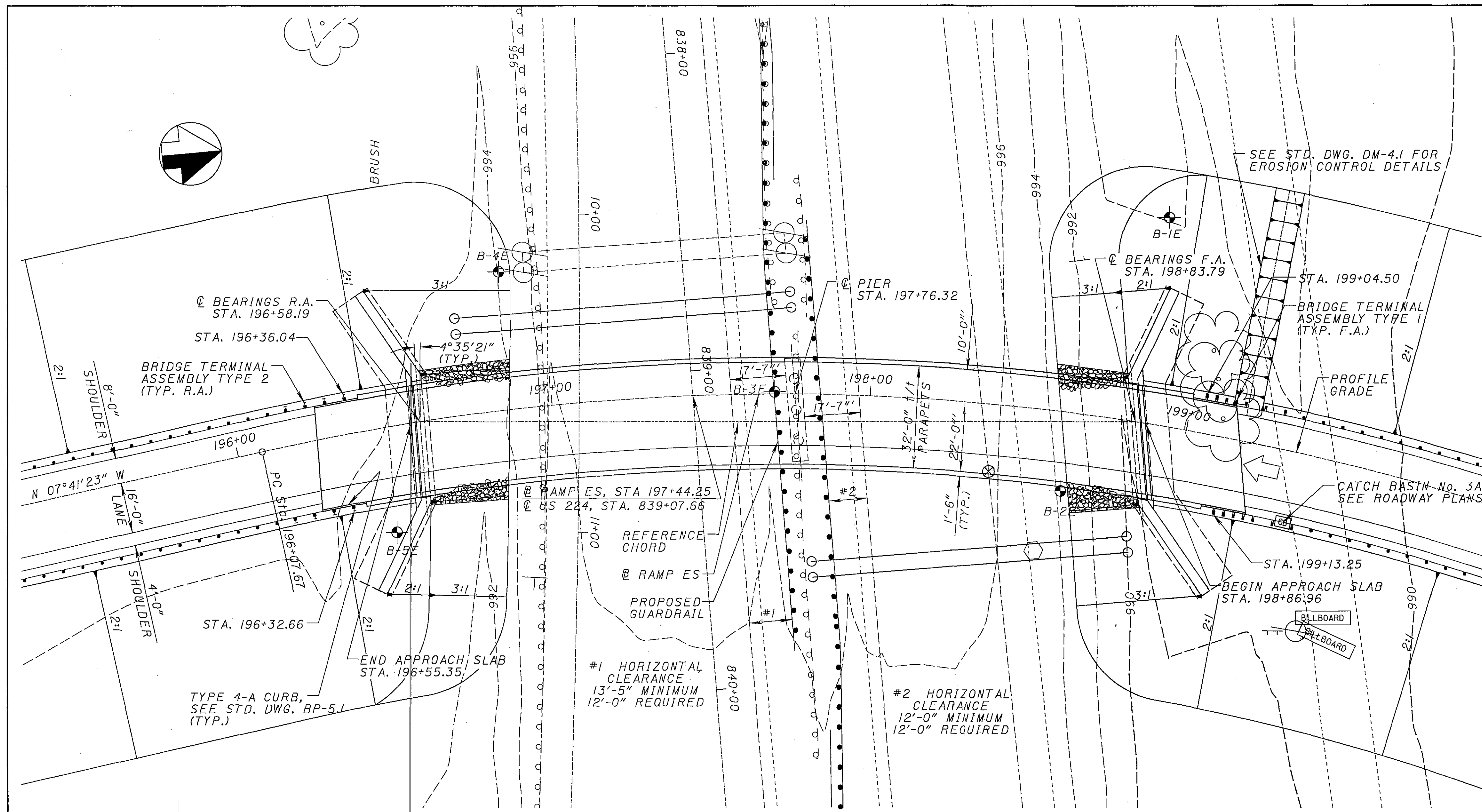
SUPERELEVATION: VARIES (0.0710 TO 0.0830) FT/FT

ADT (2006): 7890 ADTT (2006): 2762

ADT (2026): 10800 ADTT (2026): 3780

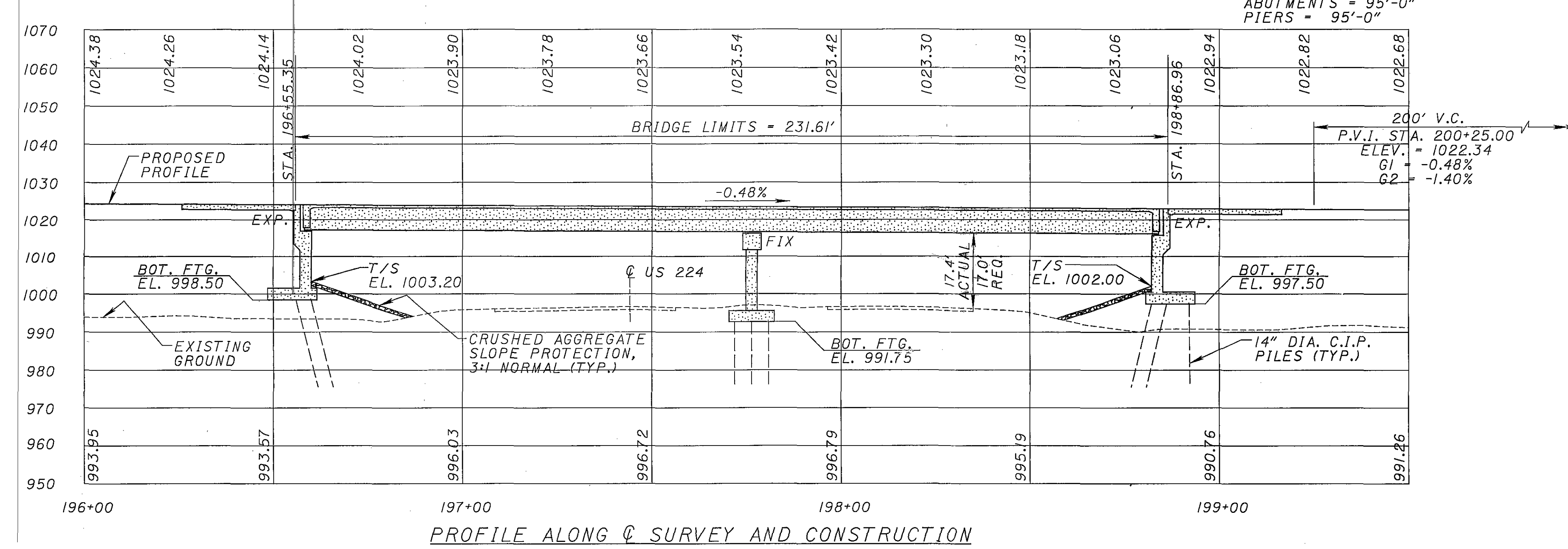
LATITUDE: N 41°01'51"

LONGITUDE: W 81°54'05"



PLAN

ESTIMATED AVERAGE PILE DRIVEN LENGTHS:
ABUTMENTS = 95'-0"
PIERS = 95'-0"



PROFILE ALONG ⊕ SURVEY AND CONSTRUCTION

PROPOSED PROFILE GRADE

EXISTING GROUND ELEVATIONS

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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

A-1-69 DATED (REVISED) 7-19-02
 AS-1-81 DATED (REVISED) 7-19-02
 EXJ-6-95 DATED (REVISED) 7-19-02
 PSID-1-99 DATED (REVISED) 7-18-03
 SBR-1-99 DATED (REVISED) 7-19-02

REFER TO THE FOLLOWING HYDRAULIC STANDARD CONSTRUCTION DRAWINGS:
 DM-4.1 DATED (REVISED) 7-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
 894 DATED 4-15-05

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF THE STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25 AND THE ALTERNATE MILITARY LOADING, FUTURE WEARING SURFACE (FWS) OF 60 PSF.

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)
 CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI
 SPIRAL REINFORCING MAY BE PLAIN BARS, ASTM A82 OR A615
 CONCRETE FOR PRESTRESSED BEAMS
 COMPRESSIVE STRENGTH (FINAL) - 7,000 PSI
 COMPRESSIVE STRENGTH (RELEASE) - 5,000 PSI
 PRESTRESSING STRAND
 AREA - 0.167 in²
 ULTIMATE STRENGTH - 270 ksi
 INITIAL STRESS - 202.5 ksi (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD:
 EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER
 CLASS HP CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PILE DRIVING CONSTRAINTS AND EMBANKMENT CONSTRUCTION:
 DO NOT BEGIN ANY EXCAVATION FOR THE ABUTMENTS OR THE INSTALLATION OF THE ABUTMENT OR PIER PILES UNTIL AFTER THE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND EMBANKMENT SETTLEMENTS HAVE ABATED. SEE SOIL SETTLEMENT REQUIREMENTS ON SHEETS 39 THRU 50 FOR DETAILS OF EMBANKMENT CONSTRUCTION.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN: THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):
 THE ULTIMATE BEARING VALUE IS 140 TONS PER PILE FOR THE 14" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE ABUTMENT PILES.

THE ULTIMATE BEARING VALUE IS 136 TONS PER PILE FOR THE 14" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE PIER PILES.

SPLICES SHALL BE FURNISHED BY THE CONTRACTOR, AT NO EXTRA COST TO THE STATE, FOR PILE LENGTHS IN EXCESS OF 60'.

ABUTMENT PILES:
 63 PILES 100 FEET LONG, ORDER LENGTH (REAR)
 65 PILES 100 FEET LONG, ORDER LENGTH (FORWARD)
 1 DYNAMIC LOAD TESTING ITEM
 1 STATIC LOAD TEST
 3 RESTRIKE ITEMS

PIER PILES
 21 PILES 100 FEET LONG, ORDER LENGTH
 1 DYNAMIC LOAD TESTING ITEM

STATIC LOAD TEST:

STATIC LOAD TEST: PERFORM DYNAMIC TESTING ON THE FIRST TWO PRODUCTION PILES TO DETERMINE THE REQUIRED BLOW COUNT FOR THE SPECIFIED ULTIMATE BEARING VALUE. PERFORM THE STATIC LOAD TEST ON EITHER PILE. DO NOT OVER-DRIVE THE SELECTED PILE. DRIVE THE THIRD AND FOURTH PRODUCTION PILES TO 75% AND 85% OF THE DETERMINED BLOW COUNT, RESPECTIVELY. THE TEST PILES AND THE REDUCED CAPACITY PILES SHALL NOT BE BATTERED. AFTER INSTALLATION OF THE FIRST FOUR PRODUCTION PILES, CEASE ALL DRIVING OPERATIONS ON PILING REPRESENTED BY THE STATIC LOAD TESTING FOR A MINIMUM OF 7 DAYS. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE STATIC LOAD TEST PILE AND EACH REDUCED CAPACITY PILE. THE ENGINEER WILL REVIEW THE RESULTS OF THE PILE RESTRIKES AND ESTABLISH THE DRIVING CRITERIA FOR THE REMAINING PILING REPRESENTED BY THE TESTING.

WHEN PERFORMING THE RESTRIKE, IF THE PILE HAS NOT REACHED THE BLOW COUNT DETERMINED FOR THE PLAN SPECIFIED ULTIMATE BEARING VALUE, CONTINUE DRIVING THE PILE UNTIL THIS CAPACITY IS ACHIEVED.

BATTERED PILES: THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{(1+G^2)}}$$

U= COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G= RATE OF BATTER (1/4)

ITEM 894 HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN:

GENERAL REQUIREMENTS:
 THE PROVISIONS OF ITEM 894 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:
 ALL SUPERSTRUCTURE CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
 QUANTITIES PER CUBIC YARD
 AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)									
AGGREGATE TYPE	FINE AGGRE. (LB)	**#8 COARSE AGGRE. (LB)	**#57 COARSE AGGRE. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO-SILICA (LB)	WATER TO CEMENTITIOUS RATIO ± .02	AIR CONTENT ± 2%
GRAVEL	1245	360	1315	2920	400	170	30	0.42	7
LIMESTONE	1245	360	1335	2940	400	170	30	0.42	7
SLAG	1245	315	1155	2715	400	170	30	0.42	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

PARAPET CONSTRUCTION (SLIP FORMED):

THE CONTRACTOR IS ALLOWED THE OPTION OF SLIP FORMING BRIDGE PARAPETS, BUT ONLY AFTER THE SUCCESSFUL COMPLETION OF A TEST SECTION TWENTY FEET LONG. A MINIMUM OF 3 DAYS AFTER PLACING THE TEST SECTION, THE CONTRACTOR SHALL CORE THE TEST SECTION (A MINIMUM OF 3 CORES) AT LOCATIONS AS DIRECTED BY THE ENGINEER. APPROVAL TO SLIP FORM SHALL NOT BE GRANTED UNTIL AFTER THE CORING AND AFTER A SUCCESSFUL SLIP FORMING RESULT IS OBTAINED.

IN ADDITION TO THE REQUIREMENTS OF THE LAST PARAGRAPH OF 511.11 THE ENGINEER WILL INSPECT THE SLIP FORMED SURFACE FOR HORIZONTAL CRACKING 6 MONTHS AFTER COMPLETION OF THE SLIP FORMING OPERATION. ANY ADDITIONAL CRACKS FOUND SHALL BE REPAIRED AS PER THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE STATE.

SURVEY DISC ON STRUCTURE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR THE COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF SLIP FORMED CONCRETE PARAPETS SHALL BE 1 INCH WITH A MAXIMUM SLUMP OF 1 1/2 INCHES.

THE WATER CEMENT RATIO FOR SLIP FORMED PARAPETS SHALL NOT BE LESS THAN THE WATER CEMENT RATIO USED FOR THE DECK CONCRETE. REDUCE SLUMP BY LIMITING THE USE OF SUPERPLASTICIZERS.

BASIS OF PAYMENT:
 PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES (DEDUCT VOLUME OF BEAMS EMBEDDED IN CONCRETE DIAPHRAGMS) WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E52000	LUMP SUM	CLASS HP CONCRETE, TEST SLAB
894E10001	CUBIC YARD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

UTILITY LINES:

UTILITY LINES: THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
ITEM 511 CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN
ITEM 511 CLASS C CONCRETE, FOOTING, AS PER PLAN

COARSE AGGREGATE SHALL BE LIMITED TO NO. 8 LIMESTONE.

DRIP GROOVES

DO NOT PROVIDE DRIP GROOVES IN THE BOTTOM OF CONCRETE DECKS.

ITEM 864 - SEALING OF CONCRETE SURFACES

THE COLOR OF THE URETHANE TOP COAT SHALL BE FEDERAL STANDARD COLOR NO. 17778

BURGESS & NIPLE
 5095 Red Roof
 Columbus, Ohio 43220
 DATE 9-10-04
 REVIEWED DWL
 DRAWN JAA
 DESIGNED JAA
 CHECKED JAA
 STRUCTURE FILE NUMBER 5206731
 STRUC. NO. MED-224-1570
 RAMP ES OVER US 224
 MED-71-6.06
 PID-75657
 2 / 24
 1051
 1120

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ESTIMATED QUANTITIES											AS PER PLAN REFERENCE SHEET	
ITEM	ITEM EXT.	FUNDING**		TOTAL	UNIT	DESCRIPTION	SUPER	ABUT	PIER	GEN'L		
		IM	NHS									
503	21101	1912	478	2390	CU. YD.	UNCLASSIFIED EXCAVATION, AS PER PLAN		2318	72			2/24
505	11100	LUMP	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION					LUMP	
506	11100	LUMP	LUMP	LUMP		STATIC LOAD TEST					LUMP	
507	00600	11324	2831	14155	FT.	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		12160	1995			
507	00650	11920	2980	14900	FT.	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED *		12800	2100			
509	10000	132264	33066	165330	POUND	EPOXY COATED REINFORCING STEEL *	90650	60721	13959			
511	41001	33	8	41	CU. YD.	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN			41			2/24
511	43501	567	142	709	CU. YD.	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN		709				2/24
511	46501	31	8	39	CU. YD.	CLASS C CONCRETE, FOOTING, AS PER PLAN			39			2/24
511	52000	LUMP	LUMP	LUMP		CLASS HP CONCRETE, TEST SLAB					LUMP	
512	10100	1386	346	1732	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	1147	482	103			
512	33000	23	6	29	SQ. YD.	TYPE 2 WATERPROOFING		29				
515	15050	6	2	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4, MOD. (72") *	8					
515	20000	14	4	18	EACH	INTERMEDIATE DIAPHRAGMS	18					
516	11210	56	14	70	FT.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL *		70				
516	13600	206	51	257	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER		257				
516	44400	13	3	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (20" x 14 1/2" x 5 1/8" WITH 26" x 15 1/2" x 2" MAX. LOAD PLATE)					16	
518	21200	198	49	247	CU. YD.	POROUS BACKFILL WITH FILTER FABRIC					247	
518	40000	160	40	200	FT.	6" PERFORATED CORRUGATED PLASTIC PIPE		200				
518	40010	100	25	125	FT.	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		125				
523	20000	1	1	2	EACH	DYNAMIC LOAD TESTING		1	1			
523	20500	2	1	3	EACH	RESTRIKING		3				
526	30000	182	46	228	SQ. YD.	REINFORCED CONCRETE APPROACH SLABS (T-17")					228	
601	20000	196	49	245	SQ. YD.	CRUSHED AGGREGATE SLOPE PROTECTION					245	
894	10001	275	69	344	CU. YD.	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN					344	2/24

* - SEE PROPOSAL NOTE

** - ALL QUANTITIES ARE SPILT 80% IM & 20% NHS



REVIEWED
GWM
DATE
11/10/04
STRUCTURE FILE NUMBER
5206731

DESIGNED
ASK
CHECKED
MPS

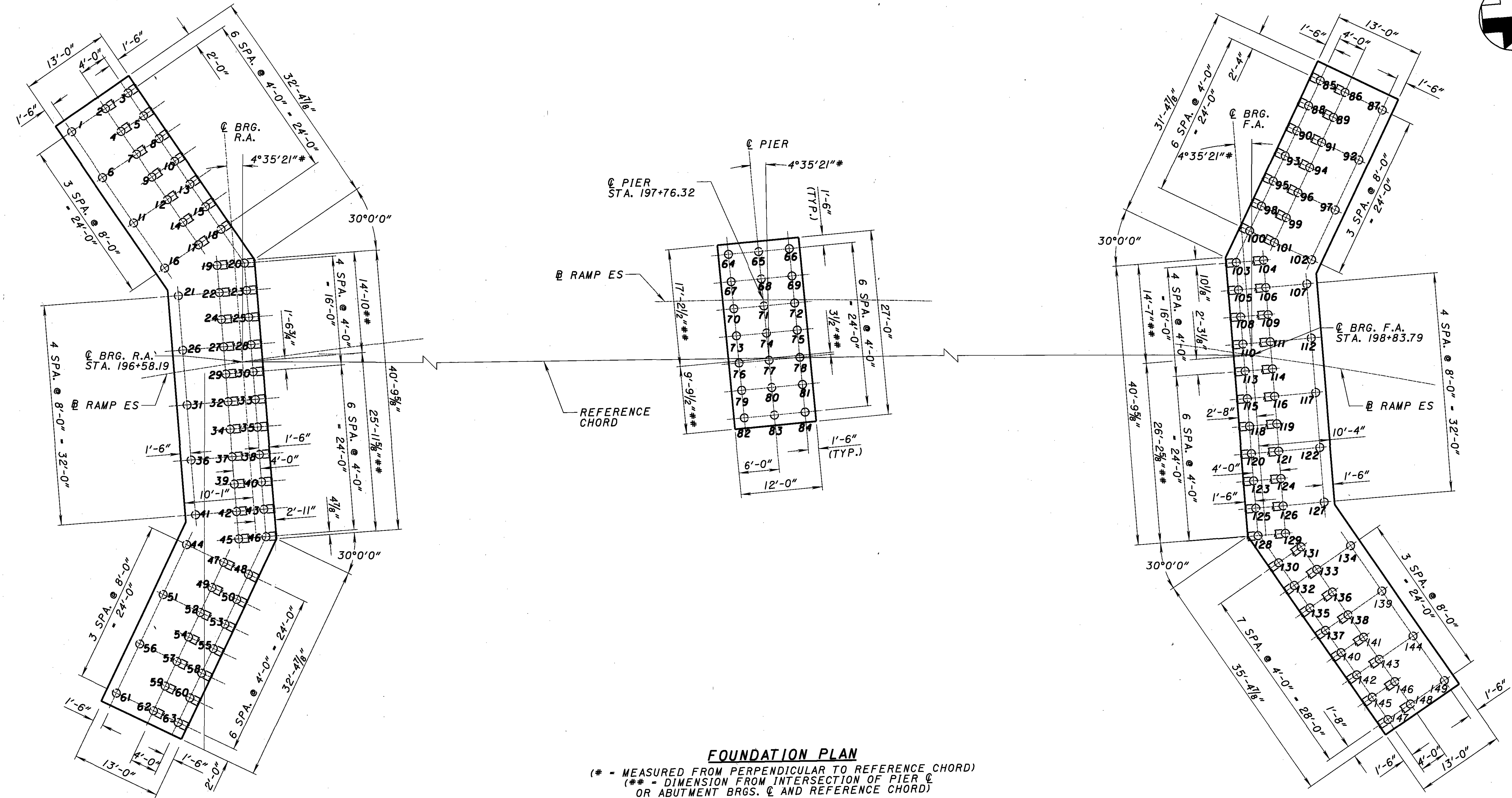
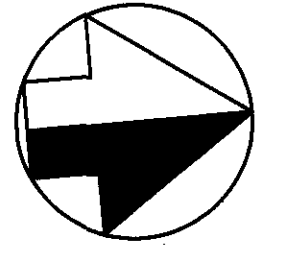
ESTIMATED QUANTITIES
BRIDGE NO. MED-224-1570
RAMP ES OVER US 224

DESIGNED
ASK
CHECKED
MPS

DATE
11/10/04
STRUCTURE FILE NUMBER
5206731

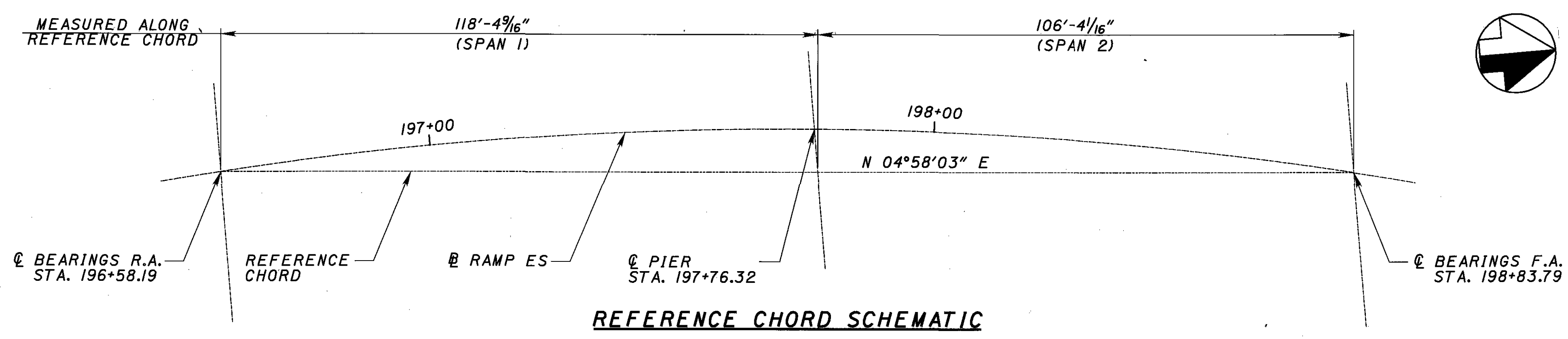
3 / 24
1052
1120

MED-71-6.06
PID-75657



FOUNDATION PLAN

(* - MEASURED FROM PERPENDICULAR TO REFERENCE CHORD)
(** - DIMENSION FROM INTERSECTION OF PIER & OR ABUTMENT BRGS. & REFERENCE CHORD)



REFERENCE CHORD SCHEMATIC

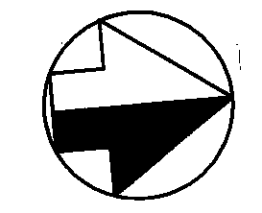
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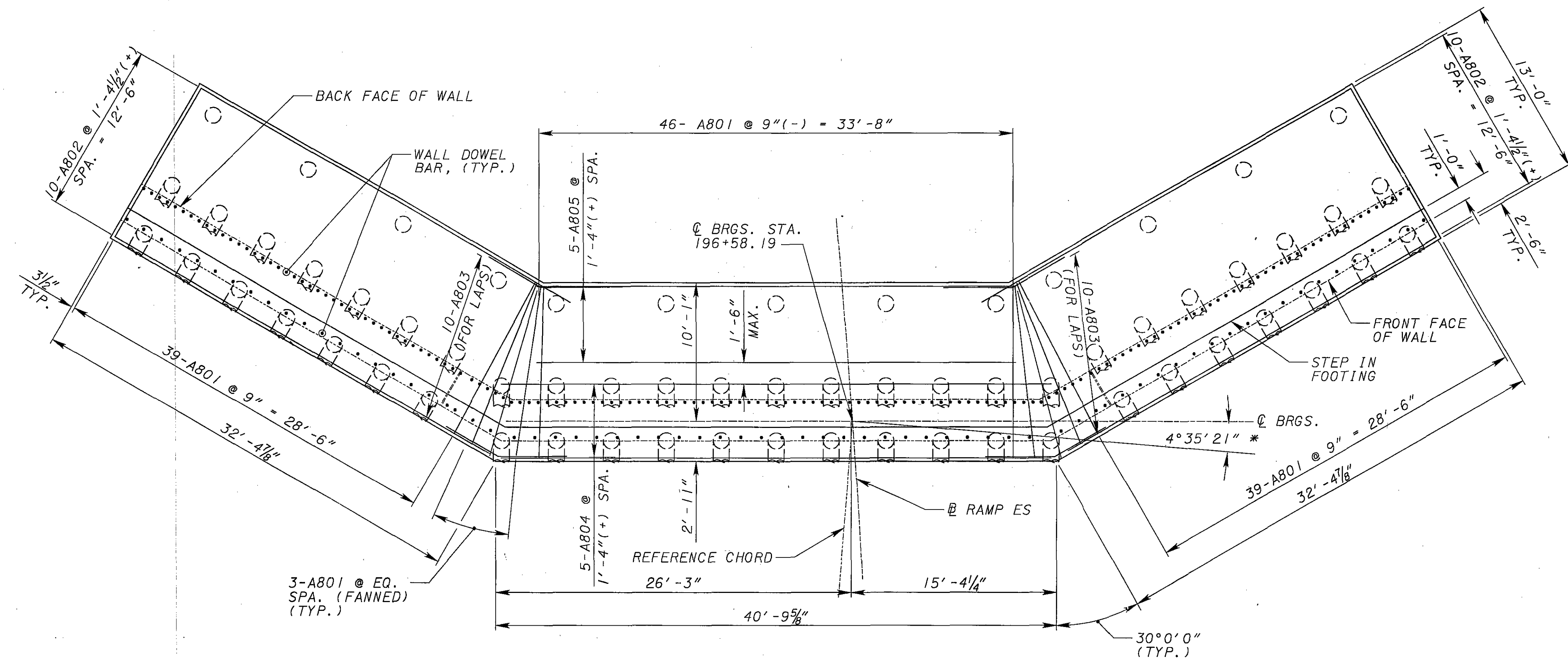
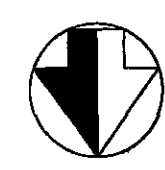
1. ALL PILES SHALL BE 14" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES.

LEGEND:

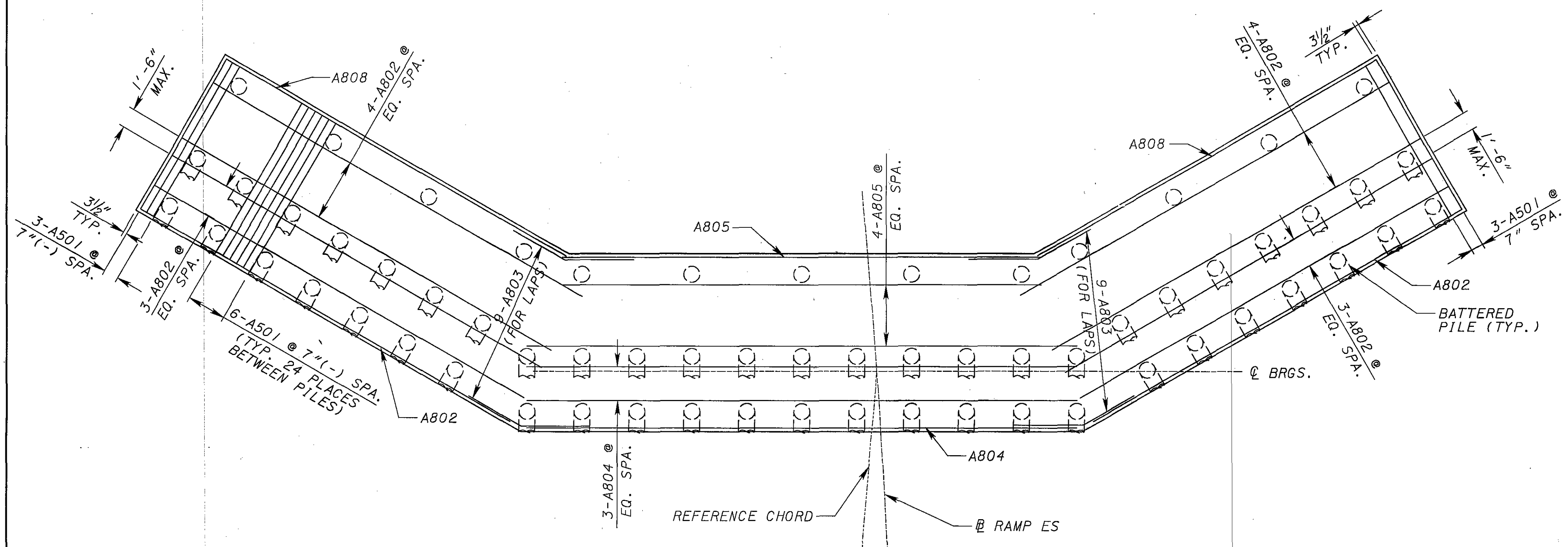
BRG. - BEARING
DIA. - DIAMETER
F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT
SPA. - SPACES
TYP. - TYPICAL

⊙ - INDICATES BATTERED PILE @ 3:1
○ - INDICATES VERTICAL PILE





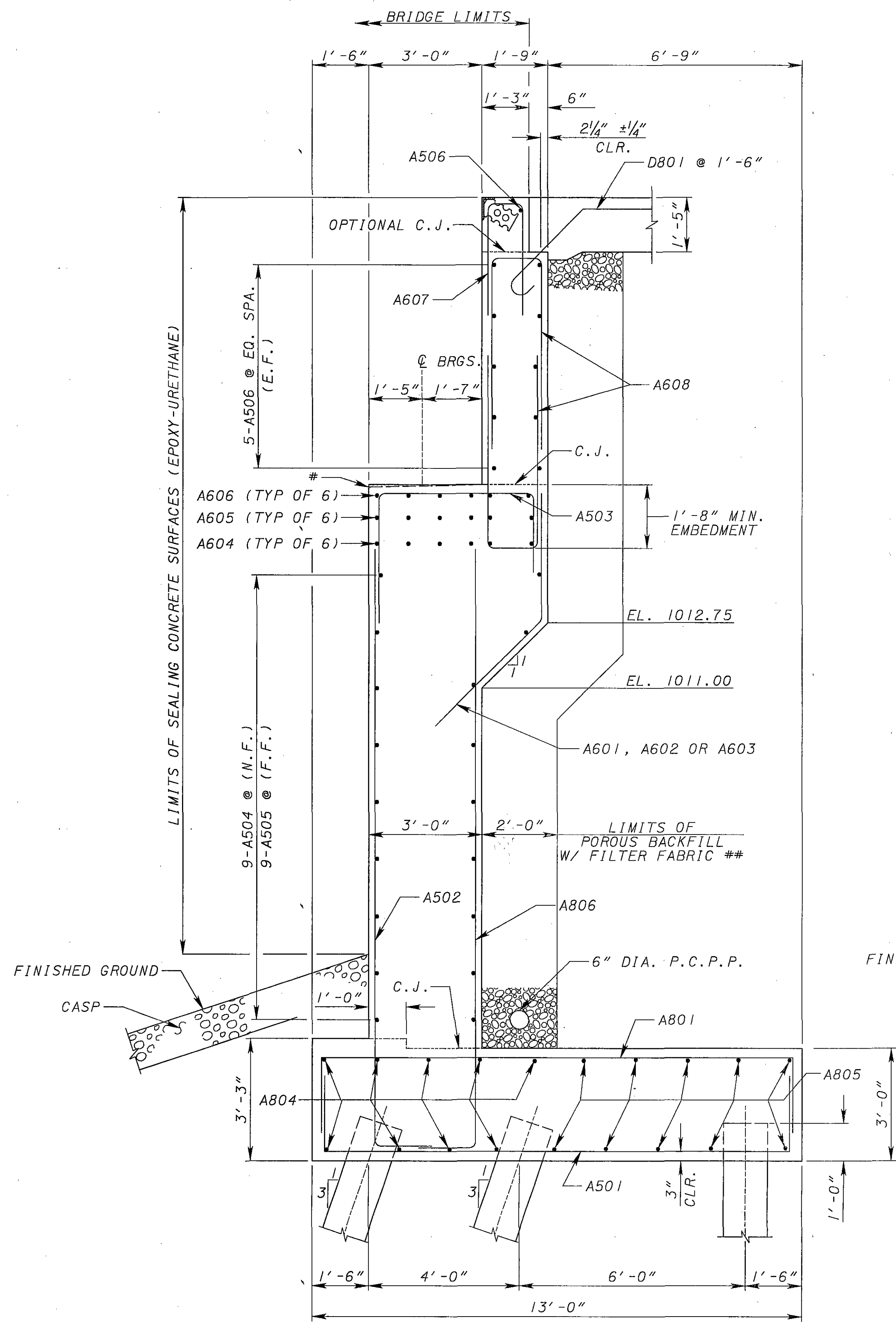
TOP REINFORCEMENT
 (* = MEASURED FROM PERPENDICULAR TO REFERENCE CHORD)



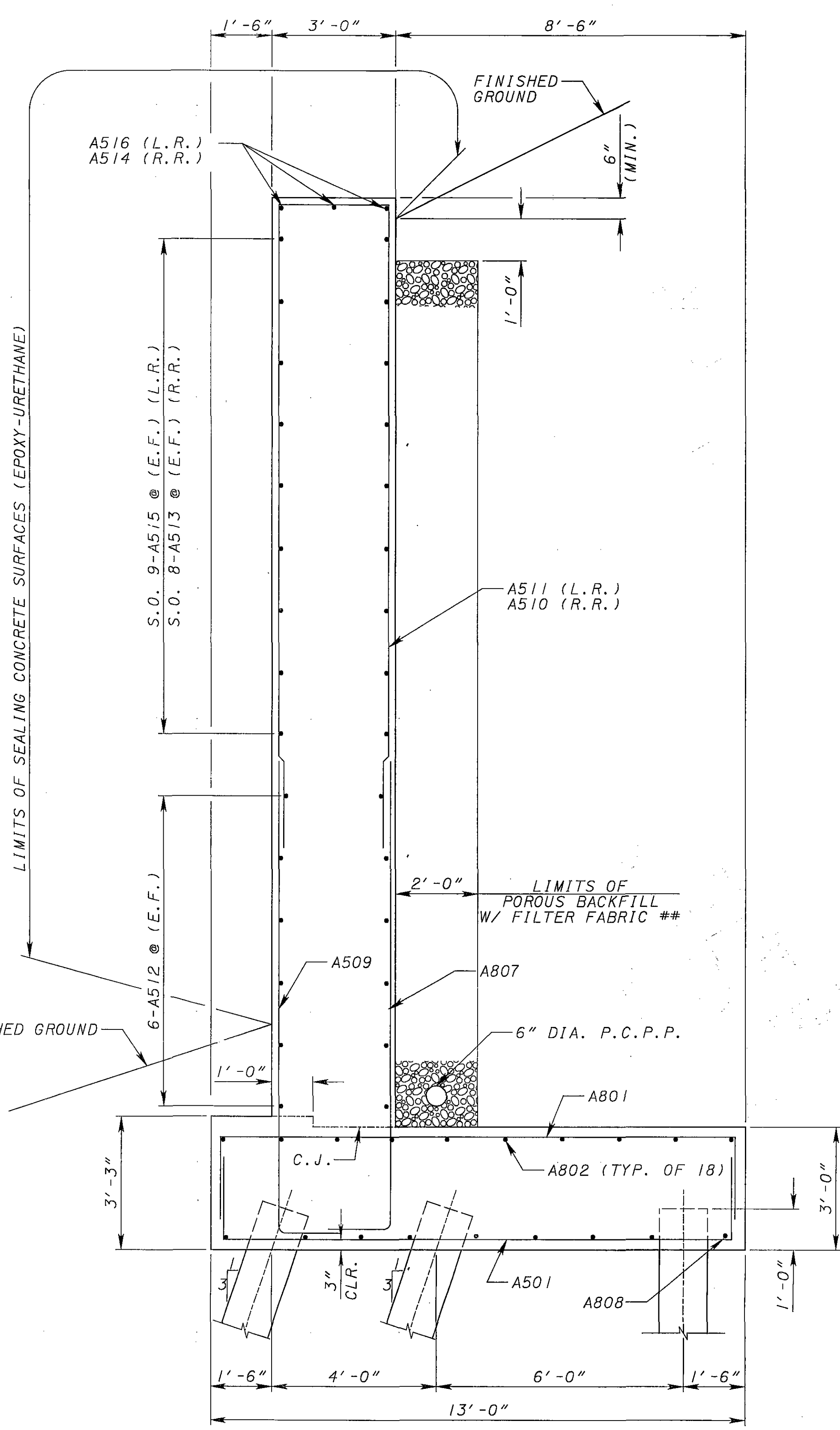
BOTTOM REINFORCEMENT

- NOTES**
1. FOR REAR ABUTMENT PLAN AND ELEVATION SEE SHEET 6 / 24
 2. FOR FOUNDATION PLAN SEE SHEET 4 / 24
 3. FOR ADDITIONAL REAR ABUTMENT DETAILS SEE SHEET 7 / 24
 4. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
 NO. 8 = 4'-0"

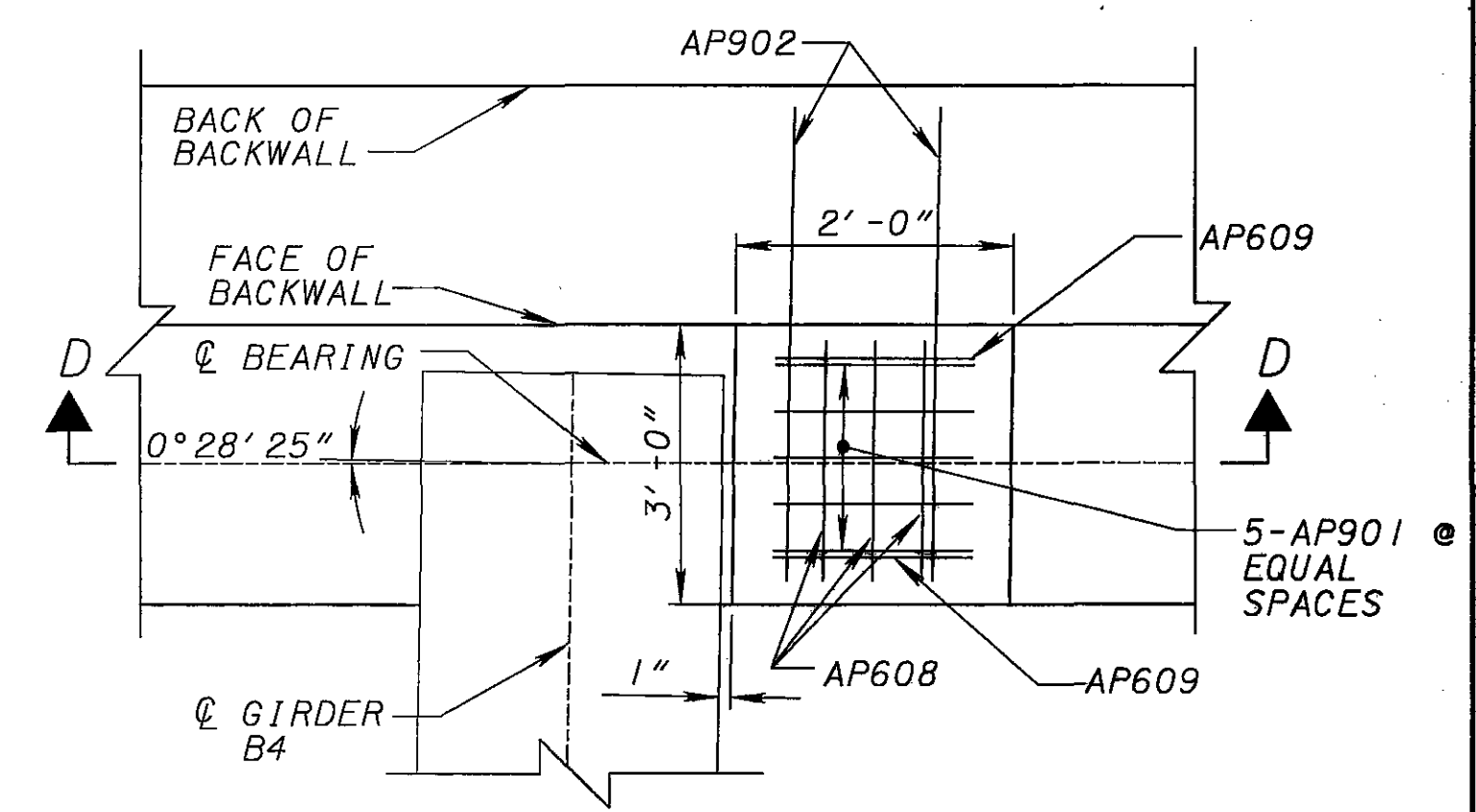
- LEGEND**
- BRGS. = BEARINGS
 - EQ. = EQUAL
 - MAX. = MAXIMUM
 - SPA. = SPACES
 - TYP. = TYPICAL



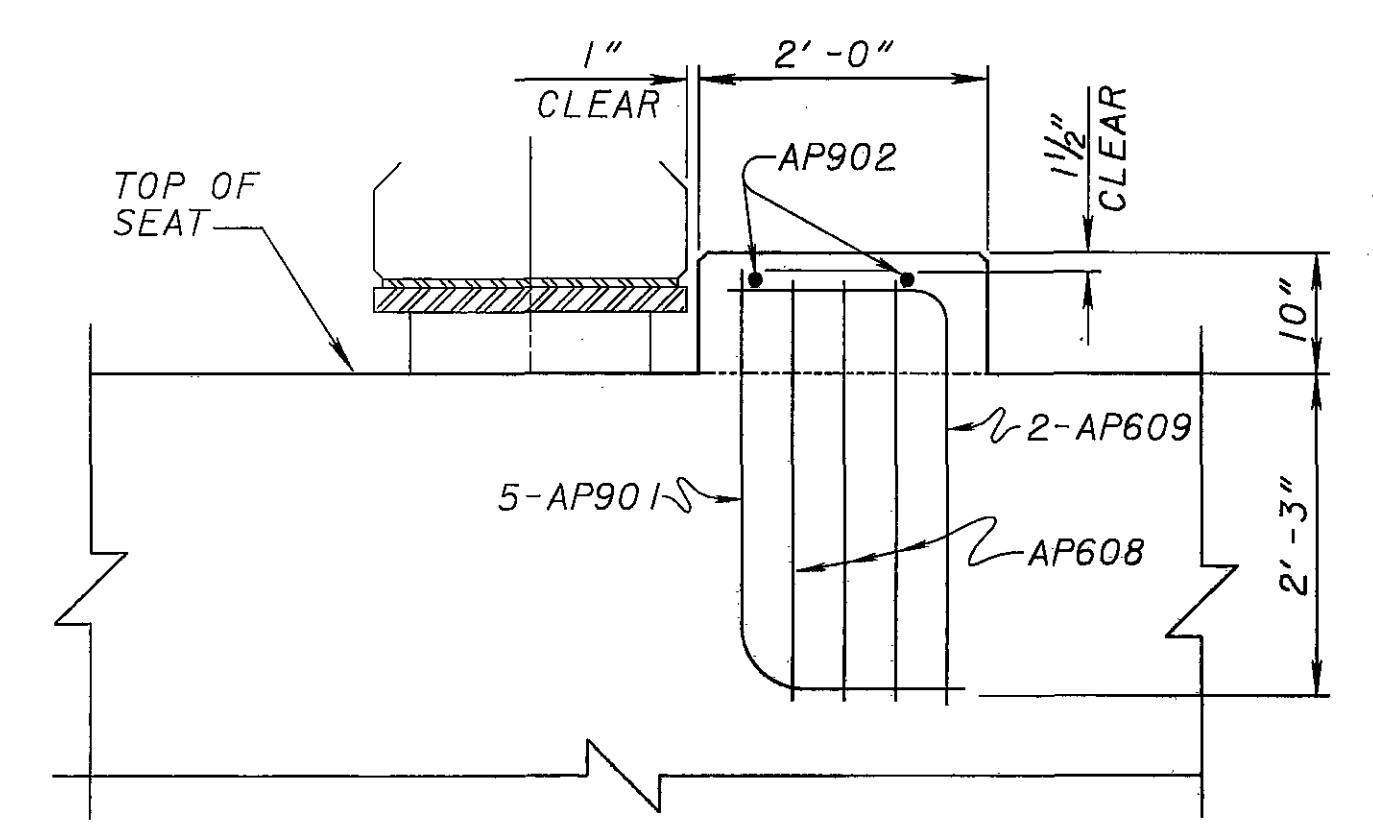
SECTION A-A



SECTION B-B



SEISMIC PEDESTAL PLAN - REAR ABUTMENT



SECTION D-D

NOTE: REINFORCING SHOWN IS FOR THE PEDESTAL AT GIRDER B4. AT GIRDER B1 THE REINFORCING IS OPPOSITE HAND. FOR DETAILS NOT SHOWN SEE STD. DRG. A-1-69

NOTES

- FOR FOOTING REBAR LAYOUT SEE SHEET 5 / 24
 - FOR FOUNDATION PLAN SEE SHEET 4 / 24
 - FOR LOCATIONS OF SECTIONS A-A & B-B SEE SHEET 6 / 24
 - SEALING OF BEAM SEATS: IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
 - LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
 NO. 5 BARS = 2'-1"
 NO. 6 BARS = 2'-5"
- # - SLOPE 3/4" BETWEEN SEATS
 ## - TURN FABRIC 6" UP WALL AT BOTTOM

LEGEND

- BRGS. = BEARINGS
- CASP = CRUSHED AGGREGATE SLOPE PROTECTION
- CLR. = CLEAR
- DIA. = DIAMETER
- E.F. = EACH FACE
- EL. = ELEVATION
- F.F. = FAR FACE
- L.R. = LEFT REAR
- N.F. = NEAR FACE
- P.C.P.P. = PERFORATED CORRUGATED PLASTIC PIPE
- R.R. = RIGHT REAR
- S.O. = SERIES OF
- SPA. = SPACING

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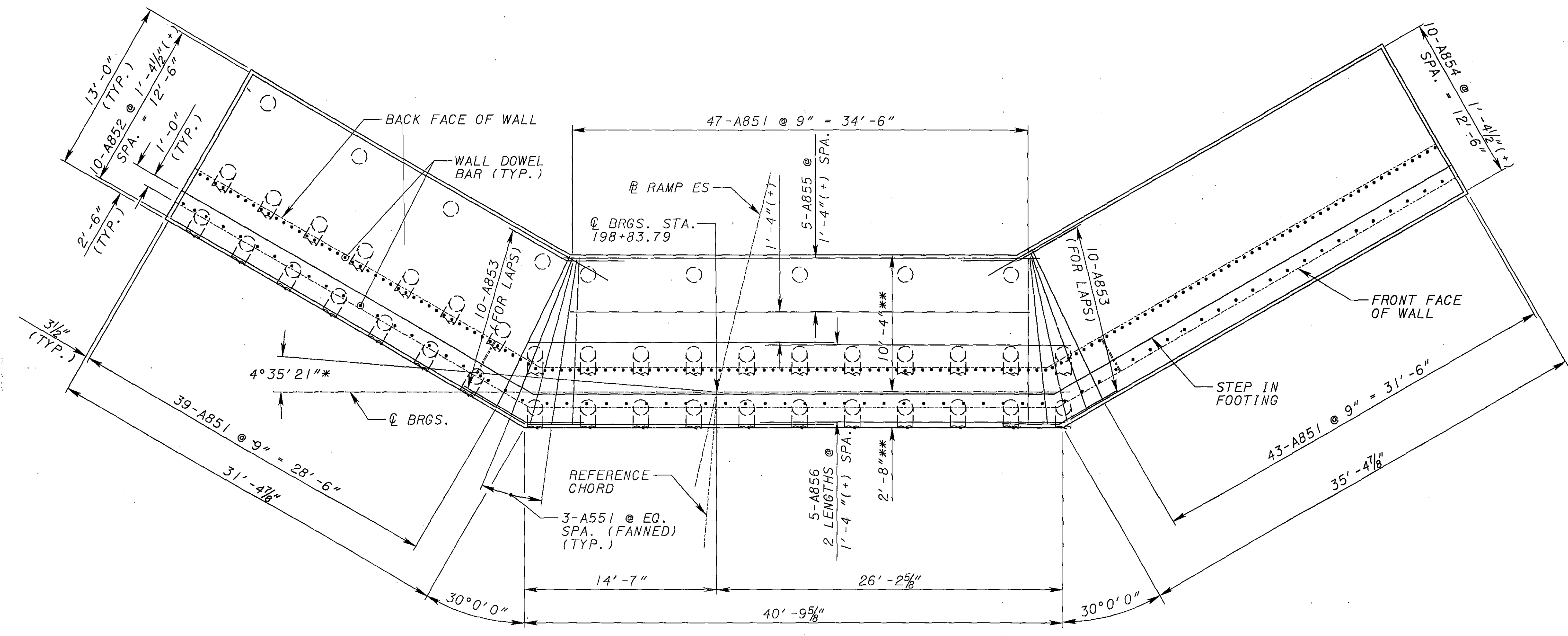
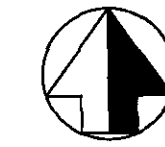
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DESIGNED	JAA	CHECKED	MPH
DRAWN	JAA	REVISION	
STRUCTURE FILE NUMBER	5206731		

REAR ABUTMENT & WINGWALL SECTIONS
 BRIDGE NO. MED-224-1570
 RAMP ES OVER US 224

MED-71-6.06
 PID-75657

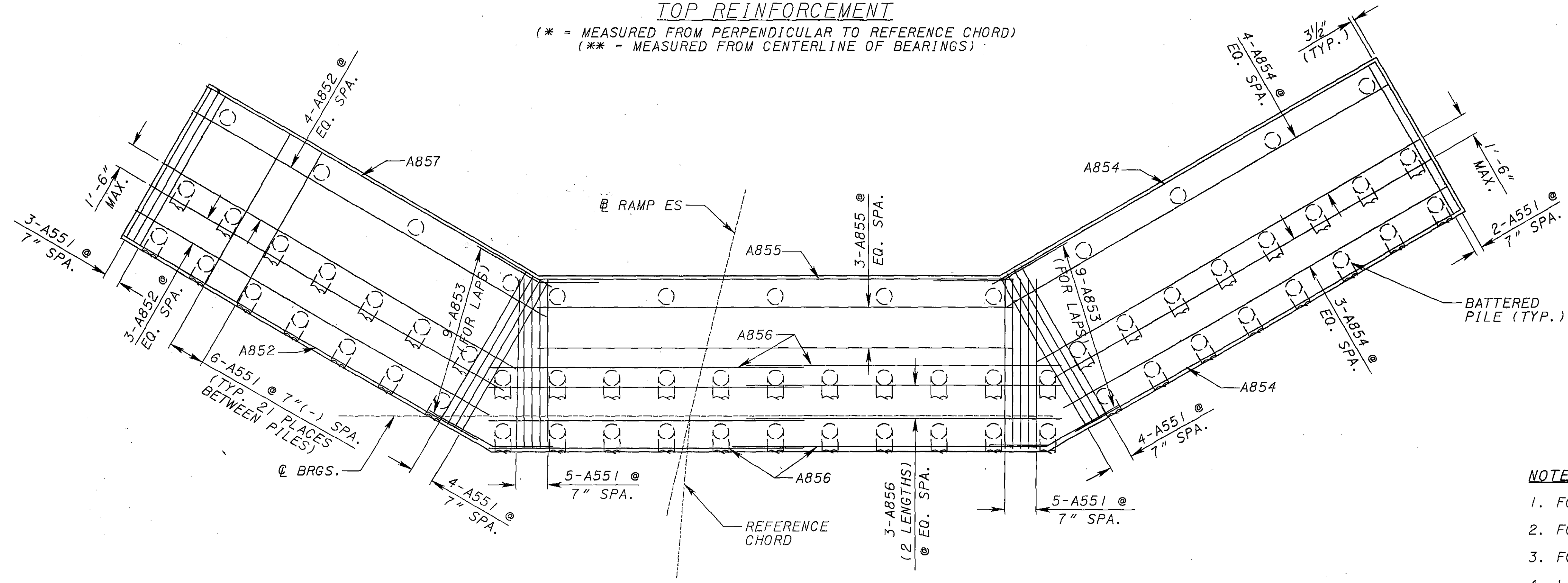
7 / 24

1056
 1120



TOP REINFORCEMENT

(* = MEASURED FROM PERPENDICULAR TO REFERENCE CHORD)
 (** = MEASURED FROM CENTERLINE OF BEARINGS)



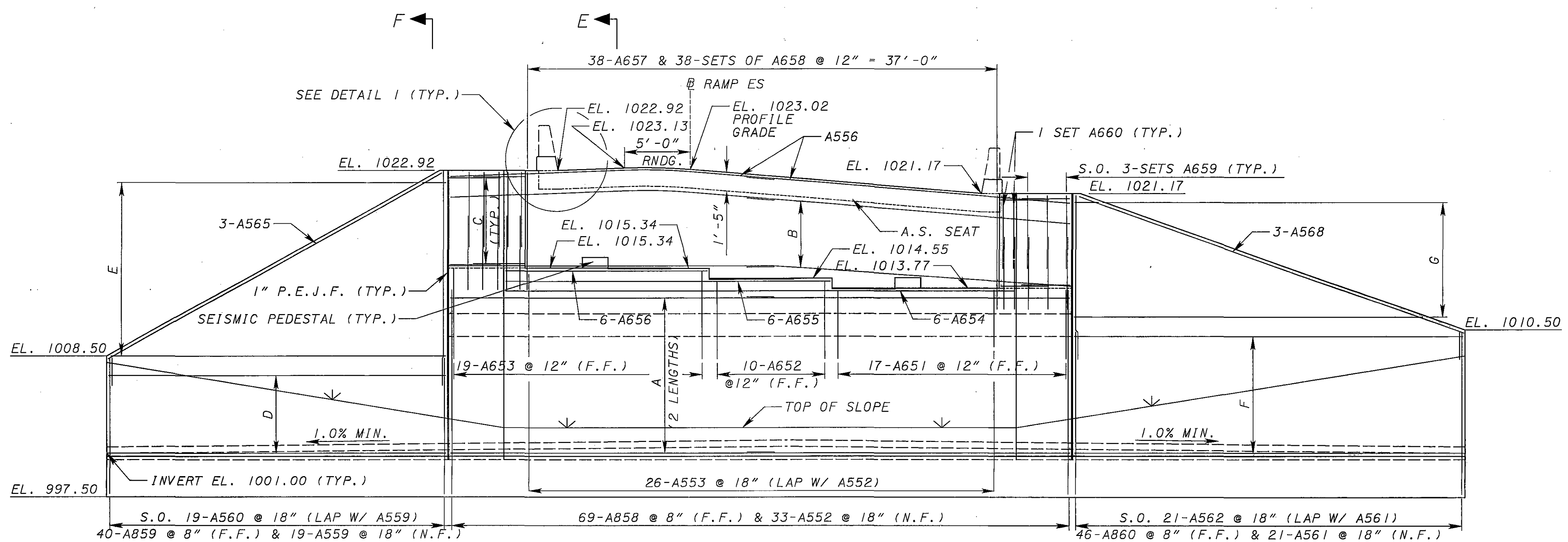
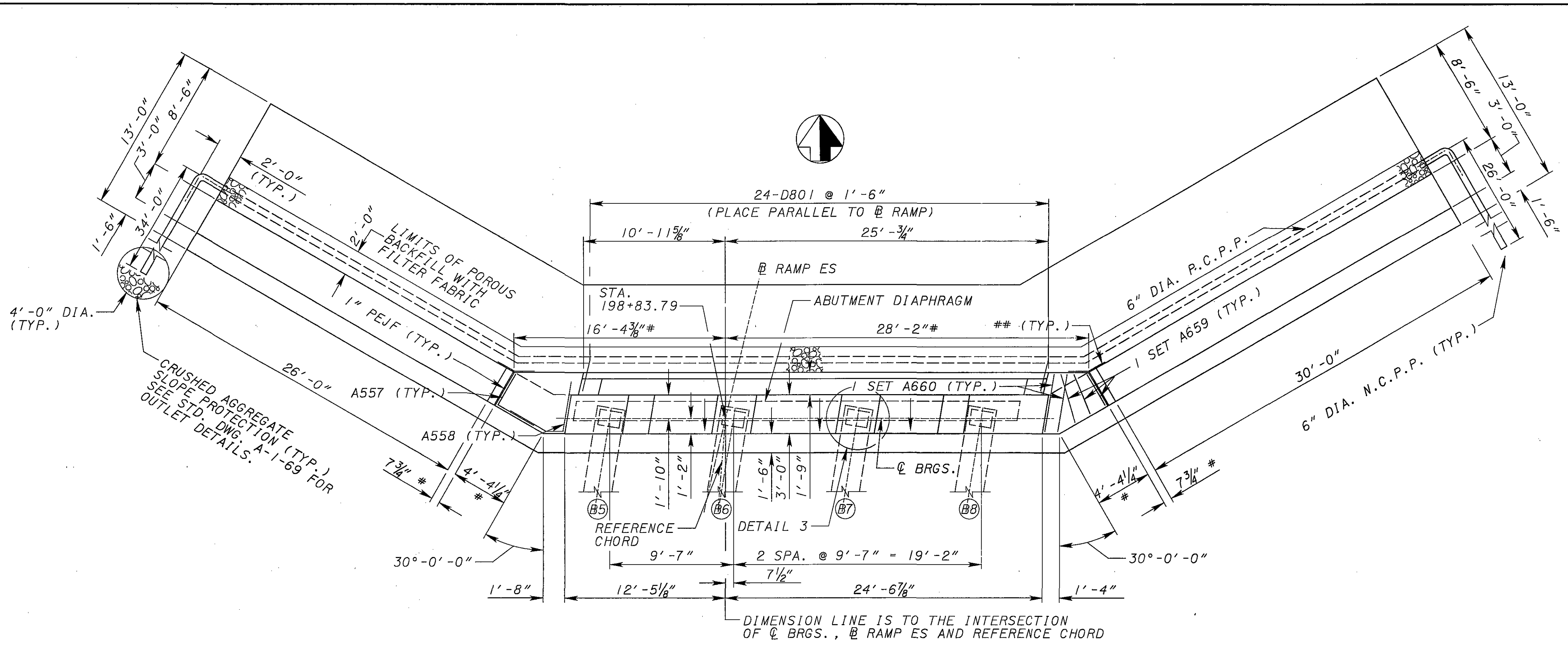
BOTTOM REINFORCEMENT

NOTES

1. FOR FORWARD ABUTMENT PLAN AND ELEVATION SEE SHEET 9 / 24
2. FOR FOUNDATION PLAN SEE SHEET 4 / 24
3. FOR ADDITIONAL FORWARD ABUTMENT DETAILS SEE SHEET 10 / 24
4. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
 NO. 8 = 4'-0"

LEGEND

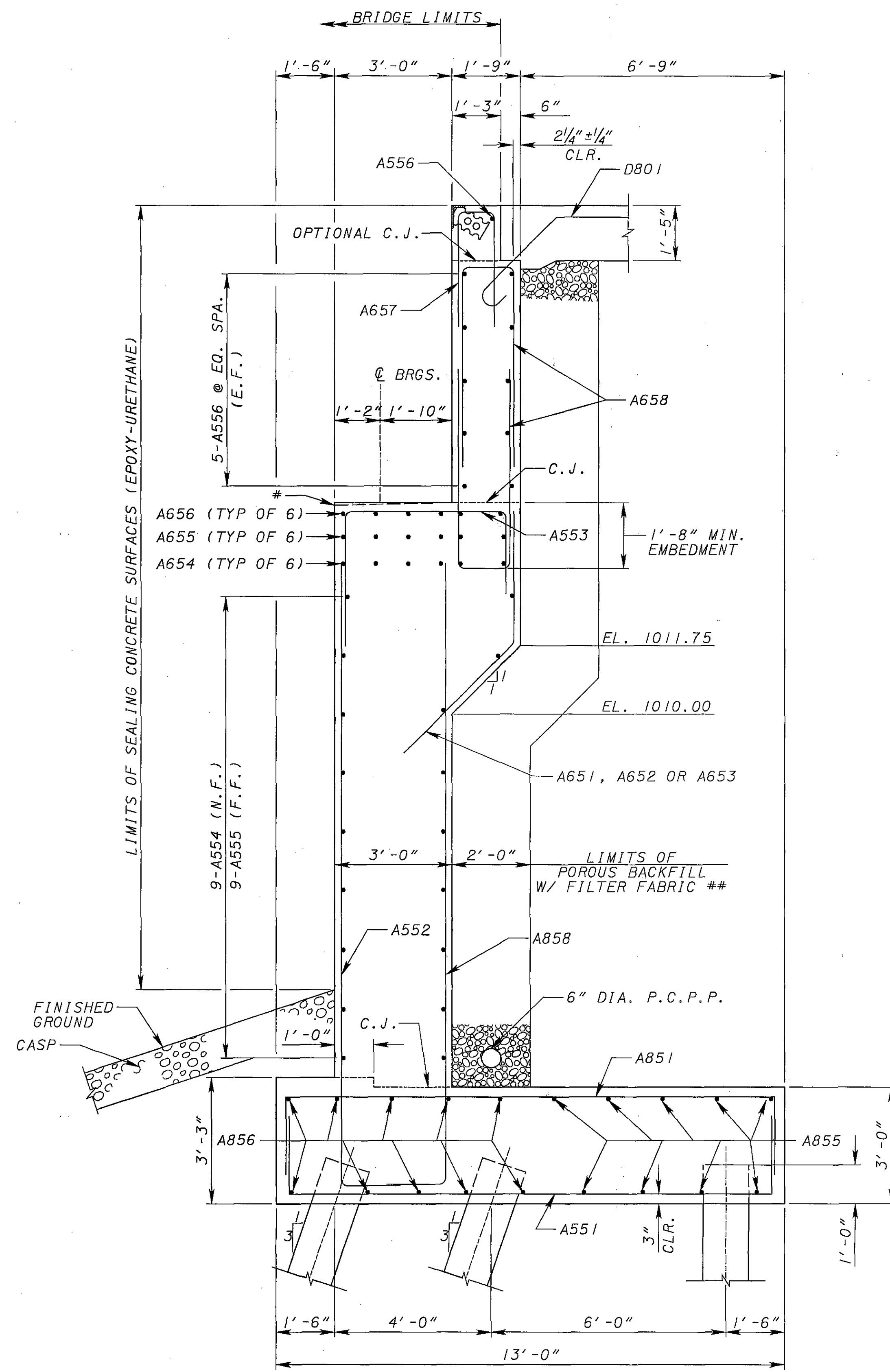
- BRGS. = BEARINGS
- EQ. = EQUAL
- MAX. = MAXIMUM
- SPA. = SPACES
- TYP. = TYPICAL



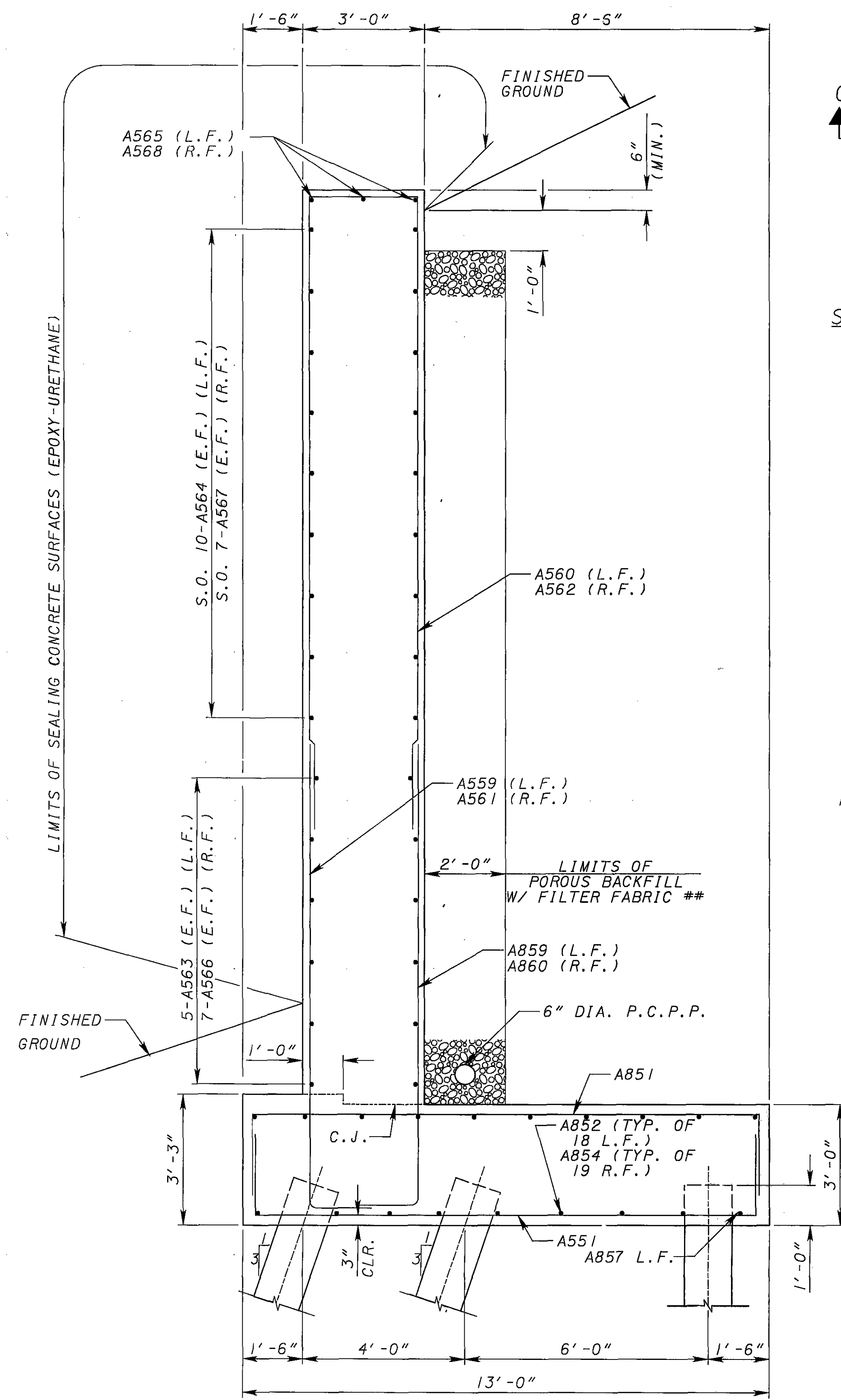
- NOTES
- FOR FOOTING REBAR LAYOUT SEE SHEET 8 / 24
 - FOR FOUNDATION PLAN SEE SHEET 4 / 24
 - FOR SECTIONS E-E & F-F SEE SHEET 10 / 24
 - FOR DETAIL 1 SEE SHEET 6 / 24
 - THE INSIDE FACE OF WINGWALLS SHALL BE PARALLEL WITH THE BEAMS.
 - FOR SEISMIC PEDESTAL DETAILS SEE SHEET 10 / 24
 - ELEVATIONS SHOWN ALONG THE ROAD SURFACE ARE ALONG THE FACE OF THE BACKWALL.
 - POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
 - LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 5 = 2'-1"
NO. 6 = 2'-5"
- # - DIMENSION IS TO THE CENTER OF THE 1" PEJF
- TYPE 2 WATERPROOFING, 3' WIDE, CENTERED OVER FULL LENGTH OF EXPANSION JOINT
- INCLUDE WITH APPROACH SLAB FOR PAYMENT

- LEGEND
- A.S. = APPROACH SLAB
 - BRGS. = BEARINGS
 - DIA. = DIAMETER
 - E.F. = EACH FACE
 - EL. = ELEVATION
 - F.F. = FAR FACE
 - N.F. = NEAR FACE
 - N.C.P.P. = NON-PERFORATED CORRUGATED PLASTIC PIPE
 - P.C.P.P. = PERFORATED CORRUGATED PLASTIC PIPE
 - PEJF = PREFORMED EXPANSION JOINT FILLER
 - RNDG. = ROUNDING
 - S.O. = SERIES OF
 - SPA. = SPACES
 - TYP. = TYPICAL

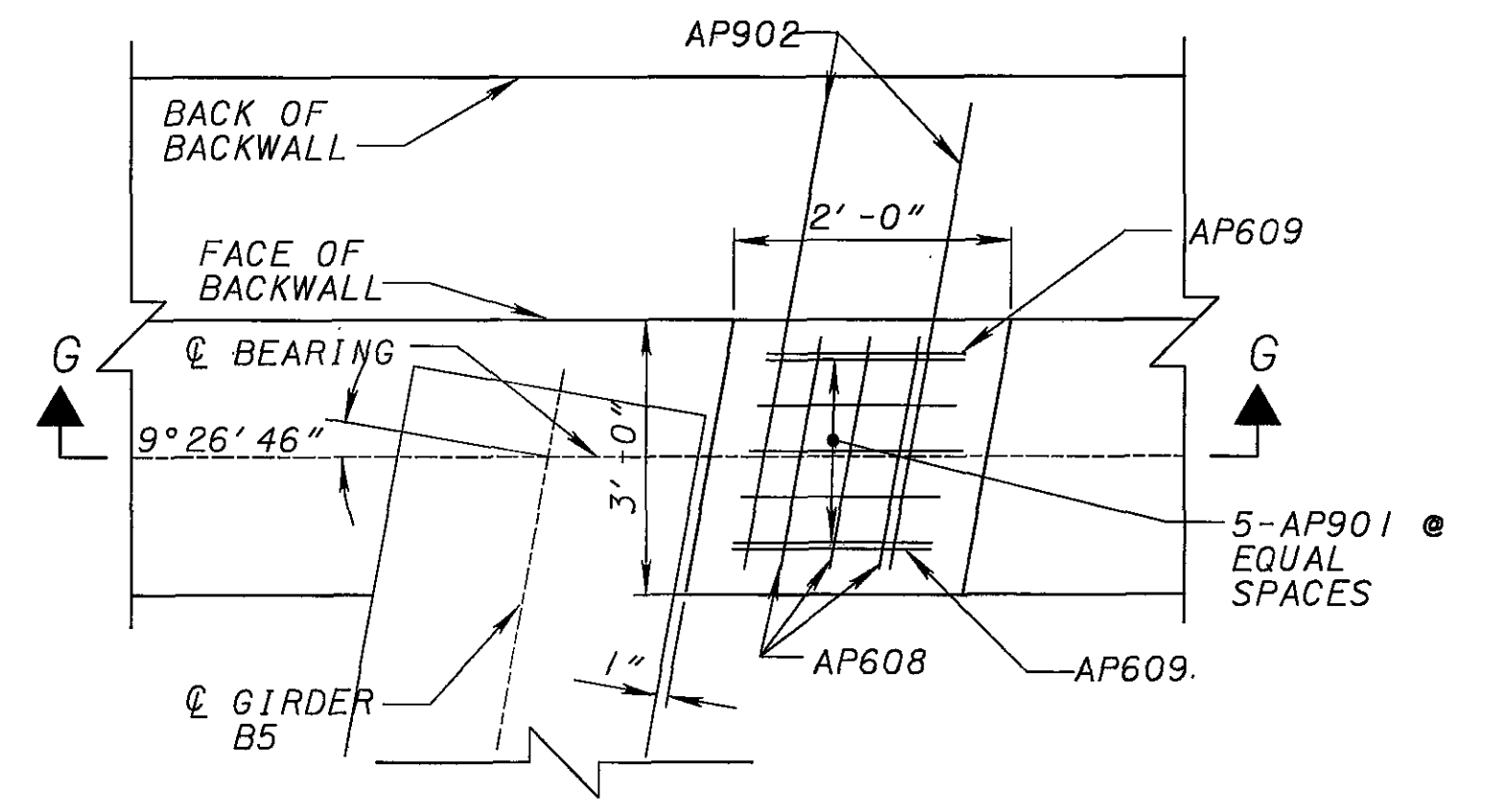
- (PILES NOT SHOWN FOR CLARITY)
- A - 9-A554 (N.F.) & 9-A555 (F.F.) @ 18"
 - B - 5-A556 (E.F.) (2 LENGTHS) @ 18" MAX.
 - C - 7-A557 & A558 (LAP W/ A556) @ EQUAL SPA.
 - D - 5-A563 @ 18" (E.F.)
 - E - S.O. 10-A564 @ 18" (E.F.)
 - F - 7-A566 @ 18" (E.F.)
 - G - S.O. 7-A567 @ 18" (E.F.)



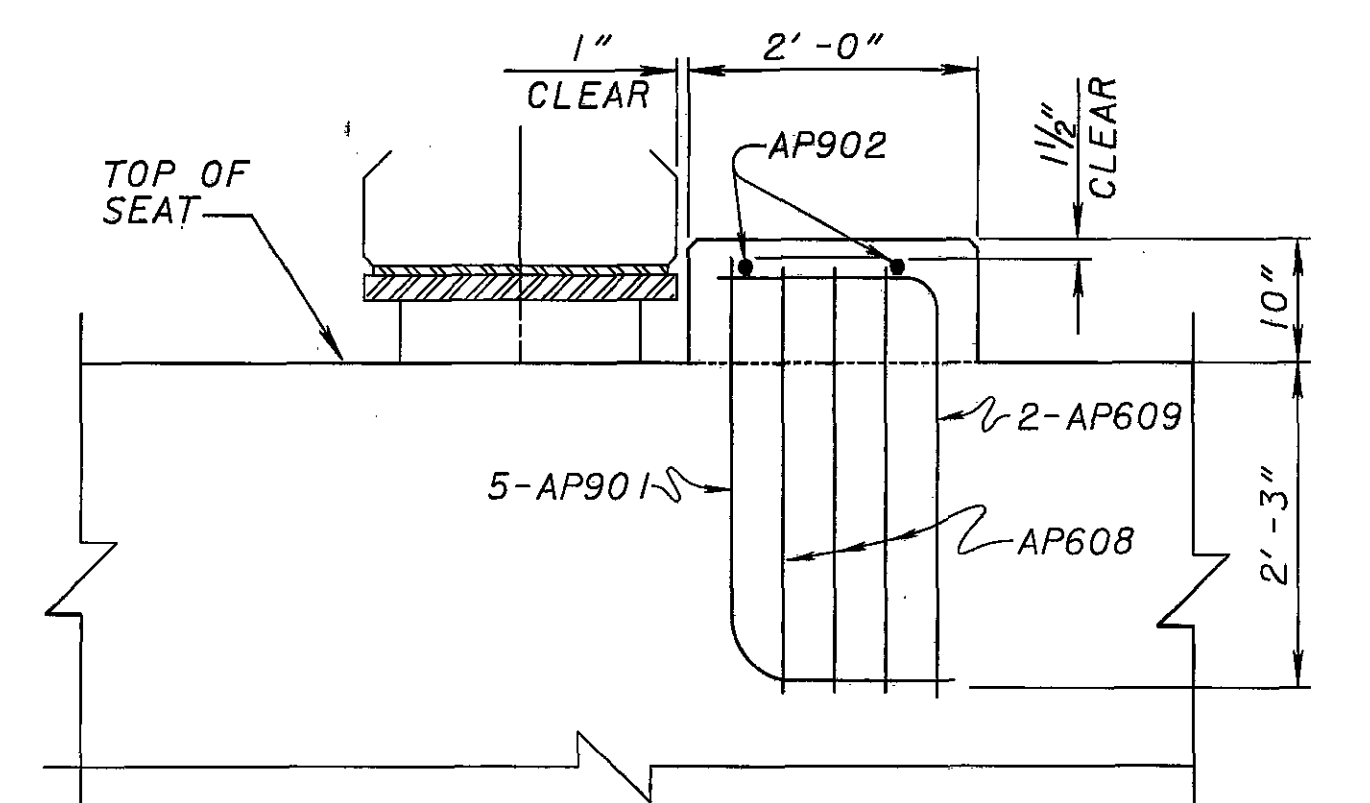
SECTION E-E



SECTION F-F



SEISMIC PEDESTAL PLAN - FORWARD ABUTMENT



SECTION G-G

NOTE: REINFORCING SHOWN IS FOR THE PEDESTAL AT GIRDER B5. AT GIRDER B8 THE REINFORCING IS OPPOSITE HAND. FOR DETAILS NOT SHOWN SEE STD. DRG. A-1-69.

NOTES

- FOR FOOTING REBAR LAYOUT SEE SHEET 8 / 24
- FOR FOUNDATION PLAN SEE SHEET 4 / 24
- FOR LOCATIONS OF SECTIONS E-E & F-F SEE SHEET 9 / 24
- LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 5 BARS = 2'-1"
NO. 6 BARS = 2'-5"
- SEALING OF BEAM SEATS: IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.

- # - SLOPE 3/4" BETWEEN SEATS
- ## - TURN FABRIC 6" UP WALL AT BOTTOM

LEGEND

- BRGS. = BEARINGS
- CASP = CRUSHED AGGREGATE SLOPE PROTECTION
- CLR. = CLEAR
- DIA. = DIAMETER
- E.F. = EACH FACE
- EL. = ELEVATION
- F.F. = FAR FACE
- L.F. = LEFT FORWARD
- N.F. = NEAR FACE
- P.C.P.P. = PERFORATED CORRUGATED PLASTIC PIPE
- R.F. = RIGHT FORWARD
- S.O. = SERIES OF
- SPA. = SPACING

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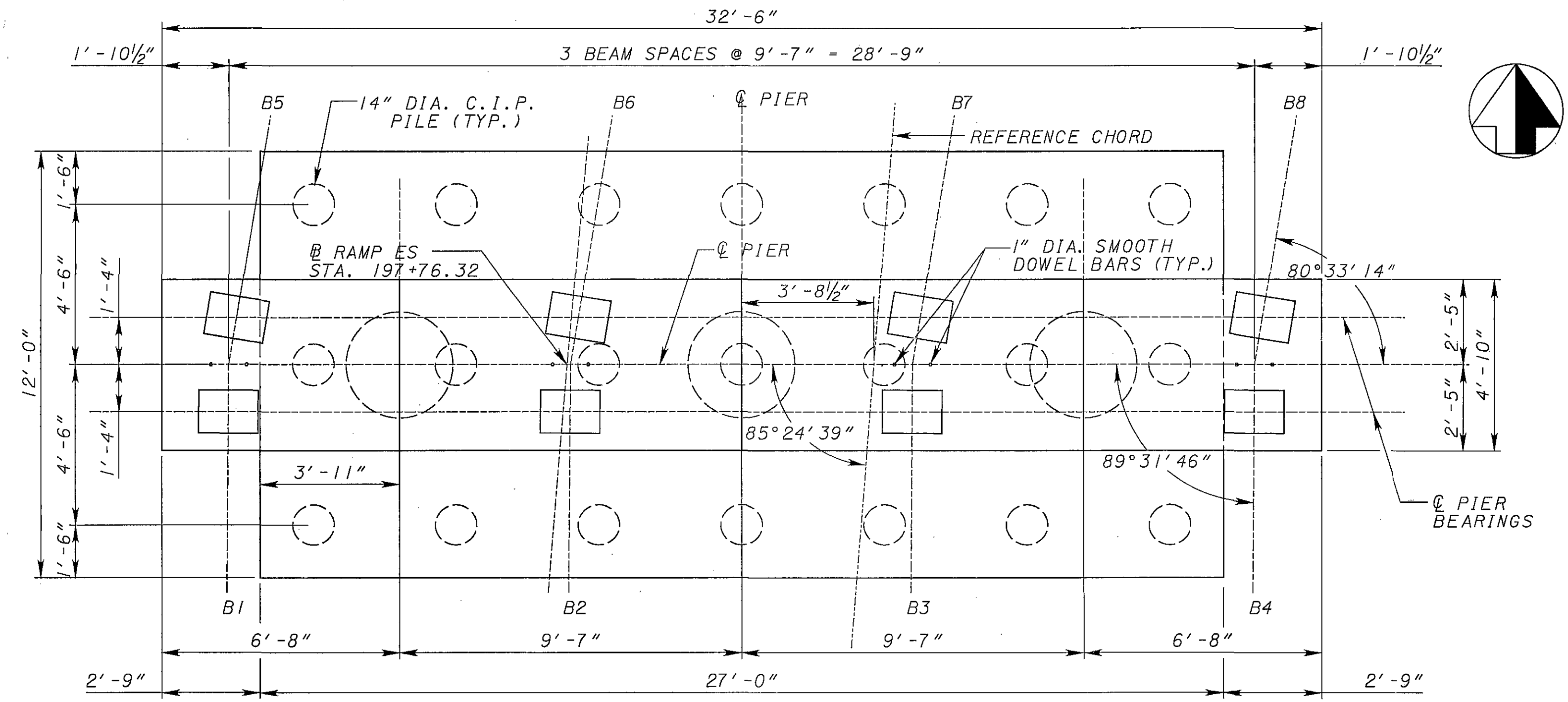
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REVIEWED	GWM
DRAWN	JAA
DESIGNED	JAA
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CHECKED	MPH
REVISED	

FORWARD ABUTMENT & WINGWALL SECTIONS
BRIDGE NO. MED-224-1570
RAMP ES OVER US 224

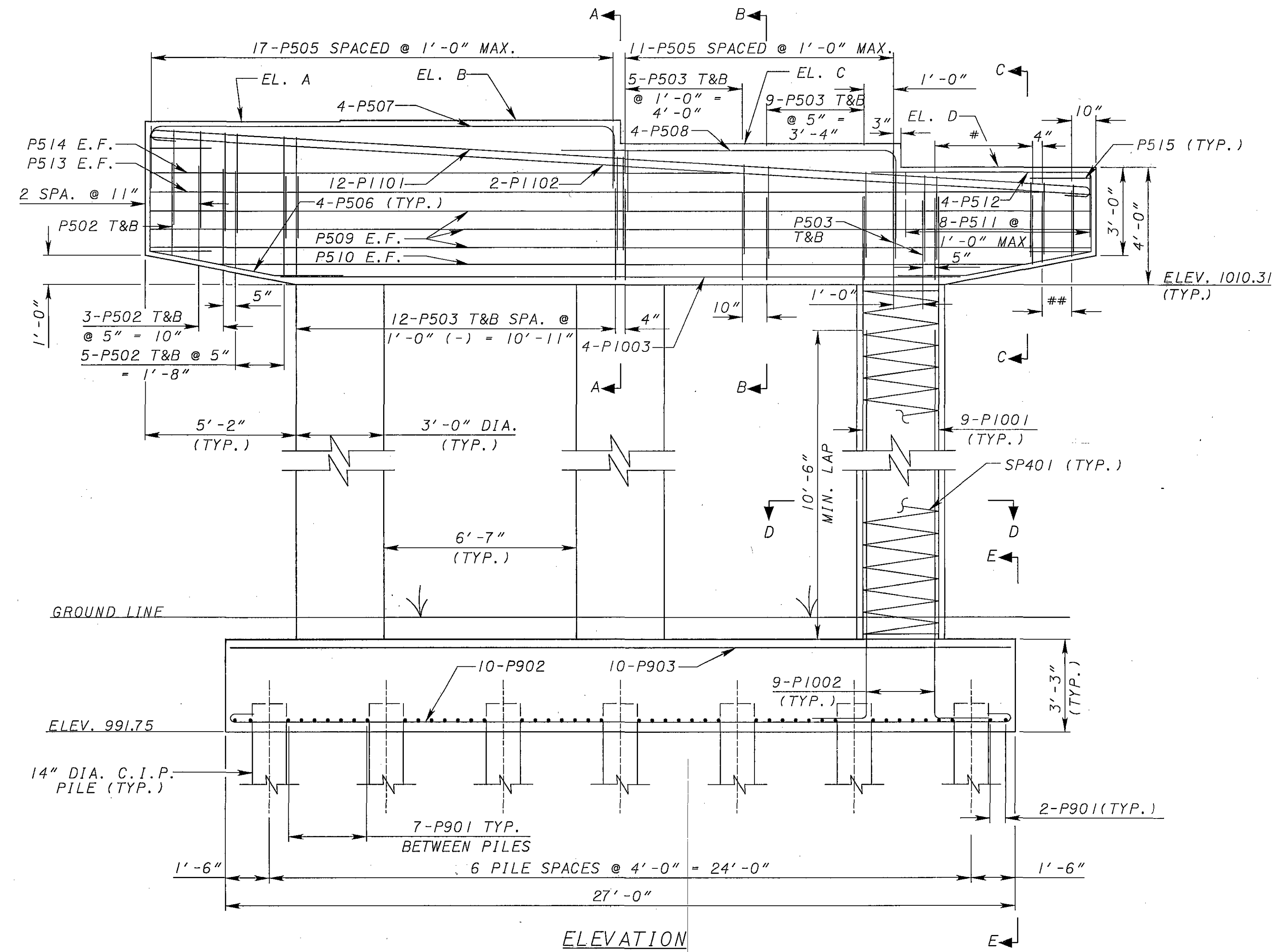
MED-71-6.06
PID-75657

10 / 24

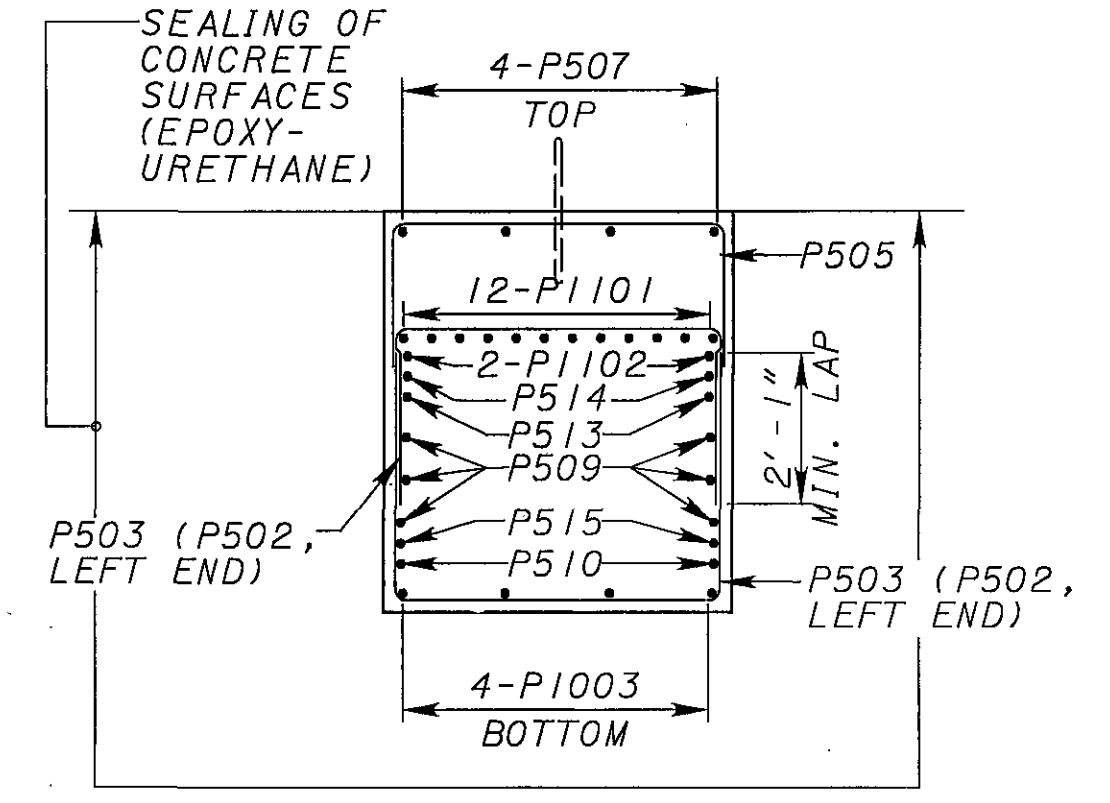
1059
1120



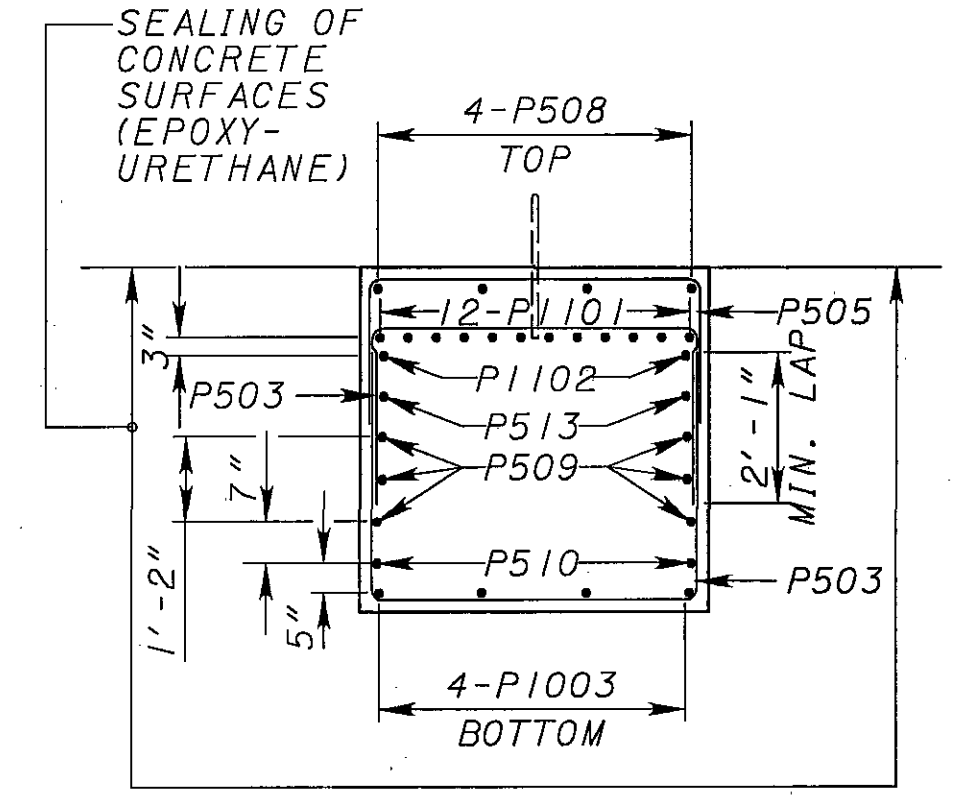
PLAN



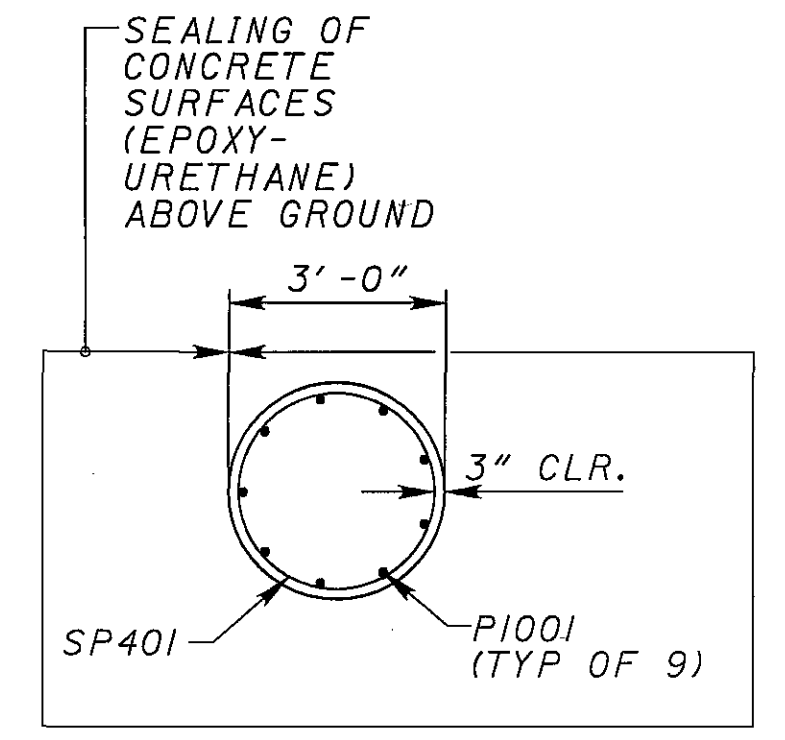
ELEVATION



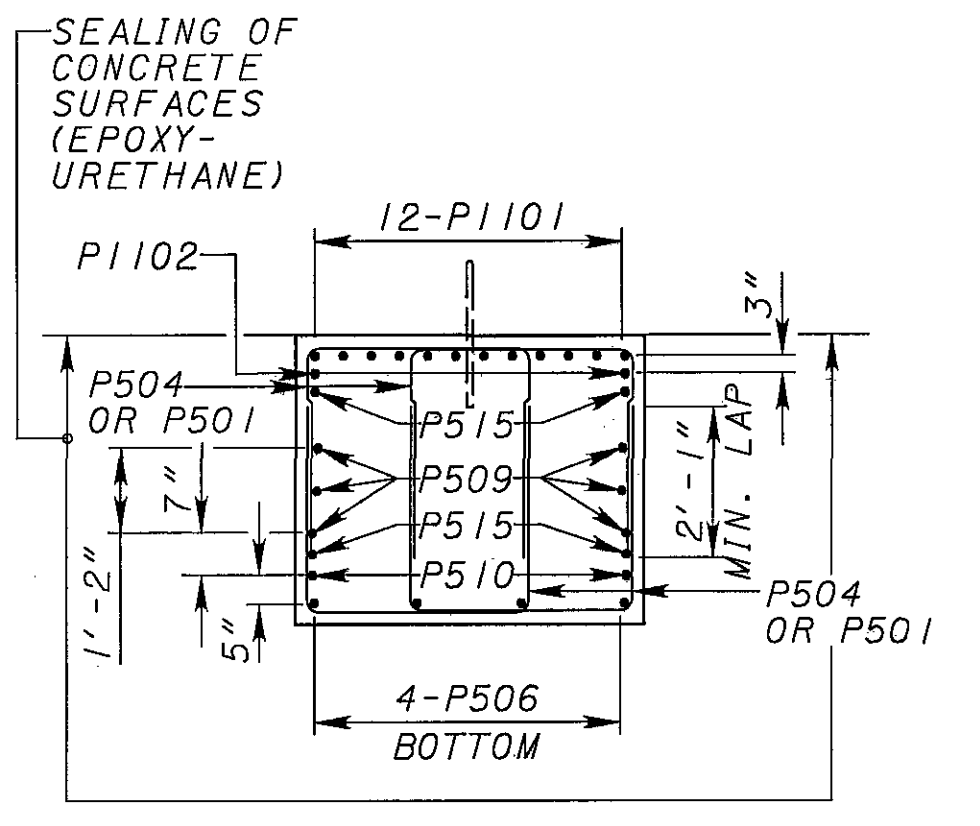
SECTION A-A



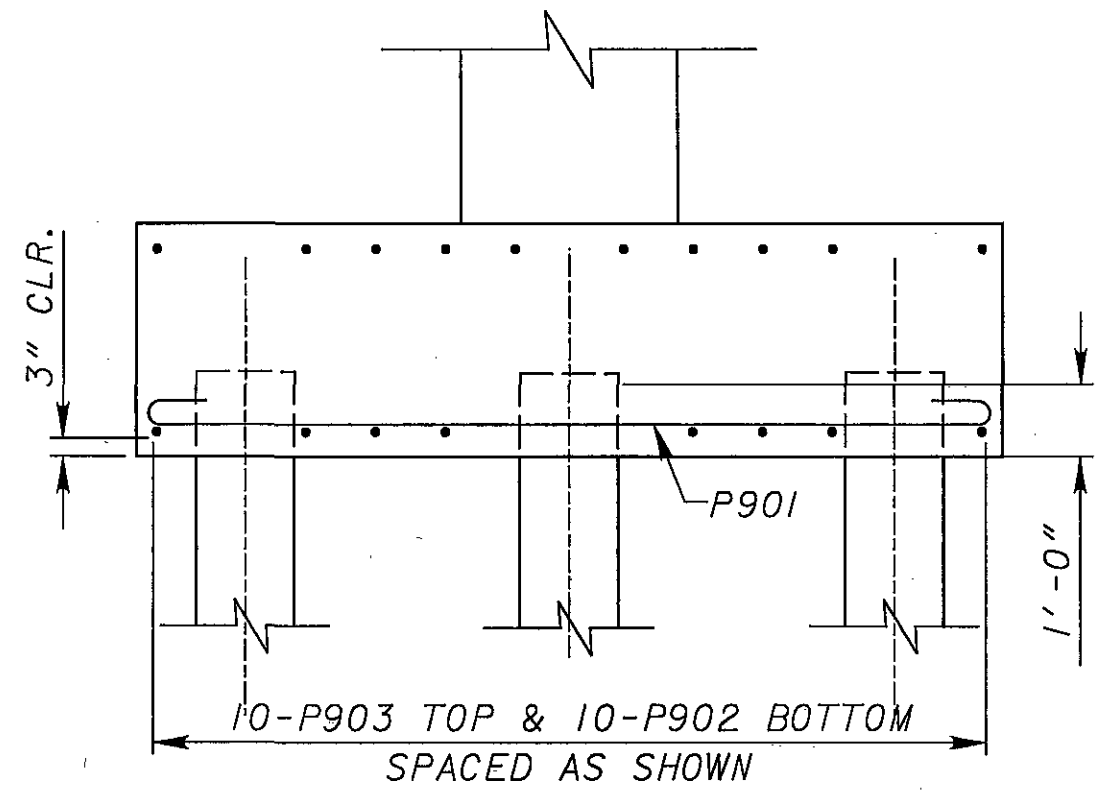
SECTION B-B



SECTION D-D



SECTION C-C



SECTION E-E

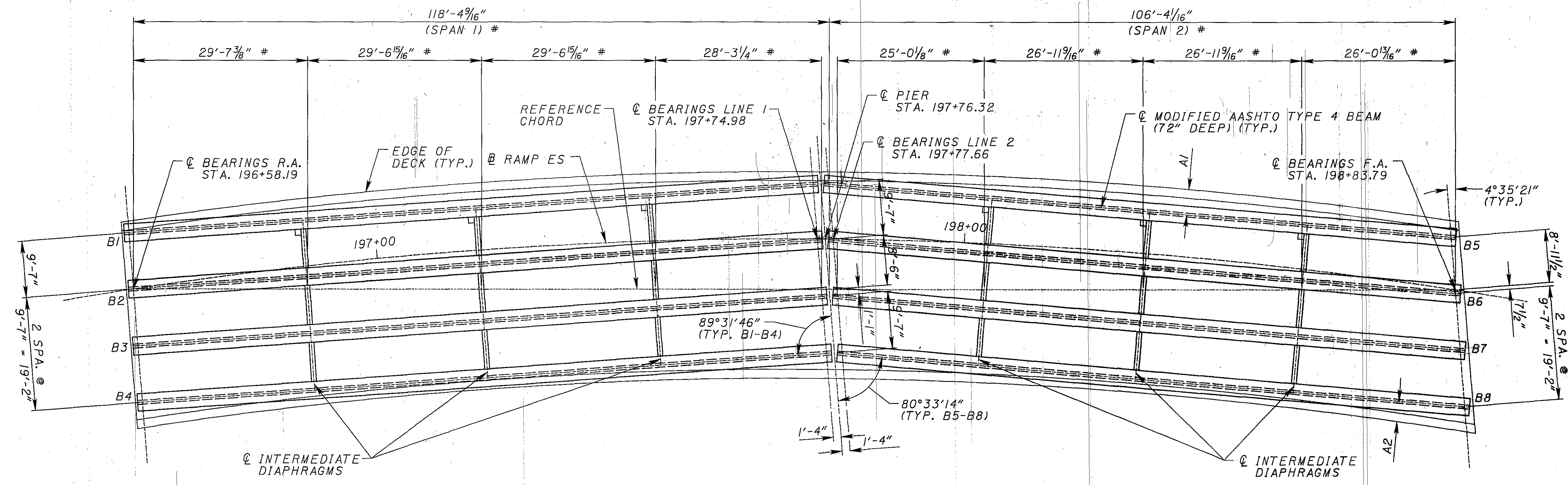
PIER ELEVATIONS			
A	B	C	D
1015.83	1015.88	1015.09	1014.31

LEGEND

- TYP.-TYPICAL
- E.F.-EACH FACE
- MIN.-MINIMUM
- T&B-TOP & BOTTOM
- DIA.-DIAMETER
- SPA.-SPACED
- CLR.-CLEAR
- EL.-ELEVATION
- B# - BEAM NUMBER
- # - 4 SETS OF 11-P504 TOP & BOTTOM SPACED @ 4" = 3'-4"
- ## - 2 SETS OF 4-P501 TOP & BOTTOM @ 4" = 1'-0"

NOTES

1. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES. SEE SHEET 15/24 FOR BEARING DETAILS.
2. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 5 BARS = 2'-7"



FRAMING PLAN
(* = MEASURED ALONG REFERENCE CHORD)

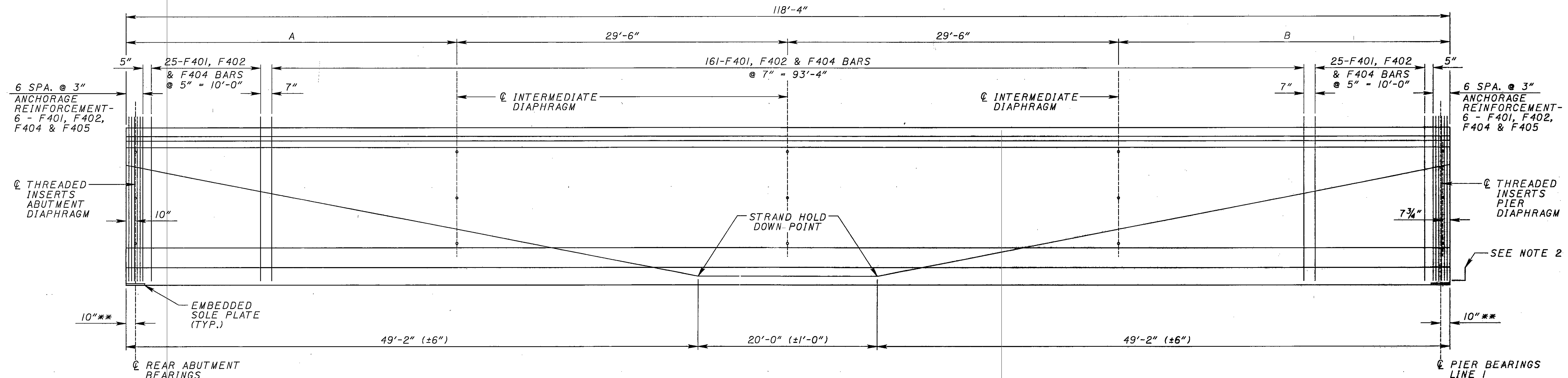
DECK OVERHANGS †									
LOCATION	☉ BEARINGS R.A.	1/4 SPAN	MIDSPAN	3/4 SPAN	☉ PIER	1/4 SPAN	MIDSPAN	3/4 SPAN	☉ BEARINGS F.A.
A1	1'-11 3/8"	3'-8 5/8"	4'-3 3/8"	3'-9 1/4"	2'-0 5/8"	3'-9 3/8"	4'-4 1/4"	3'-11 3/4"	2'-9 1/8"
A2	4'-4 3/4"	2'-6 3/4"	1'-11 1/8"	2'-5 1/8"	4'-4"	2'-10 3/4"	2'-3 3/8"	2'-8 1/2"	4'-3 3/8"

† - DIMENSIONS A1 & A2 ARE MEASURED PERPENDICULAR TO ☉ BEAM AT ALL LOCATIONS EXCEPT AT ☉ PIER, WHICH IS MEASURED ALONG ☉ PIER.

NOTE:
1. SEE STD. DWG. PSID-I-99 FOR INTERMEDIATE DIAPHRAGM DETAILS.

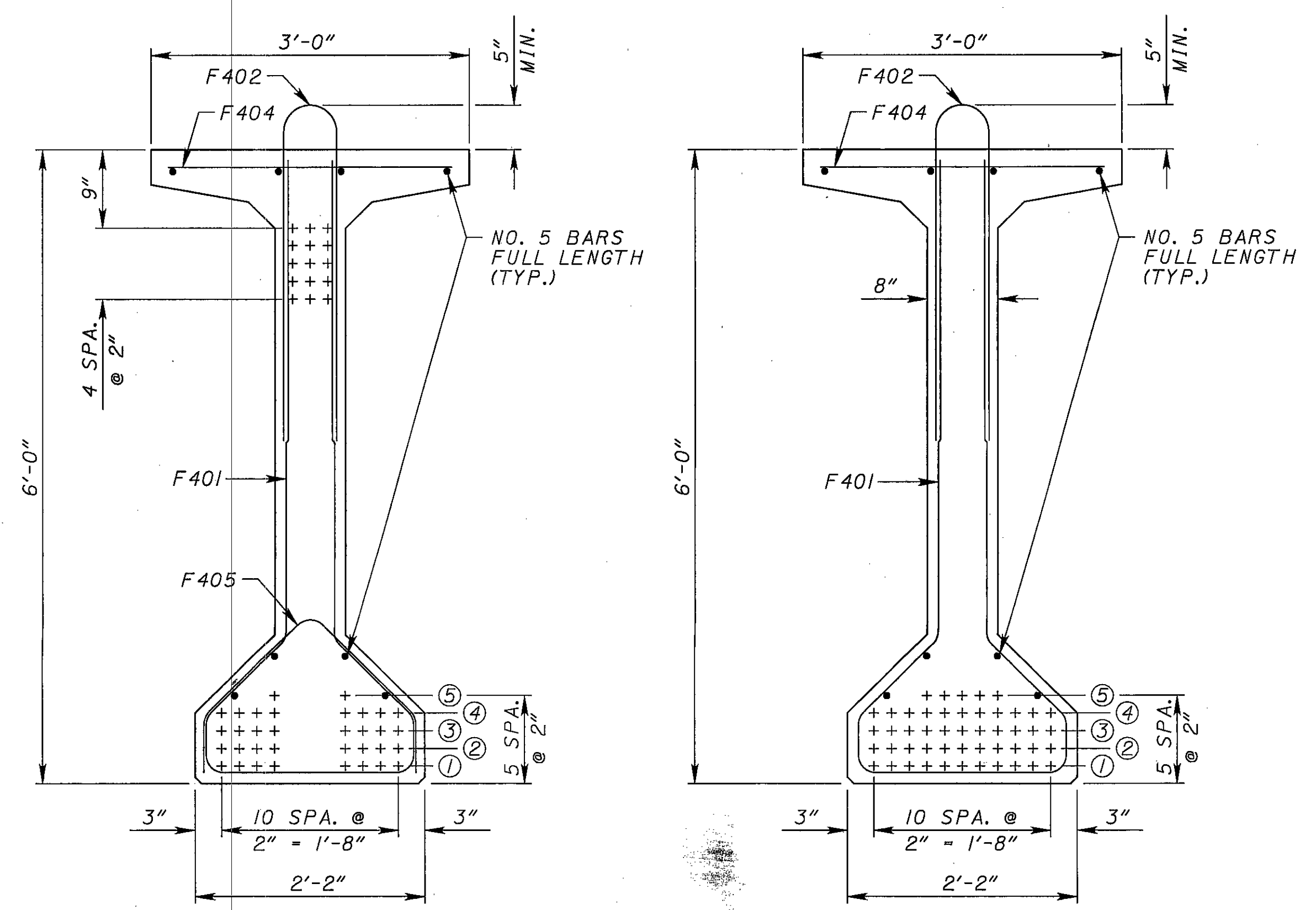
LEGEND:
B - BEAM NUMBER
F.A. - FORWARD ABUTMENT
R.A. - REAR ABUTMENT

P:\PR30489\CADD\MED-224-1570\DETAIL DESIGN\ME224sdl.DGN



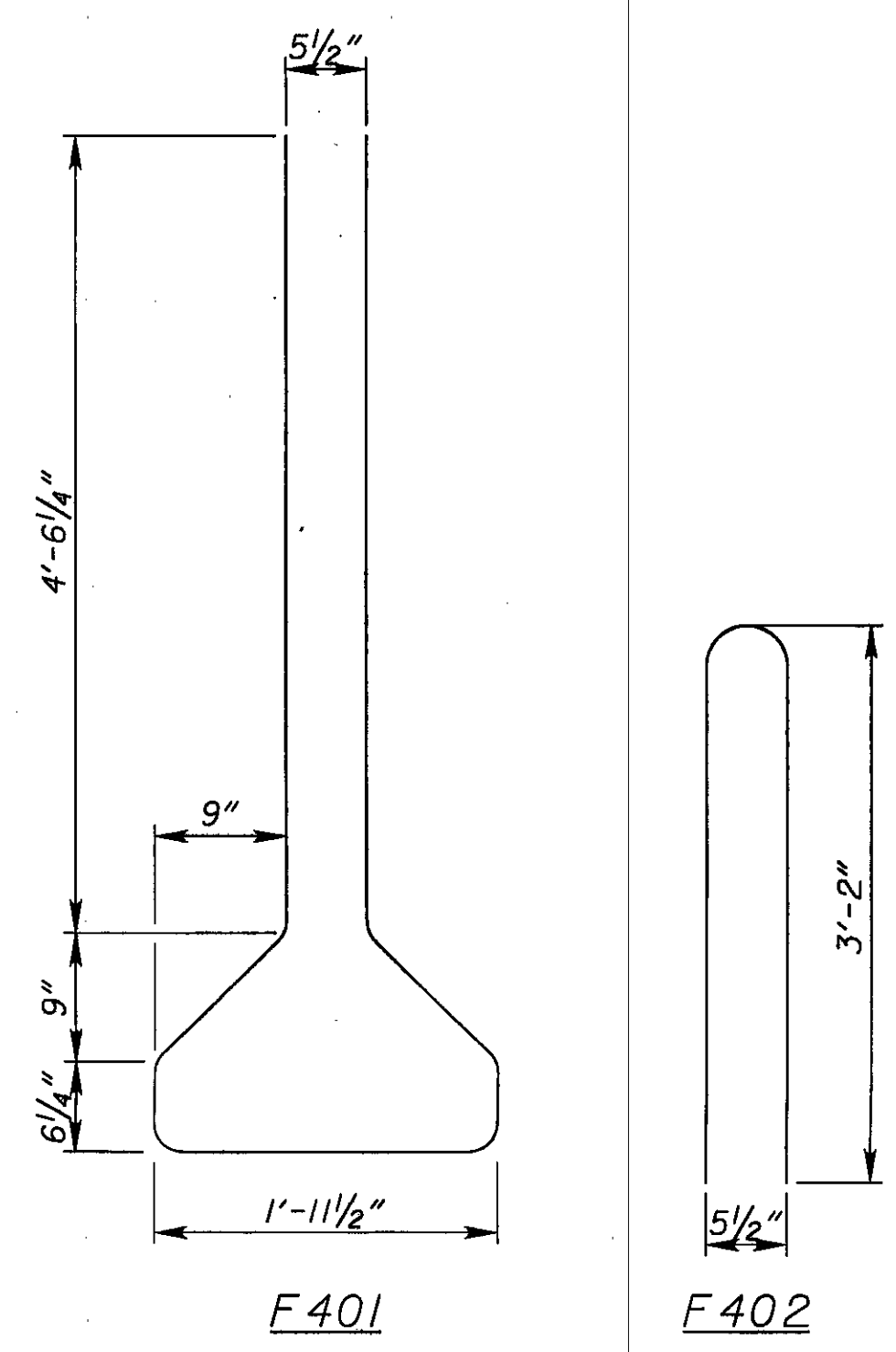
BEAM ELEVATION
(SPAN 1, B1-B4)
(** = MEASURED ALONG ϕ BEAM)
(APPROXIMATE BEAM WEIGHT = 117,900 LBS.)
UPSTATION \rightarrow

BEAM	DIMENSION A	DIMENSION B
B1	30'-5 1/2"	28'-10 5/8"
B2	30'-4 1/2"	28'-11 1/2"
B3	30'-3 1/2"	29'-1 1/2"
B4	30'-2 5/8"	29'-1 1/2"



MODIFIED AASHTO TYPE 4
(END PATTERN)
(SEE NOTE 2)

MODIFIED AASHTO TYPE 4
(MIDSPAN PATTERN)



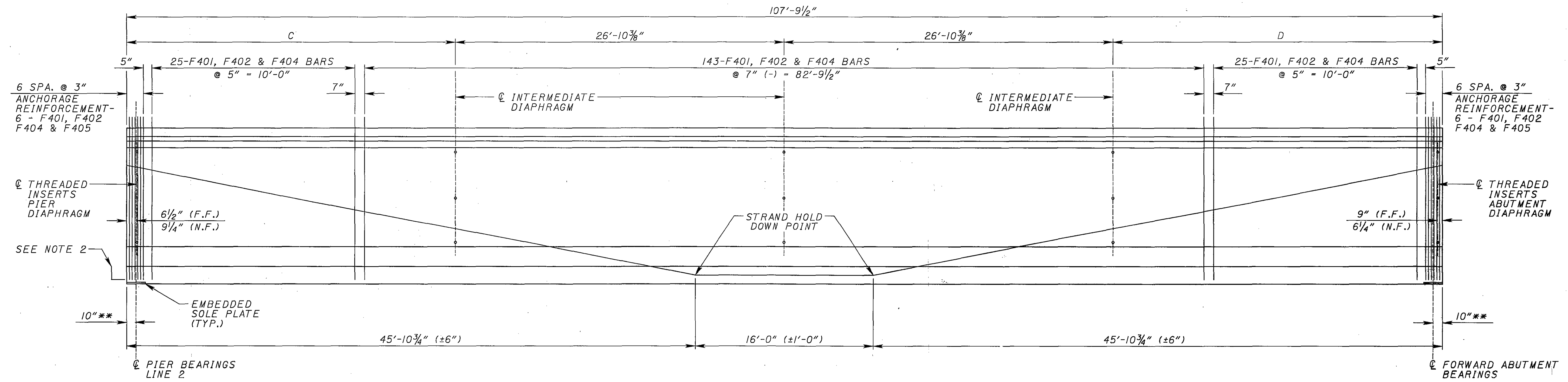
NOTES:

- SEE STD. DWG. PSID-I-99 FOR THREADED INSERT VERTICAL LOCATIONS AND ADDITIONAL BEAM DETAILS.
- EXTEND AND BEND UP 4 STRANDS FROM ROW 1 AT THE PIER END OF THE BEAM ONLY. ALTERNATE STRANDS IN ABUTTING BEAMS TO AVOID INTERFERENCE.
- THE VERTICAL POSITION OF THREADED INSERTS MAY BE SHIFTED ± 1 " TO PREVENT CONFLICTS WITH DRAPED STRANDS.
- SHOP MARK EACH BEAM WITH THE FOLLOWING LOCATION INFORMATION: SPAN NUMBER, BEAM NUMBER & UPSTATION DIRECTION.
- THREADED INSERTS SHALL ONLY BE ON INTERIOR SIDE FOR B1 & B4 AT INTERMEDIATE DIAPHRAGM AND PIER LOCATIONS.

BEAM MARK	MIDSPAN PATTERN					CONCRETE STRENGTHS (ksi)		F401 BARS REQ'D	F402 BARS REQ'D	F404 BARS REQ'D	F405 BARS REQ'D	
	①	②	③	④	⑤	f'ci	f'c					
BI-B4	11*	11*	11*	11*	5*	49	5000	7000	223	223	223	12

* - 3 DRAPED STRANDS

P:\PR30489\CADD\MED-224-1570\DETAIL DESIGN\MED244d3.DGN



BEAM ELEVATION
(SPAN 2, B5-B8)
(** = MEASURED ALONG ϕ BEAM)
(APPROXIMATE BEAM WEIGHT = 107,400 LBS.)
UPSTATION \rightarrow

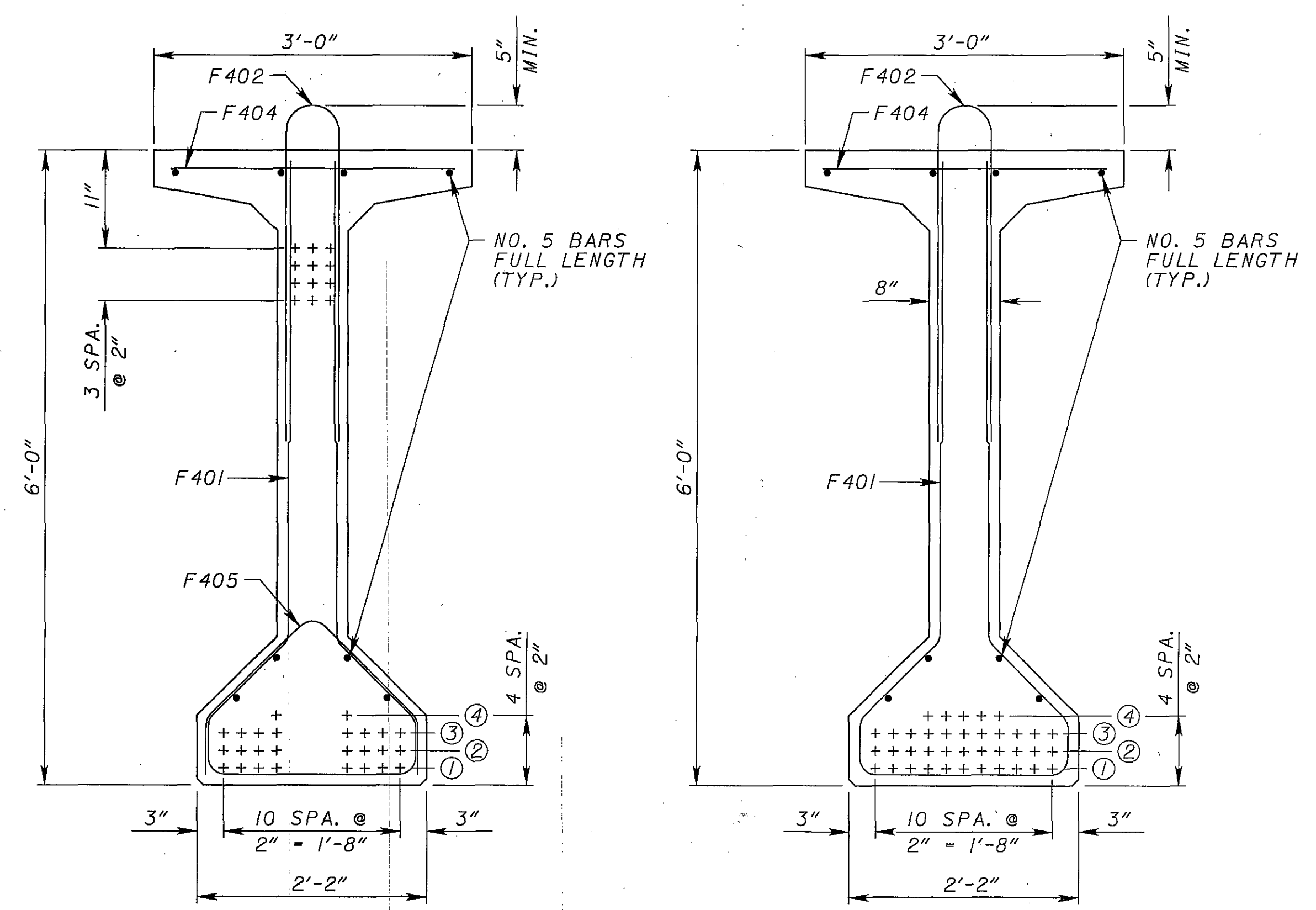
BEAM	DIMENSION C	DIMENSION D
B5	28'-8 1/2"	25'-4"
B6	27'-0 1/2"	26'-11"
B7	25'-6 3/8"	28'-5 3/4"
B8	23'-11 3/4"	30'-0 3/4"

LEGEND:

F.F. = FAR FACE
N.F. = NEAR FACE

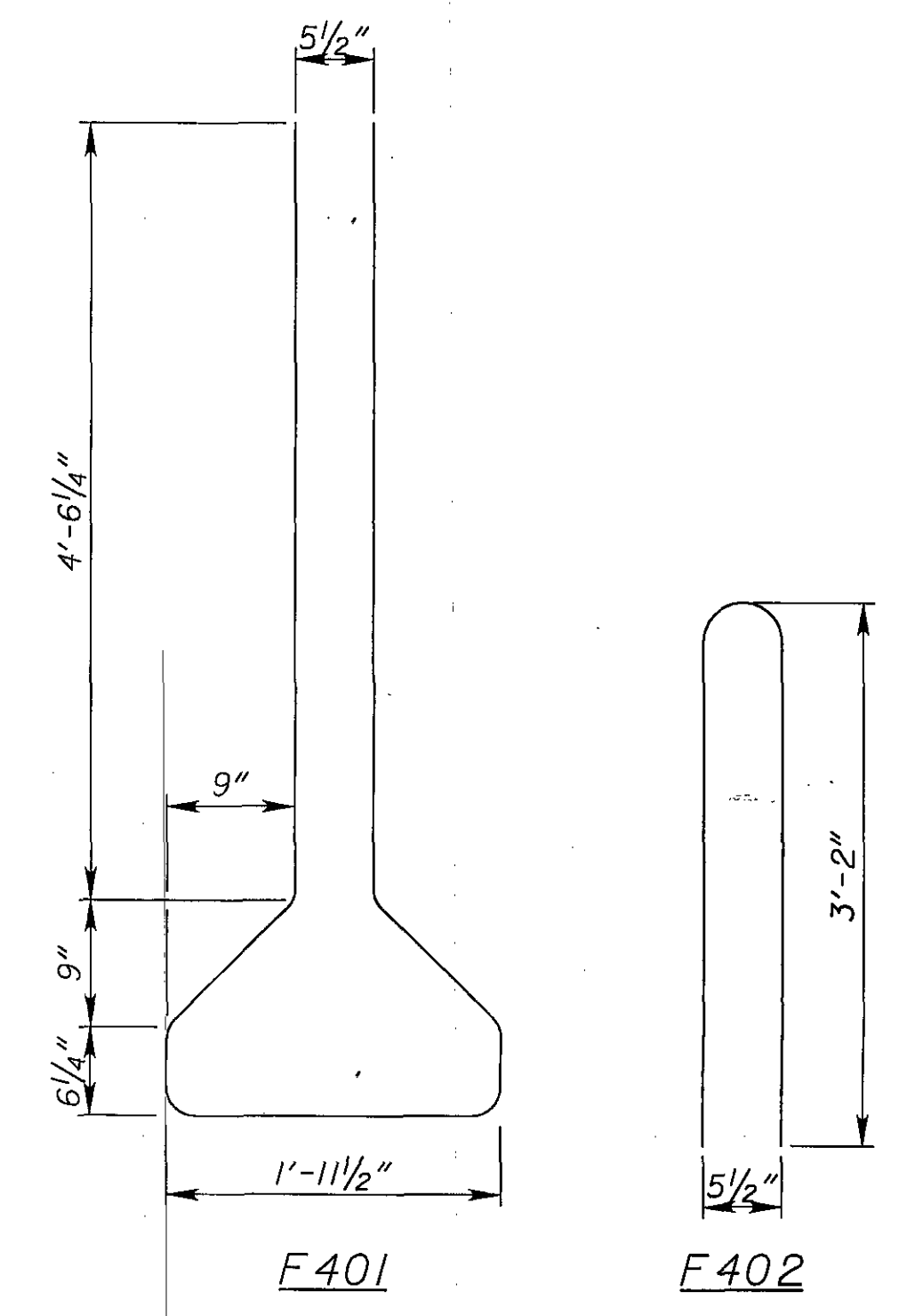
NOTES:

- SEE STD. DWG. PSID-I-99 FOR THREADED INSERT VERTICAL LOCATIONS AND ADDITIONAL BEAM DETAILS.
- EXTEND AND BEND UP 4 STRANDS FROM ROW 1 AT THE PIER END OF THE BEAM ONLY. ALTERNATE STRANDS IN ABUTTING BEAMS TO AVOID INTERFERENCE.
- THE VERTICAL POSITION OF THREADED INSERTS MAY BE SHIFTED $\pm 1"$ TO PREVENT CONFLICTS WITH DRAPED STRANDS.
- SHOP MARK EACH BEAM WITH THE FOLLOWING LOCATION INFORMATION: SPAN NUMBER, BEAM NUMBER & UPSTATION DIRECTION.
- THREADED INSERTS SHALL ONLY BE ON INTERIOR SIDE FOR B5 & B8 AT INTERMEDIATE DIAPHRAGM AND PIER LOCATIONS.



