

DESIGN DESIGNATION

S.R. 7

CURRENT A.D.T. (1994)	= 18,300
DESIGN YEAR A.D.T. (2004)	= 20,130
D.H.V.	= 2,013
D	= 55%
T	= 13%
LEGAL SPEED	= 50 MPH (URBAN), 55 MPH (RURAL)
DESIGN SPEED	= 50 MPH (URBAN), 55 MPH (RURAL)
FUNCTIONAL CLASSIFICATION	= FREEWAY/(URBAN AND RURAL)
DESIGN EXCEPTION REQUIRED FOR:	APPROVAL DATE
GRADED SHOULDER WIDTH	5-5-93
BRIDGE WIDTH	5-5-93
STRUCTURAL CAPACITY	5-5-93

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
JEF - 7 - 13.11
CITY OF MINGO JUNCTION
STEUBENVILLE TOWNSHIP
JEFFERSON COUNTY

JEF - 7 - 13.11	OHIO	1
	FHWA REGION 5	83
NH - 1 (195)	FEDERAL PROJECT	

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY 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.

1993 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 THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

"UNDER AUTHORITY OF SECTION 4511.21 DIVISION (I) OF THE REVISED CODE OF OHIO, 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 LIMITS OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED."

APPROVED John H. McClain
DATE 7-20-94 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED B.D. H. ...
DATE 9/14/94 ENGINEER, BUREAU OF BRIDGES AND STRUCTURAL DESIGN.

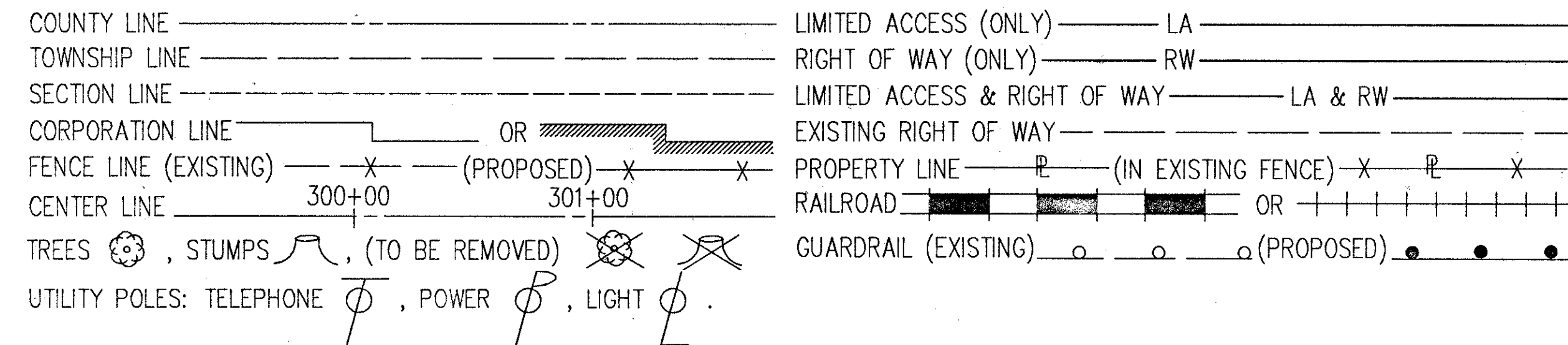
APPROVED Christopher L. ...
DATE 9-27-94 DEPUTY DIRECTOR, DESIGN

APPROVED Jerry ...
DATE 9-27-94 DIRECTOR, DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

CONVENTIONAL SIGNS



INDEX OF SHEETS

TITLE SHEET	1	PROFILE RECONSTRUCTION	29-30
SCHEMATIC PLAN	2-3	ROADWAY DETAILS	31-32
TYPICAL SECTIONS	4-7	DRAINAGE DETAILS	33-35
FEATHER & BARRIER DETAILS	8-9	SIGNING PLAN	36-39
MAINTENANCE OF TRAFFIC	10-13	SIGN ELEVATIONS & DETAILS	40-41
GENERAL NOTES	14	SIGNING SUBSUMMARY	42-45
QUANTITY CALCULATIONS	15-22	PAVEMENT MARKING DETAILS	46
GENERAL SUMMARY	23-25	PAVEMENT MARKING SUBSUMMARY	47
PLAN SHEETS	26-28	FENCE PLAN & SUBSUMMARY	48-49
		STRUCTURE PLANS	50-83

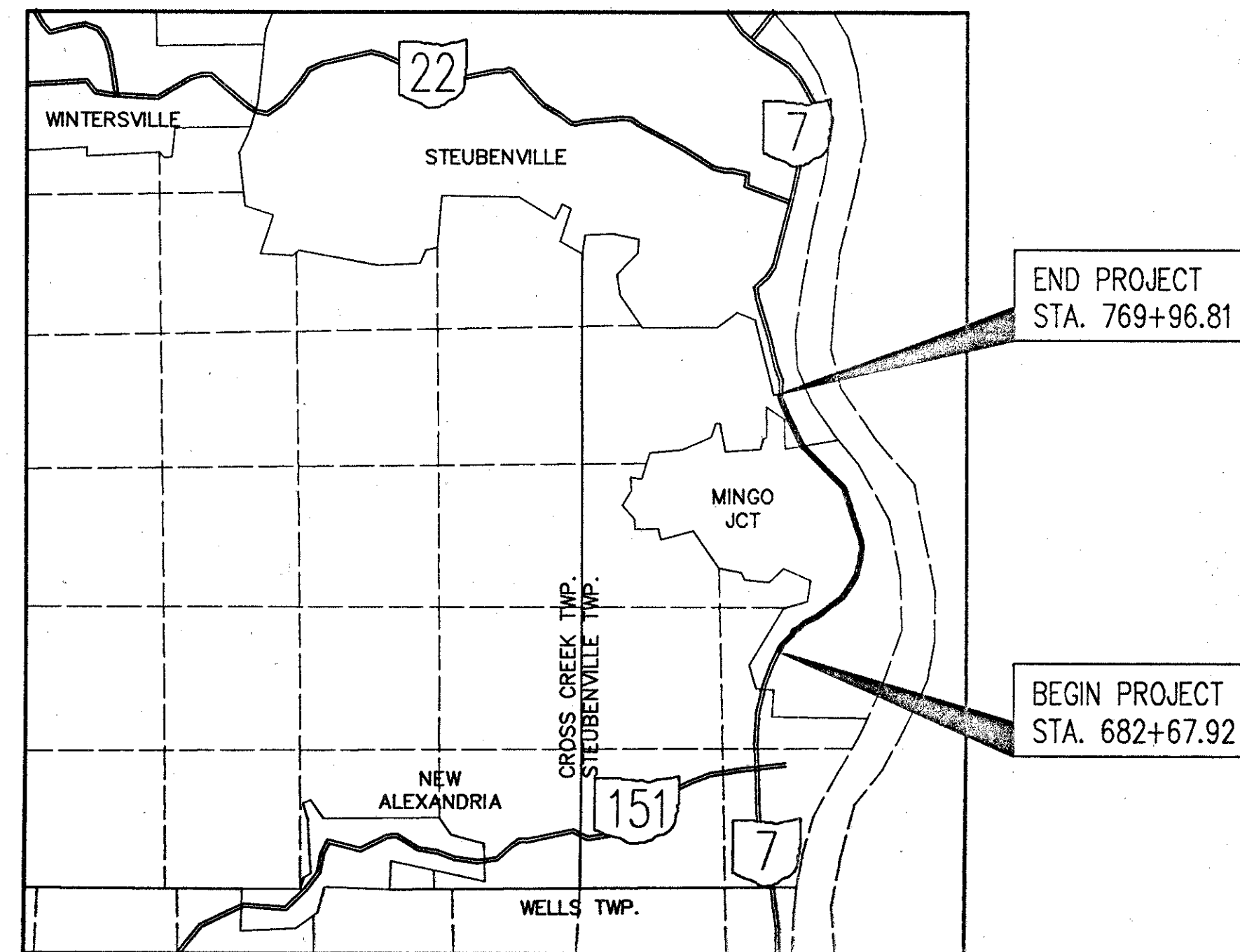
LINE DATA

BEGIN PROJECT		STA. 682+67.92
END PROJECT		STA. 769+96.81
		8728.89 L.F.
DEDUCTIONS		
STATION EQUATION	STA. 691+08.27 (BACK)	
	STA. 691+07.89 (AHEAD)	+0.38 L.F.
STATION EQUATION	STA. 703+67.75 (BACK)	
	STA. 703+69.83 (AHEAD)	-2.08 L.F.
LENGTH OF PROJECT		8727.19 L.F.
		OR 1.653 MI.
ADD FOR WORK	STA. 681+80.42 TO	
	STA. 682+67.92	+87.50 L.F.
	STA. 769+96.81 TO	
	STA. 772+20.00	+223.19 L.F.
DEDUCTIONS		
STATION EQUATION	STA. 770+80.24 (BACK)	
	STA. 770+80.96 (AHEAD)	-0.72 L.F.
TOTAL LENGTH OF WORK		9037.16 L.F.
		OR 1.712 MI.

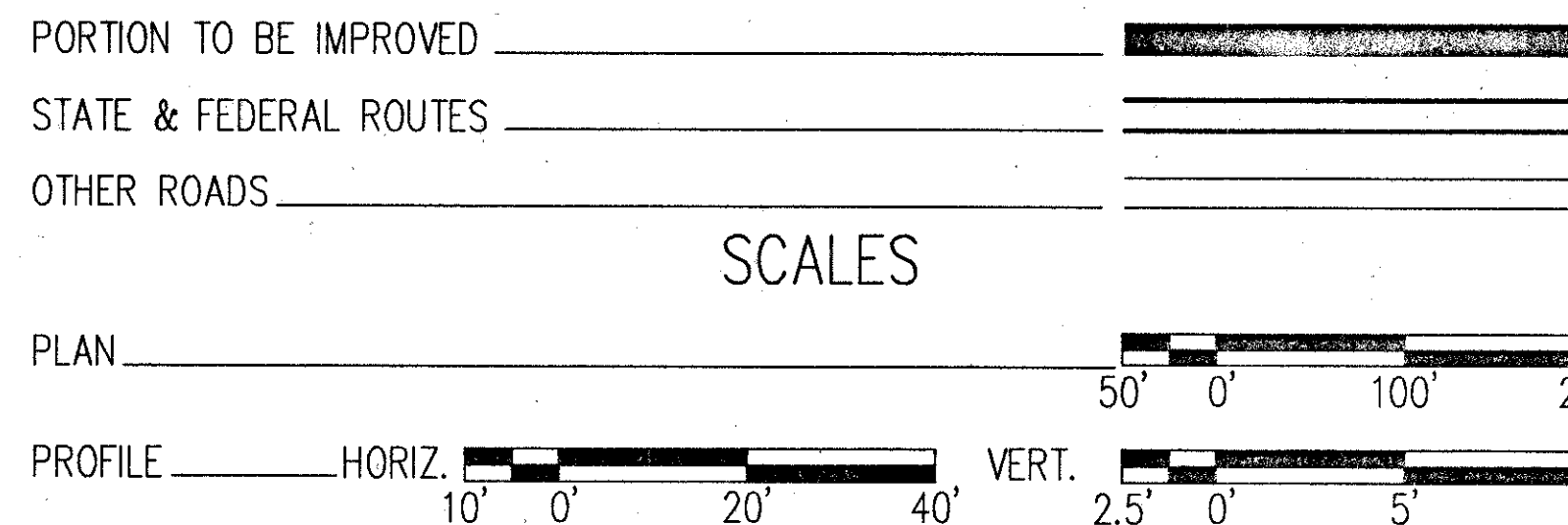
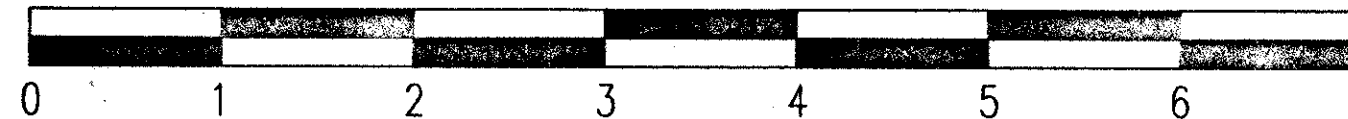
UNDERGROUND UTILITIES

2 WORKING DAYS BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE

NON-MEMBERS MUST BE CALLED DIRECTLY



LOCATION MAP SCALE IN MILES



SUPPLEMENTAL SPECIFICATIONS	
802	4-13-90
820	3-18-92
852	7-30-93
910	5-20-91
931	7-19-94
944	5-2-94

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS									
AS-1-81	11-27-81	GR-3.1	5-6-91	MC-4	7-26-76	MT-98.13	6-24-93	TC-42.10	8-19-77
EXJ-4-87	1-5-89	GR-3.2	5-6-91	MC-5	6-12-75	MT-98.14	6-24-93	TC-42.20	3-26-79
VPF-1-90	2-1-92	GR-4.1	5-6-91	MC-7	10-15-76	MT-98.15	6-24-93	TC-51.10	1-20-84
		GR-4.2	5-6-91	MC-9A	1-11-85	MT-99.10	11-14-86	TC-52.10	4-3-79
F-1	11-10-83	GR-4.3	2-21-92	MC-9.2	5-6-91	MT-99.20	4-29-88	TC-52.20	4-3-79
F-3	5-1-76	GR-4.4	2-21-92	MC-9.3	10-30-92	MT-105.10	7-1-92	TC-61.10	4-5-82
		GR-5.1	10-30-92	MC-11	8-1-78	MT-105.11	7-1-92	TC-65.10	2-1-90
HL-50.11	5-1-87	GR-5.3	10-30-92	MC-9A	10-30-92			TC-65.11	2-1-90
				MT-95.30	10-10-88	TC-12.30	1-20-84	TC-71.10	9-10-91
GR-1.1	5-6-91	CB-6	5-1-79	MT-95.31	10-10-88	TC-22.20	9-1-92	TC-72.20	2-26-82
GR-1.2	10-30-92			MT-95.32	8-25-89	TC-41.10	8-29-84		
GR-1.3	2-21-92	I-3A & B	4-1-80	MT-95.41	10-1-92	TC-41.20	3-26-79	BP-3.1	2-21-92
GR-2.1	5-6-91	I-3C & D	4-1-80	MT-98.12	6-24-93	TC-41.50	3-26-79	BP-5.1	2-21-92

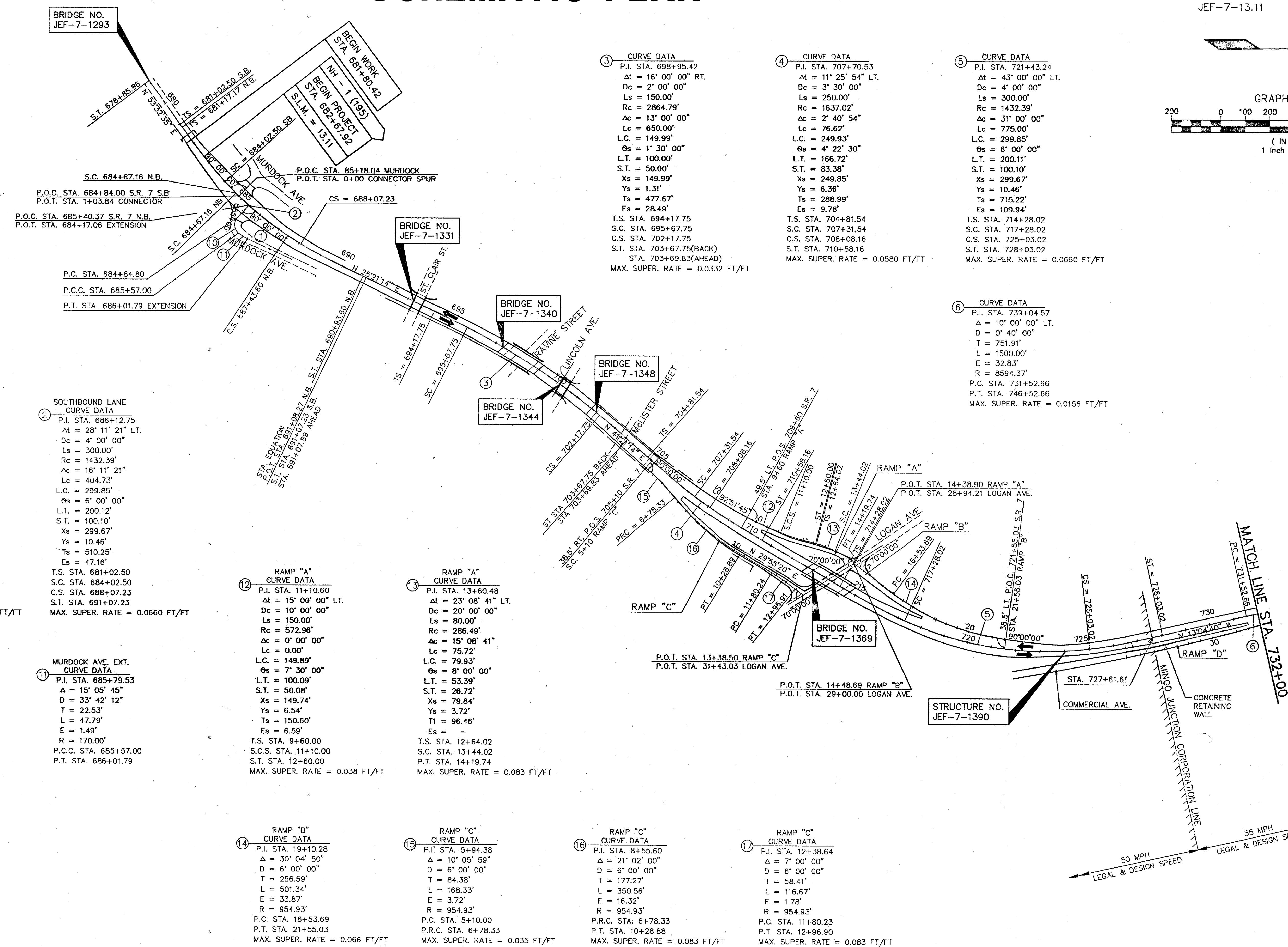
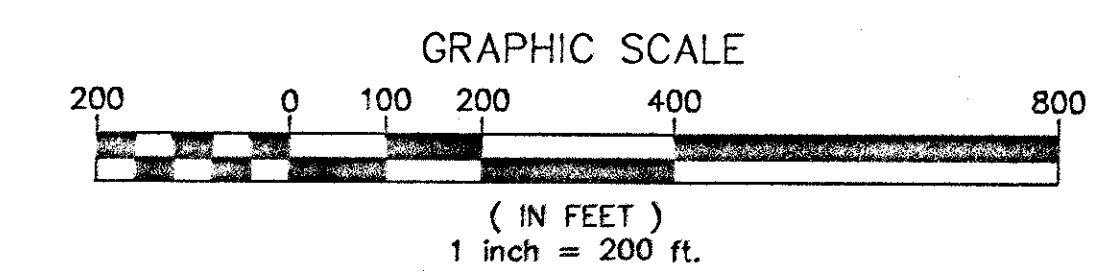
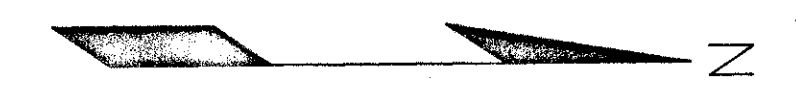
PROJECT: JEF - 7 - 13.11
DATE OF LETTING 12-20 1994, CONTRACT NO. 877

**GLAUS, PYLE, SCHOMER
BURNS AND DEHAVEN, INC.**
ENGINEERS ARCHITECTS PLANNERS
520 South Main Street Suite 2531
Akron, Ohio 44311-1010
216-434-4300 FAX 216-434-1331

PLAN PREPARED BY
Ralph A. Hendrick
RALPH A. HENDRICK
REG. PROF. ENGINEER NO. 33588
6-20-94
DATE

SCHEMATIC PLAN

JEF-7-13.11



1 NORTHBOUND LANE CURVE DATA

P.I. STA.	686+12.75
Δt	28° 11' 21" LT.
Dc	4' 30' 00"
Ls	350.00'
Rc	1273.24'
Δc	12' 26' 21"
Lc	276.43'
L.C.	349.71'
Θs	7° 52' 30"
L.T.	233.57'
S.T.	116.68'
Xs	349.34'
Ys	16.02'
Ts	495.58'
Es	43.66'
T.S. STA.	681+17.17
S.C. STA.	684+67.16
C.S. STA.	687+43.60
S.T. STA.	690+93.60
MAX. SUPER. RATE	0.0660 FT/FT

2 SOUTHBOUND LANE CURVE DATA

P.I. STA.	686+12.75
Δt	28° 11' 21" LT.
Dc	4' 00' 00"
Ls	300.00'
Rc	1432.39'
Δc	16' 11' 21"
Lc	404.73'
L.C.	299.85'
Θs	6° 00' 00"
L.T.	200.12'
S.T.	100.10'
Xs	299.67'
Ys	10.46'
Ts	510.25'
Es	47.16'
T.S. STA.	681+02.50
S.C. STA.	684+02.50
C.S. STA.	688+07.23
S.T. STA.	691+07.23
MAX. SUPER. RATE	0.0660 FT/FT

10 MURDOCK AVE. EXT. CURVE DATA

P.I. STA.	685+31.34
Δ	91° 55' 40"
D	127' 19' 26"
T	46.54'
L	72.20'
E	19.74'
R	45.00'
P.C. STA.	684+84.80
P.C.C. STA.	685+57.00

11 MURDOCK AVE. EXT. CURVE DATA

P.I. STA.	685+79.53
Δ	15° 05' 45"
D	33' 42' 12"
T	22.53'
L	47.79'
E	1.49'
R	170.00'
P.C. STA.	685+57.00
P.T. STA.	686+01.79

12 RAMP "A" CURVE DATA

P.I. STA.	11+10.60
Δt	15° 00' 00" LT.
Dc	10' 00' 00"
Ls	150.00'
Rc	572.96'
Δc	0° 00' 00"
Lc	0.00'
L.C.	149.89'
Θs	7° 30' 00"
L.T.	100.09'
S.T.	50.08'
Xs	149.74'
Ys	6.54'
Ts	150.60'
Es	6.59'
T.S. STA.	9+60.00
S.C. STA.	11+10.00
S.T. STA.	12+60.00
MAX. SUPER. RATE	0.038 FT/FT

13 RAMP "A" CURVE DATA

P.I. STA.	13+60.48
Δt	23° 08' 41" LT.
Dc	20' 00' 00"
Ls	80.00'
Rc	286.49'
Δc	15° 08' 41"
Lc	75.72'
L.C.	79.93'
Θs	8° 00' 00"
L.T.	53.39'
S.T.	26.72'
Xs	79.84'
Ys	3.72'
Ts	96.46'
Es	-
T.S. STA.	12+64.02
S.C. STA.	13+44.02
P.T. STA.	14+19.74
MAX. SUPER. RATE	0.083 FT/FT

14 RAMP "B" CURVE DATA

P.I. STA.	19+10.28
Δ	30° 04' 50"
D	6' 00' 00"
T	256.59'
L	501.34'
E	33.87'
R	954.93'
P.C. STA.	16+53.69
P.T. STA.	21+55.03
MAX. SUPER. RATE	0.066 FT/FT

15 RAMP "C" CURVE DATA

P.I. STA.	54+94.38
Δ	10° 05' 59"
D	6' 00' 00"
T	84.38'
L	168.33'
E	3.72'
R	954.93'
P.C. STA.	5+10.00
P.R.C. STA.	6+78.33
MAX. SUPER. RATE	0.035 FT/FT

16 RAMP "C" CURVE DATA

P.I. STA.	8+55.60
Δ	21° 02' 00"
D	6' 00' 00"
T	177.27'
L	350.56'
E	16.32'
R	954.93'
P.R.C. STA.	6+78.33
P.T. STA.	10+28.88
MAX. SUPER. RATE	0.083 FT/FT

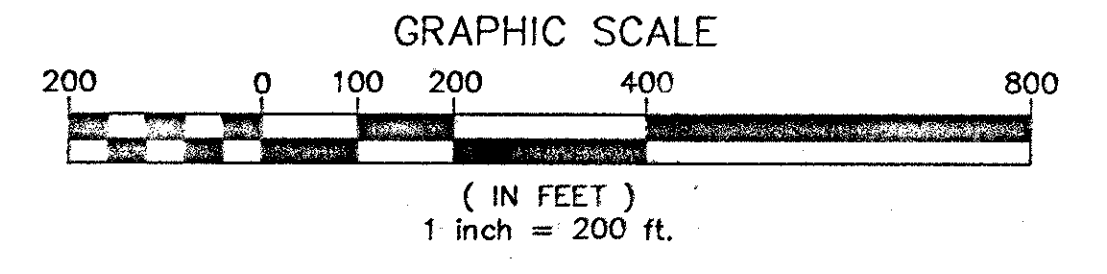
17 RAMP "C" CURVE DATA

P.I. STA.	12+38.64
Δ	7° 00' 00"
D	6' 00' 00"
T	58.41'
L	116.67'
E	1.78'
R	954.93'
P.C. STA.	11+80.23
P.T. STA.	12+96.90
MAX. SUPER. RATE	0.083 FT/FT

9245SCH.DWG 1=200 5-16-84

SCHEMATIC PLAN

JEF-7-13.11

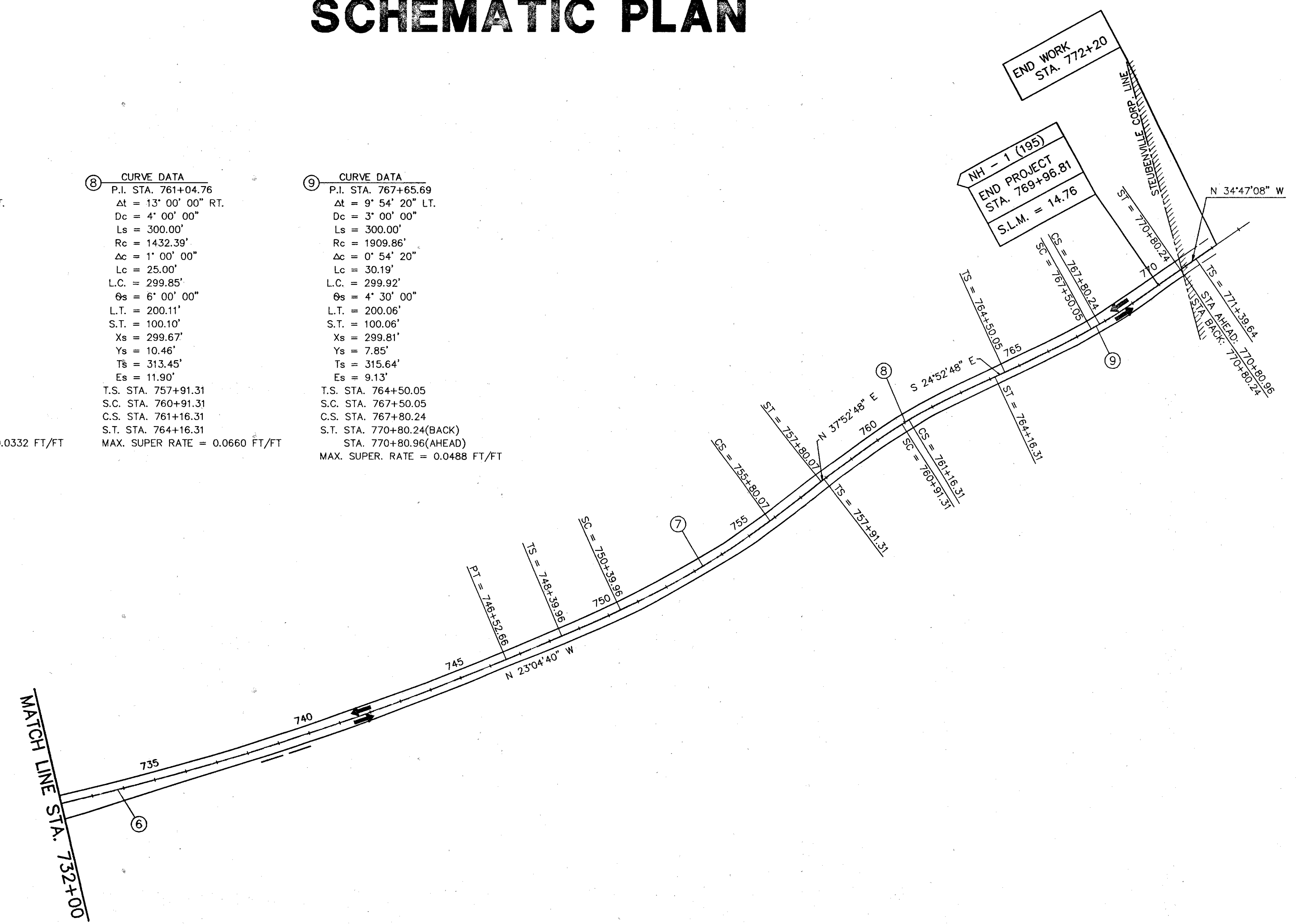


⑦ CURVE DATA
 P.I. STA. 753+12.16
 Δ = 14° 48' 08" LT.
 Dc = 2' 00' 00"
 Ls = 200.00'
 Rc = 2864.79'
 Δ c = 10' 48' 08"
 Lc = 540.11'
 L.C. = 198.92'
 θ s = 2' 00' 00"
 L.T. = 133.34'
 S.T. = 66.67'
 Xs = 197.58'
 Ys = 23.07'
 Ts = 472.20'
 Es = 24.65'
 T.S. STA. 748+39.96
 S.C. STA. 750+39.96
 C.S. STA. 755+80.07
 S.T. STA. 757+80.07
 MAX. SUPER RATE = 0.0332 FT/FT

⑧ CURVE DATA
 P.I. STA. 761+04.76
 Δ = 13° 00' 00" RT.
 Dc = 4' 00' 00"
 Ls = 300.00'
 Rc = 1432.39'
 Δ c = 1' 00' 00"
 Lc = 25.00'
 L.C. = 299.85'
 θ s = 6' 00' 00"
 L.T. = 200.11'
 S.T. = 100.10'
 Xs = 299.67'
 Ys = 10.46'
 Ts = 313.45'
 Es = 11.90'
 T.S. STA. 757+91.31
 S.C. STA. 760+91.31
 C.S. STA. 761+16.31
 S.T. STA. 764+16.31
 MAX. SUPER RATE = 0.0660 FT/FT

⑨ CURVE DATA
 P.I. STA. 767+65.89
 Δ = 9° 54' 20" LT.
 Dc = 3' 00' 00"
 Ls = 300.00'
 Rc = 1909.86'
 Δ c = 0' 54' 20"
 Lc = 30.19'
 L.C. = 299.92'
 θ s = 4' 30' 00"
 L.T. = 200.06'
 S.T. = 100.06'
 Xs = 299.81'
 Ys = 7.85'
 Ts = 315.64'
 Es = 9.13'
 T.S. STA. 764+50.05
 S.C. STA. 767+50.05
 C.S. STA. 767+80.24
 S.T. STA. 770+80.24(BACK)
 STA. 770+80.96(AHEAD)
 MAX. SUPER. RATE = 0.0488 FT/FT

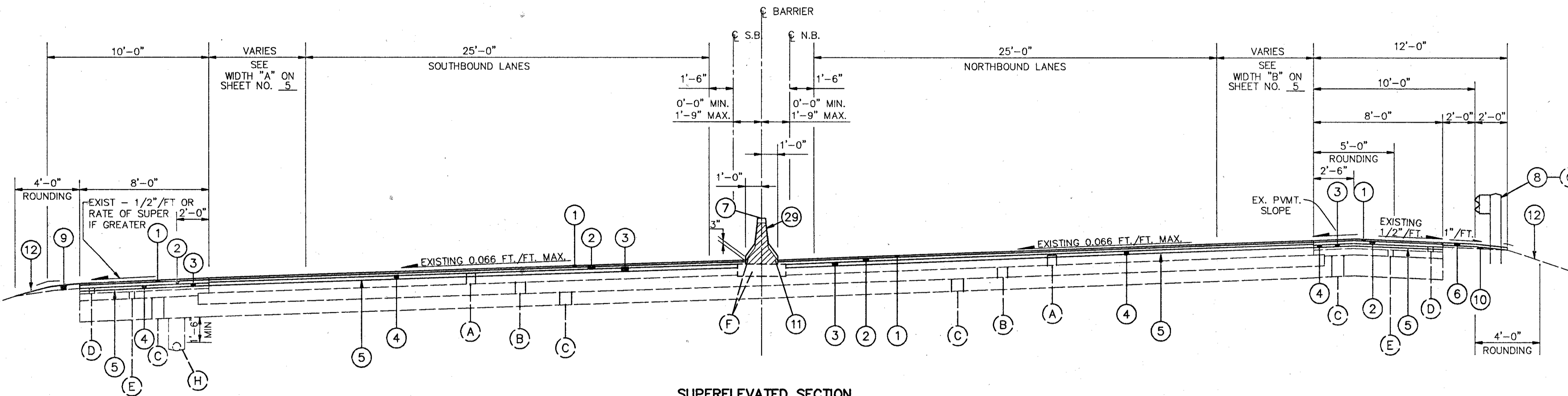
⑥ CURVE DATA
 P.I. STA. 739+04.57
 Δ = 10° 00' 00" LT.
 D = 0' 40' 00"
 T = 751.91'
 L = 1500.00'
 E = 32.83'
 R = 8594.37'
 P.C. STA. 731+52.66
 P.T. STA. 746+52.66
 MAX. SUPER. RATE = 0.0156 FT/FT



9245SCH2.DWG 1=200 5-16-94

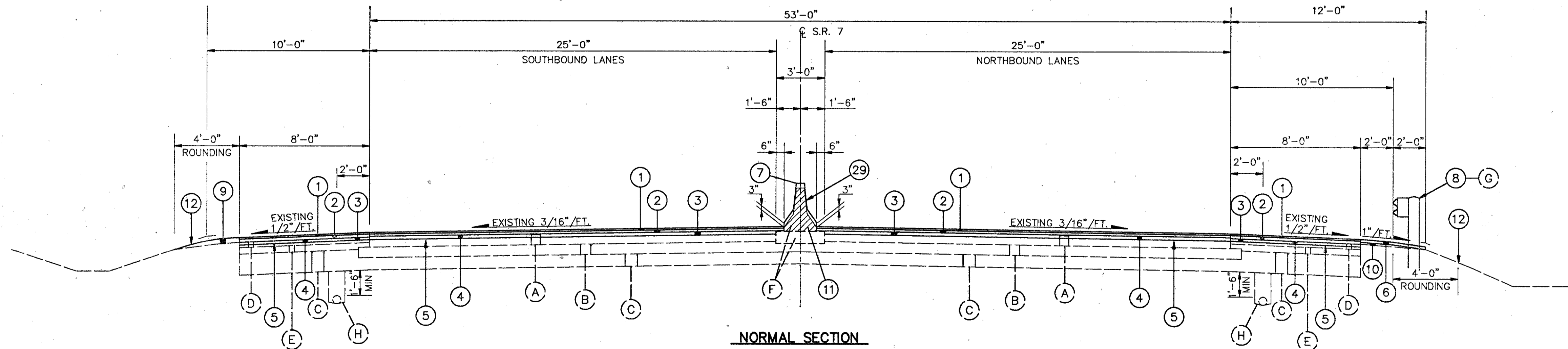
TYPICAL SECTIONS TYPE 446

JEF-7-13.11



SUPERELEVATED SECTION

LIMITING STATIONS
SB STA. 681+80.42 TO STA. 691+07.89 = 926.81 L.F. * NB STA. 681+80.42 TO STA. 691+07.89 = 927.85 L.F. *



NORMAL SECTION

LIMITING STATIONS
SB STA. 691+44.44 TO STA. 693+96.88 = 252.44 L.F. NB STA. 691+44.44 TO STA. 691+50.00 = 5.56 L.F.

FOR ASPHALT PAVING UNDER GUARDRAIL AND ROUNDING DETAIL SEE SHEET NO. 6.
FOR BARRIER DETAILS SEE SHEET NO. 9.
FOR FEATHER DETAILS SEE SHEET NO. 8.
* - EQUATION: NB STA. 691+08.27 BK. - STA. 691+07.89 AH. (ADD 0.38 L.F.)
SB STA. 691+07.23 BK. - STA. 691+07.89 AH. (SUBTRACT 0.66 L.F.)
** - EQUATION: STA. 703+67.75 BK. - STA. 703+69.83 AH. (SUBTRACT 2.08 L.F.)
*** - EQUATION: STA. 770+80.24 BK. - STA. 770+80.96 AH. (SUBTRACT 0.72 L.F.)

EXISTING LEGEND

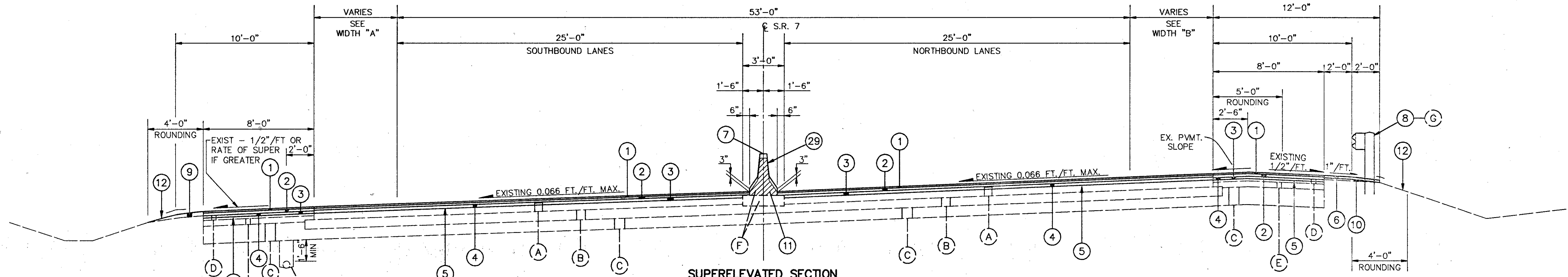
- (A) EXISTING FLEXIBLE PAVEMENT
- (B) EXISTING 8" AGGREGATE BASE (WATERBOUND MACADAM)
- (C) EXISTING SUBBASE
- (D) EXISTING BITUMINOUS AGGREGATE BASE
- (E) EXISTING AGGREGATE BASE
- (F) EXISTING CONCRETE BARRIER
- (G) EXISTING GUARDRAIL, TYPE 5
- (H) EXISTING PIPE UNDERDRAIN (TO REMAIN AND FUNCTION)
- (J) EXISTING CONCRETE RETAINING WALL
- (K) EXISTING CONCRETE WALK (TO BE REMOVED)
- (L) EXISTING CONCRETE CURB (TO BE REMOVED)
- (M) EXISTING CONCRETE BRIDGE DECK
- (N) EXISTING REINFORCED CONCRETE APPROACH SLAB
- (O) EXISTING CONCRETE ISLAND (TO BE REMOVED)

PROPOSED LEGEND

- (1) ITEM 446 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14.)
- (2) ITEM 446 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
- (3) ITEM 301 - 2 1/2" BITUMINOUS AGGREGATE BASE, AC-20
- (4) ITEM 254 - PAVEMENT PLANING BITUMINOUS, 2" NOMINAL DEPTH
- (5) ITEM 407 - TACK COAT
- (6) ITEM 448 - 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (UNDER GUARDRAIL), AS PER PLAN, (SEE SHEET NO. 14.)
- (7) ITEM 622 - CONCRETE BARRIER, REBUILT, TYPE A, AS PER PLAN, (SEE SHEET NO. 14.)
- (8) ITEM 606 - GUARDRAIL, TYPE 5
- (9) ITEM 203 - LINEAR GRADING, METHOD 1
- (10) ITEM 203 - LINEAR GRADING, METHOD 2
- (11) ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN, (SEE SHEET NO. 14.)
- (12) ITEM 659 - SEEDING AND MULCHING AND WATER
- (13) ITEM 611 - REINFORCED CONCRETE APPROACH SLAB, (T=15"), AS PER PLAN, (SEE SHEET NO. 14.)
- (14) ITEM 203 - SUBGRADE COMPACTION
- (15) ITEM 304 - 6" AGGREGATE BASE
- (16) ITEM 301 - 12" BITUMINOUS AGGREGATE BASE, AC-20
- (17) ITEM 622 - CONCRETE BARRIER, TYPE C
- (18) ITEM 408 - BITUMINOUS PRIME COAT, APPLIED AT 0.40 GALLONS/S.Y.
- (19) ITEM 622 - CONCRETE BARRIER, TYPE D, AS PER PLAN, (SEE SHEET NO. 14.)
- (20) ITEM 605 - 6" PIPE UNDERDRAIN
- (21) ITEM 254 - PAVEMENT PLANING, BITUMINOUS, 6" NOMINAL DEPTH
- (22) ITEM 622 - CONCRETE BARRIER, TYPE A, AS PER PLAN, (SEE SHEET NO. 14.)
- (23) ITEM 301 - 8" BITUMINOUS AGGREGATE BASE, AC-20
- (24) ITEM 304 - 8" AGGREGATE BASE
- (25) ITEM 310 - 9" SUBBASE, TYPE II
- (26) ITEM 446 - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14.)
- (27) ITEM 203 - EMBANKMENT USING NO. 8 AGGREGATE
- (28) ITEM 202 - CONCRETE BARRIER REMOVED
- (29) ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)
- (30) ITEM 609 - CONCRETE CURB, TYPE 8, AS PER PLAN (SEE SHEET NO. 14.)

TYPICAL SECTIONS TYPE 446

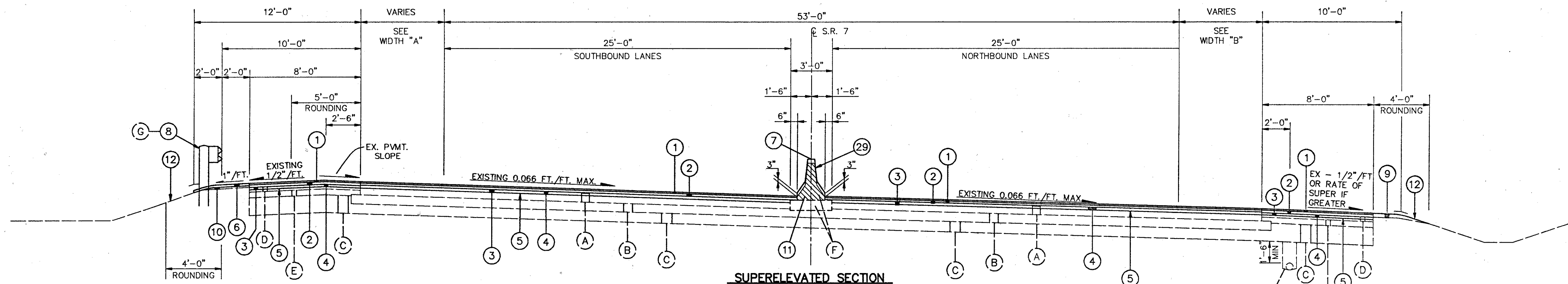
JEF - 7 - 13.11



SUPERELEVATED SECTION

LIMITING STATIONS

SB STA. 691+07.89 TO STA. 691+44.44 = 36.55 L.F.	NB STA. 691+07.89 TO STA. 691+44.44 = 36.55 L.F.
SB STA. 704+06.82 TO STA. 705+17.60 = 10.78 L.F.	NB STA. 705+17.60 TO STA. 712+75.97 = 758.37 L.F.
SB STA. 705+17.60 TO STA. 712+75.97 = 758.37 L.F.	NB STA. 712+75.97 TO STA. 714+74.03 = 1.06 L.F.
SB STA. 712+75.97 TO STA. 714+74.03 = 1.06 L.F.	NB STA. 714+74.03 TO STA. 722+50.25 = 776.22 L.F.
SB STA. 714+74.03 TO STA. 757+46.43 = 4272.40 L.F.	NB STA. 728+38.25 TO STA. 757+46.23 = 2908.18 L.F.
SB STA. 764+79.17 TO STA. 770+85.03 = 605.14 L.F.***	NB STA. 764+79.17 TO STA. 770+85.03 = 605.14 L.F.***
TOTAL = 5672.46 L.F.	TOTAL = 5084.46 L.F.



SUPERELEVATED SECTION

LIMITING STATIONS

SB STA. 693+96.88 TO STA. 697+35.40 = 338.52 L.F.	NB STA. 696+00.00 TO STA. 697+35.40 = 135.40 L.F.
SB STA. 699+07.22 TO STA. 701+75.00 = 267.78 L.F.	NB STA. 701+75.00 TO STA. 704+06.82 = 2.32 L.F.
SB STA. 701+75.00 TO STA. 704+06.82 = 2.32 L.F.	NB STA. 704+06.82 TO STA. 764+79.17 = 730.66 L.F.**
SB STA. 757+46.43 TO STA. 764+79.17 = 730.66 L.F.**	NB STA. 757+46.43 TO STA. 764+79.17 = 730.66 L.F.**
TOTAL = 1336.96 L.F.	TOTAL = 866.06 L.F.

WIDTH TABLE

WIDTH "A"	STATION		WIDTH "B"	STATION	
	FROM	TO		FROM	TO
0'	681+80.42	681+85.80	0'	681+80.42	682+41.16
TAPER 0' TO 12'	681+85.80	684+25.80	TAPER 0' TO 12'	682+41.16	684+81.16
12'	684+25.80	685+40.97	12'	684+81.16	685+83.08
TAPER 12' TO 0'	685+40.97	687+80.97	TAPER 12' TO 0'	685+83.08	688+23.08
0'	687+80.97	705+00.00	0'	688+23.08	701+00.00
TAPER 0' TO 23'	705+00.00	709+60.00	TAPER 0' TO 12'	701+00.00	702+00.00
0'	709+60.00	717+59.40	12'	702+00.00	705+17.60
TAPER 36' TO 14'	717+59.40	720+09.40	TAPER 12' TO 34'	705+17.60	707+04.94
TAPER 14' TO 12'	720+09.40	721+55.03	0'	707+04.94	732+10.00
12'	721+55.03	722+60.00	TAPER 23' TO 0'	732+10.00	739+00.00
TAPER 12' TO 0'	722+60.00	723+50.00	0'	739+00.00	770+85.03
0'	723+50.00	770+85.03			

FOR LEGEND SEE SHEET NO. 4.

FOR ASPHALT PAVING UNDER GUARDRAIL AND ROUNDING DETAIL SEE SHEET NO. 6.

FOR BARRIER DETAILS SEE SHEET NO. 9.

FOR FEATHER DETAILS SEE SHEET NO. 8.

* - EQUATION: NB STA. 691+08.27 BK. - STA. 691+07.89 AH. (ADD 0.38 L.F.)
SB STA. 691+07.23 BK. - STA. 691+07.89 AH. (SUBTRACT 0.66 L.F.)

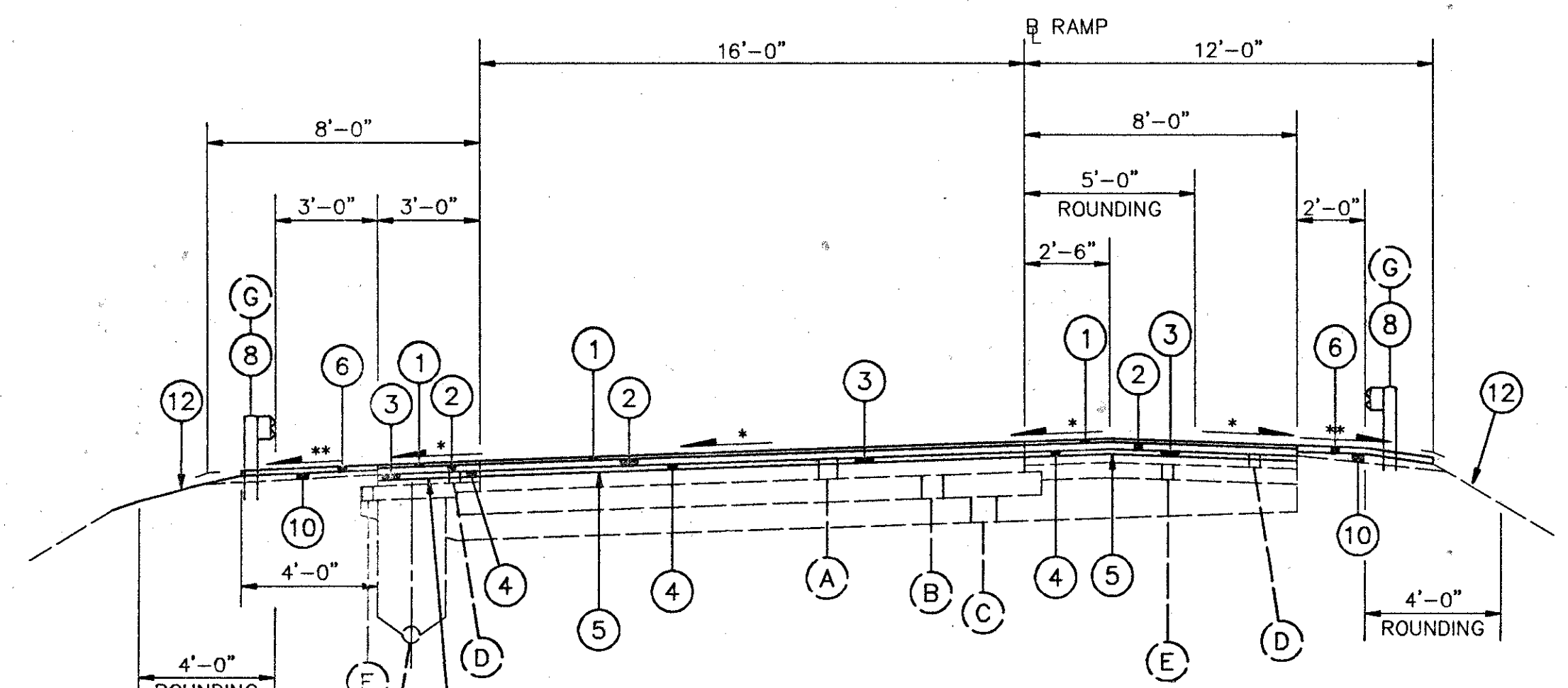
** - EQUATION: STA. 703+67.75 BK. - STA. 703+69.83 AH. (SUBTRACT 2.08 L.F.)

*** - EQUATION: STA. 770+80.24 BK. - STA. 770+80.96 AH. (SUBTRACT 0.72 L.F.)

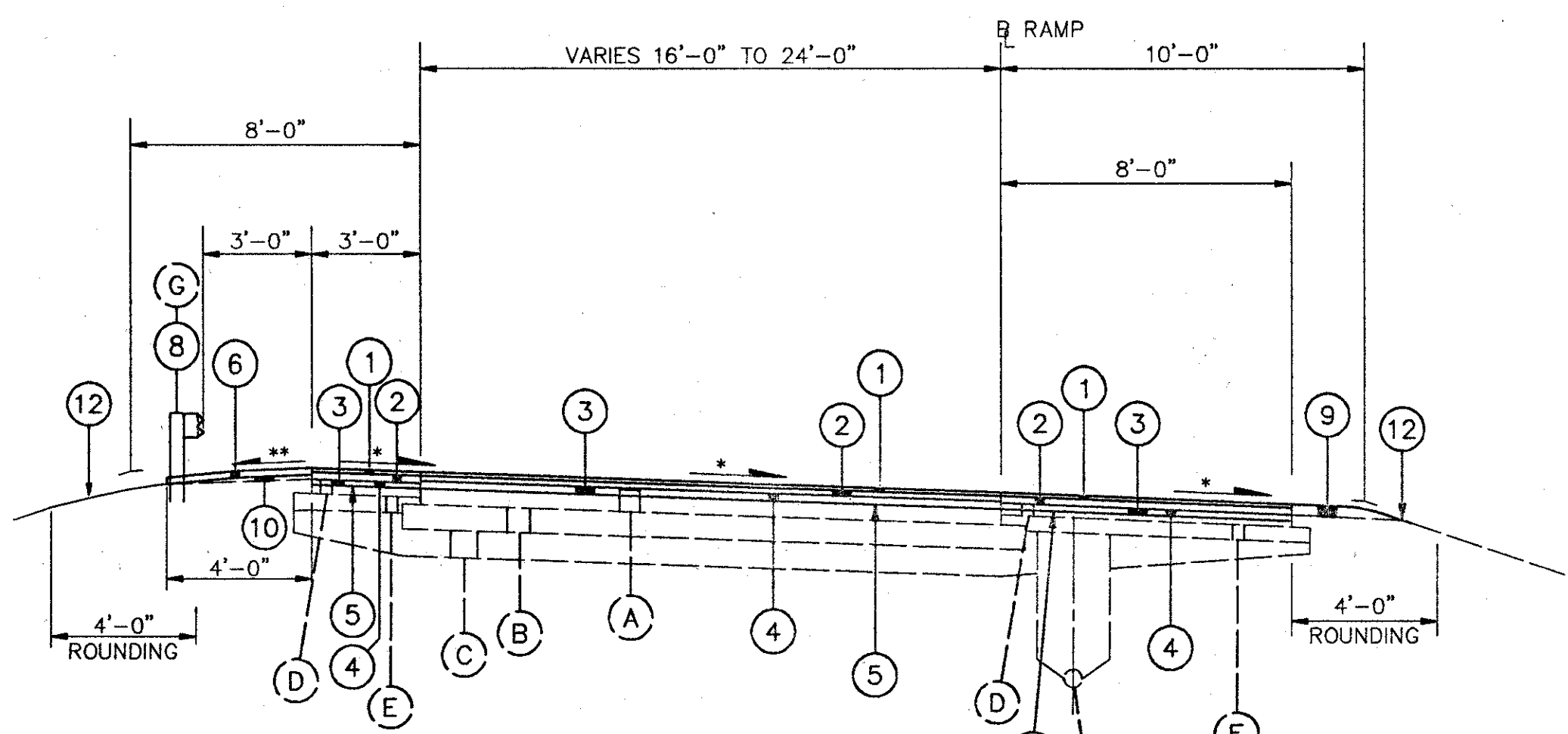
TYPICAL SECTIONS TYPE 446

JEF-7-13.11

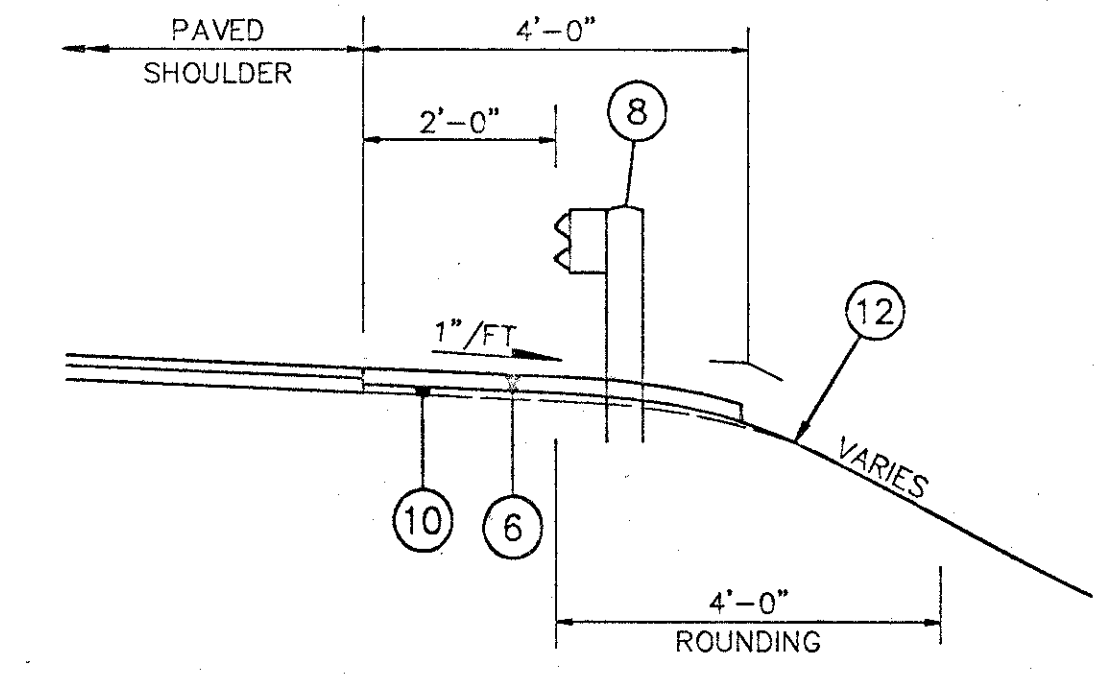
FOR LEGEND SEE SHEET NO. 4
FOR BARRIER DETAILS SEE SHEET NO. 9
FOR FEATHER DETAILS SEE SHEET NO. 8
* SLOPE SAME AS EXISTING
** SLOPE AT 1"/FT.



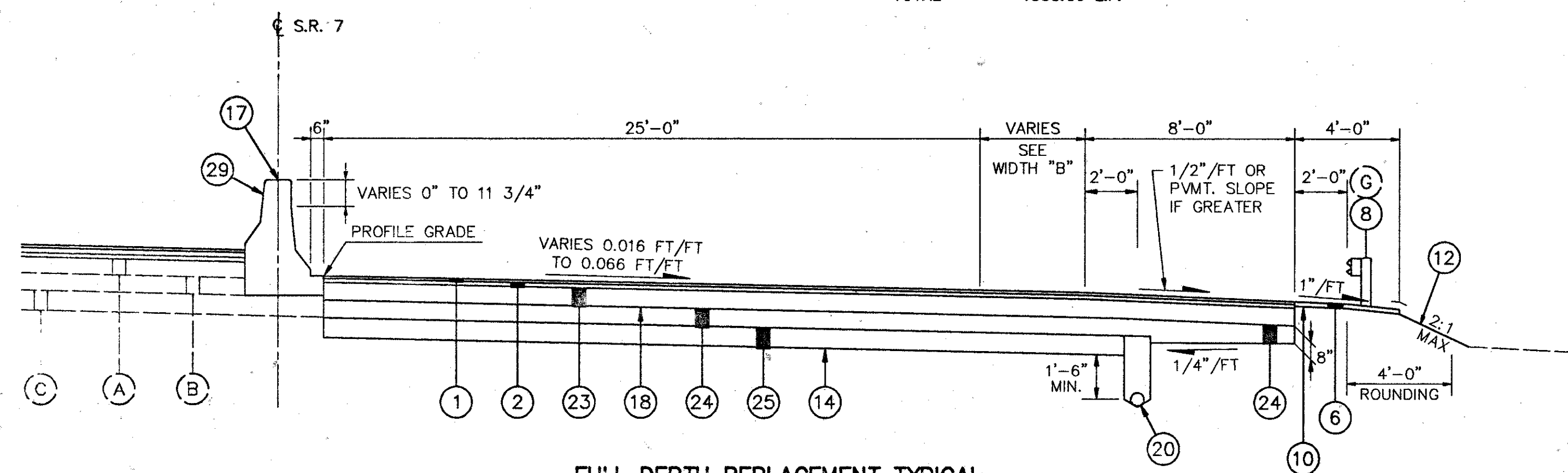
NORMAL RAMP SECTION
LIMITING STATIONS
RAMP "A" STA. 9+60.00 TO STA. 13+78 = 418.00 L.F.
RAMP "C" STA. 7+04.94 TO STA. 12+57 = 552.06 L.F.
RAMP "D" STA. 26+45.00 TO STA. 32+10.00 = 565.00 L.F.
TOTAL = 1535.06 L.F.



NORMAL RAMP/STORAGE LANE
LIMITING STATIONS
RAMP "B" STA. 15+15.00 TO STA. 17+73.97 = 258.97 L.F.

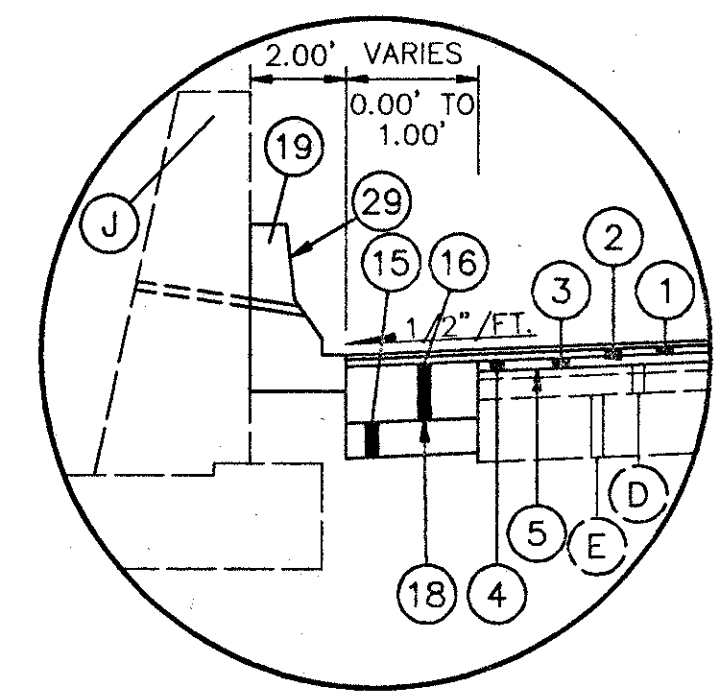


ASPHALT PAVING & ROUNDING DETAIL

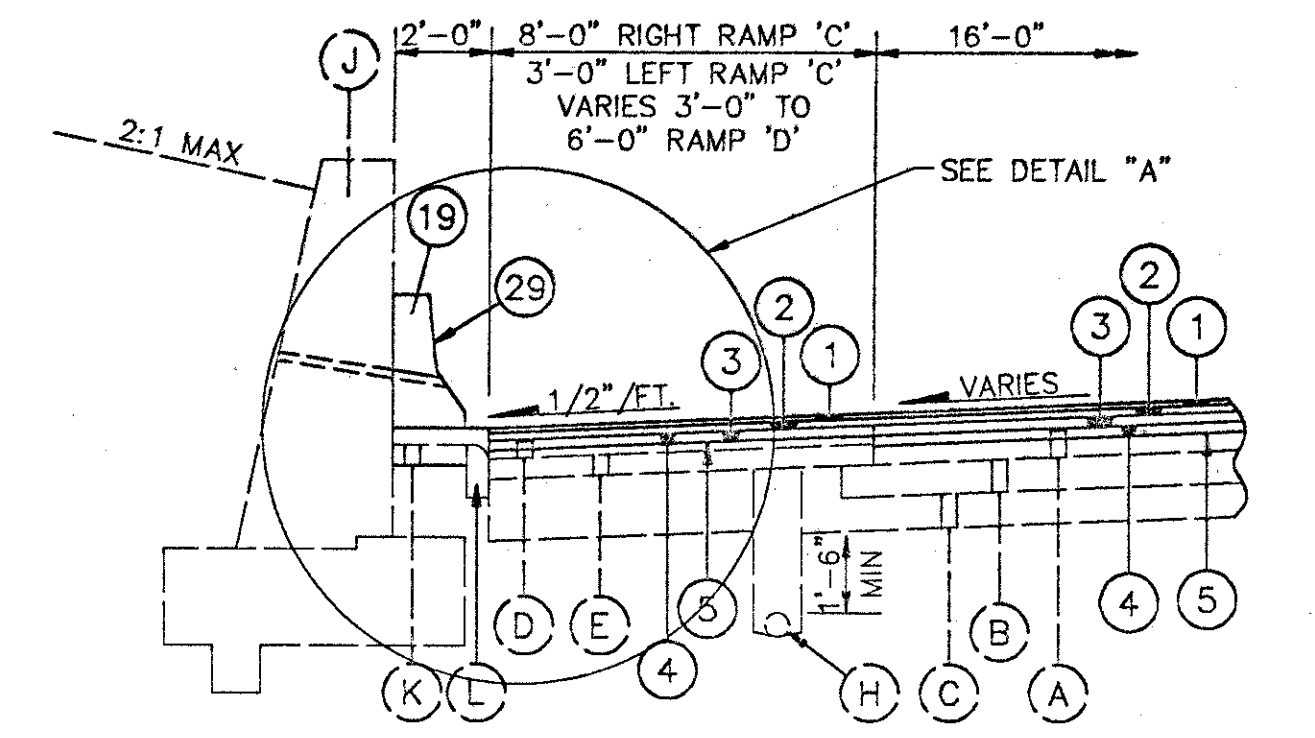


FULL DEPTH REPLACEMENT TYPICAL
LIMITING STATIONS
NORTH BOUND STA. 691+50.00 TO STA. 696+00.00 = 450.00 L.F.
NORTH BOUND STA. 699+07.22 TO STA. 701+75.00 = 267.78 L.F.
TOTAL = 717.78 L.F.

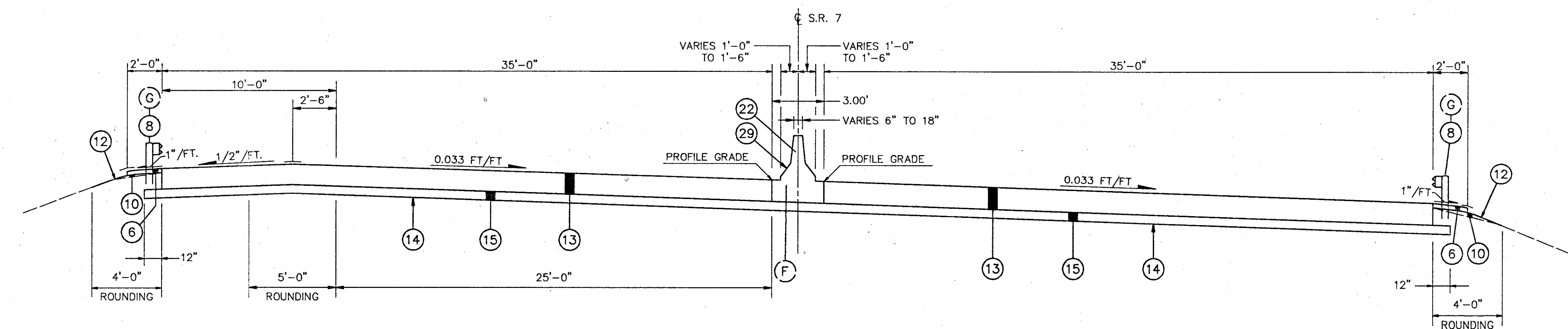
WIDTH "B"
0' STA. 691+50.00 TO STA. 701+00.00
TAPER 0' TO 9' STA. 701+00.00 TO STA. 701+75.00



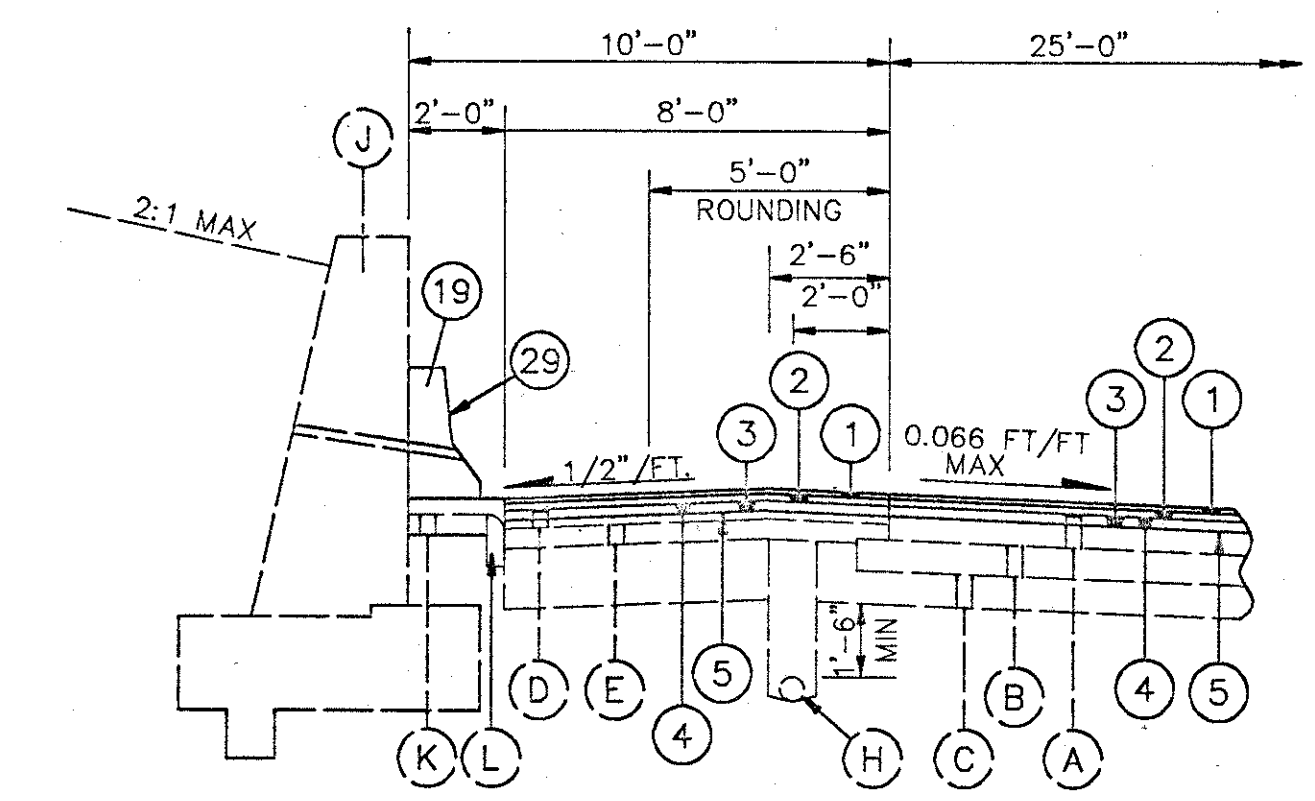
DETAIL "A"
RAMP "D" LT. STA. 26+45.00 TO STA. 29+00.00



RAMP SHOULDER DETAIL AT RETAINING WALL
LIMITING STATIONS
RIGHT RAMP "C" STA. 10+00.00 TO STA. 11+00.00 = 100.00 L.F.
LEFT RAMP "C" STA. 9+80.50 TO STA. 13+09.00 = 328.50 L.F.
LEFT RAMP "D" STA. 26+45.00 TO STA. 29+00.00 = 255.00 L.F.
TOTAL = 683.50 L.F.



APPROACH SLAB TYPICAL SECTION
LIMITING STATIONS
NB & SB STA. 697+35.40 TO STA. 697+60.40 = 25.00 L.F.
NB & SB STA. 698+82.22 TO STA. 699+07.22 = 25.00 L.F.
TOTAL = 50.00 L.F.



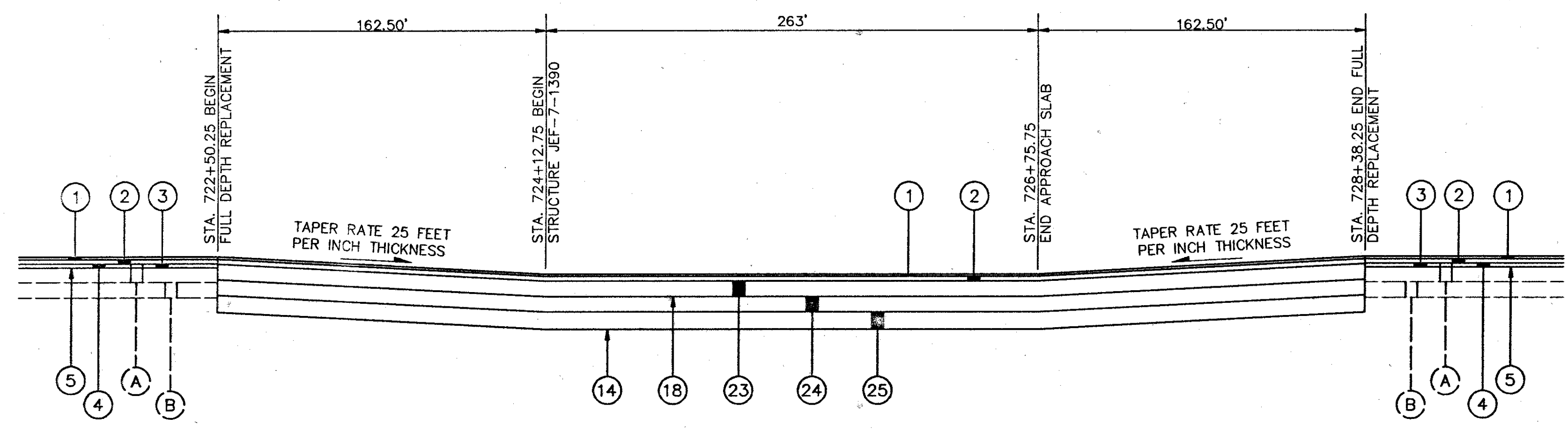
MAINLINE SHOULDER DETAIL AT RETAINING WALL
LIMITING STATIONS
NB STA. 692+10.00 TO STA. 696+50.00 = 440.00 L.F.
NB STA. 700+13.50 TO STA. 700+53.50 = 40.00 L.F.
SB STA. 700+07.00 TO STA. 700+47.00 = 40.00 L.F.
SB STA. 693+20.00 TO STA. 693+70.00 = 50.00 L.F.
SB STA. 705+14.20 TO STA. 706+86.50 = 172.30 L.F.
TOTAL = 742.30 L.F.

92451WP2.DWG 1=4 5-20-94

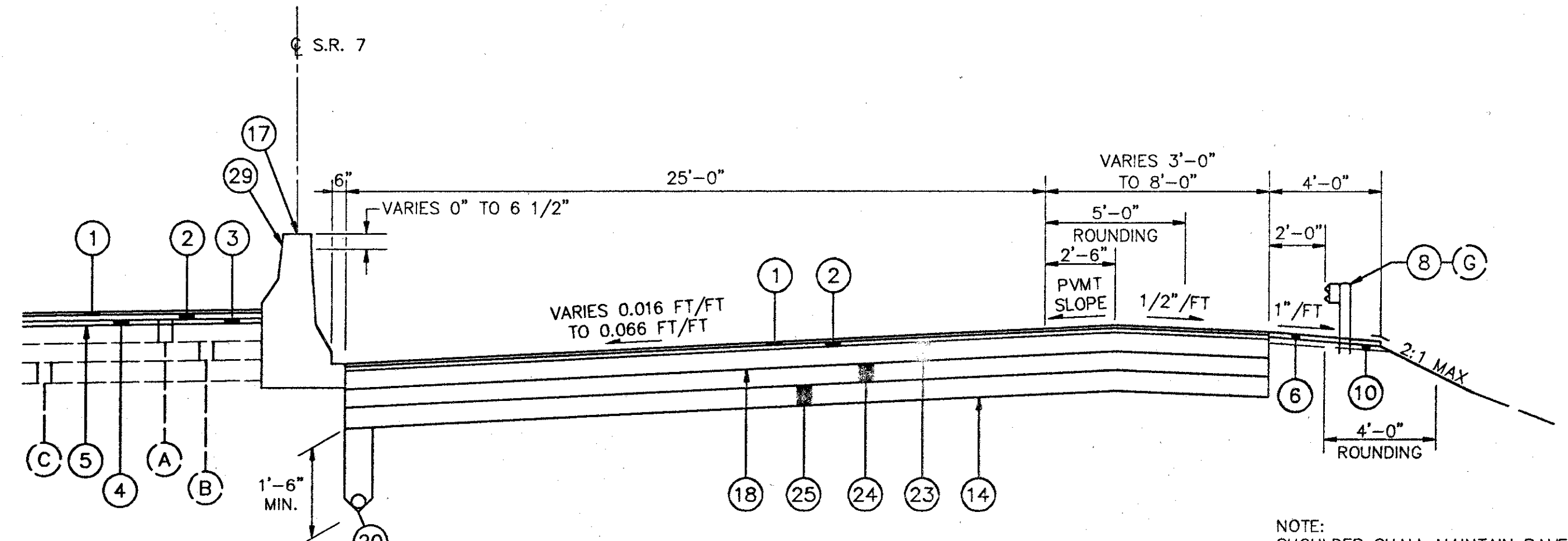
FOR LEGEND SEE SHEET NO. 4
FOR BARRIER DETAILS SEE SHEET NO. 9
FOR FEATHER DETAILS SEE SHEET NO. 8
* SLOPE SAME AS EXISTING
** SLOPE AT 1"/FT.

TYPICAL SECTIONS

JEF-7-13.11

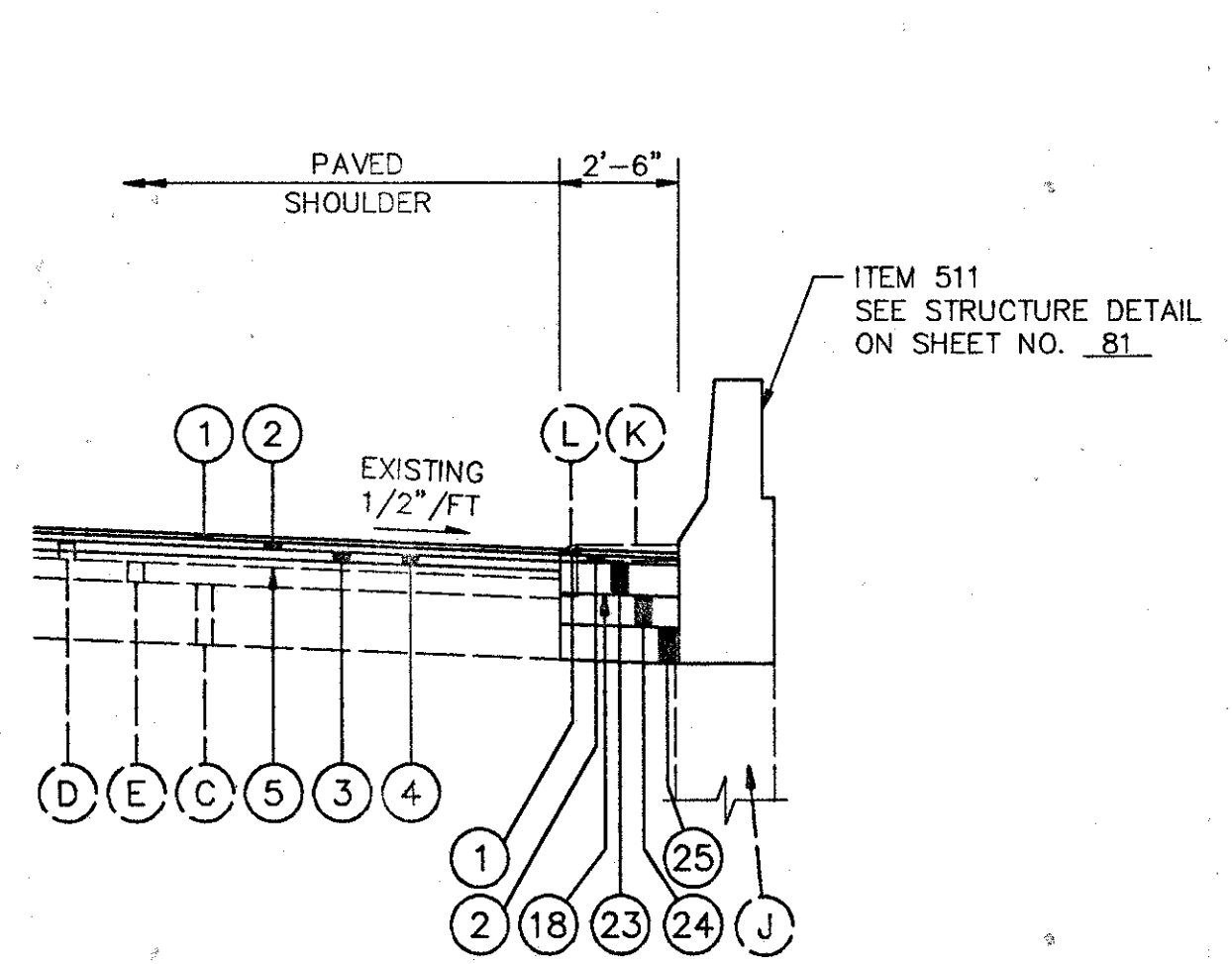


**PAVEMENT TRANSITION THRU SIDEHILL
STRUCTURE JEF-7-1390**
(INSIDE NORTHBOUND LANE SHOWN)

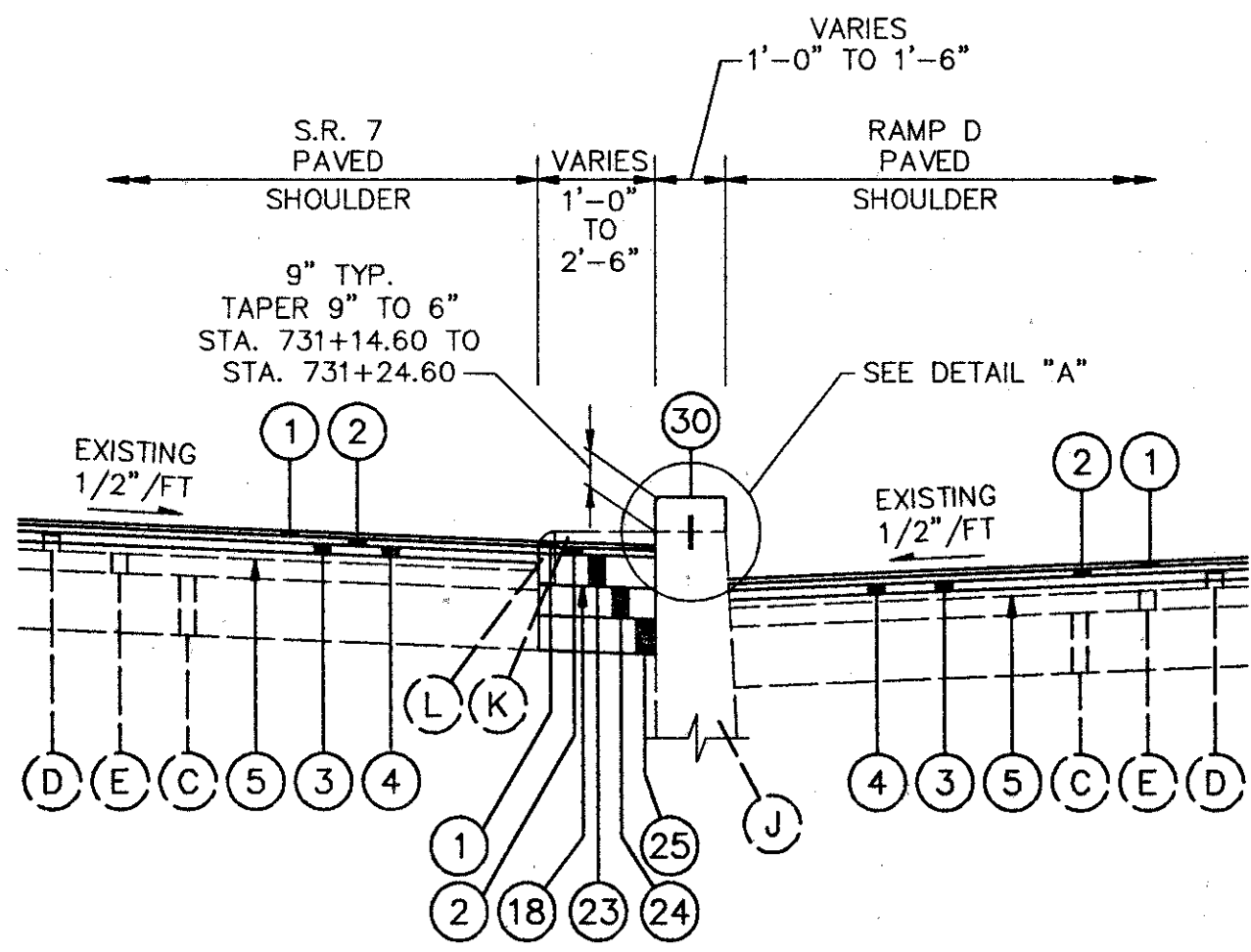


JEF-7-1390 APPROACH TYPICAL
LIMITING STATIONS
NORTHBOUND STA. 722+50.25 TO STA. 724+12.75 = 162.50 L.F.
NORTHBOUND STA. 726+75.75 TO STA. 728+38.25 = 162.50 L.F.
TOTAL = 325.00 L.F.

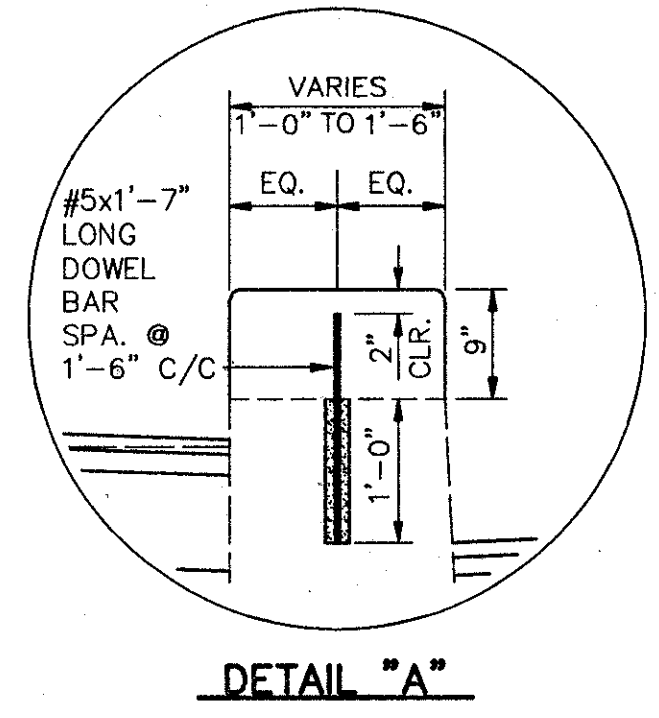
NOTE:
SHOULDER SHALL MAINTAIN PAVEMENT
CROSS SLOPE WHERE WIDTH IS LESS
THAN 5'-0" FROM STA. 723+25.17 TO
STA. 724+12.75



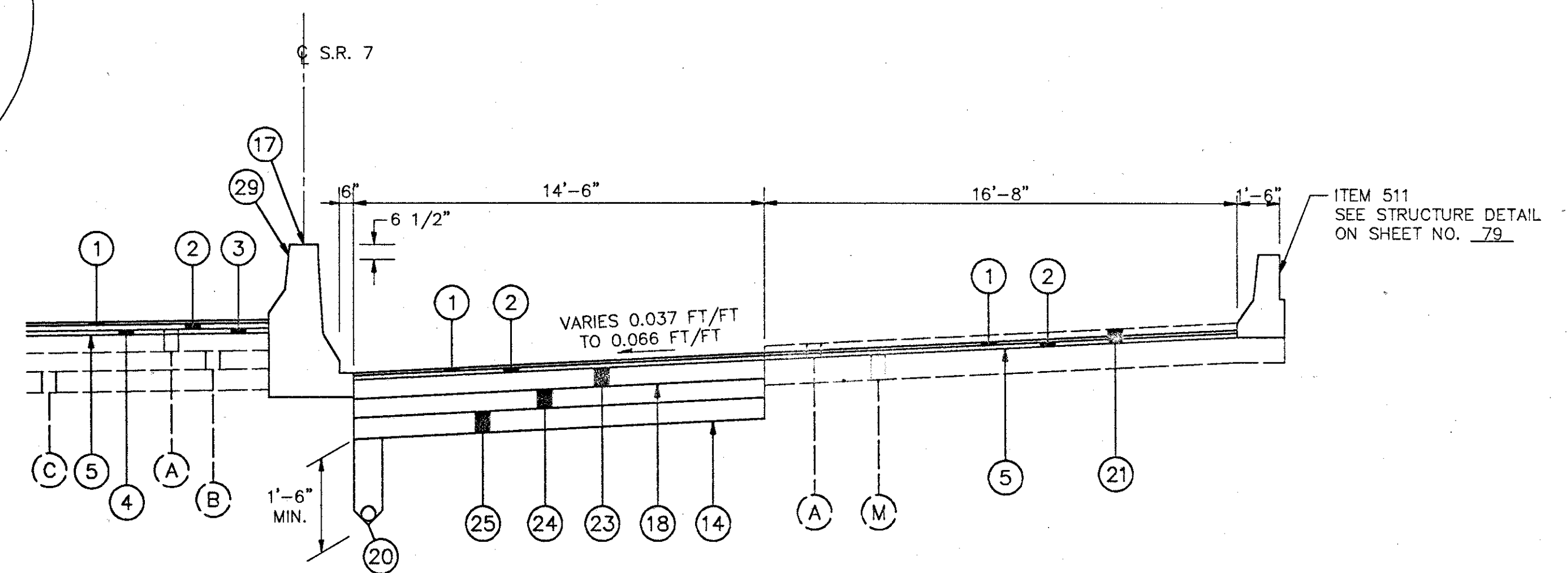
MAINLINE SHOULDER CONSTRUCTION @ SIDEHILL RETAINING WALL
LIMITING STATIONS
NB STA. 723+50 TO STA. 724+12.75 = 62.75 L.F.
NB STA. 726+50.75 TO STA. 730+54.60 = 403.85 L.F.
TOTAL = 466.60 L.F.



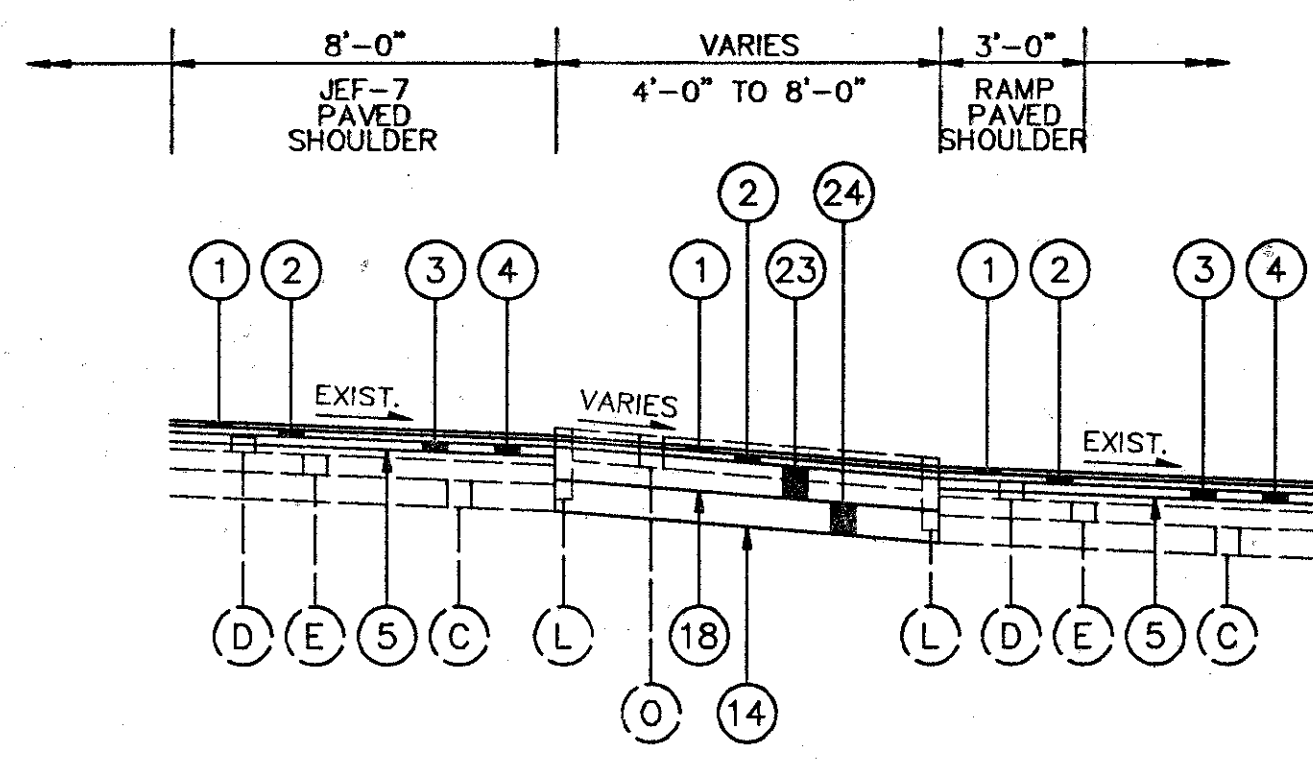
MAINLINE SHOULDER CONSTRUCTION @ GRAVITY RETAINING WALL
LIMITING STATIONS
NB STA. 730+54.60 TO STA. 731+24.60 = 70.00 L.F.



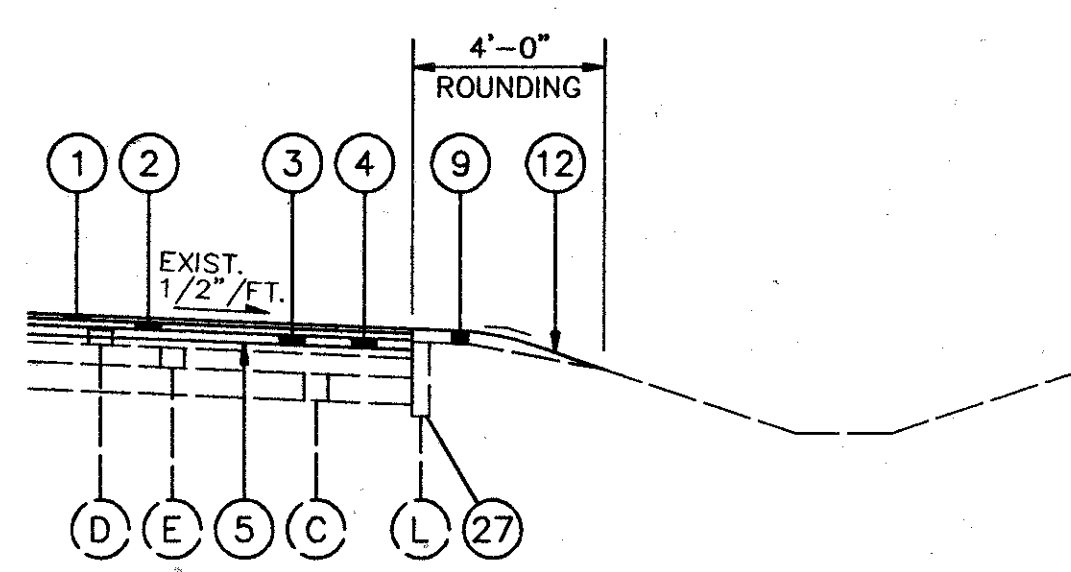
DETAIL "A"



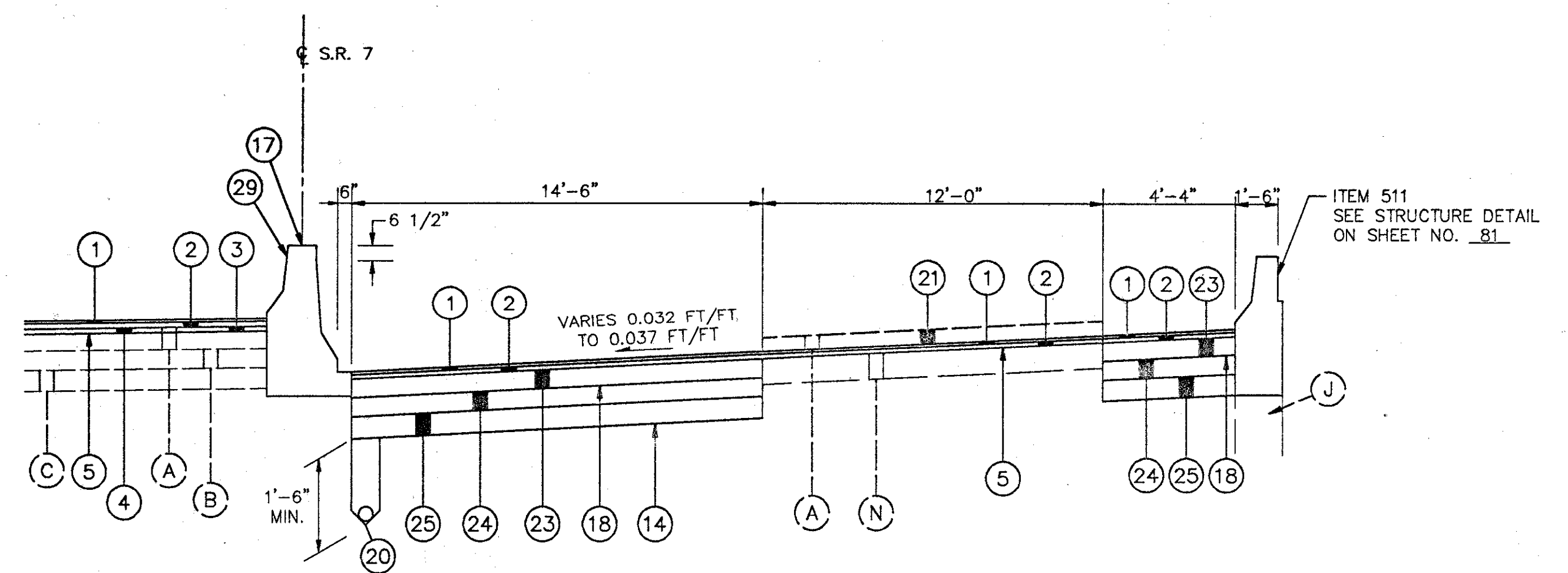
JEF-7-1390 STRUCTURE TYPICAL
LIMITING STATIONS
NORTHBOUND STA. 724+12.75 TO STA. 726+50.75 = 238.00 L.F.



CONCRETE ISLAND REPLACEMENT DETAIL
LIMITING STATIONS
NB STA. 707+01.50 TO STA. 707+21.50 = 20.00 L.F.
SB STA. 717+40 TO STA. 717+60 = 20.00 L.F.
TOTAL = 40.00 L.F.



CURB REMOVAL DETAIL
LIMITING STATIONS
NB STA. 707+21.50 TO STA. 708+06.00 = 84.50 L.F.
SB STA. 716+59.00 TO STA. 717+40.00 = 81.00 L.F.
TOTAL = 165.50 L.F.

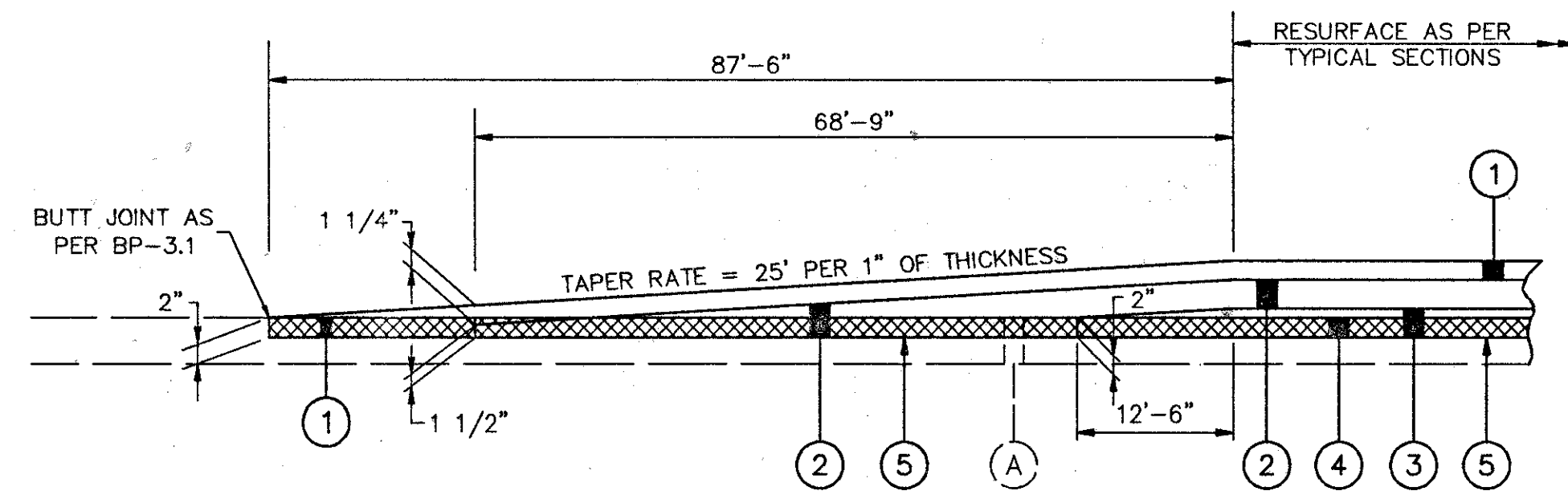


JEF-7-1390 APPROACH SLAB TYPICAL
LIMITING STATIONS
NORTHBOUND STA. 726+50.75 TO STA. 726+75.75 = 25.00 L.F.

9245TYP.DWG 1=4 5-16-94

FEATHER DETAILS

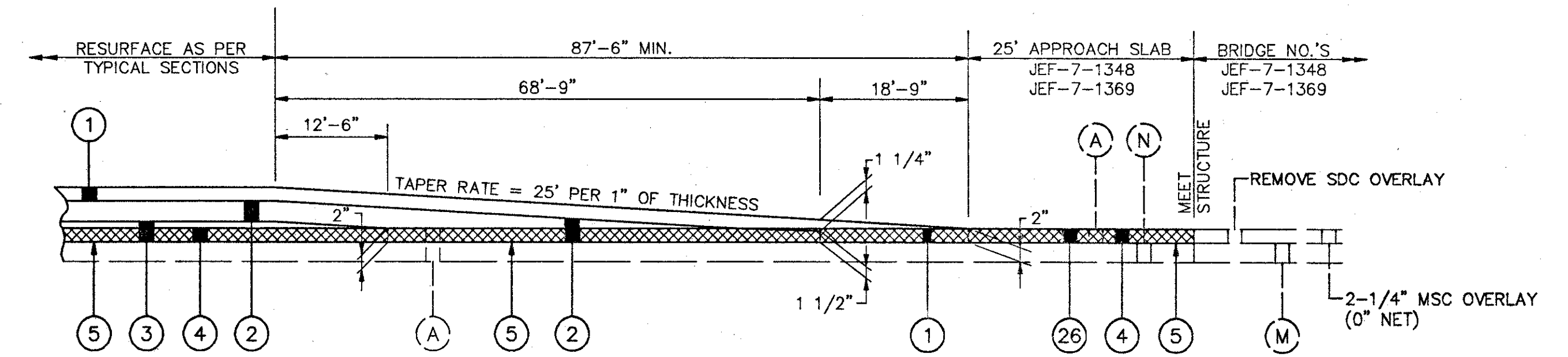
JEF - 7 - 13.11



FEATHER DETAIL AT BEGINNING & END OF PROJECT

LIMITING STATIONS

NB & SB STA. 681+80.42 TO STA. 682+67.92	=	87.50 L.F.
NB & SB STA. 769+96.81 TO STA. 770+80.24 BACK		
STA. 770+80.96 AHEAD TO STA. 770+85.03	=	87.50 L.F.
TOTAL	=	175.00 L.F.



FEATHER DETAIL AT STRUCTURES

JEF-7-1340, JEF-7-1348 & JEF-7-1369

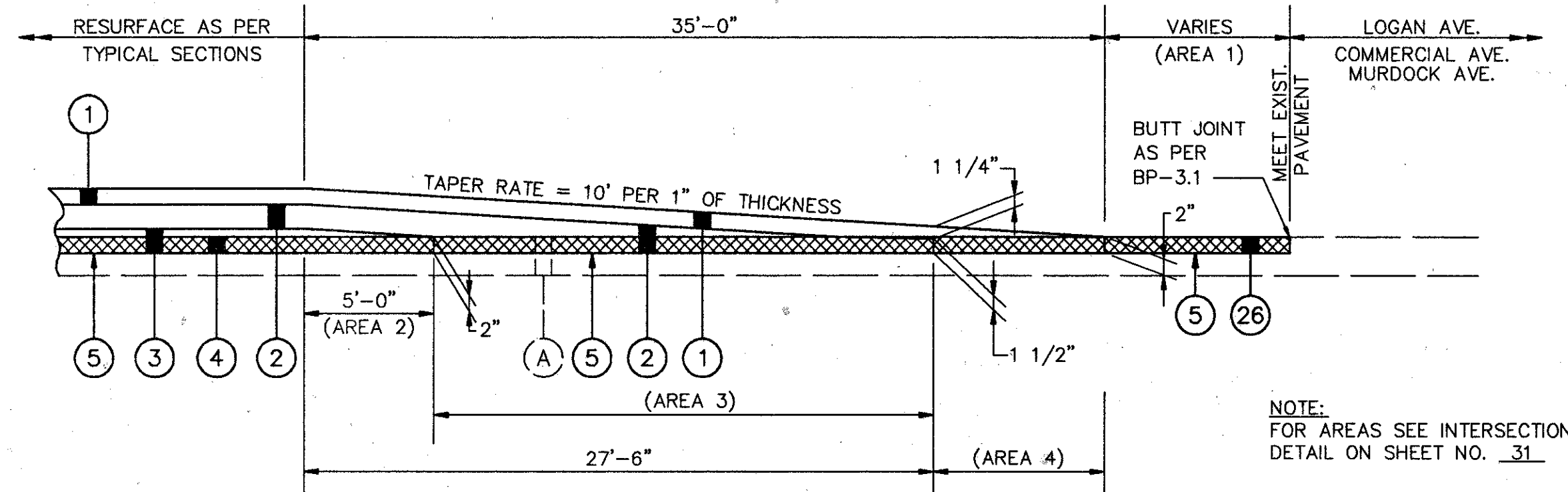
FEATHER LIMITING STATIONS

NB & SB STA. 696+47.90 TO STA. 697+35.40	=	87.50 L.F.
SB STA. 699+07.22 TO STA. 699+94.72	=	87.50 L.F.
SB STA. 700+87.50 TO STA. 701+75.00	=	87.50 L.F.
NB & SB STA. 705+17.60 TO STA. 706+05.10	=	87.50 L.F.
NB & SB STA. 711+88.47 TO STA. 712+75.97	=	87.50 L.F.
NB & SB STA. 714+74.03 TO STA. 715+61.53	=	87.50 L.F.

APPROACH SLAB RESURFACING LIMITING STATIONS

SEE APPROACH SLAB TYPICAL SECTION ON SHEET NO. 6 FOR JEF-7-1340

NB & SB STA. 701+75.00 TO STA. 702+00.00	=	25.00 L.F.
NB & SB STA. 704+92.60 TO STA. 705+17.60	=	25.00 L.F.
NB & SB STA. 712+75.97 TO STA. 713+00.97	=	25.00 L.F.
NB & SB STA. 714+49.03 TO STA. 714+74.03	=	25.00 L.F.

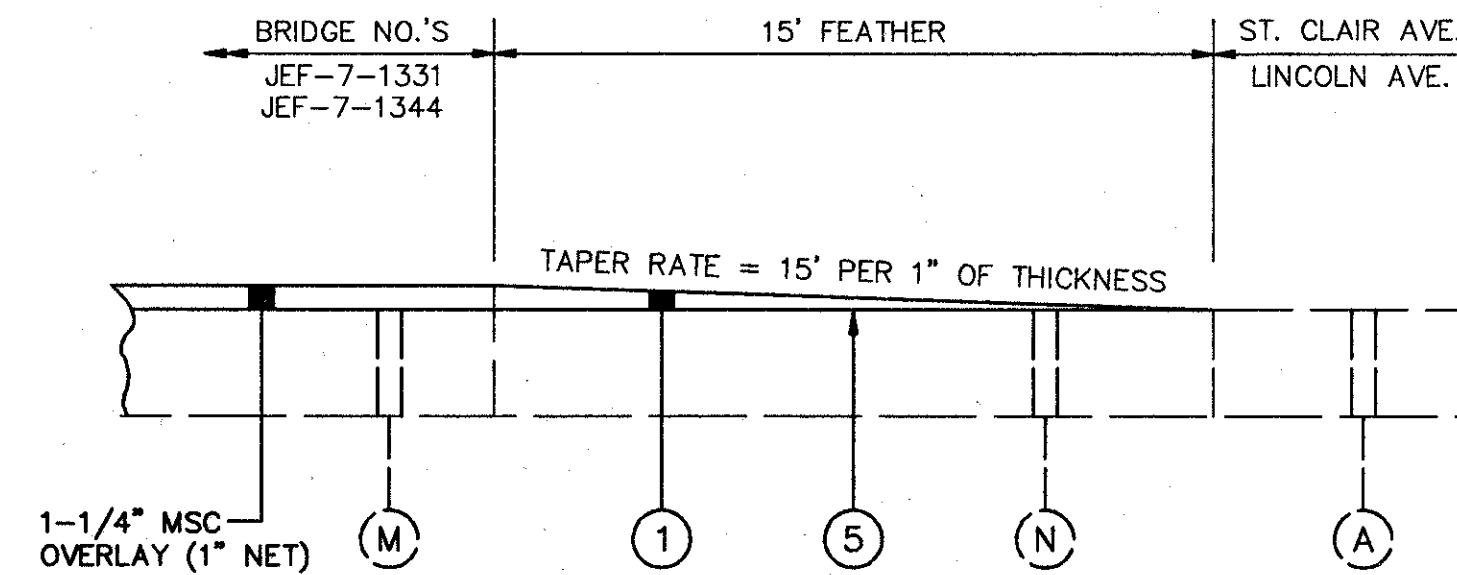


FEATHER DETAIL AT MURDOCK INTERSECTION & RAMP TERMINALS

LIMITING STATIONS

RAMP "A" STA. 13+43.00 TO STA. 13+78.00		
RAMP "B" STA. 15+15.00 TO STA. 15+50.00		
RAMP "C" STA. 12+22.00 TO STA. 12+57.00		
RAMP "D" STA. 26+45.00 TO STA. 26+80.00		
MURDOCK AVE. EXT. STA. 684+68.50 TO STA. 685+03.50		
MURDOCK AVE. CONNECTION SPUR STA. 0+23.00 TO STA. 0+58.00		

NOTE:
MURDOCK AVE. FEATHERS TO BEGIN AT
OUTSIDE EDGE OF S.R. 7 SHOULDER.



FEATHER DETAIL AT OVERPASS STRUCTURES

JEF-7-1331 & JEF-7-1344

LIMITING STATIONS

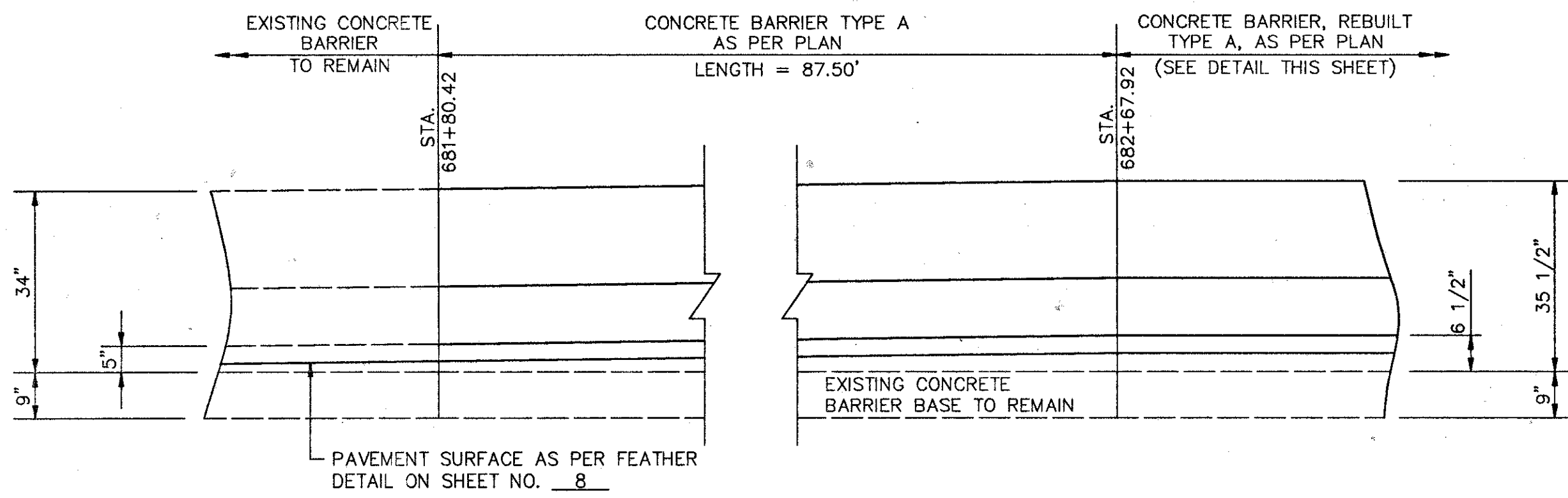
ST. CLAIR AVE. STA. 14+45.25 TO STA. 14+60.25	=	15.00 L.F.
ST. CLAIR AVE. STA. 15+39.75 TO STA. 15+54.75	=	15.00 L.F.
LINCOLN AVE. STA. 11+28.86 TO STA. 11+43.86	=	15.00 L.F.
LINCOLN AVE. STA. 12+23.80 TO STA. 12+38.80	=	15.00 L.F.
TOTAL	=	60.00 L.F.

LEGEND

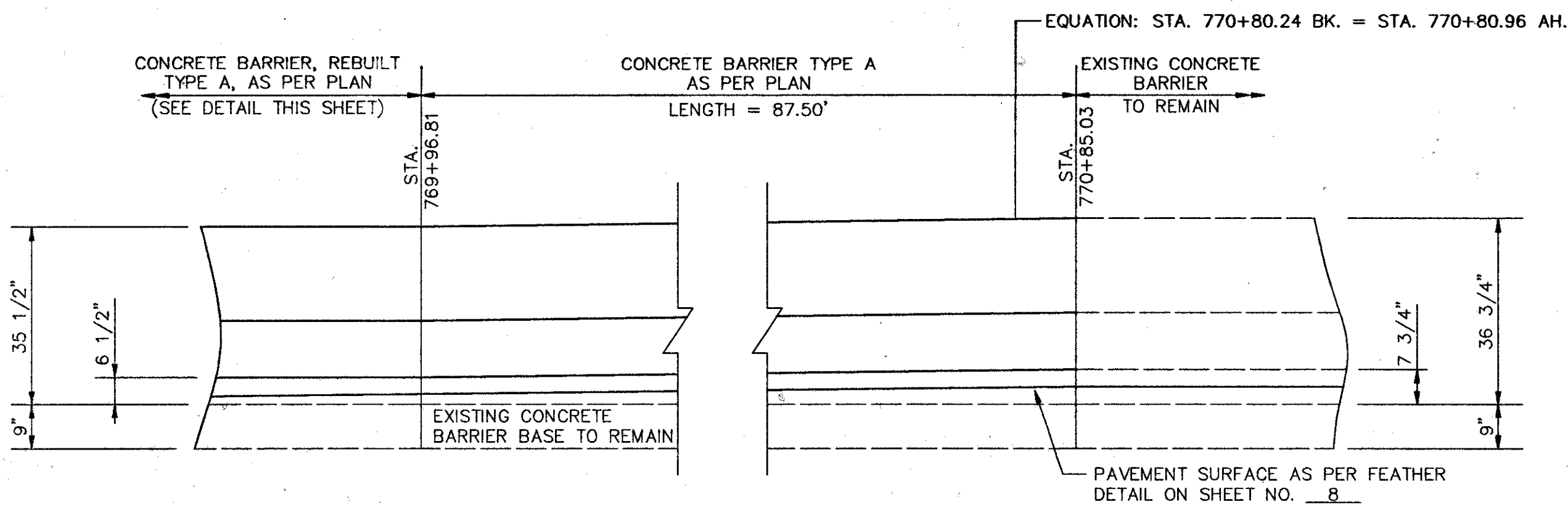
- ① ITEM 446 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14.)
- ② ITEM 446 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
- ③ ITEM 301 - 2 1/2" BITUMINOUS AGGREGATE BASE, AC-20
- ④ ITEM 254 - PAVEMENT PLANING BITUMINOUS, 2" NOMINAL DEPTH
- ⑤ ITEM 407 - TACK COAT
- ⑦ ITEM 622 - CONCRETE BARRIER, REBUILT, TYPE A, AS PER PLAN (SEE SHEET NO. 14.)
- ②⑥ ITEM 446 - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14.)
- (A) EXISTING ASPHALT CONCRETE
- (M) EXISTING CONCRETE BRIDGE DECK
- (N) EXISTING REINFORCED CONCRETE APPROACH SLAB
- ▨ ITEM 254 - PAVEMENT PLANING, BITUMINOUS (2" NOMINAL DEPTH)

BARRIER DETAILS

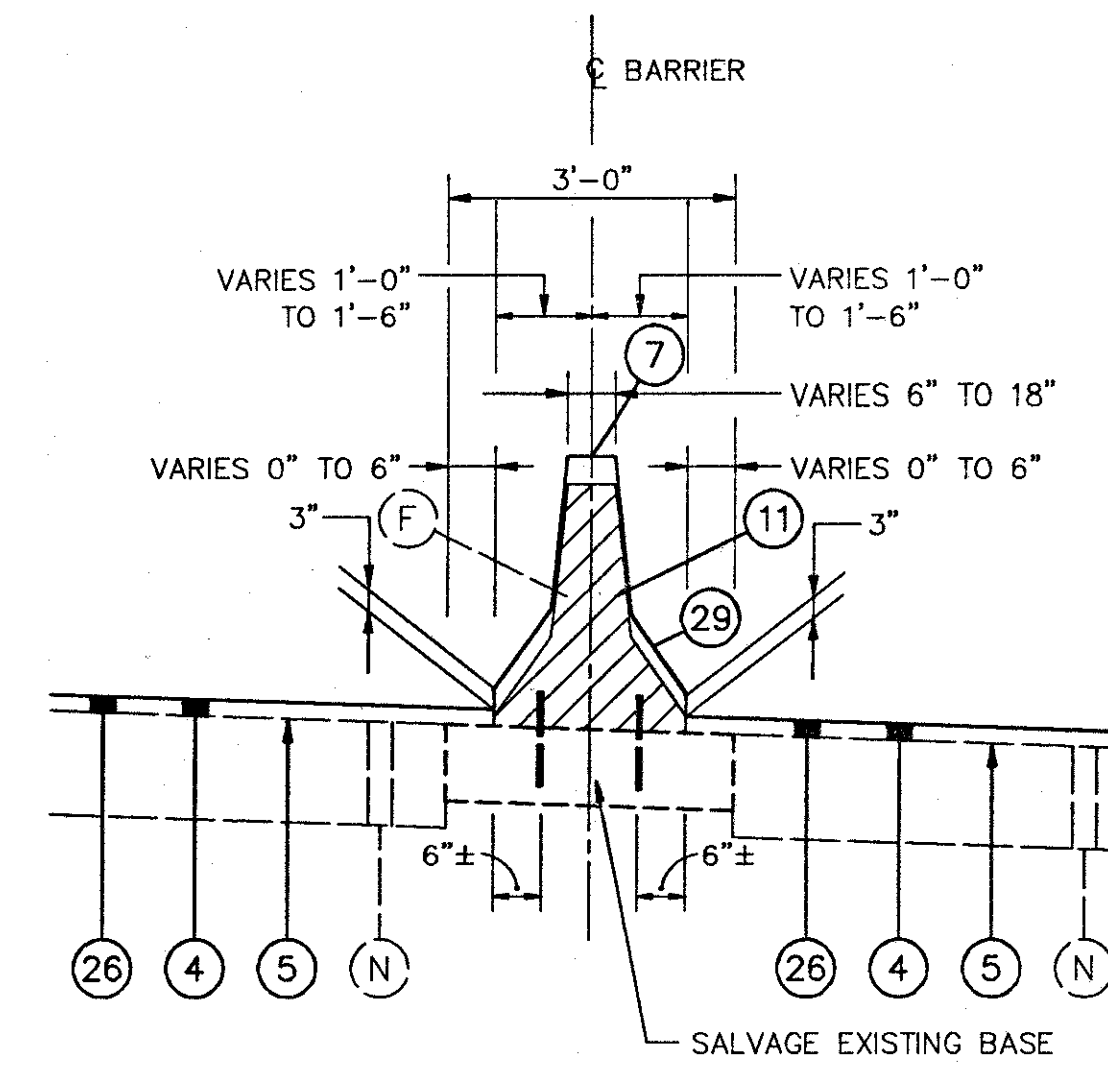
JEF - 7 - 13.11



CONCRETE BARRIER TYPE A, AS PER PLAN
LIMITING STATIONS
STA. 681+80.42 TO STA. 682+67.92 = 87.50 L.F.



CONCRETE BARRIER TYPE A, AS PER PLAN
LIMITING STATIONS
STA. 769+96.81 TO STA. 770+85.03 = 87.50 L.F.



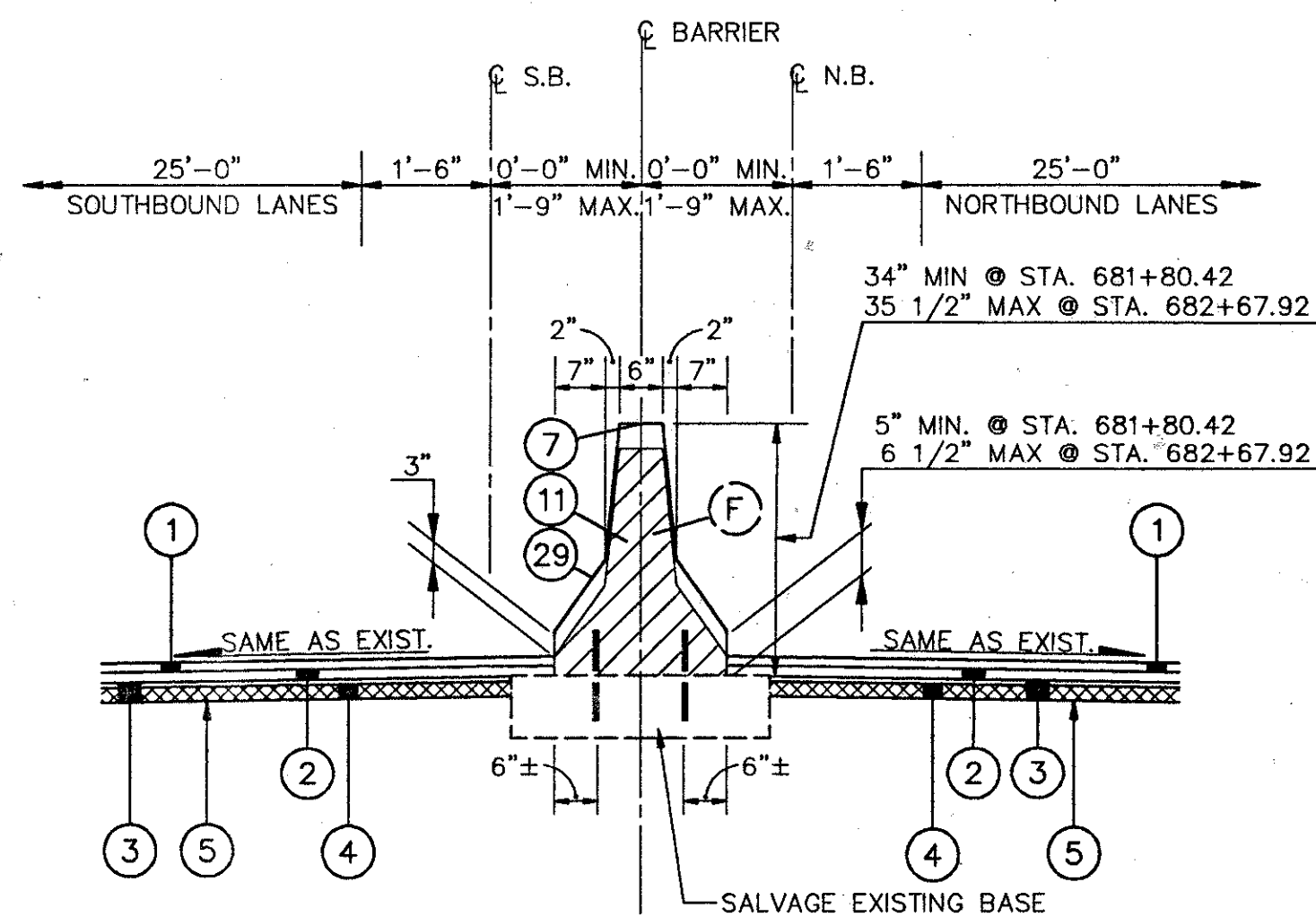
JEF 7-1348 & JEF 7-1369
BARRIER DETAIL "D"

LIMITING STATIONS
STA. 701+75.00 TO STA. 702+00.00 = 25.00 L.F.
STA. 704+92.60 TO STA. 705+17.60 = 25.00 L.F.
STA. 712+75.97 TO STA. 713+00.97 = 25.00 L.F.
STA. 714+49.03 TO STA. 714+74.03 = 25.00 L.F.
TOTAL = 100.00 L.F.

