



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

ERI-2-12.558
PERKINS TOWNSHIP
HURON TOWNSHIP
CITY OF HURON
ERIE COUNTY

PROJECT DESCRIPTION

REHABILITATE 13.3km OF FOUR LANE DIVIDED FREEWAY, INCLUDING THREE INTERCHANGES. RECONSTRUCT AND RAISE MAINLINE AND OVERPASS BRIDGES. WIDEN AND PROVIDE LIGHTING FOR THE U.S. ROUTE 6/RYE BEACH ROAD INTERCHANGE.

1997 SPECIFICATIONS

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

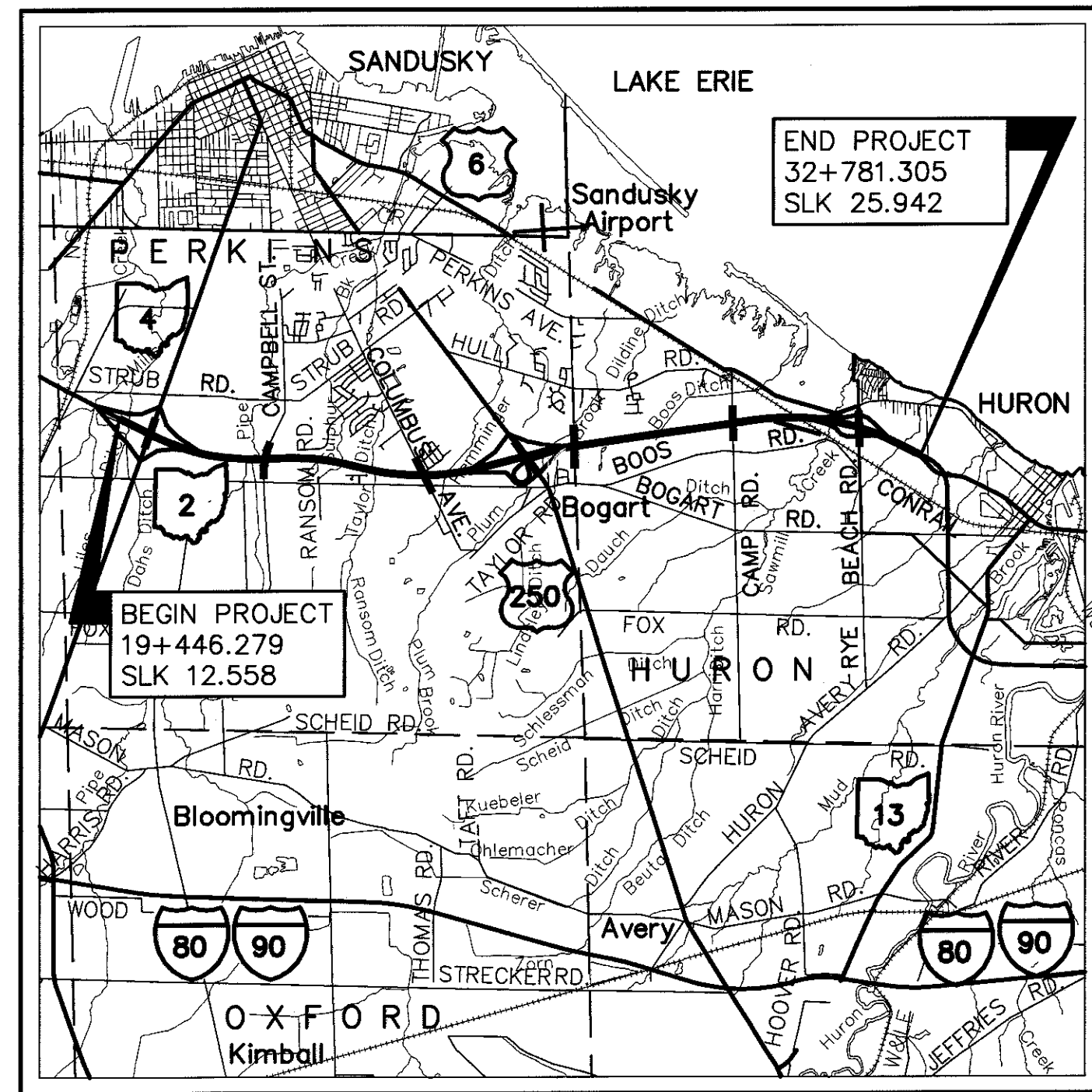
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 19-21, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE SET FORTH ON THE PLANS AND ESTIMATES.

SPEED LIMIT

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (1) 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 LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

SPECIAL PROVISIONS

WATERWAY PERMIT NWP # 3 & 14 DATED: 1-28-98



LOCATION MAP

Latitude: N41°24'00" Longitude: W82°44'00"



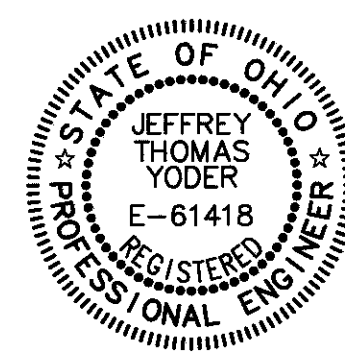
RATIO IN KILOMETERS



PORTION TO BE IMPROVED _____
STATE & FEDERAL ROUTES _____
OTHER ROADS _____

FOR DESIGN DESIGNATION & DESIGN
EXCEPTIONS - SEE SHEET 2

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



Jeffrey T. Yoder
JEFFREY T. YODER E-61418

Plan Prepared By:



POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1168 NORTH MAIN STREET BOWLING GREEN, OHIO 43402

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SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS											
BP-2.1M	4-8-97	GR-4.3M	10-21-97	DM-4.3	4-29-99	MT-35.10M	1-30-95	TC-12.30M	2-1-94	VPF-1-90M	3-20-95
BP-2.2M	10-21-97	GR-4.4M	11-30-94	DM-4.4	4-29-99	MT-35.11M	1-30-95	TC-21.20M	12-10-96	PCB-91M	3-20-95
BP-2.4M	10-28-94	GR-5.1M	4-21-95			MT-95.30M	4-25-94	TC-31.21M	3-31-94	AS-1-81M	10-25-94
BP-2.5M	4-8-97	GR-5.2M	11-30-94	HL-10.31M	3-31-95	MT-95.31M	4-25-94	TC-32.10M	3-31-94	BR-1M	1-6-99
BP-3.1M	10-28-94	GR-5.3M	11-30-94	HL-20.11M	3-31-95	MT-95.32M	4-25-94	TC-32.11M	3-31-94	CS-1-93M	6-30-95
BP-4.1M	10-28-94	GR-6.1M	1-3-96	HL-20.21M	8-31-94	MT-95.40M	4-25-94	TC-41.10M	3-31-94	EXJ-4-87M	2-18-97
BP-5.1M	10-28-94	GR-6.2M	1-3-96	HL-20.22M	3-31-95	MT-95.41M	4-25-94	TC-41.50M	7-1-94	IRJ-8-95M	7-6-95
BP-9.1	4-29-99	RM-1.1	4-29-99	HL-20.23M	3-31-95	MT-95.81M	4-25-94	TC-41.40M	3-31-94	BS-1-93M	12-15-94
F-2.1M	4-8-97	RM-4.3M	10-21-97	HL-30.11M	3-31-95	MT-97.10M	1-30-95	TC-42.10M	3-31-94	SICD-1-96M	2-12-97
F-3.1M	4-21-95	RM-4.4M	10-21-97	HL-30.21M	5-1-95	MT-98.13M	6-24-93	TC-42.20M	3-31-94	RB-1-55M	10-25-94
F-3.2M	4-8-97	RM-4.5M	10-21-97	HL-30.22M	3-31-95	MT-98.15M	6-24-93	TC-52.10M	7-29-94	GSD-1-96M	11-21-97
F-3.3M	4-21-95	CB-1.1M	7-12-95	HL-30.31M	5-1-95	MT-98.16M	6-24-93	TC-52.20M	7-29-94		
F-3.4M	4-8-97	CB-3.1M	7-12-95	HL-30.32M	8-14-96	MT-98.17M	4-25-94	TC-61.10M	3-31-94		
GR-1.1M	10-21-97	HW-1.1M	7-12-95	HL-40.10M	3-31-95	MT-98.18M	4-25-94	TC-65.10M	11-1-95		
GR-1.2M	1-3-96	HW-2.1M	7-12-95	HL-50.11M	3-31-95	MT-98.19M	3-1-96	TC-65.11M	11-1-95		
GR-1.3M	11-30-94	HW-2.2M	7-12-95	HL-50.21M	8-31-94	MT-99.20M	1-30-95	TC-65.12M	11-1-95		
GR-2.1M	4-14-98	DM-1.1M	10-21-97	HL-60.11M	5-1-95	MT-99.50M	3-1-96	TC-71.10M	9-1-93		
GR-3.1M	10-21-97	DM-1.2M	10-21-97	HL-60.12M	3-31-95	MT-101.60M	4-25-94	TC-72.20M	9-1-93		
GR-3.2M	10-21-97	DM-4.1M	6-30-95	HL-60.21M	3-31-95	MT-105.10M	4-25-94	TC-82.10M	11-24-93		
GR-4.2M	10-21-97	DM-4.2M	6-30-95	HL-60.31M	3-31-95	MT-105.11M	4-25-94				

SUPPLEMENTAL SPECIFICATIONS			
806	9-9-97	877	4-13-99
814	6-2-98	899	10-21-98
815	5-30-96	904	5-5-98
816	4-21-97	905	4-1-98
830	10-21-98	906	5-5-98
842	1-6-99	910	7-28-98
844	1-6-99	932	10-2-96
846	9-9-97	954	9-9-97
863	9-9-97	907	10-21-98
		970	12-16-97

Approved James D. Mawhor
Date 9-1-99 District Deputy Director
of Transportation

Approved London Proctor, Jr.
Date 9-15-99 Director, Department of Transportation

FEDERAL PROJECT NO.
NH - 73 (90)

PID NO.
11376

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NORFOLK SOUTHERN RAILWAY

ERI-2-12.558

1
432

ERI - SR 2 - 12.558
000023
DIST 03
PID# 11376
01-19-00

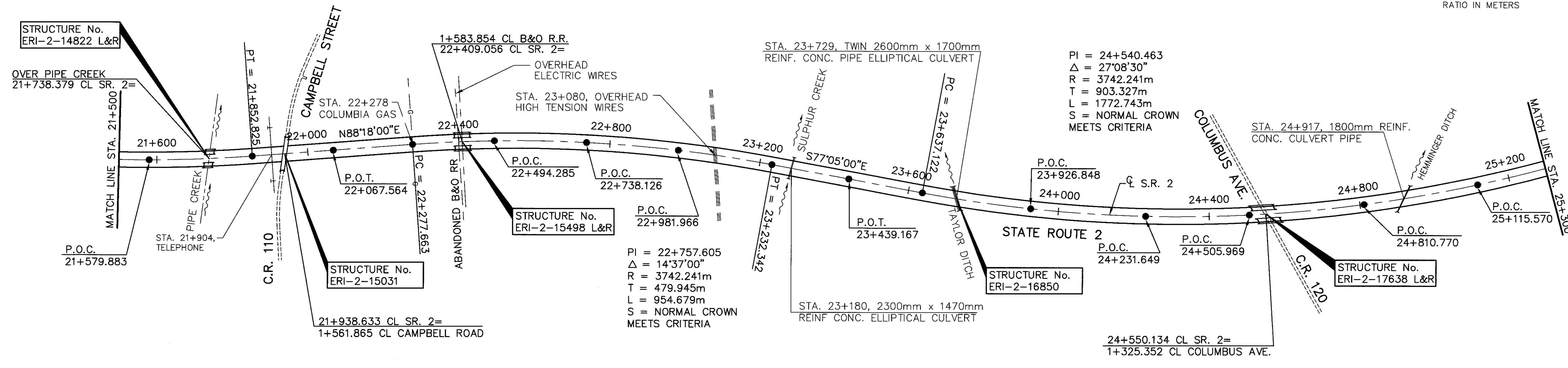
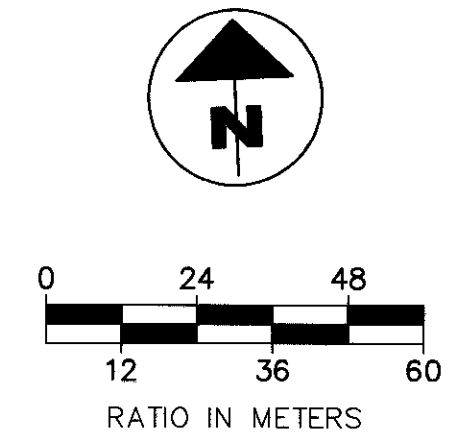
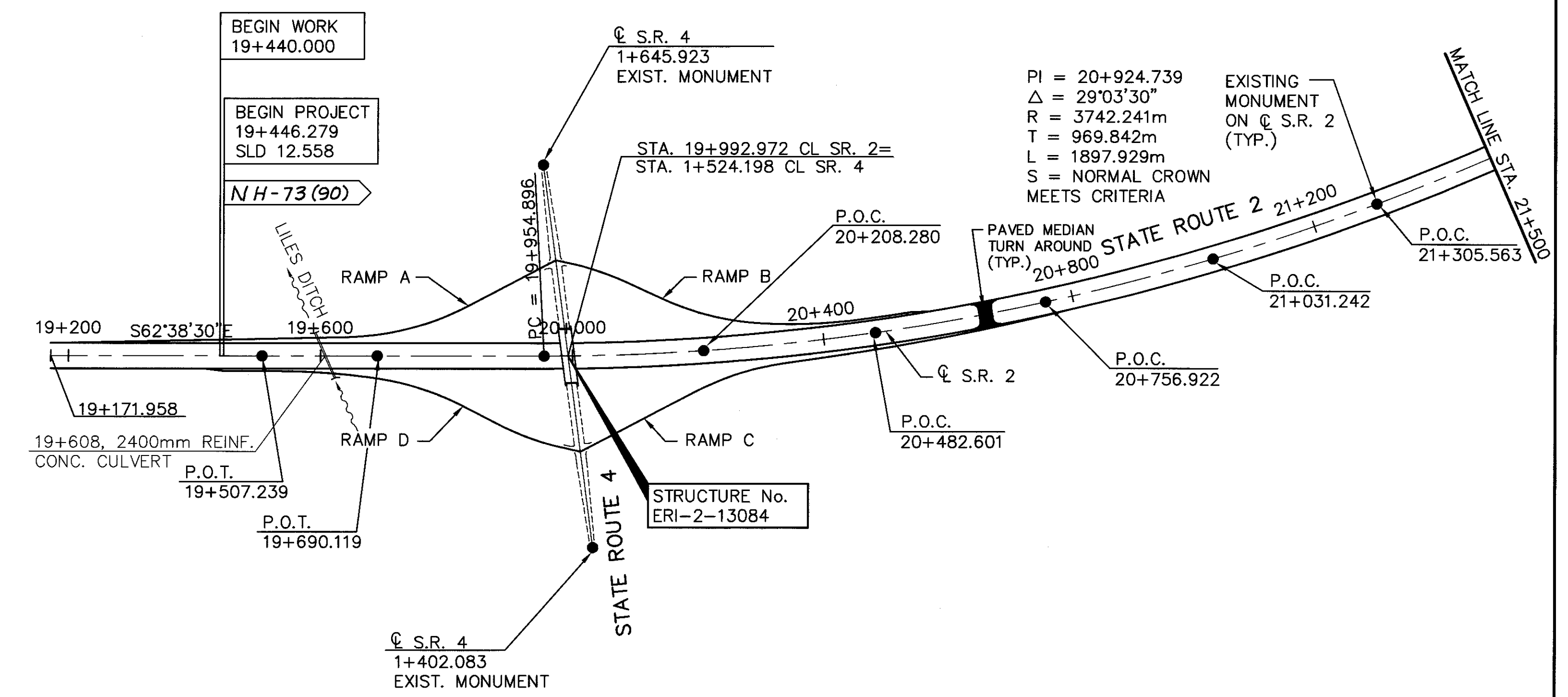
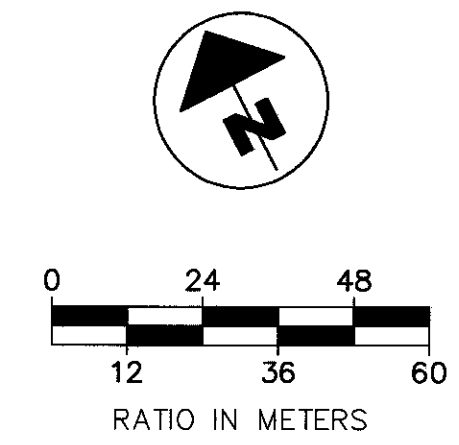
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DESIGN DESIGNATIONS

STATE ROUTE 2		RYE BEACH RD. CLEVE. RD TO RAMPS C/D	RYE BEACH RD. SOUTH OF RAMPS C/D
Current ADT (1999)	=	22390	4300
Design Year ADT (2019)	=	32350	5600
Design Hourly Volume	=	3235	560
Directional Distribution	=	60%	60%
Trucks (24 hour B&C)	=	19%	3%
Design Speed (k/hr)	=	110	90
Legal Speed (mph)	=	65	55 SB/ 50 NB
Design Functional Classification	=	URBAN FREEWAY	URBAN ARTERIAL

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NOS.
GRADED SHOULDER WIDTH (RAMPS D&E AT US 250)	9-14-99	11



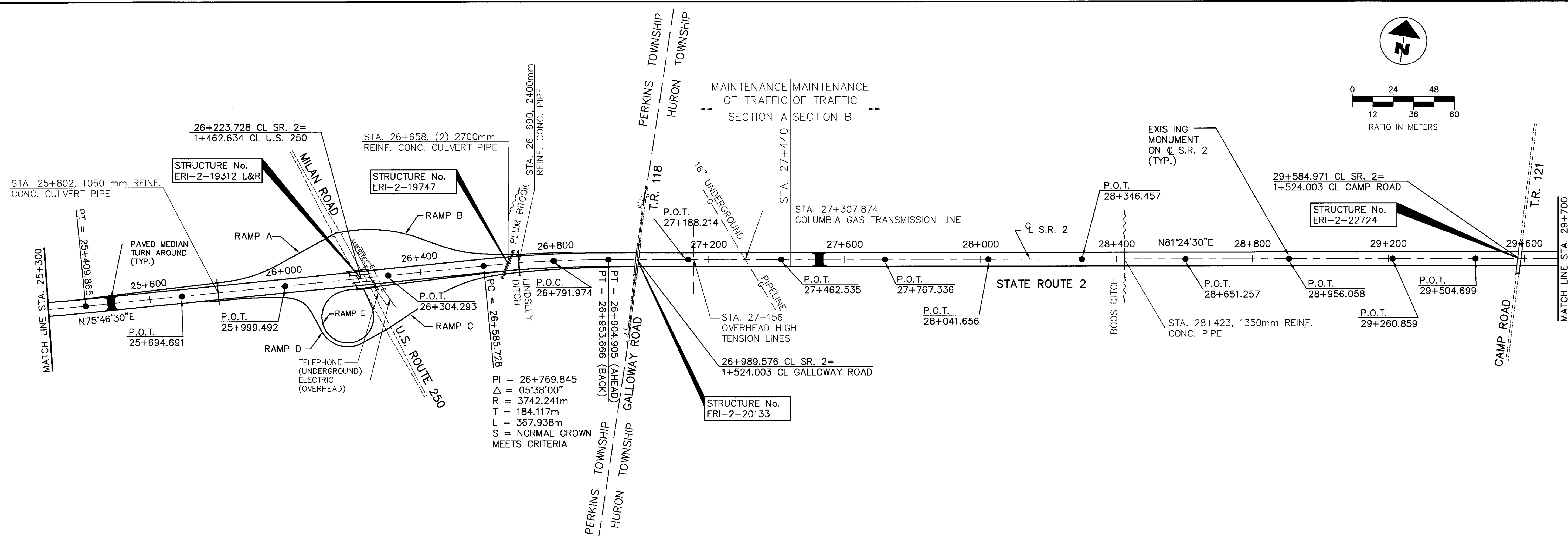
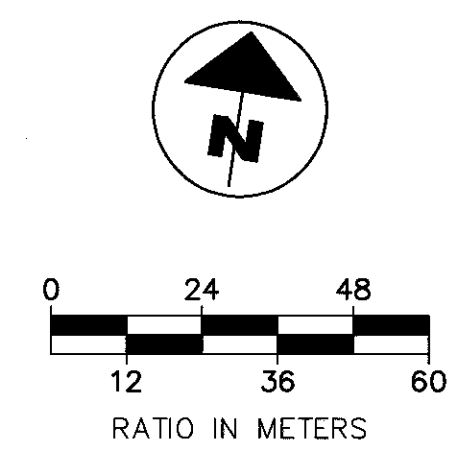
SCHEMATIC PLAN

ERI-2-12.558

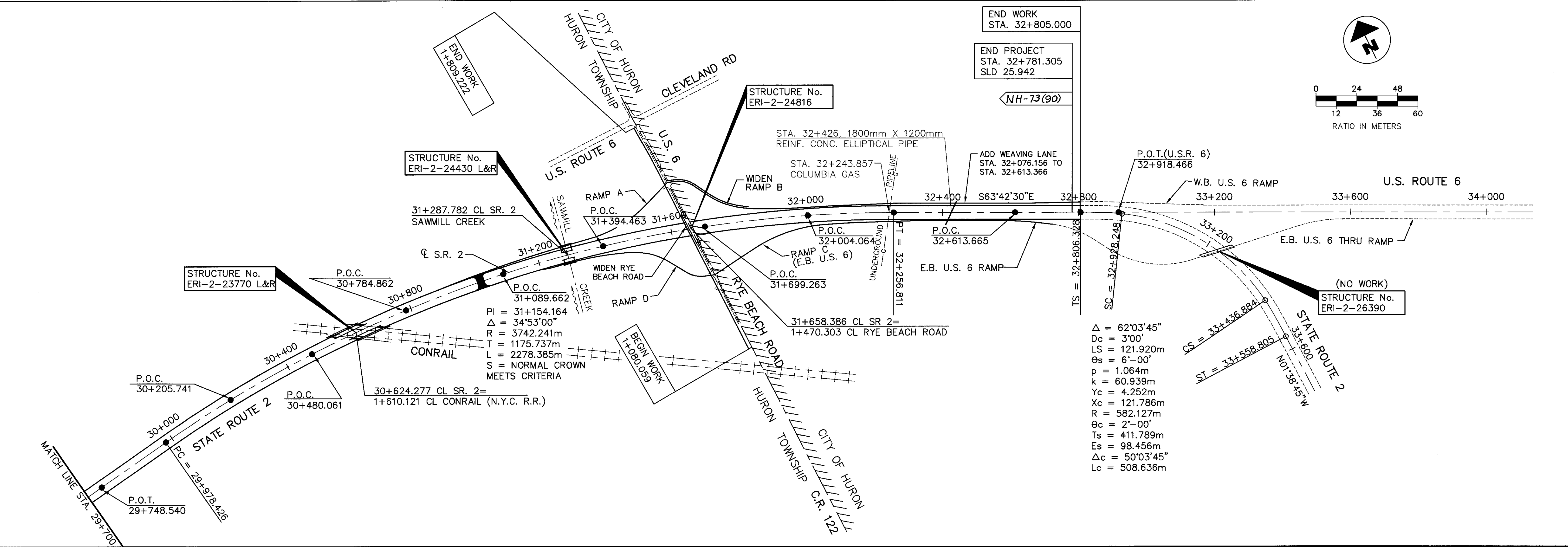
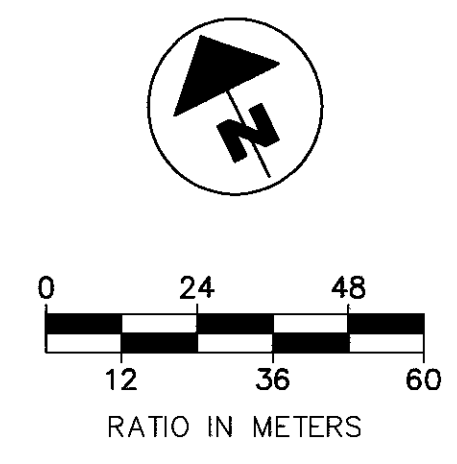
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SCHEMATIC PLAN



ERI-2-12.558

FILE NAME: SCHEM2 Schem.dwg 8-16-99 1:20:22 pm EST
 J.E.F.

BENCH MARK No. 1
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-7.64 1995
STA. 19+173.178, 29.57m LT.
ELEV. 187.108

BENCH MARK No. 2
TOP HEADWALL NORTH SIDE WEST END
BETWEEN RAMP & WESTBOUND LANE
STAMPING ERI-002-8.03 1995
STA. 19+763.576, 36.58m LT.
ELEV. 187.574

BENCH MARK No. 3
MONUMENT FOUND (P.C.)
STA. 19+954.896 ELEV. 188.748

BENCH MARK No. 4
TOP HEADWALL NORTH SIDE WEST END
STAMPING ERI-002-8.17 1995
STA. 20+035.763, 31.70m LT.
ELEV. 187.779

BENCH MARK No. 5
MONUMENT FOUND (P.O.C.)
STA. 20+208.280, ELEV. 188.187

BENCH MARK No. 6
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-8.75 1995
STA. 20+971.501, 31.39m LT.
ELEV. 189.278

BENCH MARK No. 7
MONUMENT FOUND (P.O.C.)
STA. 21+305.563, ELEV. 188.425

BENCH MARK No. 8
MONUMENT FOUND (P.O.C.)
STA. 21+579.883, ELEV. 187.507

BENCH MARK No. 9
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-9.14 1995
STA. 21+609.754, 34.14m LT.
ELEV. 186.858

BENCH MARK No. 10
MONUMENT FOUND (P.T.)
STA. 21+852.825, ELEV. 187.702

BENCH MARK No. 11
TOP HEADWALL NORTH SIDE SOUTH END
STAMPING ERI-002-9.36 1995
STA. 21+957.836, 29.26m LT.
ELEV. 188.827

BENCH MARK No. 12
MONUMENT FOUND (P.O.C.)
STA. 22+067.564, ELEV. 189.373

BENCH MARK No. 14
MONUMENT FOUND (P.O.C.)
STA. 22+494.285, ELEV. 197.465

BENCH MARK No. 15
MONUMENT FOUND (P.O.C.)
STA. 22+738.125, ELEV. 190.897

BENCH MARK No. 16
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-10.12 1995
STA. 23+185.268, 28.65m LT.
ELEV. 189.772

BENCH MARK No. 17
MONUMENT FOUND (P.C.)
STA. 23+637.122, ELEV. 189.772

BENCH MARK No. 18
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-10.45 1995
STA. 23+719.888, 29.87m LT.
ELEV. 190.147

BENCH MARK No. 19
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-10.75 1995
STA. 23+924.714, 30.48m LT.
ELEV. 189.821

BENCH MARK No. 20
MONUMENT FOUND (P.O.C.)
STA. 24+231.648, ELEV. 190.147

BENCH MARK No. 21
MONUMENT FOUND (P.O.C.)
STA. 24+505.969, ELEV. 195.957

BENCH MARK No. 22
MONUMENT FOUND (P.O.C.)
STA. 24+810.770, ELEV. 190.769

BENCH MARK No. 23
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-11.21 1995
STA. 24+946.406, 30.78m LT.
ELEV. 188.754

BENCH MARK No. 24
MONUMENT FOUND (P.O.C.)
STA. 25+115.570, ELEV. 188.220

BENCH MARK No. 25
MONUMENT FOUND (P.T.)
STA. 25+409.865, ELEV. 187.623

BENCH MARK No. 26
TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-11.54 1995
STA. 25+482.855, 31.39m LT.
ELEV. 187.318

BENCH MARK No. 28
MONUMENT FOUND (P.O.T.)
STA. 26+304.297, ELEV. 189.821

BENCH MARK No. 29
MONUMENT FOUND (P.C.)
STA. 26+585.728, ELEV. 183.484

BENCH MARK No. 30
TOP HEADWALL NORTH SIDE
STAMPING ERI-002-12.28 1995
STA. 26+670.968, 40.23m LT.
ELEV. 181.280

BENCH MARK No. 31
MONUMENT FOUND (P.O.C.)
STA. 26+791.974, ELEV. 183.459

BENCH MARK No. 32
MONUMENT FOUND (P.T.)
STA. 26+953.666 (BACK)
STA. 26+904.905 (AHEAD)
ELEV. 184.081

BENCH MARK No. 33
MONUMENT FOUND (P.O.T.)
STA. 27+188.214, ELEV. 186.54

BENCH MARK No. 34
TOP HEADWALL SOUTH SIDE
STAMPING ERI-002-12.84 1995
STA. 27+523.190, 31.699m RT.
ELEV. 186.986

BENCH MARK No. 35
TOP HEADWALL NORTH SIDE
STAMPING ERI-002-13.39 1995
STA. 28+423.876, 31.390m LT.
ELEV. 186.986

BENCH MARK No. 36
MONUMENT FOUND (P.O.T.)
STA. 29+260.859, ELEV. 187.800

BENCH MARK No. 37
MONUMENT FOUND (P.O.T.)
STA. 29+504.699, ELEV. 187.794

BENCH MARK No. 38
MONUMENT FOUND (P.O.T.)
STA. 29+748.540, ELEV. 186.148

BENCH MARK No. 39
MONUMENT FOUND (P.C.)
STA. 29+978.426, ELEV. 184.923

BENCH MARK No. 40
MONUMENT FOUND (P.O.C.)
STA. 30+480.061, ELEV. 190.705

BENCH MARK No. 41
MONUMENT FOUND (P.O.C.)
STA. 30+784.862, ELEV. 190.686

BENCH MARK No. 42
MONUMENT FOUND (P.O.C.)
STA. 31+089.662, ELEV. 182.313

BENCH MARK No. 43
MONUMENT FOUND (P.O.C.)
STA. 31+394.463, ELEV. 180.521

BENCH MARK No. 44
MONUMENT FOUND (P.O.C.)
STA. 31+699.263, ELEV. 181.387

BENCH MARK No. 45
MONUMENT FOUND (P.O.C.)
STA. 32+004.064, ELEV. 181.077

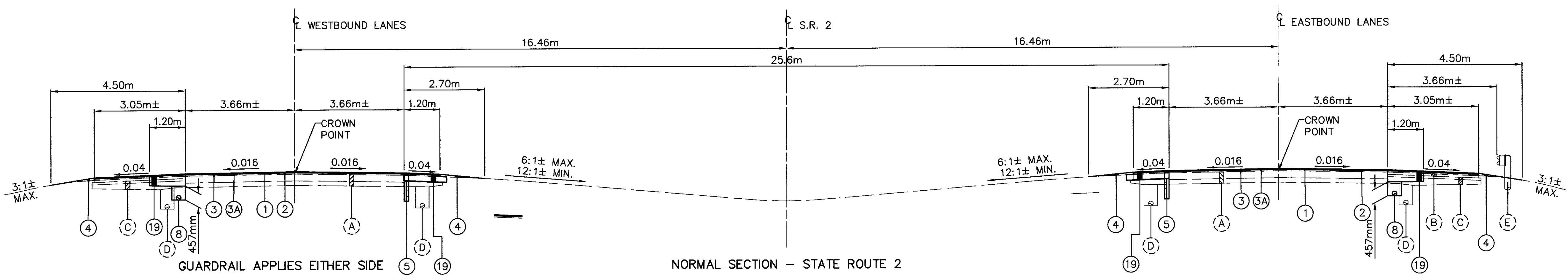
BENCH MARK No. 46
MONUMENT FOUND (P.T.)
STA. 32+256.811, ELEV. 181.548

BENCH MARK No. 47
MONUMENT FOUND (P.T.)
STA. 32+613.665, ELEV. 181.586

CALCULATED
BY DATE
CHECKED
BY DATE

BENCH MARKS

ERI-2-12.558



GUARDRAIL APPLIES EITHER SIDE

NORMAL SECTION - STATE ROUTE 2

APPLIES:

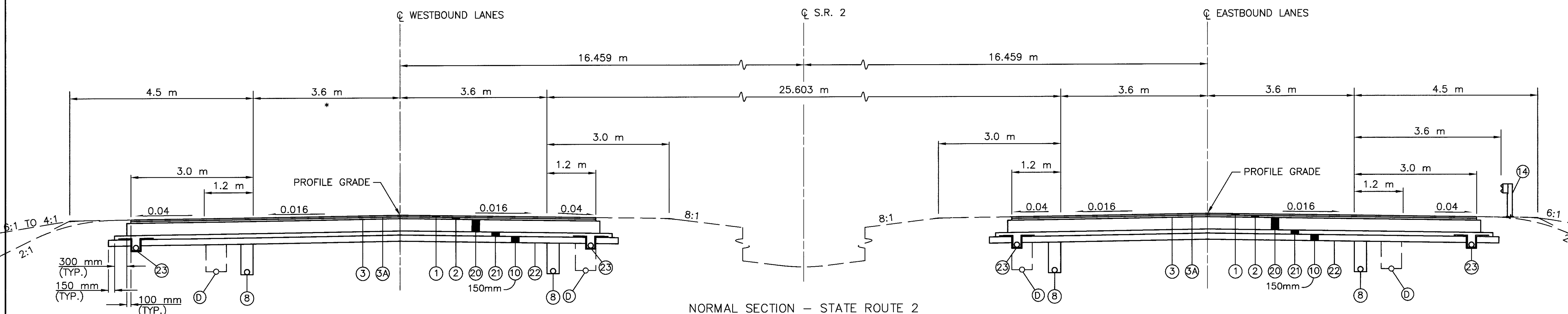
S.R. 2 WESTBOUND:	STA. 25+732.822 TO STA. 31+450.000	= 5,717.178m
	ADDITION FOR LONG STATION EQUATION (26+953.666 BACK~26+904.905 AHEAD)	= +48.761m
	DEDUCTION AT U.S. 250 (BEGIN A.S. 26+182.883~END A.S. 26+254.444)	= -71.561m
	DEDUCTION AT CONRAIL RR (BEGIN A.S. 30+550.891~END A.S. 30+653.512)	= -102.621m
	DEDUCTION AT SAWMILL CREEK (BEGIN A.S. 31+265.121~END A.S. 31+310.445)	= -45.324m
	TOTAL	= 5,546.433m

APPLIES:

S.R. 2 EASTBOUND:	STA. 25+775.000 TO STA. 31+450.000	= 5,675.000m
	ADDITION FOR LONG STATION EQUATION (26+953.666 BACK~26+904.905 AHEAD)	= +48.761m
	DEDUCTION AT U.S. 250 (BEGIN A.S. 26+196.992~END A.S. 26+268.553)	= -71.561m
	DEDUCTION AT CONRAIL RR (BEGIN A.S. 30+607.013~END A.S. 30+710.202)	= -103.189m
	DEDUCTION AT SAWMILL CREEK (BEGIN A.S. 31+264.922~END A.S. 31+310.644)	= -45.722m
	TOTAL	= 5,503.289m

LEGEND

- | | | | |
|---|---|---|--|
| (1) ITEM 446 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H | (12) ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=380mm) | (A) 228mm± REINFORCED CONCRETE OVER VARIABLE THICKNESS SUBBASE | (K) 200mm± AGGREGATE BASE |
| (2) ITEM 446 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (12A) ITEM 611 REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN "A" (T=380mm) | (B) 75mm± SURFACE TREATED AGGREGATE BASE | (L) AGGREGATE DRAIN |
| (3) ITEM 407 TACK COAT (SEE GENERAL NOTE) | (12B) ITEM 611 REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN, (T=430mm) | (C) 125mm± STABILIZED CRUSHED AGGREGATE OVER VARIABLE THICKNESS SUBBASE | (M) SUBBASE |
| (3A) ITEM 407 TACK COAT, FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) | (12C) ITEM 611 REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN "B" (T=380mm) | (D) 150mm± PIPE UNDERDRAIN | (N) 75mm± BITUMINOUS AGGREGATE BASE OVER 150mm± AGGREGATE BASE |
| (4) ITEM 617 COMPACTED AGGREGATE, TYPE A | (13) ITEM 605 AGGREGATE DRAINS, SEE GENERAL NOTE | (E) EXISTING GUARDRAIL, TYPE 5 | |
| (5) ITEM 605 PREFABRICATED EDGE UNDERDRAIN | (14) ITEM 606 GUARDRAIL, TYPE 5 | (F) EXISTING CURB | |
| (6) ITEM 448 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 | (15) ITEM 830 CONCRETE CURB, TYPE 6 | (G) 100mm± CONCRETE MEDIAN PAVEMENT | |
| (7) ITEM 659 SEEDING & MULCHING | (16) ITEM 408 BITUMINOUS PRIME COAT 1.8 LITERS PER SQUARE METER | (H) 72mm± ASPHALT CONCRETE | |
| (8) ITEM 605 150mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN, 707.31 | (17) ITEM 301 BITUMINOUS AGGREGATE BASE, PG64-22 | (I) 150mm± AGGREGATE BASE OVER 100mm± SUBBASE | |
| (9) ITEM 448 0mm MIN ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (301.02 MATERIAL SHALL BE USED WHERE THICKNESS IS GREATER THAN 100mm) | (18) ITEM 202 WEARING COURSE REMOVED | (J) 38mm± ASPHALT CONCRETE | |
| (10) ITEM 304 AGGREGATE BASE | (19) ITEM 615 TEMPORARY PAVEMENT, AS PER PLAN (SEE MOT SHEET 29) | | |
| (11) ITEM 203 SUBGRADE COMPACTION | (20) ITEM 302 300mm BITUMINOUS AGGREGATE BASE, PG64-22 | | |
| | (21) ITEM 855 100mm ASPHALT TREATED FREE DRAINING BASE | | |
| | (22) ITEM 203 SUBGRADE STABILIZATION | | |
| | (23) ITEM 605 100mm SHALLOW PIPE UNDERDRAIN, WITH FABRIC WRAP, AS PER PLAN | | |

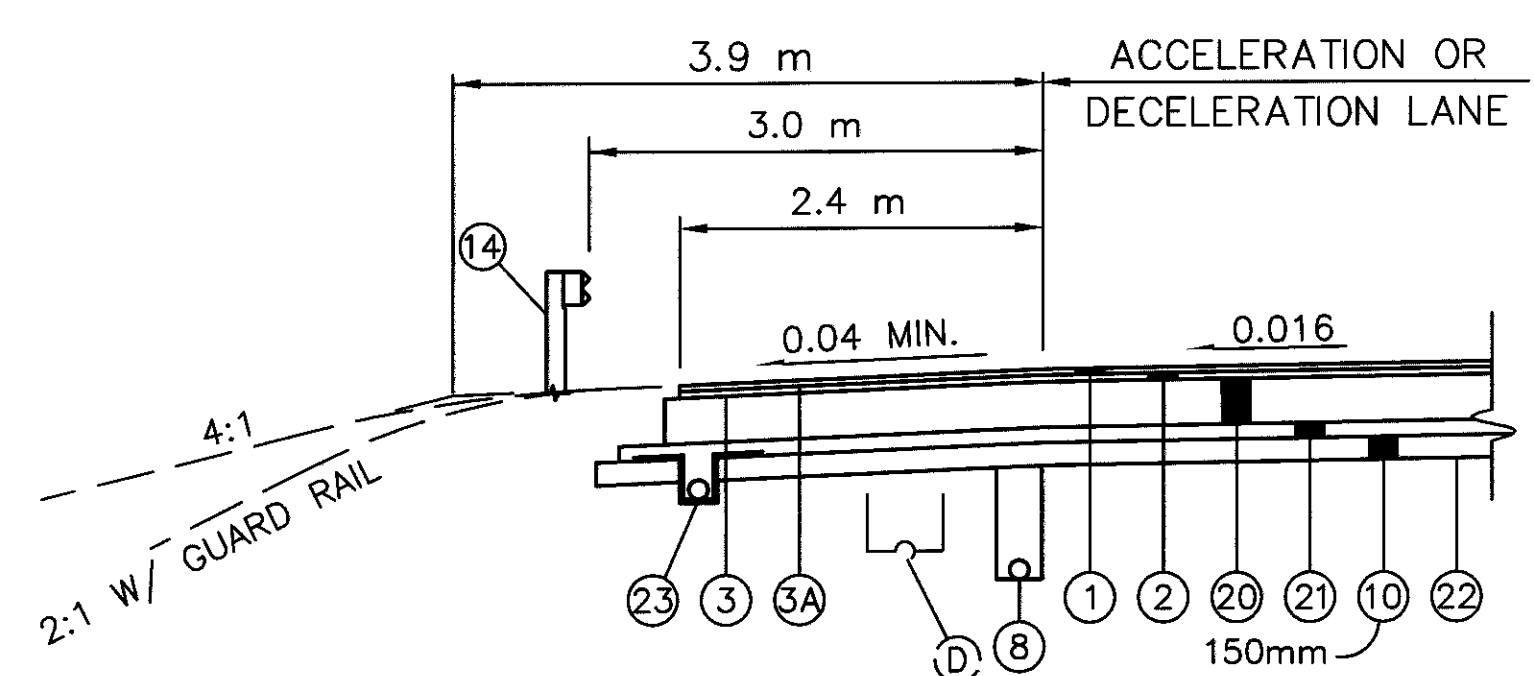


NORMAL SECTION - STATE ROUTE 2

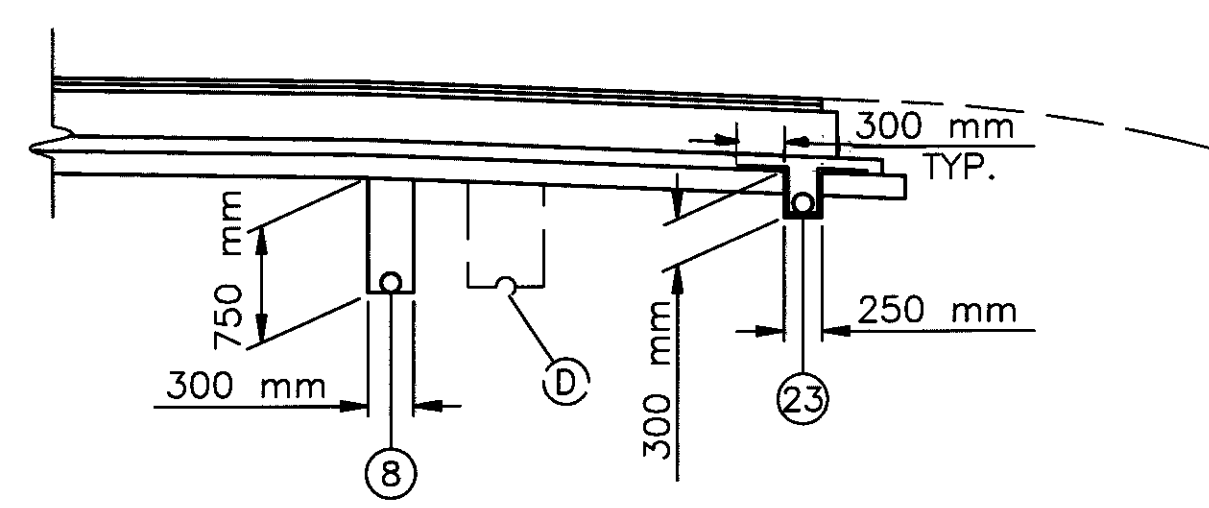
APPLIES:			
S.R. 2 WESTBOUND:	≠ STA. 19+446.279 TO STA. 25+732.822	= 6,286.543m	
	DEDUCTION AT PIPE CREEK		
	(BEGIN A.S. 21+722.406~END A.S. 21+760.161)	= -37.755m	
	DEDUCTION AT COLUMBUS AVENUE		
	(BEGIN A.S. 24+504.339~END A.S. 24+579.902)	= -75.563m	
	STA. 31+450.000 TO STA. 32+781.305	= 1331.305m	
	TOTAL	= 7,504.530m	

APPLIES:			
S.R. 2 EASTBOUND:	STA. 19+446.279 TO STA. 25+775.000	= 6,328.721m	
	DEDUCTION AT PIPE CREEK		
	(BEGIN A.S. 21+716.765~END A.S. 21+754.191)	= -37.426m	
	DEDUCTION AT COLUMBUS AVENUE		
	(BEGIN A.S. 24+520.548~END A.S. 24+595.330)	= -74.782m	
	STA. 31+450.000 TO STA. 32+781.305	= 1331.305m	
	TOTAL	= 7,547.818m	

≠ SEE NOTE ON SHEET 18 "PAVEMENT TEST SECTION"



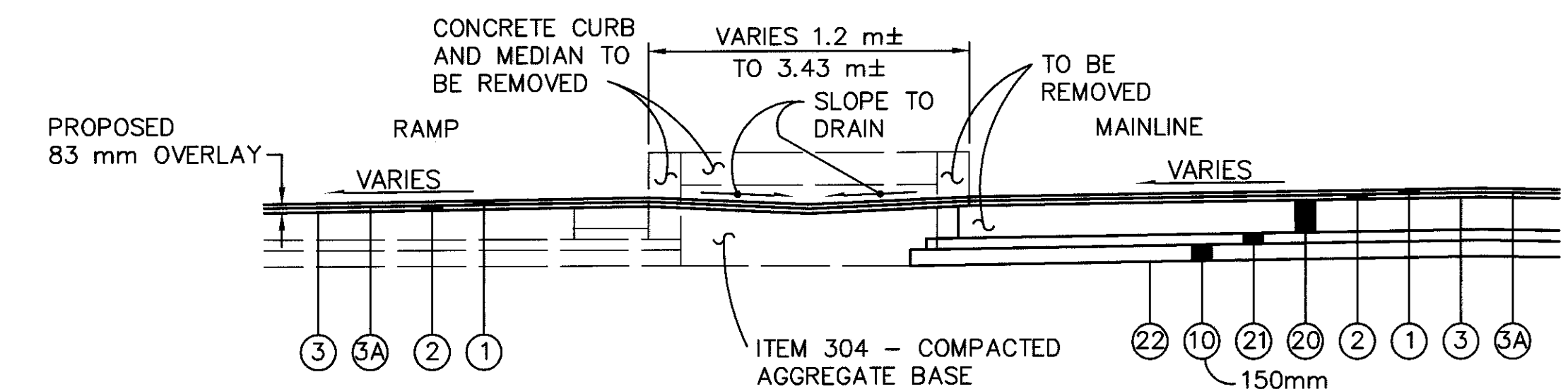
TYPICAL SECTION FOR ACCELERATION & DECELERATION LANES



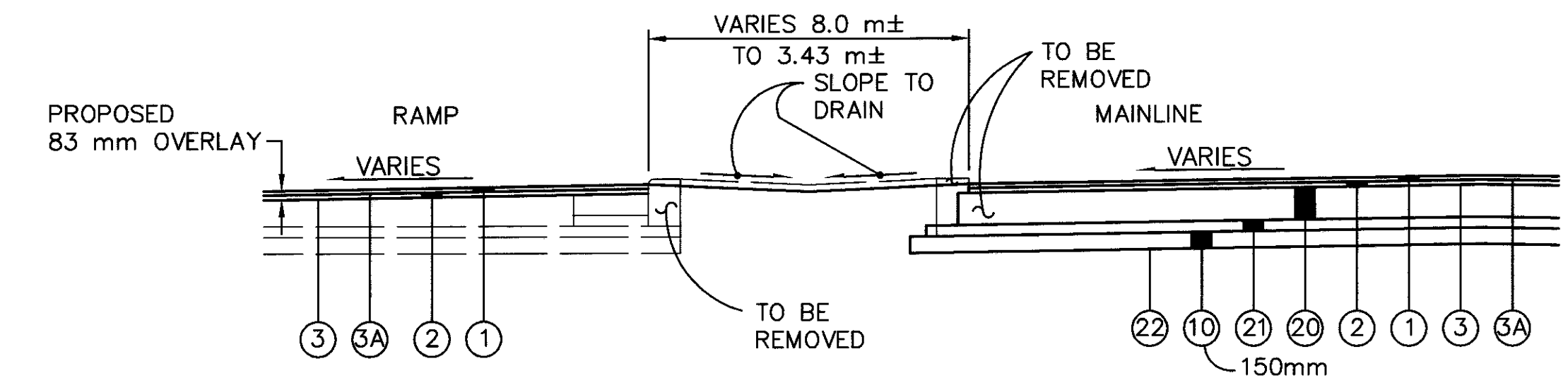
UNDERDRAIN DETAIL

NOTES: THERE SHALL BE NO DEDUCTION FOR ITEM 304 DUE TO THE INSTALLATION OF UNDERDRAINS.

EMBANKMENT, EXCAVATION & SEEDING & MULCHING FOR THE STAIR STEPPED CONSTRUCTION ARE INCLUDED IN THE QUANTITIES SHOWN ON SHEET 112.

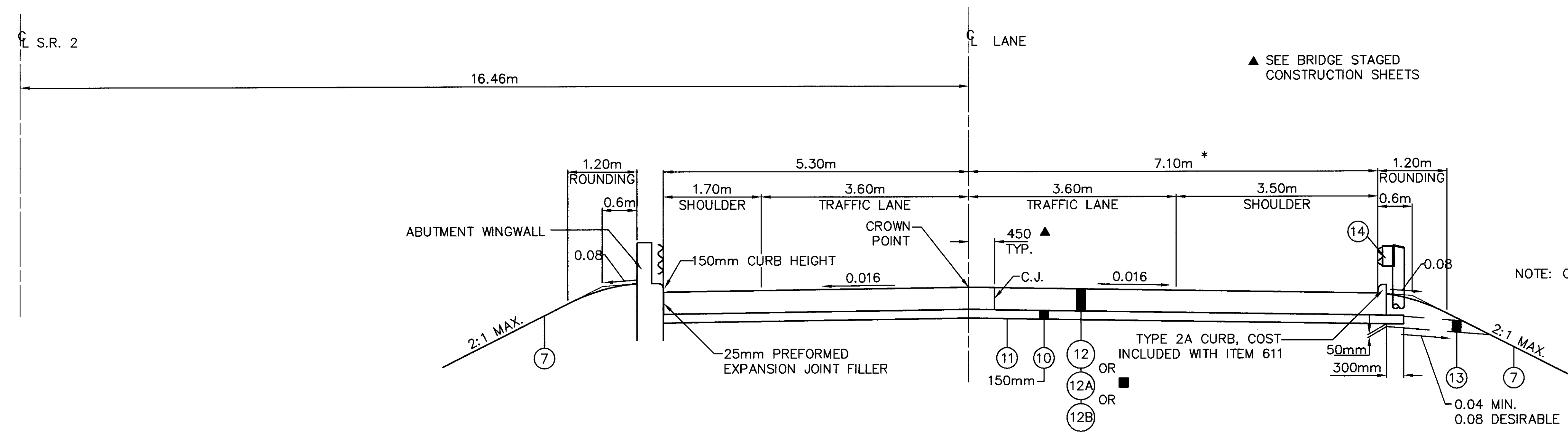


PAVEMENT REPLACEMENT DETAIL FOR NOSE REMOVAL



GORE REBUILD DETAIL

FOR LEGEND SEE SHEET 4



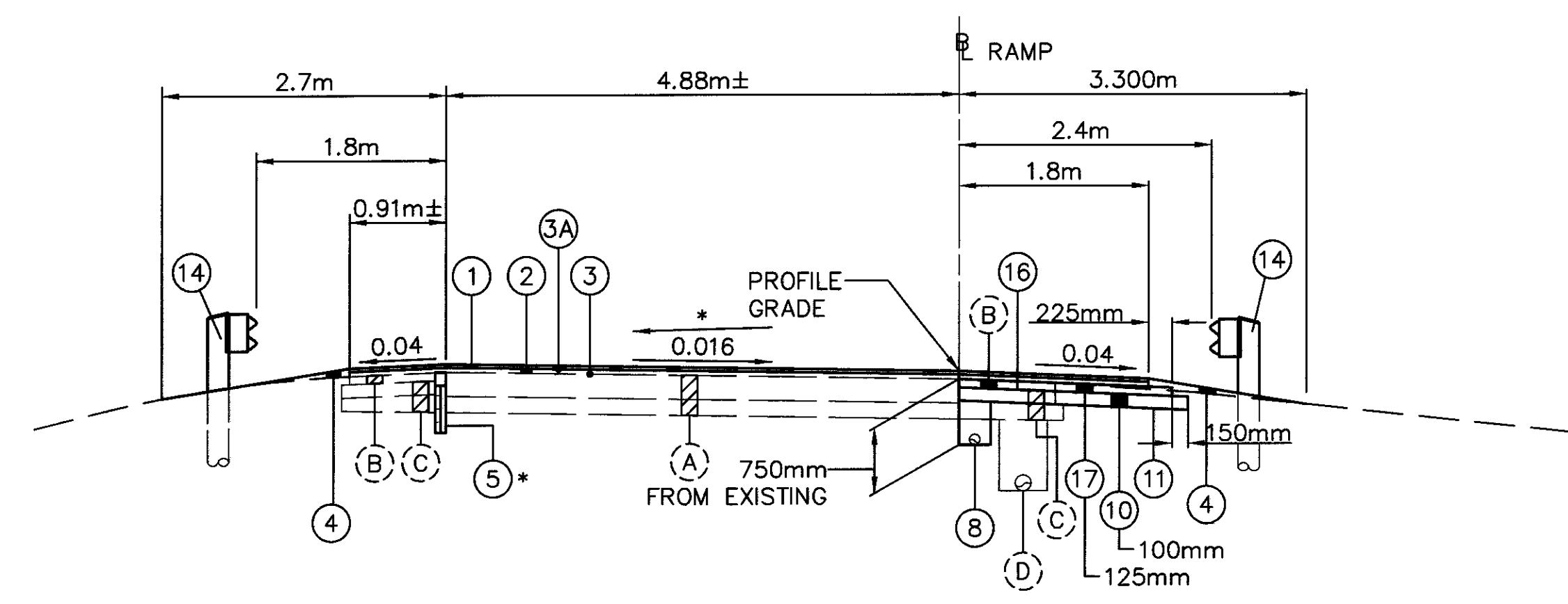
- * VARIES: 15.508m MAX. TO 14.179m MIN. BRIDGE ERI-2-19312 RT. (U.S.-250)
- * VARIES: 14.657m MAX. TO 13.416m MIN. BRIDGE ERI-2-24430 LT. (SAW MILL CREEK)
- * 9.50m - BRIDGE ERI-2-24430 RT. (SAW MILL CREEK)

NOTE: CURB AND WINGWALL APPLY EITHER SIDE

APPROACH SLAB - IN DIRECTION OF TRAVEL

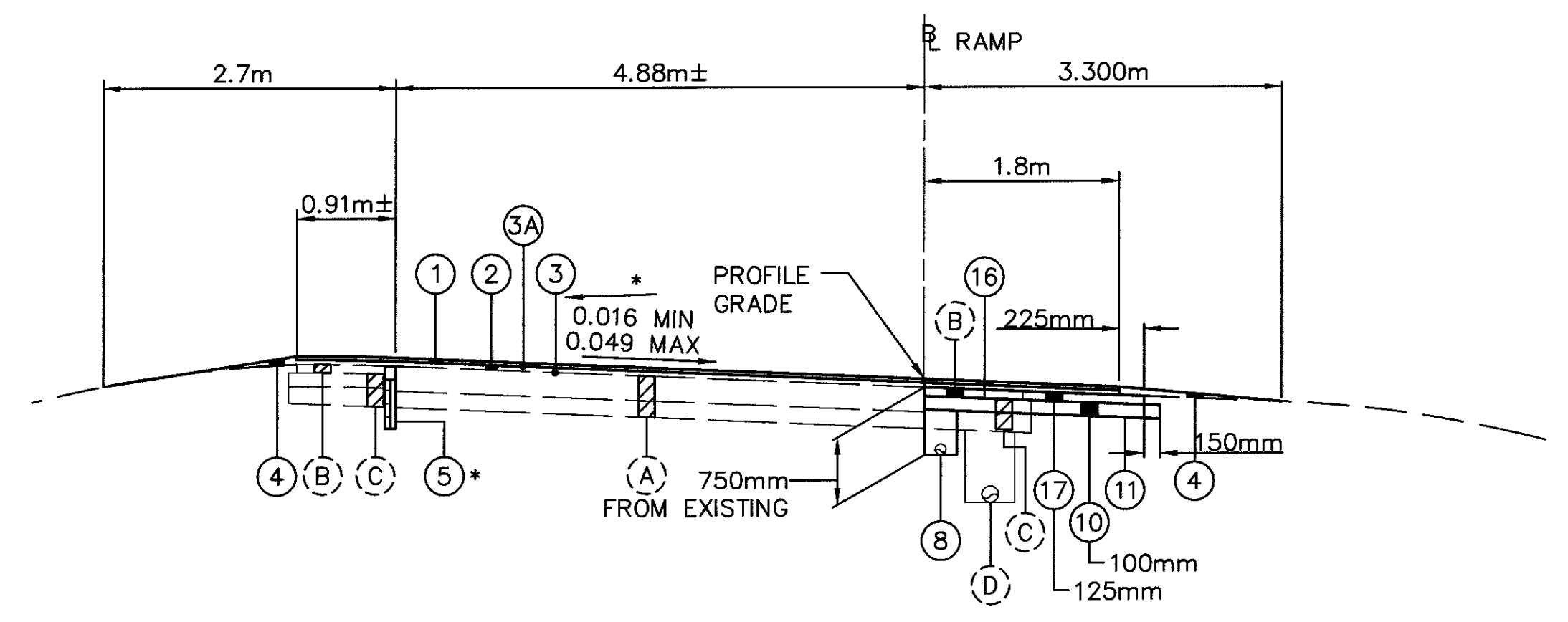
APPLIES STATIONS FOR APPROACH SLAB TYPICAL SECTIONS					
STRUCTURE		FROM STATION	TO STATION	TOTAL	REFERENCE ■
ERI-2-14822 LT. (PIPE CREEK)	R.A.	21+722.406	21+730.039	7.6m	12
	F.A.	21+752.528	21+760.161	7.6m	12
ERI-2-14822 RT. (PIPE CREEK)	R.A.	21+716.765	21+724.332	7.6m	12
	F.A.	21+746.624	21+754.191	7.6m	12
ERI-2-17638 LT. (COLUMBUS AVE.)	R.A.	24+504.339	24+511.972	7.6m	12A
	F.A.	24+572.269	24+579.902	7.6m	12A
ERI-2-17638 RT. (COLUMBUS AVE.)	R.A.	24+520.548	24+528.115	7.6m	12A
	F.A.	24+587.763	24+595.330	7.6m	12A
ERI-2-19312 LT. (U.S. RT. 250)	R.A.	26+196.992	26+204.592	7.6m	12A
	F.A.	26+260.953	26+268.553	7.6m	12A
ERI-2-19312 RT. (U.S. RT. 250)	R.A.	26+182.883	26+190.483	7.6m	12A
	F.A.	26+246.844	26+254.444	7.6m	12A
ERI-2-23770 LT. (CONRAIL)	R.A.	30+550.891	30+559.821	9.15m	12B
	F.A.	30+644.198	30+653.512	9.15m	12B
ERI-2-23770 RT. (CONRAIL)	R.A.	30+607.013	30+616.001	9.15m	12B
	F.A.	30+701.034	30+710.202	9.15m	12B
ERI-2-24430 LT. (SAW MILL CREEK)	R.A.	31+265.121	31+272.688	7.6m	12
	F.A.	31+302.878	31+310.445	7.6m	12
ERI-2-24430 RT. (SAW MILL CREEK)	R.A.	31+264.922	31+272.555	7.6m	12
	F.A.	31+303.011	31+310.644	7.6m	12
TOTAL				158.20m	

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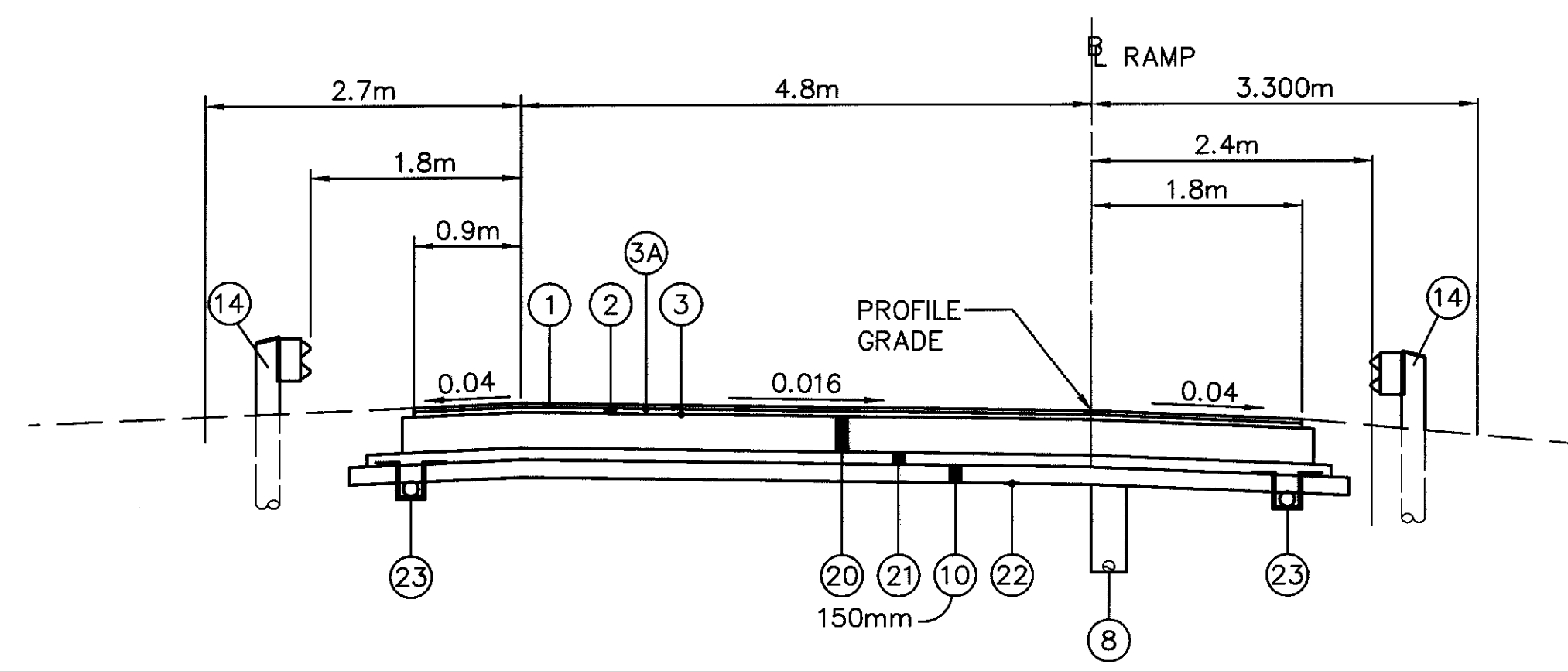
NORMAL SECTION - STATE ROUTE 4 RAMPS
IN DIRECTION OF TRAVEL

APPLIES: RAMP A STA. 0+425.796 TO STA. 0+292.023 = 133.773m
 RAMP B STA. 0+180.399 TO STA. 0+119.439 = 60.960m
 RAMP D STA. 0+169.170 TO STA. 0+230.130 = 60.960m*
 TOTAL = 255.693m



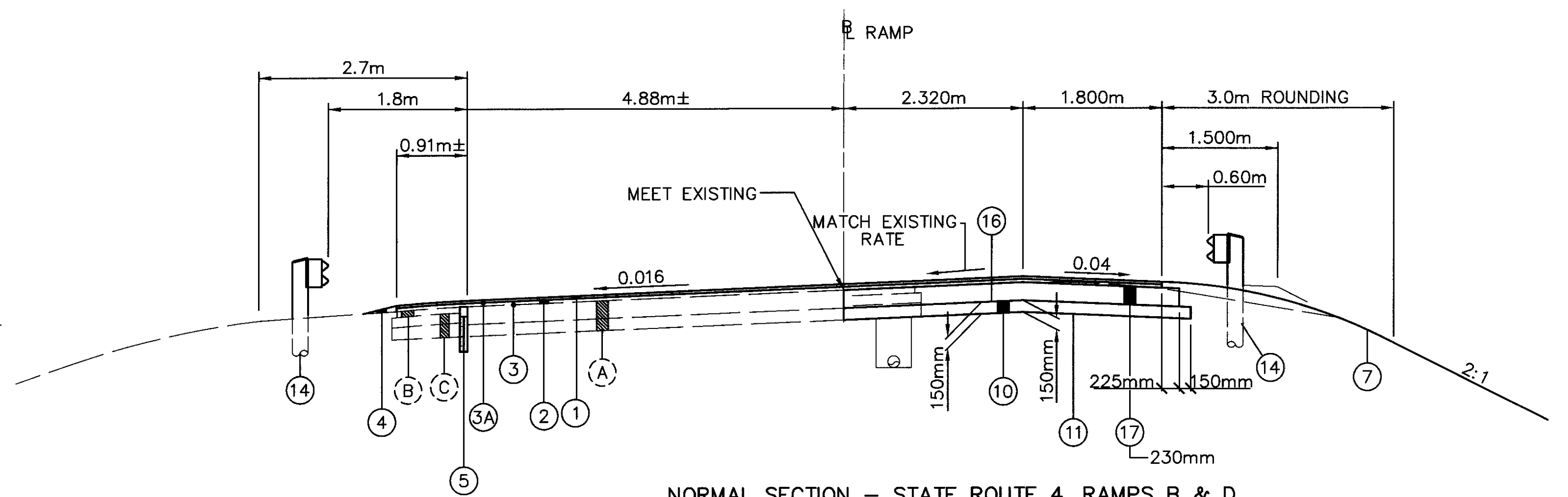
SUPERELEVATED SECTION - S.R. 4 RAMPS
IN DIRECTION OF TRAVEL

APPLIES: RAMP A STA. 0+292.023 TO STA. 0+123.000 = 169.023m
 RAMP B STA. 0+119.439 TO STA. 0+068.000 = 51.439m*
 STA. 0+354.713 TO STA. 0+180.399 = 174.314m
 RAMP D STA. 0+015.000 TO STA. 0+169.170 = 154.170m
 STA. 0+230.130 TO STA. 0+303.000 = 72.870m*
 TOTAL = 621.816m



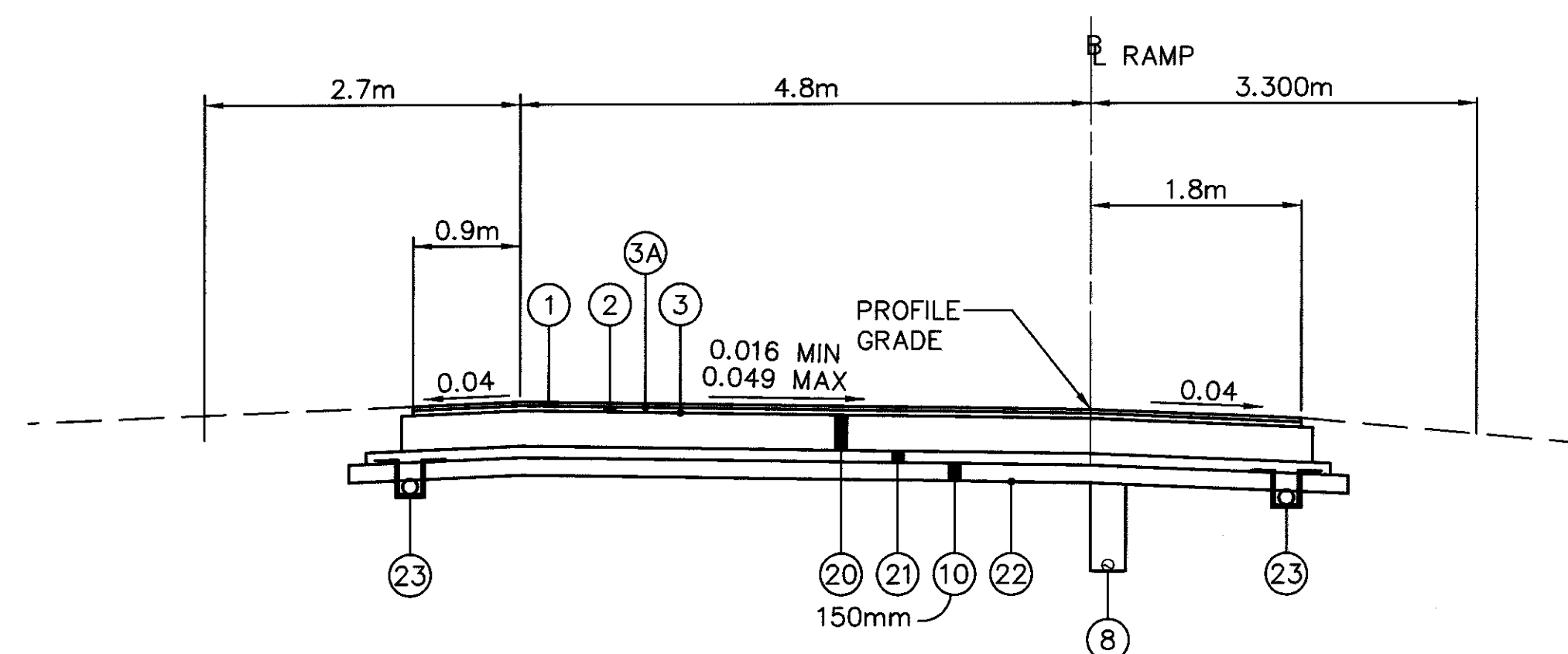
NORMAL SECTION - STATE ROUTE 4, RAMP C
IN DIRECTION OF TRAVEL

APPLIES: RAMP C STA. 0+022.403 TO STA. 0+204.670 = 182.267m



NORMAL SECTION - STATE ROUTE 4, RAMPS B & D

APPLIES: RAMP B STA. 0+018.050 TO STA. 0+068.000 = 49.950m
 RAMP D STA. 0+303.000 TO STA. 0+351.579 = 48.579m
 TOTAL = 98.529m



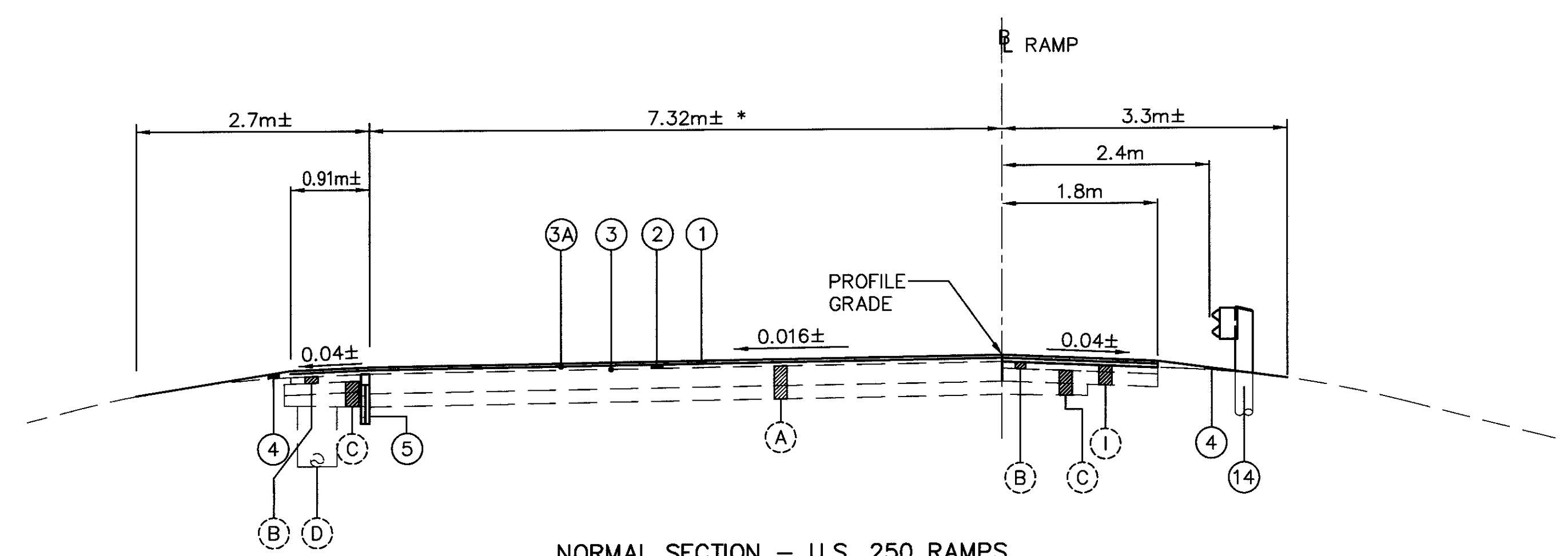
SUPERELEVATED SECTION - STATE ROUTE 4, RAMP C
IN DIRECTION OF TRAVEL

APPLIES: RAMP C STA. 0+204.670 TO STA. 0+274.625 = 69.955m

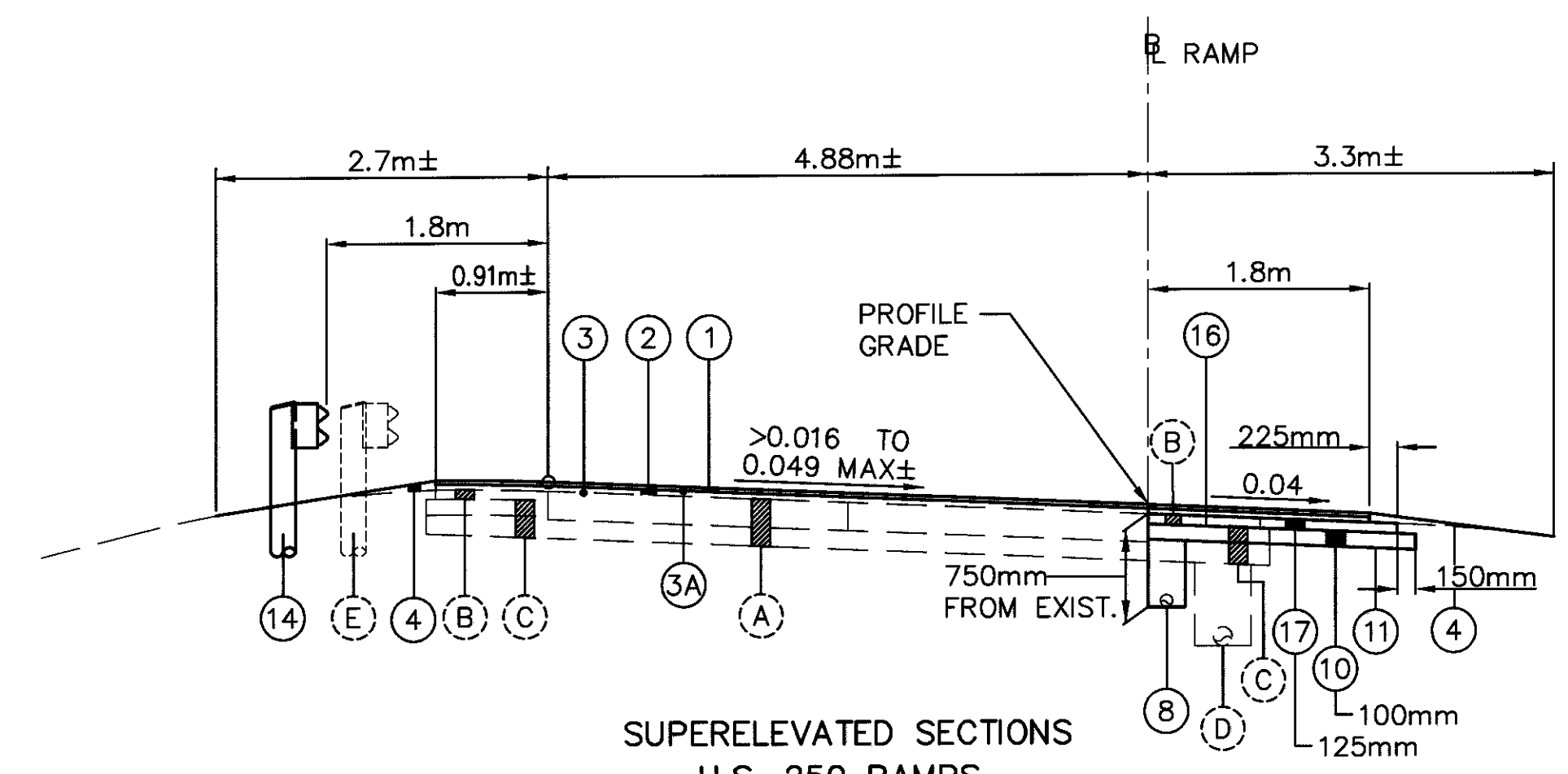
NOTE: FOR LEGEND SEE SHEET 4
 FOR UNDERDRAIN DETAILS SEE SHEET 5.

FILE NAME: I:\5033\006\TRAN\TYPICAL\11376GYB.DWG 7-15-99 10:36:11 am EST

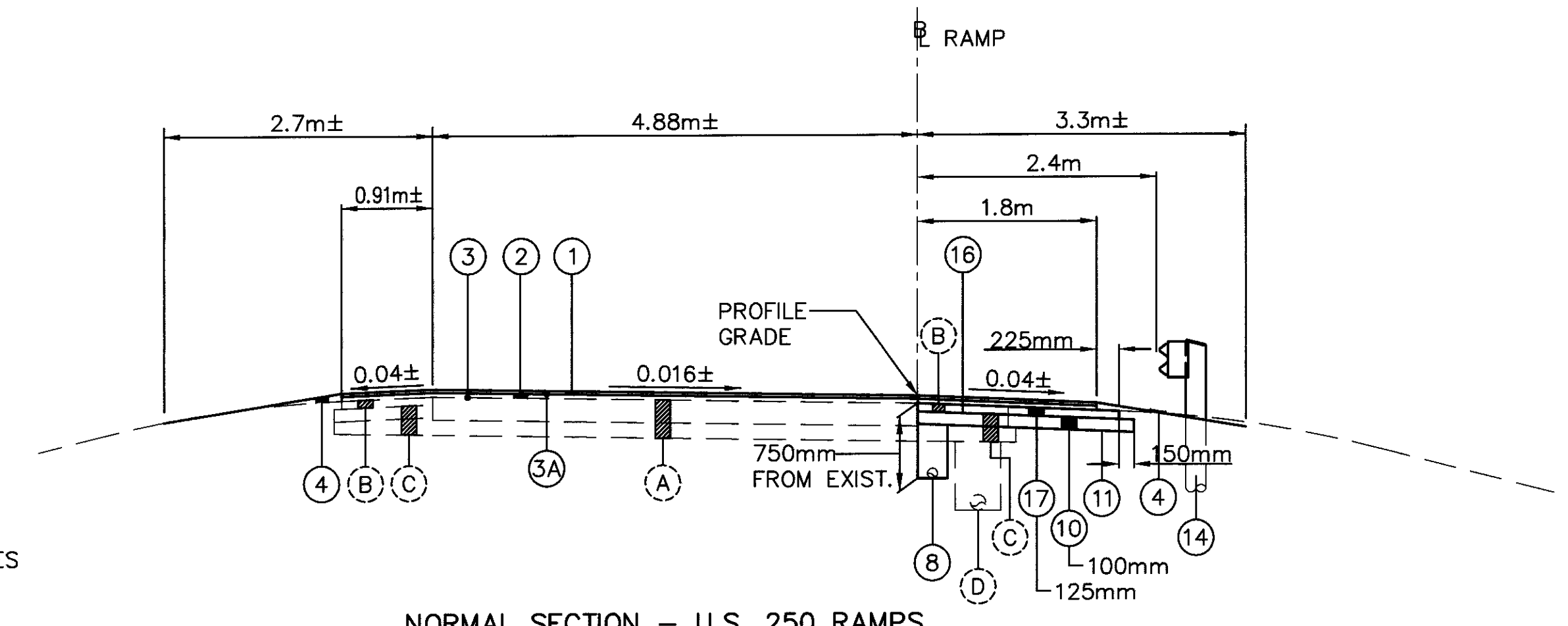
* - TAPER FROM 7.32m @ STA. 0+091.440 TO 4.88m @ STA. 0+121.920



NORMAL SECTION - U.S. 250 RAMPS
IN DIRECTION OF TRAVEL
APPLIES: RAMP B STA. 0+121.920 TO STA. 0+023.774 = 98.146m



SUPERELEVATED SECTIONS
U.S. 250 RAMPS
IN DIRECTION OF TRAVEL
APPLIES: RAMP A STA. 0+259.129 TO STA. 0+126.500 = 132.629m
RAMP B STA. 0+452.731 TO STA. 0+121.920 = 330.811m
RAMP C STA. 0+155.823 TO STA. 0+321.246 = 165.423m
RAMP D STA. 0+015.000 TO STA. 0+060.960 = 45.960m
RAMP E STA. 0+510.299 TO STA. 0+396.386 = 113.913m
TOTAL = 788.736m

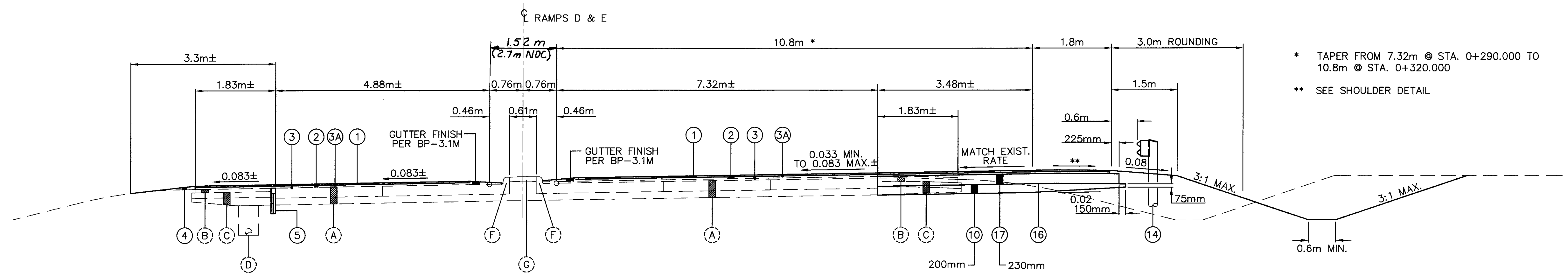


NORMAL SECTION - U.S. 250 RAMPS
IN DIRECTION OF TRAVEL
APPLIES: RAMP A STA. 0+443.000 TO STA. 0+259.129 = 183.871m
RAMP C STA. 0+008.500 TO STA. 0+155.823 = 147.323m
RAMP E STA. 0+267.834(BK) TO STA. 0+123.000 = 144.834m
TOTAL = 476.028m

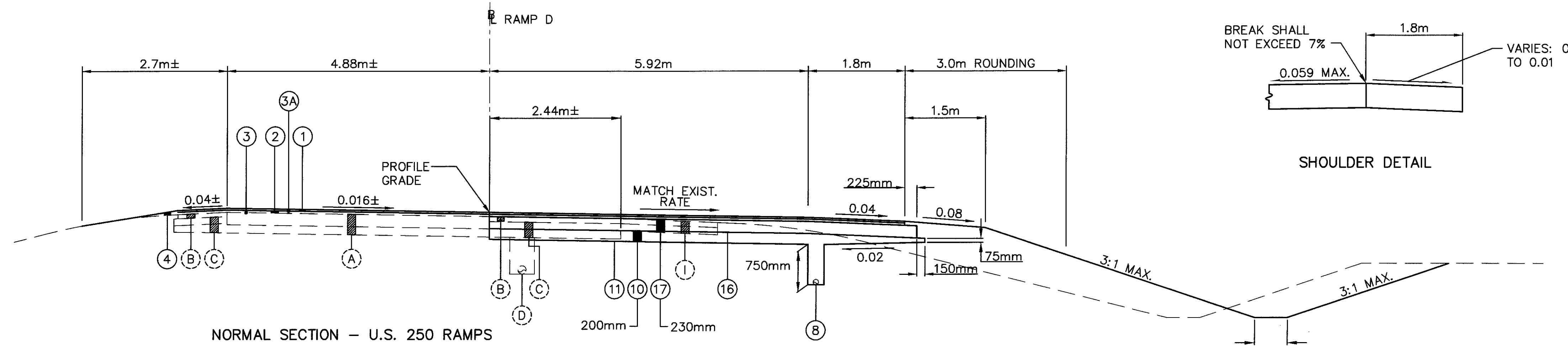
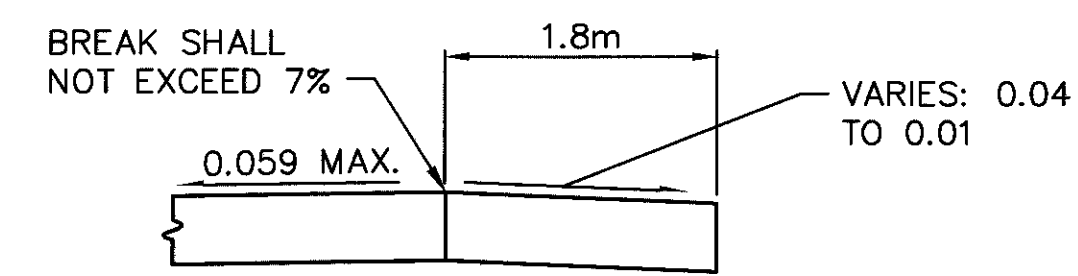
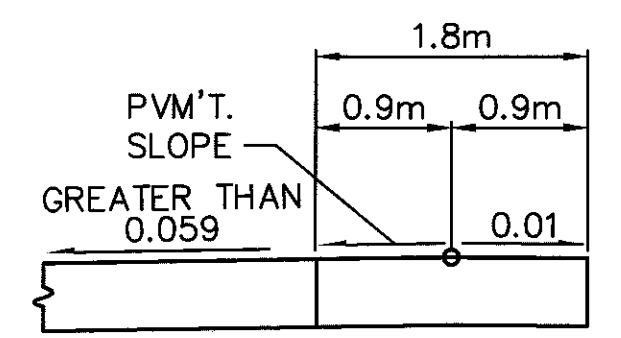
GUARDRAIL APPLIES EITHER SIDE

FOR LEGEND SEE SHEET 4

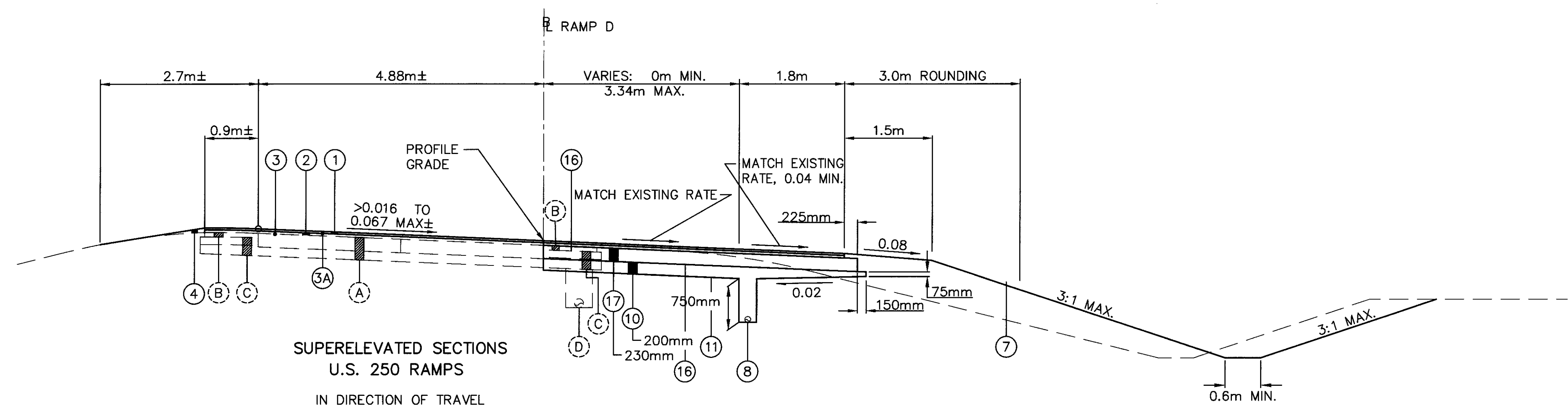
FILE NAME: SHEET-2-1: \5033\006\TRAN\TYPICAL\R-250-TYP.DWG 7-2-99 4:34:31 pm EST



SUPER SECTION - U.S. 250 RAMPS D & E
 APPLIES: STA. 0+267.834 (AHEAD) TO STA. 0+396.386 = 128.552m

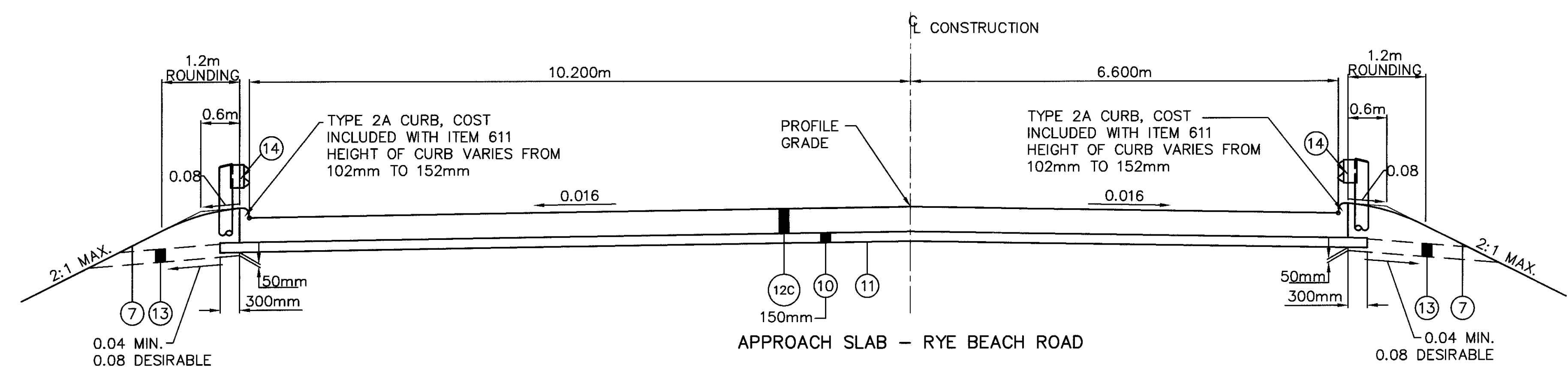


NORMAL SECTION - U.S. 250 RAMPS
 APPLIES: RAMP D STA. 0+396.386 TO STA. 0+476.098 = 79.712m

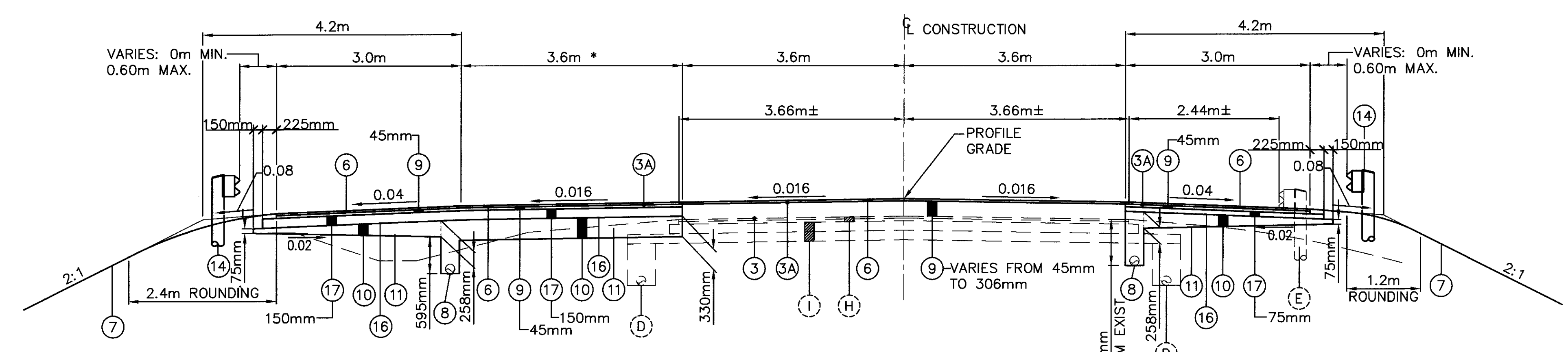


SUPERELEVATED SECTIONS U.S. 250 RAMPS
 IN DIRECTION OF TRAVEL
 APPLIES: RAMP D STA. 0+015.000 TO STA. 0+169.369 = 154.369m

FOR LEGEND SEE SHEET 4



APPLIES: STA. 1+417.480 TO STA. 1+425.080 = 7.600m
 STA. 1+515.527 TO STA. 1+523.127 = 7.600m
 TOTAL = 15.200m



APPLIES: NORMAL SECTION - RYE BEACH ROAD
 STA. 1+302.000 TO STA. 1+417.480 = 115.480m
 STA. 1+523.127 TO STA. 1+623.063 = 99.936m
 TOTAL = 215.416m

* 0m FROM STA. 1+302 TO 1+318.262

FILE NAME: SHEET-1~ I:\5033\006\TRAN\TYPICAL\R-RYE-TYP.DWG 8-9-99 8:31:31 am EST

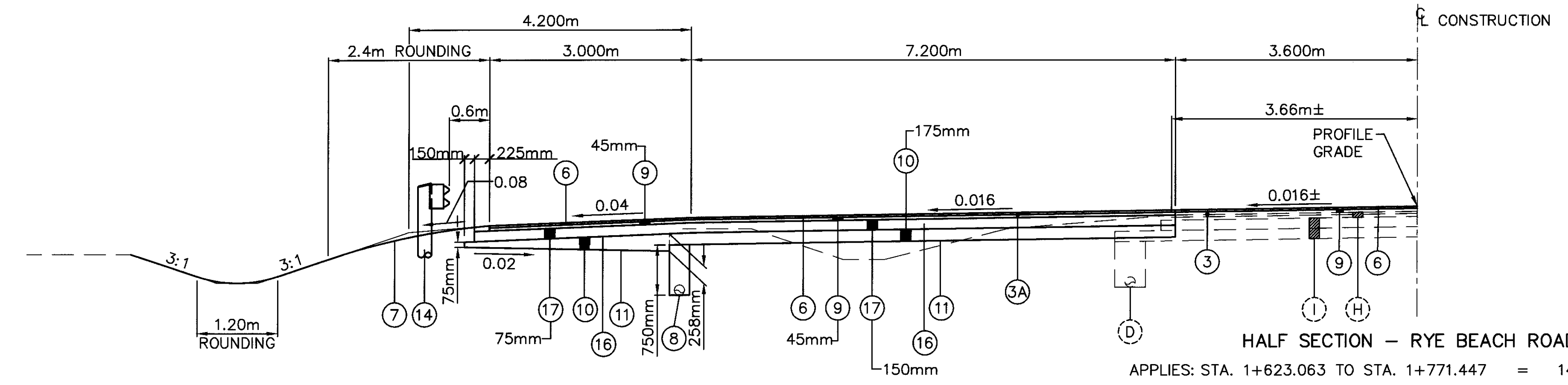
TYPICAL SECTIONS RYE BEACH ROAD

ERI-2-12.558

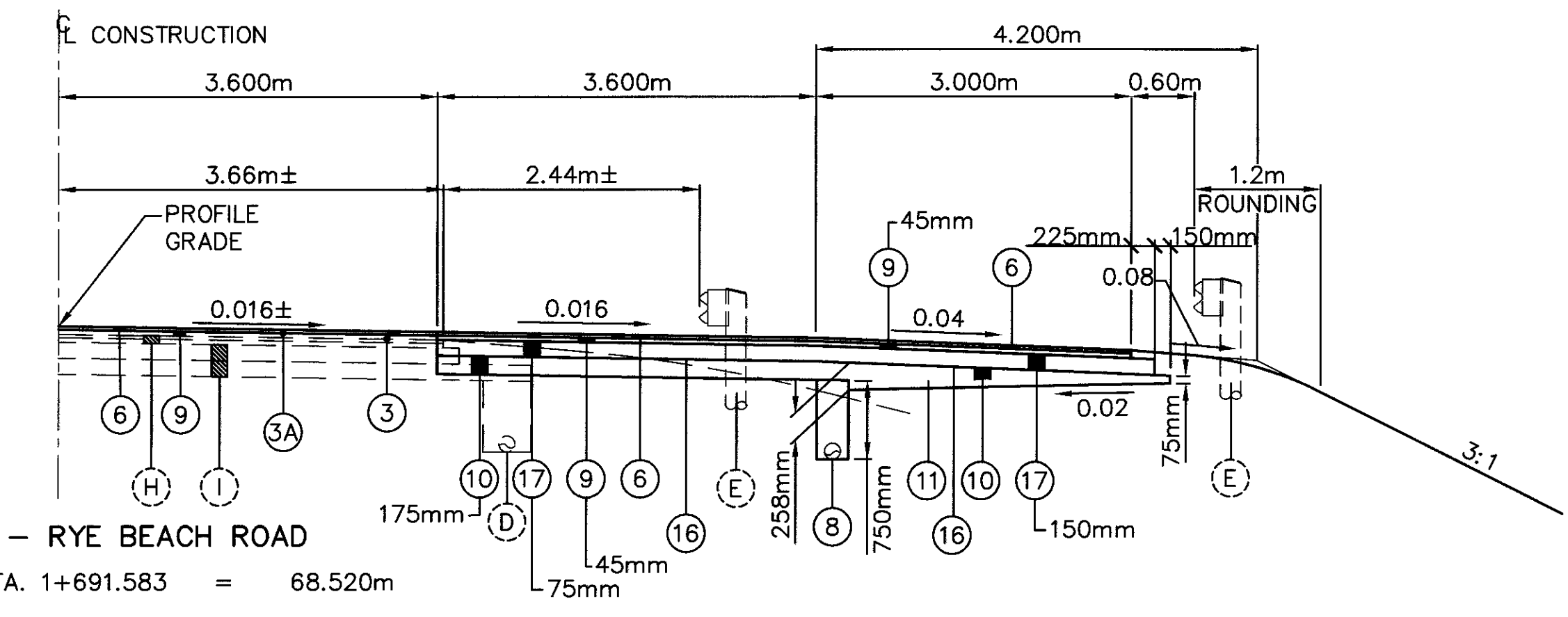
FOR LEGEND SEE SHEET 4

TYPICAL SECTIONS RYE BEACH ROAD

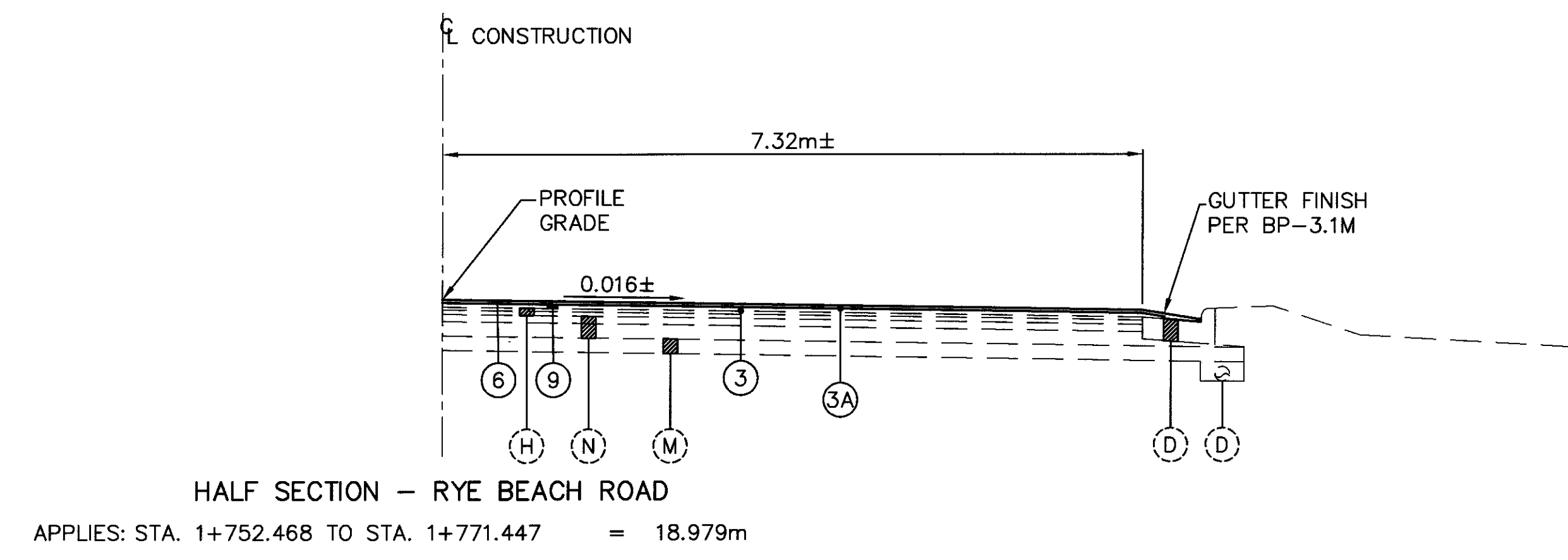
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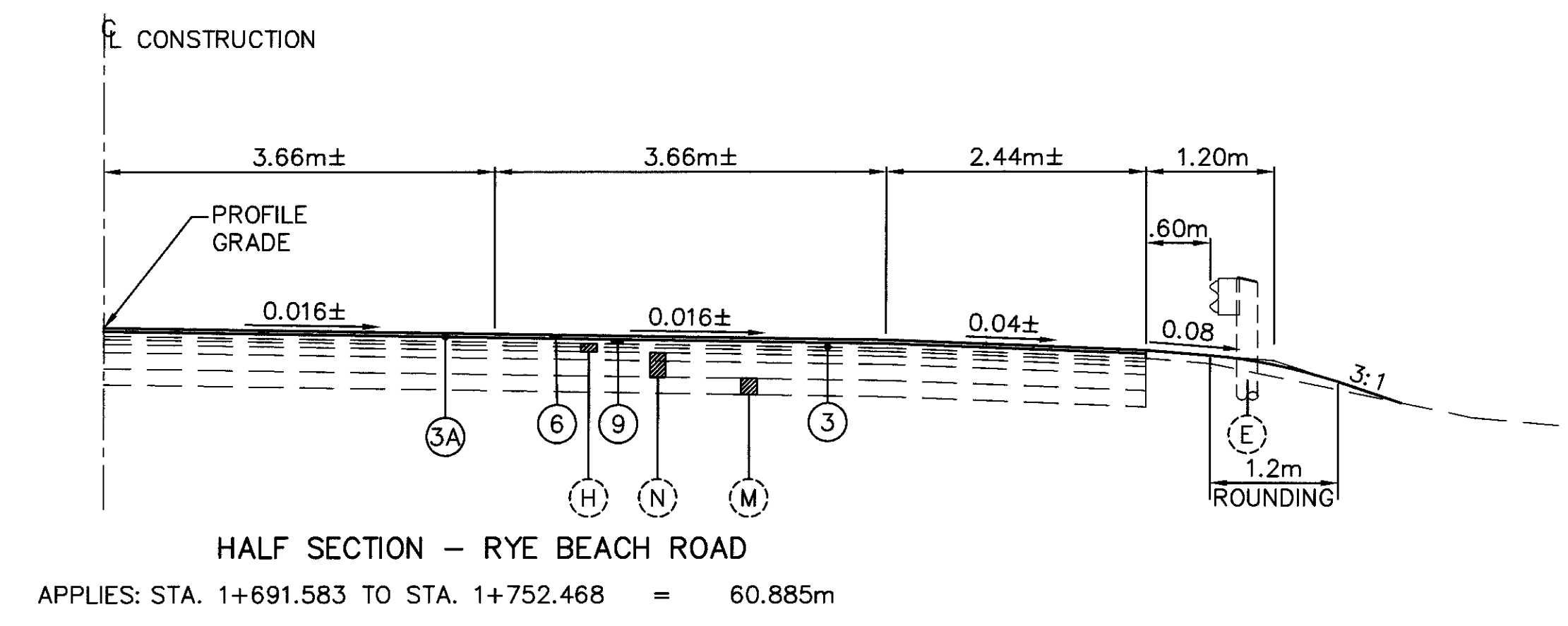
HALF SECTION - RYE BEACH ROAD
 APPLIES: STA. 1+623.063 TO STA. 1+771.447 = 148.384m



HALF SECTION - RYE BEACH ROAD
 APPLIES: STA. 1+623.063 TO STA. 1+691.583 = 68.520m



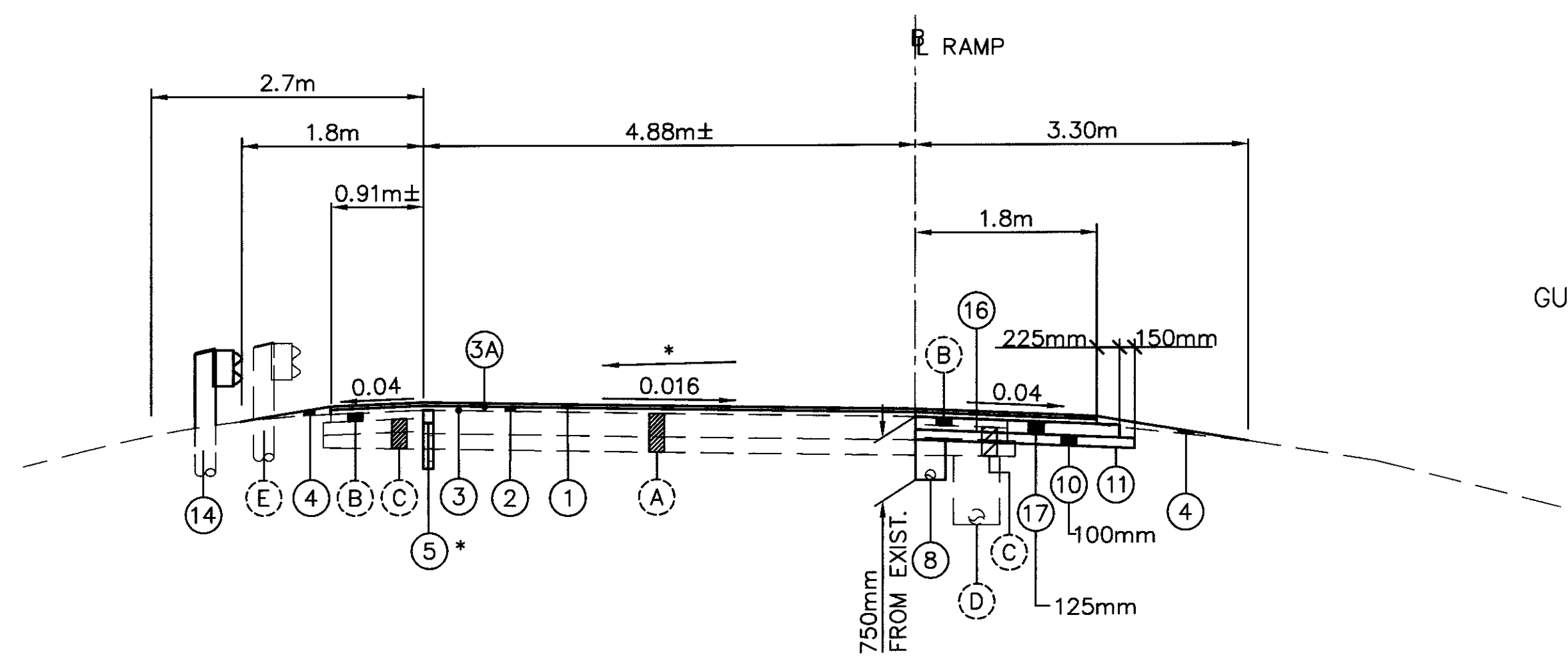
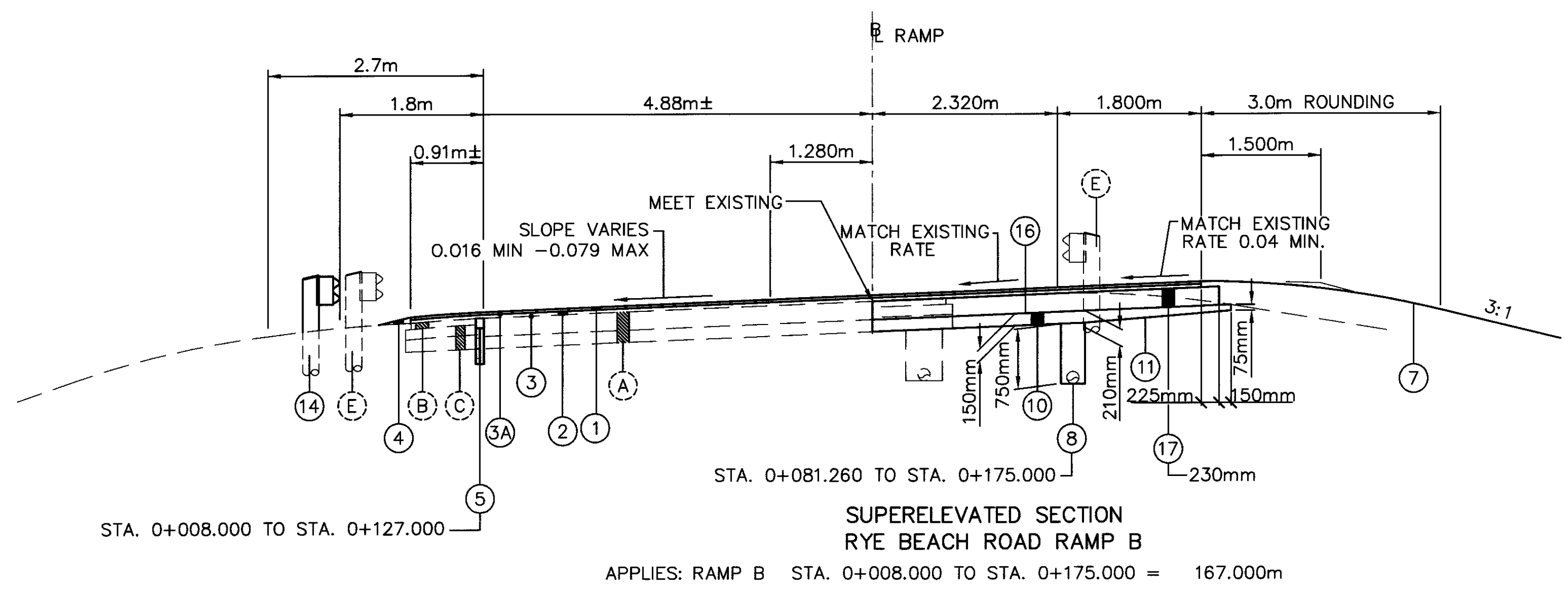
HALF SECTION - RYE BEACH ROAD
 APPLIES: STA. 1+752.468 TO STA. 1+771.447 = 18.979m



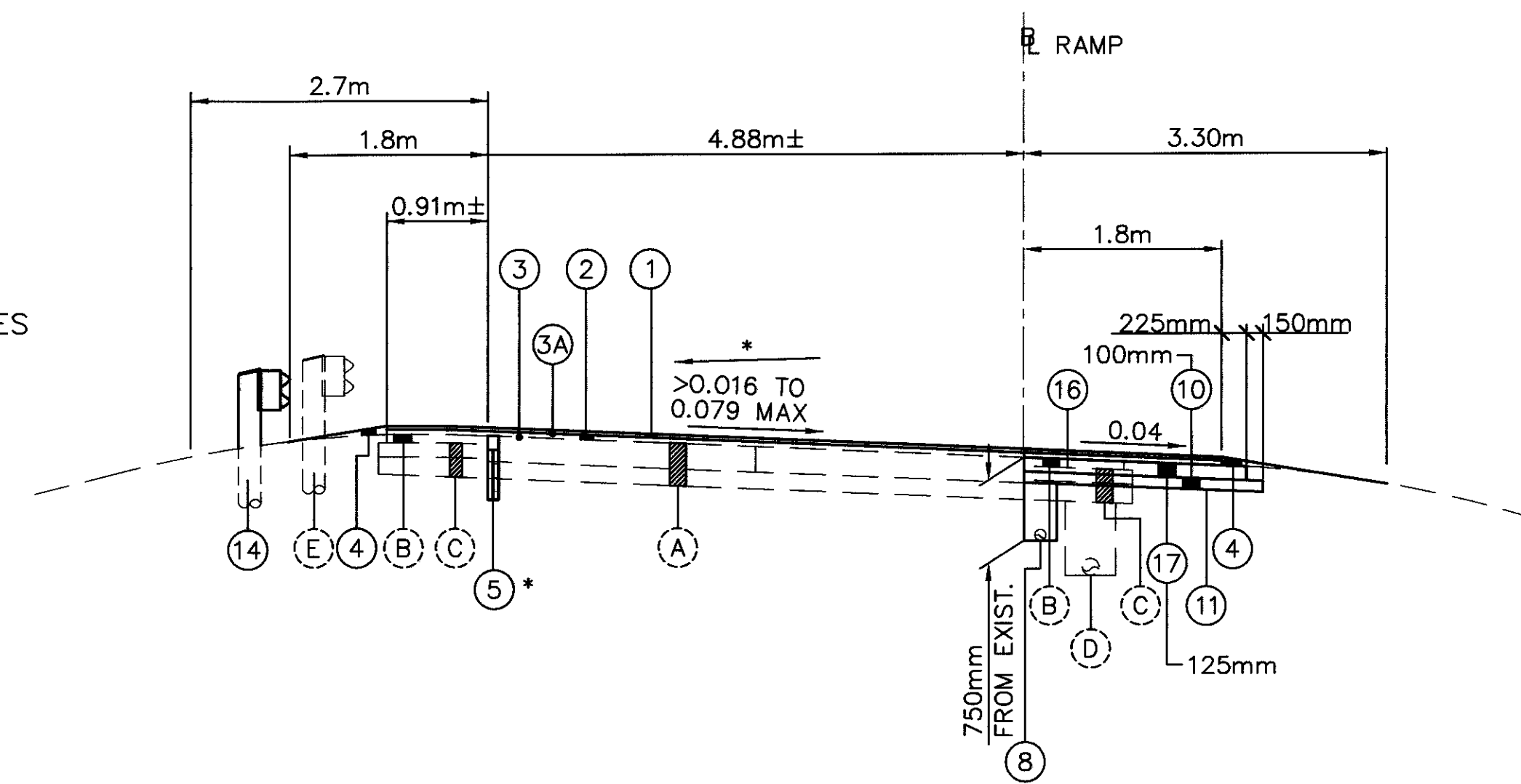
HALF SECTION - RYE BEACH ROAD
 APPLIES: STA. 1+691.583 TO STA. 1+752.468 = 60.885m

FILE NAME: SHEET-2~ I: \5033\006\TRAN\TYPICAL\R-RYE-TYP.DWG 7-6-99 9:52:48 am EST

FOR LEGEND SEE SHEET 4



NORMAL SECTION - RYE BEACH ROAD RAMPS
IN DIRECTION OF TRAVEL



SUPERELEVATED SECTION
RYE BEACH ROAD RAMPS
IN DIRECTION OF TRAVEL

GUARDRAIL APPLIES
EITHER SIDE

FOR LEGEND SEE SHEET 4

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

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

AMERITECH
130 NORTH ERIE STREET,
RM. 206
TOLEDO, OHIO 43624
(419) 245-7304

OHIO DEPARTMENT OF
TRANSPORTATION
906 NORTH CLARK STREET
ASHLAND, OHIO 44805
(419) 281-0513

COLUMBIA GAS
TRANSMISSION
3151 LINCOLN WAY WEST
WOOSTER, OHIO 44691
(330) 264-2201

COLUMBIA GAS OF OHIO
2110 CALDWELL STREET
SANDUSKY, OHIO 44870-2358
(419) 625-4554

ERIE COUNTY SANITARY
ENGINEER
554 RIVER ROAD
HURON, OHIO 44839
(419) 433-7303

GTE
117 NORTH SANDUSKY STREET
BELLEVUE, OHIO 44811
(419) 483-8158

OHIO EDISON COMPANY
6326 LAKE AVENUE
ELYRIA, OHIO 44035
(216) 233-0231

ERIE COUNTY WATER
2614 SOUTH COLUMBUS STREET
SANDUSKY, OHIO 44870
(419) 627-7667

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.

ELEVATION DATUM ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM AND ORIGINAL CONSTRUCTION DRAWINGS. PORTIONS OF THE PROJECT WERE DRAWN FROM ORIGINAL CONSTRUCTION DRAWINGS AND MAY VARY FROM ORIGINAL DESIGN ELEVATIONS.

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.

REMOVAL OF TREES OR STUMPS ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS	TOTAL
450mm	1		1

CLEARING AND GRUBBING IS ONLY REQUIRED IN AREAS WHERE WORK IS TO BE PERFORMED.

TREE REMOVAL RESTRICTIONS THIS PROJECT IS WITHIN THE LIMITS OF THE FEDERAL ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND MAY IMPACT THAT SPECIES HABITAT. TREES OVER 230mm (9 INCHES) IN DIAMETER WITH LOOSE OR PEELING BARK OR CAVITIES SHALL ONLY BE CUT BETWEEN SEPTEMBER 16 AND APRIL 14.

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

ITEM 203. DITCH CLEANOUT THIS WORK SHALL CONSIST OF RE-ESTABLISHING THE CROSS-SECTION OF AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 203.05. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203.07 EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED.

MEASUREMENT OF THE DITCH CLEANOUT SHALL BE THE ACTUAL METERS MEASURED ALONG THE CENTERLINE OF THE DITCH.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, DITCH CLEANOUT.

ITEM 659. SEEDING AND MULCHING SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

WATERING PERMANENT SEEDED AREAS THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS PER 659.09:

659, WATER	1840 CUBIC METER
------------	------------------

EROSION CONTROL ITEMS 601, AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS AND TURF OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE 601. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET THE REQUIREMENT OF 108.04

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.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

603	150mm CONDUIT, TYPE B	200 METER
603	200mm CONDUIT, TYPE E	200 METER
603	100mm CONDUIT, TYPE F	200 METER
601	ROCK CHANNEL PROTECTION TYPE C WITH FILTER	50 CU. METER

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

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

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

ITEM 202 CURB REMOVED (APPLIES AT RAMP-GORE AREAS) THIS WORK SHALL CONSIST OF SAW CUTTING IN A LONGITUDINAL DIRECTION ALONG THE EXISTING GORE. THE COMPLETED SAW CUT SHALL ALLOW THE CONTRACTOR TO REMOVE THE ENTIRE EXISTING CURB LEAVING A SMOOTH VERTICAL FACE. PAYMENT FOR THE SAW CUTTING SHALL BE INCLUDED IN ITEM 202 CURB REMOVED.

FOLLOWING THE REMOVAL OF THE CURB, THE VOID CREATED SHALL BE FILLED FLUSH WITH THE SURROUNDING PAVEMENT WITH ITEM 301 BITUMINOUS AGGREGATE BASE, PG64-22. THE CONTRACTOR SHALL SCHEDULE THEIR WORK SUCH THAT THE VOID IS FILLED WITHIN 48 HOURS OF THE REMOVAL OF THE CURB.

AN ESTIMATED QUANTITY OF 100 CU. METERS OF ITEM 301 BITUMINOUS AGGREGATE BASE, PG64-22 HAS BEEN PROVIDED.

THE CURB REMOVAL AND ITEM 301 SHALL BE COMPLETED PRIOR TO MAINLINE CONSTRUCTION.

ITEM-407 TACK COAT THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. AREAS OF TACK COAT STRIPPED BY CONSTRUCTION EQUIPMENT SHALL BE RECOATED PRIOR TO PLACING ASPHALT CONCRETE. PLAN AREAS INDICATE AN APPLICATION RATE OF 0.45 LITERS PER SQUARE METER OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 407 TACK COAT FOR INTERMEDIATE COURSE PRIOR TO PLACING THE SURFACE COURSE ON THE NEW INTERMEDIATE COURSE, AN ADDITIONAL APPLICATION OF TACK COAT IS REQUIRED AT AN AVERAGE RATE OF APPLICATION OF 0.2 LITERS PER SQUARE METER FOR ESTIMATING PURPOSES ONLY.

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.

CATCH BASIN, MISC.: SHAPED INVERT THIS ITEM SHALL INCLUDE THE REHABILITATION OF EXISTING CATCH BASINS BY RE-MORTARING ALL LOOSE JOINTS IN THE STRUCTURE, CLEANING OUT AND DISPOSING OF ANY DEBRIS IN THE BOTTOM, AND CONSTRUCTING A SHAPED INVERT AS PER STANDARD DRAWING CB-3.1M.

ITEM 603. CONDUIT BORED AND JACKED WHERE IT IS SPECIFIED THAT C CONDUIT BE INSTALLED BY THE METHOD OF BORING AND JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 5 METERS TO THE EDGE OF PAVEMENT. TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SPECIFICATION REQUIREMENTS FOR CLASS B BEDDING SHALL BE DISREGARDED. IF A CASING PIPE IS USED IN THE BORING AND JACKING OPERATION, THE VOID BETWEEN IT AND THE INTERIOR CARRIER PIPE SHALL BE COMPLETELY FILLED WITH SAND, GROUT OR OTHER MATERIAL APPROVED BY THE ENGINEER.

ITEM 605. AGGREGATE DRAINS AGGREGATE DRAINS SHALL BE PLACED AT ALL S.R. 2 MAINLINE APPROACH SLABS. EACH APPROACH SLAB WILL HAVE TWO AGGREGATE DRAINS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

3m X 20 APPROACH SLAB x 2	120 METER
605, AGGREGATE DRAINS	120 METER

CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN AFTER COMPLETION OF MAJOR MODIFICATION ITEMS, EXISTING EMBANKMENT SURFACES SHALL BE RESTORED TO A UNIFORM PLANE SURFACE WITH CRUSHED AGGREGATE SLOPE PROTECTION. NEW EMBANKMENT SURFACES SHALL BE PROTECTED AS SPECIFIED IN 601.05. PROTECTION SHALL EXTEND LONGITUDINALLY FROM FACE OF ABUTMENTS TO TOE OF SLOPE AND LATERALLY TO AT LEAST 900MM BEYOND DECK FASCIAS. THE MINIMUM TOTAL THICKNESS OF PROPOSED PROTECTION (RESTORED AND/OR NEW) SHALL BE 305MM.

ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER, AS PER PLAN AFTER COMPLETION OF MAJOR MODIFICATION ITEMS, EXISTING EMBANKMENT SURFACES SHALL BE RESTORED TO A UNIFORM PLANE SURFACE WITH ROCK CHANNEL PROTECTION. NEW EMBANKMENT SURFACES SHALL BE PROTECTED AS SPECIFIED IN 601.05. PROTECTION SHALL EXTEND LONGITUDINALLY FROM FACE OF ABUTMENTS TO TOE OF SLOPE AND LATERALLY TO AT LEAST TO THE END OF THE WINGWALLS. THE MINIMUM TOTAL THICKNESS OF PROPOSED PROTECTION (RESTORED AND/OR NEW) SHALL BE 600MM.

RELATIONSHIP BAR CHART SCHEDULE THE RELATIONSHIP BAR CHART SCHEDULE SHALL BE COMPUTER GENERATED ONLY. HAND DRAWN SCHEDULES ARE NOT ACCEPTABLE. SEE THE PROPOSAL NOTE FOR ADDITIONAL REQUIREMENTS.

CALCULATED
BY: PMA
DATE: 4-97
CHECKED
BY: JTY
DATE: 5-99

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FARM DRAINS ALL FARM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS, EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE RIGHT-OF-WAY LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE 300 MM ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

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

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1M, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

603 300 MM CONDUIT, TYPE B	40	METER
603 200 MM CONDUIT, TYPE E	50	METER
603 200 MM CONDUIT, TYPE F	50	METER

RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS: EXISTING ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.41 NON-PERFORATED, 707.33 OR 707.42.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

603, 150 MM CONDUIT, TYPE E, FOR DRAINAGE CONNECTION	20	METER
603, 150 MM CONDUIT, TYPE F, FOR DRAINAGE CONNECTION	20	METER

ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=380MM), AS PER PLAN "A": THE REINFORCING STEEL FOR THE APPROACH SLABS OF THESE STRUCTURE SHALL BE EPOXY COATED IN CONFORMANCE WITH 509.

THE APPROACH SLABS SHALL HAVE PARAPETS AS DETAILED ON SHEET 240.

THE 450MM DOWELL BARS BETWEEN THE APPROACH SLAB AND APPROACH PAVEMENT AS SHOWN ON STD. DRAWING AS-1-81M ARE NOT REQUIRED.

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.

MATERIALS, LABOR AND INSTALLATION SHALL BE INCLUDED WITH APPROACH SLABS FOR PAYMENT.

ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=430MM), AS PER PLAN: THE REINFORCING STEEL FOR THE APPROACH SLABS OF THESE STRUCTURE SHALL BE EPOXY COATED IN CONFORMANCE WITH 509.

THE APPROACH SLABS SHALL HAVE PARAPETS AS DETAILED ON SHEET 240.

THE 450MM DOWELL BARS BETWEEN THE APPROACH SLAB AND APPROACH PAVEMENT AS SHOWN ON STD. DRAWING AS-1-81M ARE NOT REQUIRED.

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.

MATERIALS, LABOR AND INSTALLATION SHALL BE INCLUDED WITH APPROACH SLABS FOR PAYMENT.

ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=380MM), AS PER PLAN "B": THE REINFORCING STEEL FOR THE APPROACH SLABS OF THESE STRUCTURE SHALL BE EPOXY COATED IN CONFORMANCE WITH 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.

MATERIALS, LABOR AND INSTALLATION SHALL BE INCLUDED WITH APPROACH SLABS FOR PAYMENT.

CORRECTING/RESHAPING OF SUBBASE AT JOINT REPAIRS SUBBASE MATERIAL THAT IS DISTURBED BELOW THE DESIRED LEVEL OF CLEANOUT SHALL BE REPAIRED PER 255.04.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	3000	CU METER
304 AGGREGATE BASE	3000	CU METER

SUBGRADE/SUBBASE FAILURES

IF AFTER REMOVAL OF THE PAVEMENT THE ENGINEER DETERMINES THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER SHALL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH 304 AGGREGATE BASE MATERIAL. THE MAXIMUM DEPTH OF THE REMOVAL SHALL BE 0.6 METERS. THE GRADE SHALL BE SLOPED SUCH THAT ANY WATER WILL DRAIN TO THE PROPOSED UNDERDRAIN. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	500	CU. METER
ITEM 304 AGGREGATE BASE	500	CU. METER

PAVEMENT TEST SECTION

THE CONTRACTOR IS TO COOPERATE WITH THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) BY COORDINATING WITH RESEARCHERS IN CREATING A TEST SECTION OF PAVEMENT. THE NAMES AND TELEPHONE NUMBERS OF THE RESEARCHERS WILL BE PROVIDED AT THE PRECONSTRUCTION MEETING. THE TEST SECTION IS FROM STATION 23+940 TO STATION 24+180 IN THE WESTBOUND LANES OF SR 2.

THIS TEST SECTION, A CONTROL SECTION, CONSISTS OF THE SAME PAVEMENT BUILDUP AS THE ADJOINING FULL DEPTH PAVEMENT SECTION BUT WITHOUT THE LIME STABILIZATION. THE CONTROL SECTION WILL USE SUBGRADE COMPACTION AND PROOF ROLLING AS PER ODOT CMS IN LEIU OF THE LIME STABILIZATION. ODOT'S RESEARCHERS WILL PERFORM TESTS ON THE 240 METERS OF TEST SECTION AS WELL AS 600 METERS OF ADJACENT PAVEMENT. THE TESTING WILL BE DONE ON THE FINISHED SUBGRADE, FINISHED BITUMINOUS AGGREGATE BASE COURSE AND ON THE COMPLETED SURFACE COURSE BEFORE IT IS OPENED TO TRAFFIC.

ODOT WILL REQUIRE THE CONTRACTOR TO PROVIDE THE RESEARCHER WITH STANDARD ODOT SMOOTHNESS MEASUREMENTS, IN ACCORDANCE WITH THE PROPOSAL NOTE "ASPHALT CONCRETE SURFACE SMOOTHNESS REQUIREMENTS", FOR THE 240 METER TEST SECTION AS WELL AS 600 METERS OF ADJACENT PAVEMENT FOR EACH BITUMINOUS AGGREGATE BASE LIFT AS WELL AS THE FINAL SURFACE COURSE. THESE SMOOTHNESS MEASUREMENTS WILL BE USED FOR DATA PURPOSES ONLY AND IN NO WAY WILL WAIVE THE SMOOTHNESS REQUIREMENTS OF THIS PROJECT.

THE CONTRACTOR IS REQUIRED TO NOTIFY THE RESEARCHERS AND THE ENGINEER AT LEAST FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF THE COMPLETION OF THESE COURSES AND ALLOW THE RESEARCHERS ACCESS ONTO THE PROJECT TO PERFORM THEIR TESTING.

SIGNS DELINEATING THE BEGIN AND END OF THE TEST SECTION SHALL BE PROVIDED AND ERECTED BY ODOT. THE PROJECT ENGINEER SHALL SEE THAT THE TEST SECTION IS TEMPORARILY MARKED BY EITHER ODOT OR RESEARCH PERSONNEL UNTIL THE PERMANENT SIGNS ARE ERECTED.

STREAM CHANNEL EXCAVATION

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

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

INSTREAM WORK

INSTREAM WORK WILL BE LIMITED WHERE PRACTICAL AND ONLY CLEAN NON-ERODIBLE MATERIAL WILL BE USED FOR FORDS OR COFFERDAMS. THIS TEMPORARY PLACED MATERIAL WILL BE REMOVED AND THE STREAM BOTTOM RESTORED TO NEAR NATURAL CONDITIONS WHEN THE WORK IS COMPLETED.

DUST CONTROL

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

616 - WATER	1000	CU. METER
616 - CALCIUM CHLORIDE	20	METRIC TON

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ITEM 605, 150mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN, 707.31 THIS ITEM SHALL BE CONSTRUCTED PER CMS 605 WITH THE FOLLOWING EXCEPTION: THE TRENCH WIDTH MAY BE REDUCED TO 254mm (10 INCHES).

ITEM 606, ANCHOR ASSEMBLY, TYPE E-98 THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OH 44420 (TELEPHONE: 330.545.4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 15.24m, INCLUSIVE OF TWO 7.62 m LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

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

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815.464.5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 15.24 m, INCLUSIVE OF FOUR 3.81 m LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWING:

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

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 450mm x 450mm.

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

ITEM 606, ANCHOR ASSEMBLY, TYPE B-98 THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE SRT-350 MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OH 44420 (TELEPHONE: 330.545.4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 11.43 m, INCLUSIVE OF THREE 3.81 m LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

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

- 2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815.464.5917).

THE LENGTH OF THE FLEAT-350 SYSTEM IS CONSIDERED TO BE 11.43 m, INCLUSIVE OF THREE 3.81 m LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWING:

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

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 915mm W x 305mm H FOR THE SRT-350 AND 350mm W x 500mm H FOR THE FLEAT.

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

ASBESTOS CERTIFICATION (NOT REQUIRED)

DUE TO THE PROPOSED WORK TO THE EXISTING STRUCTURE, THE CONTRACTOR AND THE STATE ARE NOT REQUIRED TO COMPLETE AN ASBESTOS CERTIFICATION FORM FOR THE FOLLOWING BRIDGE NUMBERS: ERI-2-13084 (SR 4); ERI-2-15031 (CAMPBELL ST.); ERI-2-20133 (GALLOWAY ROAD); ERI-2-22724 (CAMP ROAD).

ASBESTOS NOTIFICATION

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

THE BRIDGES WHICH WERE SURVEYED AND CONTAINED NO ASBESTOS ARE: ERI-2-14822 (SR 2 OVER PIPE CREEK), ERI-2-17638 (SR 2 OVER COLUMBUS AVENUE), ERI-2-19312 (SR 2 OVER USR 250), ERI-2-23770 (SR 2 OVER NORFOLK SOUTHERN RAILWAY), ERI-2-24430 (SR 2 OVER SAWMILL CREEK), AND ERI-2-24816 (RYE BEACH RD. OVER SR 2).

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR SHALL COMPLETE THE FORM AND RETURN IT TO THE DISTRICT CONSTRUCTION ENGINEER. THE COMPLETION OF THIS FORM MAY BE PERFORMED AT THE PRECONSTRUCTION MEETING. THE DISTRICT CONSTRUCTION ENGINEER SHALL SUBMIT IT TO (OEPA DISTRICT OFFICE OR THE LOCAL AIR AUTHORITY) AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF THE DEMOLITION OF THE BRIDGE. THE DISTRICT CONSTRUCTION ENGINEER SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE CONTRACTOR. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OF THE STRUCTURE UNTIL THE ABOVE REQUIREMENTS ARE MET.

INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

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

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

BASIS FOR PAYMENT

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

ITEM 202 GUARDRAIL REMOVED

THIS ITEM SHALL INCLUDE THE COST OF REMOVING THE GUARDRAIL, INCLUDING THE POSTS, BLOCKOUTS, ALL HARDWARE AND RAIL ELEMENTS, REFLECTORS, AND THE CONCRETE ANCHORS. ALL ITEMS REMOVED BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF PER 202.

THE EXISTING CONCRETE ANCHORS AND POSTS SHALL BE REMOVED ENTIRELY. BACKFILLING THE RESULTING VOIDS WITH GRANULAR OR OTHER ACCEPTABLE MATERIAL MEETING THE REQUIREMENTS OF 203 SHALL BE INCLUDED IN THIS PAY ITEM. THE CAVITIES SHALL BE FILLED AND COMPACTED UP TO THE SURROUNDING GROUND.

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE AT THE UNIT BID PRICE PER EACH FOR ITEM 202, GUARDRAIL REMOVED, WHICH SHALL INCLUDE ALL LABOR EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK AS STATED ABOVE.

ITEM 855 - ASPHALT TREATED FREE DRAINAGE BASE

ITEM 304 - AGGREGATE BASE

ITEM 302 - BITUMINOUS AGGREGATE BASE

THE USE OF CRUSHED CONCRETE AS AN AGGREGATE FOR THESE ITEMS IS NOT PERMITTED.

ITEM 607 FENCE, TYPE 47 AND CL, AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVAL OF ALL EXISTING RIGHT OF WAY FENCE AND ASSOCIATED HARDWARE, CLEARING OF THE NEW FENCE ALIGNMENT OF TREES AND BRUSH, FURNISHING AND APPLYING CUT STUMP HERBICIDE AND FURNISHING AND ERECTING NEW FENCE AND ASSOCIATED HARDWARE IN ACCORDANCE WITH THE PLAN AND CURRENT STANDARDS. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO DETERMINE THE CORRECT NUMBERS OF INDIVIDUAL FENCE COMPONENTS REQUIRED TO CONSTRUCT THE NEW FENCE IN ACCORDANCE WITH CURRENT STANDARDS.

THE INTENT OF THE PLAN IS TO CONSTRUCT THE NEW FENCE IN THE SAME TYPE AND LOCATION AS THE EXISTING FENCE, EXCEPT WHERE NECESSARY TO COMPLY WITH CURRENT STANDARDS (E.G. AT STRUCTURES ETC.). WHERE EXISTING FENCE IS MISSING AND ITS LOCATION CANNOT BE DETERMINED FROM FIELD EVIDENCE, THE DEPARTMENT WILL STAKE THE RIGHT OF WAY LINE AND NEW FENCE SHALL BE LOCATED FROM THE RIGHT OF WAY LINE IN ACCORDANCE WITH CURRENT STANDARDS. IN ALL CASES, CURRENT STANDARD CONSTRUCTION DRAWINGS SHALL BE USED TO ESTABLISH THE CORRECT CONFIGURATION AND LOCATION OF THE NEW FENCE.

THE WORK SHALL INCLUDE REMOVAL OF ALL OF THE EXISTING RIGHT OF WAY FENCE AND ASSOCIATED HARDWARE AND DISPOSAL. CORNER, END AND ANCHOR POSTS AND THEIR ASSOCIATED CONCRETE ENCASUREMENTS ARE TO BE COMPLETELY REMOVED. METAL POSTS SHALL BE REMOVED OR DRIVEN A MINIMUM OF 150 MM BELOW THE EXISTING GROUND SURFACE.

ALL TREES AND BRUSH WITHIN THE AREA 2 FEET (0.6 M) EITHER SIDE OF THE FENCE AND A SUFFICIENT DISTANCE INSIDE THE FENCE ALIGNMENT TO PERMIT ITS CONSTRUCTION SHALL BE REMOVED IN ACCORDANCE WITH ITEM 201, EXCEPT THAT NO STUMP MAY EXCEED A HEIGHT OF 2 INCHES (50 MM) ABOVE THE EXISTING GROUND SURFACE. THE STUMPS OF ALL TREES AND BRUSH SHALL BE TREATED WITH AN EPA REGISTERED HERBICIDE LABELED FOR CUT STUMP TREATMENT. THE HERBICIDE SHALL BE APPLIED ACCORDING TO LABEL INSTRUCTIONS. THE HERBICIDE USED FOR THIS PROJECT SHALL BE SHIPPED IN NEW SEALED CONTAINERS BEARING THE MANUFACTURER'S LABEL. THE CONTRACTOR SHALL BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL OR LIMITED COMMERCIAL APPLICATOR. ALL PERSONS APPLYING THE CUT STUMP HERBICIDE SHALL BE LICENSED COMMERCIAL OR LIMITED COMMERCIAL APPLICATORS OR UNDER THE DIRECT SUPERVISION OF THE SAME.

OHIO LAW REGULATES THE DISPOSAL OF LANDSCAPE WASTE THAT RESULT FROM ROADWAY CLEARING AND GRUBBING OPERATIONS. THE REGULATED WASTES INCLUDES BRUSH, TREES, STUMPS, TREE TRIMMINGS, BRANCHES, WEEDS, LEAVES, GRASS, SHRUBBERY, YARD TRIMMINGS, CROP RESIDUE, AND OTHER PLANT MATTER, EXCLUDING SOIL AND GARBAGE. THIS MATERIAL SHALL NOT BE BURIED OFF THE RIGHT-OF-WAY. THIS MATERIAL MAY BE BURIED IN NONSTRUCTURAL AREAS ON THE PROJECT SITE OR RIGHT-OF-WAY, WHERE PERMITTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AND SEEDED ACCORDING TO ITEM 659 AND INCLUDED IN ITEM 607 FOR PAYMENT.

THE FOLLOWING FENCING APPURTENANCES ARE ESTIMATED FOR THE PROJECT AND ALL COSTS FOR ALL WORK HEREIN SHALL BE INCLUDED IN THE UNIT PRICE BID PER METER ITEM 607.

CORNER POST ASSEMBLIES	167 EACH
INTERMEDIATE POST ASSEMBLIES	61 EACH
END POST ASSEMBLIES	80 EACH
CROSSING TYPE 2	9 EACH
CROSSING TYPE 3	50 EACH

FOR FENCE QUANTITIES SEE SHEET 105.

STORM WATER POLLUTION PREVENTION PLAN

THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING AND GRUBBING AND/OR GRADING OPERATIONS.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHOULD BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES.

SEE SHEETS 113 & 114 FOR QUANTITIES AND DETAILS.

ITEM 202 PAVEMENT REMOVED

THIS ITEM IS INTENDED FOR THOSE AREAS ON THE MAINLINE OF SR 2 WHERE THE CONTRACTOR CAN REMOVE BOTH THE PASSING AND DRIVING LANES' CONCRETE PAVEMENT AT THE SAME TIME FOR FULL DEPTH/FULL WIDTH CONSTRUCTION.

ITEM 202 PAVEMENT REMOVED, AS PER PLAN

THIS ITEM IS INTENDED FOR THOSE AREAS ON THE MAINLINE OF SR 2 WHERE THE CONTRACTOR HAS TO MAINTAIN TRAFFIC IN AN ADJOINING LANE OR PAVEMENT ON SR 2 AND THE ACCELERATION/DECELERATION LANES OF THE RAMPS WHERE ALL NEW PAVEMENT IS PROPOSED. THE SAWCUT FOR REMOVAL OF THE EXISTING CONCRETE PAVEMENT AS SHOWN IN THE PLANS FOR VARIOUS PHASING SHALL BE INCLUDED IN ITEM 202 PAVEMENT REMOVED, AS PER PLAN FOR PAYMENT. ANY ADDITIONAL SAWCUTTING OTHER THAN THAT SPECIFIED ON THE PLANS SHALL BE AT THE CONTRACTOR'S EXPENSE.

CALCULATED BY PMA
DATE 4-97
CHECKED BY JTY
DATE 5-98

GENERAL NOTES

ERI-2-12.558

18A
432

ITEM 203 - ROADWAY MISC.: SUBGRADE STABILIZATION

DESCRIPTION:

THE SUBGRADE WITHIN THE LIMITS OF THE PAVEMENT RECONSTRUCTION FOR ERI-2-12.558 (STA. 19+446.279 TO STA. 25+775 AND STA. 31+450 TO STA. 32+781.305) IS TO BE STABILIZED USING A MODIFIER CONSISTING OF HYDRATED LIME, QUICKLIME OR A MIXTURE OF QUICKLIME AND FLY ASH. THE CONTRACTOR MAY PROPOSE THE USE OF ANY OF THESE MODIFIERS; HOWEVER, THE FINAL ACCEPTANCE OF THE PROPOSED MODIFIER FOR USE ON THIS PROJECT REMAINS THE DISCRETION OF THE OWNER. AS PART OF THE BASIS FOR ACCEPTANCE OF THE PROPOSED MODIFIER, THE CONTRACTOR SHALL SUBMIT, NO LESS THAN 30 CALENDAR DAYS PRIOR TO COMMENCEMENT OF THE FIELD WORK FOR THIS PROJECT, THE RESULTS OF A COMPREHENSIVE LABORATORY TESTING PROGRAM AFFIRMING THE EFFECTIVENESS OF THE PROPOSED MODIFIER IN ACHIEVING THE REQUESTED MINIMUM SUBGRADE SUPPORT CRITERIA FOR THIS PROJECT. IT IS IMPERATIVE THAT THE LABORATORY TESTING PROGRAM INCORPORATE SAMPLES OF THE PROPOSED MODIFIER OBTAINED FROM THE IDENTICAL SOURCES THAT WILL SUPPLY THE MODIFIER DURING THE SUBSEQUENT ENTIRE CONSTRUCTION ACTIVITY.

MATERIALS:

PRIOR TO INITIATING THE LABORATORY TESTING PROGRAM, THE CONTRACTOR SHALL SUBMIT THE RESULTS OF A CHEMICAL ANALYSIS OF THE PROPOSED MODIFIER(S) WHICH ADDRESS, AT THE VERY LEAST, THE APPLICABLE SPECIFICATION(S) LISTED BELOW:

- LIME (HYDRATED) - ASTM C25, C977
- LIME (QUICKLIME) - ASTM C25, C821, C977
- FLY ASH - ASTM C593

GENERAL:

PORTIONS OF THE EXISTING SUBGRADE CONTAINING DELETERIOUS MATERIALS (ORGANIC SOILS, SILTS) WERE ENCOUNTERED DURING THE SUBSURFACE INVESTIGATION PERFORMED BY BBC&M ENGINEERING, INC., AND DOCUMENTED IN A REPORT DATED MAY 26, 1999. SUCH SOILS ARE NOT CONSIDERED SUITABLE FOR USE WITH SUBGRADE STABILIZATION AND SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS PRIOR TO THE COMMENCEMENT OF THE STABILIZATION PROCESS. THE ACCEPTABILITY OF ALL EXISTING SUBGRADE SOILS SHALL BE THE DISCRETION OF THE ENGINEER. THIS WORK SHALL NOT BE PERFORMED WHEN THE GROUND OR MATERIALS ARE FROZEN. THE ENGINEER SHALL BE CONSULTED AS TO THE ACCEPTABILITY OF THE GROUND OR WEATHER CONDITIONS PRIOR TO COMMENCEMENT OF WORK. THE GRADE OF THE UNTREATED SUBGRADE SHALL BE WITHIN +/- 15 MM OF THE PLAN ELEVATION PRIOR TO STABILIZATION. THIS DOES NOT WAIVE THE REQUIREMENT FOR THE FINAL ELEVATION OF THE SUBGRADE.

SAMPLING PROCEDURES FOR PRECONSTRUCTION LABORATORY TESTING:

THE LABORATORY TESTING PROGRAM SHALL BE CONDUCTED WITH SAMPLES OF THE ANTICIPATED SUBGRADE SOILS PROCURED FROM LOCATIONS APPROVED BY THE ENGINEER ALONG THE ENTIRE LENGTH OF THE PROJECT. THE TOTAL NUMBER OF SOIL SUBGRADE SAMPLES PROCURED AND USED AS PART OF THE LABORATORY TESTING PROGRAM MUST BE SUFFICIENT IN NUMBER TO PROPERLY REPRESENT THE ENTIRE RANGE OF SOIL TYPES, AS CLASSIFIED UNDER THE ODOT SOIL CLASSIFICATION SYSTEM, ENCOUNTERED ON THE PROJECT, AS REPORTED IN THE REPORT "SUBGRADE INVESTIGATION, ERI-2-12.558", DATED MAY 26, 1999 AND PREPARED BY BBC&M ENGINEERING, INC. THE ENGINEER SHALL BE CONSULTED AS TO THE ADEQUACY OF THE SUBGRADE SAMPLING PROGRAM PRIOR TO INITIATING THE FIELD SAMPLING WORK. PRIOR TO INITIATING ANY FIELD ACTIVITIES FOR THIS PROJECT SUCH AS SUBGRADE SAMPLING, SUCH FIELD ACTIVITIES MUST BE COORDINATED WITH THE ENGINEER TO ASSURE COMPLIANCE WITH ALL APPLICABLE GUIDELINES AND REQUIREMENTS.

THE MAJORITY OF THIS PORTION OF S.R. 2 IS LOCATED ON EMBANKMENTS COMPOSED OF HETEROGENEOUS FILL SOILS. AS SUCH, THE SOILS TO BE STABILIZED CAN BE EXPECTED TO BE HIGHLY VARIABLE, AND ANY PROPOSED MODIFIER MUST BE SHOWN TO BE CAPABLE OF IMPROVING A WIDE RANGE OF SOIL TYPES. BASED ON THE INFORMATION OBTAINED DURING THE SUBGRADE EVALUATION, AT A MINIMUM, IT IS RECOMMENDED THAT SUBGRADE SAMPLES BE OBTAINED AT LOCATIONS SHOWN IN THE FOLLOWING TABLE AND AT DEPTHS CONSISTENT WITH THE PROPOSED ZONE OF SOIL STABILIZATION.

SAMPLE NUMBER	STATION	ANTICIPATED SUBGRADE TYPE
1	19+540	A-4a
2	20+585	A-6b
3	21+343	A-7-6
4	21+845	A-6a
5	23+100	A-6a
6	23+895	A-4a
7	24+920	A-6b
8	25+090	A-1-b
9	31+920	A-7-6
10	32+360	A-6b

ALL SAMPLE LOCATIONS HAVE BEEN SPECIFICALLY SELECTED TO OBTAIN SOIL OF THE TYPE ANTICIPATED.

AT EACH LOCATION, SUFFICIENT SAMPLE SHALL BE OBTAINED TO ALLOW FOR A COMPLETE TEST SERIES. THIS WILL LIKELY REQUIRE AT LEAST A 68-KG (150-LB) BULK SAMPLE AT EACH LOCATION. THE SAMPLES, THEMSELVES SHOULD BE OBTAINED FROM THE SHOULDER PORTION OF THE ROADWAY, FROM THE PORTION OF THE SUBGRADE PROPOSED TO BE STABILIZED. NO SAMPLES TO BE TESTED SHALL CONSIST OF MATERIAL WHICH WILL BE SUBSEQUENTLY REMOVED (ORGANIC SOILS, SILTS). THE SPECIFIC SAMPLES SELECTED SHALL BE AT THE DISCRETION OF THE REPRESENTATIVE OF ODOT PRESENT AT THE TIME OF SAMPLING. ALL SAMPLING AND ROADWAY REPAIR SHOULD BE PERFORMED IN ACCORDANCE WITH ODOT REQUIREMENTS.

ALL LABORATORY TESTING SHALL BE PERFORMED BY A GEOTECHNICAL ENGINEERING CONSULTANT PREQUALIFIED WITH ODOT TO PERFORM GEOTECHNICAL ENGINEERING AND LABORATORY TESTING SERVICES (AASHTO CERTIFIED) AND EXPERIENCED WITH THE PROCEDURES ASSOCIATED WITH MIXING, CURING AND TESTING SOIL/MODIFIER MIXTURES.

THE LABORATORY PROCEDURES FOR TESTING OF SOIL MIXED WITH LIME OR QUICKLIME/FLY ASH SHALL GENERALLY FOLLOW THE GUIDELINES PUT FORTH BY AASHTO AND, AT THE LEAST, ADDRESS TESTING TO MEASURE THE MOISTURE-DENSITY RELATIONS, THE UNCONFINED COMPRESSIVE STRENGTH AND THE CALIFORNIA BEARING RATIO FOR, BOTH, THE REMODELLED SOIL AS WELL AS THE CURED SOIL/MODIFIER MIXTURE. LABORATORY TESTING PROCEDURES ASSOCIATED WITH MODIFIERS INCORPORATING A COMBINATION OF QUICKLIME/FLY ASH SHALL FOLLOW THE GUIDELINES PUT FORTH IN THE AASHTO/AGC/ARTBA JOINT COMMITTEE TASK FORCE 28 REPORT, GUIDELINES AND GUIDE SPECIFICATIONS FOR "USING POZZOLANIC STABILIZED MIXTURE (BASE COURSE OR SUBBASE) AND FLY ASH FOR IN-PLACE SUBGRADE SOIL MODIFICATION". LABORATORY TESTING PROCEDURES ASSOCIATED WITH MODIFIERS OF HYDRATED LIME OR QUICKLIME SHALL FOLLOW THE GUIDELINES PUT FORTH IN AASHTO T-220, "DETERMINATION OF THE STRENGTH OF SOIL-LIME MIXTURES", AND ASTM D 3668, "STANDARD TEST FOR BEARING RATIO OF LABORATORY COMPACTED SOIL-LIME MIXES". THE TEST RESULTS MUST INDICATE THAT THE MEASURED LABORATORY STRENGTHS AND BEARING RATIO FOR THE PROPOSED COMPACTED SOIL/MODIFIER MIXTURE EXCEEDS THE MINIMUM DESIGN REQUIREMENTS FOR SUBGRADE IMPROVEMENT ON THIS PROJECT.

EXPERIENCE, EQUIPMENT LISTS AND PROCEDURES:

THE CONTRACTOR MUST DISPLAY EVIDENCE OF EXPERIENCE WITH THE SOIL STABILIZATION CONSTRUCTION PROCESS WITH THE PROPOSED MODIFIER ON NO LESS THAN FOUR PROJECTS OF SIMILAR OR GREATER SCOPE AND PROVIDE EVIDENCE OF SUFFICIENT SUPPLY OF THE PROPOSED MODIFIER FROM THE SAME SUPPLIER AS USED DURING THE TESTING FOR THE DURATION OF THE PROJECT. THE CONTRACTOR MUST ALSO PROVIDE EQUIPMENT LISTS AND PROCEDURES DETAILING THE PROPOSED WORK PROCESS, WITH SPECIFIC EMPHASIS ON THE EQUIPMENT/PROCEDURES FOR SPREADING AND MIXING THE SELECTED MODIFIER. CONSIDERATIONS ASSOCIATED WITH ENVIRONMENTAL ISSUES OF HANDLING AND SPREADING THE MODIFIER AS WELL AS THE EFFECTIVENESS OF ADEQUATELY AND UNIFORMLY MIXING THE SUBGRADE SOIL AND MODIFIER TO THE COMPLETE DESIGN DEPTH OF IMPROVEMENT MUST BE SPECIFICALLY ADDRESSED. THE USE OF A ROTARY-TYPE MIXING UNIT OR RECLAIMER/STABILIZER UNIT INCORPORATING SUCH MIXING ACTION IS ESSENTIAL TO THE SUCCESS OF THE STABILIZATION. THE OWNER RESERVES THE RIGHT TO ACCEPT THE PROPOSED PROCEDURES OR REQUEST REASONABLE MODIFICATIONS.

IN GENERAL, THE STABILIZATION CONSTRUCTION UTILIZING HYDRATED LIME SHALL FOLLOW THE GUIDELINES PUT FORTH IN NATIONAL LIME ASSOCIATION BULLETIN 326, LIME STABILIZATION CONSTRUCTION MANUAL. SUCH PROCEDURES REQUIRE A PRELIMINARY CURE PERIOD OF NO LESS THAN 48 TO 72 HOURS FOLLOWING LIME/SOIL MIXING AND WATERING TO PERMIT BREAK DOWN (MELLOWING) OF THE CLAY CLODS PRIOR TO FINAL MIXING, COMPACTION AND CURING. DURING THIS TIME, THE SOIL/LIME MIXTURE MOISTURE CONTENT SHALL EXCEED 4% ABOVE THE OPTIMUM MOISTURE CONTENT, AS VERIFIED BY FIELD TEST RESULTS. FOLLOWING MELLOWING AND FINAL MIXING, THE LIME/SOIL MIXTURE SHOULD BE COMPACTED TO A DRY UNIT WEIGHT OF NO LESS THAN 98% OF THE MAXIMUM DRY UNIT WEIGHT AND AT A MOISTURE CONTENT AT LEAST 3% ABOVE THE OPTIMUM MOISTURE CONTENT FOR THE LIME/SOIL MIXTURE AS DEFINED BY THE AASHTO T-220 PROCEDURES OR ASTM D698 (STANDARD PROCTOR COMPACTION TEST). DURING FINAL CURING OF THE COMPACTED STABILIZED SUBGRADE, ALL TRAFFIC (EXCEPT FOR WATER TRUCKS AND GRADERS) SHALL BE RESTRICTED FROM THE SUBGRADE AREAS, AND THE SUBGRADE SHALL BE MAINTAINED IN A MOIST CONDITION (AT OR ABOVE THE OPTIMUM MOISTURE CONTENT). DEPENDING UPON WEATHER CONDITIONS, CONSIDERATION SHOULD BE GIVEN TO THE USE OF AN ASPHALTIC OR OTHER TYPE MEMBRANE TO MAINTAIN THE PROPER MOISTURE CONTENT DURING FINAL CURING. THE CURING PERIOD WILL EXTEND FOR A MINIMUM OF 5 DAYS.

IN GENERAL, THE STABILIZATION CONSTRUCTION UTILIZING QUICKLIME SHALL ALSO FOLLOW ALL GUIDELINES PUT FORTH IN NATIONAL LIME ASSOCIATION BULLETIN 326, LIME STABILIZATION CONSTRUCTION MANUAL, EXCEPT THAT A MELLOWING PERIOD IS NOT REQUIRED.

IN GENERAL, THE STABILIZATION CONSTRUCTION UTILIZING QUICKLIME AND FLY ASH SHALL FOLLOW THE GUIDELINES PUT FORTH IN AASHTO/AGC/ARTBA TASK FORCE 28 REPORT, GUIDELINES AND GUIDE SPECIFICATIONS FOR "USING POZZOLANIC STABILIZED MIXTURE (BASE COURSE OR SUBBASE) AND FLY ASH FOR IN-PLACE SUBGRADE SOIL MODIFICATION" FOLLOWING WATERING AND ADEQUATE MIXING OF THE SOIL AND MODIFIERS, THE QUICKLIME/FLY ASH/SOIL MIXTURE SHOULD BE PROMPTLY COMPACTED TO A DRY UNIT WEIGHT OF NO LESS THAN 98% OF THE MAXIMUM DRY UNIT WEIGHT AND AT A MOISTURE CONTENT AT LEAST 3% ABOVE THE OPTIMUM MOISTURE CONTENT FOR THE QUICKLIME/FLY ASH/SOIL MIXTURE AS DEFINED BY THE ASTM D698 (STANDARD PROCTOR COMPACTION TEST) LABORATORY PROCEDURES. DURING FINAL CURING OF THE COMPACTED STABILIZED SUBGRADE, ALL TRAFFIC (EXCEPT FOR WATER TRUCKS AND GRADERS) SHALL BE RESTRICTED FROM THE SUBGRADE AREAS, AND THE SUBGRADE SHALL BE MAINTAINED IN A MOIST CONDITION (AT OR ABOVE THE OPTIMUM MOISTURE CONTENT). DEPENDING UPON WEATHER CONDITIONS, CONSIDERATION SHOULD BE GIVEN TO APPLYING/SPRAYING AN ASPHALTIC OR OTHER TYPE MEMBRANE TO MAINTAIN THE PROPER MOISTURE CONTENT DURING FINAL CURING. THE CURING PERIOD WILL EXTEND FOR A MINIMUM OF 5 DAYS.

FOLLOWING CURING, THE SUBGRADE SHALL NOT BE ALLOWED TO DESICCATE AND CRACK, PRIOR TO THE PLACEMENT OF THE FIRST LAYER OF GRANULAR BASE.

STABILIZED SUBGRADE TESTING:

DURING THE COMPACTION PHASE OF THE STABILIZATION CONSTRUCTION PROCESS, THE DRY UNIT WEIGHT OF THE STABILIZED SOIL SHALL BE MEASURED USING A POSITIVE-DISPLACEMENT TEST METHOD SUCH AS ASTM D2167, "STANDARD TEST METHOD FOR DENSITY OF SOIL IN-PLACE BY THE RUBBER-BALLOON METHOD", OR ASTM D2937, "STANDARD TEST METHOD FOR DENSITY OF SOIL IN-PLACE BY THE DRIVE-CYLINDER METHOD". ADDITIONAL TESTING OF THE STABILIZED AND CURED SUBGRADE TO ASSURE THE ATTAINMENT OF THE MINIMUM REQUIRED SUPPORT CRITERIA MAY BE REQUESTED BY THE OWNER AND MAY INCLUDE, AMONG OTHER REQUESTS, PERFORMANCE OF IN-PLACE CBR TESTING CONDUCTED IN GENERAL ACCORDANCE WITH ASTM D4429, "STANDARD TEST METHOD FOR CBR (CALIFORNIA BEARING RATIO) - SOILS IN PLACE."

THROUGHOUT THE CURING PERIOD MOISTURE CONTENT VALUES SHALL BE DETERMINED FROM REPRESENTATIVE LOCATIONS OF THE SUBGRADE AND AT VARIOUS DEPTHS WITHIN THE ZONE OF STABILIZATION ON A DAILY BASIS. THIS INFORMATION CAN THEN BE USED TO MODIFY THE CURING TECHNIQUES AS REQUIRED IN ORDER TO MAINTAIN A SUBGRADE MOISTURE CONTENT AT OR ABOVE THE OPTIMUM MOISTURE CONTENT.

FINAL ACCEPTANCE OF THE STABILIZED AND CURED SUBGRADE SHALL INCLUDE PROOF ROLLING, TO BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES SET FORTH IN SECTION 13, "TEST ROLLING SUBGRADE" OF THE ODOT MANUAL OF PROCEDURES FOR EARTHWORK.

ALL TESTING OF THE STABILIZED SUBGRADE, INCLUDING COMPACTION TESTING, IN-PLACE CBR TESTS AND PROOF ROLLING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER ON THE SAME DAY AS PERFORMED. IN ORDER TO PROVIDE INFORMATION ON A TIMELY BASIS, THE CONTRACTOR'S TESTING AGENCY WILL NEED TO BE PRESENT DURING THE INITIAL MIXING PHASE, THE COMPACTION PHASE AND THROUGHOUT THE CURING PHASE OF THE WORK.

DESIGN:

THE DESIGN DEPTH OF SOIL STABILIZATION FOR THIS PROJECT IS 300 MM. THE MINIMUM ACCEPTABLE CBR VALUE IS 7.

INACCESSIBLE AREAS:

AREAS OF THE SUBGRADE, SUCH AS THOSE ADJACENT TO BRIDGE ABUTMENTS, WHICH CANNOT BE STABILIZED SHALL BE IMPROVED THROUGH REPLACEMENT OF THE EXISTING SOIL SUBGRADE WITH PROPERLY COMPACTED CRUSHED STONE, USING ODOT ITEM 703 NO. 2 AND NO. 4 STONE. ANY SUCH REPLACEMENT MATERIAL SHALL BE APPROVED PRIOR TO PLACEMENT BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 203	ROADWAY, MISC.: NO. 2 STONE	100 CU. METER
ITEM 203	ROADWAY, MISC.: NO. 4 STONE	100 CU. METER

METHOD OF MEASUREMENT:

A) MEASUREMENT OF SUBGRADE STABILIZATION. THE QUANTITY FOR THIS ITEM SHALL BE THE NUMBER OF SQUARE METERS COMPLETED AND ACCEPTED IN PLACE. THE WIDTH FOR MEASUREMENT WILL BE THE WIDTH SHOWN ON THE TYPICAL SECTIONS OF THE PLANS AND ADDITIONAL WIDENING WHERE CALLED FOR OR OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THE LENGTH WILL BE MEASURED HORIZONTALLY ALONG THE CENTERLINE OF EACH ROADWAY OR RAMP.

B) MEASUREMENT OF WATER. THE QUANTITY FOR THIS ITEM SHALL BE THE NUMBER OF CUBIC METERS APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS ITEM. THE MEASUREMENT SHALL BE IN ACCORDANCE WITH 616. THE WATER USED FOR SPREADING THE LIME MODIFIER THAT BRINGS THE SOIL TO MORE THAN 5 PERCENT ABOVE OPTIMUM, IMMEDIATELY AFTER THE APPLICATION OF THE MODIFIER, SHALL NOT BE MEASURED FOR PAYMENT.

C) MEASUREMENT OF LIME. THE QUANTITY FOR THIS ITEM SHALL BE THE NUMBER OF METRIC TONS DELIVERED FOR SUBGRADE STABILIZATION AND INCORPORATED IN THE WORK. THE LIME INCORPORATED IN THE STABILIZED SUBGRADE SHALL BE MEASURED FOR PAYMENT IN METRIC TONS.

ALL PAY QUANTITIES SHALL BE DETERMINED BY FINAL MEASUREMENT.

BASIS OF PAYMENT:

THE CONTRACT PRICE PER SQUARE METER FOR SUBGRADE STABILIZATION SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS(EXCEPT LIME AND WATER) EQUIPMENT AND INCIDENTALS AND FOR DOING ALL WORK INVOLVED IN PROCESSING THE LIME MIXTURE AND CONSTRUCTING THE STABILIZED SUBGRADE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 203	ROADWAY MISC.: WATER	13,700 CU. METER
ITEM SPECIAL	MISC.: LIME	500 MTON

CALCULATED
DATE 4-97
CHECKED
DATE 5-99

GENERAL NOTES

ERI-2-12.558

18B
432

FILE NAME: SHT4~ I:\5033\006\TRAN\DWG\R_11376GNA.DWG 8--20--99 3:16:30 pm EST
PLOTTED: KJB

GENERAL

THE CONTRACTOR SHALL NOTIFY THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE ROADWAY SERVICE MANAGER FIFTEEN (15) WORKING DAYS IN ADVANCE OF BEGINNING THE MAINTENANCE OF TRAFFIC OPERATIONS TO ALLOW FOR SIGN SET UP OF DETOUR ROUTES BY STATE FORCES AND FOR THE PUBLIC TO BE NOTIFIED.

ITEM 614. MAINTAINING TRAFFIC A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON STATE ROUTE 2 BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT AND TEMPORARY SURFACES USING 614, 410 AND 615.

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 30 AND APRIL 1 WITH THE EXCEPTION OF RYE BEACH ROAD AND RAMPS. NOVEMBER 30 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

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.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 1200 MM X 750 MM "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS, AS DETAILED IN STANDARD CONSTRUCTION DRAWING MT-101.60M AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

- ALL RAMPS
- RYE BEACH ROAD BRIDGE OVER STATE ROUTE 2

PAYMENT 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.

GENERAL

TRAFFIC SHALL BE MAINTAINED AS PER THE SPECIFICATIONS, MAINTENANCE OF TRAFFIC STANDARD DRAWINGS, PLAN DETAILS, AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY:

- 1) THE CONTRACTOR SHALL SUBMIT IN WRITING, A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL INFORM THE LOCAL STATE HIGHWAY PATROL OF THE SCHEDULE OF OPERATIONS FOR THE MAINTENANCE OF TRAFFIC, AND OF ANY CHANGES TO THE SCHEDULE THEREAFTER.
- 2) THE CONTRACTOR SHALL DESIGNATE A QUALIFIED INDIVIDUAL, OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO PERIODICALLY INSPECT, DOCUMENT, REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL INSPECT, DOCUMENT, REPAIR AND/OR REPLACE ALL TRAFFIC CONTROL DEVICES AT THE BEGINNING AND END OF EACH WORK DAY, AND AT LEAST ONCE EVERY TWO (2) HOURS WHILE WORK IS BEING CONDUCTED ON THE PROJECT.

THE ABOVE DESIGNATED INDIVIDUAL OR ANOTHER QUALIFIED INDIVIDUAL SUBJECT TO THE APPROVAL OF THE ENGINEER SHALL BE AVAILABLE AND ON CALL DURING THE NON-WORKING PERIODS THAT TRAFFIC IS DIVERTED FROM ITS NORMAL PATH. THIS INDIVIDUAL SHALL AT A MINIMUM OF ONCE EVERY DAY INSPECT, DOCUMENT, REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. IN ADDITION, THIS INDIVIDUAL SHALL BE ABLE TO RESPOND AND BE ON THE PROJECT WITHIN TWO (2) HOURS AFTER A CALL AND HAVE SUFFICIENT INVENTORY ON HAND TO REPAIR OR REPLACE THE DAMAGED OR MISSING TRAFFIC CONTROL DEVICE.

3) THE FOLLOWING QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR MAINTAINING TRAFFIC, AS DIRECTED BY THE ENGINEER.

ITEM 614	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	450 CU. METERS
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4) PRIOR TO SETTING UP THE MAINTENANCE OF TRAFFIC, THE CONTRACTOR SHALL CLEAN, TACK, PATCH & ROLL BAD AREAS AS DIRECTED BY THE ENGINEER.

PLACEMENT OF ASPHALT CONCRETE TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES ON OVERPASSES OF THE MAINLINE.

TRENCH FOR WIDENING (MAINLINE SR-2 & RAMPS): TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH BARRIERS, DRUMS OR BARRICADES AT ALL TIMES AS NOTED IN THE PLANS. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING IF THE TRAVELED ROAD WAY IS NOT PROTECTED WITH PORTABLE CONCRETE BARRIERS, THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 38 MILLIMETERS BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (7.5 METERS OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

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.

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

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING THE REMOVAL OF ANY BRIDGE PARAPETS OR REMOVAL OF OVERHEAD SIGNS WHERE TRAFFIC IS MAINTAINED.

DURING HIGH TOURIST TRAFFIC TIMES (GENERALLY FRIDAYS, SATURDAYS AND SUNDAYS DURING THE SUMMER MONTHS). DURING THIS TIME, THREE OFFICERS IN PATROL CARS, INCLUDING ONE SUPERVISOR, SHALL PATROL THE CONSTRUCTION AREA. THE ASSIGNMENT OF THESE OFFICERS WILL BE MADE EXCLUSIVELY BY THE POST COMMANDER.

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:

OHIO STATE HIGHWAY PATROL
511 FREMONT RD.
SANDUSKY, OHIO 44870
(419) 734-1952

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON AN HOURLY BASIS UNDER ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 1712 HOURS

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

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

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 622. PORTABLE CONCRETE BARRIER ALL APPROACH SECTIONS OF PORTABLE CONCRETE BARRIERS SHALL BE PROTECTED WITH A TAPERED BARRIER SECTION UNLESS OTHERWISE SPECIFIED.

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.

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

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER SQUARE METERS FOR ITEM SPECIAL, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 40 SQUARE METERS HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

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 THE 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 400 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) 55 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, AS PER PLAN. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, AS PER PLAN. 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 SIGN 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 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 ITEM 630 GROUND MOUNTED SUPPORTS, NO. 3 POSTS.

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

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

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

TEMPORARY PAVEMENT CONSTRUCTION THE STATE WILL ALLOW OVERNIGHT LANE CLOSURES IN ORDER FOR THE CONTRACTOR TO CONSTRUCT ALL OF THE TEMPORARY PAVEMENT FOR THE ENTIRE PROJECT ON SR 2 PRIOR TO THE BEGINNING OF THE FIRST PHASE.

WHERE TEMPORARY PAVEMENT IS REQUIRED ON THE RAMPS AT THE MAINLINE/GORE AREAS ONLY, THE CONTRACTOR WILL BE ALLOWED TO PLACE THE TEMPORARY PAVEMENT PRIOR TO THE JOINT REPAIR. HOWEVER, WHEN THE JOINT REPAIR IS MADE AND DAMAGE IS DONE TO THIS TEMPORARY PAVEMENT ADJACENT TO JOINT REPAIR AREA, IT SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON THE RAMPS DURING THIS OPERATION.

THE "OVERNIGHT TRENCH CLOSING" NOTE IS AMENDED SUCH THAT A 127 MM DROPOFF REQUIREMENT IS ACCEPTABLE WHEN THE ADJACENT LANE IS CLOSED TO TRAFFIC. IF THE ADJACENT LANE IS OPEN TO TRAFFIC, ONLY A MAXIMUM OF 32 MM DROPOFF IS ACCEPTABLE.

CALCULATED BY: JTY DATE: 3-98
CHECKED BY: GAB DATE: 4-98

MAINTENANCE OF TRAFFIC GENERAL NOTES

ERI-2-12-558

FILE NAME: SHT~ I:\5033\006\TRAN\WOT\11376MNA.DWG 8-19-99 3:34:02 pm EST
PLOTTED: KJB

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 614, WORK ZONE SPEED LIMIT SIGN 40 EACH

ITEM 614. BARRIER REFLECTOR REFLECTORS AND THEIR MOUNTINGS SHALL BE AS INDICATED AND CONFORM TO ITEM 626 EXCEPT THAT SPACING SHALL BE 8M CENTER TO CENTER. OBJECT MARKERS SHALL BE AT THE SAME SPACING AS THE BARRIER REFLECTORS. AN ADDITIONAL QUANTITY OF 500 BARRIER REFLECTORS ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO REPLACE DAMAGED EXISTING REFLECTORS OR REFLECTORS REQUIRED FOR THE REPLACEMENT OF DAMAGED GUARDRAIL.

ITEM 614. DOUBLED FINES IN WORK ZONE SIGN THIS ITEM SHALL CONSIST OF FURNISHING, ERECTING, MAINTAINING, AND/OR REPLACING AS NECESSARY AND SUBSEQUENTLY REMOVING R-180-48 (CONSTRUCTION ZONE-FINES DOUBLED) SIGNS BY THE CONTRACTOR AS DETAILED BELOW.

THESE SIGNS MAY BE ERECTED FOR CONSTRUCTION ZONES ONLY IF THE PLANNED WORK LENGTH IS AT LEAST 805 METERS LONG AND THE WORK WILL LAST FOR AT LEAST 30 DAYS. A CONSTRUCTION ZONE SHALL BE AS DEFINED AS THAT LANE OR PORTION OF STREET OR HIGHWAY OPEN TO VEHICULAR TRAFFIC AND ADJACENT TO A LANE, BERM, OR SHOULDER OF A STREET OR HIGHWAY WITHIN WHICH LANE, BERM, OR SHOULDER CONSTRUCTION, RECONSTRUCTION, RESURFACING, OR ANY OTHER WORK OF A REPAIR OR MAINTENANCE NATURE, INCLUDING PUBLIC UTILITY WORK, IS BEING CONDUCTED, COMMENCING WITH THE POINT WHERE THE FIRST WORKER OR PIECE OF EQUIPMENT IS LOCATED AND ENDING WHERE THE LAST WORKER OR PIECE OF EQUIPMENT IS LOCATED.

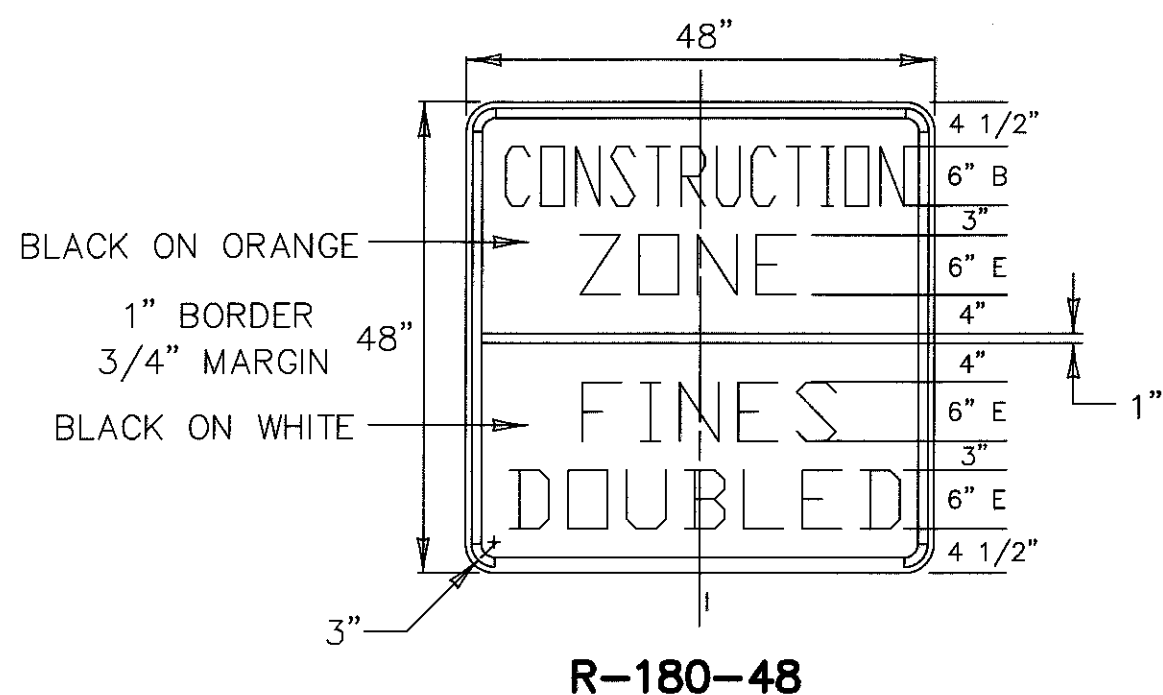
THE WORK LENGTH IS DEFINED AS THE LENGTH OF ROADWAY DIRECTLY AND INDIRECTLY AFFECTED BY CONSTRUCTION ACTIVITIES INCLUDING THE TRANSITION AREA (WHERE REDIRECTION OF THE DRIVER'S NORMAL PATH OCCURS) THE ACTIVITY AREA (WHICH INCLUDES THE CONSTRUCTION ZONE AND ANY BUFFERS) AND THE TERMINATION AREA (WHERE TRAFFIC IS RETURNED TO ITS NORMAL PATH), BUT NOT INCLUDING THE ADVANCE WARNING SIGN AREA.

WHERE WORKERS AND CONSTRUCTION EQUIPMENT ARE BEYOND THE TRAFFIC LANES AND PAVED SHOULDER, THE SIGNS SHALL NOT BE PROVIDED. ALSO, IF CONSTRUCTION ACTIVITY AFFECTS ONLY ONE DIRECTIONAL ROADWAY OF A DIVIDED HIGHWAY WITH A BARRIER OR WIDE MEDIAN, SIGNS SHALL NOT BE ERECTED FOR TRAFFIC ON THE OPPOSING DIRECTIONAL ROADWAY OR RAMP.

THE SIGNS SHALL BE MOUNTED ON BOTH SIDES (DUAL) OF A DIRECTIONAL ROADWAY OF A DIVIDED HIGHWAY, AND ONLY ON THE RIGHT SIDE OF RAMPS. THE FIRST SIGNS SHALL BE PLACED BETWEEN THE "ROAD CONSTRUCTION AHEAD" (OW-128) SIGN AND THE NEXT SIGN IN THE SEQUENCE. ADDITIONAL SIGNS ARE REQUIRED FOR LONG CONSTRUCTION ZONES OR WHERE RAMPS JUNCTION WITHIN THE CONSTRUCTION PROJECT WORK LIMITS. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP, AND AT LEAST ONCE EVERY TWO MILES THROUGH THE CONSTRUCTION WORK LIMITS.

SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MOUNTED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

SIGNS SHALL BE COVERED OR REMOVED WHEN A CONSTRUCTION ZONE IS DISCONTINUED FOR A PERIOD OF 30 DAYS OR MORE.



R-180-48

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 614, DOUBLED FINES IN WORK ZONE SIGN 16 EA.

REPLACEMENT OF DAMAGED GUARDRAIL IF, DURING THE CONSTRUCTION OF THE PROJECT, THE EXISTING GUARDRAIL IS DAMAGED BY THE TRAVELING PUBLIC, THE CONTRACTOR SHALL REPAIR THE DAMAGED SECTIONS AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITIES ARE PROVIDED FOR SUCH OCCURRENCES:

ITEM	QUANTITY	UNIT	DESCRIPTION
606	1500	METERS	GUARDRAIL, TYPE 5
606	15	EACH	ANCHOR ASSEMBLY, TYPE B-98
202	2250	METERS	GUARDRAIL REMOVED

SALVAGEABLE GUARDRAIL MAY BE REUSED IF IT IS DETERMINED BY THE ENGINEER TO BE IN GOOD CONDITION. ANY GRADING NECESSARY TO RESTORE THE DAMAGED AREA BACK TO THE PRE-EXISTING CONDITION SHALL BE CONSIDERED INCIDENTAL IN THE COST OF ITEM 606.

THE REMOVAL AND DISPOSAL OF THE DAMAGED GUARDRAIL AND ANCHOR ASSEMBLIES SHALL BE PERFORMED BY THE METER MEASUREMENT AND INCLUDED IN ITEM 202 GUARDRAIL REMOVED.

QUANTITIES NOT USED FOR THE INTENDED PURPOSE SHALL BE NONPERFORMED.

THE 606 ITEMS IN THIS NOTE ARE INTENDED TO BE USED ONLY DURING THE MAINTENANCE OF TRAFFIC PHASES OF THIS PROJECT. THE ARE NOT TO BE CONSIDERED AS A PERMANENT INSTALLATION.

WORKSITE TRAFFIC SUPERVISOR THE CONTRACTOR SHALL EMPLOY A PROFESSIONAL WORKSITE TRAFFIC SUPERVISOR (WTS) FOR THE PURPOSE OF MONITORING THE TRAFFIC CONTROL PLAN (TCP). THE WTS SHALL HAVE EXPERIENCE OR TRAINING IN PROJECT SUPERVISION AND TRAFFIC CONTROL COMMENSURATE WITH THE RESPONSIBILITIES OF MANAGING THE PROJECT TRAFFIC CONTROL AND COORDINATION WITH THE MOTOTIST INFORMATION SYSTEM OUTSIDE THE PROJECT LIMITS. THE GOALS OF THE WTS'S POSITION ARE TO MINIMIZE TRAFFIC CONGESTION AND MAXIMIZE PROJECT SAFETY AND EFFICIENCY. THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR (ENGINEER OF CONSTRUCTION) FOR APPROVAL A RESUME OF THE EXPERIENCE, TRAINING AND EDUCATION OF THE PERSON PROPOSED FOR WTS. THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE ETC. THE WTS SHALL REVIEW THE TRAFFIC CONTROL PATTERN UPON COMPLETION OF THE INSTALLATION BOTH DURING THE DAY AND AT NIGHT FOR ASSURANCE OF CONTRACT COMPLIANCE. THE WTS SHALL MAKE RECOMMENDATIONS TO MODIFY THE TCP FOR BETTER/SAFER TRAFFIC FLOW. THESE RECOMMENDATIONS SHALL BE MADE IN WRITING TO THE DIRECTOR. NO CHANGES TO THE TCP SHALL BE MADE UNTIL APPROVAL IS OBTAINED FROM THE DIRECTOR IN WRITING.

EACH DAY, THE WTS SHALL REVIEW THE PROJECT'S TRAFFIC CONTROL. A MINIMUM OF TWO REVIEWS EACH WEEK SHALL BE PERFORMED AT NIGHT. THE FOLLOWING ITEMS SHALL BE INCLUDED IN EACH REVIEW: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, VISIBILITY; TRAFFIC FLOW CONDITIONS; INCIDENTS, CONGESTION POINTS, DELAYS; ADEQUACY OF ADVANCED INFORMATIONAL SIGNS BEYOND THE PROJECT LIMITS; INTERACTION OF WORK VEHICLES AND TRAFFIC; EVIDENCE OF ACCIDENTS; PROPER STORAGE OF MATERIALS AND EQUIPMENT; CONFORMANCE WITH TCP; ADEQUACY OF TCP; CONFLICTING OR NON-PERFORMING PAVEMENT MARKINGS. THE WTS SHALL NOTE AN TRAFFIC CONTROL DEFICIENCIES. DEFICIENT OR IMPROPERLY PLACED TRAFFIC CONTROL DEVICES SHALL BE CORRECTED. THE WTS SHALL HAVE NECESSARY AUTHORITY TO IMMEDIATELY PERFORM THIS CORRECTIVE WORK. DAILY, A RECORD OF REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER IN WRITING AND SHALL INCLUDE A RECORD OF DEFICIENCIES AND RESOLUTION OF THE DEFICIENCIES.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO SUSPEND ALL WORK UNTIL ALL CORRECTIONS ARE MADE.

PAYMENT FOR FURNISHING THE WTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM 614, MAINTAINING TRAFFIC.

NOTICE OF CLOSURE SIGNS NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

ITEM 614. VEHICLE ASSISTANCE THE CONTRACTOR SHALL PROVIDE A VEHICLE WITH OPERATOR ABLE TO ASSIST OR REMOVE DISABLED VEHICLES FROM THE TRAVELED LANE TO RE-ESTABLISH FREE FLOWING TRAFFIC WHILE SR-2 IS LIMITED TO ONE LANE IN EACH DIRECTION. THE EXCEPTION IS TRAFFIC ACCIDENTS WHICH ARE NOT TO BE MOVED WITHOUT DIRECTION OF THE OHIO STATE HIGHWAY PATROL.

THE RESPONSE TIME SHOULD BE WITHIN TEN MINUTES OF THE VEHICLE BEING REPORTED AS DISABLED. THE INTENT IS TO PERFORM THIS WORK IN A VERY SHORT TIME PERIOD TO AVOID TRAFFIC FROM BACKING UP.

THE HOURS FOR THIS VEHICLE WITH OPERATOR ARE:
8:00 AM TO 12 NOON MONDAY THRU FRIDAY (MAY 15 - SEPT. 15)
9:00 AM TO 9:00 PM SATURDAY AND SUNDAY # (MAY 15 - SEPT. 15)

THE VEHICLE SHALL BE EQUIPPED WITH AT LEAST THE FOLLOWING: FUEL CANS OF GAS AND DIESEL, FLARES, CONES, JUMPER CABLES, AMBER LIGHTS, CELL PHONE (TO RECEIVE TROUBLE CALLS AND TO CALL TOW VEHICLES).

THE CONTRACTOR IS NOT TO REMOVE THE VEHICLE EXCEPT TO THE SHOULDER OR OFF THE TRAVELED LANE. COMMERCIAL TOW OPERATORS ARE TO BE CONTACTED TO REMOVE THE DISABLED VEHICLE FROM THE ROADWAY.

ANY DAMAGE DONE TO DISABLED VEHICLES SHALL BE BORNE BY THE CONTRACTOR (THE STATE SHALL BE HELD HARMLESS).

ALL COSTS ASSOCIATED WITH THE REQUIREMENTS MENTIONED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC, MISC.: VEHICLE ASSISTANCE.

ITEM 615 TEMPORARY PAVEMENT, AS PER PLAN, "A", "B" & "C"

TEMPORARY PAVEMENT SHALL BE USED ON THE MAINLINE FOR THE INSIDE AND OUTSIDE SHOULDERS. SEE SHEET 29 & 29A FOR THE TYPICAL SECTIONS AND NOTES. FULL WIDTH TEMPORARY PAVEMENT WILL BE USED ON THE OUTSIDE SHOULDERS AROUND THE BRIDGES IN ORDER TO ALLOW TRAFFIC TO TAPER ONTO THE SHOULDER AND OVER THE BRIDGE. TEMPORARY PAVEMENT WILL ALSO BE USED ON RAMP E AT THE U.S. 250 INTERCHANGE AS INDICATED ON THE PLANS. 1.2M OF TEMPORARY PAVEMENT WILL ALSO BE USED FOR THE EAST SIDE OF RYE BEACH ROAD AS INDICATED IN THE PLANS. THE BUILD UP WILL ALSO BE AS SHOWN ON SHEET 29 AND 29A. IN ADDITION TO THE REQUIREMENTS OF ITEM 615, ON THIS PROJECT SHALL REMAIN IN PLACE, AND SHALL CONSIST OF THE THE SUBBASE SHALL BE COMPACTED AS PER 203 AND IS INCLUDED IN THE COST OF ITEM 615.

MAINTENANCE OF TRAFFIC - S.R. 2 SIDEROADS

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON SIDEROADS EXCEPT DURING THE FOLLOWING OPERATIONS OR AS DIRECTED BY THE ENGINEER:

1. DURING THE REMOVAL OF THE EXISTING BRIDGE DECKS AND ASSOCIATED ITEMS AS DETAILED IN THE PLAN WHERE THE ENGINEER BELIEVES TEMPORARY CLOSURE OF A TRAFFIC LANE IS WARRANTED.
2. DURING THE REMOVAL OF PORTIONS OF THE EXISTING PARAPETS WHERE THE ENGINEER BELIEVES A HAZARD MAY EXIST.
3. DURING THE CONSTRUCTION OF THE PROPOSED PARAPET OVER THE LOCAL ROAD OR STATE ROUTE WHERE THE ENGINEER BELIEVES TEMPORARY CLOSURE OF A TRAFFIC LANE IS WARRANTED.

IN THE EVENT A LANE RESTRICTION ON THE LOCAL ROAD OR STATE ROUTE IS NECESSARY, THE METHOD OF INSTALLATION AND DESIGN OF TEMPORARY LANE CLOSURE AS PER STANDARD DRAWING MT-95.30M THRU MT95.32M OR SHORT TERM CLOSURE USING MT-97.10M SHALL BE APPLIED. THE COST FOR THE ABOVE WORK SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SAFELY PROTECT THE TRAVELING PUBLIC FROM ANY DEBRIS RESULTING FROM THIS CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED WITH THE LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, WITH ITEM 614-MAINTAINING TRAFFIC.

MINIMUM VERTICAL CLEARANCE

THE MINIMUM VERTICAL CLEARANCE FOR ALL STRUCTURE WORK SHALL BE 5.0M WITH THE EXCEPTION OF THE STRUCTURE OVER THE NORFOLK SOUTHERN RAILWAY. FOR THESE VERTICAL CLEARANCES SEE STRUCTURE NO. ERI-2-23770.

REPAVING OF RAMPS

AT EACH RAMP THERE SHALL BE AN AREA IN THE OUTSIDE DIRECTIONAL LANE WHICH SHALL BE RESURFACED AT THE SAME TIME AS THE MEDIAN DIRECTIONAL LANE OR SHALL BE OMITTED DURING THE TIME THE OUTSIDE DIRECTIONAL LANE IS BEING RESURFACED TO MAINTAIN ACCESS TO AND FROM RAMPS AT INTERCHANGES AS PER STANDARD DRAWINGS MT-98.12M THROUGH MT-98.15M (ACCESS TO AND FROM RAMPS MUST ALSO BE MAINTAINED DURING JOINT REPAIR WORK.) THESE AREAS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROVIDE SAFE FLOW OF TRAFFIC ENTERING OR LEAVING THE RAMPS WHILE THE OUTSIDE DIRECTIONAL LANE IS BEING RESURFACED. THE SPEED CHANGE LANE SHALL BE USED TO PROVIDE ONE-LANE TRAFFIC WHILE THE MEDIAN LANE IS BEING RESURFACED.

RYE BEACH ROAD LIMITATIONS

RYE BEACH ROAD SHALL NOT BE CLOSED BETWEEN MEMORIAL DAY AND LABOR DAY DUE TO EXTREME SEASONAL TRAFFIC TO LOCAL ATTRACTIONS. CLOSURE OF THE BRIDGE MUST BE DONE BETWEEN THE TUESDAY AFTER LABOR DAY AND MAY 1, 2001. THIS STRUCTURE SHALL BE OPENED TO TRAFFIC BY MAY 1, 2001. IF THIS SCHEDULE IS NOT MET, LIQUIDATED DAMAGES WILL BE ACCESSED PER DAY, AS PER 108.07 OF THE CONSTRUCTION MATERIAL SPECIFICATIONS.

COORDINATION BETWEEN CONTRACTORS

SINCE STATE ROUTE 2 WEST OF THIS PROJECT MAY BE UNDER CONSTRUCTION AT THE SAME TIME AS THIS PROJECT, THERE SHALL BE COORDINATION BETWEEN THE CONTRACTORS. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE CONTRACTOR WHO HAS A MOWING CONTRACT FOR SR-2 FROM SR-269 TO RYE BEACH ROAD AND THE CONTRACTOR WHO WILL BE RELOCATING TRAFFIC SIGNAL ITEMS ON RAMP D OF THE US-250 INTERCHANGE. SEE SECTION 105.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

PROJECT TIME LIMITATIONS

THIS PROJECT HAS A LIMITED TIME OF CONSTRUCTION DUE TO THE ECONOMIC IMPACTS THIS PROJECT HAS ON THE AREA. THE OHIO DEPARTMENT OF TRANSPORTATION HAS COMMITTED TO THE AREA COMMUNITIES AND BUSINESSES TO MINIMIZE TRAFFIC DISRUPTIONS AND EXPEDITE PROJECTS IN THIS AREA AS MUCH AS POSSIBLE.

THERE SHALL NOT BE ANY EXTENSIONS DUE TO MATERIAL DELAYS WHATSOEVER.

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

THE CONTRACTOR WILL BE REQUIRED TO PARTICIPATE IN ALL CURRENT MEETINGS OF THE ERIE 2 RECONSTRUCTION FOCUS GROUP DUE TO THE IMPACT OF THIS PROJECT ON THE COMMUNITY. DETAILS OF THE FOCUS GROUP FUNCTIONS AND MEETING SCHEDULES CAN BE OBTAINED FROM THE DISTRICT THREE CONSULTANT ADMINISTRATOR (1-419-281-0513 EXTENSION 200).

CALCULATED BY: DATE: 3-98
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 PLOTTED: KJB

ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22, AS PER PLAN
 IN AREAS WHERE LANES ARE SHIFTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALONG THE INSIDE (MEDIAN) TEMPORARY PAVEMENT AS DETAILED ON SHEET 29. ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22, AS PER PLAN SHALL BE PROVIDED TO MAINTAIN THE SHOULDER/TEMPORARY PAVEMENT EDGE IN A SAFE CONDITION FOR THE DURATION OF THE PROJECT. THE GRADING OF THE SHOULDER AND THE DISPOSAL OF THE EXCAVATED MATERIAL PER 203 SHALL BE INCLUDED IN THE COST OF ITEM 448. THE CONTRACTOR SHALL ENSURE THE 448 IS FINISHED FLUSH TO THE ADJACENT PAVEMENT. WHEN THIS ITEM IS NO LONGER REQUIRED FOR THE MAINTAINANCE OF TRAFFIC, IT SHALL BE REMOVED.

THE CONTRACTOR SHALL SCHEDULE THEIR WORK SUCH THAT ALL OF THE EXCAVATED MATERIAL IS TO BE REMOVED AND THE 448 IN PLACE WITHIN THE FOLLOWING TWO WORKING DAYS. ALL EXCAVATED MATERIAL SHALL BE REMOVED BEFORE OPENING THE ADJACENT PAVEMENT TO TRAFFIC. FAILURE TO COMPLY WITH THIS REQUIREMENT AND THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

AN ESTIMATED QUANTITY OF 600 CU. METERS OF ITEM 448, ASPHALT CONC. INTERMEDIATE COURSE, TYPE 1, PG64-22, AS PER PLAN HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM. TEMPORARY IMPACT ATTENUATOR, G.R.E.A.T. TYPE

THIS WORK SHALL CONSIST OF FURNISHING IMPACT ATTENUATORS AS REQUIRED IN THE PLANS. THIS ITEM SHALL INCLUDE ALL RELATED HARDWARE, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER TO CONSTRUCT COMPLETE AND FUNCTIONAL G.R.E.A.T. IMPACT ATTENUATOR SYSTEMS. THE ATTENUATOR SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AT THE LOCATIONS SHOWN ON THE PLANS. THE IMPACT ATTENUATOR SHALL BE MANUFACTURED BY: THE ENERGY ABSORPTION SYSTEMS, INC., ONE WACKER DRIVE, CHICAGO, ILLINOIS 60601. TELEPHONE: (312) 467-6750.

THE CONTRACTOR HAS THE OPTION OF USING A QUADGUARD^{ez} SYSTEM WHICH IS MANUFACTURED BY THE SAME COMPANY. THE MANUFACTURER SHALL PROVIDE THE MODEL NECESSARY FOR THE CONDITIONS SET FORTH IN THESE PLANS.

THE NOSE COVER OF THE ATTENUATOR SHALL MEET THE REQUIREMENTS OF STANDARD DRAWING MT-95.81M.

THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR INSPECTING, REPAIRING, AND OTHERWISE RESTORING THE IMPACT ATTENUATOR IN ACCORDANCE WITH THE MANUFACTURER'S MAINTENANCE INSTRUCTIONS WHILE IT IS IN USE ON THE PROJECT. SUCH REPAIRS SHALL BE PERFORMED WITHIN 24 HOURS OF THE INCIDENT WHICH CAUSED DAMAGE TO THE PROJECT. IN ADDITION TO ANY EXTRA UNITS SUPPLIED FOR THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE DESCRIBED RESTORATION OF THE ATTENUATOR.

AN ESTIMATED QUANTITY AS LISTED BELOW SHALL BE USED AS DIRECTED BY THE ENGINEER FOR USE IN THE ABOVE MENTIONED RESTORATION ONLY WHEN IT IS DECIDED THAT MINOR OR MAJOR REPAIRS CANNOT BE PERFORMED IN A SAFE AND TIMELY MANNER:

ITEM 614 - TEMPORARY IMPACT ATTENUATOR (REPLACEMENT), G.R.E.A.T. TYPE, MODEL NO. 200200NF6GCZ - 8 EACH

FOR LOCATIONS OF THE ATTENUATORS SEE THE PLAN SHEETS. THESE TEMPORARY LOCATED ATTENUATORS SHALL BE BID PER EACH PER THE FOLLOWING PAY ITEM DESCRIPTION:

ITEM 614 - TEMPORARY IMPACT ATTENUATOR, G.R.E.A.T. TYPE, MODEL NO. 200200NF6GCZ - 16 EACH

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR EACH, ITEM 614, TEMPORARY IMPACT ATTENUATOR AND SHALL BE CONSIDERED FULL PAYMENT FOR FURNISHING, INSTALLING AT THE SPECIFIED LOCATIONS, RESTORATION AFTER EACH VEHICLE IMPACT, INCLUDING ALL LABOR, TOOLS, EQUIPMENT AND MISCELLANEOUS HARDWARE AND MATERIALS NECESSARY TO COMPLETE THESE ITEMS OF WORK.

ONE (1) REPLACEMENT ATTENUATOR SHALL BE STOCKED AT ALL TIMES BY THE CONTRACTOR FOR IMMEDIATE REPLACEMENT ON THE PROJECT.

ITEM SPECIAL, EMERGENCY PULL OFF

DURING EACH PHASE OF SECTION A, THE CONTRACTOR SHALL PROVIDE ONE EMERGENCY PULL OFF IN EACH DIRECTION. THESE PULL OFFS SHALL BE LOCATED AT STATION 29+000±. FOR DETAILS SEE THIS SHEET.

EACH PULL OFF SHALL BE CONSTRUCTED OF 150mm THICK ITEM 304, AND SHALL BE DELINEATED AS A SINGLE R-70 ("EMERGENCY STOPPING ONLY") SIGN ON TWO (2) NO. 2 POSTS.

PAYMENT FOR EACH PULL OFF, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM SPECIAL, MISC.: EMERGENCY PULL OFF. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING AND MAINTAINING EACH PULL OFF. AN ESTIMATED QUANTITY OF 4 EACH HAS BEEN PROVIDED.

RAMP WORK

THE CONTRACTOR IS ENCOURAGED TO PERFORM THE RAMP WORK PRIOR TO THE MAINLINE WORK, BUT IS NOT MANDATORY, UNLESS OTHERWISE NOTED. WHEN AN ENTRANCE RAMP IS CLOSED, THE EXIT RAMP IN THE SAME DIRECTION AT THE SAME INTERCHANGE SHALL HAVE SIGNS PLACED THAT STATE "NO RE-ENTRY" PRIOR TO EXITING SR 2. TRAFFIC SHALL BE MAINTAINED ON ALL RAMP EXCEPT AS NOTED BELOW.

RAMP WORK LIMITATIONS:

1. GENERAL: ALL RAMP WORK, EXCEPT FOR THE RAMP WORK AS NOTED ON SHEET 20A, SHALL OCCUR ONLY BETWEEN SEPTEMBER 25, 1999 AND MAY 15, 2000, UNLESS OTHERWISE NOTED. ALL WORK ON THE RAMP INCLUDING THE SURFACE COURSE, FEATHER AND TEMPORARY STRIPING SHALL BE COMPLETED PRIOR TO OPENING THE RAMP TO TRAFFIC. THE EXISTING OR PROPOSED SIGNING SHALL BE IN PLACE. THE ONLY EXCEPTION IS THE PROPOSED GUARDRAIL WORK WHICH MAY BE COMPLETED INDEPENDENT OF THE PAVEMENT WORK. THE MINIMUM BOUNDRIES ARE FROM THE SIDE ROAD TO THE GORE AREA. THE INTENT IN THE GORE AREA IS TO HAVE ALL JOINT WORK AND TEMPORARY PAVEMENT DONE SUCH THAT THE VARIOUS LANE CLOSURE IN THE ENTRANCE/EXIT RAMP STANDARD CONSTRUCTION DRAWINGS UTILIZES THE REPAIRED AREAS.

2. SR 4 RAMPS: THE CONTRACTOR HAS A MAXIMUM OF SEVEN (7) CONSECUTIVE CALENDAR DAYS FOR EACH RAMP TO CLOSE RAMPS A, B AND D. THE CONTRACTOR HAS A MAXIMUM OF TEN (10) CONSECUTIVE CALENDAR DAYS TO CLOSE RAMP C.

3. USR 250 EXIT RAMP D: THE CONTRACTOR HAS A MAXIMUM OF FOURTEEN (14) CONSECUTIVE CALENDAR DAYS TO CLOSE RAMP D AND SHALL HAVE AN INTERIM COMPLETION DATE OF MAY 6, 2000 TO HAVE IT OPEN TO TRAFFIC.

4. USR 250 ENTRANCE RAMP E: THE CONTRACTOR HAS A MAXIMUM OF SEVEN (7) CONSECUTIVE CALENDAR DAYS TO CLOSE RAMP E.

5. RYE BEACH ROAD RAMPS: THESE RAMPS SHALL HAVE THE EXISTING RAMP LANE (4.88 METER) OPEN WHEN NEEDED TO MAINTAIN TRAFFIC DURING THE ERECTION OF THE STEEL BEAMS FOR THE RYE BEACH ROAD STRUCTURE.

6. RYE BEACH ROAD ENTRANCE RAMP A: CLOSED DURING SAWMILL CREEK STRUCTURE WORK AS NOTED IN THE PLANS.

7. OF THE APPLICABLE RAMPS LISTED ABOVE, ONLY ONE RAMP MAY BE CLOSED AT ANY TIME.

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

PRIOR TO THE FIRST STAGE OF CONSTRUCTION: THE EASTBOUND DRIVING LANE (RIGHT LANE) ON SR 2 FROM STATION 24+920 TO STATION 26+000, AND THE ENTIRE PROPOSED AND EXISTING DECELERATION LANE FOR RAMP D TO THE GORE AREA SHALL BE CONSTRUCTED PRIOR TO ANY OTHER MAINLINE CONSTRUCTION.

DESIGNATED LOCAL MAINTENANCE ROUTES

A LOCAL MAINTENANCE ROUTE, OTHER THAN THE OFFICIAL SIGNED ODOT DETOUR ROUTE, WILL BE DESIGNATED BY AGREEMENT BETWEEN ODOT AND LOCAL GOVERNMENTAL AGENCIES PRIOR TO THE HIGHWAY CLOSURE. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL MAINTENANCE ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL MAINTENANCE ROUTE:

ITEM 253 - PAVEMENT REPAIR (100mm AVG. THICKNESS)	20 CU. METER
ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	20 CU. METER

HOLIDAY WORK RESTRICTIONS: THERE WILL BE HOLIDAY RESTRICTIONS FOR ALL WORK. ALL RAMPS, MAINLINE SR 2 AND SIDE ROADS SHALL NOT BE UNDER CONSTRUCTION DURING THE FOLLOWING HOLIDAYS: MEMORIAL DAY, THE FOURTH OF JULY AND LABOR DAY. THE INTENT IS NOT TO HAVE THE CONTRACTOR WORKING ON THE PROJECT DURING THESE HOLIDAY RESTRICTIONS. THE PERIOD OF TIME THAT THE "NO WORK" APPLIES DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THE PERIOD OF TIME THAT "NO WORK" SHALL APPLY:

DAY OF THE WEEK TIME ALL LANES MUST BE OPEN TO TRAFFIC

MONDAY	12 NOON FRIDAY THROUGH 12 NOON TUESDAY
TUESDAY	12 NOON MONDAY THROUGH 12 NOON WEDNESDAY
WEDNESDAY	12 NOON TUESDAY THROUGH 12 NOON THURSDAY
THURSDAY	12 NOON WEDNESDAY THROUGH 12 NOON MONDAY
FRIDAY	12 NOON THURSDAY THROUGH 12 NOON MONDAY
SATURDAY	12 NOON FRIDAY THROUGH 12 NOON MONDAY
SUNDAY	12 NOON FRIDAY THROUGH 12 NOON MONDAY

THERE SHALL NOT BE ANY EXTENSIONS DUE TO MATERIAL DELAYS WHATSOEVER.

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

MAINTENANCE OF TRAFFIC - PAVEMENT RECONSTRUCTION AT CROSSOVERS

THE PORTIONS OF SR-2 IN THE VICINITY OF THE CROSSOVERS WHICH CAN NOT BE RECONSTRUCTED DURING PHASES 1 AND 2 WILL HAVE TO BE CONSTRUCTED AFTER THE COMPLETION OF SECTION A. TRAFFIC SHALL BE MAINTAINED PER THE TYPICAL SECTIONS ON SHEET 29A AND STD. DWG. MT-95.40M.

THE FOLLOWING QUANTITIES ARE INCLUDED IN THE GENERAL SUMMARY FOR THE MAINTENANCE OF TRAFFIC AS INDICATED ABOVE.

ITEM 622 - PORTABLE CONCRETE BARRIER, 813mm	1104 METER
ITEM 614 - BARRIER REFLECTOR, TYPE B	144 EACH
ITEM 614 - OBJECT MARKER	144 EACH
ITEM 614 - TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1	0.28 km

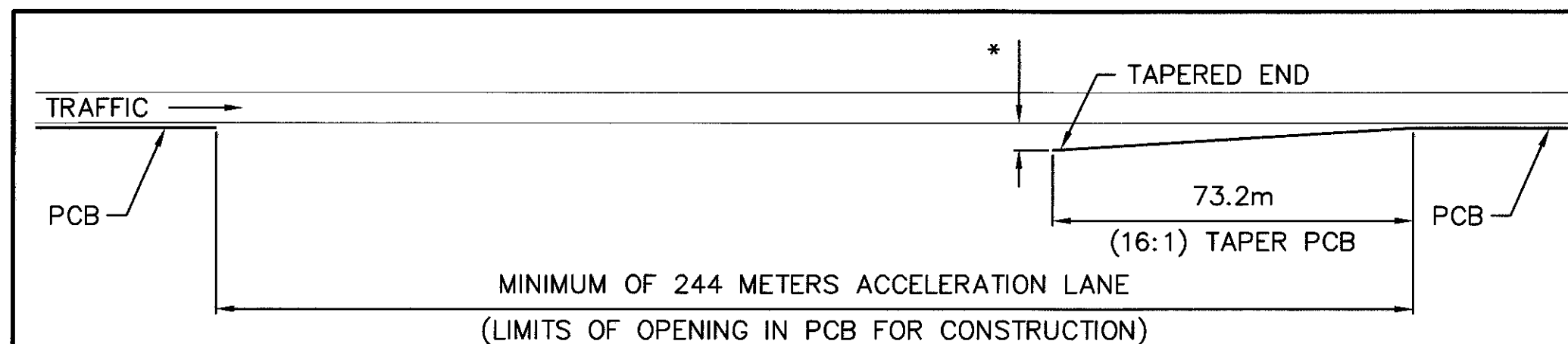
MAINTENANCE OF TRAFFIC - RYE BEACH ROAD BRIDGE (ERI-2-24816) PAINTING

DURING THE PAINTING OF THE OVERHEAD STRUCTURE NO. ERI-2-24816, THE WORK AREA BELOW THE STRUCTURE SHALL BE PROTECTED WITH PORTABLE CONCRETE BARRIER PER STD. DWG. MT-95.40M.

THE STRUCTURE SHALL BE PAINTED DURING THE CONSTRUCTION OF SECTION A IN THE SUMMER OF 2001. THE INTERIM COMPLETION DATE FOR THE BRIDGE PAINTING IS AUGUST 15, 2001. FAILURE OF THE CONTRACTOR TO MEET THE ABOVE DATE SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

THE FOLLOWING QUANTITIES ARE INCLUDED IN THE GENERAL SUMMARY FOR MAINTENANCE OF TRAFFIC DURING THE BRIDGE PAINTING OF STRUCTURE NO. ERI-2-24816 .

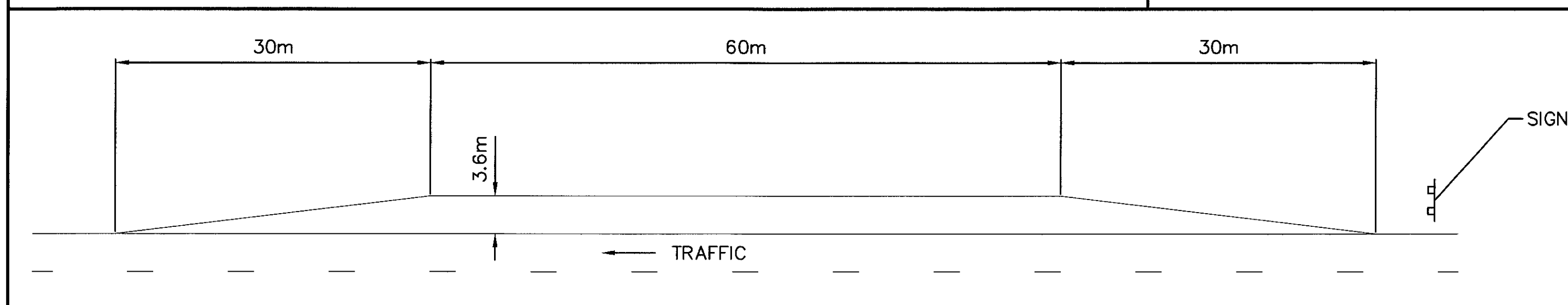
ITEM 622 - PORTABLE CONCRETE BARRIER, 813mm	632 METER
ITEM 614 - BARRIER REFLECTOR, TYPE B	84 EACH
ITEM 614 - OBJECT MARKER	84 EACH
ITEM 614 - TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1	0.28 km



ALLOWABLE CONSTRUCTION ACCESS OPENING - MAINLINE JOINT REPAIR SECTION ONLY

* THE PORTABLE CONCRETE BARRIER (PCB) SHALL BE OFFSET FROM THE EDGE OF THE TRAVELED LANE A MINIMUM OF 5.2 METERS

OPENINGS WILL BE PERMITTED, UTILIZING THE ABOVE DETAIL. THE MAXIMUM NUMBER PERMITTED WILL BE TWO OPENINGS EACH DIRECTION FOR EACH STAGE. THE OPENINGS SHALL BE ILLUMINATED DURING NIGHT TIME USE. THE OPENINGS ARE PERMITTED FOR THE CONVENIENCE OF THE CONTRACTOR AND ASSOCIATED COSTS SHALL BE BORNE BY THE CONTRACTOR.