MODIFIED AASHTO TYPE 4
(END PATTERN)
(SEE NOTE 2)

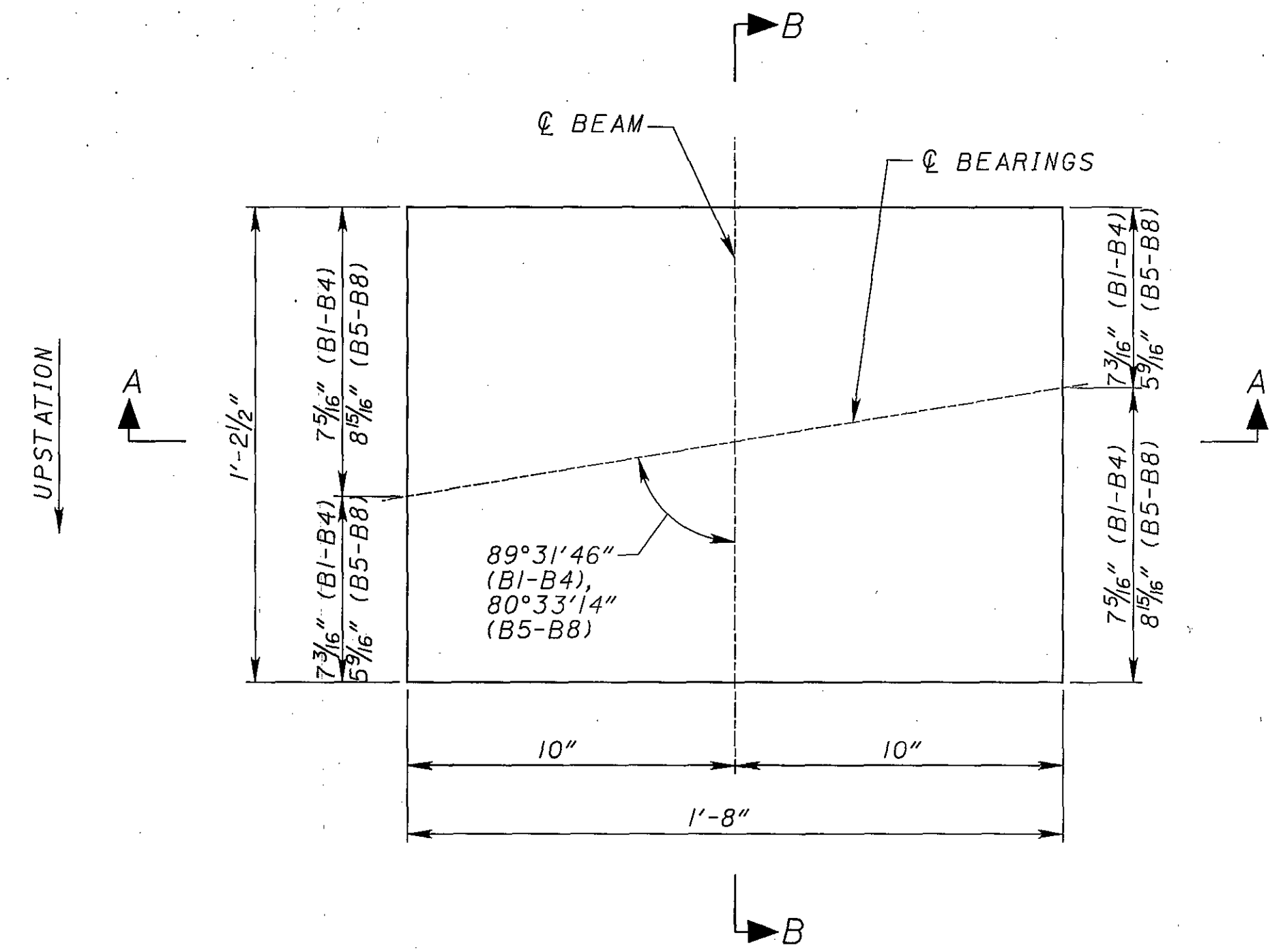
MODIFIED AASHTO TYPE 4
(MIDSPAN PATTERN)



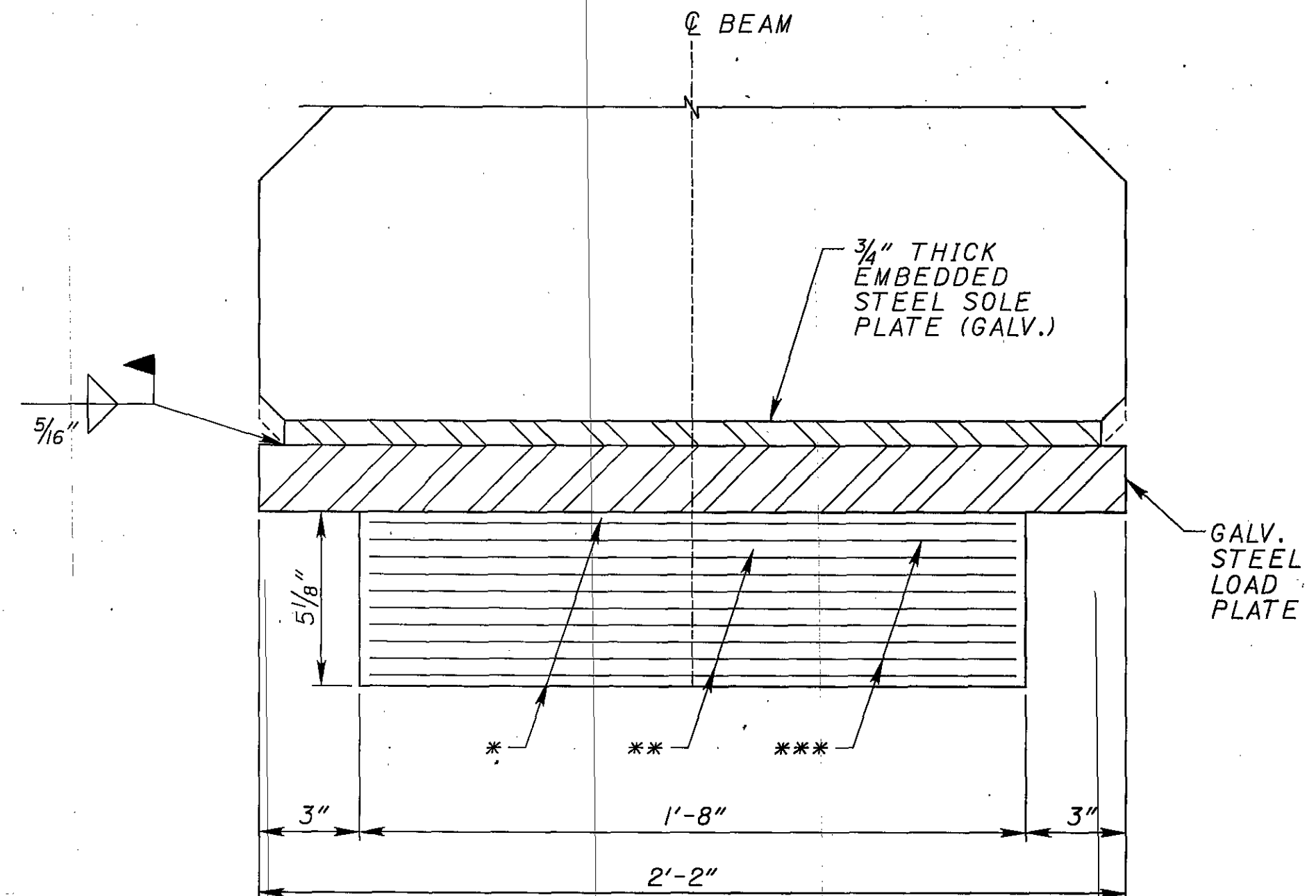
BEAM MARK	MIDSPAN PATTERN				TOTAL STRANDS	CONCRETE STRENGTHS (ksi)		F401 BARS REQ'D	F402 BARS REQ'D	F404 BARS REQ'D	F405 BARS REQ'D
	ROW NUMBER ①	②	③	④		f'ci	f'c				
B5-B8	11*	11*	11*	5*	38	5000	7000	205	205	205	12

* - 3 DRAPED STRANDS

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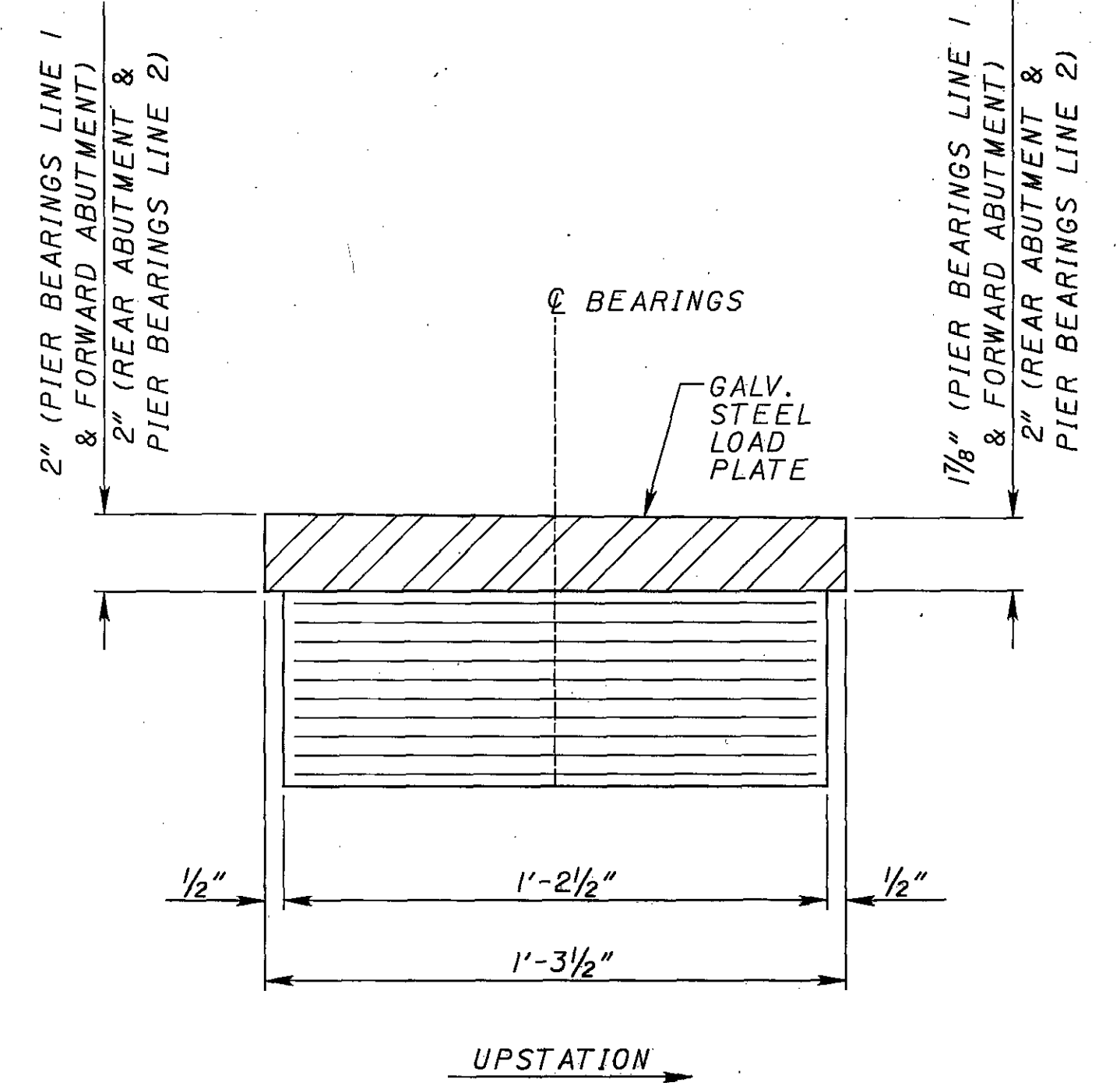


BEARING PLAN
(LOAD PLATE & BEAM NOT SHOWN)

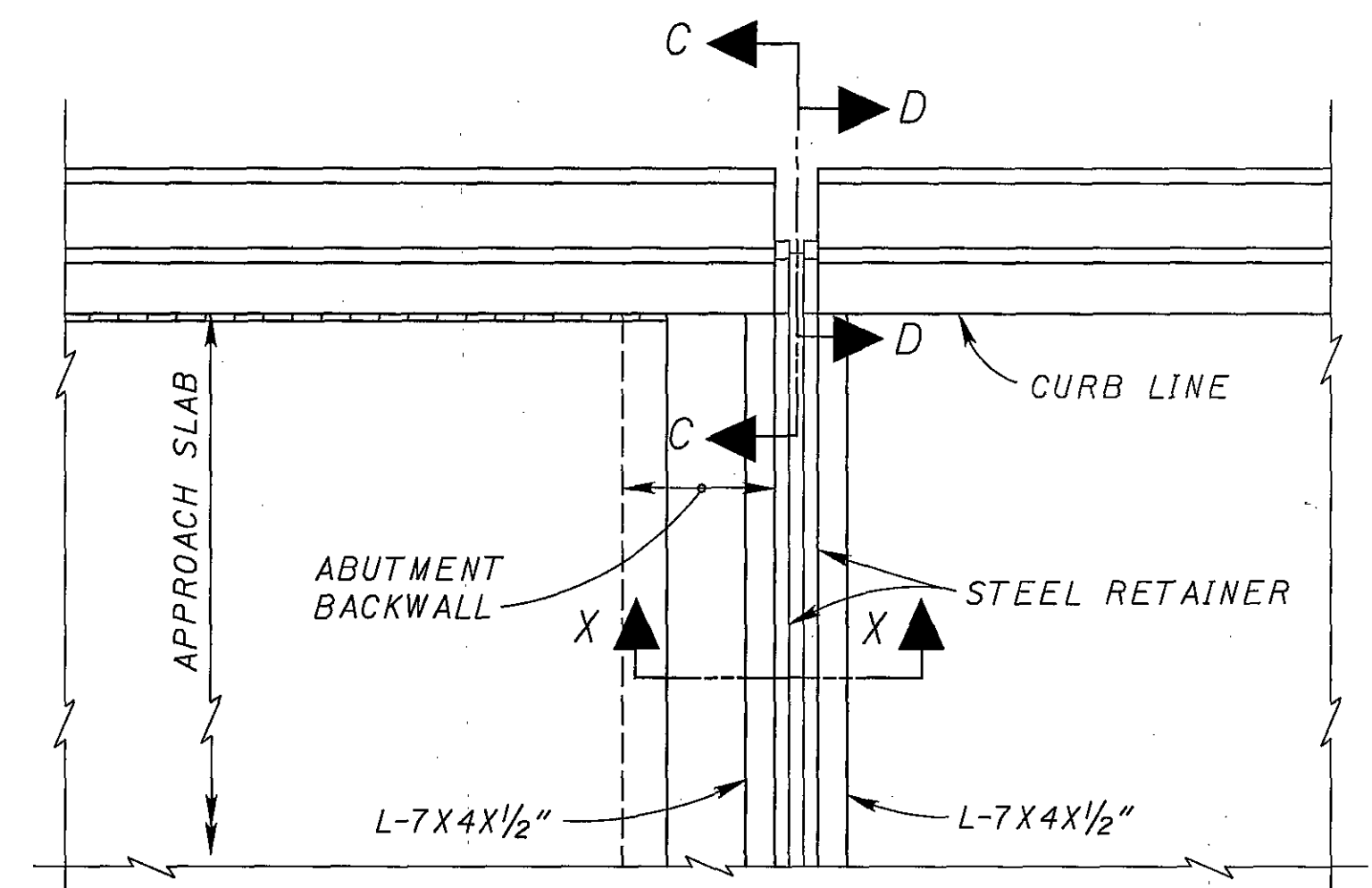


- * - 2 EXTERNAL ELASTOMER LAYERS THICKNESS = 0.290"
- ** - 9 INTERNAL ELASTOMER LAYERS THICKNESS = 0.422"
- *** - 10 INTERNAL STEEL LAMINATES THICKNESS = 0.0747"

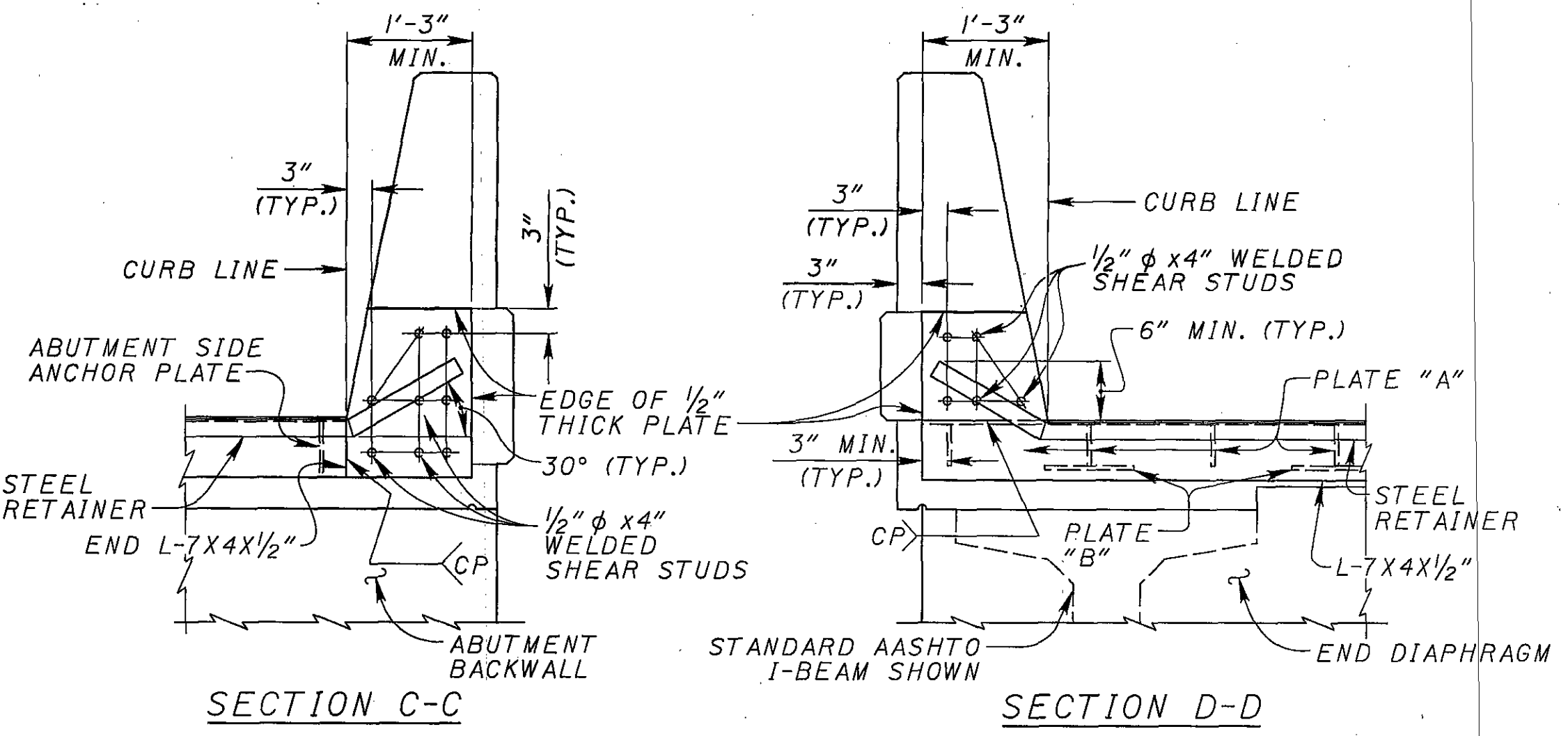
SECTION A-A



SECTION B-B
(BEAM NOT SHOWN)

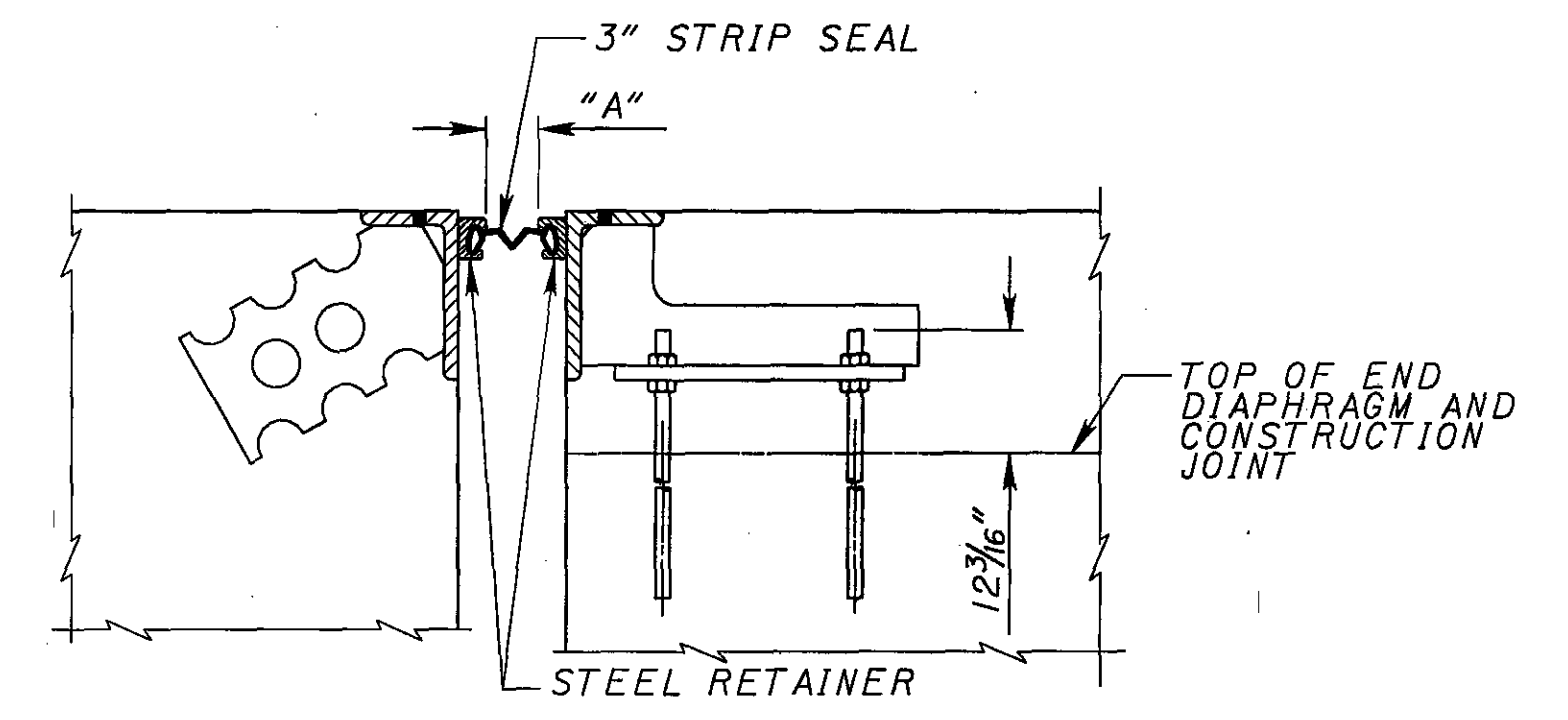


PARTIAL PLAN AT ABUTMENT



SECTION C-C

SECTION D-D



EXPANSION JOINT OPENING DIMENSION "A"							
TEMPERATURE	30°F	40°F	50°F	60°F	70°F	80°F	90°F
REAR ABUT.	1 7/8"	1 3/8"	1 1/8"	1 1/8"	1 1/2"	1 1/8"	1 3/8"
FORWARD ABUT.	1 7/8"	1 3/8"	1 1/8"	1 5/8"	1 9/16"	1 7/16"	1 3/8"

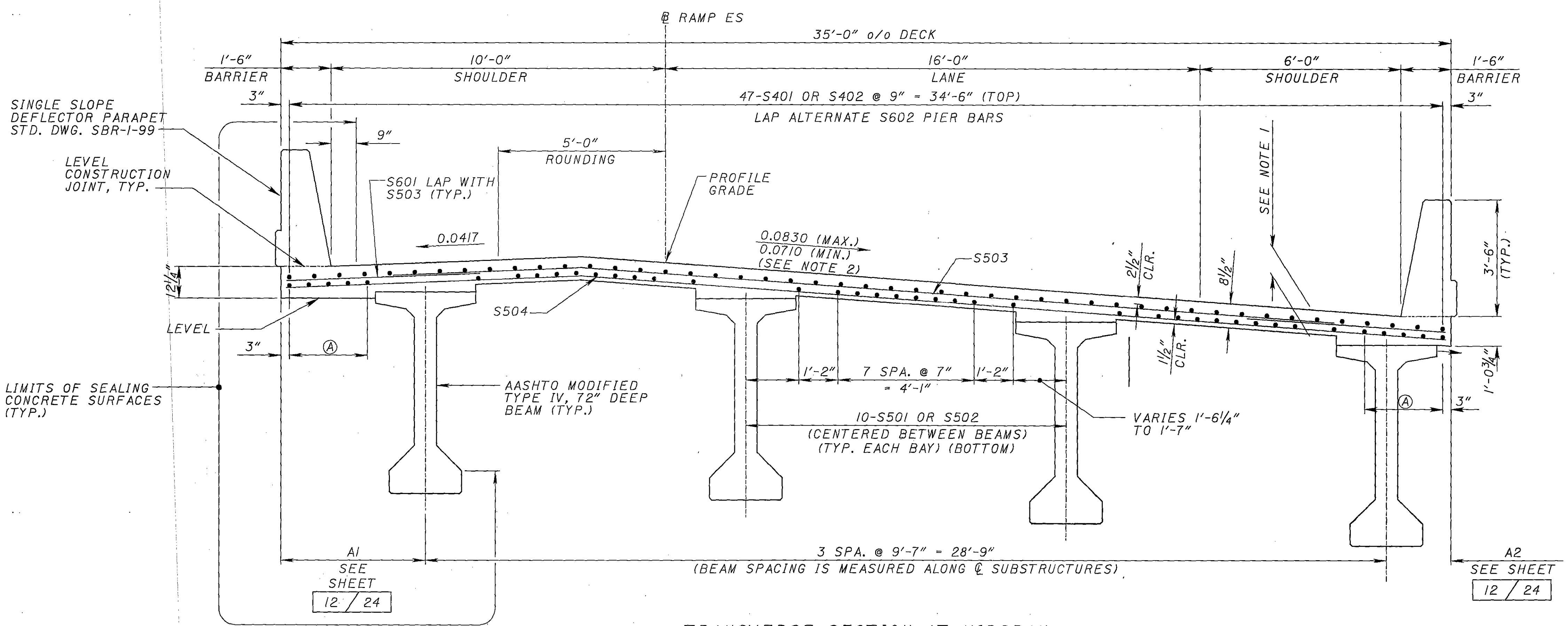
STRIP SEAL EXPANSION JOINT SECTION

NOTES:

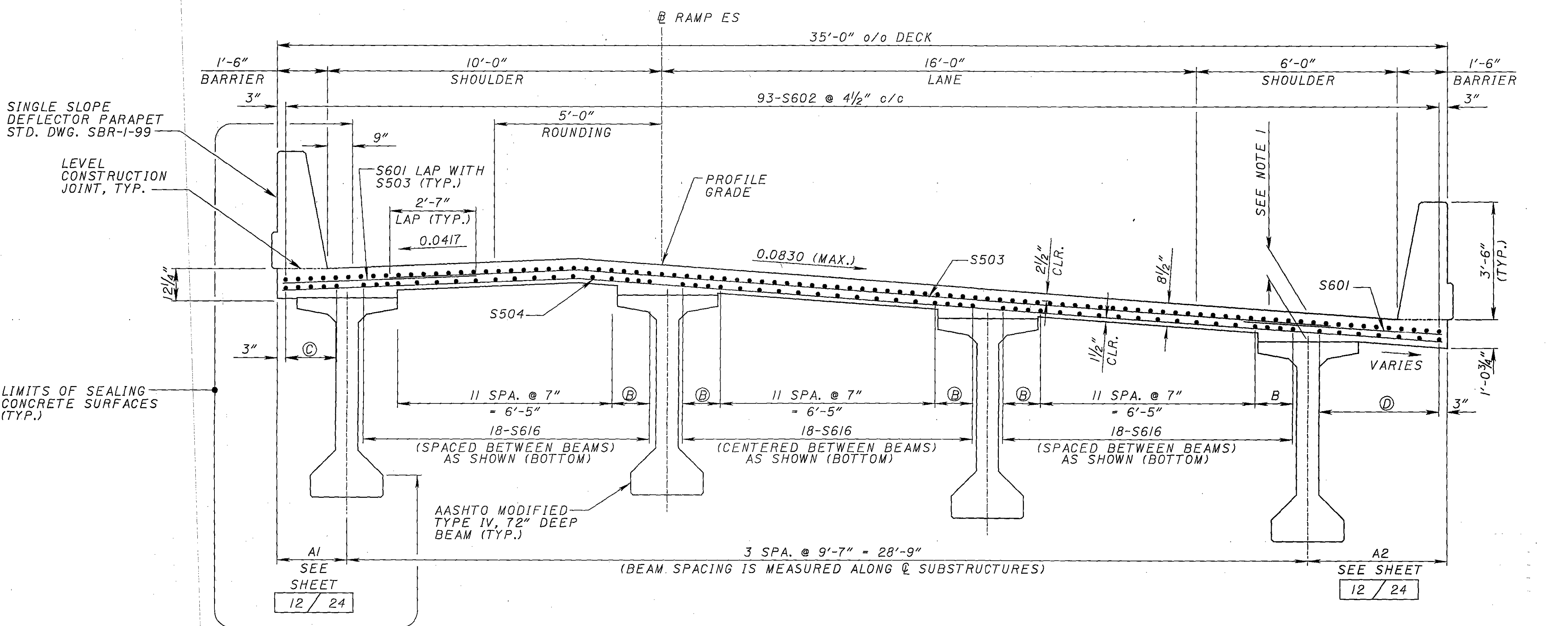
1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. BEARING REPOSITIONING: IF THE BEAMS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ±10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ±10°F.
3. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
4. LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION AND LOCATION (REAR ABUTMENT, PIER BEARINGS LINE 1, PIER BEARINGS LINE 2 OR FORWARD ABUTMENT). THE STEEL LOAD PLATES ARE GALVANIZED ASTM A709 GRADE 50 STRUCTURAL STEEL. VULCANIZE THE STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS.
5. DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING SERVICE LOADS (KIPS):

	ABUTMENTS	PIERS
DEAD LOAD	181	207
LIVE LOAD W/O IMPACT	71	64
TOTAL DESIGN LOAD	252	271
6. BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.
7. SEE STANDARD DRAWING PSID-I-99 FOR SOLE PLATE DETAILS. SOLE PLATES ARE INCLUDED WITH ITEM 515 FOR PAYMENT.
8. PROVIDE 2 - 1" DIAMETER SMOOTH DOWEL BARS PER GIRDER LINE AT PIER BEARINGS AS PER THE STANDARD BRIDGE DRAWING PSID-I-99, SHEET 4/8, FIXED PIER DETAIL.
9. GALVANIZING DAMAGED BY WELDING, SCRATCHING OR ANY OTHER MEANS SHALL BE REPAIRED WITH COLD GALVANIZING COMPOUND AS MANUFACTURED BY THE ZRC PRODUCTS COMPANY OR ANOTHER COLD GALVANIZING COMPOUND WHICH ALSO MEETS THE REQUIREMENTS OF FEDERAL SPECIFICATION DOD-P-21035A. SURFACES SHALL BE PREPARED AND COATED AS SPECIFIED BY THE MANUFACTURER. COST FOR REPAIRING GALVANIZING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PAY ITEM WHICH INCLUDED THE HOT-DIP GALVANIZING.

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TRANSVERSE SECTION AT MIDSPAN
 (INTERMEDIATE DIAPHRAGMS NOT SHOWN - SEE
 STANDARD BRIDGE DRAWING PS1D-I-99 FOR OPTIONS)



TRANSVERSE SECTION AT PIER

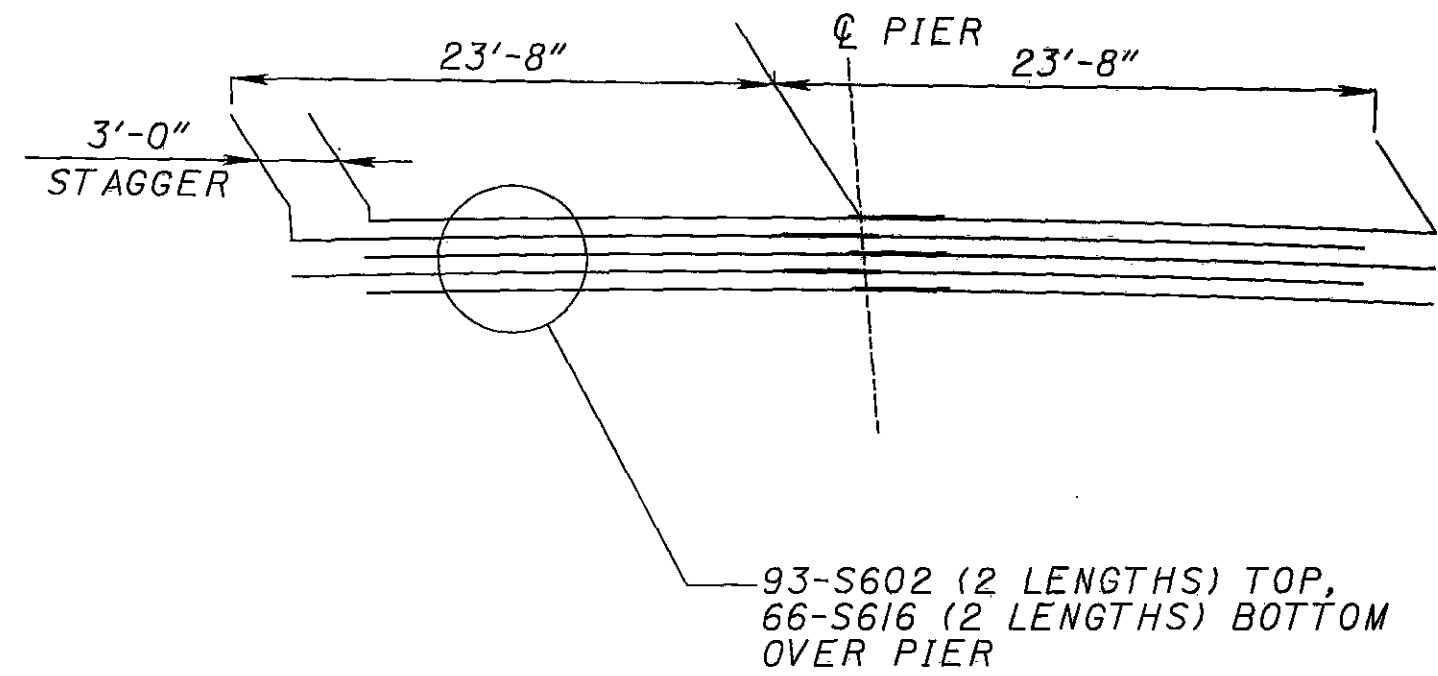
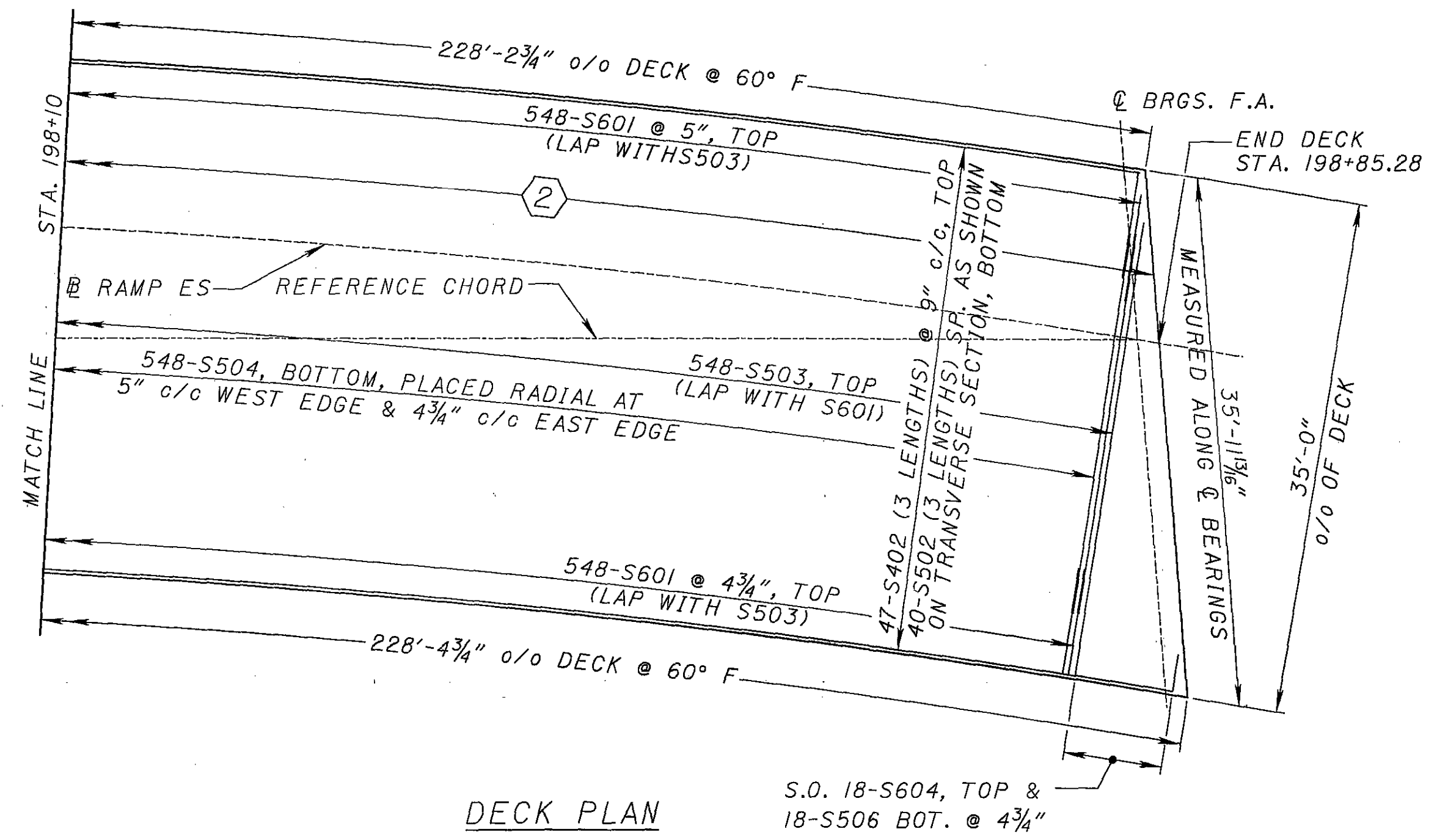
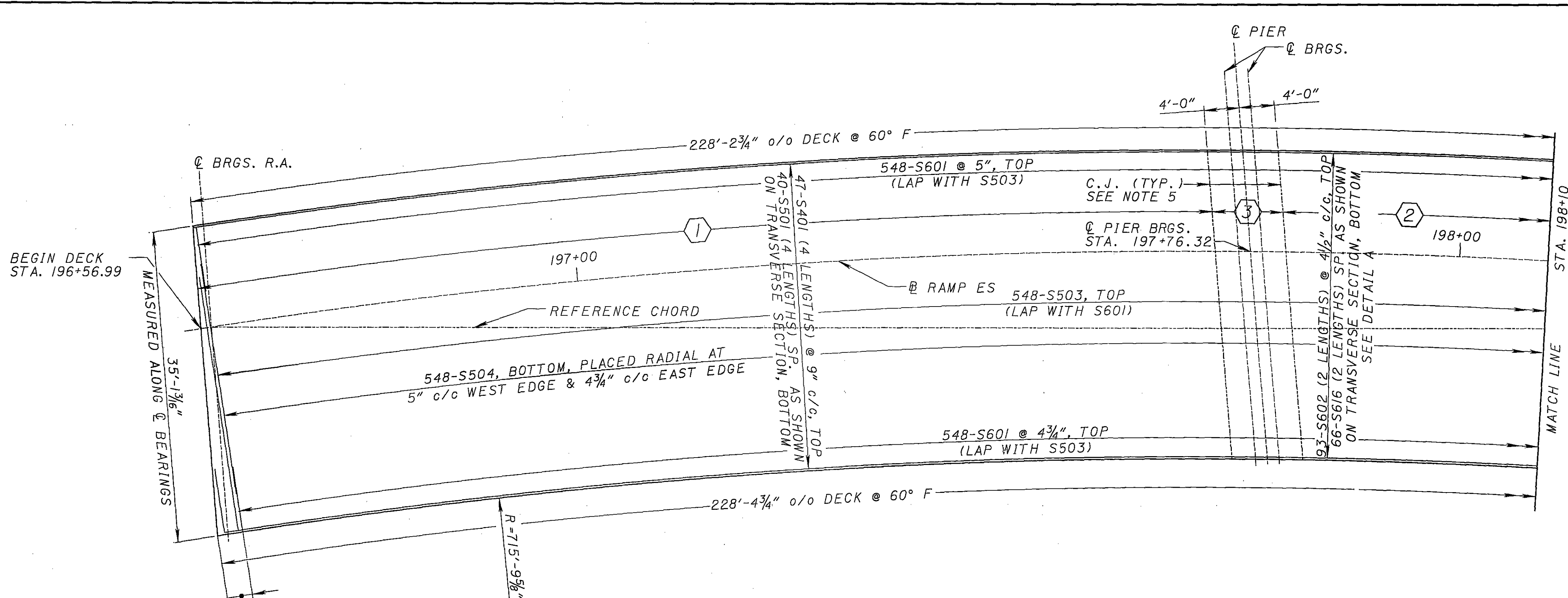
- (A) = 5-S501 OR S502 @ EQUAL SPA. (BOTTOM)
- (B) = S6XX - 3 SPA. @ 4 1/2" = 1'-1 1/2" (BOTTOM)
- (C) = 5-S6xx @ EQUAL SPA. (BOTTOM)
- (D) = 7-S6xx @ EQUAL SPA. (BOTTOM)

NOTE:
 1. VARIES - SEE TABLE SHEET 19 / 24.
 2. SEE SHEET 17 / 24 FOR SUPERELEVATION
 TRANSITION DIAGRAM.

LEGEND:
 F.A. = FORWARD ABUTMENT
 o/o = OUT-TO-OUT
 R.A. = REAR ABUTMENT
 SPA. = SPACES

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NOTES

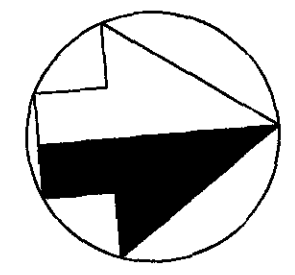
1. PLACE TRANSVERSE BARS RADIALLY AT 4 3/4" c/c AT EAST (INNER) EDGE AND 5" c/c WEST (OUTER) EDGE
2. LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
 NO. 4 BARS = 2'-0"
 NO. 5 BARS = 2'-7"
 NO. 6 BARS = 3'-0"
 NO. 8 BARS = 6'-3"
3. FOR ADDITIONAL DETAILS SEE TRANSVERSE SECTION SHEET 16/24
4. FOR PARAPET DETAILS SEE SHEET 18/24
5. THE CONSTRUCTION JOINTS SHALL BE SEALED WITH A 2'-0" WIDE STRIP OF HIGH MOLECULAR WEIGHT METHACRYLATE RESIN CENTERED ABOUT THE JOINT. PRICE AND PAYMENT SHALL BE INCLUDED WITH ITEM 894 - HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
6. SEE STANDARD BRIDGE DRAWING PSID-1-99 FOR NOTES.

LEGEND

- BOT. = BOTTOM
- BRGS. = BEARINGS
- c/c = CENTER TO CENTER
- F.A. = FORWARD ABUTMENT
- o/o = OUT TO OUT
- R.A. = REAR ABUTMENT
- S.O. = SERIES OF
- SP. = SPACED
- # = POUR SEQUENCE NUMBER

CROSS SLOPE	STA. 196+25.35 BEGIN APPROACH SLAB	STA. 197+00 PROFILE GRADE	STA. 198+00 LEFT SHOULDER (BEYOND ROUNDING)	STA. 199+00 RIGHT EDGE OF RAMP	STA. 199+16.96 END APPROACH SLAB
-0.0417					
-0.0629					
-0.083					

SUPERELEVATION TRANSITION DIAGRAM



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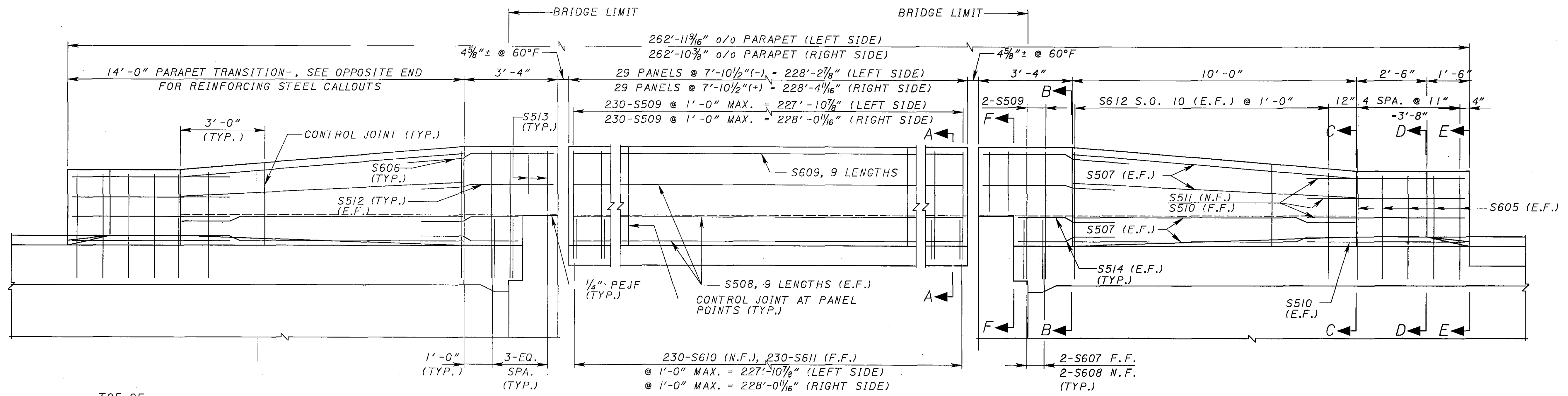
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REVIEWED	DWL
STRUCTURE FILE NUMBER	5206731
DRAWN	DCF
REVISIONS	
DESIGNED	DCF
CHECKED	MPS

DECK PLAN
BRIDGE NO. MED-224-1570
RAMP ES OVER US 224

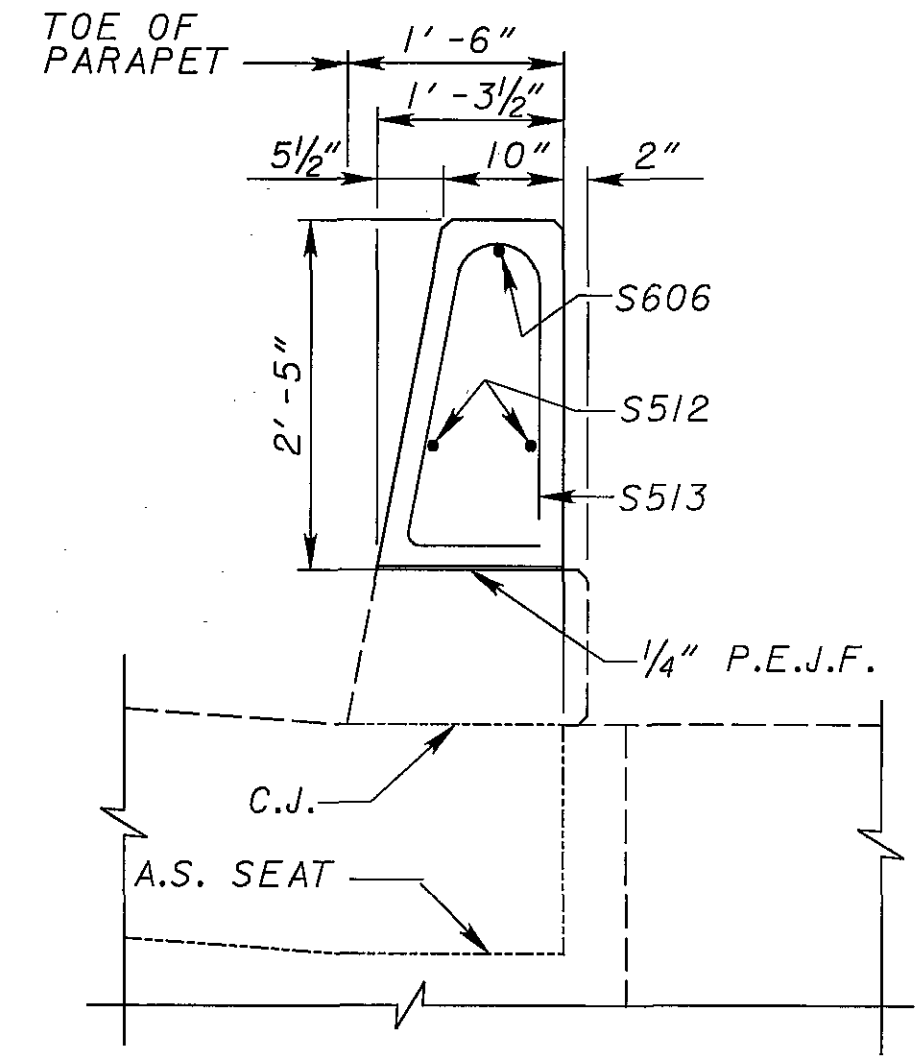
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17 / 24

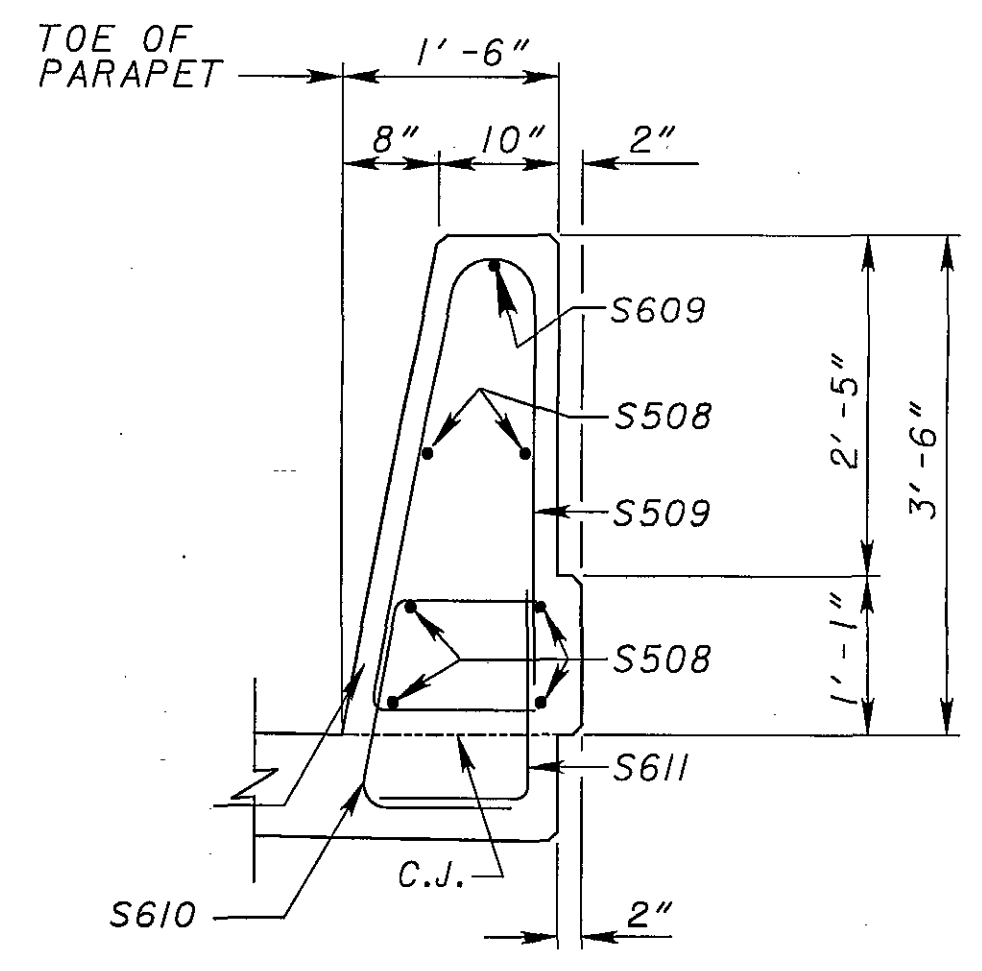
1066
1120



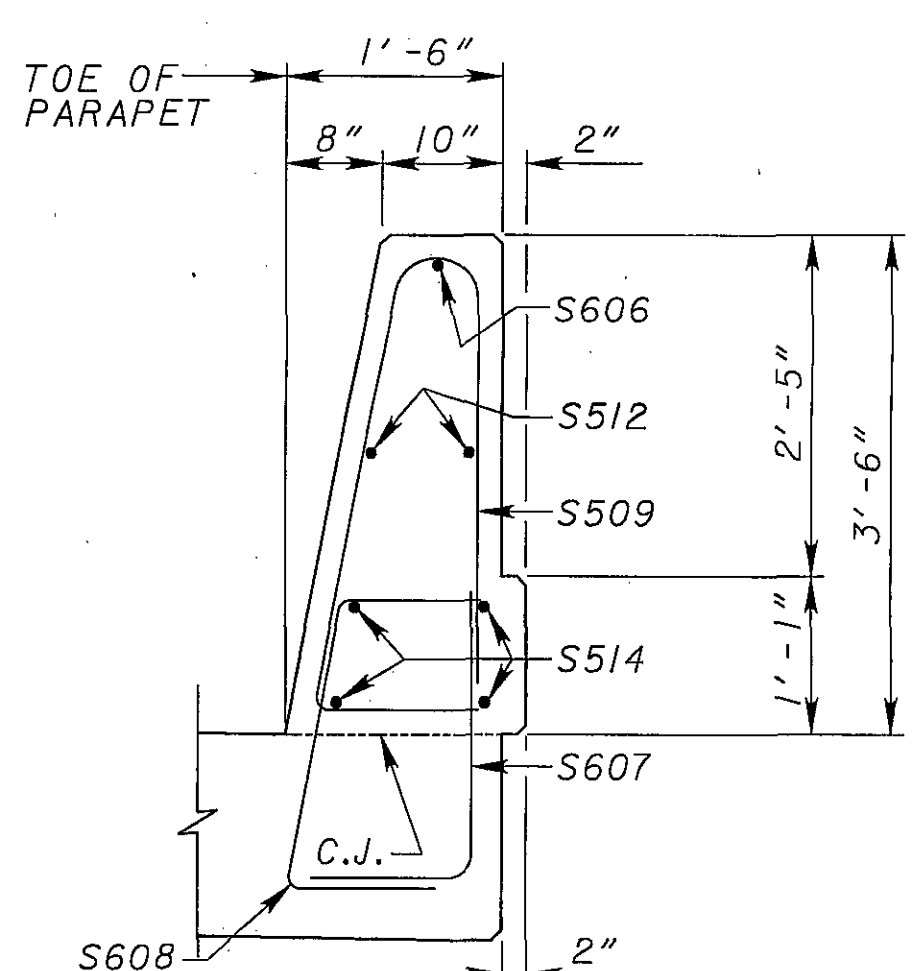
PARAPET ELEVATION
(ROADWAY SIDE)



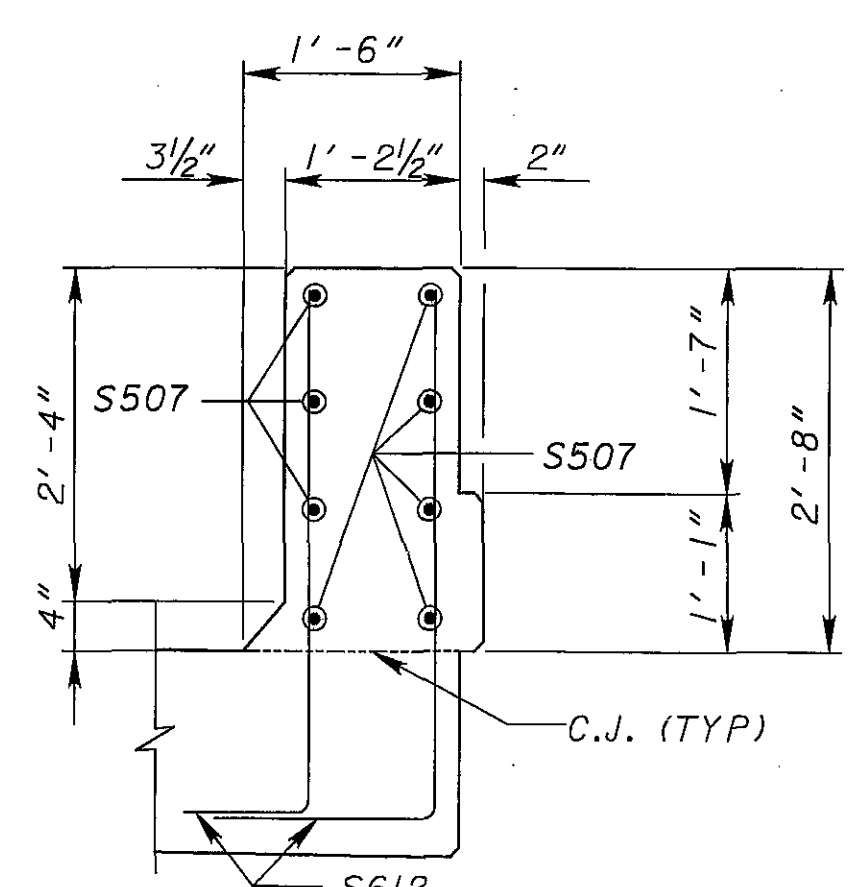
SECTION F-F



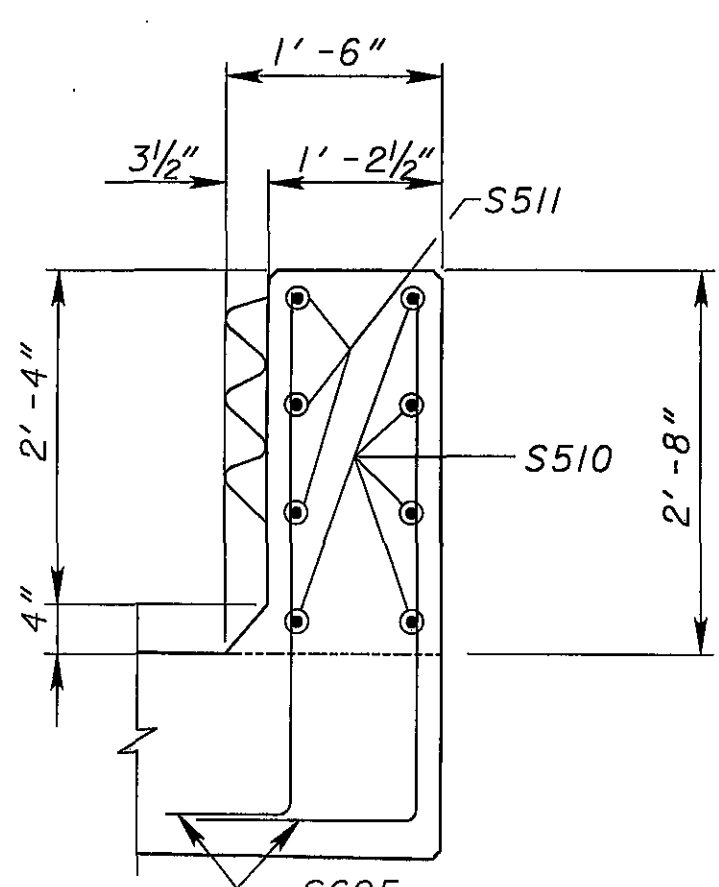
SECTION A-A



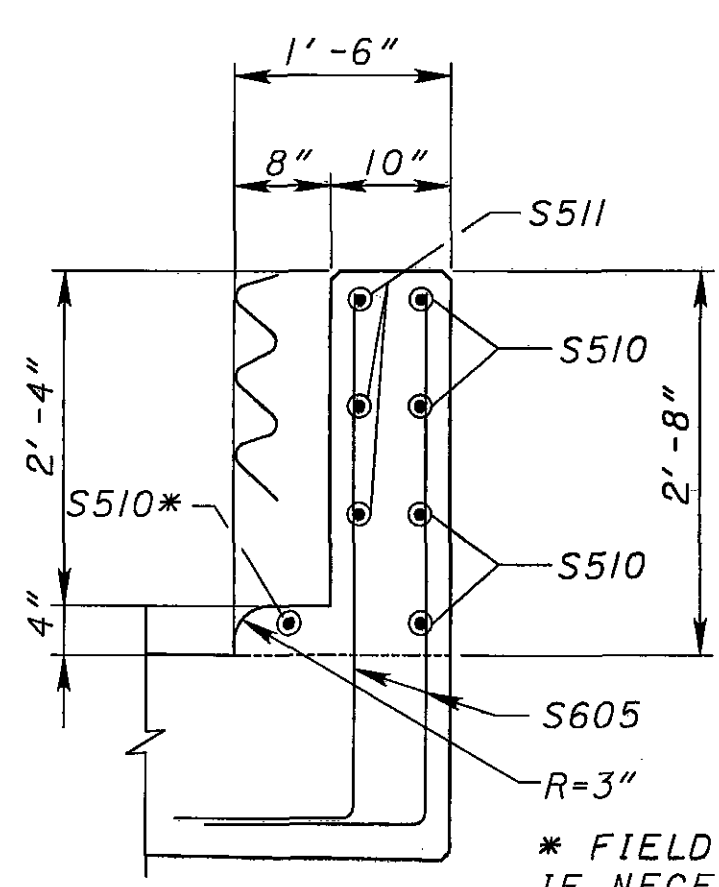
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

NOTE
SEE STANDARD DRAWING SBR-I-99 FOR ADDITIONAL NOTES AND DETAILS.

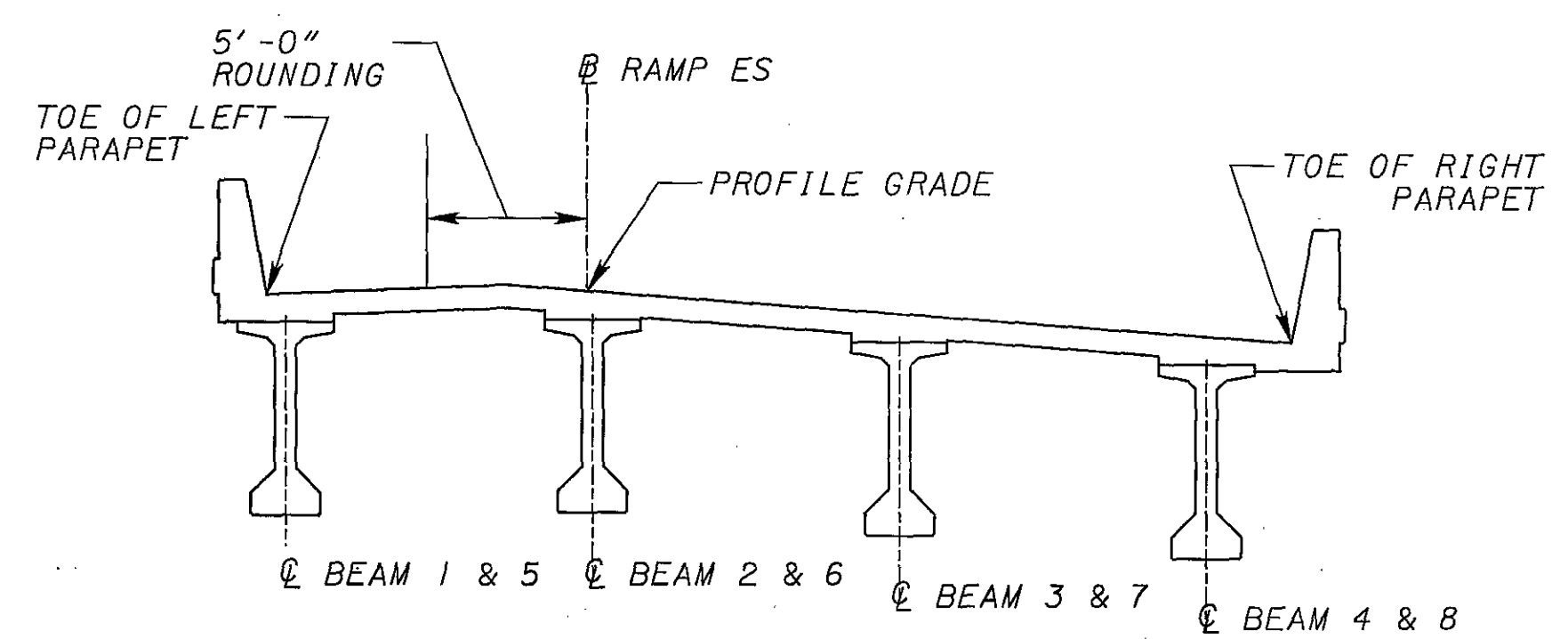
SEE SHEET 6/24 FOR BACKWALL REINFORCING IN THE PARAPET BASE.

LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 5 = 2'-1"
NO. 6 = 2'-5"

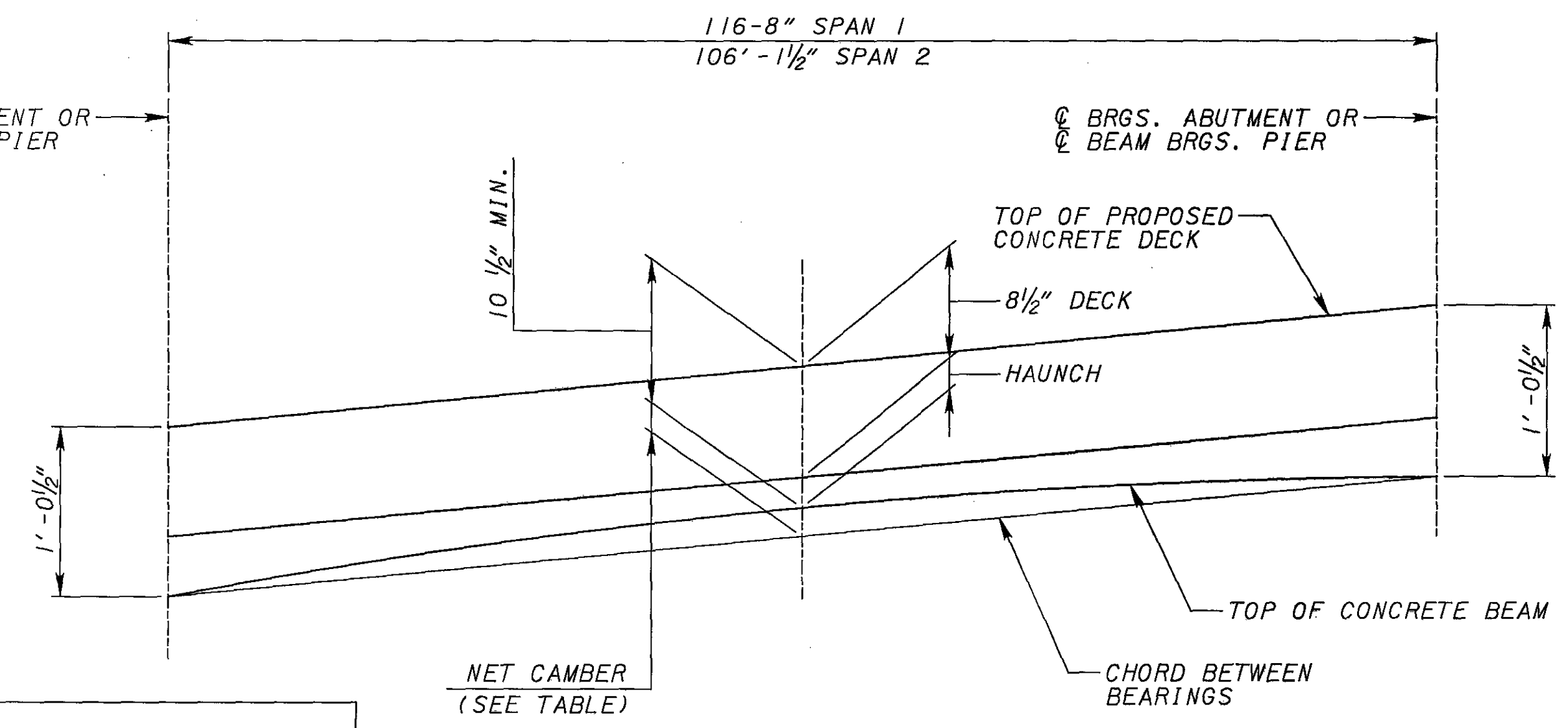
- LEGEND
- C.J. = CONSTRUCTION JOINT
 - E.F. = EACH FACE
 - EQ. = EQUAL
 - F.F. = FAR FACE
 - MAX. = MAXIMUM
 - N.F. = NEAR FACE
 - o/o = OUT TO OUT
 - PEJF = PREFORMED EXPANSION JOINT FILLER
 - S.O. = SERIES OF
 - SPA. = SPACES
 - TYP. = TYPICAL

* FIELD BEND IF NECESSARY

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SCREED LOCATION KEY



TOPPING THICKNESS DIAGRAM

DECK SCREED ELEVATION TABLE - SPAN 1

ELEVATION LINE	Q BRGS. R. A.		1/8 SPAN		1/4 SPAN		3/8 SPAN		1/2 SPAN	
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
TOE OF LEFT PARAPET	196+58.91	1023.96	196+73.34	1023.94	196+87.73	1023.93	197+02.12	1023.90	197+16.51	1023.84
BEAM 1	196+58.88	1023.98	196+73.25	1024.00	196+87.66	1024.02	197+02.09	1024.01	197+16.53	1023.96
5' LEFT OF BASELINE	196+58.55	1024.17	196+73.07	1024.15	196+87.57	1024.15	197+02.06	1024.12	197+16.54	1024.05
BASELINE & PROFILE GRADE	196+58.19	1024.10	196+72.81	1024.07	196+87.40	1024.06	197+01.99	1024.03	197+16.57	1023.96
BEAM 2	196+58.19	1024.10	196+72.75	1024.00	196+87.34	1023.92	197+01.96	1023.85	197+16.59	1023.77
BEAM 3	196+57.49	1023.42	196+72.24	1023.32	196+87.02	1023.16	197+01.83	1023.05	197+16.65	1022.97
BEAM 4	196+56.77	1022.74	196+71.71	1022.55	196+86.69	1022.39	197+01.70	1022.23	197+16.72	1022.15
TOE OF RIGHT PARAPET	196+56.55	1022.54	196+71.61	1022.42	196+86.65	1022.30	197+01.69	1022.18	197+16.72	1022.12

DECK SCREED ELEVATION TABLE - SPAN 1

ELEVATION LINE	5/8 SPAN		3/4 SPAN		7/8 SPAN		Q BRGS. PIER	
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
TOE OF LEFT PARAPET	197+30.90	1023.76	197+45.30	1023.66	197+59.71	1023.54	197+74.14	1023.44
BEAM 1	197+30.97	1023.87	197+45.40	1023.76	197+59.81	1023.61	197+74.19	1023.47
5' LEFT OF BASELINE	197+31.03	1023.98	197+45.52	1023.87	197+60.03	1023.75	197+74.56	1023.65
BASELINE & PROFILE GRADE	197+31.16	1023.89	197+45.75	1023.78	197+60.36	1023.65	197+74.98	1023.54
BEAM 2	197+31.22	1023.70	197+45.84	1023.63	197+60.43	1023.56	197+75.00	1023.52
BEAM 3	197+31.47	1022.91	197+46.28	1022.83	197+61.07	1022.76	197+75.83	1022.73
BEAM 4	197+31.74	1022.08	197+46.74	1022.01	197+61.73	1021.95	197+76.68	1021.93
TOE OF RIGHT PARAPET	197+31.75	1022.04	197+46.79	1021.93	197+61.85	1021.81	197+76.93	1021.70

DECK SCREED ELEVATION TABLE - SPAN 2

ELEVATION LINE	Q BRGS. PIER		1/8 SPAN		1/4 SPAN		3/8 SPAN		1/2 SPAN	
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
TOE OF LEFT PARAPET	197+76.78	1023.43	197+89.75	1023.39	198+02.74	1023.36	198+15.76	1023.32	198+28.82	1023.26
BEAM 5	197+76.84	1023.45	197+89.91	1023.45	198+03.01	1023.45	198+16.14	1023.43	198+29.27	1023.38
5' LEFT OF BASELINE	197+77.22	1023.63	197+90.27	1023.60	198+03.36	1023.57	198+16.47	1023.53	198+29.61	1023.47
BASELINE & PROFILE GRADE	197+77.66	1023.53	197+90.81	1023.49	198+03.98	1023.47	198+17.18	1023.43	198+30.42	1023.37
BEAM 6	197+77.68	1023.51	197+90.92	1023.40	198+04.20	1023.33	198+17.49	1023.26	198+30.79	1023.18
BEAM 7	197+78.54	1022.71	197+91.96	1022.61	198+05.41	1022.53	198+18.88	1022.46	198+32.35	1022.39
BEAM 8	197+79.43	1021.92	197+93.03	1021.81	198+06.66	1021.72	198+20.30	1021.65	198+33.95	1021.58
TOE OF RIGHT PARAPET	197+79.69	1021.69	197+93.24	1021.65	198+06.82	1021.62	198+20.44	1021.57	198+34.09	1021.51

DECK SCREED ELEVATION TABLE - SPAN 2

ELEVATION LINE	5/8 SPAN		3/4 SPAN		7/8 SPAN		Q BRGS. F. A.	
	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
TOE OF LEFT PARAPET	198+41.91	1023.19	198+55.04	1023.11	198+68.22	1023.89	198+81.45	1022.92
BEAM 5	198+42.40	1023.31	198+55.53	1023.21	198+68.65	1023.09	198+81.75	1022.98
5' LEFT OF BASELINE	198+42.79	1023.40	198+56.02	1023.32	198+69.29	1023.22	198+82.61	1023.13
BASELINE & PROFILE GRADE	198+43.69	1023.30	198+57.01	1023.22	198+70.37	1023.11	198+83.75	1023.02
BEAM 6	198+44.09	1023.12	198+57.39	1023.06	198+70.67	1023.00	198+83.93	1022.97
BEAM 7	198+45.83	1022.33	198+59.30	1022.27	198+72.75	1022.21	198+86.17	1022.18
BEAM 8	198+47.61	1021.52	198+61.25	1021.46	198+74.88	1021.42	198+88.47	1021.40
TOE OF RIGHT PARAPET	198+47.78	1021.44	198+61.52	1021.36	198+75.31	1021.26	198+89.17	1021.17

NOTE: SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED DEAD LOAD DEFLECTIONS

DEFLECTION AND CAMBER TABLE

ALL BEAMS	SPAN 1	SPAN 2
BEAM CAMBER DUE TO PRESTRESSING FORCE AT RELEASE (B)	3 5/8"	2 1/2"
BEAM DEFLECTION DUE TO SELF-WEIGHT AT RELEASE (C)	1 1/16"	1 3/16"
NET CAMBER AT RELEASE (B-C)	1 5/16"	1 5/16"
NET CAMBER AT ERECTION (1.80B-1.85C)	3 1/2"	2 3/16"
NET LONG TERM CAMBER (2.45B-2.40C)	4 1/16"	3 5/16"

DECK THICKNESS AND HAUNCH TABLE

SPAN 1	BEAMS 1 & 4		BEAMS 2 & 3	
	Q BRGS.	MIDSPAN	Q BRGS.	MIDSPAN
TOTAL THICKNESS	1'-0 1/2"	10 1/2"	1'-0 1/2"	10 13/16"
HAUNCH THICKNESS	4"	2"	4"	2 5/16"

SPAN 2	BEAMS 5 & 8		BEAMS 6 & 7	
	Q BRGS.	MIDSPAN	Q BRGS.	MIDSPAN
TOTAL THICKNESS	1'-0 1/2"	11 3/16"	1'-0 1/2"	11 1/16"
HAUNCH THICKNESS	4"	2 1/16"	4"	2 15/16"

NOTE:
DECK SLAB THICKNESS FOR CONCRETE QUANTITY: THE TOPPING THICKNESSES SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE TOP FLANGE ALONG THE CENTERLINE OF THE I-BEAM ARE THEORETICAL DIMENSIONS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. THE DEPARTMENT WILL PAY FOR SUPERSTRUCTURE CONCRETE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE THEORETICAL HAUNCH DEPTHS AT MID-SPAN AND AT EACH BEAM BEARING EVEN THOUGH DEVIATION FROM THE DIMENSIONS SHOWN MAY BE NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE ACTUAL CAMBER FOR EACH MEMBER WILL BE THE TOP OF BEAM ELEVATION AT MID-SPAN MINUS THE AVERAGE TOP OF BEAM ELEVATION AT EACH BEARING. THE ACTUAL TOPPING THICKNESS AT MID-SPAN WILL BE THE THEORETICAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.

LEGEND
BRGS. - BEARINGS
F. A. - FORWARD ABUTMENT
MIN. - MINIMUM
R. A. - REAR ABUTMENT

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5085 Reed Road
Columbus, Ohio 43220

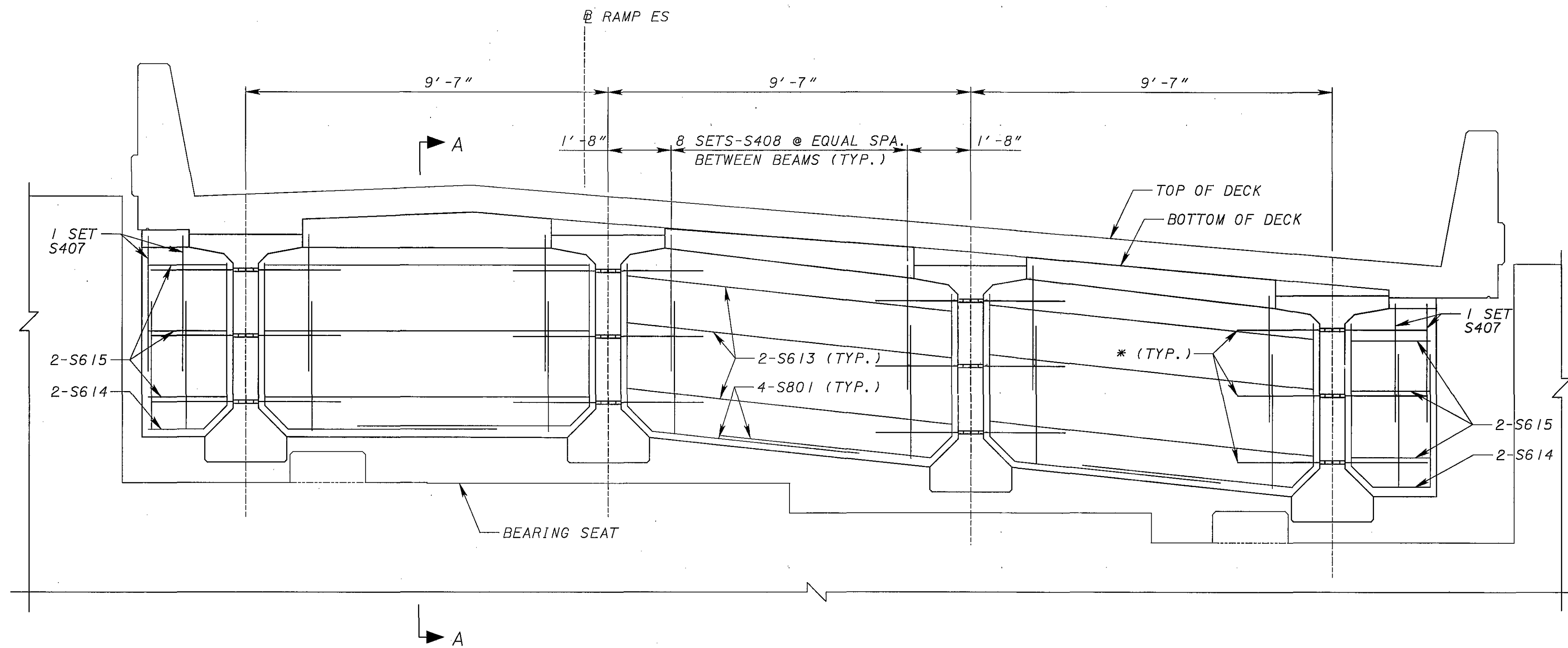
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REVIEWED: DWL
DRAWN: MPS
DESIGNED: MPS
CHECKED: JAA

STRUCTURE FILE NUMBER: 5206731

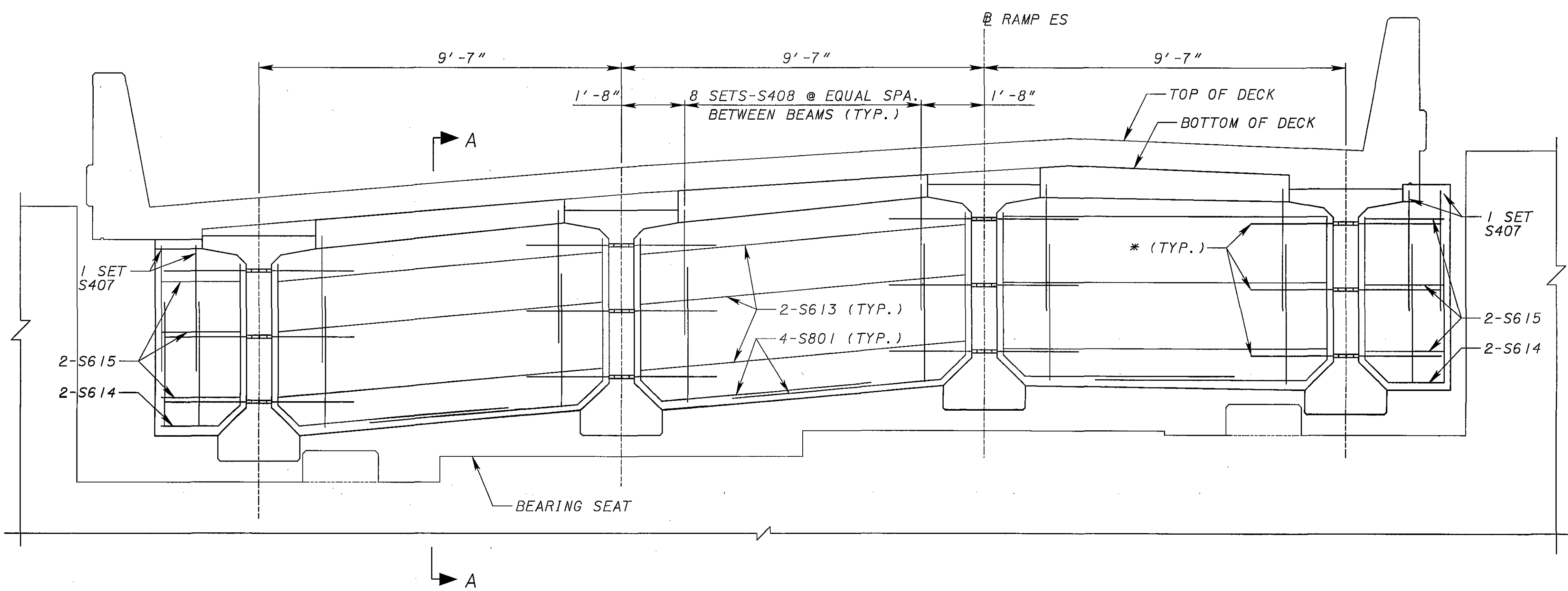
SCREED TABLE & BEAM CAMBER
BRIDGE NO. MED-224-1570
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MED-71-6.06
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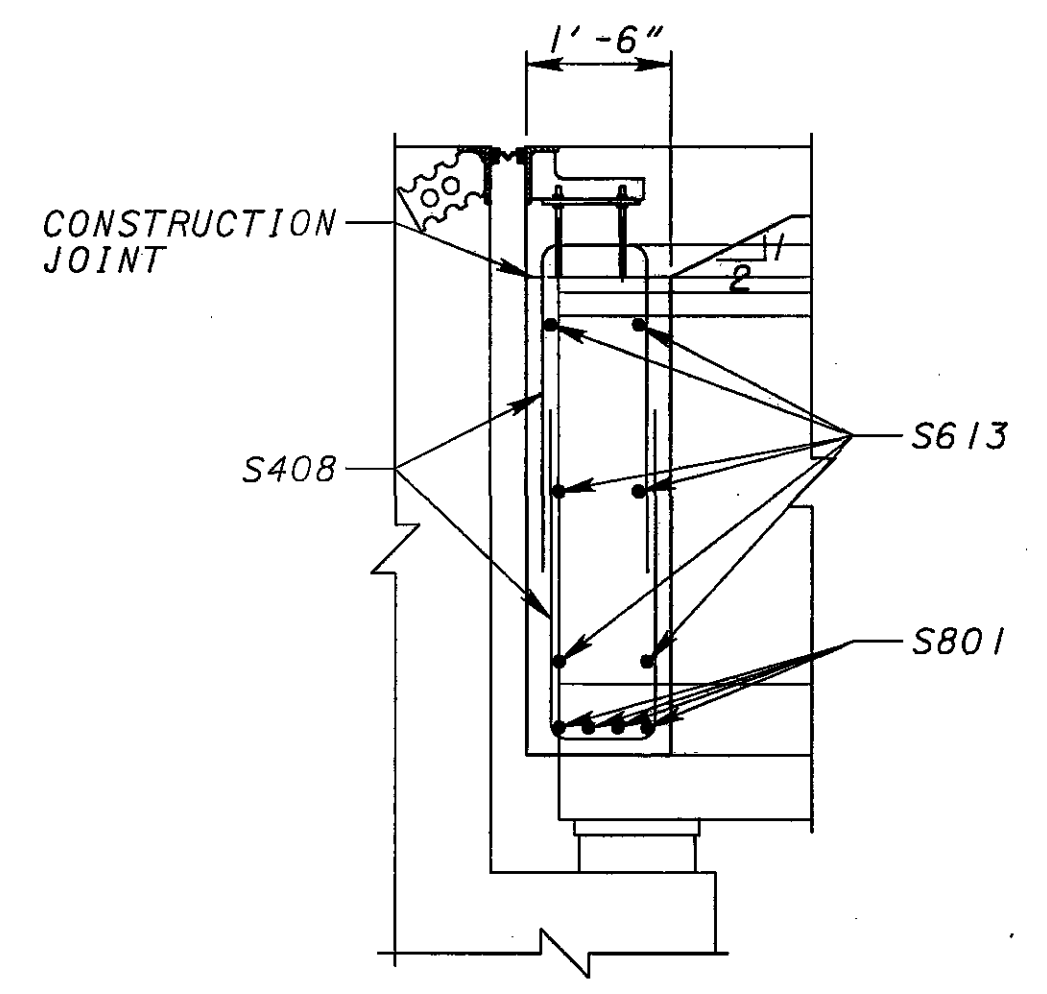
19 / 24
1068
1120



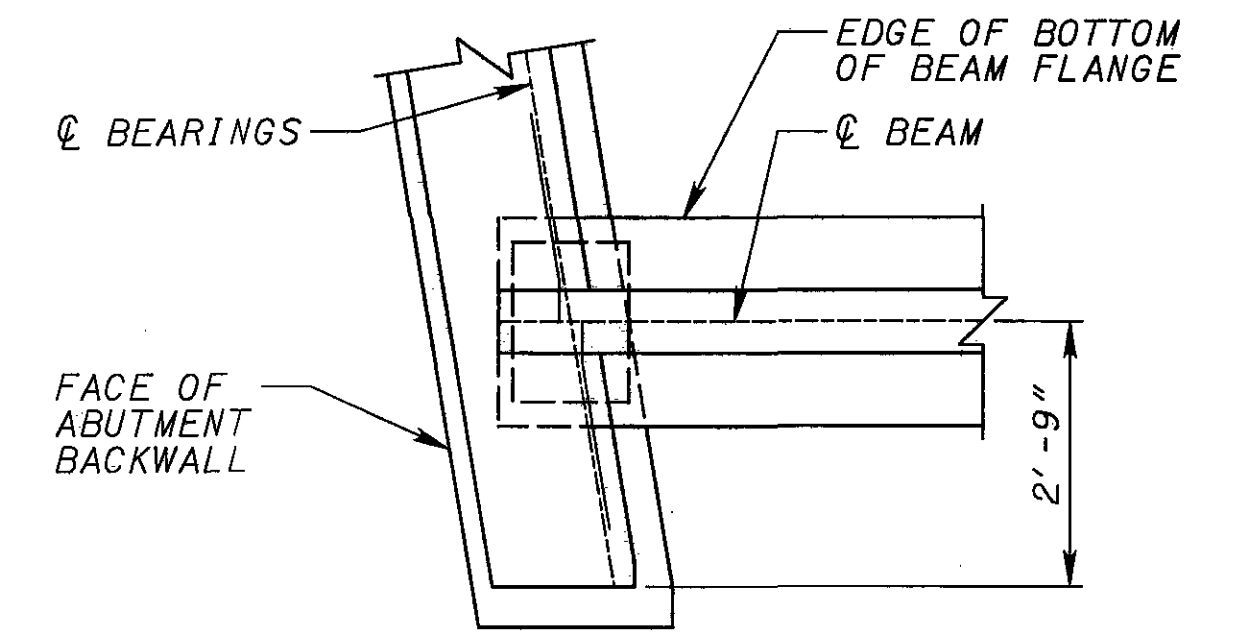
FORWARD ABUTMENT DIAPHRAGM



REAR ABUTMENT DIAPHRAGM



SECTION A-A

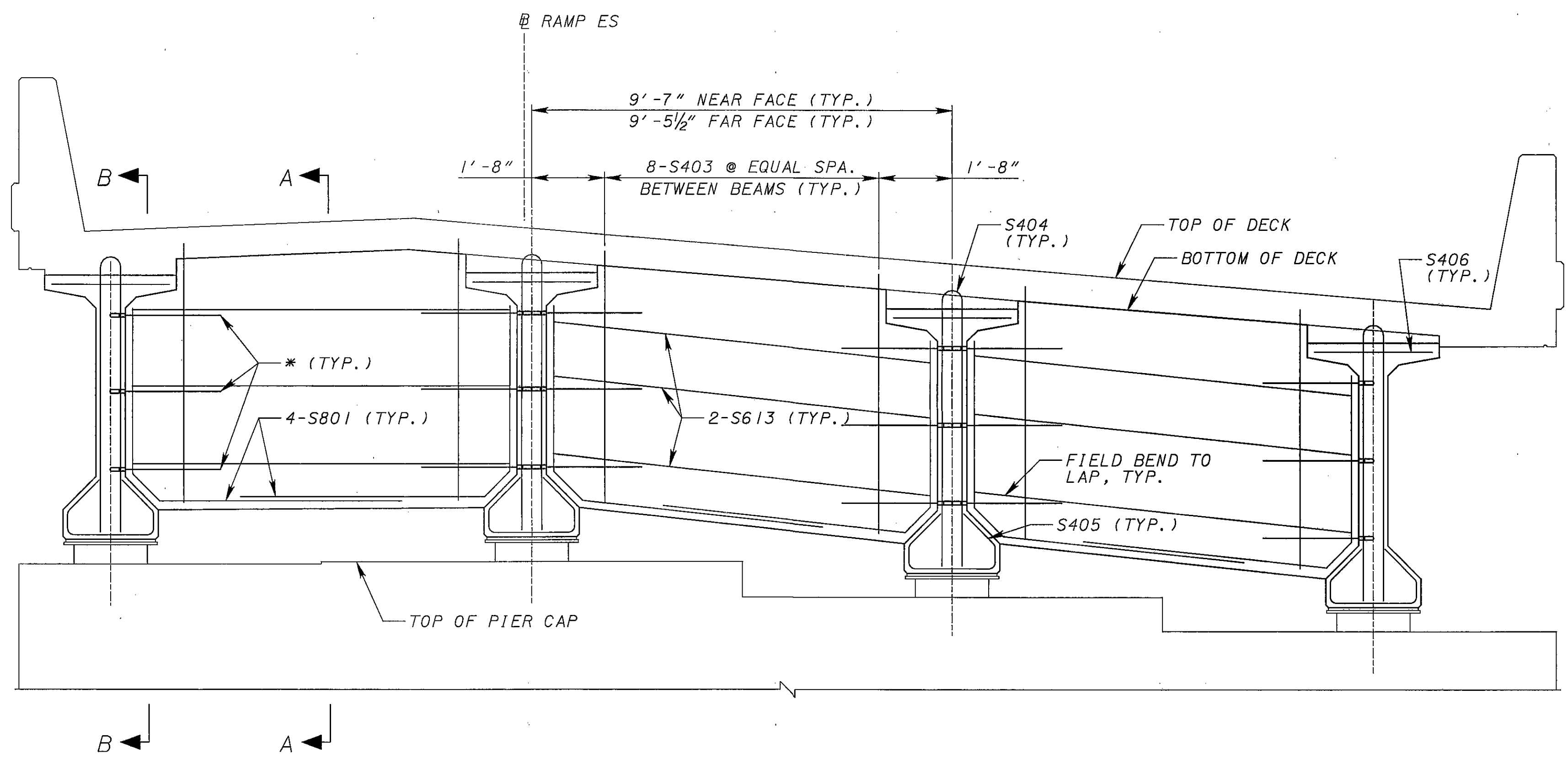


PLAN DETAIL

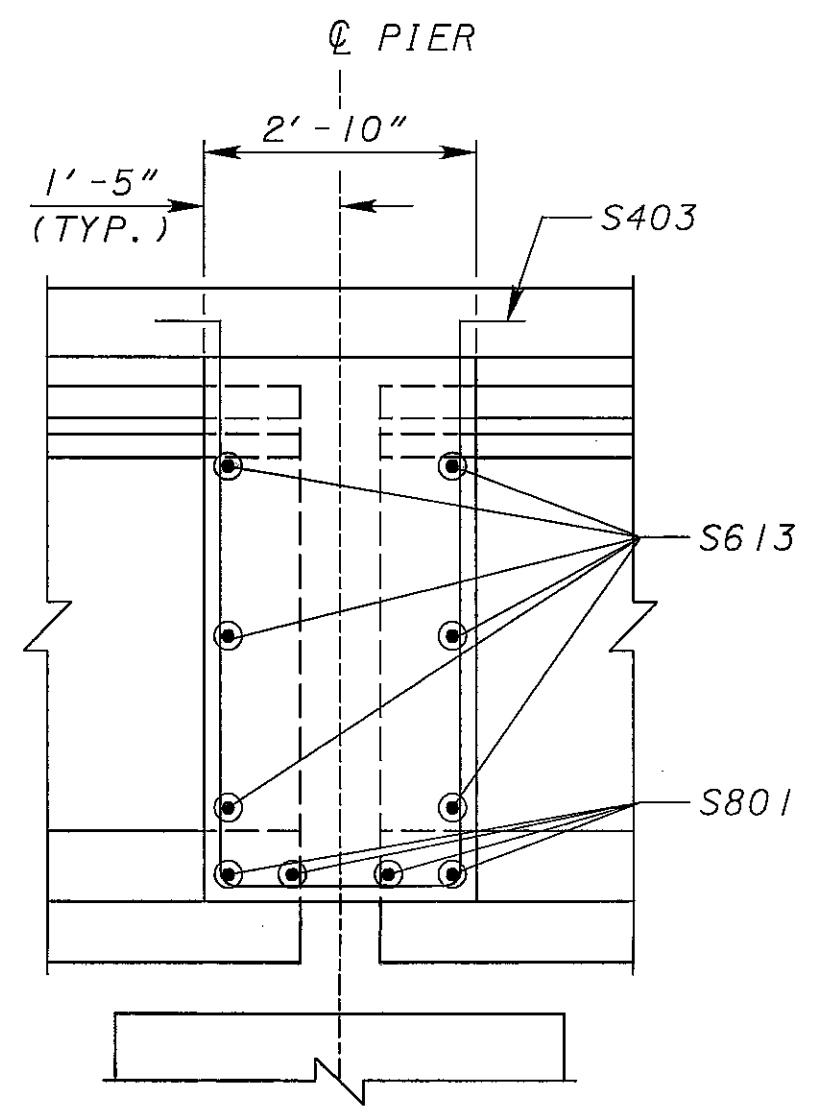
- NOTES**
- FOR DETAILS NOT SHOWN SEE STANDARD DRAWINGS PSD-1-99 AND EXJ-6-95.
 - ALL ABUTMENT DIAPHRAGM CONCRETE IS INCLUDED FOR PAYMENT WITH ITEM 894 - HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY AND IS TO BE PLACED CONCURRENTLY WITH THE DECK.
 - LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 4 BARS = 1'-8"
NO. 8 BARS = 6'-5"

- LEGEND**
- SPA. = SPACES
 - TYP. = TYPICAL
 - * = SINGLE THREADED INSERT WITH 3/4" DIA. x 2'-2" THREADED ROD. (TYP. EACH BEAM)

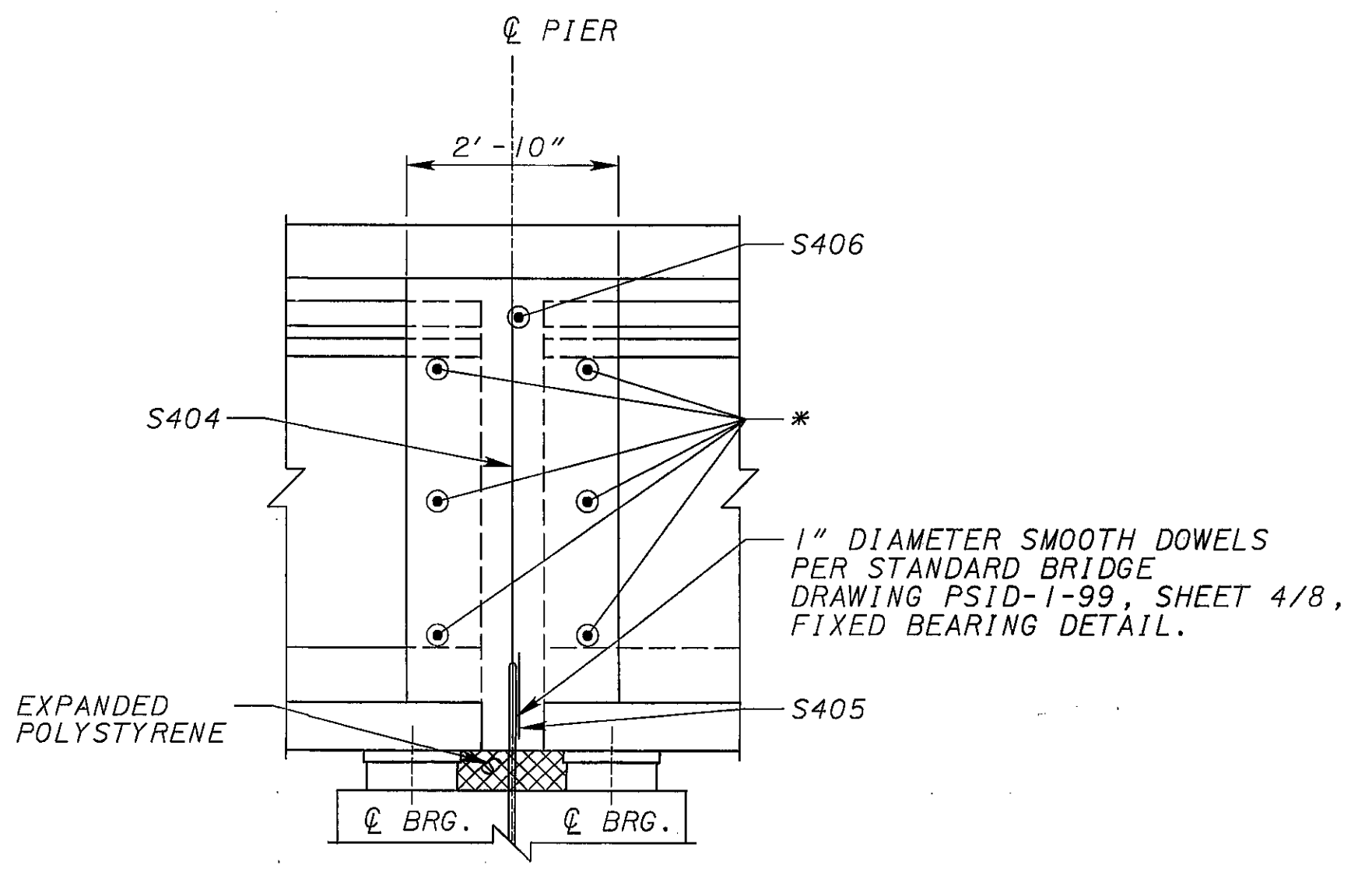
P:\PR28502\CADD\BRIDGE\stn8401438\ws050RA3.dgn



PIER DIAPHRAGM ELEVATION



SECTION A-A



SECTION B-B

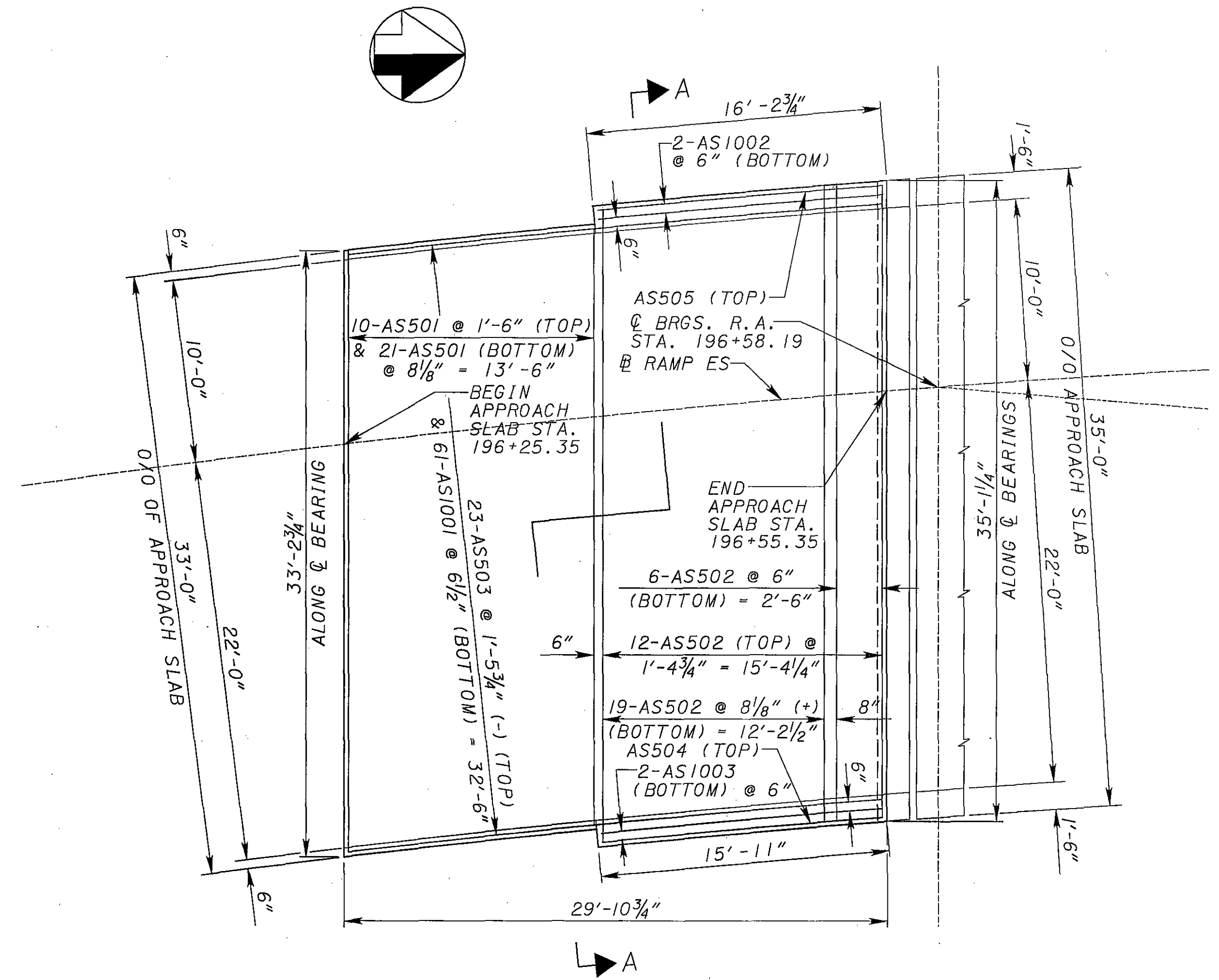
NOTES

- FOR DETAILS NOT SHOWN SEE STANDARD DRAWING PSID-1-99.
- ALL PIER DIAPHRAGM CONCRETE IS INCLUDED FOR PAYMENT WITH ITEM 894 - HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY AND IS TO BE PLACED CONCURRENTLY WITH THE DECK.
- LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:
NO. 4 BARS = 1'-8"
NO. 8 BARS = 6'-5"

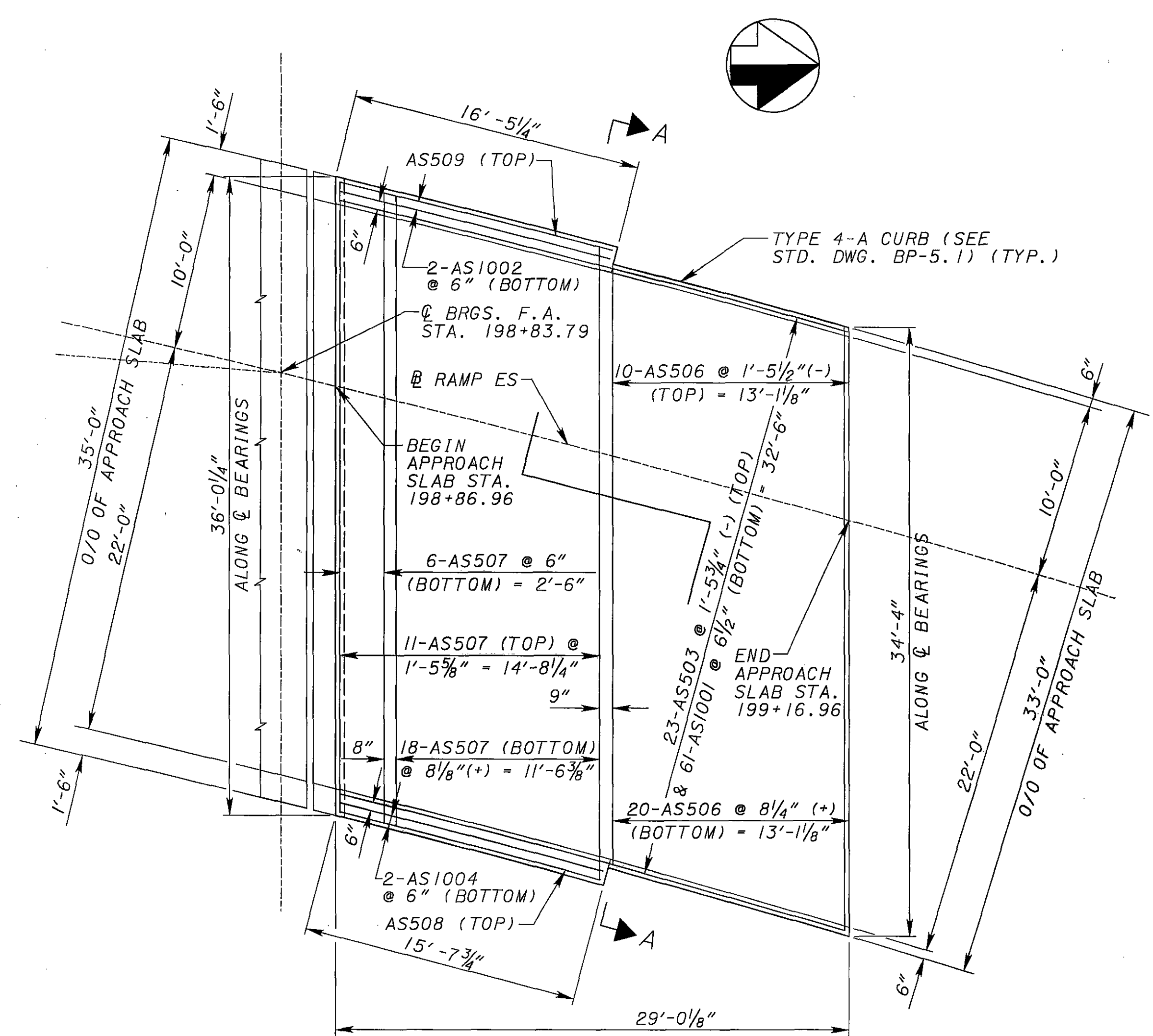
LEGEND

- BRG. = BEARING
- SPA. = SPACES
- TYP. = TYPICAL
- * = SINGLE THREADED INSERT WITH 3/4" DIA. x 2'-2" THREADED ROD. (TYP. EACH BEAM)

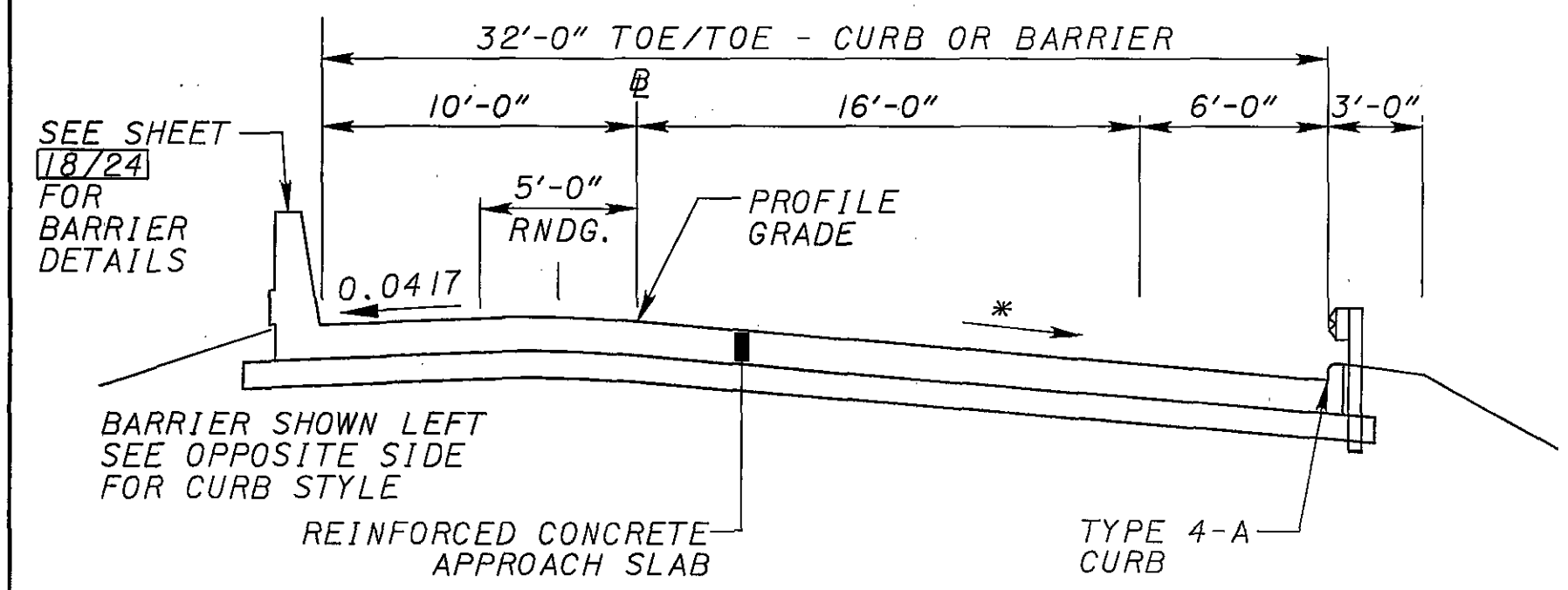
P:/PR28502/CADD/BRIDGE/sfn8401438/ws050pi2.dgn



PLAN
 (REAR APPROACH SLAB)



PLAN
 (FORWARD APPROACH SLAB)



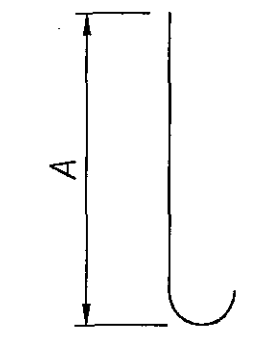
SECTION A-A

RAMP ES STA. 196+25.35 TO STA. 196+55.35 = 30.00 LIN. FT.
 STA. 198+86.96 TO STA. 199+16.96 = 30.00 LIN. FT.
 TOTAL LENGTH = 60.00 LIN. FT.
 * = .0629 TO .0710 REAR
 * = .083 FORWARD

APPROACH SLAB REINFORCING STEEL LIST										
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM A.	DIM B	DIM C	DIM D	DIM E/RAD	INCR.
AS1001	122	30'-11"	16230	19	29'-6"					
AS1002	4	17'-1"	294	19	15'-8"					
AS1003	2	16'-10"	144	19	15'-5"					
AS1004	2	16'-7"	142	19	15'-2"					
AS501	31	32'-9"	1058	STR						
AS502	37	34'-7"	1334	STR						
AS503	46	29'-6"	1415	STR						
AS504	1	15'-5"	16	STR						
AS505	1	15'-8"	16	STR						
AS506	30	33'-10"	1058	STR						
AS507	35	35'-6"	1295	STR						
AS508	1	15'-2"	15	STR						
AS509	1	15'-10"	16	STR						
TOTAL			23033							

NOTES

- ALL PARAPET CONCRETE QUANTITIES ARE INCLUDED FOR PAYMENT WITH ITEM 894 - HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AND PARAPET REINFORCING STEEL QUANTITIES ARE INCLUDED FOR PAYMENT IN ITEM 509.
- REFER TO STANDARD DRAWING AS-1-81 (30'-0" LONG, 17" THICK) FOR ADDITIONAL DETAILS.



TYPE 19

LEGEND

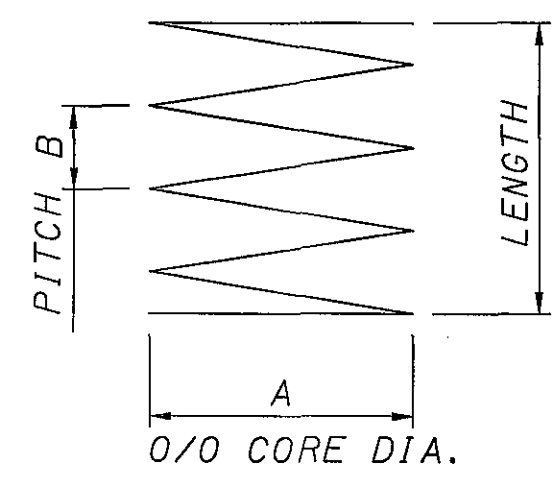
- F.A. = FORWARD ABUTMENT
- R.A. = REAR ABUTMENT
- RNDG. = ROUNDING
- SHLD. = SHOULDER
- TYP. = TYPICAL

SUPERSTRUCTURE

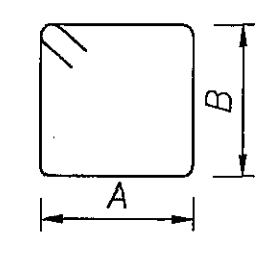
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS							
					A	B	C	D	E	R	INC.	
S401	188	26'-9"	3359	STR								
S402	141	31'-6"	2966	STR								
S403	24	14'-11"	239	13	5'-9"	2'-6"	0'-8"					
S404	4	12'-9"	34	21	0'-5 1/2"	6'-3"						
S405	4	4'-11"	13	36	1'-11 1/2"	0'-6"	0'-8 5/8"	0'-8 5/8"				
S406	4	2'-8"	7	STR								
S407	16	11'-3"	120	18	1'-2"	5'-1 1/2"	5'-1 1/2"					
S408	96	11'-4"	726	18	1'-2"	5'-2"	5'-2"					
S501	160	27'-4"	4561	STR								
S502	120	* 32'-0"	4005	STR								
S503	548	25'-6"	14574	STR								
S504	548	34'-6"	19718	STR								
	1	7'-3"										
S505	S.O.	T0	94	STR							5'-5"	
	5	28'-11"										
	1	2'-5"										
S506	S.O.	T0	311	STR							1'-8"	
	18	30'-9"										
S507	32	10'-0"	333	STR								
S508	108	27'-4"	3078	STR								
S509	468	7'-4"	3579	2	3'-0"	3'-2"	1'-1"	0'-6 3/4"		0'-2 3/4"		
S510	20	5'-11"	123	STR								
S511	12	5'-11"	74	26	0'-1 1/4"	2'-0 7/8"	2'-5"	1'-4 1/2"	0'-4 1/8"			
S512	8	5'-8"	47	STR								
S513	8	5'-0"	41	2	1'-10 3/4"	2'-1"	0'-11"	0'-4 1/4"		0'-2 3/4"		
S514	16	4'-5"	73	STR								
S601	1096	7'-3"	11934	STR								
S602	186	23'-8"	6611	STR								
	1	7'-3"										
S603	S.O.	T0	135	STR							5'-5"	
	5	28'-11"										
	1	2'-5"										
S604	S.O.	T0	448	STR							1'-8"	
	18	30'-9"										
S605	40	4'-6"	270	1	1'-1"	3'-6 3/4"						
S606	4	6'-0"	36	STR								
S607	8	2'-11"	35	1	1'-1"	1'-11 3/4"						
S608	8	3'-10"	47	35	1'-1"	0'-4 1/2"	1'-11 3/4"	1'-1"				
S609	18	27'-7"	745	STR								
S610	460	3'-5"	2360	35	1'-1"	0'-3 7/16"	1'-6"	1'-1"				
S611	460	2'-3"	1554	1	0'-11"	1'-6"						
	8	4'-7"				3'-7 3/4"						
S612	S.O.	T0	595	1	1'-1"	T0					0'-1"	
	10	5'-4"				4'-4 3/4"						
S613	54	8'-6"	688	STR								
S614	8	5'-10"	71	9	3'-9"	0'-7"	0'-7"	1'-6"				
S615	24	2'-1"	75	STR								
S616	132	24'-6"	4858	STR								
S801	72	11'-0"	2113	9	3'-9"	0'-7 1/2"	0'-7 1/2"	6'-8"				
		TOTAL	90650									

PIERS

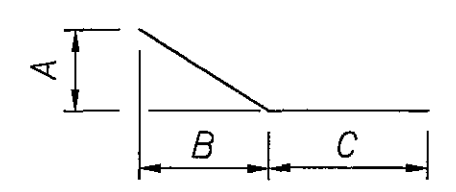
MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS							
					A	B	C	D	E	R	INC.	
P1001	27	18'-4"	2129	STR								
P1002	27	14'-10"	1723	1	1'-10"	13'-4"						
P1003	4	23'-2"	398	STR								
P1101	12	35'-5"	2258	22	32'-3"							
P1102	2	32'-2"	341	STR								
P501	8	7'-6"	62	18	2'-11"	2'-5"	2'-5"					
P502	18	11'-3"	211	18	4'-6"	3'-6"	3'-6"					
P503	56	10'-7"	618	18	4'-6"	3'-2"	3'-2"					
P504	44	8'-4"	382	18	2'-11"	2'-10"	2'-10"					
P505	28	8'-3"	240	18	4'-6"	2'-0"	2'-0"					
P506	8	6'-10"	57	20	0'-10 1/2"	4'-5 1/2"	2'-4"					
P507	4	21'-10"	91	18	15'-11"	4'-2"	2'-0"					
P508	4	14'-7"	60	1	11'-9"	3'-0"						
P509	6	32'-2"	201	STR								
P510	2	27'-6"	57	STR								
P511	8	6'-3"	52	18	4'-6"	1'-0"	1'-0"					
P512	4	10'-0"	41	1	2'-8"	7'-6"						
P513	2	30'-7"	63	STR								
P514	2	19'-10"	41	STR								
P515	4	8'-3"	34	18	4'-4 1/2"	2'-1"	2'-1"					
P901	46	14'-2"	2167	22	11'-8"							
P902	10	29'-2"	991	22	26'-8"							
P903	10	26'-8"	906	STR								
SP401	3	15'-4"	836	15	2'-6"	0'-4 1/2"						
		TOTAL	13959									



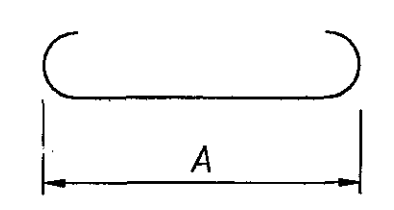
TYPE 15



TYPE 16



TYPE 20



TYPE 22

NOTES:

BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

EXAMPLE: S1001
S = SUPERSTRUCTURE BAR
10 = #10 BAR
01 = BAR SEQUENCE NUMBER 1

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.

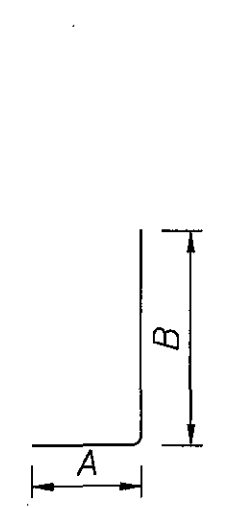
STD WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.

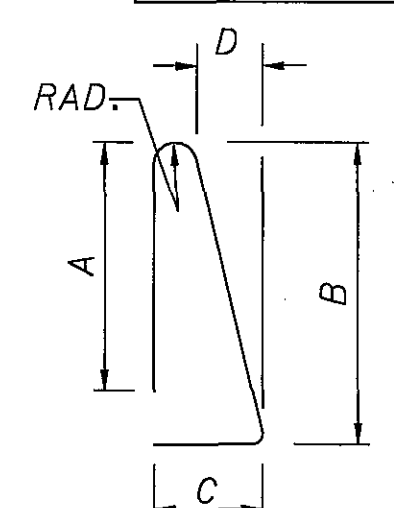
R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

INC INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

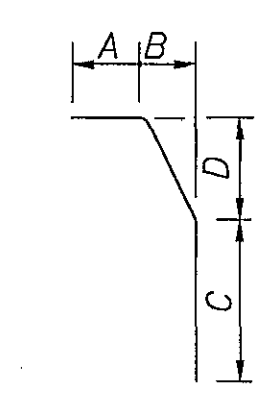
ALL REINFORCING STEEL TO BE EPOXY COATED.



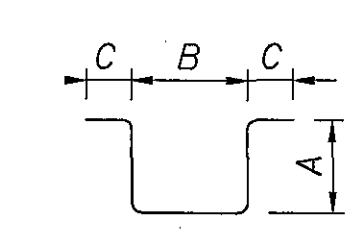
TYPE 1



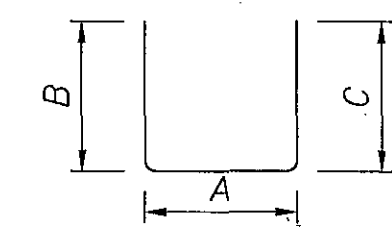
TYPE 2



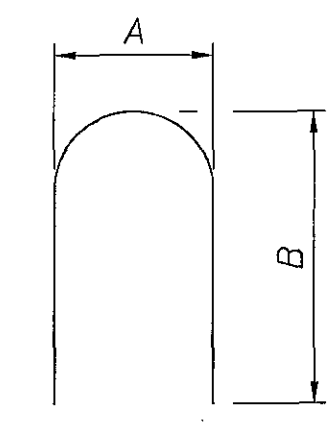
TYPE 9



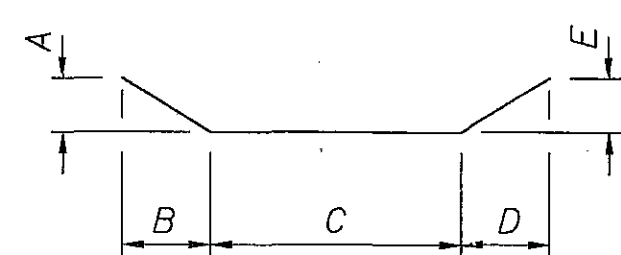
TYPE 13



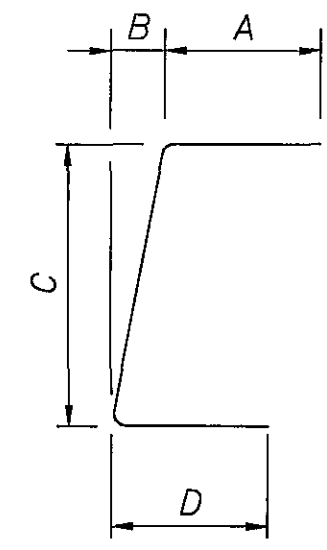
TYPE 18



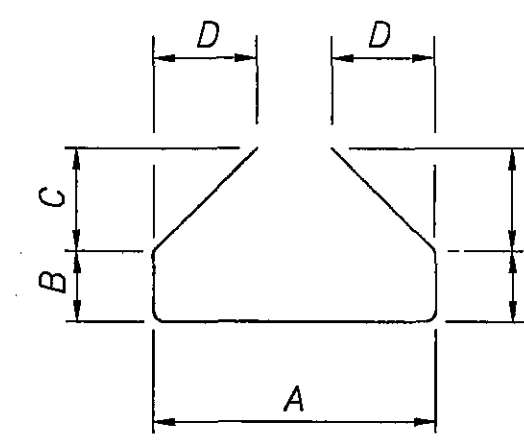
TYPE 21



TYPE 26



TYPE 35

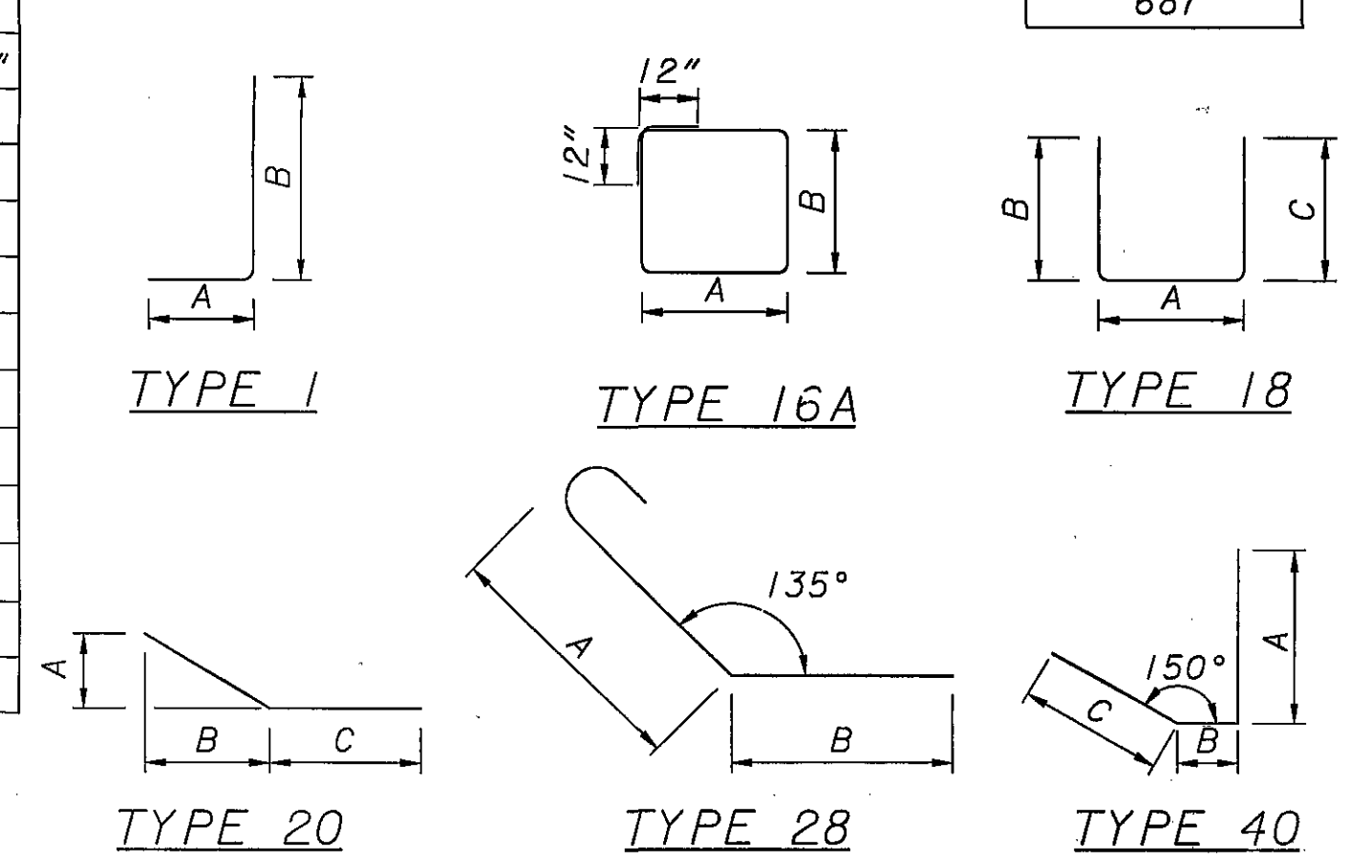


TYPE 36

ABUTMENTS												
MARK	NUMBER			LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS					INC.
	REAR	FWD	TOTAL				A	B	C	D	E	
A501	150		150	17'-3"	2699	18	12'-6"	2'-6"	2'-6"			
A502	33		33	17'-10"	613	1	2'-0"	16'-0"				
A503	26		26	9'-8"	262	18	4'-5"	3'-5"	2'-1"			
A504	18		18	25'-2"	472	20	2'-1"	3'-7"	21'-1"			
A505	18		18	23'-6"	441	20	1'-8"	2'-10"	20'-3"			
A506	22		22	23'-3"	533	STR						
A507	14		14	5'-8"	82	1	2'-8"	3'-2"				
A508	14		14	7'-4"	107	40	3'-10"	1'-2"	3'-7"			
A509	38		38	13'-3"	525	1	2'-0"	11'-5"				
	1		1	6'-7"			2'-8"	2'-1"	2'-1"			
A510	S.O.		S.O.	T0	368	18						1'-4"
	19		19	30'-7"			2'-8"	14'-1"	14'-1"			
	1		1	6'-7"			2'-8"	2'-1"	2'-1"			
A511	S.O.		S.O.	T0	397	18						1'-6"
	19		19	33'-7"			2'-8"	15'-7"	15'-7"			
A512	24		24	27'-3"	682	STR						
	2		2	2'-4"								
A513	S.O.		S.O.	T0	233	STR						3'-4"
	8		8	25'-8"								
A514	3		3	29'-5"	92	STR						
	2		2	2'-0"								
A515	S.O.		S.O.	T0	262	STR						3'-0"
	9		9	26'-0"								
A516	3		3	30'-0"	93	STR						
A517	8		8	0'-11"	7	STR						
A551		149	149	17'-3"	2681	18	12'-6"	2'-6"	2'-6"			
A552		33	33	17'-6"	602	1	2'-0"	15'-8"				
A553		26	26	9'-6"	257	18	4'-5"	3'-8"	1'-8"			
A554		18	18	25'-2"	472	20	2'-1"	3'-7"	21'-1"			
A555		18	18	23'-6"	441	20	1'-8"	2'-10"	20'-3"			
A556		22	22	23'-3"	533	STR						
A557		14	14	5'-8"	82	1	2'-8"	3'-2"				
A558		14	14	7'-4"	107	40	3'-10"	1'-1"	3'-7"			
A559		19	19	12'-3"	242	1	2'-0"	10'-5"				
		1	1	6'-7"			2'-8"	2'-1"	2'-1"			
A560	S.O.		S.O.	T0	427	18						1'-8"
	19		19	36'-7"			2'-8"	17'-1"	17'-1"			
A561		21	21	14'-3"	312	1	2'-0"	12'-5"				
		1	1	6'-7"			2'-8"	2'-1"	2'-1"			
A562	S.O.		S.O.	T0	399	18						1'-2"
	21		21	29'-11"			2'-8"	13'-9"	13'-9"			
A563		10	10	26'-3"	273	STR						
		2	2	1'-9"								
A564	S.O.		S.O.	T0	291	STR						2'-8 1/2"
	10		10	26'-1"								
A565		3	3	29'-6"	92	STR						
A566		14	14	30'-3"	441	STR						
		2	2	1'-10"								
A567	S.O.		S.O.	T0	211	STR						4'-2 1/2"
	7		7	27'-1"								
A568		3	3	31'-7"	98	STR						
A569		8	8	0'-11"	7	STR						
A601		17	17	6'-0"	153	20	2'-9"	2'-9"	2'-2"			
A602		10	10	6'-8"	100	20	2'-9"	2'-9"	2'-10"			
A603		19	19	7'-3"	206	20	2'-9"	2'-9"	3'-5"			
A604		6	6	39'-8"	357	STR						
A605		6	6	25'-3"	227	STR						
A606		6	6	15'-8"	141	STR						
A607		38	38	6'-5"	366	18	0'-11"	2'-11"	2'-11"			
A608		76	76	11'-7"	1322	18	1'-5"	5'-3"	5'-3"			

ABUTMENTS												
MARK	NUMBER			LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS					INC.
	REAR	FWD	TOTAL				A	B	C	D	E	
		4		4	14'-4"		2'-8"	6'-0"	6'-0"			
A609	S.O.		S.O.	T0	268	18						0'-7"
		3		3	15'-6"		3'-10"	6'-0"	6'-0"			
A610		8		8	15'-9"	189	18	4'-5"	5'-10"	5'-10"		
A611		4		4	5'-0"	30	18	1'-0"	2'-2"	2'-2"		
A651		17		17	5'-8"	144	20	2'-9"	2'-9"	1'-10"		
A652		10		10	6'-6"	97	20	2'-9"	2'-9"	2'-8"		
A653		19		19	7'-3"	206	20	2'-9"	2'-9"	3'-5"		
A654		6		6	39'-8"	357	STR					
A655		6		6	25'-3"	227	STR					
A656		6		6	15'-8"	141	STR					
A657		38		38	6'-5"	366	18	0'-11"	2'-11"	2'-11"		
A658		76		76	11'-7"	1322	18	1'-5"	5'-3"	5'-3"		
		4		4	14'-0"		2'-8"	5'-10"	5'-10"			
A659	S.O.		S.O.	T0	262	18						0'-7"
		3		3	15'-2"		3'-10"	5'-10"	5'-10"			
A660		8		8	15'-9"	189	18	4'-5"	5'-10"	5'-10"		
A661		4		4	5'-0"	30	18	1'-0"	2'-2"	2'-2"		
A801		130		130	17'-1"	5930	18	12'-6"	2'-6"	2'-6"		
A802		36		36	31'-9"	3051	STR					
A803		38		38	9'-4"	946	20	2'-6"	4'-4"	4'-4"		
A804		9		9	40'-0"	961	STR					
A805		10		10	34'-10"	930	STR					
A806		69		69	17'-10"	3285	1	2'-0"	16'-0"			
A807		82		82	13'-3"	2900	1	2'-0"	11'-5"			
A808		2		2	29'-3"	156	STR					
A851		135		135	17'-1"	6158	18	12'-6"	2'-6"	2'-6"		
A852		18		18	30'-0"	1441	STR					
A853		38		38	9'-4"	946	20	2'-6"	4'-4"	4'-4"		
A854		19		19	33'-7"	1703	STR					
A855		9		9	34'-10"	837	STR					
A856		20		20	23'-1"	1232	STR					
A857		1		1	29'-3"	78	STR					
A858		69		69	17'-6"	3224	1	2'-0"	15'-8"			
A859		40		40	12'-3"	1308	1	2'-0"	10'-5"			
A860		46		46	14'-3"	1750	1	2'-0"	12'-5"			
D801		24		24	48	5'-2"	662	28	2'-10"	1'-5"		
					60034							

SEISMIC PEDESTALS												
MARK	NUMBER			LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS					INC.
	REAR	FWD	TOTAL				A	B	C	D	E	
AP608		6		6	12'-7"	226	16A	2'-8"	3'-0"			
AP609		4		4	4'-4"	53	1	1'-7"	2'-11 1/2"			
AP901		10		10	4'-3"	288	1	1'-7"	2'-11 1/2"			
AP902		4		4	4'-5"	120	STR					
					687							



NOTES:
 BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.
 EXAMPLE: A501
 A = ABUTMENT BAR
 5 = #5 BAR
 01 = BAR SEQUENCE NUMBER 1
 BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.
 STD WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
 STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
 R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
 INC INDICATES THE LENGTH INCREMENT FOR SERIES BARS.
 ALL REINFORCING STEEL TO BE EPOXY COATED.

BURGESS & AMPLE
 5085 Reef Road
 Columbus, Ohio 43220
 DATE 11/08/04
 REVIEWED GWM
 STRUCTURE FILE NUMBER 5206731
 DRAWN JAA/MPH
 CHECKED MPH/JAA
 REINFORCING SCHEDULE 2 OF 2
 BRIDGE NO. MED-224-1570
 RAMP ES OVER US 224
 MED-71-6.06
 PID-75657
 24 / 24
 1073
 1120

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOTS 33, 39, & 44, WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

THE EXISTING CENTERLINES AND RIGHTS-OF-WAY WERE DETERMINED USING THE FIELD LOCATIONS OF EXISTING MONUMENTS AND RECORD INFORMATION, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

INTERSTATE 71 ALIGNMENT PROVIDED BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3.

OHIO DEPARTMENT OF TRANSPORTATION PLANS - MED-1-5.66; MED-224-10.33; MED-224-16.07; MED-224-25.673 (METRIC)

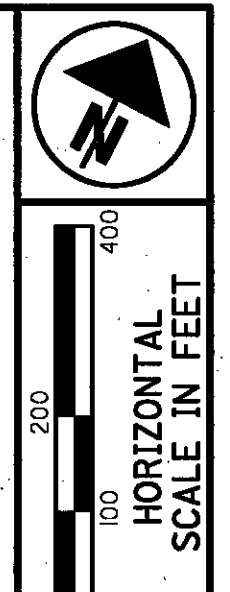
RIGHT-OF-WAY AND TRACK MAP, SHEET V-121.1/3 DATED JUNE 30, 1918 BY THE BALTIMORE AND OHIO RAILROAD COMPANY.

MEDINA COUNTY ENGINEER'S OFFICE RECORDS - ROAD RECORDS, SURVEY RECORDS, SURVEY NOTES.

MEDINA COUNTY RECORDER'S OFFICE RECORDS - PLATS, DEEDS.

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ✕ RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- ⊙ I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.F. IRON PIN SET - 3/4" DIAMETER x 30" LONG
- ⊗ I.R.F. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLÉ S-7468"
- ⊙ I.R.F. IRON PIPE FOUND
- ⊙ I.R.F. IRON PIPE SET
- ⊙ P.K.F. P.K. NAIL FOUND
- ⊙ P.K.F. P.K. NAIL SET
- △ STONE FOUND



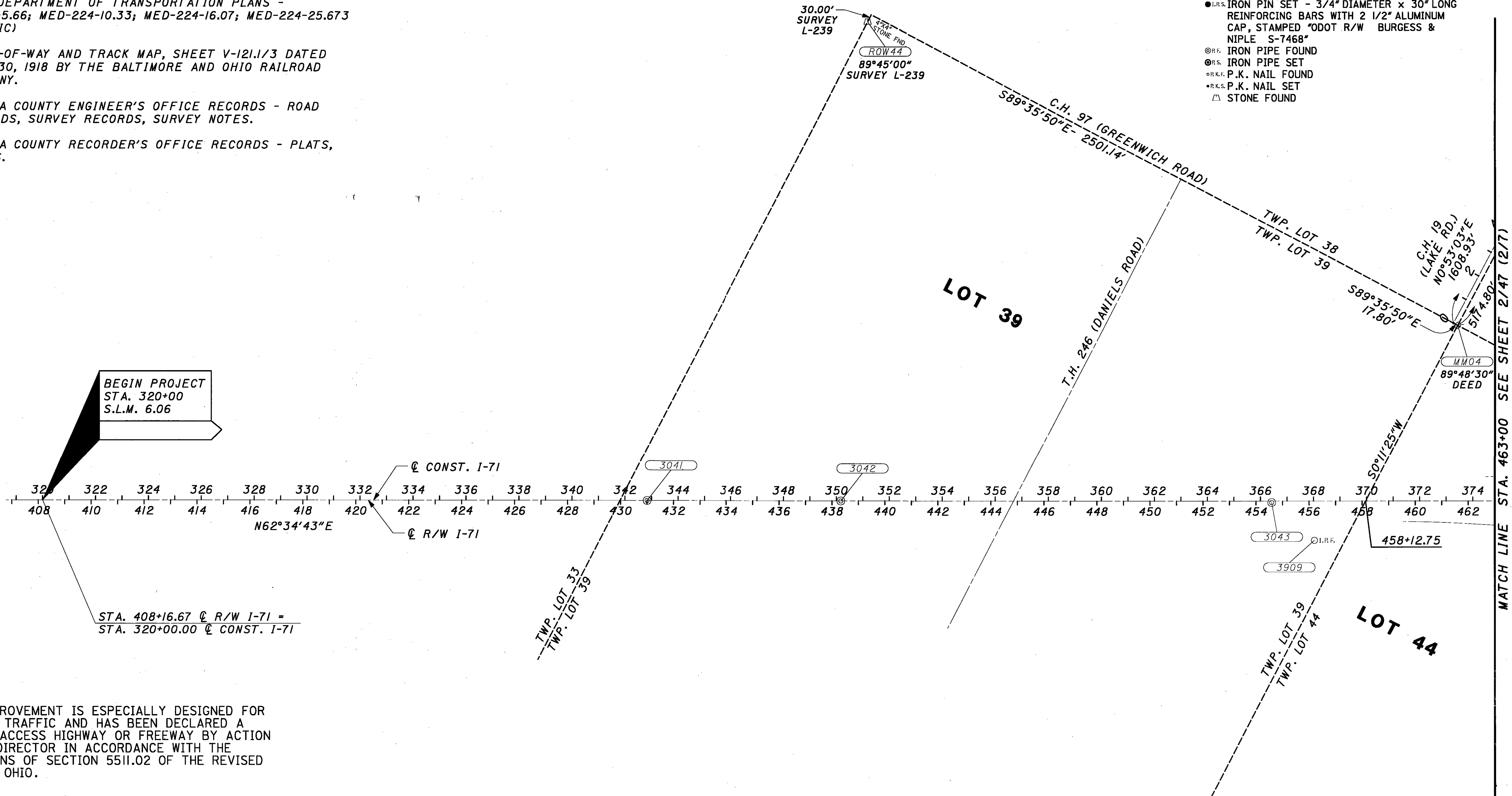
PID NO.
75657

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

**CENTERLINE PLAT
STA. 407+00 TO 463+00**

MED-71-6.06

1 / 7
1 / 47
1074
1120



**BEGIN PROJECT
STA. 320+00
S.L.M. 6.06**

320 322 324 326 328 330 332 334 336 338 340 342 344 346 348 350 352 354 356 358 360 362 364 366 368 370 372 374
 408 410 412 414 416 418 420 422 424 426 428 430 432 434 436 438 440 442 444 446 448 450 452 454 456 458 460 462
 N62°34'43"E

STA. 408+16.67 @ R/W I-71 =
STA. 320+00.00 @ CONST. I-71

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

THE PROPOSED RIGHTS OF WAY SHALL BE REFERENCED FROM THE CENTERLINES OF RIGHTS OF WAY.