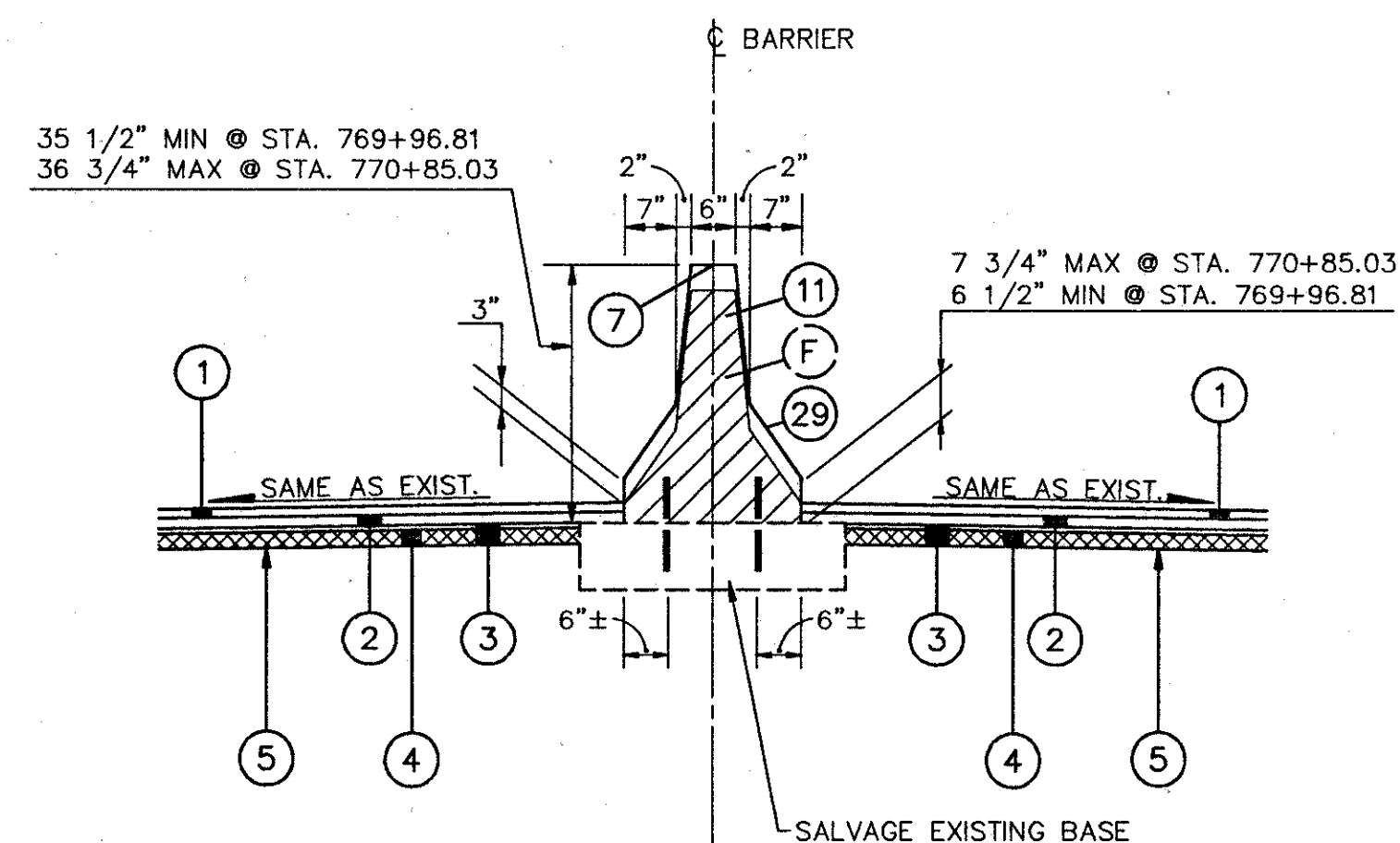
- LEGEND**
- ① ITEM 446 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14.)
 - ② ITEM 446 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
 - ③ ITEM 301 - 2 1/2" BITUMINOUS AGGREGATE BASE, AC-20
 - ④ ITEM 254 - PAVEMENT PLANING BITUMINOUS, 2" NOMINAL DEPTH
 - ⑤ ITEM 407 - TACK COAT
 - ⑦ ITEM 622 - CONCRETE BARRIER, REBUILT, TYPE A, AS PER PLAN (SEE SHEET NO. 14.)
 - ⑪ ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (SEE SHEET NO. 14.)
 - ⑬ ITEM 611 - REINFORCED CONCRETE APPROACH SLAB, (T=15")
 - ⑭ ITEM 203 - SUBGRADE COMPACTION
 - ⑮ ITEM 304 - 6" AGGREGATE BASE
 - ⑲ ITEM 622 - CONCRETE BARRIER, TYPE A, AS PER PLAN (SEE SHEET NO. 14.)
 - ⑳ ITEM 446 - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14.)
 - ㉔ ITEM 202 - CONCRETE BARRIER REMOVED
 - ㉙ ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)
 - (F) EXISTING CONCRETE BARRIER
 - (N) EXISTING REINFORCED CONCRETE APPROACH SLAB
 - ▨ ITEM 254 - PAVEMENT PLANING, BITUMINOUS (2" NOMINAL DEPTH)

FOR DETAILS NOT SHOWN SEE STD. DRAWING MC-9.3

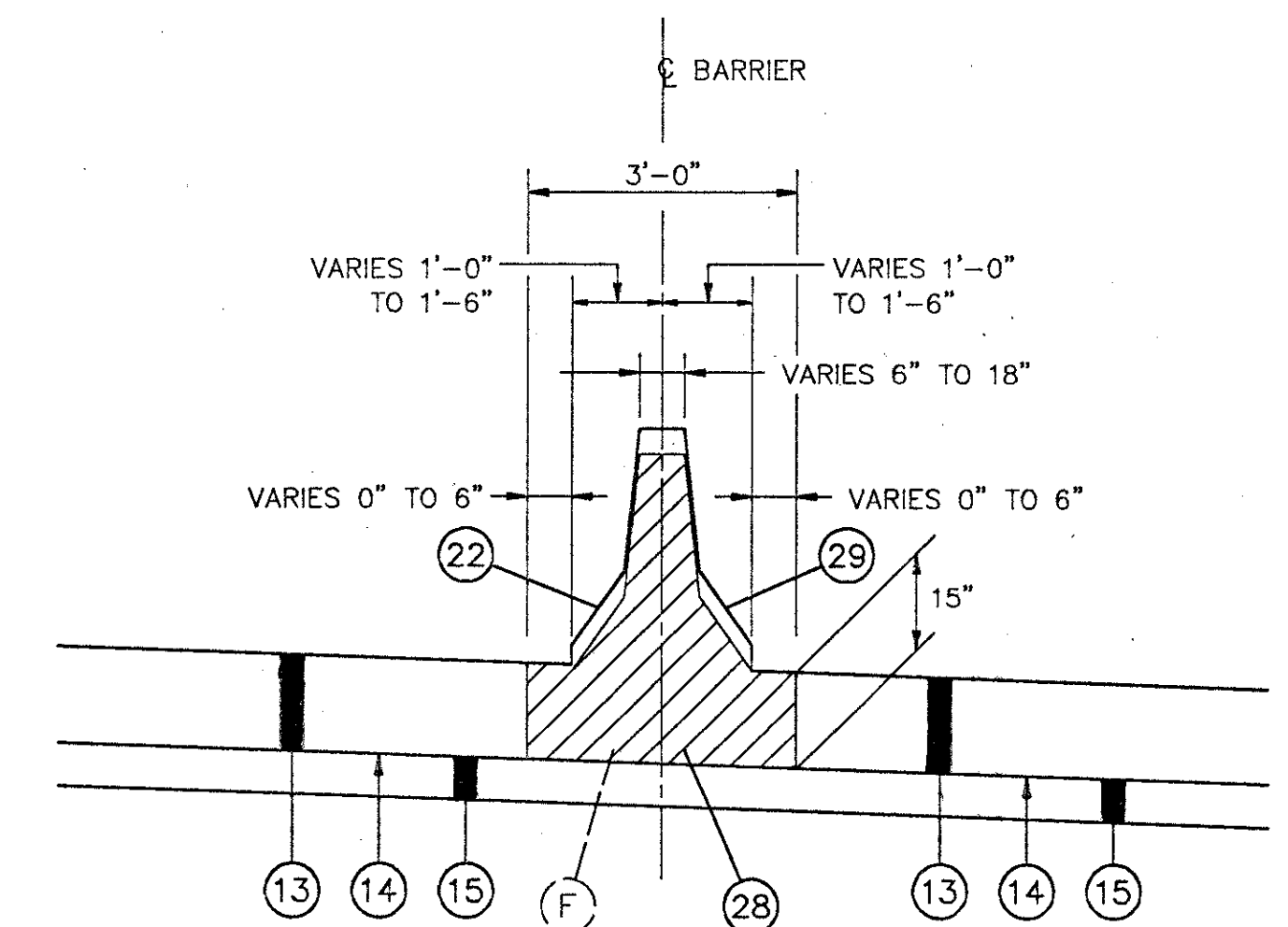
- * - EQUATION: STA. 691+08.27 BK.
STA. 691+07.89 AHD
(ADD 0.38 L.F.)
- *** - EQUATION: STA. 770+80.24 BK.
STA. 770+80.96 AHD
(SUBTRACT 0.72 L.F.)



BARRIER DETAIL "A"
LIMITING STATIONS
NB STA. 681+80.42 TO STA. 691+07.89 = 927.85 L.F.*



BARRIER DETAIL "B"
LIMITING STATIONS
STA. 691+07.89 TO STA. 691+50.00 = 42.11 L.F.
STA. 696+00.00 TO STA. 697+35.40 = 135.40 L.F.
STA. 705+17.60 TO STA. 712+75.97 = 758.37 L.F.
STA. 714+74.03 TO STA. 722+50.25 = 776.22 L.F.
STA. 728+38.25 TO STA. 770+85.03 = 4246.06 L.F. ***
TOTAL = 5958.16 L.F.



JEF 7-1340
BARRIER DETAIL "C"
LIMITING STATIONS
STA. 697+35.40 TO STA. 697+60.40 = 25.00 L.F.
STA. 698+82.22 TO STA. 699+07.22 = 25.00 L.F.
TOTAL = 50.00 L.F.

MAINTENANCE OF TRAFFIC NOTES

CALC. BY: MRG
DATE: 5-94
CHKD. BY: [Signature]
DATE: 5-94

OHIO
FHWA REGION 5

10
83

JEF - 7 - 13.11

ITEM 614 - MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT. 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.

CONSTRUCTION WORK SHALL BE PERMITTED ON ONLY ONE SIDE OF THE DIRECTIONAL ROADWAY AT A TIME AND ANY OPEN PAVEMENT SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH BARRICADES, DRUMS, OR VERTICAL PANELS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE WORK ZONES THAT ALTERNATELY CLOSE BOTH THE PASSING LANE AND THE TRAVEL LANE.

THE NORTHBOUND AND SOUTHBOUND PASSING LANES SHALL BE SIMULTANEOUSLY CLOSED DURING CONCRETE MEDIAN BARRIER CONSTRUCTION ON THIS PROJECT. PORTABLE CONCRETE BARRIER, 32" SHALL BE FURNISHED, INSTALLED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. ALL INSTALLATIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

TRAFFIC SHALL BE MAINTAINED AS PER STANDARD DRAWING MT-95.41 DURING CONSTRUCTION.

TWO LANES OF TRAFFIC SHALL NOT BE PERMITTED ACROSS BRIDGE NO. JEF-7-1340, JEF-7-1348, AND JEF-7-1369 ON WHICH ONLY ONE LANE OF REHABILITATION HAS BEEN COMPLETED.

INTERCHANGE RAMP

RAMP TRAFFIC SHALL BE MAINTAINED BY THE USE OF PORTIONS OF THE EXISTING AND/OR RESURFACED PAVEMENT AND EXISTING SHOULDERS AND AS PER STANDARD DRAWING MT-98.12, MT-98.13, MT-98.14, MT-98.15 AND THE DETAILS ON SHEET NO. 12.

IN NO CASE SHALL TRAFFIC BE PERMITTED TO FORM A QUEUE WHICH EXTENDS BEYOND THE LIMITS OF THE RAMP ONTO THE SPEED CHANGE LANE, MAINLINE, OR CROSSROAD PAVEMENT. THE LIMITS AND DURATION OF ANY TRAFFIC STOPPAGE SHALL AT ALL TIMES BE SUBJECT TO THE DIRECTION OF THE ENGINEER.

SPEED CHANGE LANES

SPEED CHANGE LANE TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF PORTIONS OF THE EXISTING AND/OR RESURFACED PAVEMENT AND EXISTING SHOULDERS.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC. A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE (1) AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVEMENT REPAIR OR PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY; OTHERWISE, THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE PARKED EITHER THIRTY (30) FEET FROM THE OUTSIDE EDGE OF PAVEMENT OR SIX (6) FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA.

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL, OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC CONTROL DEVICES AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL SHALL ALSO BE AVAILABLE ON AN AROUND-THE-CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. PAYMENT FOR THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

GENERAL

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TRAFFIC SHALL BE MAINTAINED AS SPECIFIED BY USE OF THE EXISTING AND/OR RESURFACED PAVEMENT AND SHOULDERS.

IF THE PROJECT IS SHUT DOWN FOR WINTER AND THE PERMANENT PAVEMENT MARKINGS HAVE NOT BEEN APPLIED, THEN CLASS I TEMPORARY EDGE LINES AND LANE LINES SHALL BE APPLIED TO EACH DIRECTIONAL ROADWAY FOR THE LENGTH OF THE PROJECT.

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 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS INTENDED TO PROVIDE GENERAL GUIDANCE TO THE CONTRACTOR. THE SEQUENCE MAY BE REVISED BY THE CONTRACTOR SUBJECT TO THE REVIEW AND APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS CAUTIONED TO COORDINATE HIS CONSTRUCTION SEQUENCE WITH HIS REBAR SUPPLIER PERTAINING TO THE RECONSTRUCTION OF THE ABUTMENT BACKWALLS ON BRIDGE NO. JEF 7-1340 (SR 7 OVER RAVINE STREET). REFER TO THE NOTES AND DETAILS ON SHEETS 58 AND 59.

PHASE I (TRAVEL LANE PLANING AND PROFILE RECONSTRUCTION; BRIDGE REHABILITATION)

1. ERECT TEMPORARY SIGNS AND WARNING LIGHTS, INSTALL PORTABLE CONCRETE BARRIER, APPLY TEMPORARY EDGE LINE AND PLACE DRUMS AS PER STANDARD DRAWINGS MT-95.41, MT-98.12, MT-98.13, MT-98.14, MT-98.15 AND SHEET NO. 11-13.
2. MAINTAIN TRAFFIC ON ONE LANE IN EACH DIRECTION ALONG SR 7.
3. MAINTAIN ACCESS TO RAMPS AT ALL TIMES EXCEPT FOR THE DURATION OF THE RESURFACING AND ASSOCIATED WORK ON THE RAMPS.
4. PLANE THE PAVEMENT AND CONSTRUCT FULL DEPTH PAVEMENT REPLACEMENT (TRAVEL LANE) UNDER JEF-7-1331 AND JEF-7-1344. REHABILITATE (TRAVEL LANE) UNDER JEF-7-1340, JEF-7-1348, JEF-7-1369 AND JEF-7-1390 STRUCTURES.

PHASE II (PASSING LANE PLANING AND PROFILE RECONSTRUCTION; MEDIAN BARRIER RECONSTRUCTION; BRIDGE REHABILITATION)

1. UPON COMPLETION OF THE WORK DESCRIBED IN PHASE I, THE CONTRACTOR SHALL ADJUST WHERE NEEDED, THE LOCATIONS OF TEMPORARY SIGNS, WARNING LIGHTS, PORTABLE CONCRETE BARRIER, TEMPORARY EDGE LINES AND DRUMS AS PER STANDARD DRAWINGS MT-95.41, MT-98.12, MT-98.13, MT-98.14, MT-98.15 AND SHEET NO. 11-13.
2. MAINTAIN TRAFFIC ON ONE LANE IN EACH DIRECTION ALONG SR 7.
3. MAINTAIN ACCESS TO RAMPS AT ALL TIMES EXCEPT FOR THE DURATION OF THE RESURFACING AND ASSOCIATED WORK ON THE RAMPS.
4. PLANE THE PAVEMENT AND RECONSTRUCT MEDIAN BARRIER AND MEDIAN BARRIER INLETS. FULL DEPTH PAVEMENT REPLACEMENT (PASSING LANE) UNDER JEF-7-1331, JEF-7-1344 AND ADJACENT TO JEF-7-1390. REHABILITATE JEF-7-1340, JEF-7-1348 AND JEF-7-1369 STRUCTURES.
5. FOLLOWING THE COMPLETION OF THE WORK DESCRIBED IN STEP 4, THE CONTRACTOR SHALL A) REMOVE TEMPORARY SIGNS, WARNING LIGHTS, PORTABLE CONCRETE BARRIER, TEMPORARY EDGE LINE AND DRUMS, B) INSTALL TEMPORARY PAVEMENT MARKINGS AND C) OPEN ALL LANES TO TRAFFIC.

PHASE III

1. PLACE ITEM 301 AND ITEM 446 RESURFACING COURSES WHILE MAINTAINING TRAFFIC PER STANDARD DRAWINGS MT-95.31, MT-95.32, MT-98.12, MT-98.13, MT-98.14, MT-98.15 AND SHEET NO. 11-13.
2. INSTALL PERMANENT PAVEMENT MARKINGS.
3. OPEN ROADWAY TO TRAFFIC.
4. COMPLETE REMAINING PROJECT CONSTRUCTION.

COVERING OF SIGNS

WHERE THE PLANS CALL FOR A PERMANENT SIGN TO BE COVERED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVER IS REMOVED. THE COVER SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED.

ITEM 614 - BARRIER REFLECTORS

REFLECTORS AND THEIR MOUNTING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 802 EXCEPT THAT SPACING SHALL BE 25 FEET.

ITEM SPECIAL - 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 CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM SPECIAL - 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.

AN ESTIMATED QUANTITY OF 200 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

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 SIGNS AND SUPPORTS (R-10-48) 45 MPH WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED 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 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 4 HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER 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 DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS, 500 FEET IN ADVANCE OF THE LANE REDUCTION TAPER. THE SIGNS SHALL BE MOUNTED ON THE RIGHT SIDE, 250 FEET IN ADVANCE OF THE LANE REDUCTION TAPER ON UNDIVIDED HIGHWAYS. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1 MILE FOR 55 MPH ZONES AND EVERY 1/2 MILE FOR 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE. A SIGN TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. THIS SIGNS SHALL BE AN R-8A.

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 ITEM 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85. WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO (2) ITEM 630 GROUND MOUNTED SUPPORTS, NO. 4 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.

ITEM 622 - PORTABLE CONCRETE BARRIER

IT IS ANTICIPATED THAT THE SAME BARRIER WILL BE USED IN VARIOUS PHASES OF CONSTRUCTION. MOVEMENT OF THE CONCRETE BARRIER BETWEEN PHASES SHALL BE ACCOMPLISHED IN ONE WORKING DAY. FLAGGERS SHALL BE UTILIZED FOR PROTECTION OF VEHICULAR TRAFFIC UNTIL MOVEMENT OF THE BARRIER IS COMPLETE.

ALL COSTS INVOLVED IN REMOVING AND REINSTALLING THE CONCRETE BARRIER WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 622, PORTABLE CONCRETE BARRIER.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL NEW GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

CONCRETE MEDIAN BARRIER REPLACEMENT

REMOVING, GRADING AND INSTALLING THE REPLACEMENT BARRIER IN A CONTINUOUS OPERATION SHALL BE LIMITED TO A 3000 LINEAR FEET LENGTH AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ITEM SPECIAL - 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 FOR THE FOLLOWING TASKS:

1. DURING THE INITIAL SETUP AND TEAR DOWN PERIODS OF LANE CLOSURES AND CHANNELIZATION OF DIRECTIONAL TRAFFIC INTO A REDUCED NUMBER OF LANES.
2. WHEN THE BEGINNING POINT OF A LANE CLOSURE IS SHIFTED SUBSTANTIALLY.

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:

JEFFERSON COUNTY SHERIFF'S DEPARTMENT
117 NORTH THIRD ST.
STUBENVILLE, OHIO 43952
ATTN: CHIEF DEPUTY RON TURNER
(614)283-8600

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 SPECIAL - LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - LAW ENFORCEMENT OFFICER WITH PATROL CAR - 160 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 IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALC. BY: MRC
 DATE: 6-94
 CHKD. BY: [Signature]
 DATE: 6-94

OHIO
 FHWA REGION 5
 11
 83

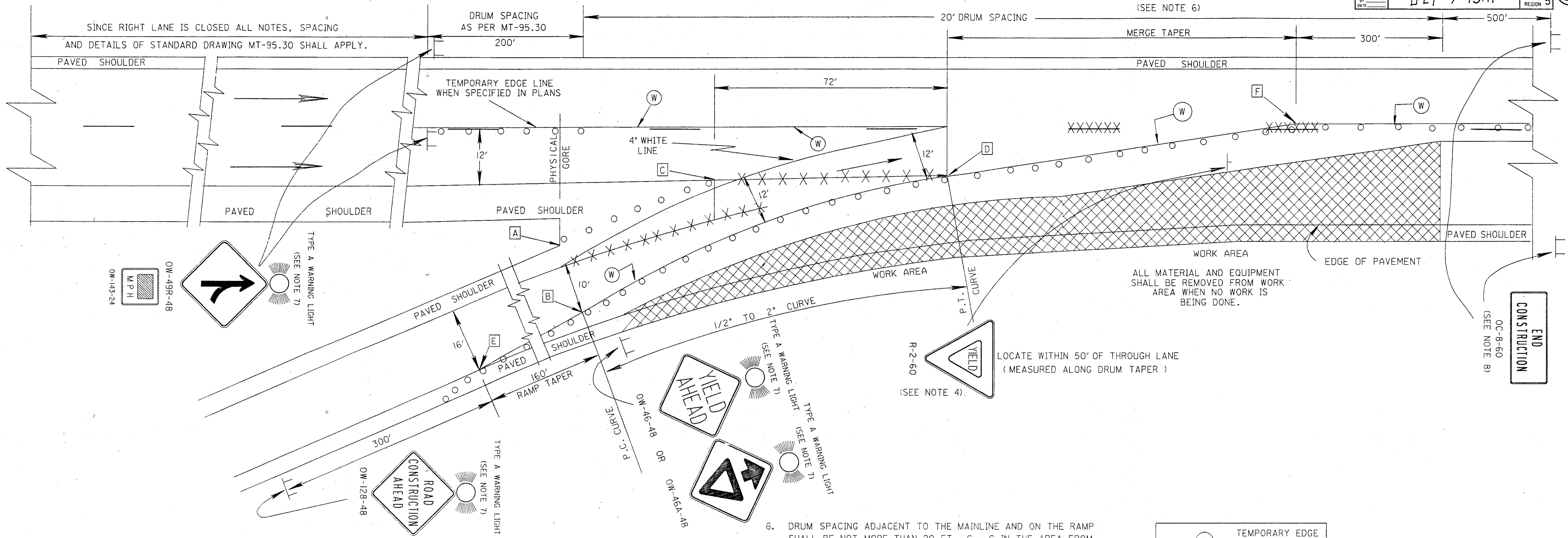
JEF - 7 - 13.11

ITEM 614												
CONSTRUCTION PHASE	STATION		LANE	TEMPORARY LANE LINE, CLASS 1		TEMPORARY EDGE LINE, CLASS 1	TEMPORARY GORE MARKING	WORK ZONE SPEED LIMIT SIGN	BARRIER REFLECTOR, TYPE B	OBJECT MARKER	REMARKS	
				YELLOW	WHITE							
	FROM	TO		LIN. FT.	LIN. FT.							LIN. FT.
I	667+80 RT.		NB							1		
	688+00 RT.		NB							1		
	708+00 LT.		SB							1		
	715+00 RT.		NB							1		
	732+00 LT.		SB							1		
	741+00 RT.		NB							1		
	758+45 LT.		SB							1		
	784+85 LT.		SB							1		
	681+80.42	770+85.03	NB	8902.19*	8902.19*							PLACED AFTER ITEM 254 PAVEMENT PLANING
	681+80.42	770+85.03	SB	8901.15*	8901.15*							
	RAMP A ENTRANCE						300					
	RAMP D ENTRANCE						300					
	691+00.40	705+42.60	NB							58	58	
	712+50.97	714+99.03	NB							10	10	
	722+00.75	731+60.75	NB							39	39	
	697+10.40	705+42.60	SB							34	34	
	712+50.97	714+99.03	SB							10	10	
	PHASE 1 TOTALS				17803.34	17803.34	600	8	151	151		
	II	667+80 RT.		NB							1	
		688+00 RT.		NB							1	
708+00 LT.			SB							1		
715+00 RT.			NB							1		
732+00 LT.			SB							1		
741+00 RT.			NB							1		
758+45 LT.			SB							1		
784+85 LT.			SB							1		
672+80.42		770+85.03	NB	8902.19*	8902.19*							PLACED AFTER ITEM 254 PAVEMENT PLANING
681+80.42		779+85.03	SB	8901.15*	8901.15*							
691+00.40		702+00.00	NB							44	44	
722+00.25		728+88.25	NB							28	28	
691+00.40		702+00.00	SB							44	44	
722+00.25		728+88.25	SB							28	28	
PHASE 2 TOTALS				17803.34	17803.34		8	144	144			
III	681+80.42	770+85.03	NB	8902.19*	8902.19*	8902.19*					PLACED AFTER ITEM 301 BITUMINOUS AGGREGATE BASE	
	681+80.42	770+85.03	SB	8901.15*	8901.15*	8901.15*						
	RAMP A ENTRANCE						300					
	RAMP D ENTRANCE						300					
	681+80.42	770+85.03	NB	8902.19*	8902.19*	8902.19*					PLACED AFTER ITEM 446 ASPH. CONC. INTERMEDIATE COURSE	
	681+80.42	770+85.03	SB	8901.15*	8901.15*	8901.15*						
	RAMP A ENTRANCE						300					
	RAMP D ENTRANCE						300					
	681+80.42	770+85.03	NB	8902.19*	8902.19*	8902.19*					PLACED AFTER ITEM 446 ASPH. CONC. SURFACE COURSE	
	681+80.42	770+85.03	SB	8901.15*	8901.15*	8901.15*						
	RAMP A ENTRANCE						300					
	RAMP D ENTRANCE						300					
	PHASE 3 TOTALS				53410.02	53410.02	53410.02	1800				
	SUBTOTALS				89016.70	71213.36	71213.36	2400				
TOTALS - CARRIED TO GENERAL SUMMARY				16.86 MI.	26.97 MI.	2400	16	295	295			

* EQUATION: NB STA. 691+08.27 BK. - STA. 691+07.89 AHD. (ADD 0.38 L.F.)
 SB STA. 691+07.23 BK. - STA. 691+07.89 AHD. (SUBTRACT 0.66 L.F.)
 STA. 703+67.75 BK. - STA. 703+69.03 AHD. (SUBTRACT 2.08 L.F.)
 STA. 770+80.24 BK. - STA. 770+80.96 AHD. (SUBTRACT 0.72 L.F.)

ITEM 622 - PORTABLE CONCRETE BARRIER						
CONSTRUCTION PHASE	STATION		LANE	PORTABLE CONCRETE BARRIER, 32'		REMARKS
				PORTABLE CONCRETE BARRIER, 32'	PORTABLE CONCRETE BARRIER, 32' BRIDGE MOUNTED	
	FROM	TO		LIN. FT.	LIN. FT.	
I	BEGIN	691+00.40	NB			DRUMS
	691+00.40	697+60.40	NB	1010		
	697+60.40	698+82.22	NB		120	BRIDGE JEF - 7 - 1340
	698+82.22	702+00.00	NB	320		
	702+00.00	704+92.60	NB		290	BRIDGE JEF - 7 - 1348
	704+92.60	705+42.60	NB	120		
	705+42.60	712+50.97	NB			DRUMS
	712+50.97	713+00.97	NB	400		
	713+00.97	714+49.03	NB		150	BRIDGE JEF - 7 - 1369
	714+49.03	714+99.03	NB	120		
	714+99.03	722+00.25	NB			DRUMS
	722+00.25	724+12.75	NB	560		
	724+12.75	726+50.75	NB		240	BRIDGE JEF - 7 - 1390
	726+50.75	731+60.75	NB	580		
	731+60.75	END	NB			DRUMS
	BEGIN	697+10.40	SB			DRUMS
	697+10.40	697+60.40	SB	120		
	697+60.40	698+82.22	SB		120	BRIDGE JEF - 7 - 1340
	698+82.22	702+00.00	SB	320		
	702+00.00	704+92.60	SB		290	BRIDGE JEF - 7 - 1348
704+92.60	705+42.60	SB	400			
705+42.60	712+50.97	SB			DRUMS	
712+50.97	713+00.97	SB	120			
713+00.97	714+49.03	SB		150	BRIDGE JEF - 7 - 1369	
714+49.03	714+99.03	SB	400			
714+99.03	END	SB			DRUMS	
II	BEGIN	691+00.40	NB			DRUMS
	691+00.40	697+60.40	NB	910		
	697+60.40	698+82.22	NB		120	BRIDGE JEF - 7 - 1340
	698+82.22	702+00.00	NB	390		
	702+00.00	722+00.25	NB			DRUMS
	722+00.25	724+12.75	NB	460		
	724+12.75	726+50.75	NB		240	BRIDGE JEF - 7 - 1390
	726+50.75	728+88.25	NB	310		
	728+88.25	END	NB			DRUMS
	BEGIN	691+00.40	SB			DRUMS
	691+00.40	697+60.40	SB	730		
	697+60.40	698+82.22	SB		120	BRIDGE JEF - 7 - 1340
	698+82.22	702+00.00	SB	570		
	702+00.00	722+00.25	SB			DRUMS
722+00.25	728+88.25	SB	1010			
728+88.25	END	SB			DRUMS	
TOTALS - CARRIED TO GENERAL SUMMARY				8850	1840	

NOTE: STATIONING REPRESENTS WORK AREA LIMITS TO BE PROTECTED PER STD. DWG. MT-95.41
 QUANTITIES INCLUDE PCB TAPER LENGTHS PER STD. DWG. MT-95.41



GENERAL NOTES

1. THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL BE EMPLOYED WHEN: (1) THE LATERAL CLEARANCE BETWEEN CHANNELIZING DEVICES AT THE RIGHT EDGE OF THE WORK AREA AND THE EDGE OF PAVEMENT IS LESS THAN 10 FT. (12 FT. IF THE SHOULDER PAVEMENT IS USED) AS SHOWN ON DRAWING MT-98.15, AND (2) THE REQUIRED RAMP TAPERS AND CURVES CAN BE PROVIDED AS SHOWN. IN THE EVENT THE WORK ZONE CONDITION WOULD PERMIT THE USE OF EITHER MT-98.15 OR MT-98.16, MT-98.15 SHALL BE USED. THIS TRAFFIC CONTROL MEASURE SHALL NOT BE PLACED IN EFFECT UNTIL IMMEDIATELY BEFORE THE CONTRACTOR IS FULLY PREPARED TO PERFORM THE WORK ON THE RAMP OR LANE ADJACENT TO IT. ONCE THIS MEASURE IS PLACED INTO EFFECT THE CONTRACTOR SHALL EXPEDITIOUSLY PURSUE THE WORK (WORKING CONTINUOUSLY WITH FULL CREW IN THE RAMP AREA ON ALL NORMAL WORKING DAYS) UNTIL IT IS COMPLETED AND SHALL IMMEDIATELY OPEN THE AREA TO NORMAL TRAFFIC OR, AS A MINIMUM, REVERT TO THE METHODS SHOWN ON MT-98.15. IT IS THE INTENT THAT THE LONGEST MERGING TAPER LENGTH POSSIBLE SHALL BE CHOSEN, COMMENSURATE WITH THE REQUIREMENTS OF CONSTRUCTION.

2. THE RAMP TAPER SHALL DESIRABLY BE LOCATED TO PROVIDE A 10' MINIMUM PATH BETWEEN DRUMS AND THE PAVED SHOULDER IN THE GORE. THE RAMP TRAFFIC MAY BE PLACED ON THE PAVED GORE AS SHOWN ABOVE ONLY IF (1) THE TRAFFIC WILL USE THE PAVED SHOULDER PAVEMENT LESS THAN ONE DAY AND THE SHOULDER PAVEMENT IS IN GOOD CONDITION AND IS LEVEL AND SMOOTH OR (2) IF THE SHOULDER PAVEMENT IS ADEQUATELY STRENGTHENED, LEVELED AND SMOOTHED TO CARRY THE ANTICIPATED LOAD. A MINIMUM OF 3 DRUMS SHALL BE USED IN THE RAMP SHOULDER TAPER.

3. RAMP SIGNS SHALL BE DUAL MOUNTED ON MULTI-LANE RAMP. WHEN THE RAMP IS NOT LONG ENOUGH TO ALLOW PLACEMENT AS SPECIFIED ABOVE, THE SIGNS MAY BE SPACED PROPORTIONATELY WITHIN THE SPACE AVAILABLE AS DETERMINED BY THE ENGINEER (A 200 FOOT MINIMUM SPACING MUST BE MAINTAINED).

4. IT WILL BE NECESSARY TO MOVE THE LOCATION OF ANY EXISTING YIELD CONDITION. IN THESE CASES, THE PERMANENT R-2 SIGN INSTALLATION SHALL BE COVERED AND THE TEMPORARY INSTALLATION SHALL BE MOUNTED APPROPRIATELY. IF THE REQUIRED DISTANCES (RAMP TAPER, CURVE AND MERGE TAPER) CANNOT BE OBTAINED, THE ENGINEER MAY APPROVE SLIGHTLY LOWER VALUES FOR A SHORT TIME, IN WHICH CASE THE YIELD SIGN SHALL BE REMOVED AND A 36" STOP SIGN PLACED APPROPRIATELY TO BE VISIBLE TO RAMP TRAFFIC BUT NOT BE OBTRUSIVE TO MAINLINE TRAFFIC.

5. IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS (RPM'S) SHALL BE REMOVED AND THE APPROPRIATE COLOR TEMPORARY EDGE LINES SHALL BE APPLIED ALONG THE TAPER. TEMPORARY EDGE LINES WHICH WOULD CONFLICT WITH FINAL TRAFFIC LANES SHALL BE REMOVABLE (947.03 TYPE-C) TAPE UNLESS THE AREA WILL BE RESURFACED IN THE NEXT WORK PHASE. AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKERS REFLECTORS SHALL BE RESTORED.

- DRUM SPACING ADJACENT TO THE MAINLINE AND ON THE RAMP SHALL BE NOT MORE THAN 20 FT. C - C IN THE AREA FROM THE PHYSICAL GORE TO 300 FT. BEYOND THE MERGE TAPER. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES. PROVISIONS SHALL BE MADE TO SAFELY STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER. IF THIS CANNOT BE ACHIEVED, DRUMS SHALL BE USED. TYPE C STEADY BURNING WARNING LIGHTS SHALL BE ERECTED ON EACH DRUM FOR NIGHT LANE CLOSURE.
- TYPE A FLASHING WARNING LIGHTS ARE REQUIRED ON THE ROAD CONSTRUCTION AHEAD (OW-128-48), MERGE (OW-49R-48), AND THE YIELD AHEAD (OW-46-48) SIGNS WHEN NIGHT LANE CLOSURE IS NECESSARY.
- THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.
- FROM THE END OF THE GORE AREA GRADED SHOULDER (POINT A), LOCATE THE PC OF THE CURVE BY MEASURING PERPENDICULAR TO THE RAMP CENTERLINE 10' OF RAMP PAVEMENT, NOT INCLUDING PAVED SHOULDER WIDTH (POINT B). FROM THE END OF THE GORE AREA PAVED SHOULDER (POINT C), LOCATE THE PT OF THE CURVE BY MEASURING 72' FROM POINT C ALONG THE EDGE OF PAVEMENT EXTENDED (POINT D).
- PLACEMENT OF DRUMS SHALL BEGIN AT (POINT E) 160' UP THE RAMP FROM THE PREVIOUSLY LOCATED PC (POINT B) AND AT THE RIGHT EDGE OF RAMP PAVEMENT. FROM THIS POINT A DRUM TAPER SHALL BE PLACED TO THE PC (POINT B) AND THEN ALONG A CURVE AS SHOWN TO THE PT (POINT D) WHERE A 48:1 (MIN.) MERGE TAPER SHALL MEET MAINLINE TRAFFIC CONTROL (POINT F).

(W)	TEMPORARY EDGE LINES WHITE
(A)	LAYOUT POINTS
XXXXXXXXXX	MARKINGS REMOVED

PRELIMINARY
 PREPARED BY
 TECHNICAL SUPPORT SECTION
 ALF H. HANSEN P.E.
 WALTER C. CHADWICK D.S.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF ODOTCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

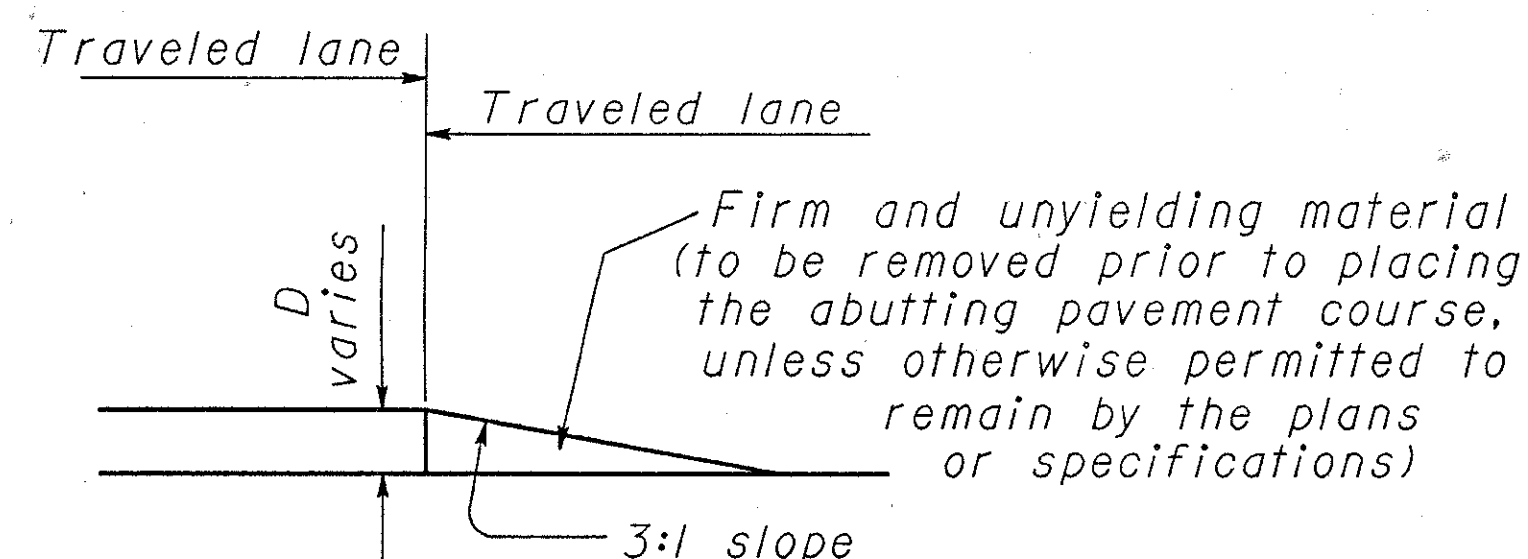
REVISED BY:	DATE:
209816	DATE
LANE CLOSURE AT ENTRANCE RAMP PLAN B	
PLAN INSERT SHEET	
	04/03/90

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. 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 Standard Construction Drawing MC-9.2 and Item 622.
- When drums are specified for a dropoff 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-171 (Uneven Lanes) and OWP-171 signs are required, they shall be placed 750' 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 dropoff condition extends more than one-half mile, additional signs should be erected at intervals of one mile or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any 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', drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
 - Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
 - Lengths of 60 feet or less - repairs shall be effected in accordance with 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT (MILLING OR RESURFACING)

- This treatment may be used when permitted for Condition I only.
- OW-171 and OWP-171 signs required.



CONDITION I DROPOFFS BETWEEN TRAVELED LANES

- These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D (In.)	Treatment
≤ 1/2	Erect OW-171 and OWP-171 signs.
> 1/2 - 3	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
> 3 - 5	Lane closure utilizing drums as shown below.
> 5	Lane closure utilizing portable concrete barrier as shown below.

* Cones may be used for daytime only conditions.

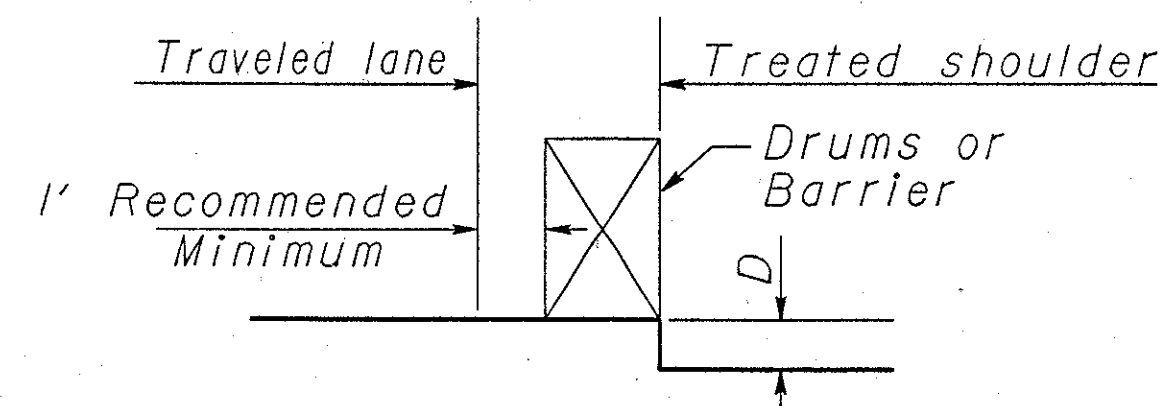


CONDITION II DROPOFFS WITHIN GRADED SHOULDER AREA

- 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 purposes herein, its maximum width shall be considered to be twelve (12) feet.

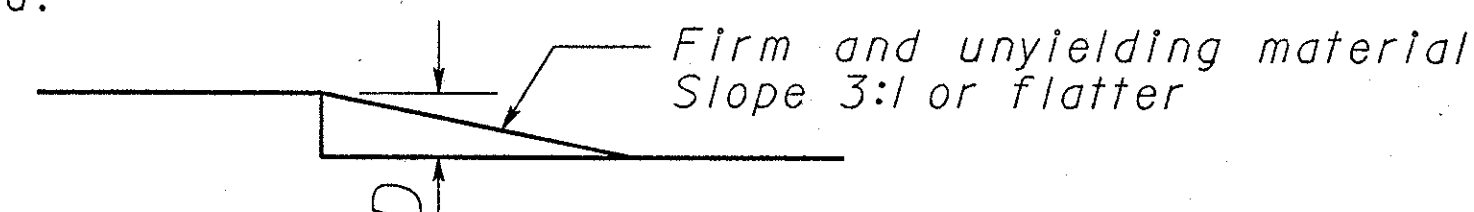
D (In.)	Treatment
≤ 1/2	1) If edgelines are present, no treatment necessary OR 2) Erect OW-171 and OWP-171 signs.
> 1/2 - 5	1) If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
> 5 - 12 Daylight only	If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below.
> 5 - 24	1) If min. lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums.
> 24	Lane closure utilizing portable concrete barrier as shown below.

* Minimum lane widths shall be 10' 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 401.15 is required.
- OW-151 signs required.



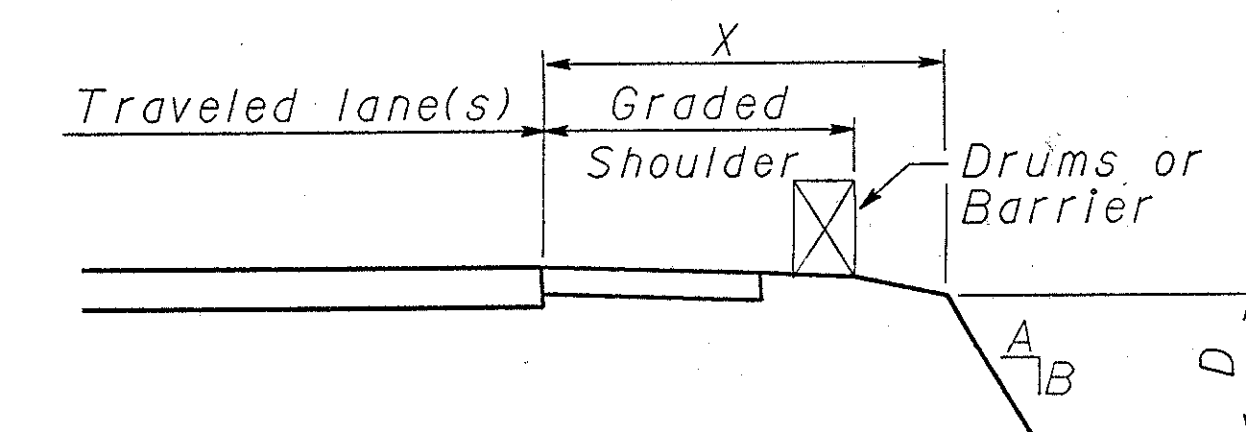
JEF-7-13.11

CONDITION III DROPOFFS 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:
- Uncurbed Facilities.
 - Curbed Facilities, where:
 - Curbs are less than 6" in height.
 - Curbs are 6" or greater in height and the legal speed is greater than 40 mph.

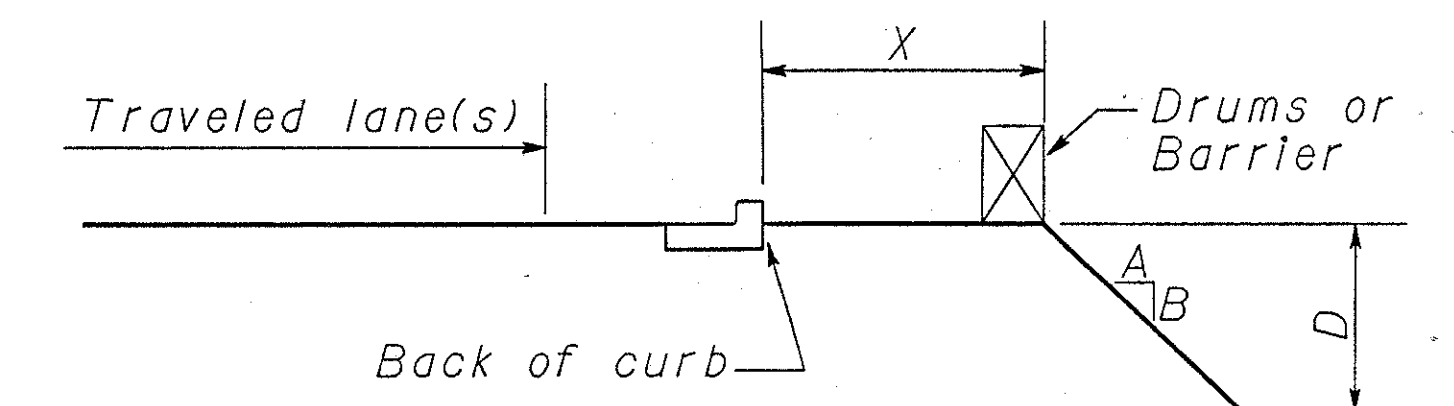


X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:1 or Flatter	None	None
4-12	< 3	Steeper than 3:1	None	None
4-12	> 3 - < 12	Steeper than 3:1	Drums	Drums
4-12	> 12	Steeper than 3:1	Drums	Barrier
> 12 - 20	< 12	Steeper than 3:1	None	None
> 12 - 20	> 12 - < 24	Steeper than 3:1	Drums	Drums
> 12 - 20	> 24	Steeper than 3:1	Drums	Barrier
> 20 - 30	< 24	Steeper than 3:1	None	Drums
> 20 - 30	> 24	Steeper than 3:1	Drums	Barrier
> 30	Any	Any	None	None

(a) Use treatment specified under Condition II.

CHART B

- USE FOR: Curbed facilities, where the curb is 6" or greater in height and the legal speed is 40 mph or less.



X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-10	< 12	Any	None	Drums
0-10	> 12	Any	Drums	Drums
> 10	Any	Any	None	None

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF LOCATION AND DESIGN

DROPOFFS IN WORK ZONES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

GENERAL NOTES

JEF - 7 - 13.11

UTILITIES

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

VILLAGE OF MINGO JUNCTION
P.O. BOX 98
MINGO JUNCTION, OHIO 43938
(WATER & STORM)

COLUMBIA GAS TRANSMISSION CORPORATION
P.O. BOX 498
WASHINGTON, PENNSYLVANIA 15301
(412) 223-2582

COLUMBIA GAS OF OHIO, INC.
P.O. BOX 250
CAMBRIDGE, OHIO 43725
(614) 432-8225

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.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL HAVE A UNIFORM THICKNESS OF 5.5" AS SHOWN ON THE TYPICAL SECTIONS.

PREVIOUS CONSTRUCTION PLANS

THE FOLLOWING CONSTRUCTION PLANS ARE AVAILABLE FOR REFERENCE BY CONTACTING THE DISTRICT 11 OFFICE IN NEW PHILADELPHIA, OHIO:

JEF 7-13.53 ORIGINAL CONSTRUCTION PLAN, 1959
JEF 7-11.80 BARRIER/UPGRADING PLAN, 1979

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

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.

STATION MARKING

STATION MARKING SHALL BE PROVIDED ON EACH SIDE OF THE CONCRETE BARRIER AT 100 FOOT INTERVALS AS PER STANDARD DRAWING MC-9.3.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, OR BETWEEN CONCRETE BARRIER, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWINGS GR-1.1 AND GR-1.2. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

SAME SEASON COMPLETION OF SURFACE COURSE

ANY LENGTH OF RESURFACING WORK STARTED IN A CONSTRUCTION SEASON SHALL HAVE THE SURFACE COURSE PLACED THAT SAME CONSTRUCTION SEASON.

FENCE GROUNDING

OVERHEAD ELECTRIC POWER LINES OR TRANSMISSION LINES WHICH CROSS THE RIGHT OF WAY FENCE SHALL BE GROUNDED IN ACCORDANCE WITH STANDARD DRAWING HL-50.11.

AN ESTIMATED QUANTITY OF 12 EACH, ITEM 625 GROUND ROD, HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

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.

ITEM SPECIAL PIPE CLEANOUT

EXISTING CONDUITS AT THE LOCATIONS SHOWN ON SHEET NO. 22 SHALL BE CLEANED OUT AS DIRECTED BY THE ENGINEER.

THIS WORK SHALL CONSIST OF THE REMOVAL OF ALL FOREIGN MATTER FROM THE INSIDE OF THE EXISTING CONDUIT IN A MANNER ACCEPTABLE TO THE ENGINEER. THE REMOVED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH SECTION 203.05.

PAYMENT TO PERFORM THIS WORK SHALL BE MADE AT THE UNIT PRICE BID OF LINEAR FEET OF EXISTING CONDUIT CLEANED OUT AND SHALL INCLUDE THE COST OF ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

ITEM 201. CLEARING AND GRUBBING, AS PER PLAN

WORK UNDER THIS ITEM SHALL CONSIST OF PREPARING THE EXISTING GROUND-LINE WHERE THE NEW RIGHT OF WAY FENCE WILL BE LOCATED. THE WORK LIMITS SHALL BE WITHIN ONE FOOT ON EACH SIDE OF THE NEW TYPE CL OR TYPE CLT FENCE LIMITS. THIS WORK SHALL CONSIST OF THE FOLLOWING:

- 1) REMOVAL OF TREES, STUMPS, AND BRUSH TO GROUND LEVEL
- 2) REMOVAL OF LITTER
- 3) MOWING THE VEGETATION TO A HEIGHT BETWEEN 3" AND 5"
- 4) TREATING THE PREPARED AREA WITH HERBICIDE WITHIN 24 HOURS AFTER THE VEGETATION IS CUT

HERBICIDE SHALL BE ONE GALLON OF DOW "TORDON K" COMBINED WITH TWO QUARTS OF 2, 4 D-AMINE OR AN APPROVED EQUAL IN SUFFICIENT WATER TO MAKE 50 GALLONS OF TOTAL SPRAY MIX PER ACRE. THE REQUIRED TREATED AREA IS ESTIMATED TO BE 0.4 ACRES.

ONLY PROPERLY LICENSED PERSONNEL SHALL APPLY HERBICIDES AS REQUIRED BY THE OHIO REVISED CODE.

THE FOLLOWING IS AN ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

18" TREES - 50 EACH 18" STUMPS - 10 EACH
30" TREES - 10 EACH 30" STUMPS - 5 EACH

THE STATE RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES, STUMPS, OR BOTH, OUTSIDE THE LIMITS OF CONSTRUCTION, BUT WITHIN THE LIMITED ACCESS RIGHT OF WAY.

PAYMENT FOR THE ABOVE WORK WILL BE MADE AT THE LUMP SUM CONTRACT PRICE FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN, AND SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS AS NECESSARY TO COMPLETE THE WORK.

ITEM 202 RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN

THIS ITEM SHALL MEET THE CONDITIONS OF ITEM 202.071 EXCEPT THAT THE REQUIREMENT FOR DEPRESSION FILLING SHALL BE WAIVED.

ITEM 202 CONCRETE BARRIER REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE RAISED PORTION OF THE EXISTING CONCRETE BARRIER TO THE TOP OF THE EXISTING CONCRETE BASE AS SHOWN ON SHEET NO. 9. ALL WORK NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 202 CONCRETE BARRIER REMOVED, AS PER PLAN.

ITEM 203 EMBANKMENT USING NO. 8 AGGREGATE

THE MATERIAL FURNISHED SHALL BE DURABLE, NATURAL AGGREGATES NO. 8 SIZE. THE AGGREGATE SHALL BE PLACED AT THE LOCATIONS SHOWN ON SHEET NO. 7.

ITEM 203 LINEAR GRADING, METHOD 1

THIS WORK SHALL INCLUDE THE EXCAVATION AND EMBANKMENT REQUIRED TO GRADE BEYOND THE PAVED SHOULDERS. THE EXCAVATED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 203.02., PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTIONS. VEGETATION, MATERIAL BUILDUP, AND COLLECTED DEBRIS ON THE SHOULDER OR WITHIN THE LINEAR GRADING LIMITS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AS PER 203.05, OR WASTED OVER FILL SLOPES AT THE DIRECTION OF THE ENGINEER. THE GRADED AREA SHALL BE SEEDS AS PER 659.

THIS ITEM APPLIES TO MAINLINE AND RAMP SHOULDER AREAS WITHOUT PAVING UNDER THE GUARDRAIL.

LINEAR WIDTHS SHOWN ON THE PLAN REPRESENT MINIMUM REQUIREMENTS, AND THE ENGINEER MAY INCREASE THESE WIDTHS AS DETERMINED BY HIS ANALYSIS OF PROJECT CONDITIONS AT NO ADDITIONAL COST TO THE STATE.

THE METHOD OF MEASUREMENT SHALL BE CONSIDERED AS ONE STATION PER 100 LINEAR FEET MEASURED SEPARATELY FOR THE OUTSIDE SHOULDERS ON MAINLINE, AND THE LEFT AND RIGHT SHOULDERS ON EACH RAMP.

PAYMENT FOR THE ABOVE WORK, EXCEPT FOR ITEM 659, WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 203, STATION, LINEAR GRADING, METHOD 1, AND SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS AS NECESSARY TO COMPLETE THE WORK.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 203, LINEAR GRADING, METHOD 2, AND PAVING UNDER THE GUARDRAIL USING ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), AS PER PLAN.

ITEM 203, LINEAR GRADING, METHOD 2, SHALL CONSIST OF EXCAVATING TOPSOIL, PLACING GRANULAR MATERIAL AND APPLYING HERBICIDE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN ITEM 203.05.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO ITEM 203.02 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

HERBICIDE SHALL BE TREFLAN E.C., SPIKE OR AN APPROVED EQUAL AND SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS.

ONLY PROPERLY LICENSED PERSONNEL SHALL APPLY HERBICIDES AS REQUIRED BY THE OHIO REVISED CODE.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 203, LINEAR GRADING, METHOD 2.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING THE FOLLOWING METHOD:

- 1) PLACE ITEM 448
- 2) BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
- 3) SET GUARDRAIL POSTS
- 4) PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE A BITUMINOUS CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL) AS PER PLAN.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 207 - STRAW OR HAY BALES 200 EACH
ITEM 207 - FILTER FABRIC FENCE 1,000 LIN. FT.

ITEM 407 TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN

MATERIALS FURNISHED FOR FINE AND COURSE AGGREGATES USED IN THIS ITEM SHALL EXCLUDE ALL STONE AND CRUSHED CARBONATE STONE.

ITEM 604 INLET, NO. 3B, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING AN INLET, NO. 3B AT THE LOCATIONS INDICATED ON THE PLANS IN ACCORDANCE WITH STANDARD DRAWING I-3A & B AND THE DETAILS SHOWN ON SHEET NO. 35.

ITEM 604 BARRIER MEDIAN INLET ADJUSTED TO GRADE, AS PER PLAN

THIS ITEM SHALL CONSIST OF ADJUSTING THE EXISTING BARRIER MEDIAN INLETS TO GRADE AT THE LOCATIONS INDICATED ON THE PLANS IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET NO. 33. THE CONTRACTOR SHALL EXERCISE CARE WHEN LIFTING AND REMOVING THE EXISTING PRECAST INLET TOP TO AVOID DAMAGING IT IN ANY WAY WHICH WOULD RENDER IT UNACCEPTABLE FOR REUSE AFTER REMOVAL OF THE INLET TOP. PORTIONS OF THE INLET TROUGH SHALL BE REMOVED TO THE LIMITS INDICATED ON THE DETAILS. DOWELS SHALL BE INSTALLED AND THE MODIFIED PORTIONS OF THE INLET TROUGH CONSTRUCTED AS SHOWN ON THE DETAILS. THE INLET TOP SHALL THEN BE RESET AND CONCRETE APRONS CONSTRUCTED AS INDICATED ON STANDARD DRAWING I-3C OR PAVED SHOULDER CONSTRUCTED AS SHOWN ON STANDARD DRAWING I-3A. ALL WORK NECESSARY TO COMPLETE THIS ITEM, INCLUDING THE CONCRETE APRONS, EPOXY COATED REINFORCING STEEL DOWELS PER ITEM 509, DOWEL HOLES PER ITEM 510, AND NON-SHRINKING EPOXY GROUT PER SUPPLEMENTAL SPECIFICATION 852 AND ITEM 705.20, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 604, BARRIER MEDIAN INLET ADJUSTED TO GRADE, AS PER PLAN.

ITEM 609 CURB, TYPE 8, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING TYPE 8 CURB ON TOP OF THE EXISTING CONCRETE RETAINING WALL AT THE LOCATION INDICATED ON THE PLANS IN ACCORDANCE WITH STANDARD DRAWING BP-5.1 AND THE DETAIL ON SHEET NO. 7.

THIS ITEM SHALL INCLUDE THE DRILLING OF 1-1/4" DIAMETER HOLES INTO THE EXISTING CONCRETE WALL AND THE FURNISHING AND PLACING OF GROUT AND DOWELS IN THE HOLES. ANCHORING AND NON-SHRINKING EPOXY GROUT SHALL BE USED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 852 AND ITEM 705.20. REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORM TO ITEM 509.

ALL WORK NECESSARY TO COMPLETE THIS ITEM, INCLUDING REINFORCING STEEL, DOWEL HOLES AND ANCHORING, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 609 CURB, TYPE 8, AS PER PLAN.

ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T = 15"), AS PER PLAN

THE REINFORCING STEEL FOR THE APPROACH SLABS OF THIS STRUCTURE SHALL BE EPOXY COATED IN CONFORMANCE WITH ITEM 509.

TWO SEPARATE THICKNESSES OF CLEAR OR OPAQUE POLYETHYLENE FILM, 705.06, SHALL BE PLACED ON THE PREPARED SUBBASE AND WHERE THE APPROACH SLAB IS TO BE CONSTRUCTED. THE POLYETHYLENE FILMS SHALL COMPLETELY COVER THE FULL LENGTH AND WIDTH OF THE SUBBASE BETWEEN THE SIDEWALL FORMS FOR THE APPROACH SLAB.

ALL MATERIALS, LABOR AND INSTALLATION SHALL BE INCLUDED FOR PAYMENT IN THE CONTRACT UNIT PRICE FOR ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T = 15"), AS PER PLAN.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND CONSTRUCTING 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.

CONCRETE BARRIER ON APPROACH SLABS

THE SHAPE OF THE CONCRETE BARRIER 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. SEE DETAILS ON SHEET NO. 6 & 9.

ITEM 602 CONCRETE MASONRY, AS PER PLAN

THIS ITEM SHALL CONSIST OF PAVEMENT REMOVAL AND THE INSTALLATION OF A 6" HIGH CONCRETE FILLET, ASPHALT PAVEMENT REPLACEMENT AND AN EDGE SEAL CONSISTING OF A PREFORMED EXPANSION JOINT MATERIAL WITH ITEM 705.04 JOINT SEALER. SEE DETAIL ON SHEET NO. 32.

ITEM 606 ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING AN ET-2000, OPTION "B", GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO STEEL COMPANY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 216-545-4373).

THE LENGTH OF THE ET-2000 SYSTEM IS CONSIDERED TO BE 50', INCLUSIVE OF TWO 25' LONG RAIL ELEMENTS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AT THE LOCATIONS SHOWN IN THE PLANS.

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

ITEM 622 CONCRETE BARRIER, REBUILT, TYPE A, AS PER PLAN

THIS ITEM SHALL CONSIST OF RECONSTRUCTING TYPE A CONCRETE BARRIER ON THE SALVAGED EXISTING BASE AT THE LOCATIONS INDICATED ON THE PLANS IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET NO. 9.

ALL WORK NECESSARY TO COMPLETE THIS ITEM, INCLUDING NEW DOWELS, HOLES AND ANCHORING, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 622 CONCRETE BARRIER, REBUILT, TYPE A, AS PER PLAN.

ITEM 622 CONCRETE BARRIER, TYPE A, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING TYPE A CONCRETE BARRIER AT THE LOCATIONS INDICATED ON THE PLANS IN ACCORDANCE WITH STANDARD DRAWING MC-9.3 AND THE DETAILS ON SHEET NO. 9.

ALL WORK NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 622 CONCRETE BARRIER, TYPE A, AS PER PLAN.

ITEM 622 CONCRETE BARRIER, TYPE D, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING TYPE D CONCRETE BARRIER ADJACENT TO EXISTING RETAINING WALL AT THE LOCATIONS INDICATED ON THE PLANS IN ACCORDANCE WITH STANDARD DRAWING MC-9.3 AND THE DETAILS SHOWN ON SHEET NO. 6.

ALL WORK NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 622 CONCRETE BARRIER, TYPE D, AS PER PLAN.

ITEM 659 SEEDING AND MULCHING

QUANTITIES FOR THIS ITEM ARE CALCULATED FOR SOIL AREAS FROM LINEAR GRADING, METHOD 1 AND METHOD 2.

ITEM 659 WATER

QUANTITIES FOR THIS ITEM ARE CALCULATED FOR SOIL AREA FROM LINEAR GRADING, METHOD 1 AND METHOD 2, BASED ON TWO (2) APPLICATIONS.

MAINLINE PAVEMENT & SHOULDER RESURFACING QUANTITIES

LOCATION	STATION		LENGTH LIN. FT.	WIDTH LIN. FT.	AREA SQ. YD.	254	301	407	446		446		REMARKS	
	FROM	TO				PAVEMENT PLANING, BITUMINOUS	THICKNESS	BITUMINOUS AGGREGATE BASE, AC-20	TACK COAT, APPLIED AT .075 GAL/S.Y.	THICKNESS	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20	THICKNESS		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN
						SQ. YD.	INCH	CU. YD.	GALLON	INCH	CU. YD.	INCH	CU. YD.	
** NORTH BOUND PAVEMENT **														
FEATHER	681+80.42	682+67.92	87.50	25.20 AVG	245.00	245.00	2.25 AVG	2.17	18.38	2.50 AVG	13.29	1.50 AVG	10.21	SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	682+67.92	684+81.16	213.24	31.67 AVG	750.37	750.37	2.50	52.11	56.28	1.75	36.48	1.25	26.05	
	684+81.16	685+83.08	101.92	37.00	419.00	419.00	2.50	29.10	31.43	1.75	20.37	1.25	14.55	
	685+83.08	688+23.08	240.00	31 AVG	826.67	826.67	2.50	57.41	62.00	1.75	40.19	1.25	28.70	
	688+23.08	691+08.27 BACK	285.19	25.00	792.19	792.19	2.50	55.01	59.41	1.75	38.51	1.25	27.51	
FULL DEPTH RECONSTRUCTION	691+07.89 AHEAD	691+50	42.11	25.00	116.97	116.97	2.50	8.12	8.77	1.75	5.69	1.25	4.06	
PAVEMENT	691+50	696+00												
FEATHER	696+00	696+47.90	47.90	25.00	133.06	133.06	2.50	9.24	9.98	1.75	6.47	1.25	4.62	
FEATHER	696+47.90	697+35.40	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1340	697+35.40	699+07.22												INCLUDES APPROACH SLABS
FULL DEPTH RECONSTRUCTION	699+07.22	701+75												
APPROACH SLAB	701+75	702+00	25.00	39.13 AVG	108.69	108.69			8.15			2.00	6.04	INCLUDES SHOULDERS
BRIDGE No. JEF-7-1348	702+00	704+92.60												
APPROACH SLAB	704+92.60	705+17.60	25.00	41 AVG	113.89	113.89			8.54			2.00	6.33	INCLUDES SHOULDERS
FEATHER	705+17.60	706+05.10	87.50	39.25 AVG	381.60	381.60	2.25 AVG	3.21	28.62	2.50 AVG	20.82	1.50 AVG	15.90	INCLUDES RAMP "C" DECELERATION LANE, SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	706+05.10	707+04.94	99.84	50.25 AVG	557.44	557.44	2.50	38.71	41.81	1.75	27.10	1.25	19.36	INCLUDES RAMP "C" DECELERATION LANE
	707+04.94	708+05	100.06	25.00	277.94	277.94	2.50	19.30	20.85	1.75	13.51	1.25	9.65	
FEATHER	708+05	711+88.47	383.47	25.00	1065.19	1065.19	2.50	73.97	79.99	1.75	51.78	1.25	36.99	
FEATHER	711+88.47	712+75.97	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
APPROACH SLAB	712+75.97	713+00.97	25.00	34.00	94.44	94.44			7.08			2.00	5.25	INCLUDES SHOULDERS
BRIDGE No. JEF-7-1369	713+00.97	714+49.03												
APPROACH SLAB	714+49.03	714+74.03	25.00	34.00	94.44	94.44			7.08			2.00	5.25	INCLUDES SHOULDERS
FEATHER	714+74.03	715+61.53	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	715+61.53	722+50.25	688.72	25.00	1913.11	1913.11	2.50	132.85	143.48	1.75	93.00	1.25	66.43	
SIDEHILL FULL DEPTH RECONST.	722+50.25	728+38.25												INCLUDES FULL DEPTH TRANSITIONS
PAVEMENT	728+38.25	732+10	371.75	25.00	1032.64	1032.64	2.50	71.71	77.45	1.75	50.20	1.25	35.86	
	732+10	739+00	690.00	36.5 AVG	2798.33	2798.33	2.50	194.33	209.87	1.75	136.03	1.25	97.16	INCLUDES RAMP "D" ACCELERATION LANE
	739+00	763+67.75	2467.75	25.00	6854.86	6854.86	2.50	476.03	514.11	1.75	333.22	1.25	238.02	
FEATHER	763+67.75	769+96.81	629.06	25.00	1747.39	1747.39	2.50	121.35	131.05	1.75	84.94	1.25	60.67	
FEATHER	769+96.81	770+85.03	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	EQUATION: STA. 770+80.24 BACK - STA. 770+80.96 AHEAD, SEE FEATHER DETAIL ON SHEET NO. 8
** NORTH BOUND SHOULDERS **														
FEATHER	681+80.42	682+67.92	87.50	7.62 AVG	74.08	74.08	2.25 AVG	0.53	5.56	2.50 AVG	3.96	1.50 AVG	3.09	SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	682+67.92	684+81.16	213.24	9.23 AVG	218.69	218.69	2.50	15.19	16.40	1.75	10.63	1.25	7.59	
SHOULDERS / MURDOCK AVE.	684+81.16	685+83.08	101.92	9.83 AVG	111.32	111.32	2.50	7.73	8.35	1.75	5.41	1.25	3.87	
SHOULDERS	685+83.08	691+08.27 BACK	525.19	9.42 AVG	549.70	549.70	2.50	38.17	41.23	1.75	26.72	1.25	19.09	
	691+07.89 AHEAD	691+50	42.11	8.50	39.77	39.77	2.50	2.76	2.98	1.75	1.93	1.25	1.38	
FULL DEPTH RECONSTRUCTION	691+50	696+00												
SHOULDERS	696+00	696+47.90	47.90	8.50	45.24	45.24	2.50	3.14	3.39	1.75	2.20	1.25	1.57	
FEATHER	696+47.90	697+35.40	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1340	697+35.40	699+07.22												INCLUDES APPROACH SLABS
FULL DEPTH RECONSTRUCTION	699+07.22	701+75												
BRIDGE No. JEF-7-1348	701+75	705+17.60												INCLUDES APPROACH SLABS
FEATHER	705+17.60	706+05.10	87.50	7.09 AVG	68.89	68.89	2.25 AVG	0.36	5.17	2.50 AVG	3.63	1.50 AVG	2.87	INCLUDES RAMP "C" DECELERATION LANE, SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	706+05.10	707+04.94	99.84	8.50	94.29	94.29	2.50	6.55	7.07	1.75	4.58	1.25	3.27	INCLUDES RAMP "C" DECELERATION LANE
	707+04.94	708+05	100.06	9.5 AVG	105.62	105.62	2.50	7.33	7.92	1.75	5.13	1.25	3.67	
	708+05	711+88.47	383.47	8.50	362.17	362.17	2.50	25.15	27.16	1.75	17.61	1.25	12.58	
FEATHER	711+88.47	712+75.97	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1369	712+75.97	714+74.03												INCLUDES APPROACH SLABS
FEATHER	714+74.03	715+61.53	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	715+61.53	722+50.25	688.72	8.50	650.46	650.46	2.50	45.17	48.78	1.75	31.62	1.25	22.59	
SIDEHILL FULL DEPTH RECONST.	722+50.25	728+38.25												
SHOULDERS	728+38.25	732+10	371.75	8.50	351.10	351.10	2.50	24.38	26.33	1.75	17.07	1.25	12.19	
	732+10	763+67.75	3157.75	8.50	2982.32	2982.32	2.50	207.11	223.67	1.75	144.97	1.25	103.55	INCLUDES RAMP "D" ACCELERATION LANE
	763+67.75	769+96.81	629.06	8.50	594.11	594.11	2.50	41.26	44.56	1.75	28.88	1.25	20.63	
FEATHER	769+96.81	770+85.03	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	EQUATION: STA. 770+80.24 BACK - STA. 770+80.96 AHEAD, SEE FEATHER DETAIL ON SHEET NO. 8
TOTALS - CARRIED TO GENERAL SUMMARY						27873.78		1781.09	2090.52		1347.02		990.83	

3245CALC.DWG 11/5-20-84

MAINLINE PAVEMENT & SHOULDER RESURFACING QUANTITIES

CALC BY: *MCG*
 DATE: *6-94*
 CHKD BY: *JW*
 DATE: *7-26-94*
 JEF - 7 - 13.11

OHIO
 FHWA REGION 5
 16
 83

LOCATION	STATION		LENGTH LIN. FT.	WIDTH LIN. FT.	AREA SQ. YD.	254	301	407	446	446	REMARKS			
	FROM	TO				PAVEMENT PLANING, BITUMINOUS	THICKNESS INCH	BITUMINOUS AGGREGATE BASE, AC-20 CU. YD.	TACK COAT, APPLIED AT .075 GAL./S.Y. GALLON	THICKNESS INCH	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20 CU. YD.	THICKNESS INCH	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN CU. YD.	
** SOUTH BOUND PAVEMENT **														
FEATHER	681+80.42	682+67.92	87.50	26.93 AVG	261.82	261.82	2.25 AVG	2.17	19.64	2.50 AVG	14.07	1.50 AVG	10.91	SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	682+67.92	684+25.80	157.88	33.06 AVG	579.95	579.95	2.50	40.27	43.50	1.75	28.19	1.25	20.14	
	684+25.80	685+40.97	115.17	37.00	473.48	473.48	2.50	32.88	35.51	1.75	23.02	1.25	16.44	
	685+40.97	687+80.97	240.00	31 AVG	826.67	826.67	2.50	57.41	62.00	1.75	40.19	1.25	28.70	
	687+80.97	691+07.23 BACK	326.26	25.00	906.28	906.28	2.50	62.94	67.97	1.75	44.06	1.25	31.47	
	691+07.89 AHEAD	696+47.90	540.01	25.00	1500.03	1500.03	2.50	104.17	112.50	1.75	72.92	1.25	52.08	
FEATHER	696+47.90	697+35.40	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1340	697+35.40	699+07.22												INCLUDES APPROACH SLABS
FEATHER	699+07.22	699+94.72	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	699+94.72	700+87.50	92.78	25.00	257.72	257.72	2.50	17.90	19.33	1.75	12.53	1.25	8.95	
FEATHER	700+87.50	701+75	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
APPROACH SLAB	701+75	702+00	25.00	30.00	83.33	83.33			6.25			2.00	4.63	INCLUDES SHOULDERS
BRIDGE No. JEF-7-1348	702+00	704+92.60												
APPROACH SLAB	704+92.60	705+17.60	25.00	30.50 AVG	84.72	84.72			6.35			2.00	4.71	INCLUDES SHOULDERS
FEATHER	705+17.60	706+05.10	87.50	28.07 AVG	272.90	272.90	2.25 AVG	2.22	20.47	2.50 AVG	14.57	1.50 AVG	11.34	INCLUDES RAMP "A" ACCELERATION LANE, SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	706+05.10	709+60	354.90	39.13 AVG	1543.03	1543.03	2.50	107.15	115.73	1.75	75.01	1.25	53.58	INCLUDES RAMP "A" ACCELERATION LANE
	709+60	711+88.47	228.47	25.00	634.64	634.64	2.50	44.07	47.60	1.75	30.85	1.25	22.04	
FEATHER	711+88.47	712+75.97	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
APPROACH SLAB	712+75.97	713+00.97	25.00	34.00	94.44	94.44			7.08			2.00	5.25	INCLUDES SHOULDERS
BRIDGE No. JEF-7-1369	713+00.97	714+49.03												
APPROACH SLAB	714+49.03	714+74.03	25.00	34.00	94.44	94.44			7.08			2.00	5.25	INCLUDES SHOULDERS
FEATHER	714+74.03	715+61.53	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	SEE FEATHER DETAIL ON SHEET NO. 8
PAVEMENT	715+61.53	716+60	98.47	25.00	273.53	273.53	2.50	18.99	20.51	1.75	13.30	1.25	9.50	
	716+60	717+59.40	99.40	25.00	276.11	276.11	2.50	19.17	20.71	1.75	13.42	1.25	9.59	
	717+59.40	720+09.40	250.00	50 AVG	1388.89	1388.89	2.50	96.45	104.17	1.75	67.52	1.25	48.23	INCLUDES RAMP "B" DECELERATION LANE
	720+09.40	721+55.03	145.63	38 AVG	614.88	614.88	2.50	42.70	46.12	1.75	29.89	1.25	21.35	INCLUDES RAMP "B" DECELERATION LANE
	721+55.03	722+60	104.97	37.00	431.54	431.54	2.50	29.97	32.37	1.75	20.98	1.25	14.98	INCLUDES RAMP "B" DECELERATION LANE
	722+60	723+50	90.00	31 AVG	310.00	310.00	2.50	21.53	23.25	1.75	15.07	1.25	10.76	INCLUDES RAMP "B" DECELERATION LANE
	723+50	763+67.75	4017.75	25.00	11160.42	11160.42	2.50	775.03	837.03	1.75	542.52	1.25	387.51	
	763+67.75	769+96.81	629.06	25.00	1747.39	1747.39	2.50	121.35	131.05	1.75	84.94	1.25	60.67	
	769+96.81	770+85.03	87.50	25.00	243.06	243.06	2.25 AVG	2.17	18.23	2.50 AVG	13.26	1.50 AVG	10.13	EQUATION: STA. 770+80.24 BACK - STA. 770+80.96 AHEAD, SEE FEATHER DETAIL ON SHEET NO. 8
** SOUTHBOUND SHOULDERS **														
FEATHER	681+80.42	682+67.92	87.50	7.76 AVG	75.44	75.44	2.25 AVG	0.59	5.66	2.50 AVG	4.27	1.50 AVG	3.36	SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	682+67.92	684+25.80	157.88	9.13 AVG	160.16	160.16	2.50	11.12	12.01	1.75	7.79	1.25	5.56	
SHOULDERS / MURDOCK AVE.	684+25.80	685+40.97	115.17	9.65 AVG	123.49	123.49	2.50	8.58	9.26	1.75	6.00	1.25	4.29	
SHOULDERS	685+40.97	691+07.23 BACK	566.26	9.50 AVG	597.72	597.72	2.50	41.51	44.83	1.75	29.06	1.25	20.75	
	691+07.89 AHEAD	696+47.90	540.01	8.50	510.01	510.01	2.50	35.42	38.25	1.75	24.79	1.25	17.71	
FEATHER	696+47.90	697+35.40	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1340	697+35.40	699+07.22												INCLUDES APPROACH SLABS
FEATHER	699+07.22	699+94.72	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	699+94.72	700+87.50	92.78	8.50	87.63	87.63	2.50	6.09	6.57	1.75	4.26	1.25	3.04	
FEATHER	700+87.50	701+75	87.50	7.53 AVG	73.19	73.19	2.25 AVG	0.74	5.49	2.50 AVG	4.21	1.50 AVG	3.05	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1348	701+75	705+17.60												INCLUDES APPROACH SLABS
FEATHER	705+17.60	706+05.10	87.50	6.63 AVG	64.46	64.46	2.25 AVG	0.44	4.83	2.50 AVG	3.44	1.50 AVG	2.68	INCLUDES RAMP "A" ACCELERATION LANE, SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	706+05.10	709+60	354.90	8.50	335.18	335.18	2.50	23.28	25.14	1.75	16.29	1.25	11.64	INCLUDES RAMP "A" ACCELERATION LANE
	709+60	711+00	140.00	12.25 AVG	190.56	190.56	2.50	13.23	14.29	1.75	9.26	1.25	6.62	
	711+00	711+88.47	88.47	8.50	83.56	83.56	2.50	5.80	6.27	1.75	4.06	1.25	2.90	
	711+88.47	712+75.97	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
BRIDGE No. JEF-7-1369	712+75.97	714+74.03											INCLUDES APPROACH SLABS	
FEATHER	714+74.03	715+61.53	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	SEE FEATHER DETAIL ON SHEET NO. 8
SHOULDERS	715+61.53	716+60	98.47	8.50	93.00	93.00	2.50	6.46	6.97	1.75	4.52	1.25	3.23	
	716+60	717+59.40	99.40	10.5 AVG	115.97	115.97	2.50	8.05	8.70	1.75	5.64	1.25	4.03	
	717+59.40	723+50	590.60	8.50	557.79	557.79	2.50	38.74	41.83	1.75	27.11	1.25	19.37	INCLUDES RAMP "B" DECELERATION LANE
	723+50	763+67.75	4017.75	8.50	3794.54	3794.54	2.50	263.51	284.59	1.75	184.46	1.25	131.75	
	763+67.75	769+96.81	629.06	8.50	594.11	594.11	2.50	41.26	44.56	1.75	28.88	1.25	20.63	
FEATHER	769+96.81	770+85.03	87.50	8.50	82.64	82.64	2.25 AVG	0.74	6.20	2.50 AVG	4.51	1.50 AVG	3.44	EQUATION: STA. 770+80.24 BACK - STA. 770+80.96 AHEAD, SEE FEATHER DETAIL ON SHEET NO. 8
TOTALS - CARRIED TO GENERAL SUMMARY						33144.58		2117.91	2485.85		1609.20		1176.67	

9245CALD.DWG J=1 5-20-94

MAINLINE PAVEMENT & SHOULDER RECONSTRUCTION QUANTITIES

CALC. BY: **MRC**
DATE: **6-24**
CHKD BY: **[Signature]**
DATE: **6-24**

OHIO
FHWA REGION 5
18
83

JEF - 7 - 13.11

LOCATION	STATION		LENGTH LIN. FT.	WIDTH LIN. FT.	AREA SQ. YD.	202	202	202	202	203	203		203	254	301	304		310	407	408	446	446		609	611	REMARKS	
	APPROACH SLAB REMOVED	WALK REMOVED				TRAFFIC ISLAND REMOVED	CURB REMOVED	SUBGRADE COMPACTION	THICKNESS	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	EMBANKMENT USING NO. 8 AGGREGATE	PAVEMENT PLANING, BITUMINOUS	8" BITUMINOUS AGGREGATE BASE, AC-20	THICKNESS	AGGREGATE BASE	9" SUBBASE TYPE II	TACK COAT APPLIED AT 0.075 GAL/SY	BITUMINOUS PRIME COAT, APPLIED AT .40 GAL/SY	1 3/4" ASPH. CONC. INTERMEDIATE COURSE, TYPE 2, AC-20	THICKNESS	ASPH. CONC. SURFACE COURSE, TYPE 1, AC-20 AS PER PLAN	CURB TOE & HEEL AS PER PLAN	REINFORCED CONCRETE APPROACH SLAB (T = 15") AS PER PLAN				
FROM	TO				SQ. YD.	SQ. FT.	SQ. YD.	SQ. FT.	SQ. YD.	INCH	CU. YD.	CU. YD.	SQ. YD.	CU. YD.	INCH	CU. YD.	CU. YD.	GALLON	GALLON	CU. YD.	INCH	CU. YD.	LIN. FT.	SQ. YD.			
NB - FULL DEPTH REPLACEMENT	691+50	696+00	450.00	33.00	1650.00					1650.00	30 AVG.	1375			366.67	8	366.67	412.50		660.00	80.21	1.25	57.29			WIDTH INCLUDES SHOULDER	
NB - APPROACH SLAB	697+35.40	697+60.40	25.00	35.00	97.22	97.22				97.22					6	17.36									97.22	BRIDGE NO. JEF - 7 - 1340	
	698+82.22	699+07.22	25.00	35.00	97.22	97.22				97.22					6	17.36									97.22		
NB - FULL DEPTH REPLACEMENT	699+07.22	701+00	192.78	33.00	706.86					706.86	36 AVG.	706.86			157.08	8	157.08	176.72		282.74	34.36	1.25	24.54			WIDTH INCLUDES SHOULDER	
	701+00	701+75	75.00	37.50 AVG.	312.50					312.50	36 AVG.	312.50			69.44	8	69.44	78.13		125.00	15.19	1.25	10.85				
NB - FULL DEPTH REPLACEMENT	722+50.25	724+12.75	162.50	32.23 AVG.	581.94					581.94	27.75 AVG.	448.58			129.32	8	129.32	145.49		232.78	28.29	1.25	20.21			WIDTH INCLUDES SHOULDER	
	723+50	724+12.75	62.75	2.50	17.43					17.43					3.87	8	3.87	4.36		6.97	0.85	1.25	0.61			SEE DETAIL ON SHEET NO. 7	
NB - SIDEHILL STRUCTURE	724+12.75	726+50.75	238.00	14.50	383.44					383.44	31 AVG.	330.19			85.21	8	85.21	95.86		153.38	18.64	1.25	13.31			INSIDE LANE	
			238.00	16.67	440.74											440.74				33.06		21.42	1.25	15.30			OUTSIDE LANE & SHOULDER
NB - SIDEHILL APPROACH SLAB TYPICAL	726+50.75	726+75.75	25.00	18.83	52.31					52.31	31 AVG.	45.04			11.62	8	11.62	13.08		20.92	2.54	1.25	1.82			INSIDE LANE	
			25.00	12.00	33.33											33.33				2.50		1.62	1.25	1.16			OUTSIDE LANE & SHOULDER
NB - FULL DEPTH REPLACEMENT	726+75.75	728+38.25	162.50	30.83 AVG.	556.72		325.0		162.50	556.72	27.75 AVG.	429.14			123.72	8	123.72	139.18		222.69	27.06	1.25	19.33			WIDTH INCLUDES SHOULDER	
NB - SHOULDER RECONSTRUCTION AT RETAINING WALL	728+38.25	730+54.60	216.35	2.50	60.10		432.70		216.35		31 AVG.	51.75			13.36	8	13.36	15.03		24.04	2.92	1.25	2.09			SEE DETAILS ON SHEET NO. 7	
	730+54.60	731+24.60	70.00	1.75 AVG.	13.61		87.50		70.00		31 AVG.	11.72			3.02	8	3.02	3.40		5.44	0.66	1.25	0.47	70.00			
SB - APPROACH SLAB	697+35.40	697+60.40	25.00	35	97.22	97.22				97.22					6	17.36									97.22	BRIDGE NO. JEF - 7 - 1340	
	698+82.22	699+07.22	25.00	35	97.22	97.22				97.22					6	17.36									97.22		
NB - RAMP "C" CONCRETE ISLAND REPLACEMENT	707+01.50	707+21.50	20.00	6.00 AVG.	13.33					11.11	42.28	13.33	13 AVG.	4.81			2.96	8	2.96		5.33	0.65	1.25	0.46			SEE DETAIL ON SHEET NO. 7
NB - RAMP "C" CURB REMOVED	707+21.50	708+06.00	84.50	0.50	4.69					84.50																	SEE DETAIL ON SHEET NO. 7
SB - RAMP "B" CONCRETE ISLAND REPLACEMENT	717+40	717+60	20.00	6.00 AVG.	13.33					11.11	42.28	13.33	13 AVG.	4.81			2.96	8	2.96		5.33	0.65	1.25	0.46			SEE DETAIL ON SHEET NO. 7
SB - RAMP "B" CURB REMOVED	716+59	717+40	81.00	0.50	4.50					81.00																	SEE DETAIL ON SHEET NO. 7
TOTALS - CARRIED TO GENERAL SUMMARY						388.88	895.20	22.22	723.91	4676.74			3720.40	4.60	474.07	969.23		1038.67	1083.75	35.56	1745.19	235.27		167.90	70.00	388.88	

9245CAL2.DWG 1=1.5=20-94

GUARDRAIL CALCULATIONS

CALC BY: *MRC*
 DATE: *6-24*
 CHKD BY: *[Signature]*
 DATE: *6-24*

OHIO
 FHWA REGION 5

19
83

JEF - 7 - 13.11

REF. NO.	PLAN SHEET NO.	STATION		SIDE	202	606	606	606	606	606	606	802	802	REMARKS	
					GUARDRAIL REMOVED	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	ANCHOR ASSEMBLY, TYPE A	ANCHOR ASSEMBLY, TYPE B	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	GUARDRAIL, TYPE 5	BARRIER REFLECTOR, TYPE A		BARRIER REFLECTOR, TYPE B
		FROM	TO		LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH	EACH	
GR-1	26	681+98.5	683+37.8	LT.	137.5				1			125.0		CONNECT TO EX. GUARDRAIL AT STA. 681+98.5; SEE GRADING PLAN ON SHEET NO. 31	
GR-2	26	681+91.2	687+50.9 MURDOCK	RT.	637.5									CONNECT TO EX. GUARDRAIL AT STA. 681+91.2; SEE DETAIL ON SHEET NO. 31	
		681+91.2	687+46.8 MURDOCK	RT.				1				612.5			
GR-3	26	685+00 MURDOCK	691+88.6	RT.	650.0									EQUATION: STA. 691+08.27 BACK = STA. 691+07.89 AHEAD; SEE DETAIL ON SHEET NO. 31	
		685+71.2 MURDOCK	692+12.1	RT.		1		1				687.5			
GR-4	26	687+37.0	688+90.0	LT.	150.0										
		687+37.0	689+02.8	LT.					1	1		100.0			
GR-5	26	692+59.5	693+22.0	LT.			1			1		50.0			
GR-6	26	697+10.8	697+60.2	LT.	50.0										
		693+67.9	697+58.7	LT.		1	1					394.1			
GR-7	26	699+06.3	700+09.0	LT.	100.0	1	1					104.0			
GR-8	26	700+44.9	701+81.0	LT.	137.5	1	1					137.8			
GR-9	26	698+83.9	700+15.6	RT.	131.25	1	1					130.0			
GR-10	26	700+51.5	701+84.0	RT.	131.25	1	1					130.7			
GR-11	27	705+29.0	10+02.1 RAMP "C"	RT.	475.0	1	1					474.9		SEE DETAILS ON SHEET NO. 31 & 32	
GR-12	27	9+13.8 RAMP "C"	9+82.6 RAMP "C"	LT.		1				1		18.75		SEE DETAILS ON SHEET NO. 31	
		9+20.1 RAMP "C"	9+82.6 RAMP "C"	LT.	62.5										
GR-13	27	707+51.8	712+70.9	RT.	525.0									SEE DETAIL ON SHEET NO. 31	
		707+31.7	712+70.9	RT.		1				1		493.75			
GR-14	27	711+94.8	713+06.5	LT.	112.5									SEE DETAIL ON SHEET NO. 31	
		711+94.0	713+06.5	LT.			1			1		100.0			
GR-15	27	714+79.1	716+93.3	LT.	212.5									SEE DETAIL ON SHEET NO. 31	
		714+79.1	717+38.7	LT.		1				1		206.25			
GR-16	27	714+43.5	723+45.8	RT.	925.0	1	1					921.7		SEE DETAILS ON SHEET NO. 31 & 32	
GR-17	27	26+45 RAMP "D"	744+00	RT.	1760.3							1760.3		CONNECT TO EX. GUARDRAIL AT RAMP "D" STA. 26+45	
GR-18	28	744+00	770+81.2 BACK	RT.	2689.7							2689.7		CONNECT TO EX. GUARDRAIL AT STA. 770+81.2 BACK	
GR-19	27	706+84.4	707+55.3	LT.		1				1		18.75			
		681+80.42	770+85.03	NB C									89		
		681+80.42	770+85.03	SB C									89		
		681+91.2	687+46.8 MURDOCK	RT.									7		
		685+71.2 MURDOCK	11+00 RAMP "C"	RT.									14	13	
		9+13.8 RAMP "C"	13+09.00 RAMP "C"	LT.									1	4	
		707+45.2	730+54.6	RT.									15	10	
		26+50 RAMP "D"	29+00 RAMP "D"	LT.										3	
		26+45 RAMP "D"	770+81.2 BACK	RT.									45		
		681+98.5	683+37.8	LT.									2		
		687+37.0	689+02.8	LT.									2		
		692+59.5	707+55.3	LT.									8	8	
		711+94.0	717+38.7	LT.									4	2	
TOTALS - CARRIED TO GENERAL SUMMARY					8887.50	12	9	2	1	5	3	9155.70	98	218	

9245CAL.B.DWG 1=1.5"=100'

BARRIER CALCULATIONS

REF. NO.	PLAN SHEET NO.	STATION		SIDE	LENGTH	202	202	202	202	203	203	602	622	622	622	622	SPECIAL	REMARKS		
						CURB REMOVED	WALK REMOVED	CONCRETE BARRIER REMOVED, AS PER PLAN	CONCRETE BARRIER REMOVED	EMBANKMENT	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	CONCRETE MASONRY, AS PER PLAN	CONCRETE BARRIER, REBUILT, TYPE A, AS PER PLAN	CONCRETE BARRIER, TYPE A, AS PER PLAN	CONCRETE BARRIER, TYPE C	CONCRETE BARRIER, TYPE D, AS PER PLAN	SEALING OF CONCRETE SURFACES (EPOXY)			
						LIN. FT.	SQ. FT.	LIN. FT.	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. YD.			
		FROM	TO																	
B-1	26	681+80.42	691+08.27 BACK	℄	927.85			927.85					927.85					744.17		
		691+07.89 AHEAD	691+50	℄	42.11			42.11					42.11					33.77		
B-2	26	691+50	696+00	℄	450.00			450.00							450.00			388.00		
B-3	26	696+00	697+35.40	℄	135.40			135.40					135.40					108.60		
B-4	26	697+35.40	697+60.40	℄	25.00			25.00						25.00				20.05	APPROACH SLAB	
		697+60.40	698+82.22	℄	121.82														BRIDGE NO. JEF - 7 - 1340	
B-5	26	698+82.22	699+07.22	℄	25.00			25.00						25.00				20.05	APPROACH SLAB	
B-6	26	699+07.22	701+75	℄	267.78			267.78							267.78			230.89		
B-7	26	701+75	702+00	℄	25.00			25.00						25.00				20.05	APPROACH SLAB	
		702+00	703+67.75 BACK	℄	167.75														BRIDGE NO. JEF - 7 - 1348	
		703+69.83 AHEAD	704+92.60	℄	122.77															
B-8	27	704+92.60	705+17.60	℄	25.00			25.00					25.00					20.05	APPROACH SLAB	
B-9	27	705+17.60	712+75.97	℄	758.37			758.37					758.37					608.24		
B-10	27	712+75.97	713+00.97	℄	25.00			25.00					25.00					20.05	APPROACH SLAB	
		713+00.97	714+49.03	℄	148.06														BRIDGE NO. JEF - 7 - 1369	
B-11	27	714+49.03	714+74.03	℄	25.00			25.00					25.00					20.05	APPROACH SLAB	
B-12	27	714+74.03	722+50.25	℄	776.22			776.22					776.22					622.56		
B-13	27	722+50.25	728+38.25	℄	588.00			588.00							588.00			506.99		
B-14	27	728+38.25	744+00	℄	1561.75			1561.75					1561.75					1252.58		
		744+00	770+80.24 BACK	℄	2680.24			2680.24					2680.24					2149.65		
B-15	28	770+80.96 AHEAD	770+85.03	℄	4.07			4.07					4.07					3.26		
B-16	29	692+10	696+50	RT.	440.00	460.00	690.00		0.70							440.00		200.93		
B-17	30	700+13.50	700+53.50	RT.	40.00	40.00	60.00		0.37							40.00		18.27		
B-18	30	700+07	700+47	LT.	40.00	40.00	60.00		0.37							40.00		18.27		
B-19	27	10+00 RAMP "C"	11+00 RAMP "C"	RT.	100.00	100.00	150.00		0.93							100.00		45.67		
B-20	27	9+80.50 RAMP "C"	13+09 RAMP "C"	LT.	328.50	328.50	492.75		3.04							328.50		150.02		
B-21	27	26+45 RAMP "D"	29+00 RAMP "D"	LT.	255.0	255.00	450.00			9.63						255.00		116.45	BEGIN BARRIER WITH 5' MINIMUM EMBEDMENT INTO EXISTING CUT BACKSLOPE	
		BARRIER END TREATMENT																	SEE BARRIER END DETAIL ON SHEET NO. 32	
B-22	29	692+79	694+04	LT.	132.0	132.00	198.00		2.44											
		693+20	693+70	LT.	50.00				0.46							50.00		22.83		
B-23	27	705+14.20	706+86.50	LT.	172.30	172.30	258.45		1.59							172.30		78.68		
DEDUCTION FOR MEDIAN INLET, ADJUSTED TO GRADE																				
15 EA x 20' =								-300								-300				
5 EA x 20' =																-100				
DEDUCTION FOR PROPOSED INLET (REF. NO. D-29 & D-34)																-40				
TOTALS - CARRIED TO GENERAL SUMMARY						1527.80	2359.20	6686.01	1215.78	9.90	9.63	0.1	6686.01	50.00	1165.78	1425.80	7420.13			NOTE: ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY) HAS BEEN CARRIED TO BRIDGE SUMMARY ON SHEET NO. 51

9245CALC.DWG 1=1 5-18-94

CALCULATIONS

LINEAR GRADING QUANTITIES								
STATION		LANE OR RAMP	GUARDRAIL REF. NO.	LENGTH	203	203	448	
					LINEAR GRADING, METHOD 1	LINEAR GRADING, METHOD 2	2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (UNDER GUARDRAIL) AS PER PLAN	
FROM	TO			LIN. FT.	STA.	STA.	CU. YD.	
681+91.2	687+46.8 MURDOCK	NB	GR-2	637.5		6.38	15.74	
685+71.2 MURDOCK	691+00	NB	GR-3	598.4		5.98	14.78	
691+00	692+12.1	NB	GR-5	112.5		1.13	2.78	
698+83.9	700+15.6	NB	GR-9	130.0		1.30	3.21	
700+51.5	701+84.0	NB	GR-10	130.7		1.31	3.23	
705+29.0	10+02.1	RAMP "C"	GR-11	474.9		4.75	11.73	
11+00.00 RT.	12+61.50 RT.	RAMP "C"	-	161.5	1.62			
7+05 LT.	9+20.1 LT.	RAMP "C"	-	215.1	2.15			
9+20.1 LT.	9+82.6 LT.	RAMP "C"	GR-12	62.5		0.63	1.54	
707+25.5	712+70.9	NB	GR-13	550.0		5.50	13.58	
714+43.5	723+45.8	NB	GR-16	921.7		9.22	22.76	
26+45 RAMP "D"	744+00	NB	GR-17	1760.3		17.60	43.46	
744+00	770+81.2	NB	GR-18	2689.7		26.90	66.41	
681+98.5	683+37.8	SB	GR-1	137.5		1.38	3.40	
683+45.9	MURDOCK SPUR	SB	-	140	1.40			
MURDOCK SPUR	687+37	SB	-	260	2.60			
687+37.0	688+90.0	SB	GR-4	150		1.50	3.70	
688+90.0	692+59.5	SB	-	369.5	3.70			
692+59.5	693+22	SB	GR-20	62.5		0.63	1.54	
693+67.9	697+00	SB	GR-21	334.70		3.35	8.26	
697+00	697+58.7	SB	GR-6	59.4		0.59	1.47	
699+06.3	700+09.0	SB	GR-7	104.0		1.04	2.57	
700+44.9	701+81.0	SB	GR-8	137.8		1.38	3.40	
706+84.4	707+42.4	SB	GR-19	56.25		0.56	1.39	
707+28.2	709+60	SB	-	231.8	2.32			
9+60 LT.	13+94 LT.	RAMP "A"	-	434	4.34			
11+00 RT.	13+78 RT.	RAMP "A"	-	278	2.78			
711+00	711+94.0	SB	-	94.0	0.94			
711+94.0	713+06.5	SB	GR-14	112.5		1.13	2.78	
714+79.1	717+38.7	SB	GR-15	256.25		2.56	5.33	
15+15 LT.	17+74	RAMP "B"	-	259	2.59			
14+68 RT.	17+74	RAMP "B"	-	306	3.06			
717+59.4	770+85.03	SB	-	5325.63	53.26			
TOTALS - CARRIED TO GENERAL SUMMARY					80.76	94.82	233.06	

ITEM 203	
EMBANKMENT	
(FROM GRADING PLAN, SHEET NO. 31)	= 14 C.Y.

ITEM 601	
CONCRETE SLOPE PROTECTION (SEE STRUCTURE PLAN, SHEET NO. 67)	
BRIDGE NO. JEF - 7 - 1340	
REAR ABUTMENT	
$77' \times 24' \times \sqrt{5}/2 \times 1/9$	= 230 S.Y.
FORWARD ABUTMENT	
$81.5' \times 24' \times \sqrt{5}/2 \times 1/9$	= 243 S.Y.
BRIDGE NO. JEF - 7 - 1348	
$88' \times 83' \times \sqrt{5}/2 \times 1/9 \times 2$	= 1815 S.Y.
TOTAL	= 2288 S.Y.
DUMPED ROCK FILL, TYPE D, 2'-0" THICK (SEE STRUCTURE PLAN, SHEET NO. 58)	
BRIDGE NO. JEF - 7 - 1340	
$\frac{10' \times 31' \times 2' \times 2}{27}$	= 46 C.Y.
PAVED GUTTER, TYPE 1 (SEE STRUCTURE PLAN, SHEET NO. 58)	
BRIDGE NO. JEF - 7 - 1340	
$78.5' + 81.5'$	= 160 L.F.

ITEM 659	
SEEDING & MULCHING	
FROM LINEAR GRADING, METHOD 1:	
80.76 STA. x 100 x 4' AVG. WIDTH / 9	= 3589 S.Y.
FROM LINEAR GRADING, METHOD 2:	
94.82 STA. x 100 x 2' AVG. WIDTH / 9	= 2107 S.Y.
FROM GRADING PLAN, SHEET NO. 31:	= 105 S.Y.
TOTAL	= 5801 S.Y.
COMMERCIAL FERTILIZER	
$\frac{5801 \text{ S.Y.} \times 9 \times 20}{1000 \times 2000}$	= 0.52 TON
AGRICULTURAL LIMING	
$\frac{5801 \text{ S.Y.} \times 9 \times 100}{1000 \times 2000}$	= 2.61 TON
WATER	
$\frac{5801 \text{ S.Y.} \times 9 \times 120}{1000 \times 1000} \times 2 \text{ APPLICATIONS}$	= 12.53 M GAL.
	USE 13 M GAL.

DRAINAGE CALCULATIONS

JEF - 7 - 13.11

DRAINAGE QUANTITIES															
REF. NO.	PLAN SHT. NO.	STATION & OFFSET		EXISTING INLET OR MANHOLE TYPE	202	202	603	603	604	604	604	604	604	REMARKS	
					PIPE REMOVED 24" & UNDER	CATCH BASIN REMOVED	12" CONDUIT, TYPE B 706.02	24" CONDUIT, TYPE B 706.02	MANHOLE ADJUSTED TO GRADE	MEDIAN INLET ADJUSTED TO GRADE, AS PER PLAN	CATCH BASIN ADJUSTED TO GRADE	CATCH BASIN NO. 6	INLET NO. 3C		INLET NO. 3B, AS PER PLAN
		FROM	TO		L.F.	EACH	L.F.	L.F.	EACH	EACH	EACH	EACH	EACH		
D-1	26	682+05	- C	I-3C-14						1					
D-2	26	685+00	- C	I-3C-14						1					
D-3	26	694+51.5	- C	I-3C-10						1					
D-4	26	695+99.5	- C	I-3C-10						1					
D-5	26	699+15	- C	I-3C-10						1					
D-6	27	705+28	- C	I-3C-10						1					
D-7	27	705+48	- C	I-3C-10						1					
D-8	27	709+60.7	- C	I-3C-14						1					
D-9	27	725+78	- C	I-3C-10						1					
D-10	27	725+98	- C	I-3C-10						1					
D-11	27	728+00	- C	I-3C-10						1					
D-12	27	729+52	- C	I-3C-14						1					
D-13	27	733+00	- C	I-3C-16						1					
D-14	27	736+00	- C	I-3C-16						1					
D-15	27	740+00	- C	I-3C-16						1					
D-16	28	749+00	- C	I-3C-16						1					
D-17	28	756+30	- C	I-3C-10						1					
D-18	28	756+50	- C	I-3C-10						1					
D-19	28	759+33	- C	I-3C-10						1					
D-20	28	769+77	- C	I-3C-12						1					
D-21	26	692+10	- C						1					CONSTRUCT TYPE C BARRIER BASE TO 9-1/2" THICKNESS FOR P.G. RECONST.	
D-22	29	694+50 - 34.5' RT.		NO. 3 CB						1				LOWER GRATE 3/4"	
D-23	29	693+32 - 34.5' RT.										1		SEE DETAIL "A" ON SHEET NO. 34	
D-24	27	705+20 - 32' LT.		NO. 6 CB						1				RAISE GRATE 3-1/2"	
D-25	27	707+05 - 36.5' RT.		NO. 6 CB		1									
D-26	27	717+56 - 38.6' LT.		NO. 3 CB		1									
D-27	27	728+00 - 33' RT.		NO. 6 CB		1									
D-28	27	27+20 - 20.5' LT. RAMP "D"		NO. 3 CB		1						1		SEE CATCH BASIN REPLACEMENT DETAIL ON SHEET NO. 33	
D-29	29	693+32 - C					4					1			
D-30	29	D-23		D-29				8					1		
D-31	29	D-32		D-21		35								SEE DETAIL "A" ON SHEET NO. 34	
D-32	29	692+04 - 36.5' RT.		NO. 3 CB		1									
D-33	27	D-27		D-11		33									
D-34	27	727+55 - C											1		
D-35	27	D-36		D-34			35							SEE DETAIL "B" ON SHEET NO. 34	
D-36	27	727+55 - 34.86' RT.										1			
TOTALS - CARRIED TO GENERAL SUMMARY					68	5	74	8	1	20	2	2	2	1	

ITEM SPECIAL - PIPE CLEANOUT		
STATION & OFFSET	SPECIAL	
	8" PIPE CLEANOUT	LIN. FT.
FROM	TO	
682+05 - 29' LT.	682+05 - 58' LT.	29
714+87 - 29' LT.	714+87 - 55' LT.	26
678+00 - 15' RT.	687+00 - 43' RT.	28
MURDOCK AVENUE	MURDOCK AVENUE	
26+50 - 16' RT.	26+50 - 15' RT.	31
RAMP "D"	RAMP "D"	
TOTALS - CARRIED TO GENERAL SUMMARY		114

UNDERDRAIN QUANTITIES											
REF. NO.	STATION		LANE	605	SPEC.	603	6" BENDS & BRANCHES		OUTLET STATION	PLUG STATION	REMARKS
				6" UNCLASSIFIED PIPE UNDERDRAIN	PRECAST REINFORCED CONCRETE OUTLET	6" CONDUIT, TYPE F 707.17 NON-PERFORATED ASTM 3034 SDR 35, SS 93 OR SS 944	TEE	90° BEND			
	FROM	TO		LIN. FT.	EACH	LIN. FT.	EACH	EACH			
U-1	691+50	693+32	NB	172		10		1			CONNECT TO EXIST. 6" UNDERDRAIN @ STA. 691+50, OUTLET INTO PROP. CATCH BASIN STA. 693+32 (D-23)
U-2	693+32	694+40	NB	98		10		1	693+32		OUTLET INTO PROPOSED CATCH BASIN STA. 693+32 (D-23)
U-3	694+50	696+00	NB	140		10		1			CONNECT TO EXIST. 6" UNDERDRAIN @ STA. 696+00, OUTLET INTO EXIST. CATCH BASIN STA. 694+50 (D-22)
U-4	699+20	701+70	NB	240	1	42		1	699+20	701+70	
U-5	722+50	725+78	NB	318		10		1		722+50	OUTLET INTO EXISTING INLET STA. 725+78 (D-9); SEE DETAIL ON SHEET NO. 34
U-6	726+15	727+55	NB	130		10		1		726+15	OUTLET INTO PROPOSED INLET STA. 727+55 (D-34); SEE DETAIL ON SHEET NO. 34
U-7	727+55	727+85	NB	20		10		1		727+85	OUTLET INTO PROPOSED INLET STA. 727+55 (D-34); SEE DETAIL ON SHEET NO. 34
U-8	728+00	728+38	NB	28		10		1		728+38	OUTLET INTO EXISTING INLET STA. 728+00 (D-11); SEE DETAIL ON SHEET NO. 34
TOTALS - CARRIED TO GENERAL SUMMARY				1146	1	112					

FOR DRAINAGE DETAILS, SEE SHEET NO. 33 - 35

9245CAL5.DWG 1=1.6-21-94

GENERAL SUMMARY

CALC. BY: *MLC*
 DATE: *6-24*
 CHKD. BY: *JH*
 DATE: *6-24*

OHIO
 FHWA REGION 5

24
83

JEF - 7 - 13.11

ITEM	SHEET NUMBER											ITEM	ITEM EXT.	TOTAL QUANT.	UNIT	DESCRIPTION			
							14	15	16	17	18						20	21	22
EROSION CONTROL																			
207						1000									207	30000	1000	LIN. FT.	FILTER FABRIC FENCE (SEE PROPOSAL NOTE)
207						200									207	70000	200	EACH	STRAW OR HAY BALES
601													2288		601	21000	2288	SQ. YD.	CONCRETE SLOPE PROTECTION
601												46		601	28000	46	CU. YD.	DUMPED ROCK FILL, TYPE D	
601												160		601	37000	160	LIN. FT.	PAVED GUTTER, TYPE 1	
659												5801		659	10000	5801	SQ. YD.	SEEDING AND MULCHING	
659												0.52		659	20000	0.52	TON	COMMERCIAL FERTILIZER	
659												2.61		659	30000	2.61	TON	AGRICULTURAL LIMING	
												13		659	35000	13	M. GAL.	WATER	
DRAINAGE																			
602													0.1		602	20001	0.1	CU. YD.	CONCRETE MASONRY, AS PER PLAN (SEE SHEET NO. 14)
603													112		603	01500	112	LIN. FT.	6" CONDUIT, TYPE F 707.17, NON-PERFORATED ASTM 3034, SDR 35, SS931, OR SS944
603													74		603	04400	74	LIN. FT.	12" CONDUIT, TYPE B 706.02
603													8		603	10400	8	LIN. FT.	24" CONDUIT, TYPE B 706.02
604													2		604	02000	2	EACH	CATCH BASIN, NO. 6
604													2		604	09000	2	EACH	CATCH BASIN ADJUSTED TO GRADE
604													1		604	14601	1	EACH	INLET, NO. 3B, AS PER PLAN (SEE SHEET NO. 14)
604													2		604	15000	2	EACH	INLET, NO. 3C
604													20		604	20601	20	EACH	MEDIAN BARRIER INLET ADJUSTED TO GRADE, AS PER PLAN (SEE SHEET NO. 14)
604													1		604	34500	1	EACH	MANHOLE ADJUSTED TO GRADE
SPECIAL														1	SPECIAL	60436600	1	EACH	PRECAST REINFORCED CONCRETE OUTLET
605														1146	605	13300	1146	LIN. FT.	6" UNCLASSIFIED PIPE UNDERDRAIN
PAVEMENT																			
254							27874	33145	6620	474					254	01000	68113	SQ. YD.	PAVEMENT PLANNING, BITUMINOUS
301							1781	2118	361	969					301	10002	5229	CU. YD.	BITUMINOUS AGGREGATE BASE, AC-20
304									4	1039					304	20000	1043	CU. YD.	AGGREGATE BASE (SEE PROPOSAL NOTE)
310										1084					310	20000	1084	CU. YD.	SUBBASE, TYPE II (SEE PROPOSAL NOTE)
407							2091	2486	514	36					407	10000	5127	GAL.	TACK COAT
408									9	1745					408	10000	1754	GAL.	BITUMINOUS PRIME COAT
446							1347	1609	292	235					446	01200	3483	CU. YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20,
446							991	1177	257	168					446	01401	2593	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN (SEE SHEET NO. 14)
448													233		448	14101	233	CU. YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), AS PER PLAN (SEE SHEET NO. 14)
609										70					609	30001	70	LIN. FT.	CURB, TYPE 8, AS PER PLAN (SEE SHEET NO. 14)
611										389					611	25001	389	SQ. YD.	REINFORCED CONCRETE APPROACH SLAB (T = 15"), AS PER PLAN (SEE SHEET NO. 14)

924552.DWG, 1=1/8"=1'-0"

GENERAL SUMMARY

CALC. BY: *MLB*
 DATE: *6-97*
 CHKD. BY: *JM*
 DATE: *6-20-97*

OHIO
 FHWA REGION 5

25
83

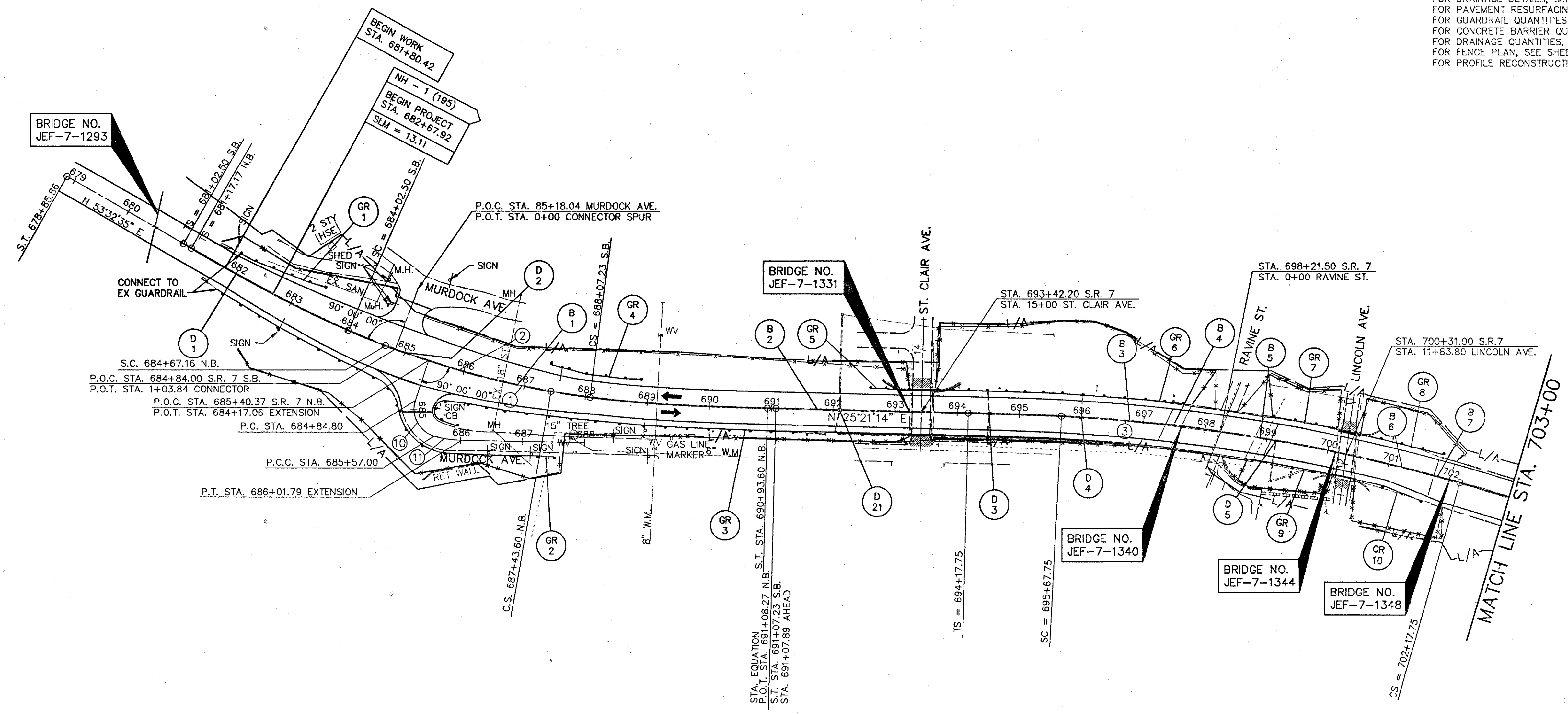
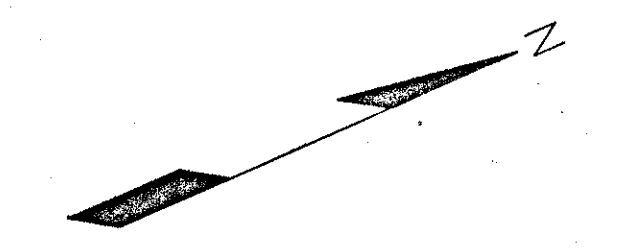
JEF - 7 - 13.11

ITEM	SHEET NUMBER							ITEM	ITEM EXT.	TOTAL QUANT.	UNIT	DESCRIPTION	
	10	11	19	42	43	44	45						47
TRAFFIC CONTROL													
620								20	620	10300	20	EACH	DELINEATOR, TYPE C, POST MOUNTED
620								1	620	11000	1	EACH	DELINEATOR, TYPE C, BRACKET MOUNTED
620								3	620	15300	3	EACH	DELINEATOR, TYPE D, POST MOUNTED
620								4	620	31200	4	EACH	DELINEATOR REMOVED FOR DISPOSAL
630					7.68	2.74	11.54		630	00100	21.96	CU. YD.	CONCRETE FOR EMBEDDED FOUNDATION
630					59	47	10		630	02100	116	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 2 POST
630					24	88	129	36	630	03100	277	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 3 POST
630					233	209	199	167	630	04100	808	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 4 POST
630					68	30	31		630	06400	129	LIN. FT.	GROUND MOUNTED SUPPORT, S4X7.7 BEAM
630					117	42	204		630	07600	363	LIN. FT.	GROUND MOUNTED SUPPORT, W10X12 BEAM
630					10	4	12		630	09000	26	Each	BREAKAWAY BEAM CONNECTION
630					2				630	75000	2	EACH	SIGN ATTACHMENT ASSEMBLY
630					16		101	124	630	80100	241	SQ. FT.	SIGN, FLAT SHEET
630					173	242	73	19	630	80102	507	SQ. FT.	SIGN, FLAT SHEET, TYPE G
630					530	197	392		630	80204	1119	SQ. FT.	SIGN, EXTRUSHEET, TYPE G
630					20	38	15	45	630	84900	118	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
630					4	2	2		630	85400	8	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL
630					14	27	20	13	630	86002	74	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
630					12	4	6		630	86102	22	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
630					2				630	87400	2	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL
630					2				630	97700	2	EACH	SIGNING, MISC.: CONCRETE BARRIER MOUNTED SIGN SUPPORT
642								7.44	642	00102	7.44	MILE	EDGE LINE, TYPE 2
642								3.49	642	00202	3.49	MILE	LANE LINE, TYPE 2
642								0.02	642	00302	0.02	MILE	CENTER LINE, TYPE 2
642								1456	642	00402	1456	LIN. FT.	CHANNELIZING LINE, TYPE 2
642								152	642	00502	152	LIN. FT.	STOP LINE, TYPE 2
642								536	642	00702	536	LIN. FT.	TRANSVERSE LINE, TYPE 2
642								4	642	01302	4	EACH	LANE ARROW, TYPE 2
642								4	642	01412	4	EACH	WORD ON PAVEMENT, 96", TYPE 2
802						98			802	00100	98	EACH	BARRIER REFLECTOR, TYPE A
802						218			802	00200	218	EACH	BARRIER REFLECTOR, TYPE B
862								327	862	00100	327	EACH	RAISED PAVEMENT MARKER
MAINTENANCE OF TRAFFIC													
SPECIAL					160				SPECIAL	61411100	160	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR
614						16			614	12470	16	EACH	WORK ZONE SPEED LIMIT SIGN
614					200				SPECIAL	61412600	200	EACH	REPLACEMENT DRUM
614						295			614	13300	295	EACH	BARRIER REFLECTOR, TYPE B
614						295			614	13350	295	EACH	OBJECT MARKER
614						16.86			614	20000	16.86	MILE	TEMPORARY LANE LINE, CLASS I
614						26.97			614	22000	26.97	MILE	TEMPORARY EDGE LINE, CLASS I
614						2400			614	28000	2400	LIN. FT.	TEMPORARY GORE MARKING, CLASS II
622						8850			622	40020	8850	LIN. FT.	PORTABLE CONCRETE BARRIER, 32"
622						1840			622	40040	1840	LIN. FT.	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED FOR STRUCTURE QUANTITIES, SEE SHEET NO. 51
614					LUMP				614	11000	LUMP		MAINTAINING TRAFFIC
619									619	15010	LUMP		FIELD OFFICE, TYPE B
623									623	10000	LUMP		CONSTRUCTION LAYOUT STAKES
624									624	10000	LUMP		MOBILIZATION

9245653.DWG, 1=1/8"=1'-0", 21-94

JEF - 7 - 13.11

FOR CONCRETE BARRIER DETAILS, SEE SHEET NO. 9.
 FOR INTERSECTION DETAILS, SEE SHEET NO. 31.
 FOR DRAINAGE DETAILS, SEE SHEET NO. 33 - 35.
 FOR PAVEMENT RESURFACING QUANTITIES, SEE SHEET NO. 15 - 17.
 FOR GUARDRAIL QUANTITIES, SEE SHEET NO. 19.
 FOR CONCRETE BARRIER QUANTITIES, SEE SHEET NO. 20.
 FOR DRAINAGE QUANTITIES, SEE SHEET NO. 22.
 FOR FENCE PLAN, SEE SHEET NO. 48 - 49.
 FOR PROFILE RECONSTRUCTION, SEE SHEET NO. 29 - 30.



10 MURDOCK AVE. EXT. CURVE DATA

P.I. STA.	685+31.34
Δ	91° 55' 40"
D	127' 19" 26"
T	46.54'
L	72.20'
E	19.74'
R	45.00'
P.C. STA.	684+84.80
P.C.C. STA.	685+57.00
MAX. SUPER. RATE	= 0.083 FT/FT

11 MURDOCK AVE. EXT. CURVE DATA

P.I. STA.	685+79.53
Δ	15° 05' 45"
D	33' 42" 12"
T	22.53'
L	47.79'
E	1.49'
R	170.00'
P.C. STA.	684+84.80
P.C.C. STA.	685+57.00
P.T. STA.	686+01.79
MAX. SUPER. RATE	= 0.083 FT/FT

1 NORTHBOUND LANE CURVE DATA

P.I. STA.	686+12.75
Δ	28° 11' 21" LT.
Dc	4' 30' 00"
Ls	350.00'
Rc	1273.24'
Δc	12° 26' 21"
Lc	276.43'
L.C.	349.71'
Os	7° 52' 30"
L.T.	233.57'
S.T.	116.68'
Xs	349.34'
Ys	16.02'
Ts	495.58'
Es	43.66'
T.S. STA.	681+17.17
S.C. STA.	684+67.16
C.S. STA.	687+43.60
S.T. STA.	690+93.60
MAX. SUPER. RATE	= 0.0660 FT/FT

2 SOUTHBOUND LANE CURVE DATA

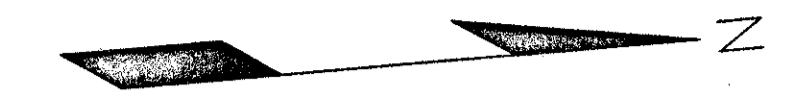
P.I. STA.	686+12.75
Δ	28° 11' 21" LT.
Dc	4' 30' 00"
Ls	300.00'
Rc	1432.39'
Δc	16° 11' 21"
Lc	404.73'
L.C.	299.85'
Os	6° 00' 00"
L.T.	200.12'
S.T.	100.10'
Xs	299.67'
Ys	10.46'
Ts	510.25'
Es	47.16'
T.S. STA.	681+02.50
S.C. STA.	684+02.50
C.S. STA.	688+07.23
S.T. STA.	691+07.23
MAX. SUPER. RATE	= 0.0660 FT/FT

3 CURVE DATA

P.I. STA.	698+95.42
Δ	16° 00' 00" RT.
Dc	2' 00' 00"
Ls	150.00'
Rc	2864.79'
Δc	13° 00' 00"
Lc	650.00'
L.C.	149.99'
Os	1° 30' 00"
L.T.	100.00'
S.T.	50.00'
Xs	149.99'
Ys	1.31'
Ts	477.67'
Es	28.49'
T.S. STA.	694+17.75
S.C. STA.	695+67.75
C.S. STA.	702+17.75
S.T. STA.	703+67.75(BACK) 703+69.83(AHEAD)
MAX SUPER. RATE	= 0.0332 FT/FT

924SRP1.DWG 1=100 5-16-94

JEF - 7 - 13.11

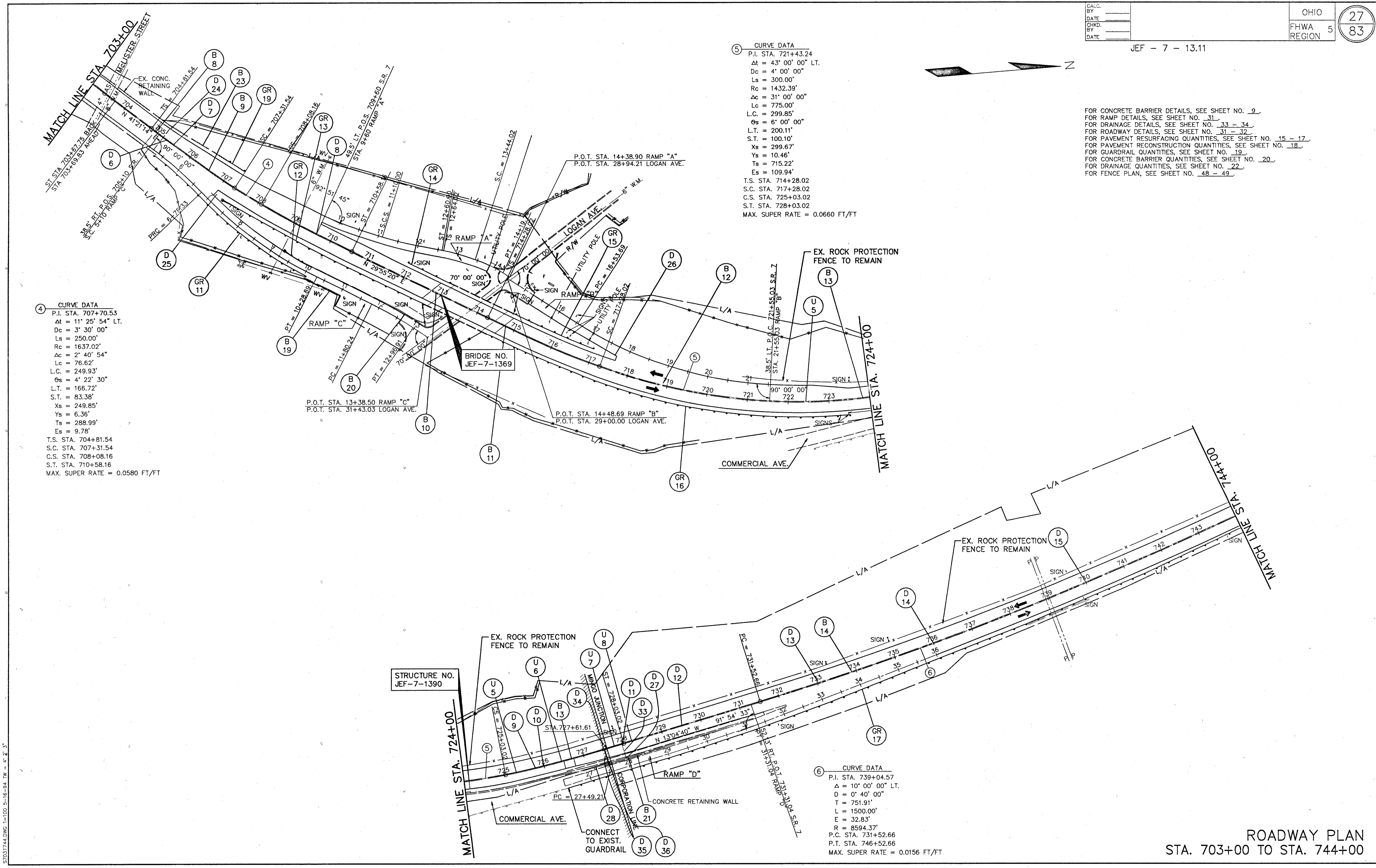


FOR CONCRETE BARRIER DETAILS, SEE SHEET NO. 9.
 FOR RAMP DETAILS, SEE SHEET NO. 31.
 FOR DRAINAGE DETAILS, SEE SHEET NO. 33 - 34.
 FOR ROADWAY DETAILS, SEE SHEET NO. 31 - 32.
 FOR PAVEMENT RESURFACING QUANTITIES, SEE SHEET NO. 15 - 17.
 FOR PAVEMENT RECONSTRUCTION QUANTITIES, SEE SHEET NO. 18.
 FOR GUARDRAIL QUANTITIES, SEE SHEET NO. 19.
 FOR CONCRETE BARRIER QUANTITIES, SEE SHEET NO. 20.
 FOR DRAINAGE QUANTITIES, SEE SHEET NO. 22.
 FOR FENCE PLAN, SEE SHEET NO. 48 - 49.

⑤ CURVE DATA
 P.I. STA. 721+43.24
 $\Delta t = 43^\circ 00' 00''$ LT.
 $D_c = 4' 00' 00''$
 $L_s = 300.00'$
 $R_c = 1432.39'$
 $\Delta c = 31' 00' 00''$
 $L_c = 775.00'$
 $L.C. = 299.85'$
 $\Theta_s = 6' 00' 00''$
 $L.T. = 200.11'$
 $S.T. = 100.10'$
 $X_s = 299.67'$
 $Y_s = 10.46'$
 $T_s = 715.22'$
 $E_s = 109.94'$
 T.S. STA. 714+28.02
 S.C. STA. 717+28.02
 C.S. STA. 725+03.02
 S.T. STA. 728+03.02
 MAX. SUPER RATE = 0.0660 FT/FT

④ CURVE DATA
 P.I. STA. 707+70.53
 $\Delta t = 11^\circ 25' 54''$ LT.
 $D_c = 3' 30' 00''$
 $L_s = 250.00'$
 $R_c = 1637.02'$
 $\Delta c = 2' 40' 54''$
 $L_c = 76.62'$
 $L.C. = 249.93'$
 $\Theta_s = 4' 22' 30''$
 $L.T. = 166.72'$
 $S.T. = 83.38'$
 $X_s = 249.85'$
 $Y_s = 6.36'$
 $T_s = 288.99'$
 $E_s = 9.78'$
 T.S. STA. 704+81.54
 S.C. STA. 707+31.54
 C.S. STA. 708+08.16
 S.T. STA. 710+58.16
 MAX. SUPER RATE = 0.0580 FT/FT

⑥ CURVE DATA
 P.I. STA. 739+04.57
 $\Delta = 10^\circ 00' 00''$ LT.
 $D = 0' 40' 00''$
 $T = 751.91'$
 $L = 1500.00'$
 $E = 32.83'$
 $R = 8594.37'$
 P.C. STA. 731+52.66
 P.T. STA. 746+52.66
 MAX. SUPER RATE = 0.0156 FT/FT

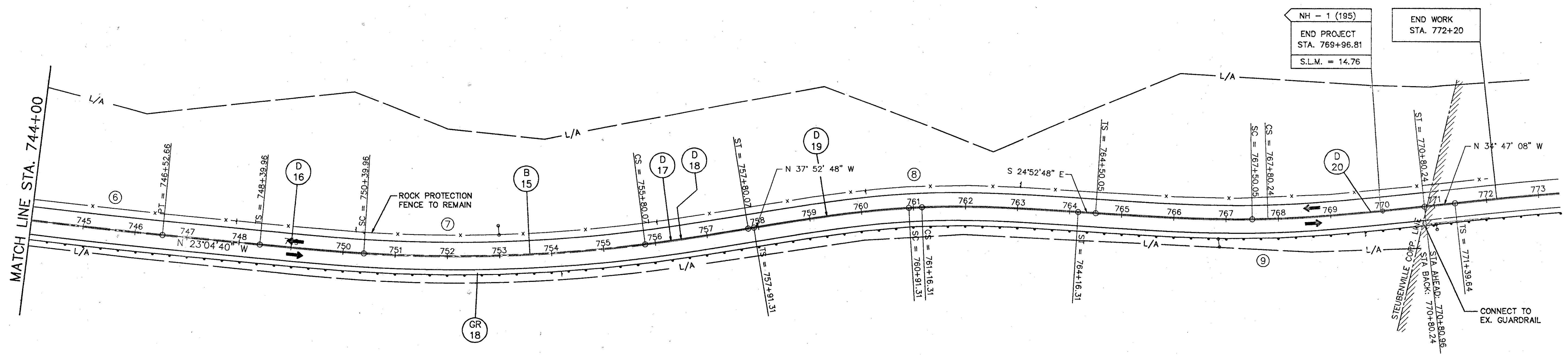
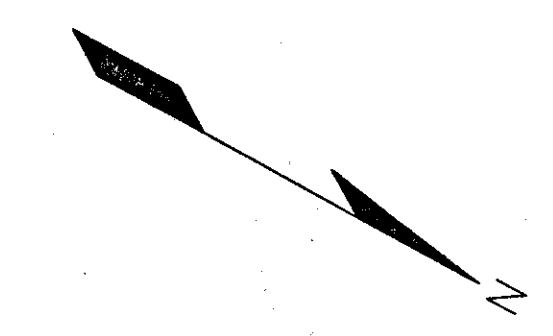


5703744.DWG 1=100 5-16-84 TW = 4' 2' 3"

JEF - 7 - 13.11

FOR CONCRETE BARRIER DETAILS, SEE SHEET NO. 9.
 FOR DRAINAGE DETAILS, SEE SHEET NO. 33.
 FOR PAVEMENT RESURFACING QUANTITIES, SEE SHEET NO. 15 - 16.
 FOR GUARDRAIL QUANTITIES, SEE SHEET NO. 19.
 FOR CONCRETE BARRIER QUANTITIES, SEE SHEET NO. 20.
 FOR DRAINAGE QUANTITIES, SEE SHEET NO. 22.