EMERGENCY PULL OFF DETAIL
NO SCALE

CALCULATED BY: JUY DATE: 3-99
 CHECKED BY: CAB DATE: 4-99

MAINTENANCE OF TRAFFIC GENERAL NOTES

ERI-2-12.558

20A
432

SEQUENCE OF CONSTRUCTION

CONSTRUCTION IS DIVIDED INTO TWO SECTIONS. SECTION A STARTS AT THE BEGIN PROJECT STATION 19+446.279 AND CONTINUES THROUGH STATION 25+775. SECTION B BEGINS AT STATION 25+775 AND CONTINUES TO THE END PROJECT STATION 32+781.305. CONSTRUCTION ON STRUCTURES SHALL BE DONE WITHIN THE SECTION WHICH IT LIES EXCEPT AS NOTED. EACH SECTION THEN HAS TWO PHASES. SECTION A PHASE ONE CONSISTS OF TRAFFIC ON THE INSIDE LANES WHILE CONSTRUCTION PROCEEDS ON THE OUTSIDE LANES AND EASTBOUND LANES BETWEEN CROSSOVERS. SECTION A PHASE TWO CONSISTS OF TRAFFIC ON THE OUTSIDE LANES WITH CONSTRUCTION ON THE INNER LANES AND WESTBOUND LANES BETWEEN CROSSOVERS. SECTION B PHASE ONE CONSISTS OF TRAFFIC ON THE INNER LANES WITH CONSTRUCTION ON THE OUTSIDE. SECTION B PHASE TWO CONSISTS OF TRAFFIC PROCEEDING ON THE OUTSIDE LANES WITH CONSTRUCTION ON THE INSIDE.

SECTION B SHALL BE CONSTRUCTED DURING CONSTRUCTION SEASON 2000. SECTION A SHALL THEN BE CONSTRUCTED DURING THE 2001 CONSTRUCTION SEASON.

THE STRUCTURE OF RYE BEACH ROAD WILL BE CONSTRUCTED DURING WINTER OF 2000-2001. IT SHALL BE CLOSED NO SOONER THAN THE DAY AFTER LABOR DAY AND SHALL BE COMPLETED AND REOPENED NO LATER THAN MAY 1, 2001.

THE MINIMUM LANE WIDTH FOR TRAFFIC SHALL BE AS SHOWN ON THE PLAN. IF WIDER LANE WIDTHS ARE POSSIBLE DURING SHOULDER OR DITCH WORK, THEN THE LANES SHOULD BECOME 3.66M WHENEVER POSSIBLE.

THE CONTRACTOR SHALL NOTIFY THE DISTRICT ROADWAY SERVICE MANAGER IN WRITING A MINIMUM OF (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS NEEDED. THE STATE OF OHIO WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE SEQUENCE OF CONSTRUCTION SHALL BE AS FOLLOWS:

1. CONSTRUCT TEMPORARY PAVEMENT IN MEDIAN SHOULDER AREA.
2. CONSTRUCT THE PROPOSED EASTBOUND US-250 DECELERATION LANE AND EXIT RAMP D PER THE RAMP WORK NOTE. THE RAMP AND DECELERATION LANE SHALL BE COMPLETE PRIOR TO THE INTERIM COMPLETION DATE OF MAY 15, 2000. THE INTENT IS TO AVOID BACKUPS ONTO SR-2 WHEN SR-2 IS DOWN TO ONE LANE.
3. REMOVE THE CURBS AT ALL RAMP GORE AREAS PER THE CURB REMOVAL NOTE LOCATED ON SHEET 18A.
4. PERFORM RAMP WORK IN SECTION B PER THE RAMP CLOSURE NOTE ON SHEET 20A IF TIME PERMITS.
5. SET UP THE MAINTENANCE OF TRAFFIC FOR SECTION B PER THE PLANS AND CONSTRUCT SECTION B. PAVEMENT IN PHASE 1 AND 2 TO BE COMPLETED UP TO AND INCLUDING THE INTERMEDIATE COURSE.
6. PLACE SURFACE COURSE OVER SECTION B.
7. BEGIN RYE BEACH ROAD CONSTRUCTION, EXCEPT FOR THE RYE BEACH ROAD BRIDGE PAINTING.
8. CONSTRUCT CROSSOVERS.
9. CONTINUE RAMP WORK ON EITHER SECTION B OR A PER THE RAMP WORK NOTE.
10. SET UP THE MAINTENANCE OF TRAFFIC FOR SECTION A PER THE PLANS AND CONSTRUCT SECTION A. PAVEMENT IN PHASE 1 AND 2 TO BE COMPLETED UP TO AND INCLUDING THE INTERMEDIATE COURSE.
- PAINT RYE BEACH ROAD BRIDGE.
11. PLACE SURFACE COURSE OVER SECTION A.
12. SET UP MAINTENANCE OF TRAFFIC FOR THE PAVEMENT RECONSTRUCTION AT CROSSOVERS PER THE NOTE ON SHEET 20A AND CONSTRUCT PAVEMENT IN THE AREAS OF THE CROSSOVERS.

LIMITATIONS:

1. NO WORK ON SECTION A ON SR-2 WHILE SECTION B IS UNDER CONSTRUCTION EXCEPT FOR THE USR-250 EXIT RAMP WORK.
2. NO WORK ON SECTION B ON SR-2 WHILE SECTION A IS UNDER CONSTRUCTION EXCEPT FOR THE RYE BEACH ROAD BRIDGE PAINTING.

FAILURE OF THE CONTRACTOR TO MEET THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

TEMPORARY DETOUR ON SR 2 AT RYE BEACH ROAD

TEMPORARY DETOURS ON SR 2 ARE REQUIRED AT RYE BEACH ROAD DURING THE ERECTION OF THE PROPOSED STRUCTURAL STEEL. SUCH DETOURS SHALL BE LIMITED TO WITHIN THE HOURS OF 9:00 P.M. TO 5:00 A.M. AND FOR ONLY A MAXIMUM OF THREE CONSECUTIVE WORK DAYS. SEVEN DAYS IN ADVANCE OF PERFORMING THIS WORK, THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF THEIR PROPOSED OPERATIONS TO BE APPROVED BY THE ENGINEER. THE INTENT IS TO UTILIZE THE DETOUR WITHIN THE TIME FRAME SPECIFIED TO SET UP AND SUBSEQUENT REMOVE THE CRANE(S), ERECT THE BEAMS AND SECURE THE BEAMS SCHEDULED TO BE ERECTED THAT EVENING. THE CONTRACTOR MAY SET UP THE CRANE IN THE MEDIAN OR SHOULDER OF SR 2 OUTSIDE THE TIME FRAME AS LONG AS THE CRANE IS PROPERLY PROTECTED FROM TRAFFIC AT THE CONTRACTOR'S EXPENSE AND AS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL DIVERT MAINLINE SR 2 TRAFFIC ONTO THE RAMPS AND BACK ONTO SR 2 AS PER STANDARD CONSTRUCTION DRAWING MT-99.50M. THE STOP SIGNS AT THE END OF THE RAMPS SHALL BE COVERED AND LAW ENFORCEMENT OFFICERS WITH PATROL CARS SHALL BE LOCATED AT THE ENTRANCE RAMPS (FROM RYE BEACH ROAD ONTO SR 2) TO DIRECT TRAFFIC. THE INTENT IS TO CREATE A STOP CONDITION FOR TRAFFIC USING RYE BEACH ROAD TRYING TO ENTER ONTO SR 2 AND KEEP THE SR 2 TRAFFIC MOVING. THE COVERS ON THE STOP SIGNS ARE TO BE REMOVED WHEN NO LONGER REQUIRED AT THE DIRECTION OF THE ENGINEER.

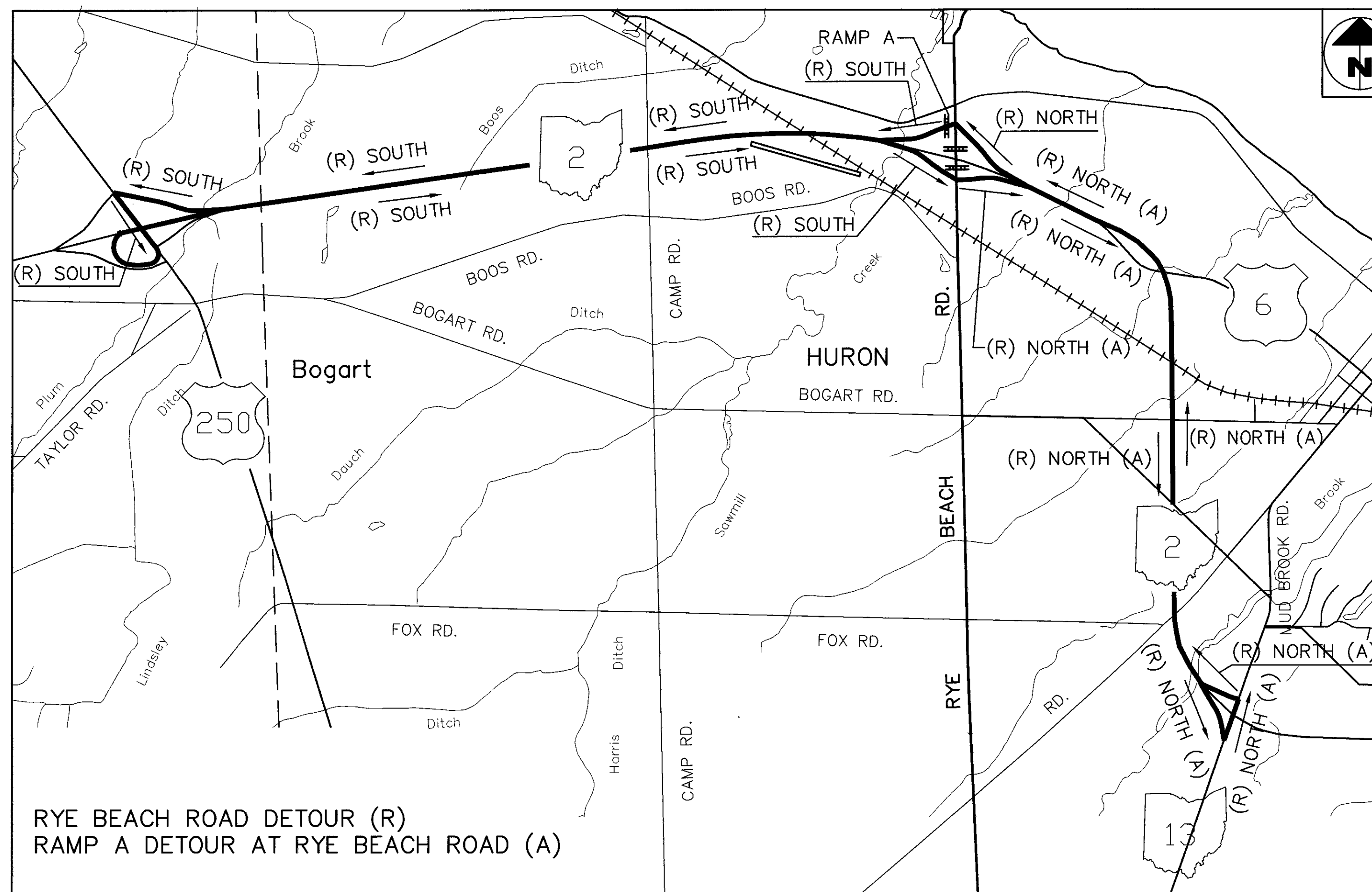
ADVANCE NOTICE SHALL BE PROVIDED BY PLACING ONE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) IN EACH DIRECTION. THE PCMS SHALL BE PROVIDED FOR SEVEN (7) DAYS IN ADVANCE OF THE DETOUR DATE. THE LOCATIONS OF THE PCMS SHALL BE PROVIDED AT AN APPROVED LOCATION NEAR THE DETOUR AREA.

A DETOUR NOTICE SHALL BE PROVIDED THE DAY OF THE DETOUR BY PLACING ONE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) IN EACH DIRECTION. THE MESSAGE SHALL PROVIDE SPECIFIC INFORMATION ABOUT THE DETOUR AND SHALL BE APPROVED BY THE ENGINEER. THE ADVANCE NOTICE PCMS MAY BE RELOCATED TO PERFORM THIS FUNCTION. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN THE PCMS APPROXIMATELY 150 METERS IN ADVANCE OF THE DETOUR IN EACH DIRECTION TO ADVISE TRAFFIC OF A POTENTIAL STOP CONDITION AND CONSTRUCTION DELAY UTILIZING THE RAMPS.

FAILURE OF THE CONTRACTOR TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

THE COST OF THE ABOVE WORK, EXCEPT FOR THE LAW ENFORCEMENT OFFICER WITH PATROL CAR, INCLUDING PROVIDING, ERECTING, MAINTAINING AND REMOVING THE PCMS SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE COST OF ITEM 614 MAINTAINING TRAFFIC.

AN ESTIMATED QUANTITY OF 48 HOURS OF ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR IS PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER.

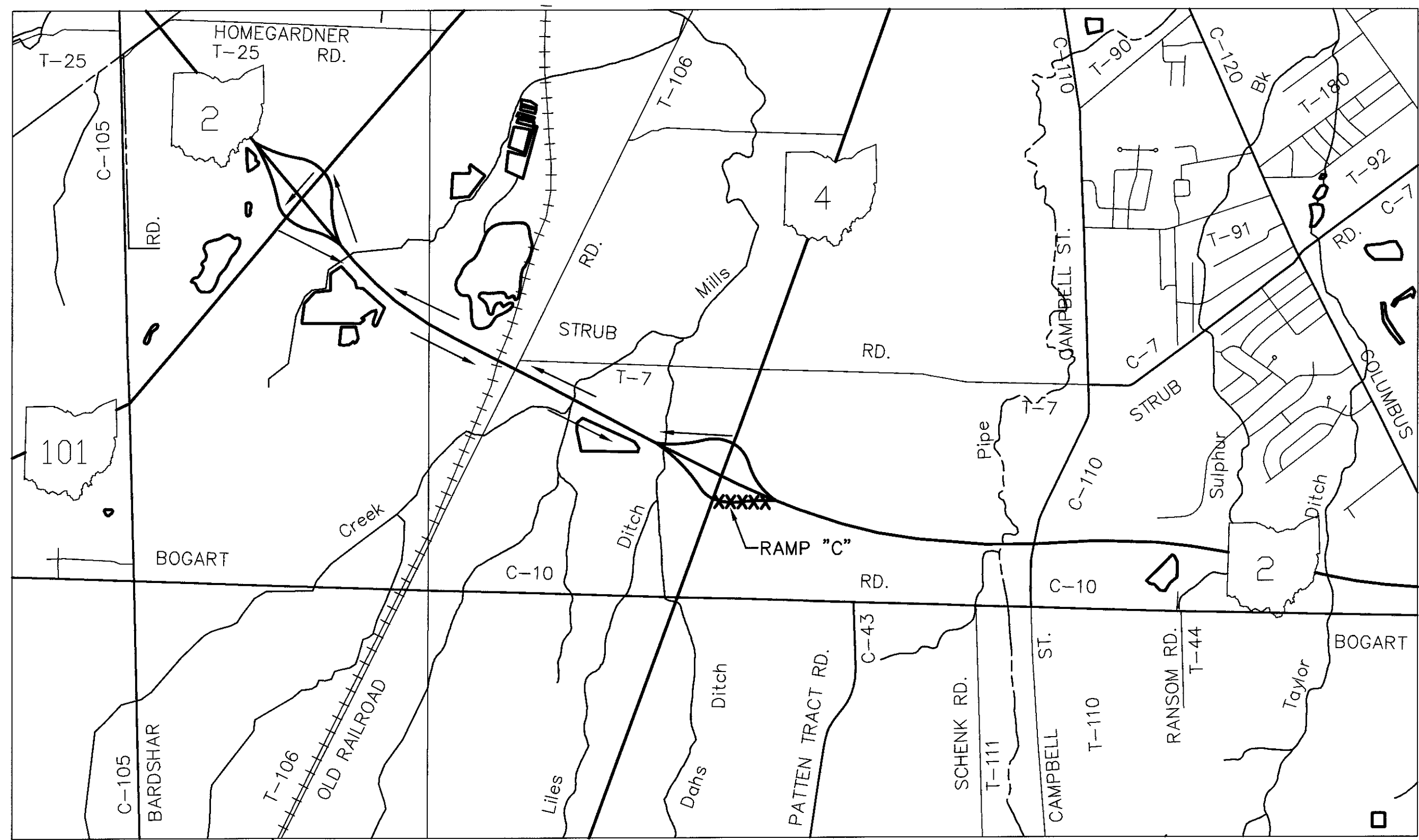


RYE BEACH ROAD DETOUR (R)
RAMP A DETOUR AT RYE BEACH ROAD (A)

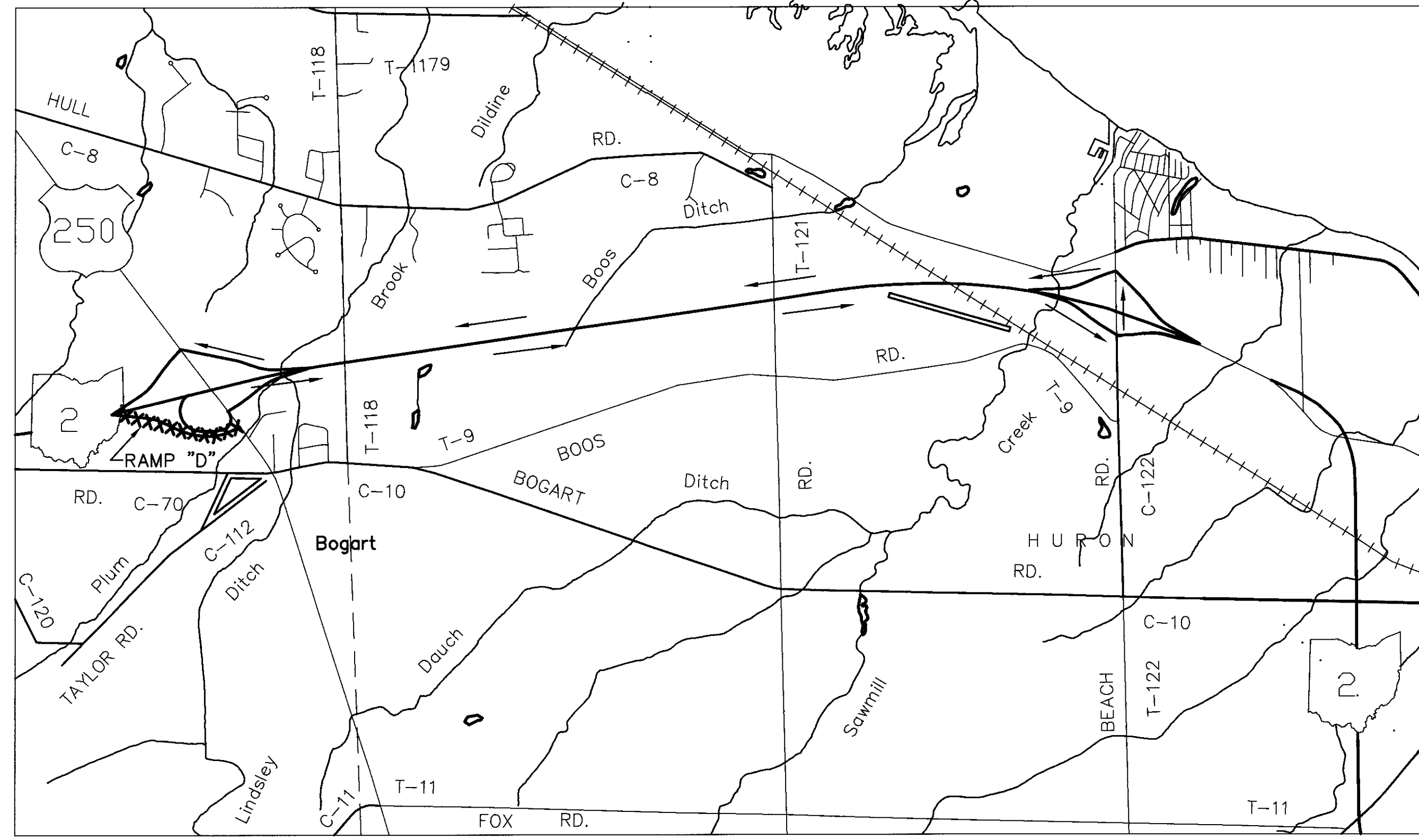
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DATE: 5-99
CHECKED BY: GAB
DATE: 5-99

MAINTENANCE OF TRAFFIC GENERAL NOTES AND RYE BEACH ROAD DETOUR PLAN

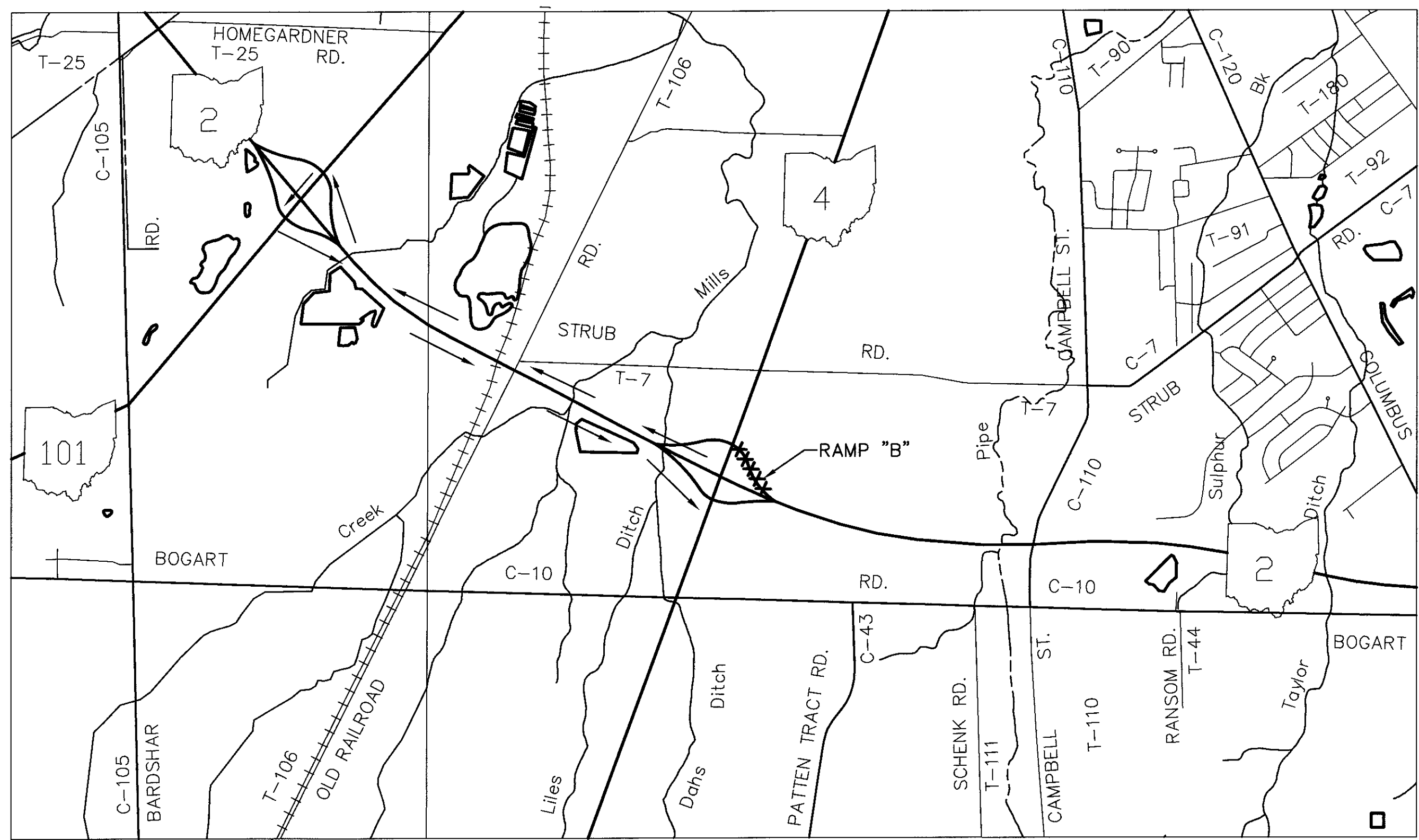
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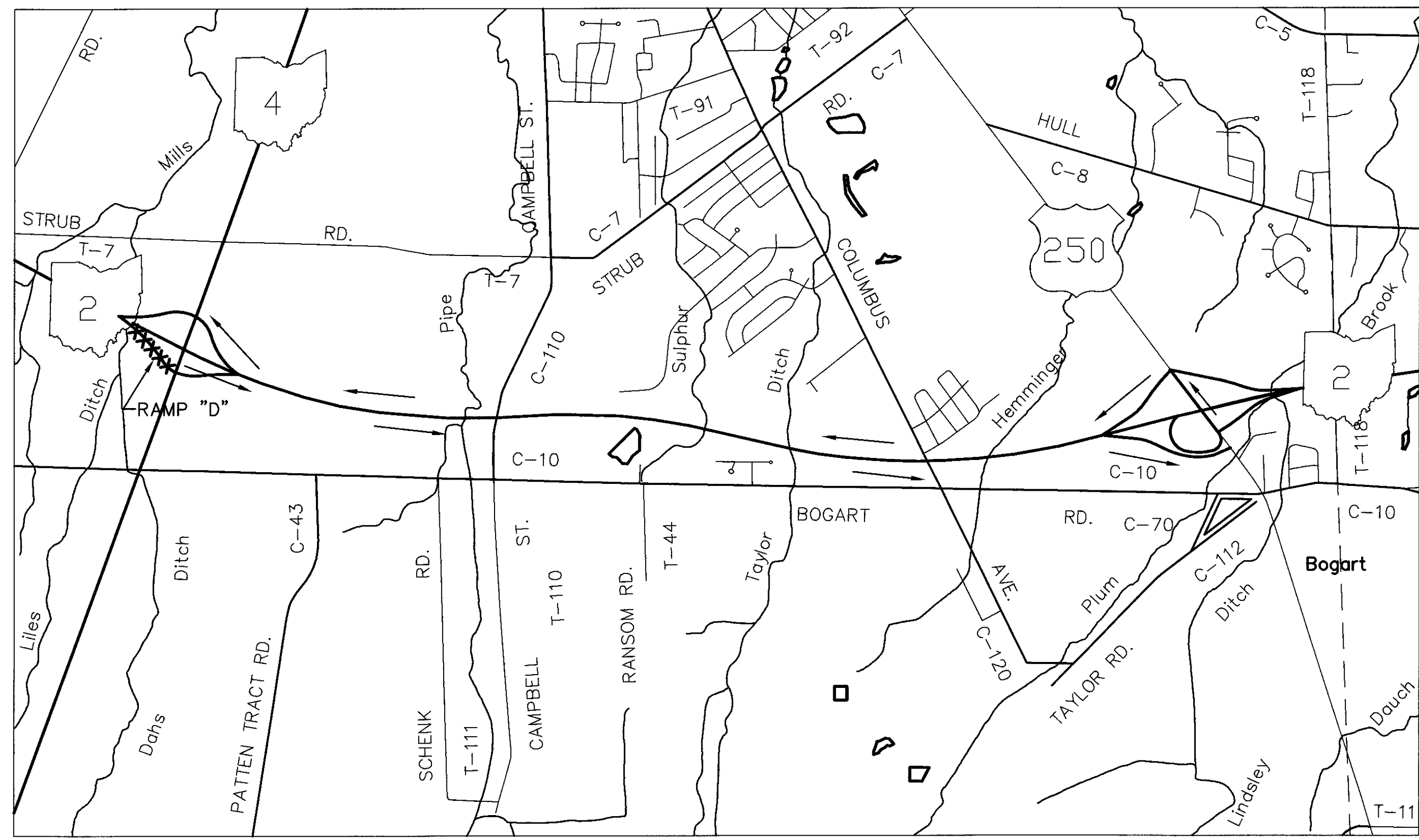
RAMP CLOSURE
 © SR 4 RAMP "C"
 10 DAY CLOSURE



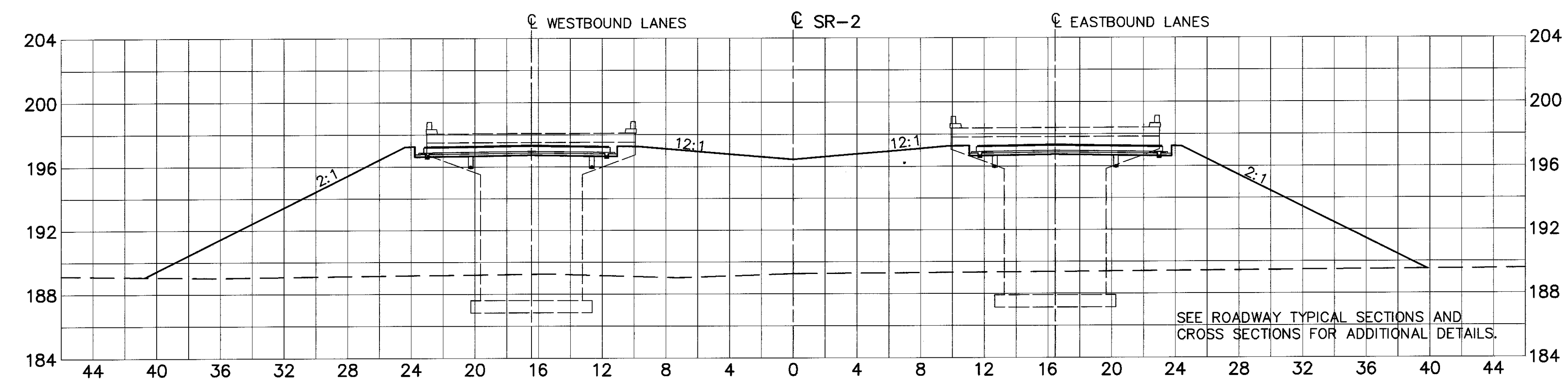
RAMP CLOSURE
 © US 250 RAMP "D"
 14 DAY CLOSURE
 (MUST BE COMPLETED
 BY MAY 6, 2000)



RAMP CLOSURE
 © SR 4 RAMP "B"
 7 DAY CLOSURE



RAMP CLOSURE
 © SR 4 RAMP "D"
 7 DAY CLOSURE



PHASED EMBANKMENT CONSTRUCTION NOTES

PHASE 1

1. EASTBOUND TRAFFIC WILL BE DIVERTED TO THE WESTBOUND LANES IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION (SEE MAINTENANCE OF TRAFFIC PLANS, PHASE 1).
 ONCE THE TRAFFIC HAS BEEN REROUTED, THE CONTRACTOR SHALL THEN REMOVE THE EXISTING EASTBOUND BRIDGE DECK, PARAPETS, RAILINGS AND THE PIERS AND ABUTMENT WALLS DOWN TO 1.5m BELOW THE PROPOSED GRADE OR ENTIRE PIER CAP WHICH EVER IS GREATER FOR BRIDGE ERI-2-15498 RT. PAYMENT FOR THE ABOVE DESCRIBED WORK SHALL BE INCLUDED UNDER ITEM 202 - STRUCTURES REMOVED, AS PER PLAN, LUMP SUM.
2. UPON REMOVAL OF THE STRUCTURE, SUITABLE EMBANKMENT MATERIALS AS PER 203.08 SHALL BE PLACED IN THE AREA DESIGNATED ON THE PLANS UP TO AN ELEVATION TO WHICH THE NEW PAVEMENT FOR THE EASTBOUND LANES CAN BE CONSTRUCTED. THE LIMITS OF PHASED EMBANKMENT CONSTRUCTION ARE FROM STATION 22+389 TO STATION 22+431.
3. THE PROPOSED EASTBOUND PAVEMENT SHALL BE CONSTRUCTED ALONG WITH PORTIONS OF THE PROPOSED GUARDRAIL AND PAVEMENT MARKINGS AS PER THE CONSTRUCTION PLANS.

PHASE 2

1. ONCE THE EASTBOUND LANES ARE COMPLETED, TRAFFIC SHALL BE SHIFTED TO THE EASTBOUND LANES IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION.
 ONCE THE TRAFFIC HAS BEEN REROUTED, THE CONTRACTOR SHALL THEN REMOVE THE EXISTING WESTBOUND BRIDGE DECK, PARAPETS, RAILINGS AND THE PIERS AND ABUTMENT WALLS DOWN TO 1.5m BELOW THE PROPOSED GRADE OR ENTIRE PIER CAP WHICH EVER IS GREATER FOR BRIDGE ERI-2-15498 LT. PAYMENT FOR THE ABOVE DESCRIBED WORK SHALL BE INCLUDED UNDER ITEM 202 - STRUCTURES REMOVED, AS PER PLAN, LUMP SUM.
2. UPON REMOVAL OF THE STRUCTURE, SUITABLE EMBANKMENT MATERIALS AS PER 203.08 SHALL BE PLACED ADJACENT TO THE TEMPORARY STRUCTURE PLACED DURING PHASE 1 AND TO AN ELEVATION AT WHICH THE NEW PAVEMENT FOR THE WESTBOUND LANES CAN BE CONSTRUCTED. THE LIMITS OF PHASED EMBANKMENT CONSTRUCTION ARE FROM STATION 22+389 TO STATION 22+431.
3. THE PROPOSED WESTBOUND PAVEMENT SHALL BE CONSTRUCTED ALONG WITH THE PROPOSED GUARDRAIL AND PAVEMENT MARKINGS AS PER THE CONSTRUCTION PLANS.

FILE NAME: I:\5033\006\TRAN\WOT\1376MNB.DWG 7-9-99 1:20:13 pm EST

PLOTTED: KJB

FROM SHEET NUMBER	DESIGNATION	STATION			614										622										
		FROM	TO OR AT	SIDE	BARRIER REFLECTOR, TYPE B		BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B2	OBJECT MARKER		TEMPORARY LANE LINE, CLASS 1, 642 PAINT	TEMPORARY CENTER LINE, CLASS 1, 740.06 TYPE 1, DOUBLE SOLID	TEMPORARY CHANNELIZING LINE, CLASS 1, 740.06 TYPE 1	TEMPORARY GORE MARKINGS, CLASS 2	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT, WHITE	TEMPORARY EDGE LINE, CLASS 1, 740.06 TYPE 1, WHITE	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT, YELLOW	TEMPORARY EDGE LINE, CLASS 1, 740.06 TYPE 1, YELLOW	TEMPORARY STOP LINE, CLASS 1, 740.06 TYPE 1	PORTABLE CONCRETE BARRIER, 81.3mm		PORTABLE CONCRETE BARRIER, 81.3mm, BRIDGE MOUNTED			
					WHITE	YELLOW			WHITE	YELLOW										METER	METER				
					EACH										METER										
33	M1	18+894.000	19+160.000	RT											266										
33	M2	19+118.000	19+160.000	RT														42							
34	M1	19+160.000	19+164.000	RT											4										
34	M2	19+160.000	19+446.000	RT														286							
34	M3	19+340.000	19+446.000	LT											106										
34	M4	19+403.000	19+780.000	LT													377								
34	M5	19+334.000	0+30.000	LT										115	250										
34	M6	19+592.000	19+677.000	LT								149													
34	M7	19+469.000	19+665.000	RT										294											
34	M8	19+446.000	19+780.000	RT													334								
34	B1	19+440.000	19+780.000	LT	44				44														340		
34	B2	19+440.000	0+200.000	RT	31				31														236		
34	B3	19+457.000	19+780.000	LT	42				42														323		
34	B4	19+695.000	19+700.000	RT	27				27														203		
35	M1	19+780.000	20+380.000	LT													600								
35	M2	19+780.000	20+380.000	RT													600								
35	M3	0+329.340	20+380.000	LT										90											
35	M4	0+277.900	0+401.000	LT										123											
35	B1	19+780.000	20+380.000	LT	76				76														600		
35	B2	19+780.000	20+380.000	RT	76				76														600		
35	B3	0+330.000	20+380.000	LT	7				7														50		
35	B4	0+343.000	0+401.000	RT	8				8														58		
36	M1	20+380.000	20+574.000	LT													194								
36	M2	20+489.000	20+585.000	LT																					
36	M3	20+380.000	20+980.000	LT													600								
36	M4	20+380.000	20+980.000	LT													600								
36	M5	20+380.000	20+980.000	RT																					
36	M6	20+480.000	20+680.000	RT																					
36	M7	20+480.000	20+680.000	RT													200								
36	M8	20+880.000	20+980.000	LT											100										
36	B1	20+380.000	20+526.000	LT	20				20														150		
36	B2	20+380.000	20+532.000	LT	20				20														152		
36	B3	20+380.000	20+480.000	RT	14				14														100		
36	B4	20+380.000	20+480.000	RT	14				14														100		
36	B5	20+659.000	20+920.000	LT	34				34														261		
36	B6	20+770.000	20+980.000	RT	28				28														210		
37	M1	20+980.000	21+580.000	LT													600								
37	M2	20+980.000	21+040.000	LT																					
37	M3	20+980.000	21+140.000	LT&RT																					
37	M4	20+980.000	21+140.000	LT&RT																					
37	B1	21+040.000	21+580.000	LT					138															540	
38	M1	21+580.000	22+180.000	LT													600								
38	B1	21+580.000	22+180.000	LT					152															600	
38	B2	21+698.600	21+728.600	LT					5															30	
39	M1	22+180.000	22+780.000	LT													600								
39	B1	22+180.000	22+780.000	LT					152															600	
39	B2	22+358.800	22+388.800	LT					5															30	
40	M1	22+780.000	24+480.000	LT													1700								
40	B1	22+780.000	24+480.000	LT					482															1700	
TOTALS					441	934	0	0	441	934	0	0	246	0	5392	626	3537	328	0	6883	0				
TOTALS TO SHEET 26A					1375		0	0	1375		0.00KM	0.00KM	246	0	9.88KM		0	6883	0						

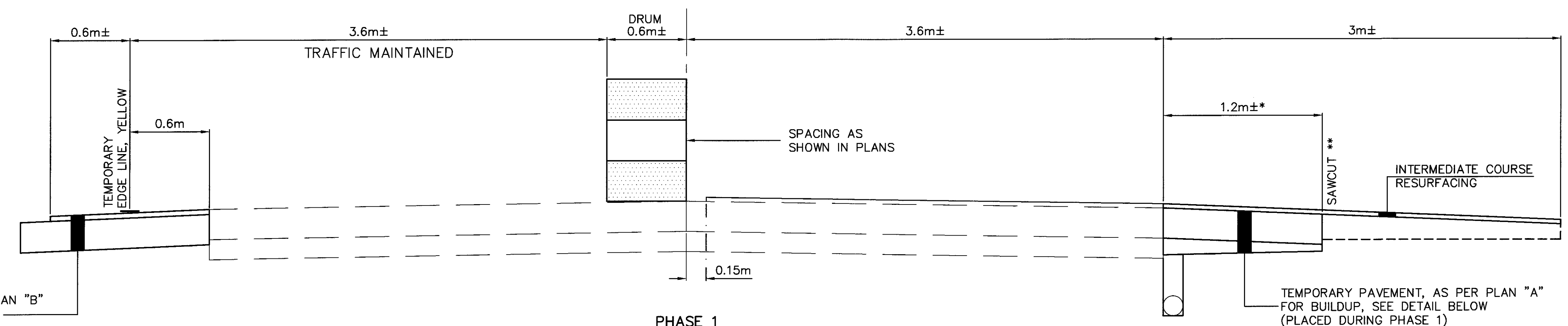
CALCULATED BY: JTN
DATE: 5-99
CHECKED BY: JMA
DATE: 5-99

SECTION A, PHASE 1, CALCULATIONS (1 OF 2)

ERI-2-12.558

**MAINTENANCE OF TRAFFIC
 MAINLINE TYPICAL SECTIONS**

ERI-2-12.558

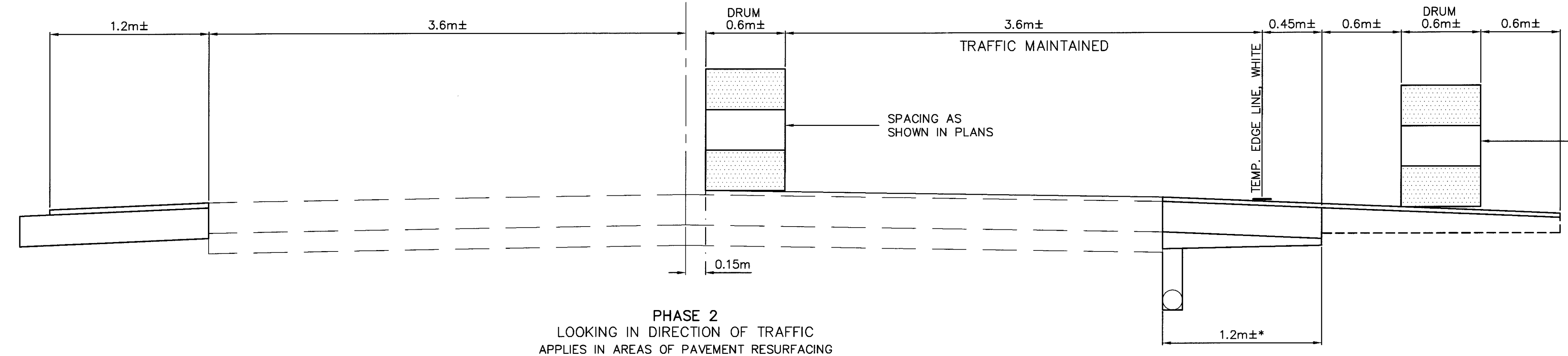


TEMPORARY PAVEMENT, AS PER PLAN "B"
 FOR BUILDUP, SEE DETAIL BELOW
 (PLACED DURING PHASE 1)

TEMPORARY PAVEMENT, AS PER PLAN "A"
 FOR BUILDUP, SEE DETAIL BELOW
 (PLACED DURING PHASE 1)

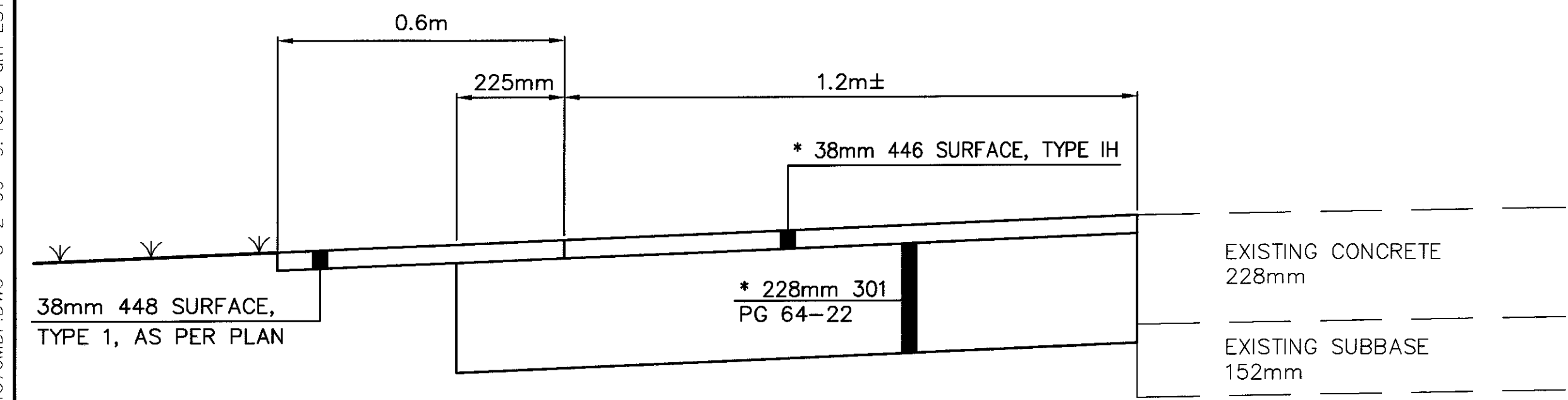
PHASE 1
 LOOKING IN DIRECTION OF TRAFFIC
 APPLIES IN AREAS OF PAVEMENT RESURFACING

** - THE SAWCUT SHALL BE
 CONSIDERED AS INCIDENTAL AND
 ALL COSTS INCLUDED IN ITEM 615,
 TEMPORARY PAVEMENT, AS PER PLAN "A".



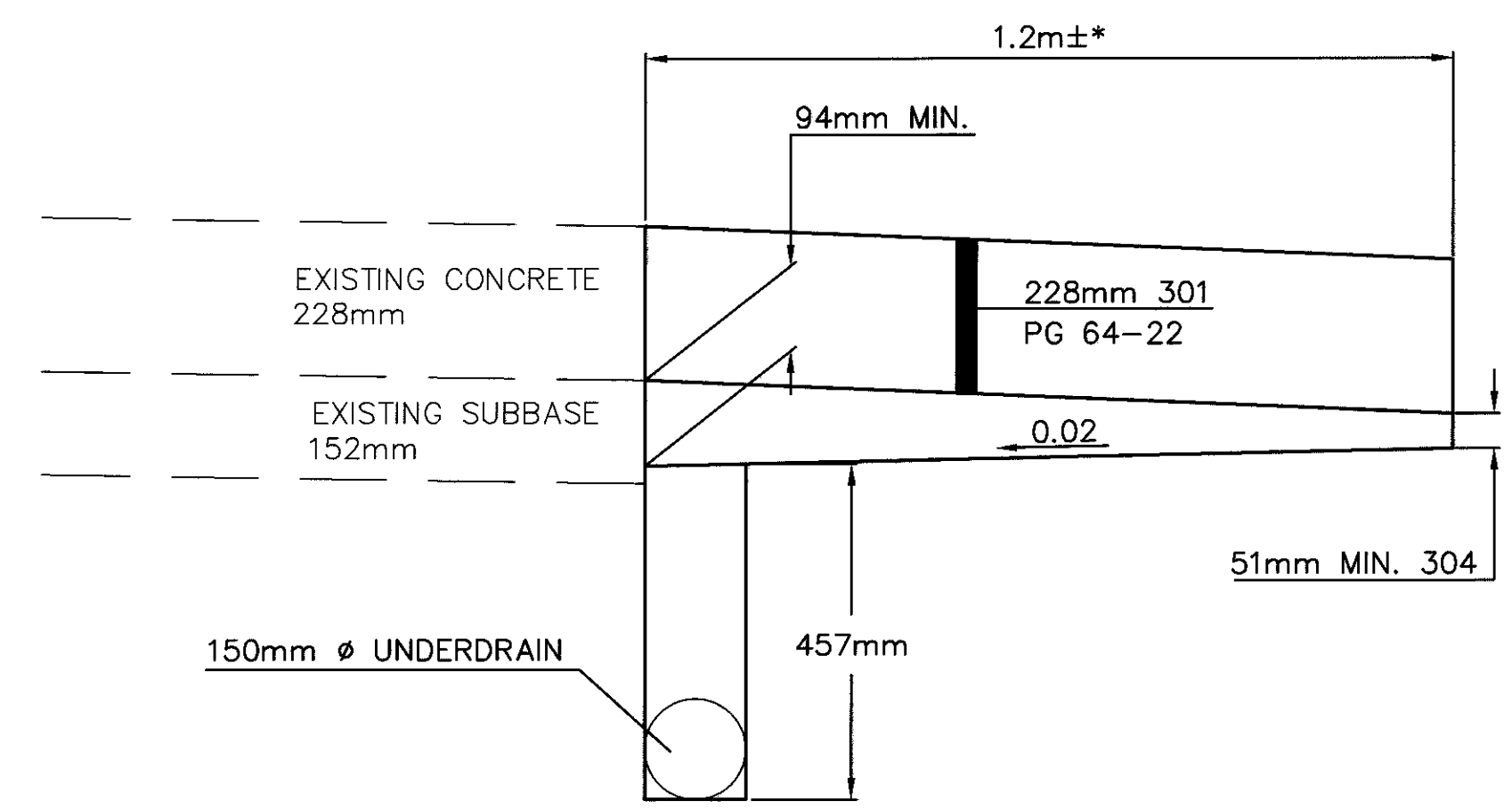
PHASE 2
 LOOKING IN DIRECTION OF TRAFFIC
 APPLIES IN AREAS OF PAVEMENT RESURFACING

* - EXCEPT @ MAINLINE STRUCTURES.
 3.0m MAX., SEE PLAN FOR LIMITS.



* - ITEM 615, TEMPORARY PAVEMENT,
 AS PER PLAN "B" & "C"

TYPICAL DETAIL TEMPORARY PAVEMENT, AS PER PLAN "B" & "C"
 (INSIDE SHOULDER)

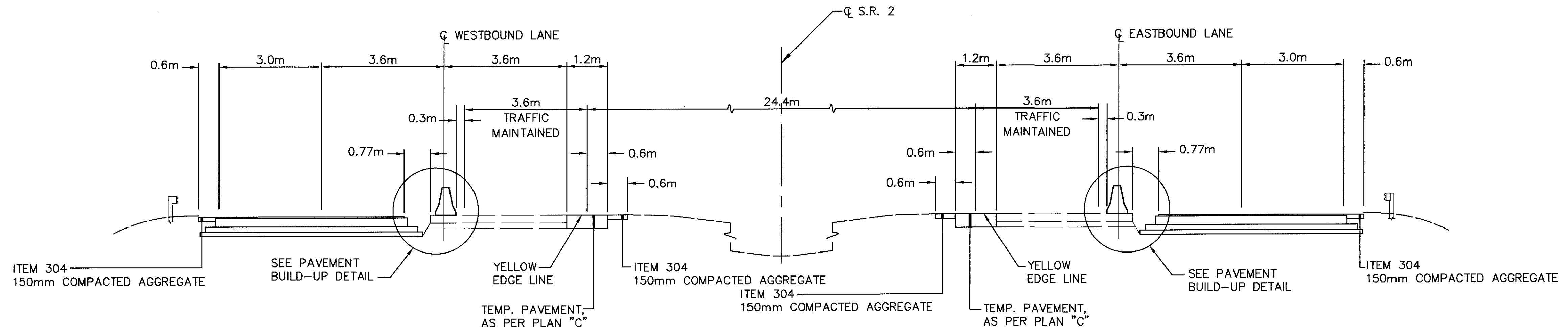


TYPICAL DETAIL TEMPORARY PAVEMENT, AS PER PLAN "A"
 (OUTSIDE SHOULDER)
 EXCEPTION OF EXISTING OUTSIDE
 SHOULDER LEFT IN PLACE

NOTES

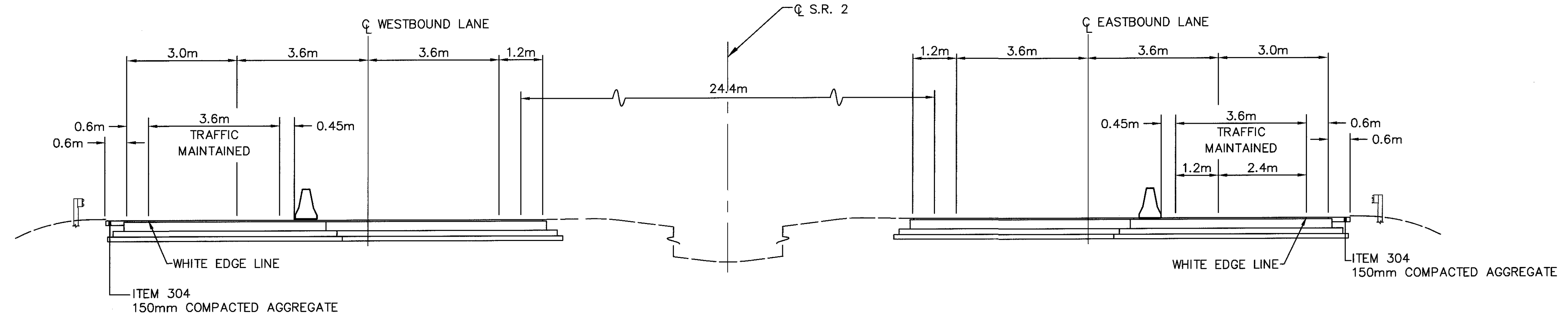
- 1) TEMPORARY PAVEMENT, AS PER PLAN "A" IS PLACED ON OUTSIDE SHOULDER & IS TO REMAIN.
- 2) TEMP. PAVEMENT, AS PER PLAN "B" IS PLACED ON THE INSIDE SHOULDER & IS TO REMAIN.
- 3) TEMP. PAVEMENT, AS PER PLAN "C" IS PLACED ON THE INSIDE SHOULDER & IS TO BE REMOVED WHEN NO LONGER NEEDED.
- 4) SEE ADDITIONAL NOTES ON SHEET 20.

PLOTTED: MAY 24, 1999
 FILE NAME: I:\5033\006\TRAN\MOT\11376MDF.DWG 8-2-99 9:46:10 am EST
 J.E.F.

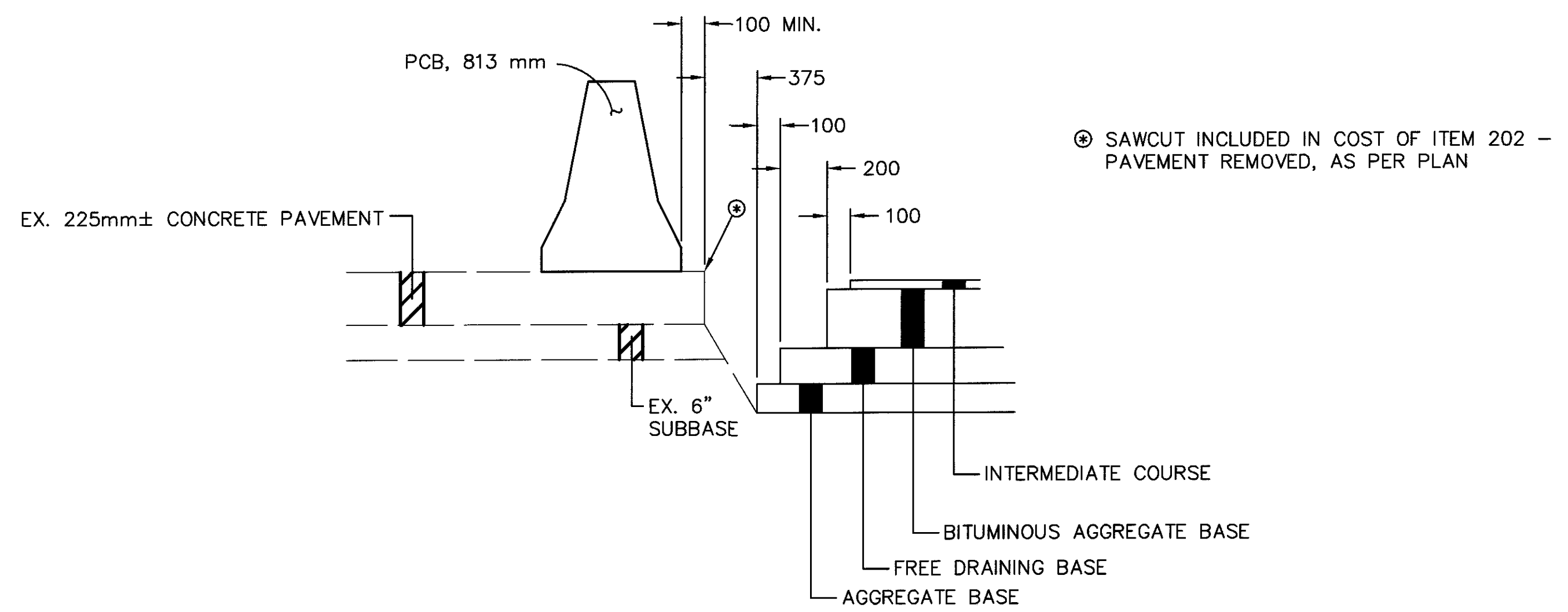


PHASE 1
 APPLIES IN AREAS OF COMPLETE PAVEMENT REPLACEMENT

NOTE: ALL SAWCUTS TO REMOVE THE PAVEMENT DUE TO STAGED CONSTRUCTION SHALL BE INCLUDED IN ITEM 202, PAVEMENT REMOVED, AS PER PLAN



PHASE 2
 APPLIES IN AREAS OF COMPLETE PAVEMENT REPLACEMENT



⊕ SAWCUT INCLUDED IN COST OF ITEM 202 - PAVEMENT REMOVED, AS PER PLAN

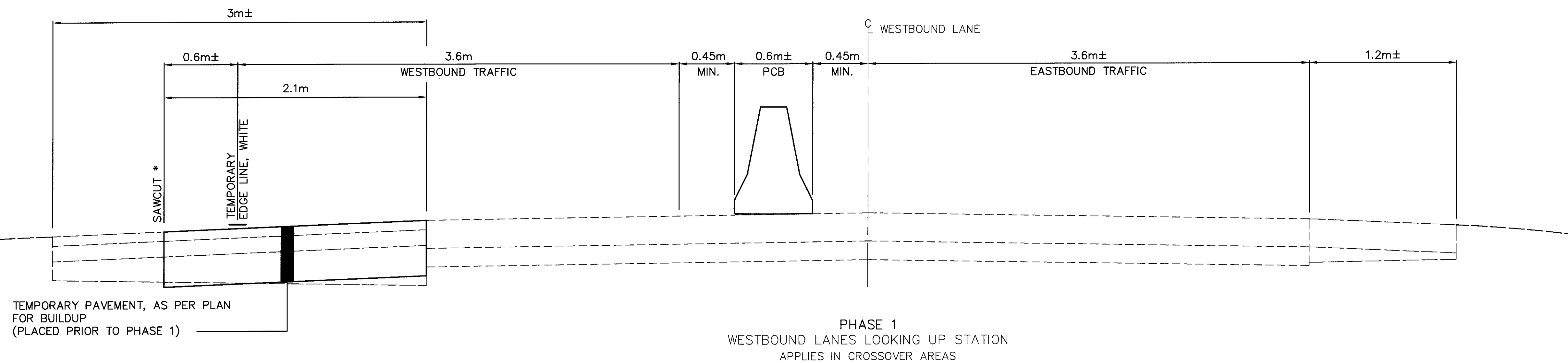
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED.

PHASE 1 PAVEMENT BUILD-UP DETAIL

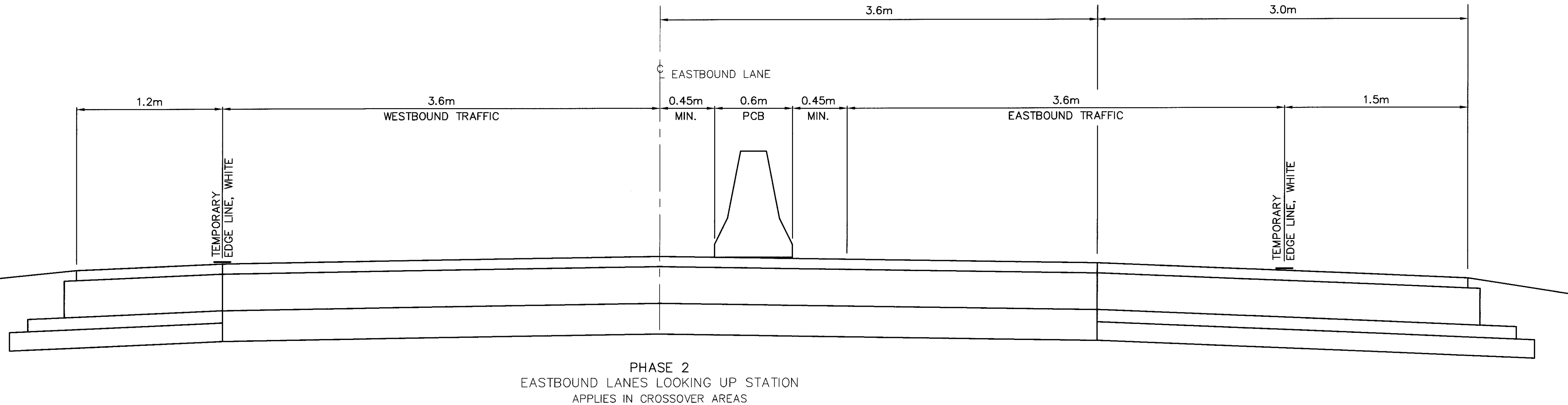
FILE NAME: I:\5033\006\TRAN\MOT\11376MDA.DWG 7-9-99 3:23:06 pm EST

PLOTTED:
KJB

5033-006



* - SAWCUT SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE COST OF ITEM 615, TEMPORARY PAVEMENT, AS PER PLAN

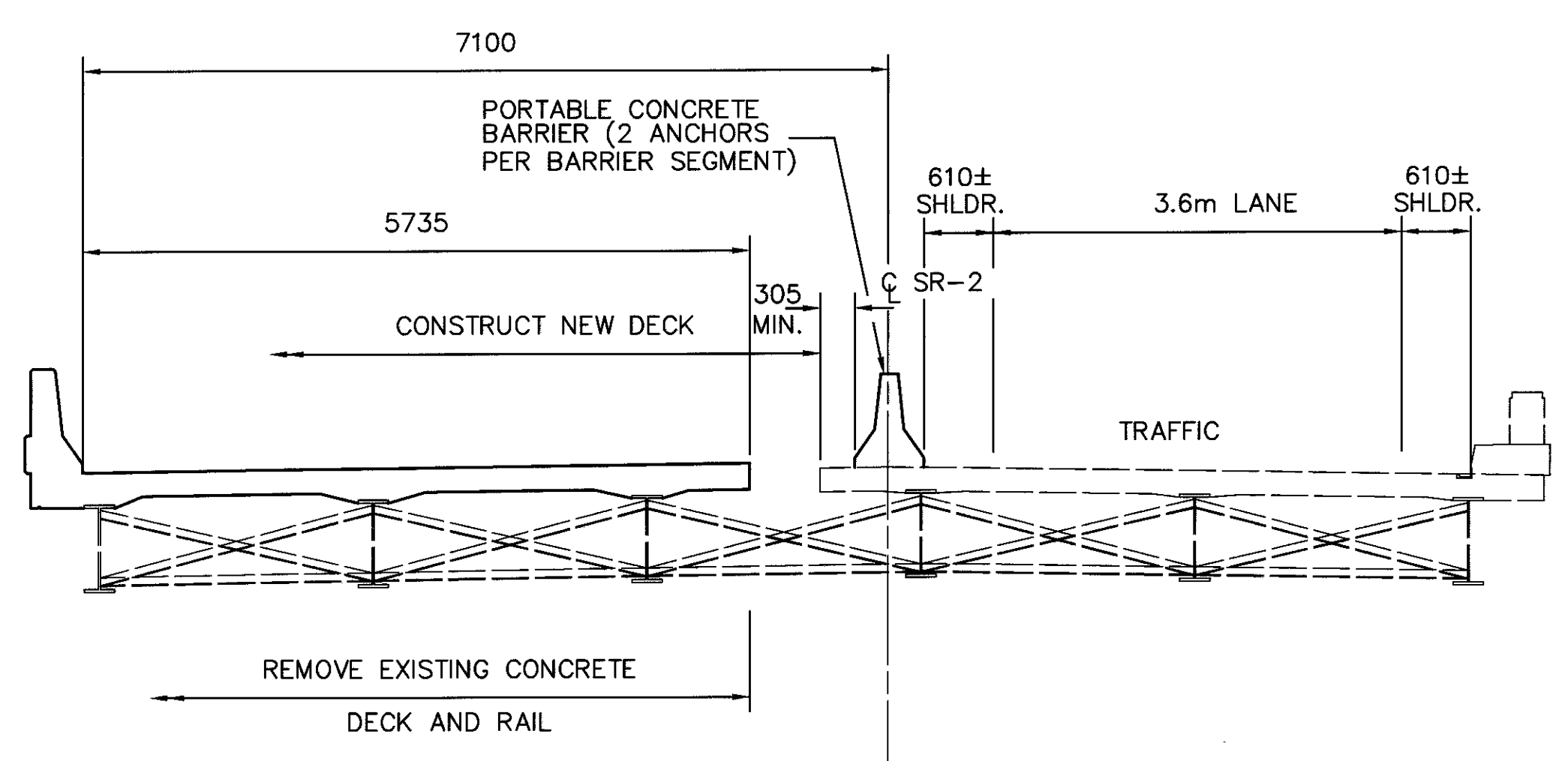


CALCULATED BY JTY DATE 3-99
CHECKED BY PMA DATE 4-99

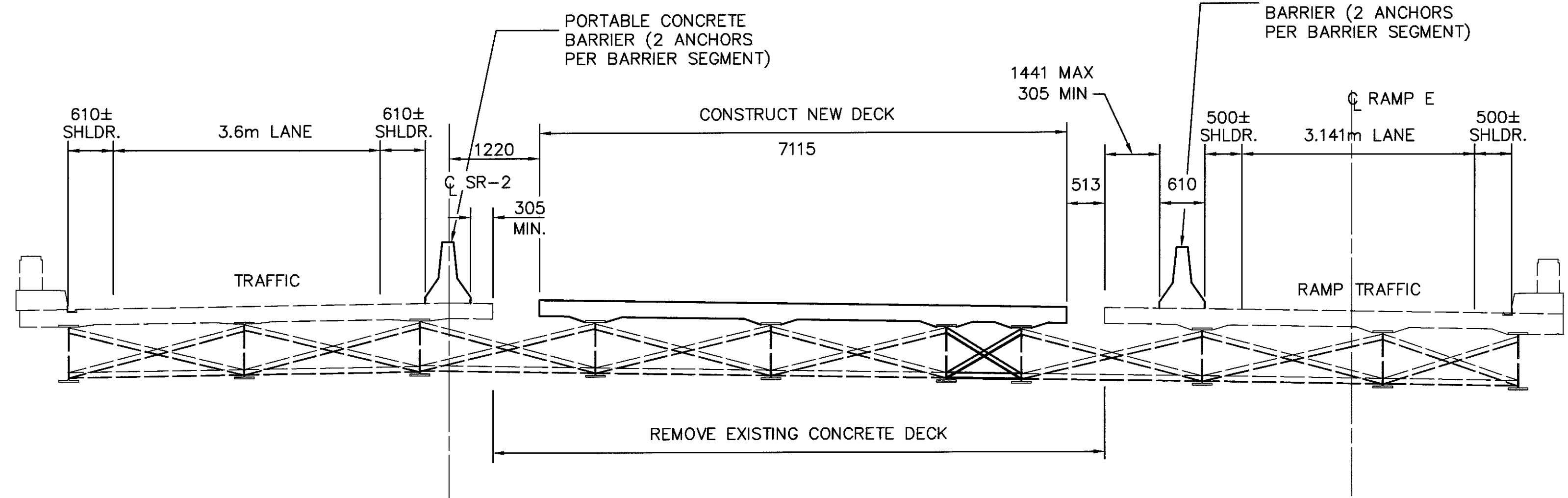
**MAINTENANCE OF TRAFFIC
MAINLINE TYPICAL SECTIONS**

ERI-2-12.558

29B
432

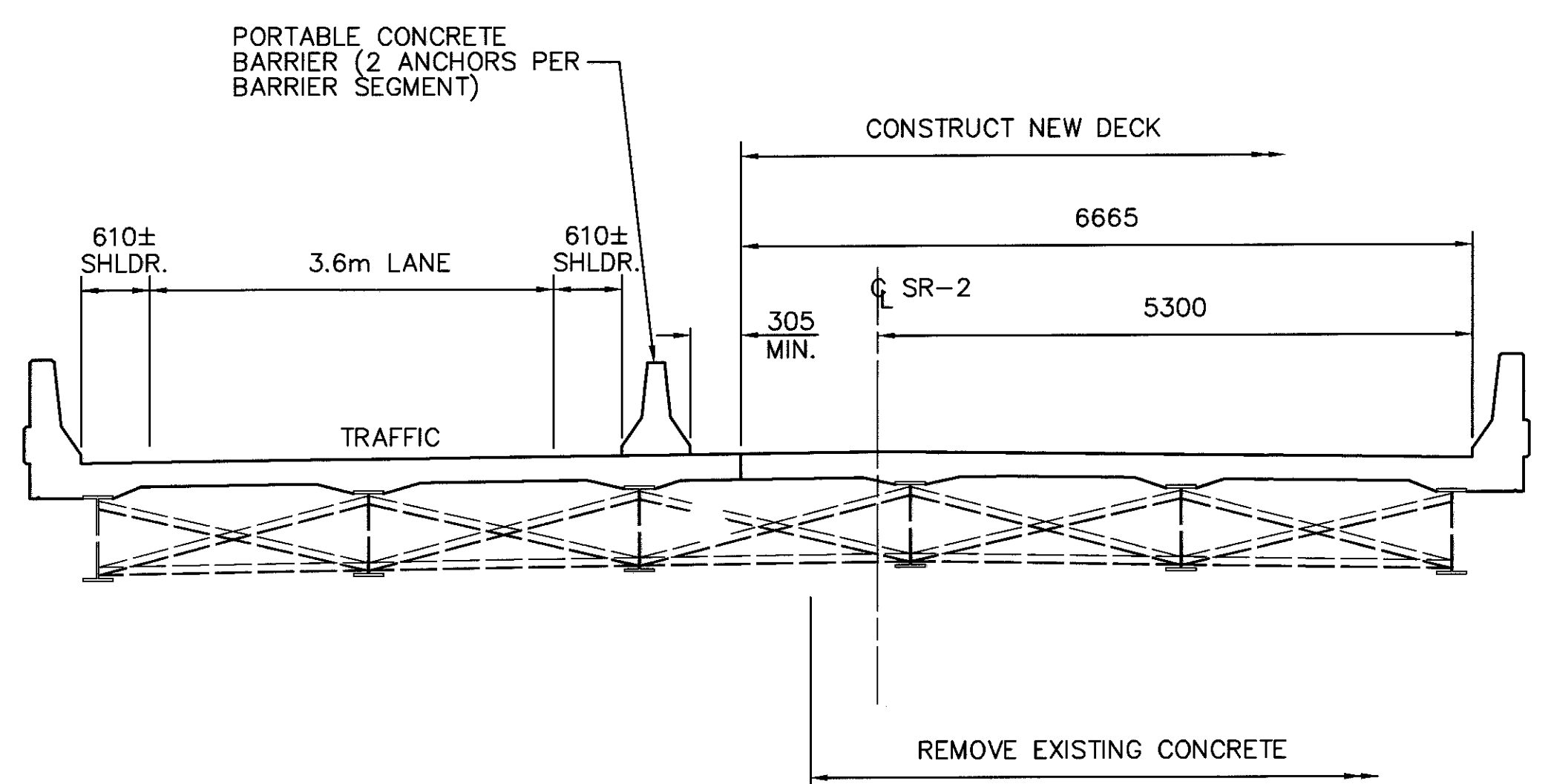


LEFT BRIDGE

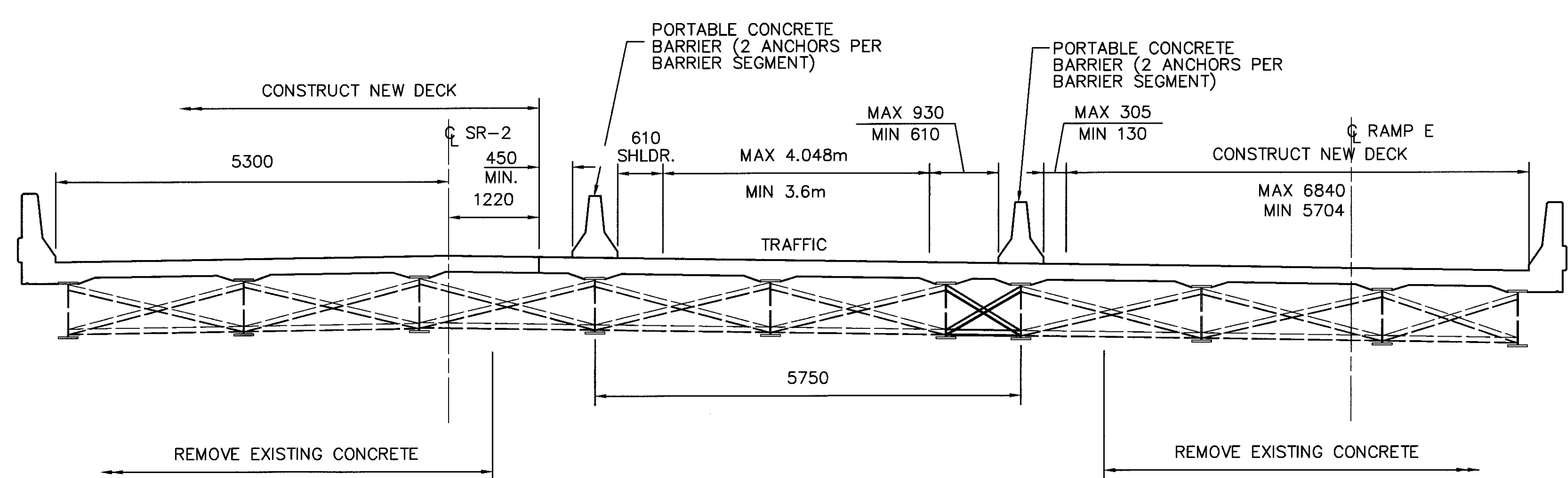


RIGHT BRIDGE

SECTION A-A PHASE 1
 ERI-2-19312
 OVER U.S. ROUTE 250



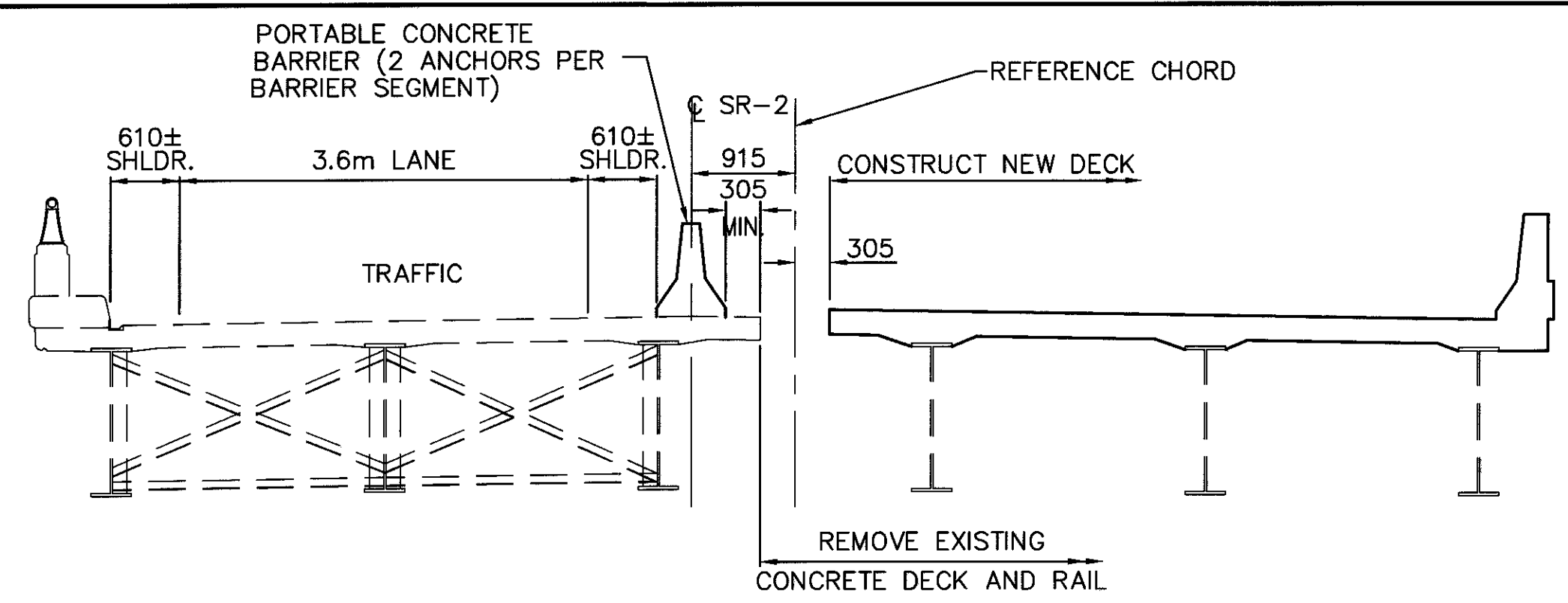
LEFT BRIDGE



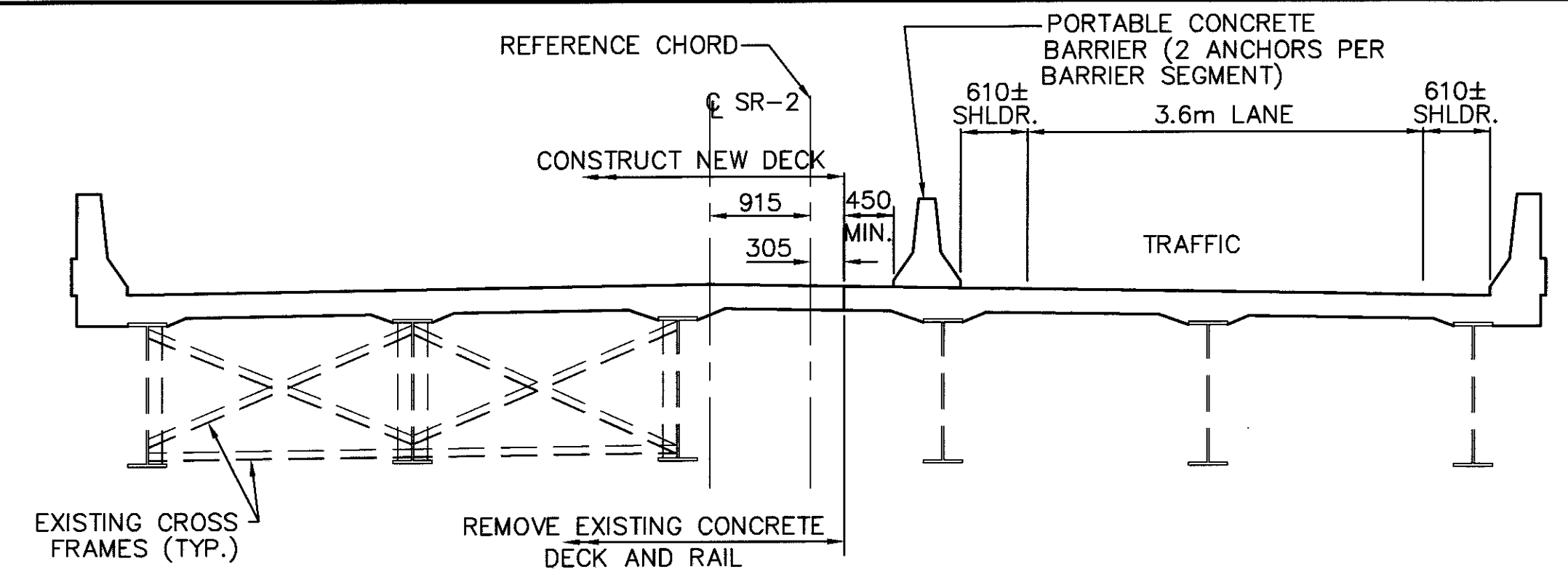
RIGHT BRIDGE

SECTION B-B PHASE 2
 ERI-2-19312
 OVER U.S. ROUTE 250

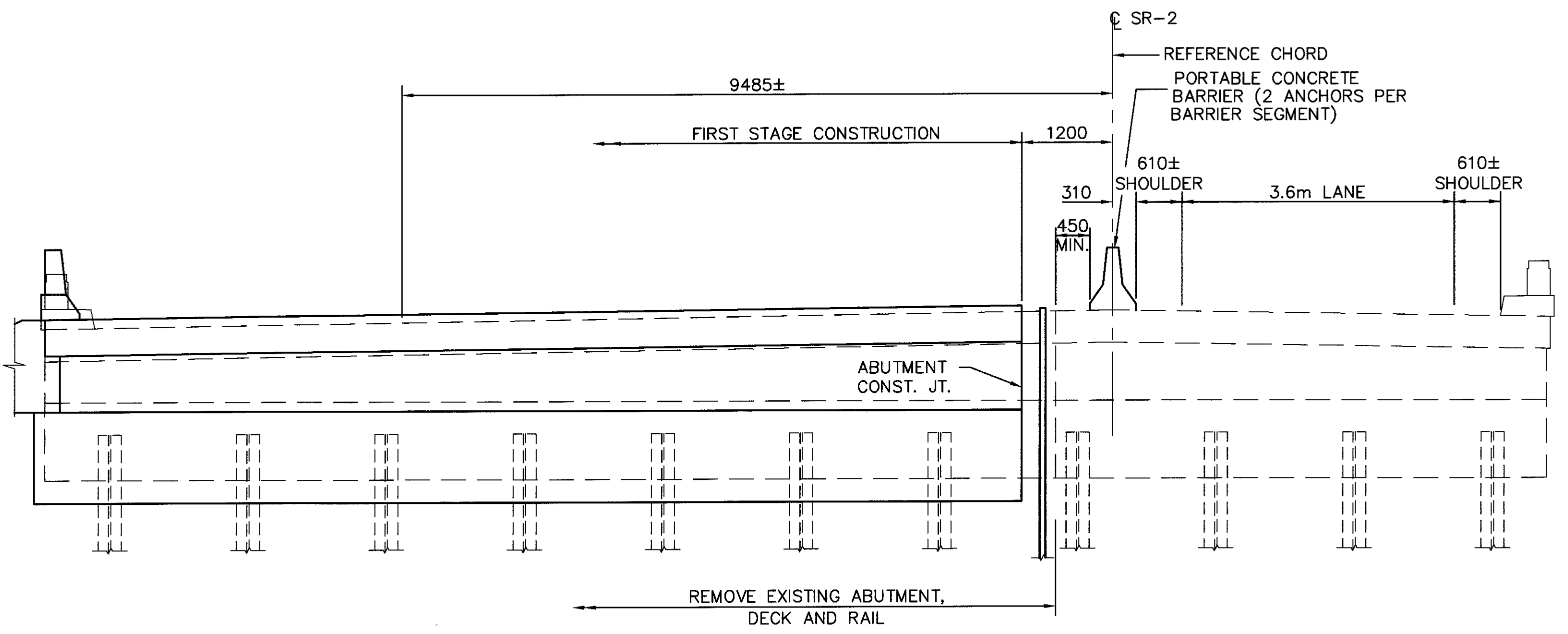
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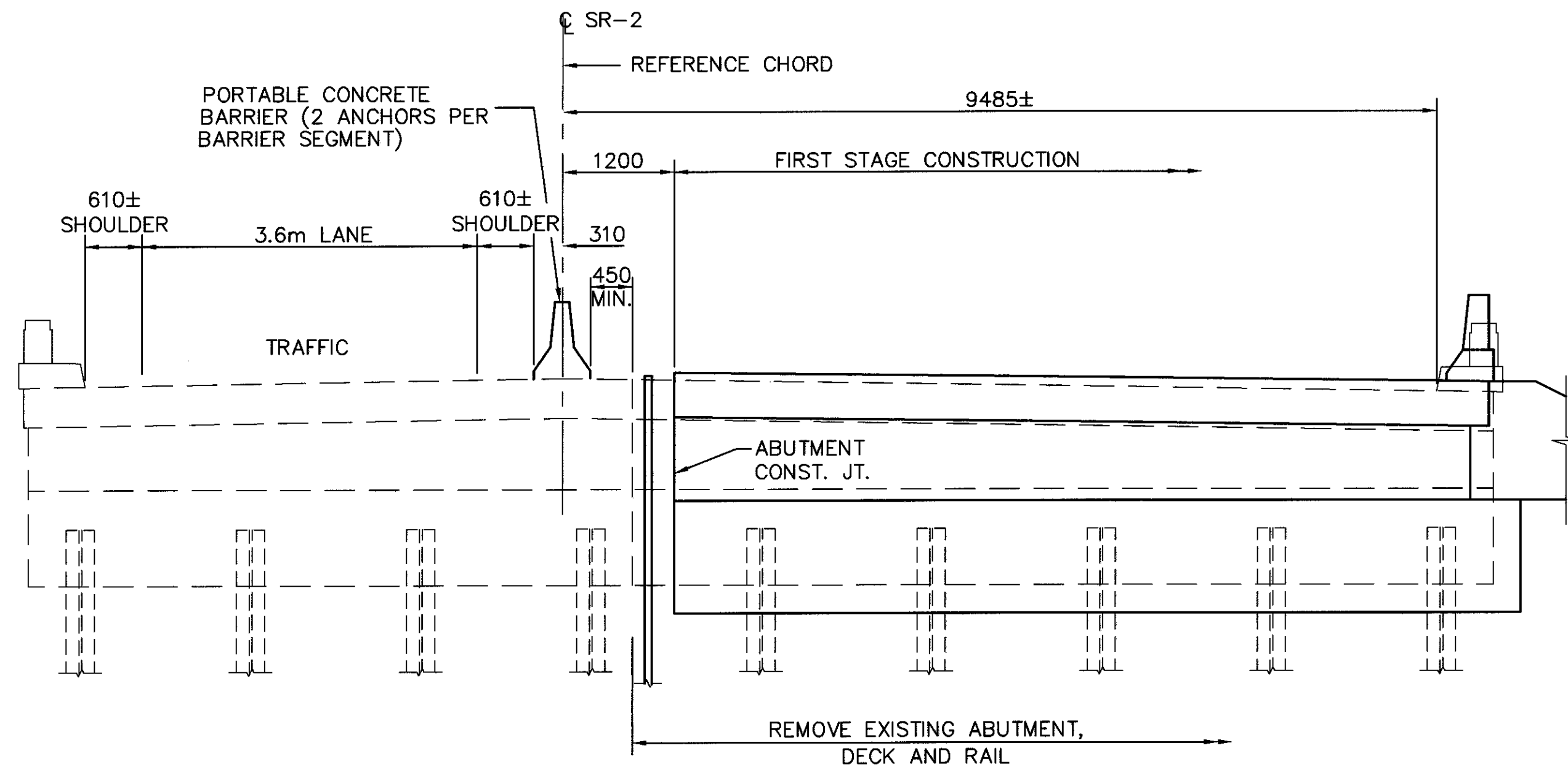
SECTION A-A PHASE 1
(LOOKING IN THE DIRECTION OF TRAFFIC)
ERI-2-23770 (OVER NORFOLK SOUTHERN RAILWAY)



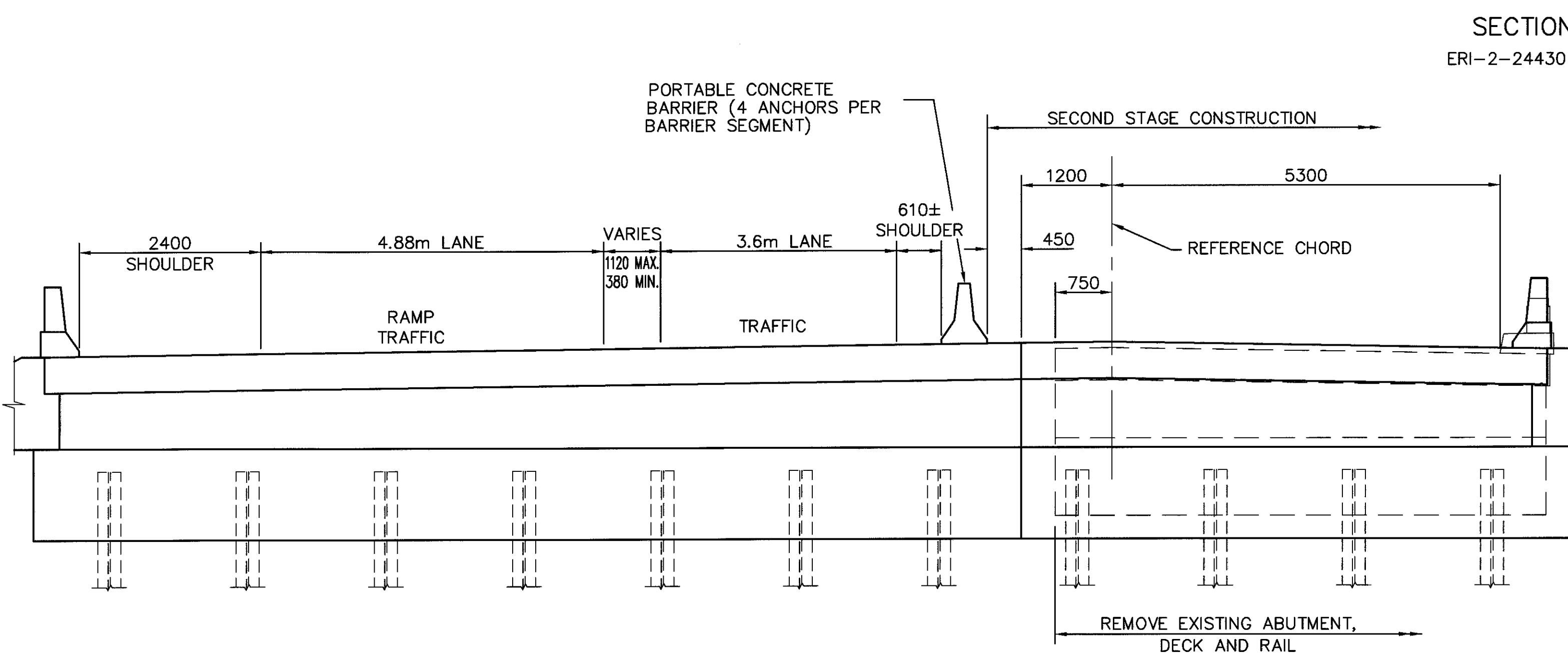
SECTION B-B PHASE 2
(LOOKING IN THE DIRECTION OF TRAFFIC)
ERI-2-23770 (OVER NORFOLK SOUTHERN RAILWAY)



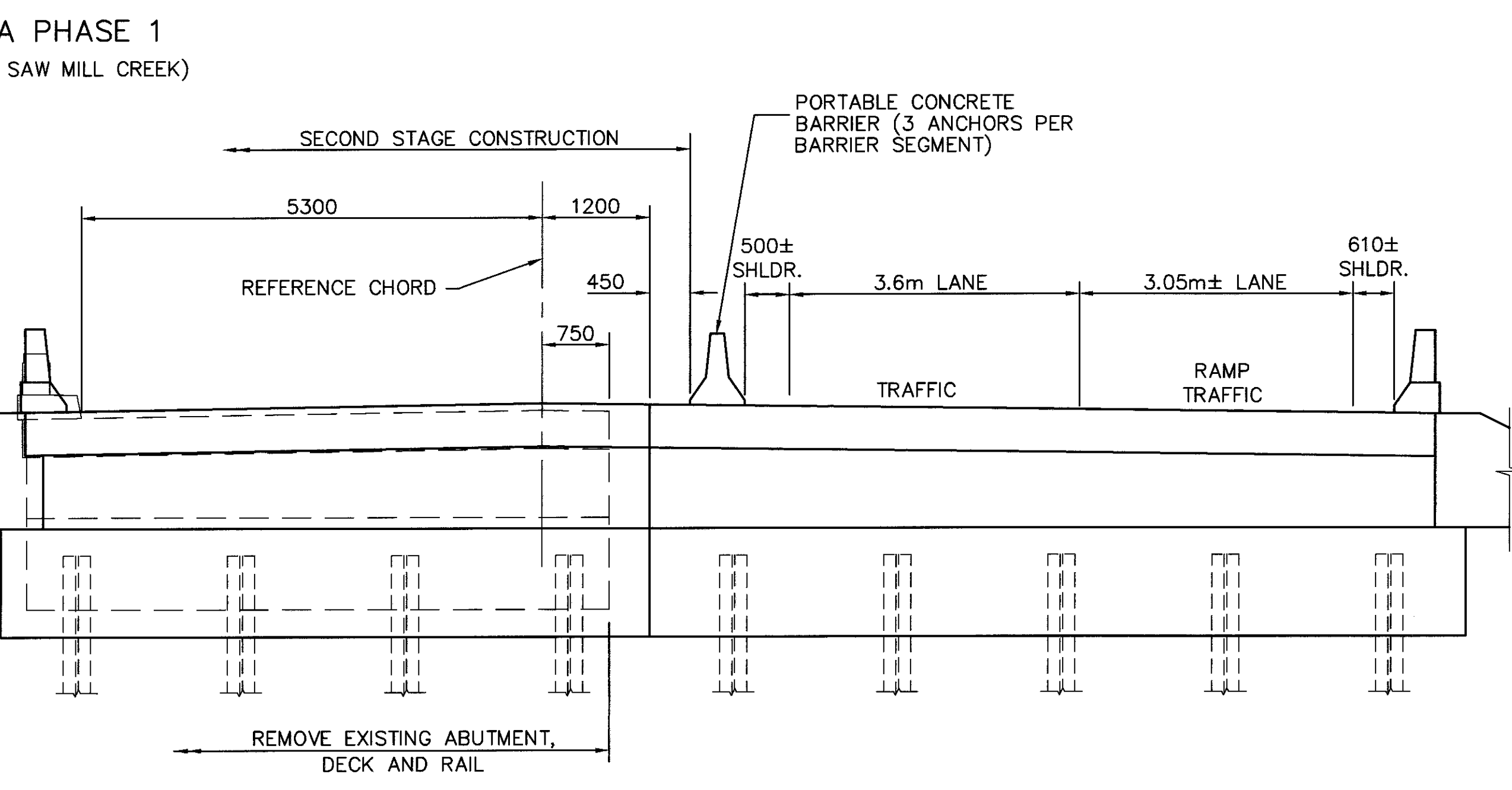
LEFT BRIDGE



RIGHT BRIDGE



LEFT BRIDGE



RIGHT BRIDGE

SECTION B-B PHASE 2
ERI-2-24430 (OVER SAW MILL CREEK)

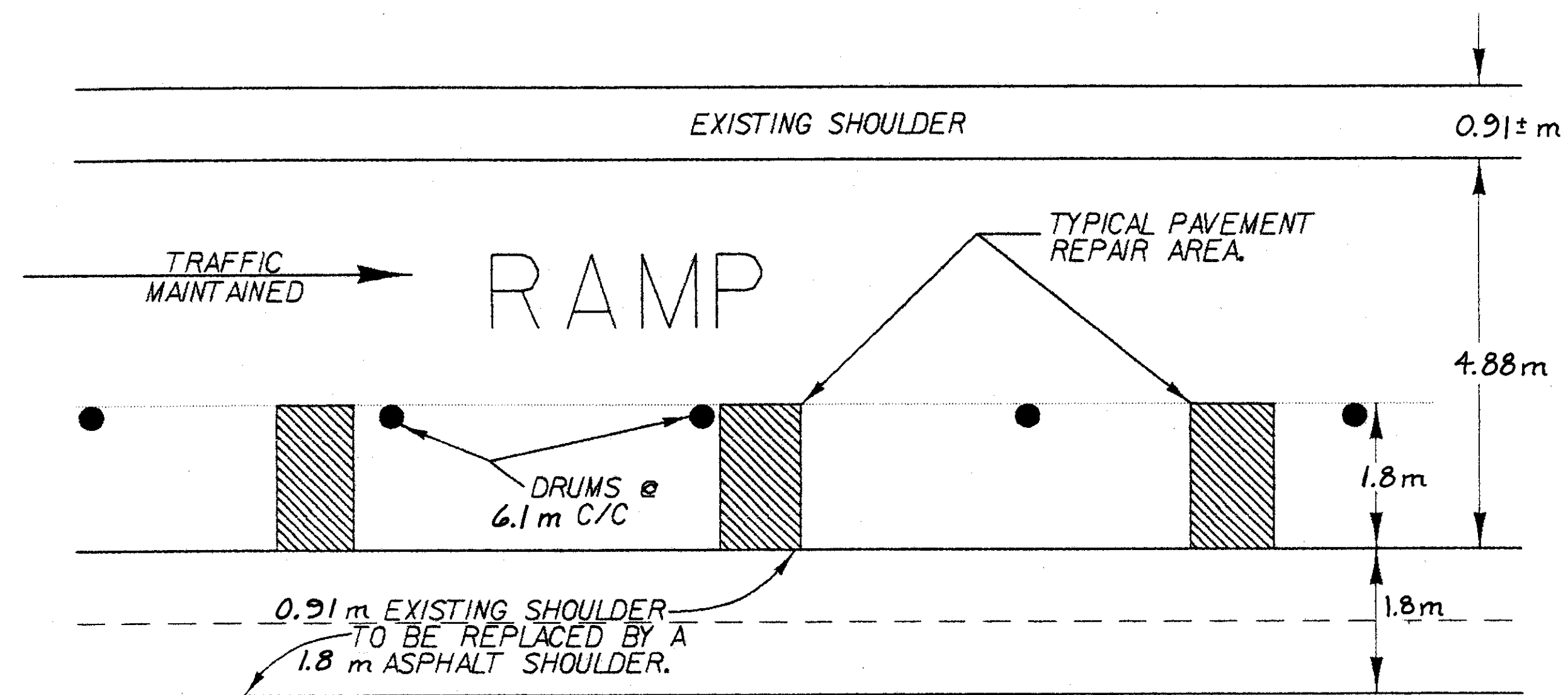
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 J.E.F.

CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 5-99

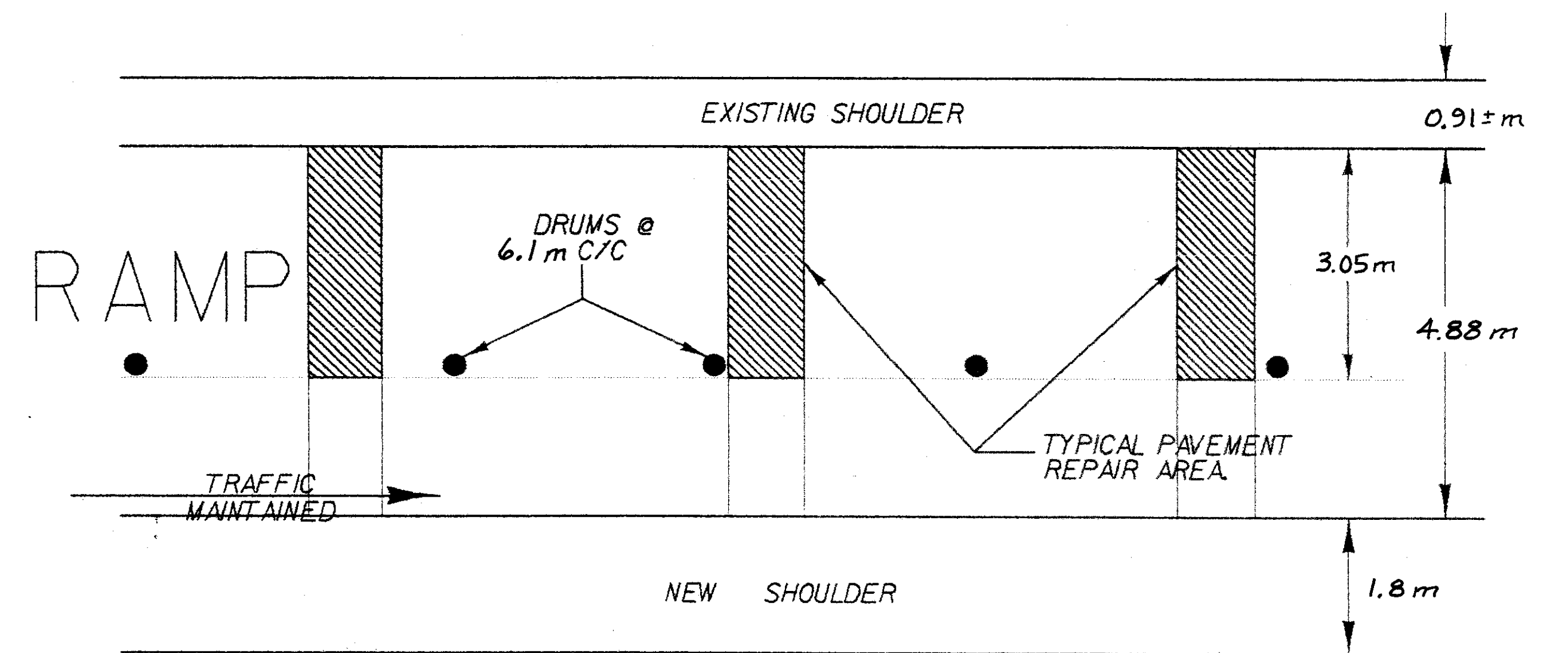
**MAINTENANCE OF TRAFFIC
 BRIDGE TYPICAL SECTIONS**

ERI-2-12.558

PHASE "R1"



PHASE "R2"



THIS DRAWING APPLIES TO AREAS ON RAMPS WHERE DRUMS ARE UTILIZED.

ALL RAMPS UTILIZING DRUMS SHALL BE MAINTAINED AS SHOWN ABOVE WHILE THE PROPOSED PAVEMENT REPAIRS AND ASPHALT SHOULDERS ARE BEING CONSTRUCTED.

THE EXISTING OUTSIDE OR RIGHT SIDE SHOULDER SHALL BE WIDENED PRIOR TO PHASE "R2". THE CONTRACTOR SHALL AVOID SAWING INTO THE NEW ASPHALT SHOULDERS.

EXCAVATION FOR THE PROPOSED ASPHALT RAMP SHOULDERS SHALL BE ADEQUATELY MAINTAINED AND PROTECTED AT ALL TIMES WITH DRUMS WHERE APPLICABLE. THE PLACEMENT OF THE PROPOSED ASPHALTIC PAVEMENT SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF THE EXCAVATION OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. NO EXCAVATION SHALL BE LEFT OPEN OVERNIGHT. IN CASE OF EMERGENCY, THE OPEN EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS DIRECTED BY THE ENGINEER.

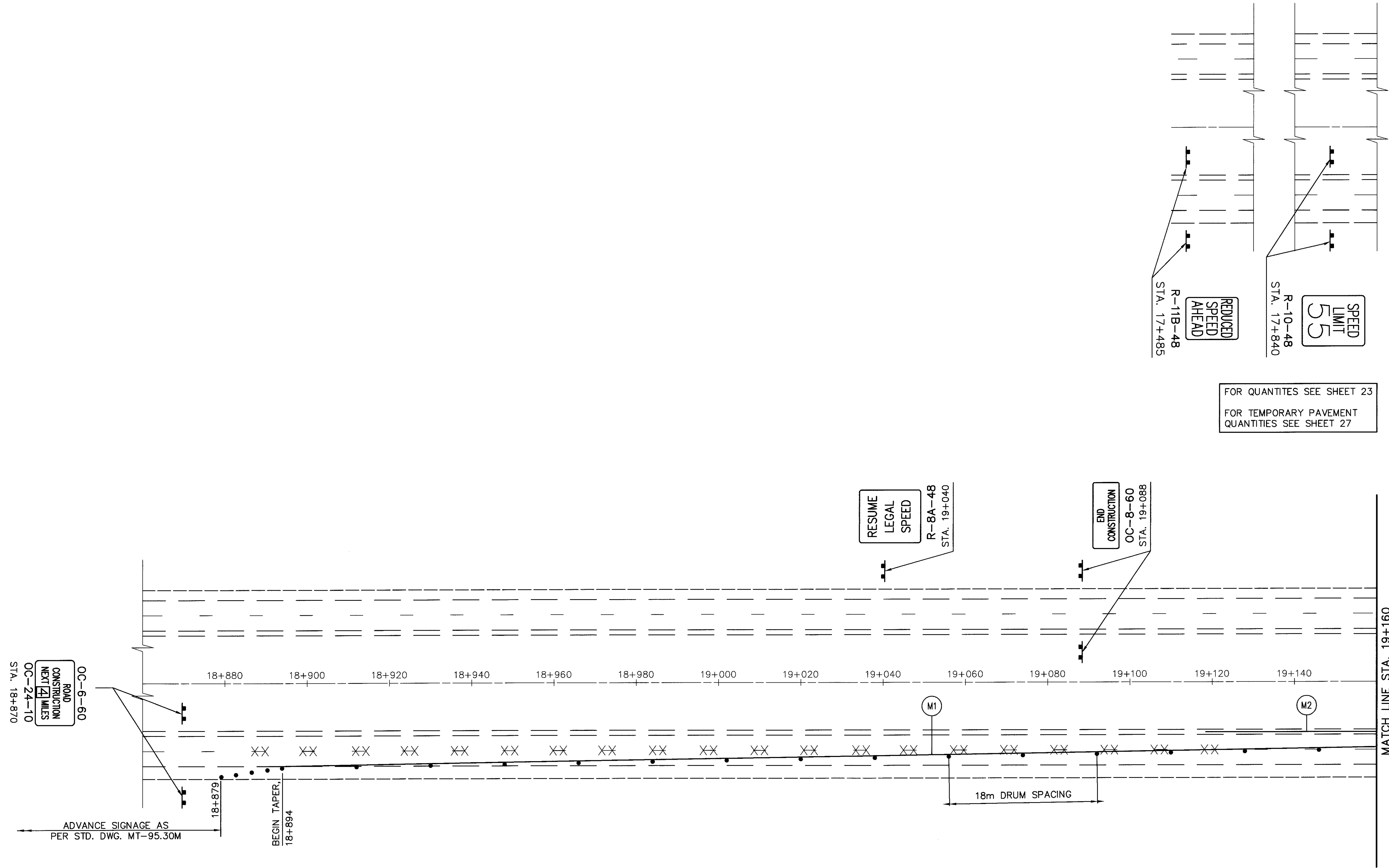
CALCULATED
TSP 4/96
CHECKED
TBC 7/96

MAINTENANCE OF TRAFFIC RAMPS

ERI-2 - 12.558

32A
432

RAMPS.DGN



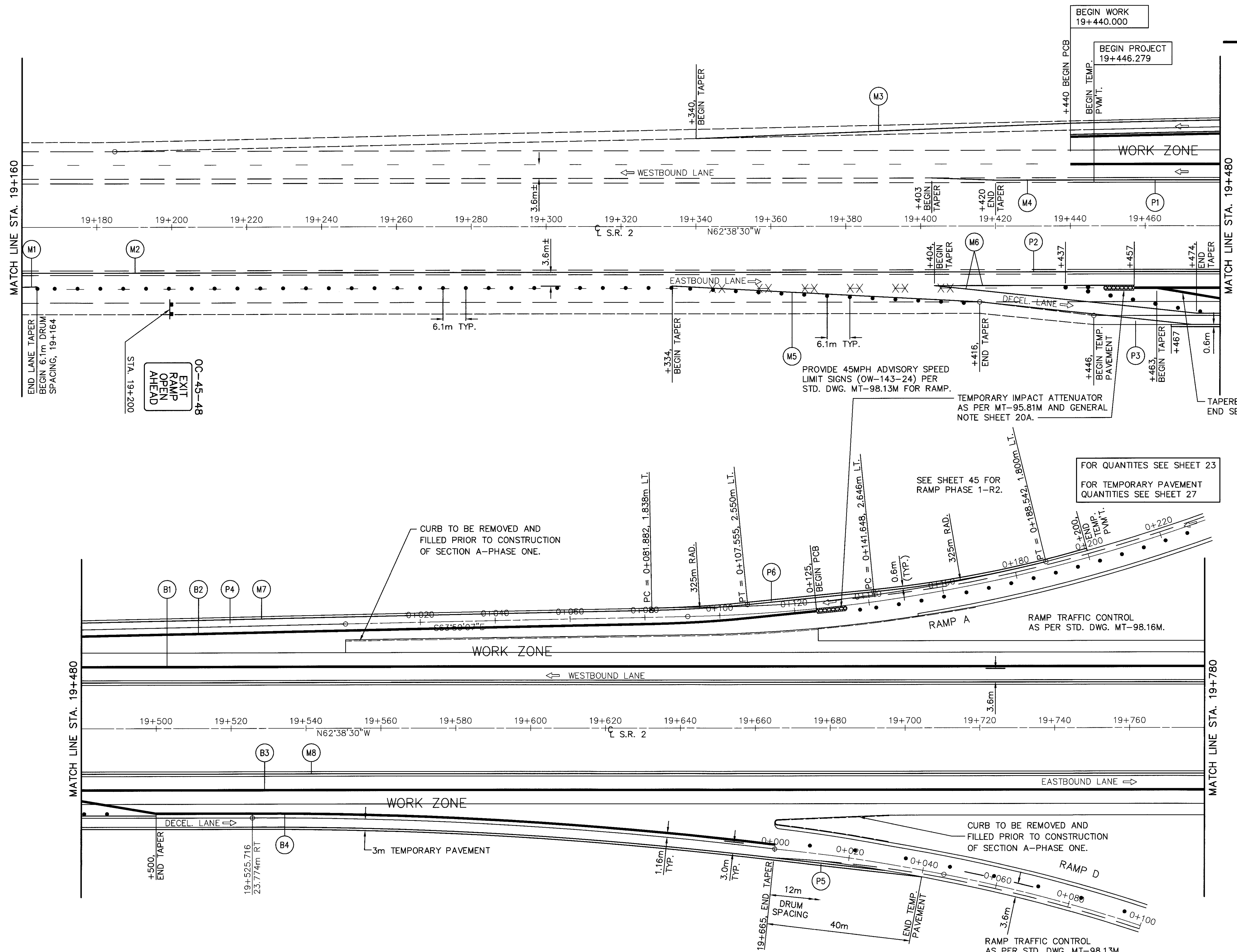
LEGEND

- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY: JUY DATE: 3-99
 CHECKED BY: PMA DATE: 5-99
 RATIO IN METERS
 0 5 10 15 20

**MAINTENANCE OF TRAFFIC, SECT. A-PHASE 1
 STA. 17+280 TO STA. 19+160**

ERI-2-12.558



LEGEND

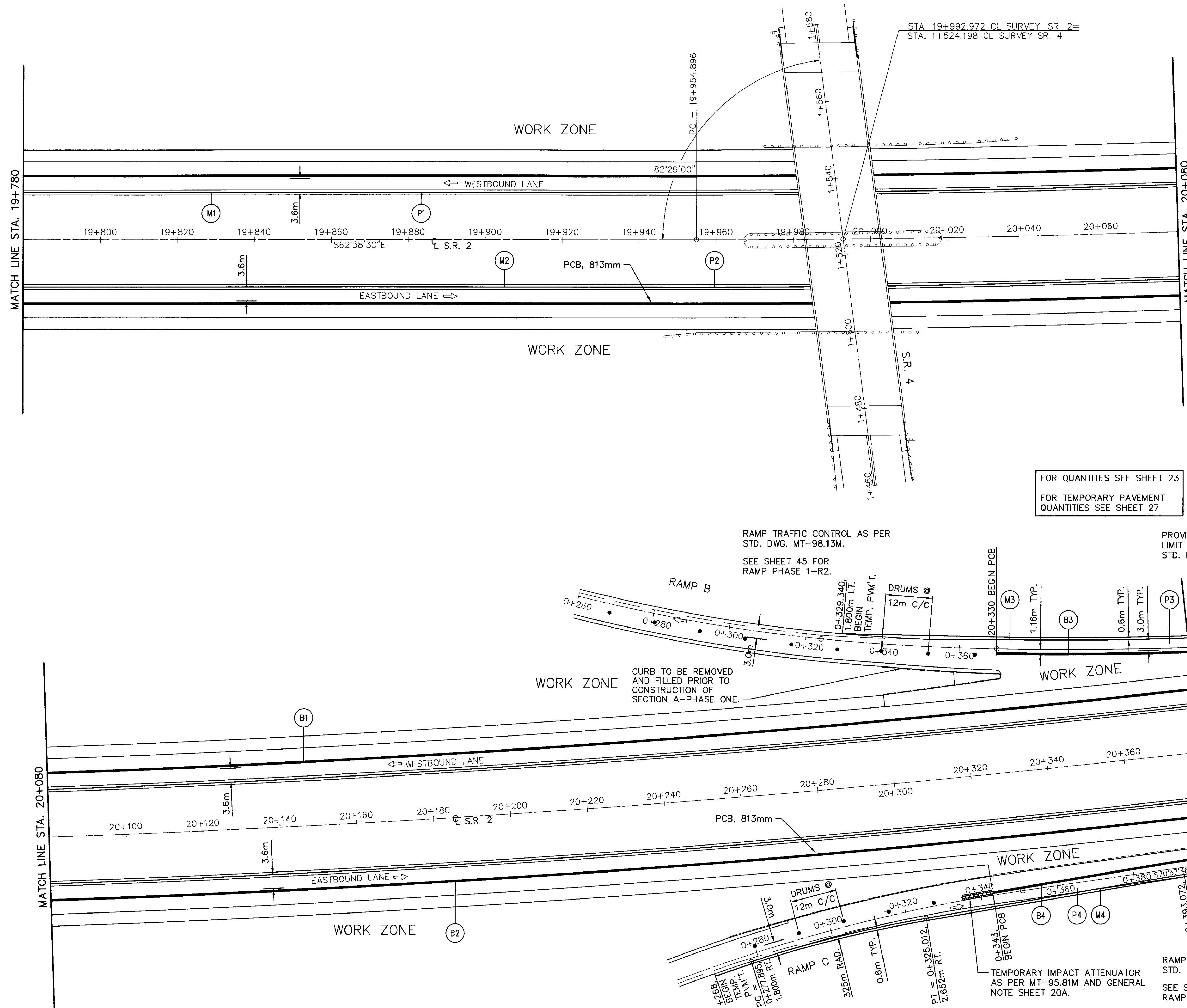
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 5-99

0 10 20
 0 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 1
STA. 19+160 TO STA. 19+780**

ERI-2-12.558



LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- ▲ TRAFFIC CONES

FOR QUANTITIES SEE SHEET 23
 FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

RAMP TRAFFIC CONTROL AS PER STD. DWG. MT-98.13M.
 SEE SHEET 45 FOR RAMP PHASE 1-R2.

PROVIDE 45MPH ADVISORY SPEED LIMIT SIGNS (OW-143-24) PER STD. DWG. MT-98.13M FOR RAMP.

WORK ZONE CURB TO BE REMOVED AND FILLED PRIOR TO CONSTRUCTION OF SECTION A-PHASE ONE.

WORK ZONE

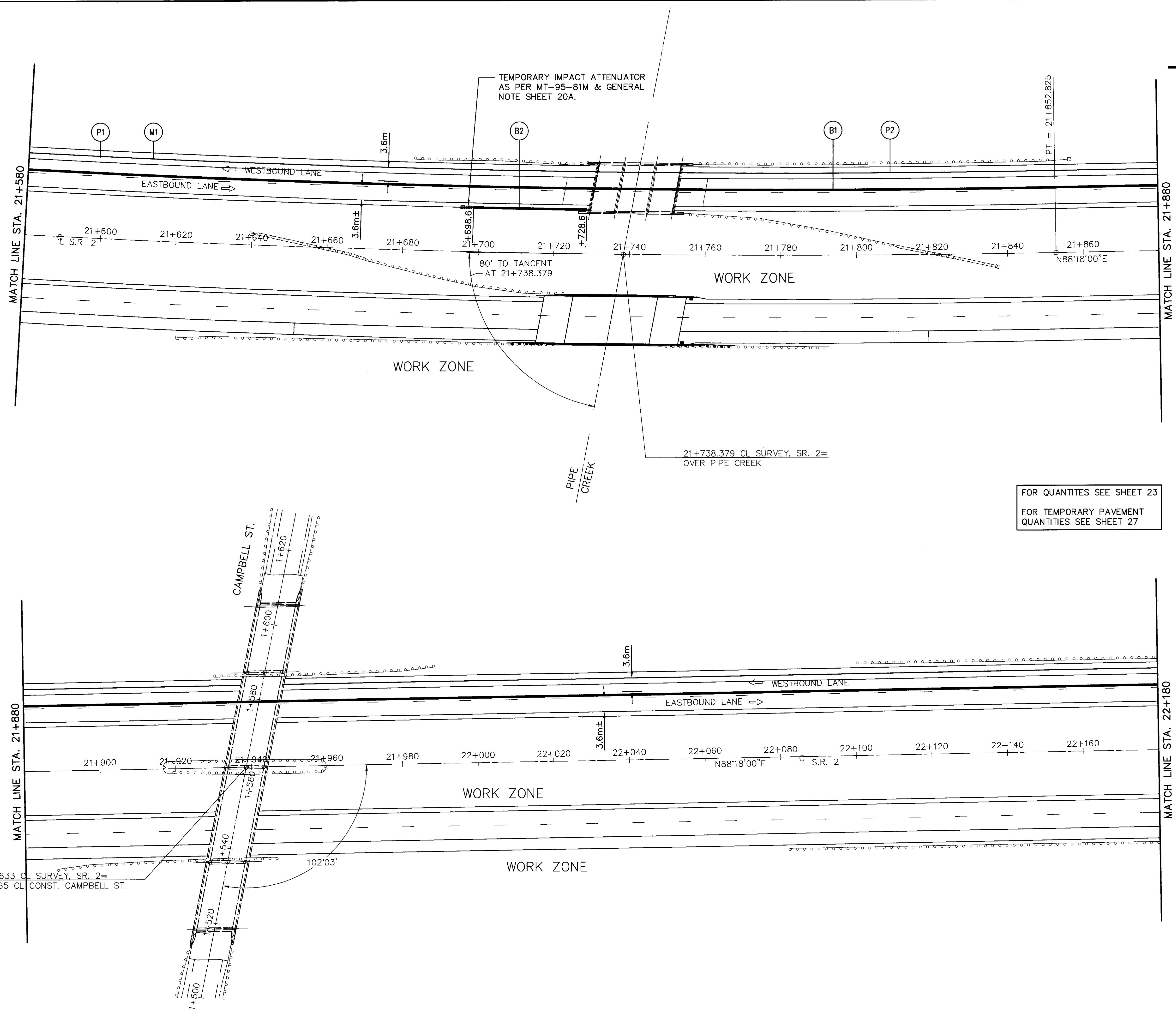
WORK ZONE CURB TO BE REMOVED AND FILLED PRIOR TO CONSTRUCTION OF SECTION A-PHASE ONE.

TEMPORARY IMPACT ATTENUATOR AS PER MT-95.81M AND GENERAL NOTE SHEET 20A.

RAMP TRAFFIC CONTROL AS PER STD. DWG. MT-98.16M.
 SEE SHEET 45 FOR RAMP PHASE 1-R2.

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 1
 STA. 19+780 TO STA. 20+380**

ERI-2-12.558



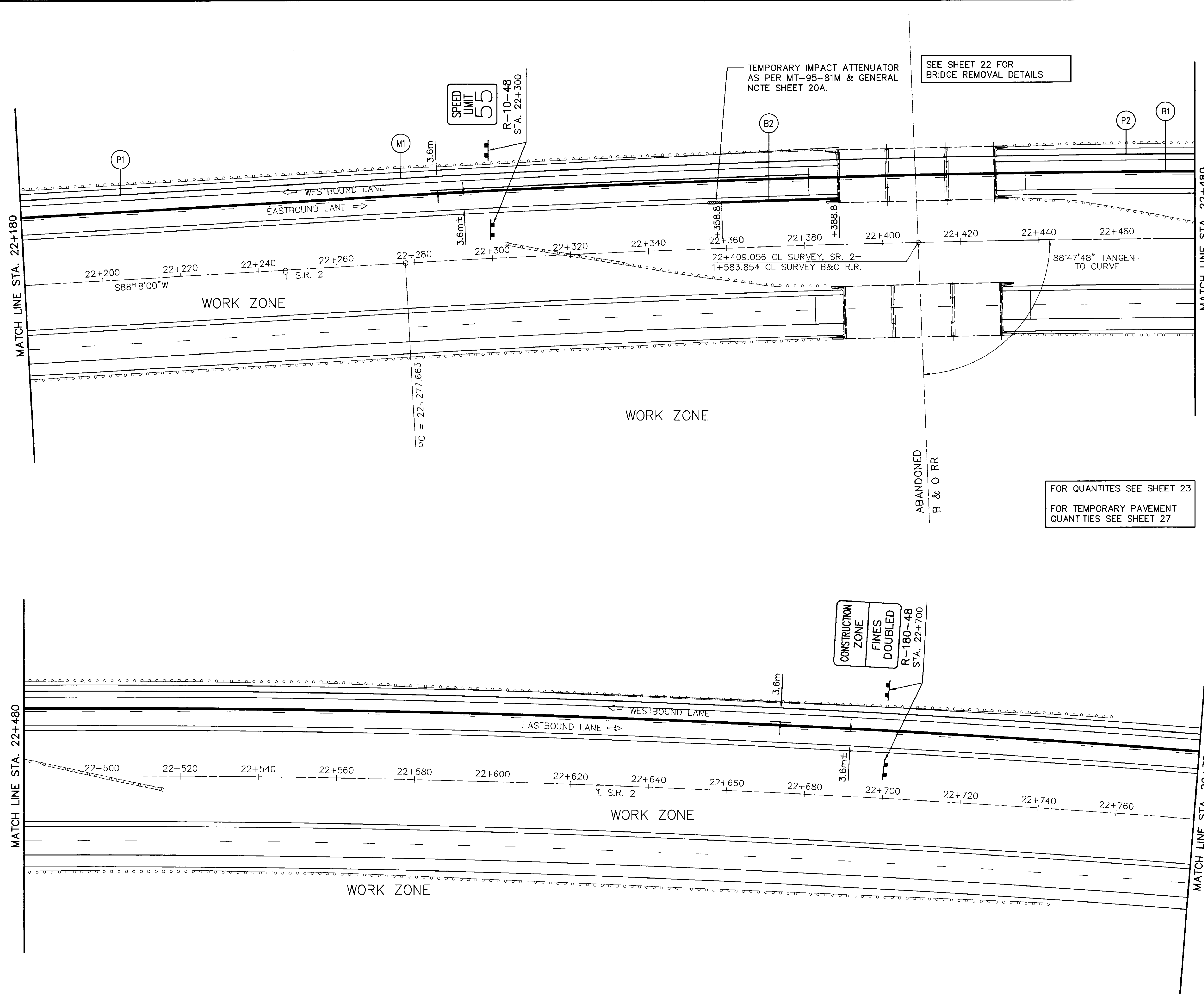
LEGEND
 813mm PORTABLE CONCRETE BARRIER

FOR QUANTITIES SEE SHEET 23
 FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

RATIO IN METERS

CALCULATED BY: JTY DATE: 5-99
 CHECKED BY: PMA DATE: 5-99
MAINTENANCE OF TRAFFIC; SECT. A-PHASE 1
STA. 21+580 TO STA. 22+180

ERI-2-12.558



LEGEND
813mm PORTABLE CONCRETE BARRIER

SEE SHEET 22 FOR BRIDGE REMOVAL DETAILS

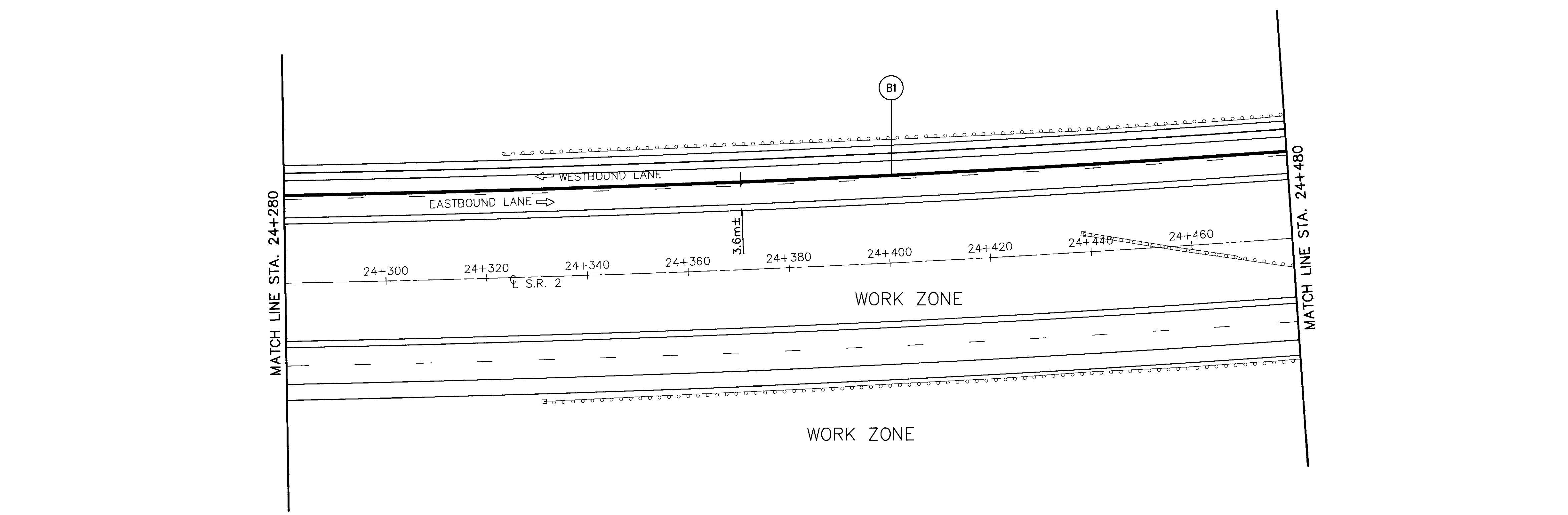
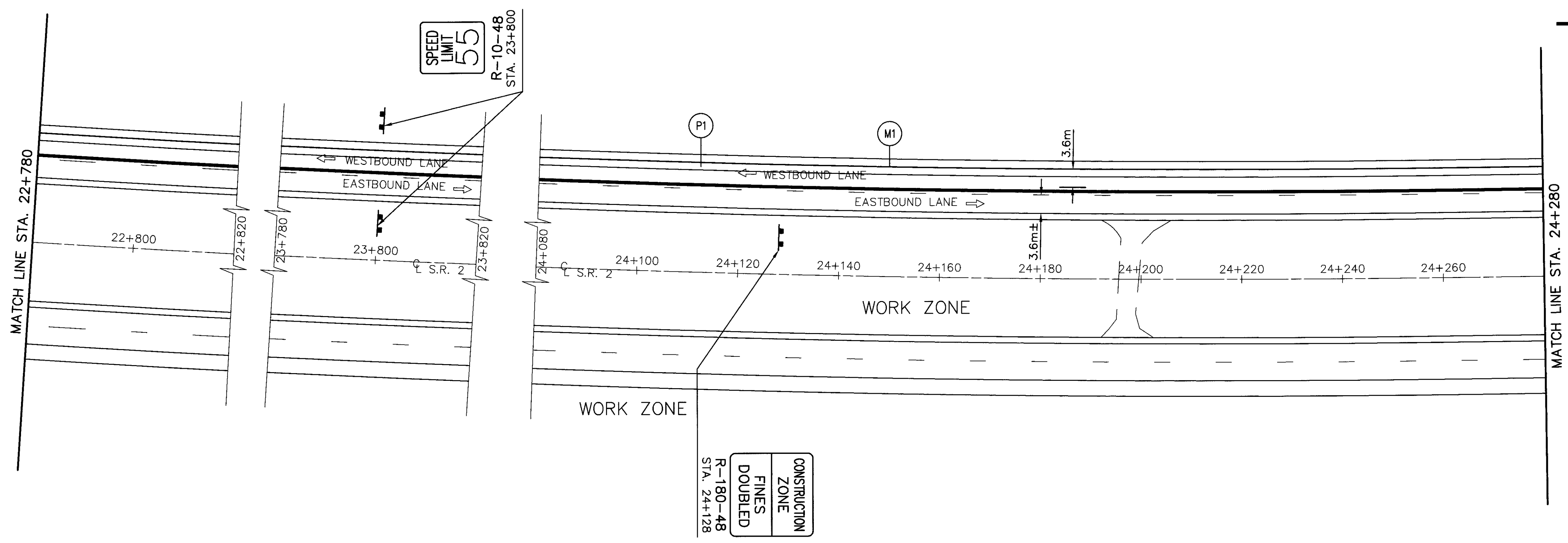
FOR QUANTITIES SEE SHEET 23
FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

CALCULATED BY: JTY DATE: 5-99
CHECKED BY: PMA DATE: 5-99

RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 1
STA. 22+180 TO 22+780**

ERI-2-12.558



FOR QUANTITIES SEE SHEET 23
 FOR TEMPORARY PAVEMENT
 QUANTITIES SEE SHEET 27

LEGEND
 813mm PORTABLE
 CONCRETE BARRIER

RATIO IN METERS
 CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 5-99

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 1
 STA. 22+780 TO STA. 24+480**

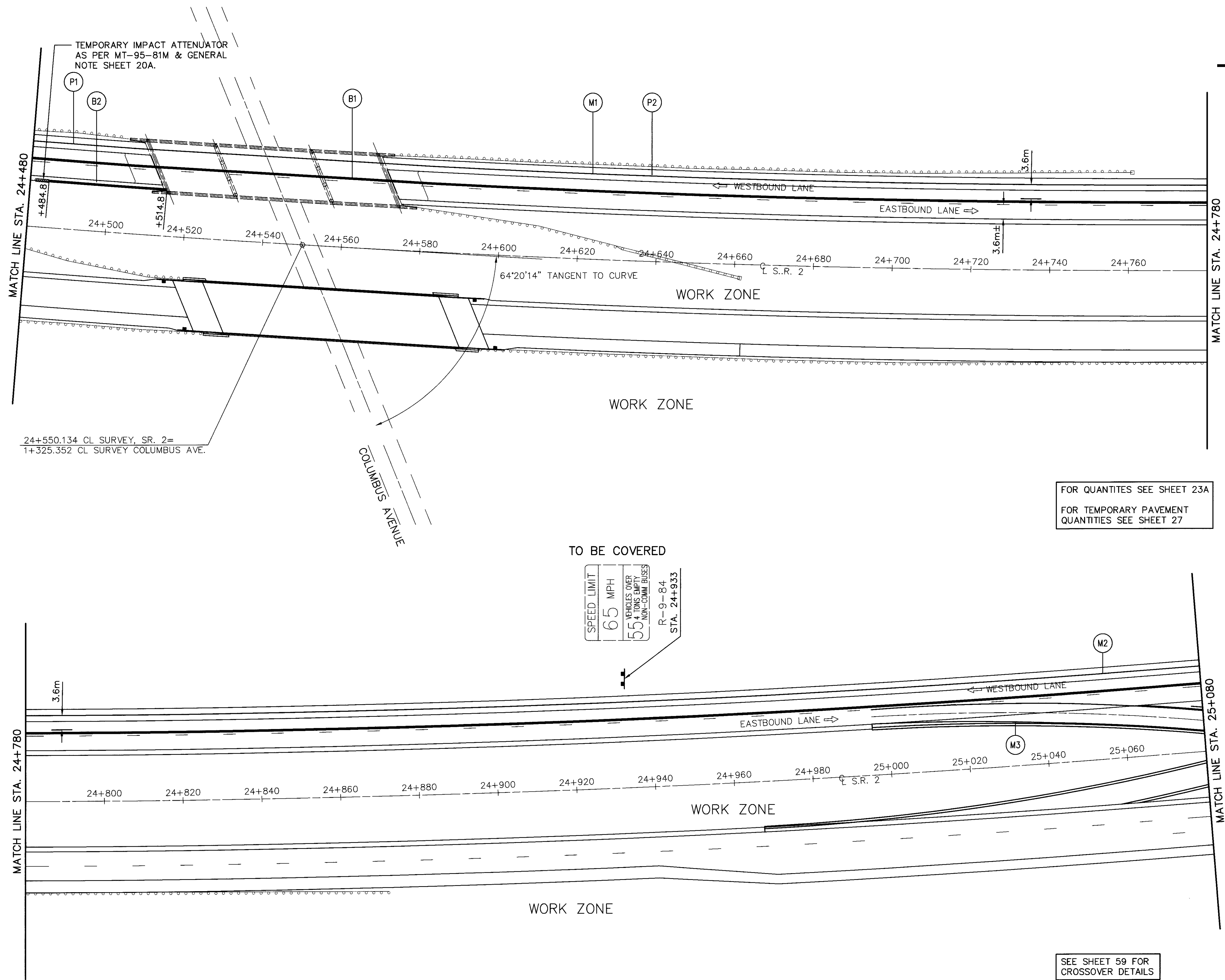
ERI-2-12.558

40
 432

FILE NAME: I:\5033\006\TRAN\MOT\VA--PHASE1\11376MPLDWG 7-9-99 9:26:06 am EST

JTN

5033-006



TEMPORARY IMPACT ATTENUATOR
AS PER MT-95-81M & GENERAL
NOTE SHEET 20A.

LEGEND
813mm PORTABLE
CONCRETE BARRIER

CALCULATED BY: JTY
DATE: 5-99
CHECKED BY: PMA
DATE: 5-99

RATIO IN METERS

**MAINTENANCE OF TRAFFIC; SECT. A-PHASE 1
STA. 24+480 TO STA. 25+080**

FOR QUANTITIES SEE SHEET 23A
FOR TEMPORARY PAVEMENT
QUANTITIES SEE SHEET 27

TO BE COVERED

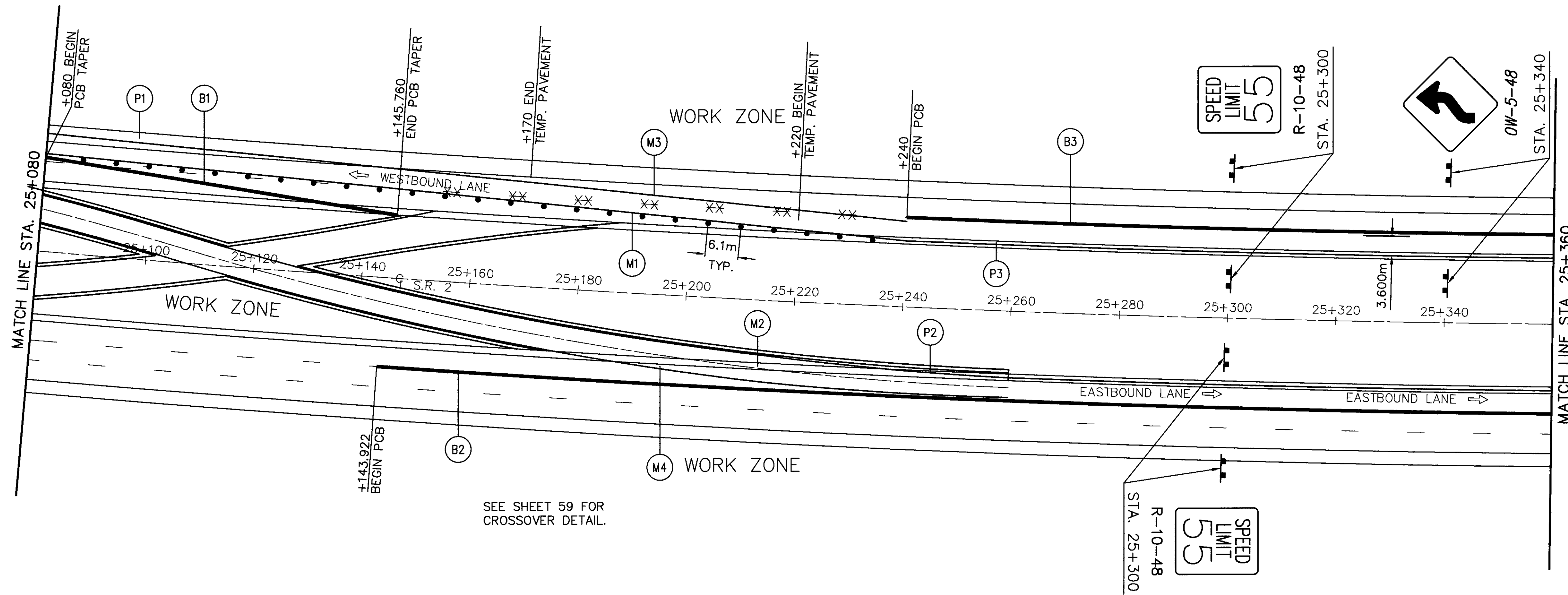
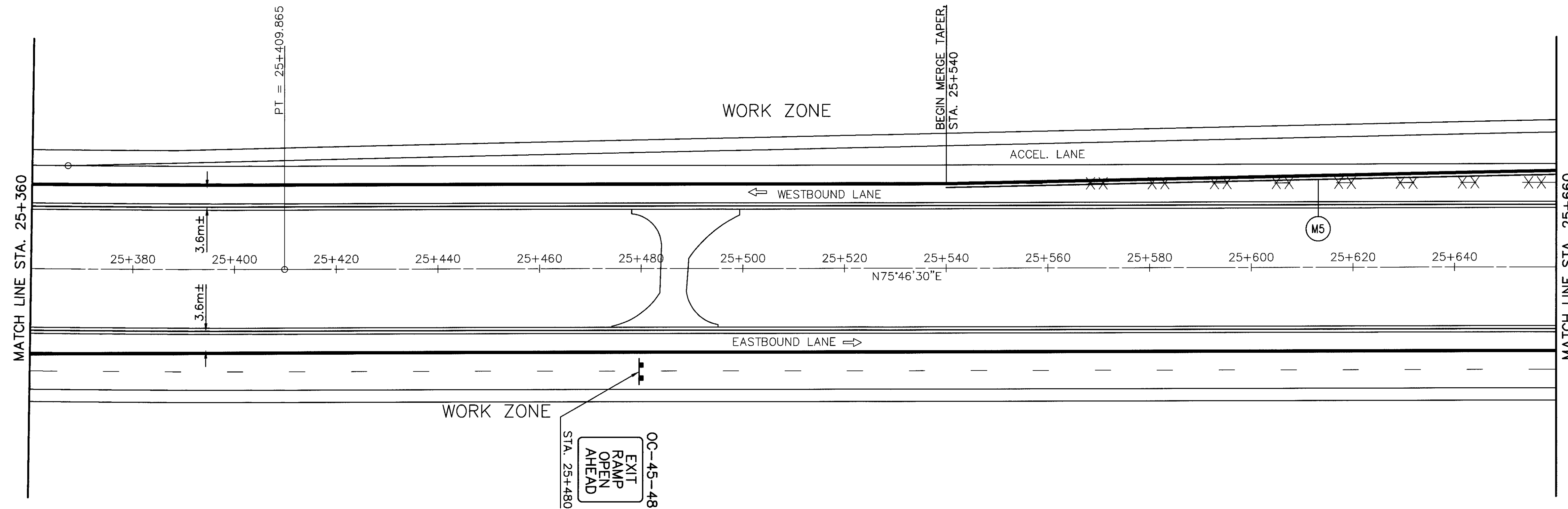
SPEED LIMIT	65 MPH
VEHICLES OVER 4 TONS EMPTY	55
NON-COMM BUSES	

R-9-84
STA. 24+933

SEE SHEET 59 FOR
CROSSOVER DETAILS

ERI-2-12.558

41
432



FOR QUANTITIES SEE SHEET 23
FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

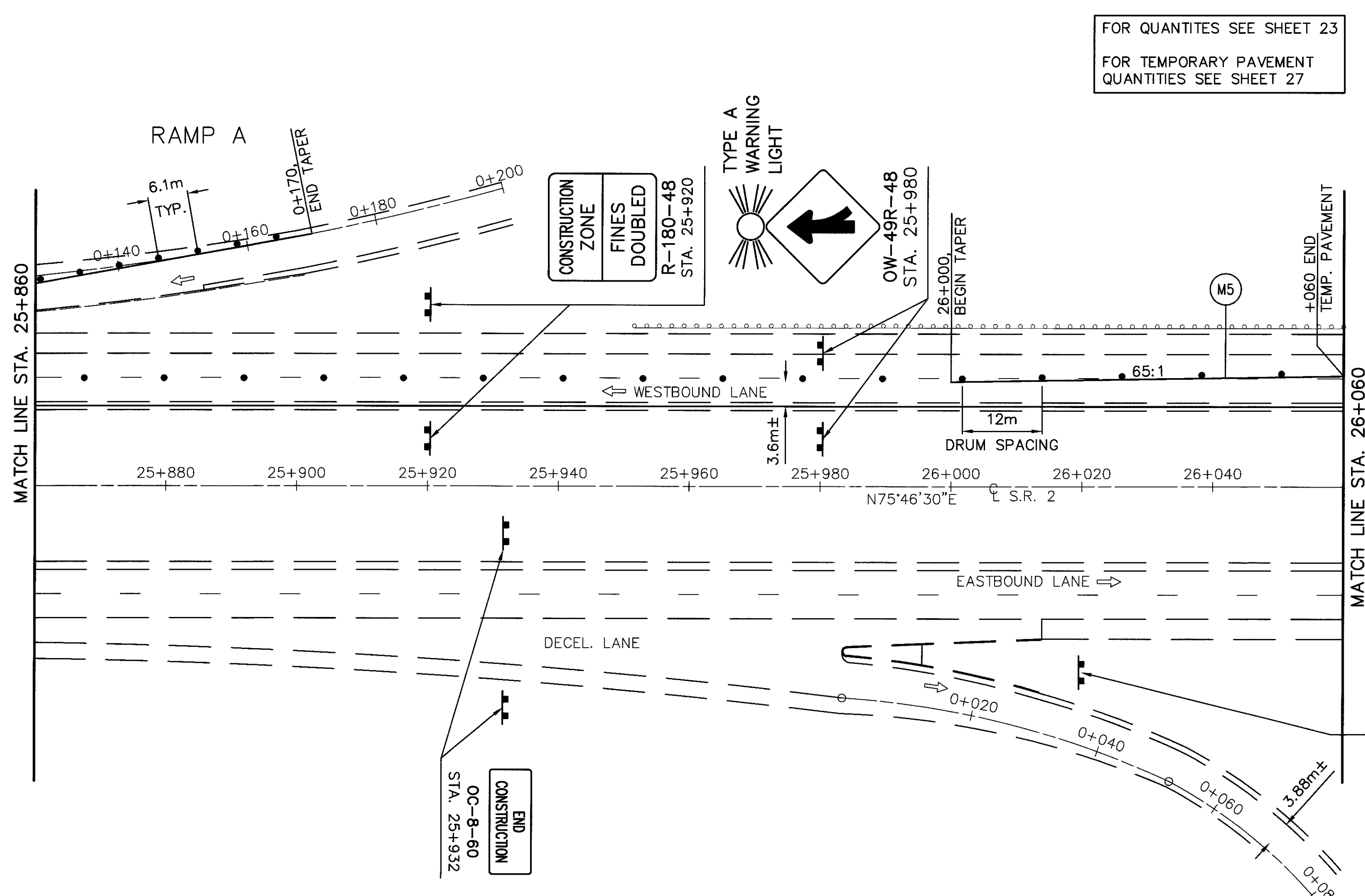
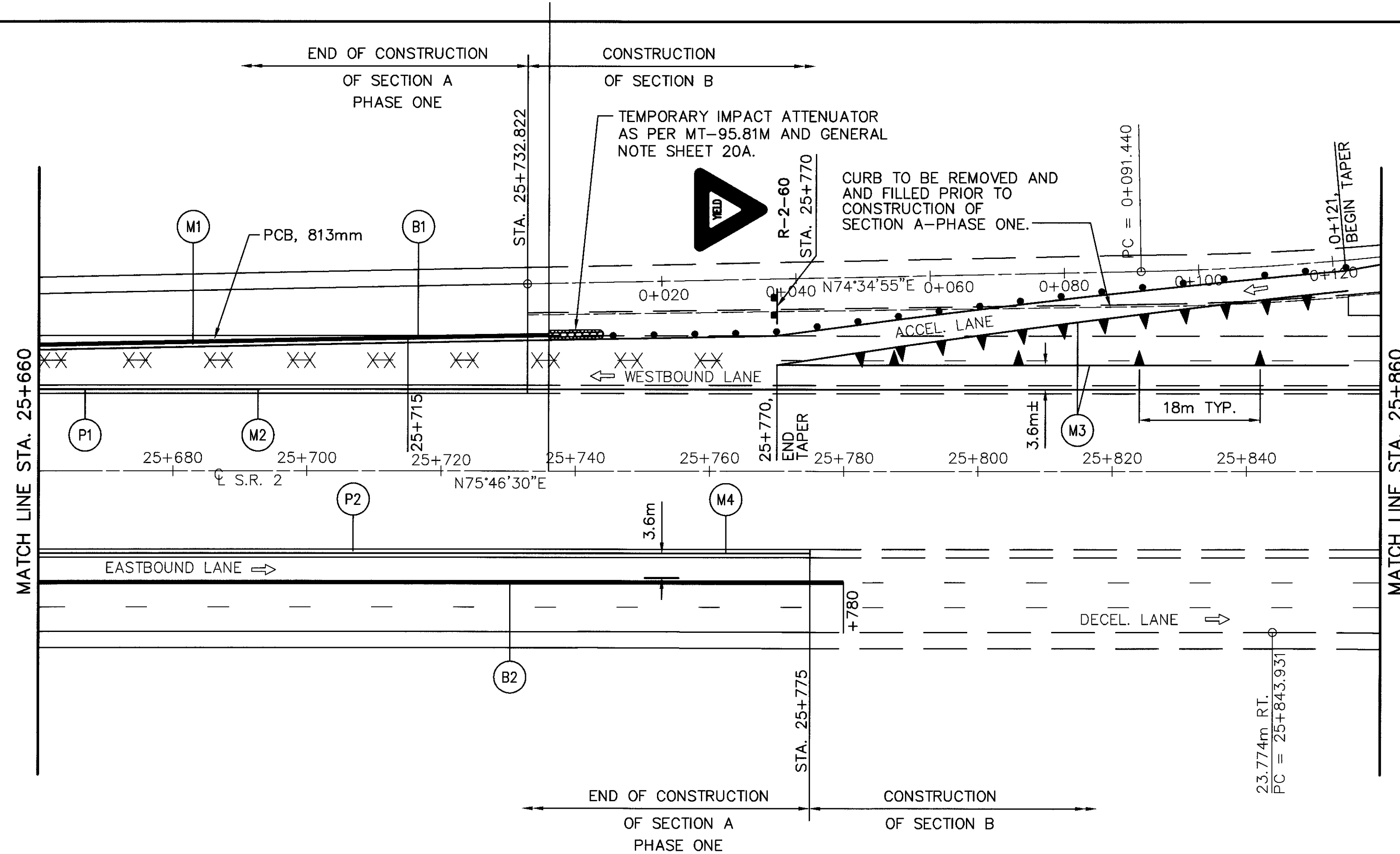
LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY	JTY
DATE	3-99
CHECKED BY	PMA
DATE	5-99

**MAINTENANCE OF TRAFFIC, SECT. A-PHASE 1
STA. 25+080 TO STA. 25+660**

ERI-2-12.558



- LEGEND**
- 813mm PORTABLE CONCRETE BARRIER
 - DRUM
 - XX REMOVE EXISTING PAVEMENT MARKINGS
 - ▲ TRAFFIC CONE

CALCULATED BY: JTY DATE: 3-99
 CHECKED BY: GAB DATE: 4-99

RATIO IN METERS

FOR QUANTITIES SEE SHEET 23
 FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 1
 STA. 25+660 TO STA. 26+060**

ERI-2-12.558

R-8A-48
 STA. 26+020
 RESUME LEGAL SPEED

END CONSTRUCTION
 OC-8-60
 STA. 25+932

CONSTRUCTION ZONE
 FINES DOUBLED
 R-180-48
 STA. 25+920

TYPE A WARNING LIGHT
 OW-49R-48
 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

+060 END TEMP. PAVEMENT

DRUM SPACING 12m

3.6m±

N75°46'30"E

S.R. 2

EASTBOUND LANE

DECEL. LANE

0+020

0+040

0+060

3.88m±

0+070

65:1

M5

12m

3.6m±

WESTBOUND LANE

CONSTRUCTION ZONE FINES DOUBLED R-180-48 STA. 25+920

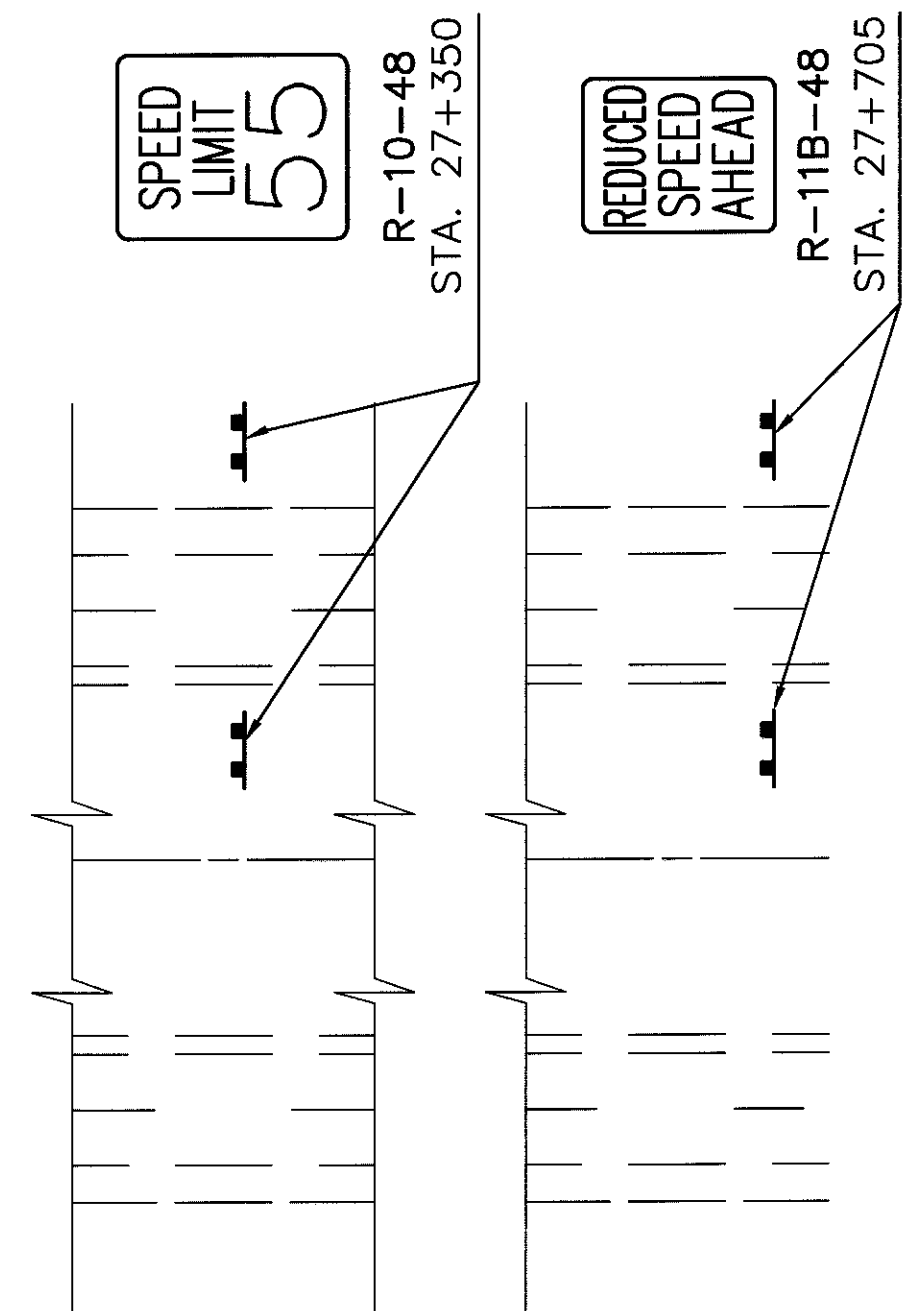
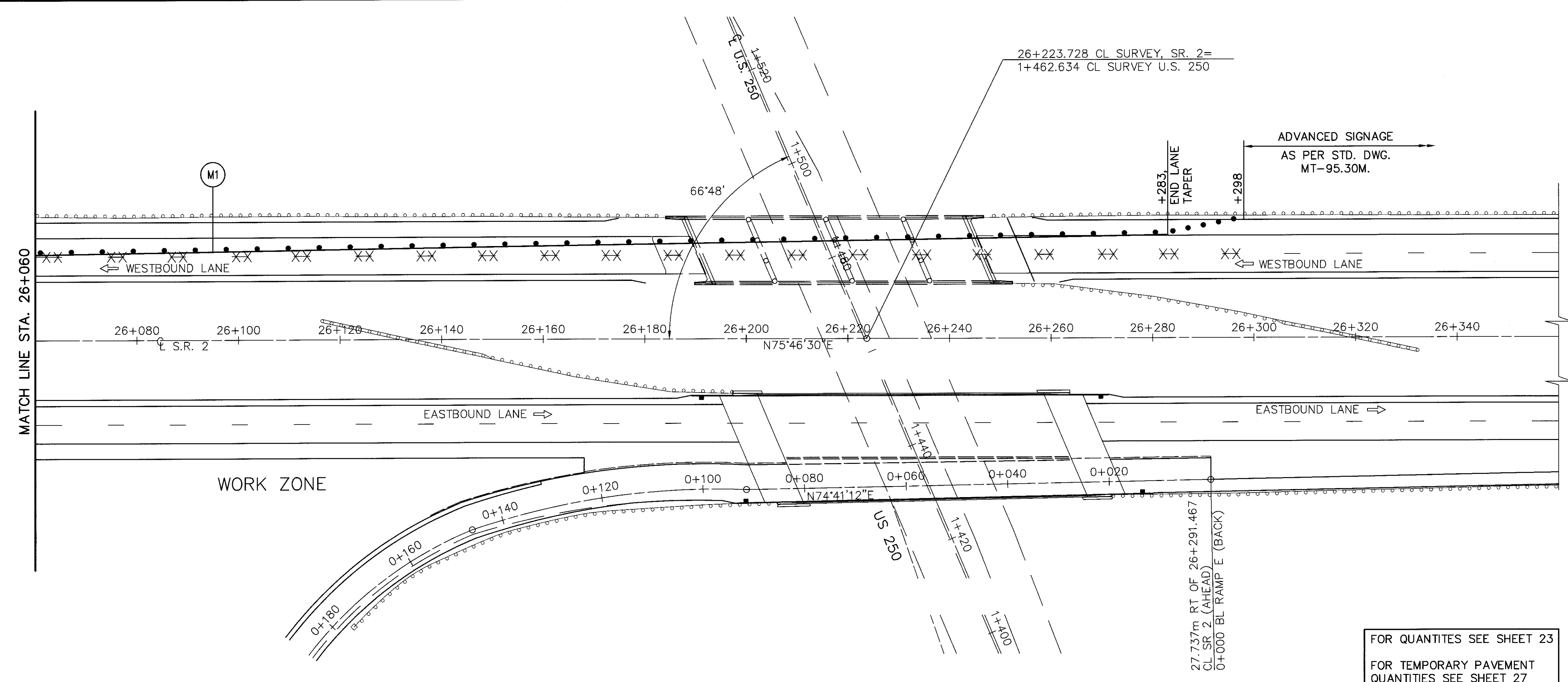
TYPE A WARNING LIGHT OW-49R-48 STA. 25+980

26+000, BEGIN TAPER

FILE NAME: I:\5033\006\TRAN\MOT\A-PHASE\11376MPL.DWG 8-9-99 2:36:38 pm EST

JTN

5033-006



- LEGEND
- 813mm PORTABLE CONCRETE BARRIER
 - DRUM
 - XX REMOVE EXISTING PAVEMENT MARKINGS

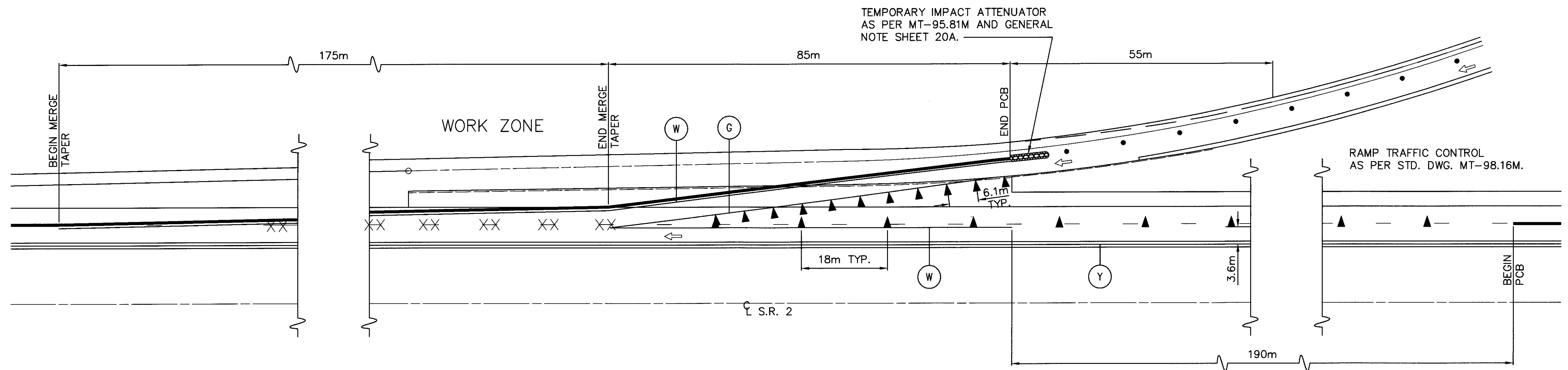
CALCULATED BY: PMA
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 4-99

0 10 20
 5 15 25
 RATIO IN METERS

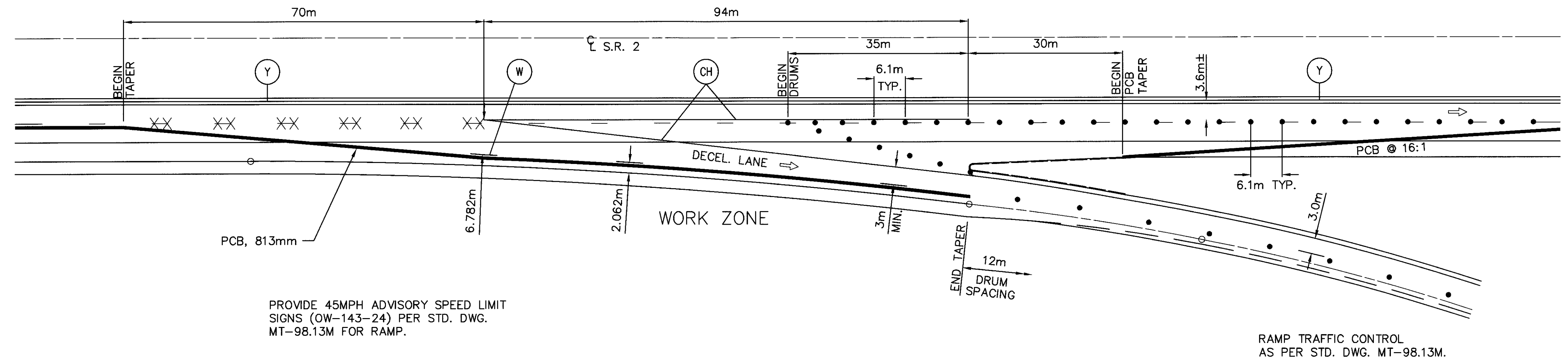
**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 1
 STA. 26+060 TO STA. 26+360**

ERI-2-12.558

44
 432



TYPICAL ON RAMP, FULL DEPTH PAVEMENT SECTION - PHASE R2



TYPICAL EXIT RAMP, FULL DEPTH PAVEMENT SECTION - PHASE R2

	614		622			
	BARRIER REFLECTOR, TYPE B	OBJECT MARKER	TEMPORARY CHANNELIZING LINE, CLASS I, 740.06 TYPE I	TEMPORARY GORE MARKINGS, CLASS 2	TEMPORARY EDGE LINE, CLASS I, 642 PAINT, WHITE	PORTABLE CONCRETE BARRIER, 813mm
	WHITE	WHITE				
	EACH		METER		METER	
SR-4						
RAMP A	34	34		85	345	260
RAMP B	37	37	190		164	288
RAMP C	34	34		85	345	260
RAMP D	22	22	190		164	164
RYE BEACH RD.						
RAMP B	37	37	190		164	288
TOTALS	164	164	570	170	1182	1260
TOTALS TO SHT. 26A	164	164	570	170	1.18KM	1260

LEGEND	
—	813mm PORTABLE CONCRETE BARRIER
•	DRUM
XX	REMOVE EXISTING PAVEMENT MARKINGS
▲	TRAFFIC CONE
Y	TEMPORARY EDGELINE, YELLOW
W	TEMPORARY EDGELINE, WHITE
CH	TEMPORARY CHANNELIZING LINE
G	TEMPORARY GORE MARKINGS

CALCULATED BY: J. [Name]
 DATE: 3-98
 CHECKED BY: PMA
 DATE: 5-99

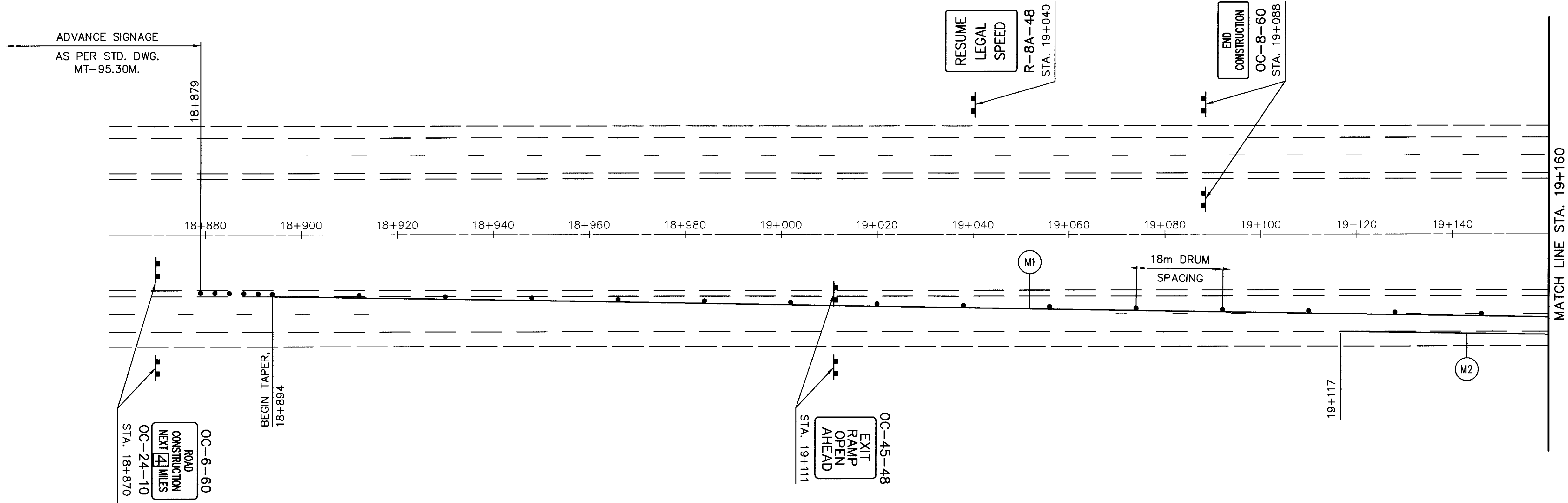
RATIO IN METERS

MAINTENANCE OF TRAFFIC RAMP DETAILS, PHASE R2

ERI-2-12.558

45
 432

K:\B FILE NAME: EXTRAMPS~1\5033\006\TRAN\MOT\11376MDE.DWG 8-20-99 2:31:00 pm EST



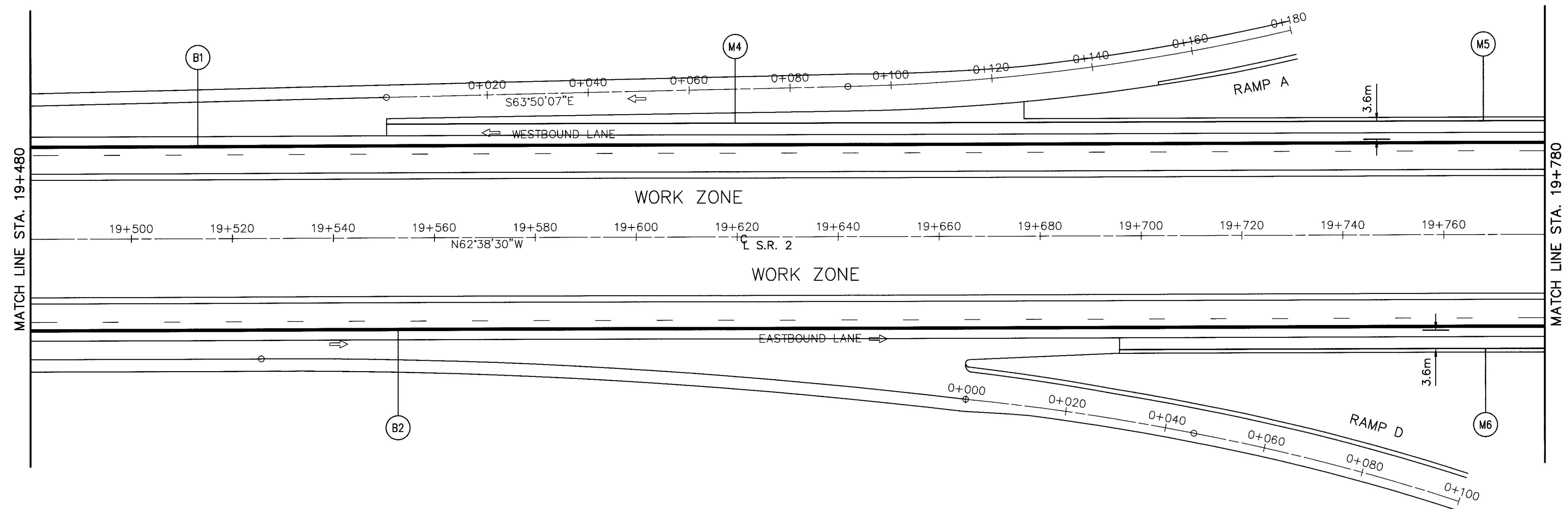
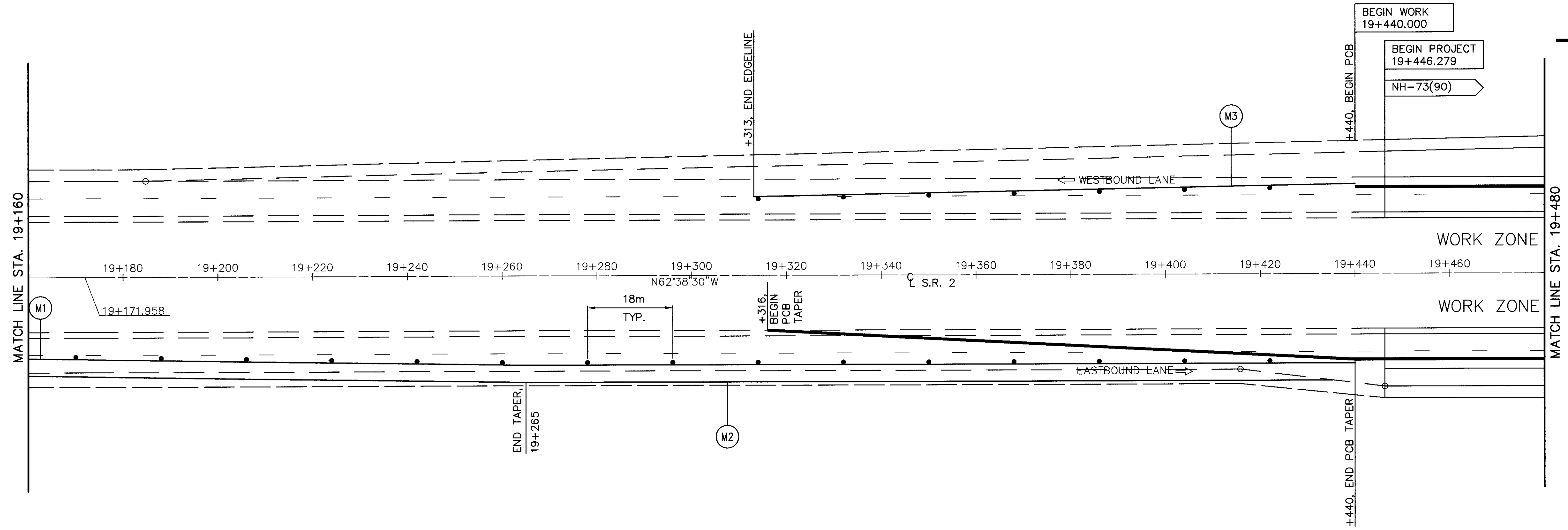
LEGEND
• DRUM

CALCULATED BY: JTY DATE: 3-99
CHECKED BY: PJA DATE: 5-99

0 5 10 15 20
RATIO IN METERS

**MAINTENANCE OF TRAFFIC, SECT. A-PHASE 2
STA. 18+860 TO STA. 19+160**

ERI-2-12.558



FOR QUANTITIES SEE SHEET 24

LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM

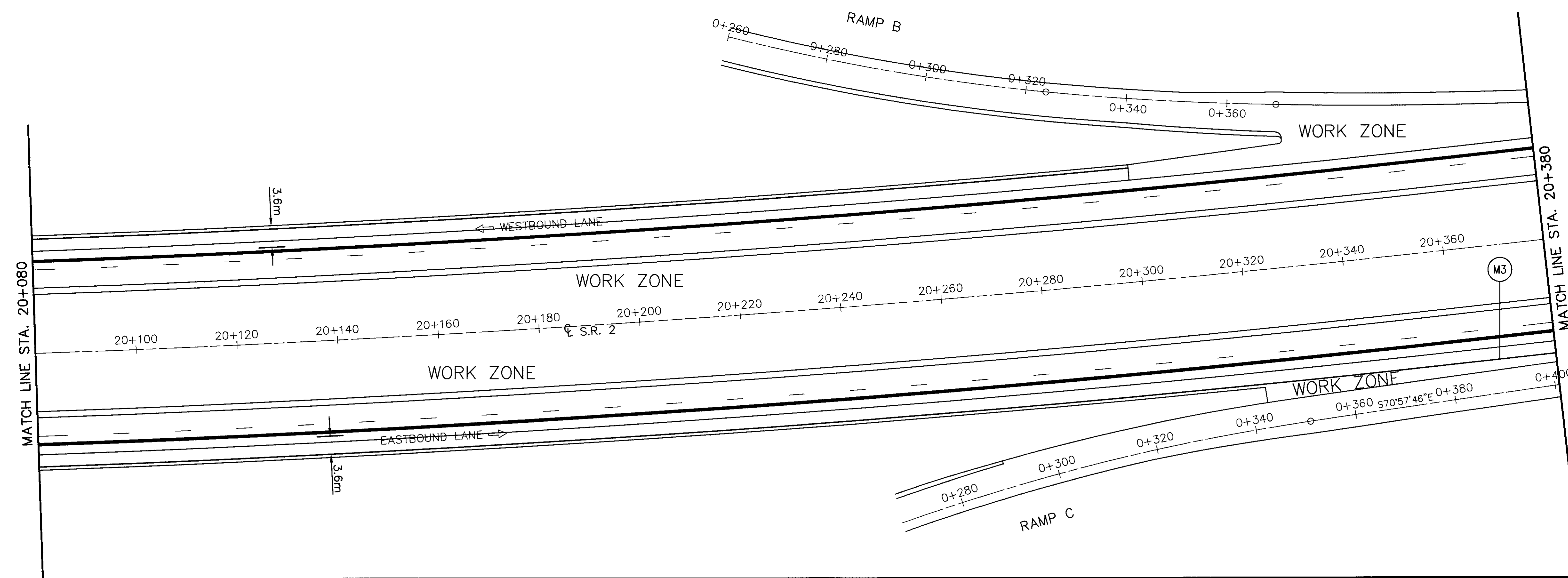
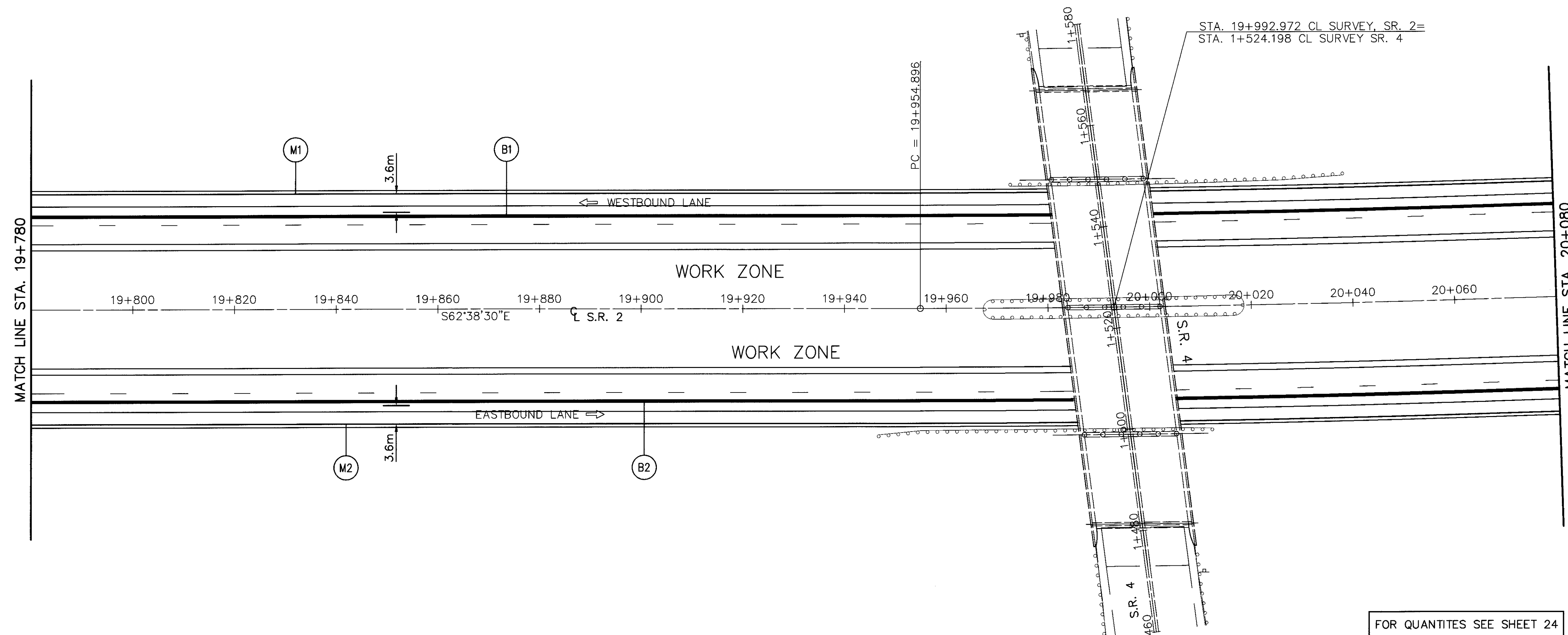
CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 5-99

RATIO IN METERS

**MAINTENANCE OF TRAFFIC; SECT. A-PHASE 2
 STA. 19+160 TO STA. 19+780**

ERI-2-12.558

K:JB FILE NAME: I:\5033\006\TRAN\MOT\A-PHASE2\R-MPA27.DWG 5-24-99 12:33:14 pm EST



LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM

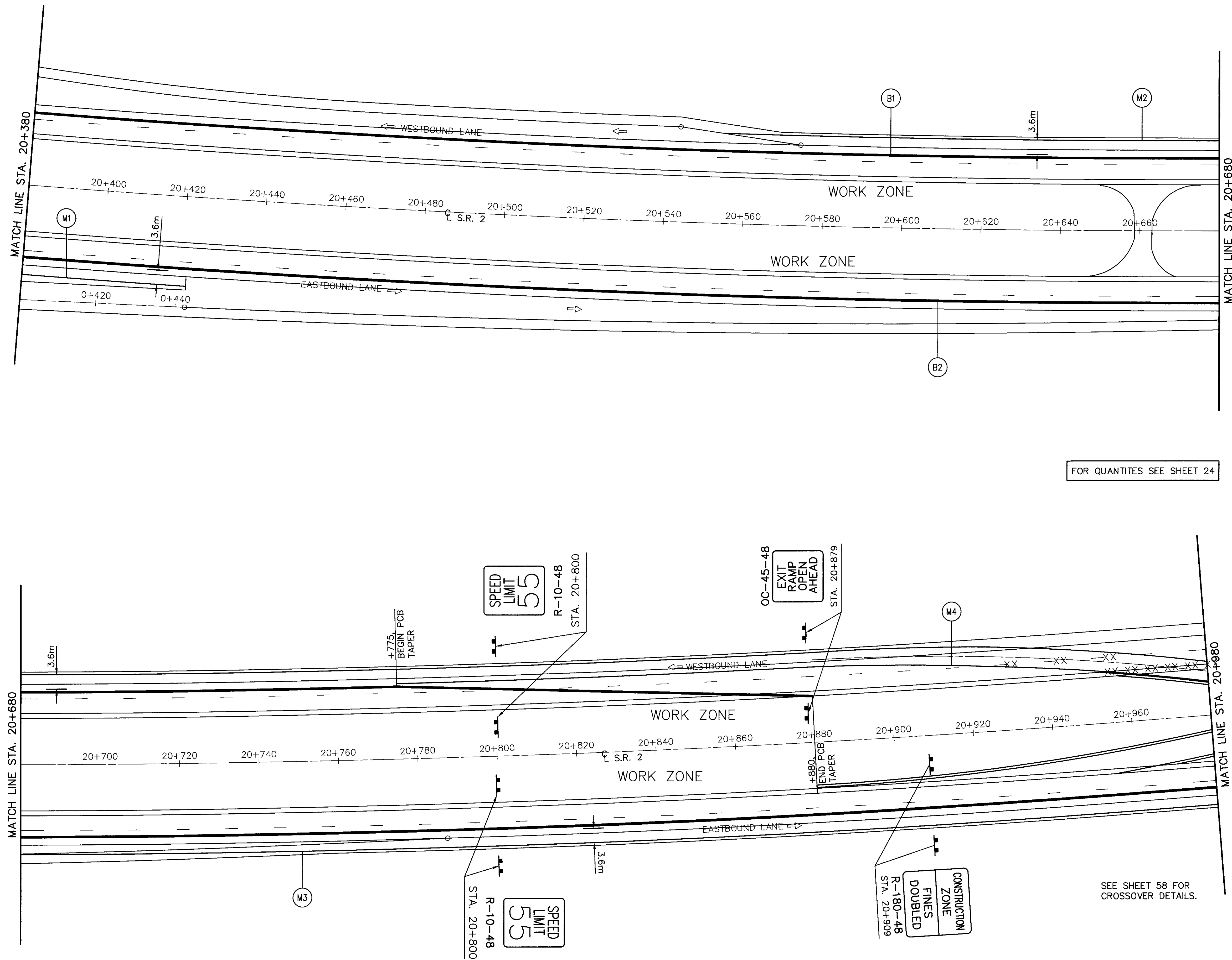
CALCULATED BY: JTY DATE: 5-99
 CHECKED BY: PMA DATE: 5-99

0 10 20
 5 15 25
 RATIO IN METERS

FOR QUANTITIES SEE SHEET 24

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
 STA. 19+780 TO STA. 20+380**

ERI-2-12.558



FOR QUANTITIES SEE SHEET 24

SEE SHEET 58 FOR CROSSOVER DETAILS.

LEGEND

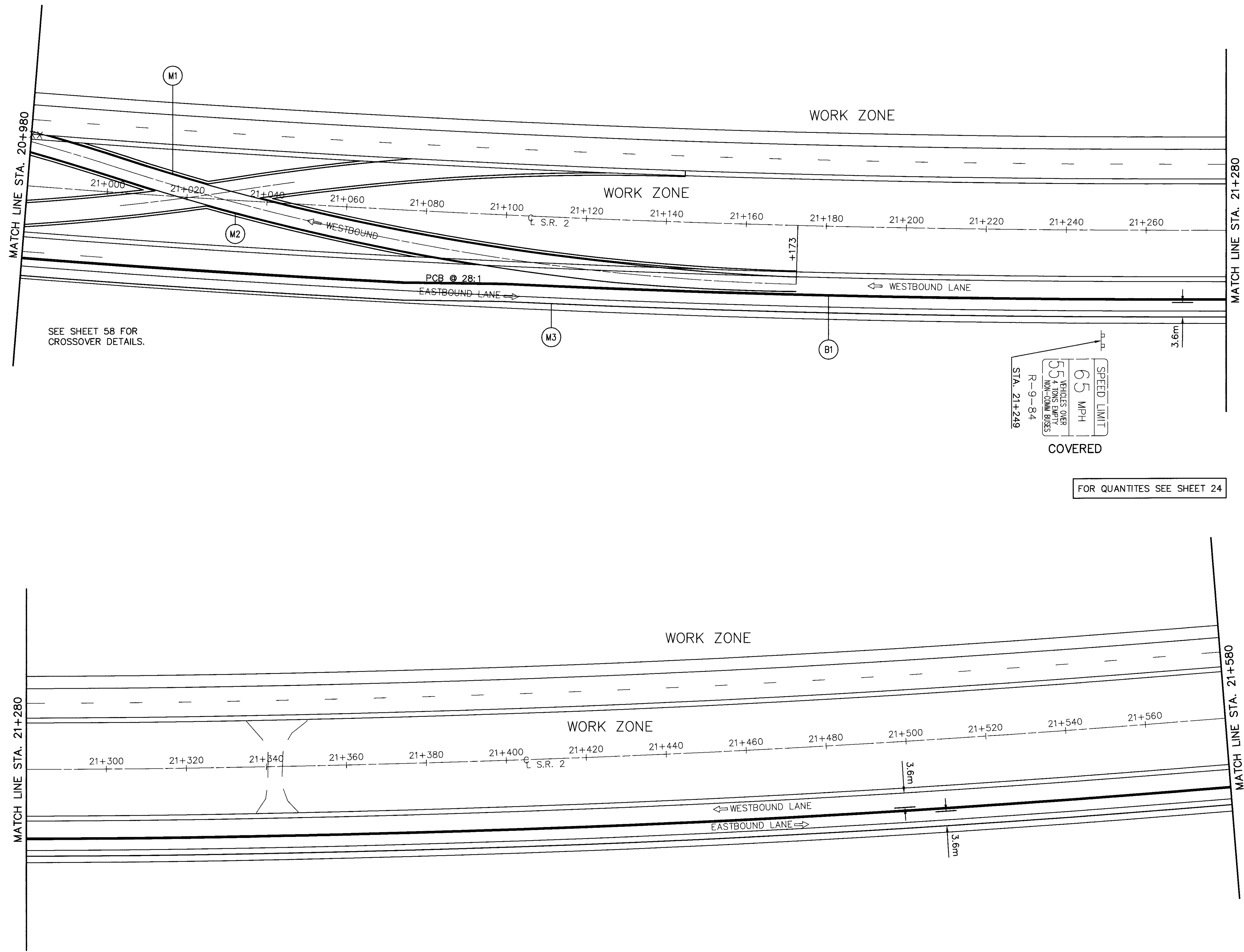
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY: JTN DATE: 3-99
 CHECKED BY: PMA DATE: 5-99

RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
 STA. 20+380 TO STA. 20+980**

ERI-2-12.558



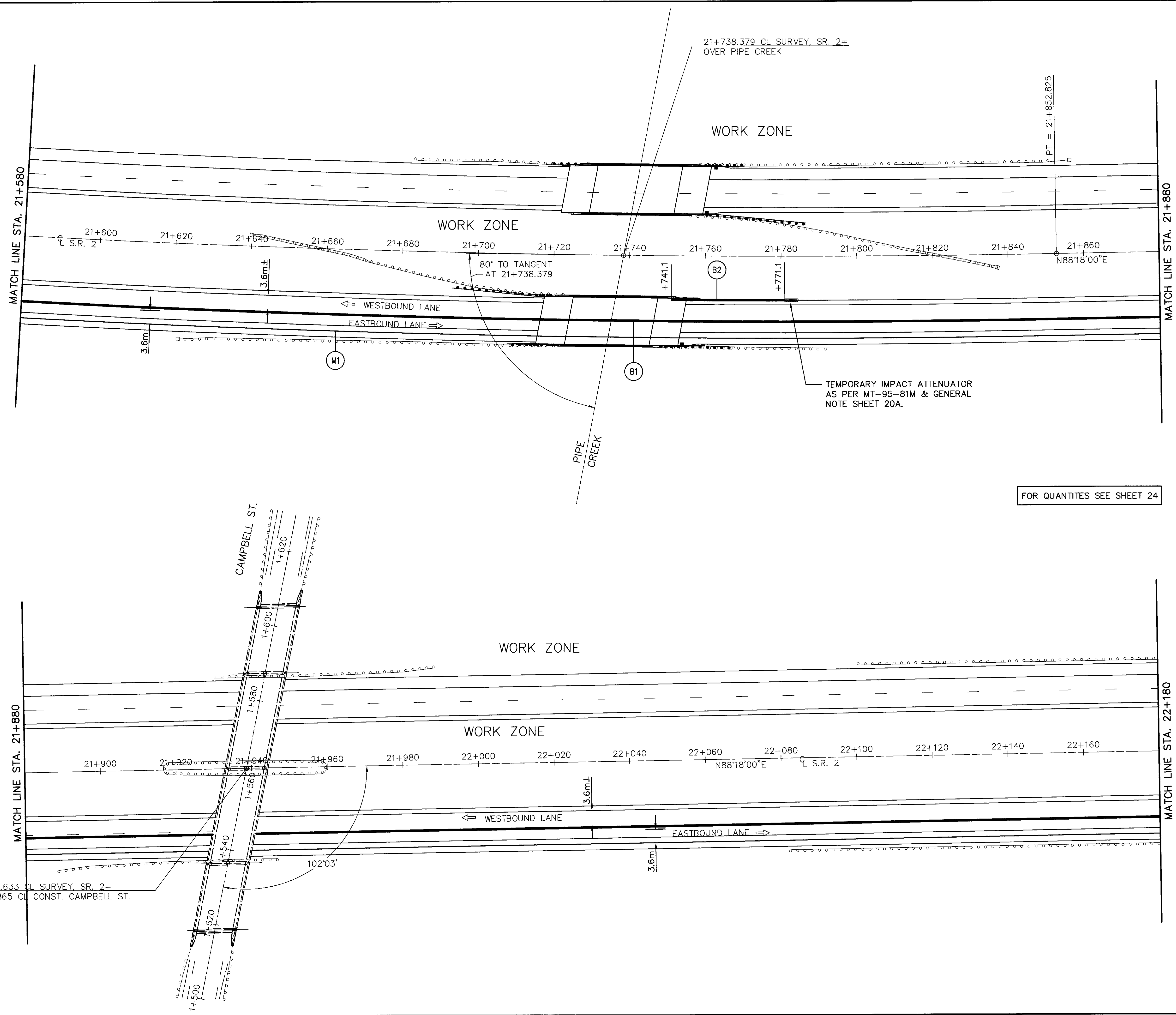
CALCULATED BY: JTY
DATE: 3-99

CHECKED BY: PMA
DATE: 5-99

0 5 10 15 20 25
RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
STA. 20+980 TO STA. 21+580**

ERI-2-12-558



LEGEND
 813mm PORTABLE CONCRETE BARRIER

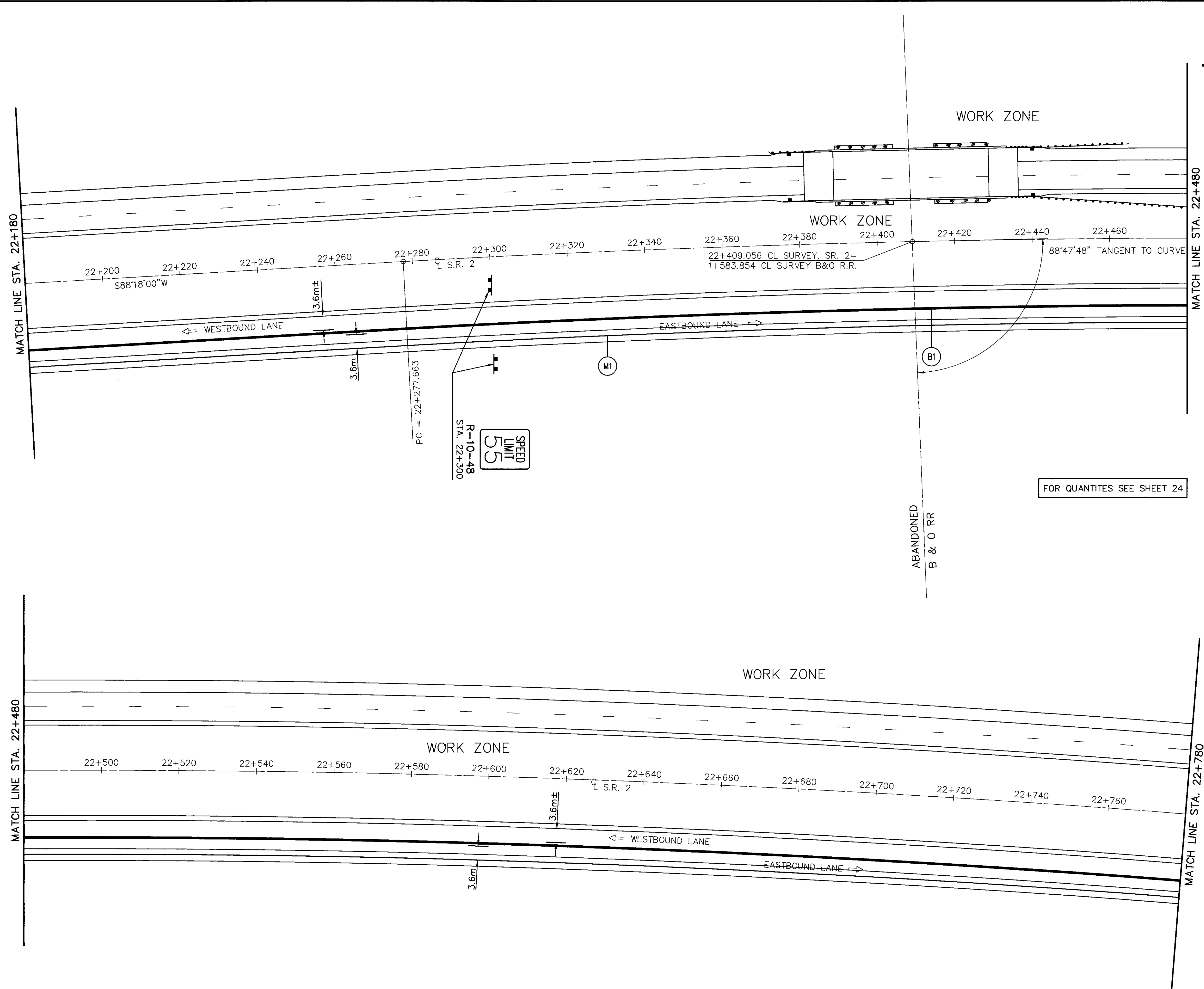
CALCULATED BY: JTY DATE: 3-99
 CHECKED BY: PMA DATE: 5-99

0 10 20
 0 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
 STA. 21+580 TO STA. 22+180**

ERI-2-12.558

52
 432



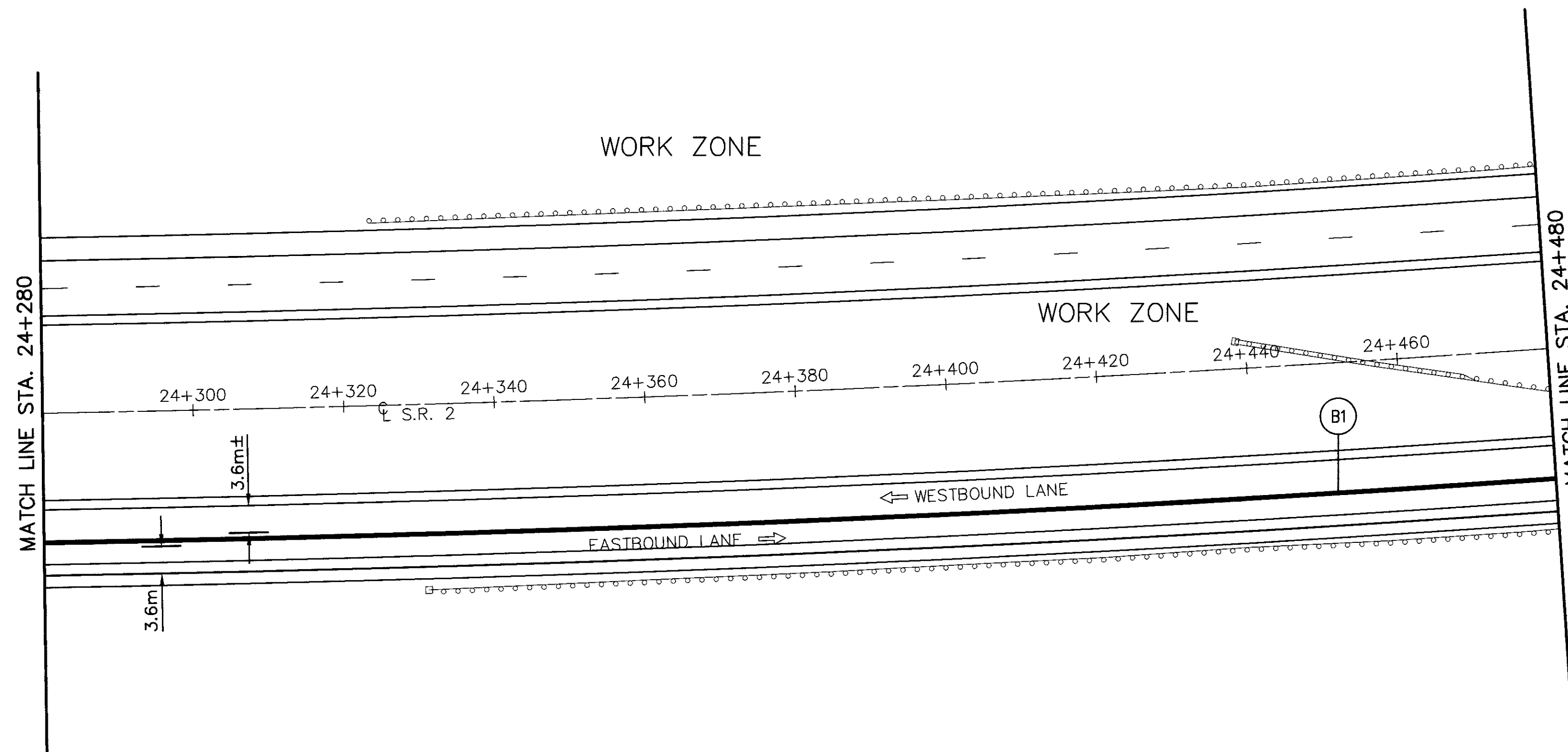
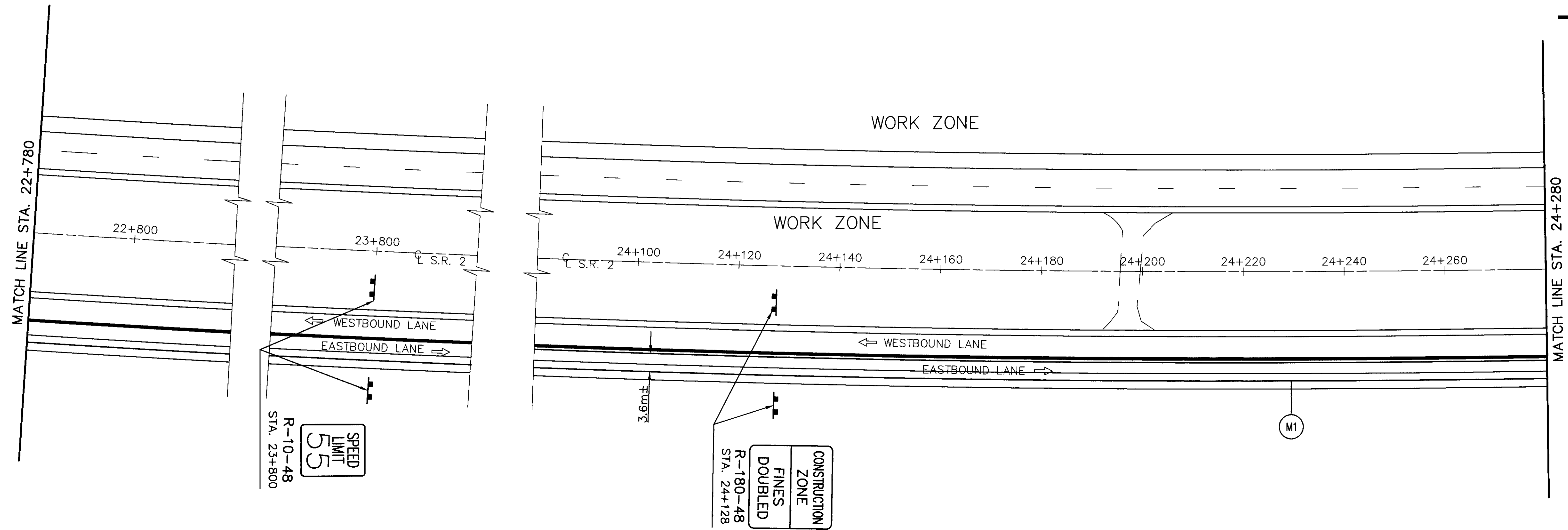
CALCULATED BY: JTY
DATE: 3-99

CHECKED BY: PMA
DATE: 5-99



0 10 20
5 15 25
RATIO IN METERS

↑
Z

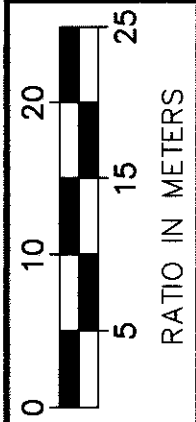
**MAINTENANCE OF TRAFFIC, SECT. A-PHASE 2
STA. 22+180 TO 22+780**



LEGEND

-  813mm PORTABLE CONCRETE BARRIER
-  DRUM

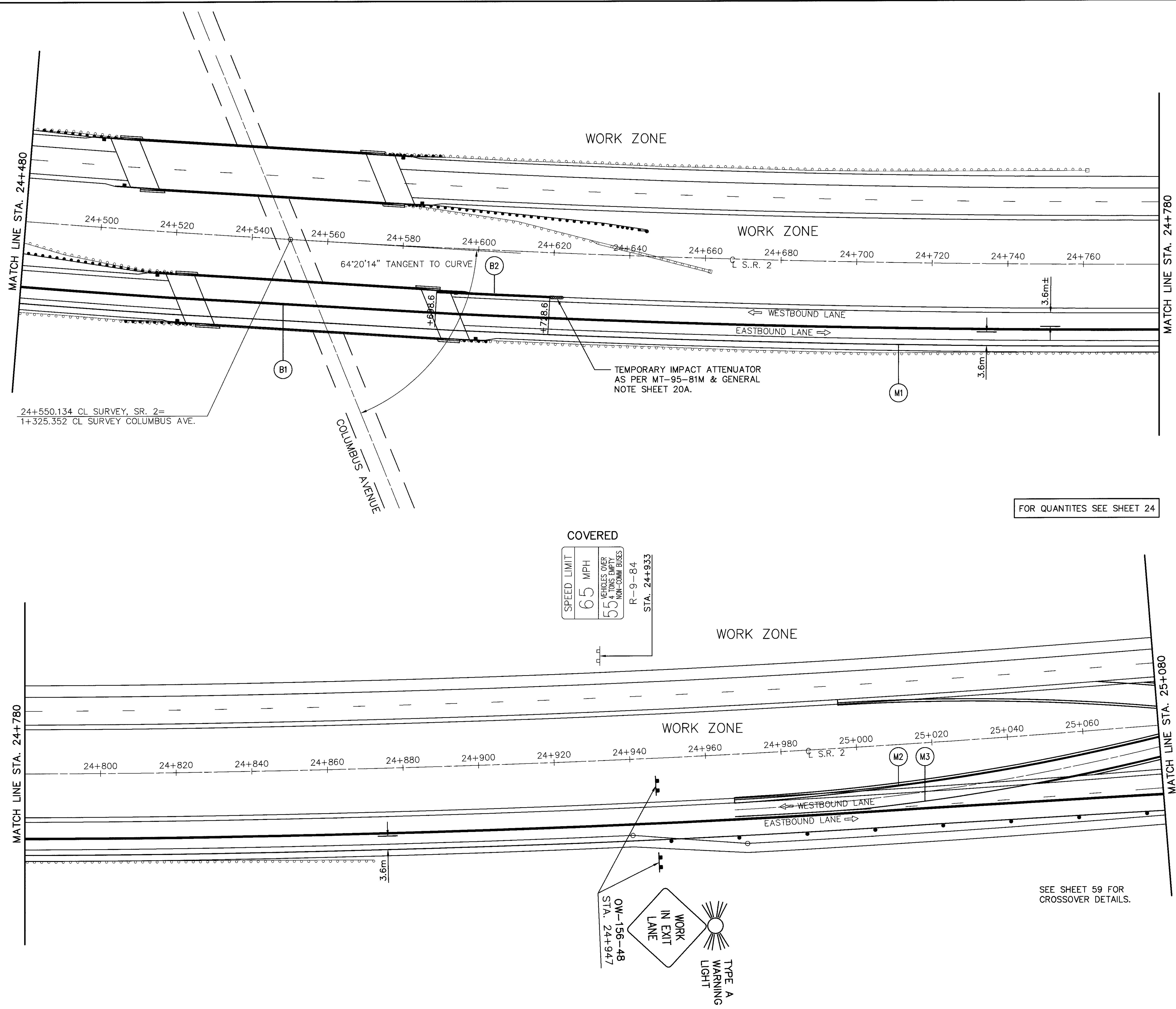
CALCULATED BY: JTY DATE: 3-99
 CHECKED BY: PMA DATE: 5-99



**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
 STA. 22+780 TO STA. 24+480**

ERI-2-12.558

FOR QUANTITIES SEE SHEET 24



- LEGEND
- 813mm PORTABLE CONCRETE BARRIER
 - DRUM
 - XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY: JTY DATE: 3-99
 CHECKED BY: CAB DATE: 4-99

24+550.134 CL SURVEY, SR. 2=
 1+325.352 CL SURVEY COLUMBUS AVE.

COLUMBUS AVENUE

TEMPORARY IMPACT ATTENUATOR
 AS PER MT-95-81M & GENERAL
 NOTE SHEET 20A.

FOR QUANTITIES SEE SHEET 24

COVERED

SPEED LIMIT	65 MPH
VEHICLES OVER 4 TONS EMPTY NON-COMM BUSES	55

R-9-84
 STA. 24+933

OW-156-48
 STA. 24+947

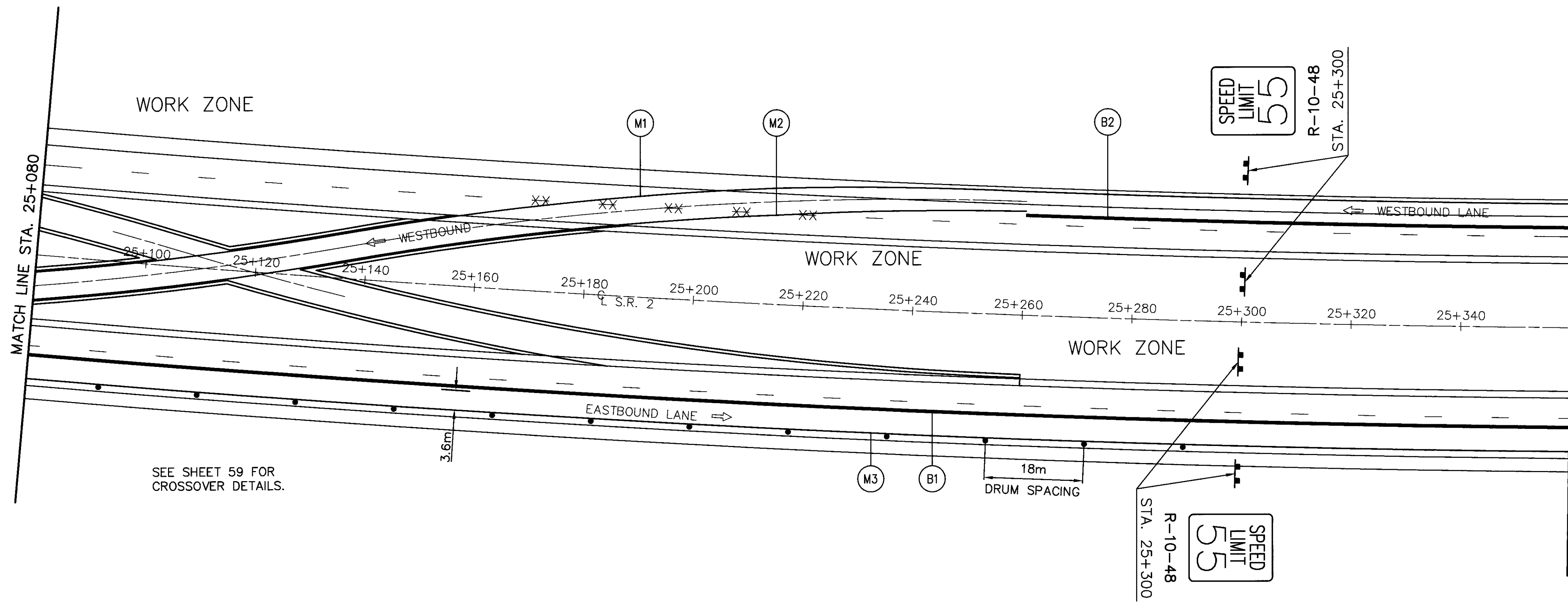
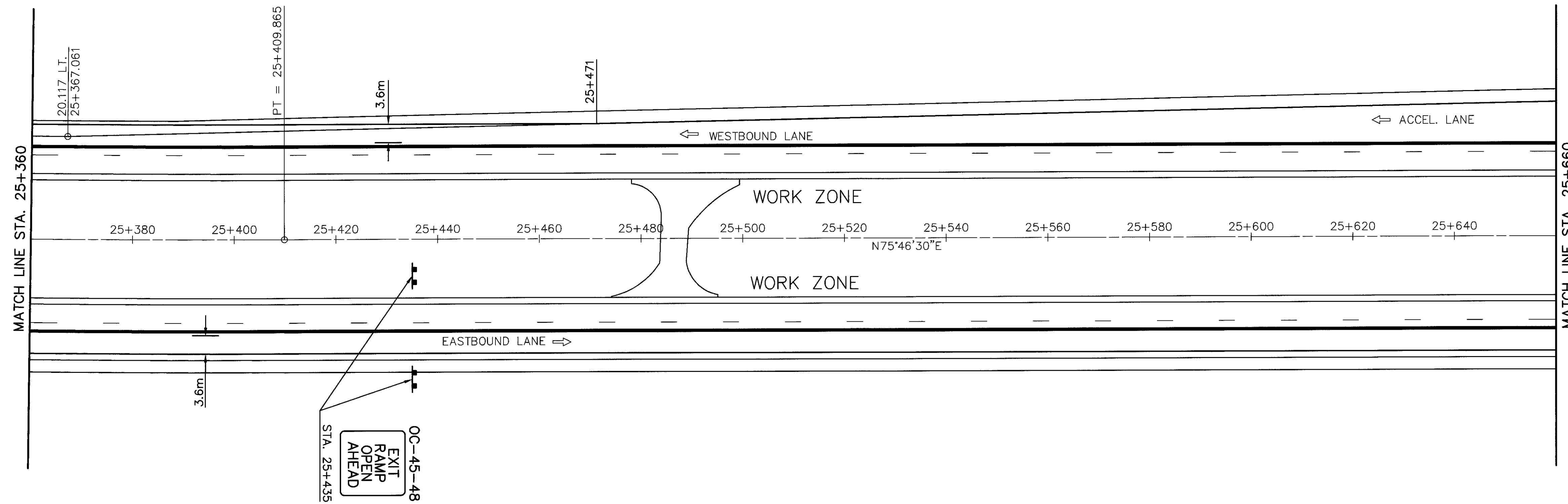
TYPE A WARNING LIGHT

SEE SHEET 59 FOR CROSSOVER DETAILS.

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
 STA. 24+480 TO STA. 25+080**

ERI-2-12.558

55
 432



SEE SHEET 59 FOR CROSSOVER DETAILS.