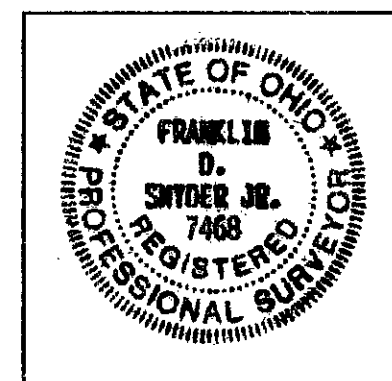
ADJUSTABLE CENTERLINE MONUMENTS, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM 1.1 (REV. 4-18-03) OF THE OHIO DEPARTMENT OF TRANSPORTATION. THE PLACING OF THE MONUMENTS SHALL BE UNDER THE DIRECTION OF A SURVEYOR REGISTERED IN THE STATE OF OHIO AND ARE TO BE SET, AS SHOWN BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION. ANY ALTERATIONS, WITH PRIOR APPROVAL OF THE OHIO DEPARTMENT OF TRANSPORTATION, SHALL BE NOTED AND O.D.O.T. SHALL BE NOTIFIED OF THE NEW LOCATIONS.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2003-2004 BY BURGESS & NIPLÉ, INC.

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY Franklin D. Snyder, Jr.
FRANKLIN D. SNYDER, JR., P.S.
SURVEYOR NO. S-7468 DATE 09/31/05

RECEIVED _____, 20____
RECORDED _____, 20____
DOCUMENT NO. _____
COUNTY RECORDER



PROJECTWISE\A\PR33412\CADD\75657RCD1.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 44, 45, 46, 47, & 53 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE DATA

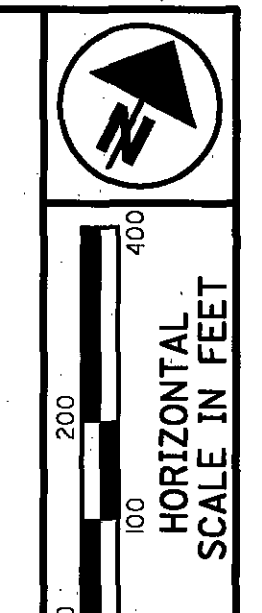
© R/W I-71
P.I. Sta = 531+43.63
 $\Delta = 25^\circ 03' 47''$ (LT)
 $Dc = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$

© R/W US 224
P.I. Sta = 888+86.68
 $\Delta = 18^\circ 42' 45''$ (LT)
 $Dc = 1^\circ 28' 00''$
 $R = 3,906.53'$
 $T = 643.66'$
 $L = 1,275.85'$
 $E = 52.67'$

© CONST. US 224/1-76
P.I. Sta = 888+86.69
 $\Delta = 18^\circ 42' 45''$ (LT)
 $Dc = 1^\circ 28' 00''$
 $R = 3,906.53'$
 $T = 643.66'$
 $L = 1,275.85'$
 $E = 52.67'$

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊙ RAILROAD SPIKE FOUND
- ⊙ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET



PID NO. **75657**

R/W DESIGNER: **LYNN**
R/W REVIEWER: **SNYDER**

CENTERLINE PLAT
STA. 463+00 TO 520+00

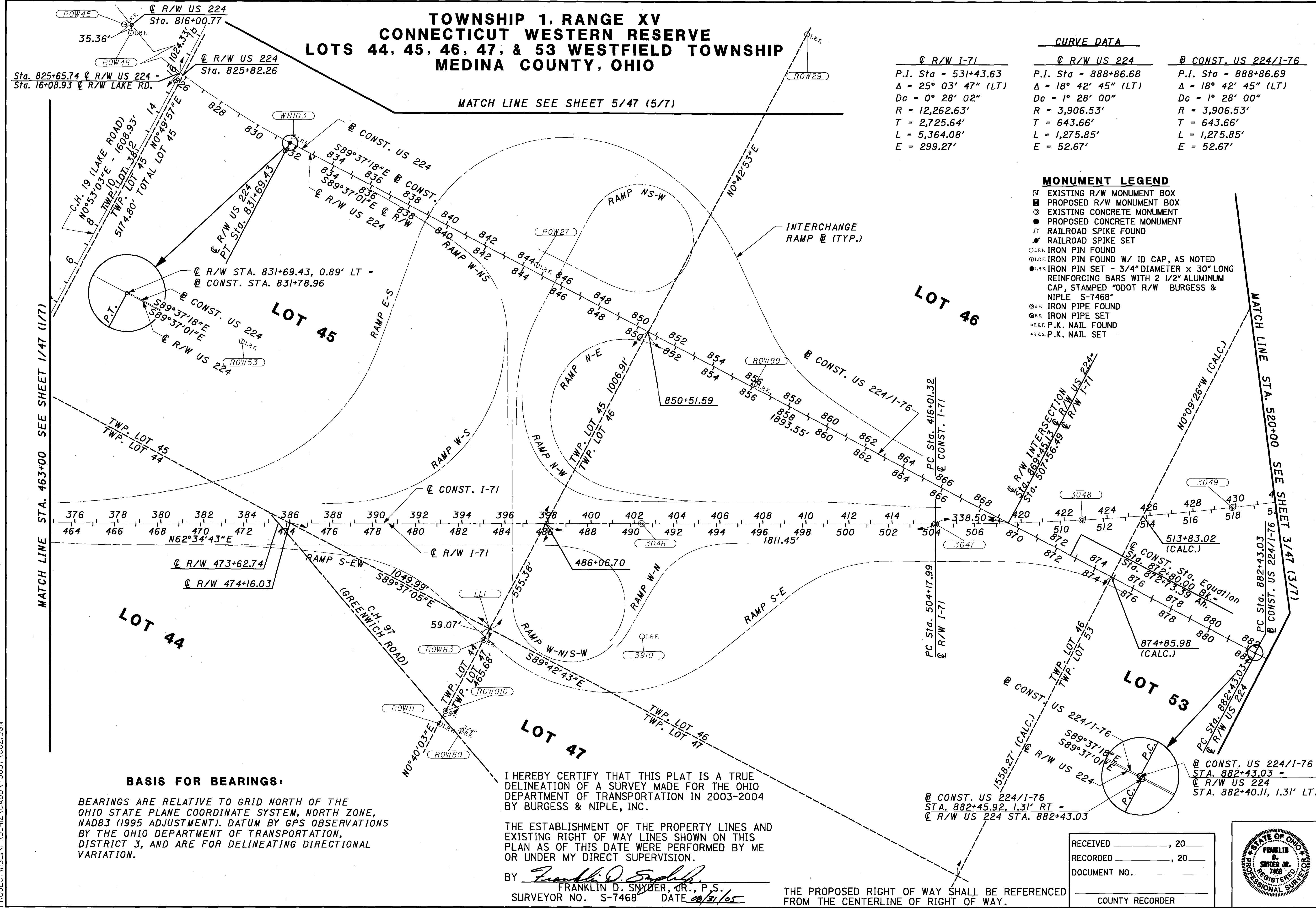
MED-71-6.06

2 / 7
2 / 47
1075
1120

MATCH LINE SEE SHEET 5/47 (5/7)

MATCH LINE STA. 463+00 SEE SHEET 1/47 (1/7)

MATCH LINE STA. 520+00 SEE SHEET 3/47 (3/7)



BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

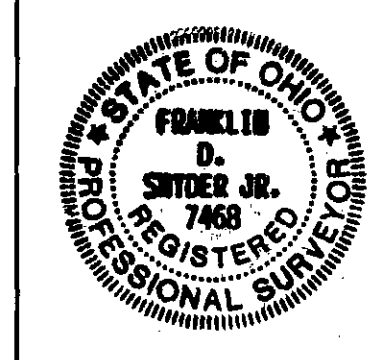
I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2003-2004 BY BURGESS & NIPLE, INC.

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY Franklin D. Snyder, Jr.
FRANKLIN D. SNYDER, JR., P.S.
SURVEYOR NO. S-7468 DATE 08/31/05

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

RECEIVED _____, 20____
RECORDED _____, 20____
DOCUMENT NO. _____
COUNTY RECORDER



PROJECTWISE:\PR33412\CADD\75657RCD2.DGN

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOT 53 WESTFIELD TOWNSHIP
LOT 1, SECTION 13, GUILFORD TOWNSHIP
VILLAGE OF SEVILLE,
LOT 1, 2, 3, SECTION 24, GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE DATA

☉ R/W I-71
P.I. Sta = 531+43.63
Δ = 25° 03' 47" (LT)
Dc = 0° 28' 02"
R = 12,262.63'
T = 2,725.64'
L = 5,364.08'
E = 299.27'

☉ R/W US 224
P.I. Sta = 888+86.68
Δ = 18° 42' 45" (LT)
Dc = 1° 28' 00"
R = 3,906.53'
T = 643.66'
L = 1,275.85'
E = 52.67'

☉ CONST. US 224/I-76
P.I. Sta = 888+86.69
Δ = 18° 42' 45" (LT)
Dc = 1° 28' 00"
R = 3,906.53'
T = 643.66'
L = 1,275.85'
E = 52.67'

☉ C.R. 40 (RYAN RD.)
P.I. Sta = 12+20.25
Δ = 25° 58' 32" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 220.25'
L = 432.92'
E = 25.07'

☉ C.R. 40 (RYAN RD.)
P.I. Sta = 18+42.18
Δ = 25° 58' 32" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 409.26'
L = 773.29'
E = 84.00'

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ☐ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ✕ RAILROAD SPIKE FOUND
- ✕ RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLÉ S-7468"
- I.R.P. IRON PIPE FOUND
- I.R.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

BASIS FOR BEARINGS:

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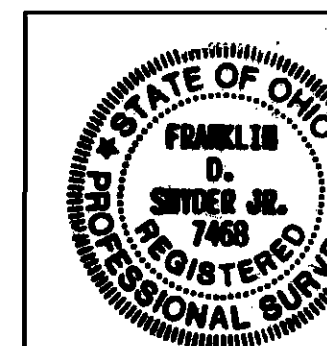
THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2003-2004 BY BURGESS & NIPLÉ, INC.

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BY Franklin D. Snyder, Jr.
FRANKLIN D. SNYDER, JR., P.S.
SURVEYOR NO. S-7468 DATE 08/31/05

RECEIVED _____, 20__
RECORDED _____, 20__
DOCUMENT NO. _____
COUNTY RECORDER



3 / 7
3 / 47
1076
1120



0 100 200 400
HORIZONTAL SCALE IN FEET

PID NO. **75657**

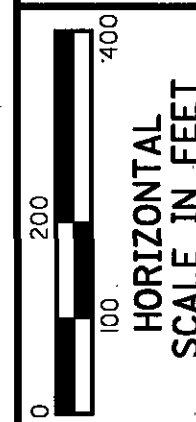
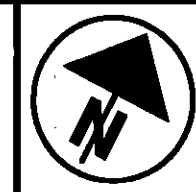
R/W DESIGNER: LYNM
R/W REVIEWER: SNYDER

**CENTERLINE PLAT
STA. 520+00 TO 579+00**

MED-71-6.06

PROJECTWISEA\PR33412\CADD\75657R03.DGN

TOWNSHIP 1, RANGE XIV & XV
 CONNECTICUT WESTERN RESERVE
 LOTS 3 & 4, SECTION 24, GUILFORD TOWNSHIP
 MEDINA COUNTY, OHIO



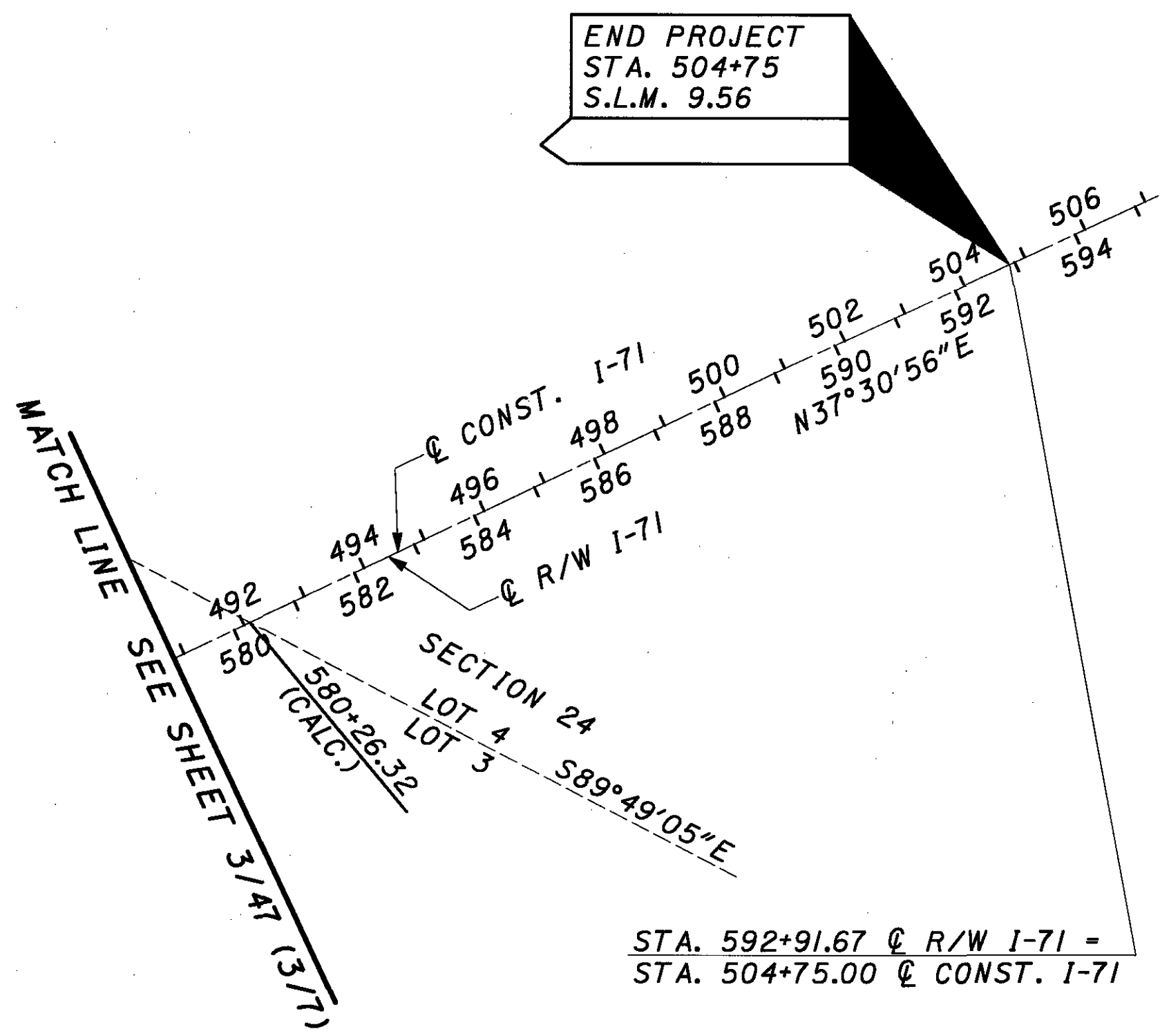
PID NO.
75657

R/W DESIGNER
 LYNN
 R/W REVIEWER
 SNYDER

CENTERLINE PLAT
 STA. 579+00 TO 595+00

MED-71-6.06

4 / 7
 4 / 47
 1077
 1120



BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

MONUMENT LEGEND

- ▣ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⌵ RAILROAD SPIKE FOUND
- ✦ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLÉ S-7468"
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ R.K.F. P.K. NAIL FOUND
- ⊙ R.K.S. P.K. NAIL SET

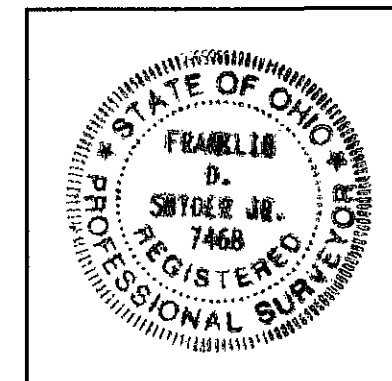
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BY Franklin D. Snyder, Jr.
 FRANKLIN D. SNYDER, JR., P.S.
 SURVEYOR NO. S-7468 DATE 09/31/05

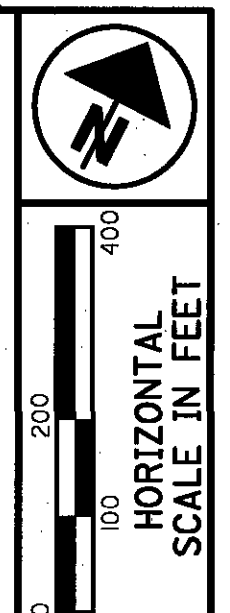
RECEIVED _____, 20____
 RECORDED _____, 20____
 DOCUMENT NO. _____

 COUNTY RECORDER



PROJECTWISE\PR33412\CADD\75657RCD4.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 45, 46, 55, & 56 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**



PID NO.
75657

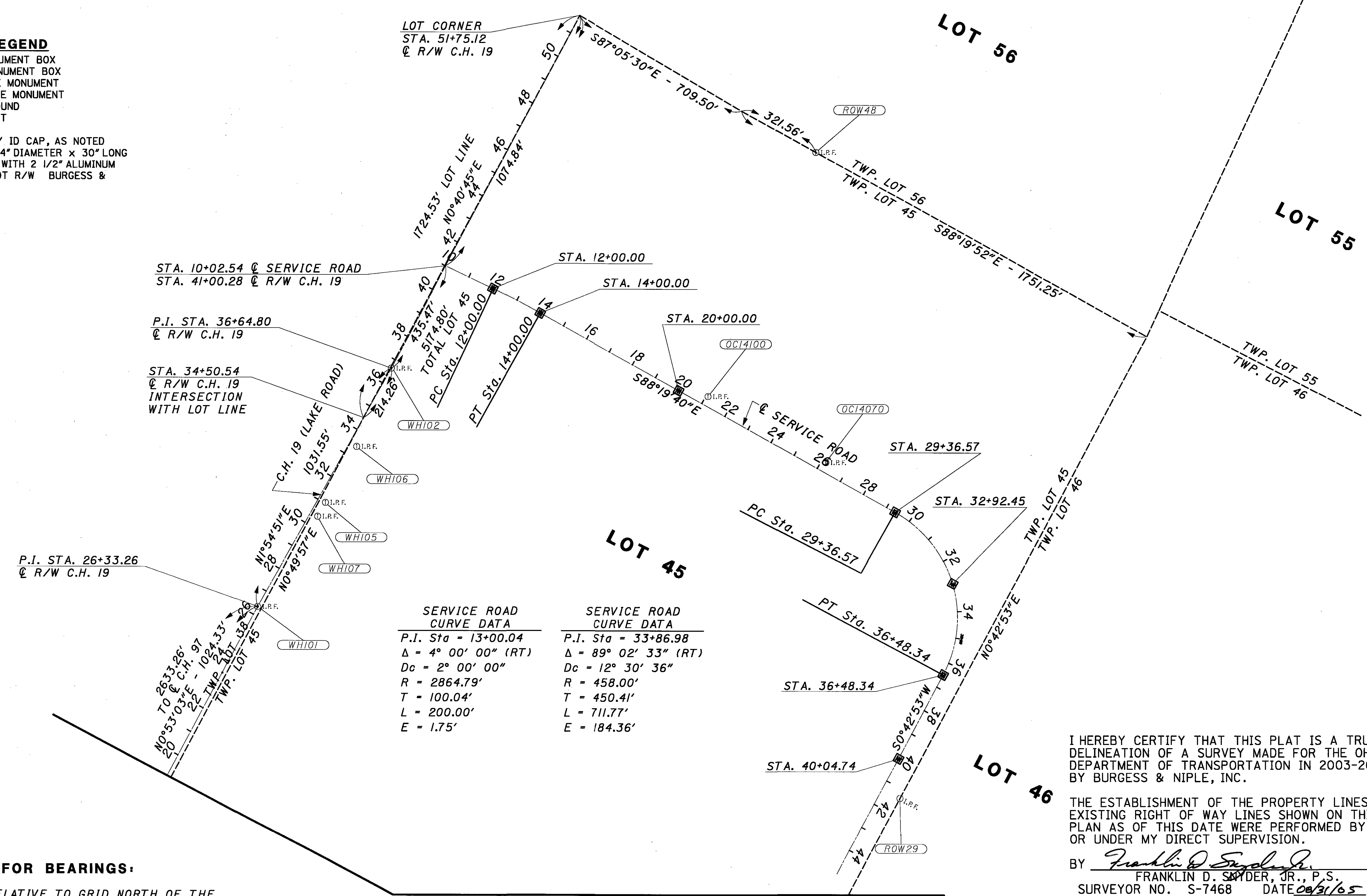
R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

**CENTERLINE PLAT
SERVICE ROAD**

MED-71-6.06

5 / 7
5 / 47
1078
1120

- MONUMENT LEGEND**
- ☐ EXISTING R/W MONUMENT BOX
 - ◻ PROPOSED R/W MONUMENT BOX
 - ⊙ EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ⚡ RAILROAD SPIKE FOUND
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 - ⊙ I.P.F. IRON PIPE FOUND
 - ⊙ I.P.S. IRON PIPE SET
 - ⊙ P.K.F. P.K. NAIL FOUND
 - ⊙ P.K.S. P.K. NAIL SET



SERVICE ROAD CURVE DATA

P.I. Sta = 13+00.04	$\Delta = 4^\circ 00' 00''$ (RT)
Dc = 2° 00' 00"	R = 2864.79'
T = 100.04'	L = 200.00'
E = 1.75'	

SERVICE ROAD CURVE DATA

P.I. Sta = 33+86.98	$\Delta = 89^\circ 02' 33''$ (RT)
Dc = 12° 30' 36"	R = 458.00'
T = 450.41'	L = 711.77'
E = 184.36'	

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

MATCH LINE SEE SHEET 2/47 (2/7)

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

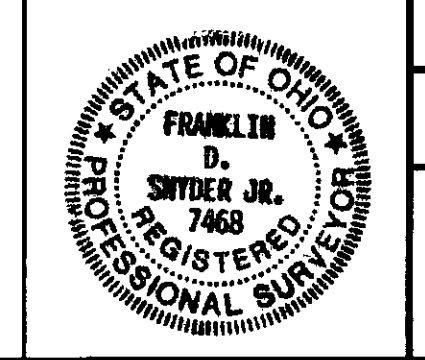
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BY Franklin D. Snyder, Jr.
FRANKLIN D. SNYDER, JR., P.S.
SURVEYOR NO. S-7468 DATE 09/31/05

RECEIVED _____, 20____
RECORDED _____, 20____
DOCUMENT NO. _____

COUNTY RECORDER



P:\PR33\412\CADD\75657RCC02.DGN IHT-05

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOTS 39, 44, 45, 46, 47 & 53, WESTFIELD TOWNSHIP
SECTIONS 13 & 24, GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

PROJECT CONTROL MONUMENTS GROUND COORDINATES U.S. SURVEY FOOT (PROJECT ADJUSTMENT FACTOR = 3.28119859557)						PROJECT CONTROL MONUMENTS STATE PLANE COORDINATES - OH NORTH ZONE NAD83 (1995 ADJ) (METRIC)	
ALL STATIONING RELATIVE TO THE CENTERLINE OF R/W OF I-71							
I-71							
PT.	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION	NORTHING	EASTING
3041	431+00.03	0.38' RT	494001.5147	2130094.1156	CMON	150555.20119	649181.71015
3042	438+33.48	0.39' RT	494339.2820	2130745.1660	CMON	150658.14141	649380.12861
3043	454+58.94	5.40' RT	495083.4117	2132190.2949	CMON	150884.92735	649820.55575
3046	490+50.46	0.10' RT	496742.1228	2135375.8475	CMON	151390.44722	650791.40604
3047	504+18.14	0.04' RT	497372.0429	2136589.8347	CMON	151582.42588	651161.38889
3048	511+00.00	0.00'	497702.7526	2137186.0170	CMON	151683.21517	651343.08539
3049	517+99.89	0.21' RT	498075.9386	2137778.0159	CMON	151796.94983	651523.50692
3050	525+00.07	0.18' RT	498482.6497	2138347.8614	CMON	151920.90182	651697.17684
3051	529+99.53	0.23' RT	498792.2546	2138739.7480	CMON	152015.25908	651816.61082
3052	536+98.92	0.21' RT	499252.1388	2139266.5706	CMON	152155.41646	651977.16880
3053	545+98.70	0.02' LT	499886.7628	2139904.1366	CMON	152348.82871	652171.47767
3909	456+20.08	147.55' RT	495031.4436	2132398.8020	IPIN (ODOT ROD MONUMENT)	150869.08920	649884.10177
3910	490+53.01	523.19' RT	496278.9829	2135619.0060	IPIN (ODOT ROD MONUMENT)	151249.29761	650865.51265
3911	548+41.46	82.29' RT	500010.8298	2140129.3267	IPIN (ODOT ROD MONUMENT)	152386.64020	652240.10811
MM02	471+52.25	199.81' LT	496045.3949	2133598.8513	IPIN (CG DEIBEL 6673)	151178.10777	650249.83681
ROW52	469+73.43	199.18' LT	495962.4813	2133440.4127	IPIPE 3/4"	151152.83847	650201.55000
ROW54	477+00.48	199.95' LT	496297.9894	2134085.4220	3/4" PINCH TOP PIPE	151255.09016	650398.12734
ROW55	482+43.64	252.70' LT	496594.9544	2134543.2597	IPIN (CG DEIBEL 6673)	151345.59520	650537.66102
ROW63	483+16.99	541.86' RT	495923.4443	2134974.2830	IPIPE 1"	151140.94129	650669.02256
ROW64	484+11.50	592.95' RT	495921.6199	2135081.7059	IPIPE 1-1/2"	151140.38528	650701.76148
ROW103	536+28.98	221.80' RT	499041.2354	2139364.5635	IPIN (BOCK CLARK)	152091.14013	652007.03377
ROW104	537+99.05	234.59' RT	499149.5973	2139500.3169	IPIN (BOCK CLARK)	152124.16523	652048.40688
ROW105	541+22.50	234.73' RT	499378.3764	2139737.6271	IPIN (BOCK CLARK)	152193.88948	652120.73112
PT39	274+78.05	℄	486807.4455	2116227.1898	PT	148362.68861	644955.53322
PC40	504+17.99	℄	497372.0045	2136589.6817	PC	151582.41417	651161.34226
PI40	531+00.03	299.27' RT	498627.2467	2139009.0784	PI	151964.97017	651898.69375
PT40	557+82.07	℄	500789.1917	2140668.9299	PT	152623.85897	652404.56118
700	639+81.43	℄	507292.8259	2145662.1499	POT	154605.94997	653926.32826
LLI	483+44.80	489.75' RT	495982.5084	2134974.9712	COR. OF LOTS 44/45/46/47	151158.94206	650669.23230
C.H. 97 (GREENWICH ROAD)							
III	483+59.16	1222.91' RT	495338.3410	2135325.3583	IPIN (CORNERSTONE PS7265)	150962.62130	650776.01861
MM03	469+05.11	303.62' LT	496023.7236	2133331.6694	IPIN 5/8"	151171.50308	650168.40867
MM04	461+59.35	662.66' LT	495998.9738	2132504.3469	RSPK - LOT CORNER	151163.96017	649916.26834
MM05	468+90.88	276.92' LT	495993.4624	2133331.3311	IPIN 5/8"	151162.28048	650168.30556
ROW10	481+40.73	872.11' RT	495549.1346	2134969.9221	IPIPE 1"	151026.86417	650667.69350
ROW11	481+13.71	933.05' RT	495482.6002	2134974.0009	IPIN (CORNERSTONE PS7265)	151006.58670	650668.93658
ROW12	483+20.40	1177.19' RT	495361.0702	2135269.9039	IPIN (CORNERSTONE PS7265)	150969.54840	650759.11796
ROW14	484+19.74	1199.38' RT	495387.1210	2135368.2997	IPIN 3/8" BENT	150977.48782	650789.10572
ROW15	485+55.64	1453.80' RT	495223.8781	2135606.0988	IPIN (CORNERSTONE PS7265)	150927.73682	650861.57896
ROW17	486+35.19	1454.69' RT	495259.7246	2135677.1171	IPIN (CORNERSTONE PS7265)	150938.66164	650883.22297
ROW44	439+33.49	1803.50' LT	495986.5502	2130003.1860	STONE 4"X4"	151160.17387	649153.99783
ROW59	484+60.81	1249.74' RT	495361.3395	2135427.9470	IPIN (CORNERSTONE)	150969.63048	650807.28423
ROW60	482+13.25	965.44' RT	495499.6843	2135077.2730	IPIPE 3/4"	151011.79336	650700.41048
ROW62	488+88.01	977.41' RT	495799.8094	2135681.7284	IPIN 5/8" LEANING	151103.26149	650884.62834
ROW65	496+44.22	3276.38' RT	494107.3999	2137411.7267	RSPK	150587.47147	651411.87418
ROW66	500+79.46	2460.50' RT	495032.0581	2137422.3227	IPIN (CORNERSTONE PLS7265)	150869.27648	651415.10349
ROW70	494+21.59	2110.74' RT	495039.5409	2136677.2935	IPIN 5/8"	150871.55699	651188.04341
ROW71	492+84.66	2224.50' RT	494875.5022	2136608.1368	IPIN (CORNERSTONE PLS7265)	150821.56346	651166.96676
ROW72	496+67.97	2241.67' RT	495036.7930	2136956.2870	IPIN (CORNERSTONE PLS7265)	150870.71952	651273.07134
ROW73	498+53.75	2340.47' RT	495034.6503	2137166.7003	IPIN (CORNERSTONE PLS7265)	150870.06650	651337.19830
C.H. 40 (RYAN ROAD)							
ROW24	538+52.30	706.81' RT	498844.1271	2139864.6475	IPIN 3/8"	152031.06809	652159.44271
ROW25	539+79.63	566.26' RT	499038.2787	2139864.1570	IPIN (BOCK & CLARK)	152090.23903	652159.29322
ROW26	539+80.13	566.73' RT	499038.3040	2139864.8642	IPIN 3/8"	152090.24674	652159.50875
ROW33	554+40.40	764.05' LT	501003.1057	2139864.2852	RSPK - LOT CORNER	152689.05283	652159.33229
ROW34	567+10.65	1728.07' LT	502578.0761	2139863.7362	IPIN 3/4"	153169.05133	652159.16497

THE PROJECT ADJUSTMENT FACTOR (PAF) IS A COMBINED SCALE, ELEVATION AND METRIC CONVERSION FACTOR FOR TRANSLATING BETWEEN STATE PLANE GRID COORDINATES (METERS) AND PROJECT GROUND COORDINATES (U.S. SURVEY FEET). TO OBTAIN STATE PLANE GRID COORDINATES (METERS), DIVIDE THE PROJECT COORDINATES (U.S. SURVEY FEET) BY THE PAF.

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

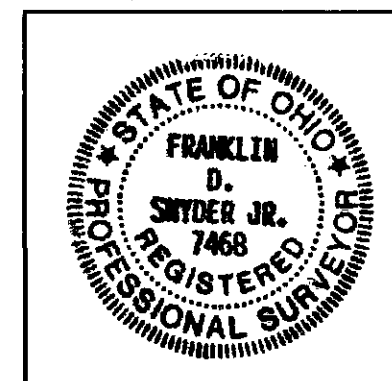
ADJUSTABLE CENTERLINE MONUMENTS, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM 1.1 (REV. 4-18-03) OF THE OHIO DEPARTMENT OF TRANSPORTATION. THE PLACING OF THE MONUMENTS SHALL BE UNDER THE DIRECTION OF A SURVEYOR REGISTERED IN THE STATE OF OHIO AND ARE TO BE SET, AS SHOWN BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION. ANY ALTERATIONS, WITH PRIOR APPROVAL OF THE OHIO DEPARTMENT OF TRANSPORTATION, SHALL BE NOTED AND O.D.O.T. SHALL BE NOTIFIED OF THE NEW LOCATIONS.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2003-2004 BY BURGESS & NIPLE, INC.

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY Franklin D. Snyder, Jr.
FRANKLIN D. SNYDER, JR., P.S.
SURVEYOR NO. S-7468 DATE 09/31/05

RECEIVED _____, 20____
RECORDED _____, 20____
DOCUMENT NO. _____
COUNTY RECORDER



PID NO.
75657

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

CENTERLINE PLAT

MED-71-6.06

6 / 7
6 / 47
1079
1120

PROJECTWISE:\PR33412\CADD\75657TRC05.DGN

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOTS 39, 44, 45, 46, 47 & 53, WESTFIELD TOWNSHIP
SECTIONS 13 & 24, GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

PROJECT CONTROL MONUMENTS GROUND COORDINATES U.S. SURVEY FOOT (PROJECT ADJUSTMENT FACTOR = 3.2819859557)				PROJECT CONTROL MONUMENTS STATE PLANE COORDINATES - OH NORTH ZONE NAD83 (1995 ADJ) (METRIC)			
STATIONING IS RELATIVE TO THE CENTERLINE OF R/W OF U.S. 224							
U.S. 224							
PT.	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION	NORTHING	EASTING
ROW6	828+49.42	80.73' RT	497492.0833	2132785.6443	IPIN (CORNERSTONE PS7265)	151619.01019	650001.99841
ROW7	828+49.98	79.65' RT	497493.1102	2132786.3062	PIPE 1"	151619.32316	650002.20013
ROW8	832+00.97	100.38' RT	497456.6791	2133143.2124	IPIN (CG DEIBEL 6673)	151608.22017	650110.97325
ROW27	844+49.26	32.81' LT	497581.5153	2134392.3580	IPIN (ODOT) (10.000m OFFSET)	151646.26608	650491.67121
ROW35	900+21.97	181.25' LT	498051.7278	2133861.0309	IPIN 3/8"	151789.57119	652158.34049
ROW45	815+75.72	24.96' RT	497865.2334	2131554.7131	IPIN 3/4" IN CONC	151732.73391	649626.8560
ROW46	816+25.63	25.07' RT	497845.3344	2131600.6532	IPIN 3/4" IN CONC	151726.66936	649640.85261
ROW53	834+03.69	92.34' LT	496632.2876	2133340.4181	IPIN 1/2"	151356.97311	650171.07498
ROW91	880+58.98	87.64' RT	497436.9321	2133001.2005	IPIN (CUNNINGHAM)	151602.20194	651591.52615
ROW93	840+00.82	123.82' RT	497427.8848	2133942.8815	IPIN (DEIBEL 6673)	151599.44463	650354.68575
ROW94	840+01.30	124.90' RT	497426.8014	2133943.3565	3/4" PINCH TOP PIPE	151599.11444	650354.83051
ROW95	843+01.12	203.32' RT	497346.3842	2134242.6441	IPIN 3/8" IN CONC	151574.60596	650446.04340
ROW96	844+71.93	493.99' RT	497054.5808	2134411.5137	IPIN (CGDEIBEL 6673)	151485.67401	650497.50923
ROW99	856+04.80	18.50' LT	497559.4811	2135547.7812	IPIN 5/8"	151639.55079	650843.80570
WHI03	831+70.07	32.81' LT	497590.0673	2133113.2027	IPIN (ODOT) (10.000m OFFSET)	151648.87245	650101.82730
US1	816+00.77	0	497878.2008	2131587.6096	PC	151736.68594	649636.87735
US2	823+85.10	3906.53' LT	501463.7068	2131338.4555	RP	152829.42870	650109.52351
US3	831+69.43	0	497557.2641	2133112.3384	PT	151638.87513	650101.56389
US4	882+43.03	0	497523.3444	2138185.8250	PC	151628.53753	651647.79355
US5	888+80.96	3906.53' LT	501429.7871	2139440.74691	PT	151688.91623	652030.16727
US7	916+15.30	0	498380.7418	2141430.5251	POT	151889.84369	652636.67002
C.H. 19 (LAKE ROAD)							
ROW2	834+20.30	1095.65' LT	498651.2126	2133370.5305	IPIN (CORNERSTONE PS7265)	151972.27418	650180.25223
ROW3	831+54.40	1095.50' LT	498652.8313	2133108.8471	IPIN (CORNERSTONE PS7265)	151972.76750	650180.49985
ROW4	831+56.98	1480.59' LT	499037.8863	2133114.5053	IPIN "TEE SHAPED BAR" BENT	152090.11944	650102.22428
ROW29	850+60.66	1567.62' LT	49912.2080	2135014.0085	IPIN (CORNERSTONE PS7265)	152112.77022	650681.12957
ROW48	836+42.75	357.38' LT	501127.8618	2133609.5465	IPIN 5/8"	152727.07433	650253.09635
ROW49	830+84.31	1840.17' LT	499398.1882	2133709.6273	IPIN (CORNERSTONE PL57266)	152199.92745	650091.59463
WHI01	823+64.98	1009.64' LT	498632.0407	2132527.1815	IPIN 5/8"	151966.43122	649923.22756
WHI02	819+84.51	2015.71' LT	499663.0132	2132561.6374	IPIN 5/8"	152280.63729	649933.72857
WHI05	822+77.65	1477.29' LT	499101.2168	2132572.9075	IPIN (CORNERSTONE PS7265)	152109.42046	649937.16332
WHI06	821+92.02	1711.96' LT	499341.1519	2132580.8852	IPIN (CORNERSTONE PS7265)	152182.54469	649939.59466
WHI07	822+96.59	1418.41' LT	499041.1734	2132570.9392	IPIN (CORNERSTONE PS7265)	152091.12124	649936.56345
C.H. 97 (GREENWICH ROAD)							
ROW19	878+52.15	3137.55' RT	494388.4782	2137773.9834	IPIN (BOCK & CLARK)	150673.13477	651522.27795
ROW20	879+44.96	3174.98' RT	494350.4287	2137866.5408	IPIN (BOCK & CLARK)	150661.53855	651550.48636
ROW21	881+30.44	3249.80' RT	494274.3712	2138051.5137	IPIN 5/8"	150638.35876	651608.85994
ROW67	884+21.35	2261.07' RT	495266.8669	2139452.1869	IPIN (BOCK & CLARK)	150940.83838	651728.97178
ROW68	883+04.27	2181.73' RT	495341.7777	2139266.6845	IPIN (BOCK & CLARK)	150963.66869	651672.43663
ROW69	882+44.65	2144.20' RT	495379.1764	2138174.0001	IPIN (BOCK & CLARK)	150975.06657	651684.18971
ROW74	880+78.10	2077.93' RT	495446.5593	2138007.0137	IPIN 5/8"	150995.60263	651593.29782
ROW76	880+81.97	1562.93' RT	495961.5223	2138014.3264	IPIN 5/8"	151152.54620	651595.52649
ROW77	886+15.29	1592.96' RT	495957.8716	2138698.5936	IPIN (BOCK & CLARK)	151149.60499	651804.06833
33	905+16.23	191.81' LT	498217.1842	2140326.8937	IPIN 5/8"	151839.98678	652300.31995
ROW23	901+29.49	496.23' LT	498384.5342	2139864.0462	IPIN (MED CO SURV MON) SEC/LOT COR	151890.99949	652159.25945
ROW39	894+01.58	1900.46' RT	495865.0771	2139871.8066	IPIN 5/8" - LOT CORNER	151123.15291	652161.62456
ROW40	893+75.04	2038.76' RT	495721.1339	2139872.6037	PIPE	151079.28382	652161.86749
STATIONING IS RELATIVE TO THE CENTERLINE OF R/W OF C.H. 19 (LAKE ROAD)							
C.H. 19 (LAKE ROAD)							
M/M04	0+00.15	17.80 RT	495998.9738	22132504.3489	RSPK - LOT CORNER	151163.96017	649916.26834
ROW2	26+80.59	842.24 RT	498657.2126	2133370.5305	IPIN (CORNERSTONE PS7265)	151972.27418	650180.25223
ROW3	26+73.46	580.65 RT	498652.8313	2133108.8471	IPIN (CORNERSTONE PS7265)	151972.76750	650102.49985
ROW4	30+58.49	573.44 RT	499037.8863	2133114.5053	IPIN "TEE SHAPED BAR" BENT	152090.11944	650102.22428
ROW29	31+96.22	2469.40 RT	49912.2080	2135014.0085	IPIN (CORNERSTONE PS7265)	152112.77022	650681.12957
ROW48	51+41.97	1030.47 RT	501127.8618	2133609.5465	IPIN 5/8"	152727.07433	650253.09635
ROW49	34+17.43	526.55 RT	499398.1882	2133079.6273	IPIN (CORNERSTONE PL57266)	152199.92745	650091.59463
WHI01	26+33.26	0	498632.0407	2132527.1815	IPIN 5/8"	151966.43122	649923.22756
WHI02	36+64.80	0	499663.0132	2132561.6374	IPIN 5/8"	152280.63729	649933.72857
WHI05	31+03.70	30.03 RT	499101.2168	2132572.9075	IPIN (CORNERSTONE PS7265)	152109.42046	649937.16332
WHI06	33+43.76	29.99 RT	499341.1519	2132580.8852	IPIN (CORNERSTONE PS7265)	152182.54469	649939.59466
WHI07	30+43.62	30.07 RT	499041.1734	2132570.9392	IPIN (CORNERSTONE PS7265)	152091.12124	649936.56345
STATIONING IS RELATIVE TO THE CENTERLINE OF R/W OF THE PROPOSED SERVICE ROAD.							
SERVICE ROAD							
ROW29	41+34.49	75.51 LT	499112.2080	2135014.0085	IPIN (CORNERSTONE PS7265)	152112.77022	650681.12957
ROW48	20+15.45	1038.64 LT	501127.8618	2133609.5465	IPIN 5/8"	152727.07433	650253.09635
OC14070	26+17.37	35.00 LT	500107.0788	2134181.9260	IPIN 5/8"	152415.97369	650427.53855
OC14100	21+07.83	35.00 LT	500121.9483	2133672.6020	IPIN 5/8"	152420.50541	650272.31356
POT	10+32.58	0	500099.6756	2132596.8158	ADJUSTABLE CENTERLINE MONUMENT	152413.71744	649944.44977
PC	12+00.00	0	500106.4754	2132764.0954	ADJUSTABLE CENTERLINE MONUMENT	152415.78979	649995.43102
PT	14+00.00	0	500107.6192	2132964.0520	ADJUSTABLE CENTERLINE MONUMENT	152416.13838	650056.37113
POT	20+00.00	0	500090.1099	2133563.7972	ADJUSTABLE CENTERLINE MONUMENT	152410.80213	650239.15349
PC	29+36.57	0	500062.7788	2134499.9673	ADJUSTABLE CENTERLINE MONUMENT	152402.47252	650524.46694
POT	32+92.45	0	499222.0133	2134817.1318	ADJUSTABLE CENTERLINE MONUMENT	152359.57189	650621.12811
PT	36+48.34	0	499599.2615	2134944.5663	ADJUSTABLE CENTERLINE MONUMENT	152261.20789	650659.96590
POT	40+04.74	0	499242.8895	2134940.1212	ADJUSTABLE CENTERLINE MONUMENT	152152.59758	650658.61118

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

ADJUSTABLE CENTERLINE MONUMENTS, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM 1.1 (REV. 4-18-03) OF THE OHIO DEPARTMENT OF TRANSPORTATION. THE PLACING OF THE MONUMENTS SHALL BE UNDER THE DIRECTION OF A SURVEYOR REGISTERED IN THE STATE OF OHIO AND ARE TO BE SET, AS SHOWN BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION. ANY ALTERATIONS, WITH PRIOR APPROVAL OF THE OHIO DEPARTMENT OF TRANSPORTATION, SHALL BE NOTED AND O.D.O.T. SHALL BE NOTIFIED OF THE NEW LOCATIONS.

THE PROJECT ADJUSTMENT FACTOR (PAF) IS A COMBINED SCALE, ELEVATION AND METRIC CONVERSION FACTOR FOR TRANSLATING BETWEEN STATE PLANE GRID COORDINATES (METERS) AND PROJECT GROUND COORDINATES (U.S. SURVEY FEET). TO OBTAIN STATE PLANE GRID COORDINATES (METERS), DIVIDE THE PROJECT COORDINATES (U.S. SURVEY FEET) BY THE PAF.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2003-2004 BY BURGESS & NIPLE, INC.

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY Franklin D. Snyder, Jr.
FRANKLIN D. SNYDER, JR., P.S.
SURVEYOR NO. S-7468 DATE 08/31/05

RECEIVED _____, 20____
RECORDED _____, 20____
DOCUMENT NO. _____
COUNTY RECORDER



MED-71-6.06

CENTERLINE PLAT

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

PID NO.
75657

7 / 7
7 / 47
1080
1120

PROPERTY OWNERS

- ① DAVID A. RIEDEL & LEHANNA B. RIEDEL
- ② MICHAEL L. SHIVERDECKER & KIM A. SHIVERDECKER
- ③ DANIEL R. TREIN
- ④ MDR PROPERTY GROUP, LLC, AN OHIO LIMITED LIABILITY COMPANY
- ⑤ PHILIP P. RICCIARDI & PRESTON P. RICCIARDI
- ⑥ GLEN E. ZUBER & BARBARA ANN ZUBER
- ⑦ OMNI-WESTFIELD, LLC, AN OHIO LIMITED LIABILITY COMPANY
- ⑧ THE MEYERS FAMILY TRUST, MARION E. MEYERS & REBECCA J. MEYERS, TRUSTEES
- ⑨ NORTH COAST PREMIER SOCCER LTD., AN OHIO LIMITED LIABILITY COMPANY
- ⑩ CHARLES SCOTT THOMAS SPITZER & MELISSA JEAN SPITZER
- ⑪ GUILLERMO CARRASCO
- ⑫ TIMOTHY L. KRATZER & LINDA F. KRATZER
- ⑬ ERIC DERHAMMER
- ⑭ ELIZABETH K. HOUSE
- ⑮ BEACON SOUTH, LLC
- ⑯ ALBERT G. KEIPER & LINDA L. KEIPER
- ⑰ NORTHERN OHIO RAILWAY MUSEUM, A NONPROFIT OHIO CORPORATION
- ⑱ DAVID G. JARVIS & NANCY M. JARVIS
- ⑲ PIERCE HARDY REAL ESTATE, INC.
- ⑳ CSX TRANSPORTATION, INC.
- ㉑ MARC RANDOLPH
- ㉒ SCHNEIDER RESOURCES, INC., A WISCONSIN CORPORATION
- ㉓ CHARLOTTE M. AMHEISER, TRUST, BARBARA J. CHANNEL, TRUSTEE
- ㉔ LELAND DEVELOPMENT COMPANY, LTD., AN OHIO LIMITED LIABILITY COMPANY
- ㉕ PEGGY J. CALDREN & DAWN R. CALDREN
- ㉖ MEDINA SOD FARMS, INC., AN OHIO CORPORATION
- ㉗ MEDINA SOD FARMS, INC., AN OHIO LIMITED LIABILITY COMPANY

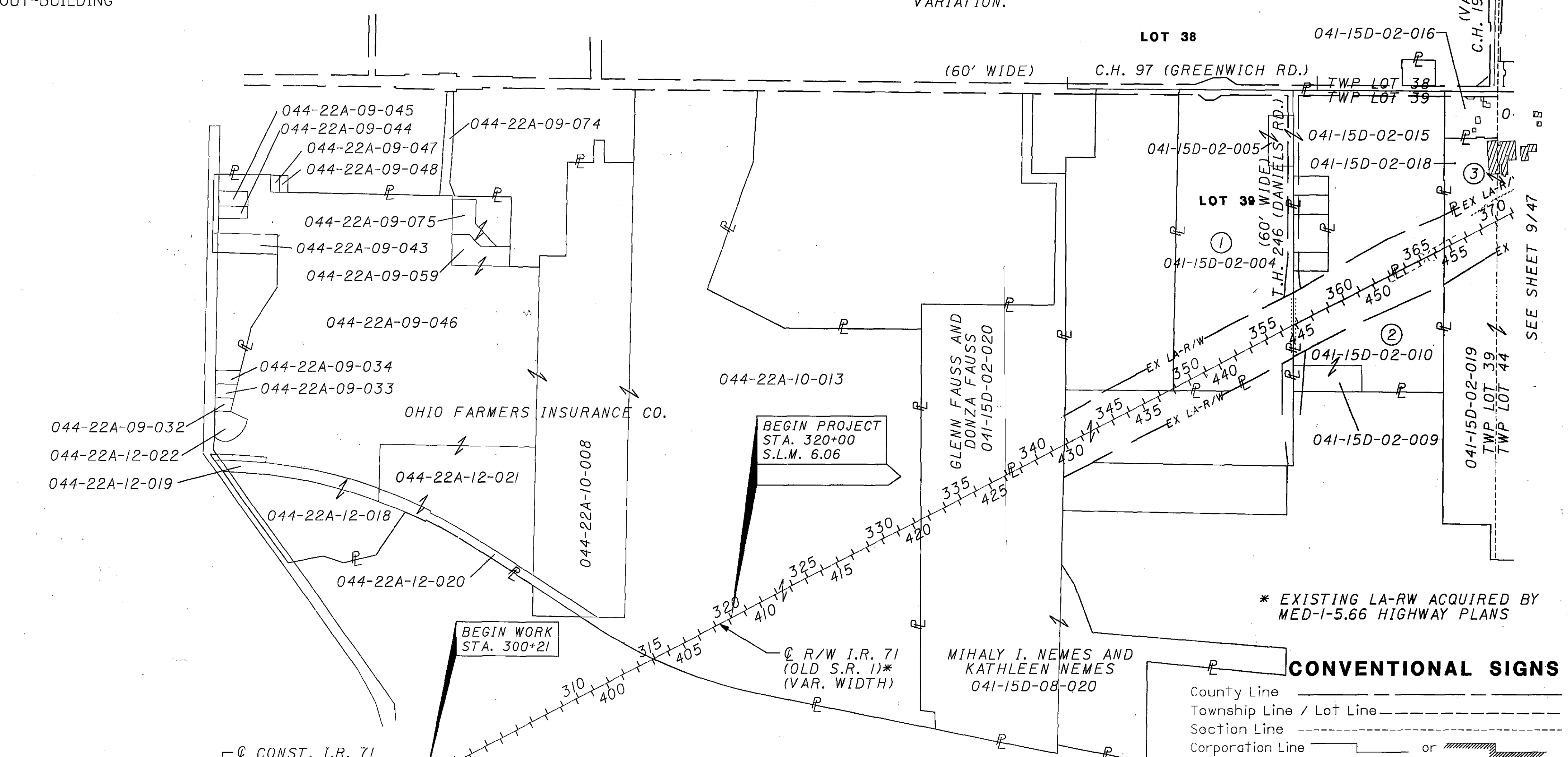
STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 38, 39, 44, & 45 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.



UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

- | | |
|--|--|
| COLUMBIA GAS TRANSMISSION
2385 COTTER ROAD
MANSFIELD, OHIO 44903
(419) 521-2846 | MCI
2400 N. GLENNVILLE DR.
RICHARDSON, TEXAS 75082
(972) 729-6016 |
| COLUMBIA GAS OF OHIO
7080 FRY ROAD
MIDDLEBURG HEIGHTS, OHIO 44130
(440) 891-2454 | VERIZON
(A.K.A. GENERAL TELEPHONE)
6223 NORWALK ROAD
MEDINA, OHIO 44256
(330) 722-9586 |
| GATHERCO INC.
5772 DRESSLER RD. N.W.
NORTH CANTON, OHIO 44720
(330) 498-9553 | MFC DRILLING
P.O. BOX 715
46275 U.S. RTE. 36
COSHOCOTON, OHIO 43815
(740) 622-5600 |
| SEVILLE UTILITIES
44 W. MAIN STREET
P.O. BOX 46
SEVILLE, OHIO 44273
(330) 769-2458 | CSAPO OIL AND GAS
157 MYERS STREET
CRESTON, OHIO 44217
(330) 435-4458 |
| OHIO EDISON
6326 LAKE AVENUE
ELYRIA, OHIO 44035
(440) 326-3257 | MEDINA COUNTY UTILITIES
791 W. SMITH ROAD
P.O. BOX 791
MEDINA, OHIO 44258
(330) 225-3113 |
| TIME WARNER
2352 YOUNGSTOWN ROAD
WARREN, OHIO 44483
(330) 747-2555 | |

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

RECORDED EASEMENTS & LEASES

- | | |
|--|---|
| VERIZON - TELEPHONE
OWNER 6 - D.V. 473 PG. 647
OWNER 7 - D.V. 474 PG. 75
OWNER 8 - D.V. 473 PG. 541
OWNER 10 - D.V. 473 PG. 541
OWNER 12 - D.V. 473 PG. 539 & 545
OWNER 9 - O.R. 155 PG. 356
OWNER 11 - O.R. 155 PG. 356
OWNER 26 - O.R. 155 PG. 356
OWNER 26 - 19980R009357 | ERNEST TENCH - SANITARY SEWER
OWNER 9 - O.R. 1101 PG. 54
OWNER 11 - O.R. 1101 PG. 54 |
| MCI - TELECOMMUNICATIONS
OWNER 20 - O.R. 559 PG. 626
OWNER 20 - O.R. 559 PG. 636 | MEDINA CO. - UTILITIES & HWY.
OWNER 26 - O.R. 1262 PG. 560 |
| OHIO EDISON - ELECTRIC
OWNER 9 - O.R. 213 PG. 497
OWNER 11 - O.R. 213 PG. 497
OWNER 12 - D.V. 958 PG. 167
OWNER 14 - D.V. 970 PG. 506
OWNER 17 - O.R. 88 PG. 341
OWNER 17 - O.R. 90 PG. 516
OWNER 17 - O.R. 106 PG. 665
OWNER 20 - O.R. 902 PG. 718 | MEDINA CO. - SANITARY SEWER
OWNER 9 - D.V. 459 PG. 939
OWNER 11 - D.V. 459 PG. 939
OWNER 26 - D.V. 459 PG. 939 |
| MEDINA SOD FARMS - DITCH MAINT.
OWNER 9 - O.R. 1239 PG. 59
OWNER 11 - O.R. 1239 PG. 59
OWNER 26 - O.R. 1239 PG. 59 | STATE OF OHIO - HWY. (BRIDGE)
OWNER 20 - D.V. 245 PG. 469
OWNER 20 - D.V. 257 PG. 618
OWNER 20 - D.V. 263 PG. 512
(OTHER HWY. EASEMENTS NOT LISTED) |
| CHIPPEWA SUBDISTRICT OF MUSKINGUM WATERSHED CONSERVANCY DISTRICT - CHANNEL CONSTRUCTION
OWNER 9 - D.V. 402 PG. 95
OWNER 11 - D.V. 402 PG. 95
OWNER 12 - D.V. 402 PG. 95
OWNER 13 - D.V. 402 PG. 95
OWNER 14 - D.V. 402 PG. 95
OWNER 15 - D.V. 402 PG. 95
OWNER 26 - D.V. 402 PG. 95 | MFC DRILLING - OIL/GAS
OWNER 11 - O.R. 102 PG. 951
OWNER 11 - O.R. 459 PG. 27
OWNER 12 - O.R. 130 PG. 370
OWNER 12 - O.R. 189 PG. 563
OWNER 12 - O.R. 459 PG. 27
OWNER 12 - O.R. 462 PG. 219
OWNER 13 - O.R. 79 PG. 513
OWNER 13 - O.R. 342 PG. 740
OWNER 13 - O.R. 459 PG. 27
OWNER 13 - O.R. 467 PG. 391
OWNER 26 - O.R. 102 PG. 951
OWNER 26 - O.R. 459 PG. 27 |
| MEDINA SOD FARMS - PIPE & ELEC. LINES
OWNER 9 - O.R. 1239 PG. 336
OWNER 11 - O.R. 1239 PG. 336 | |
| CSAPO OIL & GAS - OIL/GAS
OWNER 16 - O.R. 82 PG. 275 | |

* EXISTING LA-RW ACQUIRED BY MED-I-5.66 HIGHWAY PLANS

CONVENTIONAL SIGNS

- County Line
- Township Line / Lot Line
- Section Line
- Corporation Line
- Fence Line (existing) - x-x-x (proposed) - x-x-x
- Center Line
- Trees, Pines, Stumps, (removals)
- Utility Poles: Telephone, Power, Light
- Storm Sewers - 12" STW
- Sanitary Sewers - 24" SAN
- Water Lines - 12" W
- Gas Lines - 6" G
- Underground Telephone - UGT
- Underground Electric - UGE
- Limited Access (only) - LA
- Right of Way (only) - R/W
- Limited Access & Right of Way - LA-R/W
- Exist. Right of Way - EX-R/W
- Temp. Right of Way - T ESMT
- Slope Easement - SL ESMT
- Utility Easement - U ESMT
- Property Line - (in existing fence) - x-x-x
- Parcel Line
- Railroad
- Guardrail (existing) or (proposed)
- Construction Limits - Construction Limits

REV. BY	DATE	DESCRIPTION
JEL	2-28-05	ADDED OWNER 27
FDS	02-01-05	OWNER'S NAME PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-05-05	CHNG. OWNER'S NAME PAR. 7
JEL	10-12-04	ADDED EASEMENT/LEASE LIST
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20
DATE COMPLETED		SEPTEMBER 29, 2004

N

400
200
0
HORIZONTAL SCALE IN FEET

STATE JOB NO. **436870**

PID NO. **75657**

R/W DESIGNER **LYNN**

R/W REVIEWER **SMYDER**

PROPERTY MAP (STA. 362+00 TO 459+00)

MED-71-6.06

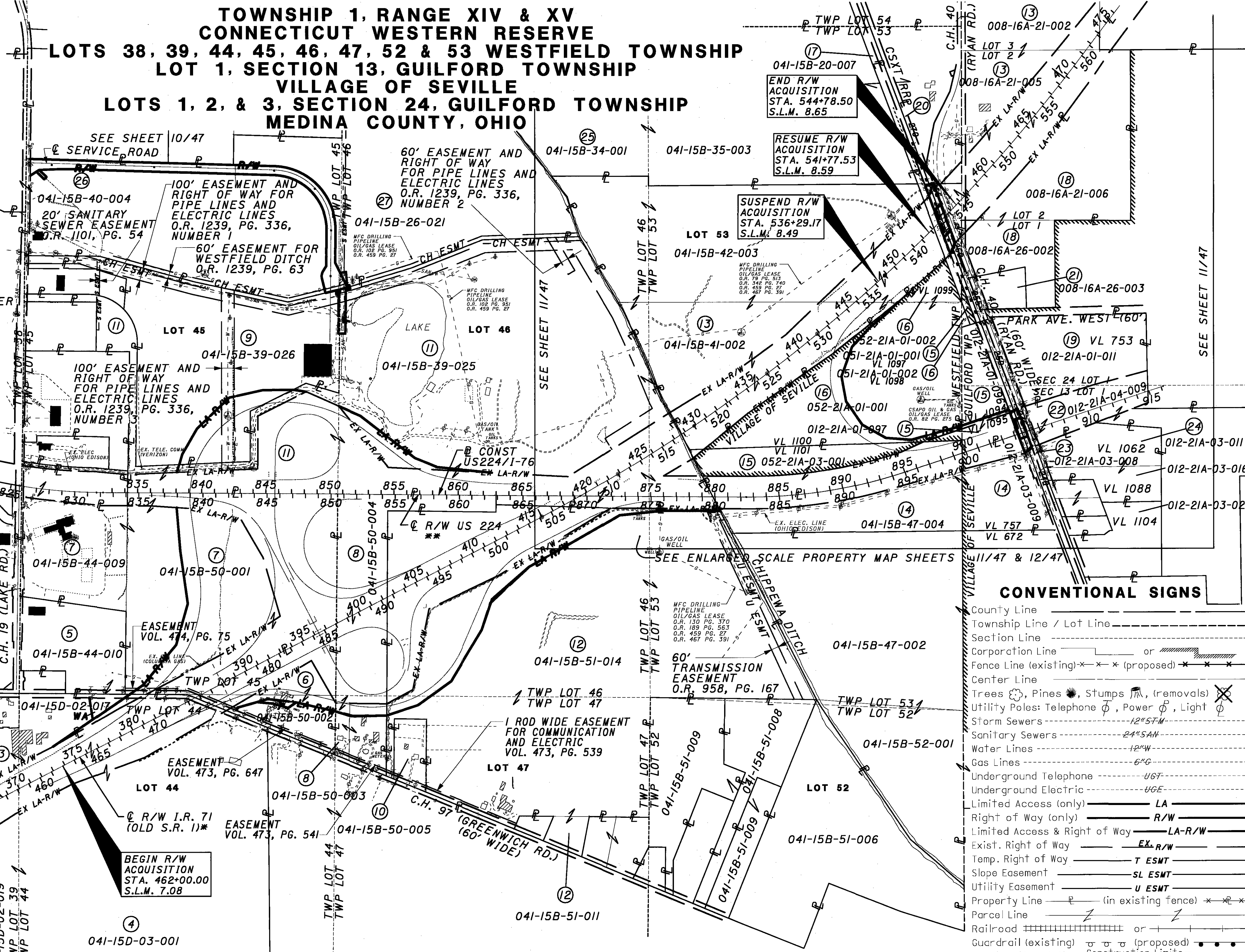
8 / 47

(108)
(120)

PROJECTWISE:\PR33412\CADD\75657RWO1.DGN

PROPERTY OWNERS

- 1 DAVID A. RIEDEL & LEHANNA B. RIEDEL
- 2 MICHAEL L. SHIVERDECKER & KIM A. SHIVERDECKER
- 3 DANIEL R. TREIN
- 4 MDR PROPERTY GROUP, LLC, AN OHIO LIMITED LIABILITY COMPANY
- 5 PHILIP P. RICCIARDI & PRESTON P. RICCIARDI
- 6 GLEN E. ZUBER & BARBARA ANN ZUBER
- 7 OMNI-WESTFIELD, LLC, AN OHIO LIMITED LIABILITY COMPANY
- 8 THE MEYERS FAMILY TRUST, MARION E. MEYERS & REBECCA J. MEYERS, TRUSTEES
- 9 NORTH COAST PREMIER SOCCER LTD., AN OHIO LIMITED LIABILITY COMPANY
- 10 CHARLES SCOTT THOMAS SPITZER & MELISSA JEAN SPITZER
- 11 GUILLERMO CARRASCO
- 12 TIMOTHY L. KRATZER & LINDA F. KRATZER
- 13 ERIC DERHAMMER
- 14 ELIZABETH K. HOUSE
- 15 BEACON SOUTH, LLC
- 16 ALBERT G. KEIPER & LINDA L. KEIPER
- 17 NORTHERN OHIO RAILWAY MUSEUM, A NONPROFIT OHIO CORPORATION
- 18 DAVID G. JARVIS & NANCY M. JARVIS
- 19 PIERCE HARDY REAL ESTATE, INC. @ US224
- 20 CSX TRANSPORTATION, INC.
- 21 MARC RANDOLPH
- 22 SCHNEIDER RESOURCES, INC., A WISCONSIN CORPORATION
- 23 CHARLOTTE M. AMHEISER, TRUST, BARBARA J. CHANNEL, TRUSTEE
- 24 LELAND DEVELOPMENT COMPANY, LTD., AN OHIO LIMITED LIABILITY COMPANY
- 25 PEGGY J. CALDREN & DAWN R. CALDREN
- 26 MEDINA SOD FARMS, INC., AN OHIO CORPORATION
- 27 MEDINA SOD FARMS, INC., AN OHIO LIMITED LIABILITY COMPANY



BASIS FOR BEARINGS:
 BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

REV. BY	DATE	DESCRIPTION
JEL	10-10-05	ADDED WORK AGREEMENT TO PARCEL 3
JEL	2-28-05	ADDED OWNER 27
FDS	02-01-05	OWNER'S NAME PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-05-05	CHNG. OWNER'S NAME PAR. 7
JEL	10-27-04	ADDED SERVICE ROAD
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20

DATE COMPLETED SEPTEMBER 29, 2004

* EXISTING LA-RW ACQUIRED BY MED-1-5.66 HIGHWAY PLANS
 ** EXISTING LA-RW ACQUIRED BY MED-224-10.33 & MED-224-16.07 HIGHWAY PLANS

CONVENTIONAL SIGNS

- County Line
- Township Line / Lot Line
- Section Line
- Corporation Line
- Fence Line (existing) - x - x - x (proposed) - x - x - x
- Center Line
- Trees (Pines, Stumps, removals)
- Utility Poles: Telephone, Power, Light
- Storm Sewers
- Sanitary Sewers
- Water Lines
- Gas Lines
- Underground Telephone
- Underground Electric
- Limited Access (only) LA
- Right of Way (only) R/W
- Limited Access & Right of Way LA-R/W
- Exist. Right of Way EX-R/W
- Temp. Right of Way T ESMT
- Slope Easement SL ESMT
- Utility Easement U ESMT
- Property Line (in existing fence) - x - x - x
- Parcel Line
- Railroad
- Guardrail (existing) - o - o - o (proposed) - o - o - o
- Construction Limits

N

HORIZONTAL SCALE IN FEET

STATE JOB NO. **436870**

PID NO. **75657**

PROPERTY MAP (STA. 456+00 TO 565+00)

MED-71-6.06

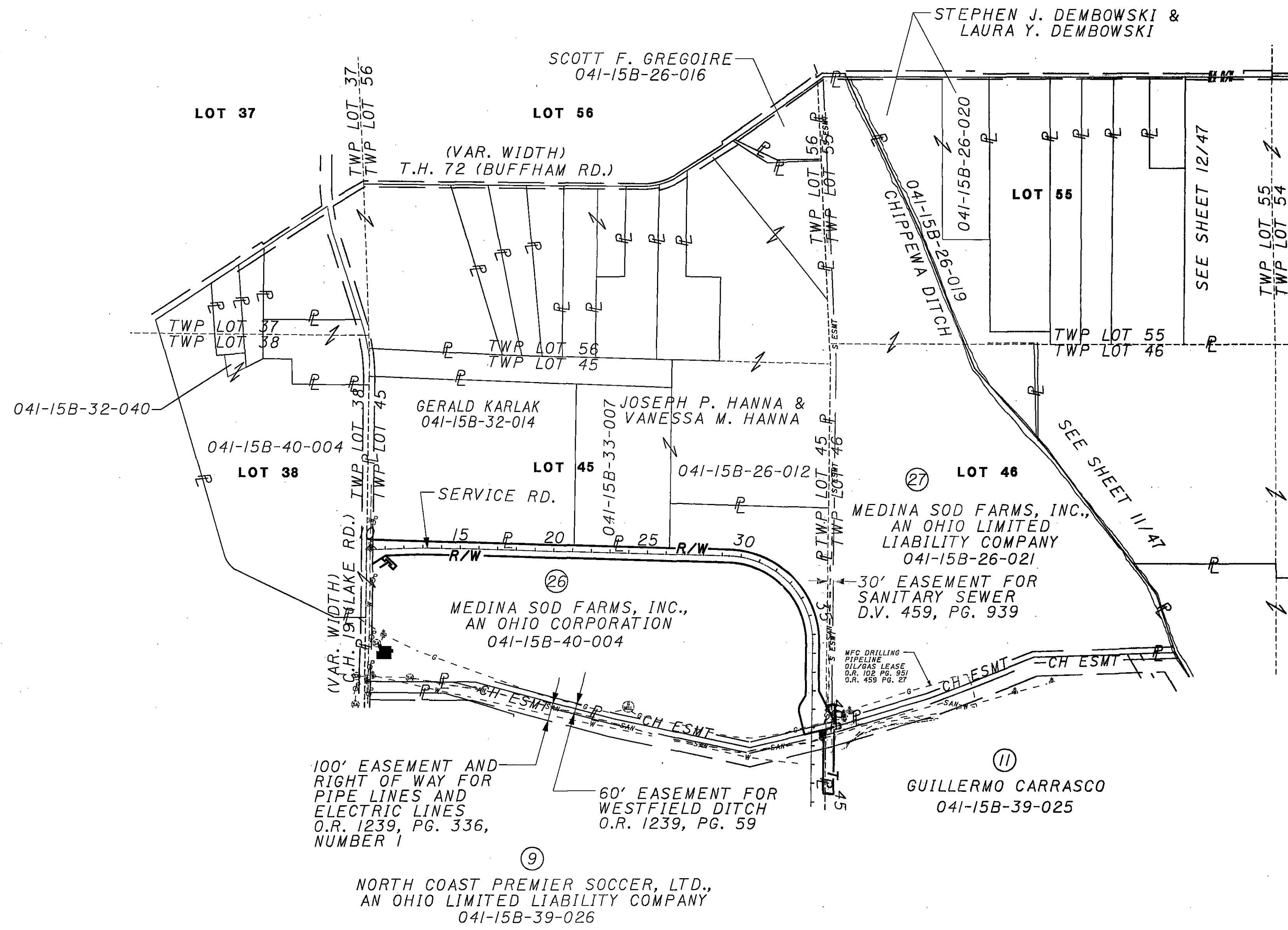
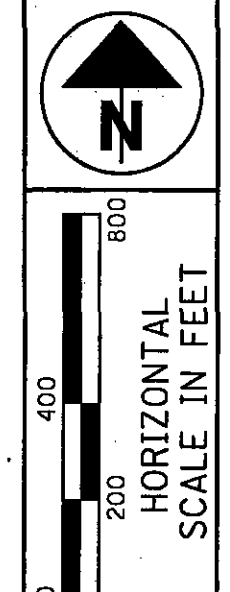
9 / 47

1082

1120

PROJECTWISE:\NPR33412\CADD\75657RMO2.DGN

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOTS 37, 38, 45, 46, 55 & 56 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**



100' EASEMENT AND RIGHT OF WAY FOR PIPE LINES AND ELECTRIC LINES
O.R. 1239, PG. 336, NUMBER 1

60' EASEMENT FOR WESTFIELD DITCH
O.R. 1239, PG. 59

9
NORTH COAST PREMIER SOCCER, LTD.,
AN OHIO LIMITED LIABILITY COMPANY
041-15B-39-026

SEE SHEET 9/47

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

CONVENTIONAL SIGNS

- County Line -----
- Township Line / Lot Line -----
- Section Line -----
- Corporation Line ----- or -----
- Fence Line (existing) * * * (proposed) * * *
- Center Line -----
- Trees (), Pines (), Stumps (), (removals) (X)
- Utility Poles: Telephone (), Power (), Light ()
- Storm Sewers ----- 12" SFW
- Sanitary Sewers ----- 24" SAN
- Water Lines ----- 12" W
- Gas Lines ----- 6" G
- Underground Telephone ----- UGT
- Underground Electric ----- UGE
- Limited Access (only) ----- LA
- Right of Way (only) ----- R/W
- Limited Access & Right of Way ----- LA-R/W
- Exist. Right of Way ----- EX. R/W
- Temp. Right of Way ----- T ESMT
- Slope Easement ----- SL ESMT
- Utility Easement ----- U ESMT
- Property Line ----- (in existing fence) * * *
- Parcel Line -----
- Railroad ----- or -----
- Guardrail (existing) () (proposed) ()
- Construction Limits ----- Construction Limits -----

STATE JOB NO. **436870**

PID NO. **75657**

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

**PROPERTY MAP
(STA. 456+00 TO 565+00)**

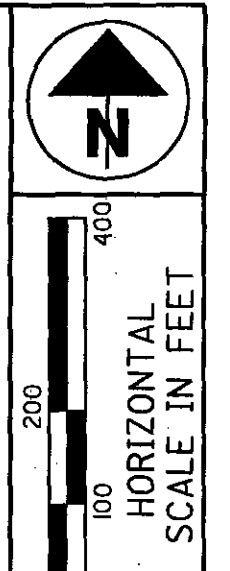
MED-71-6.06

JEL	2-28-05	ADDED OWNER 27
JEL	1-17-05	REVISED SHEET NUMBERS
REV. BY	DATE	DESCRIPTION
DATE COMPLETED	SEPTEMBER 29, 2004	

10 / 47

1083
1120

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOTS 46 & 53 WESTFIELD TOWNSHIP
LOT 1, SECTION 13, GUILFORD TOWNSHIP
VILLAGE OF SEVILLE
LOTS 1 & 2, SECTION 24, GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**



STATE JOB NO. **436870**

PID NO. **75657**

R/W DESIGNER: **LYNN SWYDER**
R/W REVIEWER: **SWYDER**

**PROPERTY MAP
(STA. 504+00 TO 559+00)**

MED-71-6.06

11 / 47
1084
1120

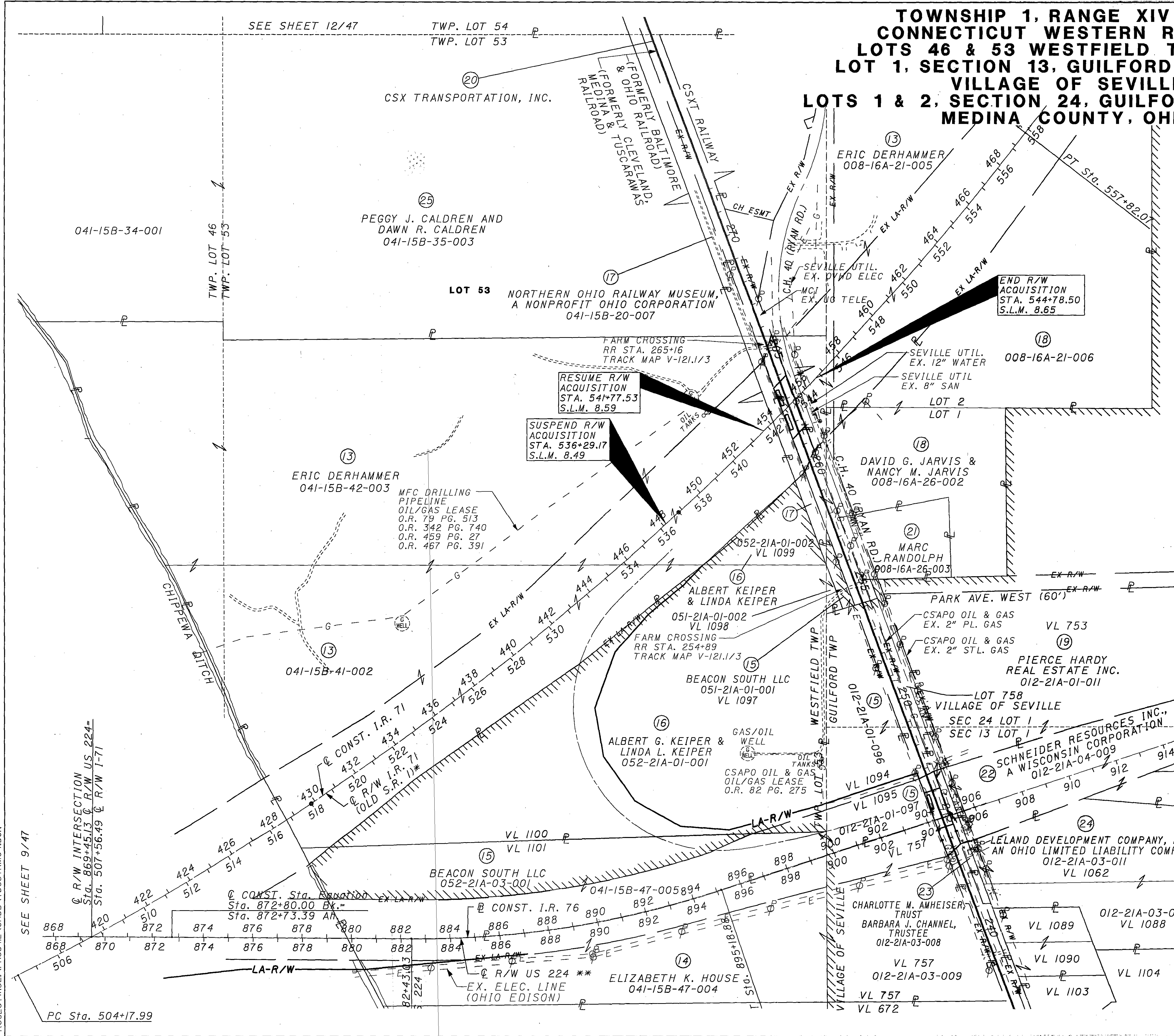
BASIS FOR BEARINGS:
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

- CONVENTIONAL SIGNS**
- County Line
 - Township Line / Lot Line
 - Section Line
 - Corporation Line
 - Fence Line (existing) - * * * (proposed) - * * *
 - Center Line
 - Trees: Pines, Stumps, (removals)
 - Utility Poles: Telephone, Power, Light
 - Storm Sewers - 12" SFM
 - Sanitary Sewers - 24" SAN
 - Water Lines - 12" W
 - Gas Lines - 6" G
 - Underground Telephone - UGT
 - Underground Electric - UGE
 - Limited Access (only) - LA
 - Right of Way (only) - R/W
 - Limited Access & Right of Way - LA-R/W
 - Exist. Right of Way - EX. R/W
 - Temp. Right of Way - T ESMT
 - Slope Easement - SL ESMT
 - Utility Easement - U ESMT
 - Property Line - (in existing fence) - * * *
 - Parcel Line
 - Railroad
 - Guardrail (existing) - (proposed)
 - Construction Limits - Construction Limits

- STRUCTURE KEY**
- RESIDENTIAL
 - COMMERCIAL
 - OUT-BUILDING

* EXISTING LA-RW ACQUIRED BY MED-1-5.66 HIGHWAY PLANS
** EXISTING LA-RW ACQUIRED BY MED-224-10.33 & MED-224-16.07 HIGHWAY PLANS

REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	10-13-04	CHNG. OWNER'S NAME PAR. 20
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20
DATE COMPLETED		SEPTEMBER 29, 2004




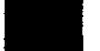

PROJECTWISE:\PR33412\CADD\75657RMO4.DGN
SEE SHEET 9/47

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOTS 54, 55 & 59 WESTFIELD TOWNSHIP
LOT 2, SECTION 24, GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**





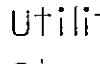

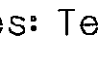
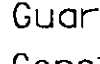

BASIS FOR BEARINGS:

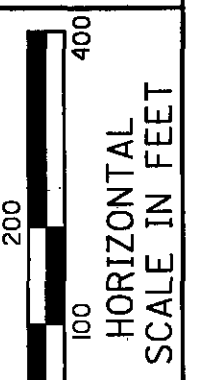
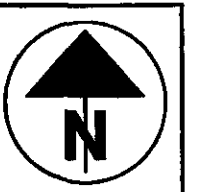
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

-  RESIDENTIAL
-  COMMERCIAL
-  OUT-BUILDING

CONVENTIONAL SIGNS

- County Line -----
- Township Line / Lot Line -----
- Section Line -----
- Corporation Line ----- or -----
- Fence Line (existing) *-*-* (proposed) *-*-*
- Center Line -----
- Trees , Pines , Stumps , (removals) 
- Utility Poles: Telephone , Power , Light 
- Storm Sewers ----- 12" S.F.W. -----
- Sanitary Sewers ----- 24" S.A.W. -----
- Water Lines ----- 12" W. -----
- Gas Lines ----- 6" G. -----
- Underground Telephone ----- UGT -----
- Underground Electric ----- UGE -----
- Limited Access (only) ----- LA -----
- Right of Way (only) ----- R/W -----
- Limited Access & Right of Way ----- LA-R/W -----
- Exist. Right of Way ----- EX. R/W -----
- Temp. Right of Way ----- T ESMT -----
- Slope Easement ----- SL ESMT -----
- Utility Easement ----- U ESMT -----
- Property Line ----- (in existing fence) *-*-*
- Parcel Line -----
- Railroad ----- or -----
- Guardrail (existing)  (proposed) 
- Construction Limits ----- Construction Limits -----



STATE JOB NO.
436870

PID NO.
75657

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

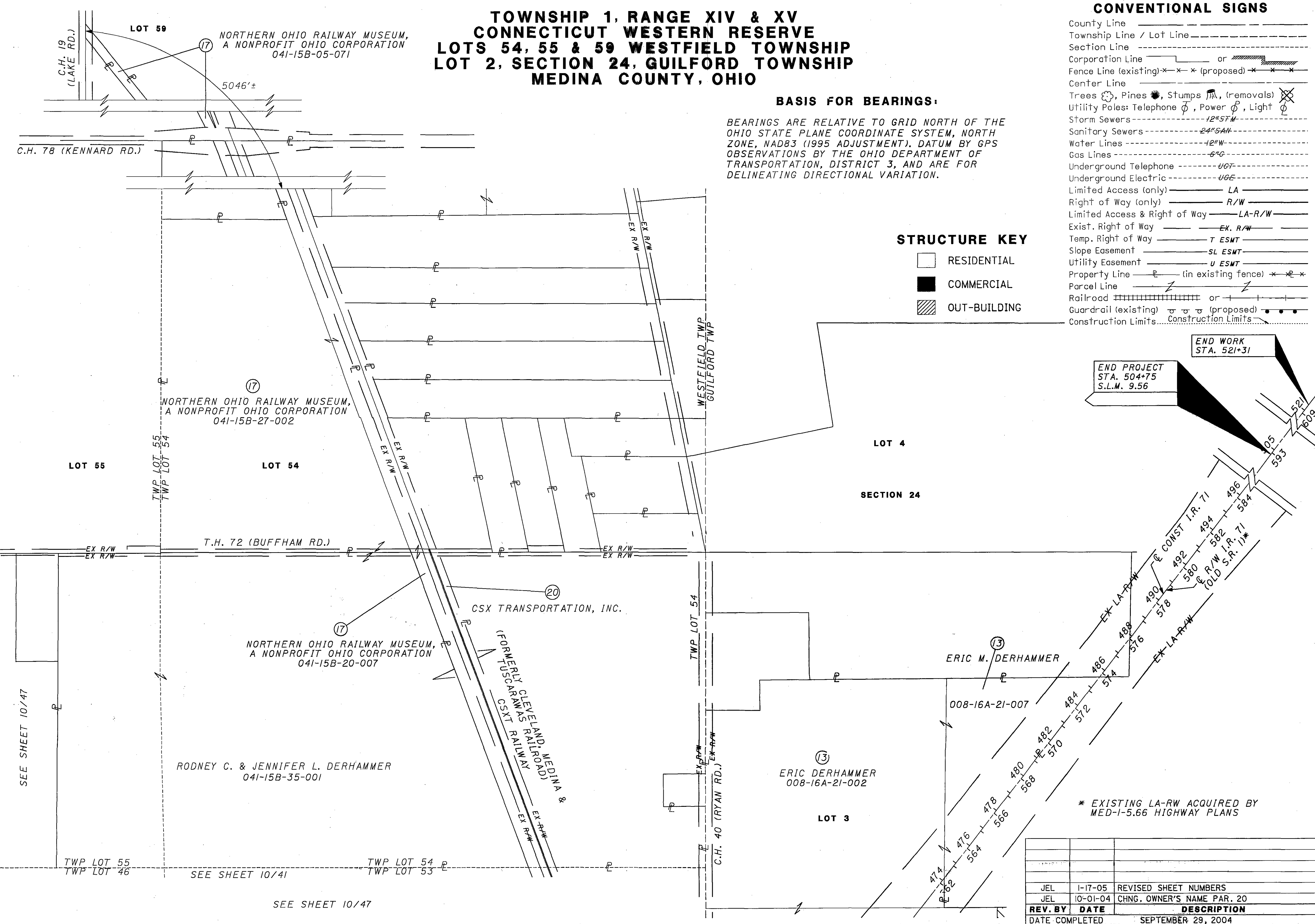
**PROPERTY MAP
(STA. 562+00 TO 609+00)**

MED-71-6.06

12 / 47

1085
1120

REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20
DATE COMPLETED		SEPTEMBER 29, 2004



PROJECTWISE:\PR3341\NCADD\75657RMO5.DGN

TOTAL NUMBER OF :

12 OWNERSHIPS
33 PARCELS
2 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE: TO BE ACQUIRED IN THE NAME OF THE STATE OF OHIO, UNLESS INDICATED OTHERWISE

1 / 3

ALL AREAS IN ACRES

* DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	DOCUMENT OF RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
											LEFT	RIGHT			BOOK	PAGE
1	DAVID A. RIEDEL AND LEHANNA B. RIEDEL	8,16	O.R. 521 PG. 689	041-15D-02-015	21.0587	5.1692 S					15.8895	-	STATE	NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOT 39		
		8	O.R. 111 PG. 878	041-15D-02-004	24.8550	6.5774 S					18.2776	-				
		8	20010R015537	041-15D-02-005	0.9850	0.2193 S					0.7657	-				
	GRAND TOTAL				46.8987	11.9659 S					34.9328	-				
2	MICHAEL L. SHIVERDECKER AND KIM A. SHIVERDECKER	8,16	O.R. 509 PG. 203	041-15D-02-010	10.8063	3.9298 S					-	6.8765		NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOT 39		
		8	D.V. 461 PG. 433	041-15D-02-009	1.3600	0.1991 S					-	1.1609				
	GRAND TOTAL				12.1663	4.1289 S					-	8.0374				
3WL	DANIEL R. TREIN	9,16,17	D.V. 367 PG. 504	041-15D-02-017	6.3750	0.6635	0.5282	0.0830	0.4452		5.2663	-		WESTFIELD TOWNSHIP, LOT 44, 115 L.F. FENCE		
			O.R. 1007 PG. 385													
		8,16	D.V. 501 PG. 494	041-15D-02-018	2.5620	0.0000	0.0000	0.0000	0.0000		2.5620	-		WESTFIELD TOWNSHIP, LOT 39		
	GRAND TOTAL		O.R. 1007 PG. 387		8.9370	0.6635	0.5282	0.0830	0.4452		7.8283	-				
3WA		9,16,17	D.V. 367 PG. 504	041-15D-02-017	6.3750						0.5366			TO PERMIT ACCESS TO PLACE FILL MATERIAL		
			O.R. 1007 PG. 385													
4	MDR PROPERTY GROUP, LLC, AN OHIO LIMITED LIABILITY COMPANY	9,16,17,18	20040R021963	041-15D-03-001	121.8197	13.6331						108.1866		NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOTS 44 & 47		
		9,16		041-15D-02-019	12.2240	2.7263						9.4977		WESTFIELD TOWNSHIP, LOT 39		
	GRAND TOTAL				134.0437	16.3594						117.6843				
5	PHILIP P. RICCIARDI AND PRESTON P. RICCIARDI	9,17	O.R. 171 PG. 173	041-15B-44-010	11.7460	0.5276					11.2184			NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOT 45		
6WL	GLEN E. ZUBER AND BARBARA ANN ZUBER	9,18	D.V. 346 PG. 94	041-15B-50-002	13.0380	6.1722	8.5385	5.5527	2.9858	YES	-	3.8800		WESTFIELD TOWNSHIP, LOTS 45 & 46, TO REMOVE SILO & RUIN		
6T		9,18						0.2057			0.2057			TO REMOVE 3-STORY BARN RUIN, 2-STORY FRAME SHED, RUIN, RUIN - 6 MONTHS		
7WL	OMNI-WESTFIELD, LLC, AN OHIO LIMITED LIABILITY COMPANY	9,17,19,22,31,34	20040R049545	041-15B-50-001	52.2077	22.4020	39.5514	22.3615	17.1899		12.6158	-		WESTFIELD TOWNSHIP, LOT 44 & 45		
		9,31	20040R049545	041-15B-44-009	15.0000	0.3132*	0.0000	0.0000	0.0000		14.6868	-		WESTFIELD TOWNSHIP, LOT 45		
	GRAND TOTAL				67.2077	22.7152	39.5514	22.3615	17.1899		27.3026	-				
8WL	THE MEYERS FAMILY TRUST, MARION E. MEYERS	9,18,19,21,22,34,36	20040R036053	041-15B-50-004	20.5141 C	17.3596	17.7705	17.1446	0.6259		-	2.5286		WESTFIELD TOWNSHIP, LOT 46 & 47		
8WL-1	AND REBECCA J. MEYERS, TRUSTEES	9,18	20040R036053	041-15B-50-003	1.0800	0.0815	0.2068	0.0000	0.2068		-	0.7917		WESTFIELD TOWNSHIP, LOT 47		
	GRAND TOTAL				21.5941 C	17.4411	17.9773	17.1446	0.8327		-	3.3203				
9WL	NORTH COAST PREMIER SOCCER, LTD., AN OHIO LIMITED LIABILITY COMPANY	9,31,33	20020R035598	041-15B-39-026	43.5140	0.0393	5.2523	0.0000	5.2523		38.2617	-		WESTFIELD TOWNSHIP, LOT 45, REMOVE WATER WELL. OIL, GAS, MINERAL, WATER RIGHTS RESERVED BY MEDINA SOD FARMS.		
9T		9,10,32					0.0923		0.0923					TO CONSTRUCT DRIVE - 6 MONTHS		
9UV		9,10,32					0.0192		0.0192					TO RELOCATE SANITARY SEWER		
														SANITARY SEWER EASEMENT ACQUIRED IN THE NAME OF BOARD OF COMMISSIONERS OF MEDINA COUNTY		
10	CHARLES SCOTT THOMAS SPITZER AND MELISSA JEAN SPITZER	9	20000R030051	041-15B-50-005	3.0000	0.1853						2.8147		NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOT 47		
													STATE			

FEDERAL PROJECT NO. 75657
 PID NO. 75657
 STATE JOB NO. 436870
 R/W DESIGNER LYNN
 R/W REVIEWER SNYDER
 SUMMARY OF ADDITIONAL RIGHT OF WAY OWNERSHIP 1 THRU 10
 MED-71-6.06
 13 / 47
 1086
 1120

O.R. = OFFICIAL RECORD
D.V. = DEED VOLUME

C = CALCULATED
S = CALCULATED FROM SCALED GEOMETRY
* AREA REVISED BASED ON DETERMINATION BY JEK

NOTE: THE ACTIVE DURATION OF TEMPORARY EASEMENTS WILL BE AS NOTED UNDER REMARKS

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

JEL	10-10-05	ADDED PARCEL 3WA
JEL	8-26-05	ADDED PARCEL 9UV
JEL	4-15-05	REV PRO ON PAR 7WL AS PER JEK
JEL	2-28-05	ADDED PARCEL 9T
FDS	2-08-05	OWNER NAME PAR. 8, LOCATION PAR. 7 REMARK
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-05-05	CHNG. OWNER'S NAME PAR. 7
JEL	11-01-04	CHNG. TAKE ACREAGE ON PAR. 9WL
JEL	10-11-04	CHNG. OWNER'S NAME PAR. 8
REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY		J. LYNN
DATE		9/24/04
OWNERSHIP VERIFIED BY		J. LYNN
DATE		1/04/05
DATE COMPLETED		SEPTEMBER 29, 2004

TOTAL NUMBER OF :

- OWNERSHIPS
- PARCELS
- TOTAL TAKES
- OWNERSHIPS WITH STRUCTURES INVOLVED
- OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE: TO BE ACQUIRED IN THE NAME OF THE STATE OF OHIO, UNLESS INDICATED OTHERWISE

2 / 3

ALL AREAS IN ACRES

* DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	DOCUMENT OF RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
											LEFT	RIGHT			BOOK	PAGE
I1WL	GUILLERMO CARRASCO	9,11,23,24,31,33,35,37	2003OR005027	041-15B-39-025	130.4187	36.5983	41.1978	36.5668	4.6310	YES			STATE	LAND LOCKED 83.6454 AC. WITH STRUCTURES, WESTFIELD TOWNSHIP, LOTS 45, 46 & 53, REMOVE CONCRETE BLOCK BUILDING AND WATER WELL. OIL GAS, MINERAL, WATER RIGHTS RESERVED BY MEDINA SOD FARMS		
I1EL		9,29,30,31,33					5.1259	0.0316	5.0943					PRIVATE GAS LINE (AT CULVERT) TO BE REL. BY OTHERS TO RECONSTRUCT DRIVE - 6 MONTHS		
	GRAND TOTAL						46.3237	36.5984	9.7253							
IIT		9,32					0.3725		0.3725							
I2WL	TIMOTHY L. KRATZER AND LINDA F. KRATZER	9,21,22,23,36,37	2000R020031	041-15B-51-014	138.8000	23.7074	33.3956	23.1429	10.2527					WESTFIELD TOWNSHIP, LOTS 46, 47 & 53		
		9	O.R. 1288 PG. 62	041-15B-51-011	1.7897	0.2220	0.0000	0.0000	0.0000					WESTFIELD TOWNSHIP, LOT 47		
	GRAND TOTAL				140.5897	23.9294	33.3956	23.1429	10.2527							
13	ERIC DERHAMMER	11,25,26	O.R. 843 PG. 540	041-15B-42-003	53.8710	9.5173 S								NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOTS 46 & 53		
		11,25,26	O.R. 843 PG. 540	041-15B-41-002	28.1607	13.7635 S								WESTFIELD TOWNSHIP, LOTS 46 & 53		
		11,26,28	O.R. 843 PG. 540	008-16A-21-005	20.1770	13.0582 S								GUILFORD TOWNSHIP, LOT 2, SECTION 24		
		11,28	O.R. 843 PG. 540	008-16A-21-002	25.1390	1.5536 S								GUILFORD TOWNSHIP, LOT 3, SECTION 24		
	AKA ERIC M. DERHAMMER	11	O.R. 1308 PG. 889	008-16A-21-007	7.3243	3.5364 S								GUILFORD TOWNSHIP, LOT 3, SECTION 24		
	GRAND TOTAL				134.6720	41.4290 S										
14	ELIZABETH K. HOUSE	11,37,38	2003OR018085	041-15B-47-004	16.0272	4.2269								NO R/W REQUIRED, WESTFIELD TOWNSHIP LOT 53		
		11,38,39,40	2003OR018086	012-21A-03-009	9.2531	1.5307								GUILFORD TOWNSHIP, SEVILLE VILLAGE LOT 757, LOT 1, SECTION 13		
	GRAND TOTAL				25.2803	5.7576										
15	BEACON SOUTH, LLC	11	2003OR019044	051-21A-01-001	0.3337	0.0000	0.0000	0.0000	0.0000					V.L. 1097, ORIGINAL GUILFORD TOWNSHIP, LOT 1, SECTION 24		
15WL		11,38,39,40	2003OR019042	012-21A-01-096	4.5014	0.0000	0.2239	0.0000	0.2239					VILLAGE LOT 1094		
15WL-1		11,38,39,40	2003OR019042	012-21A-01-097	1.7666 C	1.7666	1.7666	1.7666	0.0000					VILLAGE LOT 1095, RECORD AREA - 1.7955 AC. (TOTAL TAKE)		
15WL-2		11,24,37,38	2003OR019043	052-21A-03-001	6.9685 C	0.0000	6.9685	0.0000	6.9685					V.L. 1101, ORIG. WESTFIELD TWP., LOT NO. 53, REC. AREA - 7.1289 AC. (TOTAL TAKE)		
15WL-3		11,24,37,38	2003OR019043	041-15B-47-005	7.3872 C	7.3872	7.3872	7.3872	0.0000					WESTFIELD TWP., LOT 53, RECORD AREA - 7.4897 AC. (TOTAL TAKE)		
	GRAND TOTAL				20.9574	9.1538	16.3462	9.1538	7.1924					VILLAGE LOTS 1094, 1095 & 1101 INCL. IN INST. 2004PL000081		
16WL	ALBERT G. KEIPER AND LINDA L. KEIPER	11,24,25,37,38	O.R. 242 PG. 430	052-21A-01-001	30.9193	0.3315	12.3876	0.3315	12.0561					WESTFIELD TWP., LOT 53, & PART OF GUILFORD TWP., LOT 1, SEC 24, V.L. 1100		
	AKA ALBERT KEIPER AND LINDA KEIPER	11,25,26	O.R. 826 PG. 491	052-21A-01-002	1.8790	0.0000	0.0000	0.0000	0.0000					WESTFIELD TOWNSHIP, LOT 53, SEVILLE V.L. 1099		
	GRAND TOTAL	11	O.R. 242 PG. 430	051-21A-01-002	0.1501	0.0000	0.0000	0.0000	0.0000					WESTFIELD TWP., LOT 53, & PART OF GUILFORD TWP., LOT 1, SEC 24, V.L. 1098		
					32.9484	0.3108	12.3102	0.3108	11.9994					O.R. 242 PG. 30 INCLUDES RIGHTS OF GRANTORS TO CROSS RR R/W & OTHER LANDS AS MEANS OF INGRESS & EGRESS TO & FROM C.H. 40		
														VILLAGE LOTS 1098, 1099 & 1100 INCL. IN INST. 2004PL000081		
17	NORTHERN OHIO RAILWAY MUSEUM, A NONPROFIT OHIO CORPORATION	11,12,26,27	O.R. 72 PG. 109	041-15B-20-007	7.1200	0.5701 S								NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOTS 53 & 54		
		12	O.R. 72 PG. 109	041-15B-05-071	3.924	0.1664 S								PL. 23, PG. 185, WESTFIELD TOWNSHIP LOTS 59 & 60		
	GRAND TOTAL	12	O.R. 208 PG. 1	041-15B-27-002	29.3839	0.4358 S								WESTFIELD TOWNSHIP, LOT 54		
					40.4279	1.1723 S										
18	DAVID G. JARVIS AND NANCY M. JARVIS	11,26	O.R. 362 PG. 869	008-16A-26-002	7.5962	0.0754 S								NO R/W REQUIRED, GUILFORD TOWNSHIP, LOT 1, SECTION 24		
		11,26,28	O.R. 822 PG. 746	008-16A-21-006	20.0000	0.0000								ORIGINAL GUILFORD TOWNSHIP, LOTS 1 & 2, SECTION 24		
	GRAND TOTAL				27.5962	0.0754 S										
													STATE			

FEDERAL PROJECT NO.

PID NO. 75657

STATE JOB NO. 436870

R/W DESIGNER LYNN R/W REVIEWER SNYDER

SUMMARY OF ADDITIONAL RIGHT OF WAY OWNERSHIP 11 THRU 18

MED-71-6.06

14 / 47

1087 1120

O.R. = OFFICIAL RECORD
D.V. = DEED VOLUME
C = CALCULATED
S = CALCULATED FROM SCALED GEOMETRY

NOTE: THE ACTIVE DURATION OF TEMPORARY EASEMENTS WILL BE AS NOTED UNDER REMARKS

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

JEL	10-20-05	REMOVED PAR IIT-1
JEL	5-05-05	REV. TAKE FOR PAR. IIT
JEL	3-02-05	REV. PRO FOR PAR. II
JEL	3-02-05	REV. AREAS ON 15WL-2, 15WL-3, & 16WL
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-07-05	SPLIT PAR 15WL-1 AND REV PRO
JEL	12-17-04	ADDED PARCEL I1EL
JEL	11-01-04	CHNG. TAKE & PRO ACREAGE ON PAR. I1WL
JEL	10-12-04	ADDED PLAT INFO TO PAR. 15 & 16
JEL	10-01-04	CHNG. TAKE ACREAGE ON PAR. I2WL
REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY	J. LYNN	DATE: 9/24/04
OWNERSHIP VERIFIED BY	J. LYNN	DATE: 1/04/05
DATE COMPLETED	SEPTEMBER 29, 2004	

PROJECTWISE: NFR334\IN\CADD\75657RSOL.DGN

TOTAL NUMBER OF :

- OWNERSHIPS
- PARCELS
- TOTAL TAKES
- OWNERSHIPS WITH STRUCTURES INVOLVED
- OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE: TO BE ACQUIRED IN THE NAME OF THE STATE OF OHIO, UNLESS INDICATED OTHERWISE

3 / 3

ALL AREAS IN ACRES

* DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	DOCUMENT OF RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
											LEFT	RIGHT			BOOK	PAGE
19	PIERCE HARDY REAL ESTATE, INC.	11,39	O.R. 659 PG. 130	012-21A-01-011	15.2572	0.2180 S						15.0392	STATE	NO R/W REQUIRED, PL. 24 PG. 158, SEVILLE VILLAGE LOT 753, SECTION 24, LOT 1, SECTION 13, LOT 1		
20SH-1	CSX TRANSPORTATION, INC.	11,12,26,27	D.V. 44 PG. 209	NONE	3.0906 C	0.0000	0.0195	0.0000	0.0195					RECORD AREA IS FOR WESTFIELD TOWNSHIP, LOT 53		
20SH-2		11,12,26,27					0.0195	0.0000	0.0195							
20SH-3		11,12,26,27					0.0053	0.0000	0.0053							
20SH-4		11,12,26,27					0.0053	0.0000	0.0053							
	TOTAL						0.0496	0.0000	0.0496			3.0410				
20SH-5		11,12,39,40			5.4299 C	0.0000	0.0160	0.0000	0.0160					RECORD AREA IS FOR GUILFORD TWP., SEC. 24, LOT 1, & SEC. 13, LOT 1		
20SH-6		11,12,39,40					0.0028	0.0000	0.0028							
	TOTAL						0.0188	0.0000	0.0188			5.4111				
	GRAND TOTAL				8.5205 C	0.0000	0.0684	0.0000	0.0684			3.0410	5.4111			
20A-1		11,12,26,27					0.3352		0.3352							
20A-2		11,12,39,40					0.2358		0.2358							
20T-1		11,12,26,27					0.8002		0.8002					TO CONST. I-71 BRDG. OVER CSXT & RYAN RD. - 2 YR.		
20T-2		11,12,39,40					0.4928		0.4928							
21	MARC RANDOLPH	11	O.R. 1118 PG. 883	008-16A-26-003	2.7200	0.3701 S						2.3499		NO R/W REQUIRED, GUILFORD TOWNSHIP, LOT 1, SECTION 24		
22	SCHNEIDER RESOURCES, INC., A WISCONSIN CORPORATION	11,39,40	O.R. 1121 PG. 67	012-21A-04-009	65.6897	8.0627 S						57.6270		NO R/W REQUIRED, 2001P000064, SEVILLE VILLAGE LOT 1095, GUILFORD TOWNSHIP, LOT 1, SECTION 13		
23	CHARLOTTE M. AMHEISER, TRUST, BARBARA J. CHANNEL, TRUSTEE	11,39,40	20030R019041	012-21A-03-008	0.2673	0.2673 S						0.0000		NO R/W REQUIRED, GUILFORD TOWNSHIP, SEVILLE VILLAGE LOT 757, LOT 1, SECTION 13		
24	LELAND DEVELOPMENT COMPANY, LTD., AN OHIO LIMITED LIABILITY COMPANY	11,39	20010R018205	012-21A-03-011	6.3907	0.1315 S						6.2592		NO R/W REQ., 2002P000093, GUILFORD TWP., SEVILLE V.L. 1062, LOT 1, SEC. 13		
	GRAND TOTAL	11		012-21A-03-016	4.0517	0.0710 S						3.9807		GUILFORD TOWNSHIP, SEVILLE VILLAGE LOT 1088, LOT 1, SECTION 13		
					10.4424	0.2025 S						10.2399		GUILFORD TOWNSHIP, SEVILLE VILLAGE LOT 1091, LOT 1, SECTION 13		
25	PEGGY J. CALDREN AND DAWN R. CALDREN	11	20040R017477	041-15B-34-001	31.7500	0.0000						31.7500		NO R/W REQUIRED, WESTFIELD TOWNSHIP, LOT 46		
	GRAND TOTAL	11,26	20040R017478	041-15B-35-003	66.4400	4.0306 S						62.4094		WESTFIELD TOWNSHIP, LOT 53		
					98.1900	4.0306 S						94.1594				
26WDV	MEDINA SOD FARMS, INC., AN OHIO CORPORATION	9,10,29,32,41,42	D.V. 447 PG. 381	041-15B-40-004	81.8788	1.5976	5.4303	0.0988	5.3315			74.9497		WESTFIELD TOWNSHIP LOTS 37, 38 & 45 SERVICE ROAD ACQUIRED IN THE NAME OF MEDINA COUNTY RESIDUE INCL. 6.4274 AC NE OF SERVICE RD, 42.2399 AC SW, AND THE REMAINDER WEST OF LOT LINE		
26T		9,10,41					0.0472		0.0472					TO EXCAVATE DRAINAGE DITCH - 6 MONTHS		
27WDV	MEDINA SOD FARMS, INC., AN OHIO LIMITED LIABILITY COMPANY	9,10,29,32,42	20030R030947	041-15B-26-021	71.4493	0.1202	0.0853	0.0000	0.0853			71.2438		WESTFIELD TOWNSHIP LOTS 46 & 55 SERVICE ROAD ACQUIRED IN THE NAME OF MEDINA COUNTY PRIVATE GAS LINE (AT CULVERT) TO BE REL. BY OTHERS		
27T		9,10,32					0.0676		0.0676					TO CONSTRUCT DRIVE - 6 MONTHS		
													STATE			

FEDERAL PROJECT NO. 75657
 PID NO. 75657
 STATE JOB NO. 436870
 R/W DESIGNER LYNN
 R/W REVIEWER SNYDER
 SUMMARY OF ADDITIONAL RIGHT OF WAY OWNERSHIP 19 THRU 26
 MED-71-6.06
 15 / 47

O.R. = OFFICIAL RECORD
 D.V. = DEED VOLUME
 C = CALCULATED
 S = CALCULATED FROM SCALED GEOMETRY

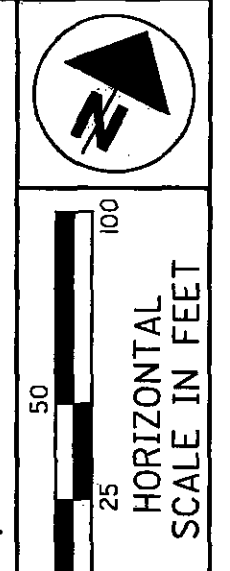
NOTE: THE ACTIVE DURATION OF TEMPORARY EASEMENTS WILL BE AS NOTED UNDER REMARKS

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

JEL	5-05-05	REV TAKE FOR 27T
JEL	4-22-05	REV TAKE FOR 20T-1
JEL	4-22-05	REV PRO & TAKE FOR 26WDV
JEL	1-17-05	ADDED INFO FOR PAR 26WDV, 27WDV 26T & 27T
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-05-05	DELETED ONE PARCEL FROM OWNER 24
JEL	10-04-04	CHNG. INSTRUMENT LOCATION ON PAR. 20
JEL	10-01-04	CHNG. OWNER'S NAME ON PAR. 20
REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY	J. LYNN	DATE: 9/24/04
OWNERSHIP VERIFIED BY	J. LYNN	DATE: 1/04/05
DATE COMPLETED	SEPTEMBER 29, 2004	

PROJECTWISE:\PR3341\CADD\75657R50.DGN

TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 39 & 44 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO



PID. NO. **75657**
R/W DESIGNER: LYNN
R/W REVIEWER: SMYDER

RIGHT OF WAY PLAN
I-71 R/W STA. 448+50 TO 460+00

MED-71-6.06
16 / 47
1089
1120

OHIO FARMERS INSURANCE CO.
044-22A-10-013
75.2824 AC.
6500 Greenwich Road
Golf Course

1
DAVID A. RIEDEL AND
LEHANNA B. RIEDEL
041-15D-02-015
21.0587 AC.
6140 Greenwich Road
Cultivated

3
DANIEL R. TREIN
041-15D-02-018
2.562 AC.
6006 Greenwich Road
Residence/Horse Stables

WILLIAM D. SMITH
041-15D-07-003
22.0652 AC.
No Address
Vacant

2
MICHAEL L. SHIVERDECKER
AND KIM A. SHIVERDECKER
041-15D-02-010
10.8063 AC.
9211 Daniels Road
Farm

4
MDR PROPERTY GROUP, LLC,
AN OHIO LIMITED LIABILITY COMPANY
041-15D-02-019
12.224 AC.
5886 Greenwich Road
Golf Course

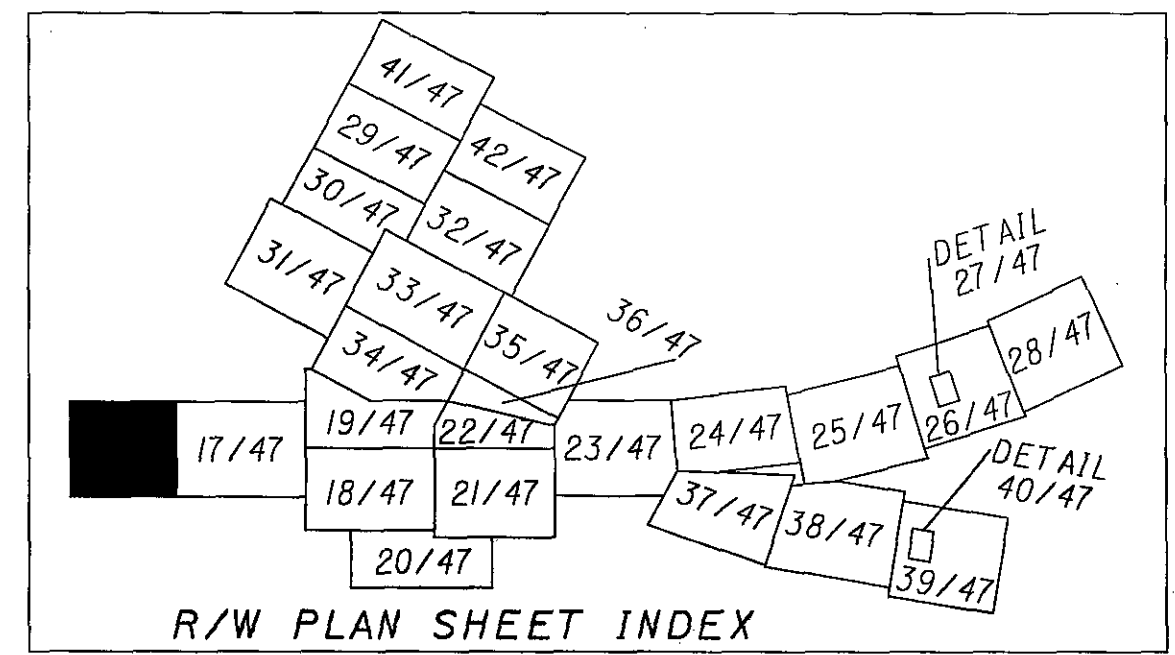
041-15D-03-001
121.8197 AC.
5886 Greenwich Road
Golf Course

MONUMENT LEGEND

- ▭ EXISTING R/W MONUMENT BOX
- ▭ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊗ RAILROAD SPIKE SET
- I.R.P.F. IRON PIN FOUND
- I.R.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG
- REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.R.P.F. IRON PIPE FOUND
- I.R.P.S. IRON PIPE SET
- R.K.S. P.K. NAIL FOUND
- R.K.S. P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

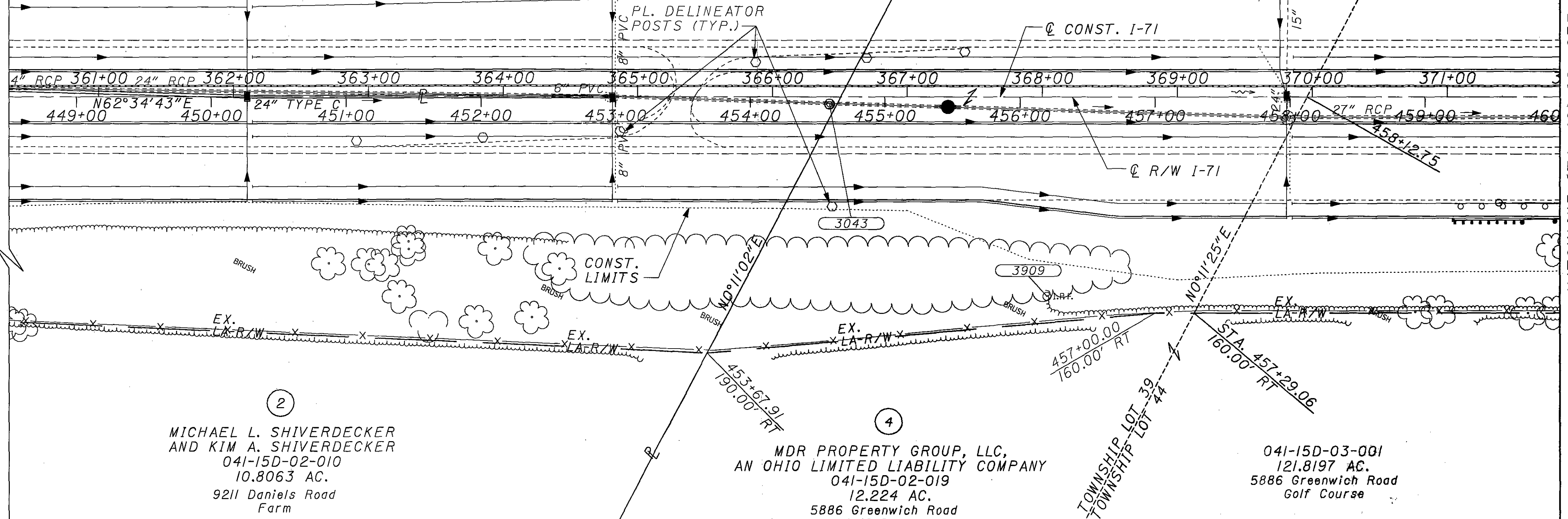


BEGIN WORK
STA. 300+21

BEGIN PROJECT
STA. 320+00
S.L.M. 6.06

320+00 321+00
408+00 409+00
320+00 321+00
449+00 450+00
363+00 364+00
365+00 366+00
367+00 368+00
369+00 370+00
371+00 372+00
451+00 452+00
453+00 454+00
455+00 456+00
457+00 458+00
459+00 460+00

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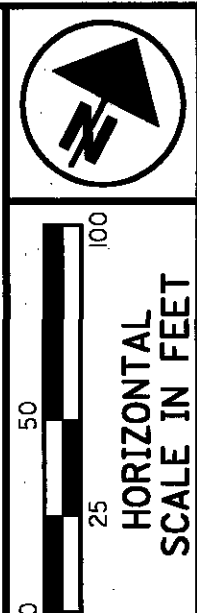


MATCHLINE STA. 460+00 SEE SHEET 17/47

PROJECTWISE: \PR33412\CADD\75657RPO1.DGN

REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
DATE COMPLETED		SEPTEMBER 29, 2004

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 44 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**



PID NO. **75657**

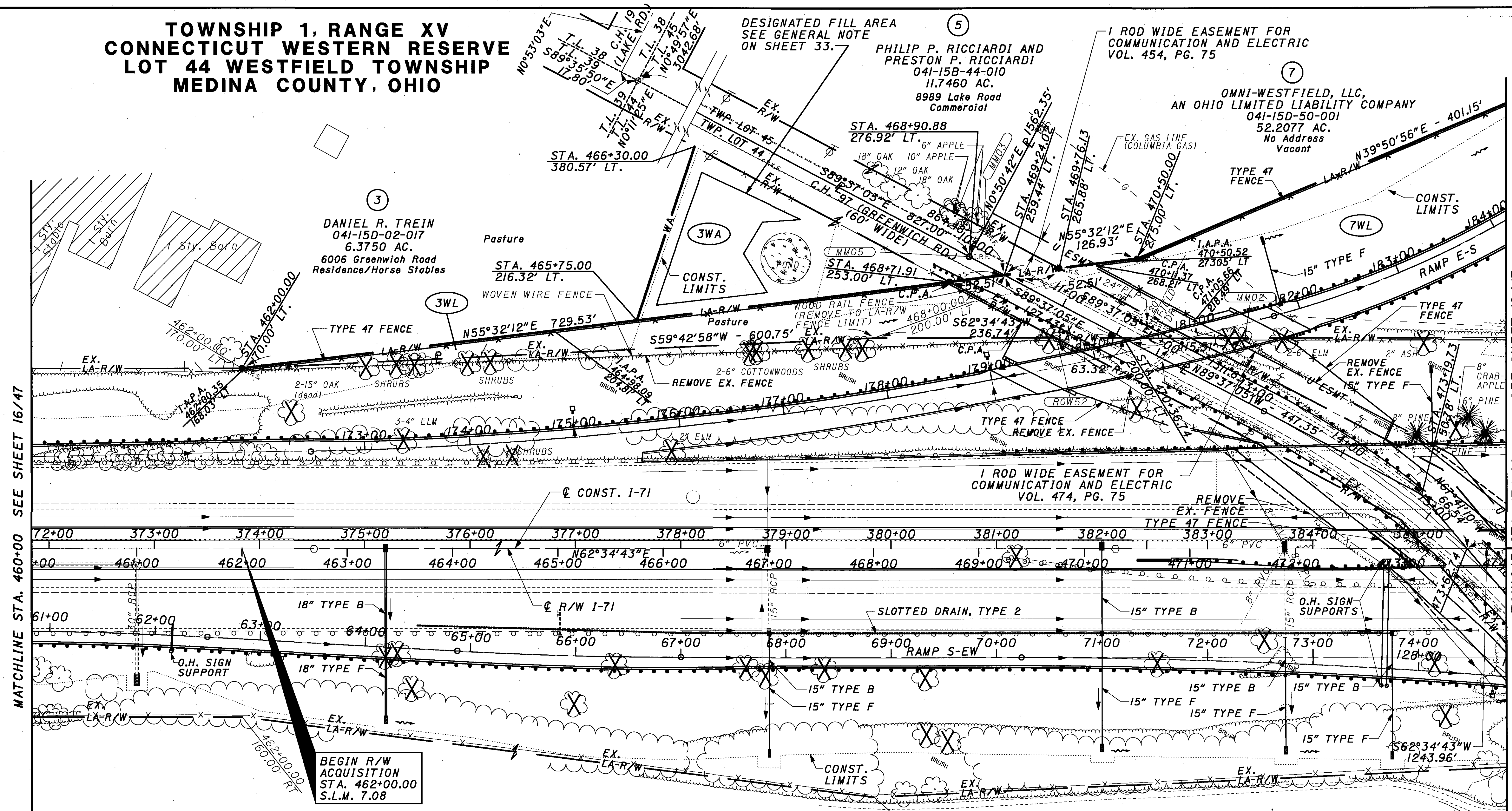
R/W DESIGNER
L/WN
R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
I-71 R/W STA. 460+00 TO 474+00**

MED-71-6.06

17 / 47

1090
1120



MATCHLINE STA. 460+00 SEE SHEET 16/47

MATCHLINE STA. 474+00 SEE SHEET 19/47

3
DANIEL R. TREIN
041-15D-02-017
6.3750 AC.
6006 Greenwich Road
Residence/Horse Stables

5
**PHILIP P. RICCIARDI AND
PRESTON P. RICCIARDI**
041-15B-44-010
11.7460 AC.
8989 Lake Road
Commercial

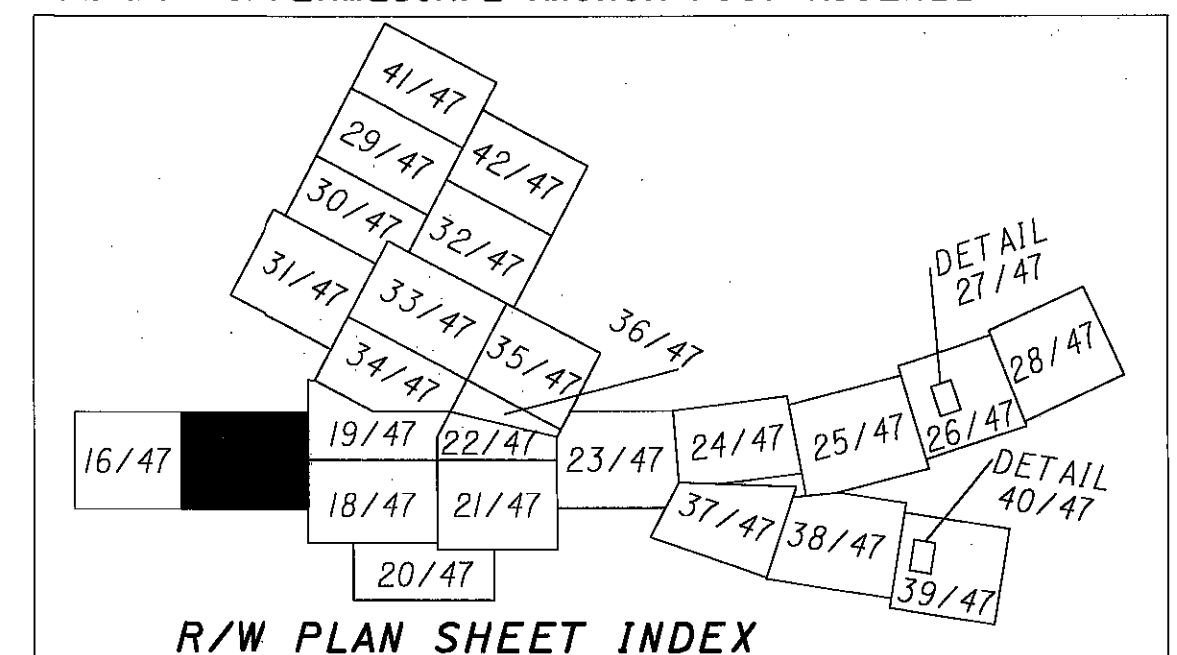
7
**OMNI-WESTFIELD, LLC,
AN OHIO LIMITED LIABILITY COMPANY**
041-15D-50-001
52.2077 AC.
No Address
Vacant

4
**MDR PROPERTY GROUP, LLC,
AN OHIO LIMITED LIABILITY COMPANY**
041-15D-03-001
121.8197 AC.
5886 Greenwich Road
Golf Course

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊕ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- D.I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. - CORNER FENCE ASSEMBLY
I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY



MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW52	3/4" I. PIPE	S78°20'50"E 1.30'	469+73.43	199.18' LT
MM02	1. PIN CAPPED "CE DEIBEL 6673"	N62°47'10"E 51.19'	471+52.25	199.81' LT
MM03	5/8" I. PIN		469+05.11	303.62' LT
MM05	5/8" I. PIN		468+90.88	276.92' LT

STRUCTURE KEY

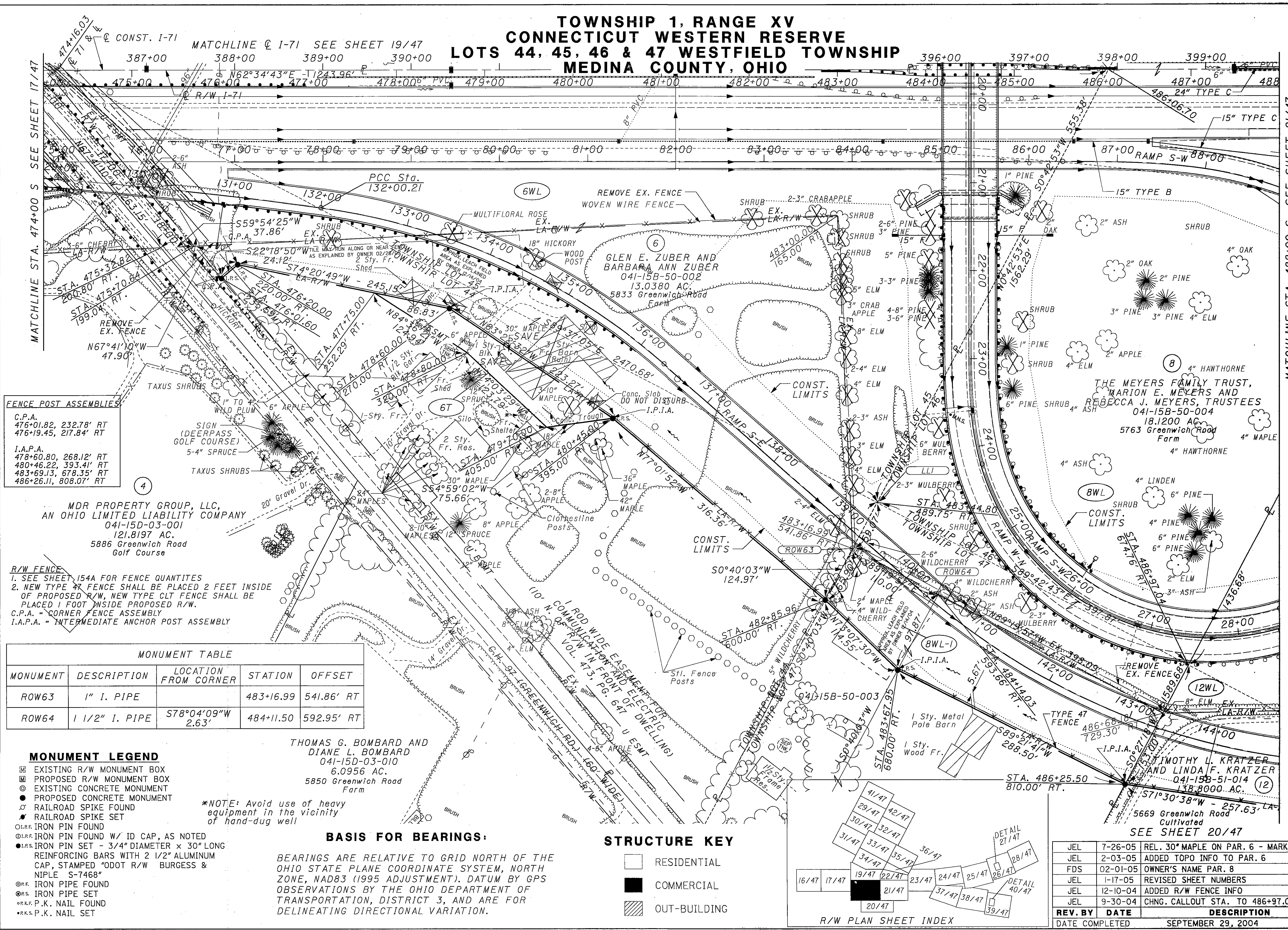
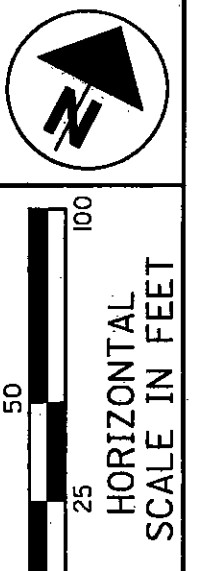
- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

REV. BY	DATE	DESCRIPTION
JEL	10-10-05	ADDED PARCEL 3WA
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-05-05	CHNG. OWNER'S NAME PAR. 7
JEL	12-10-04	ADDED R/W FENCE INFO
DATE COMPLETED		SEPTEMBER 29, 2004

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

TOWNSHIP 1, RANGE XV
 CONNECTICUT WESTERN RESERVE
 LOTS 44, 45, 46 & 47 WESTFIELD TOWNSHIP
 MEDINA COUNTY, OHIO



FENCE POST ASSEMBLIES

C.P.A.
 476+01.82, 232.78' RT
 476+19.45, 217.84' RT

I.A.P.A.
 478+60.80, 268.12' RT
 480+46.22, 393.41' RT
 483+69.13, 678.35' RT
 486+26.11, 808.07' RT

MDR PROPERTY GROUP, LLC,
 AN OHIO LIMITED LIABILITY COMPANY
 041-15D-03-001
 121.8197 AC.
 5886 Greenwich Road
 Golf Course

- R/W FENCE**
- SEE SHEET 154A FOR FENCE QUANTITIES
 - NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
- C.P.A. = CORNER FENCE ASSEMBLY
 I.A.P.A. = INTERMEDIATE ANCHOR POST ASSEMBLY

MONUMENT TABLE

MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW63	1" I. PIPE		483+16.99	541.86' RT
ROW64	1 1/2" I. PIPE	S78°04'09"W 2.63'	484+11.50	592.95' RT

- MONUMENT LEGEND**
- ☐ EXISTING R/W MONUMENT BOX
 - ◻ PROPOSED R/W MONUMENT BOX
 - ⊙ EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ⚡ RAILROAD SPIKE FOUND
 - ⚡ RAILROAD SPIKE SET
 - I.P.A. IRON PIN FOUND
 - I.P.A. IRON PIN FOUND W/ ID CAP, AS NOTED
 - I.P.A. IRON PIN SET - 3/4" DIAMETER x 30" LONG
 - REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - ⊙ I.P.F. IRON PIPE FOUND
 - ⊙ I.P.S. IRON PIPE SET
 - ⊙ P.K. NAIL FOUND
 - ⊙ P.K. NAIL SET

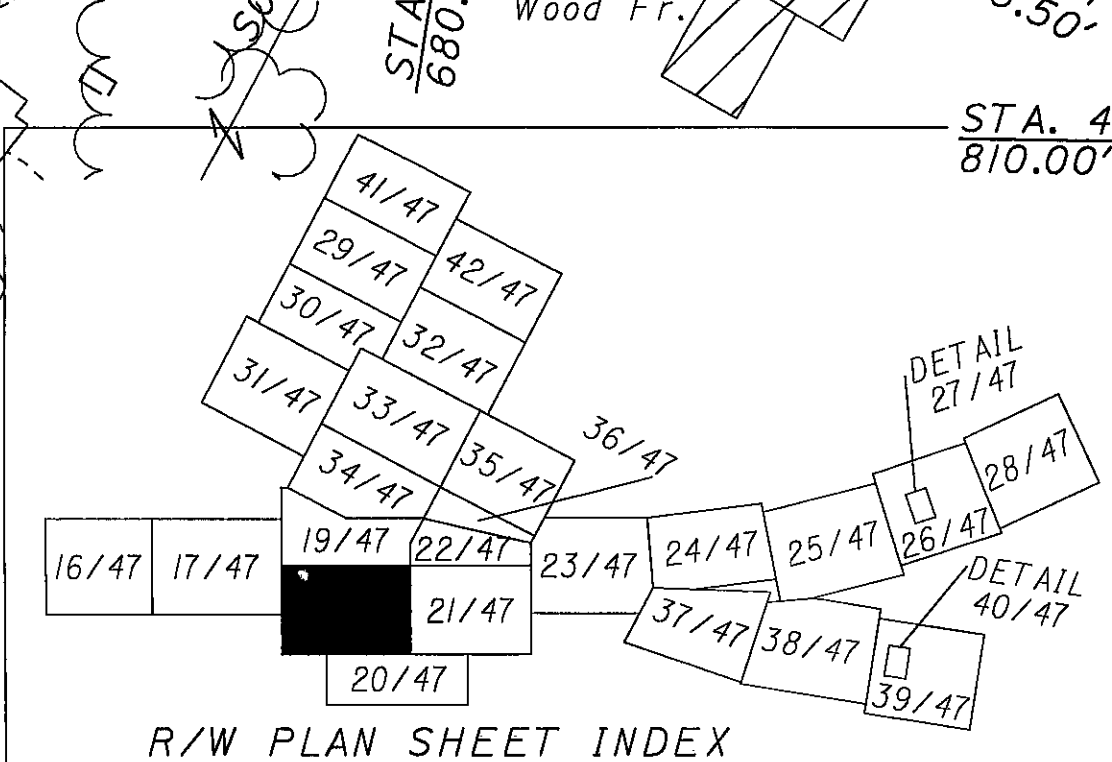
*NOTE: Avoid use of heavy equipment in the vicinity of hand-dug well

THOMAS G. BOMBARD AND
 DIANE L. BOMBARD
 041-15D-03-010
 6.0956 AC.
 5850 Greenwich Road
 Farm

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

- STRUCTURE KEY**
- RESIDENTIAL
 - COMMERCIAL
 - ▨ OUT-BUILDING



JEL	7-26-05	REL. 30" MAPLE ON PAR. 6 - MARKED "SAVE"
JEL	2-03-05	ADDED TOPO INFO TO PAR. 6
FDS	02-01-05	OWNER'S NAME PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	9-30-04	CHNG. CALLOUT STA. TO 486+97.04, 674.76' RT
REV. BY	DATE	DESCRIPTION
	SEPTEMBER 29, 2004	

PID NO.
75657

R/W DESIGNER
LYNN

R/W REVIEWER
SNYDER

RIGHT OF WAY PLAN
I-71 R/W STA. 474+00 TO 488+00 S

MED-71-6.06

18 / 47

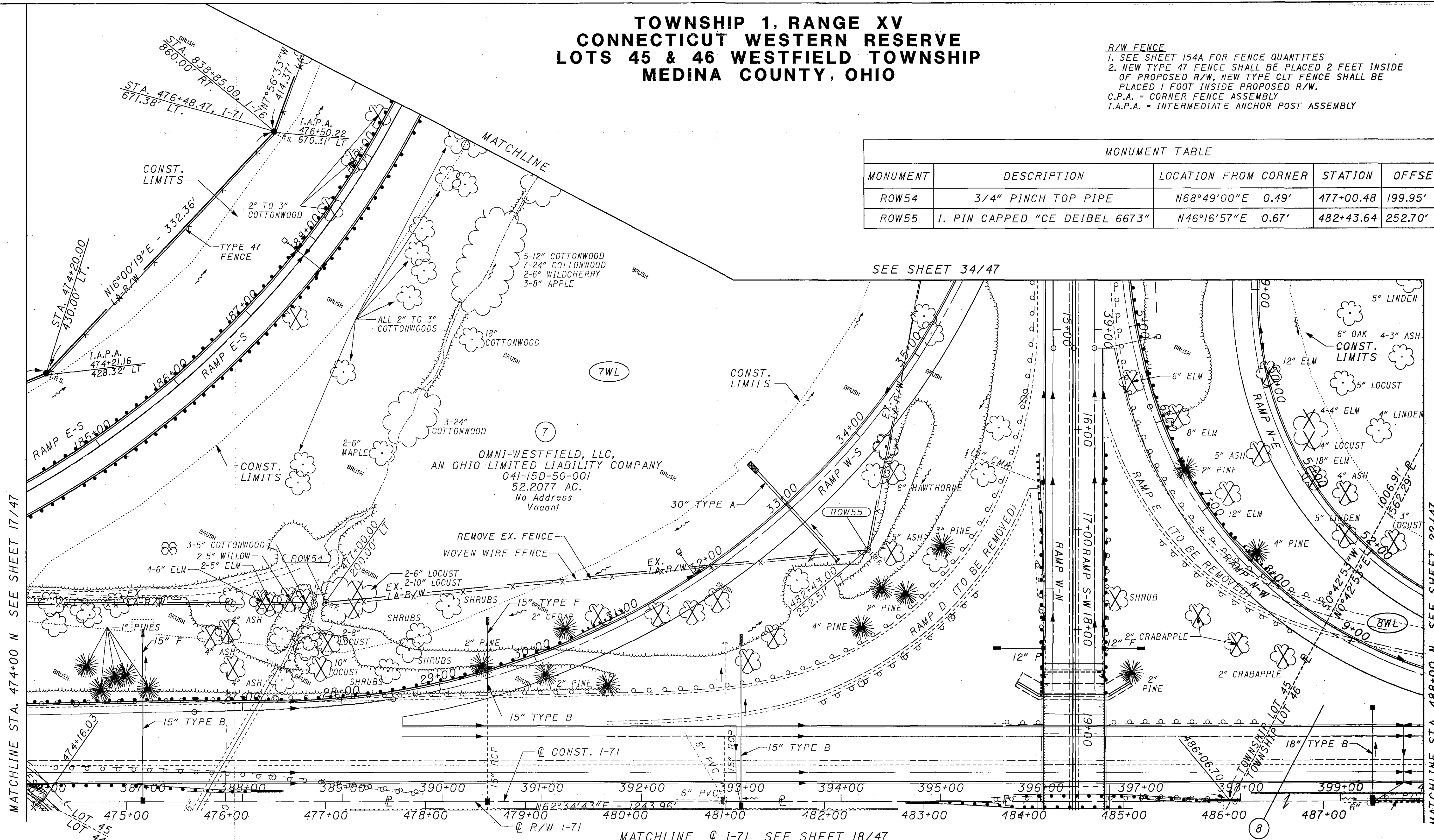
1091
1120

PROJECTWISE:\PR33412\CADD\75657RPO3.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 45 & 46 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

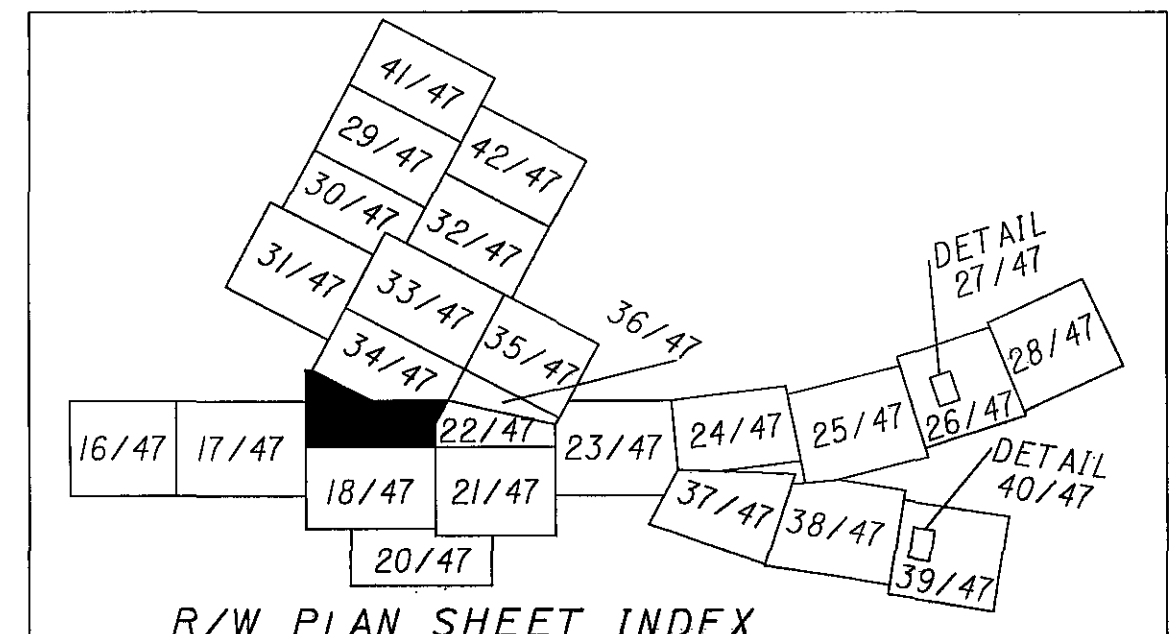
R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. = CORNER FENCE ASSEMBLY
I.A.P.A. = INTERMEDIATE ANCHOR POST ASSEMBLY

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW54	3/4" PINCH TOP PIPE	N68°49'00"E 0.49'	477+00.48	199.95' LT
ROW55	I. PIN CAPPED "CE DEIBEL 6673"	N46°16'57"E 0.67'	482+43.64	252.70' LT



- MONUMENT LEGEND**
- ☐ EXISTING R/W MONUMENT BOX
 - ▣ PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ⊕ RAILROAD SPIKE FOUND
 - ⊕ RAILROAD SPIKE SET
 - I.P.F. IRON PIN FOUND
 - I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
 - I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - I.P.P. IRON PIPE FOUND
 - I.P.S. IRON PIPE SET
 - P.K.F. P.K. NAIL FOUND
 - R.K.S. P.K. NAIL SET

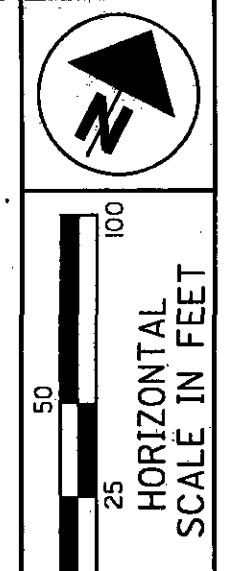
- STRUCTURE KEY**
- RESIDENTIAL
 - COMMERCIAL
 - ▨ OUT-BUILDING



THE MEYERS FAMILY TRUST,
MARION E. MEYERS AND
REBECCA J. MEYERS, TRUSTEES
041-15B-50-004
18,1200 AC.
5763 Greenwich Road
Existing Highway R/W

REV. BY	DATE	DESCRIPTION
FDS	02-01-05	OWNER'S NAME PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-05-05	CHNG. OWNER'S NAME PAR. 7
JEL	12-10-04	ADDED R/W FENCE INFO
DATE COMPLETED		SEPTEMBER 29, 2004

BASIS FOR BEARINGS:
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.