⑥ CURVE DATA	⑦ CURVE DATA	⑧ CURVE DATA	⑨ CURVE DATA
P.I. STA. 739+04.57	P.I. STA. 753+12.16	P.I. STA. 761+04.76	P.I. STA. 767+65.69
$\Delta = 10^{\circ} 00' 00''$ LT.	$\Delta = 14^{\circ} 48' 08''$ LT.	$\Delta = 13^{\circ} 00' 00''$ LT.	$\Delta = 9^{\circ} 54' 20''$ LT.
D = 0' 40' 00"	Dc = 2' 00' 00"	Dc = 4' 00' 00"	Dc = 3' 00' 00"
T = 751.91'	Ls = 200.00'	Ls = 300.00'	Ls = 300.00'
L = 1500.00'	Rc = 2864.79'	Rc = 1432.39'	Rc = 1909.86'
E = 32.83'	$\Delta c = 10^{\circ} 48' 08''$	$\Delta c = 1^{\circ} 00' 00''$	$\Delta c = 0^{\circ} 54' 20''$
R = 8594.37'	Lc = 540.11'	Lc = 25.00'	Lc = 30.19'
P.C. STA. 731+52.66	L.C. = 198.92'	L.C. = 299.85'	L.C. = 299.92'
P.T. STA. 746+52.66	$\Theta_s = 2^{\circ} 00' 00''$	$\Theta_s = 6^{\circ} 00' 00''$	$\Theta_s = 4^{\circ} 30' 00''$
MAX. SUPER RATE = 0.0156 FT/FT	L.T. = 133.34'	L.T. = 200.11'	L.T. = 200.06'
	S.T. = 66.67'	S.T. = 100.10'	S.T. = 100.06'
	Xs = 197.58'	Xs = 299.67'	Xs = 299.81'
	Ys = 23.07'	Ys = 10.46'	Ys = 7.85'
	Ts = 472.20'	Ts = 313.45'	Ts = 315.64'
	Es = 24.65'	Es = 11.90'	Es = 9.13'
	T.S. STA. 748+39.96	T.S. STA. 757+91.31	T.S. STA. 764+50.05
	S.C. STA. 750+39.96	S.C. STA. 760+91.31	S.C. STA. 767+50.05
	C.S. STA. 755+80.07	C.S. STA. 761+16.31	C.S. STA. 767+80.24
	S.T. STA. 757+80.07	S.T. STA. 764+16.31	S.T. STA. 770+80.24(BACK)
	MAX. SUPER RATE = 0.0332 FT/FT	MAX. SUPER RATE = 0.0660 FT/FT	STA. 770+80.96(AHEAD)
			MAX. SUPER RATE = 0.0488 FT/FT



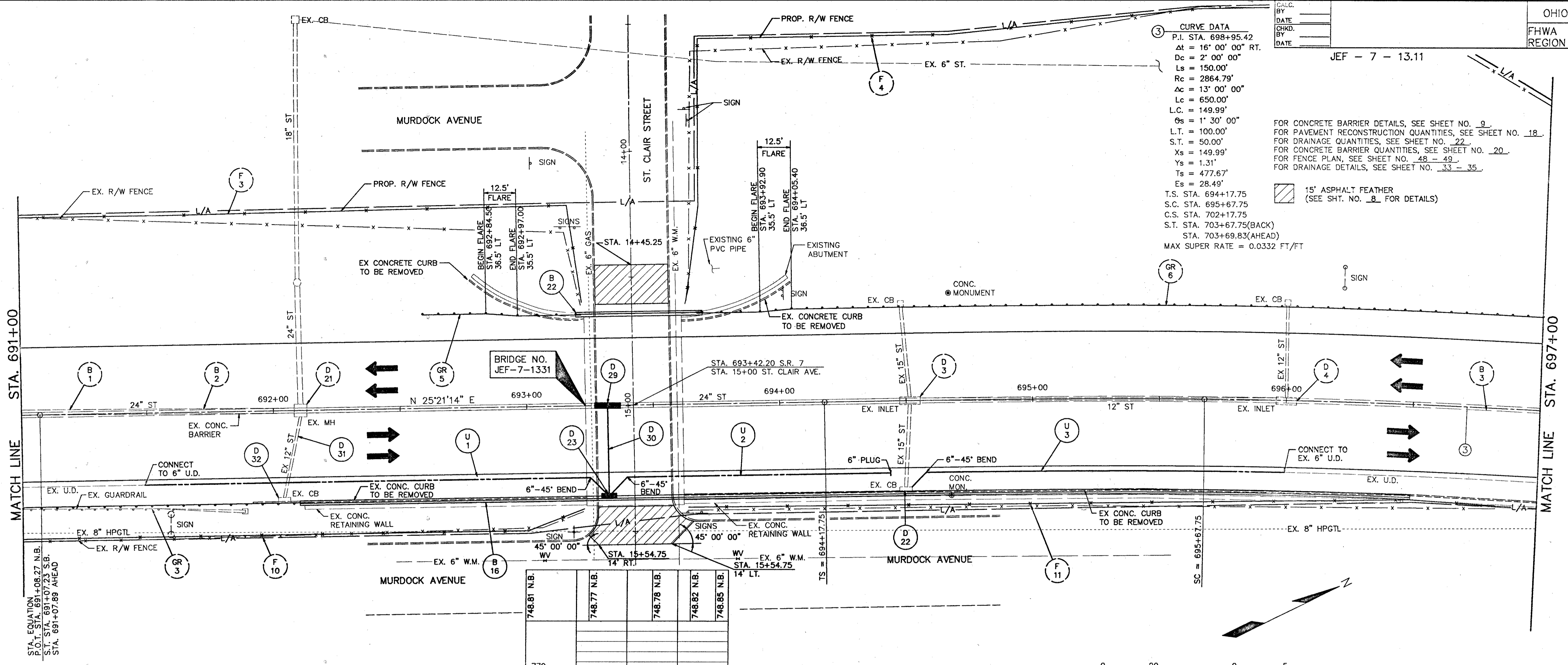
S744T784.DWG 1=100 5-20-94

JEF - 7 - 13.11

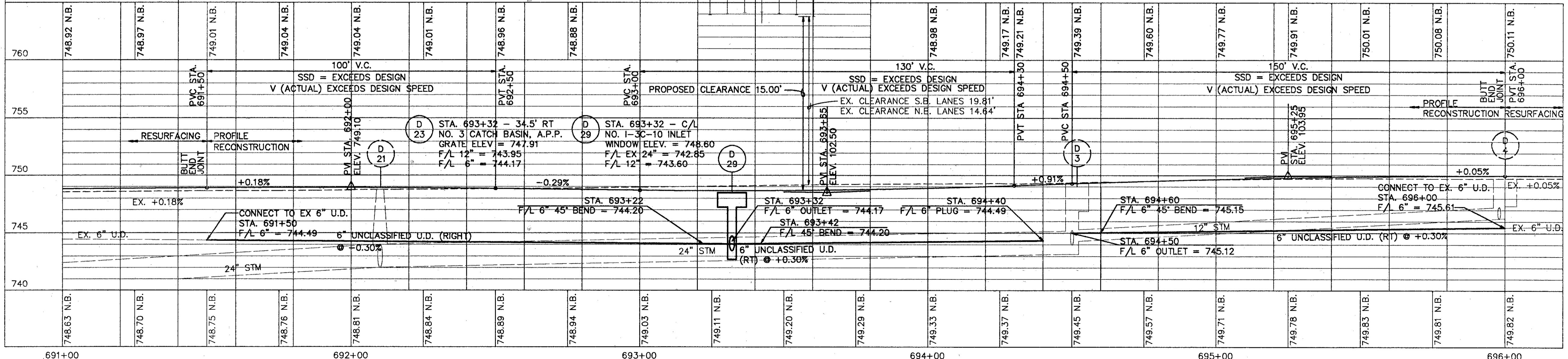
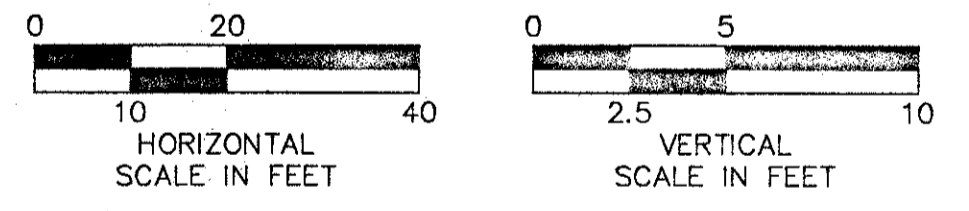
③ CURVE DATA
 P.I. STA. 698+95.42
 Δt = 16° 00' 00" RT.
 Dc = 2° 00' 00"
 Ls = 150.00'
 Rc = 2864.79'
 Ac = 13° 00' 00"
 Lc = 650.00'
 L.C. = 149.99'
 Os = 1° 30' 00"
 L.T. = 100.00'
 S.T. = 50.00'
 Xs = 149.99'
 Ys = 1.31'
 Ts = 477.67'
 Es = 28.49'
 T.S. STA. 694+17.75
 S.C. STA. 695+67.75
 C.S. STA. 702+17.75
 S.T. STA. 703+67.75(BACK)
 STA. 703+69.83(AHEAD)
 MAX SUPER RATE = 0.0332 FT/FT

FOR CONCRETE BARRIER DETAILS, SEE SHEET NO. 9.
 FOR PAVEMENT RECONSTRUCTION QUANTITIES, SEE SHEET NO. 18.
 FOR DRAINAGE QUANTITIES, SEE SHEET NO. 22.
 FOR CONCRETE BARRIER QUANTITIES, SEE SHEET NO. 20.
 FOR FENCE PLAN, SEE SHEET NO. 48 - 49.
 FOR DRAINAGE DETAILS, SEE SHEET NO. 33 - 35.

15' ASPHALT FEATHER
 (SEE SHT. NO. 8 FOR DETAILS)



BENCHMARK:
 #3 REBAR IN CONCRETE MONUMENT
 STA. 694+67.62 - 42.94' LT.
 ELEV. = 750.37



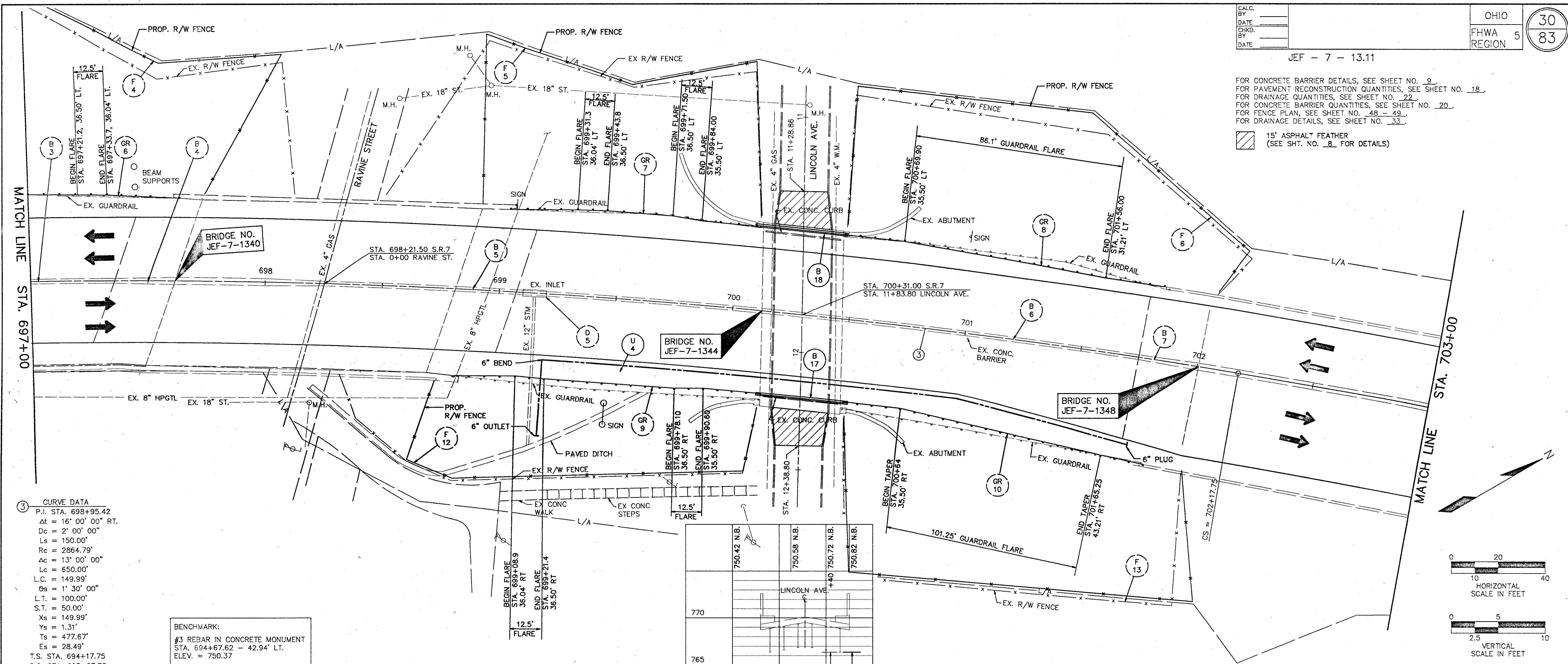
PROFILE RECONSTRUCTION
 STA. 691+00 TO STA. 697+00

S6911697.DWG 1=20 5=20-94

JEF - 7 - 13.11

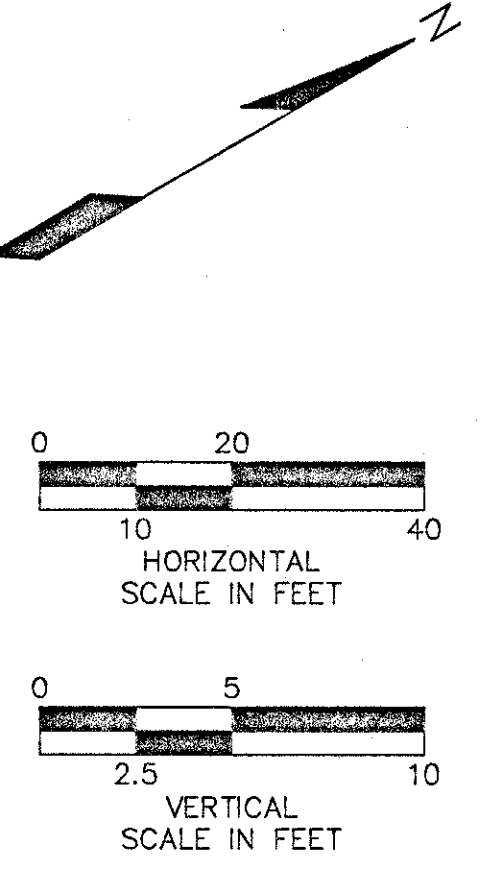
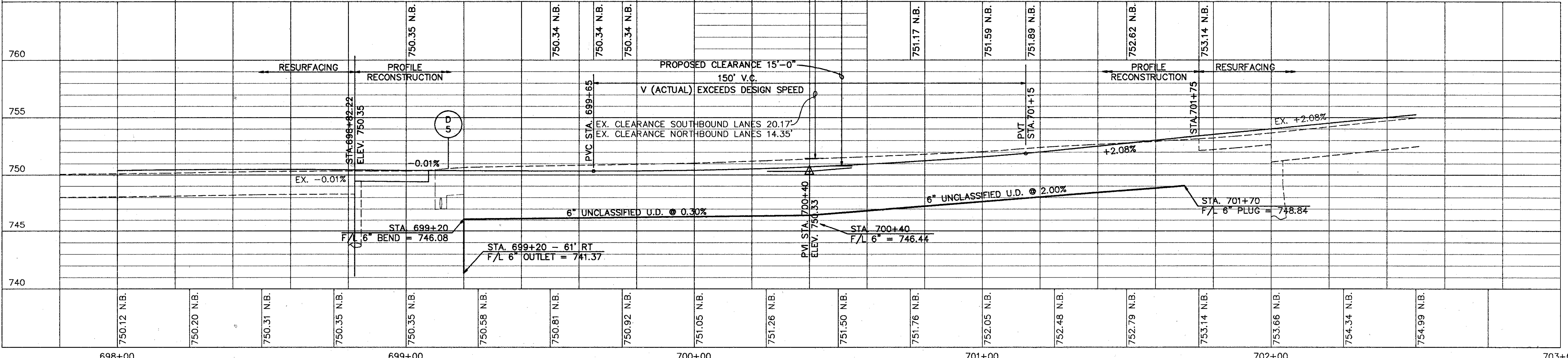
FOR CONCRETE BARRIER DETAILS, SEE SHEET NO. 9.
 FOR PAVEMENT RECONSTRUCTION QUANTITIES, SEE SHEET NO. 18.
 FOR DRAINAGE QUANTITIES, SEE SHEET NO. 22.
 FOR CONCRETE BARRIER QUANTITIES, SEE SHEET NO. 20.
 FOR FENCE PLAN, SEE SHEET NO. 48 - 49.
 FOR DRAINAGE DETAILS, SEE SHEET NO. 33.

15' ASPHALT FEATHER
 (SEE SHT. NO. 8 FOR DETAILS)



③ CURVE DATA
 P.I. STA. 698+95.42
 $\Delta t = 16' 00'' 00''$ RT.
 $\Delta c = 2' 00'' 00''$
 $L_s = 150.00'$
 $R_c = 2864.79'$
 $\Delta c = 13' 00'' 00''$
 $L_c = 650.00'$
 $L.C. = 149.99'$
 $\theta_s = 1' 30'' 00''$
 $L.T. = 100.00'$
 $S.T. = 50.00'$
 $X_s = 149.99'$
 $Y_s = 1.31'$
 $T_s = 477.67'$
 $E_s = 28.49'$
 T.S. STA. 694+17.75
 S.C. STA. 695+67.75
 C.S. STA. 702+17.75
 S.T. STA. 703+67.75(BACK)
 STA. 703+69.83(AHEAD)
 MAX. SUPER RATE = 0.0332 FT/FT

BENCHMARK:
 #3 REBAR IN CONCRETE MONUMENT
 STA. 694+67.62 - 42.94' LT.
 ELEV. = 750.37



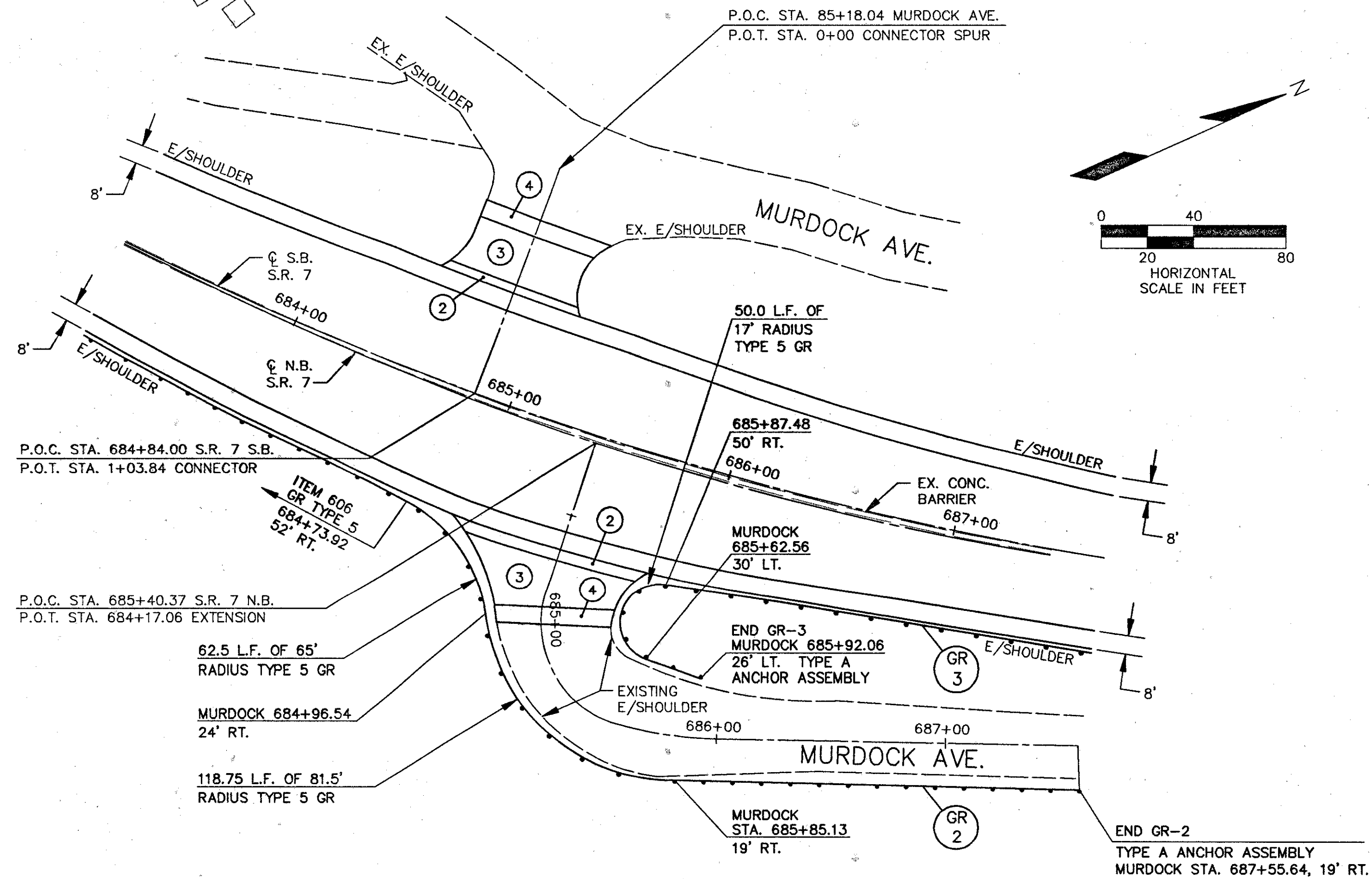
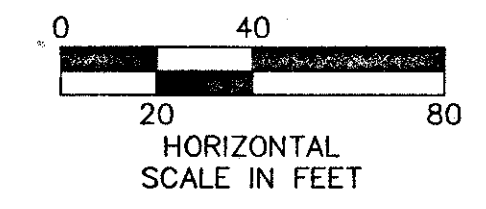
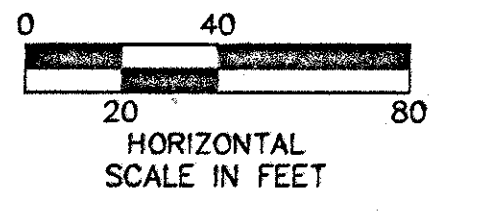
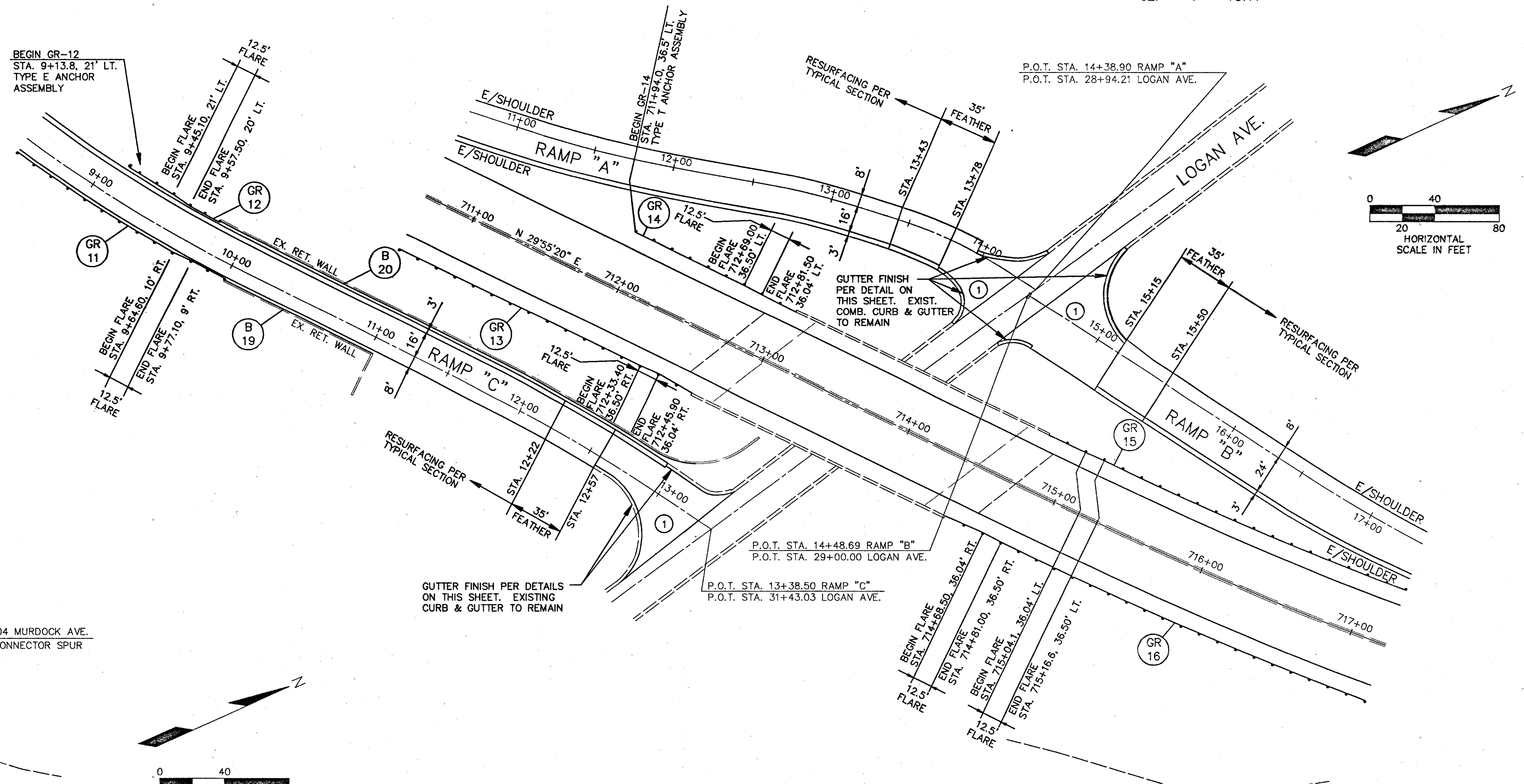
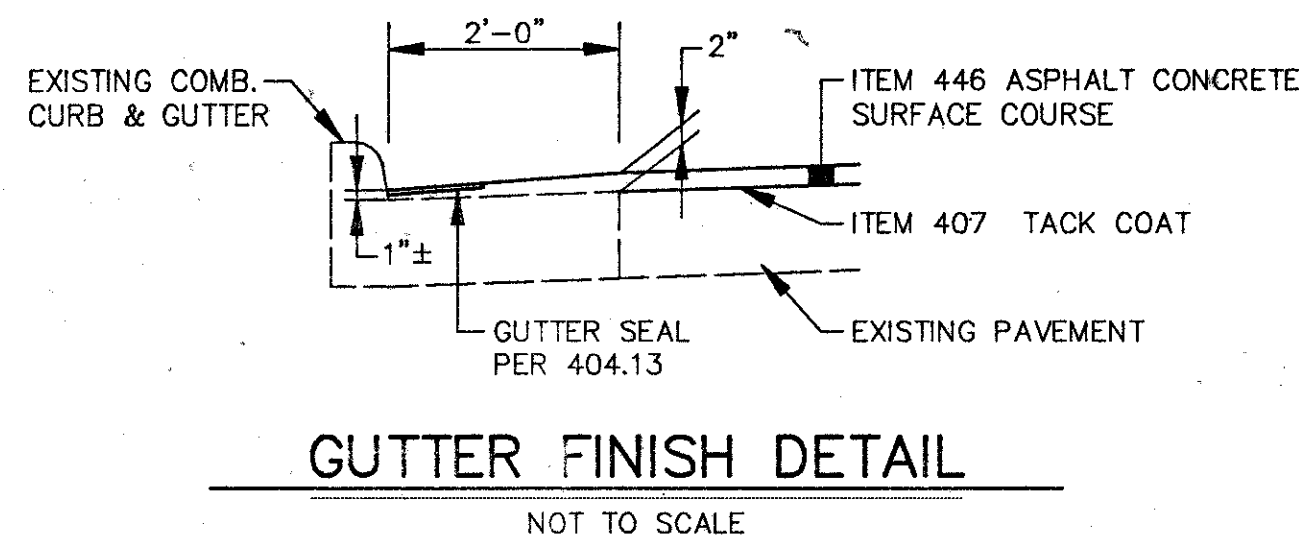
PROFILE RECONSTRUCTION
 STA. 697+00 TO STA. 703+00

5897703.DWG 1=20 9-31-94

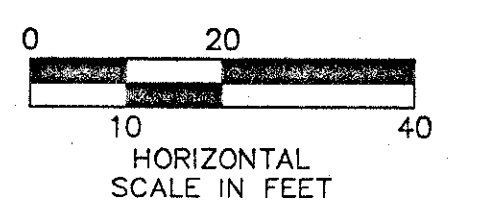
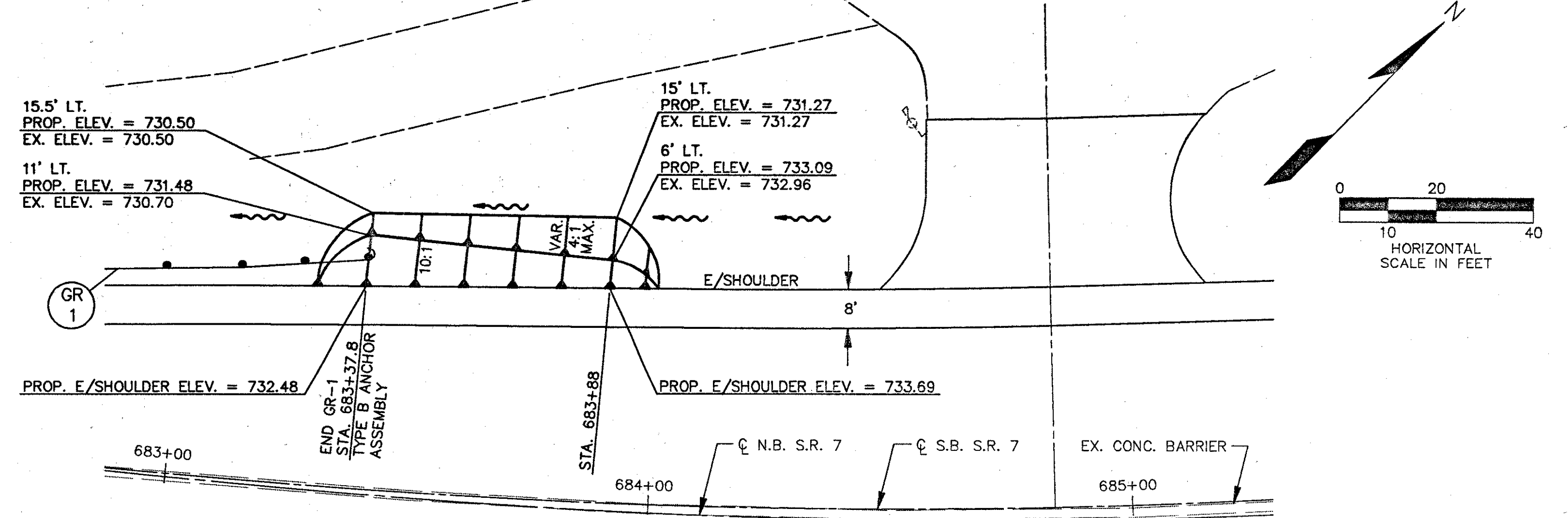
ROADWAY & INTERSECTION DETAILS

AREAS USED IN RESURFACING CALCULATIONS ON SHEET NO. 17

STATION	LOCATION	AREA ①	AREA ②	AREA ③	AREA ④	GUTTER FINISH
		SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	
684+84	MURDOCK AVE. CONNECTOR		34.79	131.24	45.47	
685+40.37	MURDOCK AVE. EXTENSION		45.65	144.70	42.14	
RAMP "A"		150.90				14.45
RAMP "B"		298.31				19.55
RAMP "C"		292.85				29.78



ESTIMATED QUANTITIES
 (CARRIED TO SHEET NO. 21L)
 ITEM 203 EMBANKMENT = 14 C.Y.
 ITEM 659 SEEDING & MULCHING = 105 S.Y.



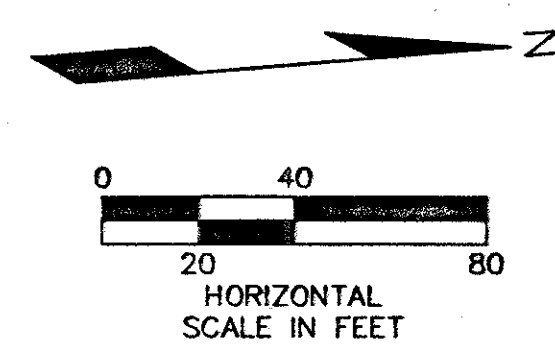
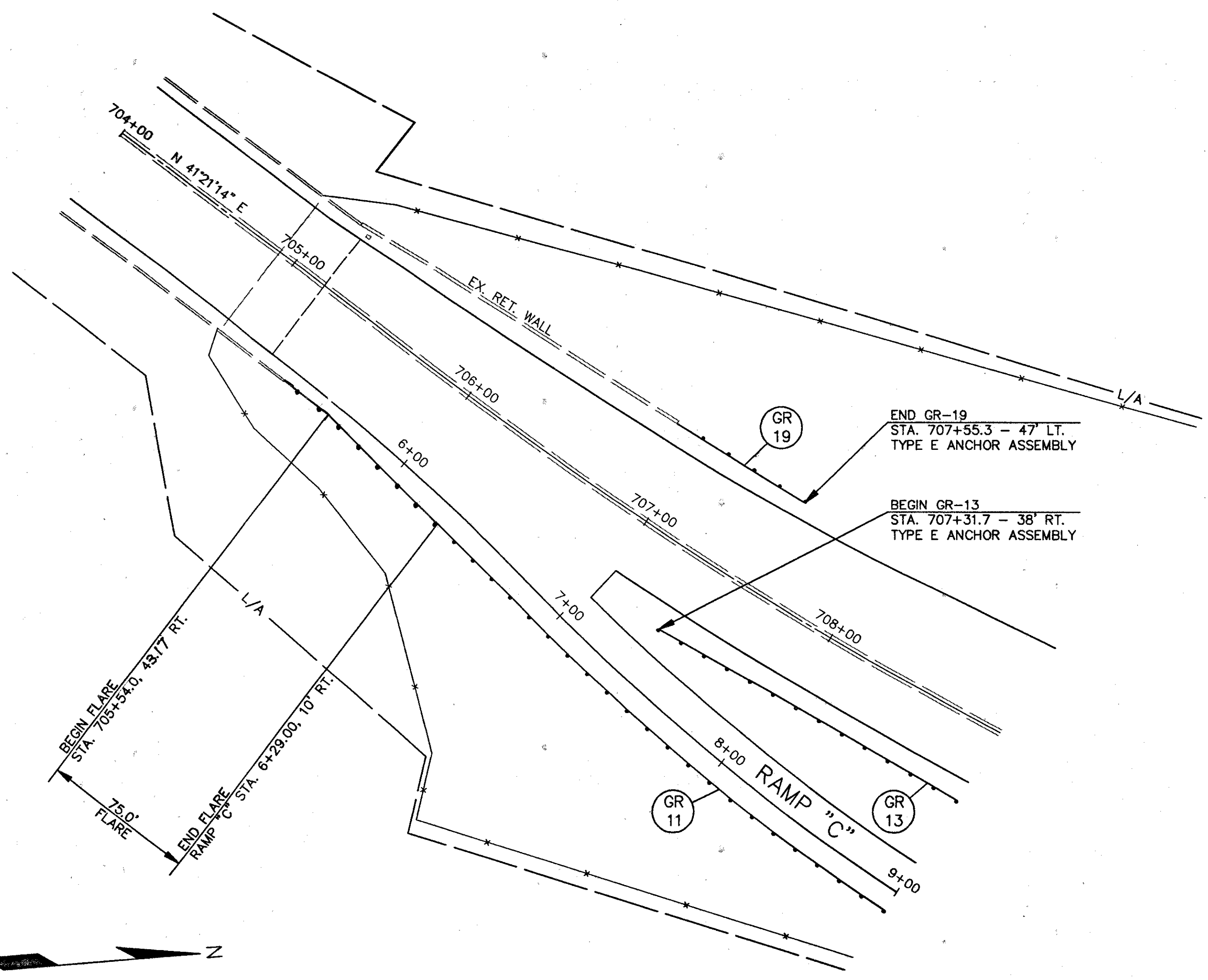
NOTE:
 ALL OFFSETS MEASURED FROM EDGE OF SHOULDER

GRADING DETAIL

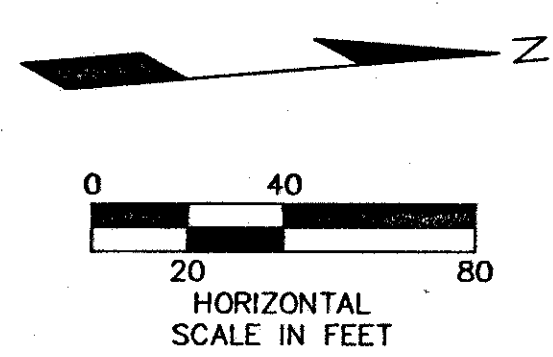
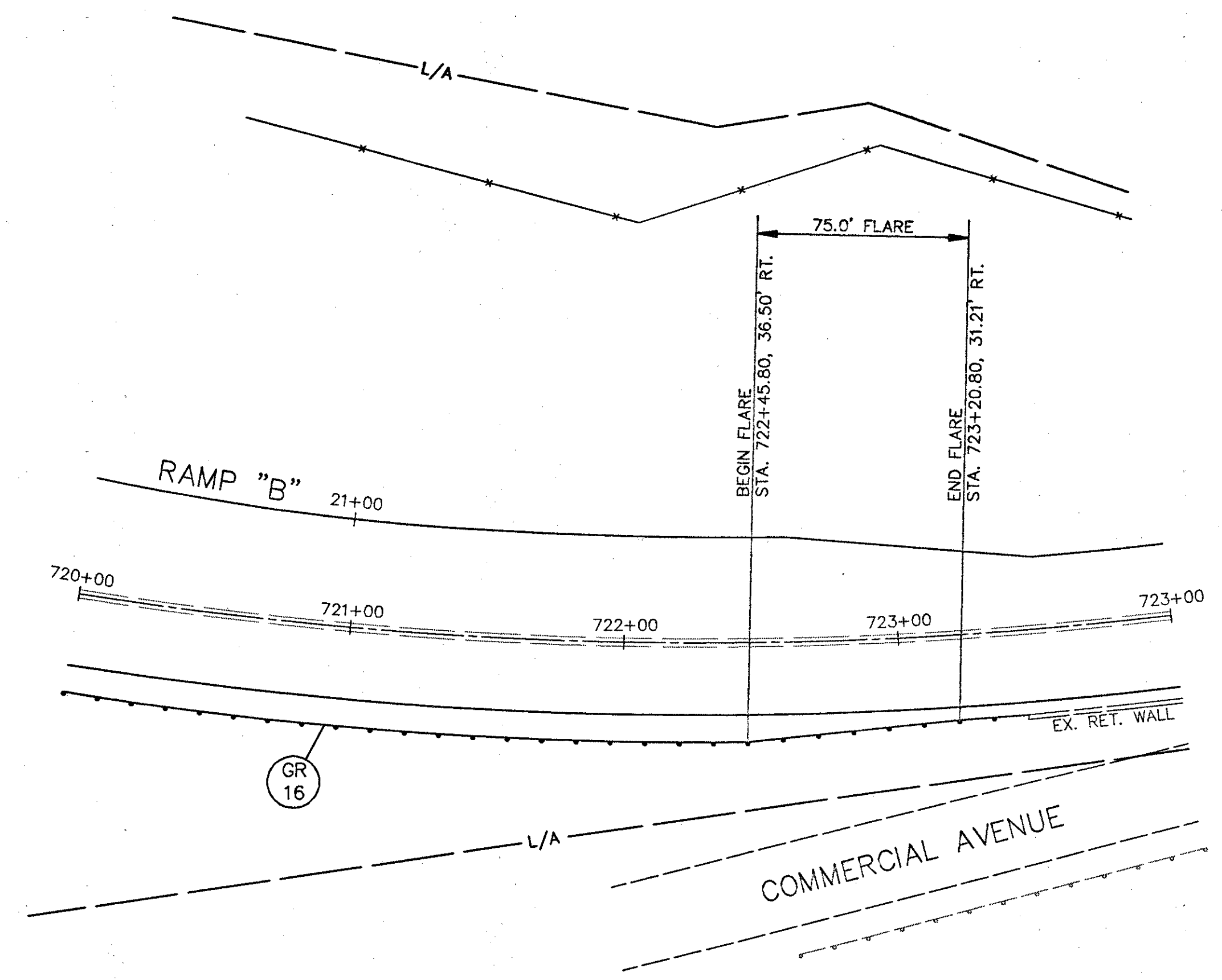
9245INT1.DWG 1=40 5-20-94

ROADWAY DETAILS

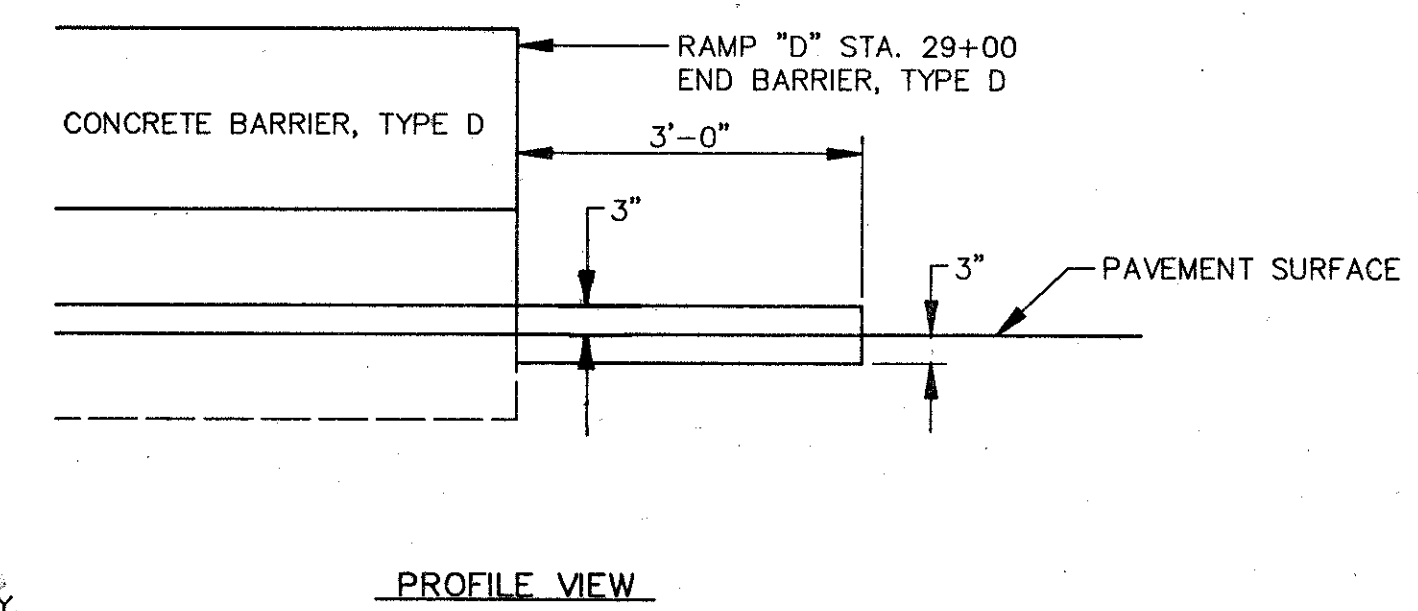
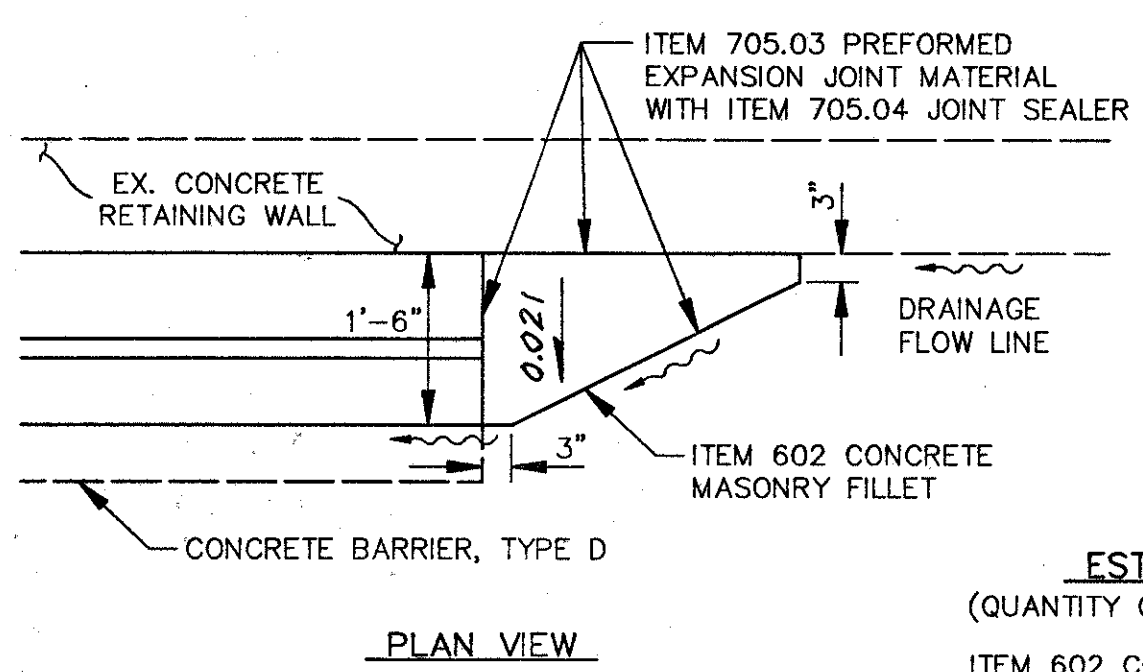
JEF - 7 - 13.11



GR-FLARE FOR BRIDGE #1348



GR-FLARE FOR BRIDGE #1390 (SIDEHILL)



ESTIMATED QUANTITY
 (QUANTITY CARRIED TO SHEET NO. 20)
 ITEM 602 CONCRETE MASONRY 0.1 C.Y.

RAMP "D" BARRIER END DETAIL
 NOT TO SCALE

9245N12.DWG 1=40 5-20-94

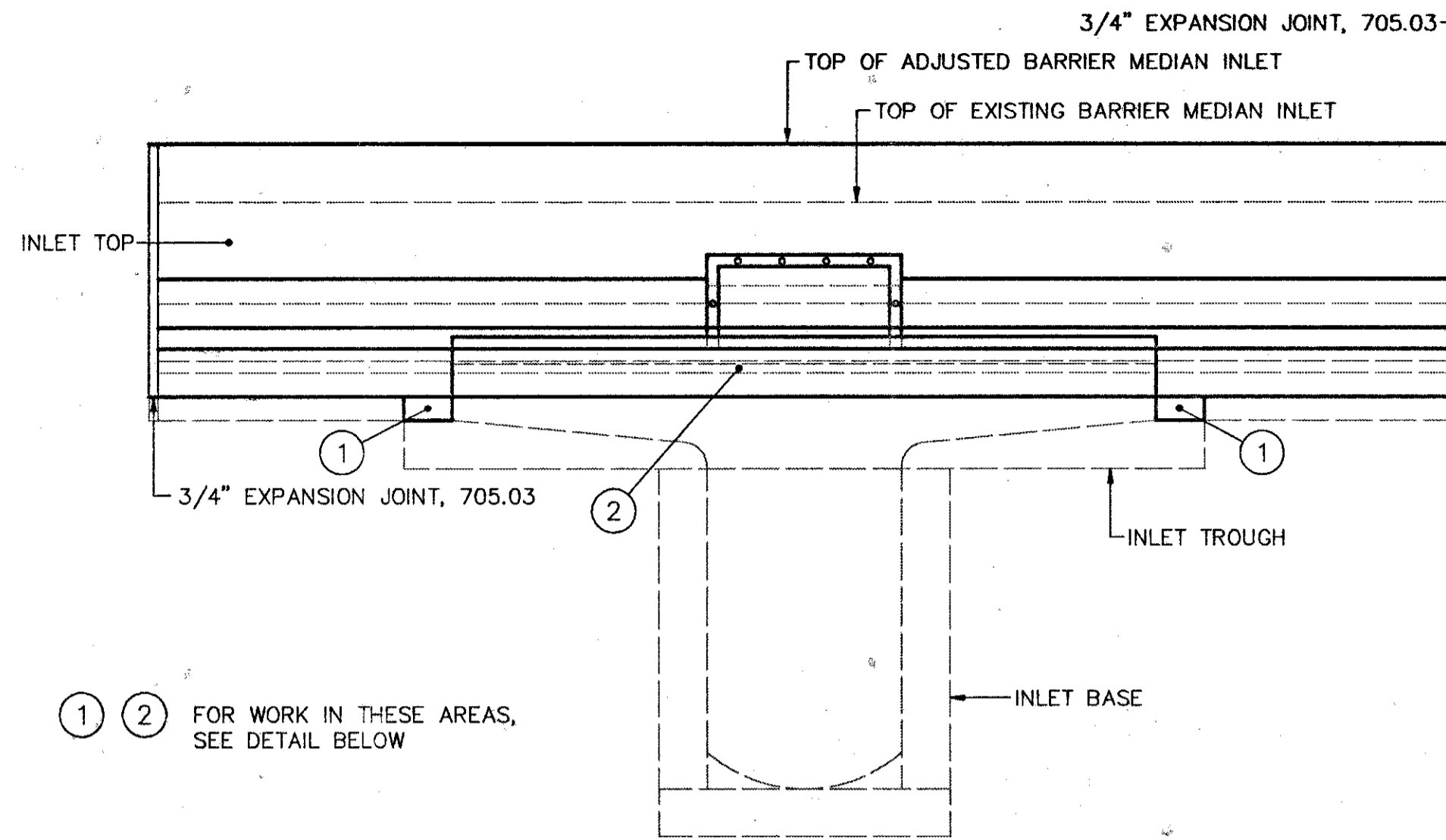
DRAINAGE DETAILS

JEF - 7 - 13.11

ESTIMATED QUANTITIES
(CARRIED TO SHEET NO. 17)

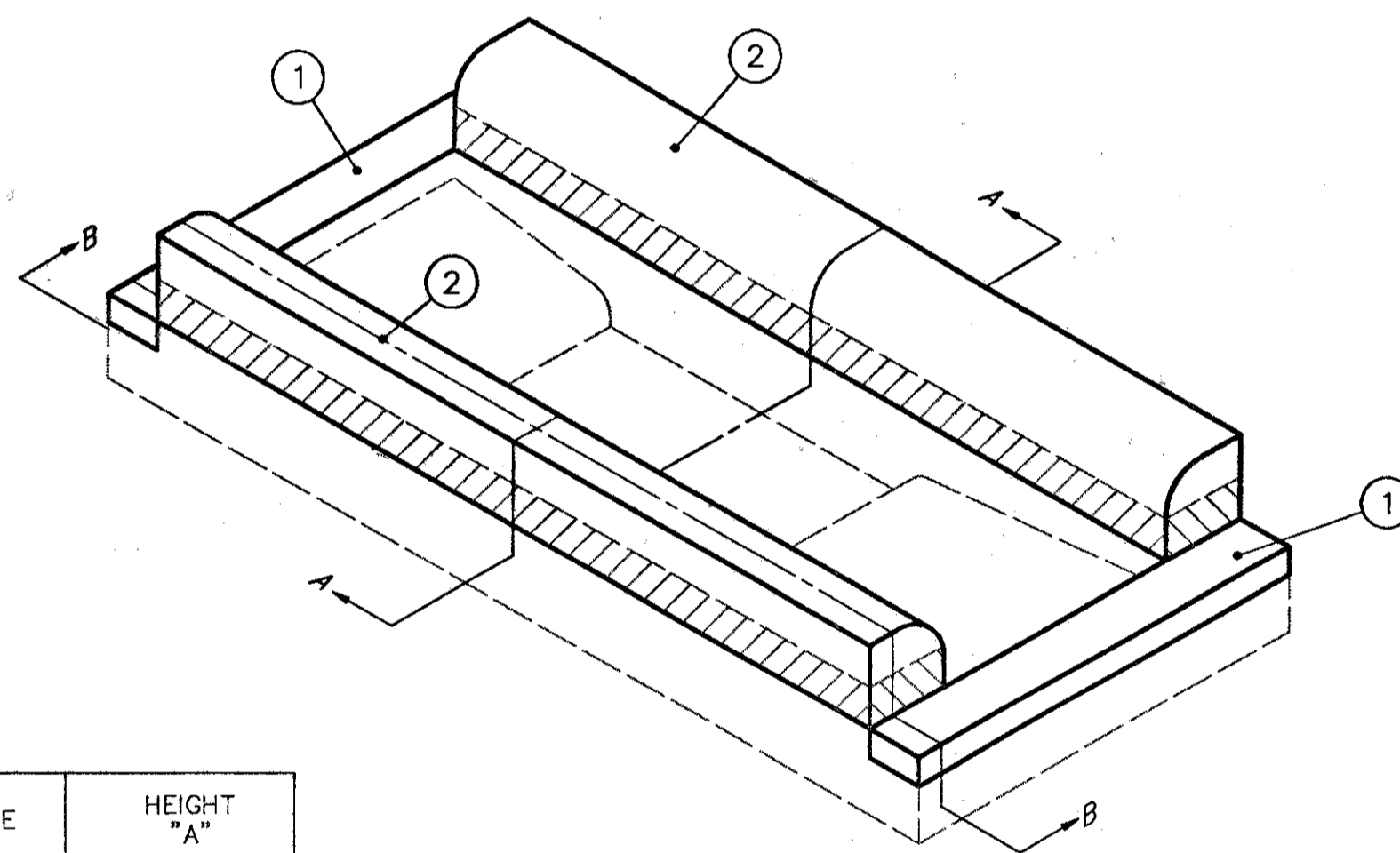
ITEM 446 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN, (SEE SHEET NO. 14)	= 0.05 C.Y.
ITEM 446 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, TYPE 2, AC-20	= 0.07 C.Y.
ITEM 301 BITUMINOUS AGGREGATE BASE, AC-20	= 0.47 C.Y.
ITEM 304 AGGREGATE BASE	= 0.24 C.Y.
ITEM 408 BITUMINOUS PRIME COAT	= 0.57 GAL.

FOR DRAINAGE QUANTITIES, SEE SHEET NO. 22.
FOR LEGEND, SEE SHEET NO. 4.



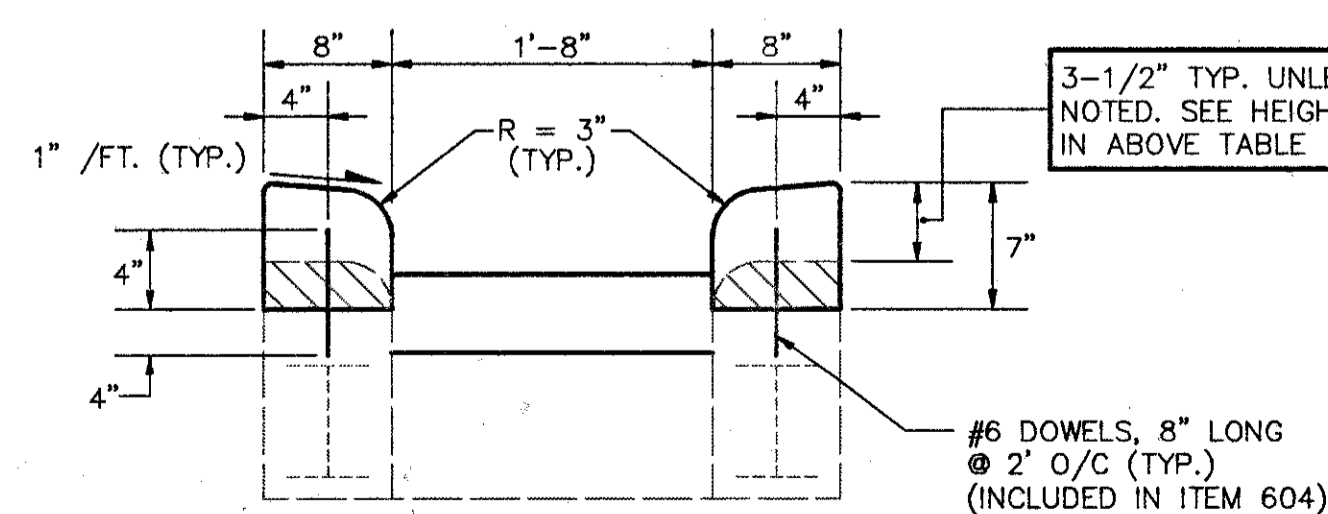
① ② FOR WORK IN THESE AREAS, SEE DETAIL BELOW

ELEVATION
NOT TO SCALE

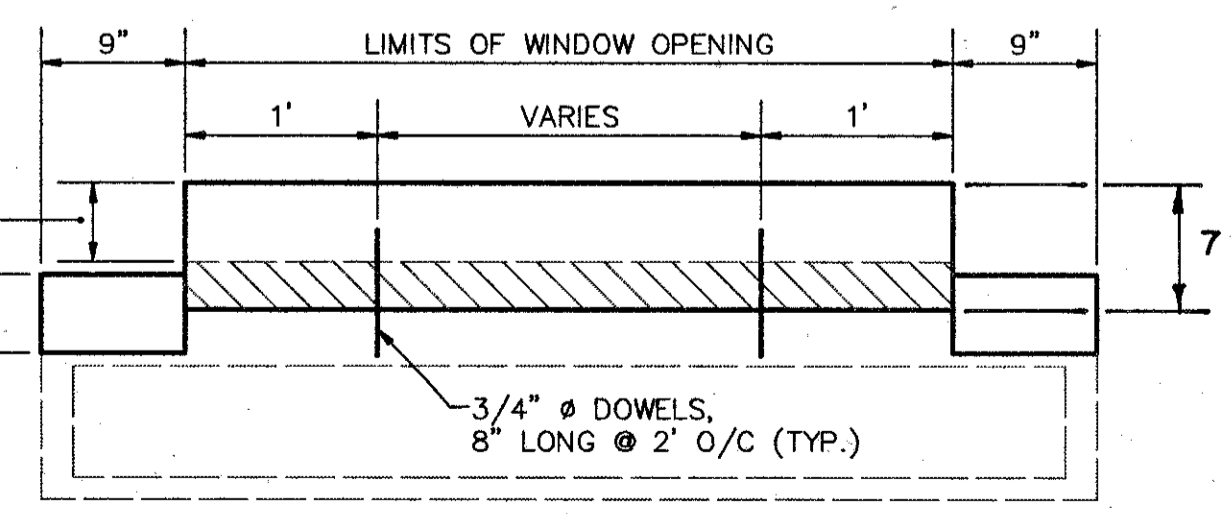


INLET REF. #	SIDE	HEIGHT "A"
D-3	RT.	- 3/4"
D-5	RT.	NO HT. ADJ.
D-9	RT.	- 3"
D-10	RT.	- 3"
D-11	RT.	+ 2"

(-) DENOTES TROUGH LOWERING
(+) DENOTES TROUGH RAISING



SECTION A-A
NOT TO SCALE



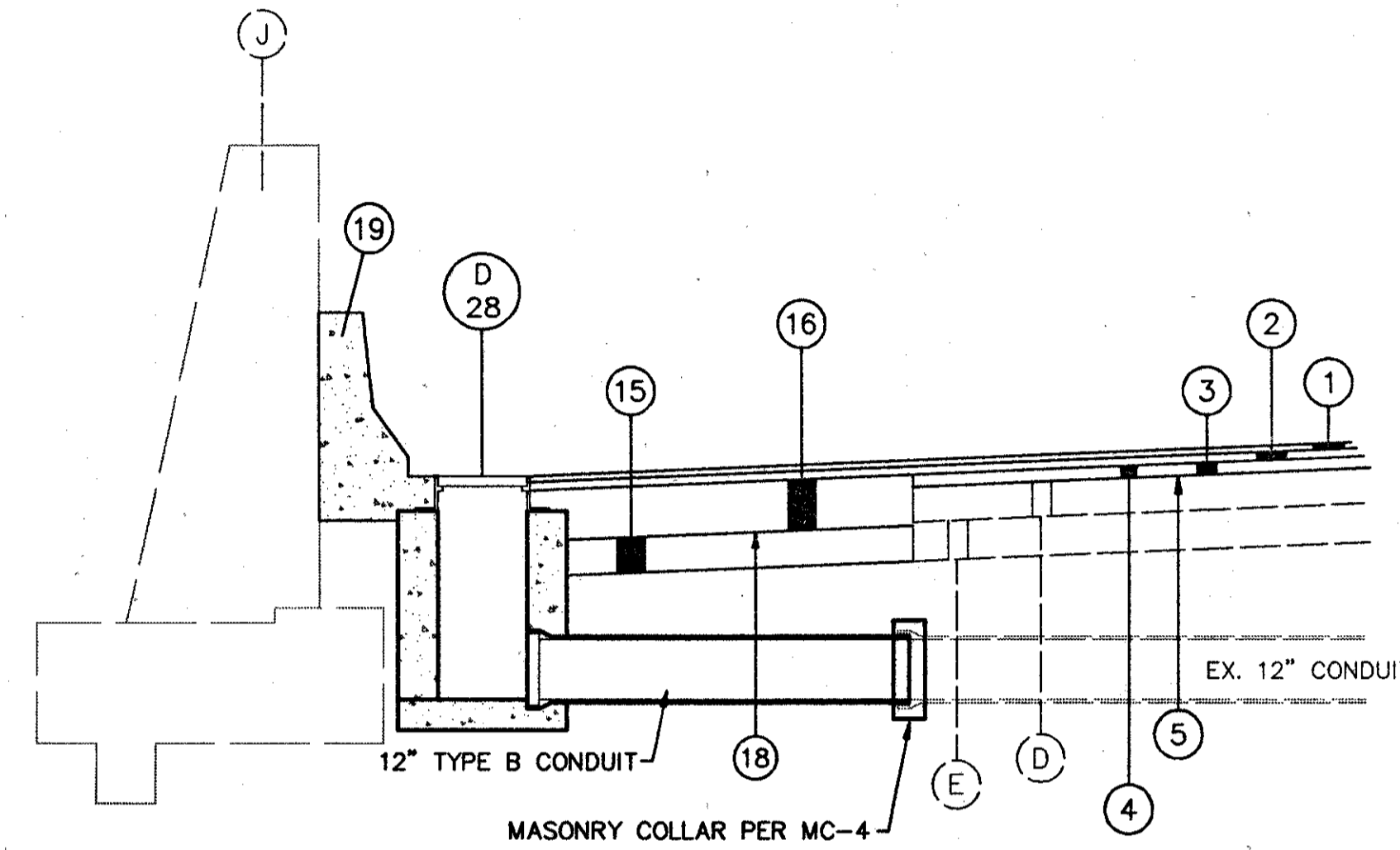
SECTION B-B
NOT TO SCALE

PORTIONS OF EXISTING INLET TROUGH TO BE REMOVED

CONCRETE: CAST IN PLACE CONCRETE SHALL BE CLASS 'C'

NOTE:

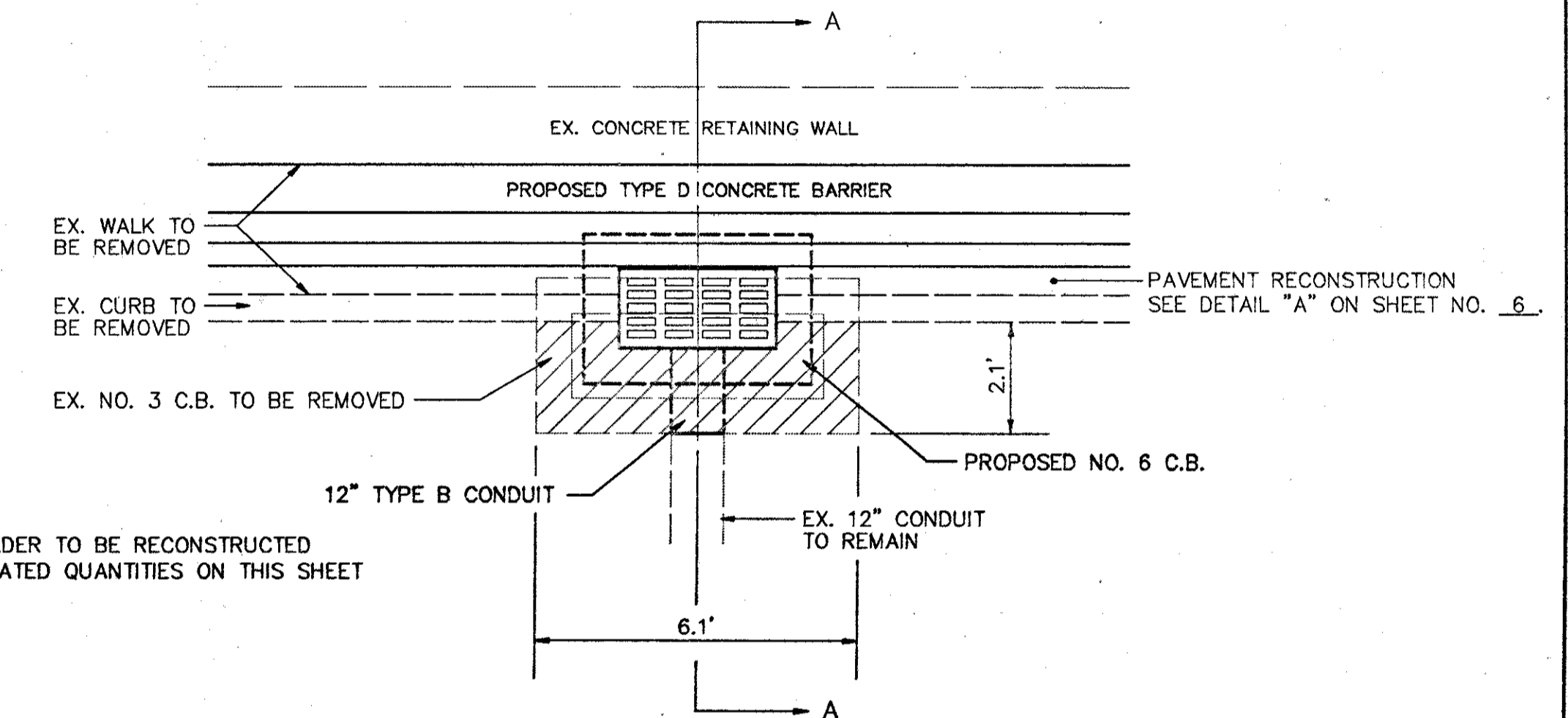
ALL WORK NECESSARY TO COMPLETE ITEM, INCLUDING DOWEL HOLES, EPOXY COATED REINFORCING STEEL AND ANCHORING SHALL BE INCLUDED IN COST OF ITEM 604.



D 28 STA. 27+20 - 21.5' LT.
NO. 6 CATCH BASIN
GRATE ELEV. = 752.61
FL 12" = 749.10

SECTION A - A
RAMP "D" STA. 27+20
NOT TO SCALE

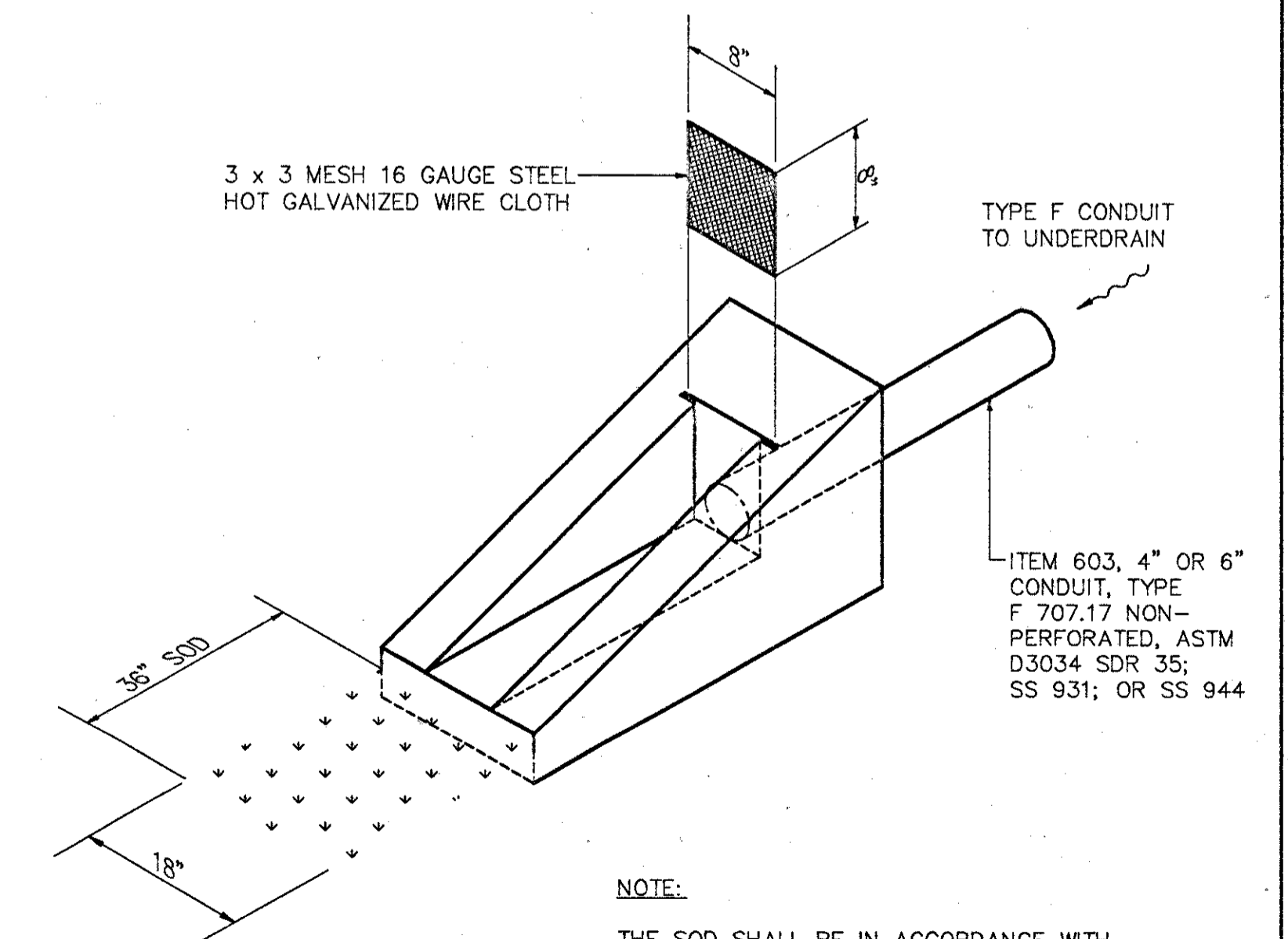
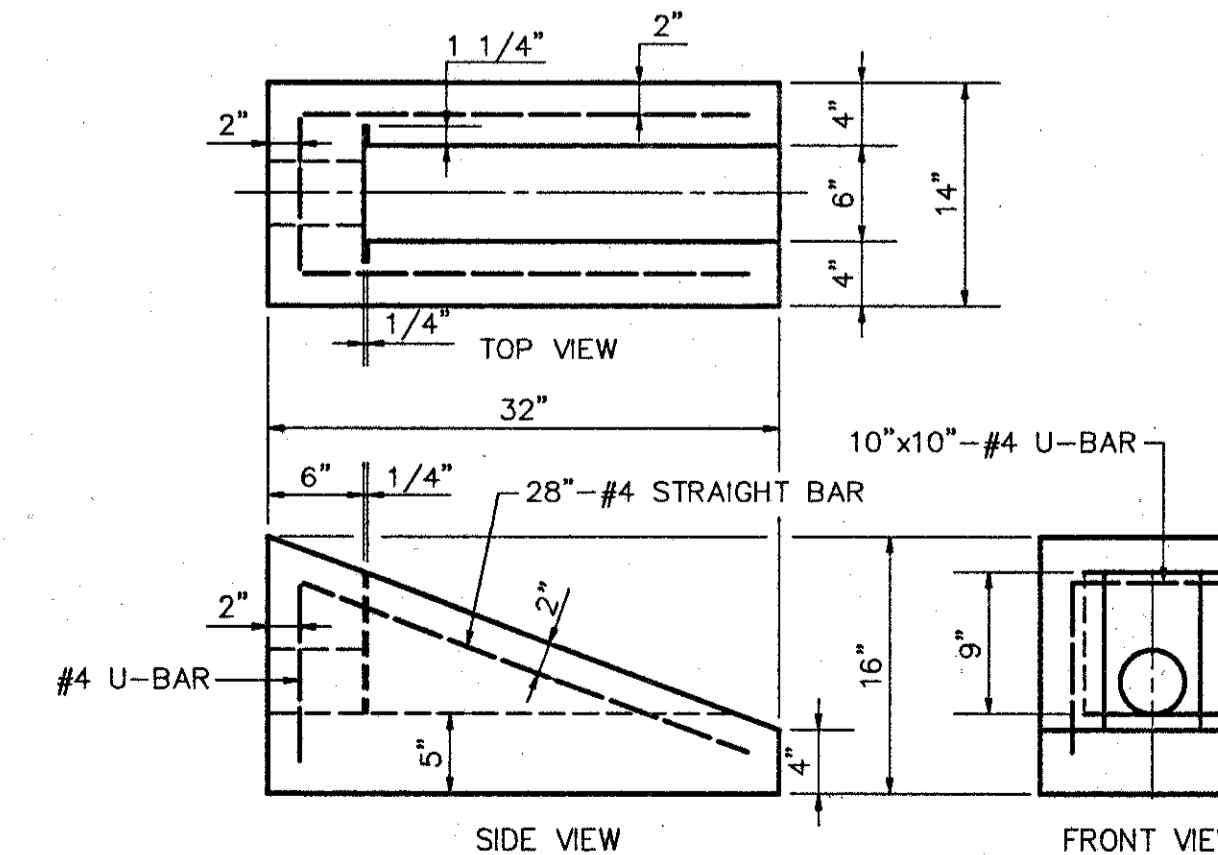
EX. SHOULDER TO BE RECONSTRUCTED
SEE ESTIMATED QUANTITIES ON THIS SHEET



RAMP "D" EXISTING CATCH BASIN REPLACEMENT

NOTE:

THE CONCRETE OUTLET SHALL MEET THE REQUIREMENTS OF ITEM 604 IN THE CONSTRUCTION & MATERIALS SPECIFICATIONS. PAYMENT SHALL BE MADE ON AN EACH BASIS. PAYMENT SHALL INCLUDE THE COST OF THE SOD & WIRE CLOTH.



NOTE:

THE SOD SHALL BE IN ACCORDANCE WITH ITEM 660 AND STAKED AT EACH CORNER APPROXIMATELY 3" IN FROM THE EDGE.

ITEM SPECIAL - PRECAST REINFORCED CONCRETE OUTLET

BARRIER MEDIAN INLET ADJUSTED TO GRADE, AS PER PLAN

DRAINAGE DETAILS

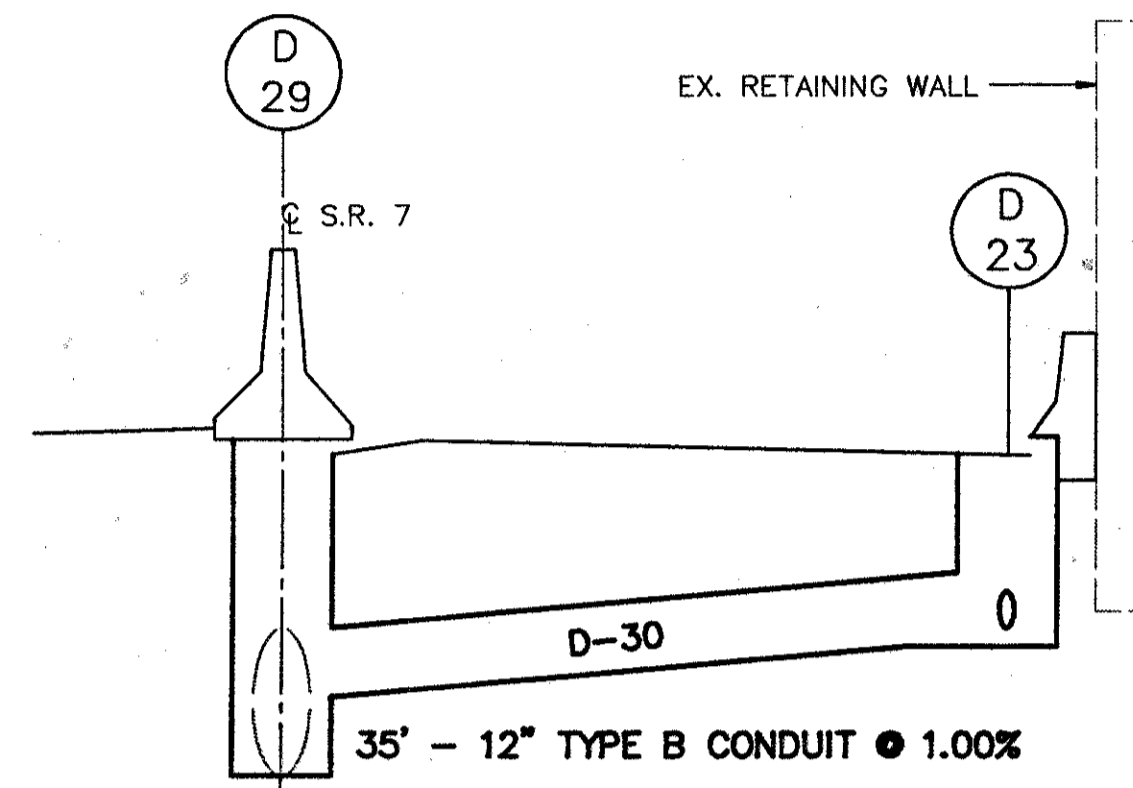
CALC. BY MRG
 DATE 6-94
 CHKD. BY JH
 DATE 7-94

OHIO
 FHWA REGION 5
 34
 83

JEF - 7 - 13.11

D-29
 STA. 693+32 - C
 NO. 3C INLET
 WINDOW ELEV. = 748.60
 EX. 24" = 742.85
 EX. 12" = 743.60

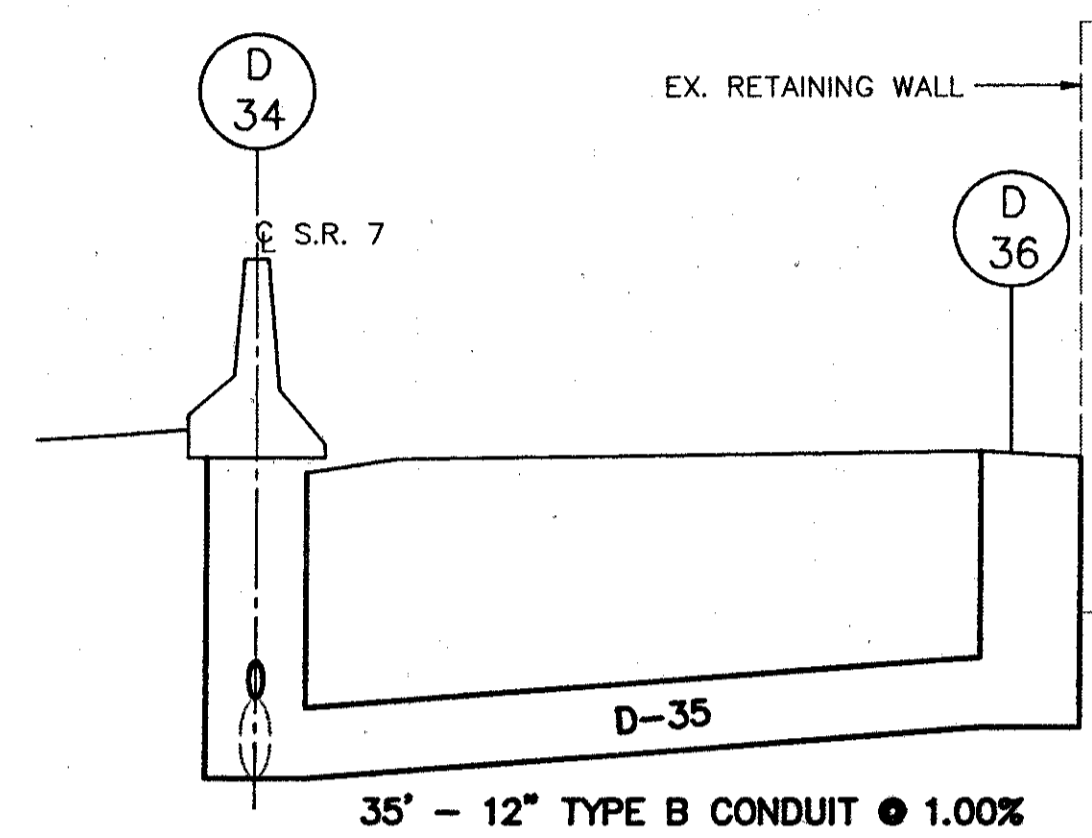
D-23
 STA. 693+32 - 34.5' RT.
 NO. 3B INLET, AS PER PLAN
 GRATE ELEV. = 747.91
 EX. 12" = 743.95
 EX. 6" = 744.17



PIPE DETAIL "A"
 NOT TO SCALE

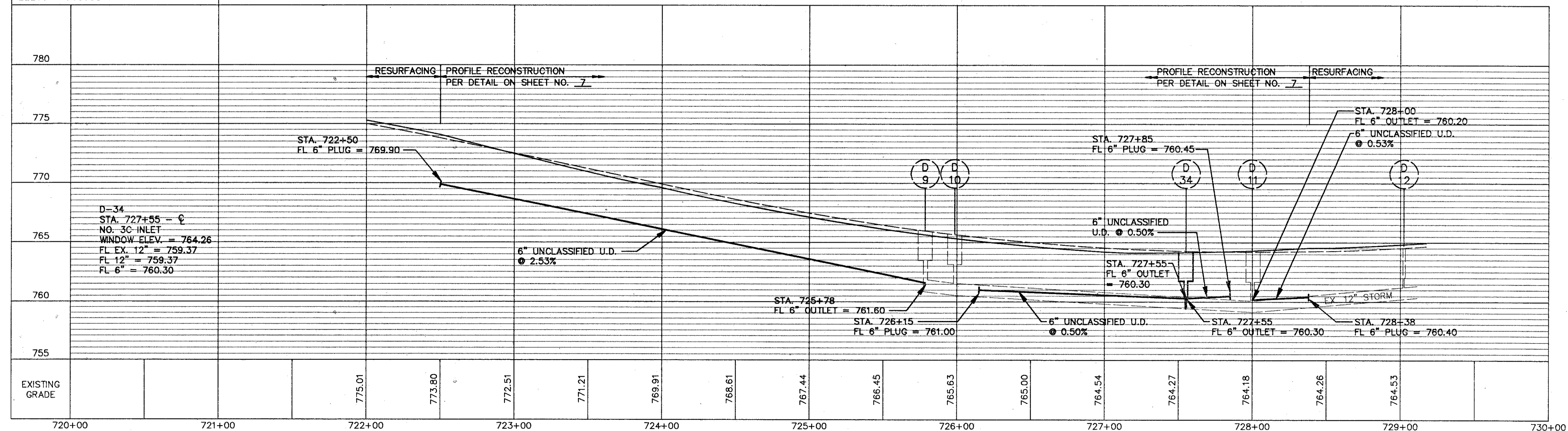
D-34
 STA. 727+55 - C
 NO. 3C INLET
 WINDOW ELEV. = 764.27
 EX. 12" = 759.37
 EX. 6" = 759.30

D-36
 STA. 727+55 - 34.86' RT.
 NO. 6 CATCH BASIN
 GRATE ELEV. = 764.70
 EX. 12" = 759.72
 EX. 6" = 760.30



PIPE DETAIL "B"
 NOT TO SCALE

BENCHMARK:
 "X" CUT IN N.W. ANCHOR BOLT OF
 NORTH END OF TUBE RAILING ON WALL
 NEAR NOSE OF RAMP "D"
 STA. 730+55 - 37.5' ± RT.
 ELEV. = 768.33

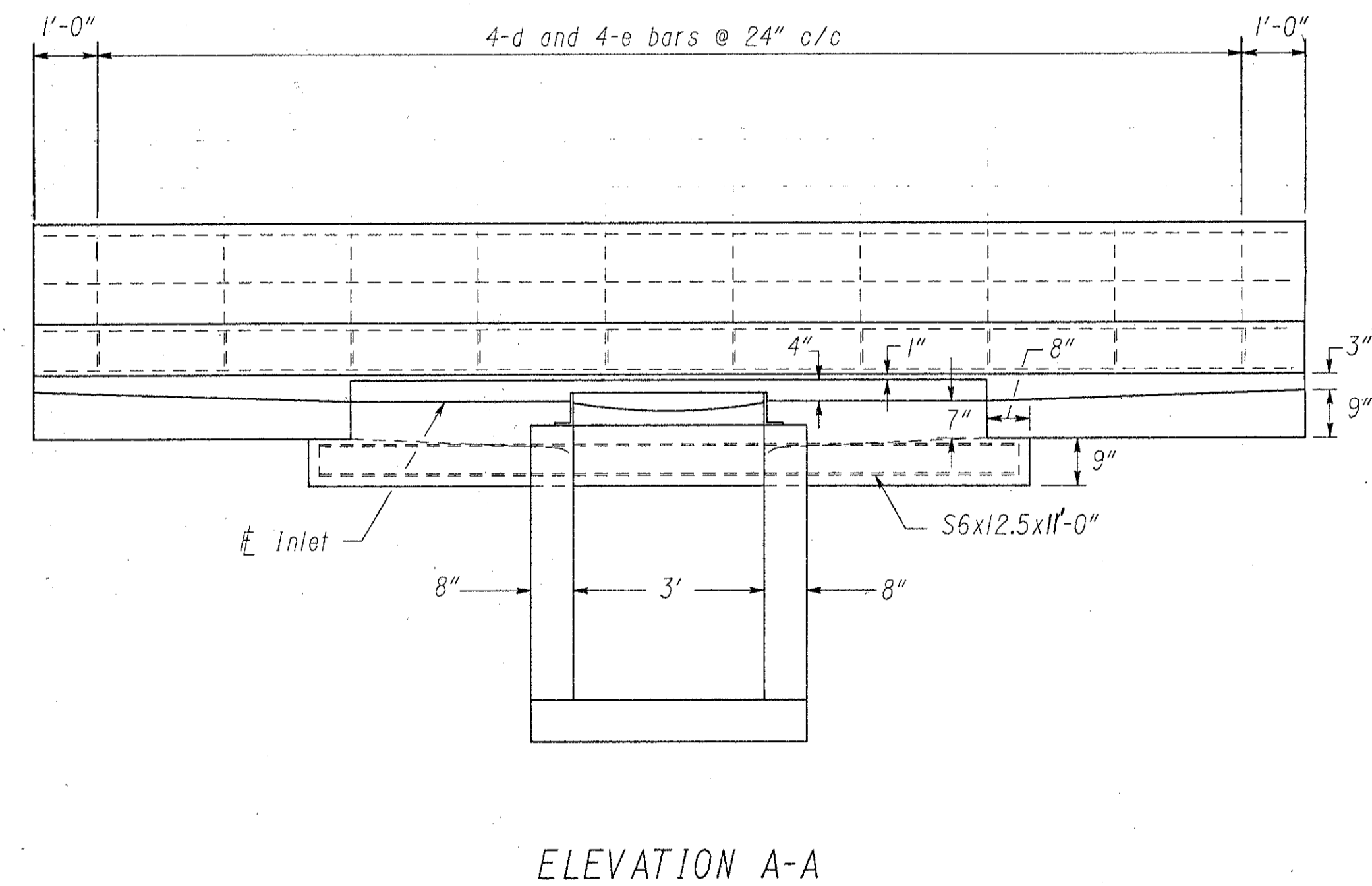
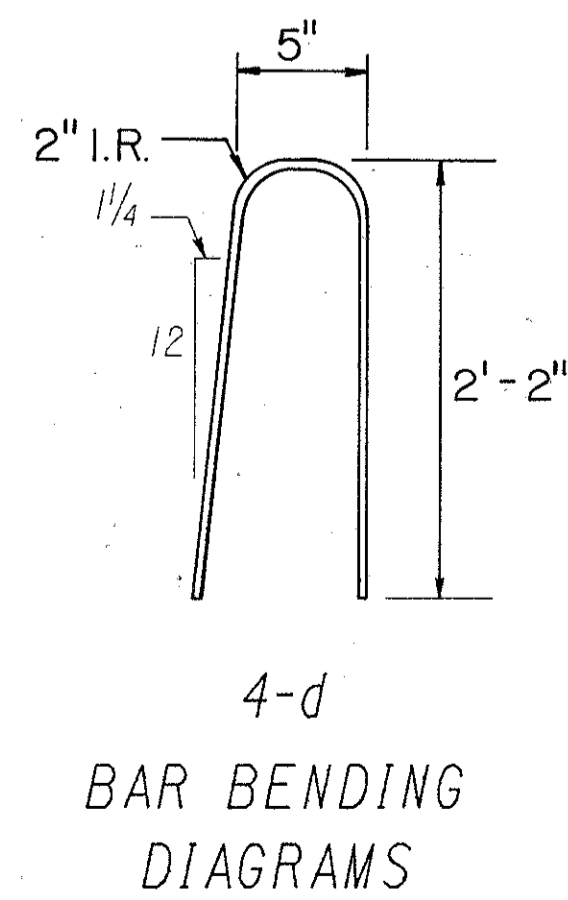
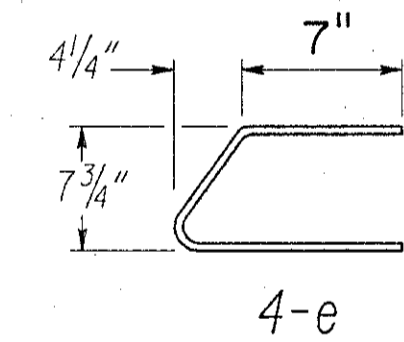
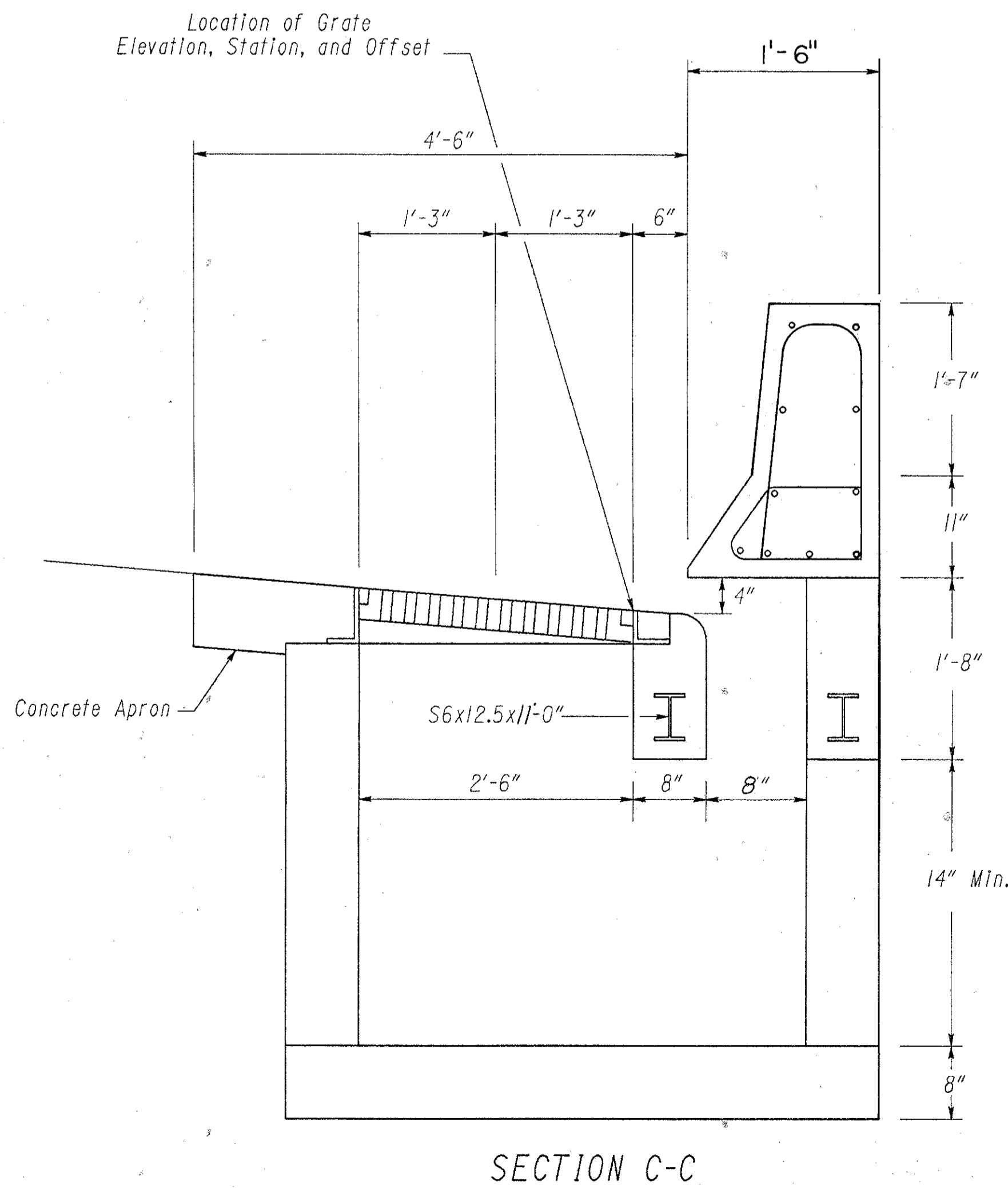
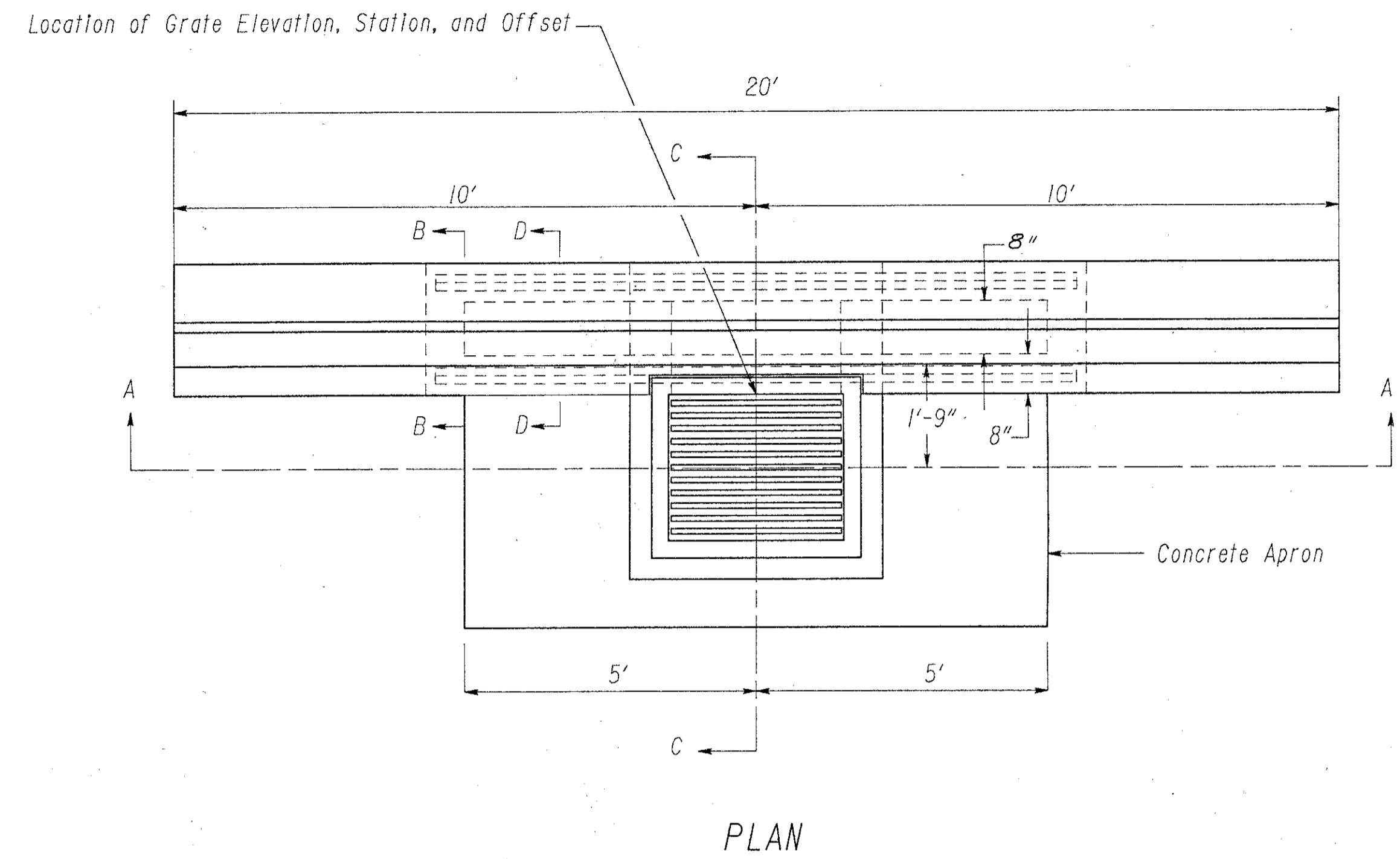
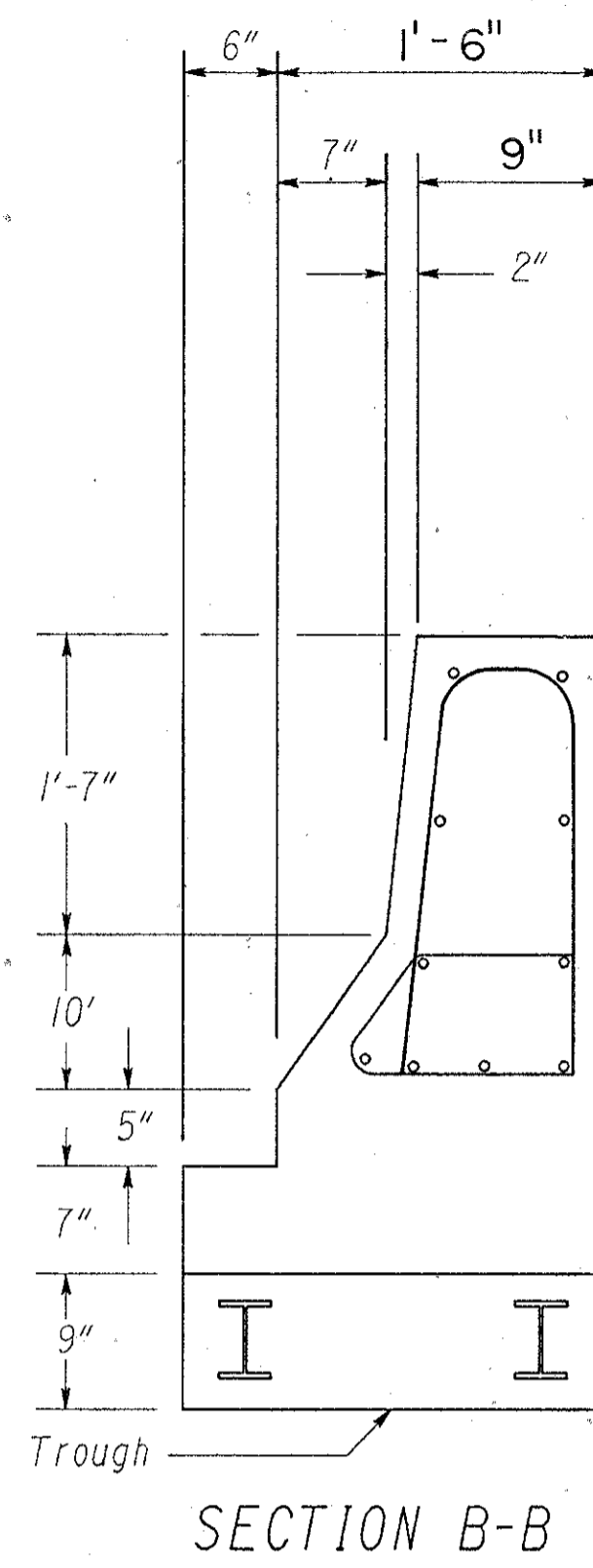
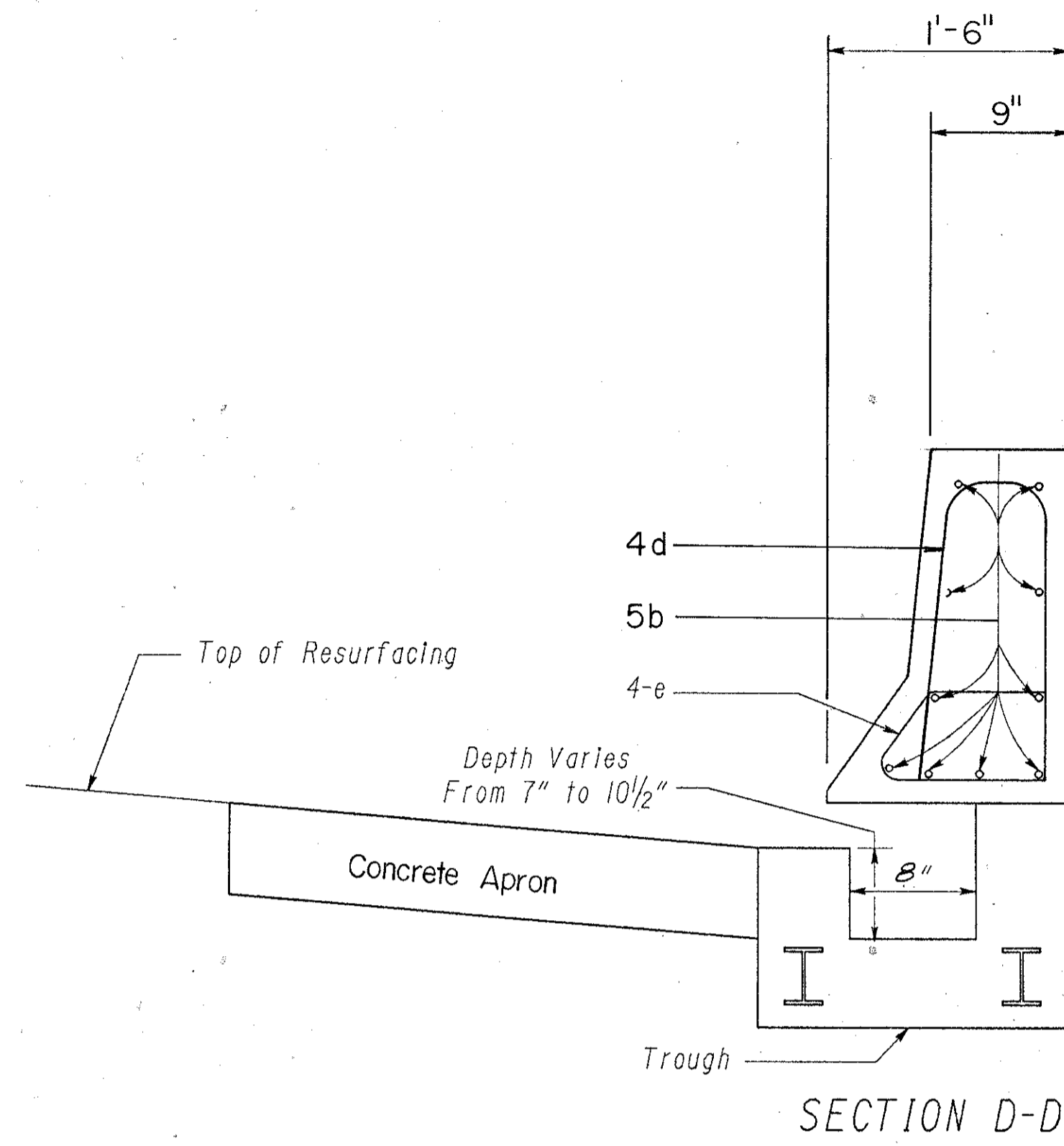


SIDEHILL UNDERDRAIN DETAIL

1" = 40' HORIZ.
 1" = 5' VERT.

INLET, NO. 3B, AS PER PLAN

FHWA REGION	STATE	PROJECT	
5	OHIO	JEF-7-13.11	

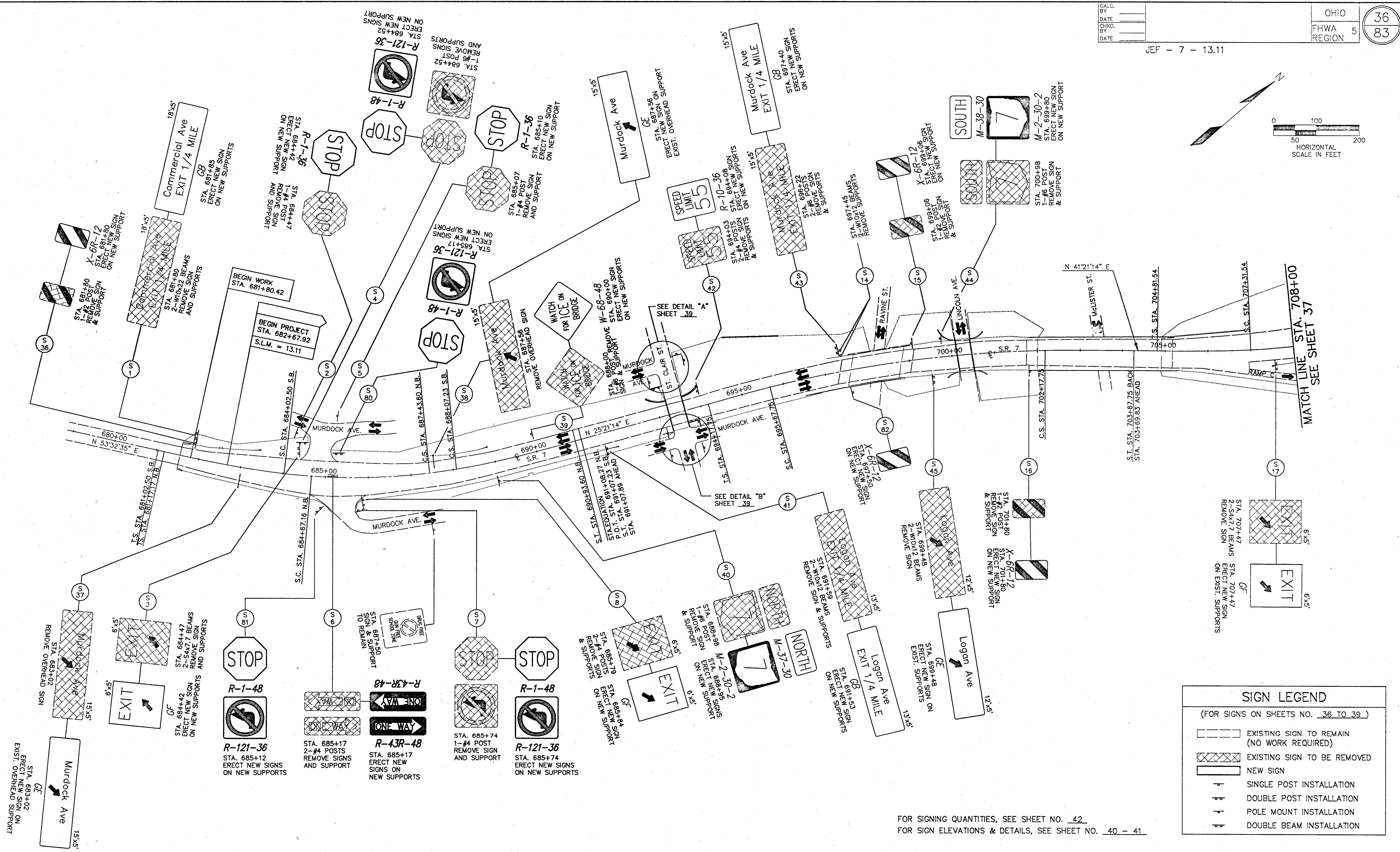
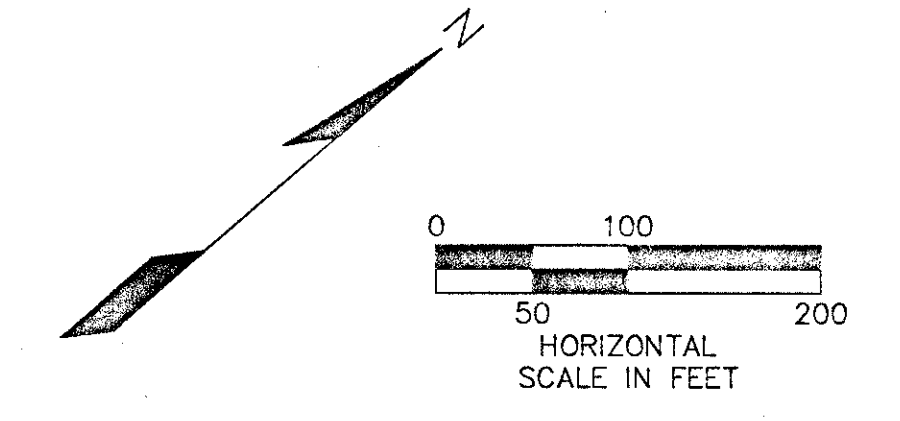


STEEL LIST				
MARK	LENGTH	SHAPE	QTY.	WEIGHT (LBS)
4-d	4'-6"	Bent	10	30
4-e	2'-2"	Bent	10	15
5-b	19'-8"	Str.	10	205
S6x12.5	11'-0"	Str.	2	275
TOTAL (For Info. Only)				525

For Details Not Shown, See Std. Dwg. I-3A and B.
For Quantities See Sheet No. 22.