FOR QUANTITIES SEE SHEET 24

LEGEND

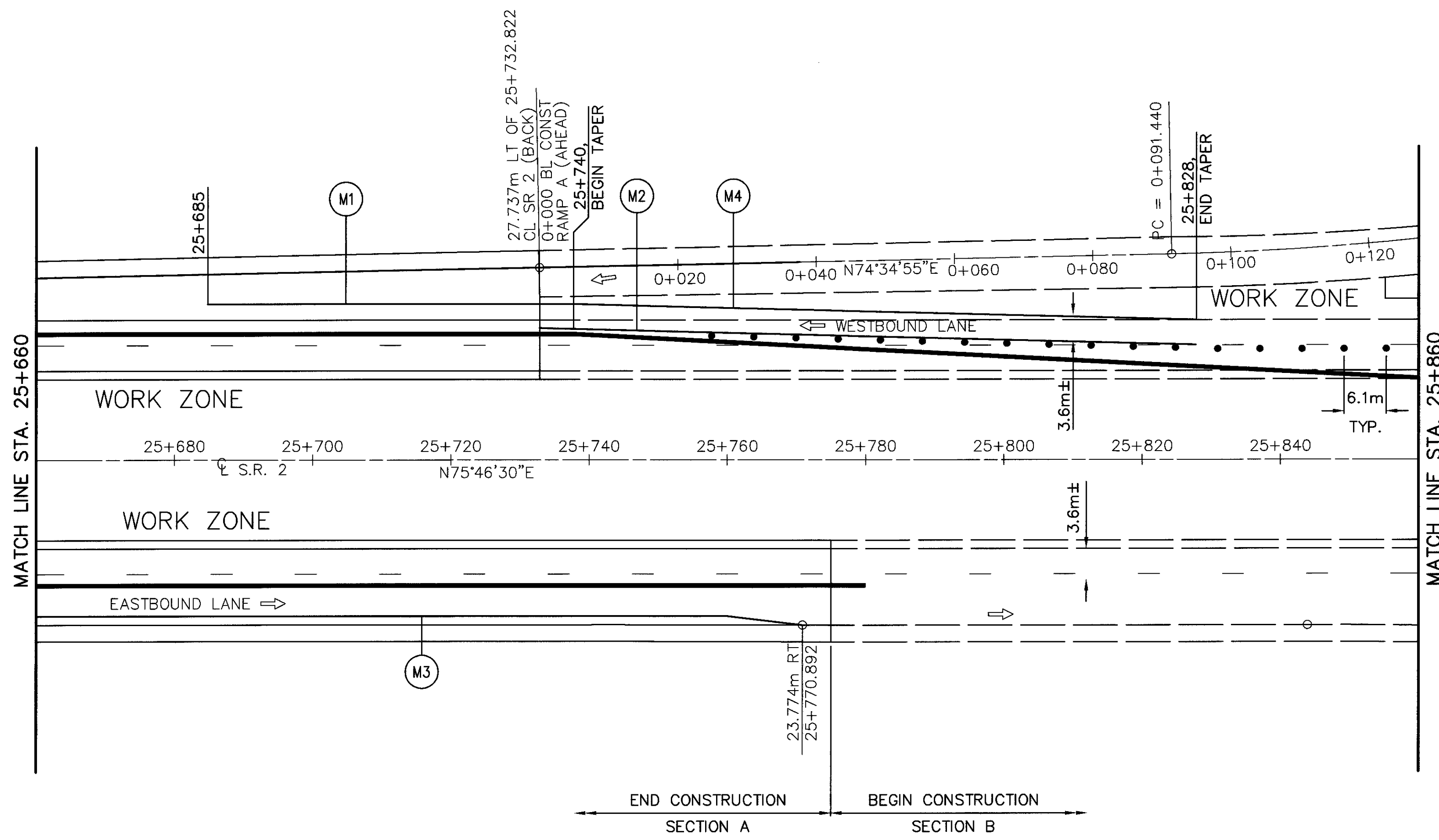
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: CAB
 DATE: 4-99

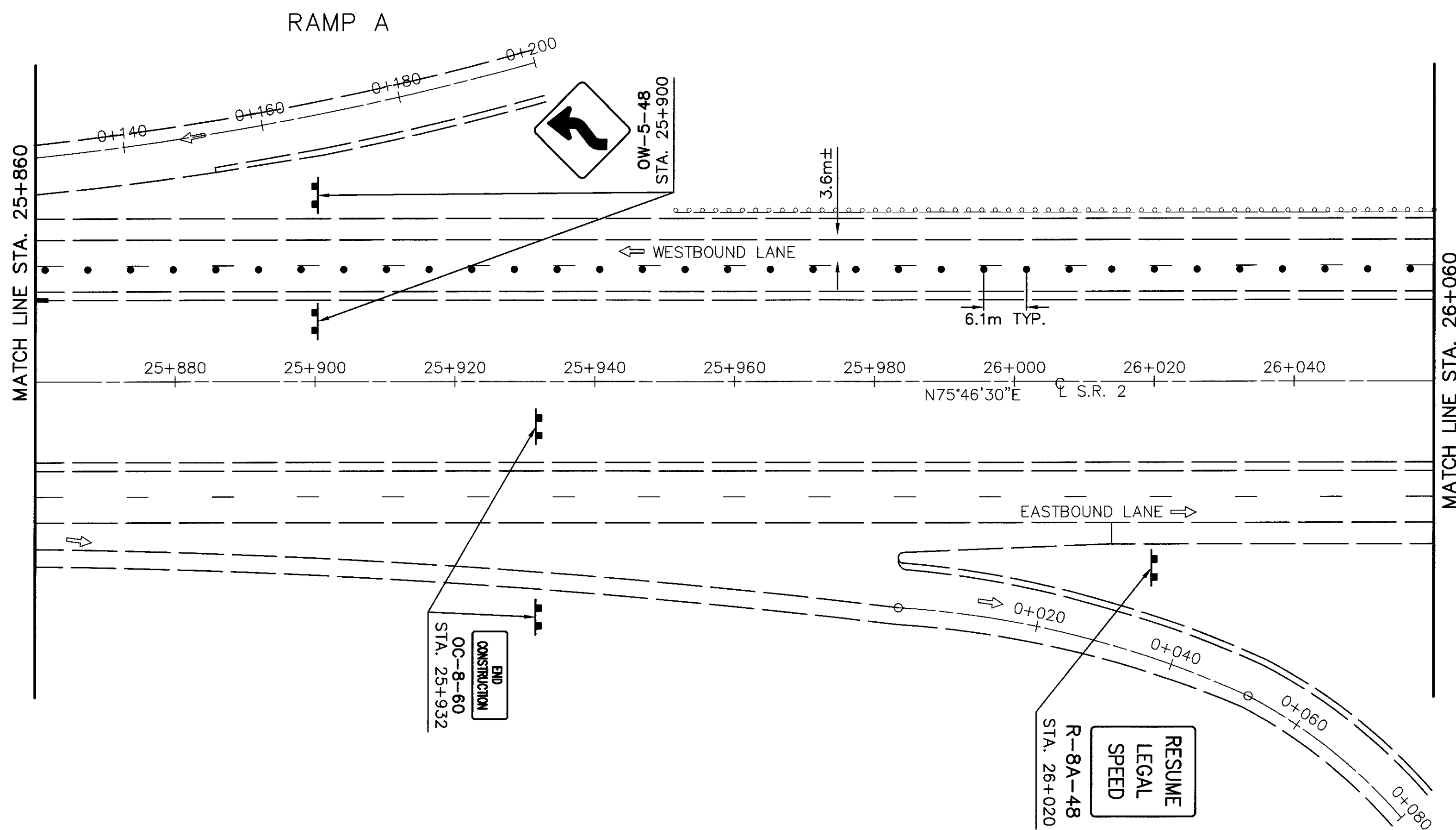
0 5 10 15 20 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC, SECT. A-PHASE 2
 STA. 25+080 TO STA. 25+660**

ERI-2-12.558



FOR QUANTITIES SEE SHEET 24



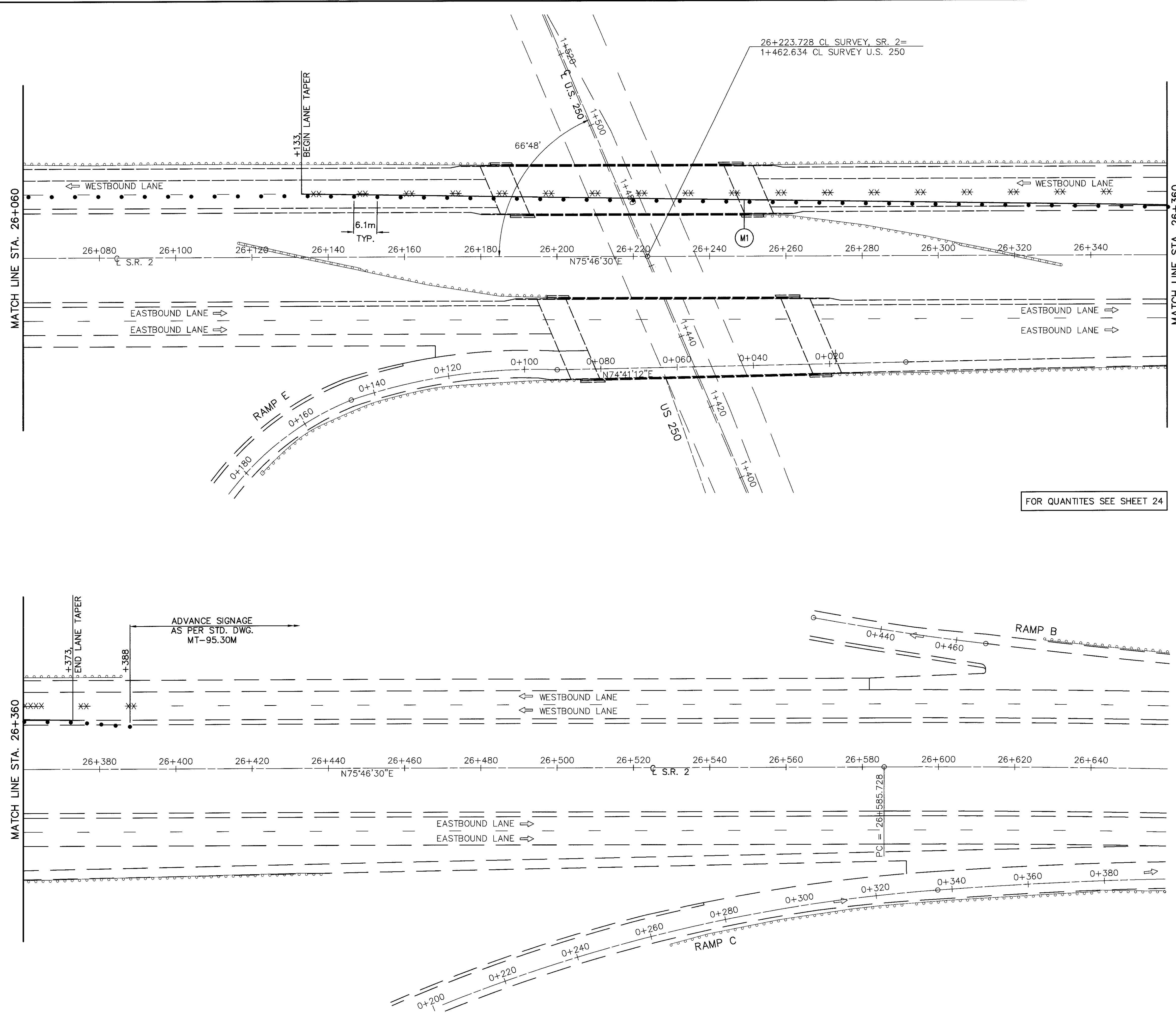
- LEGEND
- 813mm PORTABLE CONCRETE BARRIER
 - DRUM

0 5 10 15 20
RATIO IN METERS

CALCULATED BY: JTY
DATE: 5-99
CHECKED BY: CAB
DATE: 4-99

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
STA. 25+660 TO STA. 26+060**

ERI-2-12.558



LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM

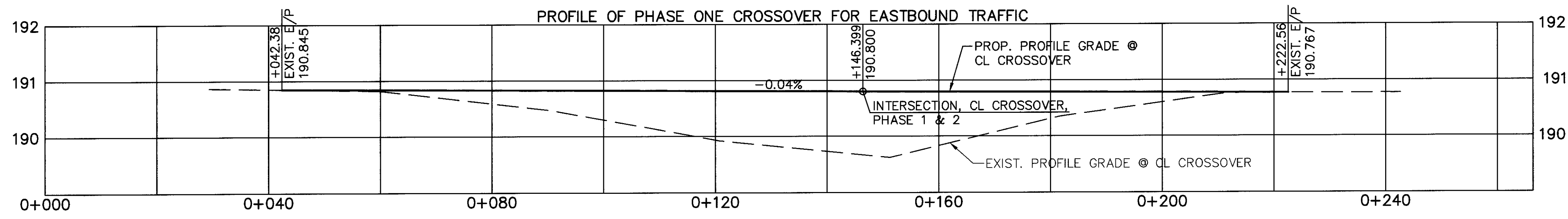
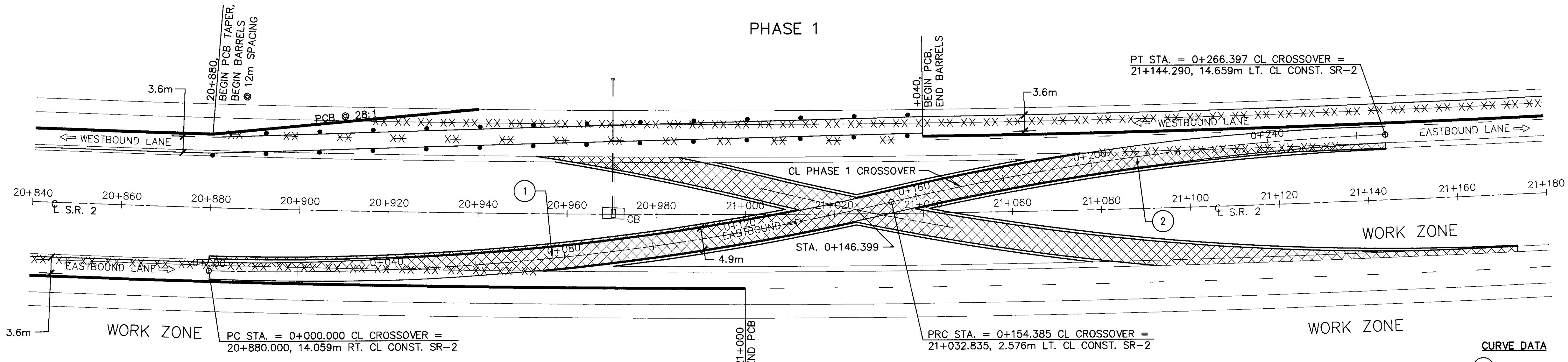
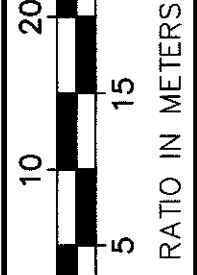
CALCULATED BY: JMA
 DATE: 7-97
 CHECKED BY: JMA
 DATE: 8-97

0 5 10 15 20 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. A-PHASE 2
 STA. 26+060 TO STA. 26+660**

ERI-2-12-558

57A
 432



CURVE DATA

1 Δ = 14'44"34"
 R = 600.000m
 T = 77.621m
 L = 154.385m

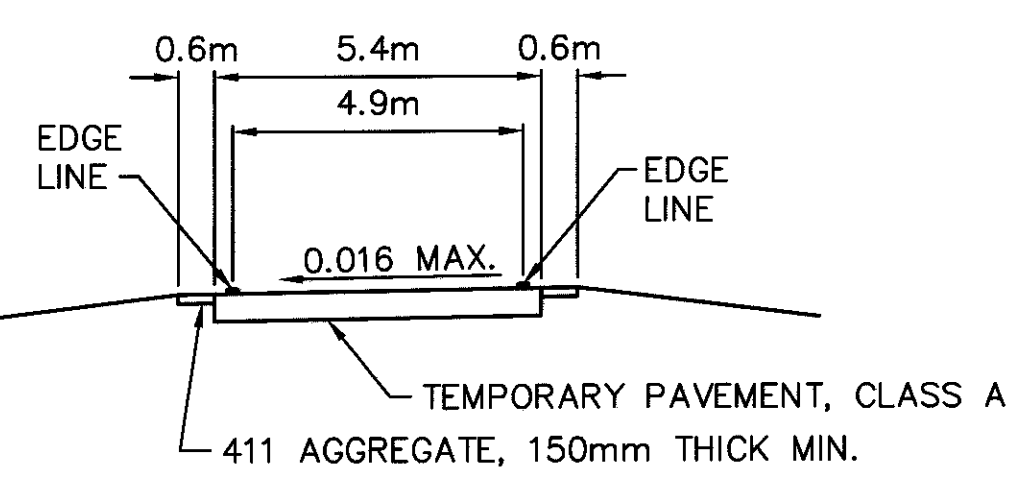
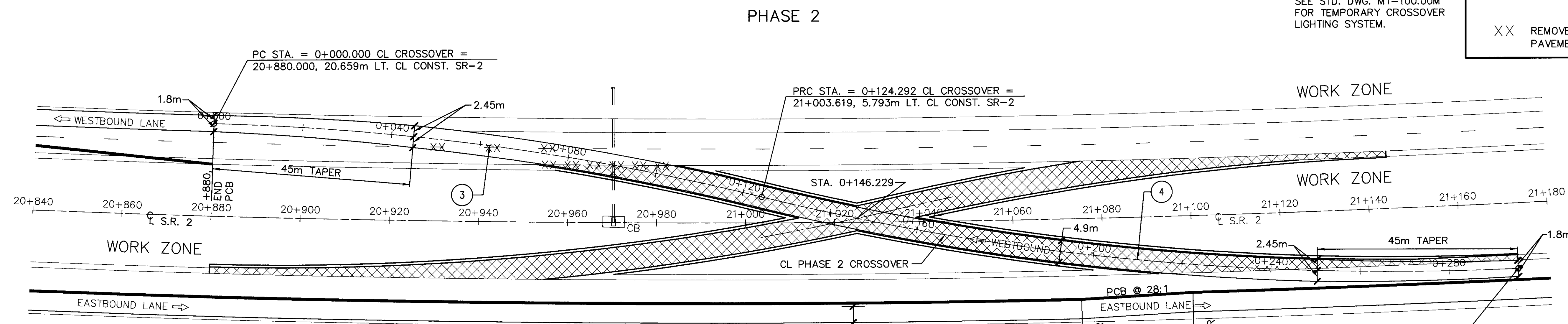
2 Δ = 10'41"47"
 R = 600.000m
 T = 56.169m
 L = 112.011m

LEGEND

- TEMPORARY PAVEMENT, CLASS A
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- REMOVE EXISTING PAVEMENT MARKINGS

SEE STD. DWG. MT-95.70M FOR ADDITIONAL DETAILS.

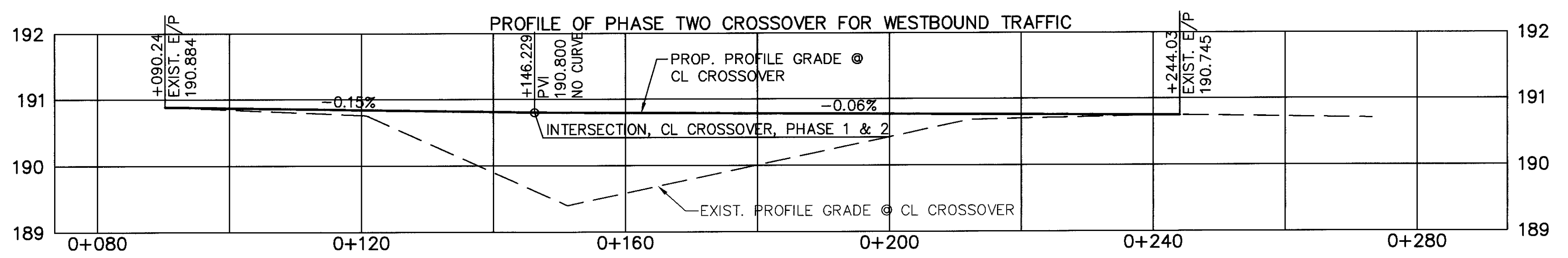
SEE STD. DWG. MT-100.00M FOR TEMPORARY CROSSOVER LIGHTING SYSTEM.



CURVE DATA

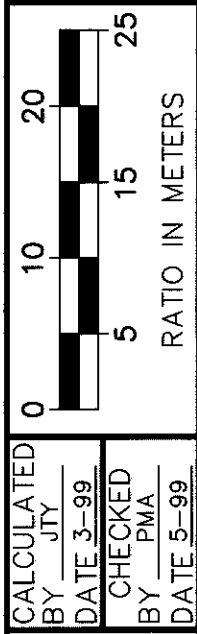
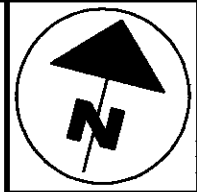
3 Δ = 11'52"08"
 R = 600.000m
 T = 62.369m
 L = 124.292m

4 Δ = 16'21"11"
 R = 600.000m
 T = 86.210m
 L = 171.248m



PT STA. = 0+295.540
 CL CROSSOVER = 21+172.871, 14.659m RT.
 CL CONST. SR-2

FILE NAME: I:\5033\006\TRAN\MOT\A--PHASE1\X_OVER1.DWG 7-9-99 11:34:19 am EST

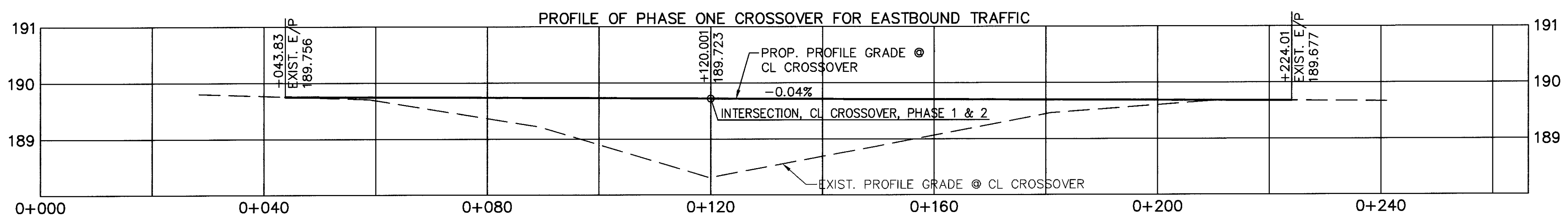
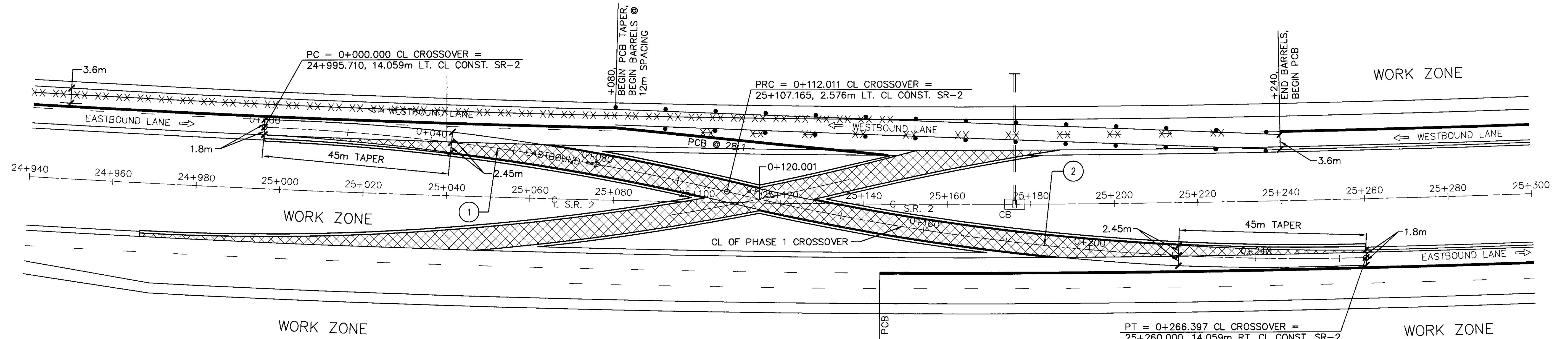


SECTION A - CROSSOVER #2 DETAIL SHEET
STA. 24+940 TO STA. 25+300

ERI-2-12.558

59
432

PHASE 1



CURVE DATA

1	$\Delta = 10^{\circ}41'47''$
	R = 600.000m
	T = 56.169m
	L = 112.011m
2	$\Delta = 14^{\circ}44'34''$
	R = 600.000m
	T = 77.621m
	L = 154.385m

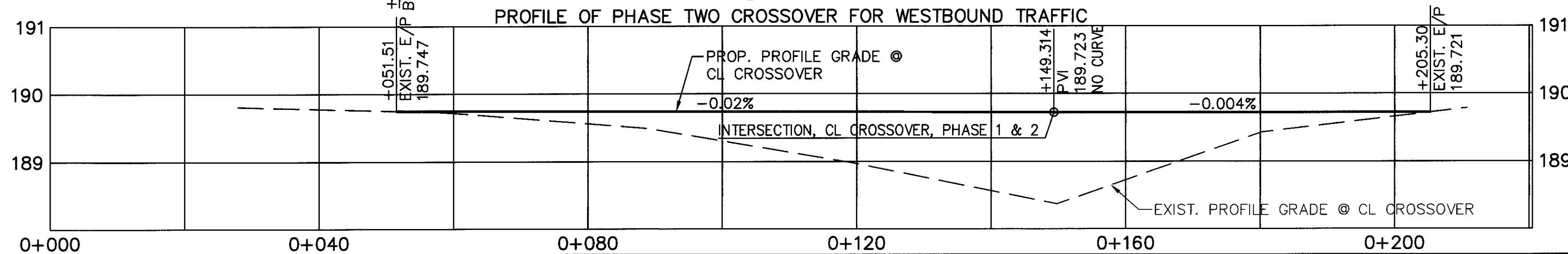
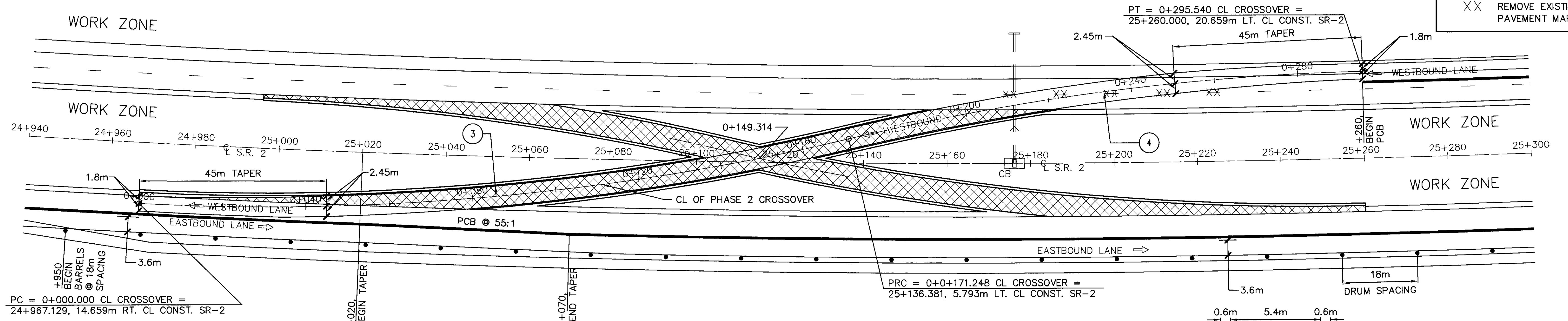
LEGEND

- TEMPORARY PAVEMENT, CLASS A
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- REMOVE EXISTING PAVEMENT MARKINGS

SEE STD. DWG. MT-95.70M FOR ADDITIONAL DETAILS.

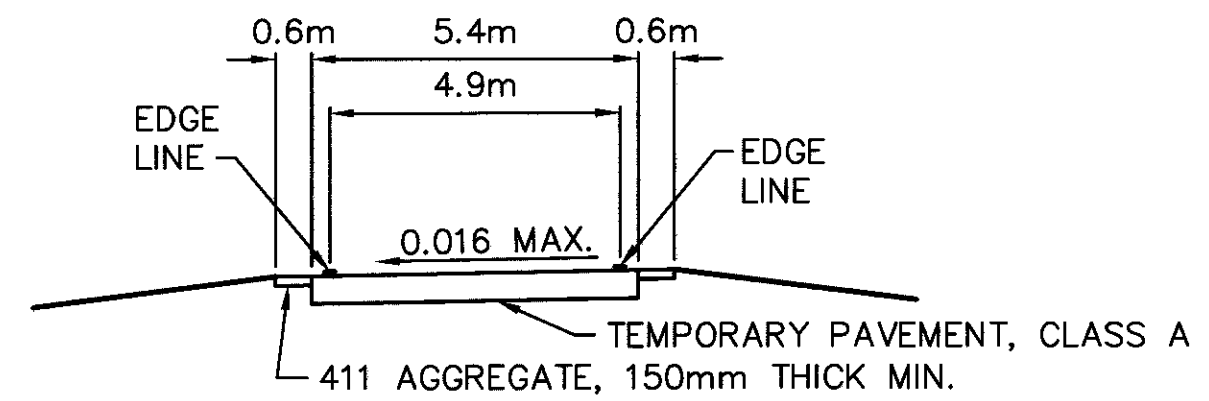
SEE STD. DWG. MT-100.00M FOR TEMPORARY CROSSOVER LIGHTING SYSTEM.

PHASE 2



CURVE DATA

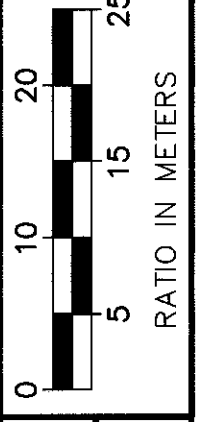
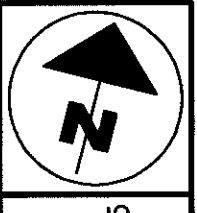
3	$\Delta = 16^{\circ}21'11''$
	R = 600.000m
	T = 86.210m
	L = 171.248m
4	$\Delta = 11^{\circ}52'08''$
	R = 600.000m
	T = 62.369m
	L = 124.292m



TYPICAL CROSSOVER SECTION

NOTE: WHEN WORK IS PERFORMED IN AREAS NOT PROTECTED BY PORTABLE CONCRETE BARRIERS, THE WORK SHALL BE PROTECTED AND TRAFFIC MAINTAINED IN ACCORDANCE WITH STD. DWG. MT-95.70M & ITEM 614, MAINTAINING TRAFFIC.

FILE NAME: I:\5033\006\TRAN\WOT\A-PHASE1\X-OVER2.DWG 7-9-99 3:55:25 pm EST



CALCULATED BY: DMH DATE: 7-97 CHECKED BY: PMA DATE: 8-97

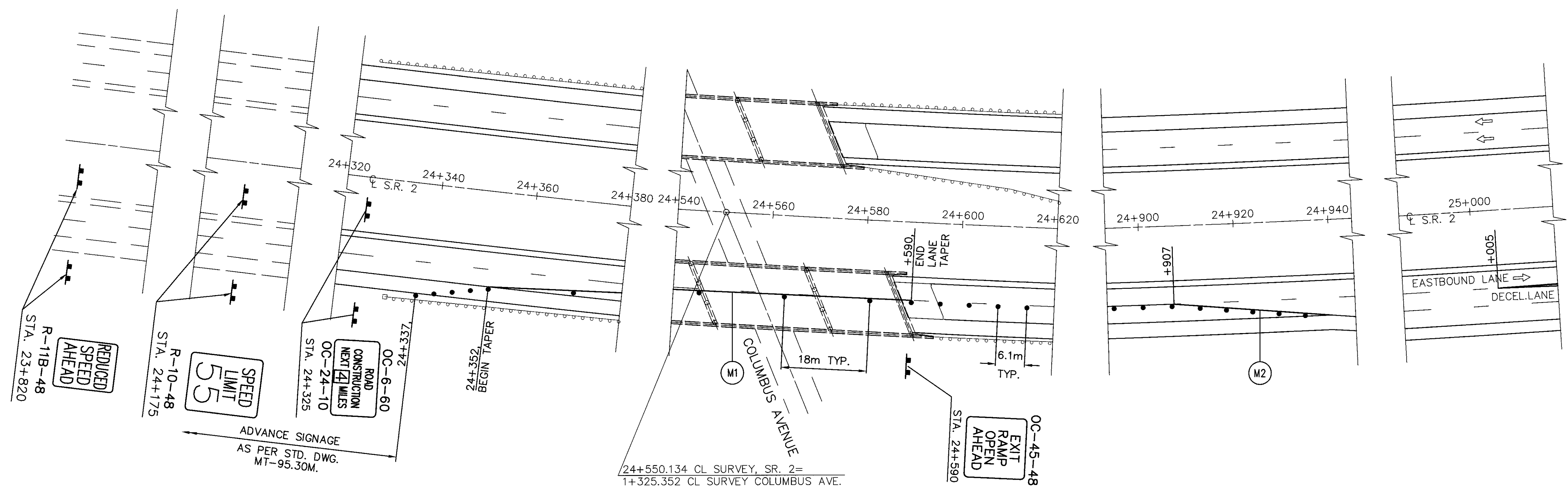
**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
STA. 25+360 TO STA. 25+660**

ERI-2-12.558

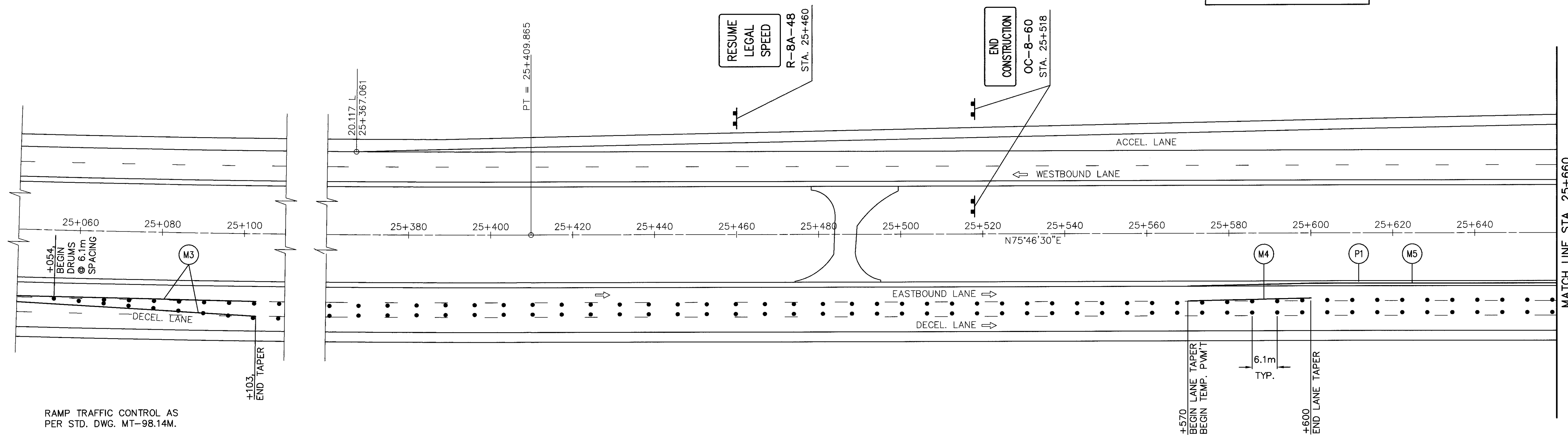
64
432

LEGEND

- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

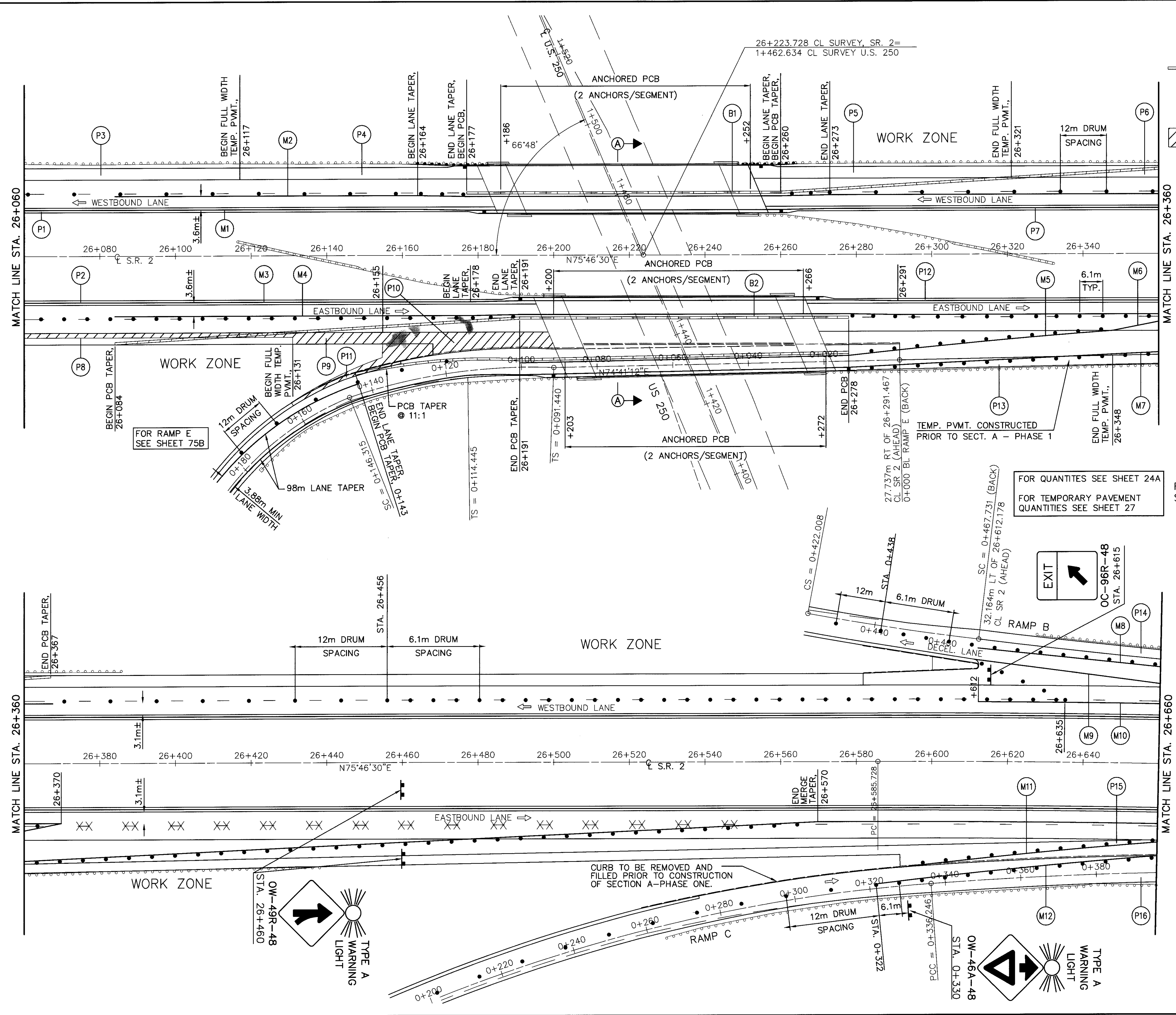


FOR QUANTITIES SEE SHEET 24A
FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27



MATCH LINE STA. 25+660

FILE NAME: I:\5033\006\TRAN\MOT\B-PHASE1\R_MP\B-01A.DWG 8-10-99 2:51:27 pm EST



LEGEND

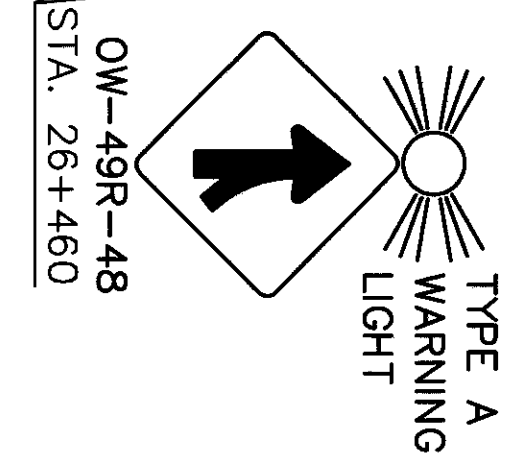
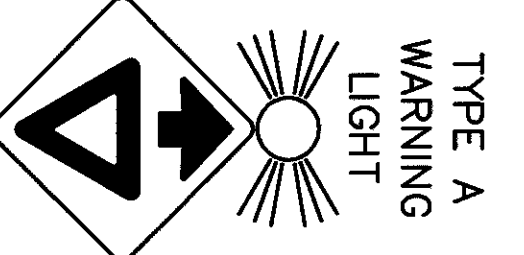
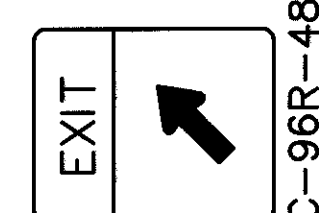
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- TEMPORARY PAVEMENT CONSTRUCTED DURING SECT. A - PHASE 1
- REMOVE EXISTING PAVEMENT MARKINGS

RATIO IN METERS

FOR QUANTITIES SEE SHEET 24A
 FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

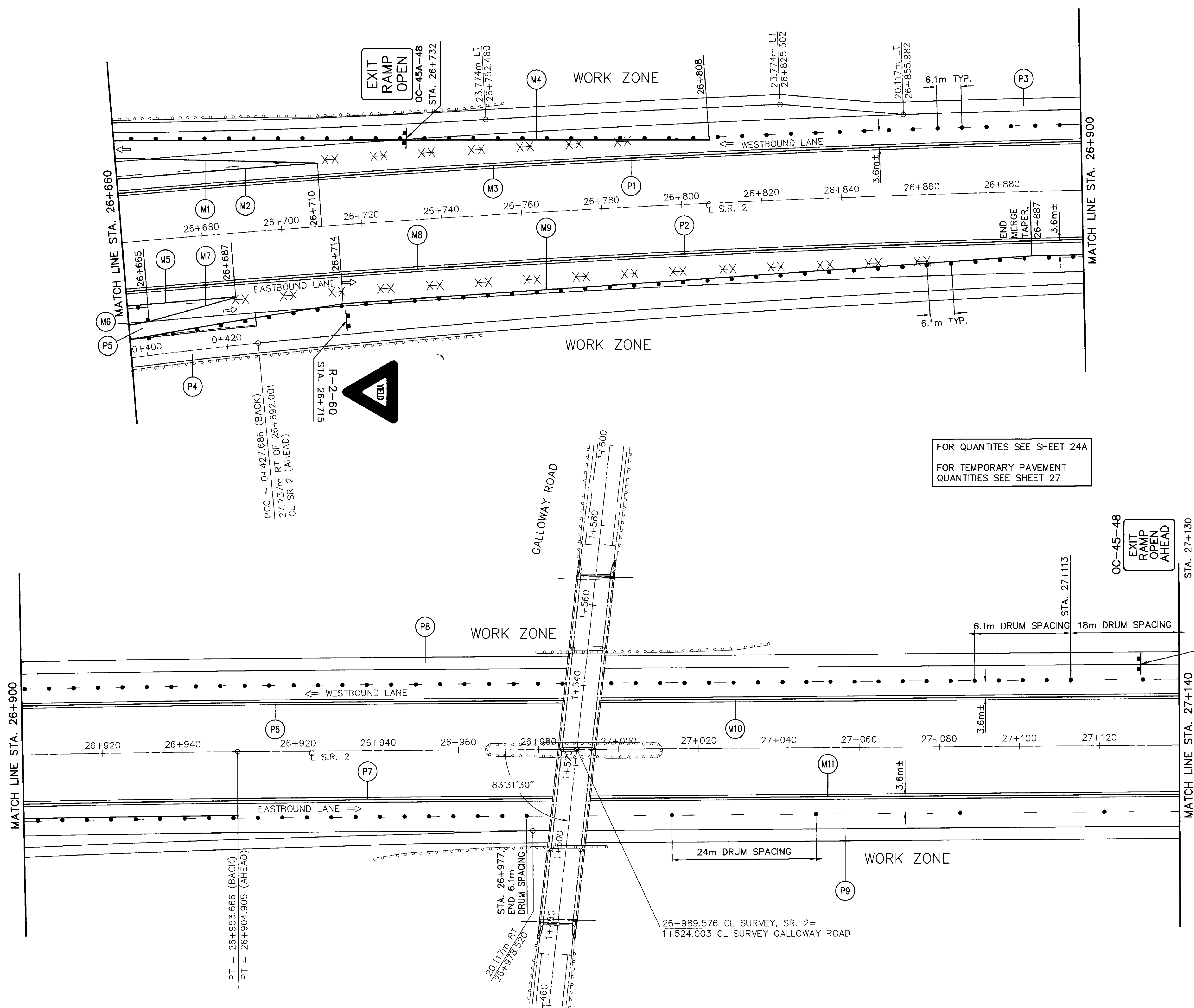
FOR SECTION A-A SEE SHEET 30

FOR RAMP E SEE SHEET 75B



**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
 STA. 26+060 TO STA. 26+660**

ERI-2-12.558



FOR QUANTITIES SEE SHEET 24A
 FOR TEMPORARY PAVEMENT
 QUANTITIES SEE SHEET 27

LEGEND

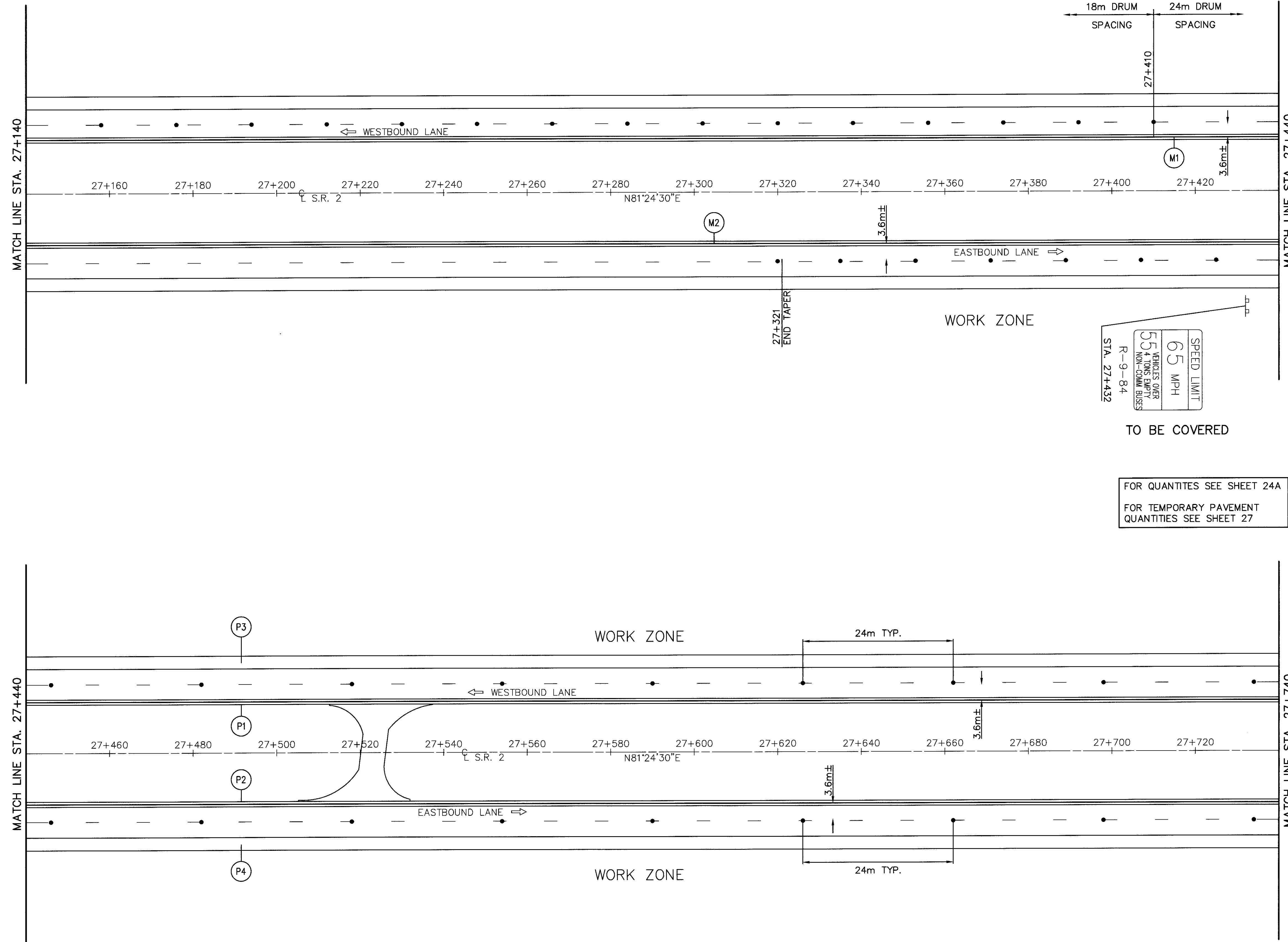
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

CALCULATED BY: DAM DATE: 7-97
 CHECKED BY: PMA DATE: 8-97

0 10 20
 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
 STA. 26+660 TO STA. 27+140**

ERI-2-12.558



LEGEND

- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS



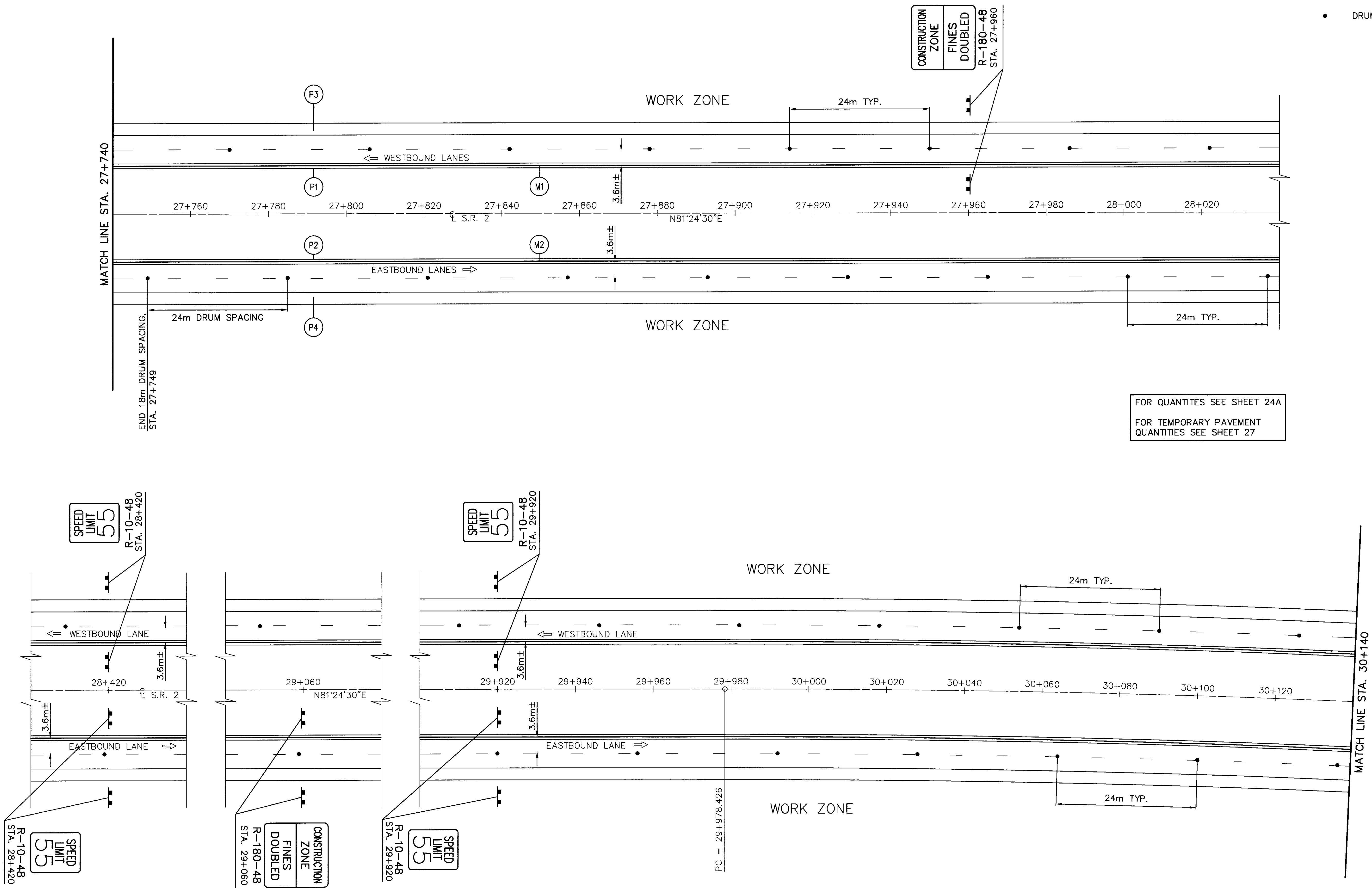
**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
STA. 27+140 TO STA. 27+740**

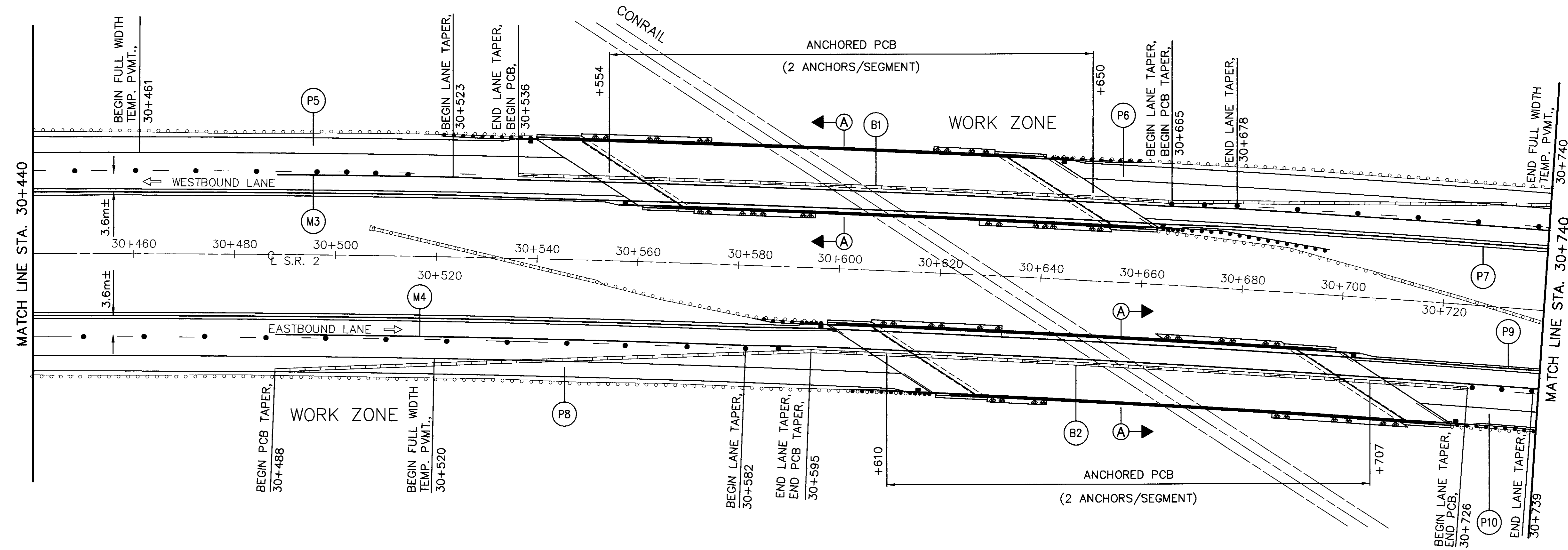
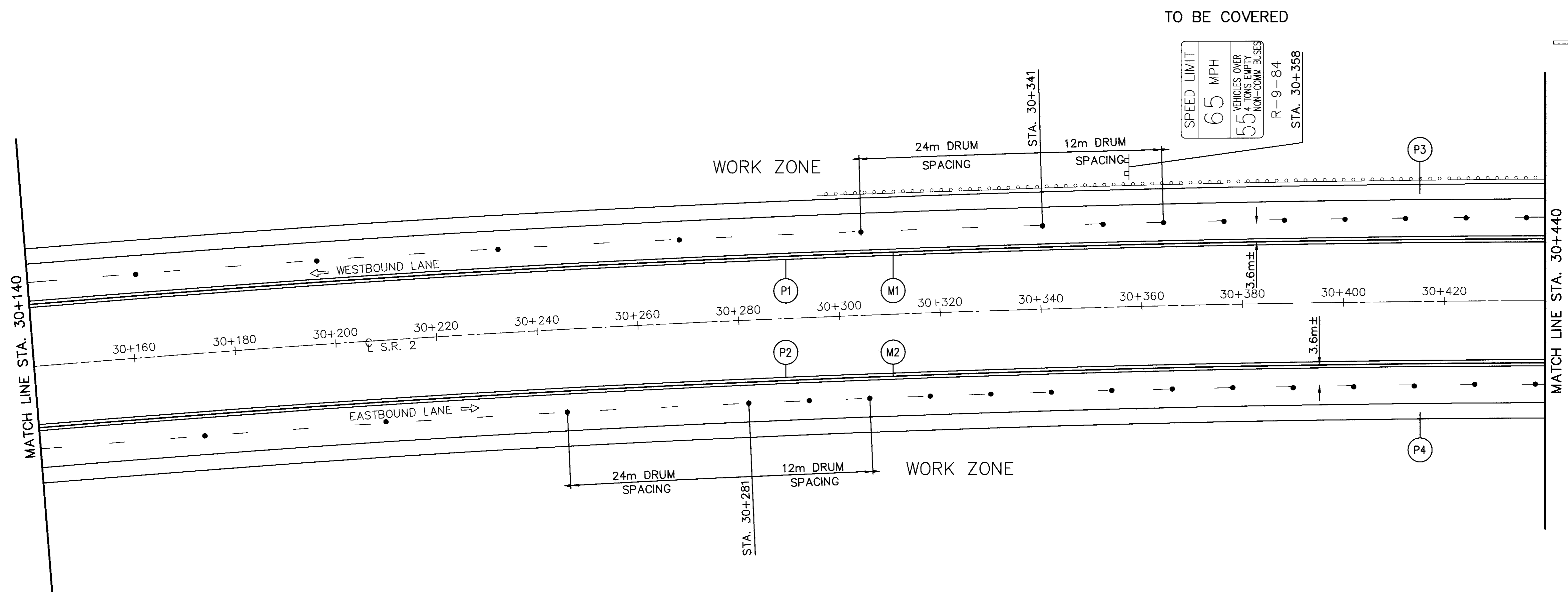
ERI-2-12.558

SPEED LIMIT	65 MPH
VEHICLES OVER 5.4 TONS EMPTY NON-COMM BUSES	R-9-84
STA. 27+432	

TO BE COVERED

FOR QUANTITIES SEE SHEET 24A
FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27





FOR QUANTITIES SEE SHEET 24A
 FOR TEMPORARY PAVEMENT
 QUANTITIES SEE SHEET 27
 FOR SECTION A-A
 SEE SHEET 32

LEGEND

813mm PORTABLE CONCRETE BARRIER

DRUM

↑ 2

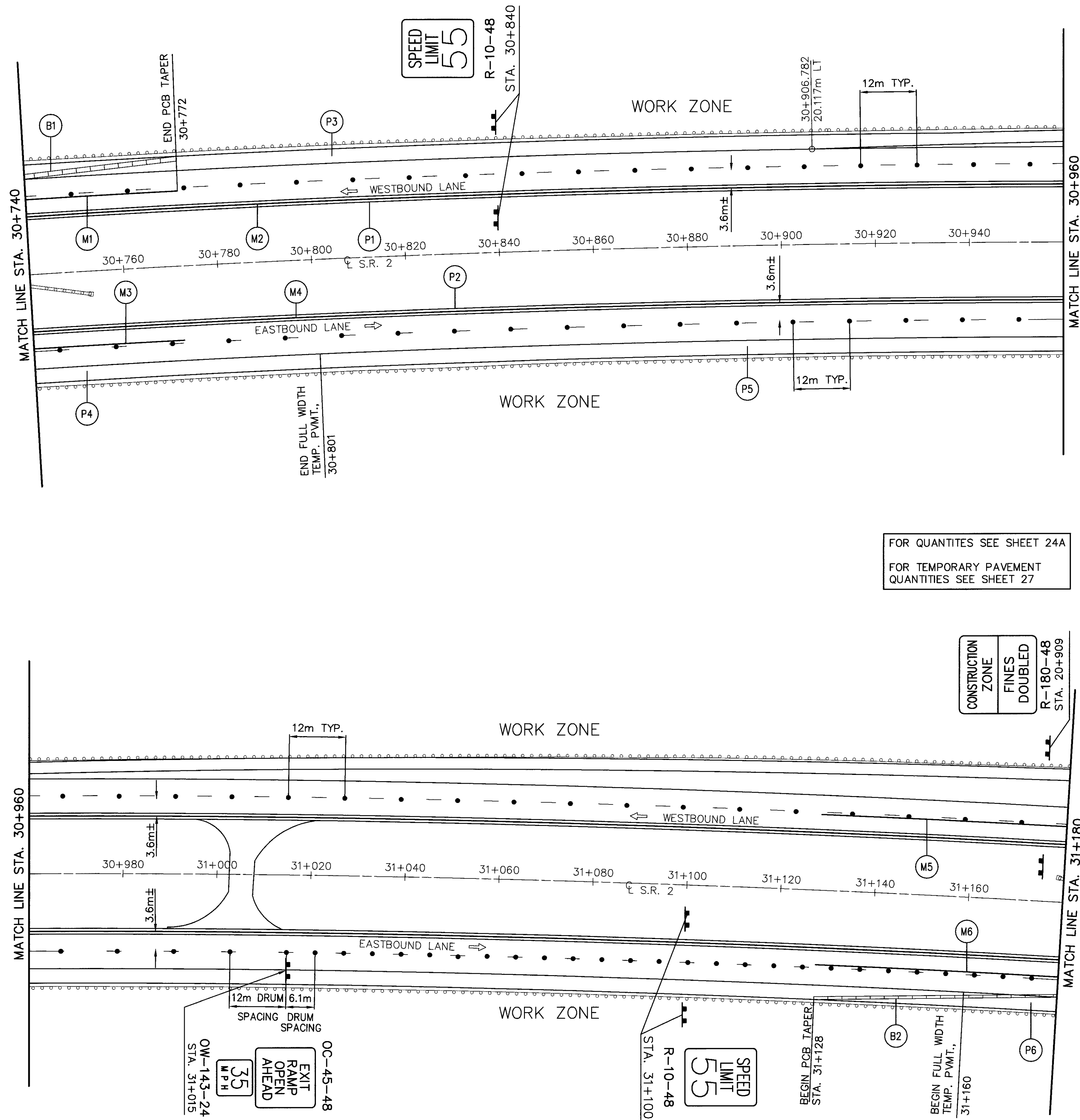
0 5 10 15 20 25

RATIO IN METERS

CALCULATED BY: JMA DATE: 7-97
 CHECKED BY: JMA DATE: 8-97

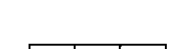

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
 STA. 30+140 TO STA. 30+740**

ERI-2-12.558

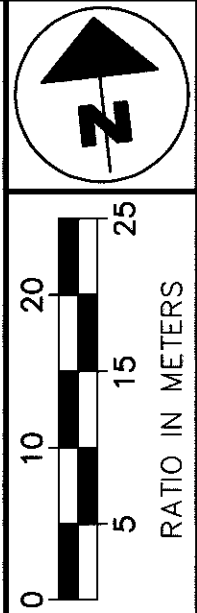


FOR QUANTITIES SEE SHEET 24A
 FOR TEMPORARY PAVEMENT
 QUANTITIES SEE SHEET 27

LEGEND

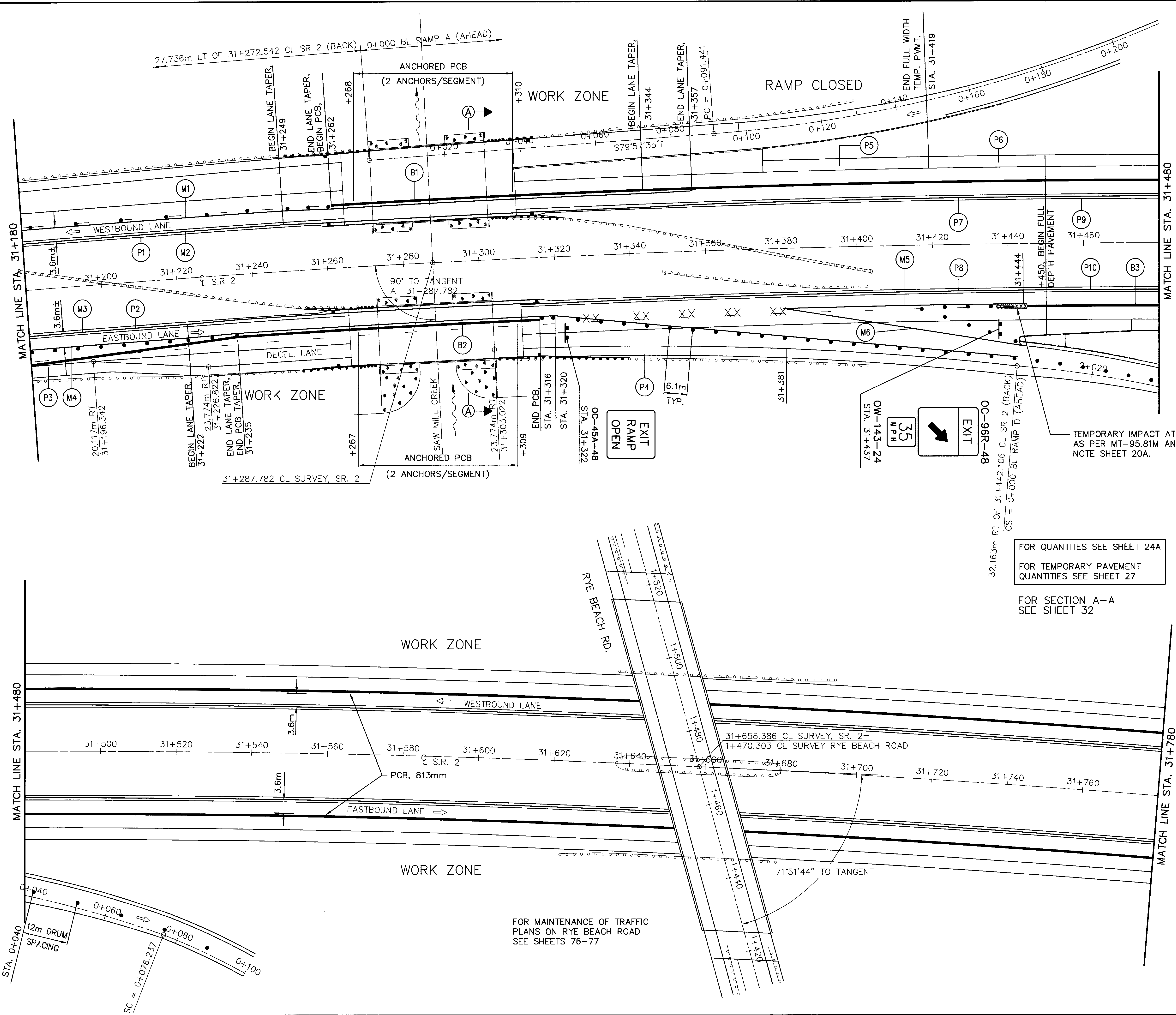
-  813mm PORTABLE CONCRETE BARRIER
-  DRUM

CALCULATED BY: DMM
 DATE: 7-97
 CHECKED BY: PMA
 DATE: 5-97



**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 1
 STA. 30+740 TO STA. 31+180**

ERI-2-12.558



LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS

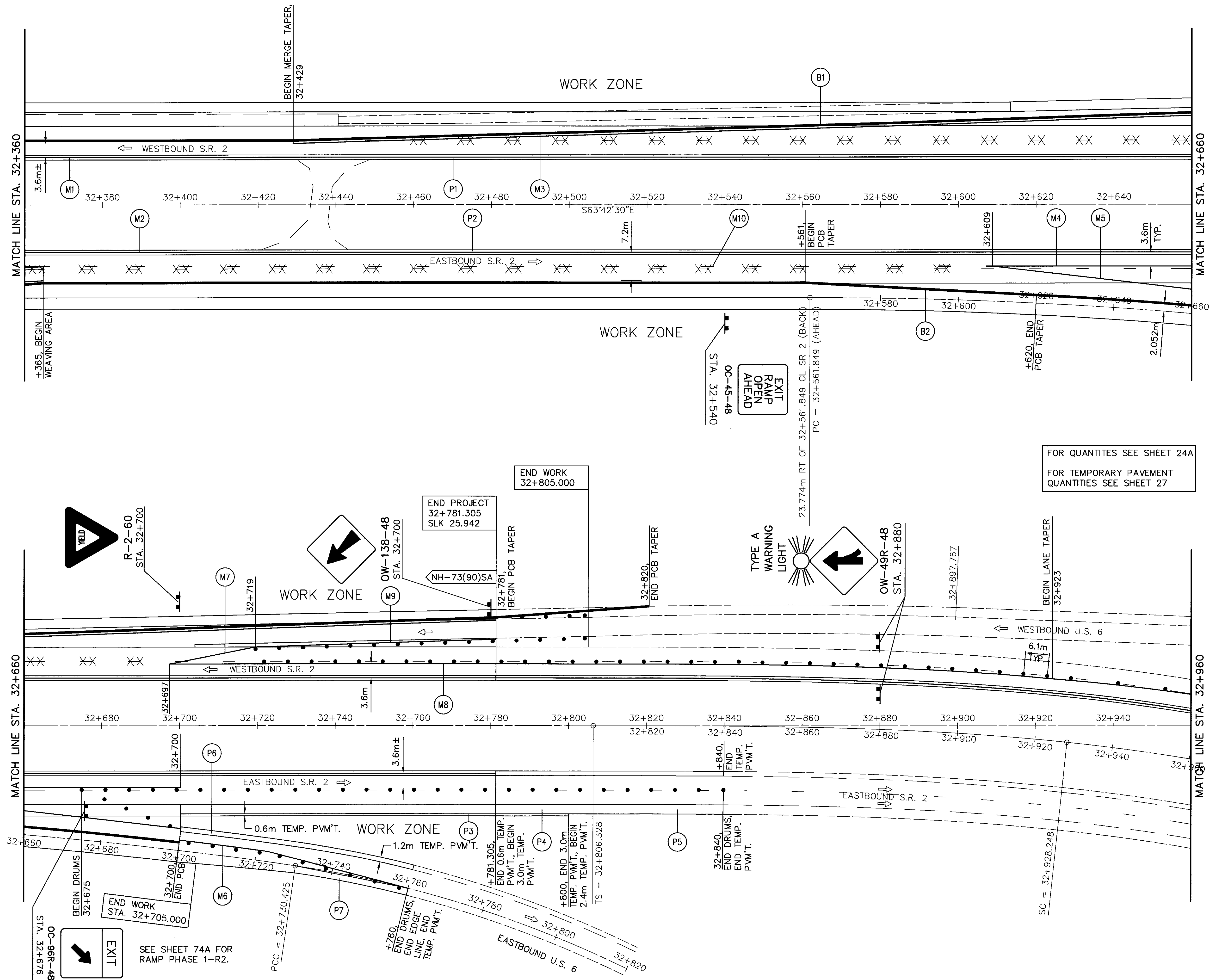
FOR QUANTITIES SEE SHEET 24A
 FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27
 FOR SECTION A-A SEE SHEET 32

FOR MAINTENANCE OF TRAFFIC PLANS ON RYE BEACH ROAD SEE SHEETS 76-77

CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 5-99

**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 1
 STA. 31+180 TO STA. 31+780**

ERI-2-12.558



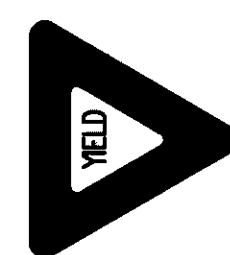
LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- REMOVE EXISTING PAVEMENT MARKINGS

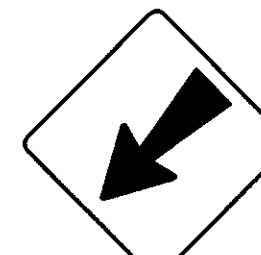
CALCULATED BY: JTY
DATE: 3-99
CHECKED BY: PMA
DATE: 5-99

0 10 20
5 15 25
RATIO IN METERS

FOR QUANTITIES SEE SHEET 24A
FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27



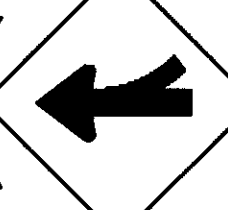
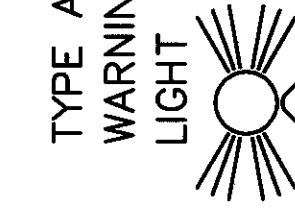
R-2-60
STA. 32+700



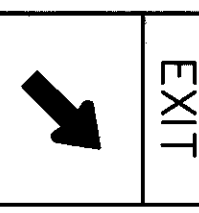
OW-138-48
STA. 32+700

END PROJECT
32+781.305
SLK 25.942

NH-73(90)SA



OW-49R-48
STA. 32+880

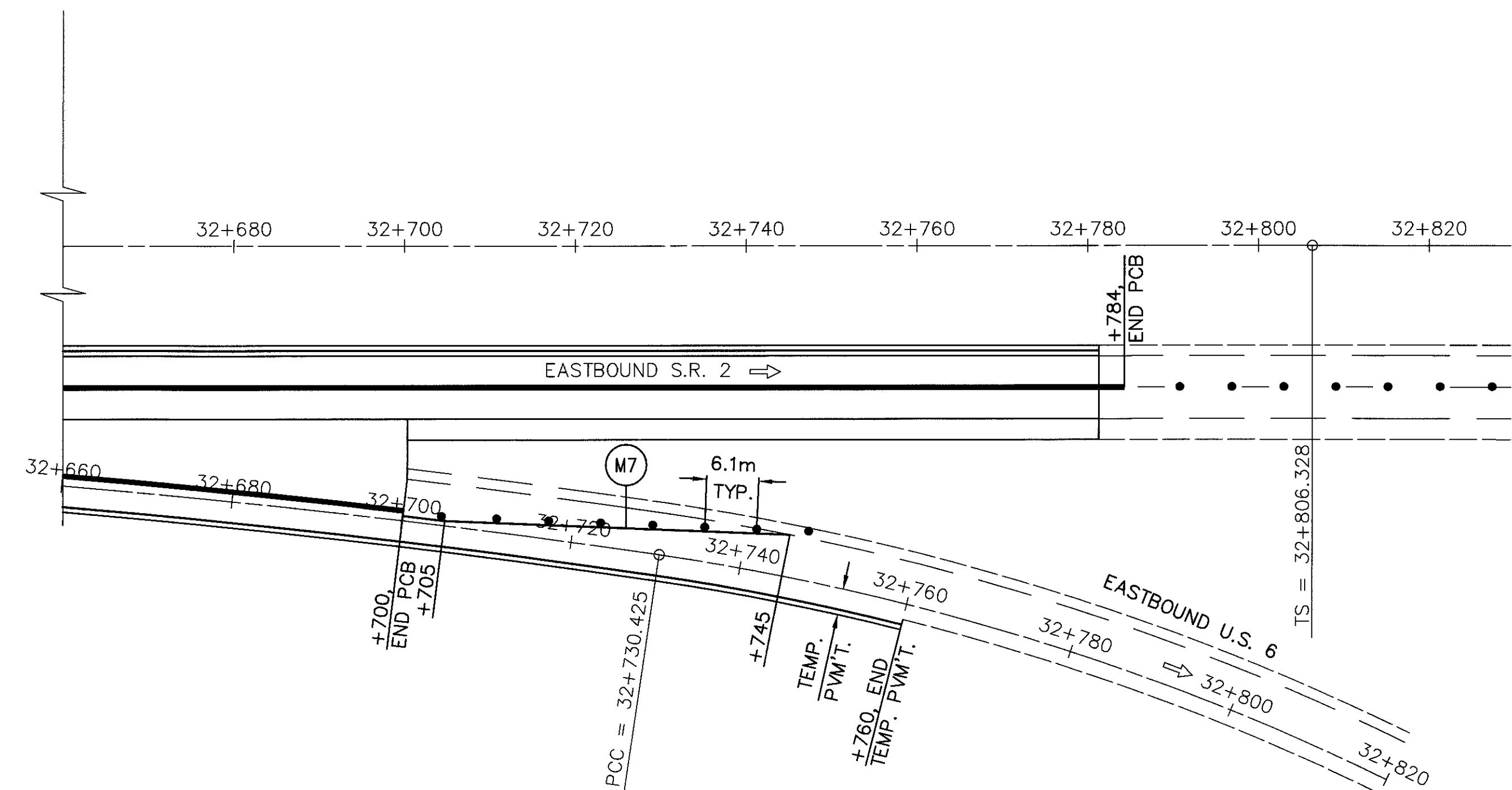
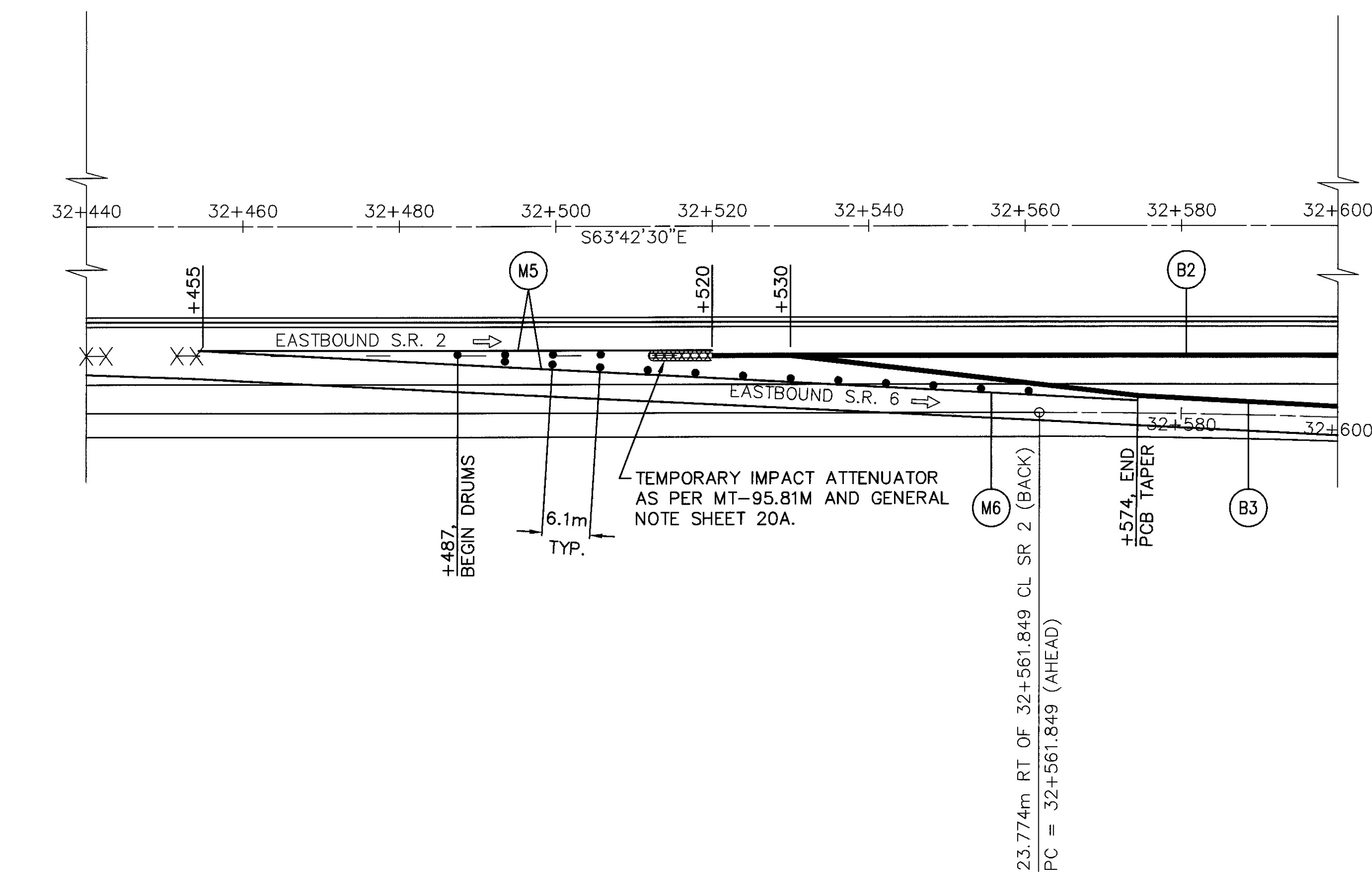
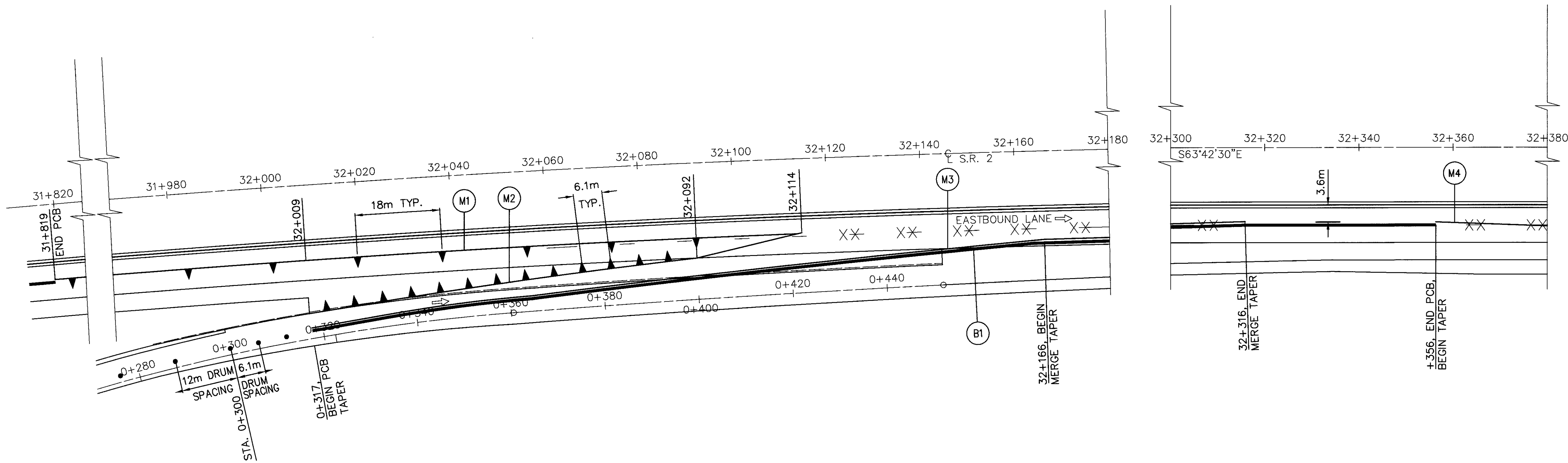


SEE SHEET 74A FOR RAMP PHASE 1-R2.

MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
STA. 32+360 TO STA. 32+960

ERI-2-12.558

74
432



LEGEND

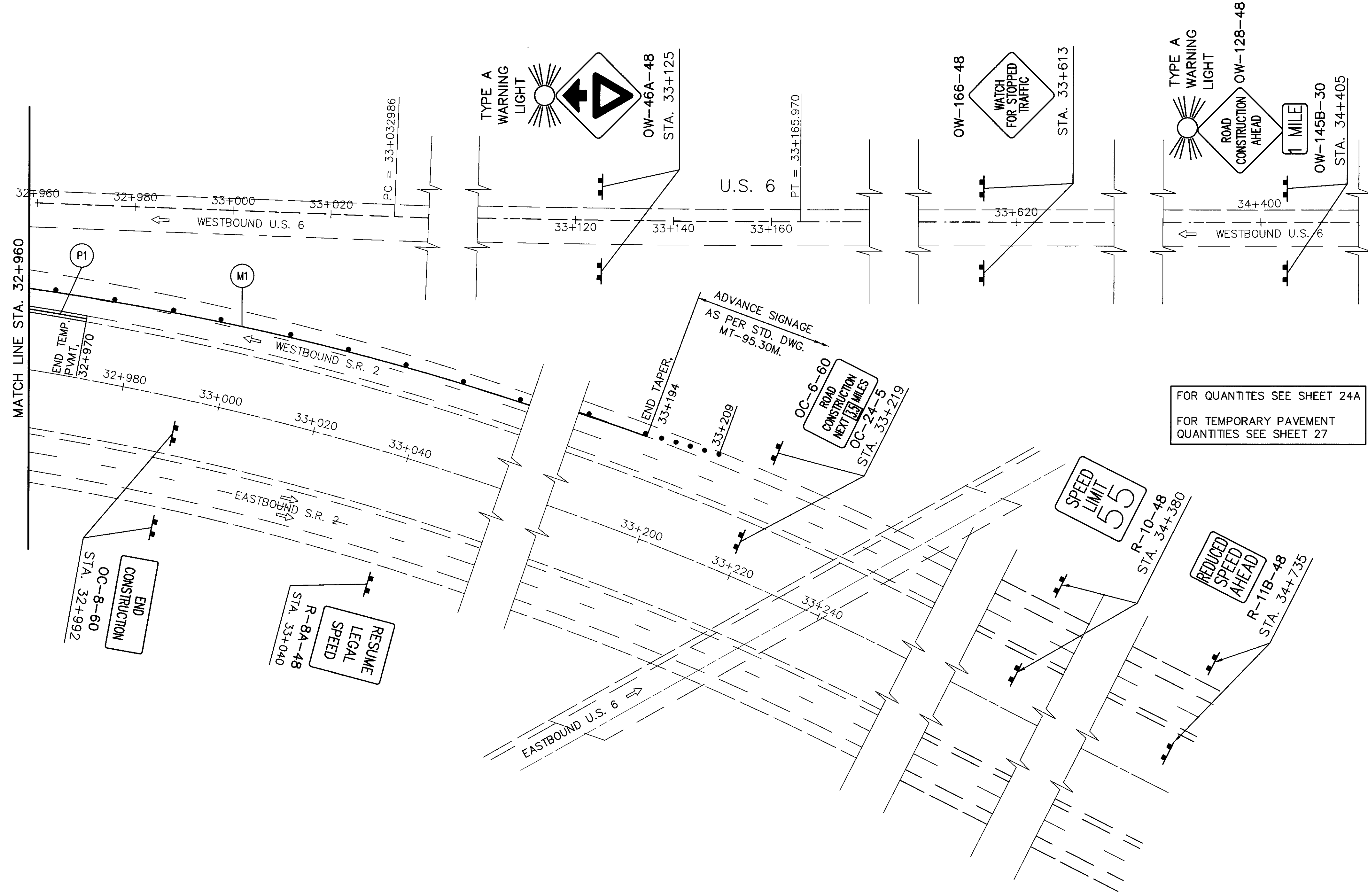
- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- XX REMOVE EXISTING PAVEMENT MARKINGS
- ▲ TRAFFIC CONE

CALCULATED BY: JTY DATE: 5-99
 CHECKED BY: PHA DATE: 5-99

RATIO IN METERS

**MAINTENANCE OF TRAFFIC, PHASE R2
 RYE BEACH ROAD, RAMP C - USR-6 RAMP**

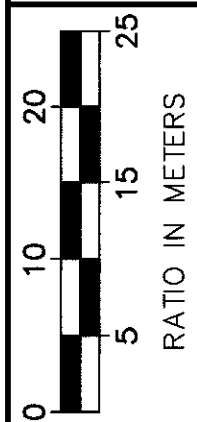
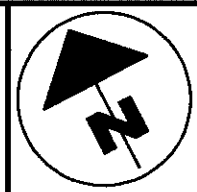
ERI-2-12.558



CALCULATED BY: JTY	DATE: 3-99
CHECKED BY: PMA	DATE: 5-99

0 10 20
 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
 STA. 32+960 TO STA. 34+405**



CALCULATED BY: DAM DATE: 7-97
 CHECKED BY: PMA DATE: 8-97

LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- TEMPORARY PAVEMENT CONSTRUCTED DURING SECT. A - PHASE 1.

SEE SHEET 30
FOR BRIDGE SECTION

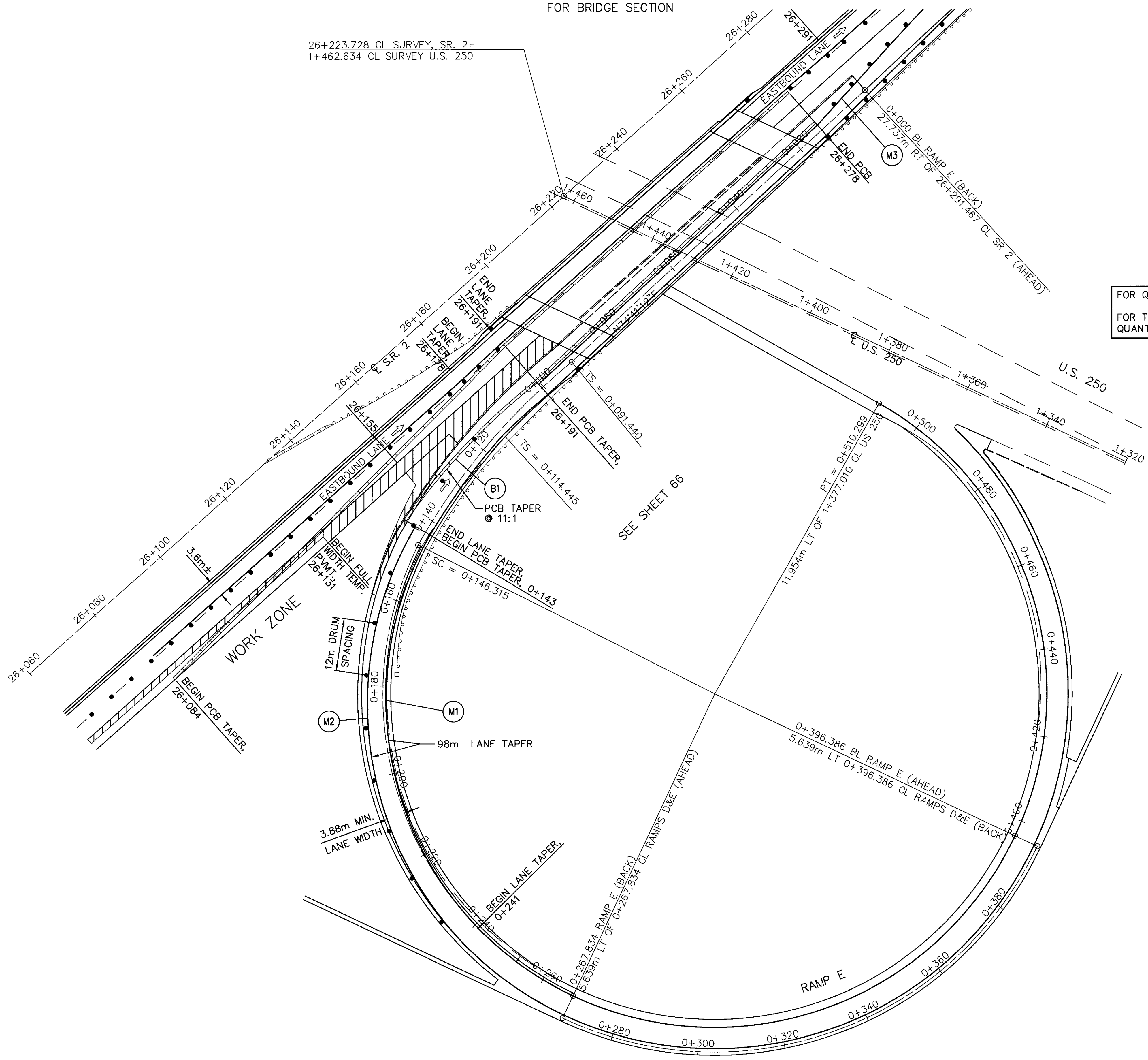
26+223.728 CL SURVEY, SR. 2=
1+462.634 CL SURVEY U.S. 250

FOR QUANTITIES SEE SHEET 24A
FOR TEMPORARY PAVEMENT QUANTITIES SEE SHEET 27

**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 1
U.S. 250 INTERCHANGE RAMP E**

ERI-2-12.558

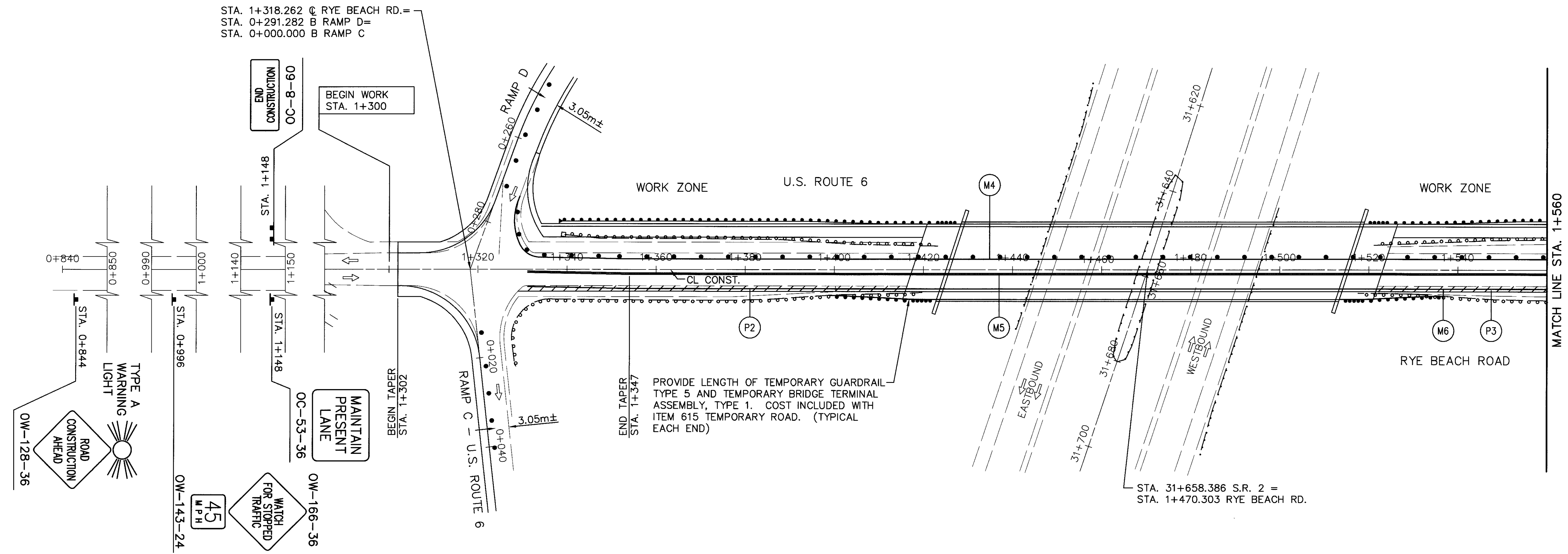
75B
432



SEE SHEET 66

WORK ZONE

JTN FILE NAME: I:\5033\006\IRAN\WOT\B-PHASE1\YR_MPB-13.DWG 7-20-99 11:21:14 am EST



STA. 1+318.262 @ RYE BEACH RD. =
 STA. 0+291.282 @ RAMP D =
 STA. 0+000.000 @ RAMP C

END TAPER STA. 1+347
 PROVIDE LENGTH OF TEMPORARY GUARDRAIL TYPE 5 AND TEMPORARY BRIDGE TERMINAL ASSEMBLY, TYPE 1. COST INCLUDED WITH ITEM 615 TEMPORARY ROAD. (TYPICAL EACH END)

STA. 31+658.386 S.R. 2 =
 STA. 1+470.303 RYE BEACH RD.

RYE BEACH ROAD STRUCTURE AND APPROACH SLABS TO BE CONSTRUCTED OVER WINTER. SEE SHEET 21 FOR DETOUR PLAN AND NOTES.
 WEDGE SHALL BE USED AT EACH END OF STRUCTURE AT 200:1, TO BRING ROADWAY UP TO BRIDGE LEVEL.

LEGEND

- DRUM
- TEMPORARY PAVEMENT CONSTRUCTED PRIOR TO SECT. B - PHASE 1.

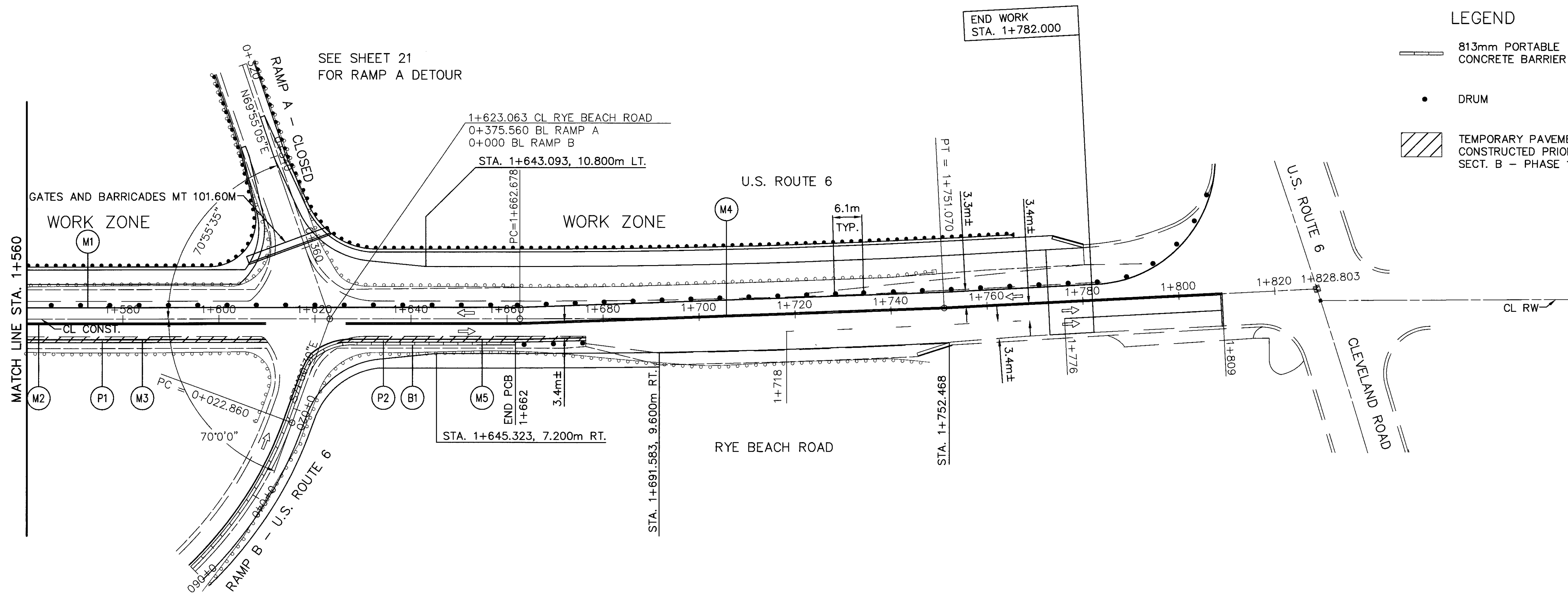
CALCULATED BY: DIM DATE: 7-97
 CHECKED BY: PWA DATE: 8-97

RATIO IN METERS




**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
 RYE BEACH ROAD**

ERI-2-12.558

75C
 432



LEGEND

-  813mm PORTABLE CONCRETE BARRIER
-  DRUM
-  TEMPORARY PAVEMENT CONSTRUCTED PRIOR TO SECT. B - PHASE 1.

CALCULATED BY: DMM DATE: 7-97
 CHECKED BY: PHA DATE: 8-97

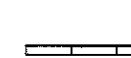


0 10 20
 0 5 15 25
 RATIO IN METERS

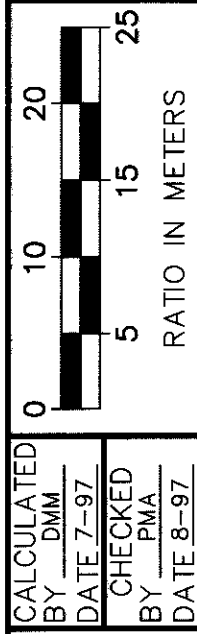
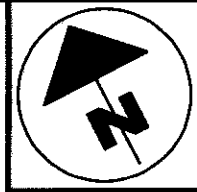
MAINTENANCE OF TRAFFIC: SECT. B-PHASE 1
RYE BEACH ROAD

ERI-2-12.558

75D
432

LEGEND

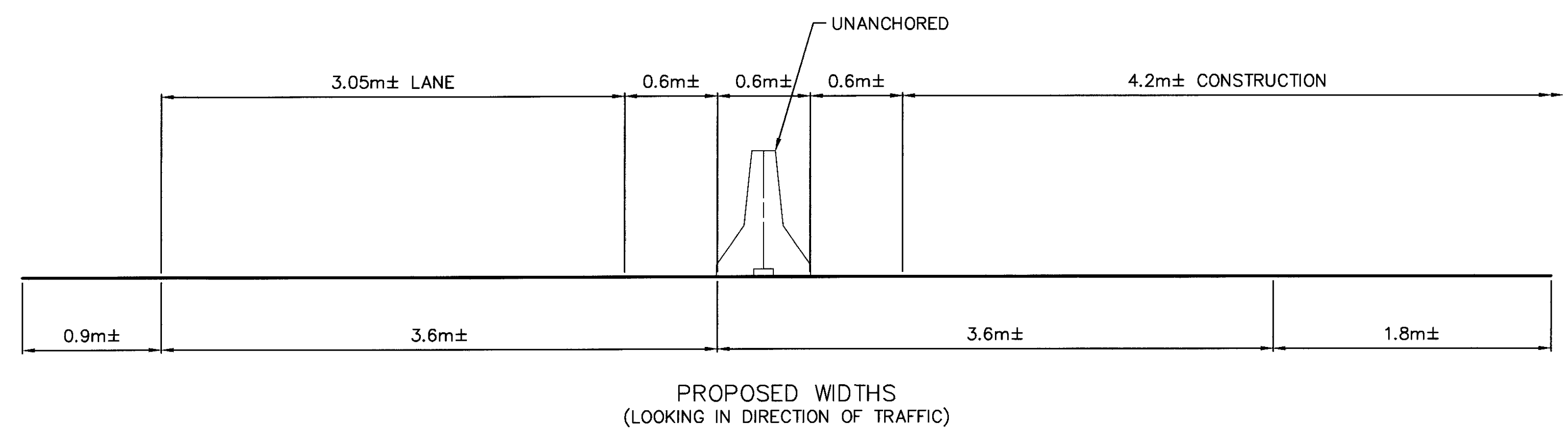
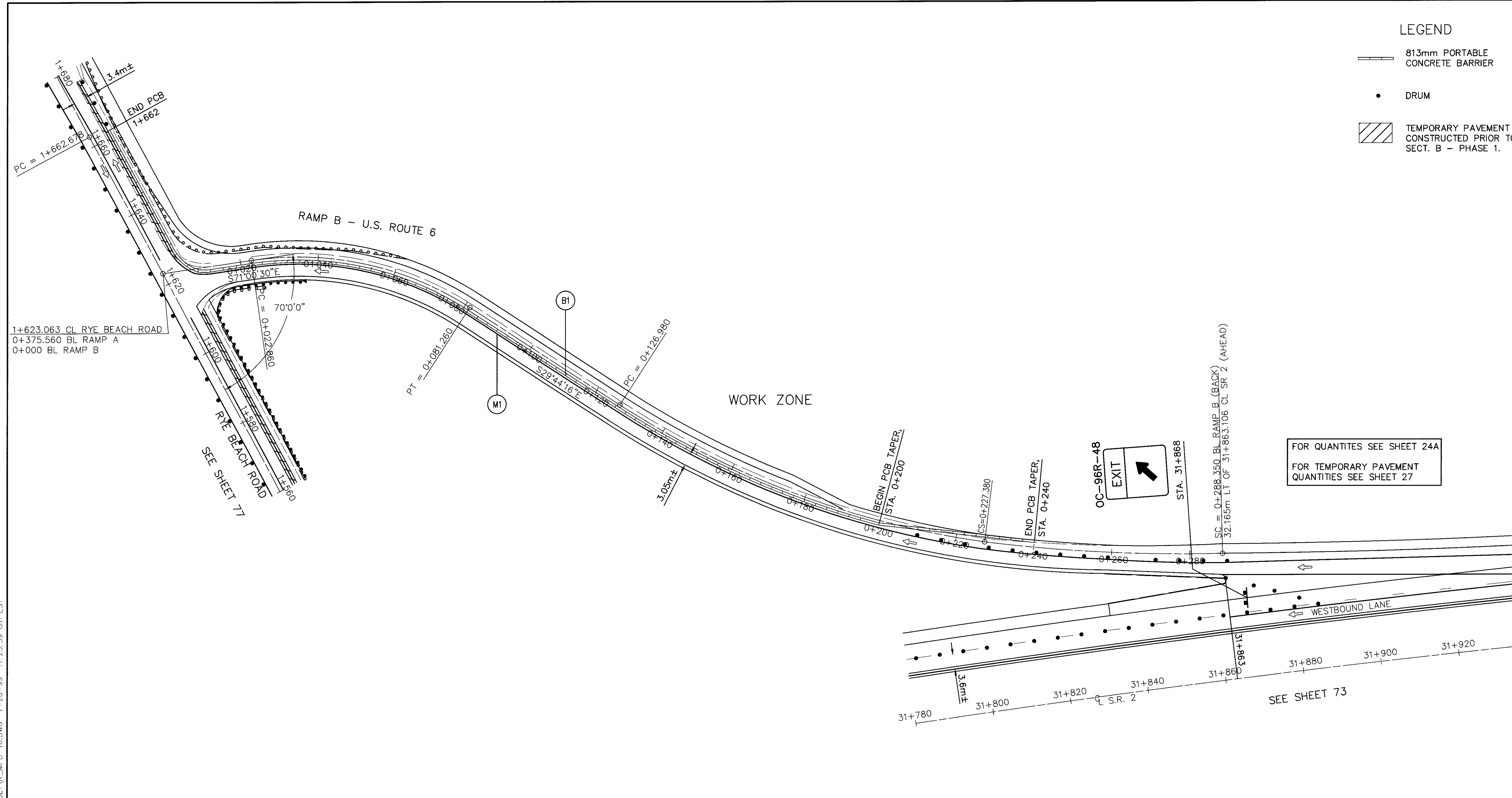
-  813mm PORTABLE CONCRETE BARRIER
-  DRUM
-  TEMPORARY PAVEMENT CONSTRUCTED PRIOR TO SECT. B - PHASE 1.



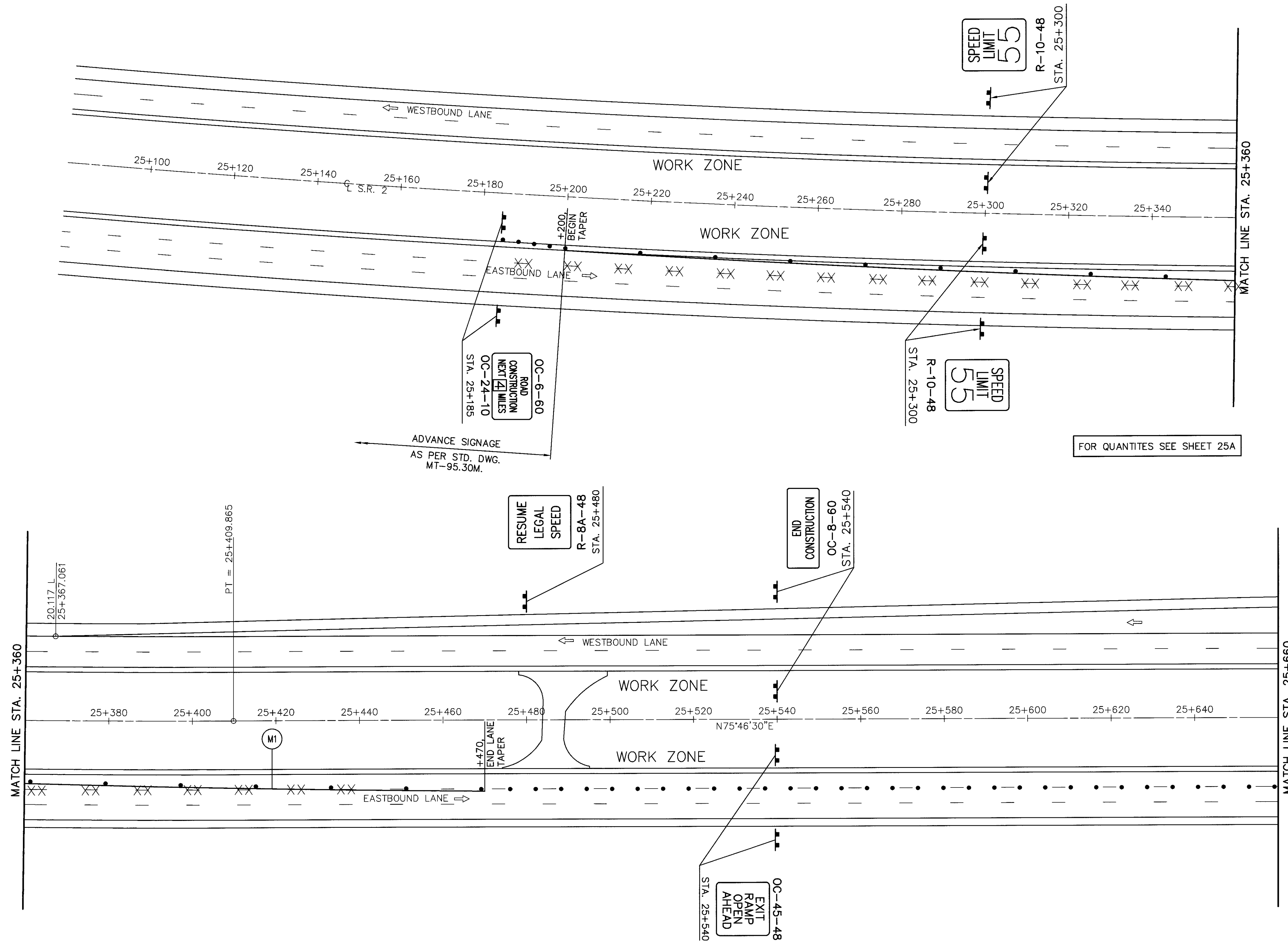
CALCULATED BY: DMA DATE: 7-97
 CHECKED BY: PMA DATE: 8-97
MAINTENANCE OF TRAFFIC, SECT. B-PHASE 1
RYE BEACH RD. INTERCHANGE RAMP B

ERI-2-12.558

75E
 432



FILE NAME: I:\5033\006\TRAN\MOT\B-PHASE1\N_MPB-16.DWG 7-20-99 11:25:59 am EST
 JTN



LEGEND
 • DRUM
 XX REMOVE EXISTING PAVEMENT MARKINGS

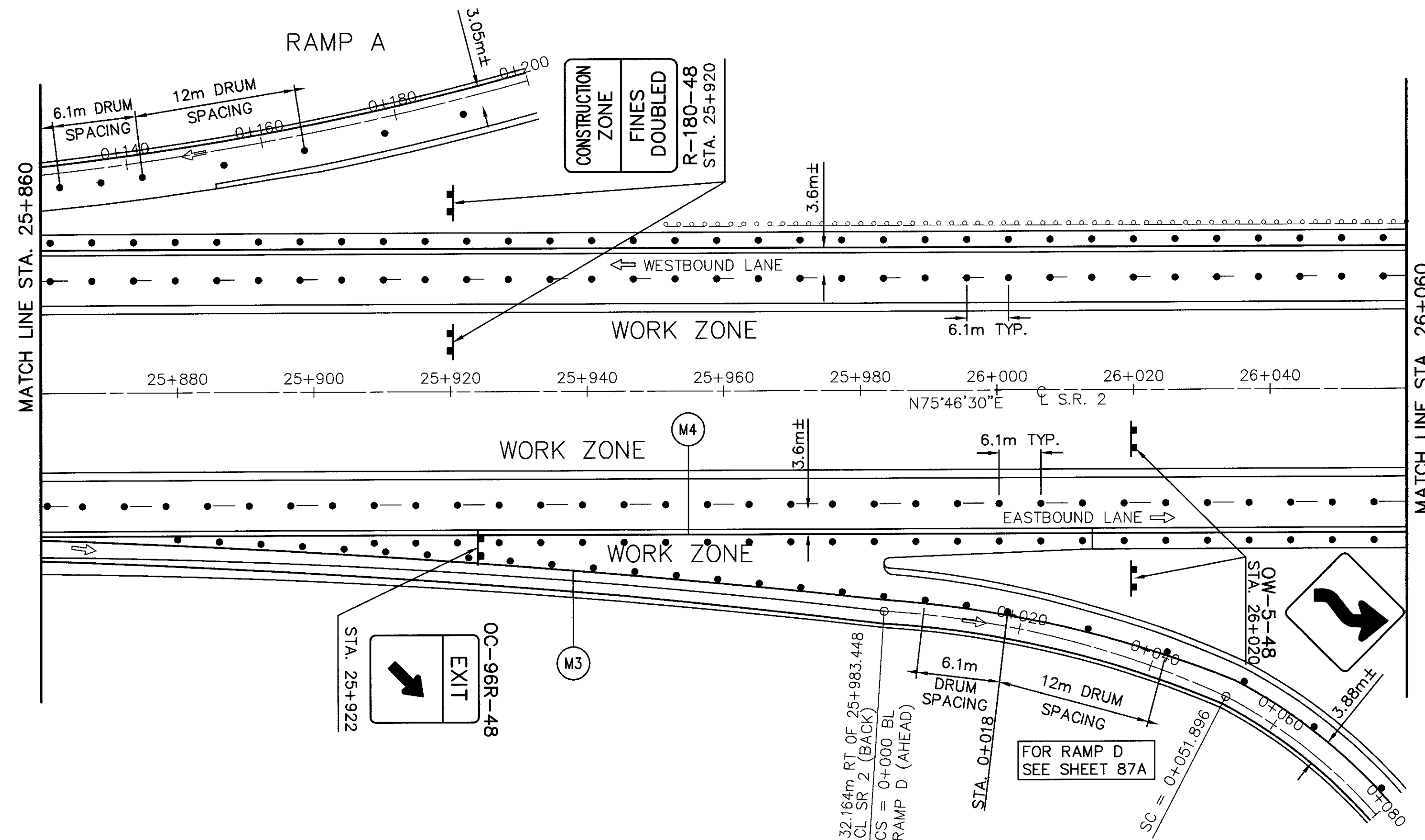
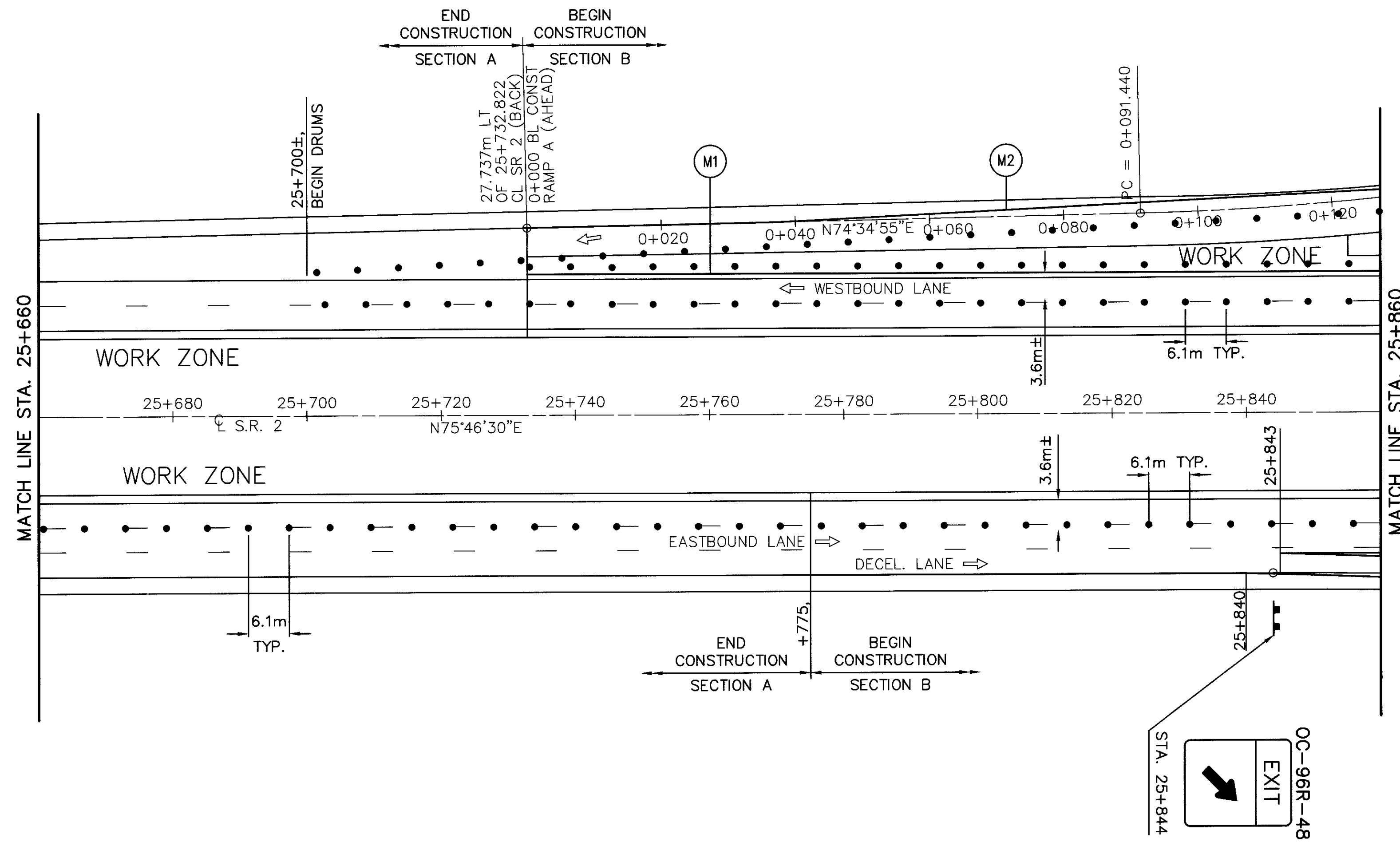
CALCULATED BY: DM
 DATE: 7-97
 CHECKED BY: PMA
 DATE: 8-97

0 10 20 25
 5 15
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC; SECT. B-PHASE 2
 STA. 25+100 TO STA. 25+660**

ERI-2-12-558

FOR QUANTITIES SEE SHEET 25A



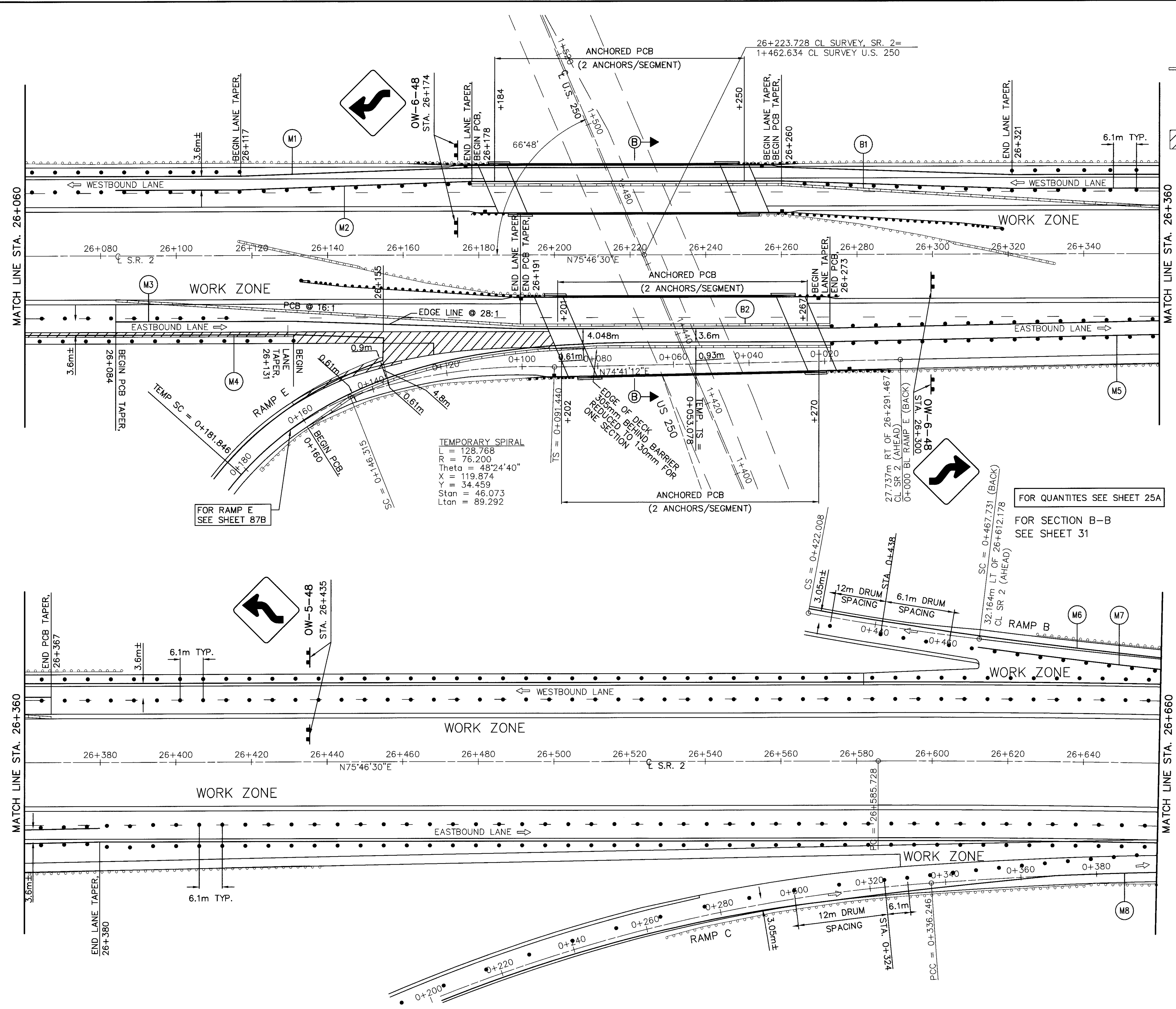
LEGEND

• DRUM

CALCULATED BY	DM
DATE	7-97
CHECKED BY	PMA
DATE	8-97

**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
STA. 25+660 TO STA. 26+060**

ERI-2-12.558



LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- TEMPORARY PAVEMENT CONSTRUCTED DURING SECT. A - PHASE 1.

RATIO IN METERS

MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
STA. 26+060 TO STA. 26+660

ERI-2-12.558

78
 432

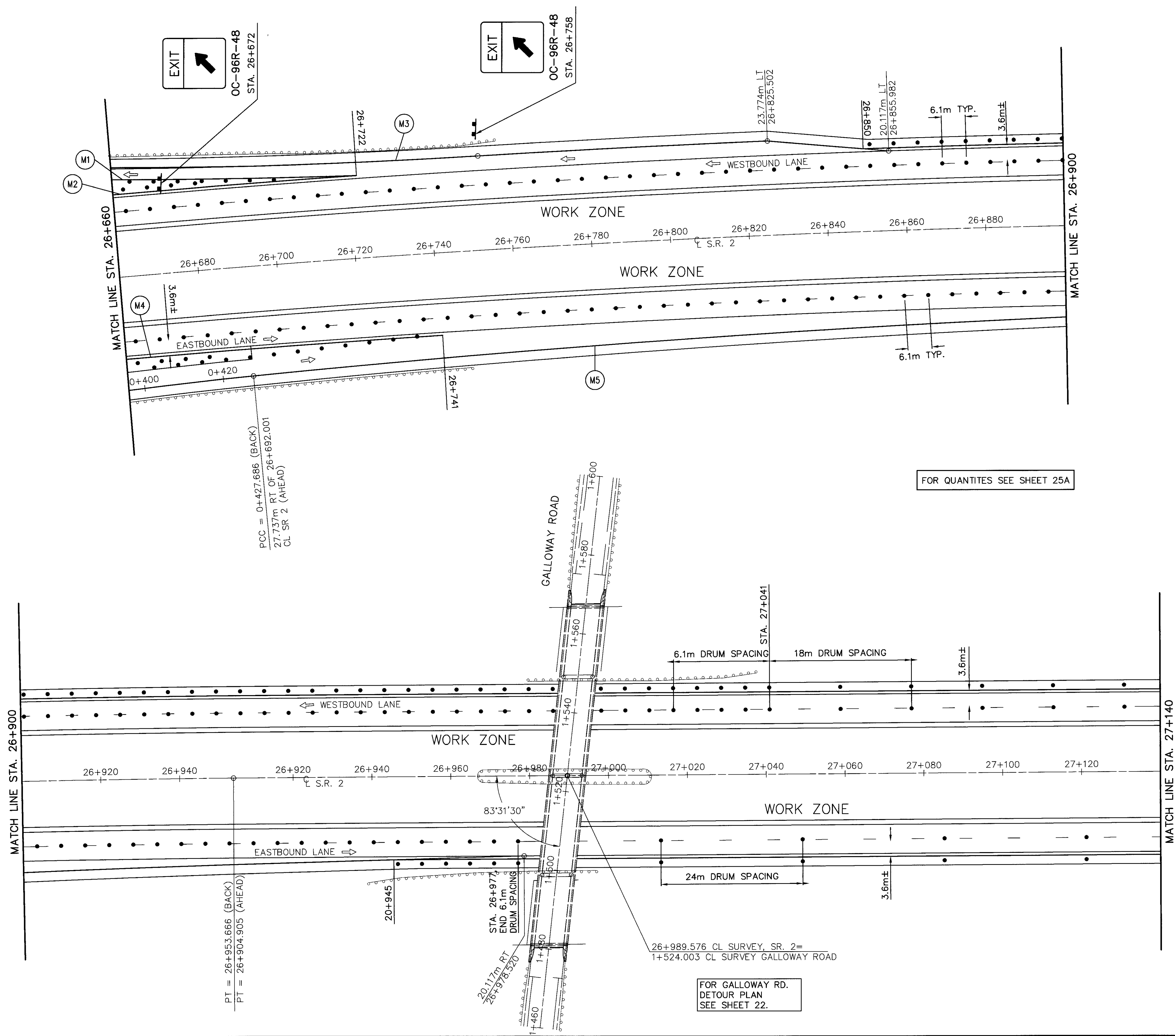


TEMPORARY SPIRAL
 L = 128.768
 R = 76.200
 Theta = 48°24'40"
 X = 119.874
 Y = 34.459
 Stan = 46.073
 Ltan = 89.292

FOR RAMP E
 SEE SHEET 87B

FOR QUANTITIES SEE SHEET 25A

FOR SECTION B-B
 SEE SHEET 31

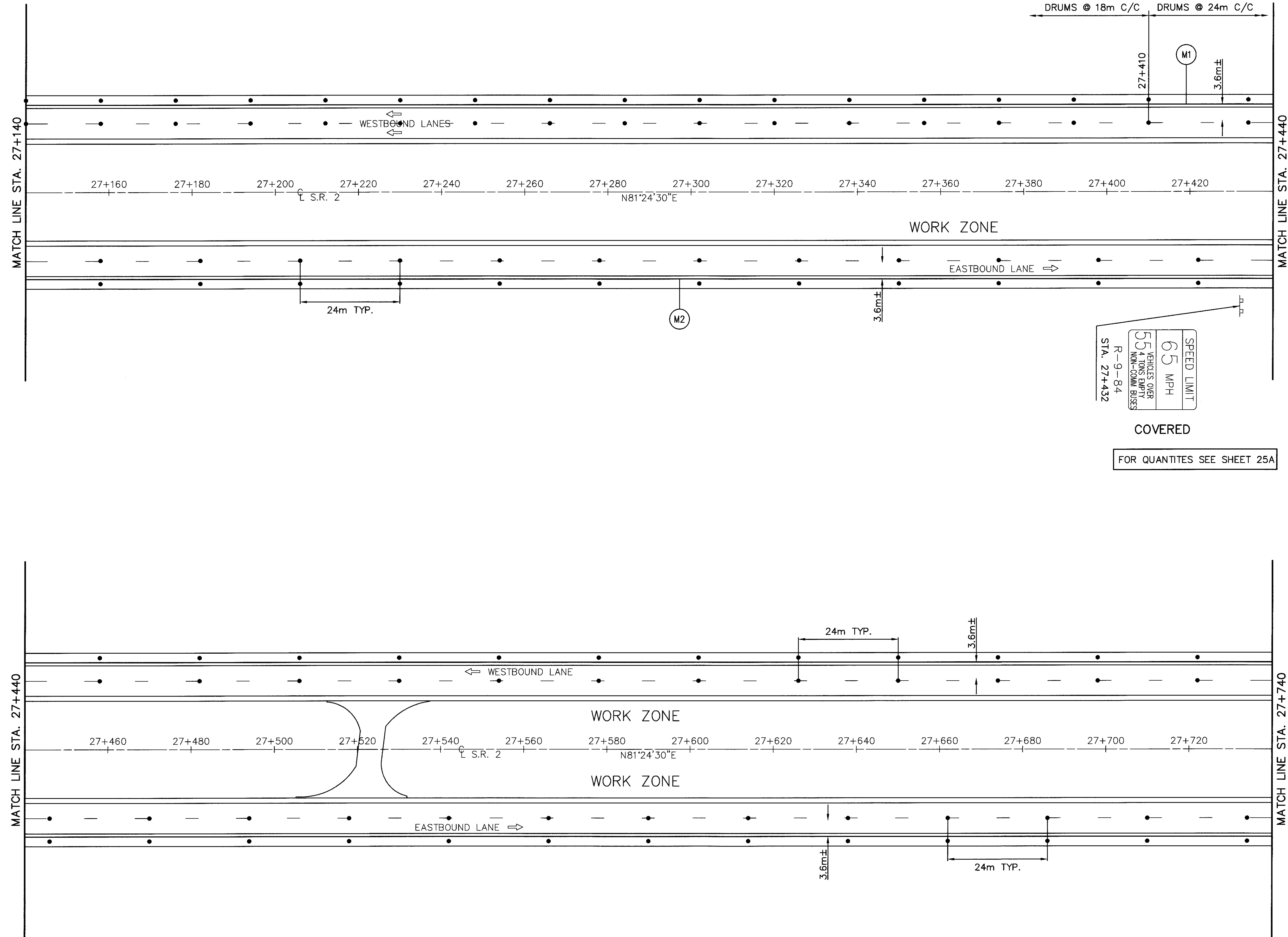


LEGEND
 • DRUM

CALCULATED BY: DMW DATE: 7-97
 CHECKED BY: PMA DATE: 8-97

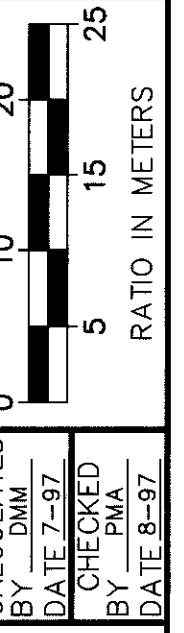
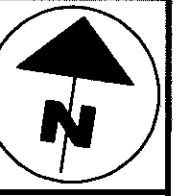
0 10 20
 0 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
 STA. 26+660 TO STA. 27+140**



LEGEND

• DRUM



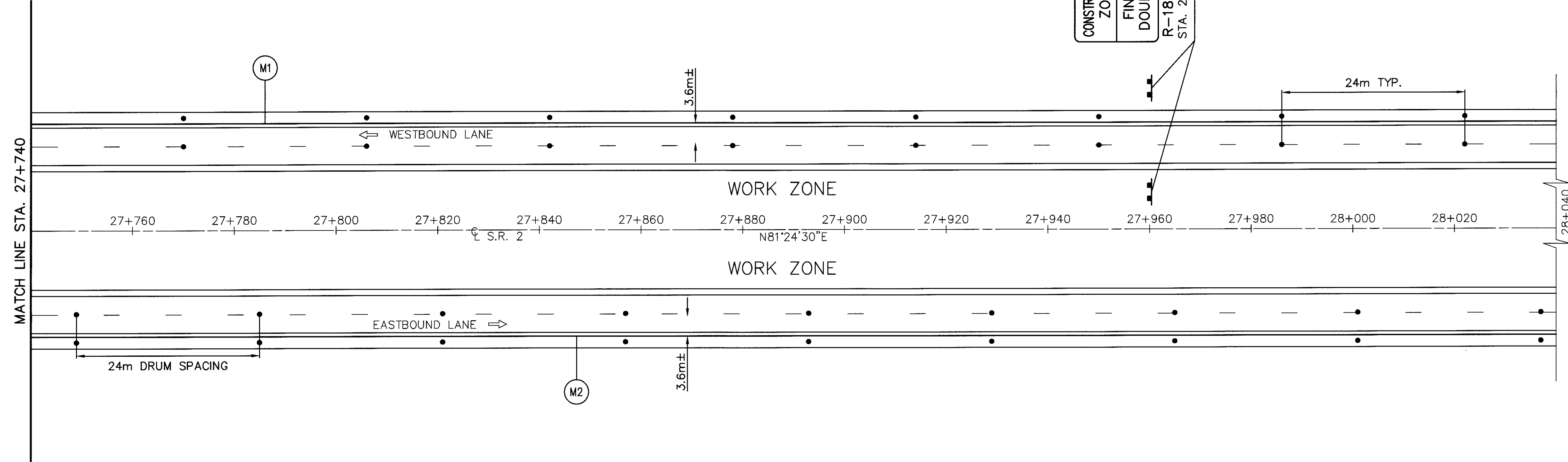
CALCULATED BY: DAM DATE: 7-97
 CHECKED BY: PMA DATE: 8-97

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
 STA. 27+140 TO STA. 27+740**

ERI-2-12.558

80
432

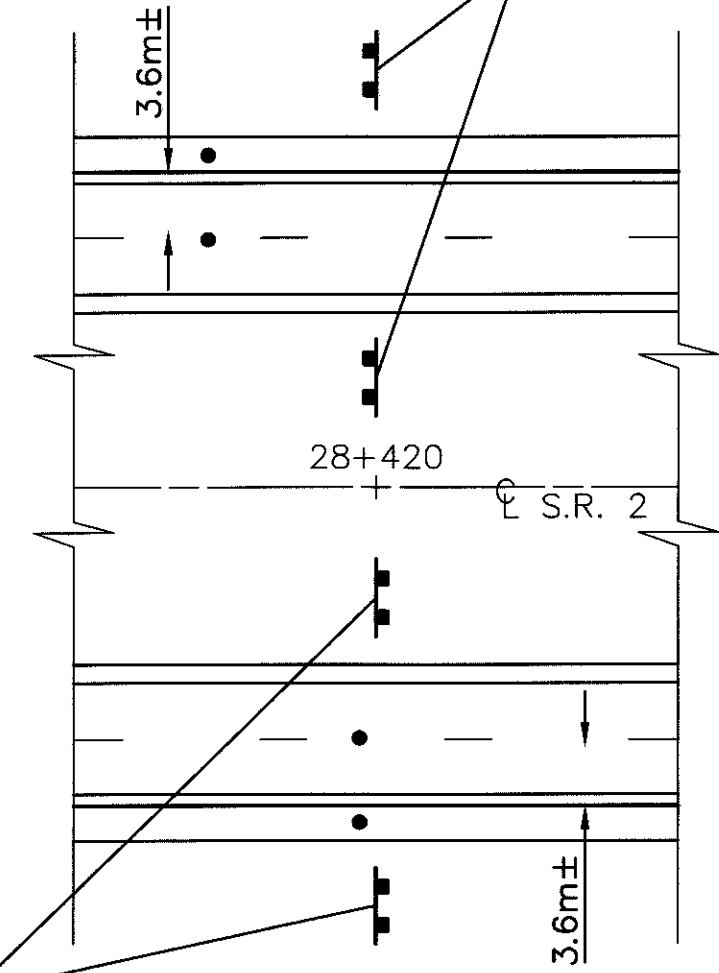
MATCH LINE STA. 27+740



FOR QUANTITIES SEE SHEET 25A

R-10-48
STA. 28+420

SPEED
LIMIT
55



SPEED
LIMIT
55

R-10-48
STA. 29+920

CONSTRUCTION
ZONE
FINES
DOUBLED

R-180-48
STA. 29+060

SPEED
LIMIT
55

R-10-48
STA. 29+920

PC = 29+978.426

MATCH LINE STA. 30+140

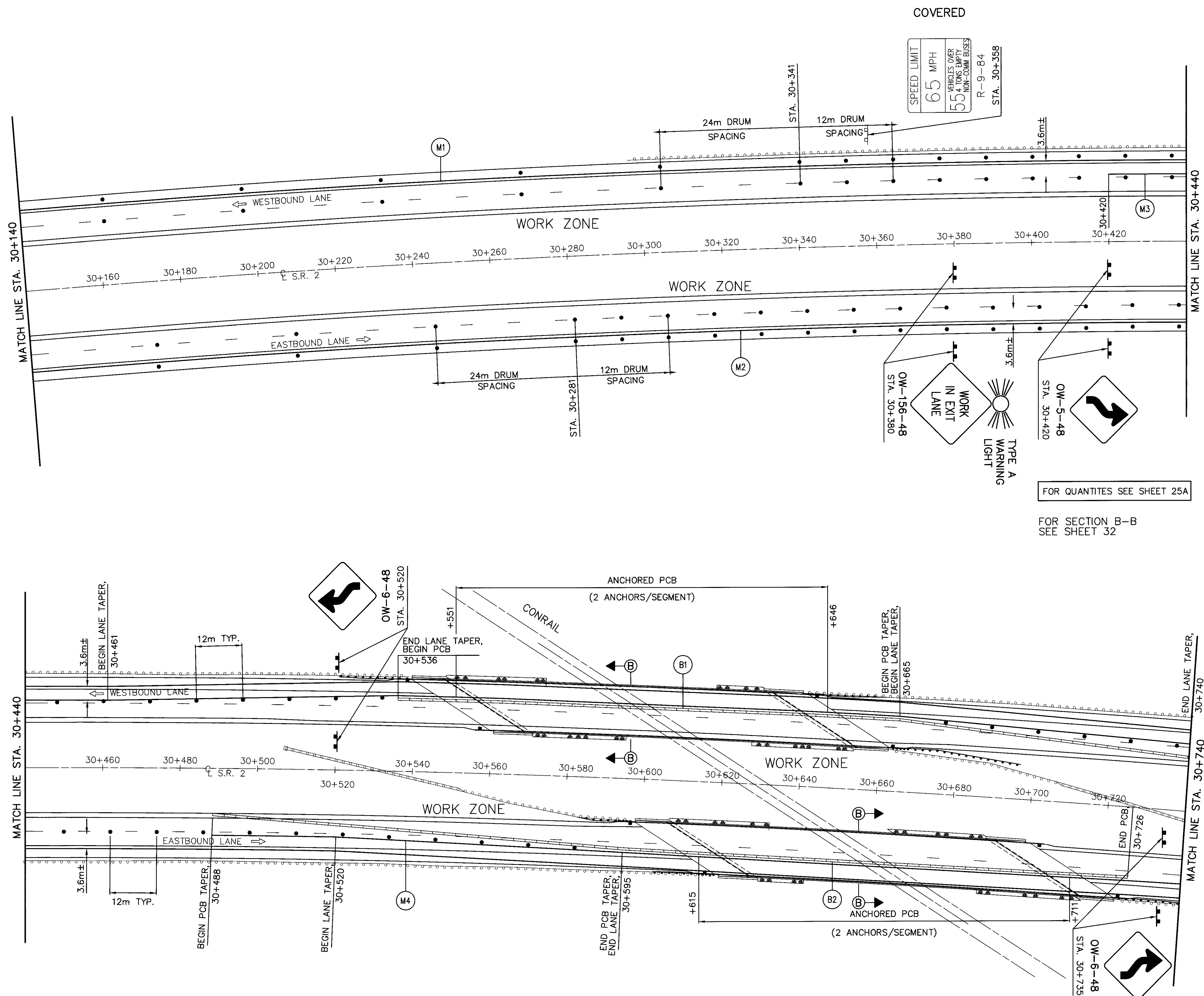
LEGEND

- DRUM

CALCULATED BY: DWA DATE: 7-97
CHECKED BY: PMA DATE: 8-97

**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
STA. 27+740 TO STA. 30+140**

ERI-2-12.558



COVERED

SPEED LIMIT	65 MPH
VEHICLES OVER 55.4 TONS EMPTY NON-COMM BUSES	R-9-84
	STA. 30+358

LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM

0 10 20
5 15 25
RATIO IN METERS

↑
2

CALCULATED BY: DMN
DATE: 7-97
CHECKED BY: PMA
DATE: 8-97

OW-156-48
STA. 30+380

OW-5-48
STA. 30+420

TYPE A WARNING LIGHT

FOR QUANTITIES SEE SHEET 25A

FOR SECTION B-B SEE SHEET 32

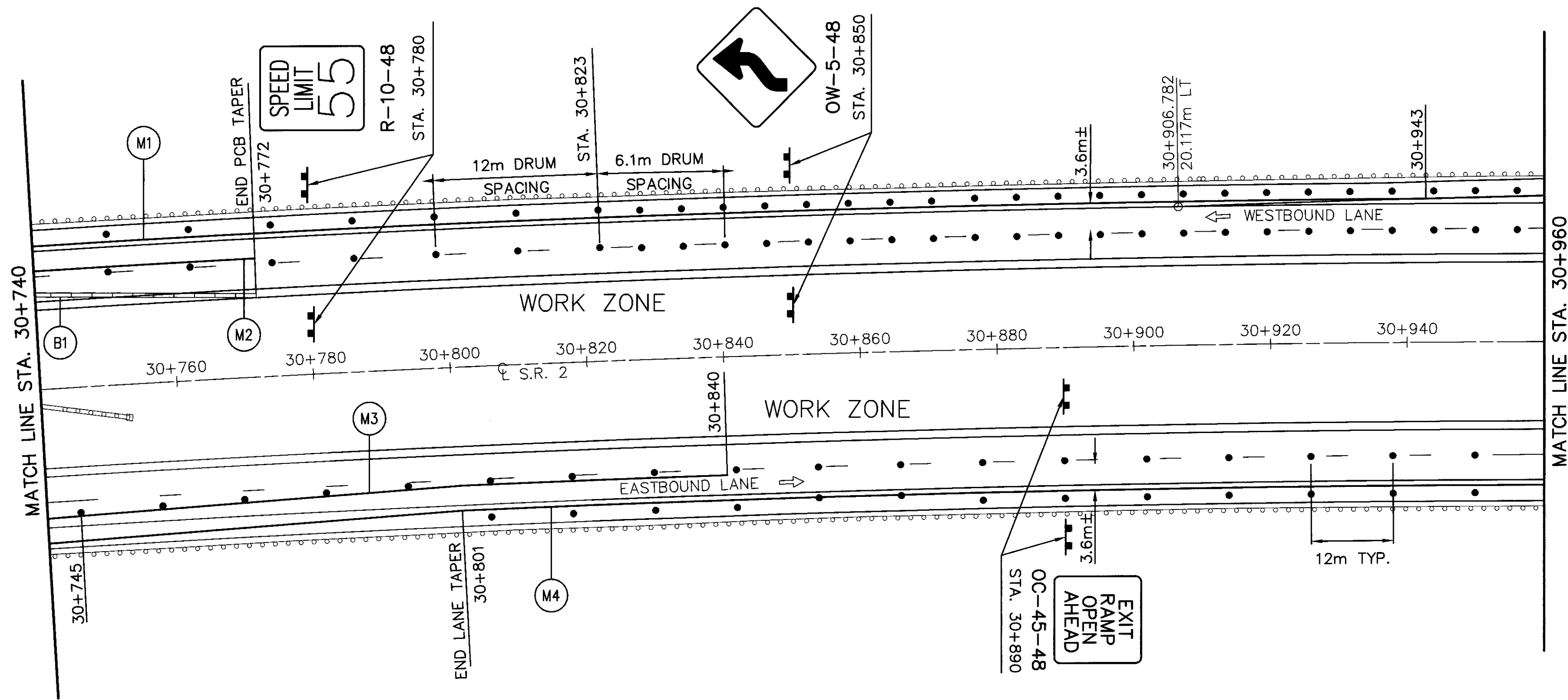
OW-6-48
STA. 30+520

OW-6-48
STA. 30+735

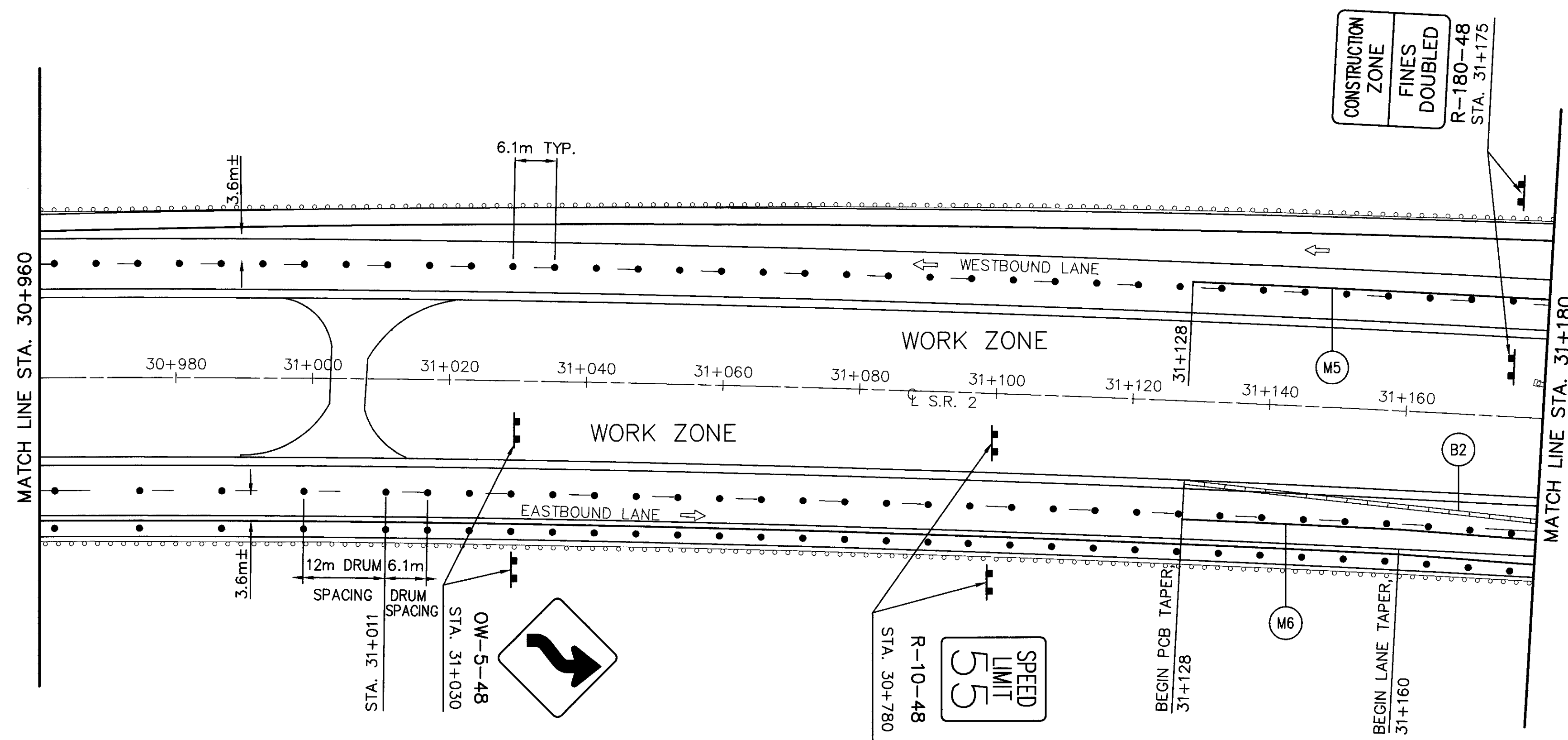
**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
STA. 30+140 TO STA. 30+740**

ERI-2-12.558



82
432



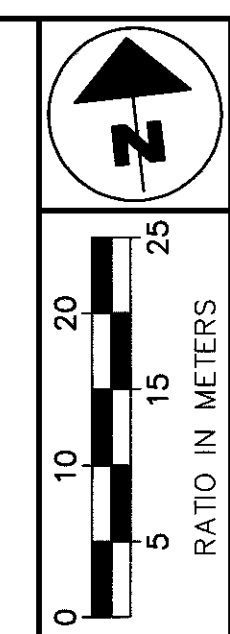
FOR QUANTITIES SEE SHEET 25A



LEGEND

-  813mm PORTABLE CONCRETE BARRIER
-  DRUM

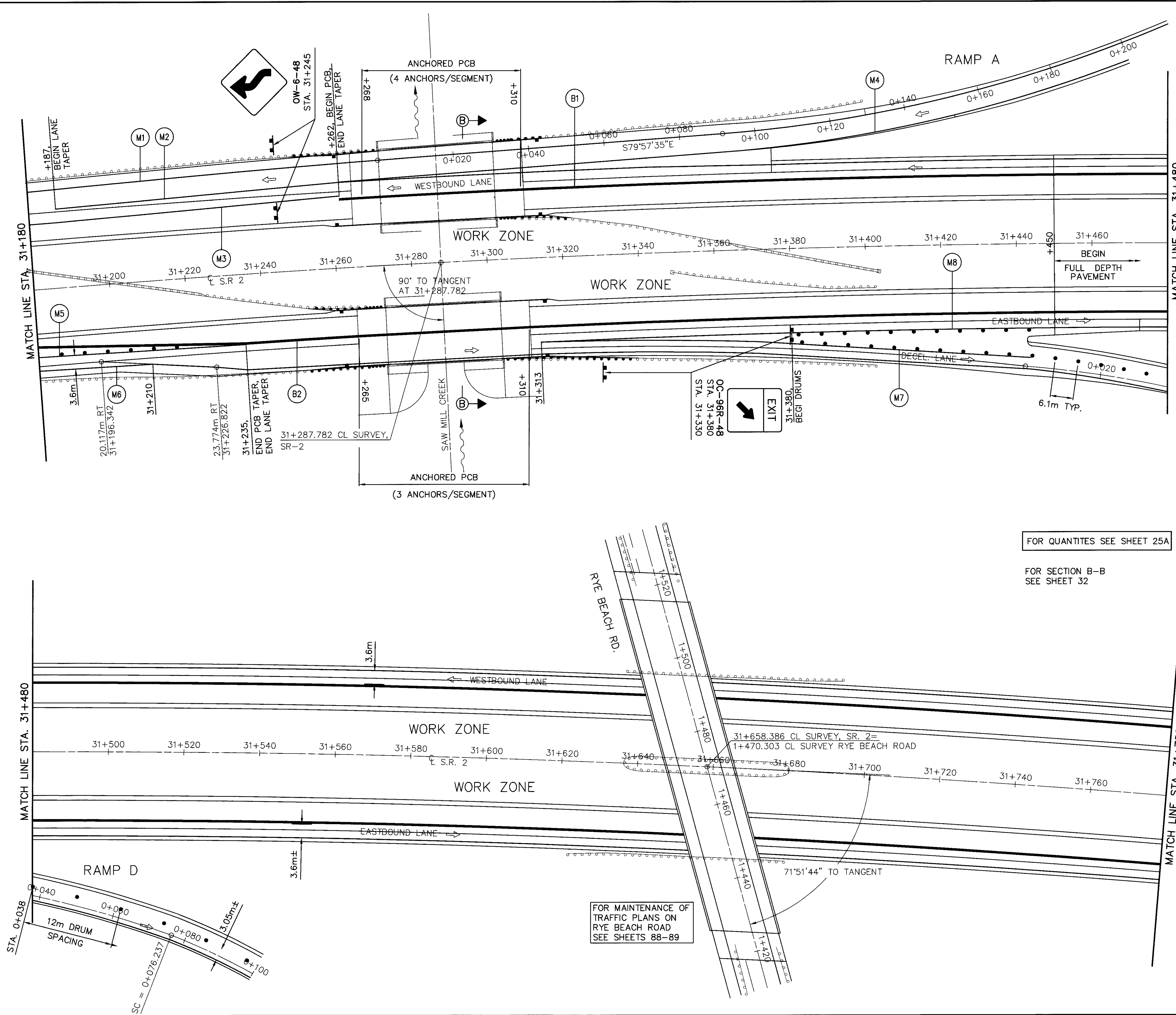
CALCULATED BY: DMN	DATE: 7-97
CHECKED BY: BMA	DATE: 8-97



**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
STA. 30+740 TO STA. 31+180**

ERI-2-12.558

83
432



LEGEND

- 813mm PORTABLE CONCRETE BARRIER
- DRUM
- TRAFFIC CONE

CALCULATED BY: JTY
 DATE: 5-99
 CHECKED BY: PMA
 DATE: 5-99

0 5 10 15 20 25
 RATIO IN METERS

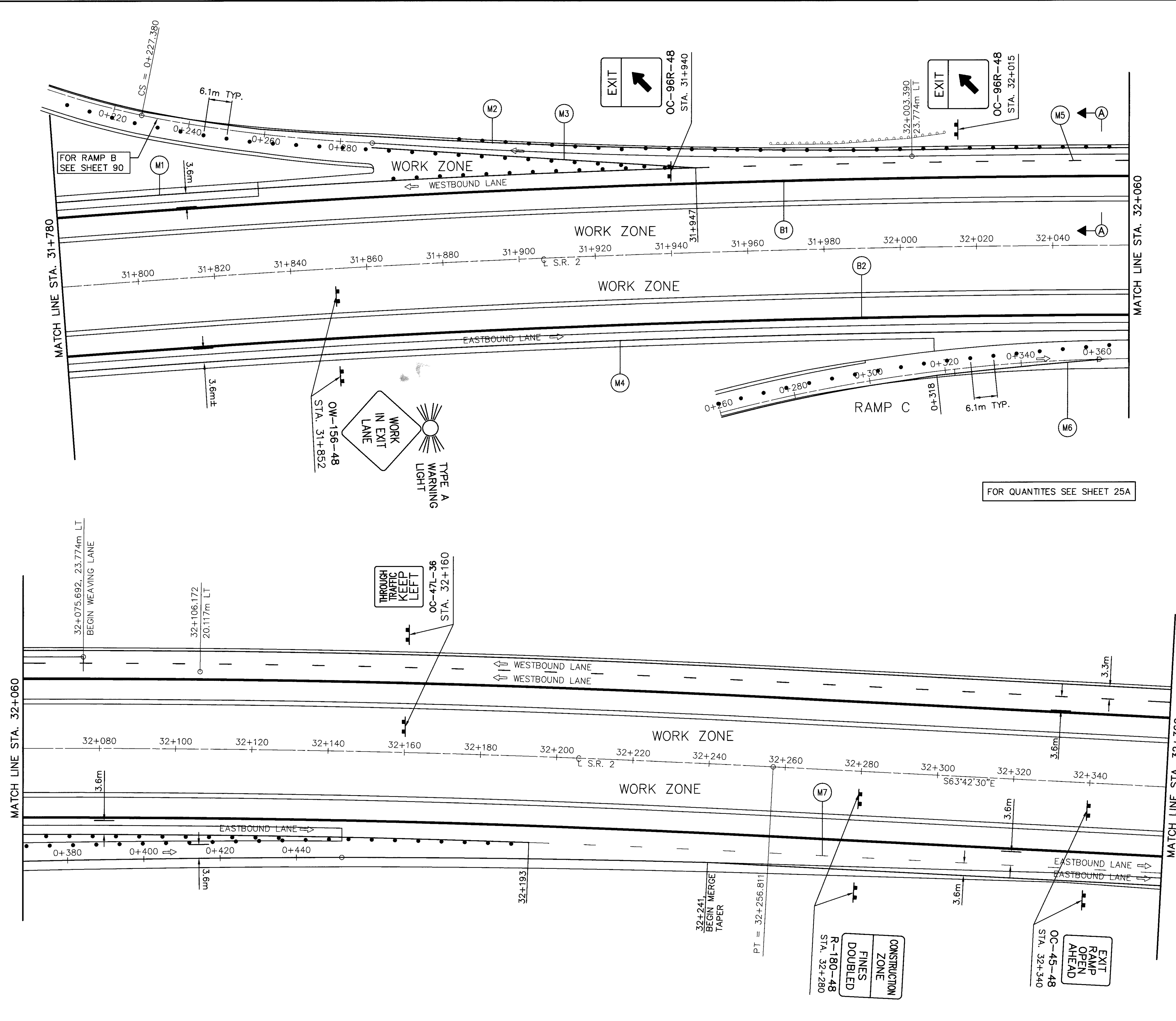
FOR QUANTITIES SEE SHEET 25A

FOR SECTION B-B SEE SHEET 32

FOR MAINTENANCE OF TRAFFIC PLANS ON RYE BEACH ROAD SEE SHEETS 88-89

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
STA. 31+180 TO STA. 31+780**

ERI-2-12.558



LEGEND
 — 813mm PORTABLE CONCRETE BARRIER
 • DRUM

CALCULATED BY: JTY
 DATE: 5-99
 CHECKED BY: PMA
 DATE: 5-99

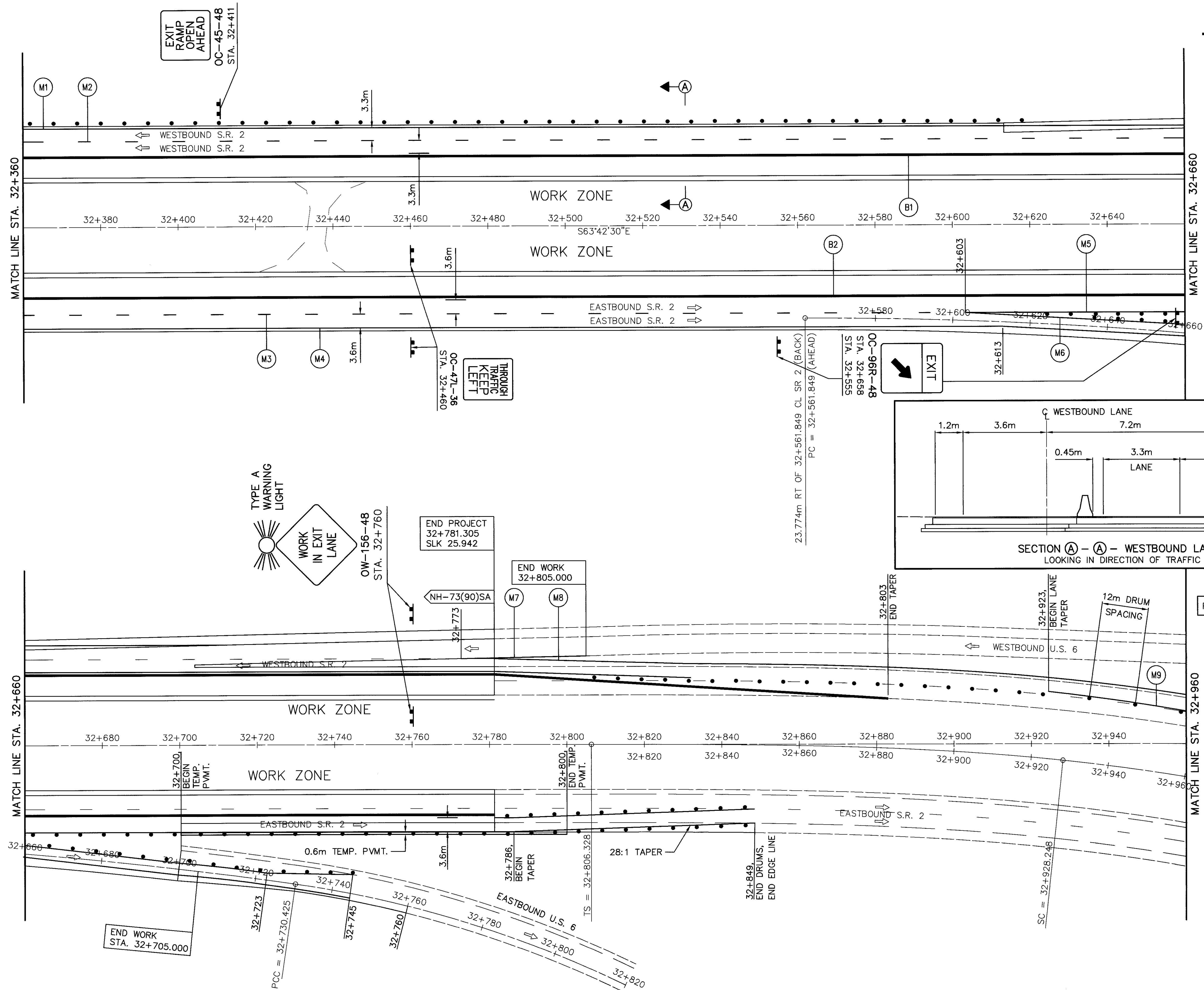
0 10 20
 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
 STA. 31+780 TO STA. 32+360**

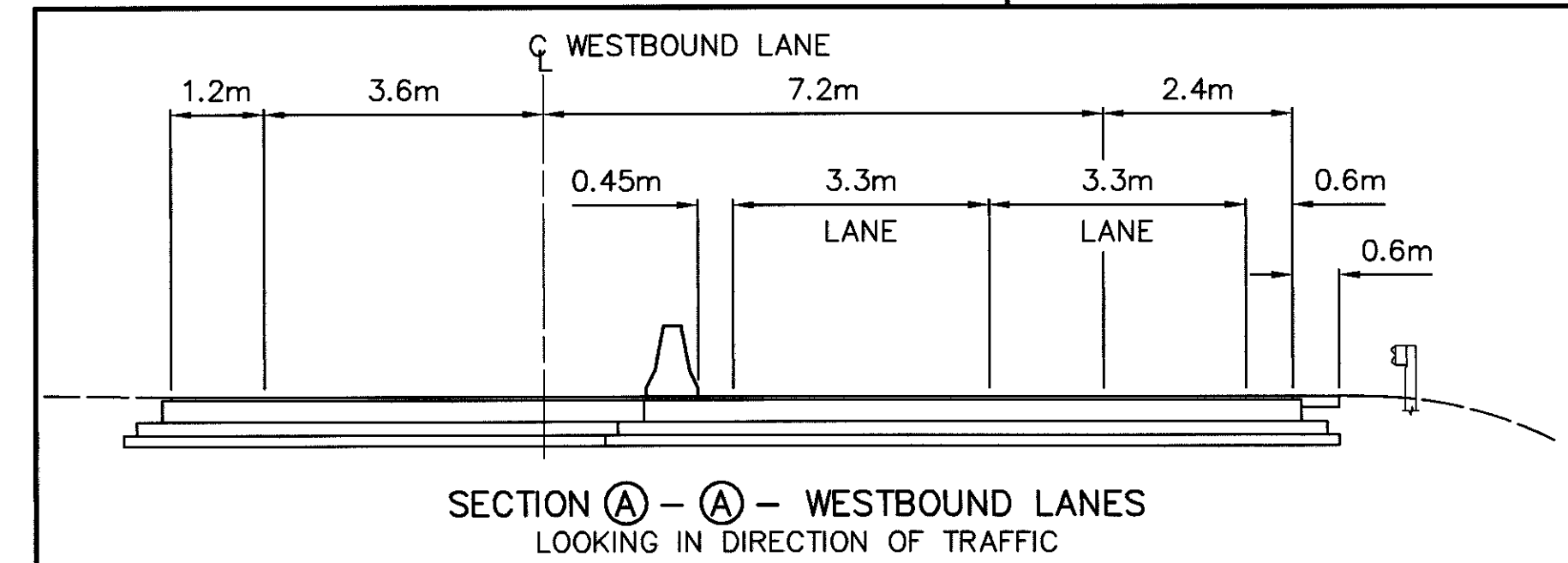
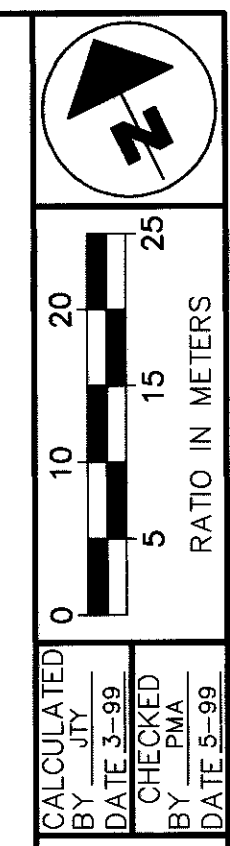
ERI-2-12.558

FOR QUANTITIES SEE SHEET 25A

FOR SECTION A-A
 SEE SHEET 86



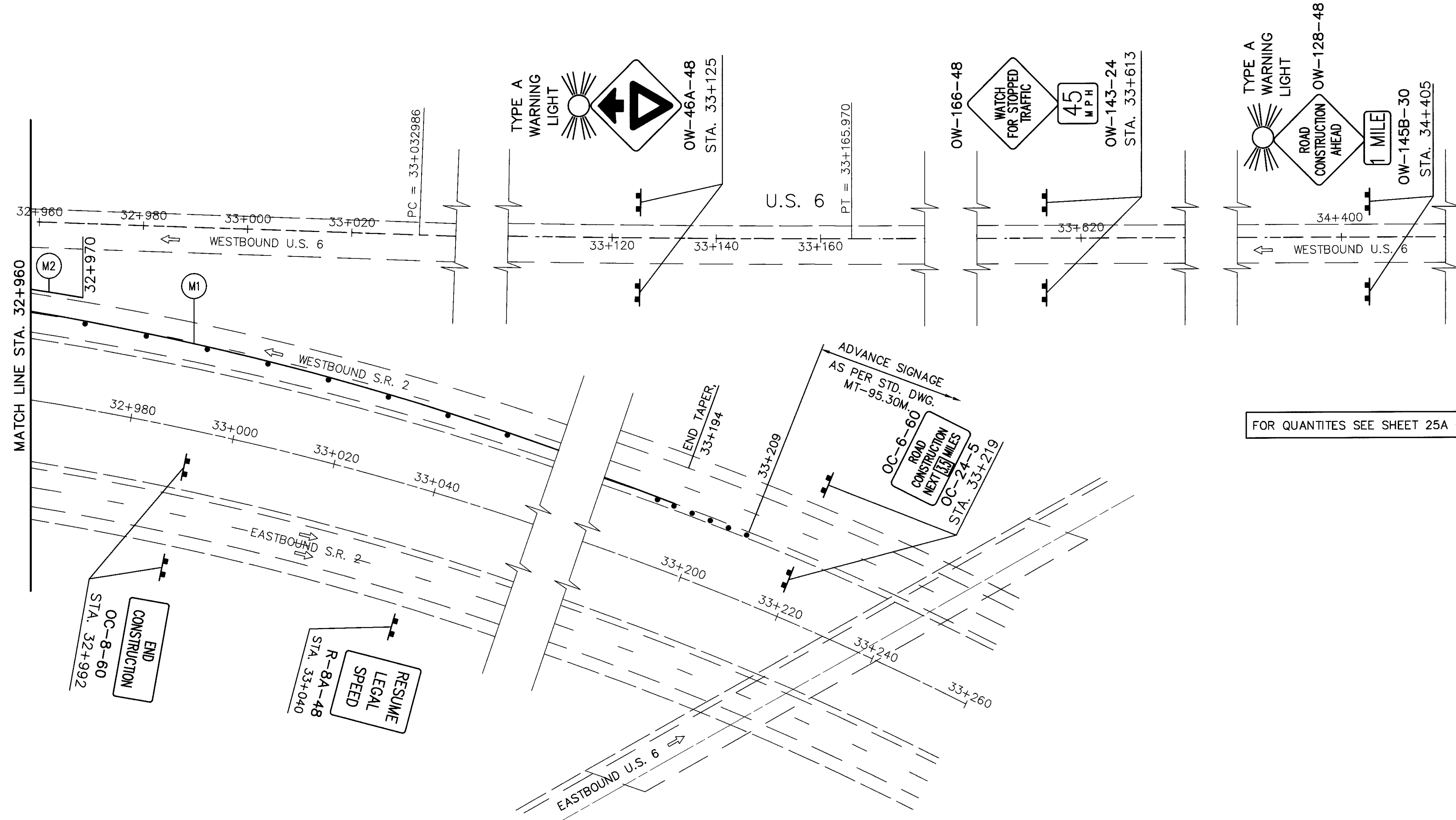
LEGEND
 — 813mm PORTABLE CONCRETE BARRIER
 • DRUM



FOR QUANTITIES SEE SHEET 254

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
 STA. 32+360 TO STA. 32+960**

ERI-2-12.558



CALCULATED BY: JTY
 DATE: 3-99
 CHECKED BY: PMA
 DATE: 5-99

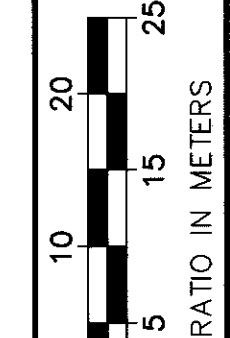
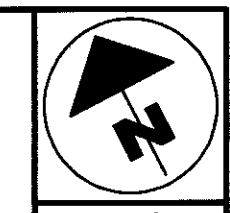
0 10 20
 0 5 15 25
 RATIO IN METERS

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
 STA. 32+960 TO STA. 34+405**

ERI-2-12.558

LEGEND

• DRUM



RATIO IN METERS

CALCULATED BY: DMM

DATE: 7-97

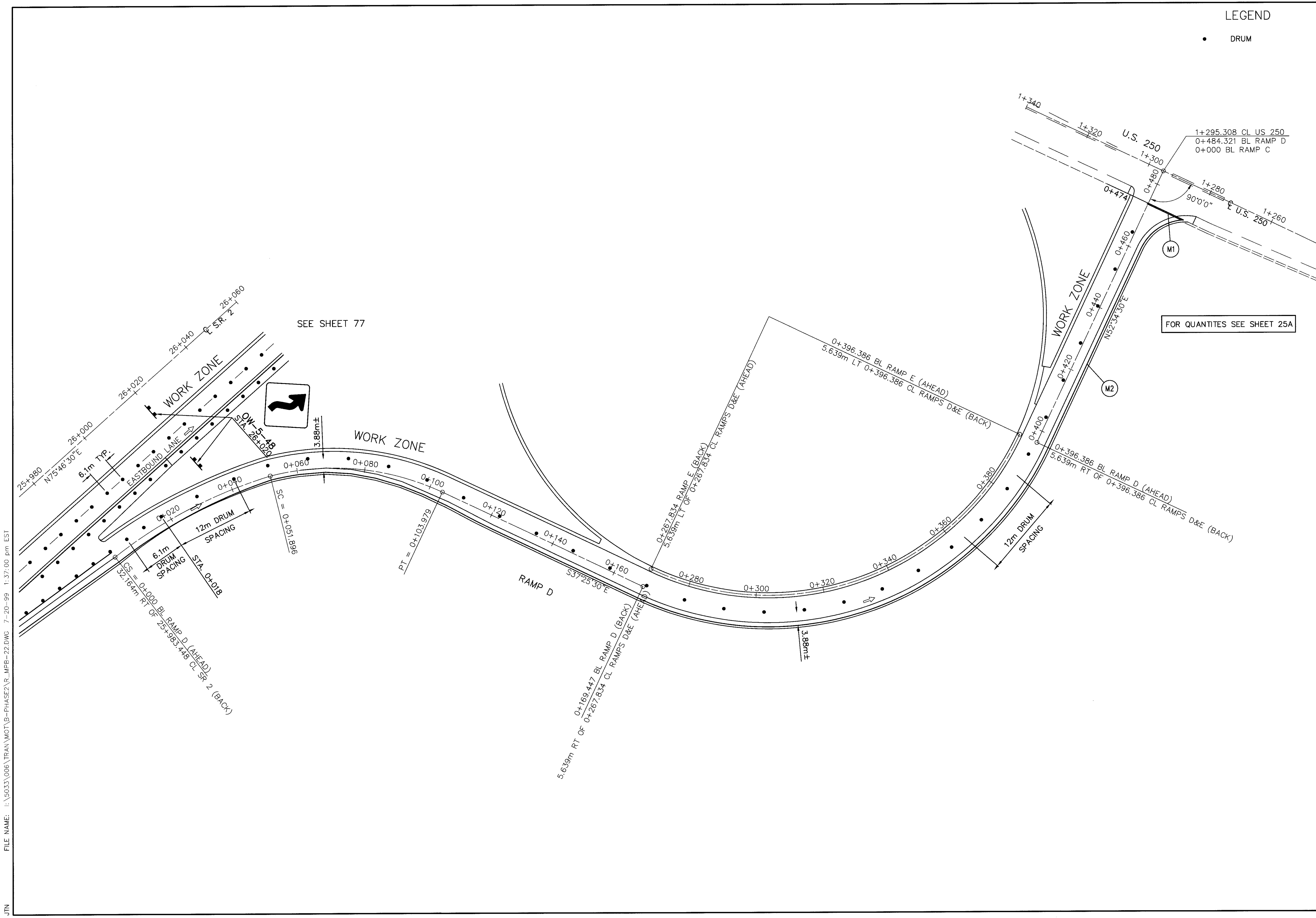
CHECKED BY: PMA

DATE: 8-97

MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
U.S. 250 INTERCHANGE RAMP D

ERI-2-12-558

87A
432



FILE NAME: I:\5033\006\TRAN\WOT\B-PHASE2\B-MPB-22.DWG 7-20-99 1:37:00 pm EST



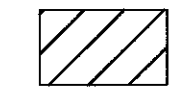
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 DATE: 7-97
 CHECKED BY: RMA
 DATE: 8-97

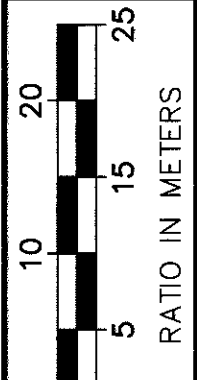
**MAINTENANCE OF TRAFFIC; SECT. B-PHASE 2
U.S. 250 INTERCHANGE RAMP E**

ERI-2-12-558

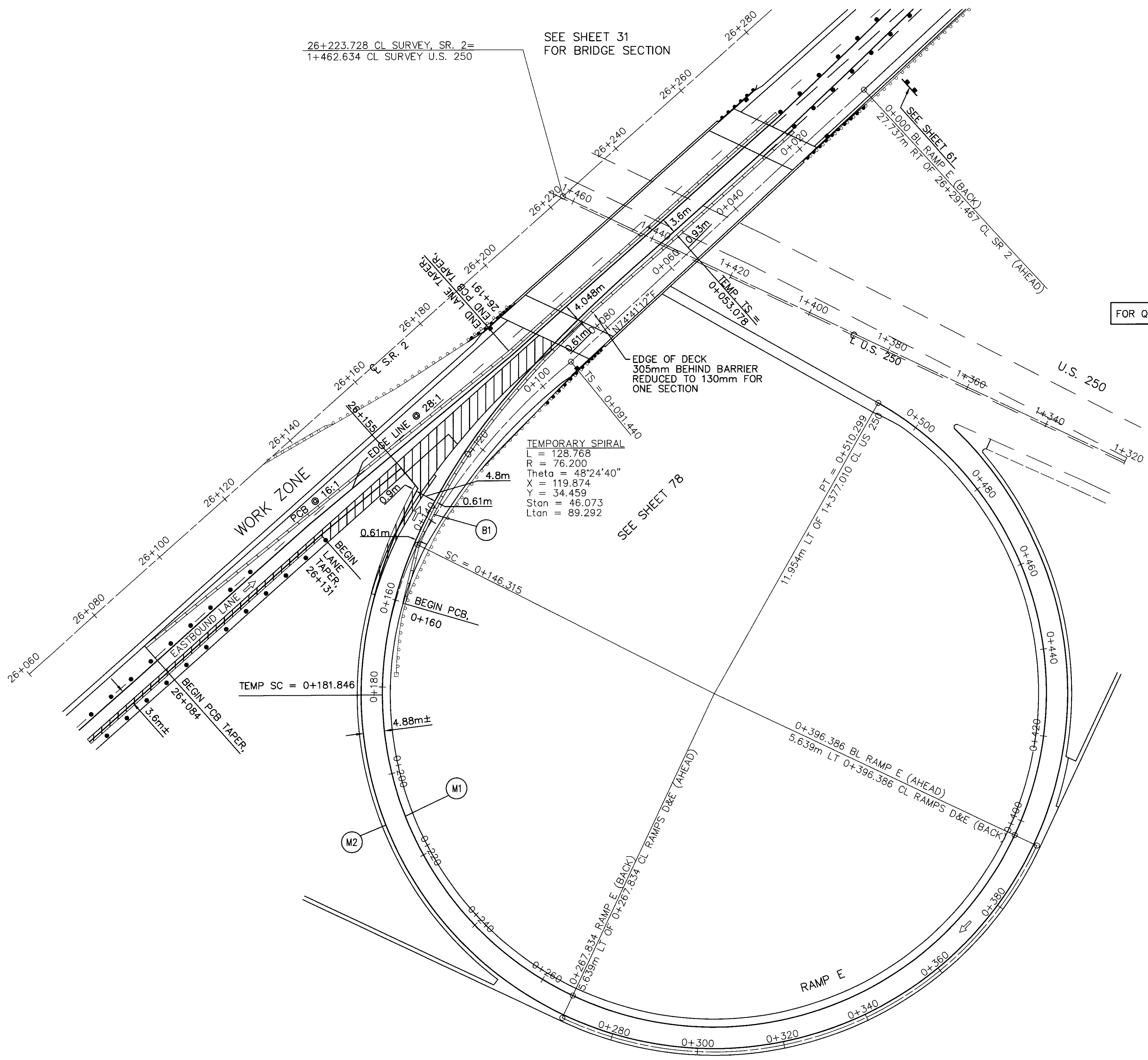
87B
432

LEGEND

-  813mm PORTABLE CONCRETE BARRIER
-  DRUM
-  TEMPORARY PAVEMENT CONSTRUCTED DURING SECT. A - PHASE 1.



JTN
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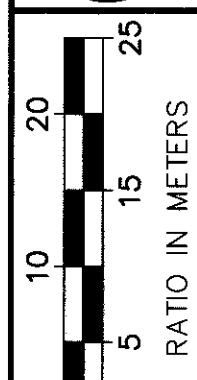
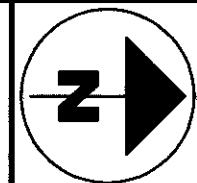


RYE BEACH ROAD STRUCTURE
TO BE CONSTRUCTED OVER
WINTER. SEE SHEET 21
FOR DETOUR PLAN AND NOTES.

PLAN INSERT SHEET MAY BE
USED FOR REPAVING SOUTH
OF RAMPS D AND C.
SEE SHEET 91.

LEGEND

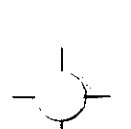
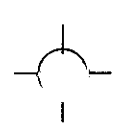
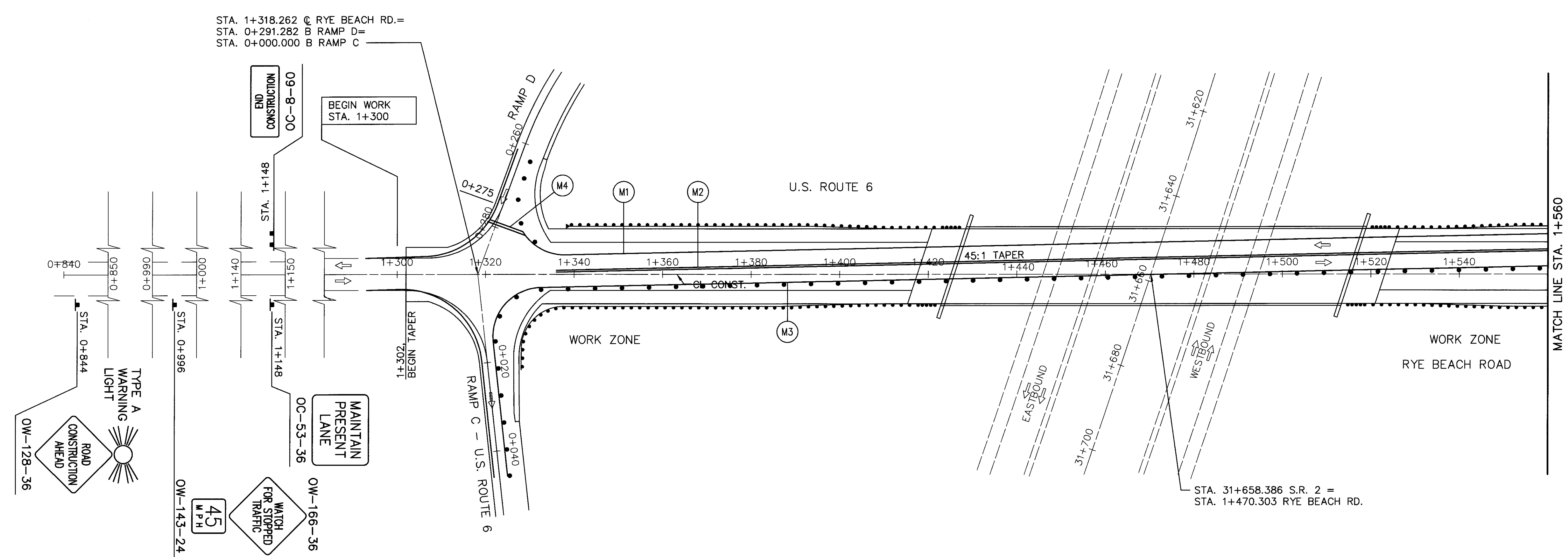
• DRUM

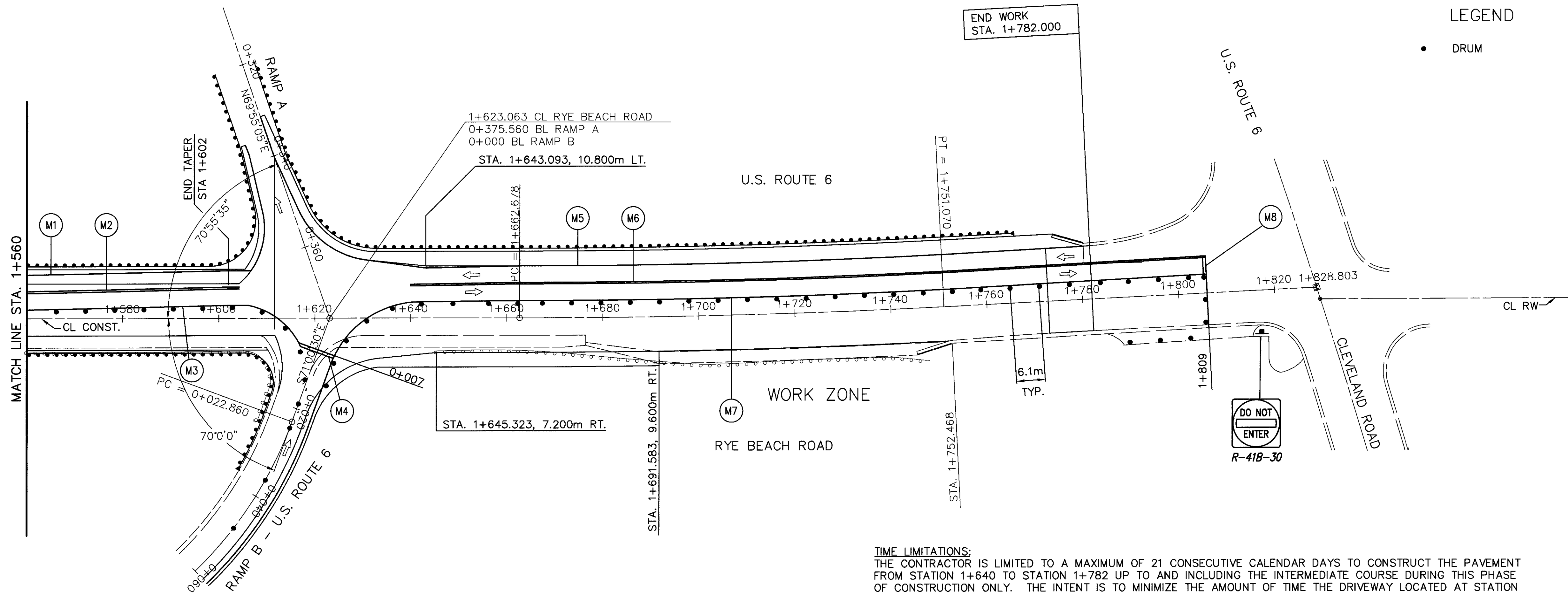


CALCULATED BY: CDM	DATE: 7-97
CHECKED BY: PMA	DATE: 8-97

**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
RYE BEACH ROAD**

ERI-2-12.558





LEGEND
• DRUM

CALCULATED BY: DAM DATE: 7-97
CHECKED BY: PIA DATE: 8-97

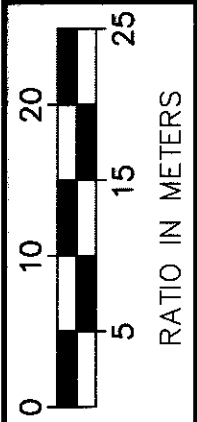
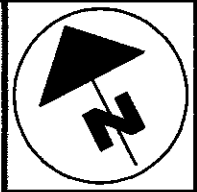
0 10 20
5 15 25
RATIO IN METERS

TIME LIMITATIONS:
THE CONTRACTOR IS LIMITED TO A MAXIMUM OF 21 CONSECUTIVE CALENDAR DAYS TO CONSTRUCT THE PAVEMENT FROM STATION 1+640 TO STATION 1+782 UP TO AND INCLUDING THE INTERMEDIATE COURSE DURING THIS PHASE OF CONSTRUCTION ONLY. THE INTENT IS TO MINIMIZE THE AMOUNT OF TIME THE DRIVEWAY LOCATED AT STATION 1+800 RT. IS PARTIALLY CLOSED TO TRAFFIC. THIS DRIVEWAY IS USED BY THE FUEL TANKERS FOR THEIR DELIVERIES ORIGINATING FROM SR-2.

SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

**MAINTENANCE OF TRAFFIC: SECT. B-PHASE 2
RYE BEACH ROAD**

ERI-2-12.558



CALCULATED BY: JMA
DATE: 7-97
CHECKED BY: JMA
DATE: 8-97

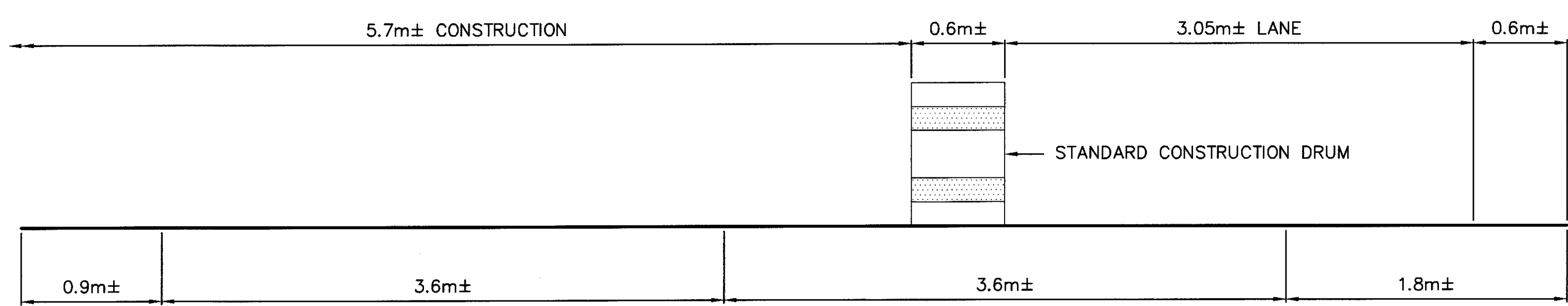
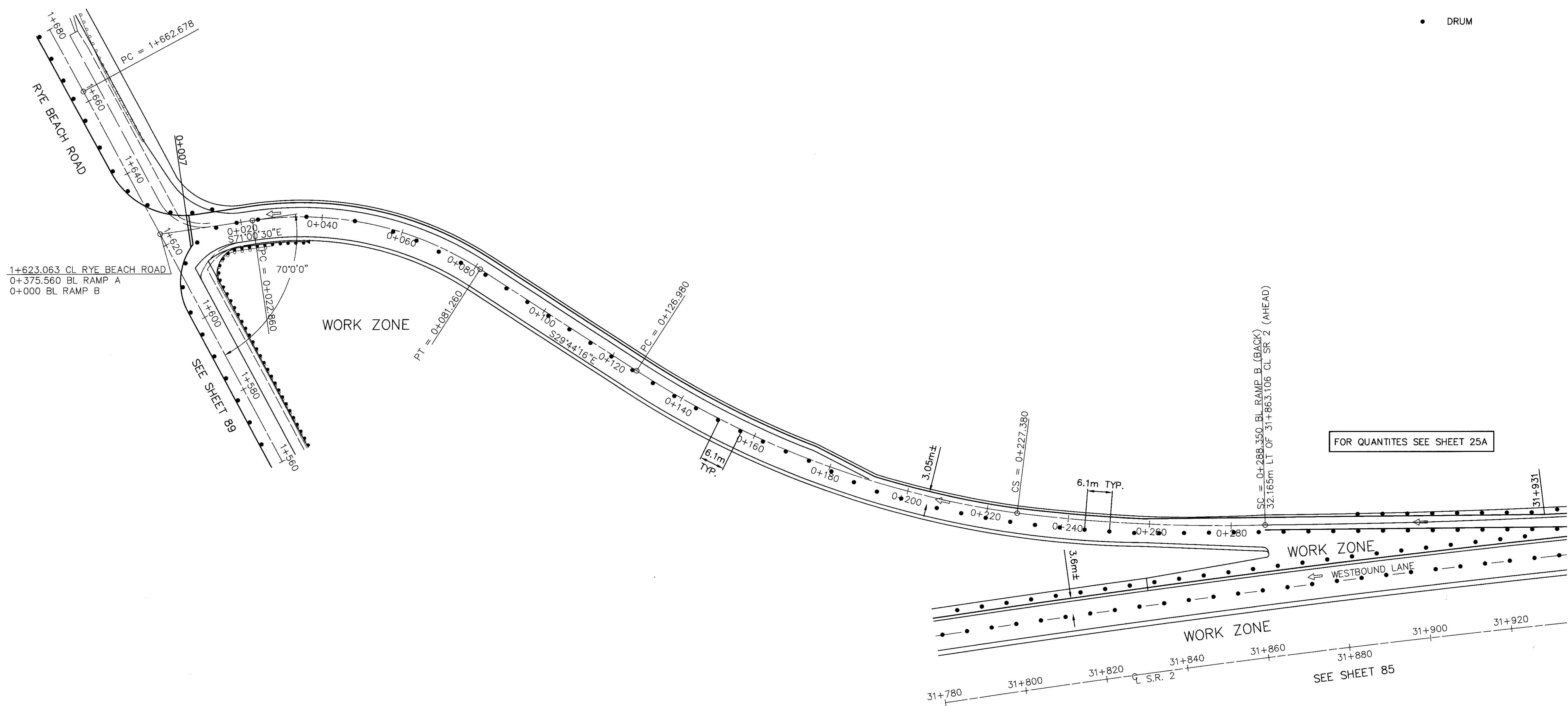
**MAINTENANCE OF TRAFFIC, SECT. B-PHASE 2
RYE BEACH RD. INTERCHANGE RAMP B**

ERI-2-12.558

90
432

LEGEND

• DRUM



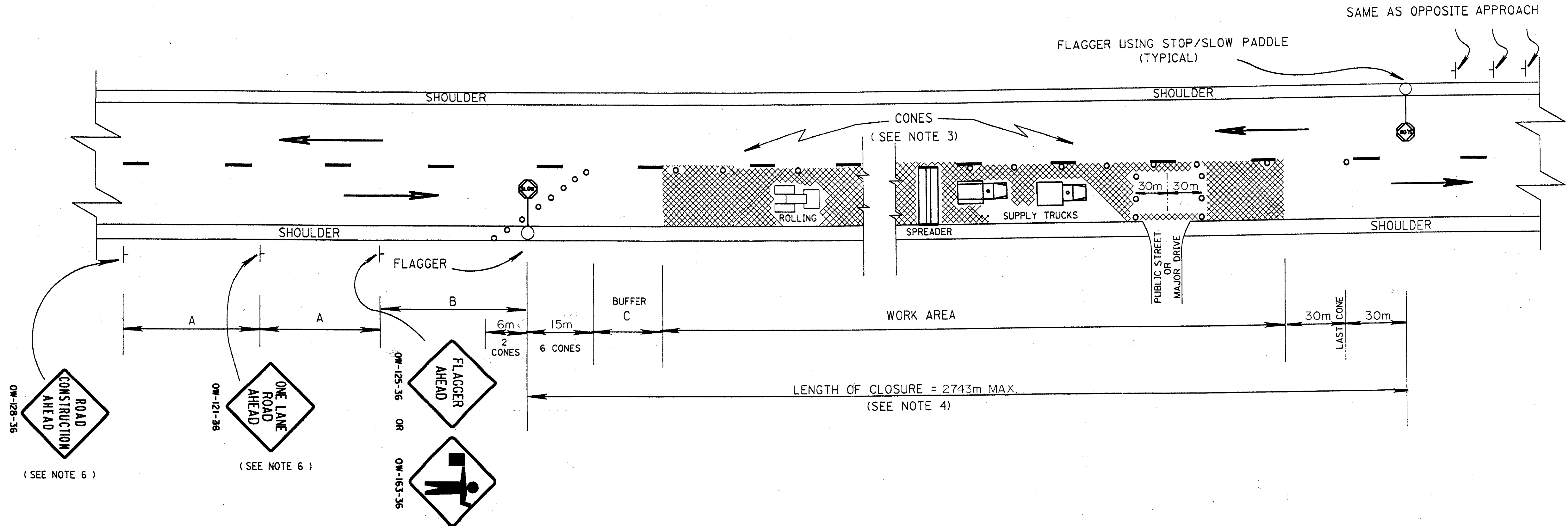
PROPOSED WIDTHS
(LOOKING IN DIRECTION OF TRAFFIC)

JTN
FILE NAME: I:\5033\006\TRAN\MOT\B-PHASE2\R_MPB-26.DWG 7-20-99 1:39:13 pm EST
5033-005

CALC BY: _____
 DATE: _____
 CHKD BY: _____
 DATE: _____

ERI-2-12.558

OHIO
 FHWA REGION **5**
91
432



GENERAL NOTES:

1. THE LOCATION OF THE ADVANCE WARNING SIGNS SHOULD ONLY BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT.
2. FLAGGERS, ONE FOR EACH DIRECTION SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS A ONE LANE OPERATION IS IN EFFECT. THE FLAGGERS SHALL BE ABLE TO COMMUNICATE WITH EACH OTHER AT ALL TIMES.
3. CONES ON THE TAPERS SHALL BE SPACED AT 3m CENTER TO CENTER. CONES SHALL BE SPACED AT 61m CENTER TO CENTER PARALLEL TO THE CENTER LANE BUT 300 TO 600 MILLIMETERS WITHIN THE CLOSED LANE. CONES MAY BE TEMPORARILY MOVED OFF THE ROAD IN THE IMMEDIATE VICINITY OF THE SUPPLY TRUCKS, PAVING SPREADER OR ROLLERS BUT SHALL BE IMMEDIATELY REPLACED WHEN THAT ACTIVITY HAS PASSED BY THE CONE LOCATION. CONES SHALL HAVE A MINIMUM HEIGHT OF 700 MILLIMETERS AND SHALL BE STABILIZED TO PREVENT THEM FROM BLOWING OVER. CLOSURES AT NIGHT SHALL USE DRUMS RATHER THAN CONES.
4. IT IS REQUIRED THAT THE LENGTH OF CLOSURE BE KEPT TO A MINIMUM AT ALL TIMES, AS DIRECTED BY THE ENGINEER.

 WHEN THE AMBIENT TEMPERATURE EXCEEDS 27 DEGREES C, THE ENGINEER MAY INCREASE THE LENGTH OF CLOSURE TO ALLOW FOR SUFFICIENT COOLING OF NEW PAVEMENT.

 THE ENGINEER MAY SHORTEN THE MAXIMUM ALLOWABLE LENGTH OF CLOSURE TO RELIEVE EXCESSIVE TRAFFIC BACKUPS OR TO IMPROVE TRAFFIC OPERATION.

5. WITHIN THE LENGTH OF CLOSURE, PROVISIONS SHALL BE MADE TO CONTROL TRAFFIC ENTERING FROM INTERSECTING STREETS AND MAJOR DRIVES AS NECESSARY TO PREVENT WRONG WAY MOVEMENTS AND TO KEEP VEHICLES OFF OF NEW PAVEMENT NOT READY FOR TRAFFIC. AS A MINIMUM, THE CONTRACTOR SHALL:
 - A) PROVIDE AN ADDITIONAL FLAGGER AT EVERY PUBLIC STREET INTERSECTION AND MAJOR DRIVEWAY AND -
 - B) PLACE A ROW OF 3 CONES ACROSS THE CLOSED LANE APPROXIMATELY 30m ON EACH SIDE OF AN INTERSECTION.
 - C) ADDITIONAL ROWS OF 3 CONES EACH SHALL BE PLACED ACROSS THE CLOSED LANE AT A MAXIMUM SPACING OF 305m BETWEEN ROWS OF CONES.
6. THE TYPE A FLASHING WARNING LIGHTS ARE REQUIRED ON THE 'ROAD CONSTRUCTION AHEAD' (OW-128) AND THE 'ONE LANE ROAD AHEAD' (OW-121) SIGNS WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.
7. TYPE C STEADY BURNING WARNING LIGHTS SHALL BE ERECTED ON EACH DRUM FOR NIGHT LANE CLOSURES.

8. ADEQUATE AREA ILLUMINATION OF EACH FLAGGER STATION SHALL BE PROVIDED AT NIGHT BY USING 150 WATT MINIMUM HIGH PRESSURE SODIUM LUMINAIRES OR 250 WATT MINIMUM MERCURY LUMINAIRES. LUMINAIRES SHALL BE LOCATED ADJACENT TO ONE FLAGGER STATION FOR EACH DIRECTION OF TRAFFIC.

 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 OMUTCD. 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.