PID NO. **75657**

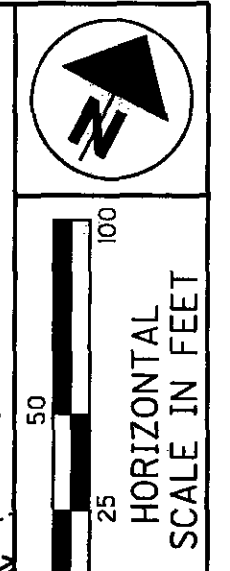
R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
I-71 R/W STA. 474+00 TO 488+00 N**

MED-71-6.06

19 / 47
1092
1120

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 44, 46 & 47 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**



PID NO. **75657**

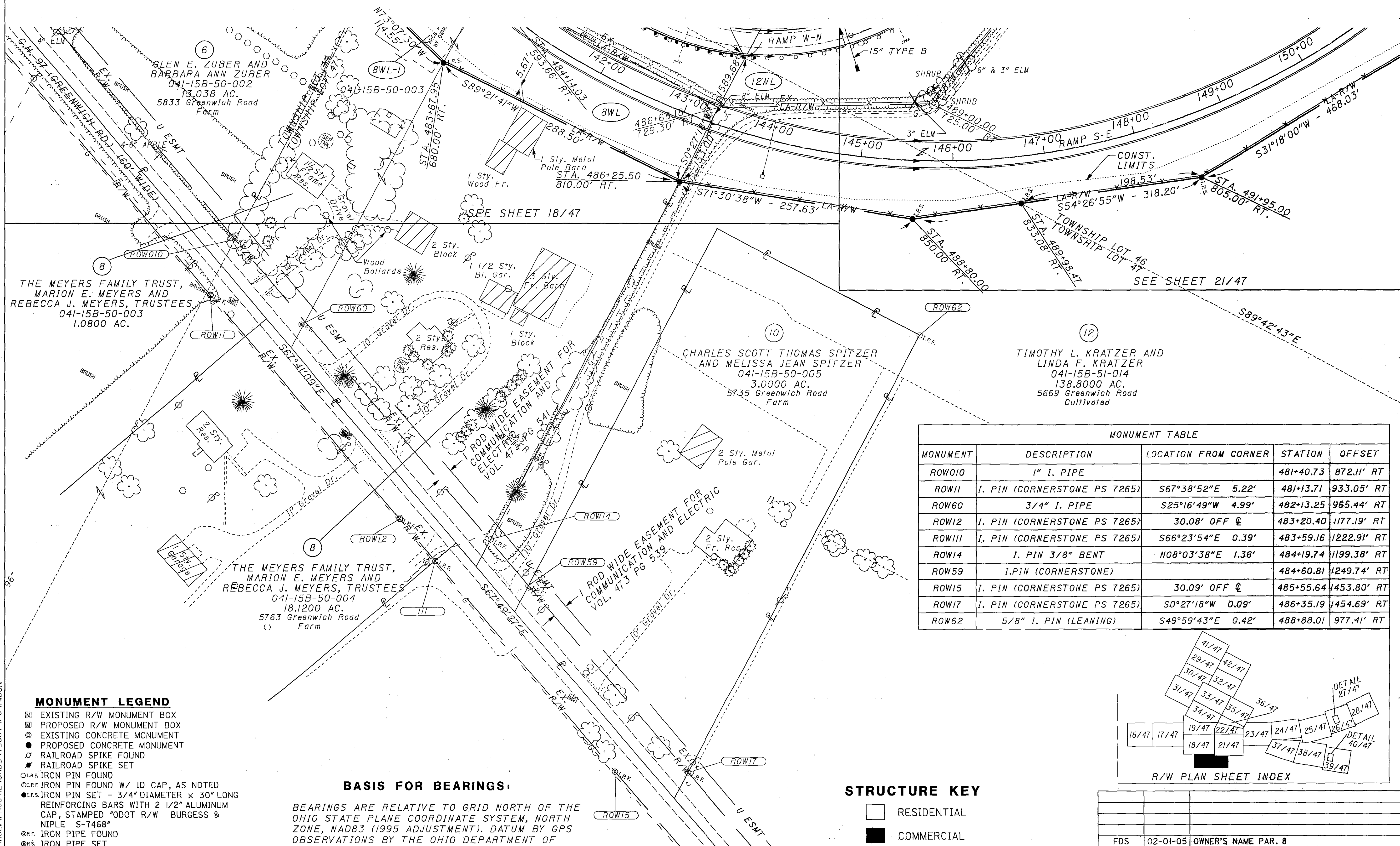
R/W DESIGNER: LYNM
R/W REVIEWER: SNYDER

**RIGHT OF WAY PLAN
RAMP S-E STA. 142+00 TO 150+00**

MED-71-6.06

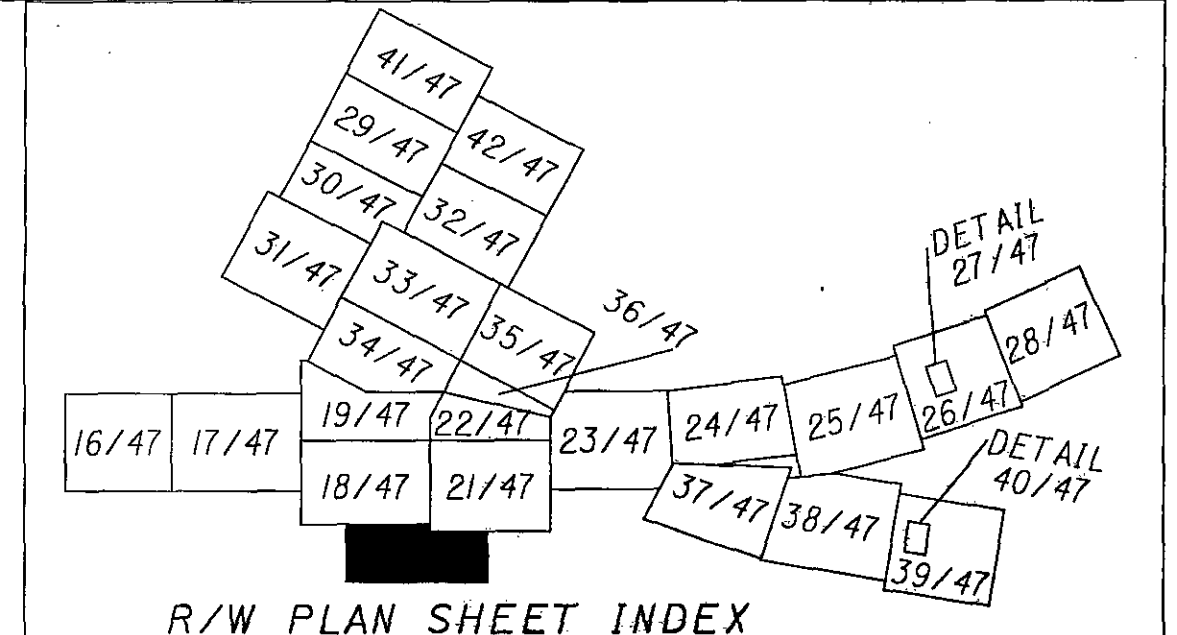
20 / 47

1093
1120



MONUMENT TABLE

MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW010	1" I. PIPE		481+40.73	872.11' RT
ROW11	I. PIN (CORNERSTONE PS 7265)	S67°38'52"E 5.22'	481+13.71	933.05' RT
ROW60	3/4" I. PIPE	S25°16'49"W 4.99'	482+13.25	965.44' RT
ROW12	I. PIN (CORNERSTONE PS 7265)	30.08' OFF \angle	483+20.40	1177.19' RT
ROW111	I. PIN (CORNERSTONE PS 7265)	S66°23'54"E 0.39'	483+59.16	1222.91' RT
ROW14	I. PIN 3/8" BENT	N08°03'38"E 1.36'	484+19.74	1199.38' RT
ROW59	I. PIN (CORNERSTONE)		484+60.81	1249.74' RT
ROW15	I. PIN (CORNERSTONE PS 7265)	30.09' OFF \angle	485+55.64	1453.80' RT
ROW17	I. PIN (CORNERSTONE PS 7265)	S0°27'18"W 0.09'	486+35.19	1454.69' RT
ROW62	5/8" I. PIN (LEANING)	S49°59'43"E 0.42'	488+88.01	977.41' RT



- MONUMENT LEGEND**
- ◻ EXISTING R/W MONUMENT BOX
 - ◻ PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ✕ RAILROAD SPIKE FOUND
 - ✕ RAILROAD SPIKE SET
 - I.R.F. IRON PIN FOUND
 - I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
 - I.R.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG
 - REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - P.P. IRON PIPE FOUND
 - R.S. IRON PIPE SET
 - P.K. P.K. NAIL FOUND
 - P.K. P.K. NAIL SET

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

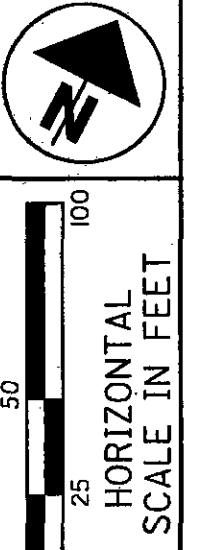
- STRUCTURE KEY**
- ◻ RESIDENTIAL
 - COMMERCIAL
 - ▨ OUT-BUILDING

REV. BY	DATE	DESCRIPTION
FDS	02-01-05	OWNER'S NAME PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
REV. BY		DATE
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE:PR33412\CADD\75657\RP04A.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 46 & 47 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

MATCHLINE @ I-71 SEE SHEET 22/47



PID NO.
75657

R/W DESIGNER
LYNN

R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
I-71 R/W STA. 488+00 TO 501+00 S**

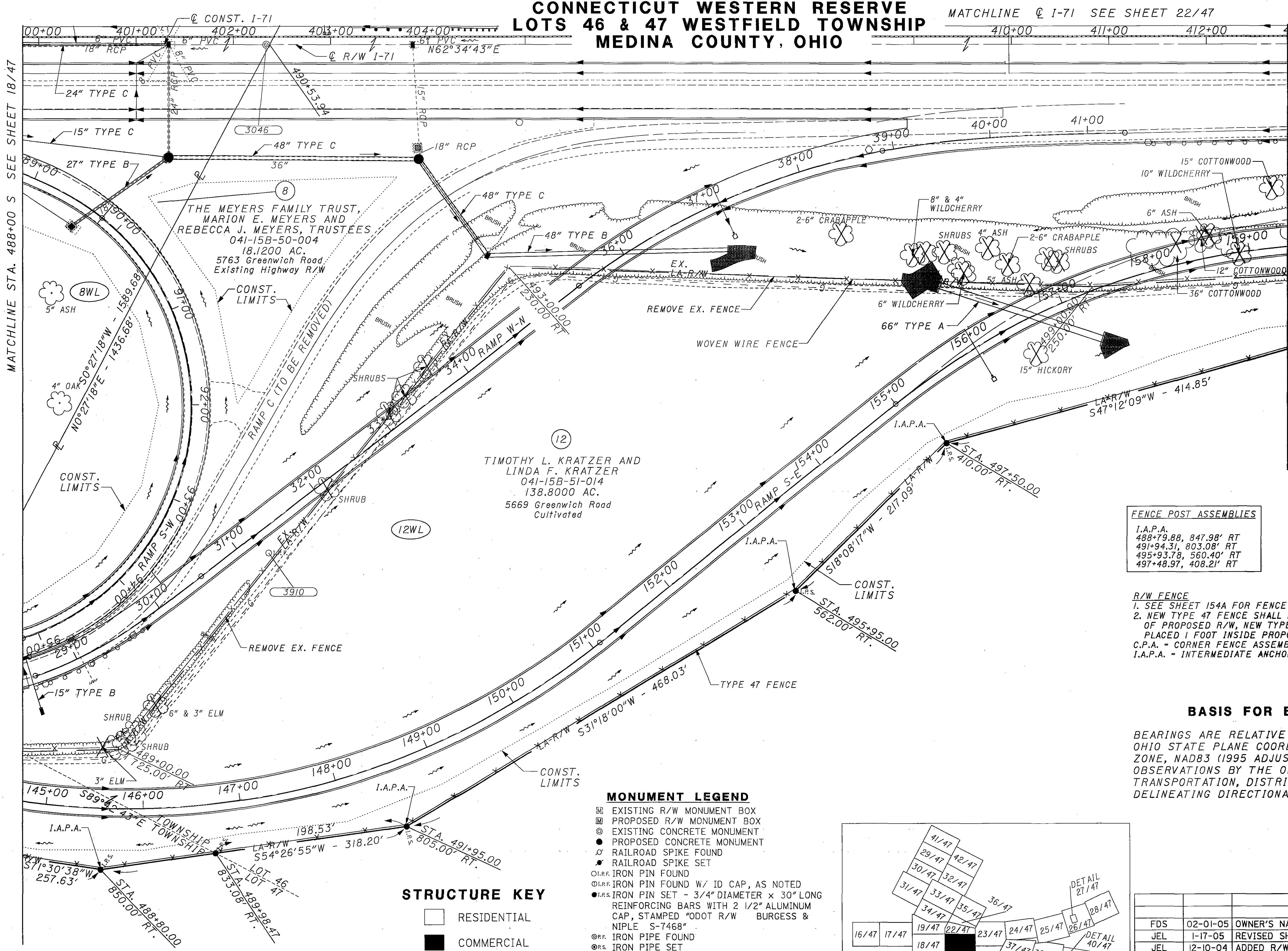
MED-71-6.06

21 / 47

1094
1120

MATCHLINE STA. 488+00 S SEE SHEET 18/47

MATCHLINE STA. 501+00 S SEE SHEET 23/47



FENCE POST ASSEMBLIES

I.A.P.A.	488+79.88, 847.98' RT
	491+94.31, 803.08' RT
	495+93.78, 560.40' RT
	497+48.97, 408.21' RT

- R/W FENCE**
- SEE SHEET 154A FOR FENCE QUANTITIES
 - NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
- C.P.A. = CORNER FENCE ASSEMBLY
I.A.P.A. = INTERMEDIATE ANCHOR POST ASSEMBLY

BASIS FOR BEARINGS:

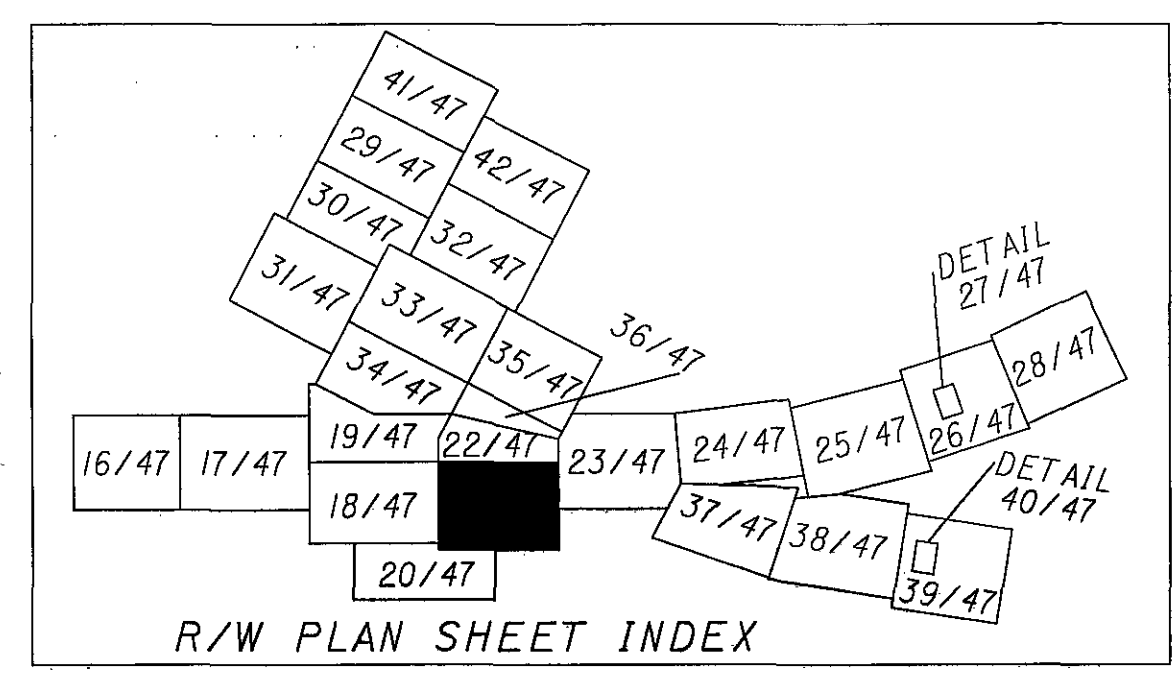
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

MONUMENT LEGEND

- ▣ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN CONCRETE FOUND
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊙ I.P.P. IRON PIPE FOUND
- ⊙ I.P.P. IRON PIPE SET
- ⊙ R.K.F. P.K. NAIL FOUND
- ⊙ R.K.S. P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



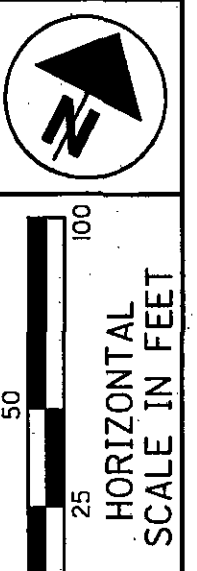
REV. BY	DATE	DESCRIPTION
FDS	02-01-05	OWNER'S NAME PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	10-01-04	CHNG. PROPOSED R/W ON PAR. 12WL
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE:\PR33412\CADD\T5657RP05.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 45 & 46 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

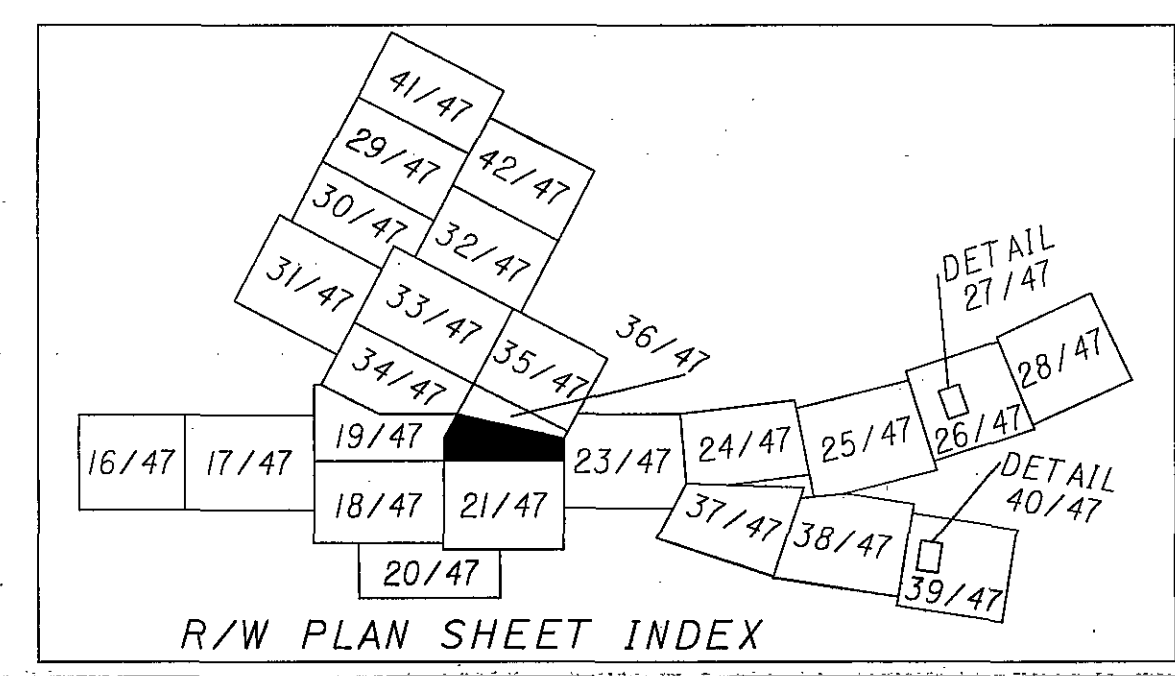
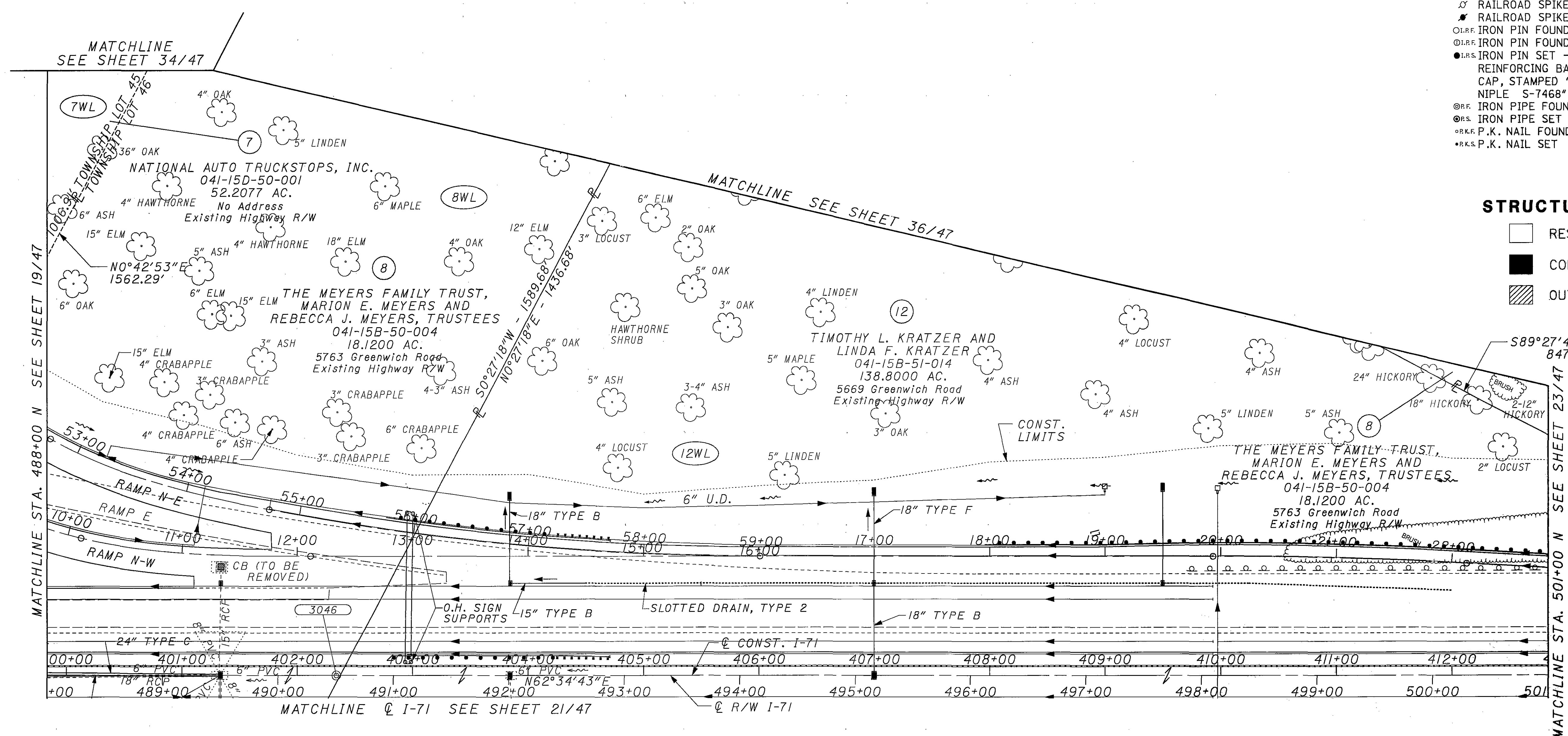


MONUMENT LEGEND

- ◻ EXISTING R/W MONUMENT BOX
- ◻ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- × RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- ⊙ I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ R.K.F. P.K. NAIL FOUND
- R.K.S. P.K. NAIL SET

STRUCTURE KEY

- ◻ RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



REV. BY	DATE	DESCRIPTION
FDS	2-08-05	OWNER PAR. 8
JEL	1-17-05	REVISED SHEET NUMBERS
DATE COMPLETED		SEPTEMBER 29, 2004

PID NO.
75657

R/W DESIGNER
LYNW
R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
I-71 R/W STA. 488+00 TO 501+00 N**

MED-71-6.06

22 / 47

1095
1120

PROJECTWISE\ENR\PR33412\CADD\75657RPO6.DGN

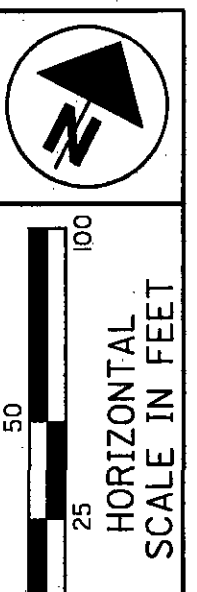
FENCE ASSEMBLIES

TOWNSHIP 1, RANGE XV CONNECTICUT WESTERN RESERVE LOTS 46 & 53 WESTFIELD TOWNSHIP MEDINA COUNTY, OHIO

R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. = CORNER FENCE ASSEMBLY
I.A.P.A. = INTERMEDIATE ANCHOR POST ASSEMBLY

CURVE DATA @ R/W 1-71

P.I. Sta = 531+43.63
Δ = 25° 03' 47" (LT)
Dc = 0° 28' 02"
R = 12,262.63'
T = 2,725.64'
L = 5,364.08'
E = 299.27'



PID NO. 75657

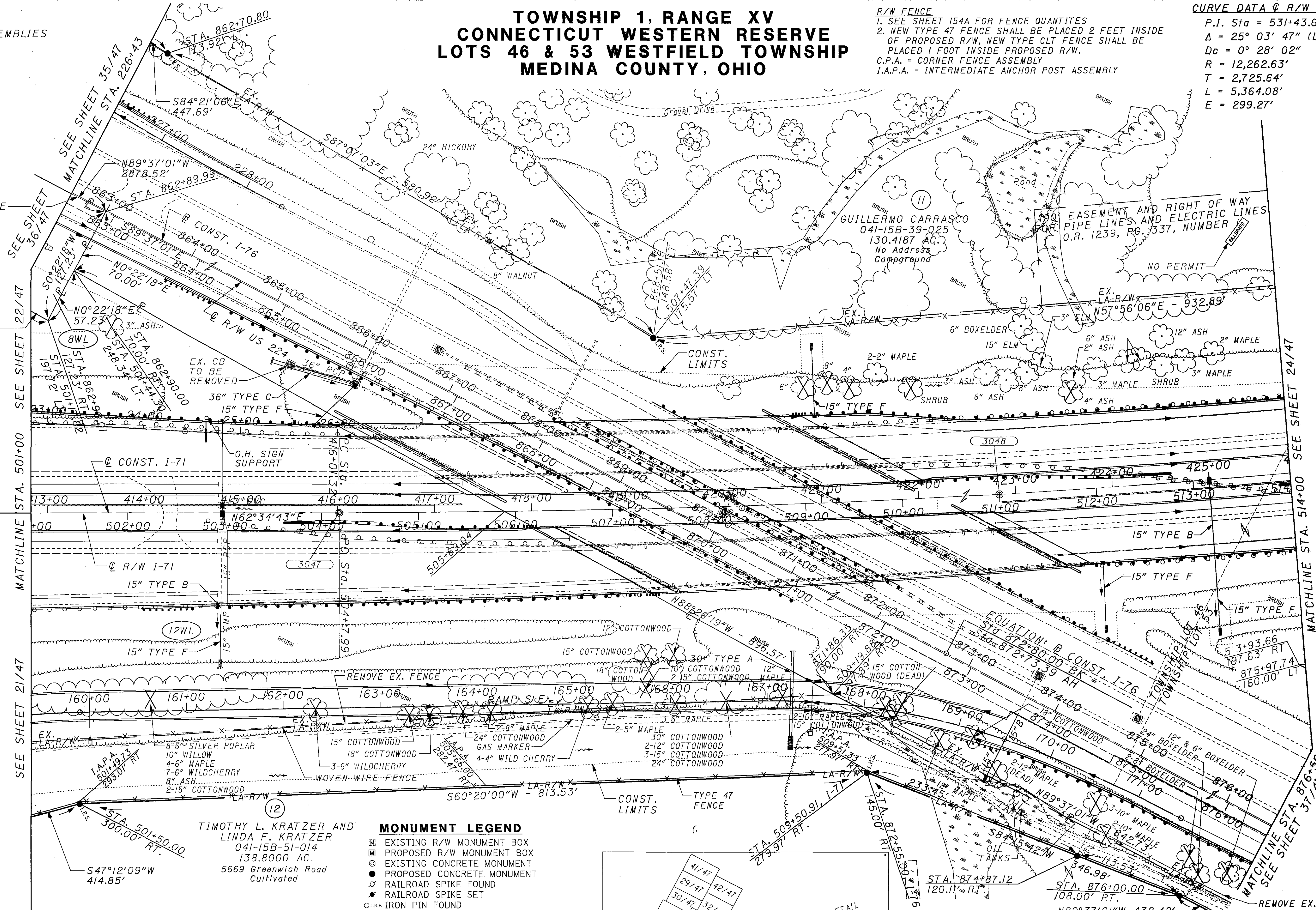
R/W DESIGNER LYNN
R/W REVIEWER SNYDER

RIGHT OF WAY PLAN
I-71 R/W STA. 501+00 TO 514+00

MED-71-6.06

23 / 47

1096
1120



BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

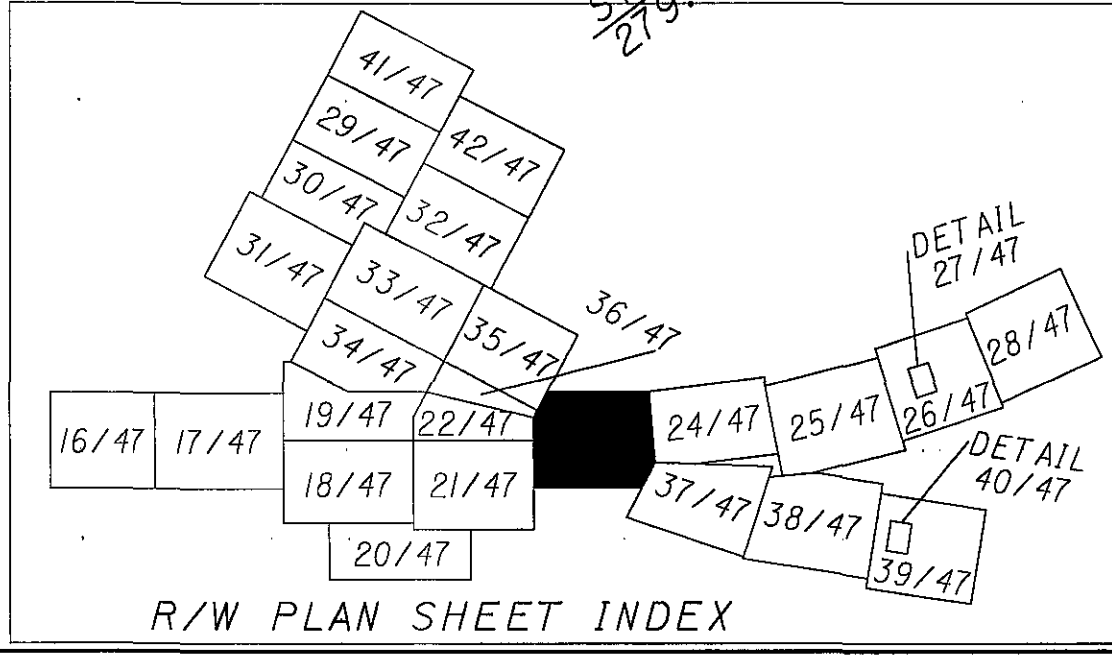
MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP, AS NOTED
- IRON PIN SET - 3/4" DIAMETER x 30" LONG
- REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- IRON PIPE FOUND
- IRON PIPE SET
- P.K. NAIL FOUND
- P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

REV. BY	DATE	DESCRIPTION
JEL	11-07-05	REVISED SHEET NUMBERS
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	10-20-04	ADDED DUAL STA. & OFFSET TO BWL & 12WL
JEL	10-01-04	CHNG. PROPOSED R/W ON PAR. 12WL
DATE COMPLETED		SEPTEMBER 29, 2004

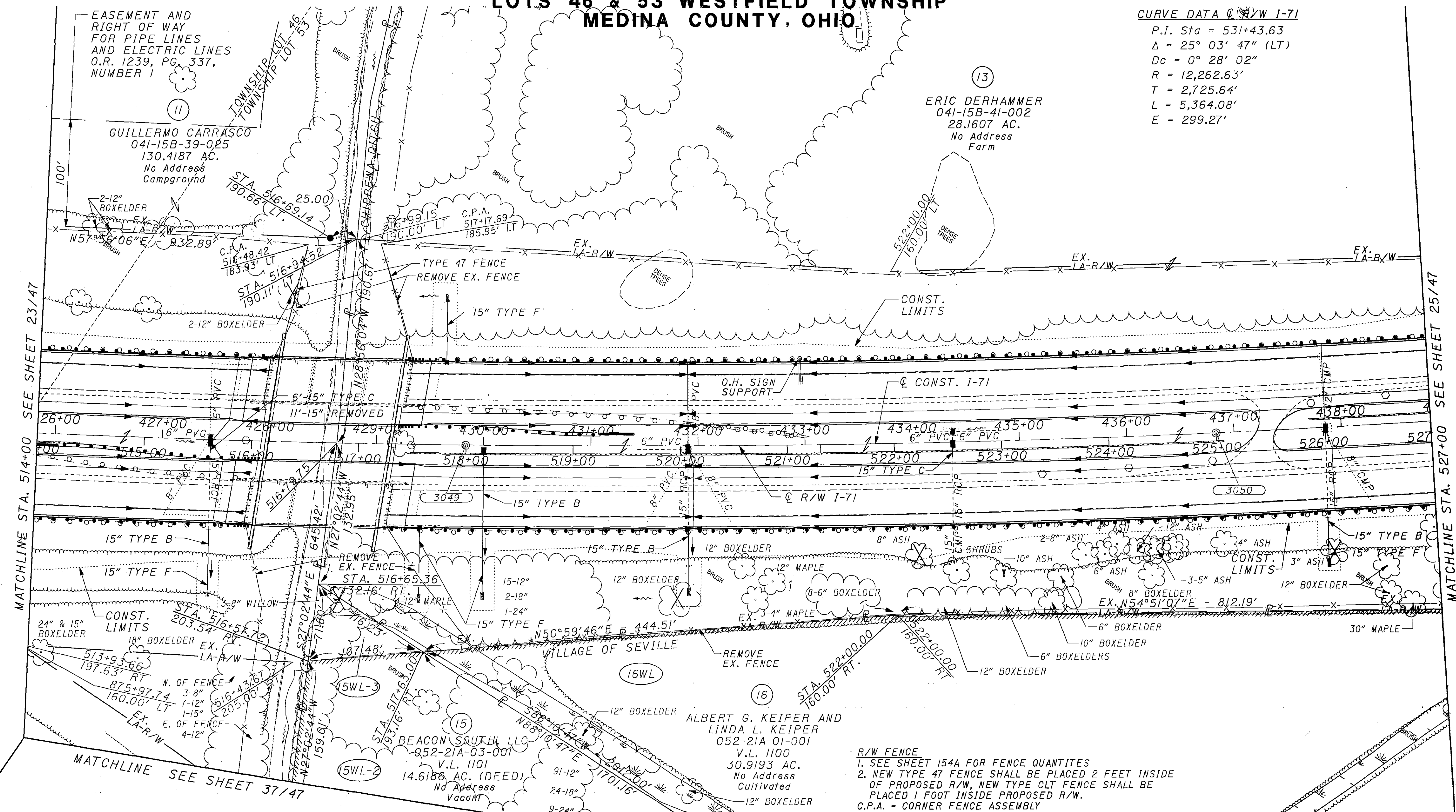


PROJECT WISE: \PR33412\CADD\75657RPO7.DGN

TOWNSHIP 1, RANGE XV
 CONNECTICUT WESTERN RESERVE
 VILLAGE LOT 1100
 VILLAGE OF SEVILLE
 LOTS 46 & 53 WESTFIELD TOWNSHIP
 MEDINA COUNTY, OHIO

CURVE DATA @ R/W I-71

P.I. Sta = 531+43.63
 Δ = 25° 03' 47" (LT)
 Dc = 0° 28' 02"
 R = 12,262.63'
 T = 2,725.64'
 L = 5,364.08'
 E = 299.27'



MATCHLINE STA. 514+00 SEE SHEET 23/47

MATCHLINE STA. 527+00 SEE SHEET 25/47

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

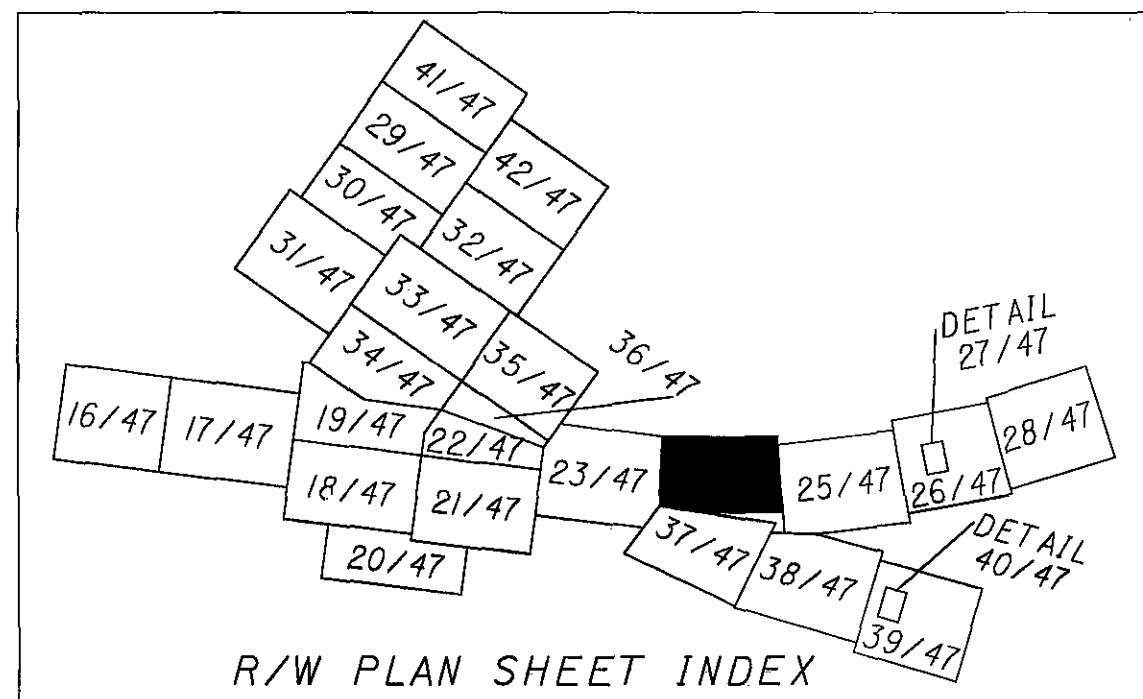
STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

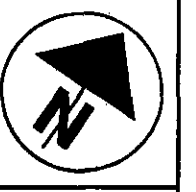
MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.R.P. IRON PIPE FOUND
- I.R.S. IRON PIPE SET
- P.K. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

R/W FENCE
 1. SEE SHEET 154A FOR FENCE QUANTITIES
 2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
 C.P.A. - CORNER FENCE ASSEMBLY
 I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY



REV. BY	DATE	DESCRIPTION
JEL	3-02-05	REV. PROP. LINE BET. 16WL & 15WL-2, 15WL-3
FDS	02-01-05	VILLAGE LOT NUMBER / AREA PAR. 15
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-07-05	SPLIT 15WL-1 INTO 15WL-2 & 15WL-3
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	9-30-04	CHNG. BALLOON 15WL TO 15WL-1
JEL	9-30-04	CHNG. PPN FOR 15WL-1 & 16WL
REV. BY DATE		DESCRIPTION
DATE COMPLETED		SEPTEMBER 29, 2004



PID NO. **75657**

R/W DESIGNER: LYNN
R/W REVIEWER: SWYDER

RIGHT OF WAY PLAN
I-71 R/W STA. 514+00 TO 527+00

MED-71-6.06

24 / 47

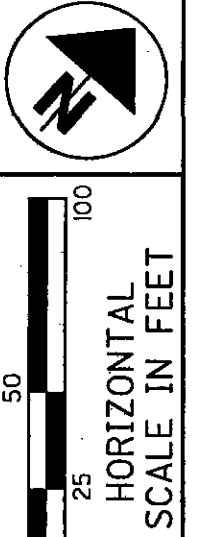
1097
1120

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
VILLAGE LOTS 1099 & 1100
VILLAGE OF SEVILLE
LOTS 53 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE DATA @ R/W I-71

P.I. Sta = 531+43.63
 $\Delta = 25^\circ 03' 47''$ (LT)
 $Dc = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW103	I. PIN CAPPED "BOCK CLARK"	S89°59'10"W 0.25'	536+28.98	221.80' RT
ROW104	I. PIN CAPPED "BOCK CLARK"	S69°31'17"W 1.06'	537+99.05	234.59' RT



PID NO. **75657**

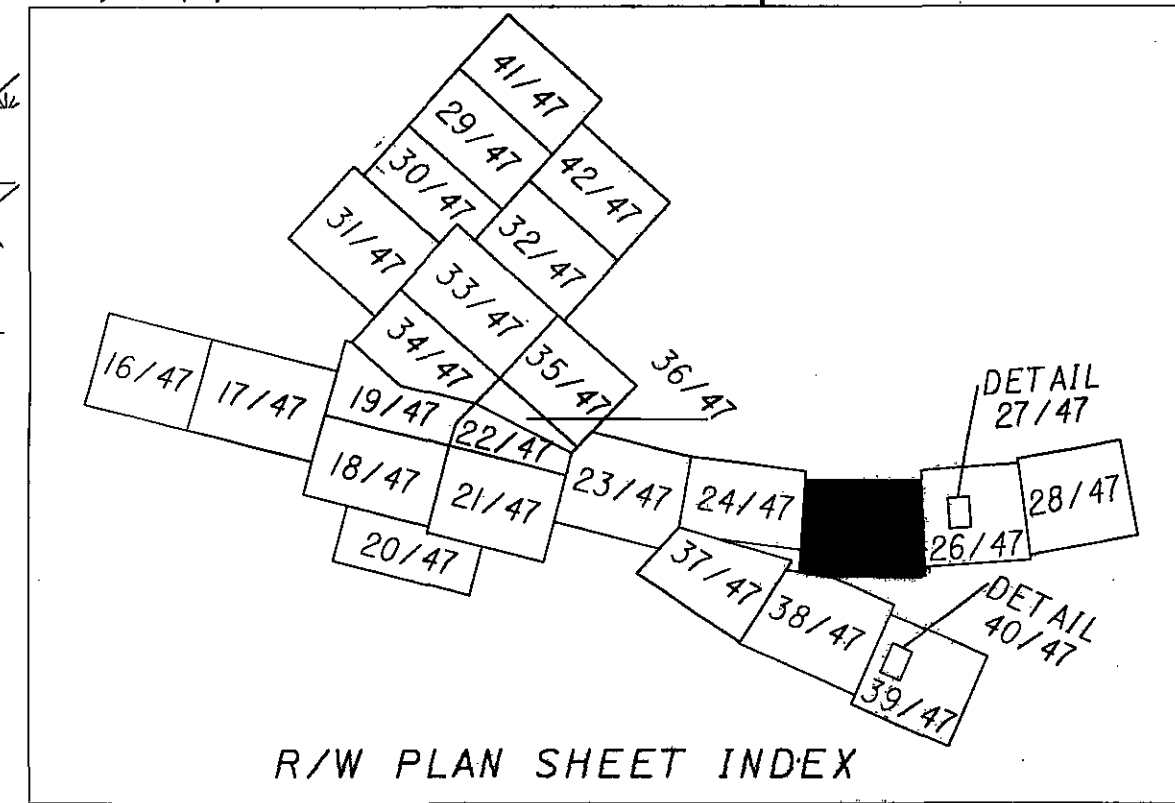
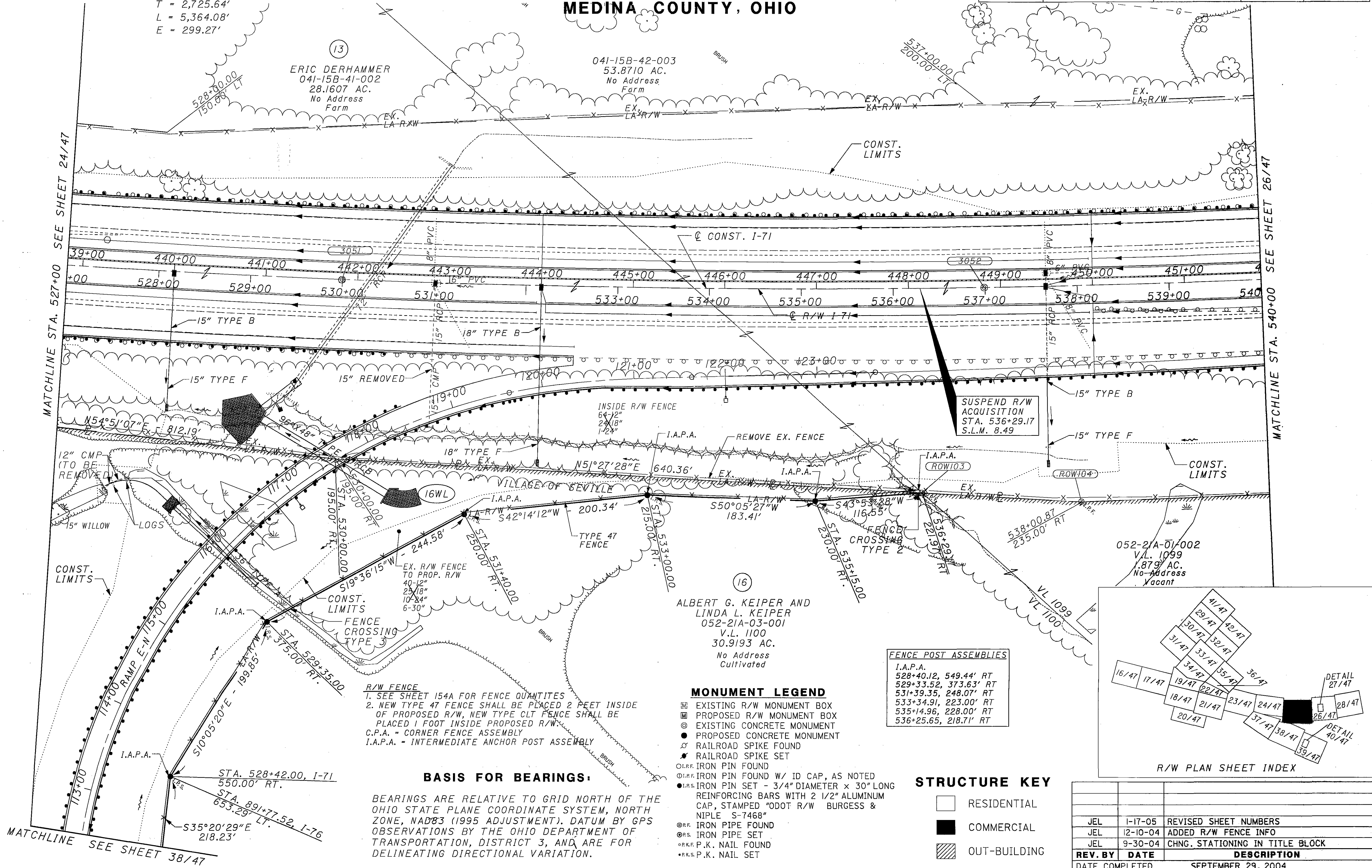
R/W DESIGNER: LYNN
R/W REVIEWER: SMYDER

**RIGHT OF WAY PLAN
I-71 R/W STA. 527+00 TO 540+00**

MED-71-6.06

25 / 47

1098
1120



FENCE POST ASSEMBLIES

I.A.P.A.	528+40.12, 549.44' RT
	529+33.52, 373.63' RT
	531+39.35, 248.07' RT
	533+34.91, 223.00' RT
	535+14.96, 228.00' RT
	536+25.63, 218.71' RT

- MONUMENT LEGEND**
- ☐ EXISTING R/W MONUMENT BOX
 - ◻ PROPOSED R/W MONUMENT BOX
 - ⊙ EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ⚡ RAILROAD SPIKE FOUND
 - ⚡ RAILROAD SPIKE SET
 - I.R.F. IRON PIN FOUND
 - I.R.F. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - I.R.F. IRON PIPE FOUND
 - I.R.F. IRON PIPE SET
 - P.K.F. P.K. NAIL FOUND
 - P.K.F. P.K. NAIL SET

- STRUCTURE KEY**
- RESIDENTIAL
 - COMMERCIAL
 - ▨ OUT-BUILDING

- R/W FENCE**
- SEE SHEET 154A FOR FENCE QUANTITIES
 - NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
- C.P.A. = CORNER FENCE ASSEMBLY
I.A.P.A. = INTERMEDIATE ANCHOR POST ASSEMBLY

BASIS FOR BEARINGS:
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

PROJECTWISE\PR33412\CADD\75657RPO9.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 53 WESTFIELD TOWNSHIP
SEC 24, LOTS 1 & 2 GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE DATA @ R/W I-71
 P.I. Sta - 531+43.63
 Δ - 25° 03' 47" (LT)
 Dc - 0° 28' 02"
 R - 12,262.63'
 T - 2,725.64'
 L - 5,364.08'
 E - 299.27'

**PEGGY J. CALDREN AND
DAWN R. CALDREN**
 041-15B-35-003
 66.4400 AC.
 8570 Ryan Road
 Farm

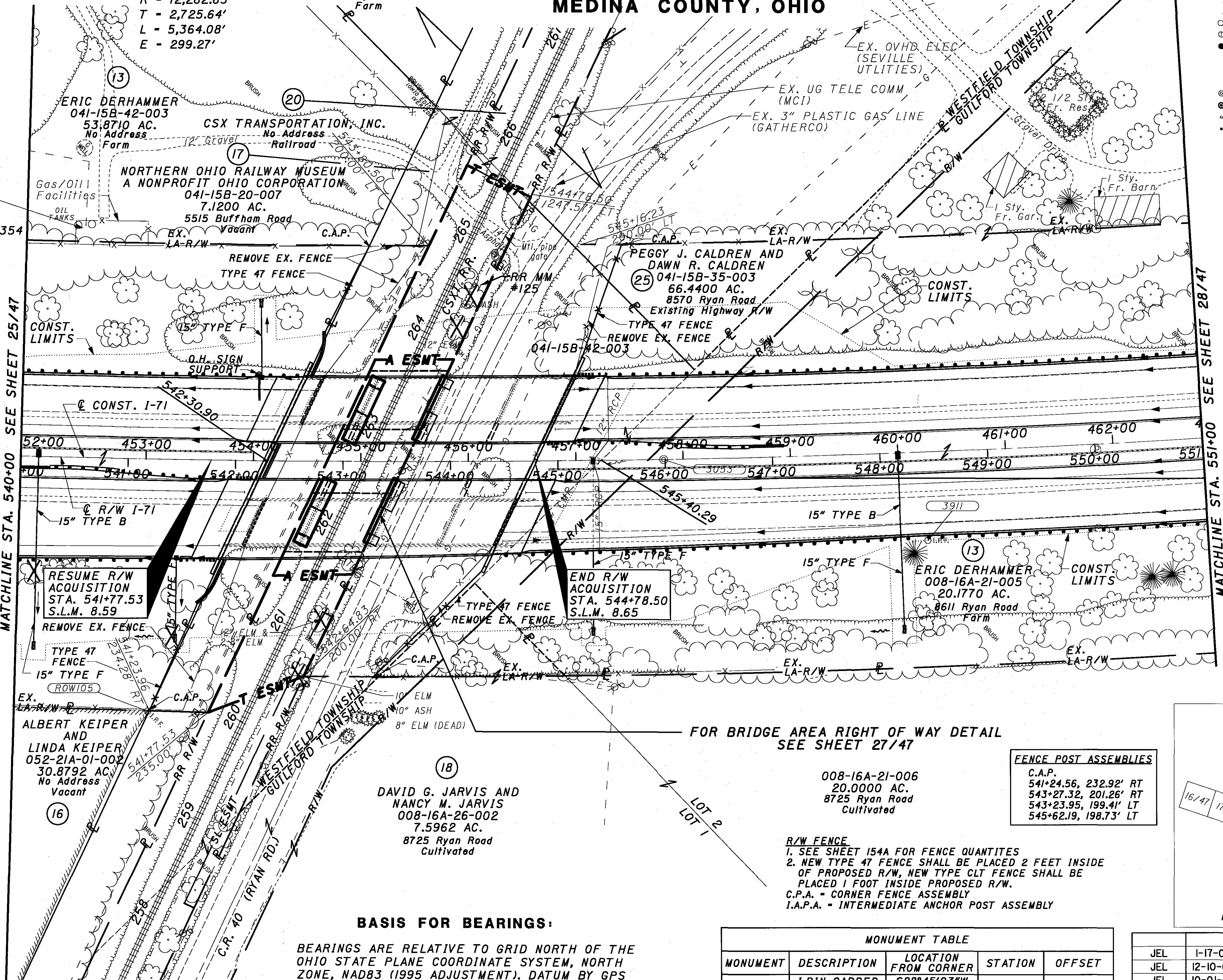
- MONUMENT LEGEND**
- EXISTING R/W MONUMENT BOX
 - PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ✕ RAILROAD SPIKE FOUND
 - ✕ RAILROAD SPIKE SET
 - I.P.F. IRON PIN FOUND
 - I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
 - I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - I.P.P. IRON PIPE FOUND
 - I.P.S. IRON PIPE SET
 - P.K.F. P.K. NAIL FOUND
 - P.K.S. P.K. NAIL SET

- STRUCTURE KEY**
- RESIDENTIAL
 - COMMERCIAL
 - ▨ OUT-BUILDING

OIL/GAS LEASE
 MFC DRILLING
 O.R. 467, PG. 391
 Jarvis #3, Permit 3354

MATCHLINE STA. 540+00 SEE SHEET 25/47

MATCHLINE STA. 551+00 SEE SHEET 28/47



END R/W ACQUISITION
 STA. 544+78.50
 S.L.M. 8.65

RESUME R/W ACQUISITION
 STA. 541+77.53
 S.L.M. 8.59

FOR BRIDGE AREA RIGHT OF WAY DETAIL
 SEE SHEET 27/47

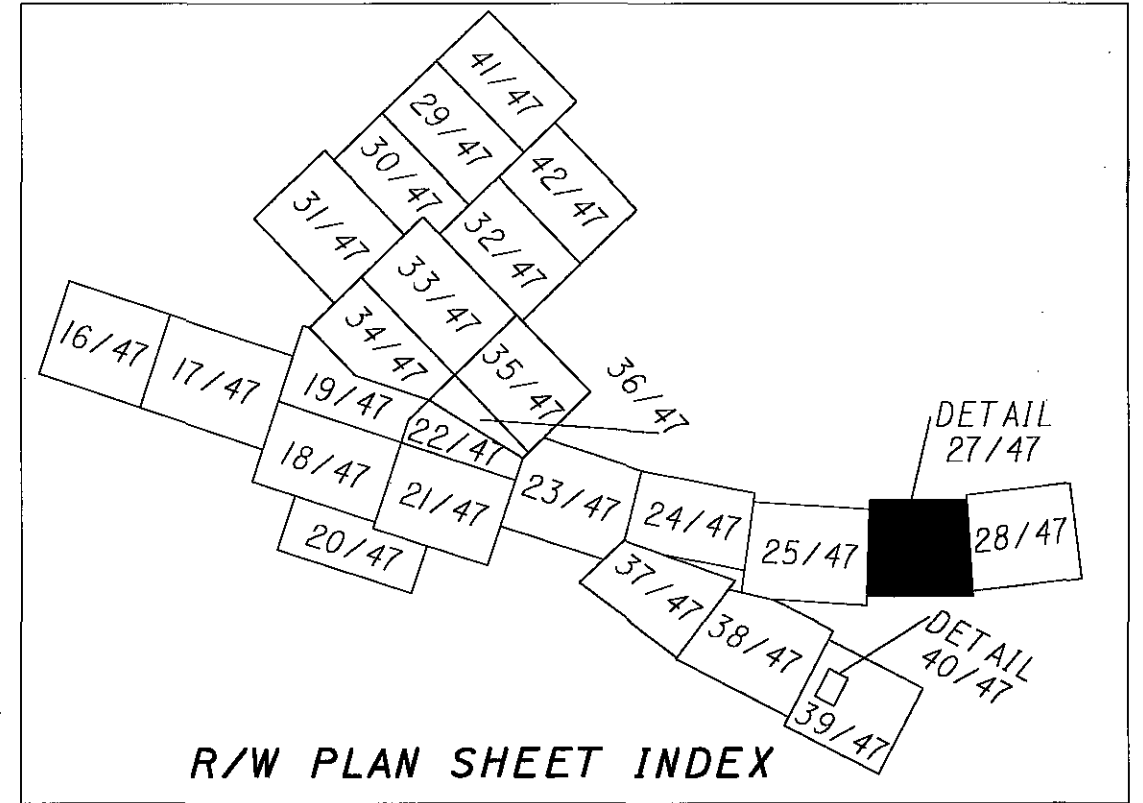
FENCE POST ASSEMBLIES
 C.A.P.
 541+24.56, 232.92' RT
 543+27.32, 201.26' RT
 543+23.95, 199.41' LT
 545+62.19, 198.73' LT

R/W FENCE
 1. SEE SHEET 154A FOR FENCE QUANTITIES
 2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W. NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
 C.P.A. - CORNER FENCE ASSEMBLY
 I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW105	I.PIN CAPPED "BOCK CLARK"	S28°45'03"W 1.55'	541+22.50	234.73' RT



REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20
JEL	10-01-04	ADDED OIL/GAS LEASE INFO
JEL	9-30-04	CHNG. PPN # FOR PARCEL 16
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE: \PR33412\CADD\75655TRP10.DGN
 MED-71-6.06
 PID NO. 75657
 R/W DESIGNER LYNM
 R/W REVIEWER SNYDER
 RIGHT OF WAY PLAN I-71 R/W STA. 540+00 TO 551+00
 26/47
 1099
 1120

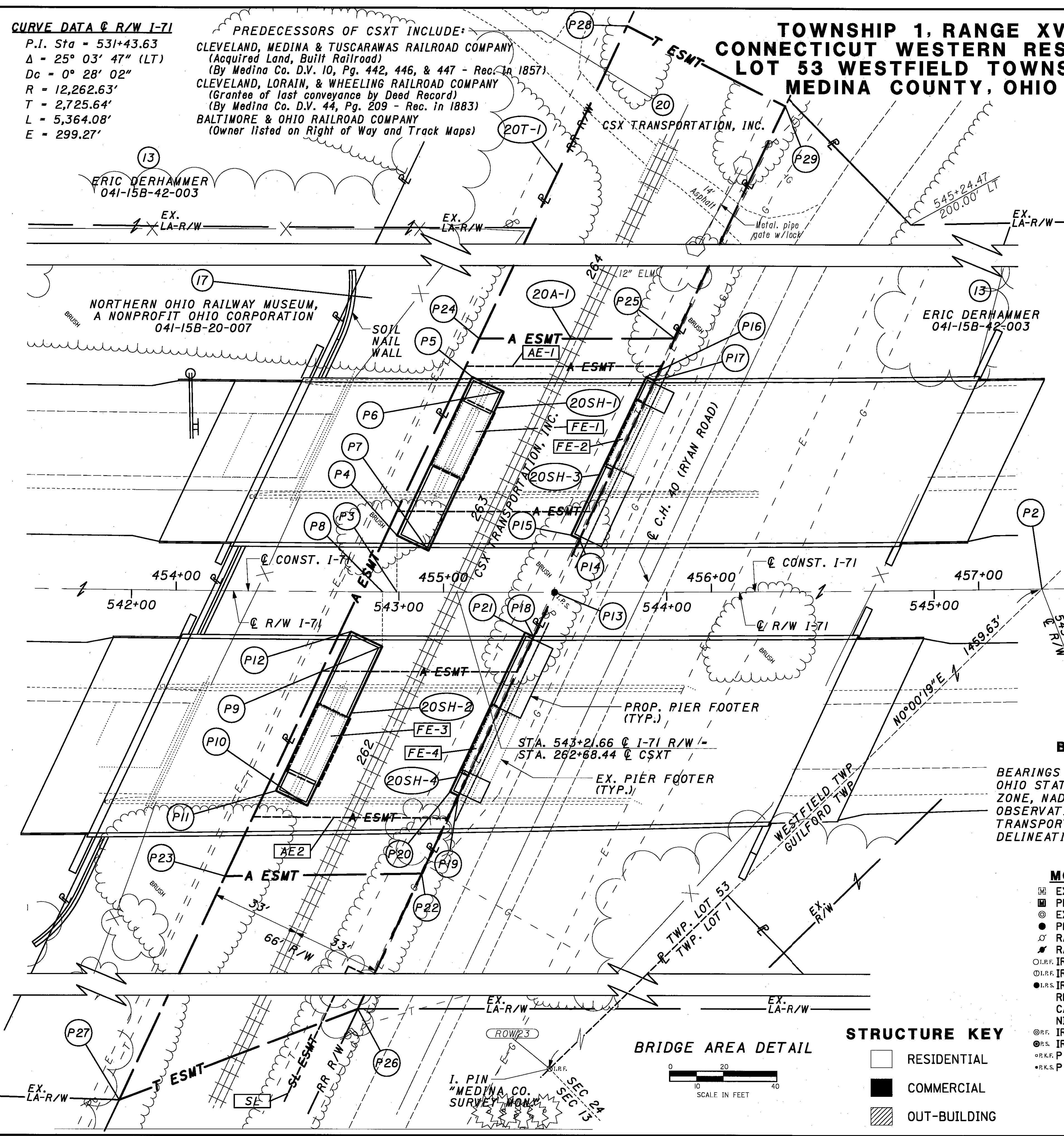
CURVE DATA @ R/W I-71

P.I. Sta = 531+43.63
 Δ = 25° 03' 47" (LT)
 Δc = 0° 28' 02"
 R = 12,262.63'
 T = 2,725.64'
 L = 5,364.08'
 E = 299.27'

PREDECESSORS OF CSXT INCLUDE:
 CLEVELAND, MEDINA & TUSCARAWAS RAILROAD COMPANY
 (Acquired Land, Built Railroad)
 (By Medina Co. D.V. 10, Pg. 442, 446, & 447 - Rec. in 1857)
 CLEVELAND, LORAIN, & WHEELING RAILROAD COMPANY
 (Grantee of last conveyance by Deed Record)
 (By Medina Co. D.V. 44, Pg. 209 - Rec. in 1883)
 BALTIMORE & OHIO RAILROAD COMPANY
 (Owner listed on Right of Way and Track Maps)

**TOWNSHIP 1, RANGE XV
 CONNECTICUT WESTERN RESERVE
 LOT 53 WESTFIELD TOWNSHIP
 MEDINA COUNTY, OHIO**

CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
C1	12262.63'	1°07'35"	241.06'	S 43°52'51" W	241.06'
C2	12262.63'	1°09'05"	246.40'	S 43°53'36" W	246.41'
C3	12262.63'	0°51'03"	182.12'	S 43°44'35" W	182.12'



PROPOSED EASEMENTS							
	POINTS	R/W STA.	OFFSET	COURSE	BEARING	LENGTH	
STANDARD HIGHWAY EASEMENT	P2	545+40.29	0	P2-P3	SEE CURVE C1		
	P3	542+99.23	0	P3-P4	N 45°33'22" W	20.91'	
	P4	542+99.23	20.91' LT	P4-P5	N 20°25'00" W	65.50'	
	P5	543+27.24	80.17' LT	P5-P6	N 69°35'00" E	13.00'	
	P6	543+39.06	74.62' LT	P6-P7	S 20°25'00" E	65.50'	
	P7	543+11.01	15.38' LT	P7-P4	S 69°35'00" W	13.00'	
	P2	545+40.29	0	P2-P8	SEE CURVE C2		
	P8	542+93.88	0	P8-P9	S 45°31'52" E	20.48'	
	P9	542+93.88	20.48' RT	P9-P10	S 20°25'00" E	65.50'	
	P10	542+66.26	79.82' RT	P10-P11	S 69°35'00" W	13.00'	
	P11	542+54.55	74.34' RT	P11-P12	N 20°25'00" W	65.50'	
	P12	542+82.13	14.97' RT	P12-P9	N 69°35'00" E	13.00'	
20SH-1	P2	545+40.29	0	P2-P13	SEE CURVE C3		
	P13	543+58.17	0	P13-P14	N 20°25'00" W	21.77'	
	P14	543+67.52	19.66' LT	P14-P15	S 69°35'00" W	3.50'	
	P15	543+64.36	21.16' LT	P15-P16	N 20°25'00" W	65.50'	
	P16	543+92.68	80.27' LT	P16-P17	N 69°35'00" E	3.50'	
	P17	543+95.86	78.76' LT	P17-P14	S 20°25'00" E	65.50'	
	20SH-2	P2	545+40.29	0	P2-P13	SEE CURVE C3	
P13		543+58.17	0	P13-P18	S 20°25'00" E	18.40'	
P18		543+50.28	16.62' RT	P18-P19	S 20°25'00" E	65.50'	
P19		543+22.38	75.83' RT	P19-P20	S 69°35'00" W	3.50'	
P20		543+19.24	74.34' RT	P20-P21	N 20°25'00" W	65.50'	
20SH-3	P2	545+40.29	0	P2-P13	SEE CURVE C3		
	P13	543+58.17	0	P13-P22	S 20°25'00" E	116.05'	
	P22	543+08.78	104.92' RT	P22-P23	S 43°26'08" W	73.52'	
AERIAL EASEMENT	P23	542+35.90	106.37' RT	P23-P24	N 20°25'00" W	221.75'	
	P24	543+29.79	94.50' LT	P24-P25	N 44°07'44" E	73.10'	
	P25	544+03.46	94.50' LT	P25-P13	S 20°25'00" E	104.72'	
	TEMPORARY EASEMENT	P2	545+40.29	0	P2-P13	SEE CURVE C3	
		P13	543+58.17	0	P13-P26	S 20°25'00" E	221.03'
		P26	542+64.83	200.00' RT	P26-P27	S 23°18'35" W	95.48'
		P27	541+77.53	235.00' RT	P27-P28	N 20°25'00" W	563.30'
		P28	544+17.15	275.00' LT	P28-P29	N 70°46'55" E	66.01'
		P29	544+77.23	245.00' LT	P29-P13	S 20°25'00" E	271.88'

EXISTING EASEMENTS			
		DV 263 PG 512	
AE-1	AERIAL	73 AER 19	0.09 AC
AE-2	AERIAL	73 AER 19A	0.09 AC
FE-1	FOOTER	73-19A	0.008 AC
FE-2	FOOTER	73-19B	0.002 AC
FE-3	FOOTER	73-19C	0.008 AC
FE-4	FOOTER	73-19D	0.002 AC
SL	SLOPE	73-19E	0.07 AC

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

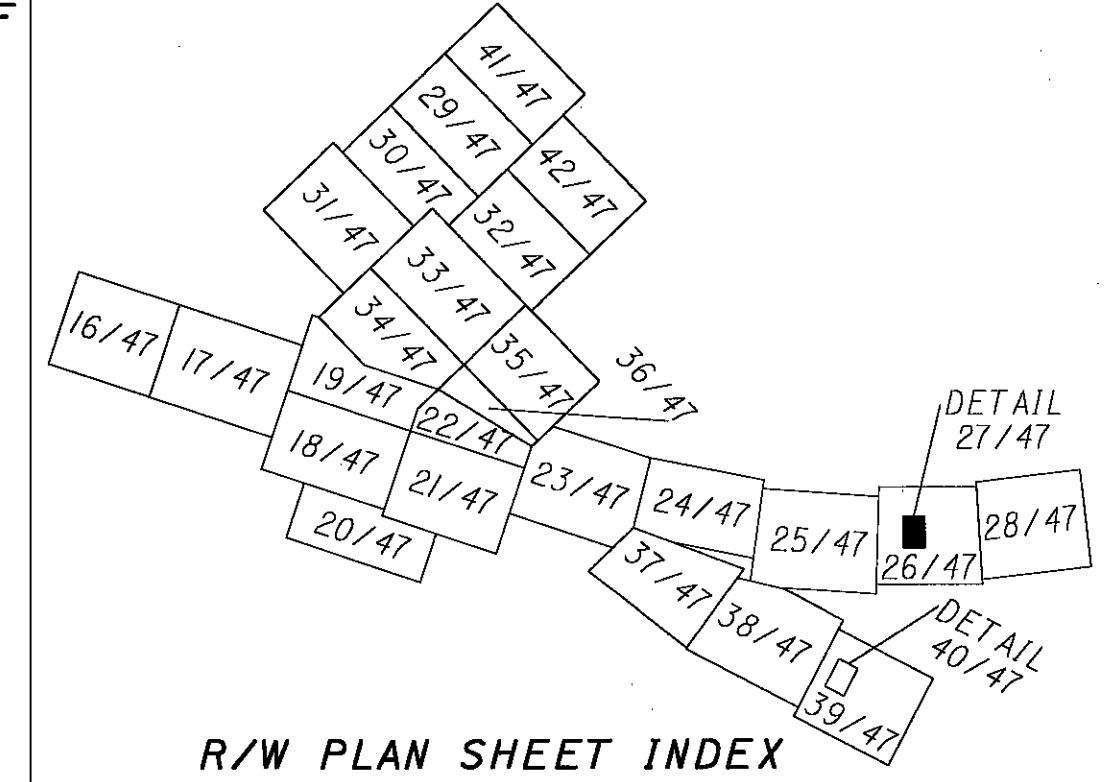
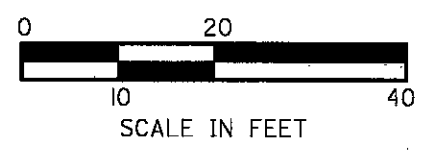
MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ P.K.F. P.K. NAIL FOUND
- ⊙ P.K.S. P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

BRIDGE AREA DETAIL



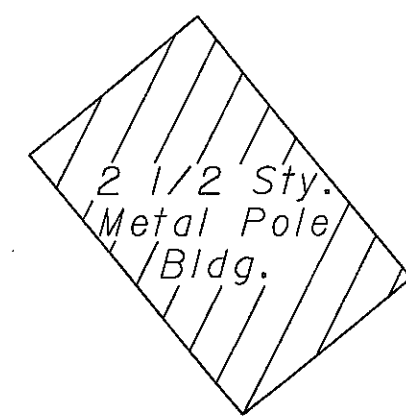
REV. BY	DATE	DESCRIPTION
JEL	4-22-05	REVISED DIST. & BEAR. FOR PAR. 20T-1
FDS	2-10-05	DISTANCE ALONG TOWNSHIP LINE
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE: \PR33412\CADD\75657RPLDGN
 R/W DESIGNER: LYNM
 R/W REVIEWER: SNYDER
 PID NO.: 75657
 MED-71-6.06
 27/47
 1100
 1120

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
SEC 24, LOTS 2 & 3 GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE DATA @ R/W I-71

P.I. Sta = 531+43.63
 $\Delta = 25^\circ 03' 47''$ (LT)
 $D_c = 0^\circ 28' 02''$
 $R = 12,262.63'$
 $T = 2,725.64'$
 $L = 5,364.08'$
 $E = 299.27'$



(13)
ERIC DERHAMMER
 008-16A-21-005
 20.1770 AC.
 8611 Ryan Road
 Cultivated

008-16A-21-002
 25.1390 AC.
 8611 Ryan Road
 Cultivated

**ROGER C. WARE &
SHIRLEY WARE**
 008-16A-16-005
 8401 Ryan Road
 Farm

(18)
**DAVID G. JARVIS AND
NANCY M. JARVIS**
 008-16A-21-006
 20.0000 AC.
 8725 Ryan Road
 Cultivated

DONNA B. GEIG, TRUSTEE
 008-16A-22-018
 No Address
 Farm

BASIS FOR BEARINGS:

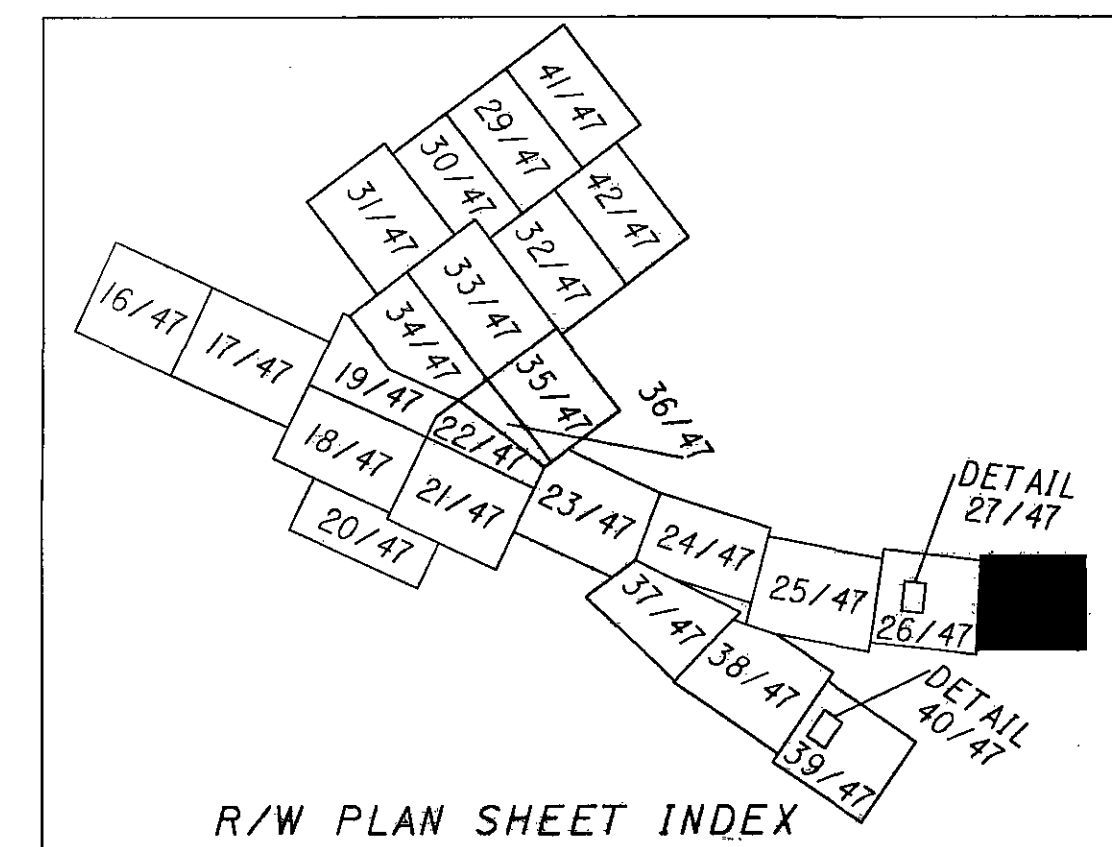
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ✕ RAILROAD SPIKE FOUND
- ✱ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- ⊖ I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊖ I.P.P. IRON PIPE FOUND
- ⊖ I.P.S. IRON PIPE SET
- ⊖ P.K. P.K. NAIL FOUND
- ⊖ P.K.S. P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
DATE COMPLETED		SEPTEMBER 29, 2004

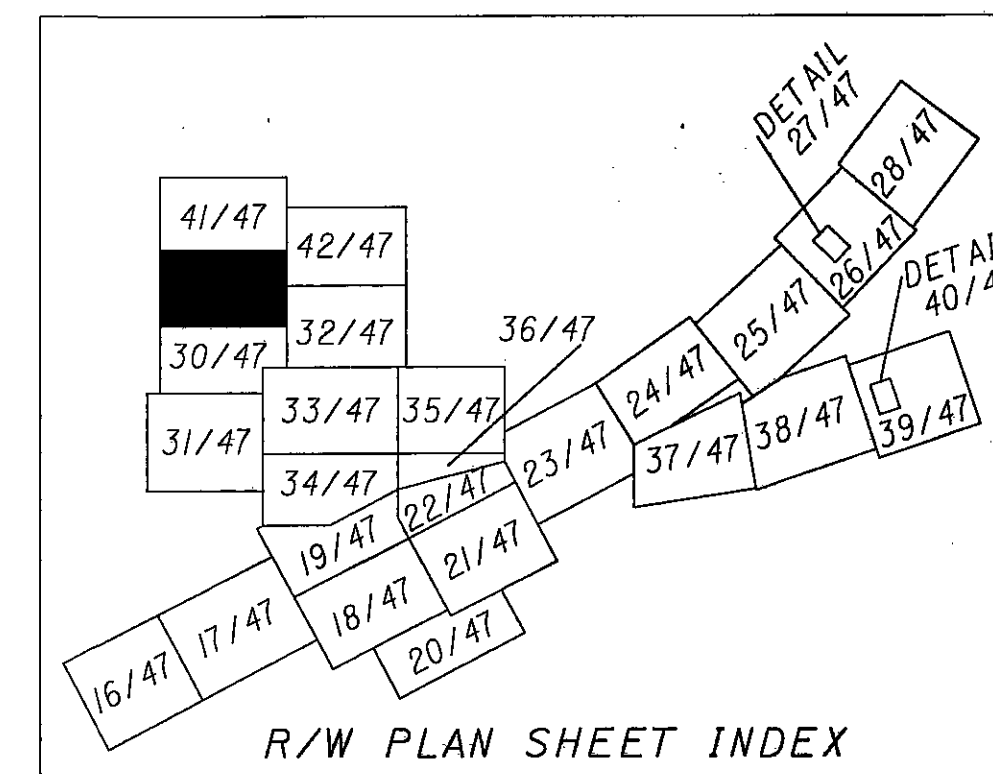
HORIZONTAL SCALE IN FEET
 PID NO. **75657**
 R/W DESIGNER: LYNN
 R/W REVIEWER: SMYDER
RIGHT OF WAY PLAN
I-71 R/W STA. 551+00 TO 559+50
MED-71-6.06
 28 / 47
 (1101)
 (1120)

PROJECTWISE:\PR33412\CADD\75657RPI2.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 45 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

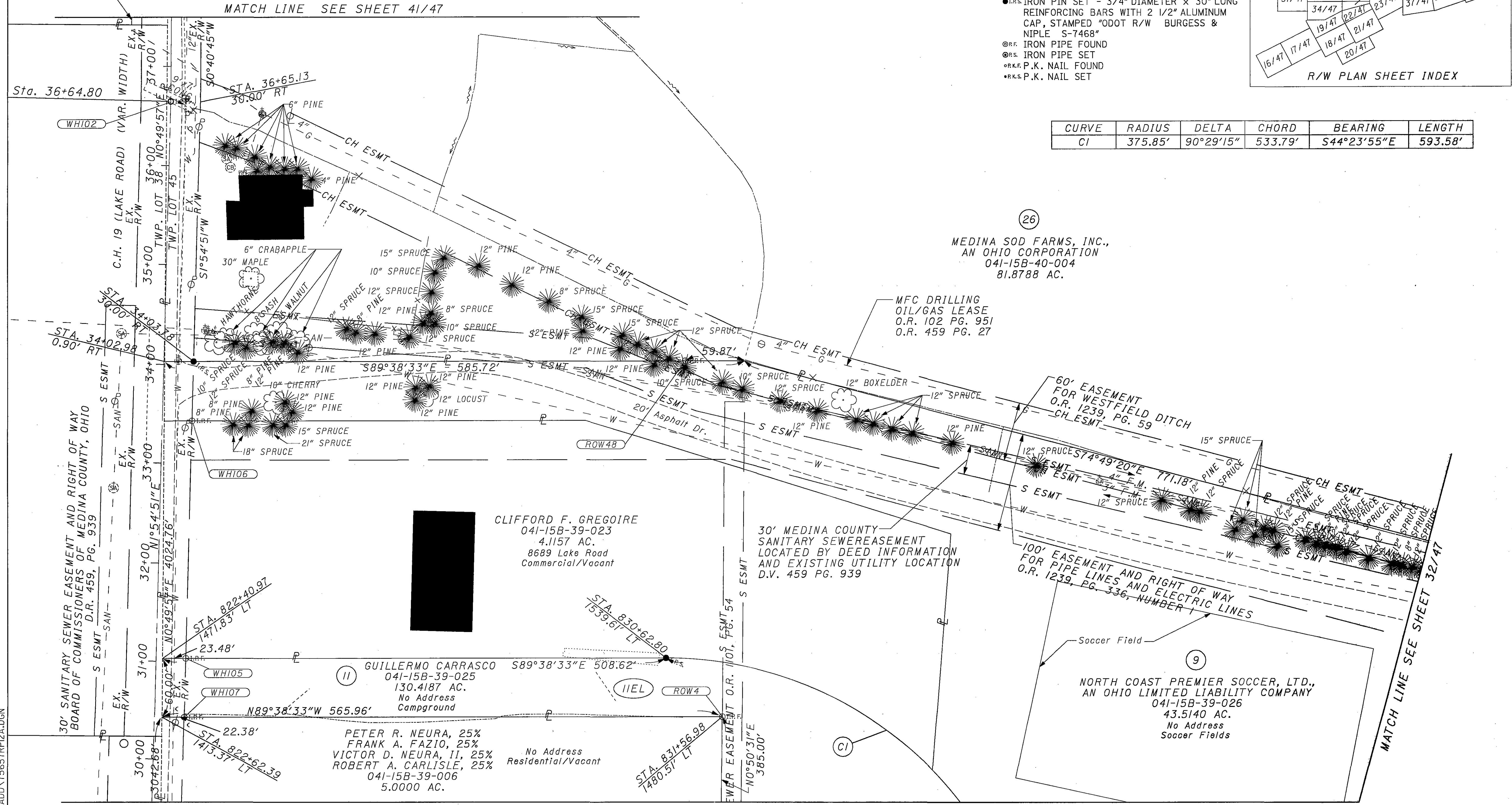
MONUMENT LEGEND

- ◻ EXISTING R/W MONUMENT BOX
- ◻ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ✕ RAILROAD SPIKE FOUND
- ✕ RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- ⊙ I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG
- REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊙ I.R.P. IRON PIPE FOUND
- ⊙ I.R.P.S. IRON PIPE SET
- ⊙ R.K.F. P.K. NAIL FOUND
- ⊙ R.K.S. P.K. NAIL SET



CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
CI	375.85'	90°29'15"	533.79'	S44°23'55"E	593.58'

G.T.E. NORTH, INC.
10' X 10' EASEMENT
DOC. 19980R009357



26
MEDINA SOD FARMS, INC.,
AN OHIO CORPORATION
041-15B-40-004
81.8788 AC.

MFC DRILLING
OIL/GAS LEASE
O.R. 102 PG. 951
O.R. 459 PG. 27

CLIFFORD F. GREGOIRE
041-15B-39-023
4.1157 AC.
8689 Lake Road
Commercial/Vacant

11
GUILLERMO CARRASCO
041-15B-39-025
130.4187 AC.
No Address
Campground

PETER R. NEURA, 25%
FRANK A. FAZIO, 25%
VICTOR D. NEURA, 11, 25%
ROBERT A. CARLISLE, 25%
041-15B-39-006
5.0000 AC.
No Address
Residential/Vacant

9
NORTH COAST PREMIER SOCCER, LTD.,
AN OHIO LIMITED LIABILITY COMPANY
041-15B-39-026
43.5140 AC.
No Address
Soccer Fields

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- ◻ RESIDENTIAL
- ◼ COMMERCIAL
- ▨ OUT-BUILDING

MATCH LINE SEE SHEET 30/47

REV. BY	DATE	DESCRIPTION
JEL	06-13-05	UPDATED PARCEL 26 AUD. NO. & ACREAGE
JEL	05-26-05	REVISED CI CURVE DATA
JEL	02-15-05	ADDED DIST. & BEAR. FOR PAR 26WDV
FDS	02-01-05	AREA PAR. 9, DIMENSION PAR. IEL
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-17-04	ADDED IEL DESIGNATION, DIST. & BEAR.
JEL	11-01-04	ADDED U.G. UTILITIES TO PAR. 9 & 26
DATE COMPLETED		SEPTEMBER 29, 2004

RIGHT OF WAY PLAN
SERVICE ROAD

MED-71-6.06

PID NO. 75657

R/W DESIGNER: LYNN
R/W REVIEWER: SNYDER

29 / 47

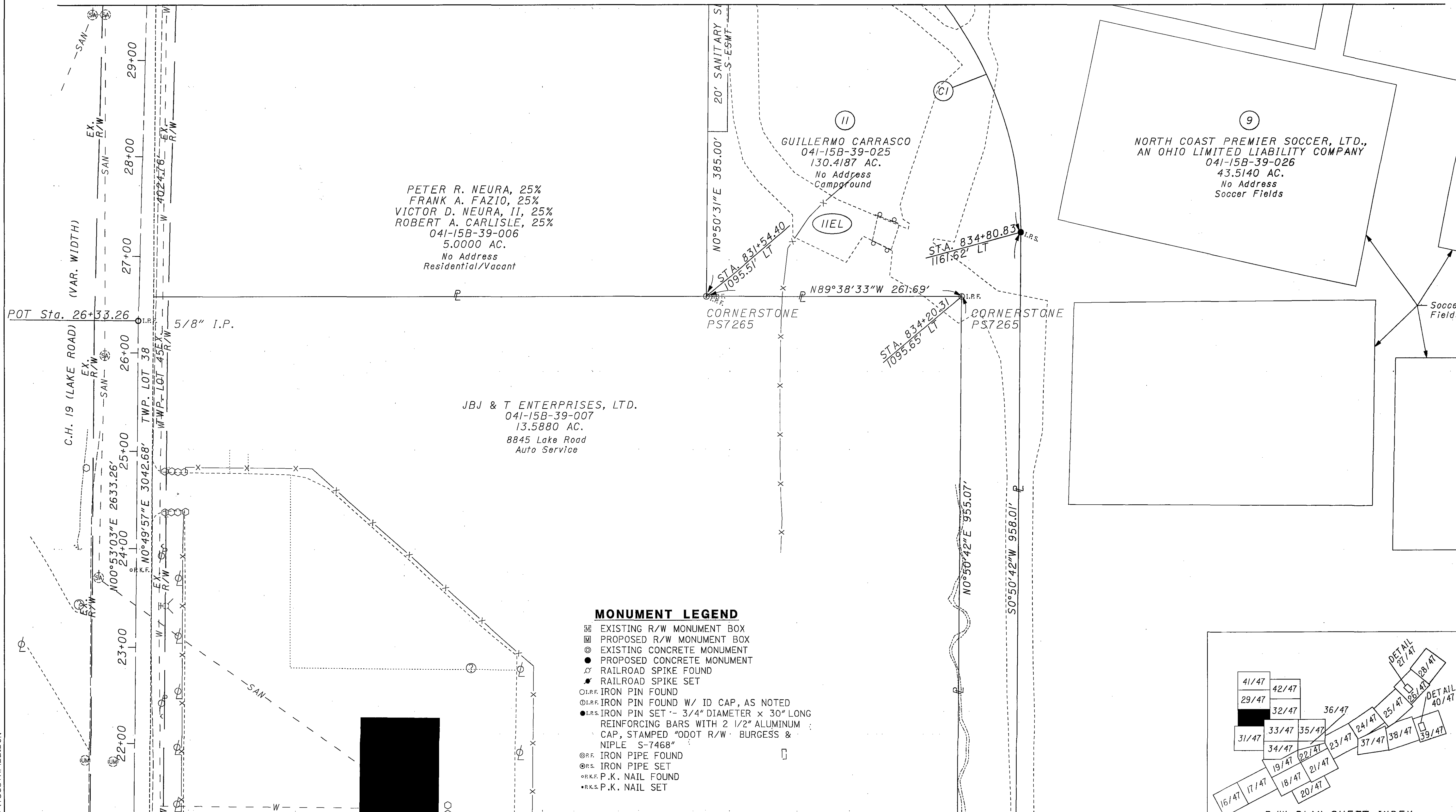
1102
1120

PROJECTWISE\PR33412\CADD\75657R1P2A.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 45 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
CI	375.85'	90°29'15"	533.79'	S44°23'55"E	593.58'

MATCH LINE SEE SHEET 29/47



MATCH LINE SEE SHEET 31/47

MONUMENT LEGEND

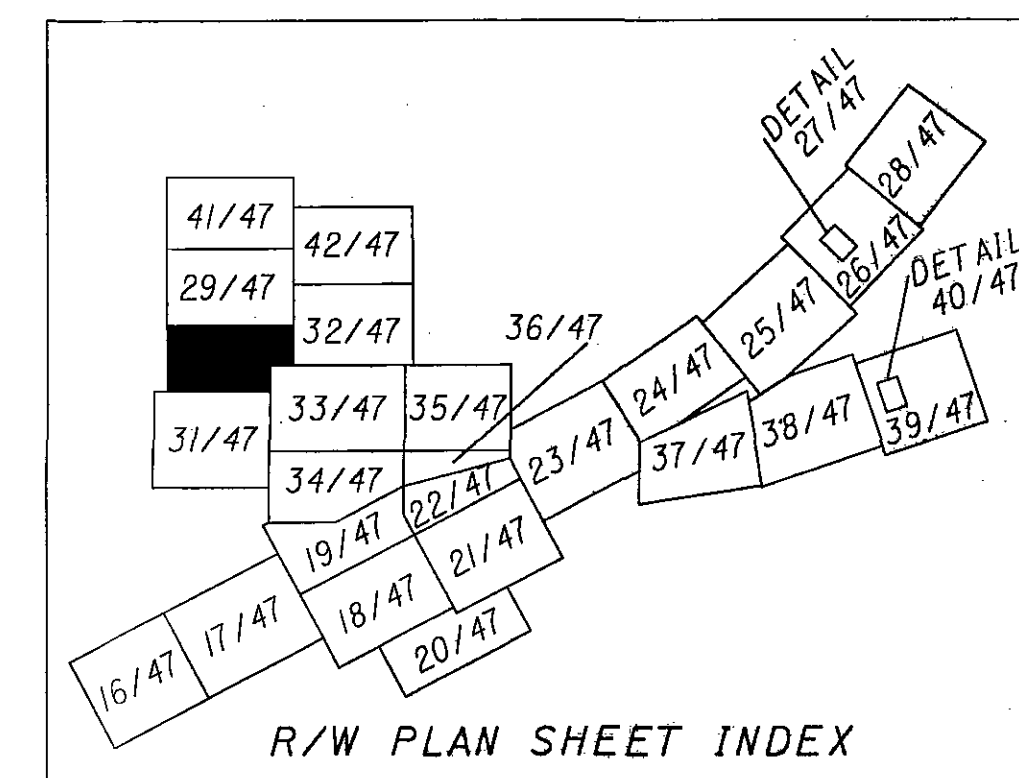
- ☐ EXISTING R/W MONUMENT BOX
- ◻ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊕ RAILROAD SPIKE SET
- ⊙ I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- ⊙ I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W - BURGESS & NIPLE S-7468"
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ P.K.F. P.K. NAIL FOUND
- ⊙ P.K.S. P.K. NAIL SET

BASIS FOR BEARINGS:


BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- ☐ RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



REV. BY	DATE	DESCRIPTION
JEL	5-26-05	REVISED CI CURVE DATA
FDS	2-08-05	AREA PAR. 9, MONUMENTS PAR. I, EL
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-17-04	ADDED I, EL DESIGNATION, DIST. & BEAR.
DATE COMPLETED		SEPTEMBER 29, 2004



HORIZONTAL SCALE IN FEET

0 25 50 100

R/W DESIGNER
LYNN

R/W REVIEWER
SNYDER

PID NO.
75657

**RIGHT OF WAY PLAN
SERVICE ROAD**

MED-71-6.06

30 / 47

1103

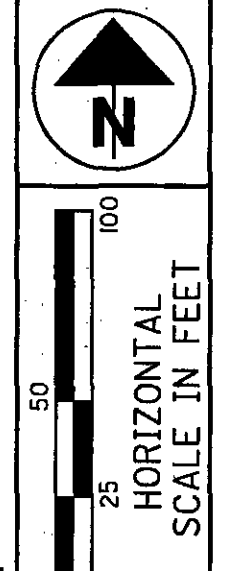
1120

TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 45 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO

MATCH LINE SEE SHEET 30/47

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
WH103	I. PIN CAPPED "ODOT"	10.00m (32.81' N)	831+70.07	32.81' LT
ROW6	I. PIN	S68°27'56"E 1.04'	828+49.42	80.73' RT
ROW7	1" I. PIPE	N82°26'27"E 1.59'	828+49.98	79.65' RT
ROW8	I. PIN	S68°27'56"E 1.04'	832+00.97	100.38' RT

CURVE DATA
 @ R/W I-76/US 224
 P.I. Sta = 823+95.81
 Δ = 23° 00' 25" (LT)
 Dc = 1° 28' 00"
 R = 3,906.53'
 T = 795.04'
 L = 1,568.66'



PID NO. **75657**

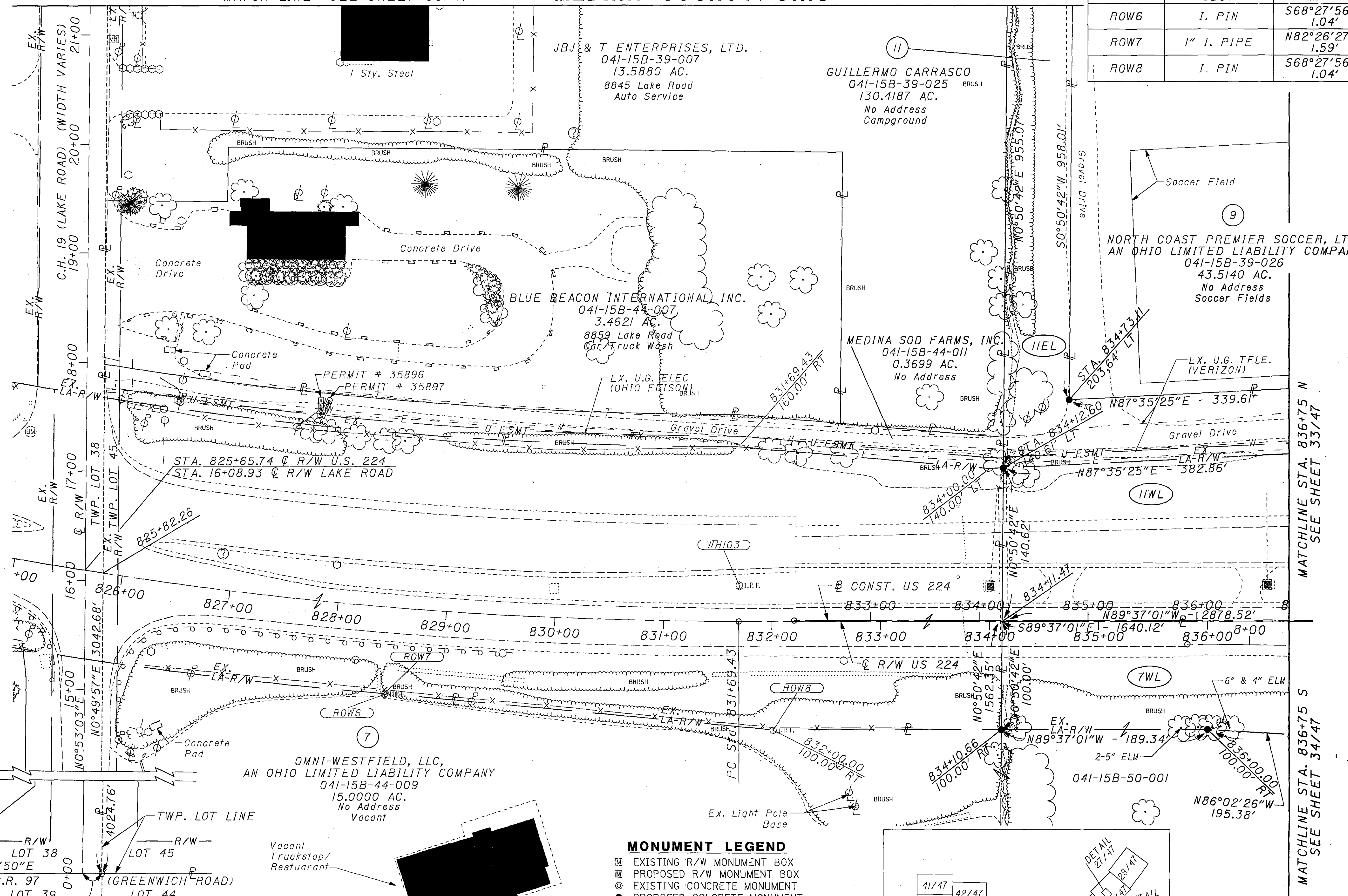
R/W DESIGNER: LYNN
 R/W REVIEWER: SNYDER

RIGHT OF WAY PLAN
 US 224 R/W STA. 825+00 TO 836+75

MED-71-6.06

31 / 47

1104
1120



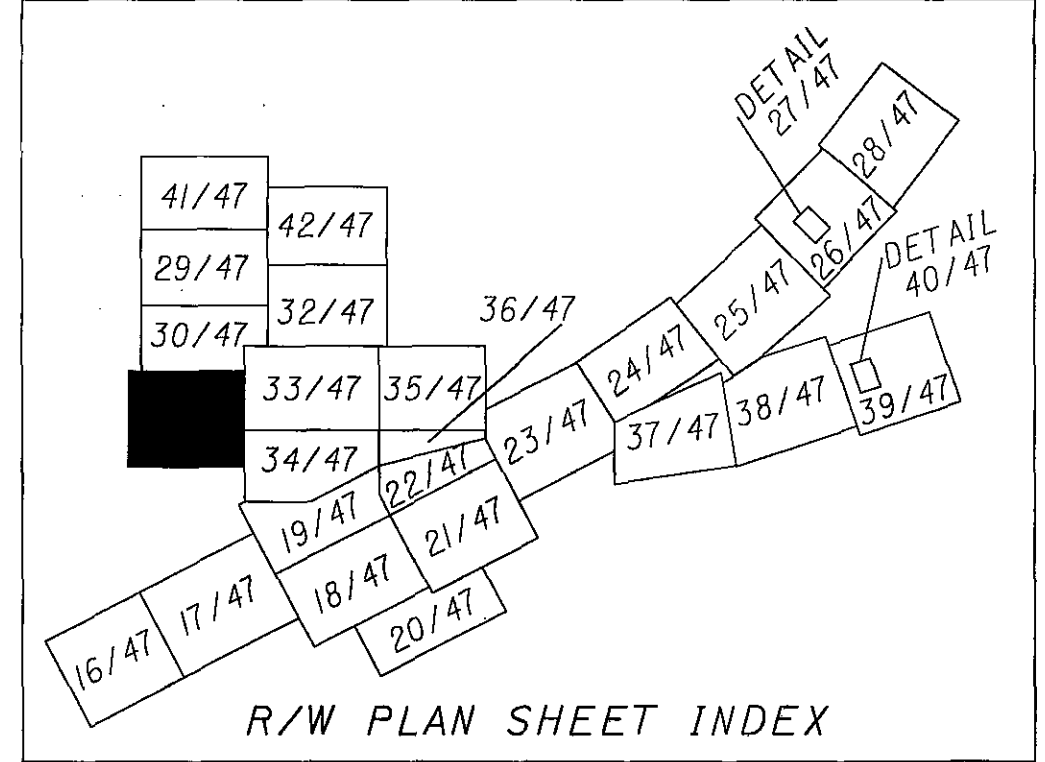
BASIS FOR BEARINGS:
 BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ◻ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.P.P. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.S. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

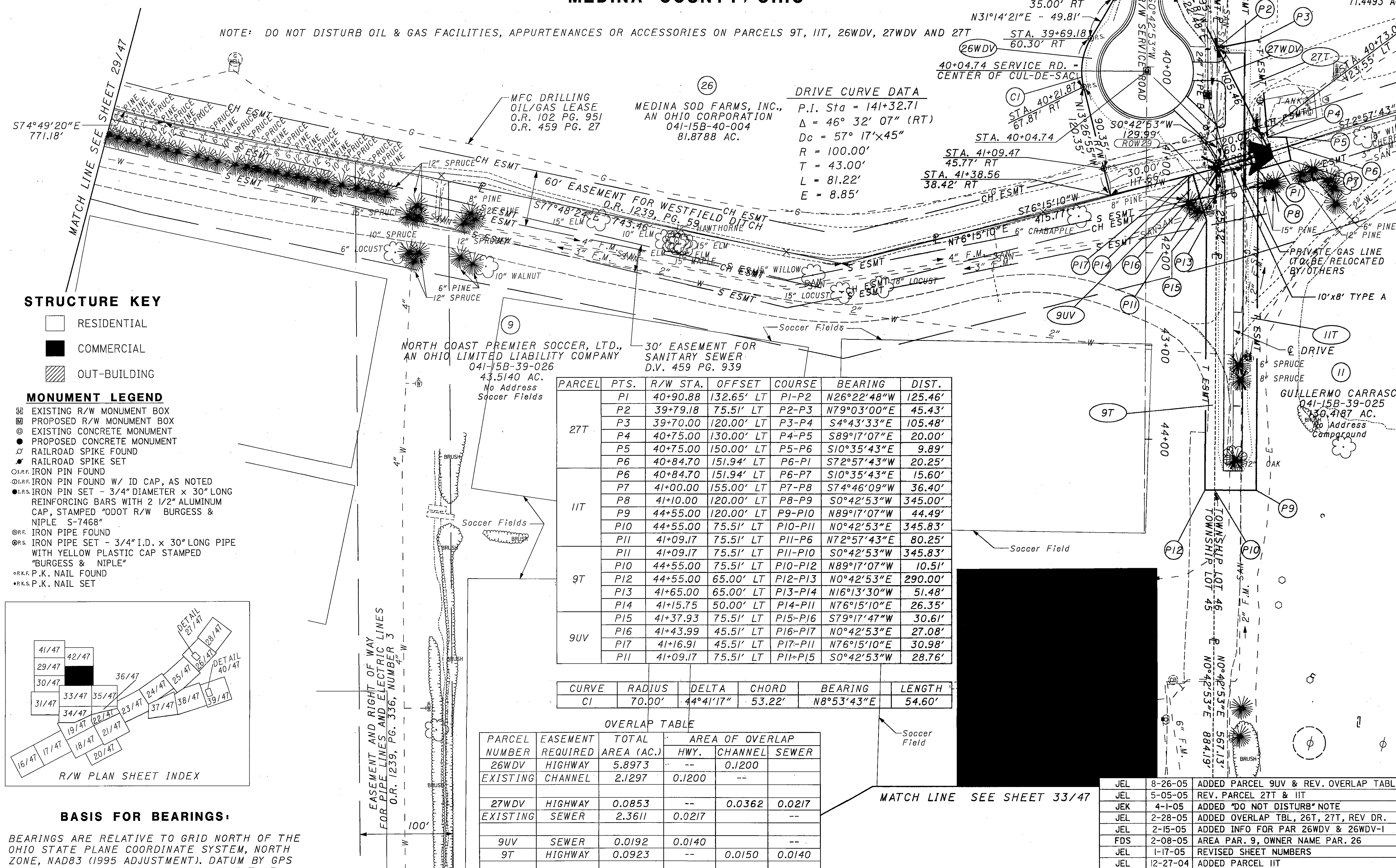


REV. BY	DATE	DESCRIPTION
FDS	2-08-05	PARCEL 9 AREA
FDS	1-25-05	PARCEL 7 OWNER, DIM. AT INTERSECTION
JEL	1-17-05	ADDED HEL DESIGNATION, DIST. & BEAR.
JEL	12-17-04	ADDED HEL DESIGNATION, DIST. & BEAR.
JEL	10-01-04	REV. DISTANCE ON IIWL
JEL	9-30-04	CHNG. STATIONING IN TITLE BLOCK
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE:\PR33412\CADD\75657RPI2C.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 45 & 46 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

NOTE: DO NOT DISTURB OIL & GAS FACILITIES, APPURTENANCES OR ACCESSORIES ON PARCELS 9T, IIT, 26WDV, 27WDV AND 27T

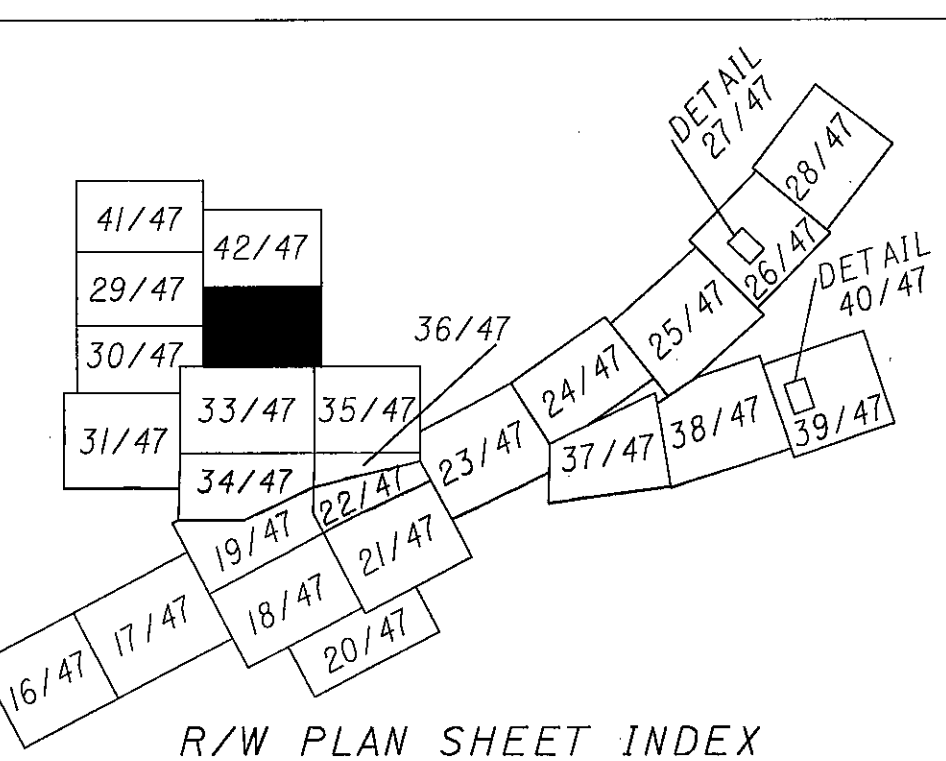


STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊕ RAILROAD SPIKE FOUND
- ⊕ RAILROAD SPIKE SET
- ⊙ I.P.F. IRON PIN FOUND
- ⊕ I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- ⊙ I.P.S. IRON PIPE SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊙ I.P.F. IRON PIPE FOUND
- ⊕ I.P.S. IRON PIPE SET - 3/4" I.D. x 30" LONG PIPE WITH YELLOW PLASTIC CAP STAMPED "BURGESS & NIPLE"
- ⊙ R.K.F. P.K. NAIL FOUND
- ⊕ R.K.S. P.K. NAIL SET



BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

PARCEL	PTS.	R/W STA.	OFFSET	COURSE	BEARING	DIST.
27T	P1	40+90.88	132.65' LT	P1-P2	N26°22'48"W	125.46'
	P2	39+79.18	75.51' LT	P2-P3	N79°03'00"E	45.43'
	P3	39+70.00	120.00' LT	P3-P4	S4°43'33"E	105.48'
	P4	40+75.00	130.00' LT	P4-P5	S89°17'07"E	20.00'
	P5	40+75.00	150.00' LT	P5-P6	S10°35'43"E	9.89'
	P6	40+84.70	151.94' LT	P6-P1	S72°57'43"W	20.25'
IIT	P6	40+84.70	151.94' LT	P6-P7	S10°35'43"E	15.60'
	P7	41+00.00	155.00' LT	P7-P8	S74°46'09"W	36.40'
	P8	41+10.00	120.00' LT	P8-P9	S0°42'53"W	345.00'
	P9	44+55.00	120.00' LT	P9-P10	N89°17'07"W	44.49'
	P10	44+55.00	75.51' LT	P10-P11	N0°42'53"E	345.83'
9T	P11	41+09.17	75.51' LT	P11-P6	N72°57'43"E	80.25'
	P10	44+55.00	75.51' LT	P10-P12	S0°42'53"W	345.83'
	P12	44+55.00	65.00' LT	P12-P13	N89°17'07"W	10.51'
	P13	41+65.00	65.00' LT	P13-P14	N16°13'30"W	51.48'
	P14	41+15.75	50.00' LT	P14-P11	N76°15'10"E	26.35'
9UV	P15	41+37.93	75.51' LT	P15-P16	S79°17'47"W	30.61'
	P16	41+43.99	45.51' LT	P16-P17	N0°42'53"E	27.08'
	P17	41+16.91	45.51' LT	P17-P11	N76°15'10"E	30.98'
	P11	41+09.17	75.51' LT	P11-P15	S0°42'53"W	28.76'

CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
CI	70.00'	44°41'17"	53.22'	N8°53'43"E	54.60'

PARCEL NUMBER	EASEMENT REQUIRED	TOTAL AREA (AC.)	AREA OF OVERLAP		
			HWY.	CHANNEL	SEWER
26WDV	HIGHWAY	5.8973	--	0.1200	
EXISTING	CHANNEL	2.1297	0.1200	--	
27WDV	HIGHWAY	0.0853	--	0.0362	0.0217
EXISTING	SEWER	2.3611	0.0217	--	
9UV	SEWER	0.0192	0.0140	--	
9T	HIGHWAY	0.0923	--	0.0150	0.0140

DRIVE CURVE DATA
 P.I. Sta = 141+32.71
 Δ = 46° 32' 07" (RT)
 Dc = 57° 17' x 45"
 R = 100.00'
 T = 43.00'
 L = 81.22'
 E = 8.85'

NORTH COAST PREMIER SOCCER, LTD., AN OHIO LIMITED LIABILITY COMPANY
 041-15B-39-026
 43.5140 AC.
 No Address
 Soccer Fields

MEDINA SOD FARMS, INC., AN OHIO CORPORATION
 041-15B-40-004
 81.8788 AC.

MEDINA SOD FARMS, INC., AN OHIO LIMITED LIABILITY COMPANY
 SEE SHEET 42/47
 041-15B-26.021
 71.4493 AC.