Not to Scale

JEF - 7 - 13.11

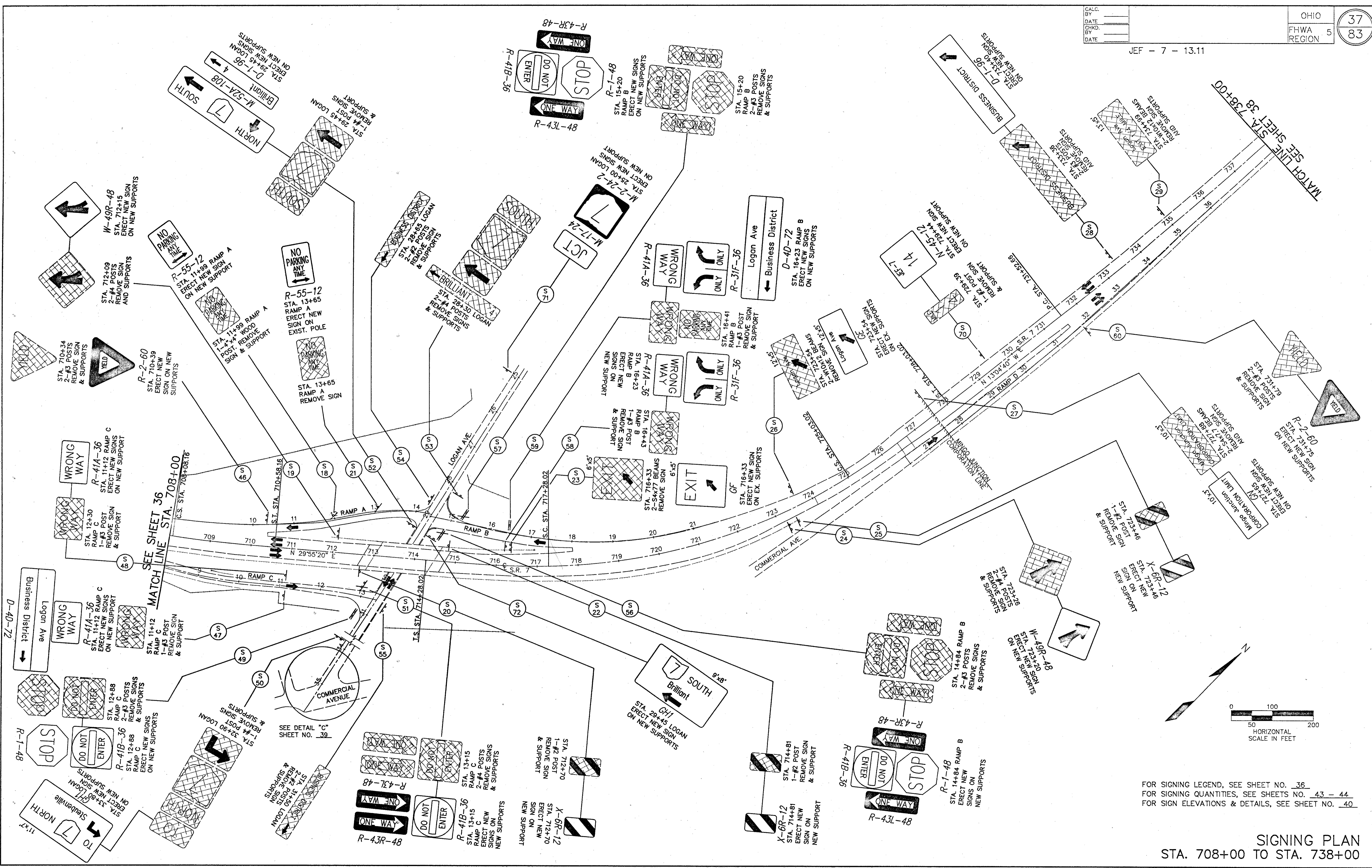


SIGN LEGEND	
(FOR SIGNS ON SHEETS NO. 36 TO 39)	
	EXISTING SIGN TO REMAIN (NO WORK REQUIRED)
	EXISTING SIGN TO BE REMOVED
	NEW SIGN
	SINGLE POST INSTALLATION
	DOUBLE POST INSTALLATION
	POLE MOUNT INSTALLATION
	DOUBLE BEAM INSTALLATION

FOR SIGNING QUANTITIES, SEE SHEET NO. 42
 FOR SIGN ELEVATIONS & DETAILS, SEE SHEET NO. 40 - 41

9245SP1.DWG, 1=100, 5-31-94

JEF - 7 - 13.11

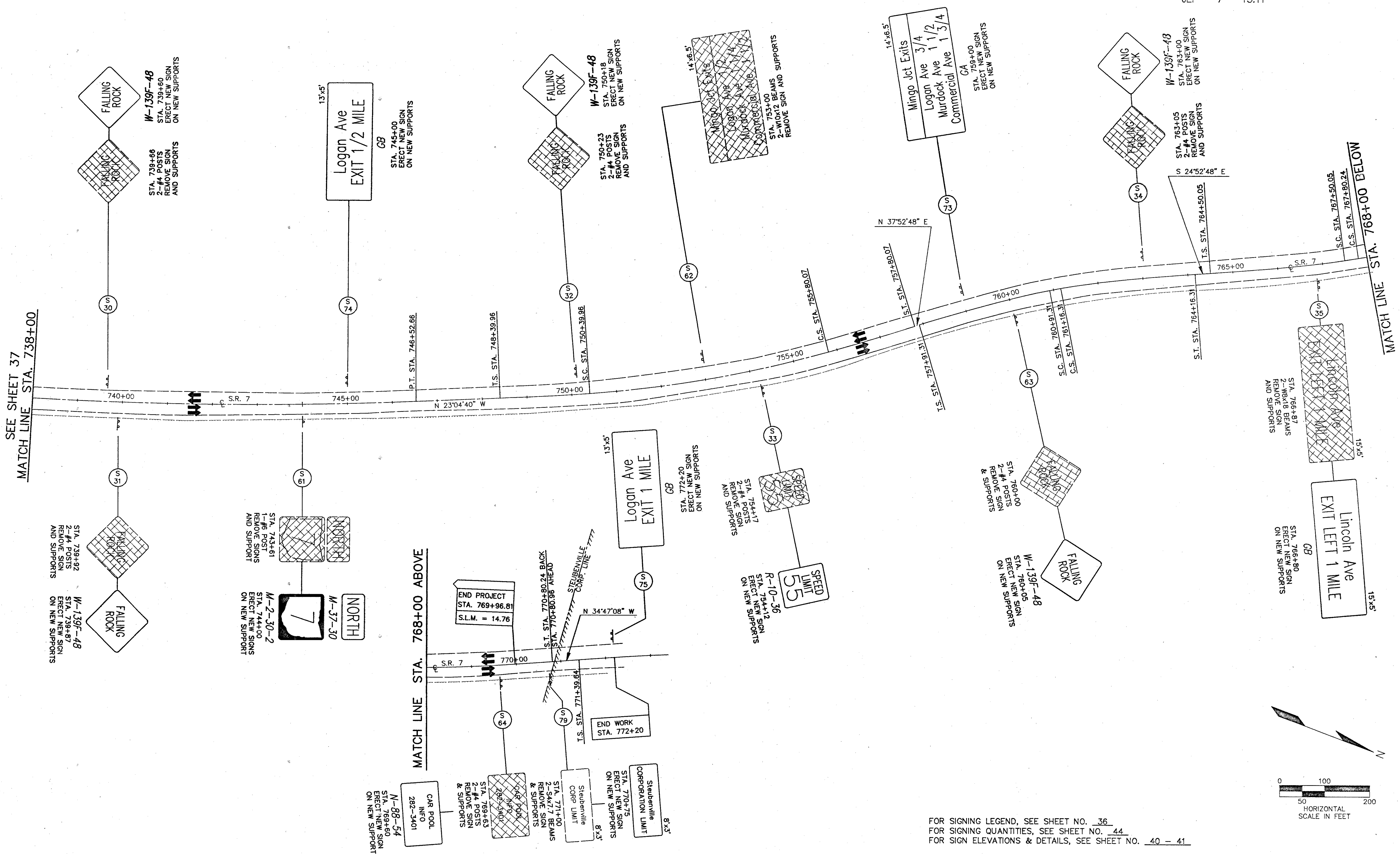


FOR SIGNING LEGEND, SEE SHEET NO. 36
 FOR SIGNING QUANTITIES, SEE SHEETS NO. 43 - 44
 FOR SIGN ELEVATIONS & DETAILS, SEE SHEET NO. 40

SIGNING PLAN
 STA. 708+00 TO STA. 738+00

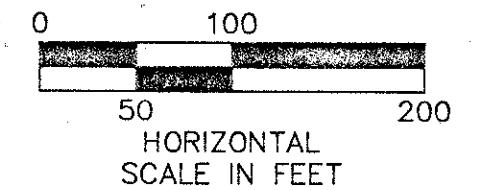
9245SP2.DWG 1=100 5-31-84

JEF - 7 - 13.11



SEE SHEET 37
MATCH LINE STA. 738+00

MATCH LINE STA. 768+00 BELOW



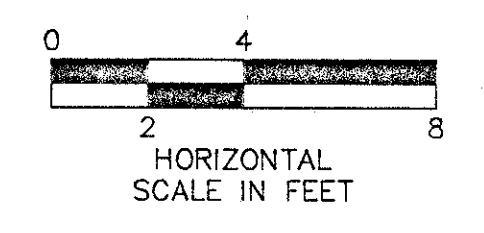
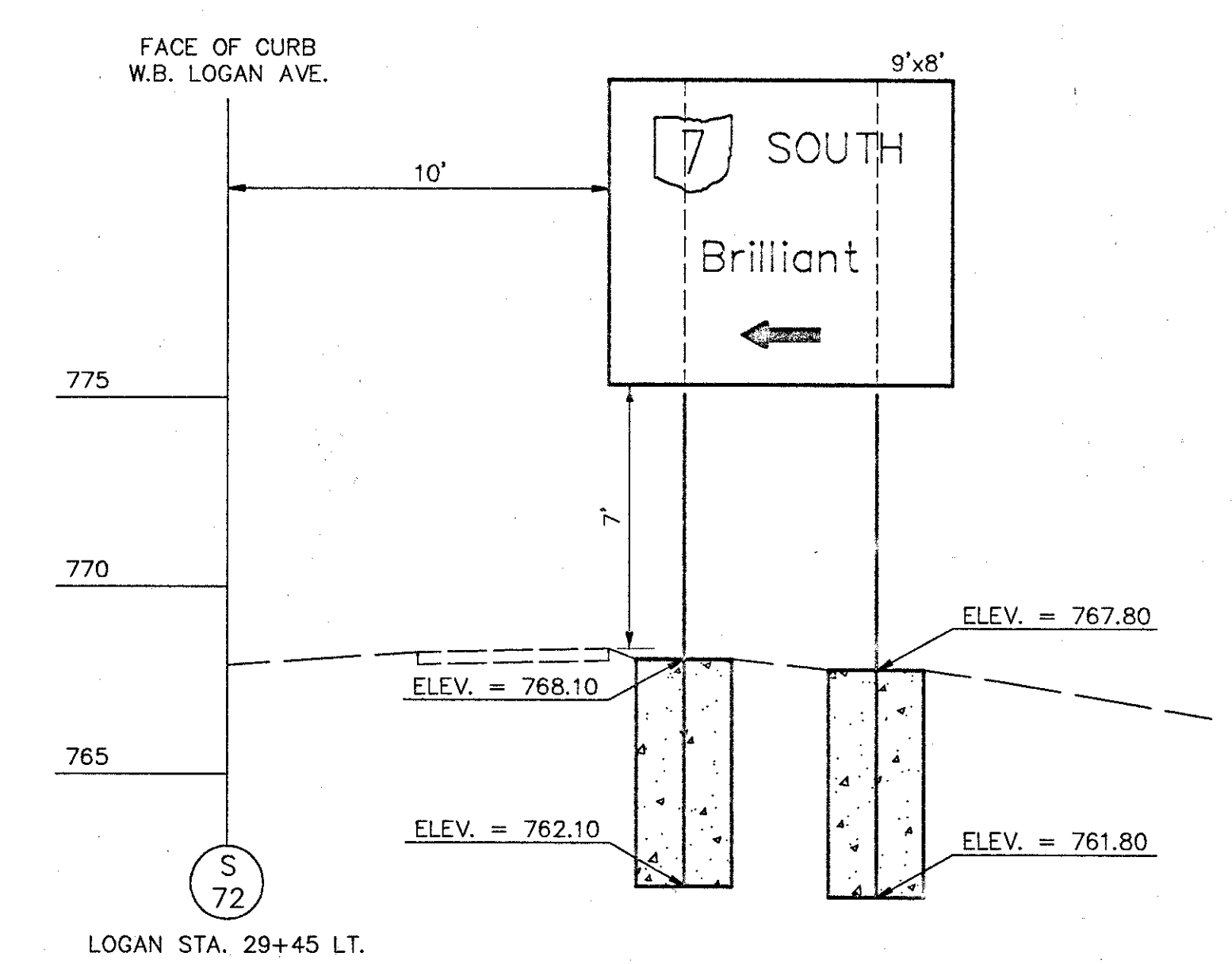
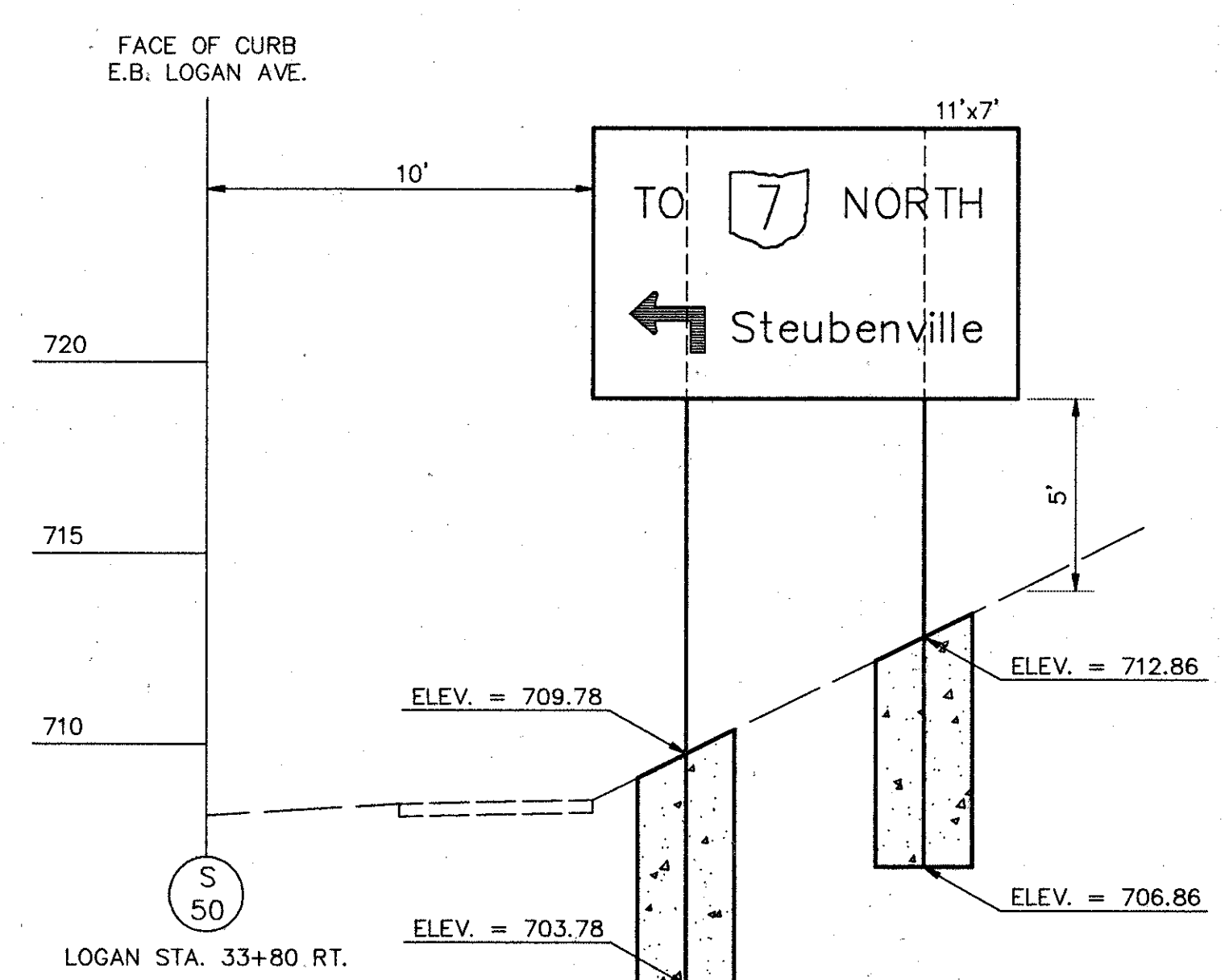
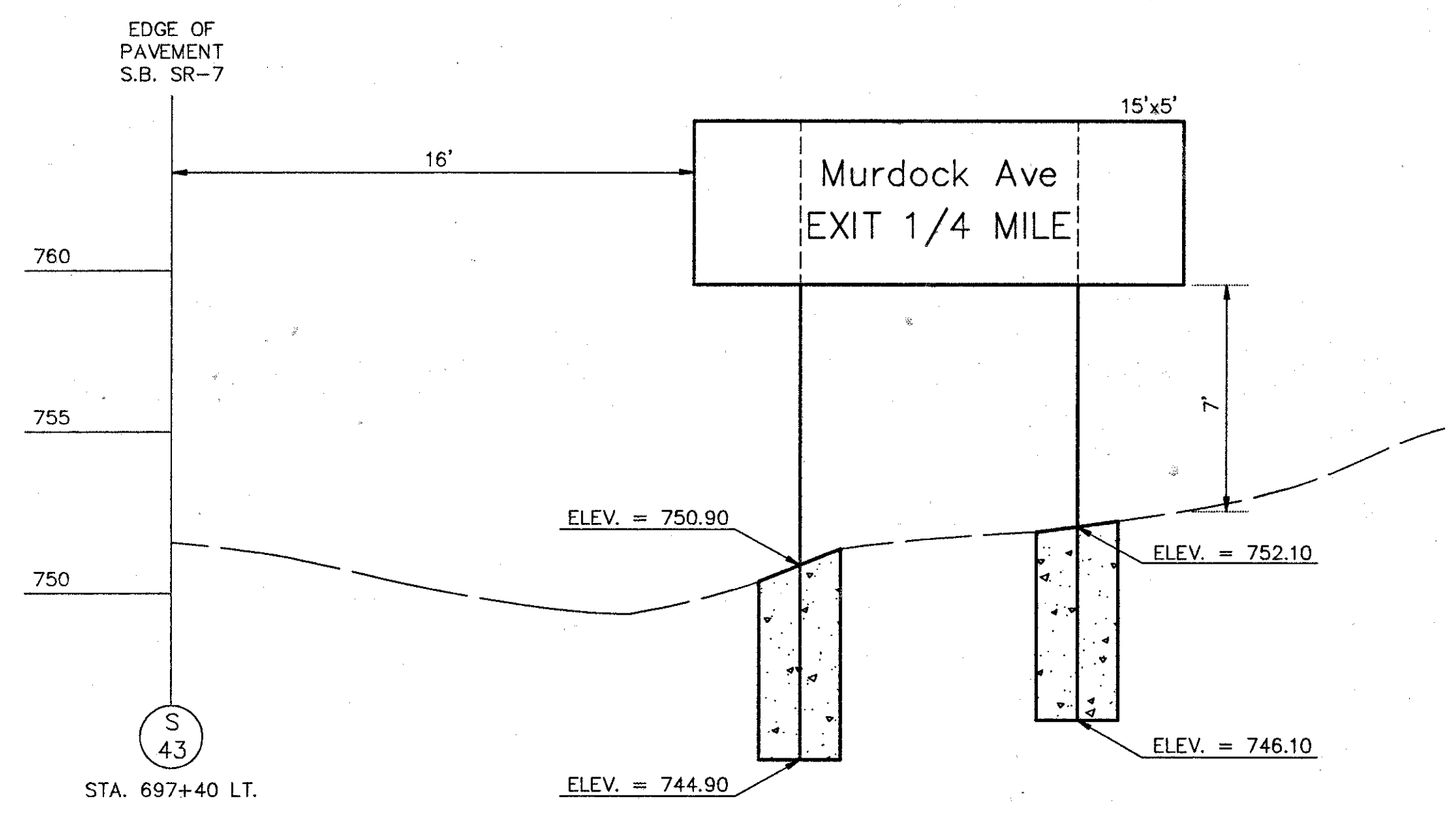
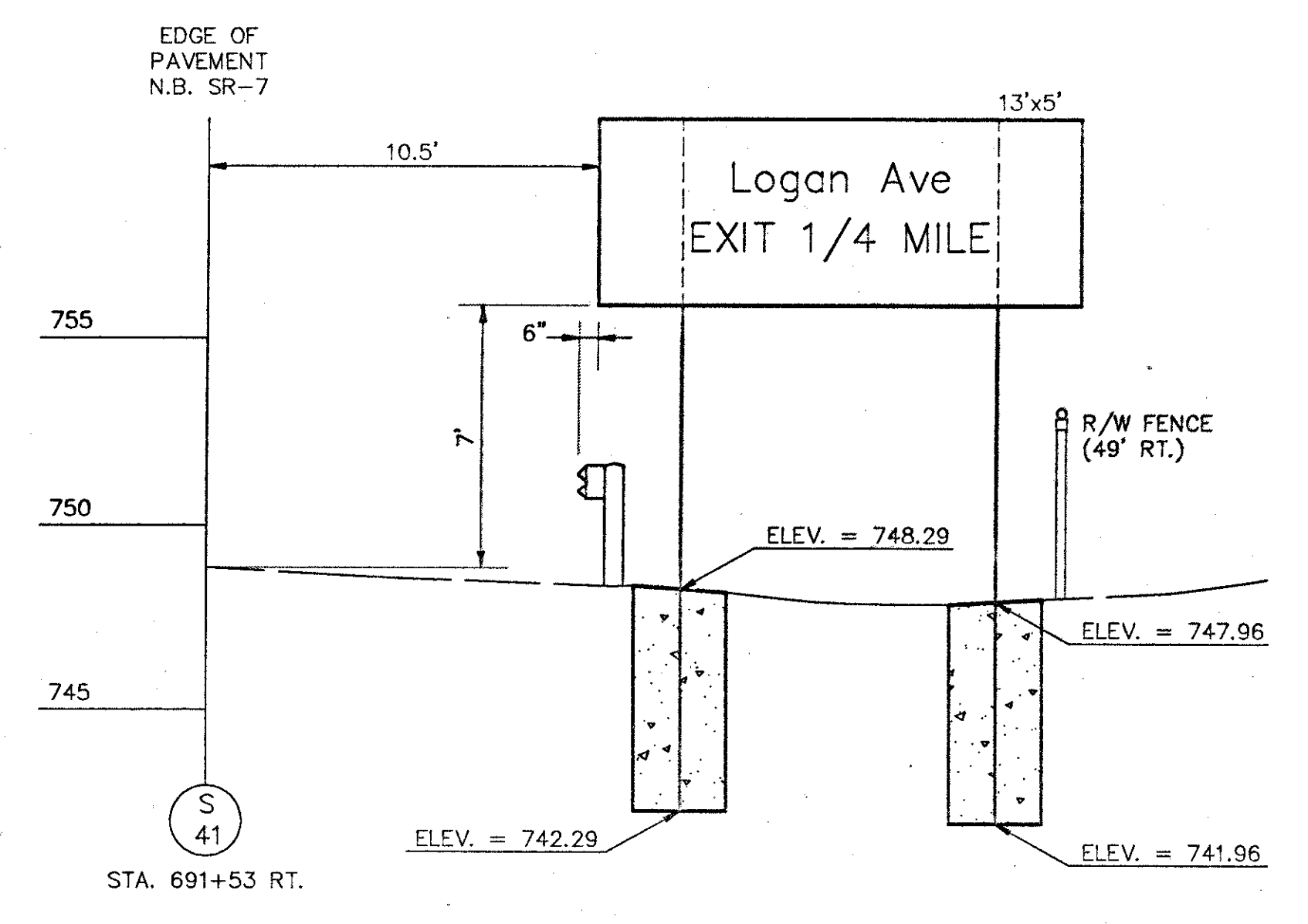
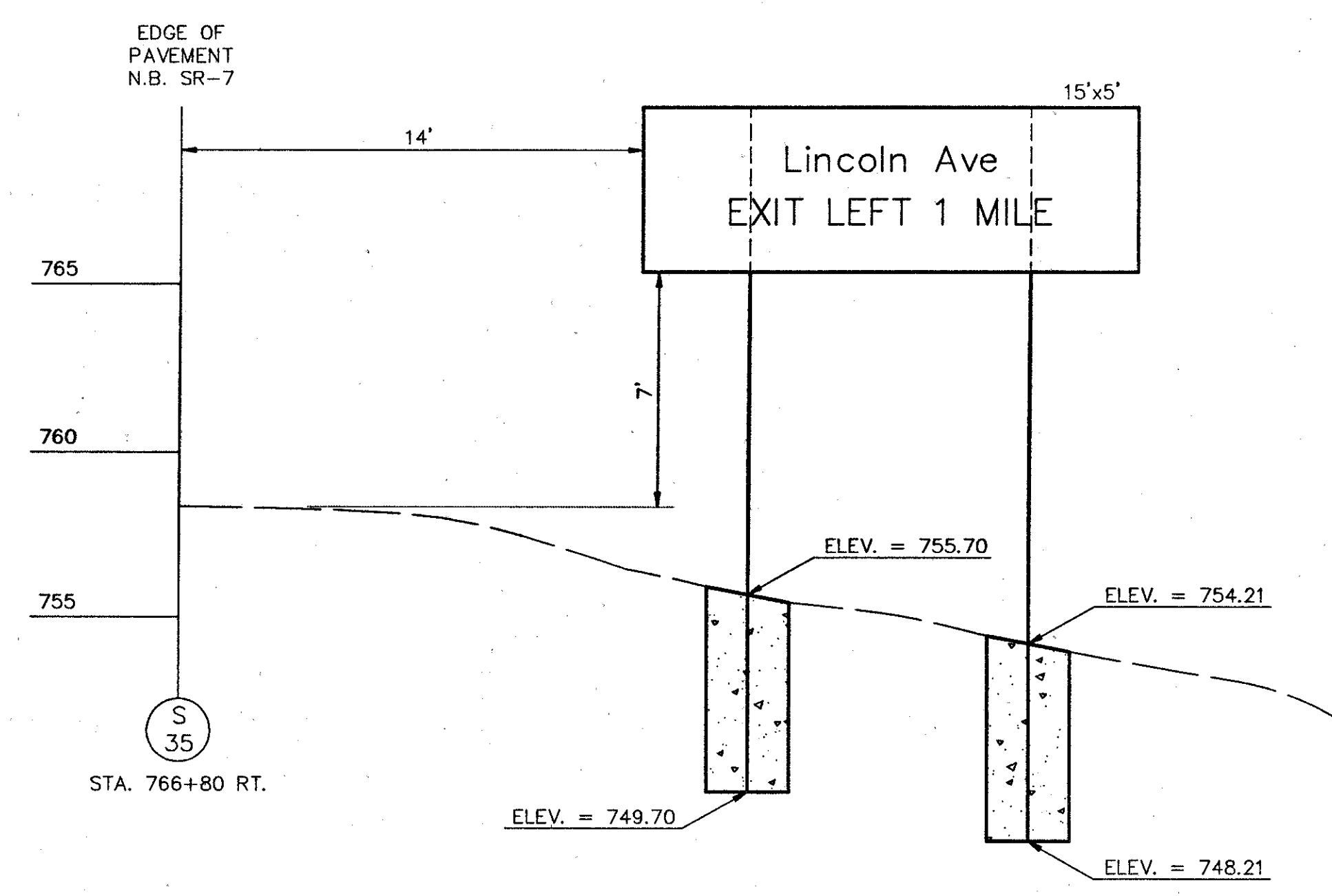
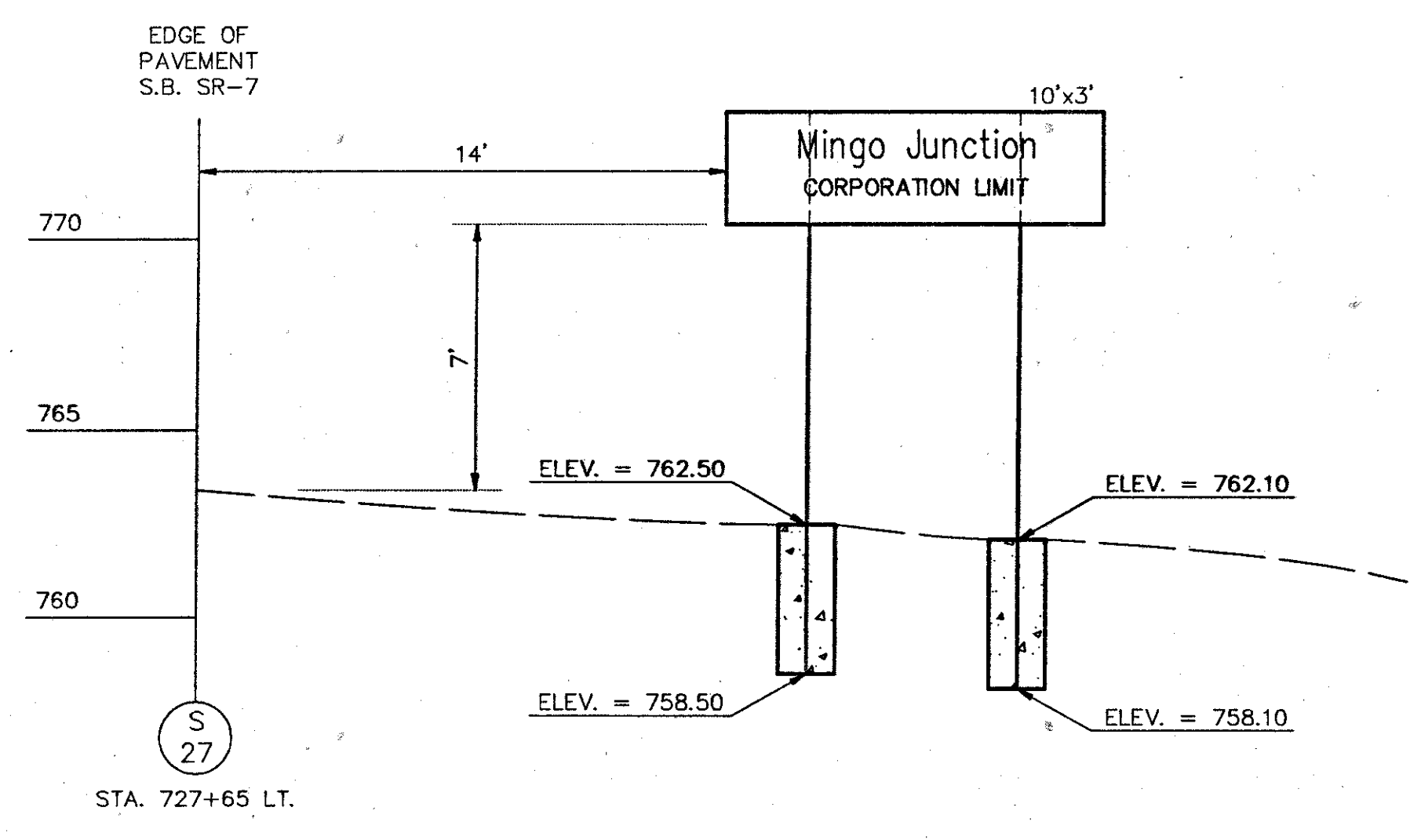
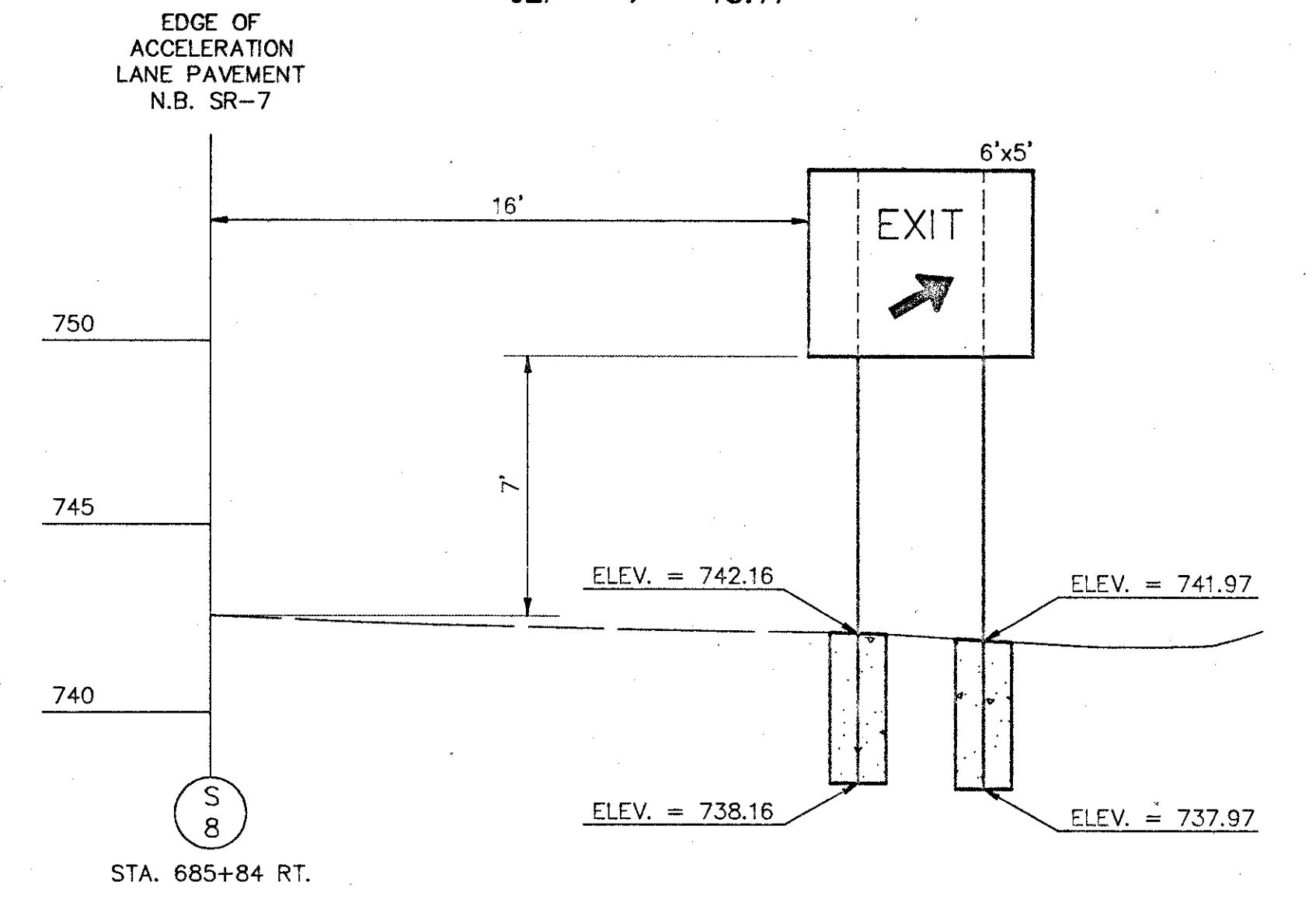
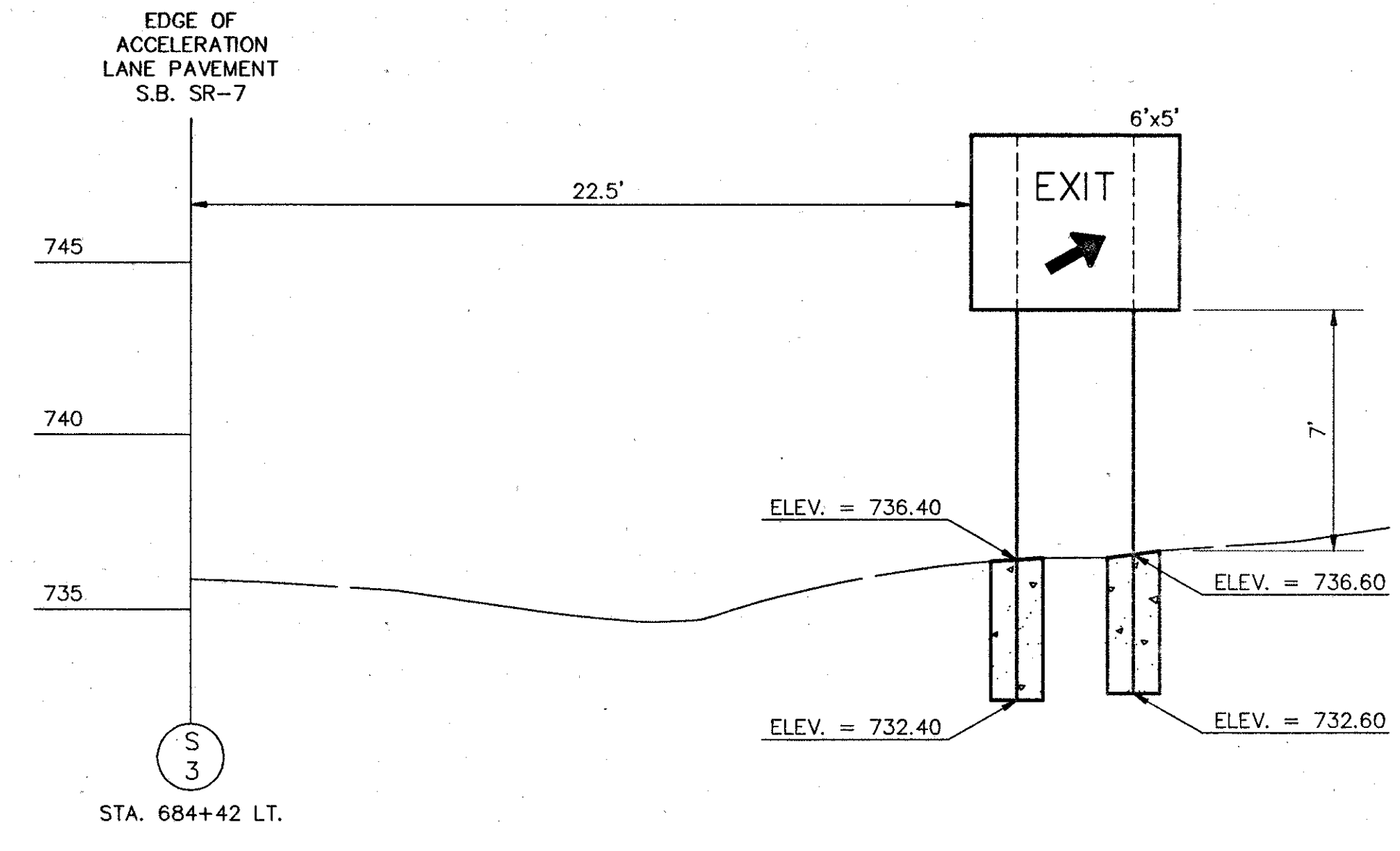
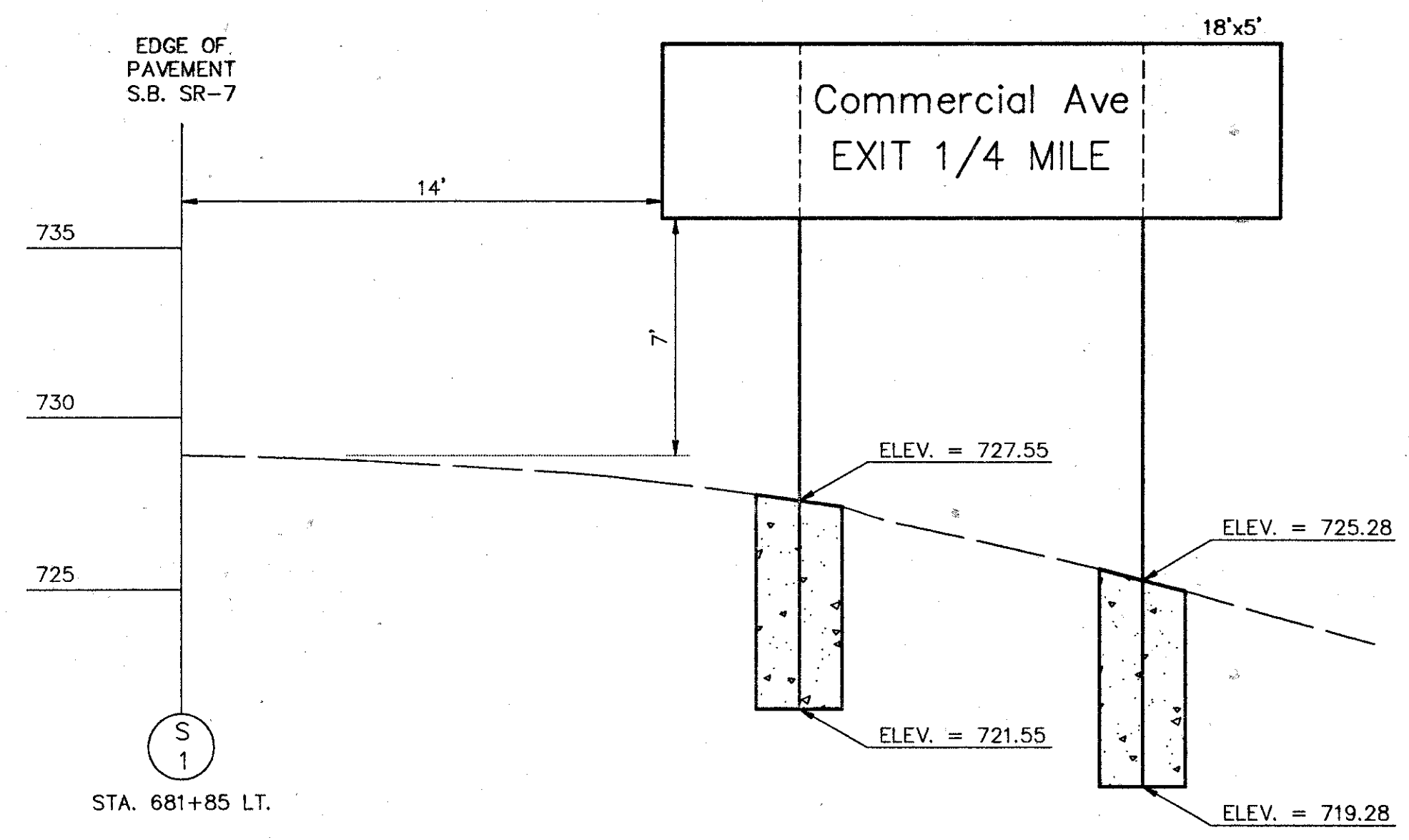
FOR SIGNING LEGEND, SEE SHEET NO. 36
FOR SIGNING QUANTITIES, SEE SHEET NO. 44
FOR SIGN ELEVATIONS & DETAILS, SEE SHEET NO. 40 - 41

SIGNING PLAN
STA. 738+00 TO END PROJECT

9245583.DWG 1:00 5-20-05-20-84

SIGN ELEVATIONS

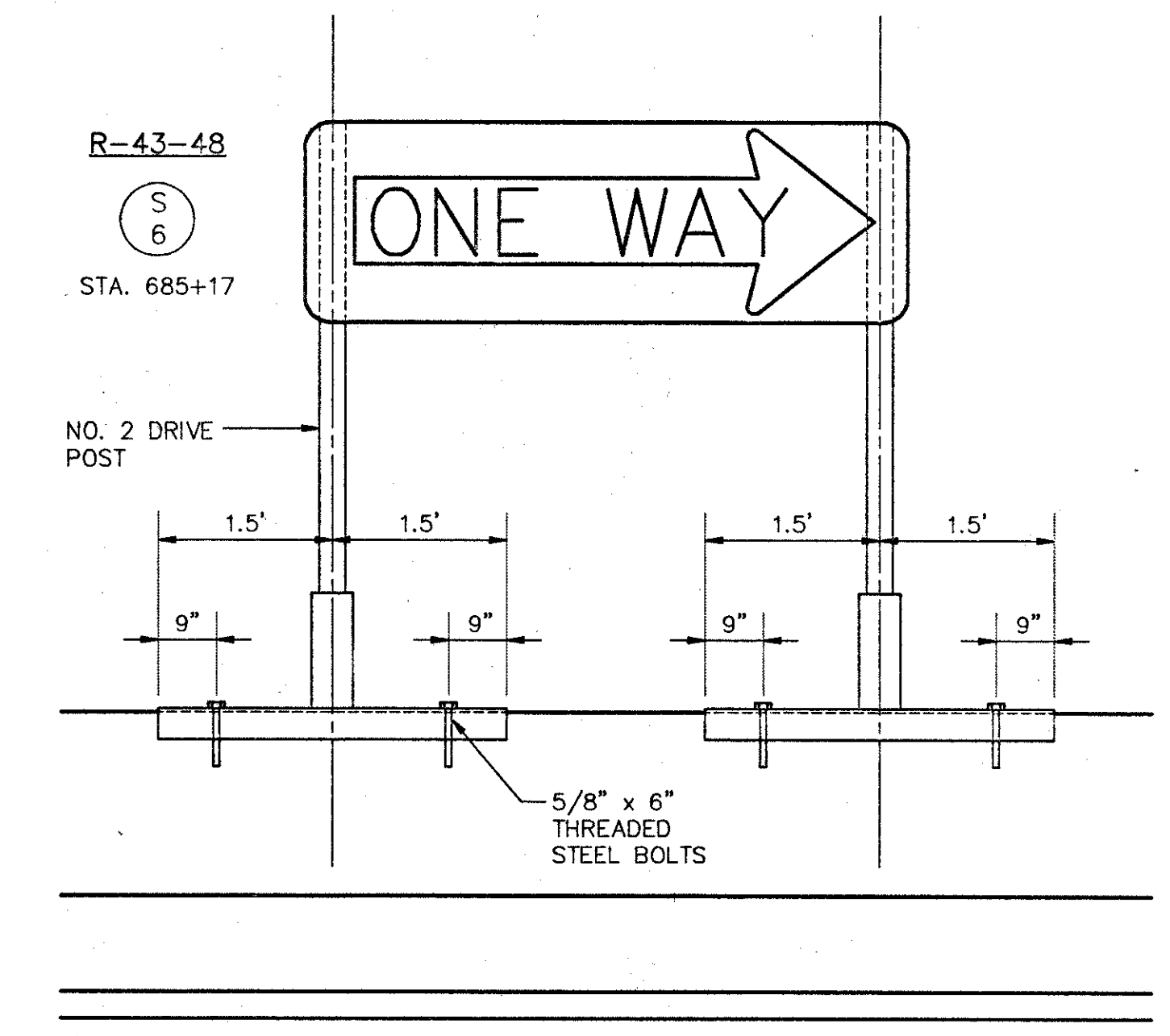
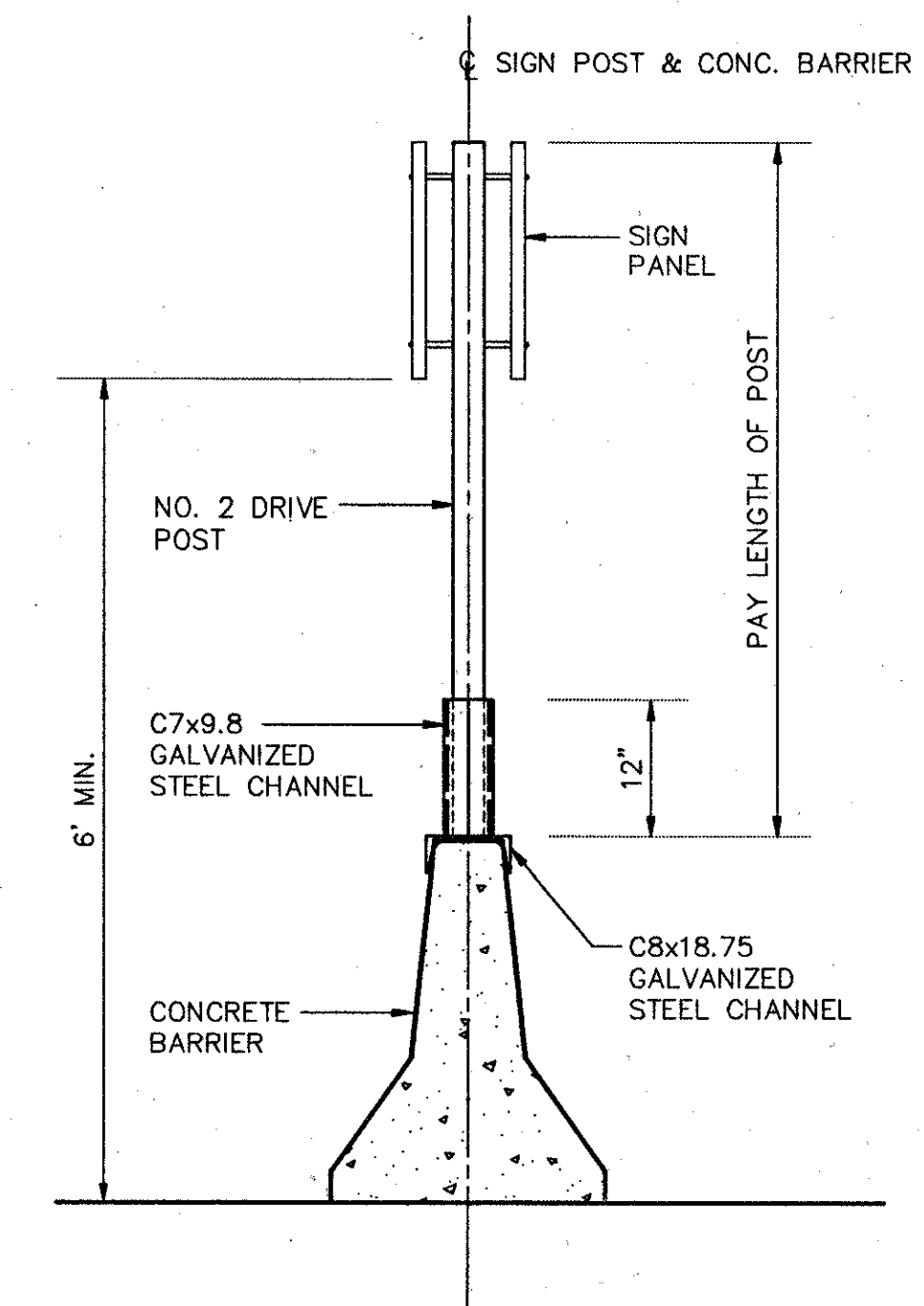
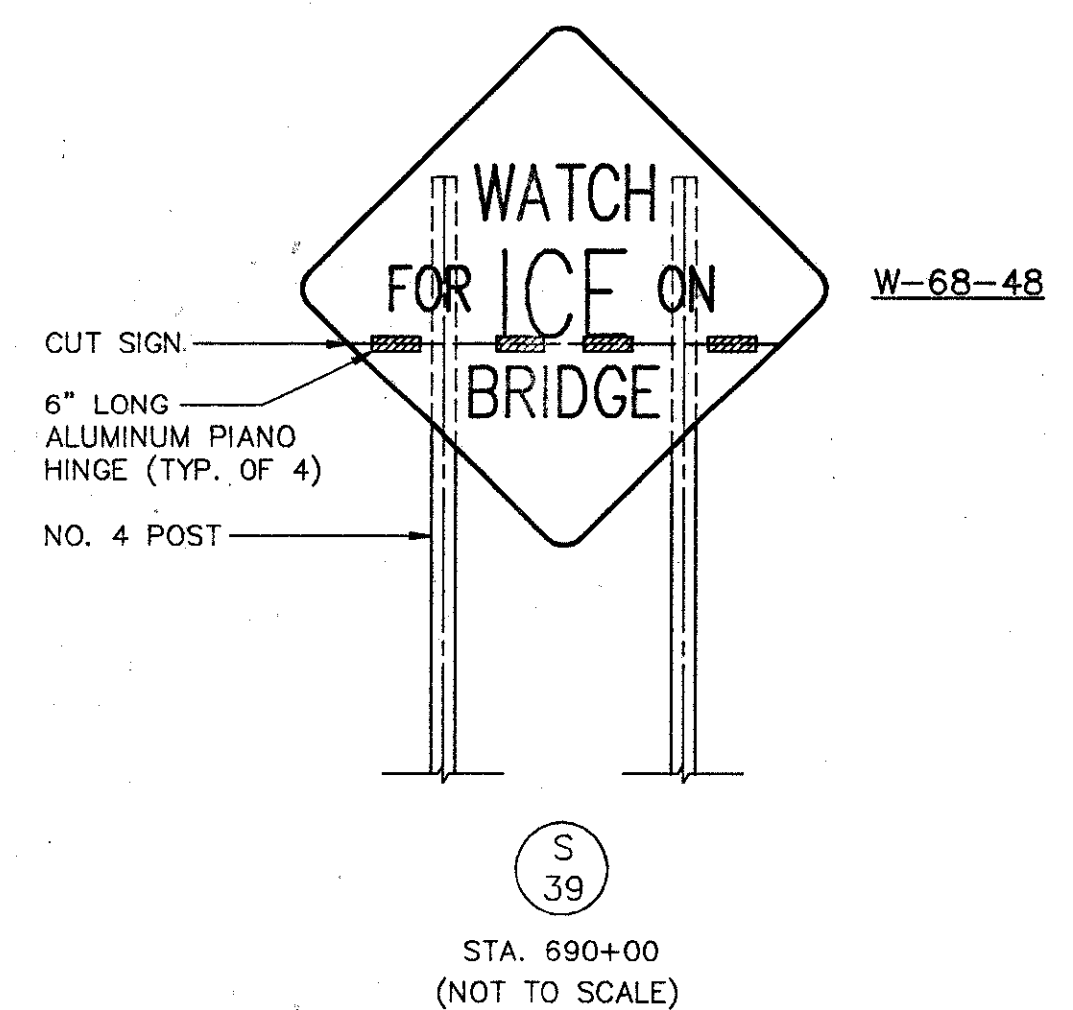
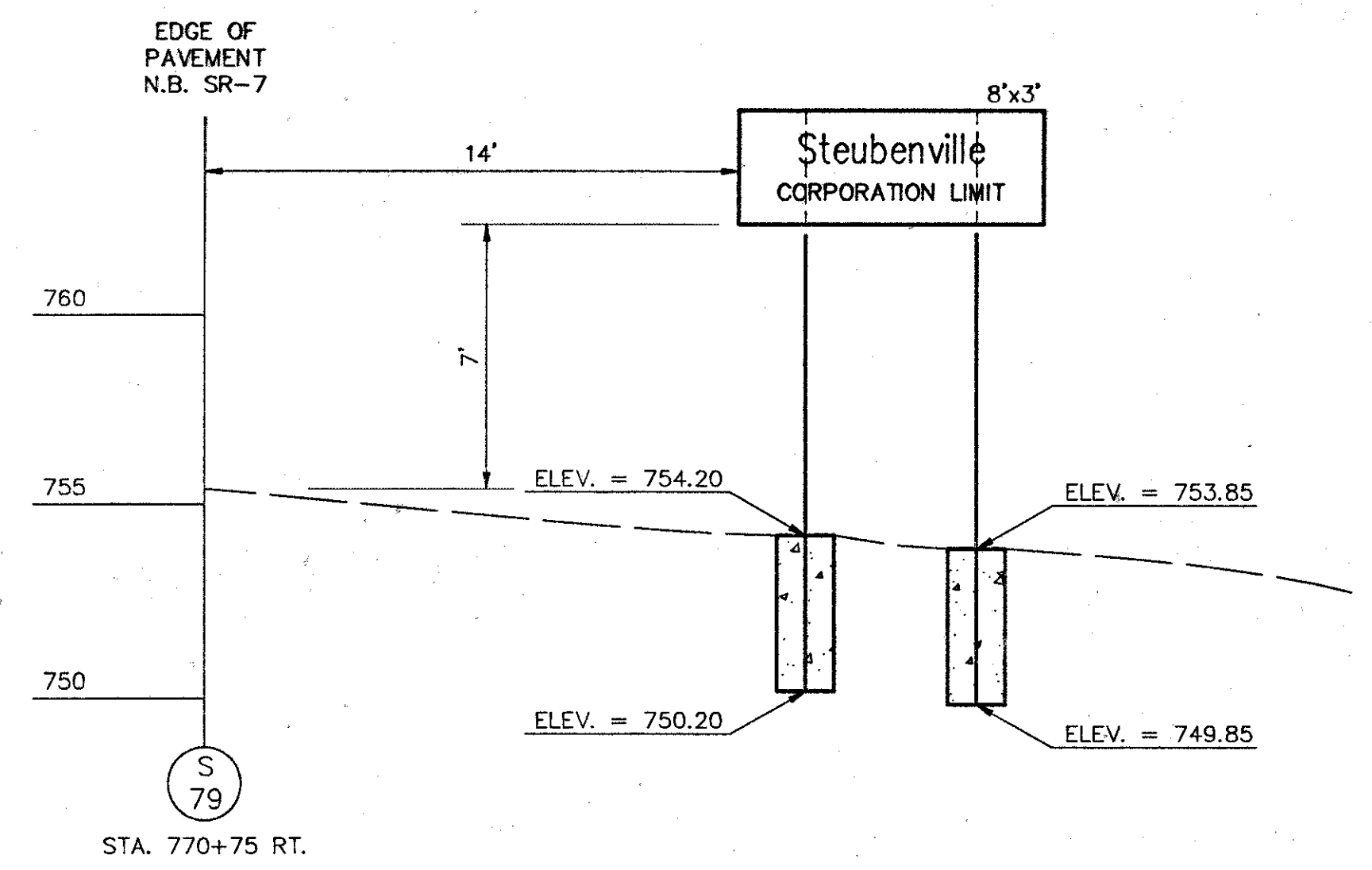
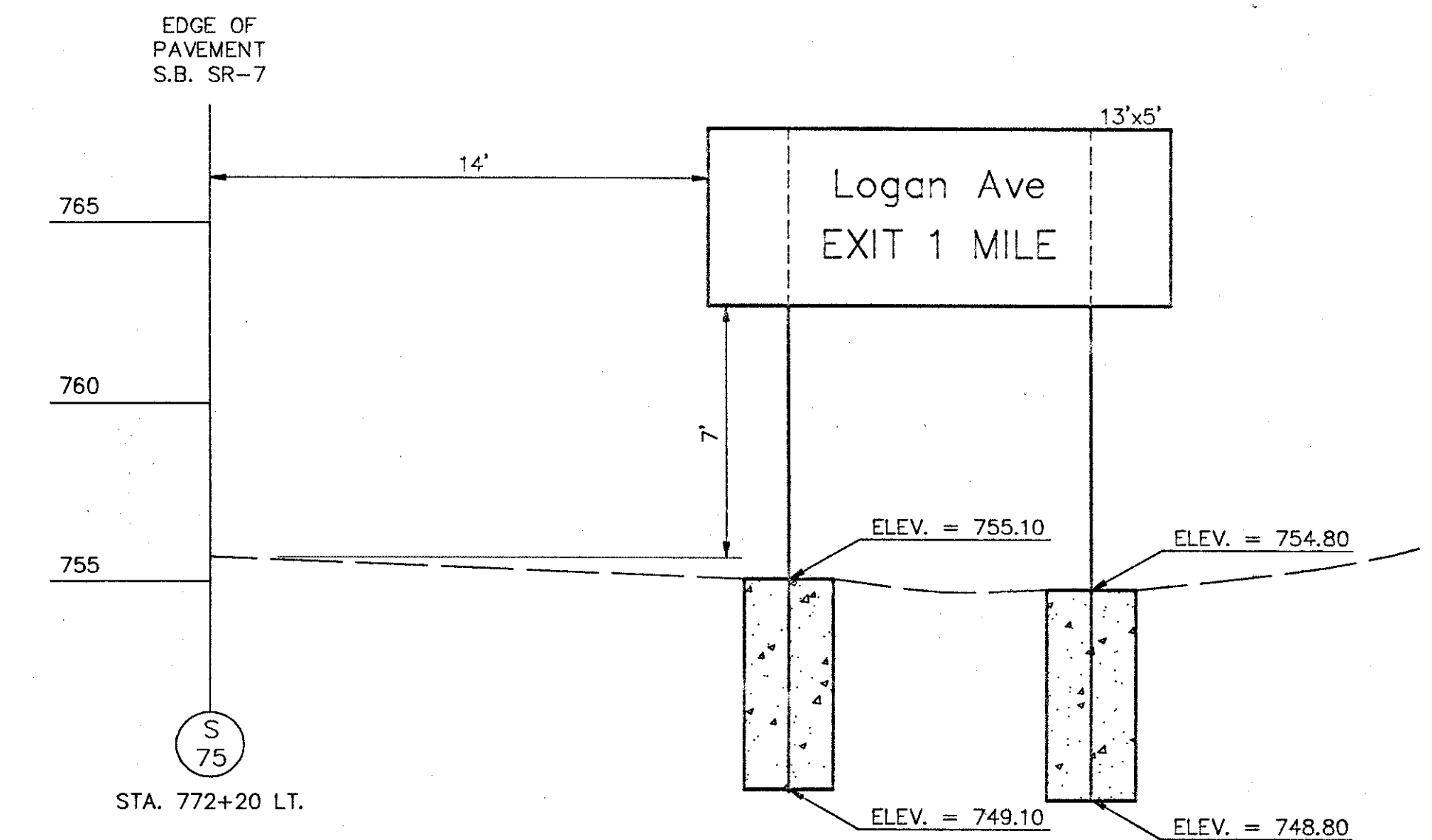
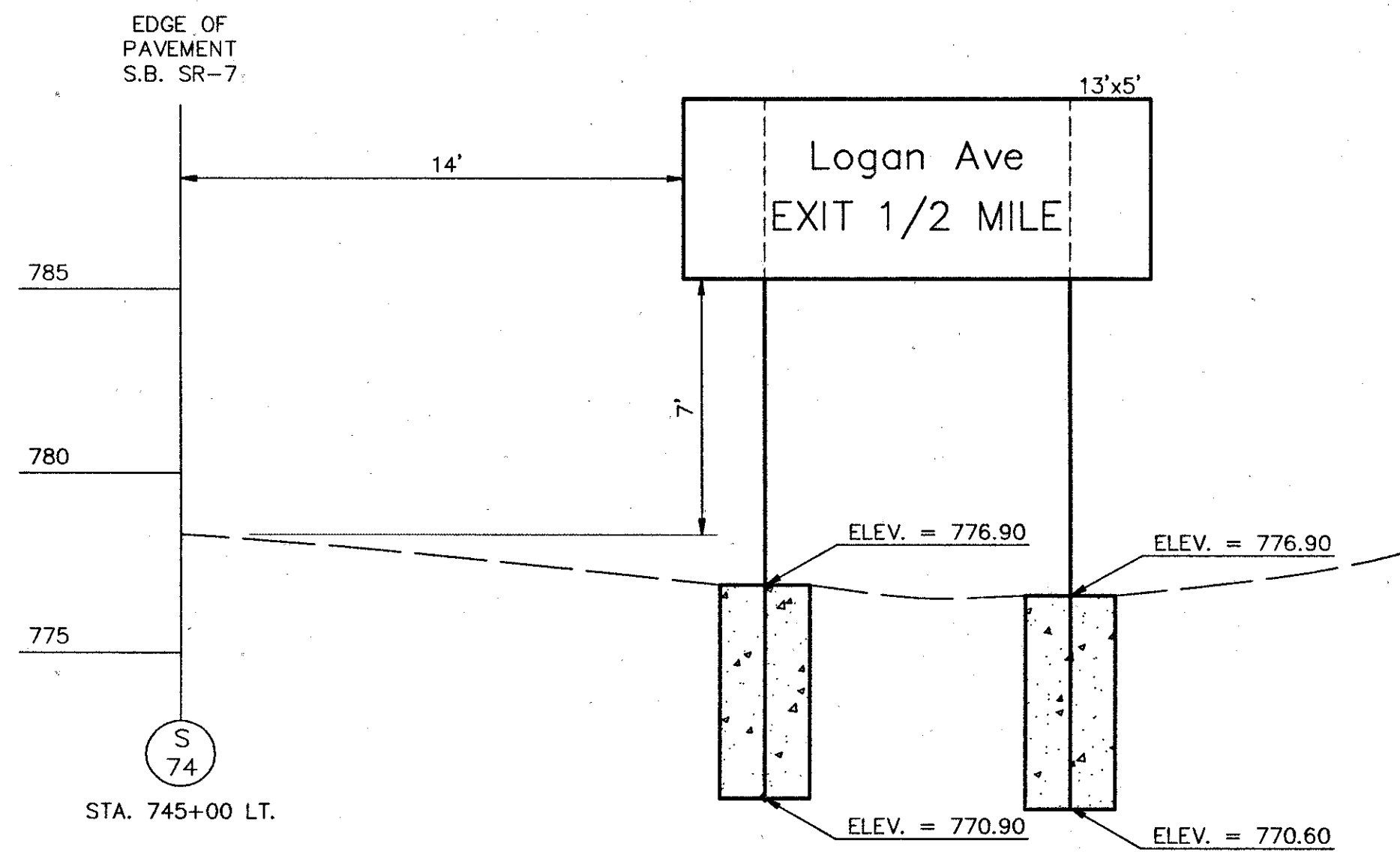
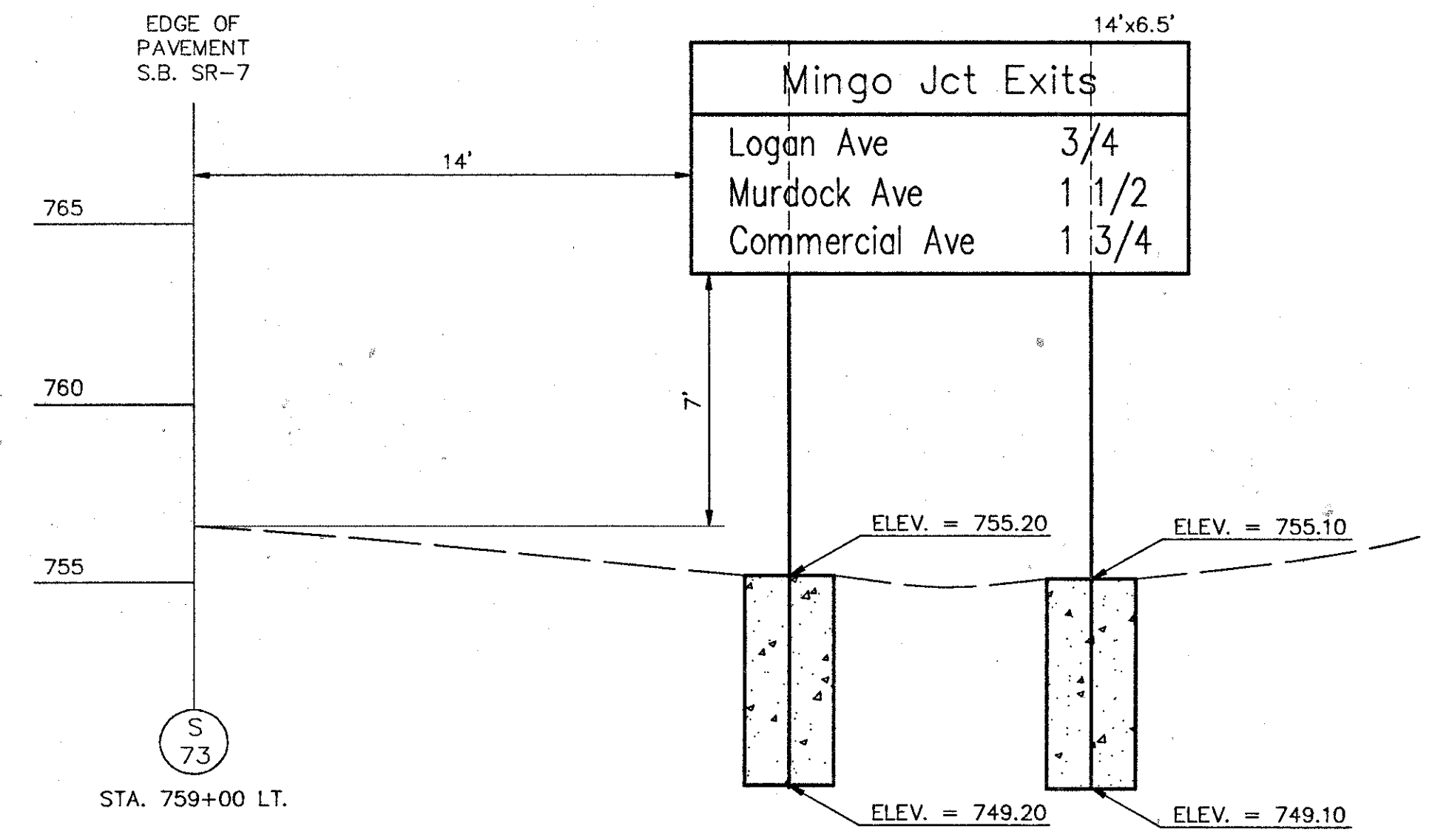
JEF - 7 - 13.11



SIGN ELEVATIONS

9245SET.DWG 1=4 6-21-94

SIGN ELEVATIONS

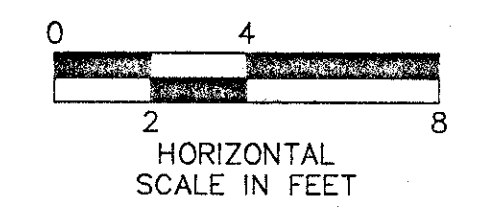


CONCRETE BARRIER MOUNTED SIGN SUPPORT DETAIL

NOT TO SCALE

NOTES:

- FOR FASTENERS, SEE STD. DRAWING TC-52.10 OR TC-52.20.
- FOR SPACING, SEE STD. DRAWING TC-41.20.
- FOR SIGN ATTACHMENT DETAIL, SEE STD. DRAWING TC-41.20.
- FOR DETAILS AND SPECIFICATIONS NOT SHOWN, SEE STD. DRAWING TC-41.20.
- THE C7x9.8 GALVANIZED STEEL CHANNEL SHALL BE WELDED TO THE C8x18.75 GALVANIZED STEEL CHANNEL.
- THE NO. 2 DRIVE POST SHALL BE ATTACHED TO THE C7x9.8 GALVANIZED STEEL CHANNEL WITH TWO 5/16" STEEL HEX HEAD BOLTS. THE HOLES IN THE C7x9.8 STEEL CHANNEL SHALL BE DRILLED BEFORE GALVANIZING. THE HOLES SHALL BE 9" CENTER TO CENTER.
- THE 5/8" THREADED STEEL BOLTS SHALL BE ATTACHED TO THE CONCRETE BARRIER WITH GROUT MEETING THE REQUIREMENTS OF 255.02.



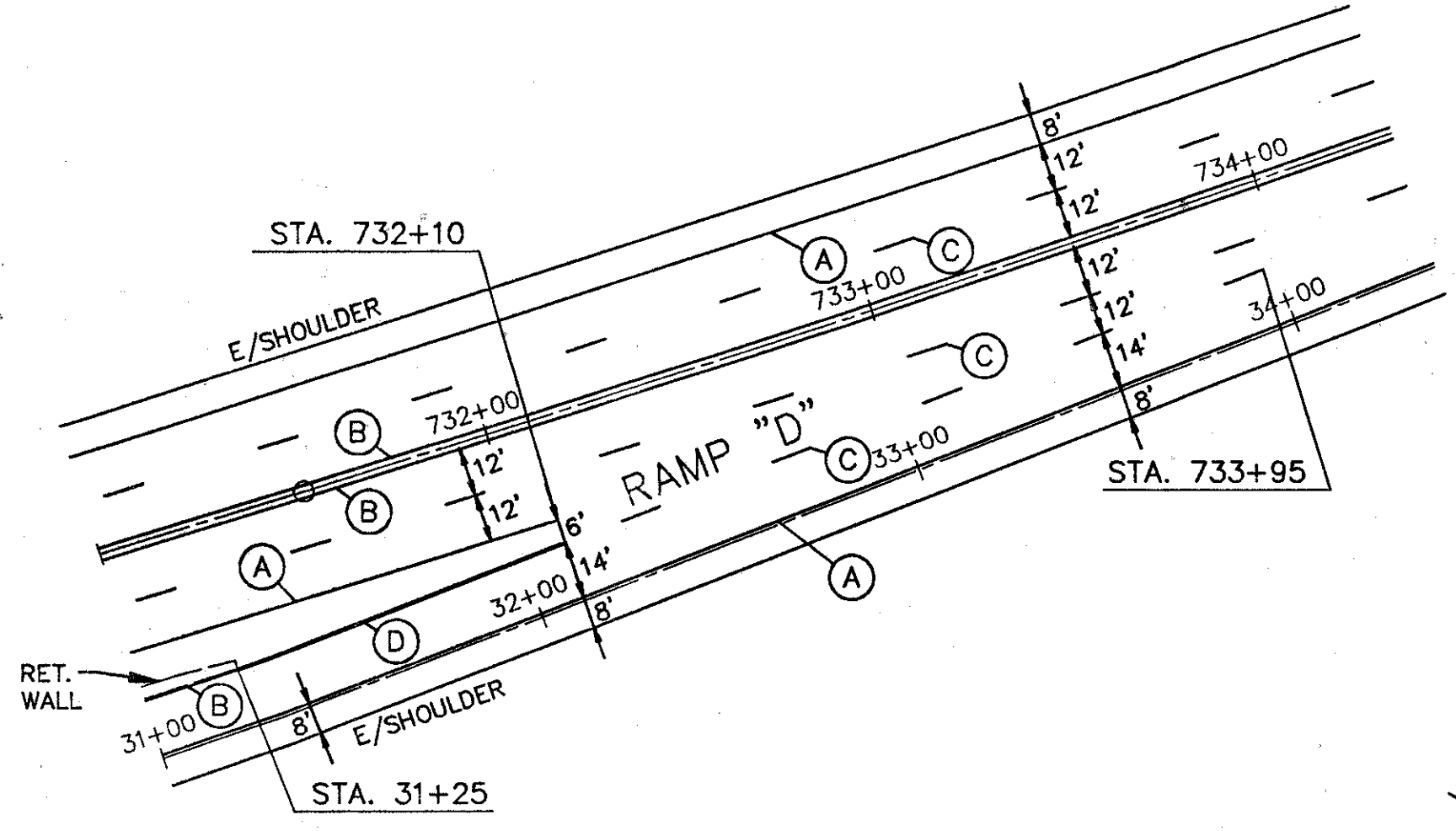
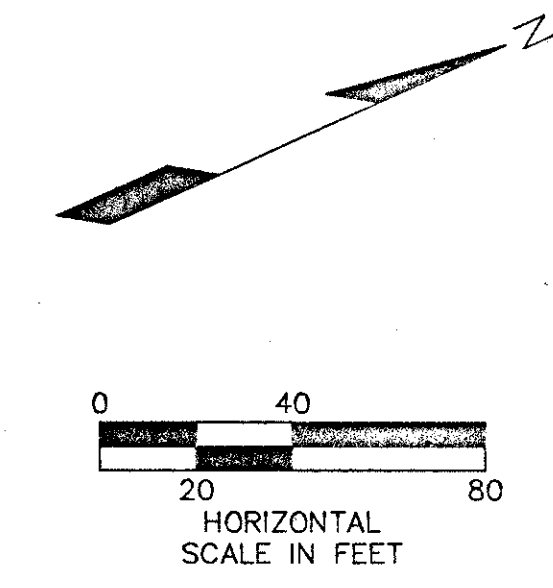
PAVEMENT MARKING DETAILS

JEF - 7 - 13.11

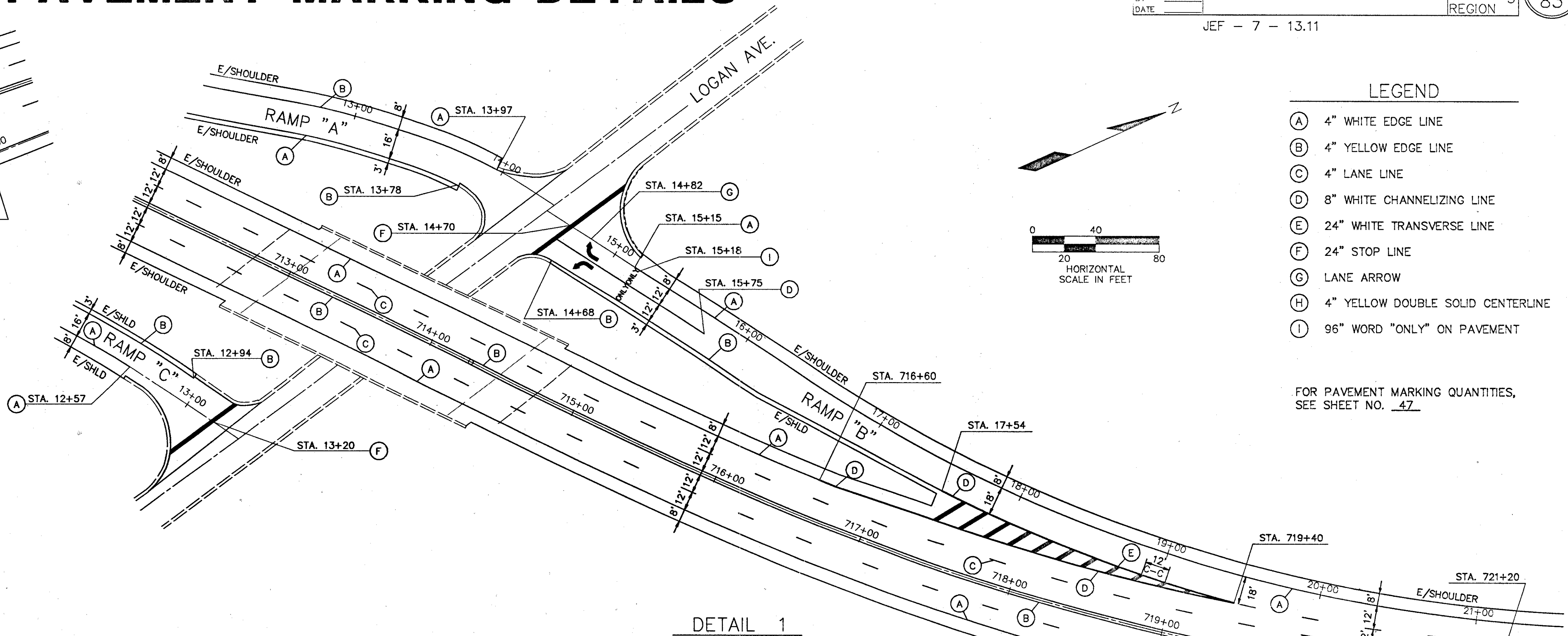
LEGEND

- (A) 4" WHITE EDGE LINE
- (B) 4" YELLOW EDGE LINE
- (C) 4" LANE LINE
- (D) 8" WHITE CHANNELIZING LINE
- (E) 24" WHITE TRANSVERSE LINE
- (F) 24" STOP LINE
- (G) LANE ARROW
- (H) 4" YELLOW DOUBLE SOLID CENTERLINE
- (I) 96" WORD "ONLY" ON PAVEMENT

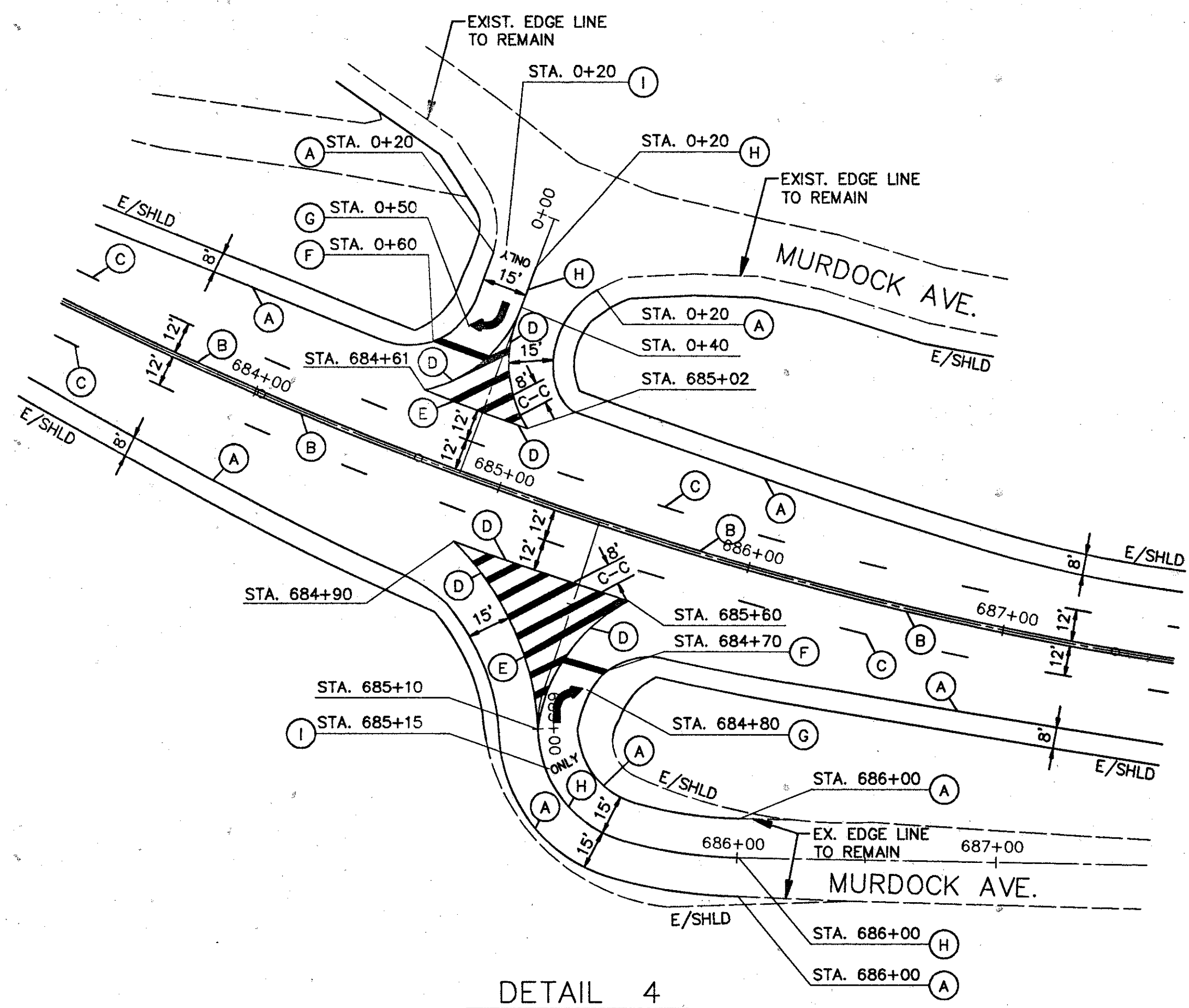
FOR PAVEMENT MARKING QUANTITIES, SEE SHEET NO. 47



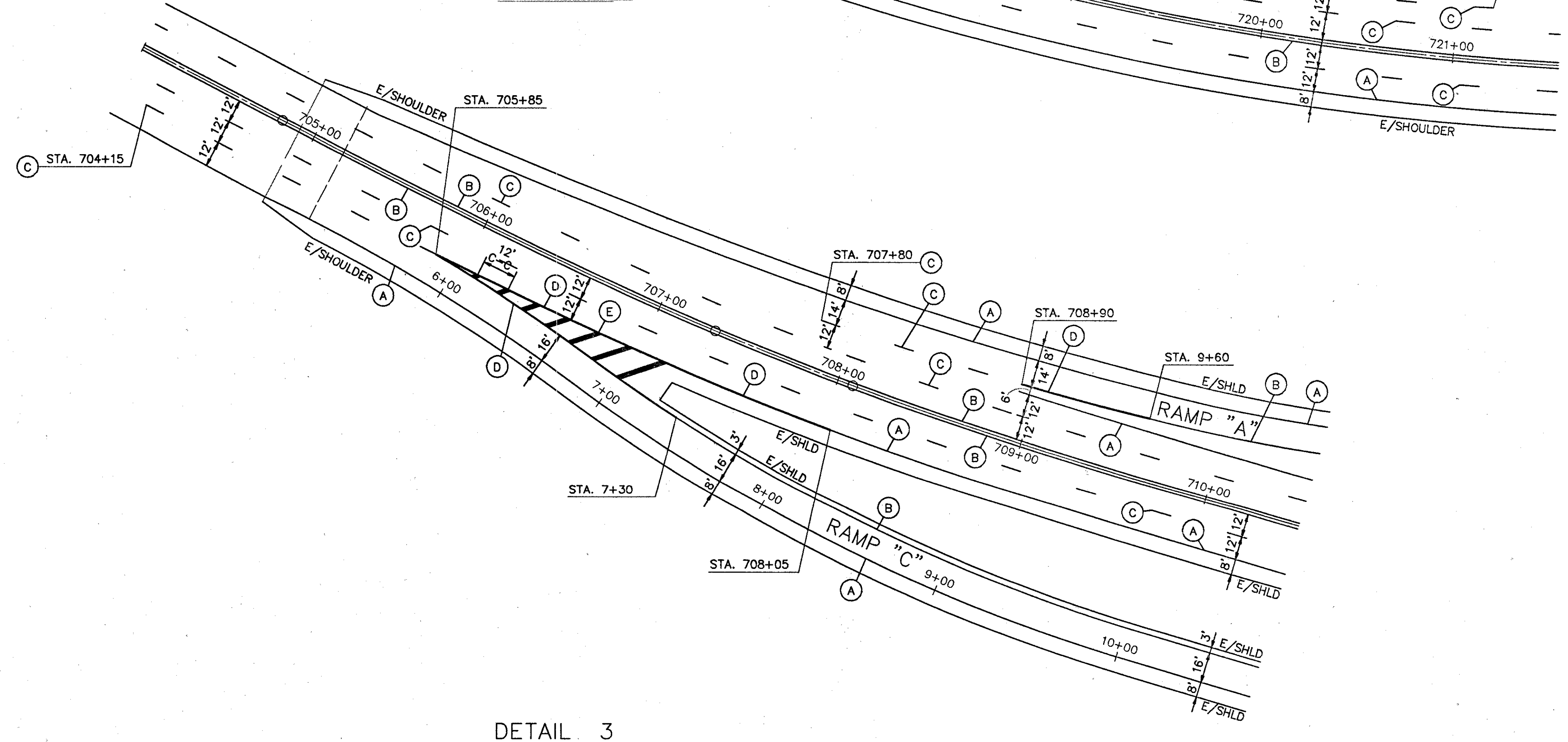
DETAIL 2



DETAIL 1



DETAIL 4



DETAIL 3

924SP01.DWG 1=40 5-20-94

PAVEMENT MARKING CALCULATIONS

JEF - 7 - 13.11

ITEM 642 - PAVEMENT MARKING

STATION		LANE OR RAMP	SIDE OF LANE OR RAMP	EDGE LINE		4" LANE LINE	4" YELLOW CENTERLINE DOUBLE SOLID	8" WHITE CHANNELIZING LINE	24" WHITE TRANSVERSE LINE	24" STOP LINE	LANE ARROWS	96" WORD "ONLY" ON PVMT.	REMARKS	
				4" YELLOW	4" WHITE									
FROM	TO			LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH			
681+80.42	770+85.03	NORTHBOUND	LT.	8902										
681+80.42	770+85.03		CTR.			8902								
681+80.42	684+81		RT.		301									
684+81	686+00 MURDOCK		RT.		177									
684+90	685+60		RT.					70						
684+90	685+00 MURDOCK		RT.					80						
685+00 MURDOCK	685+60		RT.					65						SEE DETAIL 4
684+90	685+70		RT.						187					
685+00 MURDOCK	686+00 MURDOCK		Q					100						
685+15 MURDOCK			LT.									1		
685+70 MURDOCK			RT.							20				
685+80 MURDOCK			RT.								1			
686+00 MURDOCK	685+85		RT.			150								
685+85	707+30		RT.			2143								
704+15	705+85		RT.				170							
705+85	707+25		RT.						140					
705+85	708+05		RT.						220					
705+85	707+25		RT.							151				
708+05	732+10		RT.			2405								
731+25	732+10		RT.						85					SEE DETAIL 2
732+10	733+95		RT.				185							
732+10	770+85.03		RT.				3874							
681+80.42	770+85.03		RT.			8902								
681+80.42	770+85.03		CTR.				8902							
681+80.42	684+43		LT.			263								
684+43	0+40 MURDOCK	LT.			60									
684+61	0+20 MURDOCK	LT.						50						
0+40 MURDOCK	685+02	LT.						50						
684+61	685+02	LT.						41						
684+61	685+02	LT.							66					
0+20 MURDOCK	0+40 MURDOCK	Q					20							
0+20 MURDOCK		RT.									1			
0+20 MURDOCK	685+20	LT.			60									
0+60 MURDOCK		LT.							17					
0+50 MURDOCK		LT.								1				
685+20	709+60	LT.			2438									
707+80	708+90	LT.				110							SEE DETAIL 3	
708+90	709+60	LT.						70						
708+90	716+60	LT.			770									
716+60	719+40	LT.						280						
717+40	719+40	LT.						200					SEE DETAIL 1	
714+40	719+40	LT.							132					
719+40	721+20	LT.				180								
717+40	770+85.03	LT.			5344									
9+60	13+78	RAMP "A" RT.			418								SEE DETAILS 1 & 3	
9+60	13+97	LT.				437								
14+68	17+54	RT.			286									
15+15	17+54	LT.				239								
14+70		-							65				SEE DETAIL 1	
14+82		RT.								2				
15+18		RT.									2			
14+70	15+75	RT.						105						
7+30	12+57	RAMP "C" RT.				527							SEE DETAILS 1 & 3	
7+30	12+94	LT.			564					50				
13+20		-												
26+45	32+10	RAMP "D" RT.				565							SEE DETAIL 2	
26+45	31+25	LT.			480									
SUB-TOTALS					19552	19753	18449	120	1456	536	152	4	4	
TOTALS - CARRIED TO GENERAL SUMMARY					7.44 MILES	3.49 MILES	0.02 MILES	1456	536	152	4	4		

9245CALZ.DWG 1 of 1 6-21-94

NOTE: SEE SHEET NO. 46 FOR PAVEMENT MARKING DETAILS

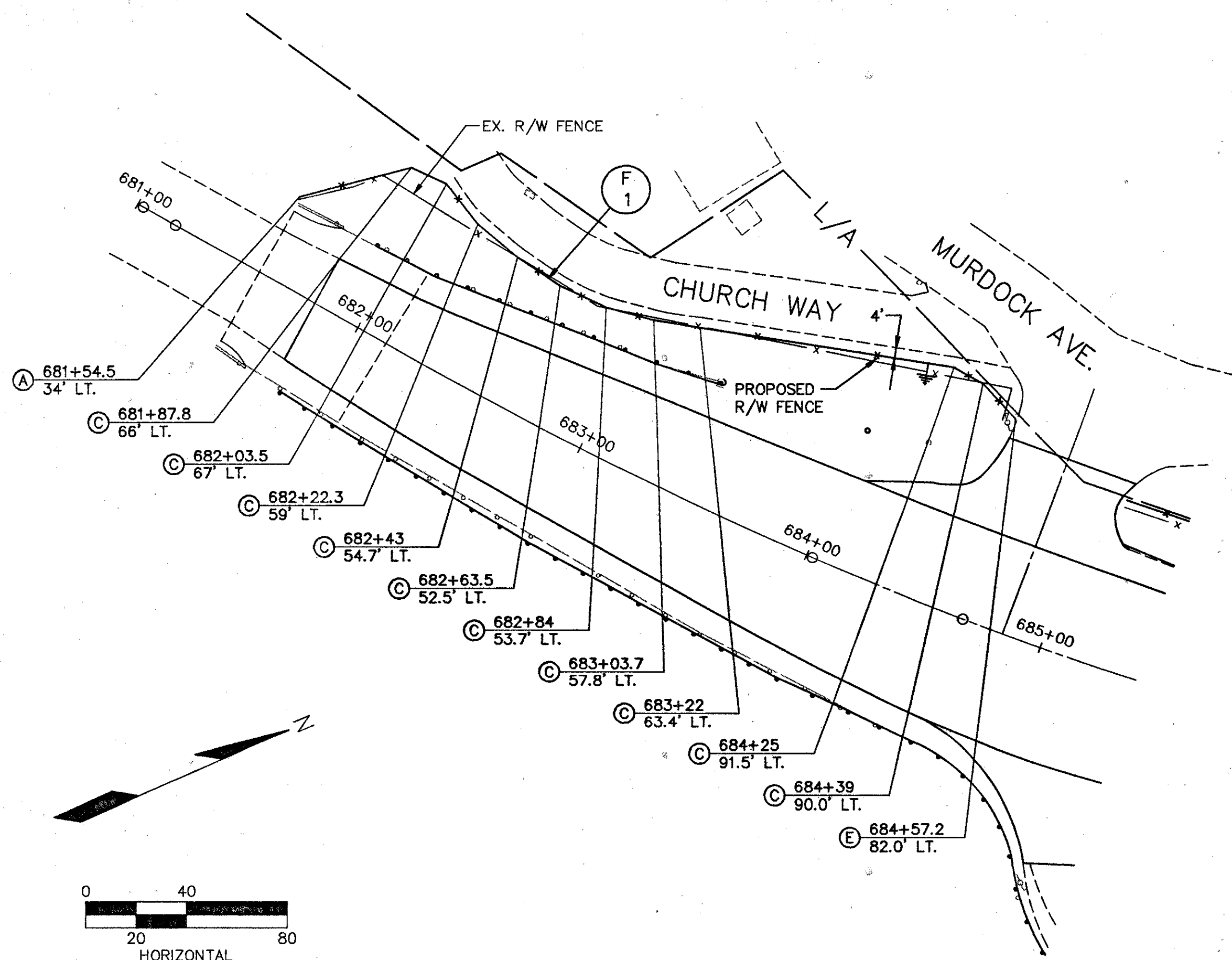
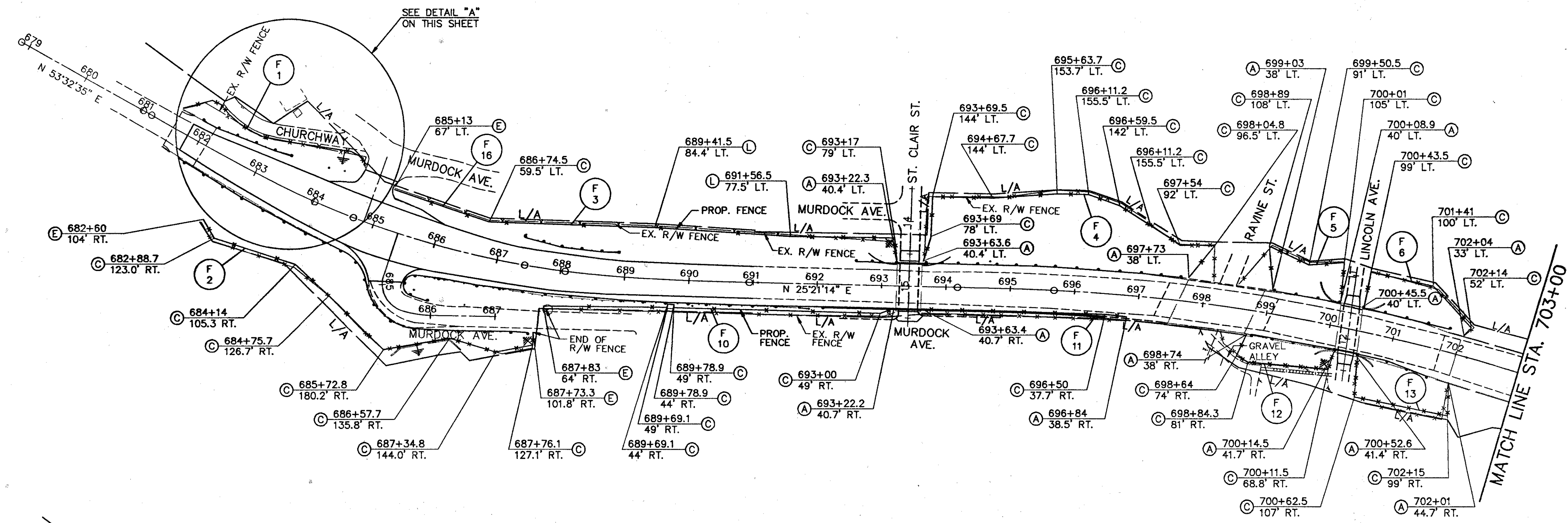
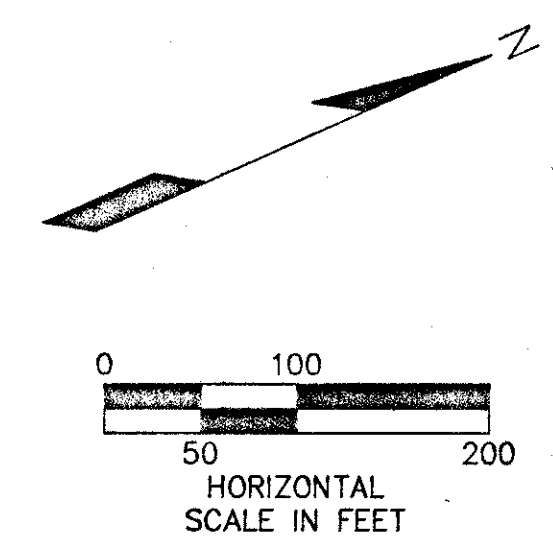
ITEM 620 - DELINEATORS

STATION		LANE OR RAMP	SIDE	TYPE C		TYPE D		SPACING	DELINEATOR REMOVED FOR DISPOSAL
				POST MOUNTED	BRACKET MOUNTED	POST MOUNTED			
FROM	TO			EACH	EACH	EACH		FEET	EACH
723+50	770+85.03	SB	LT.					400	4
11+00	12+60	RAMP "A"	RT.				3	80	
12+60	14+00	RAMP "B"	LT.	3				70	
15+00	21+50	RAMP "B"	LT.	7				100	
5+00	12+50	RAMP "C"	RT.	7	1			100	
26+45	31+25	RAMP "D"	RT.	3				200	
TOTALS - CARRIED TO GENERAL SUMMARY				20	1	3			4

RAISED PAVEMENT MARKER QUANTITIES

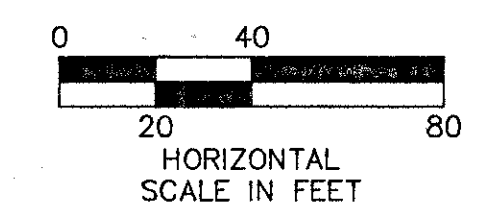
STATION		LANE OR RAMP	LENGTH	SPACING	ITEM 202 RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN	ITEM 862		REMARKS	
						2-WAY WHITE/RED	1-WAY		
FROM	TO		LIN. FT.	FT.	EACH	EACH	EACH	EACH	
681+80.42	770+85.03	NB	8902	80	112			LANE LINE	
681+80.42	770+85.03	SB	8902	80	112			LANE LINE	
681+80.42	685+00	NB	320	80		5		LANE LINE	
685+00	691+28		628	80			8	LANE LINE	
691+28	707+30		1600	80		20		LANE LINE	
707+30	770+85.03		6354	80			79	LANE LINE	
681+80.42	685+00	SB	320	80			5	LANE LINE	
685+00	701+00		1600	80		20		LANE LINE	
701+00	717+40		1638	80			20	LANE LINE	
717+40	733+40		1600	80		20		LANE LINE	
733+40	770+85.03		3744				47	LANE LINE	
684+90	685+60	MURDOCK	70	20				5	WHITE CHANNELIZING LINE - S.R. 7
684+90	685+00 MURDOCK	AVENUE	80	20			4		WHITE CHANNELIZING LINE
685+00 MURDOCK	685+60	CONNECT.	65	20			4		WHITE CHANNELIZING LINE
684+61	685+02	MURDOCK	41	20				3	WHITE CHANNELIZING LINE - S.R. 7
684+61	0+20 MURDOCK	AVENUE	70	20			4		WHITE CHANNELIZING LINE
0+20 MURDOCK	685+02	SPUR	70	20			4		WHITE CHANNELIZING LINE
708+90	712+00	RAMP	310	40				9	WHITE EDGE LINE - S.R. 7
708+90	9+60 RAMP "A"	"A"	70	40	18			3	CHANNELIZING LINE
9+60 RAMP "A"	12+00 RAMP "A"	NOSE	240	40				6	YELLOW EDGE LINE
716+60	717+40	RAMP "B"	80	40	26			2	CHANNELIZING LINE - S.R. 7
717+40	719+40		200	20				11	CHANNELIZING LINE - S.R. 7
16+74 RAMP "B"	17+54 RAMP "B"	NOSE	80	40				2	YELLOW EDGE LINE
17+54 RAMP "B"	719+40		200	20				11	CHANNELIZING LINE
705+85	707+30	RAMP "C"	145	20	19			8	CHANNELIZING LINE - S.R. 7
707+30	708+05		75	40				2	CHANNELIZING LINE - S.R. 7
705+85	7+30 RAMP "C"	NOSE	145	20				7	CHANNELIZING LINE
7+30 RAMP "C"	8+10 RAMP "C"		80	40				2	YELLOW EDGE LINE
29+30 RAMP "D"	31+30 RAMP "D"	RAMP	200	40	16			5	YELLOW EDGE LINE
31+30 RAMP "D"	32+10 RAMP "D"	"D"	80	40					3
729+30	732+10	NOSE	280	40				8	WHITE EDGE LINE - S.R. 7
TOTALS - CARRIED TO GENERAL SUMMARY					303	65	31	231	327

JEF - 7 - 13.11



FENCE LEGEND	
(C)	CORNER POST ASSEMBLY
(E)	END POST ASSEMBLY
(L)	HORIZONTAL DEFLECTION POINT AT LINE POST (ANGLE ≤ 5°)
(A)	ABUTMENT CONNECTION
⊕	GROUND ROD

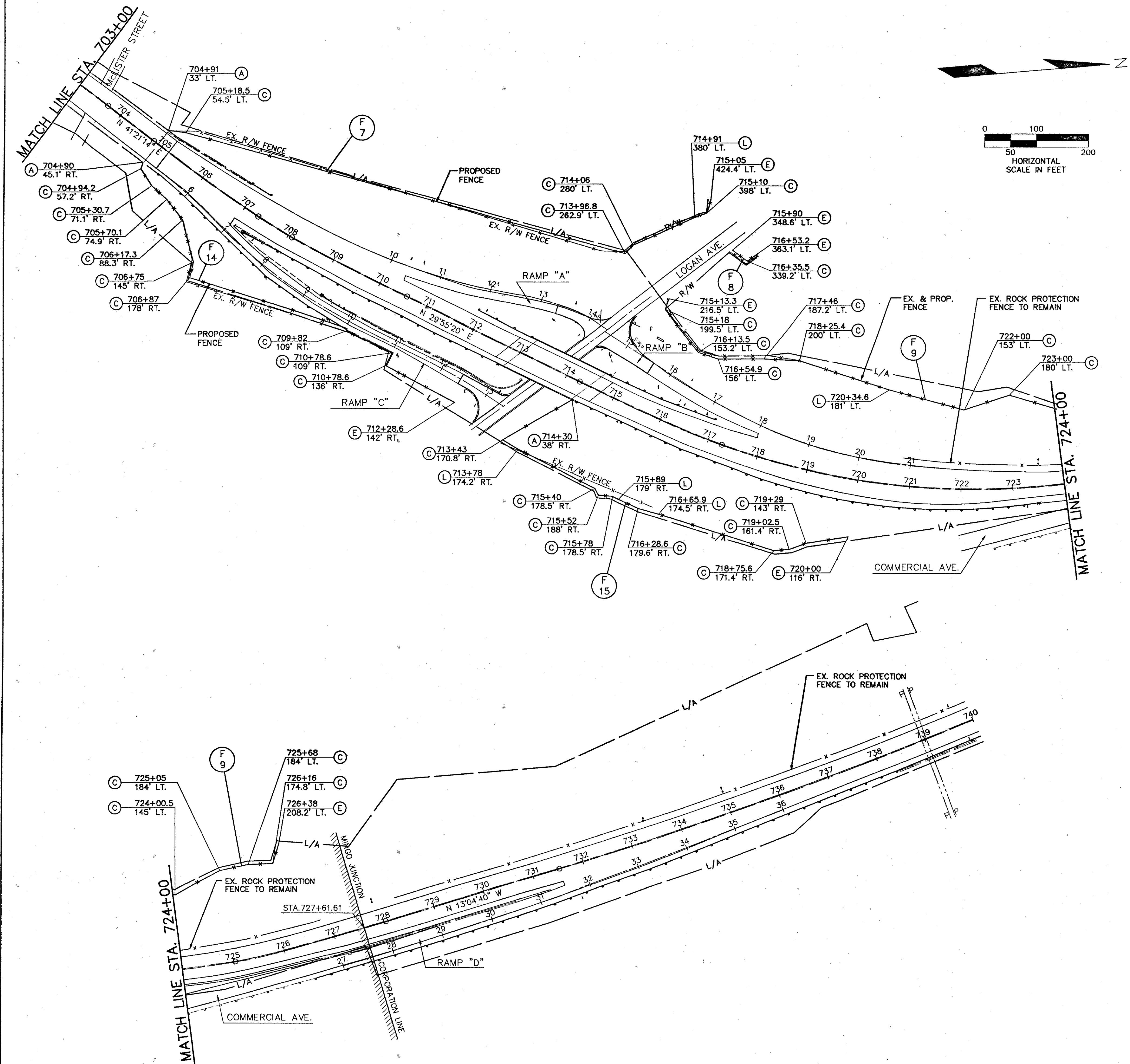
FOR FENCE QUANTITIES, SEE SHEET NO. 49.
FOR ROADWAY DETAILS, SEE SHEET NO. 29 - 30.



DETAIL "A"

9245FPT.DWG. 1=100 5-16-94

JEF - 7 - 13.11



		FENCE QUANTITIES						
REF. NO.	PLAN SHEET NO.	202	607				625	
		FENCE REMOVED LIN. FT.	FENCE TYPE CL LIN. FT.	FENCE TYPE CLT LIN. FT.	POST ASSEMBLY		FENCE TERMINAL	GROUND ROD EACH
					(C)	(E)	(A)	
F-1	48	316		318	10	1	1	1
F-2	48	625	625		7	2		2
F-3	48	657	669		1			1
F-4	48	630	640		8			1
F-5	48	259	253		3			2
F-6	48	267	271		3			2
F-7	49	1150	1150		4	1		1
F-8	49	65	65		1	2		
F-9	49	1090	1090		11	2		
F-10	48	569	569		5	1		1
F-11	48	320	320		1			2
F-12	48	220	209		3			2
F-13	48	264	268		2			2
F-14	49	865	865		9	1		1
F-15	49	320	881		5	1		1
F-16	48	156		156	1	1		
SUBTOTALS		7773	7875	474	74	12	16	6
TOTALS		7773	7875	474				6

(QUANTITIES CARRIED TO GENERAL SUMMARY)

FENCE LEGEND	
(C)	CORNER POST ASSEMBLY
(E)	END POST ASSEMBLY
(L)	HORIZONTAL DEFLECTION POINT AT LINE POST (ANGLE ≤ 5°)
(A)	ABUTMENT CONNECTION
⚡	GROUND ROD

9245FP2.DWG 1=100 5-20-94 TW = 4' 2' 3"

DESIGN SPECIFICATIONS

THE PROPOSED REHABILITATION WORK FOR THESE STRUCTURES CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992, INCLUDING THE 1993 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA

CONCRETE CLASS S: COMPRESSIVE STRENGTH 4500 PSI FOR SUPERSTRUCTURE

CONCRETE CLASS C: COMPRESSIVE STRENGTH 4000 PSI FOR SUBSTRUCTURE

REINFORCING STEEL: ASTM A615, A616 OR A617 - GRADE 60, MINIMUM YIELD STRENGTH, 60,000 PSI

STRUCTURAL STEEL: ASTM A36, MINIMUM YIELD STRENGTH 36,000 PSI

DECK PROTECTION METHODS: MICRO-SILICA MODIFIED CONCRETE OVERLAY (BRIDGE NOS. JEF-7-1331, 1340, 1344, 1348, AND 1369).

WATERPROOFING AND ASPHALT CONCRETE (BRIDGE NO JEF-7-1390).

REFERENCES

REFERENCE SHALL BE MADE TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS OF THE STATE OF OHIO.

STANDARD DRAWING NO. AS-1-81 DATED 11-27-81
STANDARD DRAWING NO. EXJ-4-87 REVISED 1-5-89
STANDARD DRAWING NO. VPF-1-90 REVISED 02-01-92

SUPPLEMENTAL SPECIFICATION 852 DATED 07-30-93
SUPPLEMENTAL SPECIFICATION 910 DATED 05-20-91

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

EXISTING STRUCTURE PLANS

THE EXISTING STRUCTURE PLANS ARE ON FILE AND MAY BE REVIEWED IN THE OFFICE OF THE ODOT DISTRICT DEPUTY DIRECTOR, 1072 WEST HIGH STREET EXTENSION, NEW PHILADELPHIA, OH 44663.

ITEM 510 - DOWEL HOLES, AS PER PLAN

THIS ITEM SHALL INCLUDE THE DRILLING OF HOLES INTO CONCRETE OR MASONRY AND THE FURNISHING AND PLACING OF GROUT INTO HOLES. NONSHRINKING EPOXY GROUT SHALL BE USED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 852 AND CMS 705.20. ANCHORING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 852 AND CMS 705.20. PAYMENT SHALL BE INCLUDED WITH ITEM 510.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)

A CONCRETE EPOXY SEALER SHALL BE APPLIED TO THE CONCRETE SURFACES SHOWN ON SHT. NOS. 4, 11, 12, 13, 20, 22, 25, 28, 29, 31, AND 32/34.

SEE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

ITEM 516. STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN

THIS ITEM SHALL CONFORM TO CMS 516 EXCEPT AS NOTED HEREIN. THIS ITEM SHALL INCLUDE ALL WORK REQUIRED TO REMOVE PORTIONS OF THE EXISTING EXPANSION JOINTS AND FURNISHING AND INSTALLING OF THE NEW STRUCTURAL STEEL INCLUDING PARAPET AND MEDIAN BARRIER EXPANSION JOINT ASSEMBLIES, STEEL RETAINERS AND STRIP SEAL GLANDS AS SHOWN IN THE PLANS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

THIS ITEM SHALL CONSIST OF MAKING STRUCTURAL REPAIRS TO THE DETERIORATED ABUTMENT, BACKWALLS AND BEAM SEATS AND EXPOSED FACES OF ABUTMENTS AND PIERS AS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.

SURFACE PREPARATION SHALL INCLUDE ABRASIVE BLASTING OF ALL REINFORCING STEEL AND CONCRETE TO BE PATCHED (STEEL CLEANED TO SA-1 QUALITY).

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER SQ. FT. FOR ITEM 519, PATCHING CONCRETE STRUCTURES AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK INCLUDING ABRASIVE BLASTING.

PROTECTION OF TRAFFIC

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE EPOXY COATED.

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 HIS COST.

ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL. AN ALLOWANCE OF 8,000 LBS. IS INCLUDED IN ITEM 509 FOR THIS PURPOSE, LISTED IN THE "GENERAL" COLUMN OF THE ESTIMATED QUANTITIES TABLE.

BONDING GROUT

THE BONDING GROUT TO BE USED BETWEEN OLD AND NEW CLASS S OR C CONCRETE SHALL BE "SIKA ARMATEC 110" AS MANUFACTURED BY SIKA CORPORATION, 201 POLITO AVENUE, LYNDHURST, NEW JERSEY 07071; "EUCO NO. 452 EPOXY SYSTEM" AS MANUFACTURED BY THE EUCLID CHEMICAL CO., 19218 REDWOOD ROAD, CLEVELAND, OHIO 44110; "CONCRETE STANDARD LIQUID" AS MANUFACTURED BY MASTER BUILDERS, INC., 23700 CHAGRIN BOULEVARD, CLEVELAND, OHIO 44122; OR AN APPROVED ALTERNATE. SURFACE PREPARATION MIXING AND PLACING OF GROUT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. INCLUDE WITH CONCRETE FOR PAYMENT.

DUST CONTROL

WHEN CONDUCTING ABRASIVE BLASTING OR PAVEMENT GRINDING OPERATIONS AND/OR CLEANING BRIDGE DECKS PRIOR THE TO PLACEMENT OF THE OVERLAY, THE CONTRACTOR SHALL SUPPLY AND OPERATE ADDITIONAL EQUIPMENT OR ERECT TEMPORARY SCREENINGS TO PROTECT ADJACENT TRAFFIC AND PROPERTY FROM THE DUST ORIGINATING FROM THESE OPERATIONS.

THE CONTRACTOR SHALL SUBMIT HIS METHOD OF CONTROLLING DUST FOR APPROVAL TO THE ENGINEER AT LEAST ONE (1) WEEK PRIOR TO THE BEGINNING OF WORK. THESE PROVISIONS SHALL BE FURNISHED AT NO ADDITIONAL COST TO THE PROJECT. THIS REQUIREMENT IS IN ADDITION TO THE PROVISIONS OF SECTION 107.12 OF THE SPECIFICATIONS AND SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATION TO PROTECT AND RESTORE PROPERTY FROM HIS OTHER OPERATIONS. INCLUDE WITH OVERLAY OR PERTINENT CONCRETE OPERATION FOR PAYMENT.

BRIDGE DECK CLEANING AFTER ABRASIVE BLASTING


UPON COMPLETION OF BRIDGE DECK ABRASIVE BLASTING IN PREPARATION FOR AN OVERLAY, THE DECK SHALL BE CLEANED USING A VACUUM TYPE APPARATUS APPROVED BY THE ENGINEER. THIS APPARATUS IS TO BE USED TO MINIMIZE DUST AND OBJECTIONABLE AIRBORNE MATERIAL. IN NO CASE SHALL THE MATERIAL BE REMOVED BY DIRECT COMPRESSED AIR. INCLUDE WITH OVERLAY FOR PAYMENT.

ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. 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. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. ALL WORK SHALL BE DONE IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

CUT LINE CONSTRUCTION JOINT PREPARATION. FOR SUBSTRUCTURE CONCRETE REMOVAL: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE, THE EXISTING REINFORCING STEEL WHERE REQUIRED IN THE PLANS SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THEN, THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE 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, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS, MAY BE USED AT THE APPROVAL OF THE ENGINEER.

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		1/34 JOB NO 92045
STRUCTURAL GENERAL NOTES				
BRIDGE NO JEF-7-1331 BRIDGE NO JEF-7-1340 BRIDGE NO JEF-7-1344 BRIDGE NO JEF-7-1348 BRIDGE NO JEF-7-1369 BRIDGE NO JEF-7-1390				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED K.S.J.	DRAWN R.L.W.	TRACED	CHECKED P.J.W.	REVIEWED K.S.J.
			DATE 11. 11. 93	REVISED

ESTIMATED QUANTITIES

CALCULATED BY A.D. DATE 11/12/93
 CHECKED BY PJM DATE 11-12-93

OHIO
 FHWA REGION 5 51
83

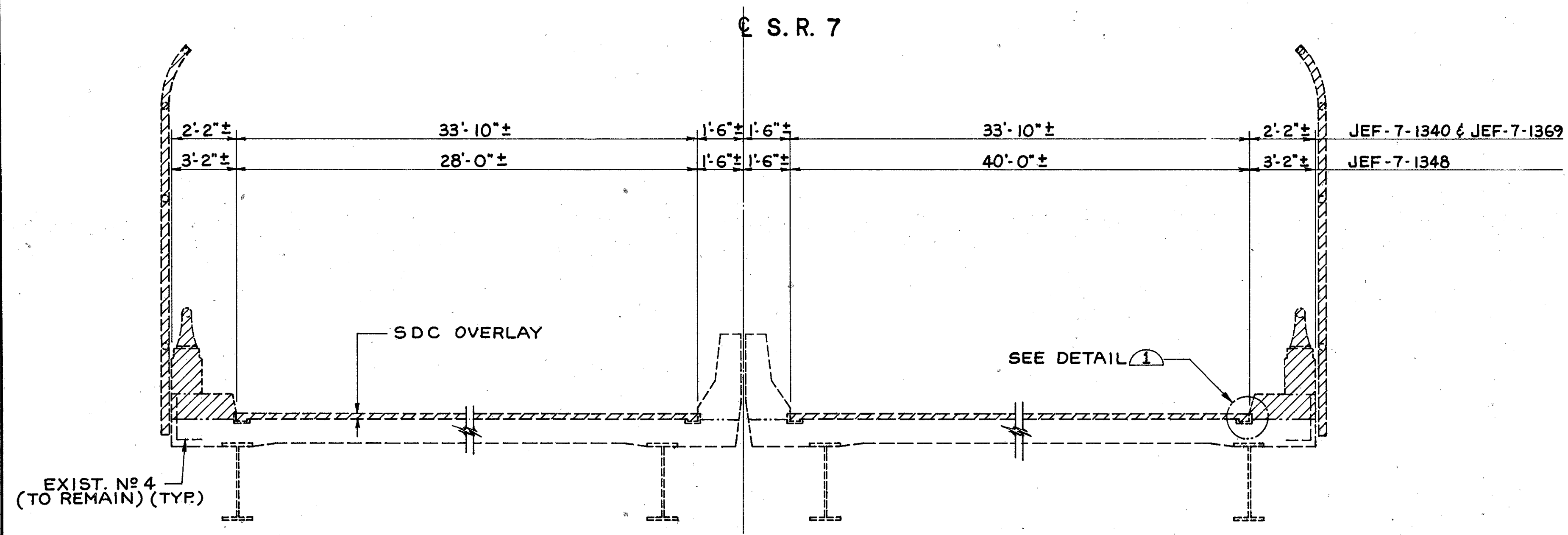
JEF - 7 - 13.11

ITEM	EXTENSION	DESCRIPTION	TOTAL	UNIT	SUBTOTALS						GENERAL
					BRIDGE NO. JEF-7-1331	BRIDGE NO. JEF-7-1340	BRIDGE NO. JEF-7-1344	BRIDGE NO. JEF-7-1348	BRIDGE NO. JEF-7-1369	BRIDGE NO. JEF-7-1390	
202	11201	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	LUMP	L.S.	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	
202	23500	WEARING COURSE REMOVED	399	S.Y.						399	
446	01200	(1-3/4" (MIN.)) ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20	25	C.Y.						25	
446	01400	(1-1/4") ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20	16	C.Y.						16	
509	15830	EPOXY COATED REINFORCING STEEL, GRADE 60	54,081	LB.		12,269		11,771	6,205	15,836	8,000
510	11101	DOWEL HOLE, AS PER PLAN	1,427	EA.		238		580	294	315	
511	34401	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN	160	C.Y.		28		68	34	30	
511	45701	CLASS C CONCRETE, ABUTMENT ^X	123	C.Y.		48		36	22	17	
511	46001	CLASS C CONCRETE, RETAINING WALL OR WINGWALL, AS PER PLAN	106	C.Y.		22				84	
512	55800	TYPE D WATERPROOFING	447	S.Y.						447	
SPE-CIAL	51267502	SEALING OF CONCRETE SURFACES (EPOXY) *	9,893	S.Y.	189	407	200	654	338	685	7,420 ▲
SPE-CIAL	51400100	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU *	LUMP	L.S.	LUMP	LUMP	LUMP	LUMP	LUMP		
SPE-CIAL	51400200	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU *	LUMP	L.S.	LUMP	LUMP	LUMP	LUMP	LUMP		
SPE-CIAL	51400300	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU *	LUMP	L.S.	LUMP	LUMP	LUMP	LUMP	LUMP		
SPE-CIAL	51400400	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU *	LUMP	L.S.	LUMP	LUMP	LUMP	LUMP	LUMP		
516	11211	STRUCTURAL EXPANSION JOINT, INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN *	156	L.F.		156					
516	11800	VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINT ^X	104	L.F.	56		48				
516	13600	1" PREFORMED EXPANSION JOINT FILLER	1,048	S.F.		124		183	111	630	
518	12700	SCUPPER, VERTICAL EXTENSION ^X	54	EA.		10		34	10		
518	21101	POROUS BACKFILL, AS PER PLAN	36	C.Y.		27		9			
519	11101	PATCHING CONCRETE STRUCTURE, AS PER PLAN	405	S.F.	12	163	6	24			200
SPE-CIAL	51922000	MICRO-SILICA MODIFIED CONCRETE OVERLAY (1.25" THICK) * ⊕	628	S.Y.	330		298				
SPE-CIAL	51922006	MICRO-SILICA MODIFIED CONCRETE OVERLAY (2.25" THICK) * ⊕	4,331	S.Y.		907		2,319	1,105		
SPE-CIAL	51922100	MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS) *	122	C.Y.	12	18	3	31	38	20	
SPE-CIAL	51922200	FULL DEPTH REPAIR *	46	C.Y.	4	14	3	15	10		
SPE-CIAL	51922300	TEST SLAB *	LUMP	L.S.	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	
SPE-CIAL	60739900	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	1,088	L.F.		233		570	285		

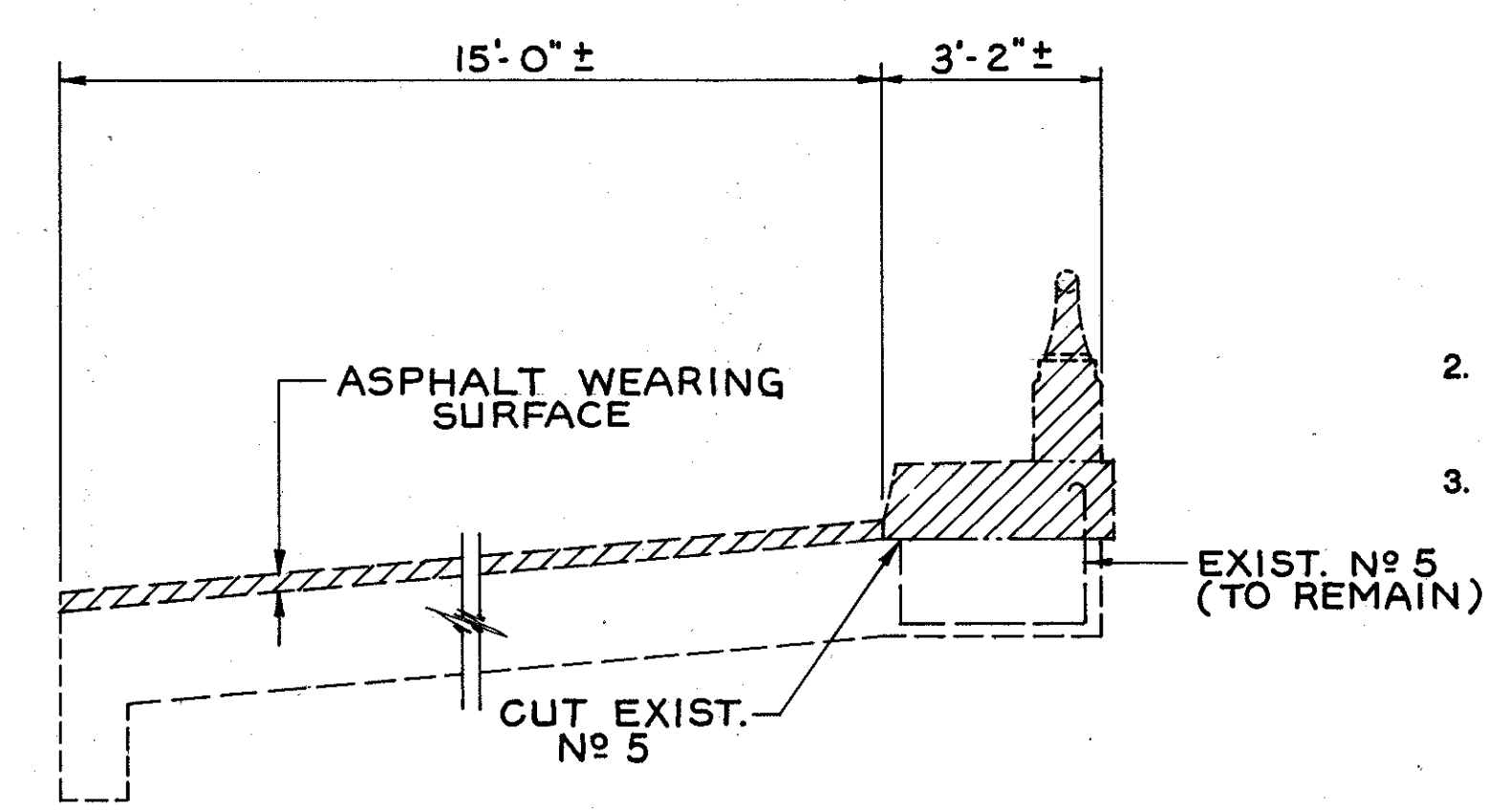
- * SEE PROPOSAL NOTE.
- ⊙ ITEM 509: AN ALLOWANCE OF 8,000 LBS HAS BEEN INCLUDED FOR REPLACING CORRODED REINFORCING STEEL AT THE DIRECTION OF THE ENGINEER.
- ▣ ITEM 519: AN ALLOWANCE OF 200 SF HAS BEEN INCLUDED TO BE USED AT THE DIRECTION OF THE ENGINEER.
- ▲ FOR LOCATION OF ITEM SPECIAL (SEALING OF CONCRETE SURFACES "EPOXY", SEE SHEET N^o 20 / 83.
- ^X As per plan
- ⊕ SEE NOTE *5 ON SHEET 52.

		2 / 34	
GPD ASSOCIATES		JOB N ^o 92045	
GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO			
ESTIMATED QUANTITIES			
BRIDGE N ^o JEF-7-1331 BRIDGE N ^o JEF-7-1340 BRIDGE N ^o JEF-7-1344 BRIDGE N ^o JEF-7-1348 BRIDGE N ^o JEF-7-1369 BRIDGE N ^o JEF-7-1390			
JEFFERSON COUNTY MINGO JUNCTION			
DESIGNED	DRAWN	TRACED	CHECKED
A.D.	R.L.W.	PJM	K.S.J.
REVIEWED	DATE	REVISED	DATE
	11. 11. 93		

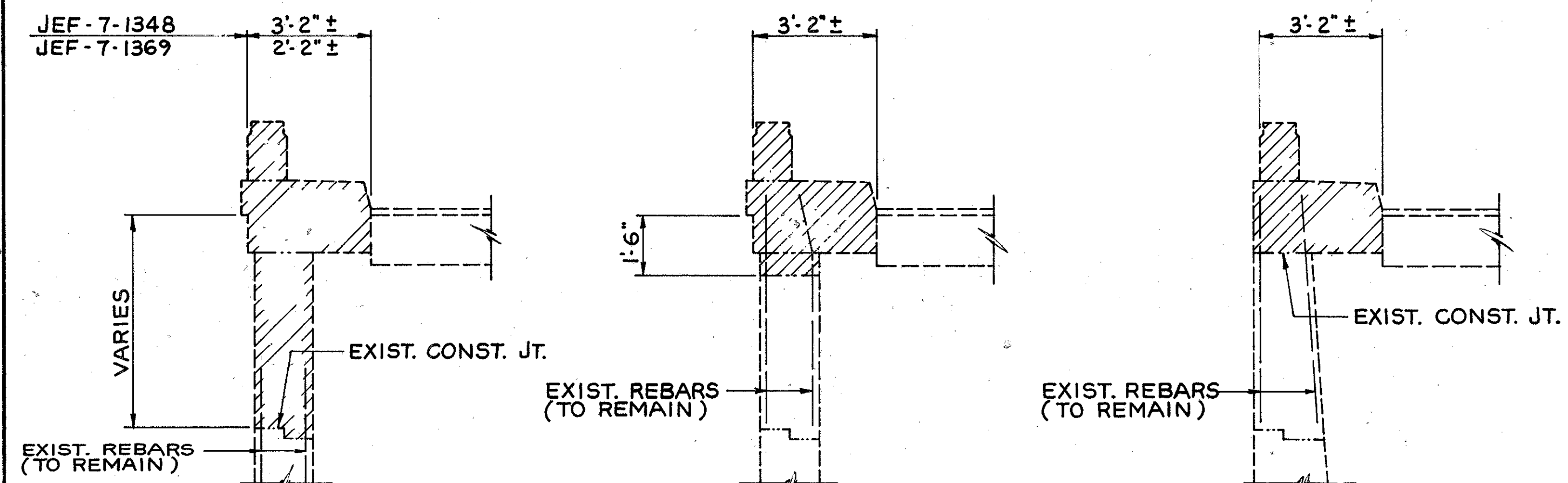
JEF - 7 - 13.11



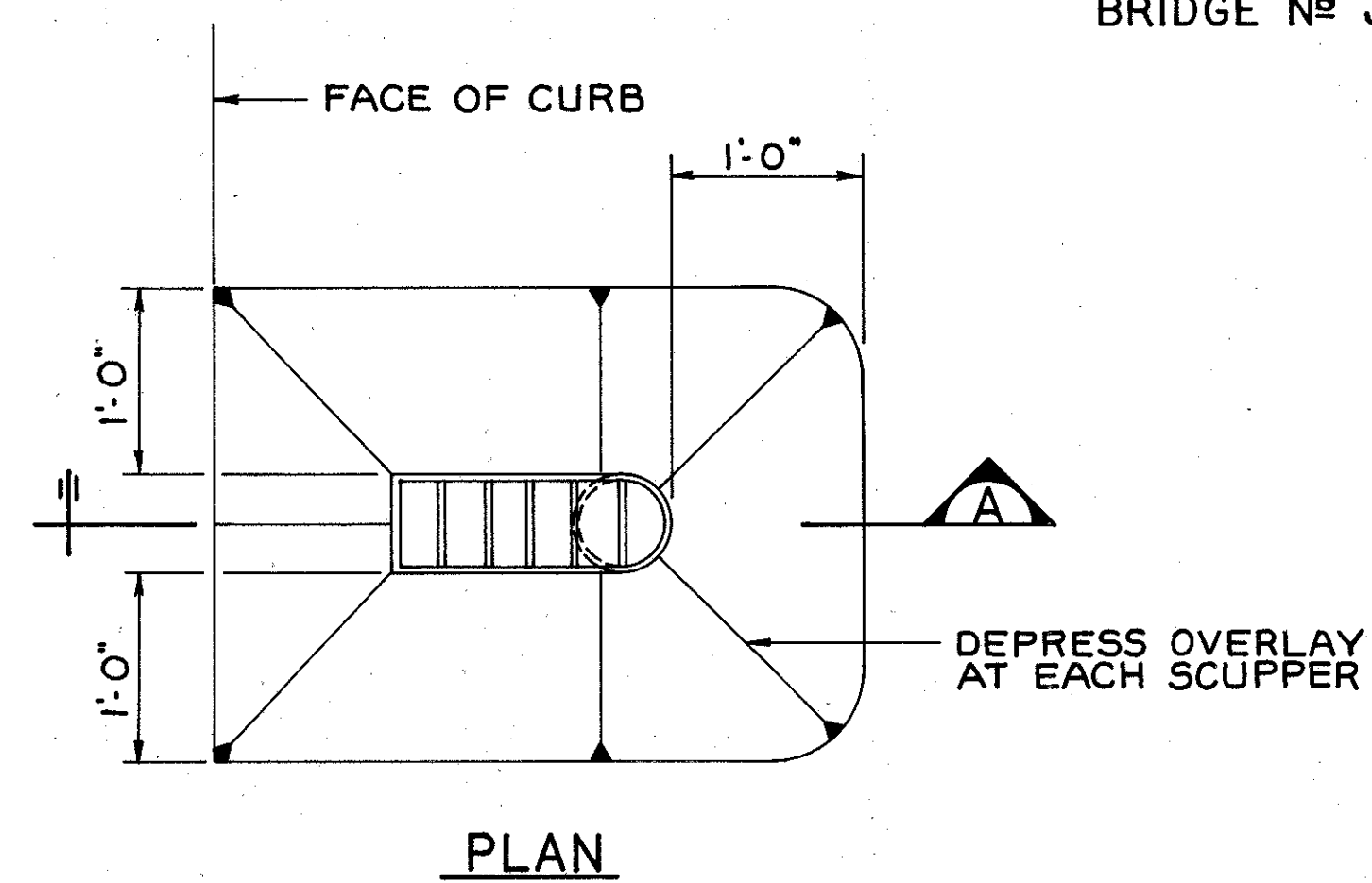
DECK REMOVAL LIMITS
BRIDGE No'S JEF-7-1340, 1348 & 1369



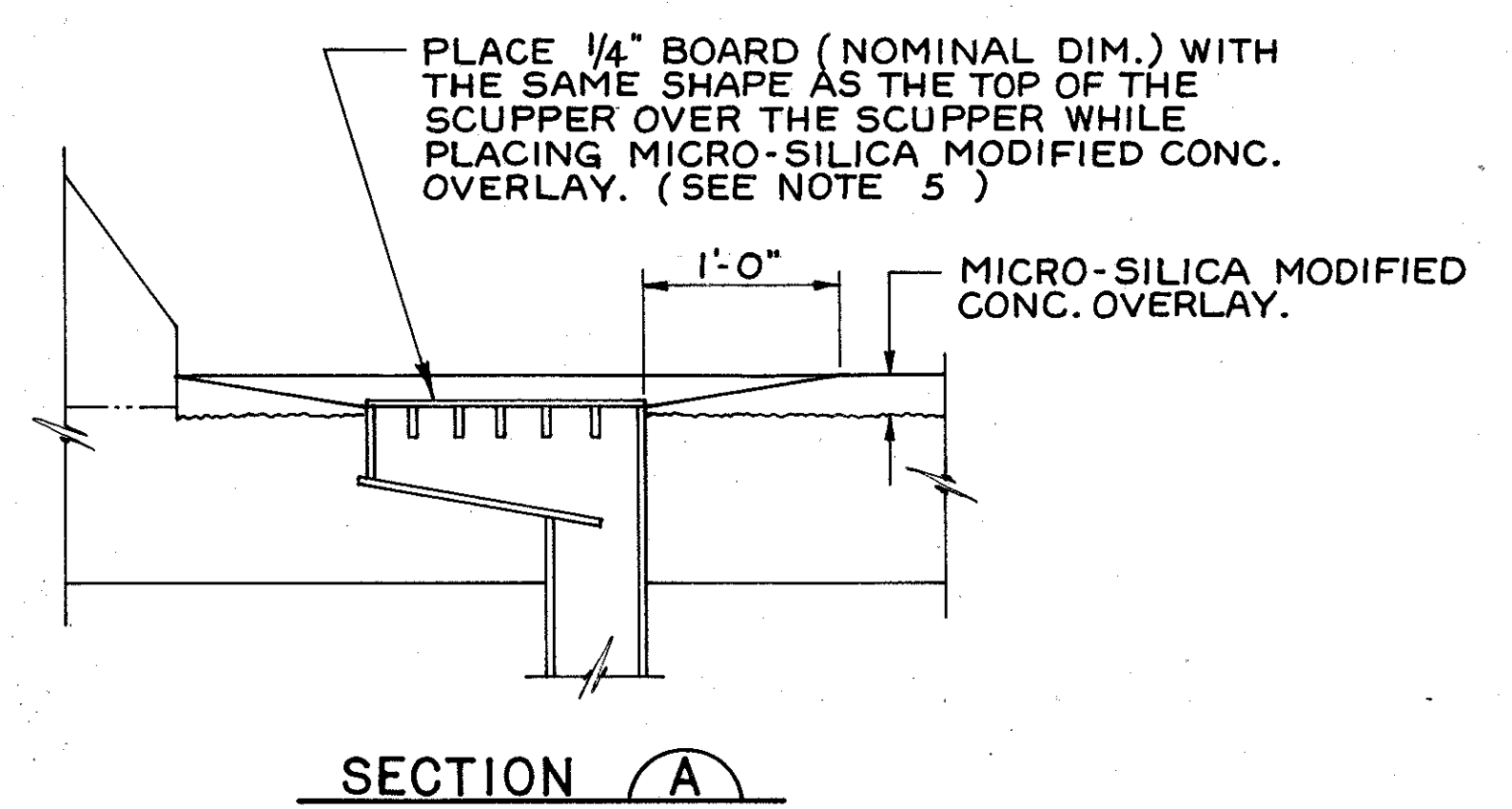
DECK REMOVAL LIMITS
BRIDGE No JEF-7-1390



WINGWALL REMOVAL LIMITS
BRIDGE No'S JEF-7-1348 (REAR ABUT.) & JEF-7-1369
BRIDGE No JEF-7-1348 (FRWD. ABUT.)
* BRIDGE No JEF-7-1390
* SECTION LOOKING DOWN / STA.



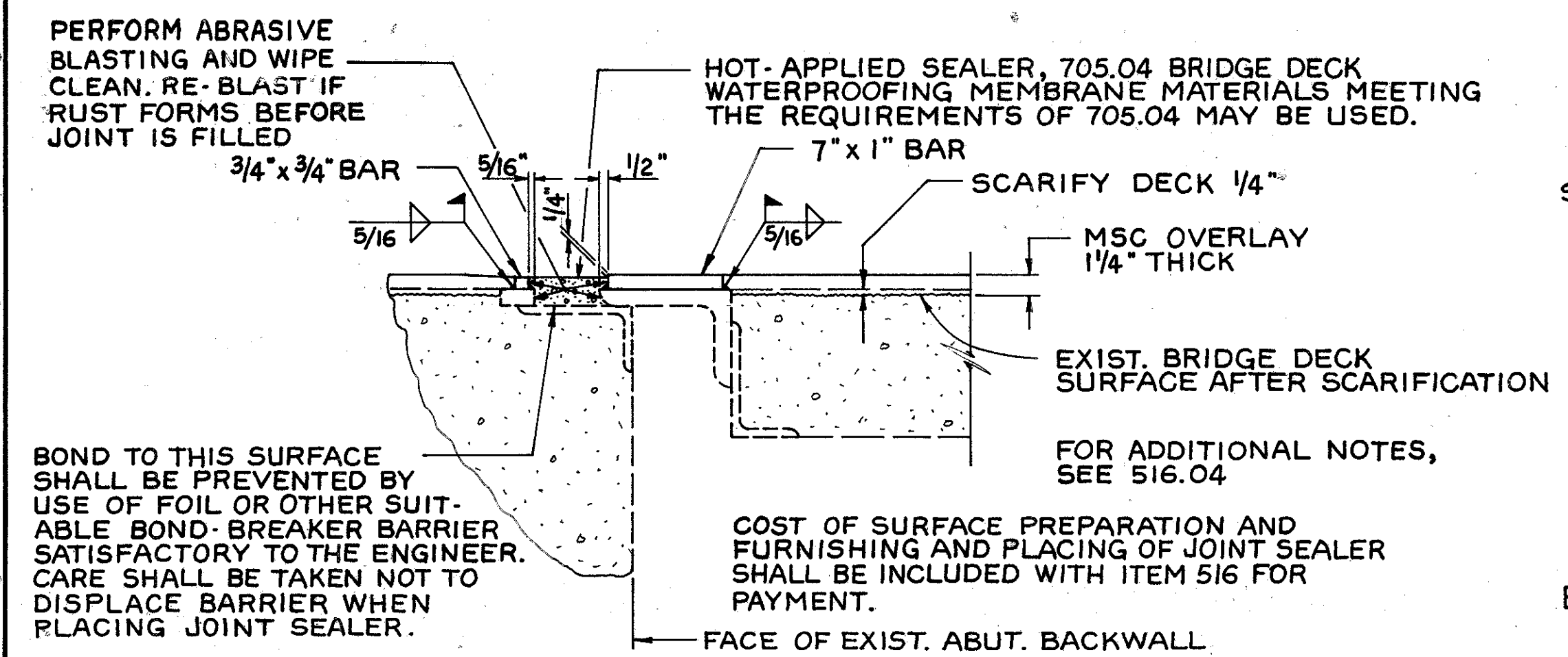
PLAN



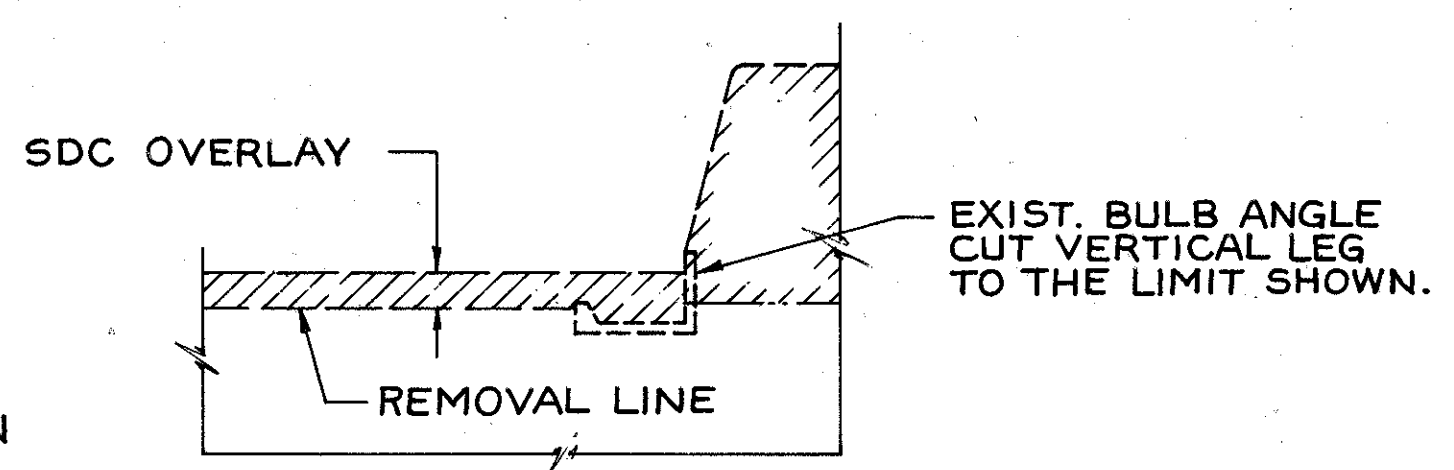
SECTION A

DETAIL AT SCUPPERS
BRIDGE No'S JEF-7-1340, 1348 & 1369

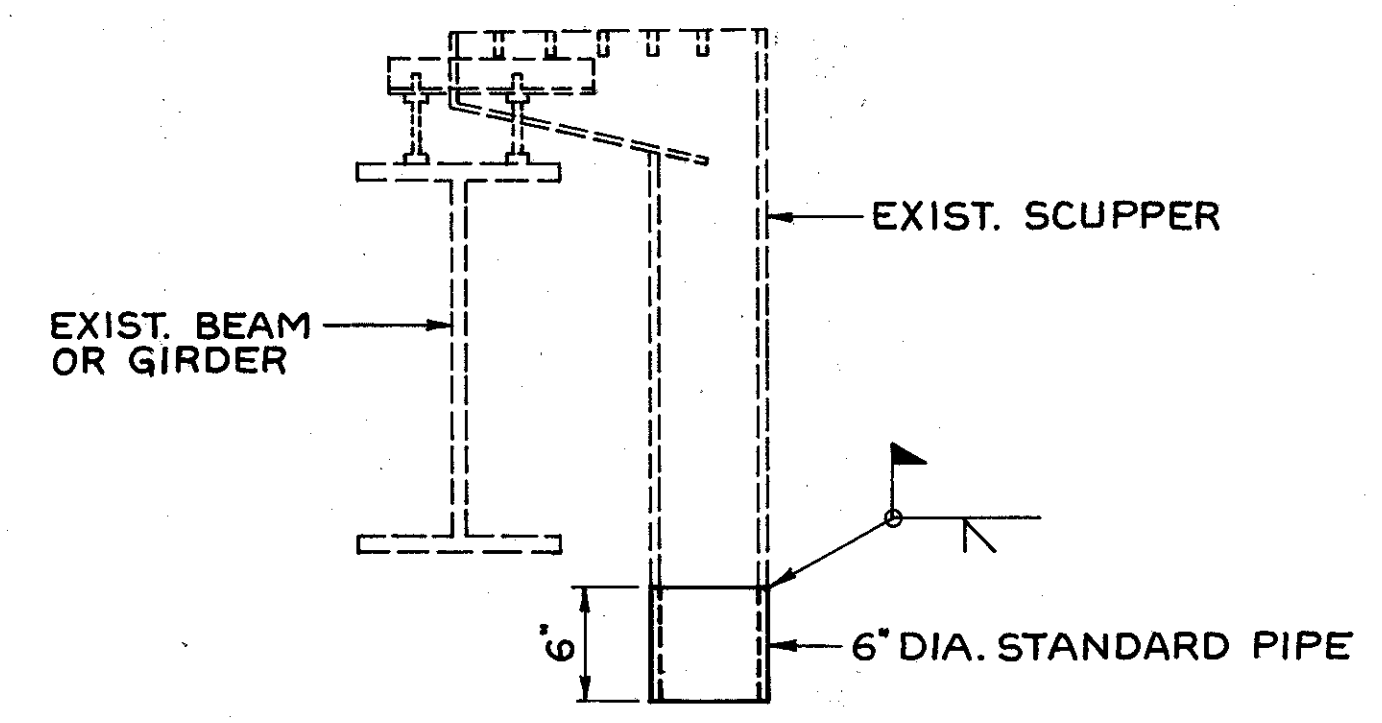
LEGEND
[Hatched Box] INDICATES REMOVAL LIMITS



DETAIL OF VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS
BRIDGE No'S JEF-7-1331 & 1344
(SEE NOTE 4)



DETAIL 1
BRIDGE No'S JEF-7-1340 1348 & 1369



SCUPPER EXTENSION DETAIL
BRIDGE No'S JEF-7-1340, 1348 & 1369

NOTES

- FOR GENERAL PLAN AND PROPOSED WORK OF: SEE SHT. NO.:
BRIDGE NO. JEF-7-1331 8/34
BRIDGE NO. JEF-7-1340 9/34
BRIDGE NO. JEF-7-1344 17/34
BRIDGE NO. JEF-7-1348 18/34
BRIDGE NO. JEF-7-1369 24/34
BRIDGE NO. JEF-7-1390 27/34
- FOR NOTE "PORTIONS OF STRUCTURE REMOVED", SEE SHEET NO. 1/34.
- FOR LOCATION OF SCUPPERS, SEE SHEET NOS. 9, 18, AND 24/34.