DISTANCE	A	B	C
URBAN	61	107	30
RURAL	152	198	61

REVISED BY:	DATE:
209711FED	04/05/89
FLAGGER CLOSING 1 LANE OF A 2 LANE HIGHWAY FOR PAVING OPERATIONS WITH CONES	
PLAN INSERT SHEET	

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	A	B	C	203	304	407		446		830	611			617	
		FROM	TO OR AT		LENGTH	WIDTH	AREA	SUBGRADE COMPACTION	AGGREGATE BASE	TACK COAT	TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG64-28	CURB, TYPE 6	REINFORCED CONCRETE APPROACH SLAB (T=380mm)	REINFORCED CONCRETE APPROACH SLAB (T=380mm), AS PER PLAN "A"	REINFORCED CONCRETE APPROACH SLAB (T=430mm), AS PER PLAN	COMPACTED AGGREGATE TYPE A	COMPACTED AGGREGATE TYPE A
		METER	METER		SQ. METER	SQ. METER	C	0.150xC	Cx 0.45	Cx 0.20	C x 0.038	C x 0.045	METER	SQ. METER	C	0.041xAx1.45	0.041xAx2x1.45		
					METER	METER	SQ. METER	SQ. METER	LITER				METER	SQ. METER	CU. METER				
116-117	ACCEL. LANE	20+322.000	20+421.210	RT.	99.210	5.00	496.05			223.22	99.21	18.85	22.32					5.90	
124	MAINLINE	24+520.548	24+528.115	RT.	7.600	12.55	95.38	95.38	14.31							95.38			
124	MAINLINE	24+528.115	24+595.330	RT.	7.600	12.55	95.38	95.38	14.31							95.38			
124-126	MAINLINE	24+595.330	25+740.410	RT.	1145.080	11.59	13286.89			5979.10	2657.38	504.90	597.91	14.0					136.15
126	MAINLINE	25+740.410	25+770.890	RT.	30.480	13.39	408.13			183.66	81.63	15.51	18.37						3.62
126	MAINLINE	25+770.890	25+843.930	RT.	73.040	15.19	1109.48			499.26	221.90	42.16	49.93						8.68
126	MAINLINE	25+843.930	25+983.450	RT.	139.520	19.35	2699.71			1214.87	539.94	102.59	121.49						16.59
126	MAINLINE	25+983.450	26+015.000	RT.	31.550	12.55	395.95			178.18	79.19	15.05	17.82						3.75
127	MAINLINE	26+196.992	26+204.592	RT.	7.600	19.63	149.19	149.19	22.38							149.19			
127	MAINLINE	26+204.592	26+268.553	RT.	7.600	20.96	159.30	159.30	23.89							159.30			
134	MAINLINE	30+607.013	30+616.001	RT.	9.150	12.55	114.83	114.83	17.22									114.83	
134	MAINLINE	30+616.001	30+607.013	RT.	9.150	12.55	114.83	114.83	17.22									114.83	
136	MAINLINE	31+196.340	31+226.820	RT.	30.480	13.39	408.13			183.66	81.63	15.51	18.37						3.62
136	MAINLINE	31+226.820	31+264.992	RT.	38.172	15.19	579.95			260.98	115.99	22.04	26.10	14.0					4.54
136	MAINLINE	31+264.992	31+272.555	RT.	7.600	18.87	143.41	143.41	21.51							143.41			
136	MAINLINE	31+272.555	31+310.644	RT.	7.600	20.11	152.84	152.84	22.93							152.84			
136	MAINLINE	31+310.644	31+442.110	RT.	7.890	12.30	97.05			43.67	19.41	3.69	4.37						0.94
SUBTOTALS EASTBOUND LANES								1025.2	153.8	8766.6	3896.3	740.3	876.7	28.0	296.2	499.2	229.7	5.9	177.9
EASTBOUND PAVEMENT GRAND TOTAL TO SHEET 95								1025	154	8767	3896	740	877	28	296	499	230	5.9	184

**MAINLINE PAVEMENT RESURFACING - EASTBOUND
 PAVEMENT CALCULATIONS (1 OF 6)**

ERI-2-12.558

CALCULATED
 DATE 4-97
 CHECKED
 BY MEM
 DATE 5-97

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	A	B	C	203	301	304	407		408	446		830	611			617	
		FROM	TO OR AT		LENGTH	WIDTH	AREA	SUBGRADE COMPACTION	BITUMINOUS AGGREGATE BASE, PG64-22	AGGREGATE BASE	TACK COAT	TACK COAT, FOR INTERMEDIATE COURSE	BITUMINOUS PRIME COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG64-28	CURB, TYPE 6	REINFORCED CONCRETE APPROACH SLAB (T=380mm)	REINFORCED CONCRETE APPROACH SLAB (T=380mm), AS PER PLAN "A"	REINFORCED CONCRETE APPROACH SLAB (T=430mm), AS PER PLAN	COMPACTED AGGREGATE TYPE A	COMPACTED AGGREGATE TYPE A
		METER	METER		METER	METER	SQ. METER	SQ. METER	0.075xC	0.150xC	Cx 0.45	Cx 0.20	Cx1.8	Cx0.038	Cx0.045	METER	SQ. METER	SQ. METER	SQ. METER	0.041xAx1.45	0.041xAx2x1.45
115	GORE AREA	19+550.520	19+676.798	LT.	126.278	4.88	616.24				277.3	123.2		23.4	27.7						
119	MAINLINE	21+722.406	21+730.039	LT.	7.600	12.55	95.38	95.4		14.3							95.4				
119	MAINLINE	21+752.528	21+760.161	LT.	7.600	12.55	95.38	95.4		14.3							95.4				
124	MAINLINE	24+504.339	24+511.972	LT.	7.600	12.55	95.38	95.4		14.3							95.4				
124	MAINLINE	24+572.269	24+579.902	LT.	7.600	12.55	95.38	95.4		14.3							95.4				
124-125	MAINLINE	24+579.902	25+367.061	LT.	787.159	11.59	9122.04				4104.9	1824.4		346.6	410.5	14.0				21.7	93.6
125-126	MAINLINE	25+367.061	25+732.822	LT.	365.761	8.54	3123.60				1405.6	624.7		118.7	140.6						
126	ACCEL. LANE	25+732.820	25+855.000	LT.	122.180	5.10	623.12				280.4	124.6		23.7	28.0					7.3	
126-127	MAINLINE	25+855.000	26+182.883	LT.	327.883	11.59	3800.16				1710.1	760.0		144.4	171.0	14.0					39.0
127	MAINLINE	26+182.883	26+190.483	LT.	7.600	12.55	95.38	95.4		14.3							95.4				
127	MAINLINE	26+246.844	26+254.444	LT.	7.600	12.55	95.38	95.4		14.3							95.4				
127	MAINLINE	26+254.444	26+581.700	LT.	327.256	11.59	3792.90				1706.8	758.6		144.1	170.7	14.0					38.9
127	MAINLINE	26+581.700	26+612.180	LT.	30.480	12.30	374.90				168.7	75.0		14.2	16.9						3.6
127-128	MAINLINE	26+612.180	26+855.980	LT.	243.800	8.54	2082.05				936.9	416.4		79.1	93.7					14.5	
127-128	DECEL. LANE	26+612.180	26+752.460	LT.	140.280	10.22	1433.66				645.1	286.7		54.5	64.5					8.3	
128	DECEL. LANE	26+752.460	26+825.500	LT.	73.040	6.06	442.40				199.1	88.5		16.8	19.9					4.3	
128	DECEL. LANE	26+825.500	26+855.980	LT.	30.480	4.50	137.16				61.7	27.4		5.2	6.2					1.8	
128-134	MAINLINE	26+855.980	30+550.891	LT.	3694.911	11.59	42825.28				19271.4	8565.1		1627.4	1927.1	14.0					439.3
134	MAINLINE	30+550.891	30+559.821	LT.	9.150	12.55	114.83	114.8		17.2									114.8		
134	MAINLINE	30+644.198	30+653.512	LT.	9.150	12.55	114.83	114.8		17.2									114.8		
134-135	MAINLINE	30+653.512	30+906.780	LT.	253.268	11.59	2941.31				1323.6	588.3		111.8	132.4	14.0					30.1
135-136	MAINLINE	30+906.780	31+265.000	LT.	358.220	8.54	3059.20				1376.6	611.8		116.2	137.7					21.3	
135-136	ACCEL. LANE	30+906.780	31+185.000	LT.	278.220	5.95	1655.41				744.9	331.1		62.9	74.5					16.5	
136	ACCEL. LANE	31+185.000	31+265.121	LT.	80.121	6.56	524.80				236.2	105.0		19.9	23.6	14.0				4.8	
136	MAINLINE	31+265.121	31.272.688	LT.	7.600	15.10	114.76	114.8		17.2									114.8		
136	MAINLINE	31+302.878	31+310.445	LT.	7.600	15.10	114.76	114.8		17.2									114.8		
136	SHOULDER	31+310.445	31+390.000	LT.	79.555	4.50	360.00	360.0	229.4	458.9			648.0			14.0					
136	ACCEL. LANE	31+310.000	31+376.000	LT.	66.000	5.10	336.60				151.5	67.3		12.8	15.1					3.9	
136	MAINLINE	31+310.000	31+370.000	LT.	60.000	12.35	741.00				333.5	148.2		28.2	33.3					3.6	
136-137	MAINLINE	31+370.000	31+450.000	LT.	80.000	11.59	927.20				417.2	185.4		35.2	41.7						9.5
137	MAINLINE	31+832.630	31+863.106	LT.	30.476	12.35	376.38				169.4	75.3		14.3	16.9					1.8	
SUTOTALS WESTBOUND LANES								1391.47	229.44	613.60	35520.93	15787.08	648.00	2999.55	3552.09	98	420.28	381.52	229.67	109.90	654.06
WESTBOUND PAVEMENT GRAND TOTAL TO SHEET 95								1391	229	614	35521	15787	648	3000	3552	98	420	382	230		764

MAINLINE PAVEMENT RESURFACING - WESTBOUND PAVEMENT CALCULATIONS (2 OF 6)

ERI-2-12-558

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	LENGTH "L" METER	AVERAGE PAVEMENT WIDTH "W" METER	AVERAGE INSIDE SHOULDER WIDTH "ISW" METER	AVERAGE OUTSIDE SHOULDER WIDTH "OSW" METER	203	302	304	407	446		855	203	203	
		SUBGRADE STABILIZATION Lx(W+ISW+OSW)	300mm BITUMINOUS AGGREGATE BASE, PG64-22 (Lx(W+ISW+OSW)x300)/1000						150mm AGGREGATE BASE Lx(W+ISW+OSW)x150/1000	TACK COAT FOR INTERMEDIATE COURSE Lx(W+ISW+OSW)x0.20	TACK COAT Lx(W+ISW+OSW)x0.45	38mm ASPHALT CONCRETE SURFACE COURSE TYPE 1H (Lx(W+ISW+OSW)x38)/1000	45mm ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 PG64-28, (Lx(W+ISW+OSW)x45)/1000	100mm ASPHALT TREATED FREE DRAINING BASE (Lx(W+ISW+OSW))/1000	SUBGRADE COMPACTION SQ METER	PROOF ROLLING HOUR		
		FROM	TO						SQ. METER	CU. METER		LITER	CU. METER	SQ. METER	SQ METER			
115	MAINLINE	19+446.279	19+550.520	LT	104.24	13.86	1.2	2.4	1820.0	552.3	290.2	364.0	819.0	69.2	81.9	1903.4		
115	MAINLINE	19+550.520	19+676.798	LT	126.28	7.2	1.2	0	1060.7	322.0	169.5	212.1	477.3	40.3	47.7	1111.2		
115-116	MAINLINE	19+676.798	20+300.000	LT	623.20	7.2	1.2	3.0	7104.5	2168.7	1168.5	1420.9	3197.0	270.0	319.7	7603.1		
116	MAINLINE	20+300.000	20+329.841	LT	29.84	7.2	1.2	3.6	358.1	108.3	56.2	71.6	161.1	13.6	16.1	370.0		
116-117	MAINLINE	20+329.841	20+543.561	LT	213.72	15	1.2	2.4	3975.2	1205.4	631.5	795.0	1788.8	151.1	178.9	4146.2		
117	MAINLINE	20+543.561	20+574.041	LT	30.48	9	1.2	2.7	393.2	119.8	64.0	78.6	176.9	14.9	17.7	417.6		
117-119	MAINLINE	20+574.041	21+722.406	LT	1148.37	7.2	1.2	3.0	13091.4	3996.3	2153.2	2618.3	5891.1	497.5	589.1	14010.1		
119-124	MAINLINE	21+760.161	24+504.339	LT	2744.18	7.2	1.2	3.0	31283.6	9549.7	5145.3	6256.7	14077.6	1188.8	1407.8	33479.0		
122-123	MAINLINE	23+940.000	24+180.000	LT	240.00	7.2	1.2	3.0	- 2736.0								2736	1
124-125	MAINLINE	24+579.902	25+367.061	LT	787.16	7.2	1.2	3.0	8973.6	2739.3	1475.9	1794.7	4038.1	341.0	403.8	9603.3		
125-126	MAINLINE	25+367.061	25+732.822	LT	365.76	11.04	1.2	2.4	5354.7	1628.4	863.6	1070.9	2409.6	203.5	241.0	5647.3		
136-137	MAINLINE	31+450.000	31+832.630	LT	382.63	7.2	1.2	3	4362.0	1331.6	717.4	872.4	1962.9	165.8	196.3	4668.1		
137	MAINLINE	31+832.630	31+863.106	LT	30.48	7.2	1.2	3.6	365.7	110.6	57.4	73.1	164.6	13.9	16.5	377.9		
137	MAINLINE	31+863.106	32+003.390	LT	140.28	15.11	1.2	2.4	2624.7	795.8	416.9	524.9	1181.1	99.7	118.1	2736.9		
137-138	MAINLINE	32+003.390	32+613.700	LT	610.31	10.92	1.2	2.4	8861.7	2695.1	1430.0	1772.3	3987.8	336.7	398.8	9349.9		
138	MAINLINE	32+613.700	32+781.305	LT	167.61	12.61	1.2	2.4	2716.9	825.1	435.2	543.4	1222.6	103.2	122.3	2851.0		
SUBTOTALS									8779.0	27596.1	14784.6	18104.9	40736.5	3440.0	4073.7	96371.6	2736	1
TOTALS TO SHEET 95									8779	27596	14785	18105	40737	3440	4074	96372	2736	1

← ODOT TEST SECTION

CALCULATED BY: PMA
DATE: 4-97
CHECKED BY: MEM
DATE: 5-97

MAINLINE PAVEMENT REPLACEMENT - WESTBOUND PAVEMENT CALCULATIONS (3 OF 6)

ERI-2-12-558

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	LENGTH "L" METER	AVERAGE PAVEMENT WIDTH "W" METER	AVERAGE INSIDE SHOULDER WIDTH "ISW" METER	AVERAGE OUTSIDE SHOULDER WIDTH "OSW" METER	203	302	304	407		446		855
		SUBGRADE STABILIZATION Lx(W+ISW+OSW)	300mm BITUMINOUS AGGREGATE BASE, PG64-22 (Lx(W+ISW+OSW)x300)/1000						150mm AGGREGATE BASE Lx(W+ISW+OSW)x150/1000	TACK COAT FOR INTERMEDIATE COURSE Lx(W+ISW+OSW)x0.20	TACK COAT Lx(W+ISW+OSW)x0.45	38mm ASPHALT CONCRETE SURFACE COURSE TYPE 1H (Lx(W+ISW+OSW)x38)/1000	45mm ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 PG64-28, (Lx(W+ISW+OSW)x45)/1000	100mm ASPHALT TREATED FREE DRAINING BASE (Lx(W+ISW+OSW))		
		FROM	TO						SQ. METER	CU. METER		LITER		CU. METER		SQ. METER
115	MAINLINE	19+446.279	19+525.716	RT	79.44	10.98	1.2	3.0	1205.9	366.5	194.0	241.2	542.6	45.8	54.3	1269.4
115	MAINLINE	19+525.716	19+665.232	RT	139.52	15.14	1.2	2.4	2614.5	792.7	415.2	522.9	1176.5	99.4	117.7	2726.1
115	MAINLINE	19+665.232	19+695.712	RT	30.48	7.2	1.2	3.6	365.8	110.6	57.4	73.2	164.6	13.9	16.5	378.0
115-116	MAINLINE	19+695.712	20+322.000	RT	626.29	7.2	1.2	3.0	7139.7	2179.5	1174.3	1427.9	3212.9	271.3	321.3	7640.7
116-117	MAINLINE	20+322.000	20+421.211	RT	99.21	7.2	1.2	4.4	1269.9	386.9	206.9	254.0	571.5	48.3	57.2	1349.3
117	MAINLINE	20+421.211	20+786.972	RT	365.76	11.04	1.2	2.4	5354.7	1628.4	863.6	1070.9	2409.6	203.5	241.0	5647.3
117-119	MAINLINE	20+786.972	21+716.765	RT	929.79	7.2	1.2	3.0	10599.6	3235.7	1743.4	2119.9	4769.8	402.8	477.0	11343.5
119-124	MAINLINE	21+754.191	24+520.548	RT	2766.36	7.2	1.2	3.0	31536.5	9626.9	5186.9	6307.3	14191.4	1198.4	1419.1	33749.6
124	MAINLINE	24+595.330	24+940.000	RT	344.67	7.2	1.2	3.0	3929.2	1199.5	646.3	785.8	1768.2	149.3	176.8	4205.0
124	MAINLINE	24+940.000	24+970.000	RT	30.00	9	1.2	2.7	387.0	117.9	63.0	77.4	174.2	14.7	17.4	411.0
124-126	MAINLINE	24+970.000	25+775.000	RT	805.00	10.8	1.2	2.4	11592.0	3525.9	1871.6	2318.4	5216.4	440.5	521.6	12236.0
136	MAINLINE	31+450.000	31+472.590	RT	22.59	7.2	1.2	3.6	271.1	82.0	42.5	54.2	122.0	10.3	12.2	280.1
136-137	MAINLINE	31+472.590	32+009.000	RT	536.41	7.2	1.2	3.0	6115.1	1866.7	1005.8	1223.0	2751.8	232.4	275.2	6544.2
137	MAINLINE	32+009.000	32+144.276	RT	135.28	7.2	1.2	0	1136.3	345.0	181.6	227.3	511.3	43.2	51.1	1190.4
137	MAINLINE	32+144.276	32+334.403	RT	190.13	12.9	1.2	2.4	3137.1	952.5	501.9	627.4	1411.7	119.2	141.2	3289.2
137-138	MAINLINE	32+334.403	32+364.833	RT	30.43	10.91	1.2	2.7	450.7	137.0	72.6	90.1	202.8	17.1	20.3	475.0
138	MAINLINE	32+364.833	32+561.849	RT	197.02	10.91	1.2	2.4	2858.7	869.4	461.3	571.7	1286.4	108.6	128.6	3016.3
138	MAINLINE	32+561.849	32+781.305	RT	219.46	7.6	1.2	0	1931.2	585.9	307.8	386.2	869.0	73.4	86.9	2019.0
177	RAMP C	00+008.621	00+023.091		CADD AREA				158.1	47.9	24.9	23.7	71.1	6.0	7.1	164.0
177	RAMP C	00+023.091	00+336.000		312.91	4.8	0.9	1.8	2346.8	722.8	403.7	469.4	1056.1	89.2	105.6	2597.1
177	RAMP C	00+336.000	00+350.941		14.94	4.8	0.9	2.1	116.5	35.9	19.9	23.3	52.4	4.4	5.2	128.5
177	RAMP C	00+350.941	00+442.381		91.44	4.8	2.4	2.4	658.4	200.3	106.3	131.7	296.3	25.0	29.6	694.9
SUBTOTALS									93968.9	28649.4	15356.9	18785.7	42286.0	3570.84	4228.59	100085.20
TOTALS TO SHEET 95									93969	28649	15357	18786	42286	3571	4229	100085

CALCULATED BY PMA
 DATE 4-97
 CHECKED BY
 DATE 5-97

MAINLINE PAVEMENT REREPLACEMENT - EASTBOUND PAVEMENT CALCULATIONS (4 OF 6)

ERI-2-12.558

FROM SHEET NUMBER	DESIGNATION	STATION		A	B	C	D	E	202	203	301		304		407	407	408	446		617				
		FROM	TO OR AT	LENGTH	WIDTH	PROPOSED AREA	FULL DEPTH SHOULDER WIDTH	COMPACTED AGGREGATE WIDTH	WEARING COURSE REMOVED	SUBGRADE COMPACTION	BITUMINOUS AGGREGATE BASE, PG64-22	BITUMINOUS AGGREGATE BASE, PG64-22	AGGREGATE BASE	AGGREGATE BASE	TACK COAT	TACK COAT FOR INTERMEDIATE COURSE	BITUMINOUS PRIME COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28	COMPACTED AGGREGATE TYPE A				
		METER	METER	SQ. METER	METER																METER	SQ. METER	AxD	Ax(D+0.225)x0.23
S.R. 4				METER	METER	SQ. METER	METER	METER	SQ. METER	AxD	CU. METER		CU. METER		LITER	LITER	CU. METER	CU. METER	CU. METER					
203	RAMP A	0+000.000	0+091.440	91.44	7.30	667.51									30.0	13.4		25.4	30.0					
203	RAMP A	0+091.440	0+125.880	34.44	7.60	261.74	2.1			72.3		10.0	8.5	11.8	5.2	130.2	9.9	11.8						
203	RAMP A	0+125.880	0+430.000	304.12	7.60	2311.31	1.8	4.2		547.4		77.0	66.1	104.0	46.2	985.3	87.8	104.0	102.2					
203	RAMP A	0+430.000	0+440.000	10.00		79.02	1.8	4.2	79.0	18.0		2.5	2.2	3.6	1.6	32.4	3.0	1.8	3.4					
204	RAMP B	0+000.000	0+018.200			141.30			61.7					6.4	2.8		5.4	6.4						
204	RAMP B	0+000.000	0+018.200			72.00				72.0	17.4		11.4			129.6								
204	RAMP B	0+018.200	0+058.000	39.80	9.90	394.02	4.12			164.0	39.8		17.9	17.7	7.9	295.2	15.0	17.7						
204	RAMP B	0+058.000	0+068.000	10.00	8.80	88.00	2.96			29.6	7.3		3.3	4.0	1.8	53.3	3.3	4.0						
204	RAMP B	0+068.000	0+350.560	282.56	7.60	2147.46	1.8	4.2		508.6		71.5	61.5	96.6	42.9	915.5	81.6	96.6	94.9					
204	RAMP B	0+350.560	0+369.710	19.15	7.90	151.29	2.1			40.2		5.6	4.7	6.8	3.0	72.4	5.7	6.8						
206	RAMP D	0+000.000	0+019.150	19.15	7.60	145.54	2.1			40.2		5.6	4.7	6.5	2.9	72.4	5.5	6.5						
206	RAMP D	0+019.150	0+303.000	283.85	7.60	2157.26	1.8	4.2		510.9		71.8	61.7	97.1	43.1	919.7	82.0	97.1	95.4					
206	RAMP D	0+303.000	0+313.000	10.00	8.80	88.00	2.96			29.6	7.3		3.3	4.0	1.8	53.3	3.3	4.0						
206	RAMP D	0+313.000	0+351.600	38.60	9.90	382.14	4.12			159.0	38.6		17.4	17.2	7.6	286.3	14.5	17.2						
206	RAMP D	0+351.600	0+361.000			136.80			48.4					6.1	2.7		5.2	6.1						
206	RAMP D	0+351.600	0+361.000			80.80				80.8	22.1		12.8			145.4								
208	RAMP A	0+000.000	0+091.440	91.44	7.30	667.51								30.0	13.4		25.4	30.0						
208	RAMP A	0+091.440	0+123.360	31.92	7.60	242.59	2.1			67.0		9.3	7.9	10.9	4.9	120.7	9.2	10.9						
208	RAMP A	0+123.360	0+433.400	310.04	7.60	2356.30	1.8	3.3		558.1		78.5	67.4	106.0	47.1	1004.5	89.5	106.0	81.9					
208	RAMP A	0+433.400	0+443.000	9.60		143.00	1.8	3.3	99.0	43.6		6.1	6.4	6.4	2.9	78.5	5.4	6.4						
209	RAMP B	0+013.000	0+021.900	8.90		108.30	1.8	3.3	74.0	34.0		4.9	5.3	4.9	2.2	61.2	4.1	4.9	2.3					
209	RAMP B	0+021.900	0+091.440	69.54	10.04	698.18	1.8	3.3		125.2		17.6	15.1	31.4	14.0	225.3	26.5	31.4	18.4					
209	RAMP B	0+091.440	0+121.920	30.48	8.82	268.83	1.8	3.3		54.9		7.7	6.6	12.1	5.4	98.8	10.2	12.1	8.0					
209	RAMP B	0+121.920	0+448.580	326.66	7.60	2482.62	1.8	3.3		588.0		82.7	71.0	111.7	49.7	1058.4	94.3	111.7	86.2					
209	RAMP B	0+448.580	0+467.730	19.15	7.90	151.29	2.1			40.2		5.6	4.7	6.8	3.0	72.4	5.7	6.8						
210	RAMP C	0+008.500	0+020.000			126.70			76.7	50.0		7.1	7.7	5.7	2.5	90.0	4.8	5.7						
210	RAMP C	0+020.000	0+304.290	284.29	7.30	2075.32	1.8	3.3		511.7		72.0	61.8	93.4	41.5	921.1	78.9	93.4	75.1					
210	RAMP C	0+304.290	0+336.250	31.96	7.60	242.90	2.1			67.1		9.3	7.9	10.9	4.9	120.8	9.2	10.9						
210	RAMP C	0+336.250	0+427.690	91.44	7.90	722.38								32.5	14.4		27.5	32.5						
211	RAMP D	0+000.000	0+015.000	15.00	9.00	135.00	2.8			42.0	10.4			9.5	6.1	2.7	75.6	5.1	6.1					
211	RAMP D	0+015.000	0+075.382	60.38	10.00	603.82	3.9	1.6		235.5	57.3			51.6	27.2	12.1	423.9	22.9	27.2	7.7				
211	RAMP D	0+075.382	0+103.979	28.60	10.93	312.57	4.1	1.6		117.2	28.4			25.6	14.1	6.3	211.0	11.9	14.1	3.7				
211	RAMP D	0+103.979	0+155.821	51.84	10.48	543.30	2.5	1.6		129.6	32.5			29.8	24.4	10.9	233.3	20.6	24.4	6.6				
211	RAMP D	0+155.821	0+169.369	13.55	9.32	126.27		1.6						5.7	2.5		4.8	5.7	1.7					
211	RAMP D	0+169.369	0+290.000	22.17	9.32	206.59		1.6						9.3	4.1		7.9	9.3	2.8					
211	RAMP D	0+290.000	0+320.000	30.00	10.80	324.00	2.3			69.0	17.4			16.1	14.6	6.5	124.2	12.3	14.6					
211	RAMP D	0+320.000	0+396.386	76.39	12.30	167.75	4.7			359.0	86.5			77.5	7.5	3.4	646.2	6.4	7.5					
211	RAMP D	0+396.386	0+466.644	70.26	12.30	864.17	4.7	1.6		330.2	79.6			71.3	38.9	17.3	594.4	32.8	38.9	9.0				
211	RAMP D	0+466.644	0+476.000	9.36		179.80			127.0	52.8	13.0			11.3	8.1	3.6	101.0	6.8	8.1					
212	RAMP E	0+080.000	0+091.440	11.44	7.00	80.08								3.6	1.6		3.0	3.6						
212	RAMP E	0+091.440	0+115.000	23.56	7.23	170.34	2.1			49.5		6.8	5.8	7.7	3.4	89.1	6.5	7.7						
212	RAMP E	0+115.000	0+267.830	152.83	7.47	1141.64	1.8	3.3		275.1		38.7	33.2	51.4	22.8	495.2	43.4	51.4	40.3					
212	RAMP E	0+267.830	0+420.000	152.17	7.47	1136.71								51.2	22.7		43.2	51.2						
212	RAMP E	0+420.000	0+484.600	64.60	7.47	482.56	1.8	3.3		116.3		16.4	14.1	21.7	9.7	209.3	18.3	21.7	17.1					
212	RAMP E	0+484.600	0+510.300			203.40				24.2		3.0	3.0	9.2	4.1	43.6	7.7	9.2						
RYE BEACH ROAD																								
217	RAMP A	0+038.000	0+105.000	67.00	8.80	589.60								26.5	11.8		22.4	26.5						
217	RAMP A	0+105.000	0+150.040	45.04	8.20	369.33	2.1			94.6		13.1	11.1	16.6	7.4	170.3	14.0	16.6						
217	RAMP A	0+150.040	0+350.000	199.96	7.60	1519.70	1.8	2.4		359.9		50.6	43.5	68.4	30.4	647.9	57.7	68.4	38.4					
217	RAMP A	0+350.000	0+369.000	19.00		187.55	1.8	2.4		34.2		4.8	4.1	8.4	3.8	61.6	7.1	8.4	3.6					
218	RAMP B	0+008.000	0+018.860	10.86		142.61	4.12			44.7	10.9			6.4	2.9	80.5								
218	RAMP B	0+018.860	0+175.000	156.14	9.91	1547.35	4.12	0.9		643.3	156.0			69.6	30.9	1157.9	58.8	69.6	11.2					
218	RAMP B	0+175.000	0+191.249	16.25	8.76	142.34	3.00	2.4		48.7	12.1			6.4	2.8	87.7	5.4	6.4	3.1					
218	RAMP B	0+191.250	0+262.808	71.56	7.60	543.84	1.8	2.4		128.8		18.1	15.6	24.5	10.9	231.8	20.7	24.5	13.7					
218	RAMP B	0+262.808	0+288.350	25.54	7.90	201.78	2.1			53.6		7.4	6.3	9.1	4.0	96.5	7.7	9.1						
219	RAMP C	0+003.650	0+020.000	16.35		272.30		2.4		72.3		10.2	8.7	90.0	5.4	130.1	10.3	12.3	3.1					
219	RAMP C	0+020.000	0+300.000	280.00	7.60	2128.00	1.80	2.4		504.0		70.9	60.9	95.8	42.6	907.2	80.9	95.8	53.8					
219	RAMP C	0+300.000	0+360.000	60.00	7.90	474.00	2.1			126.0		17.4	14.9	21.3	9.5	226.8	18.0	21.3						
219	RAMP C	0+360.000	0+451.920	91.92	7.90	726.17								32.7	14.5		27.6	32.7						
220	RAMP D	0+000.000	0+031.730	31.73	7.30	231.63	2.10			66.6				10.4	4.6	119.9	8.8	10.4						
220	RAMP D	0+031.730	0+260.000	228.27	7.00	1597.89	1.8	2.4		410.9		51.4	41.1	71.9	32.0	739.6	60.7	71.9	43.8					
220	RAMP D	0+260.000	0+286.484	26.48		335.30		2.4		97.4		13.8	11.9	107.1	6.7	175.3	12.7	15.1	5.1					
SUBTOTALS									565.8	8898.1	636.6	867.3	892.4	292.7	1840.4	742.5	16022.5	1405.3	1662.4	832.7				
RAMP TOTALS TO SHEET 95									566	8898		1504		1185	1840	742	16022	1405	1662	833				

CALCULATED BY: PMA
DATE: 4-97
CHECKED BY: MEM
DATE: 5-97

RAMP PAVEMENT RESURFACING PAVEMENT CALCULATIONS (5 OF 6)

ERI-2-12.558

FROM SHEET NUMBER	DESIGNATION	STATION		AREA CALCULATED BY CAD	SIDE	203	203	301	304	304	407	408	446		
		FROM	TO OR AT			SUBGRADE COMPACTION	EMBANKMENT *	BITUMINOUS AGGREGATE BASE	AGGREGATE BASE (50mm THICK)	AGGREGATE BASE (100mm THICK)	TACK COAT	TACK COAT FOR INTERMEDIATE COURSE	BITUMINOUS PRIME COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
		A	A			Ax0.228	Ax0.05	Ax0.10	A x 0.45	A x 0.20	A x 1.8	A x 0.038	A x 0.045		
		SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER					
115	P1	19+665	19+677	33	RT.					3.30	14.85	6.60	1.25	1.49	
116	P1	20+318	20+330	33	LT.					3.30	14.85	6.60	1.25	1.49	
117	P1	20+649	20+676	347	MEDIAN	347.0	20	79.1	17.4		156.15	69.40	624.6	13.19	15.62
125	P1	25+474	25+500	360	MEDIAN	360.0	20	82.1	18.0		162.00	72.00	648.0	13.68	16.20
126	P1	25+983	25+996	36	RT.					3.60	16.20	7.20		1.37	1.62
127	P1	26+599	26+612	36	LT.					3.60	16.20	7.20		1.37	1.62
129	P1	27+505	27+538	365	MEDIAN	365.0	20	83.2	18.3		164.25	73.00	657.0	13.87	16.43
135	P1	30+989	31+022	353	MEDIAN	353.0	20	80.5	17.7		158.85	70.60	635.4	13.41	15.89
136	P1	31+442	31+455	36	RT.					3.60	16.20	7.20		1.37	1.62
137	P1	31+850	31+863	36	LT.					3.60	16.20	7.20		1.37	1.62
SUBTOTALS						1425.0	80.0	324.9	71.3	14.4	706.1	313.8	2565.0	59.6	70.6
TURN AROUND TOTALS TO SHEET 95						1425	80*	325	86		706	314	2565	60	71

* A QUANTITY FOR EMBANKMENT IS BEING PROVIDED AT EACH TURN AROUND FOR EMBANKMENT WORK OFF THE EDGE OF THE PROPOSED PAVED TAPERED SHOULDER. QUANTITIES CARRIED TO SHEET 112

CALCULATED BY PMA
 DATE 4-97
 CHECKED BY MEM
 DATE 5-97

**PAVEMENT TURN AROUNDS
 PAVEMENT CALCULATIONS (6 OF 6)**

ERI-2-12.558

98A
 432

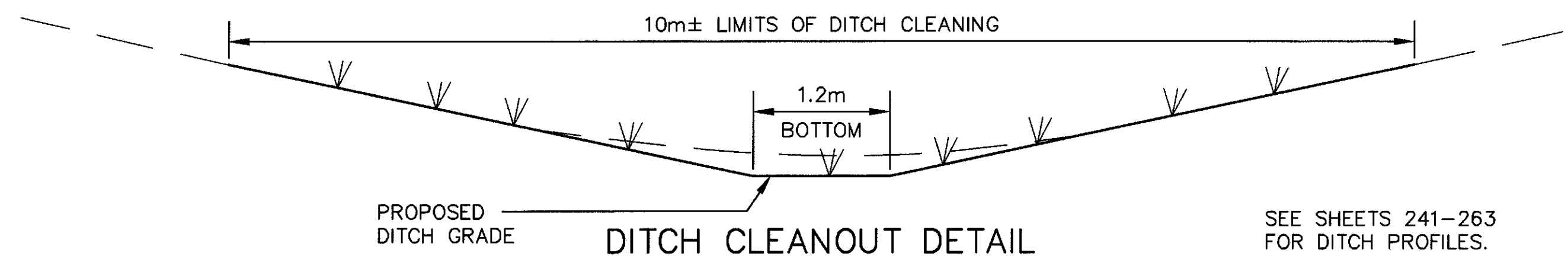
JOINT REPAIR

LOCATION	A		B	C	D	E	F	G	255		413					
	STATION		SIDE						LENGTH	AVERAGE JOINT SPACING	NUMBER OF JOINTS	AVERAGE WIDTH OF CONCRETE PAVEMENT	ADDITIONAL WIDTH OF WIDENING AND SHOULDERS TO BE SAWED	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS FS	FULL DEPTH PAVEMENT SAWING	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
	FROM	TO OR AT														
				METER	EACH	METER	SQ. METER	METER								
MAINLINE	25+732.822	26+183.000	LT	450	18.3	25	7.32	4.27	567.2	630.2	997.9					
MAINLINE	26+255.000	30+550.000	LT	4295	18.3	235	7.32	4.27	5411.7	6013.0	9520.6					
MAINLINE	30+655.000	31+265.000	LT	610	18.3	33	7.32	4.27	768.6	854.0	1352.2					
MAINLINE	31+335.000	31+450.000	LT	115	18.3	6	7.32	4.27	144.9	161.0	254.9					
MAINLINE	25+775.000	26+196.000	RT	421	18.3	23	7.32	4.27	530.5	589.4	933.2					
MAINLINE	26+268.000	30+606.000	RT	4338	18.3	237	7.32	4.27	5465.9	6073.2	9615.9					
MAINLINE	30+712.000	31+265.000	RT	553	18.3	30	7.32	4.27	696.8	774.2	1225.8					
MAINLINE	31+310.000	31+450.000	RT	140	18.3	8	7.32	4.27	176.4	196.0	310.3					
S.R. 4																
RAMP A	0+000.000	0+440.000	LT	440	18.3	24	4.88	0.9	369.6	410.7	486.4					
RAMP B	0+008.000	0+370.000	LT	362	18.3	20	4.88	0.9	304.1	337.9	400.2					
RAMP D	0+000.000	0+362.000	RT	362	18.3	20	4.88	0.9	304.1	337.9	400.2					
U.S. 250																
RAMP A	0+000.000	0+443.000	LT	443	18.3	24	4.88	0.9	372.1	413.5	489.7					
RAMP B	0+013.000	0+468.000	LT	455	18.3	25	4.88	0.9	382.2	424.7	503.0					
RAMP B-DECEL.	26+612.000	26+856.000	LT	244	18.3	13	7		294.0	326.7	326.7					
RAMP C	0+008.000	0+428.000	RT	420	18.3	23	4.88	0.9	352.8	392.0	464.3					
RAMP C-ACCEL.	26+692.000	26+979.000	RT	287	18.3	16	5		247.0	274.5	274.5					
RAMP D	0+000.000	0+169.447	RT	169	18.3	9	4.88	0.9	142.3	158.2	187.3					
RAMP D	0+267.834	0+746.000	RT	478	18.3	26	4.88	0.9	401.7	446.3	528.6					
RAMP D-DECEL.	25+740.000	25+983.000	RT	243	18.3	13	7		292.8	325.3	325.3					
RAMP E	0+000.000	0+510.000	RT	510	18.3	28	4.88	0.9	306.0	476.0	563.8					
RAMP E-ACCEL.	26+291.000	26+692.000	RT	401	18.3	22	5		246.5	383.5	383.5					
RYE BEACH ROAD																
RAMP A	0+103.000	0+365.000	LT	262	18.3	14	4.88	0.9	220.1	244.5	289.6					
RAMP A-ACCEL.	0+039.000	0+103.000	LT	64	18.3	3	5		55.1	61.2	61.2					
RAMP B	0+008.000	0+288.000	LT	280	18.3	15	4.88	0.9	235.2	261.3	309.5					
RAMP C	0+008.000	0+452.000	RT	444	18.3	24	4.88	0.9	373.0	414.4	490.8					
RAMP D	0+000.000	0+285.000	RT	285	18.3	16	4.88	0.9	239.4	266.0	315.1					
RAMP D-DECEL.	31+310.000	31+442.000	RT	132	18.3	7	7		159.0	176.7	176.7					
TOTAL TO GENERAL SUMMARY									19059	21422	31187					

THE 1.75 MULTIPLIER IS BASED ON THE ASSUMPTION OF 100% JOINT REPLACEMENT AND AN ADDITIONAL 75% QUANTITY FOR MIDSLAB AND PREVIOUSLY REPAIRED PATCHES OR FAULTS AS DETERMINED IN THE FIELD BY THE ENGINEER.

DITCH CLEANOUT "DC"

FROM SHEET NUMBER	DESIGNATION	STATION		LOCATION	SIDE	DITCH CLEANOUT METER
		FROM	TO			
203	DC-1	0+094.524	0+356.569	S. R. 4/RAMP A	LT.	262.0
206	DC-1	19+635.232	0+106.695	S. R. 4/RAMP D	RT.	136.7
204	DC-1	0+187.780	20+360.900	S. R. 4/RAMP B	LT.	213.0
116-117	DC-1	20+360.900	20+665.580	MAIN LINE	LT.	304.7
117	DC-2	20+665.580	20+820.000	MAIN LINE	LT.	154.4
117	DC-3	20+380.000	20+650.000	MAIN LINE	RT.	270.0
117	DC-4	20+790.000	20+940.000	MAIN LINE	RT.	150.0
117-118	DC-1	20+880.000	21+150.000	MAIN LINE	LT.	270.0
118	DC-2	21+300.000	21+460.000	MAIN LINE	LT.	160.0
118	DC-3	21+040.000	21+480.000	MAIN LINE	RT.	440.0
119	DC-1	21+580.000	21+740.000	MAIN LINE	LT.	160.0
119	DC-2	21+580.000	21+660.000	MAIN LINE	RT.	80.0
119-120	DC-3	21+959.240	22+250.000	MAIN LINE	LT.	290.8
119	DC-4	21+780.000	21+840.000	MAIN LINE	RT.	60.0
120	DC-1	22+416.600	22+460.000	MAIN LINE	RT.	43.4
121-122	DC-1	23+181.000	23+630.000	MAIN LINE	LT.	449.0
122	DC-1	23+630.000	23+710.000	MAIN LINE	LT.	80.0
122-123	DC-2	23+716.000	24+316.237	MAIN LINE	LT.	600.2
122	DC-1	23+620.000	23+740.000	MAIN LINE	RT.	120.0
122-124	DC-2	23+745.000	24+510.000	MAIN LINE	RT.	765.0
124	DC-1	24+601.000	24+895.300	MAIN LINE	RT.	294.3
124	DC-2	24+895.300	24+940.000	MAIN LINE	RT.	44.7
124-125	DC-2	24+939.000	25+350.000	MAIN LINE	LT.	411.0
125	DC-3	25+450.000	25+662.000	MAIN LINE	LT.	212.0
126	DC-1	25+801.620	26+010.000	MAIN LINE	LT.	208.4
127-128	DC-1	0+450.000	26+670.000	MAIN LINE	LT.	75.6
210	DC-1	0+270.000	0+370.000	S. R. 250/RAMP C	RT.	100.0
128	DC-1	26+880.000	26+980.916	MAIN LINE	LT.	149.7
128	DC-1	27+011.721	27+090.000	MAIN LINE	LT.	78.3
129-131	DC-1	27+432.000	28+422.800	MAIN LINE	LT.	990.8
129-131	DC-2	27+600.000	28+422.660	MAIN LINE	RT.	822.7
131	DC-1	28+422.660	28+590.000	MAIN LINE	RT.	167.3
131-133	DC-2	28+422.800	29+571.390	MAIN LINE	LT.	1148.6
131-133	DC-3	28+680.000	29+560.880	MAIN LINE	RT.	880.9
133	DC-1	29+598.400	29+780.000	MAIN LINE	RT.	181.6
133-134	DC-2	29+610.110	30+516.210	MAIN LINE	LT.	906.1
134	DC-1	30+250.000	30+635.000	MAIN LINE	RT.	385.0
134	DC-2	30+577.760	30+660.000	MAIN LINE	LT.	82.2
135-136	DC-1	31+162.000	31+274.000	MAIN LINE	LT.	112.0
135-136	DC-2	31+166.000	31+260.000	MAIN LINE	RT.	94.0
136	DC-3	31+320.000	31+442.106	MAIN LINE	RT.	122.1
220	DC-1	0+000.000	0+125.500	RYE BEACH RD./RAMP D	RT.	125.5
217	DC-1	0+084.290	0+204.600	RYE BEACH RD./RAMP A	LT.	120.3
137-138	DC-1	32+273.000	32+789.151	MAIN LINE	RT.	516.2
TOTAL TO GENERAL SUMMARY						13238



SEE SHEETS 241-263 FOR DITCH PROFILES.

CALCULATED BY DATE 5-97
CHECKED BY DATE 5-97

FILE NAME: JOINT_REPAIR_I:\5033\006\TRAN\DWGS\JR_11376GBA.DWG 8-17-99 4:32:16 pm EST

PLOTTED: KJB

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	603				605				604			
		FROM	TO OR AT			150 mm CONDUIT, TYPE F	150 mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN	PREFABRICATED EDGE UNDERDRAIN	100 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	PRECAST REINFORCED CONCRETE OUTLET	METER	EACH	METER	EACH	METER	EACH	
115	U1	19+476	19+591	LT.		115		115									
115	U2	19+476	19+600	LT.		124		124									
115	U3	19+476	19+610	RT.		134		134									
115	U4	19+476	19+618	RT.		142		142									
115	U5		19+476	LT.	13												
115	U6		19+476	RT.	13												
115	U7	19+446	19+476	LT.		30		30									
115	U8	19+446	19+476	RT.		30		30									
115	U9		19+660	LT.	13												
115	U10		19+660	RT.	13												
115	U11	19+660	19+780	LT.		120		120									
115	U12	19+660	19+780	RT.		120		120									
115	U13		19+660	LT.	20									1			
115	U14		19+660	RT.	25									1			
115	U15	19+601	19+660	LT.		59		59									
115	U16	19+446	19+476	LT.		30		30									
115	U17	19+446	19+476	RT.		30		30									
115	U18		19+476	LT.	11									1			
115	U19		19+476	RT.	8									1			
115	U20	19+610	19+660	LT.		50		50									
115	U21	19+615	19+660	RT.		45		45									
115	U22	19+660	19+780	LT.		120		120									
115	U23	19+660	19+780	RT.		120		120									
116	U1	19+780	20+038	LT.		258		258									
116	U2	19+780	20+038	RT.		258		258									
116	U3	19+780	19+960	LT.		180		180									
116	U4	19+780	19+920	RT.		140		140									
116	U5		19+920	RT.	14									1			
116	U6		19+960	LT.	14									1			
116	U7	19+960	20+200	LT.		240		240									
116	U8	19+920	20+200	RT.		280		280									
116	U9		20+038	LT.	13												
116	U10		20+038	RT.	13												
116	U11	20+038	20+360	LT.		322		322									
116	U12	20+038	20+360	RT.		322		322									
116	U13		20+200	LT.	12									1			
116	U14		20+200	RT.	12									1			
116	U15	20+200	20+330	LT.		130		130									
116	U16	20+200	20+320	RT.		120		120									
116	U17	20+360	20+380	LT.		20		20									
116	U18	20+360	20+380	RT.		20		20									
116	U19		20+360	LT.	13												
116	U20		20+360	RT.	13												
116	U21	20+329	20+380	LT.		51		51									
116	U22		20+360	LT.	11												
117	U1	21+380	20+660	LT.		280		280									
117	U2	21+380	20+665	LT.		285		285									
117	U3	21+380	20+665	RT.		285		285									
117	U4	20+421	20+660	RT.		239		239									
117	U5		20+421	RT.	10									1			
117	U6		20+660	LT.	11									1			
117	U7		20+660	RT.	11									1			
117	U8		20+665	LT.	13												
117	U9		20+665	RT.	13												
117	U10	20+660	20+848	LT.		188		188									
117	U11	20+665	20+848	LT.		183		183									
117	U12	20+665	20+848	RT.		183		183									
117	U13	20+660	20+848	RT.		188		188									
117	U14	20+849	20+980	LT.		131		131									
117	U15	20+849	20+980	LT.		131		131									
117	U16	20+849	20+980	RT.		131		131									
117	U17	20+849	20+980	RT.		131		131									
TOTAL THIS COLUMN						289	5965	0	5965		11						

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	603				605				604			
		FROM	TO OR AT			150 mm CONDUIT, TYPE F	150 mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN	PREFABRICATED EDGE UNDERDRAIN	100 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	PRECAST REINFORCED CONCRETE OUTLET	METER	EACH	METER	EACH	METER	EACH	
118	U1	20+980	21+250	LT.		270		270									
118	U2	20+980	21+334	LT.		354		354									
118	U3	20+980	21+334	RT.		354		354									
118	U4	20+980	21+250	RT.		270		270									
118	U5		21+250	LT.	14									1			
118	U6		21+250	RT.	11									1			
118	U7	21+250	21+430	LT.		180		180									
118	U8	21+250	21+430	RT.		180		180									
118	U9		21+334	LT.	13												
118	U10		21+334	RT.	13												
118	U11	21+334	21+580	LT.		246		246									
118	U12	21+334	21+580	RT.		246		246									
118	U13		21+430	LT.	13									1			
118	U14		21+430	RT.	11									1			
118	U15	21+430	21+580	LT.		150		150									
118	U16	21+430	21+580	RT.		150		150									
119	U1	21+580	21+609	LT.		29		29									
119	U2	21+580	21+611	LT.		31		31									
119	U3	21+580	21+611	RT.		31		31									
119	U4	21+580	21+609	RT.		29		29									
119	U5		21+609	LT.	14									1			
119	U6		21+611	LT.	13												
119	U7		21+611	RT.	13												
119	U8		21+609	RT.	15									1			
119	U9	21+609	21+715	LT.		106		106									
119	U10	21+611	21+720	LT.		109		109									
119	U11	21+611	21+720	RT.		109		109									
119	U12	21+609	21+715	RT.		106		106									
119	U13		21+711	LT.	13												
119	U14		21+711	RT.	13												
119	U15		21+765	LT.	13												
119	U16		21+765	RT.	13												
119	U17	21+760	22+040	LT.		280		280									
119	U18	21+765	21+870	LT.		105		105									
119	U19	21+765	21+870	RT.		105		105									
119	U20	21+760	22+040	RT.		280		280									
119	U21		21+870	LT.	13									1			
119	U22		21+870	RT.	13									1			
119	U23	21+870	22+030	LT.		160		160									
119	U24	21+870	22+030	RT.		160		160									
119	U25		22+040	LT.	13									1			
119	U26		22+030	LT.	13												
119	U27		22+030	RT.	13												
119	U28		22+040	RT.	15									1			
119	U29	22+040	22+180	LT.		140		140									
119	U30	22+030	22+180	LT.		150		150									
119	U31	22+030	22+180	RT.		150		150									
119	U32	22+040	22+180	RT.		140		140									
120	U1	22+180	22+260	LT.		80		80									
120	U2	22+180	22+398	LT.		218		218									
120	U3	22+180	22+398	RT.		218		218									
120	U4	22+180	22+260	RT.		80		80									
120	U5		22+260	LT.	18									1			
120	U6		22+260	RT.	18									1			
120	U7	22+260	22+398	LT.		138		138									
120	U8	22+260	22+398	RT.		138		138									
120	U9	22+398	22+660	LT.		262		262									
120	U10	22+398	22+780	LT.		382		382									

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	603			605			604		
		FROM	TO OR AT			150 mm CONDUIT, TYPE F	150 mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN	PREFABRICATED EDGE UNDERDRAIN	100 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	PRECAST REINFORCED CONCRETE OUTLET	METER	EACH		
124	U1	24+480	24+500	LT.		20		20						
124	U2	24+480	24+507	LT.		27		27						
124	U3	24+480	24+517	RT.		37		37						
124	U4	24+480	24+520	RT.		40		40						
124	U5	24+578	24+930	LT.		352		352						
124	U6	24+582	24+910	LT.		328		328						
124	U7	24+584	24+910	RT.		326		326						
124	U8	24+600	24+890	RT.		290		290						
124	U9		24+930	LT.		15						1		
124	U10		24+890	RT.		16						1		
124	U11		24+910	LT.		13								
124	U12		24+910	RT.		13								
124	U13	24+935	25+080	LT.		145		145						
124	U14	24+930	25+080	LT.		150		150						
124	U15	24+913	25+080	RT.		167		167						
124	U16	24+910	25+080	RT.		170		170						
125	U1	25+080	25+200	LT.		120		120						
125	U2	25+080	25+176	LT.		96		96						
125	U3	25+080	25+176	RT.		96		96						
125	U4	25+080	25+200	RT.		120		120						
125	U5		25+176	LT.		13								
125	U6		25+176	RT.		13								
125	U7		25+200	LT.		13						1		
125	U8		25+200	RT.		16						1		
125	U9	25+200	25+500	LT.		300		300						
125	U10	25+176	25+481	LT.		305		305						
125	U11	25+176	25+481	RT.		305		305						
125	U12	25+200	25+500	RT.		300		300						
125	U13		25+480	LT.		13								
125	U14		25+480	RT.		13								
125	U15		25+500	LT.		11						1		
125	U16		25+500	RT.		12						1		
125	U17	25+500	25+660	LT.		160		160						
125	U18	25+481	25+660	LT.		179		179						
125	U19	25+481	25+660	RT.		179		179						
125	U20	25+500	25+660	RT.		160		160						
126	U1	25+660	25+732	LT.		72		72						
126	U2	25+660	25+732	LT.		72		72						
126	U3	25+660	25+775	RT.		115		115						
126	U4	25+660	25+775	RT.		115		115						
126	U5		25+732	LT.		24						1		
126	U6		25+775	RT.		21						1		
126	U7	25+733	0+091	LT.		91								
126	U8	25+776	25+983	RT.		207								
126	U9		25+862	RT.		13								
126	U10	25+862	26+060	LT.		198								
126	U11	25+862	26+060	RT.		198								
126	U12	25+860	26+000	LT.		140								
126	U13		25+862	LT.		13								
126	U14	25+982	26+060	RT.		78								
126	U15		26+000	LT.		12						1		
126	U16	26+000	26+060	LT.		60								
126	U17		25+893	LT.		12						1		
126	U18		25+983	RT.		13						1		
126	U19		0+05	LT.		3								
126	U20	0+091	0+160	LT.		69								
126	U21	25+733	25+862	LT.		129								
126	U22	25+776	25+862	RT.		86								
127	U1	26+060	26+180	LT.		120								
127	U2	26+060	26+185	LT.		125								
127	U3	26+060	26+195	RT.		135								
127	U4	26+060	26+170	RT.		110								
127	U5	26+260	26+420	LT.		160								
127	U6	26+260	26+472	LT.		212								
127	U7	26+270	26+472	RT.		202								
127	U8	26+275	26+420	RT.		145								
TOTAL THIS COLUMN						272	7211	0	4746	11				

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	603			605			604		
		FROM	TO OR AT			150 mm CONDUIT, TYPE F	150 mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN	PREFABRICATED EDGE UNDERDRAIN	100 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	PRECAST REINFORCED CONCRETE OUTLET	METER	EACH		
127	U9		26+420	LT.		17						1		
127	U10		26+420	RT.		17						1		
127	U11	26+420	26+610	LT.			190							
127	U12	26+420	26+590	RT.			170							
127	U13		26+472	LT.		13								
127	U14		26+472	RT.		13								
127	U15	26+472	26+660	LT.			188							
127	U16	26+472	26+660	RT.			188							
127	U17	26+612	26+660	LT.			48							
127	U18		26+610	LT.		4								
128	U1	26+660	26+920	LT.			260							
128	U2	26+660	26+695	LT.			35							
128	U3	26+660	26+695	RT.			35							
128	U4	0+395	26+920	RT.			255							
128	U5		26+695	LT.		13								
128	U6		26+695	RT.		13								
128	U7	26+695	27+035	LT.			340							
128	U8	26+695	27+035	RT.			340							
128	U9		26+920	LT.		12						1		
128	U10		26+920	RT.		8						1		
128	U11	26+920	27+140	LT.			220							
128	U12	26+920	27+140	RT.			220							
128	U13		27+035	LT.		13								
128	U14		27+035	RT.		13								
128	U15	27+035	27+140	LT.			105							
128	U16	27+035	27+140	RT.			105							
129	U1	27+140	27+220	LT.			80							
129	U2	27+140	27+432	LT.			292							
129	U3	27+140	27+432	RT.			292							
129	U4	27+140	27+220	RT.			80							
129	U5		27+220	LT.		11						1		
129	U6		27+220	RT.		8						1		
129	U7	27+220	27+520	LT.			300							
129	U8	27+220	27+520	RT.			300							
129	U9		27+432	LT.		13								
129	U10		27+432	RT.		13								
129	U11	27+432	27+740	LT.			308							
129	U12	27+432	27+740	RT.			308							
129	U13		27+520	LT.		13						1		
129	U14		27+520	RT.		14						1		
129	U15	27+520	27+740	LT.			220							
129	U16	27+520	27+740	RT.			220							
129	U17		27+737	LT.		13								
129	U18		27+737	RT.		13								
130	U1	27+740	27+820	LT.			80							
130	U2	27+740	28+012	LT.			272							
130	U3	27+740	28+012	RT.			272							
130	U4	27+740	27+820	RT.			80							
130	U5		27+820	LT.		13						1		
130	U6		27+820	RT.		12						1		
130	U7	27+820	28+120	LT.			300							
130	U8	27+820	28+120	RT.			300							
130	U9		28+012	LT.		13								
130	U10		28+012	RT.		13								
130	U11	28+012	28+285	LT.			273							
130	U12	28+012	28+285	RT.			273							
130	U13		28+120	LT.		13						1		
130	U14		28+120	RT.		12						1		
130	U15	28+120	28+340	LT.			220							
130	U16	28+120	28+340	RT.			220							
130	U17		28+285	LT.		13								
130	U18		28+285	RT.		13								
130	U19	28+285	28+340	LT.			55							
130	U20	28+285	28+340	RT.			55							
130	U21		28+012	LT.		11						1		
130	U22		28+012	RT.		11						1		
TOTAL THIS COLUMN						358	7499	0	0	14				

FROM SHEET NUMBER	DESIGNATION	STATION		
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FENCE "F"

FROM SHEET NUMBER	DESIGNATION	STATION			202	607		625
		FROM	TO	SIDE		FENCE REMOVED	FENCE, TYPE 47, AS PER PLAN	
					METER			EACH
115	F1	19+446	19+570	LT.	124	124		
115	F2	19+446	19+570	RT.	124	124		
115	F3	19+570	19+618	RT.	48	48		
115	F4		19+570	RT.	24	24		
115	F5		19+594	RT.	15	15		
115	F6		19+618	LT.	15	15		
115	F7		19+628	LT.	24	24		
115	F8	19+594	19+660	LT.	66	66		
115	F9	19+570	19+665	RT.	95	95		
116	F1	20+330	20+380	LT.	50	50		
116	F2	20+300	20+380	RT.	80	80		
117	F1	20+380	20+980	LT.	600	600		
117	F2	20+380	20+980	RT.	600	600		
118	F1	20+980	21+580	LT.	600	600		
118	F2	20+980	21+580	RT.	600	600		
119	F1	21+580	21+736	LT.	156	156		
119	F2	21+580	21+720	RT.	140	140		
119	F3		21+733	LT.	24	24		
119	F4		21+726	RT. & LT.	24	24		
119	F5		21+720	RT.	22	22		
119	F6		21+755	LT.	24	24		
119	F7		21+748	RT. & LT.	24	24		
119	F8		21+742	RT.	22	22		
119	F9	21+757	21+941	LT.	184	184		
119	F10	21+742	21+922	RT.	180	180		
119	F11	21+955	22+180	LT.	225	225		
119	F12	21+938	22+180	RT.	242	242		
120	F1	22+180	22+389	LT.	209	209		
120	F2	22+180	22+389	RT.	209	209		
120	F3		22+389	LT.	29			
120	F4		22+389	RT. & LT.	21			
120	F5		22+389	RT.	31			
120	F6		22+430	LT.	29			
120	F7		22+430	RT. & LT.	21			
120	F8		22+430	RT.	31			
120	F9	22+430	22+780	LT.	350	350		
120	F10	22+430	22+780	RT.	350	350		
120	F11	22+389	22+430	RT.		41		
120	F12	22+389	22+430	LT.		41		
121	F1	22+780	23+176	LT.	396	396		
121	F2	22+780	23+169	RT.	389	389		
121	F3		23+070	LT.			2	
121	F4		23+090	RT.			2	
121	F5		23+176	LT.	13	13		
121	F6		23+186	LT.	14	14		
121	F7		23+169	RT.	13	13		
121	F8		23+182	RT.	12	12		
121	F9	23+190	23+380	LT.	190	190		
121	F10	23+182	23+380	RT.	198		198	
122	F1	23+380	23+698	LT.	318	318		
122	F2	23+380	23+737	RT.	357		357	
122	F3		23+698	LT.	19	19		
122	F4		23+186	LT.	12	12		
122	F5		23+169	RT.	12	12		
122	F6		23+182	RT.	16	16		
122	F7	23+721	23+980	LT.	259	259		
122	F8	23+757	23+980	RT.	223	223		
123	F1	23+980	24+480	LT.	500	500		
123	F2	23+980	24+480	RT.	500	500		
TOTAL THIS COLUMN					9053	8418	555	4

FROM SHEET NUMBER	DESIGNATION	STATION			202	607		625
		FROM	TO	SIDE		FENCE REMOVED	FENCE, TYPE 47, AS PER PLAN	
					METER			EACH
124	F1	24+480	24+497	LT.	17	17		
124	F2	24+480	24+542	RT.	62	62		
124	F3		24+497	LT.	31	31		
124	F4		24+520	RT. & LT.	24	24		
124	F5		24+530	RT.	31	31		
124	F6		24+560	LT.	31	31		
124	F7		24+580	RT. & LT.	24	24		
124	F8		24+587	RT.	29	29		
124	F9	24+560	24+938	LT.	378	378		
124	F10	24+598	24+880	RT.	282	282		
124	F11		24+938	LT.	14	14		
124	F12		24+943	LT.	18	18		
124	F13		24+880	RT.	19	19		
124	F14		24+898	RT.	15	15		
124	F15	24+952	25+080	LT.	128	128		
124	F16	24+995	25+080	RT.	85	85		
125	F1	25+080	25+660	LT.	580	580		
125	F2	25+080	25+660	RT.	580	580		
126	F1	25+660	25+882	LT.	222	222		
126	F2	25+660	25+984	RT.	324	324		
127	F1	26+612	26+660	LT.	48	48		
127	F2	26+640	26+660	RT.	20	20		
128	F1	26+660	26+991	LT.	331	331		
128	F2	26+660	26+982	RT.	322	322		
128	F3	27+000	27+140	LT.	140	140		
128	F4	26+988	27+140	RT.	152	152		
129	F1	27+140	27+740	LT.	600	600		
129	F2	27+140	27+740	RT.	600	600		
129	F3		27+158	RT.			1	
129	F4		27+158	RT.			1	
130	F1	27+740	28+340	LT.	600	600		
130	F2	27+740	28+340	RT.	600	600		
131	F1	28+340	28+940	LT.	600	600		
131	F2	28+340	28+940	RT.	600	600		
132	F1	28+940	29+540	LT.	600	600		
132	F2	28+940	29+540	RT.	600	600		
133	F1	29+540	29+584	LT.	44	44		
133	F2	29+540	29+574	RT.	34	34		
133	F3	29+593	30+140	LT.	547	547		
133	F4	29+582	30+140	RT.	558	558		
134	F1	30+140	30+510	LT.	370	370		
134	F2	30+140	30+625	RT.	485	485		
134	F3	30+510	30+530	LT.	45	45		
134	F4		30+632	LT.	34	34		
134	F5	30+632	30+740	LT.	108	108		
134	F6		30+625	RT.	27	27		
135	F1	30+740	31+180	LT.	440	440		
135	F2	30+760	31+180	RT.	420	420		
136	F1	31+180	31+272	LT.	92	92		
136	F2	31+180	31+272	RT.	92	92		
136	F3		31+272	LT.	24	24		
136	F4		31+272	RT. & LT.	24	24		
136	F5		31+272	RT.	27	27		
136	F6		31+303	LT.	24	24		
136	F7		31+303	RT. & LT.	24	24		
136	F8		31+303	RT.	27	27		
TOTAL THIS COLUMN					12153	12153	0	2

FROM SHEET NUMBER	DESIGNATION	STATION			202	607		625
		FROM	TO	SIDE		FENCE REMOVED	FENCE, TYPE 47, AS PER PLAN	
					METER			EACH
136	F9	31+303	31+335	LT.	32	32		
136	F10	31+303	31+446	RT.	143	143		
137	F1	31+863	32+260	LT.	497	497		
137	F2	32+144	32+360	RT.	216	216		
138	F1	32+360	32+463	LT.	103	103		
138	F2		32+463	LT.	10	10		
138	F3	32+463	32+781	LT.	318	318		
138	F4	32+360	32+562	RT.	202	202		
138	F5	32+562	32+720	RT.	158	158		
203	F1	0+110	0+430	LT.	320	320		
204	F1	0+017	0+370	LT.	353	353		
205	F1	0+026	0+320	LT.	294	294		
206	F1	0+000	0+350	RT.	350	350		
208	F1	0+155	0+415	LT.	260	260		
208	F2	0+415	0+429	LT.	23	23		
209	F1	0+000	0+031	LT.	31	31		
209	F2	0+031	0+468	LT.	437	437		
210	F1	0+027	0+260	RT.	377	377		
210	F2	0+260	0+273	RT.	20	20		
210	F3	0+273	0+375	RT.	102	102		
211	F1	0+000	0+060	RT.	60	60		
211	F2	0+060	0+320	RT.	150	180		
211	F3	0+320	0+372	RT.		77		
211	F4	0+372	0+464	RT.	110	110		
216	F1	1+646	1+768	LT.	125	125		
216	F2	1+768	1+800	LT.	50	50		
216	F3	1+646	1+738	RT.	92	92		
216	F4	1+738	1+768	RT.	35	35		
216	F5	1+768	1+782	RT.	14	14		
217	F1	0+061	0+198	LT.	129	129		
217	F2	0+198	0+358	LT.	152	152		
218	F1	0+015	0+063	LT.	60	60		
218	F2	0+063	0+137	LT.	82	82		
218	F3	0+137	0+193	LT.	48	48		
218	F4	0+193	0+288	LT.	92	92		
219	F1	0+020	0+160	RT.	145	145		
219	F2	0+160	0+277	RT.	113	113		
219	F3	0+277	0+347	RT.	66	66		
219	F4	0+347	0+452	RT.	106	106		
220	F1	0+000	0+076	RT.	76	76		
220	F2	0+076	0+210	RT.	129	129		
220	F3	0+210	0+248	RT.	55	55		
220	F4	0+248	0+276	RT.	31	31		
TOTAL THIS COLUMN					6116	6223	0	0
TOTAL COLUMN ONE					9053	8418	555	4
TOTAL COLUMN TWO					12153	12153	0	2
TOTAL TO GENERAL SUMMARY					27322	26794	555	6

FILE NAME: FENCE I:\5033\006\IRAN\DWGS\R_11376CBA.DWG 8--9--99 9:47:16 am EST

CALCULATED BY: PMA
DATE: 4-97
CHECKED BY: MEM
DATE: 5-97

FENCE CALCULATIONS

ERI-2-12-558

GUARDRAIL "GR"

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	STATION										
		FROM	TO OR AT			202	606						622			
					GUARDRAIL REMOVED	RAISING TYPE 5 GUARDRAIL	GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5 (12.19m RAD.)	GUARDRAIL, TYPE 5 (6.10m RAD.)	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY TYPE B-98	ANCHOR ASSEMBLY, TYPE E-98	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	CONCRETE BARRIER, TYPE D (SEE STD. DWG. RM-4.5M)	
					METER				EACH				METER			
116	GR1	19+942.368	20+005.443	RT.			36.195				1	1			24	
116	GR2	19+980.335	20+044.146	LT.			36.195				1	1			24	
116	GR3	19+946.700	20+012.000	RT.	66											
116	GR4	19+972.700	20+038.500	LT.	66											
119	GR1	21+618.654	21+718.999	RT.			97.155					1	1			
119	GR2	21+658.538	21+721.273	RT.			70.485				1		1			
119	GR3	21+685.060	21+727.226	LT.			38.100			1				1		
119	GR4	21+749.334	21+793.578	RT.			41.910			1				1		
119	GR5	21+755.528	21+818.566	LT.			70.485				1		1			
119	GR6	21+757.983	21+855.727	LT.			93.345				1		1			
119	GR7	21+621.500	21+720.300	RT.	100											
119	GR8	21+639.900	21+719.400	RT.	84											
119	GR9	21+682.700	21+728.700	LT.	45											
119	GR10	21+757.400	21+837.200	LT.	84											
119	GR11	21+748.000	21+793.600	RT.	47											
119	GR12	21+756.700	21+856.700	LT.	99											
119	GR13	21+887.634	21+938.451	RT.			32.385					1	1		15	
119	GR14	21+938.816	21+989.632	LT.			32.385									
119	GR15	21+888.590	21+946.412	RT.	58						1		1		15	
119	GR16	21+930.695	21+988.594	LT.	58											
119	GR17	22+082.100	22+181.160	RT.	98		83.820					1				
119	GR18	22+100.800	22+180.810	LT.	79		80.010			1						
120	GR1	22+180.000	22+341.900	RT.	162											
120	GR2	22+180.000	22+339.644	LT.	160											
120	GR3	22+304.000	22+386.000	RT.	84											
120	GR4	22+433.000	22+515.277	LT.	84											
120	GR5	22+433.312	22+480.000	LT.	47											
120	GR6	22+434.029	22+480.000	RT.	46											
120	GR7	22+181.160	22+478.340	RT.			297.180									
120	GR8	22+180.810	22+477.990	LT.			297.180									
120	GR9	22+478.340	22+745.040	RT.	264		266.700			1						
120	GR10	22+477.990	22+756.120	LT.	277		262.890				1					
121	GR1	23+092.720	23+188.580	RT.			87.630			1		1				
122	GR1	23+699.710	23+784.060	LT.			76.200			1		1				
122	GR2	23+662.250	23+756.900	RT.			87.630			1		1				
123	GR1	24+328.112	24+480.000	RT.			148.590					1				
123	GR2	24+330.700	24+480.000	RT.	148											
123	GR3	24+324.000	24+480.000	LT.		155.0										
124	GR1	24+438.600	24+521.600	RT.	83											
124	GR2	24+456.270	24+521.105	RT.			70.485				1		1			
124	GR3	24+480.000	24+527.176	RT.	49		47.625					1				
124	GR4	24+481.200	24+503.980	LT.	23		22.860						1			
124	GR5	24+595.830	24+871.811	RT.	276		274.320			1			1			
124	GR6	24+579.171	24+643.828	LT.			70.485				1		1			
124	GR7	24+573.271	24+762.924	LT.	187		184.785				1		1			
124	GR8	24+578.700	24+661.900	LT.	83											
126	GR1	25+950.671	26+061.161	LT.	108		106.680			1						
127	GR1	26+061.161	26+183.081	LT.	124		121.920							1		
127	GR2	26+132.845	26+197.961	RT.			70.485				1		1			
127	GR3	0+181.923	26+206.813	RT.	90		85.725					1	1			
127	GR4	26+116.600	26+199.000	RT.	83											
127	GR5	26+271.391	26+438.984	RT.			163.830			1				1		
127	GR6	26+253.476	26+318.585	LT.			70.485				1		1			
127	GR7	26+248.162	26+265.300	LT.	19		17.145						1			
127	GR8	26+265.300	26+385.700	LT.		120.4										
127	GR9	26+252.400	26+332.200	LT.	81											
127	GR10	0+264.645	26+660.000	RT.	130		125.730					1				
127	GR11	26+627.424	26+660.000	LT.	32		28.575			1						
TOTALS THIS COLUMN					3524	275	3697.605	0.000	0.000	11	6	15	16	6	79	

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	STATION										
		FROM	TO OR AT			202	606						622			
					GUARDRAIL REMOVED	RAISING TYPE 5 GUARDRAIL	GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5 (12.19m RAD.)	GUARDRAIL, TYPE 5 (6.10m RAD.)	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY TYPE B-98	ANCHOR ASSEMBLY, TYPE E-98	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	CONCRETE BARRIER, TYPE D (SEE STD. DWG. RM-4.5M)	
					METER				EACH				METER			
128	GR1	26+660.000	26+755.865	RT.	88		83.820					1				
128	GR2	26+660.000	26+748.267	LT.	98		93.345									
128	GR3	26+938.249	26+990.883	RT.			36.195					1	1		13	
128	GR4	26+988.268	27+040.922	LT.			36.195					1	1		13	
128	GR5	26+939.049	26+996.899	RT.	59											
128	GR6	26+979.722	27+037.532	LT.	59											
133	GR1	29+533.452	29+586.104	RT.			36.195					1	1		13	
133	GR2	29+583.838	29+636.490	LT.			36.195					1	1		13	
133	GR3	29+540.800	29+594.900	RT.	55											
133	GR4	29+577.200	29+631.300	LT.	55											
134	GR1	30+285.413	30+620.896	RT.	333		329.565						1	1		
134	GR2	30+297.642	30+539.954	LT.	244		240.030			1				1		
134	GR3	30+533.770	30+598.698	RT.			70.485				1		1			
134	GR4	30+509.100	30+597.290	RT.	95											
134	GR5	30+639.202	30+740.000	LT.	104		100.965						1			
134	GR6	30+661.771	30+726.384	LT.			70.485				1		1			
134	GR7	30+722.676	30+740.000	RT.	20		17.145							1		
134	GR8	30+662.800	30+752.800	LT.	95											
135	GR1	30+740.000	31+180.000	RT.	438		438.150									
135	GR2	30+740.000	31+180.000	LT.	444		445.770									
136	GR1	31+180.000	31+273.136	RT.	91		95.250							1		
136	GR2	31+180.000	31+273.366	LT.	91		93.345							1		
136	GR3	31+202.554	31+273.212	RT.			70.485				1		1			
136	GR4	31+178.500	31+269.400	RT.	94											
136	GR5	31+302.437	31+402.103	RT.	93		95.250			1				1		
136	GR6	31+302.243	31+372.590	LT.			70.485				1		1			
136	GR7	31+302.187	31+402.019	LT.	95		97.155					1	1			
136	GR8	31+348.800	31+402.500	RT.		54.0										
136	GR9	31+306.000	31+484.000	LT.	100											
136	GR10	31+610.805	31+674.344	RT.			36.195					1	1		24	
136	GR11	31+639.162	31+702.006	LT.			36.195					1	1		24	
136	GR12	31+636.300	31+693.000	LT.	57											
136	GR13	31+622.500	31+680.000	RT.	57											
136	GR14	31+636.300	31+680.100	CL	90											
137	GR1	31+970.300	32+042.200	LT.			64.770			1		1				
137	GR2	31+966.700	32+012.000	LT.	46											
137	GR3	32+098.000	32+144.000	LT.	46											
203	GR1	0+375.029	1+650.000	LT	69		45.720		11.430	3						
203	GR2	0+381.312	1+731.689	RT	110		76.200	15.240		1		1				
204	GR1	1+651.000	0+086.966	RT	83		45.740		11.430	2		1				
204	GR2	1+731.759	0+075.942	LT	118		72.390	15.240				2				
205	GR1	1+344.947	0+075.525	LT	67		34.290	15.240		1		1				
205	GR2	1+397.000	0+074.341	RT	65		60.960		15.240	1						
206	GR1	0+291.556	1+345.544	RT			45.720	15.240				2				
206	GR2	0+284.746	1+395.000	LT	80		45.720		7.620	2		1				

EROSION "ER"

FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN	601		670	
		FROM	TO OR AT	CU. METER			SQ. METER			
119	ER1	21+725	21+731	RT		66				
	ER2	21+730	21+736	LT		66				
	ER3	21+740	21+746	RT		66				
	ER4	21+746	21+752	LT		66				
124	ER1	24+530	24+543	RT	226					
	ER2	24+513	24+526	LT	226					
	ER3	24+574	24+587	RT	226					
	ER4	24+558	24+571	LT	226					
127	ER1	26+206	26+213	RT	213					
	ER2	26+192	26+199	LT	144					
	ER3	26+253	26+260	RT	213					
	ER4	26+239	26+246	LT	144					
128	ER1	26+678	26+702	CL				40		
	ER2	27+023	27+048	CL				40		
	ER3	26+677	26+692	LT			14			
129	ER1	27+420	27+444	CL				40		
	ER2	27+725	27+749	CL				40		
	ER3	27+530	27+536	LT			5			
	ER4	27+516	27+522	RT			5			
130	ER1	27+999	28+023	CL				40		
	ER2	28+274	28+298	CL				40		
131	ER1	28+418	28+426	LT			7			
	ER2	28+348	28+356	RT			7			
132	ER1	29+404	29+410	RT						
134	ER1	30+619	30+635	RT	322					
	ER2	30+560	30+576	LT	401					
	ER3	30+685	30+701	RT	410					
	ER4	30+625	30+641	LT	342					
135	ER1	30+986	30+996	CL				20		
136	ER1	31+273	31+283	RT		192				
	ER2	31+273	31+283	LT		159				
	ER3	31+293	31+303	RT		192				
	ER4	31+293	31+303	LT		165				
	ER5	31+398	31+422	CL				40		
	ER6	31+703	31+727	CL				40		
138	ER1		32+442	LT				8		
	ER2	32+441	32+449	LT			7			
	ER3	32+401	32+409	RT			7			
TOTAL TO GENERAL SUMMARY						3093	972	57	8	340

REMOVALS "R"

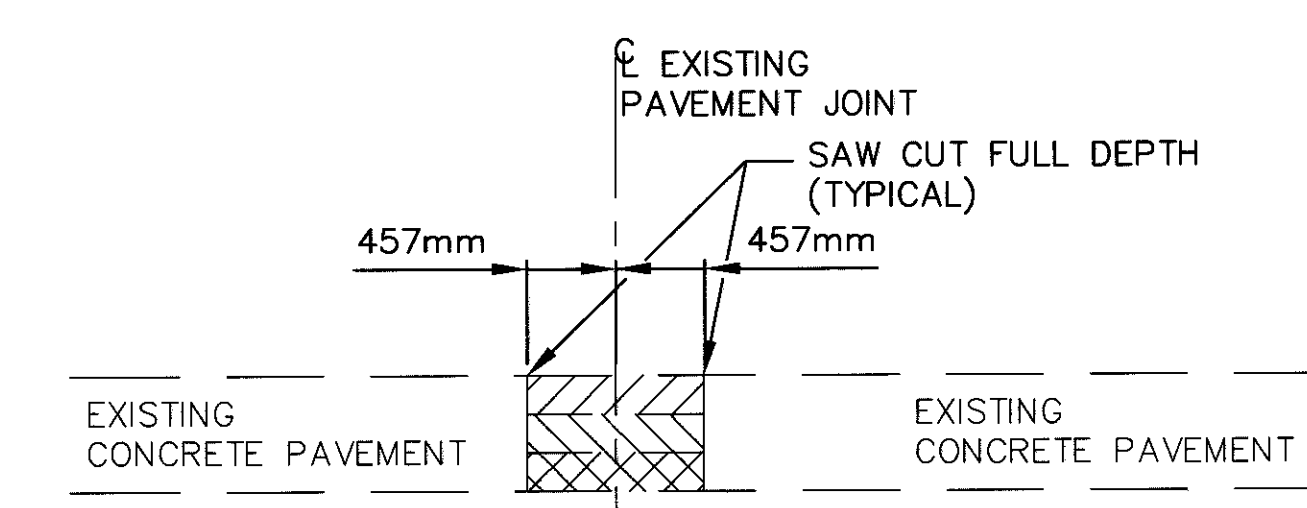
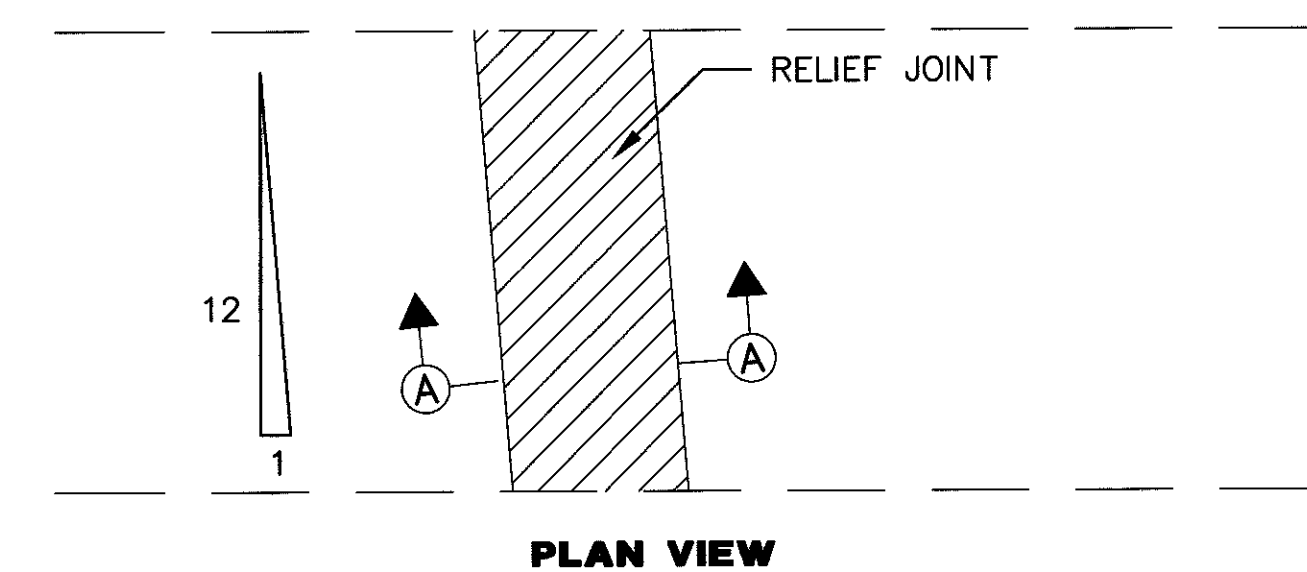
FROM SHEET NUMBER	DESIGNATION	STATION			SIDE	202		
		FROM	TO OR AT	APPROACH SLAB REMOVED		CONCRETE MEDIAN REMOVED	CURB REMOVED	
						SQ. METER	METER	
115	R1	19+665	19+696	RT.				31
115	R2	19+665	19+677	RT.			33	
116	R1	20+299	20+330	LT.				31
116	R2	20+318	20+330	LT.			33	
119	R1		21+740	LT.	193			
119	R2		21+740	RT.	193			
120	R1		22+409	LT.	193			
120	R2		22+409	RT.	193			
124	R1		24+550	LT.	193			
124	R2		24+550	RT.	193			
126	R1	25+983	25+996	RT.			36	
126	R2	25+983	26+014	RT.				31
127	R1		26+224	LT.	116			
127	R2		26+224	RT.	258			
127	R3	26+582	26+612	LT.				31
127	R4	26+599	26+612	LT.			36	
134	R1		30+624	LT.	193			
134	R2		30+624	RT.	193			
136	R1		31+288	LT.	296			
136	R2		31+288	RT.	236			
136	R3	31+442	31+455	RT.			36	
136	R4	31+442	31+473	RT.				31
137	R1	31+833	31+863	LT.				30
137	R2	31+850	31+863	LT.			36	
203	R1	0+000	0+168	RT.				168
204	R1	0+340	0+370	RT.				30
205	R1	0+275	0+442	LT.				167
206	R1	0+000	0+030	LT.				30
208	R1	0+000	0+168	RT.				168
209	R1	0+438	0+468	RT.				30
210	R1	0+009	0+018	LT.				9
210	R2	0+260	0+428	LT.				168
211	R1	0+000	0+029	LT.				29
212	R1	0+463	0+488	RT.				25
212	R2	0+086	0+152	RT.				66
212	R3		0+029	RT.				29
217	R1	0+038	0+168	RT.				130
218	R1	0+258	0+289	RT.				31
219	R1	0+308	0+452	LT.				144
220	R1	0+000	0+030	LT.				30
TOTAL TO GENERAL SUMMARY						2450	210	1439

RUMBLE STRIPS

LOCATION	STATION		SIDE	LENGTH	618	
	FROM	TO OR AT			A x 2	RUMBLE STRIPS, TYPE 2
					METER	METER
MAINLINE	19+446.279	21+723.000	LT.	2276.7	4553.4	
MAINLINE	21+760.000	22+382.000	LT.	622.0	1244.0	
MAINLINE	22+437.000	24+505.000	LT.	2068.0	4136.0	
MAINLINE	24+581.000	26+183.000	LT.	1602.0	3204.0	
MAINLINE	26+255.000	30+550.000	LT.	4295.0	8590.0	
MAINLINE	30+655.000	31+265.000	LT.	610.0	1220.0	
MAINLINE	31+335.000	32+781.305	LT.	1446.3	2892.6	
MAINLINE	19+446.279	21+716.000	RT.	2269.7	4539.4	
MAINLINE	21+753.000	22+382.000	RT.	629.0	1258.0	
MAINLINE	22+437.000	24+519.000	RT.	2082.0	4164.0	
MAINLINE	24+594.000	26+196.000	RT.	1602.0	3204.0	
MAINLINE	26+268.000	30+606.000	RT.	4338.0	8676.0	
MAINLINE	30+712.000	31+265.000	RT.	553.0	1106.0	
MAINLINE	31+310.000	32+781.305	RT.	1471.3	2942.6	
S.R. 4						
RAMP A	0+125.884	0+440.000	LT.	314.1	628.2	
RAMP B	0+008.000	0+369.713	LT.	361.7	723.4	
RAMP C	0+008.000	0+345.000	RT.	337.0	674.0	
RAMP D	0+000.000	0+362.000	RT.	362.0	724.0	
U.S. 250						
RAMP A	0+122.000	0+443.000	LT.	321.0	642.0	
RAMP B	0+013.000	0+468.000	LT.	455.0	910.0	
RAMP C	0+008.000	0+330.000	RT.	322.0	644.0	
RAMP D	0+000.000	0+746.000	RT.	746.0	1492.0	
RAMP E	0+120.000	0+510.000	RT.	390.0	780.0	
RYE BEACH ROAD						
RAMP A	0+103.000	0+365.000	LT.	262.0	524.0	
RAMP B	0+008.000	0+288.000	LT.	280.0	560.0	
RAMP C	0+008.000	0+452.000	RT.	444.0	888.0	
RAMP D	0+000.000	0+285.000	RT.	285.0	570.0	
TOTAL TO GENERAL SUMMARY					61490	

PRESSURE RELIEF JOINTS

FROM SHEET NUMBER	DESIGNATION	STATION	SIDE	SPECIAL	
				PRESSURE RELIEF JOINT, TYPE C, AS PER PLAN	METER
127	PRJ-1	26+197	RT	15	
127	PRJ-2	26+183	LT	8	
127	PRJ-3	26+255	RT	14	
127	PRJ-4	26+269	LT	8	
134	PRJ-1	30+551	LT	15	
134	PRJ-2	30+607	RT	15	
134	PRJ-3	30+654	LT	15	
134	PRJ-4	30+710	RT	15	
136	PRJ-1	31+240	LT	15	
136	PRJ-2	31+240	RT	11	
136	PRJ-3	31+332	LT	12	
136	PRJ-4	31+332	RT	11	
TOTAL TO GEN. SUM.				154	



DO NOT DISTURB EXISTING BASE

RELIEF JOINT IS THREE EQUAL COURSES OF 705 OR 707.12.

SEE STD. DWG. BP-2.4M FOR ADDITIONAL NOTES AND DETAILS

**SECTION A - A
PRESSURE RELIEF JOINT, TYPE C
AS PER PLAN**

FILE NAME: RYE_BEACH_PAVT~1:5033\006\TRAN\DWG\RYE_11376GSA.DWG 8-9-99 9:56:06 am EST

PLOTTED:
KJB

FROM SHEET NUMBER	DESIGNATION	STATION		L	W	A = LxW	D	202	203	301			304	407		408	448		611
		FROM	TO OR AT					WEARING COURSE REMOVAL	SUBGRADE COMPACTION	BITUMINOUS AGGREGATE BASE, PG64-22 (75mm)	BITUMINOUS AGGREGATE BASE, PG64-22 (150mm)	BITUMINOUS AGGREGATE BASE, PG64-22 (DEPTH VARIES)	AGGREGATE BASE	TACK COAT FOR INTERMEDIATE COURSE (0.20 LITER/SQ. METER)	TACK COAT FOR INTERMEDIATE COURSE (0.20 LITER/SQ. METER)	BITUMINOUS PRIME COAT (1.8 LITER/SQ. METER)	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (38mm)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (45mm)	REINFORCED CONCRETE APPROACH SLAB (T=380mm), AS PER PLAN "B"
		A/2	A																
								CU. METER			LITER		CU. METER		SQ.METER				
215		1+302.000	1+334.618	32.618	7.200	234.85	70.0						105.7	47.0		8.9	10.6		
215		1+334.618	1+417.480	82.862	7.200	596.61	0.240				143.2		268.5	119.3		22.7	26.8		
215		1+334.618	1+417.480	82.862	3.600	298.30	0.330	298.3		44.7		98.4	59.7	53.7	11.3	13.4			
215		1+334.618	1+417.480	82.862	3.000	248.59							49.7	44.7	9.4	11.2			
215		1+334.618	1+417.480	82.862	3.225	267.23				40.1									
215		1+334.618	1+417.480	82.862	3.375	279.66	0.167	279.7			46.7								
215		1+334.618	1+417.480	82.862	3.000	248.59							49.7	44.7	9.4	11.2			
215		1+334.618	1+417.480	82.862	3.225	267.23													
215		1+334.618	1+417.480	82.862	3.375	279.66	0.167	407.1	20.0		46.7								
215		1+417.480	1+425.080	7.600	17.100	129.96												130.0	
215		1+417.480	1+425.080	7.600	17.700	134.52	0.150	134.5			20.2								
215		1+515.527	1+523.127	7.600	17.100	129.96												130.0	
215		1+515.527	1+523.127	7.600	17.700	134.52	0.150	134.5			20.2								
215-216		1+523.127	1+623.063	99.936	7.200	719.54	0.220				158.3		323.8	143.9		27.3	32.4		
215-216		1+523.127	1+623.063	99.936	3.600	359.77	0.175	359.8		54.0	63.0		72.0	64.8	13.7	16.2			
215-216		1+523.127	1+623.063	99.936	3.000	299.81							60.0	54.0	11.4	13.5			
215-216		1+523.127	1+623.063	99.936	3.225	322.29				48.3									
215-216		1+523.127	1+623.063	99.936	3.375	337.28	0.167	337.3			56.3								
215-216		1+523.127	1+623.063	99.936	3.000	299.81							60.0	54.0	11.4	13.5			
215-216		1+523.127	1+623.063	99.936	3.225	322.29			24.2										
215-216		1+523.127	1+623.063	99.936	3.375	337.28	0.167	337.3			56.3								
216		1+623.063	1+772.780	149.717	3.600	538.98							242.5	107.8		20.5	24.3		
216		1+623.063	1+772.780	149.717	7.200	1077.96	0.175	1078.0		161.7	188.6		215.6	194.0	41.0	48.5			
216		1+623.063	1+772.780	149.717	3.000	449.15							89.8	80.8	17.1	20.2			
216		1+623.063	1+772.780	149.717	3.225	482.84				72.4									
216		1+623.063	1+772.780	149.717	3.375	505.29	0.167	505.3			84.4								
216		1+623.063	1+691.583	68.520	3.600	246.67							111.0	49.3		9.4	11.1		
216		1+623.063	1+691.583	68.520	3.600	246.67	0.175	246.7		37.0	43.2		49.3	44.4	9.4	11.1			
216		1+623.063	1+691.583	68.520	3.000	205.56							41.1	37.0	7.8	9.3			
216		1+623.063	1+691.583	68.520	3.225	220.98													
216		1+623.063	1+691.583	68.520	3.375	231.26	0.167	231.3		33.1	38.6								
216		1+691.583	1+752.468	60.885	9.760	594.24							267.4	118.8		22.6	26.7		
216		1+752.468	1+772.780	20.312	7.320	148.68							66.9	29.7		5.6	6.7		
SUBTOTALS								70.0	4349.7	44.2	491.4	301.5	762.6	1385.8	1362.8	672.2	258.9	306.6	260
TOTAL TO GENERAL SUMMARY								70	4350		837	763	1386	1363	672	259	307	260	

* ITEM 301 - BITUMINOUS AGGREGATE BASE, VARIABLE DEPTH, TO BE USED WITH A 45mm THICK COURSE OF ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE WHEN THE ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE EXCEEDS 100mm THICK.

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	606							
		FROM	TO OR AT		GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5 (15.6m RADIUS)	GUARDRAIL, TYPE 5 (9.6m RADIUS)	GUARDRAIL, TYPE 5 (6.1m RADIUS)	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY, TYPE E-98	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					METER			EACH				
215	GR1	1+328.000	1+423.398	RT	85.725		15.240			1		1
215	GR2	1+339.365	1+428.900	LT	85.725						1	1
215	GR3	1+512.886	1+560.000	RT	47.625							1
215	GR4	1+518.388	1+560.000	LT	41.910							1
216	GR1	1+560.000	0+35.500	RT	53.340			11.430		1		1
216	GR2	1+560.000	0+246.800	LT	135.255		19.050			1		
216	GR3	0+249.300	1+764.817	LT	228.600	15.240				1	1	
SUBTOTAL					678.180	15.240	34.290	11.430		4	3	4
TOTAL TO GENERAL SUMMARY					739.140					4	3	4

CALCULATED BY: PMA
DATE: 6-97
CHECKED BY: JTY
DATE: 6-97

RYE BEACH ROAD PAVEMENT & GUARDRAIL CALCULATIONS

ERI-2-12.558

FROM SHEET NUMBER	DESIGNATION	STATION			202		601	602	603		604	604	605	830					
		FROM	TO OR AT	SIDE	PIPE REMOVED, 600mm & UNDER	GUARDRAIL REMOVED	APPROACH SLAB REMOVED	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER	CONCRETE MASONRY	150mm CONDUIT TYPE F	300mm CONDUIT, TYPE F 707.05	300 mm CONDUIT, TYPE C	CONDUIT BORED OR JACKED: 525 mm CONDUIT, TYPE A	CATCH BASIN NO. 6	PRECAST REINFORCED CONCRETE OUTLET	AGGREGATE DRAINS	150 mm SHALLOW PIPE UNDERDRAIN, AS PER PLAN, 707.31	COMBINATION CURB & GUTTER, TYPE 2
					METER	SQ.METER	SQ.METER	CU. METER		METER				EACH		EACH	METER	METER	
215	R1	1+328.000	1+421.000	RT															
	R2	1+340.000	1+423.000	LT	106														
	R3	1+520.000	1+560.000	RT	83														
	R4	1+520.000	1+560.000	LT	40														
	R5		1+425.000	LT & RT		69.7													
	R6		1+515.000	LT & RT		69.7													
	D1		1+409.100	RT				1	0.17		16			1					
	D2		1+414.600	LT				1	0.17		16			1					
	D3		1+527.100	RT				1	0.17		17			1					
	D4		1+532.700	LT				1	0.17		16			1					
	U1		1+345.000	RT											1				
	U2		1+345.000	LT							6				1				
	U3	1+345.000	1+416.000	RT														71	
	U4	1+345.000	1+420.000	LT														75	
	U5	1+515.000	1+560.000	RT														45	
	U6	1+519.000	1+560.000	LT														41	
	U7		1+415.000	RT											3				
	U8		1+423.000	LT											3				
	U9		1+519.000	RT											3				
	U10		1+524.500	LT											3				
	ER1	1+426.000	1+435.000	LT & RT			210												
	ER2	1+506.000	1+515.000	LT & RT			210												
216	R1	1+560.000	0+247.000	RT															
	R2	1+560.000	0+226.000	LT															
	R3	1+620.000	1+749.000	RT															
	R4	0+249.000	1+752.000	LT															
	R5	1+726.000	1+744.000	LT	18														
	D1		1+700.000	RT & LT					0.64				46						
	D2	1+740.000	1+744.000	LT					0.17		6								
	U1	1+560.000	1+600.000	RT														40	
	U2	1+560.000	1+600.000	LT														40	
	U3		1+600.000	RT											1				
	U4		1+600.000	LT							6				1				
	U5	1+623.000	1+781.600	LT							6							156	
	U6	1+630.000	1+688.000	RT							6							58	
	U7		1+688.000	RT											1				
	P1	1+174.200	1+178.600	LT															7
SUBTOTAL					18	897	139	420	4	1.5	33	65	6	46	4	5	12	526	7
TOTAL TO GENERAL SUMMARY					18	897	139	420	4	1.5	33	65	6	46	4	5	12	526	7

RYE BEACH ROAD CALCULATIONS

ERI-2-12-558

BARRIER REFLECTORS

STATION		SIDE	626			
FROM	TO OR AT		BARRIER REFLECTORS TYPE A	BARRIER REFLECTORS TYPE B	BARRIER REFLECTORS TYPE A2	BARRIER REFLECTORS TYPE B2
			EACH			
19+942.368	20+005.443	RT	3	1		
19+980.335	20+044.146	LT	3	1		
21+618.654	21+793.578	RT	6	1		
21+658.538	21+721.273	RT- MEDIAN	2	2		
21+685.060	21+855.727	LT	6	1		
21+755.528	21+818.566	LT- MEDIAN	2	2		
21+887.634	21+938.451	RT	2	1		
21+938.816	21+989.632	LT	2	1		
22+100.800	22+756.120	LT	23			
22+082.100	22+745.040	RT	23			
23+092.720	23+188.580	RT	5			
23+662.250	23+756.900	RT	5			
23+699.710	23+784.060	LT	4			
24+328.112	24+871.811	RT	18	2		
24+456.270	24+590.145	RT- MEDIAN	4	2		
24+481.200	24+762.924	LT	9	2		
24+510.171	24+643.828	LT- MEDIAN	4	2		
25+950.671	26+265.300	LT	10	2		
26+132.845	26+264.961	RT- MEDIAN	4	2		
0+181.923	26+438.984	RT	10	2		
26+253.476	26+318.585	LT- MEDIAN	2	2		
0+264.645	26+748.267	RT	6			
26+627.424	26+755.865	LT	6			
26+938.249	26+990.883	RT	2	1		
26+988.268	27+040.922	LT	2	1		
29+533.452	29+586.104	RT	2	1		
29+583.838	29+636.490	LT	2	1		
30+285.413	31+402.103	RT	35	4		
30+297.642	31+402.019	LT	34	4		
30+533.770	30+698.698	RT- MEDIAN	3	4		
30+561.771	30+726.384	LT- MEDIAN	3	4		
31+202.554	31+303.212	RT- MEDIAN	3	2		
31+272.243	31+372.590	LT- MEDIAN	3	2		
31+610.805	31+674.344	RT	3	1		
31+639.162	31+702.006	LT	3	1		
31+970.300	32+042.200	LT	4			
STATE ROUTE 4						
1+650.000	1+732.000	RT	9			
1+648.000	1+732.000	LT	9			
1+345.000	1+398.000	RT	8			
1+345.000	1+396.000	RT	8			
RYE BEACH ROAD						
1+328.000	0+036.000	RT		8	4	
1+339.365	0+246.800	LT		10	4	
0+249.300	1+765.000	LT		10		
TOTAL TO GENERAL SUMMARY			292	52	28	8

SEEDING & MULCHING

FROM SHEET NUMBER	DESIGNATION	STATION		A	B	659
		FROM	TO OR AT	LENGTH	WIDTH	SEEDING AND MULCHING
			METER	METER	SQ. METER	A x B
MAINLINE						
		19+440.000	19+700.000	260.00	2.00	520.0
		20+300.000	21+750.000	1450.00	2.00	2900.0
		22+868.000	24+940.000	2072.00	2.00	4144.0
		24+940.000	25+733.000	793.00	1.00	793.0
		31+825.000	32+620.000	795.00	2.00	1590.0
		32+620.000	32+781.000	161.00	1.00	161.0
S.R.4						
175	RAMP A	0+125.880	0+430.000	304.12	2.00	608.2
175	RAMP A	0+430.000	0+440.000	10.00	2.00	20.0
176	RAMP B	0+000.000	0+010.000	10.00	2.00	20.0
176	RAMP B	0+010.000	0+350.560	10.00	2.00	20.0
177	RAMP C	0+000.000	0+010.000	10.00	2.00	20.0
177	RAMP C	0+010.000	0+319.000	10.00	2.00	20.0
178	RAMP D	0+019.150	0+350.000	330.85	2.00	661.7
178	RAMP D	0+350.000	0+361.000	11.00	2.00	22.0
U.S. 250						
193	RAMP A	0+123.360	0+430.000	306.64	2.00	613.3
193	RAMP A	0+430.000	0+443.000	13.00	2.00	26.0
194	RAMP B	0+013.000	0+020.000	7.00	2.00	14.0
194	RAMP B	0+020.000	0+091.440	71.44	2.00	142.9
194	RAMP B	0+091.440	0+121.920	30.48	2.00	61.0
194	RAMP B	0+121.920	0+448.580	326.66	2.00	653.3
195	RAMP C	0+008.500	0+020.000	11.50	2.00	23.0
195	RAMP C	0+020.000	0+304.290	284.29	2.00	568.6
RYE BEACH ROAD						
197	RAMP E	0+115.000	0+267.830	152.83	2.00	305.7
197	RAMP E	0+420.000	0+504.000	84.00	2.00	168.0
217	RAMP A	0+150.040	0+350.000	199.96	2.00	399.9
217	RAMP A	0+350.000	0+369.000	19.00	2.00	38.0
219	RAMP C	0+007.000	0+020.000	13.00	2.00	26.0
219	RAMP C	0+020.000	0+300.000	13.00	2.00	26.0
220	RAMP D	0+031.730	0+260.000	228.27	2.00	456.5
220	RAMP D	0+260.000	0+282.000	22.00	2.00	44.0
DITCH RESTORATION FROM SHEET 99				13238.00	10.00	132380.0
TOTAL FROM THIS COLUMN						147446
TOTAL FROM SHEET 163 (TOTAL SR 2 MEDIANS)						12947
TOTAL FROM SHEET 174 (TOTAL STA 21+750 TO 22+868) WB						12265
TOTAL FROM SHEET 174A (TOTAL STA 21+750 TO 22+868) EB						12265
TOTAL FROM SHEET 180 (TOTAL STA 19+700 TO 20+300) WB						7562
TOTAL FROM SHEET 180A (TOTAL STA 19+700 TO 20+300) EB						7562
TOTAL FROM SHEET 188 (TOTAL STA 24+940 TO 25+771)						10349
TOTAL FROM SHEET 192 (TOTAL STA 31+450 TO 31+825) WB						3789
TOTAL FROM SHEET 192A (TOTAL STA 31+450 TO 31+825) EB						3789
TOTAL FROM SHEET 200 (TOTAL STA 32+100 TO STA 32+620)						7023
TOTAL FROM SHEET 205A (SR 4 RAMPS B & D)						1416
TOTAL FROM SHEET 211C (USR 250 - RAMP D)						2776
TOTAL FROM SHEET 236 (RYE BEACH ROAD)						10630
TOTAL FROM SHEET 239 (RYE BEACH ROAD RAMP B)						1335
TOTAL TO GENERAL SUMMARY						241154

COMMERCIAL FERTILIZER =
= 50Kg *241154 SQ. METER/1000 SQ. METER = 12058 KG

EARTHWORK

FROM SHEET NUMBER	DESIGNATION	STATION		A	B	C	203	
		FROM	TO OR AT	LENGTH	WIDTH	DEPTH	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	EMBANKMENT
			METER	METER	METER	AxBxC	CU. METER	
S.R. 4								
175	RAMP A	0+125.880	0+430.000	304.12	1.80	0.23	123	
175	RAMP A	0+430.000	0+440.000	10.00	1.80	0.23	4	
176	RAMP B	0+000.000	0+010.000	10.00	1.80	0.23	4	
176	RAMP B	0+010.000	0+350.560	340.56	1.80	0.23	138	
177	RAMP C	0+000.000	0+010.000	10.00	1.80	0.23	4	
177	RAMP C	0+010.000	0+319.000	309.00	1.80	0.23	125	
178	RAMP D	0+019.150	0+350.000	330.85	1.80	0.23	134	
178	RAMP D	0+350.000	0+361.000	11.00	1.80	0.23	4	
U.S. 250								
193	RAMP A	0+123.360	0+430.000	306.64	1.80	0.23	124	
193	RAMP A	0+430.000	0+443.000	13.00	1.80	0.23	5	
194	RAMP B	0+013.000	0+020.000	7.00	1.80	0.23	3	
194	RAMP B	0+020.000	0+091.440	71.44	1.80	0.23	29	
194	RAMP B	0+091.440	0+121.920	30.48	1.80	0.23	12	
194	RAMP B	0+121.920	0+448.580	326.66	1.80	0.23	132	
195	RAMP C	0+008.500	0+020.000	11.50	1.80	0.23	5	
195	RAMP C	0+020.000	0+304.290	284.29	1.80	0.23	115	
197	RAMP E	0+115.000	0+267.830	152.83	1.80	0.23	62	
197	RAMP E	0+420.000	0+504.000	84.00	1.80	0.23	34	
RYE BEACH ROAD								
217	RAMP A	0+150.040	0+350.000	199.96	1.80	0.23	81	
217	RAMP A	0+350.000	0+369.000	19.00	1.80	0.23	8	
219	RAMP C	0+007.000	0+020.000	13.00	1.80	0.23	5	
219	RAMP C	0+020.000	0+300.000	13.00	1.80	0.23	5	
220	RAMP D	0+031.730	0+260.000	228.27	1.80	0.23	92	
220	RAMP D	0+260.000	0+282.000	22.00	1.80	0.23	9	
TOTAL FROM THIS COLUMN							1259	0
TOTAL FROM SHEET 98A							0	80
TOTAL FROM SHEET 163 (TOTAL SR 2 MEDIANS)							1783	508
TOTAL FROM SHEET 174 (TOTAL STA 21+750 TO 22+868) WB							18235	6303
TOTAL FROM SHEET 174A (TOTAL STA 21+750 TO 22+868) EB							18235	6303
TOTAL FROM SHEET 180 (TOTAL STA 19+700 TO 20+300) WB							8199	1
TOTAL FROM SHEET 180A (TOTAL STA 19+700 TO 20+300) EB							8199	1
TOTAL FROM SHEET 188 (TOTAL STA 24+940 TO 25+771)							2364	3594
TOTAL FROM SHEET 192 (TOTAL STA 31+450 TO 31+825) WB							3939	2
TOTAL FROM SHEET 192A (TOTAL STA 31+450 TO 31+825) EB							3939	2
TOTAL FROM SHEET 171 (TOTAL STA 32+100 TO STA 32+620)							2869	1082
TOTAL FROM SHEET 205A (SR 4 - RAMPS B & D)							185	786
TOTAL FROM SHEET 211C (USR 250 - RAMP D)							859	521
TOTAL FROM SHEET 236 (RYE BEACH ROAD)							392	8257
TOTAL FROM SHEET 239 (RYE BEACH ROAD RAMP B)							166	477
MAINLINE FULL DEPTH PAVEMENT AREAS (SEE BELOW)							68783	5486
TOTAL TO GENERAL SUMMARY							139406	33403

MAINLINE EXCAVATION
STA 19+446.279 TO STA 25+735 AND STA 31+450 TO 32+781.305 + (SR 4 RAMP C) = 200,947 SQ. METER
MINUS STA 19+700 TO STA 20+300, 600m*12.5m*2 = 15,000 SQ. METER
STA 21+750 TO STA 22+868, 1118m*12.5m*2 = 27,950 SQ. METER
STA 31+450 TO STA 31+825, 375m*12.5m*2 = 9375 SQ. METER
= 148,622 SQ. METER
148,622 SQ. METER X 0.633 METER = 94,078 CU METER
94,078 CU METER - 25,295 CU METER(PVMT REMOVAL) = 68,783 CU METER

MAINLINE EMBANKMENT (OVER PAVEMENT STEPS)
STA 19+446.279 TO STA 25+735 AND STA 31+450 TO 32+781.305 = 7620 METER
7620 METER*0.72 SQ. METER = 5486 CU. METER

ITEM 202 PAVEMENT REMOVED, AS PER PLAN
MAINLINE: STA 19+446.279 TO STA 25+735 AND STA 31+450 TO 32+781.305 = 7526 METER
DEDUCTION FOR STA 21+000 TO STA 25+150 = 4150 METER
7526 METER - 4150 METER = 3376 METER
3376m*7.2m*2*0.229 METER = 11,133 CU. METER
TOTAL TO GENERAL SUMMARY = 11133 CU. METER

ITEM 202 PAVEMENT REMOVED
MAINLINE: STA 21+000 TO 25+150 = 4150 METER
4150m*7.2m*2*0.229 METER = 13,685 CU. METER
SR 4, RAMP C: STA. 0+008.621 TO STA. 0+442.381 = 433.760 METER
433.76m*4.8m*0.0229m=477 CU. METER
TOTAL TO GENERAL SUMMARY = (13685 METER+477 METER) = 14162 CU. METER

CALCULATED BY: PMA
 DATE: 6-97
 CHECKED BY: SB
 DATE: 6-97
MISCELLANEOUS CALCULATIONS
ERI-2-12.558
 112
 432

PROJECT DATA	
TOTAL AREA (RIGHT OF WAY)	140 HECTACRES
AREA TO UNDERGO EXCAVATION, FILLING, OR GRADING.	21 HECTACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.35
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.36
SOIL DATA	SEE INFORMATION AVAILBLE AT ODOT DISTRICT 3 OFFICES.
IMMEDIATE RECEIVING WATERS	LILES DITCH PIPE CREEK SULPHUR CREEK TAYLOR DITCH HEMMINGER DITCH PLUM BROOK LINDSLEY DITCH BOOS DITCH SAWMILL CREEK
SUBSEQUENT RECEIVING WATER	LAKE ERIE

ITEM 601	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	=	300 CU. METER
ITEM 659	REPAIR SEEDING AND MULCHING	=	12,000 SQ. METER
ITEM 659	COMMERCIAL FERTILIZER	=	2,400 KILOGRAM
ITEM 877	TEMPORARY SEEDING AND MULCHING	=	48,200 SQ. METER
ITEM 877	TEMPORARY SEDIMENT BASINS AND DAMS	=	1,400 CU. METER
ITEM 877	TEMPORARY PERIMETER FILTER FABRIC FENCE	=	5,820 METER
ITEM 877	TEMPORARY DITCH CHECK FILTER FABRIC FENCE	=	2,400 METER
ITEM 877	TEMPORARY INLET PROTECTION FILTER FABRIC FENCE	=	613 METER
ITEM 877	SEDIMENT REMOVAL	=	500 CU. METER

ERI- 2-12.558
 TEMP. EROSION CONTROL
 TEMPORARY SEDIMENT BASINS AND DAMS

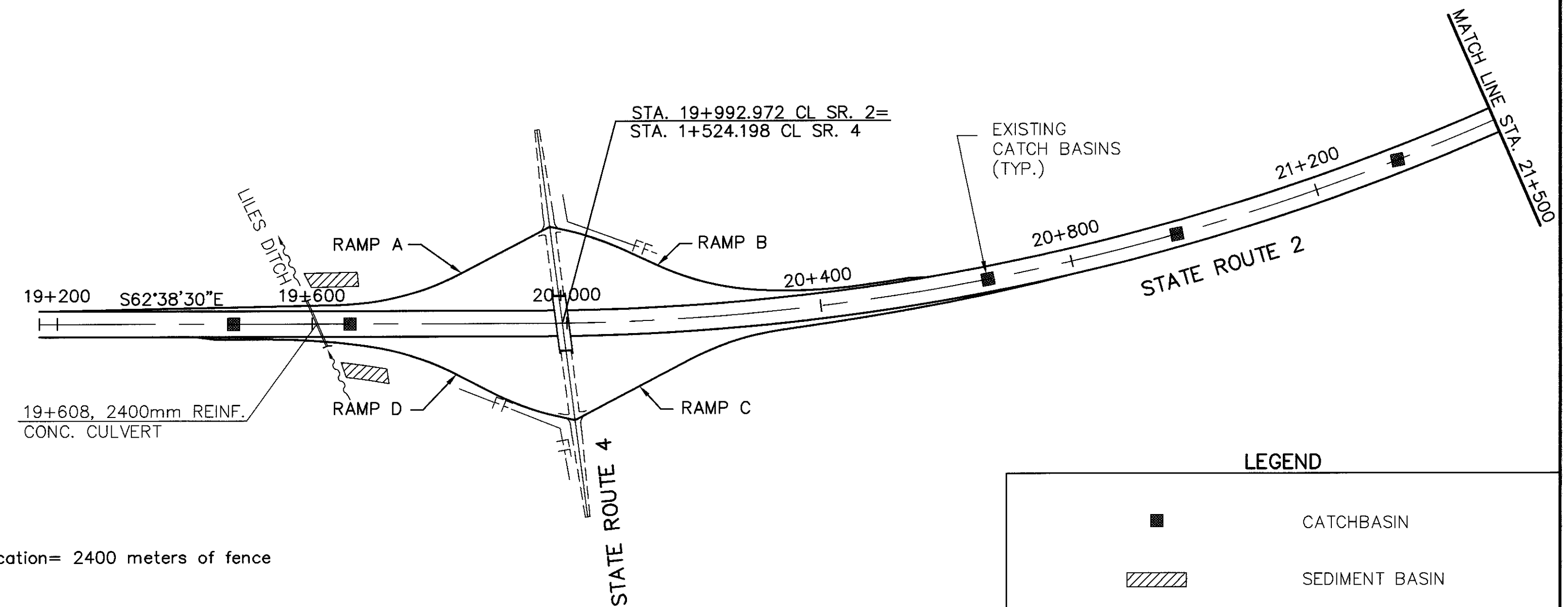
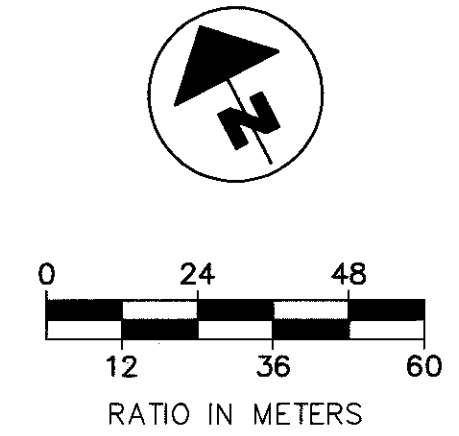
STA. 19+600 Lt	100 cu. m.
STA. 19+600 Rt	100 cu. m.
STA. 21+720 Lt	50 cu. m.
STA. 21+720 Rt	40 cu. m.
STA. 21+760 Lt	100 cu. m.
STA. 21+760 Rt	40 cu. m.
STA. 23+190 Lt	40 cu. m.
STA. 23+720 Lt	20 cu. m.
STA. 23+720 Rt	20 cu. m.
STA. 23+740 Lt	50 cu. m.
STA. 23+740 Rt	40 cu. m.
STA. 24+880 Rt	20 cu. m.
STA. 24+940 Lt	40 cu. m.
STA. 24+920 Rt	20 cu. m.
STA. 26+680 Lt	100 cu. m.
STA. 26+700 Lt	50 cu. m.
STA. 28+410 Lt	50 cu. m.
STA. 28+410 Rt	40 cu. m.
STA. 28+430 Lt	40 cu. m.
STA. 28+430 Rt	20 cu. m.
STA. 31+270 Lt	100 cu. m.
STA. 31+270 Rt	75 cu. m.
STA. 31+240 Lt	40 cu. m.
STA. 31+240 Rt	40 cu. m.
STA. 32+420 Lt	50 cu. m.
STA. 32+420 Rt	50 cu. m.
STA. 32+440 Lt	40 cu. m.
STA. 32+440 Rt	20 cu. m.
Total=	1400 cu. m.

TEMP. DITCH CHECK
 19517 M / 60 M spacing X 7.3 M per location= 2400 meters of fence

SEDIMENT REMOVAL
 1/4 x 1400 Cu. M. = 350 cu. m. Plus 150 cu. m. for ditch check and inlets= 500 cu.m.

ROCK CHANNEL PROTECTION, TYPE C without Filter
 1400 cu. m. / 5 = 300 cu. m.

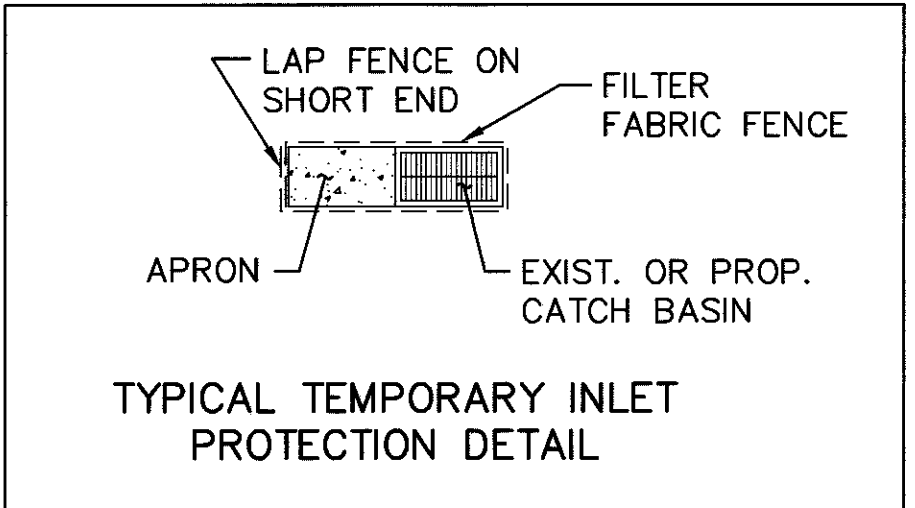
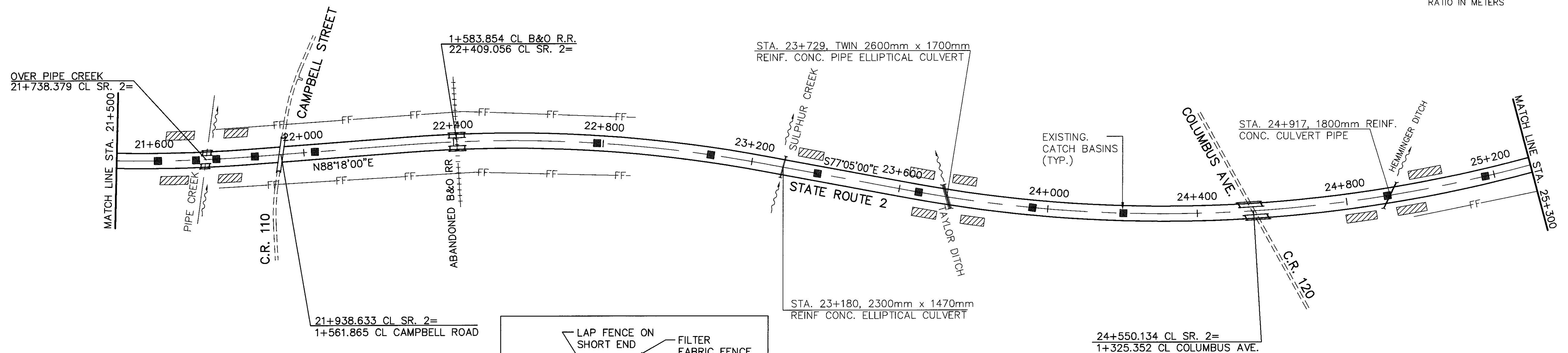
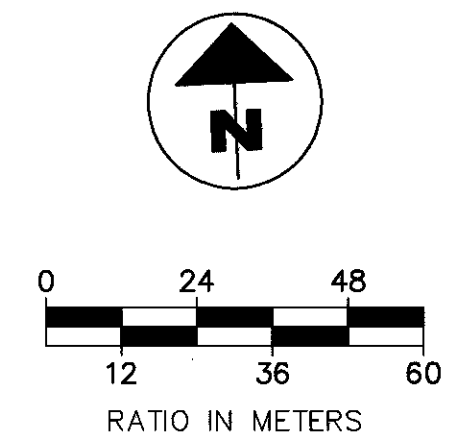
PROJECT DESCRIPTION
 THE PROJECTS CONSISTS OF THE REPAVING AND REHABILITATION OF APPROXIMATELY 5.7 KILOMETERS AND RECONSTRUCTION OF APPROXIMATELY 7.6 KILOMETERS OF FOUR-LANE, DIVIDED, LIMITED ACCESS, RURAL EXPRESSWAY ON EXISTING ALIGNMENT ON EXISTING BASE IN NORTHERN ERIE COUNTY JUST SOUTH OF SANDUSKY AND HURON. THE WORK ALSO ENTAILS FENCING, BRIDGE REHABILITATION, GUARDRAIL RECONSTRUCTION, AND LIMITED DRAINAGE AND DITCH RESTORATION. THE HIGHWAY HAS AN EAST-WEST ORIENTATION BEGINNING 585 METERS WEST OF SR#4 AND ENDING 1150 METERS EAST OF RYE BEACH ROAD. THE PROJECT ENCOUNTERS INTERCHANGES AT SR#4, US#250, AND RYE BEACH ROAD.



LEGEND	
	CATCHBASIN
	SEDIMENT BASIN
	FILTER FENCE

USGS QUADRANGLE MAPS: SANDUSKY, OHIO AND HURON, OHIO

Geodetic Location		
	Latitude	Longitude
BEGIN PROJECT	412419	824403
END PROJECT	412354	823429

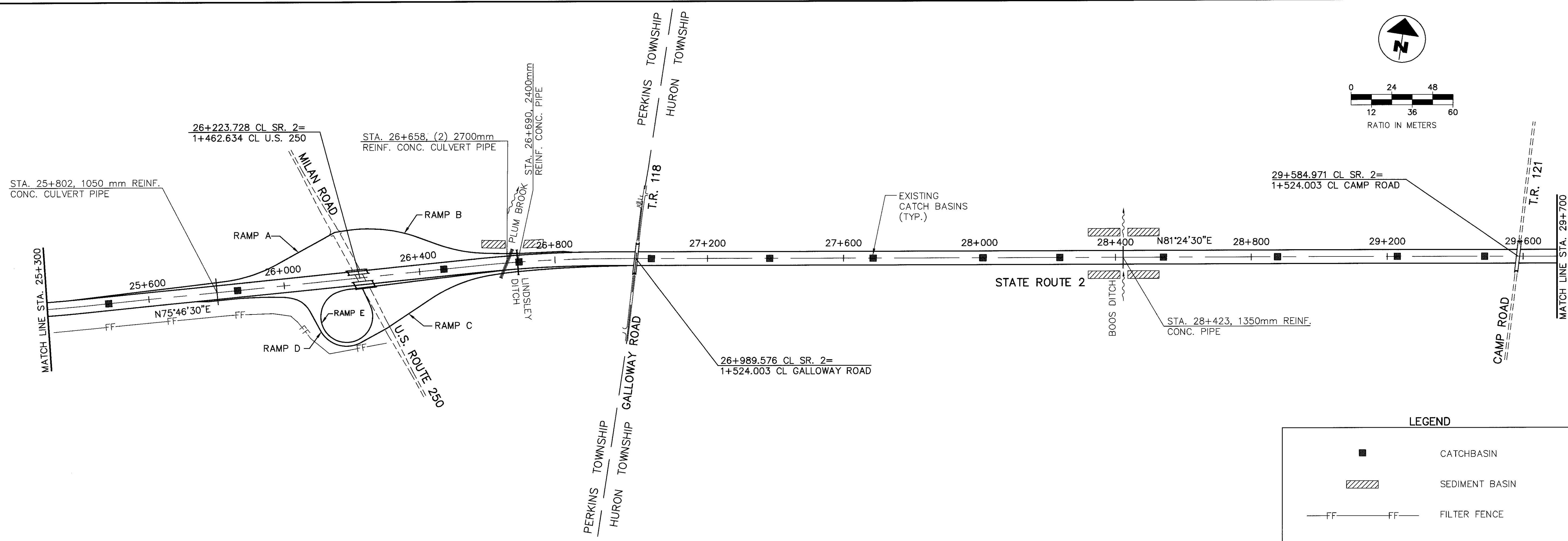
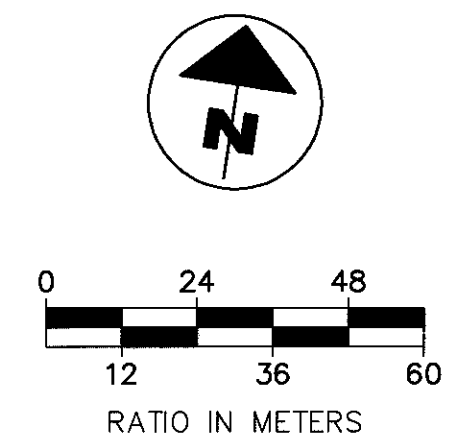


FILE NAME: SCHEM1~ I:\5033\006\TRAN\DWG\SR_11376DEA.DWG 8-2-99 3:40:13 pm EST
 PLOTTED: KJB

STORM WATER POLLUTION PREVENTION PLAN
STA. 19+446.279 TO STA. 25+300

ERI-2-12.558

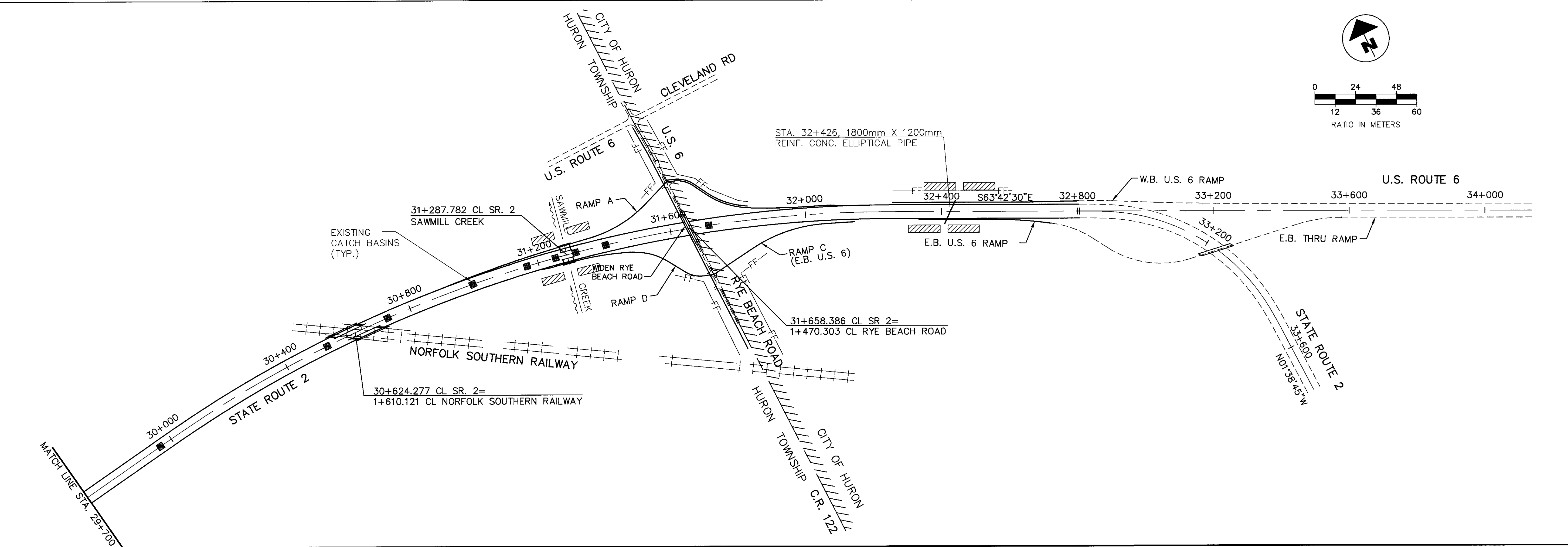
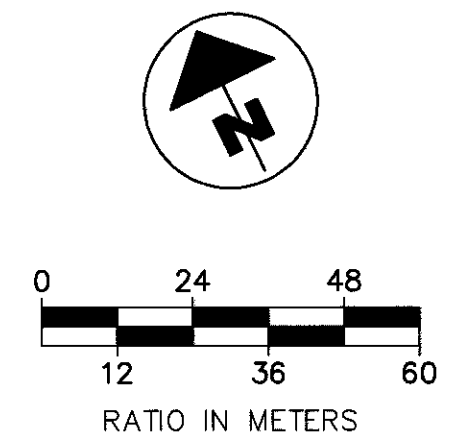
CALCULATED BY: PMA
 DATE: 10-97
 CHECKED BY: JTY
 DATE: 10-97



LEGEND

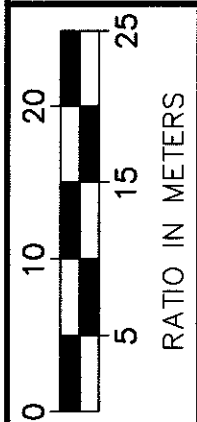
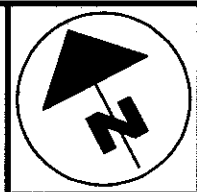
	CATCHBASIN
	SEDIMENT BASIN
	FILTER FENCE

**STORM WATER POLLUTION PREVENTION PLAN
 STA. 25+300.000 TO STA. 32+781.305**



ERI-2-12.558

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 PLOTTED: KJB

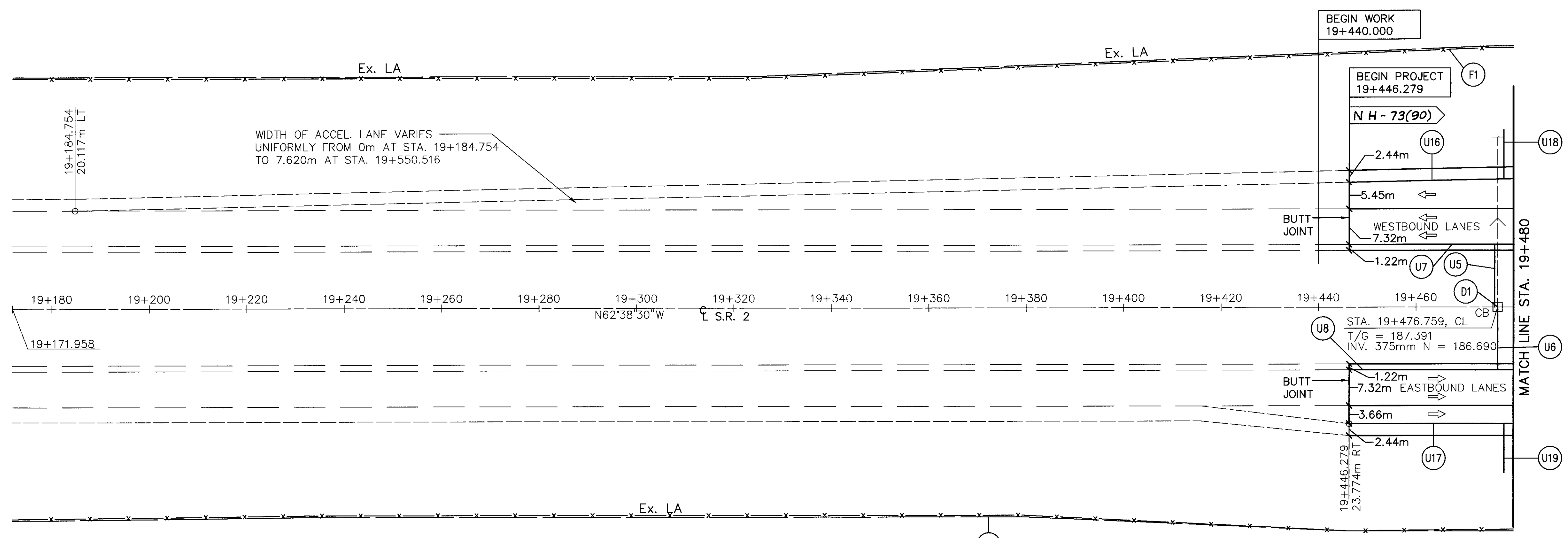


CALCULATED BY P.M.A. DATE 4-97 CHECKED BY S.B. DATE 10-97

**PLAN STATE ROUTE 2
STA. 19+180 TO STA. 19+780**

ERI-2-12.558

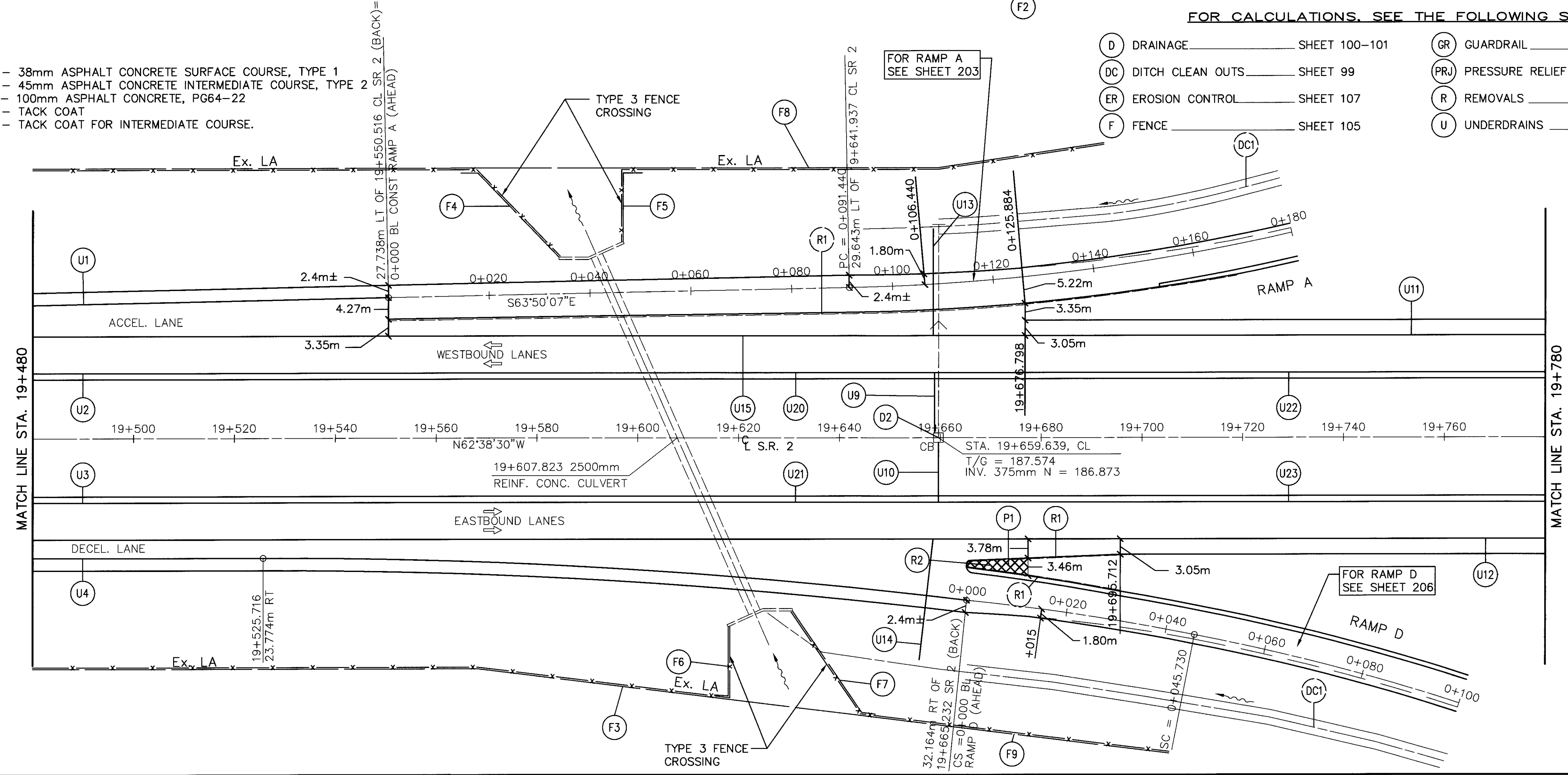
115
432



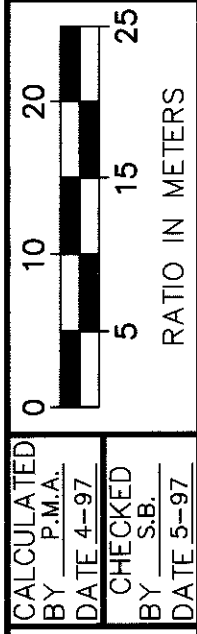
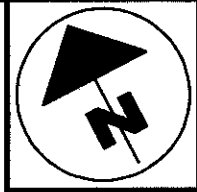
- ITEM 446 - 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- ITEM 446 - 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 - 100mm ASPHALT CONCRETE, PG64-22
- ITEM 407 - TACK COAT
- ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE.

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |



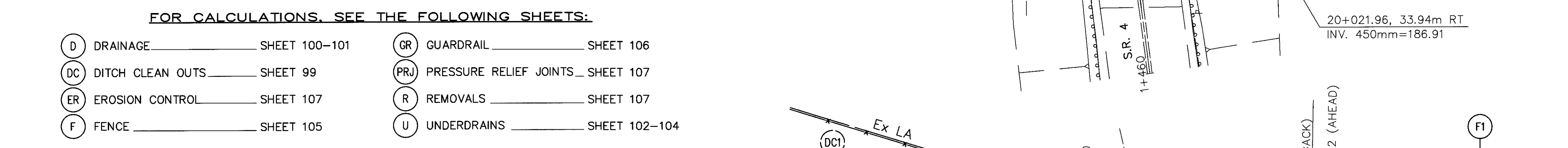
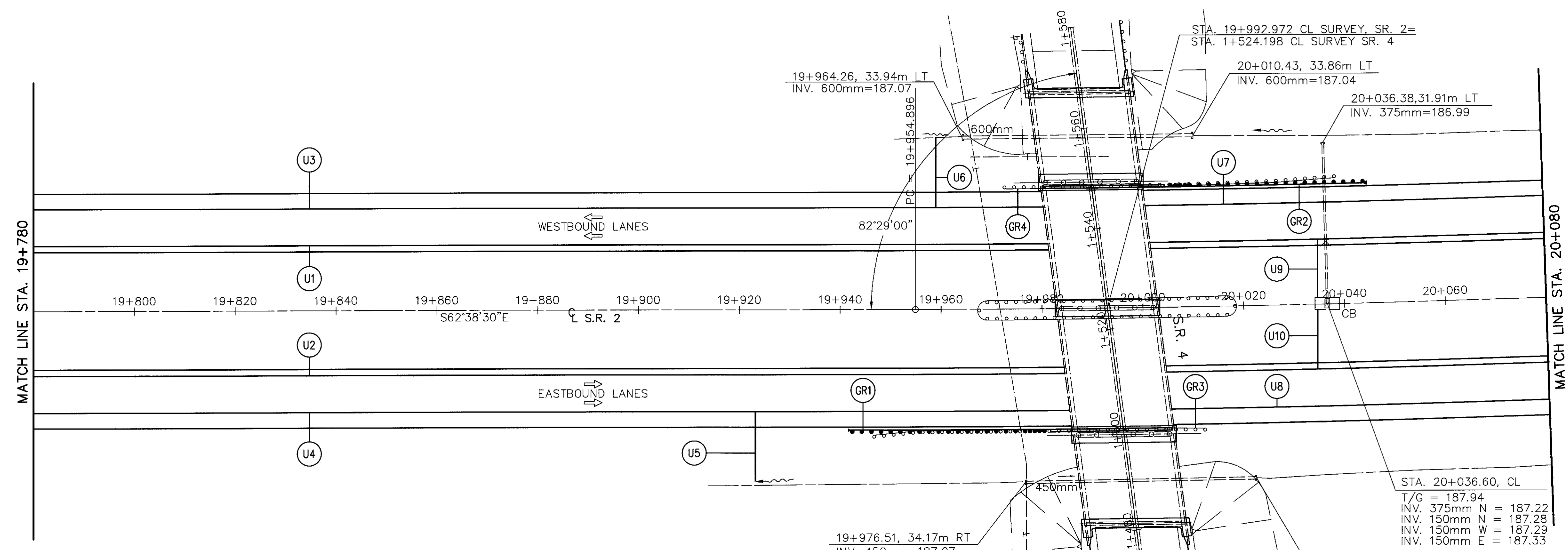
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CALCULATED BY: P.M.A. DATE: 4-97
CHECKED BY: S.B. DATE: 5-97

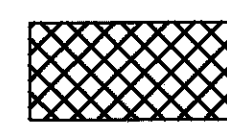
**PLAN STATE ROUTE 2
STA. 19+780 TO STA. 20+380**

ERI-2-12.558



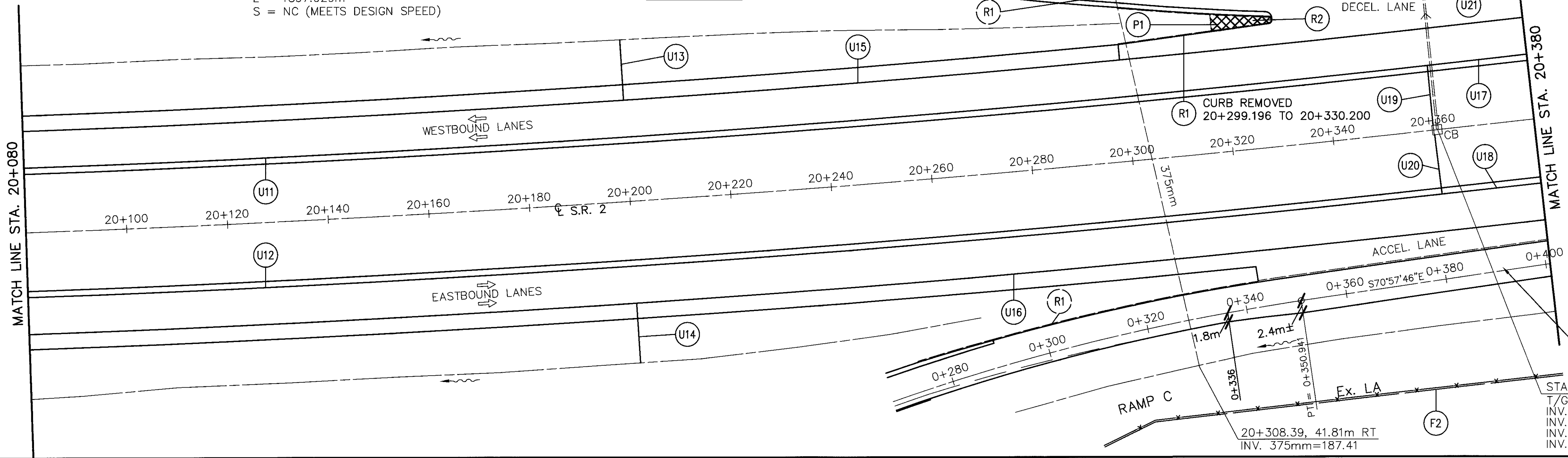
FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------|--|
| (D) DRAINAGE SHEET 100-101 | (GR) GUARDRAIL SHEET 106 |
| (DC) DITCH CLEAN OUTS SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS SHEET 107 |
| (ER) EROSION CONTROL SHEET 107 | (R) REMOVALS SHEET 107 |
| (F) FENCE SHEET 105 | (U) UNDERDRAINS SHEET 102-104 |



- ITEM 446 - 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- ITEM 446 - 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 - 100mm ASPHALT CONCRETE, PG64-22
- ITEM 407 - TACK COAT
- ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE.

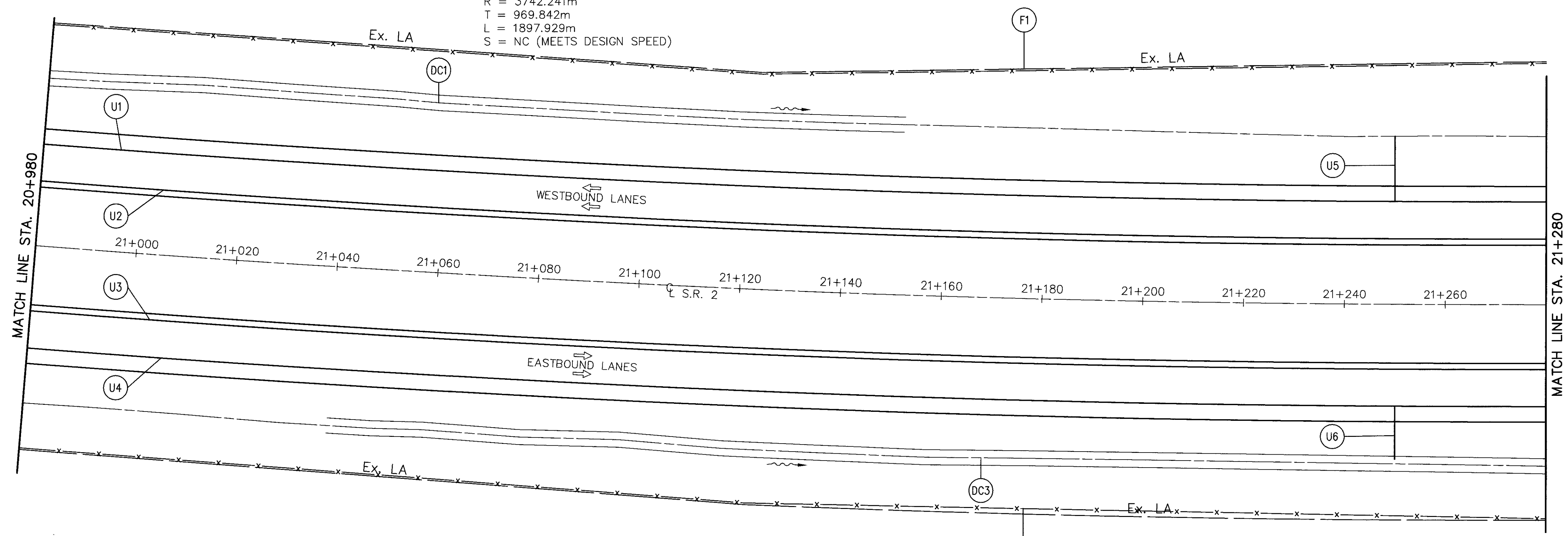
$\Delta = 29^{\circ}03'30''$
 $R = 3742.241m$
 $T = 969.842m$
 $L = 1897.929m$
 $S = NC$ (MEETS DESIGN SPEED)



FOR RAMP B SEE SHEET 204

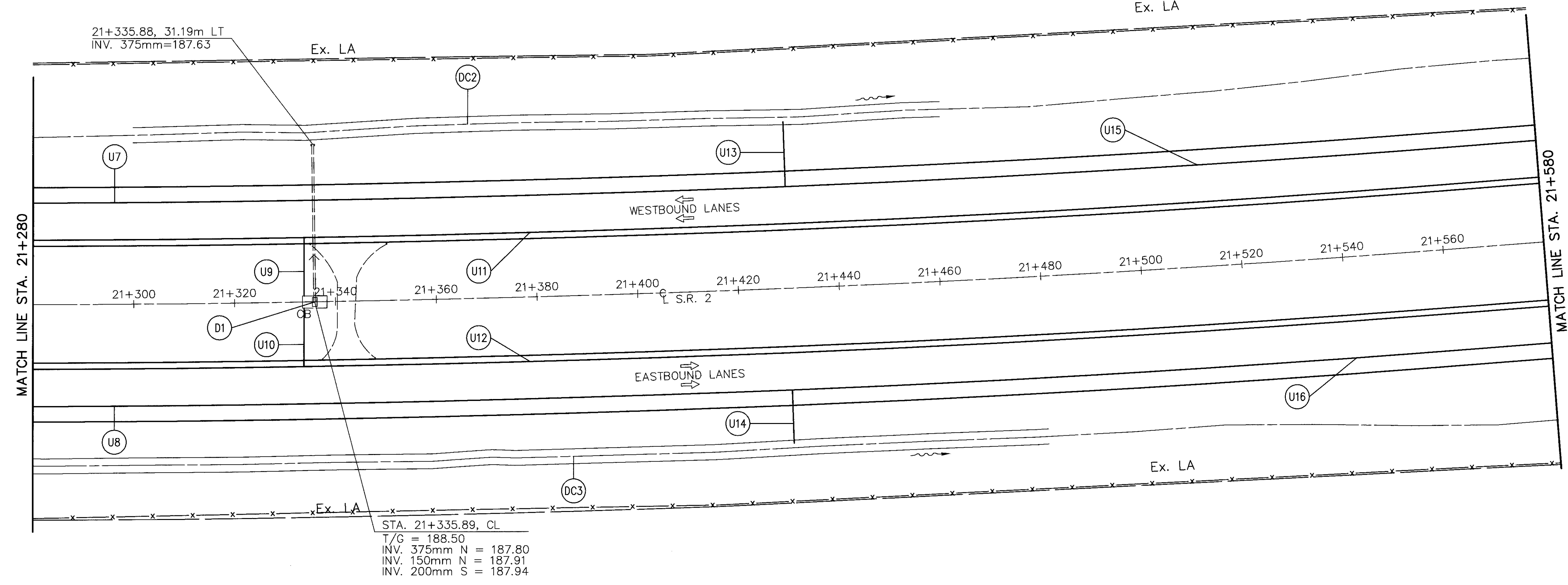
FOR RAMP C SEE SHEET 205

$\Delta = 29^{\circ}03'30''$
 $R = 3742.241m$
 $T = 969.842m$
 $L = 1897.929m$
 $S = NC$ (MEETS DESIGN SPEED)



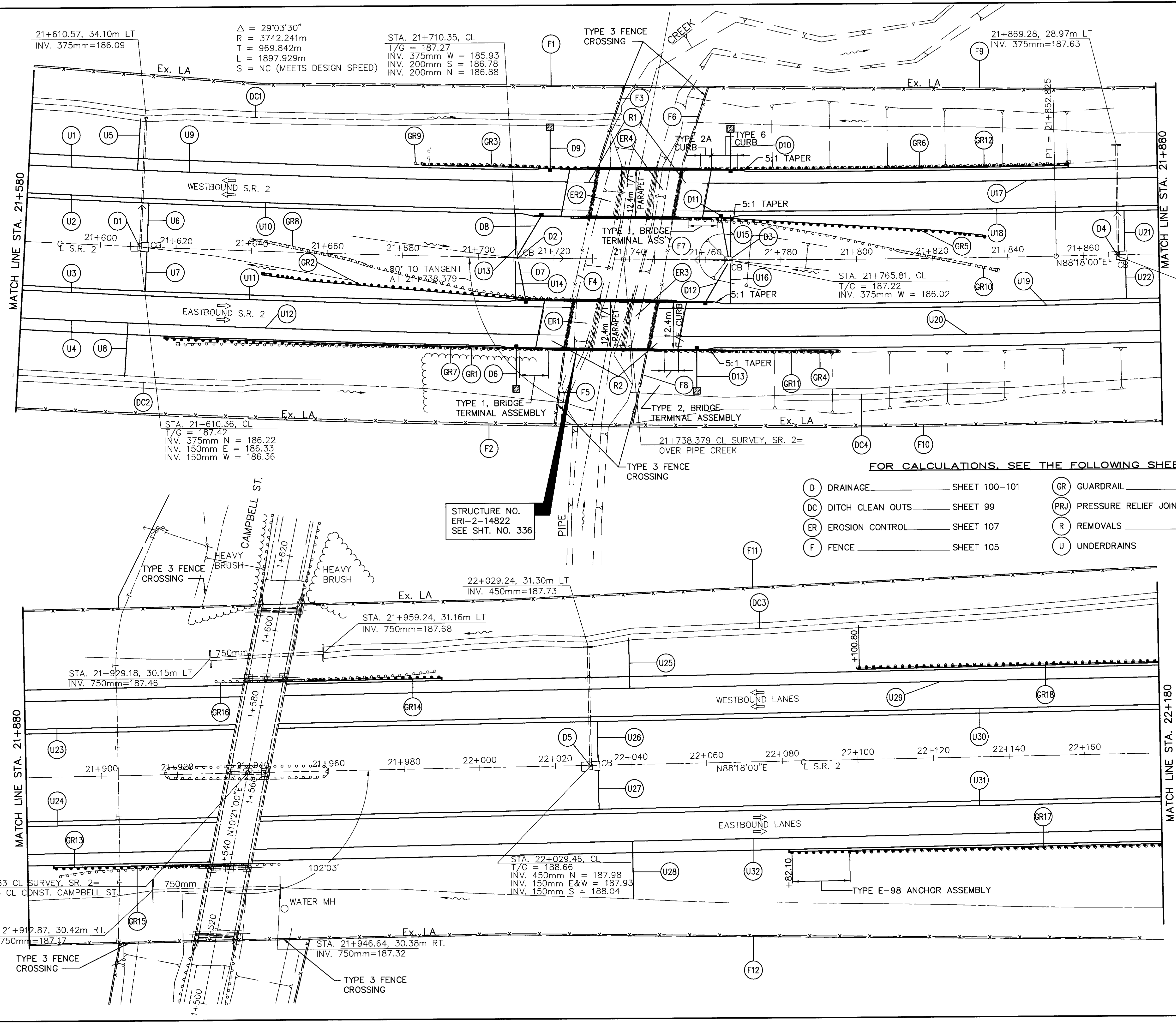
FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------|--|
| (D) DRAINAGE SHEET 100-101 | (GR) GUARDRAIL SHEET 106 |
| (DC) DITCH CLEAN OUTS SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS SHEET 107 |
| (ER) EROSION CONTROL SHEET 107 | (R) REMOVALS SHEET 107 |
| (F) FENCE SHEET 105 | (U) UNDERDRAINS SHEET 102-104 |



STA. 21+335.88, CL
 $T/G = 188.50$
 $INV. 375mm N = 187.80$
 $INV. 150mm N = 187.91$
 $INV. 200mm S = 187.94$

K:\B 5033-006\TRAN\PLAN\PO5.DWG 7-15-99 4:48:16 pm EST



$\Delta = 29^{\circ}03'30''$
 $R = 3742.241m$
 $T = 969.842m$
 $L = 1897.929m$
 $S = NC$ (MEETS DESIGN SPEED)

STA. 21+710.35, CL
 $T/G = 187.27$
 INV. 375mm W = 185.93
 INV. 200mm S = 186.78
 INV. 200mm N = 186.88

STA. 21+869.15, CL
 $T/G = 187.44$
 INV. 375mm N = 186.80
 INV. 150mm E = 186.78
 INV. 150mm W = 186.79

STA. 21+610.36, CL
 $T/G = 187.42$
 INV. 375mm N = 186.22
 INV. 150mm E = 186.33
 INV. 150mm W = 186.36

STRUCTURE NO.
 ERI-2-14822
 SEE SHT. NO. 336

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

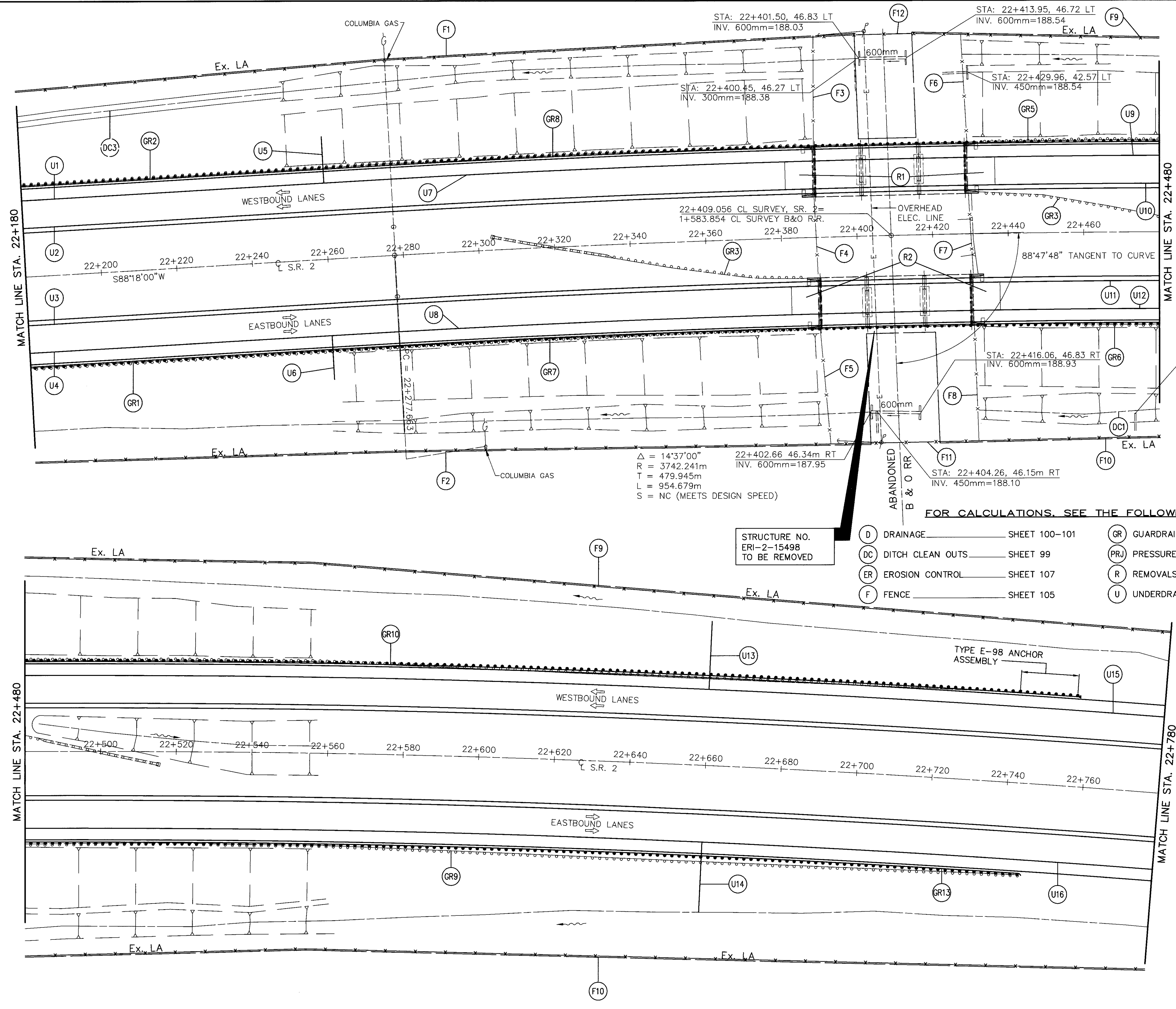
- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

0 10 20 25
 RATIO IN METERS

CALCULATED BY: P.M.A.
 DATE: 4-97
 CHECKED BY: S.B.
 DATE: 5-97

**PLAN STATE ROUTE 2
 STA. 21+580 TO STA. 22+180**

ERI-2-12.558



STRUCTURE NO.
ERI-2-15498
TO BE REMOVED

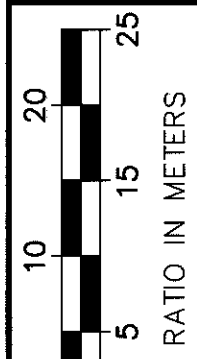
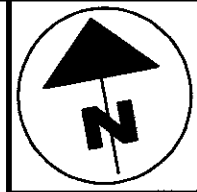
- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

CALCULATED BY: PMA
DATE: 4-97
CHECKED BY: SB
DATE: 5-97

0 10 20 25
RATIO IN METERS

**PLAN STATE ROUTE 2
STA. 22+180 TO 22+780**

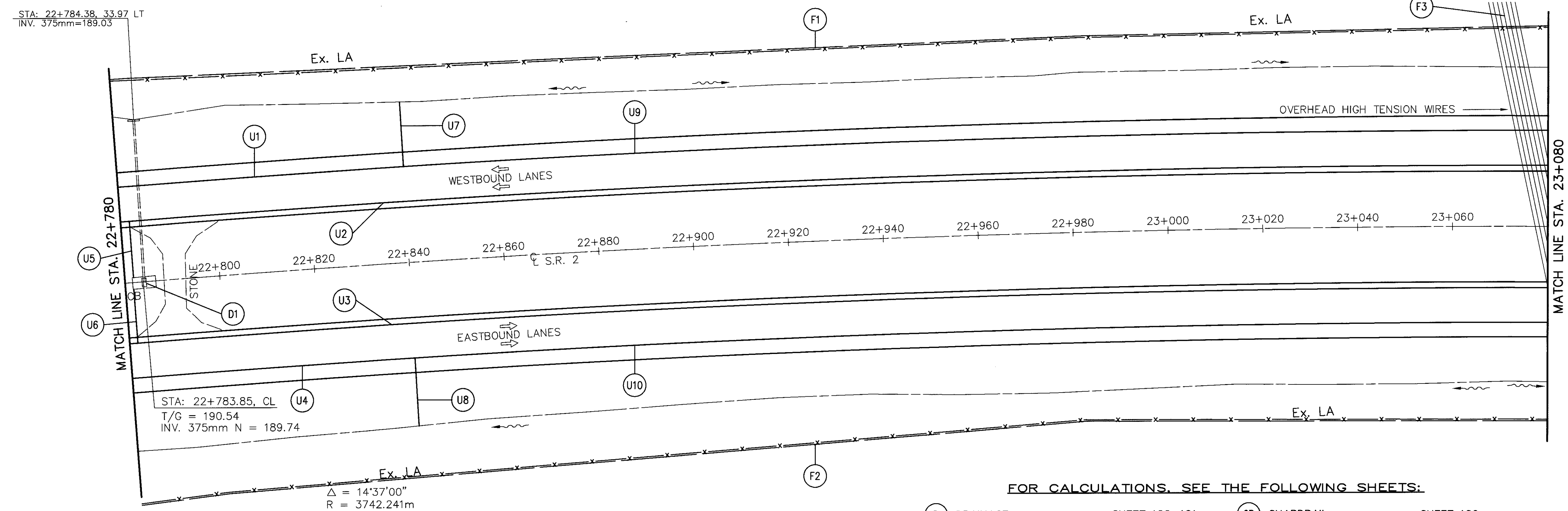
ERI-2-12.558



CALCULATED BY: P.M.A.
 DATE: 4-97
 CHECKED BY: S.B.
 DATE: 5-97

**PLAN STATE ROUTE 2
 STA. 22+780 TO STA. 23+380**

ERI-2-12.558

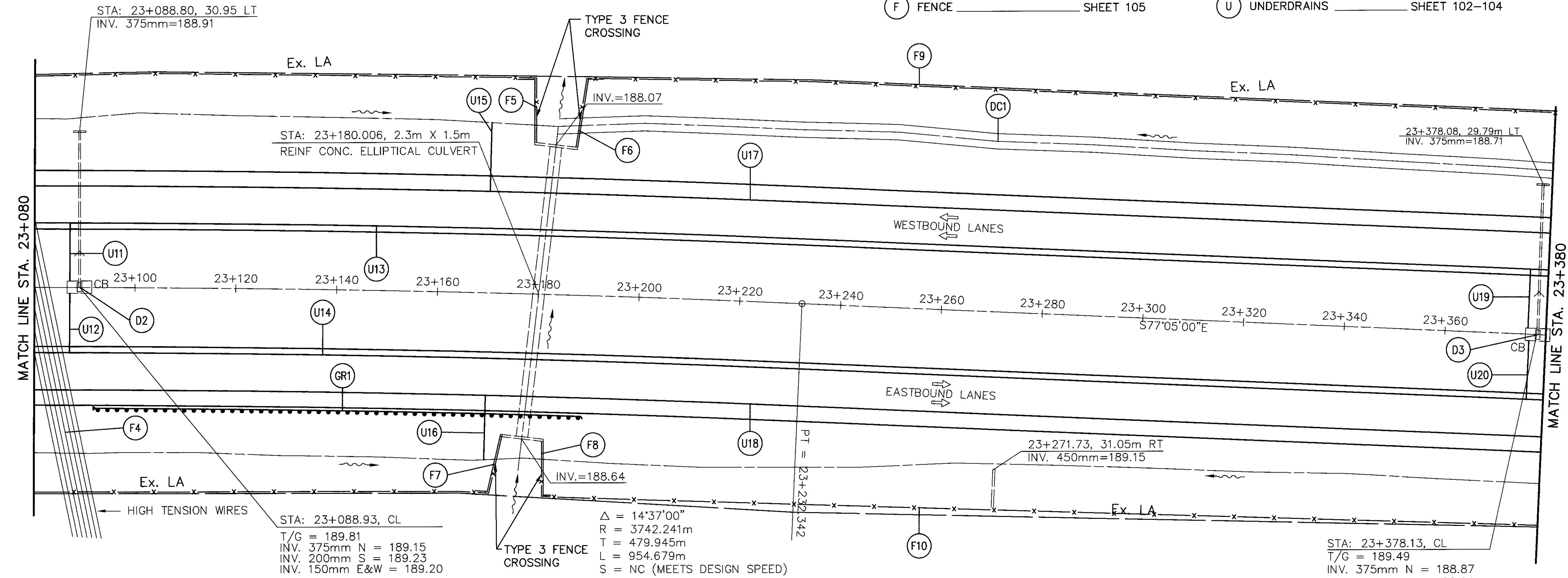


STA: 22+783.85, CL
 T/G = 190.54
 INV. 375mm N = 189.74

$\Delta = 14^{\circ}37'00''$
 R = 3742.241m
 T = 479.945m
 L = 954.679m
 S = NC (MEETS DESIGN SPEED)

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |



STA: 23+088.80, 30.95 LT
 INV. 375mm=188.91

STA: 23+180.006, 2.3m X 1.5m
 REINF CONC. ELLIPTICAL CULVERT

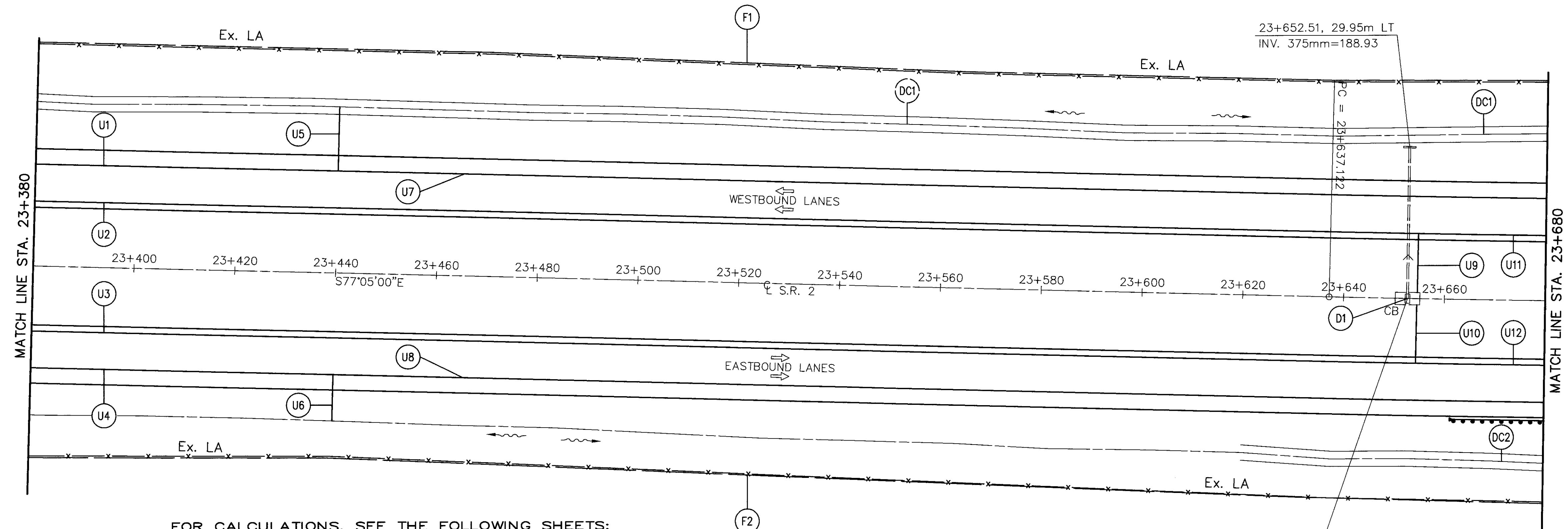
23+378.08, 29.79m LT
 INV. 375mm=188.71

STA: 23+088.93, CL
 T/G = 189.81
 INV. 375mm N = 189.15
 INV. 200mm S = 189.23
 INV. 150mm E&W = 189.20

$\Delta = 14^{\circ}37'00''$
 R = 3742.241m
 T = 479.945m
 L = 954.679m
 S = NC (MEETS DESIGN SPEED)

STA: 23+378.13, CL
 T/G = 189.49
 INV. 375mm N = 188.87
 INV. 200mm S = 188.94
 INV. 150mm W = 188.94
 INV. 150mm E = 188.92

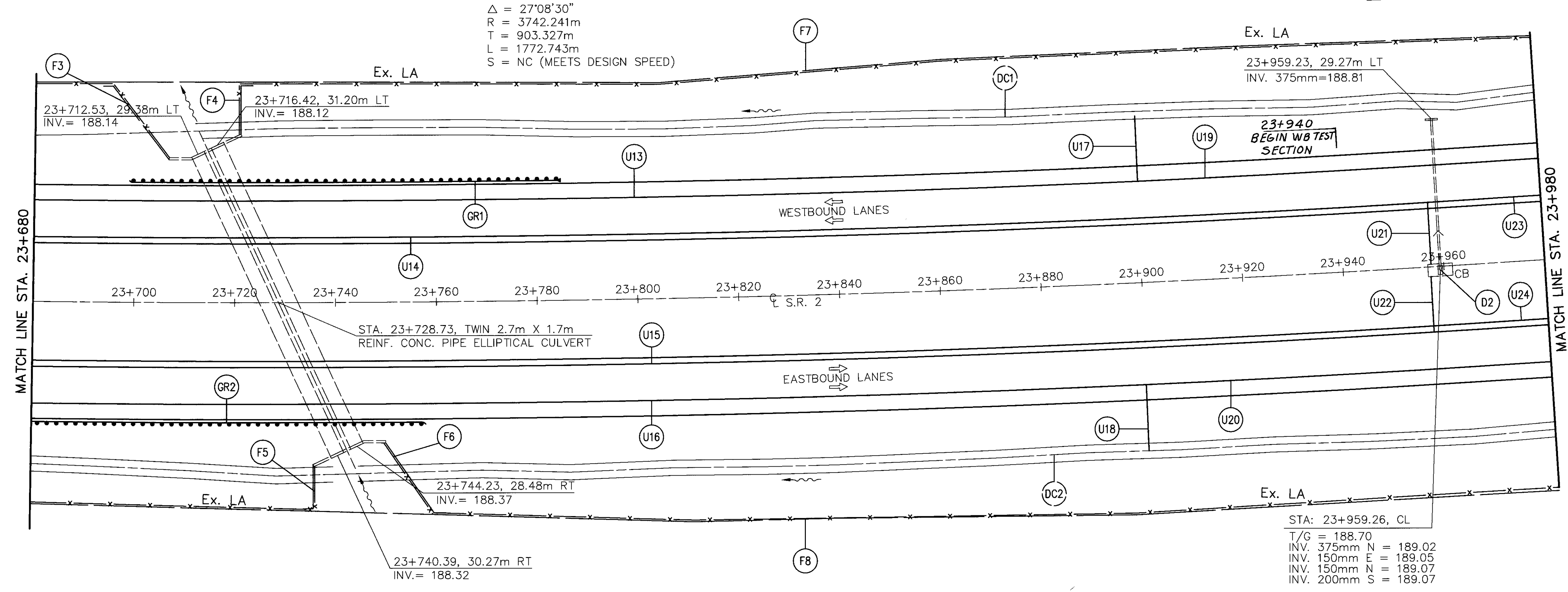
FILE NAME: I:\5033\006\TRAN\PLAN\PO7.DWG 7-16-99 9:06:58 am EST



- FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:
- | | |
|--------------------------------|--|
| (D) DRAINAGE SHEET 100-101 | (GR) GUARDRAIL SHEET 106 |
| (DC) DITCH CLEAN OUTS SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS SHEET 107 |
| (ER) EROSION CONTROL SHEET 107 | (R) REMOVALS SHEET 107 |
| (F) FENCE SHEET 105 | (U) UNDERDRAINS SHEET 102-104 |

STA: 23+652.68, CL
 T/G = 189.41
 INV. 375mm N = 189.13
 INV. 150mm E&W = 189.10
 INV. 200mm S = 189.24

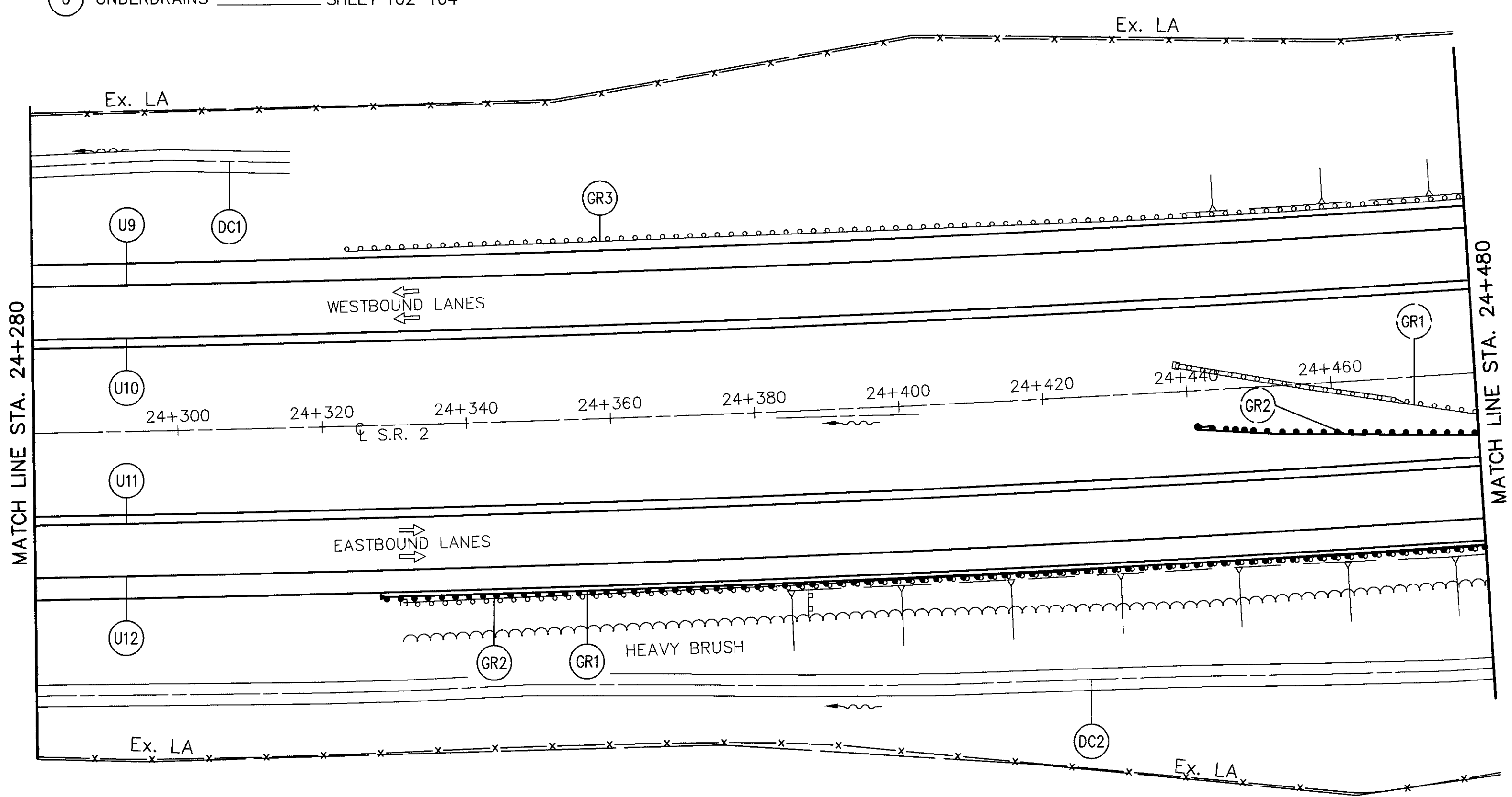
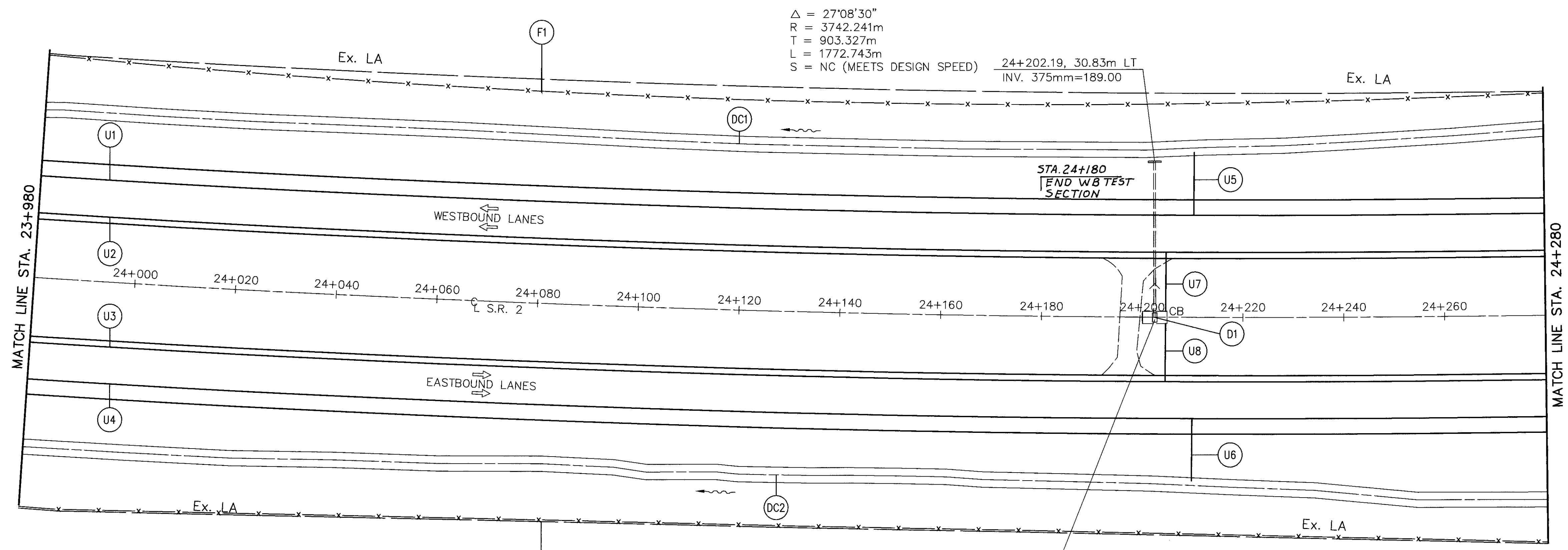
FOR TEST SECTION
NOTES SEE SHEET 18.



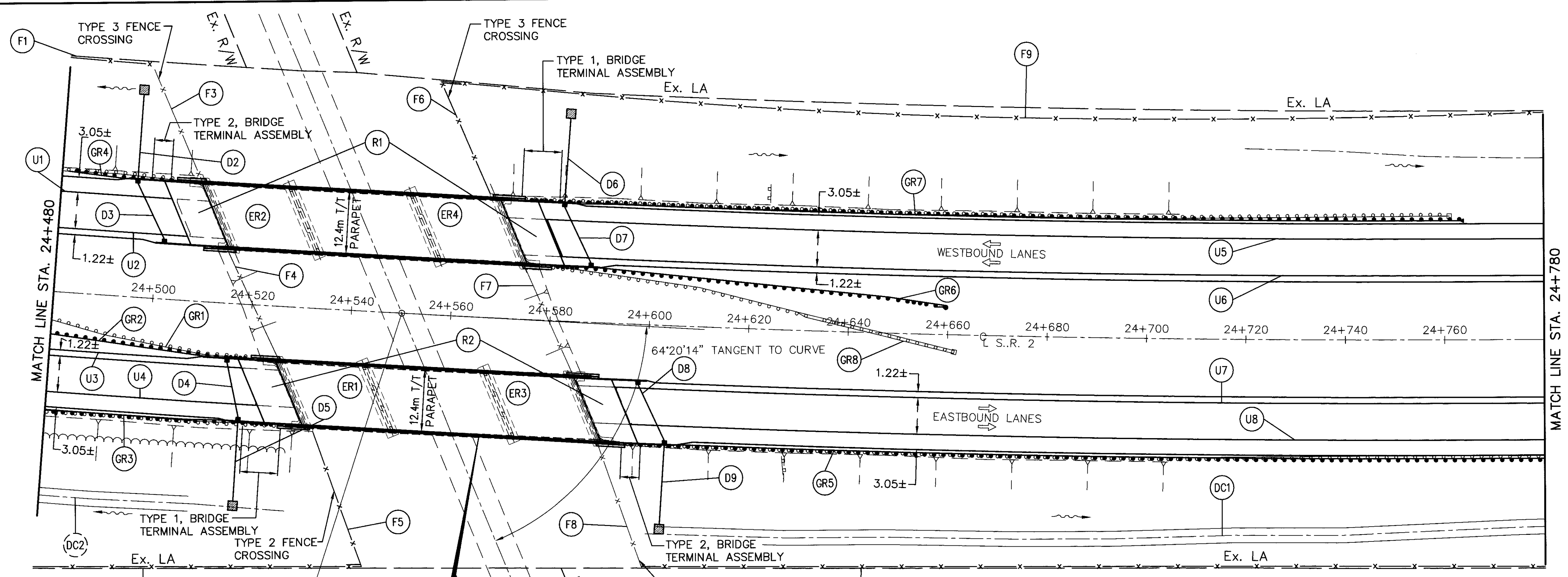
$\Delta = 27^{\circ}08'30''$
 $R = 3742.241m$
 $T = 903.327m$
 $L = 1772.743m$
 $S = NC$ (MEETS DESIGN SPEED)

STA: 23+959.26, CL
 T/G = 188.70
 INV. 375mm N = 189.02
 INV. 150mm E = 189.05
 INV. 150mm N = 189.07
 INV. 200mm S = 189.07

CALCULATED BY P.M.A. DATE 4-97
 CHECKED BY S.B. DATE 5-97
 RATIO IN METERS



ERI-2-12-558

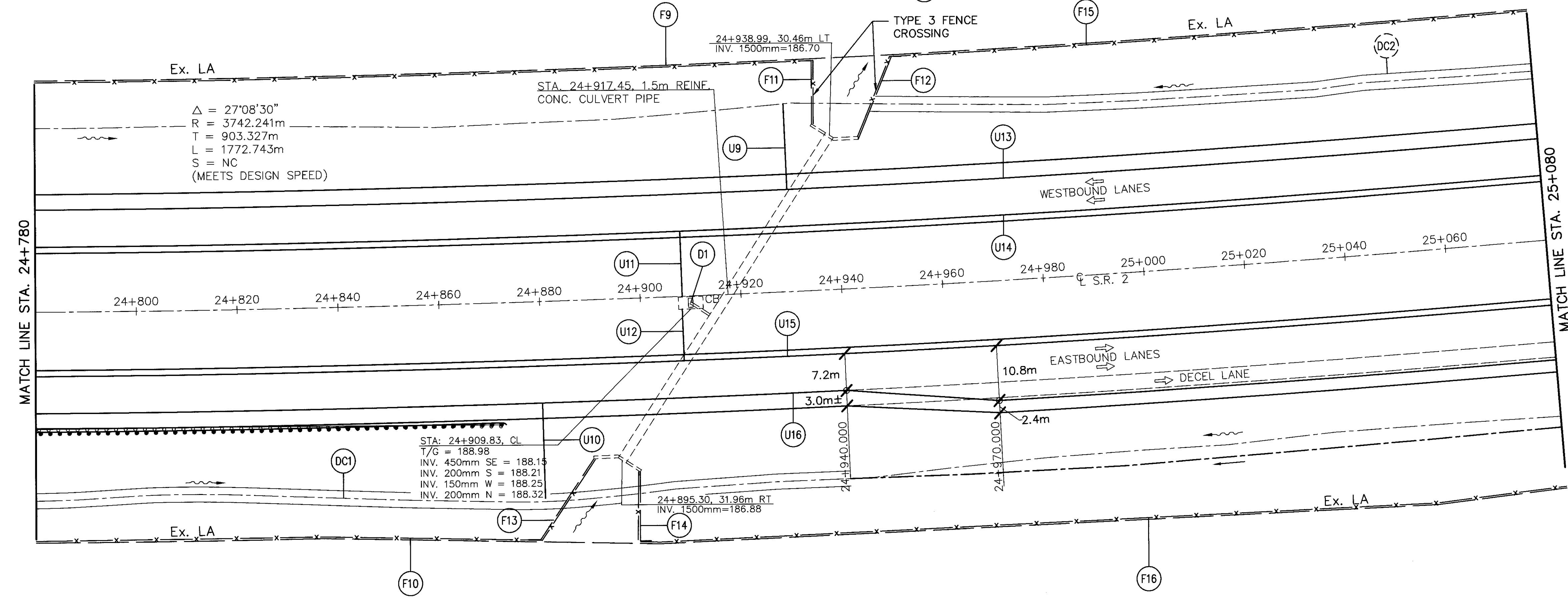


24+550.134 CL SURVEY, SR. 2=
 1+325.352 CL SURVEY COLUMBUS AVE.

STRUCTURE NO.
 ERI-2-17638
 SEE SHT. NO. 354

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

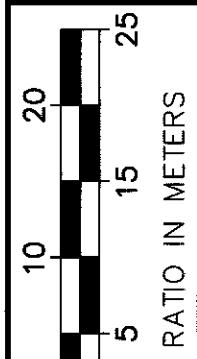
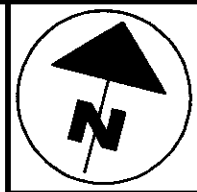
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|---------------------|---------------|----------------------------|---------------|
| D DRAINAGE | SHEET 100-101 | GR GUARDRAIL | SHEET 106 |
| DC DITCH CLEAN OUTS | SHEET 99 | PRJ PRESSURE RELIEF JOINTS | SHEET 107 |
| ER EROSION CONTROL | SHEET 107 | R REMOVALS | SHEET 107 |
| F FENCE | SHEET 105 | U UNDERDRAINS | SHEET 102-104 |



$\Delta = 27^{\circ}08'30''$
 $R = 3742.241m$
 $T = 903.327m$
 $L = 1772.743m$
 $S = NC$
 (MEETS DESIGN SPEED)

STA: 24+909.83, CL
 T/G = 188.98
 INV. 450mm SE = 188.15
 INV. 200mm S = 188.21
 INV. 150mm W = 188.25
 INV. 200mm N = 188.32

24+895.30, 31.96m RT
 INV. 1500mm=186.88

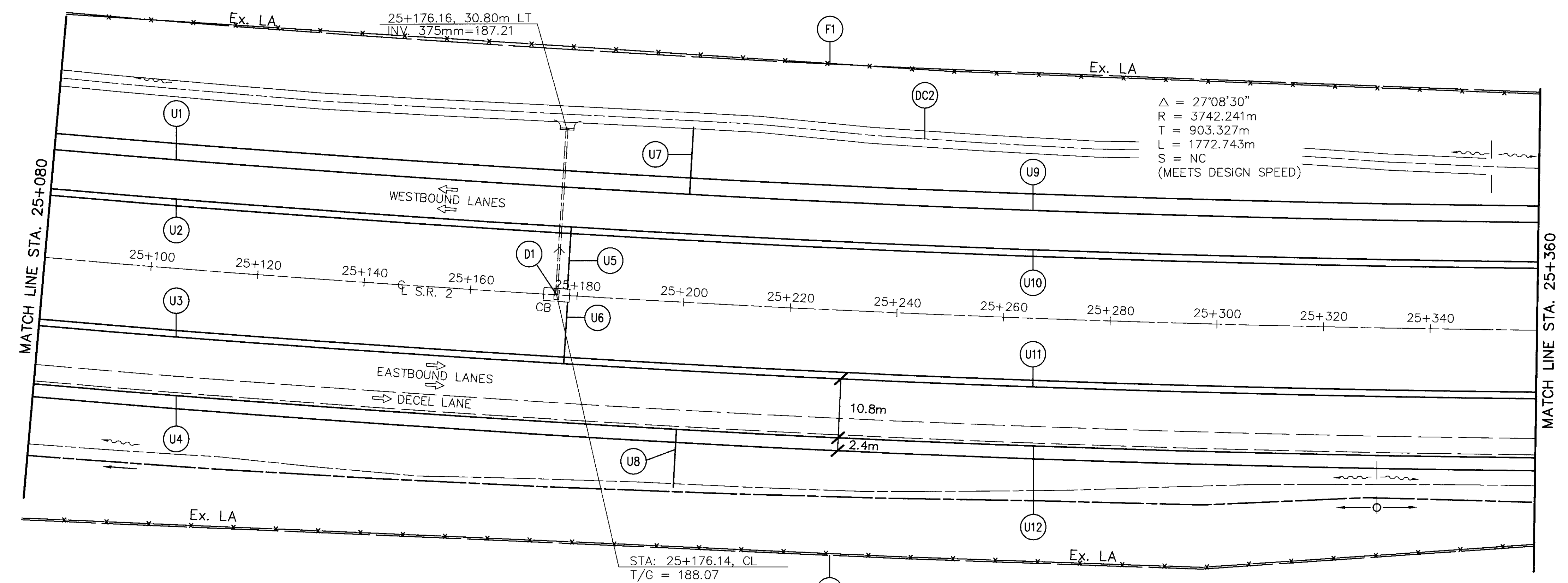


RATIO IN METERS
CALCULATED BY PMA
DATE 4-97
CHECKED BY SB
DATE 5-97

**PLAN STATE ROUTE 2
STA. 25+080 TO STA. 25+660**

ERI-2-12.558

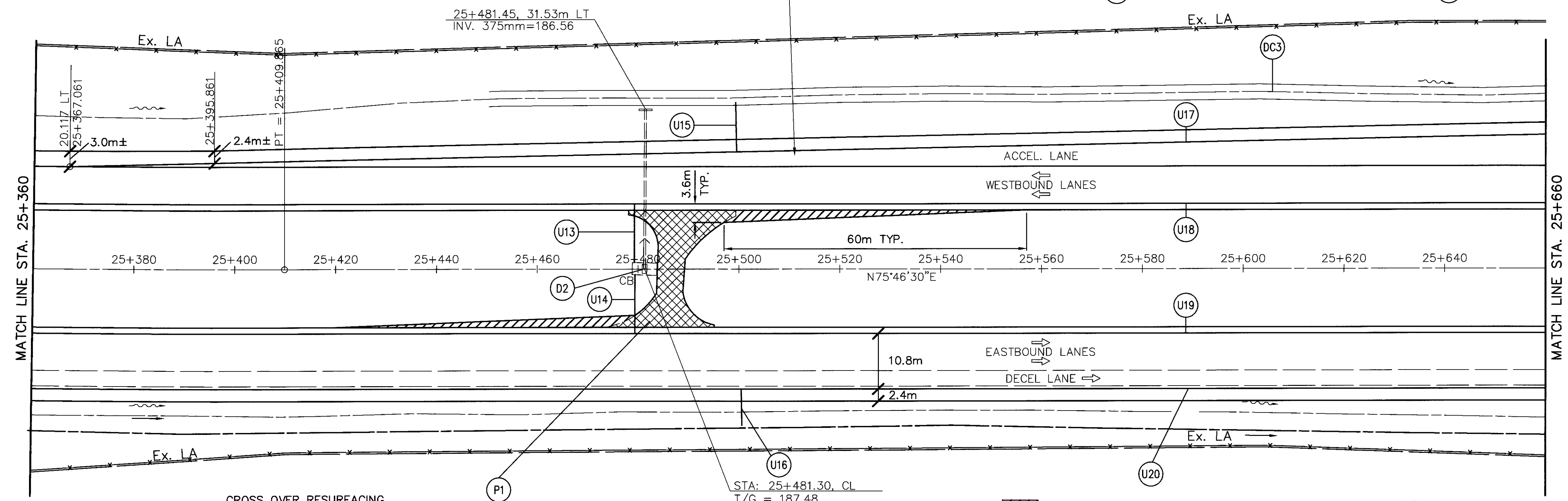
125
432



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------|--|
| (D) DRAINAGE SHEET 100-101 | (GR) GUARDRAIL SHEET 106 |
| (DC) DITCH CLEAN OUTS SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS SHEET 107 |
| (ER) EROSION CONTROL SHEET 107 | (R) REMOVALS SHEET 107 |
| (F) FENCE SHEET 105 | (U) UNDERDRAINS SHEET 102-104 |

WIDTH OF ACCEL. LANE VARIES UNIFORMLY FROM 0m AT STA. 25+367.061 TO 7.620m AT STA. 25+732.822

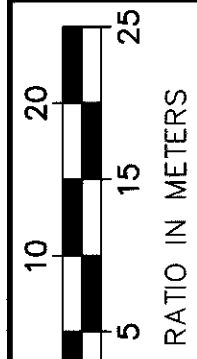
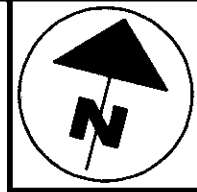


CROSS OVER RESURFACING
 ITEM 446 32mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
 ITEM 446 44mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
 ITEM 407 TACK COAT

STA: 25+481.30, CL
 T/G = 187.48
 INV. 375mm N = 186.76
 INV. 150mm W = 186.83
 INV. 200mm S = 186.92

ITEM 446 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
 ITEM 446 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
 ITEM 301 228mm BITUMINOUS AGGREGATE BASE
 ITEM 408 BITUMINOUS PRIME COAT
 ITEM 304 50mm AGGREGATE BASE
 ITEM 203 SUBGRADE COMPACTION
 ITEM 203 EMBANKMENT

FILE NAME: I:\5033\006\TRAN\PLAN\REV-P11.DWG 5-21-99 9:53:39 am EST

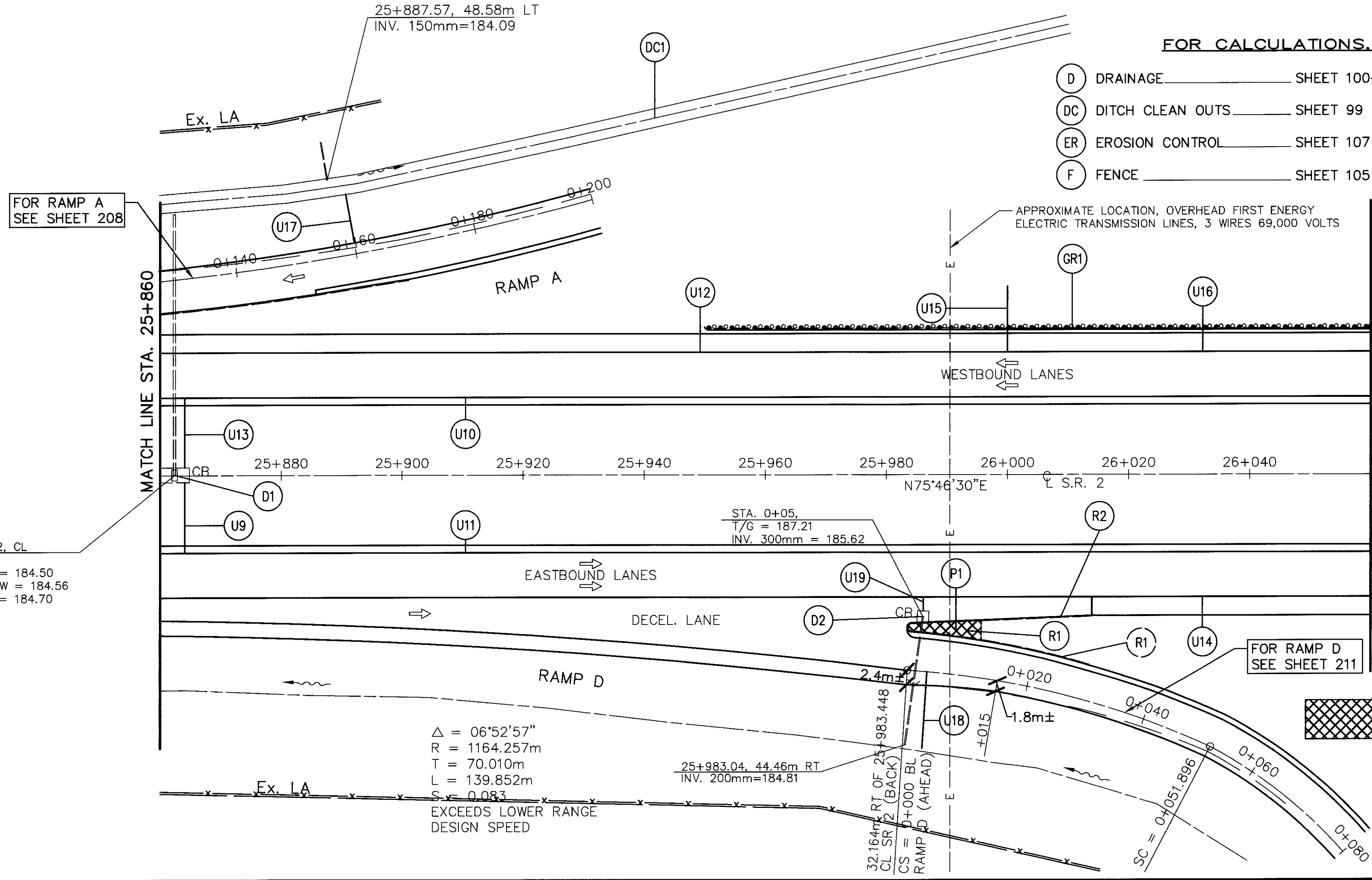
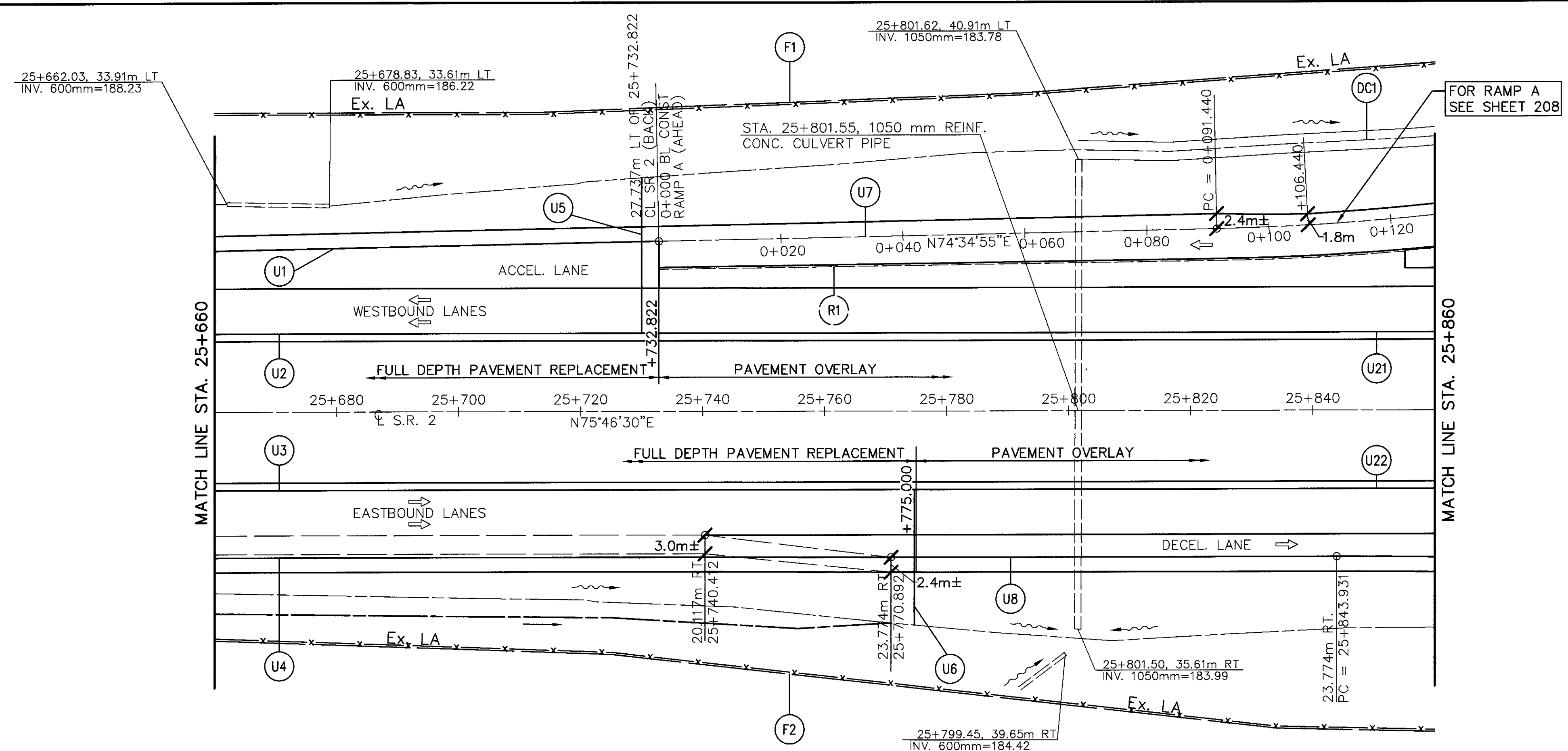


CALCULATED BY: PMA
 DATE: 4-97
 CHECKED BY: SB
 DATE: 5-97

**PLAN STATE ROUTE 2
 STA. 25+660 TO STA. 26+060**

ERI-2-12.558

126
 432



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

STA: 25+862.42, CL
 T/G = 185.19
 INV. 375mm N = 184.50
 INV. 150mm E&W = 184.56
 INV. 200mm S = 184.70

$\Delta = 06^{\circ}52'57''$
 R = 1164.257m
 T = 70.010m
 L = 139.852m
 S = 0.083
 EXCEEDS LOWER RANGE
 DESIGN SPEED

- ITEM 446 - 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- ITEM 446 - 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 - 100mm ASPHALT CONCRETE, PG64-22
- ITEM 407 - TACK COAT
- ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE.

KJB FILE NAME: I:\5033\006\TRAN\PLAN\REV-P12.DWG 5-21-99 10:48:51 am EST

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

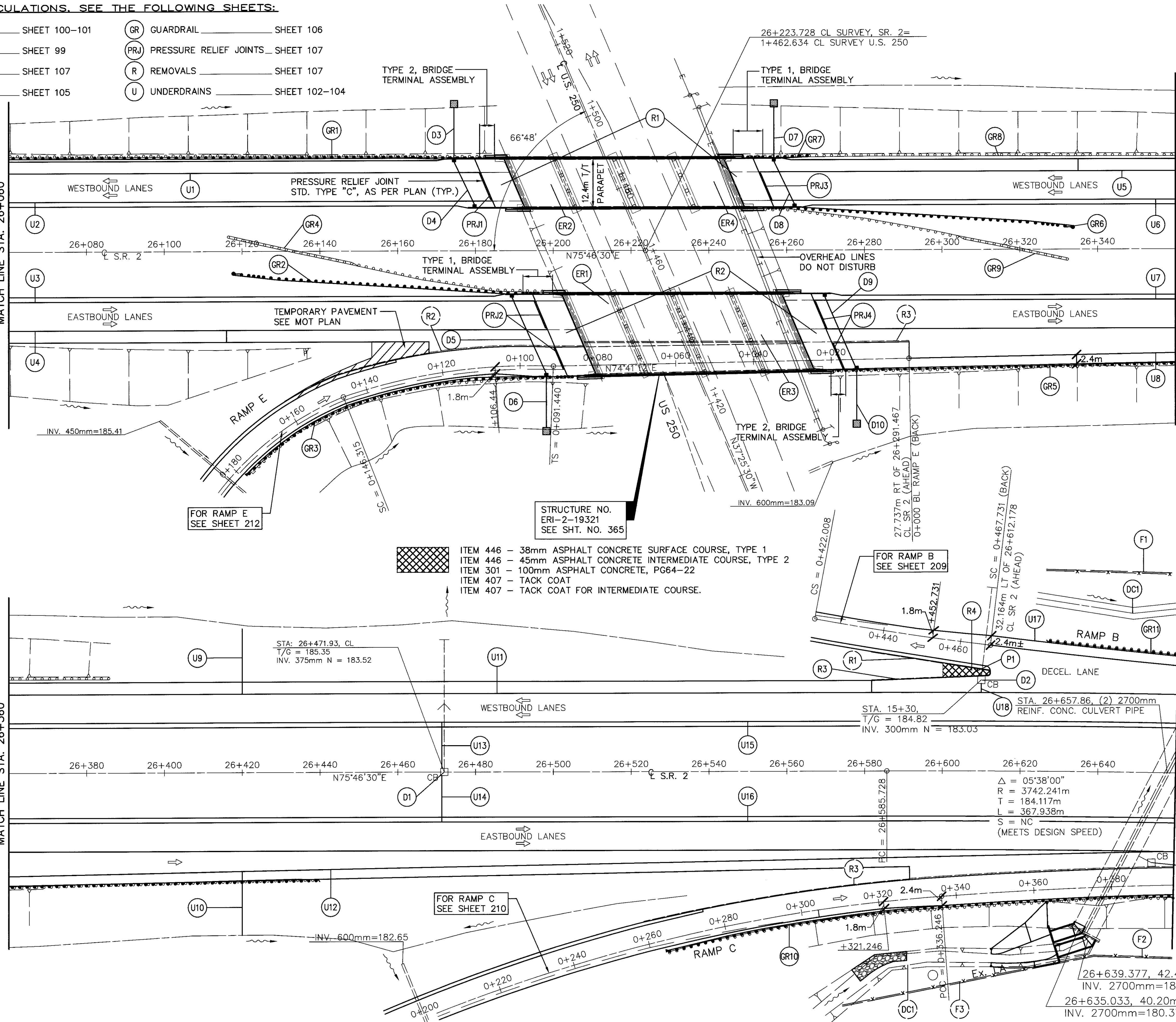
- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

MATCH LINE STA. 26+060

MATCH LINE STA. 26+360

MATCH LINE STA. 26+360

MATCH LINE STA. 26+660



FOR RAMP E
SEE SHEET 212

STRUCTURE NO.
ERI-2-19321
SEE SHT. NO. 365

FOR RAMP B
SEE SHEET 209

- ITEM 446 - 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- ITEM 446 - 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 - 100mm ASPHALT CONCRETE, PG64-22
- ITEM 407 - TACK COAT
- ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE.