**RIGHT OF WAY PLAN
SERVICE ROAD**

PROJECTWISE:\NPR33412\CADD\75657RPI\2D.DGN

R/W DESIGNER
LYNN

R/W REVIEWER
SNYDER

PID NO.
75657

SCALE IN FEET
0 25 50 100

MED-71-6.06

32 / 47

1105
1120

REV. BY	DATE	DESCRIPTION
JEL	8-26-05	ADDED PARCEL 9UV & REV. OVERLAP TABLE
JEL	5-05-05	REV. PARCEL 27T & IIT
JEK	4-1-05	ADDED "DO NOT DISTURB" NOTE
JEL	2-28-05	ADDED OVERLAP TBL, 26T, 27T, REV DR.
JEL	2-15-05	ADDED INFO FOR PAR 26WDV & 26WDV-I
FDS	2-08-05	AREA PAR. 9, OWNER NAME PAR. 26
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-27-04	ADDED PARCEL IIT
JEL	11-01-04	ADDED U.G. UTILITIES TO PAR. 9 & 26
REV. BY		DATE
DATE COMPLETED		DESCRIPTION
		SEPTEMBER 29, 2004

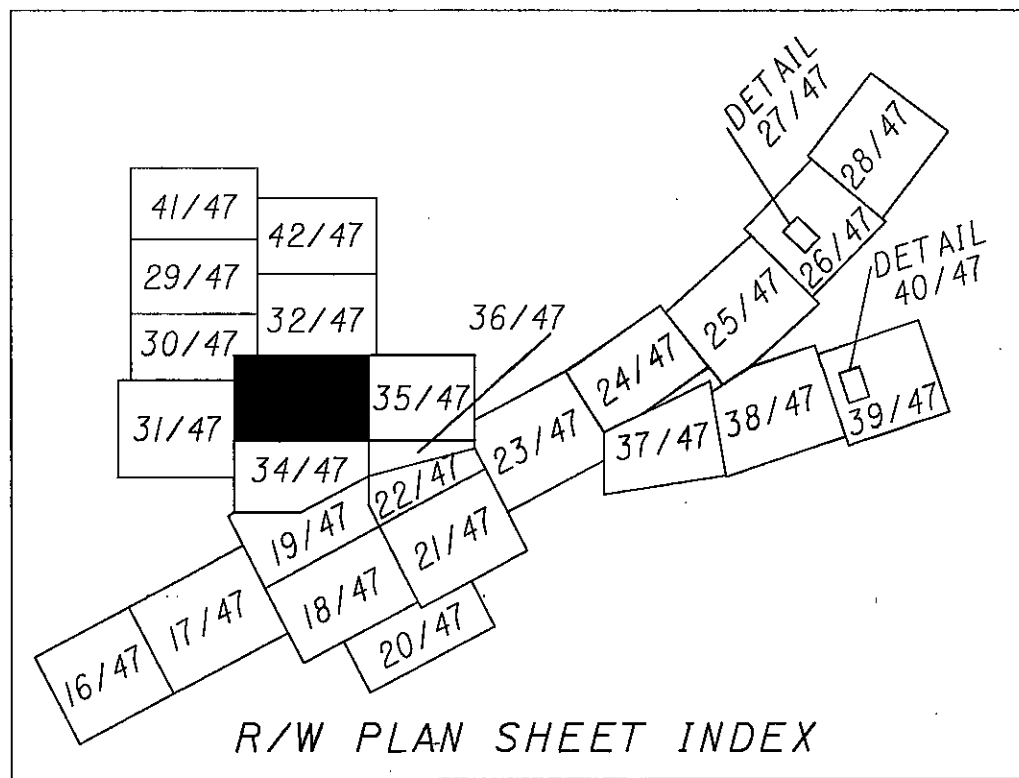
MATCH LINE SEE SHEET 33/47

MATCH LINE SEE SHEET 33/47

TOWNSHIP 1, RANGE XV CONNECTICUT WESTERN RESERVE LOTS 45 & 46 WESTFIELD TOWNSHIP MEDINA COUNTY, OHIO

MONUMENT LEGEND

- ▣ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- D.I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET



BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

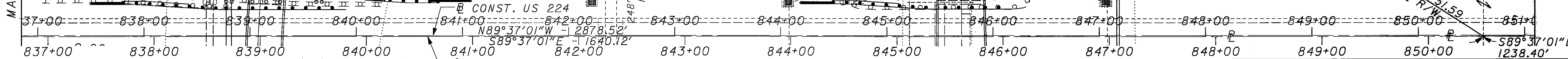
- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

EASEMENT AND RIGHT OF WAY FOR PIPE LINES AND ELECTRIC LINES O.R. 1239, PG. 336, NUMBER 3

Soccer Fields

MATCHLINE STA. 836+75 N SEE SHEET 31/47

MATCHLINE STA. 851+00 N SEE SHEET 35/47



FENCE POST ASSEMBLIES	
E.P.A.	837+96.07, 159.36' LT
	838+35.93, 299.61' LT
	839+50.80, 499.38' LT
	842+00.49, 739.09' LT
	844+60.12, 799.00' LT
	846+96.79, 804.00' LT
	847+94.44, 790.22' LT

R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. = CORNER FENCE ASSEMBLY (TYPE 47)
E.P.A. = END POST ASSEMBLY (TYPE CLT)

REV. BY	DATE	DESCRIPTION
FDS	2-08-05	REVISED SHEET NUMBERS
JEL	12-17-04	ADDED IIE DESIGNATION
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	11-01-04	REVISED U.G. UTILITIES
JEL	10-01-04	CHNG. PROP. LA/RW FOR 9WL & HWL
REV. BY		DATE
DATE COMPLETED		DESCRIPTION
		SEPTEMBER 29, 2004



HORIZONTAL SCALE IN FEET

PID NO. 75657

RAW DESIGNER LYNN RAW REVIEWER SNYDER

US 224 R/W STA. 836+75 TO 851+00 N

MED-71-6.06

33 / 47

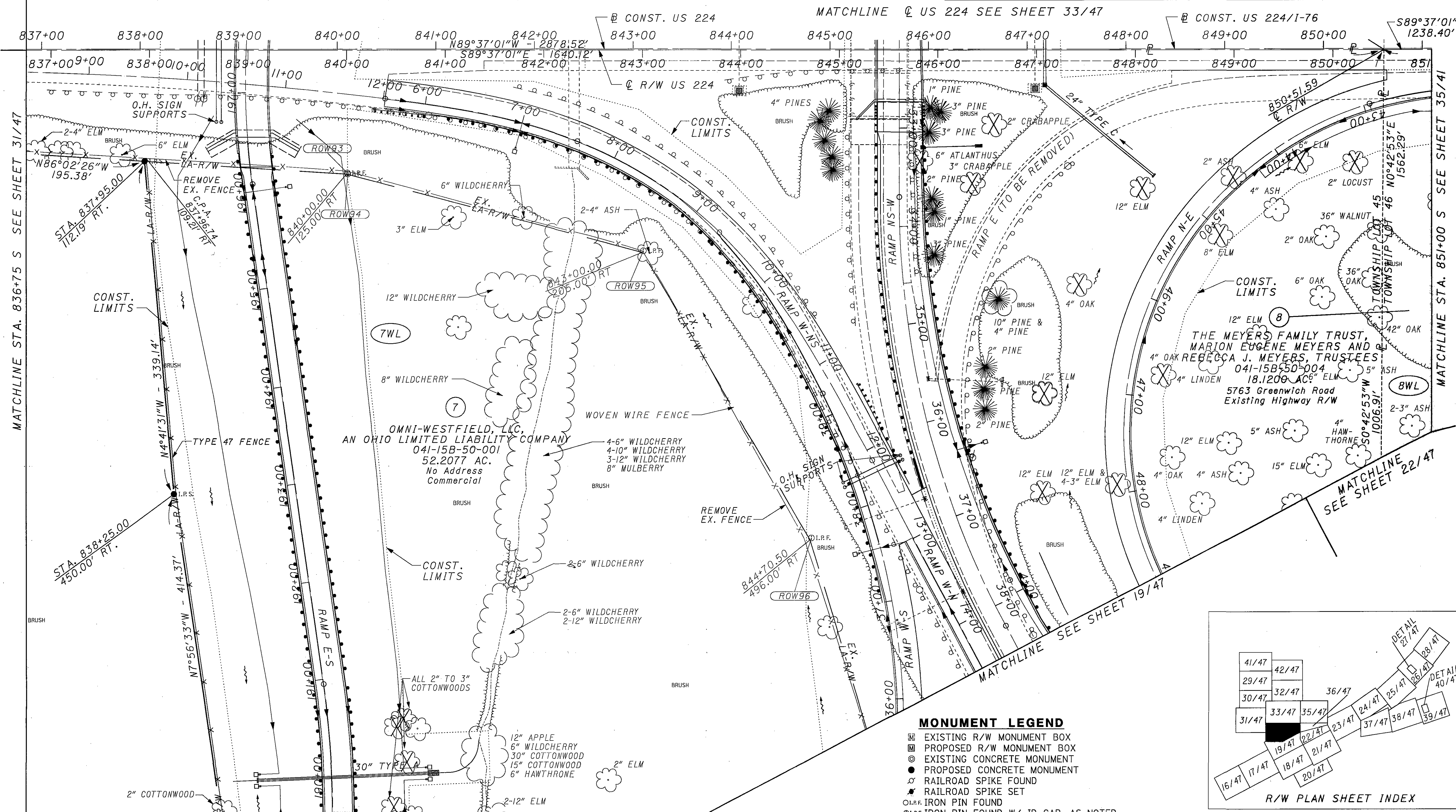
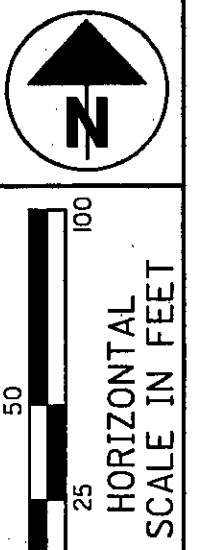
1106
1120

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOTS 45 & 46 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW93	1. PIN CAPPED "DEIBEL 6673"	N35°08'51"E 1.43'	840+00.82	123.82' RT
ROW94	1. PIPE 3/4" PINCH TOP	N86°09'13"E 1.30'	840+01.30	124.90' RT
ROW95	1. PIN 3/8" IN CONC.	N33°59'01"E 2.02'	843+01.12	203.32' RT
ROW96	1. PIN CAPPED "CG DEIBEL 6673"	N35°50'12"E 2.47'	844+71.93	493.99' RT



MATCHLINE STA. 836+75 S SEE SHEET 31/47

MATCHLINE STA. 851+00 S SEE SHEET 35/41

THE MEYERS FAMILY TRUST,
MARION EUGENE MEYERS AND
REBECCA J. MEYERS, TRUSTEES
041-15B-50-004
18.1209 AC
5763 Greenwich Road
Existing Highway R/W

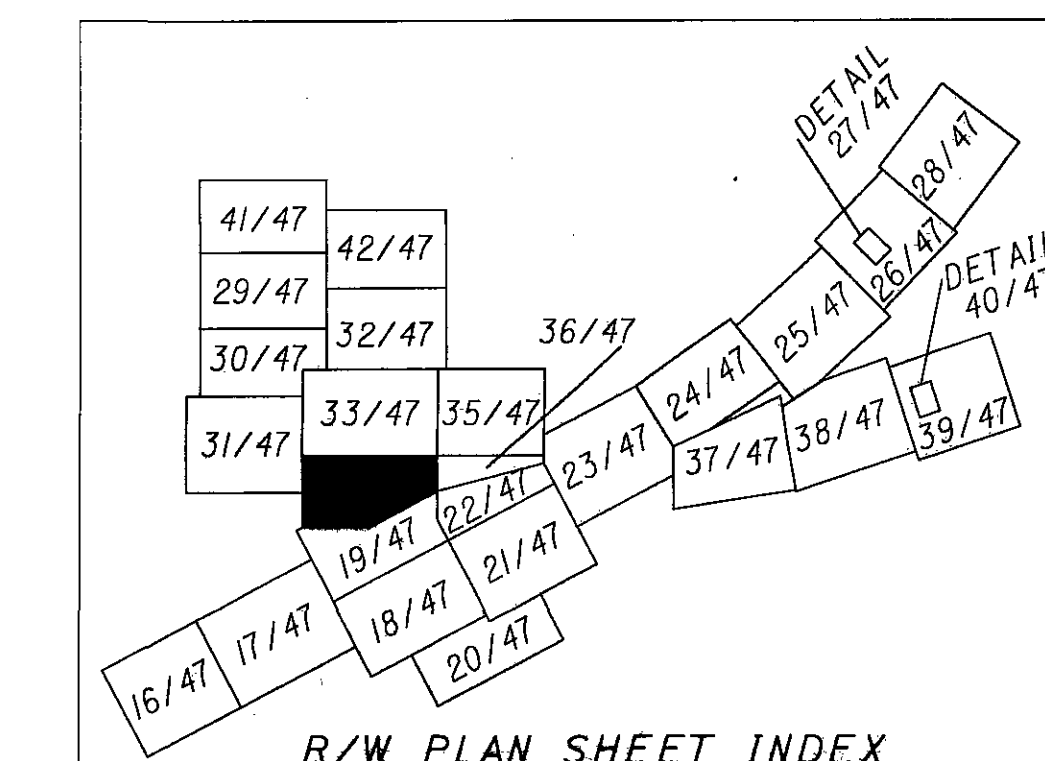
OMNI-WESTFIELD, LLC,
AN OHIO LIMITED LIABILITY COMPANY
041-15B-50-001
52.2077 AC.
No Address
Commercial

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.P.F. IRON PIN FOUND
- I.R.P.S. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.R.P.S. IRON PIPE FOUND
- I.R.P.S. IRON PIPE SET
- I.R.P.S. P.K. NAIL FOUND
- I.R.P.S. P.K. NAIL SET



MATCHLINE SEE SHEET 19/47

R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. - CORNER FENCE ASSEMBLY
I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY

REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-10-04	ADDED R/W FENCE INFO
DATE COMPLETED		SEPTEMBER 29, 2004

PID NO. 75657

R/W DESIGNER LYNN R/W REVIEWER SNYDER

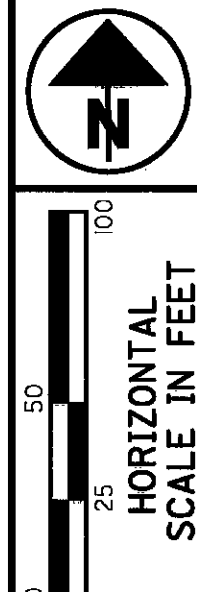
RIGHT OF WAY PLAN
US 224 R/W STA. 836+75 TO 851+00 S

MED-71-6.06

34 / 47

1107
1120

TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 46 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO



PID NO.
75657

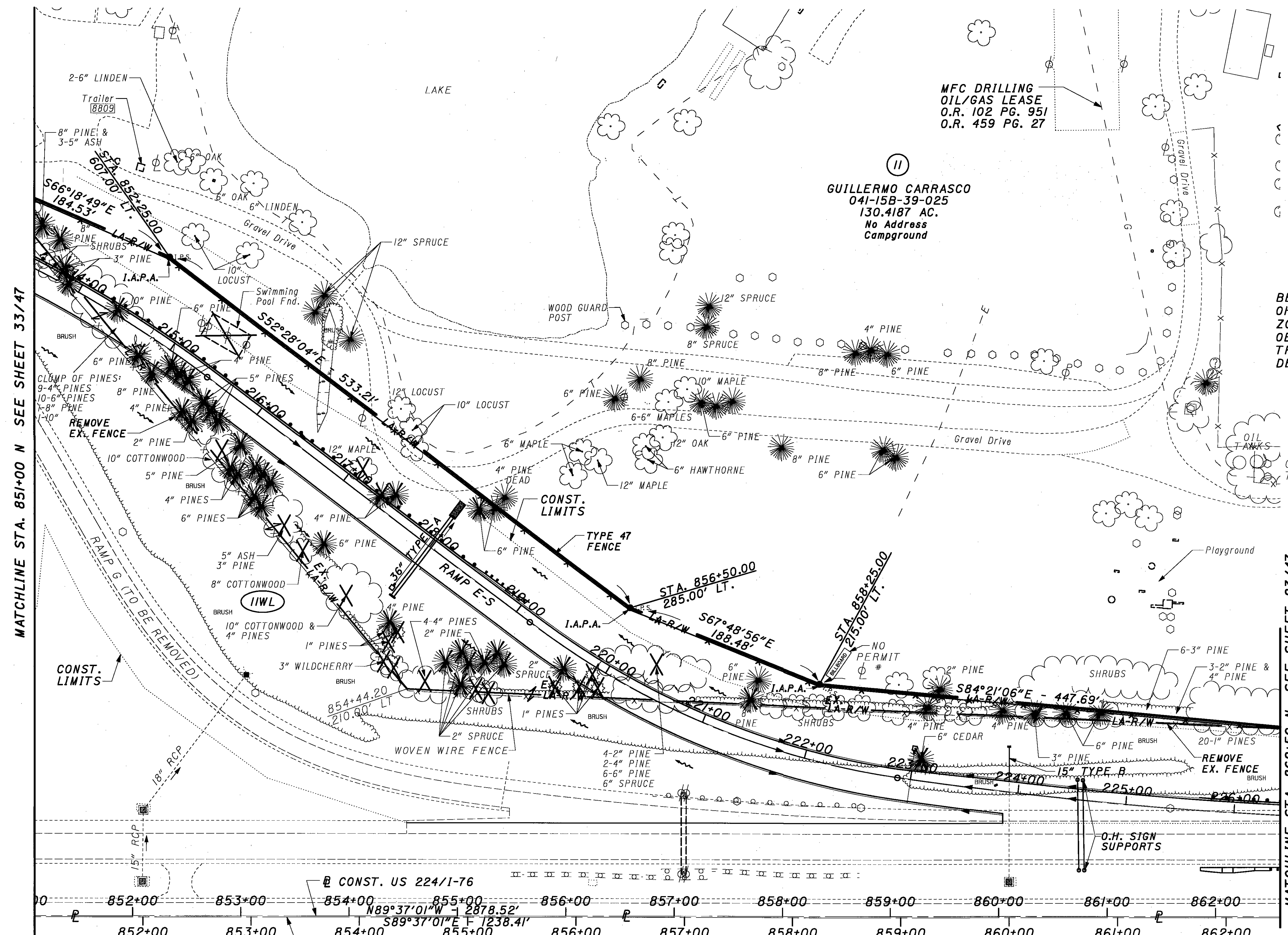
R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

RIGHT OF WAY PLAN
US 224 R/W STA. 851+00 TO 862+50 N

MED-71-6.06

35 / 47

1108
1120

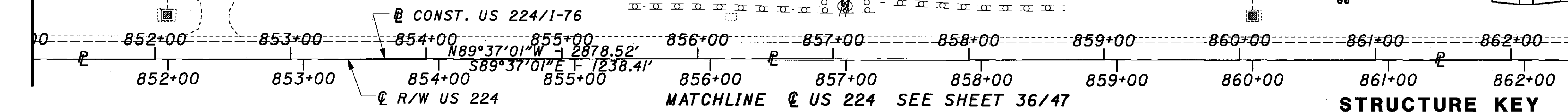
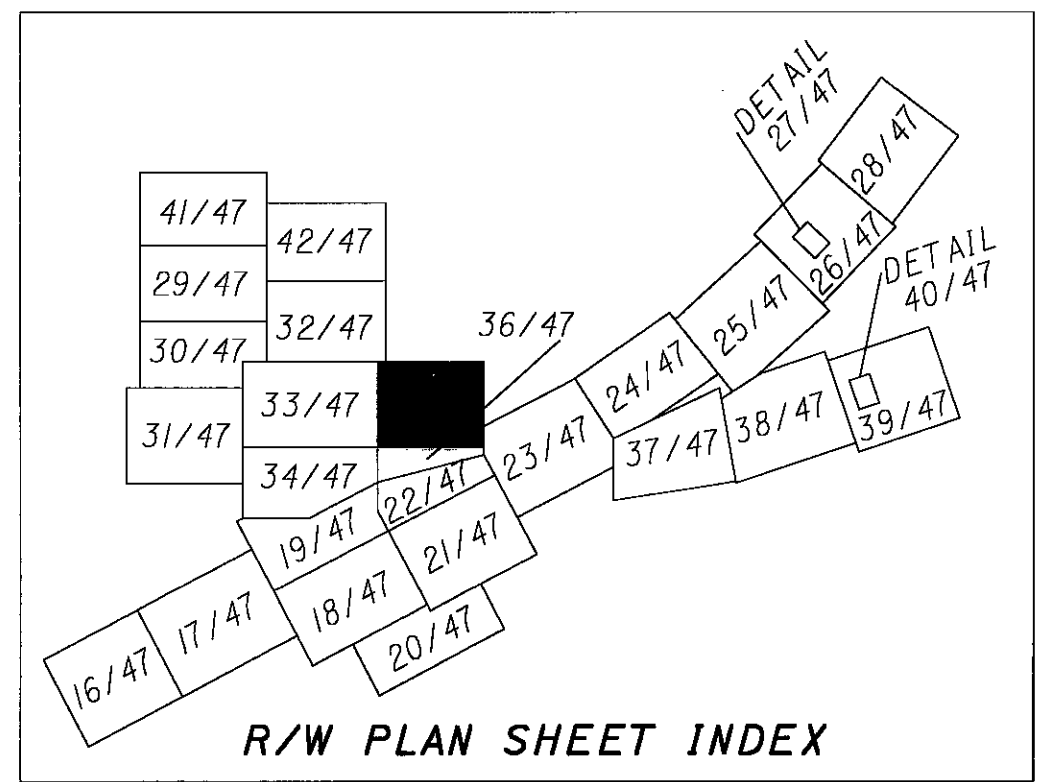


MATCHLINE STA. 851+00 N SEE SHEET 33/47

MATCHLINE STA. 862+50 N SEE SHEET 23/47

BASIS FOR BEARINGS:
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

- MONUMENT LEGEND**
- EXISTING R/W MONUMENT BOX
 - PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ⊗ RAILROAD SPIKE FOUND
 - ⊗ RAILROAD SPIKE SET
 - I.P.F. IRON PIN FOUND
 - I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
 - I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - ⊗ I.P.P. IRON PIPE FOUND
 - ⊗ I.P.S. IRON PIPE SET
 - ⊗ P.K. P.K. NAIL FOUND
 - ⊗ P.K. P.K. NAIL SET



FENCE POST ASSEMBLIES
I.A.P.A.
852+23.99, 605.26' LT
856+49.01, 283.24' LT
858+24.53, 213.04' LT

R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W. NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. - CORNER FENCE ASSEMBLY
I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY

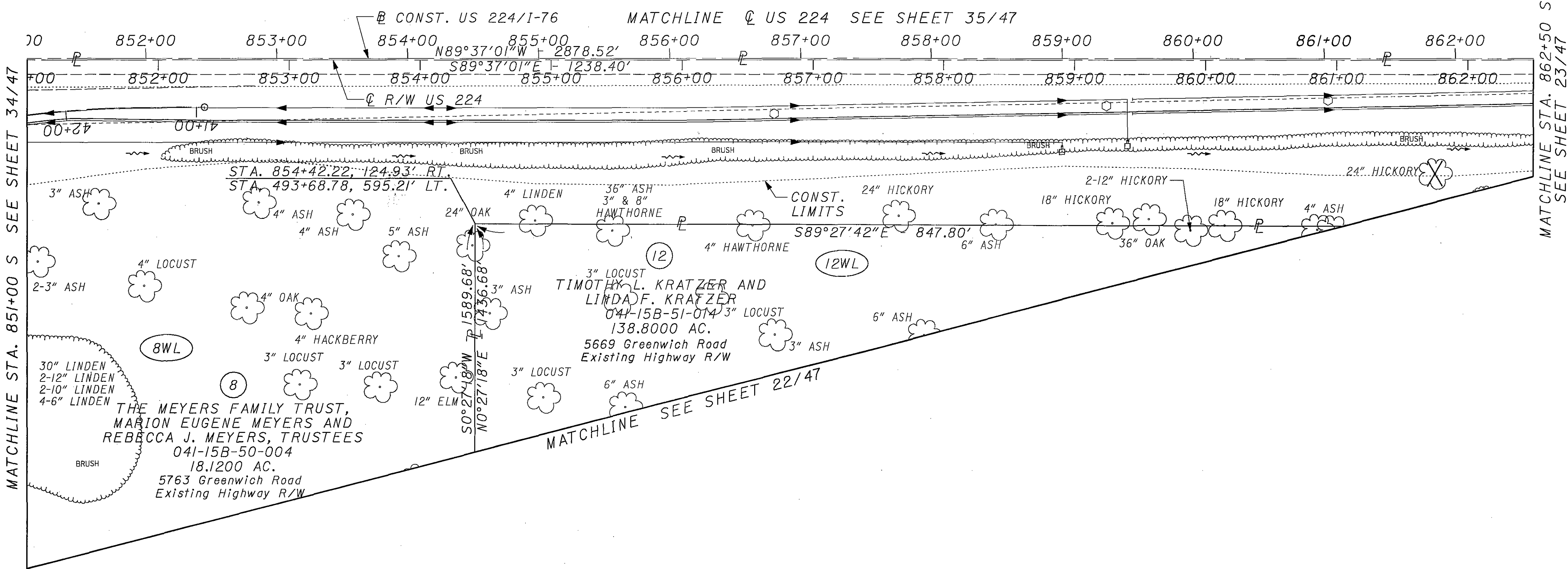
STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

REV. BY	DATE	DESCRIPTION
JEL	10-10-05	REMOVED PAR. IIT-1
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	12-27-04	CHANGED PAR. IIT TO IIT-1
FDS	12-22-04	TREES ON IIT
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	11-01-04	REVISED U.G. UTILITIES ON PAR. II
REV. BY DATE		DESCRIPTION
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE:\NPR33412\CADD\75657R1P5.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 46 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**



MATCHLINE STA. 851+00 S SEE SHEET 34/47

MATCHLINE STA. 862+50 S SEE SHEET 23/47

**THE MEYERS FAMILY TRUST,
MARION EUGENE MEYERS AND
REBECCA J. MEYERS, TRUSTEES**
041-15B-50-004
18.1200 AC.
5763 Greenwich Road
Existing Highway R/W

**TIMOTHY L. KRATZER AND
LINDA F. KRATZER**
047-15B-51-014/3
138.8000 AC.
5669 Greenwich Road
Existing Highway R/W

MONUMENT LEGEND

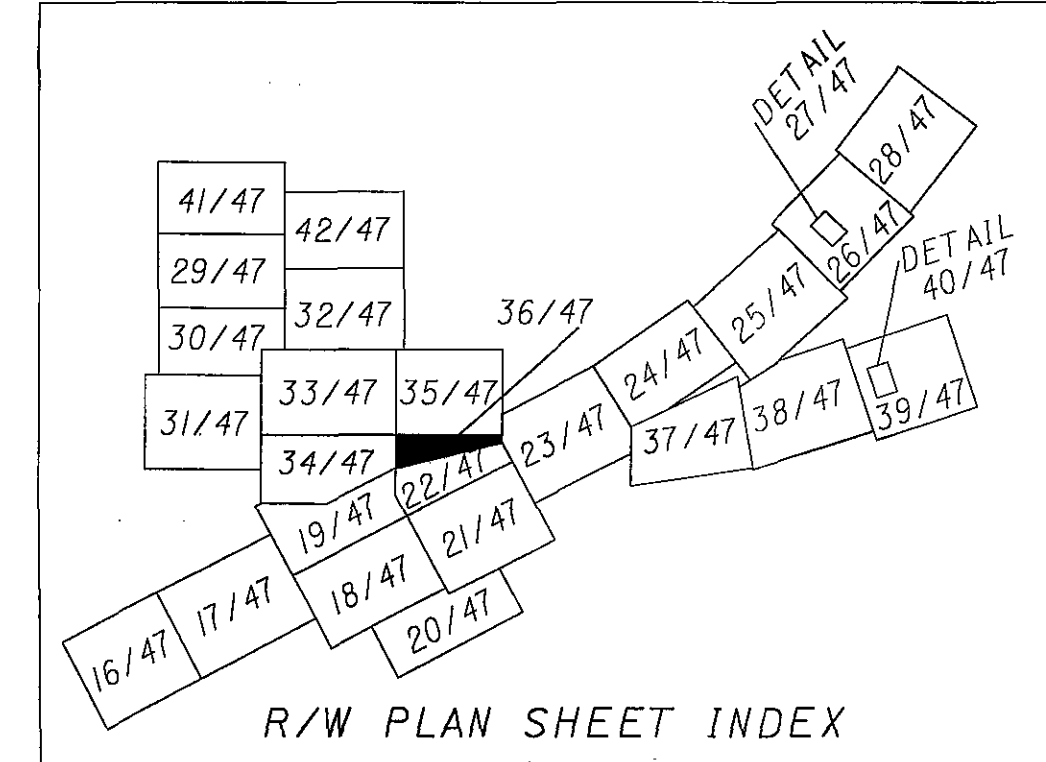
- ▣ EXISTING R/W MONUMENT BOX
- ▤ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊗ RAILROAD SPIKE SET
- ⊙ I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLÉ S-7468"
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ P.K. P.K. NAIL FOUND
- ⊙ P.K.S. P.K. NAIL SET

BASIS FOR BEARINGS:

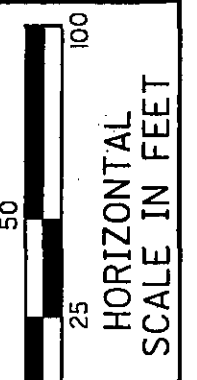
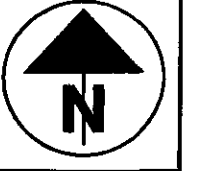
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	10-20-04	ADDED DUAL STA. & OFFSET TO 8WL & I2WL
DATE COMPLETED		SEPTEMBER 29, 2004



PID NO.
75657

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

US 224 R/W STA. 851+00 S TO 862+50

MED-71-6.06

36/47

1109
1120

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW91	I. PIN CAPPED "CUNNINGHAM"	N85°52'49"E 30.00'	880+58.98	87.64' RT

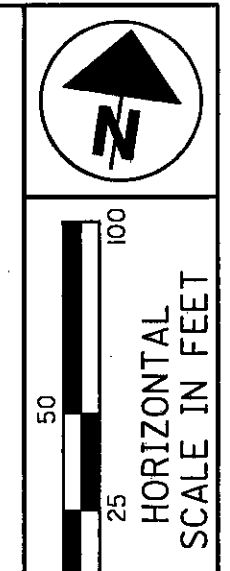
CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
C1	3906.53'	18°42'45"	1270.19'	S 81°01'36" W	1275.85'
C2	3746.53'	18°42'45"	1218.17'	S 81°01'36" W	1223.60'

CURVE DATA @ R/W 1-76
 P.I. Sta = 888+86.68
 D = 18° 42' 45" (LT)
 Dc = 1° 28' 00"
 R = 3,906.53'
 T = 643.66'
 L = 1,275.85'
 E = 52.67'

FENCE POST ASSEMBLIES
 C.P.A.
 879+87.67, 106.00' RT
 880+72.60, 85.69' RT

R/W FENCE
 1. SEE SHEET 154A FOR FENCE QUANTITIES
 2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
 C.P.A. = CORNER FENCE ASSEMBLY
 I.A.P.A. = INTERMEDIATE ANCHOR POST ASSEMBLY

**TOWNSHIP 1, RANGE XV
 CONNECTICUT WESTERN RESERVE
 VILLAGE LOTS 1100 & 1101
 VILLAGE OF SEVILLE
 LOT 53 WESTFIELD TOWNSHIP
 MEDINA COUNTY, OHIO**

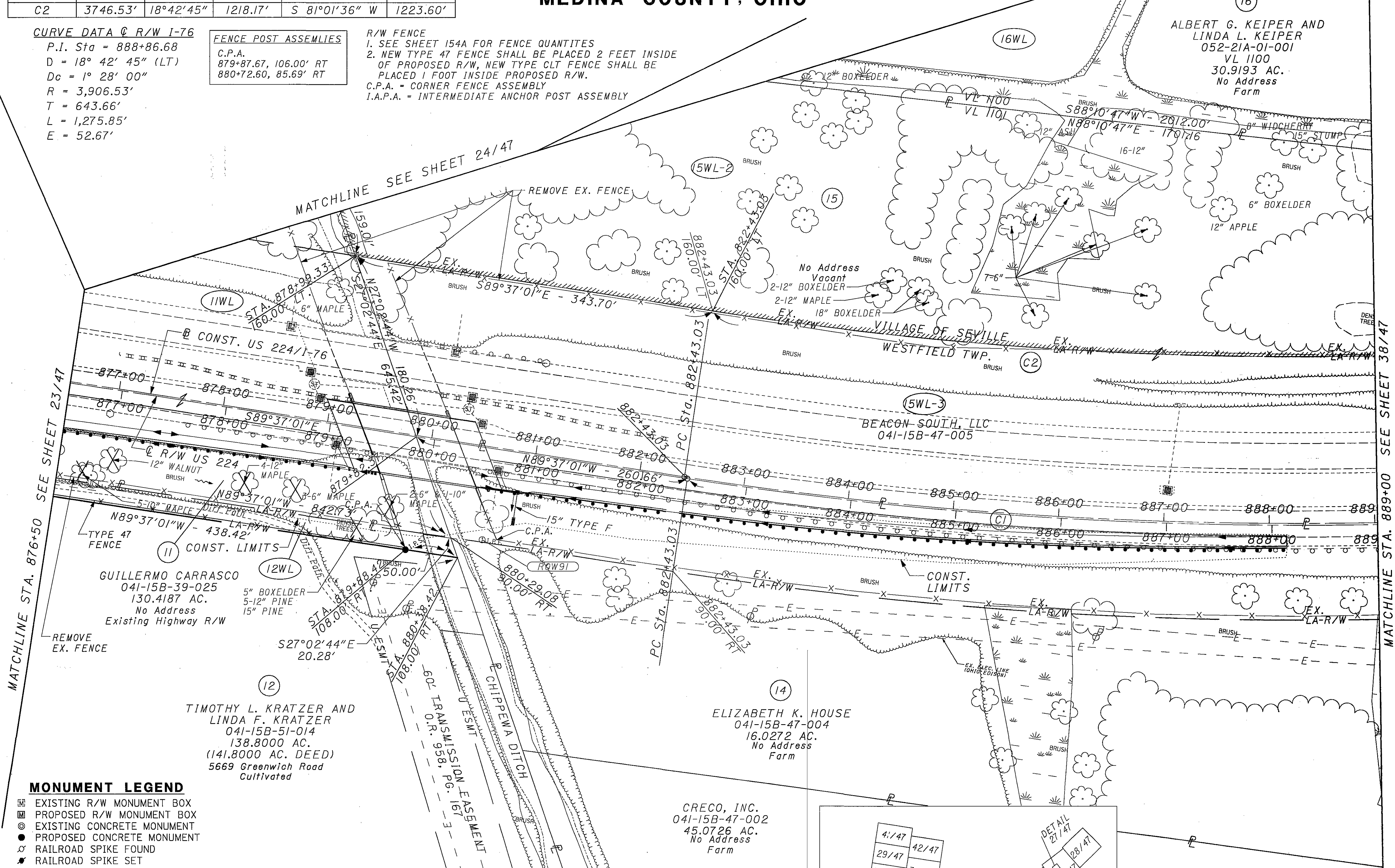


PID NO. **75657**

R/W DESIGNER: LYNN
 R/W REVIEWER: SNYDER

**RIGHT OF WAY PLAN
 US 224 R/W STA. 876+50 TO 889+00**

MED-71-6.06



MONUMENT LEGEND

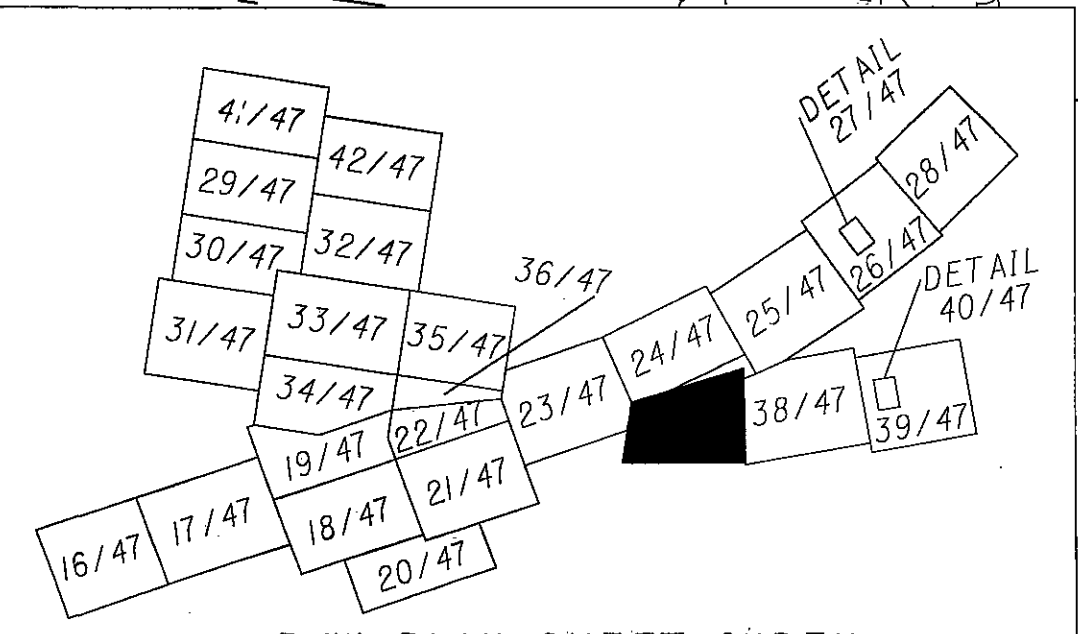
- ☐ EXISTING R/W MONUMENT BOX
- ☐ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ✕ RAILROAD SPIKE FOUND
- ✕ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.F. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- I.P.F. IRON PIPE FOUND
- I.P.F. IRON PIPE SET
- P.K. P.K. NAIL FOUND
- P.K. P.K. NAIL SET

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- ☐ RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



REV. BY	DATE	DESCRIPTION
JEL	3-02-05	REV. PROP. LINE BET. 16WL & 15WL-2
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-07-05	SPLIT 15WL-1 INTO 15WL-2 & 15WL-3
JEL	12-10-04	ADDED R/W FENCE INFO
DATE COMPLETED		SEPTEMBER 29, 2004

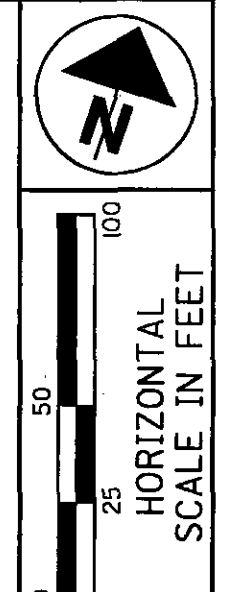
37/47

1110
1120

PROJECTWISE:\PR33412\CADD\75657RPT7.DGN

**TOWNSHIP 1, RANGE XIV & XV
CONNECTICUT WESTERN RESERVE
LOT 53 WESTFIELD TOWNSHIP
SECTION 13 LOT 1 GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
C1	3906.53'	18°42'45"	1270.19'	S 81°01'36" W	1275.85'
C2	3746.53'	18°42'45"	1218.17'	S 81°01'36" W	1223.60'



PID NO. **75657**

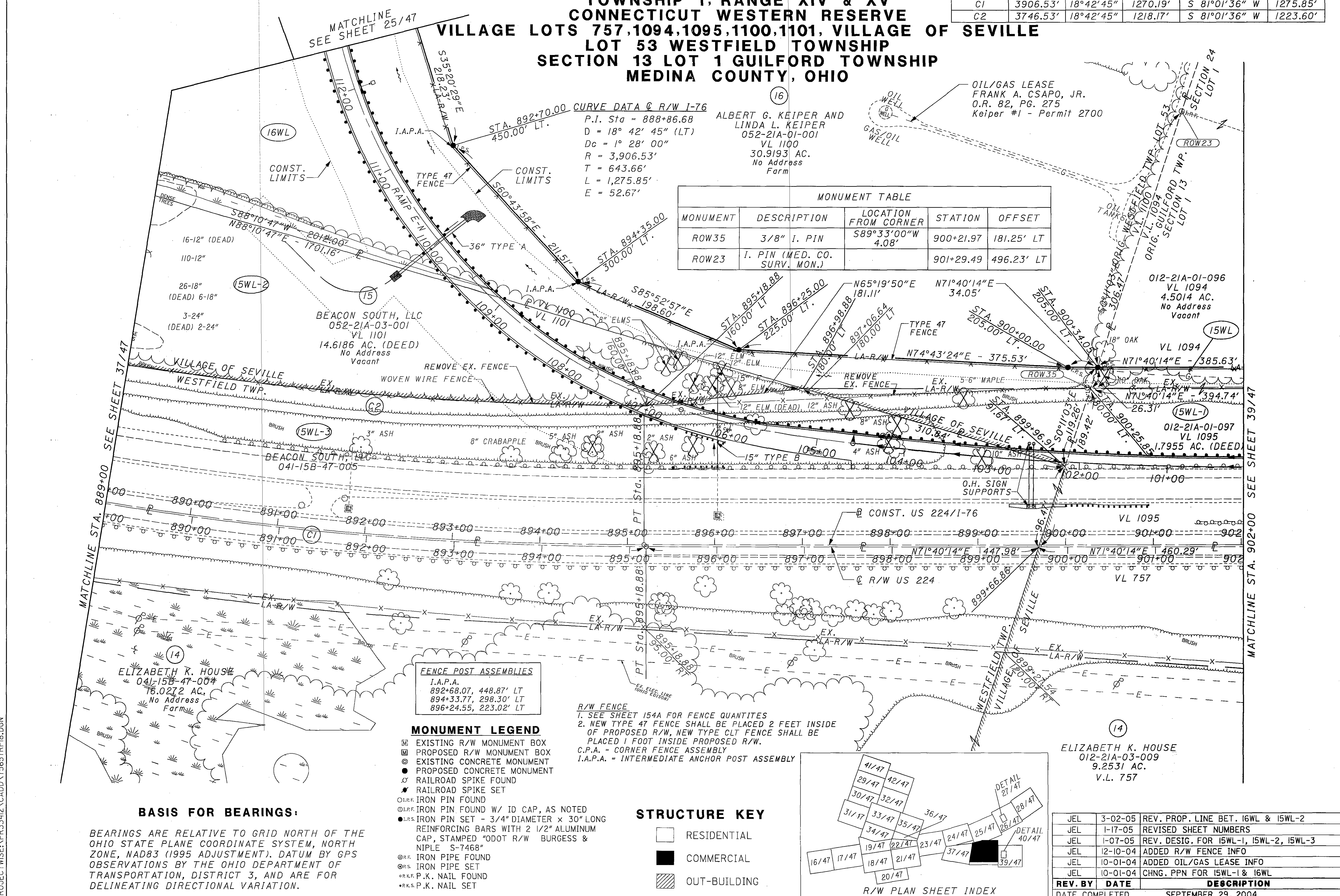
R/W DESIGNER
LYNW
R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
US 224 R/W STA. 889+00 TO 902+00**

MED-71-6.06

38 / 47

1111
1120



ALBERT G. KEIPER AND
LINDA L. KEIPER
052-21A-01-001
VL 1100
30.9193 AC.
No Address
Farm

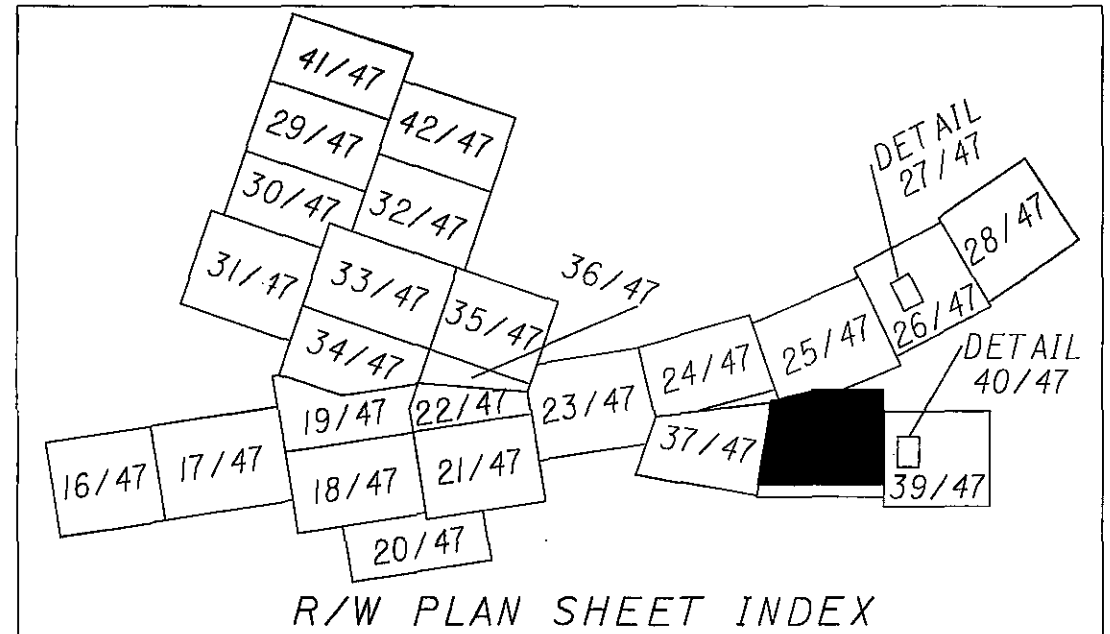
MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
ROW35	3/8" I. PIN	S89°33'00"W 4.08'	900+21.97	181.25' LT
ROW23	I. PIN (MED. CO. SURV. MON.)		901+29.49	496.23' LT

FENCE POST ASSEMBLIES
I.A.P.A.
892+68.07, 448.87' LT
894+33.77, 298.30' LT
896+24.55, 223.02' LT

- MONUMENT LEGEND**
- ☐ EXISTING R/W MONUMENT BOX
 - ◻ PROPOSED R/W MONUMENT BOX
 - ⊕ EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ✕ RAILROAD SPIKE FOUND
 - ✶ RAILROAD SPIKE SET
 - I.P.F. IRON PIN FOUND
 - I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
 - I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
 - ⊙ I.P.S. IRON PIPE FOUND
 - ⊙ I.P.S. IRON PIPE SET
 - ⊙ R.K.F. P.K. NAIL FOUND
 - ⊙ R.K.S. P.K. NAIL SET

- STRUCTURE KEY**
- RESIDENTIAL
 - COMMERCIAL
 - ▨ OUT-BUILDING

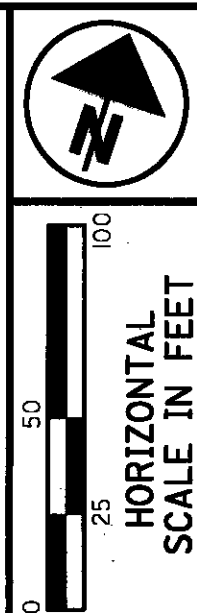
BASIS FOR BEARINGS:
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.



REV. BY	DATE	DESCRIPTION
JEL	3-02-05	REV. PROP. LINE BET. 16WL & 15WL-2
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-07-05	REV. DESIG. FOR 15WL-1, 15WL-2, 15WL-3
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	10-01-04	ADDED OIL/GAS LEASE INFO
JEL	10-01-04	CHNG. PPN FOR 15WL-1 & 16WL
REV. BY DATE		DESCRIPTION
DATE COMPLETED		SEPTEMBER 29, 2004

PROJECTWISE: \PR33412\CADD\75657RPIB.DGN

**TOWNSHIP 1, RANGE XIV
CONNECTICUT WESTERN RESERVE
VILLAGE LOTS 753, 757, 758, 1062, 1094, 1095
VILLAGE OF SEVILLE
SECTION 13 LOT 1 GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**



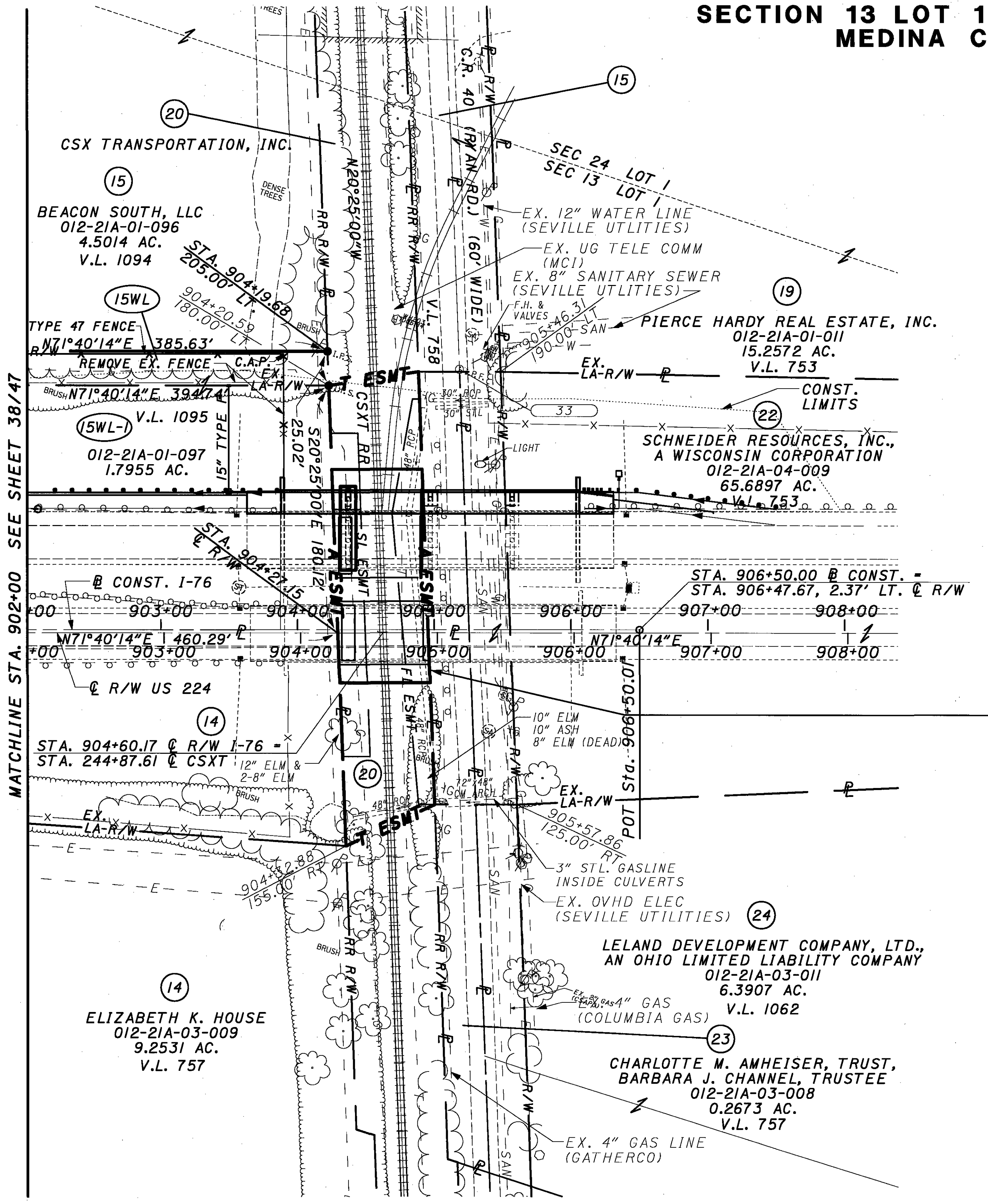
PID NO. **75657**

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
US 224 R/W STA. 902+00 TO 908+00**

MED-71-6.06

MONUMENT TABLE				
MONUMENT	DESCRIPTION	LOCATION FROM CORNER	STATION	OFFSET
33	I. PIN	N20°25'00"W 1.81'	905+16.23	191.81' LT



FOR BRIDGE AREA RIGHT OF WAY DETAIL
SEE SHEET 40/47

FENCE POST ASSEMBLIES
C.A.P.
903+87.45, 203.00' LT

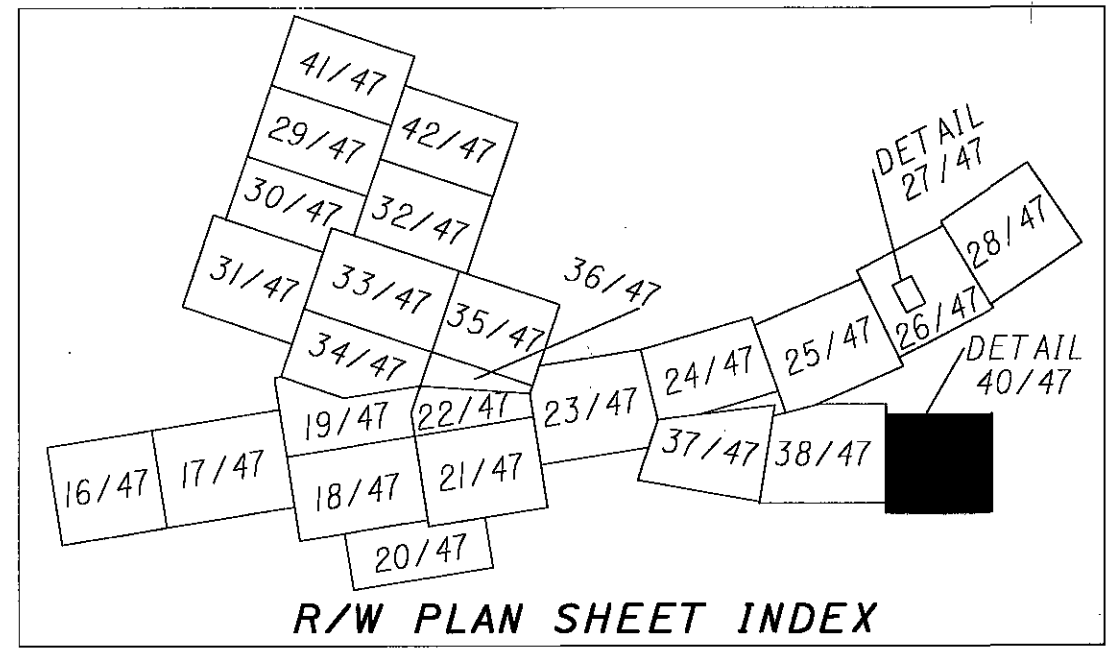
R/W FENCE
1. SEE SHEET 154A FOR FENCE QUANTITIES
2. NEW TYPE 47 FENCE SHALL BE PLACED 2 FEET INSIDE OF PROPOSED R/W, NEW TYPE CLT FENCE SHALL BE PLACED 1 FOOT INSIDE PROPOSED R/W.
C.P.A. - CORNER FENCE ASSEMBLY
I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG
- R.P.F. IRON PIPE FOUND
- R.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING



BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

REV. BY	DATE	DESCRIPTION
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-07-05	CHNG DESIG. 15WL-2 TO 15WL-1
JEL	12-10-04	ADDED R/W FENCE INFO
JEL	10-01-04	CHNG. OWNER'S NAME PAR 20
DATE COMPLETED		SEPTEMBER 29, 2004

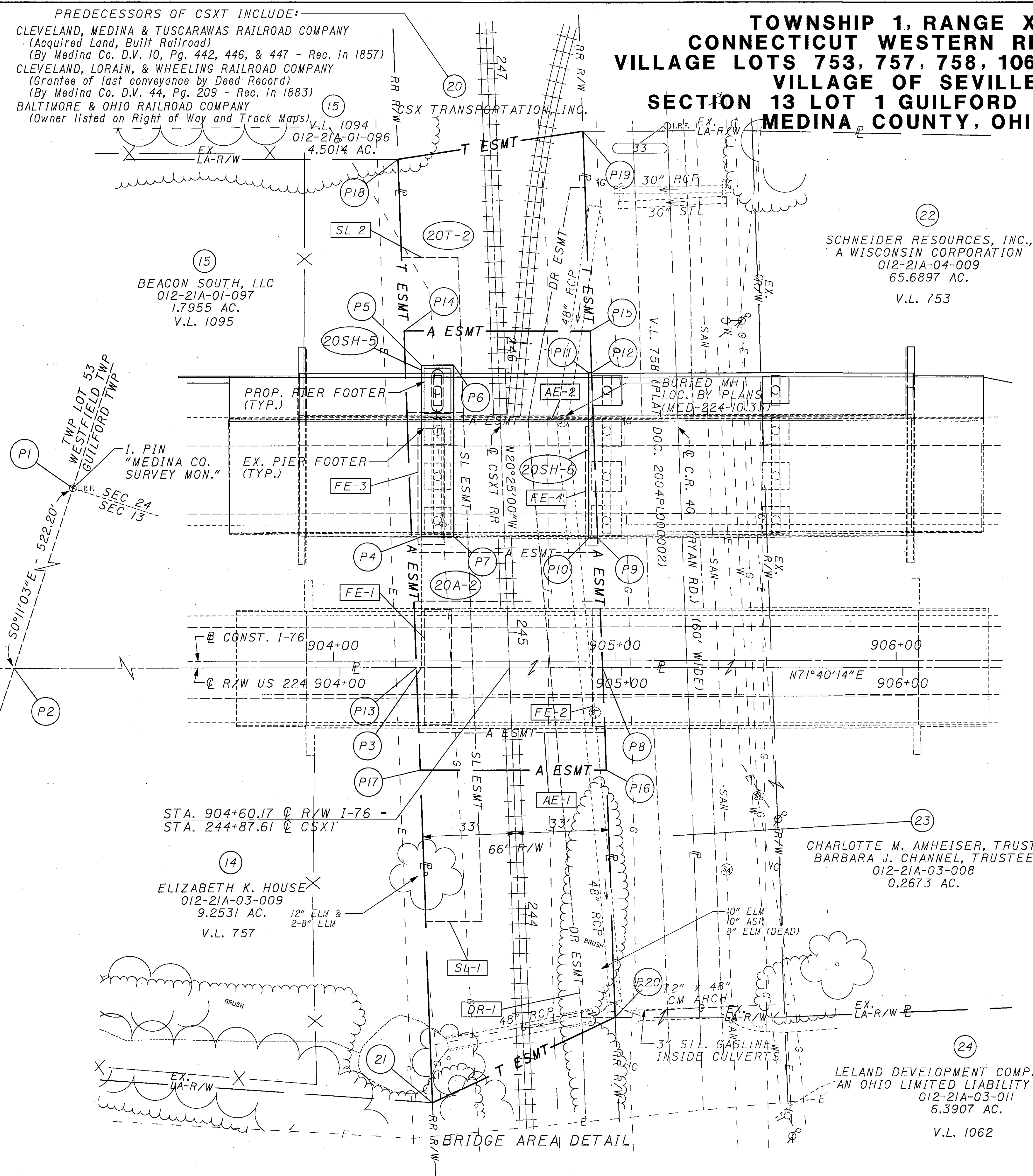
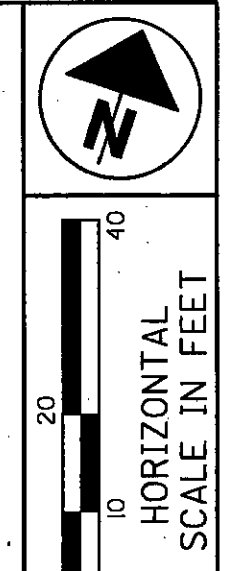
39/47

1112
1120

PROJECTWISE: \P\33412\CADD\75657RPI9.DGN

**TOWNSHIP 1, RANGE XIV
CONNECTICUT WESTERN RESERVE
VILLAGE LOTS 753, 757, 758, 1062, 1094, 1095
VILLAGE OF SEVILLE
SECTION 13 LOT 1 GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**

PREDECESSORS OF CSXT INCLUDE:
CLEVELAND, MEDINA & TUSCARAWAS RAILROAD COMPANY
(Acquired Land, Built Railroad)
(By Medina Co. D.V. 10, Pg. 442, 446, & 447 - Rec. in 1857)
CLEVELAND, LORAIN, & WHEELING RAILROAD COMPANY
(Grantee of last conveyance by Deed Record)
(By Medina Co. D.V. 44, Pg. 209 - Rec. in 1883)
BALTIMORE & OHIO RAILROAD COMPANY
(Owner listed on Right of Way and Track Maps)



22
SCHNEIDER RESOURCES, INC.,
A WISCONSIN CORPORATION
012-21A-04-009
65.6897 AC.
V.L. 753

15
BEACON SOUTH, LLC
012-21A-01-097
1.7955 AC.
V.L. 1095

14
ELIZABETH K. HOUSE
012-21A-03-009
9.2531 AC.
V.L. 757

23
CHARLOTTE M. AMHEISER, TRUST,
BARBARA J. CHANNEL, TRUSTEE
012-21A-03-008
0.2673 AC.

24
LELAND DEVELOPMENT COMPANY, LTD.,
AN OHIO LIMITED LIABILITY COMPANY
012-21A-03-011
6.3907 AC.
V.L. 1062

PROPOSED EASEMENTS							
	POINTS	R/W STA.	OFFSET	COURSE	BEARING	LENGTH	
STANDARD HIGHWAY EASEMENT	20SH-5	P2	899+66.86	℄	P2-P3	N 71°40'14" E	462.09'
		P3	904+28.95	℄	P3-P4	N 18°19'46" W	46.20'
		P4	904+28.95	46.20' LT	P4-P5	N 18°19'46" W	60.50'
		P5	904+28.95	106.70' LT	P5-P6	N 71°40'14" E	11.50'
		P6	904+40.45	106.70' LT	P6-P7	S 18°19'46" E	60.50'
	20SH-6	P7	904+40.45	46.20' LT	P7-P3	S 71°40'14" W	11.50'
		P2	899+66.86	℄	P2-P8	N 71°40'14" E	526.34'
		P8	904+93.20	℄	P8-P9	N 20°25'00" W	45.78'
		P9	904+91.53	45.75' LT	P9-P10	S 71°40'14" W	3.13'
		P10	904+88.40	45.75' LT	P10-P11	N 18°19'46" W	58.25'
		P11	904+88.40	104.00' LT	P11-P12	N 71°40'14" E	1.01'
AERIAL EASEMENT	20A-2	P2	899+66.86	℄	P2-P13	N 71°40'14" E	460.29'
		P13	904+27.15	℄	P13-P14	N 20°25'00" W	118.93'
		P14	904+22.82	118.85' LT	P14-P15	N 71°40'14" E	66.04'
		P15	904+88.86	118.85' LT	P15-P16	S 20°25'00" E	155.60'
		P16	904+94.53	36.65' RT	P16-P17	S 71°40'14" W	66.04'
TEMPORARY EASEMENT	20T-2	P2	899+66.86	℄	P2-P13	N 71°40'14" E	460.29'
		P13	904+27.15	℄	P13-P18	N 20°25'00" W	180.12'
		P18	904+20.59	180.00' LT	P18-P19	N 63°00'49" E	66.44'
		P19	904+86.27	190.00' LT	P19-P20	S 20°25'00" E	315.21'
		P20	904+97.75	125.00' RT	P20-P21	S 46°52'44" W	71.54'
P21	904+32.80	125.00' RT	P21-P13	N 20°25'00" W	155.10'		

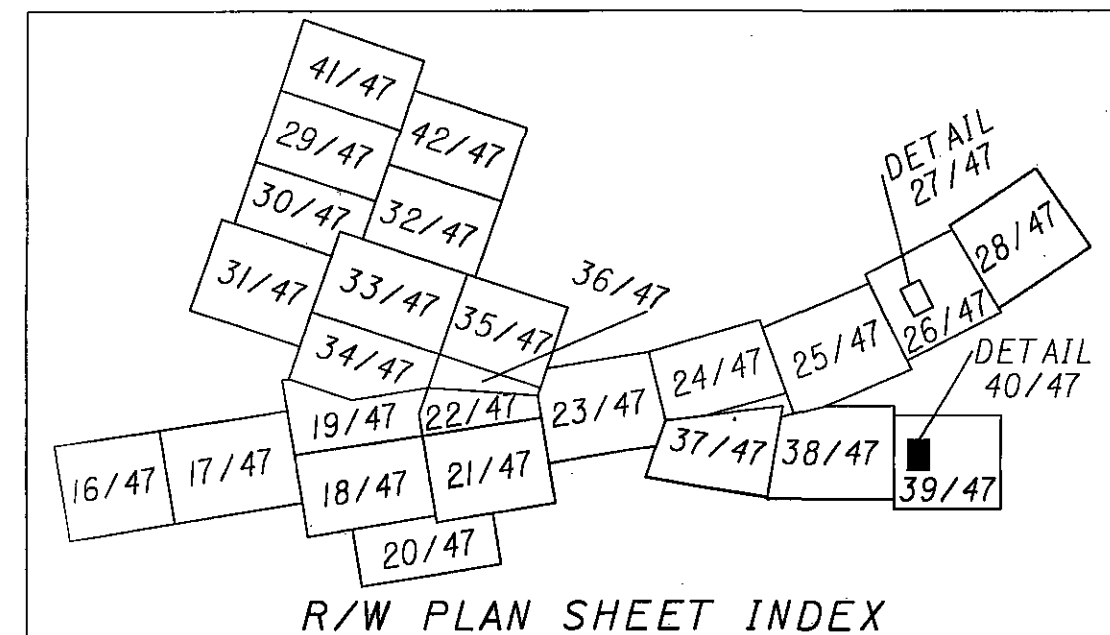
EXISTING EASEMENTS			
		DV	PG
AE-1	AERIAL	75 AER.	0.072 AC
FE-1	FOOTER	75-A	0.009 AC
FE-2	FOOTER	75-B	0.005 AC
SL-1	SLOPE	75-SL	0.083 AC
DR-1	DRAINAGE	75-X	0.123 AC
DV 257 PG 618			
AE-2	AERIAL	75-1 AER.	0.072 AC
FE-3	FOOTER	75-C	0.009 AC
FE-4	FOOTER	75-D	0.005 AC
SL-2	SLOPE	75SL-1	0.025 AC

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

MONUMENT LEGEND

- ▣ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- ⊙ I.R.F. IRON PIN FOUND
- ⊙ I.R.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.R.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- ⊙ I.R.F. IRON PIPE FOUND
- ⊙ I.R.S. IRON PIPE SET
- ⊙ P.K.F. P.K. NAIL FOUND
- ⊙ P.K.S. P.K. NAIL SET



STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- ▨ OUT-BUILDING

REV. BY	DATE	DESCRIPTION	
FDS	02-10-05	DISTANCE ALONG TOWNSHIP LINE & P9-P10	40/47
JEL	1-17-05	REVISED SHEET NUMBERS	
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20, ADDED CULV. PIPES	
DATE COMPLETED			SEPTEMBER 29, 2004

PID NO.
75657

R/W DESIGNER
LYNW
R/W REVIEWER
SNYDER

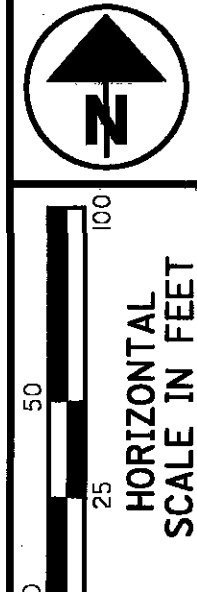
**RIGHT OF WAY PLAN DETAIL
I-76 OVER CSXT R.R. & RYAN RD.**

MED-71-6.06

1113
1120

PROJECTWISE:\PR33412\CADD\75657RP20.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 45 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

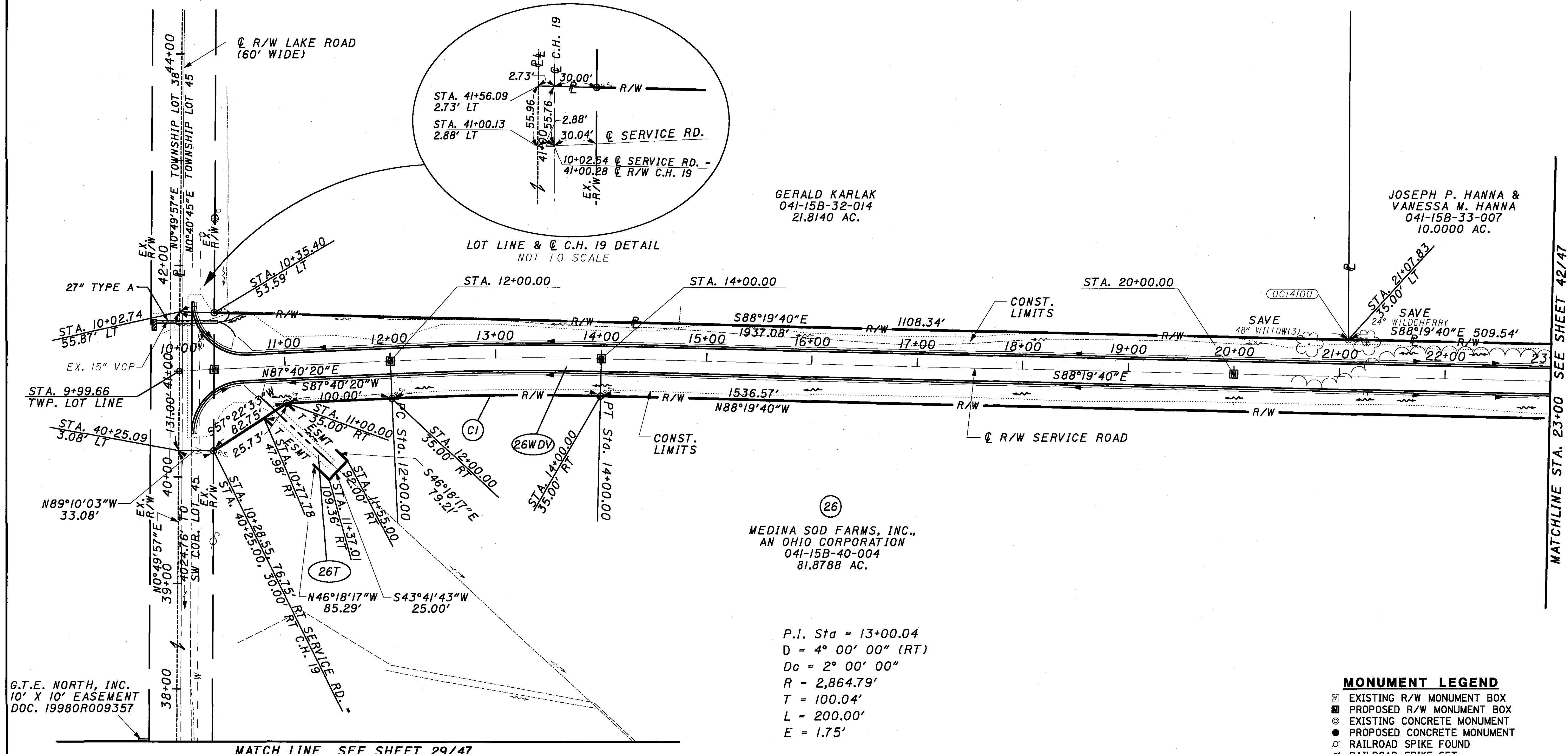


PID NO.
75657

R/W DESIGNER
LYNN
R/W REVIEWER
SNYDER

**RIGHT OF WAY PLAN
SERVICE ROAD**

MED-71-6.06



P.I. Sta = 13+00.04
D = 4° 00' 00" (RT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 100.04'
L = 200.00'
E = 1.75'

CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
CI	2829.79'	4°00'00"	197.52'	S89°40'20"W	197.56'

BASIS FOR BEARINGS:

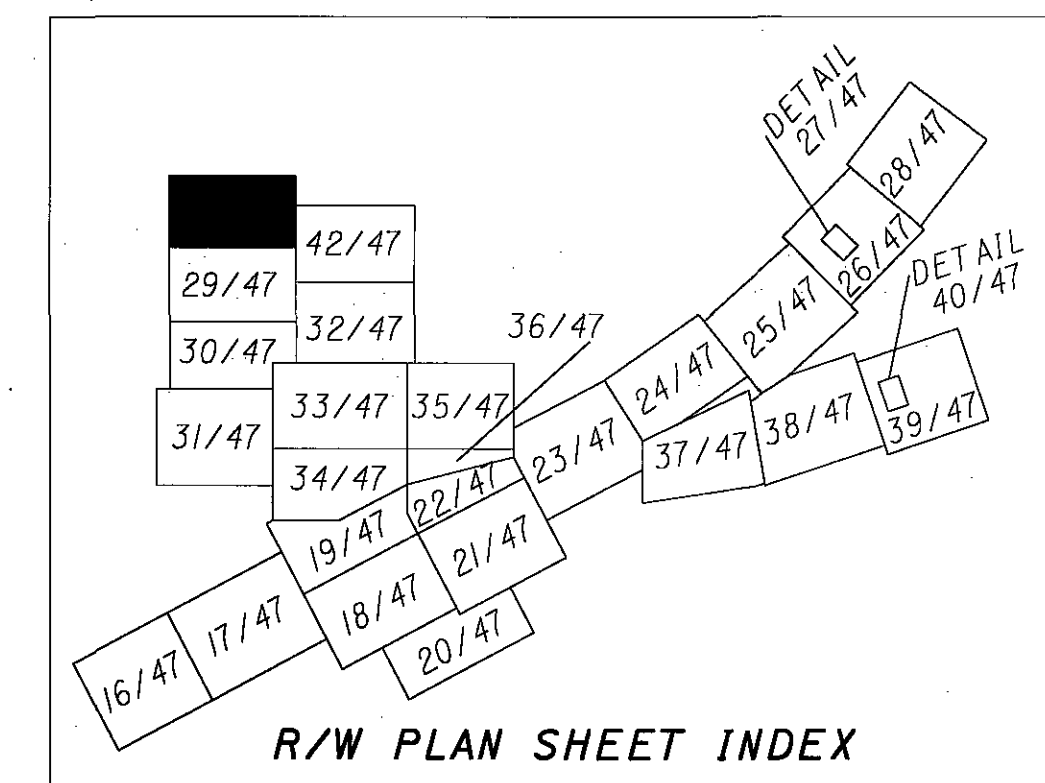
BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP, AS NOTED
- IRON PIN SET - 3/4" DIAMETER x 30" LONG
- REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- IRON PIPE FOUND
- IRON PIPE SET - 3/4" I.D. x 30" LONG PIPE WITH YELLOW PLASTIC CAP STAMPED "BURGESS & NIPLE"
- P.K. NAIL FOUND
- P.K. NAIL SET



REV. BY	DATE	DESCRIPTION
JEL	10-18-05	REVISED CULVERT AT INTERSECTION
JEL	6-13-05	UPDATED PARCEL 26 AUD. NO. & ACREAGE
JEL	2-28-05	CHNG. SERVICE RD. ALIGNMENT
JEL	2-15-05	ADDED INFO FOR PAR 26WDV & 26CHV
JEL	11-17-05	ADDED THIS SHEET, REV. SHT. NO.
DATE COMPLETED		SEPTEMBER 29, 2004

41 / 47

114
120

PROJECTWISE:\NPR33412\CADD\75657R21.DGN

**TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 45 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

MATCHLINE STA. 23+00 SEE SHEET 41/47

JOSEPH P. HANNA &
VANESSA M. HANNA
041-15B-33-007
10.0000 AC.

MEDINA SOD FARMS, INC.,
AN OHIO CORPORATION
041-15B-40-004
81.8788 AC.

Ⓞ SERVICE ROAD
CURVE DATA
P.I. Sta = 33+86.98
Δ = 89° 02' 33" (RT)
Dc = 12° 30' 36"
R = 458.00'
T = 450.41'
L = 711.77'
E = 184.36'

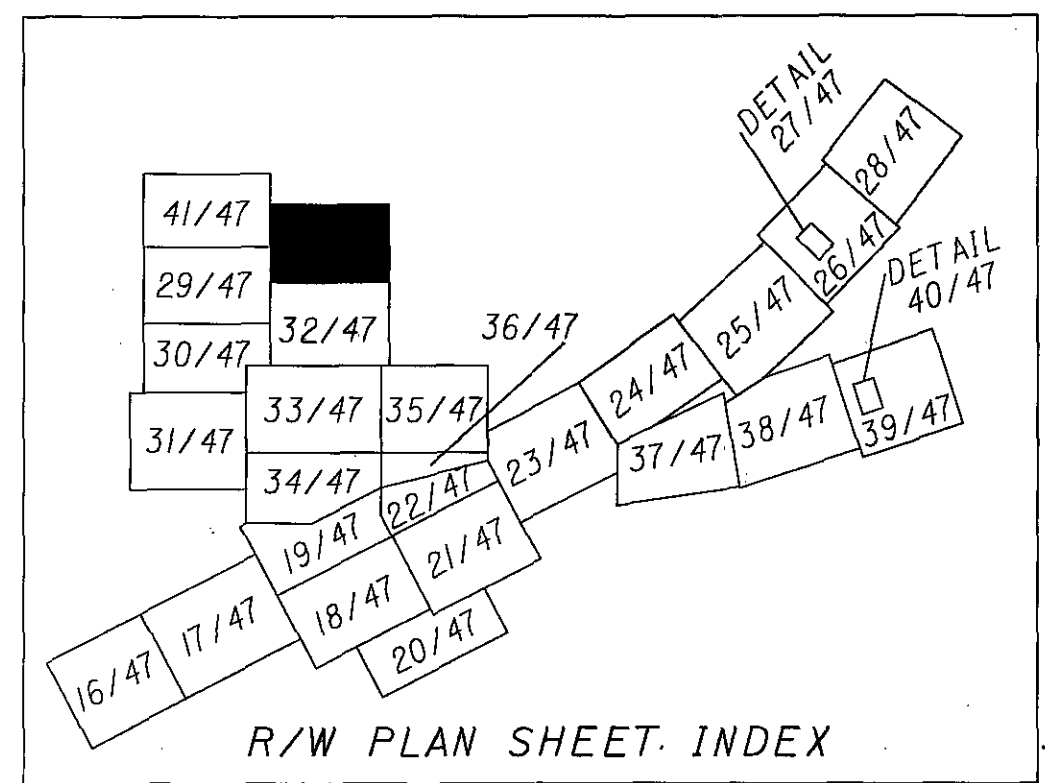
CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
C1	493.00'	89°02'33"	691.36'	S43°48'24"E	766.16'
C2	423.00'	89°02'33"	593.19'	S43°48'24"E	657.38'

BASIS FOR BEARINGS:

BEARINGS ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (1995 ADJUSTMENT). DATUM BY GPS OBSERVATIONS BY THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND ARE FOR DELINEATING DIRECTIONAL VARIATION.

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING



MONUMENT LEGEND

- ⊠ EXISTING R/W MONUMENT BOX
- Ⓞ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- Ⓞ I.P.F. IRON PIN FOUND
- Ⓞ I.P.F. IRON PIN FOUND W/ ID CAP, AS NOTED
- I.P.S. IRON PIN SET - 3/4" DIAMETER x 30" LONG REINFORCING BARS WITH 2 1/2" ALUMINUM CAP, STAMPED "ODOT R/W BURGESS & NIPLE S-7468"
- Ⓞ I.P.F. IRON PIPE FOUND
- Ⓞ I.P.S. IRON PIPE SET - 3/4" I.D. x 30" LONG PIPE WITH YELLOW PLASTIC CAP STAMPED "BURGESS & NIPLE"
- Ⓞ R.K.F. P.K. NAIL FOUND
- Ⓞ R.K.S. P.K. NAIL SET

30' EASEMENT FOR
SANITARY SEWER
D.V. 459 PG. 939

MEDINA SOD FARMS, INC.,
AN OHIO LIMITED LIABILITY COMPANY
041-15B-26-021
71.4493 AC.

MATCHLINE STA. 39+00 SEE SHEET 32/47

REV. BY.	DATE	DESCRIPTION
JEL	6-13-05	UPDATED PARCEL 26 AUD. NO. & ACREAGE
JEL	1-17-05	ADDED INFO FOR 26WDV
JEL	1-17-05	ADDED THIS SHEET, REV SHEET NUMBERS
DATE COMPLETED		SEPTEMBER 29, 2004

**RIGHT OF WAY PLAN
SERVICE ROAD**

PID NO. **75657**

R/W DESIGNER
LYNN

R/W REVIEWER
SNYDER

MED-71-6.06

42 / 47

1115
1120

PROJECTWISE:\PR3342\CADD\75657RP22.DGN

**CSX TRANSPORTATION COMPANY
TOWNSHIP 1, RANGE XV
CONNECTICUT WESTERN RESERVE
LOT 53 WESTFIELD TOWNSHIP
MEDINA COUNTY, OHIO**

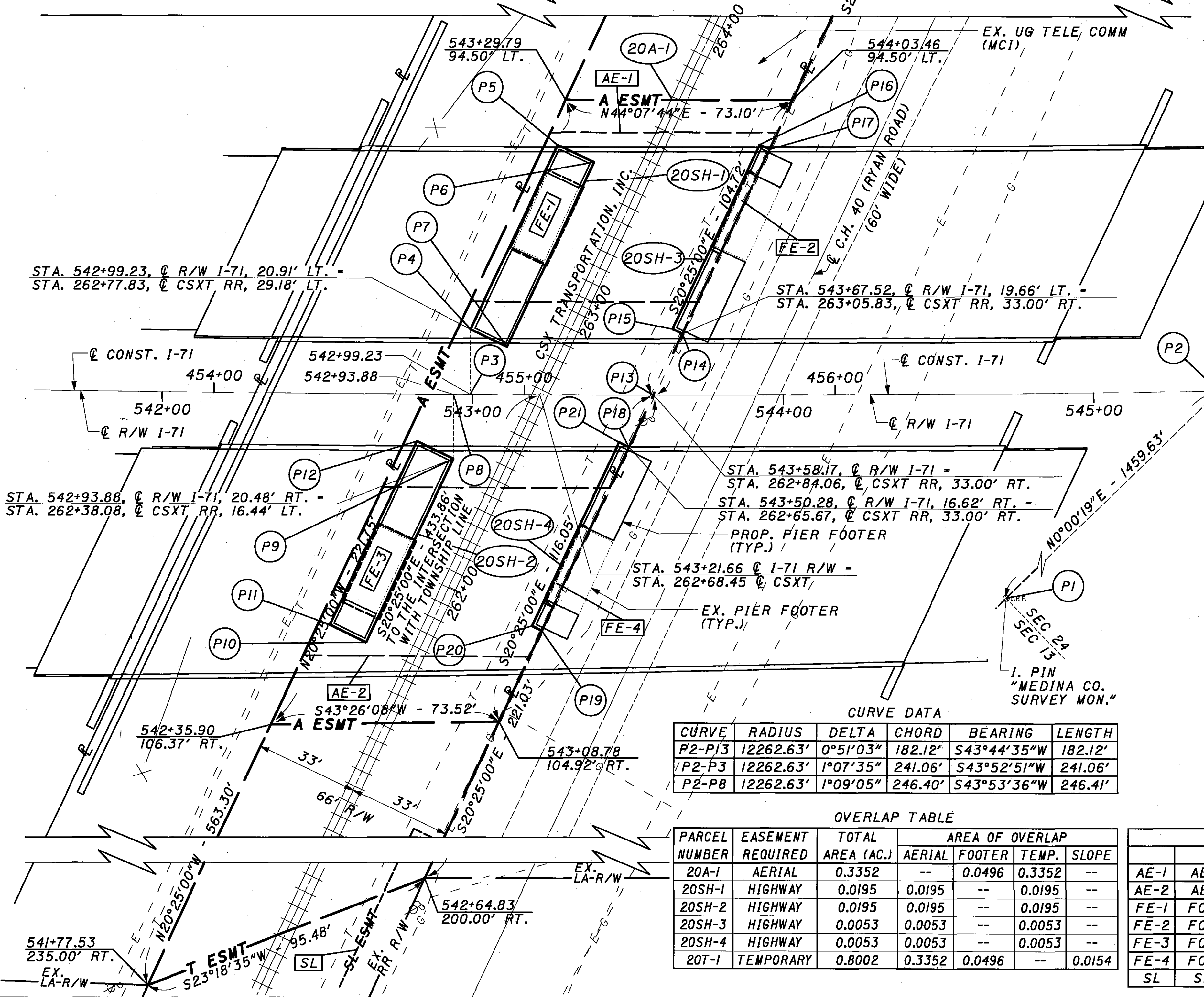
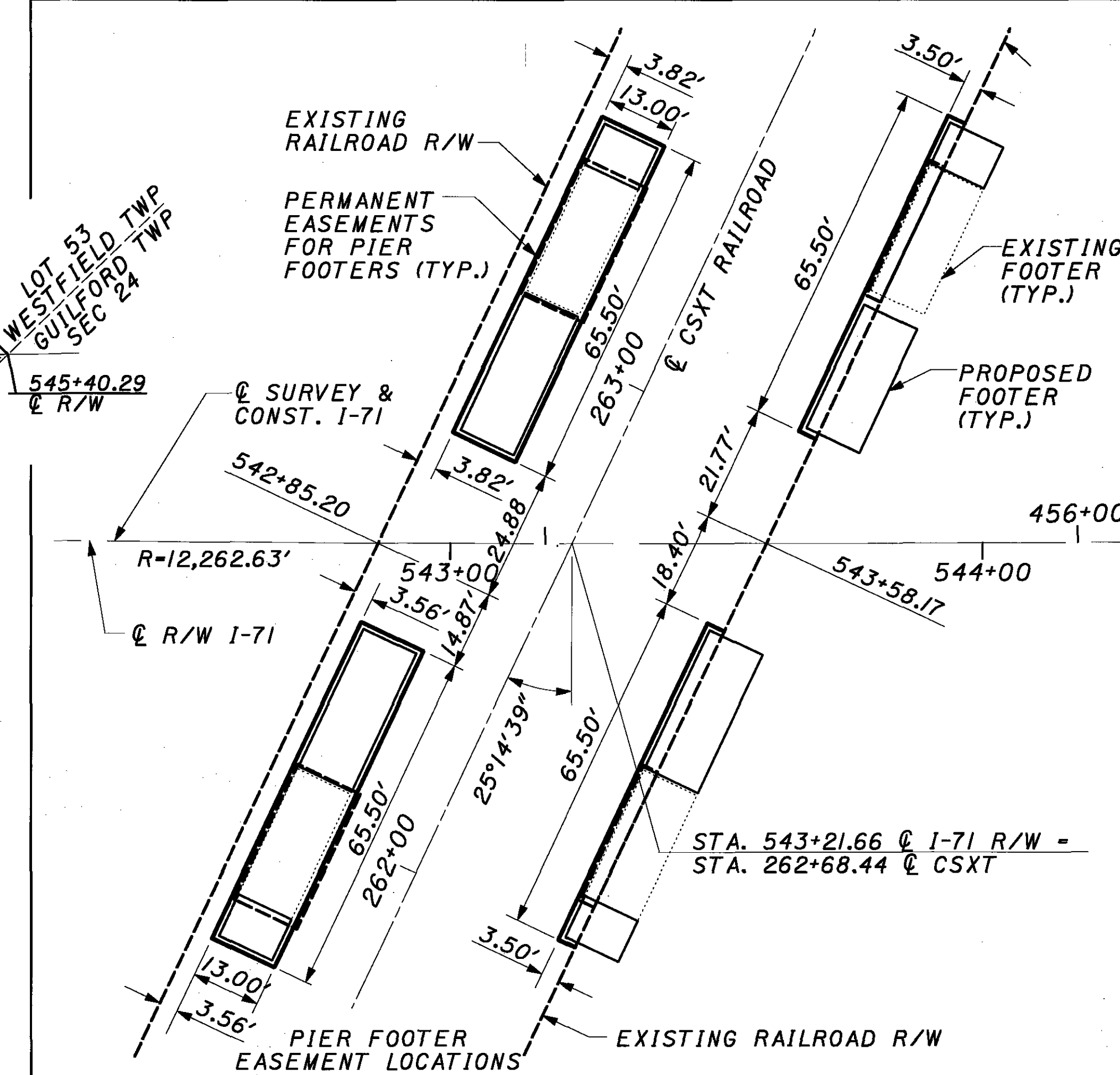
CURVE DATA @ R/W I-71

P.I. Sta = 531+43.63
 Δ = 25° 03' 47" (LT)
 D_c = 0° 28' 02"
 R = 12,262.63'
 T = 2,725.64'
 L = 5,364.08'
 E = 299.27'

PERMANENT EASEMENTS FOR PIER FOOTERS						
PARCEL	POINTS	R/W STA.	OFFSET	COURSE	BEARING	DIST.
20SH-1	P3	542+99.23	0	P3-P4	N45°33'22"W	20.91'
	P4	542+99.23	20.91' LT	P4-P5	N20°25'00"W	65.50'
	P5	543+27.24	80.17' LT	P5-P6	N69°35'00"E	13.00'
	P6	543+39.06	74.62' LT	P6-P7	S20°25'00"E	65.50'
	P7	543+11.01	15.38' LT	P7-P4	S69°35'00"W	13.00'
20SH-2	P8	542+93.88	0	P8-P9	S45°31'52"E	20.48'
	P9	542+93.88	20.48' RT	P9-P10	S20°25'00"E	65.50'
	P10	542+66.26	79.82' RT	P10-P11	S69°35'00"W	13.00'
	P11	542+54.55	74.34' RT	P11-P12	N20°25'00"W	65.50'
	P12	542+82.13	14.97' RT	P12-P9	N69°35'00"E	13.00'
20SH-3	P13	543+58.17	0	P13-P14	N20°25'00"W	21.77'
	P14	543+67.52	19.66' LT	P14-P15	S69°35'00"W	3.50'
	P15	543+64.36	21.16' LT	P15-P16	N20°25'00"W	65.50'
	P16	543+92.68	80.27' LT	P16-P17	N69°35'00"E	3.50'
	P17	543+95.86	78.76' LT	P17-P14	S20°25'00"E	65.50'
20SH-4	P18	543+58.17	0	P18-P19	S20°25'00"E	18.40'
	P19	543+50.28	16.62' RT	P19-P20	S20°25'00"E	65.50'
	P20	543+22.38	75.83' RT	P20-P21	S69°35'00"W	3.50'
	P21	543+19.24	74.34' RT	P21-P18	N20°25'00"W	65.50'
	P22	543+47.12	15.12' RT	P22-P18	N69°35'00"E	3.50'

NOTE: RIGHT OF WAY TO BE OBTAINED FOR PIER FOOTERS IS THE OVERALL WIDTH OF FOOTER PLUS ONE FOOT ON ALL SIDES.

RAILWAY STATIONING OBTAINED FROM VALUATION MAP FOR THE CSX TRANSPORTATION COMPANY V-121.1/3



CURVE DATA

CURVE	RADIUS	DELTA	CHORD	BEARING	LENGTH
P2-P13	12262.63'	0°51'03"	182.12'	S43°44'35"W	182.12'
P2-P3	12262.63'	1°07'35"	241.06'	S43°52'51"W	241.06'
P2-P8	12262.63'	1°09'05"	246.40'	S43°53'36"W	246.41'

OVERLAP TABLE

PARCEL NUMBER	EASEMENT REQUIRED	TOTAL AREA (AC.)	AREA OF OVERLAP			
			AERIAL	FOOTER	TEMP.	SLOPE
20A-1	AERIAL	0.3352	--	0.0496	0.3352	--
20SH-1	HIGHWAY	0.0195	0.0195	--	0.0195	--
20SH-2	HIGHWAY	0.0195	0.0195	--	0.0195	--
20SH-3	HIGHWAY	0.0053	0.0053	--	0.0053	--
20SH-4	HIGHWAY	0.0053	0.0053	--	0.0053	--
20T-1	TEMPORARY	0.8002	0.3352	0.0496	--	0.0154

EXISTING EASEMENTS

DV 263 PG 512			
EASEMENT	AREA	FOOTER	TEMP.
AE-1	AERIAL 73 AERIAL 19	0.09 AC	
AE-2	AERIAL 73 AERIAL 19A	0.09 AC	
FE-1	FOOTER 73-19A	0.008 AC	
FE-2	FOOTER 73-19B	0.002 AC	
FE-3	FOOTER 73-19C	0.008 AC	
FE-4	FOOTER 73-19D	0.002 AC	
SL	SLOPE 73-19E	0.07 AC	

REV. BY	DATE	DESCRIPTION
JEL	4-22-05	REVISED DIST. & BEAR. FOR PAR 20T-1
FDS	02-10-05	DISTANCE ALONG TOWNSHIP LINE
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-10-05	REV. OVERLAP TABLE
REV. BY DATE		DESCRIPTION
DATE COMPLETED		SEPTEMBER 29, 2004

RAILROAD PLAT

BRIDGE NO. MED-71-0860 L/R
OVER CSXT RAILROAD AND RYAN ROAD (C.R. 40)

MED-71-6.06

RAW DESIGNER: LYNM
RAW REVIEWER: SNYDER

PID NO. **75657**

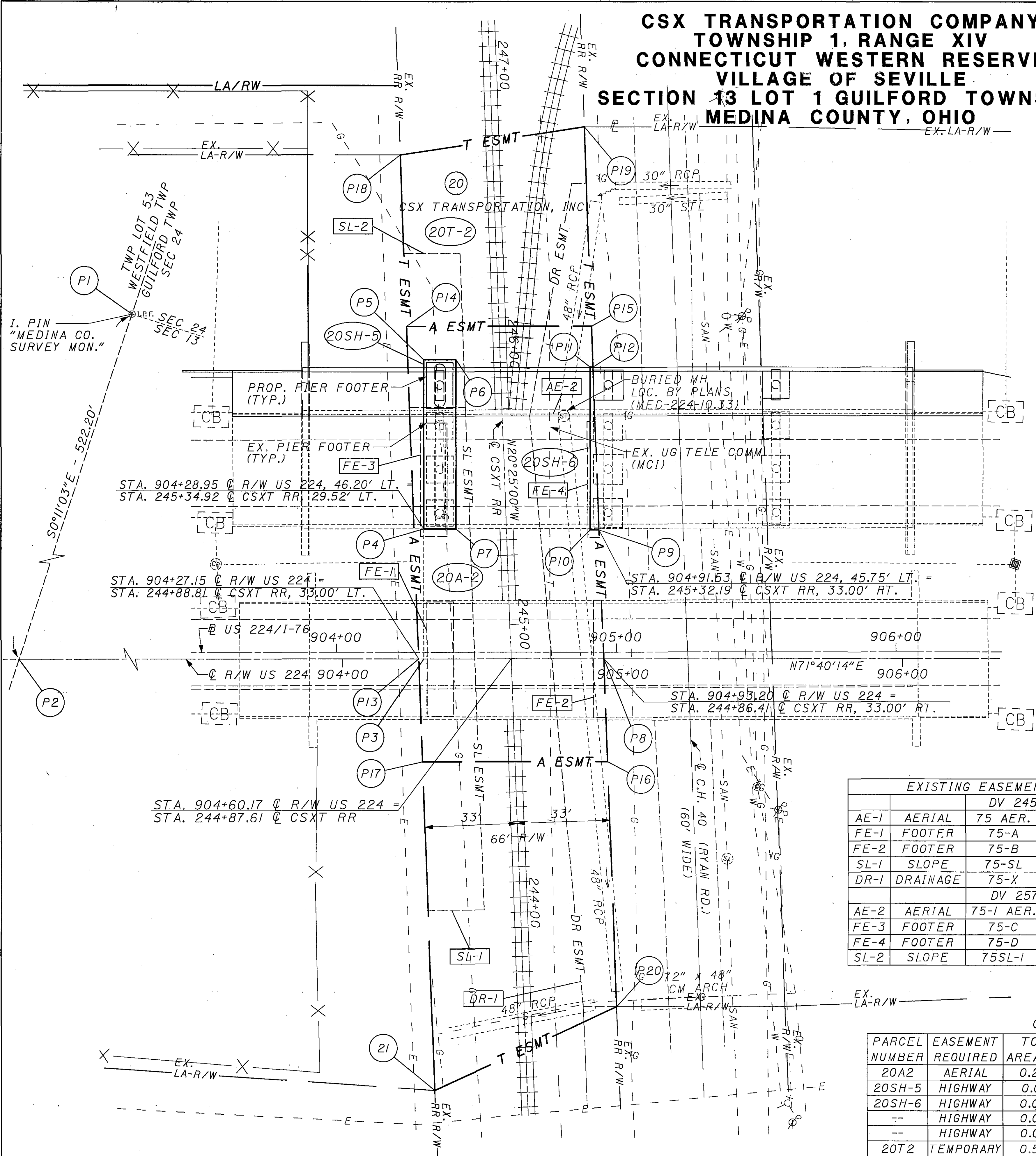
HORIZONTAL SCALE IN FEET

43/47

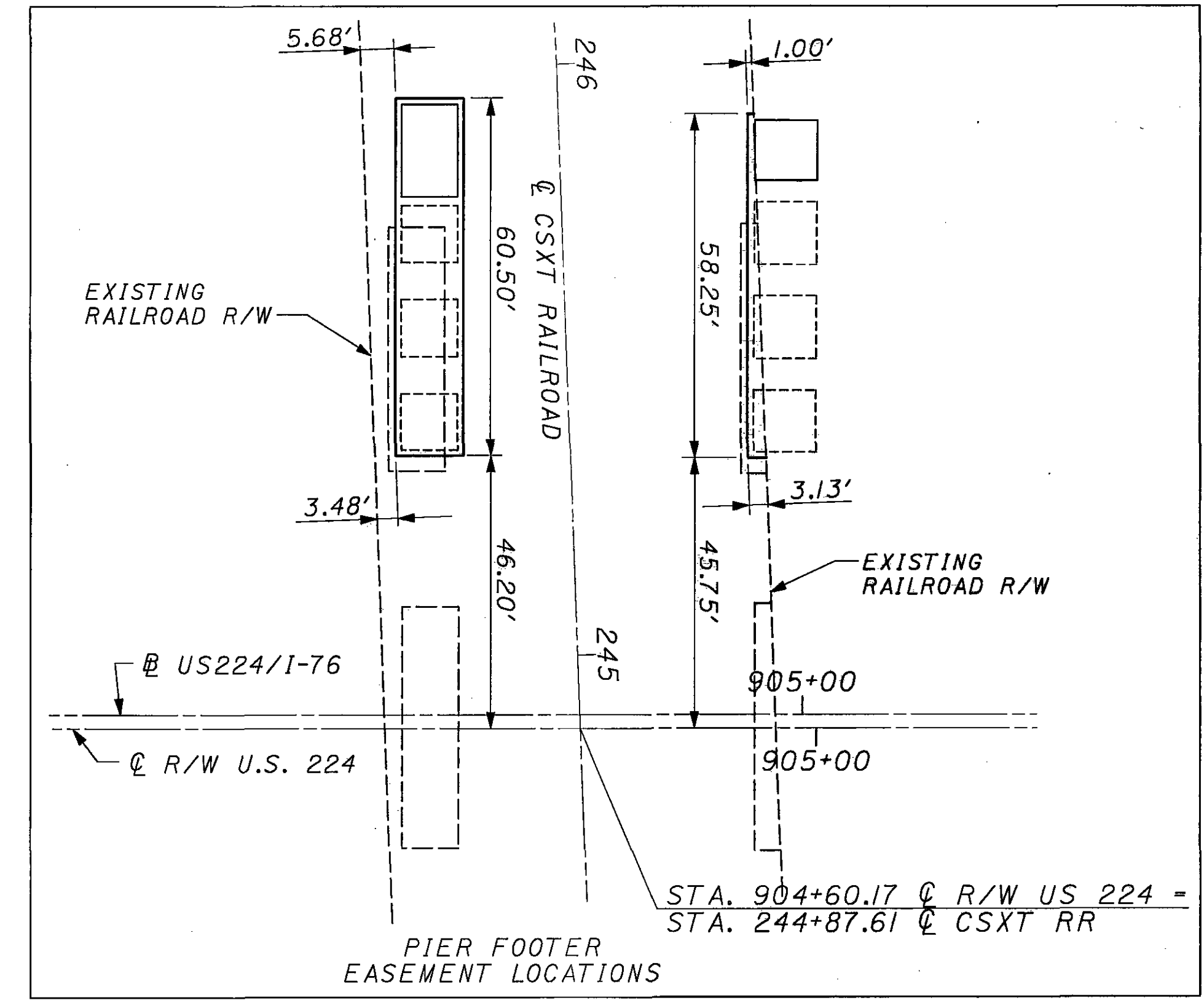
1116
1120

PROJECTWISE: \PR33412\CADD\75657TRR01.DGN

**CSX TRANSPORTATION COMPANY
TOWNSHIP 1, RANGE XIV
CONNECTICUT WESTERN RESERVE
VILLAGE OF SEVILLE
SECTION 13 LOT 1 GUILFORD TOWNSHIP
MEDINA COUNTY, OHIO**



PROPOSED EASEMENTS							
	POINTS	R/W STA.	OFFSET	COURSE	BEARING	LENGTH	
FOOTER EASEMENT	20SH-5	P2	899+66.86	℄	P2-P3	N 71°40'14" E	462.09'
		P3	904+28.95	℄	P3-P4	N 18°19'46" W	46.20'
		P4	904+28.95	46.20' LT	P4-P5	N 18°19'46" W	60.50'
		P5	904+28.95	106.70' LT	P5-P6	N 71°40'14" E	11.50'
		P6	904+40.45	106.70' LT	P6-P7	S 18°19'46" E	60.50'
		P7	904+40.45	46.20' LT	P7-P4	S 71°40'14" W	11.50'
	20SH-6	P2	899+66.86	℄	P2-P8	N 71°40'14" E	526.34'
		P8	904+93.20	℄	P8-P9	N 20°25'00" W	45.78'
		P9	904+91.53	45.75' LT	P9-P10	S 71°40'14" W	3.13'
		P10	904+88.40	45.75' LT	P10-P11	N 18°19'46" W	58.25'
		P11	904+88.40	104.00' LT	P11-P12	N 71°40'14" E	1.01'
		P12	904+89.41	104.00' LT	P12-P9	S 20°25'00" E	58.29'
AERIAL EASEMENT	20A-2	P2	899+66.86	℄	P2-P13	N 71°40'14" E	460.29'
		P13	904+27.15	℄	P13-P14	N 20°25'00" W	118.93'
		P14	904+22.82	118.85' LT	P14-P15	N 71°40'14" E	66.04'
		P15	904+88.86	118.85' LT	P15-P16	S 20°25'00" E	155.60'
		P16	904+94.53	36.65' RT	P16-P17	S 71°40'14" W	66.04'
		P17	904+28.49	36.65' RT	P17-P14	N 20°25'00" W	36.67'
		TEMPORARY EASEMENT	20T-2	P2	899+66.86	℄	P2-P13
P13	904+27.15			℄	P13-P18	N 20°25'00" W	180.12'
P18	904+20.59			180.00' LT	P18-P19	N 63°00'49" E	66.44'
P19	904+86.27			190.00' LT	P19-P20	S 20°25'00" E	315.21'
P20	904+97.75			125.00' RT	P20-P21	S 46°52'44" W	71.54'
P21	904+32.80			155.00' RT	P21-P18	N 20°25'00" W	155.10'



NOTE:
RIGHT OF WAY TO BE OBTAINED FOR PIER FOOTERS IS THE OVERALL WIDTH OF FOOTER PLUS ONE FOOT ON ALL SIDES.

RAILWAY STATIONING OBTAINED FROM VALUATION MAP FOR THE CSX TRANSPORTATION COMPANY V-121.1/3

EXISTING EASEMENTS			
DV 245 PG 469			
AE-1	AERIAL	75 AER.	0.072 AC
FE-1	FOOTER	75-A	0.009 AC
FE-2	FOOTER	75-B	0.005 AC
SL-1	SLOPE	75-SL	0.083 AC
DR-1	DRAINAGE	75-X	0.123 AC
DV 257 PG 618			
AE-2	AERIAL	75-1 AER.	0.072 AC
FE-3	FOOTER	75-C	0.009 AC
FE-4	FOOTER	75-D	0.005 AC
SL-2	SLOPE	75SL-1	0.025 AC

OVERLAP TABLE						
PARCEL NUMBER	EASEMENT REQUIRED	TOTAL AREA (AC.)	AREA OF OVERLAP			
			AERIAL	SLOPE	FOOTER	TEMP.
20A2	AERIAL	0.2358	--	0.1222	0.0394	0.2358
20SH-5	HIGHWAY	0.0160	0.0160	--	--	0.0160
20SH-6	HIGHWAY	0.0028	0.0101	0.0101	--	0.0028
--	HIGHWAY	0.0096	0.0096	0.0096	--	0.0096
--	HIGHWAY	0.0097	0.0097	0.0097	--	0.0097
20T2	TEMPORARY	0.5542	0.3190	0.2035	0.0394	--

REV. BY	DATE	DESCRIPTION
FDS	02-10-05	DISTANCE ALONG TOWNSHIP LINE
JEL	1-17-05	REVISED SHEET NUMBERS
JEL	1-10-05	REV. OVERLAP TABLE
JEL	10-01-04	CHNG. OWNER'S NAME PAR. 20, ADDED DRAINAGE INFO
DATE COMPLETED		SEPTEMBER 29, 2004

RAILROAD PLAT
BRIDGE NO. MED-76-0158 L
OVER CSXT RAILROAD AND RYAN ROAD (C.R. 40)

MED-71-6.06

PROJECT WISE: \PR33412\CADD\75657R02.DGN

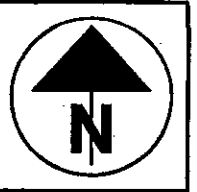
SCALE: HORIZONTAL SCALE IN FEET

PID NO. **75657**

R/W DESIGNER: LYNW
R/W REVIEWER: SNYDER

44 / 47

1117
1120



0 200 400
HORIZONTAL SCALE IN FEET

STATE JOB NO. **436870**

PID NO. **75657**

R/W DESIGNER
LY/M

R/W REVIEWER
SNYDER

RIGHT OF WAY UTILITY PLAN

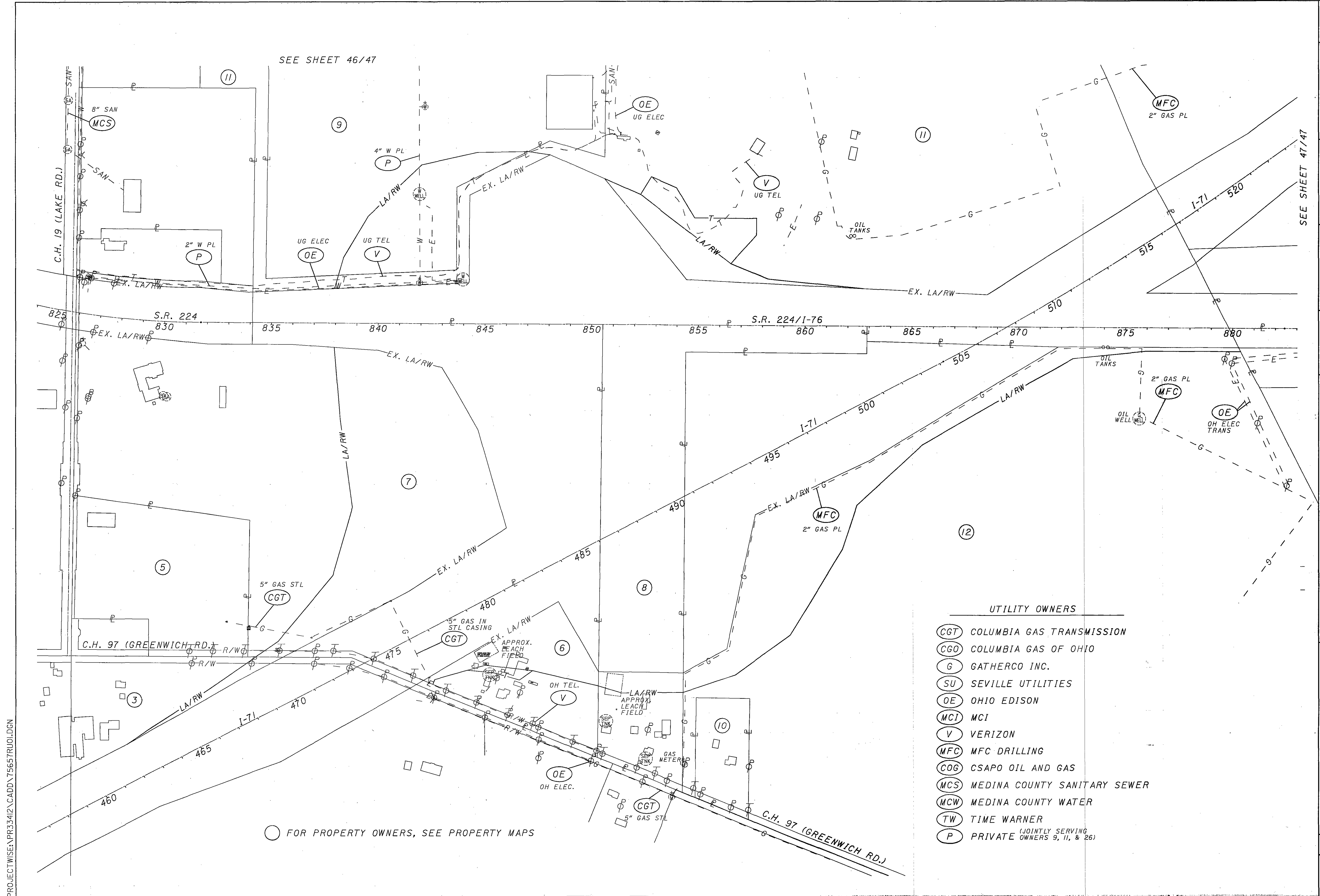
MED-71-6.06

45 / 47

1118
1120

SEE SHEET 46/47

SEE SHEET 47/47

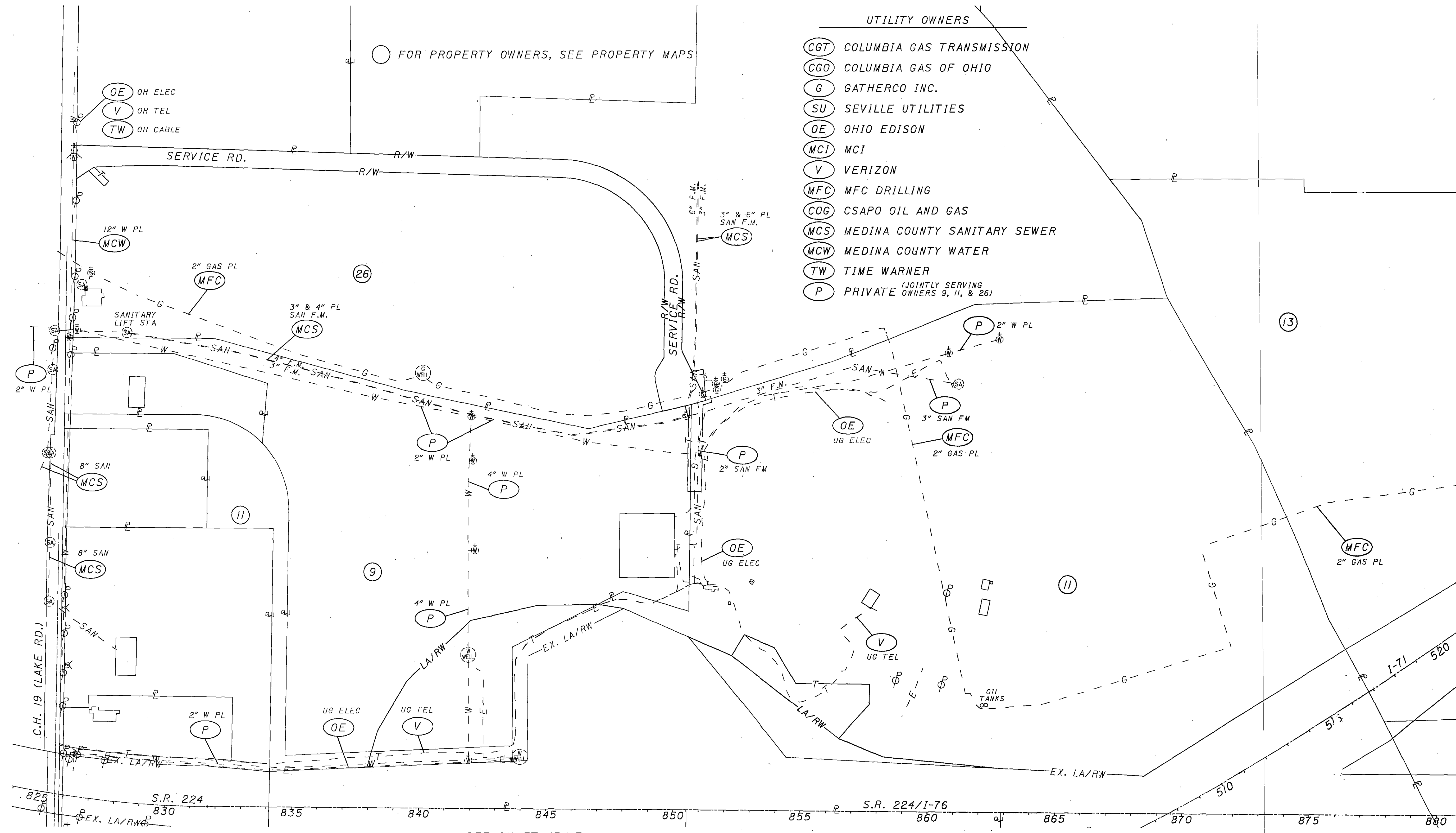


○ FOR PROPERTY OWNERS, SEE PROPERTY MAPS

- UTILITY OWNERS
- (CGT) COLUMBIA GAS TRANSMISSION
 - (CGO) COLUMBIA GAS OF OHIO
 - (G) GATHERCO INC.
 - (SU) SEVILLE UTILITIES
 - (OE) OHIO EDISON
 - (MCI) MCI
 - (V) VERIZON
 - (MFC) MFC DRILLING
 - (COG) CSAPO OIL AND GAS
 - (MCS) MEDINA COUNTY SANITARY SEWER
 - (MCW) MEDINA COUNTY WATER
 - (TW) TIME WARNER
 - (P) PRIVATE OWNERS 9, 11, & 26)

PROJECTWISE:\PR33412\CADD\75657R\U01.DGN

PROJECTWISE:\PR33412\CADD\T565TRU02.DGN



- UTILITY OWNERS
- (CGT) COLUMBIA GAS TRANSMISSION
 - (CGO) COLUMBIA GAS OF OHIO
 - (G) GATHERCO INC.
 - (SU) SEVILLE UTILITIES
 - (OE) OHIO EDISON
 - (MCI) MCI
 - (V) VERIZON
 - (MFC) MFC DRILLING
 - (COG) CSAPO OIL AND GAS
 - (MCS) MEDINA COUNTY SANITARY SEWER
 - (MCW) MEDINA COUNTY WATER
 - (TW) TIME WARNER
 - (P) PRIVATE OWNERS (JOINTLY SERVING 9, 11, & 26)

○ FOR PROPERTY OWNERS, SEE PROPERTY MAPS



0 100 200
HORIZONTAL SCALE IN FEET

SEE SHEET 47/47

STATE JOB NO. 436870

PID NO. 75657

R/W DESIGNER LYNN
R/W REVIEWER SNYDER

RIGHT OF WAY
UTILITY PLAN

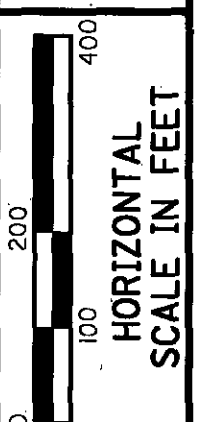
MED-71-6.06

46 / 47

1119
1120

SEE SHEET 47/47

SEE SHEET 45/47



STATE JOB NO. **436870**

PID NO. **75657**

R/W DESIGNER: **LYNN**
R/W REVIEWER: **SNYDER**

**RIGHT OF WAY
UTILITY PLAN**

MED-71-6.06

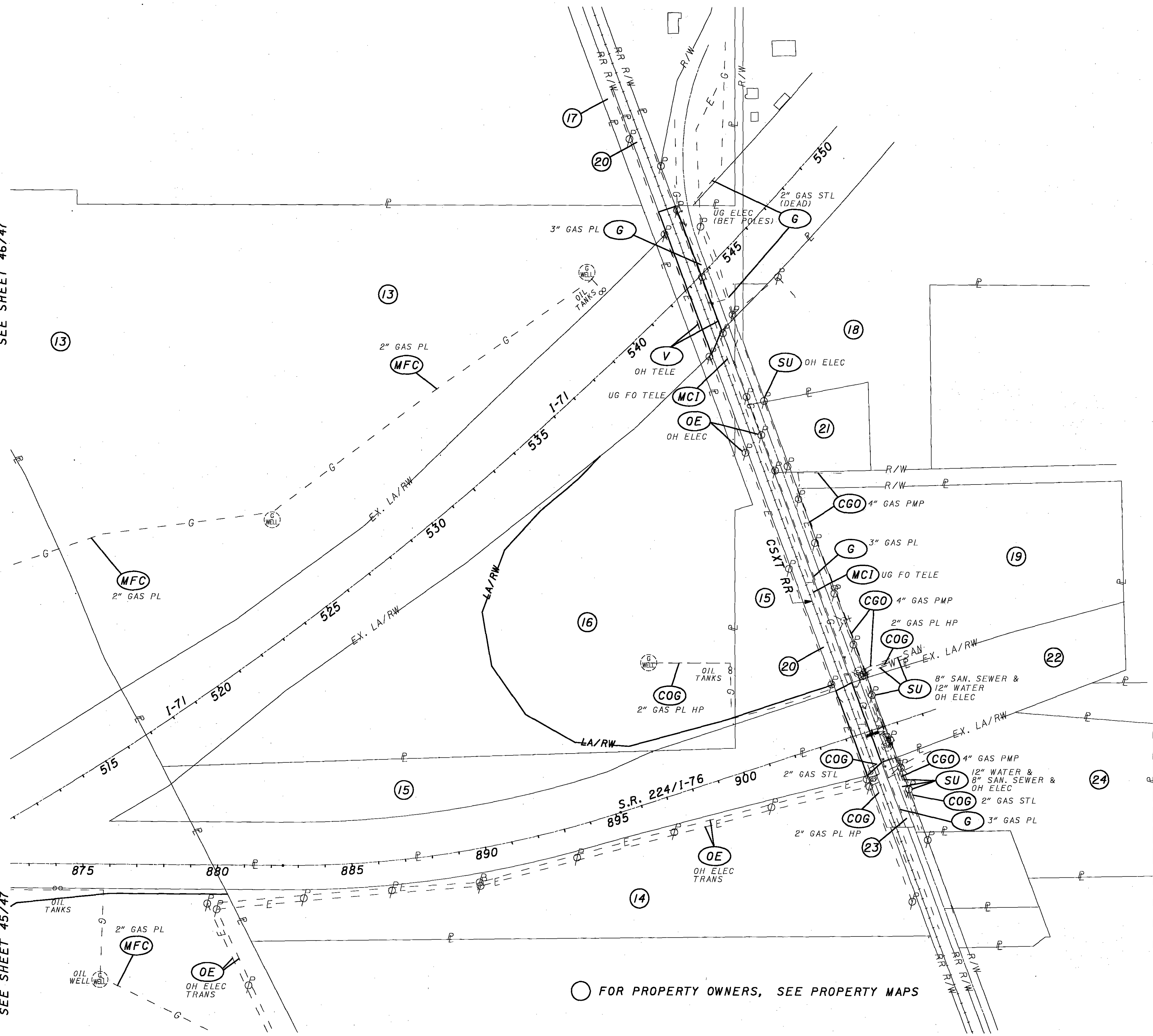
47 / 47

1120
1120

SEE SHEET 46/47

SEE SHEET 45/47

PROJECTWISE: \PR33412\CADD\75657\RU03.DGN



UTILITY OWNERS

- (CGT)** COLUMBIA GAS TRANSMISSION
- (CGO)** COLUMBIA GAS OF OHIO
- (G)** GATHERCO INC.
- (SU)** SEVILLE UTILITIES
- (OE)** OHIO EDISON
- (MCI)** MCI
- (V)** VERIZON
- (MFC)** MFC DRILLING
- (COG)** CSAPO OIL AND GAS
- (MCS)** MEDINA COUNTY SANITARY SEWER
- (MCW)** MEDINA COUNTY WATER
- (TW)** TIME WARNER
- (P)** PRIVATE OWNERS 9, 11, & 26

○ FOR PROPERTY OWNERS, SEE PROPERTY MAPS

INTRODUCTION

THIS REPORT IS A PRESENTATION OF THE SUBSURFACE INVESTIGATION PERFORMED FOR THE PROPOSED WIDENING OF INTERSTATE 71 (I-71). THE WIDENING IS PART OF THE MED-71-6.06 PROJECT, WHICH ENTAILS PROVIDING AN ADDITIONAL SOUTHBOUND LANE AND AN ADDITIONAL NORTHBOUND LANE IN THE MEDIAN OF I-71. THE LIMITS OF THE PROJECT EXTEND FROM MILEPOST 208.02 (WAY/MED-71-7.04) TO MILEPOST 211.17 (MED-71-9.21). THE TOTAL PROJECT LENGTH IS 3.15 MILES.

THE PROPOSED PAVEMENT GRADE FOR A MAJORITY OF THE PROJECT WILL ROUGHLY MATCH THE EXISTING GRADE. HOWEVER, IN ORDER TO INCREASE THE VERTICAL CLEARANCE BENEATH THE TWO (2) OVERPASS STRUCTURES WITHIN THE PROJECT LIMITS, THE PROFILE GRADE OF I-71 WILL BE LOWERED BENEATH THE OVERPASSES.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

GEOLOGICALLY, THE SITE LIES ON THE BORDERLINE OF THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU AND THE GALION GLACIATED LOW PLATEAU. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM AND LAKE END MORAINE, LAKE-PLANED MORAINE, GROUND MORAINE, OUTWASH AND KAMES DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. GLACIAL TILL OR MORAINES CONSIST OF DEBRIS DEPOSITED BY THE GLACIER ACROSS THE LAND SURFACE AS THE GLACIERS RETREAT.

OUTWASH DEPOSITS CONSIST OF UNDIFFERENTIATED SAND AND GRAVEL DEPOSITED BY MELTWATER IN FRONT OF GLACIAL ICE, AND OFTEN OCCURS AS VALLEY TERRACES OR LOW PLAINS. KAME DEPOSITS FORM WHERE STREAMS FLOWING UNDERNEATH THE GLACIER EMERGE DEPOSITING THE STREAM LOAD. KAMES ARE HUMMOCKY MOUNDS OF STRATIFIED SAND AND GRAVEL DEPOSITS. MARSH-LIKE AREAS ARE LOCATED ALONG THE KILLBUCK CREEK VALLEY, WHICH RUNS PARALLEL TO I-71 ALONG THE SOUTHERN SECTION OF THE PROJECT. SAND AND GRAVEL QUARRYING OF THE OUTWASH AND KAME DEPOSITS IS EVIDENT ALONG THE MIDDLE SECTION OF THE PROJECT, IN THE VICINITY OF THE LITTLE KILLBUCK CREEK VALLEY.

THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WEST SALEM, CRESTON AND WESTFIELD CENTER QUADRANGLES, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), THE TOP OF BEDROCK ALONG THIS SECTION OF THE ROADWAY FLUCTUATES SIGNIFICANTLY. IN PARTICULAR, THE TOP OF BEDROCK AT THE SOUTH END OF THE PROJECT, IN THE VICINITY OF THE CONRAIL RR TO THE LITTLE KILLBUCK CREEK VALLEYS, IS BETWEEN ELEVATIONS 850 AND 650 FEET, RESPECTIVELY. THE HIGHEST POINT OF BEDROCK WITHIN THE PROJECT SECTION IS AT APPROXIMATELY ELEVATION 1025 FEET, LOCATED SOUTHEAST OF WESTFIELD CENTER AROUND DANIELS ROAD. THIS TOPOGRAPHIC HIGH AREA DIVIDES THE DRAINAGE OF THE CAMEL CREEK AND CHIPPEWA CREEK VALLEYS. THE TOP OF BEDROCK AT THE NORTH END OF THE PROJECT IN THE VICINITY OF THE CHIPPEWA CREEK VALLEY AND I-76 IS BETWEEN ELEVATIONS 800 AND 900 FEET. THE THICKEST DEPOSITS OF OUTWASH AND GLACIAL OVERBURDEN OCCUR IN THE LITTLE KILLBUCK CREEK, KILLBUCK CREEK, CAMEL CREEK AND CHIPPEWA CREEK VALLEYS FROM APPROX. 10 TO 190+ FEET OF DEPOSITS. OVERBURDEN DEPOSITS APPEAR SHALLOWEST, APPROX. 85 FT THICK, AT THE BEDROCK HIGH AROUND DANIELS ROAD.

RIVER VALLEY FILL, CONSISTING OF INTERBEDDED AND INTERLENSED SAND, GRAVEL, SILT AND CLAY SUPPLY MUCH OF THE WATER TO DOMESTIC WELLS LOCATED IN THE AREA ALONG THE PROJECT. ACCORDING TO THE GROUND WATER POLLUTION POTENTIAL OF MEDINA COUNTY, OHIO, PUBLISHED BY ODNR, DOMESTIC WELLS ARE DEVELOPED ANYWHERE FROM 0 TO 50 FT DEEP IN THE RIVER VALLEY AREAS AND FROM 5 TO 100 FT DEEP IN THE OTHER AREAS ALONG THE PROJECT SITE.

EXPLORATION

A TOTAL OF FORTY NINE (49) TEST BORINGS, DESIGNATED PB-45 THROUGH PB-69 AND PB-114 THROUGH PB-137, WERE DRILLED FOR THE MAINLINE MEDIAN OF I-71, TO A DEPTH OF 6.0 FEET. AND ARE SHOWN AT THE APPROXIMATE STATIONS AND OFFSETS ILLUSTRATED ON SHEETS 4 THRU 10. HOWEVER, THE MAINLINE MEDIAN BORINGS DRILLED IN THE VICINITY OF THE OVERPASSES WERE PLANNED TO A DEPTH OF 10 FT TO ACCOUNT FOR LOWERING THE PROFILE OF I-71. THE BORINGS WERE SPACED AT APPROX. 400-FT INTERVALS, ALTERNATING 30 FT (OR 45 FT FOR THE MAINLINE MEDIAN BORINGS IN THE VICINITY OF THE OVERPASSES) LEFT AND RIGHT FROM THE CENTERLINE OF THE MEDIAN.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS - 49 SAMPLES TESTED

DESCRIPTION	ODOT CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-A									
VISUAL CLASSIFICATION										
GRAVEL WITH SAND	A-1-b	37	30	20		-13-			4	
VISUAL CLASSIFICATION										
FINE SAND	A-3									
COARSE AND FINE SAND	A-3a(0)	10	10	56		-24-			6	
GRAVEL WITH SAND AND SILT.	A-2-4(0)	29	18	27		-26-	20	6	6	
GRAVEL WITH SAND, SILT AND CLAY	A-2-6(0)	22	26	23		-29-			2	
SANDY SILT	A-4c(4)	10	8	24		-58-	26	9	10	8
SILT	A-4b(8)	0	1	10		-89-			22	
SILT AND CLAY	A-6a(9)	10	7	15	36	32	30	13	12	24
SILTY CLAY	A-6b(11)	9	7	13	36	35	34	18	12	17
CLAY	A-7-6(16)	1	2	6	43	48	43	25	19	
ASPHALT										
SOD AND/OR TOP SOIL										
BERM MATERIAL (CINDERS)										
BASE MATERIAL										
CONCRETE										
DRIVE SAMPLE AND/OR CORE BORING - PLAN VIEW										
DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY										
W FREE WATER										
STATIC WATER LEVEL										
NUMBER OF BLOWS FOR STANDARD PENETRATION TEST										
X - NUMBER OF BLOWS FOR FIRST 6"										
Y - NUMBER OF BLOWS FOR SECOND 6"										
Z - NUMBER OF BLOWS FOR THIRD 6"										

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. e.g. 15

(CONT'D) EXPLORATION

THE BORING LOCATIONS WERE ESTABLISHED, LOCATED, AND STAKED BY RESOURCE INTERNATIONAL BASED ON ESTABLISHED MILEPOSTS AND LANDMARKS. THE TEST BORINGS WERE DRILLED BETWEEN JULY 10TH AND AUG. 20TH, 2002 USING A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING EITHER 2.25-INCH HOLLOW STEM AUGERS OR 4.0-INCH SOLID FLIGHT AUGERS TO ADVANCE THE HOLES.

INVESTIGATIONAL FINDINGS

THE MAINLINE MEDIAN BORINGS ENCOUNTERED BETWEEN 1 AND 12 INCHES OF TOPSOIL AT THE GROUND SURFACE. THE TOPSOIL IS GENERALLY DESCRIBED AS EITHER BROWN TO DARK BROWN CLAYEY SILT (SILTY CLAY) WITH THE PRESENCE OF ORGANICS, OR AS BROWN SANDY SILT (SILTY SAND) WITH THE PRESENCE OF ORGANICS. FOURTEEN OF THE MAINLINE MEDIAN BORINGS WERE TAKEN THROUGH THE PAVEMENT AND EXHIBITED BETWEEN 5.0 TO 7.0 INCHES OF ASPHALT, OVERLYING BETWEEN 8.0 TO 25.0 INCHES OF CONCRETE, OVER ZERO TO 18 INCHES OF BASE.

THE SUBSURFACE SOIL ALONG THE PROPOSED NORTHBOUND AND SOUTHBOUND LANES (MEDIAN AREA) IS CONSISTENT, COMPRISED PRIMARILY OF COHESIVE GROUND MORAINE AND END MORAINE TILL. THIS COHESIVE SOIL IS PRIMARILY DESCRIBED AS BROWN TO GRAY SILTY CLAY (CLAYEY SILT, SILT AND CLAY) WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-6A AND A-6B). OTHER SOIL TYPES ENCOUNTERED ALONG THE PROPOSED ROUTE INCLUDE: SCATTERED LAYERS OF BROWN TO GRAY, MODERATE TO HIGH PLASTICITY, CLAY WITH SOME SILT (ODOT A-7-6) WERE ENCOUNTERED IN SEVERAL OF THE BORINGS ALONG THE PROJECT.

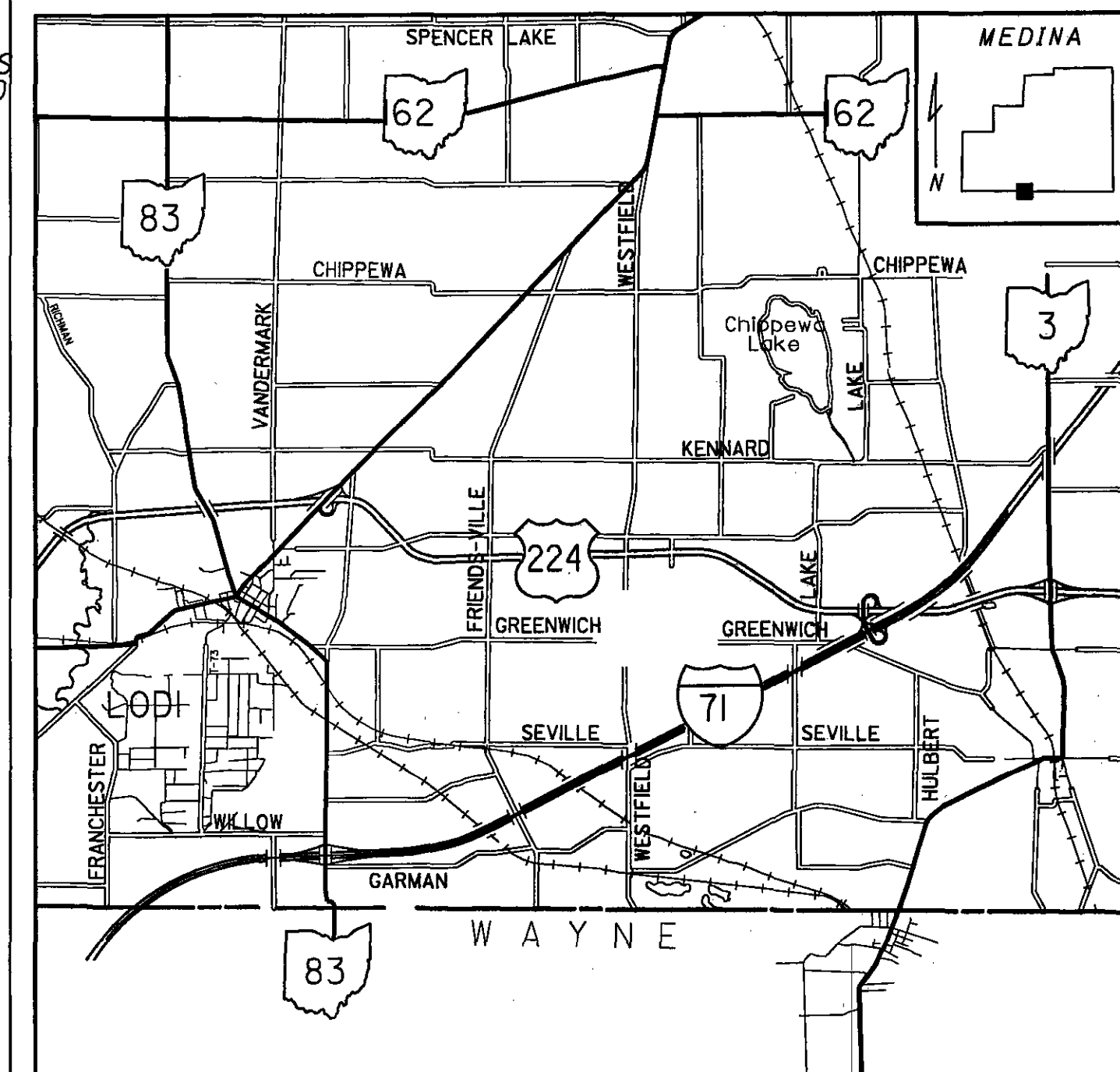
LAYERS OF BROWN SILTY SAND WITH LESSER PERCENTAGES OF GRAVEL (ODOT A-4A) WERE ENCOUNTERED IN SOME OF THE TEST BORINGS ALONG THE PROJECT.

SCATTERED LAYERS OF BROWN, LOW PLASTICITY, SILT WITH SOME CLAY (ODOT A-4B) WERE ENCOUNTERED IN A FEW OF THE BORINGS ALONG THE PROJECT.

LAYERS/LENSES OF GRANULAR SOIL, GENERALLY DESCRIBED AS BROWN COARSE AND FINE SAND AND/OR FINE GRAVEL WITH LESSER PERCENTAGES OF SILT (ODOT A-1-A, A-1-B, A-3A, A-2-4, AND A-2-6), WERE ENCOUNTERED IN SEVERAL OF THE TEST BORINGS.

A MORE COMPREHENSIVE DESCRIPTION OF THE SOILS ENCOUNTERED DURING THE DRILLING PROGRAM CAN BE FOUND ON THE BORING LOGS ON SHEETS 2 THRU 3.

THE NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED FOR PLASTICITY INDEX RANGED FROM 13% BELOW TO 6% ABOVE THEIR CORRESPONDING PLASTIC LIMITS, BUT WERE PRIMARILY BELOW THEIR CORRESPONDING PLASTIC LIMITS. OVERALL, THE SOIL IS CONSIDERED TO BE SLIGHTLY BELOW TO SLIGHTLY ABOVE CORRESPONDING OPTIMUM MOISTURE CONTENTS (BASED ON CORRELATION CHARTS).



LOCATION MAP

NOTE

ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE SOIL PROFILE SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS, SOIL TESTS, AND BEDROCK MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE OFFICE OF GEOTECHNICAL ENGINEERING, 1600 WEST BROAD STREET OR THE OFFICE OF BRIDGES AT 1980 WEST BROAD STREET, COLUMBUS OHIO.

(CONT'D) INVESTIGATIONAL FINDINGS

GROUNDWATER WAS NOT ENCOUNTERED DURING OR IMMEDIATELY AFTER THE DRILLING PROCESS IN ANY OF THE BORINGS. PLEASE NOTE THAT SHORT-TERM WATER LEVEL READINGS ARE NOT NECESSARILY AN ACCURATE INDICATION OF THE ACTUAL GROUNDWATER LEVEL. IN ADDITION, GROUNDWATER LEVELS AND THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON SEASONAL FLUCTUATIONS IN PRECIPITATION.