- MAINTENANCE OF TRAFFIC: GENERALLY THE BARS SHALL BE WELDED WHILE THE LANE IS CLOSED FOR WATERPROOFING OR RESURFACING. HOWEVER, IF TRAFFIC IS ROUTED OVER THE BARS BEFORE RESURFACING, TEMPORARY RAMPS SHALL BE CONSTRUCTED TO THE TOPS OF THE BARS USING 402 OR 404 FEATHERING AT A MAX. SLOPE OF 6 FT./IN. THE RAMPS SHALL BE REMOVED PRIOR TO RESURFACING. PAYMENT FOR PLACING AND REMOVING THE RAMPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614.
- MODIFICATION AT SCUPPER IS INCLUDED WITH ITEM SPECIAL, MICRO-SILICA MODIFIED CONCRETE OVERLAY (2.25" THICK) FOR PAYMENT.

6. ABBREVIATIONS:
SDC SUPERPLASTICIZED DENSE CONCRETE
MSC MICRO-SILICA MODIFIED CONCRETE

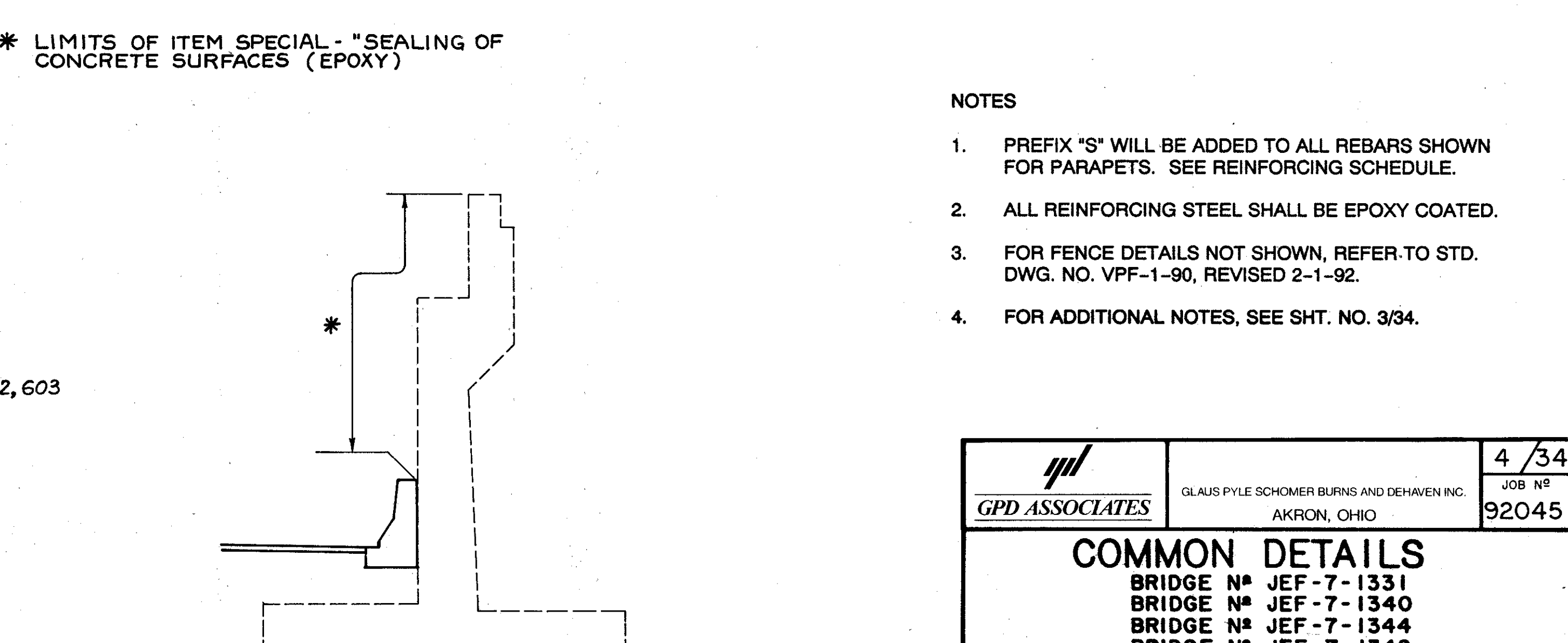
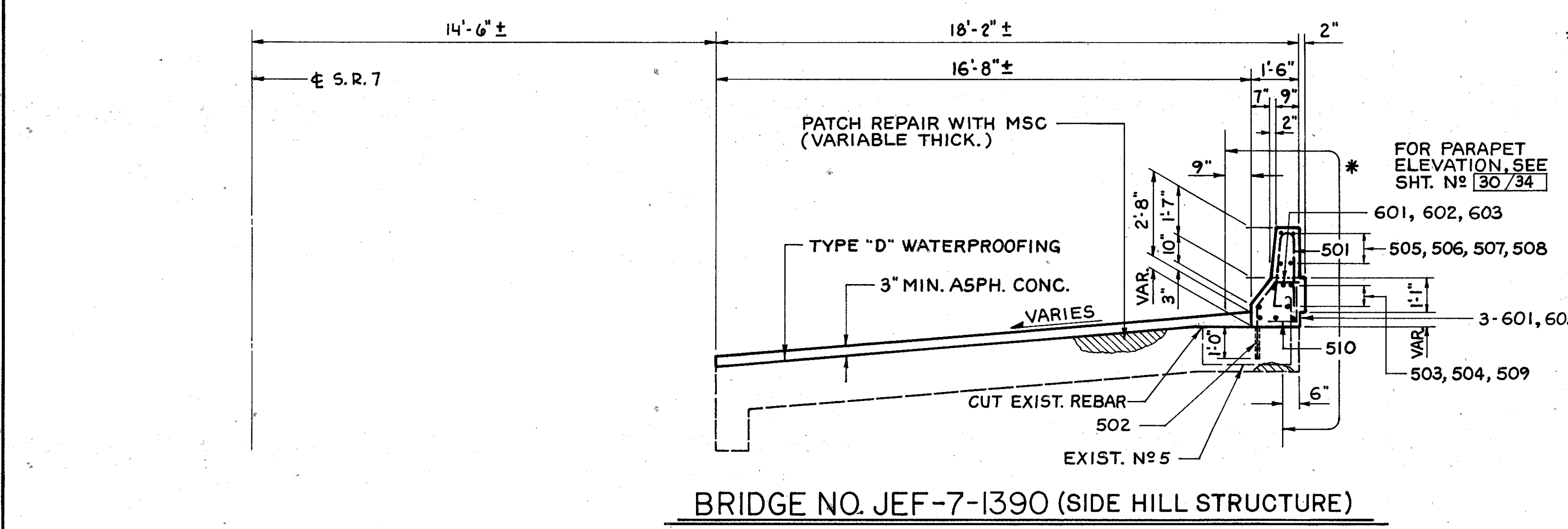
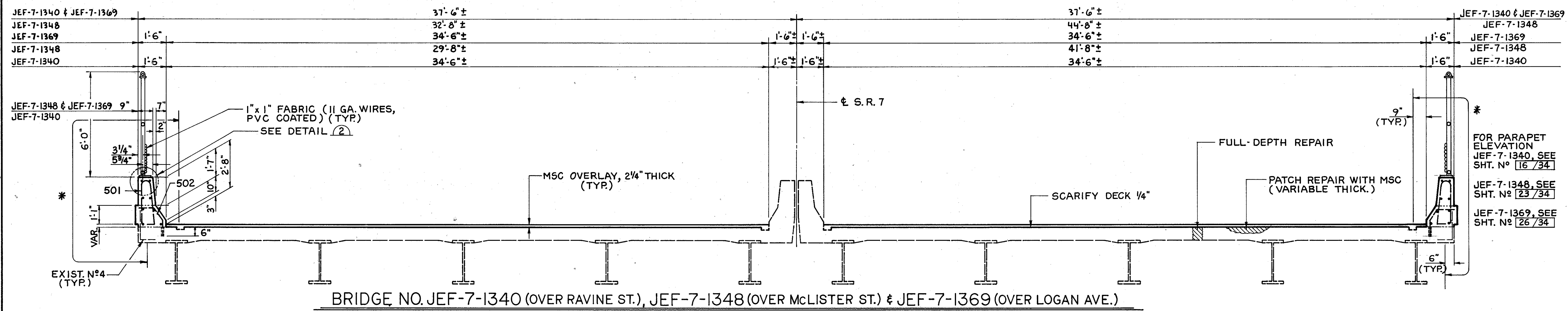
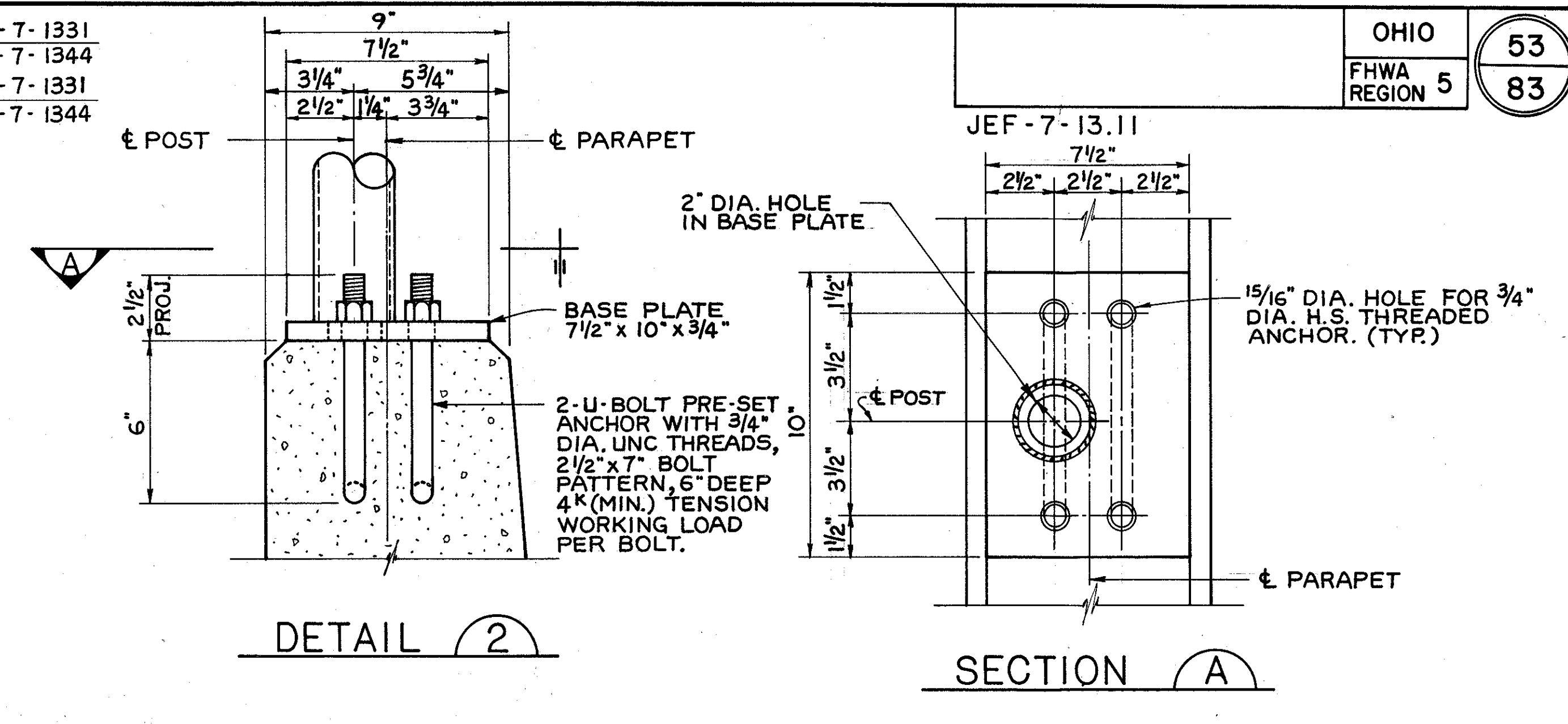
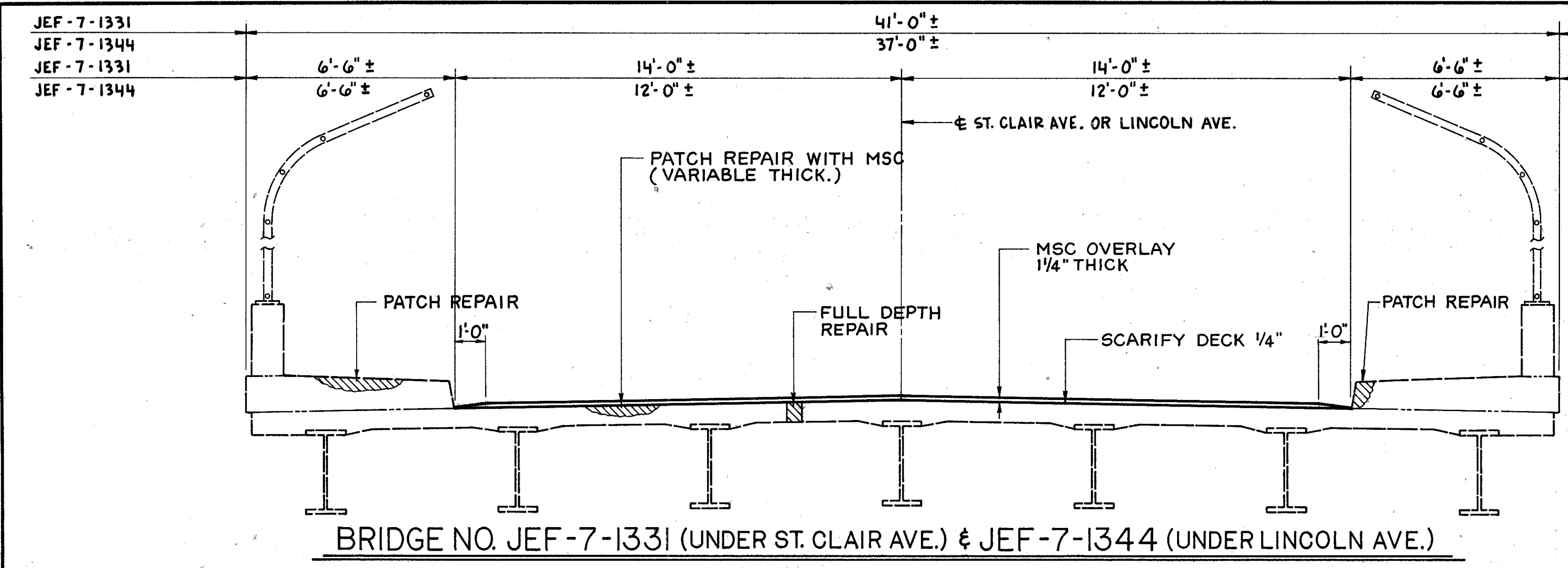
GPD ASSOCIATES	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	3/34 JOB No 92045
-----------------------	--	-------------------------

COMMON DETAILS

BRIDGE No JEF-7-1331	BRIDGE No JEF-7-1340	BRIDGE No JEF-7-1344	BRIDGE No JEF-7-1348	BRIDGE No JEF-7-1369	BRIDGE No JEF-7-1390
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

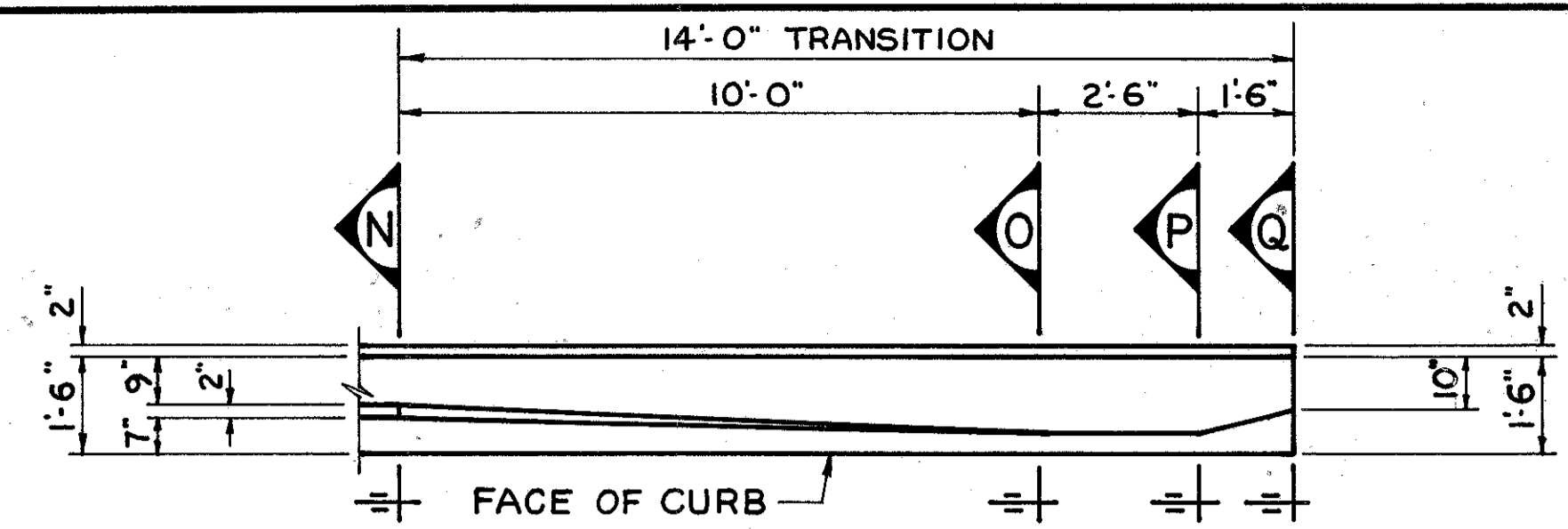
JEFFERSON COUNTY
MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		EW			

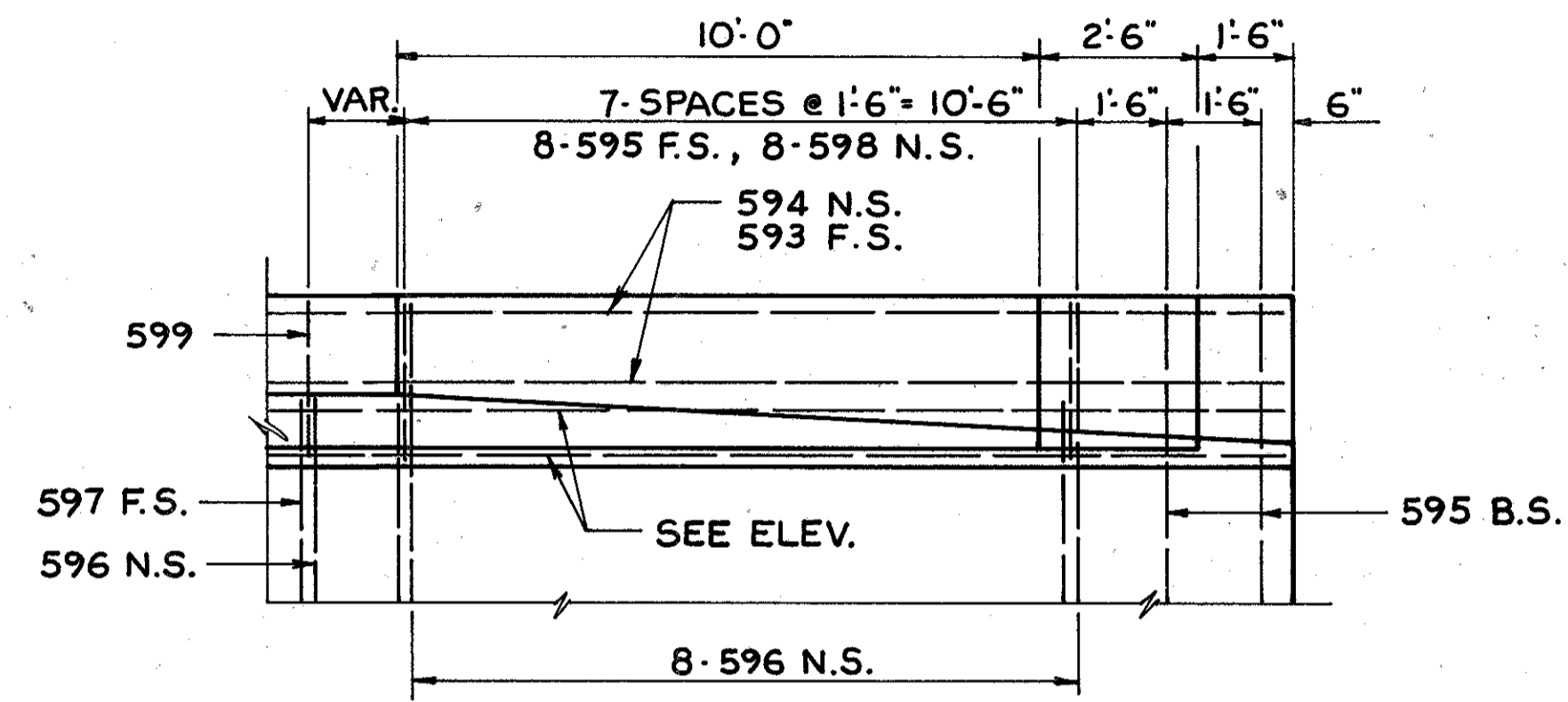


- NOTES
1. PREFIX 'S' WILL BE ADDED TO ALL REBARS SHOWN FOR PARAPETS. SEE REINFORCING SCHEDULE.
 2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
 3. FOR FENCE DETAILS NOT SHOWN, REFER TO STD. DWG. NO. VPF-1-90, REVISED 2-1-92.
 4. FOR ADDITIONAL NOTES, SEE SHT. NO. 3/34.

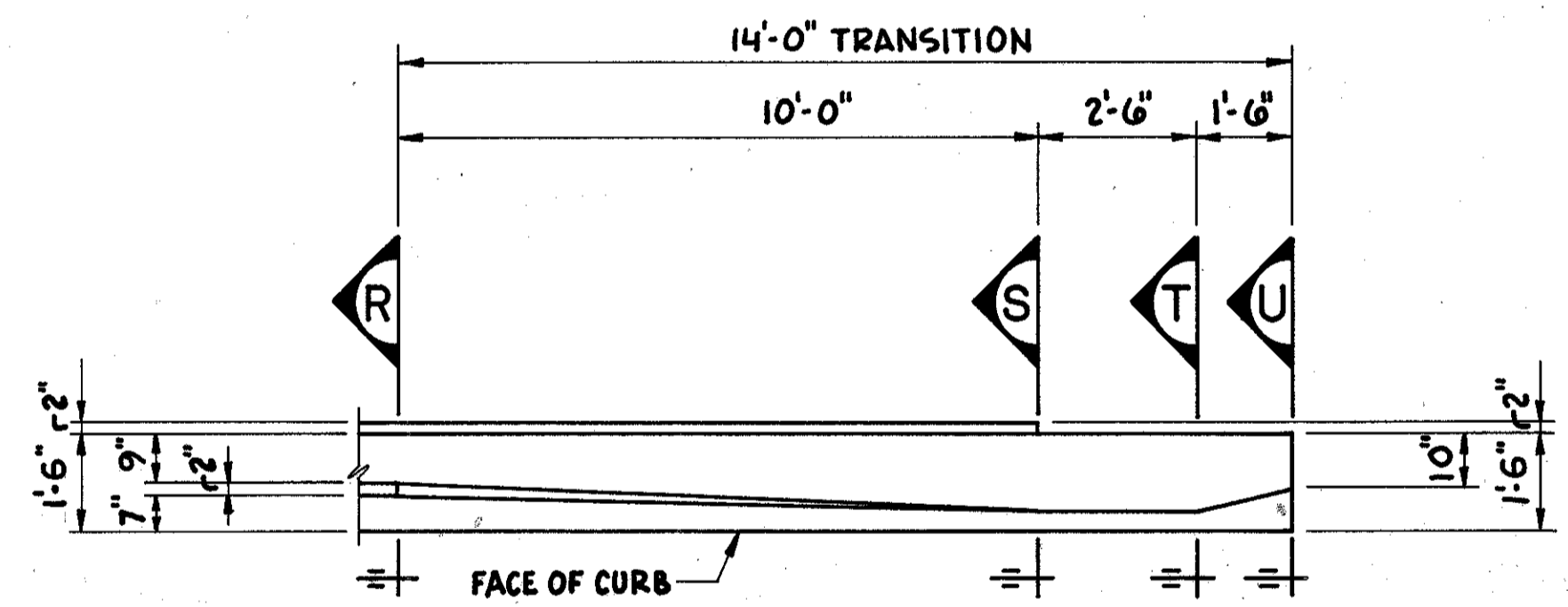
		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		4/34 JOB NO. 92045		
COMMON DETAILS						
BRIDGE NO. JEF-7-1331 BRIDGE NO. JEF-7-1340 BRIDGE NO. JEF-7-1344 BRIDGE NO. JEF-7-1348 BRIDGE NO. JEF-7-1369 BRIDGE NO. JEF-7-1390						
JEFFERSON COUNTY MINGO JUNCTION						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		R.W.	K.S.J.	11.11.93	



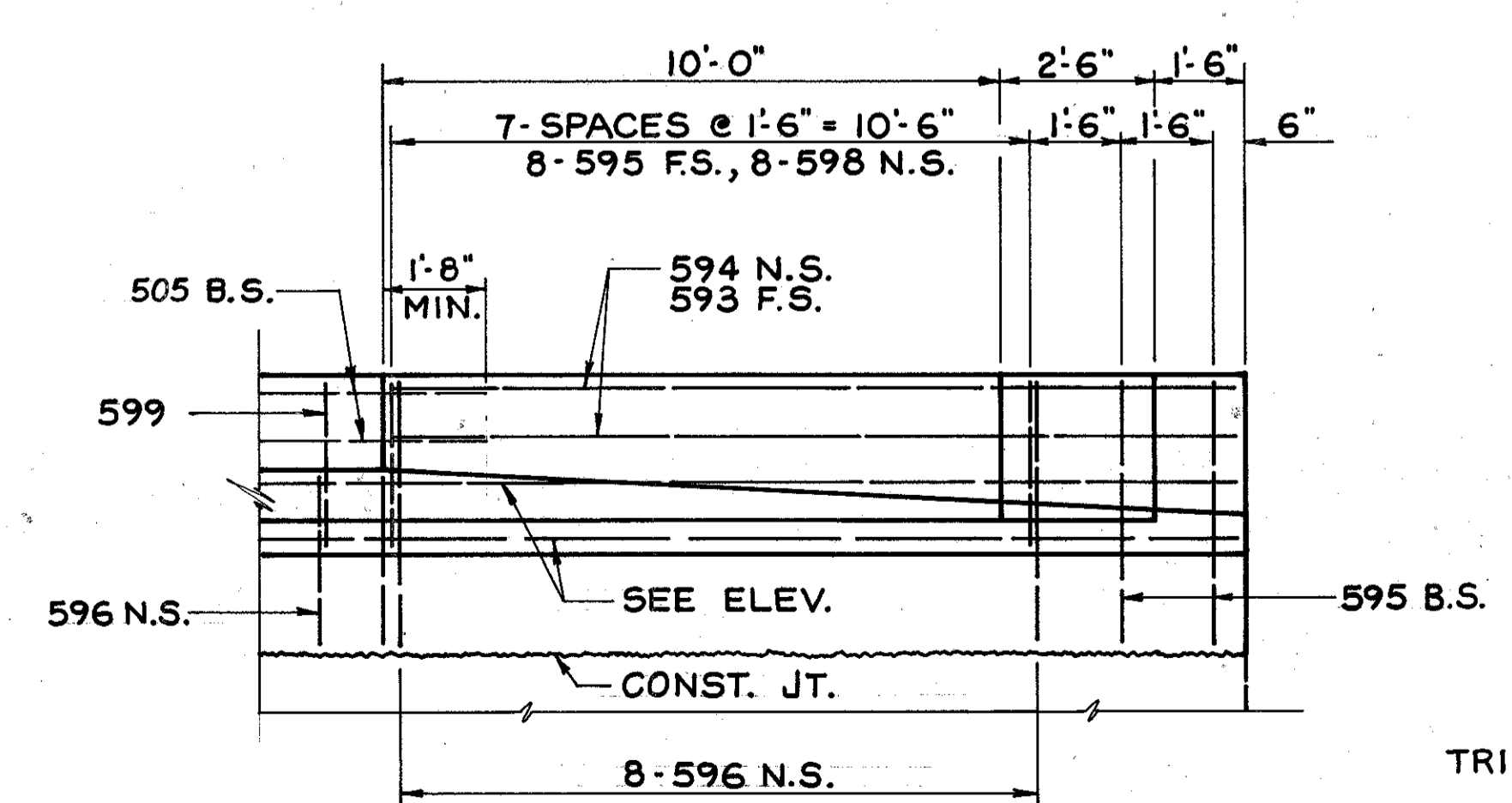
PLAN



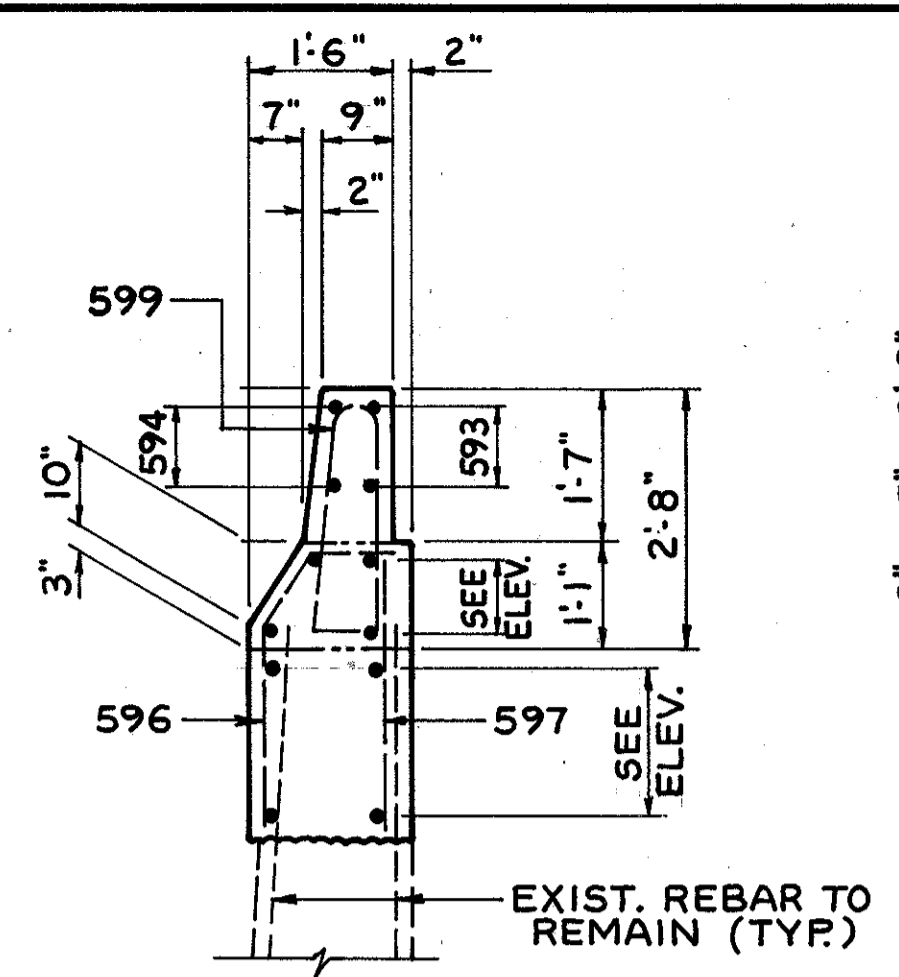
ELEVATION
TRANSITION "A"



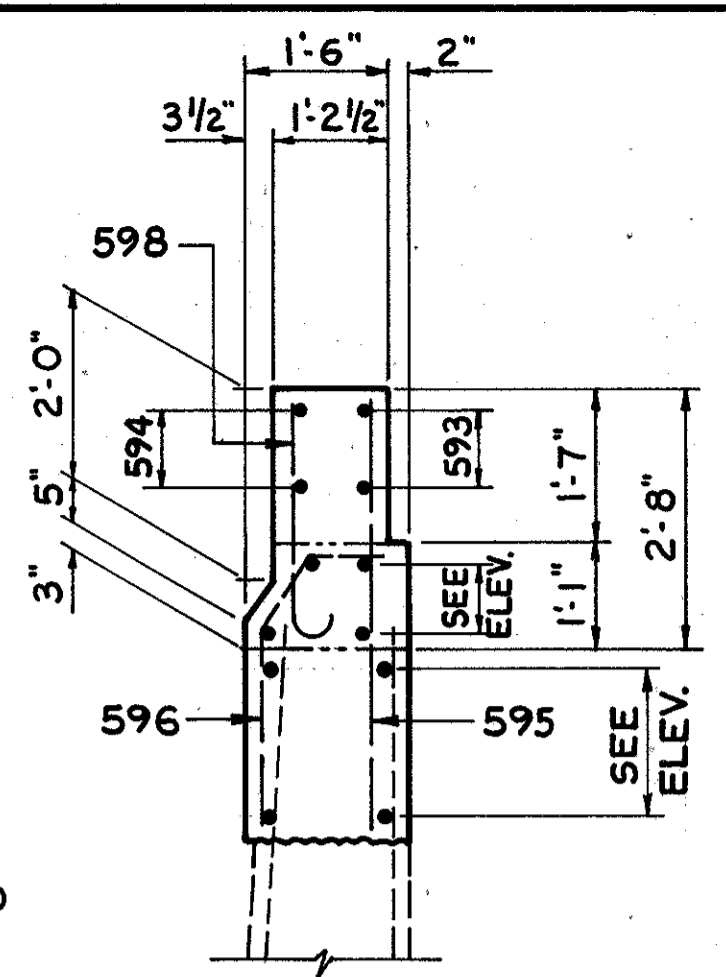
PLAN



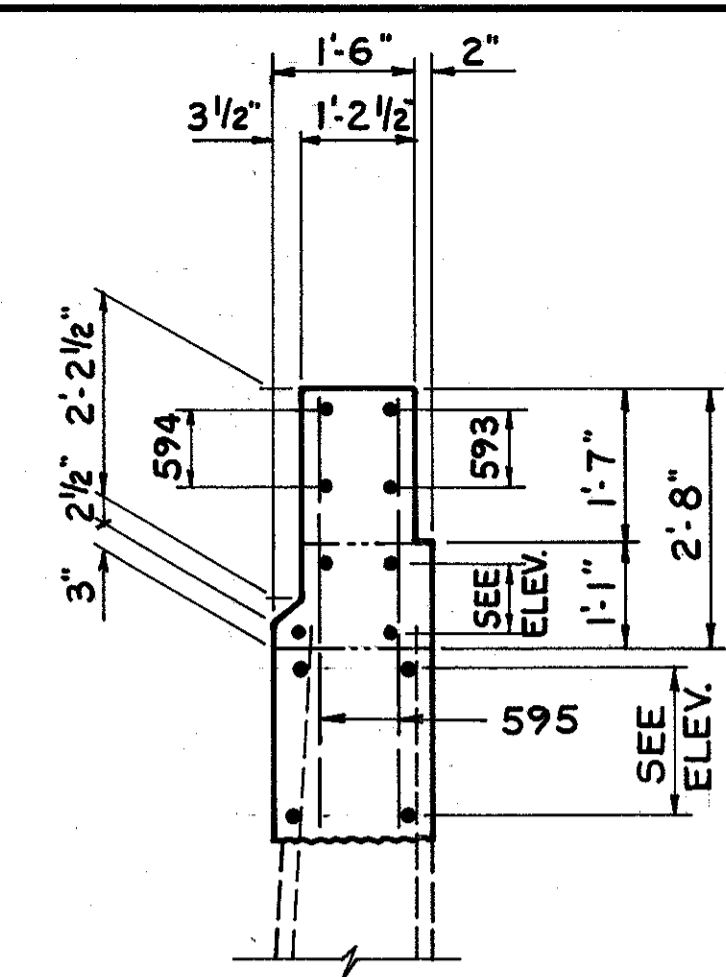
ELEVATION
TRANSITION "B"



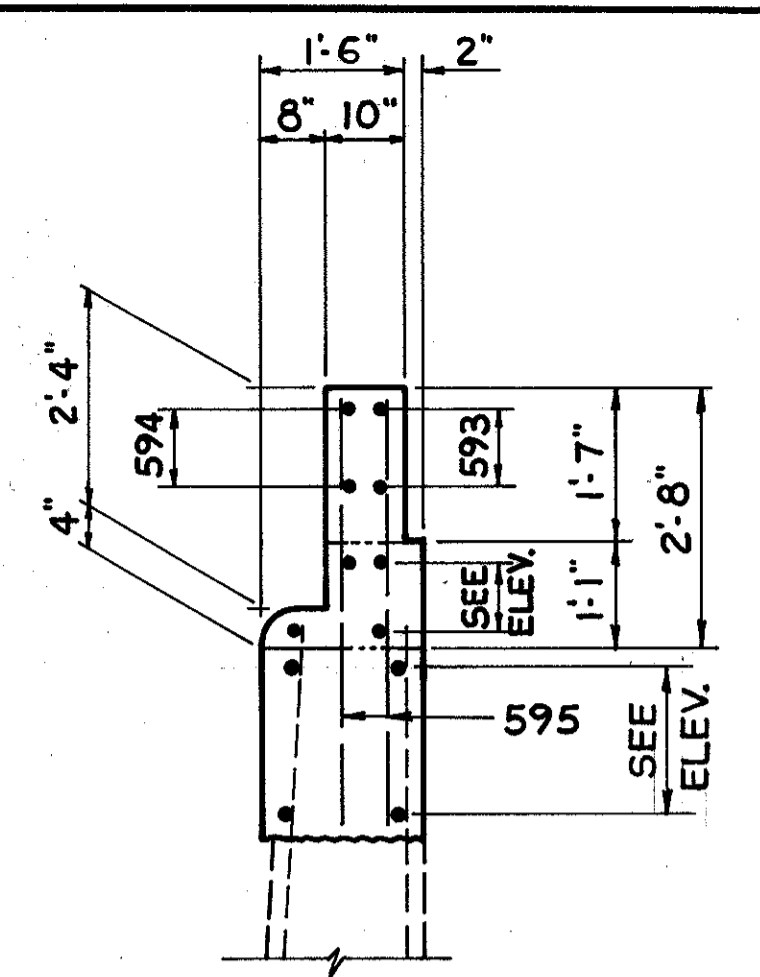
SECTION N



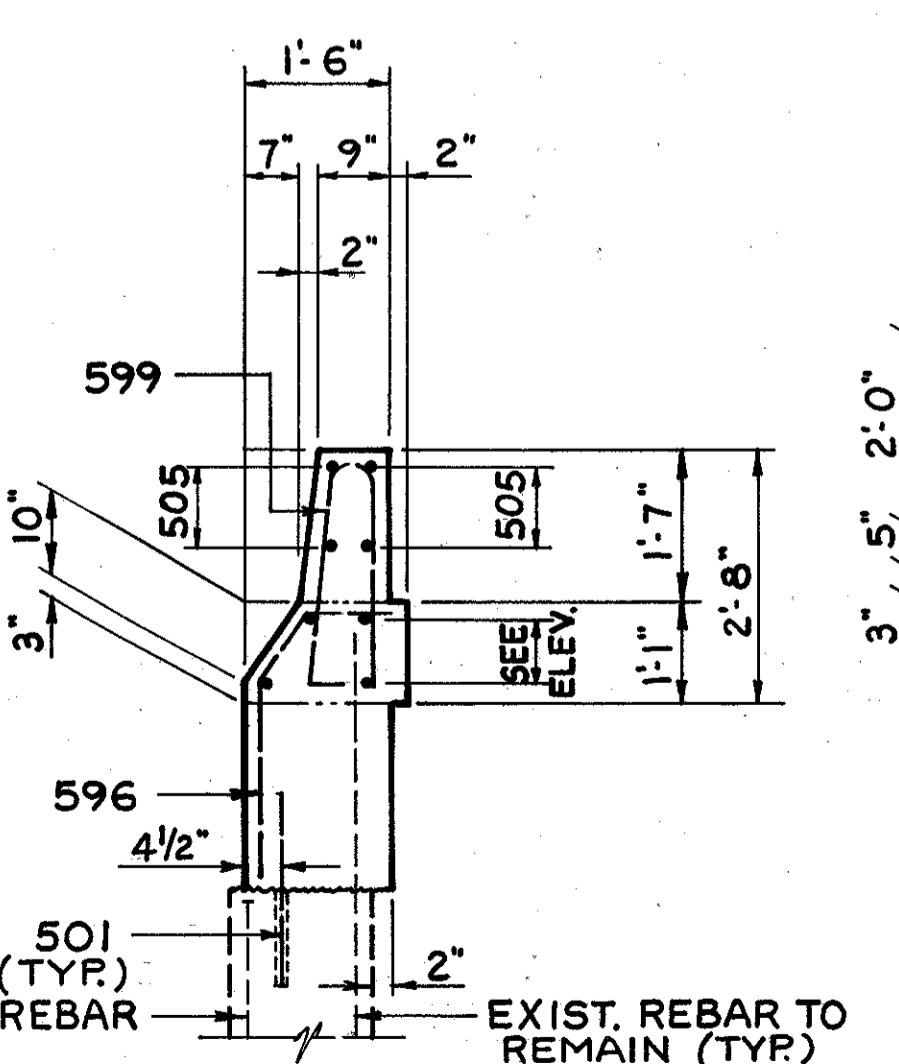
SECTION O



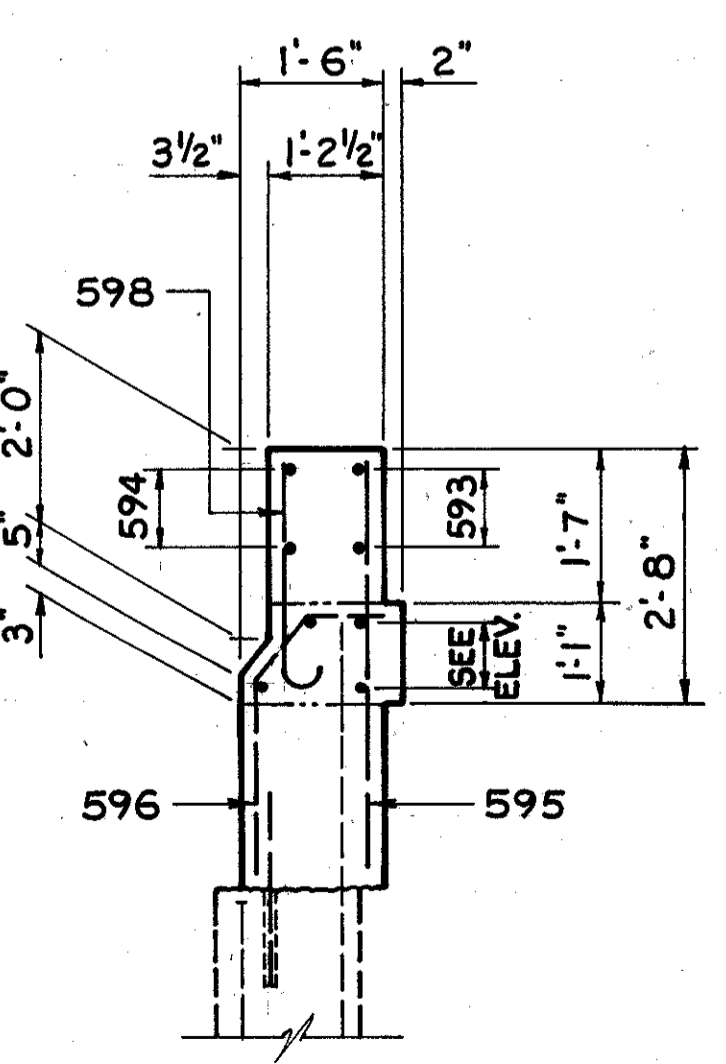
SECTION P



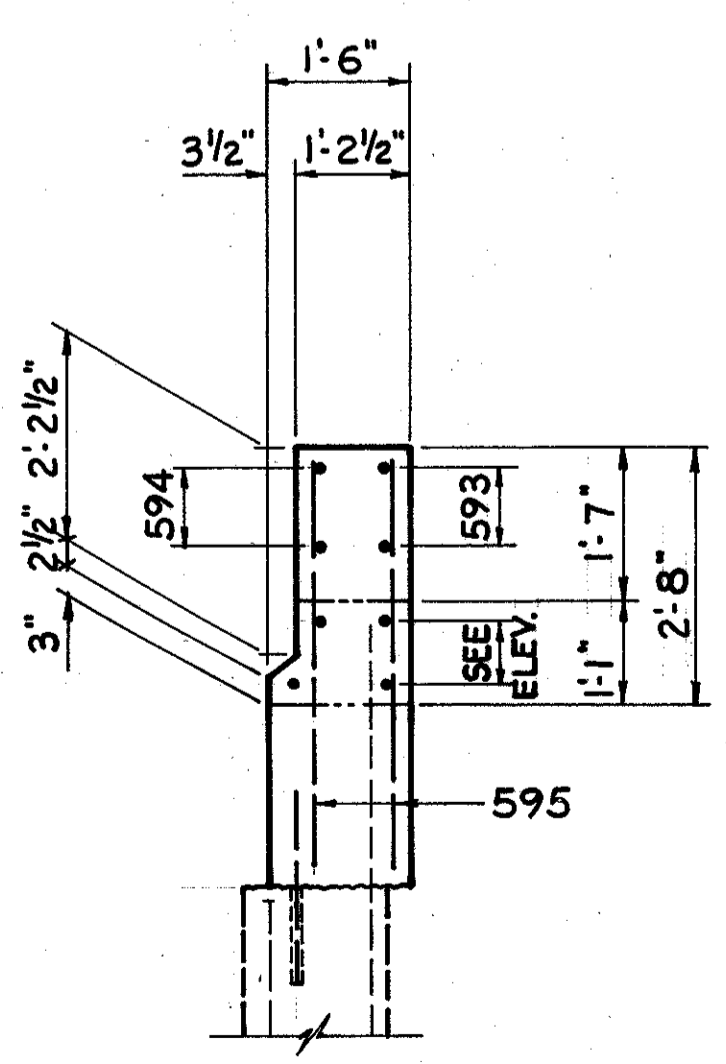
SECTION Q



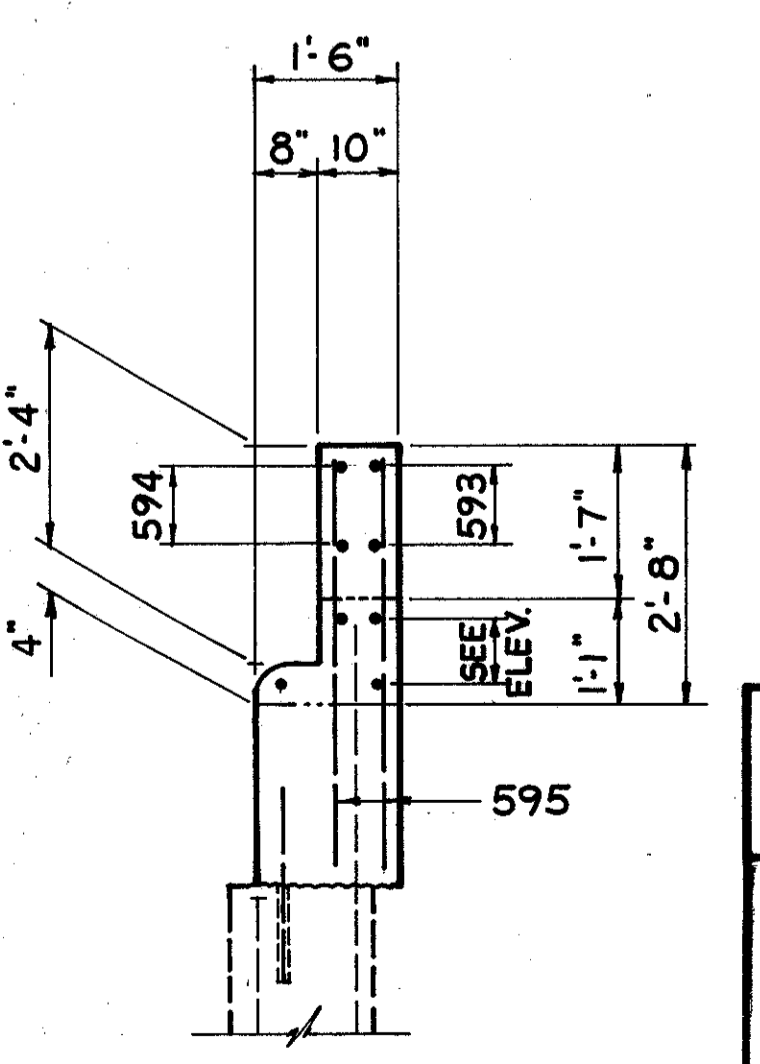
SECTION R



SECTION S



SECTION T



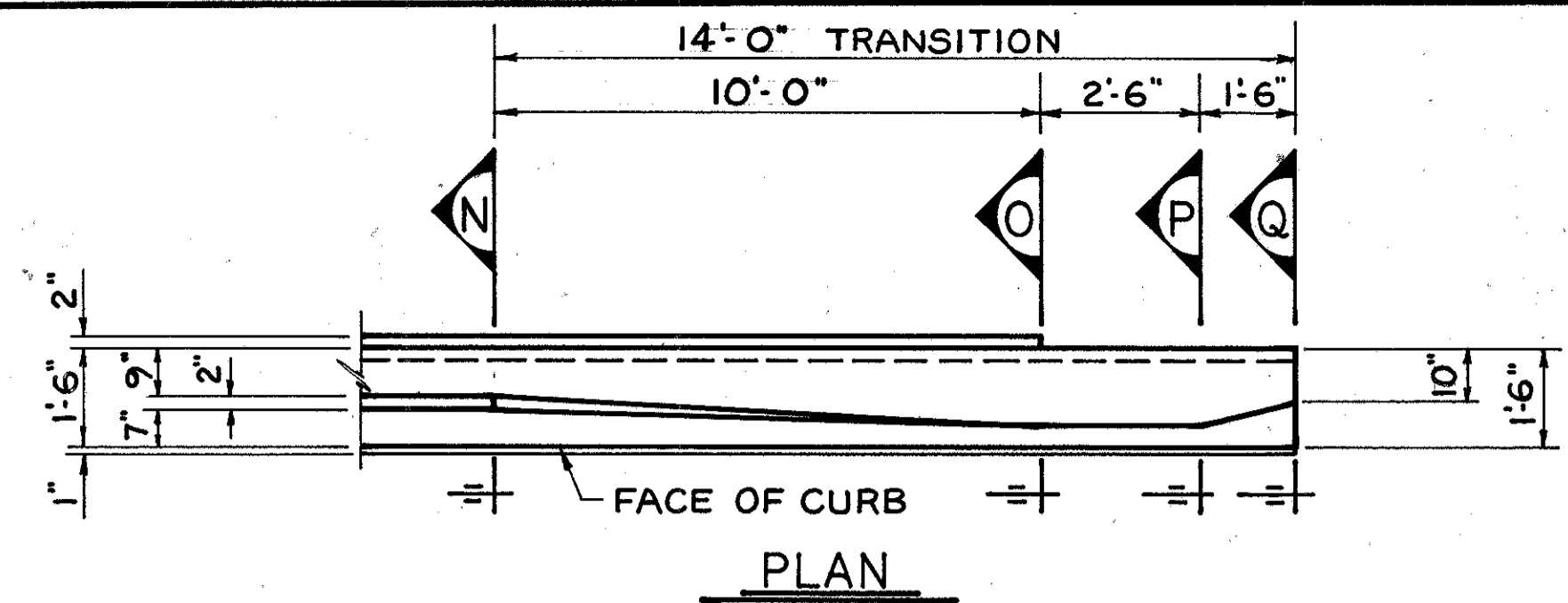
SECTION U

NOTES

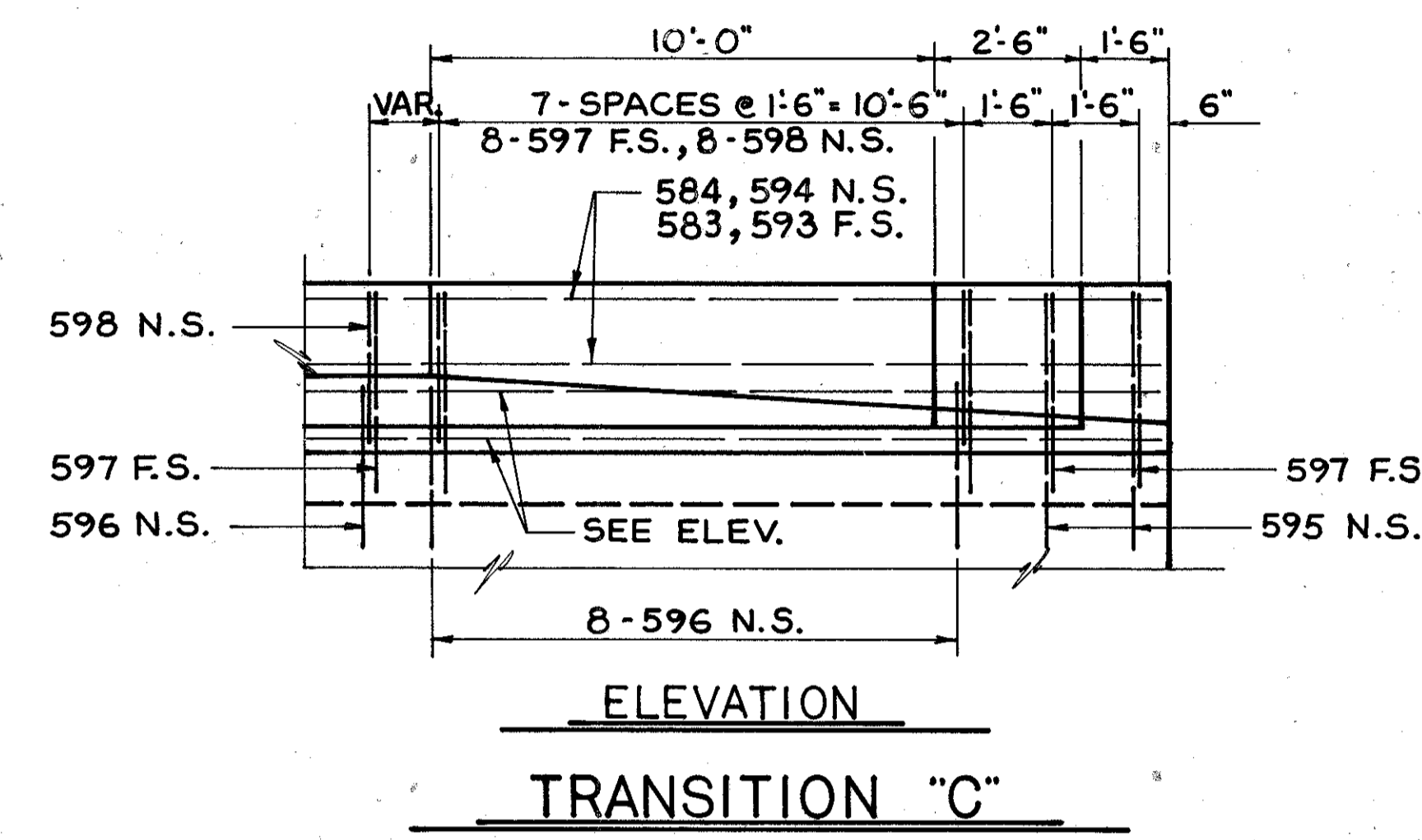
- FOR LOCATION OF TRANSITION "A" AND PREFIX TO ALL REBAR MARKS SHOWN, SEE SHT. NO. 31/34.
- FOR LOCATION OF TRANSITION "B" AND PREFIX TO ALL REBAR MARKS SHOWN, SEE SHT. NO. 28/34.
- FOR ADDITIONAL NOTES, SEE SHT. NO. 11/34.

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		5/34 JOB NO 92045
COMMON DETAILS BRIDGE # JEF-7-1340 BRIDGE # JEF-7-1390				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
A.D.	R.L.W.		RJW	K.S.J.
				DATE 11.11.93
				REVISED

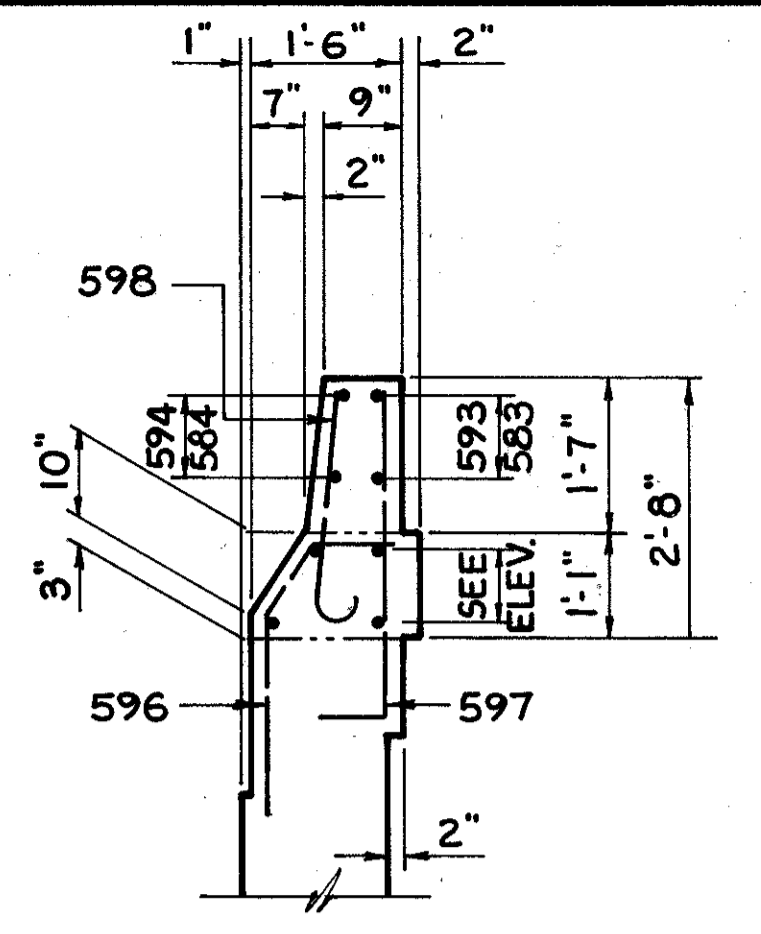
JEF-7-13.11



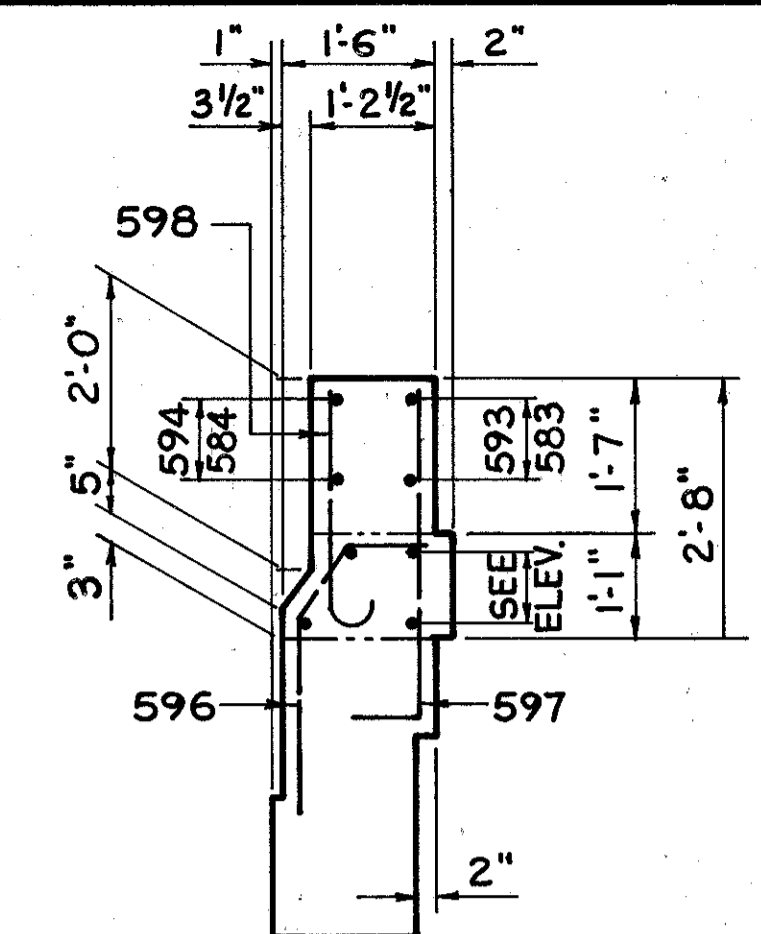
PLAN



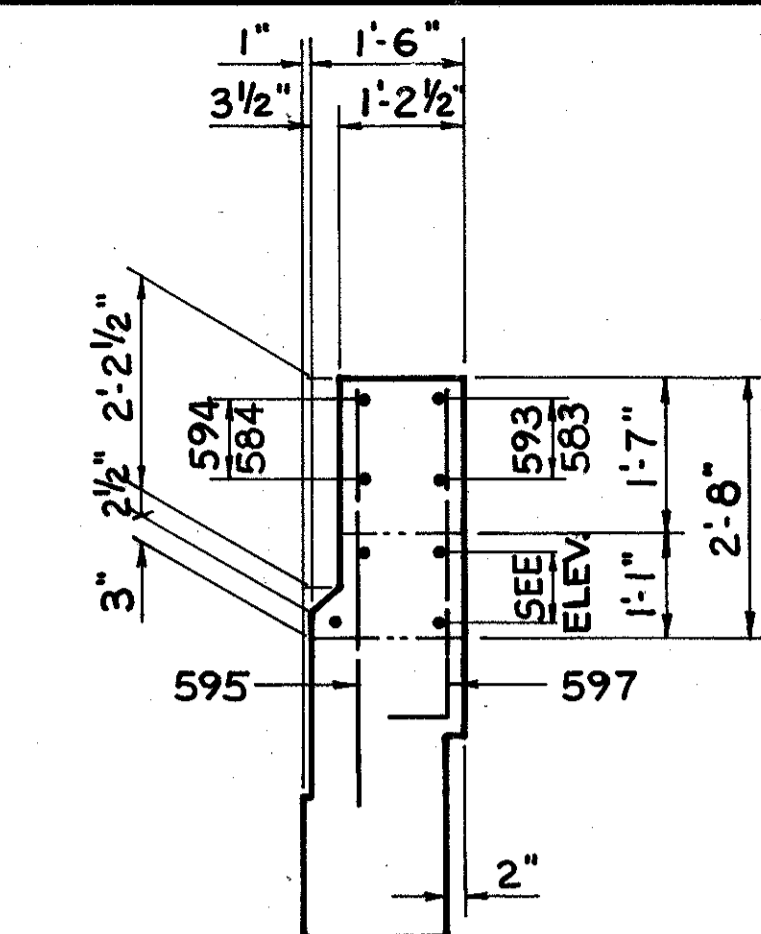
ELEVATION
TRANSITION "C"



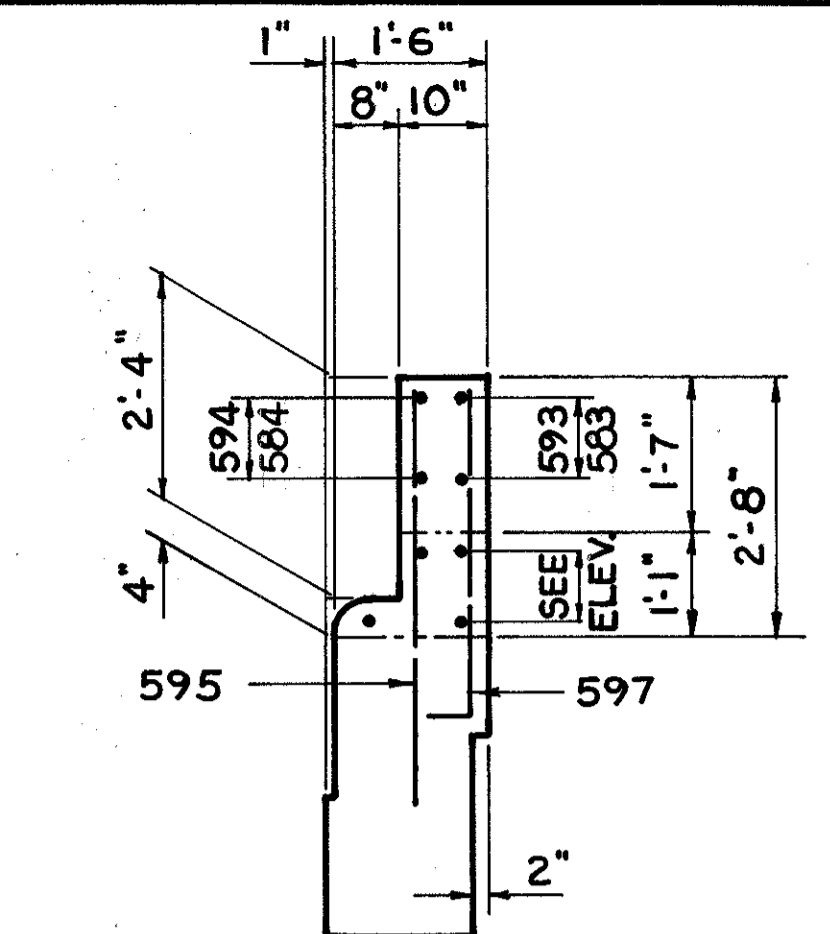
SECTION N



SECTION O



SECTION P

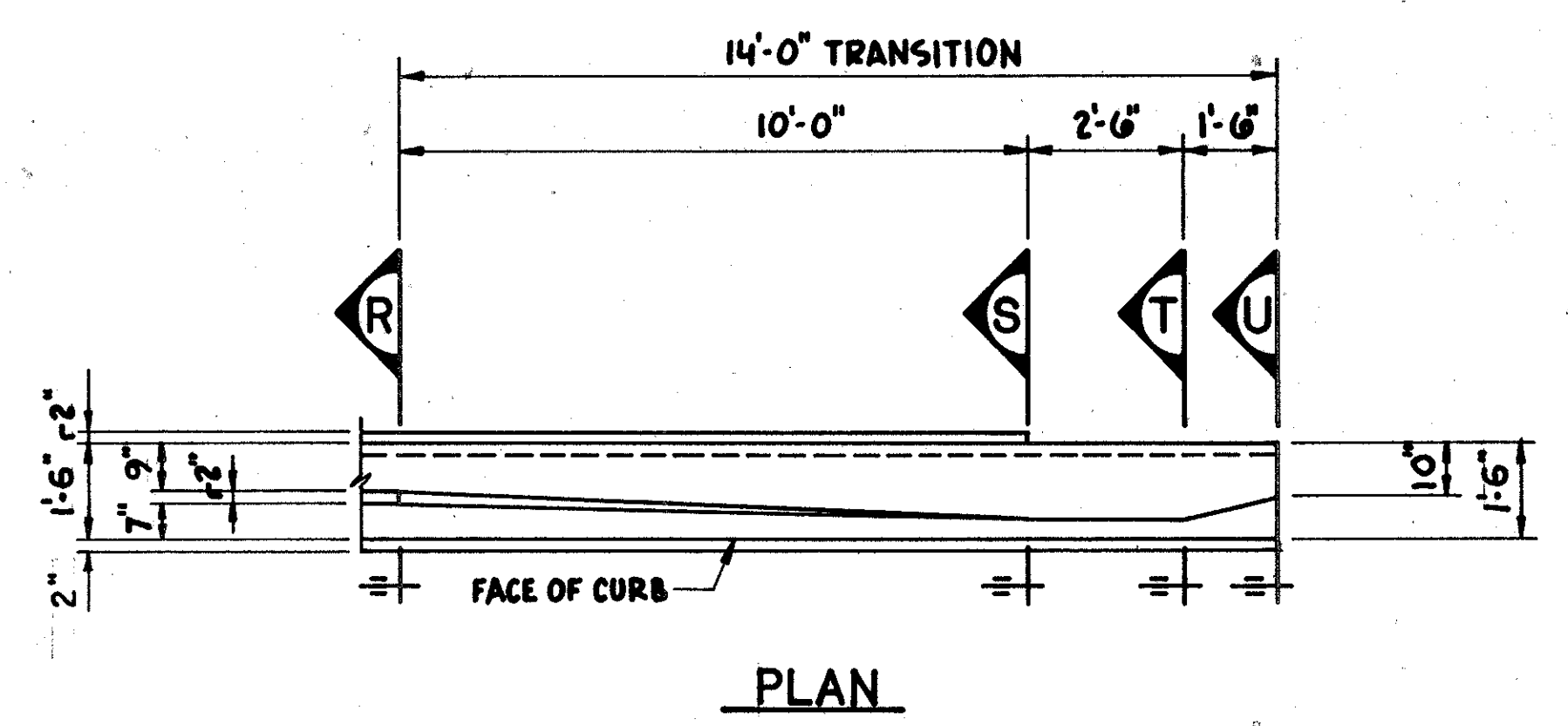


SECTION Q

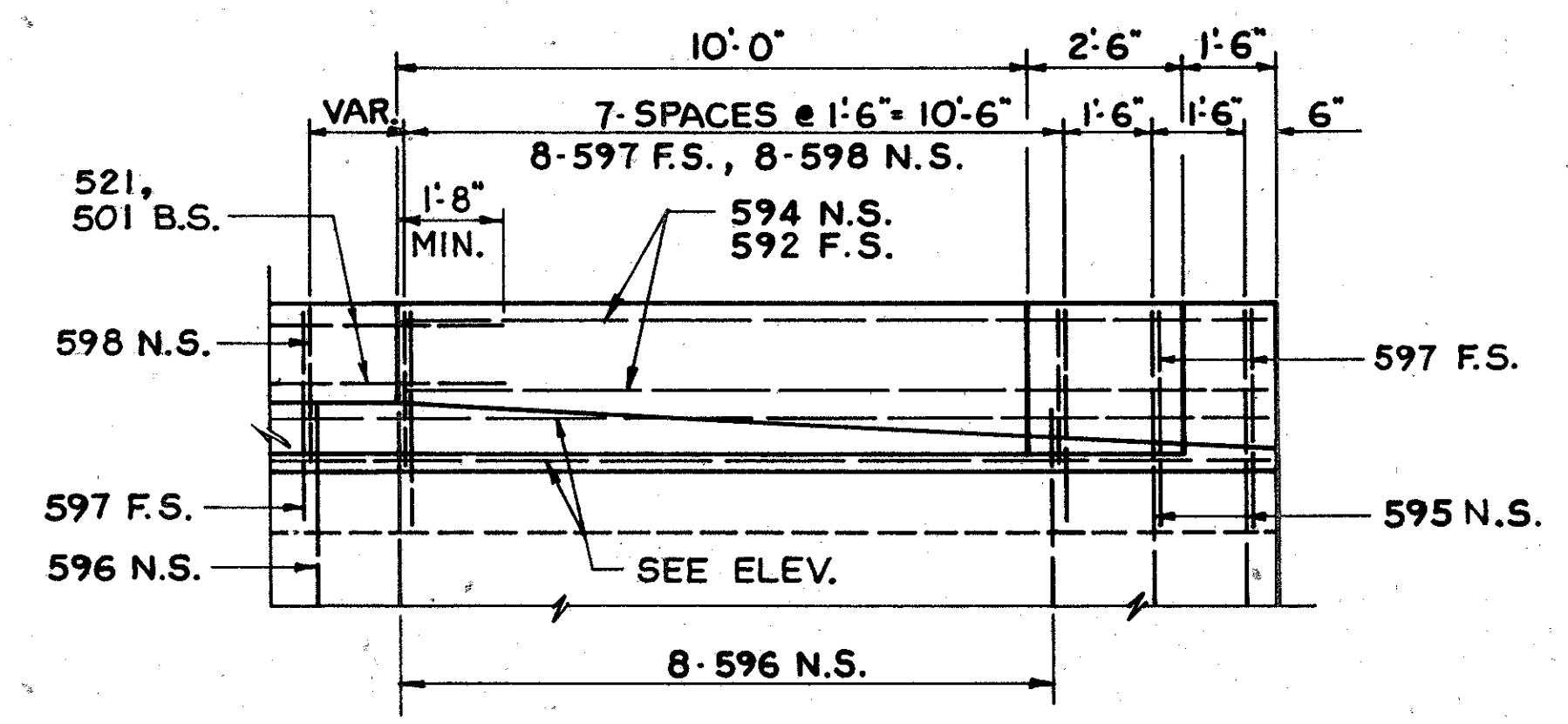
NOTES

1. FOR LOCATION OF TRANSITION "C" AND PREFIX TO ALL REBAR MARKS SHOWN. SEE SHT. NOS. 11, 13 AND 25/34.
2. FOR ADDITIONAL NOTES, SEE SHT. NO. 11/34.

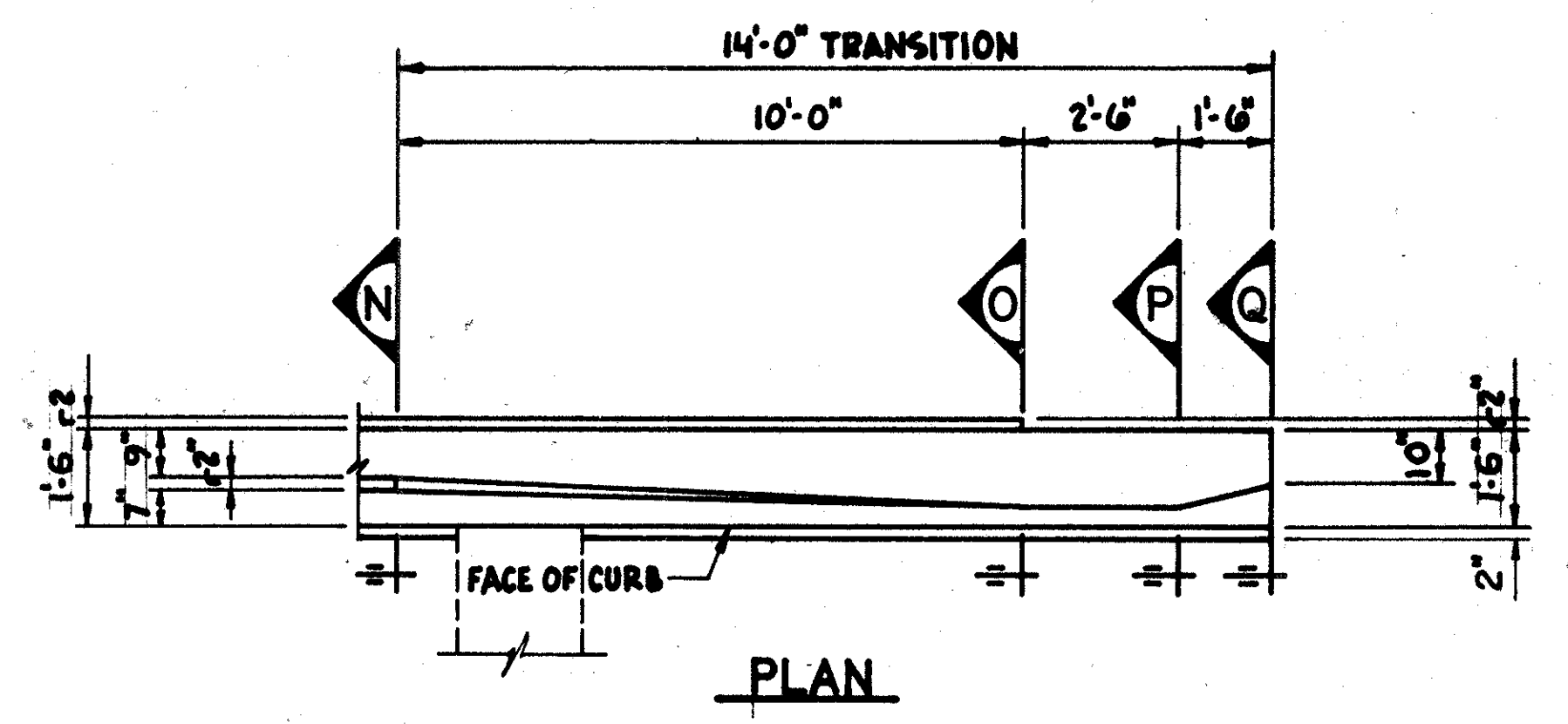
		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		6/34 JOB NO. 92045	
COMMON DETAILS BRIDGE N° JEF-7-1340 BRIDGE N° JEF-7-1369					
JEFFERSON COUNTY MINGO JUNCTION					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
A.D.	R.L.W.		PW	KSJ	11.11.93



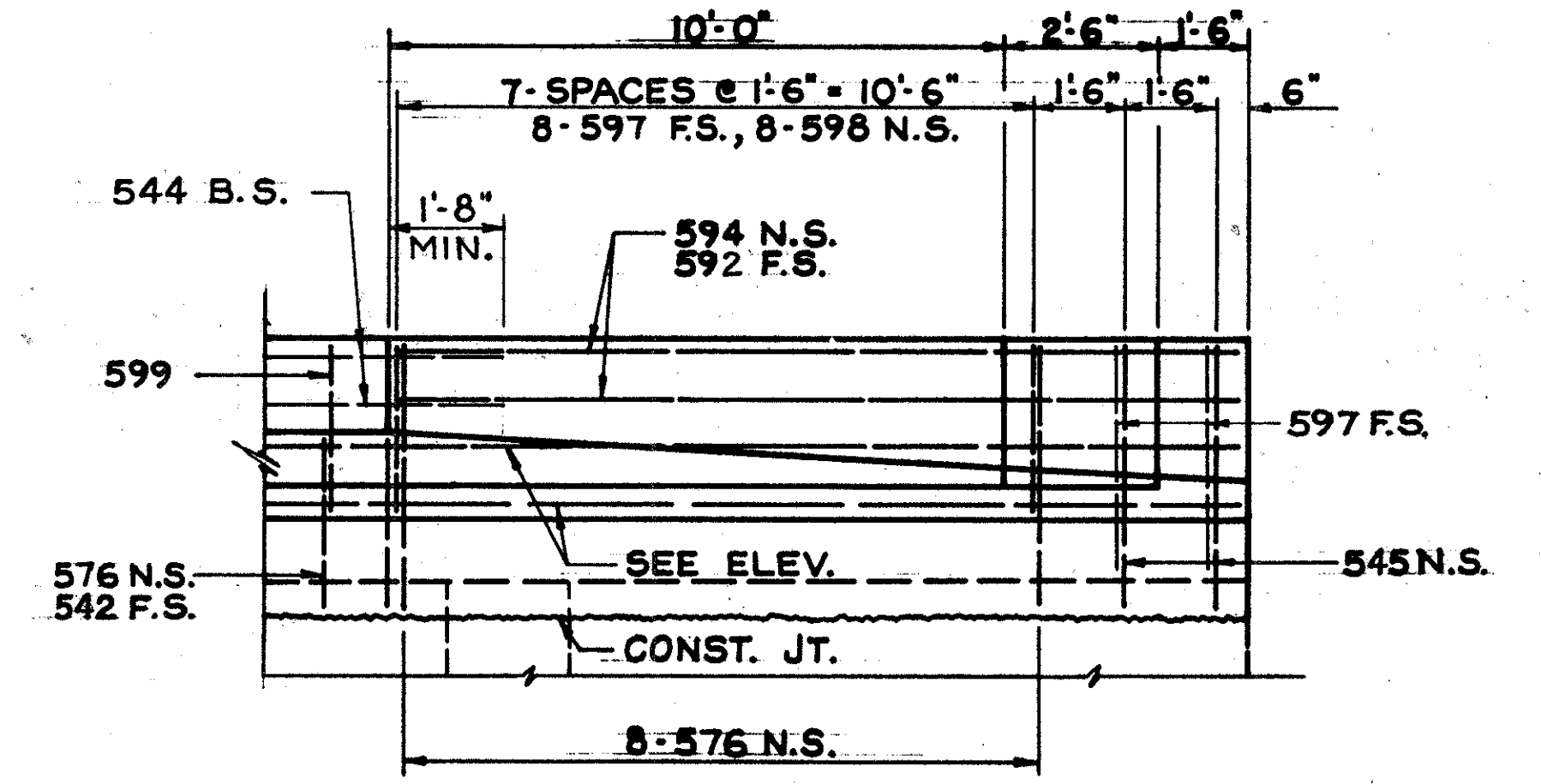
PLAN



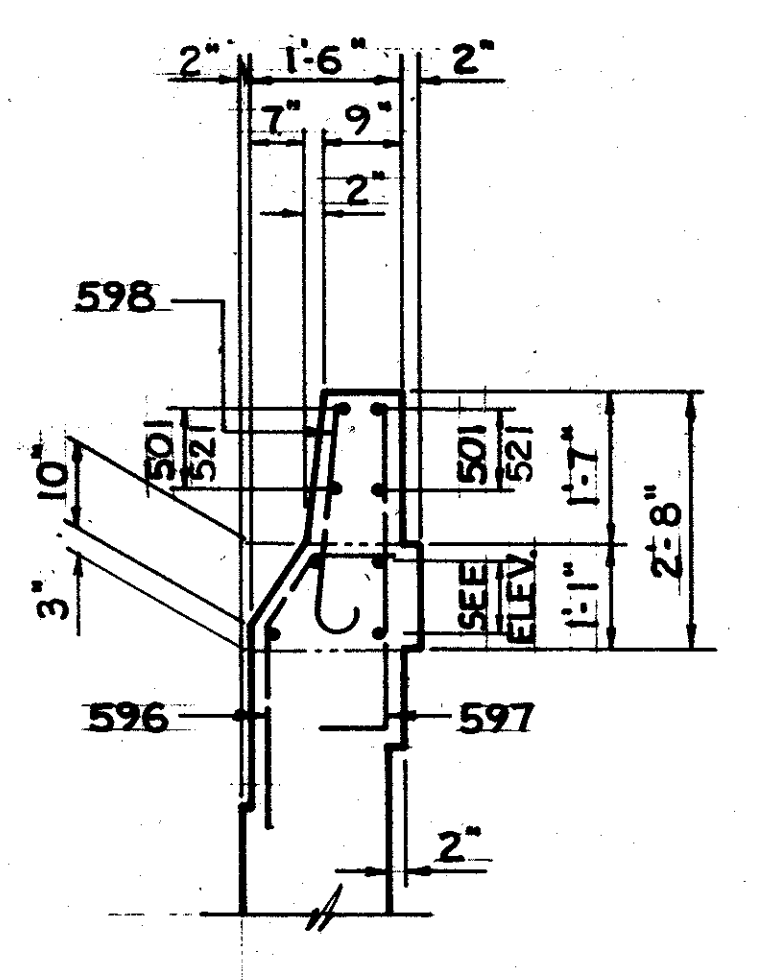
ELEVATION
TRANSITION "D"



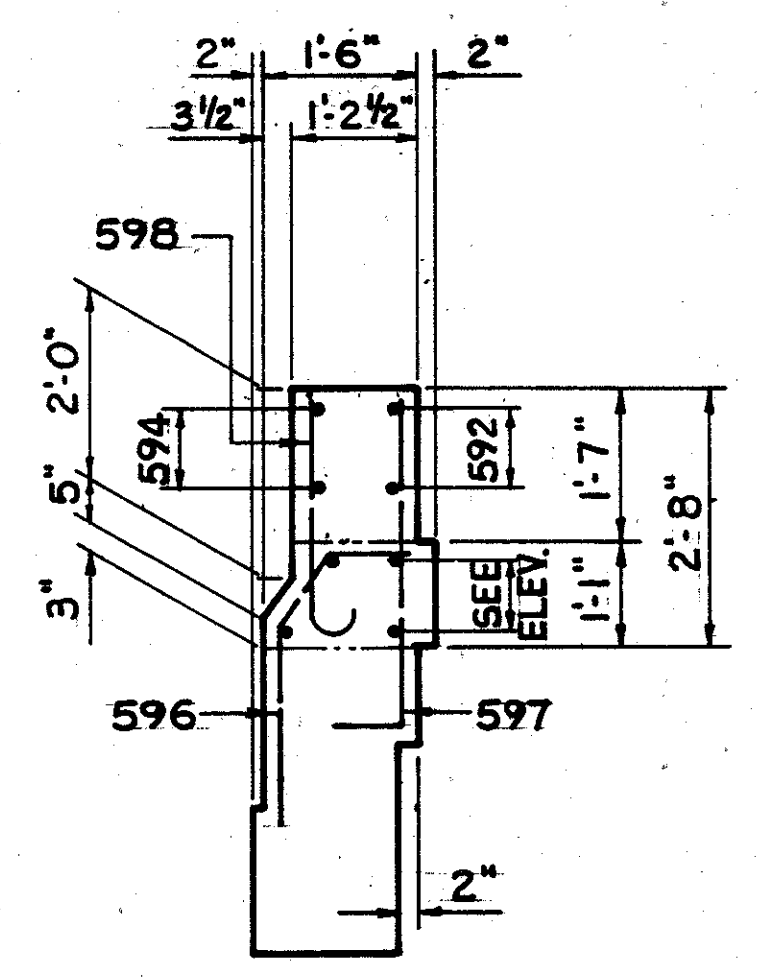
PLAN



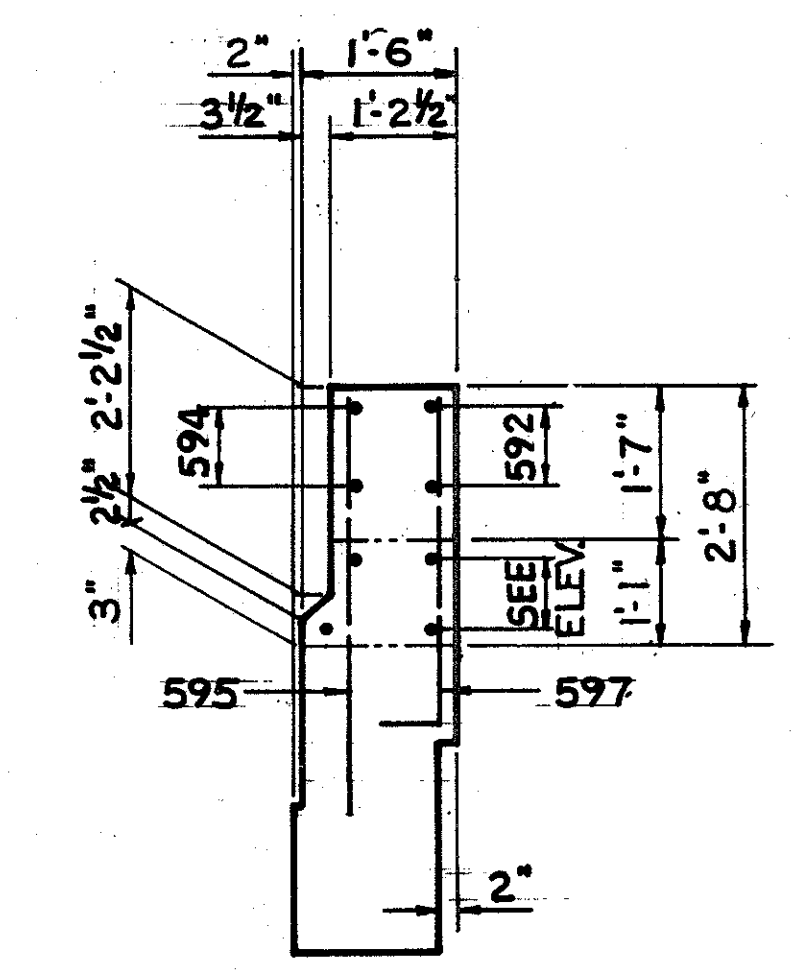
ELEVATION
TRANSITION "E"



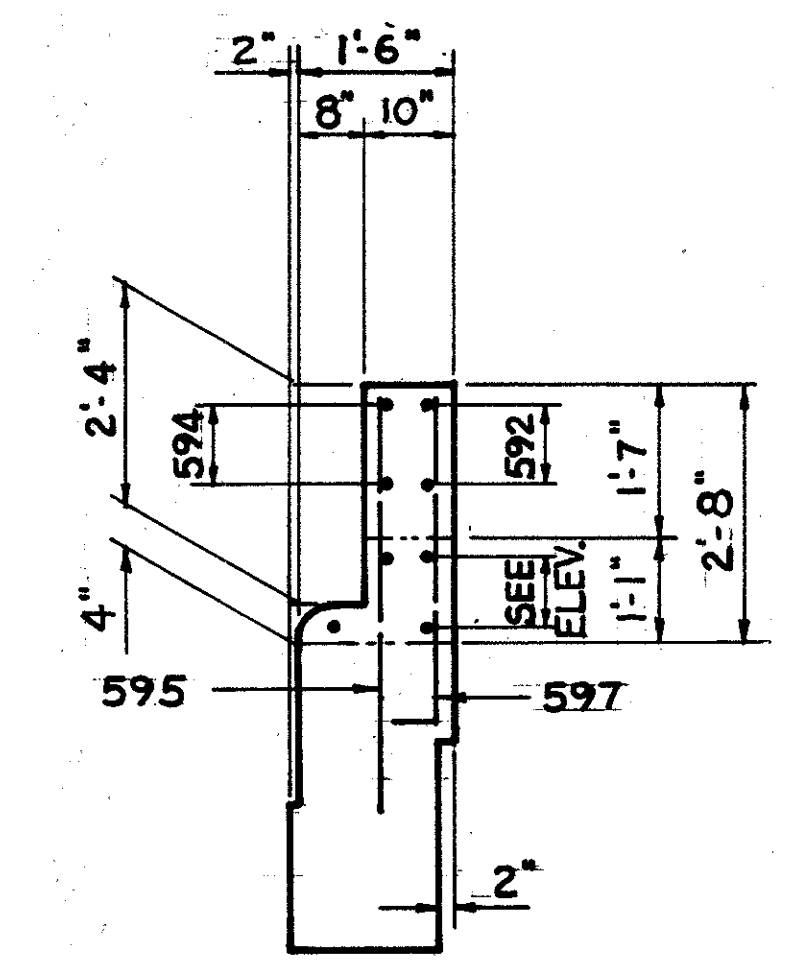
SECTION R



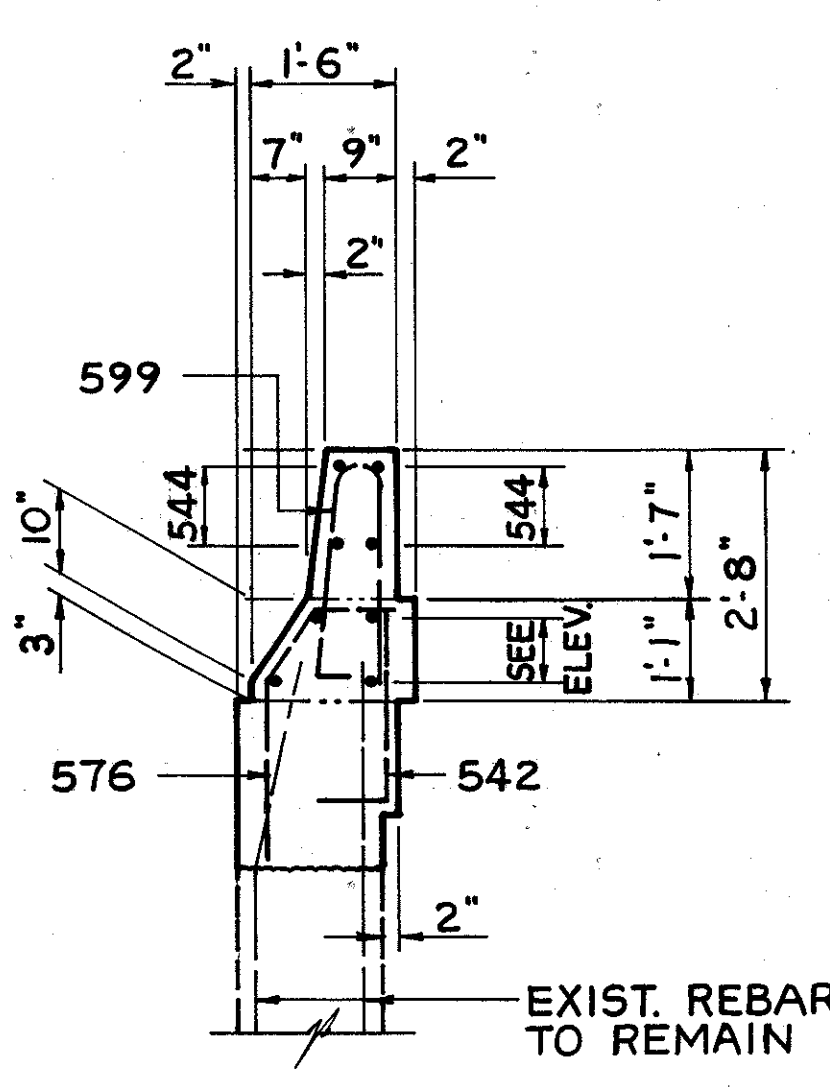
SECTION S



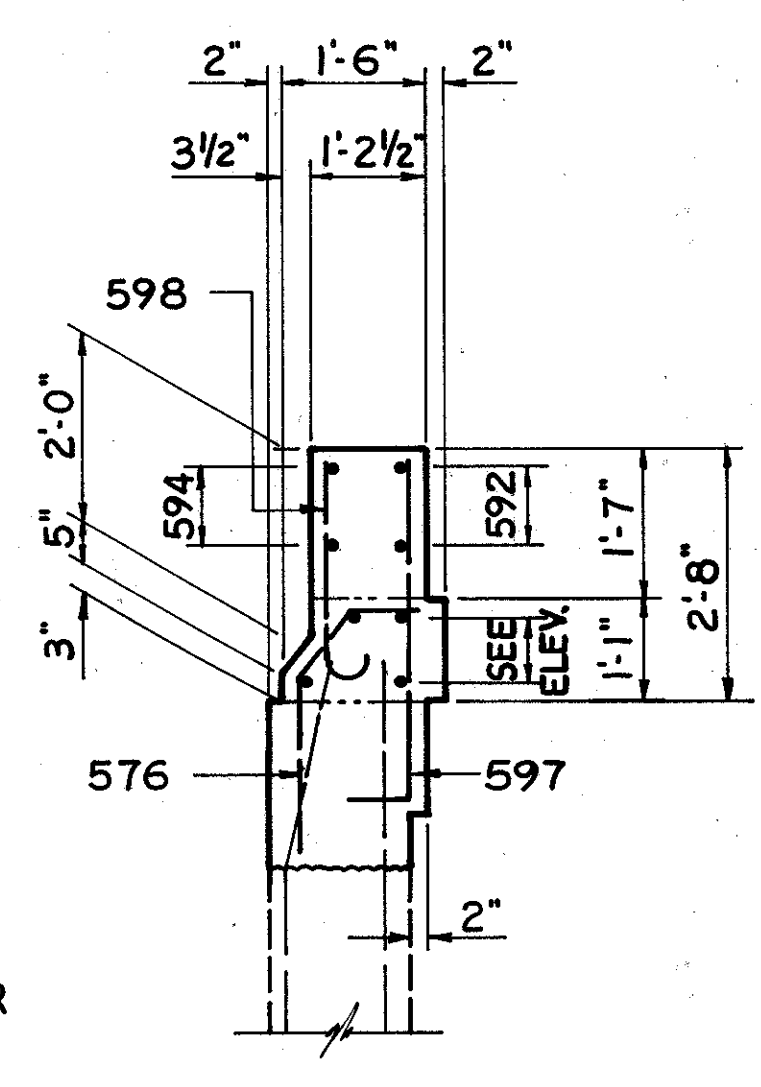
SECTION T



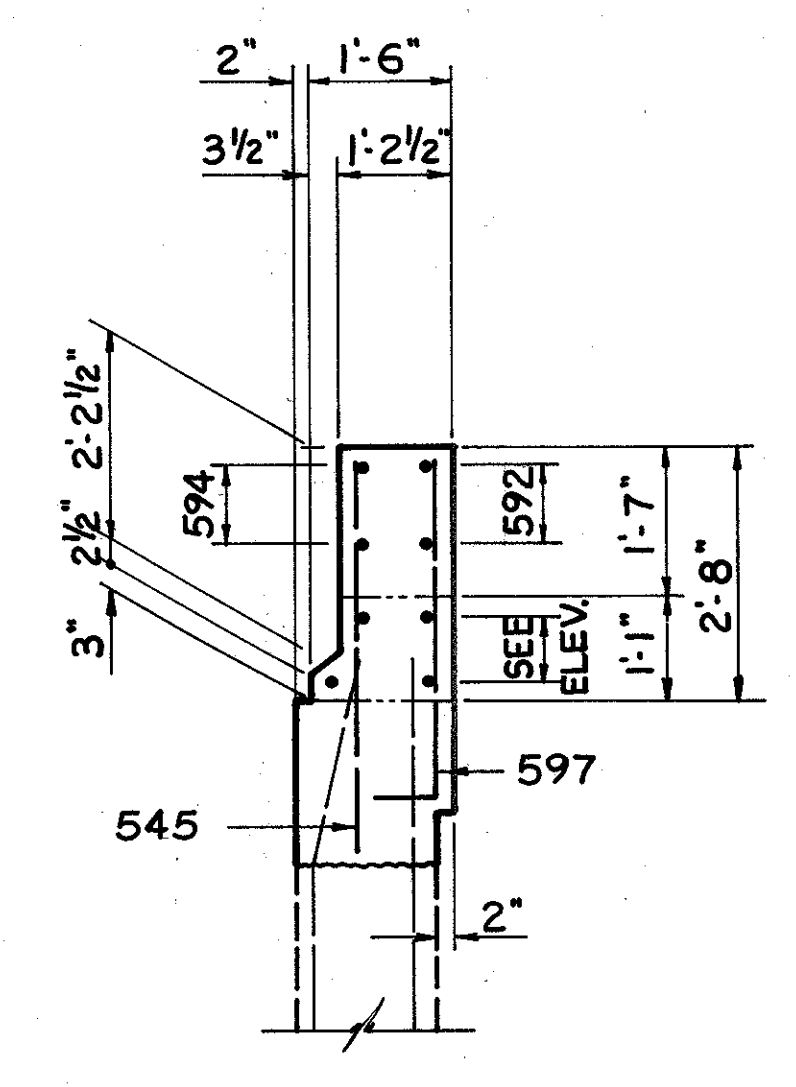
SECTION U



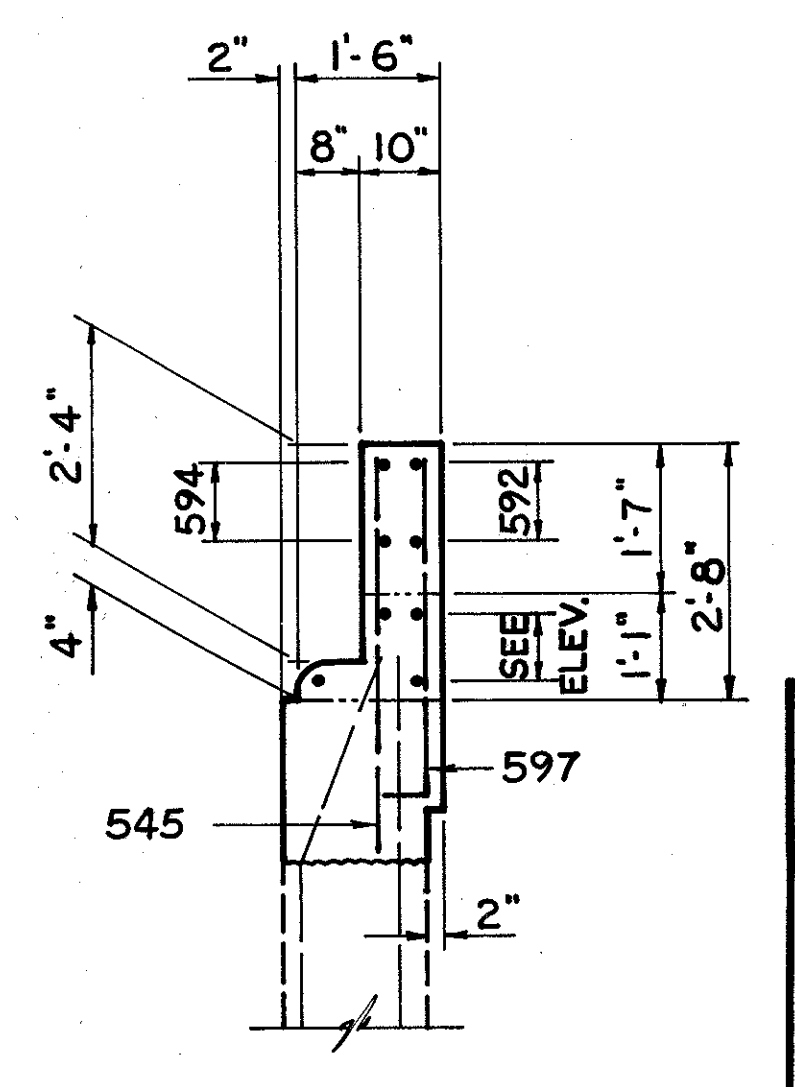
SECTION N



SECTION O



SECTION P



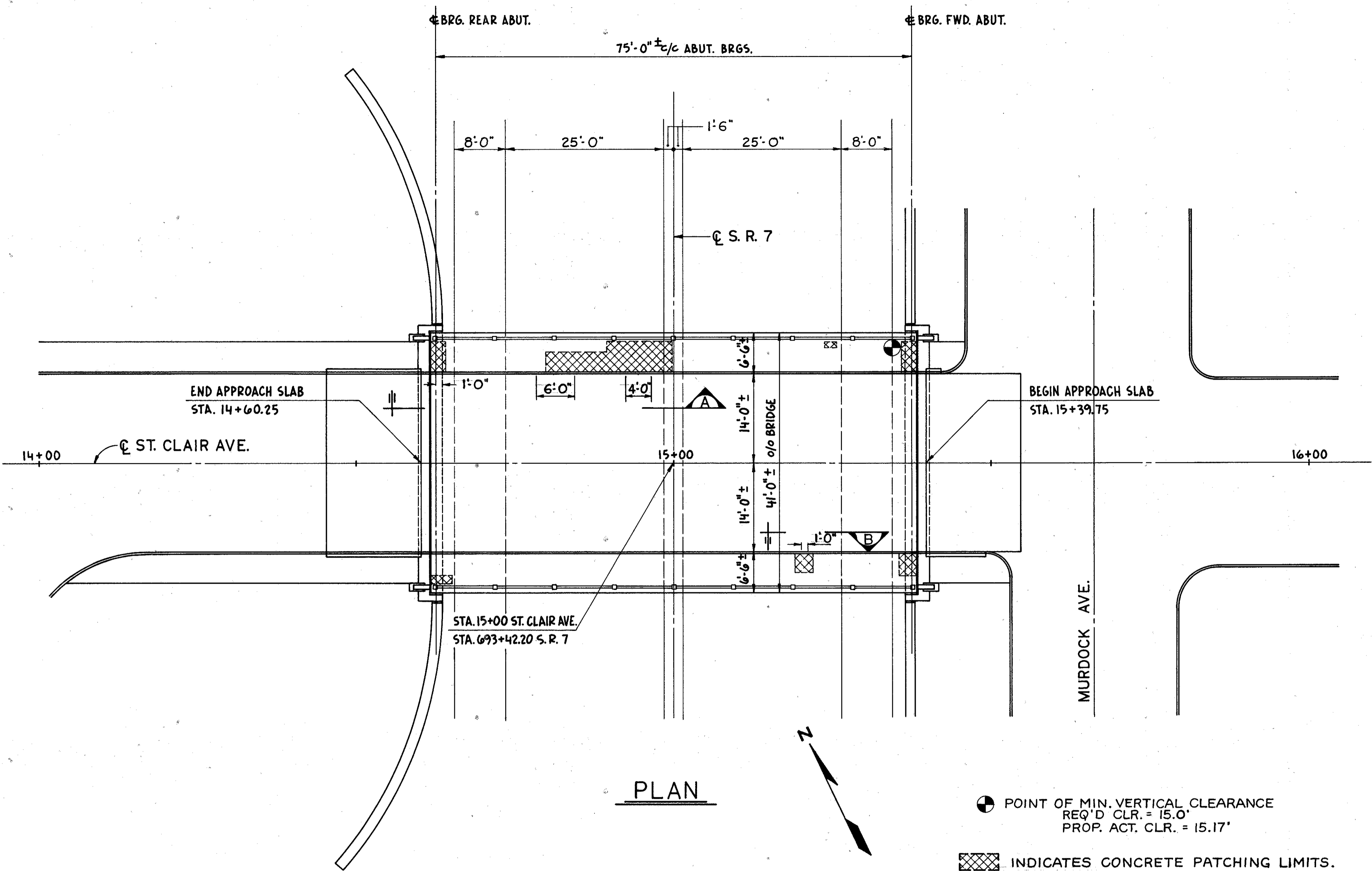
SECTION Q

NOTES

- FOR LOCATION OF TRANSITION "D" AND PREFIX TO ALL REBAR MARKS SHOWN, SEE SHT. NO. 20/34.
- FOR LOCATION OF TRANSITION "E" AND PREFIX TO ALL REBAR MARKS SHOWN, SEE SHT. NO. 22/34.
- FOR ADDITIONAL NOTES, SEE SHT. NO. 11/34.

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		7/34 JOB NO. 92045
COMMON DETAILS BRIDGE NO. JEF-7-1348				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
A.D.	R.L.W.	P.W.	K.S.J.	11.11.93

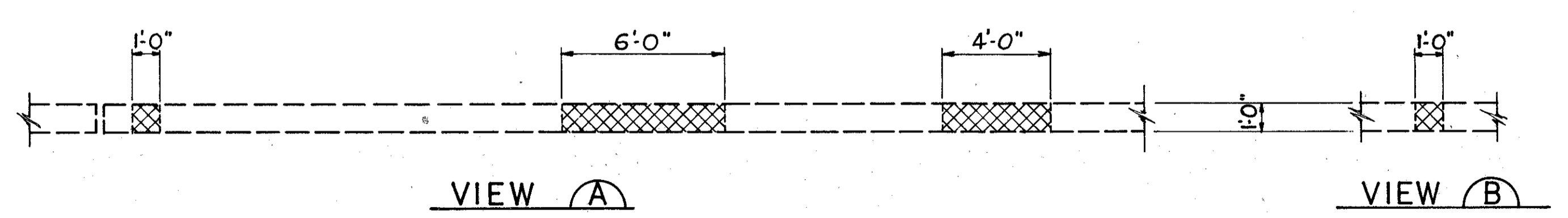
JEF-7-13.11



PLAN

● POINT OF MIN. VERTICAL CLEARANCE
 REQ'D CLR. = 15.0'
 PROP. ACT. CLR. = 15.17'

▨ INDICATES CONCRETE PATCHING LIMITS.



CURB ELEVATIONS

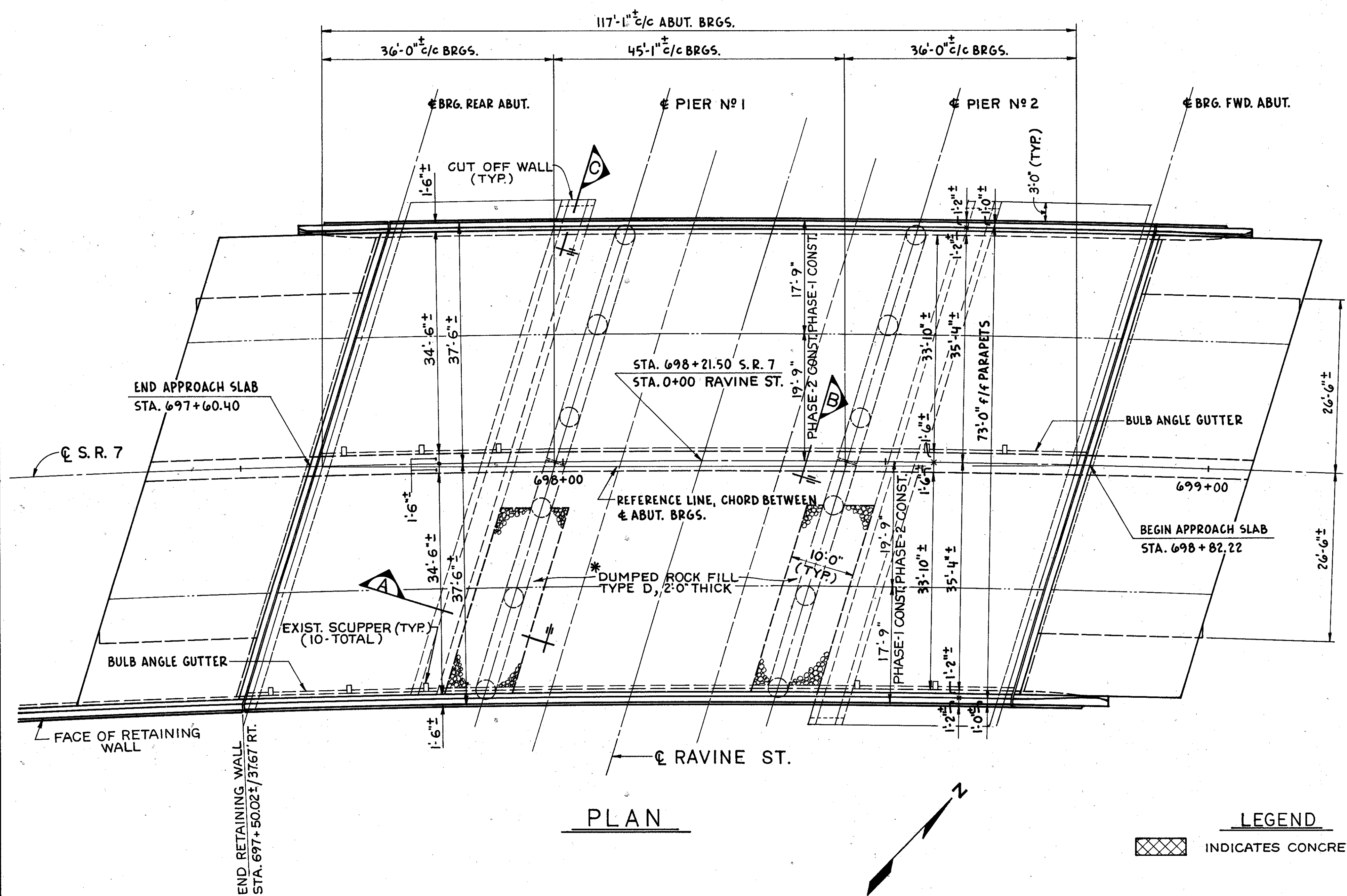
PROPOSED WORK

1. VERTICALLY EXTEND EXPANSION JOINTS.
2. PATCH EXISTING DECK SLAB, SIDEWALKS, AND CURBS.
3. SCARIFY EXISTING DECK 1/4". PROVIDE 1-1/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY.
4. SEAL ABUTMENTS WITH EPOXY.
5. PAINT EXISTING STEEL.

NOTES

1. FOR TRANSVERSE SECTION AND REHABILITATION DETAILS, SEE SHEET NO. 4/34.
2. FOR ADDITIONAL REHABILITATION DETAILS, SEE SHT. NO. 3/34.

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		8 / 34 JOB NO. 92045		
<h3>GENERAL PLAN</h3> <p>BRIDGE No JEF-7-1331 ST. CLAIR AVE. OVER S.R. 7</p> <p>JEFFERSON COUNTY MINGO JUNCTION</p>						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11.11.93	



PLAN

LEGEND

INDICATES CONCRETE PATCHING LIMITS

PROPOSED WORK

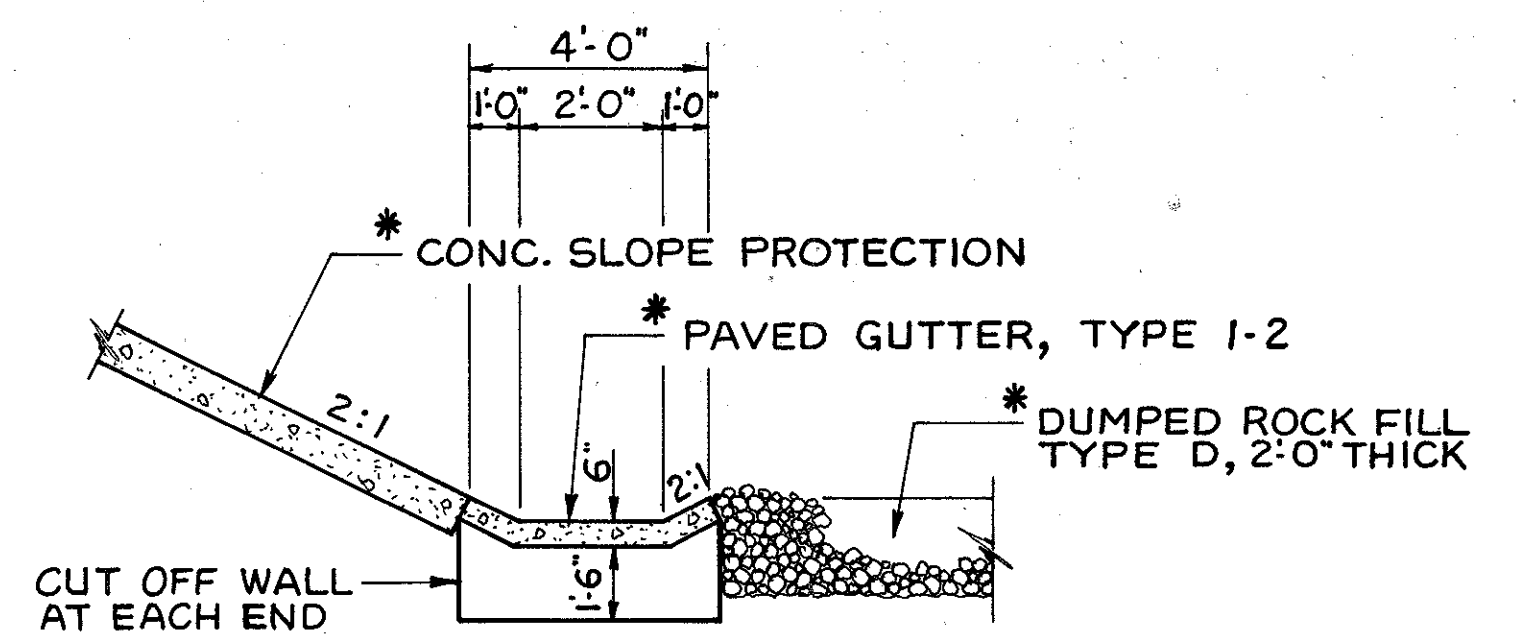
1. REMOVE EXISTING SDC OVERLAY, PARAPETS, RAILINGS, SAFETY CURBS AND FENCE.
2. REMOVE EXISTING APPROACH SLABS.
3. REMOVE EXISTING ABUTMENT BACKWALLS AND PORTIONS OF WINGWALLS.
4. RECONSTRUCT ABUTMENT BACKWALLS AND PORTIONS OF WINGWALLS AS PER PLAN.
5. MODIFY EXISTING EXPANSION JOINT AND REMOVE PORTION OF EXISTING DECK TO INSTALL NEW SEALED JOINTS.
6. CONSTRUCT NEW PARAPETS AND INSTALL NEW FENCE.
7. PROVIDE NEW APPROACH SLABS.
8. PATCH EXISTING DECK SLAB.
9. PROVIDE 2-1/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY.
10. REMOVE PORTION OF RETAINING WALL AS SHOWN ON SHT. NO. 31/34.
11. RECONSTRUCT PORTION OF RETAINING WALL.
12. PATCH CONCRETE SURFACES AS DIRECTED BY THE ENGINEER.
13. SEAL PARAPETS, ABUTMENTS AND RETAINING WALL WITH EPOXY.
14. REMOVE EXISTING CONCRETE SLOPE PROTECTION AND REPAIR SLOPES.
15. INSTALL NEW CONCRETE SLOPE PROTECTION AND PROVIDE DUMPED ROCK FILL AS PER PLAN.
16. EXTEND SCUPPERS.
17. PAINT EXISTING STEEL.

NOTES

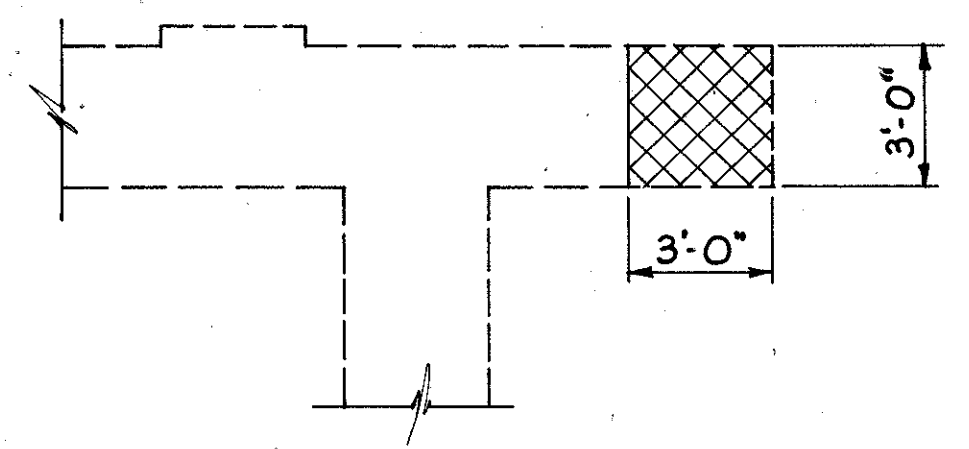
1. FOR TRANSVERSE SECTION AND REHABILITATION DETAILS, SEE SHEET NO. 4/34.
2. FOR ADDITIONAL REHABILITATION DETAILS, SEE SHT. NO. 3/34.

CONSTRUCTION PHASING

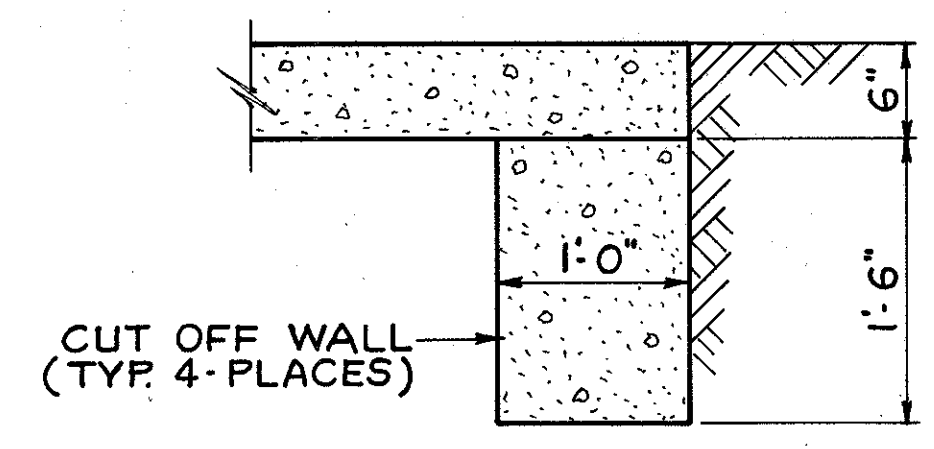
THE PLANS SHOW A CONSTRUCTION PHASING SEQUENCE. HOWEVER, THE CONTRACTOR HAS THE OPTION OF USING A DIFFERENT SEQUENCE SUBJECT TO THE APPROVAL OF THE DIRECTOR. IF THE CONTRACTOR DECIDES TO USE A DIFFERENT SEQUENCE, HE WILL BE RESPONSIBLE FOR MAKING NECESSARY CHANGES IN THE PLANS WHICH SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL PRIOR TO THE COMMENCEMENT OF ANY WORK.



SECTION A



SECTION B
PIER CAP SHOWN



SECTION C

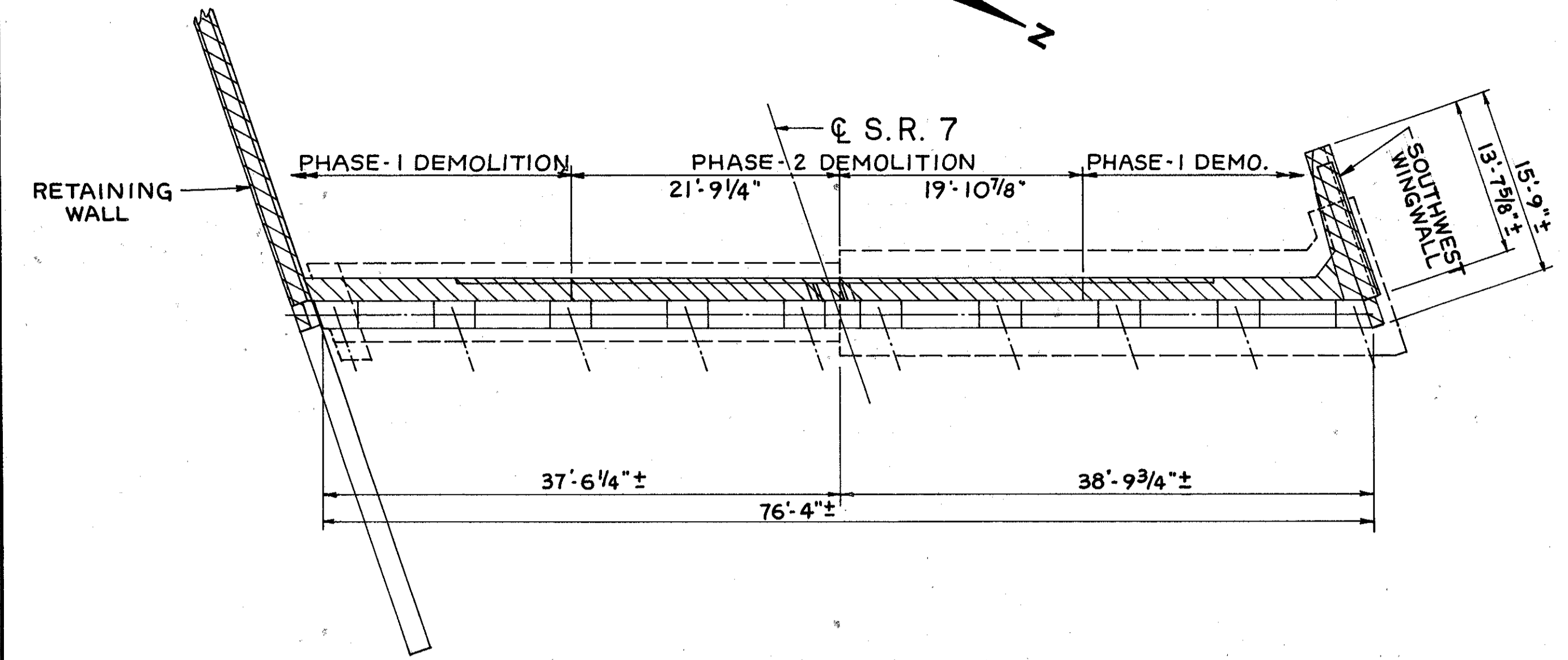
* INCLUDED IN ROADWAY QUANTITIES FOR PAYMENT.

	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	9/34 JOB N° 92045
--	--	-------------------------

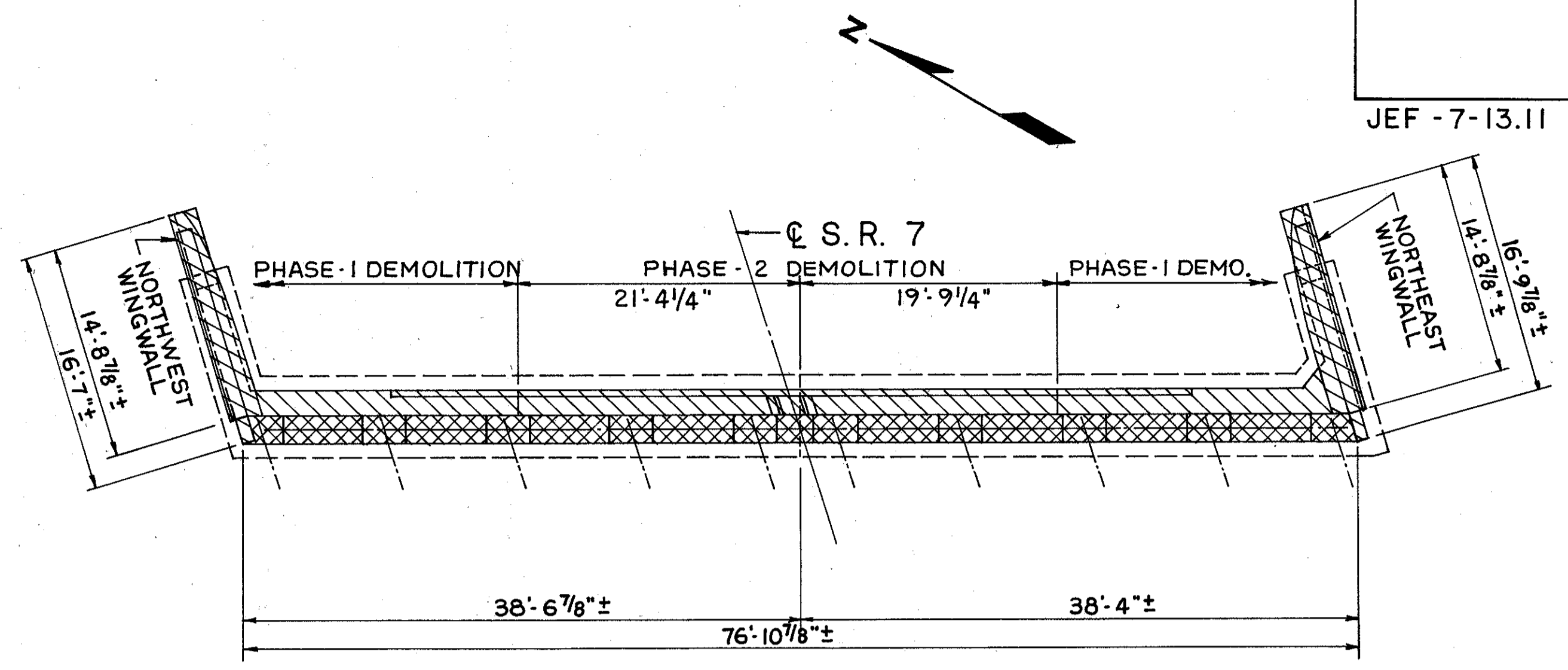
GENERAL PLAN

BRIDGE N° JEF-7-1340
S.R. 7 OVER RAVINE ST.