STA: 26+471.93, CL
T/G = 185.35
INV. 375mm N = 183.52

STA. 15+30,
T/G = 184.82
INV. 300mm N = 183.03

STA. 26+657.86, (2) 2700mm
REINF. CONC. CULVERT PIPE

$\Delta = 05^{\circ}38'00''$
 $R = 3742.241m$
 $T = 184.117m$
 $L = 367.938m$
 $S = NC$
(MEETS DESIGN SPEED)

FOR RAMP C
SEE SHEET 210

FOR CULVERT
EXTENSION
SEE SHT. NO. 264

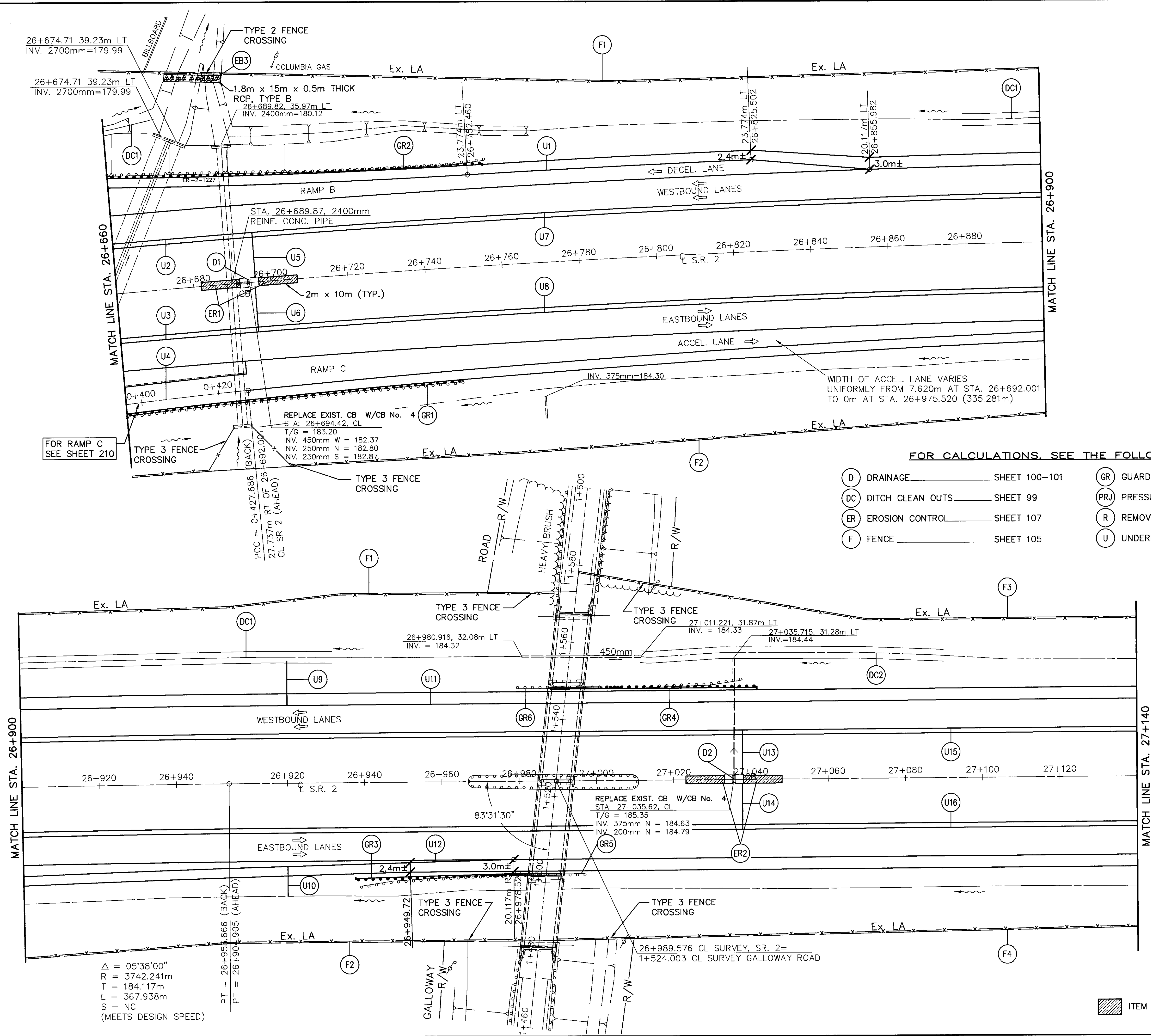
26+639.377, 42.48m RT
INV. 2700mm=180.20
26+635.033, 40.20m RT
INV. 2700mm=180.37

PLAN STATE ROUTE 2
STA. 26+060 TO STA. 26+660

ERI-2-12.558

127
432

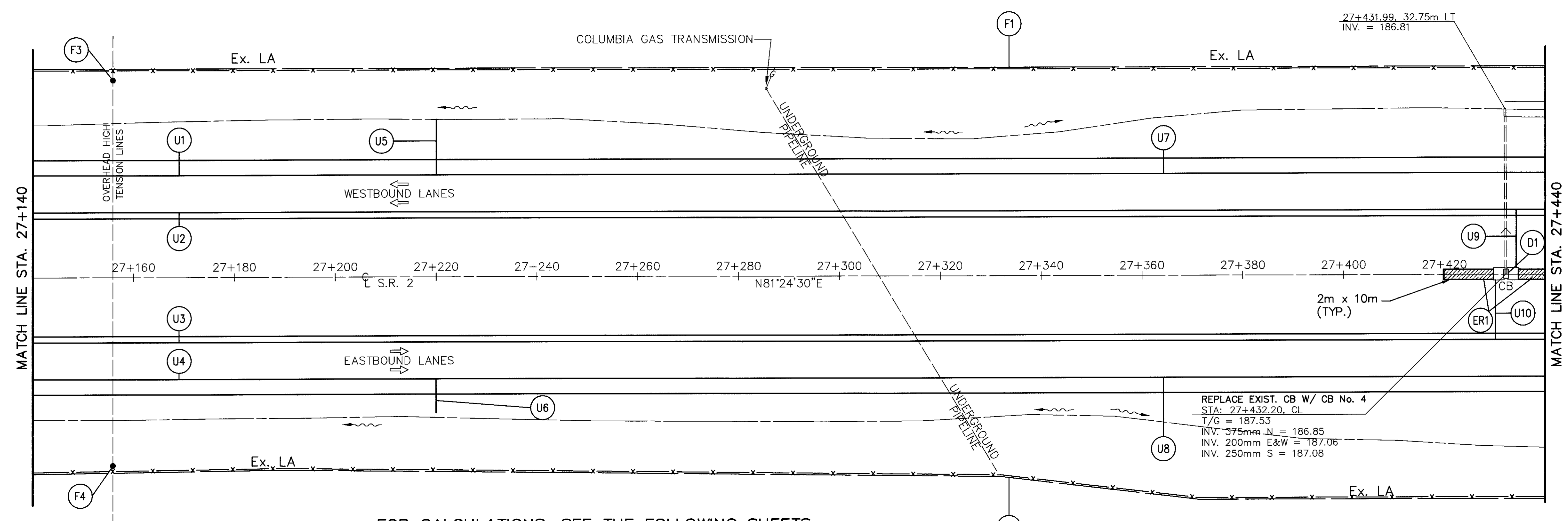
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- FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:
- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

$\Delta = 05^{\circ}38'00''$
 $R = 3742.241m$
 $T = 184.117m$
 $L = 367.938m$
 $S = NC$
 (MEETS DESIGN SPEED)

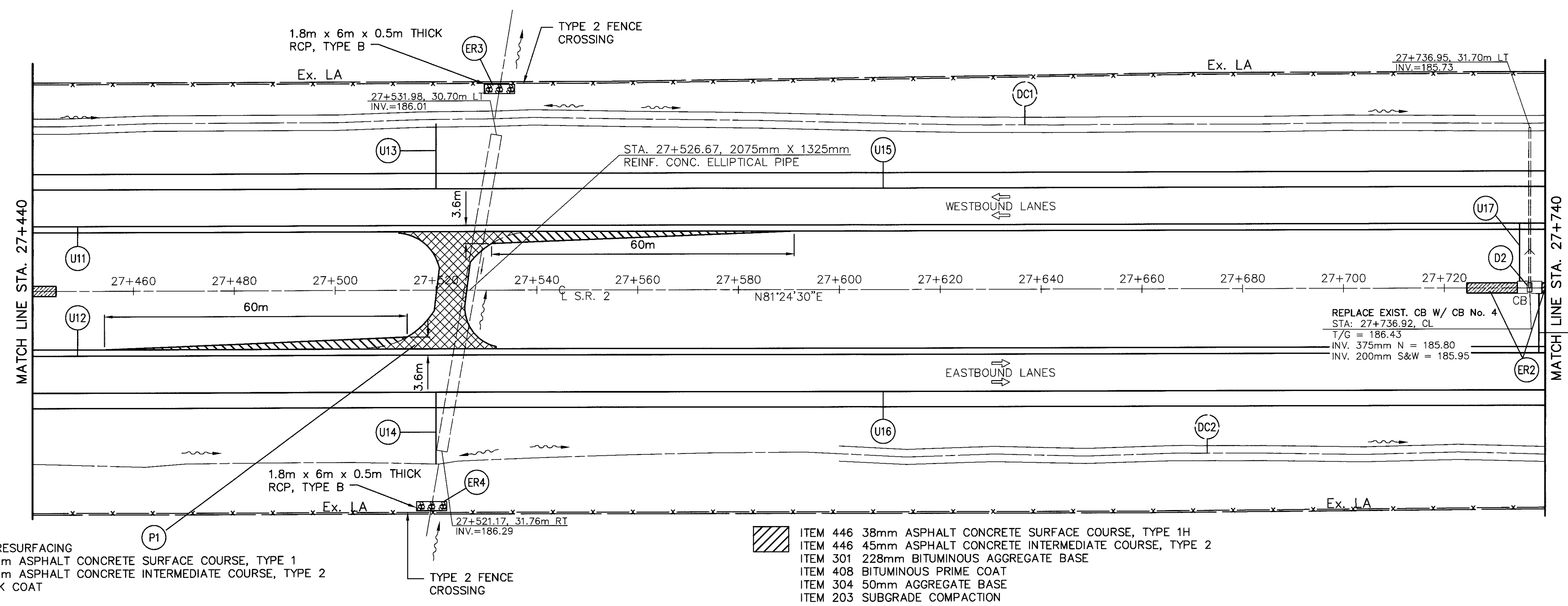
ITEM 670 DITCH EROSION PROTECTION

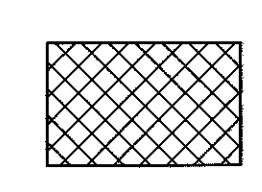



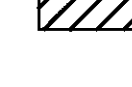
FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

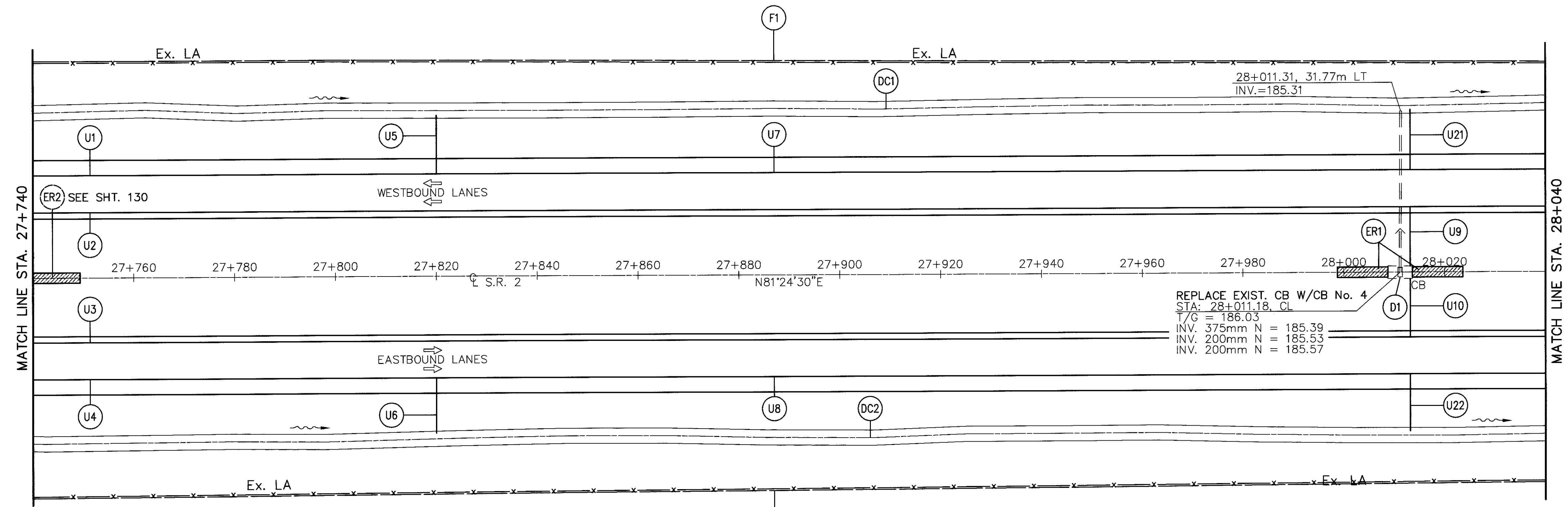
 ITEM 670 DITCH EROSION PROTECTION



-  CROSS OVER RESURFACING
- ITEM 446 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
 - ITEM 446 44mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
 - ITEM 407 TACK COAT

-  ITEM 446 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
-  ITEM 446 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 228mm BITUMINOUS AGGREGATE BASE
- ITEM 408 BITUMINOUS PRIME COAT
- ITEM 304 50mm AGGREGATE BASE
- ITEM 203 SUBGRADE COMPACTION
- ITEM 203 EMBANKMENT

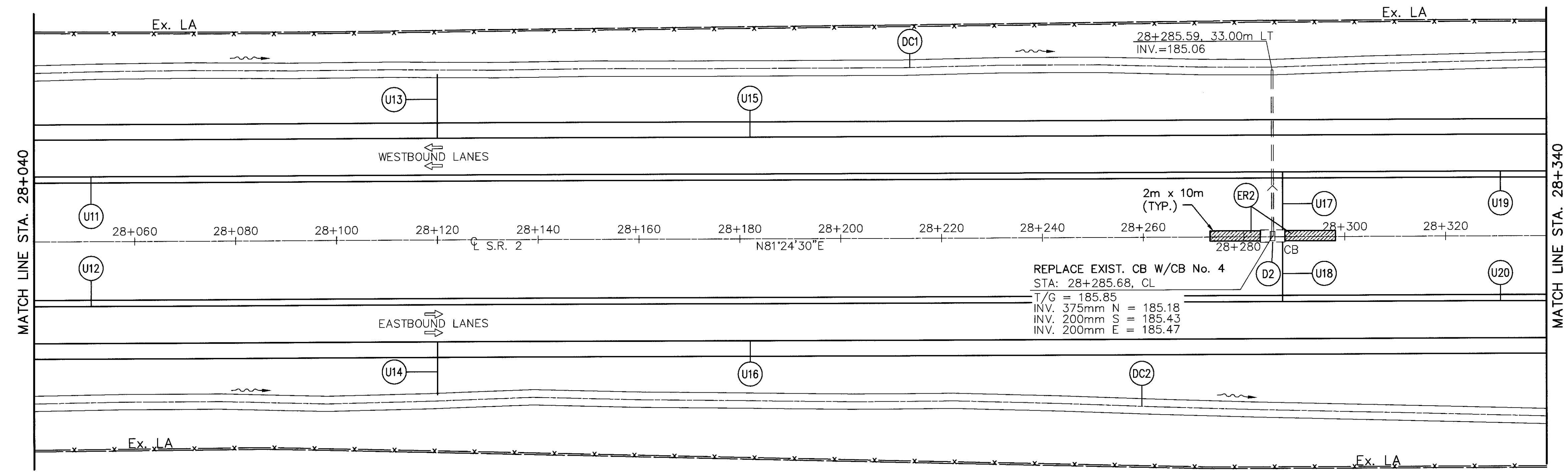
CALCULATED BY: PMA
 DATE: 4-97
 CHECKED BY: SS
 DATE: 5-97



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------|--|
| (D) DRAINAGE SHEET 100-101 | (GR) GUARDRAIL SHEET 106 |
| (DC) DITCH CLEAN OUTS SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS SHEET 107 |
| (ER) EROSION CONTROL SHEET 107 | (R) REMOVALS SHEET 107 |
| (F) FENCE SHEET 105 | (U) UNDERDRAINS SHEET 102-104 |

ITEM 670 DITCH EROSION PROTECTION



PLAN STATE ROUTE 2
STA. 27+740 TO STA. 28+340

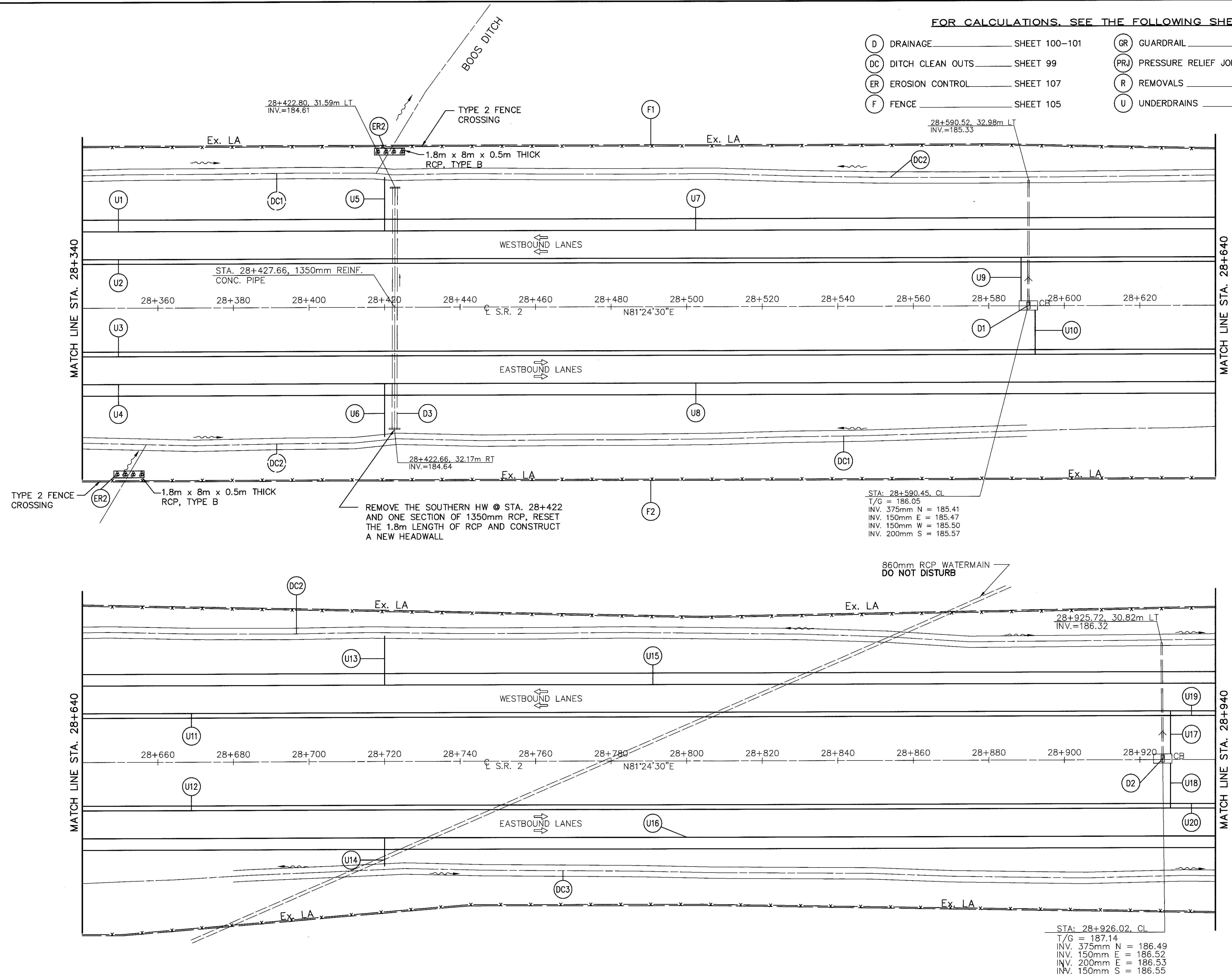
ERI-2-12-558

130
 432

CALCULATED BY: PMA
 DATE: 4-97
 CHECKED BY: SB
 DATE: 5-97

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

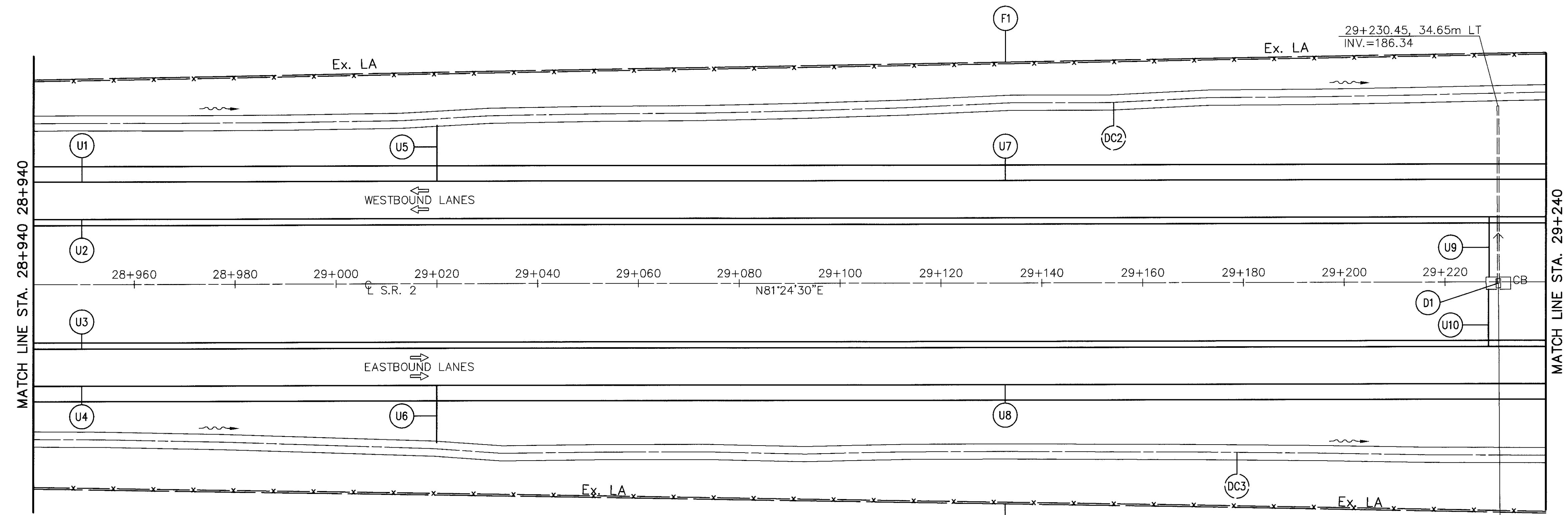


PLAN STATE ROUTE 2
STA. 28+340 TO STA. 28+940

ERI-2-12.558

CALCULATED BY: PMA
 DATE: 4-97
 CHECKED BY: SB
 DATE: 5-97

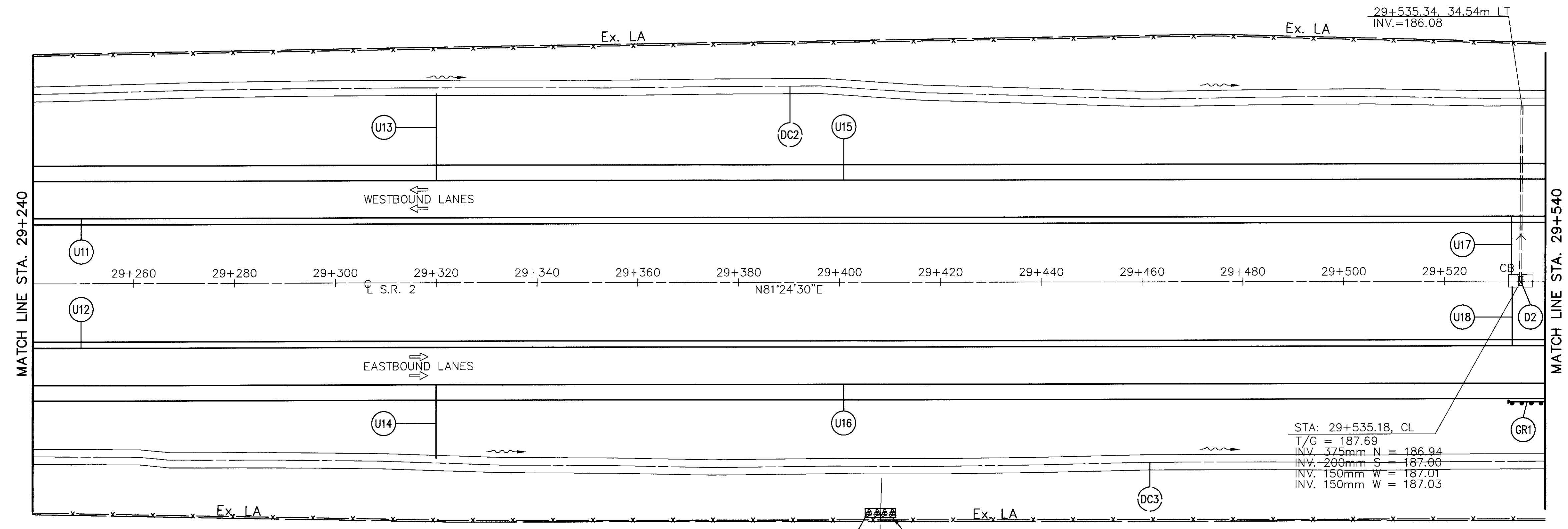
RATIO IN METERS



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

STA: 29+230.57, CL
 T/G = 187.74
 INV. 375mm N = 186.99
 INV. 150mm W = 187.06
 INV. 200mm S&E = 187.08



STA: 29+535.18, CL
 T/G = 187.69
 INV. 375mm N = 186.94
 INV. 200mm S = 187.00
 INV. 150mm W = 187.01
 INV. 150mm W = 187.03

ER1
 1.8m x 6m x 0.5m THICK
 RCP, TYPE B

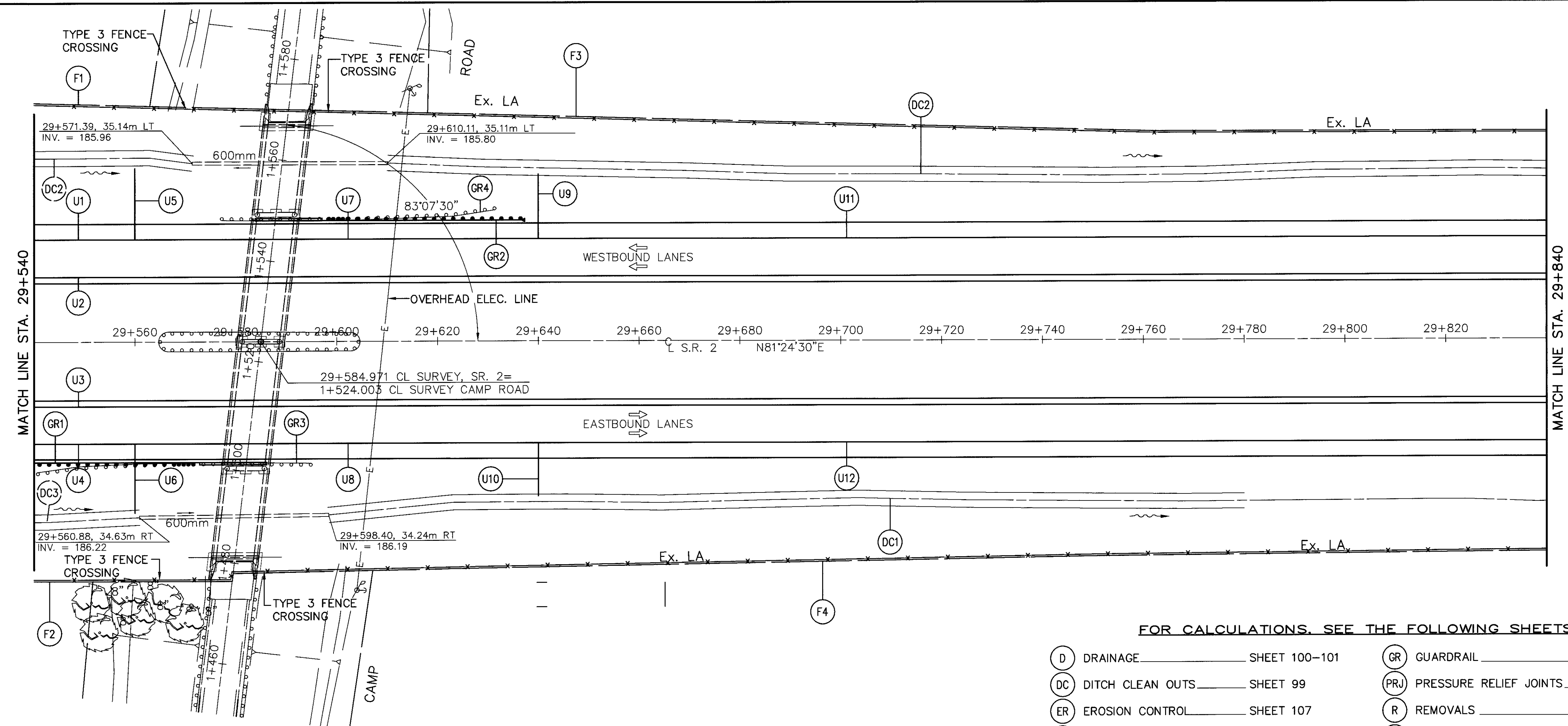
FILE NAME: I:\5033\006\TRAN\PLAN\PIB.DWG 7-16-99 3:19:22 pm EST
 KJB

PLAN STATE ROUTE 2
STA. 28+940 TO STA. 29+540

ERI-2-12.558

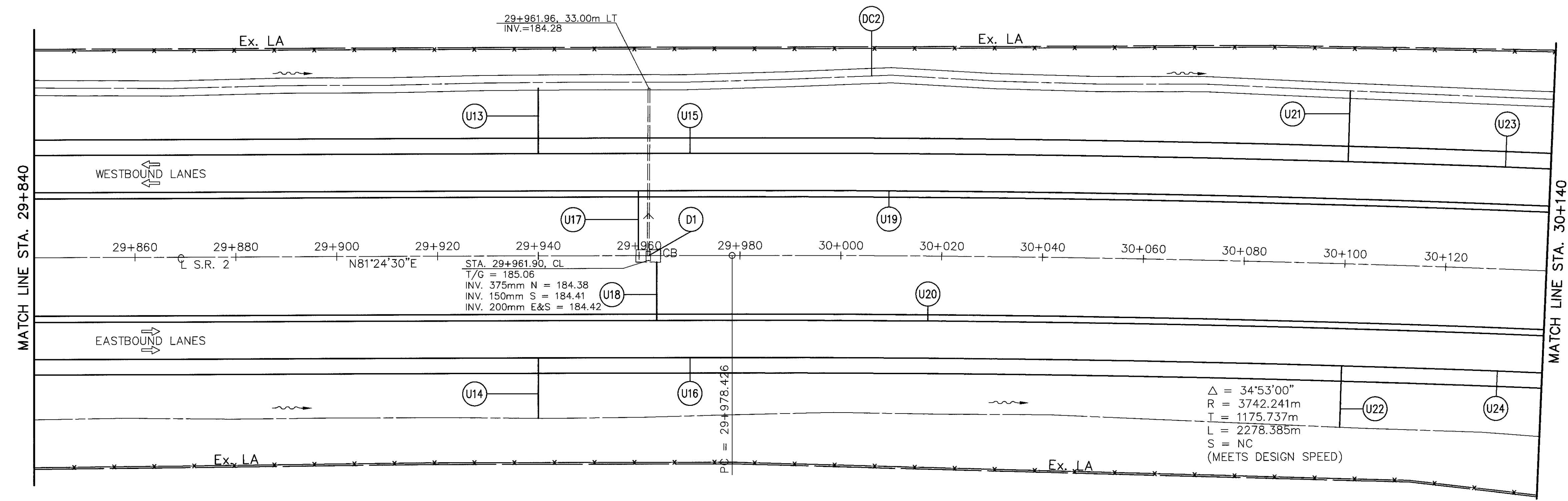
CALCULATED BY: PMA
 DATE: 4-97
 CHECKED BY: SB
 DATE: 5-97

RATIO IN METERS



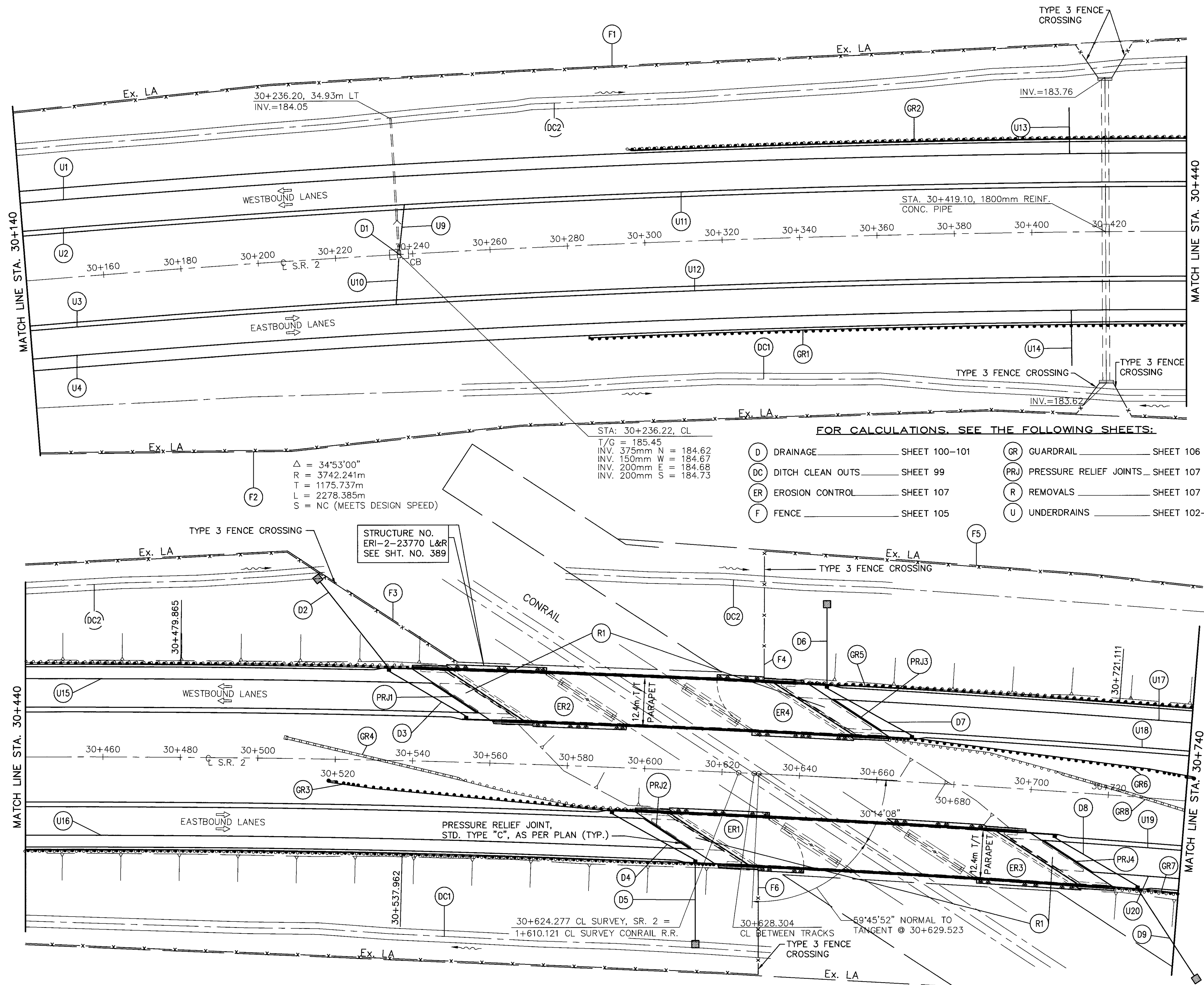
FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |



**PLAN STATE ROUTE 2
STA. 29+540 TO STA. 30+140**

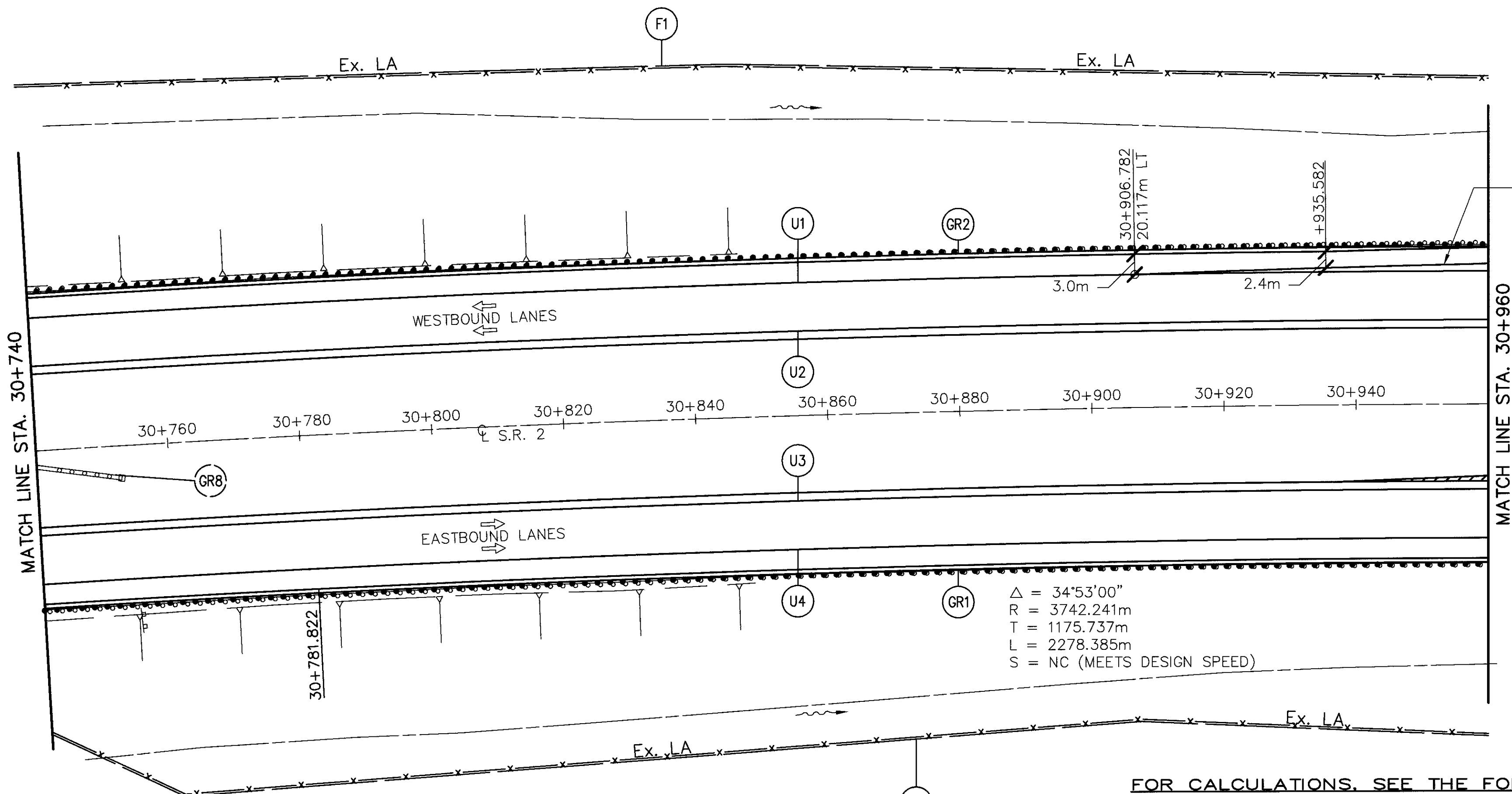
ERI-2-12.558



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

FILE NAME: I:\5033\006\TRAN PLAN\20.DWG 7-16-99 3:29:39 pm EST



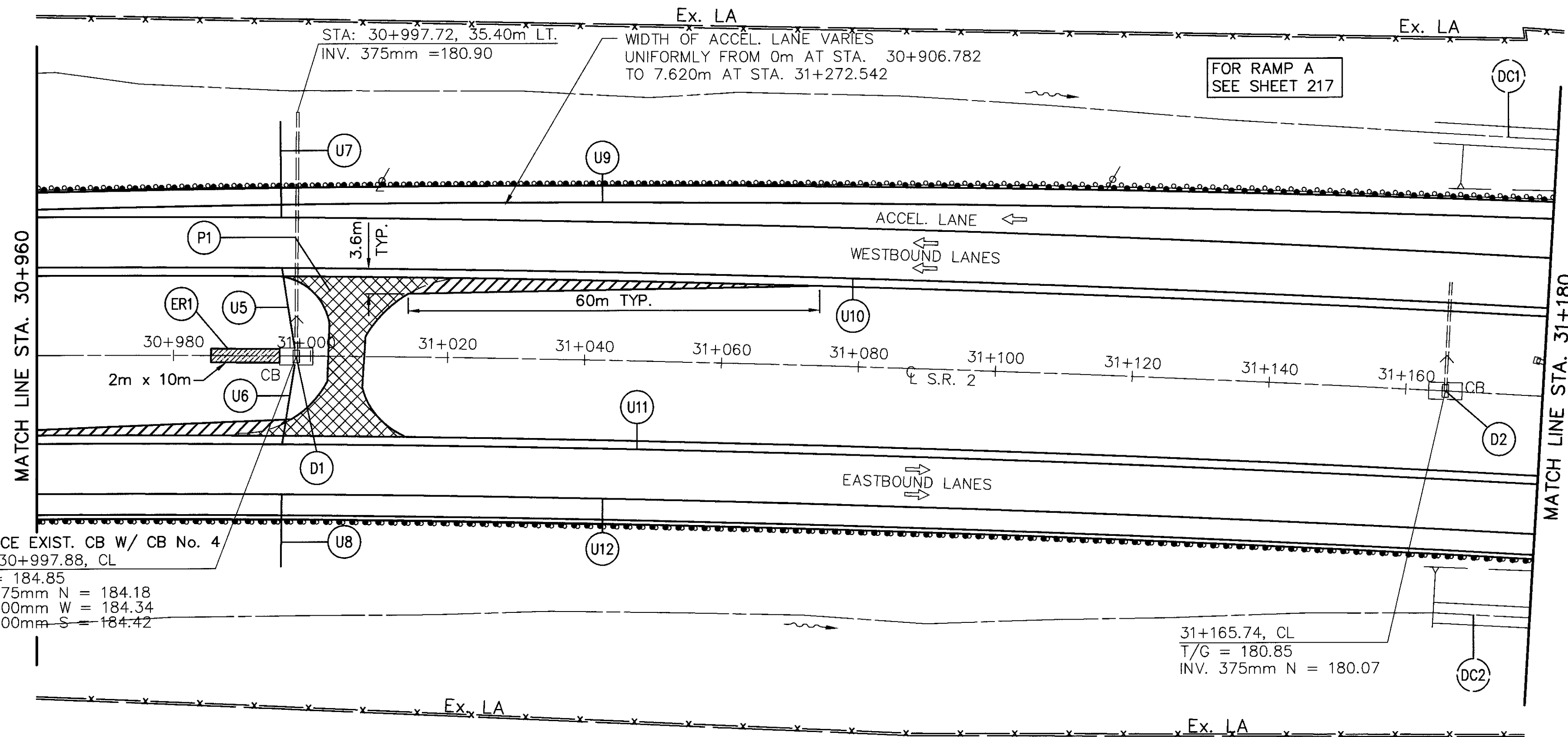
WIDTH OF ACCEL. LANE VARIES UNIFORMLY FROM 0m AT STA. 30+906.782 TO 7.620m AT STA. 31+272.542

- CROSS OVER RESURFACING
- ITEM 446 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
- ITEM 446 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 407 TACK COAT

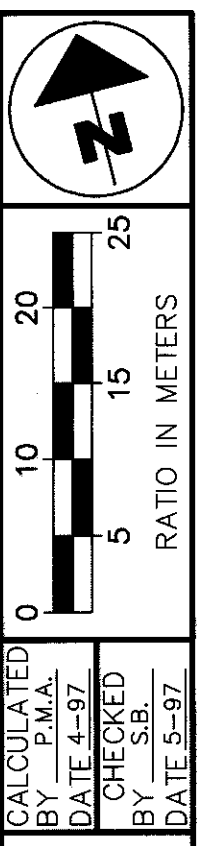
- ITEM 446 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
- ITEM 446 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 228mm BITUMINOUS AGGREGATE BASE
- ITEM 408 BITUMINOUS PRIME COAT
- ITEM 304 50mm AGGREGATE BASE
- ITEM 203 SUBGRADE COMPACTION
- ITEM 203 EMBANKMENT

- ITEM 670 DITCH EROSION PROTECTION

- FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:
- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |



REPLACE EXIST. CB W/ CB No. 4
 STA: 30+997.88, CL
 T/G = 184.85
 INV. 375mm N = 184.18
 INV. 200mm W = 184.34
 INV. 200mm S = 184.42

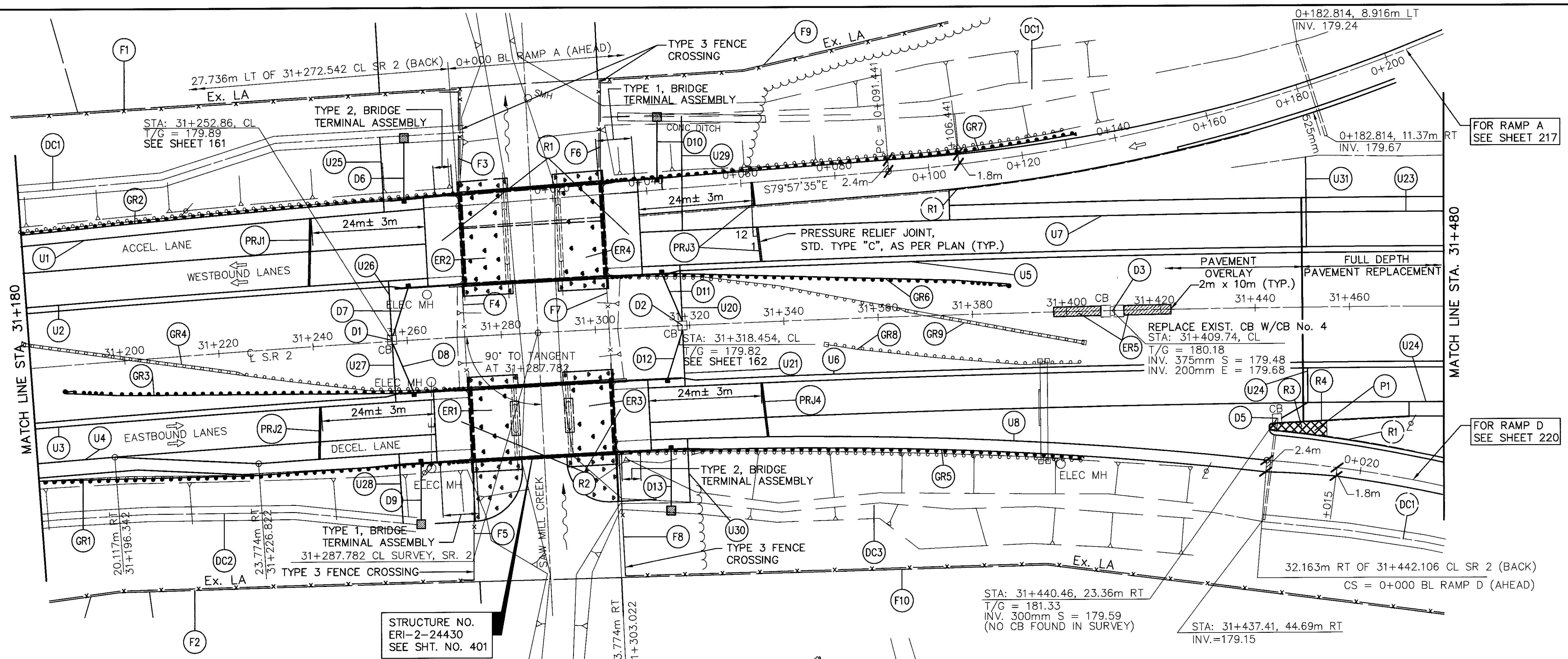


CALCULATED BY: P.M.A.
 DATE: 4-97
 CHECKED BY: S.B.
 DATE: 5-97

**PLAN STATE ROUTE 2
 STA. 31+180 TO STA. 31+780**

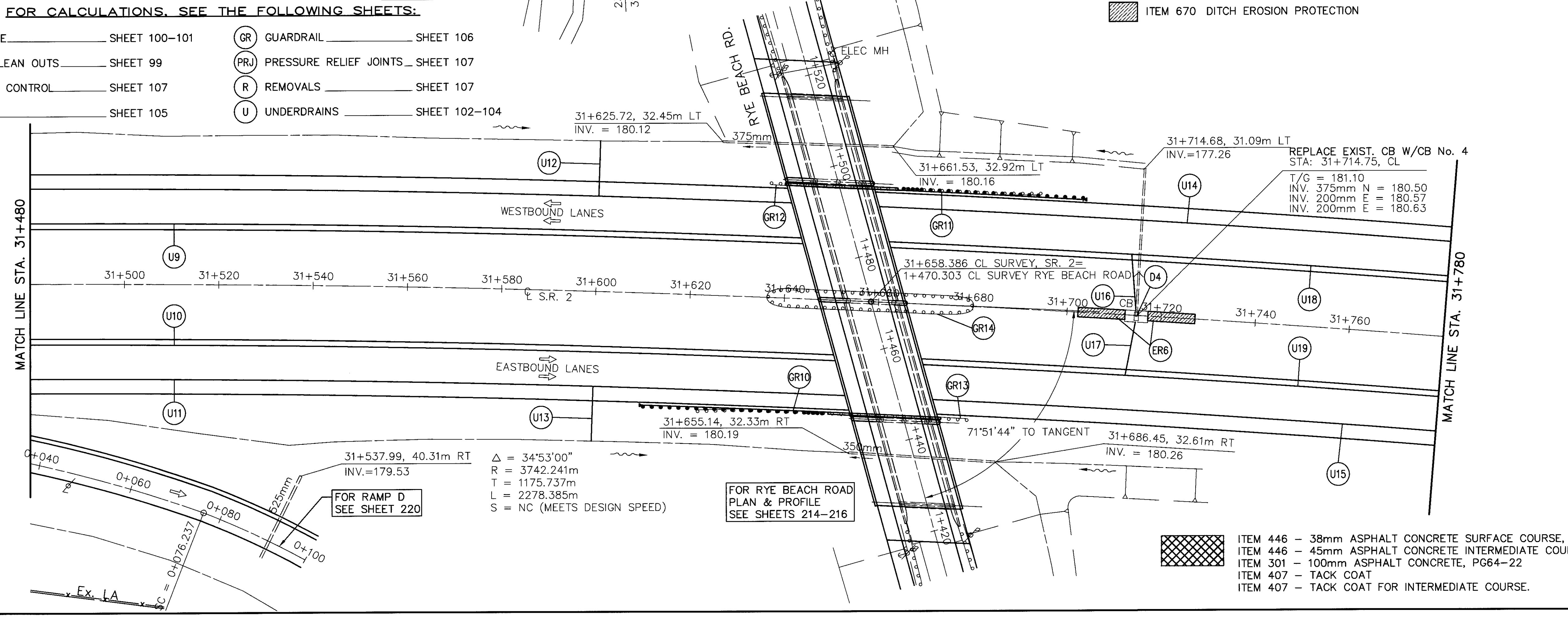
ERI-2-12-558

136
 432



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |



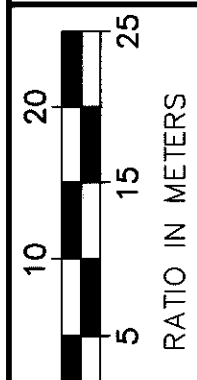
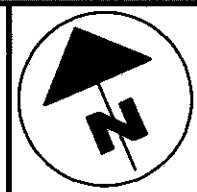
STRUCTURE NO.
 ERI-2-24430
 SEE SHT. NO. 401

ITEM 670 DITCH EROSION PROTECTION

$\Delta = 34^{\circ}53'00''$
 $R = 3742.241m$
 $T = 1175.737m$
 $L = 2278.385m$
 $S = NC$ (MEETS DESIGN SPEED)

FOR RYE BEACH ROAD
 PLAN & PROFILE
 SEE SHEETS 214-216

- ITEM 446 - 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- ITEM 446 - 45mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 301 - 100mm ASPHALT CONCRETE, PG64-22
- ITEM 407 - TACK COAT
- ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE.

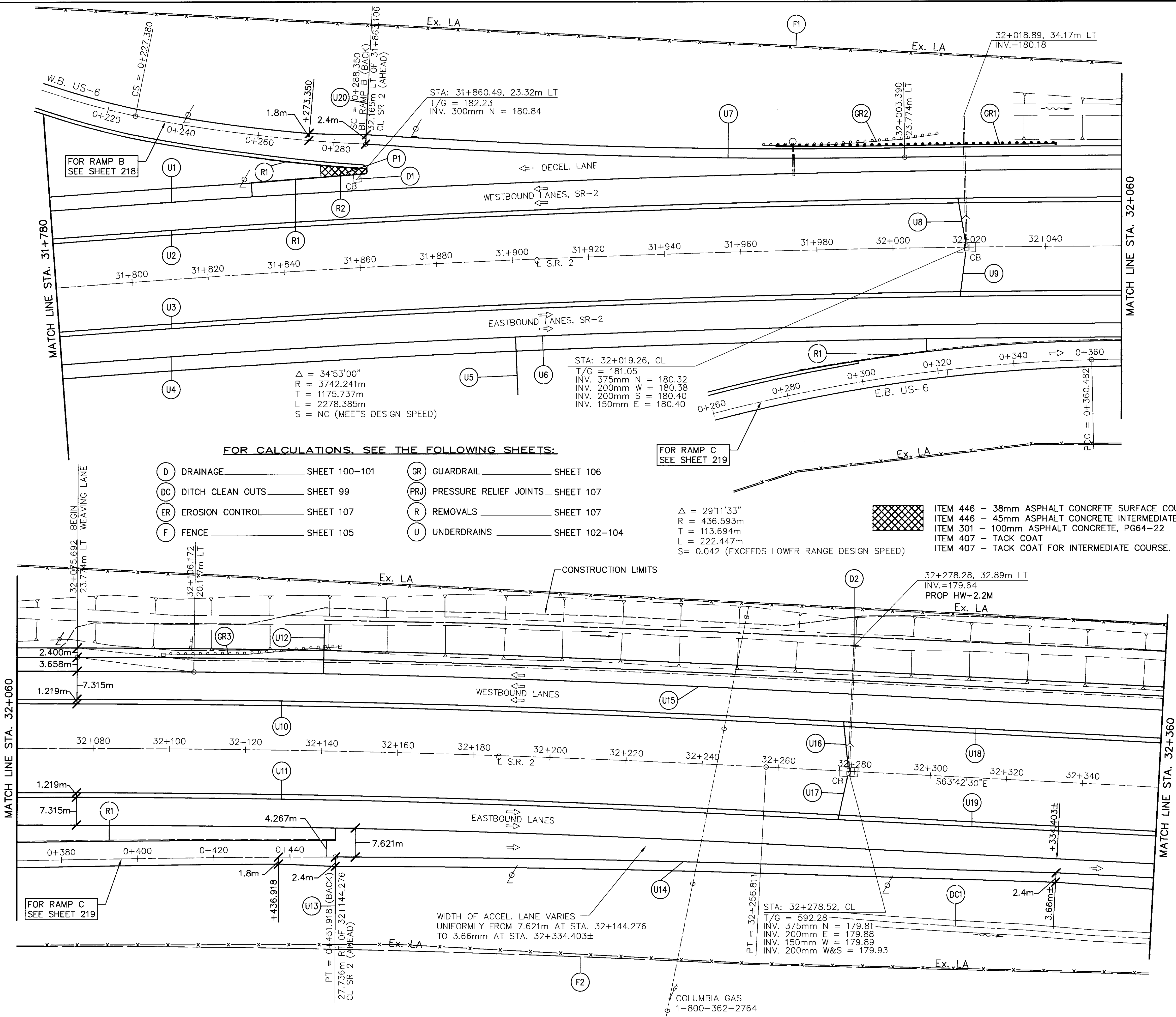


CALCULATED BY: P.W.A. DATE: 4-97 CHECKED BY: S.B. DATE: 5-97

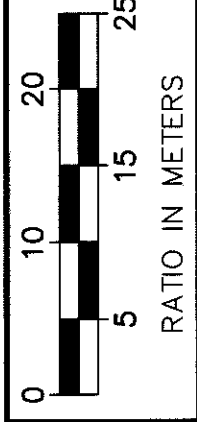
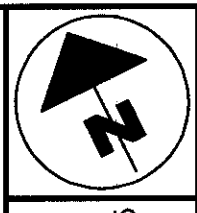
**PLAN STATE ROUTE 2
STA. 31+780 TO STA. 32+360**

ERI-2-12.558

137
432



FILE NAME: I:\5033\006\TRAN\PLAN\23.DWG 7-16-99 3:55:08 pm EST

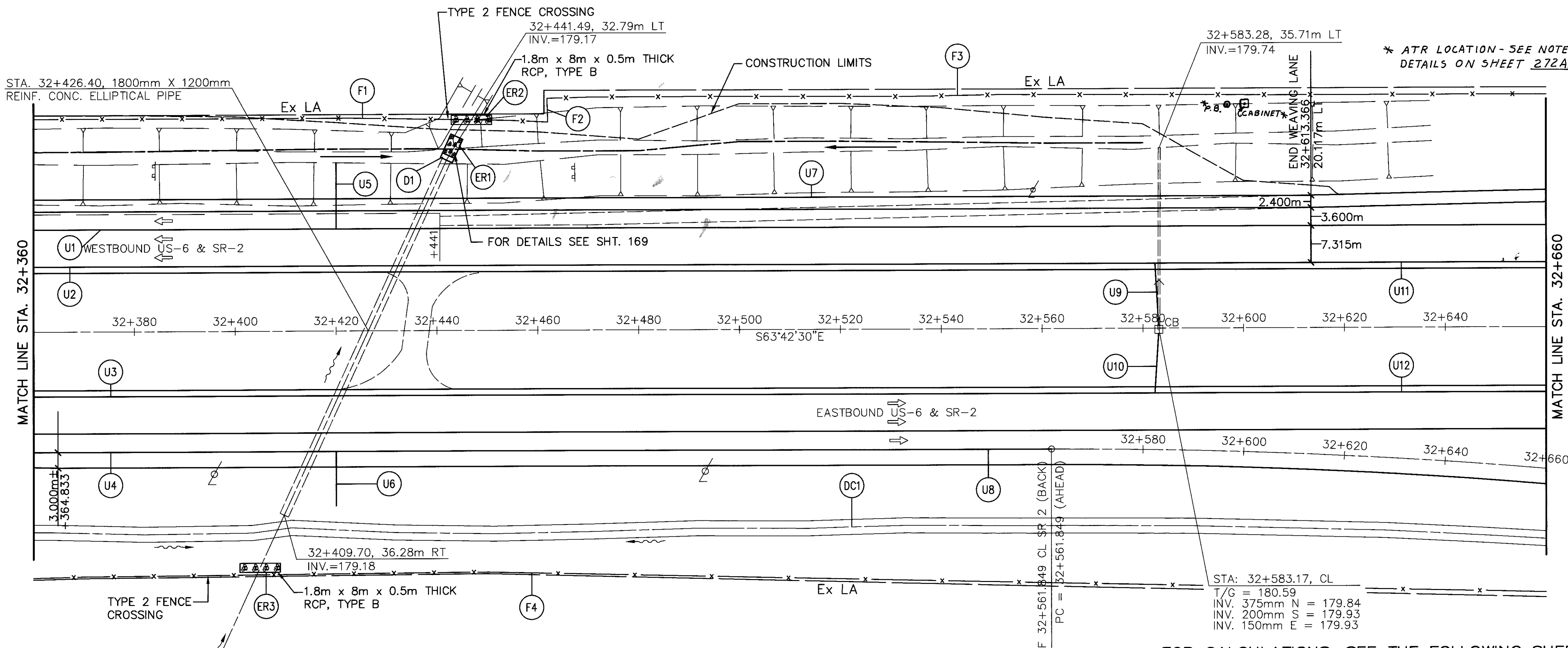


CALCULATED BY P.M.A.
DATE 4-97
CHECKED BY S.B.
DATE 5-97

**PLAN STATE ROUTE 2
STA. 32+360 TO STA. 32+960**

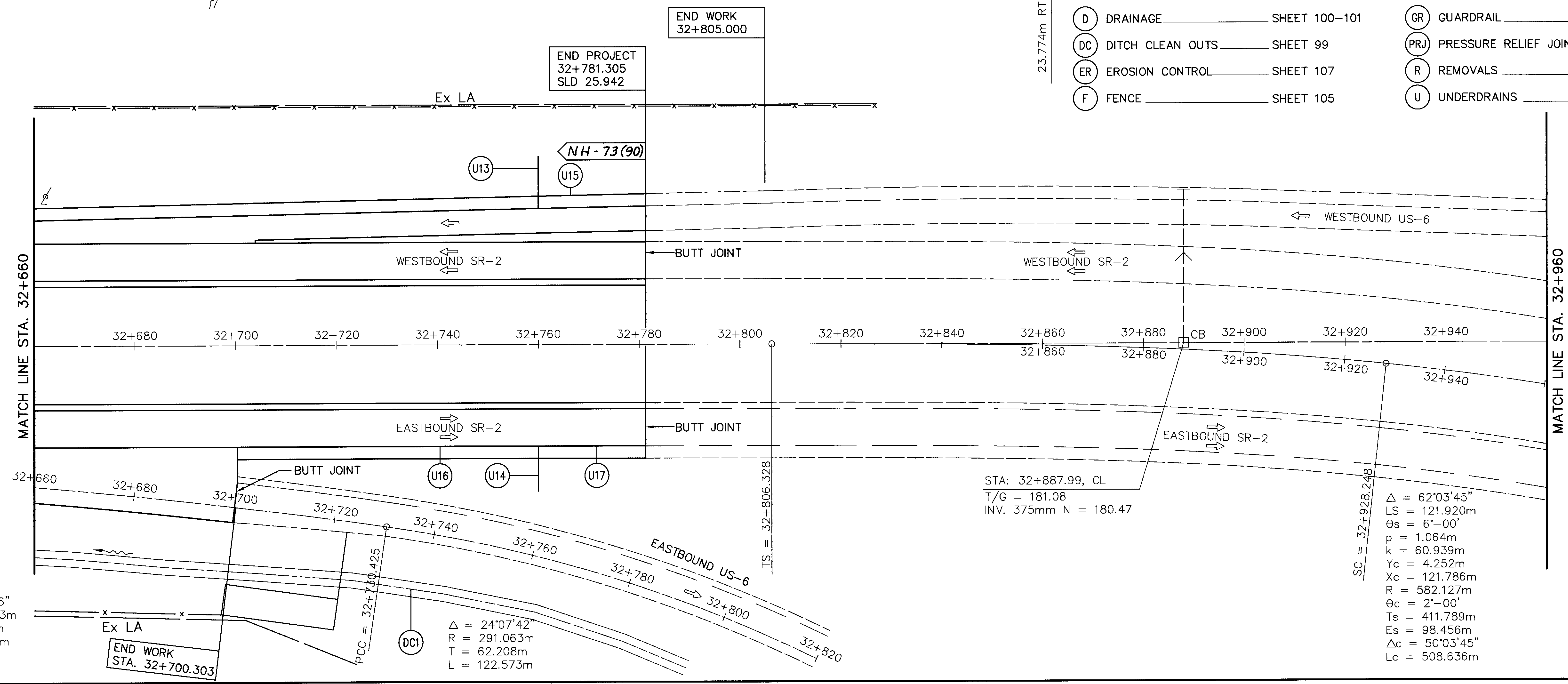
ERI-2-12.558

138
432



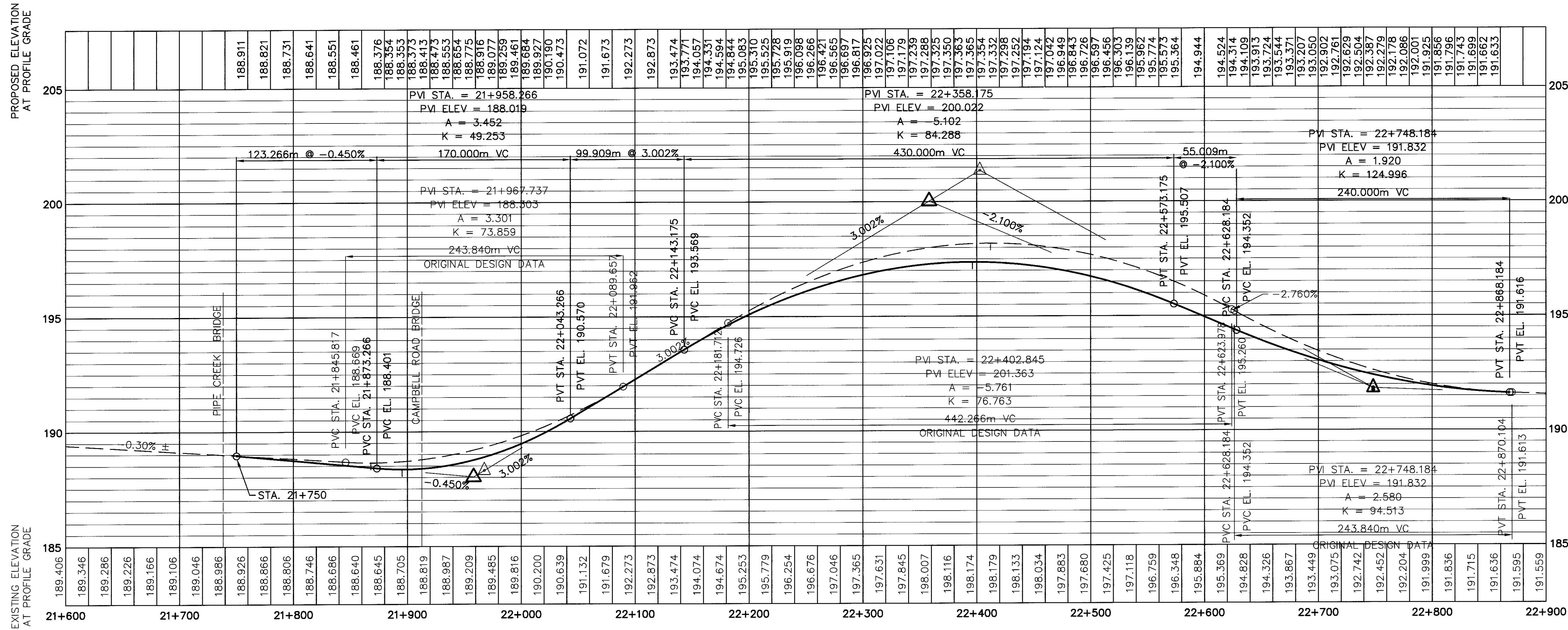
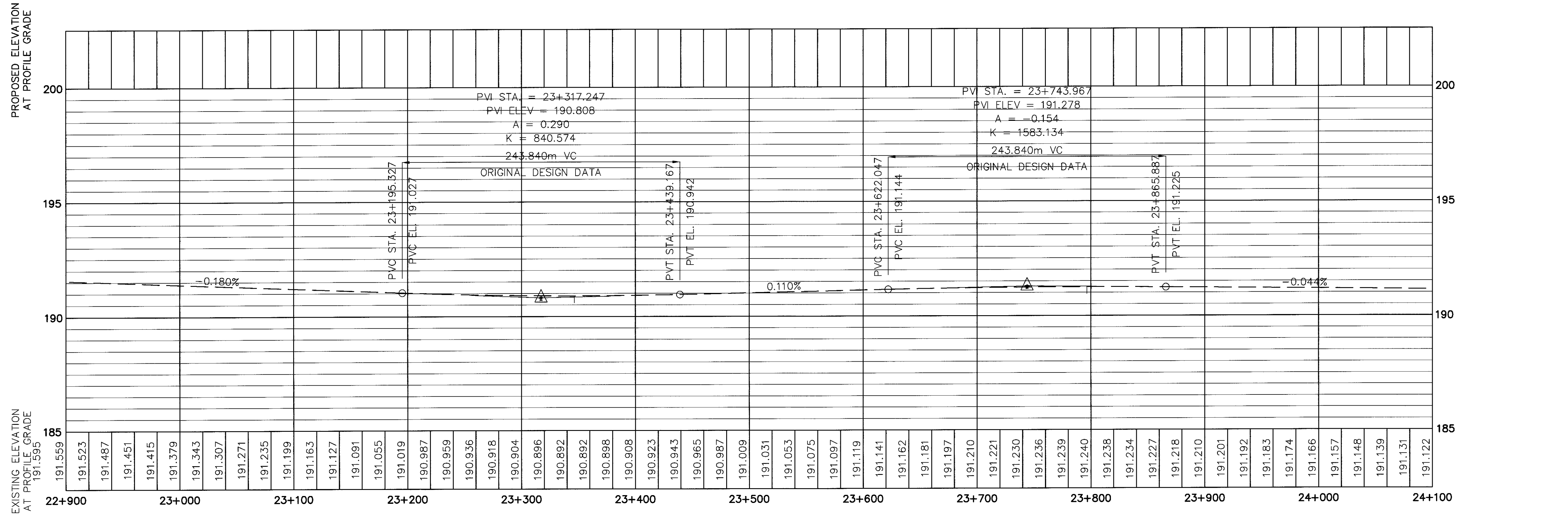
FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

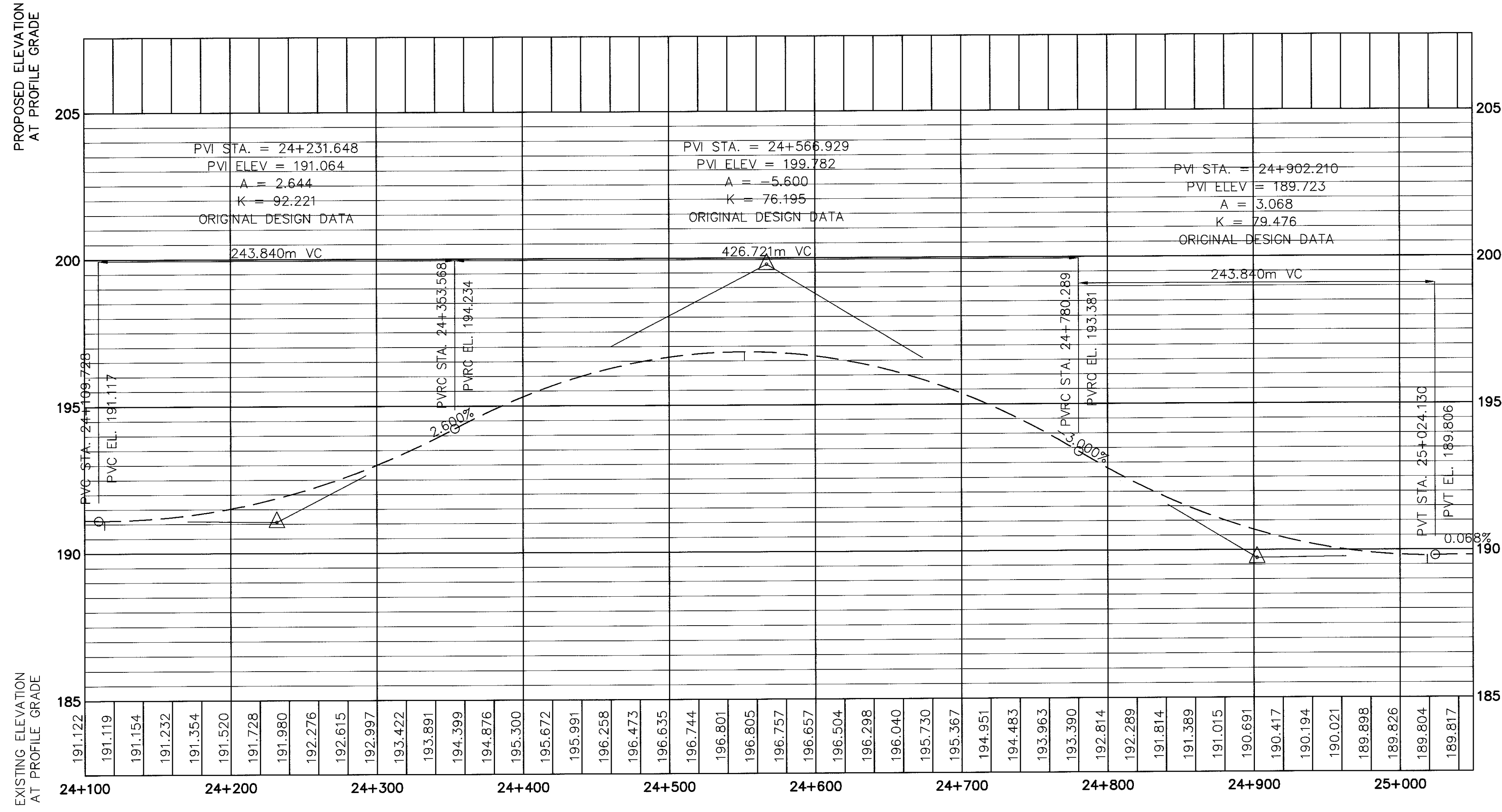
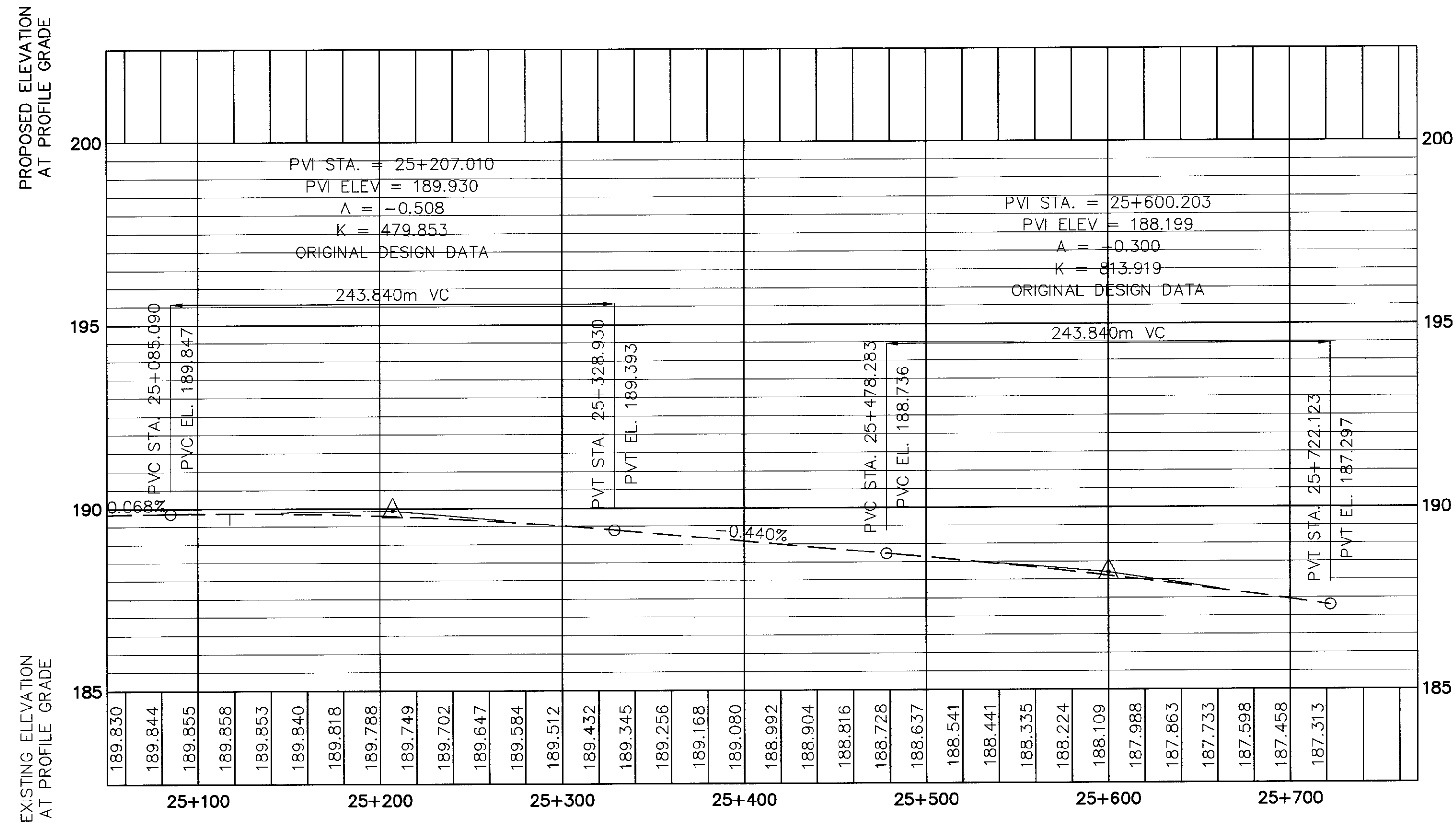
- | | | | |
|-----------------------|---------------|------------------------------|---------------|
| (D) DRAINAGE | SHEET 100-101 | (GR) GUARDRAIL | SHEET 106 |
| (DC) DITCH CLEAN OUTS | SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS | SHEET 107 |
| (ER) EROSION CONTROL | SHEET 107 | (R) REMOVALS | SHEET 107 |
| (F) FENCE | SHEET 105 | (U) UNDERDRAINS | SHEET 102-104 |

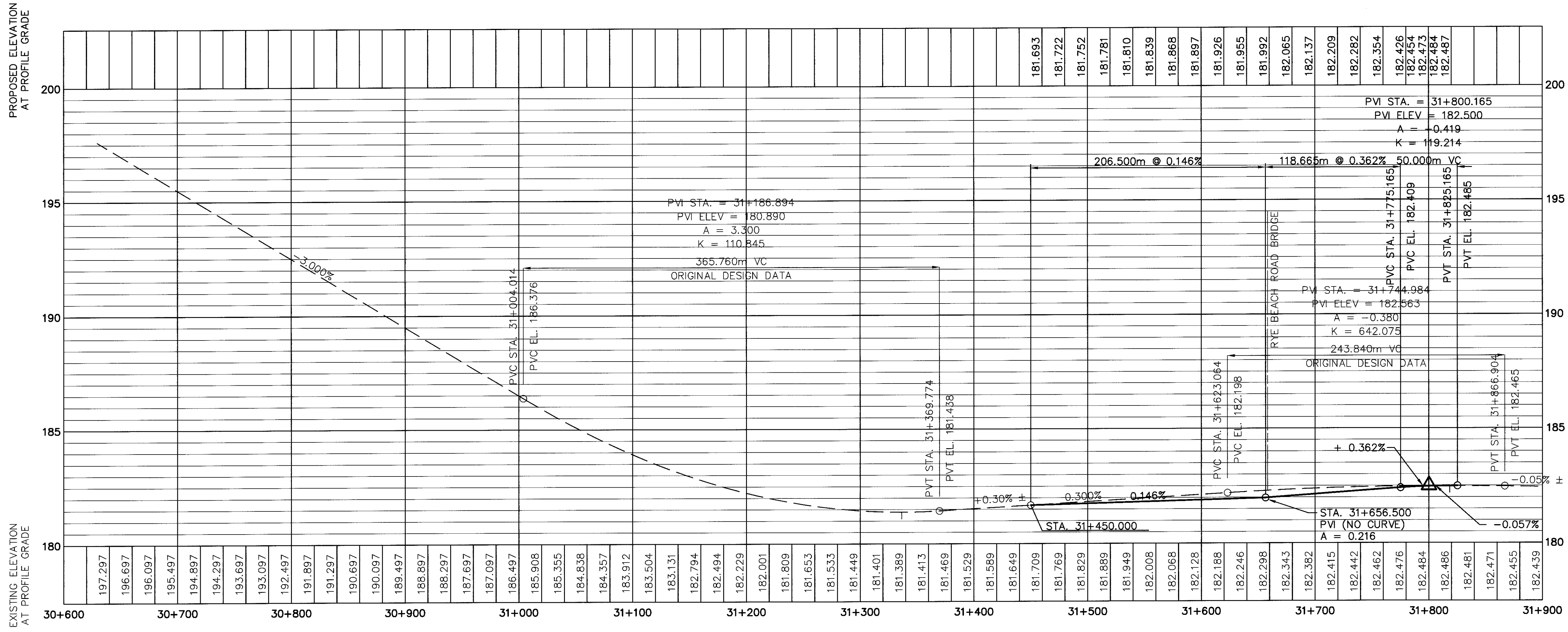
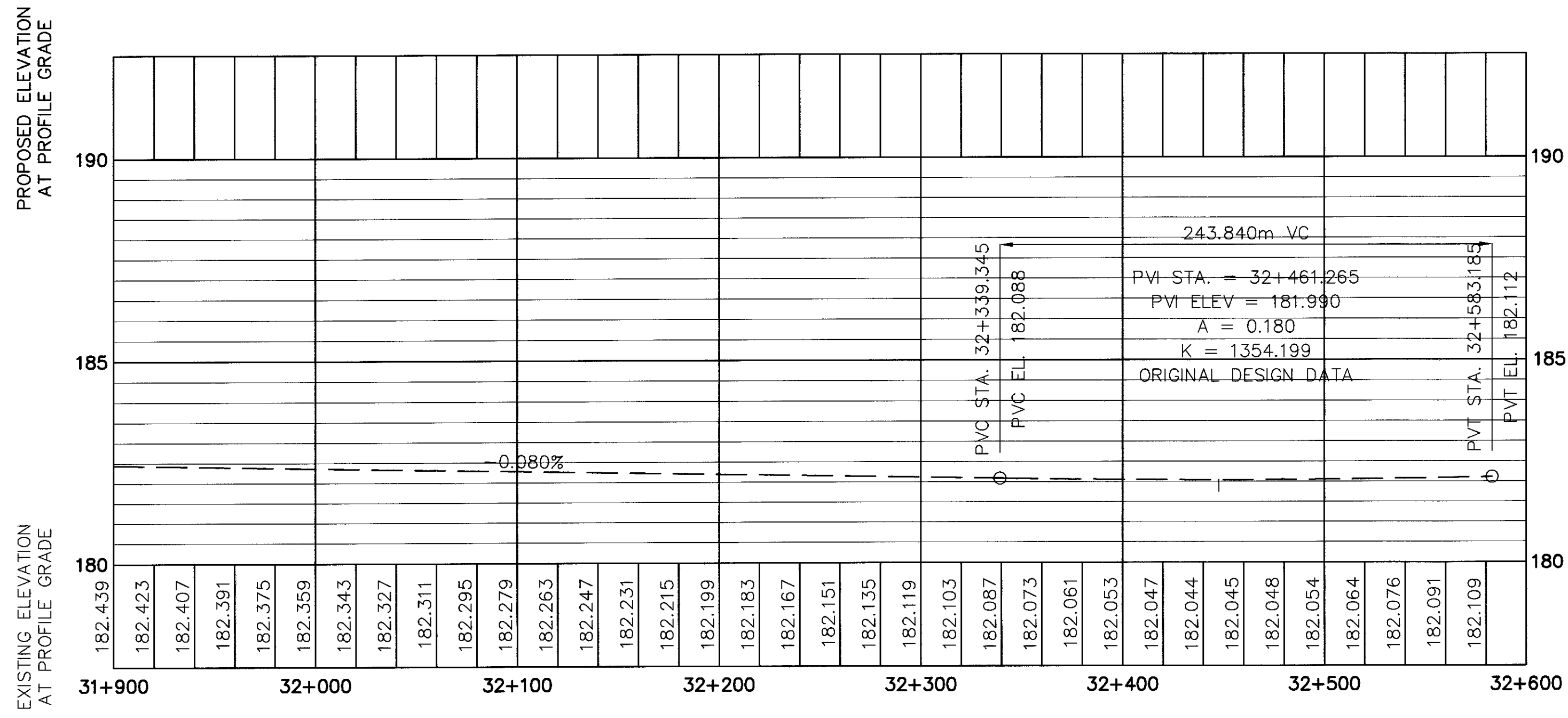


Delta = 08°17'46"
R = 1164.253m
T = 84.436m
L = 168.576m

FILE NAME: I:\5033\006\TRAN\PLAN\24.DWG 7-16-99 3:56:20 pm EST







SEEDING	
END WIDTH	SQ. YDS.

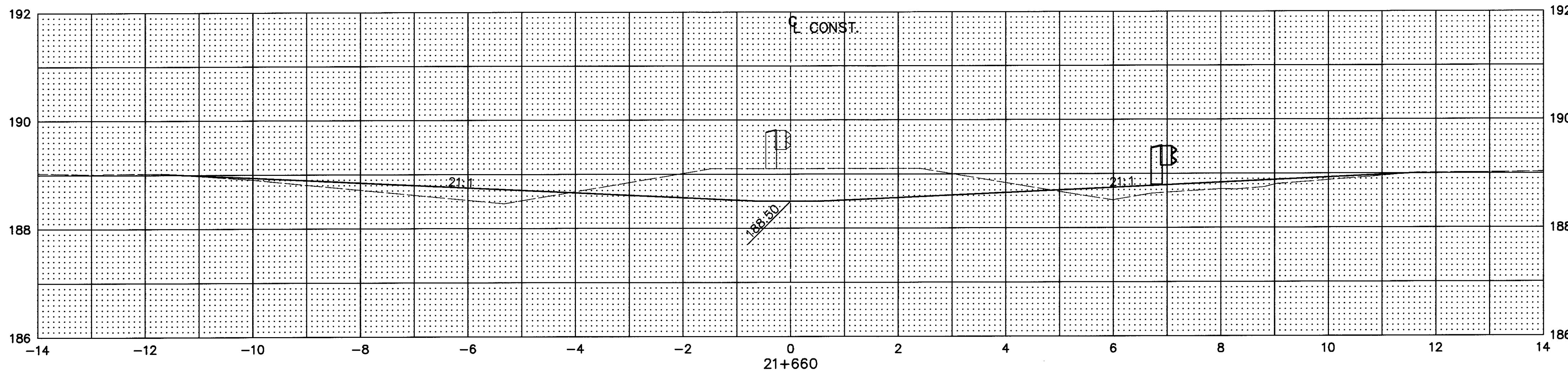
23.4	
------	--

STA. 21+680

STA. 21+680

END AREA		VOLUME	
CUT	FILL	CUT	FILL

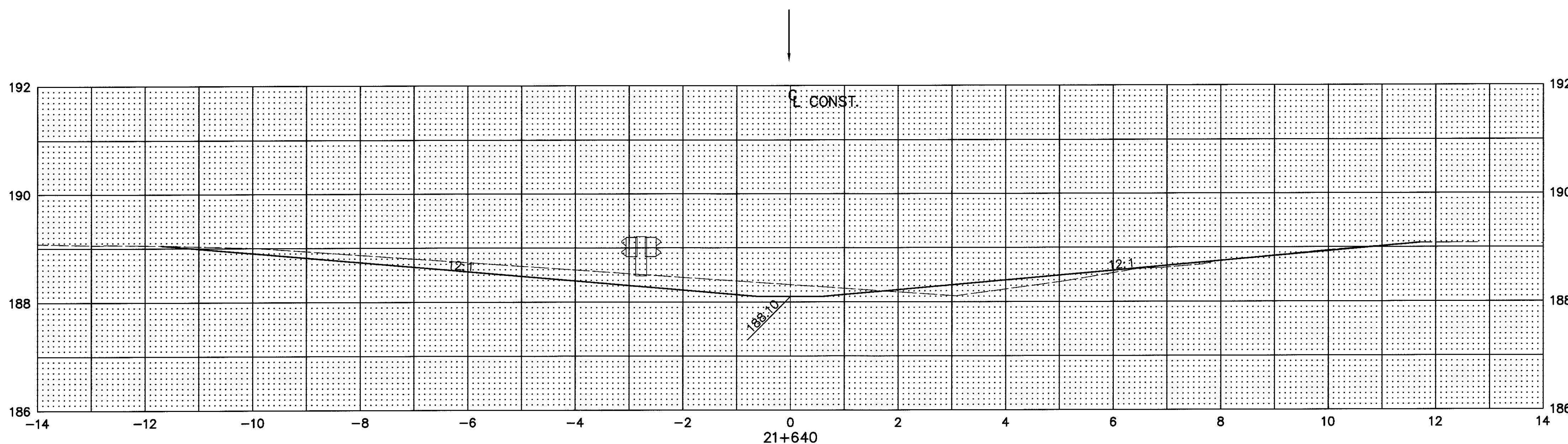
4.62	0.71		
------	------	--	--



82.4	22.5
------	------

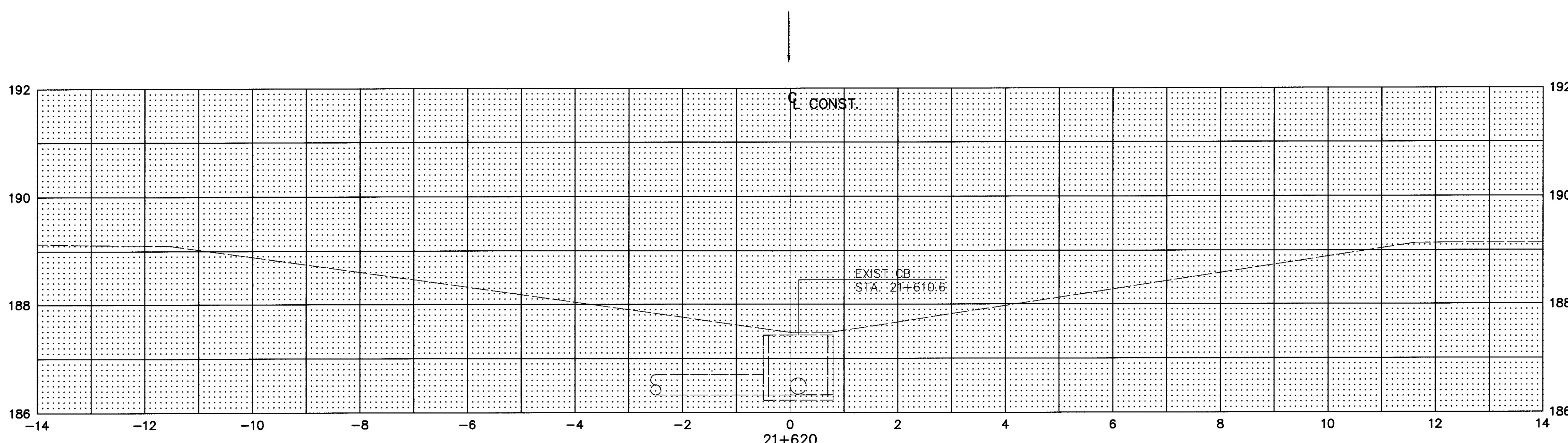
3.61	1.55
------	------

53.8	20.9
------	------



17.8	5.4
------	-----

0	0
---	---



0	0
---	---

154	49
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**MEDIAN CROSS SECTIONS
STA. 21+620 TO STA. 21+660**

ERI-2-12.558

143
432

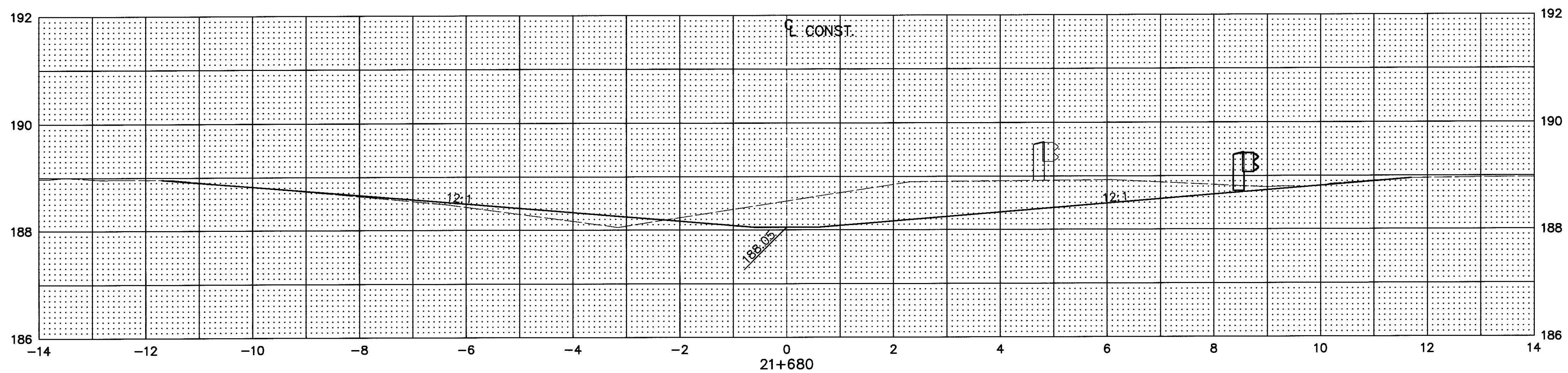
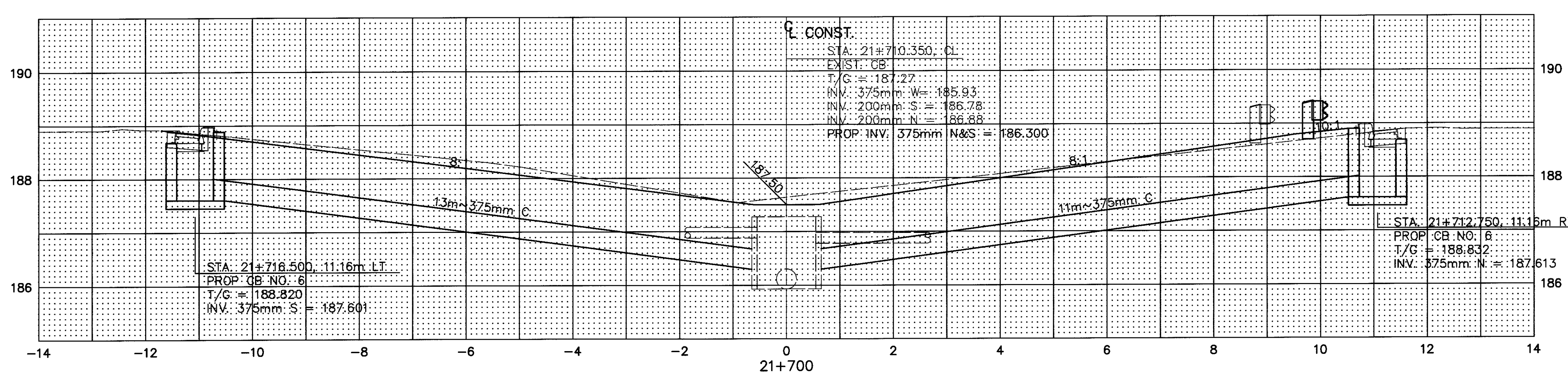
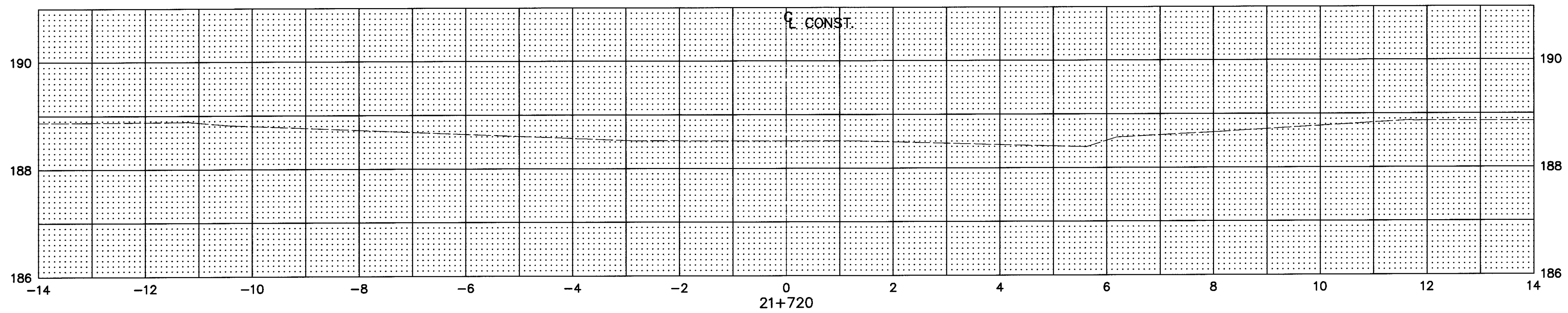
FILE NAME: X1~1\5033\006\TRAN\SECTIONS\PIPE_ORR.DWG 5-20-99 4:05:06 pm EST
PLOTTED: KJB

1170 TOTAL THIS SHEET

TOTAL THIS SHEET

SEEDING

END WIDTH	SQ. YDS.
0	
23.4	
46.8	
23.4	
70.2	TOTAL THIS SHEET



END AREA	VOLUME	CALCULATED	
		CUT	FILL
0	0	0	0
21.9	0	21.9	0
21.9	0	21.9	0
68.1	7.1	68.1	7.1
4.62	0.71	4.62	0.71
90	7	90	7

**MEDIAN CROSS SECTIONS
 STA. 21+680 TO STA. 21+720**

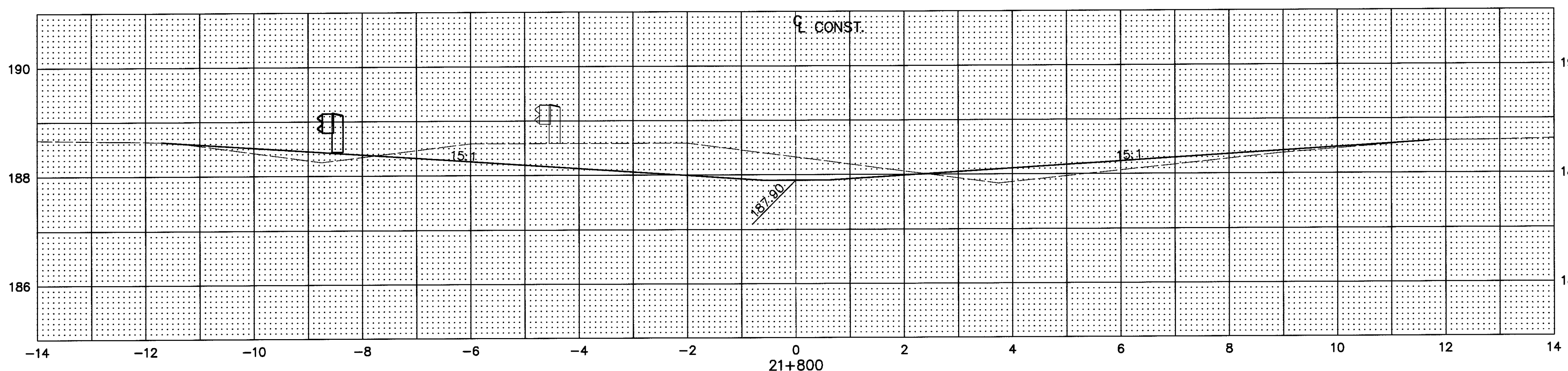
ERI-2-12.558

144
 432

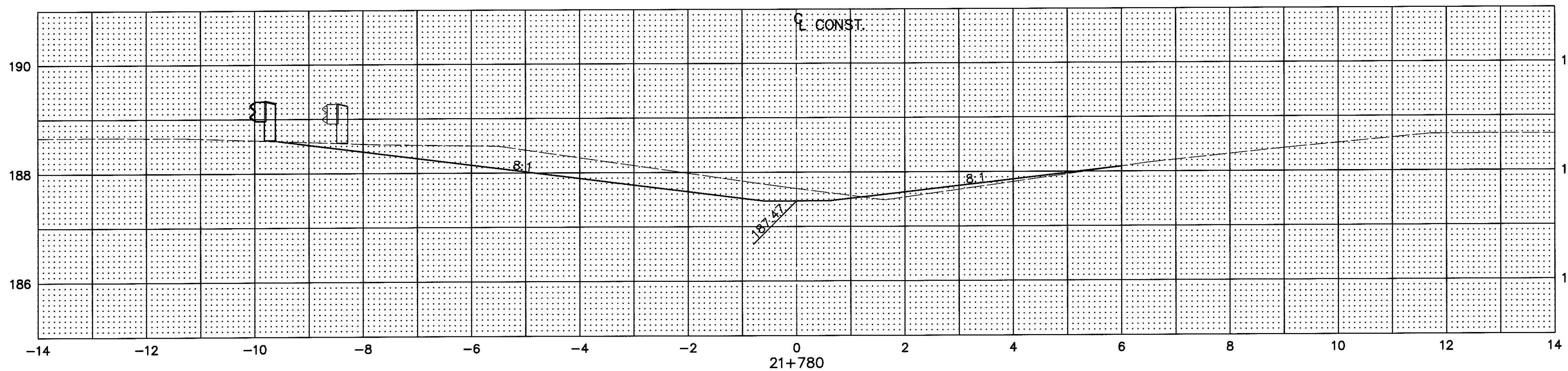
PLOTTED: KJB
 FILE NAME: X2~1\5033\006\TRAN\SECTIONS\PIPE_CRRK.DWG 5-20-99 4:05:06 pm EST

SEEDING
 END WIDTH 23.4 SQ. YDS.
 468
 23.4
 394
 16
 160
 0
 1022 TOTAL THIS SHEET

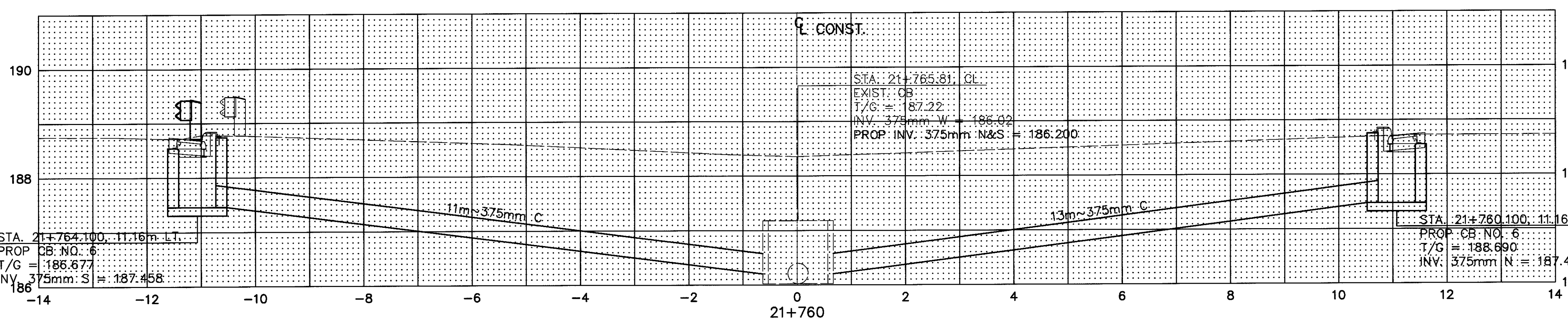
STA. 21+820



STA. 21+820



STA. 21+780



STA. 21+760

END AREA	VOLUME		CALCULATED BY: SPL	DATE: 9-97	CHECKED BY: PMA	DATE: 9-97
	CUT	FILL				
4.03	0.71					
		77.5				21
3.73	1.40					
		67				16.4
2.98	0.25					
		29.8				2.5
0	0					
		0				
		174				40

**MEDIAN CROSS SECTIONS
 STA. 21+760 TO STA. 21+800**

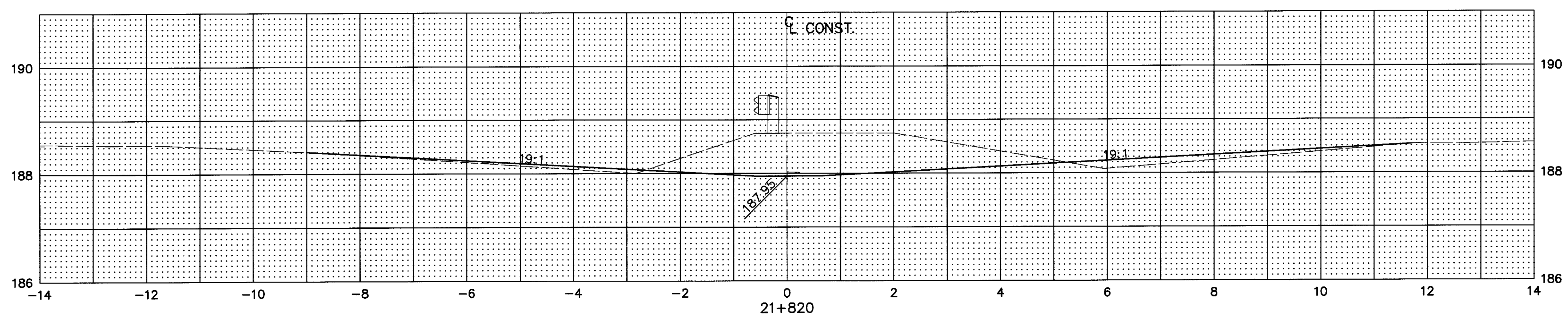
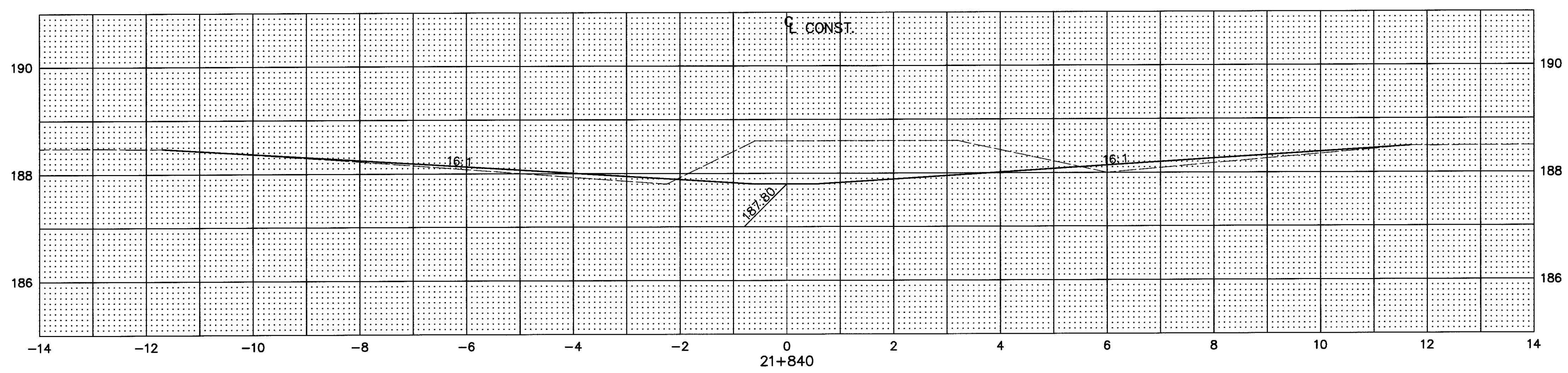
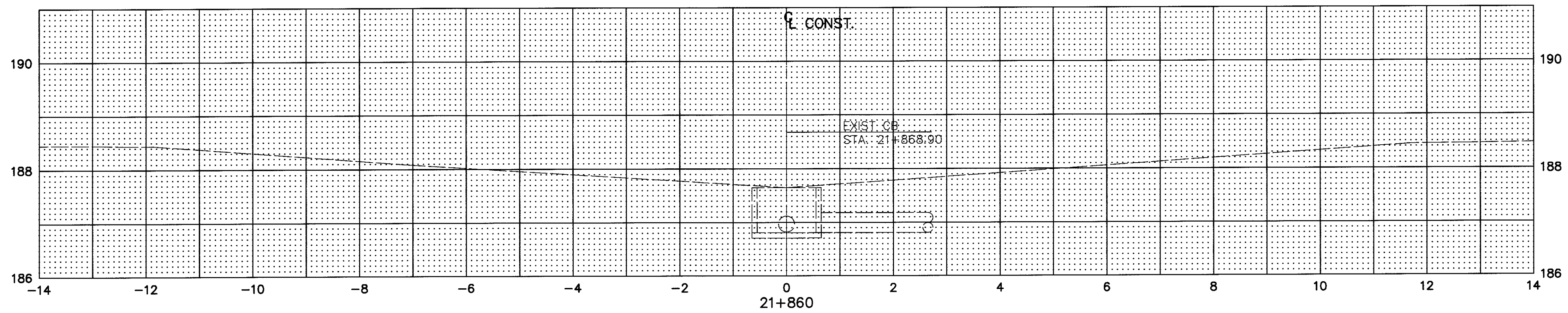
ERI-2-12.558

145
 432

TOTAL THIS SHEET

SEEDING
END WIDTH SQ. YDS.

0	
234	
23.4	
468	
23.4	
702	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	41.5	9
4.15	0.90	81.8	16.1
4.03	0.71		
TOTAL THIS SHEET		123	25

CALCULATED BY: [blank]
 DATE: 6-97
 CHECKED BY: [blank]
 DATE: 6-97

**MEDIAN CROSS SECTIONS
 STA. 21+820 TO STA. 21+860**

ERI-2-12.558

146
 432

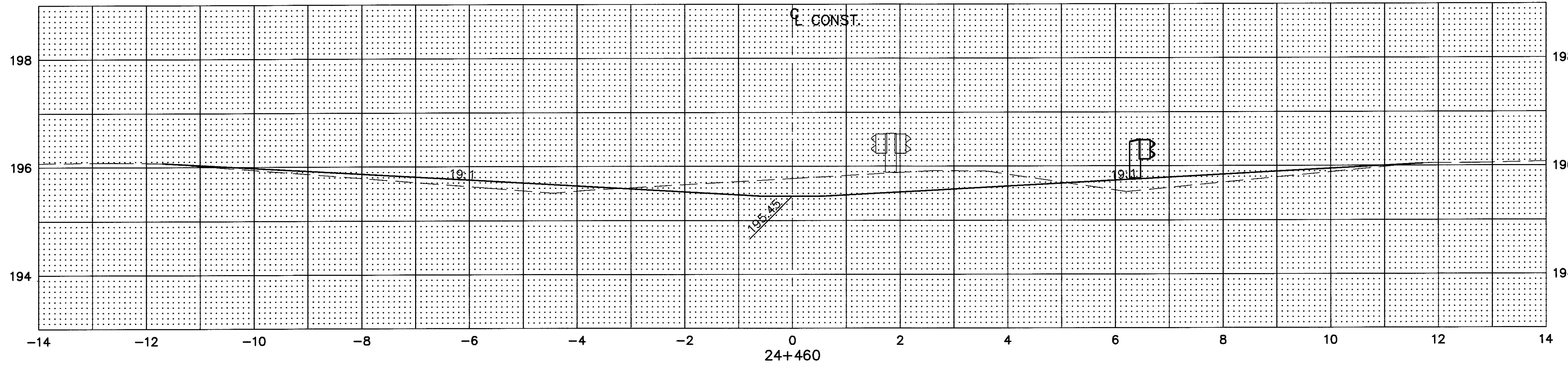
PLOTTED: KUB
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PLOTTED: OCTOBER 10, 1997
 SPJ

FILE NAME: I:\5033\005\TRAN\SECTIONS\COLUMBUS-X1

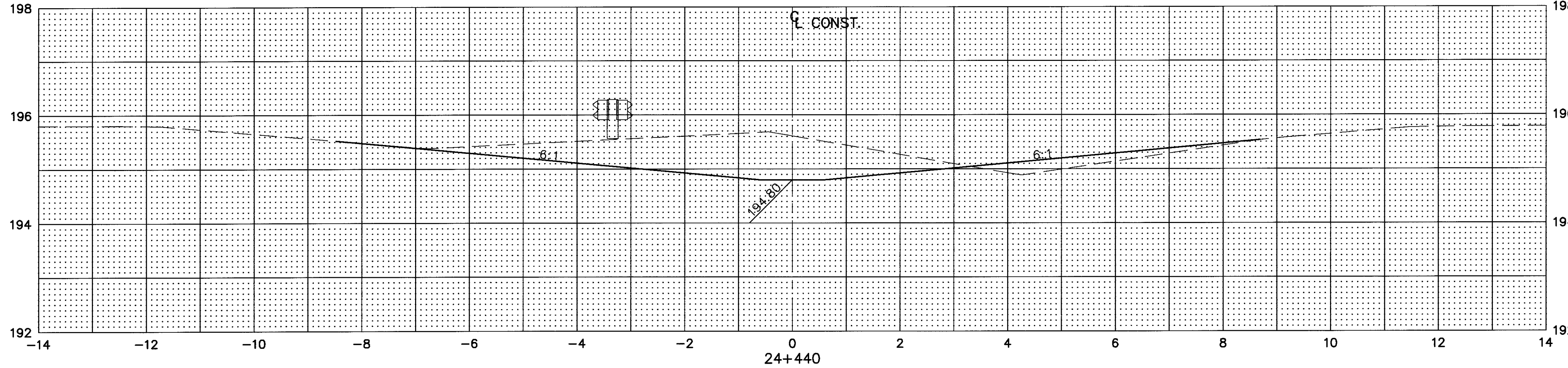
SEEDING	
END WIDTH	SQ. YDS.
19	424
23.4	389
15.5	155
0	0
968 TOTAL THIS SHEET	

STA. 24+480

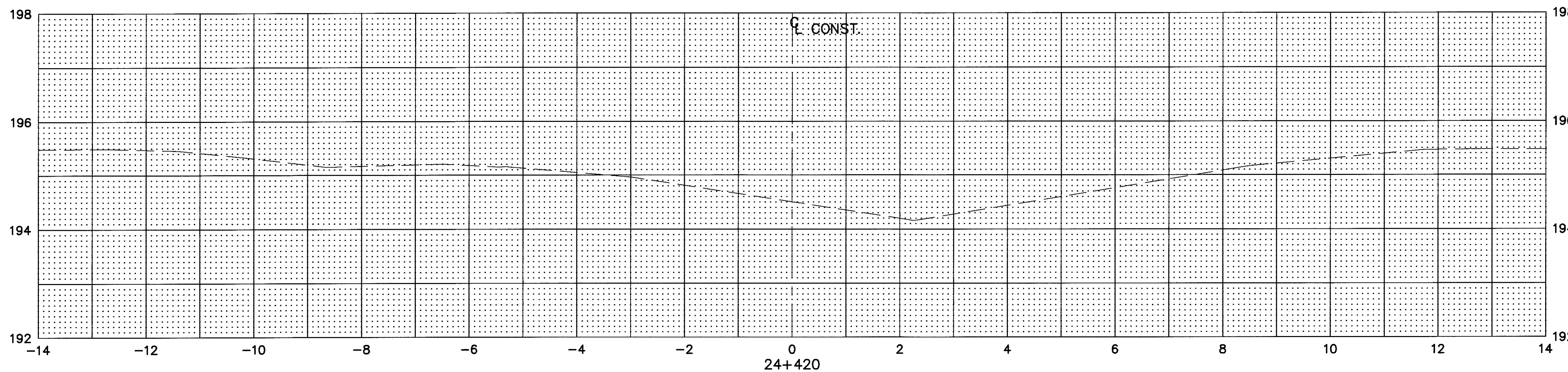


STA. 24+480

END AREA	VOLUME	
	CUT	FILL
1.52	0.60	
2.04	1.40	
4.69	0.66	
0	0	
TOTAL THIS SHEET		150 47



24+440



24+420

**MEDIAN CROSS SECTIONS
 STA. 24+420 TO STA. 24+460**

ERI-2-12.558

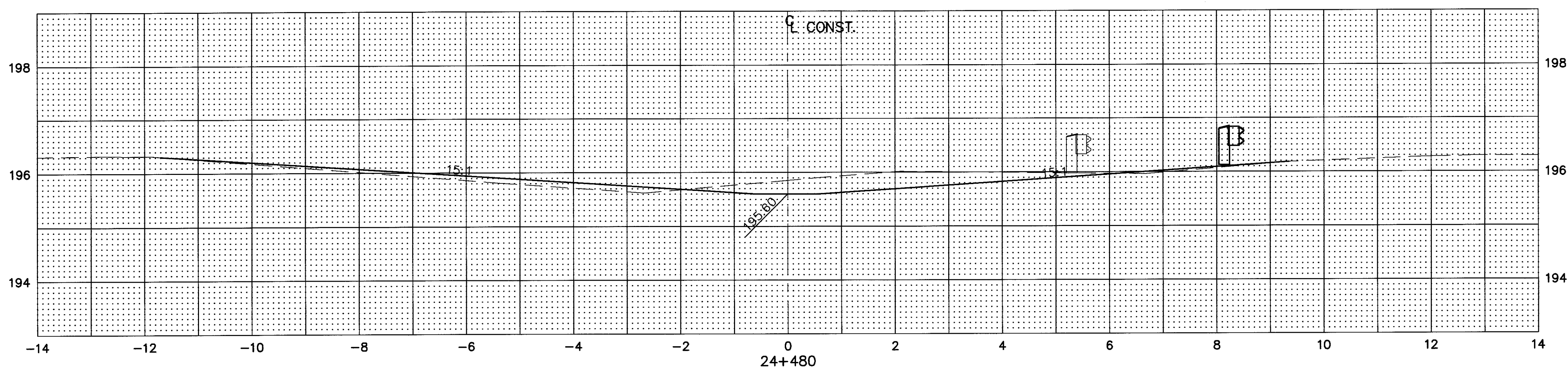
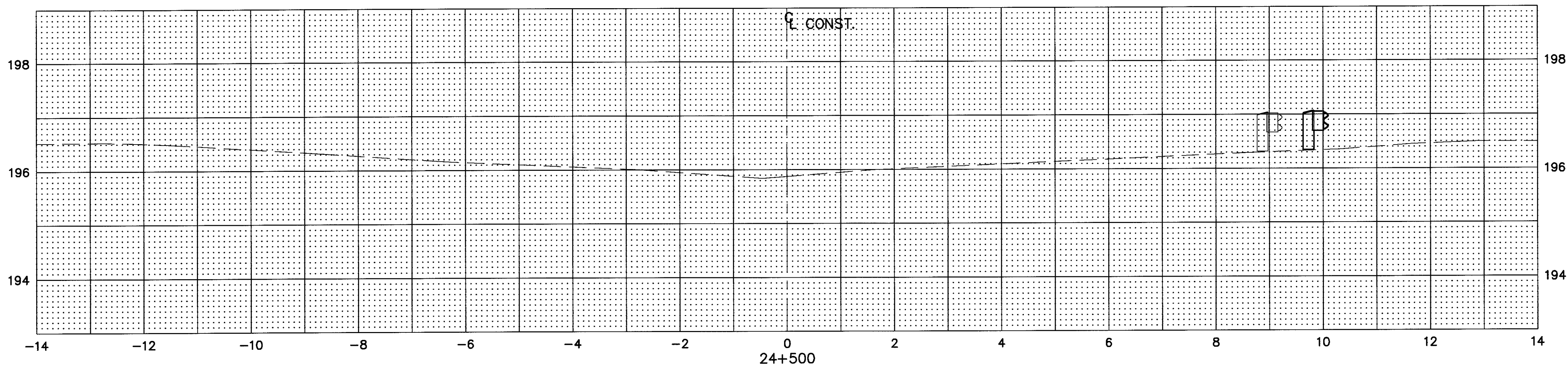
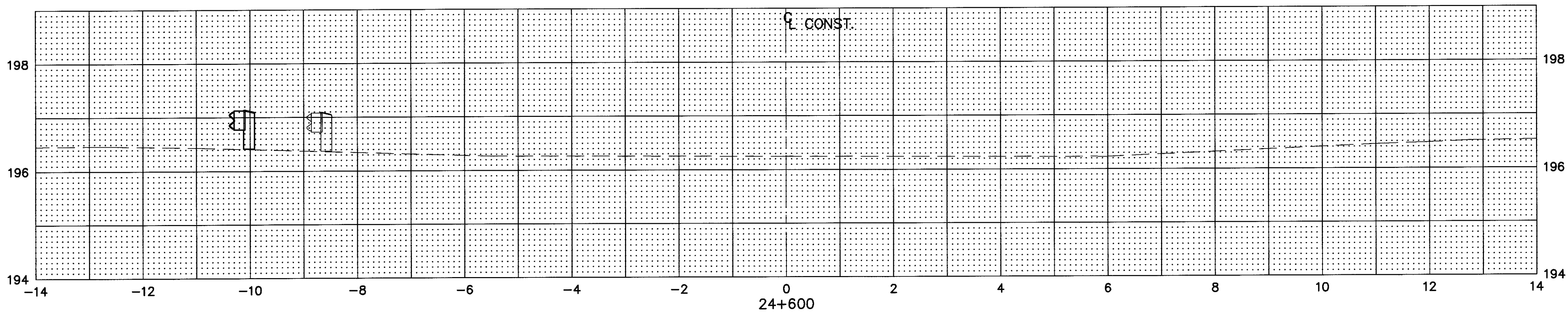
147
 432

PLOTTED: OCTOBER 10, 1997
 SPJ

FILE NAME: I:\5033\005\TRAN_SECTIONS\COLUMBUS-X2

SEEDING	
END WIDTH	SQ. YDS.

0	
190	
19	
190	TOTAL THIS SHEET



END CUT	AREA FILL	VOLUME	
		CUT	FILL
0	0		
15.2	0.60	15.2	6
TOTAL THIS SHEET		15	6

MEDIAN CROSS SECTIONS
 STA. 24+480 TO STA. 24+600

ERI-2-12.558

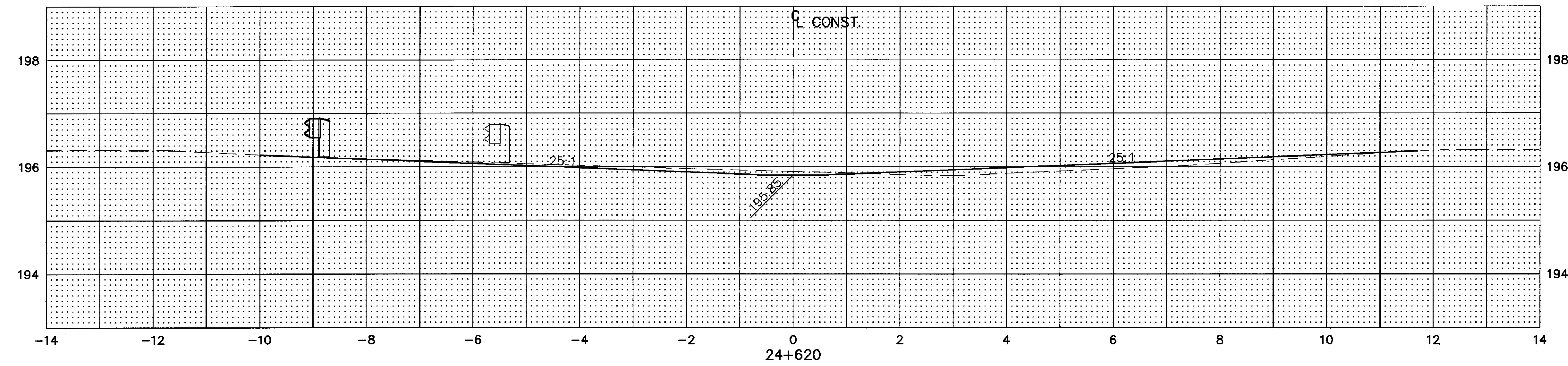
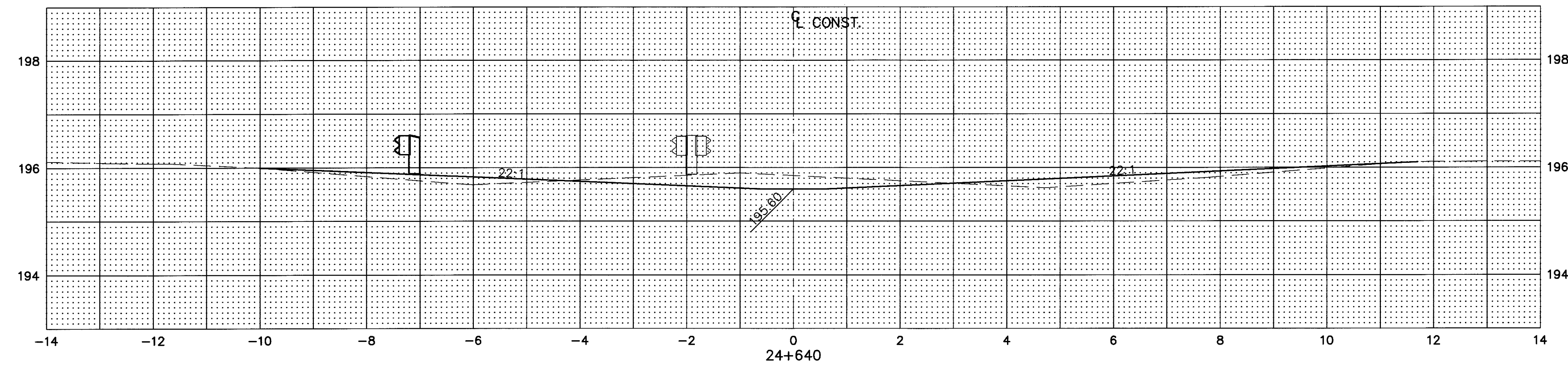
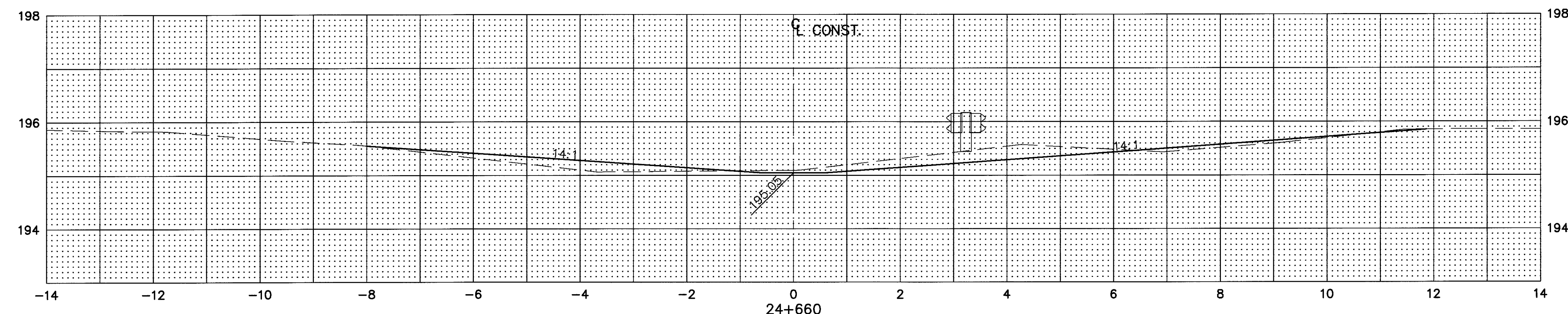
148
 432

SEEDING
END WIDTH SQ. YDS.

0
200
20
420
22
435
21.5
1055 TOTAL THIS SHEET

STA. 24+680

STA. 24+680



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
0	0	0		
	1.28	0.85	12.7	8.4
			24.2	19.7
	1.15	1.12		
			16.5	36.4
	0.50	0.70		
TOTAL THIS SHEET			53	65

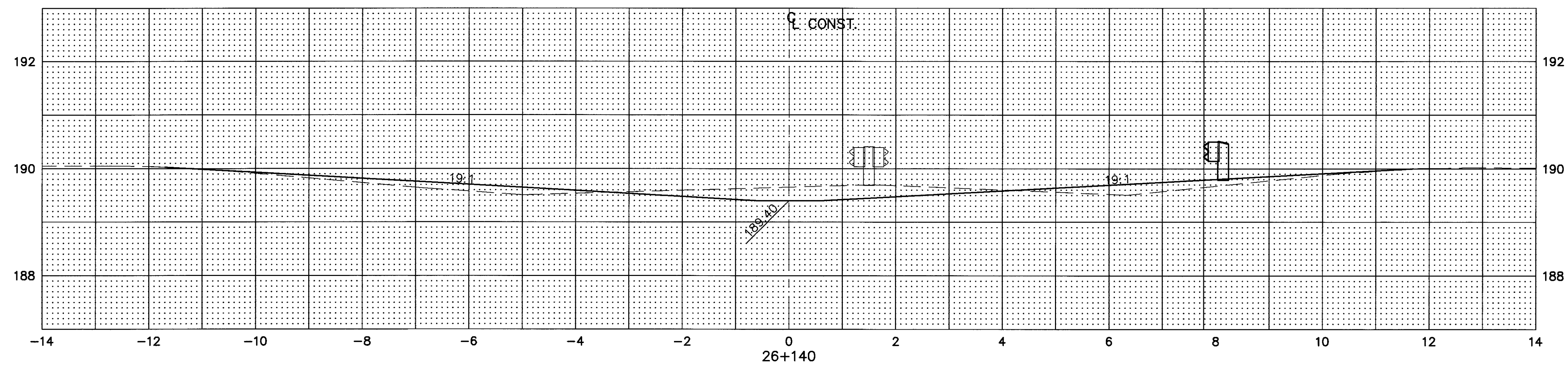
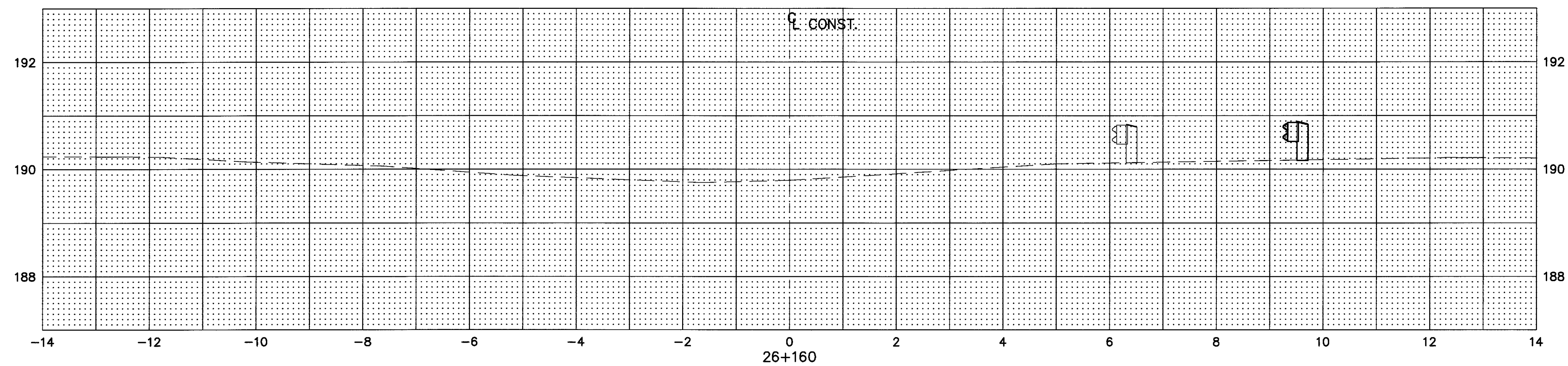
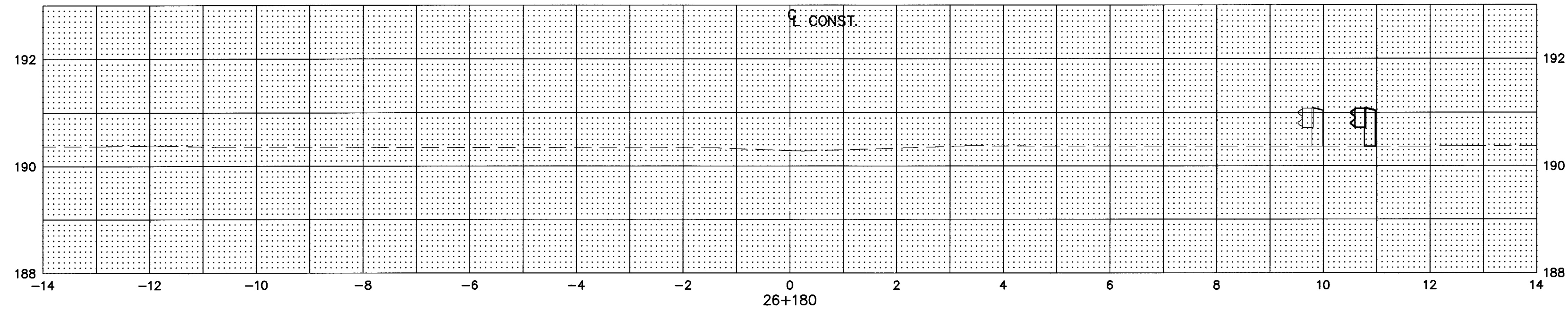
CALCULATED
 BY SPJ
 DATE 5-97
 CHECKED BY PMA
 DATE 5-97
**MEDIAN CROSS SECTIONS
 STA. 24+620 TO STA. 24+660**

ERI-2-12-558

149
 432

PLOTTED: OCTOBER 10, 1997
 SPJ FILE NAME: I:\5033\005\TRAM\SECTIONS\US250~X2

SEEDING	
END WIDTH	SQ. YDS.
0	
22	
TOTAL THIS SHEET	



END AREA	VOLUME		CALCULATED BY: SPJ DATE: 6-97	CHECKED BY: PMA DATE: 6-97
	CUT	FILL		
0	0	0		
12.8	12.0			
1.28	1.20			
TOTAL THIS SHEET		13	12	

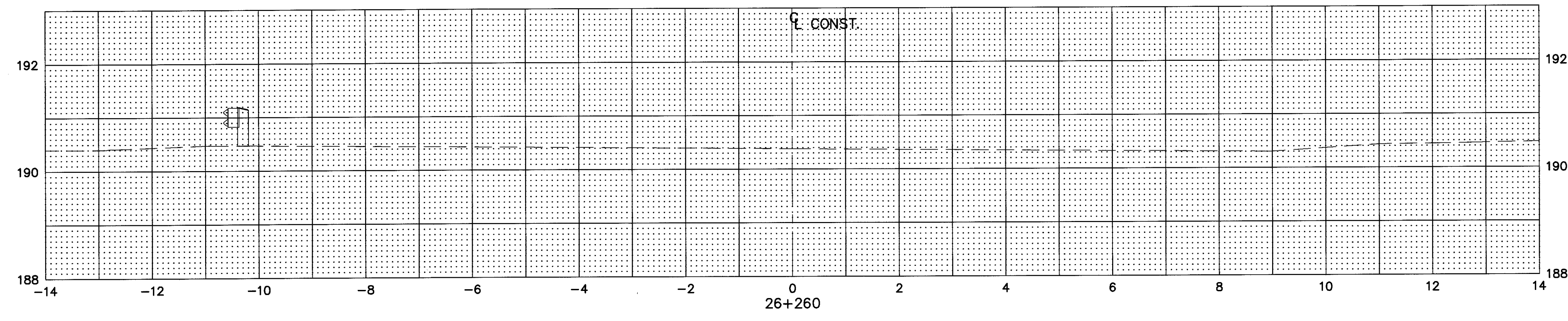
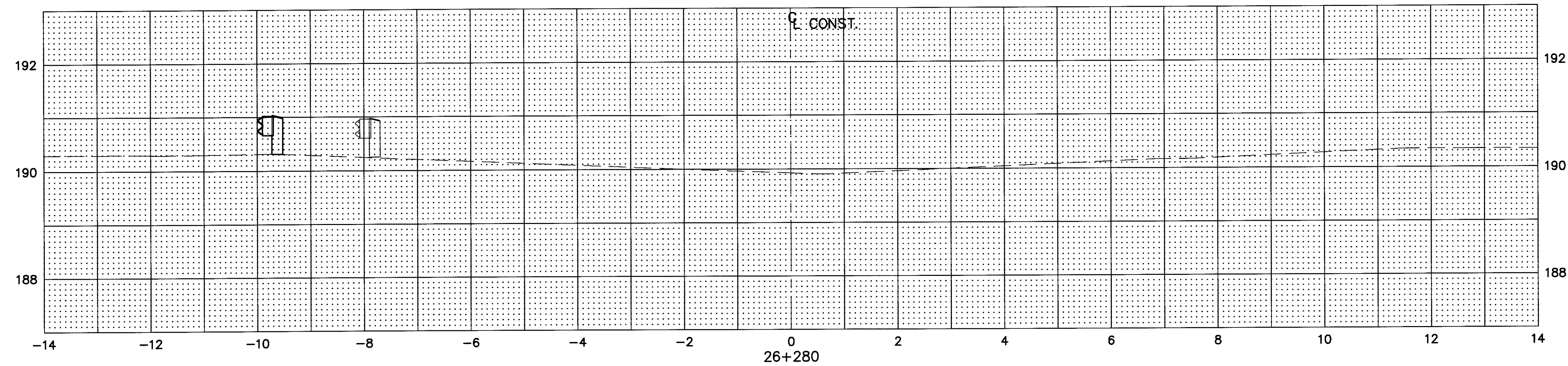
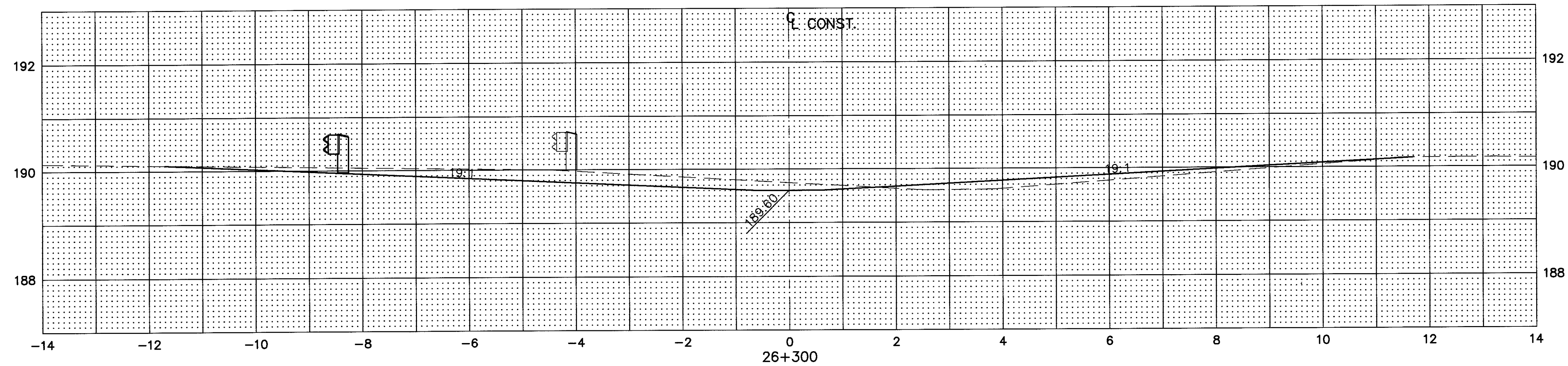
**MEDIAN CROSS SECTIONS
 STA. 26+140 TO STA. 26+180**

ERI-2-12.558

152
432

PLOTTED: OCTOBER 10, 1997
 SPJ FILE NAME: I:\5033\005\TRAN\SECTIONS\US250~X3

SEEDING	
END WIDTH	SQ. YDS.
22.5	STA. 26+320
459	
23.4	
234	
0	
693	TOTAL THIS SHEET



END AREA	VOLUME		CALCULATED	DATE 8-97	CHECKED	BY S.M.A.	DATE 8-97
	CUT	FILL					
1.93	0.94						
		37.5	17.6				
1.82	0.82						
		18.2	8.2				
0	0						
TOTAL THIS SHEET		56	26				

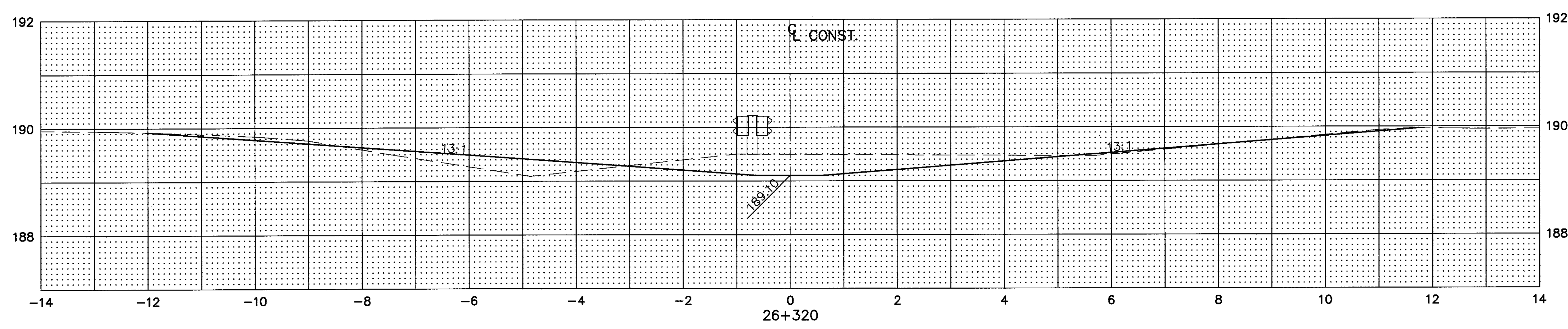
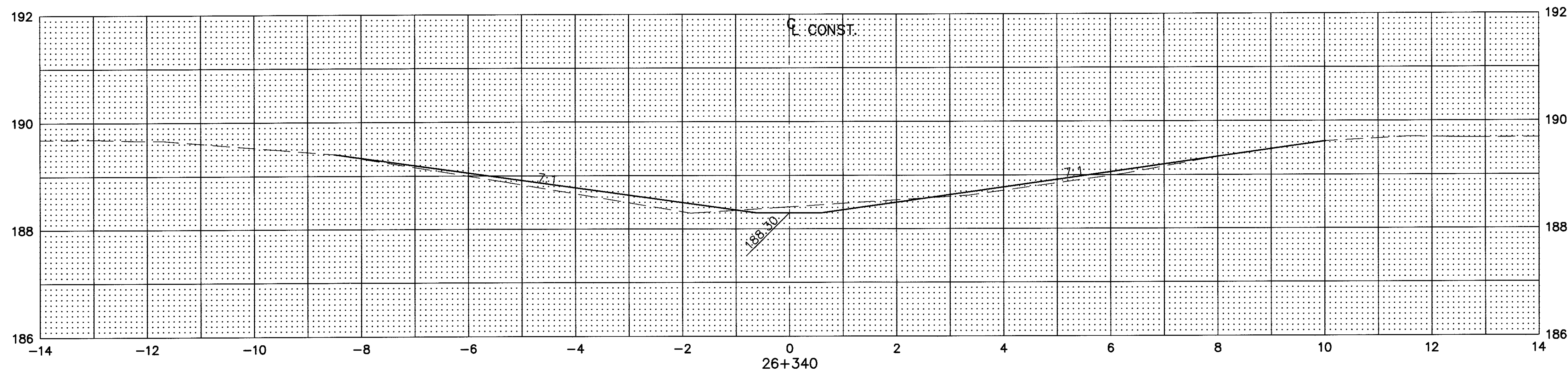
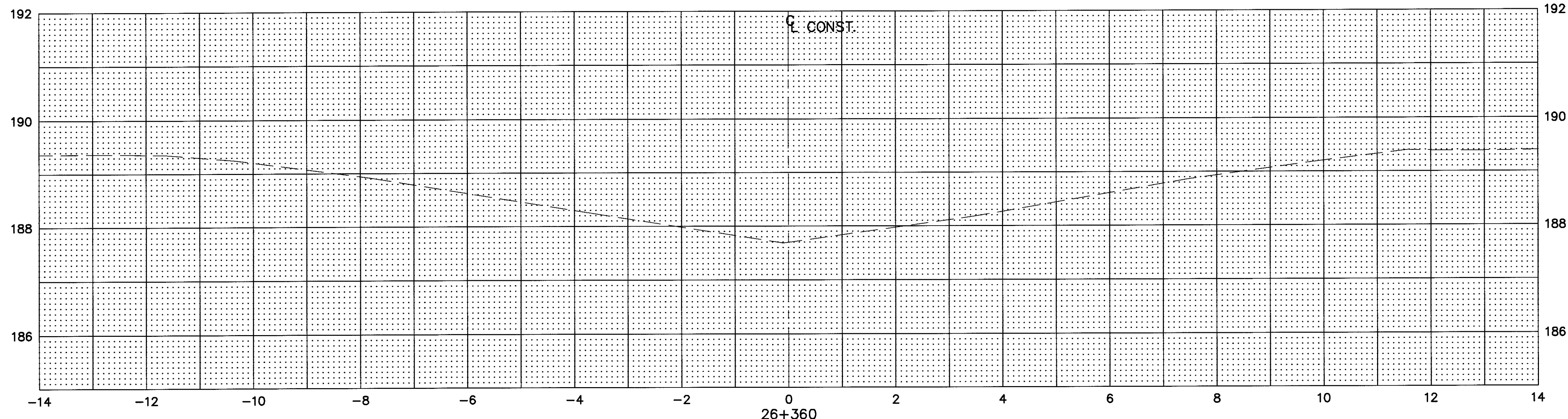
**MEDIAN CROSS SECTIONS
 STA. 26+260 TO STA. 26+300**

ERI-2-12.558

153
 432

SEEDING

END WIDTH	SQ. YDS.
0	
185	
18.5	
410	
22.5	
595	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	3.0	9.0
0.30	0.90	22.3	18.4
1.93	0.94	25	27

**MEDIAN CROSS SECTIONS
 STA. 26+320 TO STA. 26+360**

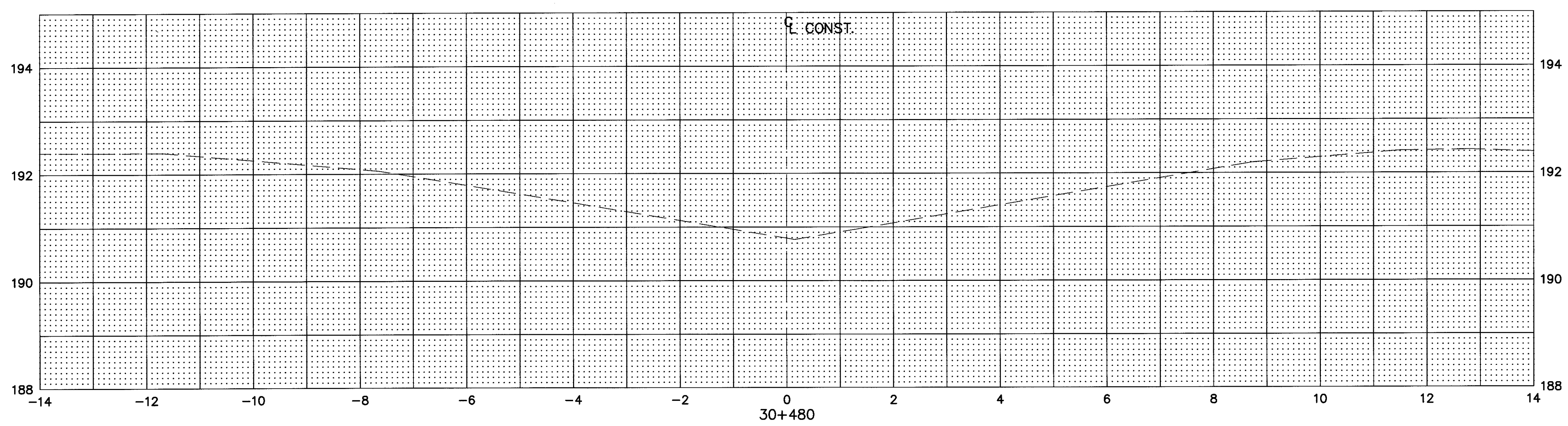
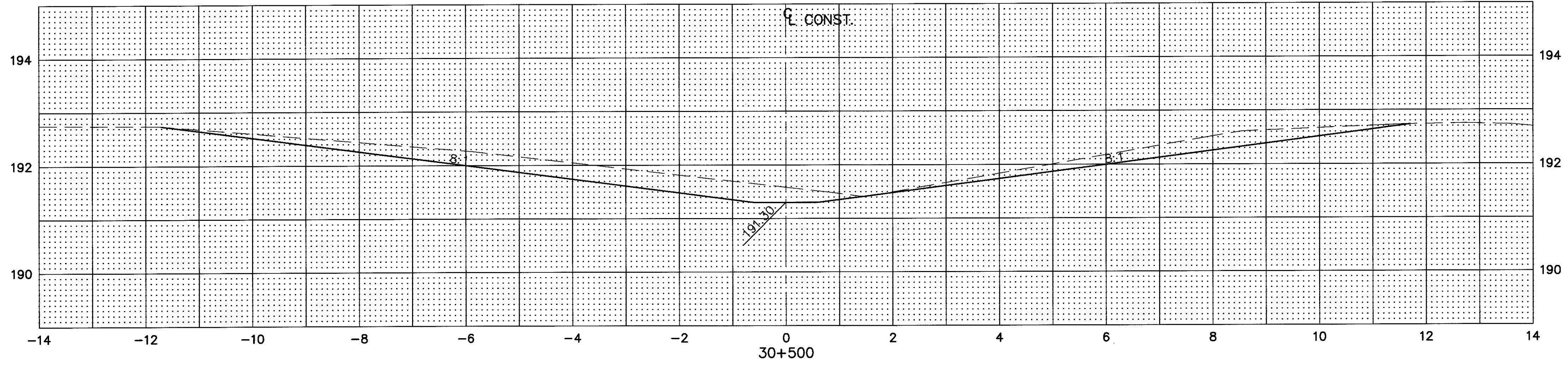
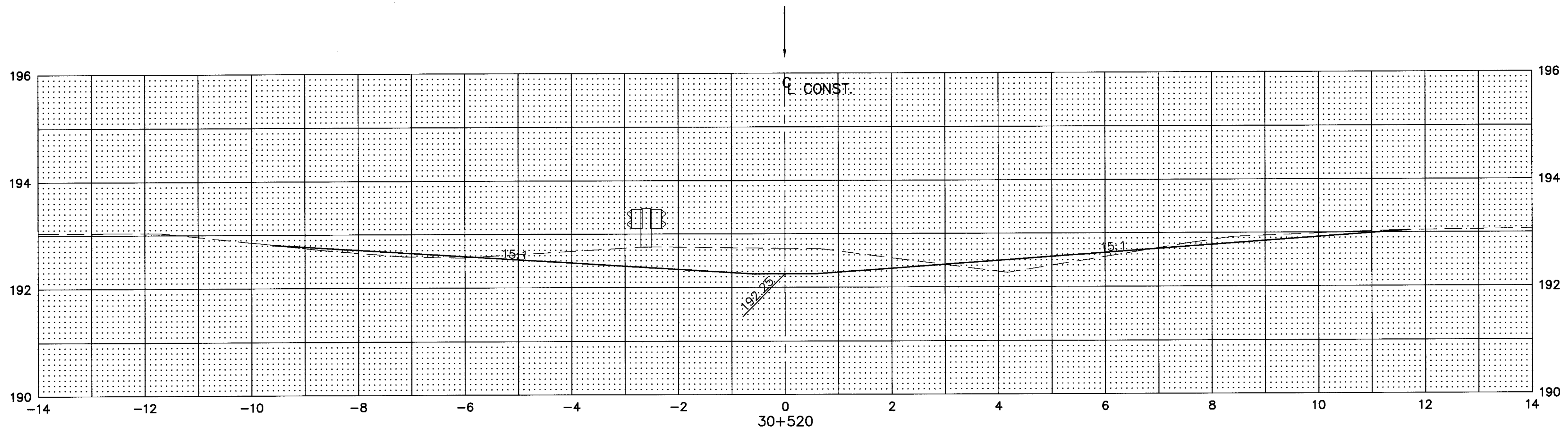
ERI-2-12-558

154
 432

PLOTTED: OCTOBER 10, 1997
 FILE NAME: I:\5033\005\TRAN\SECTIONS\US250~X4

PLOTTED: OCTOBER 10, 1997
 SPJ FILE NAME: I:\5033\005\TRAN\SECTIONS\CONRAIL-X2

SEEDING	
END WIDTH	SQ. YDS.
13	STA. 30+540
350	
22	
454	
23.4	
234	
0	
1038	TOTAL THIS SHEET



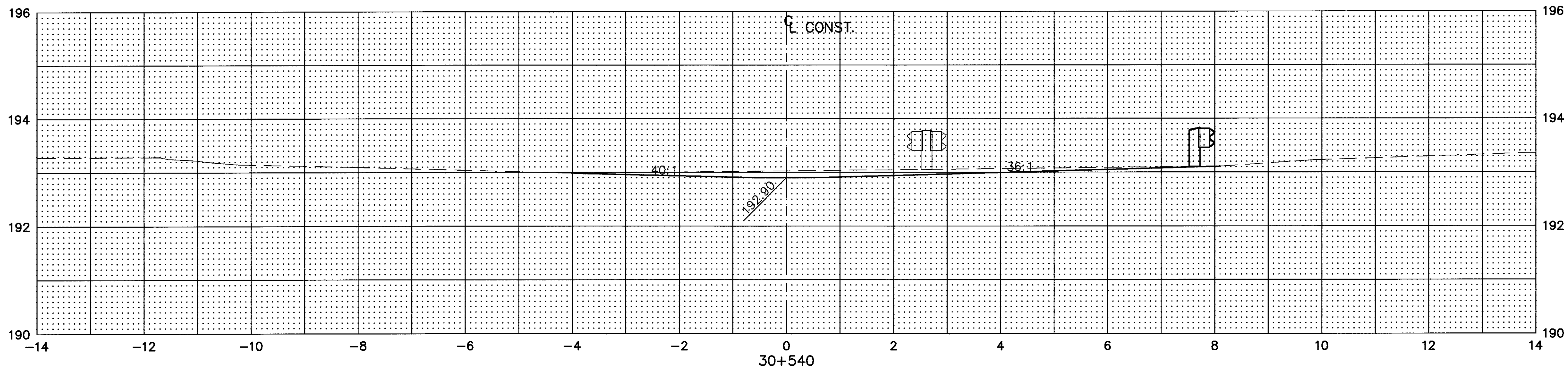
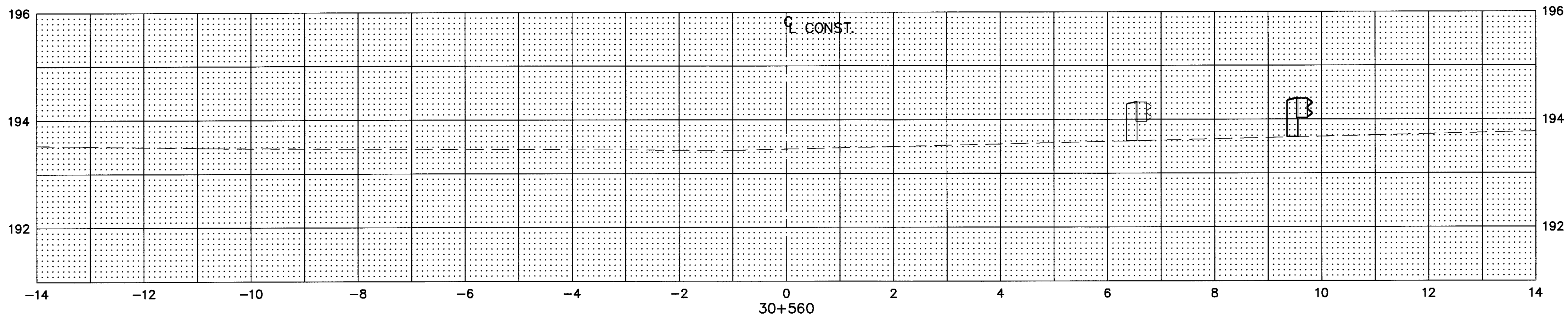
END AREA	VOLUME	CUT		FILL	
		CUT	FILL	CUT	FILL
0.84	0			36.4	6
2.80	0.60			71.1	6
4.31	0			43.1	0
0	0			151	12

CALCULATED BY SPJ DATE 6-97
 CHECKED BY PMA DATE 6-97
MEDIAN CROSS SECTIONS
STA. 30+480 TO STA. 30+520
ERI-2-12.558
 155
 432

PLOTTED: OCTOBER 10, 1997
 SPJ

FILE NAME: I:\5033\005\TRAN\SECTIONS\CONRAIL-X3

SEEDING	
END WIDTH	SQ. YDS.
0	
13	
TOTAL THIS SHEET	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	8.4	0
0.84	0	8	0
TOTAL THIS SHEET		TOTAL THIS SHEET	

**MEDIAN CROSS SECTIONS
 STA. 30+540 TO STA. 30+560**

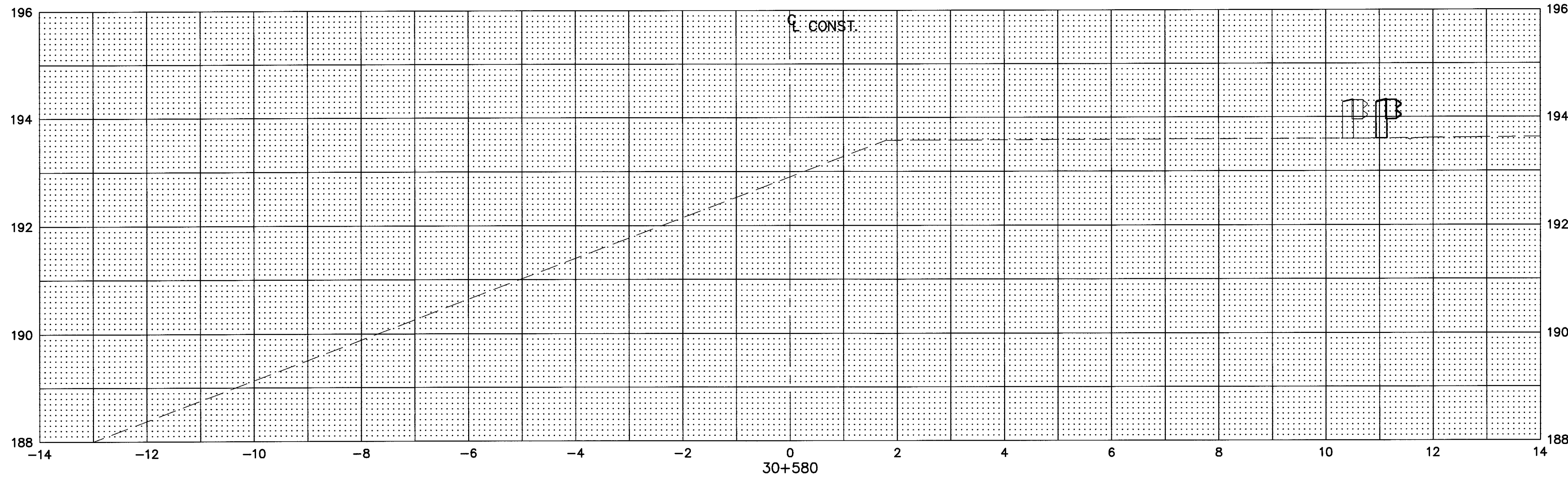
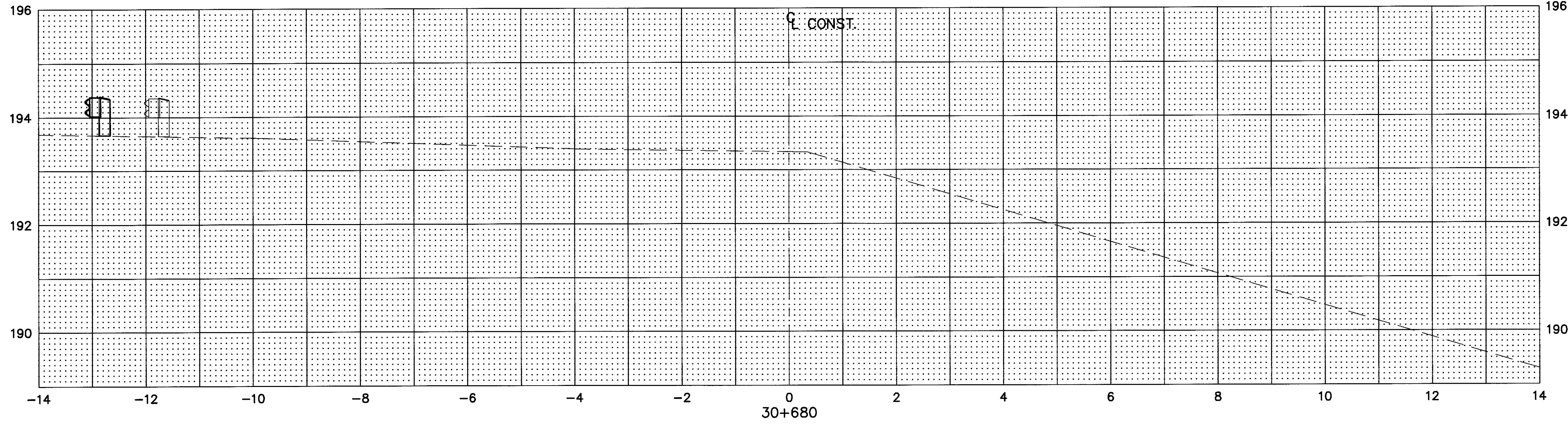
ERI-2-12.558

156
432

PLOTTED: OCTOBER 10, 1997
 SPJ FILE NAME: I:\5033\005\TRAN\SECTIONS\CONRAIL~X4

SEEDING	
END WIDTH	SQ. YDS.
23.4	234
0	
234	TOTAL THIS SHEET

STA. 30+700



STA. 30+700

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
0	0	0		
0.83	0.46		8.3	4.6

CALCULATED	
BY SPJ	DATE 9-97
CHECKED BY PMA	DATE 9-97

**MEDIAN CROSS SECTIONS
 STA. 30+580 TO STA. 30+680**

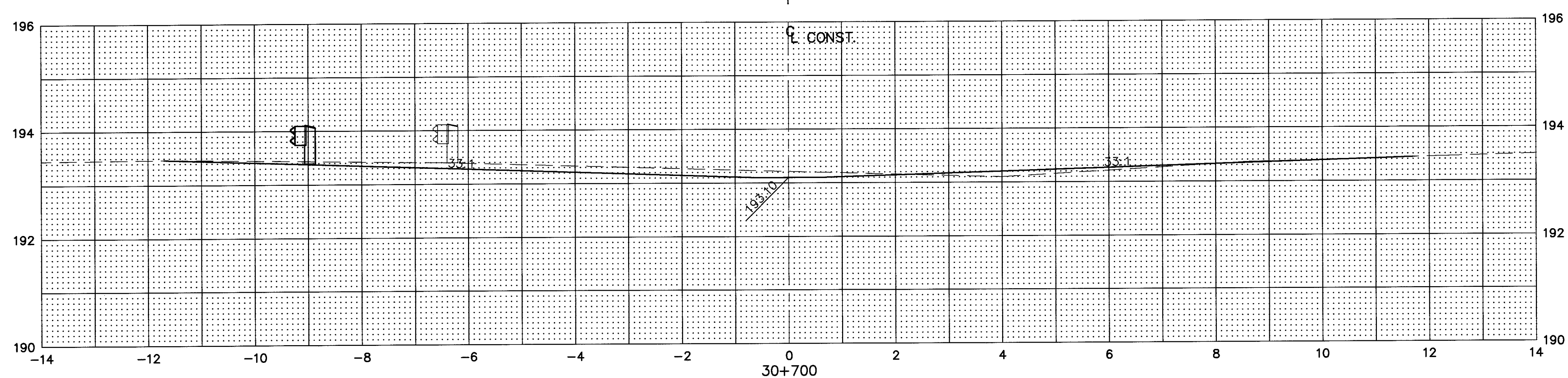
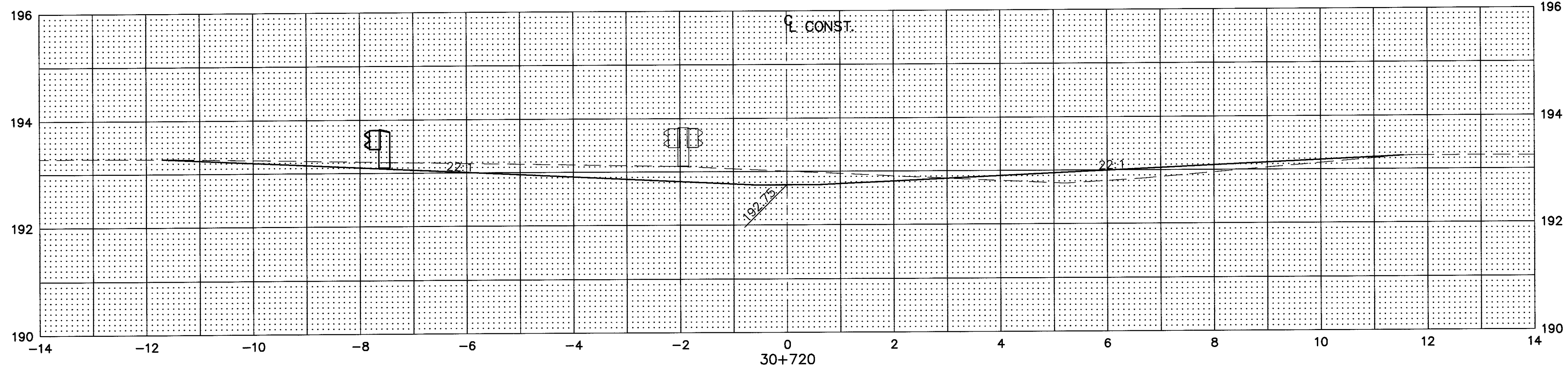
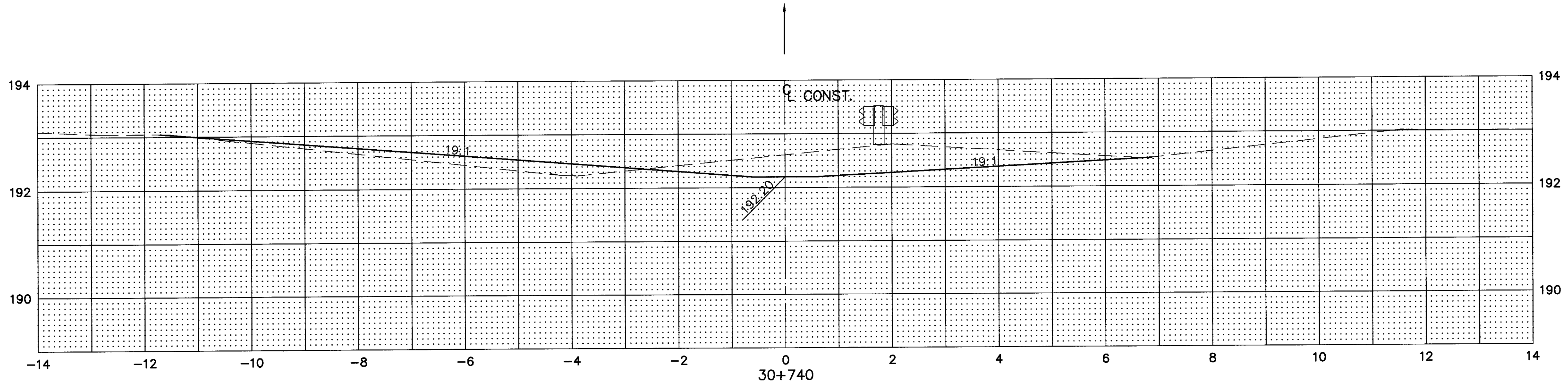
ERI-2-12.558

TOTAL THIS SHEET	8	5
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157
432

SEEDING	
END WIDTH	SQ. YDS.
0	
185	
18.5	
410	
22.5	
459	
23.4	
1054	TOTAL THIS SHEET

STA. 30+760



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
30+760	0	0		
	2.82	0.97	28.2	9.7
			51.3	19.2
	2.32	0.95		
			31.4	14.1
	0.83	0.46		
TOTAL THIS SHEET			111	43

MEDIAN CROSS SECTIONS
STA. 30+700 TO STA. 30+740

ERI-2-12.558

158
 432

PLOTTED: OCTOBER 10, 1997
 SPU

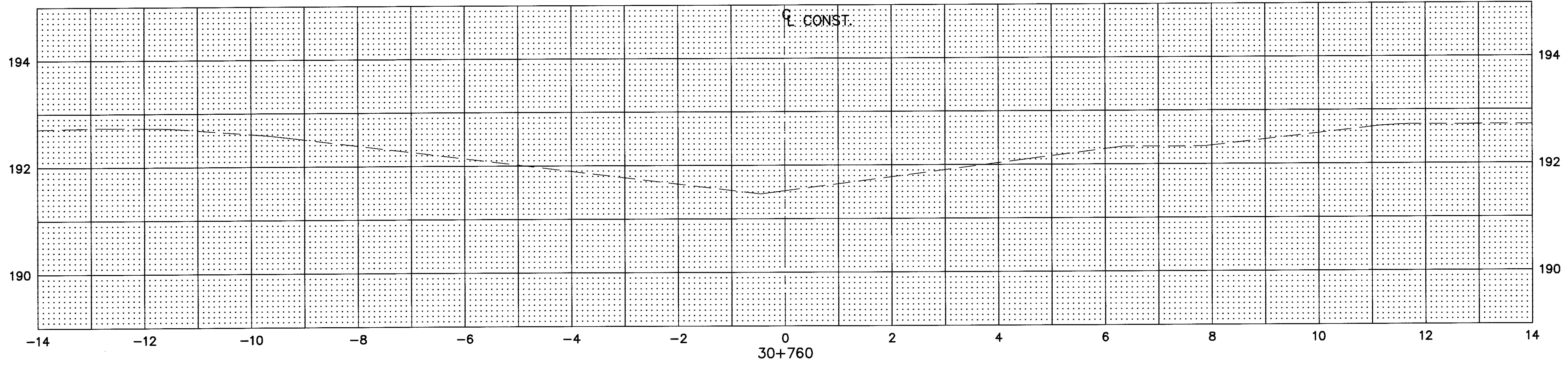
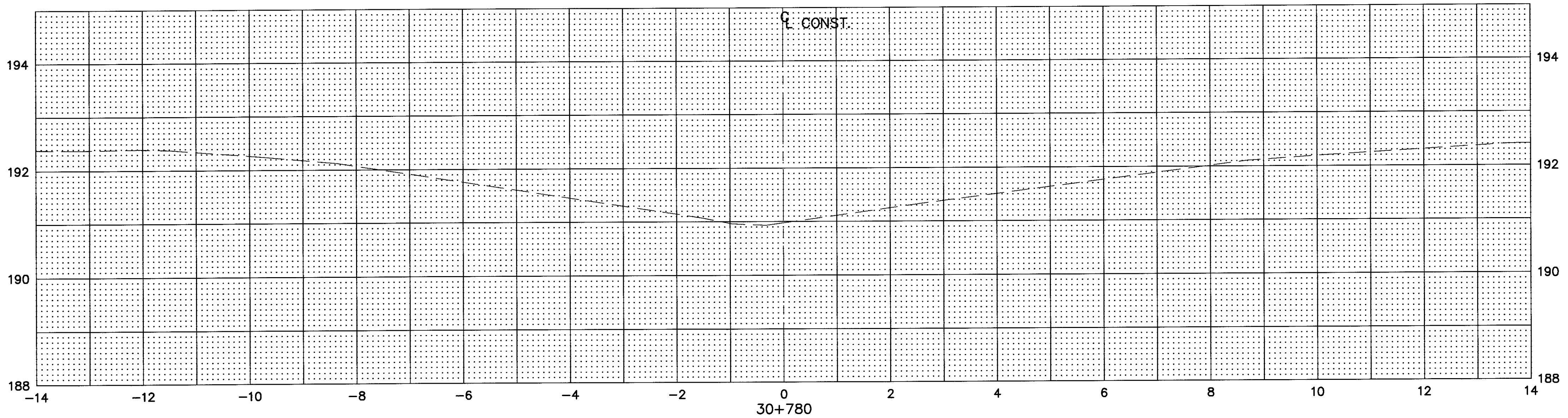
FILE NAME: I:\5033\005\TRAN\SECTIONS\CONRAIL~X5

PLOTTED: OCTOBER 10, 1997
 FILE NAME: I:\5033\005\TRAN\SECTIONS\CONRAIL-X6

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

BY	DATE
BY	DATE



**MEDIAN CROSS SECTIONS
 STA. 30+760 TO STA. 30+780**

ERI-2-12.558

- TOTAL THIS SHEET

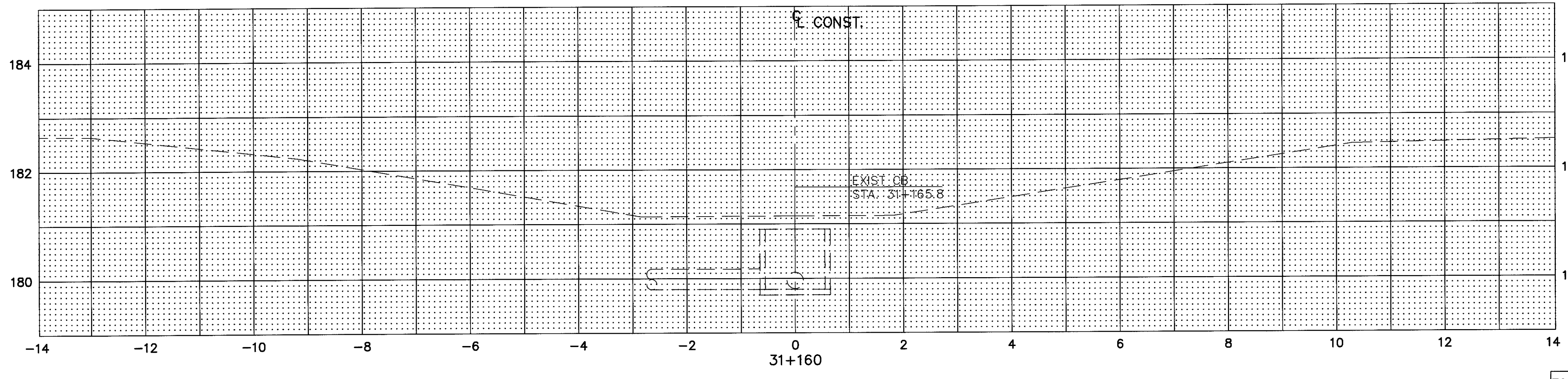
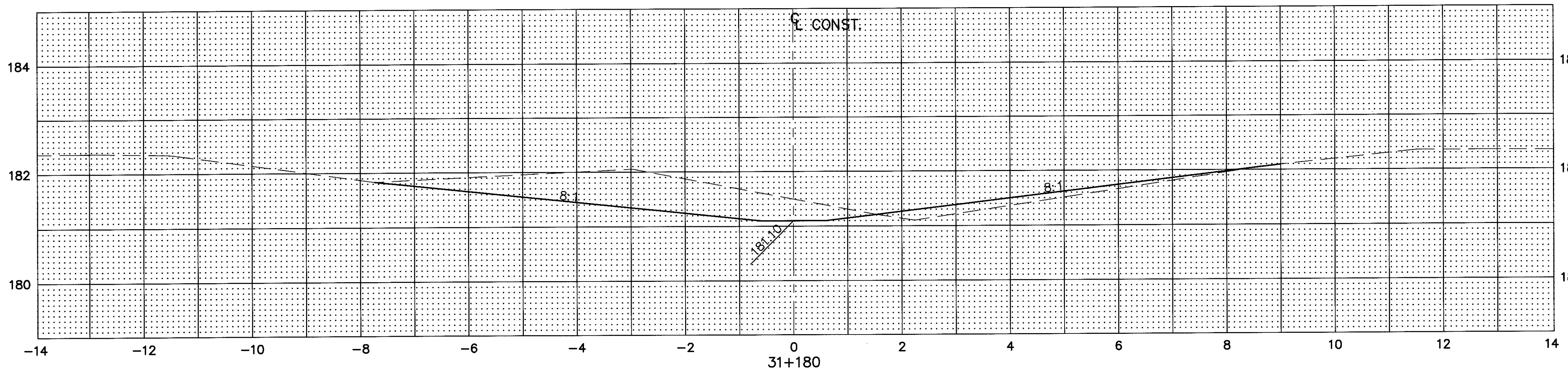
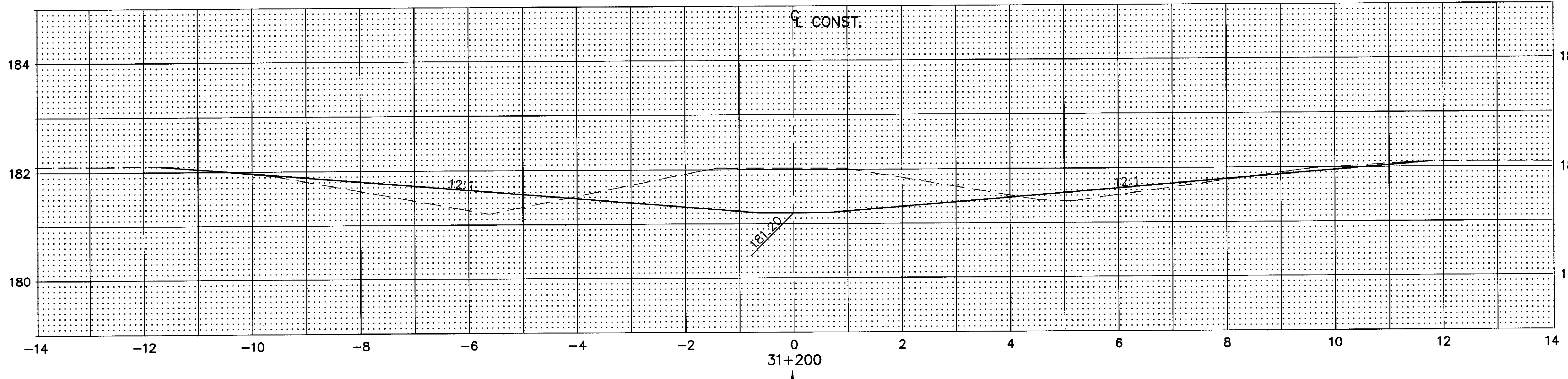
TOTAL THIS SHEET

159
432

PLOTTED: OCTOBER 10, 1997
 SPU FILE NAME: I:\5033\005\TRAIN\SECTIONS\SAWMILL-X1

SEEDING	
END WIDTH	SQ. YDS.
21.5	
449	
23.4	
404	
17	
170	
0	
1023	TOTAL THIS SHEET

STA. 31+220



STA. 31+220

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
5.26	1.62			
		95.7	35.3	
4.32	2.0			
		80.5	26.2	
3.73	0.71			
		37.4	7.1	
0	0			
		214	69	

**MEDIAN CROSS SECTIONS
 STA. 31+160 TO STA. 31+200**

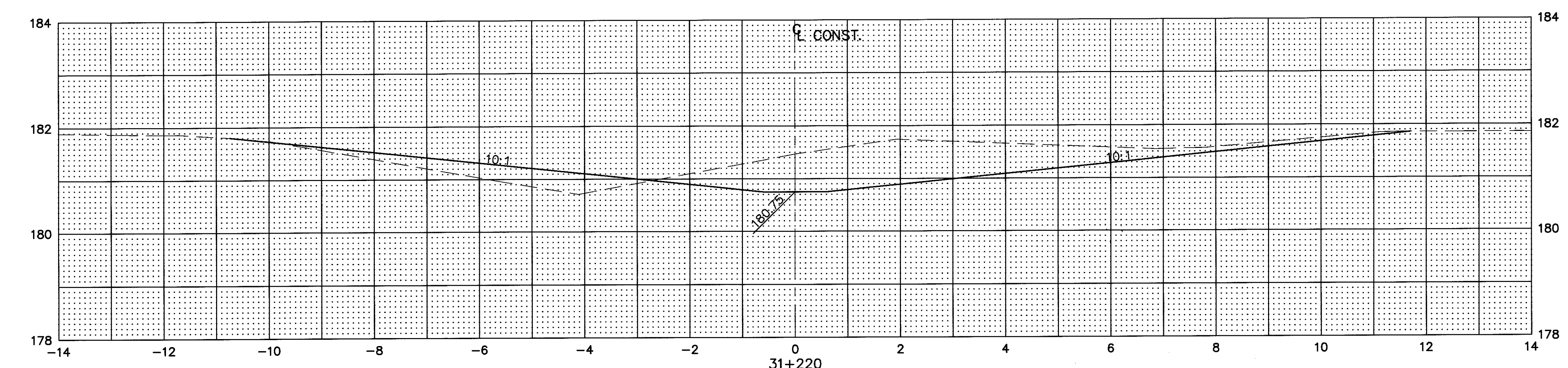
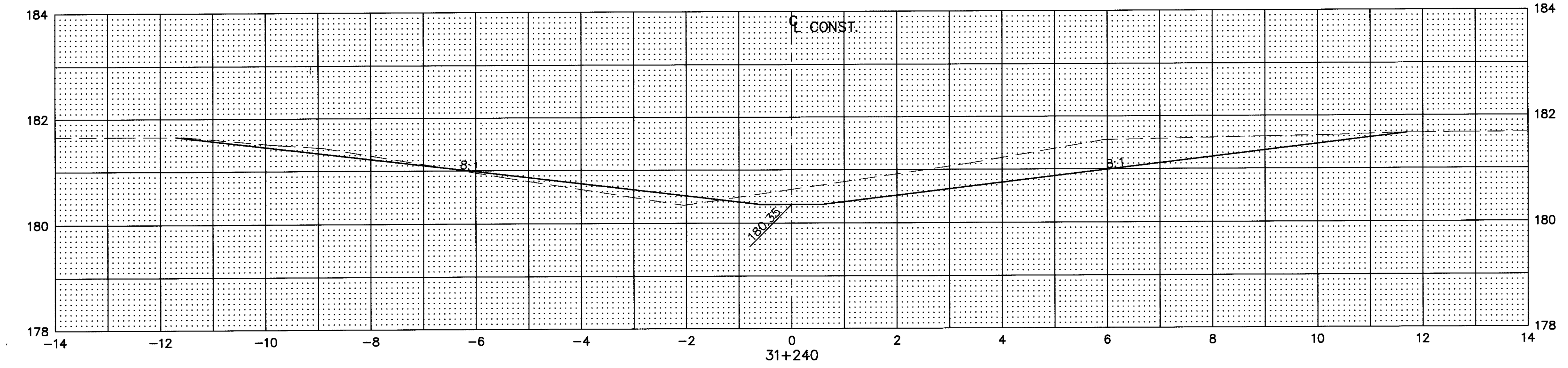
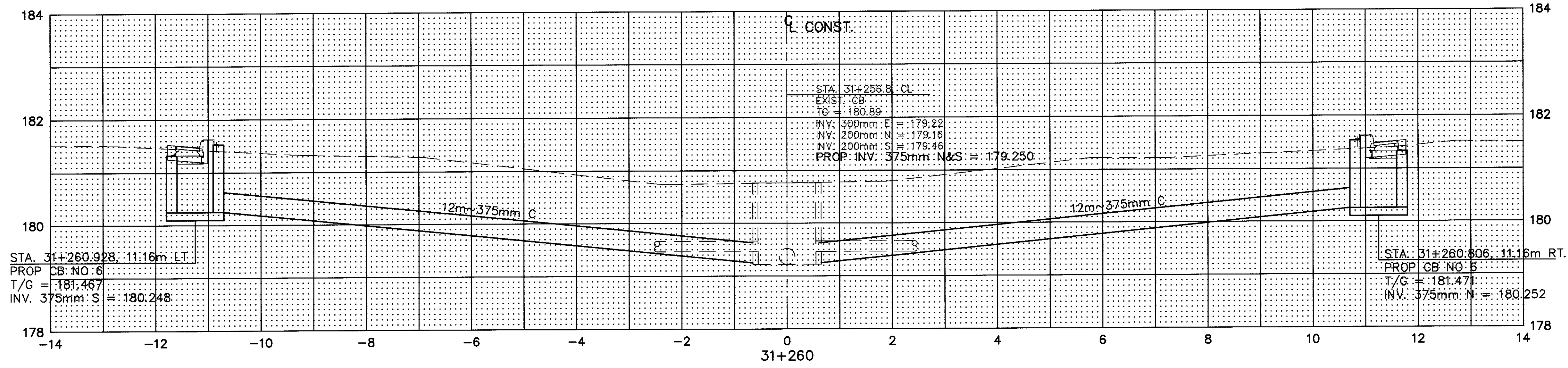
ERI-2-12.558

160
432

TOTAL THIS SHEET

SEEDING
END WIDTH SQ. YDS.

0	
234	
23.4	
449	
21.5	
683	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	48.4	4.8
4.84	0.48	101	21
5.26	1.62		
TOTAL THIS SHEET		149	26

CALCULATED BY: SEJ
 DATE: 6-97
 CHECKED BY: PMA
 DATE: 6-97
**MEDIAN CROSS SECTIONS
 STA. 31+220 TO STA. 31+260**

ERI-2-12.558

161
 432

PLOTTED: KJB
 FILE NAME: X2~ I:\5033\006\TRAN\SECTIONS\R_SAW_MILL.DWG 8-2-99 1:21:39 pm EST
 5033-006

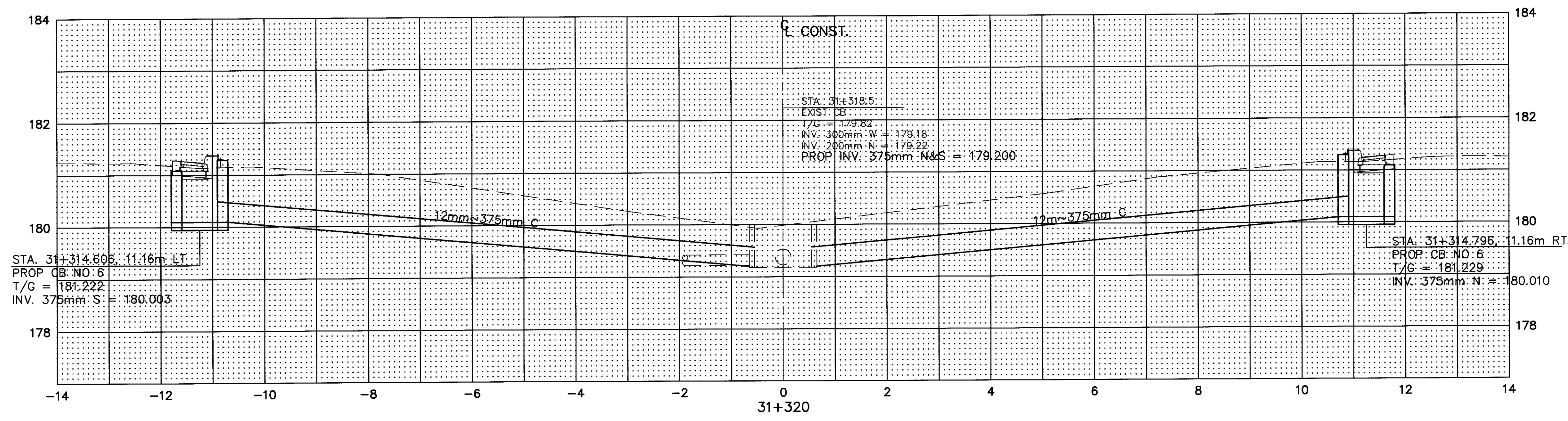
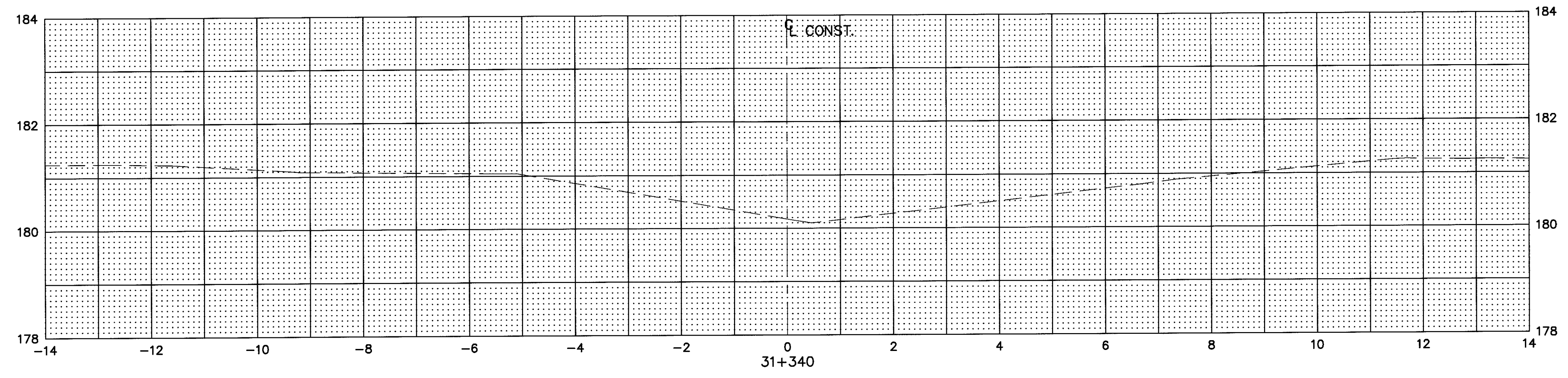
FILE NAME: X3~ I:\5033\006\TRAN\SECTIONS\RAW\MILL.DWG 8-2-99 1:21.39 pm EST

PLOTTED:

SEEDING	
END WIDTH	SO. YDS.
23.4	
234	
0	
234	TOTAL THIS SHEET

STA. 31+360

STA. 31+360



END AREA	VOLUME	CUT		FILL	
		CUT	FILL	CUT	FILL
3.28	0.31			132.8	13.1
0	0				
				133	13

**MEDIAN CROSS SECTIONS
 STA. 31+320 TO STA. 31+340**

ERI-2-12.558

TOTAL THIS SHEET

162
432

SEEDING	
END WIDTH	SQ. YDS.

13	
300	
17	
404	
23.4	

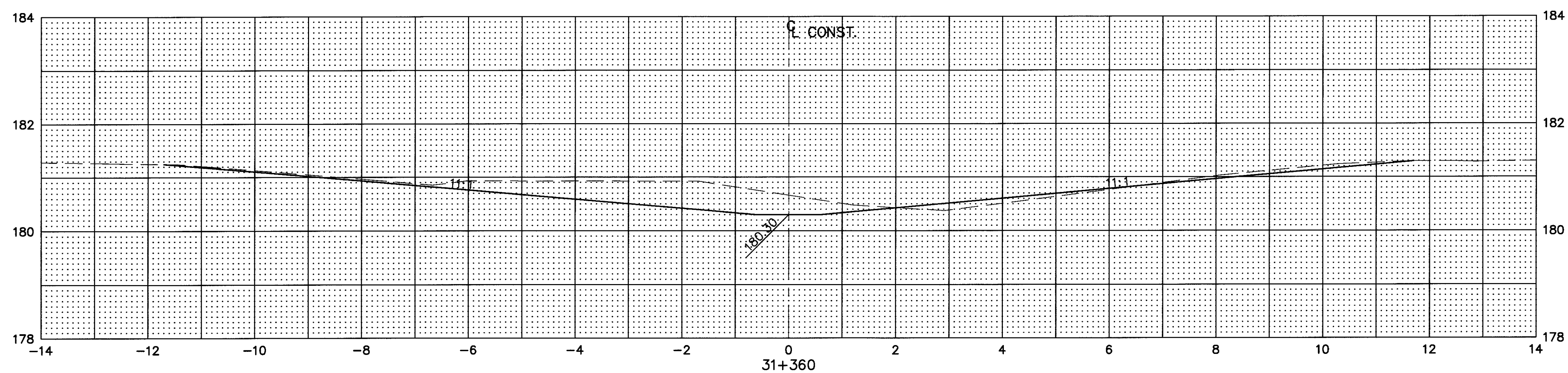
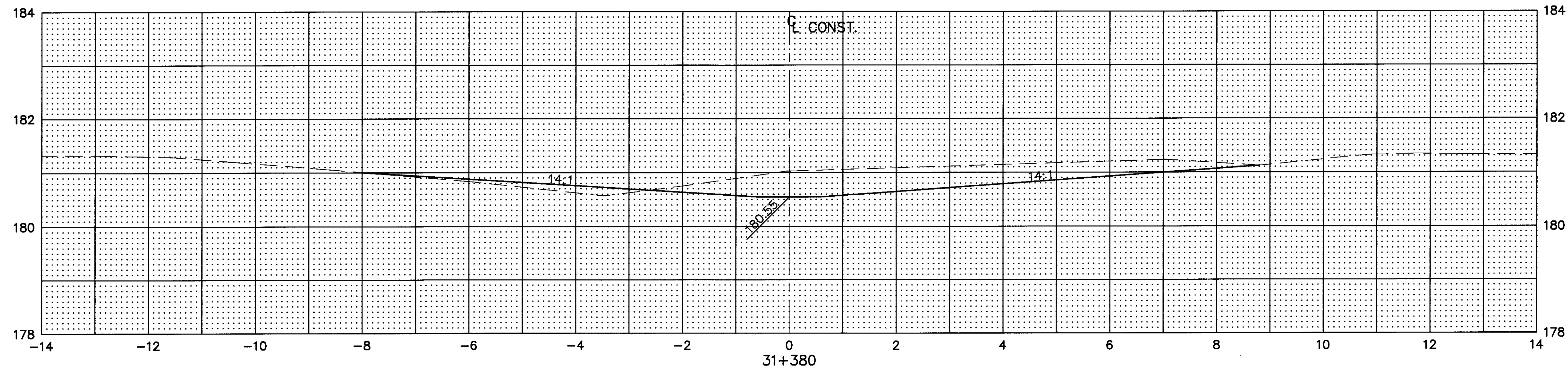
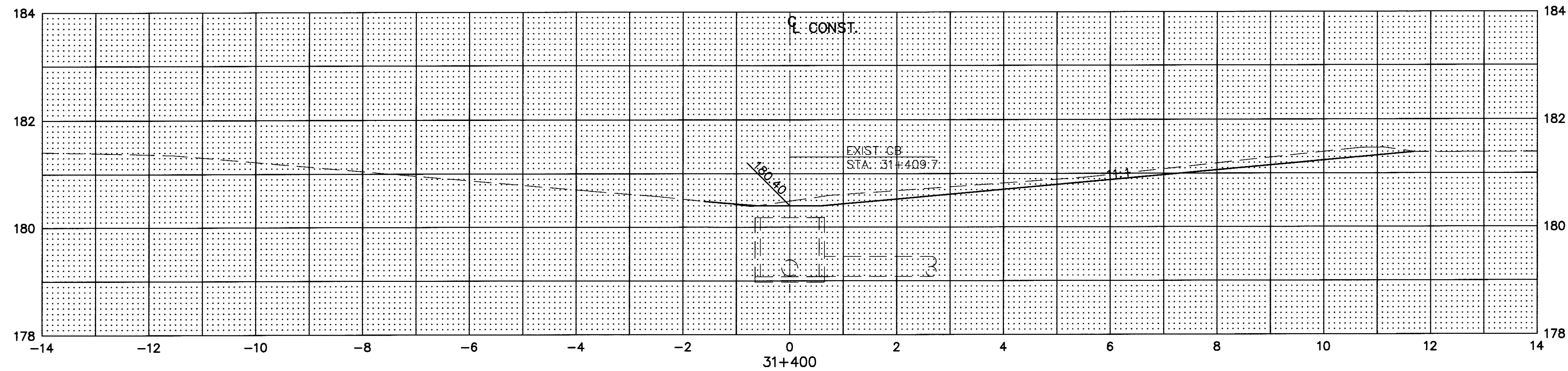
END AREA		VOLUME	
CUT	FILL	CUT	FILL

2.10	0	56.0	4.2
3.50	0.42	67.9	7.3
3.28	0.31		

CALCULATED BY	DATE
CHECKED BY	DATE

**MEDIAN CROSS SECTIONS
STA. 31+360 TO 31+400**

ERI-2-12.558



FILE NAME: X4~ I:\5033\006\TRAN\SECTIONS\SAW_MILL.DWG 5-20-99 4:17:13 pm EST

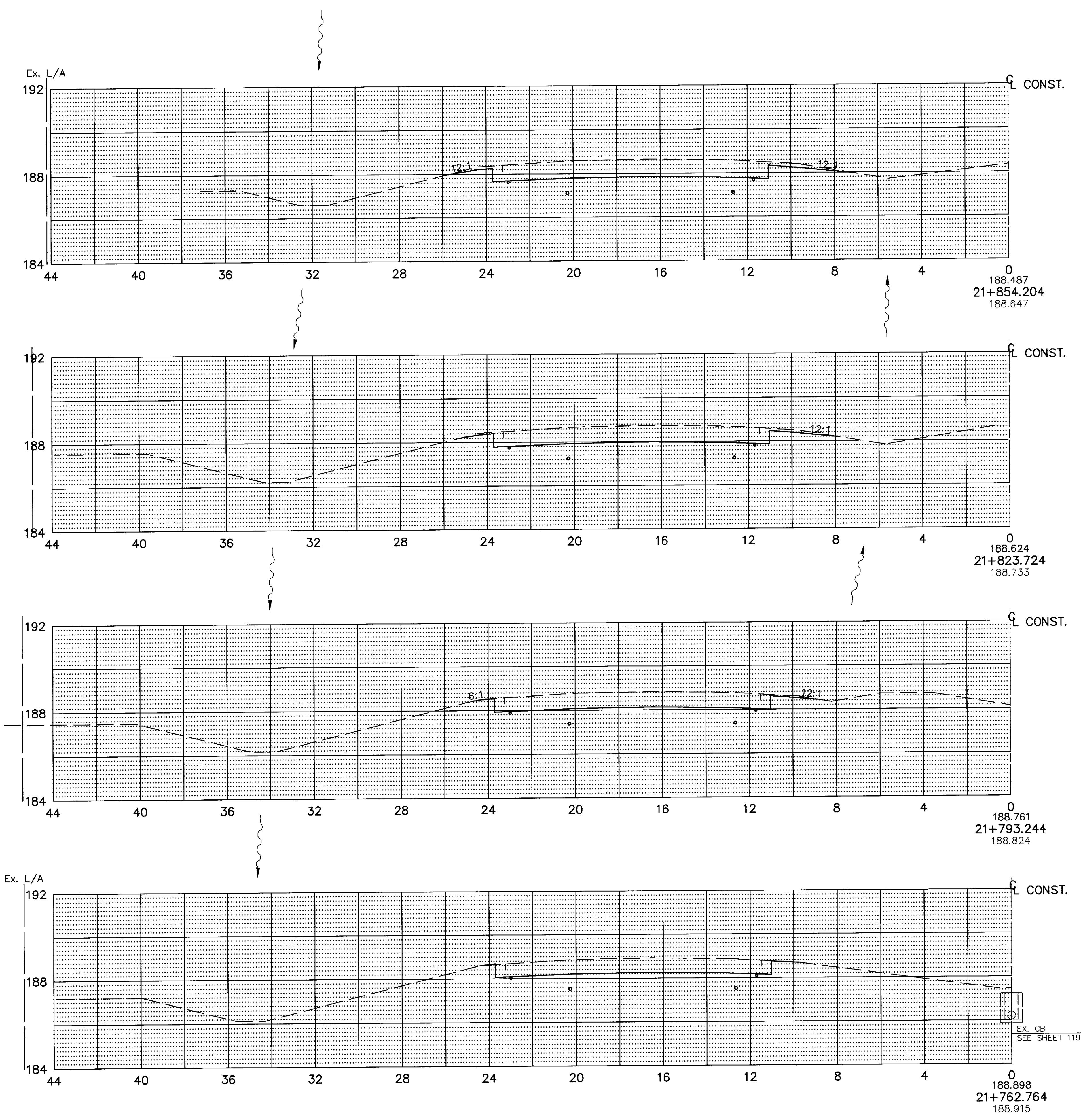
704	TOTAL THIS SHEET
12947	TOTAL S.R. 2 MEDIANS CARRIED TO SHT. 114

124	12
1783	508

163
432

SEEDING	
END WIDTH	SQ. METER
305	
6	
168	
5	
122	
3	
76	
2	13
0	
684	TOTAL THIS SHEET

+750 AHEAD



+750 AHEAD

TOTAL THIS SHEET

END AREA	VOLUME	
	CUT	FILL
10.5	0	363
9.6	0	306
8.9	0	281
8.1	0	258
7.9	102	0
	1208	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 21+762.764 TO STA. 21+854.204

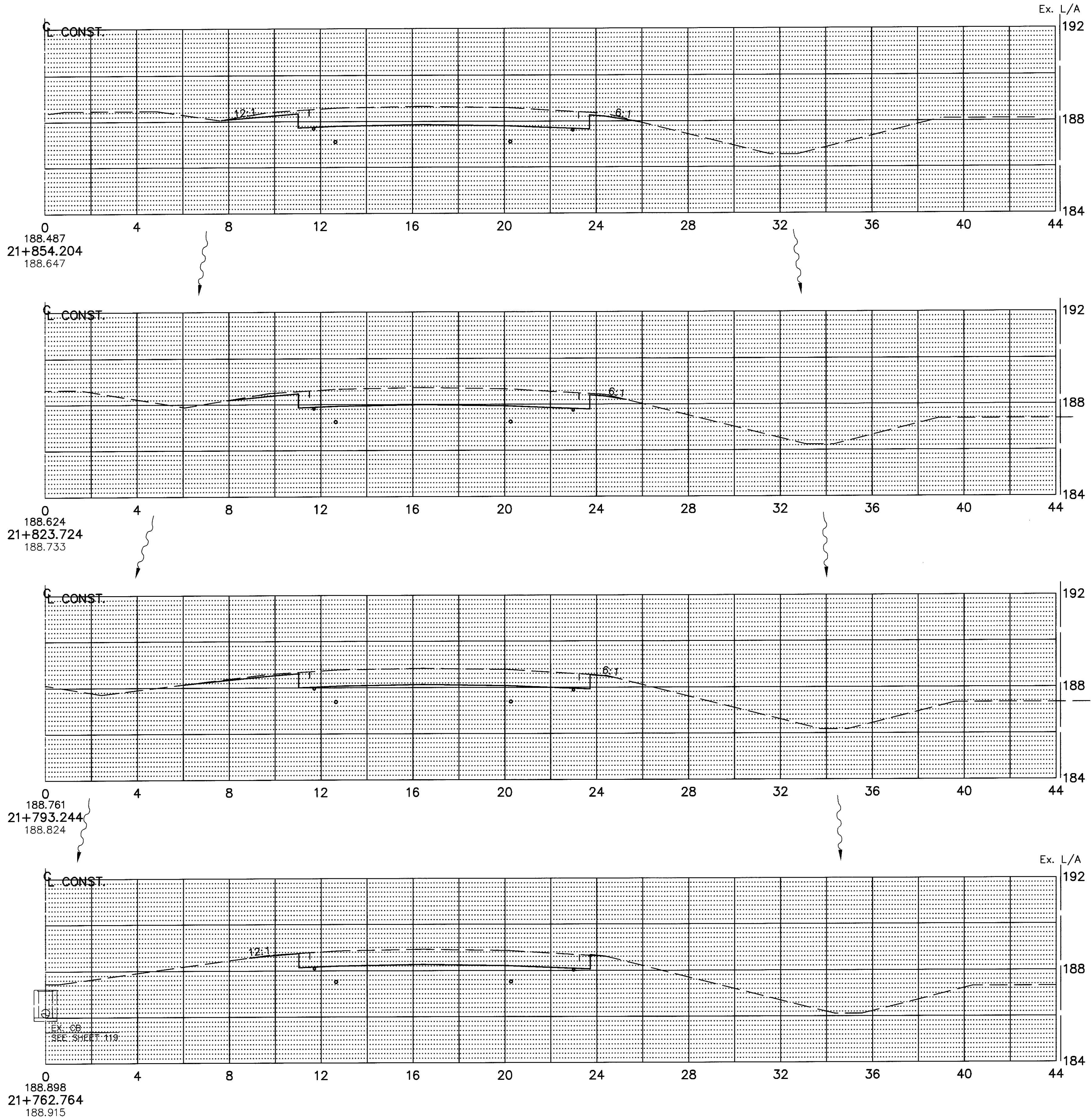
ERI-2-12.558

164
432

FILE NAME: X:\5033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 1:31:32 pm EST

PLOTTED: JTN

SEEDING	
END WIDTH	SQ. METER
6	305
5	168
3	122
2	76
0	13
684 TOTAL THIS SHEET	



END STA	AREA		VOLUME	
	CUT	FILL	CUT	FILL
21+854.204	10.5	0	363	0
21+823.724	9.6	0	306	0
21+793.244	8.9	0	281	0
21+762.764	8.1	0	258	0
TOTAL THIS SHEET	7.9	0	1208	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 21+762.764 TO STA. 21+854.204

ERI-2-12.558

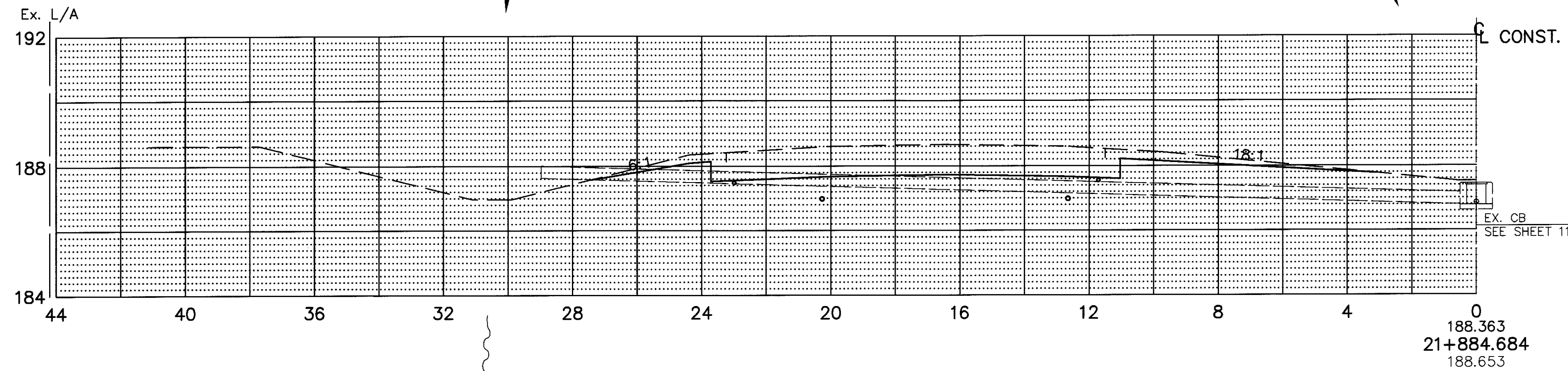
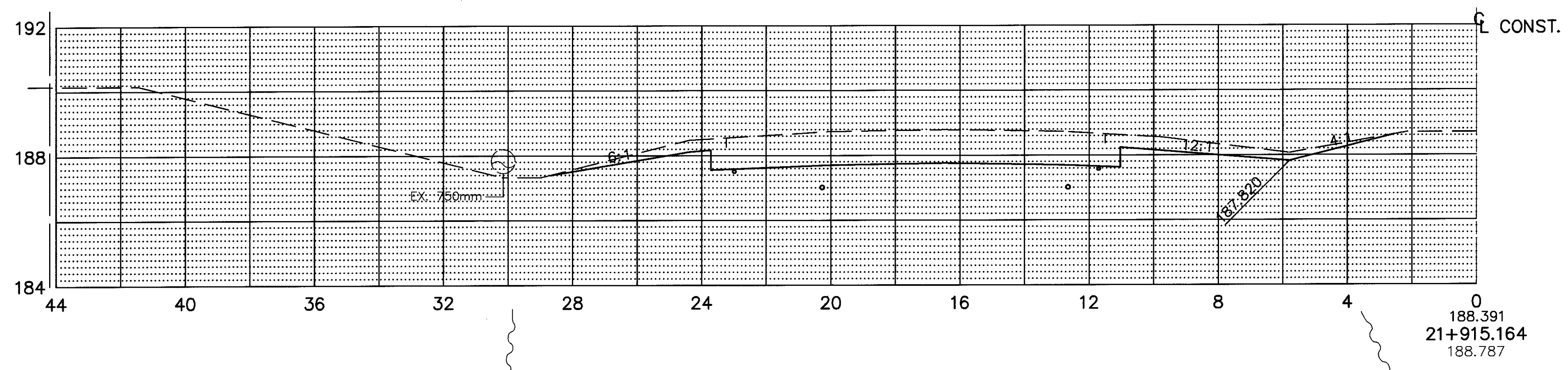
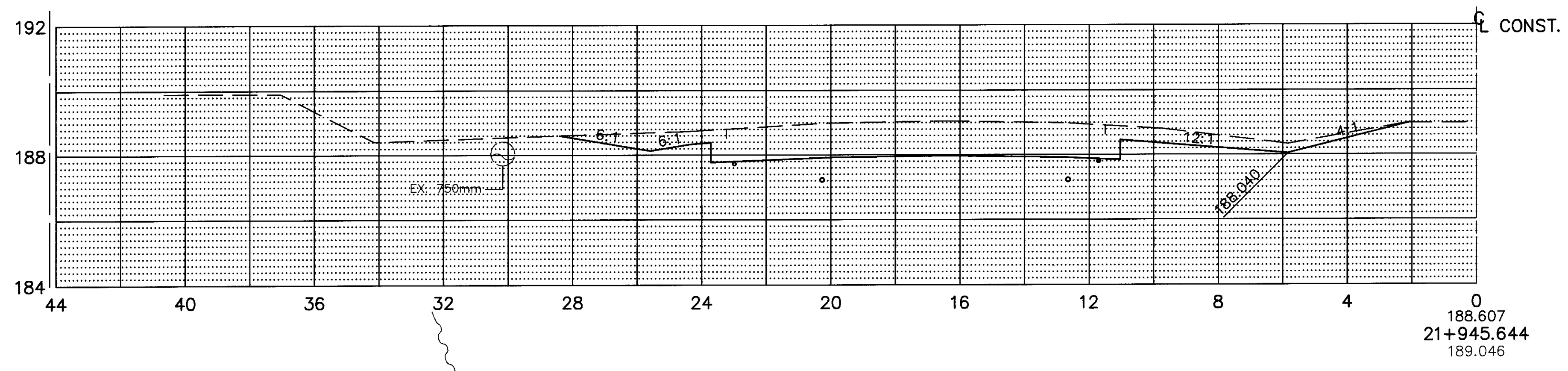
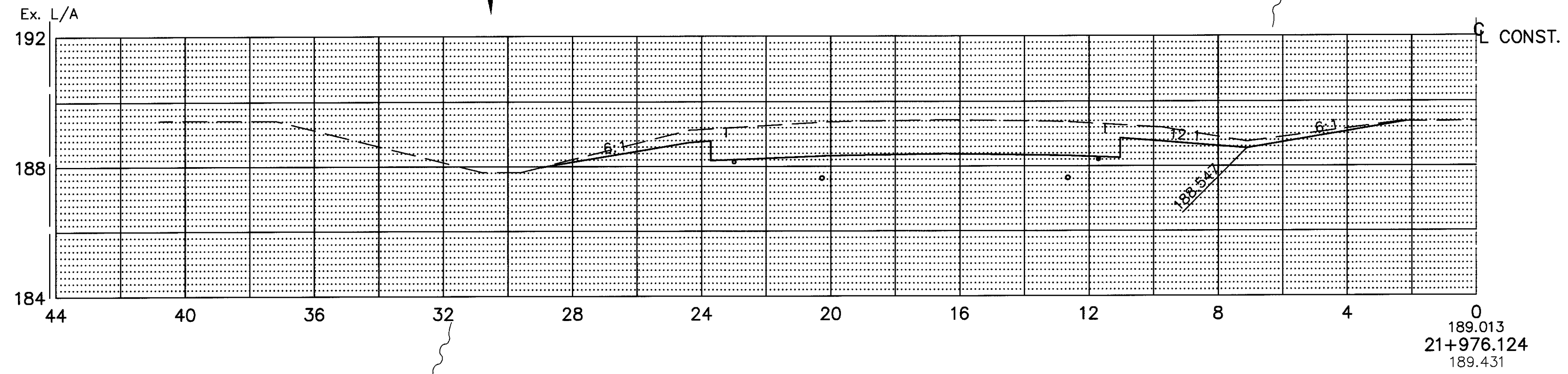
164A
432

PLOTTED: JTN FILE NAME: X2~1\5033\006\TRAN\SECTIONS\VR_113766XA.DWG 7-29-99 1:31:32 pm EST

+750 AHEAD

SEEDING	
END WIDTH	SQ. METER

472	
15	
457	
15	
457	
15	
442	
14	
1828	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		471	0
		16.2	0
		515	0
		17.6	0
		513	0
		16.1	0
		448	0
		13.3	0
TOTAL THIS SHEET		1948	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 21+884.684 TO STA. 21+976.124

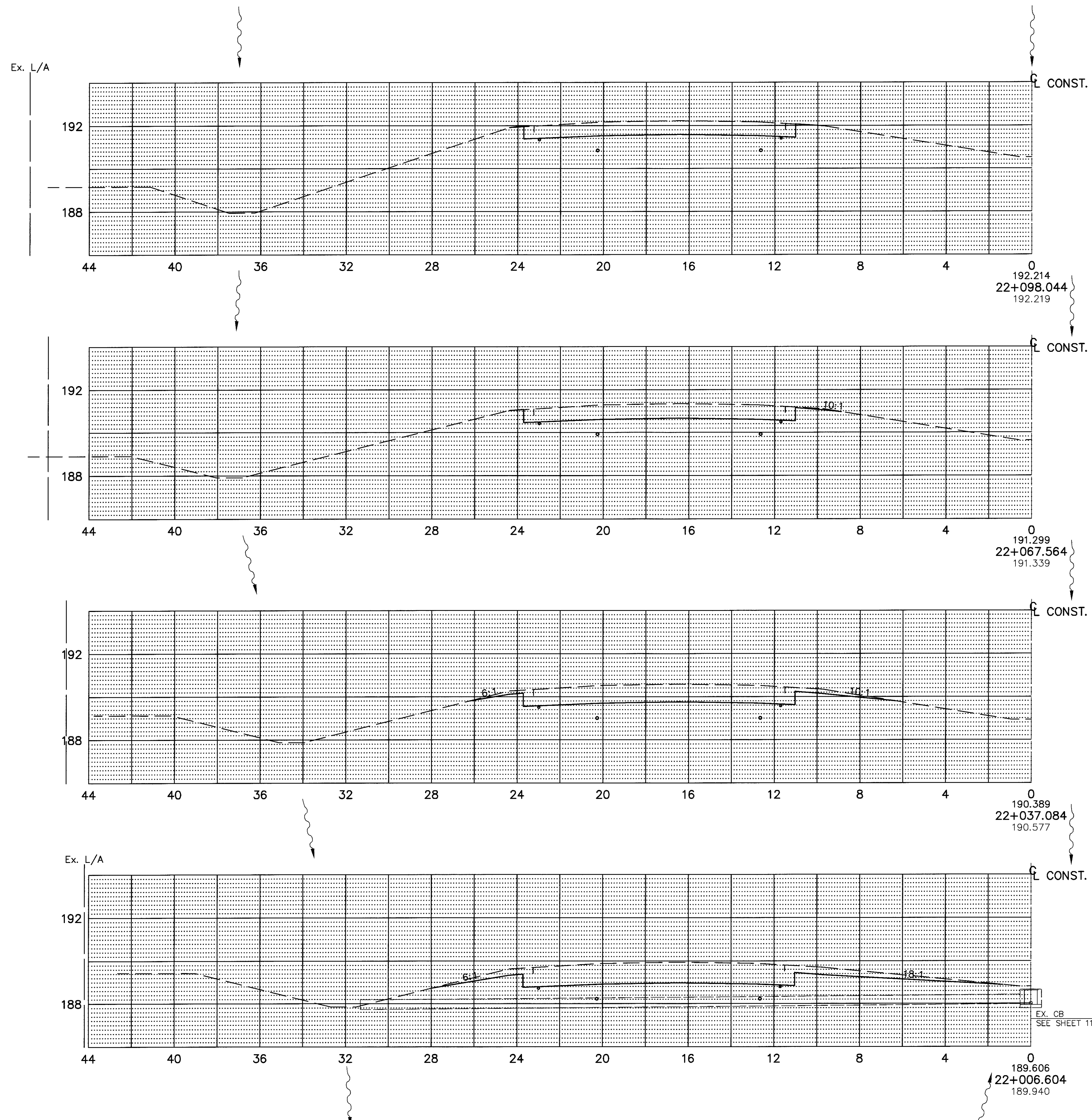
ERI-2-12.558

165
432

PLOTTED: JTN FILE NAME: X3~1: 5033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 4:27:53 pm EST

SEEDING
END SQ.
WIDTH METER

91	
3	
107	
4	
183	
8	
366	
16	
747	TOTAL THIS SHEET



END	AREA		VOLUME		CALCULATED BY: KJB DATE: 5-99	CHECKED BY: JTY DATE: 5-99
	CUT	FILL	CUT	FILL		
			242	1		
	7.9	0				
			250	0		
	8.4	0				
			297	0		
	11.1	0				
			393	0		
	14.7	0				
TOTAL THIS SHEET			1182	1		

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 22+006.604 TO STA. 22+098.044

ERI-2-12.558

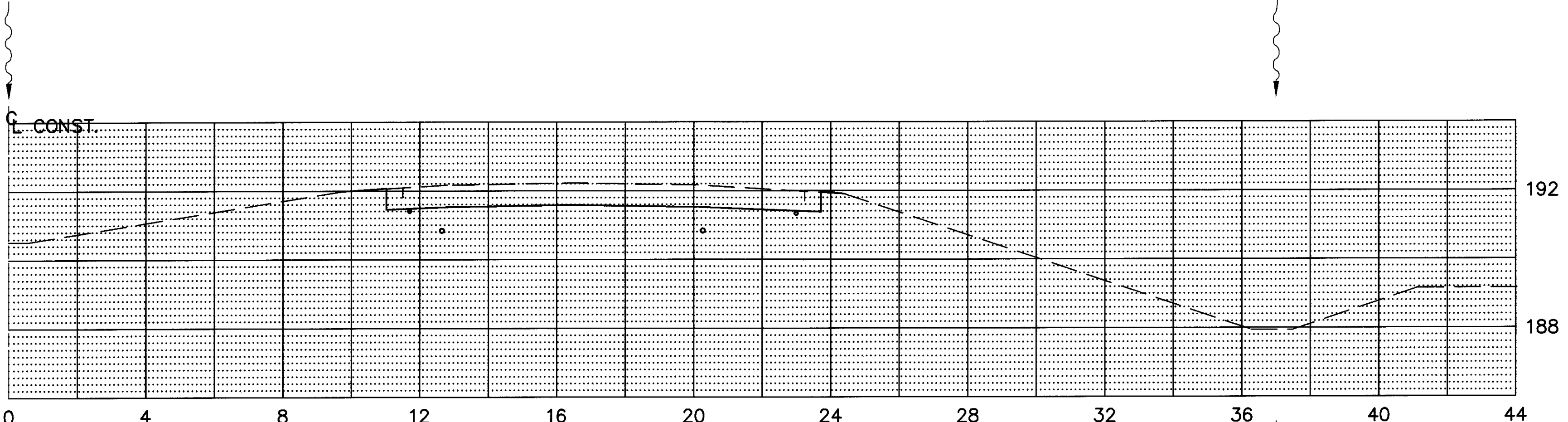
166
432

PLOTTED: KJB FILE NAME: X5~1: 5033\006\TRAN\SECTIONS\VR_113766XA.DWG 7-29-99 1:31:32 pm EST

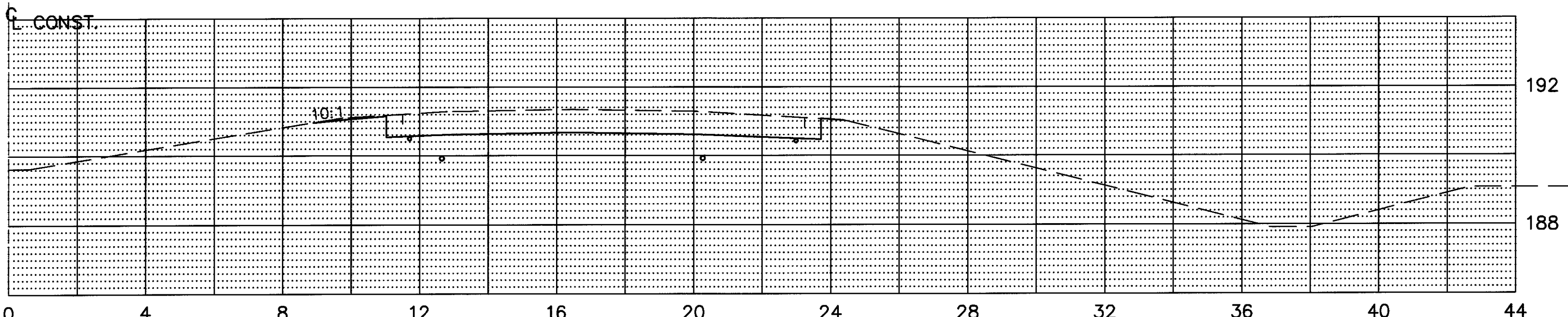
TOTAL THIS SHEET

SEEDING
END SQ.
WIDTH METER

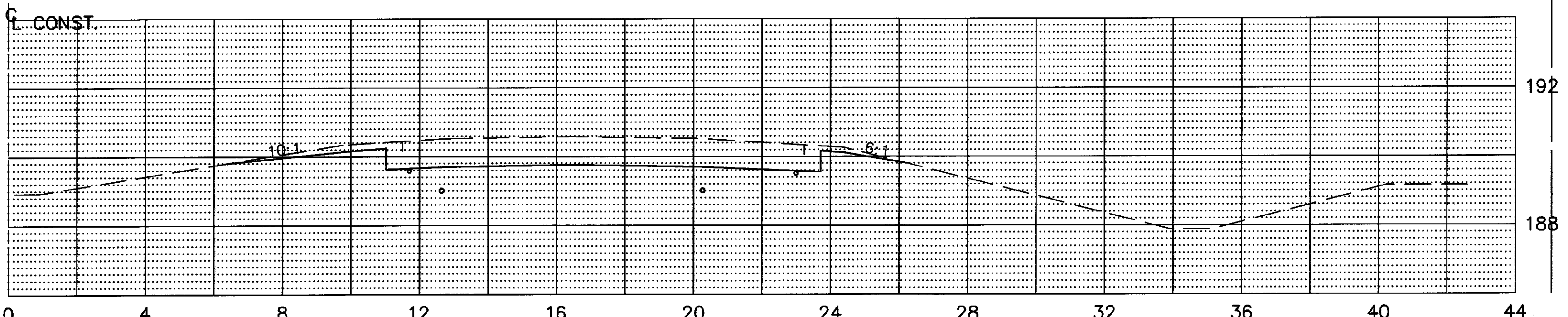
91	
3	
107	
4	
183	
8	
366	
16	
747	TOTAL THIS SHEET



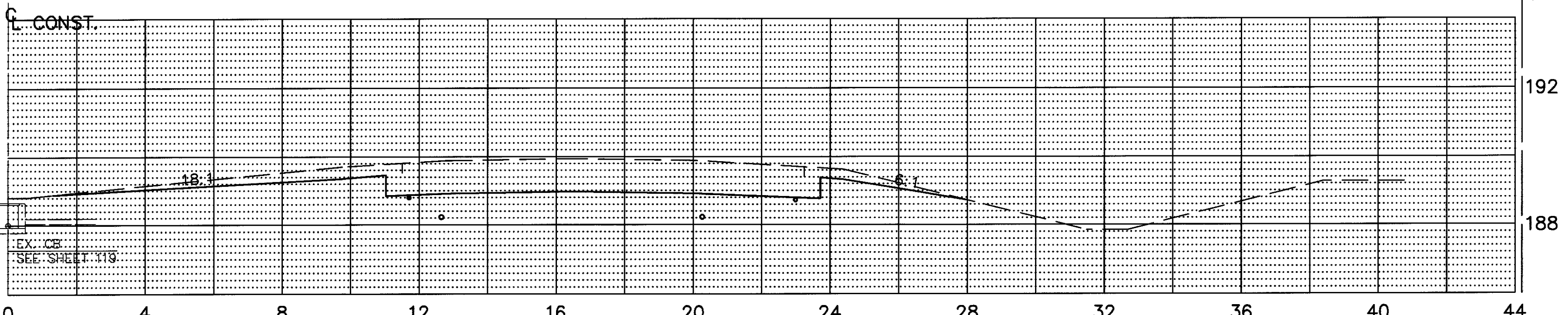
192.214
22+098.044
192.219



191.299
22+067.564
191.339



190.389
22+037.084
190.577



189.606
22+006.604
189.940

Ex. L/A

END AREA	VOLUME	
	CUT	FILL
7.9	0	242
8.4	0	250
11.1	0	297
14.7	0	393
1182	0	1

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 22+006.604 TO STA. 22+098.044

ERI-2-12.558

166A
432

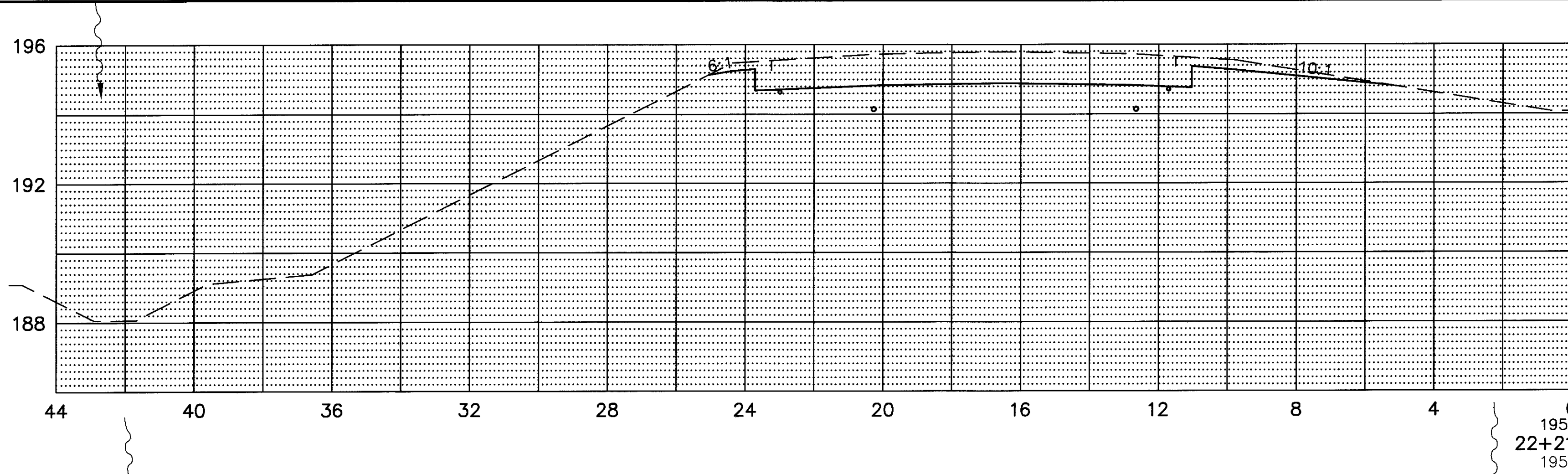
TOTAL THIS SHEET

FILE NAME: X6~1\5033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 1:31:32 pm EST

PLOTTED:
JTN

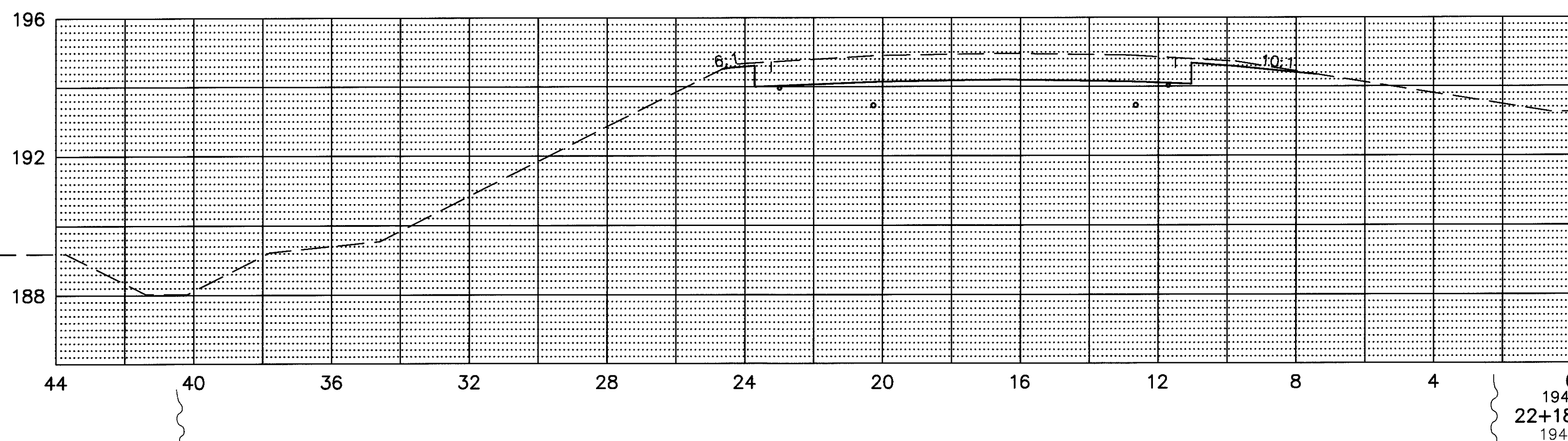
SEEDING	
END WIDTH	SQ. METER
8	290
6	213
4	152
3	107
762 TOTAL THIS SHEET	

Ex. L/A

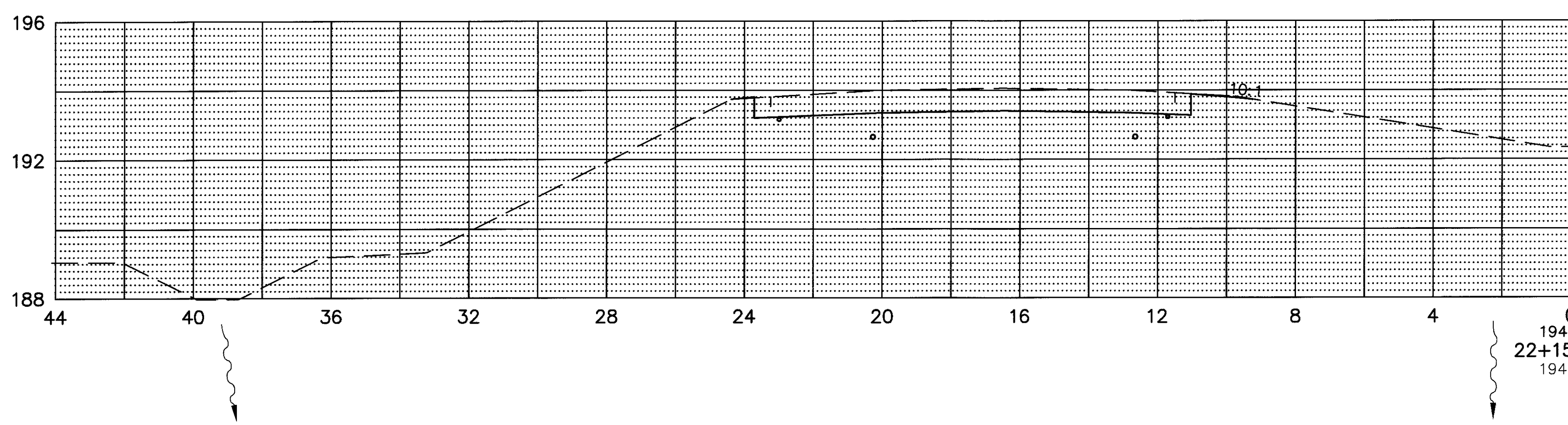


CONST.