PROJECT INDEX							
STATIONS FROM	TO	PLAN SHEET	PROFILE SHEET	SOUTHBOUND		NORTHBOUND	
				CUT (FT)	FILL (FT)	CUT (FT)	FILL (FT)
308+00	335+00	4	4	0	0	0	0
335+00	361+00	5	5	1	0	2	0
361+00	387+00	6	6	0	24	0	22
387+00	415+00	7	7	2	1	1	0
415+00	441+00	8	8	0	27	0	27
441+00	468+00	9	9	0	36	0	36
468+00	488+00	10	10	0	0	1	0

SOIL SHEETS

MAINLINE 1/71 - 10/71
 RAMPS 11/71 - 41/71
 STRUCTURES ... 42/71 - 71/71

RESOURCE INTERNATIONAL, INC.
 281 ENTERPRISE DRIVE
 WESTERVILLE, OHIO 43081 (614)885-1959

 CALCULATED DATE 5/1/03
 CHECKED DATE 5/1/03
 GPH
 SOIL PROFILE-MAINLINE
 MEDINA COUNTY
 MED -71-6.06
 1/10
 71

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>N.B. BORINGS REFERENCED TO CENTERLINE OF I-71</u>											
PB-45	310+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILT AND CLAY, LITTLE SAND, TRACE GRAVEL. 11 7 13 37 32				30		12	8 11 14	VISUAL A-6a VISUAL
PB-46	318+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 14 7 13 35 31				28		11	8 11 11	VISUAL A-6a VISUAL
PB-47	326+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL. 13 5 17 32 33				37		21	6 10 14	VISUAL A-6b VISUAL
PB-48	334+00, 30' RT	0-1.5 2.0-3.0 4.5-6.0	12 11 19 35 23 SAME AS 0-1.5 GRAY SANDY SILT, SOME CLAY, LITTLE GRAVEL.							3 4 10	VISUAL VISUAL VISUAL
PB-49	342+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL. 10 7 14 38 31				37		19	5 12 19	VISUAL A-6b VISUAL
PB-50	350+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL. 3 7 13 -77-				39		22	7 10 11	VISUAL A-6b VISUAL
PB-51	354+00, 45' RT	1.5-1.8 1.8-3.0 3.5-5.0 6.0-7.5 8.5-10.0	SAND AND GRAVEL BASE BROWN AND GRAY SILT AND CLAY, LITTLE GRAVEL. 11 6 13 35 35				31		15	11 13 12 14	VISUAL VISUAL A-6a VISUAL VISUAL
PB-52	358+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL. 10 7 11 37 35				33		17	7 16 13	VISUAL A-6b VISUAL
PB-53	366+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL. 8 7 15 -70-				29		14	7 14 16	VISUAL A-6a VISUAL
PB-54	374+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 8 7 13 38 34				33		17	6 11 14	VISUAL A-6b VISUAL
PB-55	382+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 4.5-6.0 SAME AS 4.5-6.0 17 6 11 36 30				34		17	10 11 14	VISUAL VISUAL A-6b
PB-56	390+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 4.5-6.0 SAME AS 4.5-6.0 10 9 15 36 30				29		13	8 10 14	VISUAL VISUAL A-6a
PB-57	394+00, 45' RT	1.5-3.0 3.5-5.0 6.0-7.5 8.5-10.0	BROWN SILTY SAND, LITTLE CLAY, TRACE GRAVEL. GRAY SILTY CLAY, TRACE SAND, TRACE GRAVEL. 5 5 13 38 39				40		23	18 19 23 18	VISUAL VISUAL A-6b VISUAL
PB-58	398+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 10 7 14 36 33				33		16	9 11 12	VISUAL A-6b VISUAL

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>(CONT'D) N.B. BORINGS REFERENCED TO CENTERLINE OF I-71</u>											
PB-59	406+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL. SAME AS 0-1.5 SAME AS 0-1.5							9 12 15	VISUAL VISUAL VISUAL
PB-60	414+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL. SAME AS 0-1.5 9 9 20 -62- 29 14							9 10 14	VISUAL VISUAL A-6a
PB-61	422+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL. SAME AS 0-1.5 SAME AS 0-1.5							7 13	VISUAL VISUAL VISUAL
PB-62	430+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 10 13 19 29 29 31 16 BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL.							7 11 13	VISUAL A-6b VISUAL
PB-63	438+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 9 10 19 33 29 25 11 BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL.							8 9 12	VISUAL A-6a VISUAL
PB-64	446+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 13 7 18 -62-							10 13 15	VISUAL VISUAL VISUAL
PB-65	454+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL. SAME AS 0-1.5 SAME AS 0-1.5							5 8 11	VISUAL VISUAL VISUAL
PB-66	462+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 12 8 15 37 28 27 13 BROWN CHANGING TO GRAY SILT AND CLAY, SOME SAND, LITTLE GRAVEL.							7 9 11	VISUAL A-6a VISUAL
PB-67	470+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5 17 7 19 -57- 29 11							7 11 13	VISUAL A-6a VISUAL
PB-68	478+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 0-1.5 SAME AS 0-1.5 10 7 20 -63-							10 11 12	VISUAL VISUAL VISUAL
PB-69	486+00, 30' RT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILTY CLAY, LITTLE SAND, LITTLE GRAVEL, TRACE ORGANICS. SAME AS 0-1.5 16 5 13 39 27 36 20							5 10 14	VISUAL VISUAL A-6b

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DATE 5/1/03
DATE 5/1/03

DRAWN KAL
REVIEWED GPH

SOIL PROFILE - MAINLINE

MEDINA COUNTY
MED -71-6.06

2/10
2
71

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class			
S.B. BORINGS REFERENCED TO CENTERLINE OF I-71													
PB-114	314+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		13	34	32	32	16	8 13 12	VISUAL A-6b VISUAL		
PB-115	322+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		13	33	28	27	11	6 10 12	VISUAL A-6a VISUAL		
PB-116	330+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		8	20	-64-	21	7	7 8 12	VISUAL VISUAL VISUAL		
BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL.													
PB-117	338+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		17	22	-52-			7 9 11	VISUAL VISUAL VISUAL		
BROWNISH GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL.													
PB-118	346+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		15	10	33	36	33	16	6 12 14	VISUAL A-6b VISUAL	
MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, LITTLE GRAVEL.													
PB-119	354+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		6	9	10	37	38	30	13	6 11 13	VISUAL A-6a VISUAL
SAME AS 2.0-3.5													
PB-120	359+00, 45' LT	1.3-2.8 3.5-5.0 6.0-7.5 8.5-10.0	GRAY SILTY CLAY, TRACE SAND, TRACE GRAVEL.								13	VISUAL	
GRAY SILTY CLAY, TRACE SAND, TRACE GRAVEL.													
SAME AS 6.0-7.5													
PB-121	362+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILT AND CLAY, LITTLE SAND, LITTLE GRAVEL.		12	8	16	31	33	29	14	9 10 14	VISUAL A-6a VISUAL
SAME AS 2.0-3.5													
PB-122	370+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL.								9	VISUAL	
SAME AS 0-1.5													
SAME AS 0-1.5													
PB-123	378+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.								7	VISUAL	
SAME AS 4.5-6.0													
3 7 13 40 37 33 16 16													
PB-124	386+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		13	5	10	36	36	36	19	7 12 14	VISUAL A-6b VISUAL
BROWN SILTY CLAY, LITTLE SAND, LITTLE GRAVEL.													
PB-125	394+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL.		6	9	14	35	36	32	16	9 10 16	VISUAL A-6b VISUAL
SAME AS 2.0-3.5													
PB-126	399+00, 45' LT	1.4-2.9 3.5-5.0 6.0-7.5 8.5-10.0	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL.								14	VISUAL	
SAME AS 3.5-5.0													
BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL.													
PB-127	402+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, LITTLE GRAVEL.								8	VISUAL	
SAME AS 0-1.5													
17 10 14 33 26 30 15 13													
PB-128	410+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		19	9	19	-53-	30	14	9 12 13	VISUAL A-6a VISUAL	
SAME AS 2.0-3.5													
PB-129	417+60, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL.								7	VISUAL	
SAME AS 0-1.5													
SAME AS 0-1.5													

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class			
(CONT'D) S.B. BORINGS REFERENCED TO CENTERLINE OF I-71													
PB-130	426+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		4	6	14	45	31	26	10	12 13 15	VISUAL A-4a VISUAL
BROWN SILT AND CLAY, LITTLE SAND, LITTLE GRAVEL.													
PB-131	434+00, 30' LT	0-1.5 2.0-2.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, LITTLE GRAVEL.								8	VISUAL	
SAME AS 0-1.5													
10 9 21 31 29 29 13 13													
PB-132	442+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		13	8	13	33	33	35	18	9 12 12	VISUAL A-6b VISUAL
SAME AS 2.0-3.5													
PB-133	450+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL.								9	VISUAL	
SAME AS 0-1.5													
SAME AS 0-1.5													
PB-134	458+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL.								6	VISUAL	
SAME AS 0-1.5													
SAME AS 0-1.5													
PB-135	468+00, 30' LT	0-1.5 2.0-3.0 4.5-6.0	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL, TRACE ORGANICS.								10	VISUAL	
SAME AS 4.5-6.0													
5 9 16 39 31 30 13 12													
PB-136	474+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 2.0-3.5		12	7	14	38	29	29	12	13 11 12	VISUAL A-6a VISUAL
SAME AS 2.0-3.5													
PB-137	482+00, 30' LT	0-1.5 2.0-3.5 4.5-6.0	SAME AS 4.5-6.0		2	7	17	41	33	38	20	7 16 16	VISUAL VISUAL A-6b
SAME AS 4.5-6.0													

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281 ENTERPRISE DR.
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(614) 885-9559

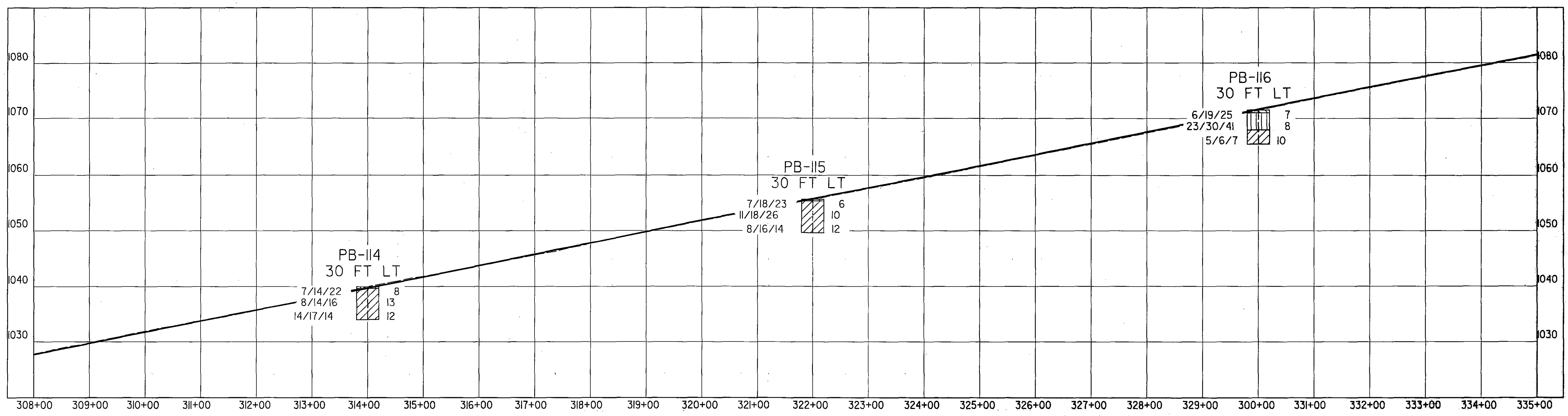
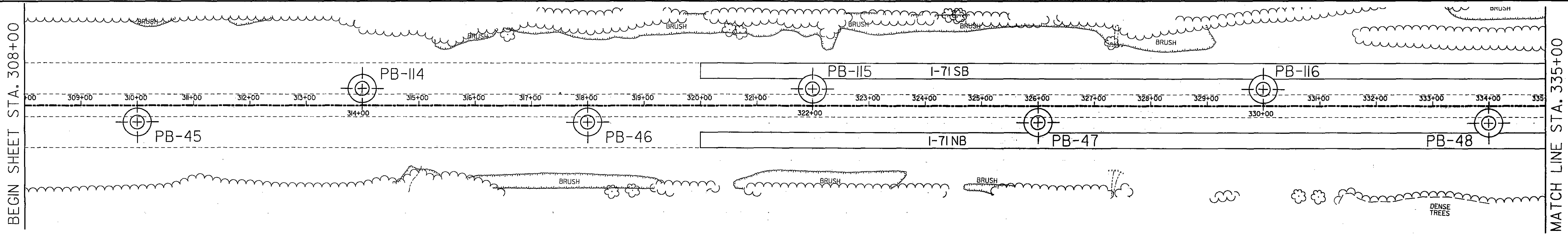
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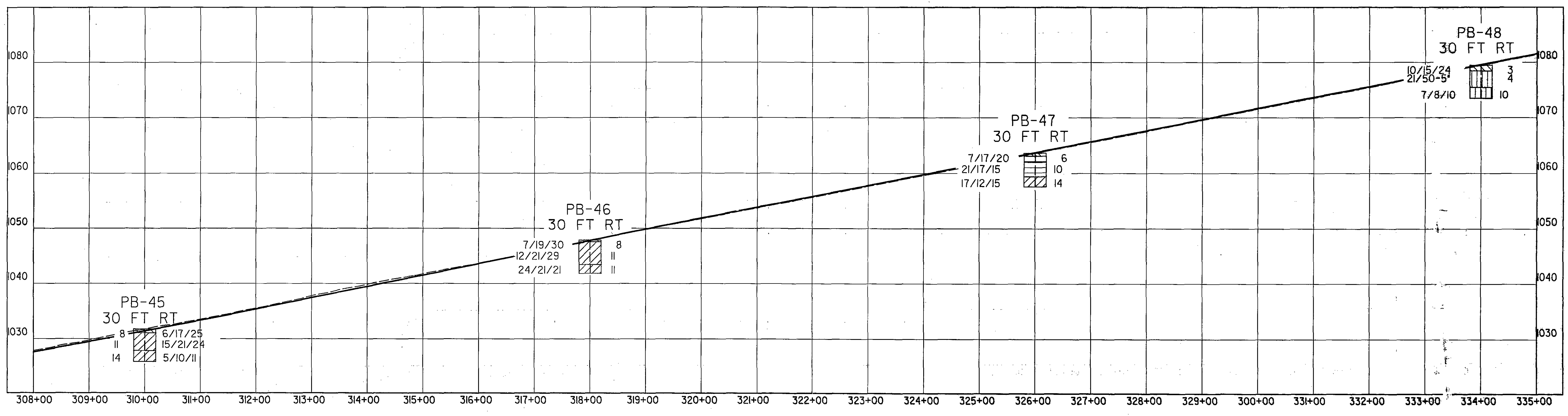
SOIL PROFILE-MAINLINE

MEDINA COUNTY
MED -71-6.06

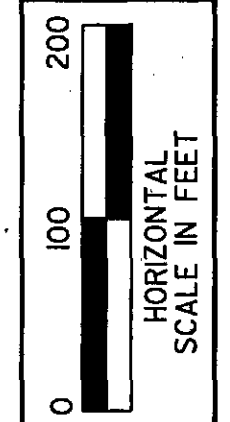
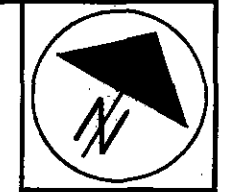
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SOUTH BOUND PROFILE



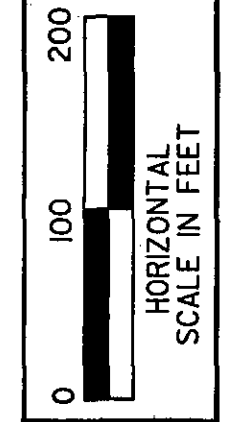
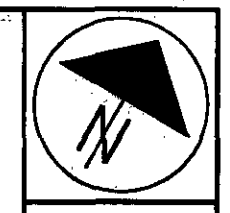
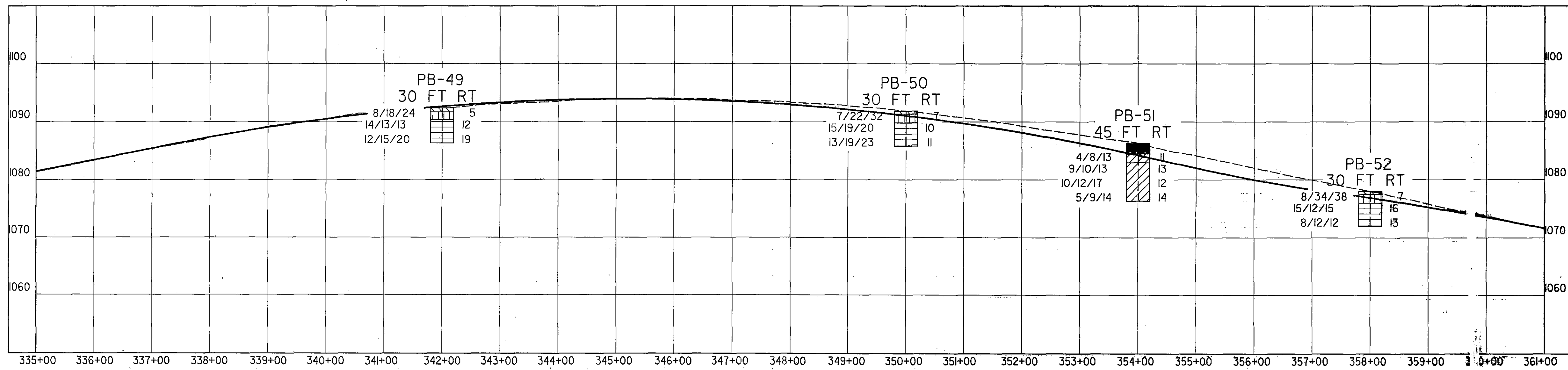
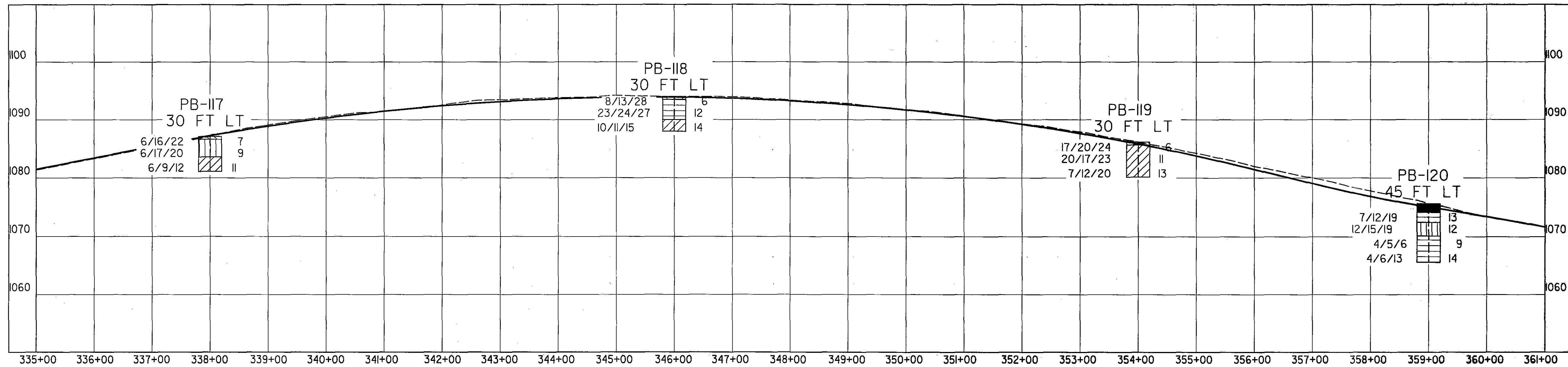
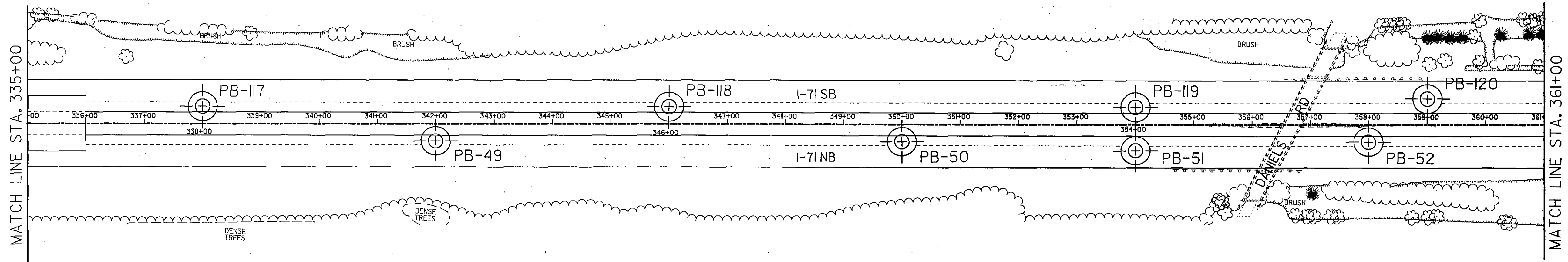
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DATE	DATE	DATE	DATE
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REVIEWED	REVIEWED	REVIEWED	REVIEWED
DRAWN	DRAWN	DRAWN	DRAWN
KAL	KAL	KAL	KAL
CHECKED	CHECKED	CHECKED	CHECKED
GPH	GPH	GPH	GPH

STA. 308+00 TO STA. 335+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06



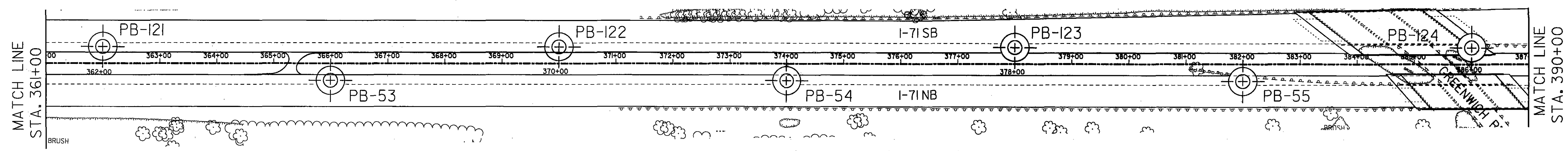
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SOIL PROFILE

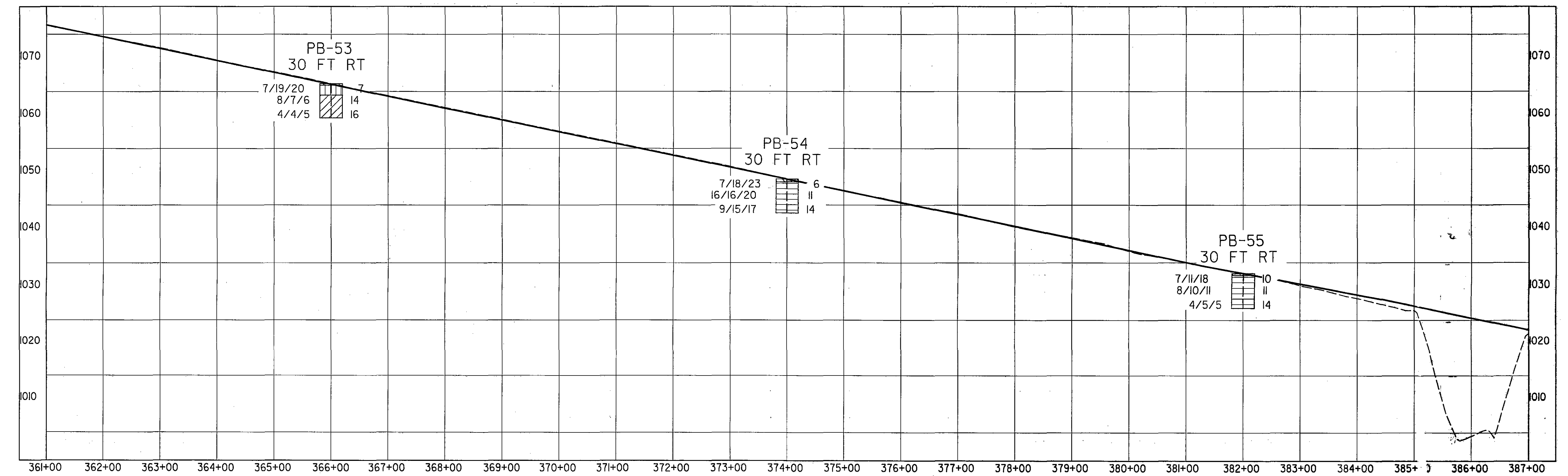
MEDINA COUNTY
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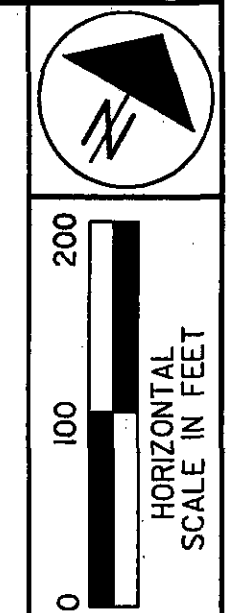
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SOUTH BOUND PROFILE



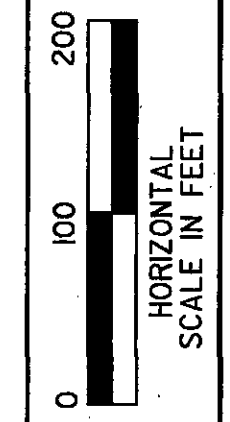
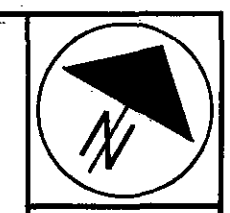
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DATE	DATE	CHECKED	GPH
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STA. 361+00 TO STA. 387+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06



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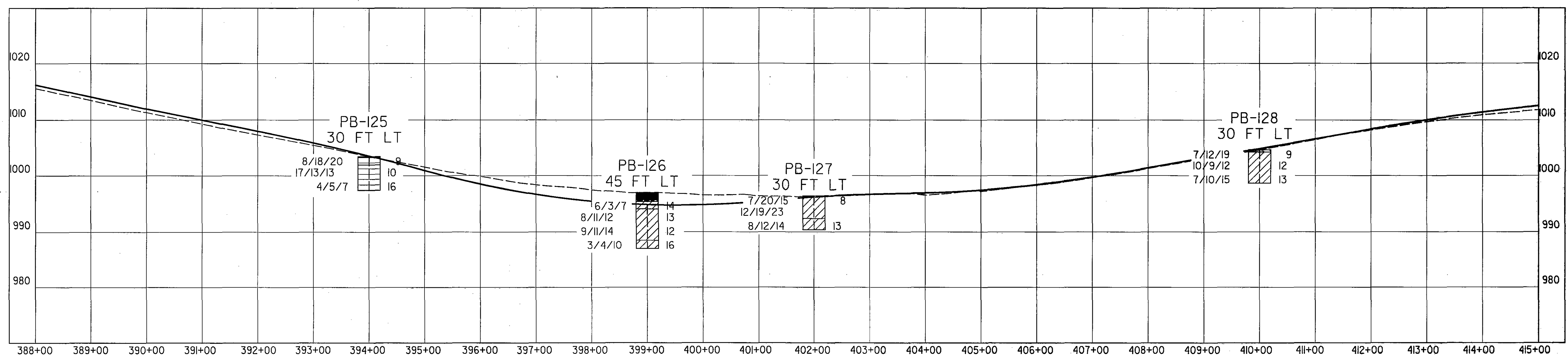
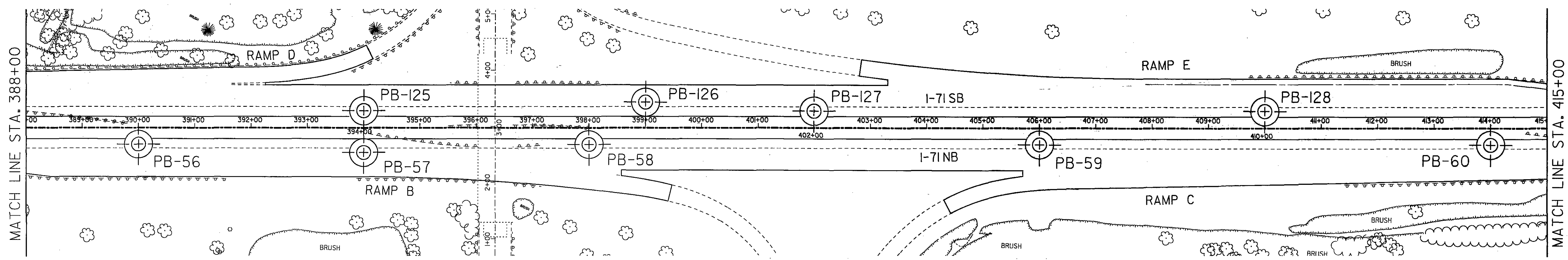
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STA. 388+00 TO STA. 415+00
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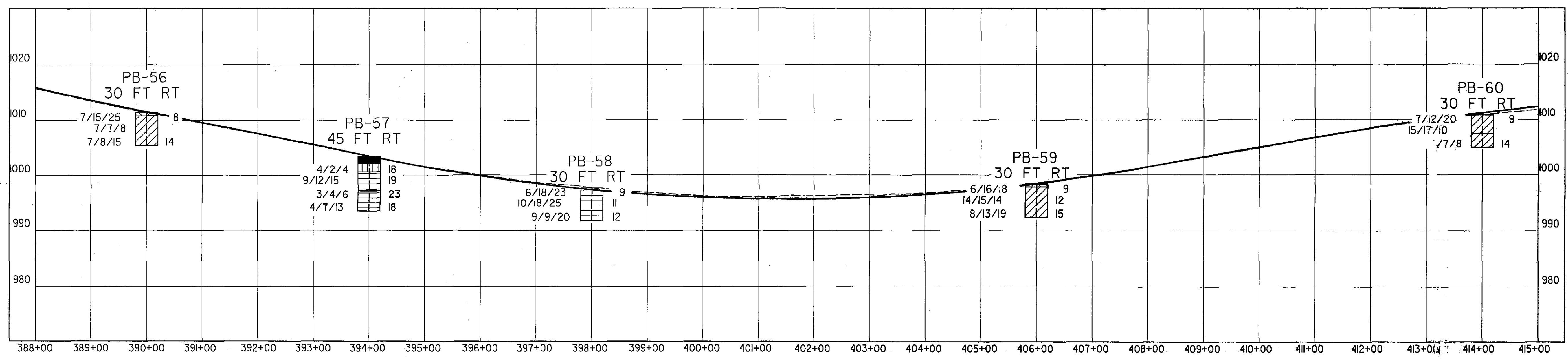
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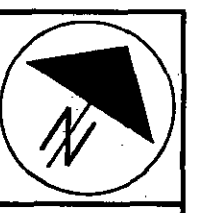
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SOUTH BOUND PROFILE



NORTH BOUND PROFILE



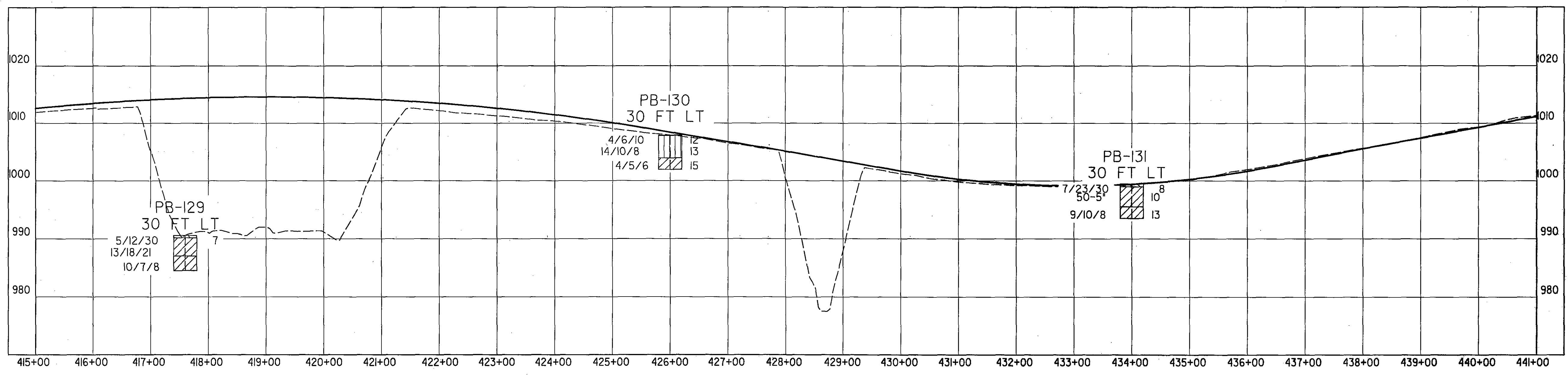
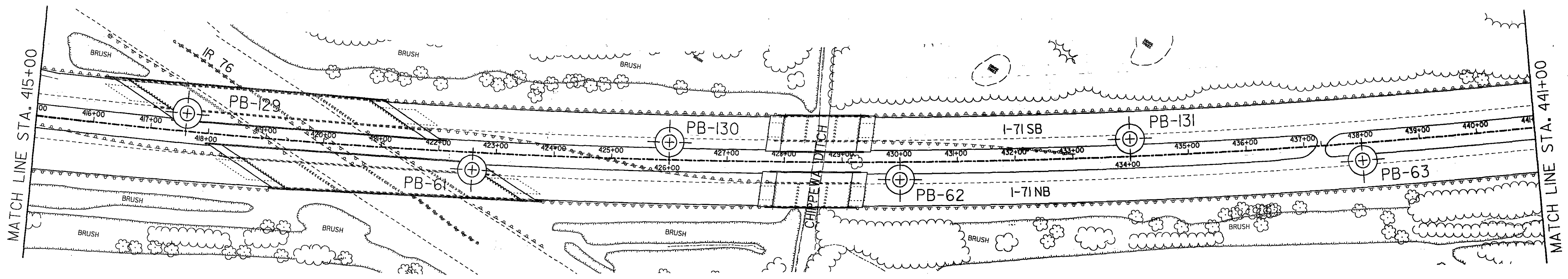
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SOIL PROFILE

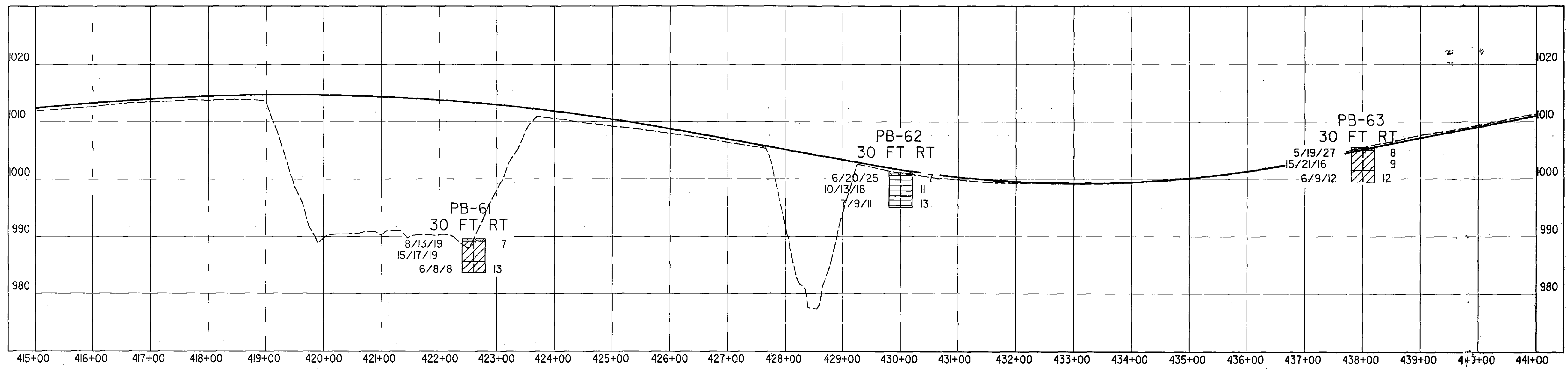
MEDINA COUNTY
MED-71-6.06

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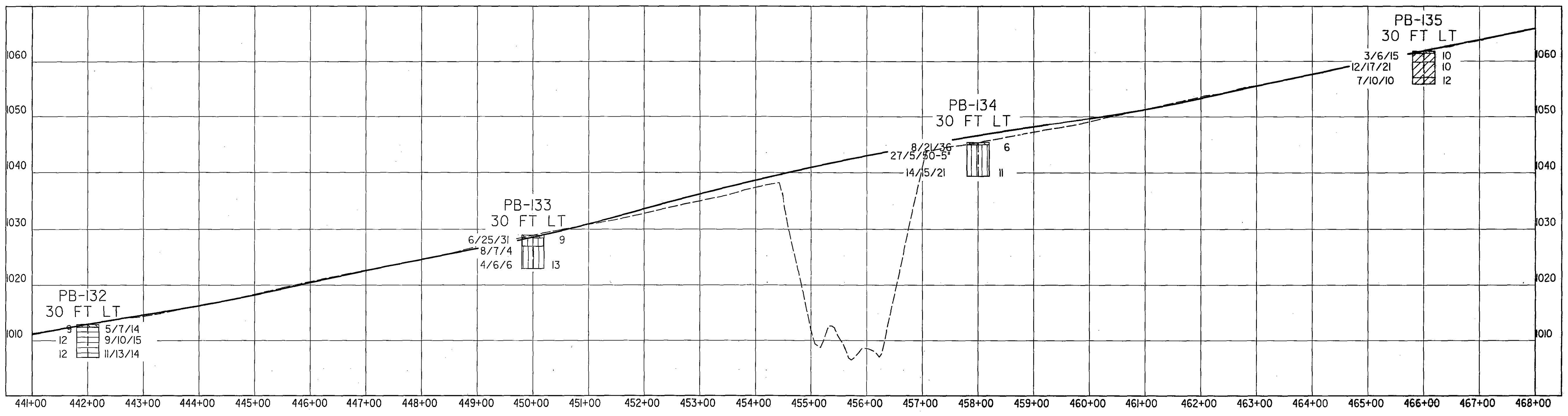
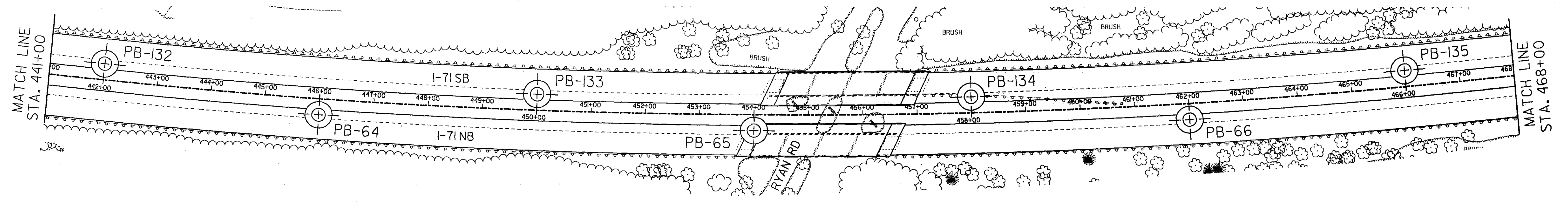
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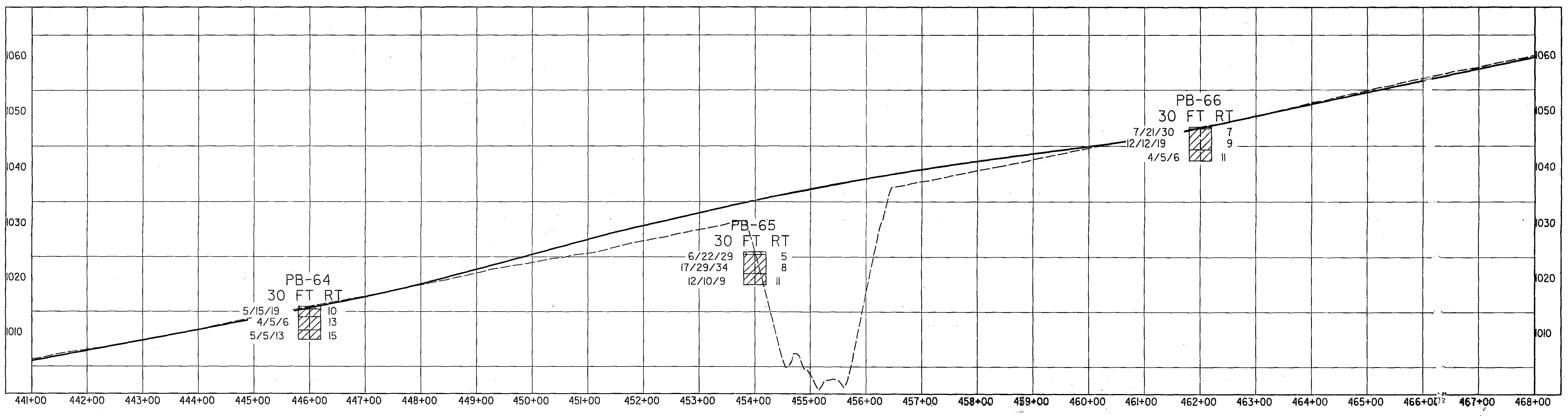
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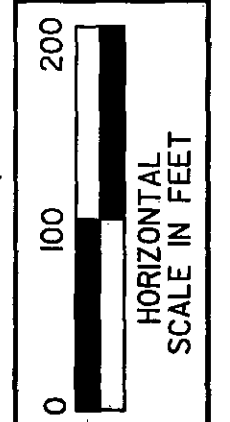
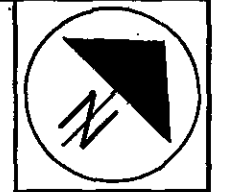
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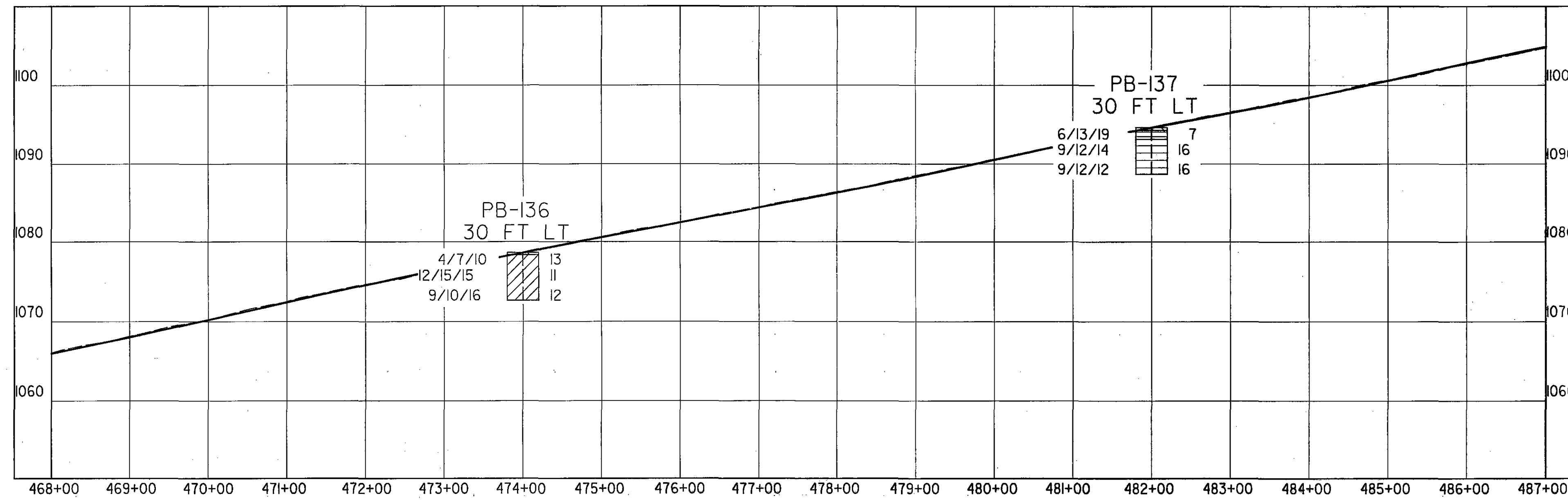
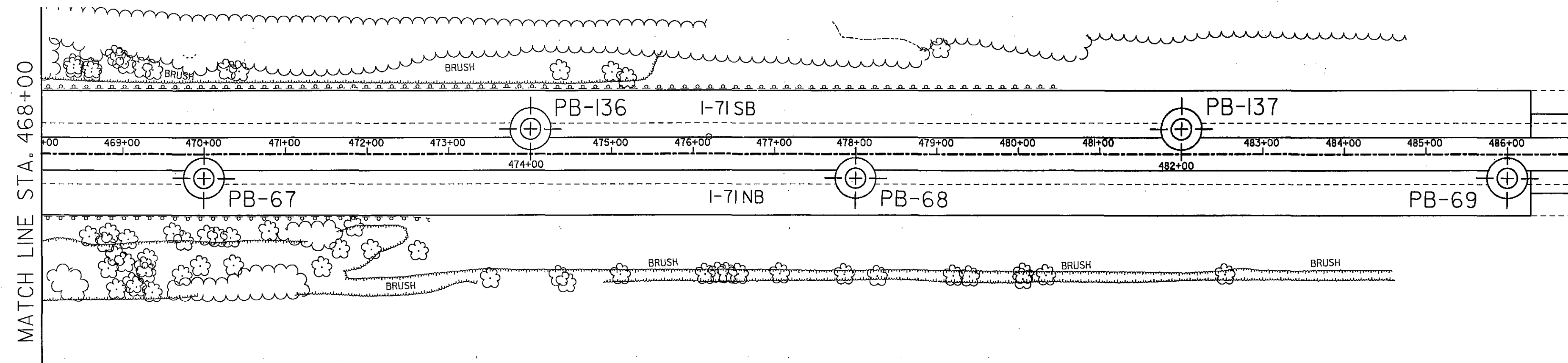
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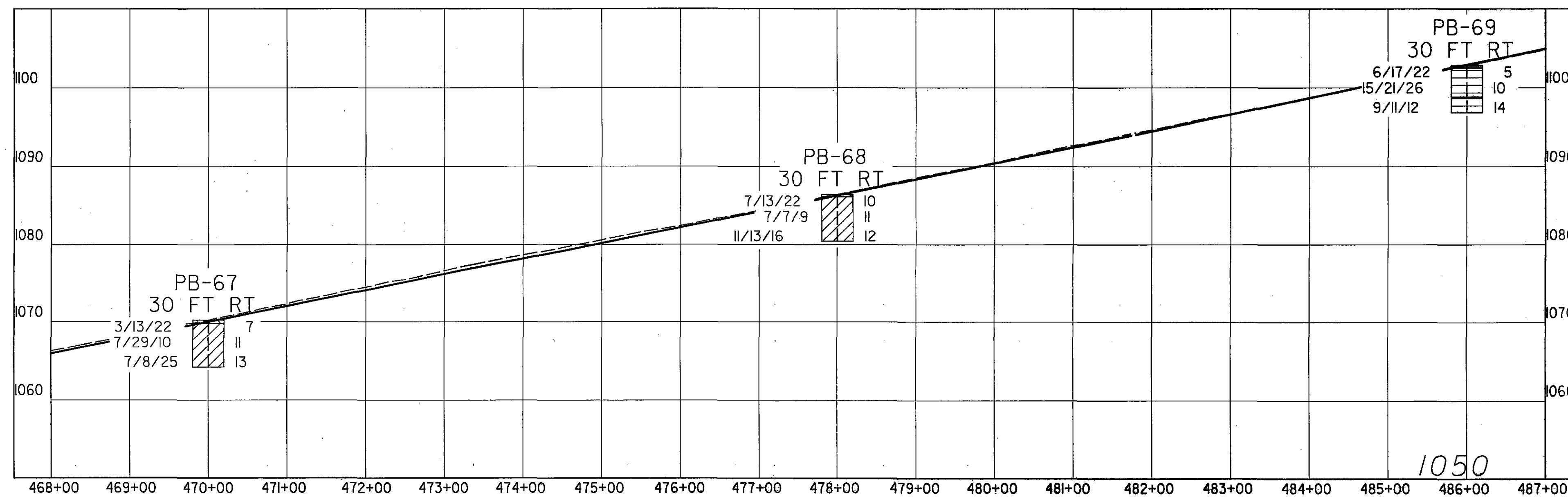
MEDINA COUNTY
MED-71-6.06

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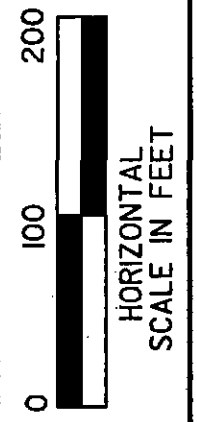
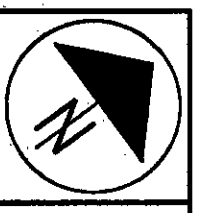
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SOUTH BOUND PROFILE



NORTH BOUND PROFILE



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SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

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INTRODUCTION

THE EXISTING INTERCHANGE IS LOCATED IN MEDINA COUNTY, OHIO, APPROXIMATELY ONE (1) MILE WEST OF SEVILLE AND ONE (1) MILE EAST OF WESTFIELD CENTER. THE INTERCHANGE SERVES AS THE WESTERN TERMINUS OF IR 76 AT MILE POST 0. RELATIVE TO IR 71, THE INTERCHANGE IS AT MILE POST 209.

THE PROJECT CONSISTS OF TWELVE (12) NEW, RELOCATED AND/OR IMPROVED RAMPS AND FOUR (4) NEW BRIDGES

RAMP INFORMATION

NO.	TITLE	NO. OF BORINGS	BORING DESIGNATIONS	RAMP LENGTH (FT)
1	ES	37	ES-1 THROUGH ES-15, ES-6A,B,C, ES-7A, ES-8A,B,C, & ES-9A,B, 16-17, 22-23, 27, 28-29, 32-33, 36-37, 42-43	5593
2	SE	14	SE-3 THROUGH SE-16	4737
3	S-EW	2	SE-1 & SE-2	986
4	SW	3	SW-1 THROUGH SW-3	2372
5	WS	3	WS-1 THROUGH WS-3	1271
6	W-NS	2	WS-4 & WS-5	568
7	EN	8	EN-1 THROUGH EN-8	2358
8	NE	6	NE-2 THROUGH NE-7	1807
9	N-EW	1	NE-1	1413
10	NW	3	NW-1 THROUGH NW-3	826
11	NS-W	1	NW-4	2637
12	WN	3	WN-1 THROUGH WN-3	1293

BRIDGE INFORMATION

LETTER	TITLE	NO. OF BORINGS	BORING DESIGNATIONS
A	I71 & SE OVER GREENWICH RD	8	B-1 THROUGH B-8
B	SE OVER CHIPPEWA CREEK	4	B-1 THROUGH B-4
C	ES OVER USR 224	7	B-1E THROUGH B-6E & B-1.5E
D	ES OVER GREENWICH ROAD	4	B-9 THROUGH B-12

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE SITE LIES ON THE BORDERLINE OF THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU AND THE GALION GLACIATED LOW PLATEAU. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM END MORAIN, LAKE-PLANED MORAIN, GROUND MORAIN, AND OUTWASH DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. GLACIAL TILL OR MORAINES CONSIST OF DEBRIS DEPOSITED BY THE GLACIER ACROSS THE LAND SURFACE AS THE GLACIERS RETREAT. OUTWASH DEPOSITS CONSIST OF UNDIFFERENTIATED SAND AND GRAVEL DEPOSITED BY MELT WATER IN FRONT OF GLACIAL ICE, AND OFTEN OCCURS AS VALLEY TERRACES OR LOW PLAINS.

THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WESTFIELD CENTER QUADRANGLE, THE TOP OF BEDROCK DROPS TOWARD THE CHIPPEWA CREEK VALLEY. THIS TOPOGRAPHIC HIGH AREA SURROUNDS THE DRAINAGE OF THE CHIPPEWA CREEK VALLEY. THE TOP OF BEDROCK AT THE NORTH END IN THE VICINITY OF THE CHIPPEWA CREEK VALLEY AND I-76 IS BETWEEN 800 AND 950 FEET. THE THICK DEPOSITS OF OUTWASH AND GLACIAL OVERBURDEN OCCURRING IN THE CHIPPEWA CREEK VALLEY RANGE FROM APPROXIMATELY 100 TO 200+ FEET OF DEPOSITS. OVERBURDEN DEPOSITS APPEAR SHALLOWEST, APPROXIMATELY 50 FEET THICK, AT THE BEDROCK, JUST WEST OF GREENWICH ROAD.

RIVER VALLEY FILL, CONSISTING OF INTERBEDDED AND INTERLENSED SAND, GRAVEL, SILT AND CLAY SUPPLY MUCH OF THE WATER TO DOMESTIC WELLS LOCATED IN THE AREA. ACCORDING TO THE GROUND WATER POLLUTION POTENTIAL OF MEDINA COUNTY, OHIO, DOMESTIC WELLS ARE DEVELOPED ANYWHERE FROM 0 TO 50 FEET DEEP IN THE CHIPPEWA CREEK VALLEY AREA.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS - 314 SAMPLES TESTED

DESCRIPTION	ODOT CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-A	50	26	14	-10-				10	5
GRAVEL WITH SAND	A-1-b	32	31	23	-14-				15	32
FINE SAND	A-3	1	39	54	-6-				10	2
COARSE AND FINE SAND	A-3a	9	18	53	-20-				20	6
GRAVEL WITH SAND AND SILT.	A-2-4	24	17	20	-29-				14	7
GRAVEL WITH SAND AND SILT.	A-2-6	26	19	27	-28-				7	3
SANDY SILT	A-4a(3)	2	9	18	32	29	24	8	16	52
SILT	A-4b(5)	1	1	9	57	32	27	8	38	16
ELASTIC SILT AND CLAY	A-5(11)	5	1	2	52	40	50	6	53	4
SILT AND CLAY	A-6a(8)	5	4	12	43	36	31	13	23	78
SILTY CLAY	A-6b(13)	4	3	8	30	45	35	17	29	55
ELASTIC CLAY	A-7-5(20)	2	3	5	47	43	58	20	69	15
CLAY	A-7-6(20)	1	1	3	40	55	45	21	32	39
SEDIMENTARY PEAT										

VISUAL CLASSIFICATION

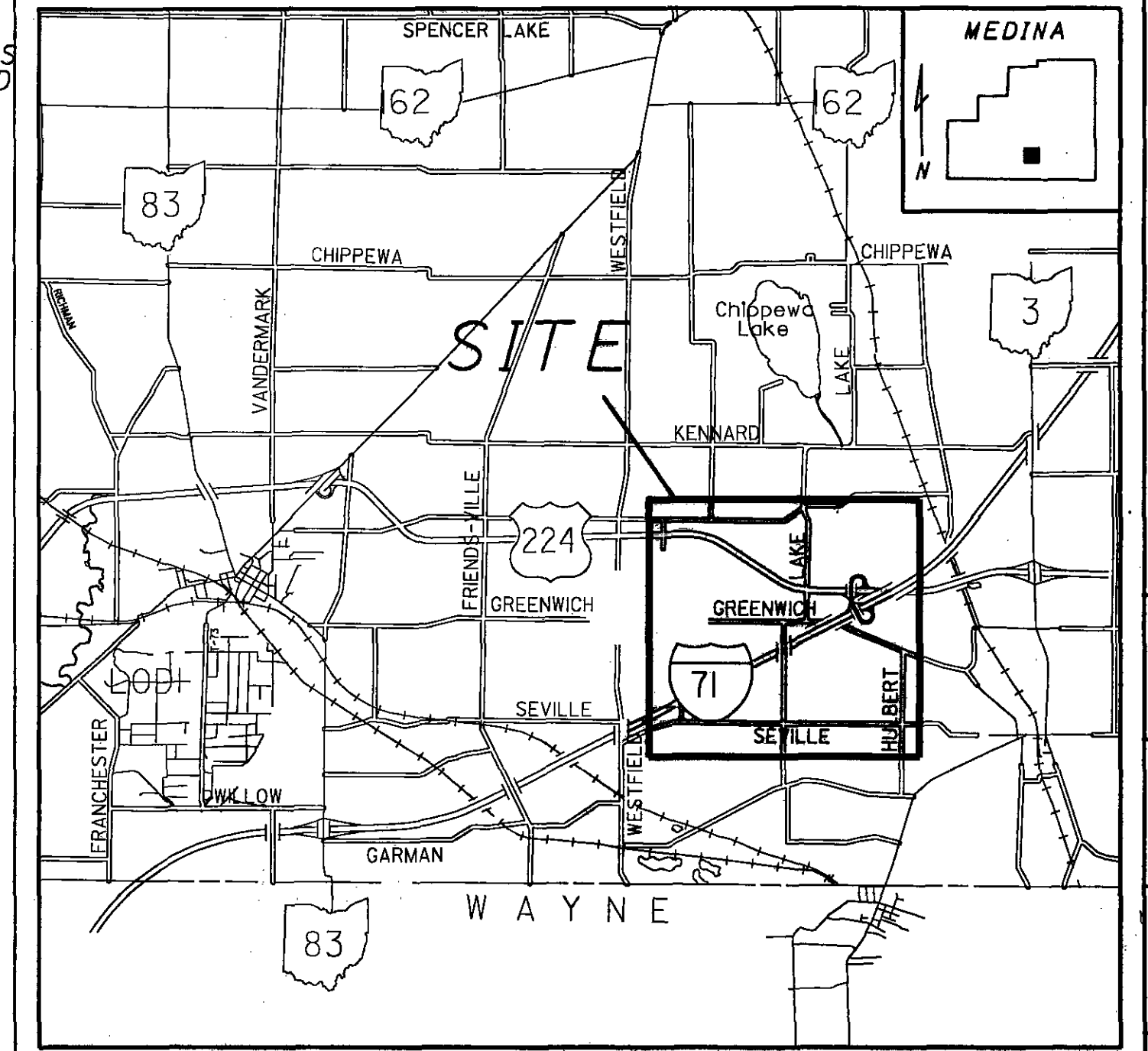
- ASPHALT
- SOD AND/OR TOP SOIL - X = APPROXIMATE DEPTH
- FILL MATERIAL
- BASE MATERIAL
- DRIVE SAMPLE AND/OR CORE BORING - PLAN VIEW
- ROADWAY OR AUGER BORING PLOTTED TO VERTICAL SCALE ONLY
- DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY
- WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT
- INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT
- FREE WATER
- STATIC WATER LEVEL
- NUMBER OF BLOWS FOR STANDARD PENETRATION TEST
X = NUMBER OF BLOWS FOR FIRST 6"
Y = NUMBER OF BLOWS FOR SECOND 6"
Z = NUMBER OF BLOWS FOR THIRD 6"

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. e.g. 15

EXPLORATION

ONE-HUNDRED SIX (106) BORINGS WERE DRILLED. EIGHTY-THREE (83) BORINGS, WERE DRILLED FOR THE TWELVE (12) PROPOSED RAMPS, INCLUDED HERewith. TWENTY THREE (23) BORINGS WERE DRILLED FOR THE BRIDGE STRUCTURES, NOT INCLUDED. THE RAMP BORINGS WERE SPACED AT APPROXIMATELY 400-FOOT INTERVALS. NOTE THAT WITHIN PEAT AREAS, THE BORING SPACING WAS REDUCED TO 100-FOOT INTERVALS WITH THE ADDITION OF LATERAL BORINGS AS REQUIRED. THE BORING LOCATIONS WERE ESTABLISHED, LOCATED, AND STAKED, BASED ON ESTABLISHED MILEPOSTS AND LANDMARKS. THE BORINGS WERE DRILLED BETWEEN JUNE 17TH, 2003 AND AUGUST 13TH, 2004.

CONTINUED REPORT INFORMATION ON NEXT SHEET



LOCATION MAP

NOTE

ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE SOIL PROFILE SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS, SOIL TESTS, AND BEDROCK MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE OFFICE OF GEOTECHNICAL ENGINEERING, 1600 W. BROAD ST. OR THE OFFICE OF STRUCTURAL ENGINEERING, AT 1980 WEST BROAD STREET.

RAMP	STATIONS		PLAN SHEET	PROFILE SHEET	CUT (FT)	FILL (FT)
	FROM	TO				
RAMP ES	372+00	866+00 (I-71)	14	-	N/A	N/A
	372+00	198+50	-	15	0	31
	198+50	228+41.36	-	16	2	33
CROSS SECTIONS	190+00, 193+00		-	17	1.5	23
	195+00		-	18	1.5	26
	196+00		-	19	2	29
	200+00		-	20	1.5	30
	202+00, 205+00		-	21	2	34
RAMP SE	64+00	143+00	22	22	0	22
	143+00	170+00	23	23	7	12
	170+00	902+00 (I-76)	24	24	1	16
RAMP SE/ RAMP S-EW	63+00	91+00	25	25	2	25
RAMP WS	26+51.58	175+58.8	26	26	3	16
RAMP EN	452+00	110+00	27	27	0	28
	110+00	906+00 (I-76)	28	28	2	32
RAMP NE	40+93.92	50+00.6	29	29	7	2
RAMP N-EW	40+93.92	50+00.6	30	30	10	5
RAMP NW						
RAMP N-SW						
RAMP WN	28+44.59	41+31	31	31	3	10

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 PROJECT NO. W-163MOD
 DATE: 9/20/04
 RESOURCE INTERNATIONAL, INC.
 PROJECT NO. W-163MOD

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614)823-4949
 RII
 CALCULATED DATE: 9/20/04
 CHECKED DATE: 9/20/04
 GPH
 DRAWN: KAL
 SOIL PROFILE-INTERCHANGE
 MEDINA COUNTY
 MEDINA - 71-6.06
 1/31
 71

INVESTIGATIONAL FINDINGS (RAMP AREAS)

RAMP ES

THIRTY-SEVEN (37) BORINGS WERE DRILLED FOR RAMP ES BETWEEN STATIONS 172+48.77 TO 228+41.36 (5,600 FEET +/-) BORINGS EXTENDED 15 TO 75 FEET BELOW THE EXISTING GRADE. AT THE SURFACE, TOPSOIL RANGES 6.0 TO 16.25 INCHES FOR AN AVERAGE OF 10.6 INCHES IN 21 OF THE 37 BORINGS. AT BORINGS ES-9A AND ES-9B, 6.0 INCHES OF GRAVEL WAS ENCOUNTERED AT THE SURFACE. AT BORING ES-15, 1.4 FEET OF SANDY SILT FILL WAS ENCOUNTERED AT THE SURFACE. THE UNDERLYING SOILS AT THE BORINGS CONSIST OF A COHESIVE CAP OVERLYING INTERBEDDED LAYERS OF COHESIVE SOILS, GRANULAR SOILS AND PEAT. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-4B, A-6A, A-6B, A-7-5, AND A-7-6). BELOW THE COHESIVE LAYERS ARE LAYERS OF PEAT AND GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-1-A, A-1-B, A-2-4, A-3A AND A-3).

THERE ARE VERY SOFT AND SOFT SILTY CLAYS, SANDY SILTS AND PEAT 0.9 TO 38 FEET IN BORINGS ES-2 THROUGH ES-4, ES-6 THROUGH ES-9, ES-10 AND ES-12. ORGANIC CONTENTS: 3% TO 84%.

- COHESIVE SOILS: VERY SOFT (N < 2 BLOWS PER FOOT) TO HARD (N > 30 BPF). HOWEVER, ORGANIC SOILS ENCOUNTERED IN ES-7, ES-8, ES-8A, ES-8B, ES-8C, AND ES-12 EXHIBITED BLOW COUNTS BETWEEN 1 AND 7 BPF, INDICATING VERY SOFT TO MEDIUM STIFF MATERIAL.
 - GRANULAR MATERIALS: VERY LOOSE (N < 5 BPF) TO MEDIUM DENSE (N=11 TO 30 BPF).
 - BLOW COUNTS: 0 BPF TO REFUSAL. AND WAS OBTAINED ON SANDY SILT. EXCLUDING THE ORGANIC SOIL DEPOSITS, WHICH EXHIBITED UNCONFINED COMPRESSIVE STRENGTH VALUES: <0.5 TO 3.5 KSF.
 - UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL: <0.5 TO OVER 9 KSF
 - EXCLUDING THE ORGANIC SOILS, MOISTURE CONTENTS: 8 TO 64 PERCENT.
 - ORGANIC SOILS (MOISTURE CONTENTS): 30 TO 355 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 18 PERCENT BELOW TO 89 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE ABOVE THE OPTIMUM.

RAMP SE

FOURTEEN (14) BORINGS WERE DRILLED FOR RAMP SE BETWEEN STATIONS 124+23.73 (STATION EQUATION 70+23.73) TO 171+60.59 (4,700 FEET +/-) THE BORINGS EXTENDED 15 TO 35 FEET BELOW EXISTING GRADE. AT THE SURFACE, 6.0 TO 10.0 INCHES OF ASPHALT OVER 8 TO 12 INCHES OF GRANULAR BASE WERE ENCOUNTERED AT BORINGS SE-13 THROUGH SE-16. AT THE OTHER BORINGS, 5.5 TO 13.5 INCHES OF TOPSOIL WAS ENCOUNTERED. SILT AND CLAY OR GRAVEL/SAND FILL (ODOT A-6A, A-7-6, A-1-A) WAS ENCOUNTERED 11.0 FEET TO 13.0 FEET BELOW THE SURFACE IN BORINGS SE-13 THROUGH SE-16. THE UNDERLYING SOILS AT THE BORING LOCATIONS CONSIST OF A COHESIVE CAP OVERLYING INTERBEDDED LAYERS OF GRANULAR AND COHESIVE SOILS. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-4B, A-6A, A-6B, AND A-7-6). BELOW THE COHESIVE LAYERS ARE SOME GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-1-A, A-1-B, A-2-4 AND A-3A).

NON-COHESIVE SILT (A-4B) WAS WITHIN THE FIRST FIVE (5) FEET AT BORING SE-9. THERE ARE SOFT SILTY CLAYS AND VERY LOOSE SANDS 1.1 TO 18 FEET DEPTH IN BORINGS SE-3, SE-5 THROUGH SE-7, SE-11 AND SE-13.

- COHESIVE SOILS: SOFT (N=2 TO 4 BLOWS PER FOOT) TO VERY STIFF (N=16 TO 30 BPF).
 - GRANULAR MATERIALS: VERY LOOSE (N < 5 BPF) TO VERY DENSE (N < 50 BPF).
 - BLOW COUNTS: 2 BPF TO REFUSAL, AND WAS OBTAINED ON SAND AND GRAVEL BASE.
 - UNCONFINED COMPRESSIVE STRENGTH: 1.0 TO OVER 9 KSF.
 - MOISTURE CONTENTS: 3 TO 45 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 5 PERCENT BELOW TO 11 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE AT OR ABOVE THE OPTIMUM.

RAMP S-EW

TWO (2) BORINGS WERE DRILLED FOR RAMP S-EW BETWEEN STATIONS 60+37.61 TO 70+23.73 (STATION EQUATION 124+23.73) (1,000 FEET +/-) BORINGS EXTENDED 20 TO 30 FEET BELOW EXISTING GRADE. AT THE SURFACE, 7.25 TO 8.0 INCHES OF ASPHALT OVER 10 INCHES OF GRANULAR BASE MATERIAL WERE ENCOUNTERED AT BORINGS SE-1 AND SE-2. THE UNDERLYING SOILS AT THE BORING LOCATIONS ARE COHESIVE. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, SILT AND CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL OR SANDY SILT WITH LESSER AMOUNTS OF CLAY AND GRAVEL (ODOT A-4A, A-6A).

- COHESIVE SOILS: MEDIUM STIFF (N = 4 TO 8 BLOWS PER FOOT) TO VERY STIFF (N = 16 TO 30 BPF).
 - BLOW COUNTS: 6 TO 29 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH: 5.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 10 TO 21 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX) 1 PERCENT BELOW TO 1 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE AT OR ABOVE THE OPTIMUM.

(CONT'D) INVESTIGATIONAL FINDINGS

RAMP SW

THREE (3) BORINGS WERE DRILLED FOR RAMP SW BETWEEN STATIONS 70+23.73 (STATION EQUATION 124+23.73) TO 93+95.80 (2,400 FEET +/-). BORINGS EXTENDED 15 TO 20 FEET BELOW THE EXISTING GRADE. AT THE SURFACE, 10.0 TO 14.0 INCHES OF CINDERS AND GRAVEL FILL WAS ENCOUNTERED AT BORINGS SW-2 AND SW-3. BORING SW-1, 6.5 INCHES OF ASPHALT WAS OVERLYING 8 INCHES OF SAND AND GRAVEL BASE. THE UNDERLYING SOILS AT ALL BORINGS ARE COHESIVE. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-6A AND A-6B). BELOW THE COHESIVE LAYERS ARE SOME GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-2-4).

- COHESIVE SOILS: STIFF (N = 9 TO 15 BLOWS PER FOOT) TO HARD (N > 30 BPF).
 - GRANULAR MATERIALS: MEDIUM DENSE (N = 11 TO 30 BPF).
 - BLOW COUNTS: 12 TO 47 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH: 7.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 9 TO 23 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 5 PERCENT BELOW TO AT THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE AT OR SLIGHTLY ABOVE OPTIMUM MOISTURE LEVELS.

RAMP WS

THREE (3) BORINGS WERE DRILLED FOR RAMP WS BETWEEN STATIONS 26+51.58 TO 39+22.87 (1,300 FEET +/-) BORINGS EXTENDED TO DEPTHS FROM 15 TO 30 FEET BELOW THE EXISTING GRADE. AT THE SURFACE, 9.5 TO 10.5 INCHES OF TOPSOIL WAS ENCOUNTERED AT BORINGS WS-1 THROUGH WS-3. THE UNDERLYING SOILS AT THE BORING LOCATIONS CONSIST OF A COHESIVE CAP OVERLYING INTERBEDDED LAYERS OF GRANULAR AND COHESIVE SOILS. THE COHESIVE SOILS BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-6A, A-6B AND A-7-6). BELOW THE COHESIVE LAYERS ARE SOME GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-1-B). THERE ARE SOFT CLAYS, SANDY SILTS AND VERY LOOSE SANDS: 0.9 TO 12.5 FEET IN BORINGS WS-1 AND WS-2.

- COHESIVE SOILS: SOFT (N = 2 TO 4 BLOWS PER FOOT) TO VERY STIFF (N=16 TO 30 BPF).
 - GRANULAR MATERIALS: VERY LOOSE (N < 5 BPF) TO MEDIUM DENSE (N = 11 TO 30 BPF).
 - BLOW COUNTS: 3 TO 29 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL: 1.0 TO 8.0 KSF.
 - MOISTURE CONTENTS 8 TO 31 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 9 PERCENT BELOW TO AT THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE SLIGHTLY ABOVE TO ABOVE THE OPTIMUM.

RAMP W-NS

TWO (2) BORINGS WERE DRILLED FOR RAMP W-NS BETWEEN STATIONS 5+58.83 TO 11+27.00 (600 FEET +/-) BORINGS EXTENDED 15 TO 25 FEET BELOW EXISTING GRADE. BORING LOCATIONS WS-4 AND WS-5, 8.5 TO 12.0 INCHES OF ASPHALT WAS OVERLYING 30 TO 33.5 INCHES OF SAND AND GRAVEL BASE. BELOW THE SAND AND GRAVEL BASE WAS 1.0 TO 1.4 FEET OF PEA GRAVEL. THE UNDERLYING SOILS AT THE BORINGS ARE COHESIVE. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, SANDY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A AND A-6B).

- COHESIVE SOILS: SOFT (N = 2 TO 4 BLOWS PER FOOT) TO VERY STIFF (N = 16 TO 30 BPF).
 - GRANULAR MATERIALS: VERY LOOSE (N < 5 BPF) TO MEDIUM DENSE (N=11 TO 30 BPF).
 - BLOW COUNTS: 3 TO 29 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL: 1.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 7 TO 22 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 10 PERCENT BELOW TO 3 PERCENT BELOW TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE BELOW TO AT THE OPTIMUM.

RAMP EN

EIGHT (8) BORINGS WERE DRILLED FOR RAMP EN BETWEEN STATIONS 100+05.49 TO 123+63.47 (2,400 FEET +/-) BORINGS EXTENDED 15 TO 20 FEET BELOW EXISTING GRADE. AT THE SURFACE, 9.5 TO 13.5 INCHES OF TOPSOIL WAS ENCOUNTERED AT BORINGS EN-3 THROUGH EN-6. BORINGS EN-1, EN-2, EN-7 AND EN-8 HAD 6.0 TO 12.0 INCHES OF ASPHALT OVERLYING 8 TO 12 INCHES OF SAND AND GRAVEL BASE. BELOW THE SAND AND GRAVEL BASE, SILTY SAND/SANDY SILT AND SILT AND CLAY FILL WAS ENCOUNTERED 8 TO 15 FEET BELOW THE SURFACE. THE UNDERLYING SOILS AT THE BORING LOCATIONS CONSIST OF A COHESIVE CAP OVERLYING INTERBEDDED LAYERS OF GRANULAR AND COHESIVE SOILS. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-6A, A-6B, A-7-5 AND A-7-6). BELOW THE COHESIVE LAYERS ARE SOME GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-1-A, A-1-B, A-2-4 AND A-3).

THERE ARE SOFT CLAYS AND VERY LOOSE SANDS 0.8 TO 13.0 FEET DEPTH IN BORINGS EN-3 AND EN-6.

- COHESIVE SOILS: SOFT (N = 2 TO 4 BLOWS PER FOOT) TO HARD (N > 30 BPF).
 - GRANULAR MATERIALS: VERY LOOSE (N < 5 BPF) TO MEDIUM DENSE (N=11 TO 30 BPF).
 - BLOW COUNTS: 3 TO 44 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL: 1.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 9 TO 40 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX) RANGED FROM 6 PERCENT BELOW TO 13 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE AT TO ABOVE THE OPTIMUM

(CONT'D) INVESTIGATIONAL FINDINGS

RAMP NE

SIX (6) BORINGS WERE DRILLED FOR RAMP NE BETWEEN STATIONS 40+93.92 TO 59+00.69 (1,800 FEET +/-) BORINGS EXTENDED 15 TO 30 FEET BELOW EXISTING GRADE. AT THE SURFACE, 6.0 TO 10.0 INCHES OF TOPSOIL WAS ENCOUNTERED AT BORINGS NE-2 THROUGH NE-5. BORING NE-6 HAD 8 INCHES OF GRAVEL AT THE SURFACE AND AT BORING NE-7, 3.0 INCHES OF ASPHALT WAS OVERLYING 12 INCHES OF SAND AND GRAVEL BASE. THE UNDERLYING SOILS AT THE BORING LOCATIONS CONSIST OF A COHESIVE CAP OVERLYING INTERBEDDED LAYERS OF GRANULAR AND COHESIVE SOILS. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-6A, A-6B AND A-7-6). BELOW THE COHESIVE LAYERS ARE SOME GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-2-4).

THERE ARE SOFT CLAYS FROM 0.8 TO 28.0 FEET DEPTH IN BORINGS NE-4 AND NE-5.

- COHESIVE SOILS: SOFT (N=2 TO 4 BLOWS PER FOOT) TO VERY STIFF (N=16 TO 30 BPF).
 - GRANULAR MATERIALS: LOOSE (N=5 TO 10 BPF) TO MEDIUM DENSE (N=11 TO 30 BPF).
 - BLOW COUNTS: 4 BPF TO 26 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL: 1.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 9 TO 32 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 6 PERCENT BELOW TO 4 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE AT TO SLIGHTLY ABOVE OPTIMUM MOISTURE LEVELS

RAMP N-EW

ONE (1) BORING WAS DRILLED FOR RAMP N-EW BETWEEN STATIONS 12+11.52 TO 26+25.46 (1,400 FEET +/-) BORING EXTENDED TO A DEPTH OF 20 FEET BELOW THE EXISTING GRADE. AT THE SURFACE, 8.0 INCHES OF TOPSOIL WAS AT BORING NE-1. THE UNDERLYING SOILS ARE COHESIVE. COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, SILT AND CLAY OR SANDY SILT WITH LESSER PERCENTAGES OF SAND, CLAY AND GRAVEL (ODOT A-4A AND A-6A).

- COHESIVE SOILS: MEDIUM STIFF (N=4 TO 8 BLOWS PER FOOT) TO VERY STIFF (N=16 TO 30 BPF).
 - BLOW COUNTS: 8 TO 17 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL: 1.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 12 TO 15 PERCENT.
 - MOISTURE CONTENTS OF (PLASTICITY INDEX) 4 PERCENT BELOW TO 3 PERCENT BELOW THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE ESTIMATED TO BE AT THE OPTIMUM

RAMP NW

THREE (3) BORINGS WERE DRILLED FOR RAMP NW BETWEEN STATIONS 3+85.94 TO 12+11.52 (800 FEET +/-) BORINGS EXTENDED 15 TO 25 FEET BELOW THE EXISTING SURFACE GRADE. AT THE SURFACE, 2.0 TO 6.5 INCHES OF TOPSOIL WAS ENCOUNTERED. BORING LOCATION NW-2, A SANDY SILT FILL WAS 12.5-FOOT BELOW THE SURFACE. THE UNDERLYING SOILS AT THE BORING LOCATIONS CONSIST OF A COHESIVE CAP OVERLYING INTERBEDDED LAYERS OF GRANULAR AND COHESIVE SOILS. THE COHESIVE SOILS ARE BROWN AND/OR GRAY OR MOTTLED, CLAYEY SILT OR SILTY CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-4A, A-6A, A-6B, AND A-7-6). BELOW THE COHESIVE LAYERS ARE SOME GRAVEL/SAND LAYERS WITH LESSER PERCENTAGES OF CLAY AND SILT (ODOT A-1-B).

- COHESIVE SOILS: MEDIUM STIFF (N=5 TO 8 BLOWS PER FOOT) TO VERY STIFF (N=16 TO 30 BPF).
 - GRANULAR MATERIALS: MEDIUM DENSE (N = 11 TO 30 BPF).
 - BLOW COUNTS: 8 TO 29 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL: 2.5 TO OVER 9 KSF
 - MOISTURE CONTENTS: 9 TO 28 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX) RANGED 7 PERCENT BELOW TO 2 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS. THUS,
- MOISTURE CONTENTS ESTIMATED TO BE AT OR SLIGHTLY ABOVE OPTIMUM

RAMP NS-W

ONE (1) BORING WAS DRILLED FOR RAMP NS-W BETWEEN STATIONS 121+81.39 TO 39+18.49 (2,600 FEET +/-) BORING EXTENDED 15 FEET BELOW EXISTING GRADE. AT THE SURFACE, 5.0 INCHES OF TOPSOIL WAS ENCOUNTERED. THE UNDERLYING SOILS ARE COHESIVE. COHESIVE SOILS ARE MOTTLED BROWN AND GRAY, SILT AND CLAY WITH LESSER PERCENTAGES OF SAND AND GRAVEL (ODOT A-6A).

- COHESIVE SOILS: STIFF (N=9 TO 15 BLOWS PER FOOT) TO VERY STIFF (N=16 TO 30 BPF).
 - BLOW COUNTS: 10 TO 18 BPF.
 - UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL: 1.0 TO OVER 9 KSF
 - MOISTURE CONTENTS: 14 TO 19 PERCENT.
 - MOISTURE CONTENTS (PLASTICITY INDEX): 2 PERCENT BELOW TO 10 PERCENT ABOVE TO THEIR CORRESPONDING PLASTIC LIMITS.
- MOISTURE CONTENTS WERE AT THE OPTIMUM MOISTURE LEVELS.

CONTINUED REPORT INFORMATION ON NEXT SHEET



DATE	9/20/04	CHECKED	GPH
DATE	9/20/04	CHECKED	GPH
DATE		CHECKED	GPH
DATE		CHECKED	GPH

SOIL PROFILE - INTERCHANGE

MEDINA COUNTY
MEDINA - 71-6.06

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% SILT	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
BORINGS REFERENCED TO CENTERLINE OF I-71											
ES-1 372+50, 99.4' LT	0-0.9	11.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	5	6	11	30	48	40	21	18	A-6b	
	6.0-7.5	BROWN AND GRAY SILT, LITTLE SAND, TRACE GRAVEL.									VISUAL
	8.5-10.0	1	1	3	32	63	42	22	19	A-7-6	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
13.5-15.0	SAME AS 8.5-10.0									VISUAL	
BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-2 174+40, 33.2' LT	0-1.4	16.25" - TOPSOIL									VISUAL
	1.4-2.5	3	4	15	42	36	37	16	20	A-6b	
	3.5-5.0	SAME AS 1.4-2.5									VISUAL
	6.0-7.5	MOTTLED DARK BROWN AND BROWN SILTY CLAY, LITTLE SAND.									VISUAL
	8.5-10.0	16	15	28	-41-		26	10	20	A-4a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
13.5-15.0	GRAY SILTY CLAY, TRACE SAND.									VISUAL	
ES-3 178+30, 6.3' LT	0-0.8	10.0" - TOPSOIL									VISUAL
	1.0-2.5	FILL: MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	3.5-5.0	6	11	27	-56-		30	6	19	A-4a	
	6.0-7.5	8	7	20	39	26	26	9	27	A-4a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	GRAY SILT AND CLAY, LITTLE SAND.									VISUAL
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	GRAY AND BROWN SILTY SAND, LITTLE GRAVEL, LITTLE CLAY									VISUAL
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
	21.0-22.5	GRAY SANDY SILT, TRACE GRAVEL, LITTLE CLAY									VISUAL
	23.5-25.0	GRAY SAND AND GRAVEL, SOME SILT.									VISUAL
28.5-30.0	SAME AS 23.5-25.0									VISUAL	
ES-4 182+19, 6.2' LT	0-0.8	10.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	1	2	13	43	41	37	21	21	A-6b	
	6.0-7.5	GRAY SILT AND CLAY, TRACE SAND, TRACE GRAVEL.									VISUAL
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	0	0	0	47	53	48	29	25	A-7-6	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	GRAY SILTY SAND, SOME GRAVEL.									VISUAL
	21.0-21.9	SAME AS 18.5-20.0									VISUAL
	21.9-22.5	GRAY SANDY SILT, SOME GRAVEL.									VISUAL
	23.5-25.0	9	13	19	30	29	23	9	13	A-4a	
	28.5-30.0	SAME AS 23.5-25.0									VISUAL
33.5-35.0	GRAY SILT AND CLAY, SOME SAND.									VISUAL	
ES-5 186+16, 4.3' LT	0-0.8	9.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0	1	4	29	66	54	34	28	A-7-6	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	GRAY SAND AND GRAVEL, LITTLE SILT, TRACE CLAY									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	11	15	20	31	23	20	7	14	A-4a	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	51	21	14	-14-				10	VISUAL	
	21.0-22.5	GRAY SAND, LITTLE GRAVEL, TRACE SILT.									VISUAL
	23.5-25.0	SAME AS 21.0-22.5									VISUAL
28.5-30.0	SAME AS 21.0-22.5									VISUAL	
ES-6 190+33, 1.7' LT	0-11	13.25" - TOPSOIL									VISUAL
	1.1-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0	6	10	45	39	31	21	22	A-6b	
	6.0-7.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	8.5-10.0	0	7	26	39	28	28	12	25	A-6a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	GRAY CLAY, SOME SILT, TRACE SAND, TRACE GRAVEL.									VISUAL
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	0	0	1	48	51	35	16	29	A-6b	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-24.5	SAME AS 18.5-20.0									VISUAL
	24.5-25.0	GRAY SANDY SILT, SOME GRAVEL									VISUAL
	28.5-30.0	SAME AS 24.5-25.0									VISUAL
	33.5-35.0	SAME AS 24.5-25.0									VISUAL
38.5-40.0	BROWN SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL.									VISUAL	
43.5-45.0	SAME AS 38.5-40.0									VISUAL	
48.5-50.0	SAME AS 38.5-40.0									VISUAL	

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% SILT	% Clay	L.L.	P.I.	% W.C.	ODOT Class		
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES												
ES-6A 191+15, 1.1' LT	0-0.9	11.0" - TOPSOIL									VISUAL	
	1.0-2.5	SAME AS 8.5-10.0									24	VISUAL
	3.5-5.0	SAME AS 8.5-10.0									25	VISUAL
	6.0-7.5	SAME AS 8.5-10.0									25	VISUAL
	8.5-10.0	0	1	14	43	42	33	16	18	A-6b		
	11.0-12.5	SAME AS 8.5-10.0									26	VISUAL
	13.5-15.0	MOTTLED GRAY, BROWN AND BLACK SILTY CLAY, LITTLE SAND.									30	VISUAL
	16.0-17.5	SAME AS 13.5-15.0									30	VISUAL
	18.5-20.0	SAME AS 13.5-15.0									36	VISUAL
	21.0-22.5	0	0	0	38	62	41	18	38	A-7-6		
	23.5-25.0	SAME AS 21.0-22.5									34	VISUAL
	28.5-29.0	SAME AS 21.0-22.5									31	VISUAL
	29.0-30.0	GRAY SILTY SAND, SOME GRAVEL, TRACE CLAY.									16	VISUAL
	33.5-35.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL.									19	VISUAL
38.5-40.0	SAME AS 43.5-45.0									14	VISUAL	
43.5-45.0	47	30	6	-17-				18	VISUAL			
48.5-50.0	SAME AS 43.5-45.0									VISUAL		
ES-6B 192+15, 0.9' LT	0-0.9	11.0" - TOPSOIL									VISUAL	
	1.0-2.5	SAME AS 6.0-7.5									20	VISUAL
	3.5-5.0	SAME AS 6.0-7.5									23	VISUAL
	6.0-7.5	10	9	17	30	34	31	15	22	A-6a		
	8.5-10.0	SAME AS 11.0-12.5									26	VISUAL
	11.0-12.5	0	1	2	53	44	35	14	23	A-6a		
	13.5-15.0	SAME AS 18.5-20.0									29	VISUAL
	16.0-17.5	SAME AS 18.5-20.0									31	VISUAL
	18.5-20.0	0	0	1	47	52	40	17	35	A-6b		
	21.0-22.5	SAME AS 18.5-20.0									33	VISUAL
	23.5-25.0	SAME AS 18.5-20.0									36	VISUAL
	28.5-30.0	SAME AS 18.5-20.0									33	VISUAL
	33.5-35.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL.									11	VISUAL
	38.5-40.0	GRAY SAND AND GRAVEL, SOME SILT, TRACE CLAY									11	VISUAL
43.5-45.0	GRAY SILT AND CLAY, SOME SAND, SOME GRAVEL.									14	VISUAL	
48.5-50.0	GRAY SAND AND GRAVEL, SOME SILT, TRACE CLAY.									11	VISUAL	
ES-6C 192+15, 0.9' LT	0-0.8	10.0" - TOPSOIL									VISUAL	
	1.0-2.5	SAME AS 3.5-5.0									21	VISUAL
	3.5-5.0	1	1	10	50	38	33	14	54	A-6a		
	6.0-7.5	SAME AS 3.5-5.0									22	VISUAL
	8.5-10.0	SAME AS 11.0-12.5									25	VISUAL
	11.0-12.5	7	4	8	41	40	34	16	24	A-6b		
	13.5-15.0	SAME AS 11.0-12.5									25	VISUAL
	16.0-17.5	SAME AS 18.5-20.0									37	VISUAL
	18.5-20.0	0	0	1	36	63	43	22	39	A-7-6		
	21.0-22.5	SAME AS 18.5-20.0									37	VISUAL
	23.5-25.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL.									11	VISUAL
28.5-30.0	SAME AS 23.5-25.0									13	VISUAL	
33.5-35.0	GRAY GRAVEL AND SAND, TRACE SILT									14	VISUAL	
38.5-40.0	GRAY SAND, LITTLE SILT, TRACE GRAVEL, TRACE CLAY.									18	VISUAL	
43.5-45.0	SAME AS 38.5-40.0									VISUAL		
48.5-50.0	SAME AS 38.5-40.0									VISUAL		
ES-7 194+15, 0.5' LT	0-1.3	16.0" - TOPSOIL									VISUAL	
	1.3-2.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL. TRACE ORGANICS									22	VISUAL
	3.5-5.0	13	17	23	-47-		24	7	19	A-4a		
	6.0-7.5	MOTTLED BROWN AND GRAY CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL.									22	VISUAL
	8.5-10.0	DARK GRAY CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL (POSSIBLE PEAT)									44	VISUAL
	11.0-12.5	3	3	9	50	35	34	15	30	A-6a		
	13.5-15.0	SAME AS 11.0-12.5									52	VISUAL
	16.0-17.5	SAME AS 11.0-12.5									27	VISUAL
	18.5-20.0	2	6	15	49	28	44	11	53	A-6a		
	21.0-22.0	0	1	4	59	36	30	11	31	A-7-5		
	22.0-22.5	GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL.									13	VISUAL
	23.5-25.0	DARK ORGANIC CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL, TRACE SHELLS (SEDIMENTARY PEAT)									65	VISUAL
	28.5-30.0	GRAY SILTY SAND, LITTLE CLAY, TRACE GRAVEL.									16	VISUAL
	33.5-35.0	SAME AS 28.5-30.0									13	VISUAL
38.5-40.0	SAME AS 28.5-30.0									16	VISUAL	
43.5-45.0	GRAY SAND, LITTLE SILT, TRACE CLAY, TRACE GRAVEL.									24	VISUAL	
48.5-50.0	SAME AS 43.5-45.0									21	VISUAL	

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949



DRAWN	KAL	REVIEWED	GPH
DATE	9/20/04	DATE	9/20/04

SOIL PROFILE - INTERCHANGE

MEDINA COUNTY
MED-71-6.06

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-7A 195+15, 0.2' LT	0-0.8	8.5" - TOPSOIL									VISUAL
	1.0-2.5	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL.									VISUAL
	3.5-5.0	12	8	19	32	29	28	12	18	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	18	3	2	35	42	53	21	64	A-7-5	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	1	3	18		-78-	NP	NP	107	A-4b	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	GRAY SAND AND GRAVEL, LITTLE SILT.									VISUAL
	21.0-22.5	GRAY SAND, LITTLE GRAVEL, TRACE SILT.									VISUAL
	23.5-25.0	SAME AS 21.0-22.5									VISUAL
	28.5-30.0	GRAY SAND, TRACE SILT, TRACE GRAVEL.									VISUAL
	33.5-35.0	SAME AS 28.5-30.0									VISUAL
	38.5-40.0	SAME AS 28.5-30.0									VISUAL
43.5-45.0	SAME AS 28.5-30.0									VISUAL	
48.5-50.0	SAME AS 28.5-30.0									VISUAL	
ES-8 200+63, BL	0-0.8	10.0" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS.									VISUAL
	3.5-5.0	SAME AS 1.0-2.5									VISUAL
	6.0-7.5	0	1	10	55	34	23	7	23	A-4b	
	8.5-10.0	SAME AS 13.5-15.0									VISUAL
	11.0-12.5	SAME AS 13.5-15.0									VISUAL
	13.5-15.0	0	1	1	64	34	37	11	41	A-6a	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	1	6	9	45	39	80	32	137	A-7-5	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
	28.5-30.0	GRAY AND BLACK SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	33.5-35.0	1	4	8		-87-	60	18	84	A-7-5	
	38.5-40.0	SAME AS 43.5-45.0									VISUAL
43.5-45.0	0	0	1	54	45	32	12	40	A-6a		
48.5-50.0	SAME AS 43.5-45.0									VISUAL	
53.5-55.0	SAME AS 43.5-45.0									VISUAL	
58.5-60.0	GRAY GRAVEL AND SAND, SOME SILT.									VISUAL	
63.5-65.0	GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL.									VISUAL	
68.5-70.0	GRAY SAND, LITTLE GRAVEL, LITTLE SILT.									VISUAL	
73.5-75.0	SAME AS 68.5-70.0									VISUAL	
ES-8A 201+61, BL	0-1.0	12.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	1	2	8	51	38	33	14	29	A-6a	
	6.0-7.5	SAME AS 11.0-12.5									VISUAL
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	0	1	6	64	29	37	13	44	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	BLACK PEAT									VISUAL
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
	28.5-30.0	MOTTLED GRAY AND DARK GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	33.5-35.0	0	1	0	56	43	35	13	49	A-6a	
	38.5-40.0	SAME AS 33.5-35.0									VISUAL
43.5-45.0	SAME AS 33.5-35.0									VISUAL	
48.5-50.0	26	19	22		-33-	16		14	VISUAL		
53.5-55.0	SAME AS 48.5-50.0									VISUAL	
58.5-60.0	GRAY SILT CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL	
63.5-65.0	GRAY SAND, SOME GRAVEL, LITTLE SILT.									VISUAL	
68.5-70.0	SAME AS 63.5-65.0									VISUAL	
73.5-75.0	SAME AS 63.5-65.0									VISUAL	
ES-8B 202+60, BL	0-0.8	12.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0	3	5	53	39	38	17	29	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	0	1	5	58	36	43	18	49	A-7-6	
	11.0-12.5	BLACK PEAT									VISUAL
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL
	21.0-22.5	SAME AS 11.0-12.5									VISUAL
	23.5-25.0	0	0	1	55	44	44	21	44	A-7-6	
	28.5-30.0	SAME AS 23.5-25.0									VISUAL
	33.5-35.0	SAME AS 23.5-25.0									VISUAL
	35.0-37.0	GRAY SILTY SAND AND GRAVEL SEAM.									VISUAL
38.5-40.0	BROWN CHANGING TO GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL	
43.5-45.0	SAME AS 38.5-40.0									VISUAL	
48.5-50.0	GRAY SAND, SOME GRAVEL, LITTLE SILT.									VISUAL	
53.5-55.0	SAME AS 48.5-50.0									VISUAL	
58.5-60.0	SAME AS 48.5-50.0									VISUAL	
63.5-65.0	SAME AS 48.5-50.0									VISUAL	
68.5-70.0	SAME AS 48.5-50.0									VISUAL	
73.5-75.0	SAME AS 48.5-50.0									VISUAL	

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-8C 203+58, BL	0-0.8	8.0" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED GRAY AND BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	3.5-5.0	0	1	1	49	49	52	1	24	A-5	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	BLACK PEAT									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	0	2	4	63	31	57	8	92	A-5	
	18.5-20.0	SAME AS 21.0-22.5									VISUAL
	21.0-22.5	0	0	0	53	47	44	21	45	A-7-6	
	23.5-25.0	SAME AS 21.0-22.5									VISUAL
	28.5-30.0	GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	33.5-35.0	GRAY SAND, SOME GRAVEL, LITTLE SILT.									VISUAL
	38.5-40.0	SAME AS 33.5-35.0									VISUAL
43.5-45.0	SAME AS 33.5-35.0									VISUAL	
48.5-50.0	SAME AS 33.5-35.0									VISUAL	
53.5-55.0	SAME AS 33.5-35.0									VISUAL	
58.5-60.0	GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL	
63.5-65.0	GRAY SAND, SOME GRAVEL, SOME SILT, SOME CLAY.									VISUAL	
68.5-70.0	SAME AS 63.5-65.0									VISUAL	
73.5-75.0	SAME AS 63.5-65.0									VISUAL	
ES-9 205+52, BL	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	15	0	1	43	41	42	8	34	A-5	
	6.0-7.0	SAME AS 3.5-5.0									VISUAL
	7.0-7.5	BLACK PEAT									VISUAL
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	0	1	10	45	44	32	13	37	A-6a	
	13.5-15.0	GRAY SILTY SAND, LITTLE CLAY, TRACE GRAVEL.									VISUAL
	16.0-17.5	GRAY SAND, LITTLE GRAVEL, LITTLE SILT, TRACE CLAY.									VISUAL
	18.5-20.0	9	18	28		-45-	19		19	VISUAL	
	21.0-22.5	BROWNISH GRAY SAND, LITTLE GRAVEL, TRACE SILT.									VISUAL
	23.5-25.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	28.5-30.0	GRAY SAND, LITTLE GRAVEL, TRACE SILT.									VISUAL
	33.5-35.0	0	33	60		-7-	20		20	VISUAL	
38.5-40.0	SAME AS 33.5-35.0									VISUAL	
43.5-45.0	SAME AS 33.5-35.0									VISUAL	
48.5-50.0	SAME AS 33.5-35.0									VISUAL	
ES-9A 206+49, BL	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED DARK BROWN AND BROWN SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
	3.5-5.0	SAME AS 1.0-2.5									VISUAL
	6.0-7.5	0	2	2	35	61	54	23	40	A-7-5	
	8.5-9.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE SHELLS, TRACE WOOD.									VISUAL
	9.0-10.0	GRAY SILTY SAND, LITTLE GRAVEL, TRACE CLAY.									VISUAL
	11.0-12.5	10	16	20	26	28	33	8	59	A-4a	
	13.5-15.0	DARK GRAY SILTY SAND, SOME GRAVEL, TRACE CLAY.									VISUAL
	16.0-17.5	SAME AS 18.5-20.0									VISUAL
	18.5-20.0	0	0	5	40	55	36	16	25	A-6b	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
	28.5-30.0	SAME AS 18.5-20.0									VISUAL
	33.5-35.0	GRAY SILTY SAND, LITTLE GRAVEL, TRACE CLAY.									VISUAL
38.5-40.0	GRAY SAND, SOME GRAVEL, LITTLE SILT, TRACE CLAY									VISUAL	
43.5-45.0	SAME AS 38.5-40.0									VISUAL	
48.5-50.0	SAME AS 38.5-40.0									VISUAL	
ES-9B 207+44, BL	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	BROWN SILT AND CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	0	1	13	38	48	29	12	22	A-6a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	SAME AS 6.0-7.5									VISUAL
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	13	9	15	29	34	25	9	15	A-4a	
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
	21.0-22.5	SAME AS 16.0-17.5									VISUAL
	23.5-25.0	SAME AS 16.0-17.5									VISUAL
	28.5-30.0	GRAY SAND, SOME GRAVEL, LITTLE SILT, TRACE CLAY.									VISUAL
	33.5-35.0	SAME AS 28.5-30.0									VISUAL
	38.5-40.0	SAME AS 28.5-30.0									VISUAL
43.5-45.0	SAME AS 28.5-30.0									VISUAL	
48.5-50.0	SAME AS 28.5-30.0									VISUAL	
ES-9C 209+14, BL	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	5	8	17	42	28	28	12	23	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	MOTTLED GRAY AND BROWN SANDY SILT, LITTLE CLAY, TRACE GRAVEL.									VISUAL
	11.0-12.5	GRAY SILTY SAND, SOME CLAY, TRACE CLAY.									VISUAL
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	9	8	17	40	26	20	6	12	A-2-4	

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SOIL PROFILE-INTERCHANGE

MEDINA COUNTY
MED-71-6.06

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-II 213+15, BL	0-0.5	6.5" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0	3	13	38	48	29	12	18	A-6b	
	7.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	BROWN SANDY SILT, LITTLE CLAY, TRACE GRAVEL									VISUAL
	11.0-12.5	13	9	15	29	34	25	9	13	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
ES-12 217+14, 1.5' RT	0-0.6	7.5" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED LIGHT AND DARK BROWN SILT AND CLAY, SOME SAND, LITTLE GRAVEL, TRACE ORGANICS.									VISUAL
	3.5-5.0	8	8	17	32	35	27	12	14	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	6	9	15	34	36	25	11	13	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
ES-13 221+22, 2.2' RT	0-1.0	12.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	1	2	21	36	40	32	16	24	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-9.2	3	7	16	40	34	27	11	15	A-6a	
	9.2-10.0	GRAY SAND AND GRAVEL, SOME SILT, TRACE CLAY, TRACE COBBLES									VISUAL
	11.0-12.5	SAME AS 3.5-5.0									VISUAL
	13.5-15.0	22	7	13	27	31	25	9	18	A-4a	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	SAME AS 21.0-22.5									VISUAL
ES-14 225+07, 1.1' RT	0-1.3	16.0" - TOPSOIL									VISUAL
	1.3-2.5	MOTTLED BROWN AND GRAY SANDY SILT, LITTLE CLAY, TRACE GRAVEL									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	1	1	6	44	48	36	18	16	A-6b	
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	22	2	12	32	32	35	15	18	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
ES-15 865+19, 87.1' LT	0-1.4	(POSSIBLE FILL) BROWN SANDY SILT, SOME GRAVEL, SOME CLAY, TRACE ORGANICS									VISUAL
	1.4-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	11	3	12	35	39	31	14	15	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	BLACK PEAT									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	2	2	15	41	40	31	13	24	A-6a	
ES-16 190+00, 100.0' LT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	0	1	5	49	45	41	21	17	A-7-6	
	3.5-5.0	11	13	33	-43-	36	26	11	23	A-6a	
	6.0-7.5	0	2	12	50	36	34	17	25	A-6b	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	1	1	1	50	47	33	15	25	A-6a	
	13.5-15.0	0	0	1	49	50	33	14	31	A-6a	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.0-20.0	1	1	1	50	47	39	18	32	A-6b	
	21.0-22.5	0	0	1	51	48	35	17	31	A-6b	
	23.5-25.0	SAME AS 21.0-22.5									VISUAL
	26.0-27.5	SAME AS 21.0-22.5									VISUAL
	28.5-30.0	SAME AS 21.0-22.5									VISUAL
	31.0-32.5	SAME AS 21.0-22.5									VISUAL
	33.5-35.0	35	22	26	-17-					22	A-1-b
	36.0-37.5	GRAY CLAY, SOME SILT, SOME SAND, TRACE GRAVEL									VISUAL
38.5-40.0	2	4	52	-42-					19	A-4a	
41.0-42.5	4	3	29	-64-		NP	NP	19	A-4a		
43.5-45.0	SAME AS 41.0-42.5									VISUAL	
46.0-47.5	8	11	16	-65-		21	6	16	A-4a		
48.5-50.0	SAME AS 46.0-47.5									VISUAL	

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-17 190+00, 100.0' RT	0-0.5	6.25" - TOPSOIL									VISUAL
	1.0-2.5	4	0	16	41	39	27	12	10	A-6a	
	3.5-5.0	1	3	22	37	37	24	6	23	A-4a	
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	1	2	10	52	35	37	19	26	A-6b	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 18.5-20.0									VISUAL
	16.0-17.5	SAME AS 18.5-20.0									VISUAL
	18.5-20.0	14	21	35	-30-				20	A-2-6	
	21.0-22.5	12	58	22	-8-				14	A-1-b	
	23.5-25.0	53	24	15	-8-				15	A-1-a	
	26.0-27.5	SAME AS 23.5-25.0									VISUAL
	28.5-30.0	GRAY SAND, LITTLE GRAVEL, TRACE SILT.									VISUAL
	31.0-32.5	SAME AS 28.5-30.0									VISUAL
	33.5-35.0	SAME AS 38.5-40.0									VISUAL
	36.0-37.5	SAME AS 38.5-40.0									VISUAL
38.5-40.0	21	37	32	-10-				17	A-1-b		
41.0-42.5	SAME AS 38.5-40.0									VISUAL	
43.5-45.0	SAME AS 38.5-40.0									VISUAL	
46.0-47.5	14	3	25	48	10			23	A-4a		
48.5-50.0	20	7	26	33	14	22	2	20	A-4a		
51.0-52.5	22	23	33	12	10			13	A-3a		
53.5-55.0	SAME AS 51.0-52.5									VISUAL	
ES-22 193+00, 100.0' LT	0-0.7	8.0" - TOPSOIL									VISUAL
	1.0-2.5	2	2	10	44	42	33	15	17	A-6a	
	3.5-5.0	SAME AS 1.0-2.5									VISUAL
	6.0-7.5	1	0	4	50	45	37	21	25	A-6b	
	8.5-10.0	MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	0	0	8	52	40	26	9	33	A-4b	
	15.0-17.0	0	0	3	53	44	27	10	31	A-4b	
	17.0-18.5	0	0	1	45	54	36	17	32	A-6b	
	18.5-20.0	SAME AS 26.0-27.5									VISUAL
	21.0-22.5	SAME AS 26.0-27.5									VISUAL
	23.5-25.0	SAME AS 26.0-27.5									VISUAL
	26.0-27.5	0	0	1	37	62	38	17	34	A-6b	
	28.5-30.0	SAME AS 26.0-27.5									VISUAL
	31.0-32.5	SAME AS 26.0-27.5									VISUAL
	33.5-35.0	0	0	1	36	63	43	20	34	A-7-6	
36.0-37.5	SAME AS 33.5-35.0									VISUAL	
38.5-40.0	0	0	0	30	70	46	23	33	A-7-6		
41.0-42.5	SAME AS 38.5-40.0									VISUAL	
43.5-45.0	SAME AS 38.5-40.0									VISUAL	
46.0-47.5	7	3	4	40	46	38	17	26	A-6b		
48.5-50.0	SAME AS 46.0-47.5									VISUAL	
ES-23 193+00, 100.0' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	1	3	15	45	36	32	15	19	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	4	6	6	39	45	49	25	25	A-7-6	
	11.0-13.0	11	5	9	36	39	37	17	30	A-6b	
	13.5-15.0	45	35	10	-10-					A-1-b	
	16.0-17.5	SAME AS 21.0-22.5									VISUAL
	18.5-20.0	SAME AS 21.0-22.5									VISUAL
	21.0-22.5	33	16	18	-33-		22	3	18	A-2-4	
	23.5-25.0	30	18	23	-29-		NP	NP	21	A-2-4	
	26.0-27.5	5	1	15	53	26	25	8	30	A-4b	
	28.5-30.0	1	1	1	42	55	39	19	39	A-6b	
	31.0-32.5	SAME AS 28.5-30.0									VISUAL
	33.5-35.0	1	0	1	47	51	37	17	38	A-6b	
	36.0-37.5	SAME AS 33.5-35.0									VISUAL
	38.5-40.0	SAME AS 33.5-35.0									VISUAL
	41.0-42.5	SAME AS 46.0-47.5									VISUAL
	43.5-45.0	SAME AS 46.0-47.5									VISUAL
	46.0-47.5	2	1	7	43	47	34	14	24	A-6a	
48.5-50.0	36	21	21	13	9			13	A-1-b		
51.0-52.5	30	26	21	-23-					A-1-b		
53.5-55.0	SAME AS 51.0-52.5									VISUAL	
56.0-57.5	16	9	17	32	26	20	8	15	A-4a		
58.5-60.0	SAME AS 56.0-57.5									VISUAL	

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SOIL PROFILE - INTERCHANGE

MEDINA COUNTY
MED-71-6.06

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-27 195+00, 100.0' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	1		8	42	48	35	15	21	A-6a	
	3.5-5.0	SAME AS 1.0-2.5									VISUAL
	6.0-7.5	SAME AS 1.0-2.5									VISUAL
	8.5-10.0	2		10	47	40	33	13	35	A-6a	
	10.0-12.0	8		4	23	41	24	11	29	A-6a	
	12.0-13.5	GRAY SILTY CLAY, TRACE SAND, TRACE SAND									VISUAL
	13.5-15.0	SAME AS 12.0-13.5									VISUAL
	16.0-17.5	1		0	3	45	51	17	41	A-6b	
	18.5-20.0	GRAYISH BROWN PEAT									VISUAL
	21.0-22.5	3		2	22	44	29	13	40	A-6a	
	23.5-25.0	2		4	34	34	26	8	34	A-4a	
	26.0-27.5	SAME AS 23.5-25.0									VISUAL
	28.5-30.0	SAME AS 23.5-25.0									VISUAL
	31.0-32.5	SAME AS 33.5-35.0									VISUAL
	33.5-35.0	1		0	5	51	43	16	42	A-6b	
	36.0-37.5	SAME AS 33.5-35.0									VISUAL
	38.5-40.0	1		0	12	54	33	9	31	A-4b	
	41.0-42.5	SAME AS 38.5-40.0									VISUAL
	43.5-45.0	0		1	9	54	36	7	33	A-4b	
	46.0-47.5	SAME AS 38.5-40.0									VISUAL
	48.5-50.0	SAME AS 38.5-40.0									VISUAL
	51.0-52.5	SAME AS 38.5-40.0									VISUAL
	53.5-55.0	SAME AS 38.5-40.0									VISUAL
	56.0-57.5	4		0	1	35	60	19	40	A-6b	
	58.5-60.0	SAME AS 56.0-57.5									VISUAL
	61.0-62.5	30		19	25	18	8		19	A-2-6	
	63.5-65.0	8		4	15	52	21	8	19	A-4b	
	66.0-67.5	10		19	45	18	8		20	A-3a	
	68.5-70.0	4		5	11	35	45	14	16	A-6a	
	71.0-72.5	SAME AS 68.0-70.0									VISUAL
	73.5-75.0	SAME AS 68.0-70.0									VISUAL
ES-28 196+00, 100.0' LT	0-0.7	8.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0		3	12	50	35	15	23	A-6a	
	6.0-7.5	0		2	12	54	32	14	26	A-6a	
	8.5-10.0	2		0	4	53	41	12	32	A-6a	
	11.0-12.5	DARK GRAY CHANGING TO BLACK PEAT									VISUAL
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	0		3	12	58	27	8	64	A-4b	
	18.5-20.0	0		0	5	56	38	15	60	A-7-6	
	20.0-21.3	0		0	6	57	36	9	62	A-4b	
	21.3-22.0	0		0	3	58	38	13	53	A-7-6	
	23.5-25.0	0		0	5	52	43	20	44	A-7-6	
	26.0-27.5	SAME AS 23.5-25.0									VISUAL
	28.5-30.0	SAME AS 31.0-32.5									VISUAL
	31.0-32.5	2		3	5	47	43	14	33	A-6a	
	33.5-35.0	SAME AS 31.0-32.5									VISUAL
	36.0-37.5	SAME AS 31.0-32.5									VISUAL
	38.5-40.0	2		1	7	50	40	14	26	A-6a	
	41.0-42.5	38		21	26	-15-				A-1-b	
	43.5-45.0	SAME AS 41.0-42.5									VISUAL
	46.0-47.5	SAME AS 41.0-42.5									VISUAL
	48.5-50.0	34		35	16	-15-		NP	12	A-1-b	
	51.0-52.5	14		12	16	25	33	8	14	A-4a	
	53.5-55.0	4		23	61	-13-			18	A-3a	
	56.0-57.5	34		14	6	-46-		NP	18	A-4a	
	58.5-60.0	52		21	9	-18-				A-1-b	
	61.0-62.5	54		21	10	-15-				A-1-a	
	63.5-65.0	SAME AS 61.0-62.5									VISUAL
	66.0-67.5	SAME AS 61.0-62.5									VISUAL
	68.5-70.0	SAME AS 61.0-62.5									VISUAL
	71.0-72.5	11		13	17	-59-		6	12	A-4a	
	73.5-75.0	5		8	71	-16-				A-3a	

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-29 196+00, 100.0' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	1		2	14	46	37	16	19	A-6b	
	3.5-5.0	0		3	24	45	28	13	20	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	0		1	8	55	36	14	36	A-6a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	BLACK PEAT									VISUAL
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	SAME AS 13.5-15.0									VISUAL
	21.0-22.5	0		1	13	-86-	52	8	64	A-5	
	23.5-25.0	SAME AS 28.5-30.0									VISUAL
	26.0-27.5	SAME AS 28.5-30.0									VISUAL
	28.5-30.0	0		2	22	-76-	NP	NP	83	A-4b	
	31.0-32.5	SAME AS 28.5-30.0									VISUAL
	33.5-35.0	SAME AS 28.5-30.0									VISUAL
	36.0-37.5	0		0	6	68	26	19	49	A-7-6	
	38.5-40.0	SAME AS 36.0-37.5									VISUAL
	41.0-42.5	SAME AS 36.0-37.5									VISUAL
	43.0-45.0	0		2	4	64	30	20	41	A-7-6	
	46.0-47.5	SAME AS 43.0-45.0									VISUAL
	48.5-50.0	SAME AS 53.5-55.0									VISUAL
	51.0-52.5	SAME AS 53.5-55.0									VISUAL
	53.5-55.0	0		0	5	63	32	8	34	A-4b	
	56.0-57.5	SAME AS 53.5-55.0									VISUAL
	58.5-60.0	SAME AS 53.5-55.0									VISUAL
	61.0-62.5	SAME AS 53.5-55.0									VISUAL
	63.5-65.0	SAME AS 53.5-55.0									VISUAL
	66.0-67.5	SAME AS 68.5-70.0									VISUAL
	68.5-70.0	49		23	12	-16-				A-1-b	
	71.0-72.5	13		14	45	-38-				A-1-b	
	73.5-75.0	SAME AS 71.0-72.5									VISUAL
	76.0-77.5	SAME AS 71.0-72.5									VISUAL
	78.5-80.0	38		21	16	-25-				A-1-b	
ES-32 200+00, 100.0' LT	0-0.8	9.0" - TOPSOIL									VISUAL
	1.0-2.5	3		3	11	45	38	13	25	A-6a	
	3.5-5.0	SAME AS 1.0-2.5									VISUAL
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	1		1	4	53	41	16	27	A-6b	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	0		0	2	62	36	16	54	A-6b	
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
	21.0-23.0	0		1	2	58	39	0	94	A-7-5	
	23.5-25.0	SAME AS 21.0-23.5									VISUAL
	26.0-27.5	SAME AS 21.0-23.5									VISUAL
	28.5-30.0	SAME AS 21.0-23.5									VISUAL
	31.0-32.5	SAME AS 21.0-23.5									VISUAL
	33.5-35.0	SAME AS 21.0-23.5									VISUAL
	36.0-37.5	SAME AS 21.0-23.5									VISUAL
	38.5-40.0	0		1	13	60	26	NP	101	A-4b	
	41.0-42.5	SAME AS 38.5-40.0									VISUAL
	43.5-45.0	SAME AS 38.5-40.0									VISUAL
	46.0-47.5	SAME AS 48.5-50.0									VISUAL
	48.5-50.0	0		0	1	52	47	16	38	A-6b	
	51.0-52.5	SAME AS 48.5-50.0									VISUAL
	53.5-55.0	SAME AS 48.5-50.0									VISUAL
	56.0-57.5	1		44	50	-5-				A-3	
	58.5-60.0	SAME AS 56.0-57.5									VISUAL
	61.0-62.5	7		8	15	39	31	24	13	A-4a	
	63.5-65.0	SAME AS 61.0-62.5									VISUAL
	66.0-67.5	SAME AS 68.5-70.0									VISUAL
	68.5-70.0	22		18	17	-33-	16	2	10	A-2-4	
	71.0-72.5	SAME AS 68.5-70.0									VISUAL
	73.5-75.0	32		30	25	-13-				A-1-b	

RESOURCE INTERNATIONAL INC.
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SOIL PROFILE-INTERCHANGE

MEDINA COUNTY
MED-71-6.06

7	31
17	71

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-33 200+00, 100.0' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									12 VISUAL
	3.5-5.0	SAME AS 1.0-2.5									12 VISUAL
	6.0-7.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL									24 VISUAL
	8.5-10.0	SAME AS 6.0-7.5									23 VISUAL
	11.0-13.0	0	25		-75-		25	7		32	A-4b
	13.5-15.0	SAME AS 16.0-17.5									40 VISUAL
	16.0-17.5	0	9		62	29	40	12		42	A-6a
	18.5-20.0	SAME AS 16.0-17.5									50 VISUAL
	21.0-22.5	SAME AS 16.0-17.5									76 VISUAL
	23.5-25.0	0	9		20	65	39	20		177	A-6b
	26.0-27.5	BLACK SEDIMENTARY PEAT W/SHELLS									166 VISUAL
	28.5-30.0	SAME AS 26.0-27.5									194 VISUAL
	31.0-32.5	SAME AS 26.0-27.5									234 VISUAL
	33.5-35.0	DARK ORGANIC CLAY, SOME SILT, TRACE SAND									78 VISUAL
	36.0-37.5	SAME AS 33.5-35.0									73 VISUAL
	38.5-40.0	SAME AS 33.5-35.0									217 VISUAL
	41.0-42.5	0	1		76	23	56	11		66	A-7-5
	43.5-45.0	SAME AS 51.0-52.5									47 VISUAL
	46.0-47.5	SAME AS 51.0-52.5									42 VISUAL
	48.5-50.0	SAME AS 51.0-52.5									46 VISUAL
	51.0-52.5	0	1		41	58	39	20		39	A-6b
	53.5-55.0	SAME AS 51.0-52.5									39 VISUAL
56.0-57.5	SAME AS 51.0-52.5									45 VISUAL	
58.5-60.0	SAME AS 51.0-52.5									37 VISUAL	
61.0-62.5	SAME AS 51.0-52.5									31 VISUAL	
63.5-65.0	33	17	23		-27-				10	A-2-6	
66.0-67.5	31	22	23		-24-				10	A-1-b	
68.5-70.0	17	14	19		16	34	24	9	10	A-4a	
71.0-72.5	SAME AS 68.5-70.0									15 VISUAL	
73.5-75.0	SAME AS 68.5-70.0									13 VISUAL	
ES-36 202+00, 100.0' LT	0-0.3	4.0" - TOPSOIL									VISUAL
	1.0-2.5	0	2		20	78	40	21	42	A-6b	
	3.5-5.0	SAME AS 1.0-2.5									29 VISUAL
	6.0-7.5	0	1	8	45	46	43	20	37	A-7-6	
	8.5-10.0	SAME AS 6.0-7.5									33 VISUAL
	11.0-12.5	0	1	6	54	39	45	15	59	A-7-5	
	13.5-15.0	SAME AS 11.0-12.5									53 VISUAL
	16.0-17.5	SAME AS 11.0-12.5									101 VISUAL
	18.5-20.0	BLACK PEAT									341 VISUAL
	21.0-22.5	SAME AS 18.5-20.0									226 VISUAL
	23.5-25.0	SAME AS 18.5-20.0									300 VISUAL
	26.0-27.5	SAME AS 18.5-20.0									97 VISUAL
	28.5-30.0	SAME AS 36.0-37.5									74 VISUAL
	31.0-32.5	SAME AS 36.0-37.5									57 VISUAL
	33.5-35.0	SAME AS 36.0-37.5									54 VISUAL
	36.0-37.5	0	1		38	60	37	16	44	A-6b	
	38.5-40.0	SAME AS 36.0-37.5									47 VISUAL
	41.0-42.5	SAME AS 36.0-37.5									44 VISUAL
	43.5-45.0	SAME AS 36.0-37.5									44 VISUAL
	46.0-47.0	SAME AS 36.0-37.5									34 VISUAL
	47.0-47.5	24	33	19		-24-				4	A-1-b
	48.5-50.0	SAME AS 47.0-47.5									10 VISUAL
	51.0-52.5	10	54	20		-16-				10	A-1-b
53.5-55.0	SAME AS 47.0-47.5									10 VISUAL	
56.0-57.5	SAME AS 47.0-47.5									10 VISUAL	
58.5-60.0	SAME AS 47.0-47.5									10 VISUAL	

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP ES											
ES-37 202+00, 100.0' RT	0-0.3	4.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									29 VISUAL
	3.5-5.0	0	3	10	50	37	37	19	24	A-6b	
	6.0-7.5	SAME AS 11.0-12.5									25 VISUAL
	8.0-10.0	0	0	8	62	30	34	11	43	A-6a	
	11.0-12.5	0	1	6	58	35	42	20	45	A-7-6	
	13.5-15.0	BLACK PEAT									149 VISUAL
	16.0-17.5	SAME AS 13.5-15.0									315 VISUAL
	18.5-19.5	SAME AS 13.5-15.0									365 VISUAL
	21.0-22.5	SAME AS 13.5-15.0									316 VISUAL
	23.5-25.0	6	10	18	47	19	64	23	122	A-7-5	
	26.0-27.0	1	2	5	49	43	38	17	73	A-6b	
	27.0-28.0	0	5	8	59	28	63	26	164	A-7-5	
	28.5-30.0	0	0	0	59	41	34	14	43	A-6a	
	31.0-32.5	SAME AS 28.5-30.0									43 VISUAL
	33.5-35.0	SAME AS 28.5-30.0									49 VISUAL
	36.0-37.5	SAME AS 28.5-30.0									46 VISUAL
38.5-40.0	12	11	15		-62-		25	12	19	A-6a	
41.0-42.5	SAME AS 43.5-45.0									19 VISUAL	
43.5-45.0	37	39	12		-12-				16	A-1-b	
46.0-47.5	43	35	12		-10-				16	A-1-b	
48.5-50.0	8	8	16	35	33	26	9	16	16	A-4a	
ES-42 205+00, 100.0' LT	0-0.8	9.0" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									49 VISUAL
	3.5-5.0	DARK BROWN/BLACK PEAT									100 VISUAL
	6.0-7.5	SAME AS 3.5-5.0									582 VISUAL
	8.5-10.0	SAME AS 3.5-5.0									176 VISUAL
	11.0-12.5	SAME AS 16.0-17.5									224 VISUAL
	13.5-15.0	SAME AS 16.0-17.5									224 VISUAL
	16.0-17.5	0	1	3	59	37	53	18	78	A-7-5	
	18.5-20.0	GRAY CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL									39 VISUAL
	21.0-22.5	SAME AS 18.5-20.0									19 VISUAL
	23.5-25.0	GRAY CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL									15 VISUAL
	26.0-27.5	SAME AS 28.5-30.0									24 VISUAL
	28.5-30.0	9	28	52		-11-				15	A-1-b
	31.0-32.5	41	21	26		-12-				15	A-1-b
	33.5-35.0	SAME AS 31.0-32.5									15 VISUAL
	36.0-37.5	47	28	17		-8-				15	A-1-b
	38.5-40.0	SAME AS 36.0-37.5									19 VISUAL
41.0-42.5	SAME AS 36.0-37.5									19 VISUAL	
43.5-45.0	SAME AS 46.0-47.5									19 VISUAL	
46.0-47.5	0	0	1	31	68	51	14	28	28	A-7-5	
48.5-50.0	SAME AS 46.0-47.5									29 VISUAL	
ES-43 205+00, 100.0' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									31 VISUAL
	3.5-5.0	SAME AS 1.5-2.0									33 VISUAL
	6.0-7.5	BLACK PEAT									307 VISUAL
	8.5-10.0	28	35	25		-12-				307	A-1-b
	11.0-12.5	SAME AS 8.5-10.0									307 VISUAL
	13.5-15.0	0	0	8	54	38	30	11	25	25	A-6a
	16.0-17.5	SAME AS 13.5-15.0									27 VISUAL
	18.5-20.0	0	1	17	47	35	26	10	24	24	A-4a
	21.0-22.5	29	8	28		-35-				24	A-2-4
	23.5-25.0	6	8	16	39	31	24	8	13	13	A-4a
	26.0-27.5	SAME AS 23.5-25.0									12 VISUAL
	28.5-30.0	23	40	30		-7-				12	A-1-b
	31.0-32.5	SAME AS 28.5-30.0									12 VISUAL
	33.5-35.0	SAME AS 28.5-30.0									12 VISUAL
	36.0-37.5	SAME AS 28.5-30.0									12 VISUAL
	38.5-40.0	SAME AS 28.5-30.0									12 VISUAL
41.0-42.5	40	39	13		-8-				12	A-1-b	
43.5-45.0	SAME AS 41.0-42.5									12 VISUAL	
46.0-47.5	SAME AS 41.0-42.5									12 VISUAL	
48.5-50.0	5	4	4	42	45	31	11	18	18	A-6a	

RESOURCE INTERNATIONAL, INC.
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SOIL PROFILE-INTERCHANGE

MEDINA COUNTY
MED-71-6.06

8/31
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SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP SE</u>											
SE-3 127+25, 21.4' LT	0-0.4	5.5" - TOPSOIL									VISUAL
	0.6-1.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	2	4	18	39	37	29	11	19	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	BROWN GRAVEL AND SAND, SOME SILT, TRACE CLAY									VISUAL
	11.0-12.5	SAME AS 13.5-15.0									VISUAL
	13.5-15.0	31	45	19	-5-				19	VISUAL	
	16.0-17.5	SAME AS 18.5-20.0									VISUAL
	18.5-20.0	14	41	33	-12-				14	VISUAL	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
	28.5-30.0	SAME AS 18.5-20.0									VISUAL
	33.5-35.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
SE-4 132+73, 15.3' LT	0-1.0	11.5" - TOPSOIL									VISUAL
	1.0-2.5	18	13	15	20	34	27	11	11	A-6a	
	3.5-5.0	45	18	17	-20-		NP	NP	15	A-1-b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	GRAY GRAVEL (ROCK FRAGMENTS/POSSIBLE COBBLE)									VISUAL
	11.0-12.5	GRAY SAND, LITTLE GRAVEL, LITTLE SILT									VISUAL
	13.5-15.0	GRAY SILTY CLAY, TRACE SAND.									VISUAL
SE-5 136+66, 9.6' LT	0-1.1	13.5" - TOPSOIL									VISUAL
	1.1-2.5	MOTTLED BROWN AND GRAY SILT AND CLAY, TRACE SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	3.0-4.5	1	2	7	46	44	38	19	22	A-6b	
	6.0-7.5	SAME AS 3.0-4.5									VISUAL
	8.5-10.0	SAME AS 3.0-4.5									VISUAL
	11.0-12.5	GRAY SILTY CLAY, TRACE SAND, TRACE GRAVEL.									VISUAL
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
SE-6 140+66, 5.0' LT	0-1.1	13.5" - TOPSOIL									VISUAL
	1.1-2.5	MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL, TRACE ORGANICS.									VISUAL
	3.0-4.5	10	9	14	37	30	32	13	19	A-6a	
	6.0-7.5	7	8	13	38	34	30	11	18	A-6a	
	8.5-10.0	MOTTLED BROWN AND GRAY SILT AND CLAY, SOME SAND, TRACE GRAVEL									VISUAL
	11.0-12.0	SAME AS 8.5-10.0									VISUAL
	12.0-12.5	GRAY SANDY SILT, TRACE GRAVEL.									VISUAL
	13.5-15.0	SAME AS 12.0-12.5									VISUAL
SE-7 144+68, 4.1' LT	0-1.0	12.5" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL.									VISUAL
	3.0-4.5	10	8	13	36	33	30	12	16	A-6a	
	6.0-7.5	SAME AS 3.0-4.5									VISUAL
	8.5-10.0	1	1	2	30	66	41	18	24	A-7-6	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 8.5-10.0									VISUAL
SE-8 148+69, 1.5' LT	0-1.0	12.0" - TOPSOIL									VISUAL
	1.0-2.5	MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	3.0-4.5	7	8	18	41	26	26	9	15	A-4a	
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	11	7	11	37	34	29	10	15	A-4a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	GRAY SILTY CLAY, LITTLE SAND (FINE SAND POCKETS), TRACE GRAVEL									VISUAL
SE-9 152+69, 9.0' LT	0-1.0	11.5" - TOPSOIL									VISUAL
	1.0-2.5	BROWN SILT, SOME CLAY, TRACE SAND, TRACE GRAVEL									VISUAL
	3.0-4.5	3	2	6	65	24	27	7	22	A-4b	
	6.0-7.5	SAME AS 3.0-4.5									VISUAL
	8.5-10.0	BROWN GRAVEL AND SAND, LITTLE SILT, TRACE CLAY									VISUAL
	11.0-12.5	0	0	0	13	87	50	25	26	A-7-6	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
SE-10 156+70, BL	0-1.0	12.75" - TOPSOIL									VISUAL
	1.0-2.5	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	3.0-4.5	14	22	26	23	15	23	8	17	A-4a	
	6.0-7.5	11	8	15	33	33	30	13	17	A-6a	
	8.5-10.0	BROWN SILTY SAND, LITTLE CLAY, TRACE GRAVEL									VISUAL
	11.0-12.5	GRAY SILT, SOME SAND, LITTLE CLAY, TRACE GRAVEL									VISUAL
	13.5-15.0	GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP SE</u>											
SE-11 160+90, BL	0-0.8	9.5" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	4	5	14	34	43	34	17	19	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	9	24	44	-22-		NP	NP	21	A-3a	
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	3	3	16	29	49	27	11	22	A-6a	
	18.5-20.0	GRAY CLAY, SOME SILT, TRACE SAND									VISUAL
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
	28.5-30.0	GRAY SANDY SILT, LITTLE CLAY									VISUAL
	33.5-35.0	SAME AS 28.5-30.0									VISUAL
SE-12 164+69, 20.6' RT	0-0.7	8.75" - TOPSOIL									VISUAL
	1.0-2.5	LIGHT AND DARK BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	3.5-5.0	4	1	1	41	53	47	23	22	A-7-6	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	1	3	35	-61-		NP	NP	22	A-4a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	BROWN SANDY SILT, LITTLE CLAY									VISUAL
	16.0-17.5	BROWN SILTY SAND, LITTLE CLAY, TRACE GRAVEL									VISUAL
	18.5-20.0	1	1	6	39	53	33	14	23	A-6a	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
	28.5-30.0	SAME AS 18.5-20.0									VISUAL
SE-13 168+99, 3.1' RT	0-0.5	6.0" - ASPHALT									VISUAL
	0.5-1.3	10.0" - SAND AND GRAVEL BASE									VISUAL
	1.3-3.0	FILL: BROWN SILTY SAND, LITTLE GRAVEL, TRACE CLAY.									VISUAL
	3.5-5.0	4	2	5	32	57	41	20	17	A-7-6	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	FILL: MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	0	0	1	51	48	41	18	34	A-7-6	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	GRAY SAND, SOME GRAVEL, SOME SILT, TRACE CLAY									VISUAL
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
	28.5-30.0	SAME AS 23.5-25.0									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF I-76/USR 224</u>											
SE-14 876+89, 40.2' RT	0-0.8	10.0" - ASPHALT									VISUAL
	0.8-1.8	12.0" - SAND AND GRAVEL BASE									VISUAL
	1.8-2.5	FILL: BROWN SAND AND GRAVEL, LITTLE SILT, TRACE CLAY									VISUAL
	3.5-5.0	SAME AS 8.5-10.0									VISUAL
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	9	7	12	33	39	31	13	14	A-6a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	1	1	20	35	43	37	20	23	A-6b	
	16.0-17.5	GRAY SILTY SAND, LITTLE CLAY, TRACE GRAVEL									VISUAL
	18.5-20.0	42	27	20	-11-				13	VISUAL	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
SE-15 880+99, 31.9' RT	0-0.8	10.0" - ASPHALT									VISUAL
	0.8-1.5	8.0" - SAND AND GRAVEL BASE									VISUAL
	1.5-2.5	FILL: BROWN GRAVEL, SOME SAND, LITTLE SILT, TRACE CLAY									VISUAL
	3.5-5.0	SAME AS 1.5-2.5									VISUAL
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	18	10	16	27	29	29	12	12	A-6a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	2	0	2	20	76	67	37	40	A-7-5	
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
	21.0-22.5	SAME AS 16.0-17.5									VISUAL
	23.5-25.0	GRAY GRAVEL, SOME SAND, LITTLE SILT, TRACE CLAY									VISUAL

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SOIL PROFILE-INTERCHANGE

MEDINA COUNTY
MED-71-6.06

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>BORINGS REFERENCED TO CENTERLINE OF I-76/USR 224</u>											
SE-16 884+74, 23.8' RT	0-0.7	8.0" - ASPHALT									VISUAL
	0.7-1.3	8.0" - SAND AND GRAVEL BASE									VISUAL
	1.3-2.5	FILL: BROWN GRAVEL AND SAND, LITTLE SILT, TRACE CLAY									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	19	10	16	26	30	26	11	9	A-6a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	2	16	14	35	33	49	16	13	A-7-5	
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	2	12	63	-23-				26	VISUAL	
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP SEW/SW</u>											
SE-1 65+25, 22.4' LT	0-0.7	8.0" - ASPHALT									VISUAL
	0.7-1.5	10.0" - SAND AND GRAVEL BASE									VISUAL
	1.5-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	6	6	11	42	35	31	13	18	A-6a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	18	6	12	35	29	28	10	17	A-4a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL
SE-2 69+24, 33.8' LT	0-0.6	7.25" - ASPHALT									VISUAL
	0.6-1.5	10.0" - SAND AND GRAVEL BASE									VISUAL
	1.5-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	9	6	12	40	33	30	12	19	A-6a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	SAME AS 6.0-7.5									VISUAL
	13.5-15.0	8	6	13	40	33	30	12	18	A-6a	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	SAME AS 13.5-15.0									VISUAL
	21.0-22.5	SAME AS 13.5-15.0									VISUAL
	23.5-25.0	SAME AS 13.5-15.0									VISUAL
	28.5-30.0	SAME AS 13.5-15.0									VISUAL
SW-1 77+75, 15.0' LT	0-0.5	6.5" - ASPHALT									VISUAL
	0.5-1.0	8.0" - SAND AND GRAVEL BASE									VISUAL
	1.0-2.5	BROWN SILTY SAND, LITTLE GRAVEL, TRACE CLAY (BASE)									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	7	6	12	38	37	32	13	16	A-6a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	2	4	14	44	36	33	15	18	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
SW-2 81+75, 15.0' LT	0-1.0	FILL: 1/4" - CINDERS									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	24	11	15	28	22	28	10	15	A-4a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 3.5-5.0									VISUAL
	11.0-12.5	2	3	13	38	44	39	18	21	A-6b	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL
SW-3 85+75, 4.2' LT	0-0.8	FILL: 1/4" - CINDERS									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	9	7	11	38	35	26	9	12	A-4a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	GRAY SILTY SAND, TRACE CLAY, TRACE GRAVEL									VISUAL
	11.0-12.5	SAME AS 13.5-15.0									VISUAL
	13.5-15.0	0	0	1	57	42	26	8	17	A-4b	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	SAME AS 13.5-15.0									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP WS</u>											
WS-1 27+21, 3.8' LT	0-0.8	9.5" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	2	2	20	48	28	31	15	24	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	8	10	26	-56-		28	10	27	A-4a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL									VISUAL

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP WS</u>											
WS-2 31+26, 1.9' LT	0-0.9	10.5" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	1	2	4	44	49	53	31	24	A-7-6	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	21	41	28	-10-				12	A-1-b	
	13.5-15.0	BROWN SAND AND GRAVEL (SILTSTONE FRAGMENTS) LITTLE SILT, TRACE CLAY									VISUAL
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	0	0	1	29	70	46	23	8	A-7-6	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
	23.5-25.0	SAME AS 18.5-20.0									VISUAL
WS-3 35+27, 1.3' LT	0-0.9	9.5" - TOPSOIL									VISUAL
	1.0-2.5	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL, TRACE ORGANICS									VISUAL
	3.5-5.0	9	20	24	21	26	32	17	15	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	0	0	0	18	82	52	27	20	A-7-6	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 8.5-10.0									VISUAL
	16.0-17.5	SAME AS 8.5-10.0									VISUAL
	18.5-20.0	SAME AS 8.5-10.0									VISUAL
	23.5-25.0	SAME AS 8.5-10.0									VISUAL
	28.5-30.0	SAME AS 8.5-10.0									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP WNS</u>											
WS-4 11+24, BL	0-0.8	8.5" - ASPHALT									VISUAL
	1.0-2.5	FILL: BROWN SAND, LITTLE GRAVEL, TRACE SILT, TRACE CLAY									VISUAL
	3.5-5.0	FILL: BROWN GRAVEL (PEA GRAVEL) SOME SILT AND SAND, TRACE CLAY, TRACE BRICK									VISUAL
	6.0-7.5	7	6	12	39	36	33	16	14	A-6b	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	SAME AS 6.0-7.5									VISUAL
	13.5-15.0	10	10	20	32	28	34	16	8	A-6b	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	SAME AS 13.5-15.0									VISUAL
	21.0-22.5	SAME AS 13.5-15.0									VISUAL
	23.5-25.0	SAME AS 13.5-15.0									VISUAL
WS-5 8+70, BL	0-1.0	12.5" - ASPHALT									VISUAL
	1.0-2.5	FILL: BROWN SILTY SAND, SOME GRAVEL, TRACE CLAY									VISUAL
	3.5-5.0	50	30	10	-10-		NP	NP	7	A-6b	
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	10	9	19	35	27	24	9	8	A-4a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 8.5-10.0									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF I-71</u>											
EN-1 450+82, 73.8' RT	0-0.5	6.5" - ASPHALT									VISUAL
	0.5-1.5	11.5" - SAND AND GRAVEL BASE									VISUAL
	1.5-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	11	4	37	26	22	24	10	10	A-4a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 3.5-5.0									VISUAL
	11.0-12.5	SAME AS 3.5-5.0									VISUAL
	13.5-15.0	0	0	2	49	49	39	16	13	A-6b	
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP EN</u>											
EN-2 122+84, 12.9' LT	0-0.5	6.0" - ASPHALT									VISUAL
	0.5-1.5	12.0" - SAND AND GRAVEL BASE									VISUAL
	1.0-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	9	8	16	38	29	29	12	15	A-6a	
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	19	4	10	35	32	37	19	16	A-6b	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL

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SOIL PROFILE-INTERCHANGE

MEDINA COUNTY
MED-71-6.06

10	31
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SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% SILT	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP EN</u>											
EN-3 118+63, 10.1' RT	0-0.5	11.5" - TOPSOIL									VISUAL
	0.5-1.5	MOTTLED GRAY AND BROWN CLAY AND SILT, LITTLE SAND, TRACE GRAVEL									VISUAL
	1.0-2.5	2	5	12	40	41	45	20	29	A-7-6	
	3.5-5.0	19	33	17	-31-				19	VISUAL	
	6.0-7.5	12	12	19	33	24	23	8	12	A-4a	
	8.5-10.0	GRAY SILTY SAND, LITTLE CLAY, TRACE GRAVEL									VISUAL
	11.0-12.5	28	30	29	-13-				13	VISUAL	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-19.5	GRAY SAND AND GRAVEL, SOME SILT, TRACE CLAY									VISUAL
	19.5-20.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
EN-4 114+82, 3.9' RT	0.5-1.5	13.5" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0	1	1	42	56	61	31	30	A-7-5	
	6.0-7.5	0	1	5	49	45	51	22	35	A-7-6	
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	19	12	20	23	26	22	8	11	A-4a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	GRAY SAND, LITTLE SILT, TRACE GRAVEL									VISUAL
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
EN-5 110+79, 3.4' RT	0-1.0	11.5" - TOPSOIL									VISUAL
	1.0-2.5	0	2	8	45	45	40	19	18	A-6b	
	3.5-5.0	SAME AS 1.0-2.5									VISUAL
	6.0-7.5	0	1	6	49	44	44	22	28	A-7-6	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	3	3	7	52	35	35	12	26	A-6a	
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	22	14	19	22	23	22	7	10	A-4a	
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
EN-6 106+78, 1.5' LT	0-0.8	9.5" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	1	6	12	37	44	41	20	23	A-7-6	
	6.0-7.5	23	12	28	17	20	26	10	18	A-4a	
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	15	8	13	28	36	28	12	12	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL
EN-7 102+99, BL	0-1.0	12.0" - ASPHALT									VISUAL
	1.0-1.7	8.0" - SAND AND GRAVEL									VISUAL
	1.7-2.5	FILL: BROWN GRAVEL AND SAND, LITTLE SILT, TRACE CLAY									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	8	8	17	33	34	23	7	12	A-4a	
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	9	7	19	32	33	25	11	10	A-6a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF I-76/ USR 224</u>											
EN-8 903+35, 87.9' LT	0-1.0	12.0" - ASPHALT									VISUAL
	1.0-1.7	8.0" - SAND AND GRAVEL									VISUAL
	1.7-3.0	FILL: DARK BROWN/BLACK SILTY SAND, SOME GRAVEL, TRACE CLAY									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	13	9	16	30	32	25	9	10	A-4a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	22	8	12	26	32	26	10	13	A-4a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP NEW</u>											
NE-1 118+50, 1.0' RT	0-0.7	8.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	15	6	11	31	37	30	12	15	A-6a	
	8.5-10.0	SAME AS 11.0-12.5									VISUAL
	11.0-12.5	7	2	9	48	34	26	9	13	A-4a	
	13.5-15.0	SAME AS 11.0-12.5									VISUAL
	16.0-17.5	SAME AS 11.0-12.5									VISUAL
	18.5-20.0	SAME AS 11.0-12.5									VISUAL

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% SILT	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP NE</u>											
NE-2 58+02, 6.5' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	17	5	12	29	37	35	17	17	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	2	4	10	44	40	41	17	24	A-7-6	
	11.0-12.5	SAME AS 13.5-15.0									VISUAL
	13.5-15.0	6	6	13	36	39	26	8	15	A-4a	
	18.5-20.0	SAME AS 13.5-15.0									VISUAL
NE-3 54+05, 5.0' RT	0-0.5	6.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	14	8	12	31	35	29	11	18	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 3.5-5.0									VISUAL
	11.0-12.5	SAME AS 3.5-5.0									VISUAL
	13.5-15.0	30	8	12	-50-		20	5	9	A-4a	
NE-4 50+17, 20.6' RT	0-0.5	10.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	9	5	12	31	43	37	18	21	A-6b	
	6.0-7.5	SAME AS 8.5-10.0									VISUAL
	8.5-10.0	0	0	0	15	85	53	27	26	A-7-6	
	11.0-12.5	SAME AS 13.5-15.0									VISUAL
	13.5-15.0	0	0	0	25	75	43	19	28	A-7-6	
	18.5-20.0	SAME AS 13.5-15.0									VISUAL
	23.5-25.0	SAME AS 13.5-15.0									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP NE</u>											
NE-5 46+41, 17.5' RT	0-0.5	8.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	6	5	12	31	45	38	19	14	A-6b	
	8.5-10.0	GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	SAME AS 16.0-17.5									VISUAL
	16.0-17.5	0	0	0	13	87	41	12	25	A-7-6	
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
	21.0-22.5	0	0	0	20	80	46	21	28	A-7-6	
	23.5-25.0	SAME AS 21.0-22.5									VISUAL
	28.5-30.0	SAME AS 21.0-22.5									VISUAL
NE-6 42+52, 4.8' LT	0-0.7	8.0" - GRAVEL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	0	1	1	34	64	37	17	19	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	GRAY CLAY, LITTLE SILT, LITTLE SAND, TRACE GRAVEL									VISUAL
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	MOTTLED GRAY AND BROWN SILTY SAND, TRACE GRAVEL									VISUAL
	16.0-17.5	GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
	18.5-20.0	SAME AS 16.0-17.5									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF I-76/224</u>											
NE-7 854+84, 37.5' RT	0-0.3	3.0" - ASPHALT									VISUAL
	0.3-1.5	14" - SAND AND GRAVEL BASE									VISUAL
	1.5-2.5	FILL: BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL									VISUAL
	3.5-5.0	18	7	12	25	38	27	10	13	A-4a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 3.5-5.0									VISUAL
	11.0-12.5	6	6	15	32	41	24	9	11	A-4a	
	13.5-14.0	GRAY SILTY SAND, SOME CLAY, TRACE GRAVEL									VISUAL
	14.0-15.0	GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									VISUAL
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP NW</u>											
NW-1 12+17, 17.0' RT	0-0.4	5.0" - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	11	5	13	38	33	28	2	16	A-6a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	19	9	11	30	31	27	11	15	A-6a	
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	14.0-15.0	SAME AS 8.5-10.0									VISUAL

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949



DATE	9/20/04
DATE	9/20/04

DRAWN	KAL	REVIEWED	GPH
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SOIL PROFILE-INTERCHANGE

MEDINA COUNTY
MED-71-6.06

11	31
21	71

SUMMARY OF SOIL TEST DATA

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class	
<u>(CONT'D) BORINGS REFERENCED TO CENTERLINE OF RAMP NW</u>											
NW-2 8+69, 17.2' RT	0-0.2	2.0' - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 3.5-5.0									VISUAL
	3.5-5.0	29	9	17	21	24	27	9	15	A-4a	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 3.5-5.0									VISUAL
	11.0-12.5	SAME AS 3.5-5.0									VISUAL
	13.5-15.0	9	7	20	35	29	23	7	14	A-4a	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	SAME AS 21.0-22.5									VISUAL
	21.0-22.5	23	11	19	31	16	NP	NP	10	A-4a	
23.5-25.0	SAME AS 21.0-22.5									VISUAL	
NW-3 4+39, BL	0-0.5	6.5' - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	3	4	15	43	35	36	17	12	A-6b	
	8.5-10.0	MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL									
	11.0-12.5	SAME AS 8.5-10.0									VISUAL
	13.5-15.0	30	26	24		-20-			10	VISUAL	
	16.0-17.5	SAME AS 13.5-15.0									VISUAL
	18.5-20.0	0	0	0	14	86	51	27	26	A-7-6	
	21.0-22.5	SAME AS 18.5-20.0									VISUAL
23.5-25.0	SAME AS 18.5-20.0									VISUAL	
<u>BORINGS REFERENCED TO CENTERLINE OF RAMP NSW</u>											
NW-4 34+26, 25.0' LT	0-0.4	6.5' - TOPSOIL									VISUAL
	1.0-2.5	SAME AS 6.0-7.5									VISUAL
	3.5-5.0	SAME AS 6.0-7.5									VISUAL
	6.0-7.5	8	10	16	37	29	29	12	15	A-6a	
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	SAME AS 6.0-7.5									VISUAL
13.5-15.0	17	6	13	32	32	31	13	16	A-6a		
<u>BORINGS REFERENCED TO CENTERLINE RAMP W-N</u>											
WN-1 31+00, CL	0-0.3	4.0' - TOPSOIL									VISUAL
	1.0-2.5	14	9	16	32	29	31	13	17	A-6a	
	3.5-5.0	6	7	16	38	33	27	10	13	A-4a	
	6.0-7.5	MOTTLED BROWN AND GRAY CHANGING TO GRAY SANDY SILT, SOME CLAY, TRACE GRAVEL									
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
	11.0-12.5	SAME AS 6.0-7.5									VISUAL
13.5-15.0	SAME AS 6.0-7.5									VISUAL	
WN-2 34+00, CL	0-0.5	6.0' - TOPSOIL									VISUAL
	1.0-2.5	3	3	13	40	41	40	22	21	A-6b	
	3.5-5.0	4	3	13	36	42	35	16	19	A-6b	
	6.0-7.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL									
	8.5-10.0	SAME AS 6.0-7.5									VISUAL
WN-3 37+00, CL	0-0.5	6.0' - TOPSOIL									VISUAL
	1.0-2.5	1	2	9	47	41	45	24	19	A-7-6	
	3.5-5.0	1	3	9	49	38	39	18	19	A-6b	
	6.0-7.5	SAME AS 3.5-5.0									VISUAL
	8.5-10.0	SAME AS 3.5-5.0									VISUAL
	11.0-12.5	38	42	14		-9-			15	A-1-b	
	13.5-15.0	5	4	2	17	72	47	22	29	A-7-6	

LOCATION & OFFSET	Depth From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class
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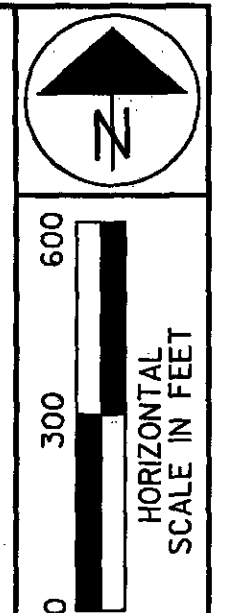
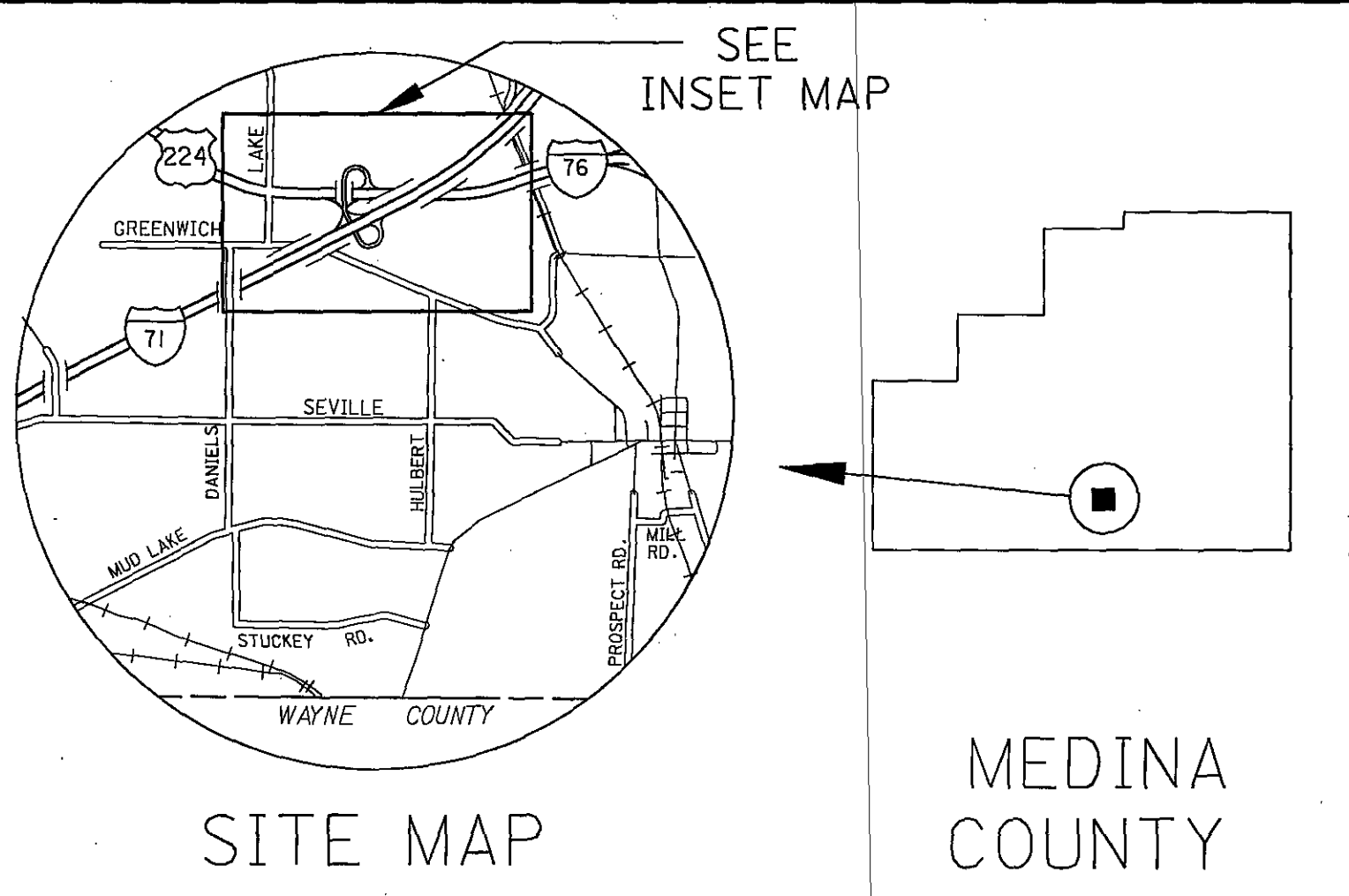
RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949