JEFFERSON COUNTY MINGO JUNCTION					
DESIGNED A.D.	DRAWN R.L.W.	TRACED	CHECKED P.W.	REVIEWED K.S.J.	DATE 11.11.93



PLAN - REAR ABUTMENT

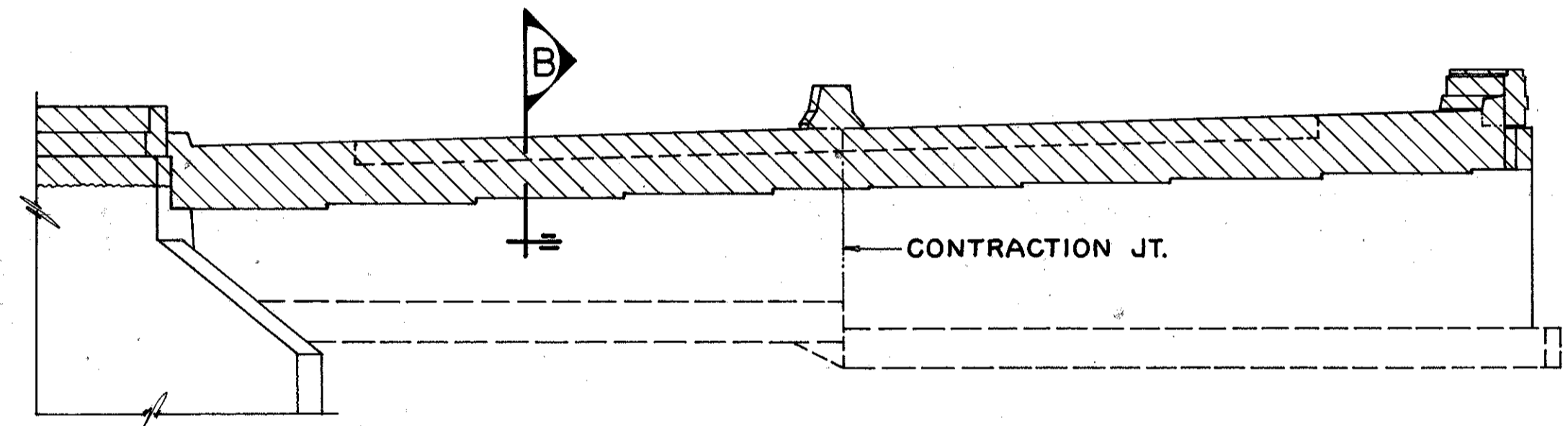


PLAN - FORWARD ABUTMENT

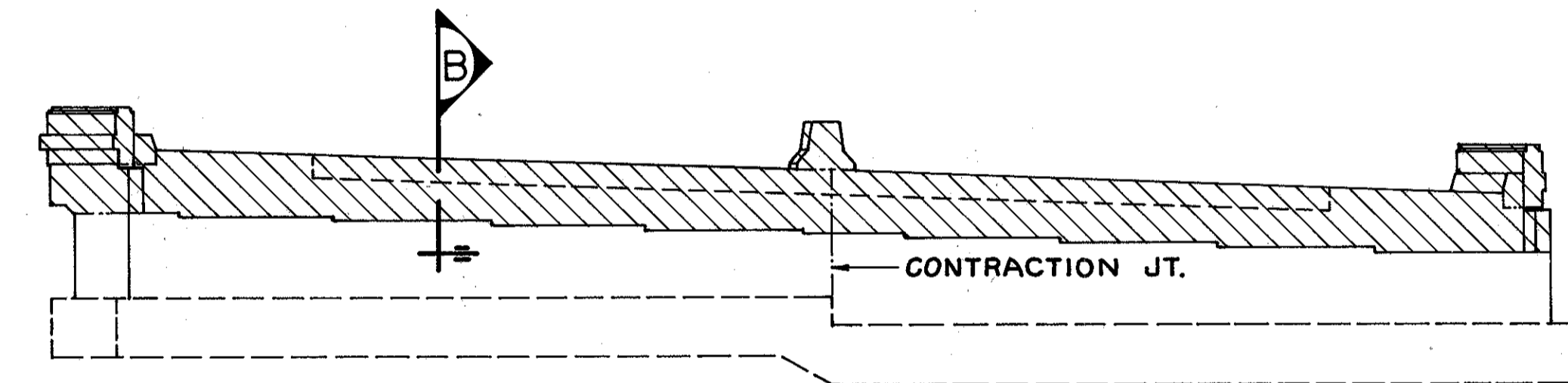
LEGEND

INDICATES REMOVAL LIMITS

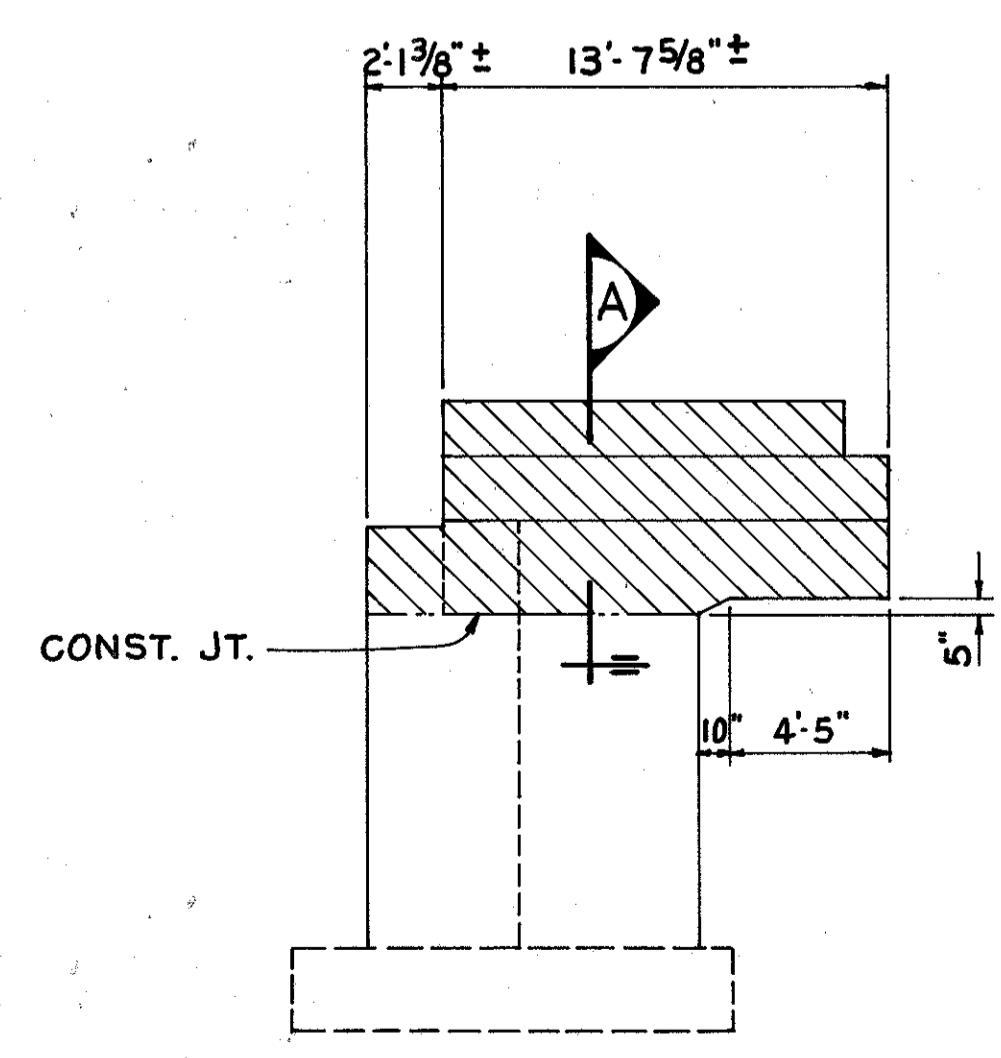
INDICATES CONCRETE PATCHING LIMITS



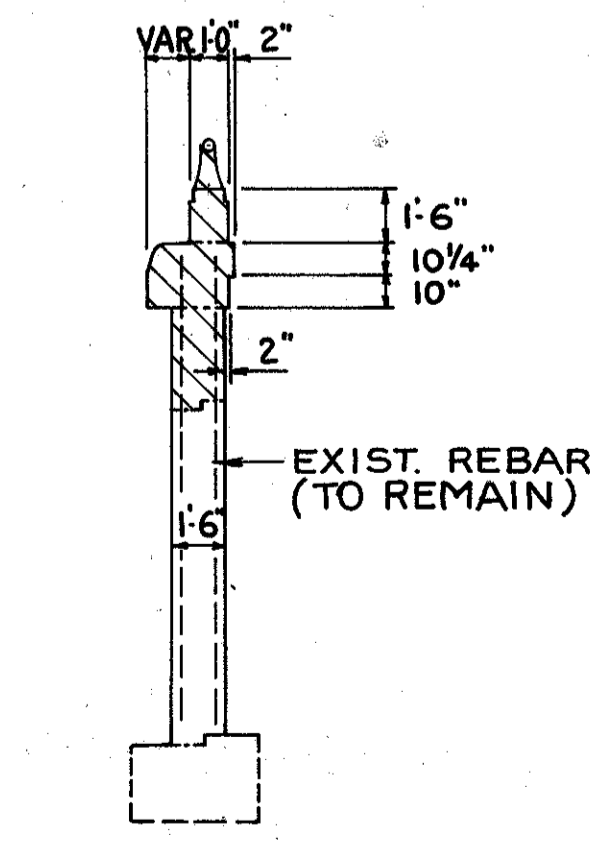
ELEVATION - REAR ABUTMENT



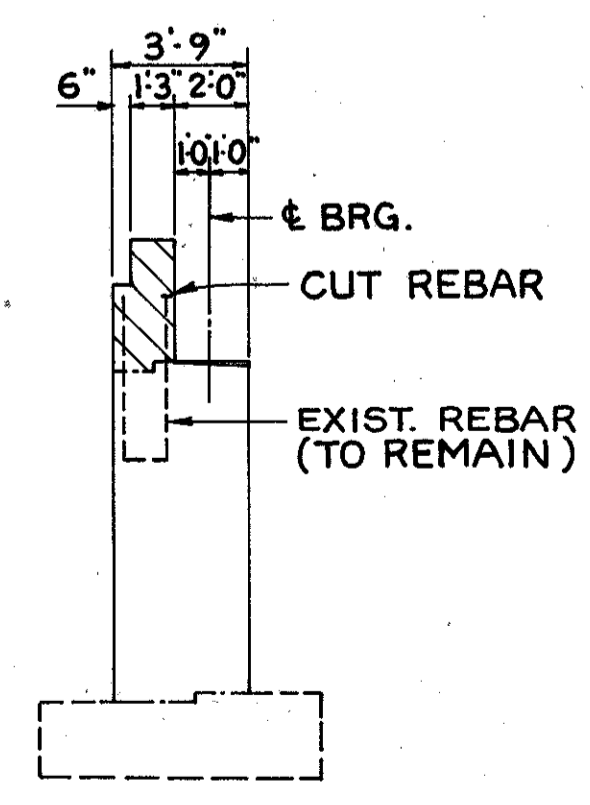
ELEVATION - FORWARD ABUTMENT



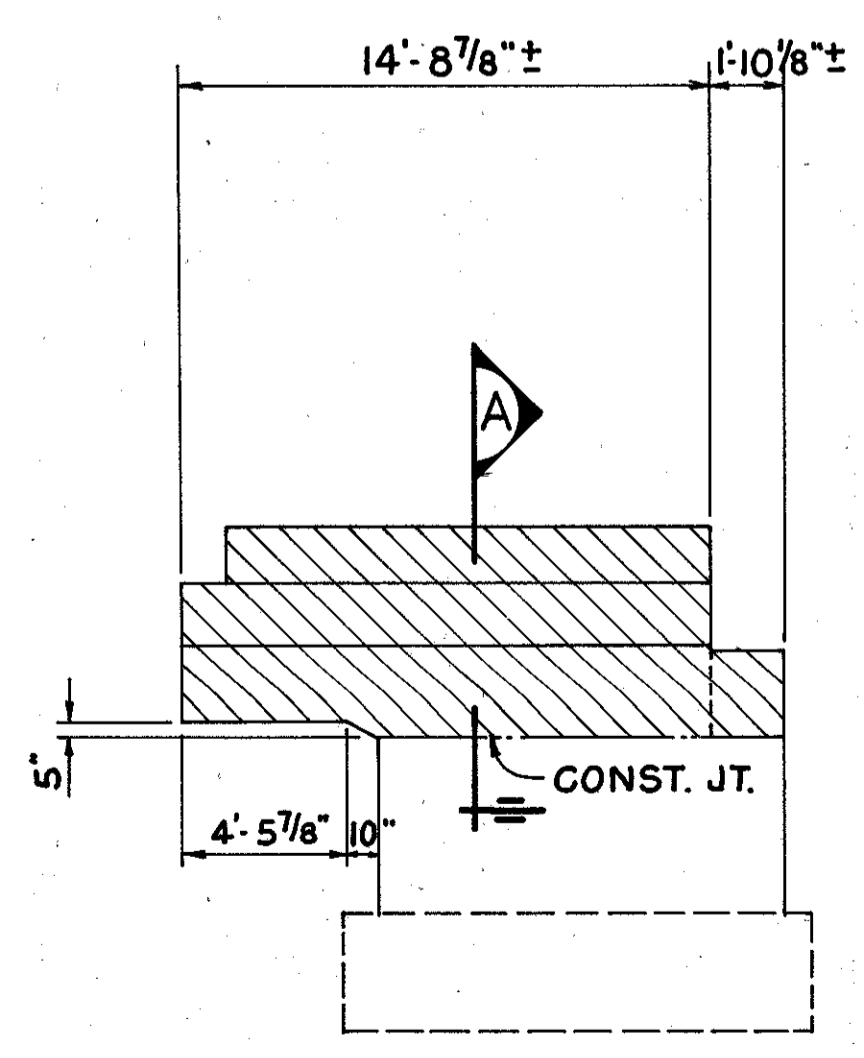
ELEVATION SOUTHWEST WINGWALL



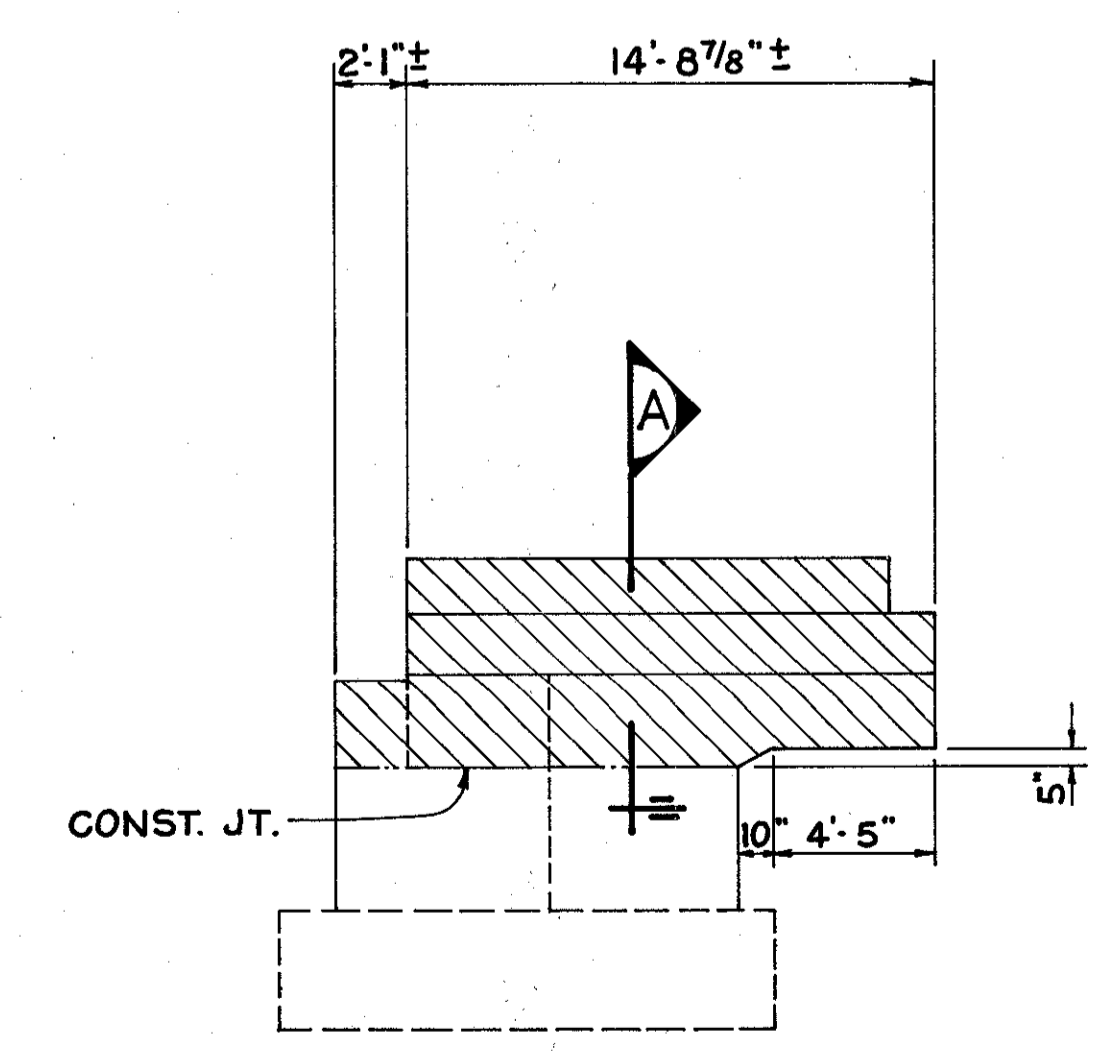
SECTION A



SECTION B



ELEVATION NORTHWEST WINGWALL



ELEVATION NORTHEAST WINGWALL

- NOTES**
- FOR EXISTING STRUCTURE VERIFICATION NOTE SHEET NO. 1/34.
 - FOR NOTE "PORTIONS OF STRUCTURE REMOVED", SEE SHEET NO. 1/34.
 - FOR RETAINING WALL REMOVAL LIMITS, SEE SHT. NO. 31/34.

	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	10/34
		JOB NO. 92045

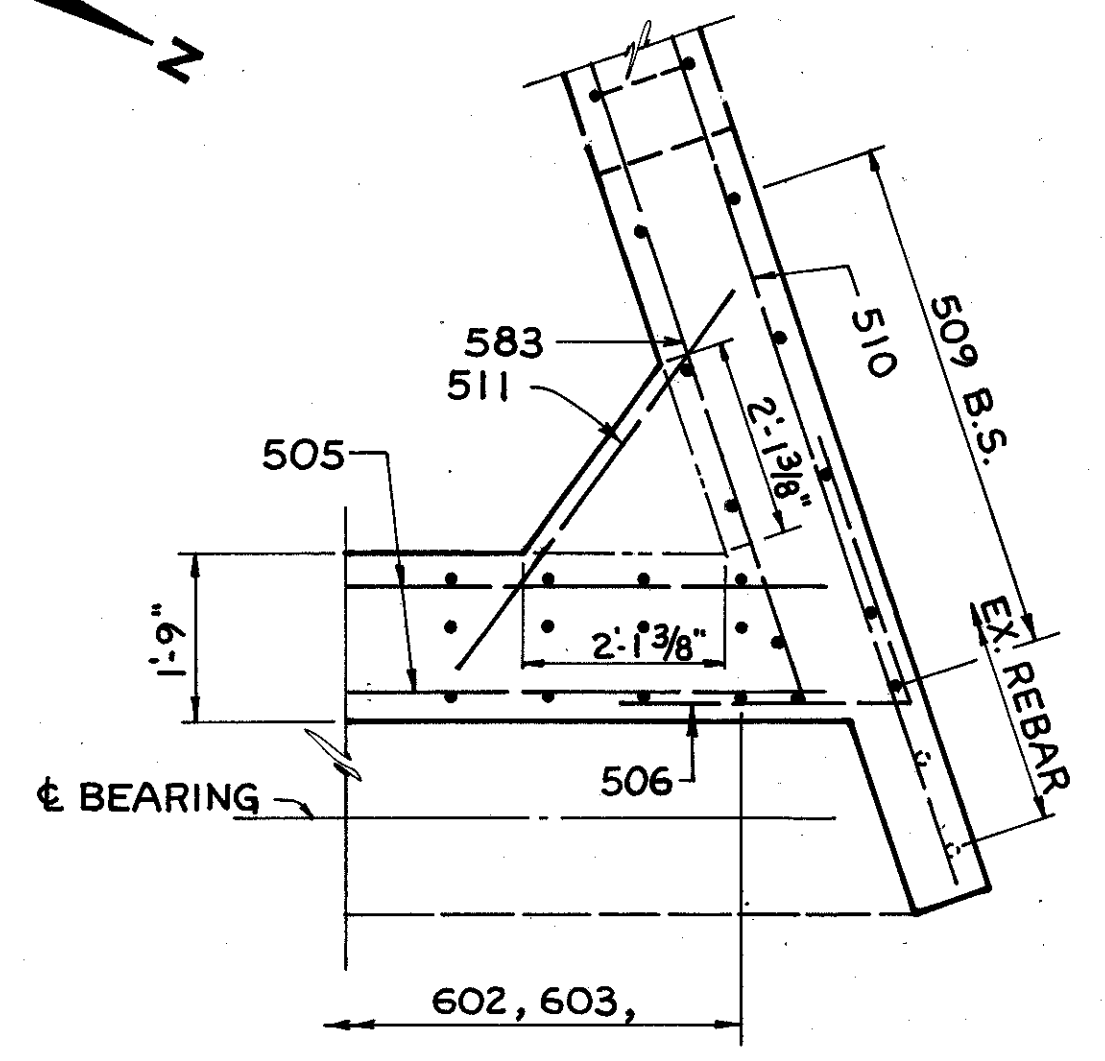
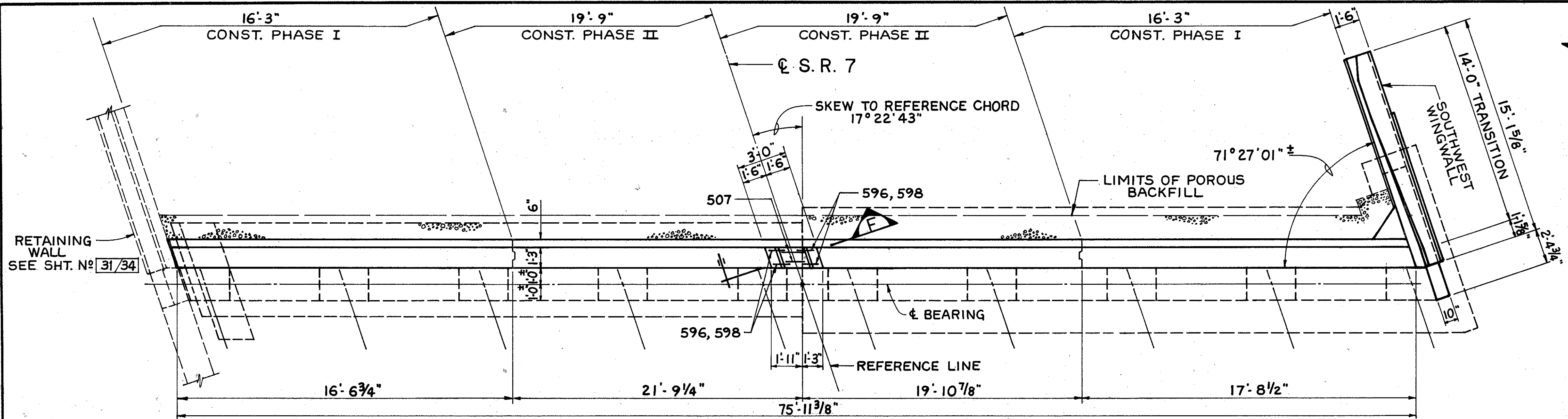
DEMOLITION PLAN

BRIDGE N° JEF-7-1340
S.R.7 OVER RAVINE ST.

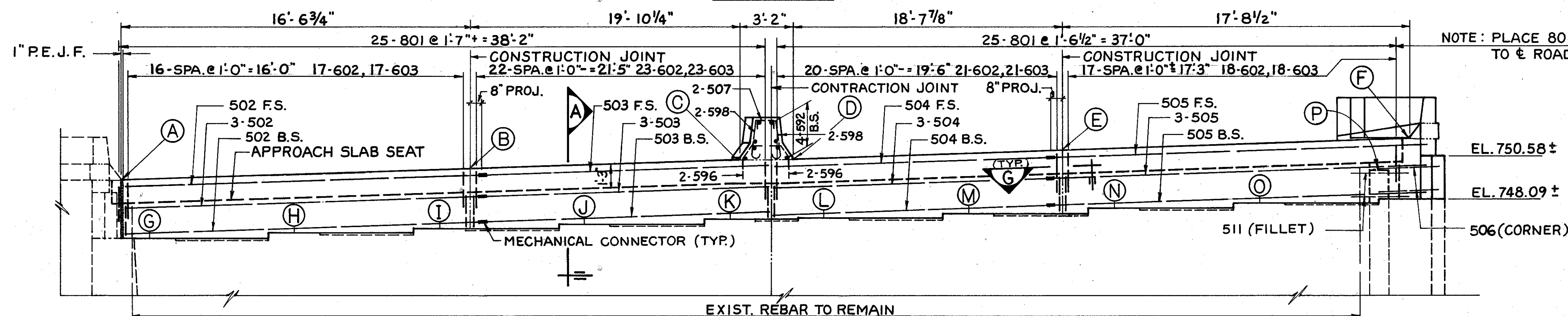
JEFFERSON COUNTY
MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		PW	K.S.J.	11. 11. 93	

JEF-7-13.11



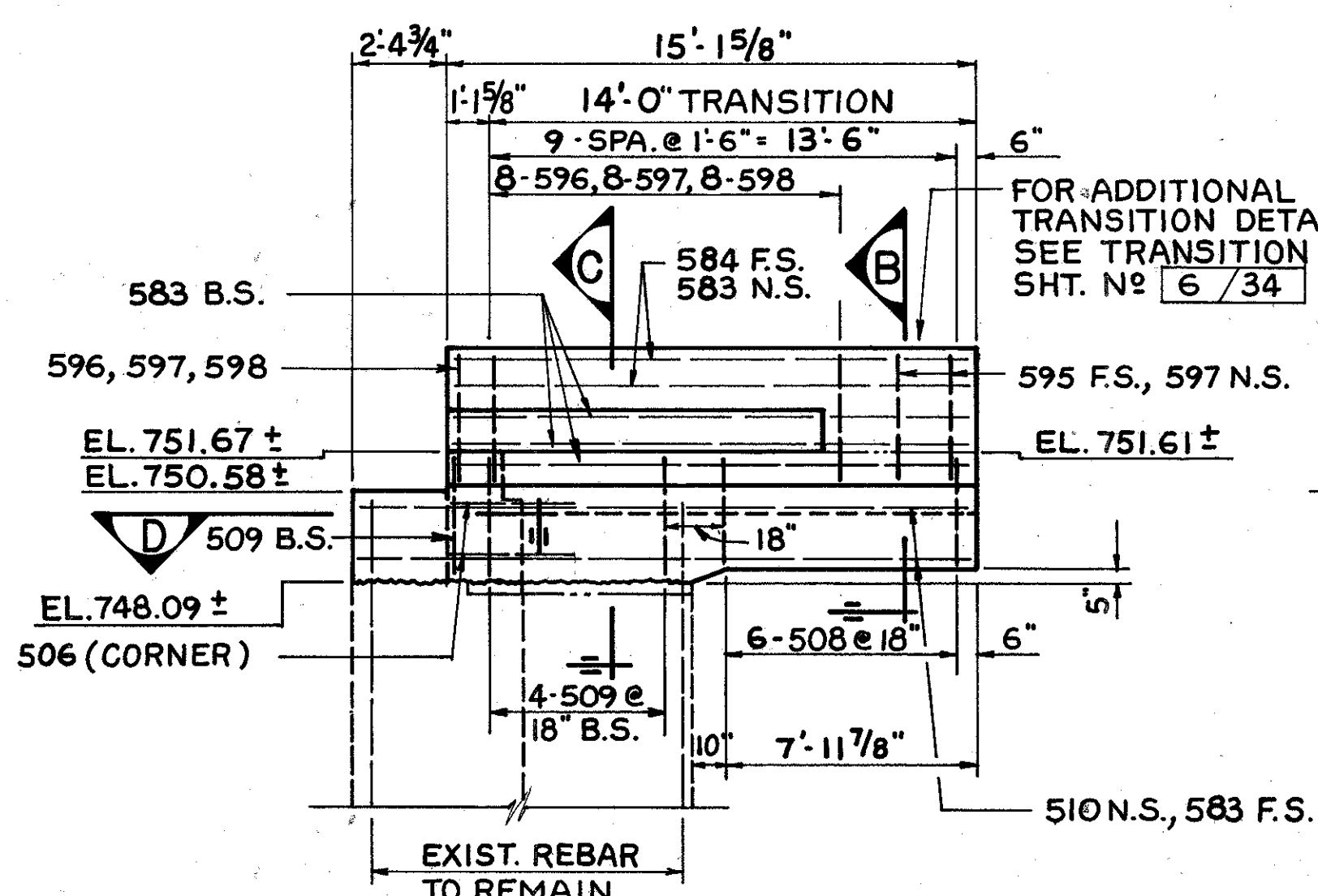
SECTION D



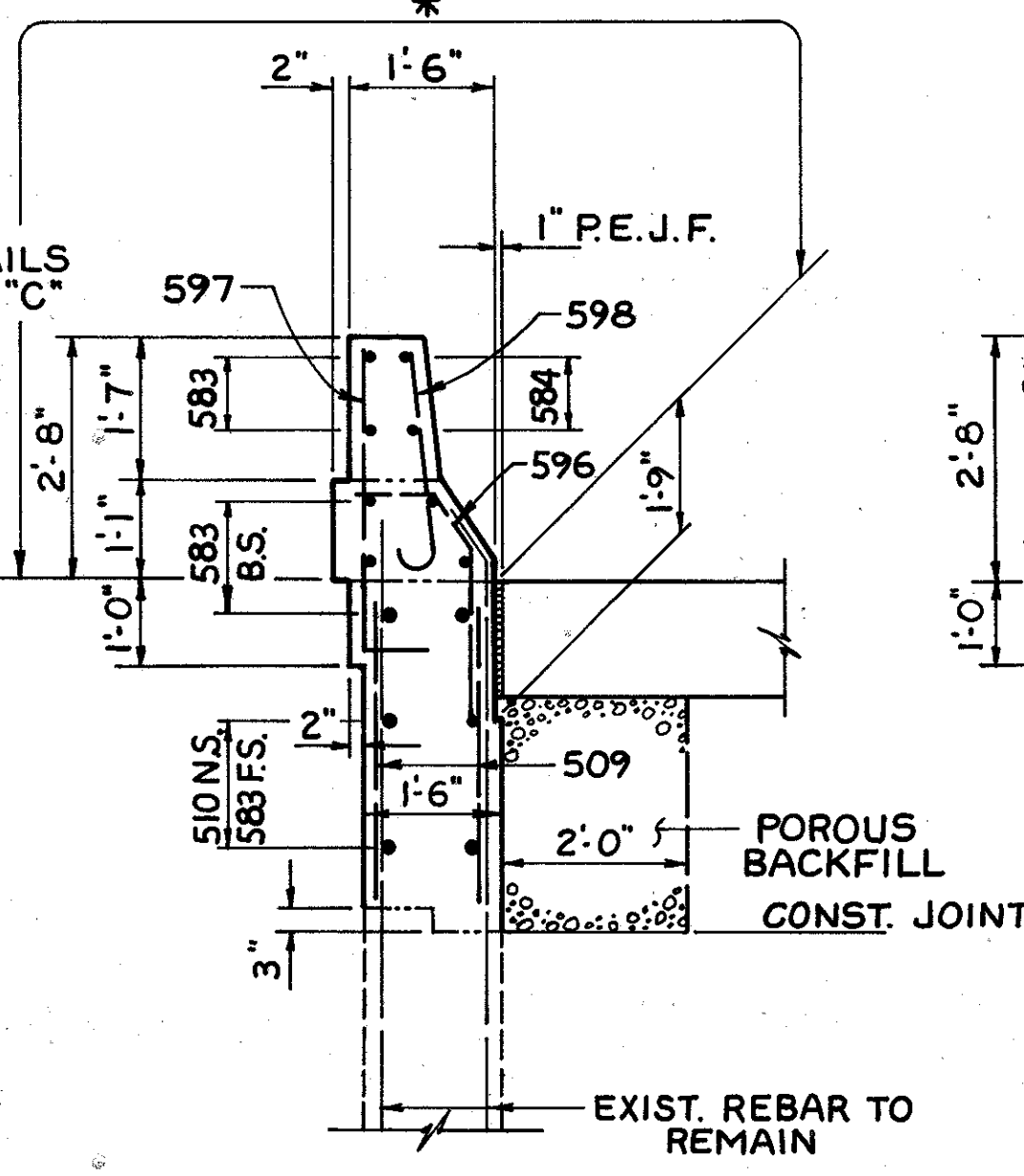
ELEVATION

NOTES

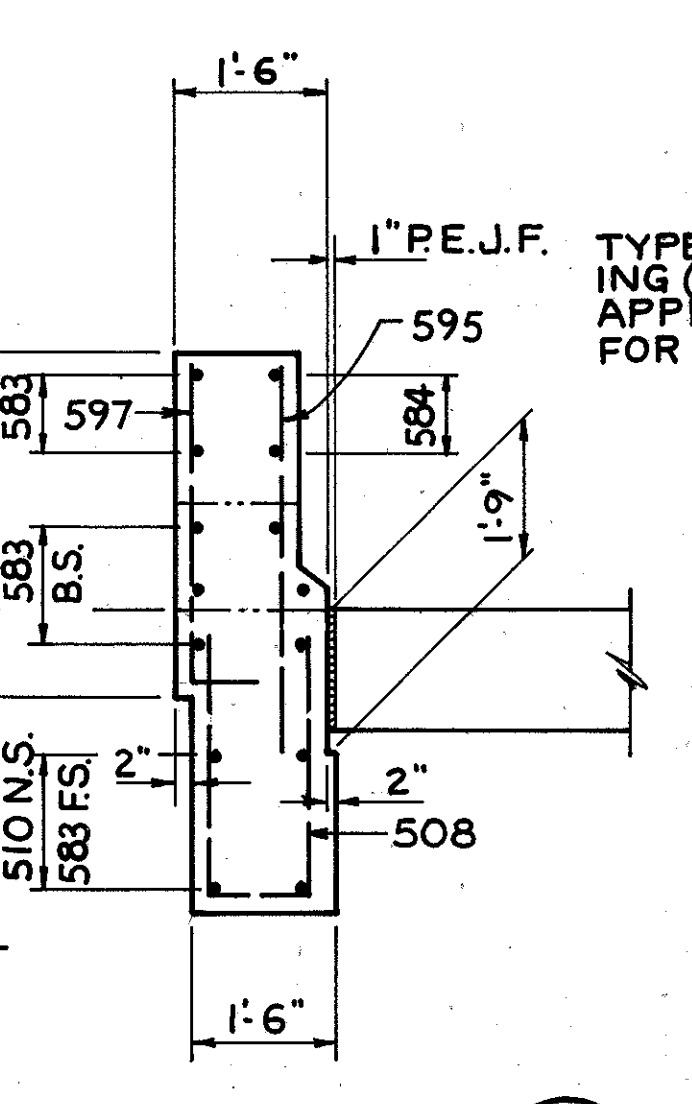
- CARE SHALL BE EXERCISED IN REMOVING PORTIONS OF THE EXISTING ABUTMENT SO THAT NO DAMAGE IS DONE TO THE EXISTING REBARS WHICH ARE TO PROJECT INTO THE PROPOSED CONSTRUCTION. WHERE EXISTING REBARS ARE DAMAGED, NEW EQUIVALENT SIZE DOWEL BARS, 3'-0" LONG, SHALL BE PROVIDED. SUCH DOWELS SHALL BE EMBEDDED 1'-6" INTO EXISTING CONCRETE BY DRILLING 1-1/2" DIAMETER HOLES AND FILLING WITH NON-SHRINK GROUT MORTAR PER CMS 705.20. REPLACEMENT OF DAMAGED BARS SHALL BE AT CONTRACTORS COST.
- PRIOR TO THE PLACEMENT OF NEW CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING AND/OR OTHER APPROVED METHODS SO THAT IT IS FREE OF LOOSE OR DISINTEGRATED CONCRETE, DUST, LAITANCE, GREASE, RUST AND OTHER FOREIGN MATTER. ALL EXISTING REBARS SHALL BE CLEANED BY WIRE BRUSH OR ABRASIVE BLASTED TO REMOVE ANY RUST. A BONDING GROUT SHALL BE USED BETWEEN OLD CONCRETE AND NEW CONCRETE. BONDING GROUT IS INCLUDED WITH ITEM 511, CLASS C CONCRETE, ABUTMENT, FOR PAYMENT.
- FOR BONDING GROUT NOTE SHEET NO. 1/34.
- PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR REAR ABUTMENT. SEE REINFORCING SCHEDULE.
- MINIMUM CLEARANCE TO REBARS SHALL BE 2" UNLESS NOTED OTHERWISE.
- ABBREVIATIONS: N.S. NEAR SIDE P.E.J.F. PREFORMED EXPANSION JOINT
F.S. FAR SIDE FILLER
B.S. BOTH SIDES MIDD. MIDDLE
SPA SPACING SER. SERIES
- FOR SECTIONS F AND G, SEE SHEET NO. 12/34.
- ALL REINFORCING STEEL SHALL BE EPOXY COATED.
- FOR CONTRACTION JOINT DETAILS, SEE SHEET NO. 13/34.
- QUANTITIES OF CONCRETE AND REINFORCING STEEL FOR PARAPETS ARE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL AND ITEM 511, CLASS C CONCRETE, ABUTMENT FOR PAYMENT.



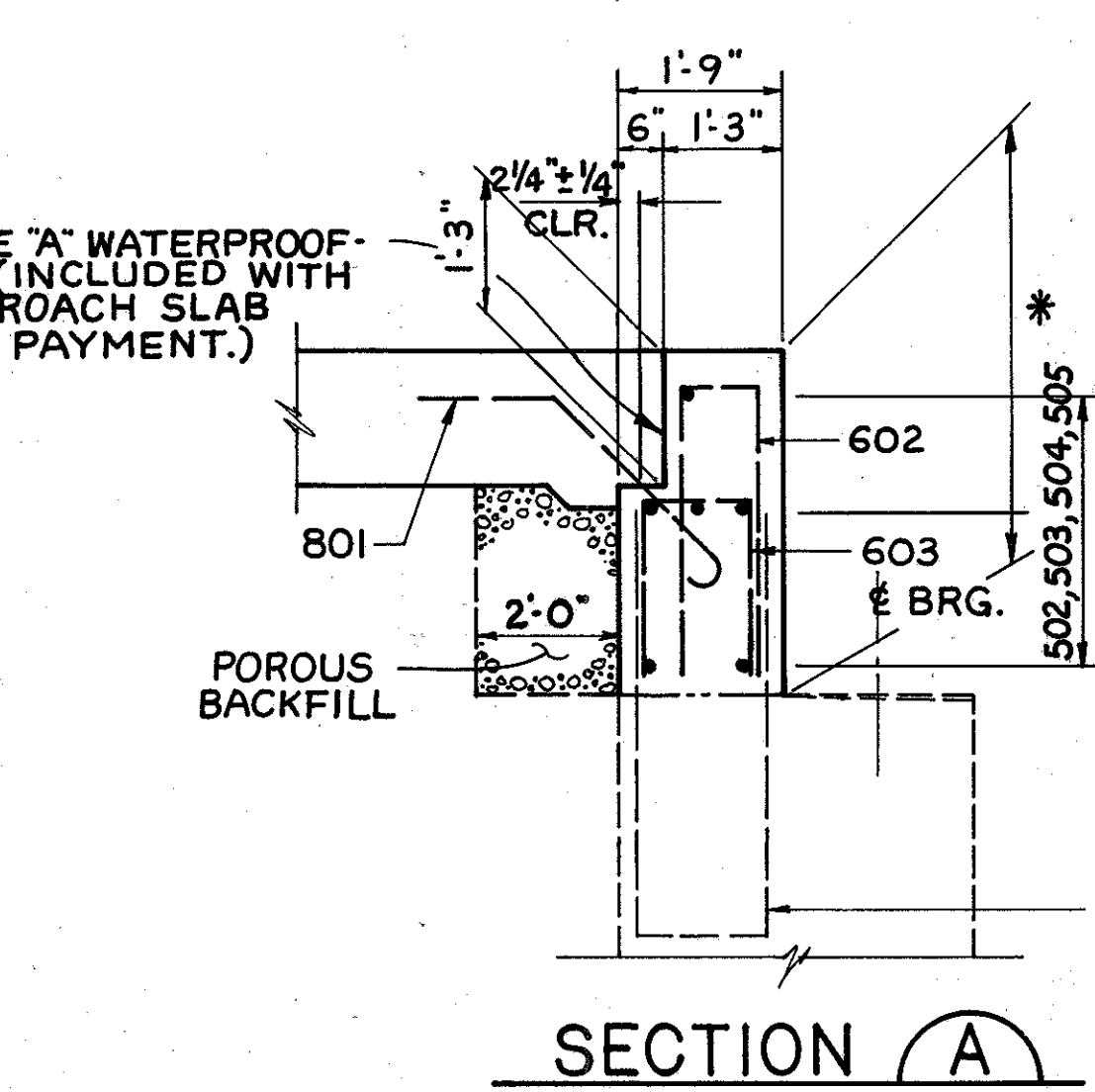
ELEVATION - SOUTHWEST WINGWALL



SECTION C



SECTION B



SECTION A

* LIMITS OF ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)

ELEVATIONS								
A	B	C	D	E	F	G	H	I
749.35 ±	750.02 ±	750.53 ±	750.53 ±	751.05 ±	751.71 ±	745.79 ±	746.07 ±	746.35 ±
J	K	L	M	N	O	P		
746.62 ±	746.90 ±	746.98 ±	747.26 ±	747.54 ±	747.82 ±	749.83 ±		

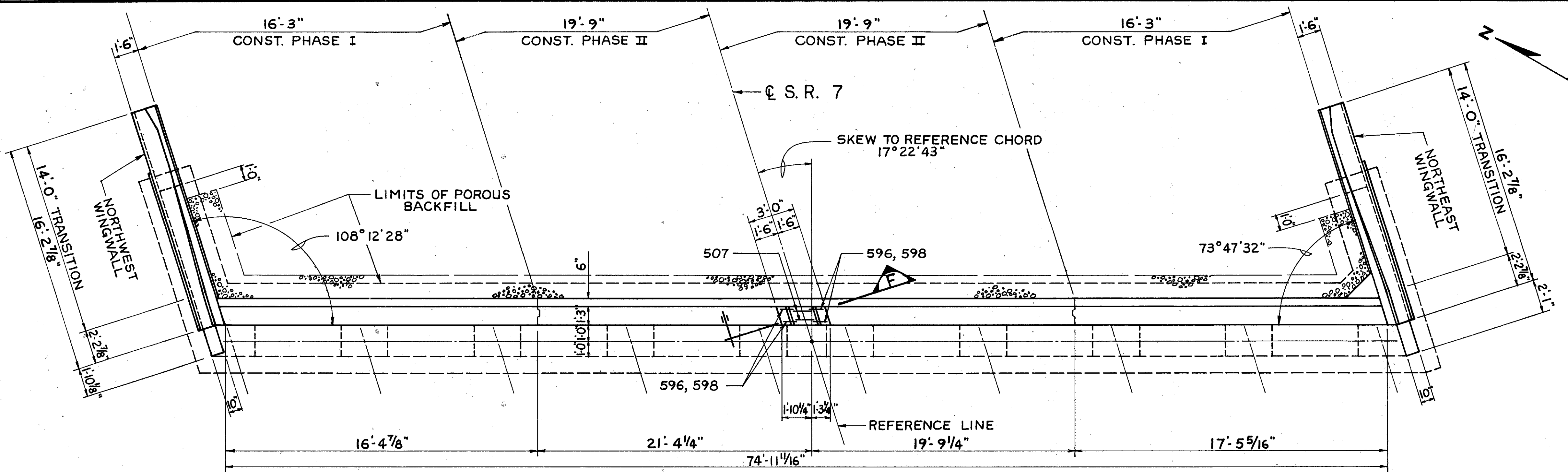
GPD ASSOCIATES
GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC.
AKRON, OHIO
11/34
JOB NO. 92045

REAR ABUTMENT

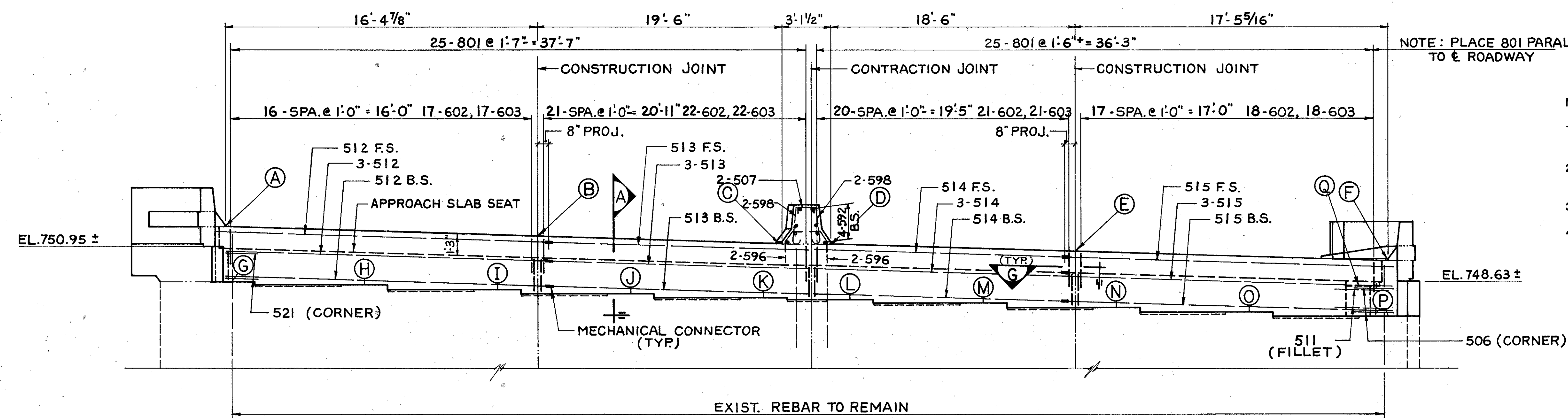
BRIDGE NO. JEF-7-1340
S.R. 7 OVER RAVINE ST.

JEFFERSON COUNTY
MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11-11-93	

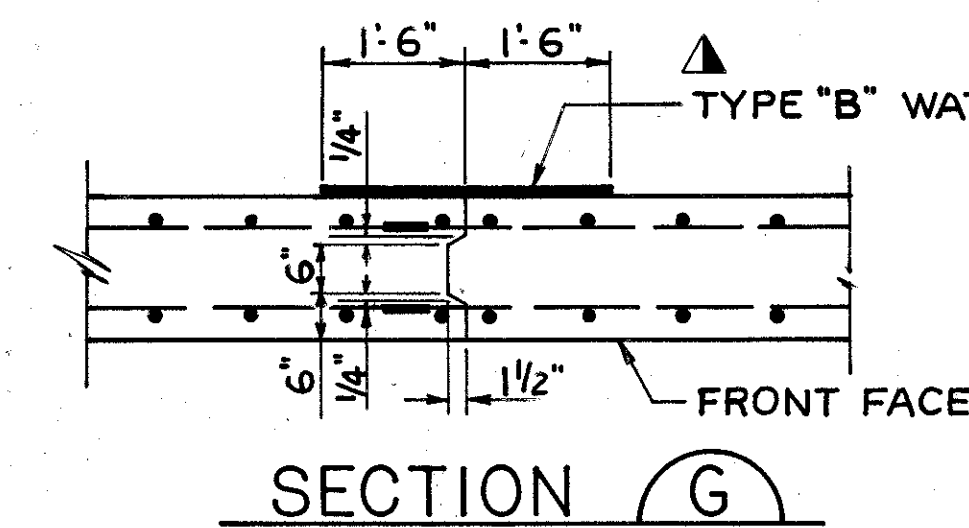
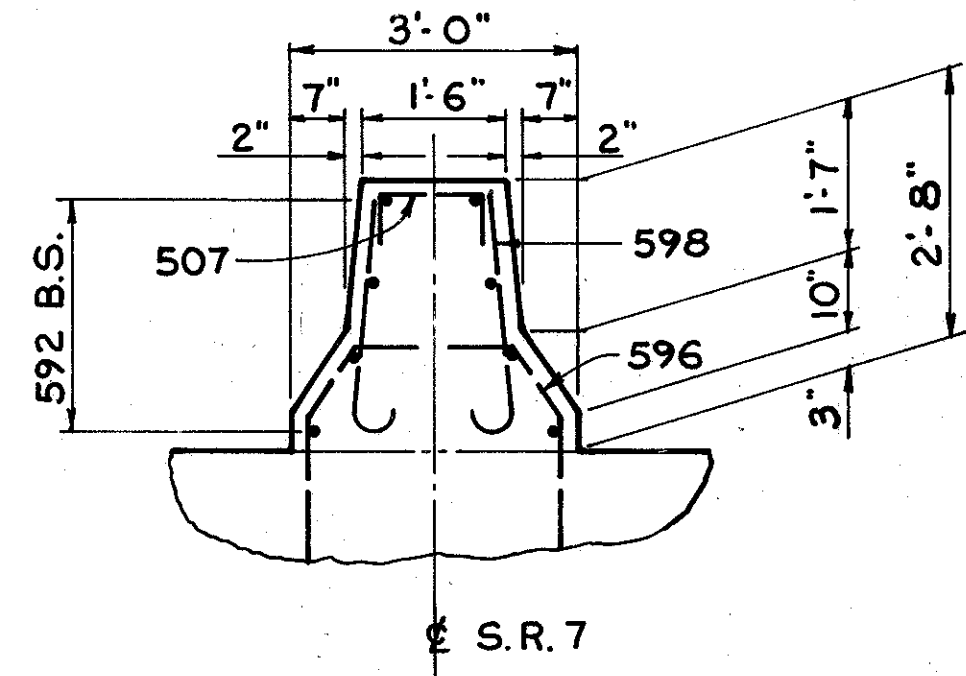
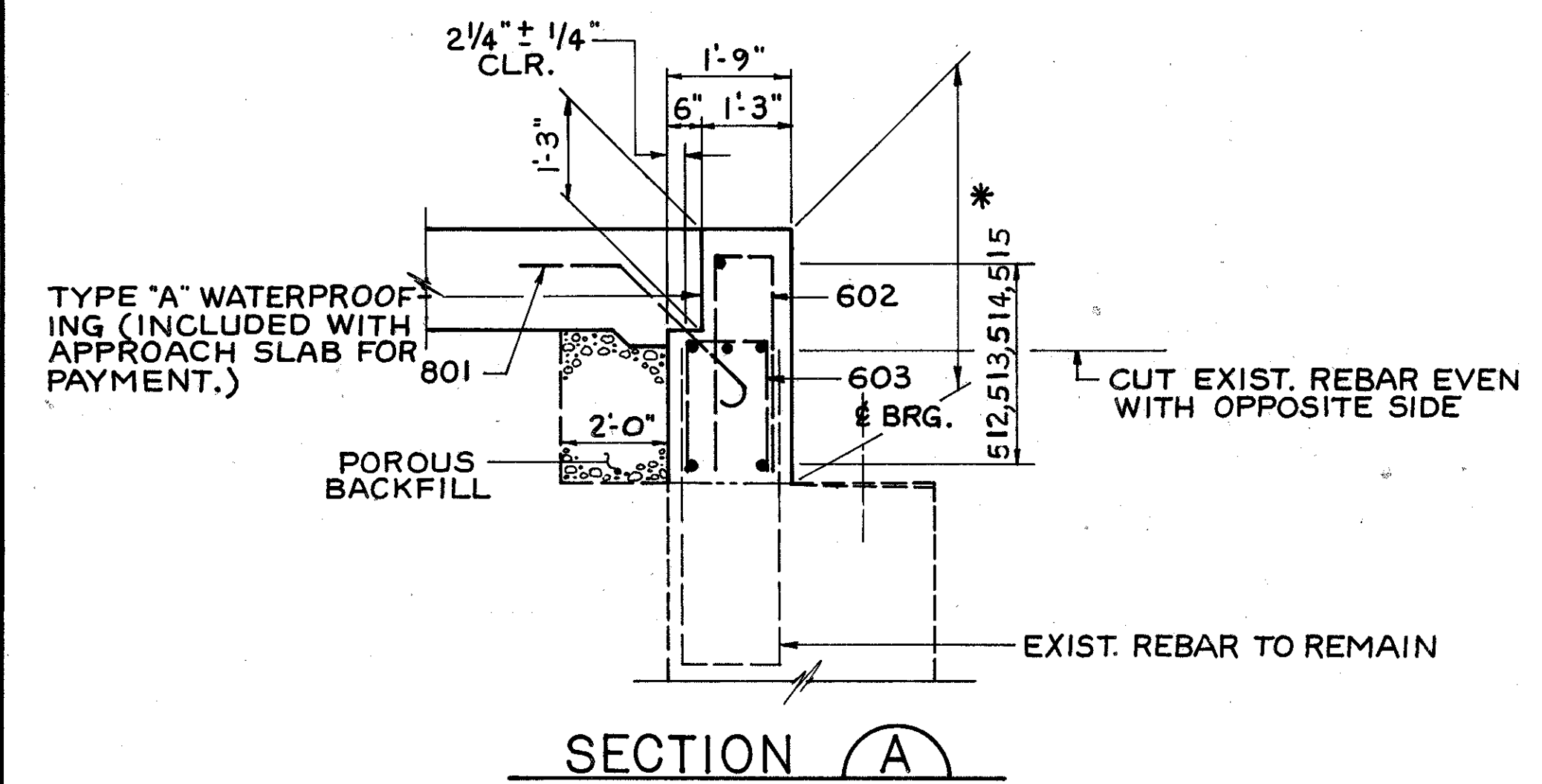


PLAN



ELEVATION

- NOTES
1. PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR FORWARD ABUT. SEE REINFORCING SCHEDULE.
 2. FOR NORTHEAST AND NORTHWEST WINGWALL DETAILS, SEE SHEET NO. 13/34.
 3. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
 4. FOR ADDITIONAL NOTES, SEE SHEET NO. 11/34.



▲ INCLUDED WITH ITEM 511 CLASS C CONCRETE FOR PAYMENT.

* LIMITS OF ITEM - SPECIAL "SEALING OF CONCRETE SURFACES (EPOXY)"

ELEVATIONS								
A	B	C	D	E	F	G	H	I
752.08 ±	751.40 ±	750.88 ±	750.88 ±	750.88 ±	749.76 ±	748.45 ±	748.17 ±	747.89 ±
J	K	L	M	N	O	P	Q	
747.61 ±	747.33 ±	747.25 ±	746.98 ±	746.70 ±	746.42 ±	746.14 ±	748.07 ±	

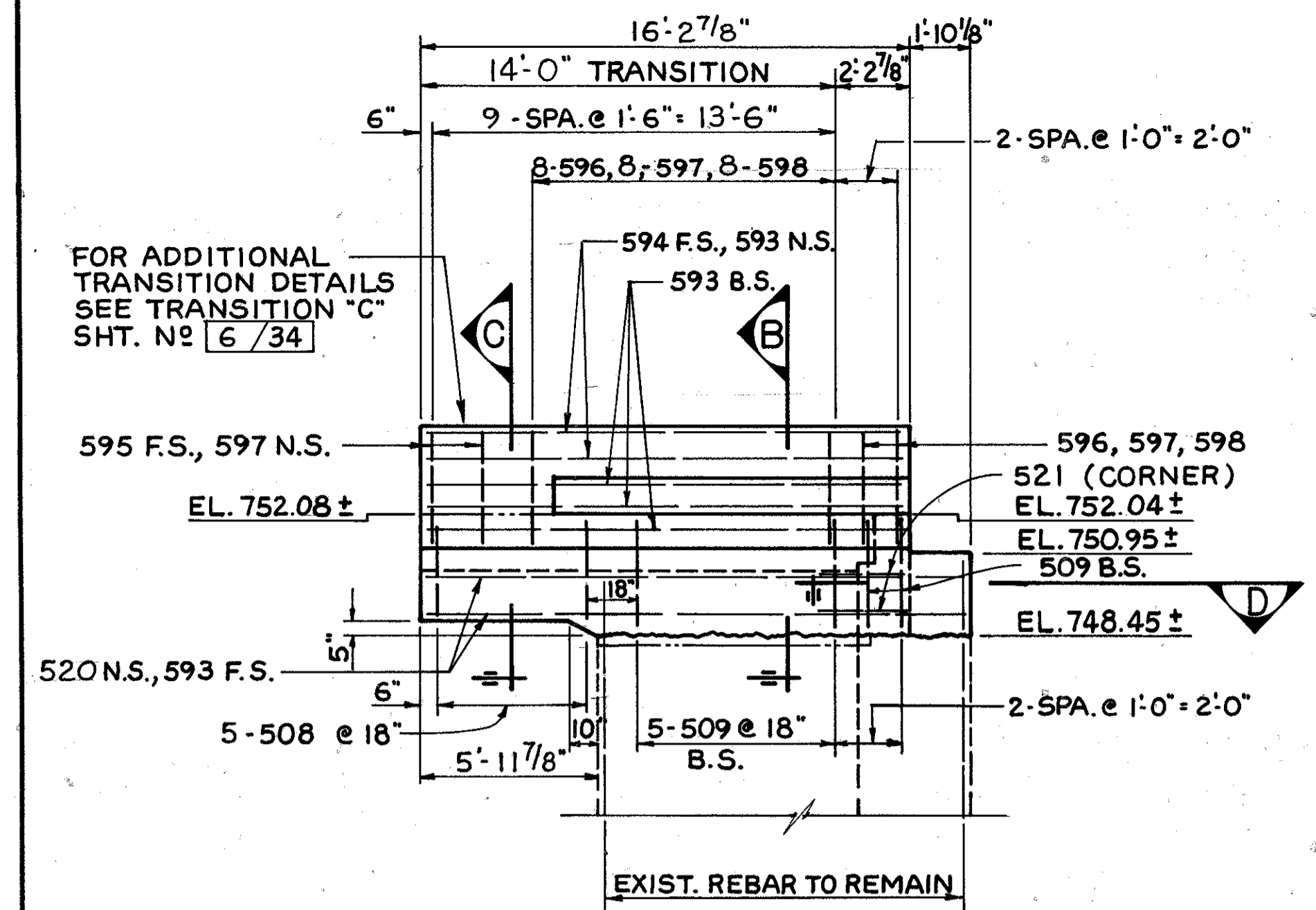
GPD ASSOCIATES
GLAUS PYLE SCHOMER BURNS AND BEHAVEN INC.
AKRON, OHIO

12/34
JOB NO
92045

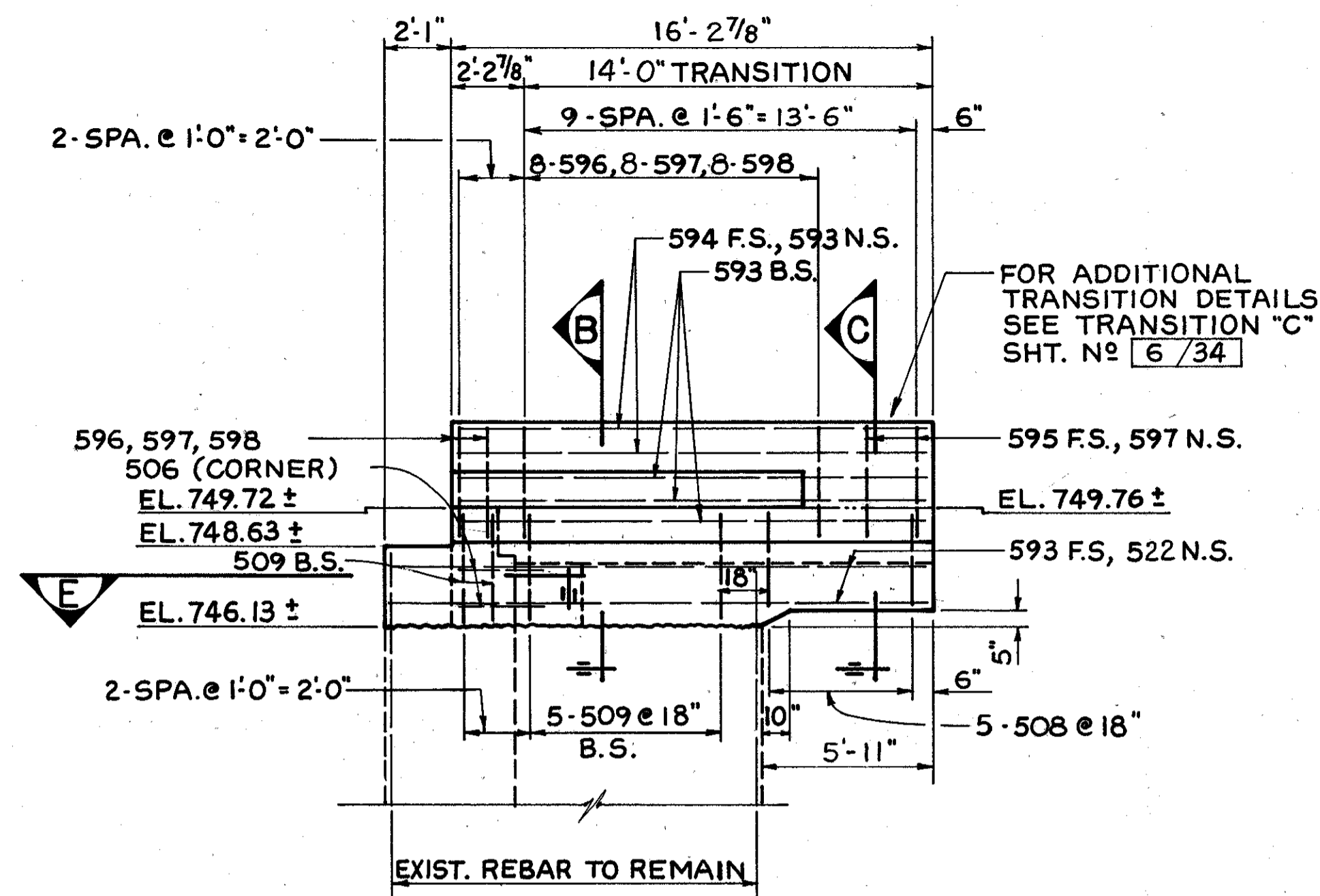
FORWARD ABUTMENT
BRIDGE NO JEF-7-1340
S.R.7 OVER RAVINE ST.

JEFFERSON COUNTY
MINGO JUNCTION

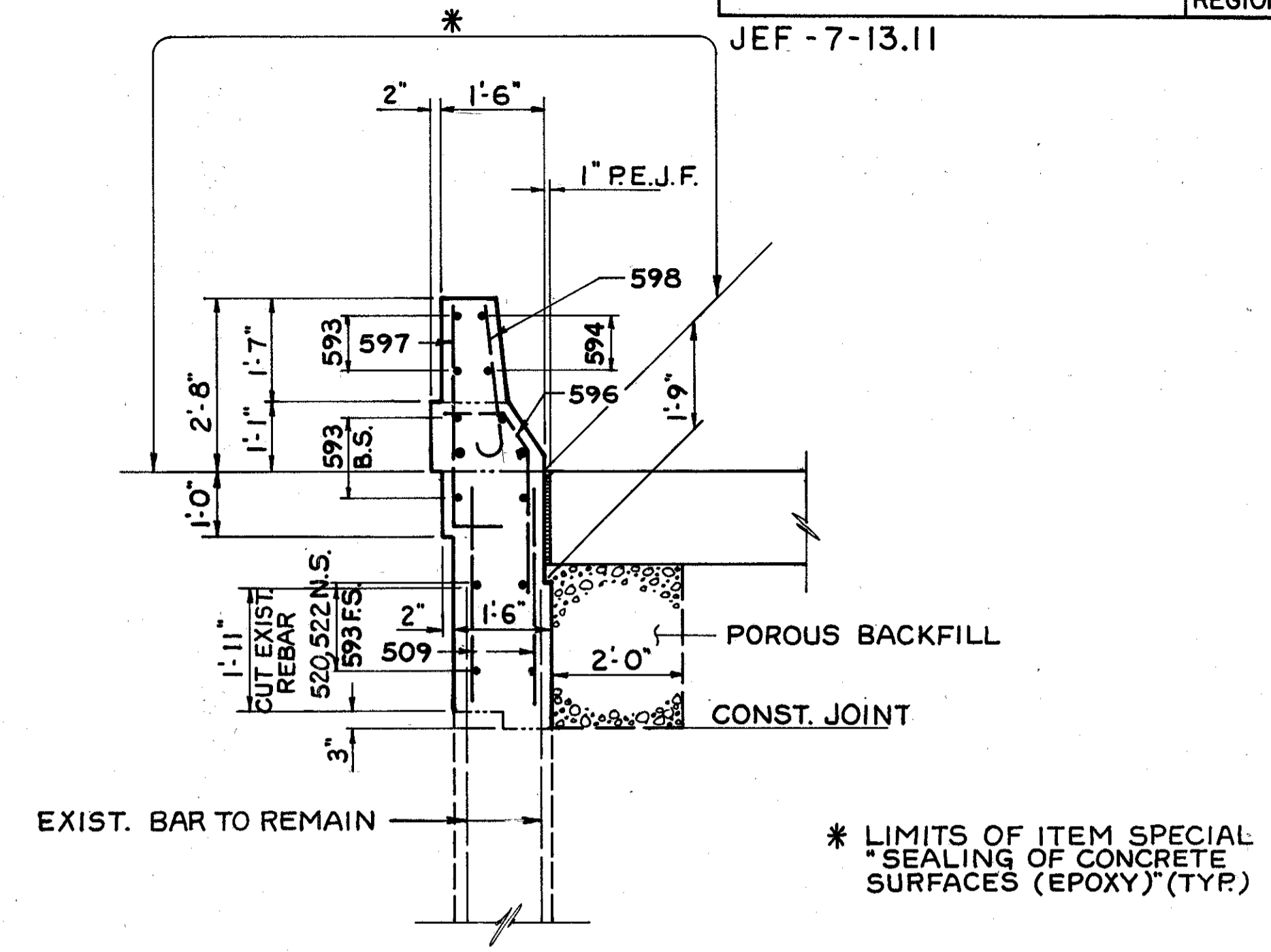
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11. 11. 93	



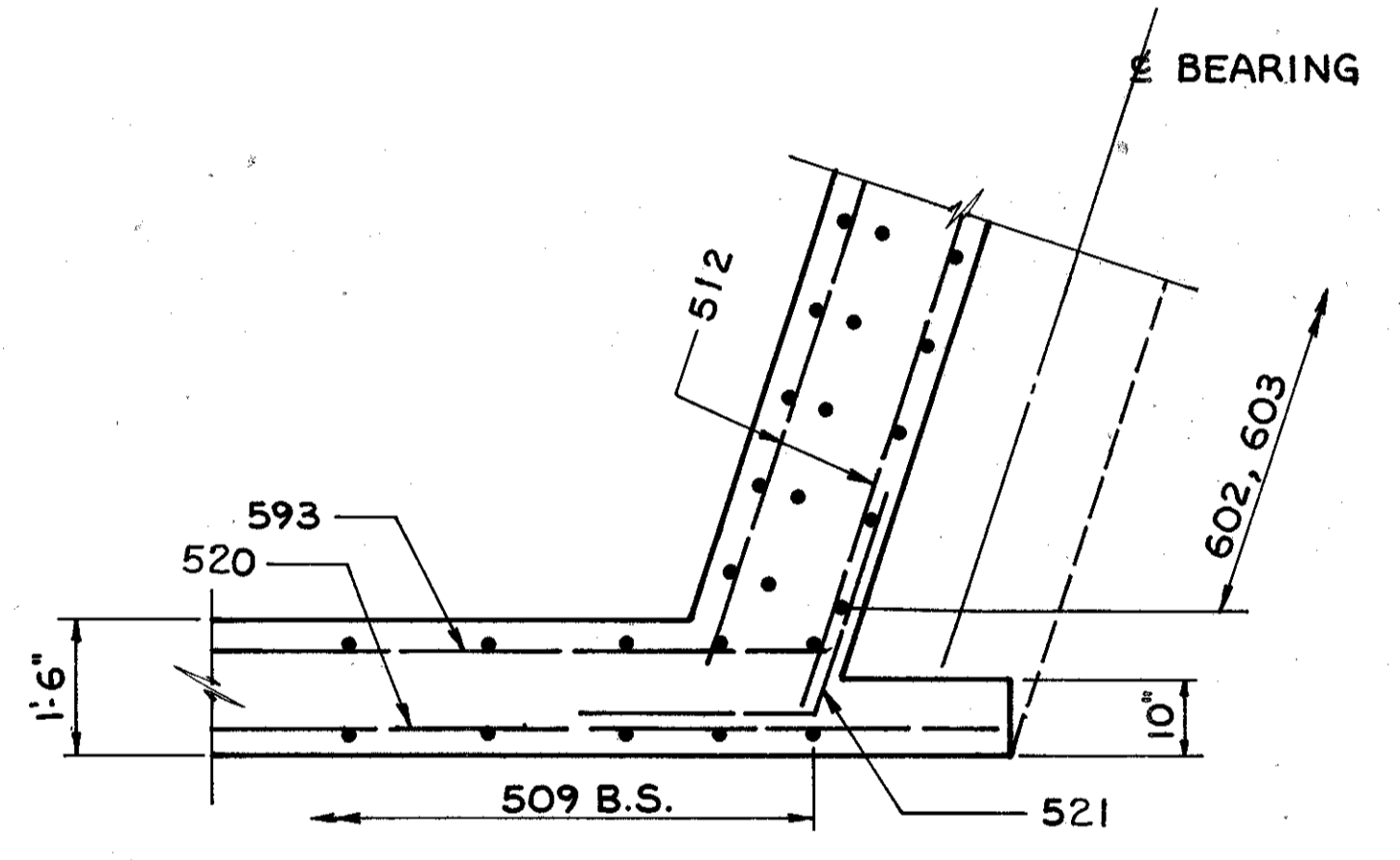
ELEVATION - NORTHWEST WINGWALL



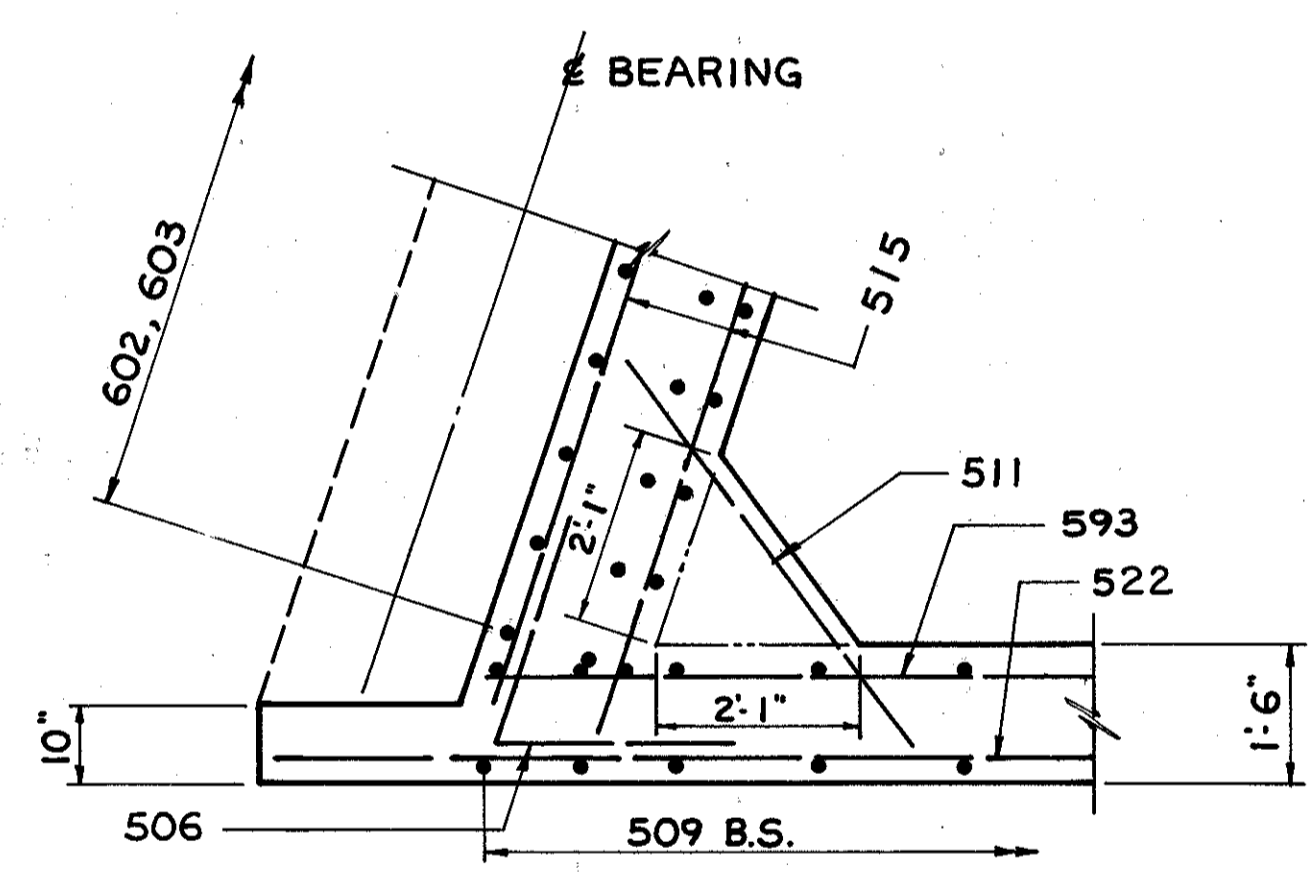
ELEVATION - NORTHEAST WINGWALL



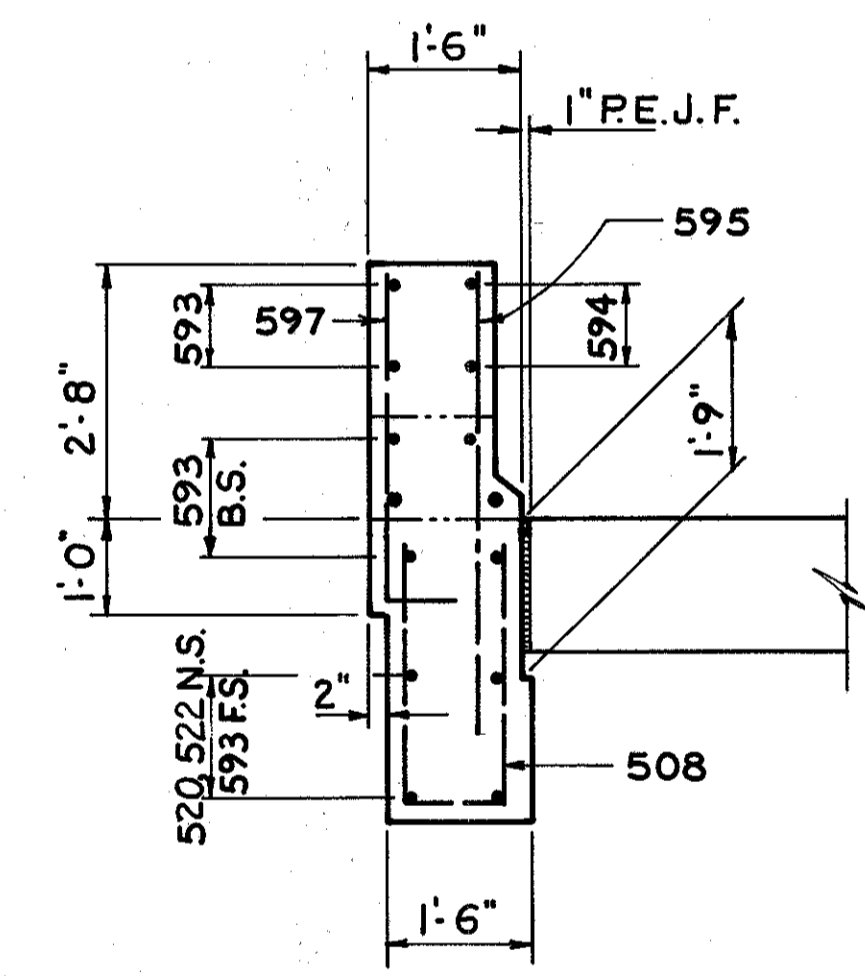
SECTION B



SECTION D

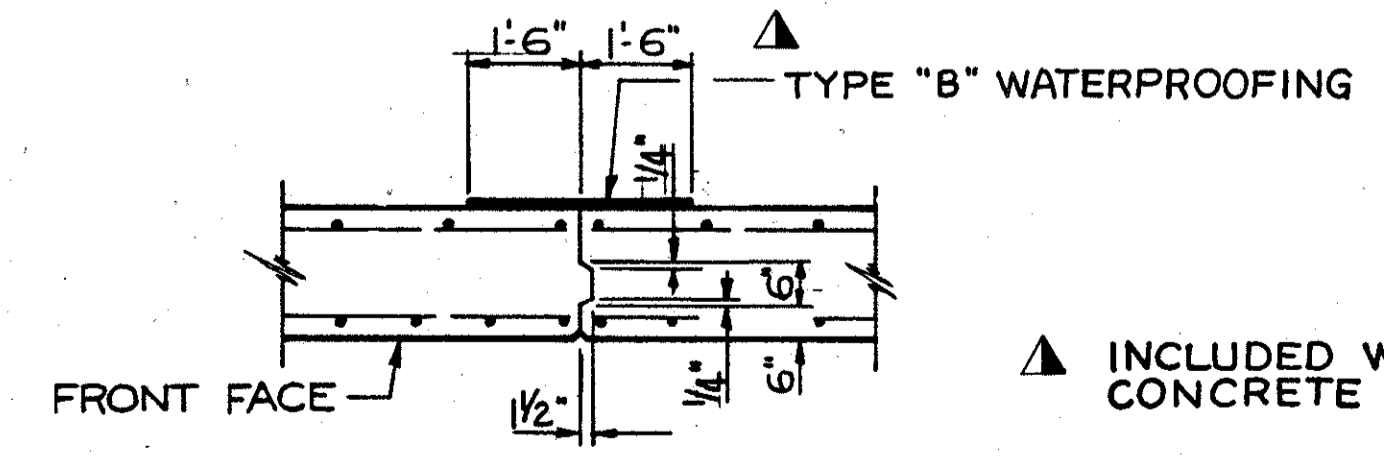


SECTION E



SECTION C

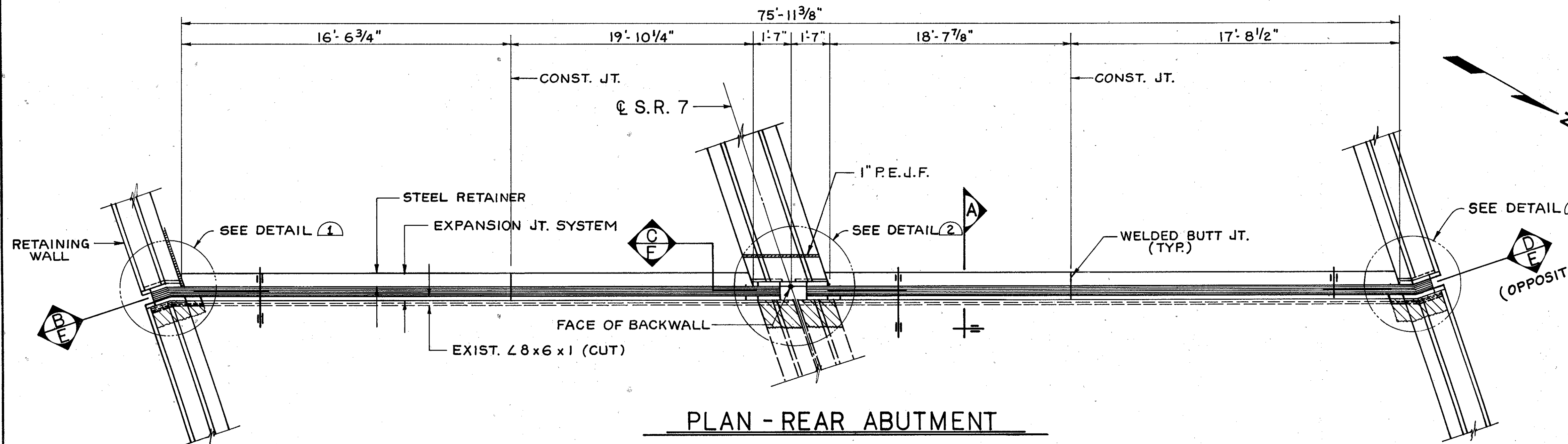
- NOTES
- PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR FORWARD ABUT. SEE REINFORCING SCHEDULE.
 - FOR ADDITIONAL NOTES, SEE SHT. NO. 11/34.



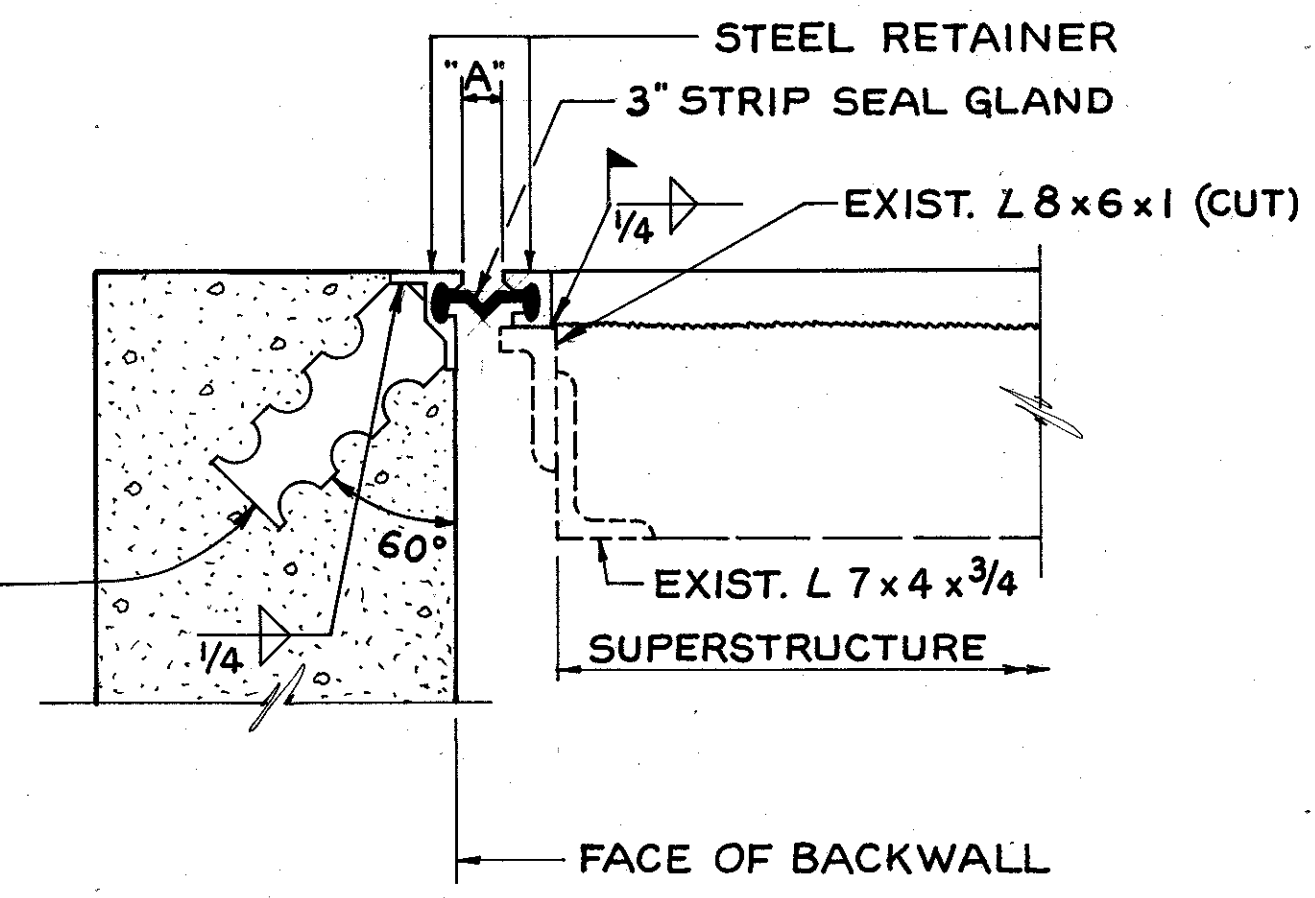
CONTRACTION JOINT DETAIL

GPD ASSOCIATES		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	13/34 JOB NO. 92045
FORWARD ABUTMENT DETAILS			
BRIDGE # JEF-7-1340 S.R. 7 OVER RAVINE ST.			
JEFFERSON COUNTY MINGO JUNCTION			
DESIGNED A.D.	DRAWN R.L.W.	TRACED P.W.	CHECKED K.S.J.
REVIEWED 11.11.93		DATE 11.11.93	
REVISED			

JEF-7-13.11

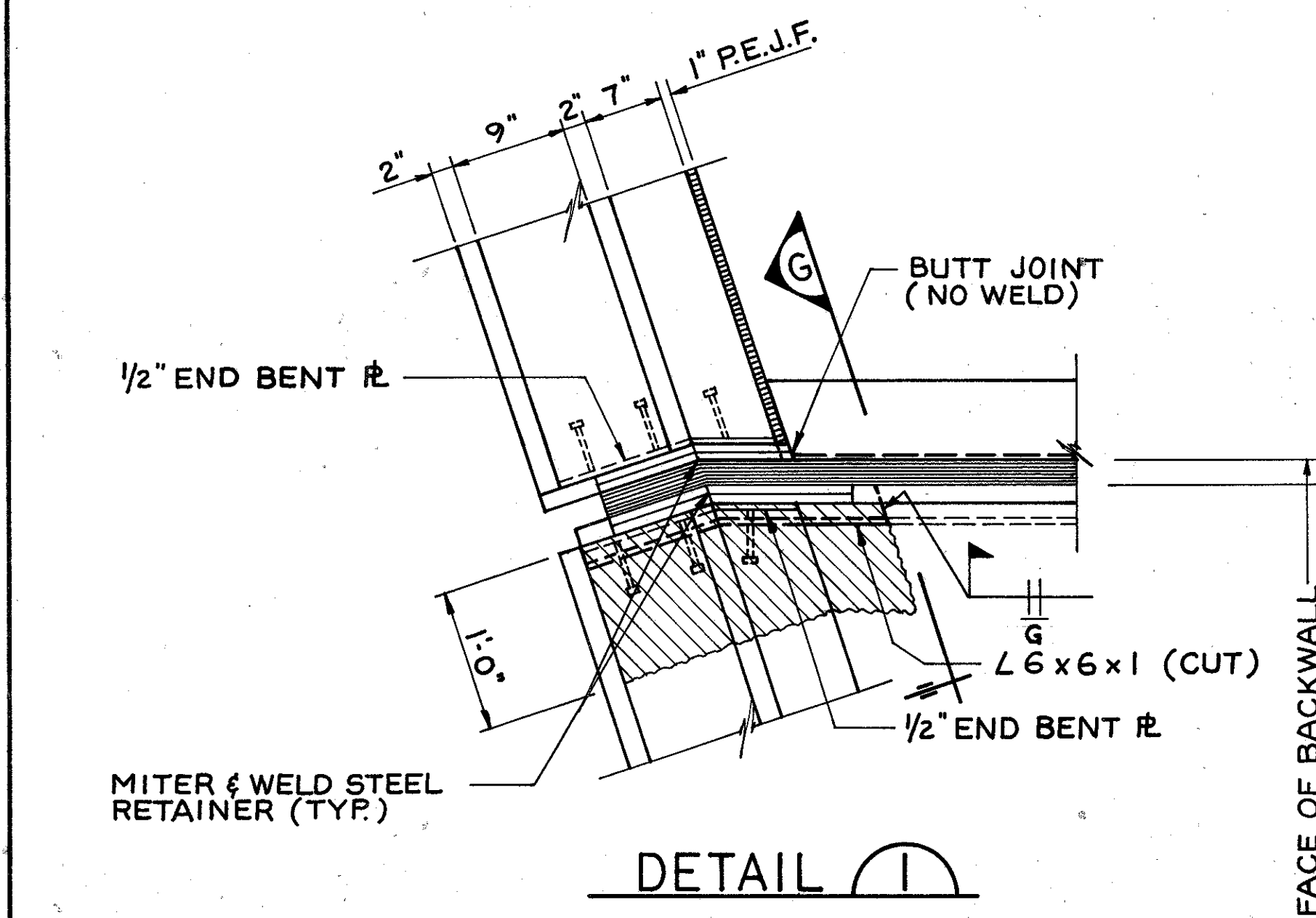


PLAN - REAR ABUTMENT

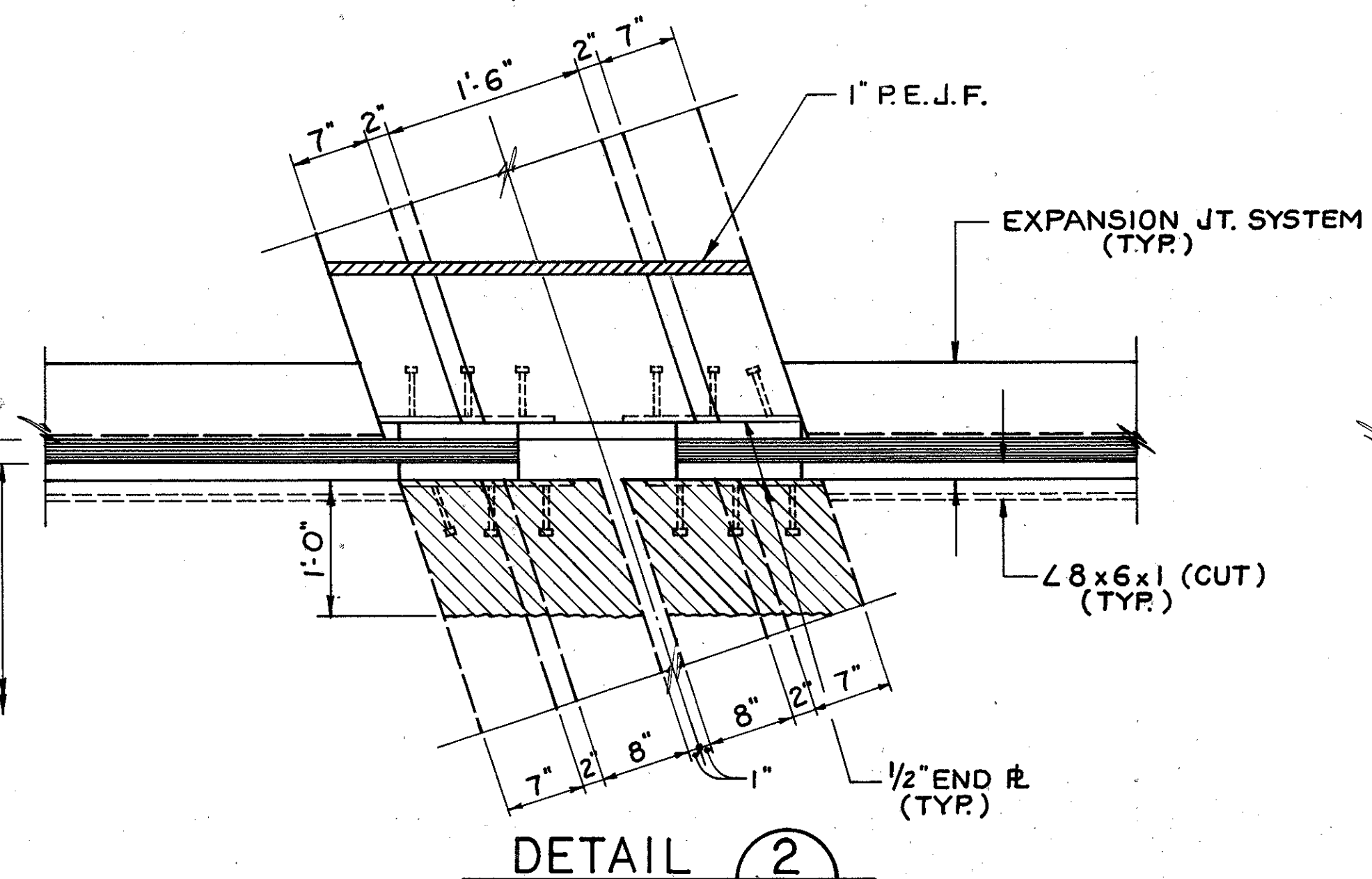


SECTION A

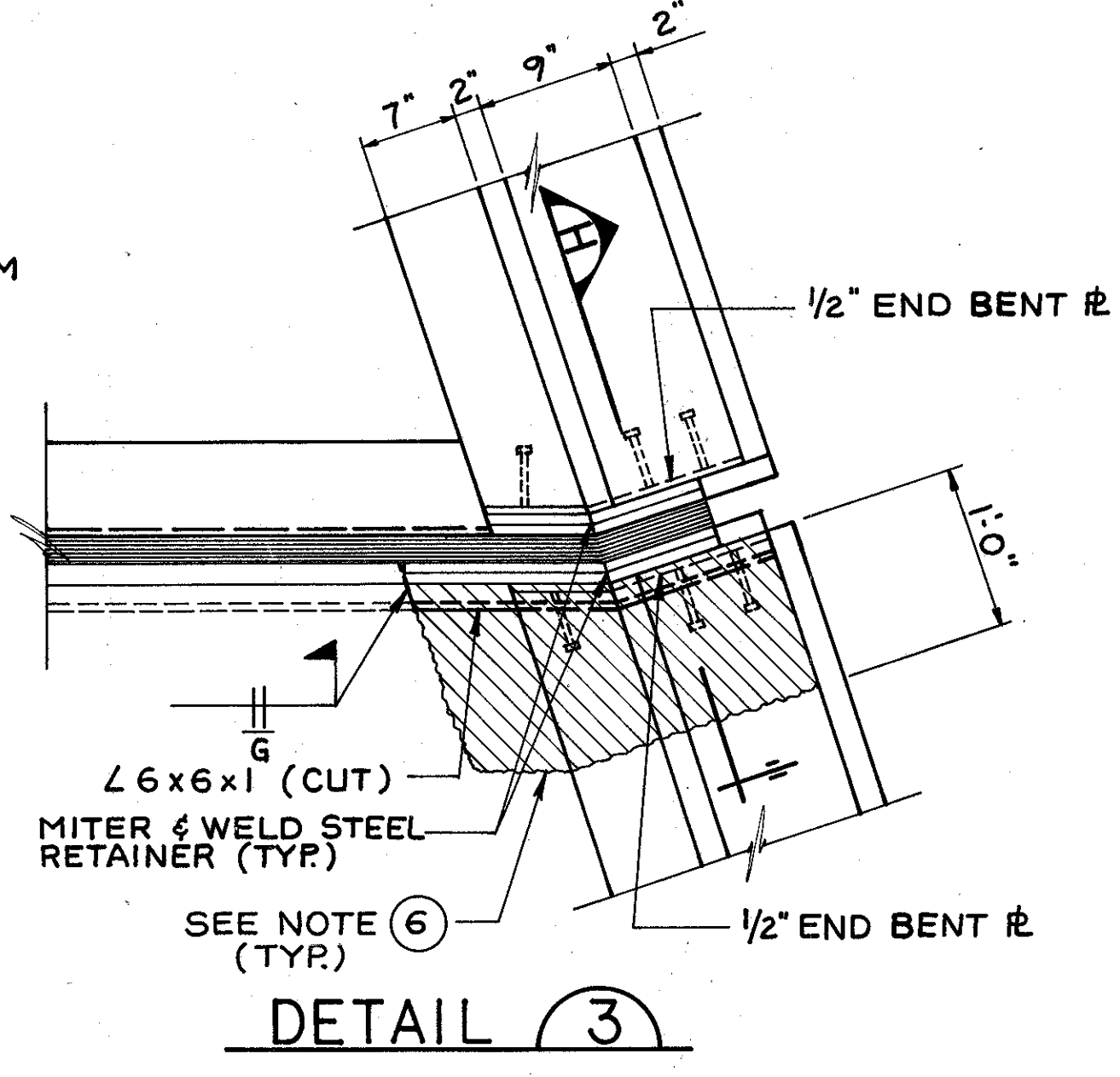
LEGEND
 INDICATES CONCRETE REMOVAL LIMITS



DETAIL 1

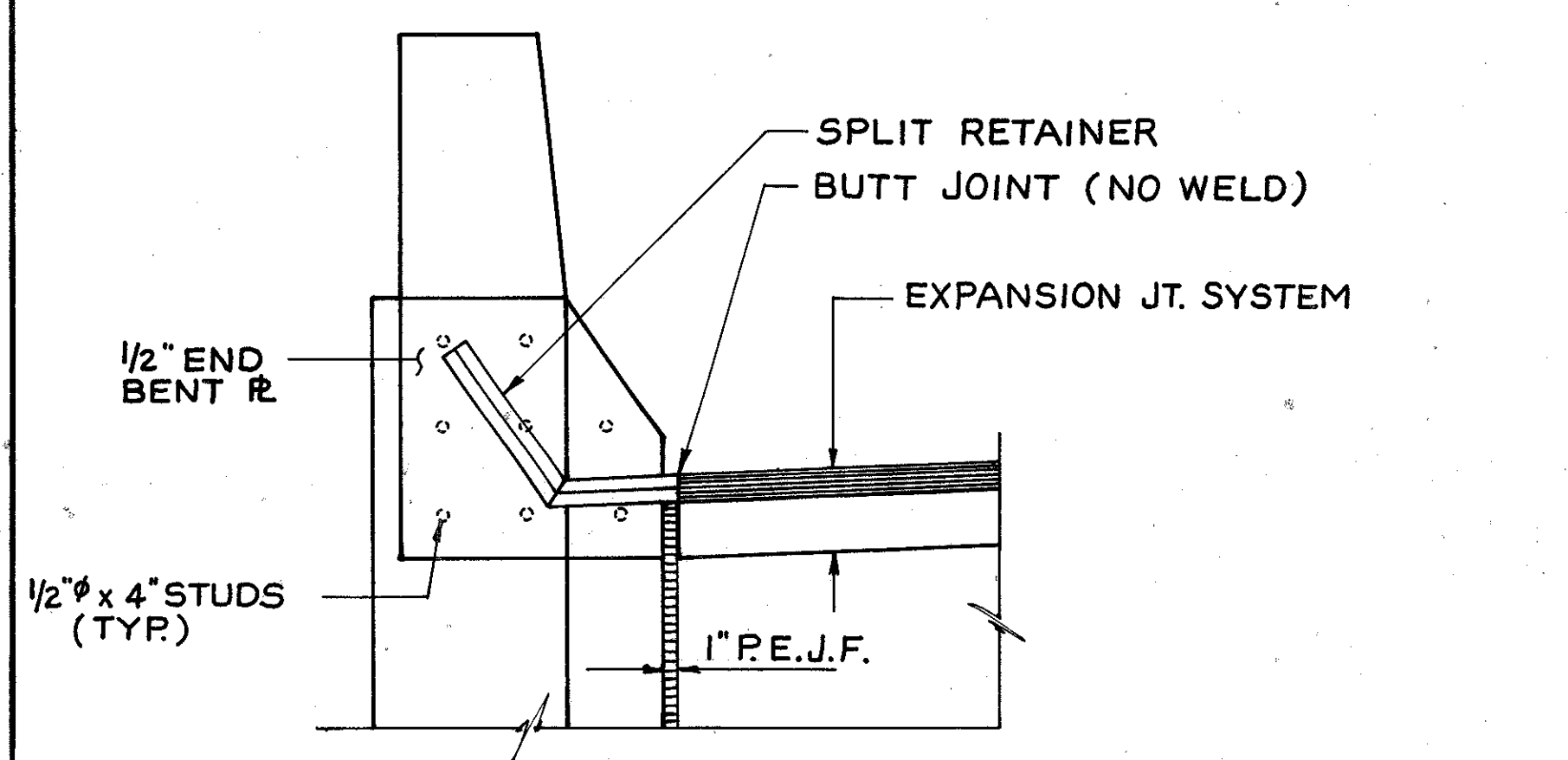


DETAIL 2

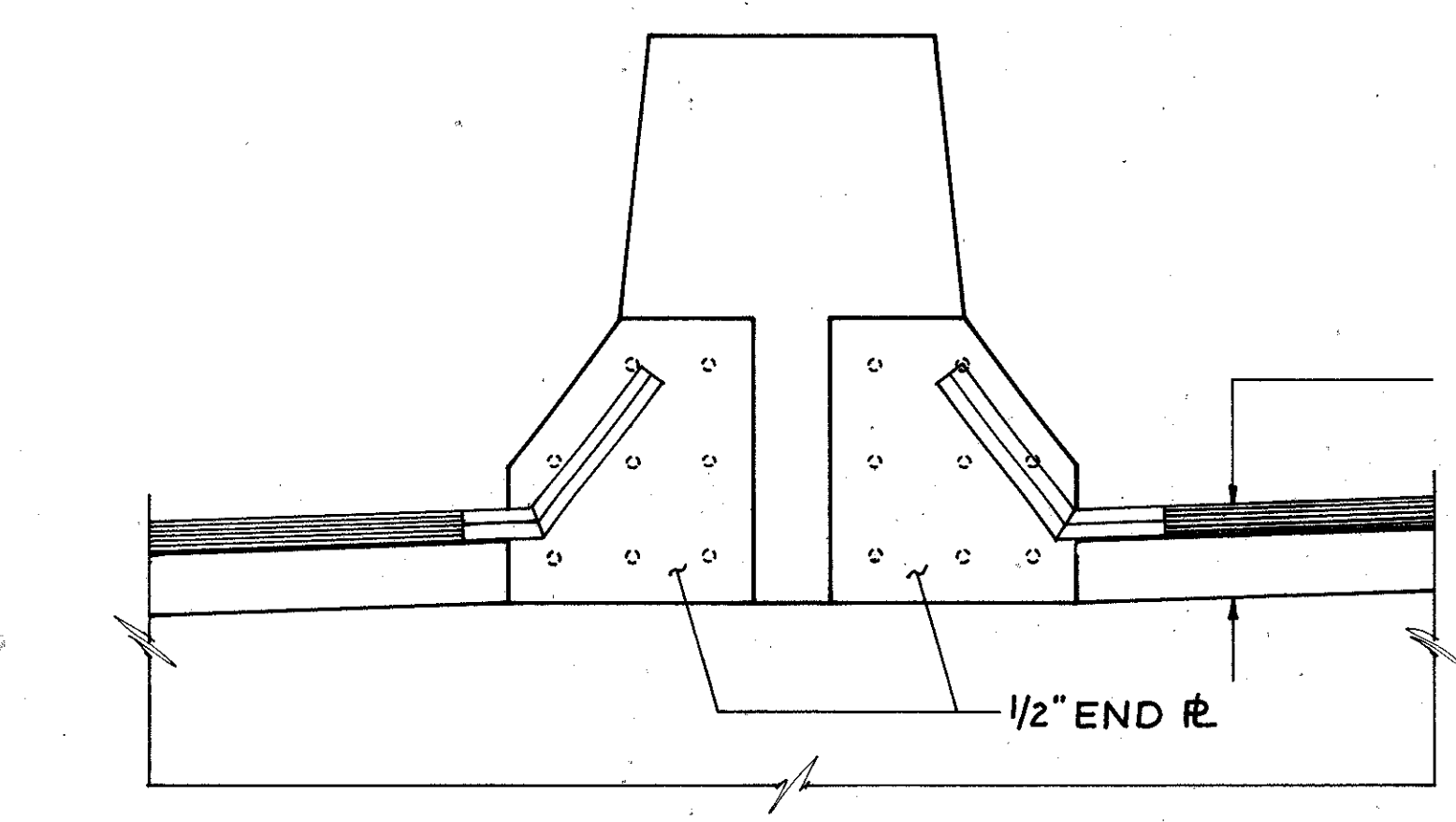


DETAIL 3

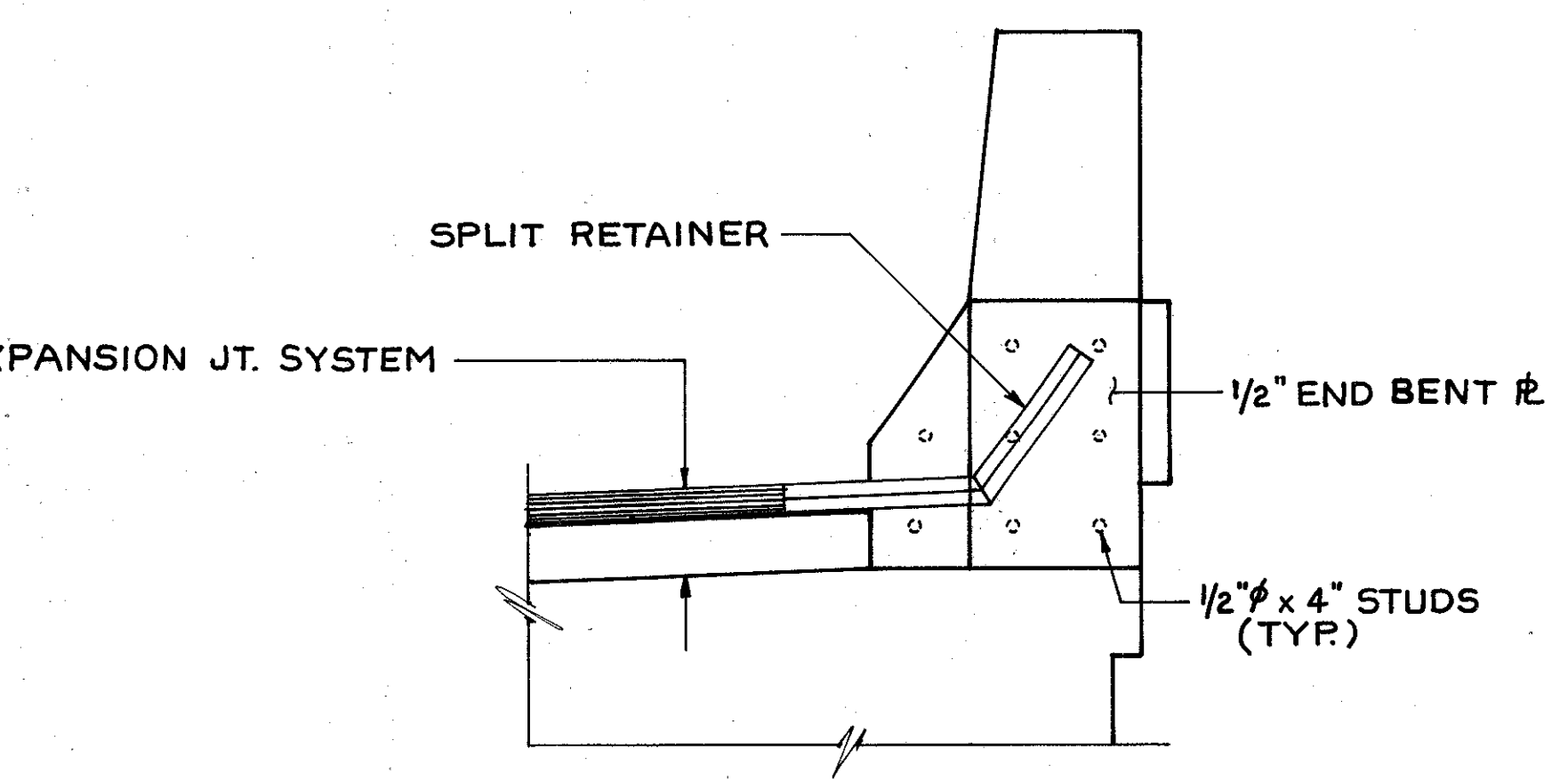
- NOTES**
- ELASTOMERIC STRIP SEAL GLAND FOR THE EXPANSION JOINTS SHALL BE WATSON BOWMAN & ACME MODEL NO. S-300, D.S. BROWN MODEL NO. SS300, OR APPROVED EQUAL.
 - FOR NOTE "PORTIONS OF STRUCTURE REMOVED" AND NOTE "ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL" SEE SHT. NO. 1/34.
 - FOR ADDITIONAL DETAILS AND NOTES, REFER TO STD. DWG. NOS. EXJ-4-87.
 - FOR JOINT INSTALLATION DIMENSION "A", SEE SHEET NO. 15/34.
 - FOR SECTIONS E, F, G, AND H, SEE SHEET NO. 15/34.
 - REMOVE EXIST CONCRETE AS REQ'D TO INSTALL EXPANSION JOINT EXTENSIONS. SALVAGE EXISTING REINFORCING STEEL. REPLACE EXISTING CONCRETE WITH ITEM 511, CLASS S CONCRETE. ALL WORK IS INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, FOR PAYMENT.



SECTION B



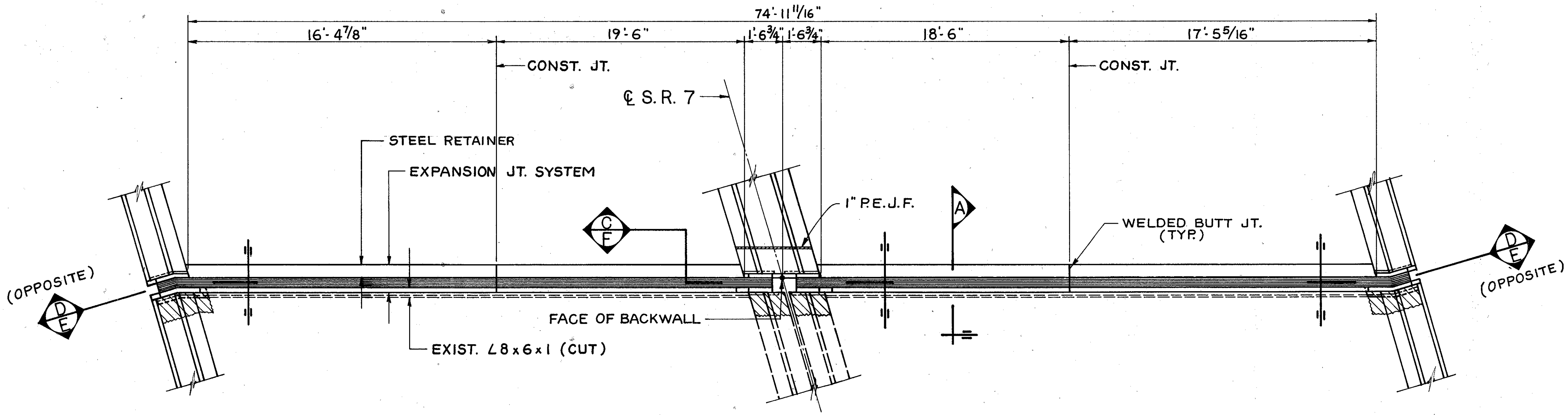
SECTION C



SECTION D

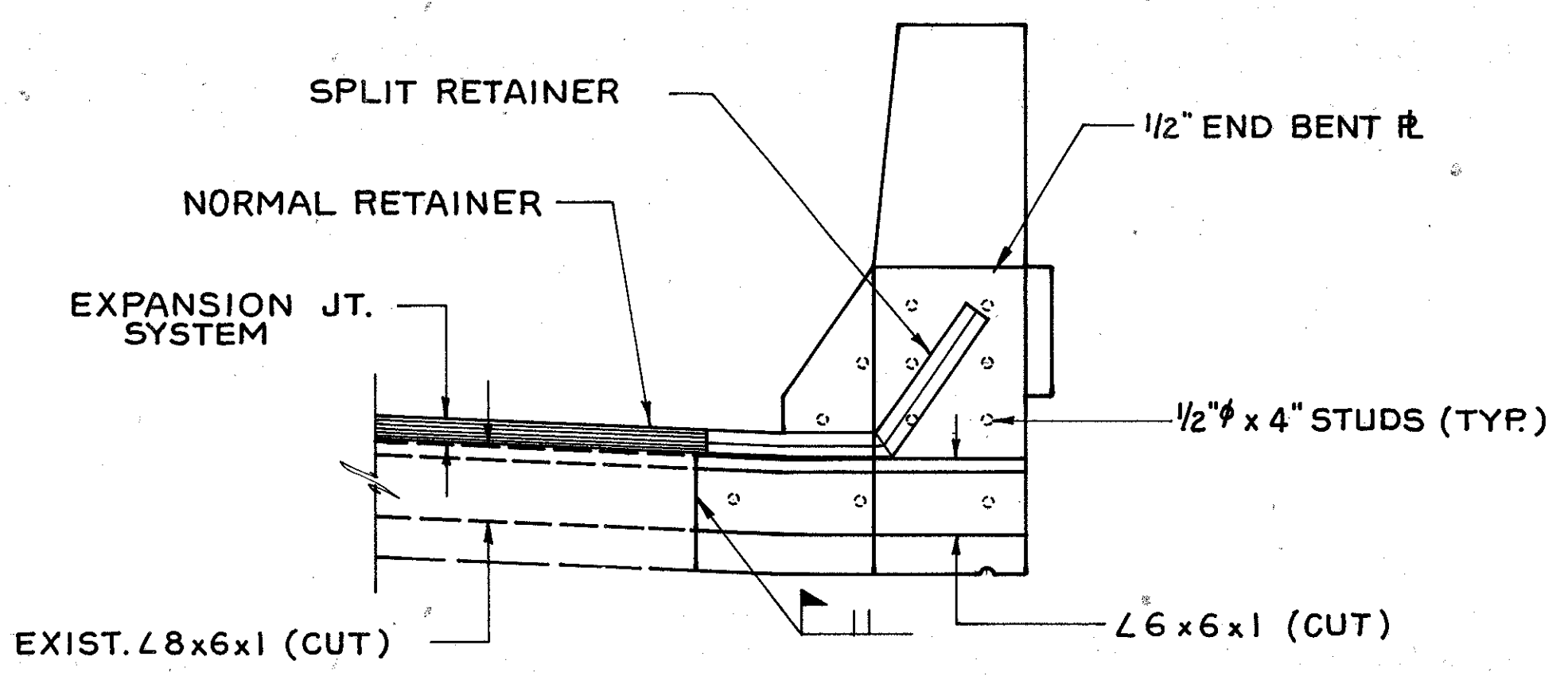
 GPD ASSOCIATES	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC.	14/34
	AKRON, OHIO	JOB NO. 92045
EXPANSION JOINT DETAILS BRIDGE N ^o JEF-7-1340 S.R.7 OVER RAVINE ST.		
JEFFERSON COUNTY MINGO JUNCTION		
DESIGNED A.D.	DRAWN R.L.W.	TRACED P.W.
CHECKED K.B.J.	REVIEWED K.B.J.	DATE 11.11.93
REVISED		

JEF-7-13.11

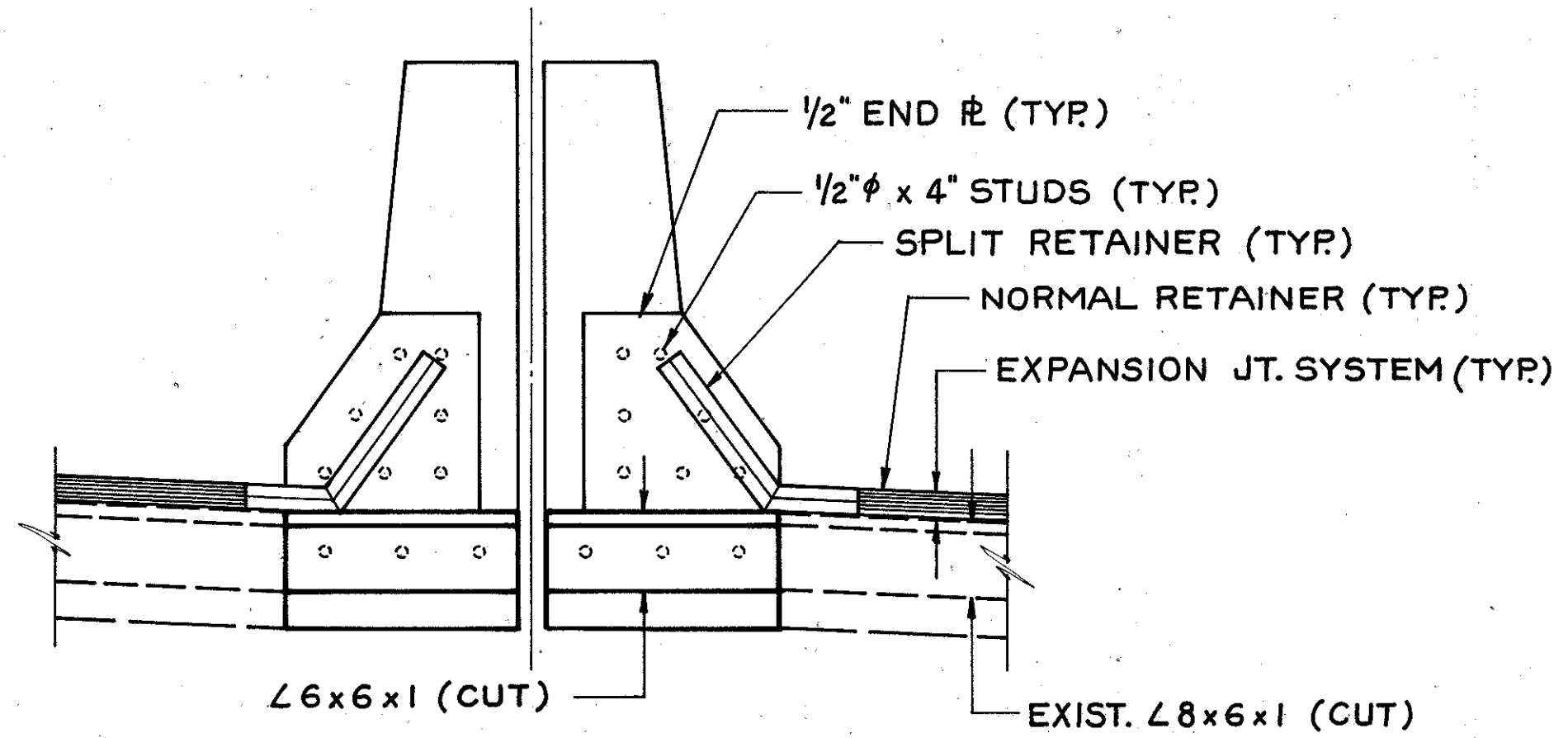


PLAN - FORWARD ABUTMENT

LEGEND
 INDICATES CONCRETE REMOVAL LIMITS
 INDICATES LIMITS OF 1\"/>

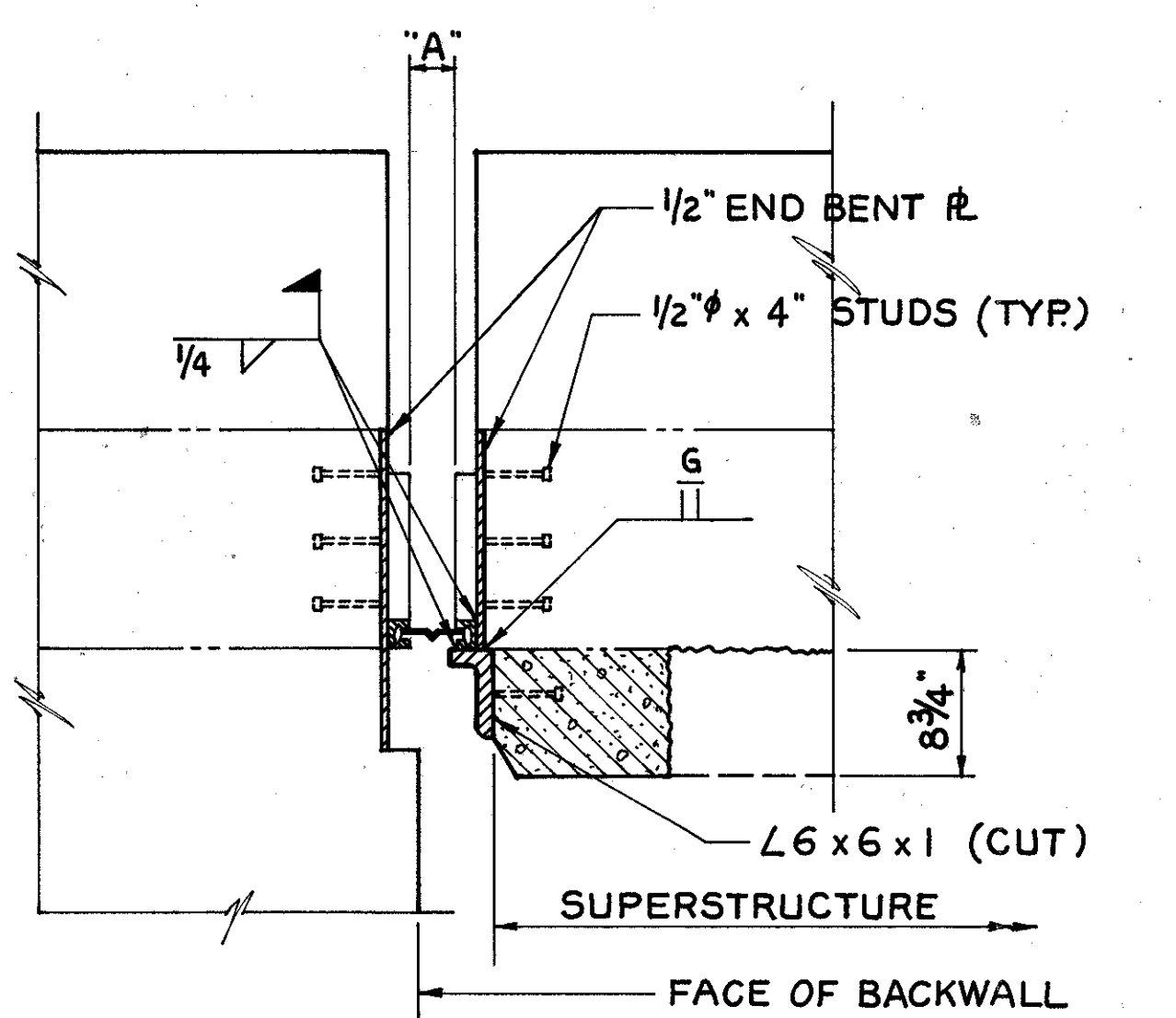


SECTION E

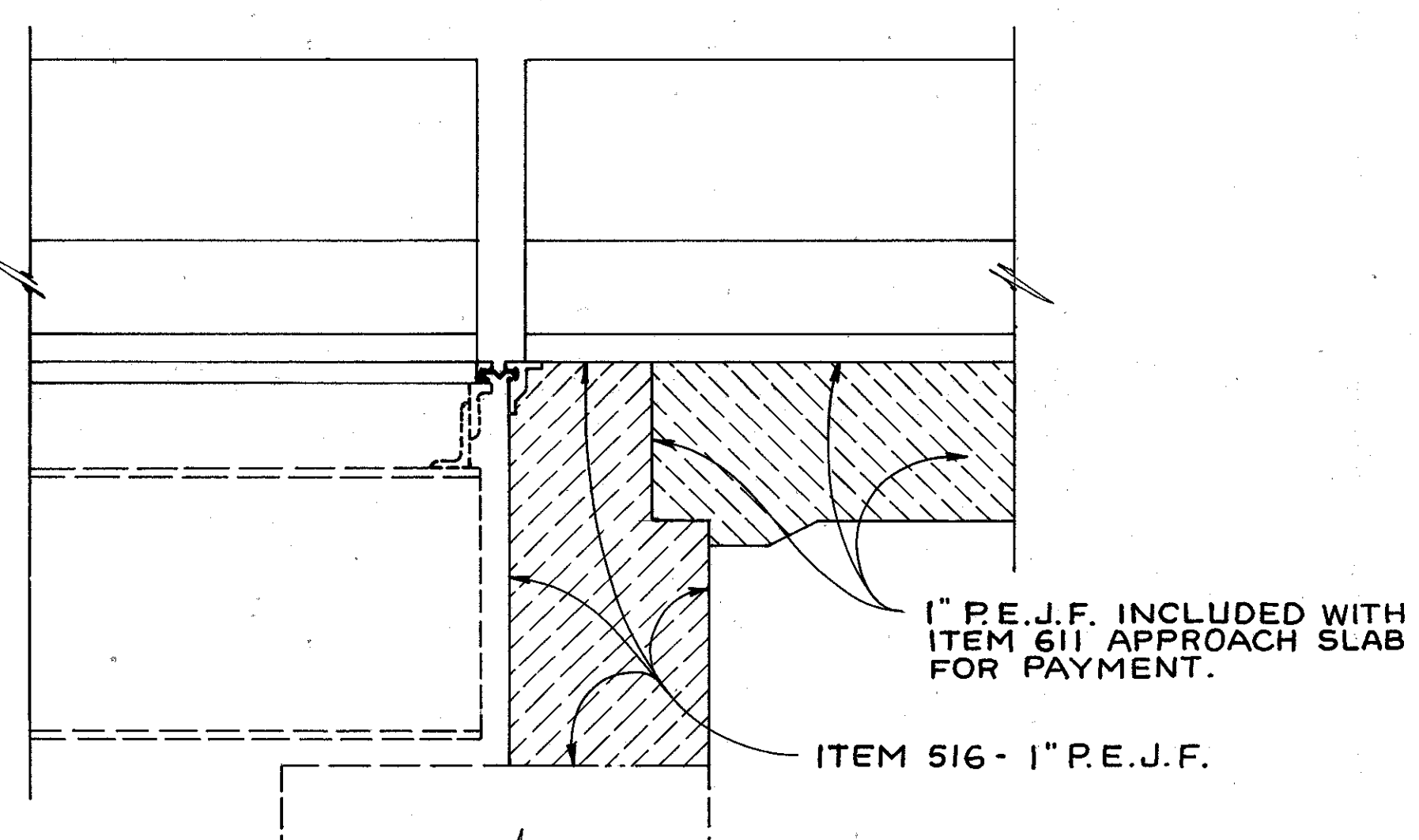


SECTION F

- NOTES**
- FOR SECTIONS A, C, AND D, SEE SHEET NO. 14/34.
 - FOR ADDITIONAL NOTES, SEE SHEET NO. 14/34.
 - FOR LOCATION OF SECTION G, SEE SHEET NO. 14/34.