CONST.

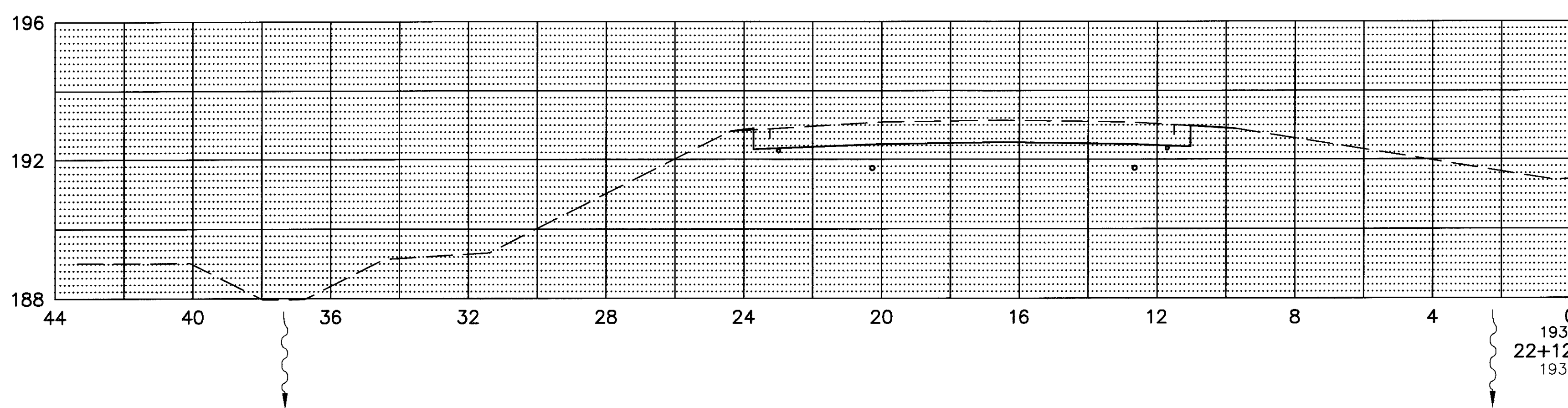


CONST.



CONST.

Ex. L/A



END AREA	VOLUME	
	CUT	FILL
12.3	0	0
9.9	0	0
8.1	0	0
7.9	0	0
415	0	0
1273	0	1

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 22+128.524 TO STA. 22+219.964

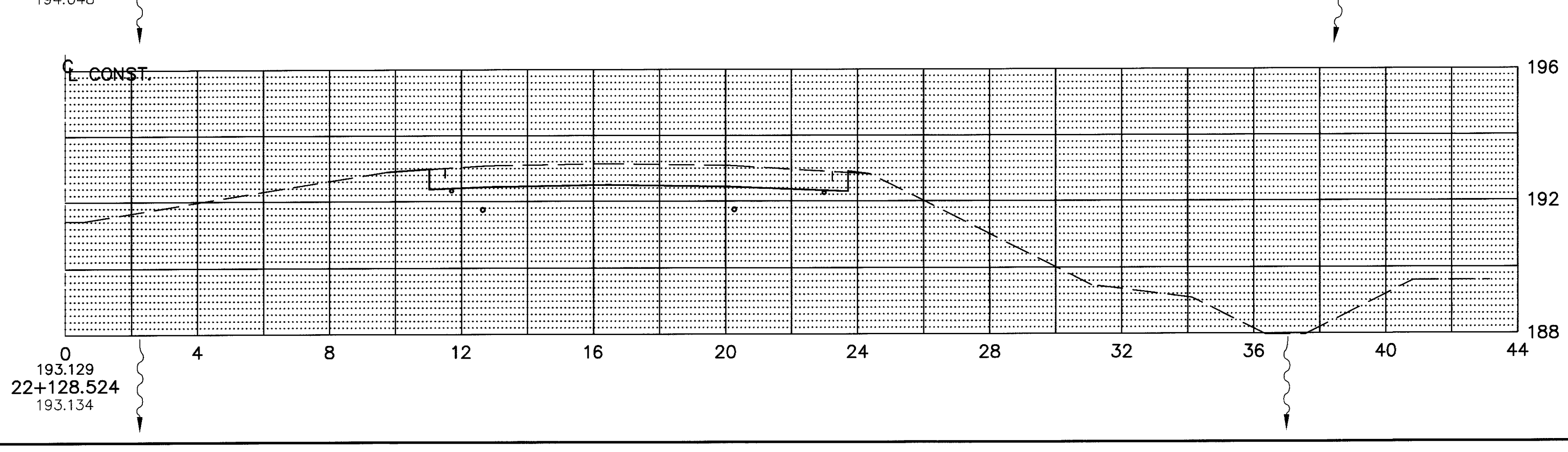
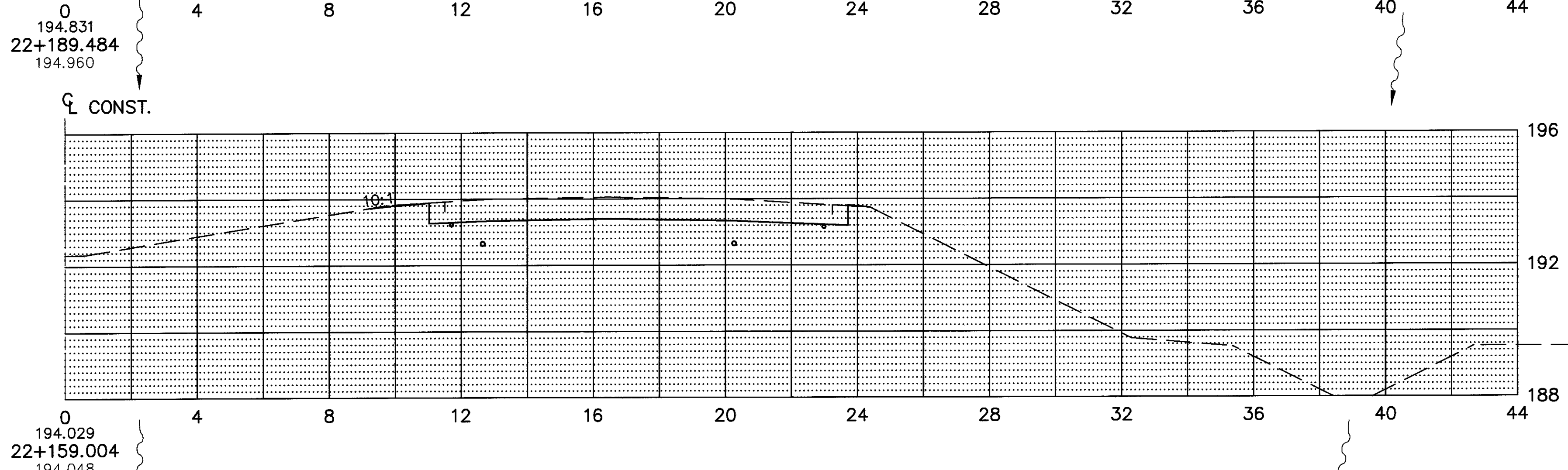
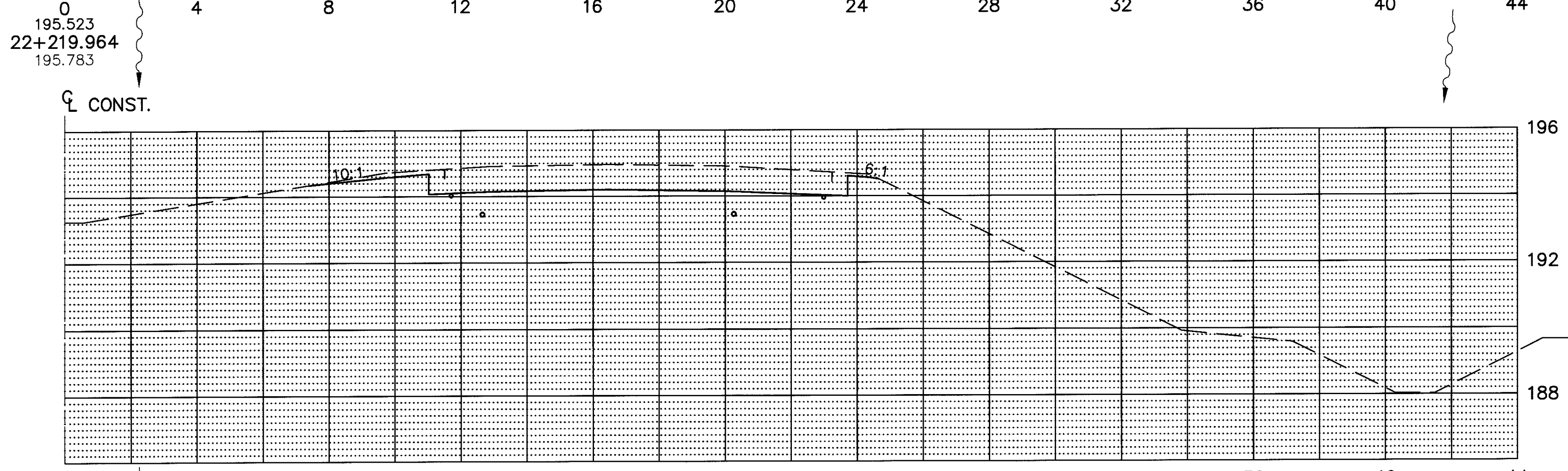
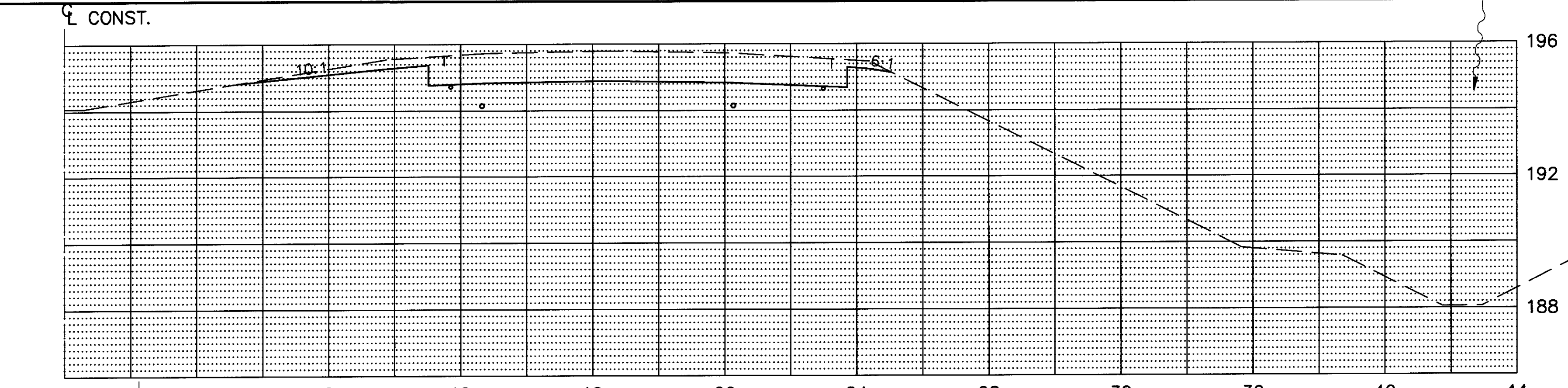
ERI-2-12.558

167
432

TOTAL THIS SHEET

FILE NAME: X8~1\5033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 1:31:32 pm EST
 PLOTTED: JTN

SEEDING	
END WIDTH	SQ. METER
8	290
6	213
4	152
3	107
762 TOTAL THIS SHEET	



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
22+128.524	7.9	0	245	0
22+159.004	8.1	0	275	0
22+189.484	9.9	0	339	0
22+219.964	12.3	0	415	0
TOTAL THIS SHEET			1273	1

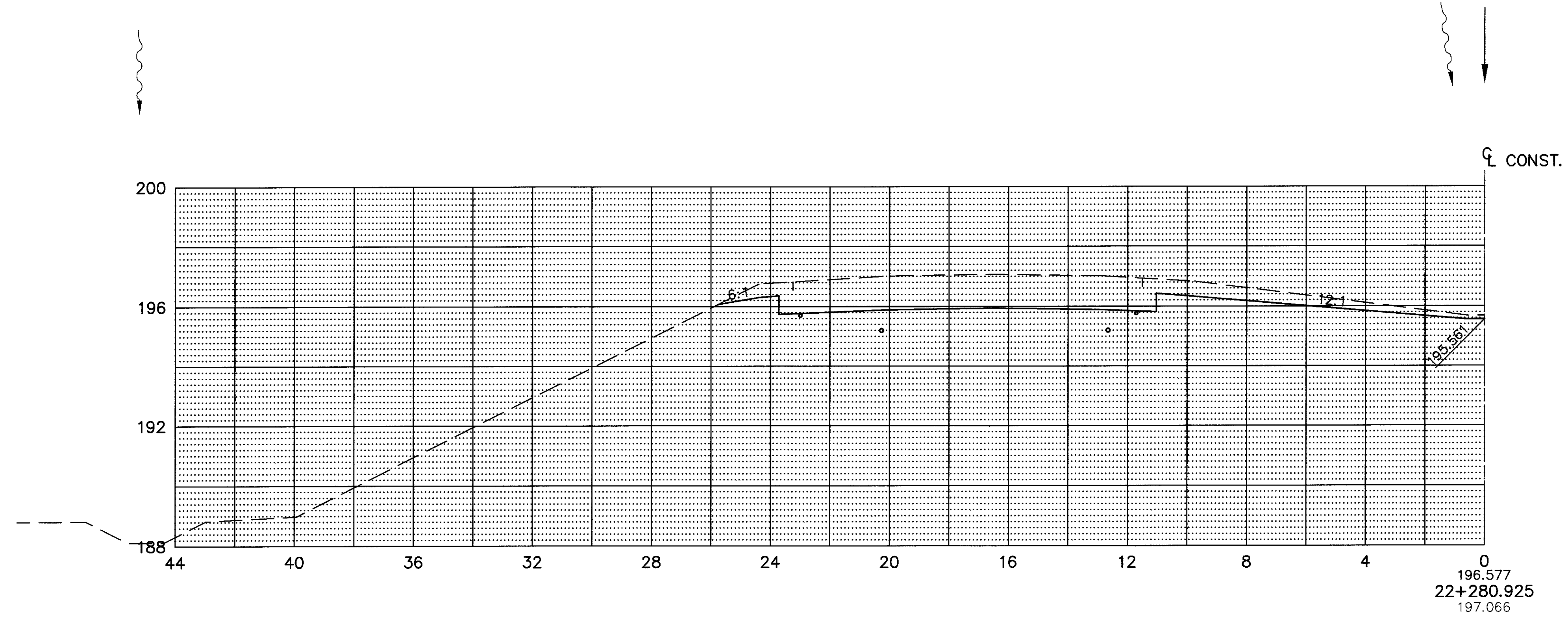
STATE ROUTE 2 EASTBOUND CROSS SECTIONS
 STA. 22+128.524 TO STA. 22+219.964
 ERI-2-12.558
 167A
 432

PLOTTED:
JTN

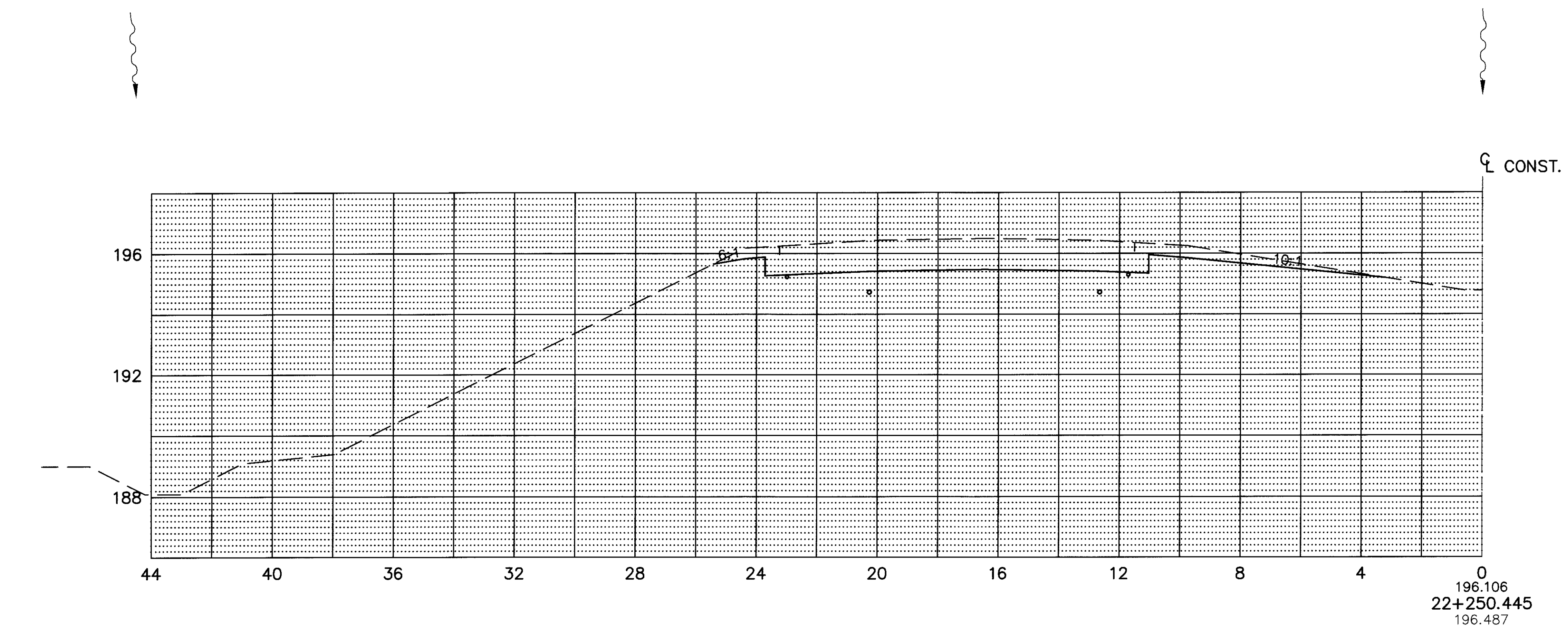
FILE NAME: X9-1: 5033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 1:31:32 pm EST

SEEDING	
END WIDTH	SQ. METER
15	457
11	396
853	TOTAL THIS SHEET

Ex. L/A



Ex. L/A



END AREA		VOLUME	
CUT	FILL	CUT	FILL
18.2	0	666	0
14.9	0	490	0
		1156	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 22+250.445 TO STA. 22+280.925

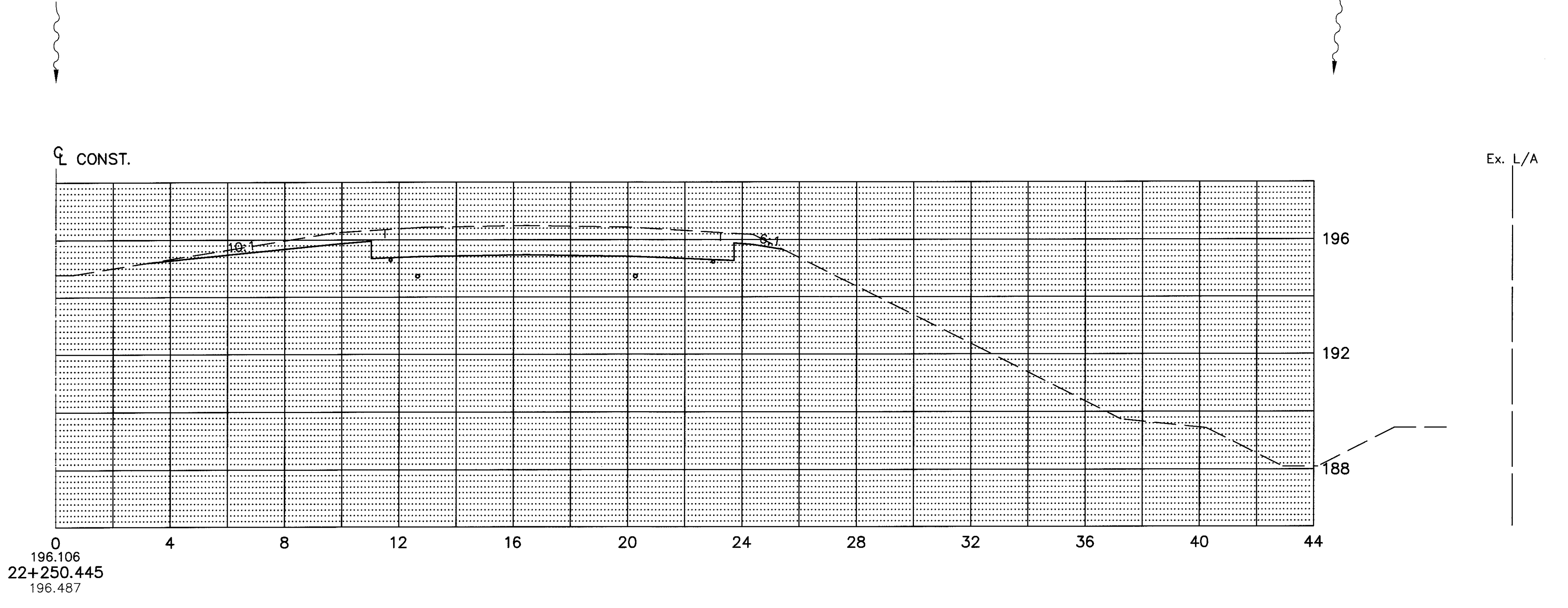
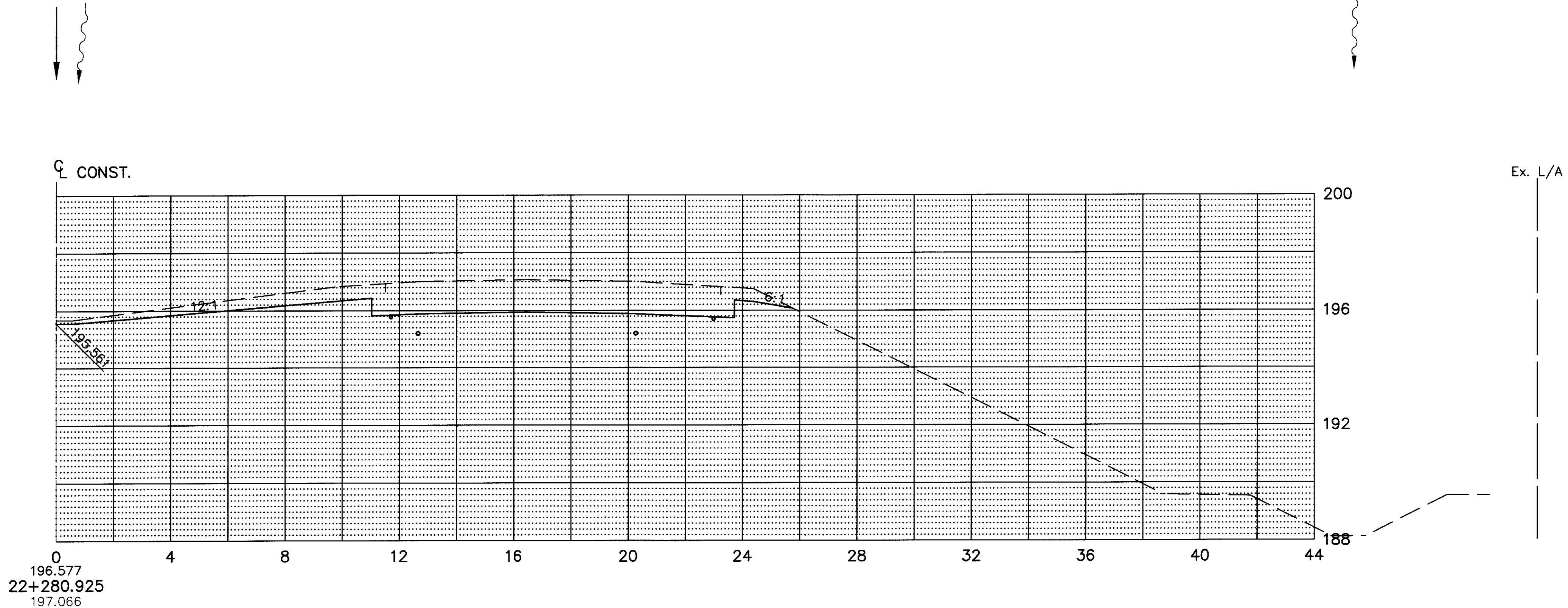
ERI-2-12.558

168
432

TOTAL THIS SHEET

SEEDING

END WIDTH	SQ. METER
457	
15	
396	
11	
853	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
18.2	0	666	0
14.9	0	490	0
		1156	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 22+250.445 TO STA. 22+280.925

ERI-2-12.558

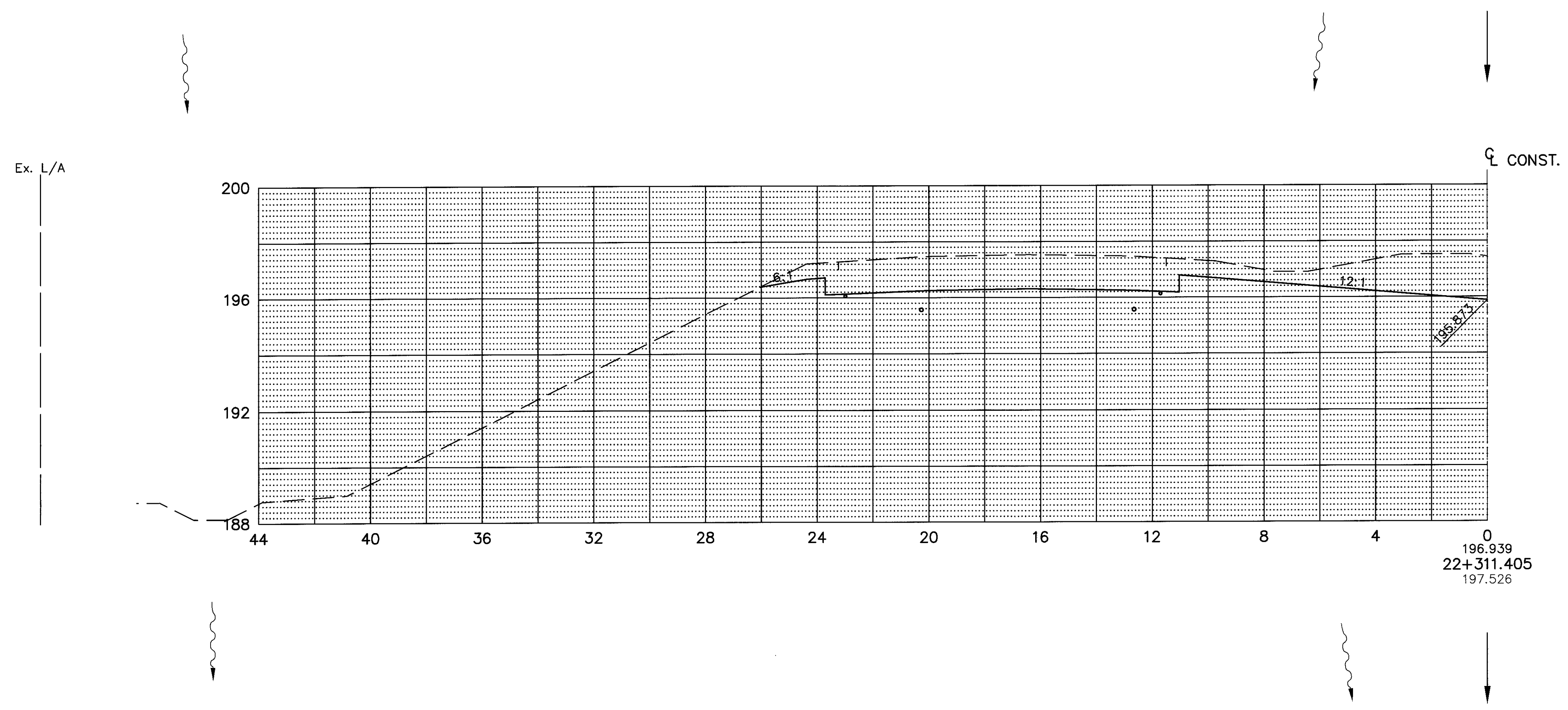
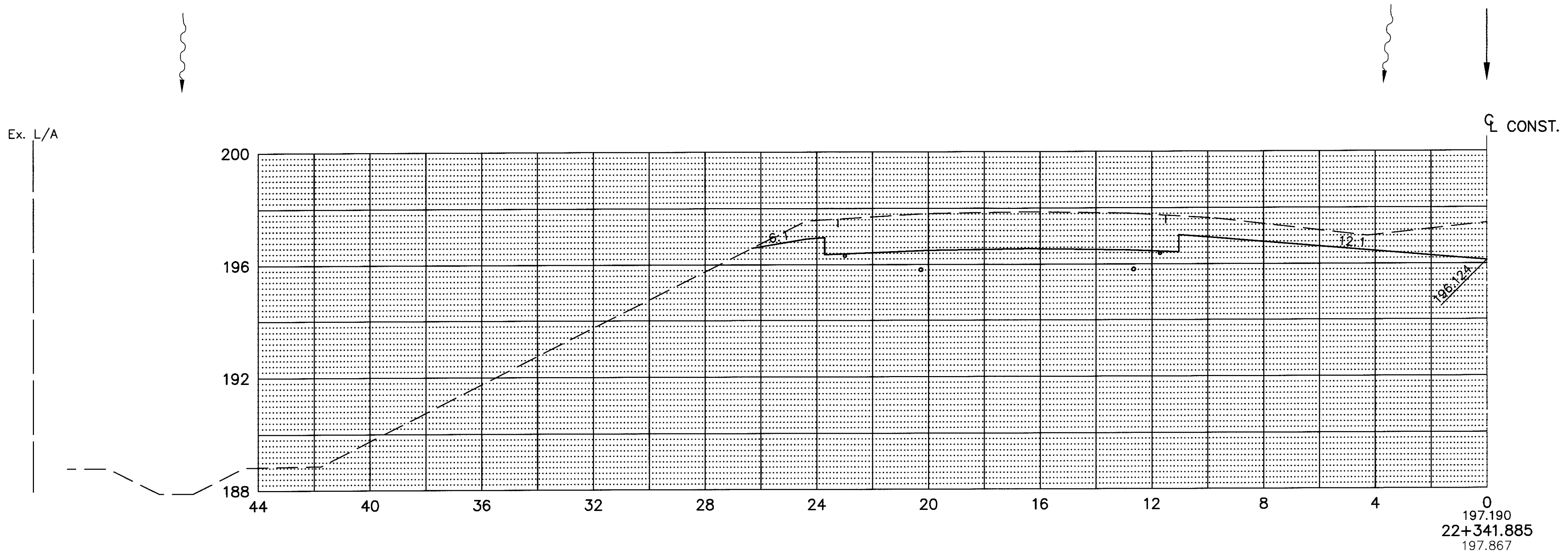
168A
432

FILE NAME: X:\033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 1:31:32 pm EST

PLOTTED: KJB

TOTAL THIS SHEET

SEEDING	
END WIDTH	SQ. METER
15	457
15	457
15	457
914	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
27.7	0	835	0
25.5	0	812	0
		1647	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
 STA. 22+311.405 TO STA. 22+341.885

ERI-2-12-558

169
 432

TOTAL THIS SHEET

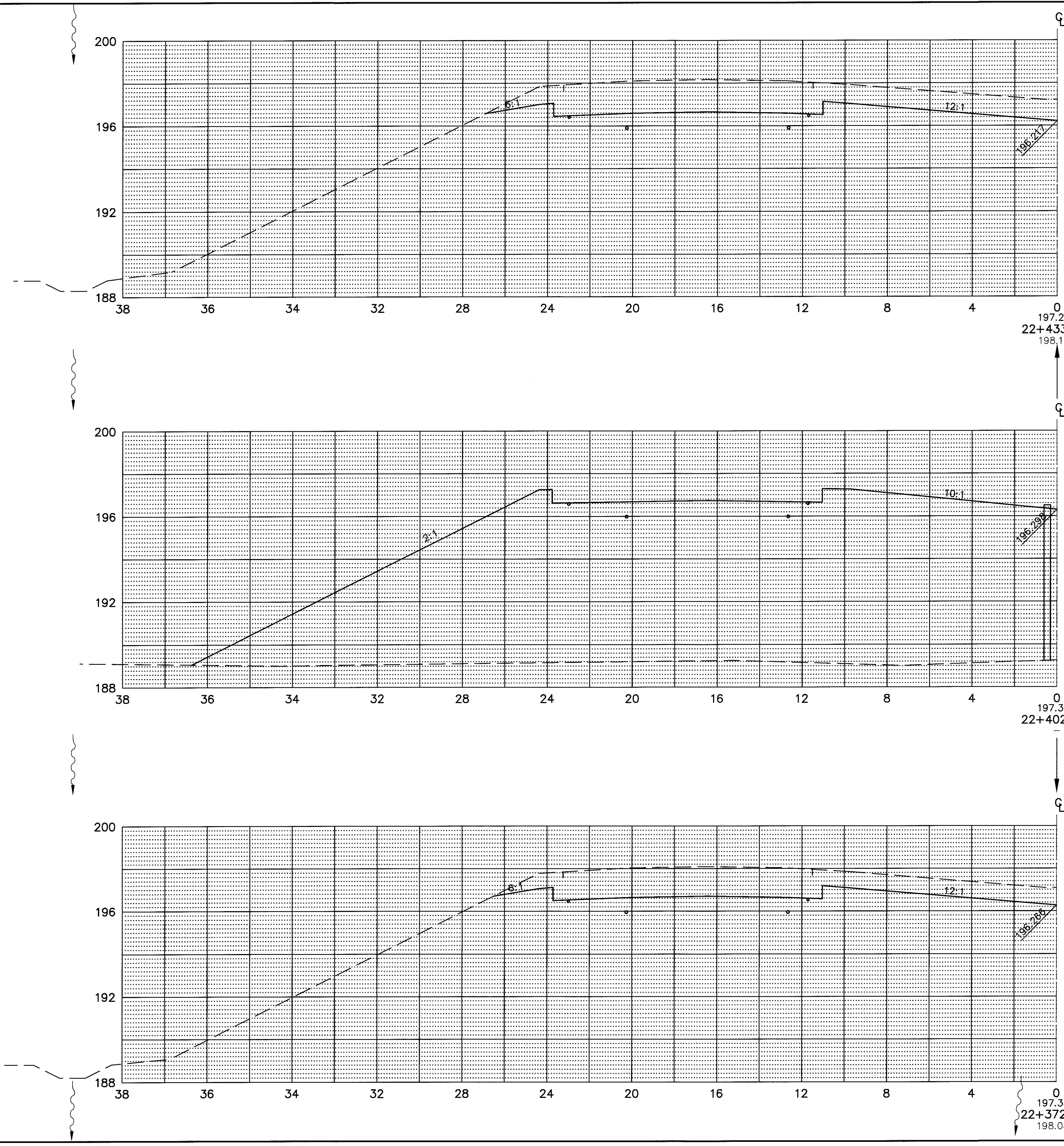
PLOTTED:

FILE NAME: X11-4: \5033\006\TRAN\SECTIONS\R_11376GXA.DWG 7-29-99 1:31:32 pm EST

FILE NAME: X13~1\5033\006\TRAN\SECTIONS\11376GXA.DWG 7-29-99 2:54:19 pm EST
 PLOTTED: JTN

SEEDING	END WIDTH		SO. METER
	END WIDTH	METER	
	15	28	472
	15	28	50
	28	15	1120
	28	15	15
	15	28	265
	15	28	1907

Ex. L/A
 +430 AHEAD
 +430 BACK
 Ex. L/A
 +390 AHEAD
 +390 BACK
 Ex. L/A



CL CONST.
 197.283
 22+433.325
 198.157
 CL CONST.
 197.364
 22+402.845
 CL CONST.
 197.332
 22+372.365
 198.084

ADD FOR ABANDONED RAILROAD BRIDGE REMOVAL

END AREA	VOLUME	
	CUT	FILL
30.6	0	0
30	0	101
0	0	6300
27.1	0	0
1561	6300	0

**STATE ROUTE 2 WESTBOUND CROSS SECTIONS
 STA. 22+372.365 TO STA. 22+433.325**

ERI-2-12-558

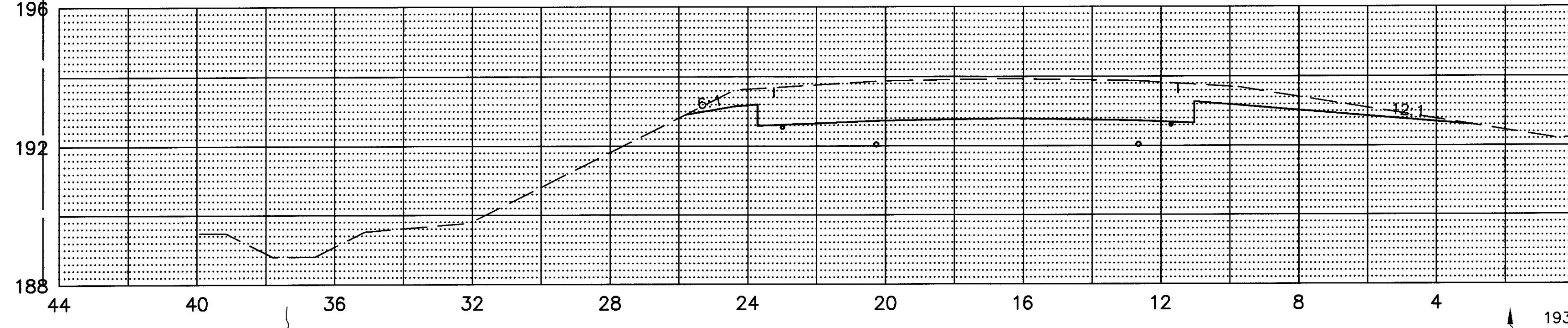
170
432

TOTAL THIS SHEET

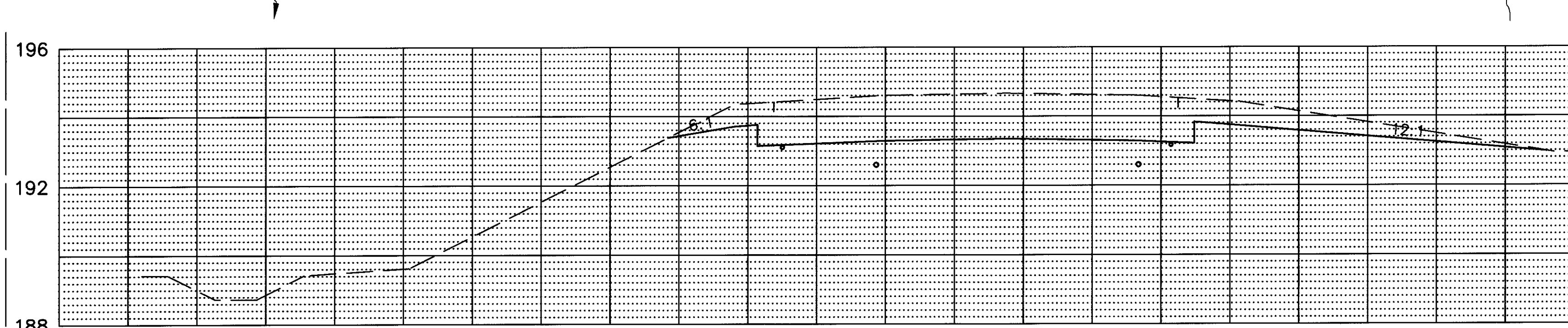
SEEDING
END WIDTH SQ. METER

320	
12	
412	
15	
472	
16	
488	
16	
1692	TOTAL THIS SHEET

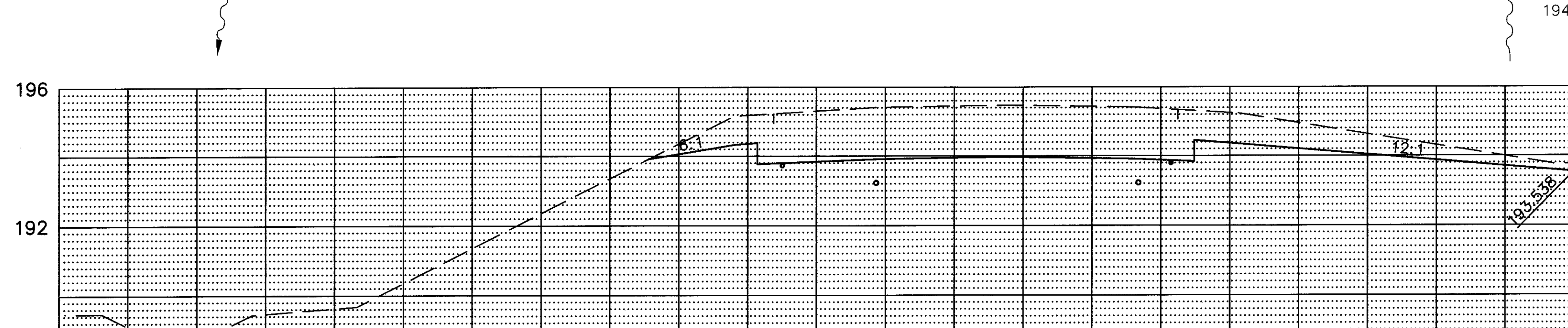
Ex. L/A



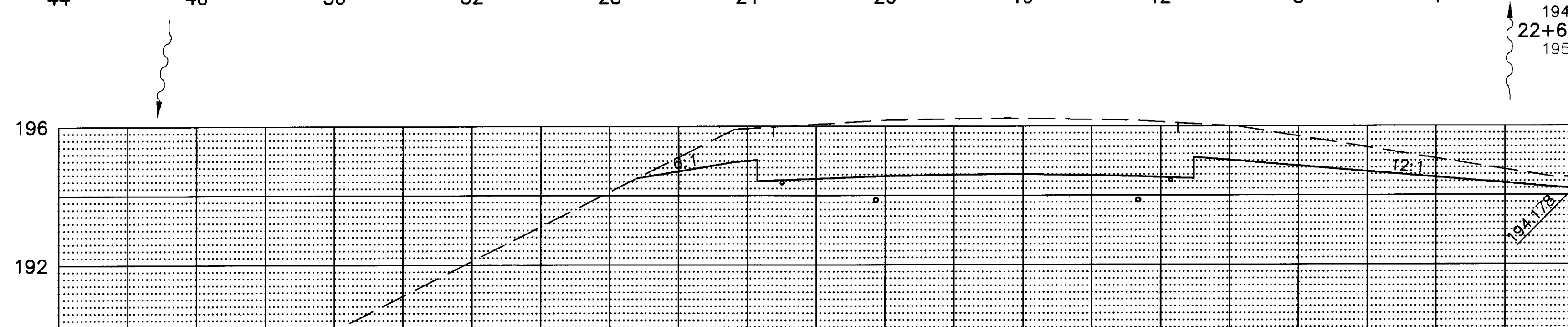
CONST.



CONST.

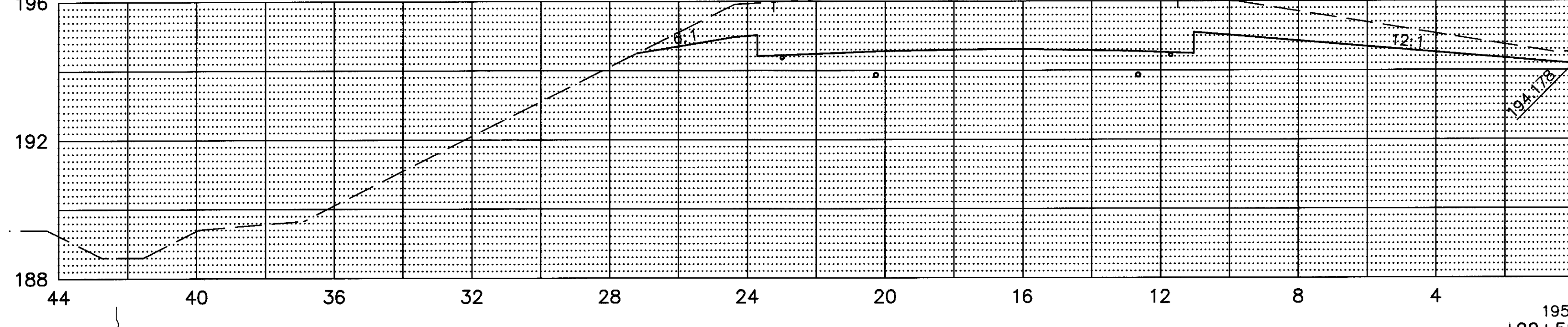


CONST.



CONST.

Ex. L/A



CONST.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		488	0
17.7	0		
		596	0
21.4	0		
		731	0
26.5	0		
		854	0
29.5	0		
TOTAL THIS SHEET		2669	0

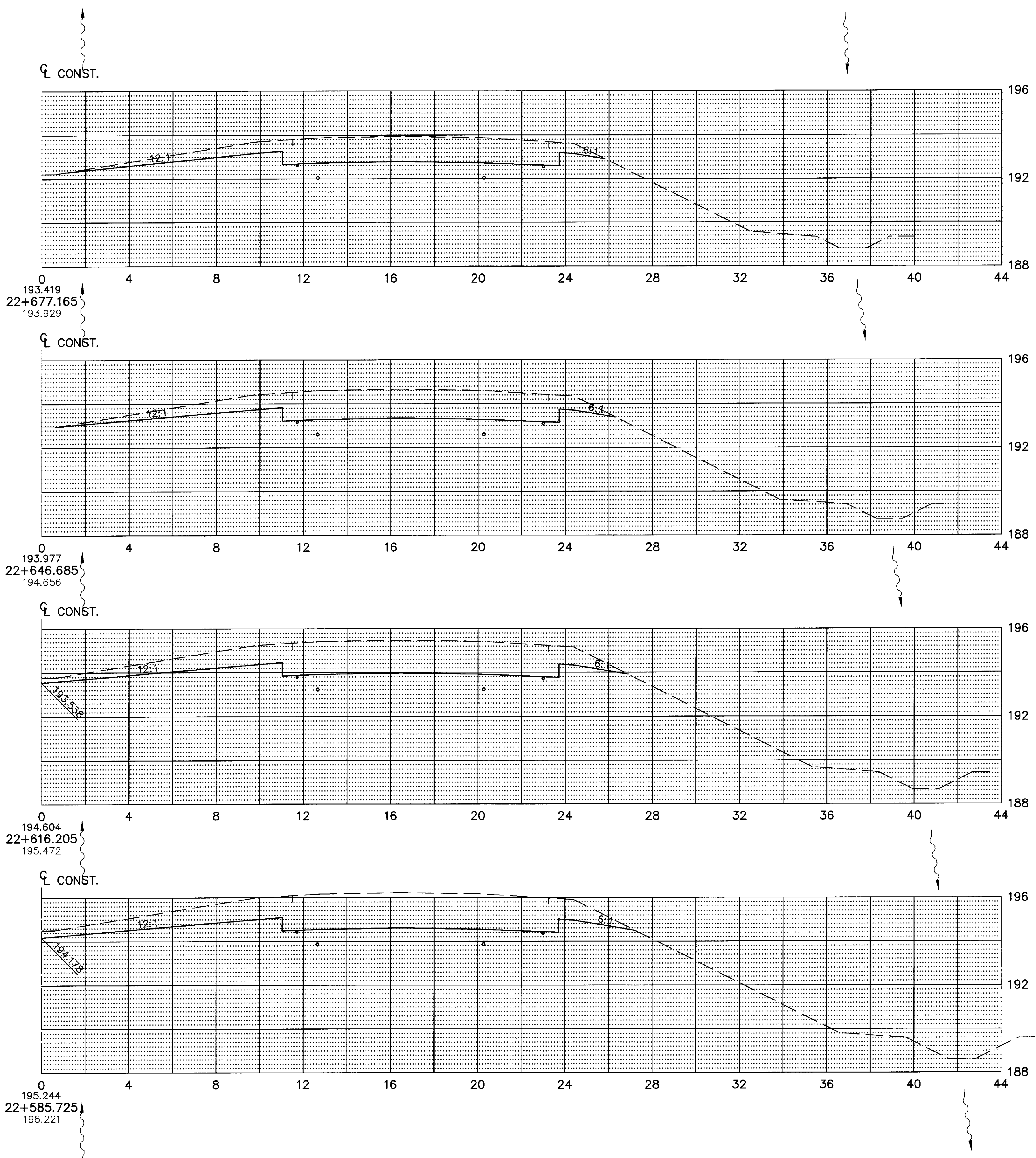
STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 22+585.725 TO STA. 22+677.165

ERI-2-12.558

172
432

FILE NAME: X17~\5033\006\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 2:54:19 pm EST

SEEDING	
END WIDTH	SQ. METER
12	320
15	412
16	472
16	488
16	488
1692 TOTAL THIS SHEET	



Ex. L/A

Ex. L/A

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
	17.7	0	488	0
	21.4	0	596	0
	26.5	0	731	0
	29.5	0	854	0
TOTAL THIS SHEET			2669	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 22+585.725 TO STA. 22+677.165

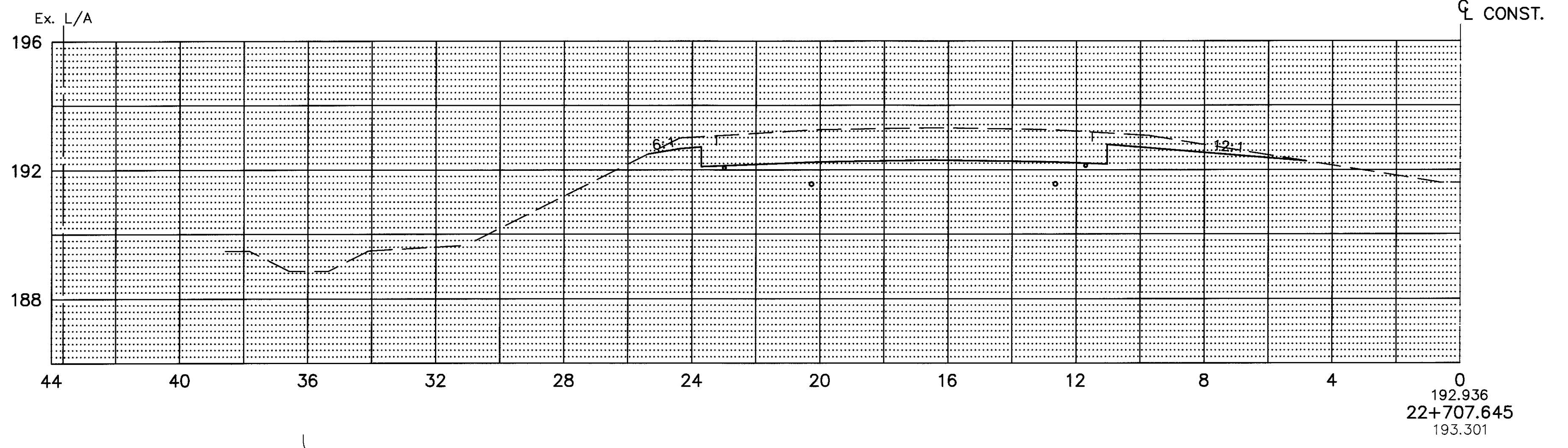
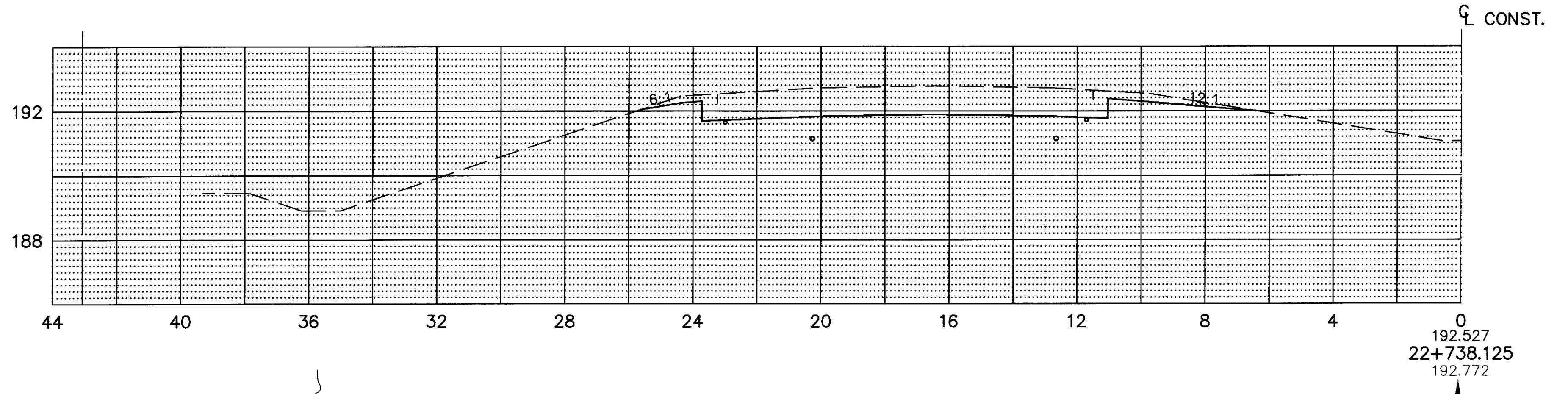
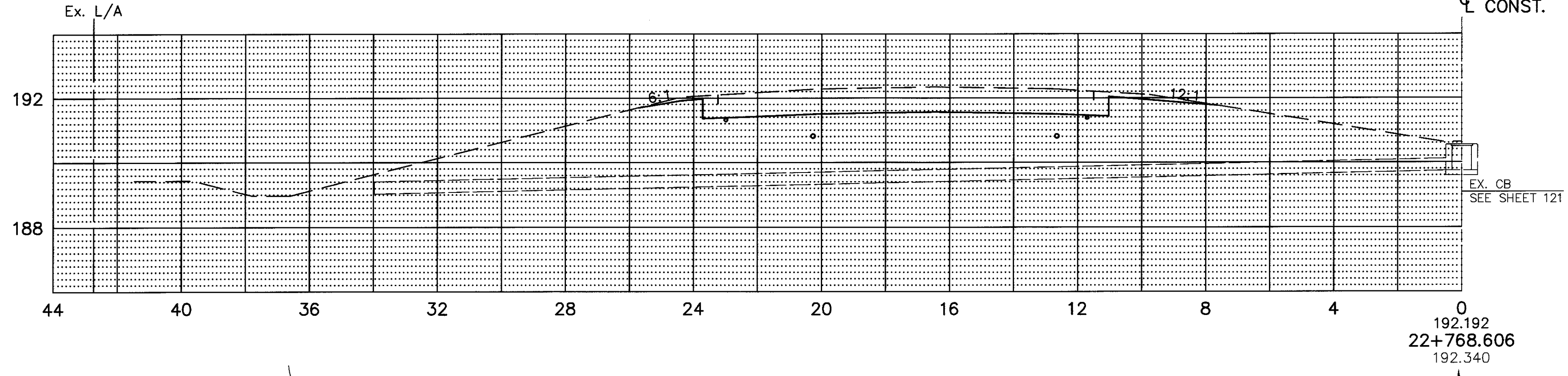
ERI-2-12.558

172A
432

FILE NAME: X18-4: \5033\006\TRAN\SECTIONS\R_11376GXA.DWG 7-29-99 2:54:19 pm EST

SEEDING
END SQ.
WIDTH METER

168	6
213	8
259	9
640	TOTAL THIS SHEET



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
10.3	0	0	294	0
12.0	0	0	340	0
14.4	0	0	403	0
TOTAL THIS SHEET			1037	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 22+707.645 TO STA. 22+768.606

ERI-2-12.558

173
432

PLOTTED: KJB
FILE NAME: X19-i:\5033\006\TRAN\SECTIONS\RP_11376GXA.DWG 7-29-99 3:37:37 pm EST

SEEDING
END SQ.
WIDTH METER

168

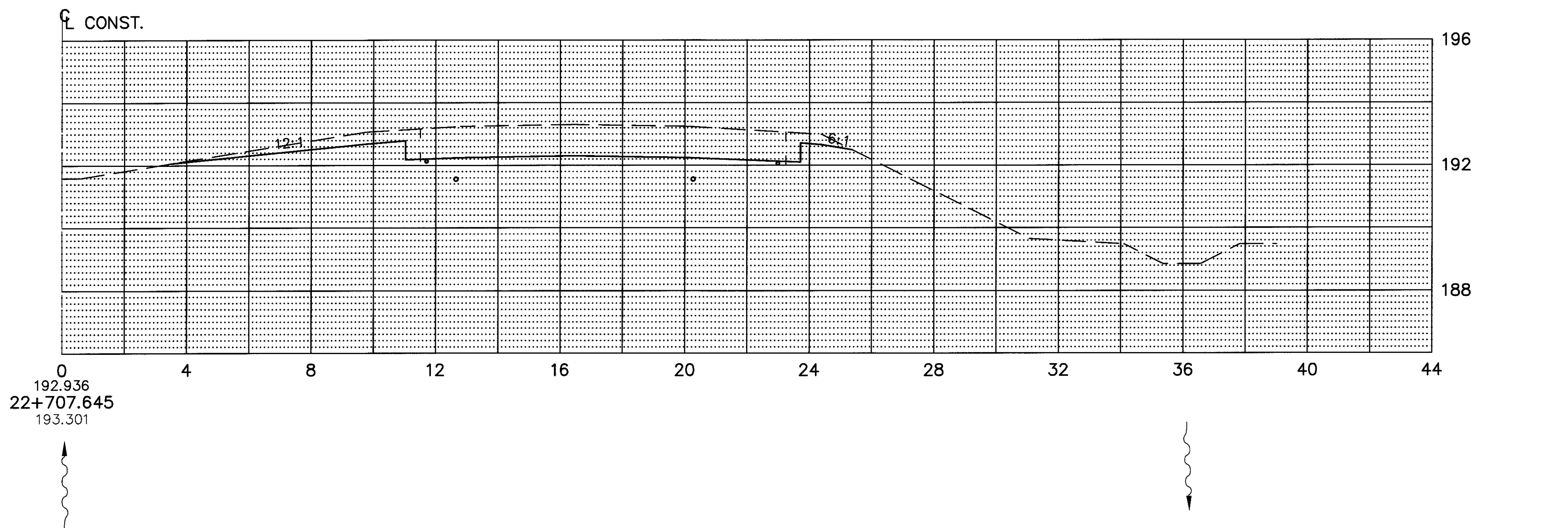
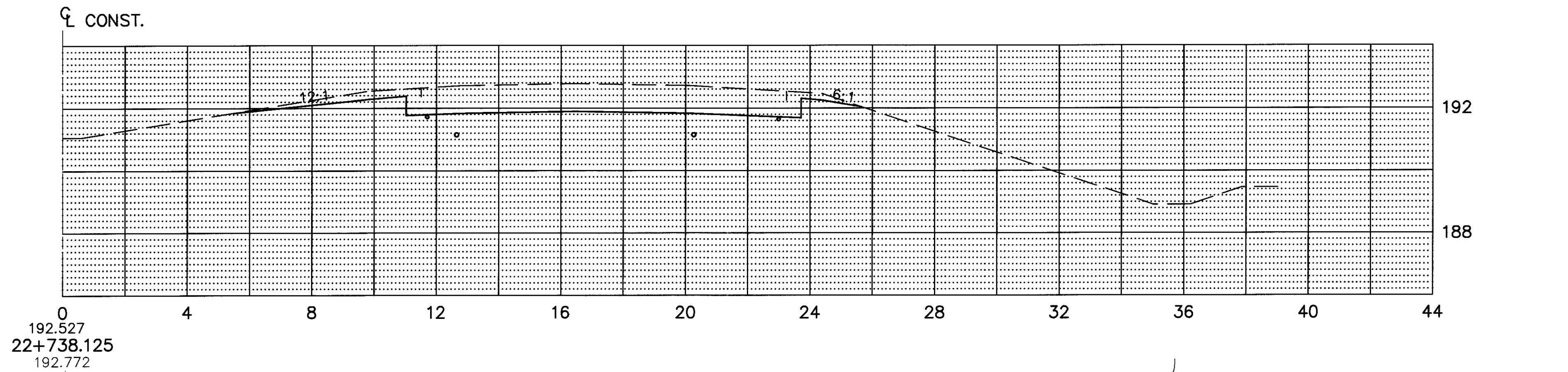
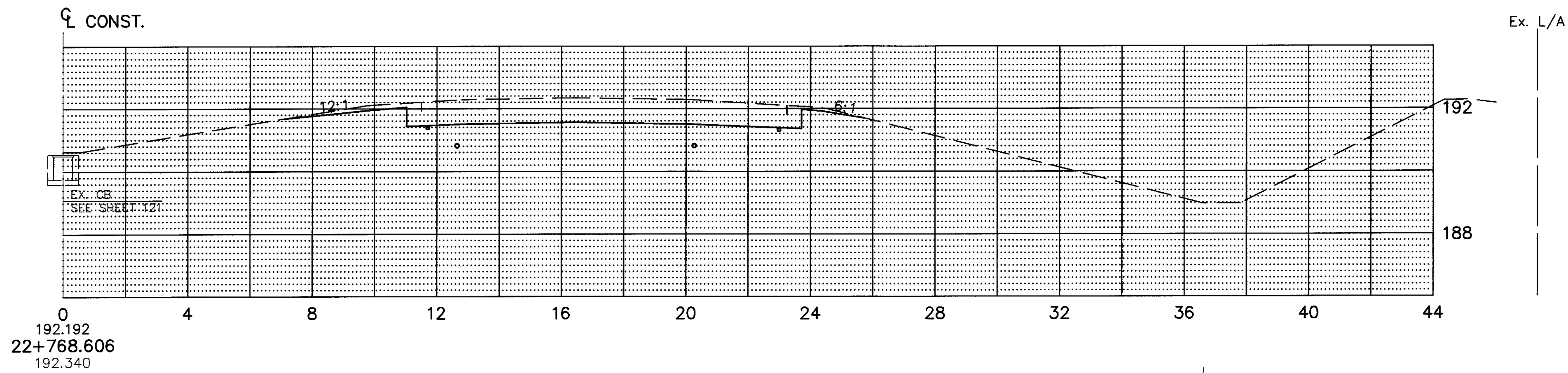
6

213

8

259

9



END AREA	VOLUME	
	CUT	FILL
10.3	0	294
12.0	0	340
14.4	0	403
TOTAL THIS SHEET	0	1037

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 22+707.645 TO STA. 22+768.606

ERI-2-12.558

173A
432

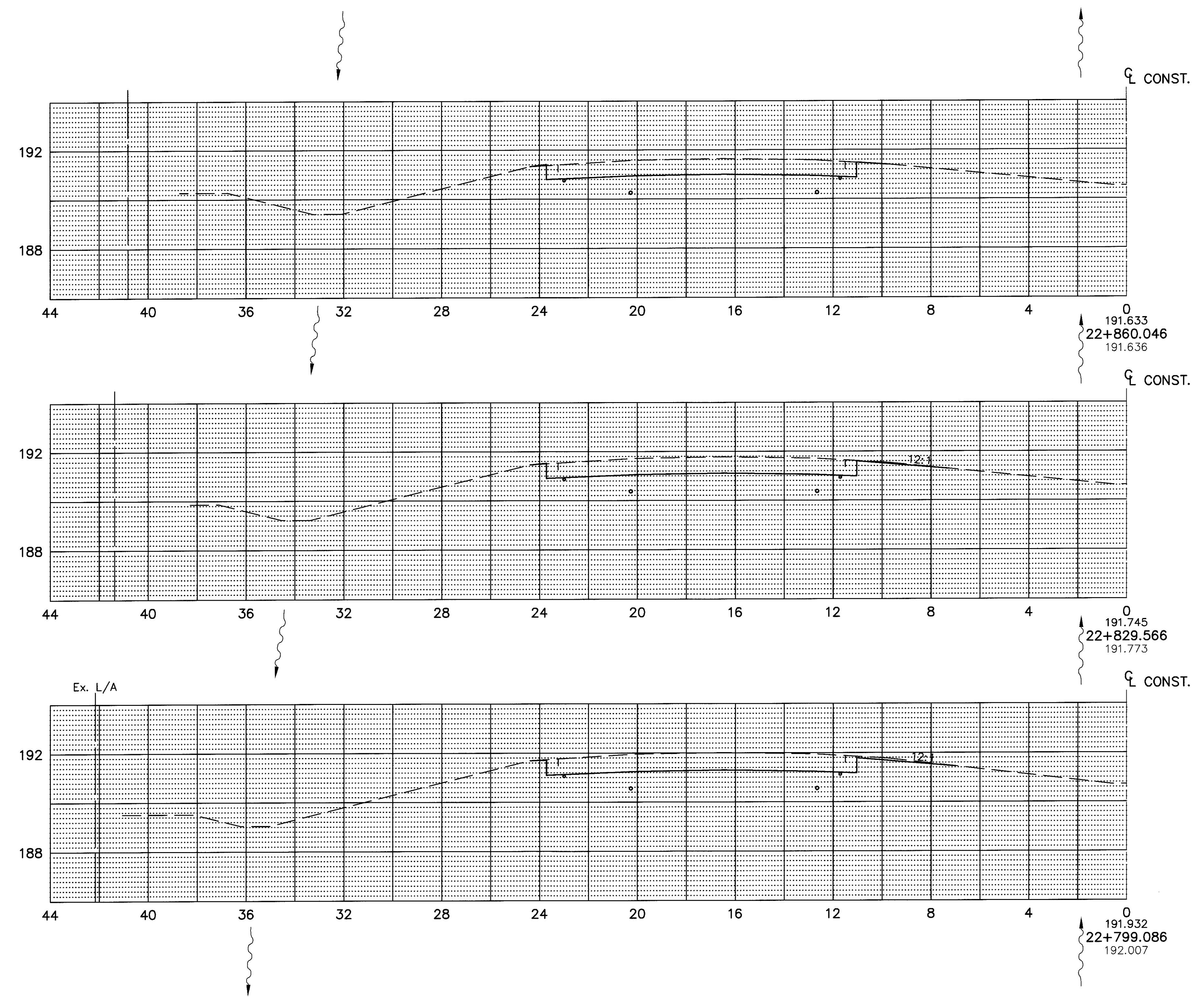
PLOTTED: JTN
FILE NAME: X20*\5033\006\TRAN\SECTIONS\VR_11376CXA.DWG 7-29-99 3:37:37 pm EST

640 TOTAL THIS SHEET

FILE NAME: X21-r:\5033\006\TRAN\SECTIONS\VR_113766XA.DWG 7-29-99 3:37:37 pm EST

PLOTTED: KJB

SEEDING	
END WIDTH	SQ. METER
0	+868.184 BACK
12	
3	
122	
5	
152	
5	



END AREA	VOLUME		CUT	FILL
	CUT	FILL		
7.9	0	64	0	0
7.9	0	247	0	0
8.3	0	264	0	0
9.0	0	576	1	1
TOTAL THIS SHEET		576	1	1
GRAND TOTAL		18235	6303	174
WESTBOUND ONLY		18235	6303	432

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 22+799.086 TO STA. 22+890.526

ERI-2-12-558

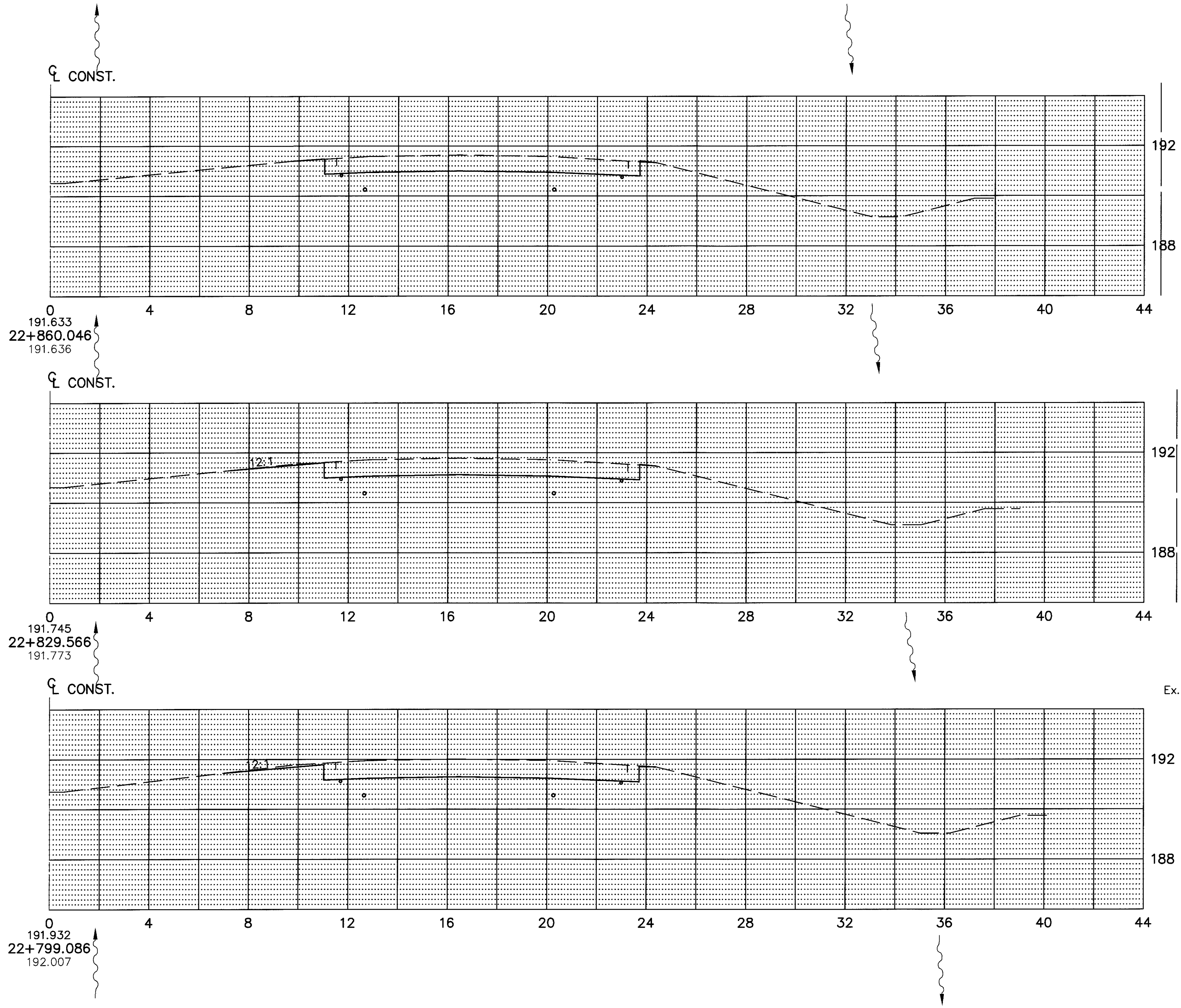
174
432

SEEDING
END SQ.
WIDTH METER

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED BY: KJB DATE: 5-99
CHECKED BY: JTY DATE: 5-99



0
12
3
122
5
152
5



+868.184 BACK

END AREA	VOLUME
CUT	FILL
7.9	0
7.9	0
8.3	0
9.0	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 22+799.086 TO STA. 22+890.526

ERI-2-12.558

FILE NAME: X22+799.086\TRAN\SECTIONS\VR_11376GXA.DWG 7-29-99 3:37:37 pm EST
PLOTTED: KJB

286	TOTAL THIS SHEET
12265	GRAND TOTAL EASTBOUND ONLY

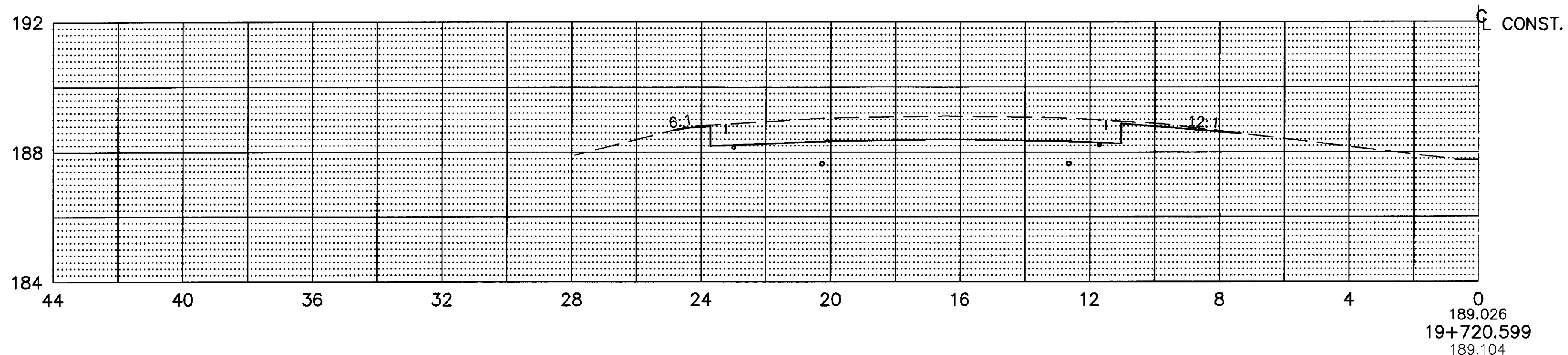
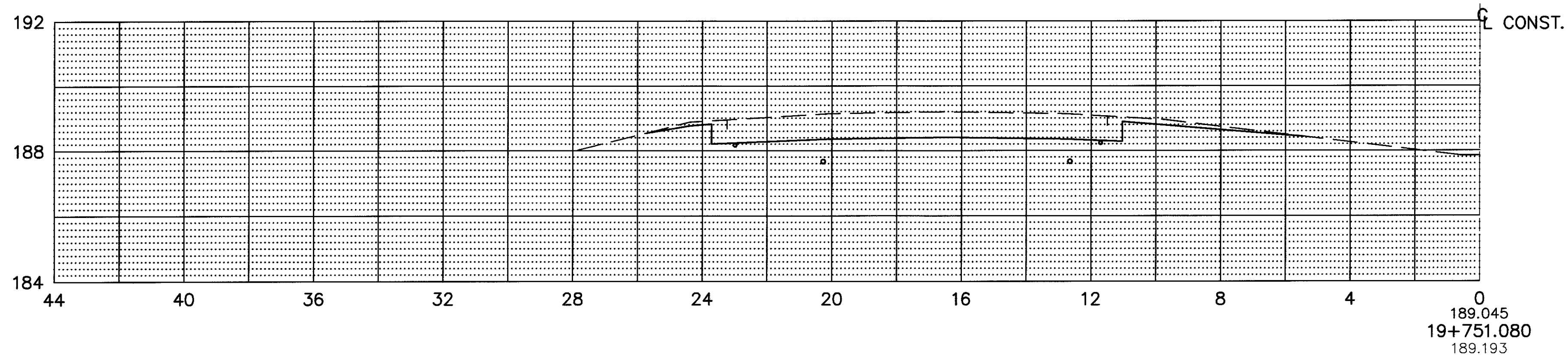
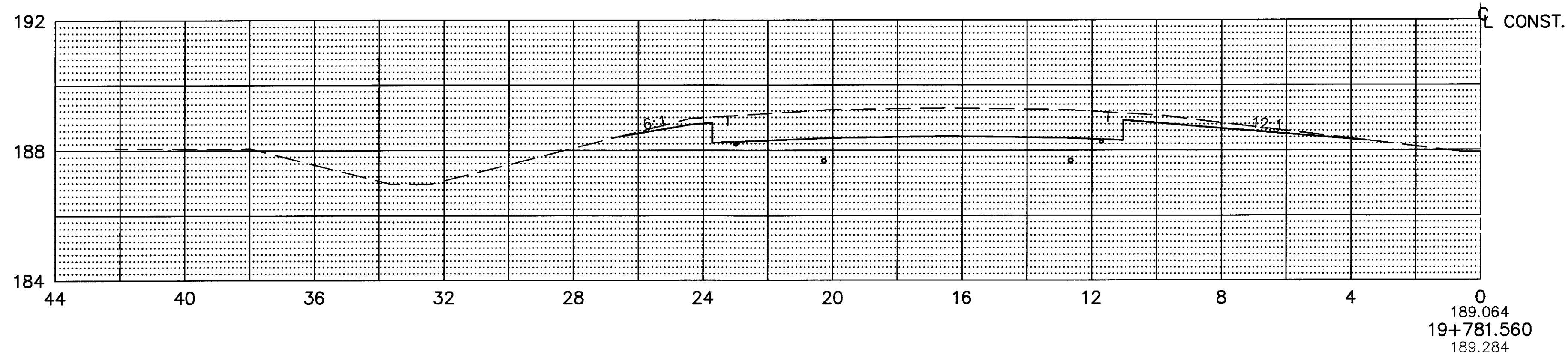
576	1
18235	6303

174A
432

PLOTTED:
KUB

FILE NAME: X:\I:\5033\006\TRAN\SECTIONS\113760XB.DWG 5-21-99 10:07:42 am EST

SEEDING	
END WIDTH	SQ. METER
442	
12	
320	
9	
229	
6	
62	
0	+700 AHEAD
1053	TOTAL THIS SHEET



END AREA	VOLUME	
	CUT	FILL
12.0	0	410
10.4	0	342
9.1	0	298
7.9	0	175
TOTAL THIS SHEET	0	1224

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 19+720.599 TO STA. 19+781.560

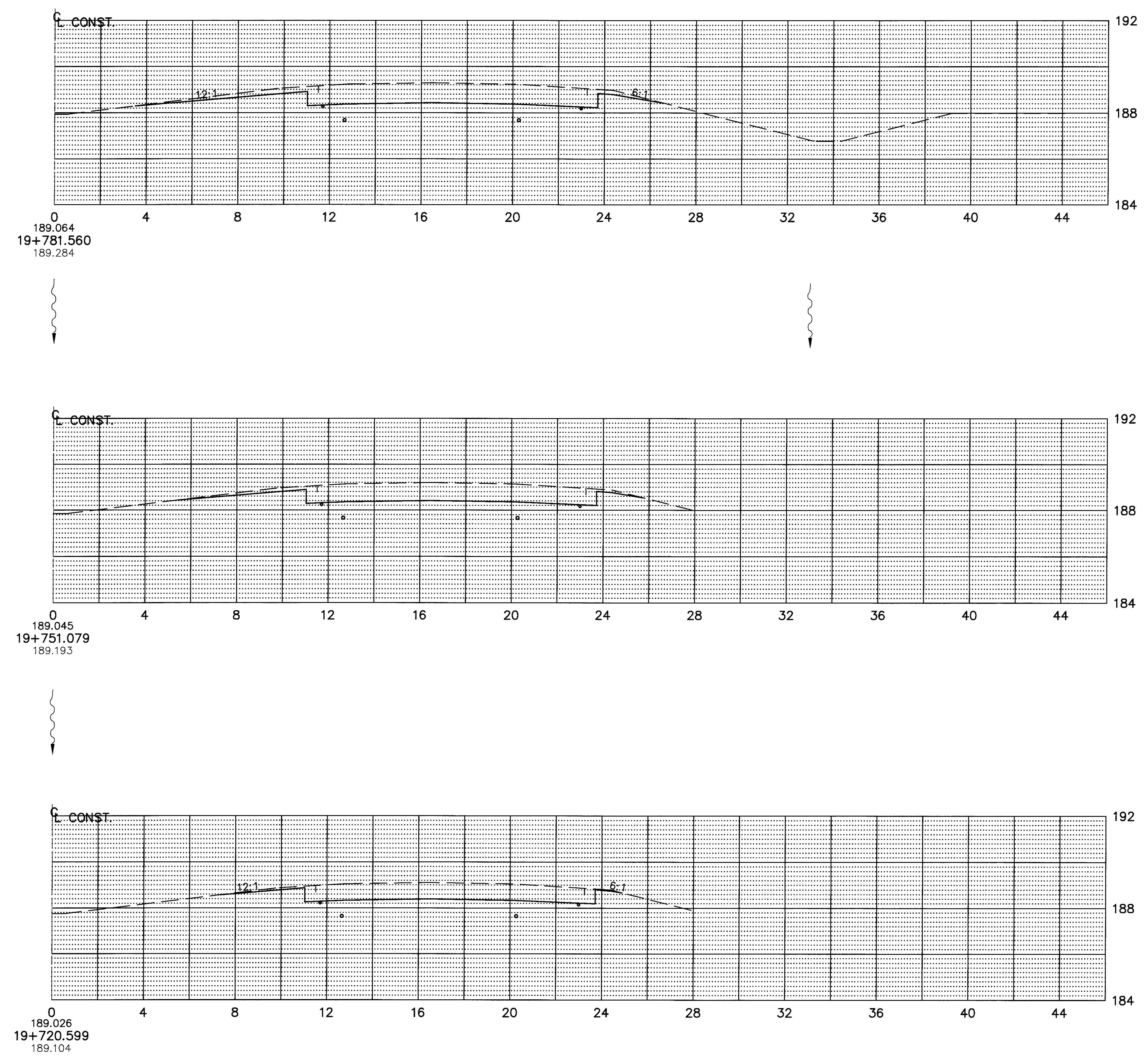
ERI-2-12.558

175
432

PLOTTED:
KJB

FILE NAME: X2~1\5033\006\TRAN\SECTIONS\113766XB.DWG 5-21-99 10:07:42 am EST

SEEDING	
END WIDTH	SQ. METER
442	
12	
320	
9	
229	
6	
62	
0	
1053	TOTAL THIS SHEET



+700 AHEAD

END AREA	VOLUME		CALCULATED DATE 5-99	CHECKED BY DATE 5-99
	CUT	FILL		
			410	0
12.0	0		342	0
10.4	0		298	0
9.1	0		175	0
7.9	0		1224	0
TOTAL THIS SHEET				

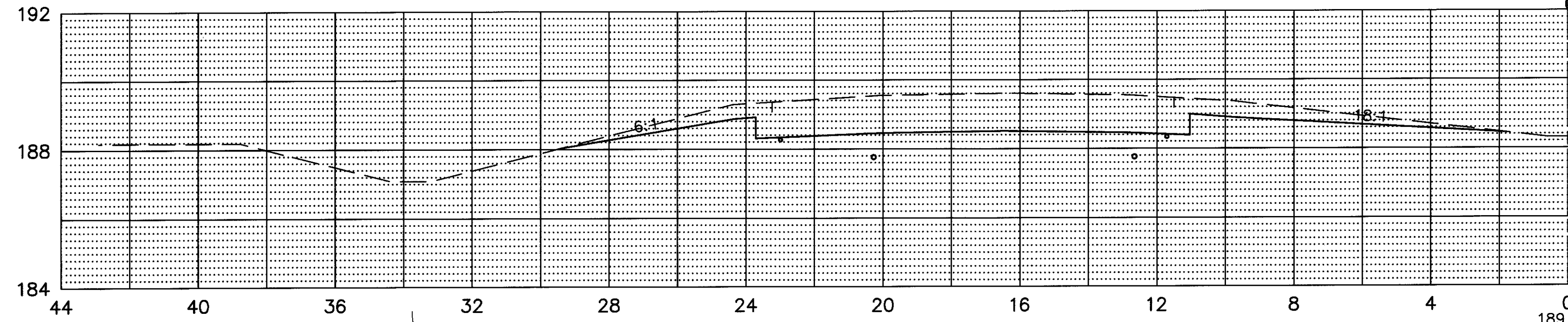
STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 19+720.599 TO STA. 19+781.560

ERI-2-12.558

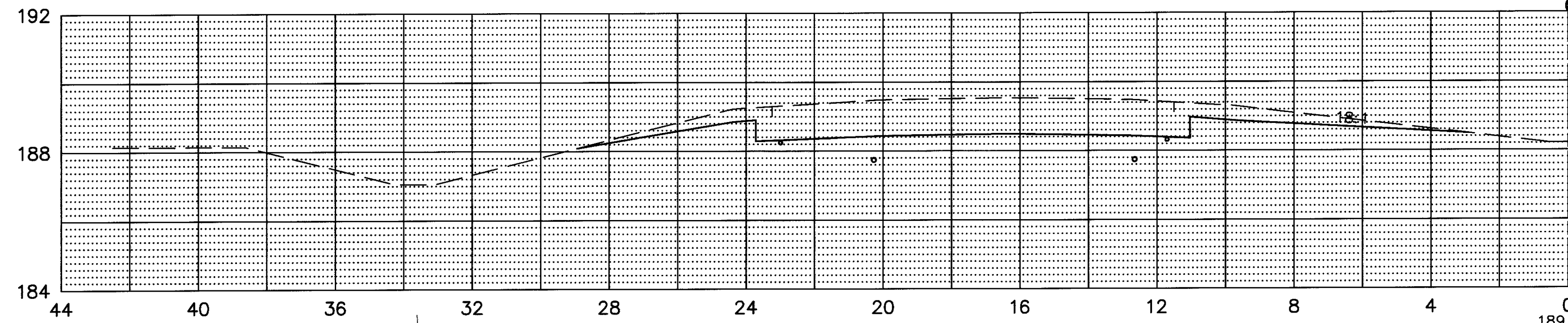
175A
432

SEEDING	
END WIDTH	SQ. METER

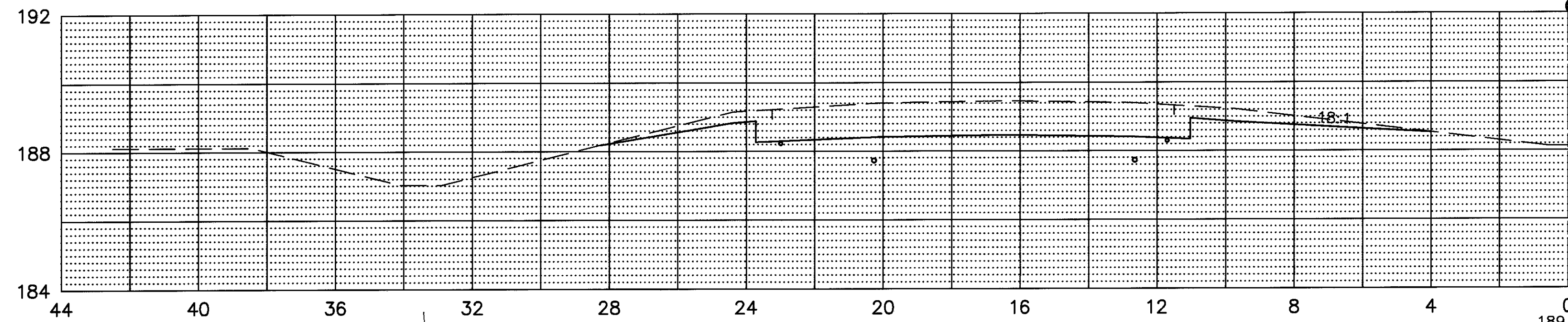
533	
16	
457	
14	
412	
13	
457	
17	
1859	TOTAL THIS SHEET



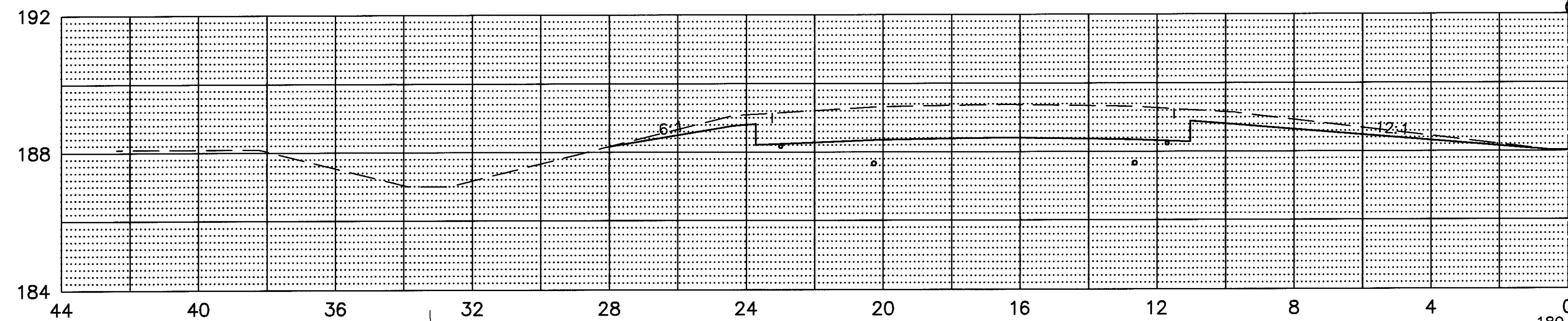
189.142
19+903.480
189.598



189.122
19+873.000
189.537



189.103
19+842.520
189.461



189.040
19+812.040
189.376

END AREA	VOLUME		CUT	FILL
	CUT	FILL		
17.4	0	547	0	0
16.2	0	513	0	0
14.8	0	473	0	0
14.9	0	452	0	0
		1985	0	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 19+812.040 TO STA. 19+903.480

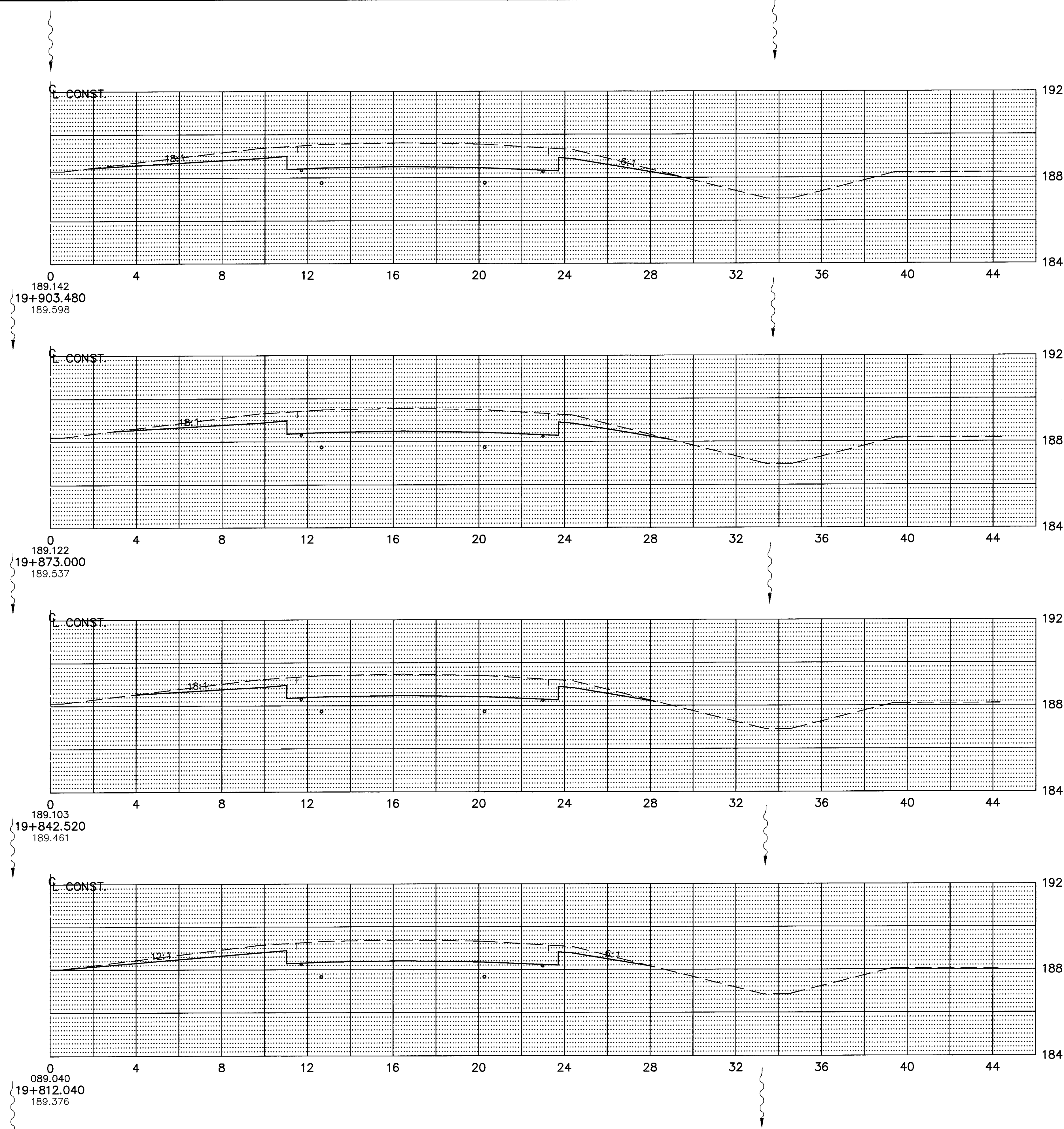
ERI-2-12-558

176
432

FILE NAME: X3~1~5033\006\TRAN\SECTIONS\11376GXB.DWG 5-21-99 10:07:42 am EST
PLOTTED: KUB

SEEDING
END SQ.
WIDTH METER

533	
16	
457	
14	
412	
13	
457	
17	
1859	TOTAL THIS SHEET



END AREA	VOLUME	
	CUT	FILL
	547	0
17.4	0	0
	513	0
16.2	0	0
	473	0
14.8	0	0
	452	0
14.9	0	0
TOTAL THIS SHEET	1985	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 19+812.040 TO STA. 19+903.480

ERI-2-12.558

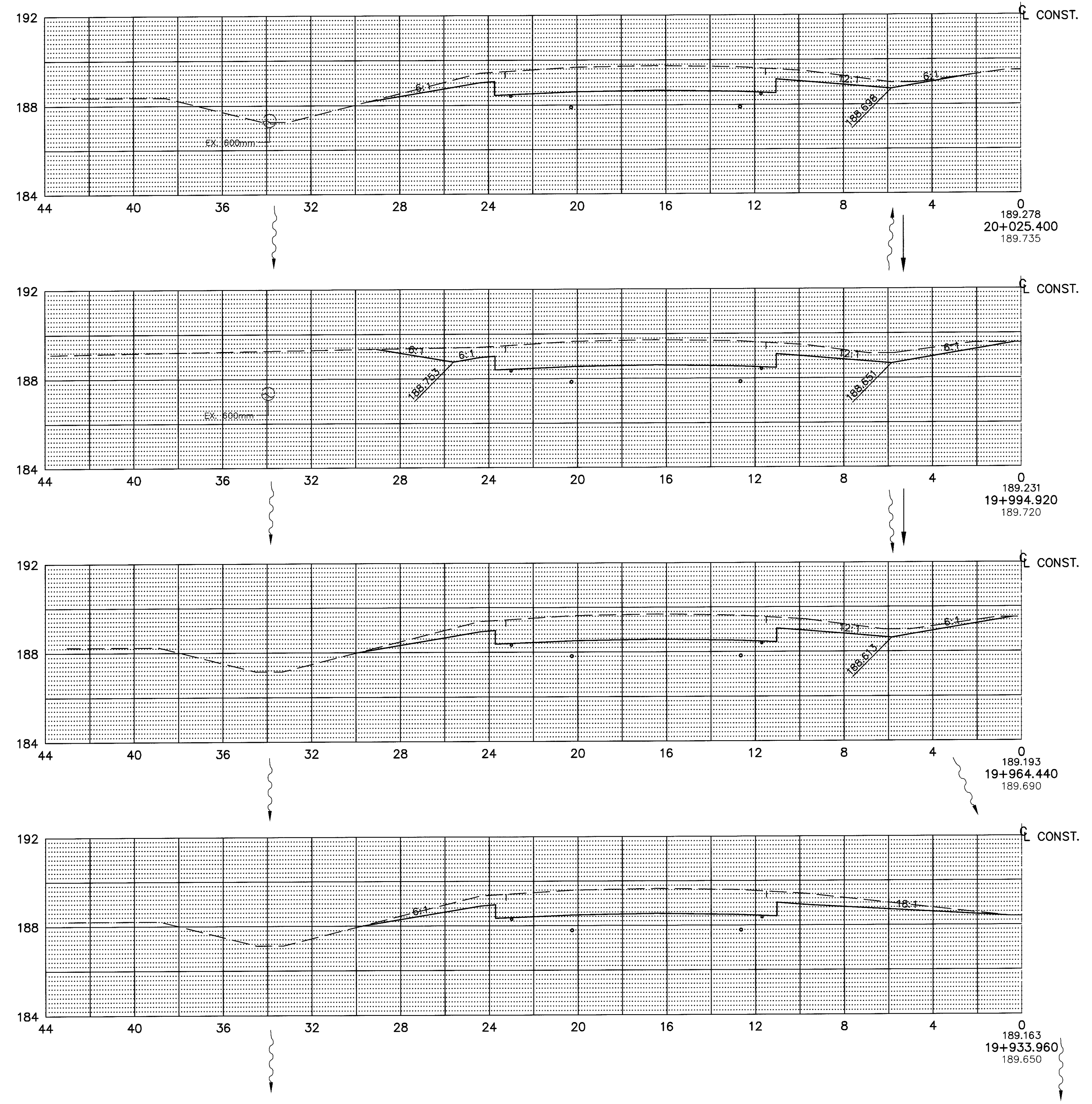
176A
432

FILE NAME: X4~i:\5033\006\TRAN\SECTIONS\11376CXB.DWG 5-21-99 10:07:42 am EST
PLOTTED: KJB

FILE NAME: X5~1\5033\006\TRAN\SECTIONS\11376CXB.DWG 5-21-99 10:07:42 am EST

PLOTTED:
KJB

SEEDING	
END WIDTH	SQ. METER
472	
16	
503	
17	
549	
19	
579	
19	
2103	TOTAL THIS SHEET



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
17.4	0		509	0
20.0	0		570	0
18.9	0		594	0
18.5	0		570	0
TOTAL THIS SHEET			2243	0

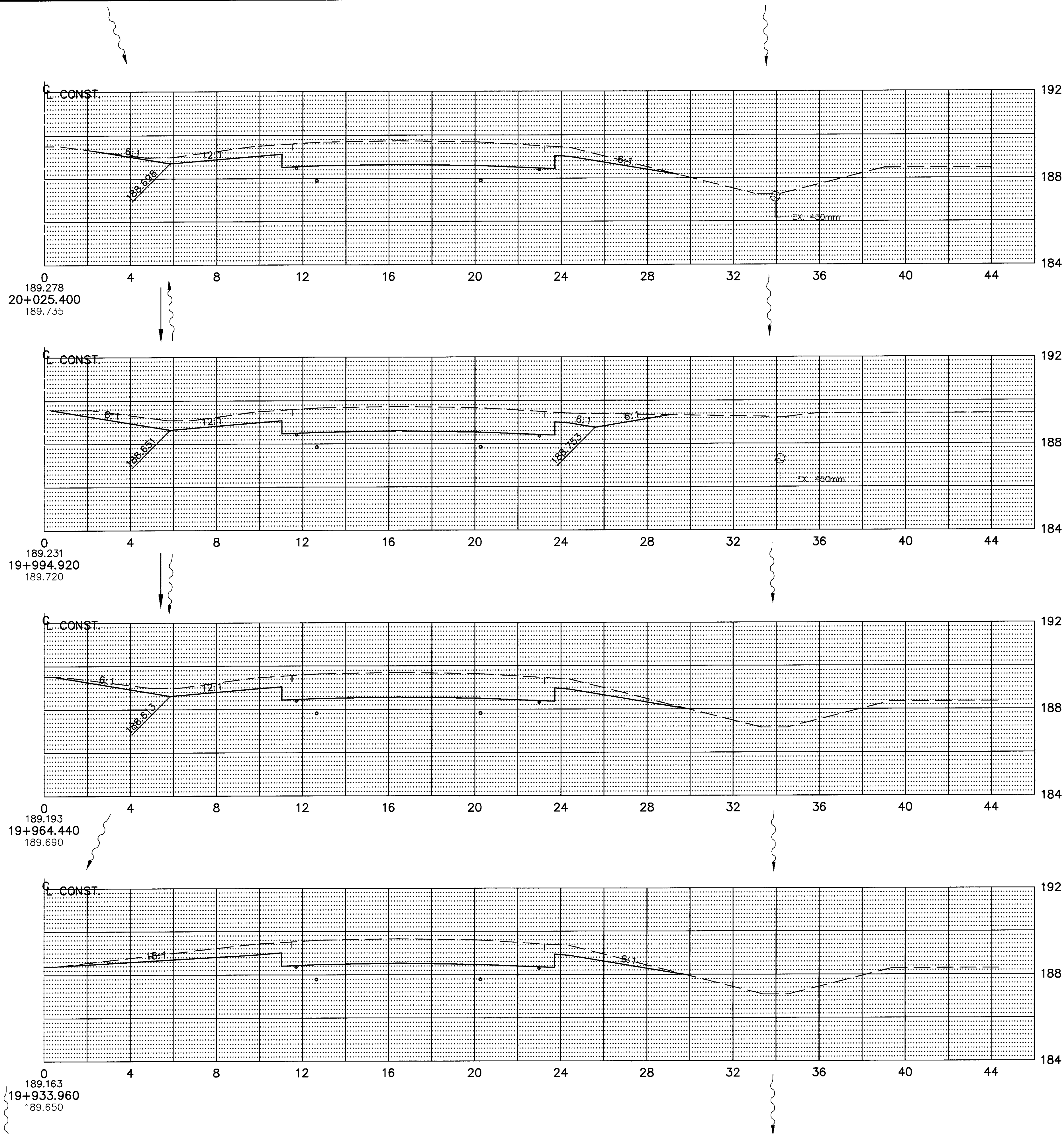
STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 19+933.960 TO STA. 20+025.400

ERI-2-12.558

177
432

SEEDING
END SQ.
WIDTH METER

472	
16	
503	
17	
549	
19	
579	
19	
2103 TOTAL THIS SHEET	



END AREA	VOLUME		CALCULATED BY: KJB	DATE: 5-99	CHECKED BY: JTY	DATE: 5-99
	CUT	FILL				
17.4	0	0				
20.0	0	0				
18.9	0	0				
18.5	0	0				
TOTAL THIS SHEET		2243	0			

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 19+933.960 TO STA. 20+025.400

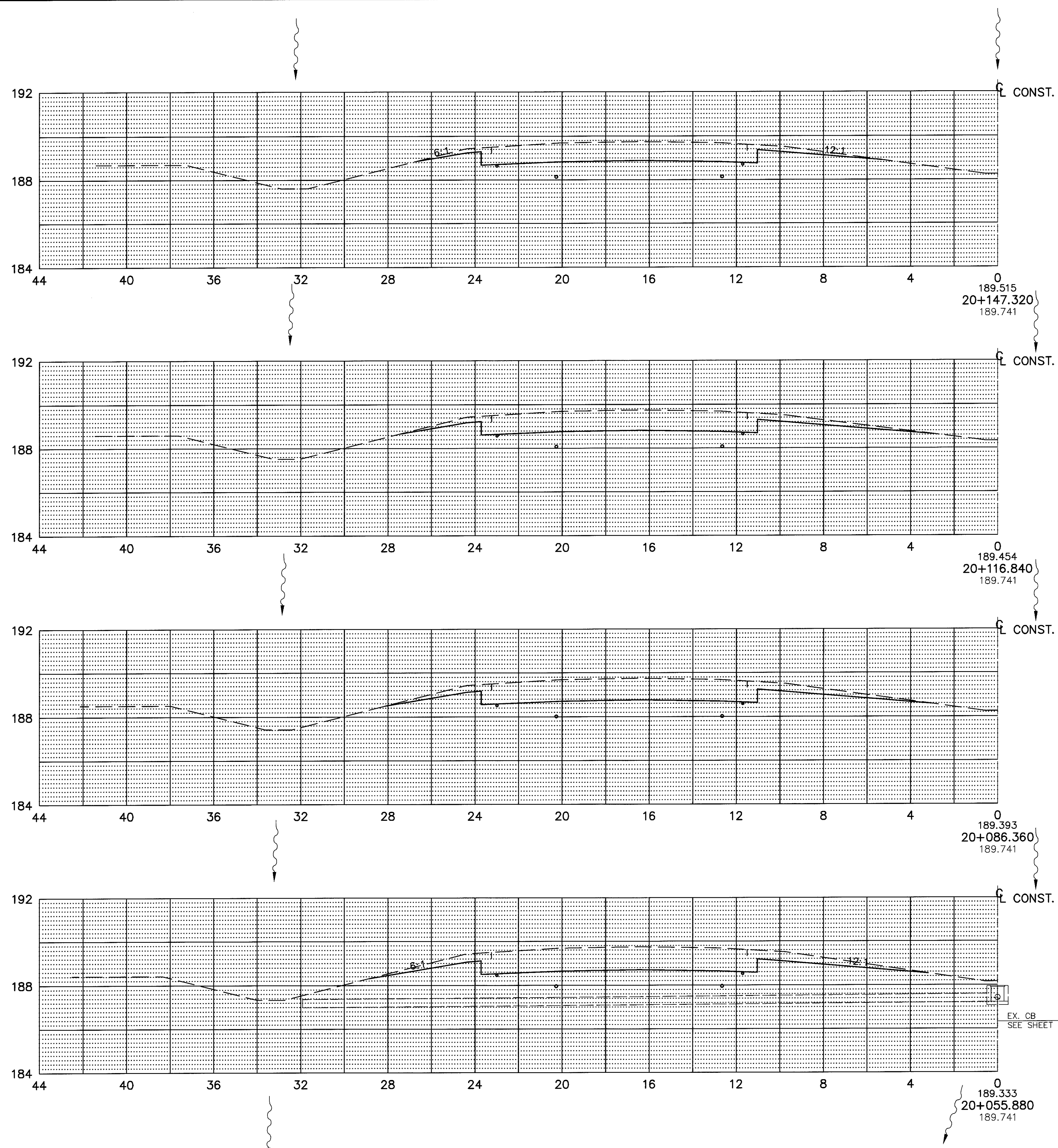
ERI-2-12.558

177A
432

FILE NAME: X6~1: \5033\006\TRAN\SECTIONS\11376CXB.DWG 5-21-99 10:07:42 am EST
PLOTTED: KJB

SEEDING
END SQ.
WIDTH METER

335	
10	
351	
13	
412	
14	
442	
15	
1540	TOTAL THIS SHEET



END AREA	VOLUME		CUT	FILL
	CUT	FILL		
11.9	0	0	349	0
13.4	0	0	386	0
14.7	0	0	429	0
16.0	0	0	469	0
TOTAL THIS SHEET			1633	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 20+055.880 TO STA. 20+147.320

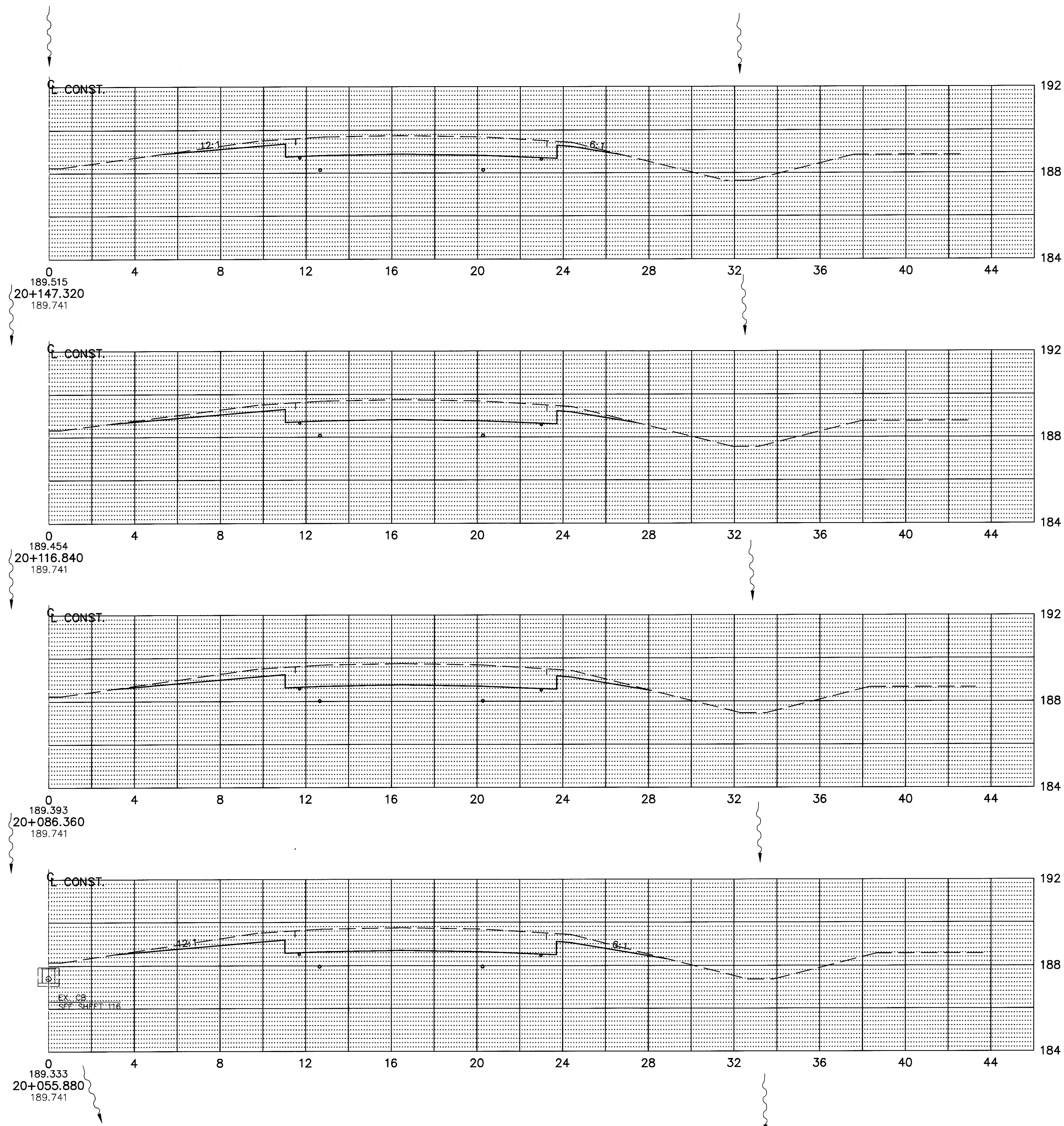
ERI-2-12-558

178
432

FILE NAME: X7~1\5033\006\TRAN\SECTIONS\1376CXB.DWG 5-21-99 10:07:42 am EST
PLOTTED: KJB

SEEDING
END SQ.
WIDTH METER

335	
10	
351	
13	
412	
14	
442	
15	
1540	TOTAL THIS SHEET



END AREA	VOLUME	
	CUT	FILL
11.9	0	349
13.4	0	386
14.7	0	429
16.0	0	469
1633	0	1788

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 20+055.880 TO STA. 20147.320

ERI-2-12.558

178A
432

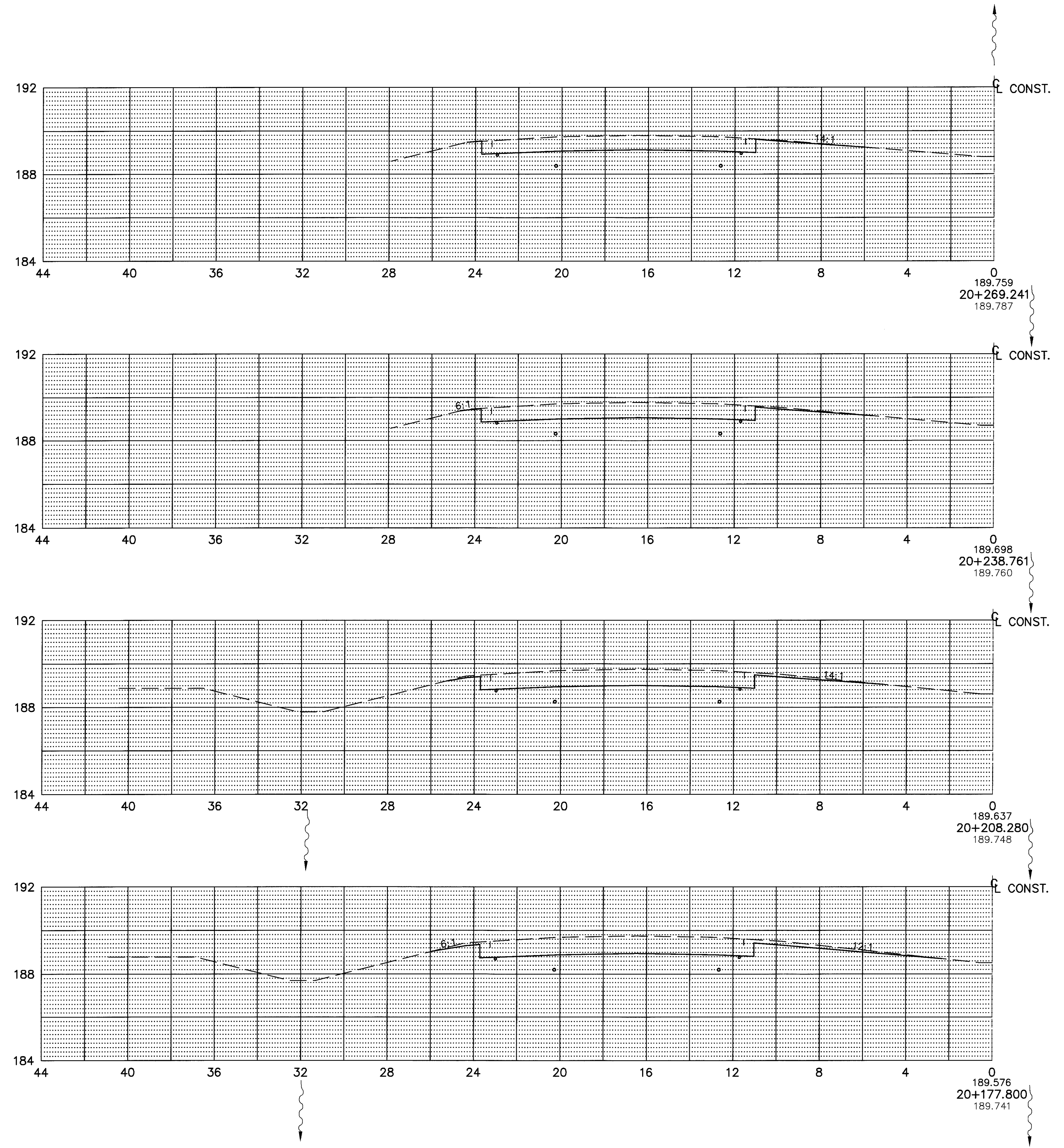
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PLOTTED: KJB

TOTAL THIS SHEET

PLOTTED:
KUB

FILE NAME: X9~ I:\5033\006\TRAN\SECTIONS\11376GXB.DWG 5-21-99 10:07:42 am EST

SEEDING	
END WIDTH	SQ. METER
8	183
8	244
9	259
12	320
1006 TOTAL THIS SHEET	



END CUT	AREA FILL	VOLUME	
		CUT	FILL
8.3	0	247	0
8.9	0	263	0
9.8	0	285	0
11.0	0	317	0
TOTAL THIS SHEET		1112	1

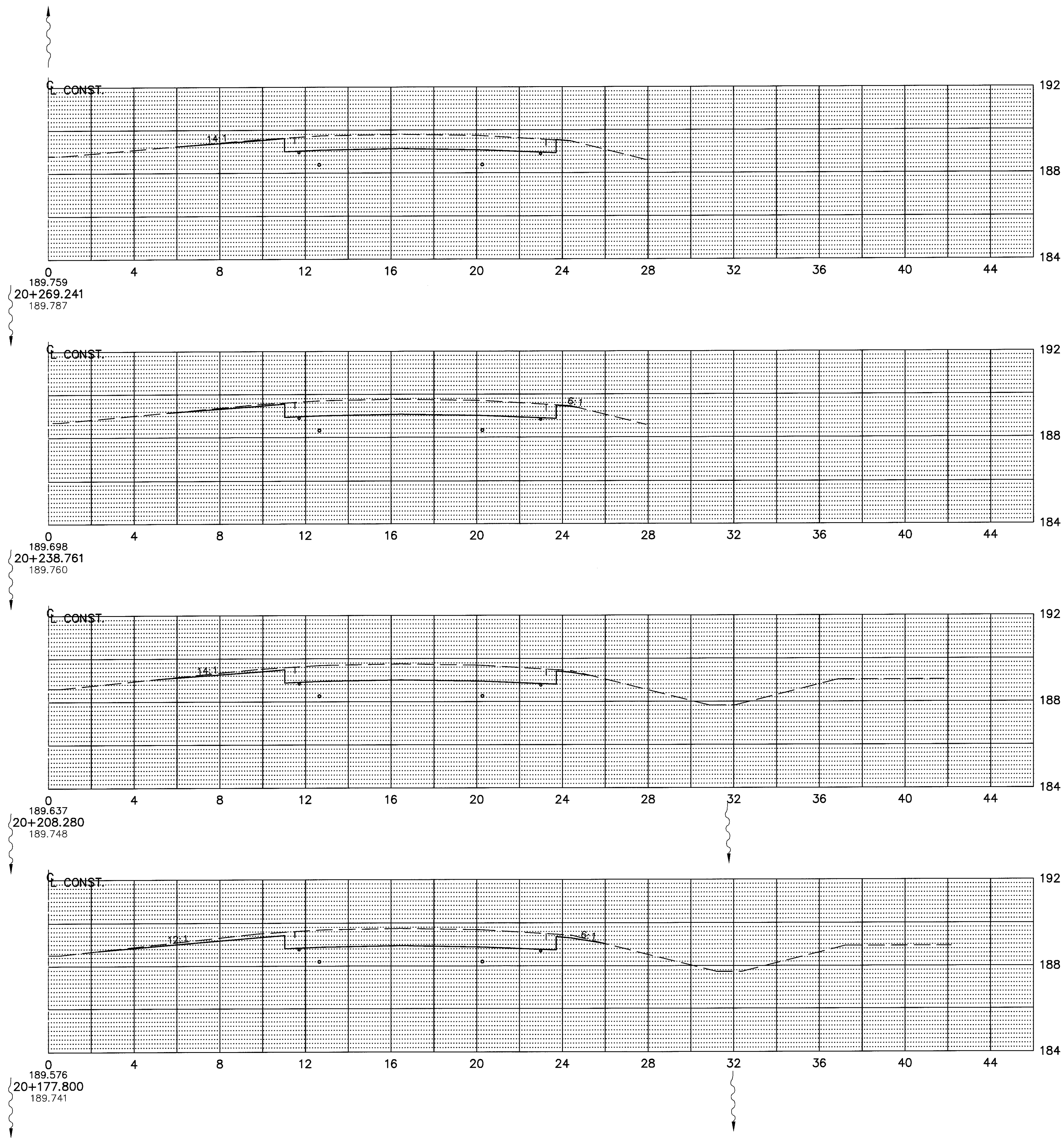
STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 20+177.800 TO STA. 20+269.241

ERI-2-12.558

179
432

SEEDING
END WIDTH SQ. METER

183	8
244	8
259	9
320	12
1006	TOTAL THIS SHEET



END CUT	AREA FILL	VOLUME	
		CUT	FILL
8.3	0	247	0
8.9	0	263	0
9.8	0	285	0
11.0	0	317	0
TOTAL THIS SHEET		1112	1

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 20+177.800 TO STA. 20+269.241

ERI-2-12.558

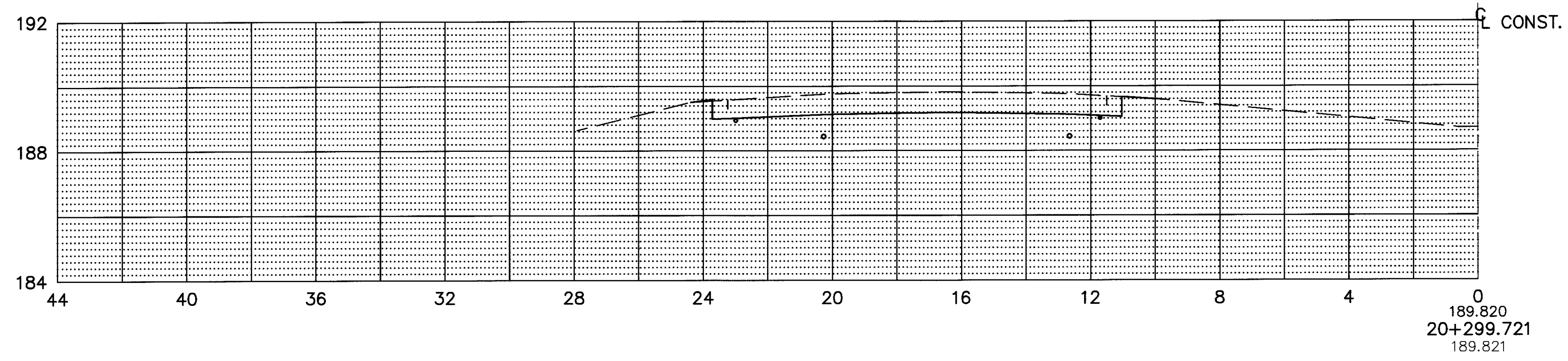
179A
432

FILE NAME: X:\033\006\TRAN\SECTIONS\11376CXB.DWG 5-21-99 10:07:42 am EST
PLOTTED: KJB

FILE NAME: X11~ I:\5033\006\TRAN\SECTIONS\11376CXB.DWG 5-21-99 10:07:42 am EST

PLOTTED: KJB

SEEDING	
END WIDTH	SQ. METER
0	+300 BACK
1	
4	



0
189.820
20+299.721
189.821

END	AREA		VOLUME																
	CUT	FILL	CUT	FILL															
	7.9	0																	
			2	0															
	7.9	0																	
<table border="1"> <tr> <td>TOTAL THIS SHEET</td> <td></td> <td></td> <td>2</td> <td>0</td> </tr> <tr> <td>GRAND TOTAL</td> <td></td> <td></td> <td>8199</td> <td>1</td> </tr> <tr> <td>WESTBOUND ONLY</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					TOTAL THIS SHEET			2	0	GRAND TOTAL			8199	1	WESTBOUND ONLY				
TOTAL THIS SHEET			2	0															
GRAND TOTAL			8199	1															
WESTBOUND ONLY																			

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 20+299.721

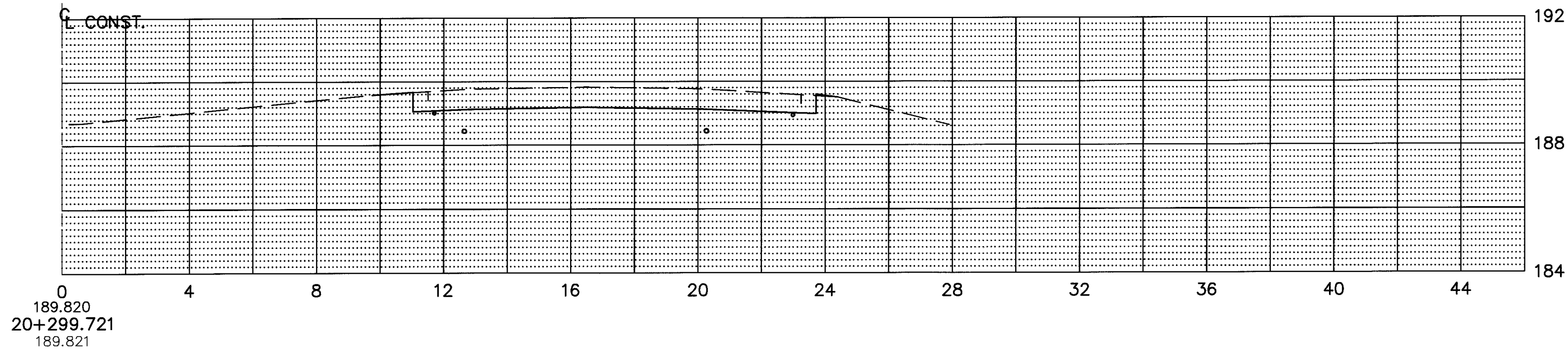
ERI-2-12.558

180
432

PLOTTED:
KJB

FILE NAME: X124\5033\006\TRAN\SECTIONS\11376GXB.DWG 5-21-99 10:07:42 am EST

SEEDING	
END WIDTH	SQ. METER
0	+300 BACK
1	
4	



END AREA	VOLUME	
	CUT	FILL
7.9	0	0
7.9	0	0
2	0	0
8199	1	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 20+299.721

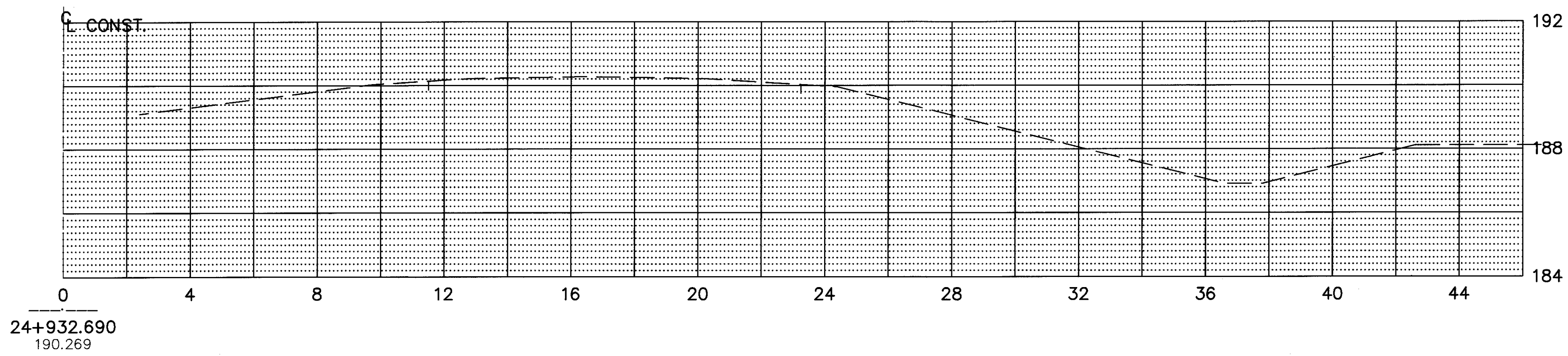
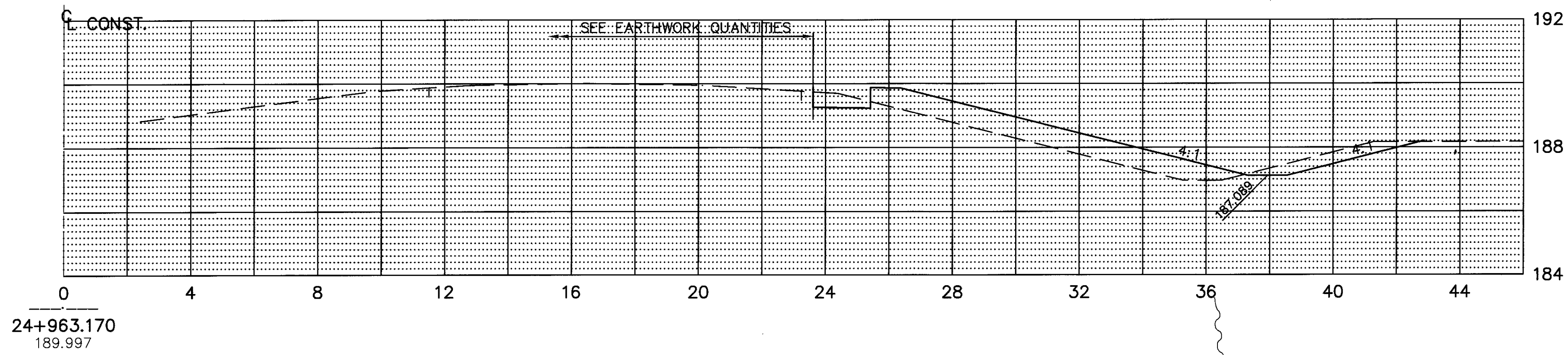
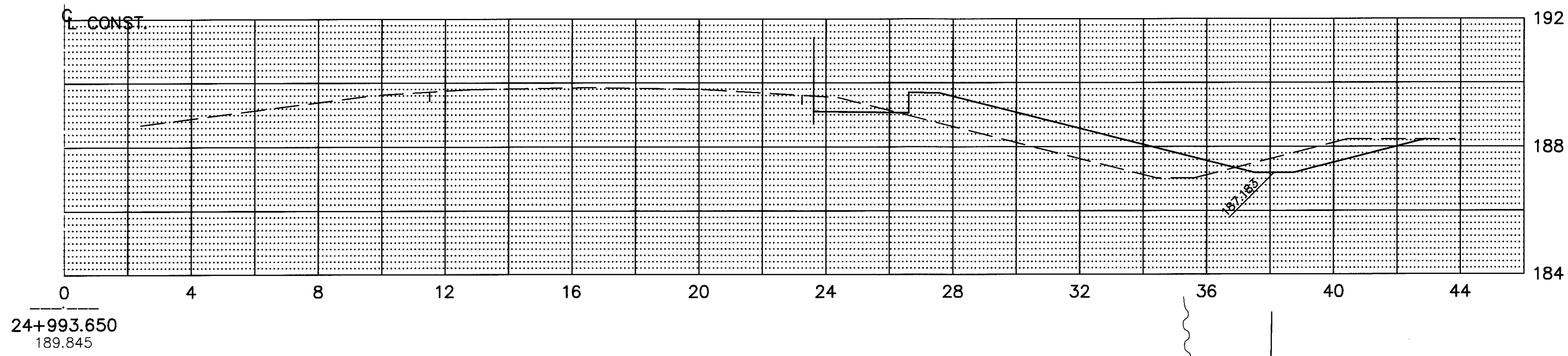
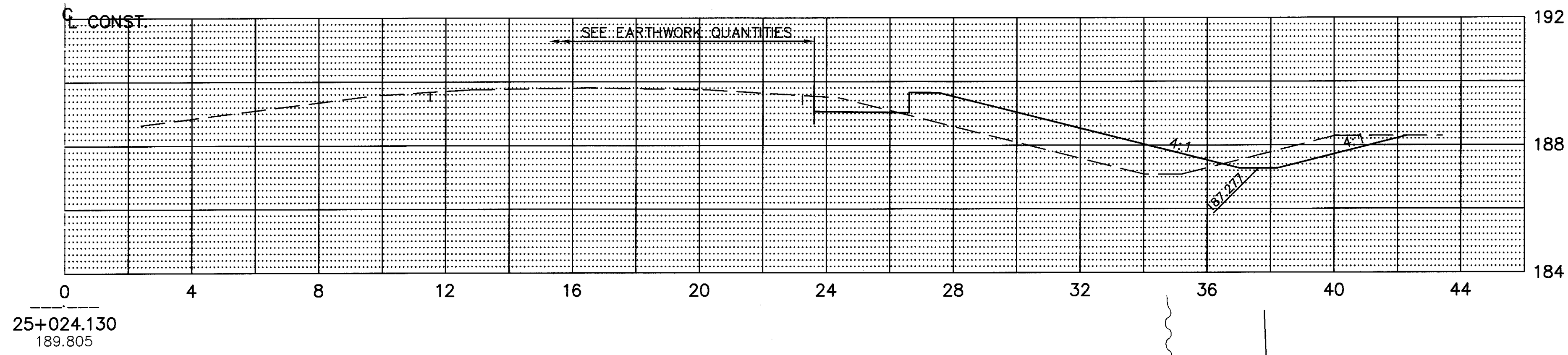
ERI-2-12.558

TOTAL THIS SHEET	2	0
GRAND TOTAL		
EASTBOUND ONLY	8199	1

180A
432

SEEDING
END SQ.
WIDTH METER

518	
18	
549	
18	
564	
19	
220	
0	+940 AHEAD
1851	TOTAL THIS SHEET



Ex. L/A

END AREA		VOLUME	
CUT	FILL	CUT	FILL
3.0	8.3	86	250
3.2	8.6	94	258
2.2	7.2	83	241
0	0	26	83
TOTAL THIS SHEET		289	832

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 24+932.690 TO STA. 25+024.130

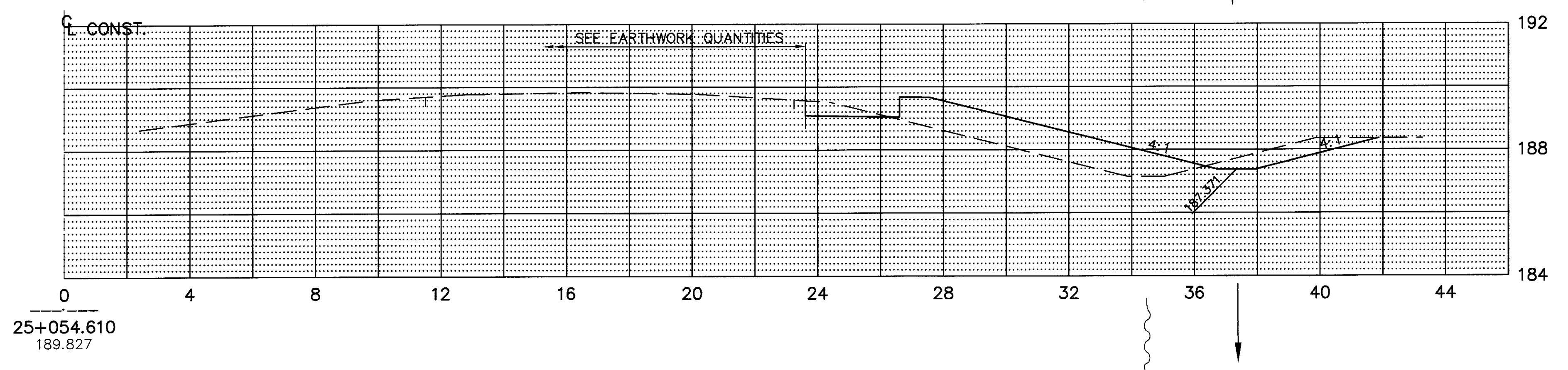
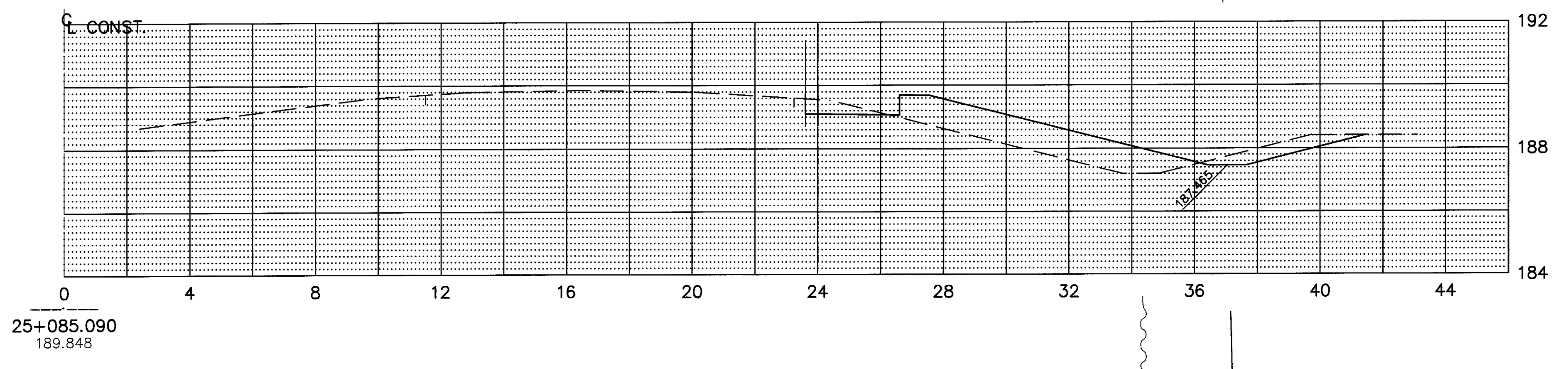
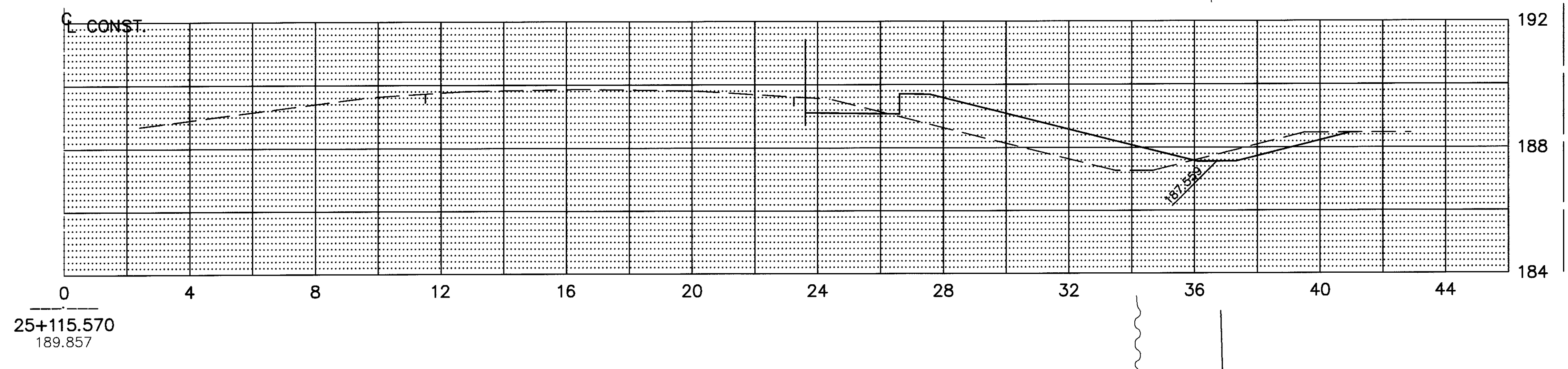
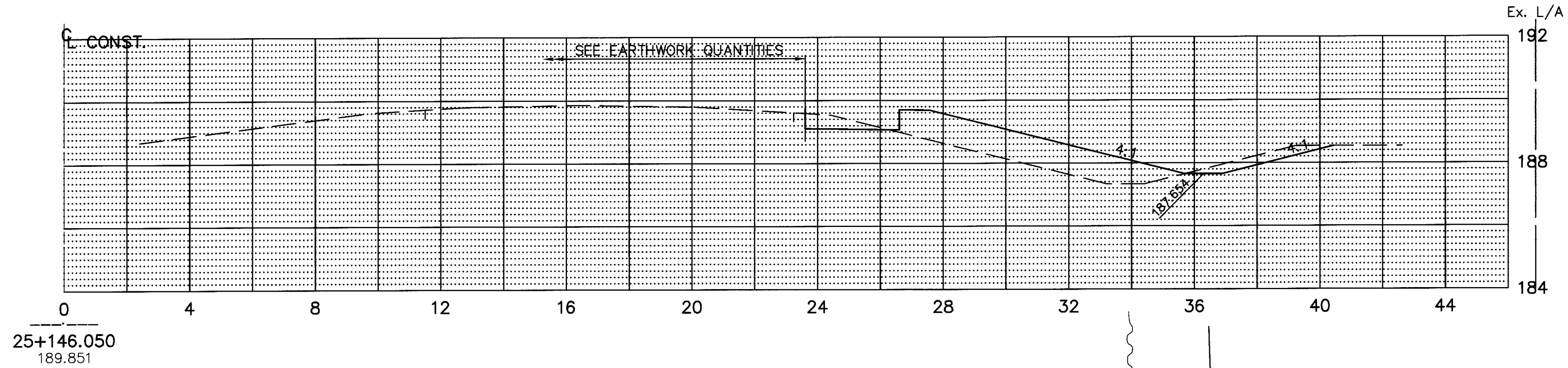
ERI-2-12.558

181
432

FILE NAME: X1~1\5033\006\TRAN\SECTIONS\VR_11376GXD.DWG 8-2-99 8:51:13 am EST
PLOTTED: KJB

SEEDING
END SQ.
WIDTH METER

457	
15	
472	
16	
488	
16	
488	
16	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		51	234
1.8	7.5		
2.1	7.8	60	233
		68	240
2.4	8.0		
		77	245
2.7	8.1		
TOTAL THIS SHEET		256	951

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 25+054.610 TO STA. 25+146.050

ERI-2-12.558

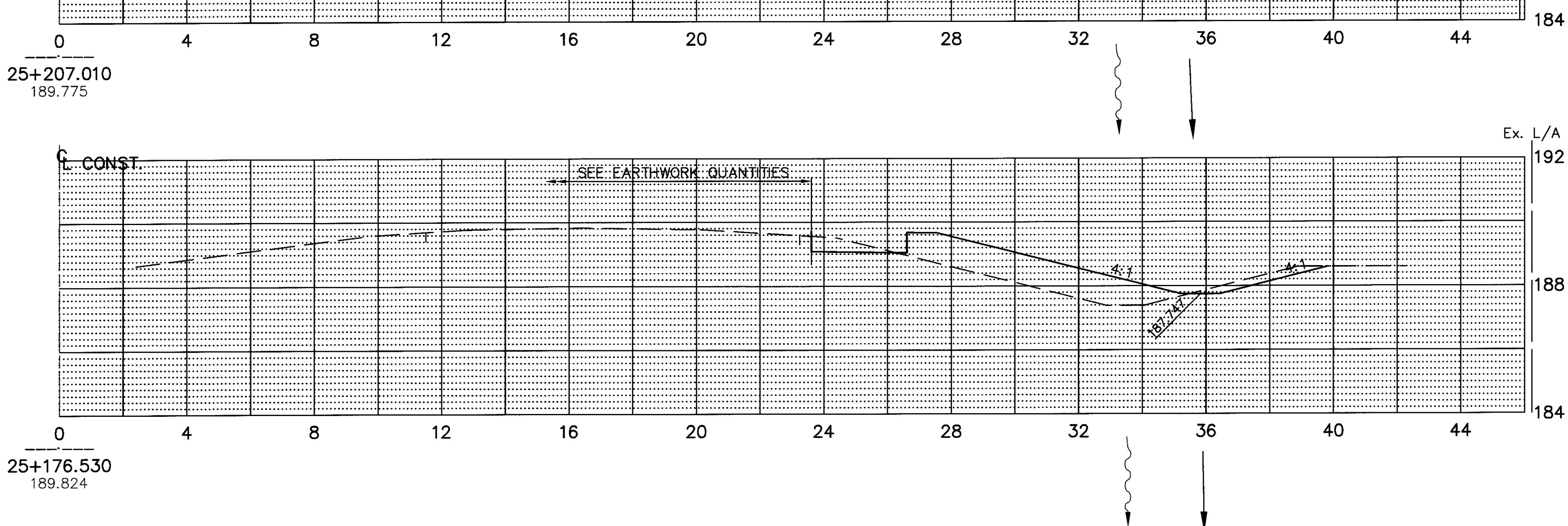
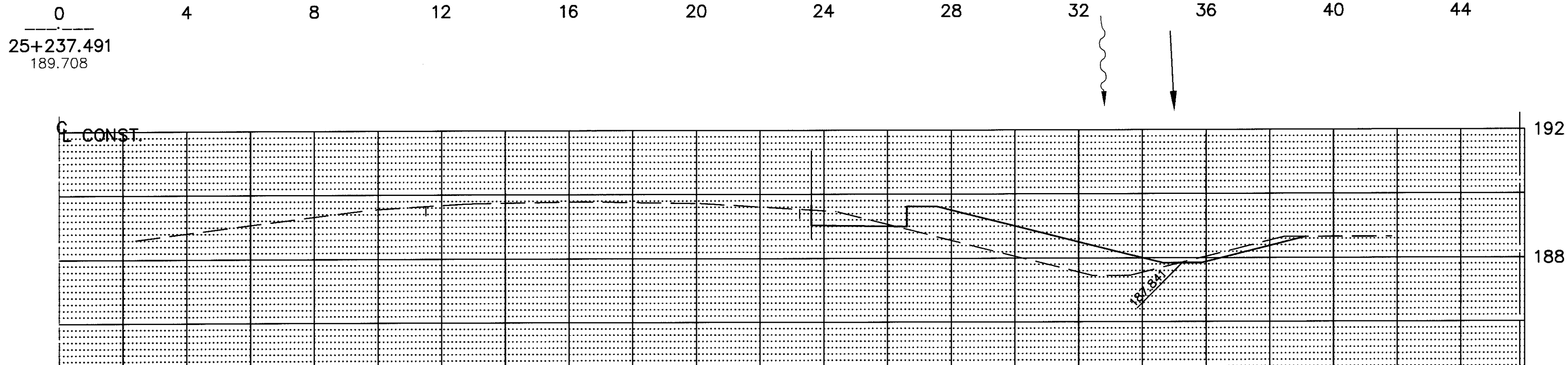
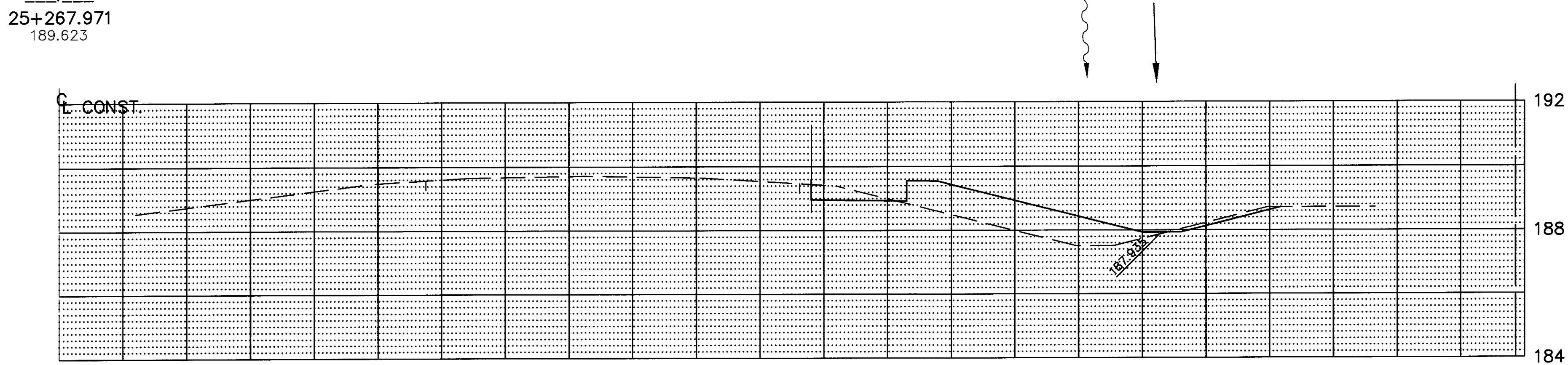
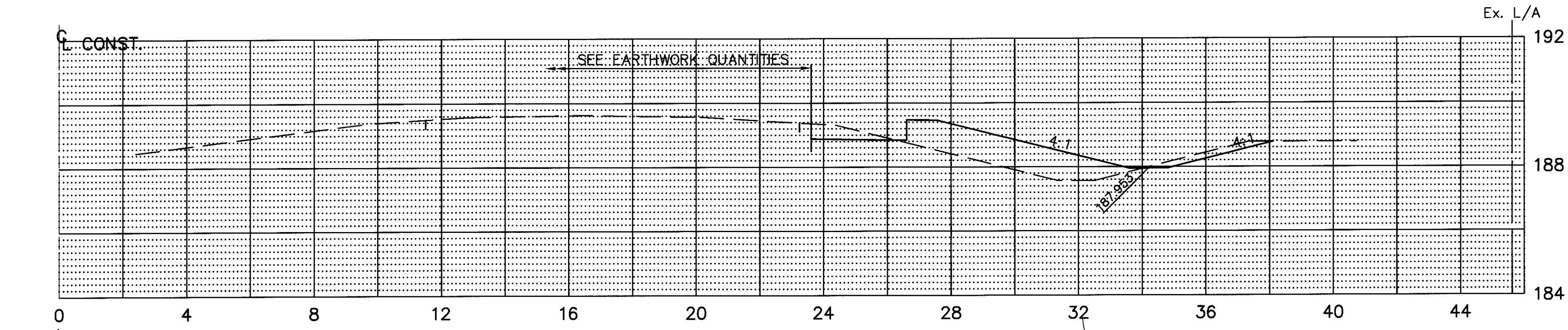
182
432

PLOTTED: KJB FILE NAME: X2~I:\5033\006\TRAN\SECTIONS\VR_11376GXD.DWG 8-2-99 8:51:13 am EST

1905 TOTAL THIS SHEET

SEEDING
END SQ.
WIDTH METER

396	
12	25+267.971 189.623
381	25+237.491 189.708
13	
412	25+207.010 189.775
14	
442	25+176.530 189.824
15	
1631	TOTAL THIS SHEET



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
12	1.4	5.7	96	146
13	1.1	6.3	38	184
14	1.3	6.8	36	200
15	1.6	7.8	44	223
TOTAL THIS SHEET			214	752

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 25+176.530 TO STA. 25+267.971

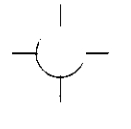
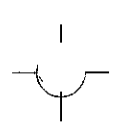
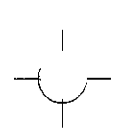
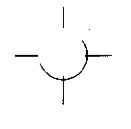
ERI-2-12.558

183
432

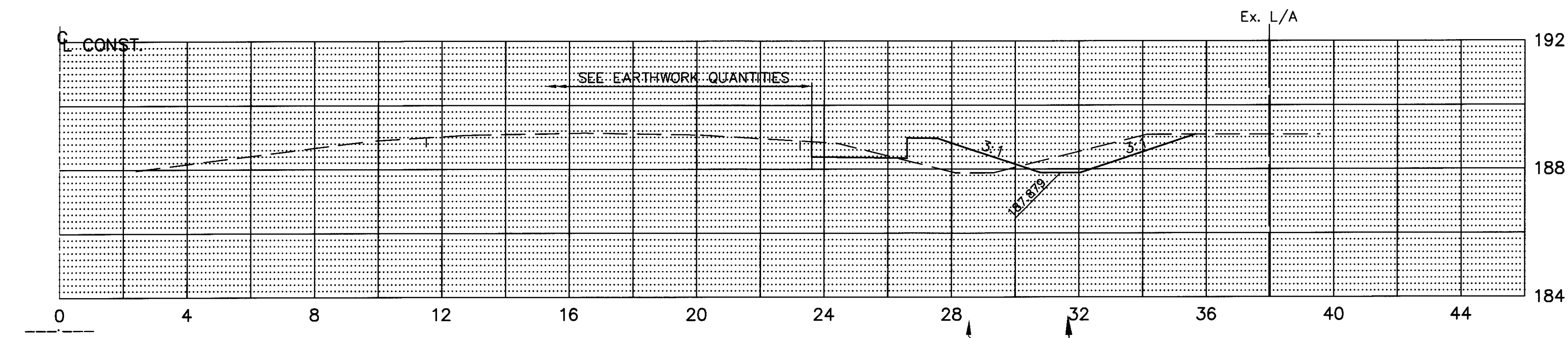
PLOTTED: KJB
FILE NAME: X3~1\5033\006\TRAN\SECTIONS\VR_11376GXD.DWG 8-2-99 8:51:13 am EST

SEEDING
END WIDTH SQ. METER

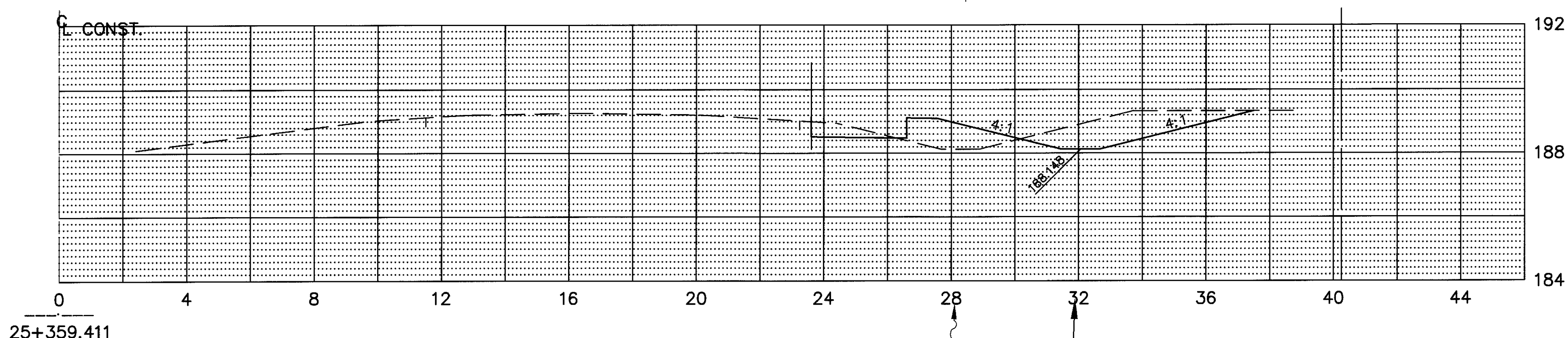
END AREA VOLUME
CUT FILL CUT FILL
CALCULATED BY KJB DATE 5-99
CHECKED BY JTY DATE 5-99



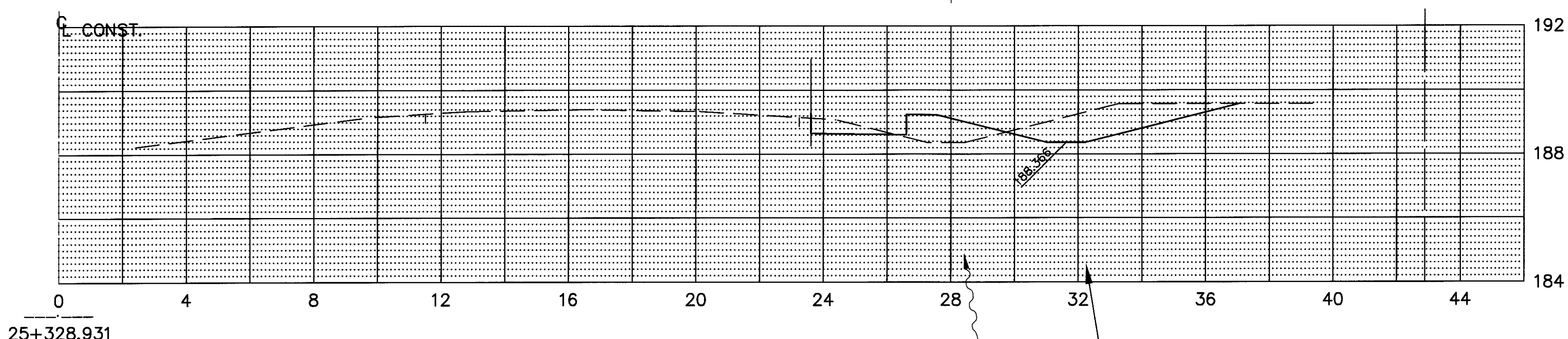
FILE NAME: X4~1\5033\006\TRAN\SECTIONS\VR_11376GX0.DWG 8-2-99 8:51:13 am EST
PLOTTED: KJB



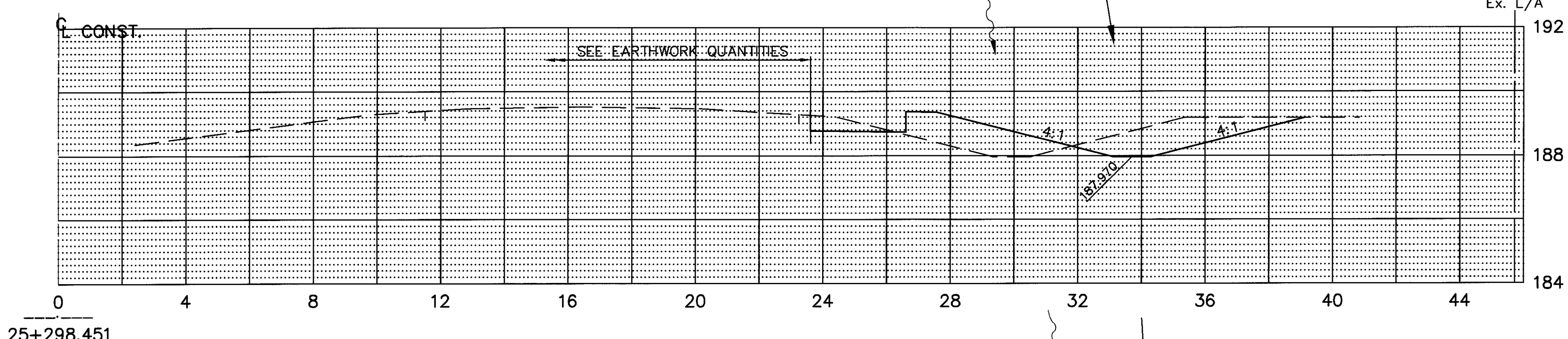
25+389.891
189.126



25+359.411
189.260



25+328.931
189.394



25+298.451
189.519

END AREA	VOLUME
CUT	FILL
3.1	2.4
4.9	2.3
4.9	1.9
4.9	3.8
97	69
123	71
150	63
150	87
519	290

14.33 TOTAL THIS SHEET

TOTAL THIS SHEET

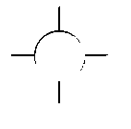
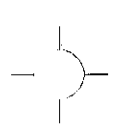
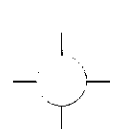
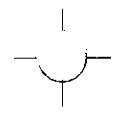
STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 25+298.451 TO STA. 25+389.891

ERI-2-12.558

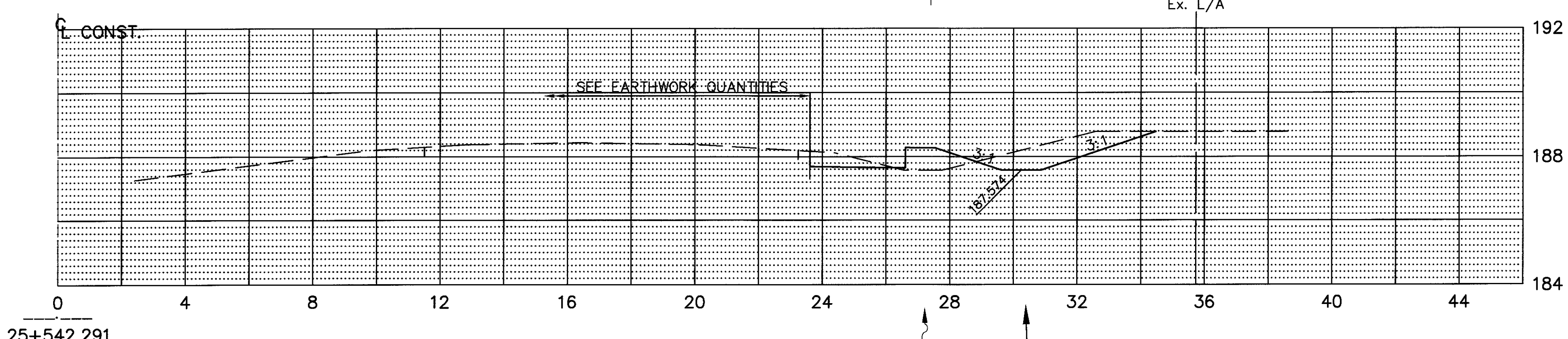
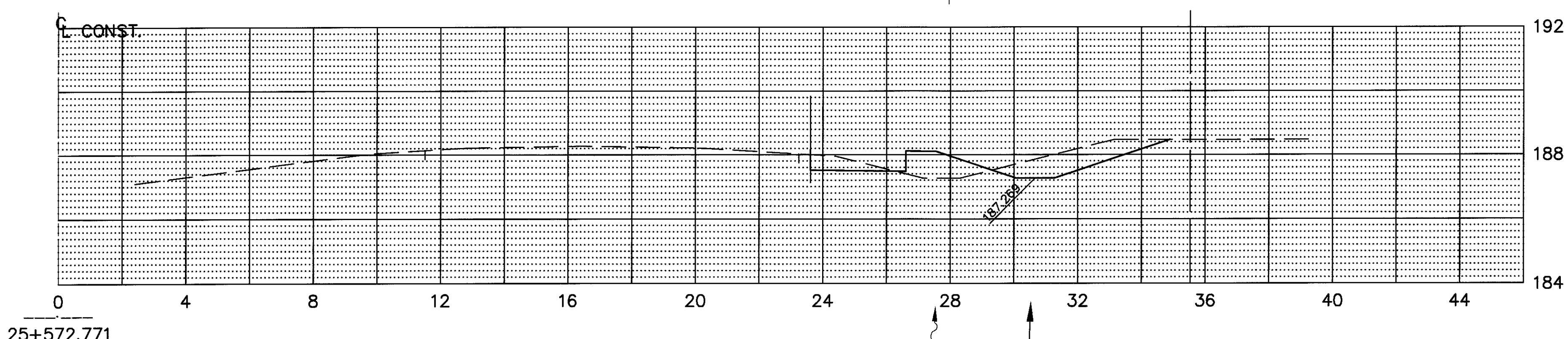
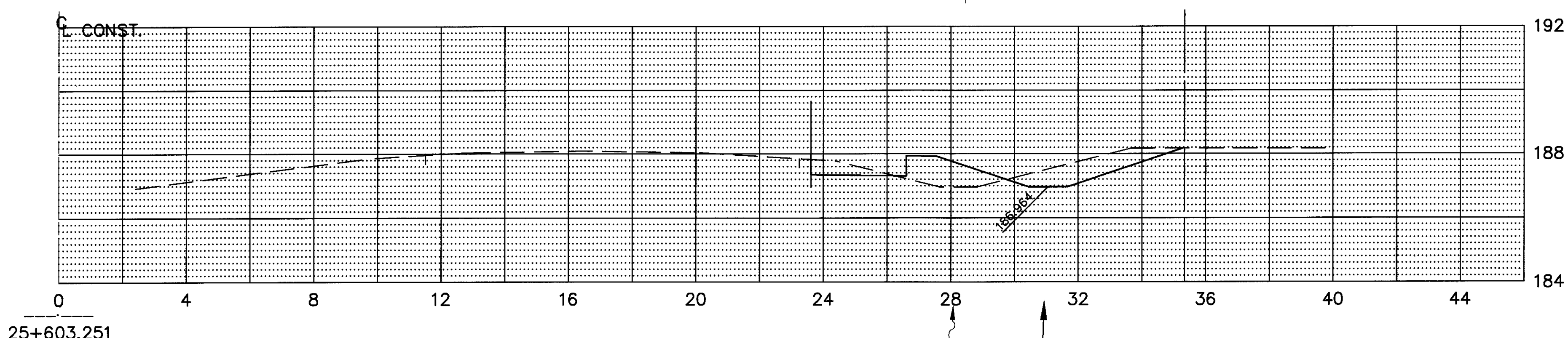
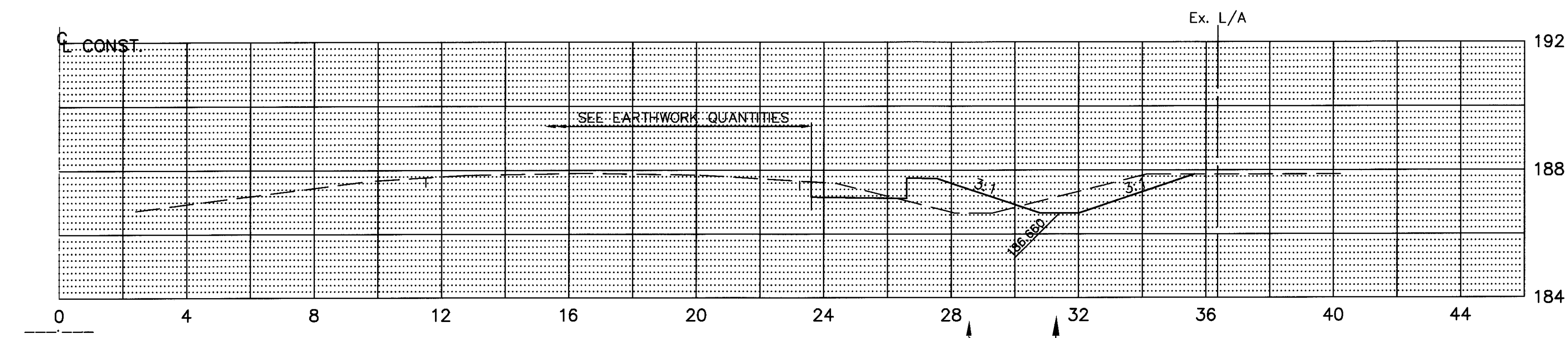
184
432

SEEDING
END SQ.
WIDTH METER

END AREA
CUT FILL
VOLUME
CUT FILL
CALCULATED
BY KJB
DATE 5-99
CHECKED
BY JTY
DATE 5-99



FILE NAME: X6~1\5033\006\TRAN\SECTIONS\VR_113766XD.DWG 8-2-99 8:51:13 am EST
PLOTTED: KJB



END AREA	VOLUME
CUT	FILL
3.1	2.4
3.3	2.0
3.4	1.6
3.5	1.2
94	76
97	66
101	55
105	42
397	240

1189 TOTAL THIS SHEET

TOTAL THIS SHEET

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 25+542.291 TO STA. 25+633.731

ERI-2-12.558

186
432

SEEDING
END WIDTH SQ. METER

366

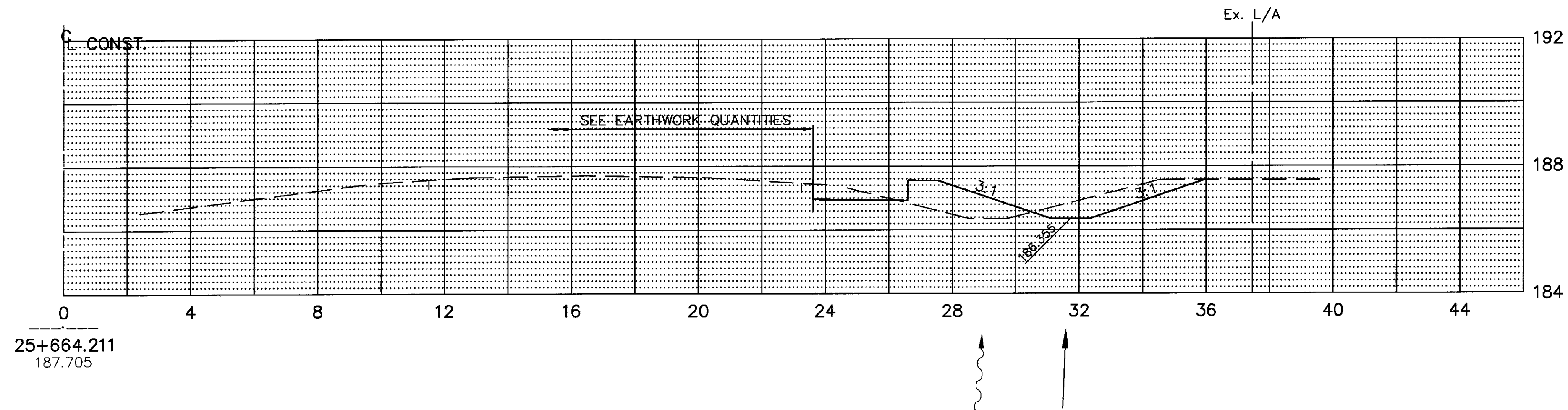
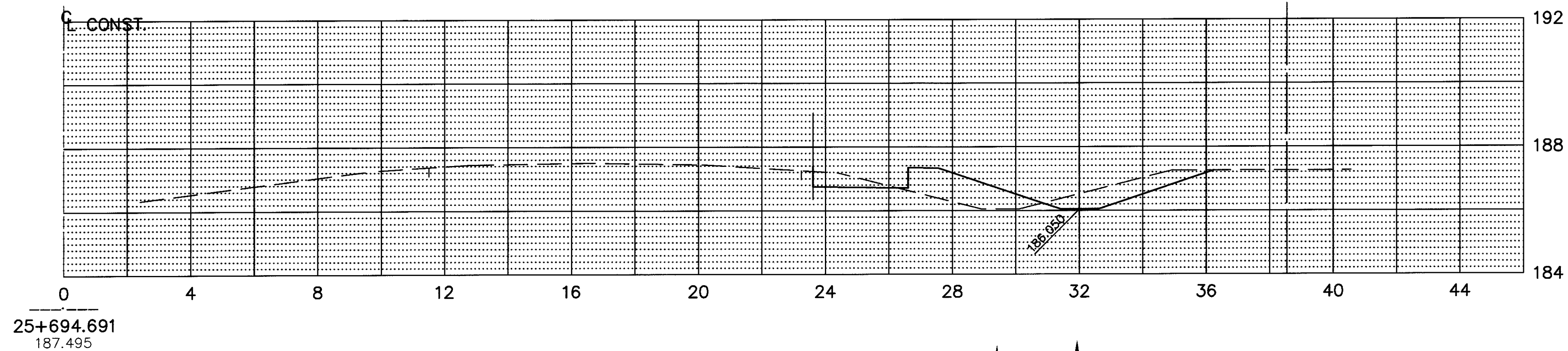
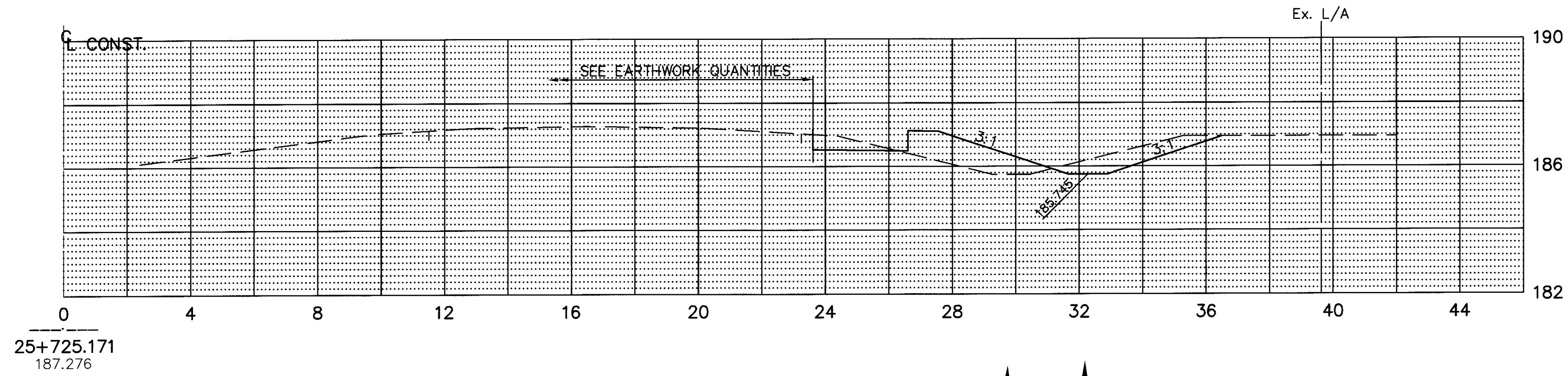
11

335

11

335

11



END CUT	AREA FILL	VOLUME		CUT	FILL
		CUT	FILL		
2.8	3.1	82	113		
2.9	2.9	88	93		
3.0	2.7	91	85		
TOTAL THIS SHEET		261	290		

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 25+664.211 TO STA. 25+725.171

ERI-2-12.558

187
432

FILE NAME: X7~1: 5033\006\TRAN\SECTIONS\VR_113766XD.DWG 8-2-99 8:51:13 am EST

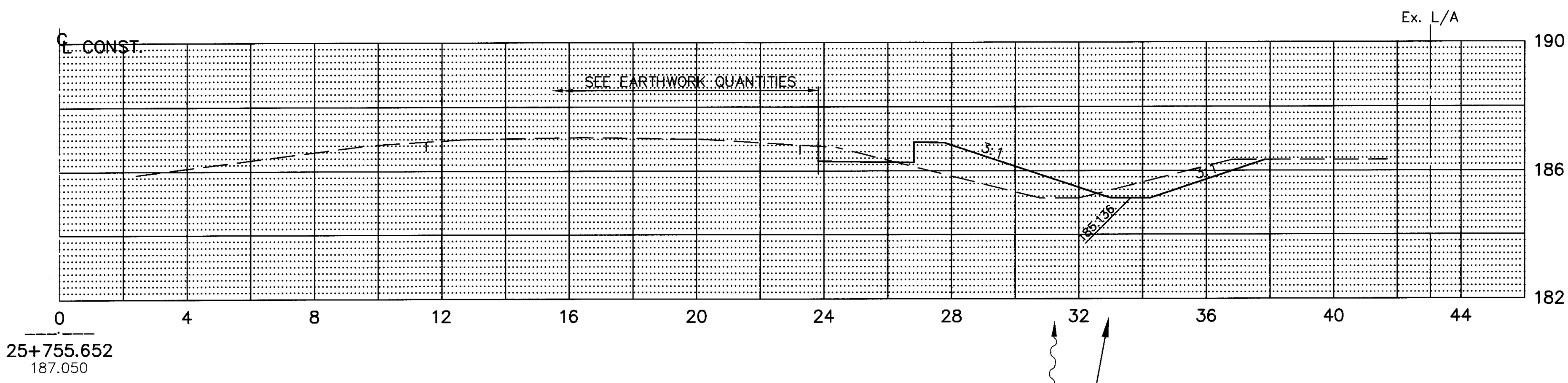
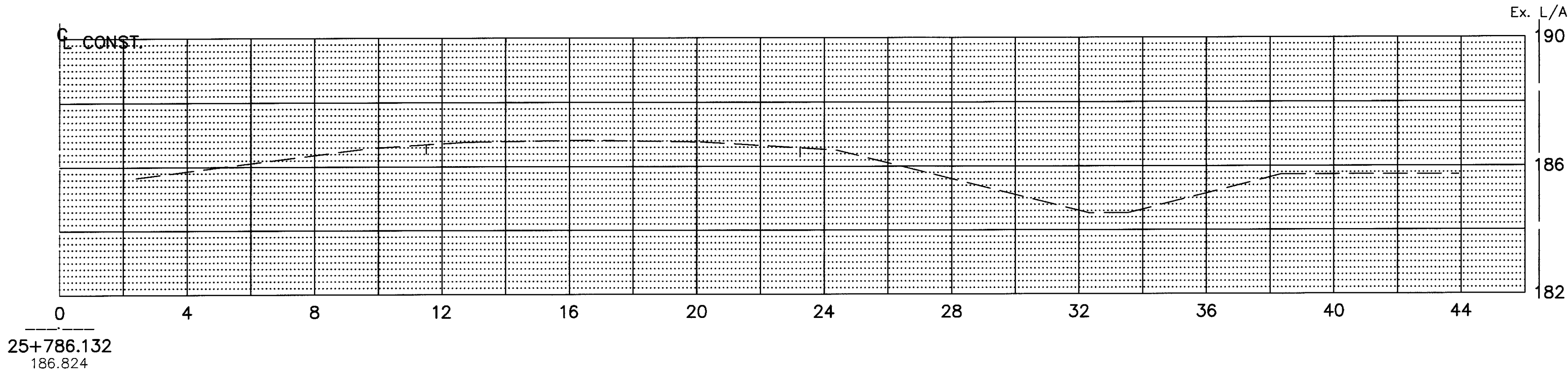
PLOTTED: KJB

1036 TOTAL THIS SHEET

TOTAL THIS SHEET

SEEDING
END WIDTH SQ. METER

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED BY: KJB DATE: 5-99
CHECKED BY: JTY DATE: 5-99



+770.892 BACK

+770.892 BACK

0 0

19 32

2.6 4.2

FILE NAME: X8~1: \5033\006\TRAN\SECTIONS\R_11376GXD.DWG 8-2-99 8:51:13 am EST
PLOTTED: KJB

99	TOTAL THIS SHEET
10349	GRAND TOTAL

TOTAL THIS SHEET	19	32
GRAND TOTAL	2364	3594

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 25+755.652 TO STA. 25+786.132

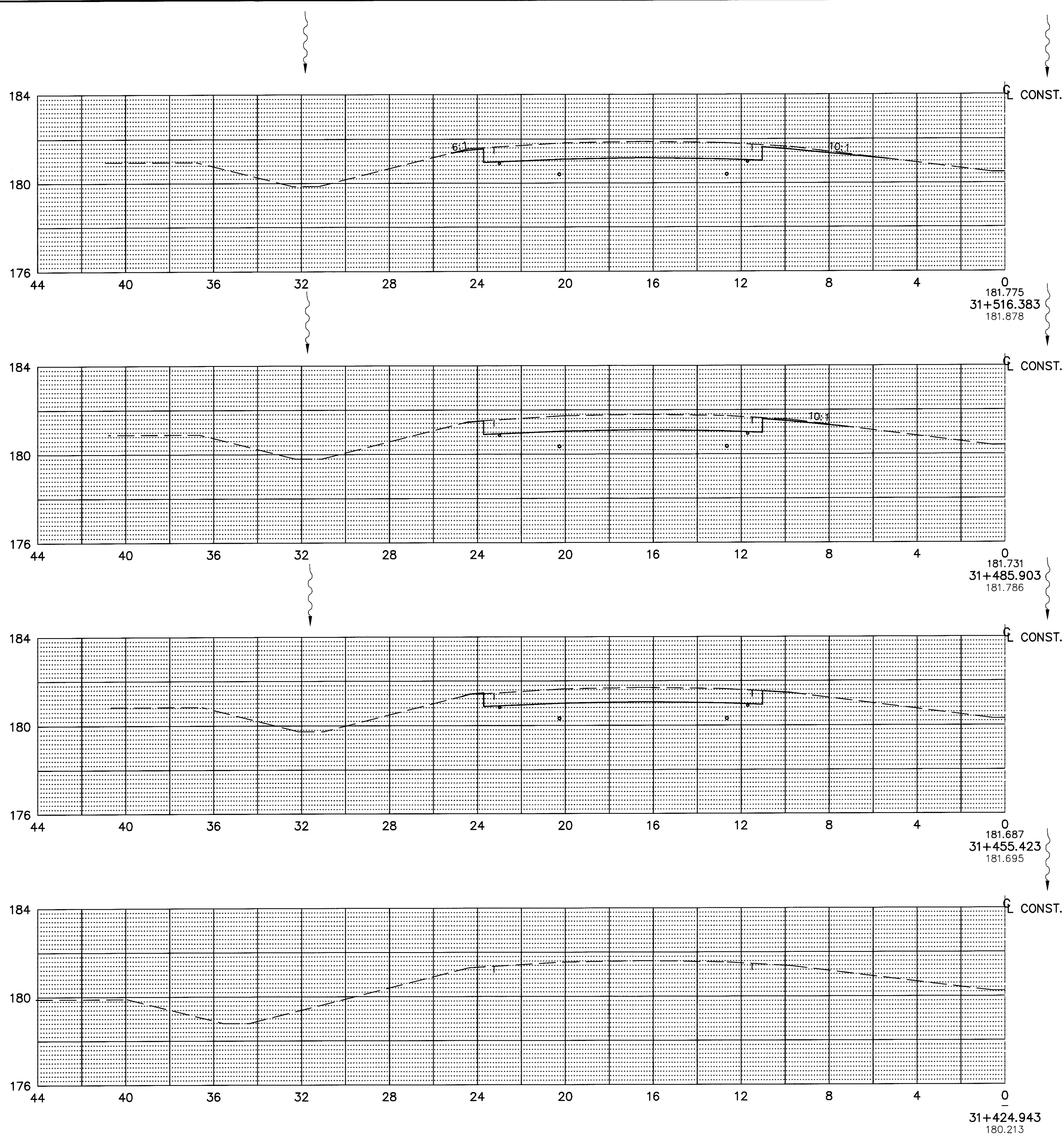
ERI-2-12.558

188
432

PLOTTED: MAY 20, 1999
KJB

FILE NAME: X:\5033\006\TRAN\SECTIONS\VR_11376GXC.DWG 8-2-99 9:12:58 am EST

SEEDING	
END WIDTH	SQ. METER
9	274
7	244
4	168
0	11
+450 AHEAD	
697	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		305	0
		9.6	0
		281	0
		8.8	0
		256	0
		8.0	0
		43	0
		7.9	0
+450 AHEAD			
TOTAL THIS SHEET		886	1

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 31+424.943 TO STA. 31+516.383

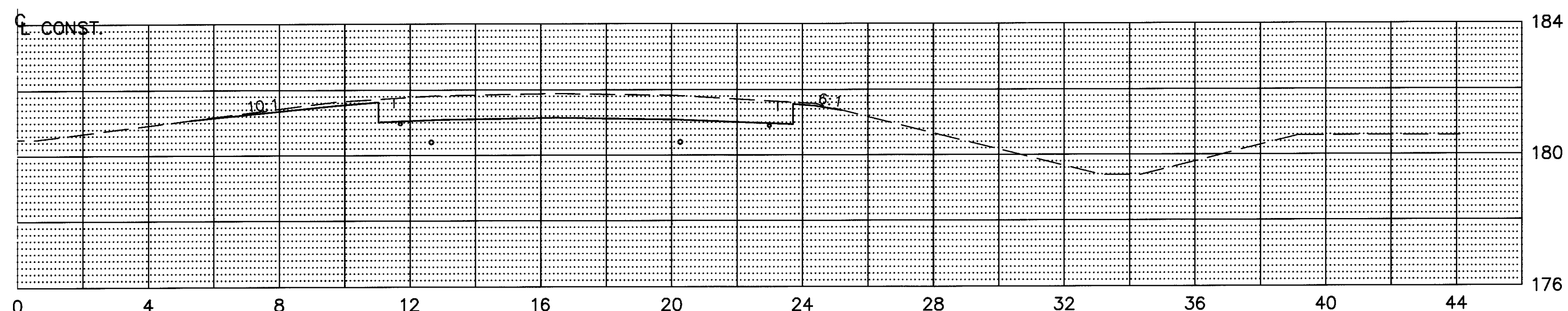
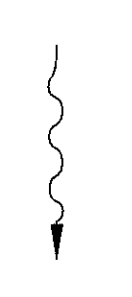
ERI-2-12.558

189
432

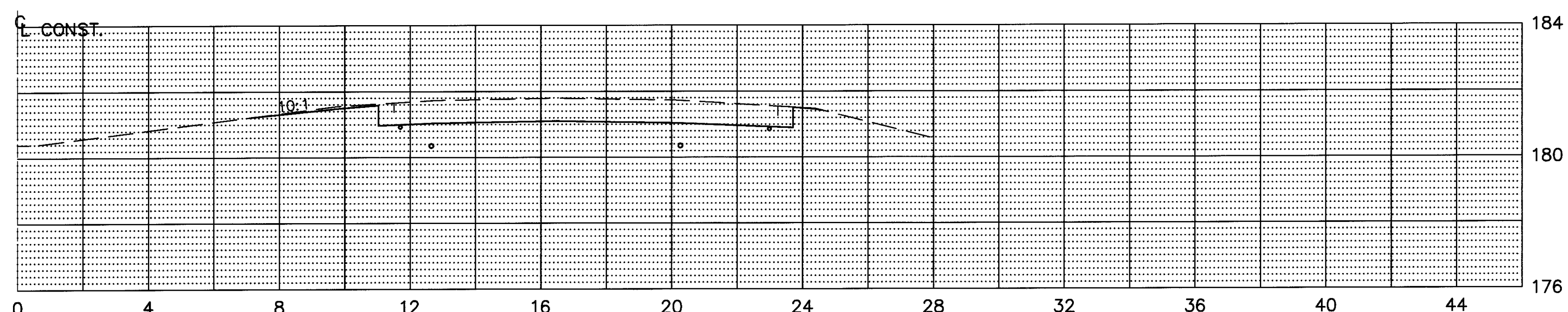
PLOTTED: MAY 20, 1999
KJB

FILE NAME: X2~1\5033\006\TRAN\SECTIONS\VR_11376GXC.DWG 8-2-99 9:12:58 am EST

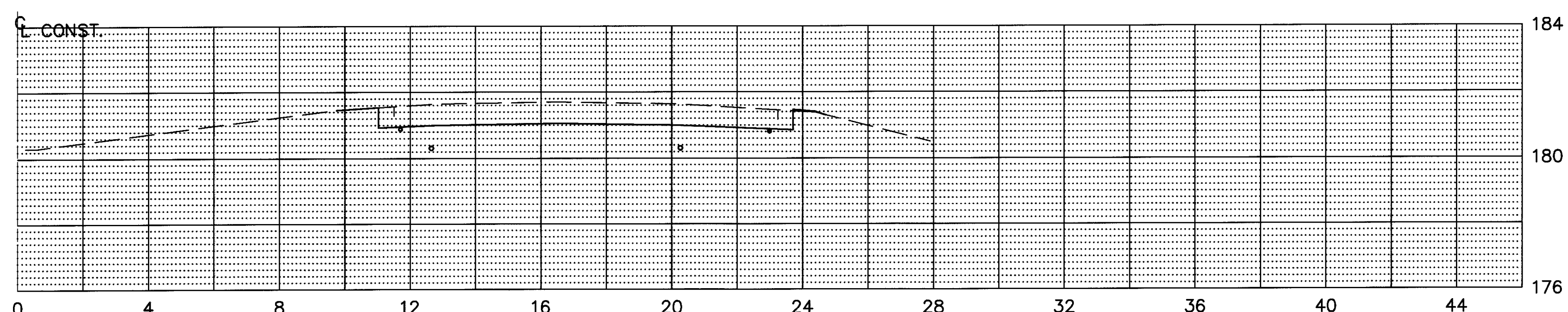
SEEDING	
END WIDTH	SQ. METER
9	274
7	244
4	168
8	0
+450 AHEAD	
697	TOTAL THIS SHEET



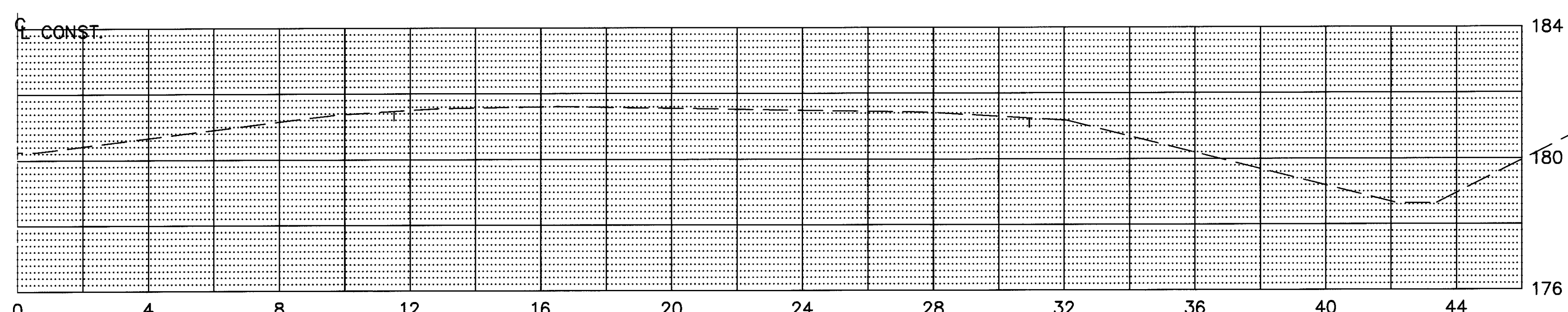
181.775
31+516.383
181.878



181.731
31+485.903
181.786



181.687
31+455.423
181.695



31+424.943
180.213

+450 AHEAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
9.6	0	305	0
8.8	0	281	0
8.0	0	256	0
8.0	0	43	0
7.9	0		
TOTAL THIS SHEET		886	1

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 31+424.943 TO STA. 31+516.383

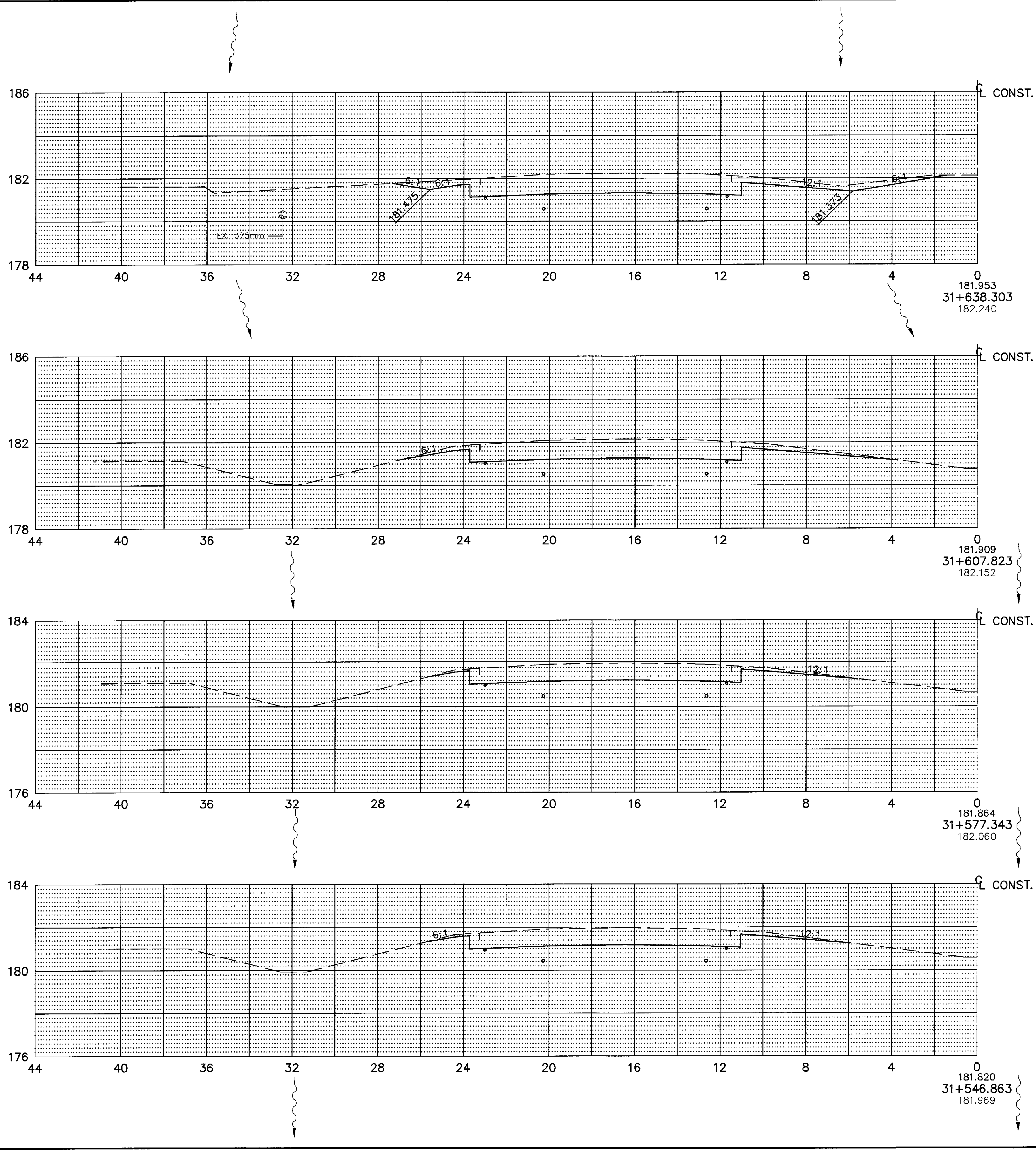
ERI-2-12.558

189A
432

PLOTTED: MAY 20, 1999
KJB

FILE NAME: X3~1\5033\006\TRAN\SECTIONS\VR_11376GXC.DWG 8-2-99 9:12:58 am EST

SEEDING	END WIDTH		SQ. METER
	END	WIDTH	
	457		
	15		
	412		
	12		
	320		
	9		
	274		
	9		
1463 TOTAL THIS SHEET			



END AREA	VOLUME	
	CUT	FILL
14.5	0	441
12.4	0	411
10.2	0	345
10.4	0	314
TOTAL THIS SHEET		1510

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 31+546.863 TO STA. 31+638.303

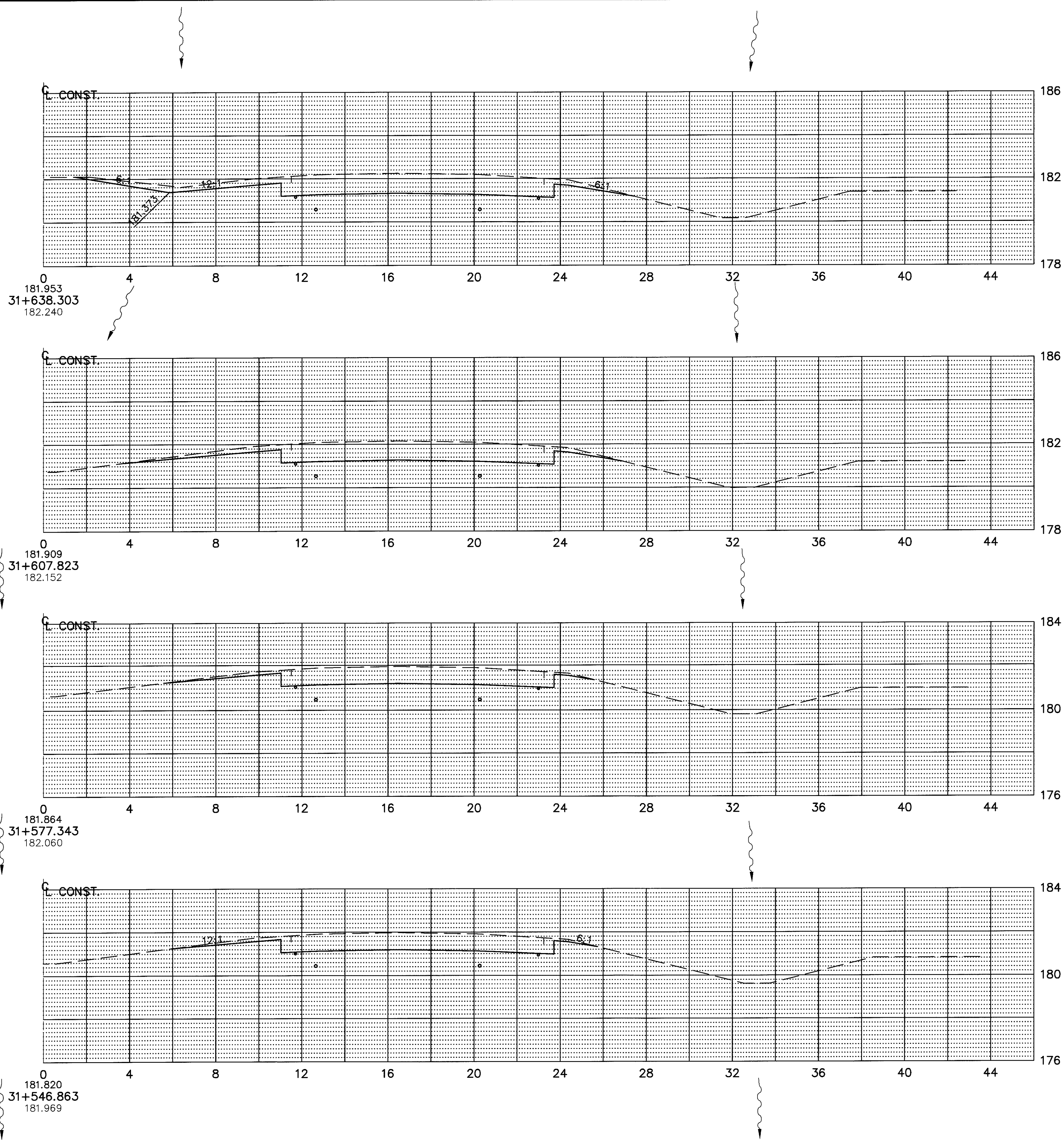
ERI-2-12.558

190
432

PLOTTED: MAY 20, 1999
KJB

FILE NAME: X4~1\5033\006\TRAN\SECTIONS\VR_11376GXC.DWG 8-2-99 9:12:58 am EST

SEEDING	
END WIDTH	SQ. METER
15	457
12	412
9	320
9	274
9	
1463 TOTAL THIS SHEET	



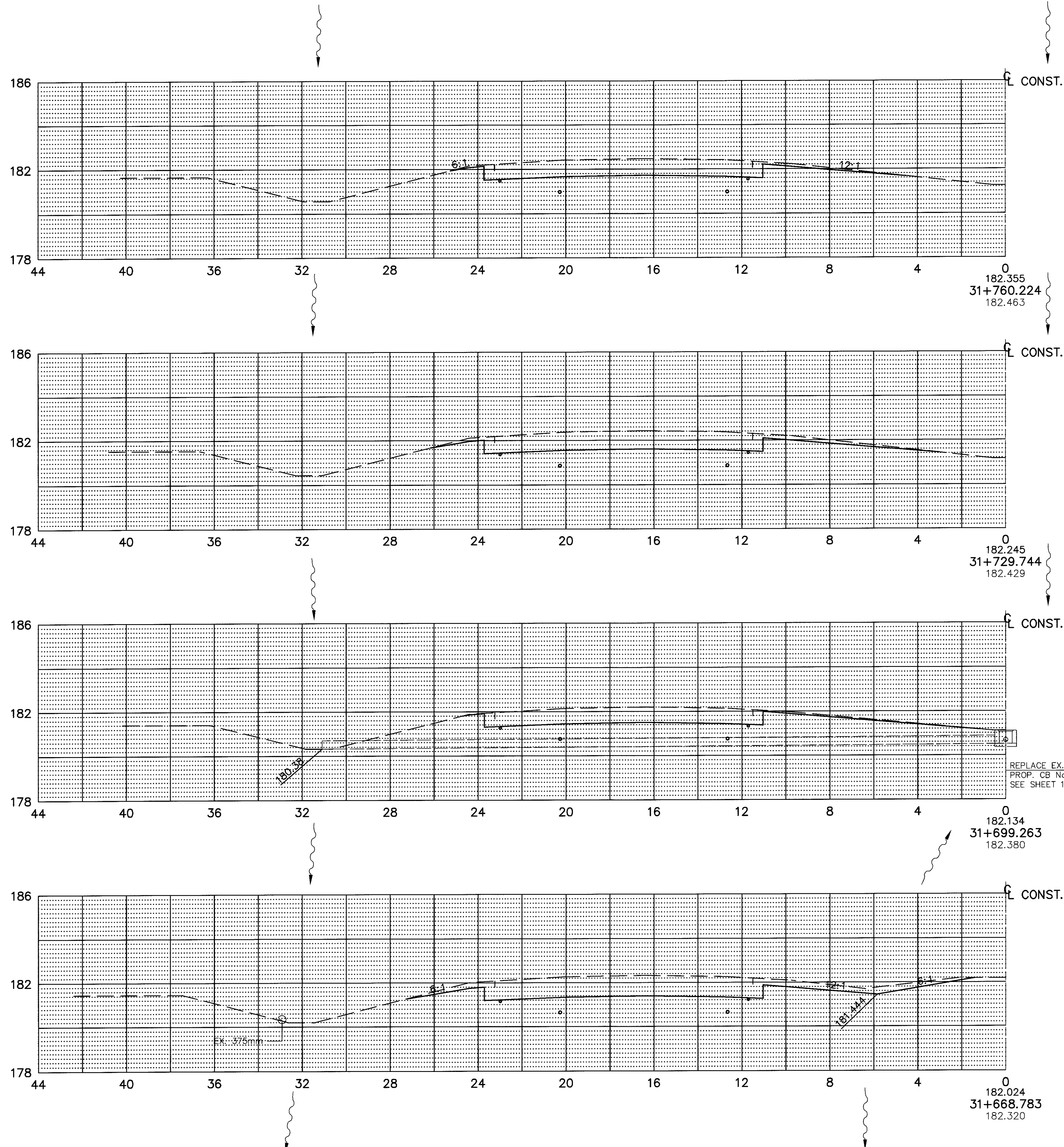
END CUT	AREA FILL	VOLUME	
		CUT	FILL
14.5	0	441	0
12.4	0	411	0
10.2	0	345	0
10.4	0	314	0
TOTAL THIS SHEET		1510	0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 31+546.863 TO STA. 31+638.303

ERI-2-12.558

190A
432

SEEDING	
END WIDTH	SQ. METER
9	244
12	320
14	396
15	442
1402 TOTAL THIS SHEET	



END AREA	VOLUME	
	CUT	FILL
9.8	0	275
11.3	0	321
9.1	0	311
14.4	0	358
TOTAL THIS SHEET		1266

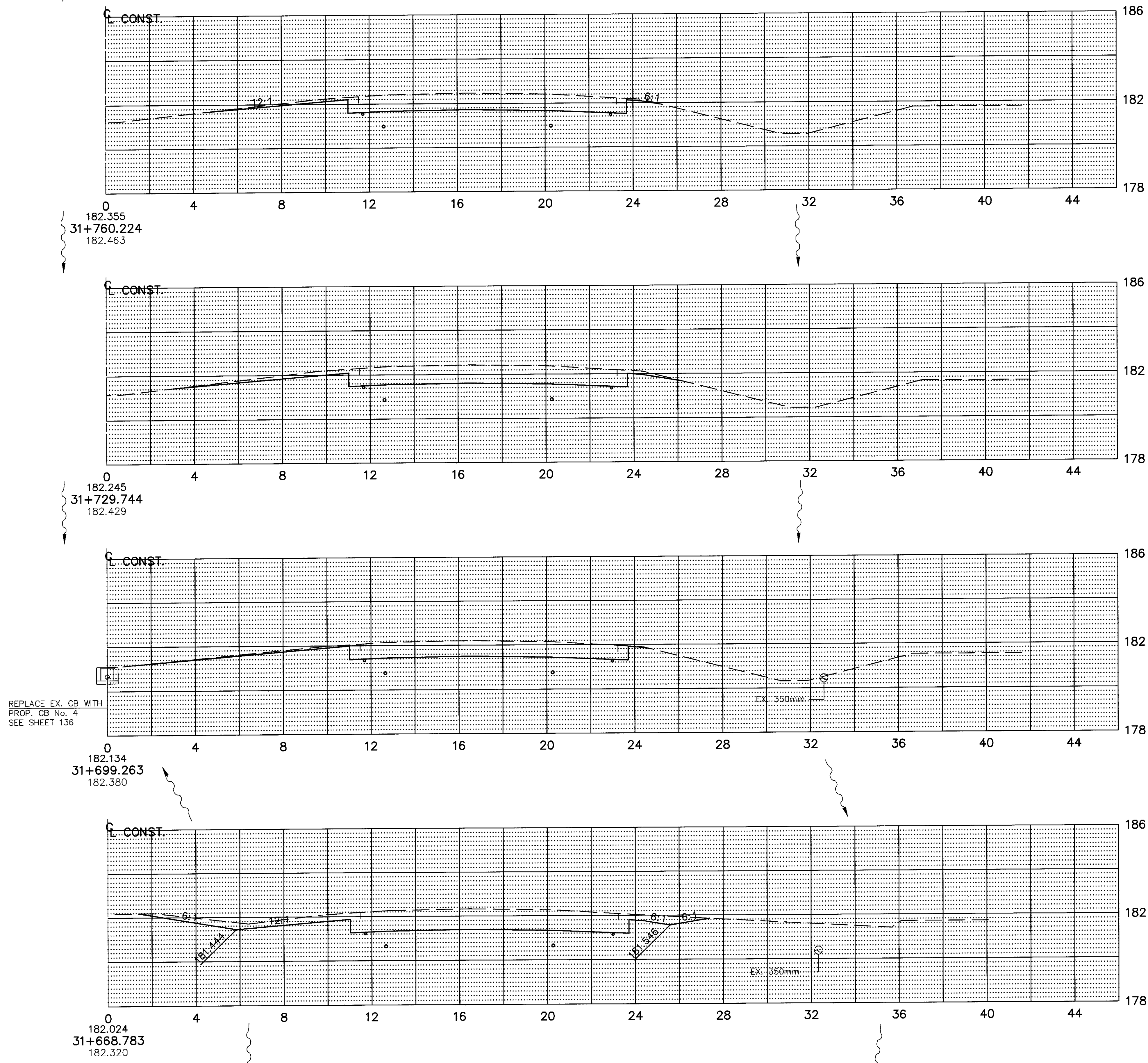
STATE ROUTE 2 WESTBOUND CROSS SECTIONS
STA. 31+668.783 TO STA. 31+760.224

ERI-2-12.558

191
432

PLOTTED: MAY 20, 1999
KJB
FILE NAME: X5~1: 5033\006\TRAN\SECTIONS\VR_11376GXC.DWG 8-2-99 9:12:58 am EST

SEEDING	
END WIDTH	SQ. METER
244	
9	
320	
12	
396	
14	
442	
15	
1402	TOTAL THIS SHEET



END AREA	VOLUME	
	CUT	FILL
	275	0
9.8	0	
11.3	0	
311	0	
9.1	0	
358	0	
14.4	0	
TOTAL THIS SHEET		1266 0

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 31+668.783 TO STA. 31+760.224

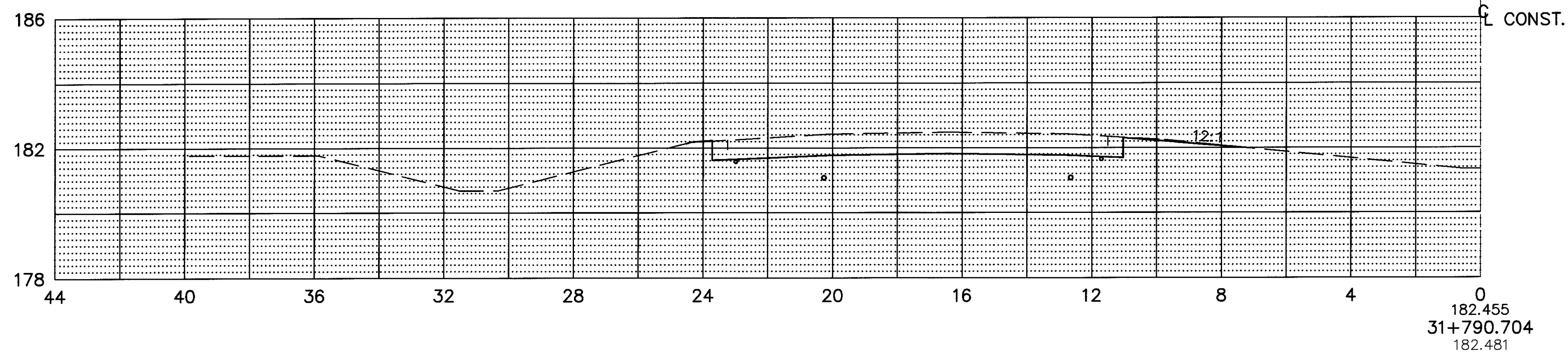
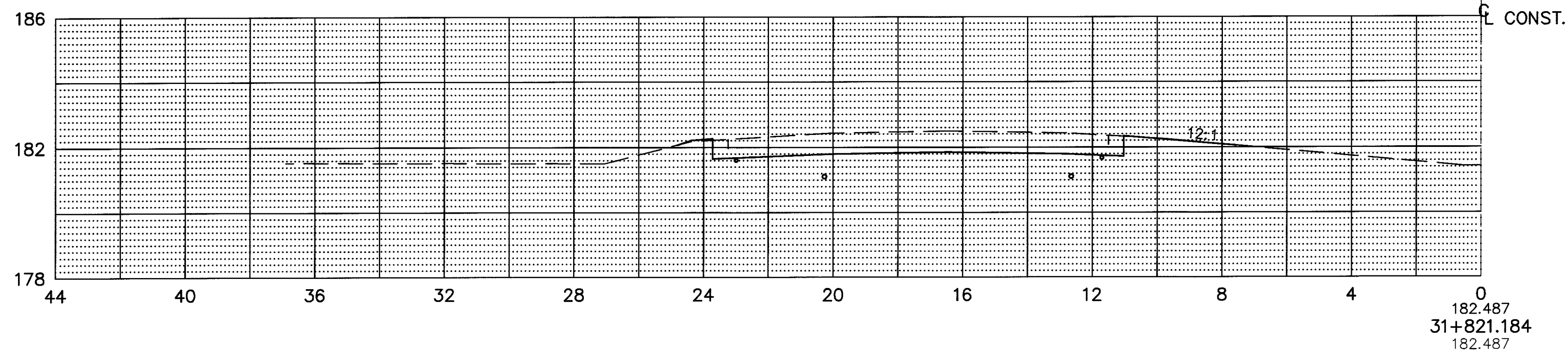
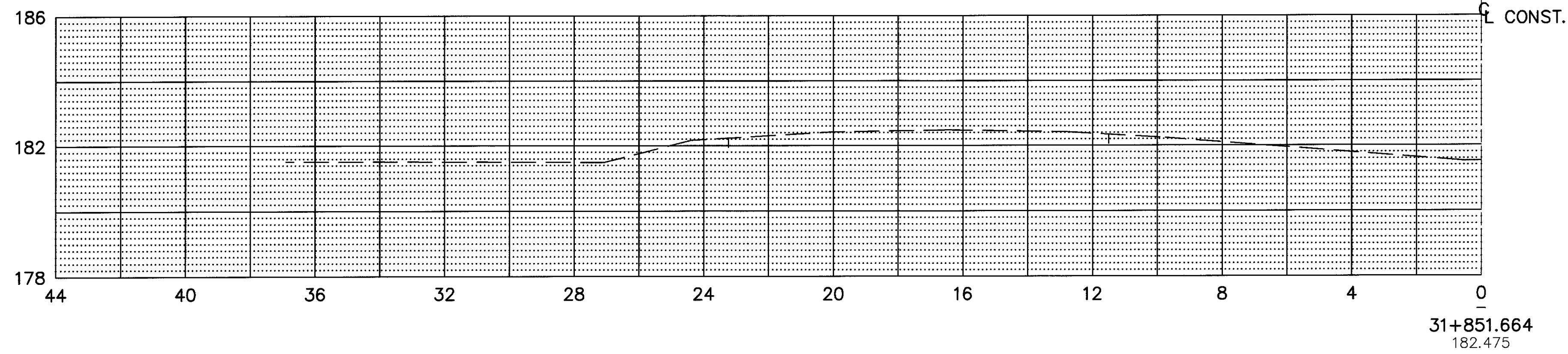
ERI-2-12.558

191A
432

PLOTTED: MAY 20, 1999
KJB
FILE NAME: X8~1: \5033\006\TRAN\SECTIONS\R_11376GXC.DWG 8-2-99 9:12:58 am EST

SEEDING	
END WIDTH	SQ. METER

0	+825.165 BACK
14	
7	
213	
7	



END AREA	VOLUME	
	CUT	FILL
7.9	0	0
7.9	0	0
246	0	0
8.3	0	0

STATE ROUTE 2 WESTBOUND CROSS SECTIONS
 STA. 31+790.704 TO STA. 31+851.664

ERI-2-12.558

PLOTTED: MAY 20, 1999
 KJB
 FILE NAME: X7~1: 5033\006\TRAN\SECTIONS\VR_113766XC.DWG 8-2-99 9:12:58 am EST

227	TOTAL THIS SHEET
3789	GRAND TOTAL (WESTBOUND ONLY)

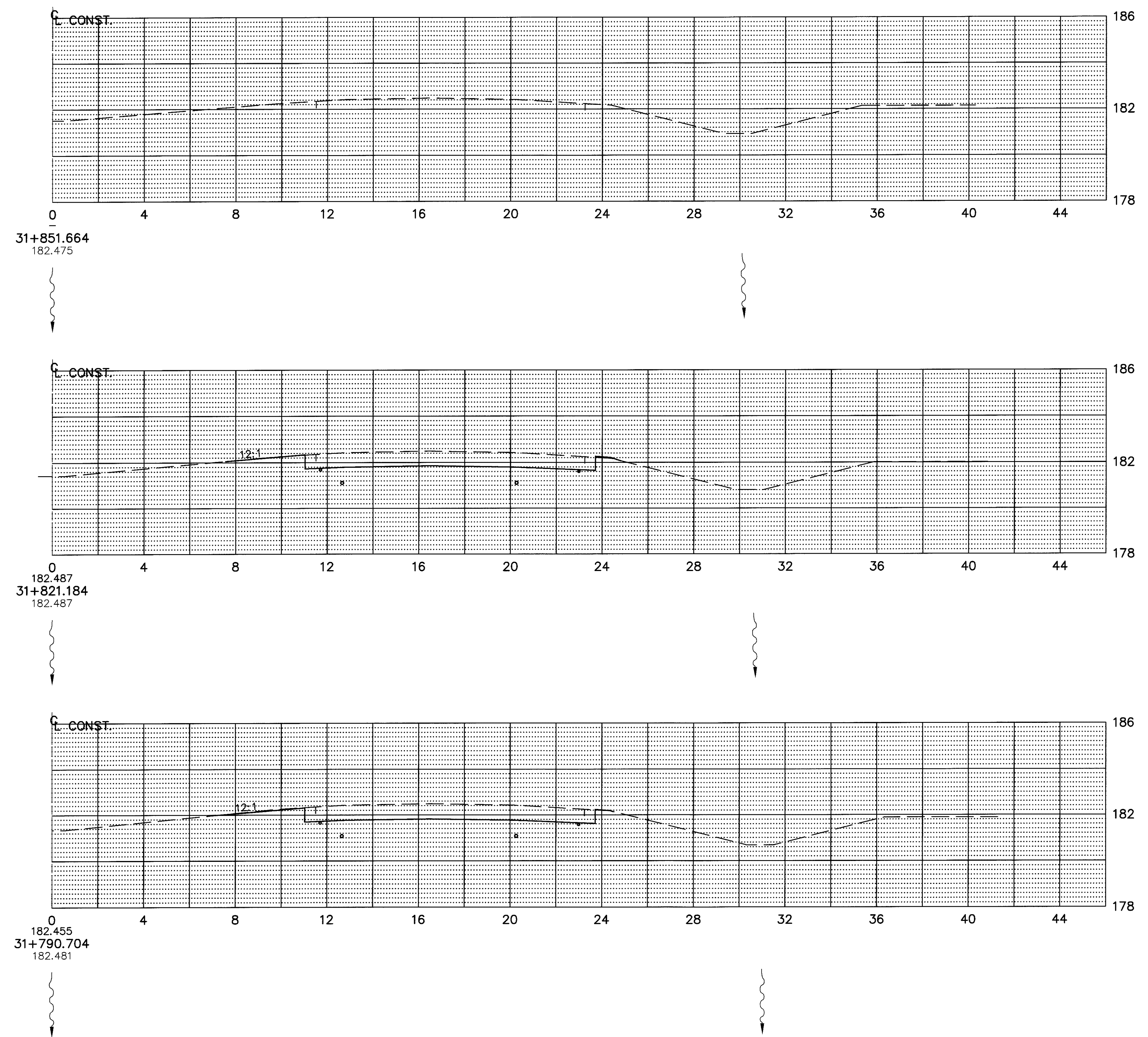
TOTAL THIS SHEET	278	1
GRAND TOTAL (WESTBOUND ONLY)	3939	2

192
432

PLOTTED: MAY 20, 1999
KJB

FILE NAME: X8~1: 5033\006\TRAN\SECTIONS\VR_113766XC.DWG 8-2-99 9:12:58 am EST

SEEDING	
END WIDTH	SQ. METER
0	+825.165 BACK
14	
7	
213	
7	



+825.165 BACK

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
0	7.9	0		
14			31	0
7	7.9	0		
213			246	0
7	8.3	0		

227	TOTAL THIS SHEET
3789	GRAND TOTAL (EASTBOUND ONLY)

TOTAL THIS SHEET	278	1
GRAND TOTAL (EASTBOUND ONLY)	3939	2

STATE ROUTE 2 EASTBOUND CROSS SECTIONS
STA. 31+790.704 TO STA. 31+851.664

ERI-2-12.558

192A
432

CALCULATED BY: KJB
DATE: 5-99
CHECKED BY: JTY
DATE: 5-99

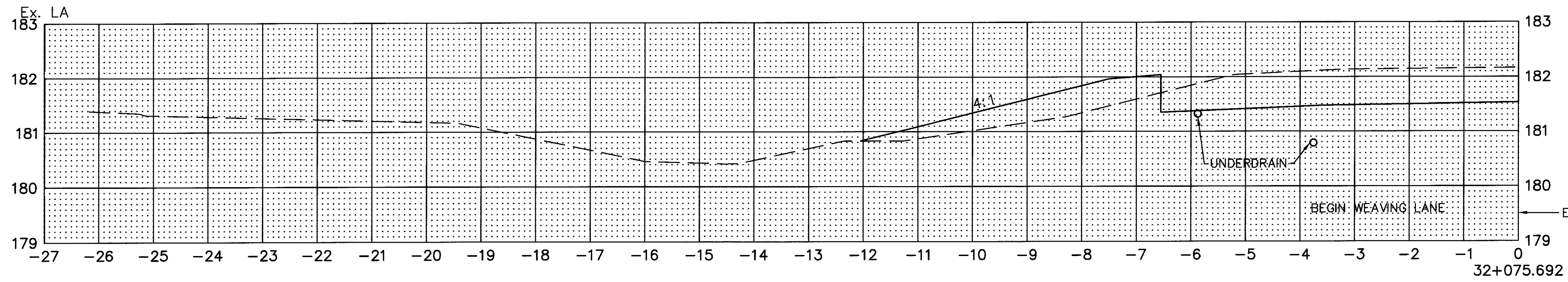
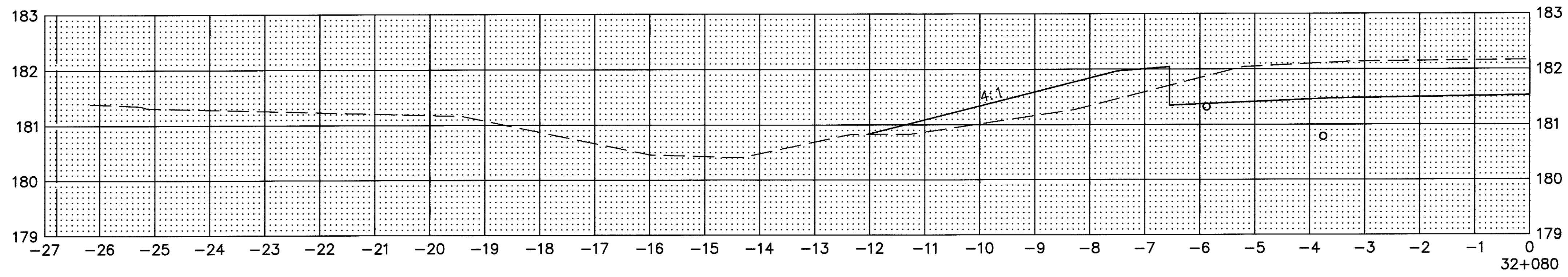
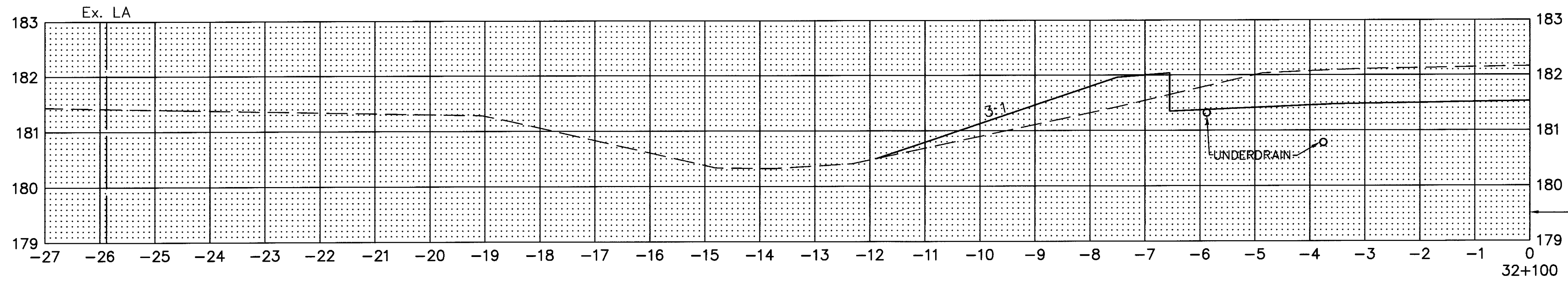
SEEDING
 END SQ. WIDTH METER
 7 140 7 140 7 31 7

FILE NAME: X:\5033\006\TRAN\SECTIONS\WEAVE.DWG 5-20-99 9:55:31 am EST

J.E.F.