DRAWN	KAL	REVIEWED	GPH
DATE	9/20/04	DATE	9/20/04

SOIL PROFILE-INTERCHANGE

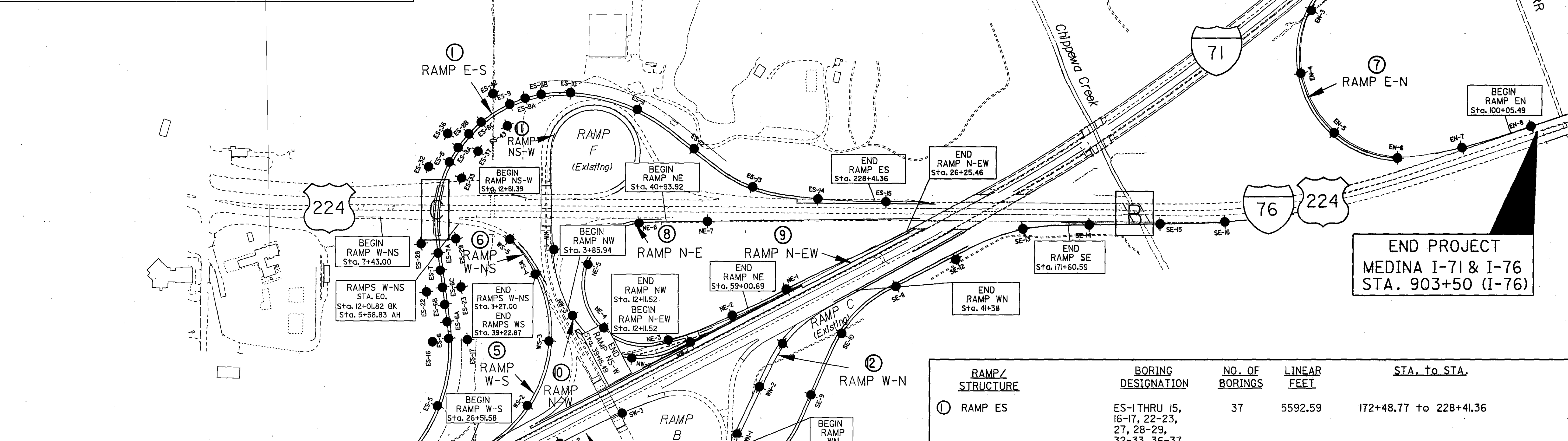
MEDINA COUNTY
MED-71-6.06



DATE	DATE	DATE	DATE
9/20/04	9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	CHECKED	GPH

DRAWN KAL

VICINITY MAP
MED 71-6.06 MODIFICATIONS

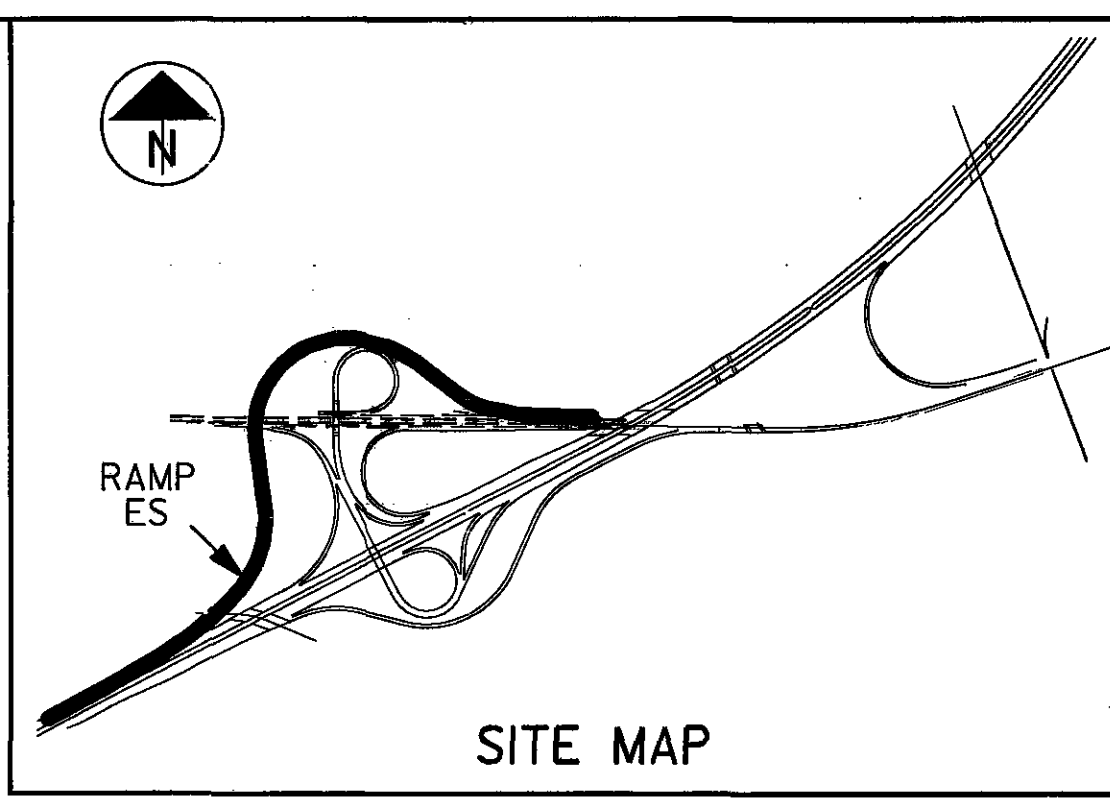
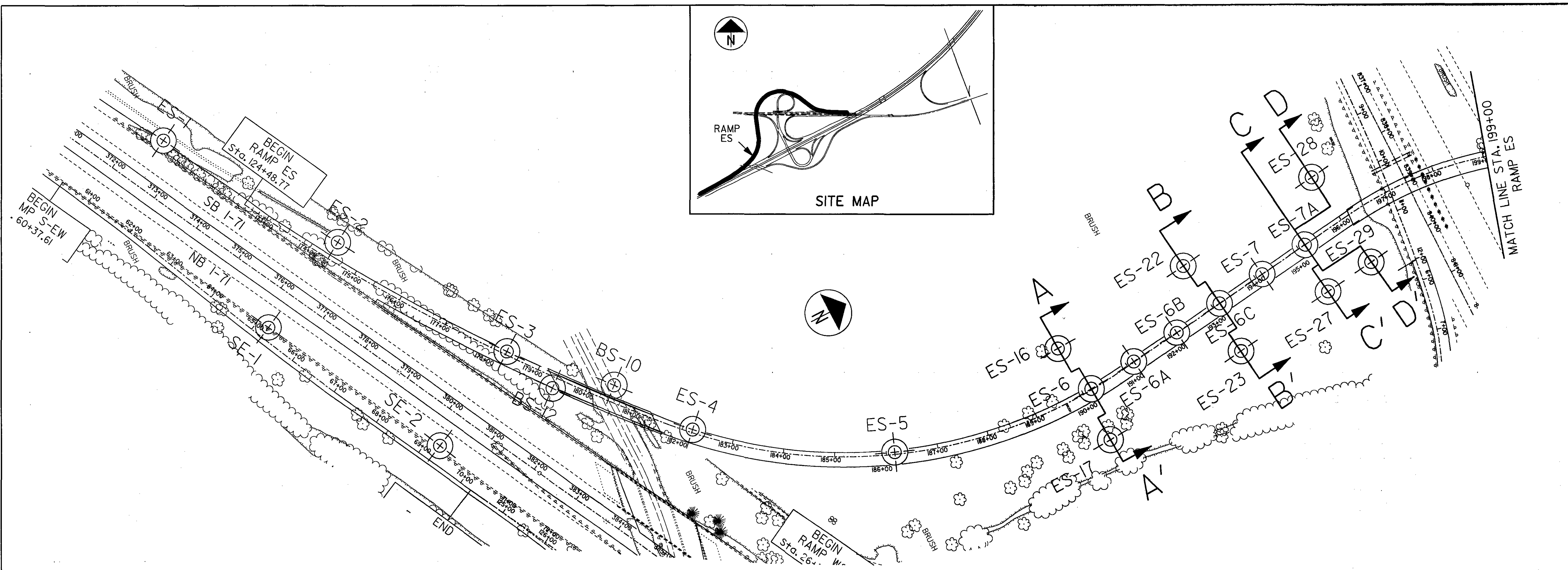


BEGIN PROJECT
MEDINA I-71 & I-76
STA. 372+00 (I-71)

END PROJECT
MEDINA I-71 & I-76
STA. 903+50 (I-76)

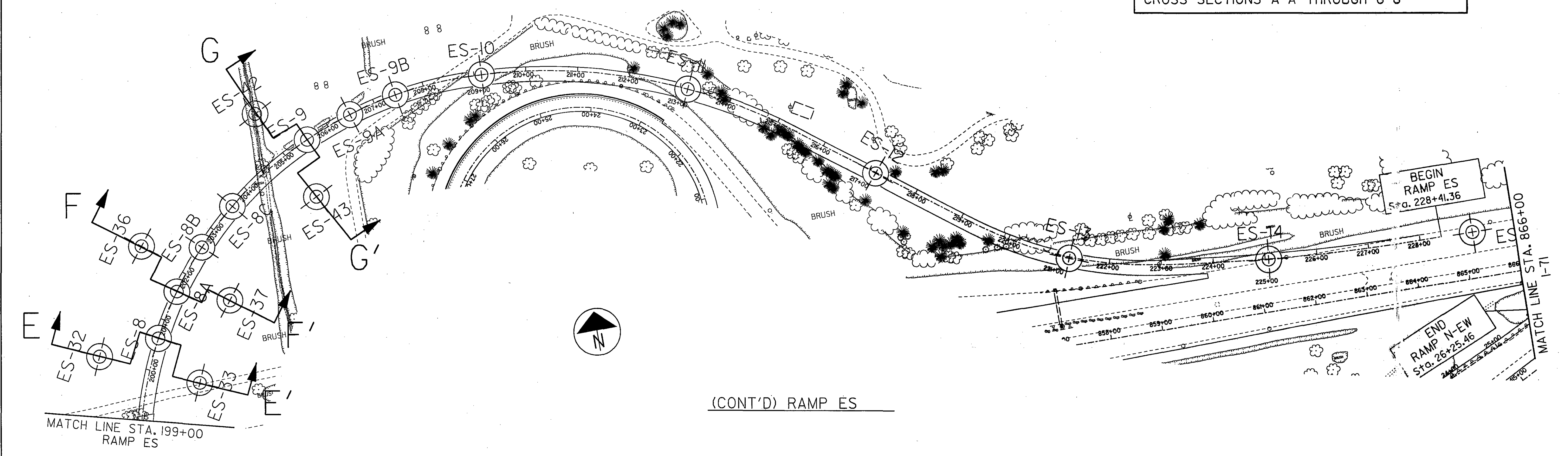
RAMP/ STRUCTURE	BORING DESIGNATION	NO. OF BORINGS	LINEAR FEET	STA. to STA.
① RAMP ES	ES-1 THRU 15, 16-17, 22-23, 27, 28-29, 32-33, 36-37 42-43	37	5592.59	172+48.77 to 228+41.36
② RAMP SE	SE-3 THRU 16	14	4736.86	124+23.73 (STA. EQ. 70+23.73) to 171+60.59
③ RAMP S-EW	SE-1, 2	2	986.12	60+37.61 to 70+23.73 (STA. EQ. 124+23.73)
④ RAMP SW	SW-1, 2, 3	3	2372.07	70+23.73 (STA. EQ. 124+23.73) to 93+95.80
⑤ RAMP WS	WS-1, 2, 3	3	1271.29	26+51.58 to 39+22.87
⑥ RAMP W-NS	WS-4, 5	2	568.17	5+8.83 to 11+27.00
⑦ RAMP EN	EN-1 THRU 8	8	2357.98	100+05.49 to 123+63.47
⑧ RAMP NE	NE-2 THRU 7	6	1806.77	40+93.92 to 59+00.69
⑨ RAMP N-EW	NE-1	1	1413.94	12+11.52 to 26+25.46
⑩ RAMP NW	NW-1 THRU 3	3	825.58	3+85.94 to 12+11.52
⑪ RAMP NS-W	NW-4	1	2637.10	12+81.39 to 39+18.49
⑫ RAMP WN	WN-1 THRU 3	3	1293.41	28+14.59 to 41+38.00
A RAMP SE OVER GREENWICH RD	B-1 THRU 8	8	N/A	N/A
B RAMP SE OVER CHIPPEWA CREEK	B-1 THRU 4	4	N/A	N/A
C RAMP ES OVER USR 224	B-1E THRU 6E	7	N/A	N/A
D RAMP ES OVER GREENWICH RD	B-9 THRU 12	4	N/A	N/A

MEDINA COUNTY
MED-71-6.06



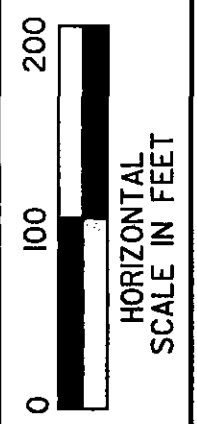
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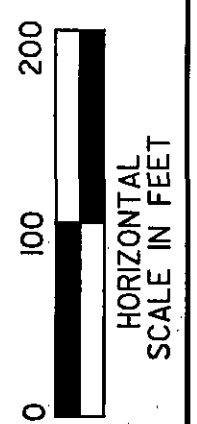
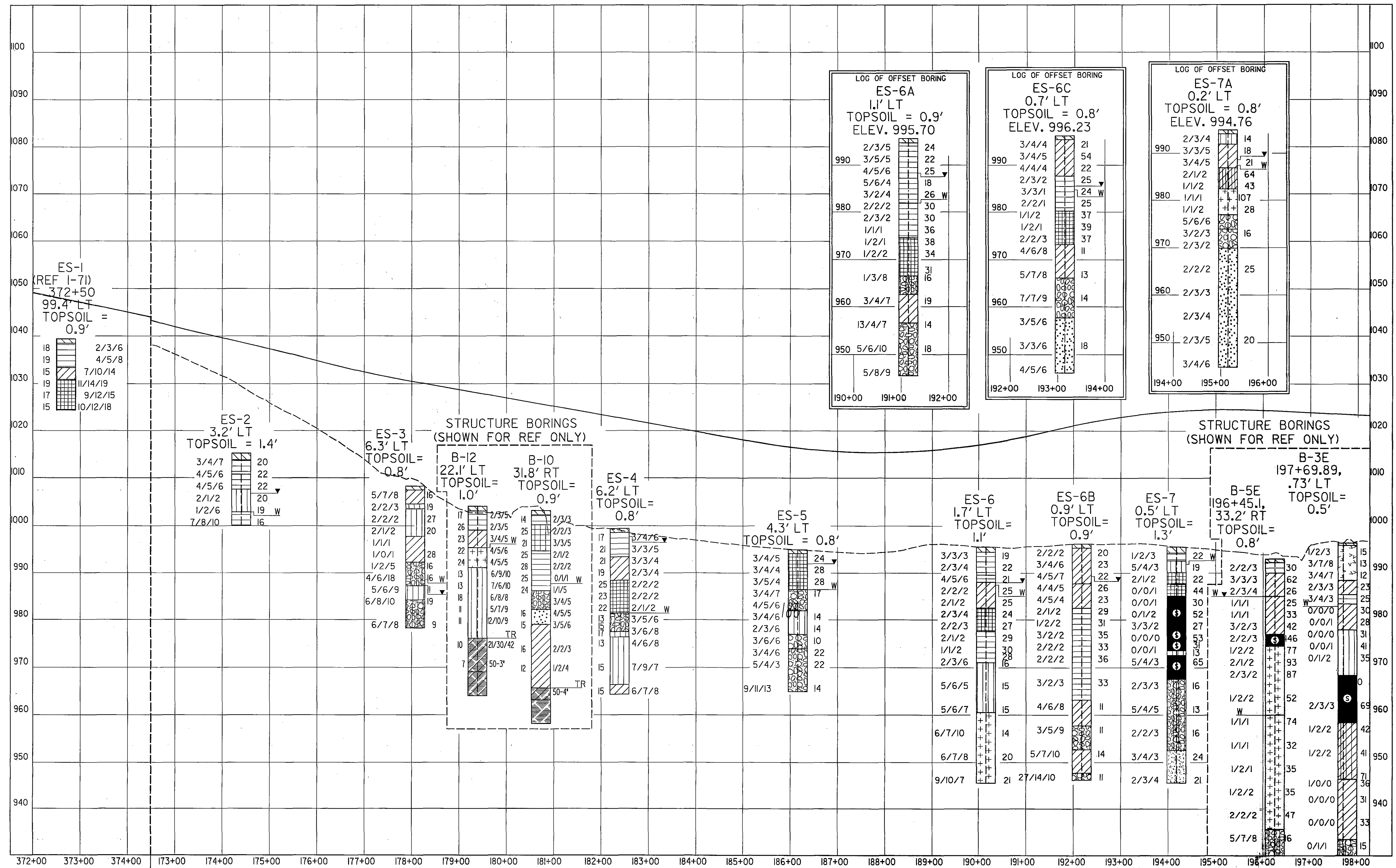
NOTE
SEE SHEETS 17 THRU 21 FOR
CROSS SECTIONS A-A' THROUGH G-G'



(CONT'D) RAMP ES

DATE		DATE	DATE	DATE
REVIEWED		9/20/04	9/20/04	9/20/04
DRAWN		KAL		
MEDINA COUNTY		RAMP ES - STA. 372+00 TO STA. 866+00 (I-71)		
MED-71-6.06		SOIL PROFILE		
14	31			
24	71			





DATE	DATE	DATE	DATE
9/20/04	9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	CHECKED	GPH
DRAWN	KAL		

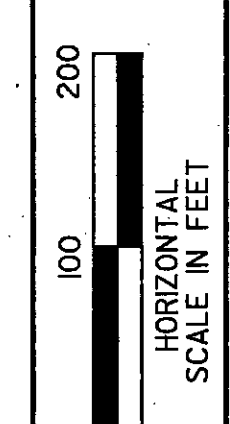
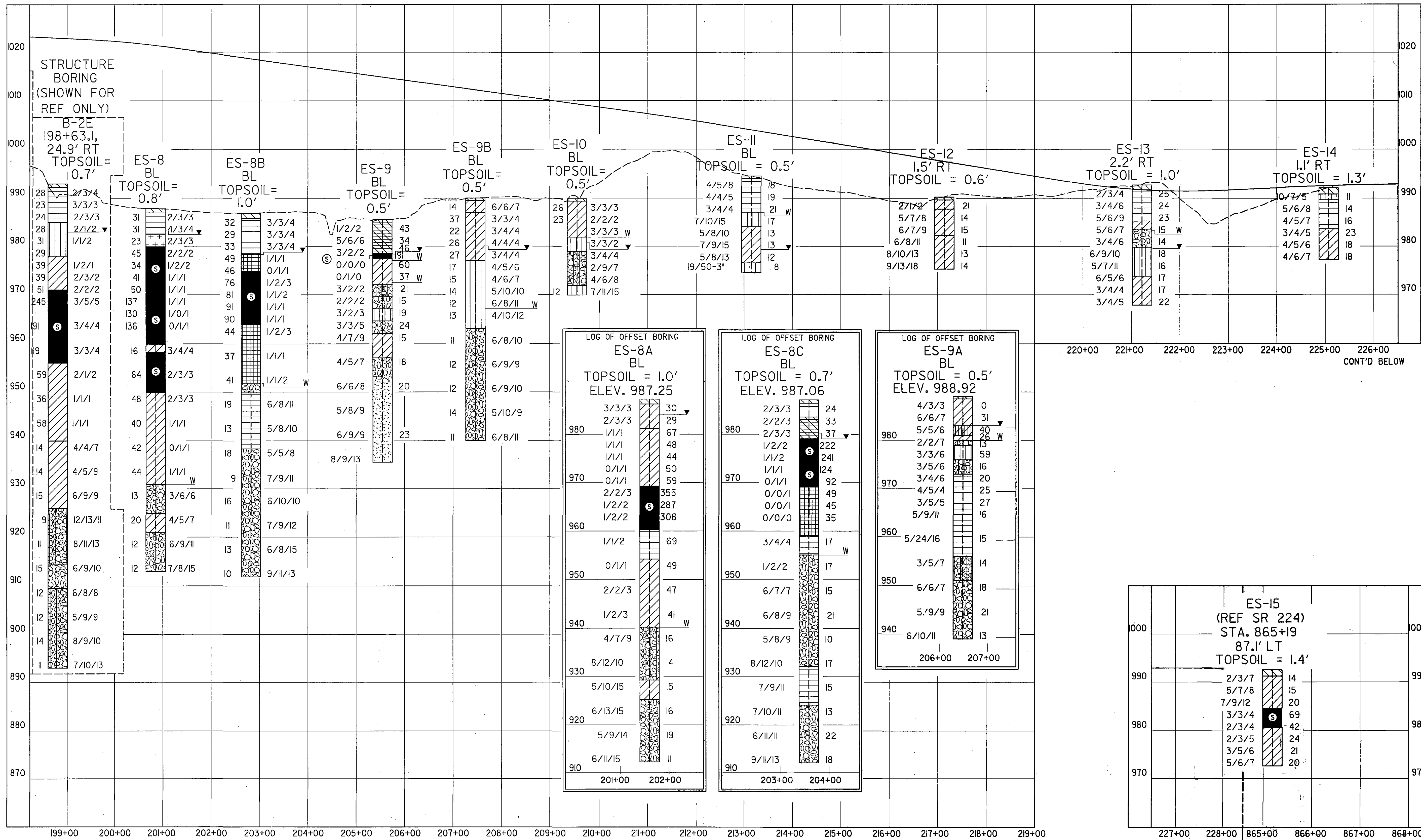
I-71 RAMP ES - STA. 372+00 TO STA. 198+25
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

S.B. I-71
PROFILE
(FOR REF)

I-71
STA. 374+48.77
RAMP ES
STA. 172+48.77

RAMP ES PROFILE



DATE	DATE	DATE	DATE
9/20/04	9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	CHECKED	GPH
KAL			

STA. 198+25.00 TO STA. 228+41.36
 SOIL PROFILE

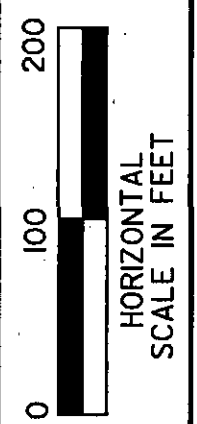
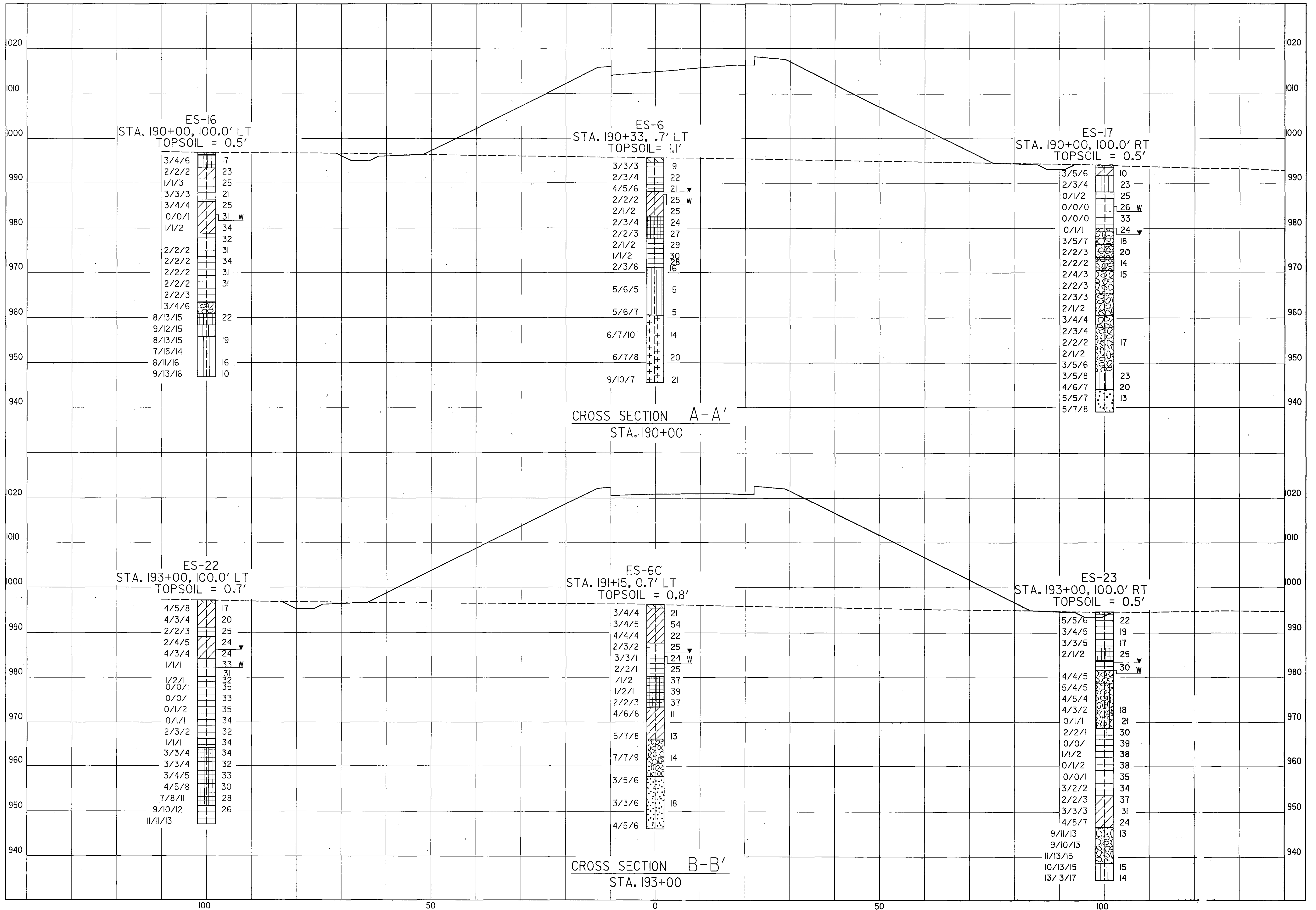
MEDINA COUNTY
 MED-71-6.06

RAMP ES PROFILE

RAMP ES PROFILE

RAMP ES
 STA. 228+41.36
 USR 224
 STA. 864+58.11

USR 224 PROFILE
 (FOR REFERENCE)



REVIEWED	DATE	CHECKED	DATE
	9/20/04		9/20/04

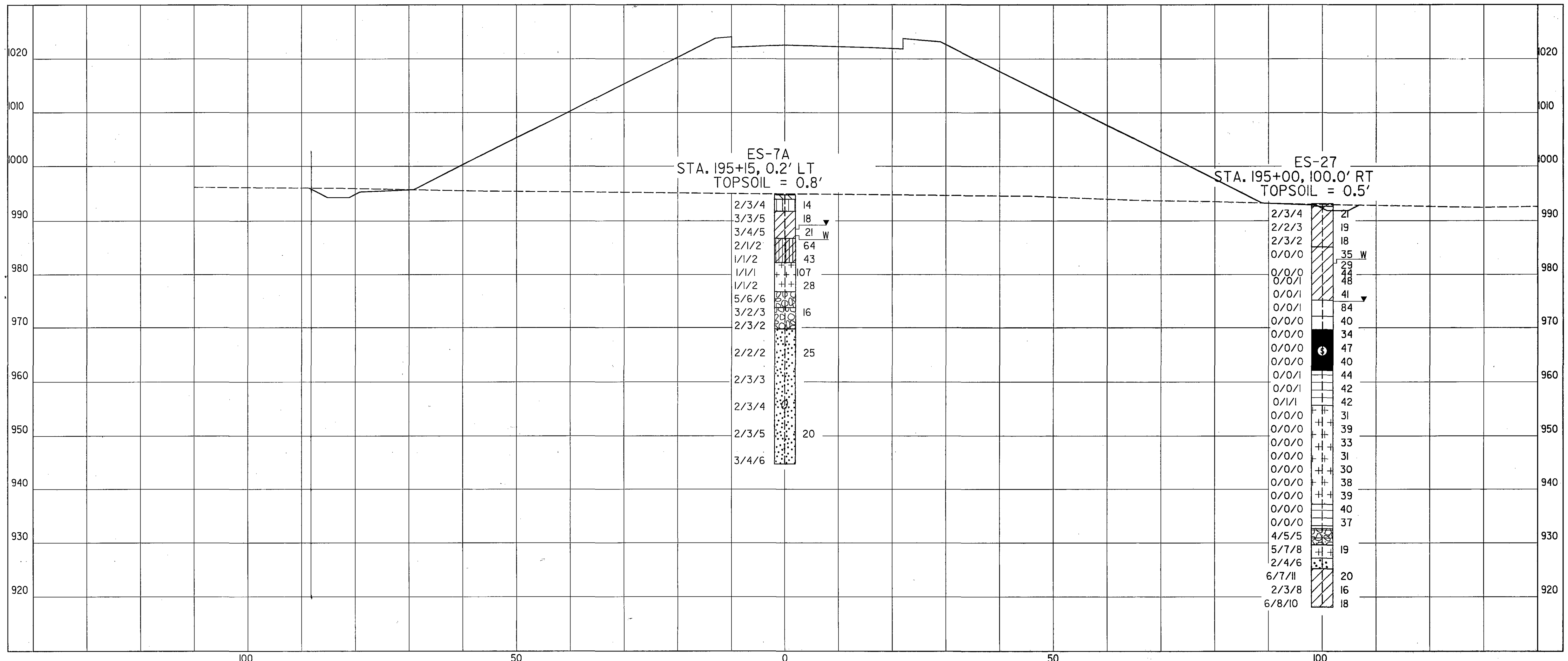
DRAWN: KAL

CROSS SECTION STA. 190+00
SOIL PROFILE

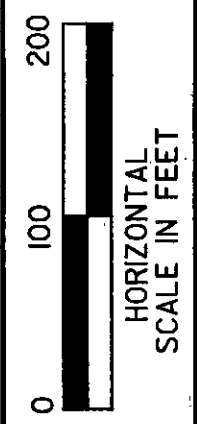
MEDINA COUNTY
MED-71-6.06

17 / 31

27 / 71



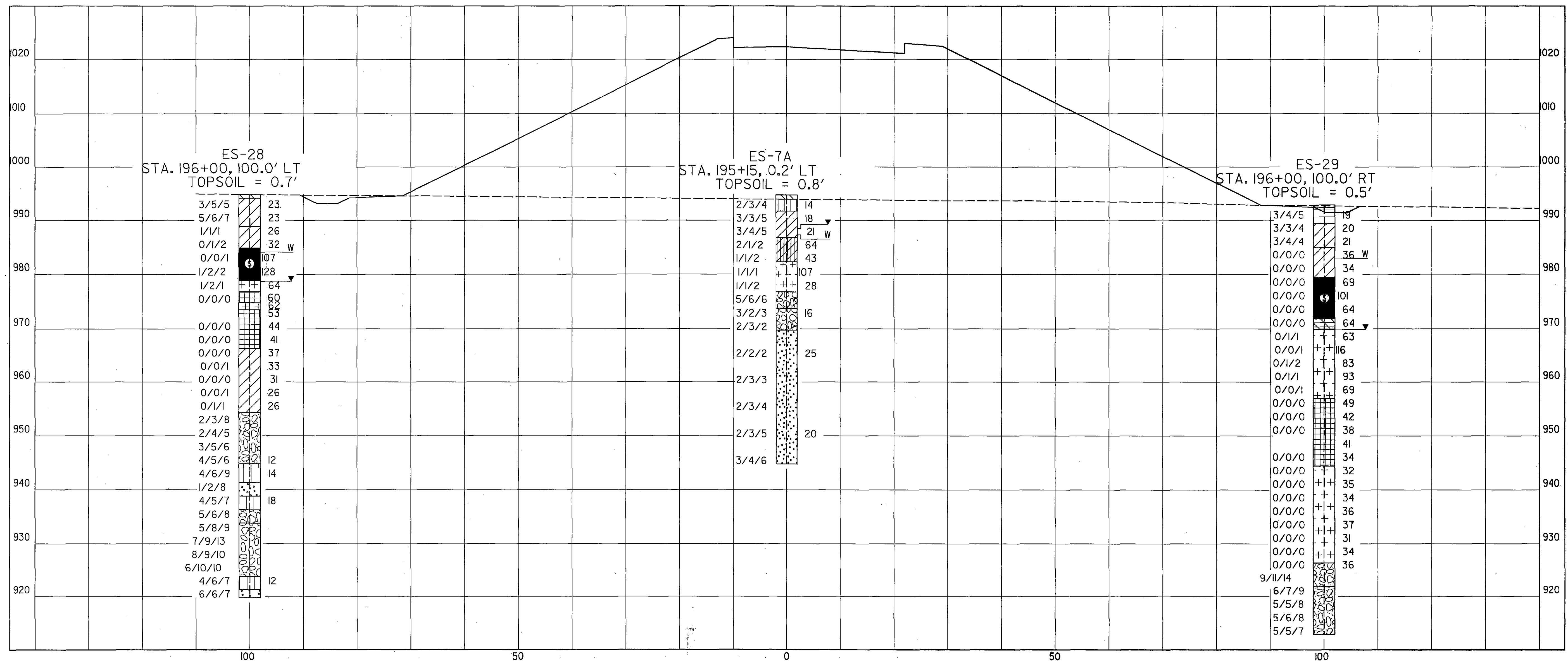
CROSS SECTION C-C'
 STA. 195+00



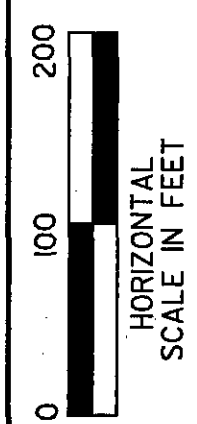
DATE	DATE	DATE
9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	GPH
DRAWN		
KAL		

CROSS SECTION STA. 190+00
 SOIL PROFILE

MEDINA COUNTY
 MED-71-6.06



CROSS SECTION D-D'
STA. 196+00



DATE 9/20/04
CHECKED GPH

DATE 9/20/04
DATE 9/20/04

REVIEWED

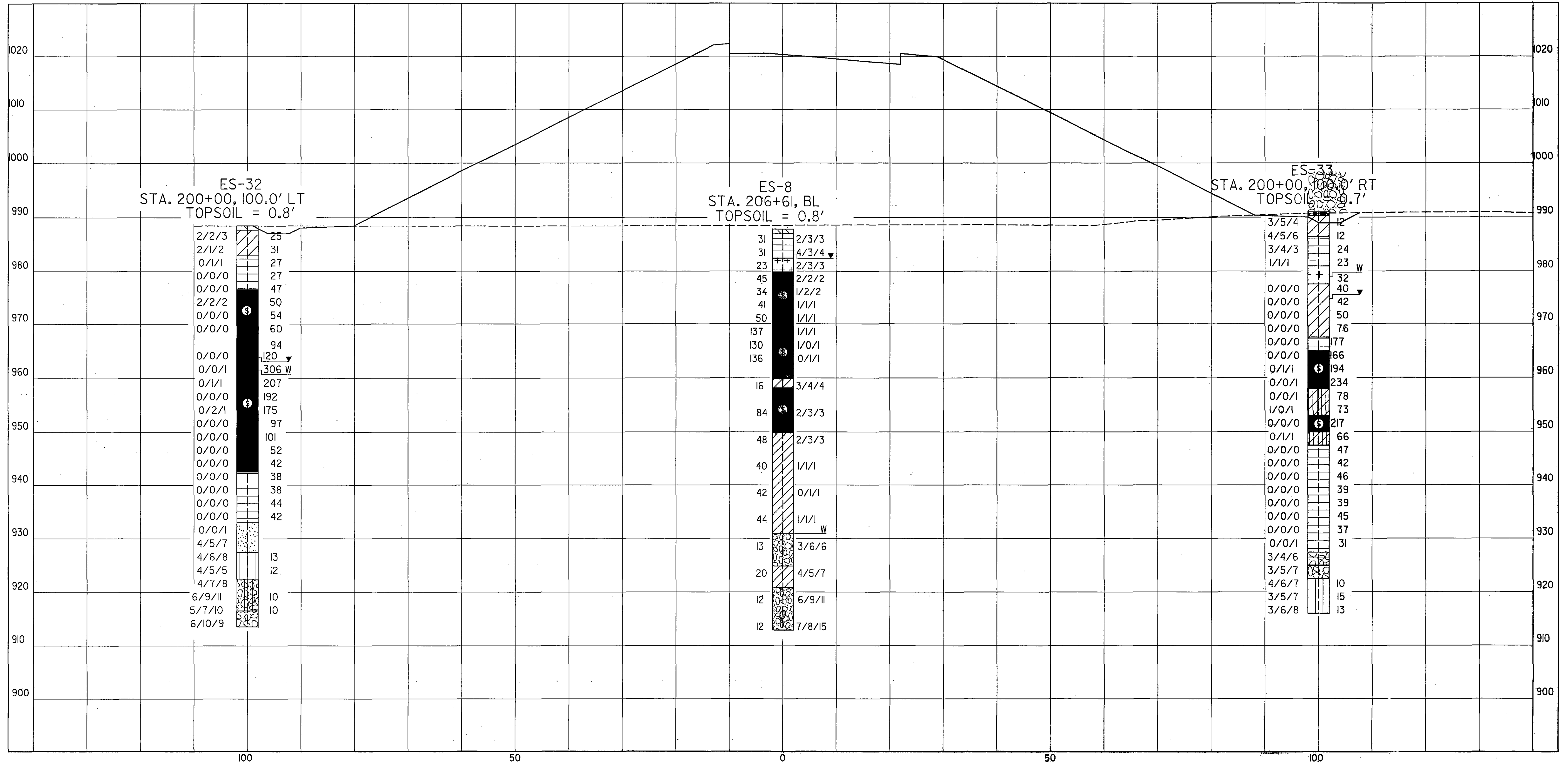
DRAWN KAL

CROSS SECTION STA. 190+00
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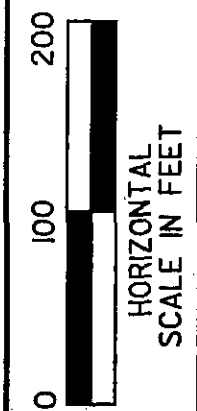
MEDINA COUNTY
MED-71-6.06

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71



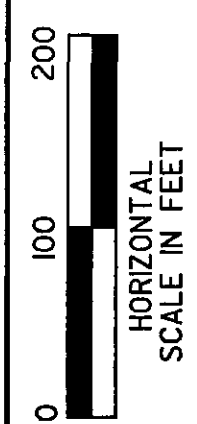
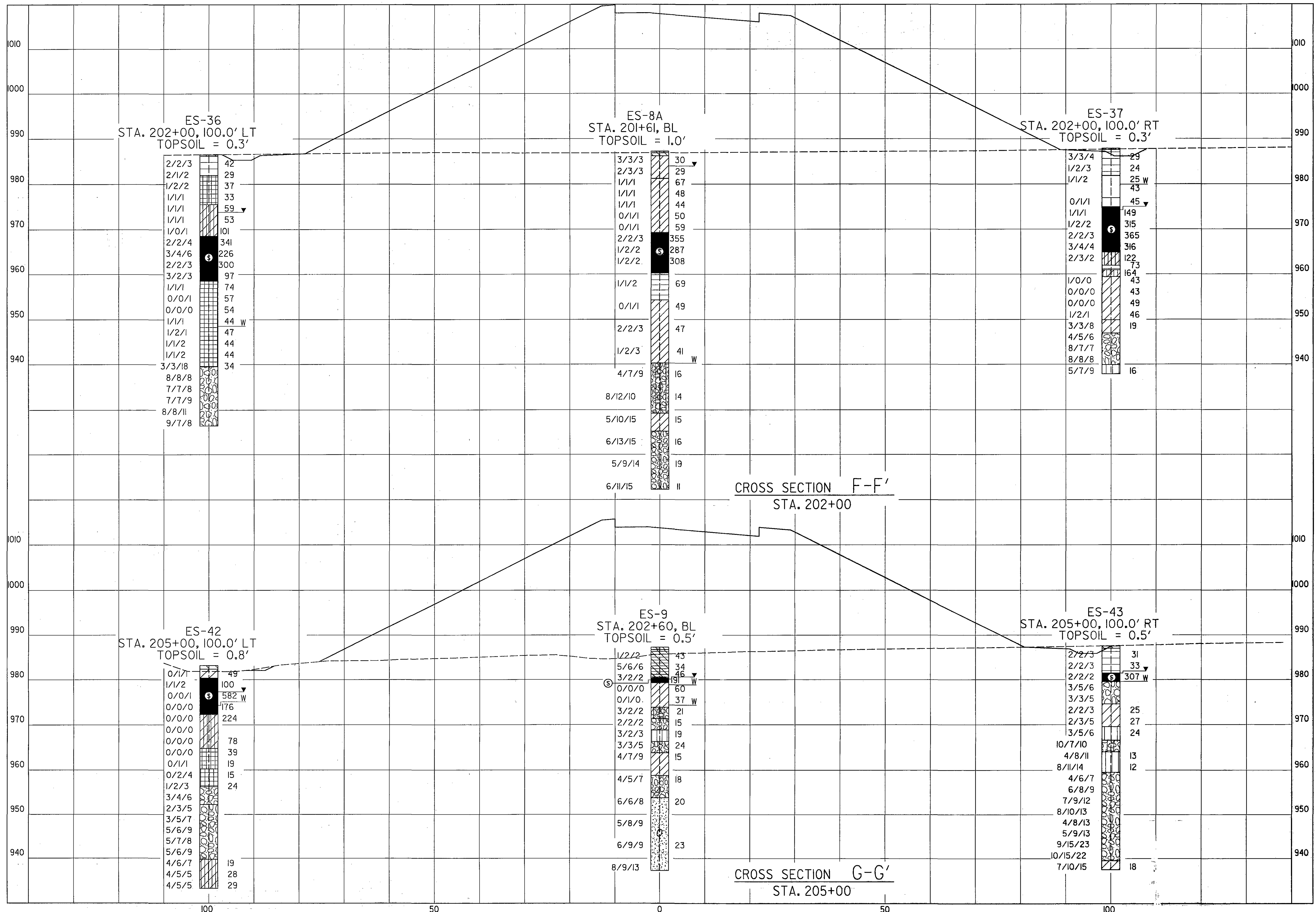
CROSS SECTION E-E'
STA. 200+00



DATE	9/20/04	DATE	9/20/04
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DRAWN	KAL		

CROSS SECTION STA. 190+00
SOIL PROFILE

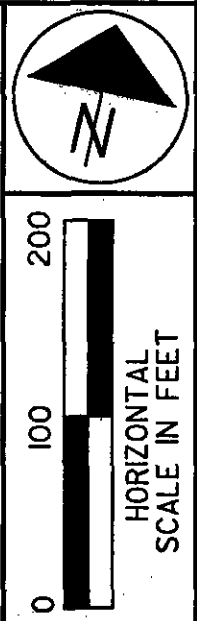
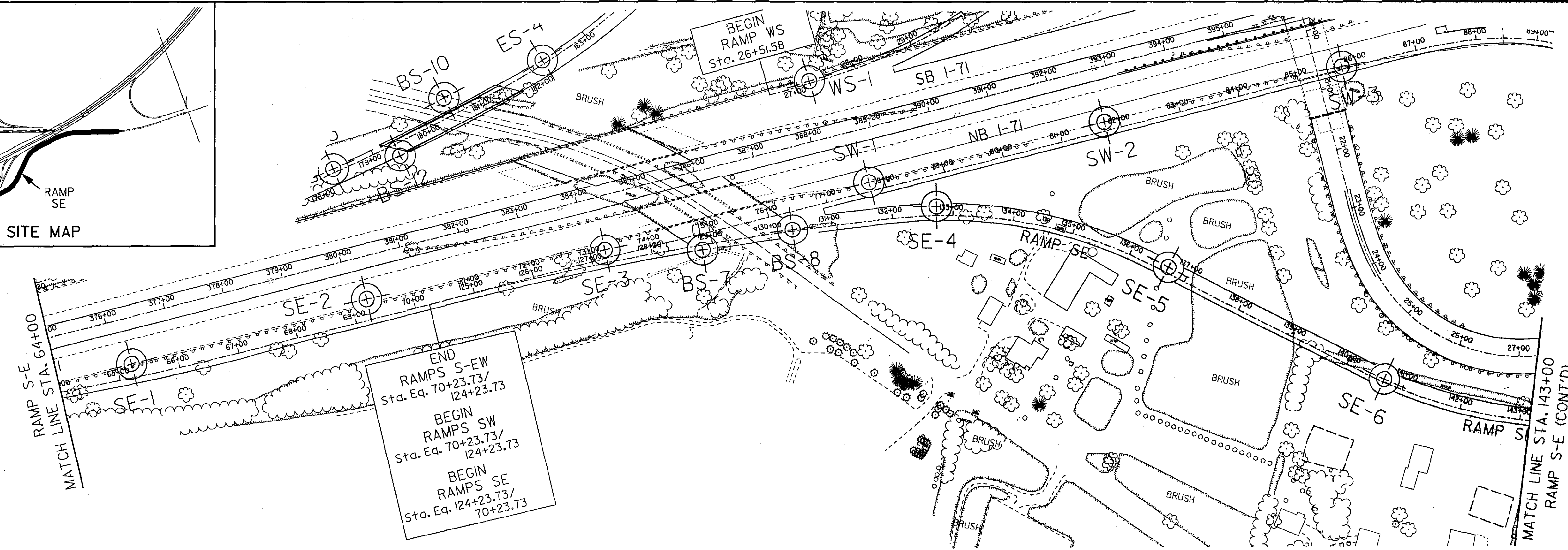
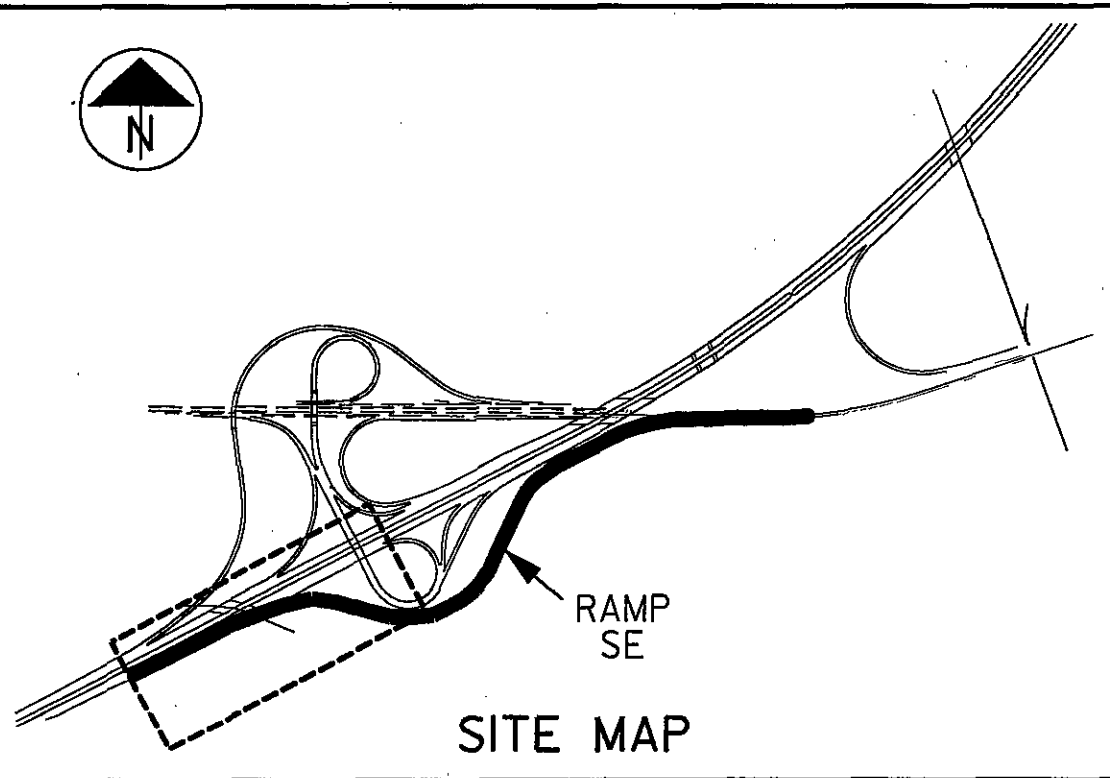
MEDINA COUNTY
MED-71-6.06



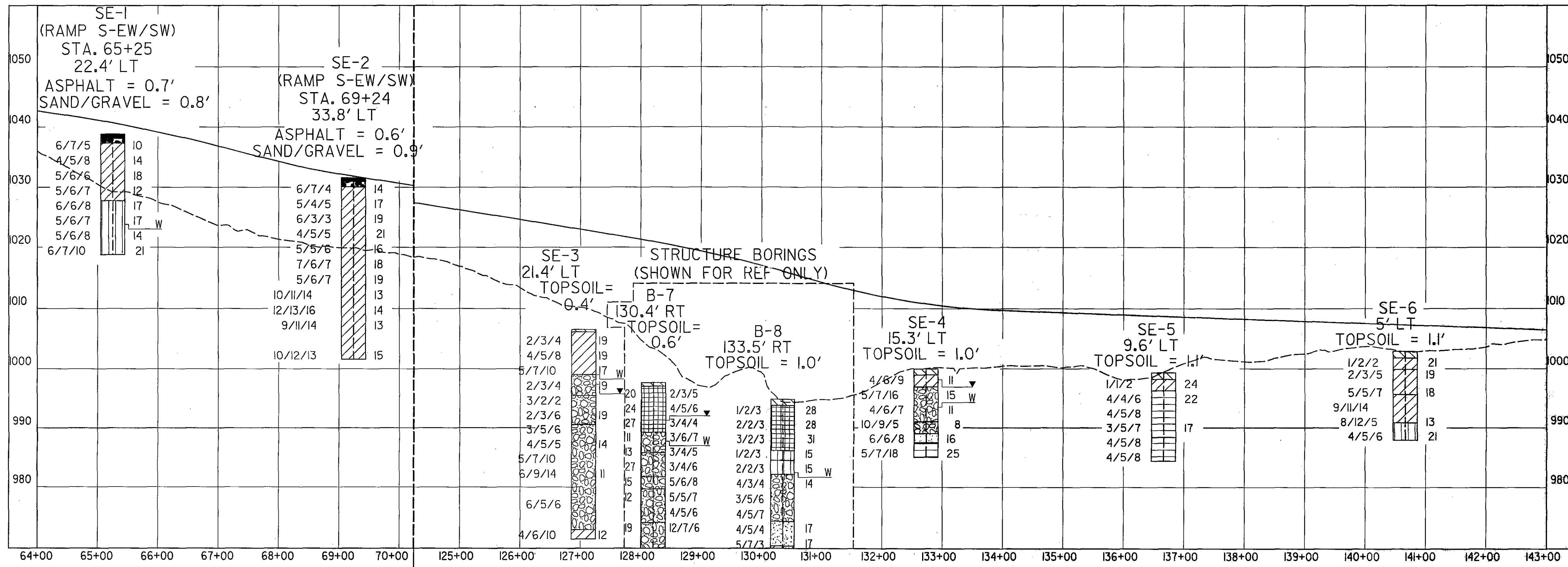
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DATE	REVIEWED
9/20/04	
DATE	DRAWN
9/20/04	KAL

CROSS SECTION STA. 190+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06



DATE	DATE	DATE
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KAL		



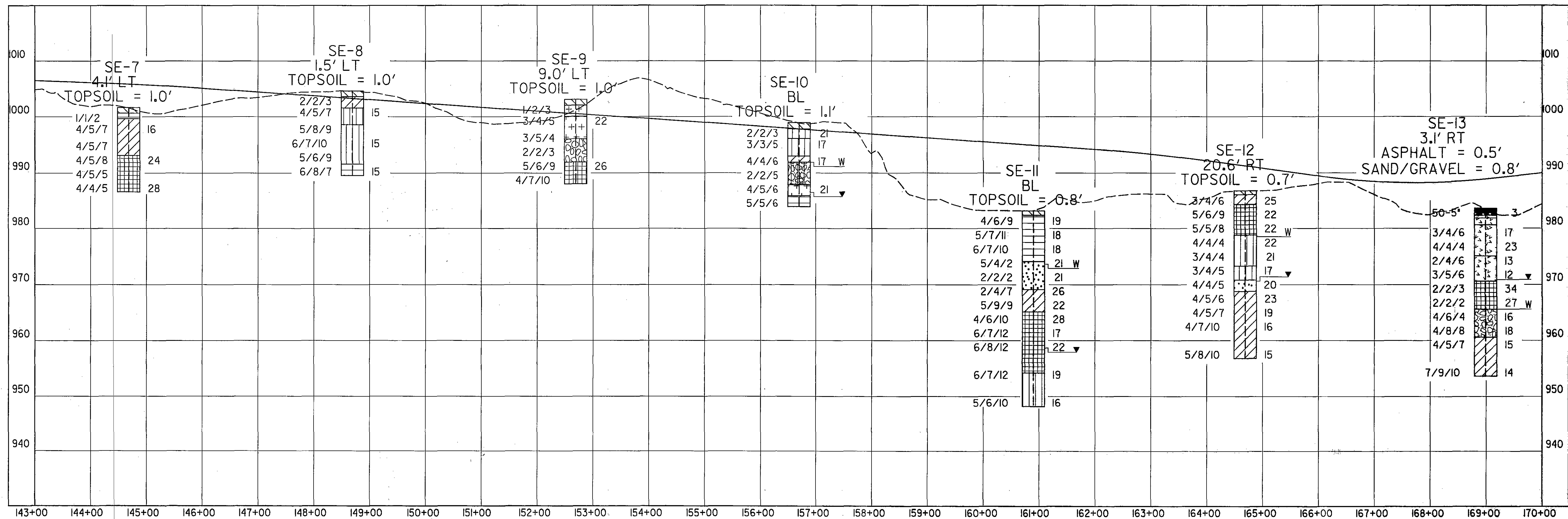
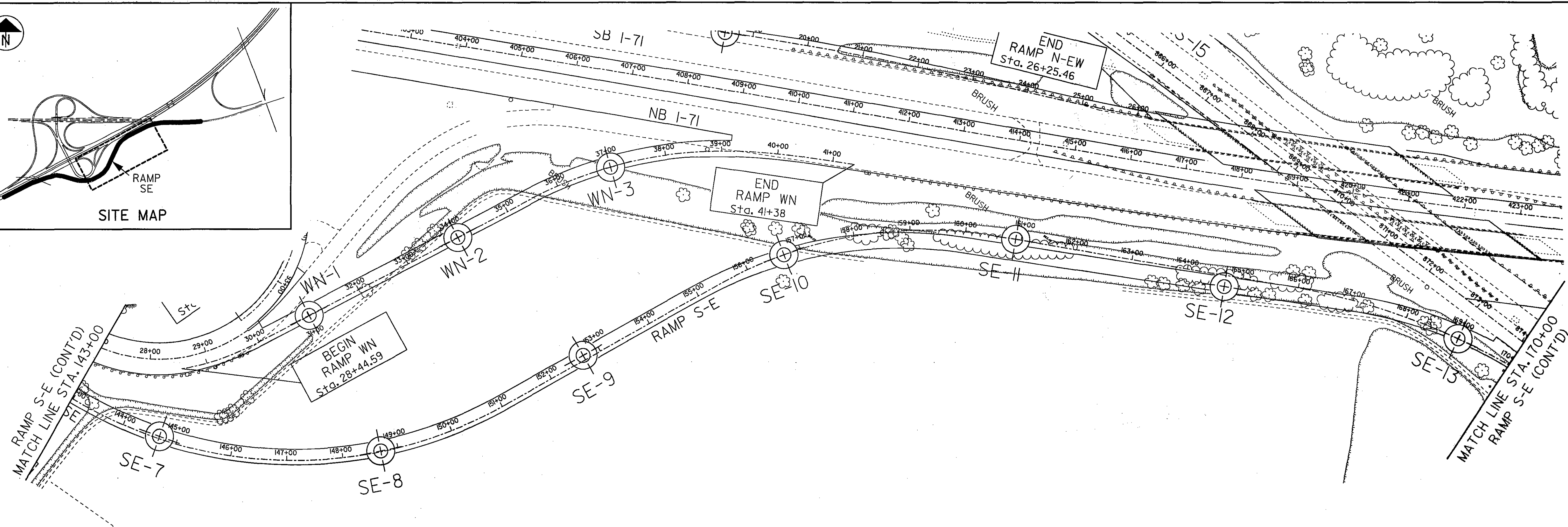
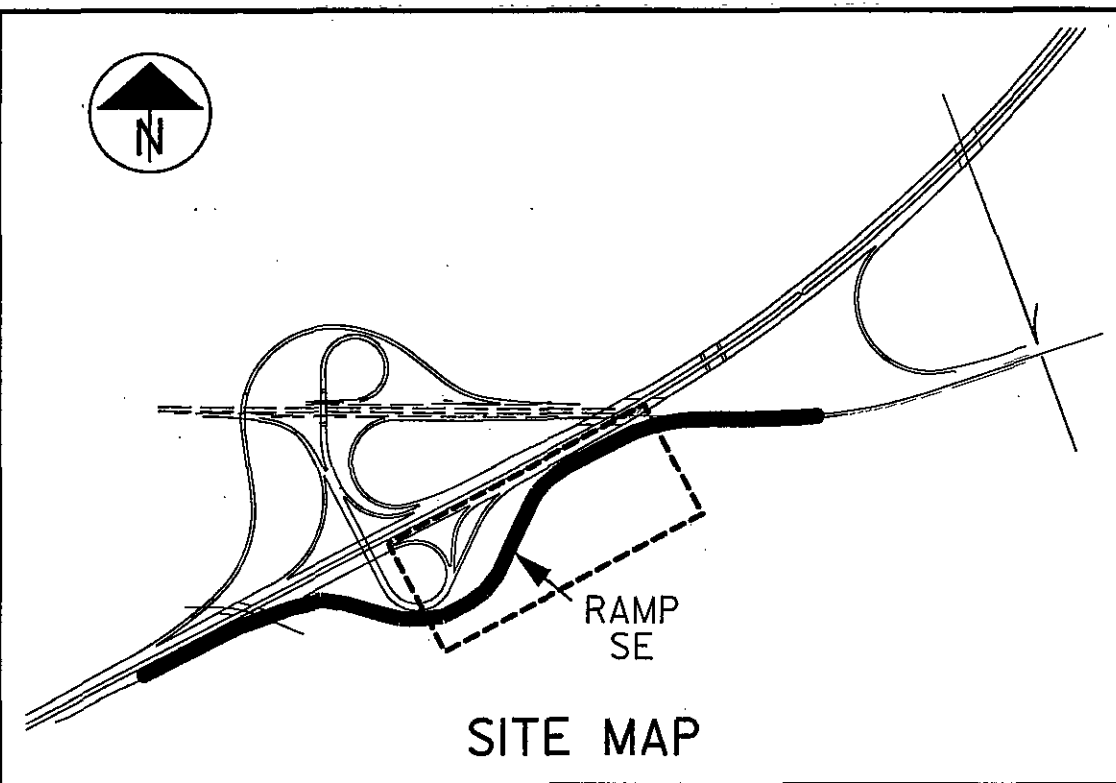
RAMP S-EW PROFILE
(FOR REFERENCE)

RAMP S-EW
STA. 70+23.73
BEGIN RAMP SE
STA. 124+23.73

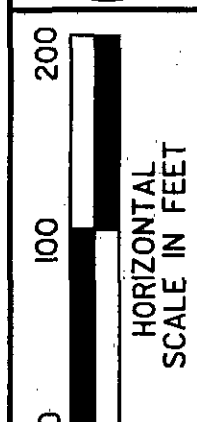
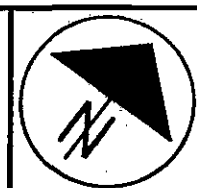
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RAMP S-EW/SE - STA. 64+00 TO STA. 143+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06



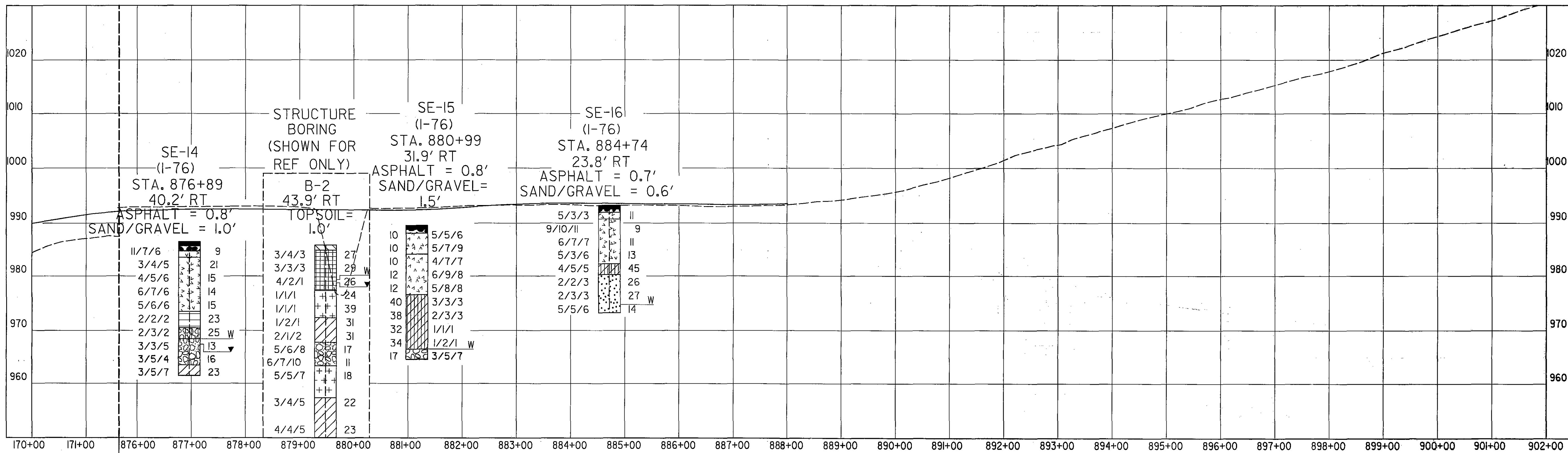
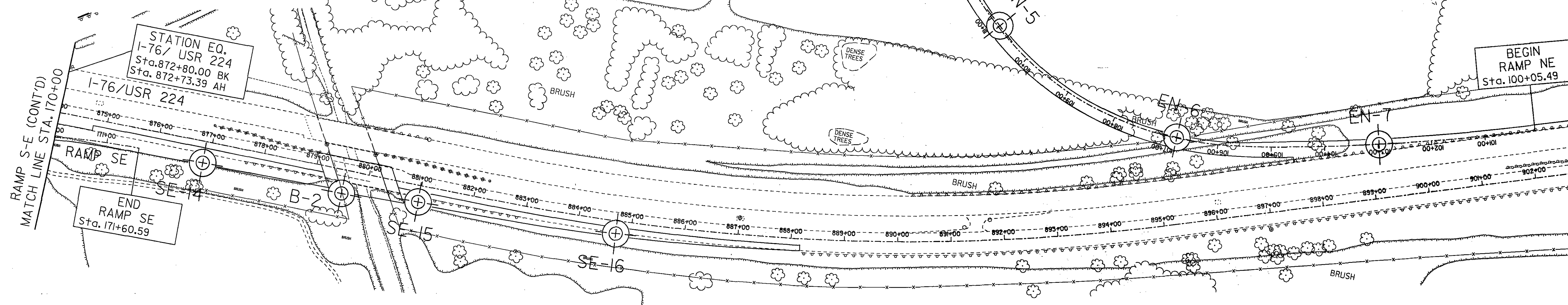
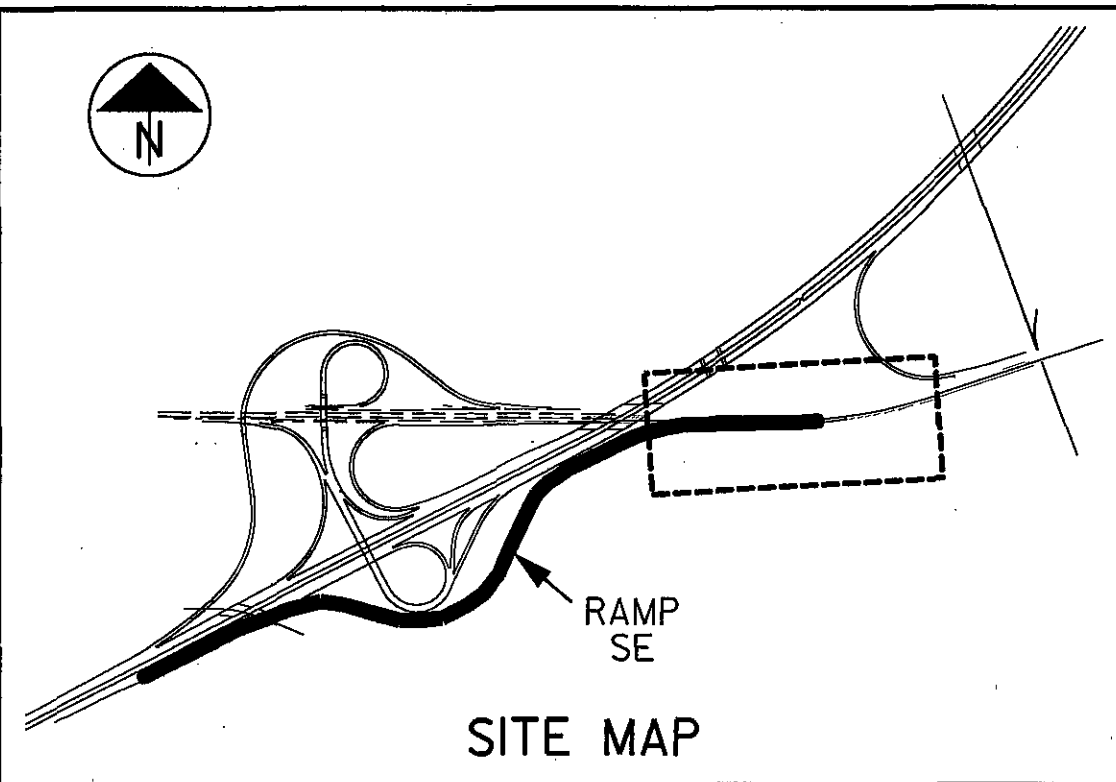
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DATE	9/20/04	DATE	9/20/04
REVIEWED		CHECKED	GPH
DRAWN	KAL		

(CONT'D) RAMP SE - STA. 143+00 TO STA. 170+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06



(CONT'D)
RAMP S-E
PROFILE

END RAMP SE
STA. 171+60.59
BEGIN I-76
STA. 875+66.63

I-76 PROFILE
(FOR REFERENCE)

200
100
0
HORIZONTAL SCALE IN FEET

DATE 9/20/04
CHECKED GPH

DATE 9/20/04
CHECKED GPH

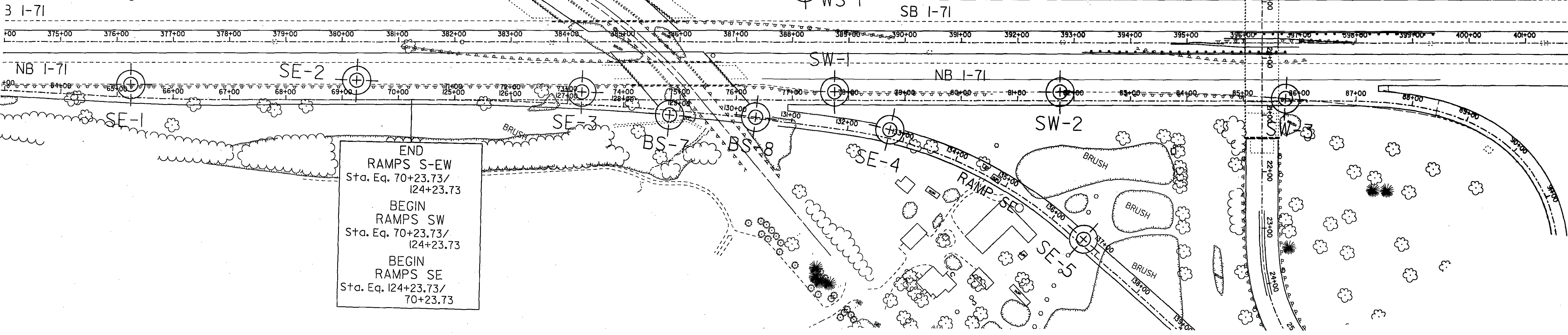
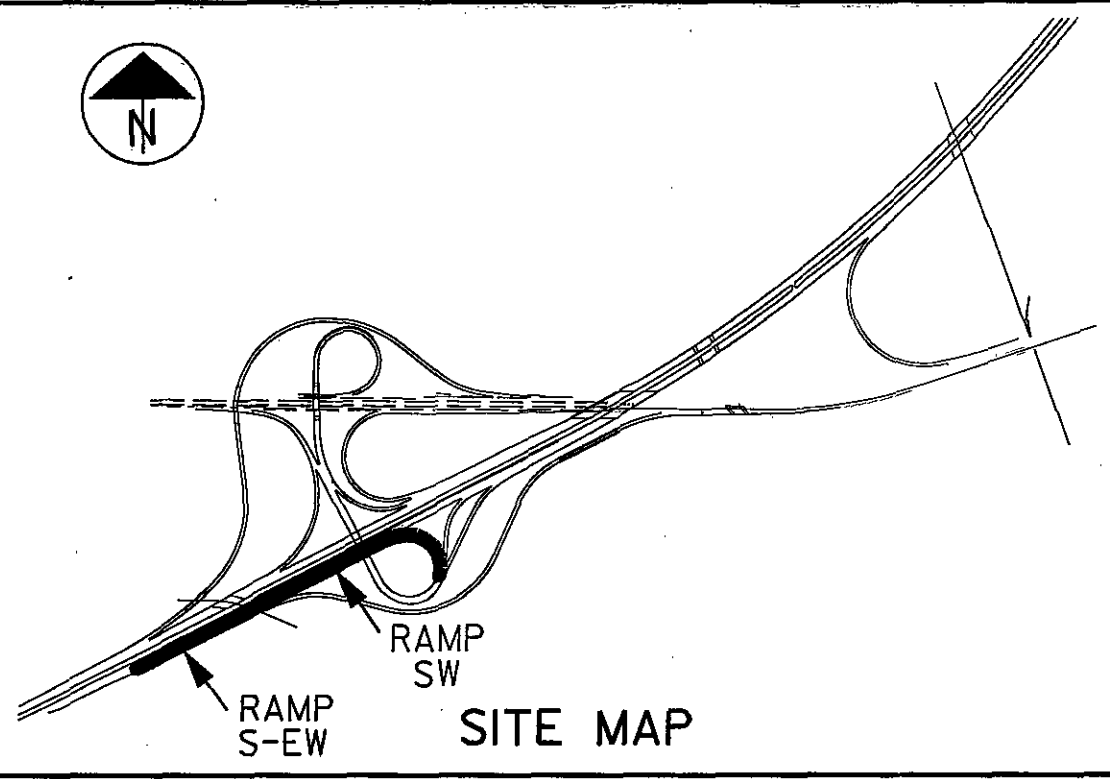
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DRAWN KAL

(CONT'D) RAMP SE/I-76 - STA. 171+60.59+00 TO STA. 902+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

24/31

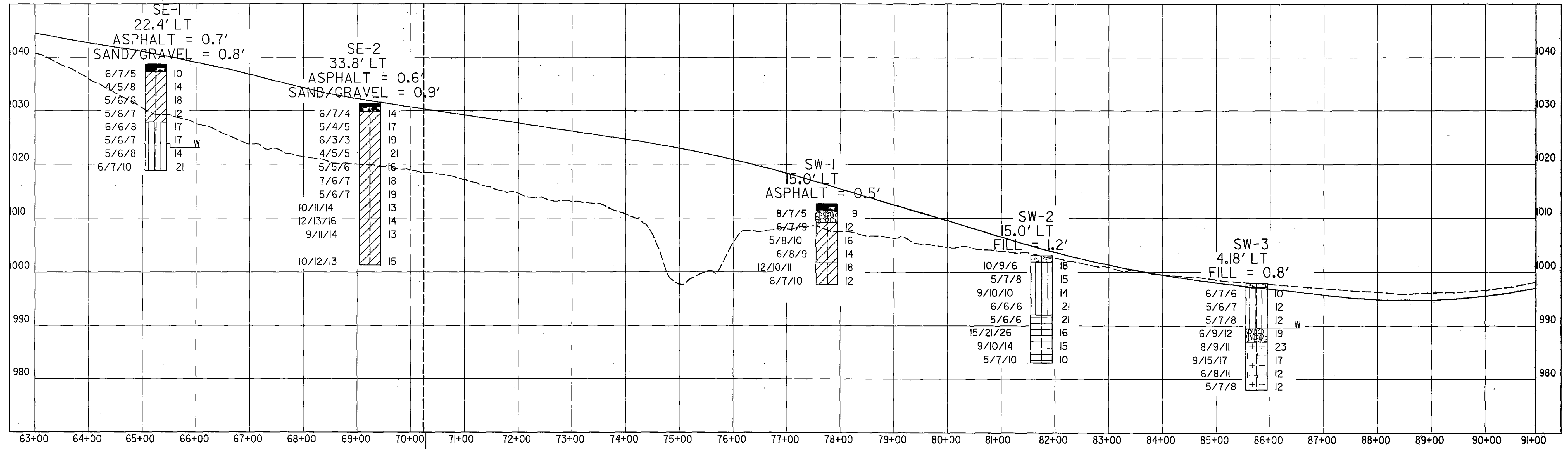
34
71



END RAMP S-EW
Sta. Eq. 70+23.73/
124+23.73
BEGIN RAMP SW
Sta. Eq. 70+23.73/
124+23.73
BEGIN RAMP SE
Sta. Eq. 124+23.73/
70+23.73

BEGIN RAMP WS
Sta. 26+51.58

END RAMP NS-W
Sta. 39+18.49



DATE	DATE	DATE
9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	GPH

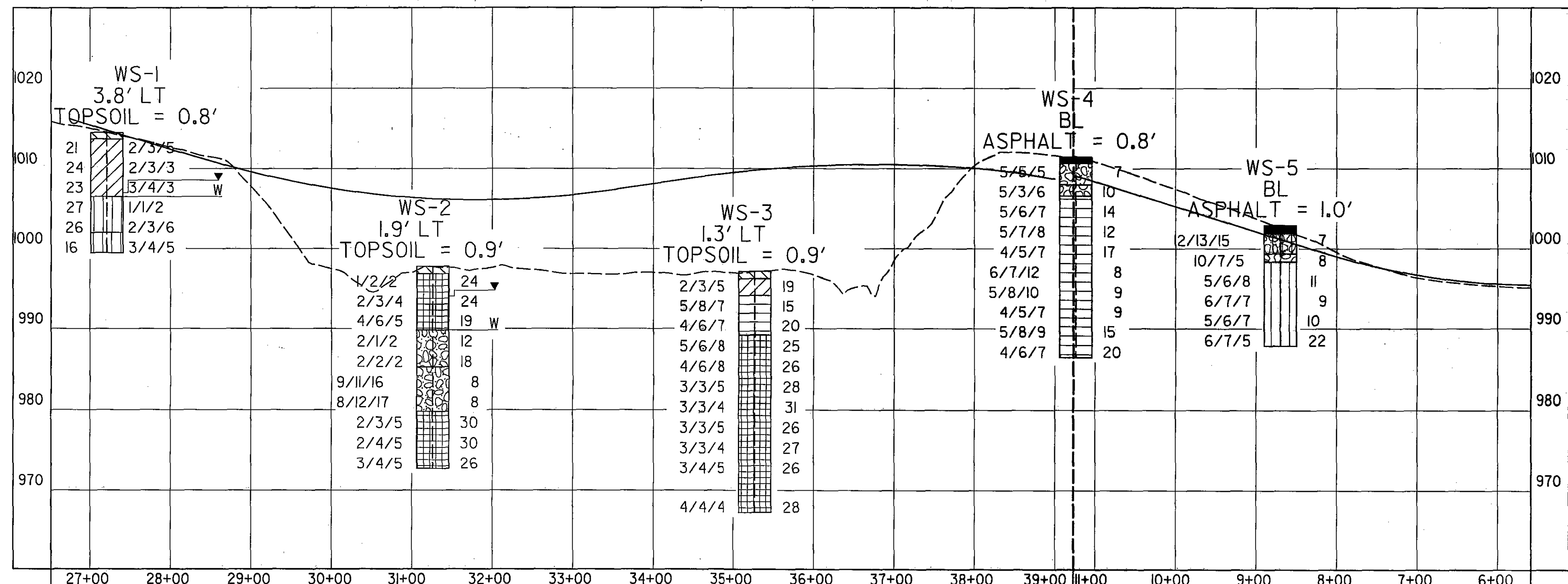
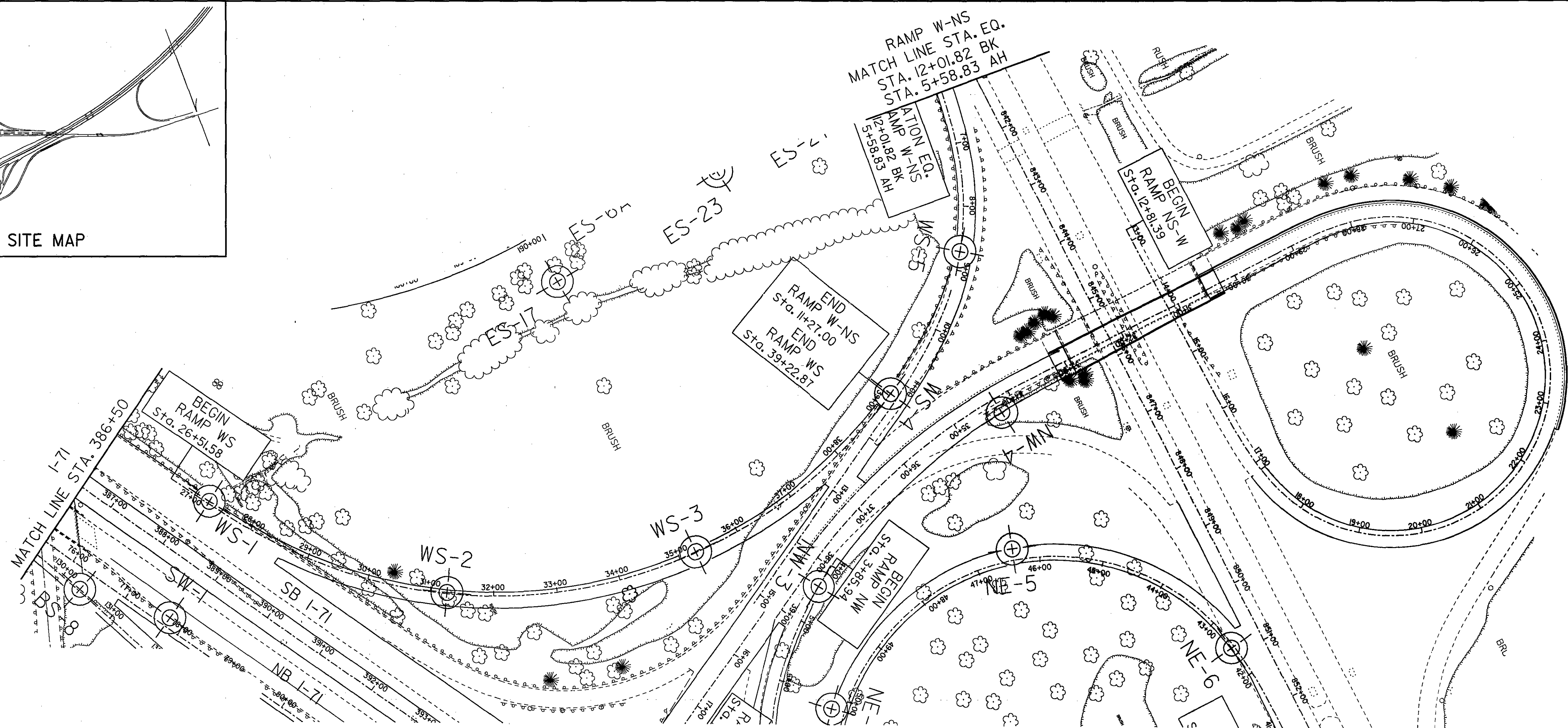
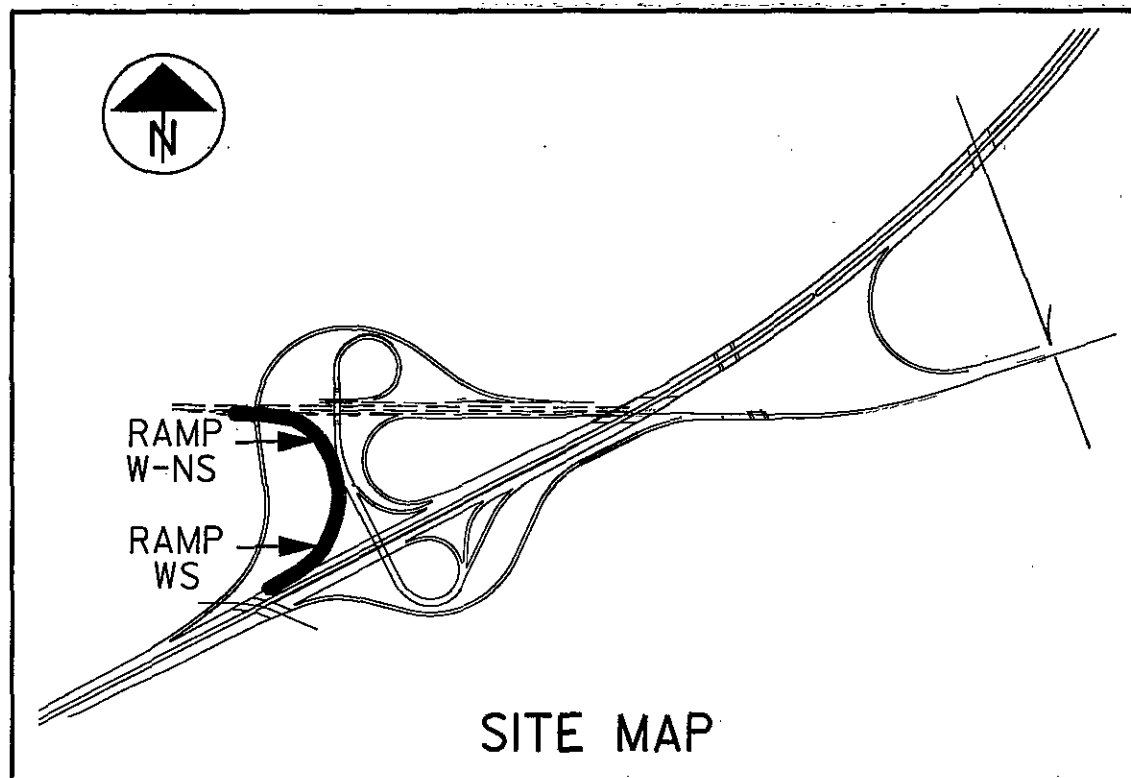
DRAWN
KAL

STA. 15+00 TO STA. 41+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

25/31

35
71



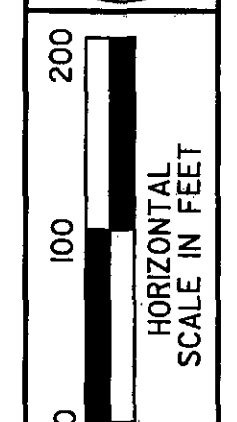
BEGIN RAMP WS
STA. EQ. 26+51.58

RAMP WS
PROFILE

END RAMP W-NS
STA. 11+27.00
END RAMP WS
STA. 39+22.87

RAMP W-NS
PROFILE

STATION EQUATION
RAMP W-NS
STA. 12+01.82 BK
STA. 5+58.83 AH



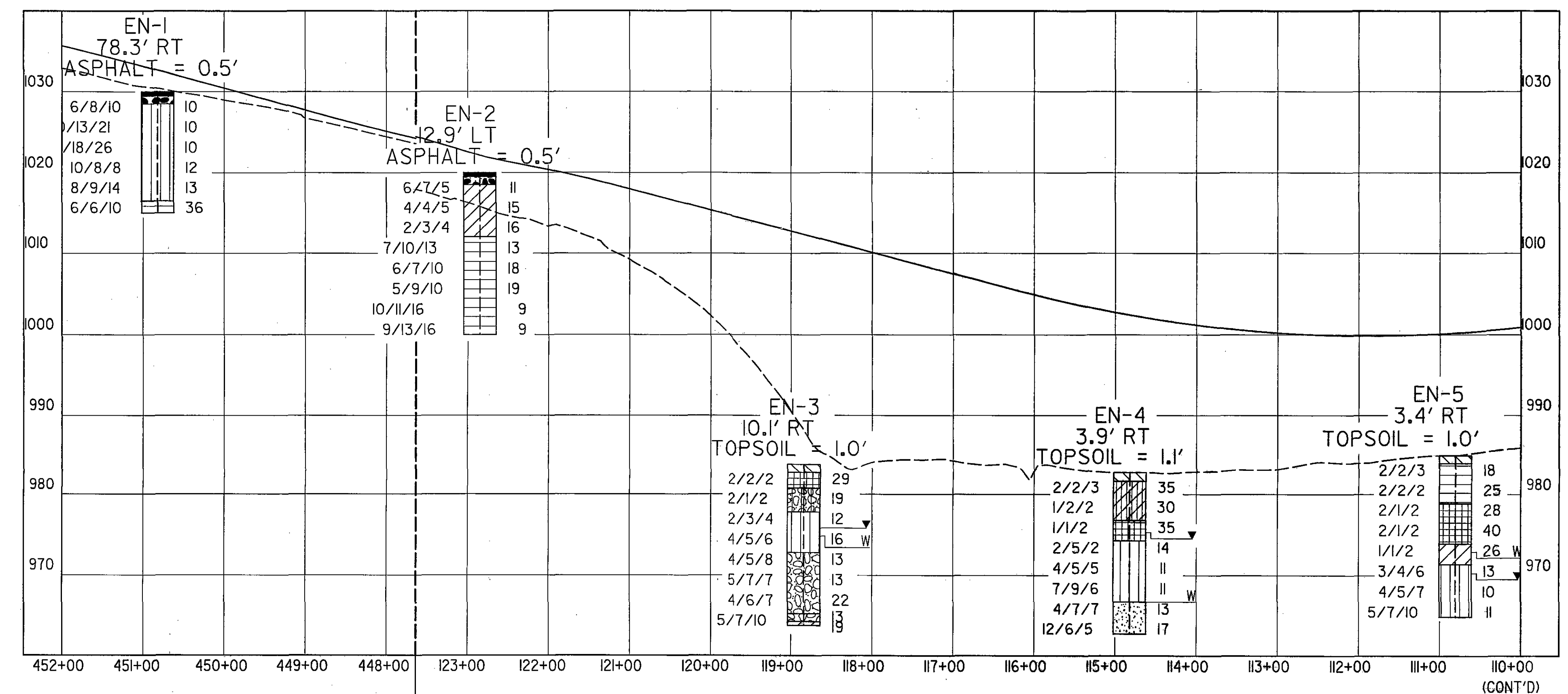
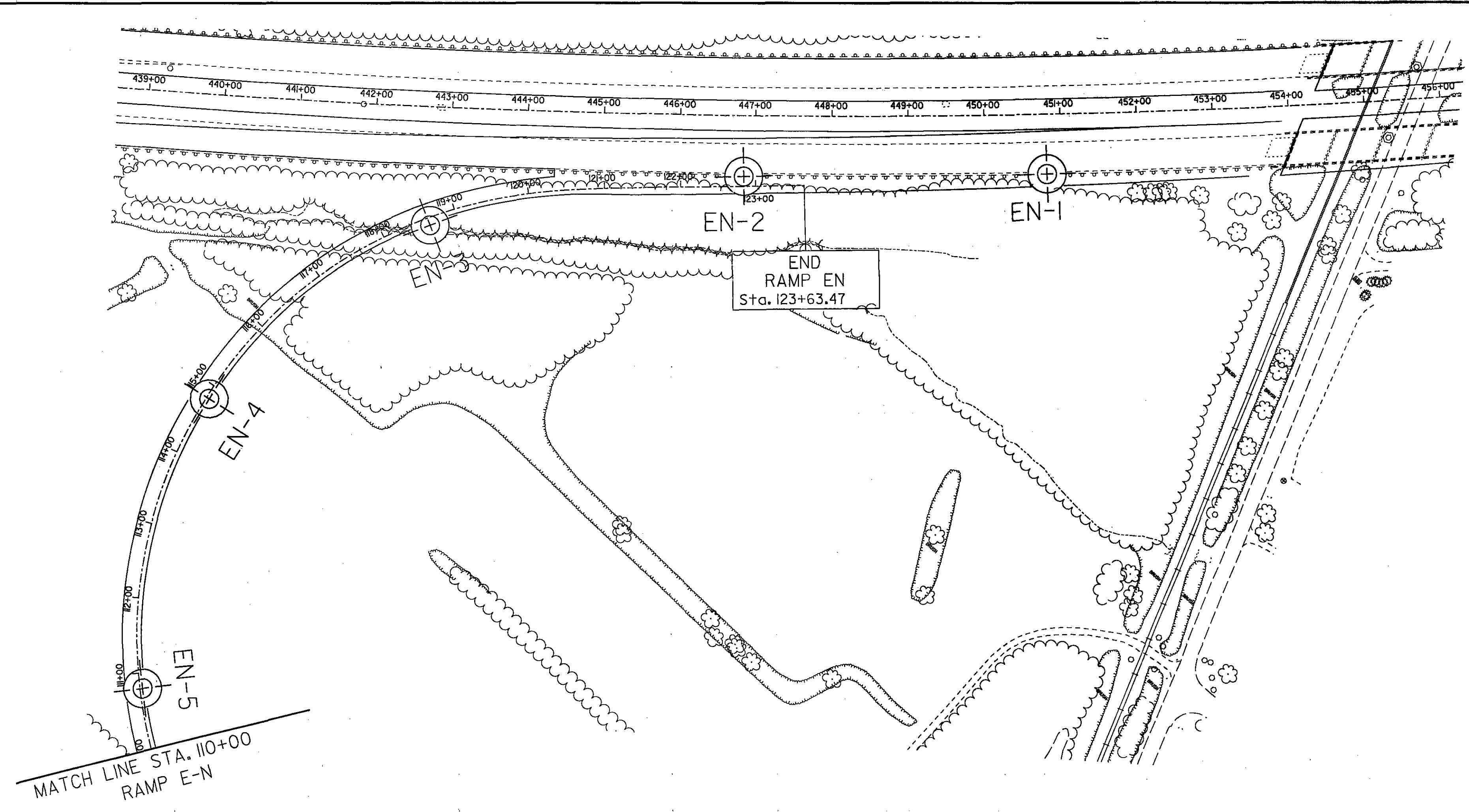
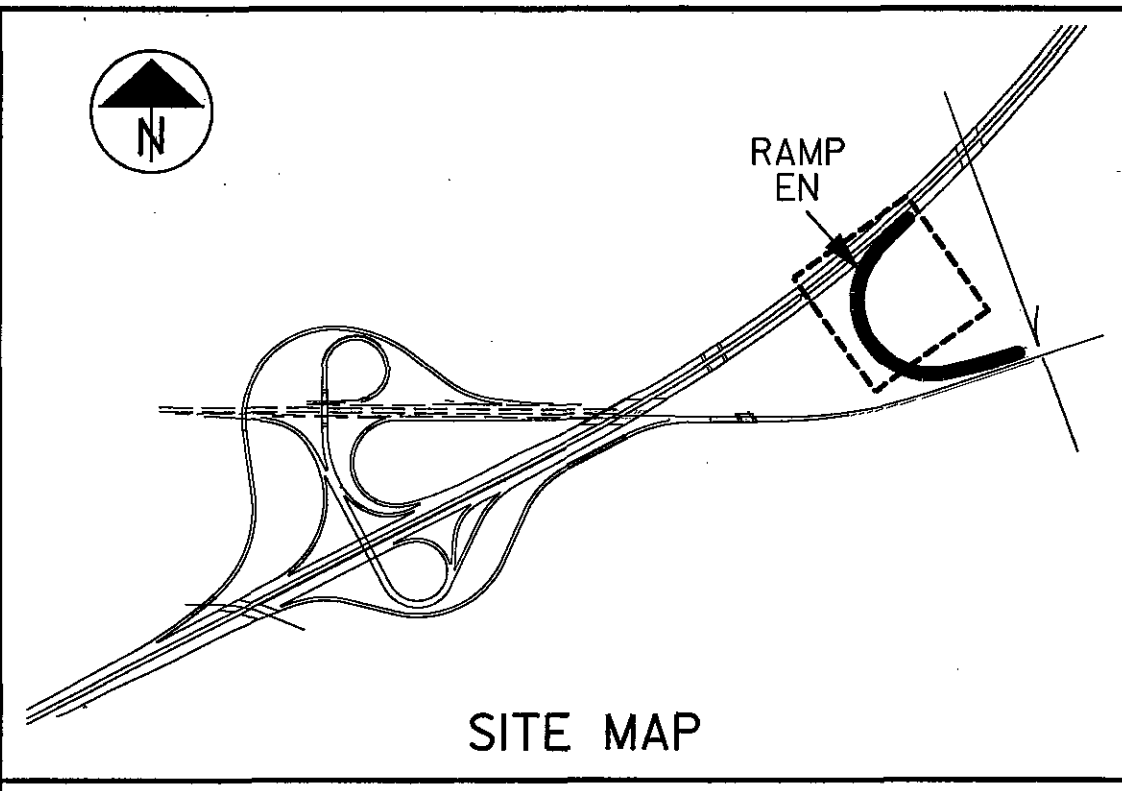
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9/20/04	9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	CHECKED	CHECKED
KAL	KAL	KAL	KAL

RAMP WS/W-NS - STA. 26+51.58 TO STA. 5+58.83
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

26 / 31

36
71



I-71 PROFILE
(FOR REFERENCE)

END RAMP EN
STA. 123+67.47
PARTIAL I-71
STA. 447+63.47

RAMP EN
PROFILE

(CONT'D)

HORIZONTAL SCALE IN FEET

 0 100 200

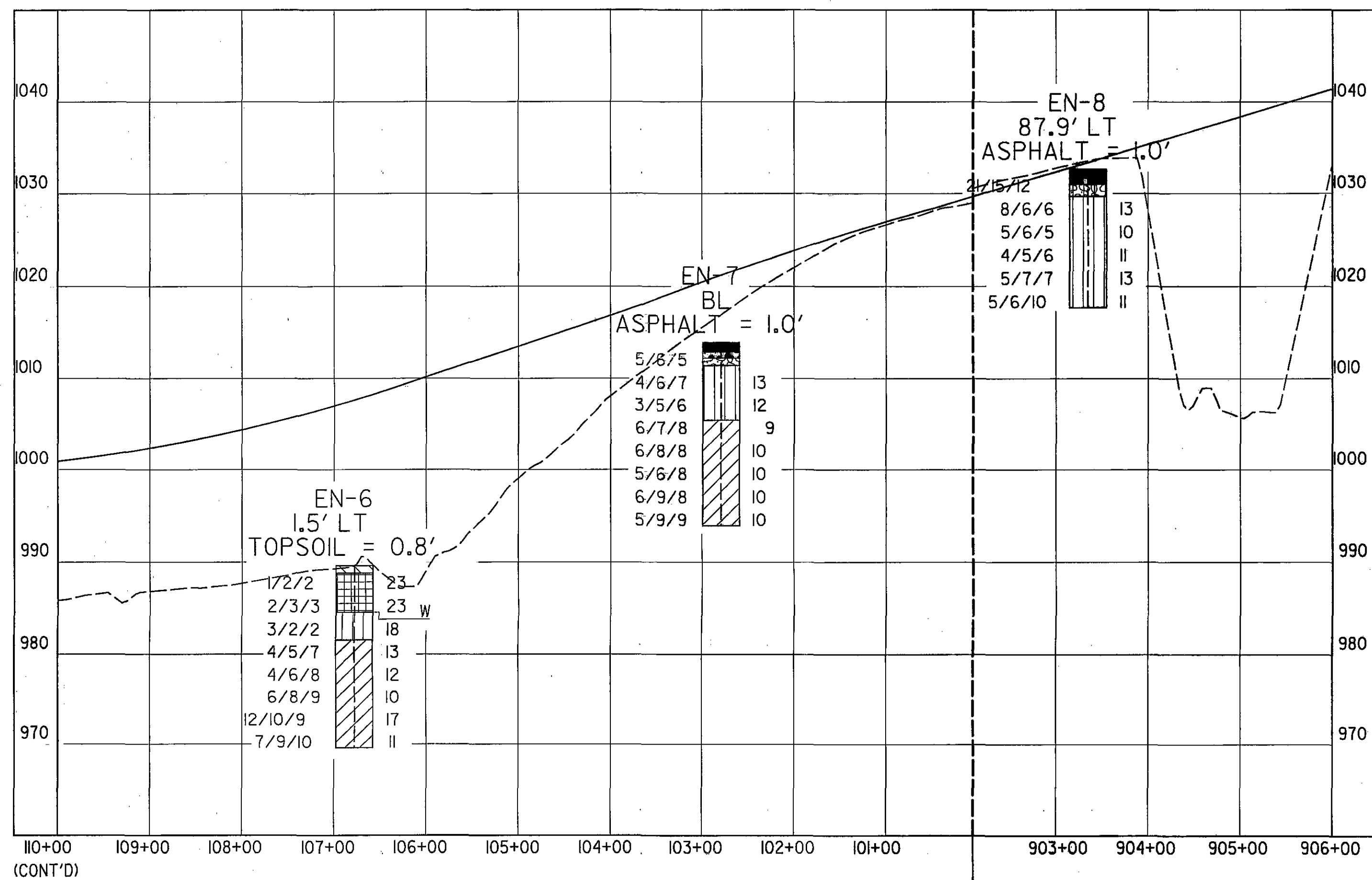
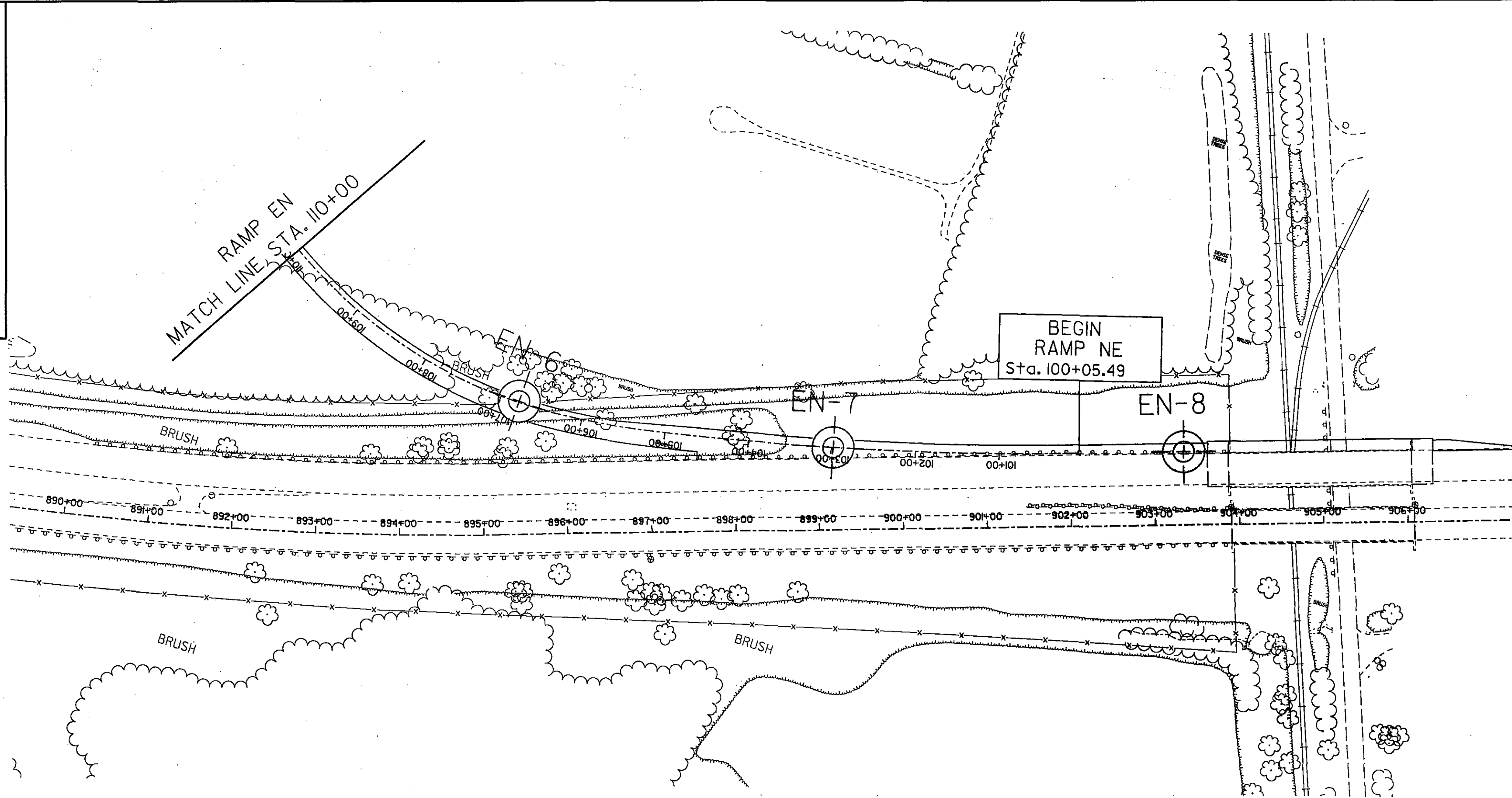
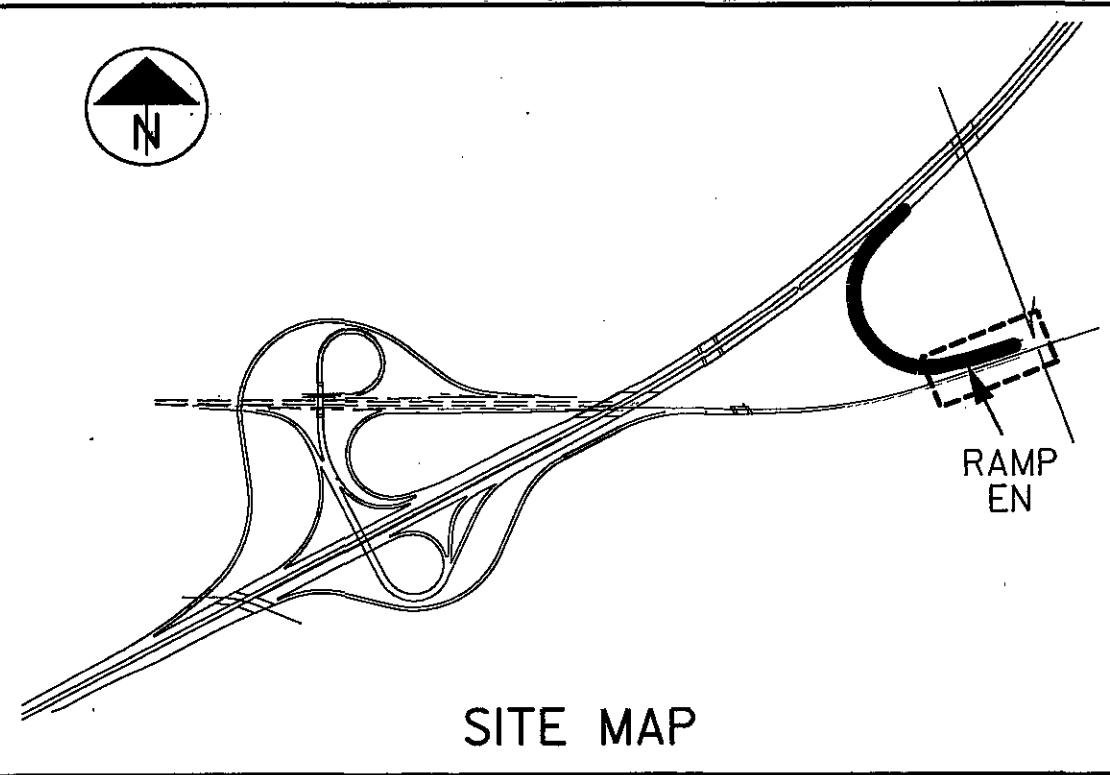
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9/20/04	9/20/04	9/20/04	9/20/04
REVIEWED	CHECKED	CHECKED	CHECKED
DRAWN	DRAWN	DRAWN	DRAWN
KAL	KAL	KAL	KAL

I-71/ RAMP EN STA. 452+00 TO STA. 110+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

27 / 31

37
71

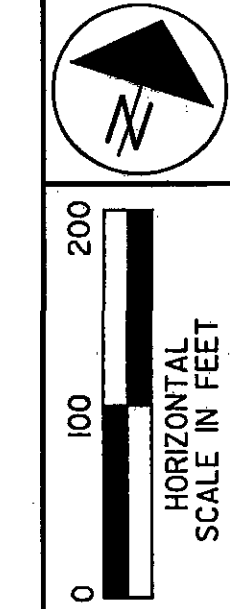


(CONT'D)

RAMP EN
PROFILE

END RAMP EN
STA. 100+05.49
PARTIAL I-71
STA. 902+10.09

I-76 PROFILE
(FOR REFERENCE)



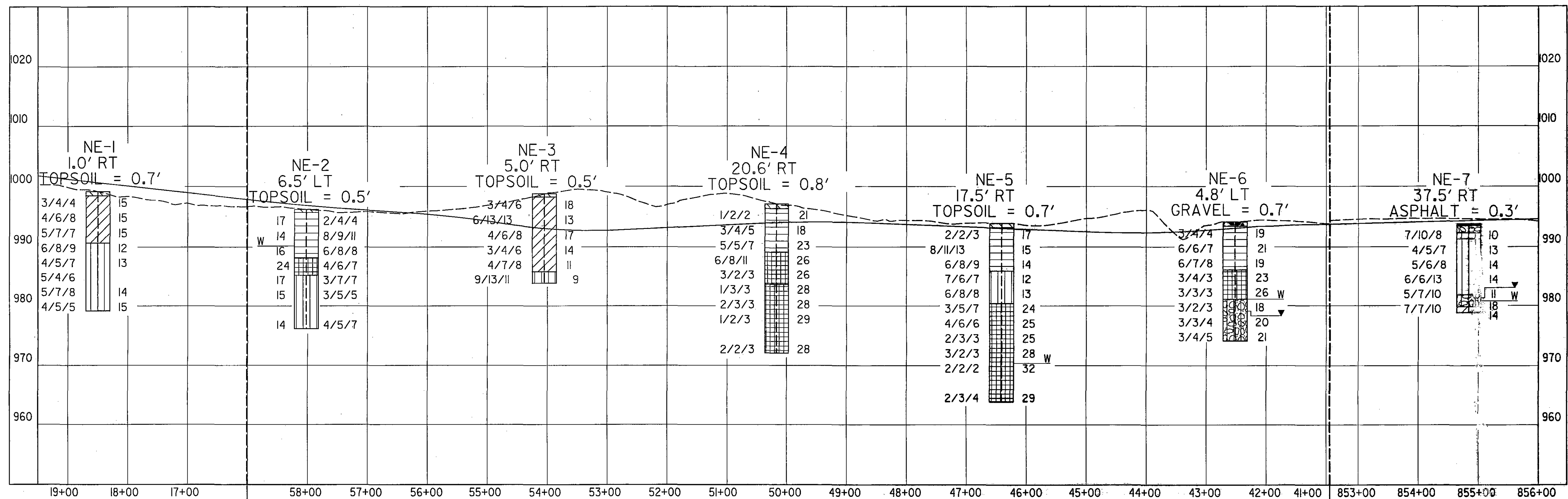
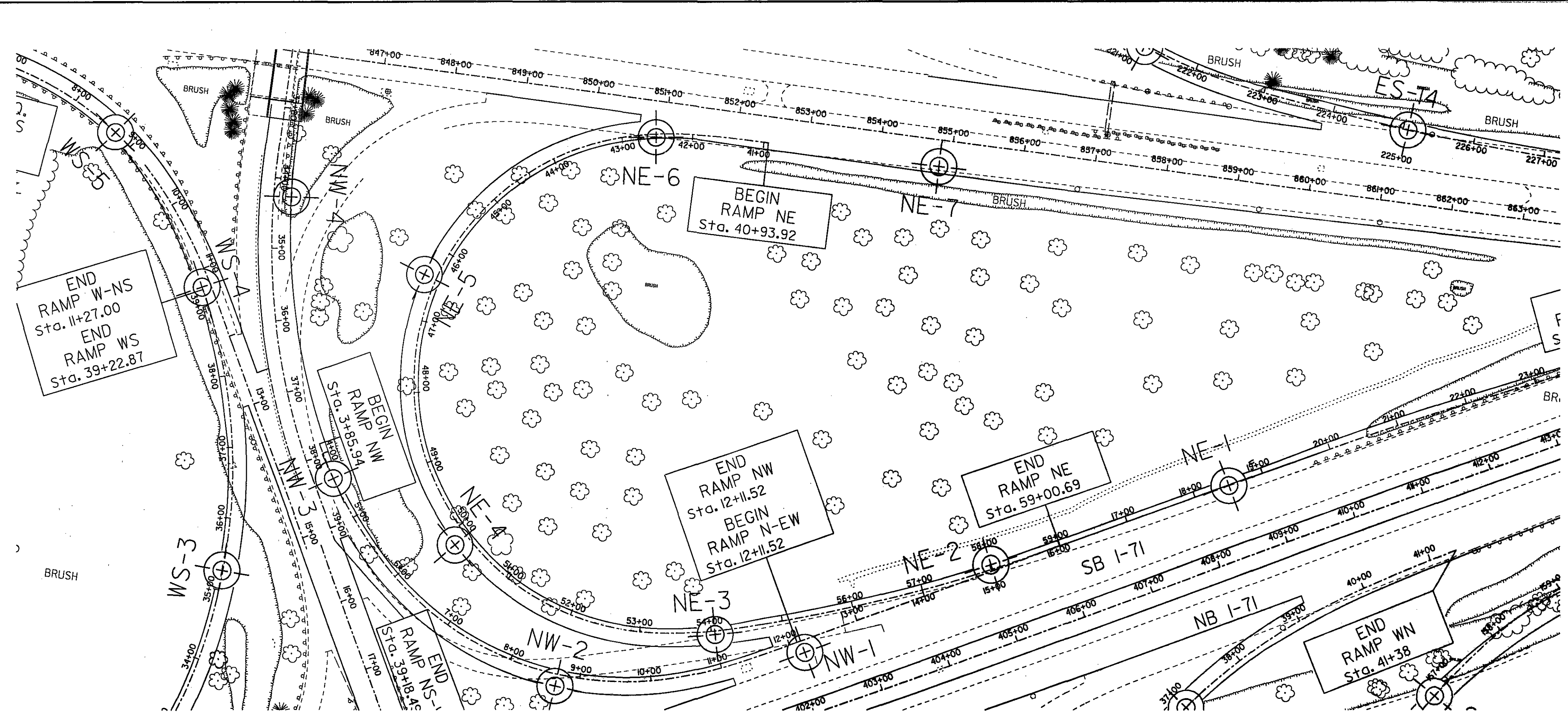
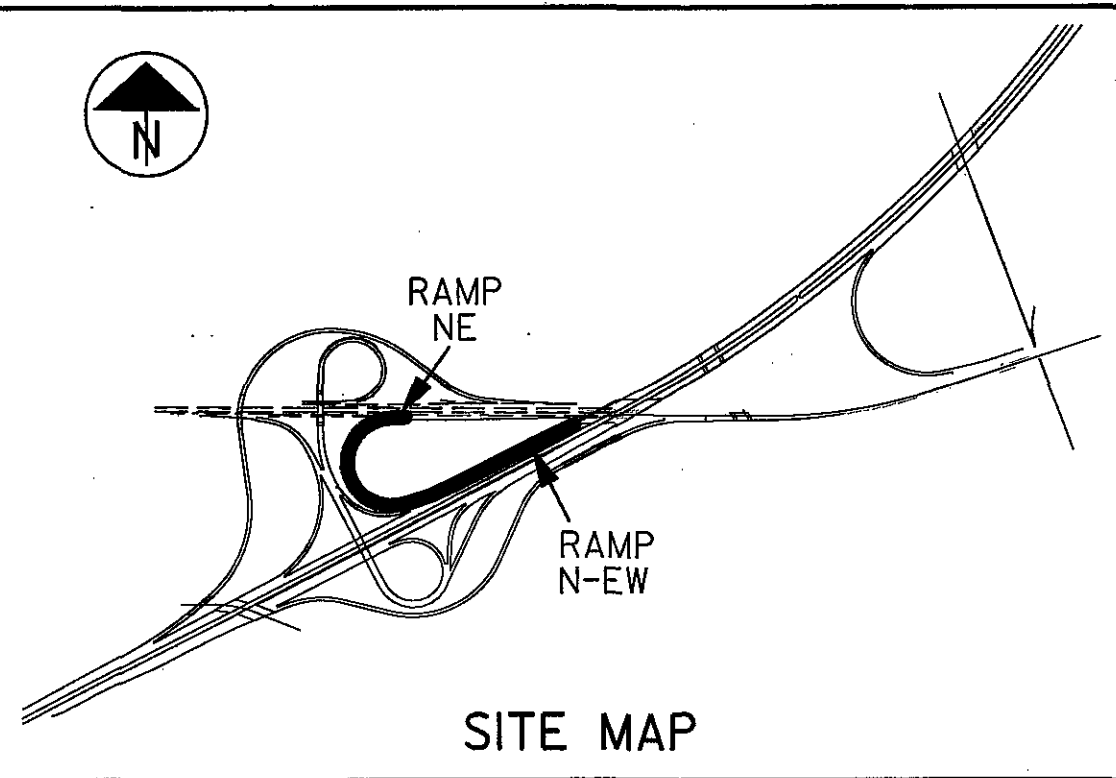
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REVIEWED		CHECKED	GPH
DRAWN	KAL		

RAMP EN/I-76 - STA. 110+00 TO STA. 906+00
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

28 / 31

38
71



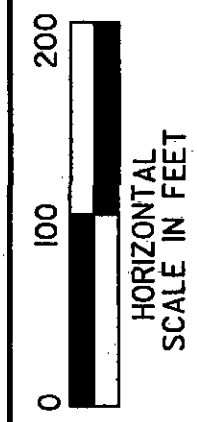
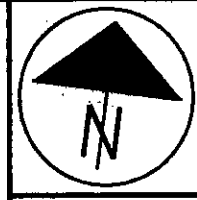
RAMP N-EW
PROFILE
(FOR REFERENCE)

PARTIAL RAMP N-EW
STA. 16+00.69
BEGIN RAMP NE
STA. 59+00.69

RAMP NE
PROFILE

RAMP NE
STA. 40+93.92
PARTIAL USR 224
STA. 852+45.04

USR 224
PROFILE
(FOR REFERENCE)



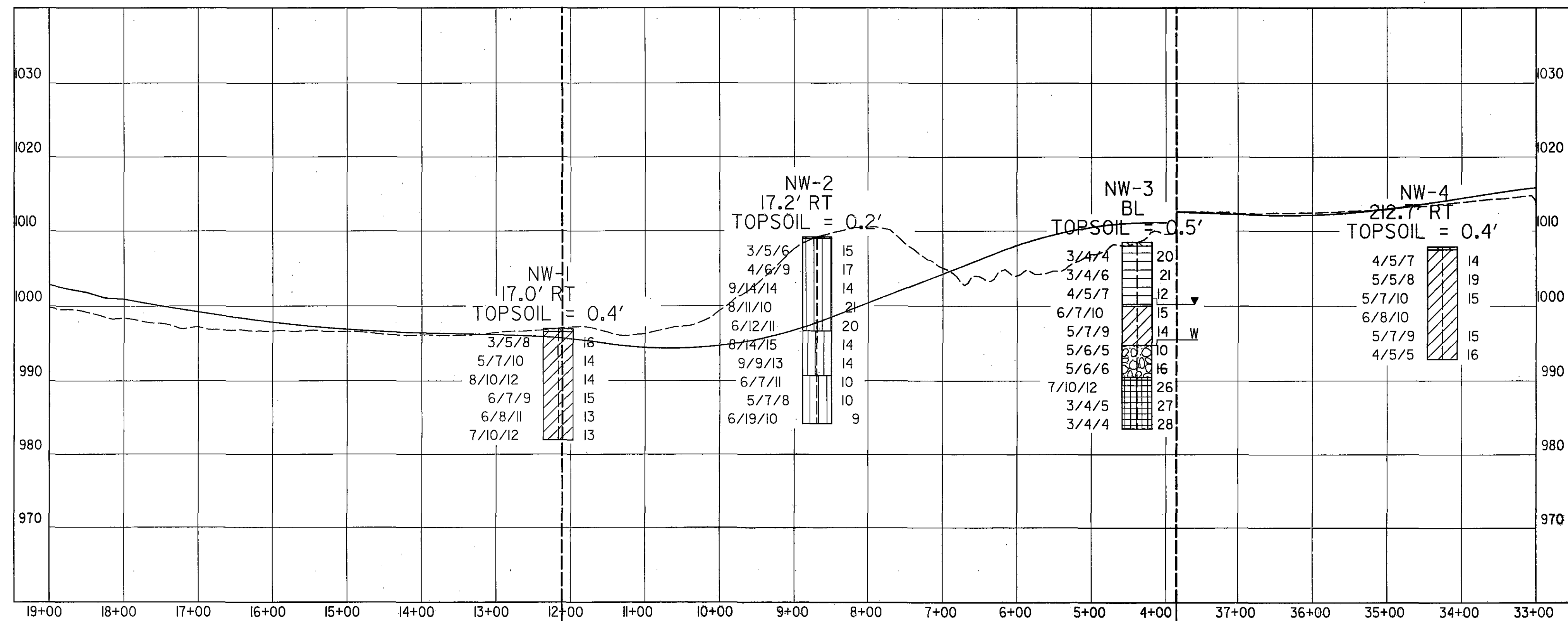
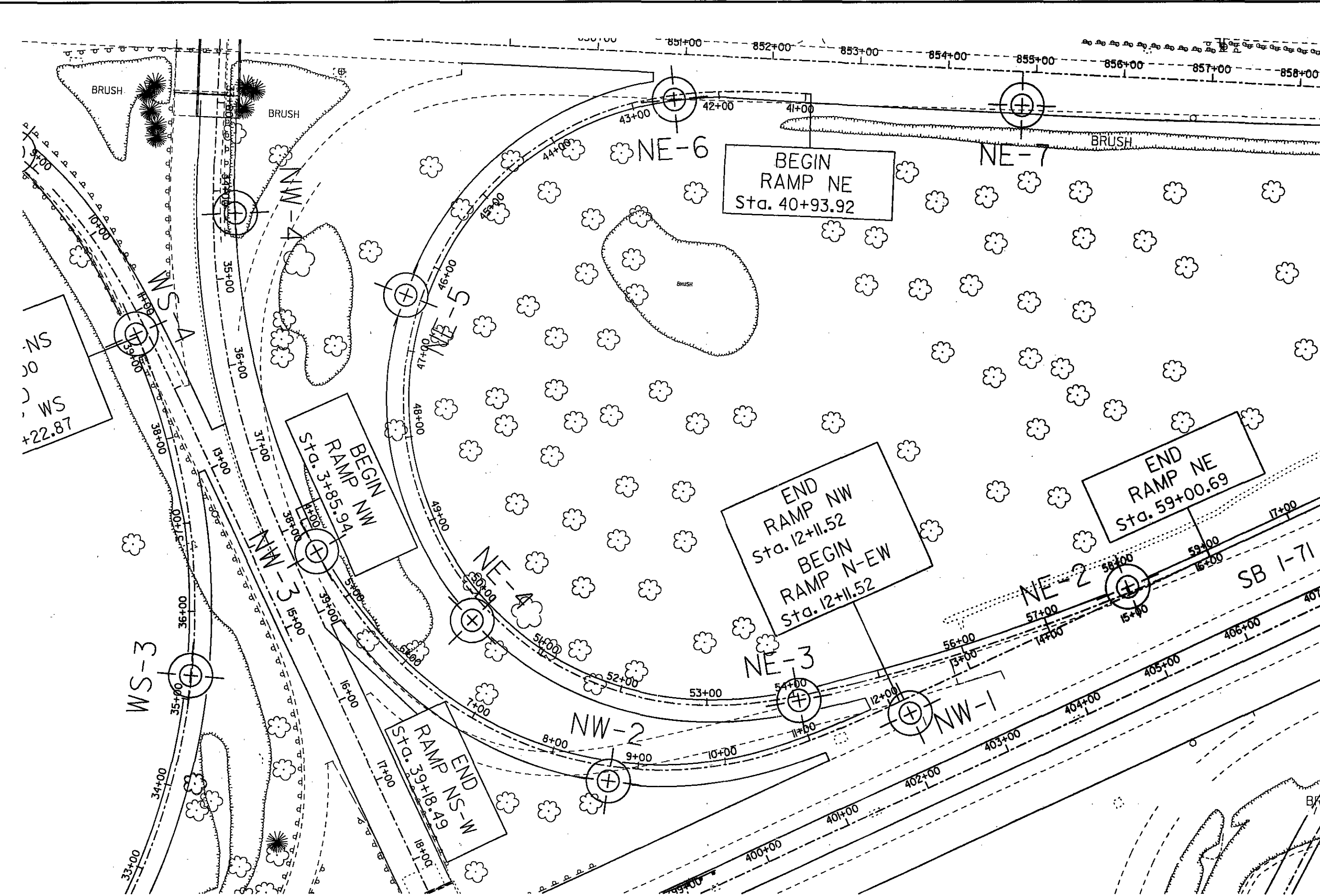
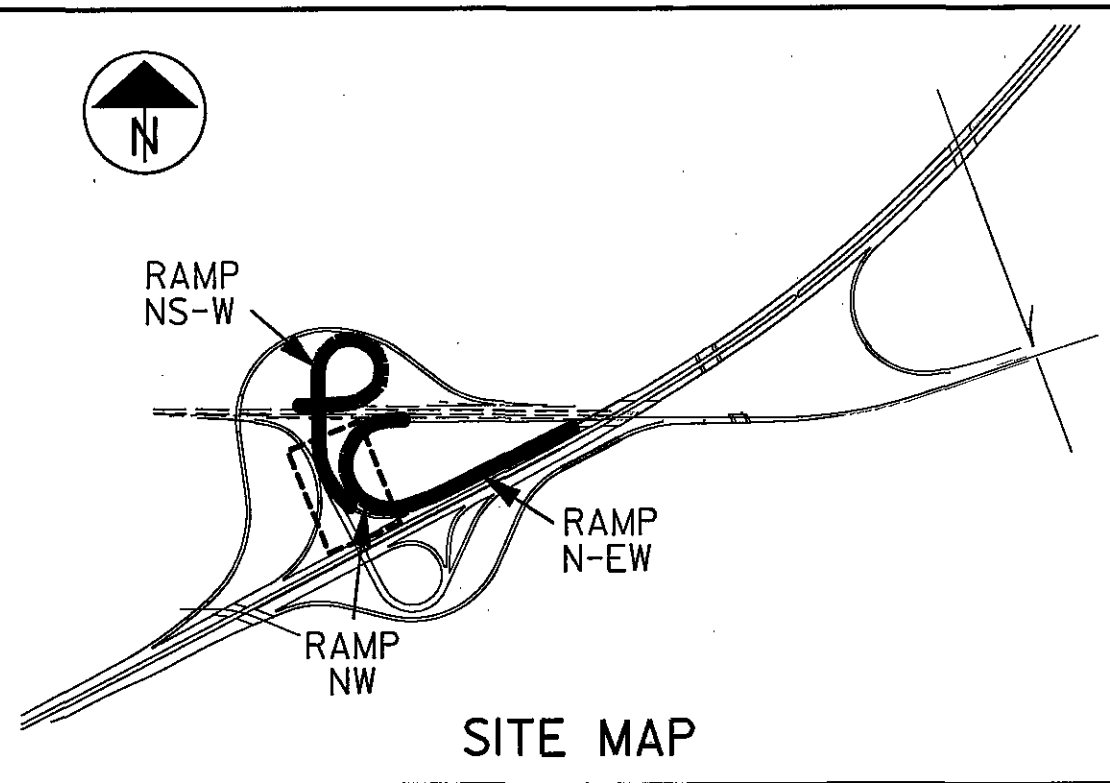
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9/20/04	GPH
DATE	CHECKED
9/20/04	GPH
REVIEWED	
DRAWN	KAL

RAMP NE - STA. 40+93.92 TO STA. 59+00.69
SOIL PROFILE

MEDINA COUNTY
MED-71-6.06

29/31

39
71



RAMP N-EW PROFILE

STATION EQUATION
END RAMP NW
BEGIN RAMP N-EW
STA. 12+11.52

RAMP NW PROFILE

PARTIAL RAMP NS-W
STA. 37+82.39
RAMP NW
STA. 3+85.94

RAMP NS-W PROFILE
(FOR REFERENCE)

DATE: 9/20/04
CHECKED: GPH

DATE: 9/20/04
CHECKED: GPH

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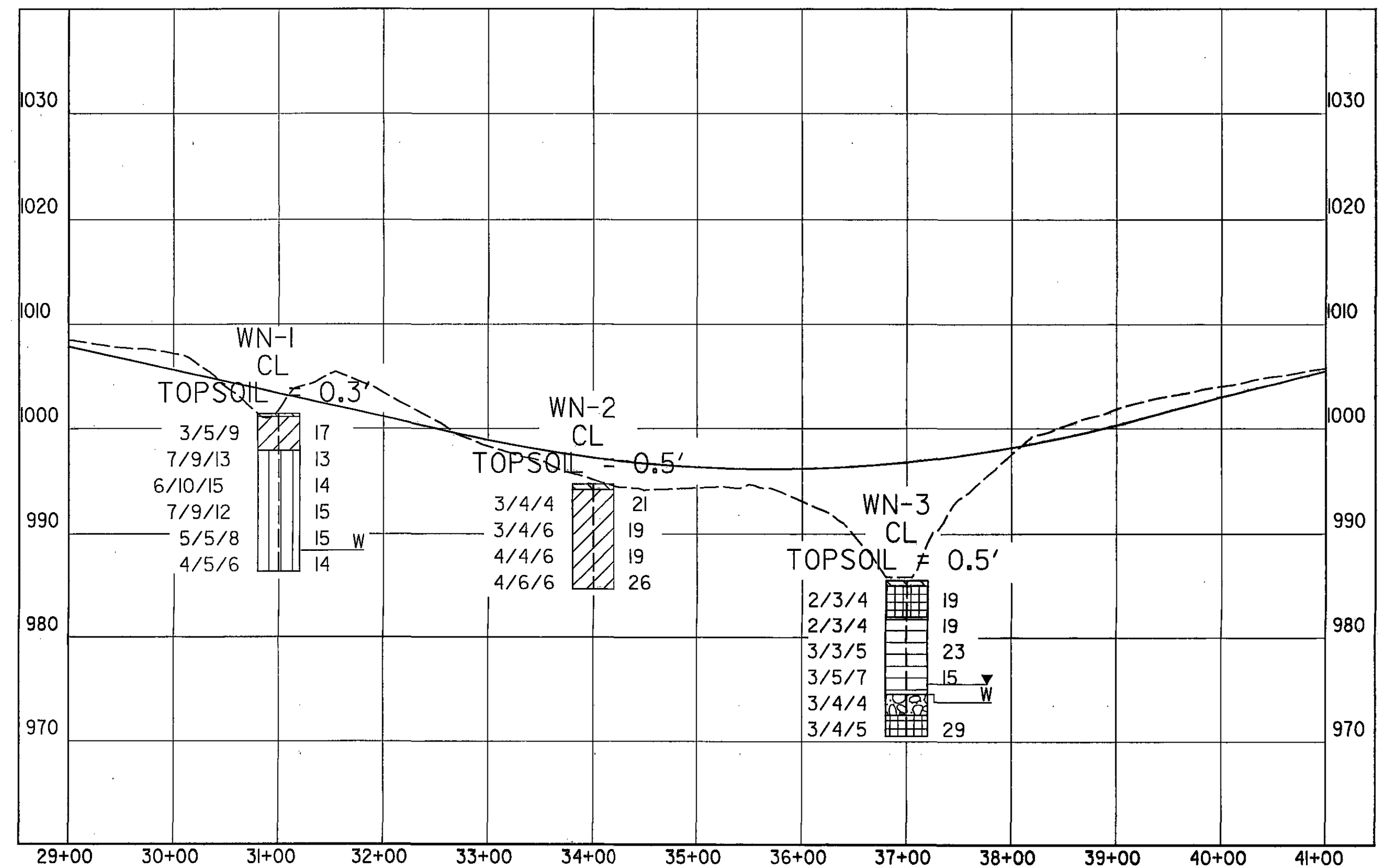
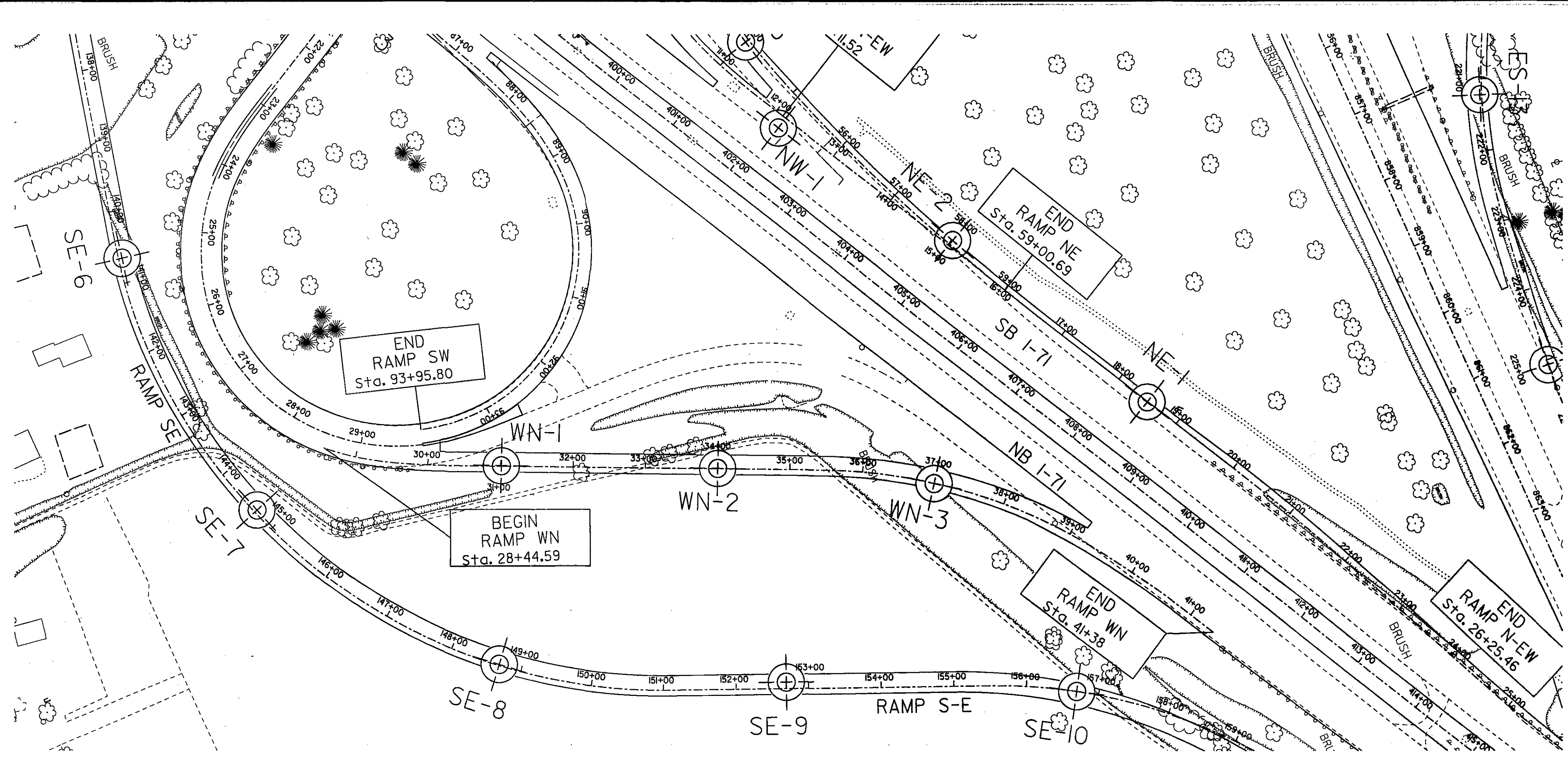
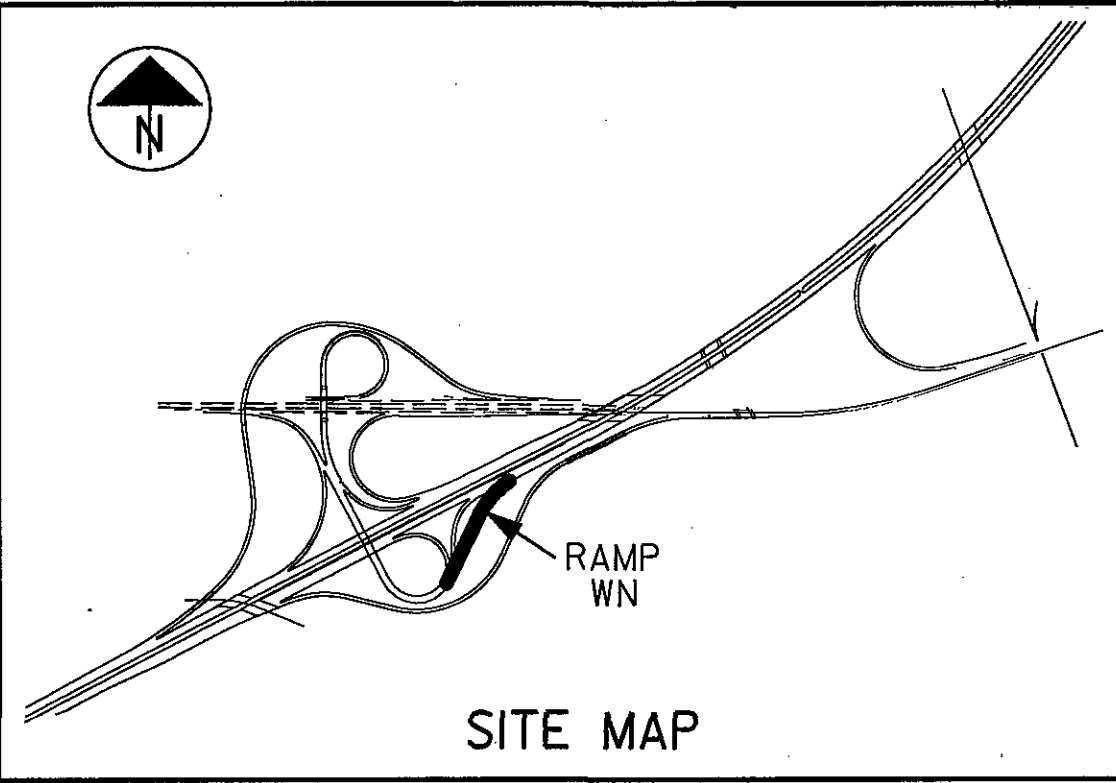
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RAMP NE - STA. 40+93.92 TO STA. 59+00.69
SOIL PROFILE

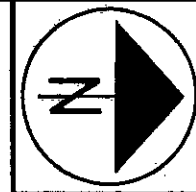
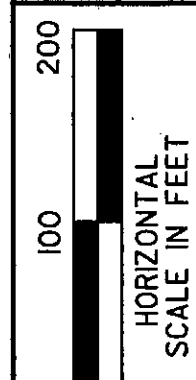
MEDINA COUNTY
MED-71-6.06

30/31

40
71



RAMP WN
PROFILE

DATE	9/20/04	DATE	9/20/04
CHECKED	GPH	CHECKED	GPH
REVIEWED		REVIEWED	
DRAWN	KAL	DRAWN	KAL

MEDINA COUNTY
 MED-71-6.06

RAMP WN - STA. 28+44.59 TO STA. 41+38
 SOIL PROFILE

31 / 31
 41 / 71

INTRODUCTION

THE EXISTING INTERCHANGE IS LOCATED IN MEDINA COUNTY, OHIO, APPROXIMATELY ONE (1) MILE WEST OF SEVILLE AND ONE (1) MILE EAST OF WESTFIELD CENTER. THE INTERCHANGE SERVES AS THE WESTERN TERMINUS OF IR 76 AT MILE POST 0. RELATIVE TO IR 71, THE INTERCHANGE IS AT MILE POST 209.