SECTION H



SECTION G

TEMP. @ JOINT INSTALLATION (F)	DIMENSION "A"	
	REAR ABUT.	FRWD. ABUT.
90°	1 7/16	1 9/16
80°	1 1/2	1 7/16
70°	1 9/16	1 5/8
60°	1 5/8	1 5/8
50°	1 1/16	1 5/8
40°	1 3/4	1 1/16
30°	1 13/16	1 1/16

1\"/>

ITEM 516 - 1\"/>

GPD ASSOCIATES
 GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC.
 AKRON, OHIO

15/34
 JOB NO
 92045

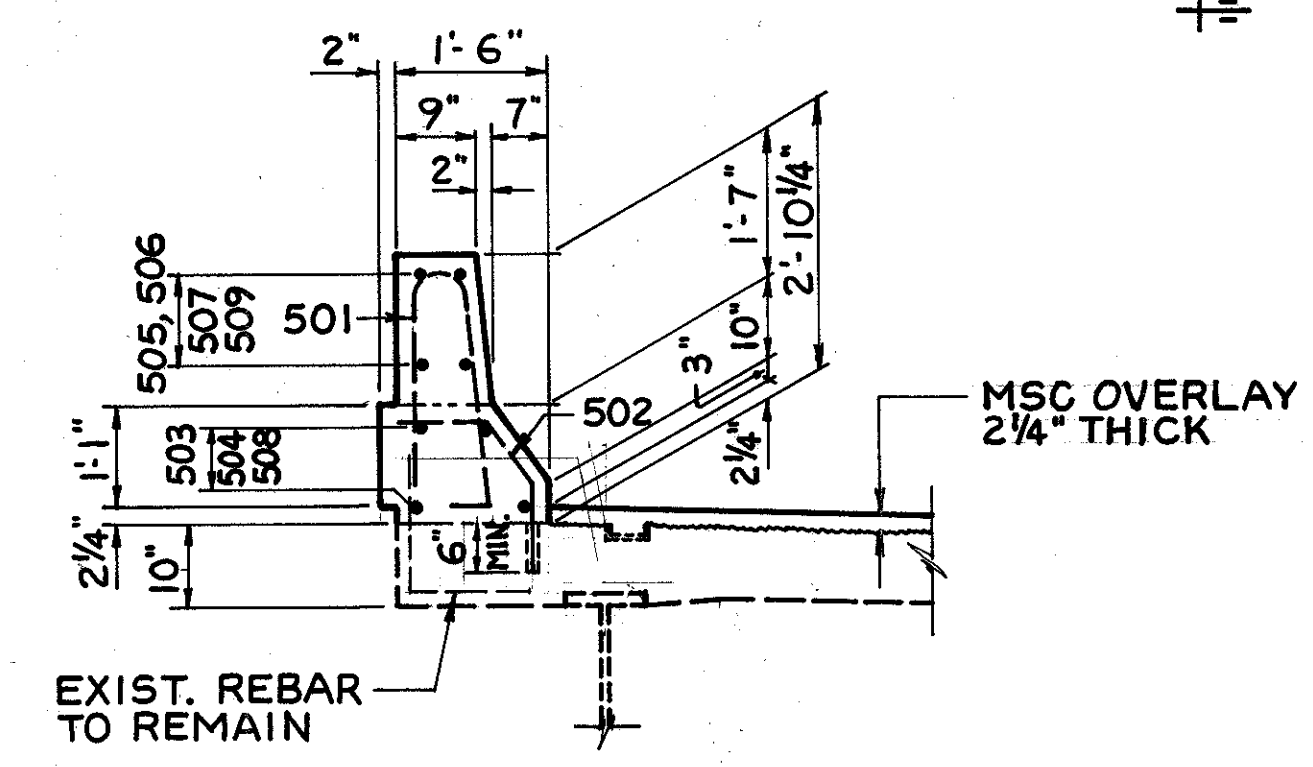
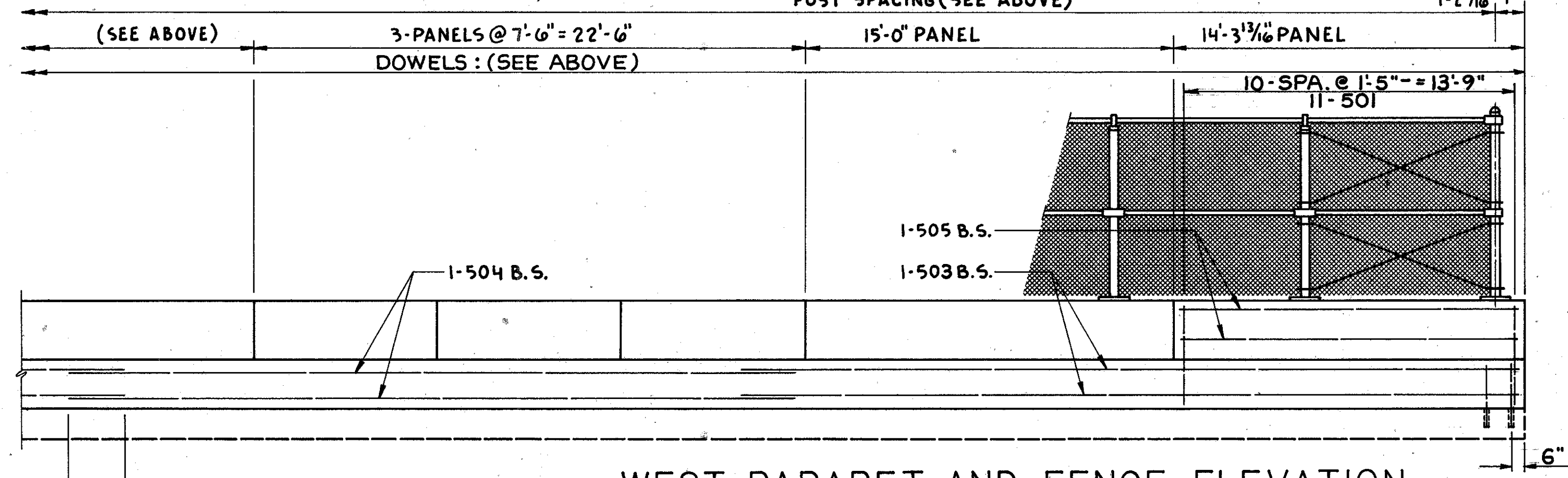
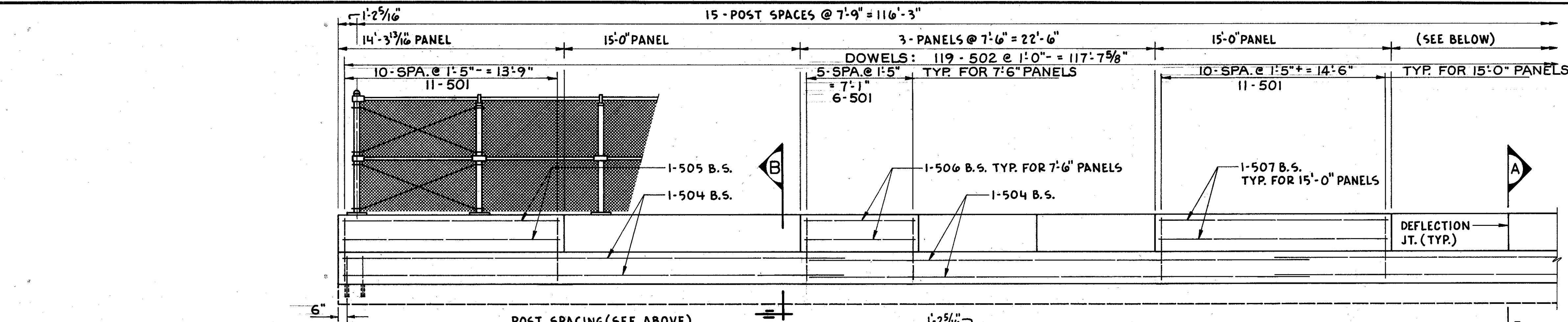
EXPANSION JOINT DETAILS

BRIDGE NO JEF-7-1340
 S.R.7 OVER RAVINE ST.

JEFFERSON COUNTY
 MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		AW	K.S.J.	11.11.93	

JEF-7-13.11

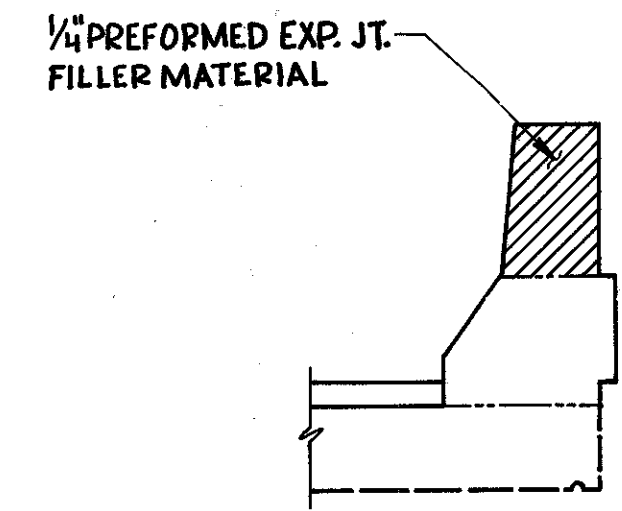
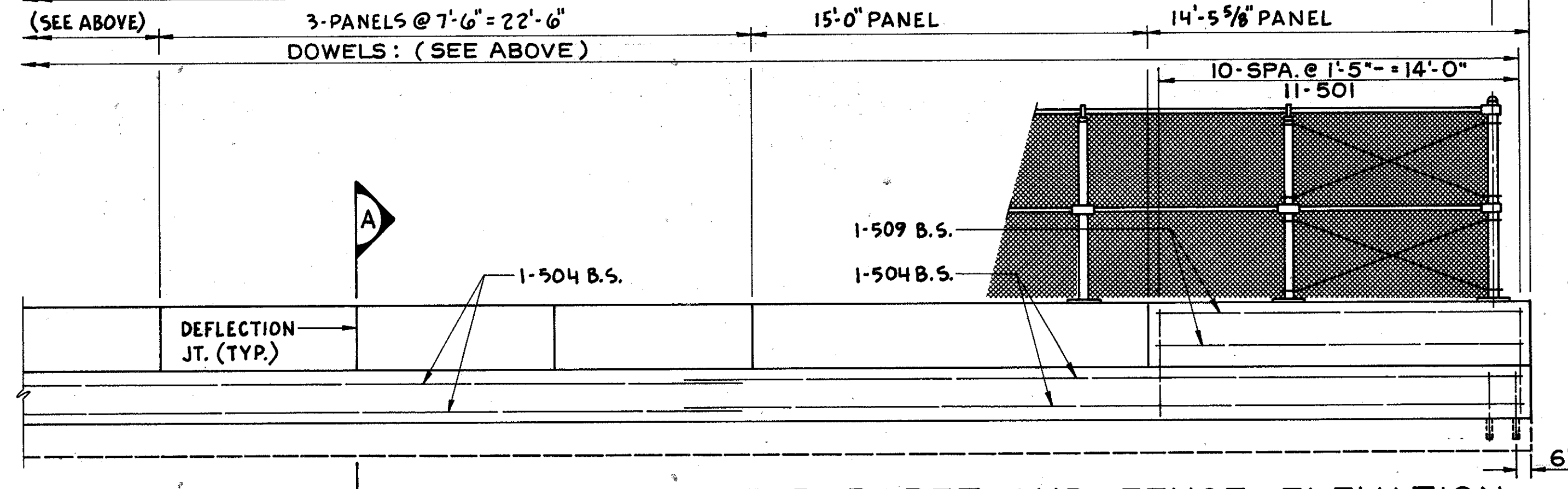
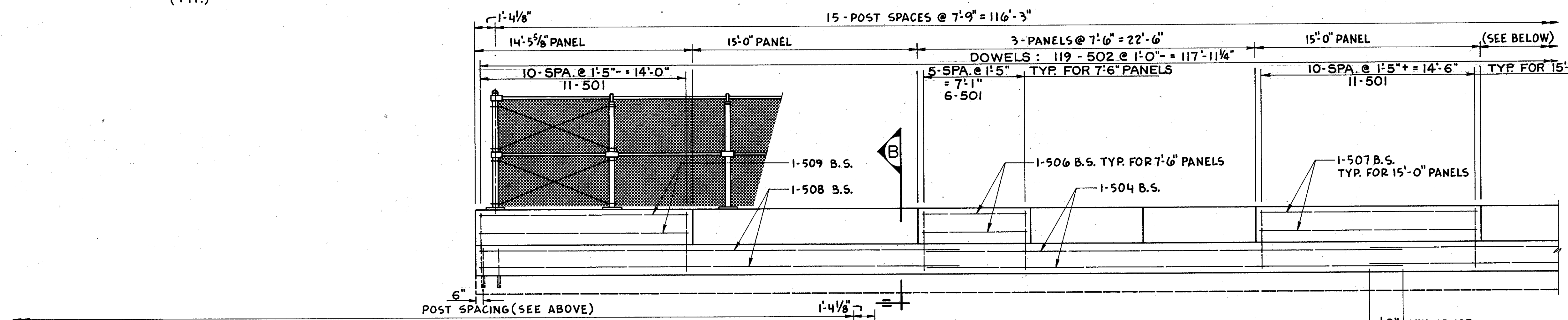


WEST PARAPET AND FENCE ELEVATION

SECTION B (FENCE NOT SHOWN)

NOTES

1. PREFIX "S" WILL BE ADDED TO ALL REBARS SHOWN FOR PARAPETS. SEE REINFORCING SCHEDULE.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. CONCRETE PARAPETS SHALL BE PLACED IN ALTERNATING SECTIONS BY THE USE OF BULKHEADS. CLOSING SECTIONS SHALL BE PLACED AFTER REMOVAL OF BULKHEADS AND AFTER PLACEMENT OF EXPANSION JOINT FILLER. EXPOSED EDGES OF THE FILLER SHALL BE FLUSH WITH THE SURFACE OF THE CONCRETE AND SHALL BE FREE OF MORTAR.
4. PREFORMED EXPANSION JOINT FILLER IN THE PARAPET DEFLECTION JOINTS MAY BE EITHER 1/4" GRAY SPONGE RUBBER OR 1/4" GRAY CELLULAR POLYVINYL CHLORIDE (PVC) SPONGE. SPONGE RUBBER FILLER SHALL CONFORM TO AASHTO M-153, TYPE 1. DENSITY OF PVC SPONGE SHALL NOT BE LESS THAN 20 LBS. PER CU.FT. THE JOINT FILLER IS INCLUDED WITH SUPERSTRUCTURE CONCRETE FOR PAYMENT.
5. FOR FENCE DETAILS NOT SHOWN, REFER TO STD. DWG. NO. VPF-1-90, REVISED 2-1-92 AND SHT. NO. 4/34.
6. QUANTITIES OF CONCRETE AND REINFORCING STEEL FOR PARAPETS ARE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL AND ITEM 511, CLASS S CONCRETE, SUPERSTRUCTURE, FOR PAYMENT.

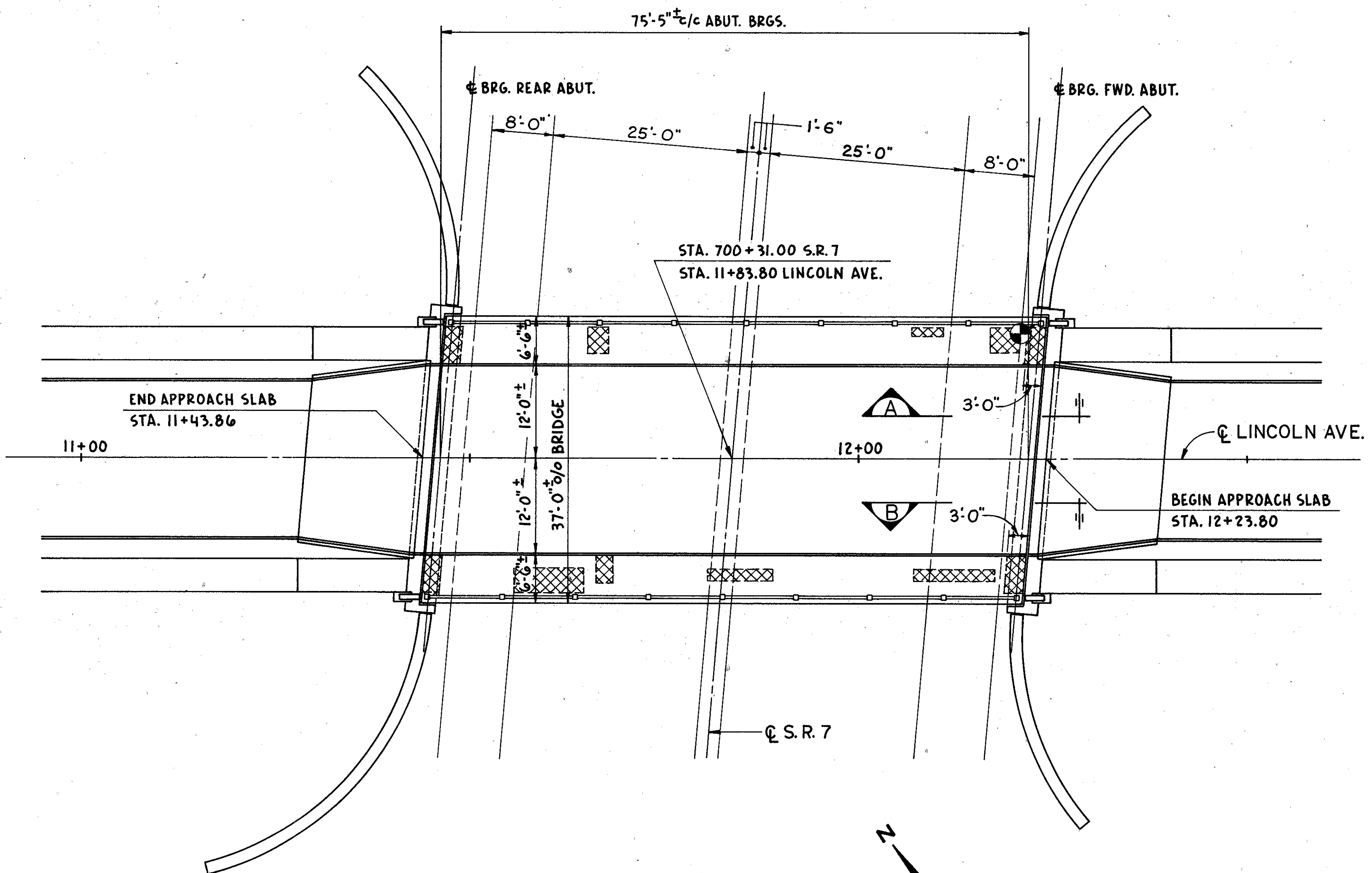


EAST PARAPET AND FENCE ELEVATION

SECTION A

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		16/34 JOB NO 92045
PARAPET & FENCE DETAILS				
BRIDGE # JEF-7-1340 S.R.7 OVER RAVINE ST.				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED A.D.	DRAWN RPK	TRACED	CHECKED EW	REVIEWED KJS
			DATE 11.11.93	REVISED

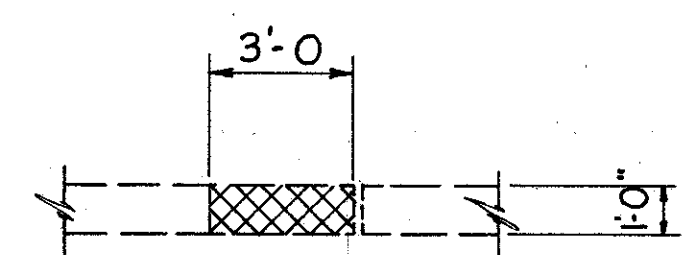
JEF - 7 - 13.11



PLAN

● POINT OF MIN. VERTICAL CLEARANCE
REQ'D CLR. = 15.0'
PROP. ACT. CLR. = 15.26'

▨ INDICATES CONCRETE PATCHING LIMITS.



VIEW A
(AS SHOWN)

VIEW B
(OPPOSITE HAND)

PROPOSED WORK

1. VERTICALLY EXTEND EXPANSION JOINTS.
2. PATCH EXISTING DECK SLAB, SIDEWALKS AND CURBS.
3. SCARIFY EXISTING DECK TO 1/4". PROVIDE 1-1/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY.
4. SEAL ABUTMENTS WITH EPOXY.
5. PAINT EXISTING STEEL.

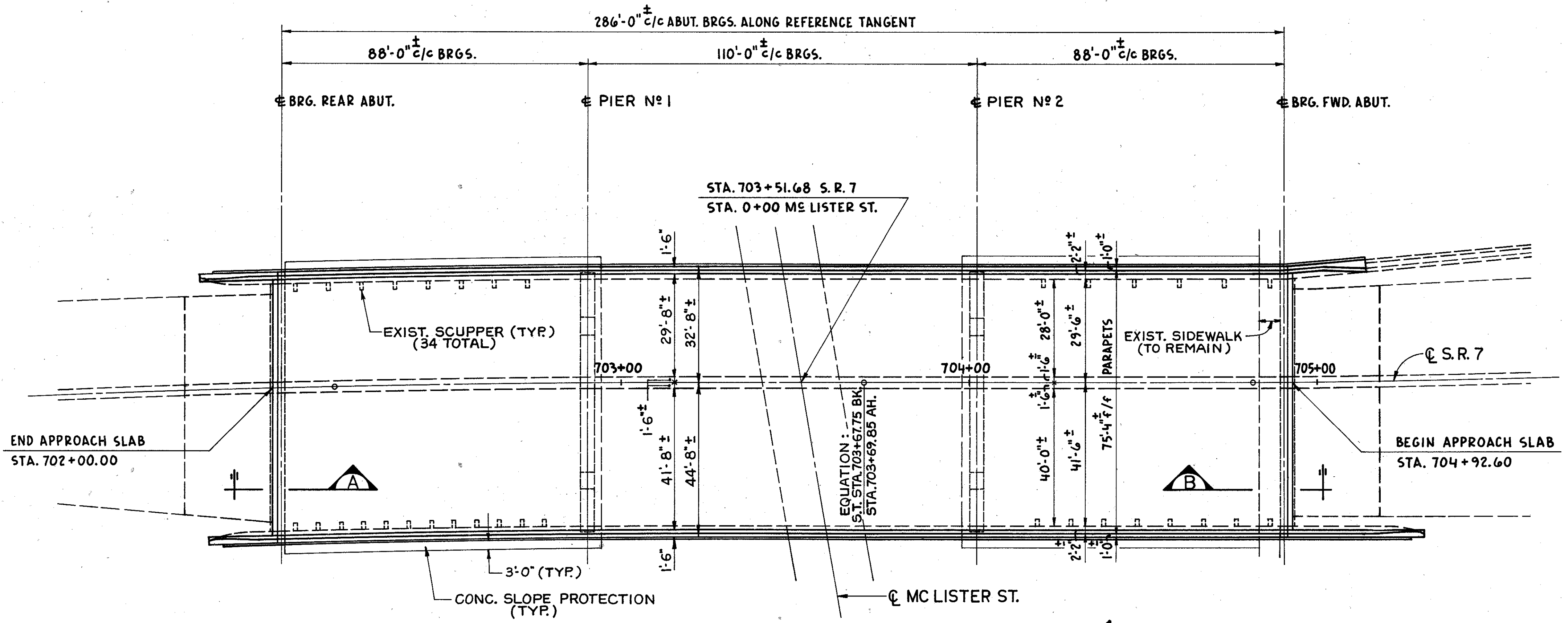
NOTES

1. FOR TRANSVERSE SECTION AND REHABILITATION DETAILS, SEE SHEET NO. 4/34.
2. FOR ADDITIONAL REHABILITATION DETAILS, SEE SHT. NO. 3/34.

	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	17/34 JOB Nº 92045
	GENERAL PLAN	

BRIDGE Nº JEF - 7 - 1344 LINCOLN AVE. OVER S.R. 7					
JEFFERSON COUNTY MINGO JUNCTION					
DESIGNED A.D.	DRAWN R.L.W.	TRACED	CHECKED JW	REVIEWED K.S.J.	DATE 11.11.93
REVISED					

JEF - 7 - 13.11



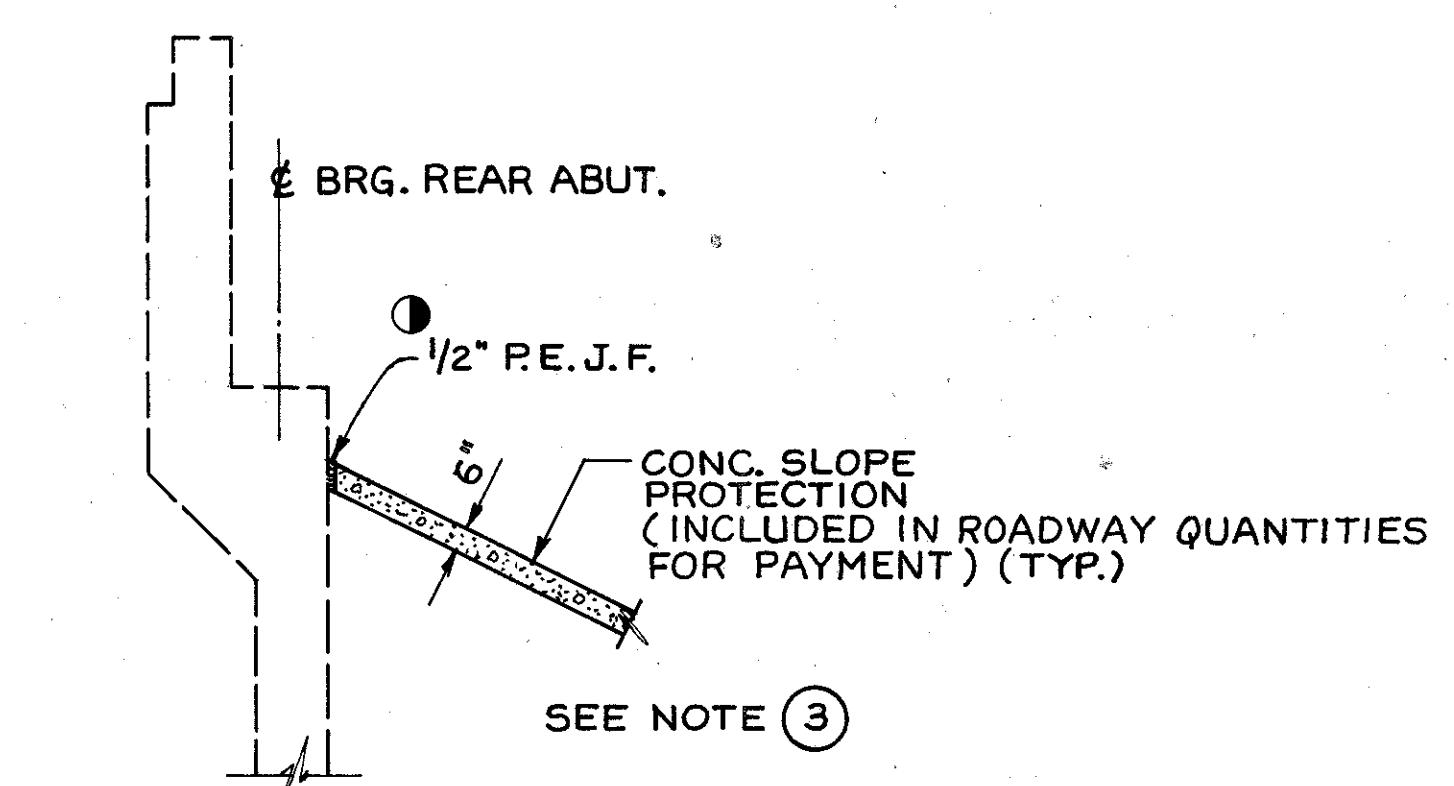
PLAN

PROPOSED WORK

1. REMOVE EXISTING SDC OVERLAY, PARAPETS, SAFETY CURBS AND FENCE.
2. REMOVE PORTIONS OF EXISTING WINGWALLS.
3. RECONSTRUCT PORTIONS OF WINGWALLS AS PER PLAN.
4. CONSTRUCT NEW PARAPETS AND INSTALL NEW FENCE.
5. PATCH EXISTING DECK SLAB.
6. PROVIDE 2-1/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY.
7. PATCH CONCRETE SURFACES AS DIRECTED BY THE ENGINEER.
8. SEAL PARAPETS WITH EPOXY.
9. REPAIR SLOPES AND INSTALL CONCRETE SLOPE PROTECTION.
10. EXTEND SCUPPERS.
11. PAINT EXISTING STEEL.

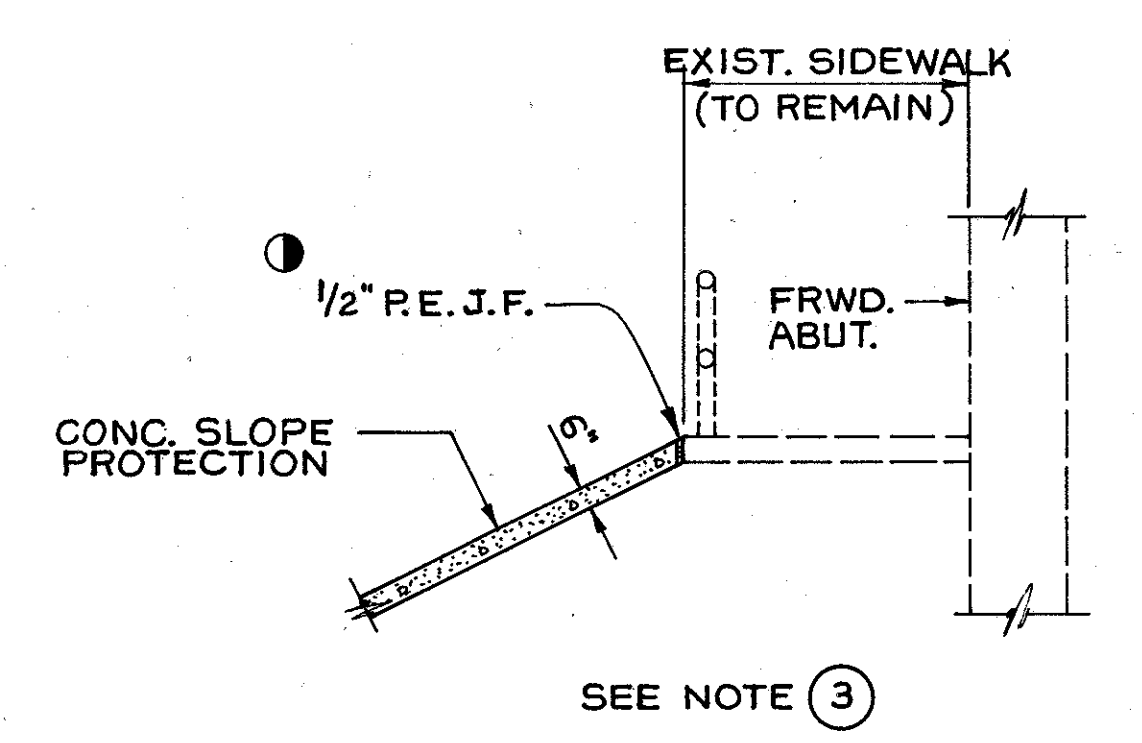
NOTES

1. FOR TRANSVERSE SECTION AND REHABILITATION DETAILS, SEE SHEET NO. 4/34.
2. FOR ADDITIONAL REHABILITATION DETAILS, SEE SHEET NO. 3/34.
3. SLOPE REPAIRS: EXISTING SLOPES SHALL BE REPAIRED USING GRANULAR MATERIALS CONFORMING TO CMS 203.02. ALL WORK SHALL BE PERFORMED PER CMS 203.09, AND IS INCLUDED WITH ITEM 601, CONCRETE SLOPE PROTECTION FOR PAYMENT.



SECTION A

③ INCLUDED WITH ITEM 601, CONCRETE SLOPE PROTECTION FOR PAYMENT.



SECTION B

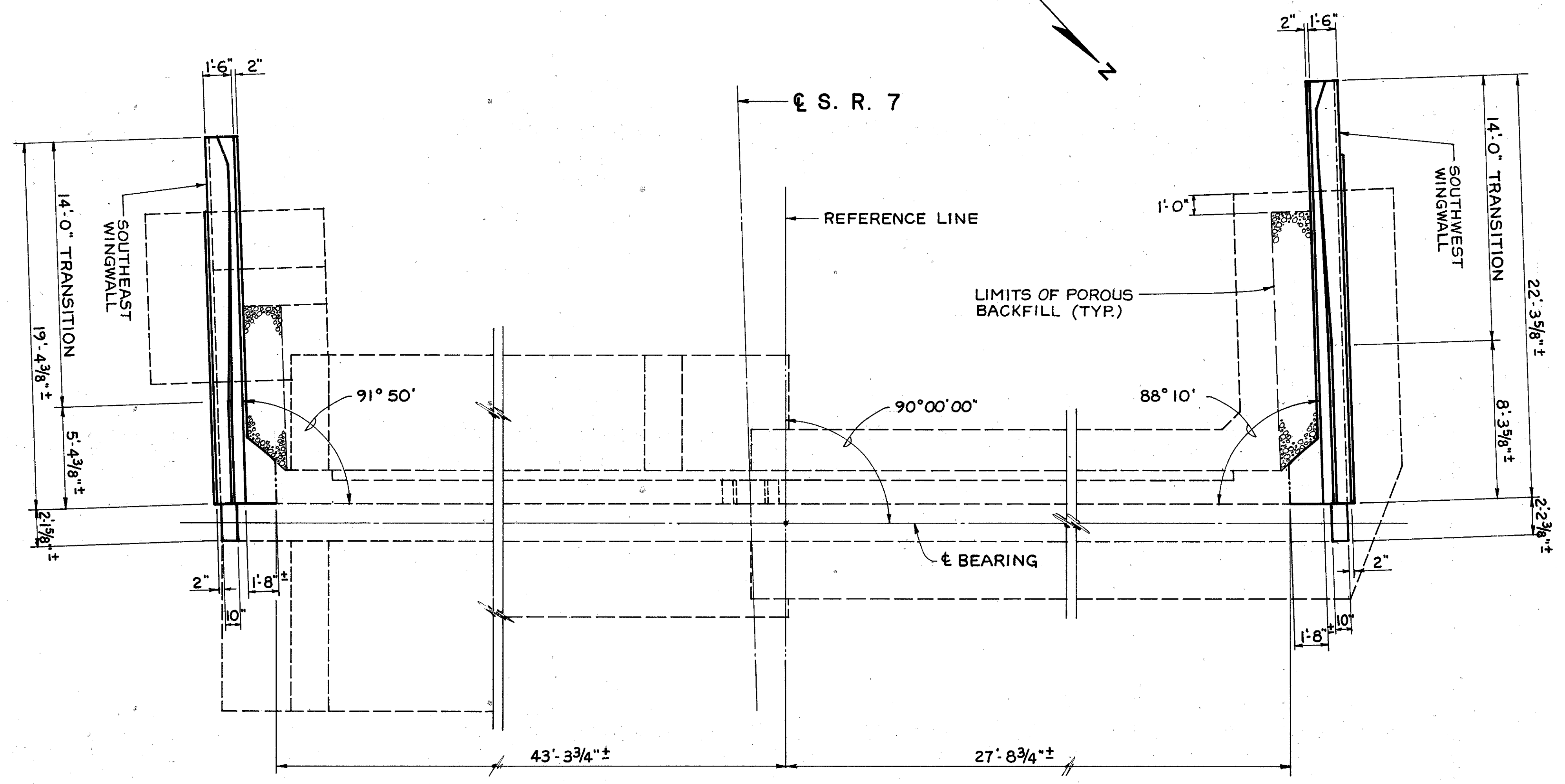
GPD ASSOCIATES		CLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		18/34 JOB N° 92045
----------------	--	--	--	--------------------------

GENERAL PLAN

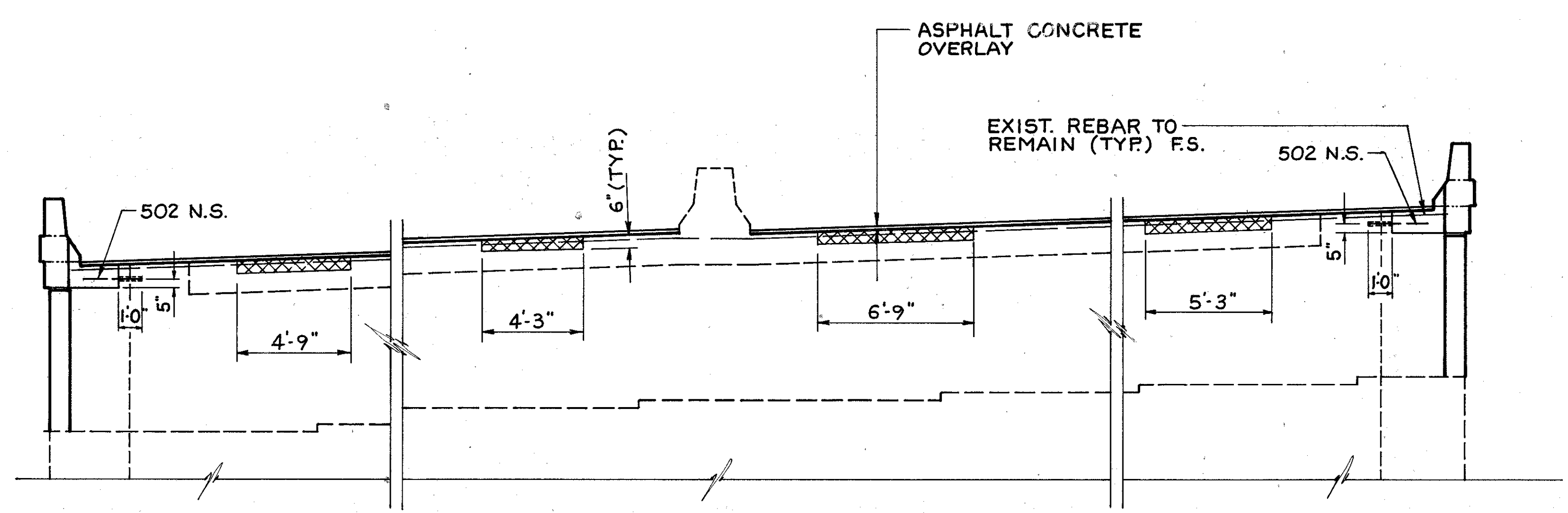
BRIDGE N° JEF - 7 - 1348
S. R. 7 OVER MC LISTER ST.

JEFFERSON COUNTY
MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11.11.93	



PLAN



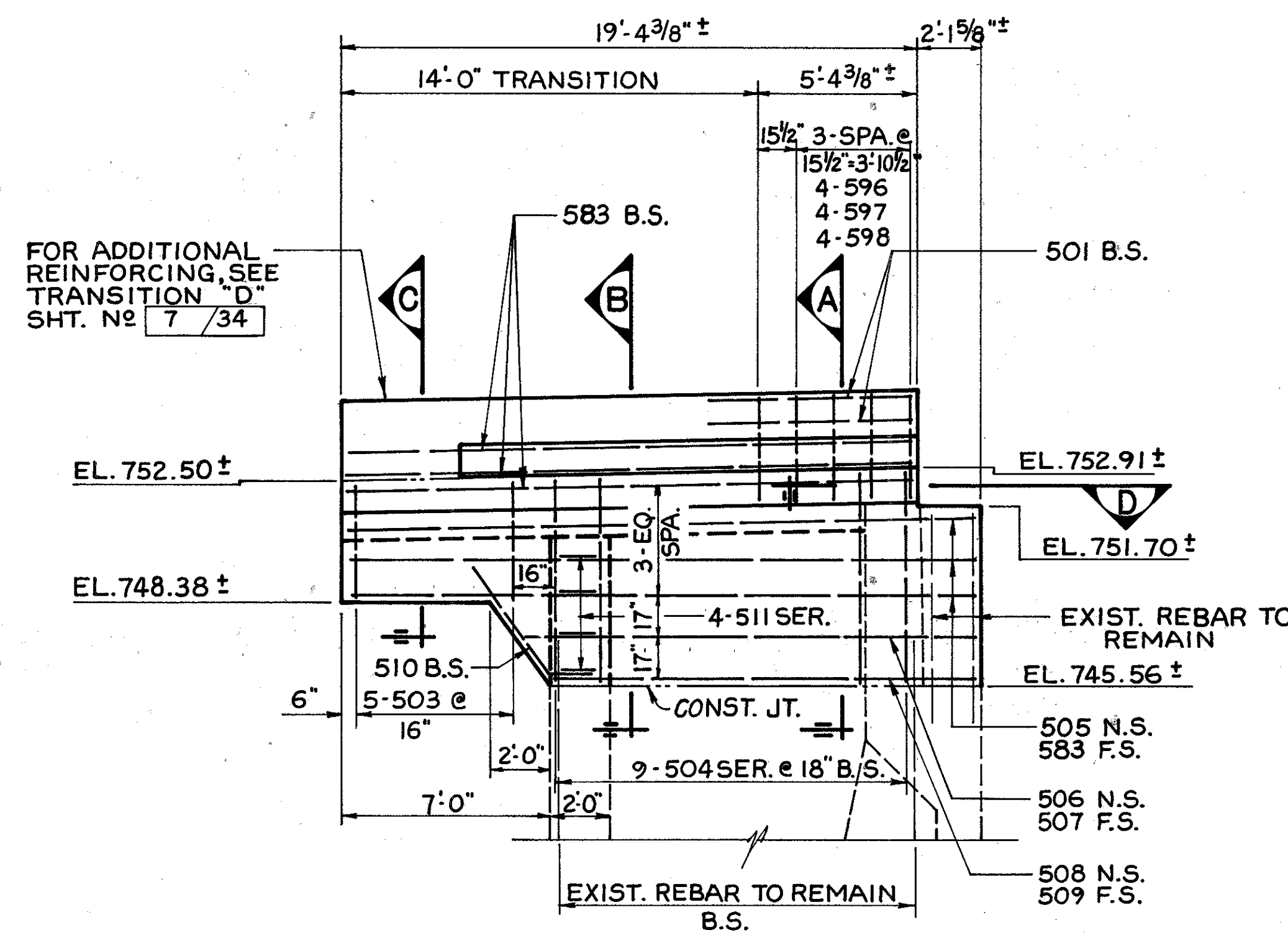
ELEVATION

LEGEND
 INDICATES CONCRETE PATCHING LIMITS

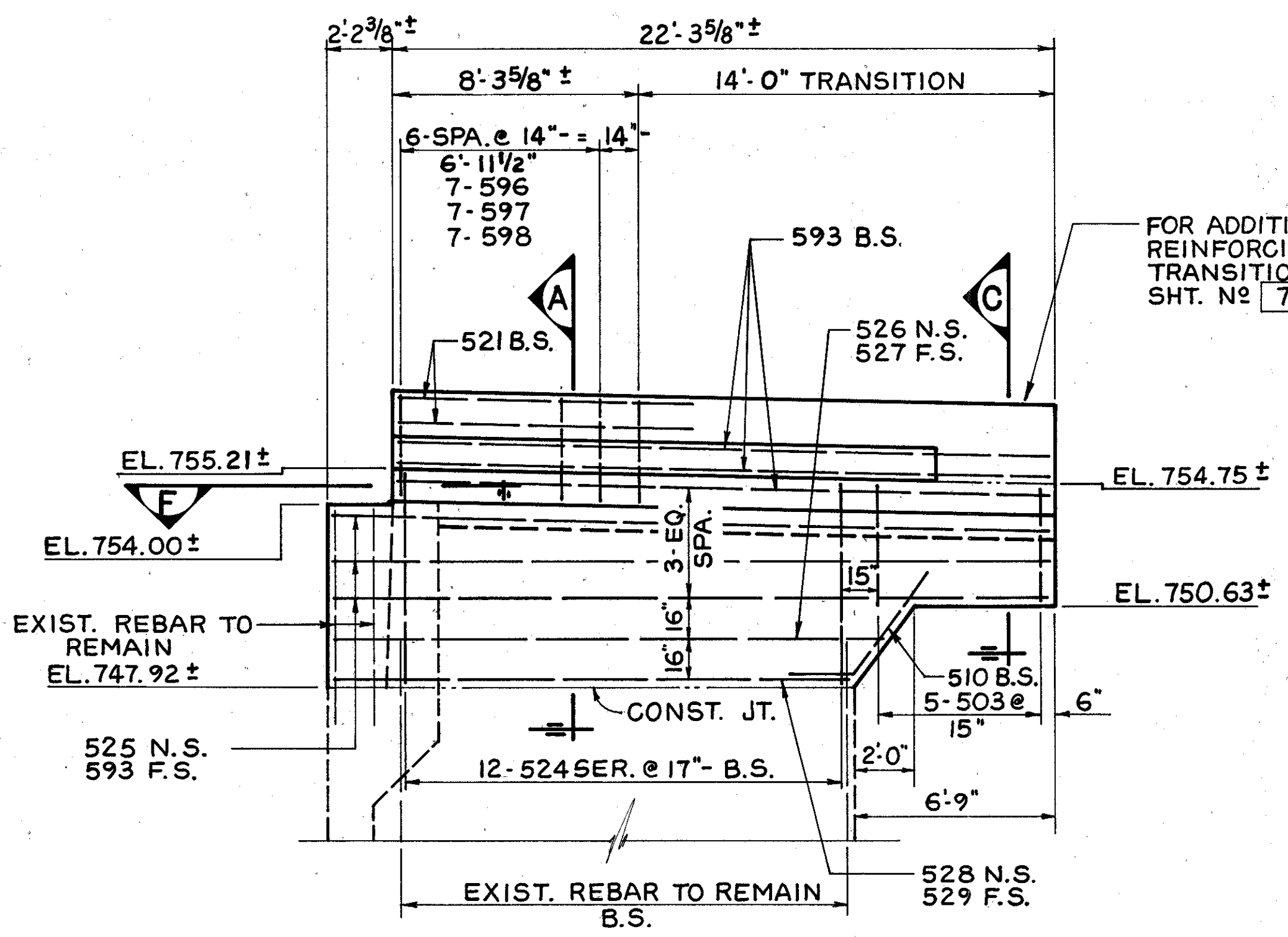
NOTES

1. PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR SOUTHEAST AND SOUTHWEST WINGWALLS FOR REAR ABUTMENT. SEE REINFORCING SCHEDULE.
2. FOR SOUTHEAST AND SOUTHWEST WINGWALL DETAILS, SEE SHEET NO. 20/34.
3. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
4. FOR ADDITIONAL NOTES, SEE SHEET NO. 11/34.

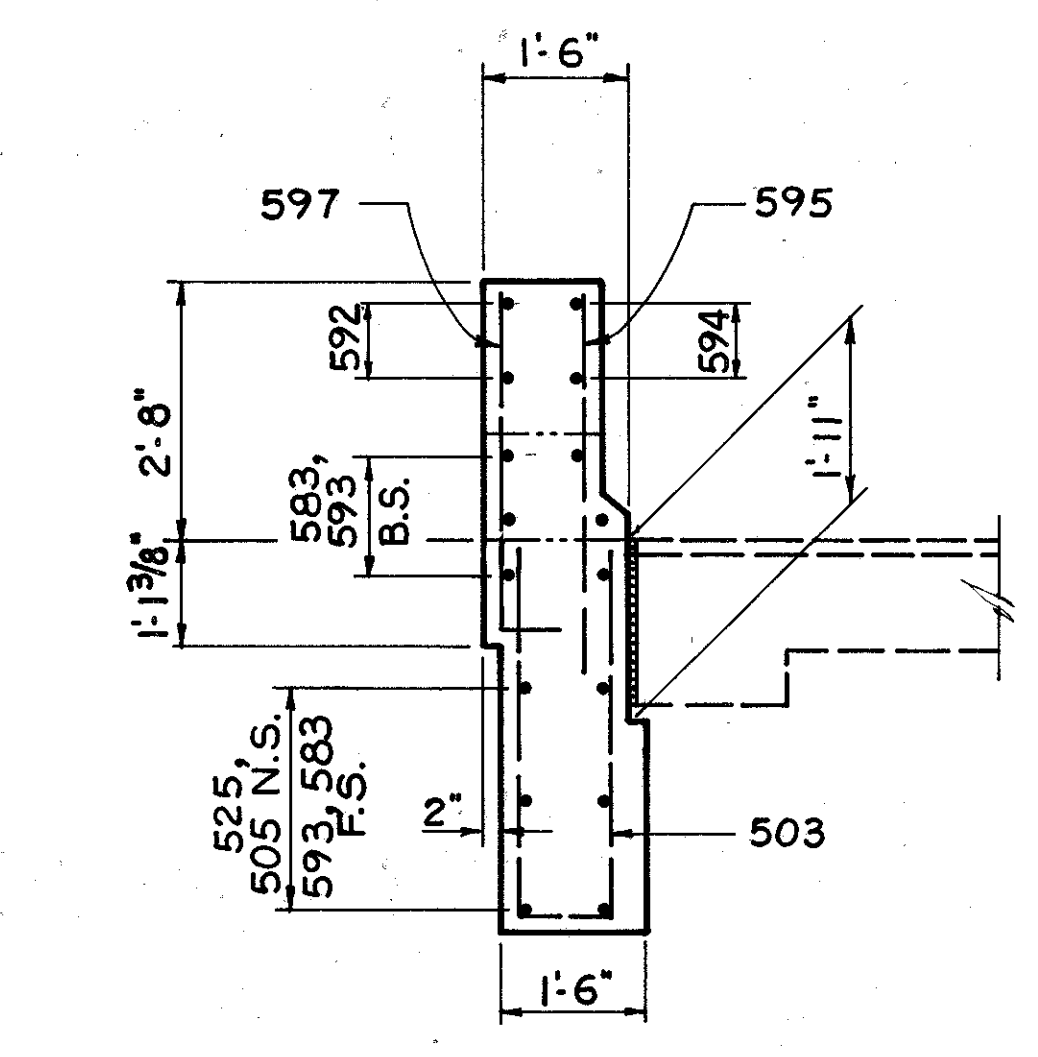
		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		19/34 JOB N ^o 92045
REAR ABUTMENT				
BRIDGE N ^o JEF - 7 - 1348 S.R. 7 OVER MCLISTER ST.				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED A.D.	DRAWN R.L.W.	TRACED	CHECKED P.W.	REVIEWED K.S.J.
			DATE 11.11.93	REVISED



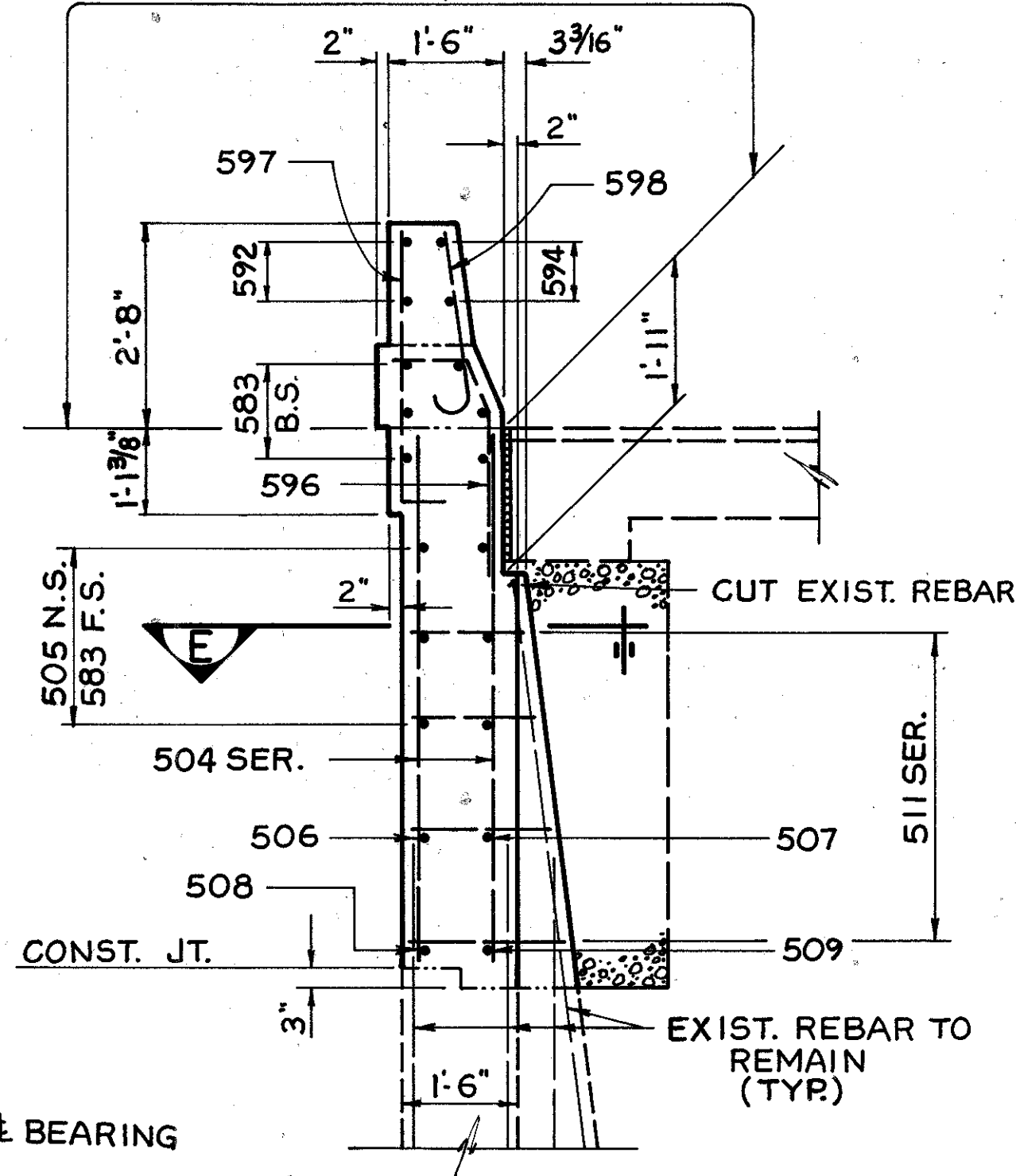
ELEVATION - SOUTHEAST WINGWALL



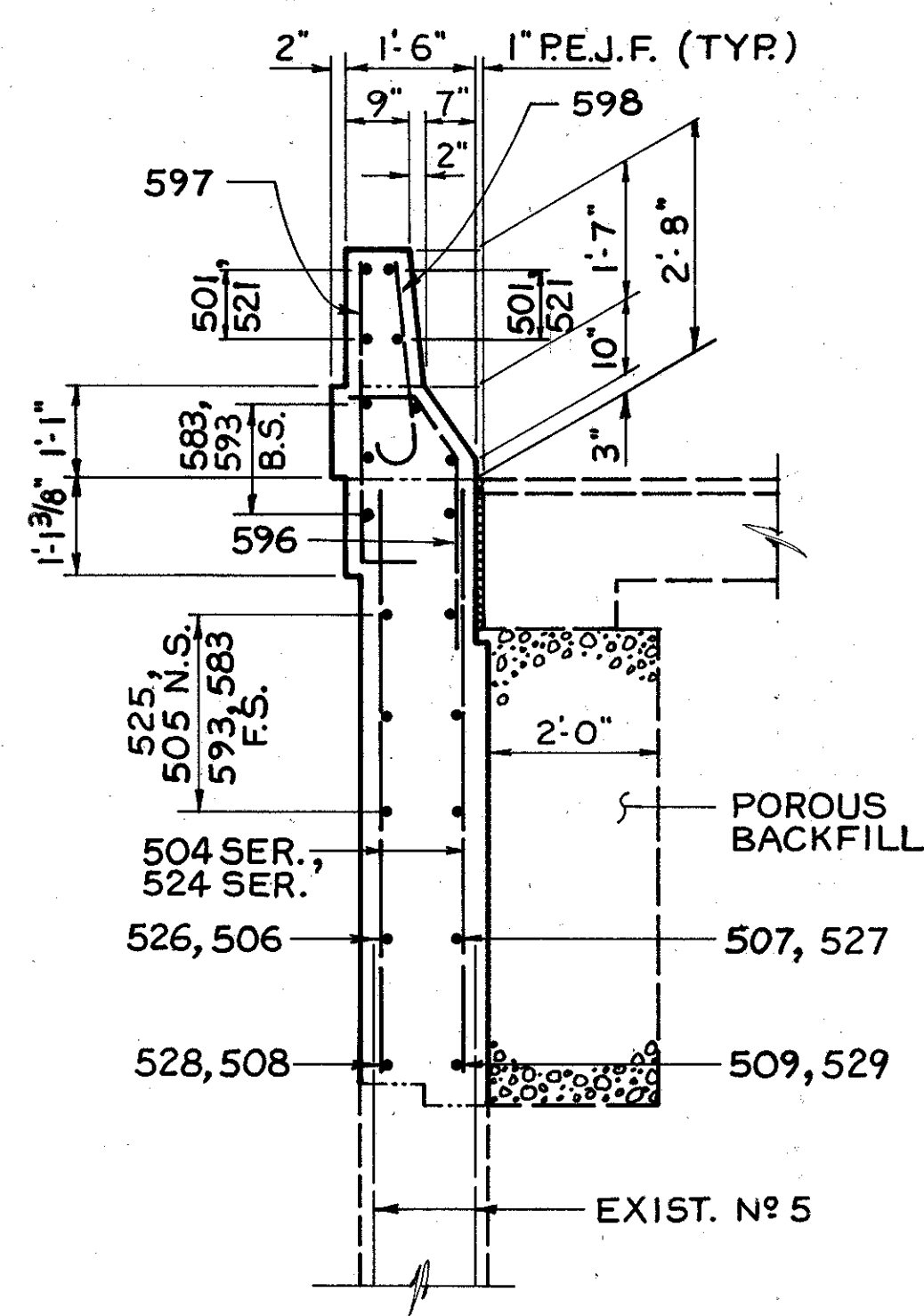
ELEVATION - SOUTHWEST WINGWALL



SECTION C

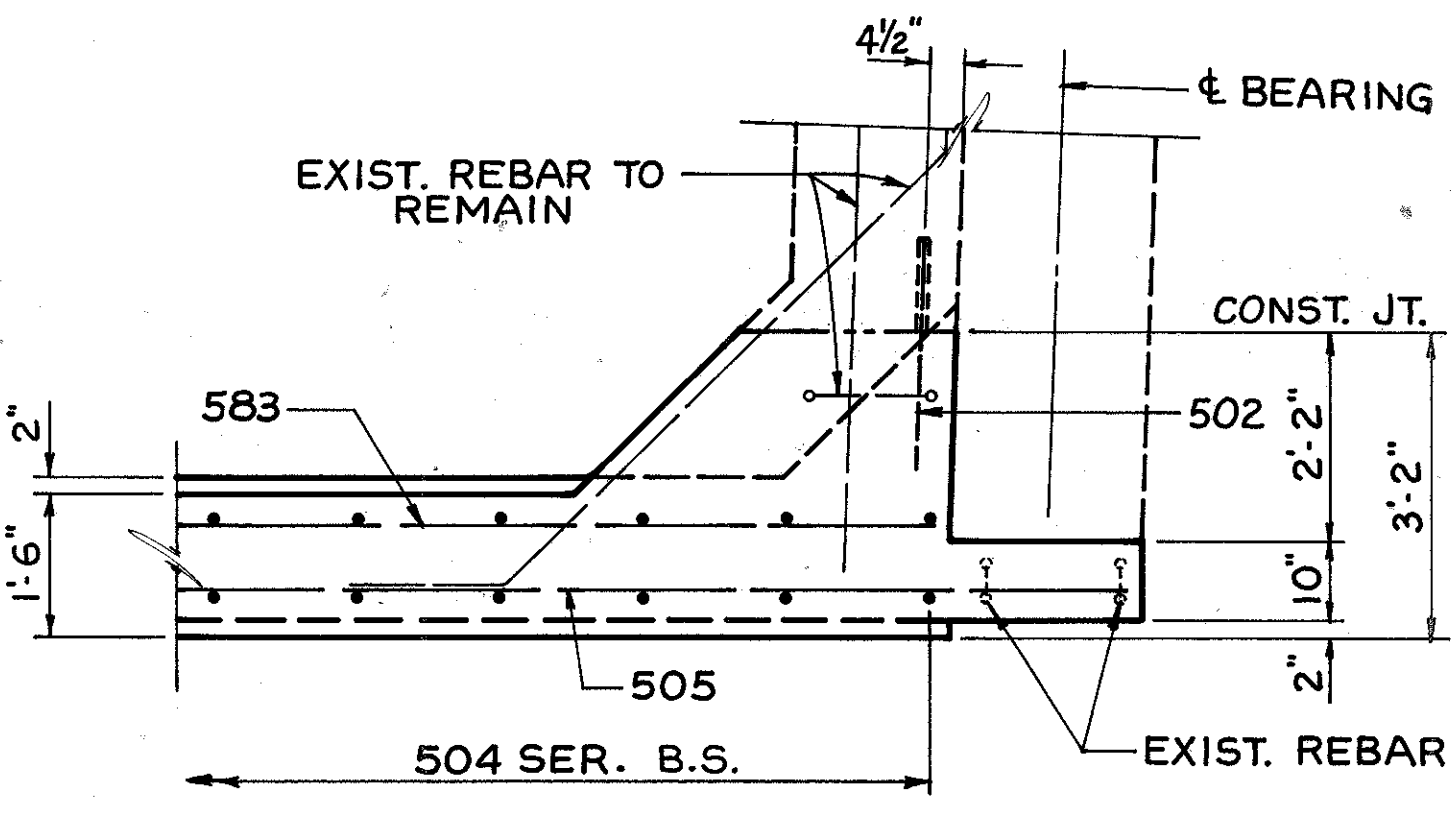


SECTION B

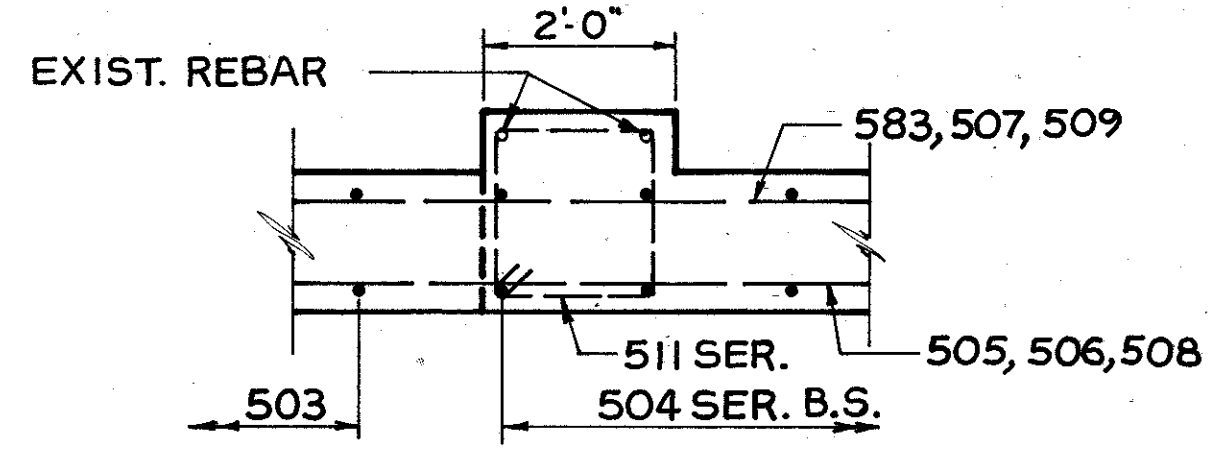


SECTION A

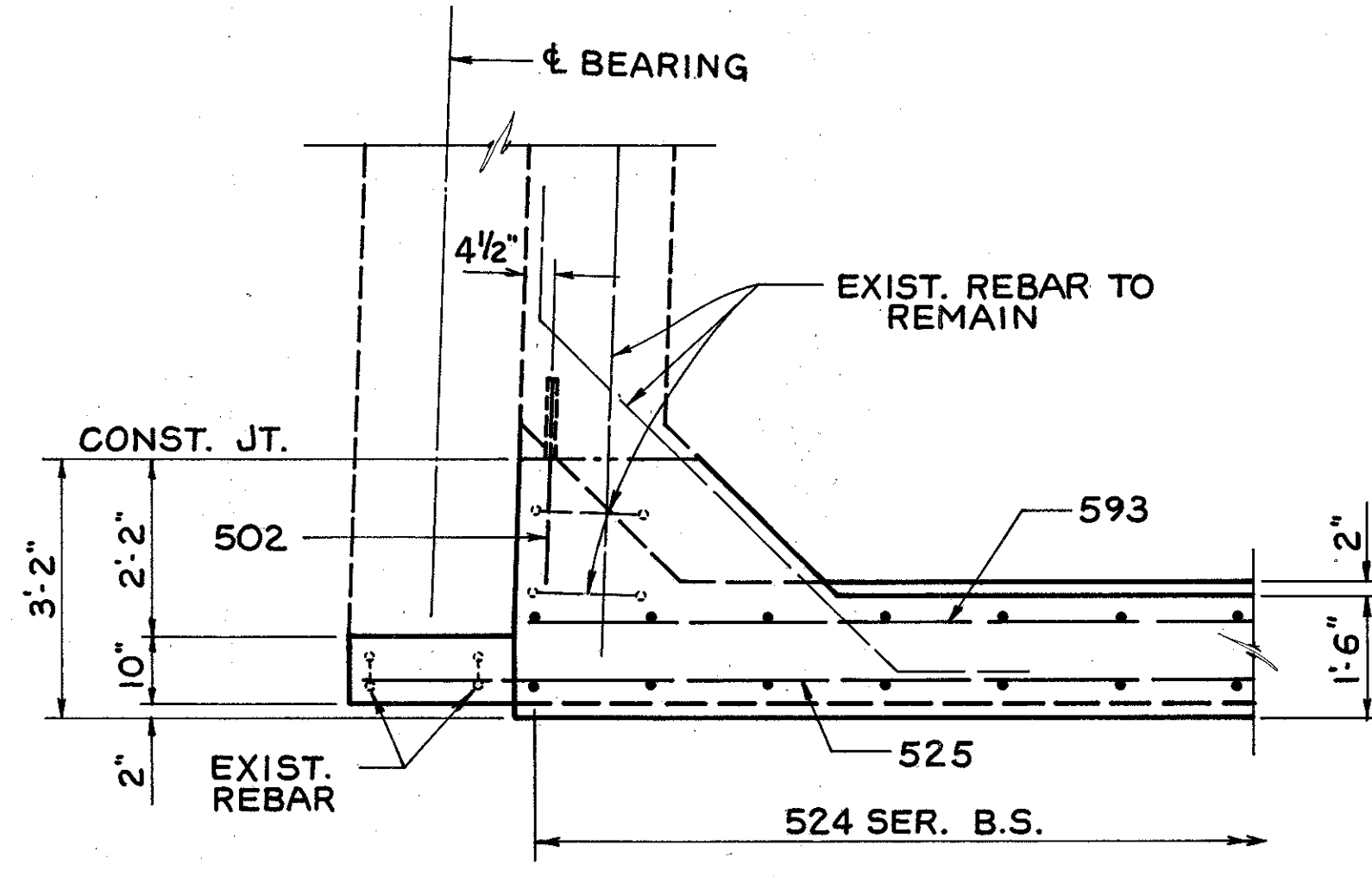
* LIMITS OF ITEM SPECIAL SEALING OF CONCRETE SURFACES (EPOXY) (TYR)



SECTION D



SECTION E



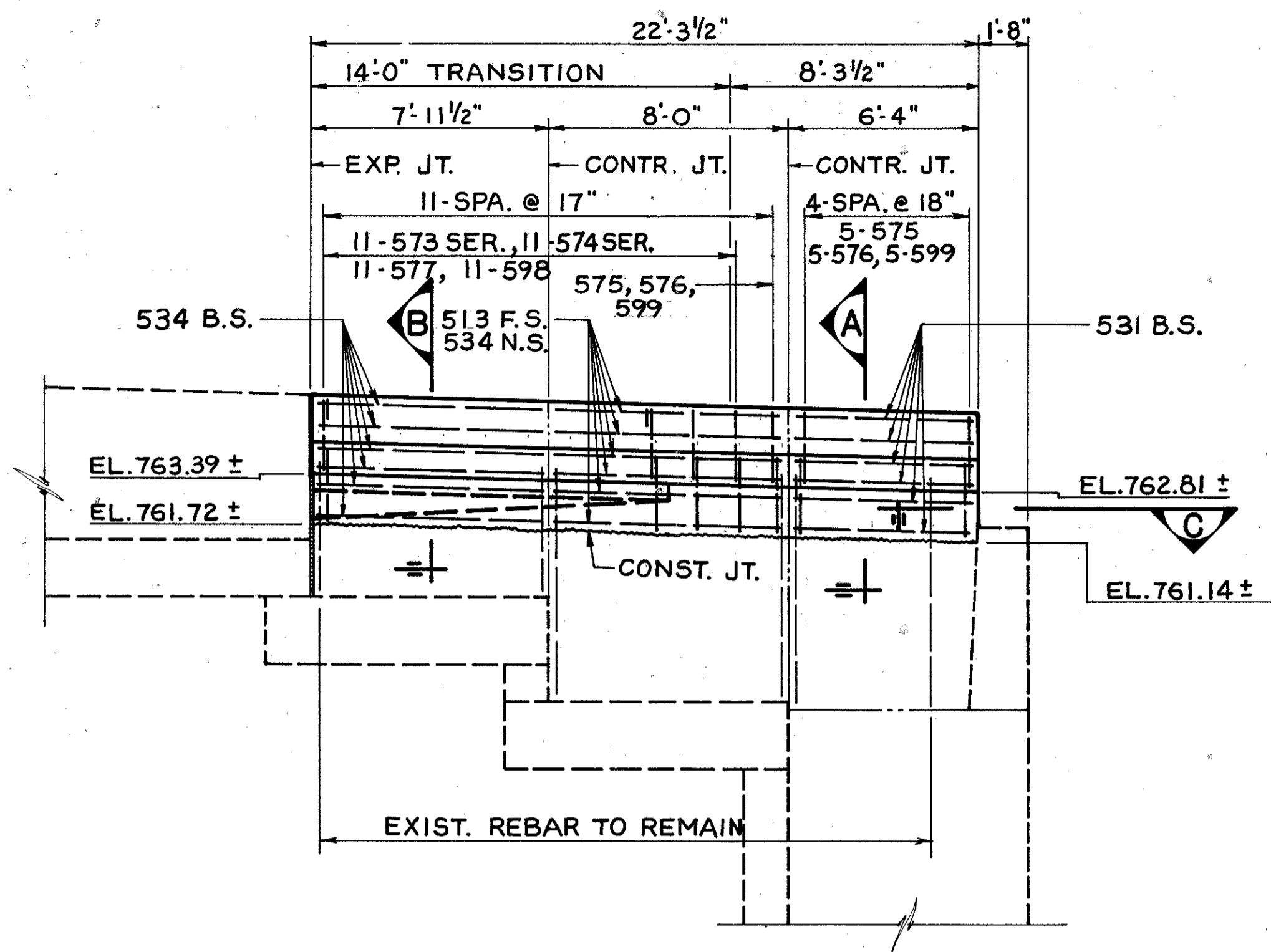
SECTION F

NOTE
1. FOR NOTES, SEE SHEET NOS. 19 AND 11/34.

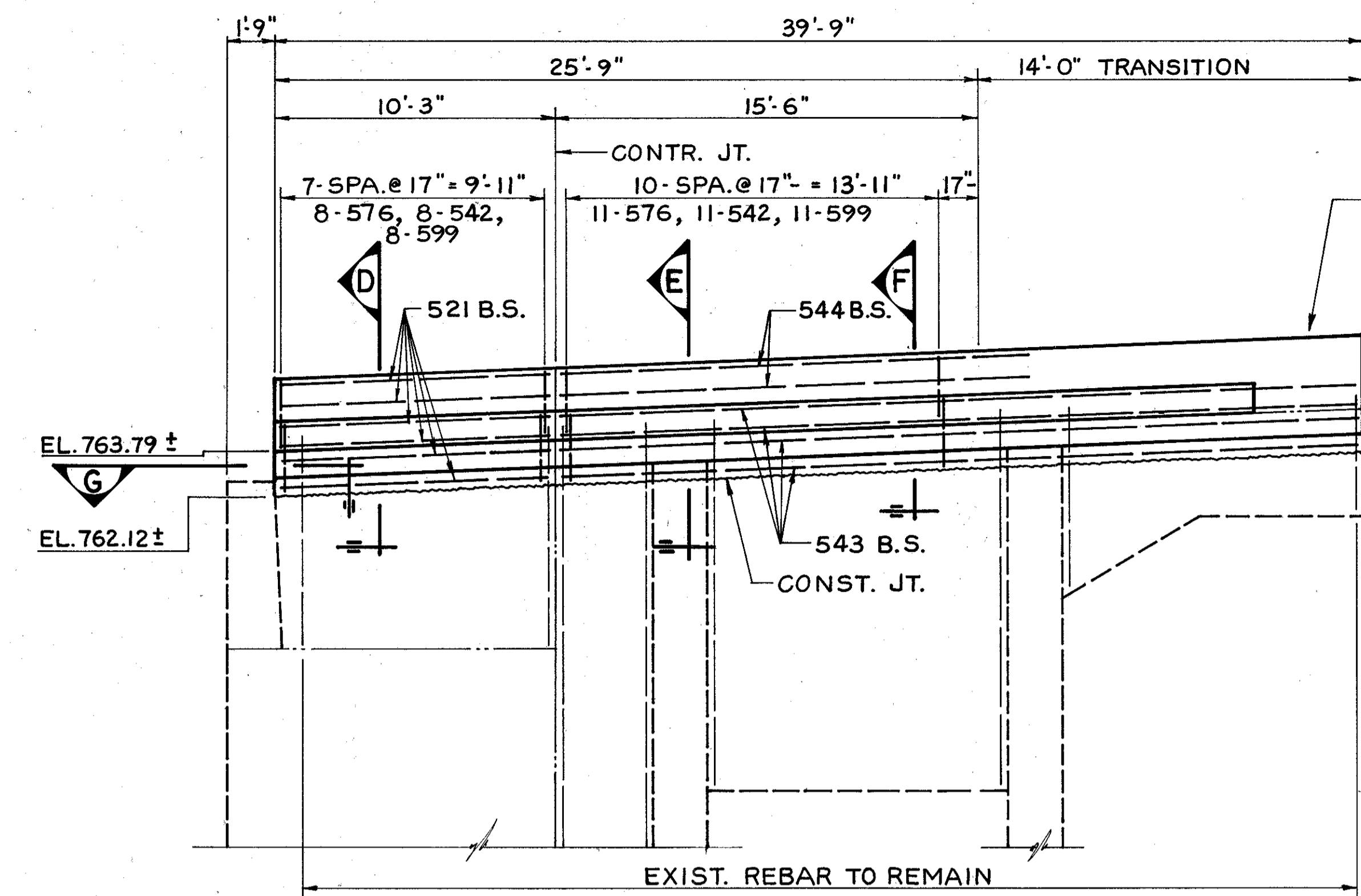
		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		20/34 JOB NO 92045
REAR ABUTMENT DETAILS BRIDGE N# JEF-7-1348 S.R. 7 OVER MCLISTER ST.				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED A.D.	DRAWN R.L.W.	TRACED	CHECKED K.S.J.	REVIEWED DATE 11.11.93

JEF-7-13.11

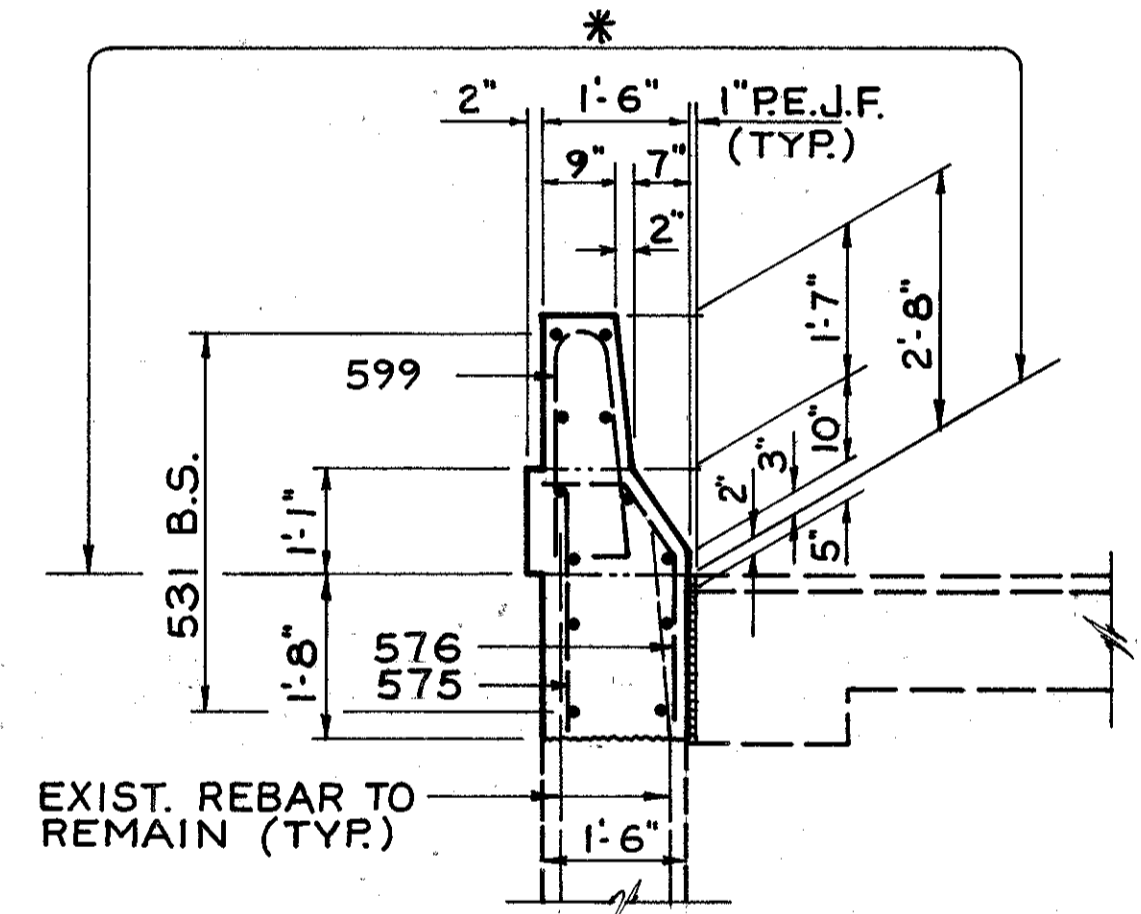
FOR ADDITIONAL REINFORCING, SEE TRANSITION "E" SHT. N^o 7/34



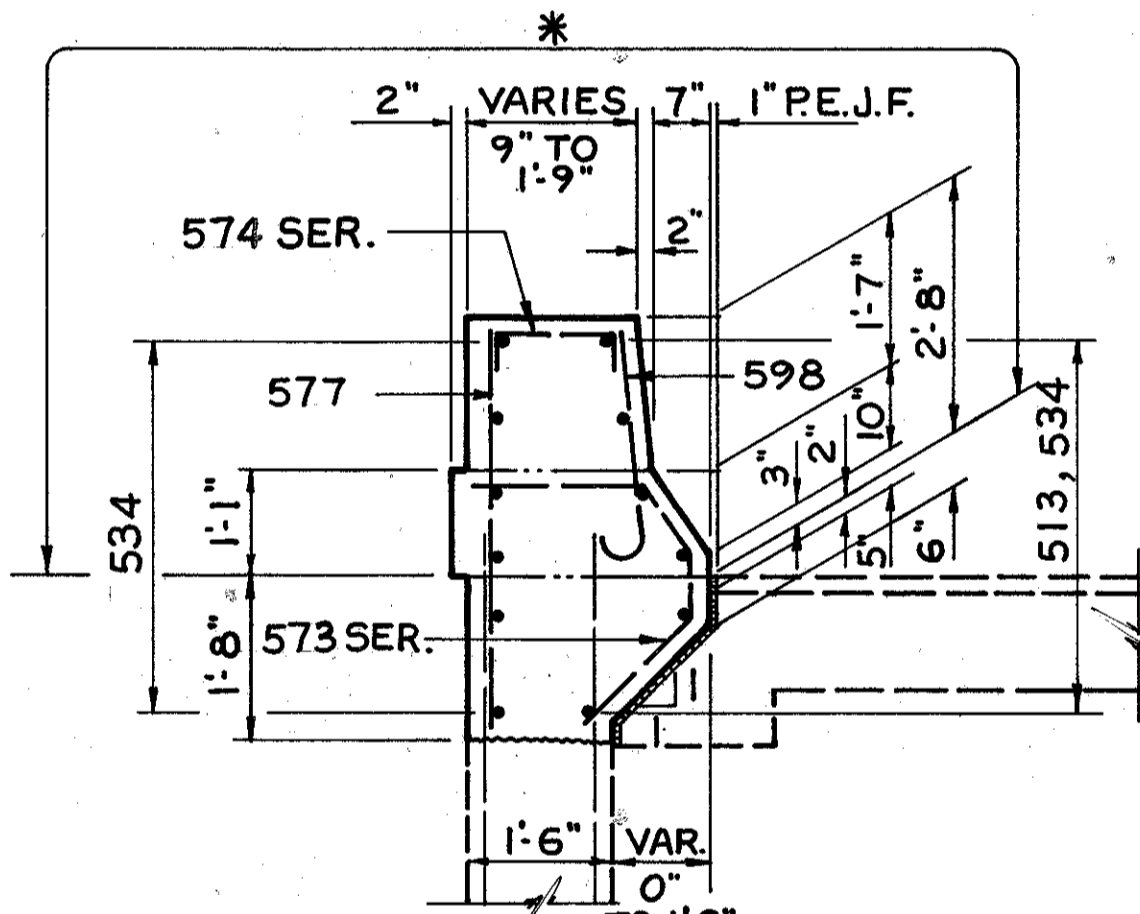
ELEVATION - NORTHWEST WINGWALL



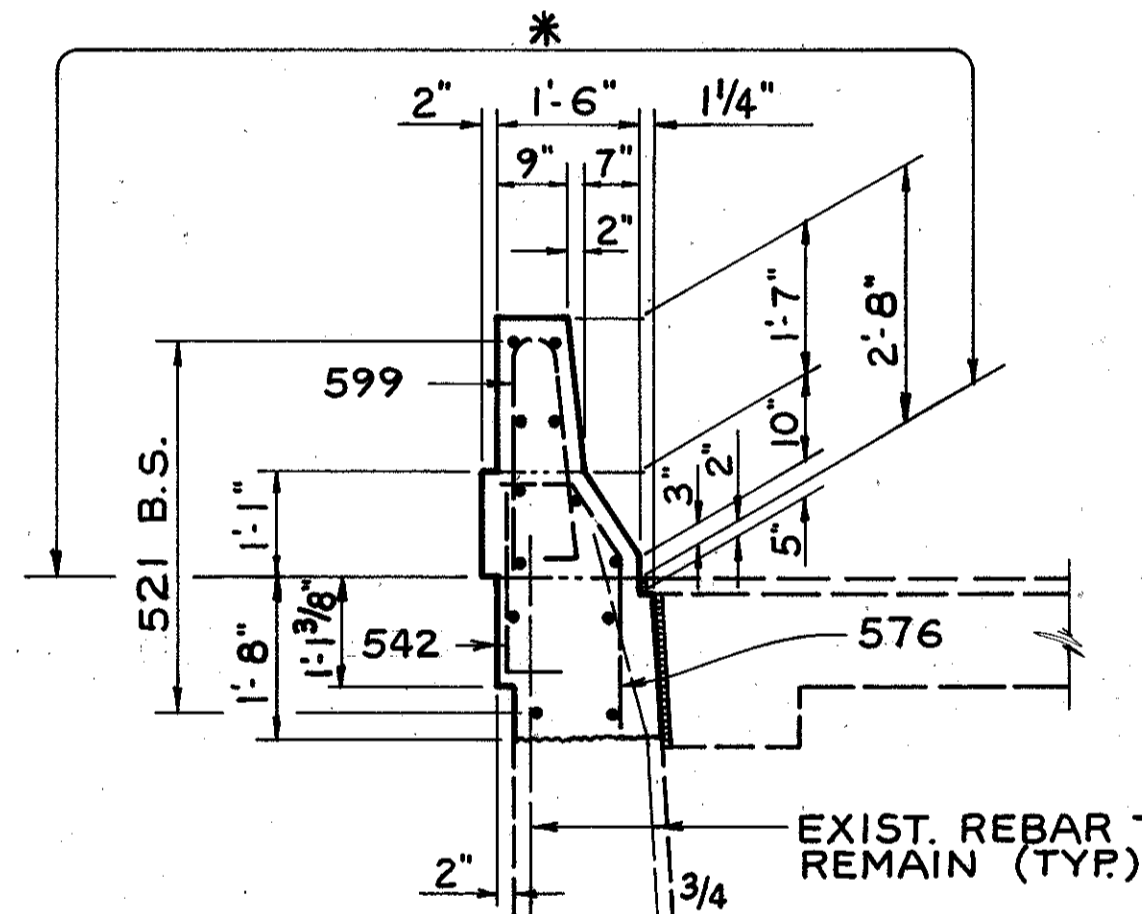
ELEVATION - NORTHEAST WINGWALL



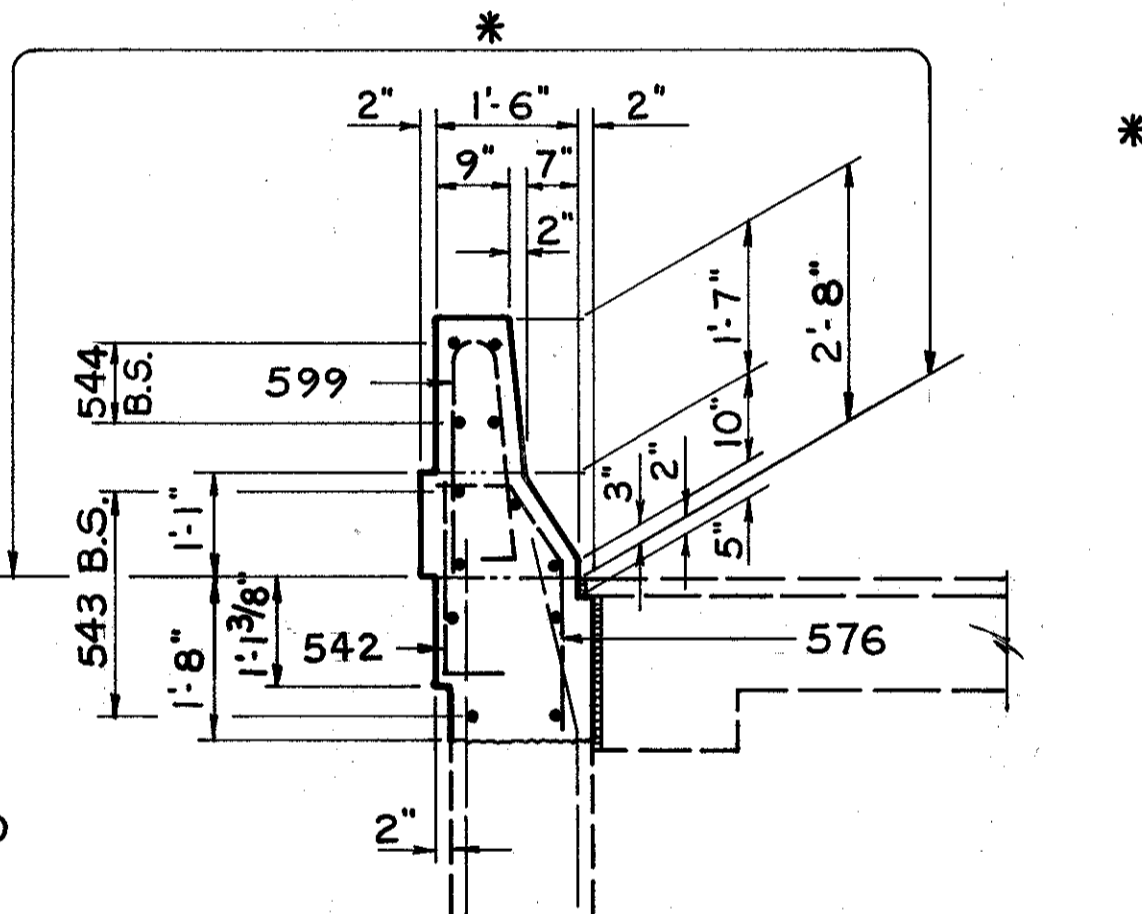
SECTION A



SECTION B



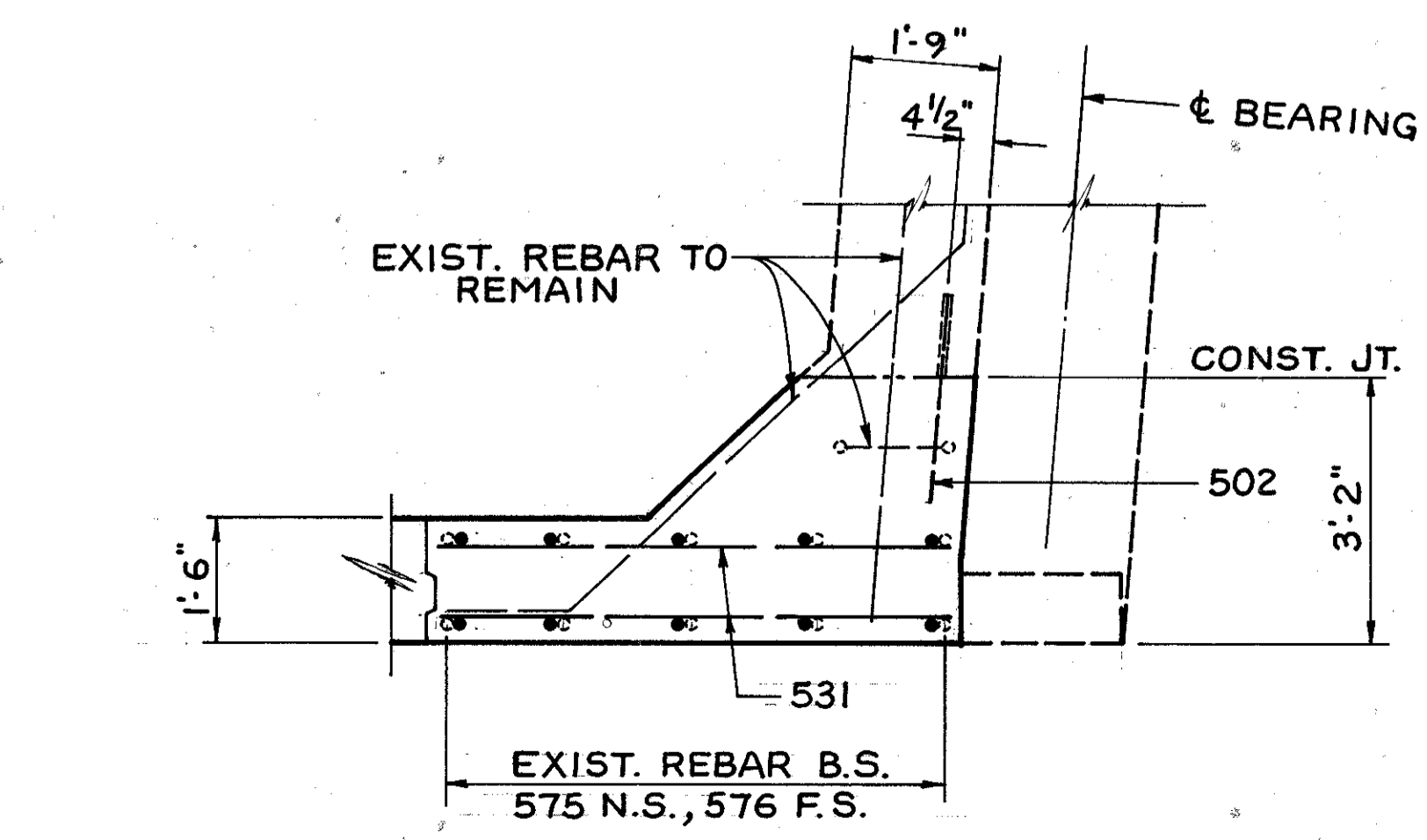
SECTION D



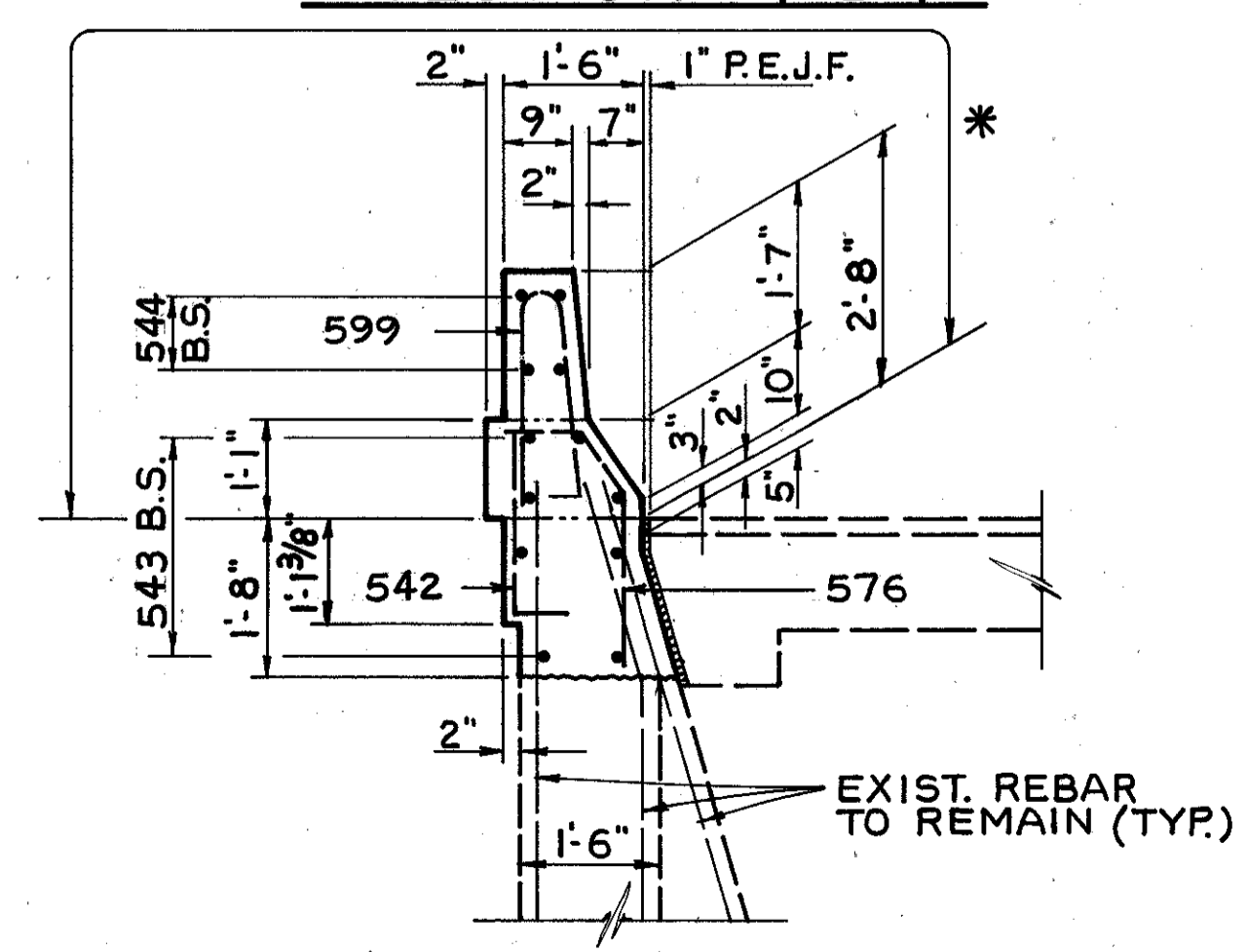
SECTION F

* LIMITS OF ITEM SPECIAL "SEALING OF CONCRETE SURFACES" (EPOXY) (TYP.)

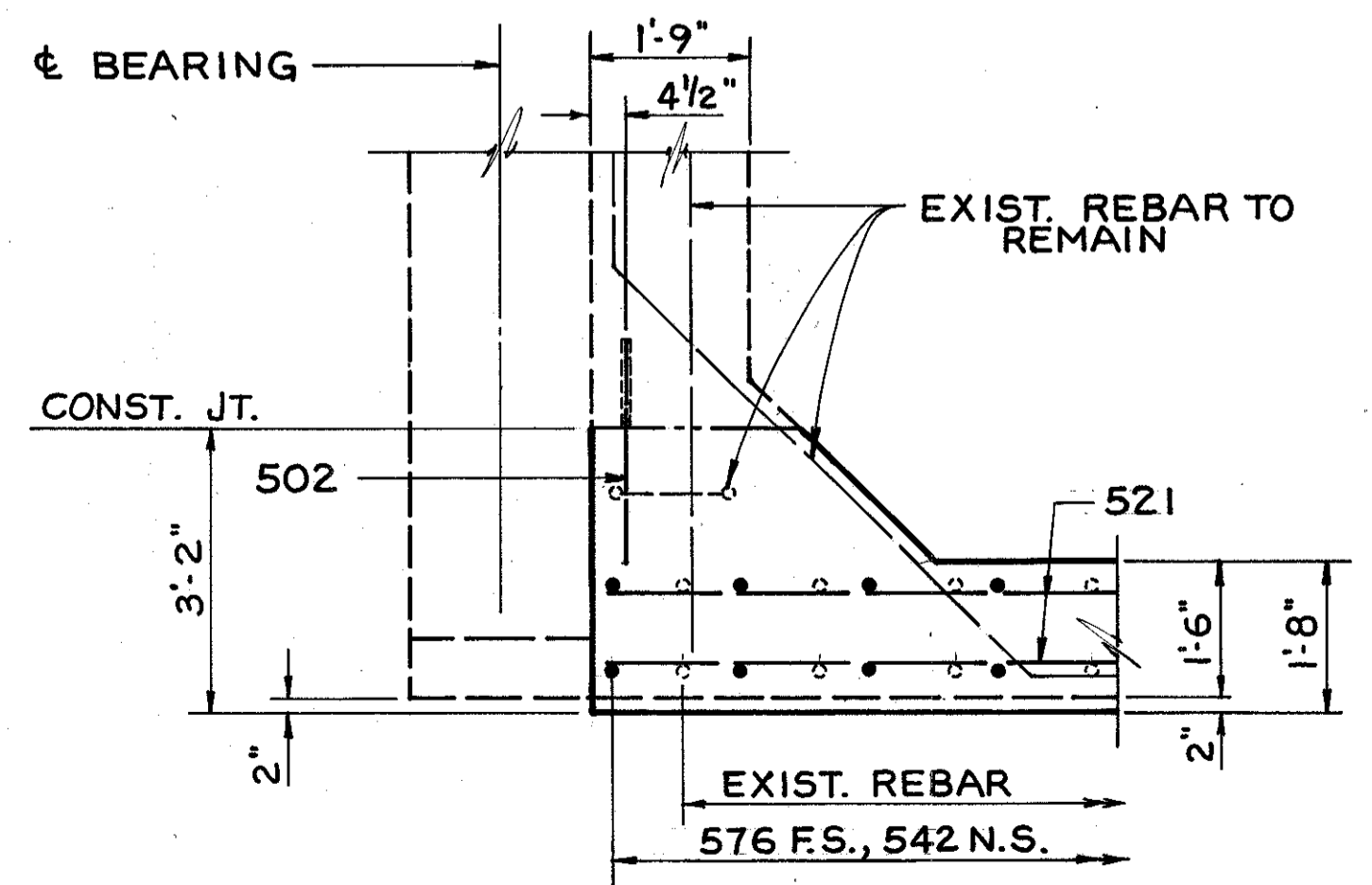
NOTE
1. FOR NOTES, SEE SHEET NOS. 21 AND 11/34.



SECTION C



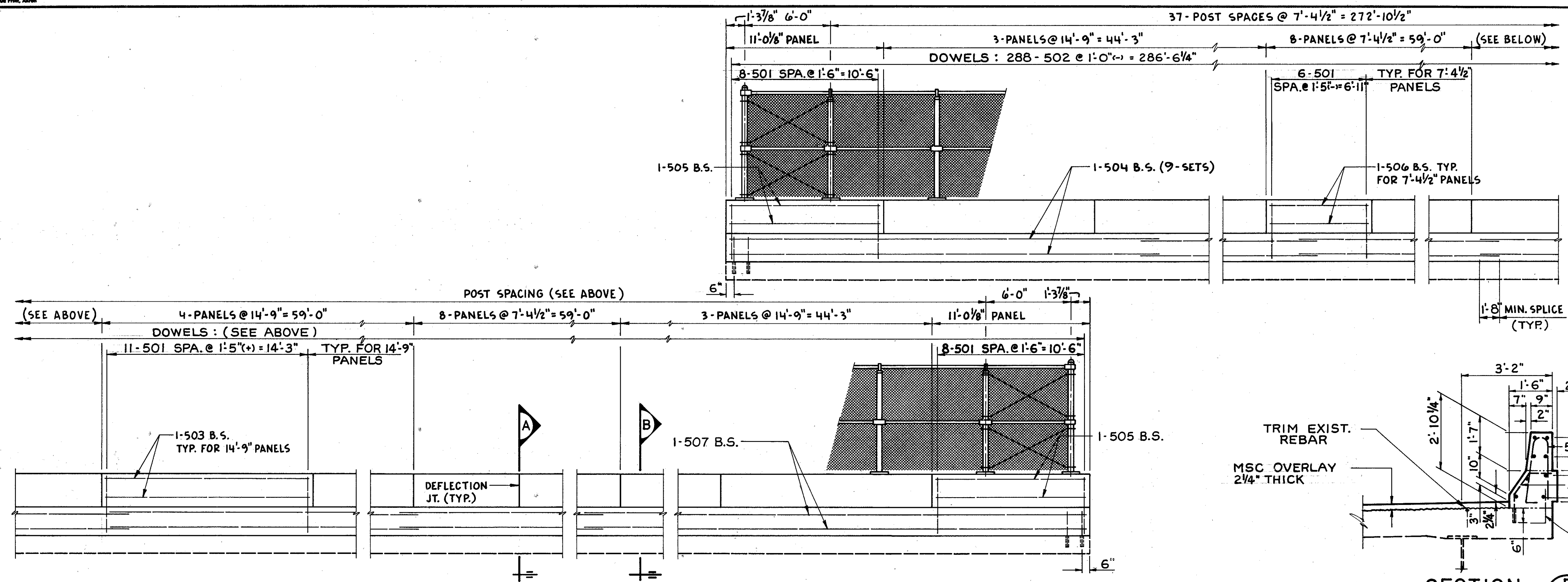
SECTION E



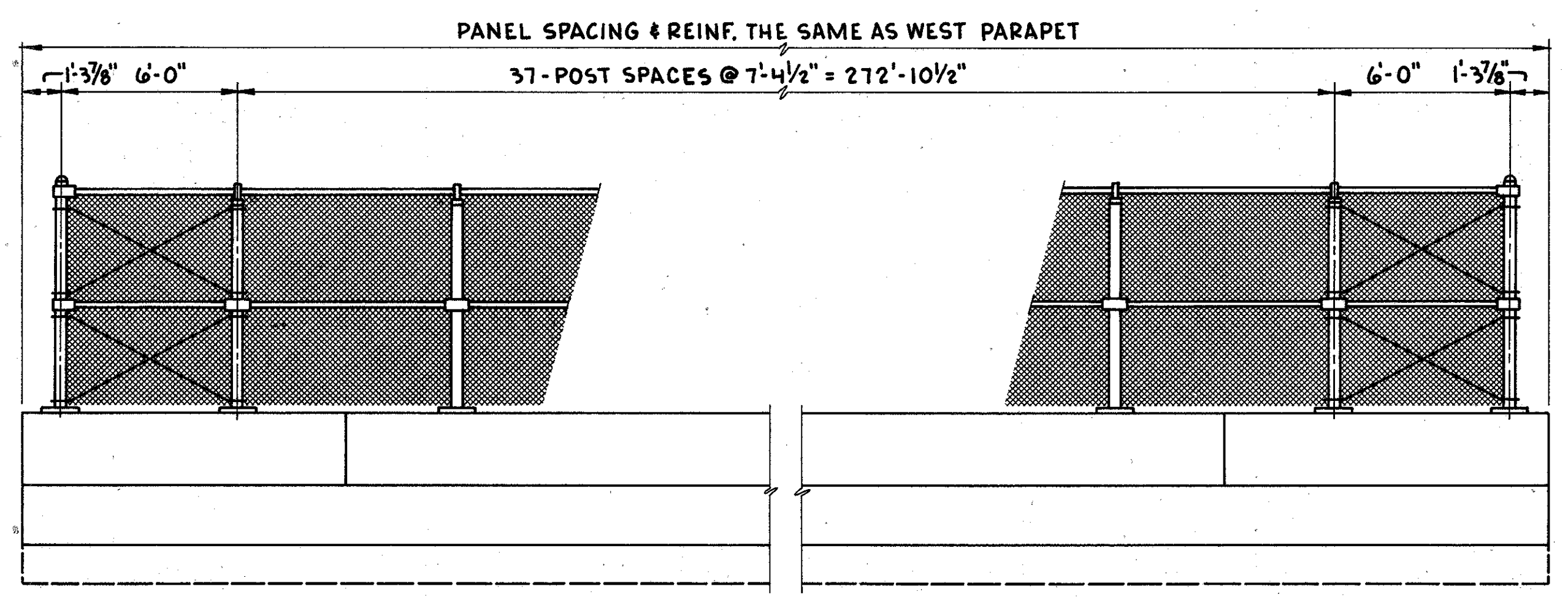
SECTION G

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		22/34 JOB N ^o 92045		
FORWARD ABUTMENT DETAILS						
BRIDGE N ^o JEF-7-1348 S.R. 7 OVER MCLISTER ST.						
JEFFERSON COUNTY MINGO JUNCTION						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		K.S.J.		11.11.93	

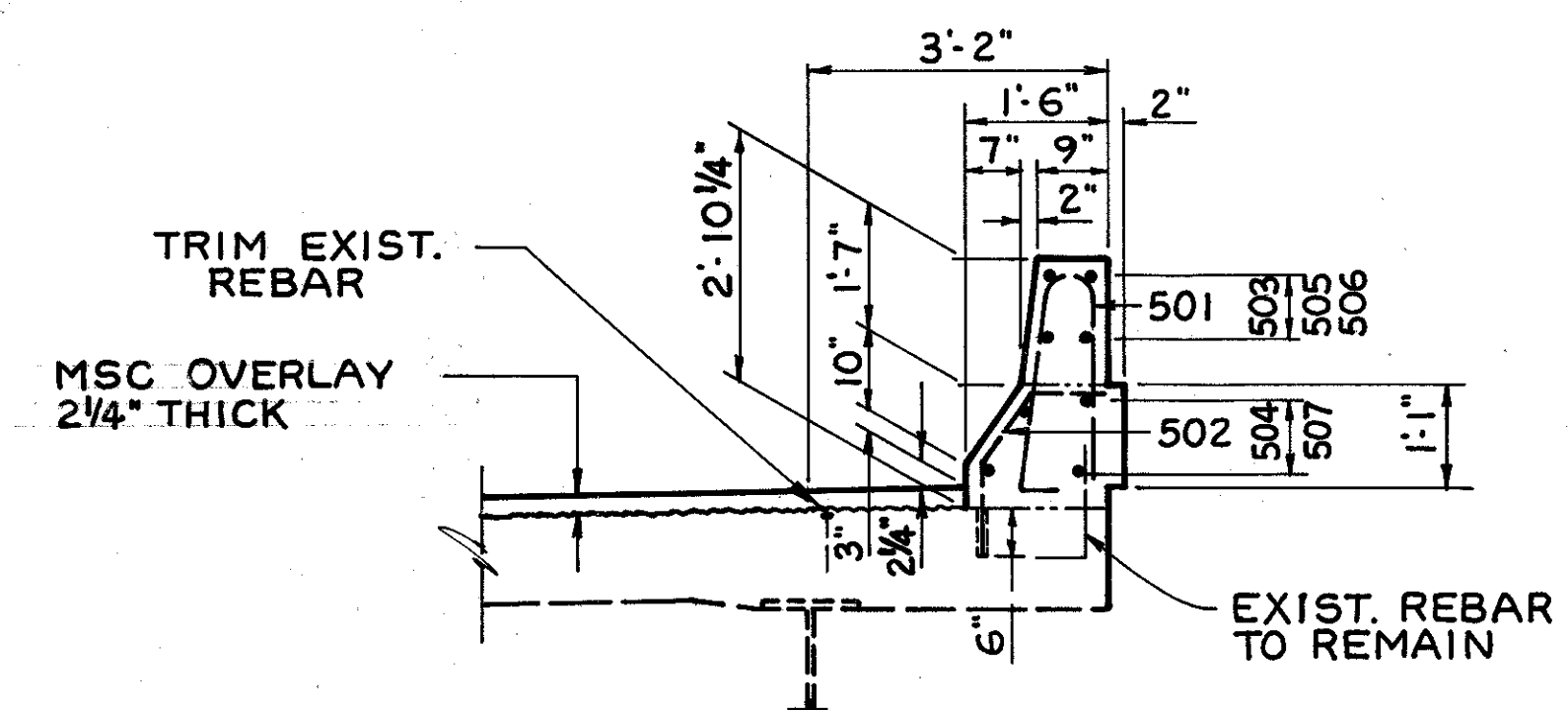
JEF - 7 - 13.11



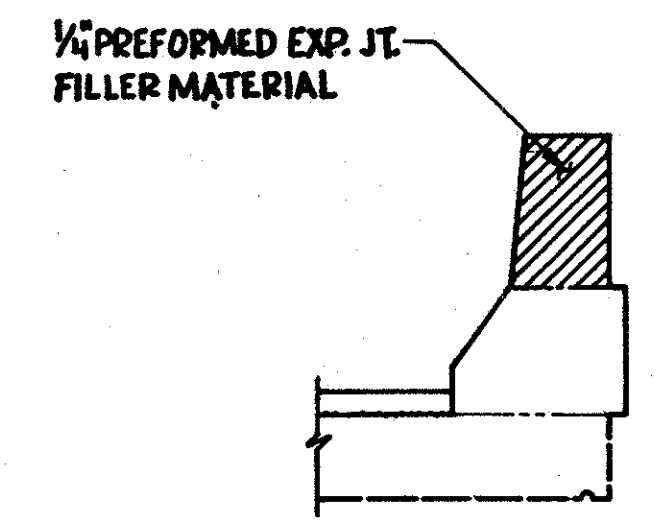
WEST PARAPET AND FENCE ELEVATION



EAST PARAPET AND FENCE ELEVATION



SECTION B
(FENCE NOT SHOWN)



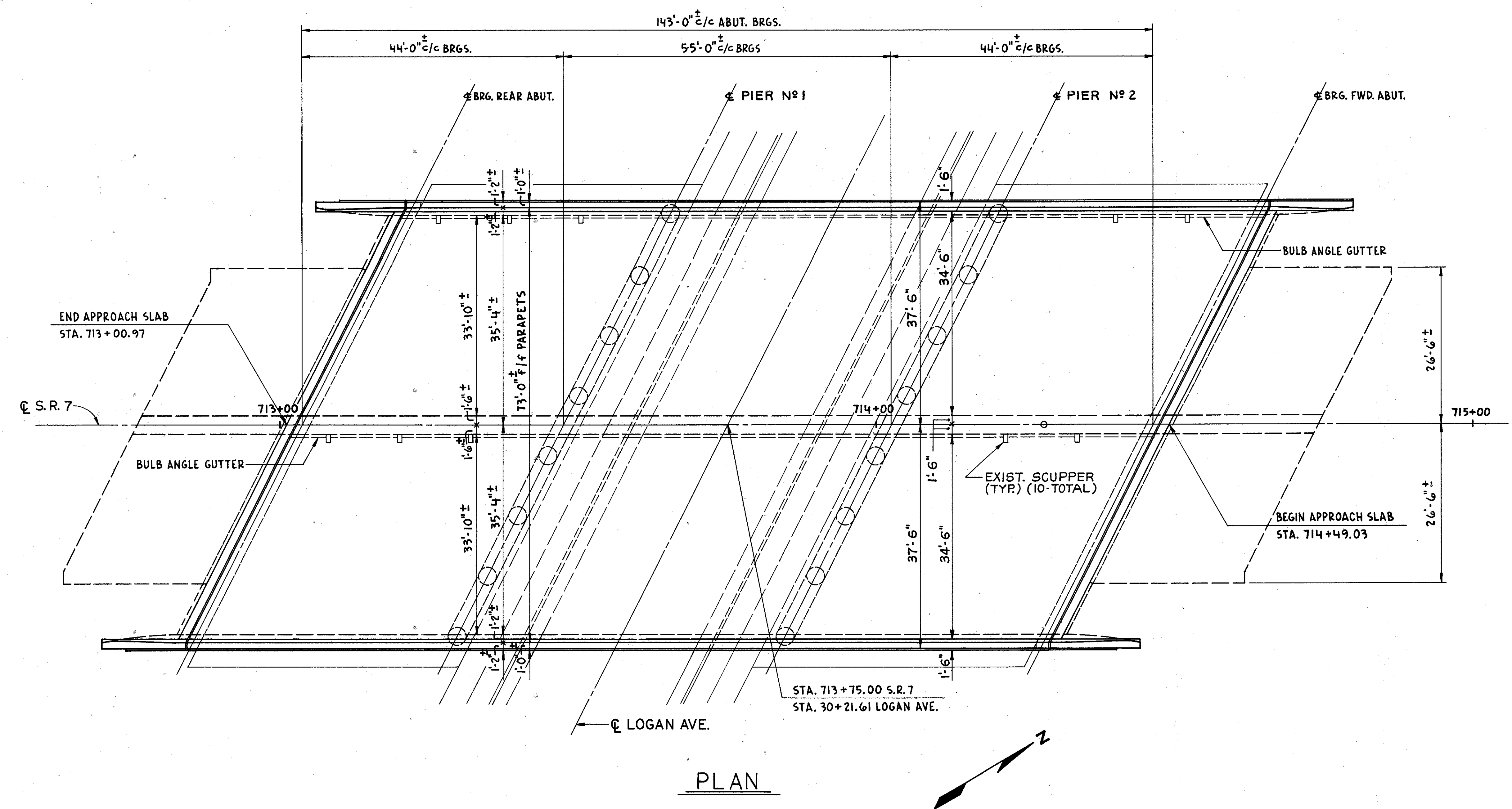
SECTION A

NOTES

1. PREFIX "S" WILL BE ADDED TO ALL REBARS SHOWN FOR PARAPETS. SEE REINFORCING SCHEDULE.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. CONCRETE PARAPETS SHALL BE PLACED IN ALTERNATING SECTIONS BY THE USE OF BULKHEADS. CLOSING SECTIONS SHALL BE PLACED AFTER REMOVAL OF BULKHEADS AND AFTER PLACEMENT OF EXPANSION JOINT FILLER. EXPOSED EDGES OF THE FILLER SHALL BE FLUSH WITH THE SURFACE OF THE CONCRETE AND SHALL BE FREE OF MORTAR.
4. PREFORMED EXPANSION JOINT FILLER IN THE PARAPET DEFLECTION JOINTS MAY BE EITHER 1/4" GRAY SPONGE RUBBER OR 1/4" GRAY CELLULAR POLYVINYL CHLORIDE (PVC) SPONGE. SPONGE RUBBER FILLER SHALL CONFORM TO AASHTO M-153, TYPE 1. DENSITY OF PVC SPONGE SHALL NOT BE LESS THAN 20 LBS. PER CU.FT. THE JOINT FILLER IS INCLUDED WITH SUPERSTRUCTURE CONCRETE FOR PAYMENT.
5. FOR FENCE DETAILS NOT SHOWN, REFER TO STD. DWG. NO. VPF-1-90, REVISED 2-1-92 AND SHT. NO. 4/34.
6. QUANTITIES OF CONCRETE AND REINFORCING STEEL FOR PARAPETS ARE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL AND ITEM 511, CLASS S CONCRETE, SUPERSTRUCTURE, FOR PAYMENT.

 GPD ASSOCIATES	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	23/34 JOB N° 92045
	PARAPET & FENCE DETAILS	

BRIDGE N° JEF - 7 - 1348 S.R. 7 OVER MCLISTER ST.					
JEFFERSON COUNTY MINGO JUNCTION					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
A.D.	RPK		PW	KST	11.11.93
					REVISED



PLAN

PROPOSED WORK

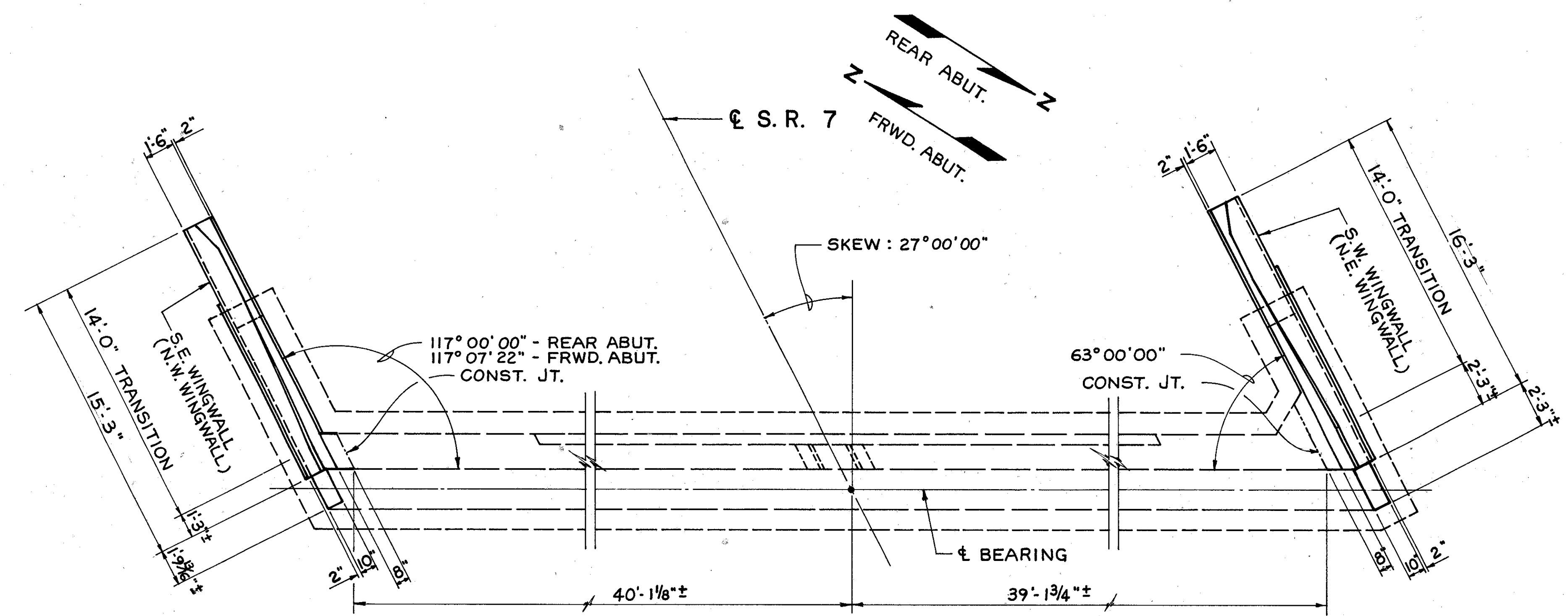
1. REMOVE EXISTING SDC OVERLAY, PARAPETS, RAILINGS, SAFETY CURBS AND FENCE.
2. REMOVE PORTIONS OF EXISTING WINGWALLS.
3. RECONSTRUCT PORTIONS OF WINGWALLS AS PER PLAN.
4. CONSTRUCT NEW PARAPETS AND INSTALL NEW FENCE.
5. PATCH EXISTING DECK SLAB.
6. PROVIDE 2-1/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY.
7. SEAL PARAPETS WITH EPOXY.
8. EXTEND SCUPPERS.
9. PAINT EXISTING STEEL.

NOTES

1. FOR TRANSVERSE SECTION AND REHABILITATION DETAILS, SEE SHEET NO. 4/34.
2. FOR ADDITIONAL REHABILITATION DETAILS, SEE SHEET NO. 3/34.