STA. 32+120

STA. 32+120



END AREA	VOLUME	CUT		FILL	
		CUT	FILL	CUT	FILL
3.97	1.69				
3.84	1.71			78.1	33.9
3.95	2.02			77.9	37.3
4.01	2.02			17.1	8.7
TOTAL THIS SHEET		173	80		

CROSS SECTIONS STATE ROUTE 2
 STA. 32+075.692 TO STA. 32+100

ERI-2-12.558

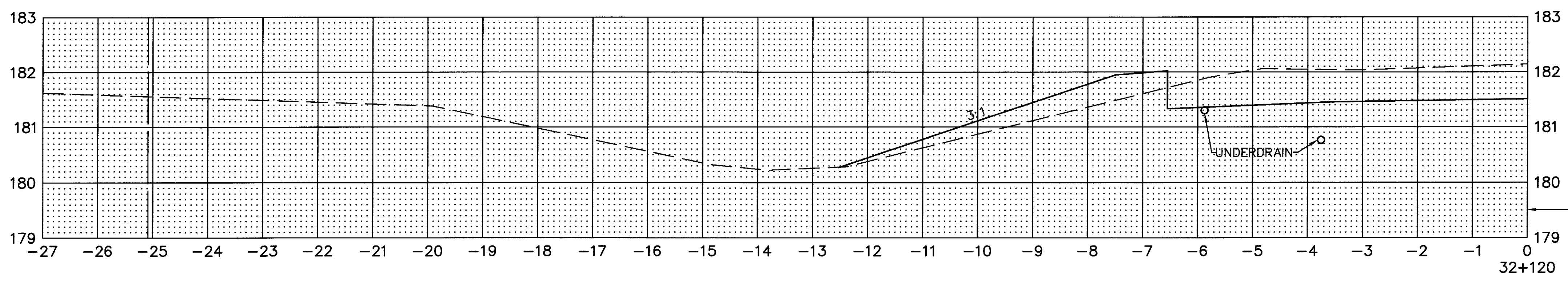
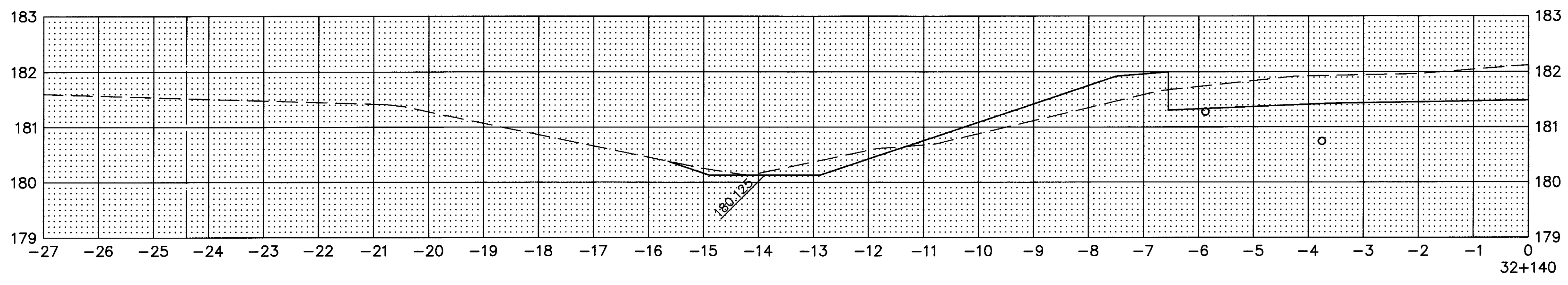
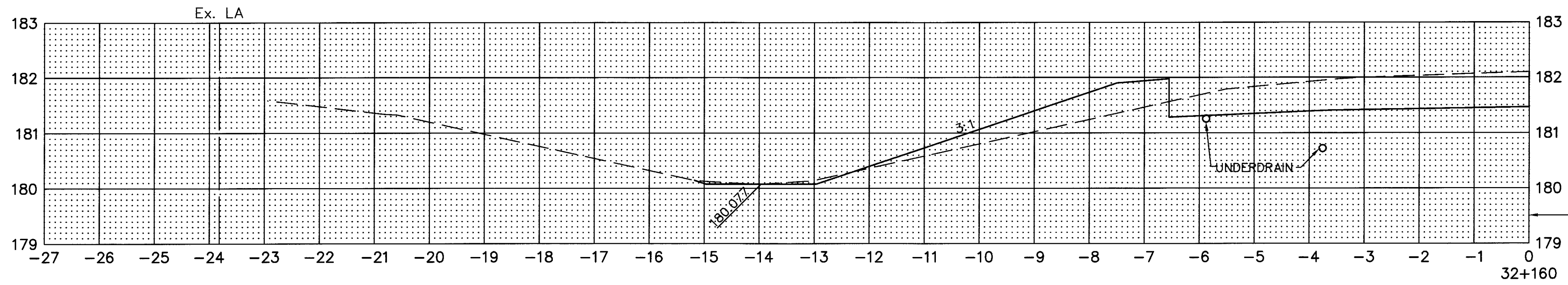
193
 432

SEEDING
END WIDTH SQ. METER

10
200
10
210
11
180
7

STA. 32+180

STA. 32+180



END AREA	VOLUME	
	CUT	FILL
3.83	1.93	
	75.1	38.6
3.68	1.93	
	75.0	33.9
3.82	1.46	
	77.9	31.5
3.97	1.69	
	228	104

CROSS SECTIONS STATE ROUTE 2
STA. 32+106.172 TO STA. 32+160

ERI-2-12.558

194
432

FILE NAME: X2 I: 5033\006\TRAN\SECTIONS\WEAVE.DWG 5-20-99 9:55:31 am EST

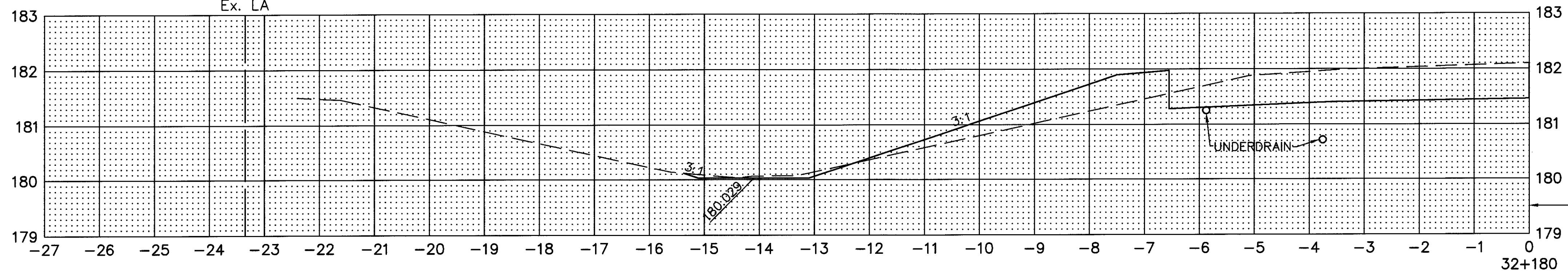
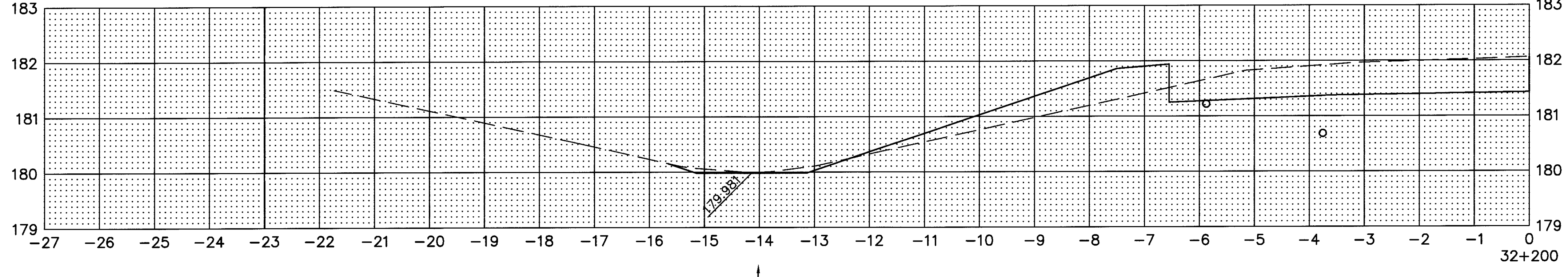
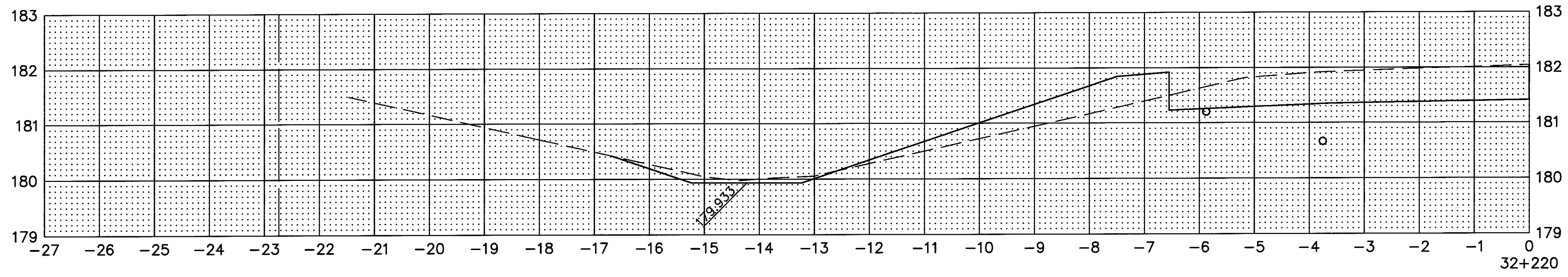
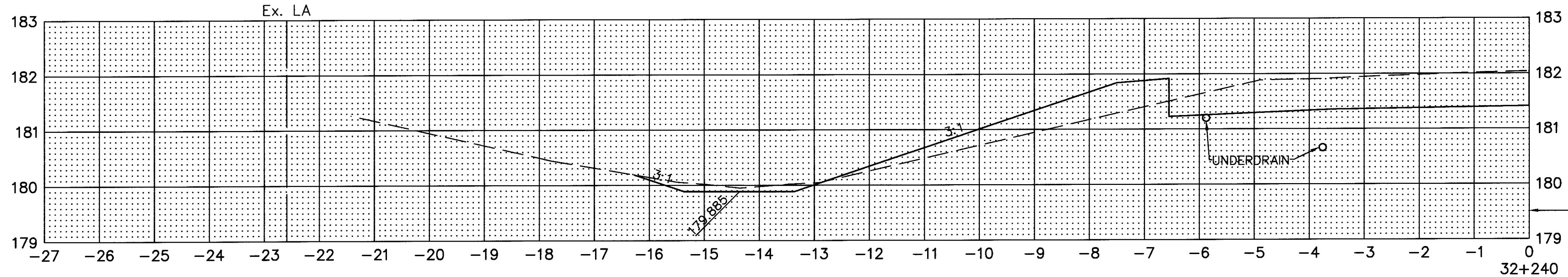
J.E.F. 590 TOTAL THIS SHEET

TOTAL THIS SHEET

SEEDING
 END WIDTH SQ. METER
 11 220 11 220 210 200 10 10

STA. 32+260

STA. 32+260



END AREA	VOLUME	
	CUT	FILL
4.10	2.24	
4.10	2.12	82.0 43.6
4.05	2.03	81.5 41.5
3.81	1.97	78.6 40.1
3.83	1.93	76.4 39
TOTAL THIS SHEET		319 164

CALCULATED BY J.E.F. DATE 5-99
 CHECKED BY J.T.V. DATE 5-99
**CROSS SECTIONS STATE ROUTE 2
 STA. 32+180 TO STA. 32+240**

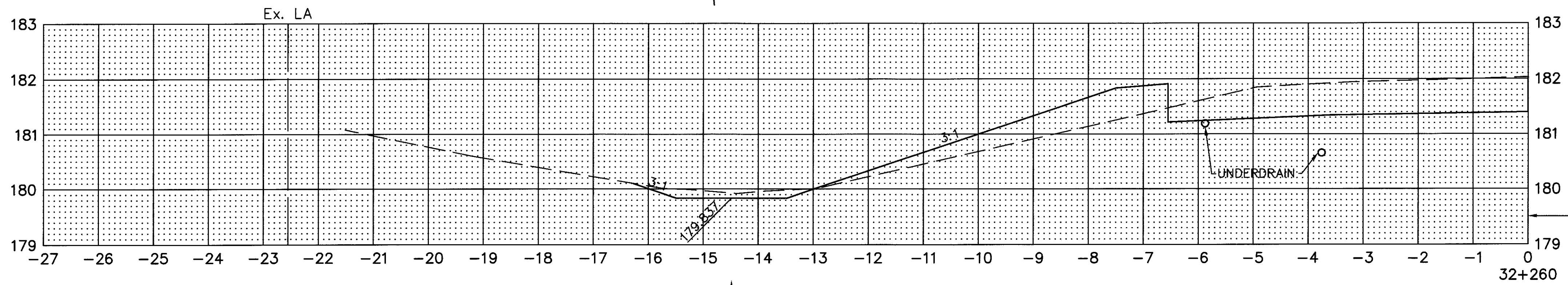
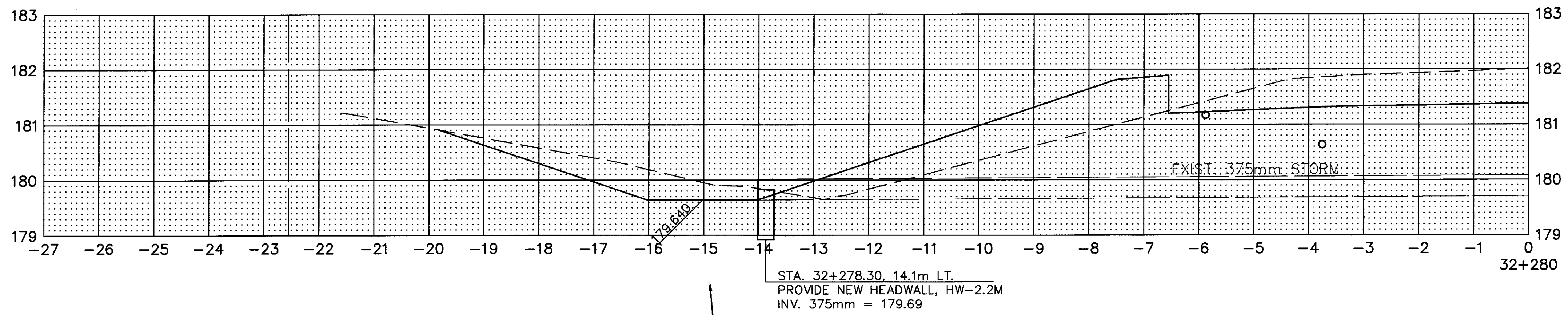
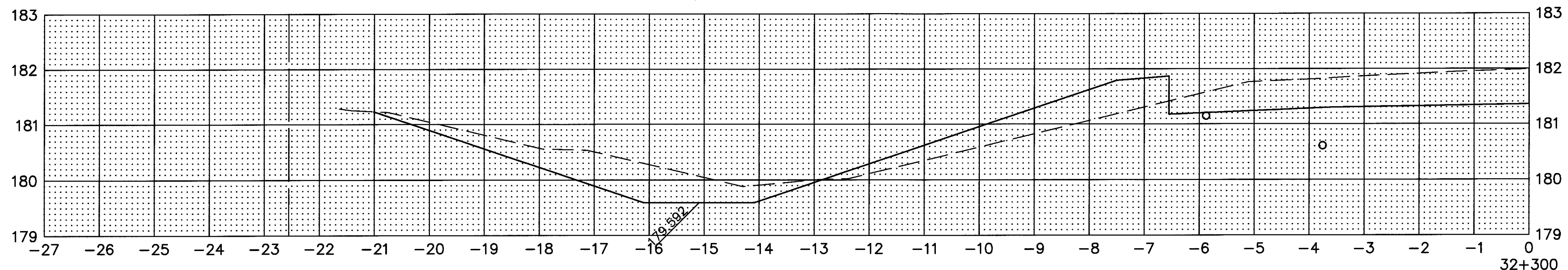
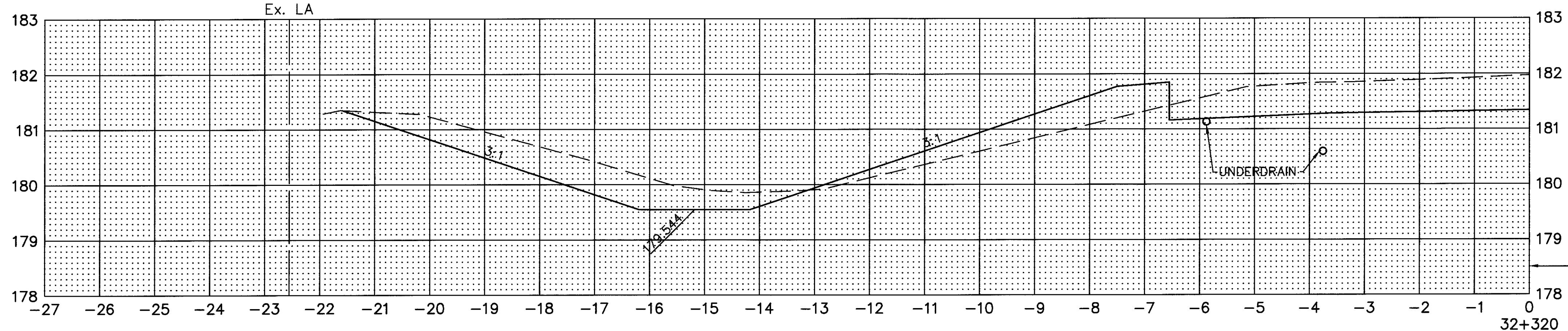
ERI-2-12.558

195
 432

SEEDING
END SQ.
WIDTH METER

17
340
17
330
16
310
15
260
11

STA. 32+340



STA. 32+340

END AREA	VOLUME	
	CUT	FILL
7.64	2.26	
		146.1 47
6.97	2.44	
		133.1 50.9
6.34	2.64	
		115.8 70.8
5.24	4.44	
		93.4 66.8
4.10	2.24	
		488 236

CALCULATED BY J.E.F. DATE 5-99
CHECKED BY J.T.V. DATE 5-99

**CROSS SECTIONS STATE ROUTE 2
STA. 32+260 TO STA. 32+320**

ERI-2-12.558

196
432

FILE NAME: X4 I:\5033\006\TRAN\SECTIONS\WEAVE.DWG 5-20-99 9:55:31 am EST

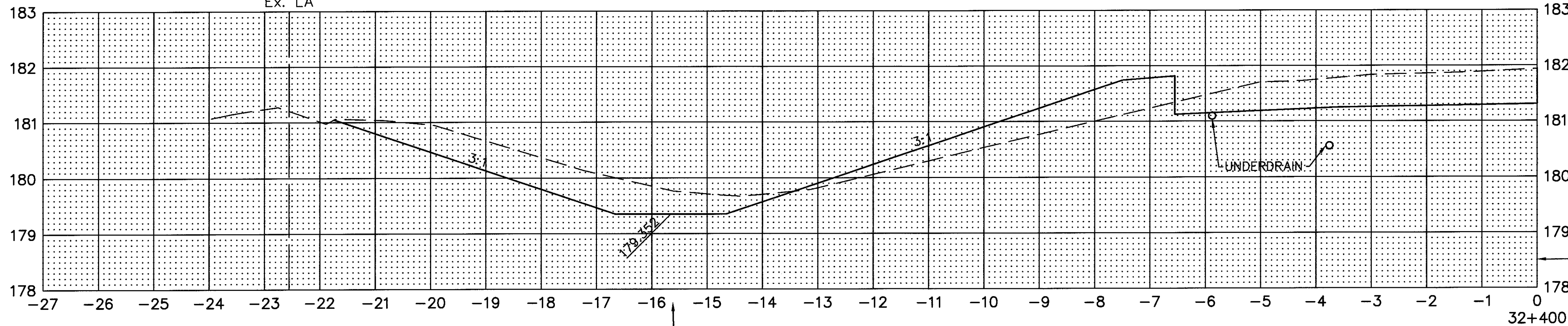
1240 TOTAL THIS SHEET

TOTAL THIS SHEET

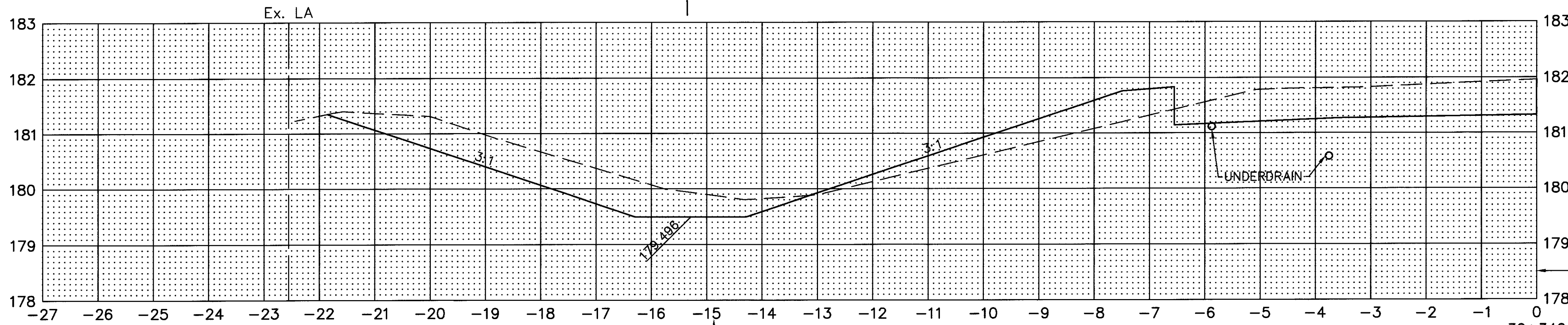
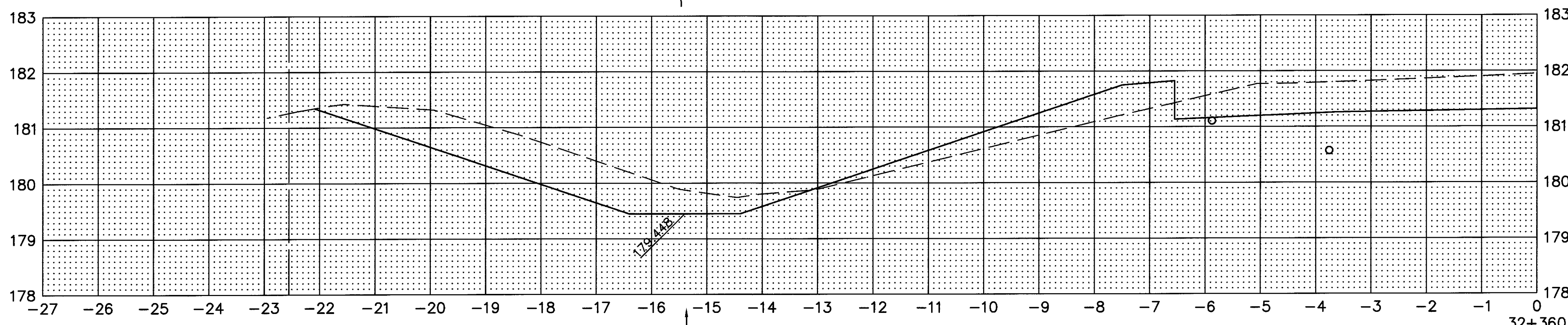
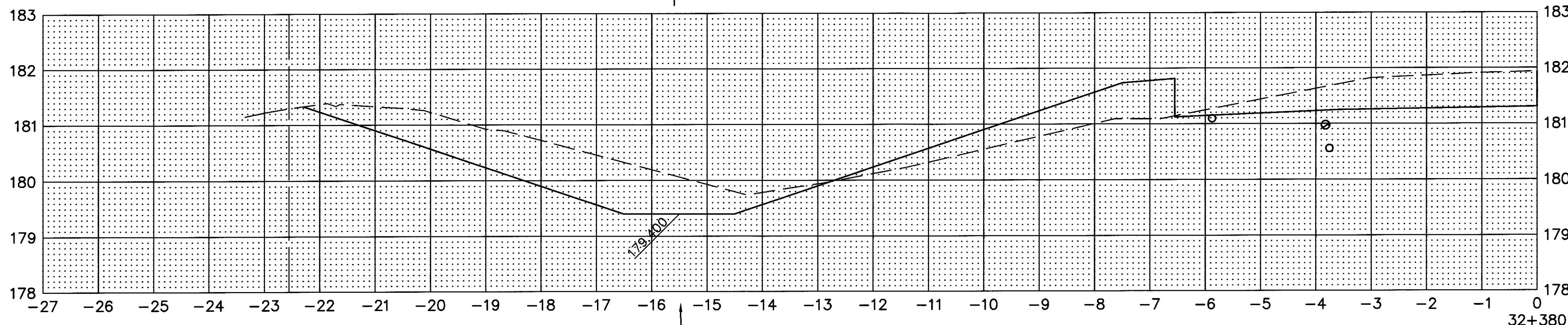
SEEDING
END SQ.
WIDTH METER

15
320
17
340
17
340
17
340
17
340

STA. 32+420



STA. 32+420



END CUT	AREA FILL	VOLUME	
		CUT	FILL
5.42	3.50		
		123.7	60.5
6.95	2.55		
		153.5	54.1
8.40	2.85		
		166.8	50.4
8.28	2.20		
		159.2	44.5
7.64	2.26		
		603	210

TOTAL THIS SHEET

CALCULATED BY J.E.F. DATE 5-99
CHECKED BY J.T.V. DATE 5-99

**CROSS SECTIONS STATE ROUTE 2
STA. 32+340 TO STA. 32+400**

ERI-2-12.558

197
432

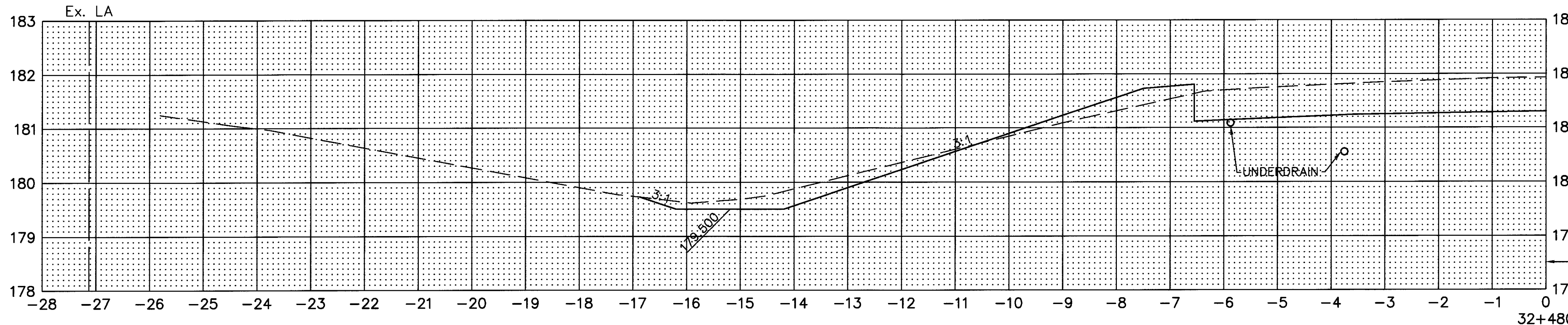
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J.E.F. 1340 TOTAL THIS SHEET

SEEDING

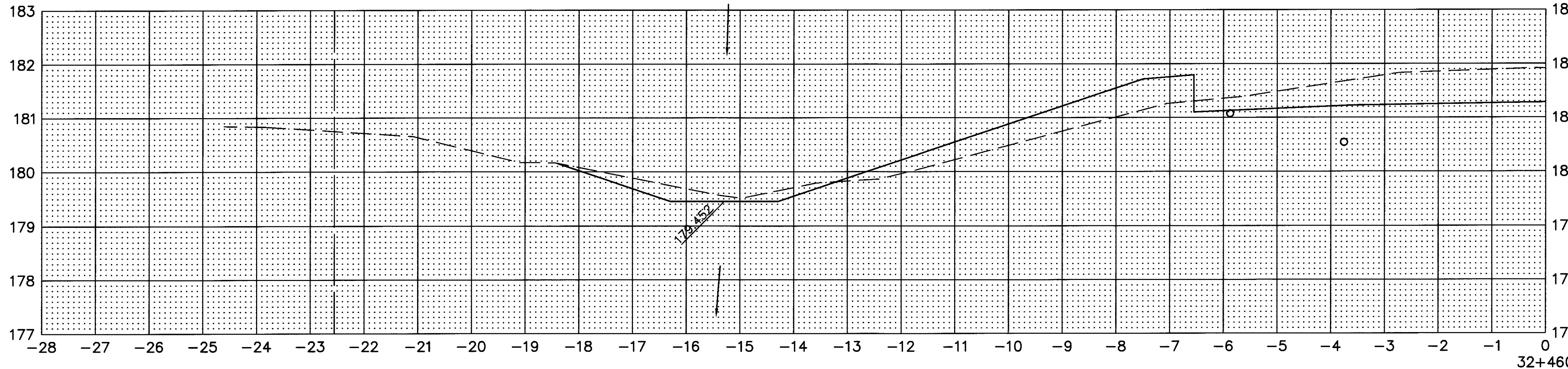
END WIDTH	SQ. METER
19	310
12	250
13	270
14	290
15	
1120 TOTAL THIS SHEET	

STA. 32+500

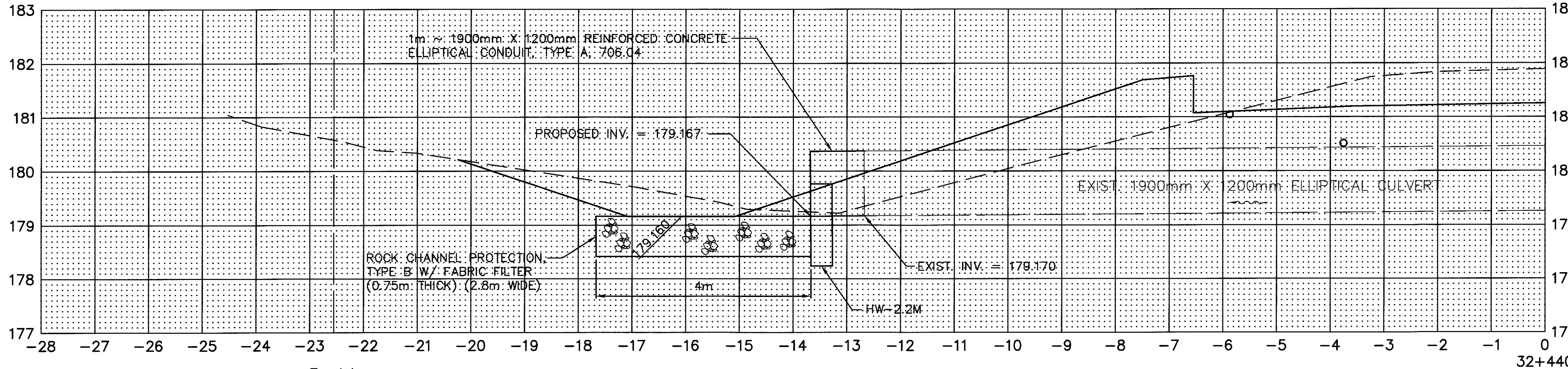


STA. 32+500

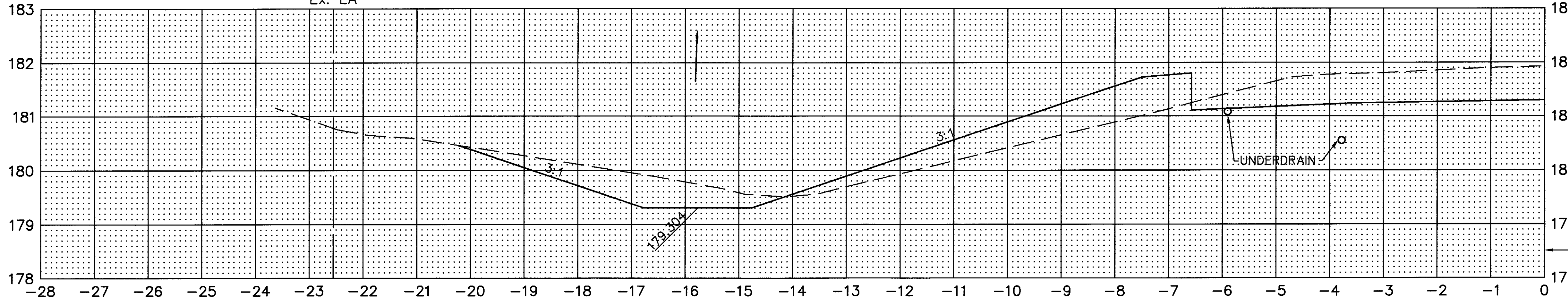
END AREA	VOLUME	
	CUT	FILL
5.42	1.39	
		103.6
4.94	0.86	
		89.7
4.03	2.78	
		81.8
4.15	6.43	
		95.7
5.42	3.50	
		371
		250



32+480



32+440



32+420

TOTAL THIS SHEET

CROSS SECTIONS STATE ROUTE 2
STA. 32+420 TO STA. 32+480

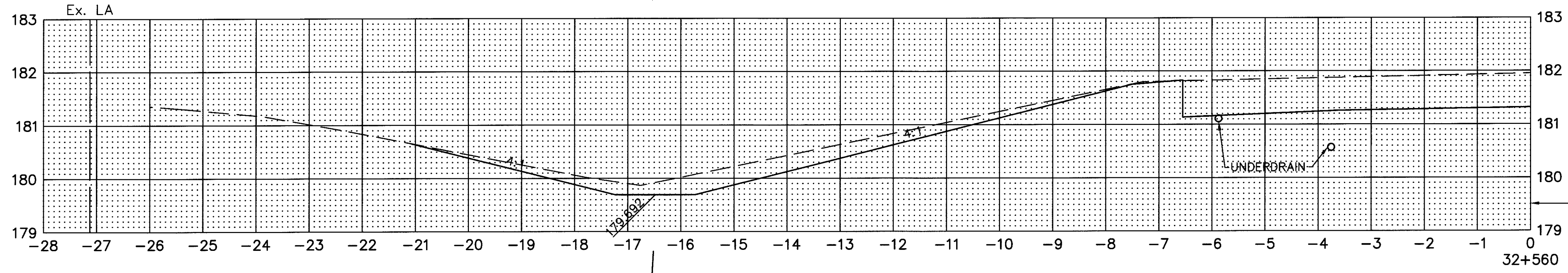
ERI-2-12.558

198
432

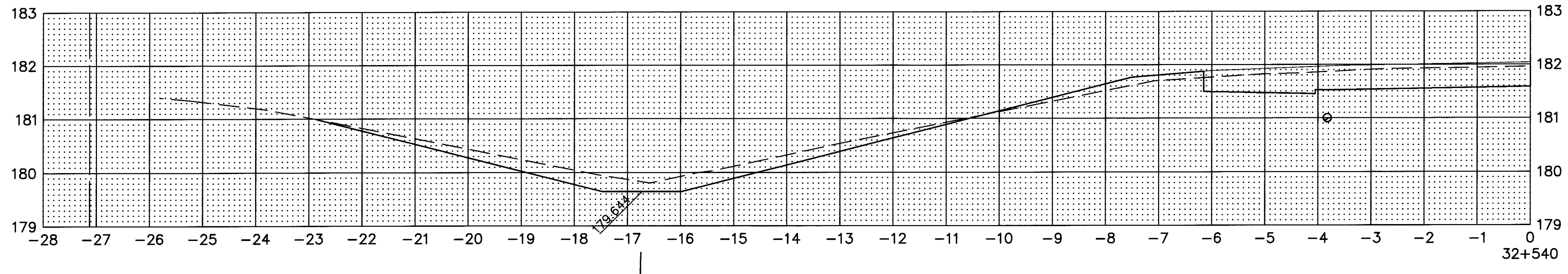
FILE NAME: X6 I:\5033\006\TRAN\SECTIONS\WEAVE.DWG 5-20-99 9:55:31 am EST

SEEDING	
END WIDTH	SQ. METER
14	
16	300
18	340
19	370
19	380
1390 TOTAL THIS SHEET	

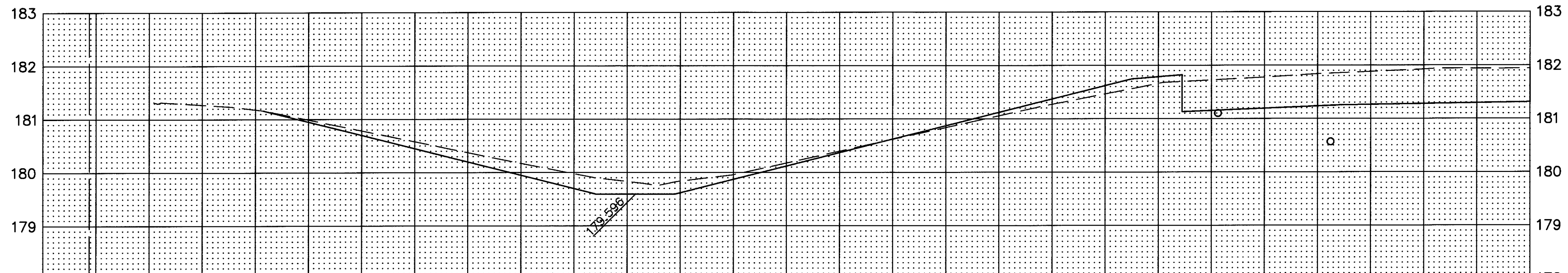
STA. 32+580



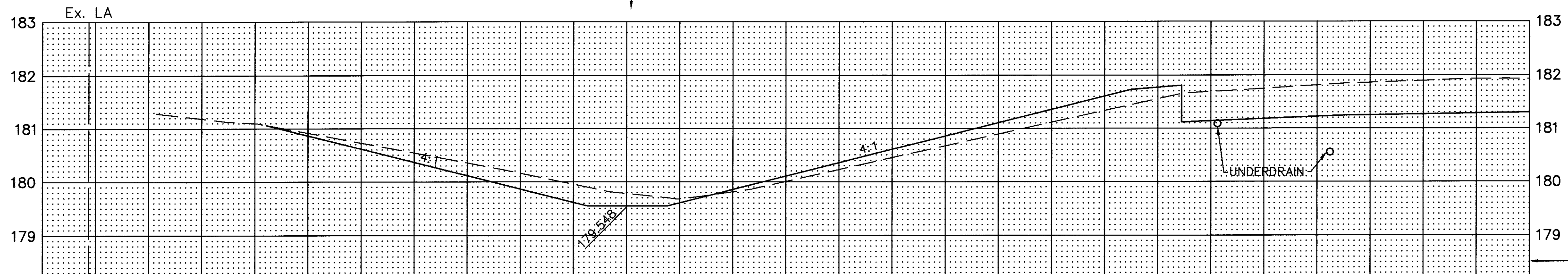
STA. 32+580



32+540



32+520



32+500

END AREA	VOLUME	CALCULATED BY J.E.F.	DATE 5-99	CHECKED BY J.T.V.	DATE 5-99
6.32	0.05				
	129.0				0.7
6.58	0.01				
	126.4				3.8
6.06	0.37				
	116.3				10.1
5.57	0.63				
	109.9				20.2
5.42	1.39				
TOTAL THIS SHEET					
	482				35

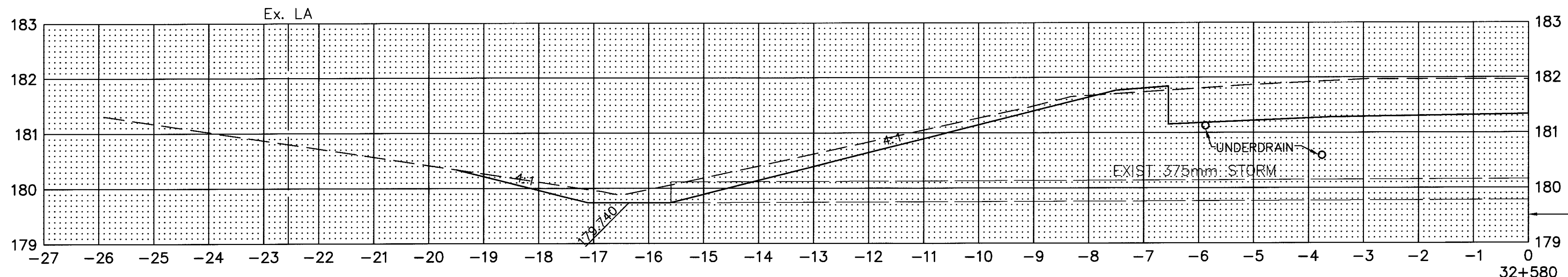
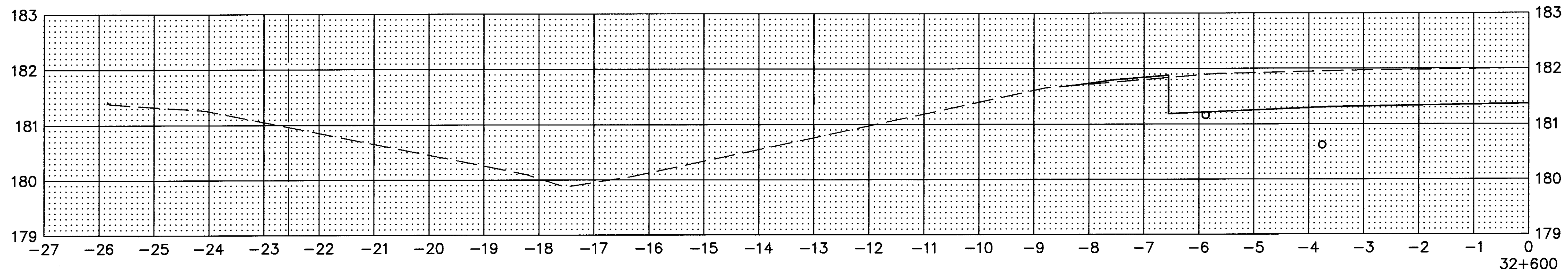
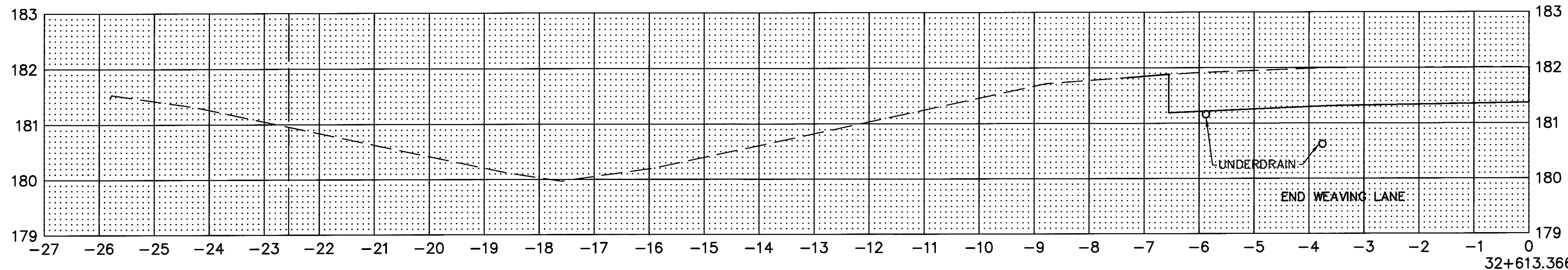
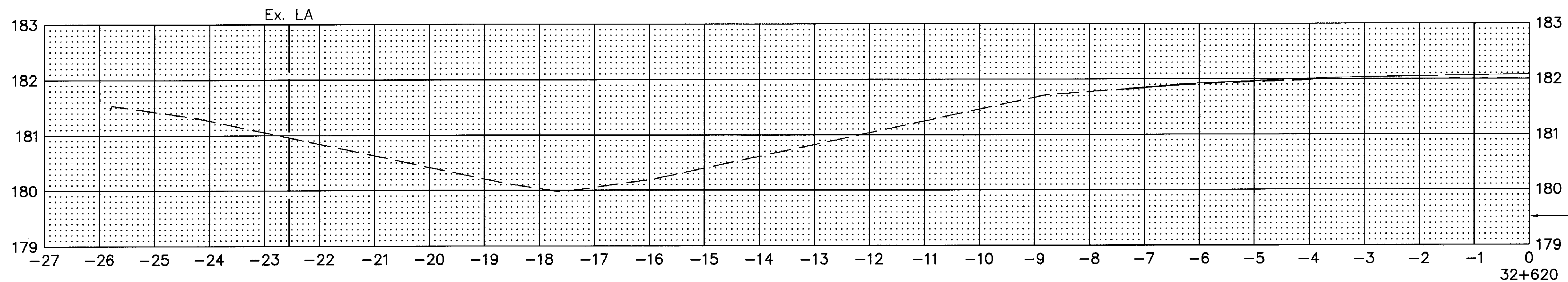
CROSS SECTIONS STATE ROUTE 2
STA. 32+500 TO STA. 32+560

ERI-2-12.558

199
432

SEEDING
END SQ.
WIDTH METER

0	3.3	2	8.4	3	170	14
---	-----	---	-----	---	-----	----



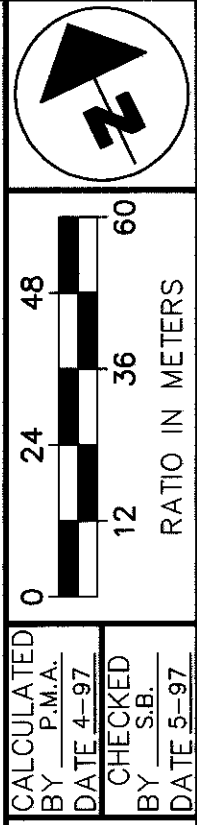
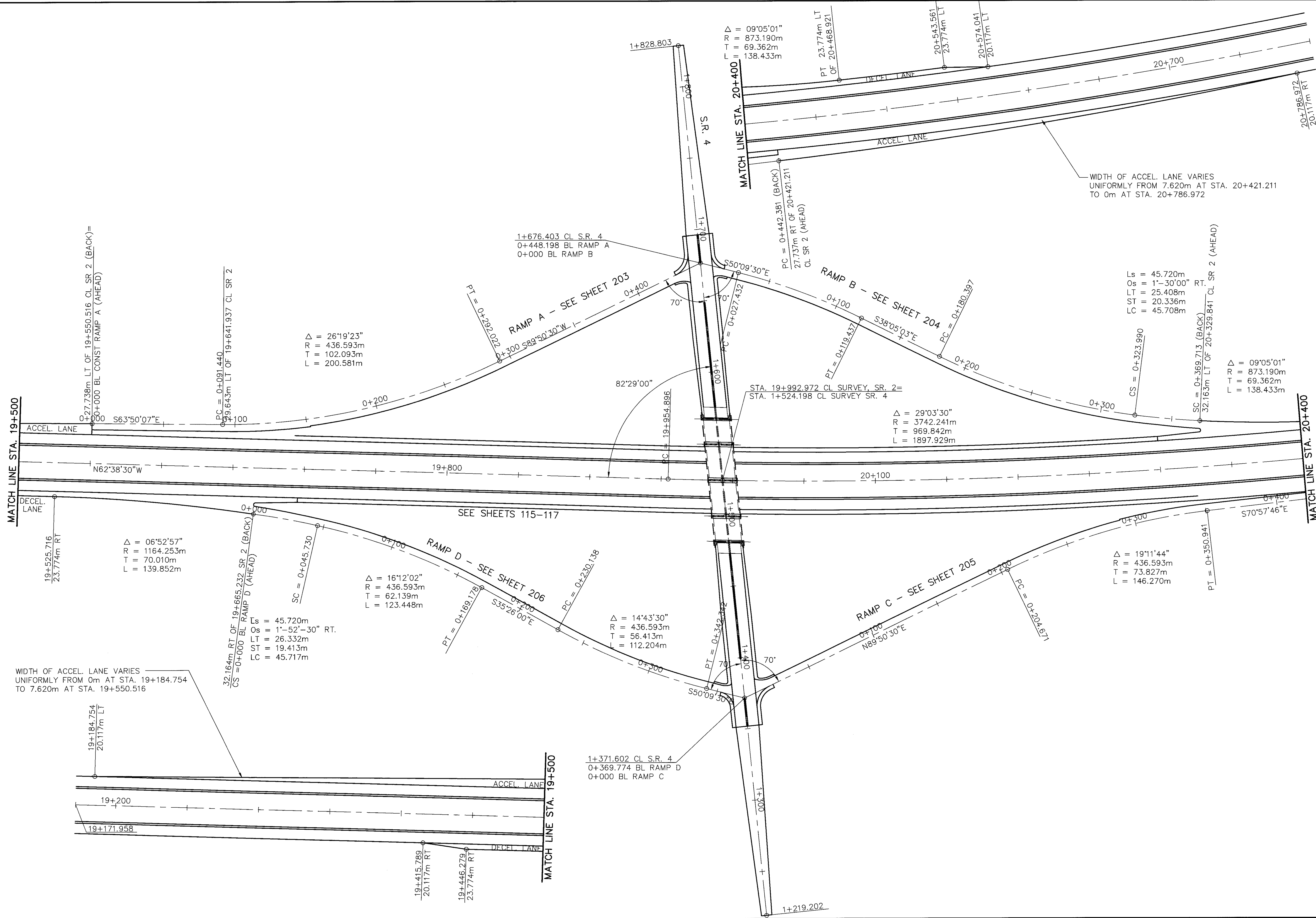
END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	14.5	0.3
4.37	0.10	85.7	0.6
4.20	0.10	105.2	2.0
6.32	0.10		
TOTAL THIS SHEET		205	3
TOTAL S.R. 2 STA. 32+100 TO STA. 32+620 CARRIED TO SHT. 114		2869	1082

CROSS SECTIONS STATE ROUTE 2
STA. 32+580 TO STA. 32+620

ERI-2-12.558

200
432

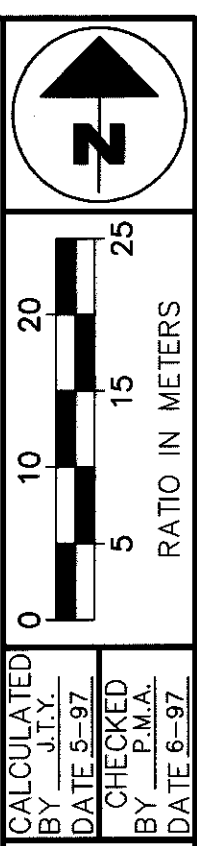
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J.E.F.



CALCULATED BY: P.M.A.	DATE: 4-97
CHECKED BY: S.B.	DATE: 5-97

**S.R. 4 INTERCHANGE
GENERAL PLAN**

ERI-2-12.558

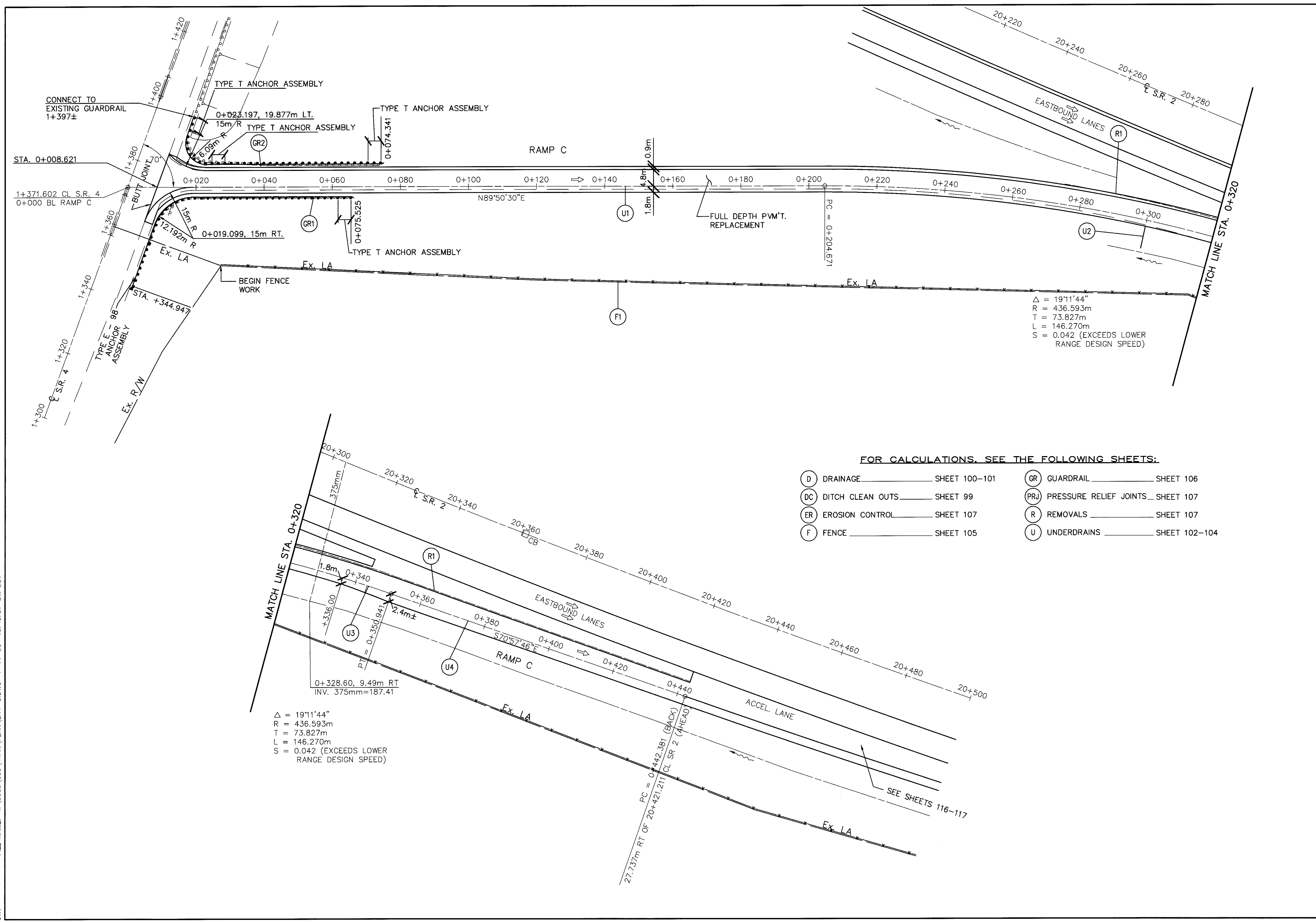


CALCULATED BY: J.T.V.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 5-97

**PLAN S.R. 4 INTERCHANGE RAMP-C
 STA. 0+000 TO STA. 0+442.381**

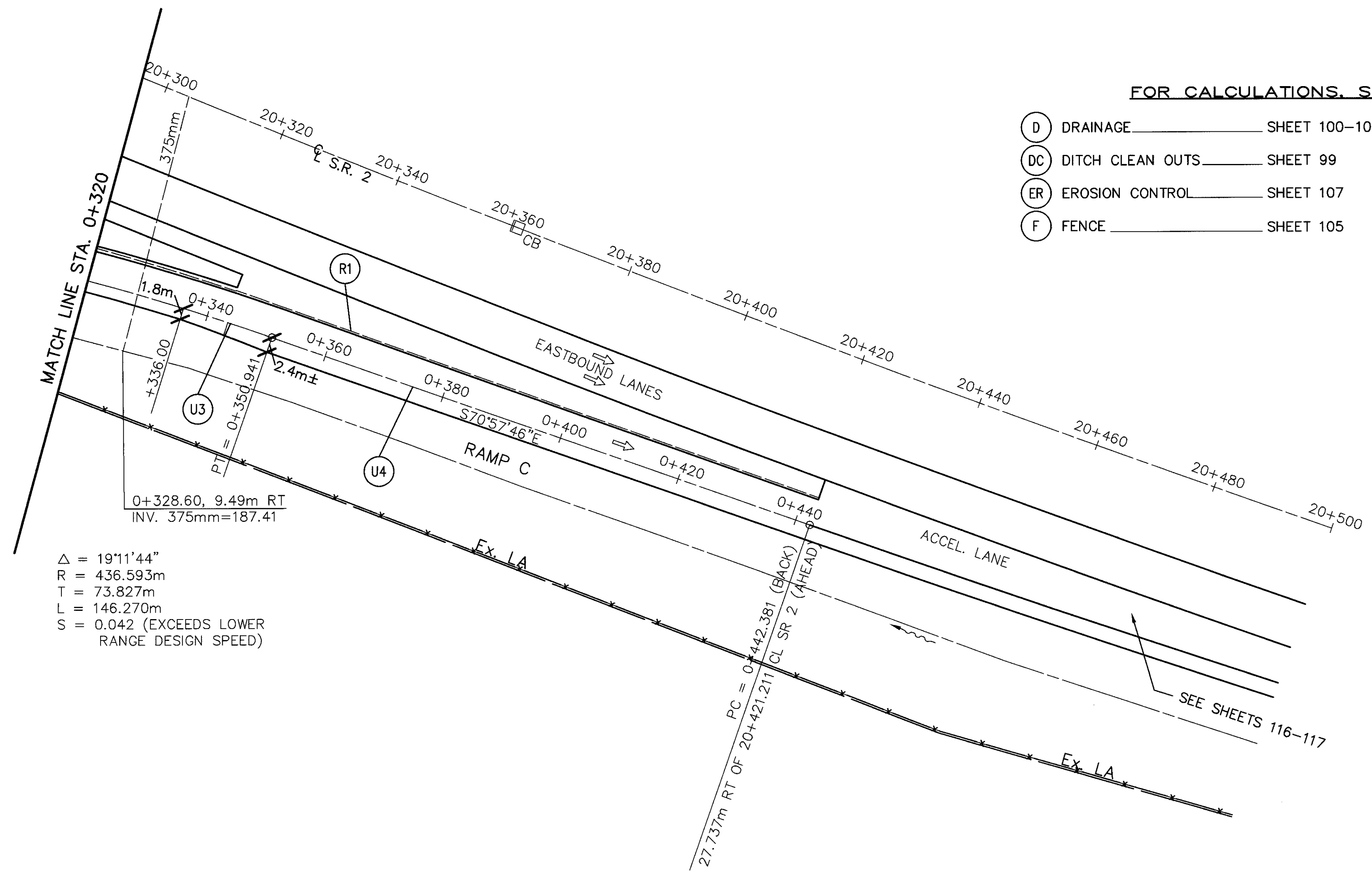
ERI-2-12.558

205
 432

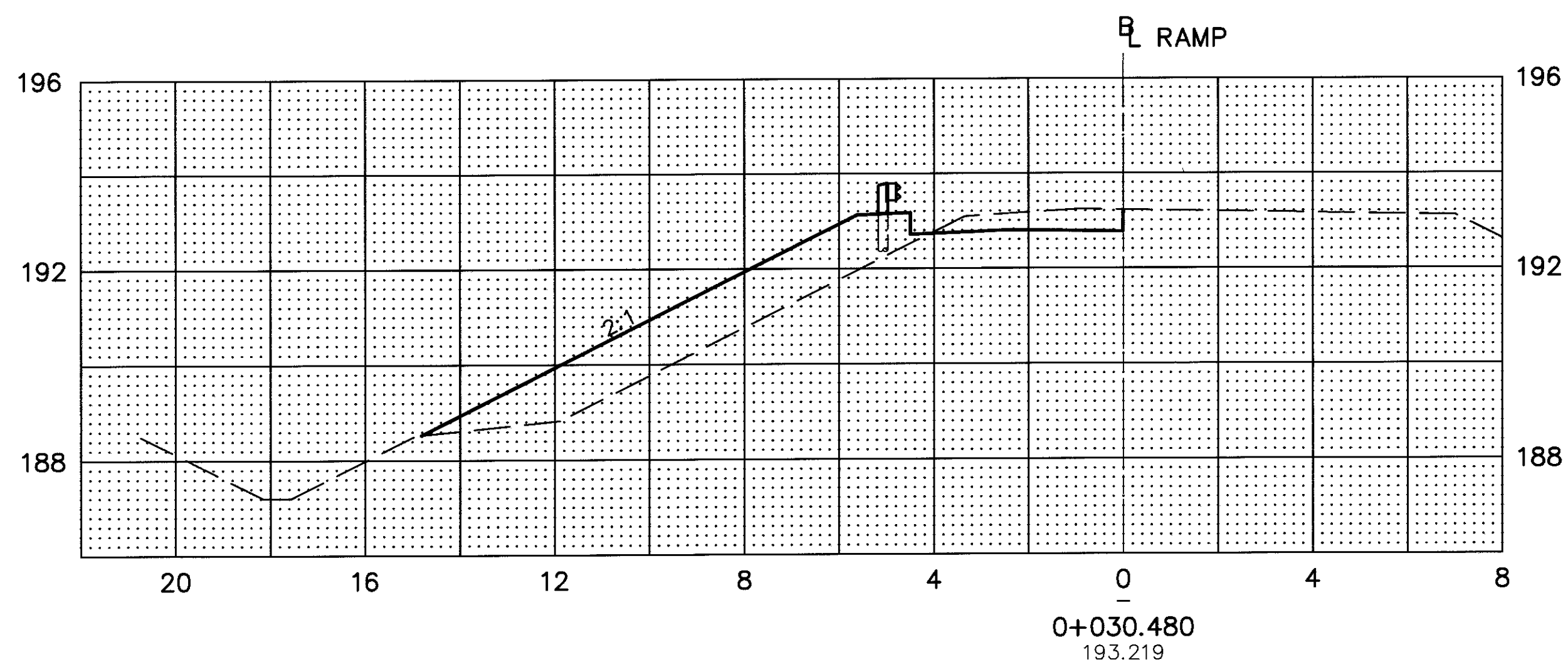
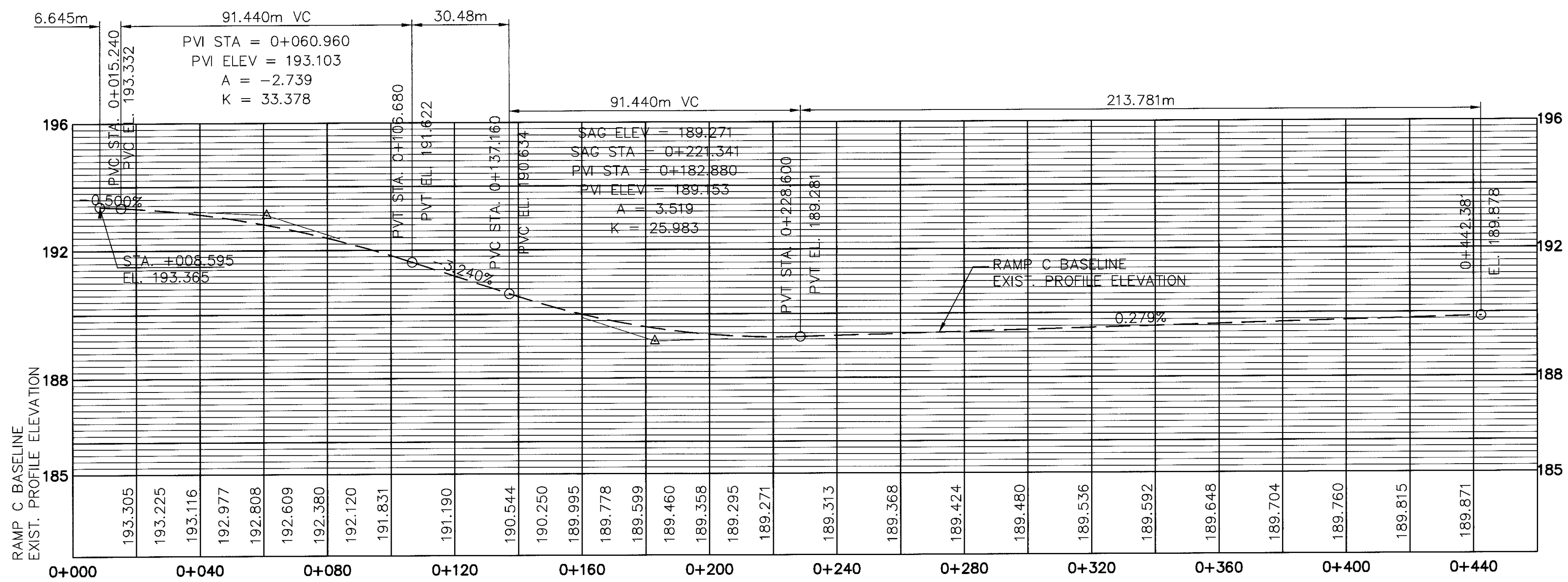


FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

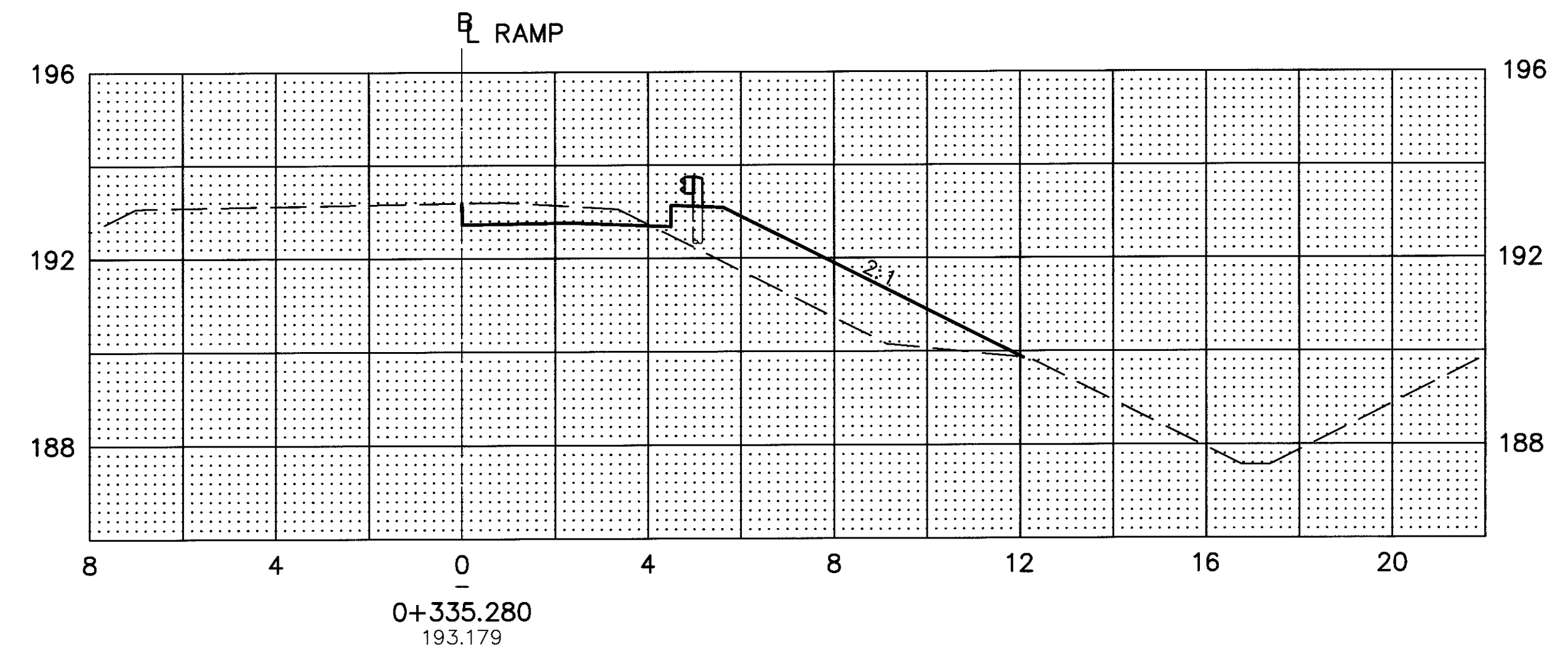


FILE NAME: I:\5033\006\TRAN\PLAN\SR4-C.DWG 7-14-99 10:46:57 am EST



SR 4 - RAMP B

EXCAVATION = 1.5 SQ. M x 62m = 93 CU. M
 EMBANKMENT = 10.1 SQ. M x 45m = 455 CU. M
 SEEDING & MULCHING = 13m x 62m = 806 SQ. M



SR 4 - RAMP D

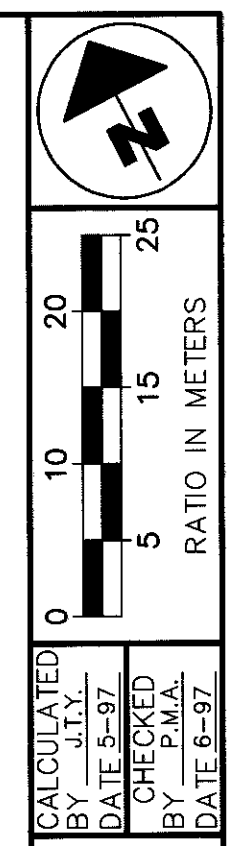
EXCAVATION = 1.5 SQ. M x 61m = 92 CU. M
 EMBANKMENT = 6.9 SQ. M x 48m = 331 CU. M
 SEEDING & MULCHING = 10m x 61m = 610 SQ. M

CALCULATED BY: JTY
 DATE: 5-99
 CHECKED BY: GAB
 DATE: 5-99

PROFILE S.R. 4 INTERCHANGE RAMP-C
 STA 0+000 TO STA. 0+442.381

ERI-2-12.558

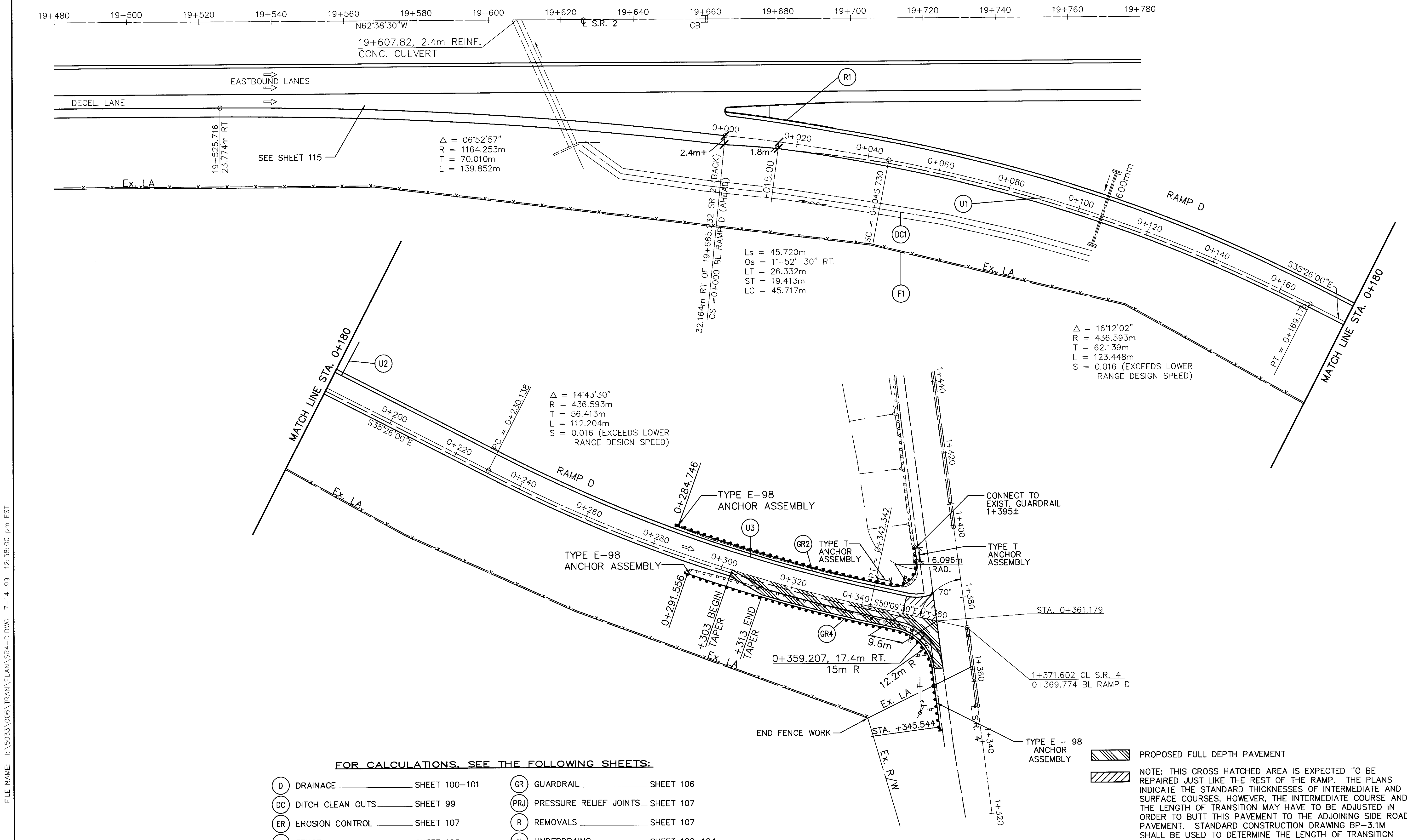
205A
 432



**PLAN S.R. 4 INTERCHANGE RAMP D
STA. 0+000 TO STA. 0+369.774**

ERI-2-12.558

206
432



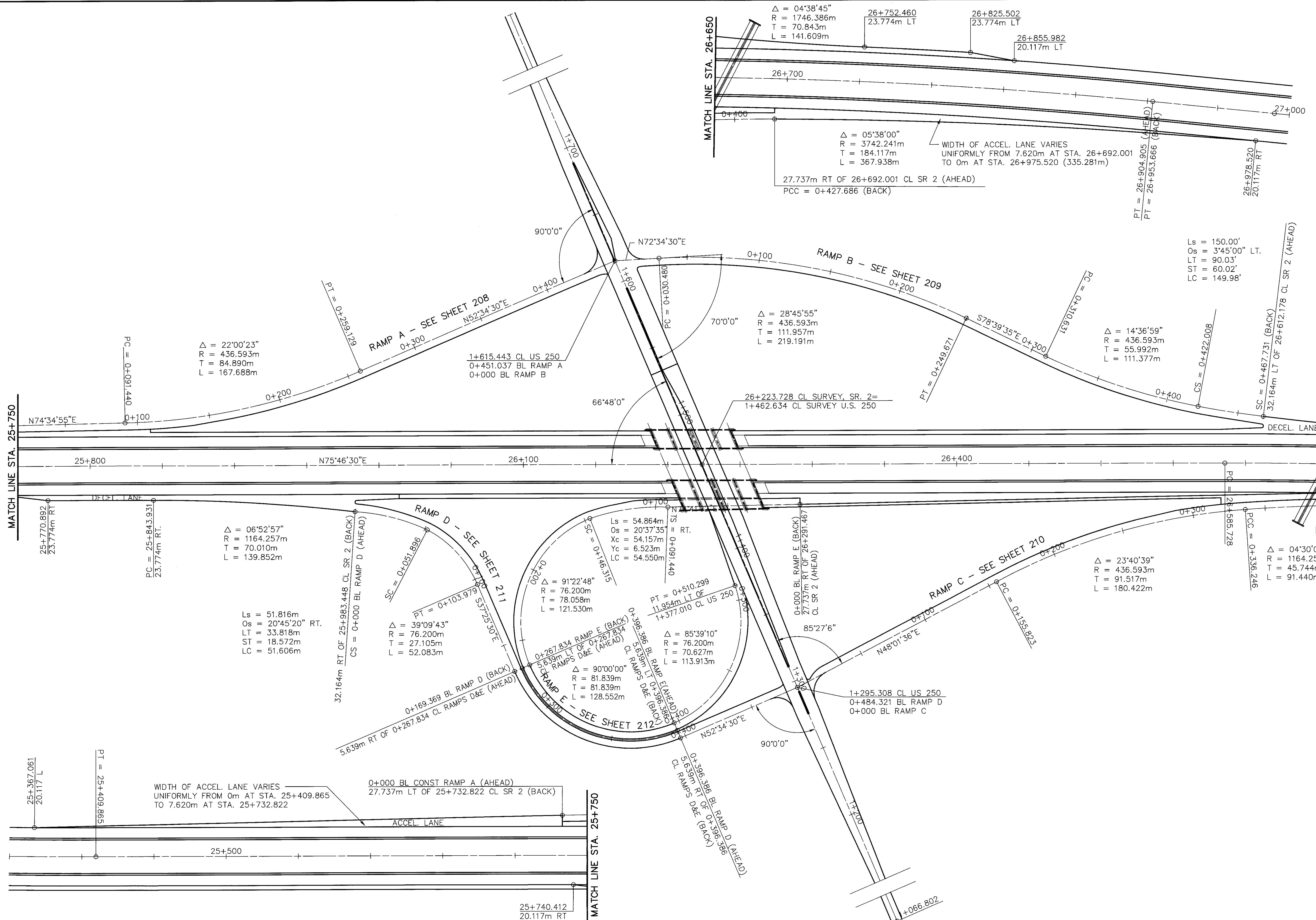
FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

PROPOSED FULL DEPTH PAVEMENT

NOTE: THIS CROSS HATCHED AREA IS EXPECTED TO BE REPAIRED JUST LIKE THE REST OF THE RAMP. THE PLANS INDICATE THE STANDARD THICKNESSES OF INTERMEDIATE AND SURFACE COURSES, HOWEVER, THE INTERMEDIATE COURSE AND THE LENGTH OF TRANSITION MAY HAVE TO BE ADJUSTED IN ORDER TO BUTT THIS PAVEMENT TO THE ADJOINING SIDE ROAD PAVEMENT. STANDARD CONSTRUCTION DRAWING BP-3.1M SHALL BE USED TO DETERMINE THE LENGTH OF TRANSITION (MIN. LENGTH=120 MM PER MM OF "d") AND THE QUANTITIES ADJUSTED AS DIRECTED BY THE ENGINEER.

FILE NAME: I:\5033\006\TRAN\PLAN\SR4-D.DWG 7-14-99 12:58:00 pm EST



RATIO IN METERS

CALCULATED BY	J.E.F.
CHECKED BY	J.E.F.
DATE	4-97
DATE	5-97

U.S. ROUTE 250 INTERCHANGE GENERAL PLAN

207
432

0 10 20
5 15 25
RATIO IN METERS

CALCULATED BY: PMA
DATE: 4-97
CHECKED BY: SR
DATE: 5-97

**PLAN U.S. 250 INTERCHANGE RAMP A
STA. 0+000 TO STA. 0+451.037**

ERI-2-12.558

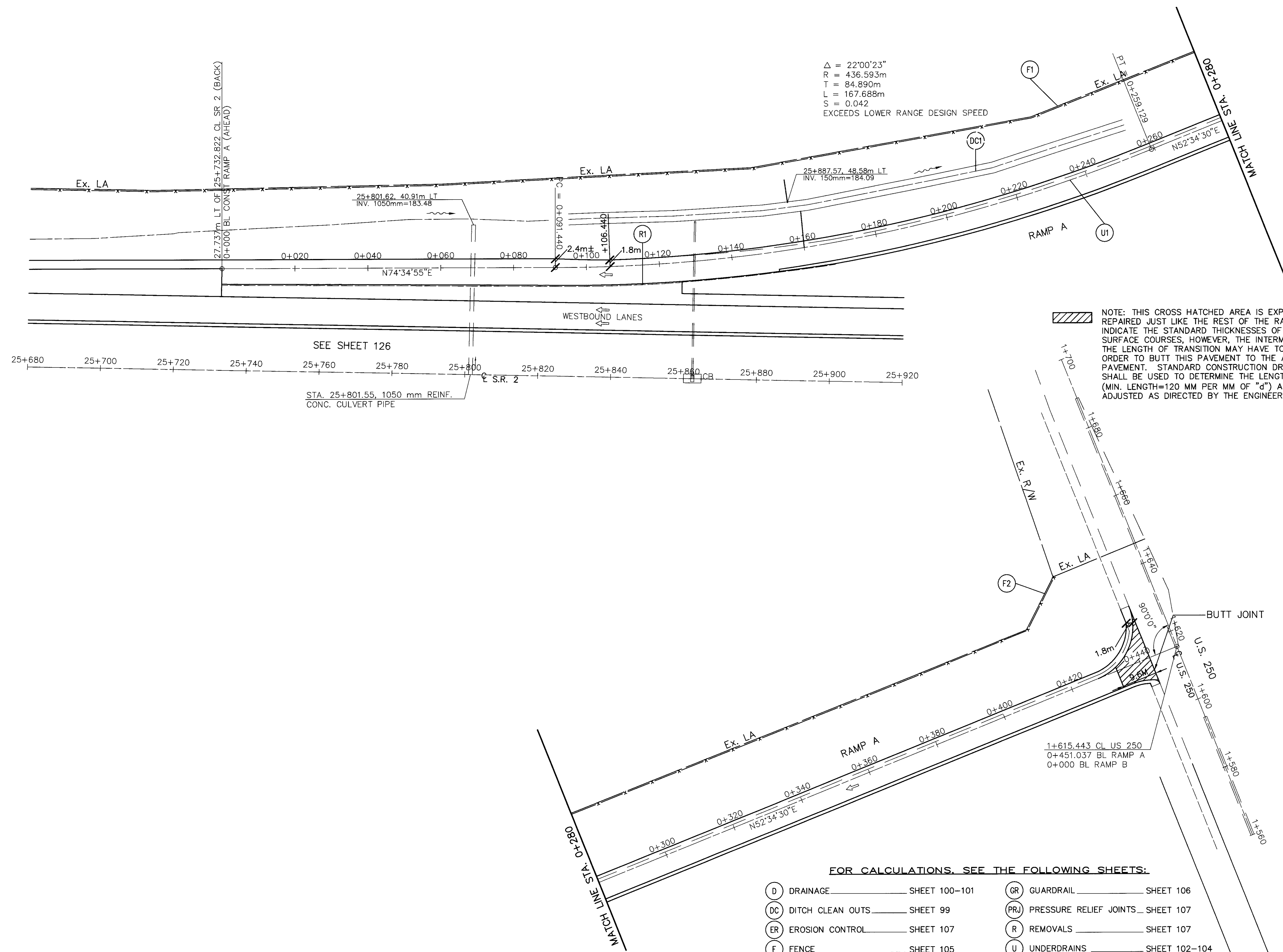
208
432

$\Delta = 22^{\circ}00'23''$
 $R = 436.593m$
 $T = 84.890m$
 $L = 167.688m$
 $S = 0.042$
 EXCEEDS LOWER RANGE DESIGN SPEED

NOTE: THIS CROSS HATCHED AREA IS EXPECTED TO BE REPAIRED JUST LIKE THE REST OF THE RAMP. THE PLANS INDICATE THE STANDARD THICKNESSES OF INTERMEDIATE AND SURFACE COURSES, HOWEVER, THE INTERMEDIATE COURSE AND THE LENGTH OF TRANSITION MAY HAVE TO BE ADJUSTED IN ORDER TO BUTT THIS PAVEMENT TO THE ADJOINING SIDE ROAD PAVEMENT. STANDARD CONSTRUCTION DRAWING BP-3.1M SHALL BE USED TO DETERMINE THE LENGTH OF TRANSITION (MIN. LENGTH=120 MM PER MM OF "d") AND THE QUANTITIES ADJUSTED AS DIRECTED BY THE ENGINEER.

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

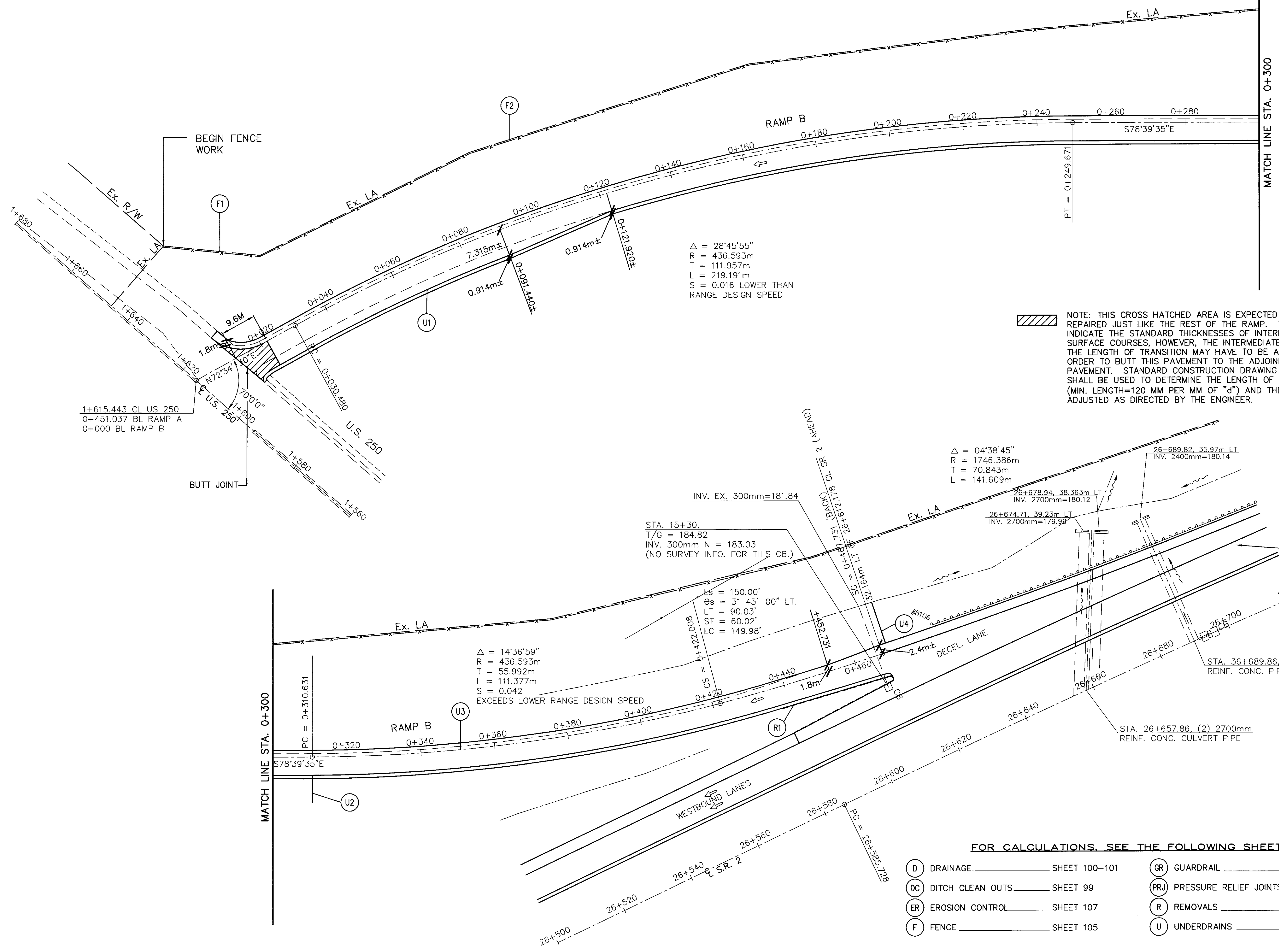
- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |




SEE SHEET 126

STA. 25+801.55, 1050 mm REINF.
CONC. CULVERT PIPE

FILE NAME: I:\5033\006\TRAN\PLAN\US250-A.DWG 7-14-99 1:08:11 pm EST



$\Delta = 28^{\circ}45'55''$
 $R = 436.593m$
 $T = 111.957m$
 $L = 219.191m$
 $S = 0.016$ LOWER THAN
 RANGE DESIGN SPEED


 NOTE: THIS CROSS HATCHED AREA IS EXPECTED TO BE REPAIRED JUST LIKE THE REST OF THE RAMP. THE PLANS INDICATE THE STANDARD THICKNESSES OF INTERMEDIATE AND SURFACE COURSES, HOWEVER, THE INTERMEDIATE COURSE AND THE LENGTH OF TRANSITION MAY HAVE TO BE ADJUSTED IN ORDER TO BUTT THIS PAVEMENT TO THE ADJOINING SIDE ROAD PAVEMENT. STANDARD CONSTRUCTION DRAWING BP-3.1M SHALL BE USED TO DETERMINE THE LENGTH OF TRANSITION (MIN. LENGTH=120 MM PER MM OF "d") AND THE QUANTITIES ADJUSTED AS DIRECTED BY THE ENGINEER.

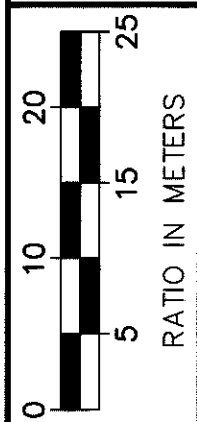
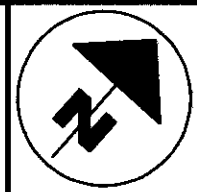
$\Delta = 04^{\circ}38'45''$
 $R = 1746.386m$
 $T = 70.843m$
 $L = 141.609m$

$\Delta = 14^{\circ}36'59''$
 $R = 436.593m$
 $T = 55.992m$
 $L = 111.377m$
 $S = 0.042$
 EXCEEDS LOWER RANGE DESIGN SPEED

STA. 15+30,
 $T/G = 184.82$
 $INV. 300mm N = 183.03$
 (NO SURVEY INFO. FOR THIS CB.)

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |



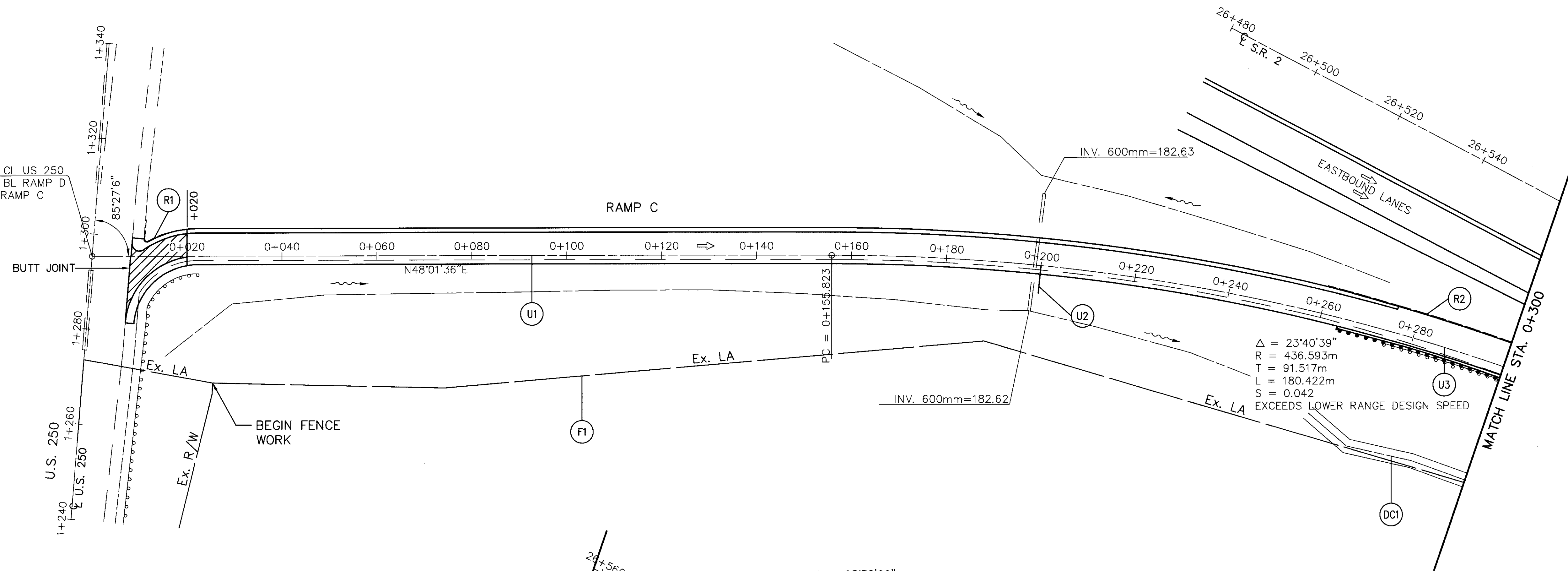
CALCULATED BY: PMA
 DATE: 4-97
 CHECKED BY: SB
 DATE: 5-97

**PLAN U.S. 250 INTERCHANGE RAMP C
 STA. 0+000 TO STA. 0+427.686**

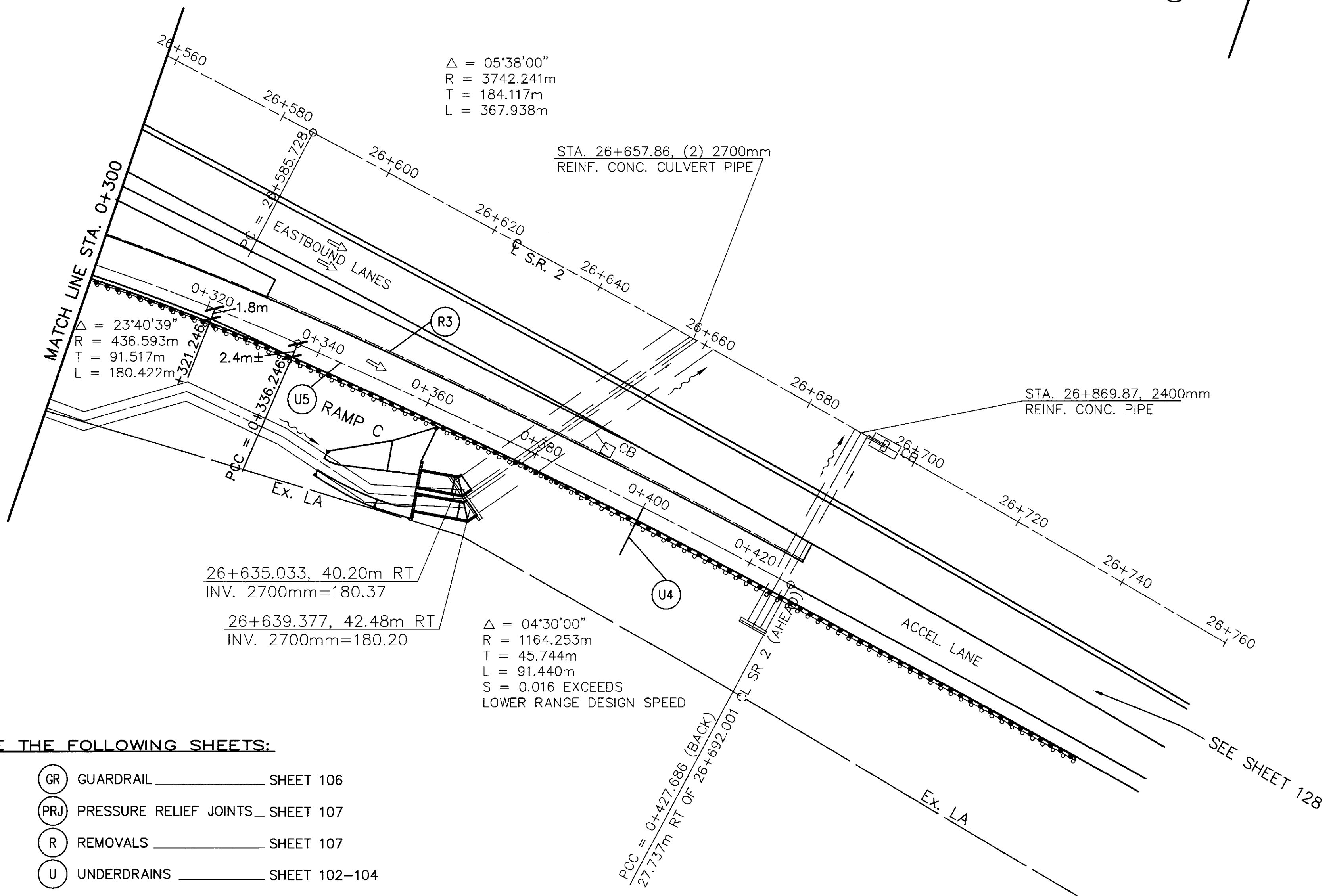
ERI-2-12.558

210
432

1+295.308 CL US 250
 0+484.321 BL RAMP D
 0+000 BL RAMP C

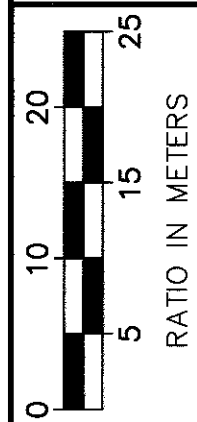
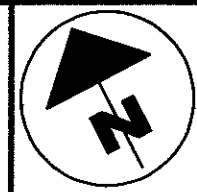


NOTE: THIS CROSS HATCHED AREA IS EXPECTED TO BE REPAIRED JUST LIKE THE REST OF THE RAMP. THE PLANS INDICATE THE STANDARD THICKNESSES OF INTERMEDIATE AND SURFACE COURSES, HOWEVER, THE INTERMEDIATE COURSE AND THE LENGTH OF TRANSITION MAY HAVE TO BE ADJUSTED IN ORDER TO BUTT THIS PAVEMENT TO THE ADJOINING SIDE ROAD PAVEMENT. STANDARD CONSTRUCTION DRAWING BP-3.1M SHALL BE USED TO DETERMINE THE LENGTH OF TRANSITION (MIN. LENGTH=120 MM PER MM OF "d") AND THE QUANTITIES ADJUSTED AS DIRECTED BY THE ENGINEER.



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |



CALCULATED BY: PMA
DATE: 4-97
CHECKED BY: SB
DATE: 5-97

**PLAN U.S. 250 INTERCHANGE RAMP D
STA. 0+000 TO STA. 0+484.321**

ERI-2-12.558

NOTE: THIS CROSS HATCHED AREA IS EXPECTED TO BE REPAIRED JUST LIKE THE REST OF THE RAMP. THE PLANS INDICATE THE STANDARD THICKNESSES OF INTERMEDIATE AND SURFACE COURSES, HOWEVER, THE INTERMEDIATE COURSE AND THE LENGTH OF TRANSITION MAY HAVE TO BE ADJUSTED IN ORDER TO BUTT THIS PAVEMENT TO THE ADJOINING SIDE ROAD PAVEMENT. STANDARD CONSTRUCTION DRAWING BP-3.1M SHALL BE USED TO DETERMINE THE LENGTH OF TRANSITION (MIN. LENGTH=120 MM PER MM OF "d") AND THE QUANTITIES ADJUSTED AS DIRECTED BY THE ENGINEER.

$\Delta = 85^{\circ}39'10''$
 $R = 76.200m$
 $T = 70.627m$
 $L = 113.913m$
 $S = 0.083$
EXCEEDS LOWER RANGE DESIGN SPEED

$\Delta = 91^{\circ}22'48''$
 $R = 76.200m$
 $T = 78.058m$
 $L = 121.530m$

$\Delta = 90^{\circ}00'00''$
 $R = 81.839m$
 $T = 81.839m$
 $L = 128.552m$
 $S = 0.083$
EXCEEDS LOWER RANGE DESIGN SPEED

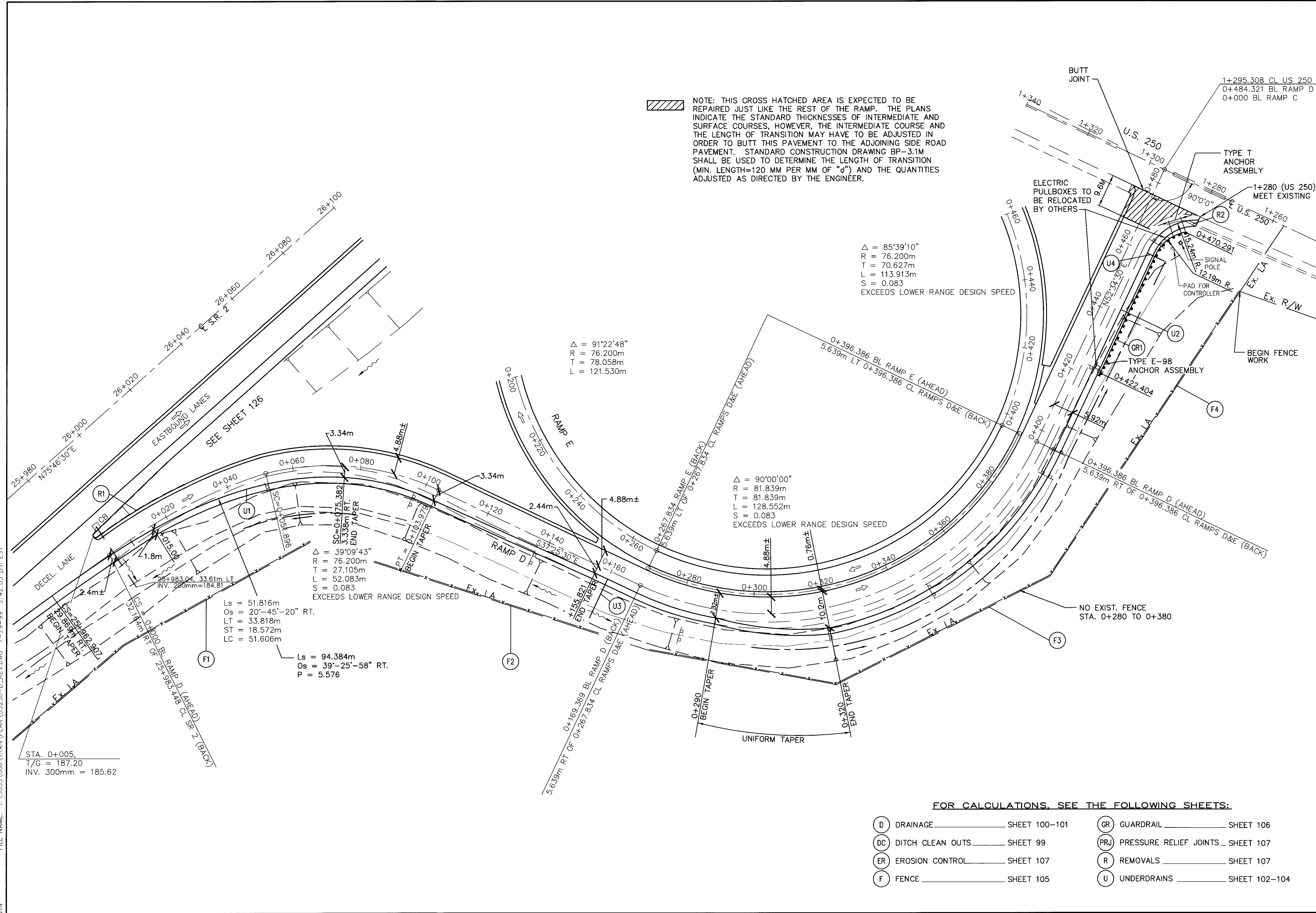
$\Delta = 39^{\circ}09'43''$
 $R = 76.200m$
 $T = 27.105m$
 $L = 52.083m$
 $S = 0.083$
EXCEEDS LOWER RANGE DESIGN SPEED

$L_s = 51.816m$
 $O_s = 20^{\circ}-45'-20''$ RT.
 $LT = 33.818m$
 $ST = 18.572m$
 $LC = 51.606m$

$L_s = 94.384m$
 $O_s = 39^{\circ}-25'-58''$ RT.
 $P = 5.576$

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

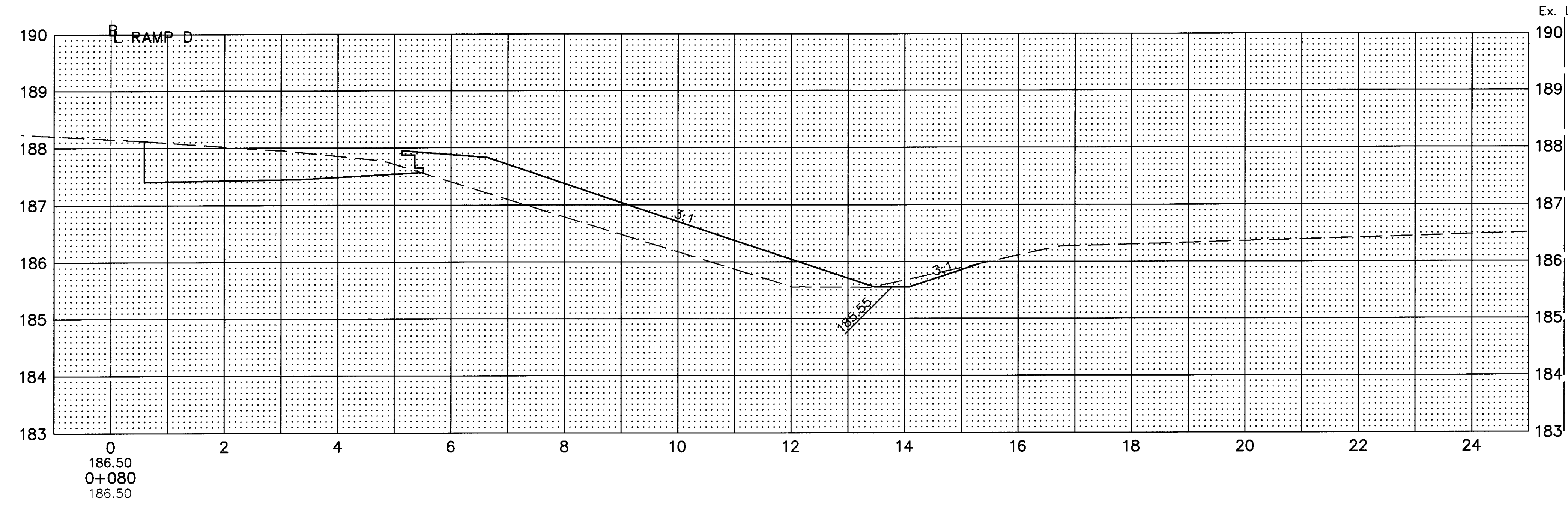


FILE NAME: I:\5033\006\TRAN PLAN\US250-D_REV.DWG 7-29-99 2:42:03 pm EST

FILE NAME: X1~ I:\5033\006\TRAM\SECTIONS\US250RAMP.DWG 7-28-99 11:47:53 am EST

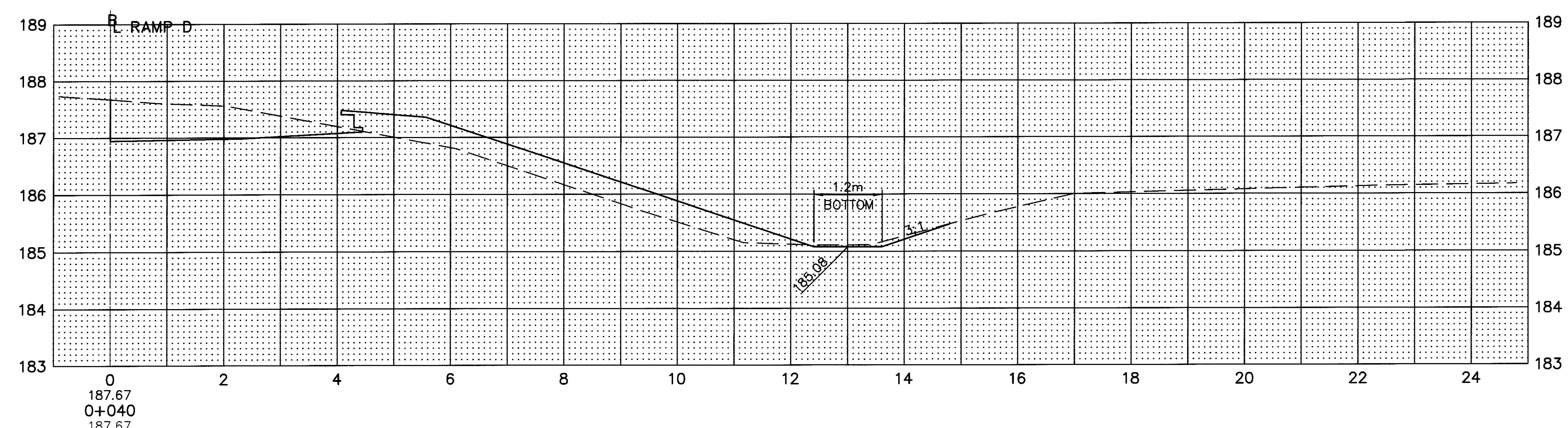
SEEDING	
END WIDTH	SQ. METER
6	340
11	460
12	300
3	
1100	TOTAL THIS SHEET

STA. 0+120



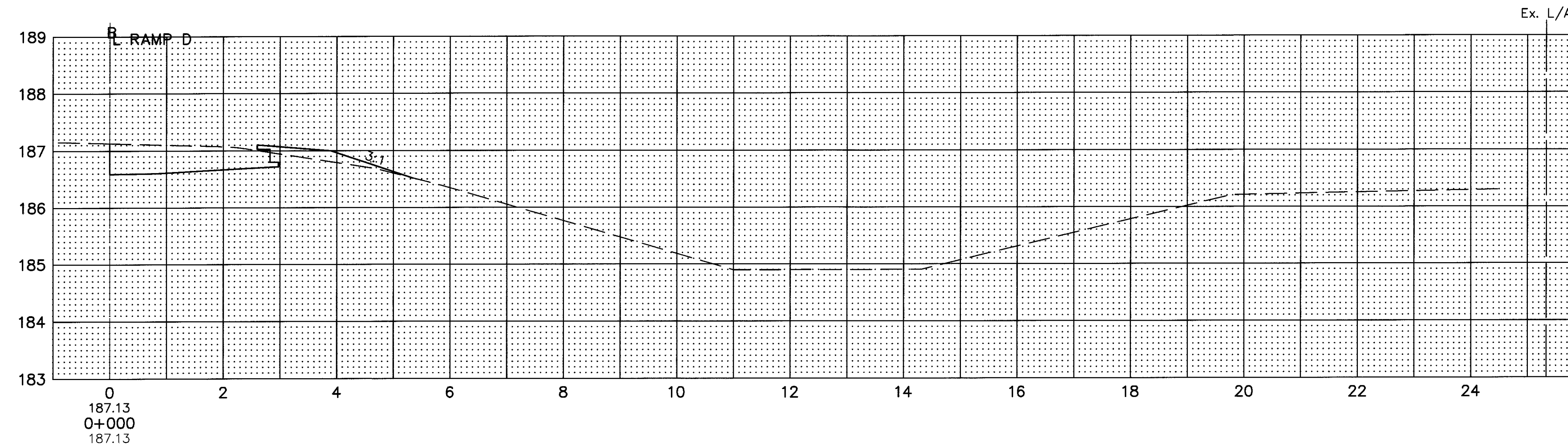
Ex. L/A STA. 0+120

STA. 0+040



Ex. L/A STA. 0+040

STA. 0+000 AHEAD



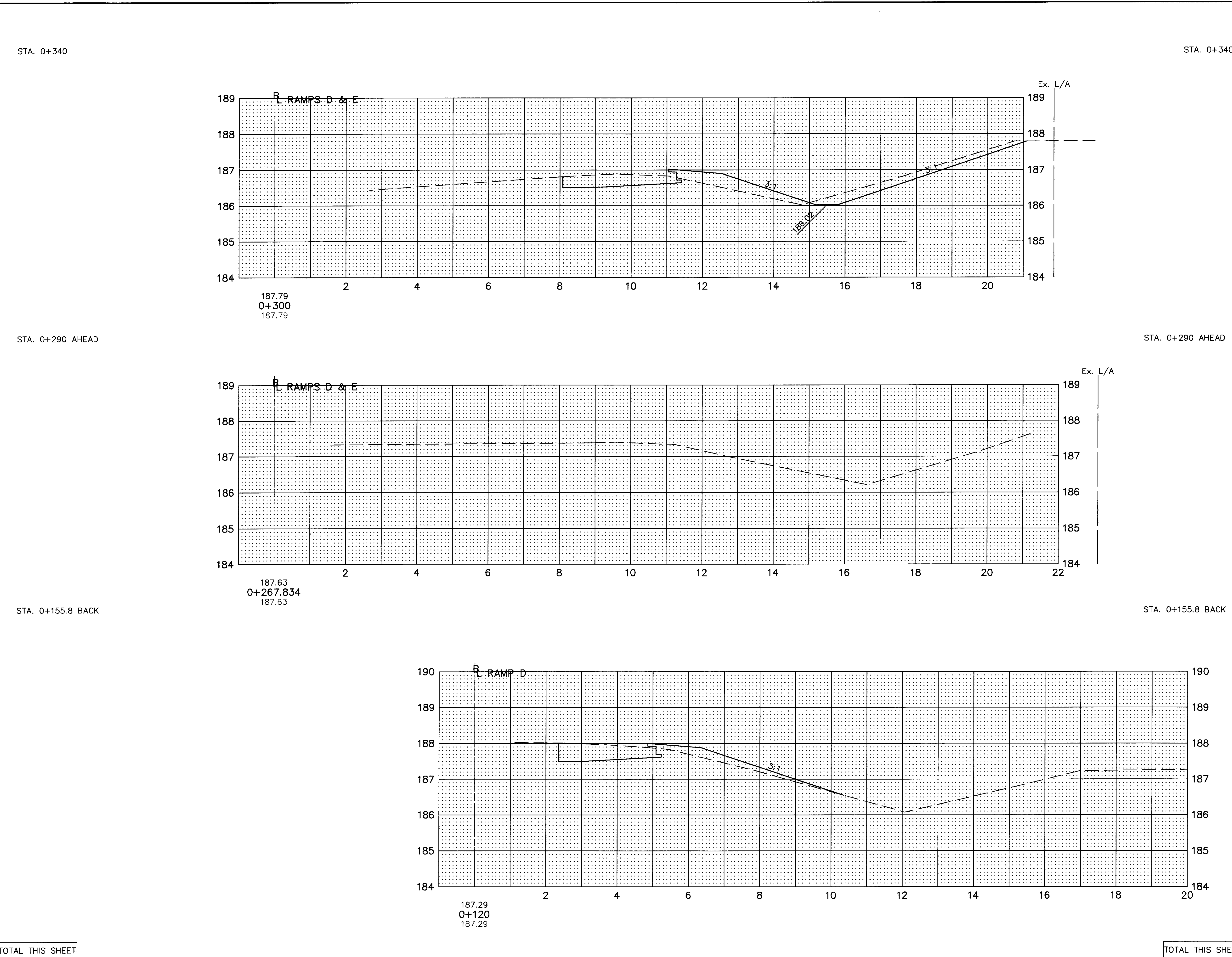
Ex. L/A STA. 0+000 AHEAD

END AREA	VOLUME	CROSS SECTIONS-US ROUTE 250 - RAMP D	
		CUT	FILL
1.1	0.7	70	92
2.4	3.9	90	136
2.1	2.9	66	64
1.2	0.3		
TOTAL THIS SHEET		226	292

CROSS SECTIONS-US ROUTE 250 - RAMP D
 STA. 0+000 TO STA. 0+080
 ERI-2-12.558
 211A
 432

FILE NAME: X2~ I:\5033\006\TRAN\SECTIONS\US250RAMPD.DWG 7-28-99 11:47:53 am EST

SEEDING	
END WIDTH	SQ. METER
11	440
11	70
3	161
6	
671	TOTAL THIS SHEET



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4.5	2.3	130	66
2.0	1.0	15	5
1.0	0		
1.0	0		
1.1	0.7	38	13
		183	84

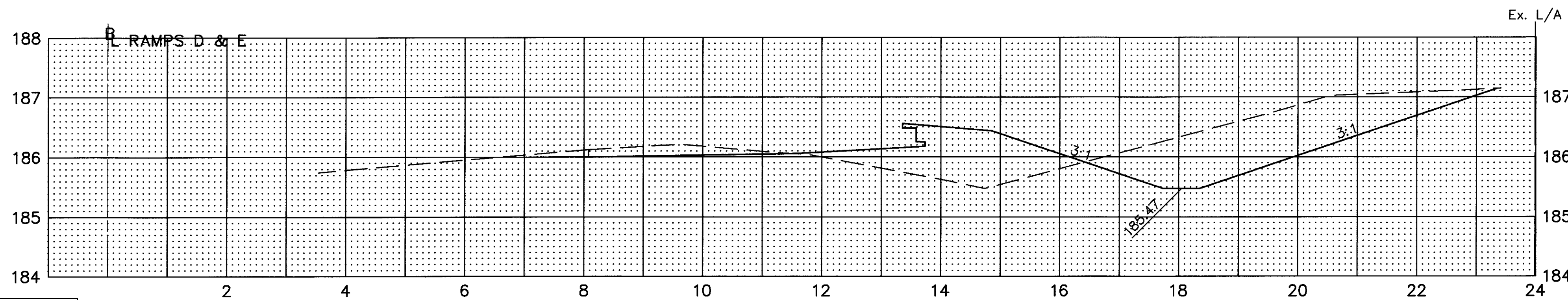
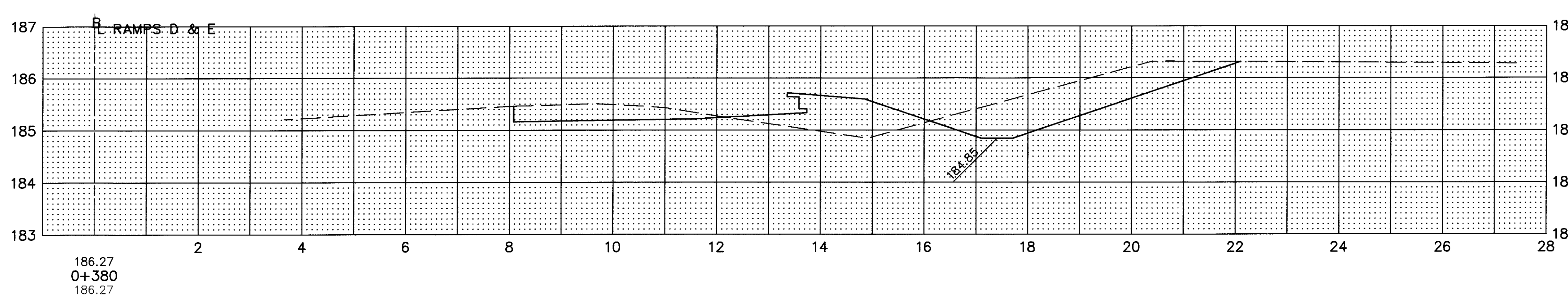
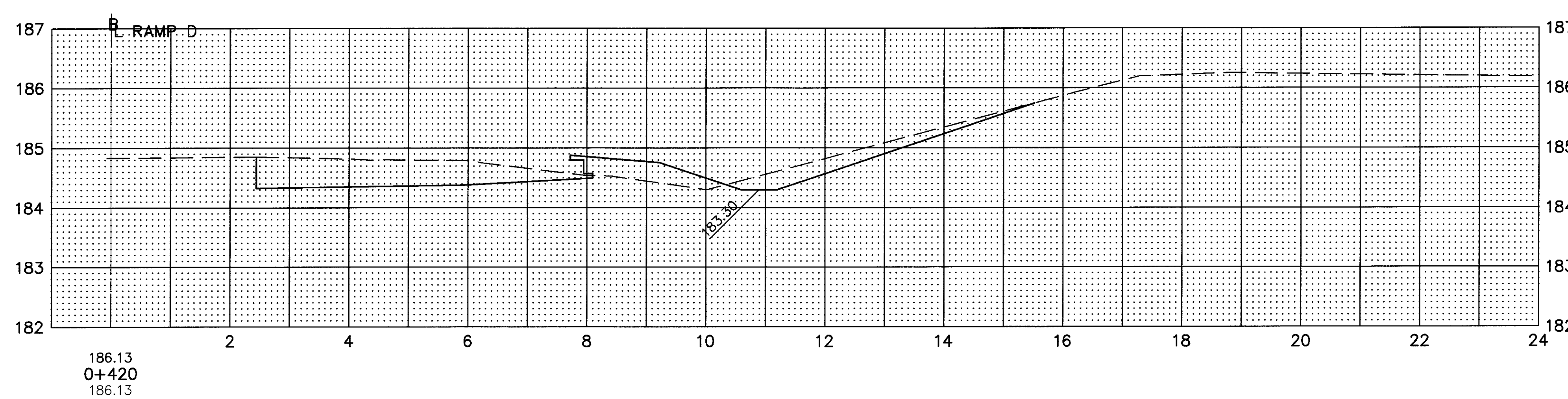
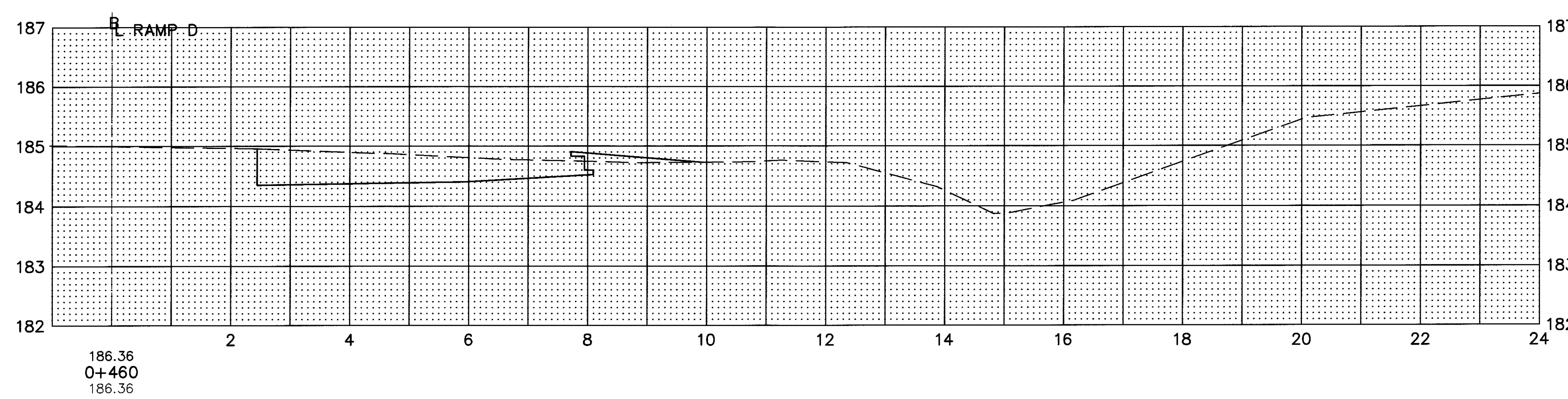
CROSS SECTIONS-US ROUTE 250 - RAMP D
STA. 0+120 TO STA. 0+300
ERI-2-12.558
 CALCULATED DATE 7-99
 CHECKED BY JTY
 DATE 7-99

211B
432

FILE NAME: X3~ I:\5033\006\TRAN\SECTIONS\US250RAMP.DWG 7-28-99 11:47:53 am EST

SEEDING	
END WIDTH	SQ. METER
3	45
3	220
8	340
9	400
11	
1005	TOTAL THIS SHEET
2776	GRAND TOTAL

STA. 0+475



STA. 0+475

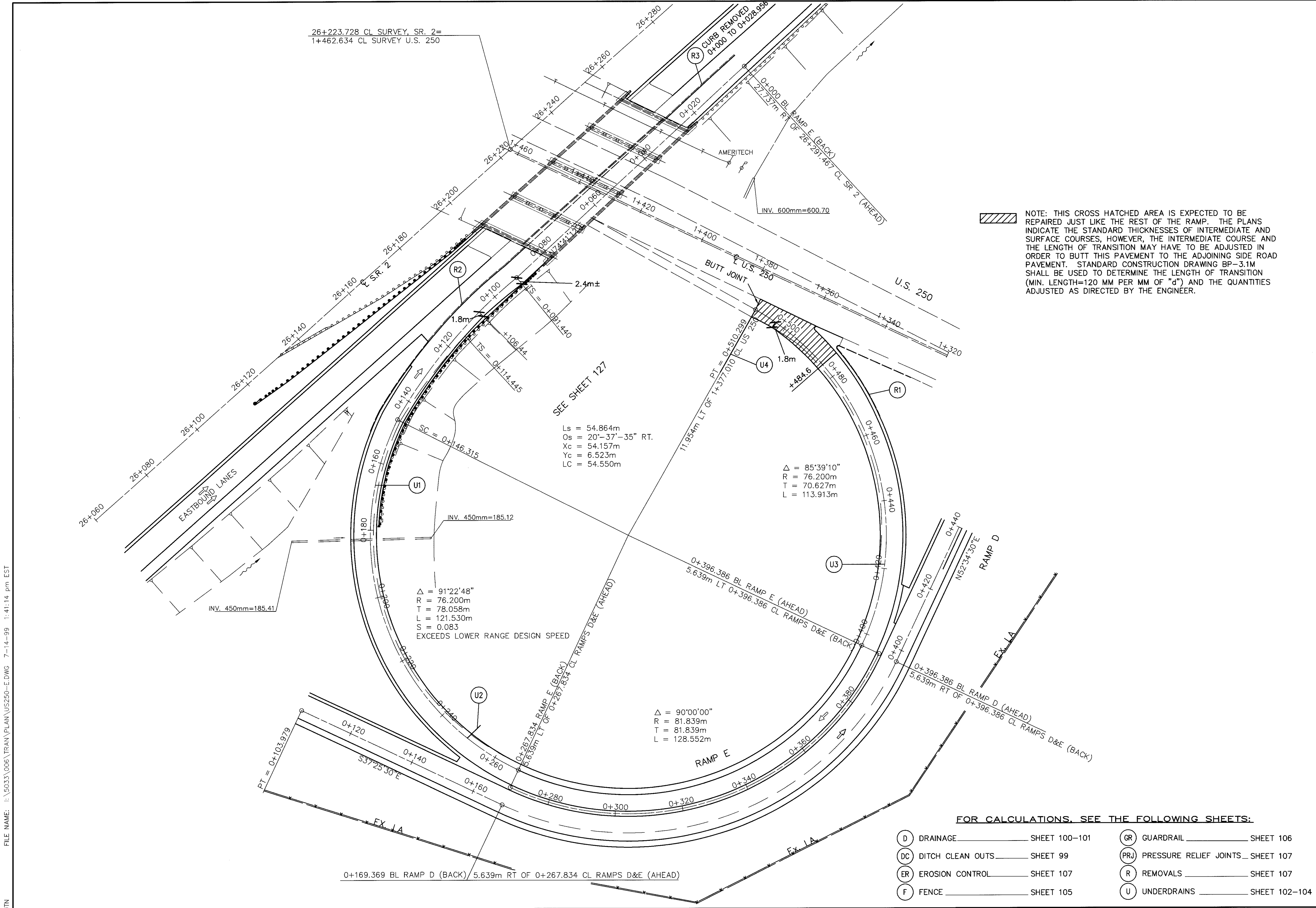
END AREA	VOLUME	CALCULATED	DATE	BY	CHECKED	DATE
2.4	0.2		7-99			7-99
2.4	0.2	36				
2.9	0.7	138				
4.0	1.6	170				
4.5	2.3	450				
		859				

CROSS SECTIONS-US ROUTE 250 - RAMP D
STA. 0+340 TO STA. 0+460

ERI-2-12.558

TOTAL THIS SHEET	450	145
GRAND TOTAL	859	521

2110
432



NOTE: THIS CROSS HATCHED AREA IS EXPECTED TO BE REPAIRED JUST LIKE THE REST OF THE RAMP. THE PLANS INDICATE THE STANDARD THICKNESSES OF INTERMEDIATE AND SURFACE COURSES, HOWEVER, THE INTERMEDIATE COURSE AND THE LENGTH OF TRANSITION MAY HAVE TO BE ADJUSTED IN ORDER TO BUTT THIS PAVEMENT TO THE ADJOINING SIDE ROAD PAVEMENT. STANDARD CONSTRUCTION DRAWING BP-3.1M SHALL BE USED TO DETERMINE THE LENGTH OF TRANSITION (MIN. LENGTH=120 MM PER MM OF "d") AND THE QUANTITIES ADJUSTED AS DIRECTED BY THE ENGINEER.

SEE SHEET 127

Ls = 54.864m
 Os = 20'-37'-35" RT.
 Xc = 54.157m
 Yc = 6.523m
 LC = 54.550m

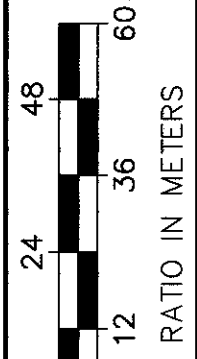
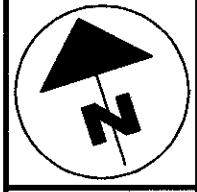
$\Delta = 85^{\circ}39'10''$
 R = 76.200m
 T = 70.627m
 L = 113.913m

$\Delta = 91^{\circ}22'48''$
 R = 76.200m
 T = 78.058m
 L = 121.530m
 S = 0.083
 EXCEEDS LOWER RANGE DESIGN SPEED

$\Delta = 90^{\circ}00'00''$
 R = 81.839m
 T = 81.839m
 L = 128.552m

FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

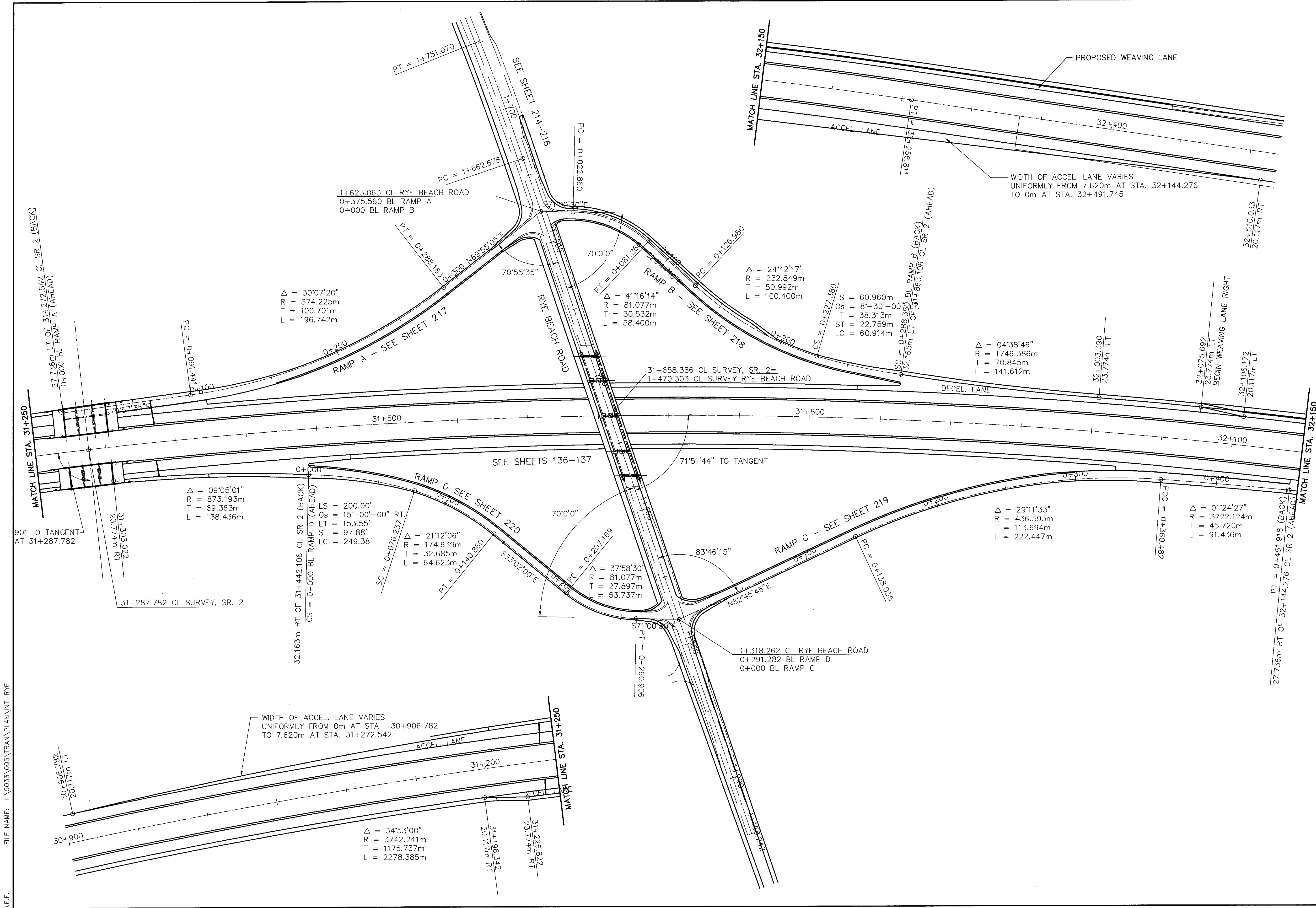


CALCULATED BY: P.M.A.
 DATE: 5-97
 CHECKED BY: S.B.
 DATE: 5-97

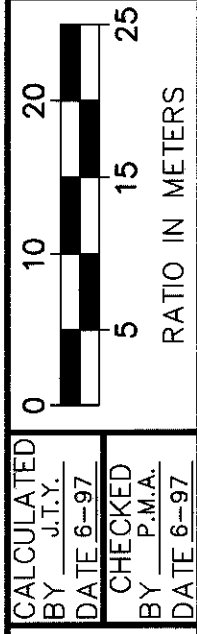
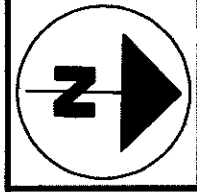
**RYE BEACH ROAD INTERCHANGE
 GENERAL PLAN**

ERI-2-12-558

213
 432



J.E.F. FILE NAME: I:\5033\005\TRAN\PLAN\INT-RYE



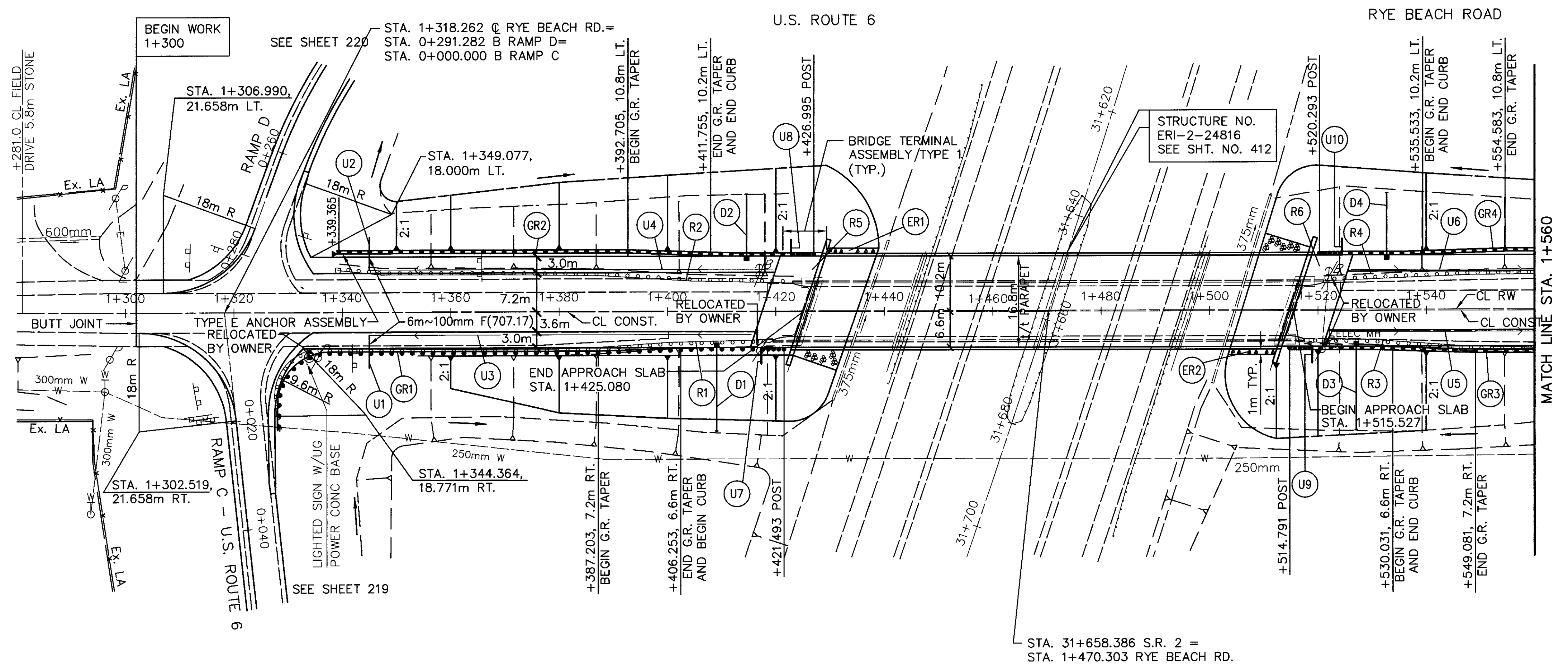
CALCULATED BY: J.T.Y. DATE: 8-97
CHECKED BY: P.M.A. DATE: 8-97

PLAN AND PROFILE RYE BEACH ROAD STA. 1+280 TO STA. 1+560

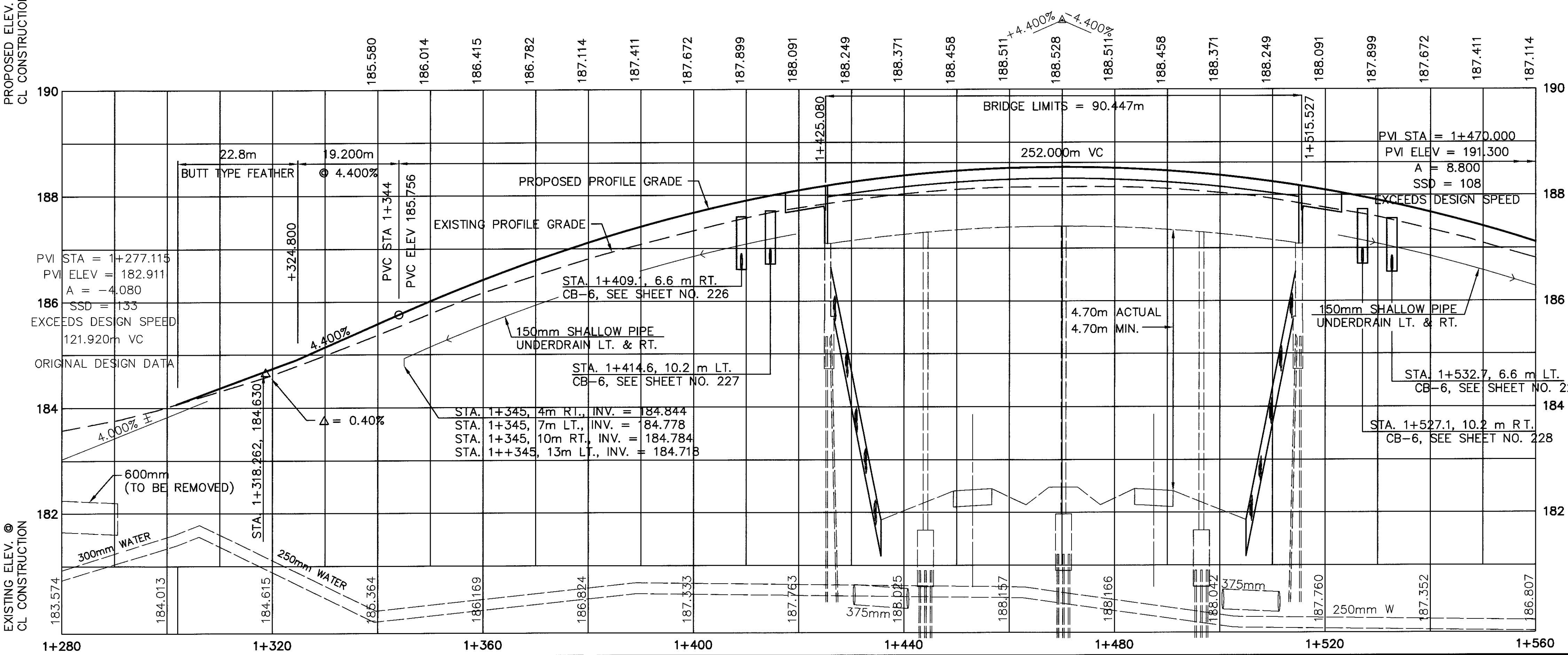
ERI-2-12.558

215
432

SEE SHEETS 110 & 111
FOR CALCULATIONS
SEE SHEET 105 FOR
FENCE CALCULATIONS



PROPOSED ELEV. @
CL CONSTRUCTION

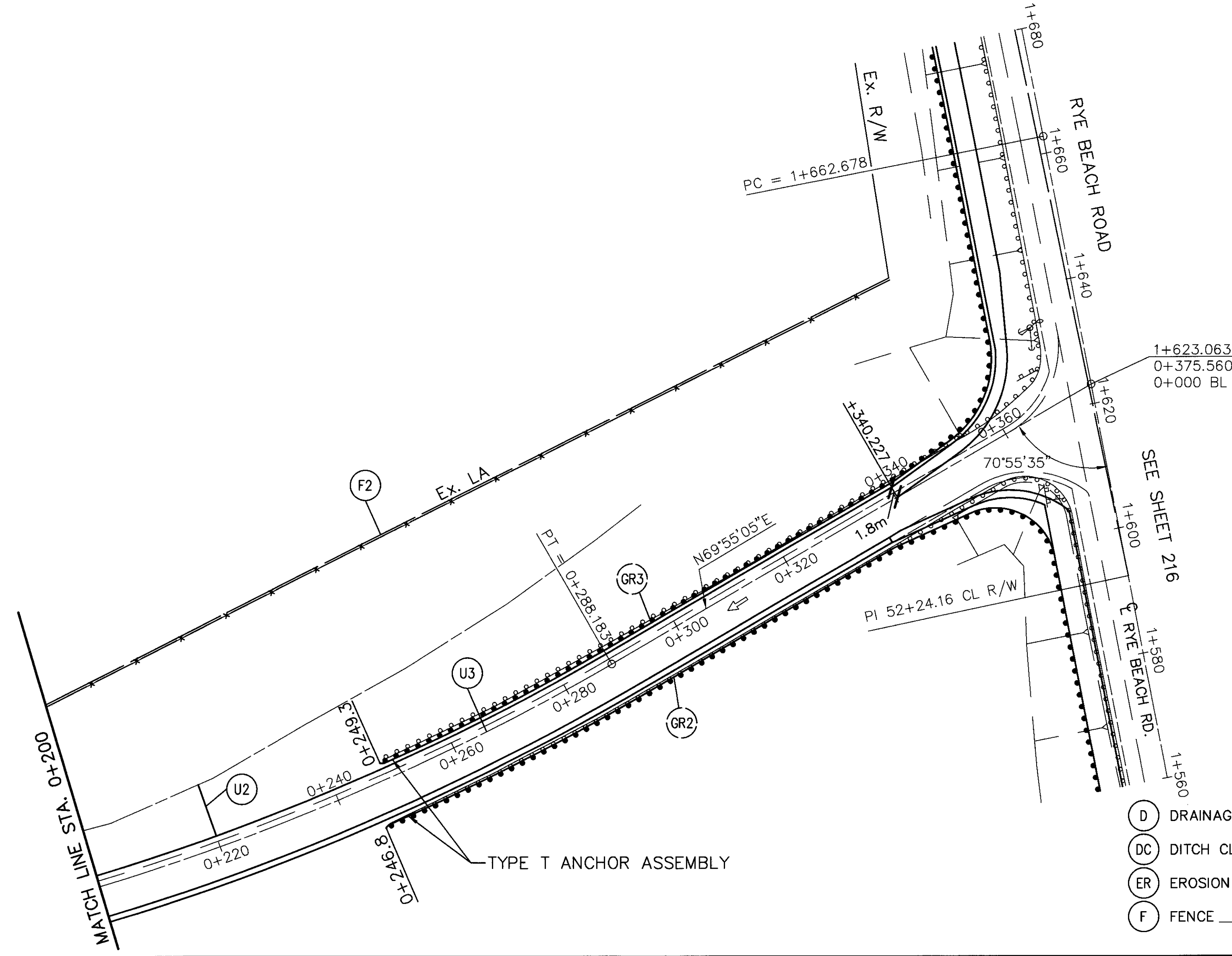
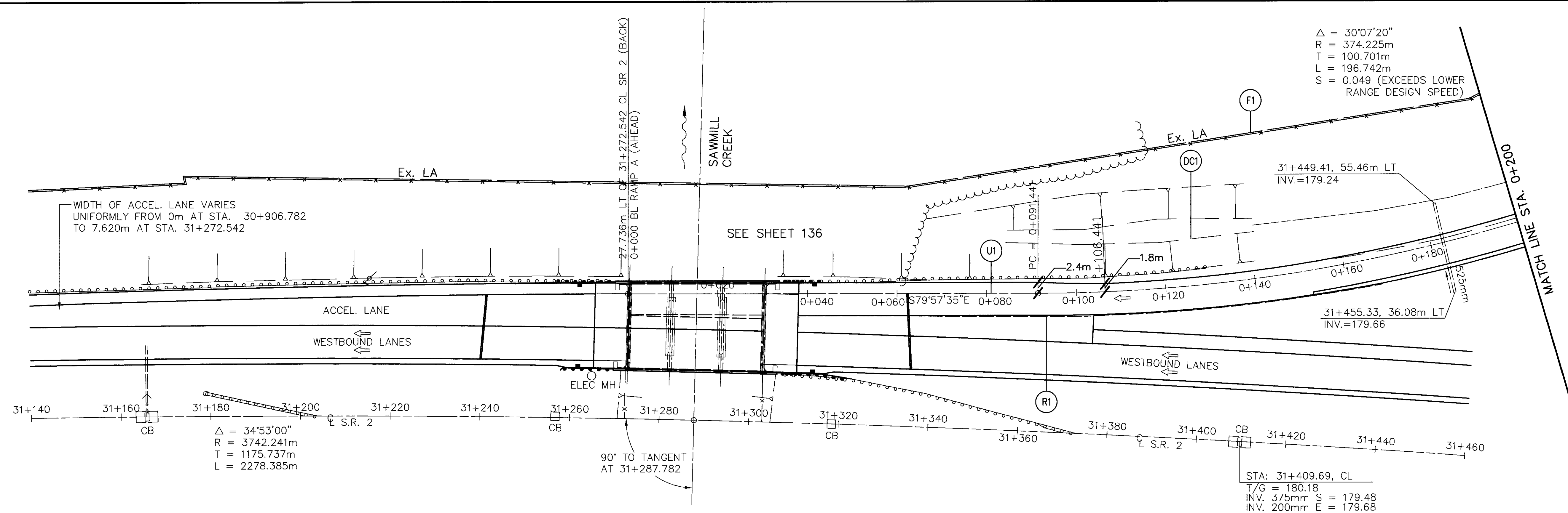


EXISTING ELEV. @
CL CONSTRUCTION

EXISTING STRUCTURE
TYPE: CONTINUOUS STEEL BEAM WITH REINF. CONC. DECK, REINF CONC. PIER BENTS AND STUB ABUTMENTS
SPAN: 18 288±, 26 213±, 26 213±, 18 288± C/C BRGS
ROADWAY: 9144± F/F OF 686± SAFETY CURBS
LOAD FREQUENCY: CF-130 (57)
SKEW: 18°-08'± LEFT FORWARD
WEARING SURFACE: 25 MONOLITHIC CONCRETE
STRUCTURE FILE NUMBER: 2201836
APPROACH SLABS: AS-1-54 (7620 LONG)
DATE BUILT: 1961
ALIGNMENT: TANGENT

PROPOSED STRUCTURE
PROPOSED WORK: WIDEN SUPERSTRUCTURE & SUB-STRUCTURE W/NEW COMPOSITE REINF. CONCRETE DECK. RAISE STRUCTURE.
TYPE: EXIST. & PROPOSED 4 SPAN CONTINUOUS STEEL BEAM COMPOSITE WITH A NEW REINFORCED CONCRETE DECK SUPERSTRUCTURE SUPPORTED BY REHABILITATED & WIDENED REINFORCED CONCRETE ABUTMENTS & PIERS.
SPAN: 18 288, 26 213, 26 213, 18 288 C/C BRG.
ROADWAY: 16 800 T/T PARAPET
LOADING: MS18 (CASE II) & THE ALTERNATE MILITARY LOAD
SKEW: 18°08'16" L.F.
CROWN: 0.016
WEARING SURFACE: 25 MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81M (7600 LONG)
ALIGNMENT: TANGENT
LONGITUDE: W-82°33'30" LATITUDE: N-41°24'15"

$\Delta = 30^{\circ}07'20''$
 $R = 374.225m$
 $T = 100.701m$
 $L = 196.742m$
 $S = 0.049$ (EXCEEDS LOWER RANGE DESIGN SPEED)

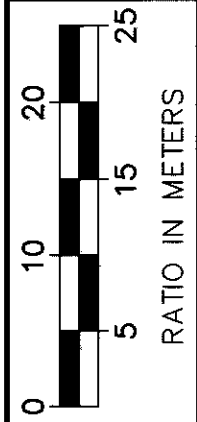
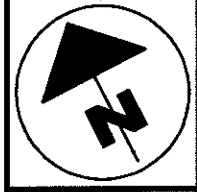


FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

**PLAN RYE BEACH INTERCHANGE RAMP A
STA. 0+000 TO STA. 0+375.560**

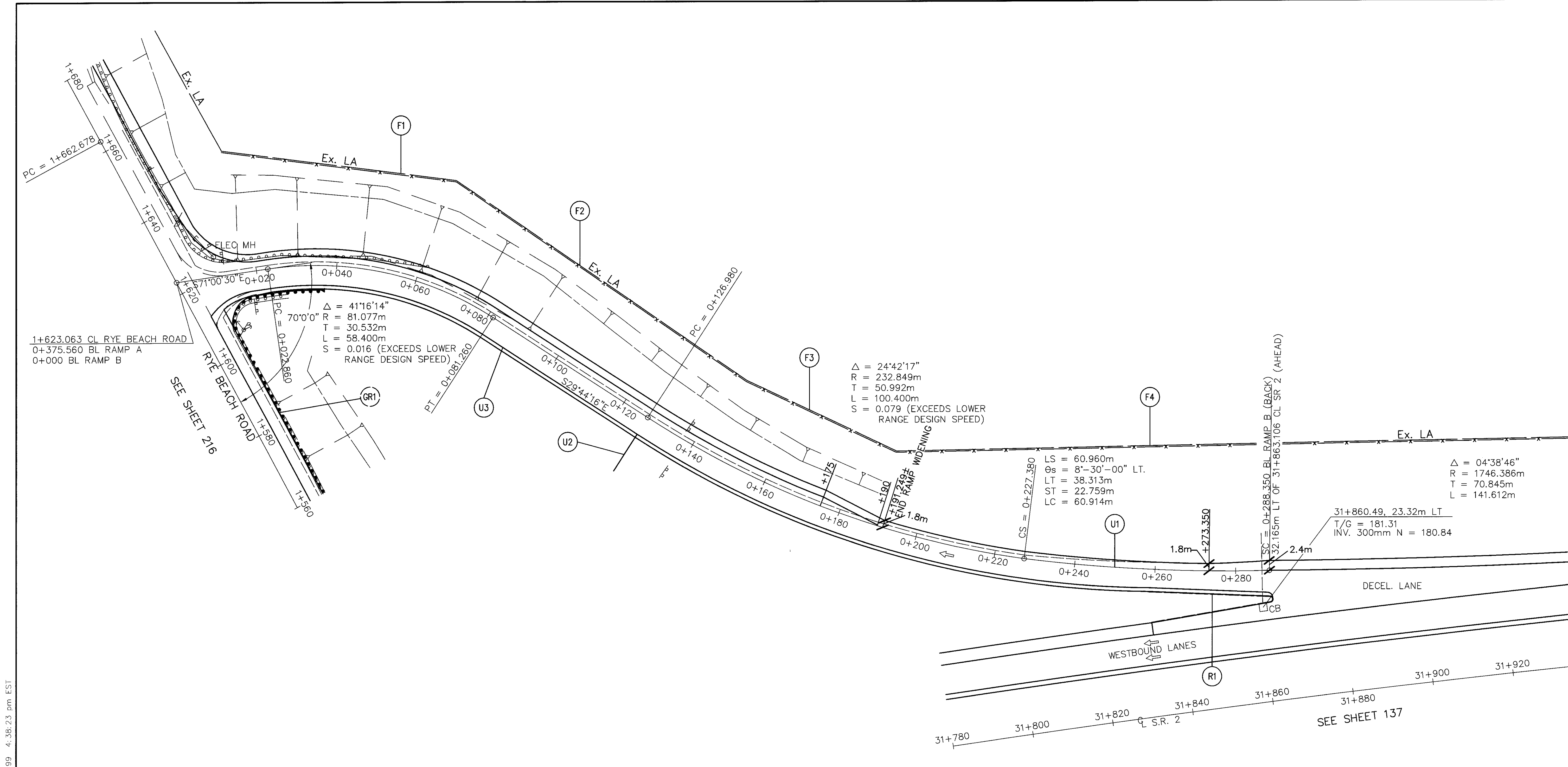
ERI-2-12.558



CALCULATED BY: P.M.A.
 DATE: 5-97
 CHECKED BY: S.B.
 DATE: 5-97

**PLAN RYE BEACH INTERCHANGE RAMP B
 STA. 0+000 TO STA. 0+288.350**

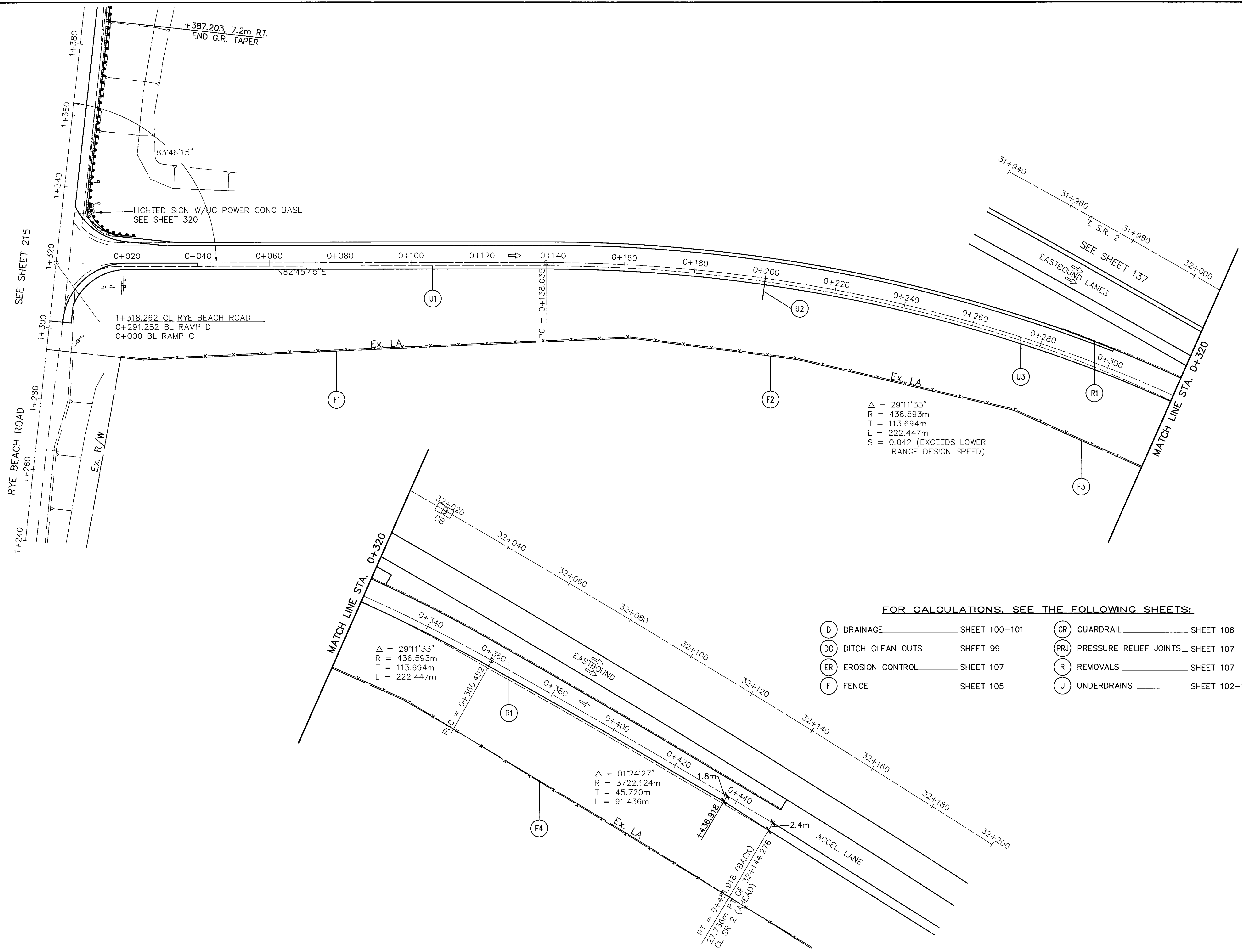
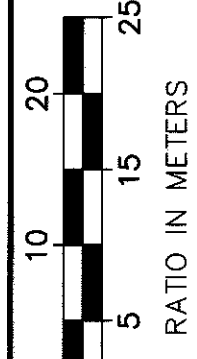
ERI-2-12.558



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

FILE NAME: I:\5033\006\TRAN\PLAN\RYE-B.DWG 7-29-99 4:38:23 pm EST



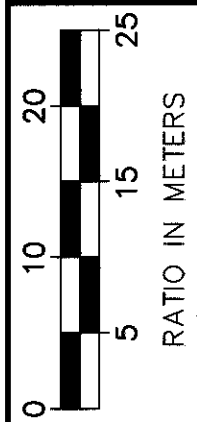
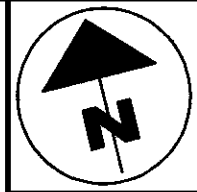
FOR CALCULATIONS. SEE THE FOLLOWING SHEETS:

- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

$\Delta = 29^{\circ}11'33''$
 $R = 436.593m$
 $T = 113.694m$
 $L = 222.447m$

$\Delta = 01^{\circ}24'27''$
 $R = 3722.124m$
 $T = 45.720m$
 $L = 91.436m$

FILE NAME: I:\5033\006\TRAN\PLAN\RYE-C.DWG 8-9-99 10:29:56 am EST

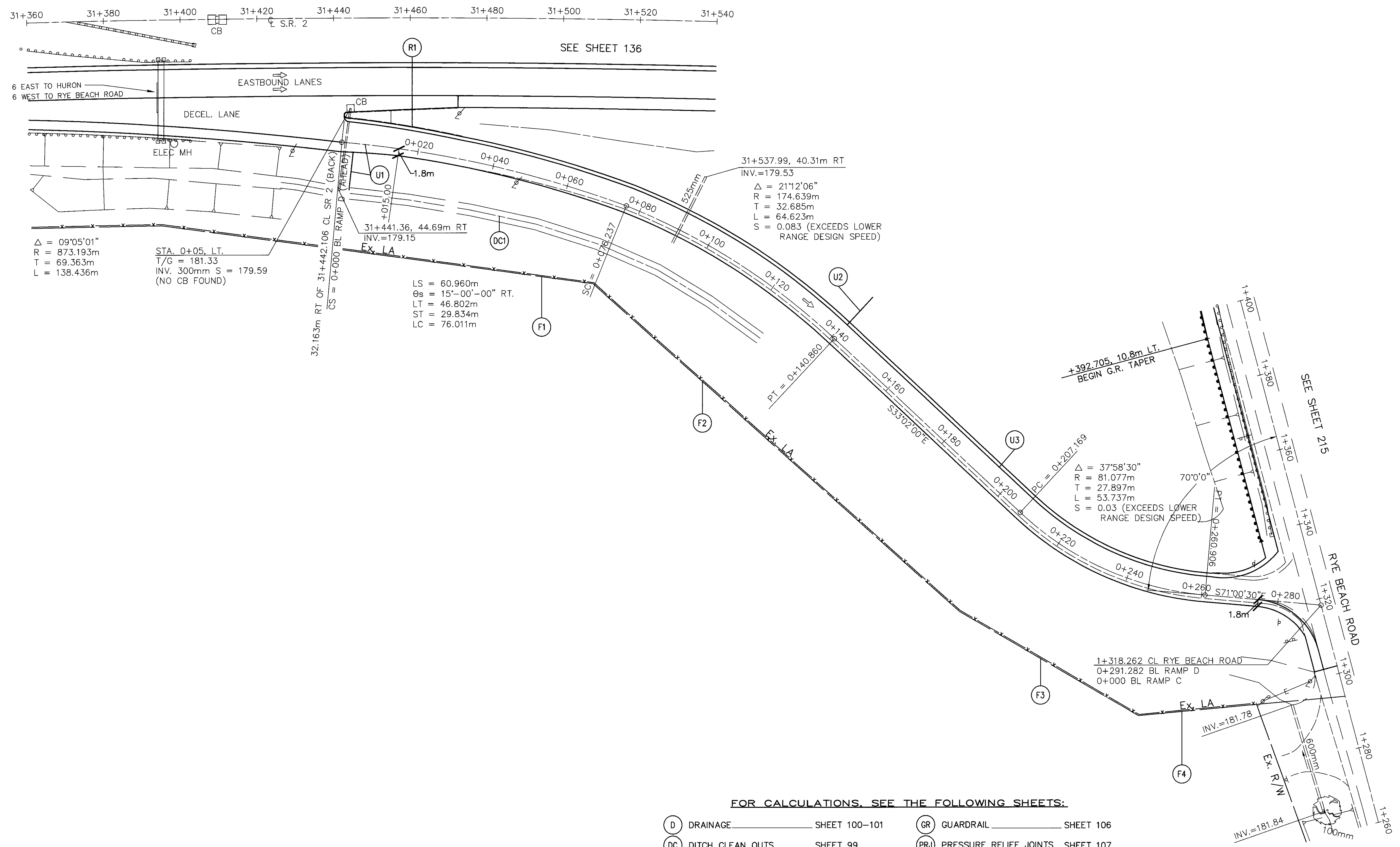


CALCULATED BY P.M.A. DATE 5-97
 CHECKED BY S.B.L. DATE 5-97

**PLAN RYE BEACH INTERCHANGE RAMP D
 STA. 0+000 TO STA. 0+291.282**

ERI-2-12.558

220
432



FOR CALCULATIONS, SEE THE FOLLOWING SHEETS:

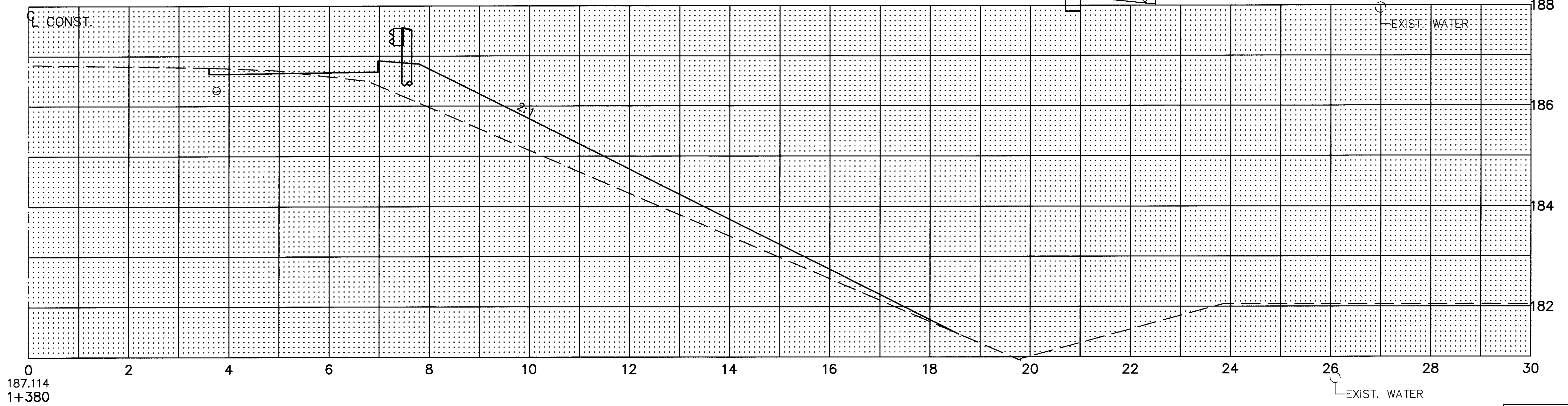
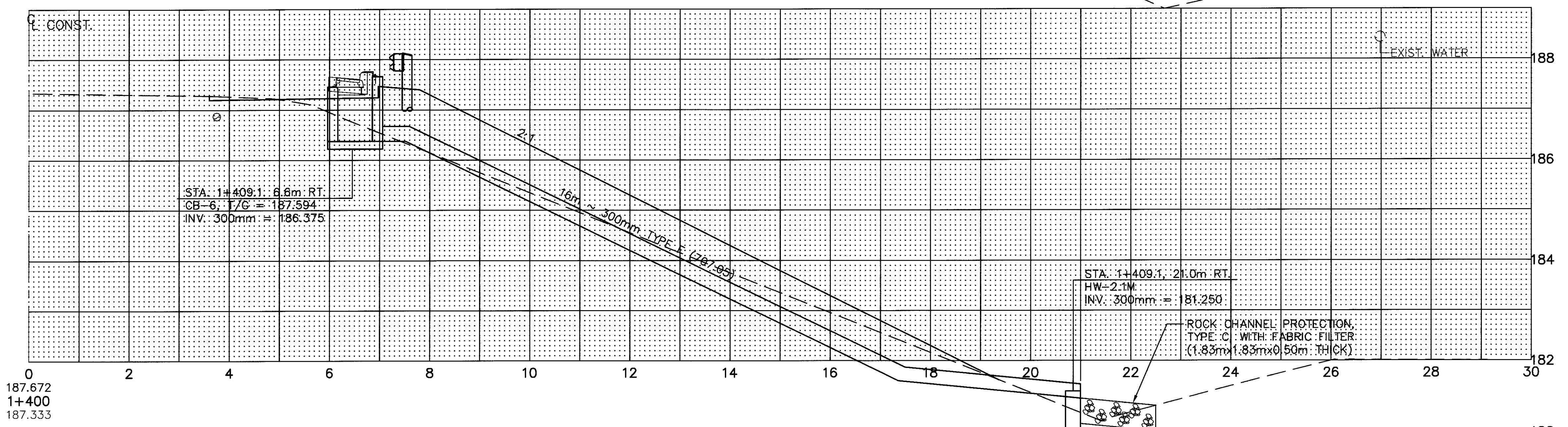
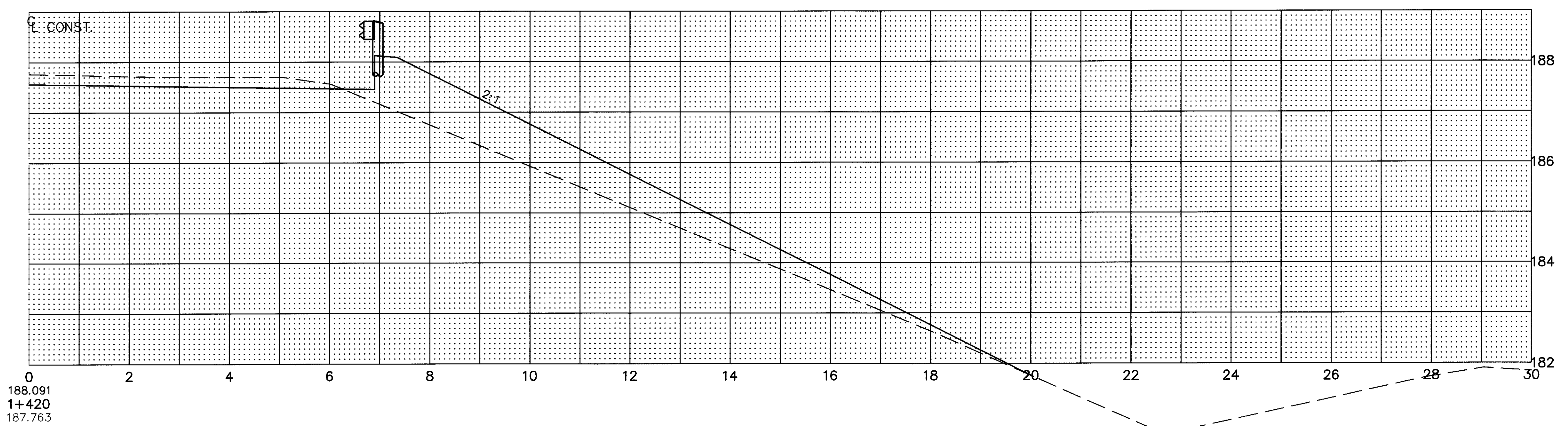
- | | |
|--------------------------------------|--|
| (D) DRAINAGE _____ SHEET 100-101 | (GR) GUARDRAIL _____ SHEET 106 |
| (DC) DITCH CLEAN OUTS _____ SHEET 99 | (PRJ) PRESSURE RELIEF JOINTS _____ SHEET 107 |
| (ER) EROSION CONTROL _____ SHEET 107 | (R) REMOVALS _____ SHEET 107 |
| (F) FENCE _____ SHEET 105 | (U) UNDERDRAINS _____ SHEET 102-104 |

FILE NAME: I:\5033\006\TRAN\PLAN\RYE-D.DWG 8-9-99 10:32:07 am EST

SEEDING	
END WIDTH	SQ. METER

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED BY	DATE	CHECKED BY	DATE
SSJ	6-97	JTY	6-97



SEE SHEET 227 FOR CALCULATIONS

SEE SHEET 227 FOR CALCULATIONS

**CROSS SECTIONS RYE BEACH ROAD
STA. 1+380 TO STA. 1+420 - RIGHT SIDE**

ERI-2-12.558

226
432

TOTAL THIS SHEET

TOTAL THIS SHEET

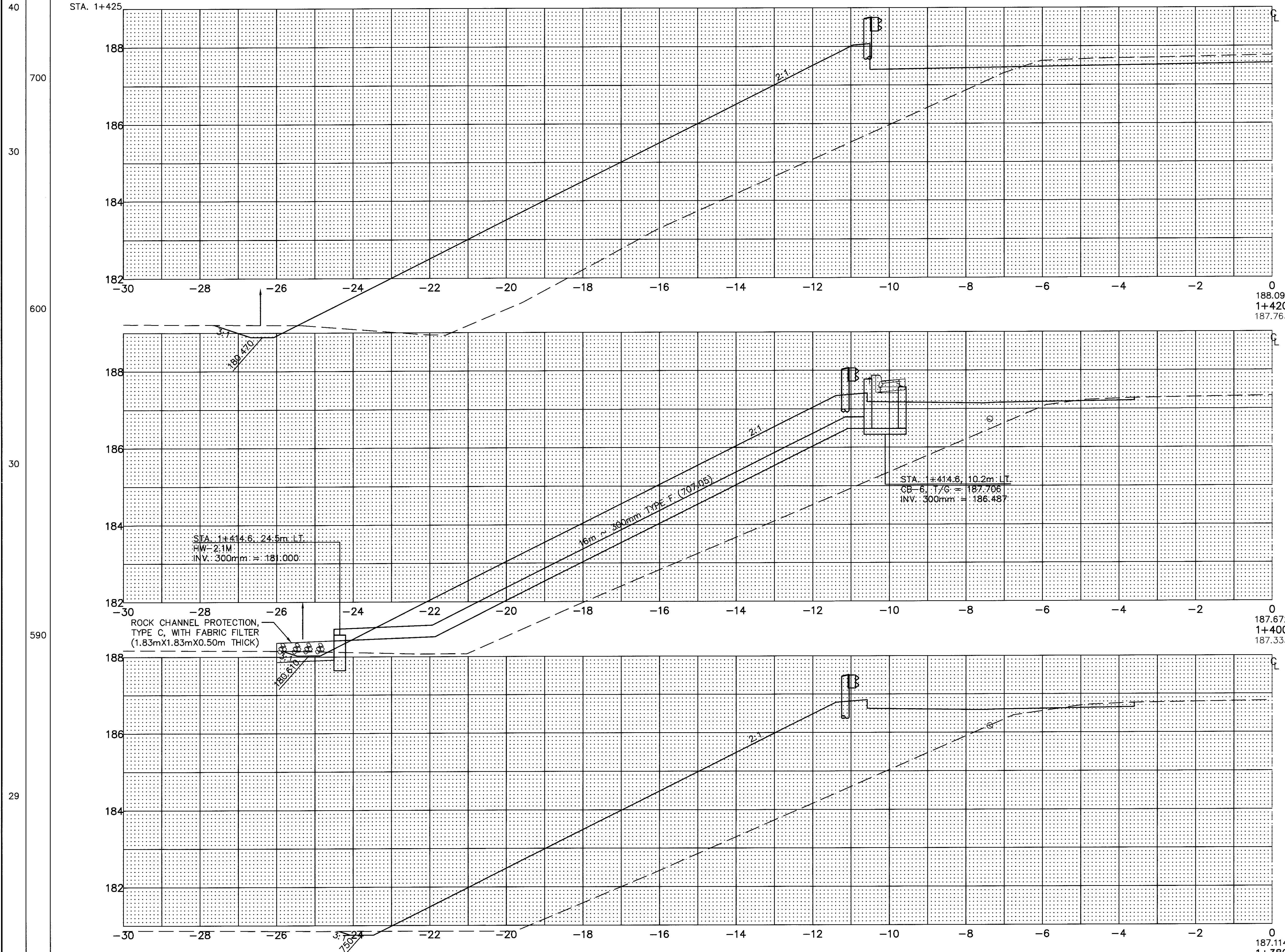
SEEDING	
END WIDTH	SQ. METER
40	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1.52	33.49		
		7.6	167.4
1.52	33.49		
		16.7	696.7
0.14	36.18		
		3.3	622.8
0.19	26.10		
		28	1487

**CROSS SECTIONS RYE BEACH ROAD
 STA. 1+380 TO STA. 1+420 - LEFT SIDE**

ERI-2-12.558

227
 432



STA.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1+425	1.52	33.49		
1+420			7.6	167.4
1+400	1.52	33.49		
1+380			16.7	696.7
1+380	0.14	36.18		
1+400			3.3	622.8
1+380	0.19	26.10		
TOTAL THIS SHEET	28	1487		

JTN - 1890 TOTAL THIS SHEET

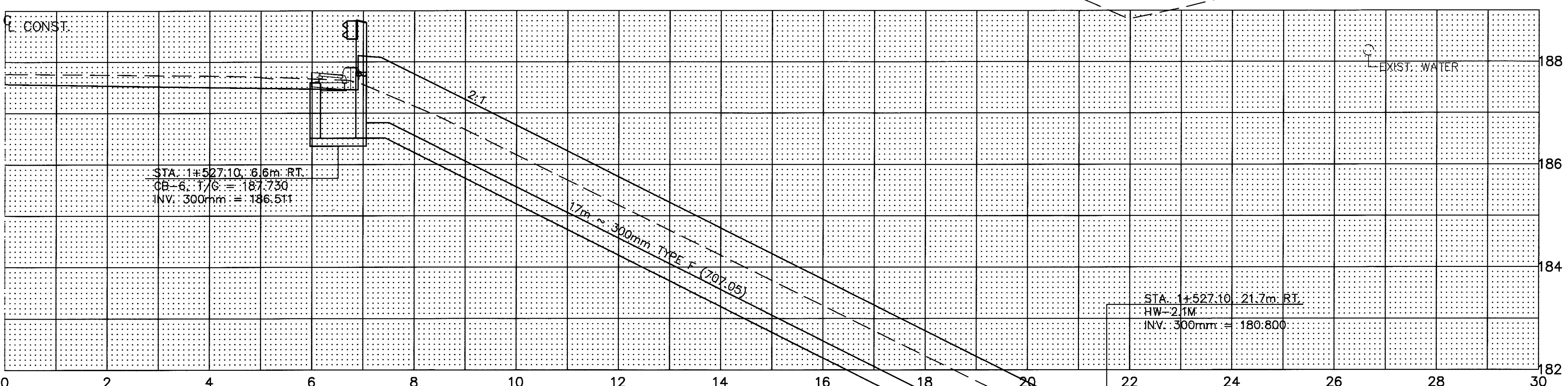
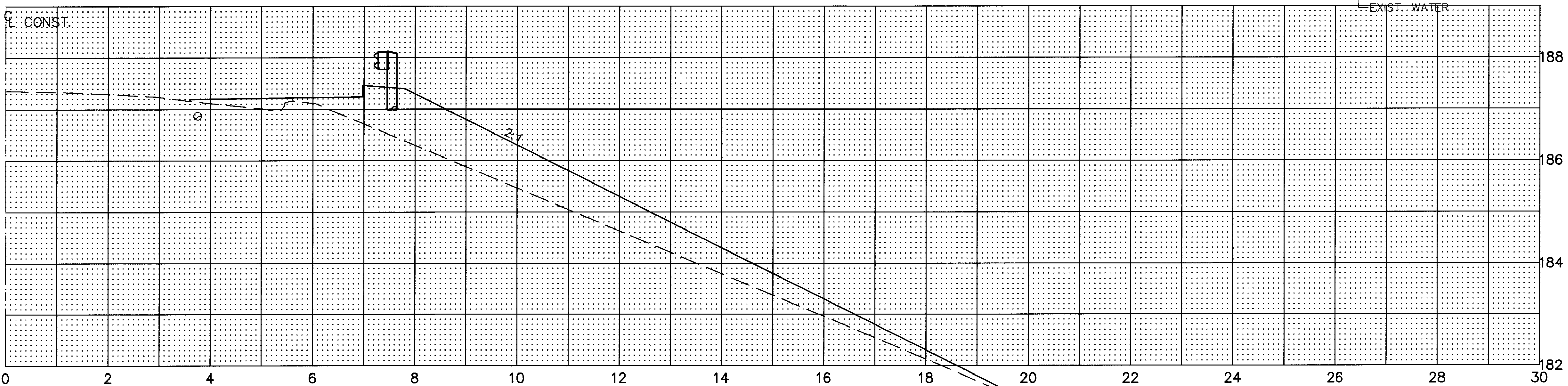
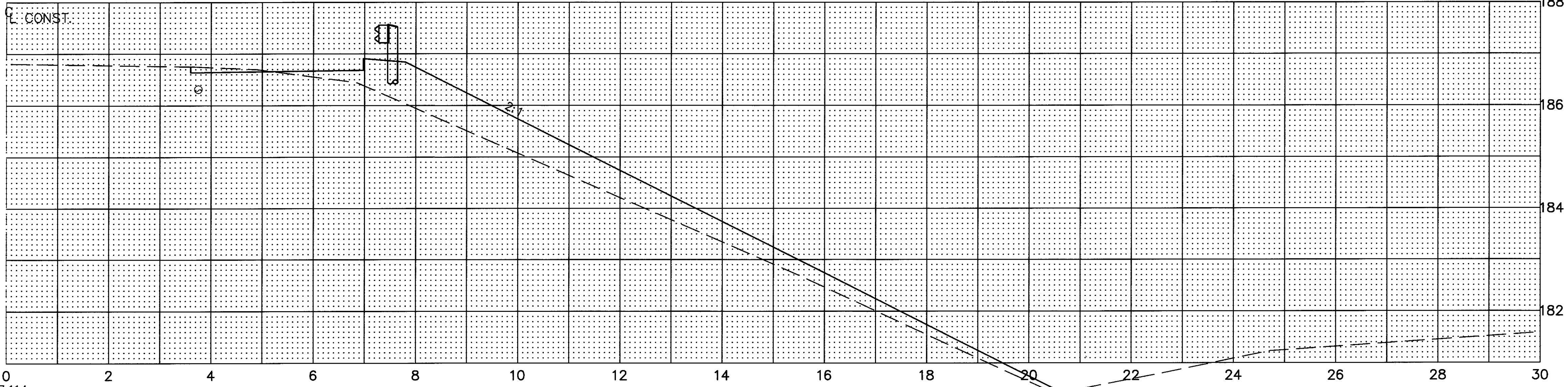
TOTAL THIS SHEET 28 1487

FILE NAME: I:\5033\006\TRAN\SECTIONS\RYEBEACH-X7

SEEDING	
END WIDTH	SQ. METER

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED BY DATE 6-97	CHECKED BY DATE 6-97
----------------------------	-------------------------



SEE SHEET 229 FOR CALCULATIONS

SEE SHEET 229 FOR CALCULATIONS

**CROSS SECTIONS RYE BEACH ROAD
STA. 1+520 TO STA. 1+560 - RIGHT SIDE**

ERI-2-12.558

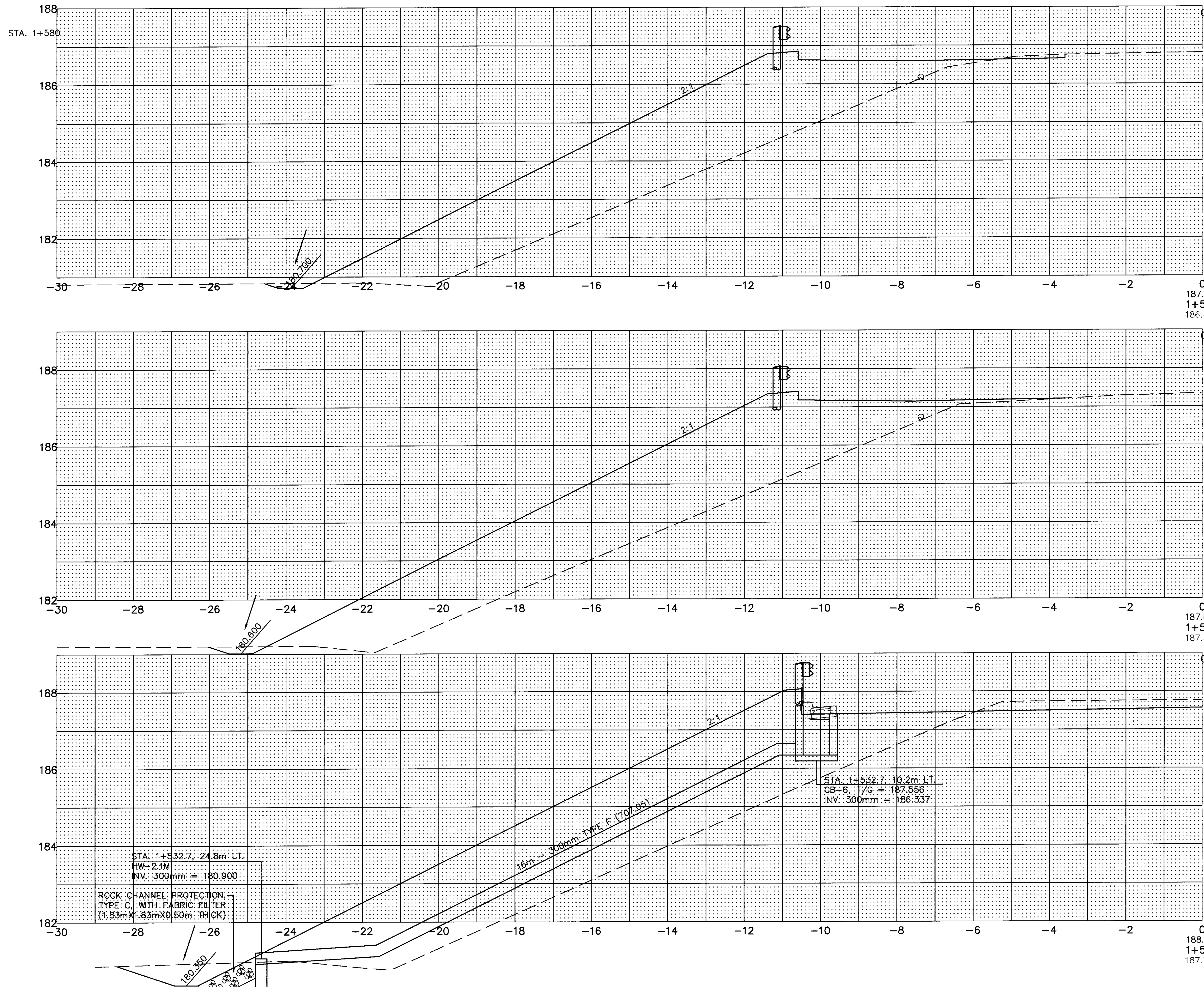
228
432

TOTAL THIS SHEET

- TOTAL THIS SHEET

SEEDING

END WIDTH	SQ. METER
27	
560	
29	
610	
32	
720	
40	
1890	TOTAL THIS SHEET



STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1+580	0.42	28.33		
1+560			7.7	599.0
1+540	0.35	31.57		
1+520			5.5	683.1
1+540	0.20	36.74		
1+520			49.4	797.1
1+532.7	4.74	42.97		
1+520			63	2079

END STA.	START STA.	END AREA		VOLUME	
		CUT	FILL	CUT	FILL
1+580	1+520	0.42	28.33	7.7	599.0
1+540	1+520	0.20	36.74	5.5	683.1
1+532.7	1+520	4.74	42.97		
1+520	1+520			63	2079

**CROSS SECTIONS RYE BEACH ROAD
 STA. 1+520 TO STA. 1+560 - LEFT SIDE**

ERI-2-12-558

229
 432

FILE NAME: I:\5033\006\TRAN\SECTIONS\RYE\RYEBEACH-X9
 JTN

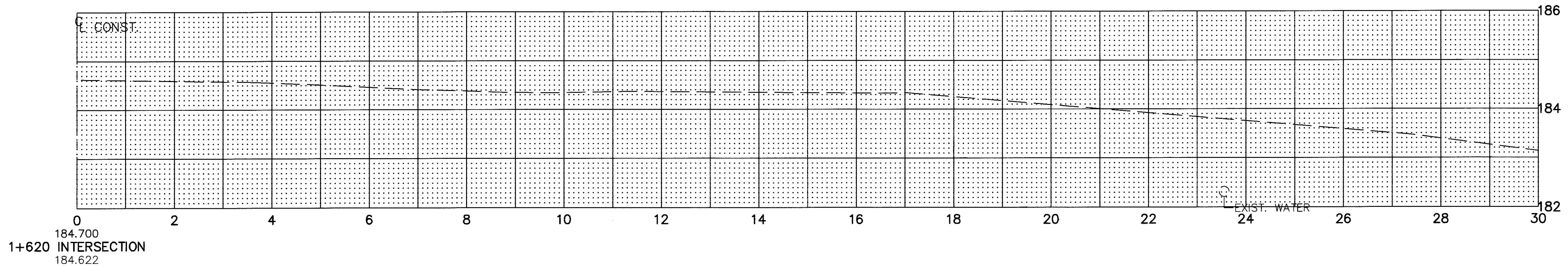
SEEDING	
END WIDTH	SQ. METER

END AREA		VOLUME	
CUT	FILL	CUT	FILL

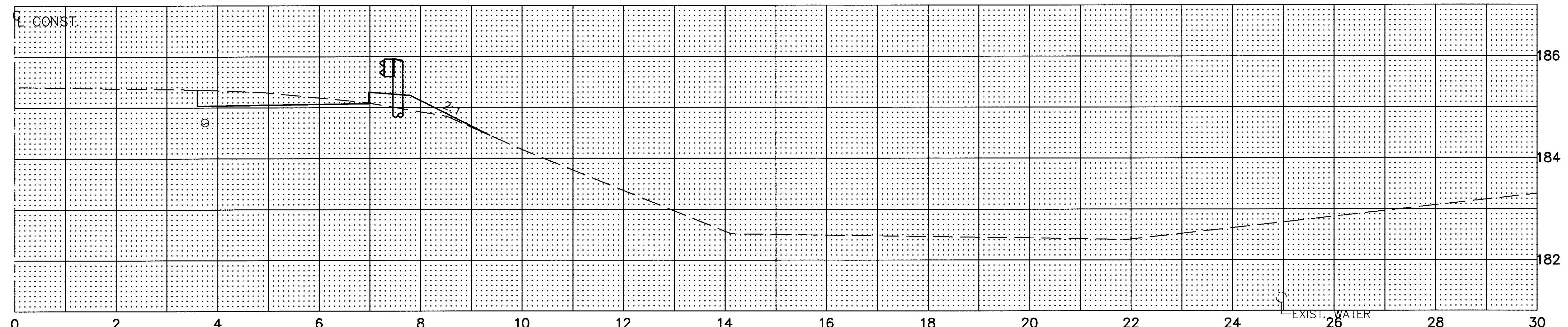
CALCULATED BY: SPJ DATE: 6-97
 CHECKED BY: JTY DATE: 6-97
CROSS SECTIONS RYE BEACH ROAD STA. 1+580 TO STA. 1+620 - RIGHT SIDE