THE PROJECT CONSISTS OF TWELVE (12) NEW, RELOCATED AND/OR IMPROVED RAMPS AND FOUR (4) NEW BRIDGES

RAMP INFORMATION

NO.	TITLE	NO. OF BORINGS	BORING DESIGNATIONS	RAMP LENGTH (FT)
1	ES	37	ES-1 THROUGH ES-15, ES-6A,B,C, ES-7A, ES-8A,B,C, & ES-9A,B 16-17, 22-23, 27, 28-29, 32-33, 36-37, 42-43	5593
2	SE	14	SE-3 THROUGH SE-16	4737
3	S-EW	2	SE-1 & SE-2	986
4	SW	3	SW-1 THROUGH SW-3	2372
5	WS	3	WS-1 THROUGH WS-3	1271
6	W-NS	2	WS-4 & WS-5	568
7	EN	8	EN-1 THROUGH EN-8	2358
8	NE	6	NE-2 THROUGH NE-7	1807
9	N-EW	1	NE-1	1413
10	NW	3	NW-1 THROUGH NW-3	826
11	NS-W	1	NW-4	2637
12	WN	3	WN-1 THROUGH WN-3	1293

BRIDGE INFORMATION

LETTER	TITLE	NO. OF BORINGS	BORING DESIGNATIONS
A	I71 & SE OVER GREENWICH RD	8	B-1 THROUGH B-8
B	SE OVER CHIPPEWA CREEK	4	B-1 THROUGH B-4
C	ES OVER USR 224	7	B-1E THROUGH B-6E & B-1.5E
D	ES OVER GREENWICH ROAD	4	B-9 THROUGH B-12

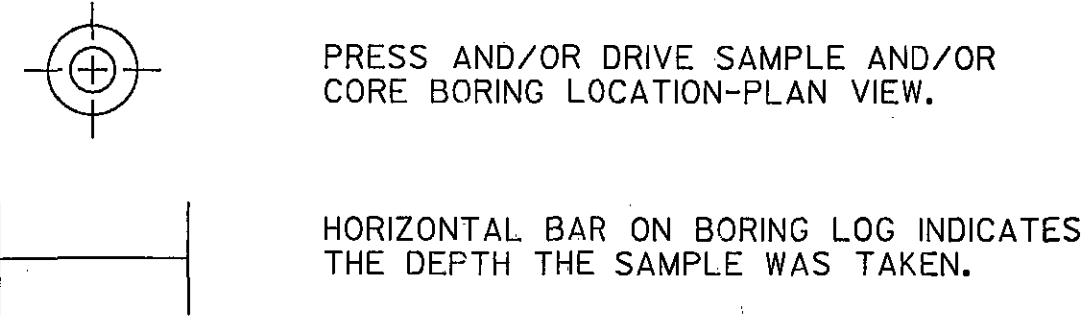
GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE SITE LIES ON THE BORDERLINE OF THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU AND THE GALION GLACIATED LOW PLATEAU. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM END MORAINE, LAKE-PLANED MORAINE, GROUND MORAINE, AND OUTWASH DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. GLACIAL TILL OR MORAINES CONSIST OF DEBRIS DEPOSITED BY THE GLACIER ACROSS THE LAND SURFACE AS THE GLACIERS RETREAT. OUTWASH DEPOSITS CONSIST OF UNDIFFERENTIATED SAND AND GRAVEL DEPOSITED BY MELT WATER IN FRONT OF GLACIAL ICE, AND OFTEN OCCURS AS VALLEY TERRACES OR LOW PLAINS.

THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WESTFIELD CENTER QUADRANGLE, THE TOP OF BEDROCK DROPS TOWARD THE CHIPPEWA CREEK VALLEY. THIS TOPOGRAPHIC HIGH AREA SURROUNDS THE DRAINAGE OF THE CHIPPEWA CREEK VALLEY. THE TOP OF BEDROCK AT THE NORTH END IN THE VICINITY OF THE CHIPPEWA CREEK VALLEY AND I-76 IS BETWEEN 800 AND 950 FEET. THE THICK DEPOSITS OF OUTWASH AND GLACIAL OVERBURDEN OCCURRING IN THE CHIPPEWA CREEK VALLEY RANGE FROM APPROXIMATELY 100 TO 200+ FEET OF DEPOSITS. OVERBURDEN DEPOSITS APPEAR SHALLOWEST, APPROXIMATELY 50 FEET THICK, AT THE BEDROCK, JUST WEST OF GREENWICH ROAD.

RIVER VALLEY FILL, CONSISTING OF INTERBEDDED AND INTERLENSED SAND, GRAVEL, SILT AND CLAY SUPPLY MUCH OF THE WATER TO DOMESTIC WELLS LOCATED IN THE AREA. ACCORDING TO THE GROUND WATER POLLUTION POTENTIAL OF MEDINA COUNTY, OHIO, DOMESTIC WELLS ARE DEVELOPED ANYWHERE FROM 0 TO 50 FEET DEEP IN THE CHIPPEWA CREEK VALLEY AREA.

LEGEND



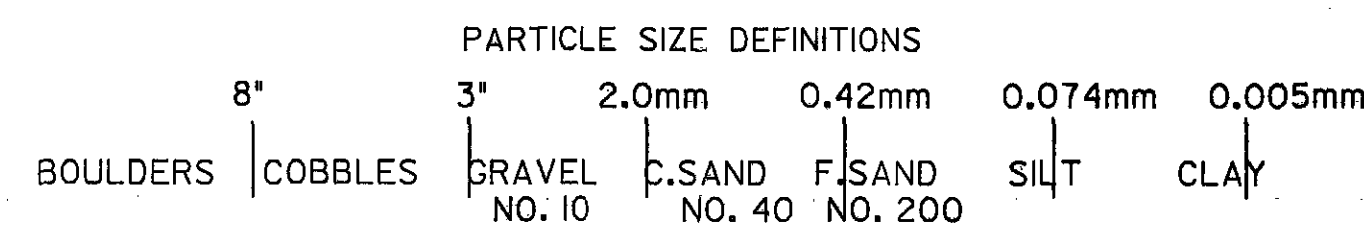
X/Y/Z

FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST.

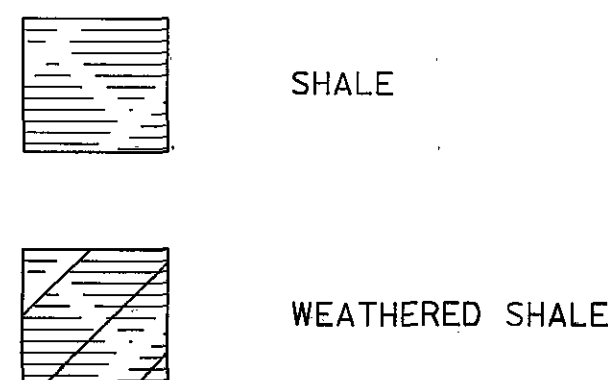
- X = NUMBER OF BLOWS FOR FIRST 6 INCHES
- Y = NUMBER OF BLOWS FOR SECOND 6 INCHES
- Z = NUMBER OF BLOWS FOR THIRD 6 INCHES

W ——— INDICATES FREE WATER LEVEL

▼ ——— INDICATES STATIC WATER LEVEL



SYMBOL OF ROCK TYPE



EXPLORATION

ONE-HUNDRED SIX (106) BORINGS WERE DRILLED. EIGHTY-THREE (83) BORINGS, WERE DRILLED FOR THE TWELVE (12) PROPOSED RAMPS, NOT INCLUDED. TWENTY THREE (23) BORINGS WERE DRILLED FOR THE BRIDGE STRUCTURES, INCLUDED HEREWITH. THE BORING LOCATIONS WERE ESTABLISHED, LOCATED, AND STAKED, BASED ON ESTABLISHED MILEPOSTS AND LANDMARKS. THE BORINGS WERE DRILLED BETWEEN JUNE 17TH, 2003 AND AUGUST 13TH, 2004.

GENERAL INFORMATION

DRIVE SAMPLES

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG EMPLOYING A 2.0-INCH O.D., 1.375-INCH I.D.; SPLIT-SPOON SAMPLER, AT 1.5-FOOT TO 5.0-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140-POUND HAMMER WITH A FREE FALL OF 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER THREE 6.0-INCH INCREMENTS IS CONSIDERED THE STANDARD PENETRATION TEST.

PRESS SAMPLES

PRESS SAMPLES ARE TAKEN BY MEANS OF MECHANICAL-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING A 3.0-INCH O.D. THIN-WALL PRESS SAMPLING TUBE. THE PRESS SAMPLING TUBE IS ADVANCED BY CONTINUOUS UNIFORM PRESSURE APPLIED BY THE DRILL RIG.

CORE BORINGS

CORE BORINGS ARE MADE BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING AN NW-PAM CORE BARREL WITH AN INDUSTRIAL DIAMOND CUTTING HEAD.

SAMPLING AND TESTING

THE BORING LOG SHEETS SHOW A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, NUMBER OF BLOWS FOR THE STANDARD PENETRATION TEST IN THREE 6.0 INCH INCREMENTS, AND A SAMPLE DESCRIPTION BASED ON LABORATORY TEST RESULTS, UTILIZING THE ODOT CLASSIFICATION SYSTEM. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, APPEAR GRAPHICALLY ON SEPARATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY, AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETEIORATION, BEDDING, ACID REACTION, AND OTHER QUALIFYING FACTORS.

AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT A SAMPLER CANNOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

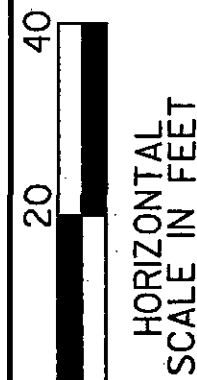
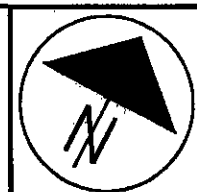
THE STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY MAY BE OBTAINED IN DISTRICT 3, THE OFFICE OF MATERIALS MANAGEMENT, 1600 WEST BROAD STREET, COLUMBUS, OHIO 43223, OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223.



DATE CALCULATED	DATE CHECKED
7/15/05	7/15/05
DATE REVIEWED	DATE GPH

STRUCTURE FOUNDATION INVESTIGATION
MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-6.06



CALCULATED
DATE 7/15/05

CHECKED
DATE 7/15/05

REVIEWED
DATE

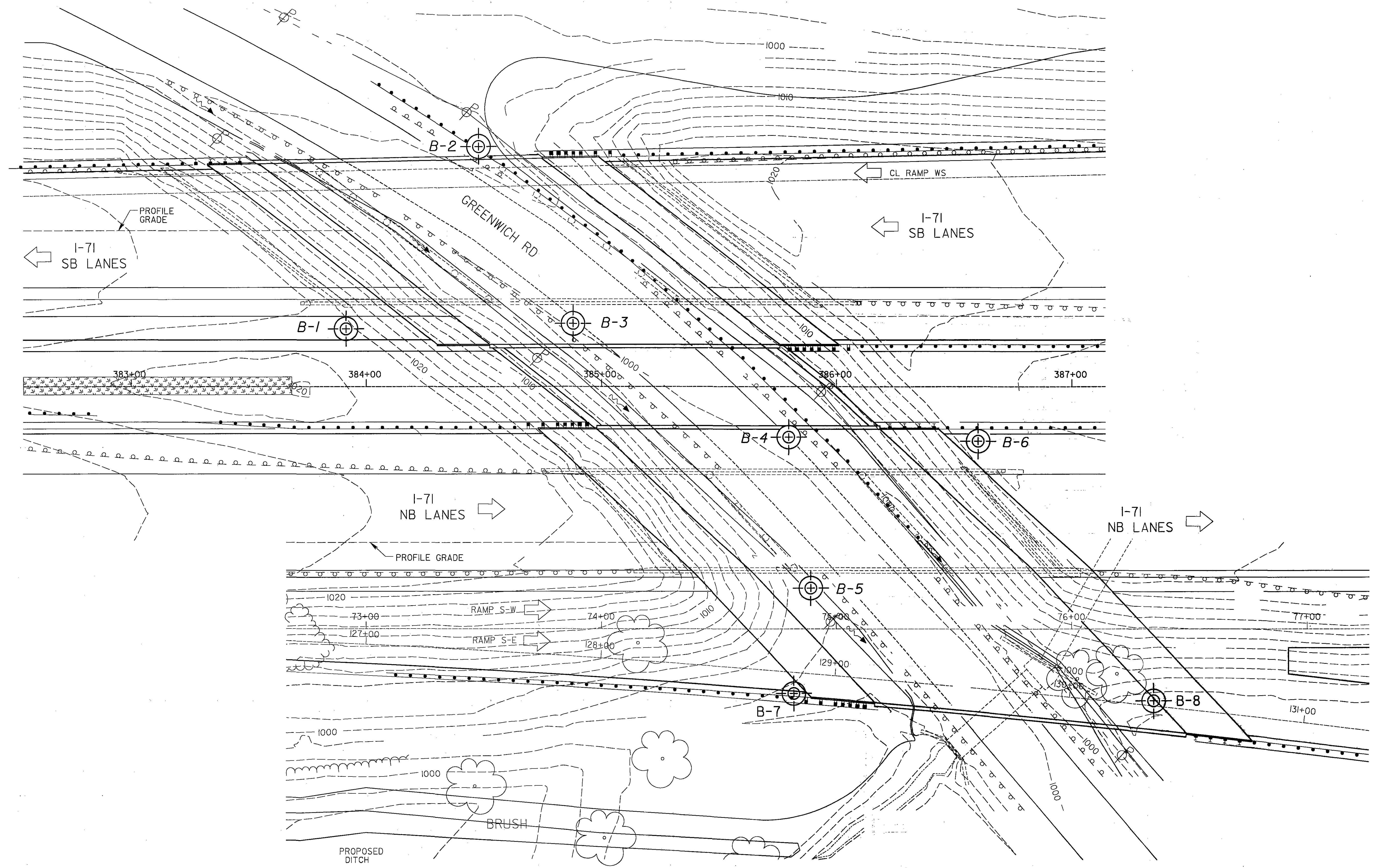
DRAWN
KAL
DATE

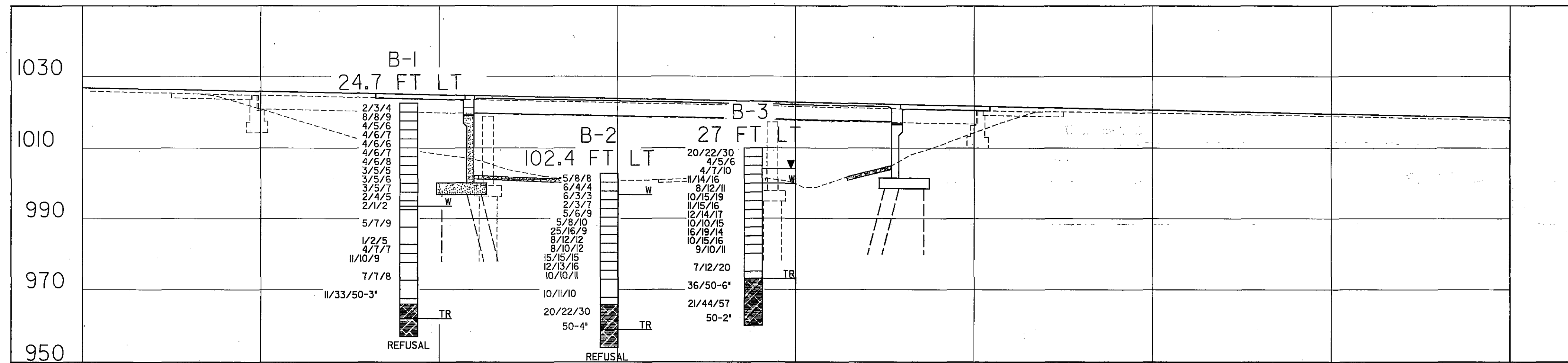
STRUCTURE FOUNDATION INVESTIGATION
MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-6.06

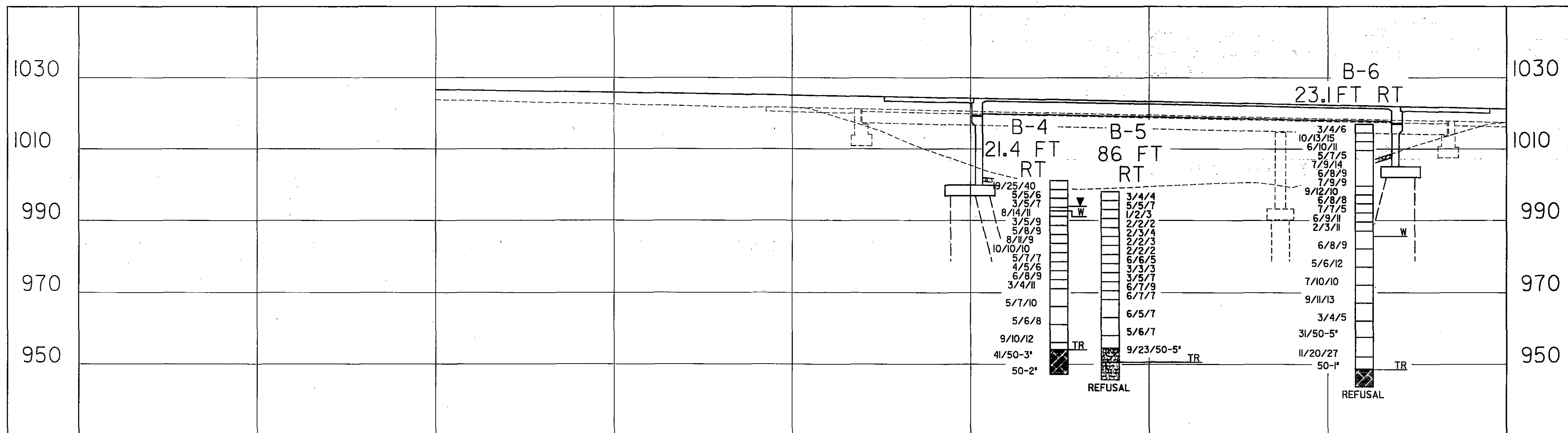
2 / II

43
71

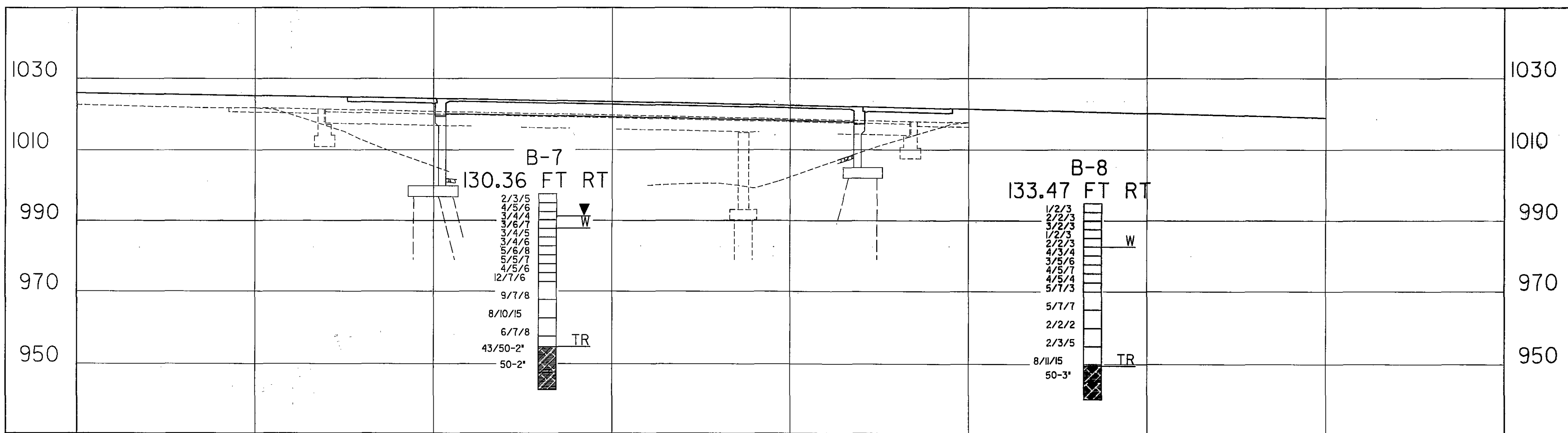




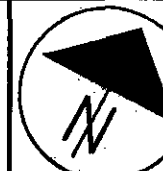
PROFILE ALONG MED-71-0729L (SOUTHBOUND)



PROFILE ALONG MED-71-0729R (NORTHBOUND)



PROFILE ALONG MED-71-0729R (NORTHBOUND)



40
20
0
HORIZONTAL SCALE IN FEET

DRAWN KAL	REVIEWED 7/15/05	CALCULATED	CHECKED GPH
DATE	DATE	DATE	DATE
	7/15/05		7/15/05

STRUCTURE FOUNDATION INVESTIGATION
MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-6.06

3 / 11

44
71

Log of Boring

Date Started: 01/29/02 Sampler's Type 3.75" HSA/RC/WD Water Elev. N/A *

Date Finished: 01/29/02

Boring No. B-1 Station & Offset 383+91.43 24.71' Lt Surface Elev. 1022.56 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
1022.6	0			3" - Topsoil	0.3														
1020.1	2.5	2 3 4	67	Brown SILT and CLAY, some sand, trace gravel. -trace organics in SS-1	SS-1											16		VISUAL	
1017.6	5.0	8 8 9	67		SS-2											15		VISUAL	
1015.1		4 5 6	50		SS-3											14		VISUAL	
1012.6	10.0	4 6 7	78	-SS-4: ODOT A-6a	SS-4	5	8	13	38	36	30	13	15					A-6a	
1010.1		4 6 6	100		SS-5													VISUAL	
1007.6	15.0	4 6 7	72		SS-6											13		VISUAL	
1005.1		4 6 8	89		SS-7													VISUAL	
1002.6	20.0	3 5 5	78	Mottled brown and gray SILTY CLAY trace sand.	18.5													VISUAL	
1000.1		3 5 6	94		SS-9											28		VISUAL	
997.6	25.0	3 5 7	0		SS-10													VISUAL	
995.1		2 4 5	100	-SS-II: ODOT A-7-6	SS-II	0	1	2	41	56	48	26	23					A-7-6	
992.6	30.0	2 1 2	83	-groundwater initially encountered @ 29.0'	29.0													VISUAL	
				Mottled brown and gray SILTY SAND, little clay, trace gravel.	31.5													VISUAL	
				Gray SILTY CLAY, little sand, trace gravel.														VISUAL	
987.6	35.0	5 7 9	83		SS-13											15		VISUAL	
				Gray SAND, little silt, trace gravel, trace clay.	37.1													VISUAL	
982.6	40.0	1 2 5	28		SS-14													VISUAL	
977.6	45.0	4 7 7	78		SS-15											14		VISUAL	
				-heaving sand encountered @ 47.0'														VISUAL	
972.6	50.0	11 10 9	100		SS-16													VISUAL	

Boring No. B-1 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS				
967.6	55.0	7 7 8	100		SS-17													VISUAL
				Gray indurated SILTY CLAY/highly weathered SHALE. Hard soil/soft bedrock.	56.5													VISUAL
962.6	60.0	33 50/3'	73	Spoon Refusal @ 60.5'	60.5													VISUAL
				SHALE; dark gray, moderately hard, highly broken, moderately jointed, fissile -Core Loss = 18%														VISUAL
957.6	65.0		82		0													VISUAL

Bottom of Boring = 65.5 feet

PROJECT NO. W-1169
FILENAME: 0729-04-DATA.DGN

RESOURCE INTERNATIONAL, INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED	CHECKED	GPH
DATE X	DATE X	
REVIEWED		
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KAL		

STRUCTURE FOUNDATION INVESTIGATION
MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-07.29

4 / 11
45
71

* THE GROUNDWATER LEVEL UPON COMPLETION OF THE DRILLING PROCESS COULD NOT BE DETERMINED, DUE TO USE OF WASH WATER DURING THE CORING PROCESS.

Log of Boring

Date Started: 01/16/02 Sampler's Type 3.75" HSA/RC/WD Water Elev. N/A *
 Date Finished: 01/16/02
 Boring No. B-2 Station & Offset 384+47.62 102.40' Lt Surface Elev. 1002.80 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS											
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS			
1002.8	0			4" - Topsoil													
1000.3	5.8	8	8	56	SS-1									14		VISUAL	
997.8	5.0	6	4	4	SS-2	8	9	12	34	37	39	20	14		A-6b		
995.3	6.3	3	3	72	SS-3									24		VISUAL	
992.3	10.0	2	3	7	SS-4A									24		VISUAL	
990.3	5.6	9	78	SS-4B	SS-4B	25	22	31	-21-					15		A-3a	
987.8	15.0	5	8	10	SS-5									19		VISUAL	
985.3	25.16	9	56	SS-6	SS-6	12	11	19	-58-					15		A-6a	
982.8	20.0	8	12	12	SS-7									10		VISUAL	
980.3	8.10	12	44	SS-8	SS-8									16		VISUAL	
977.8	25.0	15	15	15	SS-9	21	54	20	-5-					16		A-1-b	
975.3	12.13	16	39	SS-10	SS-10									19		VISUAL	
972.8	30.0	10	10	11	SS-11									15		VISUAL	
967.8	35.0	10	11	10	SS-12											VISUAL	
962.8	40.0	20	22	30	SS-13									14		VISUAL	
958.9	50/4"		100	SS-14	SS-14											VISUAL	
957.8	45.0	27	100	SS-15	SS-15											VISUAL	

Bottom of Boring = 48.9 feet

* THE GROUNDWATER LEVEL UPON COMPLETION OF THE DRILLING PROCESS COULD NOT BE DETERMINED, DUE TO USE OF WASH WATER DURING THE CORING PROCESS.

PROJECT NO. W-1169
 FILENAME: 0729-05-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED	DATE	DATE
	X	X
CHECKED	DATE	DATE
GPH		

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-07.29

Log of Boring

Date Started: 01/14/02 Sampler's Type 3.75' HSA Water Elev. 5.9'
 Date Finished: 01/14/02
 Boring No. B-3 Station & Offset 384+87.94 26.96' Lt Surface Elev. 1000.12 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS											
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS			
1000.1	0																
				11.75' - Asphalt	1.0												
997.6	20	22 30	39	14' - Sand and gravel base -perched groundwater @ 2.0' Mottled brown and gray SILTY SAND, some clay, little gravel.	2.2										3	VISUAL	
995.1	5.0	4 5 6	67	-SS-2: ODOT A-4a Brown SILTY SAND, some gravel. trace clay.	5.0	16	12	22	-50-						18	A-4a	
992.6		4 7 10	72												13	VISUAL	
990.1	10.0	11 14 16	83	-groundwater initially encountered @ 10.0'	10.5										13	VISUAL	
987.6		8 12 11	56	Gray fine GRAVEL, some sand, trace silt. -SS-5: ODOT A-1-a		61	21	9	-9-						14	A-1-a	
985.1	15.0	10 15 19	67	-heaving sand encountered @ 16.0'	16.0										12	VISUAL	
982.6		11 15 16	89	Gray SAND, some to little gravel, trace to little silt. -SS-7: ODOT A-1-b		33	39	18	-10-						13	A-1-b	
980.1	20.0	12 14 17	78												10	VISUAL	
977.6		10 10 15	83												11	VISUAL	
975.1	25.0	16 19 14	72	-SS-10: ODOT A-1-b		18	47	23	-12-						13	A-1-b	
972.6		10 15 16	28												14	VISUAL	
970.1	30.0	9 10 11	67												12	VISUAL	
					32.1												
965.1	35.0	7 12 20	56	Gray SANDY SILT, some clay, little gravel. -SS-13: ODOT A-4a		18	13	15	30	24	25	10	14		14	A-4a	
					37.0												
960.1	40.0	36 50/6'	58	Gray Indurated SILTY CLAY/highly weathered SHALE. Hard soil/soft bedrock.												VISUAL	
955.1	45.0	21 44 57	83												13	VISUAL	
950.1	50.0	50/2'	0		50.0											VISUAL	

Bottom of Boring = 50.0 feet

Log of Boring

Date Started: 01/15/02 Sampler's Type 3.75" HSA Water Elev. 7.2'
 Date Finished: 01/15/02
 Boring No. B-4 Station & Offset 385+79.73 21.4' Rt Surface Elev. 1001.12 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
1001.1	0			13.0' - Asphalt															
998.6	19 25 40		17	15' - Sand and gravelbase	2.3														
				Dark brown changing to mottled brown and gray CLAYEY SILT, some some sand, trace gravel.	SS-1													10	VISUAL
996.1	5.0	5 5 6	83	-SS-2: ODOT A-6a -clinder fragments in SS-2	SS-2	5	7	16	42	30	33	14	21						A-6a
993.6	3 5 7		72	-heaving sand encountered @ 8.5' -groundwater initially encountered @ 8.5'	SS-3													25	VISUAL
991.1	10.0	8 14 11	56	Brown SAND, little gravel, little silt, trace clay.	11.0	4	5	13	43	35	25	10	13						A-4a
988.6	3 5 9		72	Grayish brown CLAYEY SILT, little sand, trace gravel.	13.0													16	VISUAL
				-SS-5: ODOT A-4a	SS-5														
986.1	15.0	5 8 9	33	Grayish brown GRAVEL, some sand, trace silt.	18.5	62	19	11										12	A-1-a
				-SS-6: ODOT A-1-a	SS-6														
983.6	8 11 9		56	Gray SAND and GRAVEL, trace silt,	21.0	43	26	21										12	A-1-b
				-SS-8: ODOT A-1-b	SS-8														
981.1	20.0	10 10 10	56	Gray SAND, little gravel, trace silt, trace clay.	23.5													12	VISUAL
				-SS-9: ODOT A-1-a	SS-9														
978.6	5 7 7		67	Gray GRAVEL and SAND, trace silt,	26.0	50	35	9										12	A-1-a
				-SS-10: ODOT A-1-a	SS-10														
976.1	25.0	4 5 6	83	Gray SAND, some gravel, trace silt.	29	29	47	17										14	A-1-b
				-SS-12: ODOT A-1-b	SS-12														
973.6	6 8 9		72	Gray CLAYEY SILT, some sand, trace gravel.	42.0													11	VISUAL
				-SS-14: ODOT A-1-b (0)	SS-14	36	42	13										11	A-1-b
971.1	30.0	3 4 11	83	Gray Indurated CLAYEY SILT/highly weathered SHALE. Hard soil/soft bedrock.	47.0														
				-SS-15: ODOT A-1-b	SS-15														
966.1	35.0	5 7 10	67		SS-16														
					SS-16														
961.1	40.0	5 6 8	78																
956.1	45.0	9 10 12	11																
951.1	50.0	41 50/3'	67																

Boring No. B-4 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS														
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS						
947.1	50/2'		0		54.0															VISUAL

Bottom of Boring = 54.0 feet

PROJECT NO. W-169
 FILENAME: 0729-07-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED	CHECKED
DATE X	DATE X
REVIEWED	GPH
DRAWN KAL	

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-07.29

7/11
 48
 71

Log of Boring

Date Started: 01/28/02 Sampler's Type 3.75" HSA/RC/WD Water Elev. N/A*
 Date Finished: 01/28/02
 Boring No. B-5 Station & Offset 385+89.10 85.50' Rt Surface Elev. 998.08 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS				
998.1	0			3' - Topsoil	0.3													
995.6	3	4 4	72	Brown changing to brown and gray SILTY CLAY, little sand, trace gravel.	SS-1									15				VISUAL
993.1	5.0	5 5 7	44	-trace organics in SS-2 -SS-2: ODOT A-6b	SS-2	24	8	14	32	22	35	17	18					A-6b
990.6		1 2 3	78		8.0									27				VISUAL
988.1	10.0	2 2 2	56	Brown SILTY SAND, little clay, trace gravel.	10.0									24				VISUAL
985.6		2 3 4	0	Brown SILTY CLAY, little sand, trace gravel.														VISUAL
983.1	15.0	2 2 3	72											10				VISUAL
980.6		2 2 2	83	Brown changing to gray SAND, little silt, little gravel, trace clay.	17.0									13				VISUAL
978.1	20.0	6 6 5	100															VISUAL
975.6		3 3 3	89											23				VISUAL
973.1	25.0	3 5 7	100															VISUAL
970.6		6 7 9	100	Gray SAND and GRAVEL, trace silt.	26.0													VISUAL
968.1	30.0	6 7 7	72	-SS-12: ODOT A-1-b	SS-12	48	30	15	-7-									A-1-b
963.1	35.0	6 5 7	100															VISUAL
958.1	40.0	5 6 7	44	Gray SILTY CLAY, little sand, trace gravel.	39.5									16				VISUAL
953.1	45.0	9 23 50/5'	47	Gray indurated CLAYEY SILT/highly weathered SILSTONE. Hard soil/soft bedrock.	43.5													VISUAL
				Spoon Refusal @ 47.5'	47.5													
948.1	50.0	17	93	SILTSTONE; gray, hard, highly broken, slightly jointed, slightly weathered, fossiliferous with thin shale interbeds -Core Loss = 13%														

Boring No. B-5 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
945.6					52.5														

Bottom of Boring = 52.5 feet

PROJECT NO. W-169
 FILENAME: 0729-08-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED	DATE	X	DATE	X
CHECKED	DATE		DATE	
GPH				

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-07.29

8 / 11
 49
 71

* THE GROUNDWATER LEVEL UPON COMPLETION OF THE DRILLING PROCESS COULD NOT BE DETERMINED DUE TO USE OF WASH WATER DURING THE CORING PROCESS.

Log of Boring

Date Started: 01/18/02 Sampler's Type 3.75" HSA/RC/WD Water Elev. N/A*
 Date Finished: 01/22/02
 Boring No. B-6 Station & Offset 386+60.17 23.13' Rt Surface Elev. 1017.12 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																	
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS									
1017.1	0																						
1014.6	3	4	6	67	SS-1																16	VISUAL	
1012.1	5.0	10	13	15	100																		A-6a
1009.6	6	10	11	78	SS-3																		VISUAL
1007.1	10.0	5	7	5	72																		A-6a
1004.6	7	9	14	0	SS-5																		VISUAL
1002.1	15.0	6	8	9	28	SS-6																	VISUAL
999.6	7	9	9	78	SS-7																		A-6a
997.1	20.0	9	12	10	56	SS-8																	VISUAL
994.6	6	8	8	72	SS-9																		A-6a
992.1	25.0	7	7	5	100	SS-10																	VISUAL
989.6	6	9	11	78	SS-11																		A-6a
987.1	30.0	2	3	11	83	SS-12																	VISUAL
982.1	35.0	6	8	9	11	SS-13																	VISUAL
977.1	40.0	5	6	12	39	SS-14																	VISUAL
972.1	45.0	7	10	10	56	SS-15																	VISUAL
967.1	50.0	9	11	13	61	SS-16																	A-6b

Boring No. B-6 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																		
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS										
962.1	55.0	3	4	5	72	SS-17																		A-4a
957.1	60.0	31	50/5*		9	SS-18																		VISUAL
952.1	65.0	11	20	27	56	SS-19																		A-6a
948.6	50/1*				100	SS-20																		VISUAL
947.1	70.0				100																			
943.5																								

Bottom of Boring = 73.6 feet

PROJECT NO. W-1163
 FILENAME: 0729-09-DATA.DGN

* THE GROUNDWATER LEVEL UPON COMPLETION OF THE DRILLING PROCESS COULD NOT BE DETERMINED, DUE TO USE OF WASH WATER DURING THE CORING PROCESS.

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED DATE X
 CHECKED DATE X
 REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-07.29

9/11
 50/71

Log of Boring

Date Started: 12/29/03 Sampler's Type 3.75" HSA Water Elev. 6.4 ft
 Date Finished: 12/30/03
 Boring No. B-7 Station & Offset 385+81.90, 130.36' RT Surface Elev. 997.7 ft
(Ramp SE over Greenwich Road)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
997.7	0			6.75" - Topsoil	0.6														
995.2	2	3 5	78	Brown CLAY, some silt, trace sand, trace organics.	SS-1										20				VISUAL
992.7	5.0	4 5 6	56		SS-2										24				VISUAL
990.2		3 4 4	89	-SS-3: ODOT A-7-6	SS-3	0	1	7	43	49	44	23	27		A-7-6				
987.7	10.0	3 6 7	67	Gray GRAVEL, some sand, some silt, trace clay.	8.5										II				VISUAL
985.2		3 4 5	33	Brown SAND, little silt, little gravel.	12.0	43	17	15	-25-						13				VISUAL
982.7	15.0	3 4 6	50		16.0										27				VISUAL
980.2		5 6 8	83	Brown GRAVEL and SAND, little silt, trace clay.	18.0	42	24	15	-19-						15				VISUAL
977.7	20.0	5 5 7	72												12				VISUAL
975.2		4 5 6	67		23.5														VISUAL
972.7	25.0	12 7 6	44	Gray GRAVEL and SAND, some silt, trace clay.											19				VISUAL
967.7	30.0	9 7 8	89																VISUAL
962.7	35.0	8 10 15	67	Gray SILT and CLAY, some sand, little gravel.	34.0	14	II	II	33	32	29	II	13		VISUAL				A-6a
			100	-SS-12B: ODOT A-6a	SS-12B										17				
957.7	40.0	6 7 8	83												II				VISUAL
952.7	45.0	43 50/2"	75	Gray SANDY SILT/ SHALE	43.0										12				VISUAL
947.7	50.0	50/2"	0		50.0														VISUAL

Boring No. B-7 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
947.7				SHALE w/ SILTSTONE	86														
942.7	55.0				55.0														

Bottom of Boring = 55.0 feet

PROJECT NO. W-1169
 FILENAME: 0729-04-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED DATE 7/15/05
 CHECKED DATE 7/15/05
 GPH

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STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-6.06

10/11
 51
 71

Log of Boring

Date Started: 06/25/03 Sampler's Type 3.75" HSA/RC/WD Water Elev. N/A *
 Date Finished: 06/25/03
 Boring No. B-8 Station & Offset 387+348, 133.47' RT (Ramp SE over Greenwich Road) Surface Elev. 994.9 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
994.9	0			12" - Topsoil	1.0														
991.4	1	2 3	89	Brown CLAY, and silt, trace sand, trace organics.	SS-1										28	VISUAL			
989.9	5.0	2 2 3	78	-SS-2: ODOT A-7-6	SS-2	0	1	2	41	56	45	23	28	A-7-6					
986.4	3	2 3	83		SS-3								31	VISUAL					
984.9	10.0	1 2 3	67	Gray SANDY SILT, and clay, trace gravel. -SS-4: ODOT A-4a	SS-4	4	6	9	44	36	27	10	15	A-4a					
981.4	2	2 3	72	Gray SANDY SILT, and clay, trace gravel. -groundwater initially encountered @ 12.5'	SS-5								15	VISUAL					
979.9	15.0	4 3 4	50	Gray GRAVEL and SAND, little silt.	SS-6								14	VISUAL					
976.4	3	5 6	56		SS-7									VISUAL					
974.9	20.0	4 5 7	61	Gray SAND, some gravel, little silt.	SS-8									VISUAL					
971.4	4	5 4	61		SS-9								17	VISUAL					
969.9	25.0	5 7 3	89	Gray SILT and CLAY, little sand, trace gravel.	SS-10A SS-10B								17	VISUAL VISUAL					
964.9	30.0	5 7 7	56		SS-11								17	VISUAL					
959.9	35.0	2 2 2	61	Gray SILTY CLAY, trace sand, trace gravel.	SS-12								31	VISUAL					
954.9	40.0	2 3 5	56	Gray SILT and SAND, little clay, trace gravel.	SS-13								23	VISUAL					
949.9	45.0	8 11 15	67	Gray SILTY SAND, some gravel, little clay.	SS-14								11	VISUAL					
944.9	50.0	50/3"	67	Gray SHALE.	SS-15									VISUAL					

Bottom of Boring = 50.0 feet

Boring No. B-8 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	ODOT CLASS					
944.9				SHALE w/ SILTSTONE	95														
939.9	55.0				55.0														

Bottom of Boring = 55.0 feet

PROJECT NO. W-1169
 FILENAME: 0729-05-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



DATE 7/15/05
 DATE 7/15/05

REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729 L/R & RAMP SE OVER GREENWICH ROAD

MED-71-6.06

52
 71

* THE GROUNDWATER LEVEL UPON COMPLETION OF THE DRILLING PROCESS COULD NOT BE DETERMINED, DUE TO USE OF WASH WATER DURING THE CORING PROCESS.

INTRODUCTION

THE EXISTING INTERCHANGE IS LOCATED IN MEDINA COUNTY, OHIO, APPROXIMATELY ONE (1) MILE WEST OF SEVILLE AND ONE (1) MILE EAST OF WESTFIELD CENTER. THE INTERCHANGE SERVES AT AS THE WESTERN TERMINUS OF IR 76 AT MILE POST 0. RELATIVE TO IR 71, THE INTERCHANGE IS AT MILE POST 209.

THE PROJECT CONSISTS OF TWELVE (12) NEW, RELOCATED AND/OR IMPROVED RAMPS AND FOUR (4) NEW BRIDGES

RAMP INFORMATION

NO.	TITLE	NO. OF BORINGS	BORING DESIGNATIONS	RAMP LENGTH (FT)
1	ES	37	ES-1 THROUGH ES-15, ES-6A,B,C, ES-7A, ES-8A,B,C, & ES-9A,B, 16-17, 22-23, 27, 28-29, 32-33, 36-37, 42-43	5593
2	SE	14	SE-3 THROUGH SE-16	4737
3	S-EW	2	SE-1 & SE-2	986
4	SW	3	SW-1 THROUGH SW-3	2372
5	WS	3	WS-1 THROUGH WS-3	1271
6	W-NS	2	WS-4 & WS-5	568
7	EN	8	EN-1 THROUGH EN-8	2358
8	NE	6	NE-2 THROUGH NE-7	1807
9	N-EW	1	NE-1	1413
10	NW	3	NW-1 THROUGH NW-3	826
11	NS-W	1	NW-4	2637
12	WN	3	WN-1 THROUGH WN-3	1293

BRIDGE INFORMATION

LETTER	TITLE	NO. OF BORINGS	BORING DESIGNATIONS
A	I71 & SE OVER GREENWICH RD	8	B-1 THROUGH B-8
B	SE OVER CHIPPEWA CREEK	4	B-1 THROUGH B-4
C	ES OVER USR 224	7	B-1E THROUGH B-6E & B-1.5E
D	ES OVER GREENWICH ROAD	4	B-9 THROUGH B-12

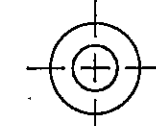
GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE SITE LIES ON THE BORDERLINE OF THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU AND THE GALION GLACIATED LOW PLATEAU. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM END MORAINE, LAKE-PLANED MORAINE, GROUND MORAINE, AND OUTWASH DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. GLACIAL TILL OR MORAINES CONSIST OF DEBRIS DEPOSITED BY THE GLACIER ACROSS THE LAND SURFACE AS THE GLACIERS RETREAT. OUTWASH DEPOSITS CONSIST OF UNDIFFERENTIATED SAND AND GRAVEL DEPOSITED BY MELT WATER IN FRONT OF GLACIAL ICE, AND OFTEN OCCURS AS VALLEY TERRACES OR LOW PLAINS.

THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WESTFIELD CENTER QUADRANGLE, THE TOP OF BEDROCK DROPS TOWARD THE CHIPPEWA CREEK VALLEY. THIS TOPOGRAPHIC HIGH AREA SURROUNDS THE DRAINAGE OF THE CHIPPEWA CREEK VALLEY. THE TOP OF BEDROCK AT THE NORTH END IN THE VICINITY OF THE CHIPPEWA CREEK VALLEY AND I-76 IS BETWEEN 800 AND 950 FEET. THE THICK DEPOSITS OF OUTWASH AND GLACIAL OVERBURDEN OCCURRING IN THE CHIPPEWA CREEK VALLEY RANGE FROM APPROXIMATELY 100 TO 200+ FEET OF DEPOSITS. OVERBURDEN DEPOSITS APPEAR SHALLOWEST, APPROXIMATELY 50 FEET THICK, AT THE BEDROCK, JUST WEST OF GREENWICH ROAD.

RIVER VALLEY FILL, CONSISTING OF INTERBEDDED AND INTERLENSED SAND, GRAVEL, SILT AND CLAY SUPPLY MUCH OF THE WATER TO DOMESTIC WELLS LOCATED IN THE AREA. ACCORDING TO THE GROUND WATER POLLUTION POTENTIAL OF MEDINA COUNTY, OHIO, DOMESTIC WELLS ARE DEVELOPED ANYWHERE FROM 0 TO 50 FEET DEEP IN THE CHIPPEWA CREEK VALLEY AREA.

LEGEND



PRESS AND/OR DRIVE SAMPLE AND/OR CORE BORING LOCATION-PLAN VIEW.

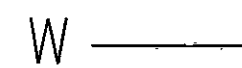


HORIZONTAL BAR ON BORING LOG INDICATES THE DEPTH THE SAMPLE WAS TAKEN.

X/Y/Z

FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST.

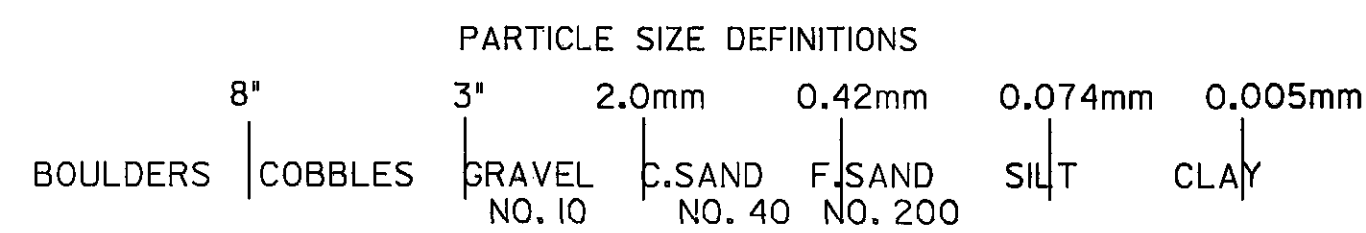
- X = NUMBER OF BLOWS FOR FIRST 6 INCHES
- Y = NUMBER OF BLOWS FOR SECOND 6 INCHES
- Z = NUMBER OF BLOWS FOR THIRD 6 INCHES



INDICATES FREE WATER LEVEL



INDICATES STATIC WATER LEVEL



SYMBOL OF ROCK TYPE



SHALE



WEATHERED SHALE

EXPLORATION

ONE-HUNDRED SIX (106) BORINGS WERE DRILLED. EIGHTY-THREE (83) BORINGS, WERE DRILLED FOR THE TWELVE (12) PROPOSED RAMPS, NOT INCLUDED. TWENTY THREE (23) BORINGS WERE DRILLED FOR THE BRIDGE STRUCTURES, INCLUDED HERewith. THE BORING LOCATIONS WERE ESTABLISHED, LOCATED, AND STAKED, BASED ON ESTABLISHED MILEPOSTS AND LANDMARKS. THE BORINGS WERE DRILLED BETWEEN JUNE 17TH, 2003 AND AUGUST 13TH, 2004.

GENERAL INFORMATION

DRIVE SAMPLES

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG EMPLOYING A 2.0-INCH O.D., 1.375-INCH I.D., SPLIT-SPOON SAMPLER, AT 1.5-FOOT TO 5.0-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140-POUND HAMMER WITH A FREE FALL OF 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER THREE 6.0-INCH INCREMENTS IS CONSIDERED THE STANDARD PENETRATION TEST.

PRESS SAMPLES

PRESS SAMPLES ARE TAKEN BY MEANS OF MECHANICAL-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING A 3.0-INCH O.D. THIN-WALL PRESS SAMPLING TUBE. THE PRESS SAMPLING TUBE IS ADVANCED BY CONTINUOUS UNIFORM PRESSURE APPLIED BY THE DRILL RIG.

CORE BORINGS

CORE BORINGS ARE MADE BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING AN NW-PAM CORE BARREL WITH AN INDUSTRIAL DIAMOND CUTTING HEAD.

SAMPLING AND TESTING

THE BORING LOG SHEETS SHOW A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, NUMBER OF BLOWS FOR THE STANDARD PENETRATION TEST IN THREE 6.0 INCH INCREMENTS, AND A SAMPLE DESCRIPTION BASED ON LABORATORY TEST RESULTS, UTILIZING THE ODOT CLASSIFICATION SYSTEM. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, APPEAR GRAPHICALLY ON SEPARATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY, AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETERIORATION, BEDDING, ACID REACTION, AND OTHER QUALIFYING FACTORS.

AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT A SAMPLER CANNOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

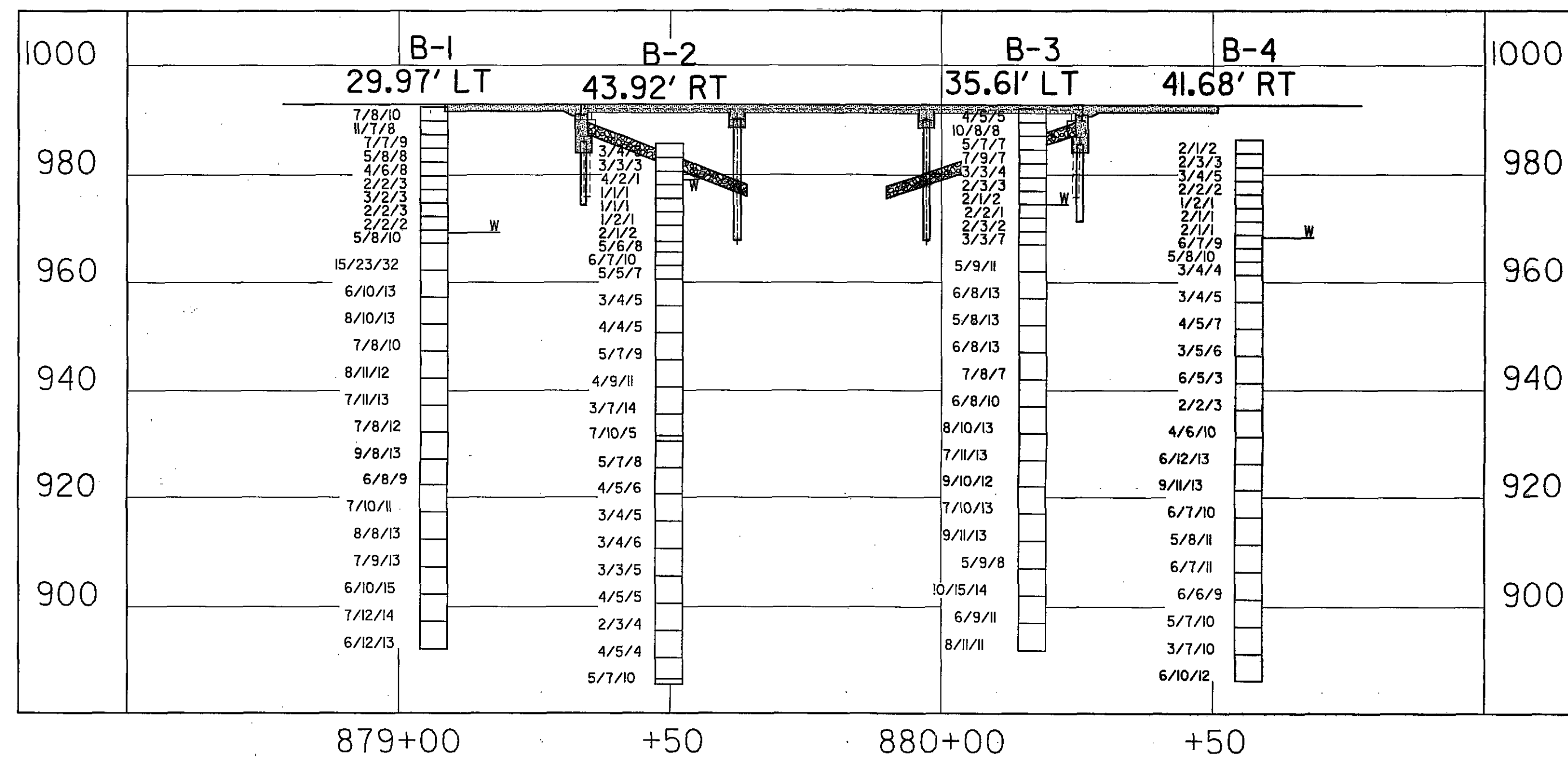
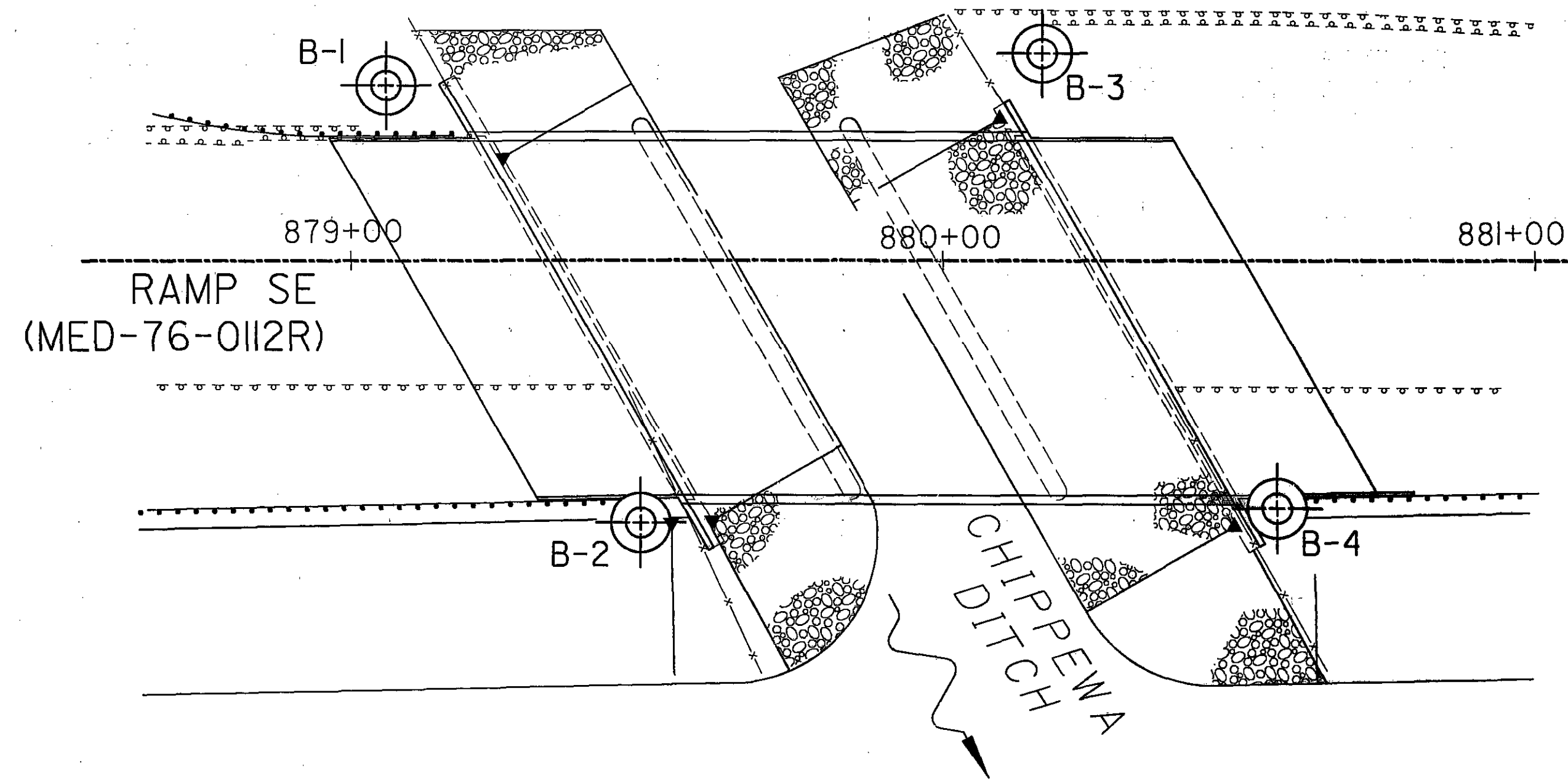
THE STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY MAY BE OBTAINED IN DISTRICT 3, THE OFFICE OF MATERIALS MANAGEMENT, 1600 WEST BROAD STREET, COLUMBUS, OHIO 43223, OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223.



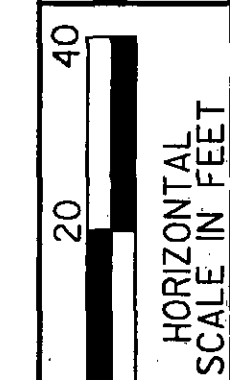
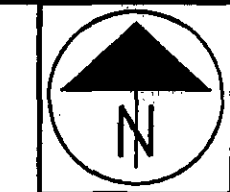
DATE CALCULATED	DATE CHECKED
7/15/05	7/15/05
DATE REVIEWED	DATE
DRAWN	KAL

STRUCTURE FOUNDATION INVESTIGATION
MED-76-012R RAMP SE OVER CHIPPEWA DITCH

MED-71-6.06



PROFILE ALONG B OF RAMP SE (MED-76-0112R)



CALCULATED	DATE	REVIEWED	DRAWN
CHECKED	7/15/05	7/15/05	KAL
GPH			DATE

STRUCTURE FOUNDATION INVESTIGATION
MED-76-0112R RAMP SE OVER CHIPPEWA DITCH

MED-71-6.06

Log of Boring

Date Started: 08/27/03 Sampler's Type 3.75" HSA Water Elev. 23.8 ft
 Date Finished: 08/27/03
 Boring No. B-1 Station & Offset 879+06.48, 29.97 LT (Ramp SE over Chippewa Creek) Surface Elev. 992.3 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																		
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.L.	W.C.	ODOT CLASS										
992.3	0			4.0' - Topsoil																				
989.8	7	8 10	72	Brown SILT and CLAY, some sand, trace gravel, trace organics.	SS-1															12	VISUAL			
989.8	5.0	11 7 8	89		SS-2																17	VISUAL		
984.8	7	7 9	78	-SS-3: ODOT A-6a	8.0 SS-3	3	12	17	23	45	34	15	20									A-6a		
982.3	10.0	5 8 8	89	Brown SILT, some sand, little clay, trace gravel.	10.5 SS-4																	16	VISUAL	
979.8	4	6 8	100	Gray SILT and CLAY, little sand, trace gravel.	13.0 SS-5																	25	VISUAL	
977.3	15.0	2 2 3	100	Gray SILT, and clay, trace sand, trace organics.	SS-6																	23	VISUAL	
974.8	3	2 3	100		SS-7																		26	VISUAL
972.3	20.0	2 2 3	100	-SS-8: ODOT A-4b	SS-8	0	0	2	64	34	30	9	26										A-4b	
977.3	2	2 2	100		23.0 SS-9																		24	VISUAL
969.8	25.0	5 8 10	89	Gray SAND, some gravel, little silt, trace clay.	SS-10																		20	VISUAL
964.8	30.0	15 23 32	78	Gray SILTY SAND, little gravel, trace clay.	28.0 SS-11																		12	VISUAL
959.8	35.0	6 10 13	89	Gray SILT, some sand, trace clay, trace gravel.	32.0 SS-12																		20	VISUAL
954.8	40.0	8 10 13	100	Gray SANDY SILT, some clay, trace gravel.	37.0 SS-13	7	12	20	36	25	19	5	13										A-4a	
949.8	45.0	7 8 10	100	-SS-13: ODOT A-4a	SS-14																		13	VISUAL
944.8	50.0	8 11 12	100		SS-15																		14	VISUAL

Boring No. B-1 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																				
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.L.	W.C.	ODOT CLASS												
939.8	55.0	7 11 13	100		SS-16																			14	VISUAL	
934.8	60.0	7 8 12	100		SS-17																				20	VISUAL
929.8	65.0	9 8 13	100		SS-18																				16	VISUAL
924.8	70.0	6 8 9	94		SS-19																				18	VISUAL
919.8	75.0	7 10 11	100	-SS-20: ODOT A-4a	SS-20	7	5	9	38	41	27	10	15											A-4a		
914.8	80.0	8 8 13	100		SS-21																				18	VISUAL
909.8	85.0	7 9 13	100		SS-22																				17	VISUAL
904.8	90.0	6 10 15	89		SS-23																				16	VISUAL
899.8	95.0	7 12 14	100		SS-24																				13	VISUAL
894.8	100.0	6 12 13	100		SS-25																				13	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-76-012R-SHT-03-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED	CHECKED
DATE 7/15/05	DATE 7/15/05
REVIEWED	GPH
DRAWN KAL	

STRUCTURE FOUNDATION INVESTIGATION
 MED-76-012R RAMP SE OVER CHIPPEWA DITCH

MED-71-6.06

Log of Boring

Date Started: 12/17/03 Sampler's Type 3.75" HSA Water Elev. 7.1 ft
 Date Finished: 12/18/03
 Boring No. B-2 Station & Offset 879+49.76, 43.92 RT (Ramp SE over Chippewa Creek) Surface Elev. 985.6 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS					
985.6	0			12.0' - Topsoil	1.0														
983.1	3	4 3	67	Brown CLAY, some silt, little sand, trace gravel.	SS-1												27	VISUAL	
980.6	5.0	3 3 3	50	-SS-2: ODOT A-7-6	SS-2	0	4	10	37	49	43	19	29					A-7-6	
978.1	4	2 1	0		AS-3												26	VISUAL	
975.6	10.0	1 1 1	78	Black SILT, some clay, little sand, trace gravel. -SS-4: ODOT A-4b	SS-4	1	4	11	62	22	23	9	24					A-4b	
973.1	1	1 1	50		SS-5												39	VISUAL	
970.6	15.0	1 2 1	100	Black SILT and CLAY, little sand, little organics, trace gravel. -SS-6: ODOT A-6a	SS-6	3	8	14	48	28	31	12	31					A-6a	
968.1	2	1 2	89		SS-7												31	VISUAL	
965.6	20.0	5 6 8	78	Gray SAND, some gravel, little silt.	SS-8	27	36	35	-12-									17	VISUAL
963.1	6	7 10	83		SS-9													11	VISUAL
960.6	25.0	5 5 7	56	Gray SILT, some clay, some sand, trace gravel.	SS-10													18	VISUAL
955.6	30.0	3 4 5	33	Gray SILT and CLAY, little gravel, trace sand. -SS-11: ODOT A-6a	SS-11	13	3	3	39	42	33	14	22					22	A-6a
950.6	35.0	4 4 5	67		SS-12													23	VISUAL
945.6	40.0	5 7 9	89	Gray SILT, some clay, trace gravel.	SS-13													16	VISUAL
940.6	45.0	4 9 11	56	Gray SILTY SAND, trace gravel, trace clay.	SS-14													12	VISUAL
935.6	50.0	3 7 14	67	Gray SILT and CLAY, little sand, trace gravel.	SS-15													14	VISUAL

Boring No. B-2 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS					
930.6	55.0	7 10 5	100	Gray GRAVEL and SAND, little little silt, trace clay.	SS-16A													15	VISUAL
			58	Gray SILT, some clay, little sand, trace gravel.	SS-16B													14	VISUAL
925.6	60.0	5 7 8	83		SS-17													22	VISUAL
920.6	65.0	4 5 6	78	Gray SILT and CLAY, little sand, trace gravel.	SS-18													17	VISUAL
915.6	70.0	3 4 5	89		SS-19													20	VISUAL
910.6	75.0	3 4 6	67	-SS-20: ODOT A-6a	SS-20	10	4	8	34	44	32	14	18					A-6a	
905.6	80.0	3 3 5	78		SS-21													17	VISUAL
900.6	85.0	4 5 5	56		SS-22													18	VISUAL
895.6	90.0	2 3 4	67		SS-23													18	VISUAL
890.6	95.0	4 5 4	89		SS-24													20	VISUAL
885.6	100.0	5 7 10	50	Gray GRAVEL and SAND, little silt, trace clay.	SS-25A													19	VISUAL
			67		SS-25B													14	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-1163MOD
 FILENAME: MED-76-012R-SHT-04-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949

DATE 7/15/05
 DATE 7/15/05

REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-76-012R RAMP SE OVER CHIPPEWA DITCH

MED-71-6.06

4/6

56
 71

Log of Boring

Date Started: 08/28/03 Sampler's Type 3.75" HSA Water Elev. 20.0 ft
 Date Finished: 08/28/03
 Boring No. B-3 Station & Offset 880+16.79, 35.61LT (Ramp SE over Chippewa Creek) Surface Elev. 992.0 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS								W.C.	ODOT CLASS		
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI					
992.0	0			5.0' - Topsoil	0.4												
989.5	4	5 5	56	Brown SANDY SILT, some clay, trace gravel, trace organics.	3.0										6	VISUAL	
987.0	5.0	10 8 8	0	Brown SILT and CLAY, some sand, trace gravel.	6.0										16	VISUAL	
984.5	5	7 7	50	Brown ORGANIC CLAY, some silt, little sand, trace gravel. -SS-3: ODOT A-7-5		0	12	4	32	52	45	15	43			A-7-5	
982.0	10.0	7 9 7	89	-SS-4: ODOT A-7-5	10.5	0	10	8	38	44	62	26	63			A-7-5	
979.5	3	3 4	94	Brown ORGANIC SILTY CLAY, little sand, trace gravel.											24	VISUAL	
977.0	15.0	2 3 3	100		16.0										23	VISUAL	
974.5	2	1 2	100	Gray SILT and CLAY, trace sand. -SS-7: ODOT A-6a		0	0	3	60	37	37	15	34			A-6a	
972.0	20.0	2 2 1	100												36	VISUAL	
969.5	2	3 2	100												29	VISUAL	
967.0	25.0	3 3 7	78	Gray SILTY SAND, some gravel, some gravel, trace clay.	24.5										16	VISUAL	
962.0	30.0	5 9 11	67		33.0										14	VISUAL	
957.0	35.0	6 8 13	78	Gray SAND, little silt, trace gravel, trace clay.											21	VISUAL	
952.0	40.0	5 8 13	78		42.0										17	VISUAL	
947.0	45.0	6 8 13	50	Gray SAND, some silt, trace gravel, trace clay.	48.0										13	VISUAL	
942.0	50.0	7 8 7	100	Gray SANDY SILT, and clay, trace gravel.											17	VISUAL	

Boring No. B-3 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS								W.C.	ODOT CLASS		
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI					
937.0	55.0	6 8 10	100		SS-16											16	VISUAL
932.0	60.0	8 10 13	100		SS-17											17	VISUAL
927.0	65.0	7 11 13	100		SS-18											15	VISUAL
922.0	70.0	9 10 12	72	-SS-19: ODOT A-4a	SS-19	7	8	14	25	45	24	9	17			A-4a	
917.0	75.0	7 10 13	89		SS-20											16	VISUAL
912.0	80.0	9 11 13	72		SS-21											19	VISUAL
907.0	85.0	5 9 8	100		SS-22											18	VISUAL
902.0	90.0	10 15 14	94		SS-23											18	VISUAL
897.0	95.0	6 9 11	100		SS-24											19	VISUAL
892.0	100.0	8 11 11	50		SS-25											17	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-76-012R-SHT-05-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



DATE 7/15/05
 DATE 7/15/05
 REVIEWED
 DRAWN KAL
 CALCULATED
 CHECKED GPH

STRUCTURE FOUNDATION INVESTIGATION
 MED-76-012R RAMP SE OVER CHIPPEWA DITCH

MED-71-6.06

5/6
 57
 71

Log of Boring

Date Started: 12/24/03 Sampler's Type 3.75' HSA Water Elev. 7.5 ft
 Date Finished: 12/29/03
 Boring No. B-4 Station & Offset 880+56.6, 41.68' RT Surface Elev. 986.3 ft
(Ramp SE over Chippewa Creek)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS				
986.3	0			10.0' - Topsoil	0.8													
983.8	2.2	1 2	67	Brown SILT and CLAY, little sand, trace gravel, trace organics.	3.0										36			VISUAL
981.3	5.0	2 3 3	78	Brown CLAY, some silt, trace sand, trace organics.											42			VISUAL
978.8		3 4 5	89	-SS-3: ODOT A-7-6		0	1	3	32	64	48	22	32					A-7-6
976.3	10.0	2 2 2	33	Black SILT and CLAY, some sand, little organics, trace gravel.	8.9										27			VISUAL
973.8		1 2 1	56												30			VISUAL
971.3	15.0	2 1 1	100	-SS-6: ODOT A-6a		3	8	14	47	28	31	12	28					A-6a
968.8		2 1 1	67		18.0										15			VISUAL
966.3	20.0	6 7 9	72	Gray SAND, some gravel, little silt.											16			VISUAL
963.8		5 8 10	78			38	31	19	-12-									
961.3	25.0	3 4 4	83	Gray GRAVEL and SAND, little silt, trace clay.	25.0										16			VISUAL
956.3	30.0	3 4 5	61												19			VISUAL
951.3	35.0	4 5 7	78	Gray SILTY CLAY, little sand, trace gravel.	35.0										13			VISUAL
946.3	40.0	3 5 6	89												17			VISUAL
941.3	45.0	6 5 3	78	Gray SAND, some silt, little gravel, trace clay.	43.0													
					47.0													
936.3	50.0	2 2 3	83	Gray SILTY CLAY, little sand, trace gravel.											15			VISUAL

Boring No. B-4 (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS				
					51.5													
931.3	55.0	4 6 10	61	Gray SANDY SILT, some clay, little gravel.													13	VISUAL
926.3	60.0	6 12 13	83	-SS-17: ODOT A-4a		10	10	21	36	23	21	8	14					A-4a
921.3	65.0	9 11 13	78														18	VISUAL
916.3	70.0	6 7 10	89														18	VISUAL
911.3	75.0	5 8 11	83														18	VISUAL
906.3	80.0	6 7 11	100														17	VISUAL
901.3	85.0	6 6 9	67														18	VISUAL
896.3	90.0	5 7 10	89														19	VISUAL
					93.0													
891.3	95.0	3 7 10	22	Gray SILTY SAND, little clay, trace gravel.													17	VISUAL
					96.0													
886.3	100.0	6 10 12	67	Gray SILTY CLAY, little sand, trace gravel.													19	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-76-012R-SHT-06-DATADGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CHECKED: GPH
 DATE: 7/15/05
 REVIEWED: GPH
 DATE: 7/15/05
 DRAWN: KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-76-012R RAMP SE OVER CHIPPEWA DITCH

MED-71-6.06

6/6
 58
 71

INTRODUCTION

THE EXISTING INTERCHANGE IS LOCATED IN MEDINA COUNTY, OHIO, APPROXIMATELY ONE (1) MILE WEST OF SEVILLE AND ONE (1) MILE EAST OF WESTFIELD CENTER. THE INTERCHANGE SERVES AS THE WESTERN TERMINUS OF IR 76 AT MILE POST 0. RELATIVE TO IR 71, THE INTERCHANGE IS AT MILE POST 209.

THE PROJECT CONSISTS OF TWELVE (12) NEW, RELOCATED AND/OR IMPROVED RAMPS AND FOUR (4) NEW BRIDGES

RAMP INFORMATION

NO.	TITLE	NO. OF BORINGS	BORING DESIGNATIONS	RAMP LENGTH (FT)
1	ES	37	ES-1 THROUGH ES-15, ES-6A,B,C, ES-7A, ES-8A,B,C, & ES-9A,B 16-17, 22-23, 27, 28-29, 32-33, 36-37, 42-43	5593
2	SE	14	SE-3 THROUGH SE-16	4737
3	S-EW	2	SE-1 & SE-2	986
4	SW	3	SW-1 THROUGH SW-3	2372
5	WS	3	WS-1 THROUGH WS-3	1271
6	W-NS	2	WS-4 & WS-5	568
7	EN	8	EN-1 THROUGH EN-8	2358
8	NE	6	NE-2 THROUGH NE-7	1807
9	N-EW	1	NE-1	1413
10	NW	3	NW-1 THROUGH NW-3	826
11	NS-W	1	NW-4	2637
12	WN	3	WN-1 THROUGH WN-3	1293

BRIDGE INFORMATION

LETTER	TITLE	NO. OF BORINGS	BORING DESIGNATIONS
A	I71 & SE OVER GREENWICH RD	8	B-1 THROUGH B-8
B	SE OVER CHIPPEWA CREEK	4	B-1 THROUGH B-4
C	ES OVER USR 224	7	B-1E THROUGH B-6E & B-1.5E
D	ES OVER GREENWICH ROAD	4	B-9 THROUGH B-12

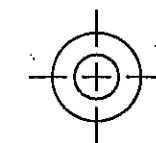
GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE SITE LIES ON THE BORDERLINE OF THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU AND THE GALION GLACIATED LOW PLATEAU. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM END MORAINE, LAKE-PLANED MORAINE, GROUND MORAINE, AND OUTWASH DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. GLACIAL TILL OR MORAINES CONSIST OF DEBRIS DEPOSITED BY THE GLACIER ACROSS THE LAND SURFACE AS THE GLACIERS RETREAT. OUTWASH DEPOSITS CONSIST OF UNDIFFERENTIATED SAND AND GRAVEL DEPOSITED BY MELT-WATER IN FRONT OF GLACIAL ICE, AND OFTEN OCCURS AS VALLEY TERRACES OR LOW PLAINS.

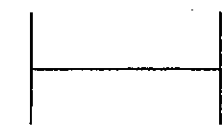
THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WESTFIELD CENTER QUADRANGLE, THE TOP OF BEDROCK DROPS TOWARD THE CHIPPEWA CREEK VALLEY. THIS TOPOGRAPHIC HIGH AREA SURROUNDS THE DRAINAGE OF THE CHIPPEWA CREEK VALLEY. THE TOP OF BEDROCK AT THE NORTH END IN THE VICINITY OF THE CHIPPEWA CREEK VALLEY AND I-76 IS BETWEEN 800 AND 950 FEET. THE THICK DEPOSITS OF OUTWASH AND GLACIAL OVERBURDEN OCCURRING IN THE CHIPPEWA CREEK VALLEY RANGE FROM APPROXIMATELY 100 TO 200+ FEET OF DEPOSITS. OVERBURDEN DEPOSITS APPEAR SHALLOWEST, APPROXIMATELY 50 FEET THICK, AT THE BEDROCK, JUST WEST OF GREENWICH ROAD.

RIVER VALLEY FILL, CONSISTING OF INTERBEDDED AND INTERLENSED SAND, GRAVEL, SILT AND CLAY SUPPLY MUCH OF THE WATER TO DOMESTIC WELLS LOCATED IN THE AREA. ACCORDING TO THE GROUND WATER POLLUTION POTENTIAL OF MEDINA COUNTY, OHIO, DOMESTIC WELLS ARE DEVELOPED ANYWHERE FROM 0 TO 50 FEET DEEP IN THE CHIPPEWA CREEK VALLEY AREA.

LEGEND



PRESS AND/OR DRIVE SAMPLE AND/OR CORE BORING LOCATION-PLAN VIEW.



HORIZONTAL BAR ON BORING LOG INDICATES THE DEPTH THE SAMPLE WAS TAKEN.

X/Y/Z

FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST.

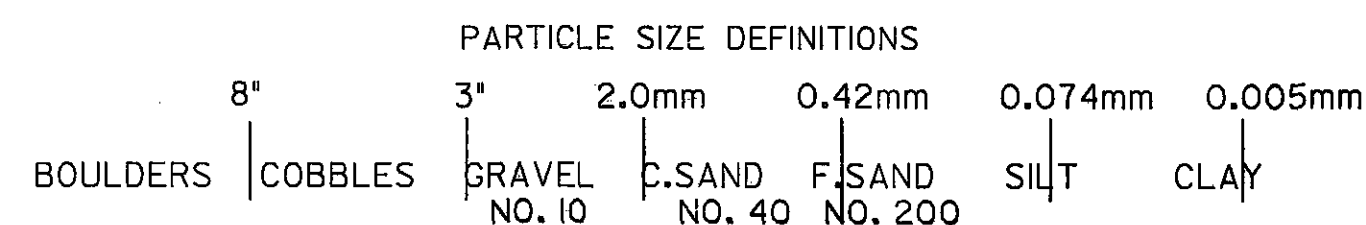
- X = NUMBER OF BLOWS FOR FIRST 6 INCHES
- Y = NUMBER OF BLOWS FOR SECOND 6 INCHES
- Z = NUMBER OF BLOWS FOR THIRD 6 INCHES



INDICATES FREE WATER LEVEL



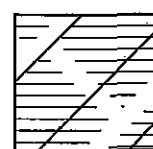
INDICATES STATIC WATER LEVEL



SYMBOL OF ROCK TYPE



SHALE



WEATHERED SHALE

EXPLORATION

ONE-HUNDRED SIX (106) BORINGS WERE DRILLED. EIGHTY-THREE (83) BORINGS, WERE DRILLED FOR THE TWELVE (12) PROPOSED RAMPS, NOT INCLUDED. TWENTY THREE (23) BORINGS WERE DRILLED FOR THE BRIDGE STRUCTURES, INCLUDED HERewith. THE BORING LOCATIONS WERE ESTABLISHED, LOCATED, AND STAKED, BASED ON ESTABLISHED MILEPOSTS AND LANDMARKS. THE BORINGS WERE DRILLED BETWEEN JUNE 17TH, 2003 AND AUGUST 13TH, 2004.

GENERAL INFORMATION

DRIVE SAMPLES

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG EMPLOYING A 2.0-INCH O.D., 1.375-INCH I.D., SPLIT-SPOON SAMPLER, AT 1.5-FOOT TO 5.0-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140-POUND HAMMER WITH A FREE FALL OF 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER THREE 6.0-INCH INCREMENTS IS CONSIDERED THE STANDARD PENETRATION TEST.

PRESS SAMPLES

PRESS SAMPLES ARE TAKEN BY MEANS OF MECHANICAL-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING A 3.0-INCH O.D. THIN-WALL PRESS SAMPLING TUBE. THE PRESS SAMPLING TUBE IS ADVANCED BY CONTINUOUS UNIFORM PRESSURE APPLIED BY THE DRILL RIG.

CORE BORINGS

CORE BORINGS ARE MADE BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING AN NW-PAM CORE BARREL WITH AN INDUSTRIAL DIAMOND CUTTING HEAD.

SAMPLING AND TESTING

THE BORING LOG SHEETS SHOW A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, NUMBER OF BLOWS FOR THE STANDARD PENETRATION TEST IN THREE 6.0 INCH INCREMENTS, AND A SAMPLE DESCRIPTION BASED ON LABORATORY TEST RESULTS, UTILIZING THE ODOT CLASSIFICATION SYSTEM. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, APPEAR GRAPHICALLY ON SEPARATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY, AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETEIORATION, BEDDING, ACID REACTION, AND OTHER QUALIFYING FACTORS.

AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT A SAMPLER CANNOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

THE STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY MAY BE OBTAINED IN DISTRICT 3, THE OFFICE OF MATERIALS MANAGEMENT, 1600 WEST BROAD STREET, COLUMBUS, OHIO 43223, OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223.



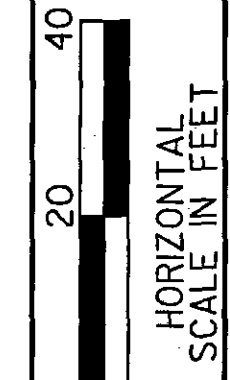
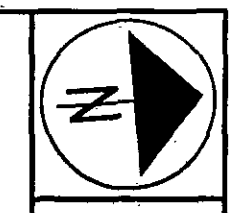
DATE	7/15/05	DATE	7/15/05
CHECKED		CHECKED	GPH
REVIEWED		REVIEWED	
DRAWN	KAL	DRAWN	

STRUCTURE FOUNDATION INVESTIGATION
MED-224-1570 RAMP ES OVER USR 224

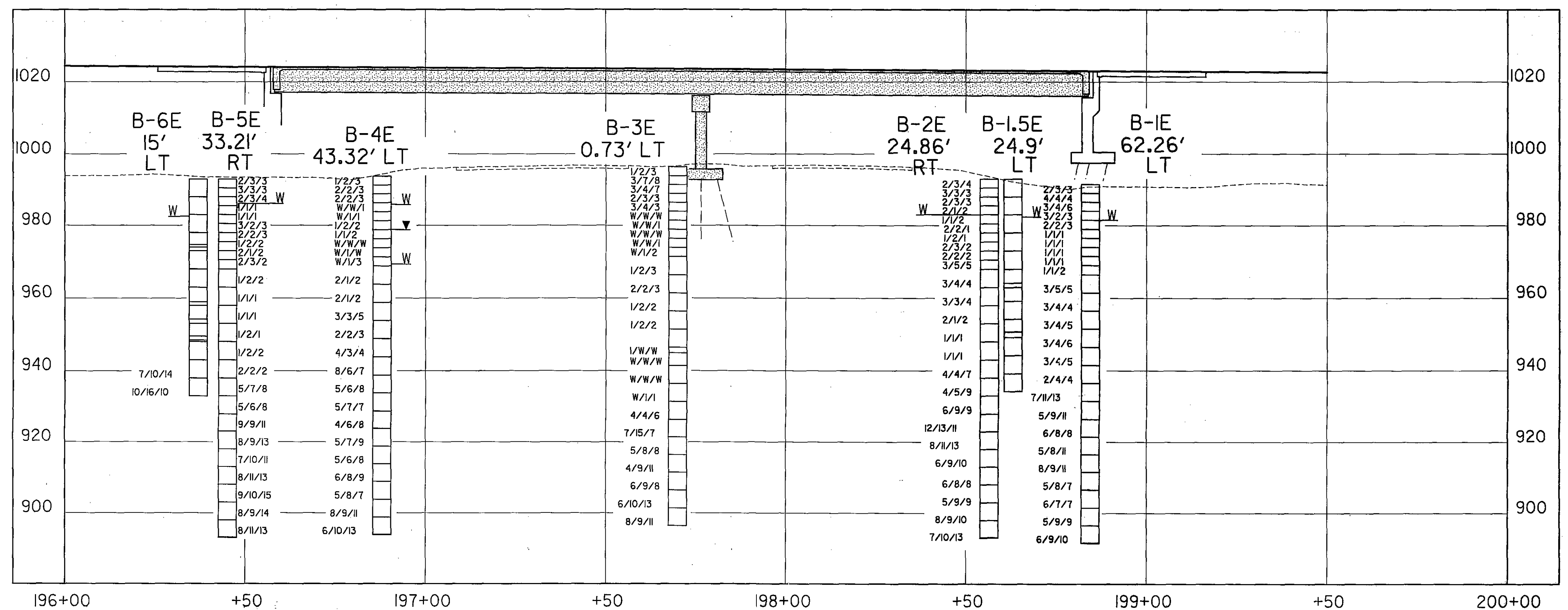
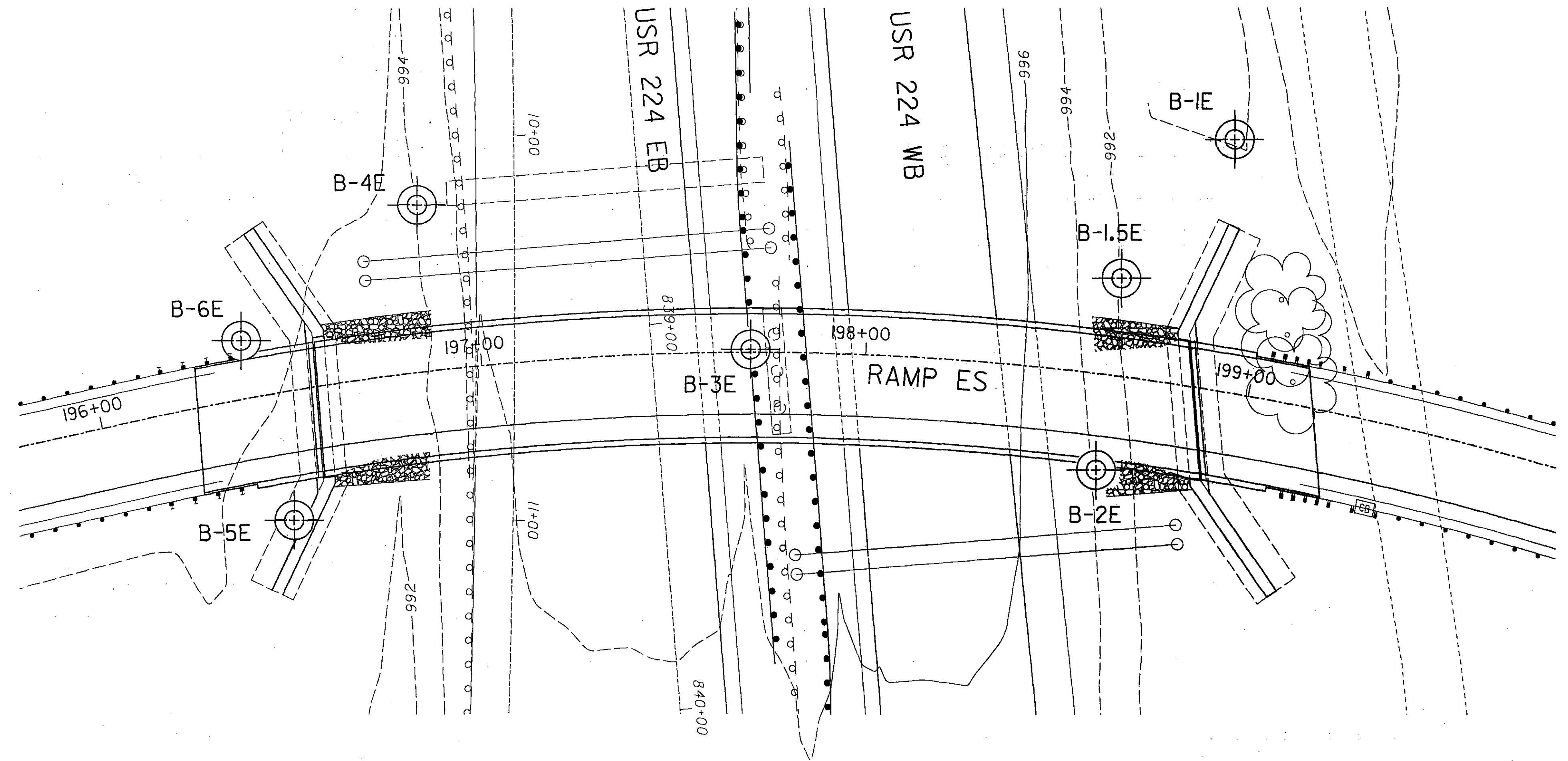
MED-71-6.06

1/9

59
71



CALCULATED	DATE	REVIEWED	DRAWN
	7/15/05		KAL
CHECKED	DATE	REVIEWED	DATE
GPH	7/15/05		



PROFILE ALONG B OF RAMP ES (MED-71-15.70)

PROJECT NO. W-1163MOD
 FILENAME: MED-224-1570-02-PP.DGN

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

Log of Boring

Date Started: 12/02/03 Sampler's Type 3.75' HSA Water Elev. 10.0'
 Date Finished: 12/02/03
 Boring No. B-IE Station & Offset 198+84.46, 65.26' LT Ramp ES over USR 224/176 Surface Elev. 991.5 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS				
991.5	0			8.0' - Topsoil	0.7													
989.0	2	3 3	78	Mottled dark brown, brown and gray SILT and CLAY, little sand, trace gravel.	SS-1									28				VISUAL
986.5	5.0	4 4 4	100	-SS-2: ODOT A-6a	SS-2	3	2	13	42	40	35	17	28					A-6b
984.0		3 4 6	100		8.0									23				VISUAL
984.0	10.0	3 2 3	100	Gray SILTY CLAY, trace sand.	SS-4									31				VISUAL
979.0		2 2 3	100		13.0									30				VISUAL
976.5	15.0	1 1 1	72	Gray CLAY, and silt, trace sand, trace organics.	SS-6	0	2	2	57	39	46	17	34					VISUAL
974.0		1 1 1	89		18.0									58				VISUAL
971.5	20.0	1 1 1	100	Gray SILTY CLAY, little sand, trace organics.	SS-8									39				VISUAL
969.0		1 1 1	100		23.0									39				VISUAL
966.5	25.0	1 1 2	100	Gray SILTY CLAY, trace sand, trace organics.	SS-10									57				VISUAL
961.5	30.0	3 5 5	89	Black PEAT.	SS-11									193				VISUAL
956.5	35.0	3 4 4	89		SS-12									194				VISUAL
951.5	40.0	3 4 5	56	Gray ELASTIC SILT, some clay, little sand, trace gravel. -SS-13: ODOT A-5	SS-13	4	5	8	-83-	60	10	75	A-5					
946.5	45.0	3 4 6	94	Mottled gray and black SILTY CLAY, trace sand, trace gravel, trace organics.	SS-14									52				VISUAL
941.5	50.0	3 4 5	100		SS-15									43				VISUAL

Boring No. B-IE (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																						
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS														
936.5	55.0	2 4 4	100		SS-16														36	VISUAL								
					57.0																							
				Dark gray SAND, little silt, trace gravel, trace clay.																								
931.5	60.0	7 11 13	89		SS-17															17	VISUAL							
					63.0																							
				Dark gray SAND, little silt, little gravel, trace clay, trace organics.																								
926.5	65.0	5 9 11	78		SS-18																13	VISUAL						
					68.5																							
				Dark gray SILTY SAND, some gravel, trace clay.																								
921.5	70.0	6 8 8	56		SS-19																	11	VISUAL					
					73.5																							
				Dark gray SAND, little silt, trace gravel, trace clay.																								
916.5	75.0	5 8 11	72		SS-20																		17	VISUAL				
					83.5																							
				Dark gray SAND, little silt, little gravel, trace clay.																								
911.5	80.0	8 9 11	67		SS-21																			23	VISUAL			
					88.5																							
				Dark gray SILTY SAND, little gravel, trace clay.																								
901.5	90.0	6 7 7	72		SS-23																				19	VISUAL		
					88.5																							
				Dark gray SILTY SAND, little gravel, trace clay.																								
895.5	95.0	5 9 9	72		SS-24																					17	VISUAL	
					98.5																							
				Dark gray SILTY CLAY, some sand, trace clay.																								
891.5	100.0	6 9 10	72		SS-25																						16	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-224-1570-03-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED
 DATE 7/15/05
 CHECKED
 DATE 7/15/05
 GPH

DRAWN
 KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

3/9
 61
 71

Log of Boring

Date Started: 03/04/04 Sampler's Type 3.75' HSA Water Elev. 10.6
 Date Finished: 03/04/04
 Boring No. B-15E Station & Offset 198+63.24.9' LT RAMP ES OVER USR 224/176 Surface Elev. 993.0 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI	W.C.	ODOT CLASS				
993.0	0																	
988.0	5.0		69	Dark brown SILTY CLAY, little sand -ST-1: ODOT A-6b	ST-1	0	1	13	48	38	40	17	29	A-6b				
983.0	10.0		77	Gray SILT and CLAY, trace sand, trace gravel. -ST-2: ODOT A-6b	ST-2	0	1	6	58	35	0	0	34	VISUAL				
978.0	15.0		100	-ST-3: ODOT A-6a	ST-3	0	1	5	65	29	40	13	45	A-6a				
973.0	20.0		100		ST-4	0	1	3	63	33	0	0	51	VISUAL				
968.0	25.0		100	Gray CLAY, little sand, trace gravel. -ST-5: ODOT A-7-5	ST-5	0	8	7	38	47	63	26	85	A-7-5				
963.0	30.0		100	Black PEAT. -ST-6B: ODOT A-3a	ST-6A ST-6B	0	51	18	-31		NP	NP	266	VISUAL A-3a				
958.0	35.0		100	-ST-7: ODOT A-4a	ST-7	0	45	10	-45		NP	NP	189	A-4a				
953.0	40.0		88	Black PEAT. -ST-8: ODOT A-4a	ST-8								70	A-4a				
948.0	45.0		92	Dark Gray ELASTIC CLAY, little sand. -ST-9B: ODOT A-7-5	ST-9A ST-9B	0	12	4	49	35	58	26	58	A-7-5				
943.0	50.0		100	Dark Gray SILTY CLAY, trace sand. -ST-10: ODOT A-6b	ST-10	0	0	2	63	35	39	17	46	A-6b				

Boring No. B-15E (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI	W.C.	ODOT CLASS				
938.0	55.0		100	Dark Gray CLAY, trace sand. -ST-11: ODOT A-7-6	ST-11	0	0	2	57	41	41	14	40	A-7-6				
933.0	60.0		100		ST-12								42	VISUAL				

Bottom of Boring = 60.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-224-1570-04-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949

DATE CALCULATED 7/15/05
 DATE CHECKED 7/15/05

DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

4/9

62
71

Log of Boring

Date Started: 12/03/03 Sampler's Type 3.75" HSA Water Elev. 10.0
 Date Finished: 12/04/03
 Boring No. B-2E Station & Offset 198+63.08, 24.86' RT Surface Elev. 993.0 ft
Ramp ES over USR 224/176

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS														
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	P.I.	W.C.	ODOT CLASS						
993.0	0			8.0' - Topsoil	0.7															
990.5	2.5	3 4	78	Dark brown and gray SILTY CLAY, little sand, trace gravel, trace organics.	SS-1										28					VISUAL
988.0	5.0	3 3 3	89	-SS-2: ODOT A-6b	SS-2										23					A-6b
985.5	2.5	3 3	100		SS-3										24					VISUAL
983.0	10.0	2 1 2	100	Dark gray SANDY SILT, some clay, trace sand, trace gravel, trace organics. (sand seams)	SS-4										28					VISUAL
980.5		1 1 2	100		SS-5										31					VISUAL
978.0	15.0	2 2 1	50	-SS-6: ODOT A-4a	SS-6										29					A-4a
975.5		1 2 1	78	Dark gray SILT and CLAY, trace sand, trace gravel.	SS-7	0	2	7	67	24	39	14	39							VISUAL
973.0	20.0	2 3 2	67		SS-8										39					VISUAL
970.5		2 2 2	100	Black PEAT.	SS-9										51					VISUAL
968.0	25.0	3 5 5	89		SS-10										245					VISUAL
963.0	30.0	3 4 4	100		SS-11										191					VISUAL
958.0	35.0	3 3 4	89		SS-12										119					VISUAL
953.0	40.0	2 1 2	100	Dark gray SILT and CLAY, trace sand, trace gravel.	SS-13										59					VISUAL
948.0	45.0	1 1 1	100		SS-14	0	0	2	61	37	31	11	36							VISUAL
943.0	50.0	1 1 1	89		SS-15										58					VISUAL

Boring No. B-2E (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	P.I.	W.C.	ODOT CLASS								
938.0	55.0	4 4 7	72	Brownish gray SILT and CLAY, little sand, trace gravel.	SS-16																14	VISUAL
933.0	60.0	4 5 9	78		SS-17																14	VISUAL
928.0	65.0	6 9 9	72		SS-18																15	VISUAL
923.0	70.0	12 13 11	56	Gray SILTY SAND, some gravel, trace clay.	SS-19																9	VISUAL
918.0	75.0	8 11 13	56		SS-20																11	VISUAL
913.0	80.0	6 9 10	78	Gray SAND, little silt, trace gravel.	SS-21																15	VISUAL
908.0	85.0	6 8 8	44	Gray SILTY SAND, little clay, trace gravel.	SS-22																12	VISUAL

Bottom of Boring = 85.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-224-1570-05-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED DATE 7/15/05
 CHECKED DATE 7/15/05
 GPH

REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

Log of Boring

Date Started: 12/09/03 Sampler's Type 3.75' HSA Water Elev. Dry
 Date Finished: 12/15/03
 Boring No. B-3E Station & Offset 197+69.89 0.73' LT Ramp ES over USR 224/176 Surface Elev. 996.4 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI	W.C.	ODOT CLASS					
996.4	0			6.0' - Topsoil	0.5														
993.9	1	2	3	100	SS-1										15				VISUAL
991.4	5.0	3	7	8	89		15	8	13	31	33	29	12	13					A-6a
988.9		3	4	7	100	SS-3									12				VISUAL
986.4	10.0	2	3	3	94	SS-4									23				VISUAL
983.9		3	4	3	100	SS-5									25				VISUAL
981.4	15.0	W	W	W	100	SS-6									30				VISUAL
978.9		W	W	1	100	SS-7	20	6	34	38	25	31	11	28					A-6a
976.4	20.0	W	W	W	100	SS-8									31				VISUAL
973.9		W	W	1	100	SS-9	1	2	34	38	25	27	8	41					A-4a
971.4	25.0	W	1	2	100	SS-10									35				VISUAL
968.9															28.0				
966.4	30.0	1	2	3	83	SS-11									10				VISUAL
963.9																			
961.4	35.0	2	2	3	100	SS-12									69				VISUAL
958.9															38.0				
956.4	40.0	1	2	2	89	SS-13	0	12	10	53	25	62	20	42					A-7-5
953.9																			
951.4	45.0	1	2	2	100	SS-14									41				VISUAL
948.9																			
946.4	50.0				100	-ST-15: ODOT A-7-5	2	4	6	-86-	58	19	71						A-7-5

Boring No. B-3E (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS															
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI	W.C.	ODOT CLASS							
943.9		1	W	W	100															A-6a	
941.4	55.0	W	W	W	100	SS-17													31	VISUAL	
938.9																					
936.4	60.0	W	W	W	100	SS-18														33	VISUAL
933.9															63.0						
931.4	65.0	W	1	1	72	SS-19														15	VISUAL
928.9															68.0						
926.4	70.0	4	4	6	89	SS-20														14	VISUAL
923.9																					
921.4	75.0	7	15	7	89	SS-21									75.0					15	VISUAL
918.9																					
916.4	80.0	5	8	8	83	SS-22														17	VISUAL
913.9																					
908.9	85.0	4	9	11	72	SS-23														13	VISUAL
908.9															88.5						
906.4	90.0	6	9	8	67	SS-24														10	VISUAL
903.9																					
901.4		6	10	13	56	SS-25														9	VISUAL
898.9																					
896.4		8	9	11	67	SS-26														9	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-224-1570-06-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



DATE 7/15/05
 DATE 7/15/05

REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

6/9
 64
 71

Log of Boring

Date Started: 12/08/03 Sampler's Type 3.75' HSA Water Elev. 15.0
 Date Finished: 12/09/03
 Boring No. B-4E Station & Offset 196+87.93, 43.32' LT Ramp ES over USR 224/176 Surface Elev. 993.8 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS											
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI	W.C.	ODOT CLASS			
993.8	0			10.0' - Topsoil	0.8												
991.3	1	2 3	100	Mottled brown and gray SILTY CLAY, little sand, trace gravel, trace organics.	3.0											26	VISUAL
988.8	5.0	2 2 3	89	Mottled brown and gray SILTY CLAY, trace sand, trace gravel, trace organics.												22	VISUAL
983.8		2 2 3	100	-SS-3: ODOT A-6b	8.0	2	4	6	50	38	35	16	57				A-6b
983.8	10.0	W W 1	100	Gray CLAY, some silt, little sand, trace organics.												39	VISUAL
981.3		W 1 1	100	Black PEAT.	12.0											37	VISUAL
978.8	15.0	1 2 2	100													222	VISUAL
976.3		1 1 2	100	-SS-7: ODOT A-5	18.0	1	9	41	-49-		50	NP	103				A-5
973.8	20.0	W W W	100	Dark Brown changing to mottled, black and gray SILTY CLAY, little sand, trace gravel, trace organics.												47	VISUAL
971.3		W 1 W	100		24.5											57	VISUAL
968.8	25.0	W 1 3	78	Gray SAND, little silt, little gravel, trace clay.												39	VISUAL
963.8	30.0	2 1 2	33													19	VISUAL
958.8	35.0	2 1 2	89	Gray SILTY SAND, little clay, trace gravel.	32.0												VISUAL
953.8	40.0	3 3 5	44													23	VISUAL
948.8	45.0	2 2 3	56	Gray SAND, little silt, trace gravel.	43.0											16	VISUAL
943.8	50.0	4 3 4	67														VISUAL

Boring No. B-4E (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PI	W.C.	ODOT CLASS				
					52.0													
938.8	55.0	8 6 7	56	Gray SAND, little silt, trace gravel.													10	VISUAL
933.8	60.0	5 6 8	72															VISUAL
928.8	65.0	5 7 7	78														10	VISUAL
923.8	70.0	4 6 8	89															VISUAL
918.8	75.0	5 7 9	72	Gray SAND, little silt, trace gravel, trace sand.	73.5												23	VISUAL
913.8	80.0	5 6 8	78															VISUAL
908.8	85.0	6 8 9	83	Gray SILTY SAND, trace gravel, trace clay.	83.5												13	VISUAL
903.8	90.0	5 8 7	56	Gray SANDY SILT, little clay, trace gravel.	88.5												19	VISUAL
898.8	95.0	8 9 11	61	Gray SAND, some silt, trace clay, trace gravel.	93.5													VISUAL
893.8	100.0	6 10 13	50		100.0												13	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-169MOD
 FILENAME: MED-224-1570-07-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

7/9

65/71

Log of Boring

Date Started: 12/04/03 Sampler's Type 3.75" HSA Water Elev. 8.0/33.0
 Date Finished: 12/04/03
 Boring No. B-5E Station & Offset 196+45.14 33.21' Ramp ES over USR 224/176 Surface Elev. 993.0 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL.	PL.	W.C.	ODOT CLASS					
993.0	0			10.0' - Topsoil	0.8														
990.5	2.3	3	72	Dark Brown SILTY CLAY, little sand, trace gravel, trace organics.	3.0 SS-1											30	VISUAL		
998.0	5.0	3	100	Mottled Brown and gray SILT and CLAY, little sand, trace gravel, trace organics. -SS-2: ODOT A-6a	8.0 SS-2	1	5	12	48	35	33	14	62						
985.5	2.3	4	100	Gray SILT and CLAY, little sand, trace gravel.	8.0 SS-3											26	VISUAL		
983.0	10.0	1	78	-SS-5: ODOT A-6a	16.0 SS-4											25	VISUAL		
980.5	1	1	89	Black PEAT.	16.0 SS-5	2	5	12	51	30	31	12	33						
978.0	15.0	3	50	Gray and black SILT, some clay, little sand, trace gravel, trace shells.	16.0 SS-6											42	VISUAL		
975.5	2.2	3	56	-SS-9: ODOT A-4b	18.5 SS-7											146	VISUAL		
973.0	20.0	1	89	Mottled gray and brown SILT, some clay, trace sand. -SS-12: ODOT A-4b	18.5 SS-8											77	VISUAL		
970.5	2	2	78	Gray SILTY SAND, little gravel, little clay.	33.0 SS-9	4	1	18	52	26	NP	NP	93						
968.0	25.0	2	100	Gray SAND, little silt, little gravel, trace clay.	33.0 SS-10											87	VISUAL		
963.0	30.0	1	89	Gray SILTY SAND, some clay, trace gravel.	33.0 SS-11											52	VISUAL		
958.0	35.0	1	100	Gray SAND, some silt, trace gravel.	33.0 SS-12	0	0	5	62	33	31	9	74						
953.0	40.0	1	100	Gray SAND, some silt, trace gravel.	33.0 SS-13											32	VISUAL		
948.0	45.0	1	100	Gray SILTY SAND, little gravel, little clay.	33.0 SS-14											35	VISUAL		
943.0	50.0	1	100	Gray SILT and CLAY, little sand, trace gravel.	33.0 SS-15											35	VISUAL		

Boring No. B-5E (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL.	PL.	W.C.	ODOT CLASS				
938.0	55.0	2	100	Gray SAND, little silt, little gravel, trace clay.	57.5 SS-16												47	VISUAL
933.0	60.0	5	83	Gray SILTY SAND, little gravel, little clay.	57.5 SS-17													VISUAL
928.0	65.0	5	72	Gray SAND, little silt, little gravel, trace clay.	68.0 SS-18												16	VISUAL
923.0	70.0	9	50	Gray SILTY SAND, some clay, trace gravel.	68.0 SS-19													VISUAL
918.0	75.0	8	56	Gray SAND, some silt, trace gravel.	75.0 SS-20													VISUAL
985.0	80.0	7	78	Gray SAND, some silt, trace gravel.	75.0 SS-21												10	VISUAL
908.0	85.0	8	78	Gray SILTY SAND, little gravel, little clay.	83.5 SS-22													VISUAL
903.0	90.0	9	78	Gray SAND, some silt, trace gravel.	83.5 SS-23												9	VISUAL
898.0	95.0	8	67	Gray SILTY SAND, little gravel, little clay.	88.5 SS-24													VISUAL
893.0	100.0	8	56	Gray SILT and CLAY, little sand, trace gravel.	98.5 SS-25												10	VISUAL

Bottom of Boring = 100.0 feet

PROJECT NO. W-165MOD
 FILENAME: MED-224-1570-08-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CALCULATED DATE 7/15/05
 CHECKED DATE 7/15/05
 GPH

REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

8/9
 66
 71

Log of Boring

Date Started: 03/03/04 Sampler's Type 3.75" HSA Water Elev. 10.5
 Date Finished: 03/03/04
 Boring No. B-6E Station & Offset 33.2' RT196+45 Surface Elev. 993.0 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS												
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	P.I.	W.C.	ODOT CLASS				
993.0	0			8" Topsoil	0.7													
988.0	5.0		90	Dark Brown to Brown SILTY CLAY, little sand. -ST-1: ODOT A-6b	ST-1	0	4	16	50	30	33	16	20	A-6b				
983.0	10.0		88	Brown to gray SILT and CLAY, some sand, trace gravel. -ST-2: ODOT A-6a	ST-2	4	5	16	45	30	29	11	24	A-6a				
978.0	15.0		92	Gray elastic SILTY CLAY, little sand, trace gravel. -ST-3: ODOT A-6b	ST-3	0	3	13	50	34	37	16	32	A-6b				
965.0	20.0		100	Black PEAT.	ST-4A								33	VISUAL				
965.0	20.0		100	Gray elastic CLAY, some sand, trace gravel. -ST-4C: ODOT A-7-5	ST-4B								48	VISUAL				
965.0	20.0		100	Gray elastic CLAY, some sand, trace gravel. -ST-4C: ODOT A-7-5	ST-4C	1	5	21	-74-	75	13	91	91	A-7-5				
968.0	25.0		92	-ST-5: ODOT A-7-5	ST-5	0	0	4	57	38	48	18	51	A-7-5				
963.0	30.0		100	Dark gray SILTY CLAY, trace sand, trace gravel. -ST-6: ODOT A-6b	ST-6	0	0	5	-95-	39	17	39	39	A-6b				
958.0	35.0		100	Gray SILT and CLAY, trace sand. -ST-7A: ODOT A-6a -ST-7B: ODOT A-6a	ST-7A	0	0	2	-98-	34	11	41	41	A-6a				
958.0	35.0		100	Gray SILT and CLAY, trace sand. -ST-7A: ODOT A-6a -ST-7B: ODOT A-6a	ST-7B	0	0	1	63	36	36	13	39	A-6a				
953.0	40.0		100	Gray SILT, some sand, trace gravel.	ST-8A	5	9	16	-70-					VISUAL				
953.0	40.0		63	Gray SILTY CLAY, little sand, trace gravel.	ST-8B	4	5	11	-80-				19	VISUAL				
948.0	45.0		100	Gray SAND, trace gravel, trace clay.	ST-9A									VISUAL				
948.0	45.0		100	Gray SANDY SILT, trace gravel.	ST-9B									VISUAL				
948.0	45.0		100	Gray SANDY SILT, trace gravel.	ST-9C									VISUAL				
943.0	50.0		100	Gray SILT and CLAY, little sand, trace gravel.														
943.0	50.0		100	Gray SAND, little silt, trace gravel.	ST-10									VISUAL				

Boring No. B-6E (CONTINUED)

ELEV (FT)	DEPTH (FT)	STD. PEN/RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	P.I.	W.C.	ODOT CLASS					
938.0	55.0	7	10	14	72														
938.0	55.0	7	10	14	72														
933.0	60.0	0	16	10	61														

Bottom of Boring = 60.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-224-1570-09-DATA.DGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



DATE	7/15/05	DATE	7/15/05
REVIEWED		CHECKED	GPH
DRAWN	KAL	CALCULATED	

STRUCTURE FOUNDATION INVESTIGATION
 MED-224-1570 RAMP ES OVER USR 224

MED-71-6.06

9/9
 67
 71

INTRODUCTION

THE EXISTING INTERCHANGE IS LOCATED IN MEDINA COUNTY, OHIO, APPROXIMATELY ONE (1) MILE WEST OF SEVILLE AND ONE (1) MILE EAST OF WESTFIELD CENTER. THE INTERCHANGE SERVES AS THE WESTERN TERMINUS OF IR 76 AT MILE POST 0. RELATIVE TO IR 71, THE INTERCHANGE IS AT MILE POST 209.

THE PROJECT CONSISTS OF TWELVE (12) NEW, RELOCATED AND/OR IMPROVED RAMPS AND FOUR (4) NEW BRIDGES

RAMP INFORMATION

NO.	TITLE	NO. OF BORINGS	BORING DESIGNATIONS	RAMP LENGTH (FT)
1	ES	37	ES-1 THROUGH ES-15, ES-6A,B,C, ES-7A, ES-8A,B,C, & ES-9A,B, 16-17, 22-23, 27, 28-29, 32-33, 36-37, 42-43	5593
2	SE	14	SE-3 THROUGH SE-16	4737
3	S-EW	2	SE-1 & SE-2	986
4	SW	3	SW-1 THROUGH SW-3	2372
5	WS	3	WS-1 THROUGH WS-3	1271
6	W-NS	2	WS-4 & WS-5	568
7	EN	8	EN-1 THROUGH EN-8	2358
8	NE	6	NE-2 THROUGH NE-7	1807
9	N-EW	1	NE-1	1413
10	NW	3	NW-1 THROUGH NW-3	826
11	NS-W	1	NW-4	2637
12	WN	3	WN-1 THROUGH WN-3	1293

BRIDGE INFORMATION

LETTER	TITLE	NO. OF BORINGS	BORING DESIGNATIONS
A	I71 & SE OVER GREENWICH RD	8	B-1 THROUGH B-8
B	SE OVER CHIPPEWA CREEK	4	B-1 THROUGH B-4
C	ES OVER USR 224	7	B-1E THROUGH B-6E & B-1.5E
D	ES OVER GREENWICH ROAD	4	B-9 THROUGH B-12

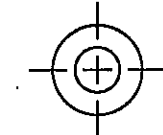
GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE SITE LIES ON THE BORDERLINE OF THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU AND THE GALION GLACIATED LOW PLATEAU. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM END MORAINE, LAKE-PLANED MORAINE, GROUND MORAINE, AND OUTWASH DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. GLACIAL TILL OR MORAINES CONSIST OF DEBRIS DEPOSITED BY THE GLACIER ACROSS THE LAND SURFACE AS THE GLACIERS RETREAT. OUTWASH DEPOSITS CONSIST OF UNDIFFERENTIATED SAND AND GRAVEL DEPOSITED BY MELT WATER IN FRONT OF GLACIAL ICE, AND OFTEN OCCURS AS VALLEY TERRACES OR LOW PLAINS.

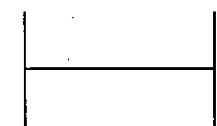
THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WESTFIELD CENTER QUADRANGLE, THE TOP OF BEDROCK DROPS TOWARD THE CHIPPEWA CREEK VALLEY. THIS TOPOGRAPHIC HIGH AREA SURROUNDS THE DRAINAGE OF THE CHIPPEWA CREEK VALLEY. THE TOP OF BEDROCK AT THE NORTH END IN THE VICINITY OF THE CHIPPEWA CREEK VALLEY AND I-76 IS BETWEEN 800 AND 950 FEET. THE THICK DEPOSITS OF OUTWASH AND GLACIAL OVERBURDEN OCCURRING IN THE CHIPPEWA CREEK VALLEY RANGE FROM APPROXIMATELY 100 TO 200+ FEET OF DEPOSITS. OVERBURDEN DEPOSITS APPEAR SHALLOWEST, APPROXIMATELY 50 FEET THICK, AT THE BEDROCK, JUST WEST OF GREENWICH ROAD.

RIVER VALLEY FILL, CONSISTING OF INTERBEDDED AND INTERLENSED SAND, GRAVEL, SILT AND CLAY SUPPLY MUCH OF THE WATER TO DOMESTIC WELLS LOCATED IN THE AREA. ACCORDING TO THE GROUND WATER POLLUTION POTENTIAL OF MEDINA COUNTY, OHIO, DOMESTIC WELLS ARE DEVELOPED ANYWHERE FROM 0 TO 50 FEET DEEP IN THE CHIPPEWA CREEK VALLEY AREA.

LEGEND



PRESS AND/OR DRIVE SAMPLE AND/OR CORE BORING LOCATION-PLAN VIEW.

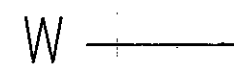


HORIZONTAL BAR ON BORING LOG INDICATES THE DEPTH THE SAMPLE WAS TAKEN.

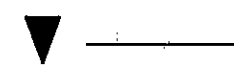
X/Y/Z

FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST.

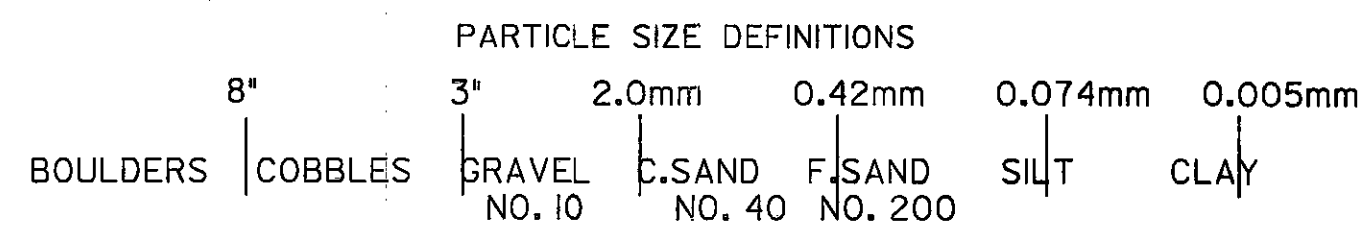
- X = NUMBER OF BLOWS FOR FIRST 6 INCHES
- Y = NUMBER OF BLOWS FOR SECOND 6 INCHES
- Z = NUMBER OF BLOWS FOR THIRD 6 INCHES



INDICATES FREE WATER LEVEL



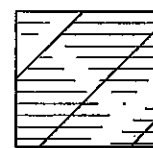
INDICATES STATIC WATER LEVEL



SYMBOL OF ROCK TYPE



SHALE



WEATHERED SHALE

EXPLORATION

ONE-HUNDRED SIX (106) BORINGS WERE DRILLED. EIGHTY-THREE (83) BORINGS, WERE DRILLED FOR THE TWELVE (12) PROPOSED RAMPS, NOT INCLUDED. TWENTY THREE (23) BORINGS WERE DRILLED FOR THE BRIDGE STRUCTURES, INCLUDED HERewith. THE BORING LOCATIONS WERE ESTABLISHED, LOCATED, AND STAKED, BASED ON ESTABLISHED MILEPOSTS AND LANDMARKS. THE BORINGS WERE DRILLED BETWEEN JUNE 17TH, 2003 AND AUGUST 13TH, 2004.

GENERAL INFORMATION

DRIVE SAMPLES

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG EMPLOYING A 2.0-INCH O.D., 1.375-INCH I.D., SPLIT-SPOON SAMPLER, AT 1.5-FOOT TO 5.0-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140-POUND HAMMER WITH A FREE FALL OF 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER THREE 6.0-INCH INCREMENTS IS CONSIDERED THE STANDARD PENETRATION TEST.

PRESS SAMPLES

PRESS SAMPLES ARE TAKEN BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING A 3.0-INCH O.D. THIN-WALL PRESS SAMPLING TUBE. THE PRESS SAMPLING TUBE IS ADVANCED BY CONTINUOUS UNIFORM PRESSURE APPLIED BY THE DRILL RIG.

CORE BORINGS

CORE BORINGS ARE MADE BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING AN NW-PAM CORE BARREL WITH AN INDUSTRIAL DIAMOND CUTTING HEAD.

SAMPLING AND TESTING

THE BORING LOG SHEETS SHOW A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, NUMBER OF BLOWS FOR THE STANDARD PENETRATION TEST IN THREE 6.0 INCH INCREMENTS, AND A SAMPLE DESCRIPTION BASED ON LABORATORY TEST RESULTS, UTILIZING THE ODOT CLASSIFICATION SYSTEM. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, APPEAR GRAPHICALLY ON SEPARATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY, AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETERIORATION, BEDDING, ACID REACTION, AND OTHER QUALIFYING FACTORS.

AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT A SAMPLER CANNOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

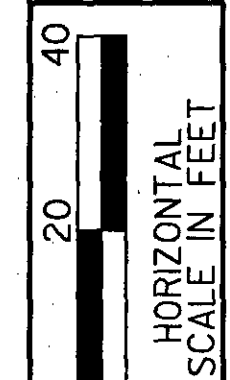
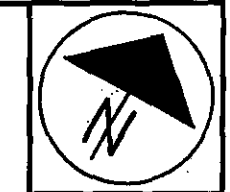
THE STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY MAY BE OBTAINED IN DISTRICT 3, THE OFFICE OF MATERIALS MANAGEMENT, 1600 WEST BROAD STREET, COLUMBUS, OHIO 43223, OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223.



DATE	7/15/05	DATE	7/15/05
CHECKED		CHECKED	
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CHECKED		CHECKED	

STRUCTURE FOUNDATION INVESTIGATION
MED-71-0729EN RAMP SE OVER GREENWICH ROAD

MED-71-6.06



HORIZONTAL SCALE IN FEET

DATE 7/15/05
CHECKED GPH

DATE 7/15/05

REVIEWED
DATE

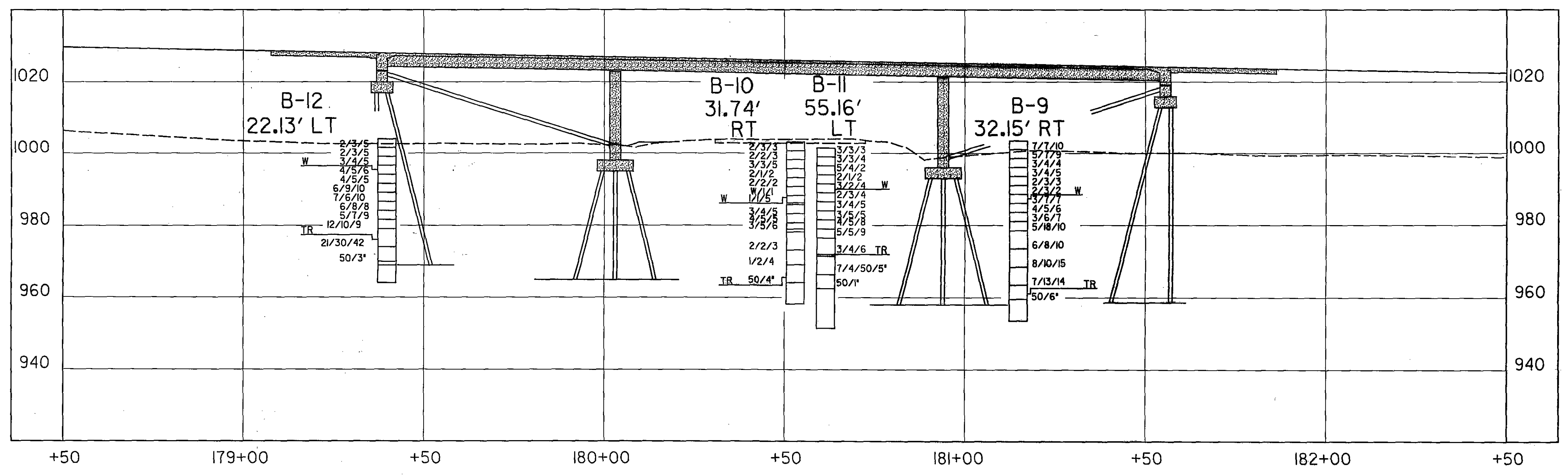
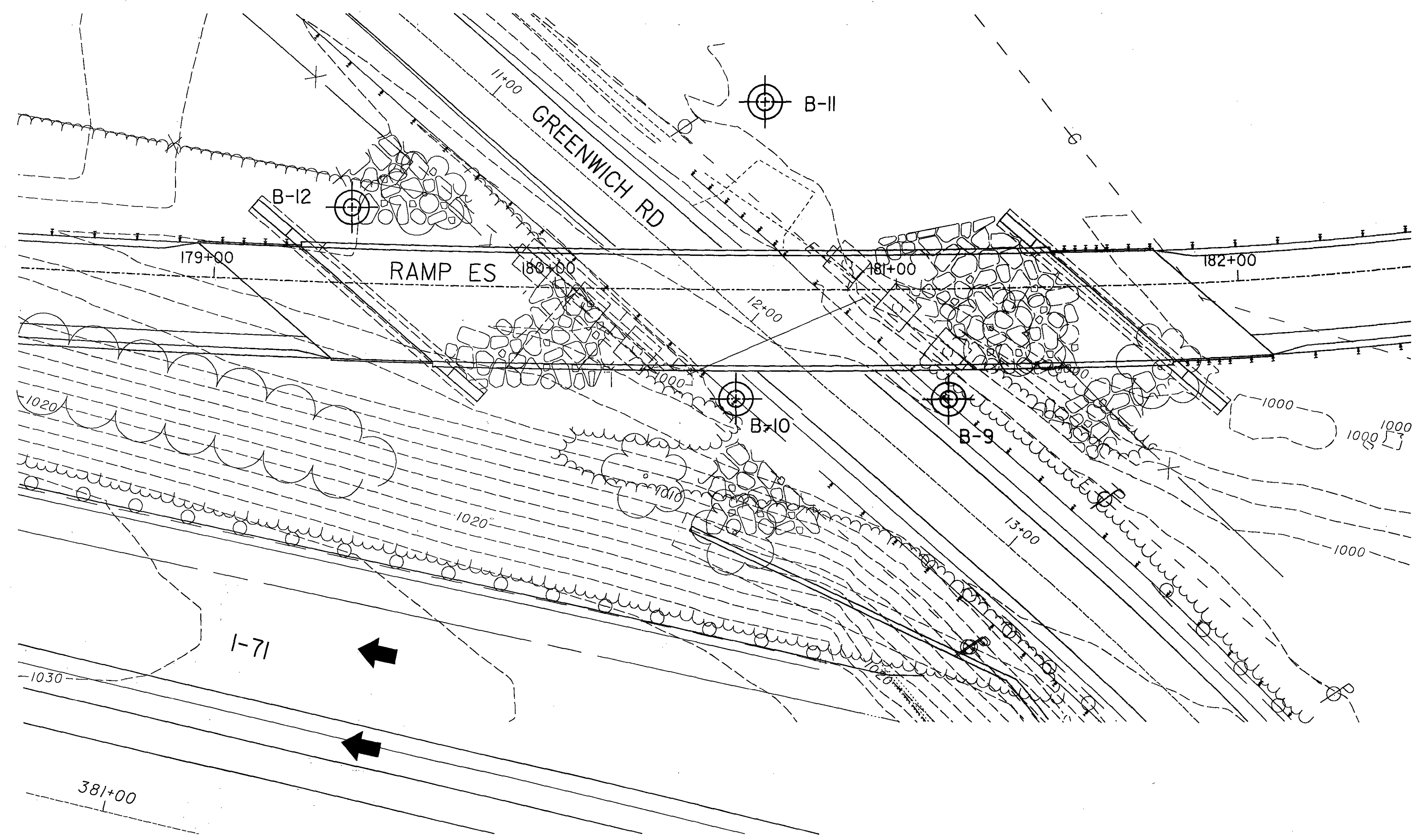
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STRUCTURE FOUNDATION INVESTIGATION
MED-71-0729EN RAMP SE OVER GREENWICH ROAD

2 / 4

MED-71-6.06

69
71



PROFILE ALONG B OF RAMP ES (MED-71-0729EN)

PROJECT NO. W-16340D
FILENAME: MED-224-ISTD-02-PP.DGN

Log of Boring

Date Started: 07/15/03 Sampler's Type 3.75' HSA Water Elev. NA
 Date Finished: 07/15/03
 Boring No. B-9 Station & Offset 181+14.85, 32.15' RT (Ramp ES over Greenwich Road) Surface Elev. 1003.6 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS														
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS						
	0																			
1001.1	7	7 10	61	4.0' - Gravel dark brown SILT and CLAY, some sand, trace gravel -trace organics in SS-1	SS-1											12				VISUAL
998.6	5.0	5 7 9	72	-SS-2: ODOT A-6a Brown SILTY CLAY, little sand, trace gravel	SS-2											22				A-6a
996.1	3	4 4	78		SS-3											26				VISUAL
993.6	10.0	3 4 5	89		SS-4											26				VISUAL
991.1	2	3 3	78	Gray SILT and CLAY, trace sand -SS-5: ODOT A-6a	SS-5											27				A-6a
988.6	15.0	2 3 2	83	-groundwater initially encountered @ 16.2'	SS-6											26				VISUAL
986.1	3	7 7	11	Gray GRAVEL, fine sand, little silt	SS-7															VISUAL
998.6	20.0	4 5 6	67		SS-8											14				VISUAL
996.1	3	6 7	56		SS-9											15				VISUAL
983.6	25.0	5 18 10	72	Gray SANDY SILT, some clay, little gravel	SS-10											13				VISUAL
978.6	30.0	6 8 10	78	Gray SILT and CLAY, some sand, little gravel, trace cobbles	SS-11											16				VISUAL
973.6	35.0	8 10 15	33	Gray SAND, some gravel, some silt	SS-12											14				VISUAL
968.6	40.0	7 13 14	39		SS-13											8				VISUAL
963.8	45.0	50/6'	83	Gray SANDY SILT/ SILTSTONE/ SHALE	SS-14															VISUAL
958.6	50.0			SHALE																

Bottom of Boring = 50.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-71-0729EN-03-DATA.DGN

Log of Boring

Date Started: 06/24/03 Sampler's Type 3.75' HSA/RC/WD Water Elev. NA
 Date Finished: 06/24/03
 Boring No. B-10 Station & Offset 180+53.05, 31.74' RT (Ramp ES over Greenwich Road) Surface Elev. 1003.2 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ROD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS																
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	PL	W.C.	ODOT CLASS								
1003.2	0																					
1000.7	2	3 3	100	11.0' - Topsoil Brown SILTY CLAY, some sand, little gravel, trace organics.	SS-1																14	VISUAL
998.2	5.0	2 2 3	78	Brown CLAY, some silt, little sand, trace gravel. -SS-2: ODOT A-7-6	SS-2																25	A-7-6
995.7	3	3 5	39		SS-3																21	VISUAL
993.2	10.0	2 1 2	100	Gray SILTY CLAY, trace sand. -SS-4: ODOT A-6b	SS-4																25	A-6-b
990.7	2	2 2	89		SS-5																28	VISUAL
988.2	15.0	W 1 1	94	-groundwater initially encountered @ 15.5'	SS-6																25	VISUAL
985.7	1	1 5	100		SS-7A																24	VISUAL
983.2	20.0	3 4 5	50	Gray SAND, some gravel, some silt, trace clay.	SS-7B																	
980.7	4	5 5	67		SS-8																16	VISUAL
978.2	25.0	3 5 6	89	Gray SAND, some silt, little gravel	SS-9																16	VISUAL
973.2	30.0	2 2 3	33		SS-10A																15	VISUAL
968.2	35.0	1 2 4	56	Gray SILT and CLAY, some sand, little gravel.	SS-10B																15	VISUAL
963.2	40.0	50/4'	100	Gray SHALE.	SS-11																16	VISUAL
958.2	45.0			SHALE	SS-12																12	VISUAL

Bottom of Boring = 45.0'

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949

CALCULATED DATE 7/15/05
 CHECKED DATE 7/15/05
 GPH

REVIEWED
 DRAWN KAL

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729EN RAMP SE OVER GREENWICH ROAD

MED-71-6.06

3/4
 70
 71

Log of Boring

Date Started: 06/23/03 Sampler's Type 3.75" HSA/RC/WD Water Elev. NA
 Date Finished: 06/23/03
 Boring No. B-11 Station & Offset 180+61.46, 55.16' LT (Ramp ES over Greenwich Road) Surface Elev. 1001.5 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	P.I.	W.C.	ODOT CLASS					
1001.5	0			12.75' - Topsoil	11														
	3	3	3	Brown CLAY, and silt, trace sand.	SS-1														21 VISUAL
996.5	5.0	3	3	-SS-2: ODOT A-7-6	SS-2														22 A-7-6
	5	4	2	Gray SILT, some clay, little sand.	7.5 SS-3														25 VISUAL
991.5	10.0	2	1	-SS-4: ODOT A-4b	SS-4														26 A-4b
	3	2	4	Brown SAND, some gravel, little silt.	SS-5														18 VISUAL
986.5	15.0	2	3	-groundwater initially encountered @ 11.5'	SS-6														16.0
	3	4	5	Gray SAND, little gravel, trace silt.	SS-7														67
981.5	20.0	3	5		SS-8														14 VISUAL
	4	5	8		SS-9														23.0
976.5	25.0	5	5	Gray SANDY SILT, little clay, little gravel.	SS-10														13 VISUAL
	3	4	6	Gray SILTY CLAY, little sand, trace gravel.	28.5 SS-IIA														29.5
971.5	30.0	3	4		SS-IIA														19 VISUAL
	7	4	50/5"	Gray SHALE.	SS-IIIB														
966.5	35.0	7	4		SS-12														94
	50/1"				SS-13														40.0
961.5	40.0			Gray SHALE.															
956.5	45.0			-RC-1: 40.0-50.0' (10.0') -RQD = 11%															
951.5	50.0																		50.0

Bottom of Boring = 50.0 feet

Log of Boring

Date Started: 07/14/03 Sampler's Type 3.75" HSA Water Elev. N/A
 Date Finished: 07/14/03
 Boring No. B-12 Station & Offset 179+39.73, 22.13' LT (Ramp ES over Greenwich Road) Surface Elev. 1004.1 ft

ELEV (FT)	DEPTH (FT)	STD. PEN/ RQD	REC. %	DESCRIPTION	SAMPLE NO.	PHYSICAL CHARACTERISTICS													
						% AGG.	% C.S.	% F.S.	% SILT	% CLAY	LL	P.I.	W.C.	ODOT CLASS					
	0			12.25' - Topsoil	1.0														
1001.6	2	3	5	Brown SILTY CLAY, little sand, trace gravel.	SS-1														17 VISUAL
				-SS-2: ODOT A-6b	5.0 SS-2														26 A-6b
999.1	5.0	2	3	Brown SILT and CLAY, some sand, trace gravel.	SS-2														
996.6	3	4	5	-groundwater initially encountered @ 8.7'	8.7 SS-3														23 VISUAL
994.1	10.0	4	5	Gray SILT, some clay, little sand, trace gravel.	SS-4														22 A-4b
				-SS-4: ODOT A-4b	13.0 SS-5														24 VISUAL
991.6	4	5	5	Gray SANDY SILT, little gravel, little clay.	SS-6														
989.1	15.0	6	9		SS-6														13 VISUAL
986.6	7	6	10		SS-7														13 VISUAL
984.1	20.0	6	8	-SS-8: ODOT A-4a	SS-8														18 A-4a
981.6	5	7	9	-SS-9: ODOT A-4a	SS-9														11 A-4a
979.1	25.0	2	10	-SS-10: ODOT A-4a	SS-10														11 A-4a
				Gray SANDY SILT/ SHALE	28.0 SS-II														
974.1	30.0	21	30		SS-II														10 VISUAL
969.1	35.0	50/3"	67	SHALE with siltstone.	SS-12														7 VISUAL
				-RC-1: 35.0-40.0' (5.0') -RQD = 0%															
964.1	40.0																		40.0

Bottom of Boring = 40.0 feet

PROJECT NO. W-1169MOD
 FILENAME: MED-71-0729EN-04-DATADGN

RESOURCE INTERNATIONAL, INC.
 6350 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231 (614) 823-4949



CHECKED: GPH
 DATE: 7/15/05

REVIEWED: KAL
 DATE: 7/15/05

STRUCTURE FOUNDATION INVESTIGATION
 MED-71-0729EN RAMP SE OVER GREENWICH ROAD

MED-71-6.06

4/4
 71
 71