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		24/34 JOB N° 92045		
GENERAL PLAN BRIDGE N° JEF-7-1369 S.R. 7 OVER LOGAN AVE. JEFFERSON COUNTY MINGO JUNCTION						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		PJW	K.S.J.	11. 11. 93	

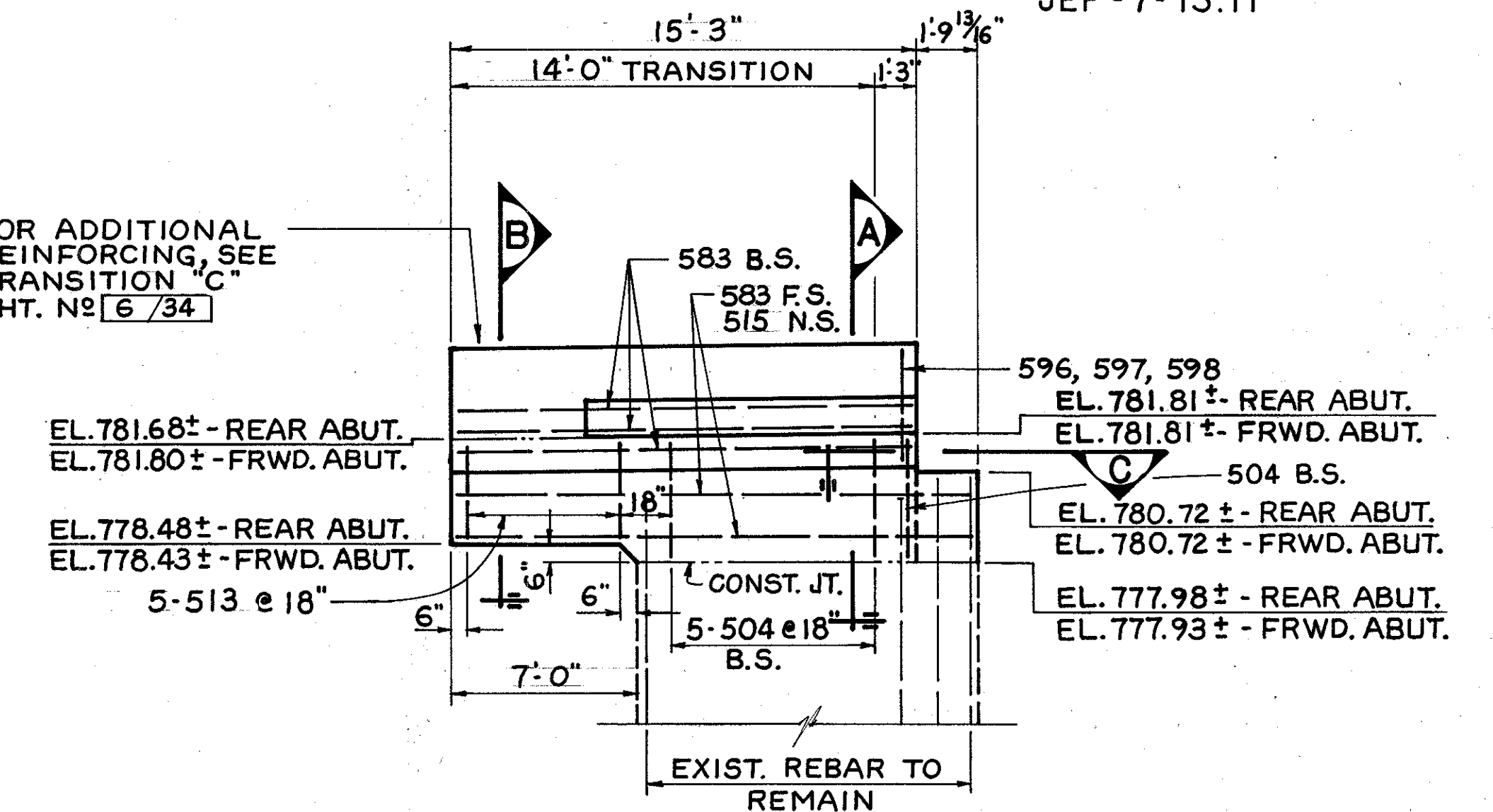
JEF-7-13.11



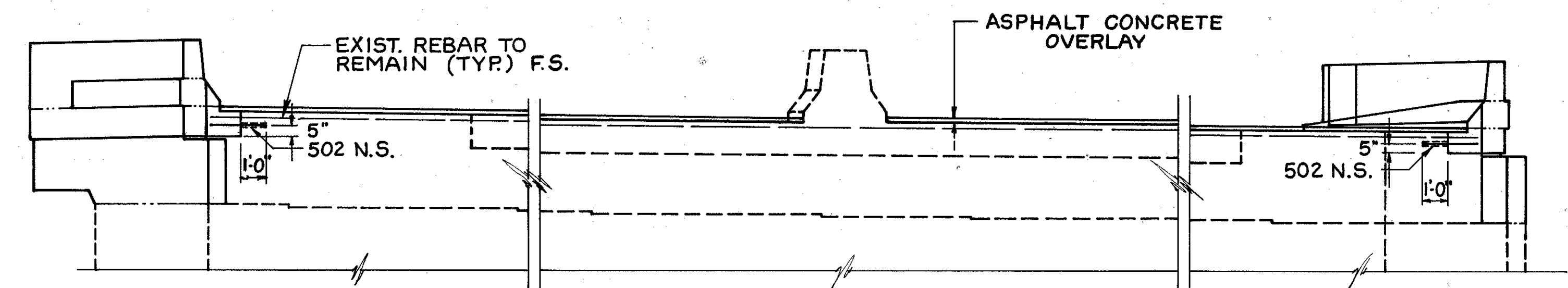
PLAN

NOTE: REAR ABUT. SHOWN, FRWD. ABUT. SIMILAR

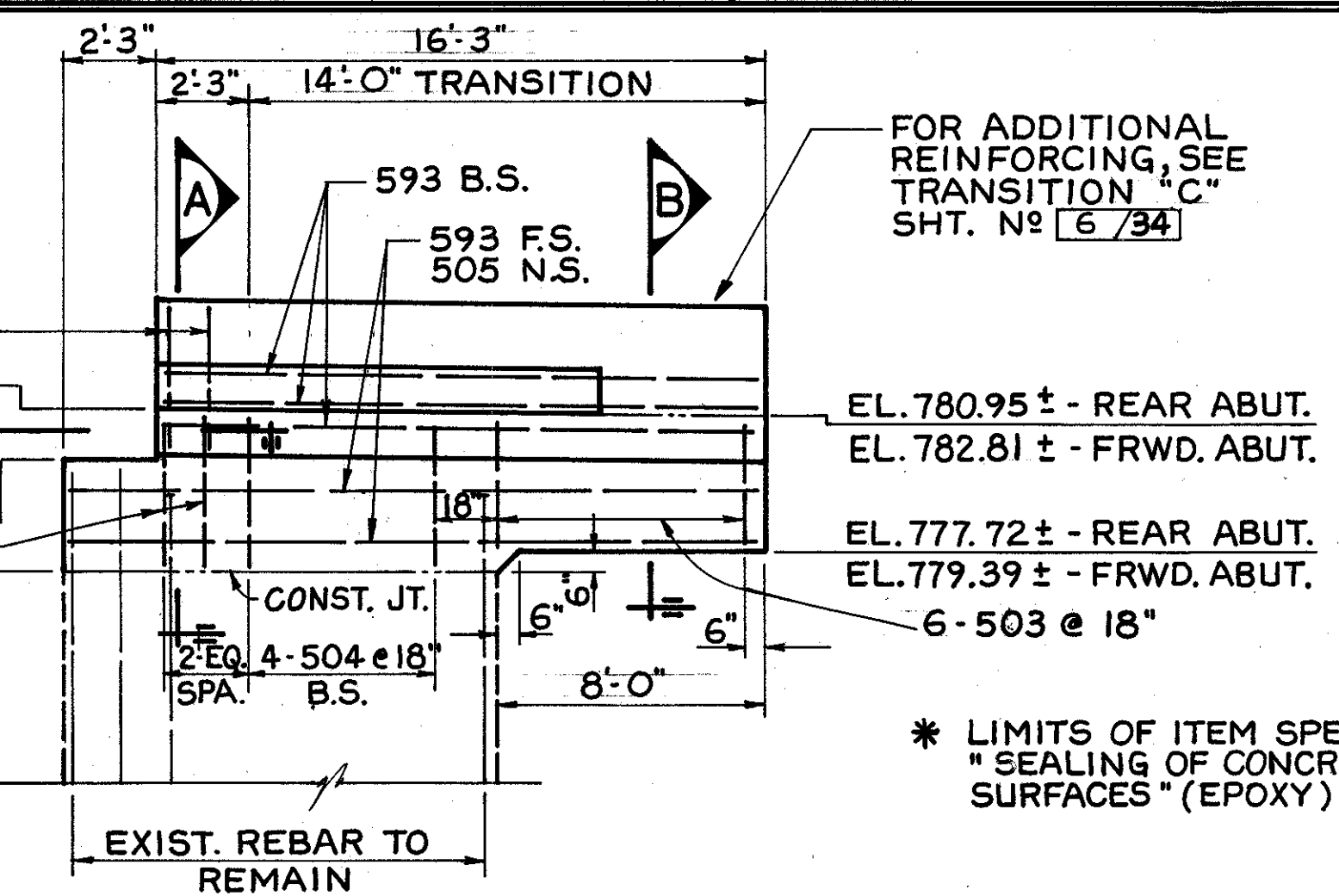
FOR ADDITIONAL REINFORCING, SEE TRANSITION "C" SHT. No. 6/34



ELEVATION - SOUTHEAST & NORTHWEST WINGWALLS

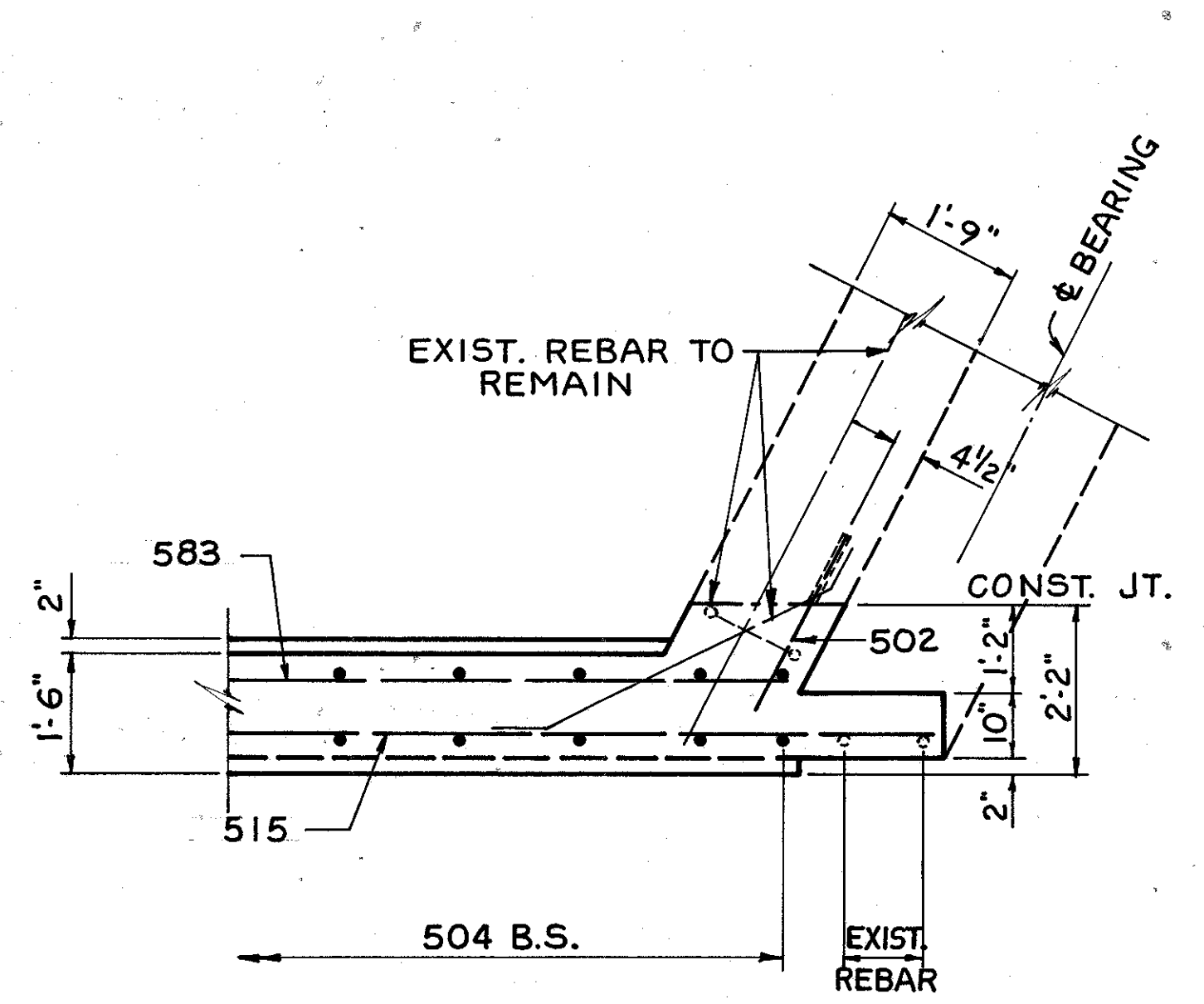


ELEVATION

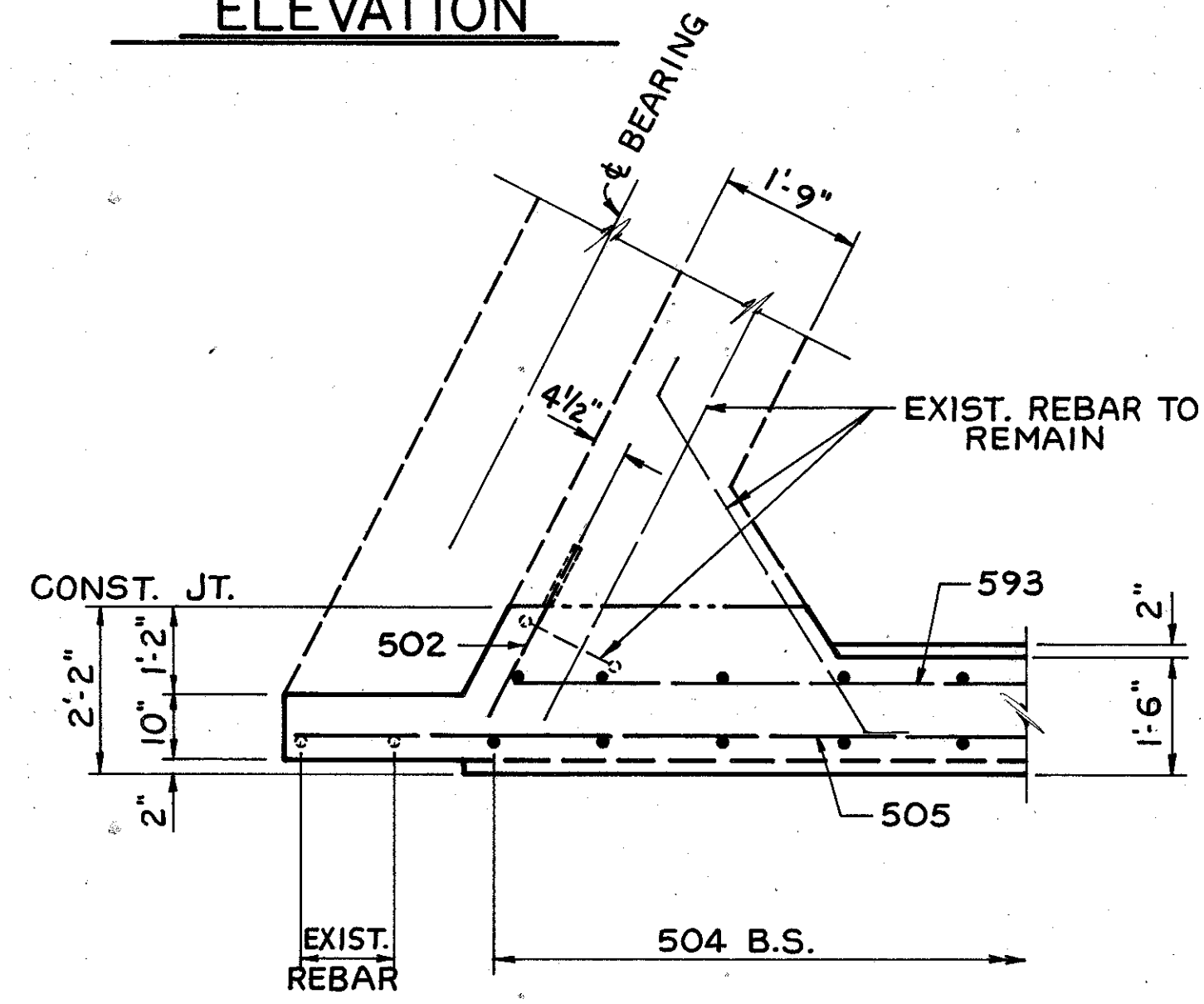


ELEVATION - SOUTHWEST & NORTHEAST WINGWALLS

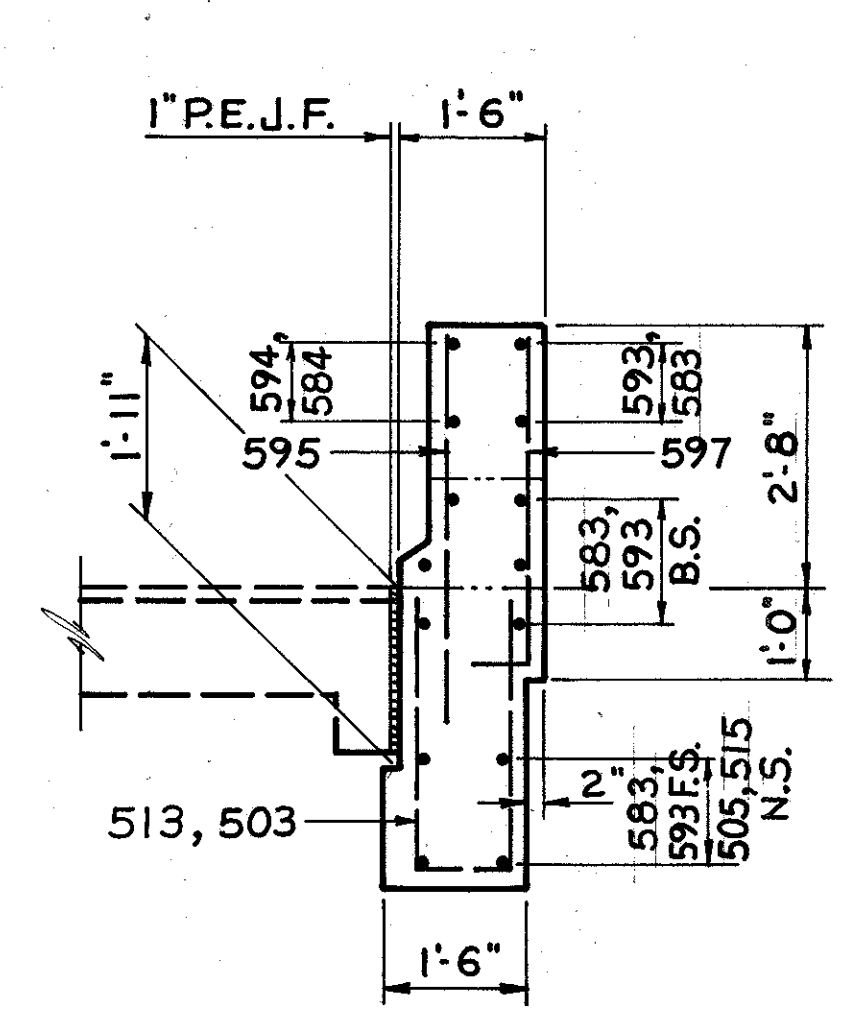
* LIMITS OF ITEM SPECIAL "SEALING OF CONCRETE SURFACES" (EPOXY) (TYP.)



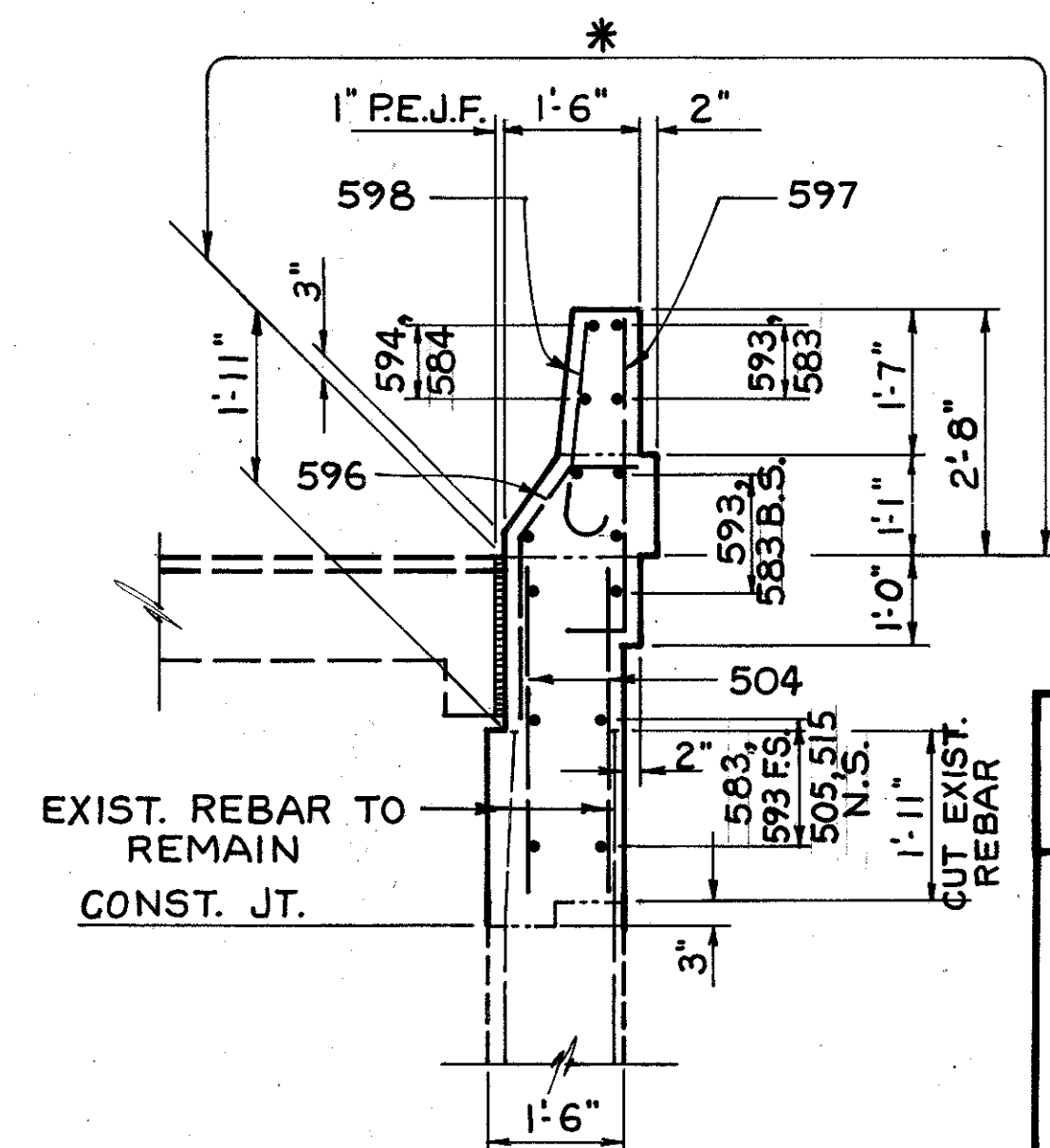
SECTION C



SECTION D



SECTION B



SECTION A

- NOTES**
1. PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR SOUTHEAST AND SOUTHWEST WINGWALLS FOR REAR ABUTMENT. PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR NORTHEAST AND NORTHWEST WINGWALLS FOR FORWARD ABUTMENT. SEE REINFORCING SCHEDULE.
 2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
 3. FOR ADDITIONAL NOTES, SEE SHEET NO. 11/34.

GPD ASSOCIATES		GLAUS PYLE SCHOMER BURNS AND BEHAVEN INC.		25/34
		AKRON, OHIO		JOB No. 92045

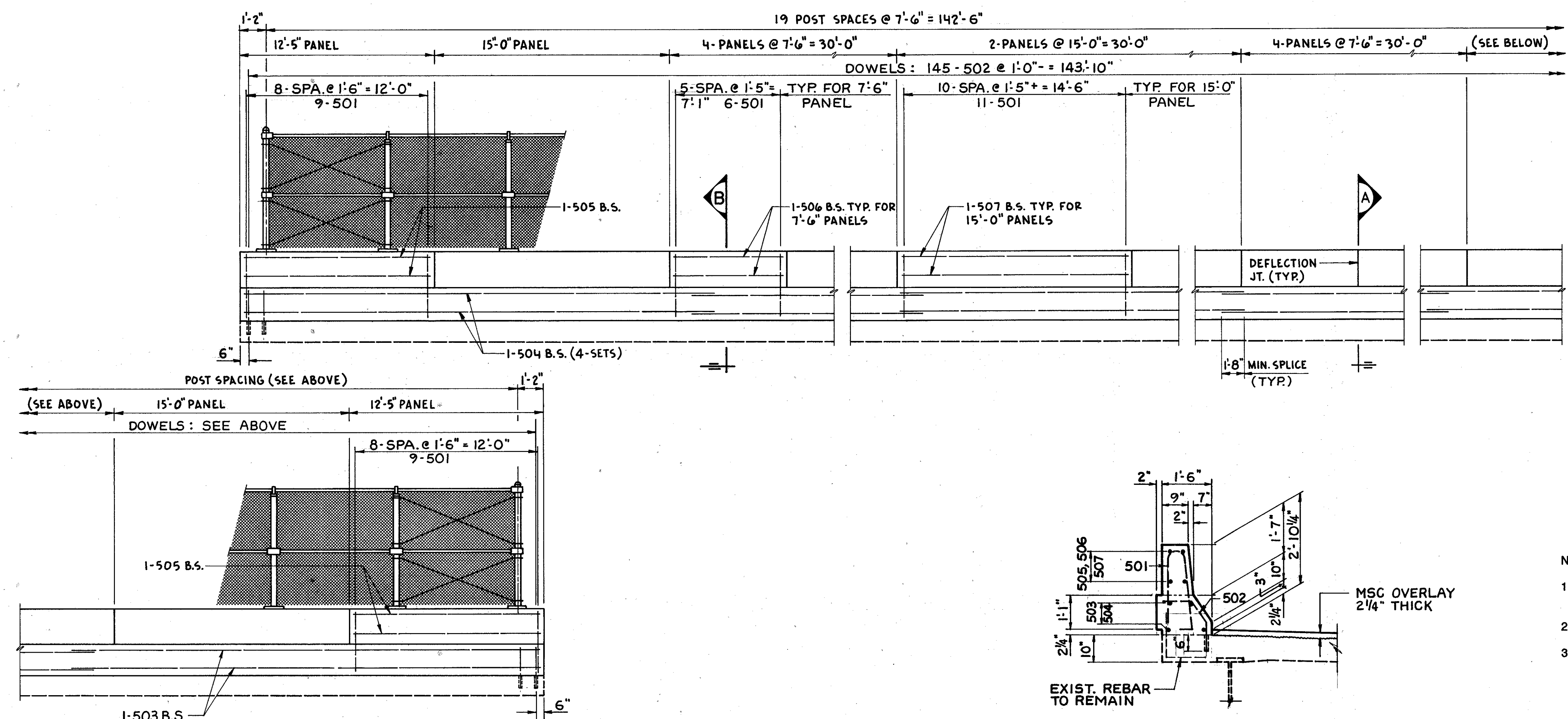
ABUTMENTS

BRIDGE No. JEF-7-1369
S.R. 7 OVER LOGAN AVE.

JEFFERSON COUNTY
MINGO JUNCTION

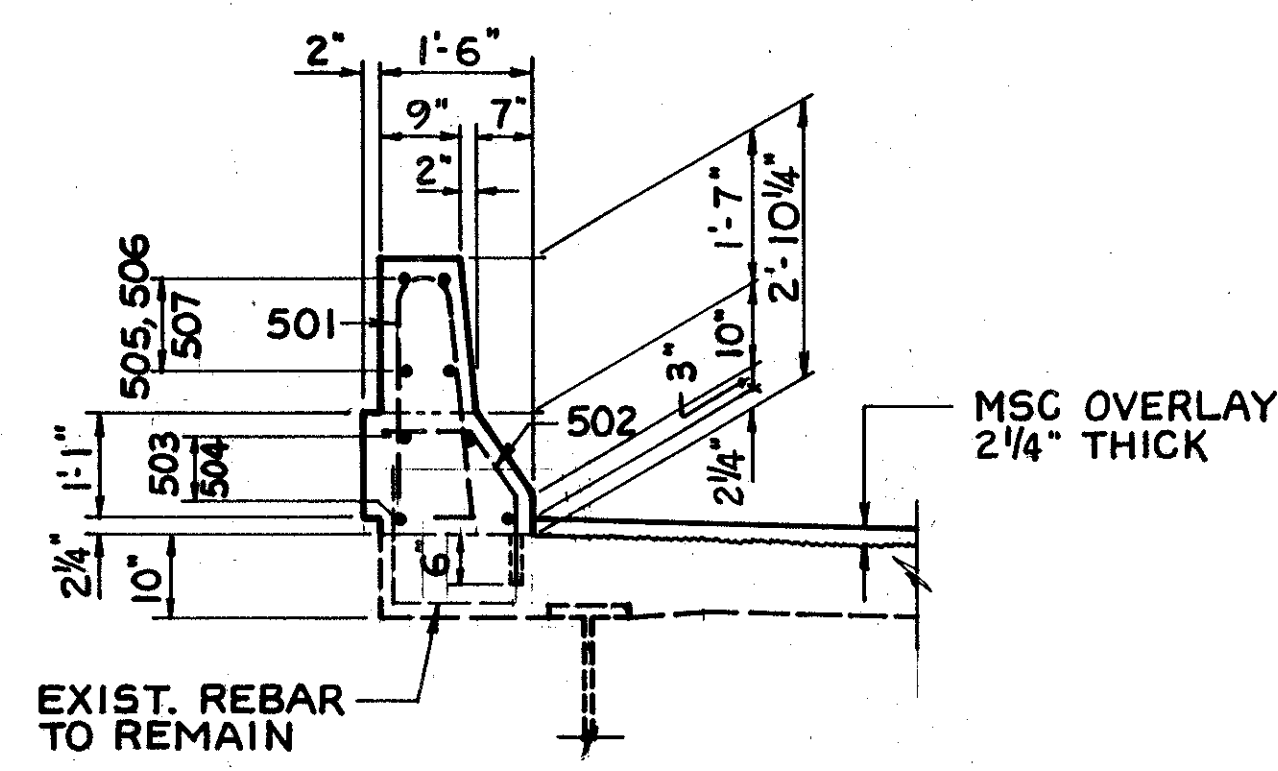
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11.11.93	

JEF-7-13.11

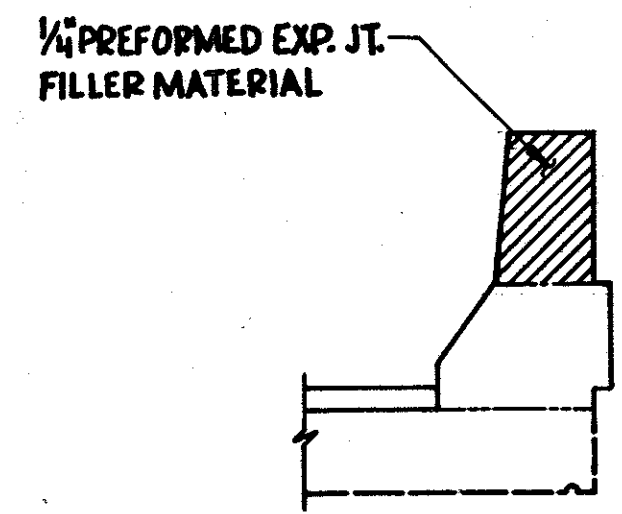


PARAPET AND FENCE ELEVATION

NOTE: WEST PARAPET AND FENCE SHOWN, EAST PARAPET AND FENCE SIMILAR.



SECTION B
(FENCE NOT SHOWN)



SECTION A

NOTES

1. PREFIX "S" WILL BE ADDED TO ALL REBARS SHOWN FOR PARAPETS. SEE REINFORCING SCHEDULE.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. CONCRETE PARAPETS SHALL BE PLACED IN ALTERNATING SECTIONS BY THE USE OF BULKHEADS. CLOSING SECTIONS SHALL BE PLACED AFTER REMOVAL OF BULKHEADS AND AFTER PLACEMENT OF EXPANSION JOINT FILLER. EXPOSED EDGES OF THE FILLER SHALL BE FLUSH WITH THE SURFACE OF THE CONCRETE AND SHALL BE FREE OF MORTAR.
4. PREFORMED EXPANSION JOINT FILLER IN THE PARAPET DEFLECTION JOINTS MAY BE EITHER 1/4" GRAY SPONGE RUBBER OR 1/4" GRAY CELLULAR POLYVINYL CHLORIDE (PVC) SPONGE. SPONGE RUBBER FILLER SHALL CONFORM TO AASHTO M-153, TYPE 1. DENSITY OF PVC SPONGE SHALL NOT BE LESS THAN 20 LBS. PER CU.FT. THE JOINT FILLER IS INCLUDED WITH SUPERSTRUCTURE CONCRETE FOR PAYMENT.
5. FOR FENCE DETAILS NOT SHOWN, REFER TO STD. DWG. NO. VPF-1-90, REVISED 2-1-92 AND SHT. NO. 4/34.
6. QUANTITIES OF CONCRETE AND REINFORCING STEEL FOR PARAPETS ARE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL AND ITEM 511, CLASS S CONCRETE, SUPERSTRUCTURE, FOR PAYMENT.

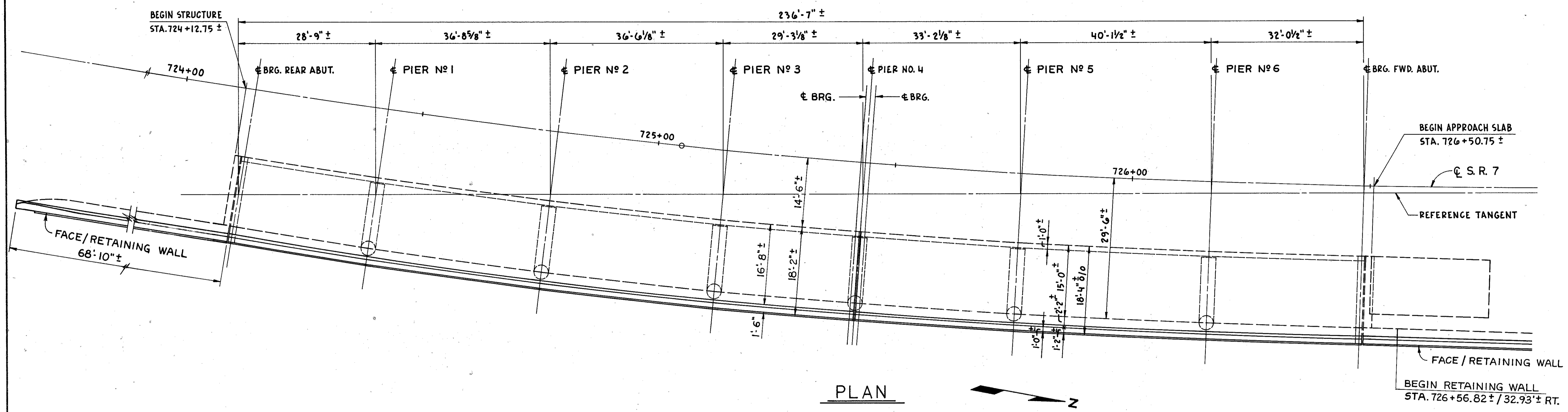
	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC.		26/34
	AKRON, OHIO		JOB NO. 92045

PARAPET & FENCE DETAILS

BRIDGE NO. JEF-7-1369
S.R. 7 OVER LOGAN AVE.

JEFFERSON COUNTY
MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11.11.93	

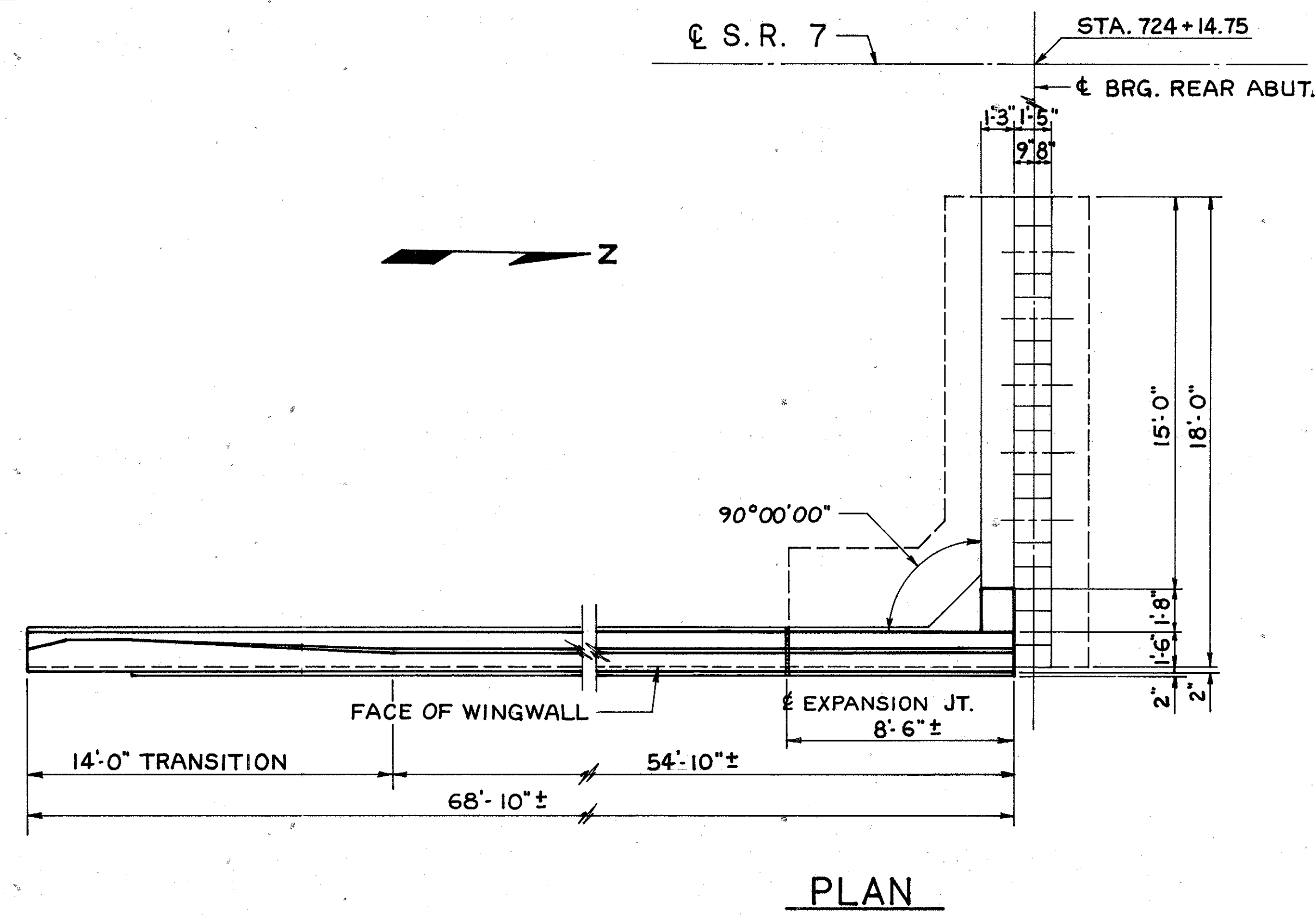


- PROPOSED WORK**
1. REMOVE EXISTING ASPHALT WEARING SURFACE.
 2. REMOVE EXISTING PARAPET AND RAILING.
 3. REMOVE PORTIONS OF EXISTING WINGWALLS.
 4. RECONSTRUCT PORTIONS OF EXISTING WINGWALLS AS PER PLAN.
 5. CONSTRUCT NEW PARAPET.
 6. PATCH EXISTING DECK SLAB.
 7. PROVIDE TYPE "D" WATERPROOFING AND ASPHALT CONCRETE OVERLAY.
 8. REMOVE PORTION OF RETAINING WALL AS SHOWN ON SHEET NO. 32/34.
 9. RECONSTRUCT PORTION OF RETAINING WALL.
 10. SEAL PARAPET AND RETAINING WALL WITH EPOXY.

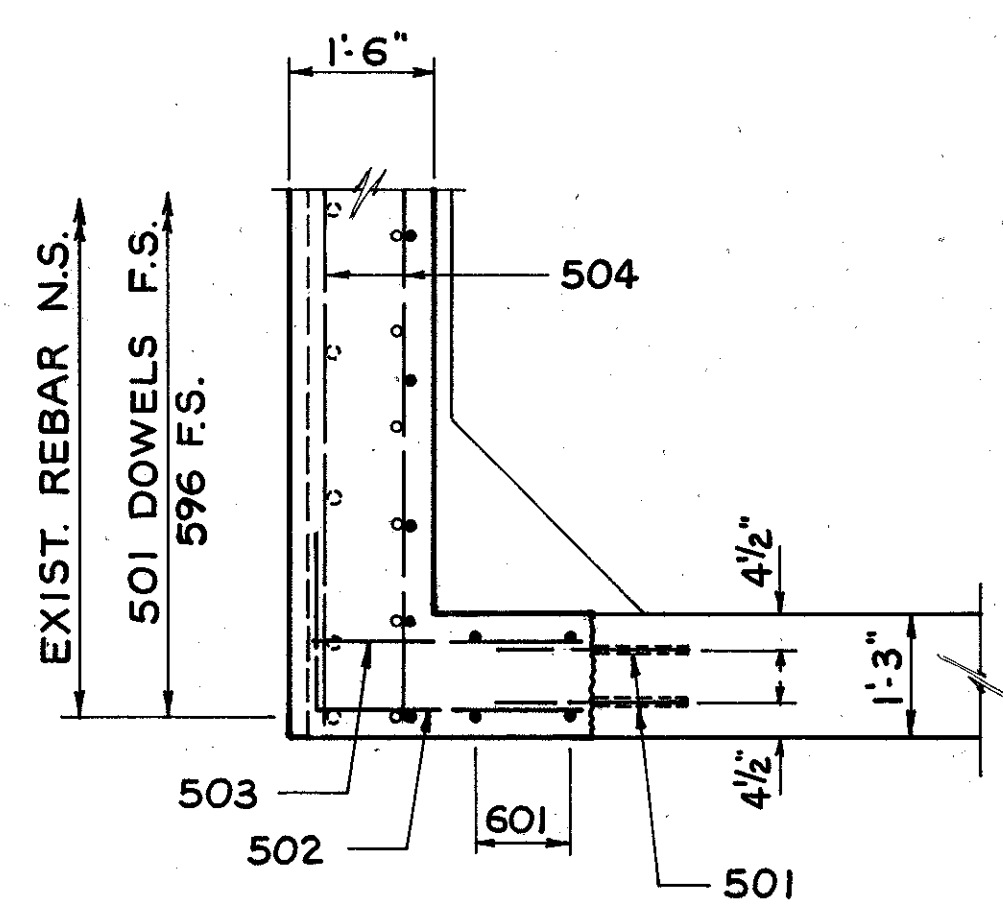
- NOTES**
1. FOR TRANSVERSE SECTION AND REHABILITATION DETAILS, SEE SHEET NO. 4/34.
 2. FOR ADDITIONAL REHABILITATION DETAILS, SEE SHT. NO. 3/34.
 3. TYPE "D" WATERPROOFING SHALL EXTEND 1' OVER THE ABUTMENT BACKWALLS.

	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO	27/34 JOB NO. 92045
GENERAL PLAN		
BRIDGE NO. JEF-7-1390 SIDEHILL STRUCTURE		
JEFFERSON COUNTY MINGO JUNCTION		
DESIGNED A.D.	DRAWN R.L.W.	TRACED J.W.
CHECKED K.S.J.	REVIEWED K.S.J.	DATE 11.11.93
REVISED		

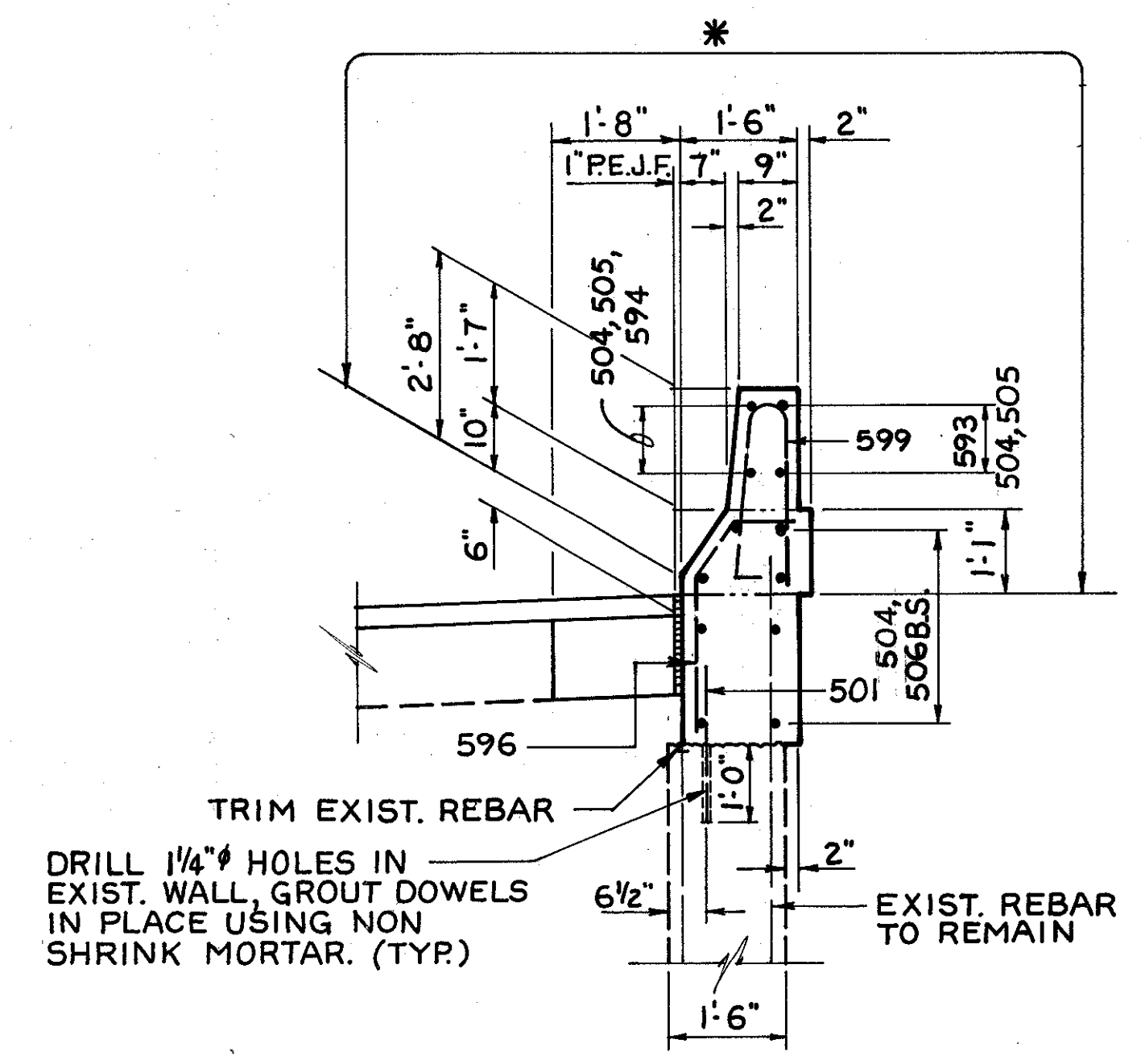
JEF-7-13.11



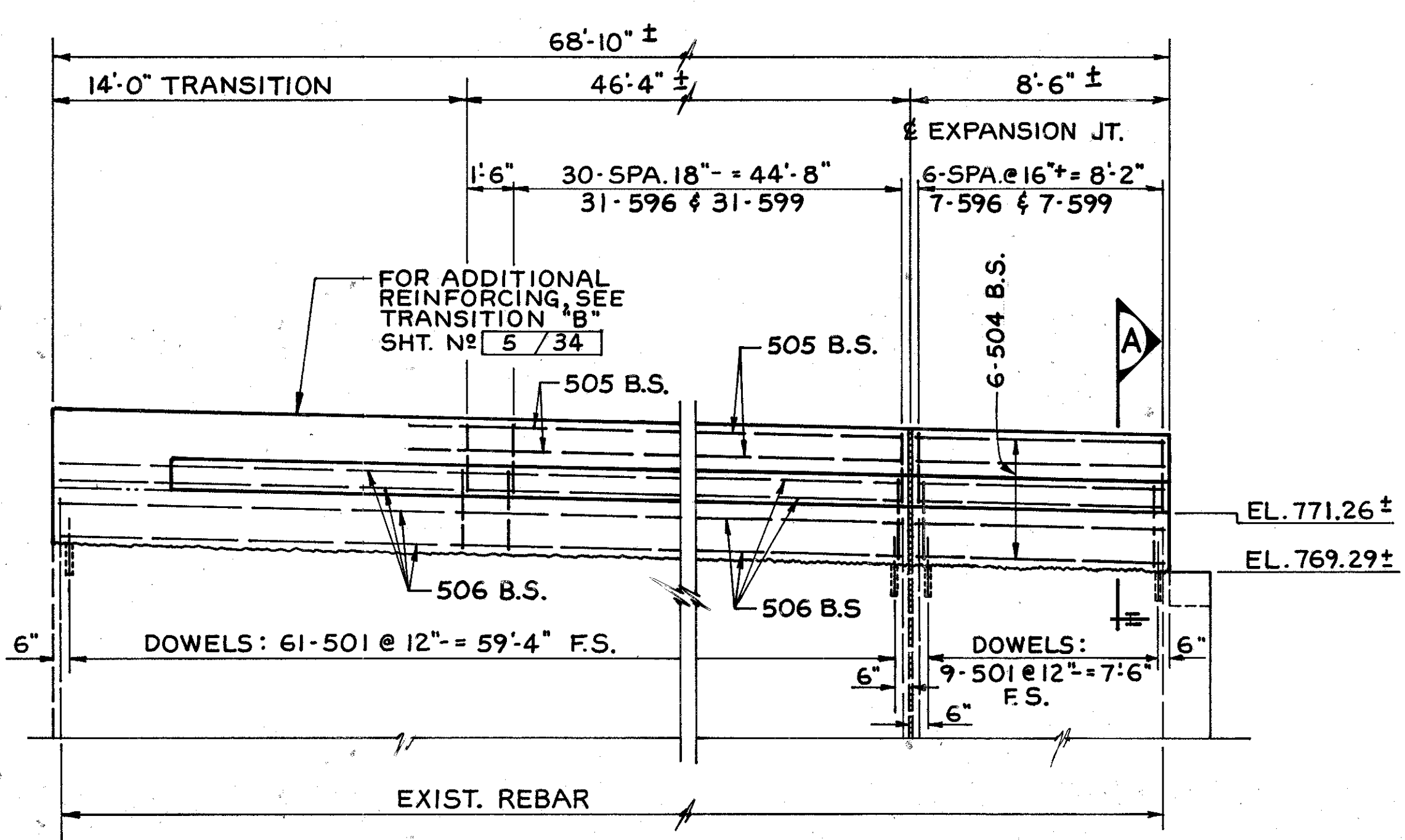
PLAN



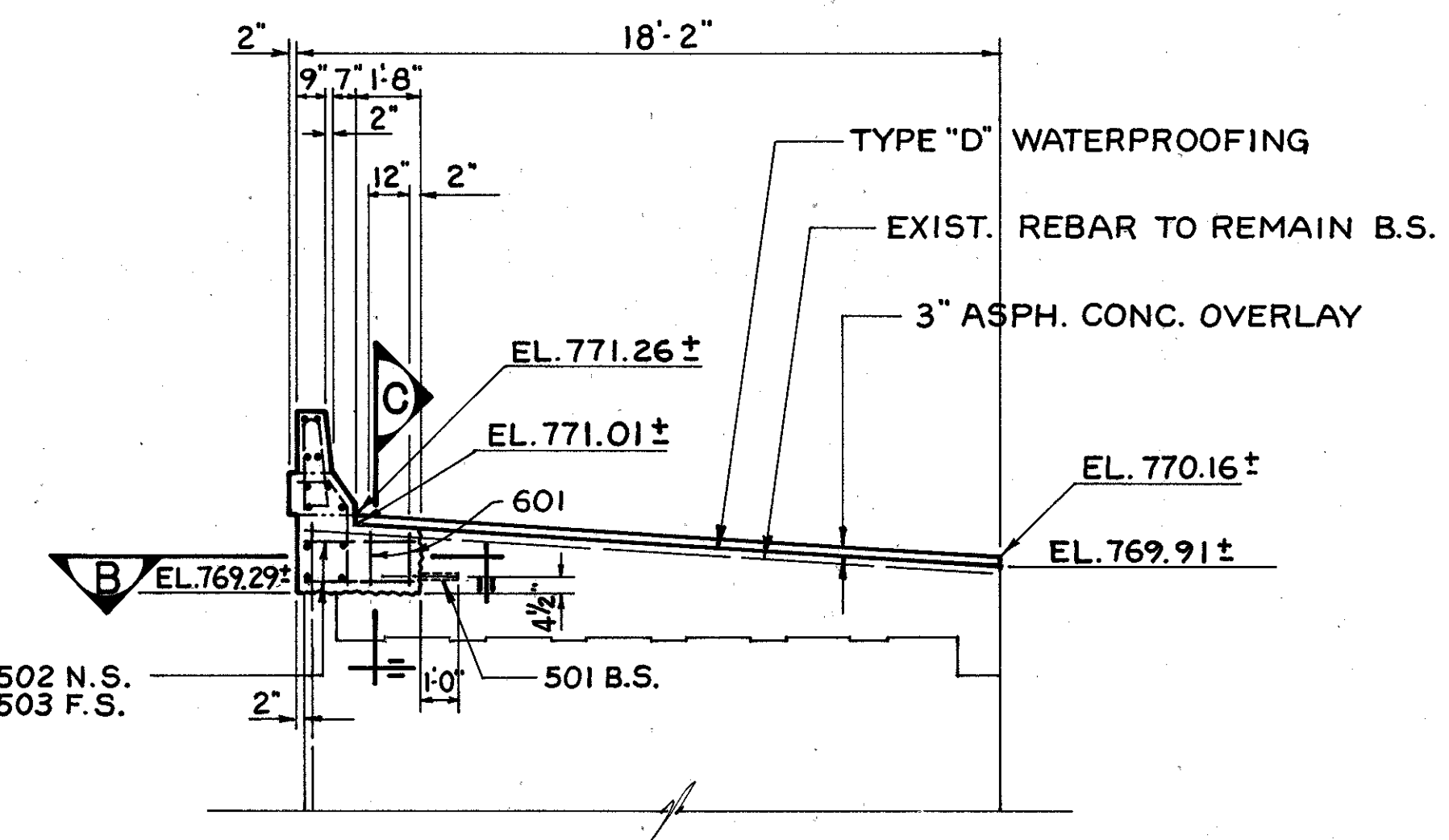
SECTION B



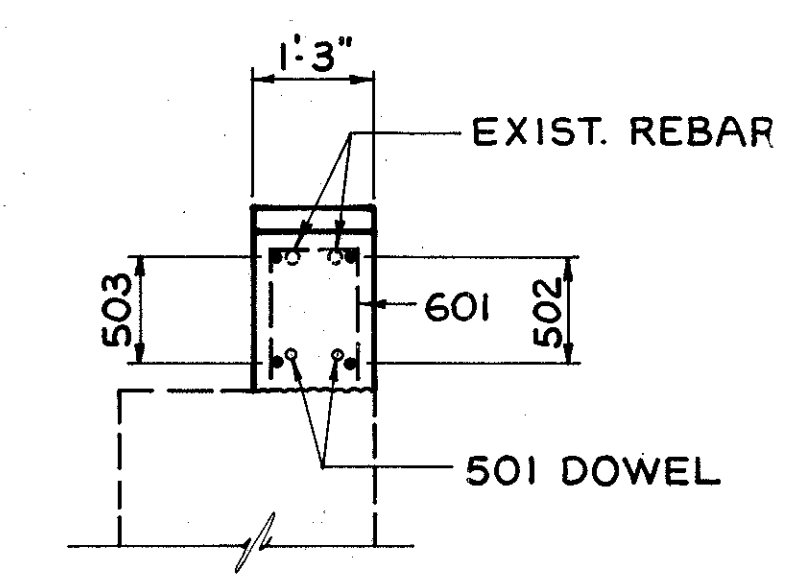
SECTION A



WINGWALL ELEVATION



ELEVATION



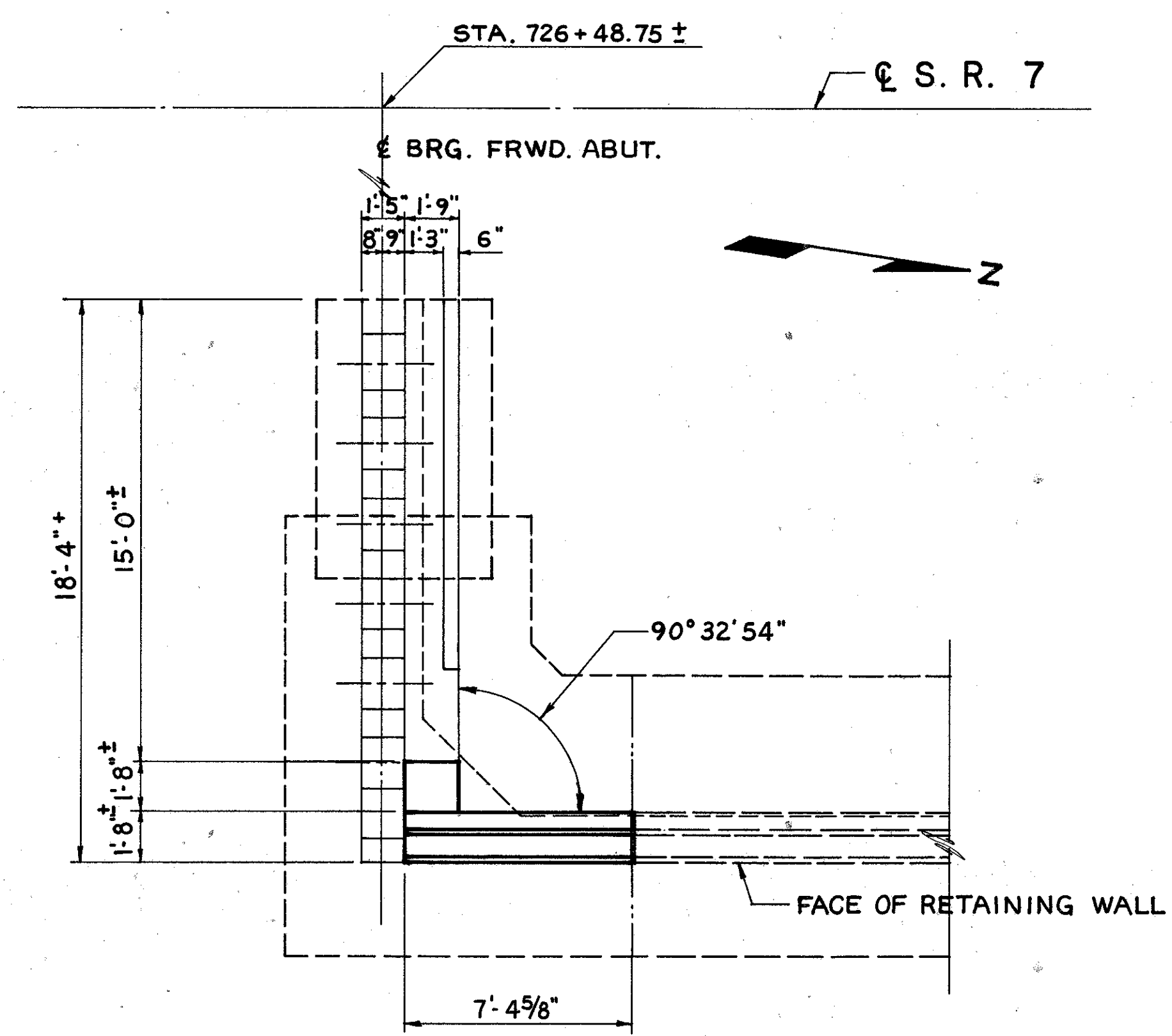
SECTION C

* LIMITS OF ITEM SPECIAL
" SEALING OF CONCRETE
SURFACES " (EPOXY)

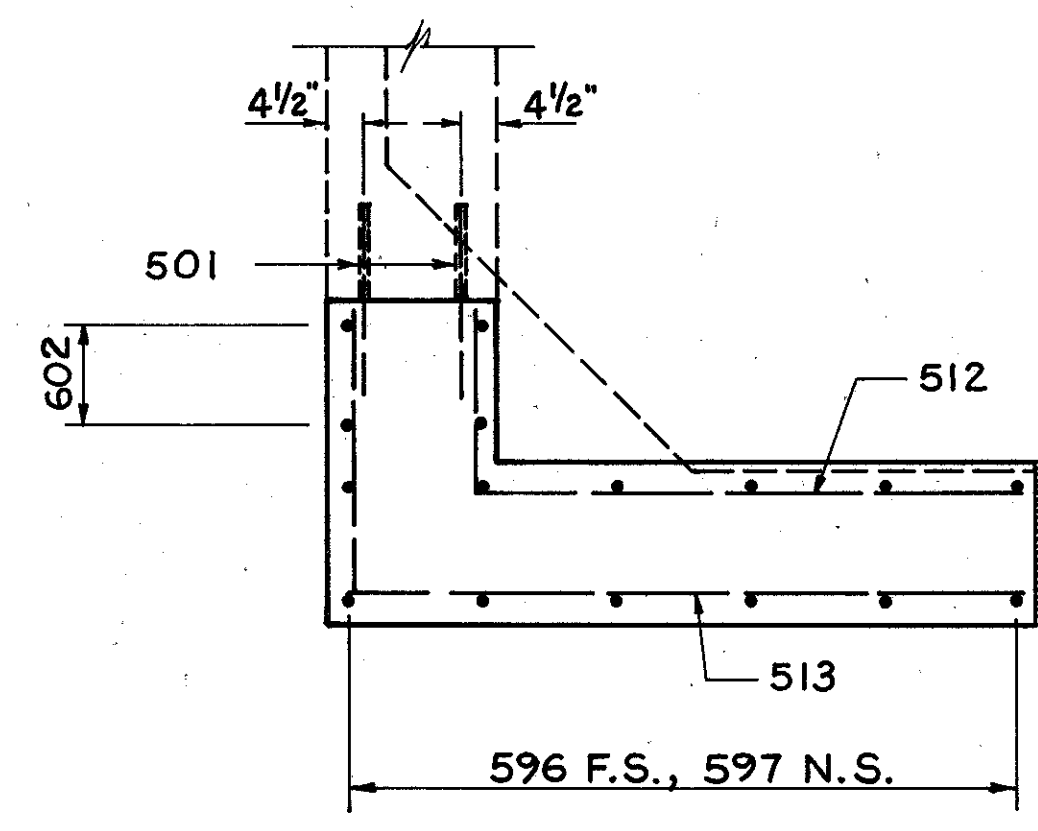
NOTES

1. PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR REAR ABUT. SEE REINFORCING SCHEDULE.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. FOR ADDITIONAL NOTES, SEE SHEET NO. 11/34.

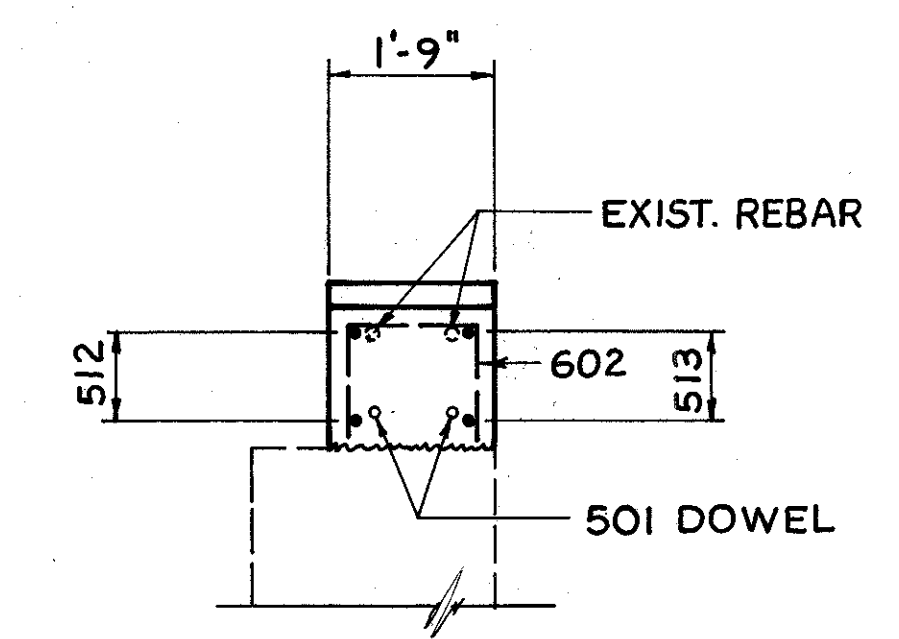
		GLAUS PYLE SCHOMER BURNS AND BEHAVEN INC. AKRON, OHIO		28/34 JOB NO 92045
REAR ABUTMENT BRIDGE NO JEF-7-1390 SIDEHILL STRUCTURE				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
A.D.	R.L.W.		K.S.J.	11.11.93



PLAN

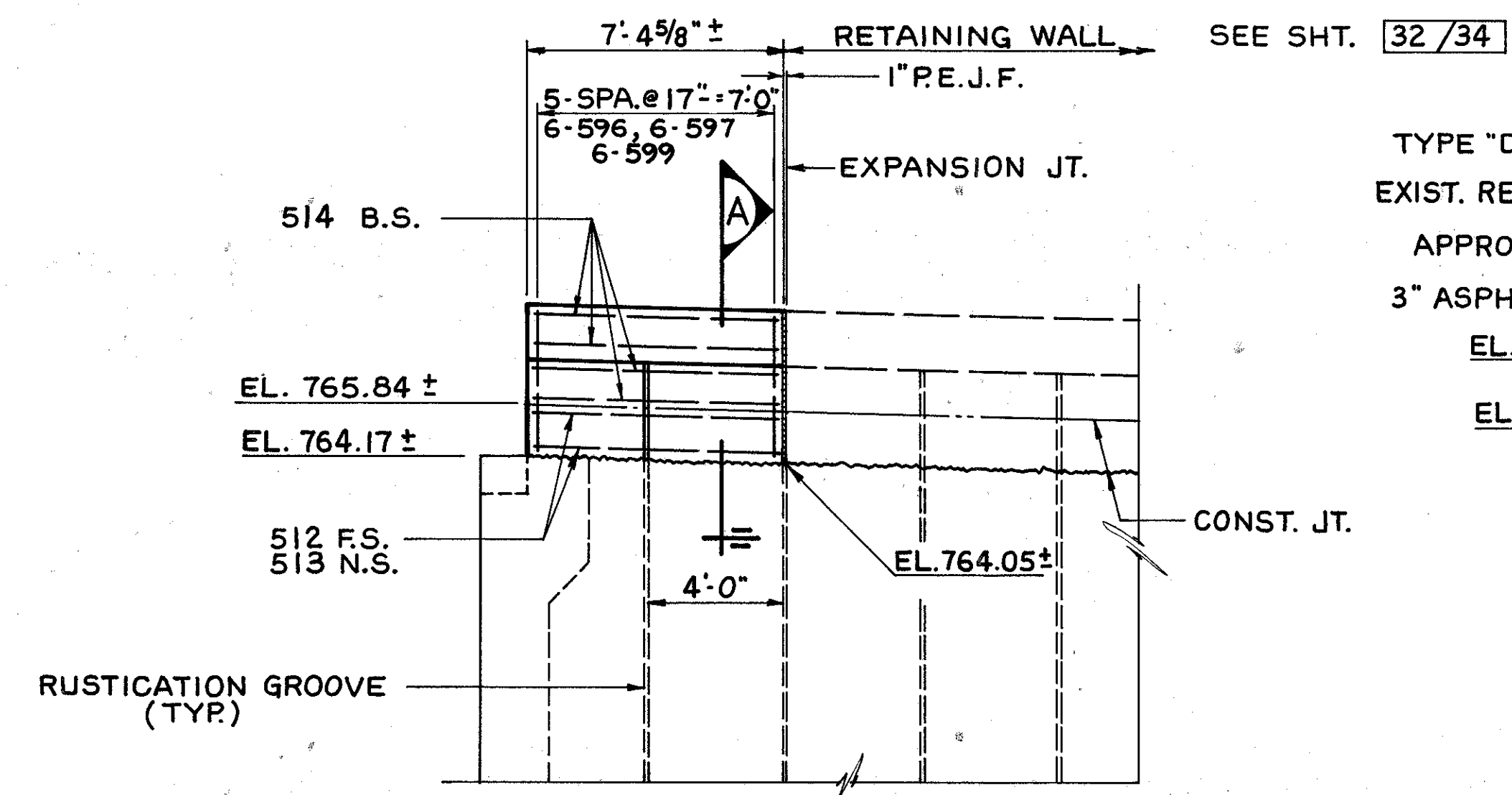


SECTION B

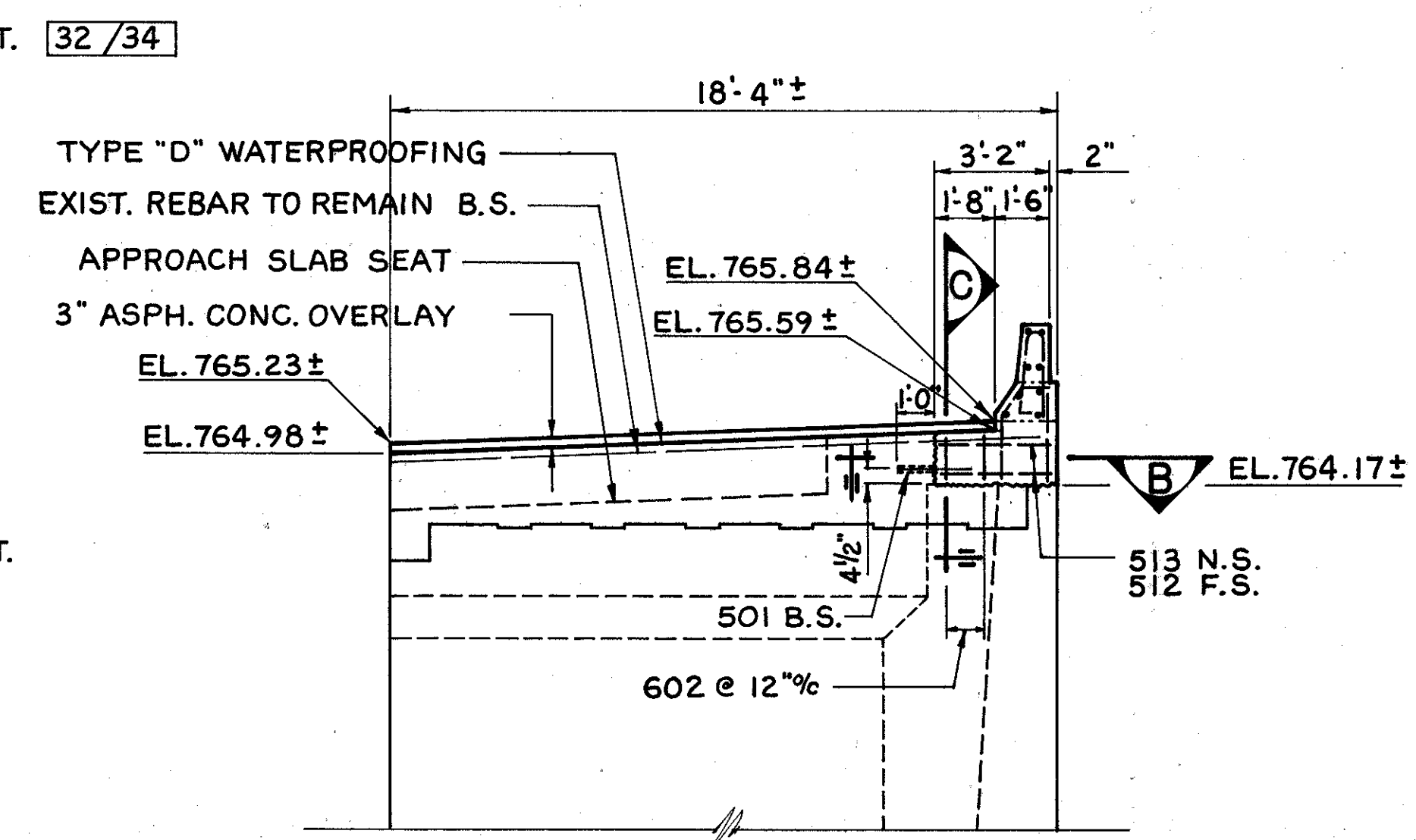


SECTION C

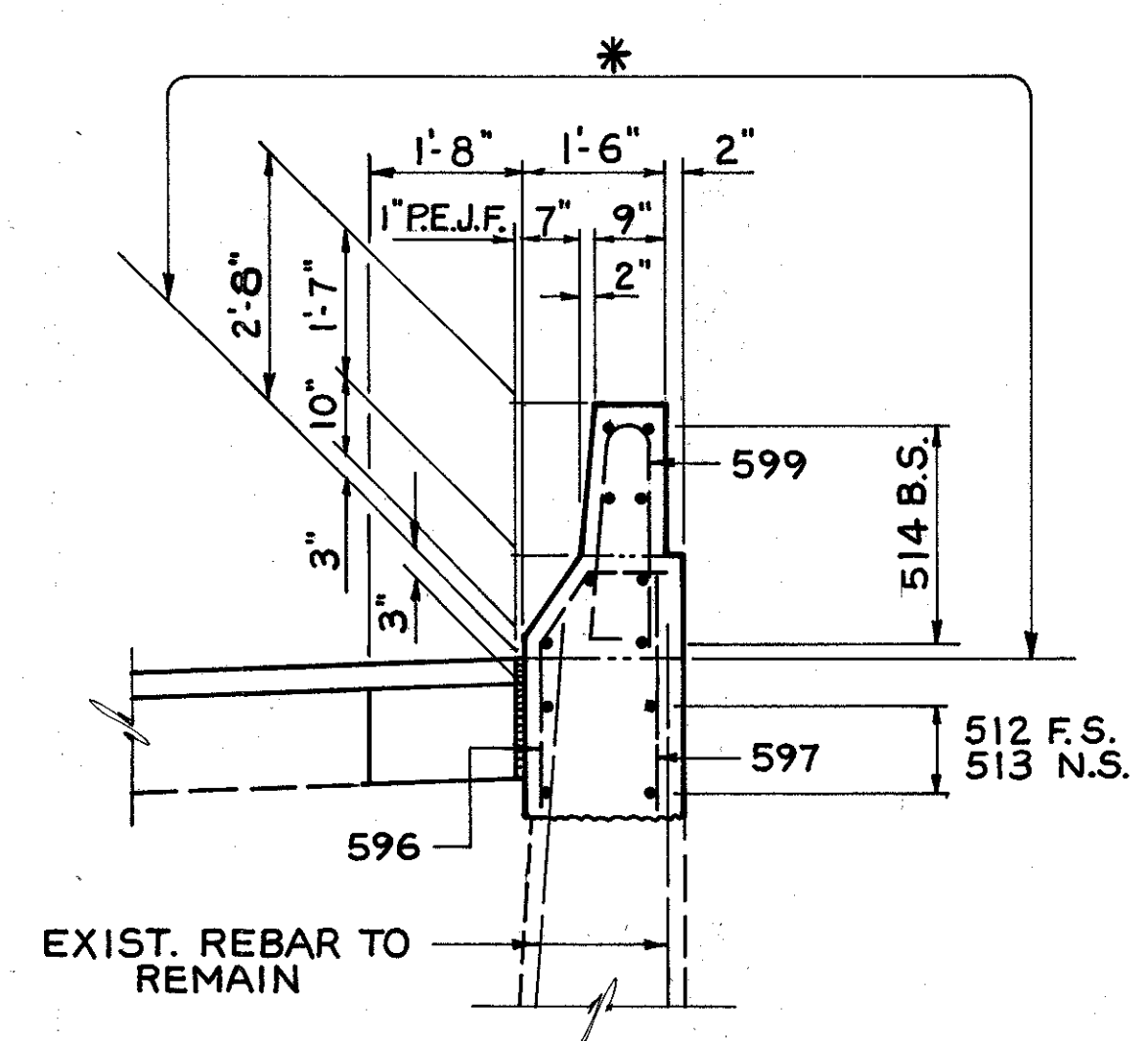
* LIMITS OF ITEM SPECIAL
" SEALING OF CONCRETE
SURFACES " (EPOXY)



WINGWALL ELEVATION



ELEVATION



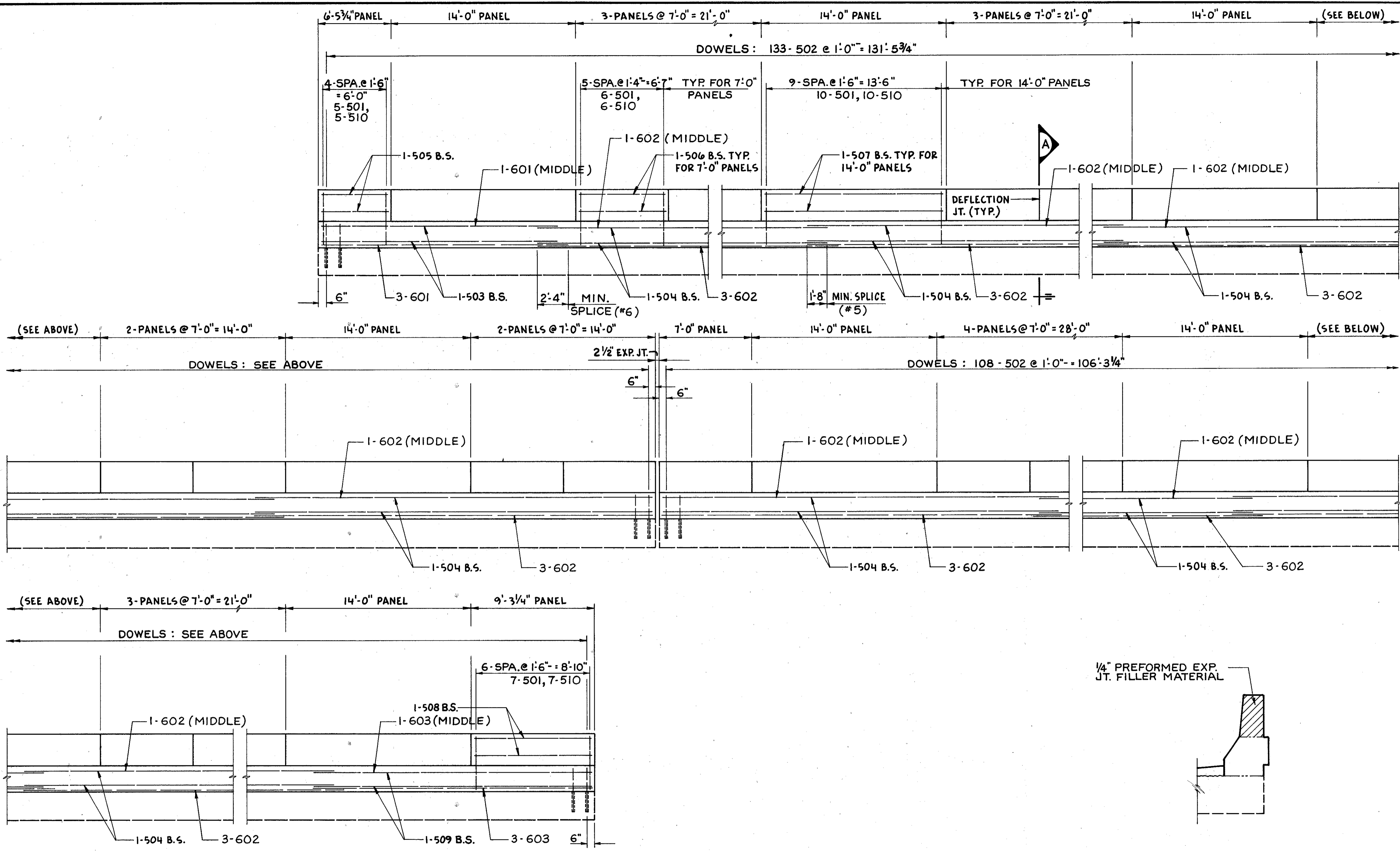
SECTION A

NOTES

1. PREFIX "A" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR FORWARD ABUT. SEE REINFORCING SCHEDULE.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. FOR ADDITIONAL NOTES, SEE SHEET NO. 11/34.

		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		29/34 JOB N° 92045		
FORWARD ABUTMENT BRIDGE N° JEF-7-1390 SIDEHILL STRUCTURE						
JEFFERSON COUNTY MINGO JUNCTION						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		P.W.	K.S.J.	11.11.93	

JEF-7-13.11

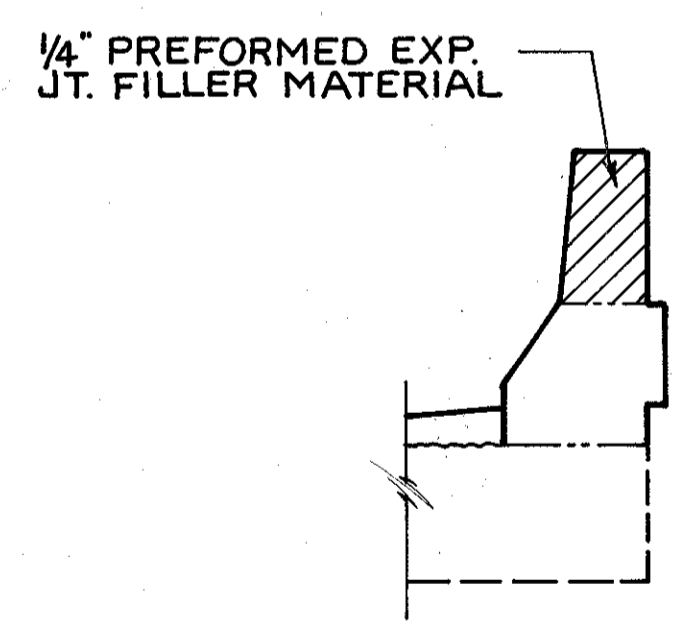


PARAPET ELEVATION

SECTION A

NOTES

1. PREFIX "S" WILL BE ADDED TO ALL REBARS SHOWN FOR PARAPETS. SEE REINFORCING SCHEDULE.
2. FOR PARAPET SECTION, SEE TRANSVERSE SECTION SHEET NO. 4/34.
3. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
4. CONCRETE PARAPETS SHALL BE PLACED IN ALTERNATING SECTIONS BY THE USE OF BULKHEADS. CLOSING SECTIONS SHALL BE PLACED AFTER REMOVAL OF BULKHEADS AND AFTER PLACEMENT OF EXPANSION JOINT FILLER. EXPOSED EDGES OF THE FILLER SHALL BE FLUSH WITH THE SURFACE OF THE CONCRETE AND SHALL BE FREE OF MORTAR.
5. PREFORMED EXPANSION JOINT FILLER IN THE PARAPET DEFLECTION JOINTS MAY BE EITHER 1/4" GRAY SPONGE RUBBER OR 1/4" GRAY CELLULAR POLYVINYL CHLORIDE (PVC) SPONGE. SPONGE RUBBER FILLER SHALL CONFORM TO AASHTO M-153, TYPE 1. DENSITY OF PVC SPONGE SHALL NOT BE LESS THAN 20 LBS. PER CU.FT. THE JOINT FILLER IS INCLUDED WITH SUPERSTRUCTURE CONCRETE FOR PAYMENT.
6. QUANTITIES OF CONCRETE AND REINFORCING STEEL FOR PARAPETS ARE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL AND ITEM 511, CLASS S CONCRETE, SUPERSTRUCTURE, FOR PAYMENT.



	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC.		30/34
	AKRON, OHIO		JOB N° 92045

PARAPET DETAILS

BRIDGE N° JEF-7-1390
SIDEHILL STRUCTURE

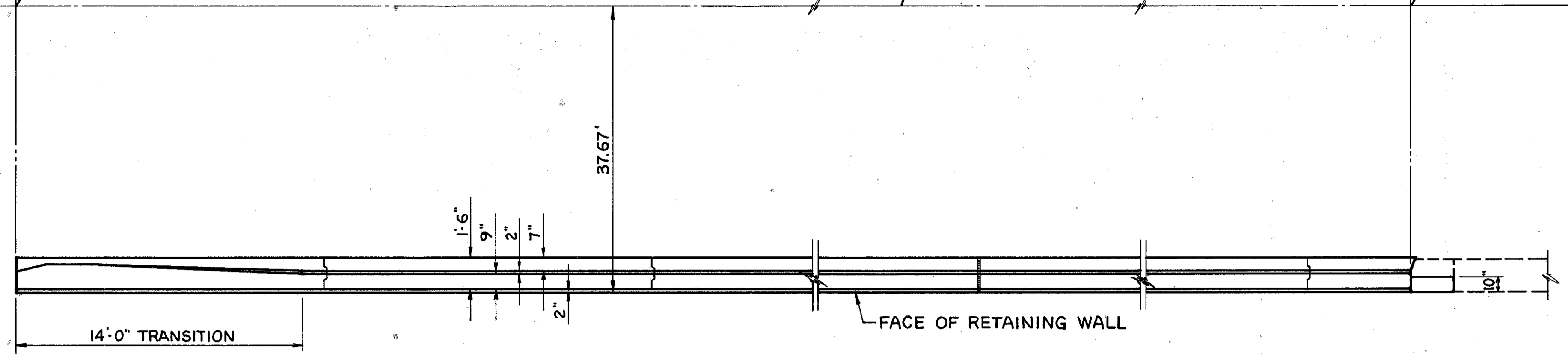
JEFFERSON COUNTY
MINGO JUNCTION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.D.	R.L.W.		RW	K.S.J.	11.11.93	

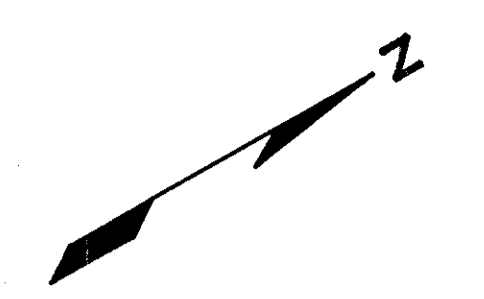
BEGIN RETAINING WALL
STA. 696 + 50.00 ±
37.67' RT.

END RETAINING WALL
STA. 697 + 50.02 ±
37.67' RT.

± S. R. 7

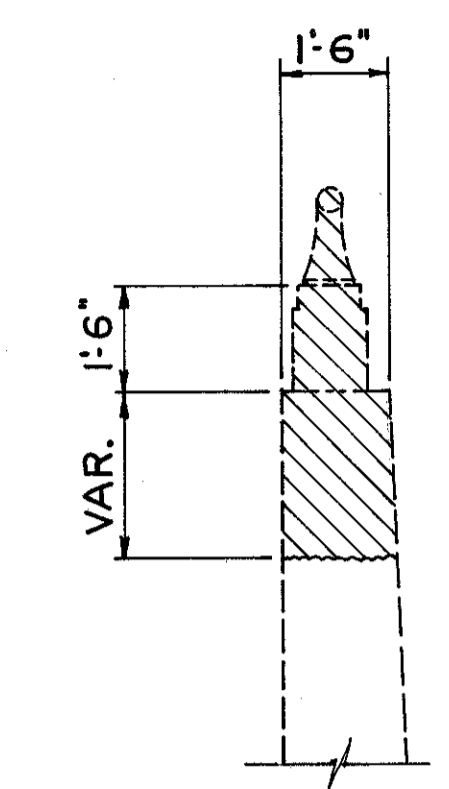


PLAN

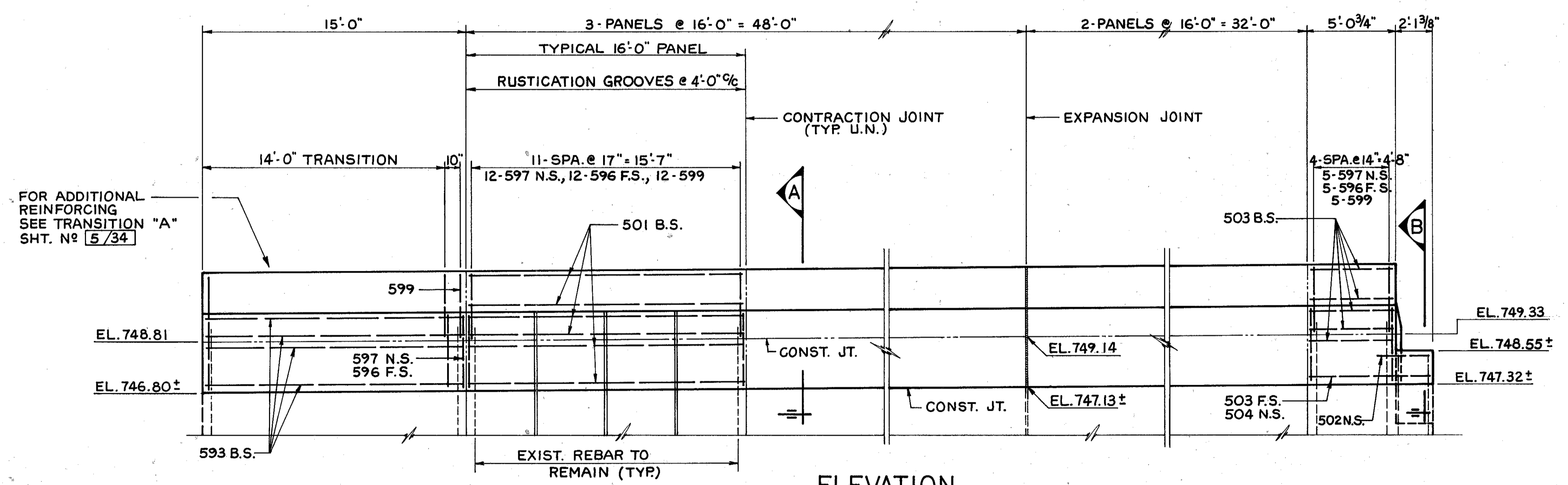


LEGEND

INDICATES REMOVAL LIMITS



TYPICAL SECTION
RETAINING WALL REMOVAL LIMITS



ELEVATION

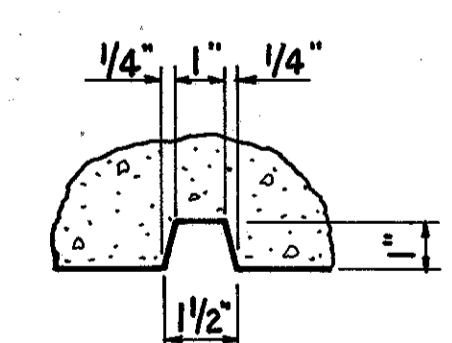
FOR ADDITIONAL REINFORCING SEE TRANSITION "A" SHT. N° 5/34

NOTES:

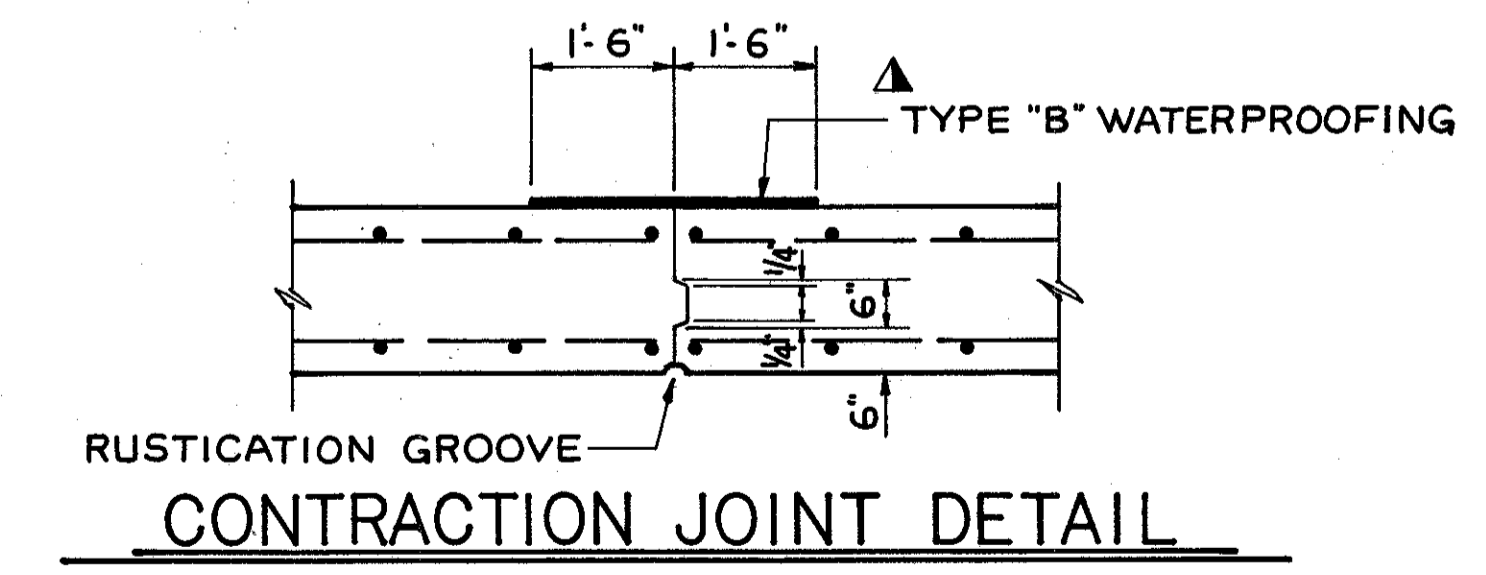
1. ALL RETAINING WALL REMOVAL AND CONSTRUCTION QUANTITIES ARE INCLUDED UNDER THE APPROPRIATE ITEM NUMBERS WITH BRIDGE NO. JEF-7-1340.
2. FOR NOTE "PORTIONS OF STRUCTURE REMOVED", SEE SHEET NO. 1/34.
3. ALL REINFORCING STEEL SHALL HAVE A MINIMUM 2" COVER.
4. PREFIXES "R" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR RETAINING WALLS. SEE REINFORCING SCHEDULE.
5. FOR ADDITIONAL NOTES, SEE SHT. NO. 11/34.

▲ INCLUDED WITH ITEM 511, CLASS C CONCRETE, ABUTMENT FOR PAYMENT.

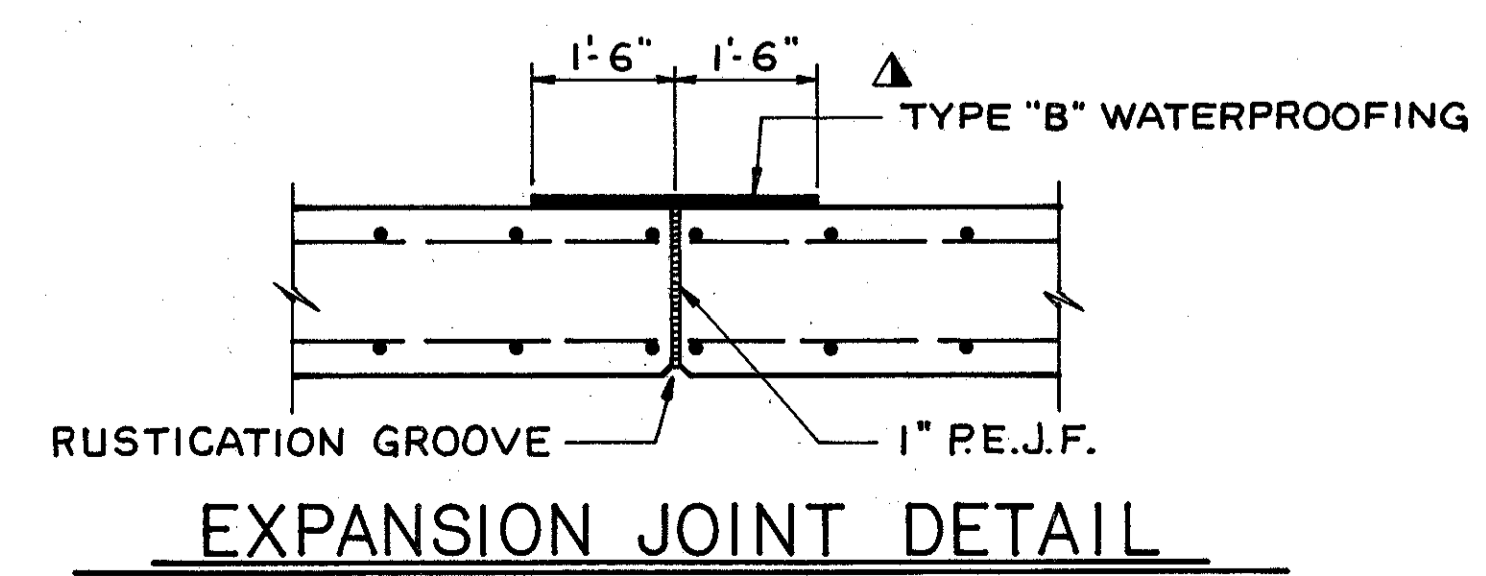
* LIMITS OF ITEM SPECIAL "SEALING OF CONCRETE SURFACES" (EPOXY)



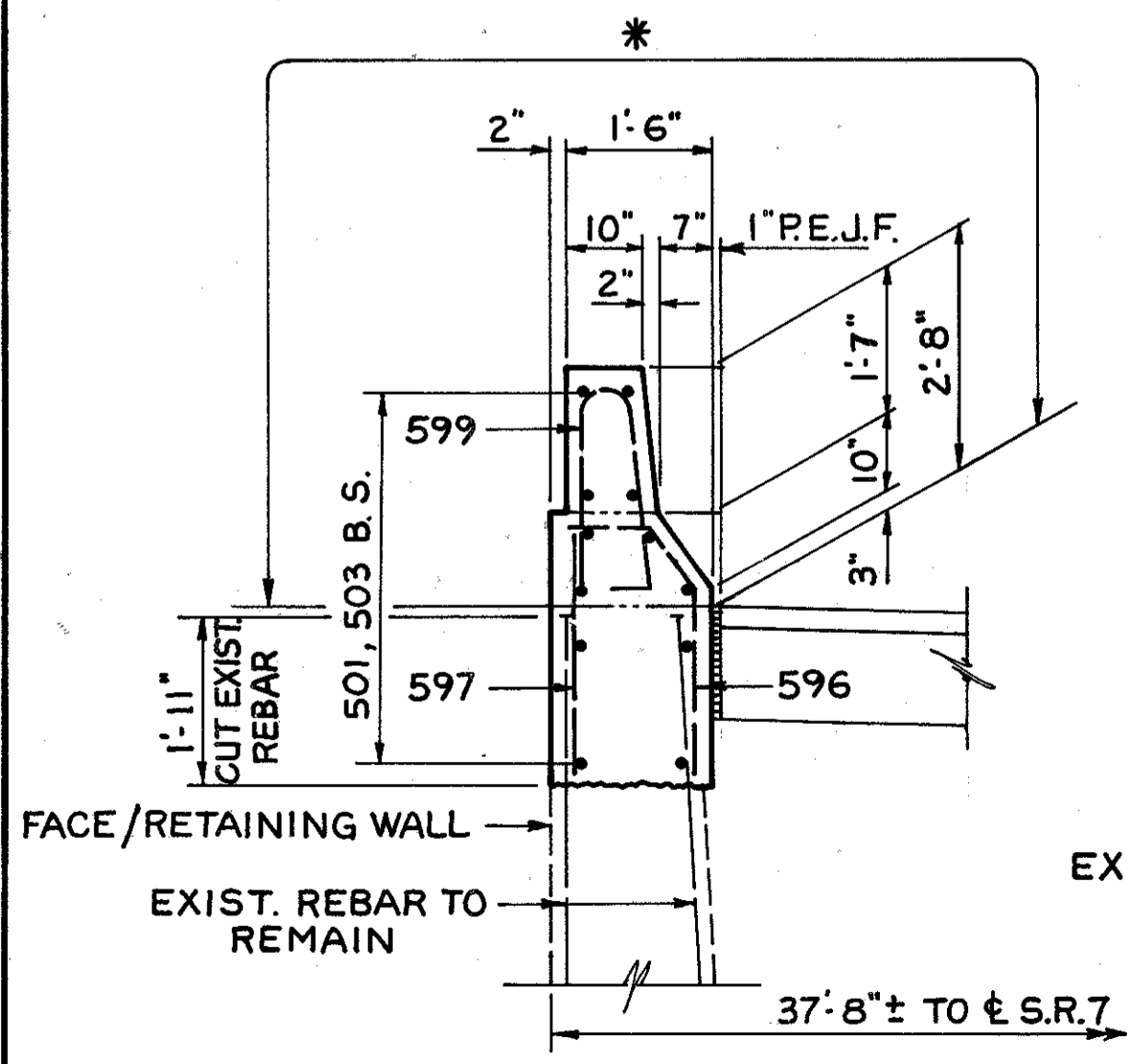
RUSTICATION DETAIL



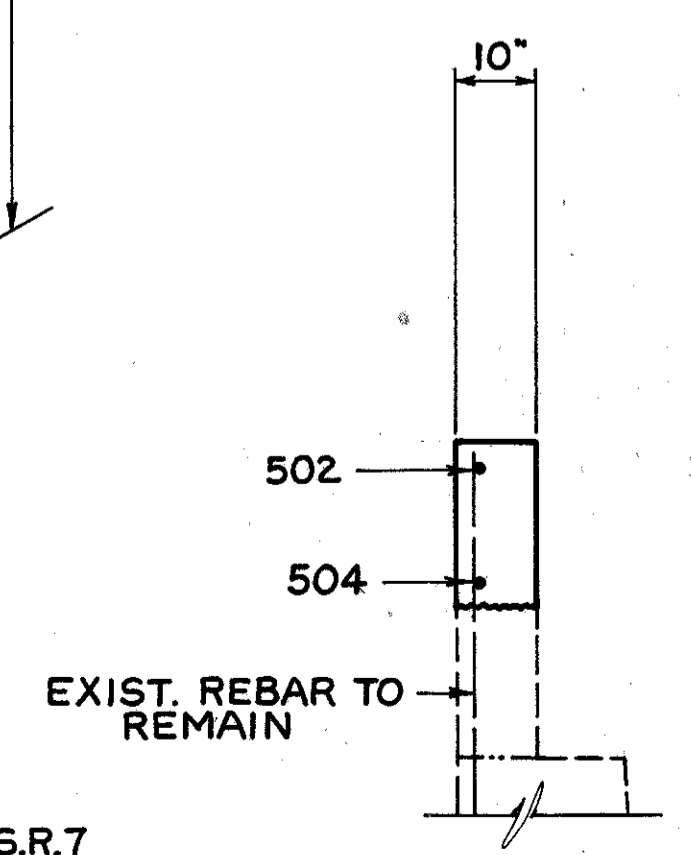
CONTRACTION JOINT DETAIL



EXPANSION JOINT DETAIL



SECTION A

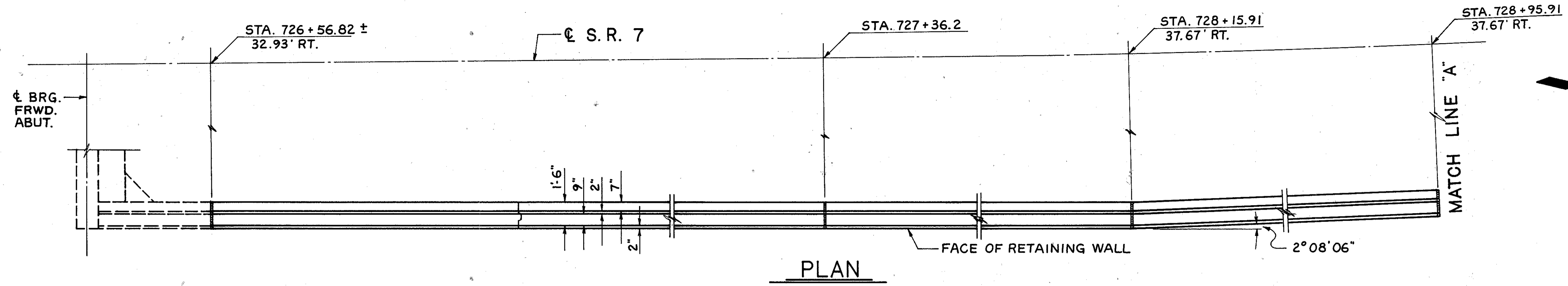


SECTION B

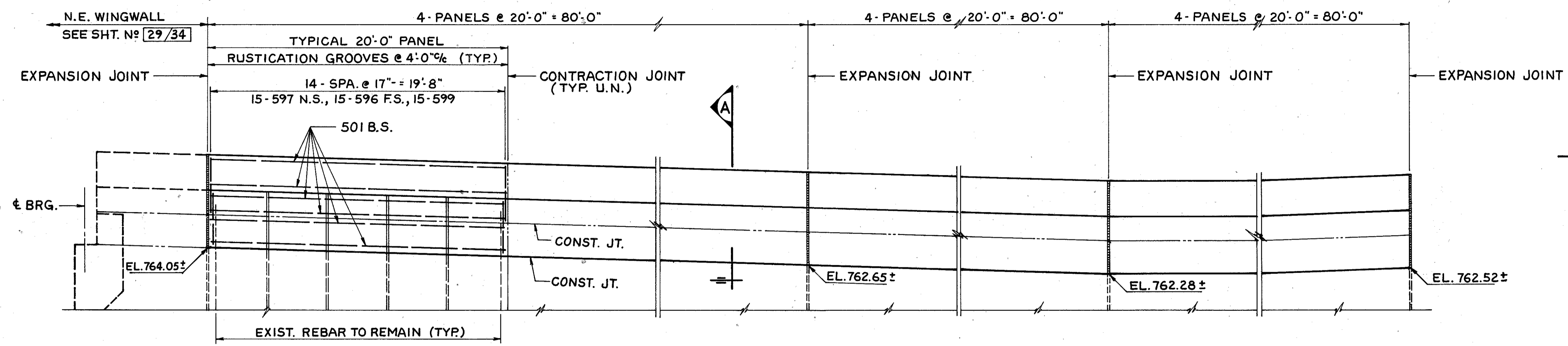
GPD ASSOCIATES	GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		31/34 JOB N° 92045
	RETAINING WALL BRIDGE N° JEF-7-1340 S.R.7 OVER RAVINE ST.		

JEFFERSON COUNTY MINGO JUNCTION						
DESIGNED A.D.	DRAWN R.L.W.	TRACED	CHECKED QW	REVIEWED K.S.J.	DATE 11. 11. 93	REVISED

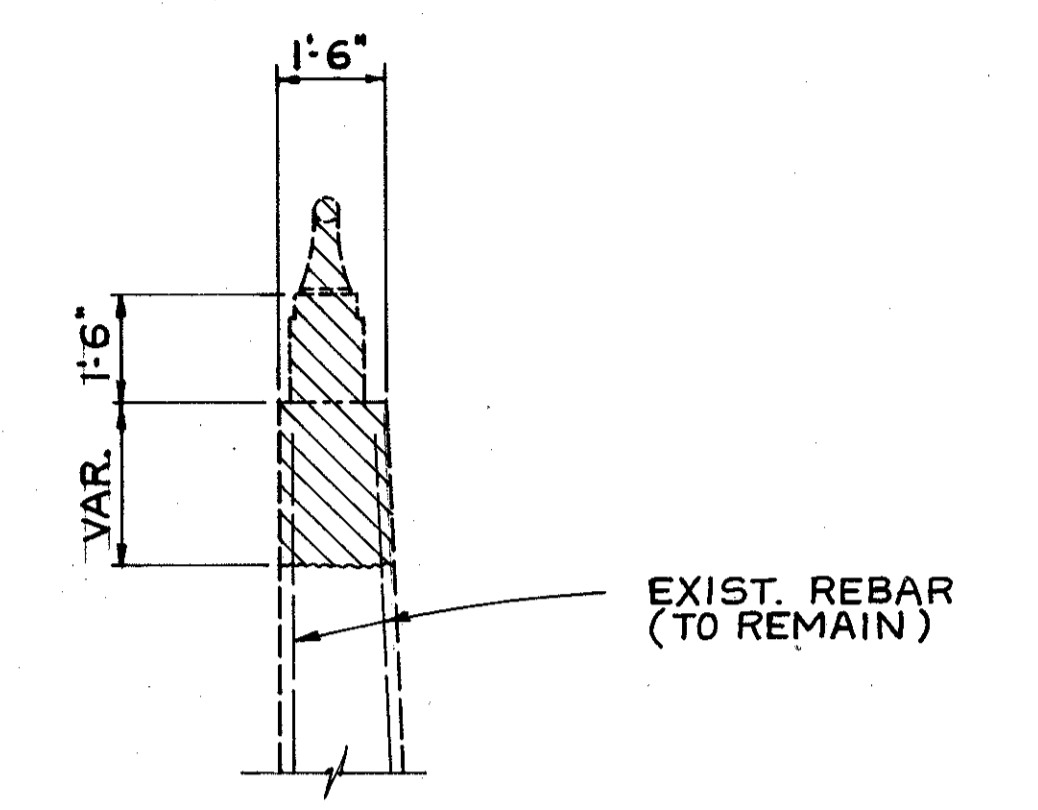
JEF-7-13.11



PLAN



ELEVATION



** TYPICAL SECTION
RETAINING WALL REMOVAL LIMITS

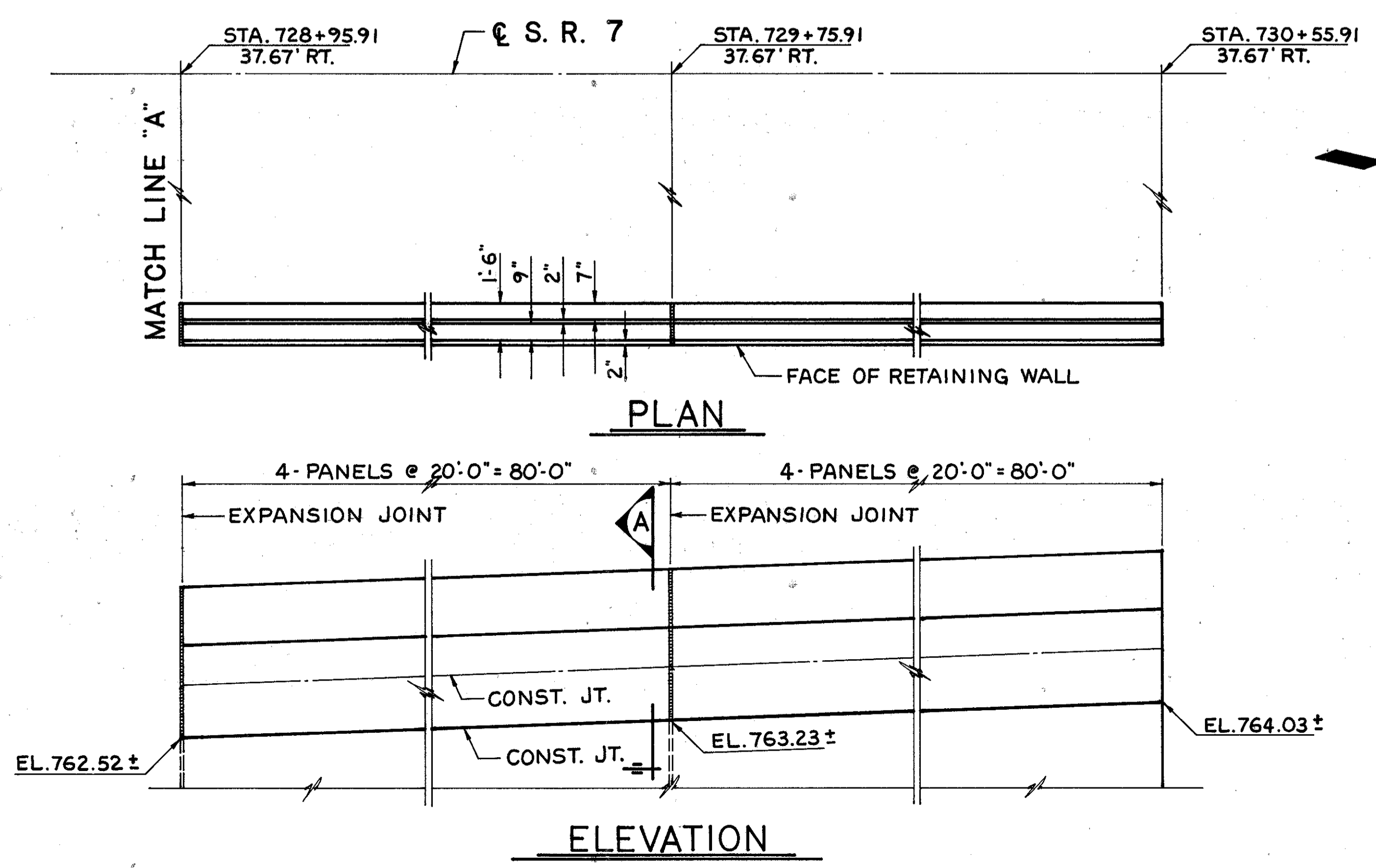
LEGEND

INDICATES REMOVAL LIMITS

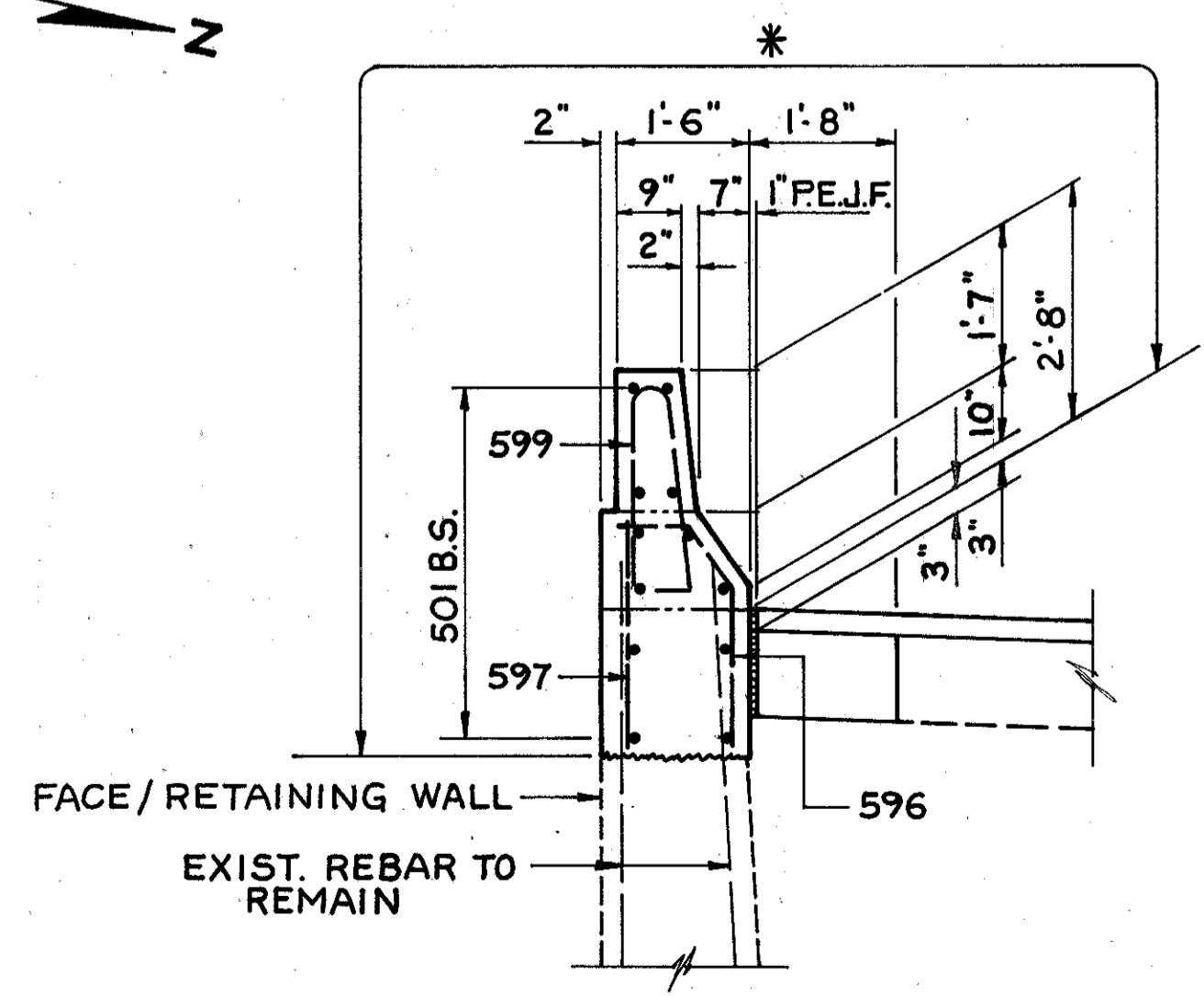
NOTES:

1. ALL RETAINING WALL REMOVAL AND CONSTRUCTION QUANTITIES ARE INCLUDED UNDER THE APPROPRIATE ITEM NUMBERS WITH BRIDGE NO. JEF-7-1390.
2. FOR NOTE "PORTIONS OF STRUCTURE REMOVED", SEE SHEET NO. 1/34.
3. FOR EXPANSION AND CONTRACTION JOINT DETAILS, SEE SHEET NO. 31/34.
4. ALL REINFORCING STEEL SHALL HAVE A MINIMUM 2" COVER.
5. PREFIXES "R" SHALL BE ADDED TO ALL REBAR MARKS SHOWN FOR RETAINING WALLS. SEE REINFORCING SCHEDULE.
6. FOR ADDITIONAL NOTES, SEE SHT. NO. 11/34.

* LIMITS OF ITEM SPECIAL "SEALING OF CONCRETE SURFACES" (EPOXY)
 ** SECTION LOOKING DOWN STA.



ELEVATION



SECTION A

GPD ASSOCIATES		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		32/34 JOB NO. 92045
----------------	--	--	--	---------------------------

RETAINING WALL					
BRIDGE NO. JEF-7-1390 SIDEHILL STRUCTURE					
JEFFERSON COUNTY MINGO JUNCTION					
DESIGNED A.D.	DRAWN R.L.W.	TRACED	CHECKED K.S.J.	REVIEWED DATE 11.11.93	REVISED

JEF - 7 - 13.11

BRIDGE NO. JEF-7-1340 ABUTMENTS										
MARK	NUMBER			LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD	TOTAL				A	B	C	
A502	6		6	17' 0"	106	ST				
A503	6		6	20' 11"	131	ST				
A504	6		6	19' 1"	119	ST				
A505	6		6	18' 10"	118	ST				
A506	2	2	4	4' 11"	21	129				
A507	2	2	4	1' 11"	8	103	1' 2"		0' 6"	
A508	6	10	16	6' 5"	107	103	1' 0"		2' 10"	
A509	10	28	38	3' 2"	126	ST				
A510	2	2	4	17' 2"	36	ST				
A511	2	2	4	5' 0"	21	ST				
A512	6	6	12	17' 9"	111	ST				
A513	6	6	12	20' 6"	128	ST				
A514	6	6	12	18' 11"	118	ST				
A515	6	6	12	18' 8"	117	ST				
A520	2	2	4	17' 9"	37	ST				
A521	2	2	4	4' 11"	10	105	2' 6"		2' 6"	2' 5"
A522	2	2	4	18' 0"	38	ST				
A583	10	2	12	14' 10"	155	ST				
A584	2	2	4	14' 9"	31	121	11' 0"			
A592	8	8	16	11"	15	ST				
A593	20	20	40	15' 11"	332	ST				
A594	4	4	8	15' 10"	66	121	12' 1"			
A595	2	4	6	4' 6"	28	ST				
A596	13	24	37	3' 9"	145	111	2' 3"		0' 6"	0' 8"
A597	11	24	35	4' 0"	146	102	3' 4"		0' 10"	
A598	13	24	37	3' 0"	116	101	2' 5"			
A602	79	78	157	6' 11"	1,631	103	0' 11"		3' 2"	
A603	79	78	157	4' 11"	1,159	103	1' 5"		1' 11"	
A801	50	50	100	5' 0"	1,335	116	2' 9"		1' 0"	

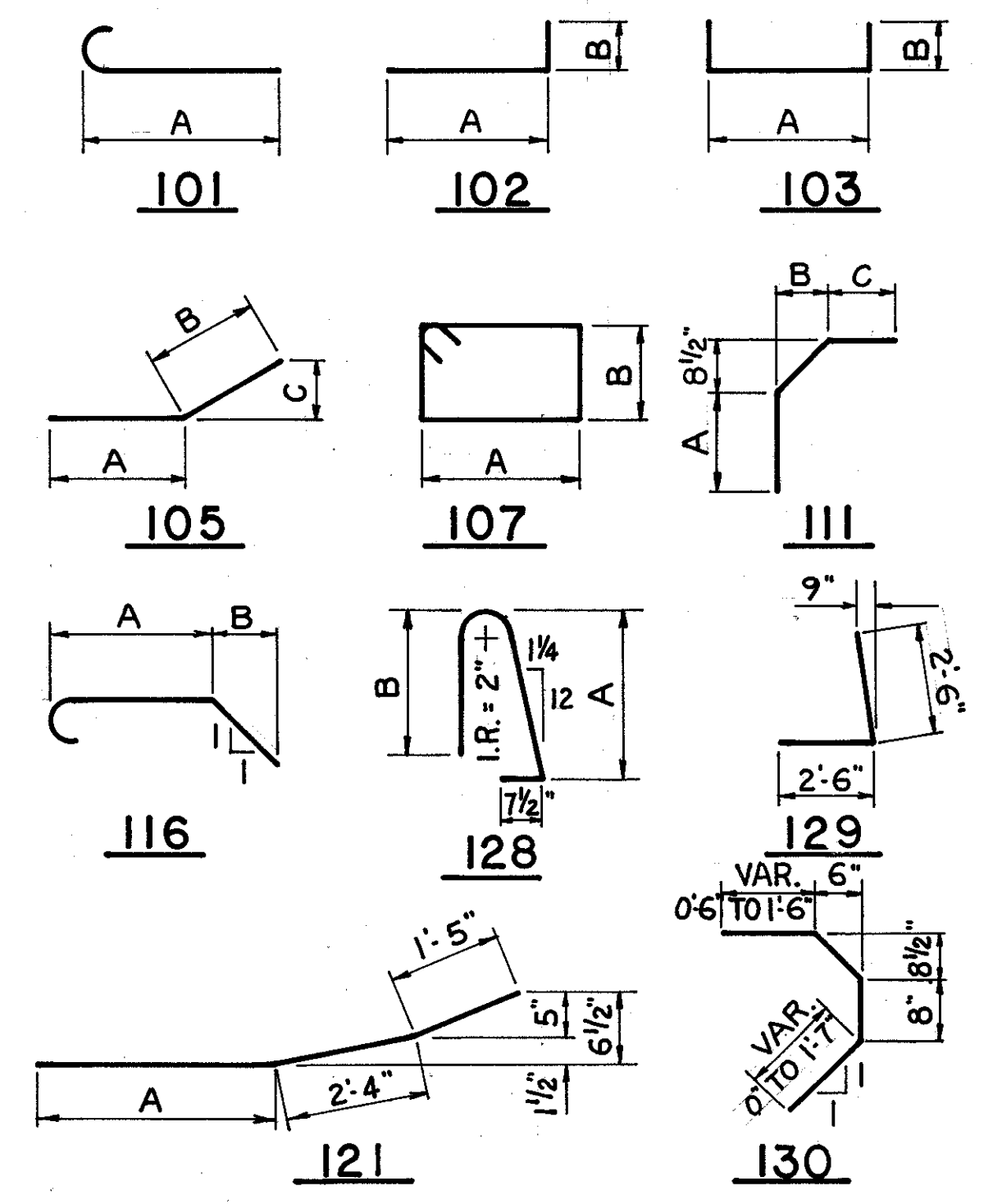
BRIDGE NO. JEF-7-1340 SUPERSTRUCTURE										
MARK	NUMBER			LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD	TOTAL				A	B	C	
S501		182	182	5' 7"	1,060	128	2' 7"		2' 4"	
S502		238	238	2' 4"	579	111	0' 10 1/2"		0' 6"	0' 8"
S503		4	4	33' 3"	139	ST				
S504		24	24	30' 0"	751	ST				
S505		8	8	14' 0"	117	ST				
S506		48	48	7' 2"	359	ST				
S507		24	24	14' 8"	367	ST				
S508		4	4	33' 7"	140	ST				
S509		8	8	14' 2"	118	ST				

BRIDGE NO. JEF-7-1340 RETAINING WALL										
MARK	NUMBER			LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD	TOTAL				A	B	C	
R501		60	60	15' 8"	980	ST				
R502		1	1	3' 0"	3	ST				
R503		11	11	4' 9"	54	ST				
R504		1	1	6' 10"	7	ST				
R593		10	10	14' 8"	153	ST				
R594		2	2	14' 8"	31	121	10' 11"			
R595		12	12	4' 5"	55	ST				
R596		74	74	3' 5"	264	111	1' 11"		0' 6"	0' 8"
R597		66	66	2' 10"	195	ST				
R598		8	8	3' 0"	25	101	2' 5"			
R599		66	66	5' 3"	361	128	2' 5"		2' 2"	

SUMMARY AND GRAND TOTAL OF BAR WEIGHTS

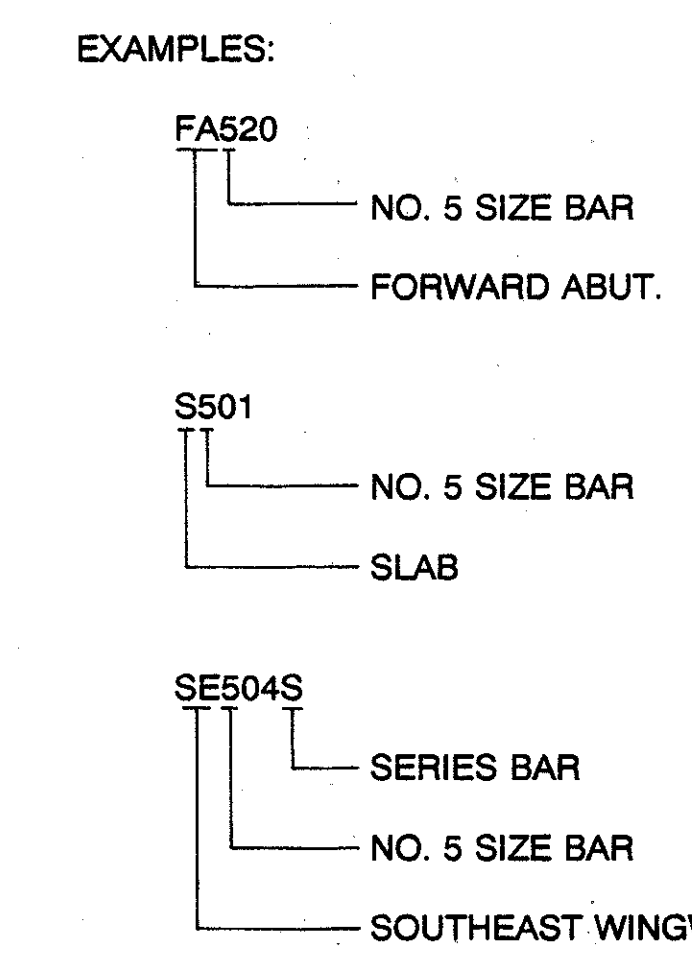
BRIDGE NO. JEF-7-1340 ABUTMENTS	6,511
BRIDGE NO. JEF-7-1340 SUPERSTRUCTURE	3,630
BRIDGE NO. JEF-7-1340 RETAINING WALL	2,128
GRAND TOTAL	12,269

BRIDGE NO. JEF-7-1348 ABUTMENTS										
MARK	NUMBER			LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD	TOTAL				A	B	C	
A501	4		4	7' 0"	29	ST				
A502	2	2	4	2' 6"	10	ST				
A503	10		10	8' 7"	90	103	1' 0"		3' 11"	
A504S	2		2	6' 11"						
SER OF		SER OF	9	7' 2"	132	ST				0' 3/8"
A505	3		3	21' 2"	66	ST				
A506	1		1	15' 4"	16	ST				
A507	1		1	13' 2"	14	ST				
A508	1		1	14' 2"	15	ST				
A509	1		1	12' 0"	13	ST				
A510	4		4	6' 4"	26	105	4' 4"		2' 0"	1' 7 1/2"
A511	1		1	6' 6"			1' 3 1/2"		1' 8"	
SER OF		SER OF	4	7' 7"	29	107	TO 1' 10"	TO 1' 8"		0' 4 3/8"
A513	6		6	7' 8"	48	105	5' 10 1/2"		1' 9 1/2"	0' 2 1/4"
A521	4		4	9' 11"	165	ST				
A524S	2		2	6' 10"						
SER OF		SER OF	12	7' 1"	174	ST				0' 3/8"
A525	3		3	24' 2"	76	ST				
A526	1		1	18' 7"	19	ST				
A527	1		1	16' 5"	17	ST				
A528	1		1	17' 5"	18	ST				
A529	1		1	15' 3"	16	ST				
A531	12		12	6' 0"	75	ST				
A534	18		18	7' 8"	144	ST				
A542	19		19	2' 7"	51	102	1' 11"		0' 10"	
A543	8		8	29' 2"	243	ST				
A544	4		4	17' 2"	72	ST				



STANDARD BAR TYPES

BAR SIZE AND LOCATION ARE INDICATED IN THE BAR MARK. THE FIRST ONE OR TWO DIGITS AND ALPHABETICAL LETTER/LETTERS INDICATE LOCATION. THE NEXT DIGIT OF THE THREE DIGIT SERIES, OR THE NEXT TWO DIGITS OF A FOUR DIGIT SERIES INDICATE BAR SIZE NUMBER.



ALL REINFORCING STEEL TO BE EPOXY COATED. ALL BAR DIMENSIONS ARE GIVEN OUT TO OUT.

GPD ASSOCIATES		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC.		33/34	
		AKRON, OHIO		JOB NO. 92045	
REINFORCING SCHEDULE					
BRIDGE NO. JEF-7-1340 BRIDGE NO. JEF-7-1348 BRIDGE NO. JEF-7-1369 BRIDGE NO. JEF-7-1390					
JEFFERSON COUNTY MINGO JUNCTION					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
R.L.W.	R.L.W.		P.W.	K.S.J.	11.11.93

JEF -7-13.11

BRIDGE NO. JEF-7-1348 ABUTMENTS

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
A545	2	2	4' 1"	9	ST				
A573S	1	1	2' 1"						
	SER OF	SER OF	TO	39	130				0' 3 1/8"
			11 4' 8"						
A574S	1	1	1' 2"			0' 5"	0' 6"		
	SER OF	SER OF	TO	19	103	TO	TO		0' 1 1/4"
			11 2' 2"			1' 5"	0' 6"		
A575	6	6	2' 6"	16	ST				
A576	33	33	3' 3"	112	111	1' 9"	0' 6"	0' 8"	
A577	11	11	4' 1"	47	ST				
A583	9	9	19' 0"	178	ST				
A592	4	2	6' 13' 8"	86	ST				
A593	9	9	22' 0"	207	ST				
A594	4	2	6' 13' 8"	86	121	9' 11"			
A595	4	4	4' 6"	19	ST				
A596	27	27	3' 9"	106	111	2' 3"	0' 6"	0' 8"	
A597	31	10	4' 2"	178	102	3' 6"	0' 10"		
A598	27	19	46' 3' 0"	144	101	2' 5"			
A599	25	25	5' 3"	137	128	2' 5"	2' 2"		

BRIDGE NO. JEF-7-1348 SUPERSTRUCTURE

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
S501	444		5' 7"	2,586	128	2' 7"	2' 4"		
S502	576		2' 4"	1,402	111	0' 10 1/2"	0' 6"	0' 8"	
S503	80		14' 5"	1,203	ST				
S504	72		30' 0"	2,253	ST				
S505	16		10' 8"	178	ST				
S506	128		7' 1"	940	ST				
S507	8		32' 2"	268	ST				

SUMMARY AND GRAND TOTAL OF BAR WEIGHTS

BRIDGE NO. JEF-7-1348 ABUTMENTS	2,941
BRIDGE NO. JEF-7-1348 SUPERSTRUCTURE	8,830
GRAND TOTAL	11,771

BRIDGE NO. JEF-7-1369 ABUTMENTS

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
A502	2	2	4' 2' 6"	10	ST				
A503	6	6	12' 6' 9"	84	103	1' 0"	3' 0"		
A504	24	24	48' 3' 8"	184	ST				
A505	2	2	4' 18' 2"	76	ST				
A513	5	5	10' 6' 7"	69	103	1' 0"	2' 11"		
A515	2	2	4' 16' 9"	70	ST				
A583	10	10	20' 14' 11"	311	ST				
A584	2	2	4' 14' 11"	62	121	11' 2"			
A593	10	10	20' 15' 11"	332	ST				
A594	2	2	4' 15' 11"	66	121	12' 2"			
A595	4	4	8' 4' 6"	38	ST				
A596	19	19	38' 3' 9"	149	111	2' 3"	0' 6"	0' 8"	
A597	23	23	46' 4' 0"	192	102	3' 4"	0' 10"		
A598	19	19	38' 3' 0"	119	101	2' 5"			

BRIDGE NO. JEF-7-1369 SUPERSTRUCTURE

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
S501	220		5' 7"	1,281	128	2' 7"	2' 4"		
S502	290		2' 5"	731	111	0' 11"	0' 6"	0' 8"	
S503	8		31' 2"	260	ST				
S504	32		30' 0"	1,001	ST				
S505	16		12' 1"	202	ST				
S506	64		7' 2"	478	ST				
S507	32		14' 8"	490	ST				

SUMMARY AND GRAND TOTAL OF BAR WEIGHTS

BRIDGE NO. JEF-7-1369 ABUTMENTS	1,762
BRIDGE NO. JEF-7-1369 SUPERSTRUCTURE	4,443
GRAND TOTAL	6,205

BRIDGE NO. JEF-7-1390 SUPERSTRUCTURE

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
S501			5' 7"	1,106	128	2' 7"	2' 4"		
S502			3' 0"	754	111	1' 6"	0' 6"	0' 8"	
S503			18' 10"	79	ST				
S504			30' 0"	876	ST				
S505			6' 2"	26	ST				
S506			6' 8"	501	ST				
S507			13' 8"	399	ST				
S508			8' 11"	37	ST				
S509			21' 11"	91	ST				
S510			1' 10"	363	102	1' 2"	0' 10"		
S601			21' 6"	129	ST				
S602			30' 0"	1,262	ST				
S603			23' 11"	144	ST				

BRIDGE NO. JEF-7-1390 RETAINING WALL

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
R501			19' 8"	4,923	ST				
R596			3' 3"	1,017	111	1' 9"	0' 6"	0' 8"	
R597			2' 7"	808	ST				
R599			5' 3"	1,643	128	2' 5"	2' 2"		

SUMMARY AND GRAND TOTAL OF BAR WEIGHTS

BRIDGE NO. JEF-7-1390 ABUTMENTS	1,678
BRIDGE NO. JEF-7-1390 SUPERSTRUCTURE	5,767
BRIDGE NO. JEF-7-1390 RETAINING WALL	8,391
GRAND TOTAL	15,836

BRIDGE NO. JEF-7-1390 ABUTMENTS

MARK	NUMBER		LENGTH	WEIGHT (LB)	TYPE	DIMENSIONS			SERIES INCR.
	REAR	FRWD				A	B	C	
A501	72	2	74' 2' 0"	154	ST				
A502	2	2	4' 9"	10	102	2' 11"	2' 0"		
A503	2	2	2' 11"	6	ST				
A504	12		8' 2"	102	ST				
A505	8		25' 0"	209	ST				
A506	16		31' 0"	517	ST				
A512	2	2	7' 3"	15	102	5' 8"	1' 9"		
A513	2	2	9' 10"	21	102	7' 0"	3' 0"		
A514	8		7' 0"	58	ST				
A593	2	2	13' 8"	29	ST				
A594	2	2	13' 8"	29	121	9' 11"			
A595	12		4' 4"	54	ST				
A596	46	6	52' 3' 2"	172	111	1' 8"	0' 6"	0' 8"	
A597	6	6	2' 7"	16	ST				
A598	8	8	3' 0"	25	101	2' 5"			
A599	38	6	44' 5' 3"	241	128	2' 5"	2' 2"		
A601	2	2	3' 3"	10	103	0' 11"	1' 4"		
A602	2	2	3' 3"	10	103	1' 5"	1' 1"		

GPD ASSOCIATES		GLAUS PYLE SCHOMER BURNS AND DEHAVEN INC. AKRON, OHIO		34/34 JOB NO. 92045
REINFORCING SCHEDULE				
BRIDGE NO. JEF-7-1340 BRIDGE NO. JEF-7-1348 BRIDGE NO. JEF-7-1369 BRIDGE NO. JEF-7-1390				
JEFFERSON COUNTY MINGO JUNCTION				
DESIGNED R.L.W.	DRAWN R.L.W.	TRACED	CHECKED P.J.W.	REVIEWED K.S.J.
			DATE 11.11.93	REVISED

83-11-11-93
D-1111