ERI-2-12.558

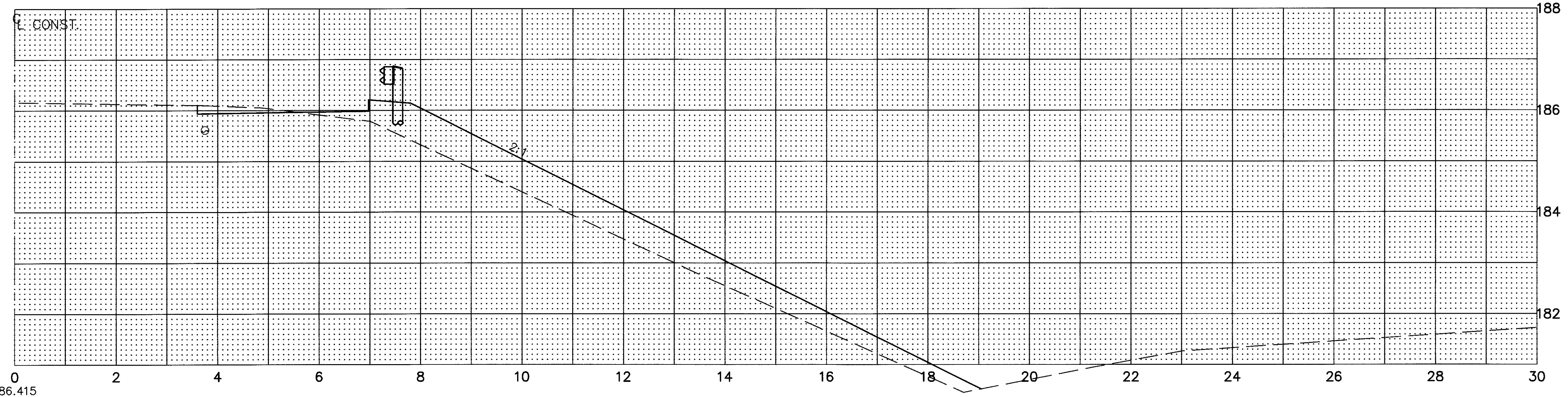
230
432



184.700
1+620 INTERSECTION
184.622



185.580
1+600
185.408



186.415
1+580
186.160

SEE SHEET 231 FOR CALCULATIONS

SEE SHEET 231 FOR CALCULATIONS

FILE NAME: I:\5033\005\TRAN\SECTIONS\RYEBEACH-X10

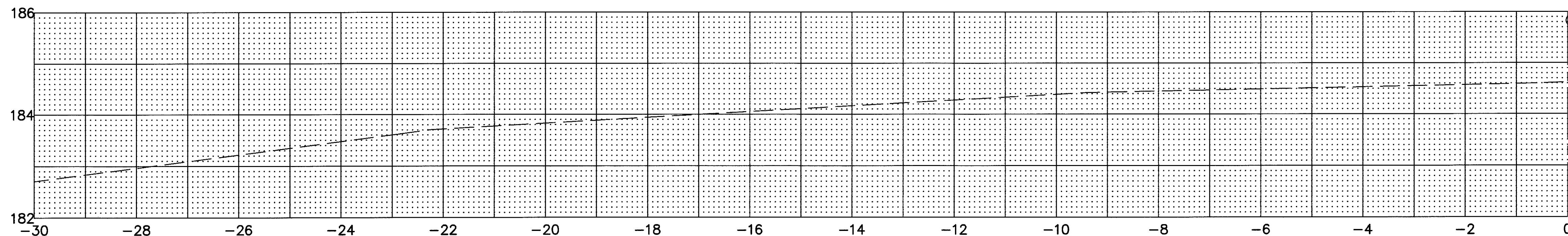
TOTAL THIS SHEET

TOTAL THIS SHEET

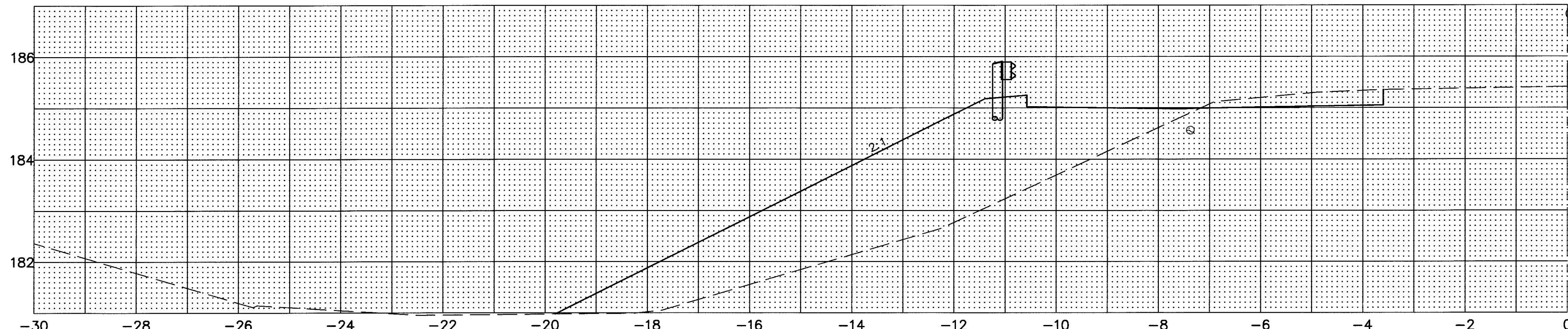
SEEDING
END WIDTH SQ. METER

28
280
0
140
14
410
27

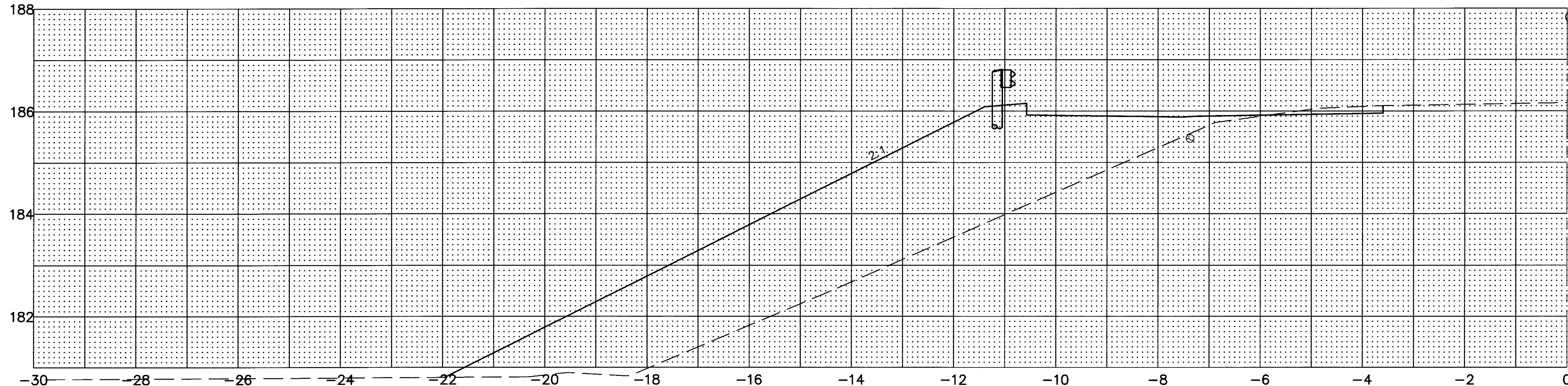
STA. 1+640



184.700
1+620 INTERSECTION
184.622



185.580
1+600
185.408



186.415
1+580
186.160

END AREA	VOLUME	CALCULATED	
		CUT	FILL
0.65	40.63		
6.5	406.3		
0	0		
14.2	159.4		
1.42	15.94		
18.4	442.7		
0.42	28.33		
TOTAL THIS SHEET		39	1008

**CROSS SECTIONS RYE BEACH ROAD
STA. 1+580 TO STA. 1+620 - LEFT SIDE**

ERI-2-12.558

231
432

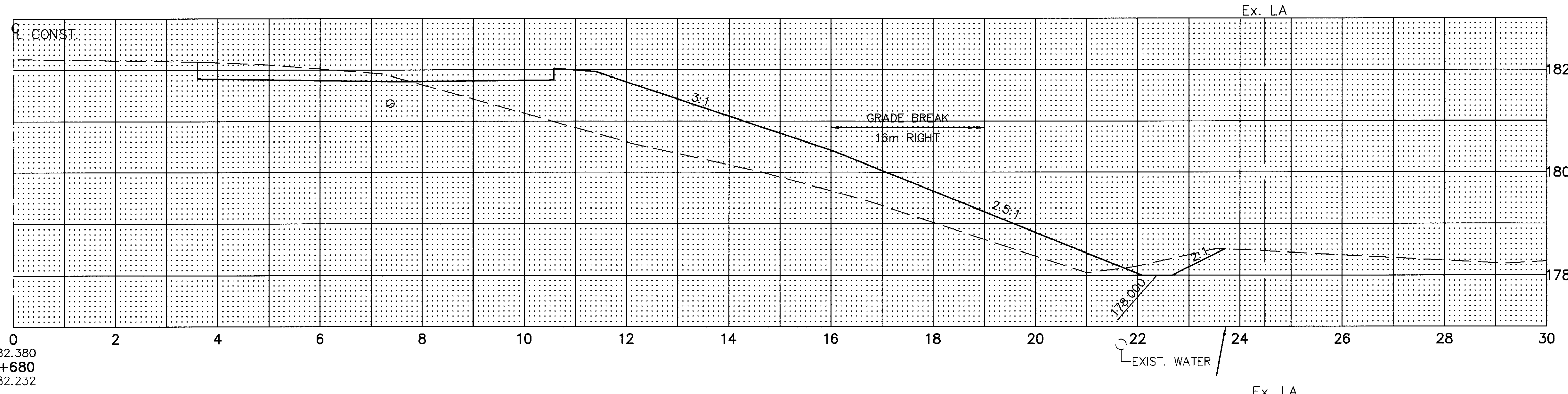
FILE NAME: I:\5033\005\TRAN\SECTIONS\RYEBEACH-X11
 SPJ

830 TOTAL THIS SHEET

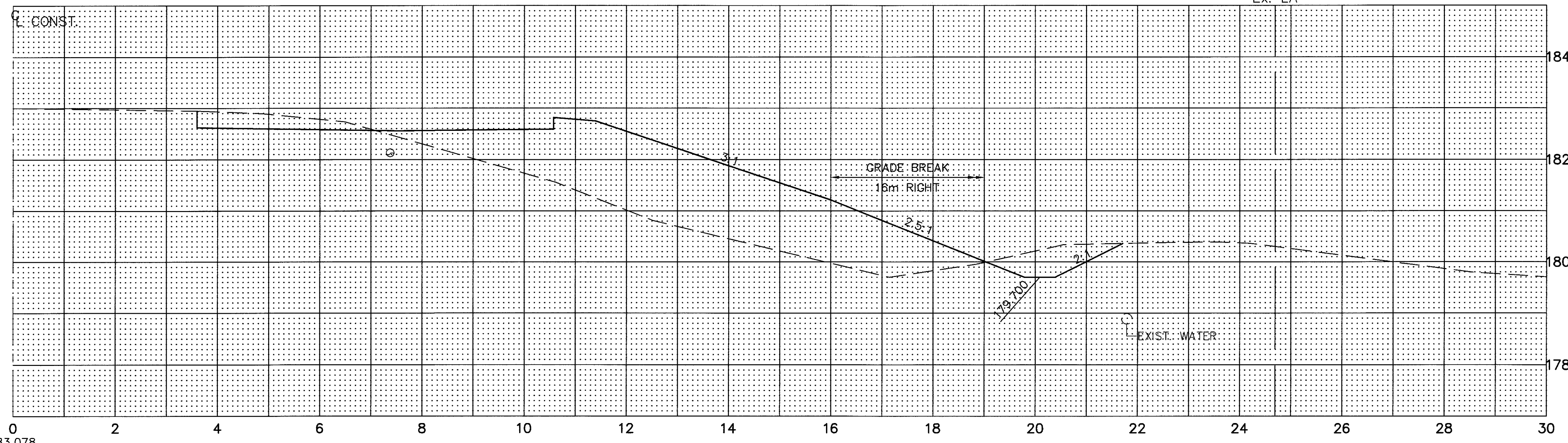
TOTAL THIS SHEET

SEEDING
END WIDTH SQ. METER

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED BY DATE 6-97
CHECKED BY DATE 6-97



182.380
1+680
182.232



183.078
1+660
183.002



183.875
1+640
183.799

SEE SHEET 233 FOR CALCULATIONS

SEE SHEET 233 FOR CALCULATIONS

CROSS SECTIONS RYE BEACH ROAD
STA. 1+640 TO STA. 1+680 - RIGHT SIDE

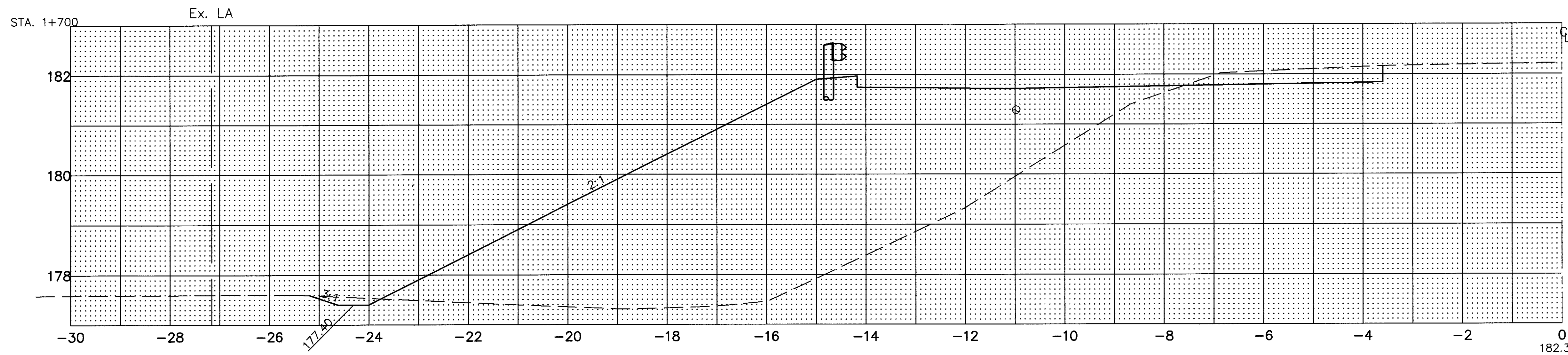
ERI-2-12.558

232
432

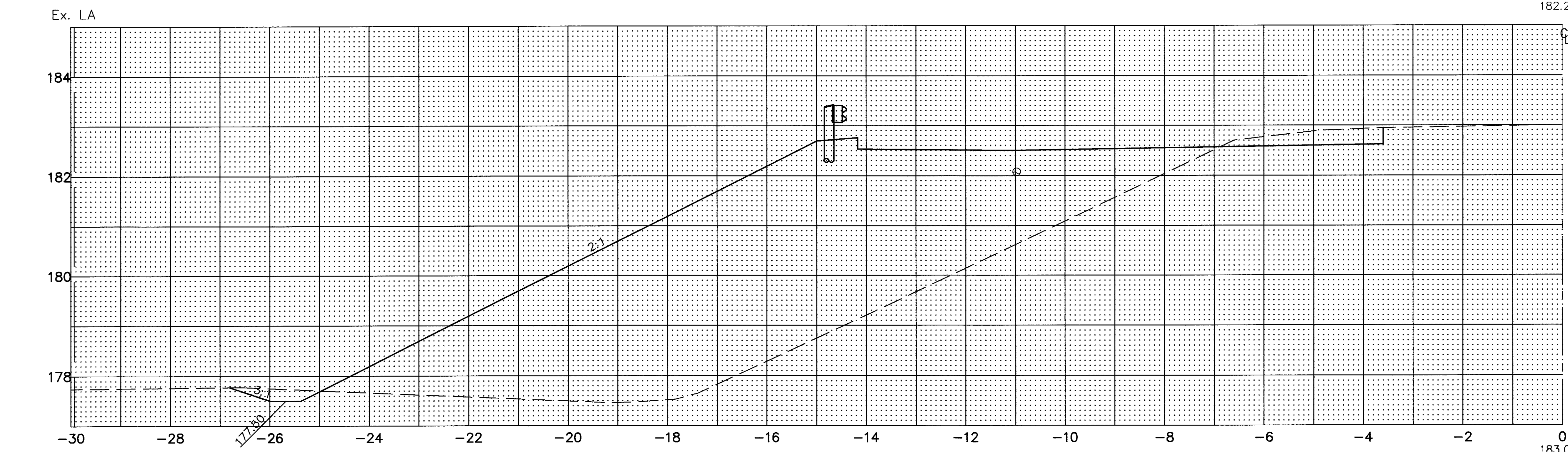
TOTAL THIS SHEET

TOTAL THIS SHEET

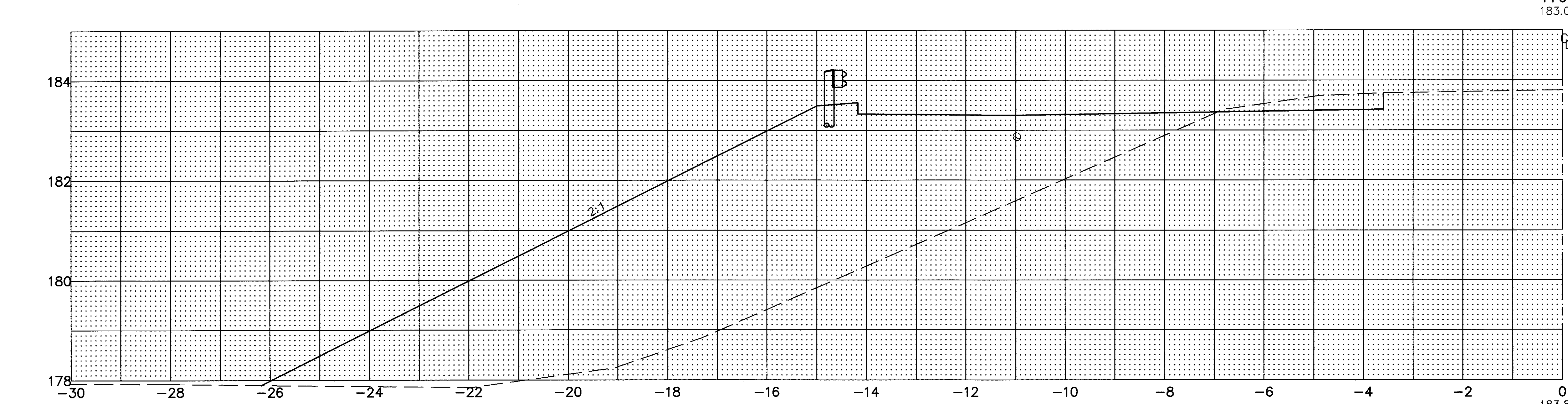
SEEDING
 END WIDTH SQ. METER
 27
 530
 26
 540
 28
 560
 28
 1630 TOTAL THIS SHEET
 SPJ
 5033-005



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1.96	21.88		
		31.3	562.7
1.17	34.40		
		22.3	747.0
		17.1	809.3
		0.65	40.63



END AREA		VOLUME	
CUT	FILL	CUT	FILL
182.380			
1+680			
182.232			
		17.1	809.3
		0.65	40.63

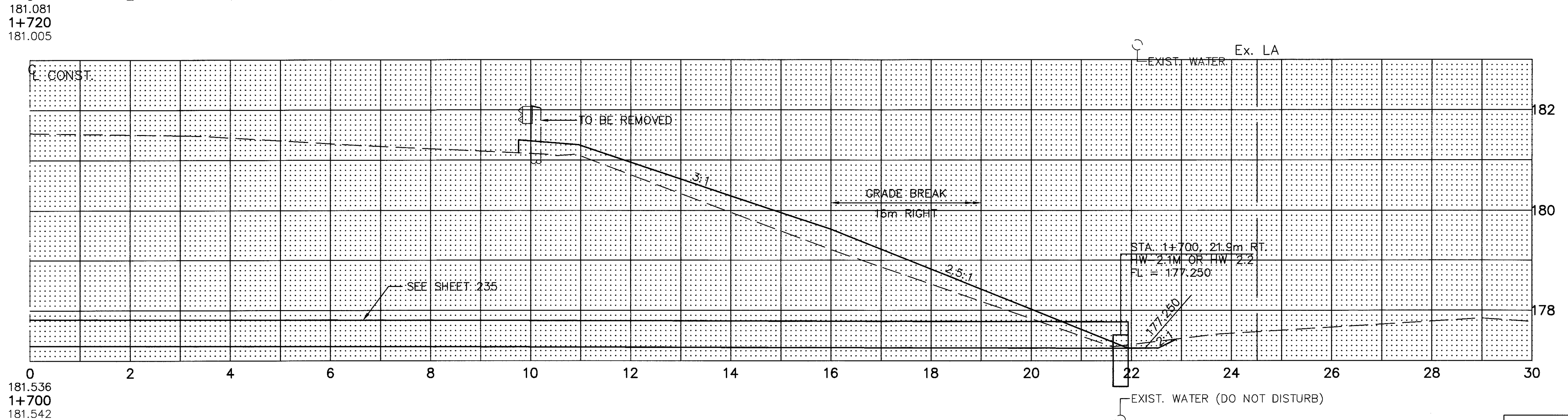
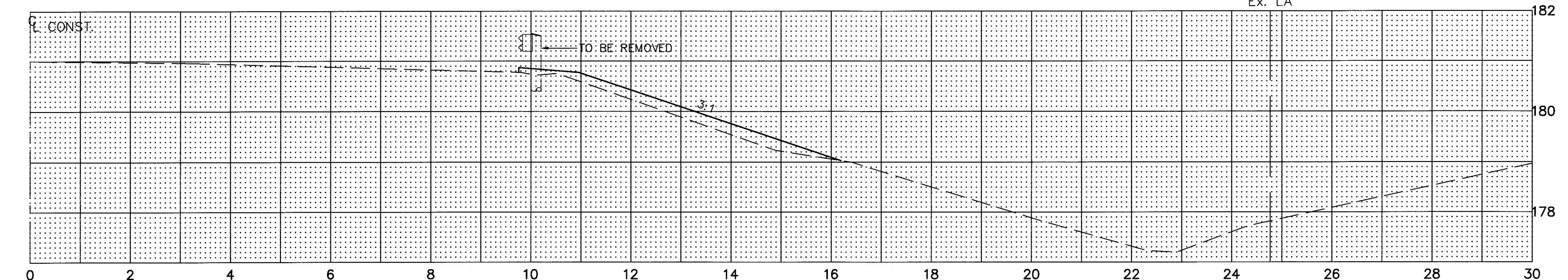
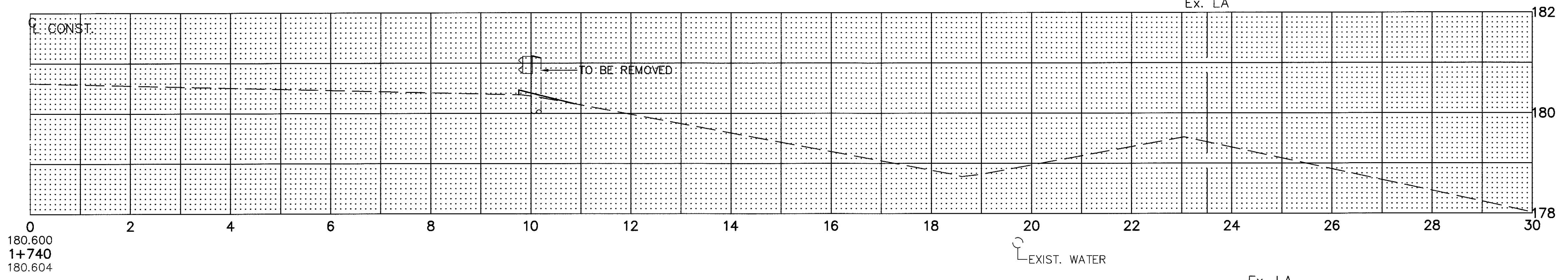
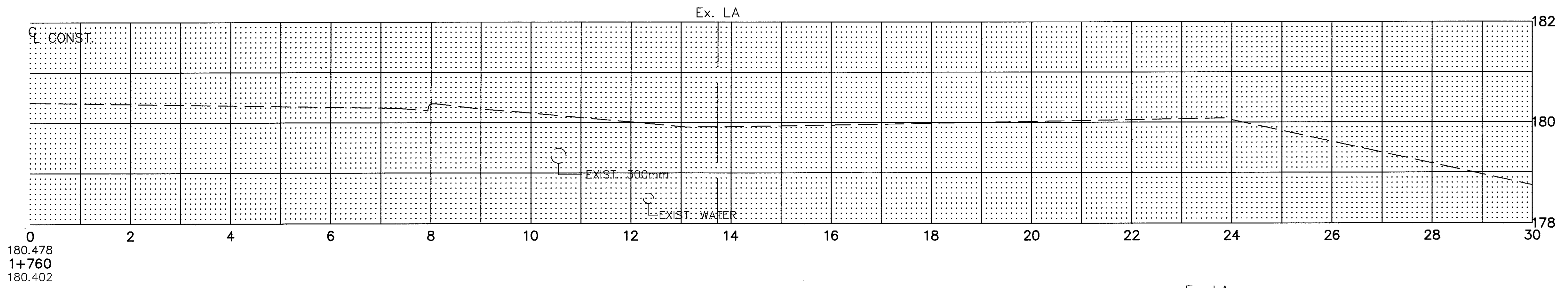


END AREA		VOLUME	
CUT	FILL	CUT	FILL
183.078			
1+660			
183.002			
		0.65	40.63

CALCULATED BY: SPJ DATE: 6-97
 CHECKED BY: JTY DATE: 6-97
**CROSS SECTIONS RYE BEACH ROAD
 STA. 1+640 TO STA. 1+680 - LEFT SIDE**
ERI-2-12.558
 233
 432
 TOTAL THIS SHEET 71 2119

SEEDING
END WIDTH SQ. METER

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED BY SPJ DATE 6-97
CHECKED BY JTY DATE 6-97



SEE SHEET 235 FOR CALCULATIONS

SEE SHEET 235 FOR CALCULATIONS

TOTAL THIS SHEET

TOTAL THIS SHEET

CROSS SECTIONS RYE BEACH ROAD
STA. 1+700 TO STA. 1+760 - RIGHT SIDE

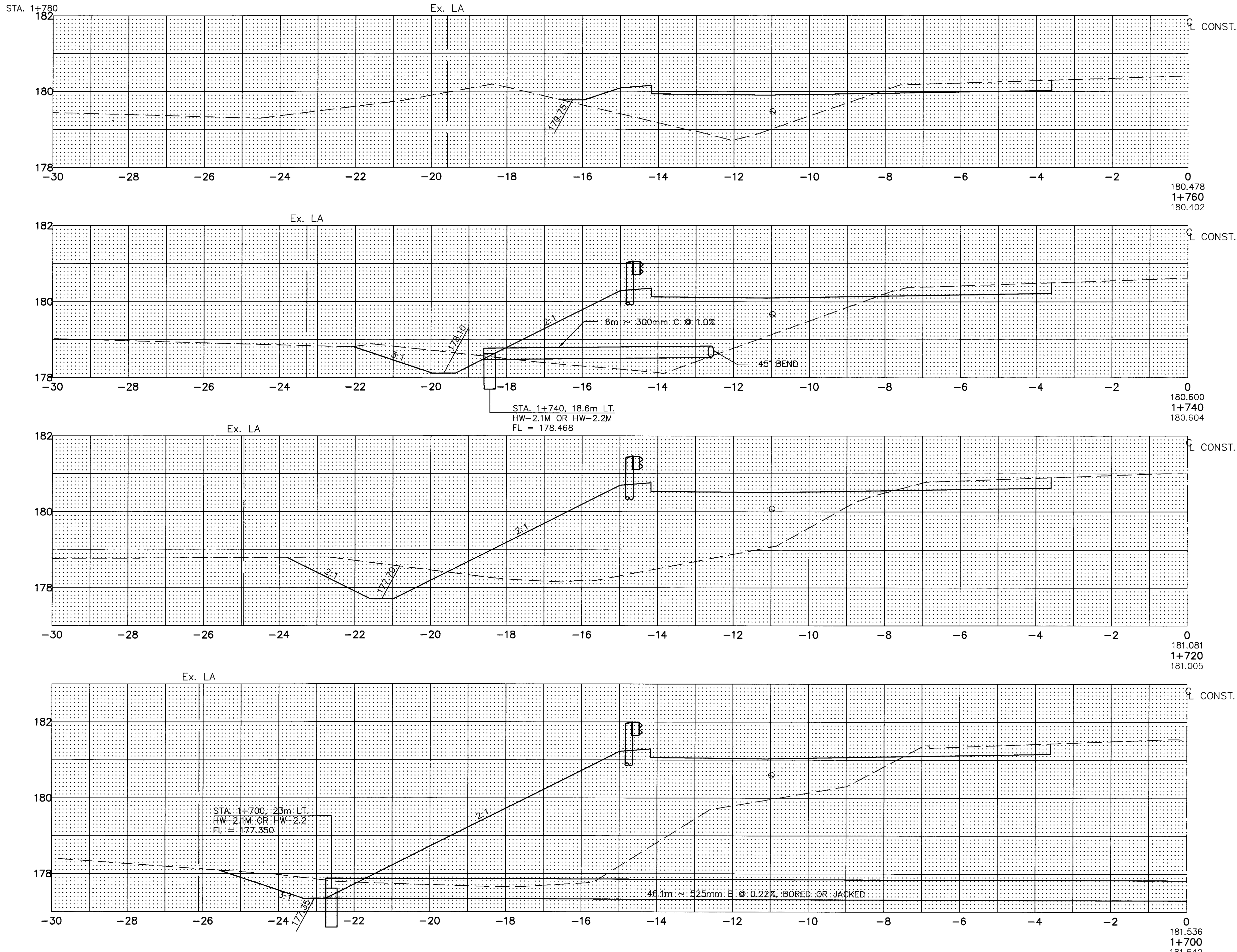
ERI-2-12-558

234
432

FILE NAME: I:\5033\005\TRAN\SECTIONS\RYEBEACH\X14

SEEDING
END WIDTH SQ. METER

0
200
40
150
182
180
178
-30 -28 -26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6 -4 -2 0
180.478
1+760
180.402
11
182
180
178
-30 -28 -26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6 -4 -2 0
180.600
1+740
180.604
300
182
180
178
-30 -28 -26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6 -4 -2 0
181.081
1+720
181.005
460
182
180
178
-30 -28 -26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6 -4 -2 0
181.536
1+700
181.542
27
182
180
178
-30 -28 -26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6 -4 -2 0
181.536
1+700
181.542



END AREA		VOLUME		CALCULATED BY	DATE	CHECKED BY	DATE
CUT	FILL	CUT	FILL				
1.31	0.06						
		23.5	56.9				
1.04	5.63						
		33.8	175				
2.33	11.87						
		55.6	275.3				
3.23	15.66						
		51.9	375.4				
1.96	21.88						
		165	883				

CROSS SECTIONS RYE BEACH ROAD
STA. 1+700 TO STA. 1+760 - LEFT SIDE

ERI-2-12.558

235
432

FILE NAME: I:\5033\005\TRAN\SECTIONS\RYEBEACH-X15

1110 TOTAL THIS SHEET

TOTAL THIS SHEET

FILE NAME: X16~ I:\5033\006\TRAN\SECTIONS\R_RYE\BEACH.DWG 8-9-99 10:49:33 am EST

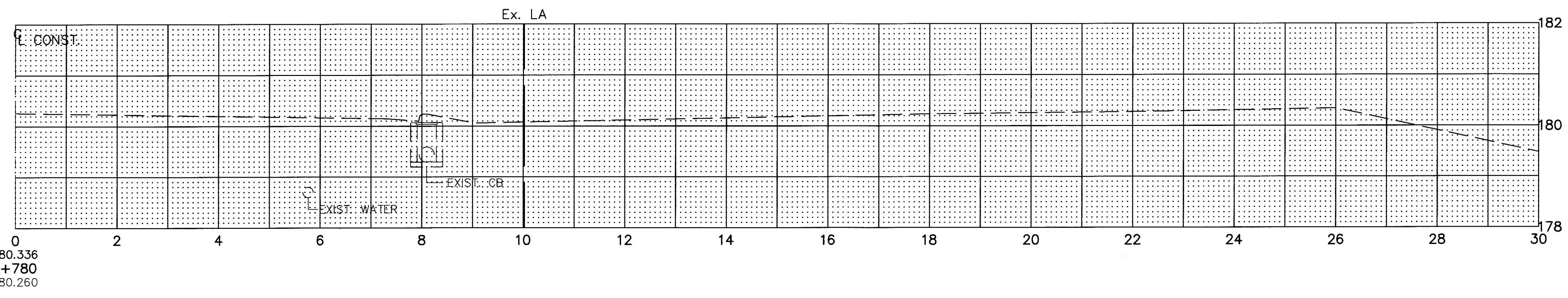
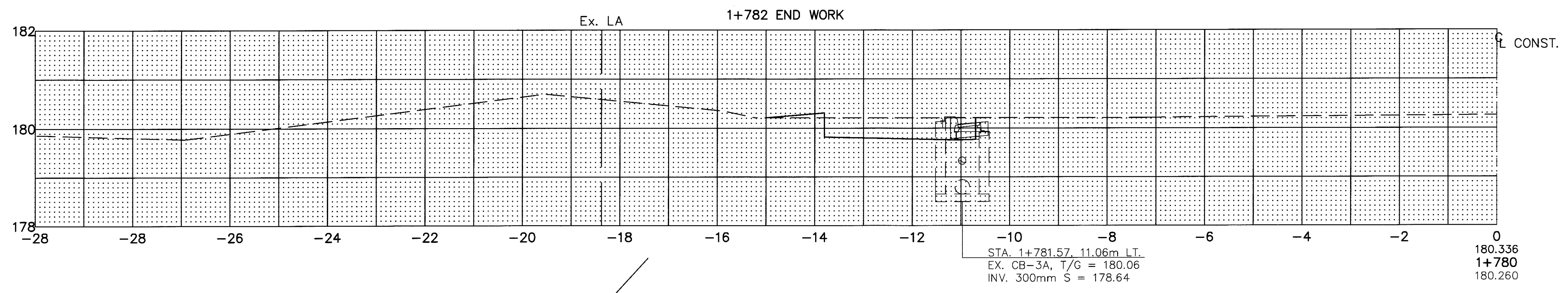
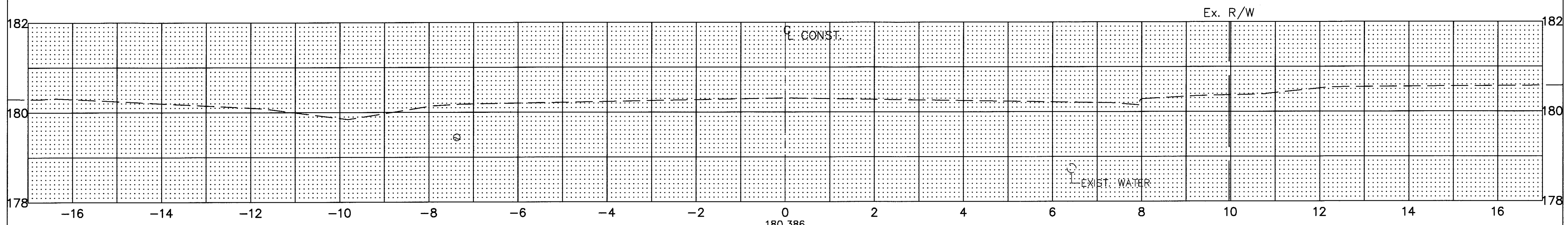
SEEDING	
END WIDTH	SQ. METER
80	
4	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	13.1	0.6
1.31	0.06		

CALCULATED BY: SBP
 DATE: 6-97
 CHECKED BY: JTY
 DATE: 6-97

**CROSS SECTIONS RYE BEACH ROAD
 STA. 1+780 TO STA. 1+800**

ERI-2-12.558



80 TOTAL THIS SHEET

8360 TOTALS FOR RYE BEACH ROAD CARRIED TO SHT. 114

TOTAL THIS SHEET

TOTALS FOR RYE BEACH ROAD CARRIED TO SHT. 114

13 1
 392 8257

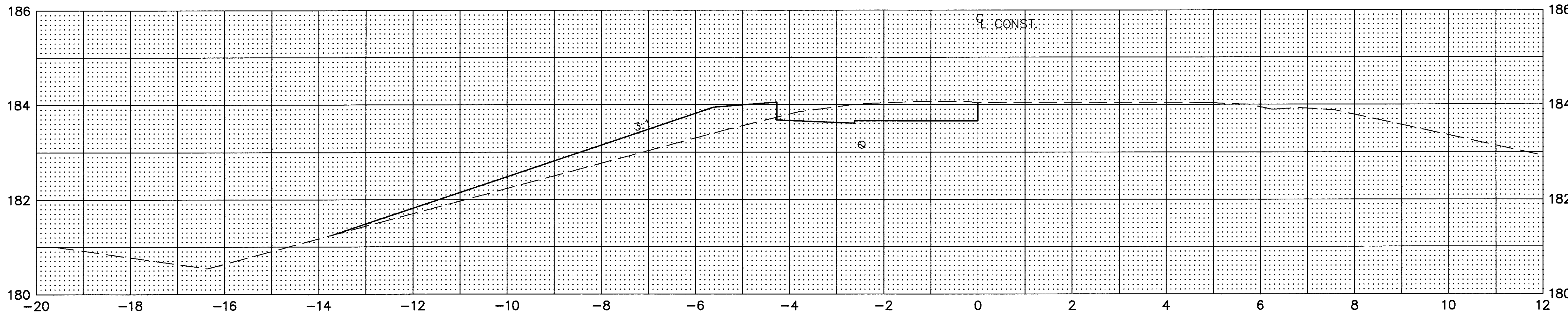
236
 432

SEEDING
END WIDTH SQ. METER

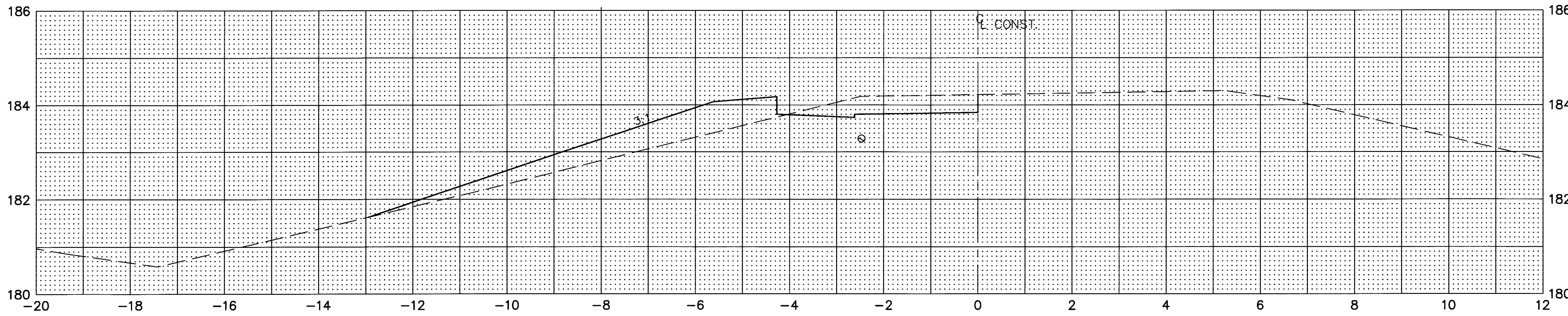
12

STA. 0+080

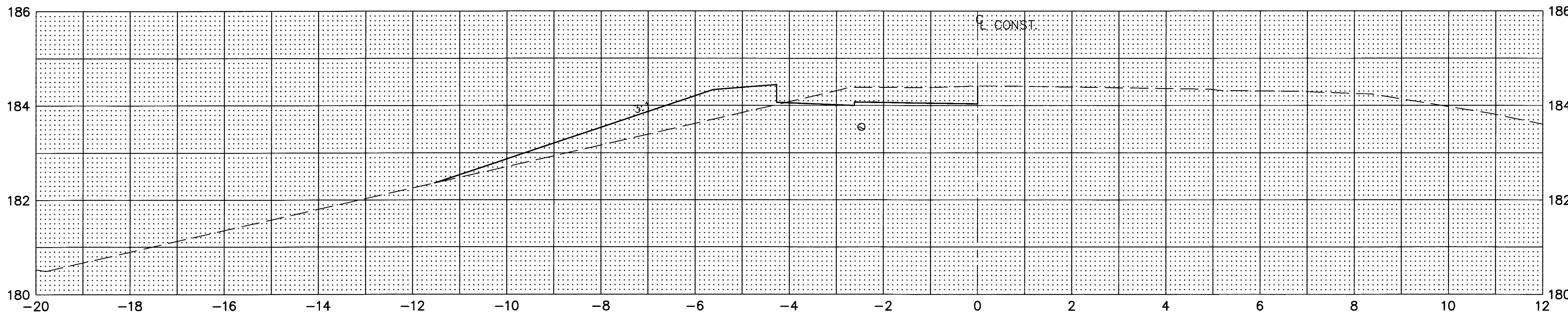
STA. 0+080



0+060
184.039



0+040
184.293



0+020
184.411

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
STA. 0+080	0.77	5.28		
			21.8	81.5
	1.41	2.88		
			27.1	60.2
	1.29	3.14		
			24.8	56.9
	1.19	2.55		
TOTAL THIS SHEET			74	199

RYE BEACH RD. INTERCHANGE - RAMP B
 STA. 0+020 TO STA. 0+060

ERI-2-12.558

237
432

FILE NAME: I:\5033\005\TRAN\SECTIONS\RYERAMPB~X1

600 TOTAL THIS SHEET

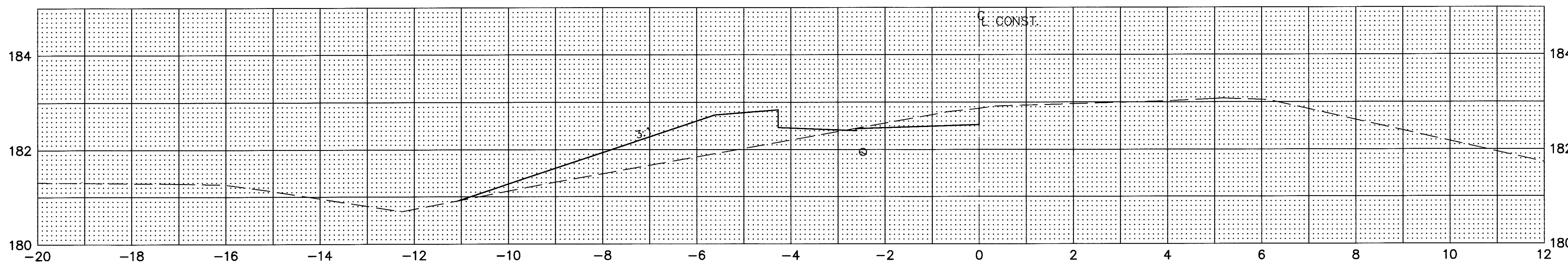
TOTAL THIS SHEET

SEEDING
END SQ.
WIDTH METER

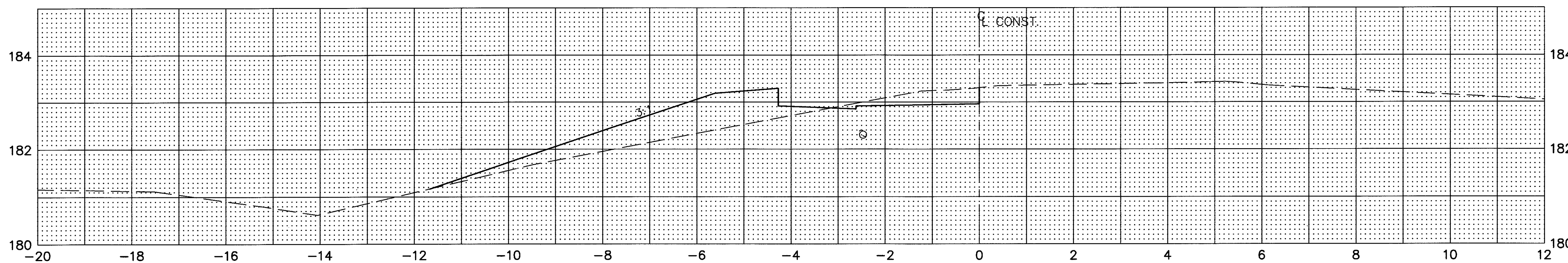
6
140
8
160
8
200
12
500

STA. 0+140

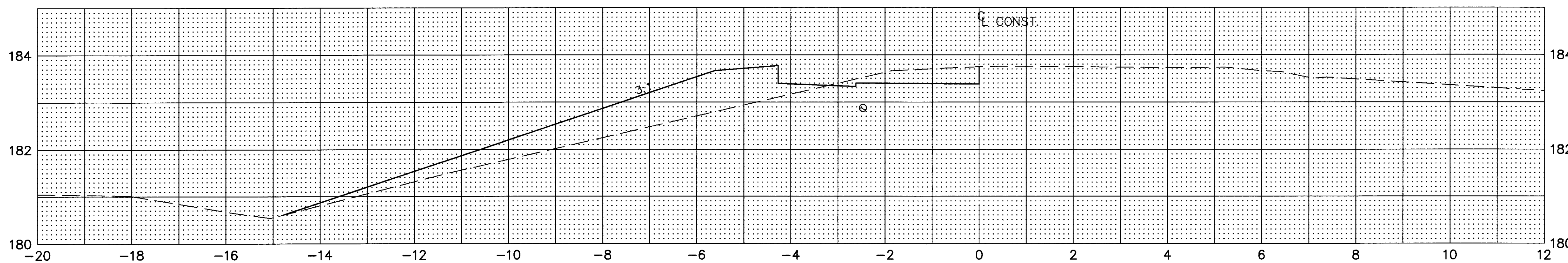
STA. 0+140



0+120
182.872



0+100
183.304



0+080
183.744

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
1.23	1.50	16.9	52.1	
0.46	3.71	11.1	72.9	
0.65	3.58	14.1	88.5	
0.77	5.28			
TOTAL THIS SHEET		42	214	

RYE BEACH RD. INTERCHANGE - RAMP B
 STA. 0+080 TO STA. 0+120

ERI-2-12-558

238
432

FILE NAME: I:\5033\005\TRAN\SECTIONS\RYERAMPB~X2

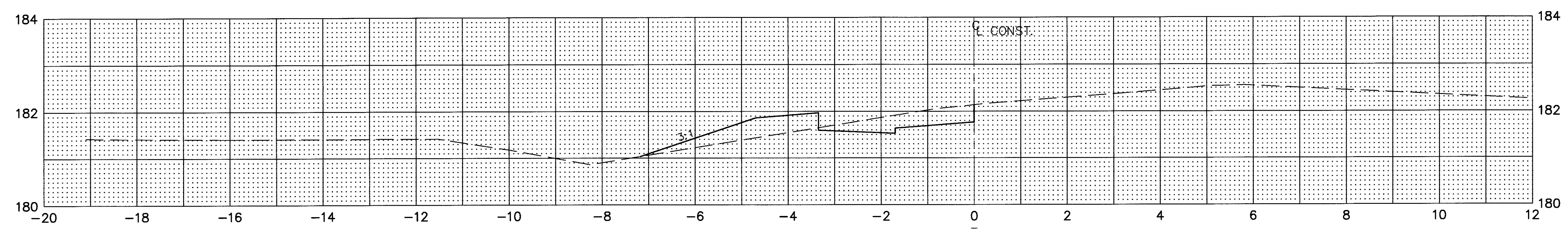
SPJ TOTAL THIS SHEET

TOTAL THIS SHEET

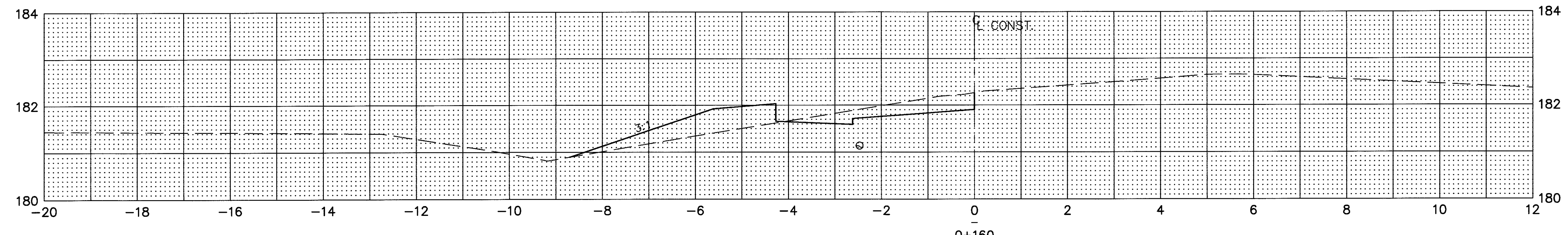
SEEDING
 END WIDTH SQ. METER
 0
 25
 5
 100
 5
 110
 6
 235 TOTAL THIS SHEET
 1335 TOTAL TO RYE BEACH ROAD RAMP B CARRIED TO SHT. 114

AHEAD

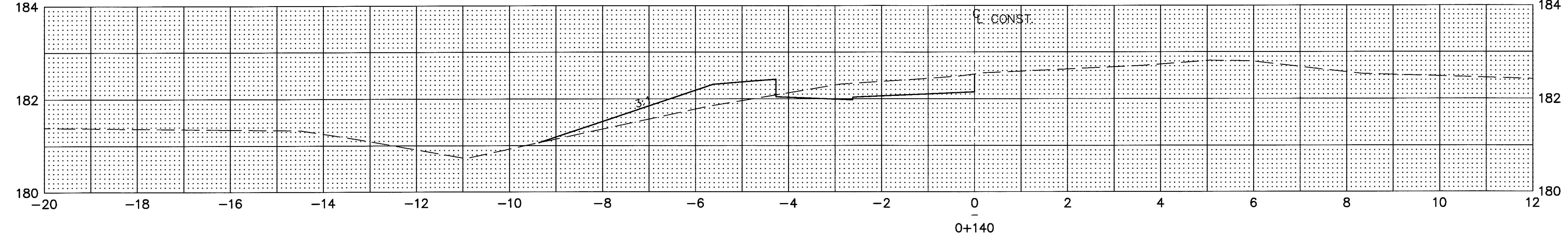
AHEAD



0+180
182.139



0+160
182.264



0+140
182.528

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
0	0	0		
25			9.4	10.3
5	0.94	1.04		
100			18.9	24.8
5	0.96	1.44		
110			21.9	29.3
6	1.23	1.50		
TOTAL THIS SHEET			50	64
TOTAL TO RYE BEACH ROAD RAMP B CARRIED TO SHT. 114			166	477

CALCULATED BY SPJ DATE 6-97
 CHECKED BY JTY DATE 6-97

**RYE BEACH RD. INTERCHANGE - RAMP B
 STA. 0+140 TO STA. 0+175**

ERI-2-12.558

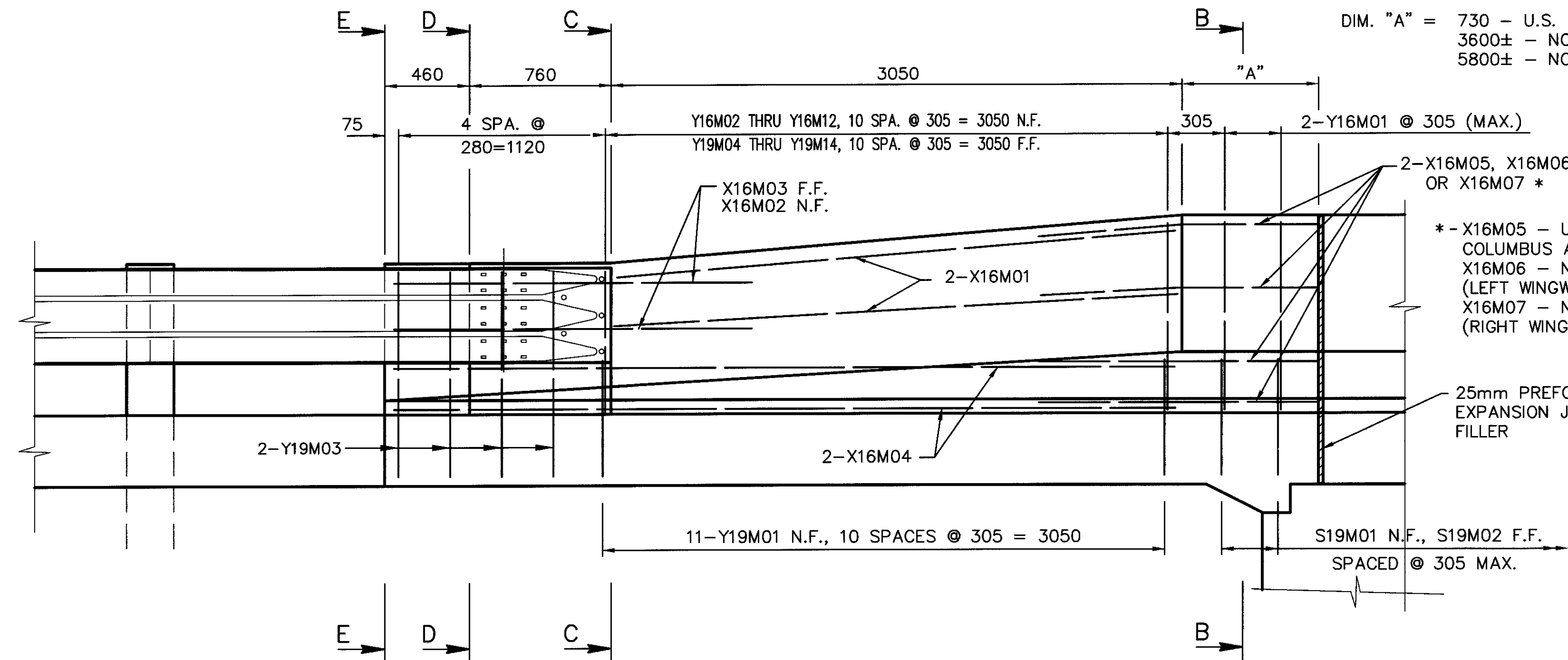
239
432

CALCULATED BY: M.E.M.
 DATE: 10-97
 CHECKED BY: G.A.B.
 DATE:

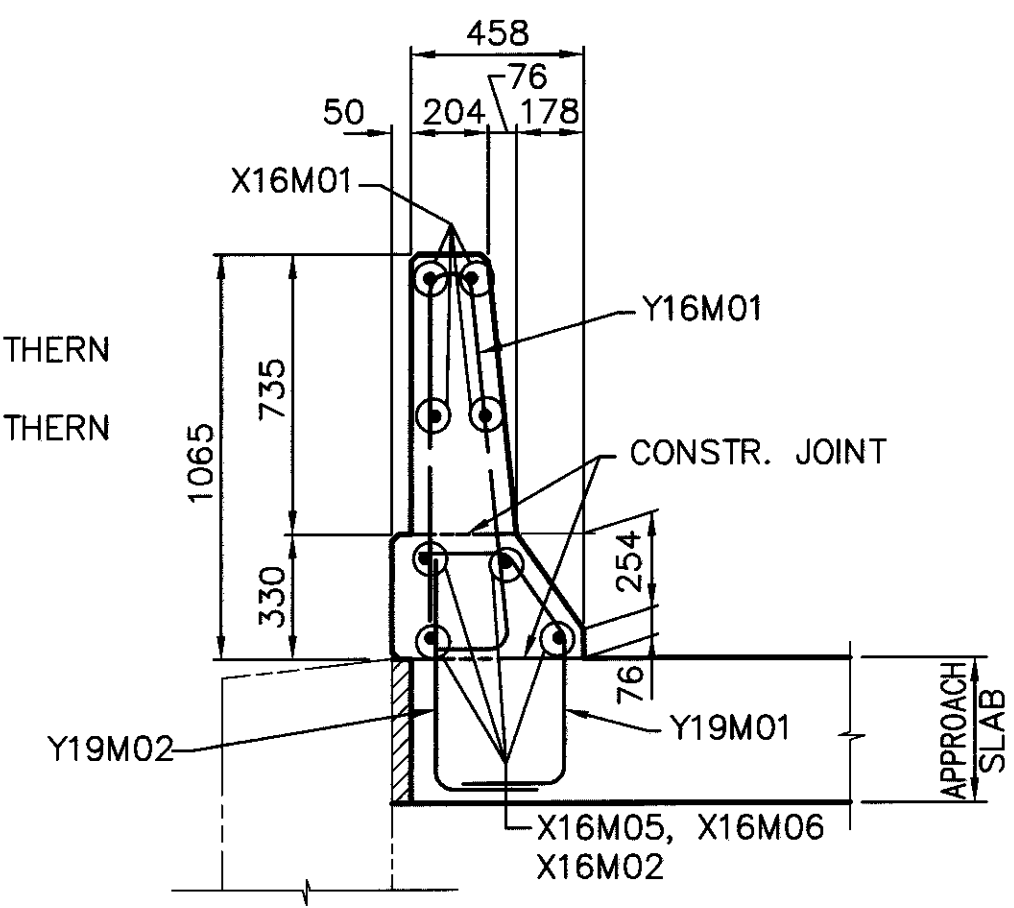
APPROACH SLAB AND DRAINAGE DETAILS

ERI-2-12.558

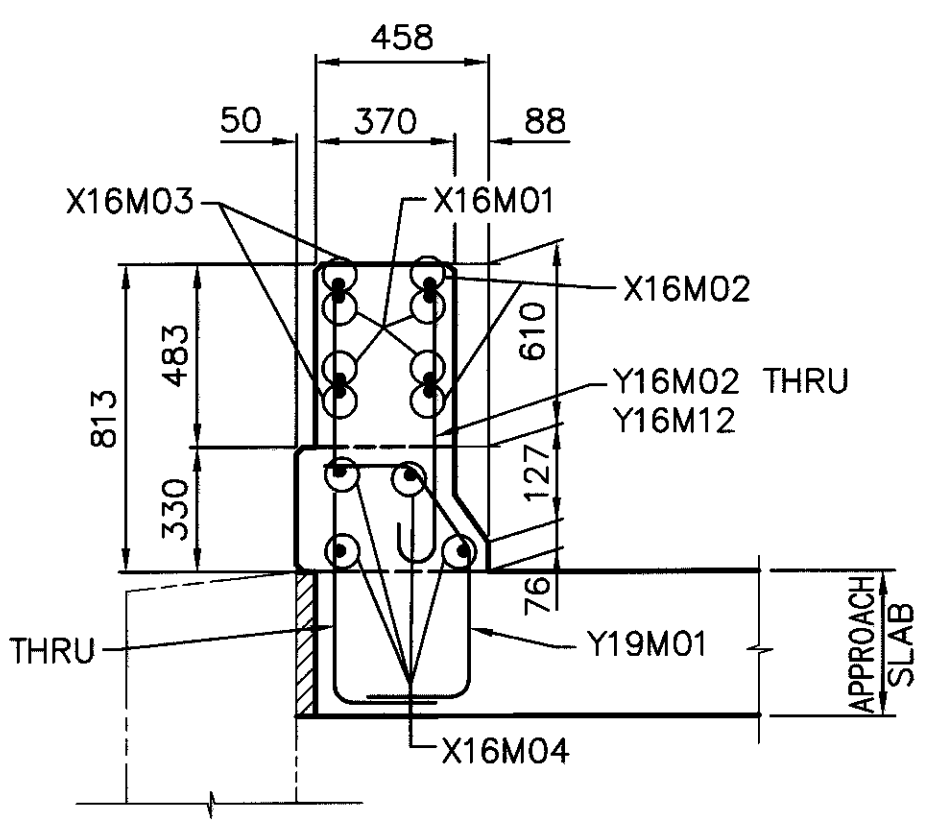
240
432



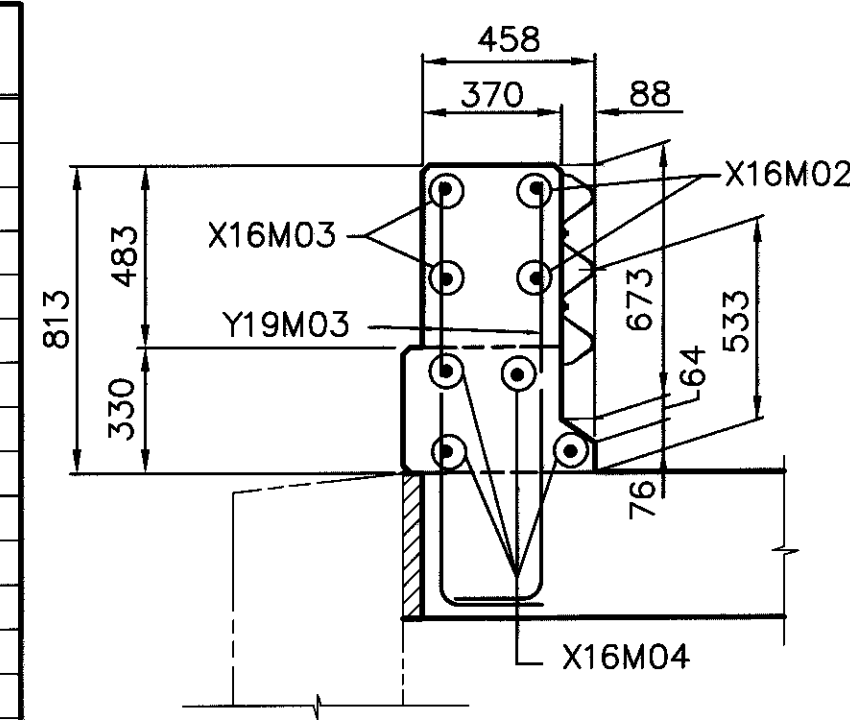
PARAPET TRANSITION DETAIL - ELEVATION



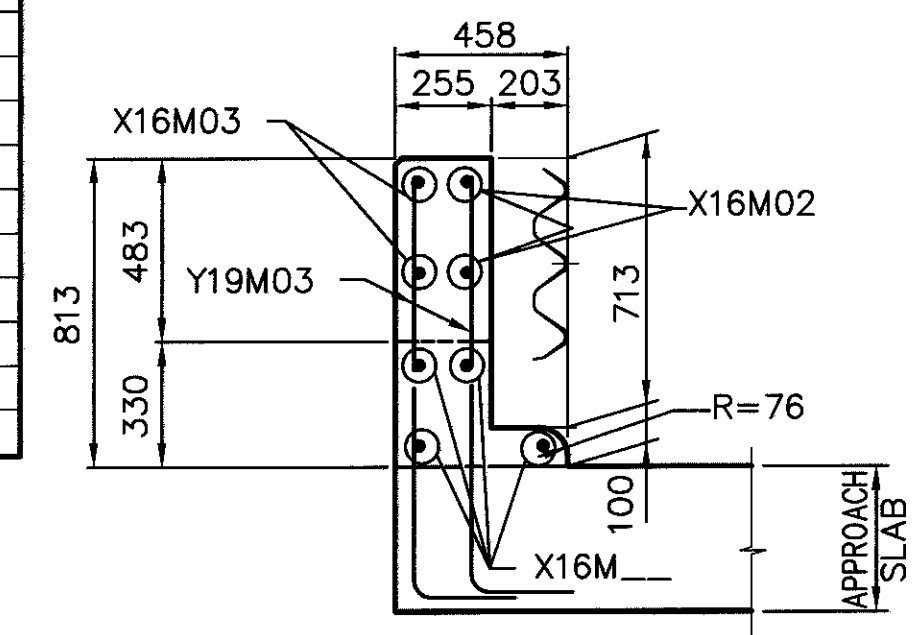
SECTION B-B



SECTION C-C



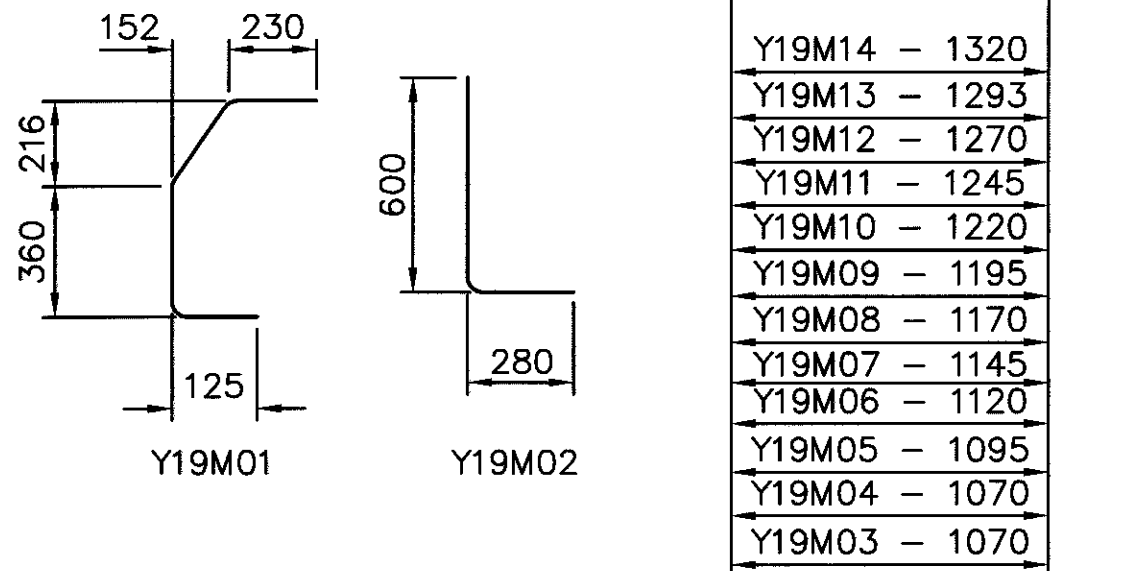
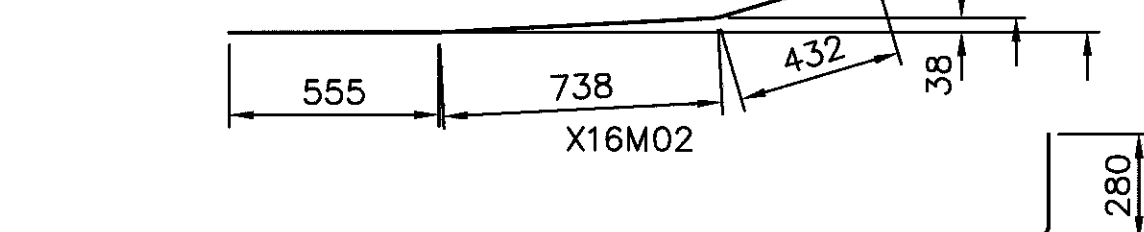
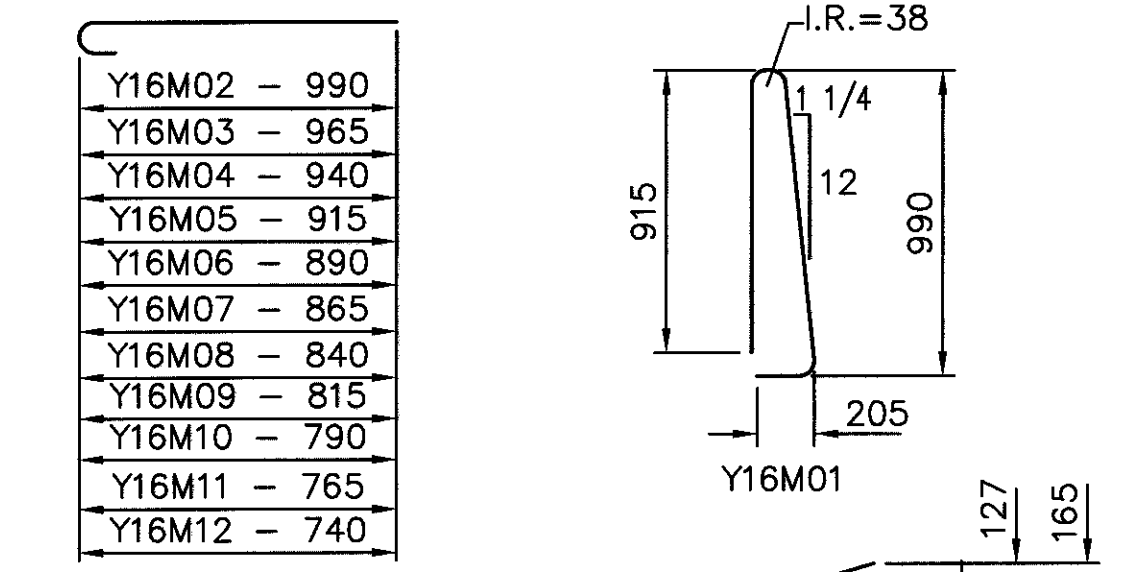
SECTION D-D



SECTION E-E

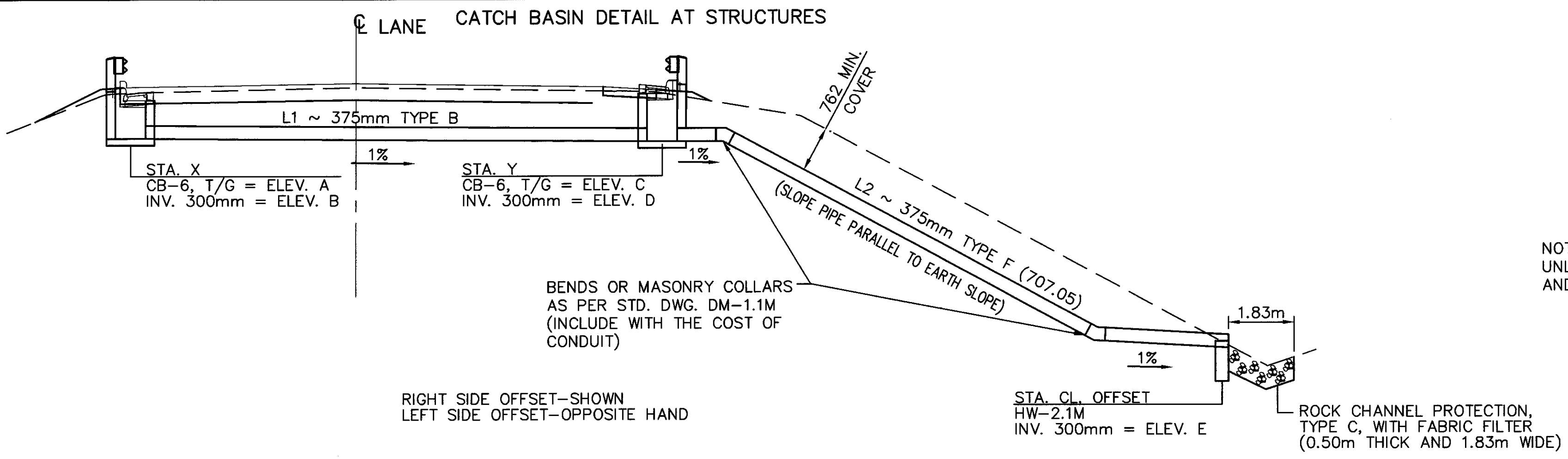
BRIDGE	Plan Sheet	Abut	Struct	Sta. X CB-6	offset	Elev. A T/G	Elev. B INV	L1	Struct	Sta. Y CB-6	offset	Elev. C T/G	Elev. D INV	L2	Sta. Z HDWL	Offset	Elev. F INV
Pipe Creek ERI-2-14822	119	Rt Rear							D9	21+710.470	23.560	188.751	187.379	11	21+710.470	33.1	186.48
	119	Rt Fwd							D13	21+757.850	23.560	188.609	187.237	11	21+757.850	33.1	186.85
	119	Lt Rear							D6	21+718.610	-23.560	188.769	187.397	11	21+718.610	-33.1	187.27
	119	Lt Fwd							D10	21+766.600	-23.560	188.625	187.253	11	21+766.600	-33.1	187.00
Columbus Ave ERI-2-17638	124	Rt Rear	D4	24+515.678	11.160	196.589	196.641	13	D5	24+518.637	23.560	196.511	195.139	17	24+518.637	38.5	191.10
	124	Rt Fwd	D8	24+598.225	11.160	196.484	196.489	13	D9	24+603.989	23.560	196.359	194.987	17	24+603.989	38.5	190.62
	124	Lt Rear	D3	24+501.529	-11.160	196.490	196.452	13	D2	24+495.374	-23.560	196.322	194.950	17	24+495.374	-38.5	191.30
	124	Lt Fwd	D7	24+587.747	-11.160	196.521	196.473	13	D6	24+581.873	-23.560	196.473	195.101	17	24+581.873	-38.5	191.30
US Rte 250 ERI-2-19312	127	Rt Rear	D5	26+189.376	11.160	190.396	190.456	22	D6	26+198.238	32.080	190.256	188.884	13	26+198.238	43.5	185.50
	127	Rt Fwd	D9	26+269.791	11.160	190.361	190.245	20	D10	26+278.025	30.417	190.115	188.743	22	26+278.025	49.5	184.80
	127	Lt Rear	D3	26+179.823	-11.160	190.339	190.355	13	D4	26+174.508	-23.560	190.225	188.853	12	26+174.508	-34.5	184.80
	127	Lt Fwd	D7	26+262.052	-11.160	190.365	190.305	13	D8	26+257.948	-23.560	190.305	188.933	12	26+262.052	-34.5	184.50
Norfolk Southern ERI-2-23770	134	Rt Rear	D4	30+592.019	11.160	193.643	193.913	25	D5	30+614.185	23.560	193.663	192.291	22	30+614.185	43.0	185.85
	134	Rt Fwd	D8	30+706.949	11.160	193.405	193.280	25	D9	30+729.370	23.560	193.030	191.658	36	30+746.000	44.7	184.83
	134	Lt Rear	D2	30+553.533	-11.160	193.373	193.321	25	D3	30+533.330	-23.560	193.071	191.699	34	30+512.200	-45.7	184.23
	134	Lt Fwd	D7	30+668.416	-11.160	193.656	193.627	25	D6	30+645.838	-23.560	193.627	192.255	26	30+645.838	-46.5	183.35
Saw Mill Creek ERI-2-24430	136	Rt Rear						14	D9	31+261.413	25.931	181.388	180.016	12	31+261.413	36.5	178.25
	136	Rt Fwd						14	D13	31+314.905	25.944	181.138	179.766	10	31+314.905	35.0	178.60
	136	Lt Rear						18	D6	31+261.081	-29.726	181.280	179.908	12	31+261.081	-40.5	177.85
	136	Lt Fwd						20	D10	31+314.481	-31.248	181.004	179.632	11	31+314.481	-41.0	178.00

REINFORCING BAR LIST					
MARK	LENGTH	SHP.	MARK	LENGTH	SHP.
X16M01	3050	STR.	Y16M01	2130	BT.
X16M02	1725	BT.	Y16M02	1170	BT.
X16M03	1725	STR.	Y16M03	1145	BT.
X16M04	4220	STR.	Y16M04	1120	BT.
X16M05	1420	STR.	Y16M05	1095	BT.
X16M06	4390	STR.	Y16M06	1070	BT.
X16M07	5790	STR.	Y16M07	1045	BT.
			Y16M08	1020	BT.
Y19M01	910	BT.	Y16M09	995	BT.
Y19M02	830	BT.	Y16M10	970	BT.
Y19M03	1300	BT.	Y16M11	945	BT.
Y19M04	1550	BT.	Y16M12	920	BT.
Y19M05	1525	BT.			
Y19M06	1500	BT.			
Y19M07	1475	BT.			
Y19M08	1450	BT.			
Y19M09	1425	BT.			
Y19M10	1400	BT.			
Y19M11	1375	BT.			
Y19M12	1350	BT.			
Y19M13	1325	BT.			
Y19M14	1300	BT.			



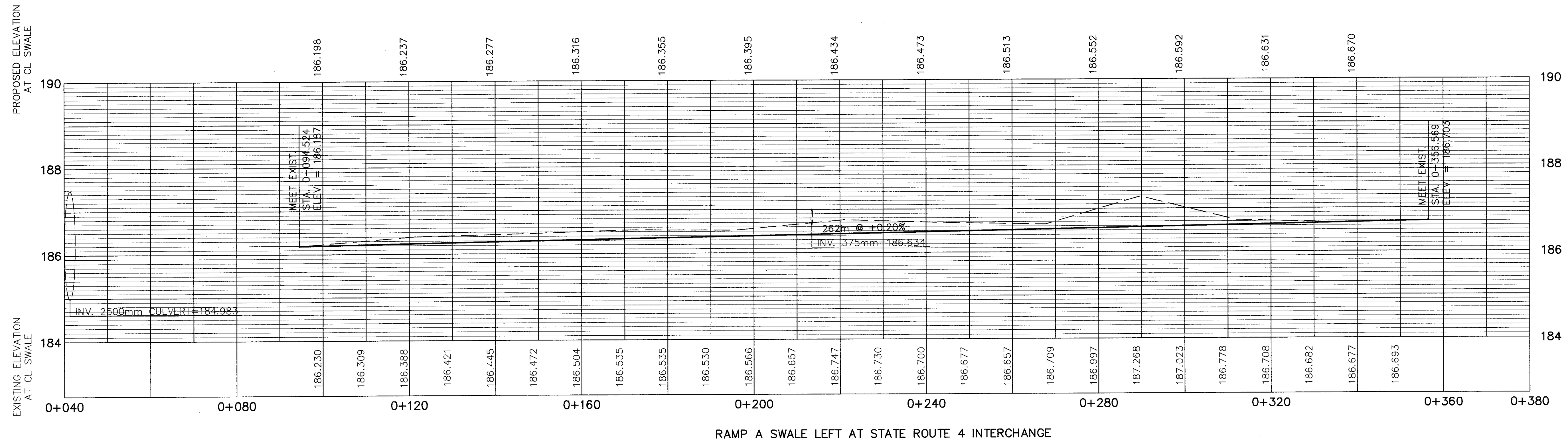
Y19M14	1320
Y19M13	1293
Y19M12	1270
Y19M11	1245
Y19M10	1220
Y19M09	1195
Y19M08	1170
Y19M07	1145
Y19M06	1120
Y19M05	1095
Y19M04	1070
Y19M03	1070

FIELD BEND BARS WHERE NECESSARY. INCLUDE BENDING DIAGRAMS ON PROJECT PLANS.

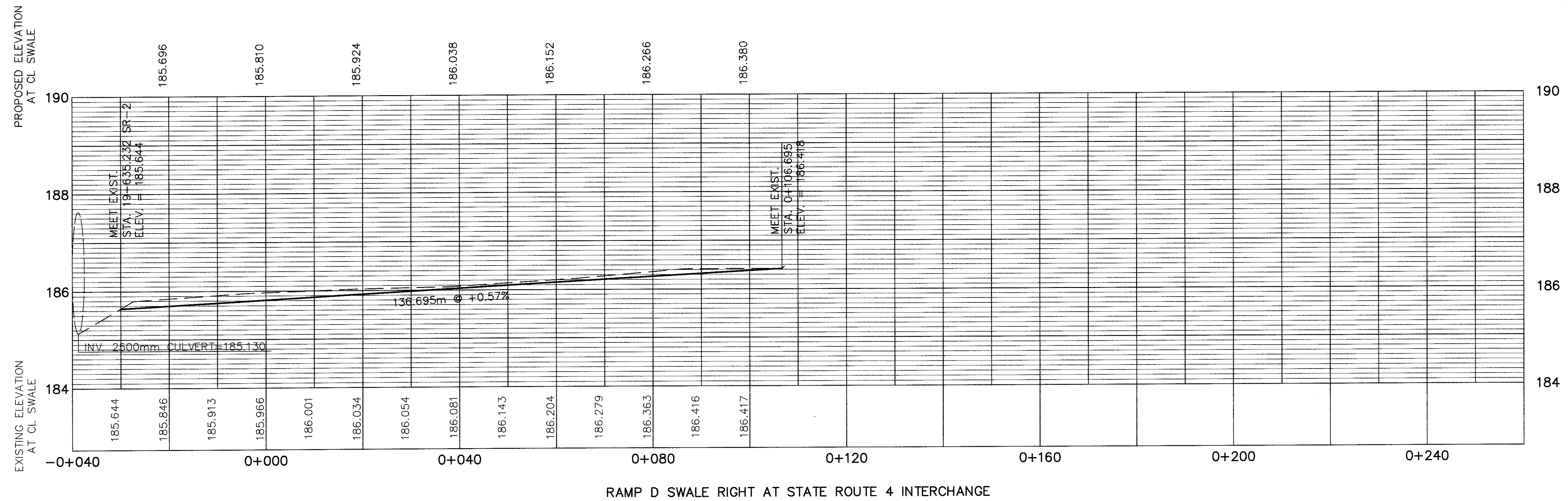


NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

PLOTTED: MAY 24, 1999 FILE NAME: I:\5033\006\TRAN\DWG\APPDCT.DWG 7-15-99 10:24:31 am EST J.E.F.



RAMP A SWALE LEFT AT STATE ROUTE 4 INTERCHANGE



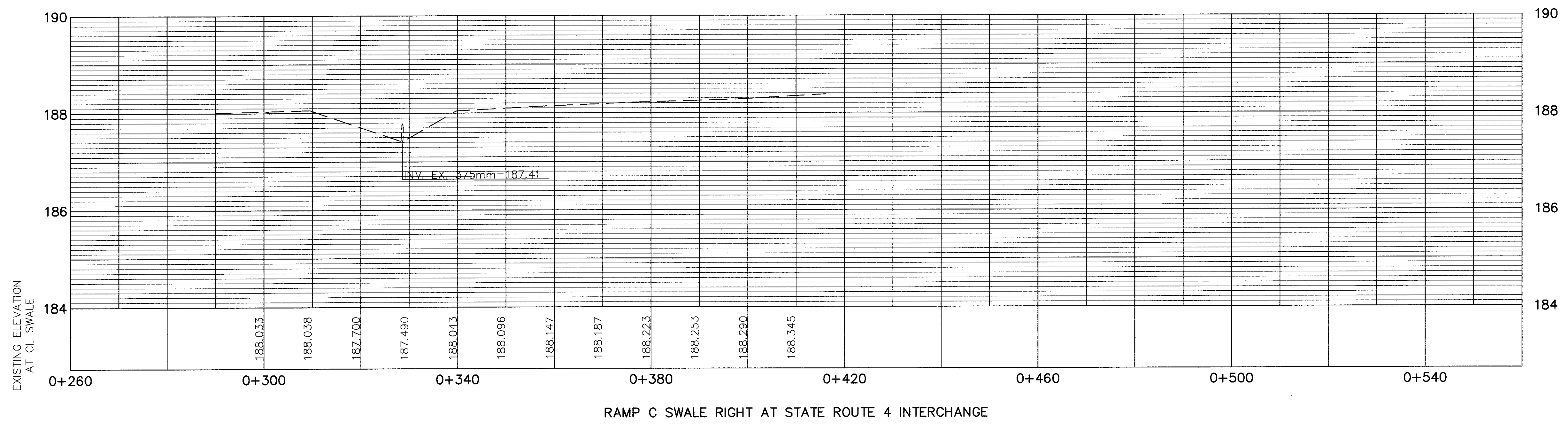
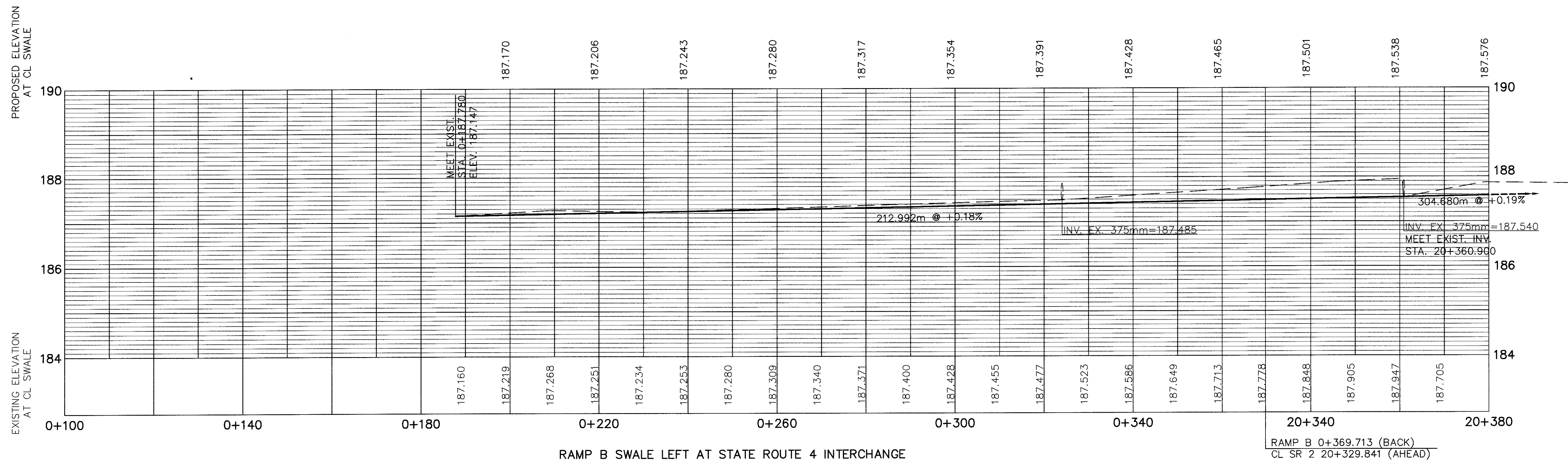
RAMP D SWALE RIGHT AT STATE ROUTE 4 INTERCHANGE

CALCULATED BY: S.B.
 DATE: 9-97
 CHECKED BY: P.M.A.
 DATE: 9-97

SWALE PROFILE S.R. 4 - RAMP A and RAMP D

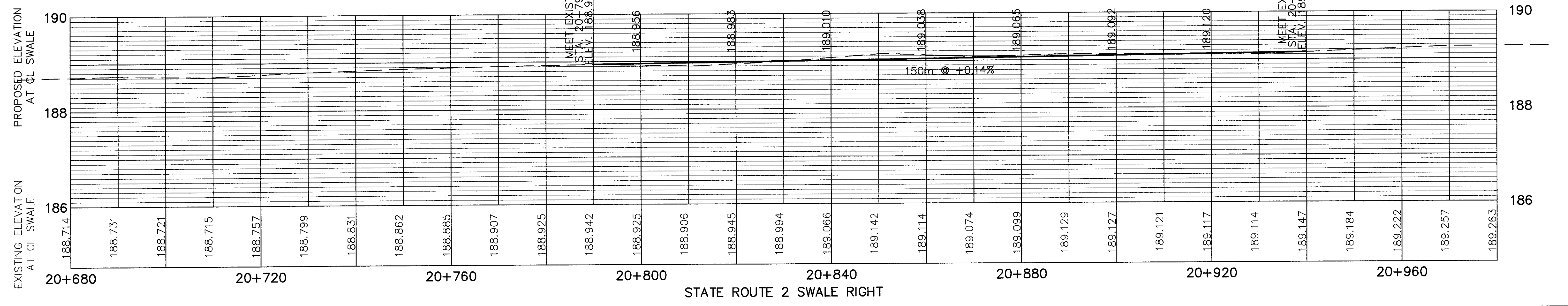
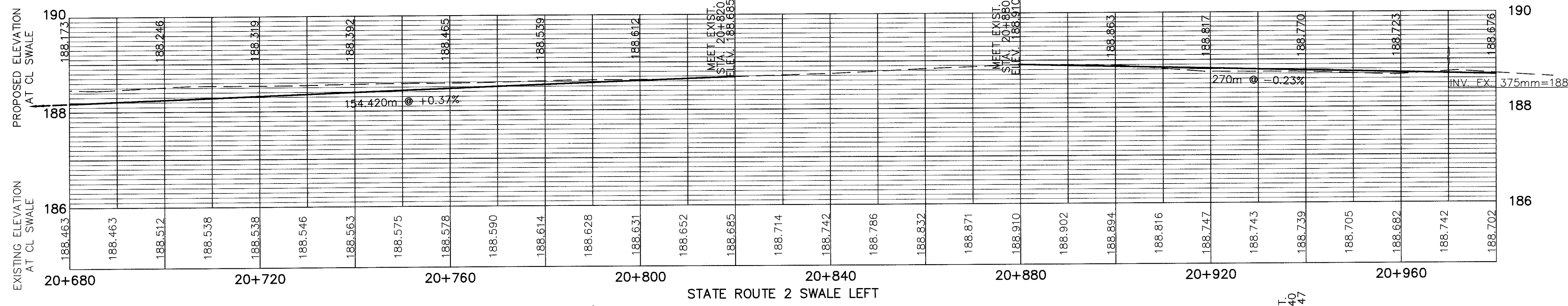
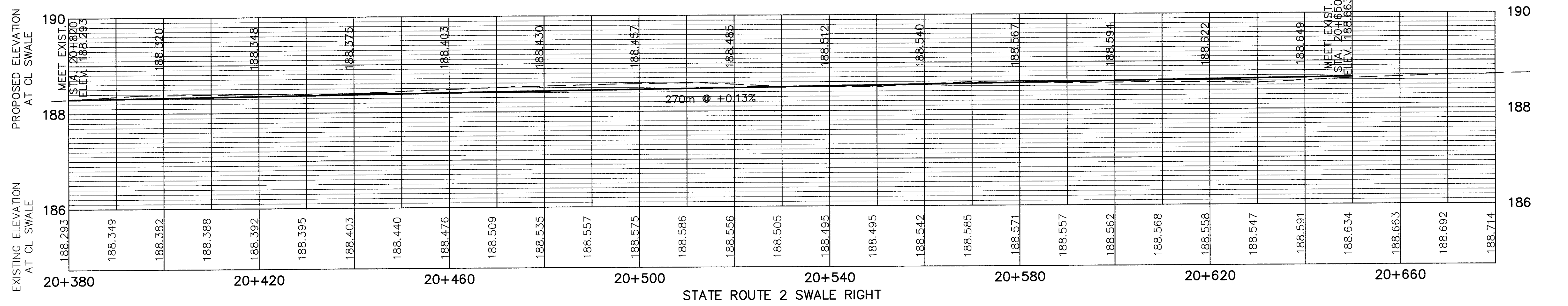
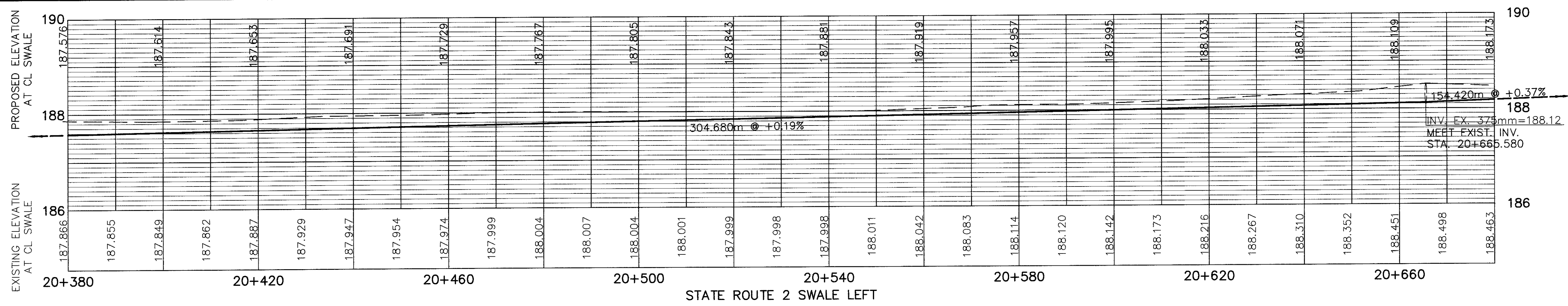
ERI-2-12.558

241
432



SWALE PROFILE S.R. 4 - RAMP B and RAMP C

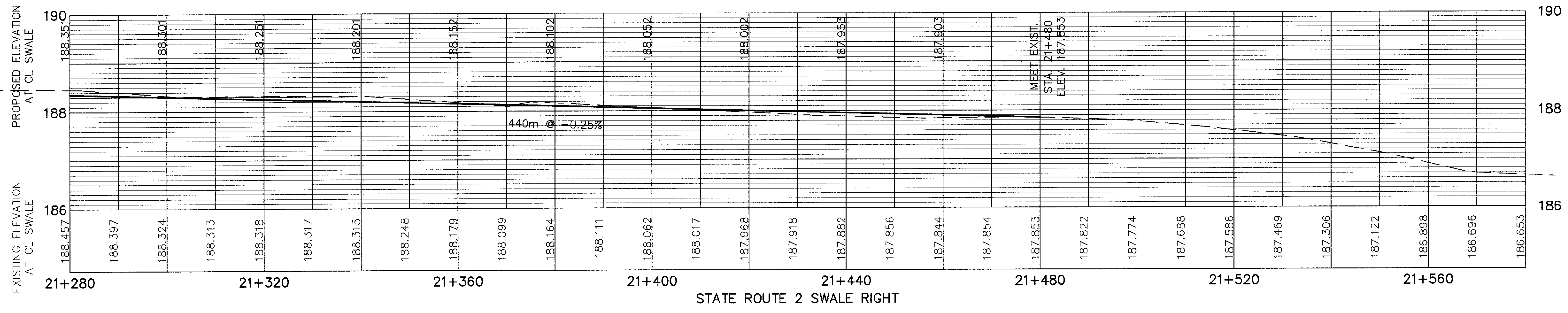
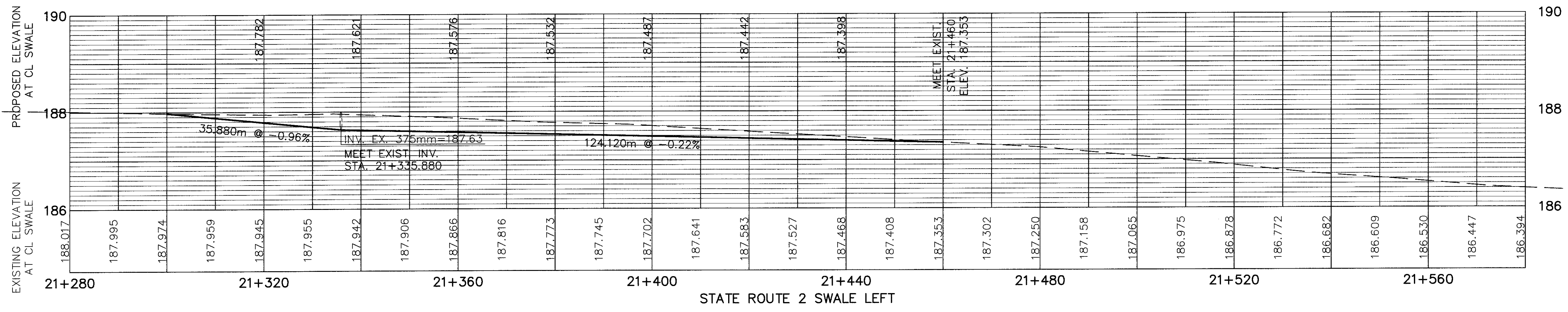
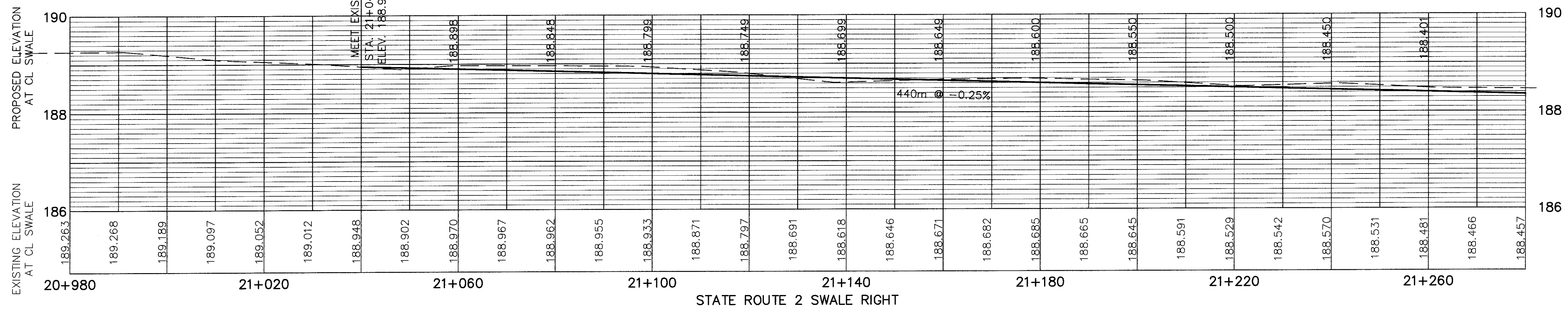
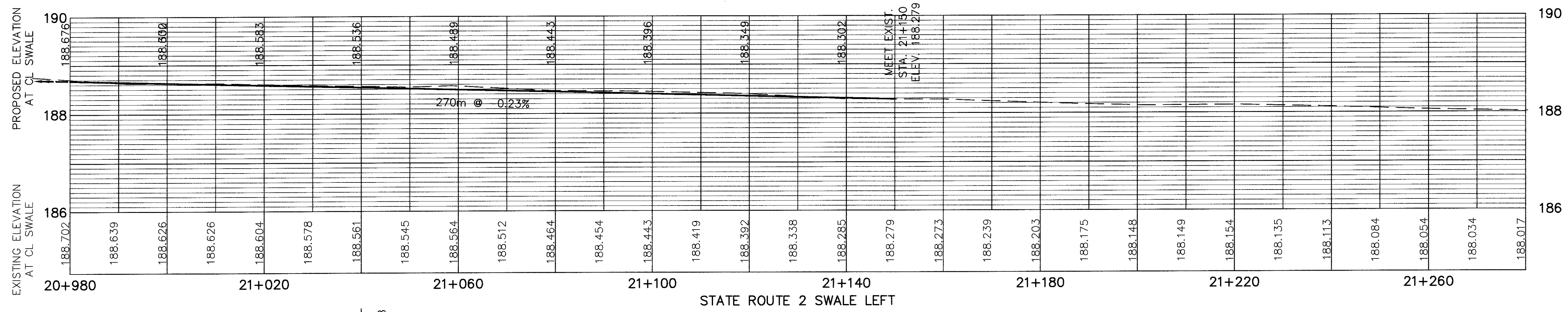
ERI-2-12-558



CALCULATED BY: SB- DATE: 5-97
 CHECKED BY: P.M.A. DATE: 6-97

SWALE PROFILE S.R. 2 STA. 20+380 TO STA. 20+980

ERI-2-12.558

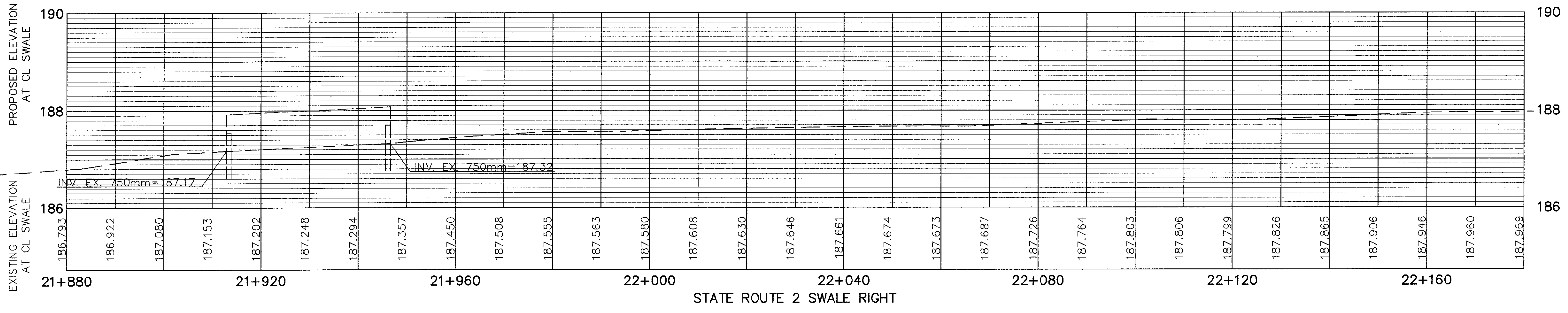
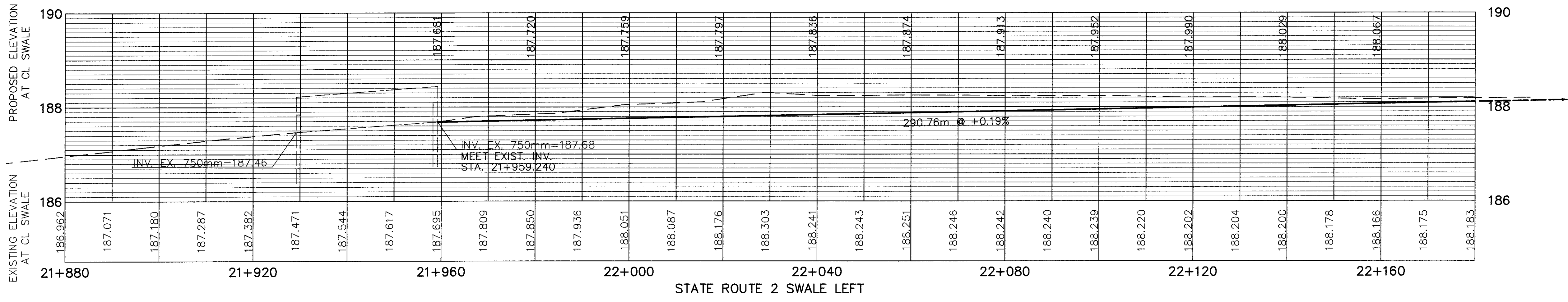
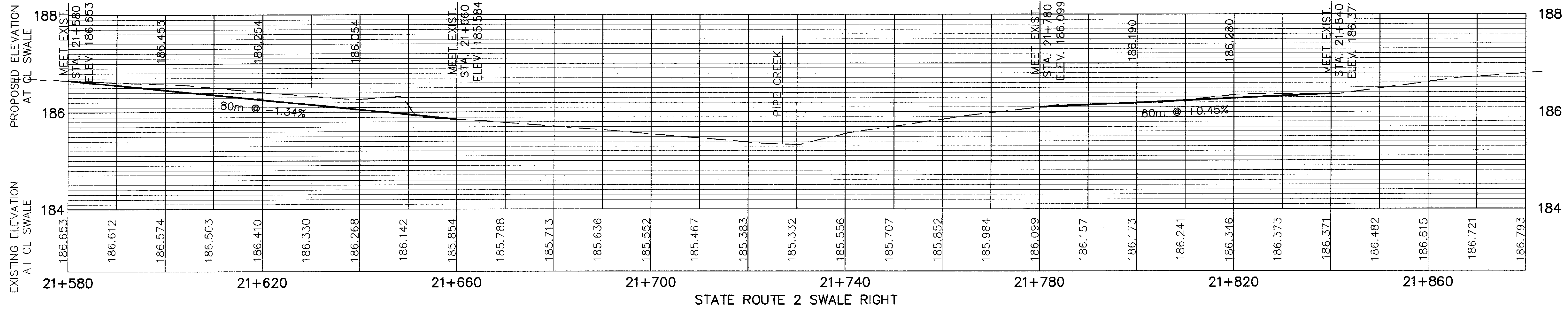
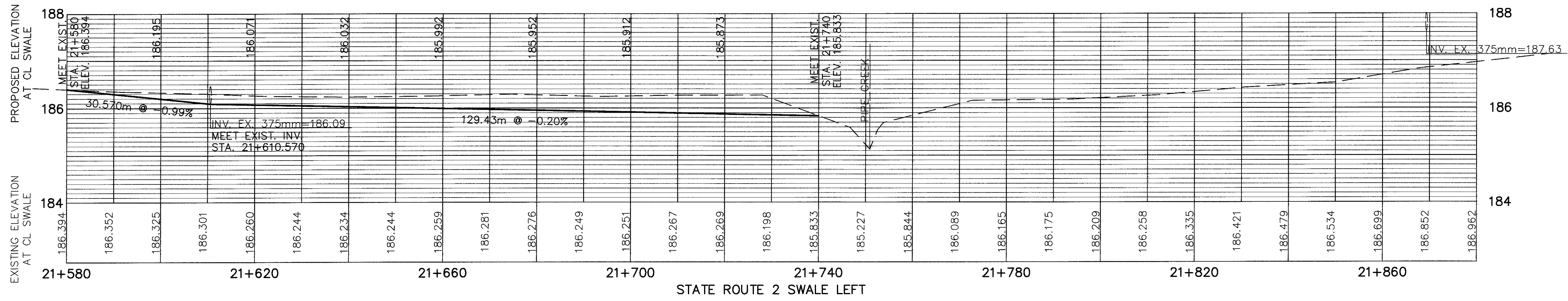


CALCULATED BY: S.B.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

SWALE PROFILE S.R. 2 STA. 20+980 TO STA. 21+580

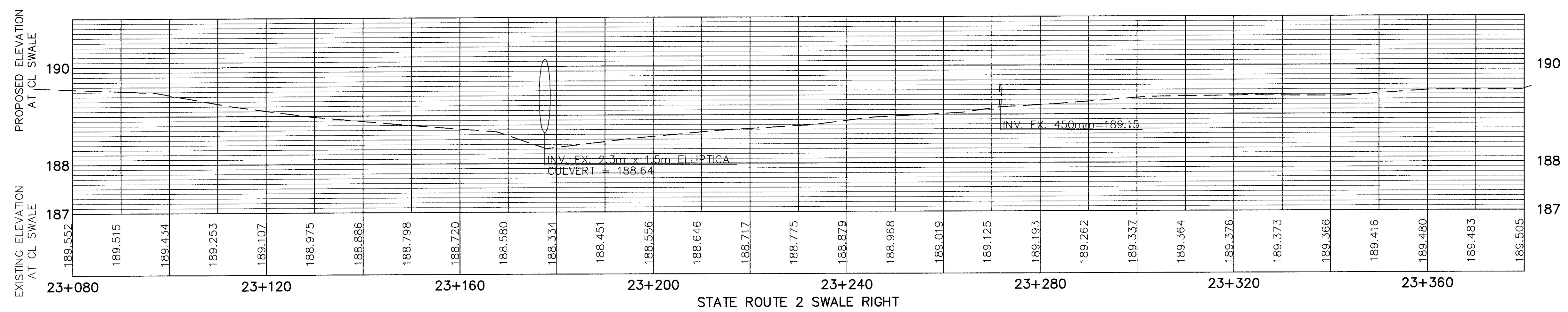
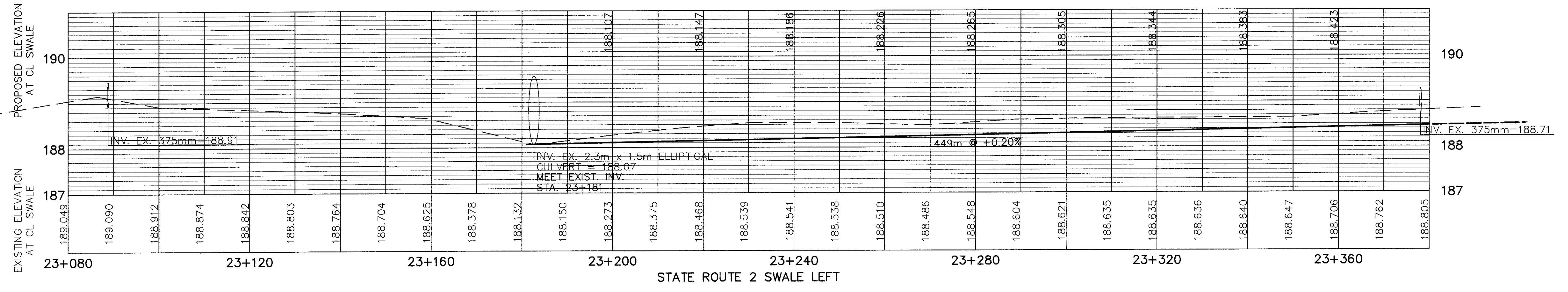
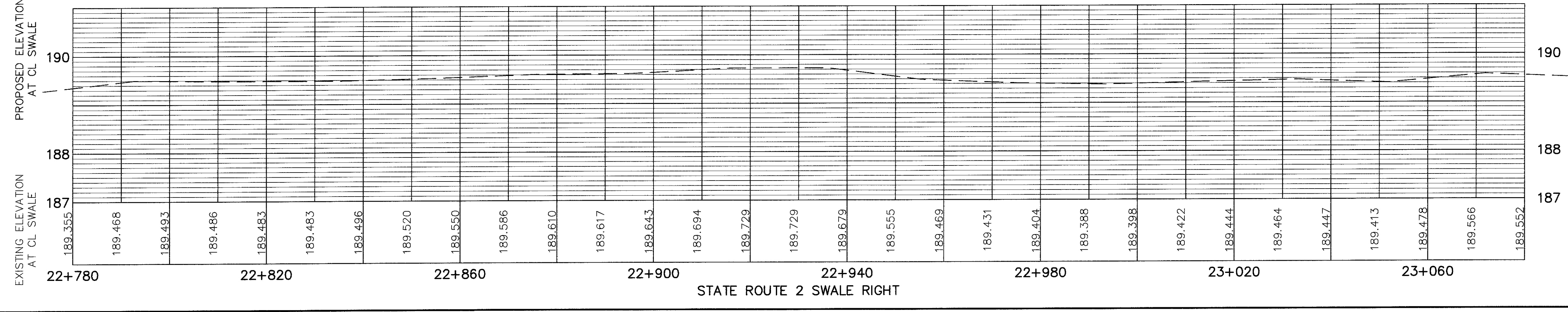
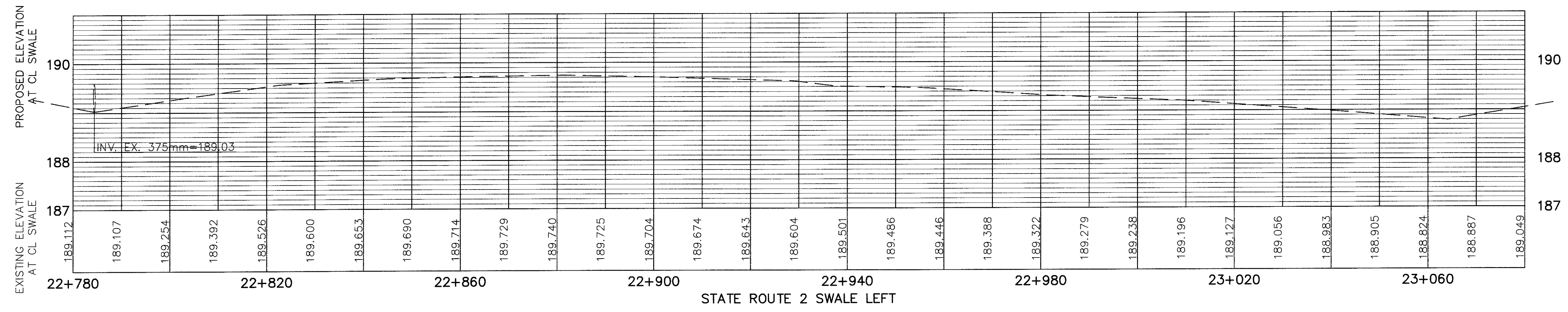
ERI-2-12.558

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432



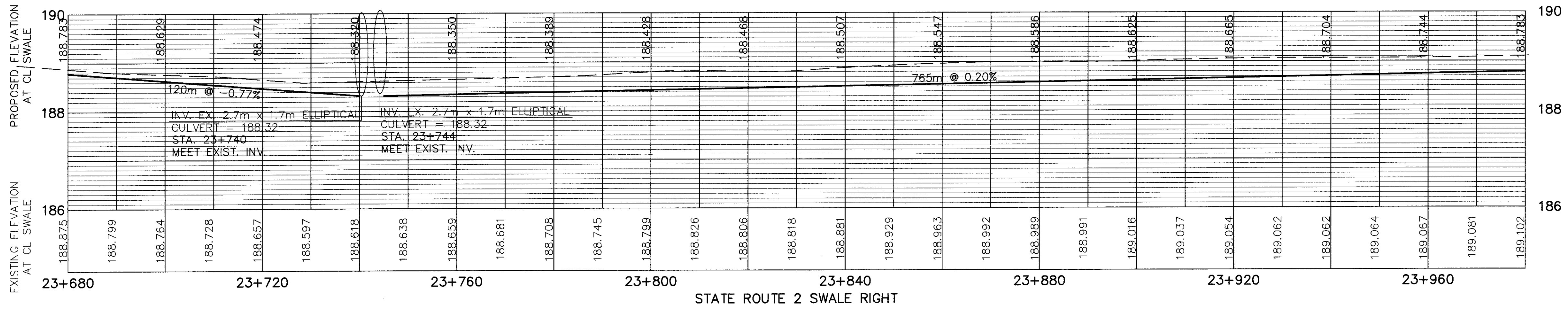
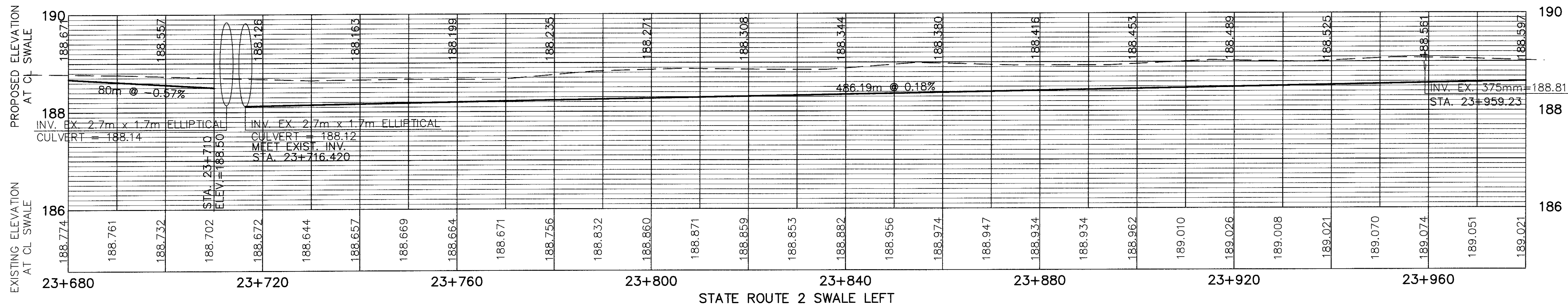
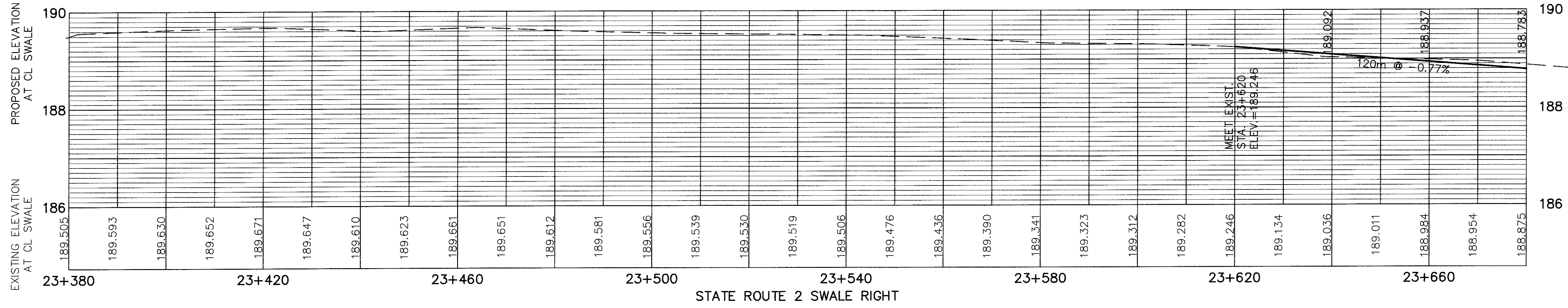
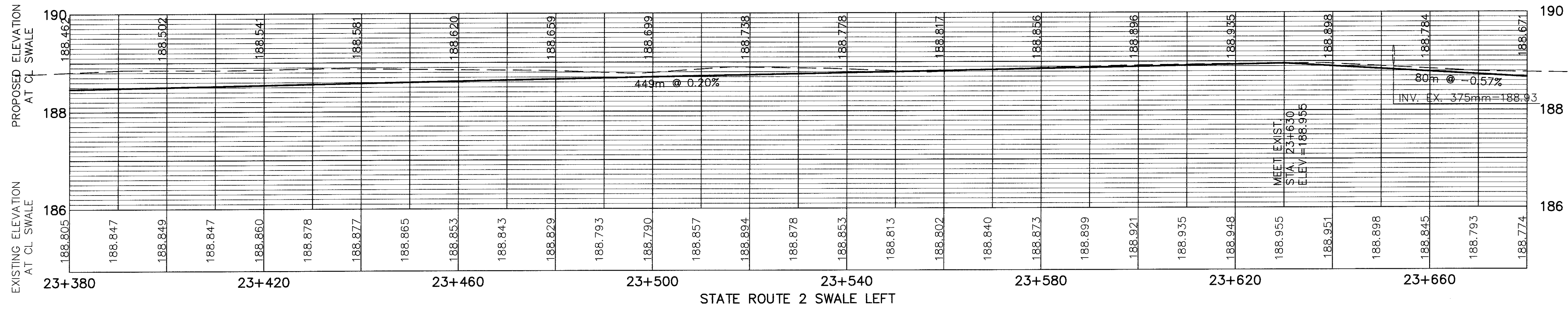
SWALE PROFILE S.R. 2 STA. 21+580 TO STA. 22+180

ERI-2-12-558



SWALE PROFILE S.R. 2 STA. 22+780 TO STA. 23+380

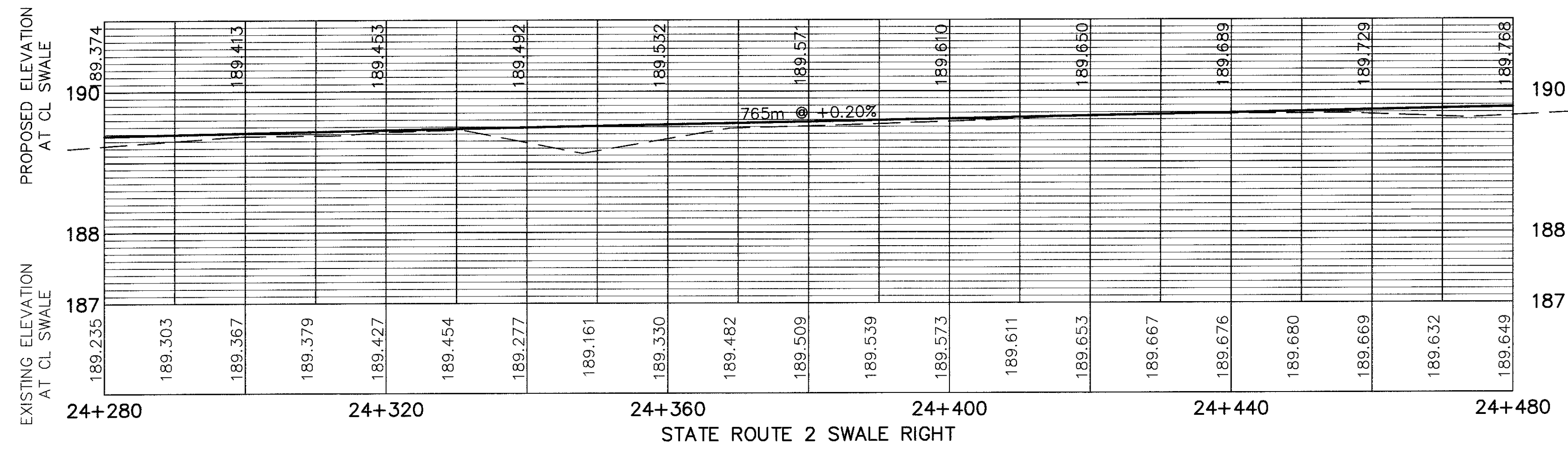
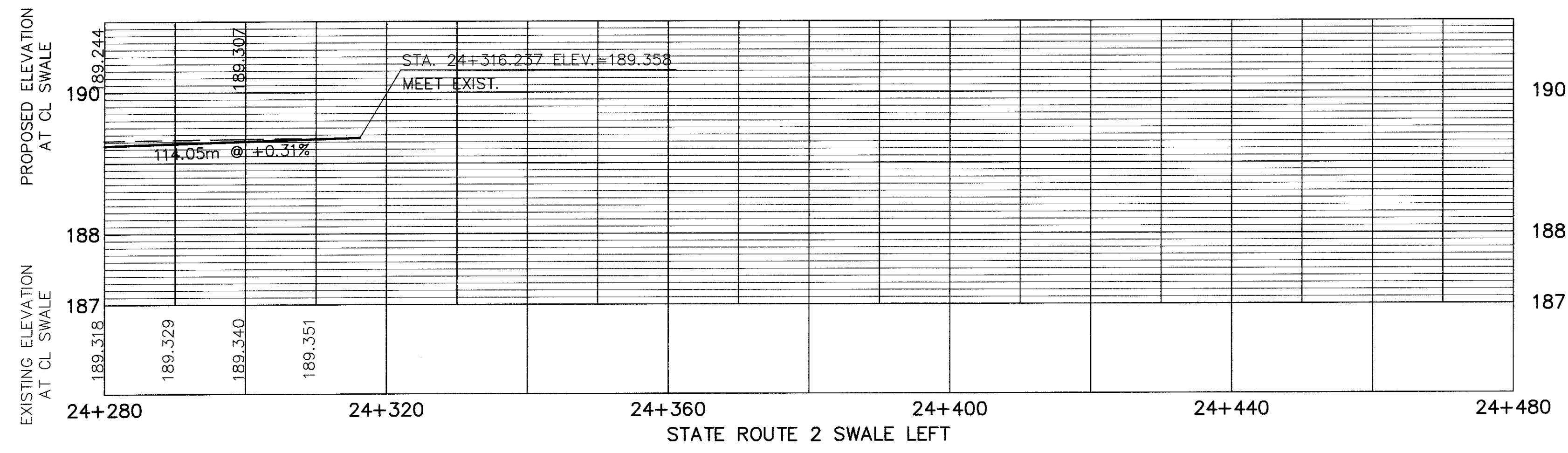
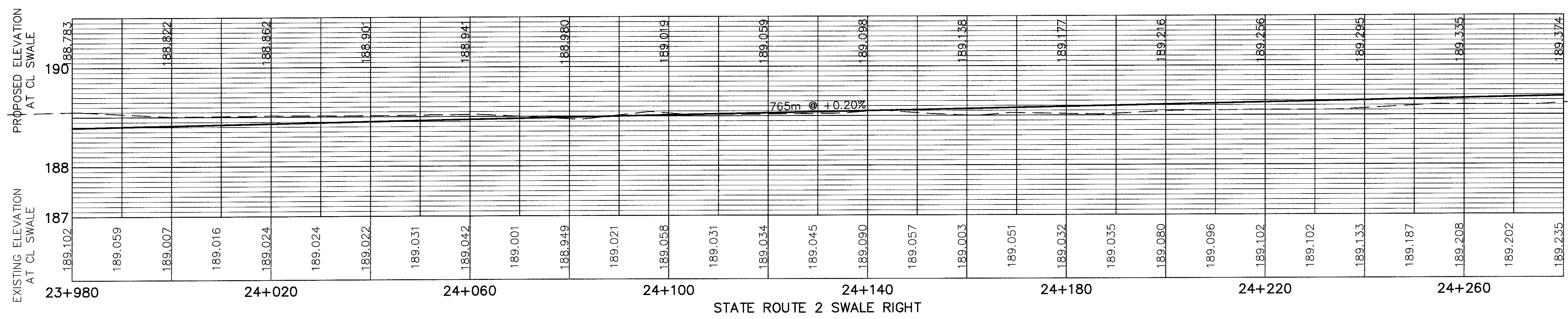
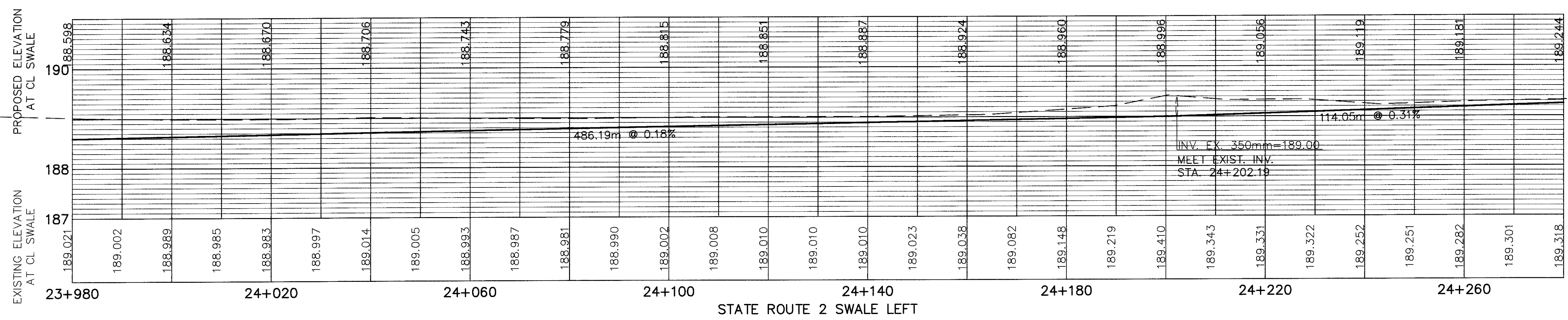
ERI-2-12.558



CALCULATED BY: SB
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

SWALE PROFILE S.R. 2 STA. 23+380 TO STA. 23+980

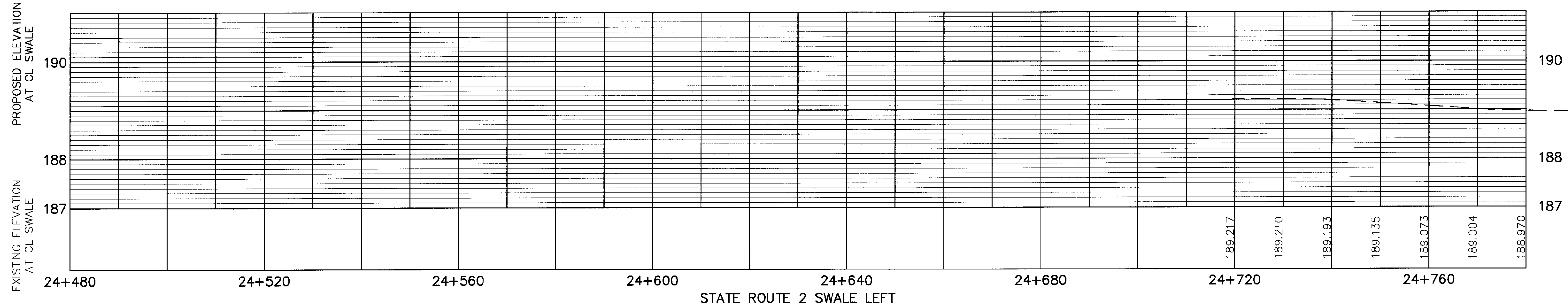
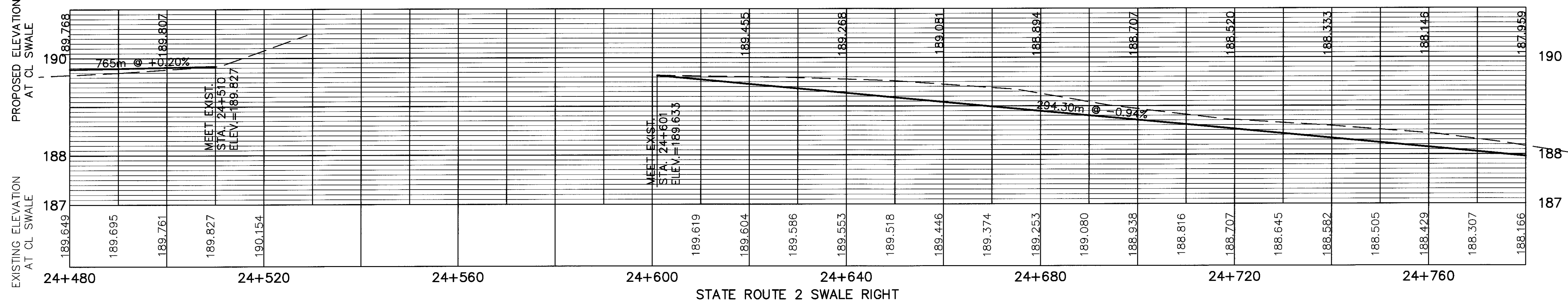
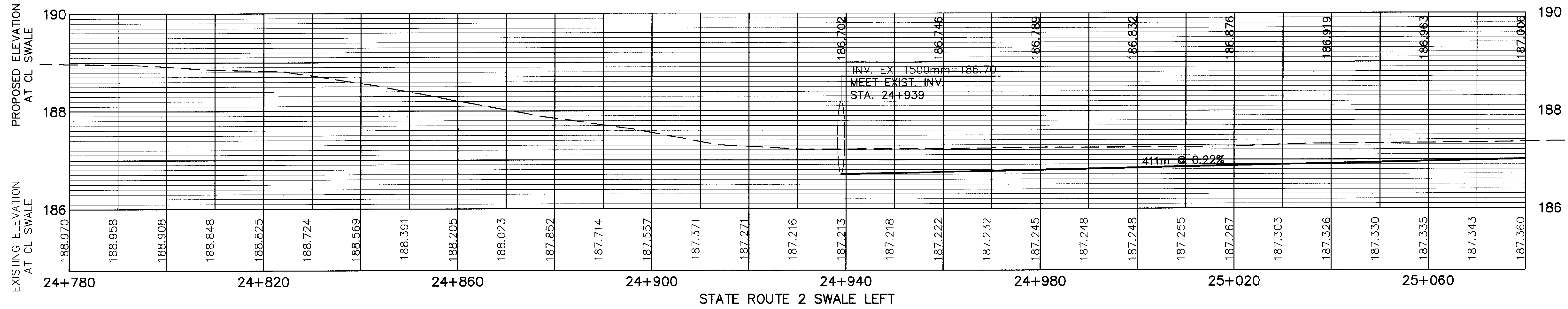
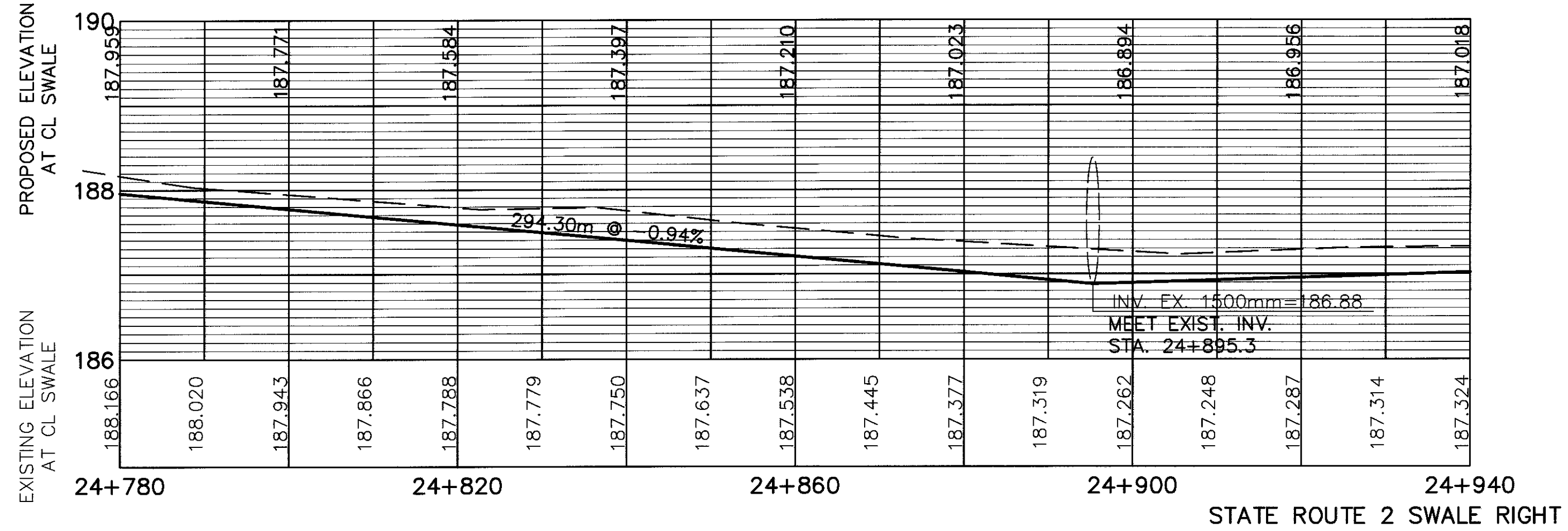
ERI-2-12-558

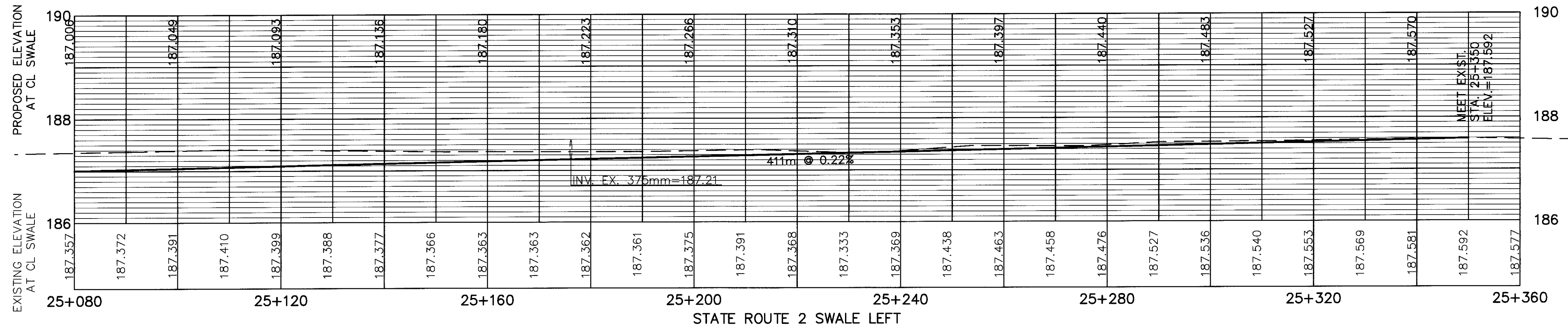
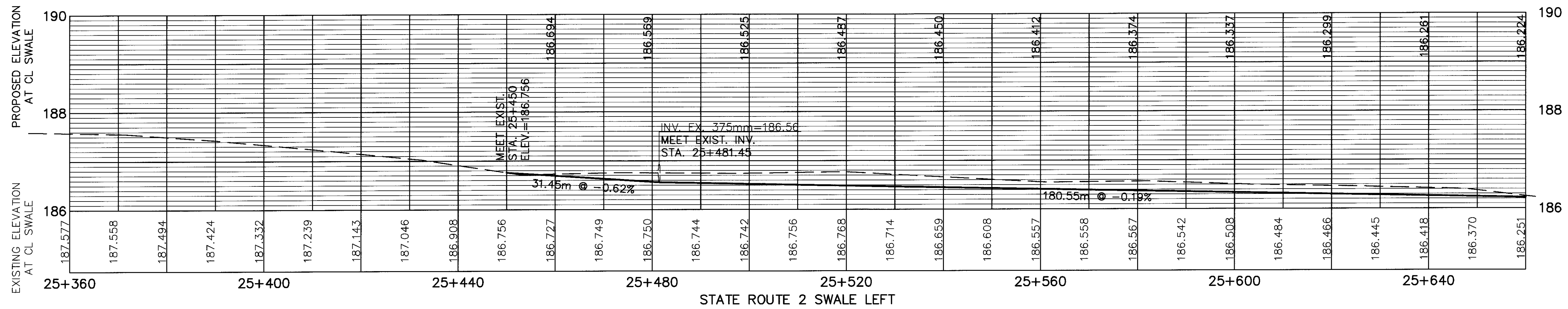
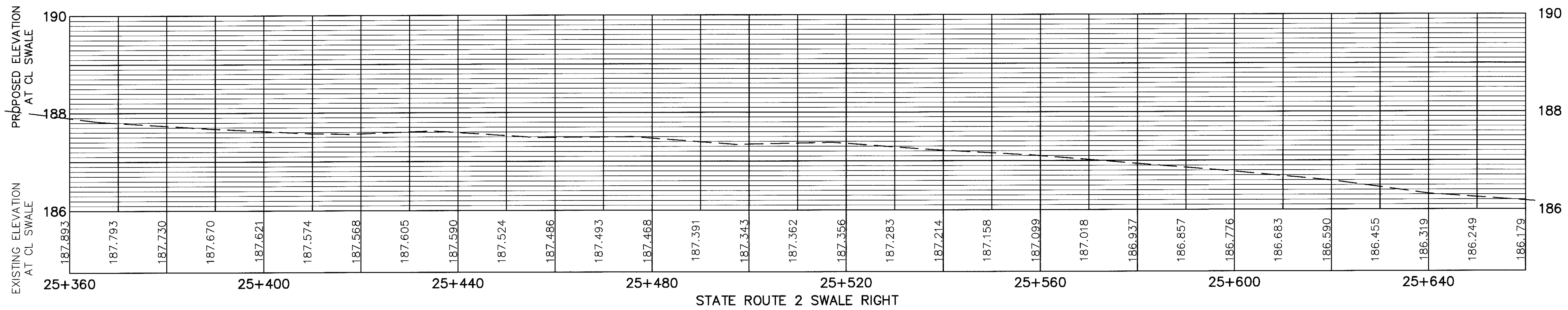


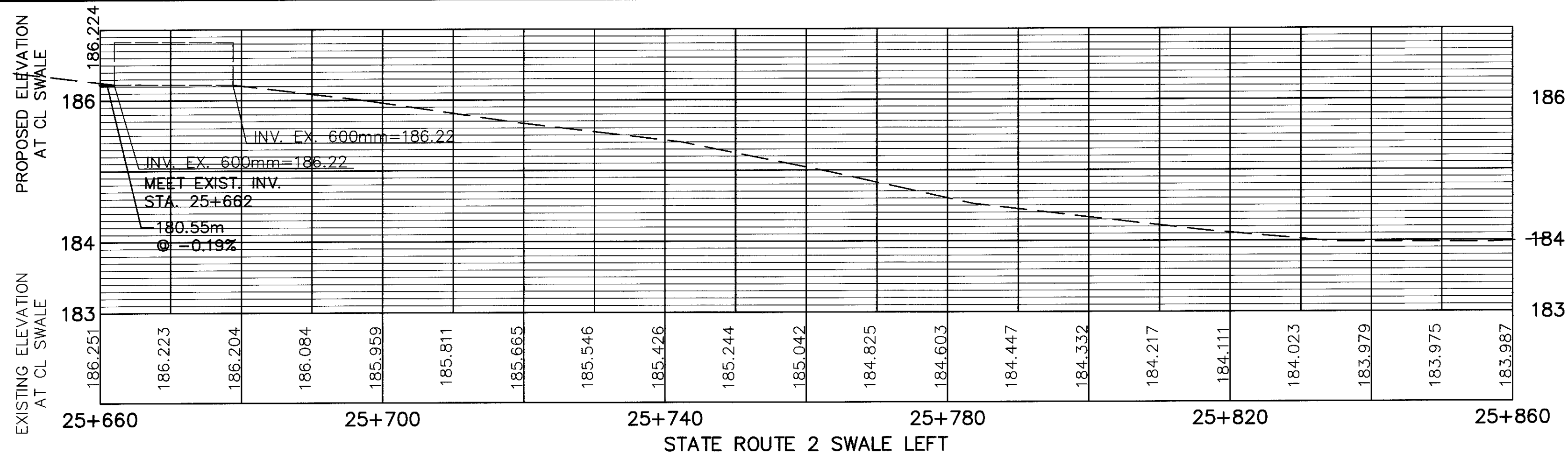
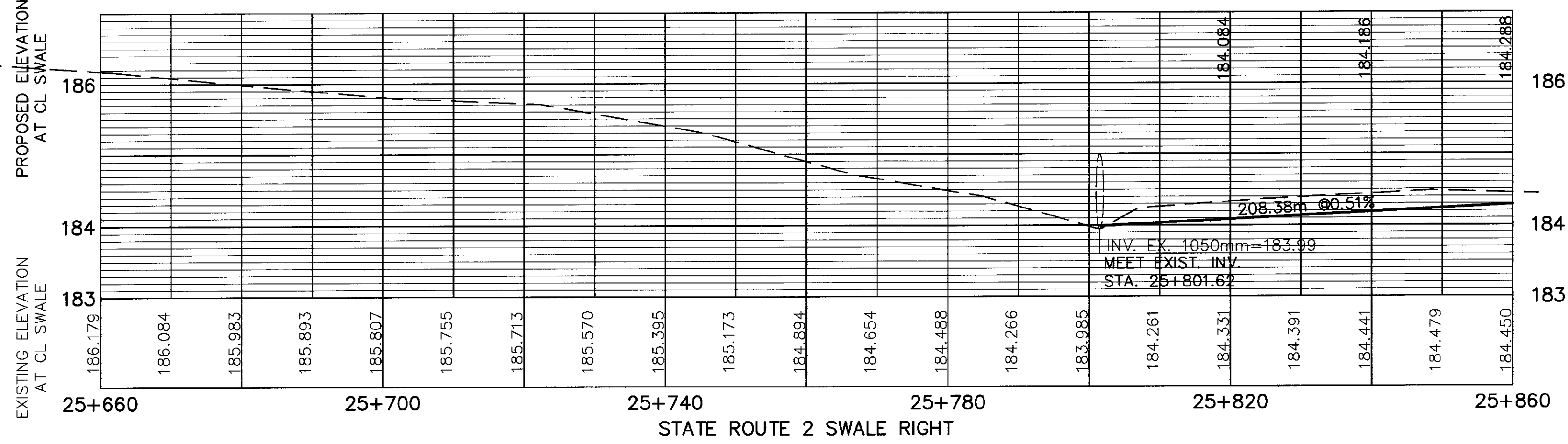
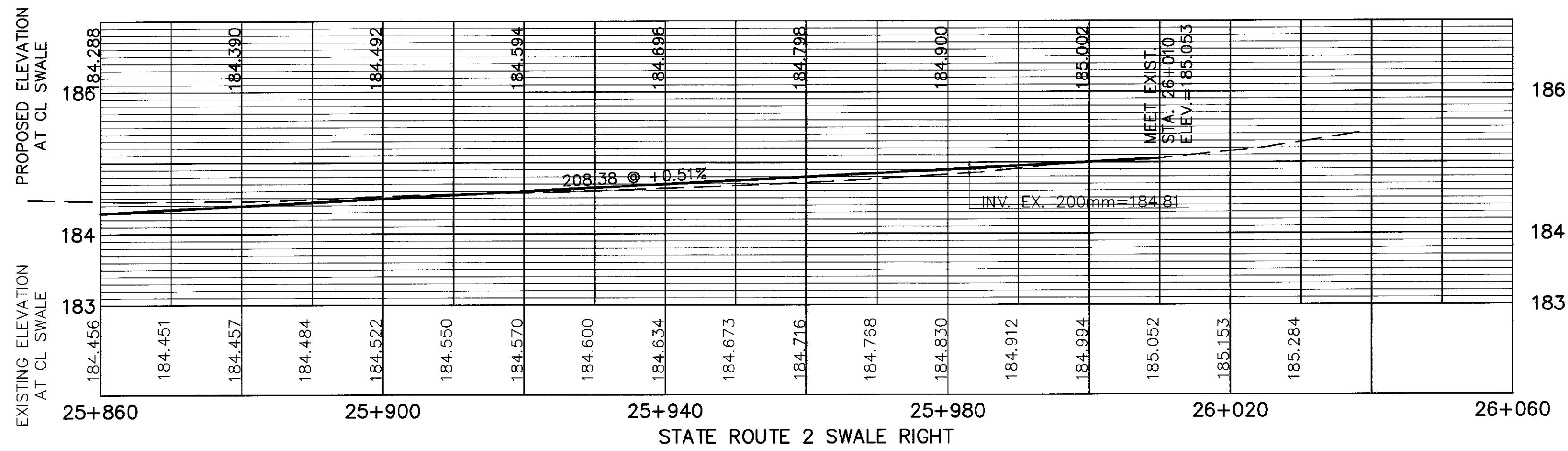
CALCULATED BY: S.B.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

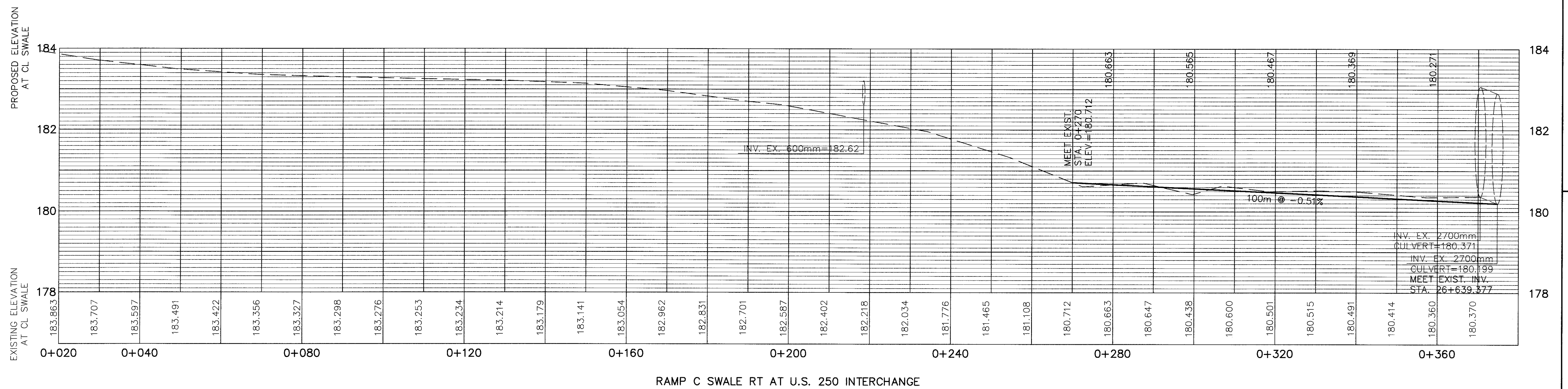
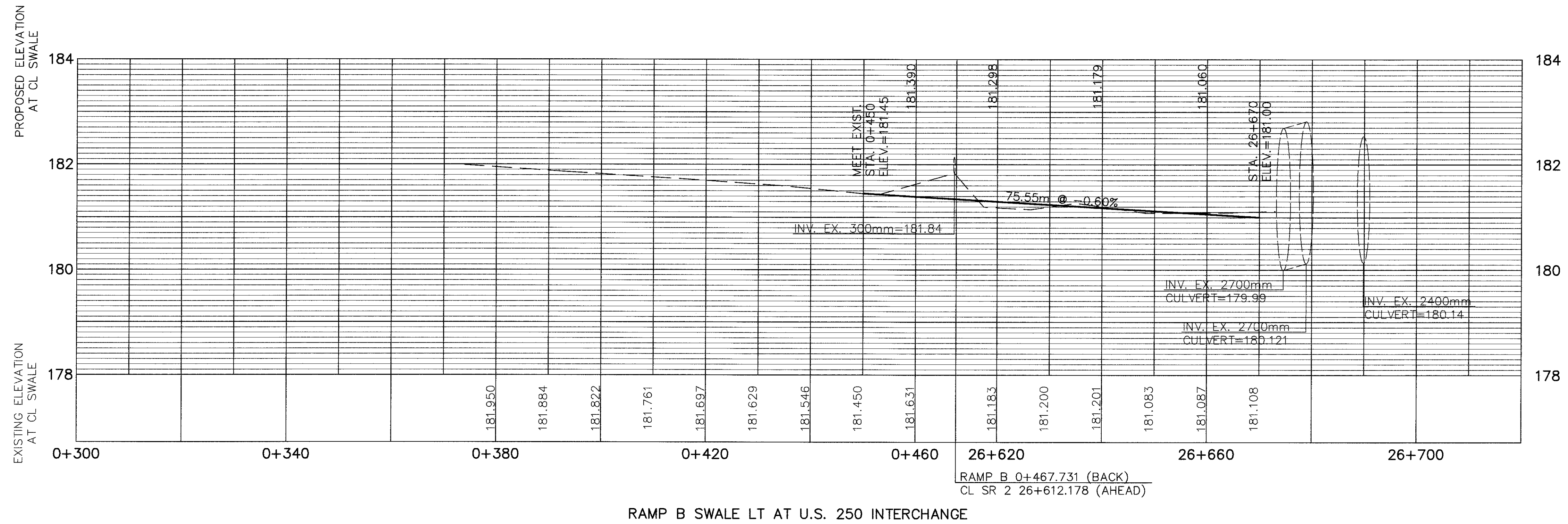
SWALE PROFILE S.R. 2 STA. 23+980 TO STA. 24+480

ERI-2-12-558





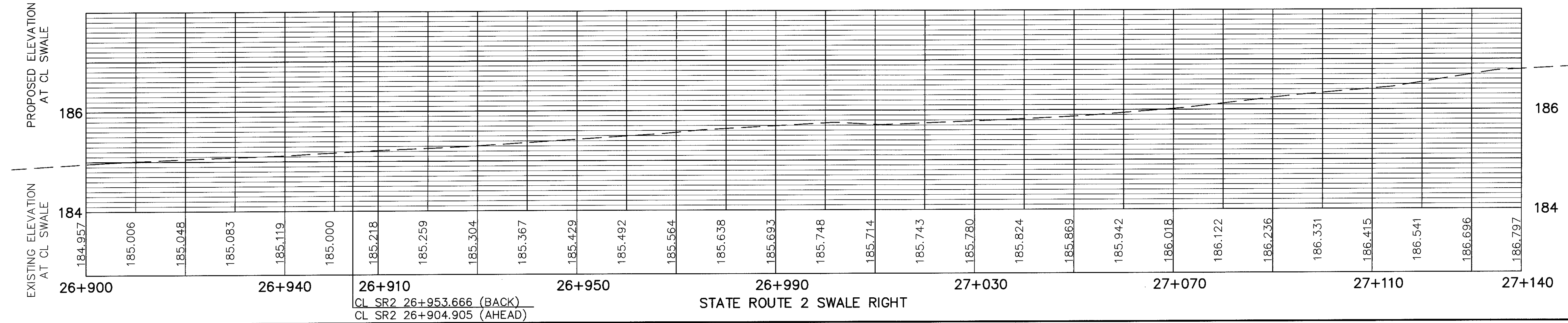
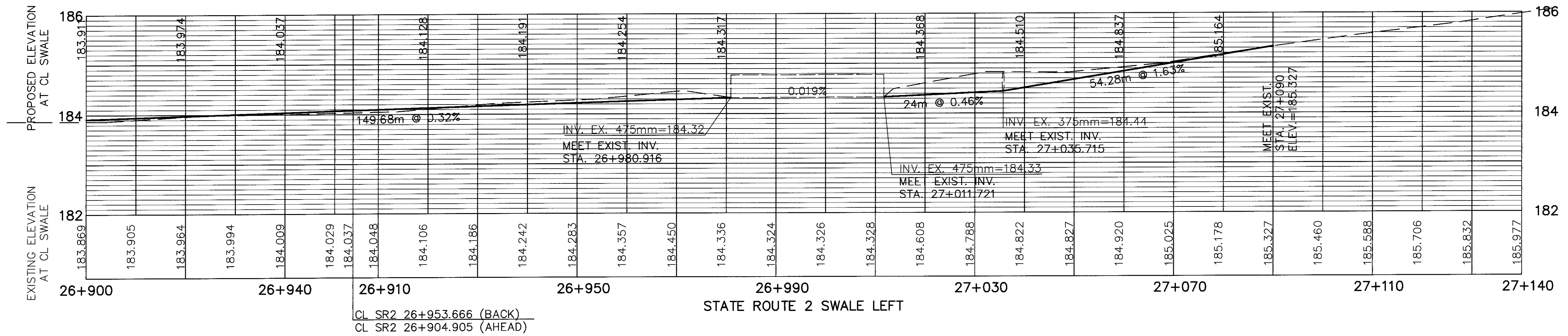
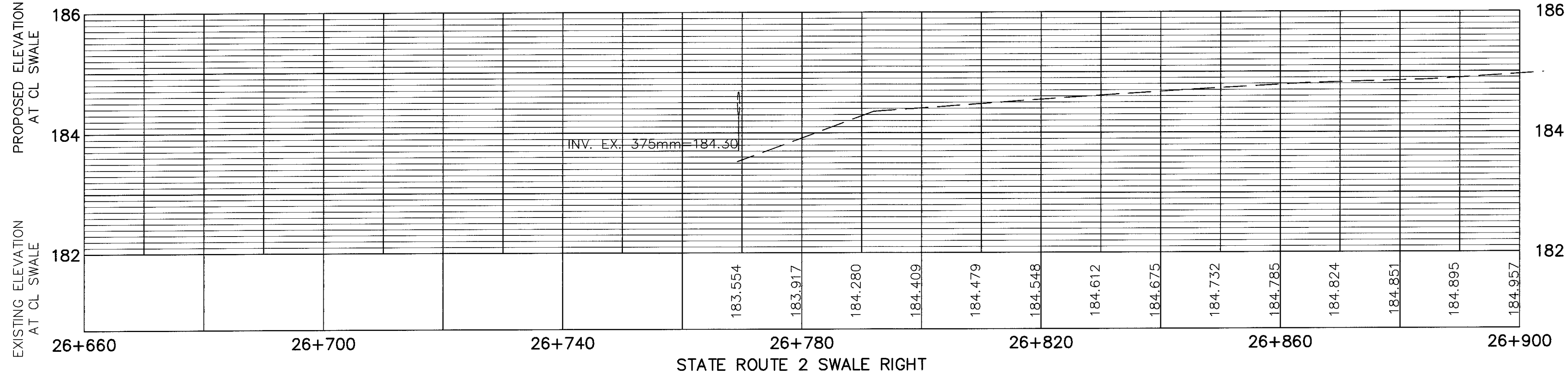
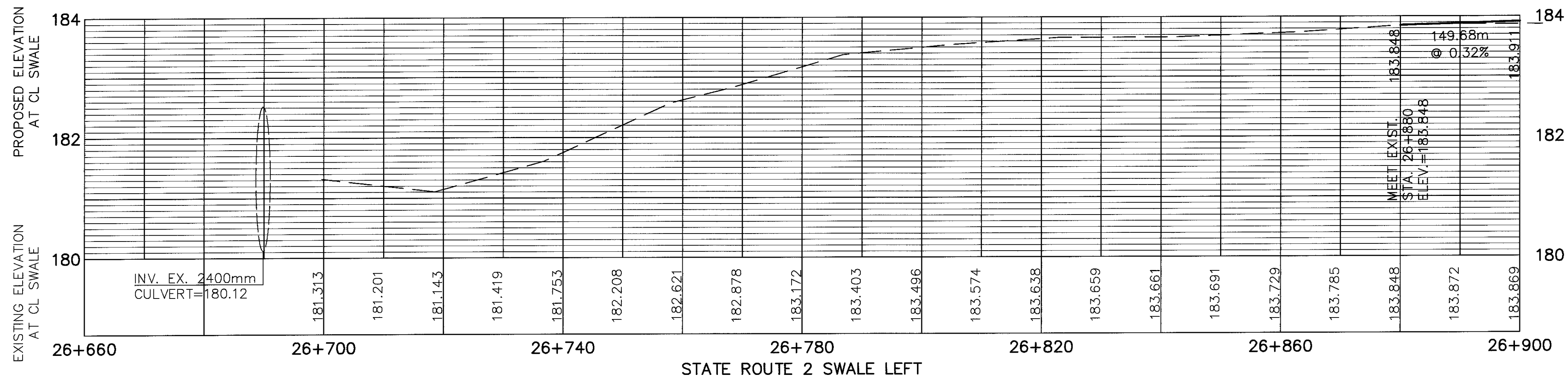
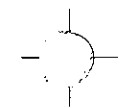
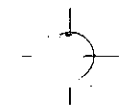


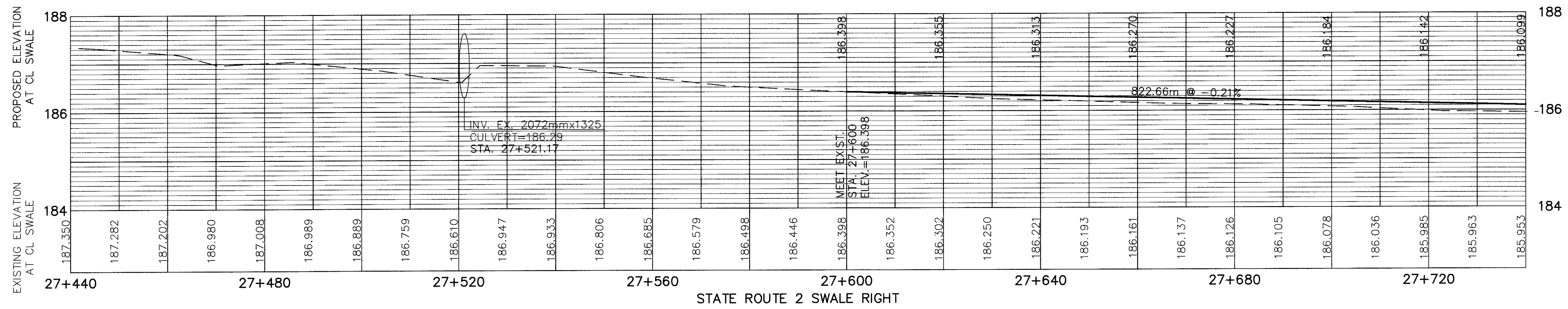
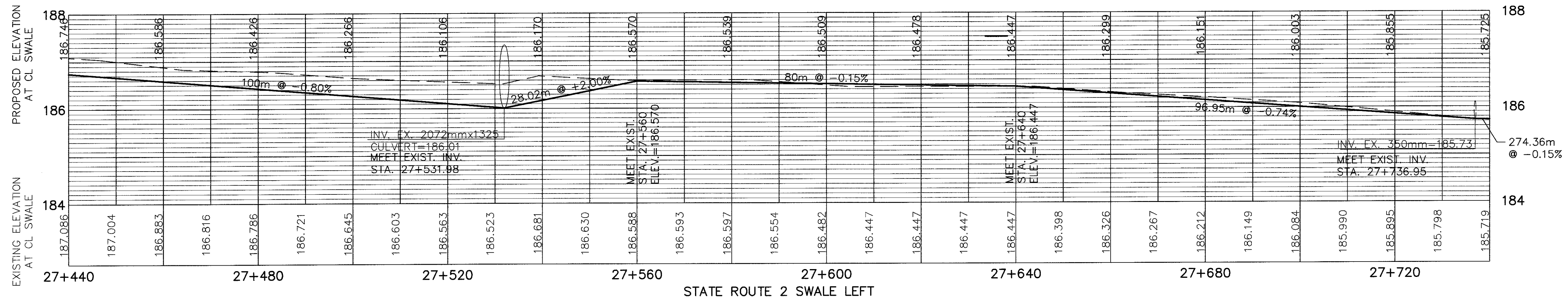
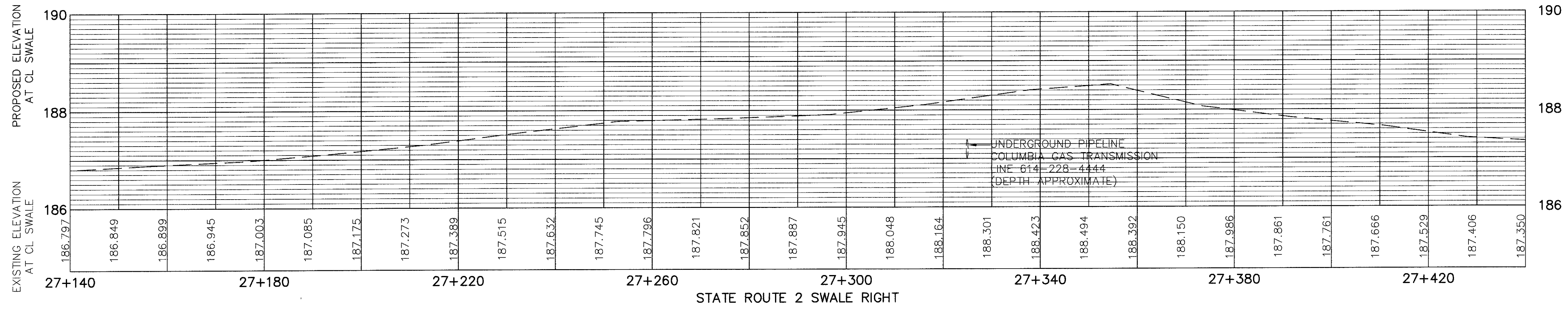
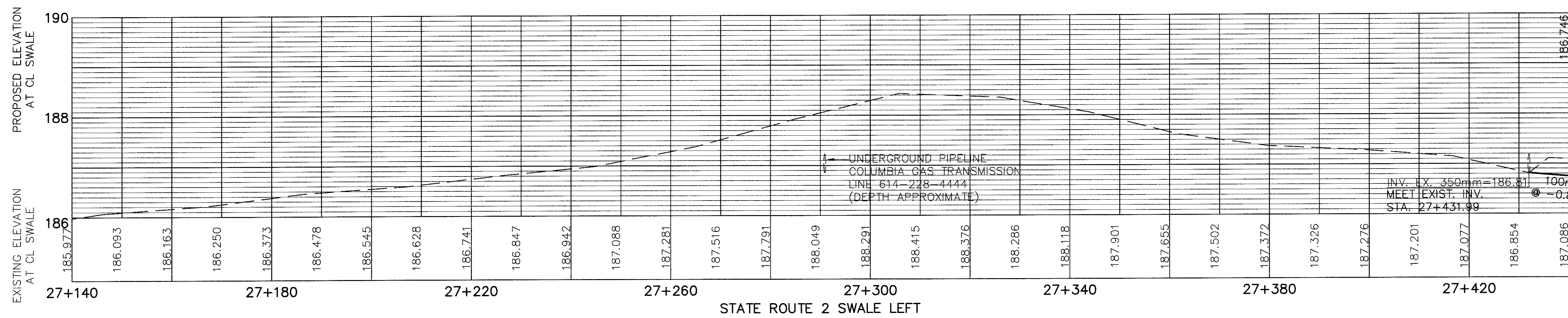


CALCULATED BY: S.B.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 5-97

SWALE PROFILE U.S. 250 - RAMP B and RAMP C

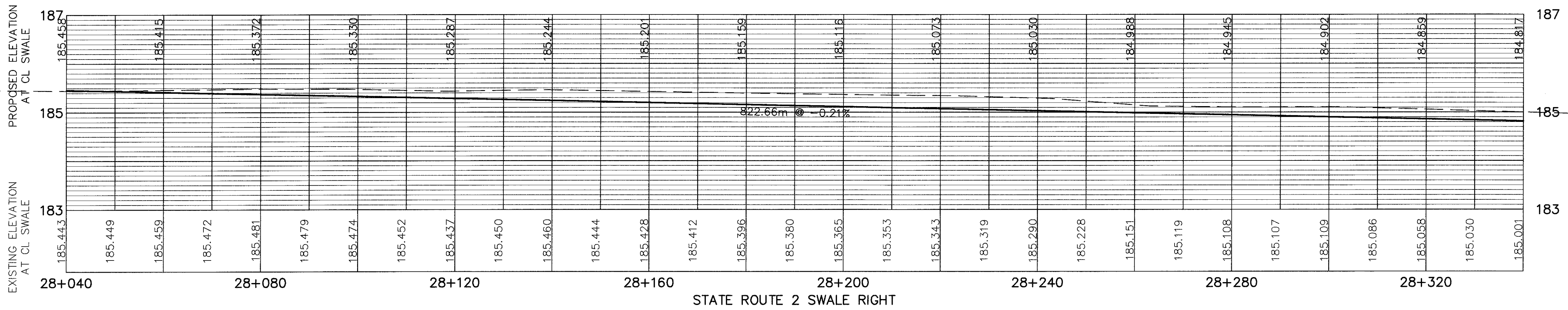
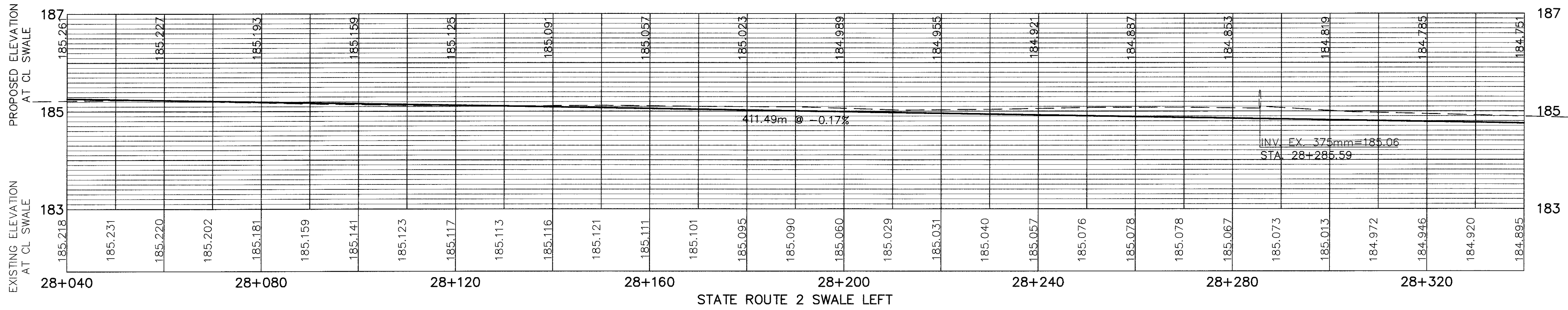
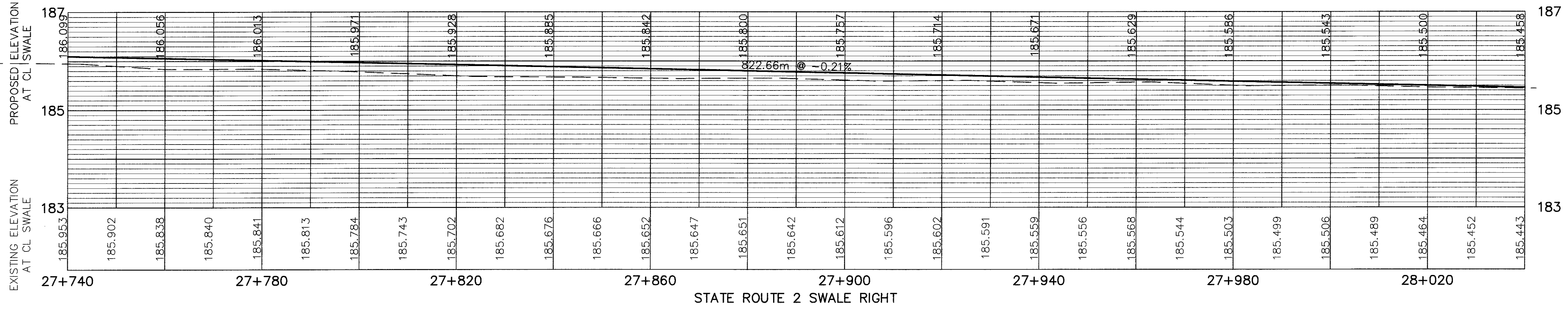
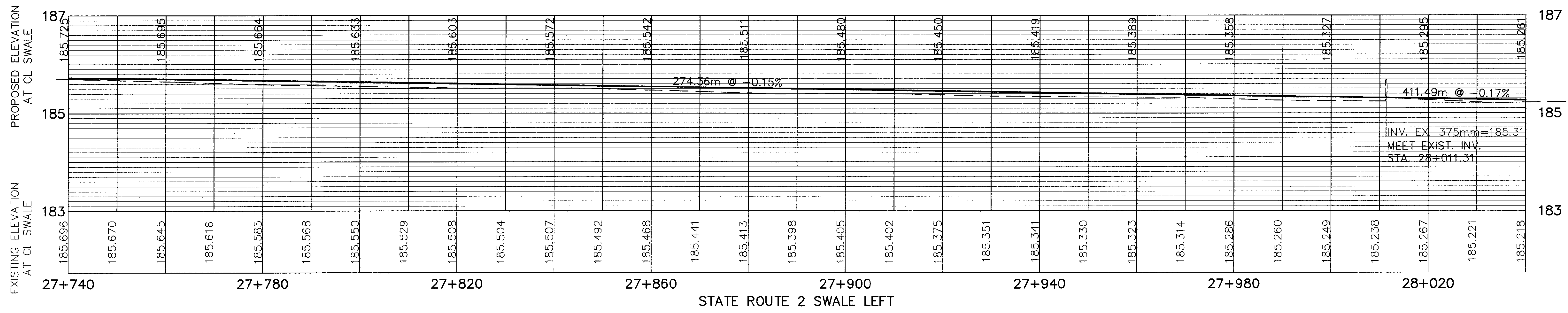
ERI-2-12.558





SWALE PROFILE S.R. 2 STA. 27+140 TO STA. 27+740

ERI-2-12.558

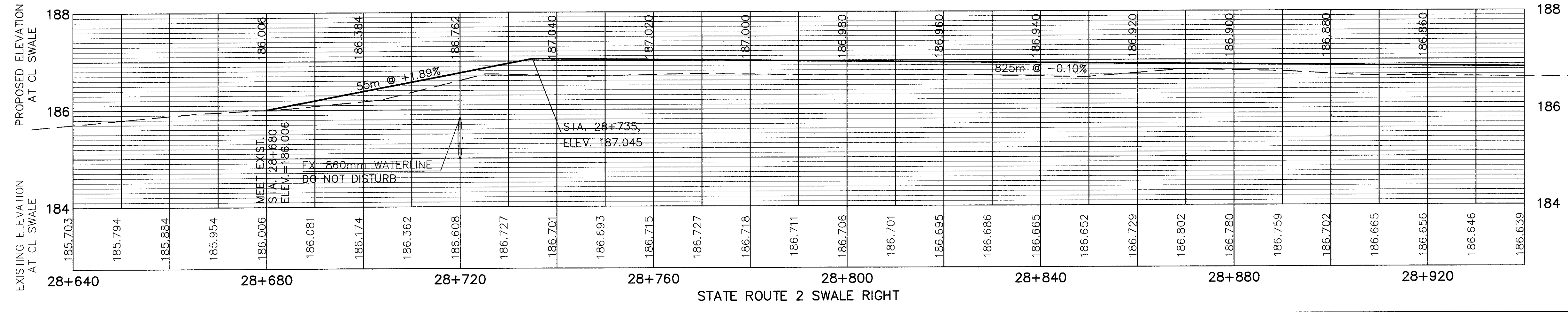
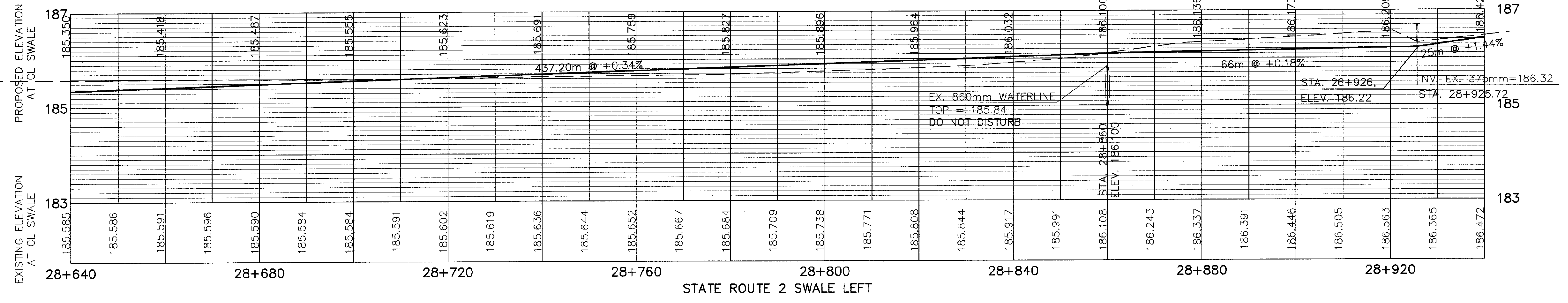
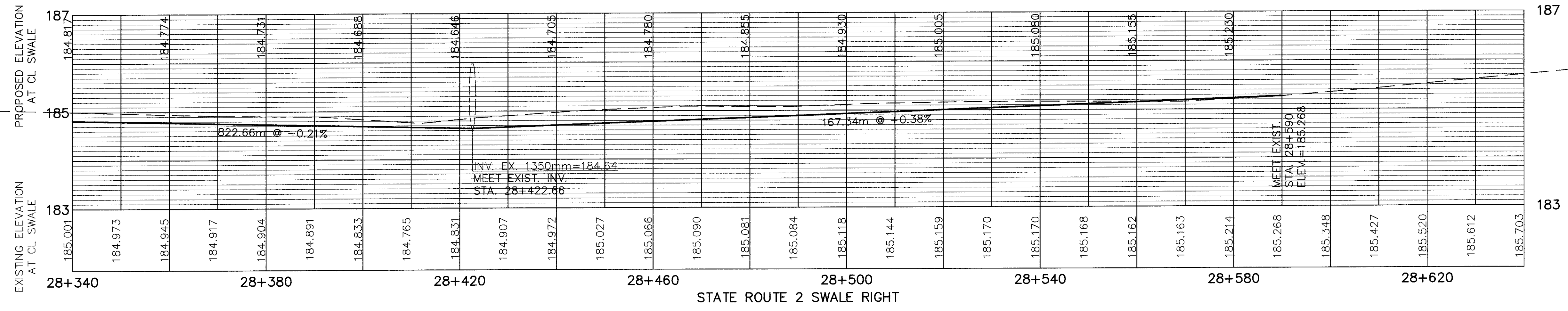
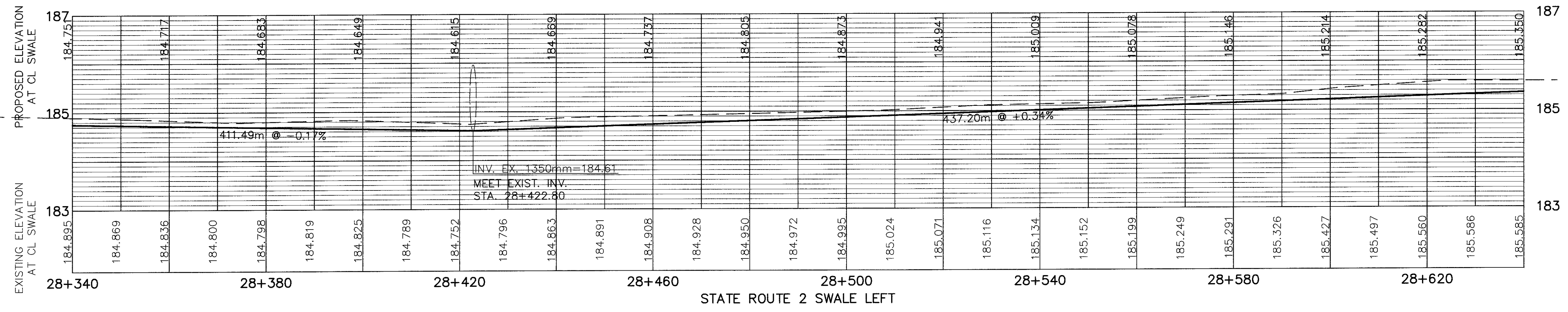


CALCULATED BY: SEE. DATE: 5-97
 CHECKED BY: P.M.A. DATE: 6-97

SWALE PROFILE S.R. 2 STA. 27+740 TO STA. 28+340

ERI-2-12.558

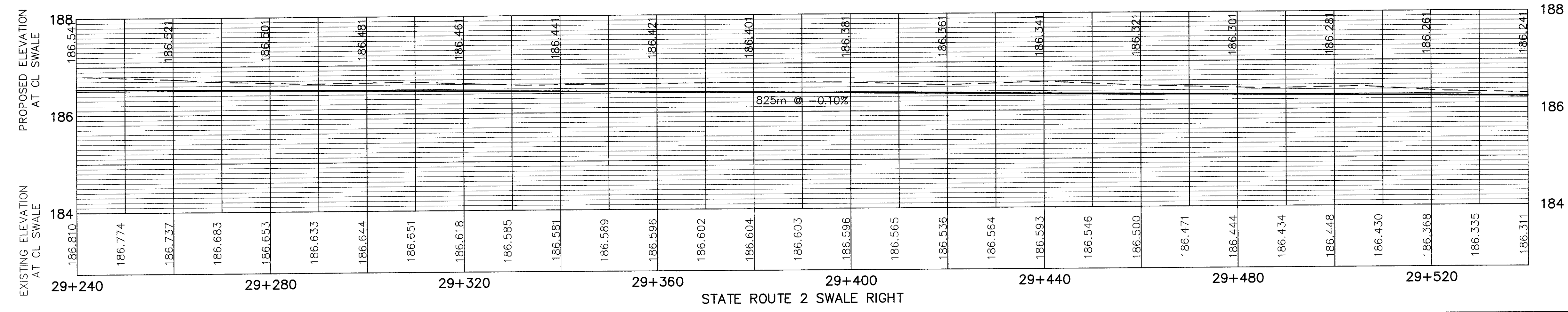
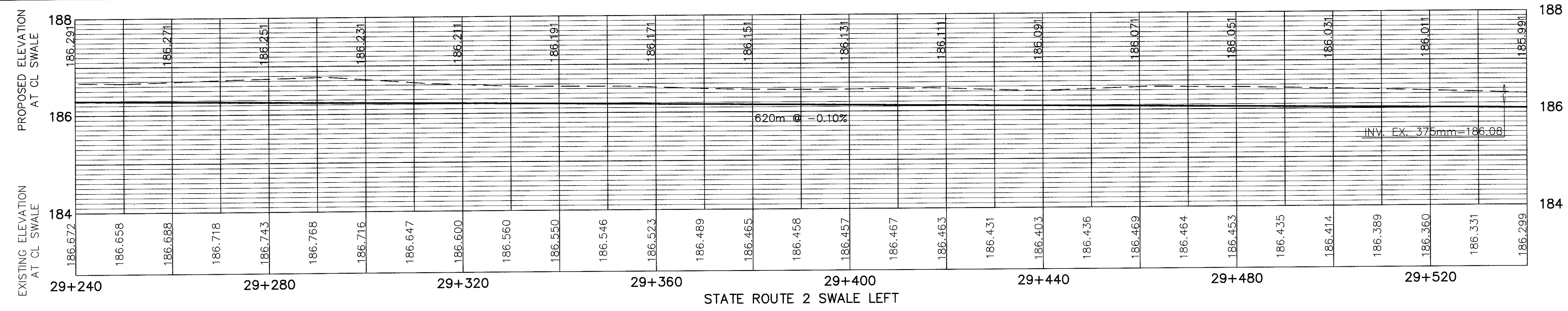
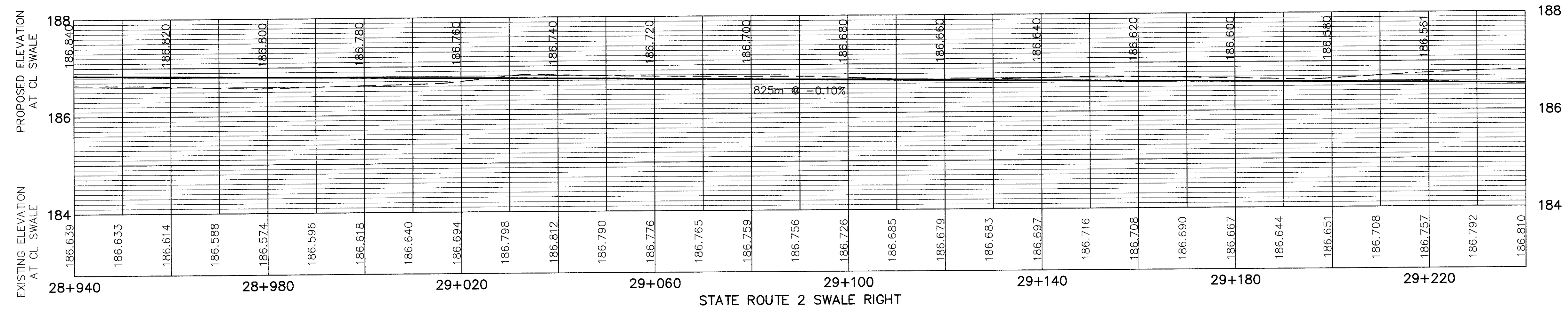
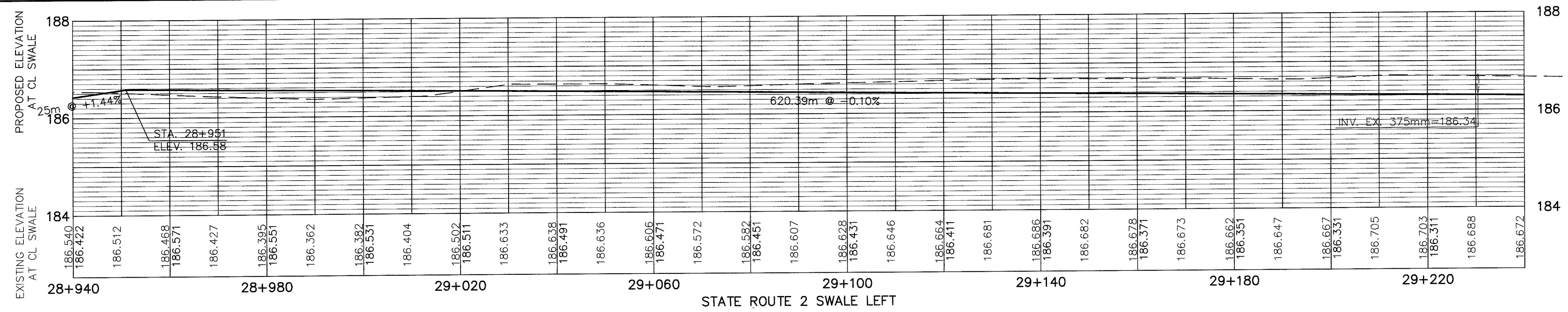
256
432



CALCULATED BY S.B.
 DATE 5-97
 CHECKED BY P.M.A.
 DATE 6-97

SWALE PROFILE S.R. 2 STA. 28+340 TO STA. 28+940

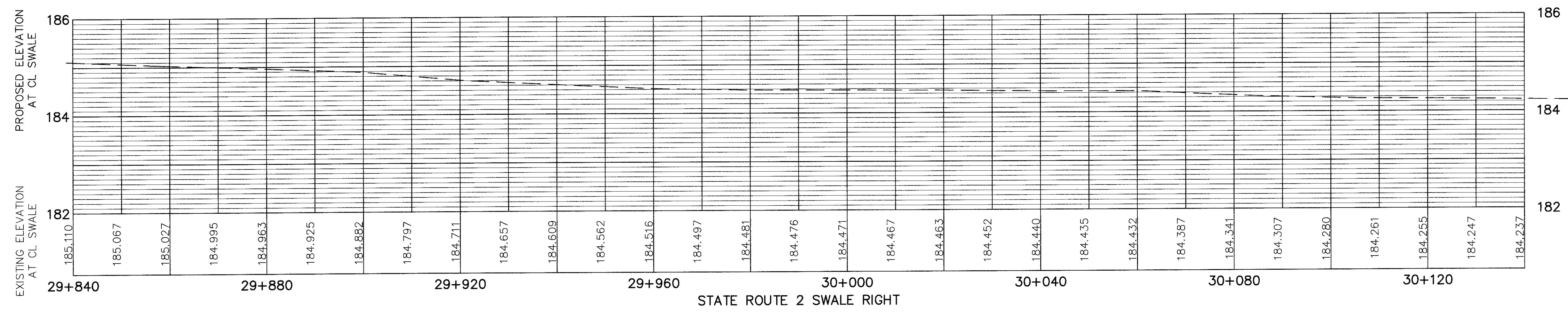
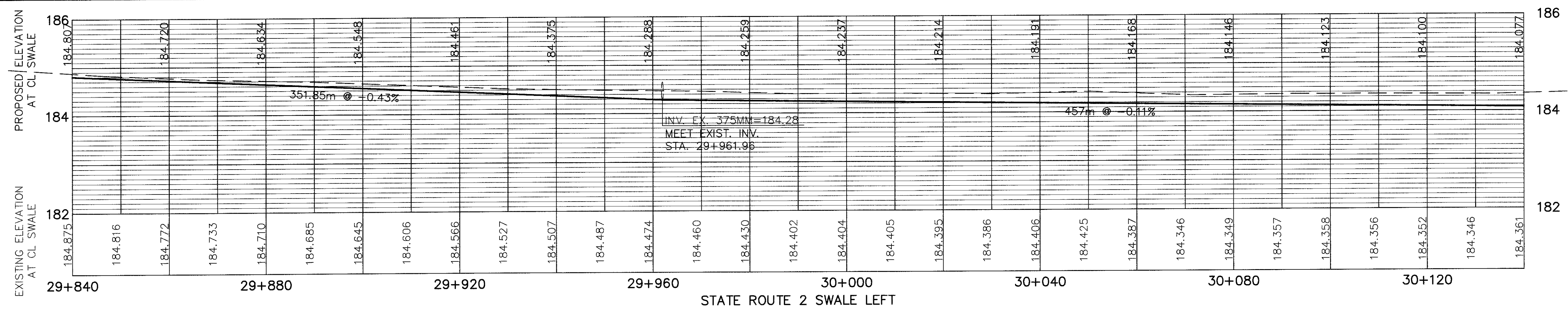
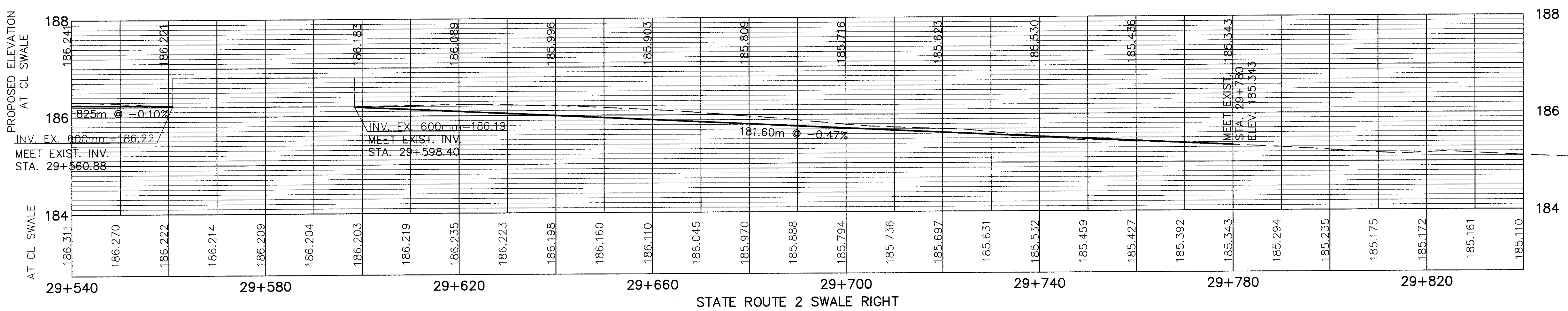
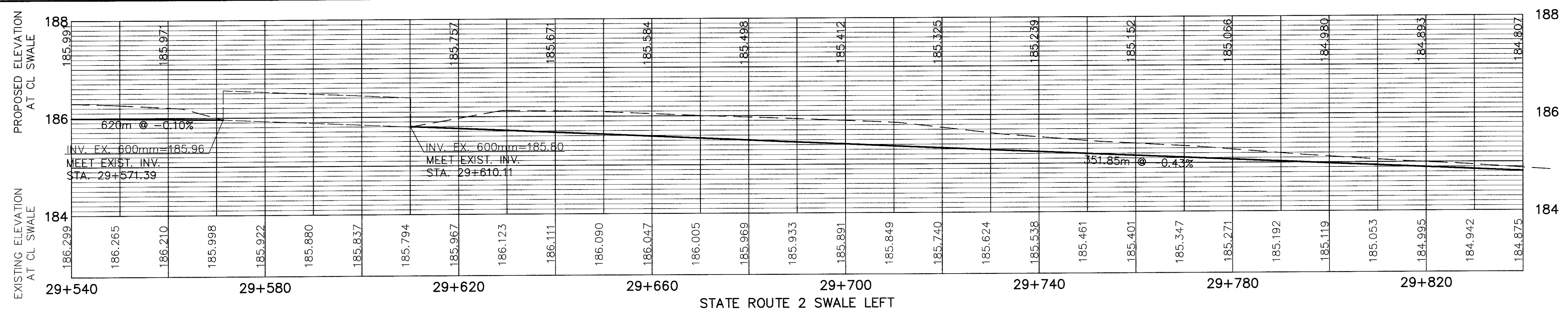
ERI-2-12.558



CALCULATED BY: S.B.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

SWALE PROFILE S.R. 2 STA. 28+940 TO STA. 29+540

ERI-2-12.558

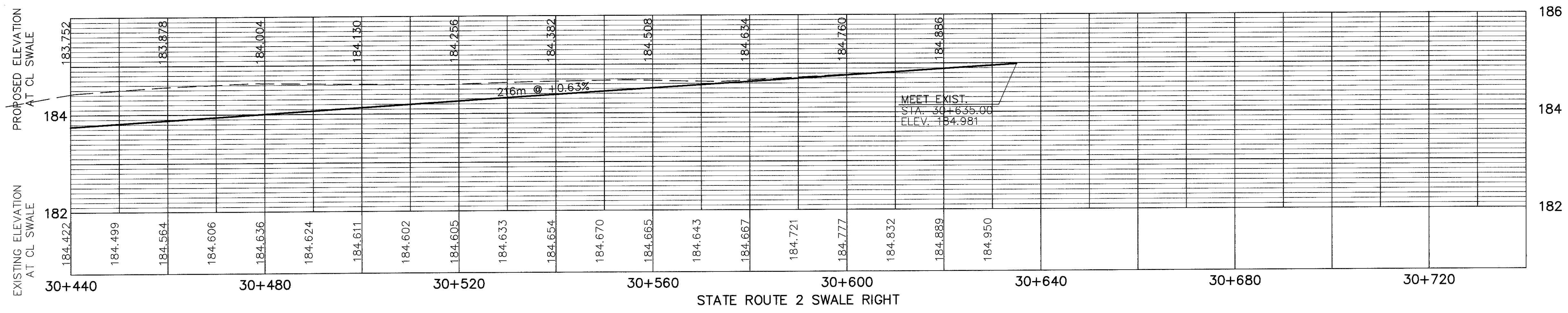
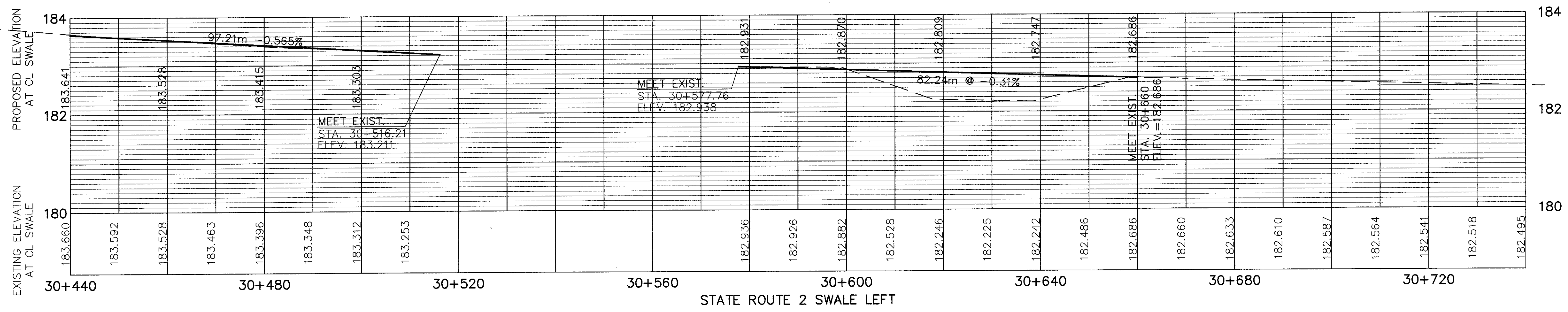
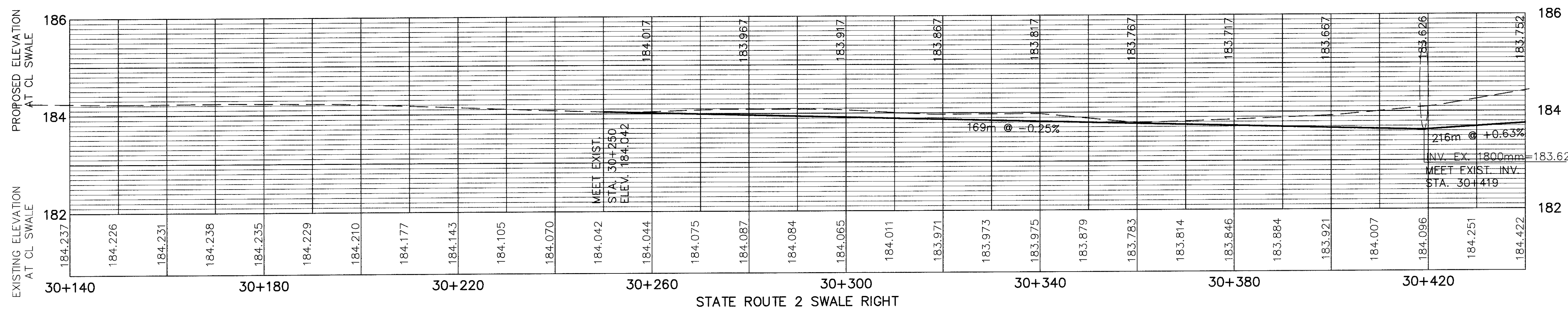
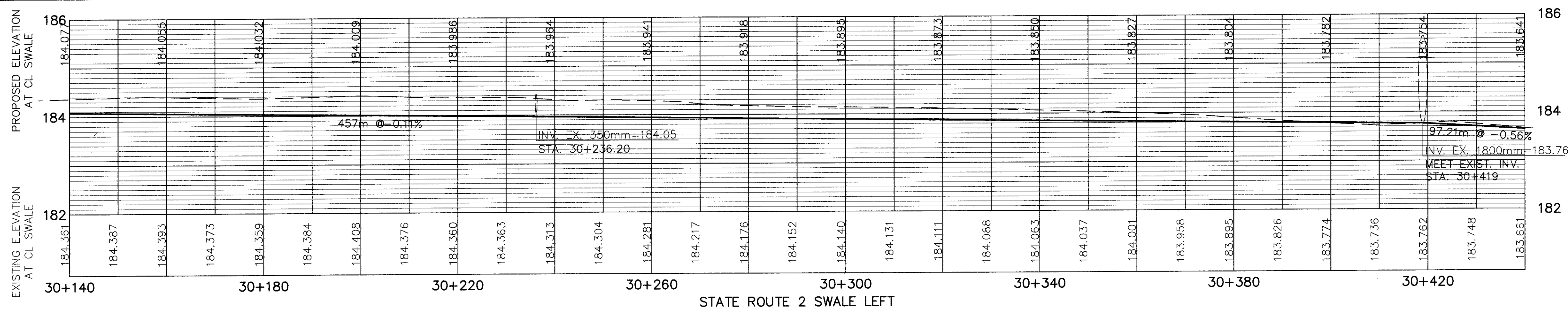


CALCULATED BY: S.B.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

SWALE PROFILE S.R. 2 STA. 29+540 TO STA. 30+140

ERI-2-12-558

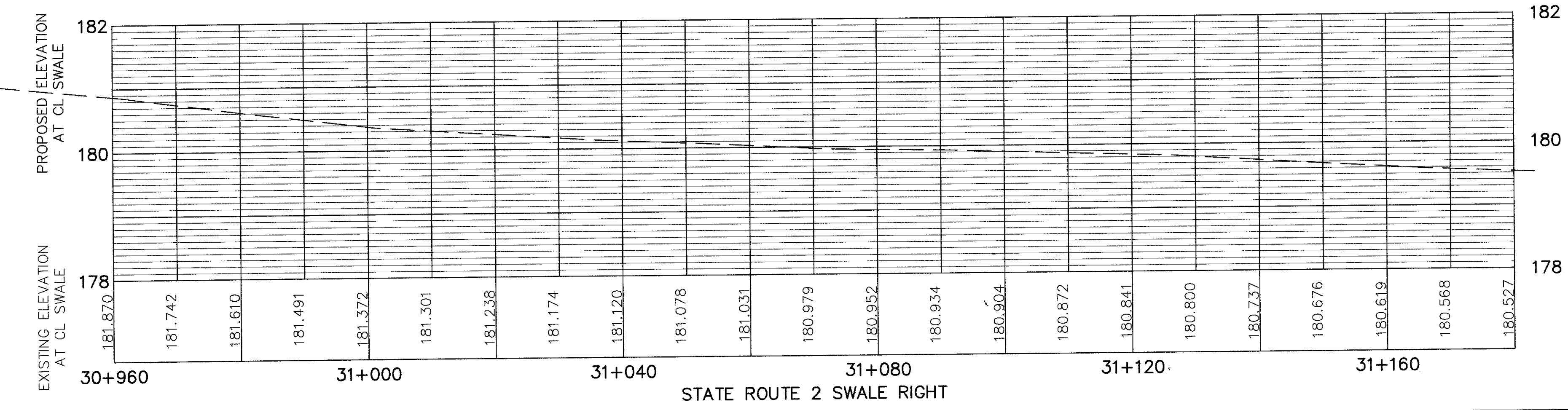
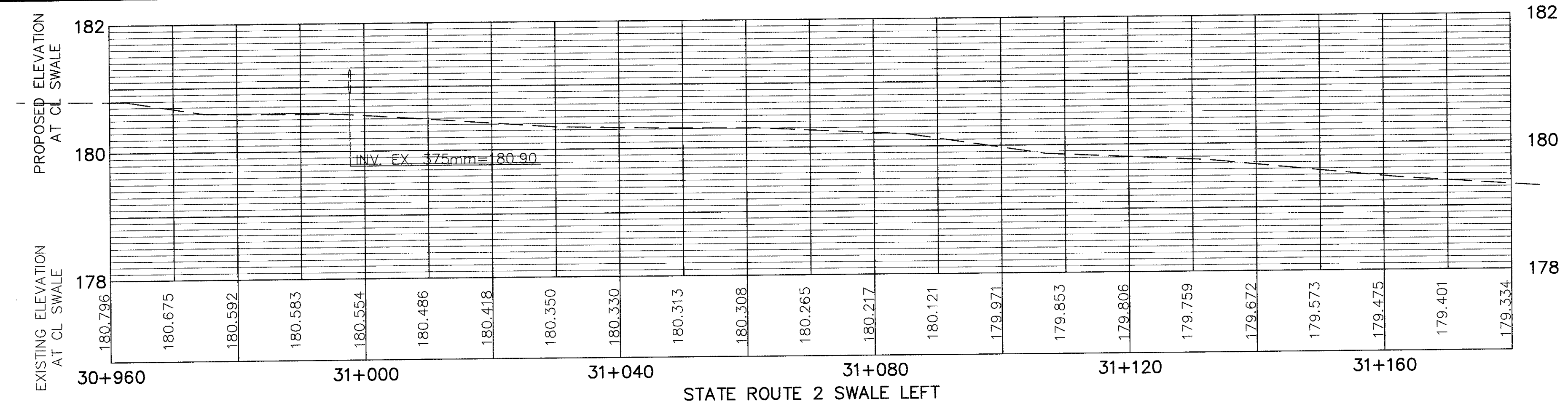
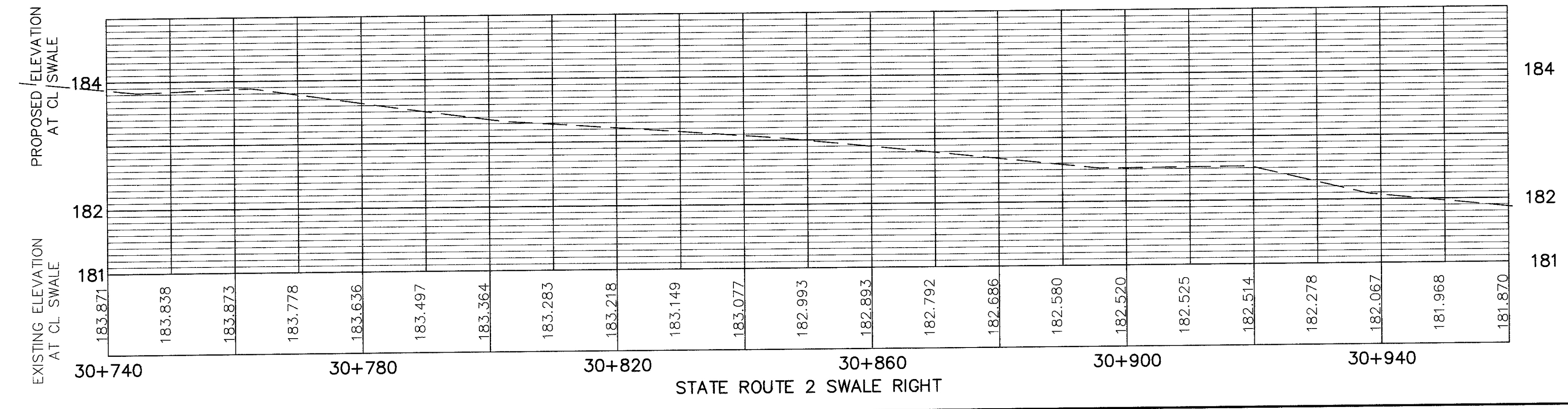
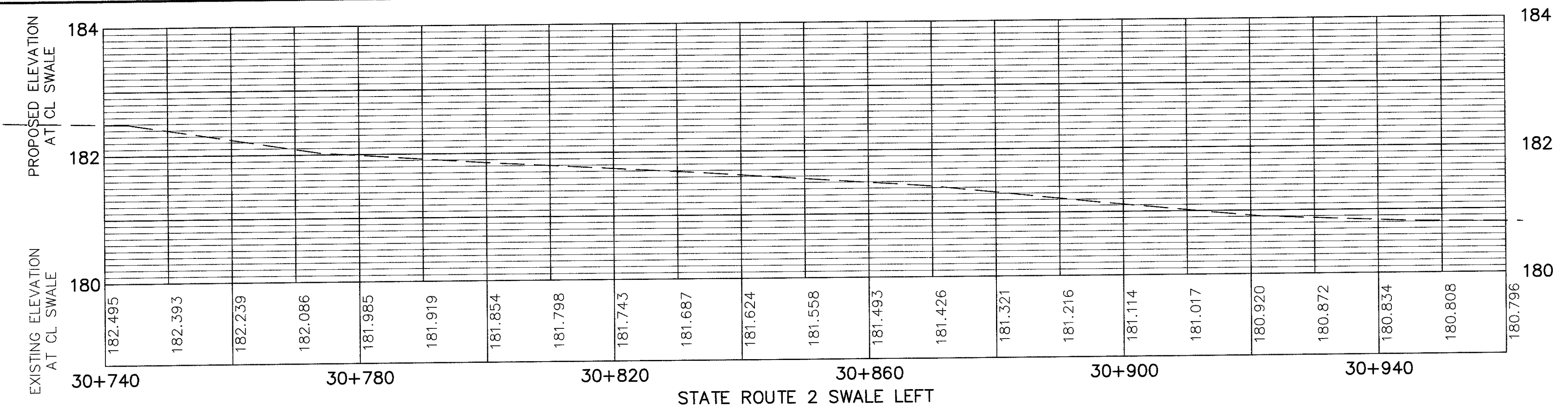
259
432



CALCULATED BY: S.B.
 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

SWALE PROFILE S.R. 2 STA. 30+140 TO STA. 30+740

ERI-2-12-558

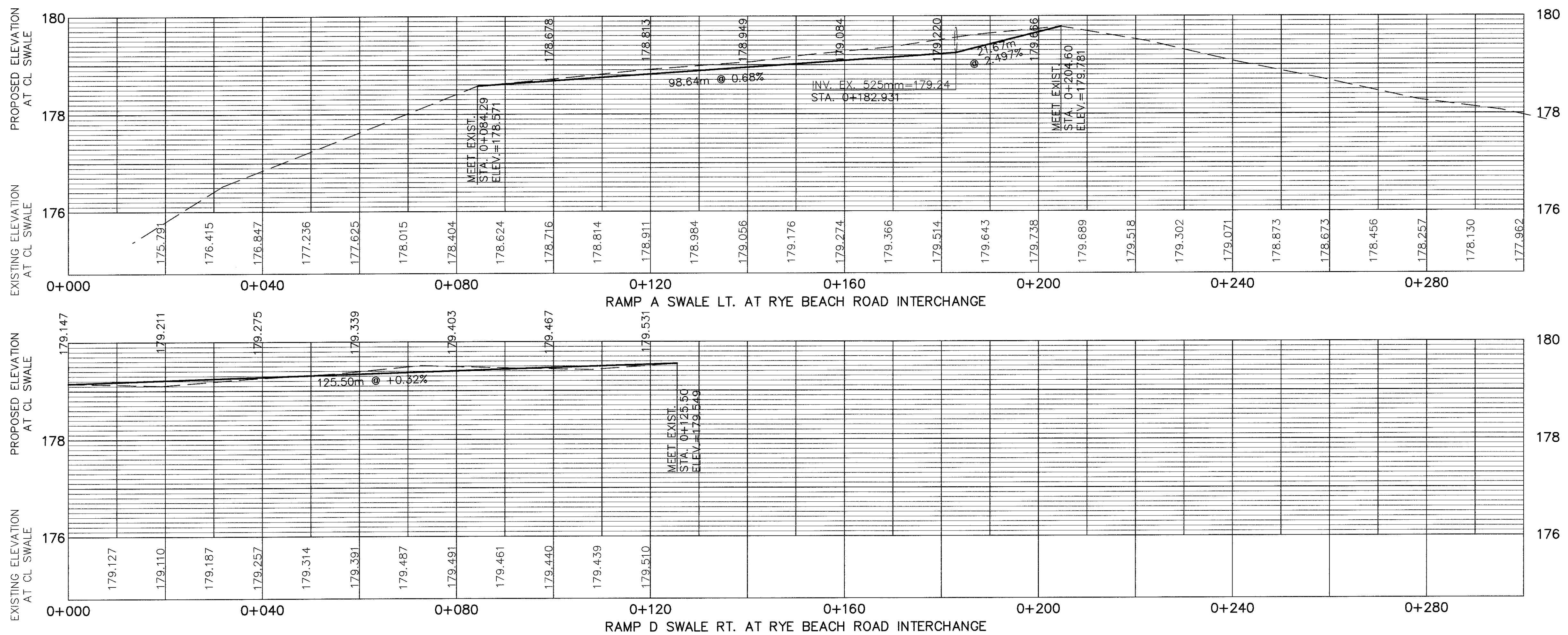
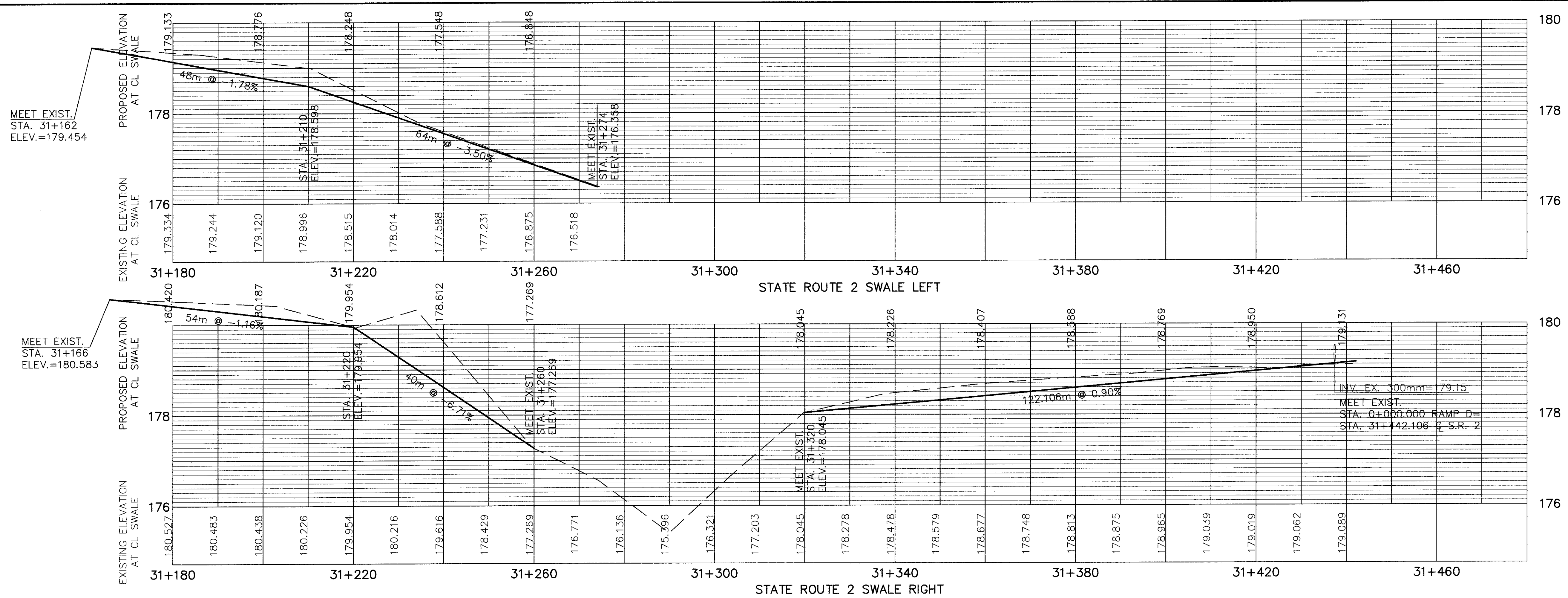


CALCULATED
 BY: S.B.
 DATE: 5-97
 CHECKED
 BY: P.M.A.
 DATE: 6-97

SWALE PROFILE S.R. 2 STA. 30+740 TO STA. 31+180

ERI-2-12.558

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 432

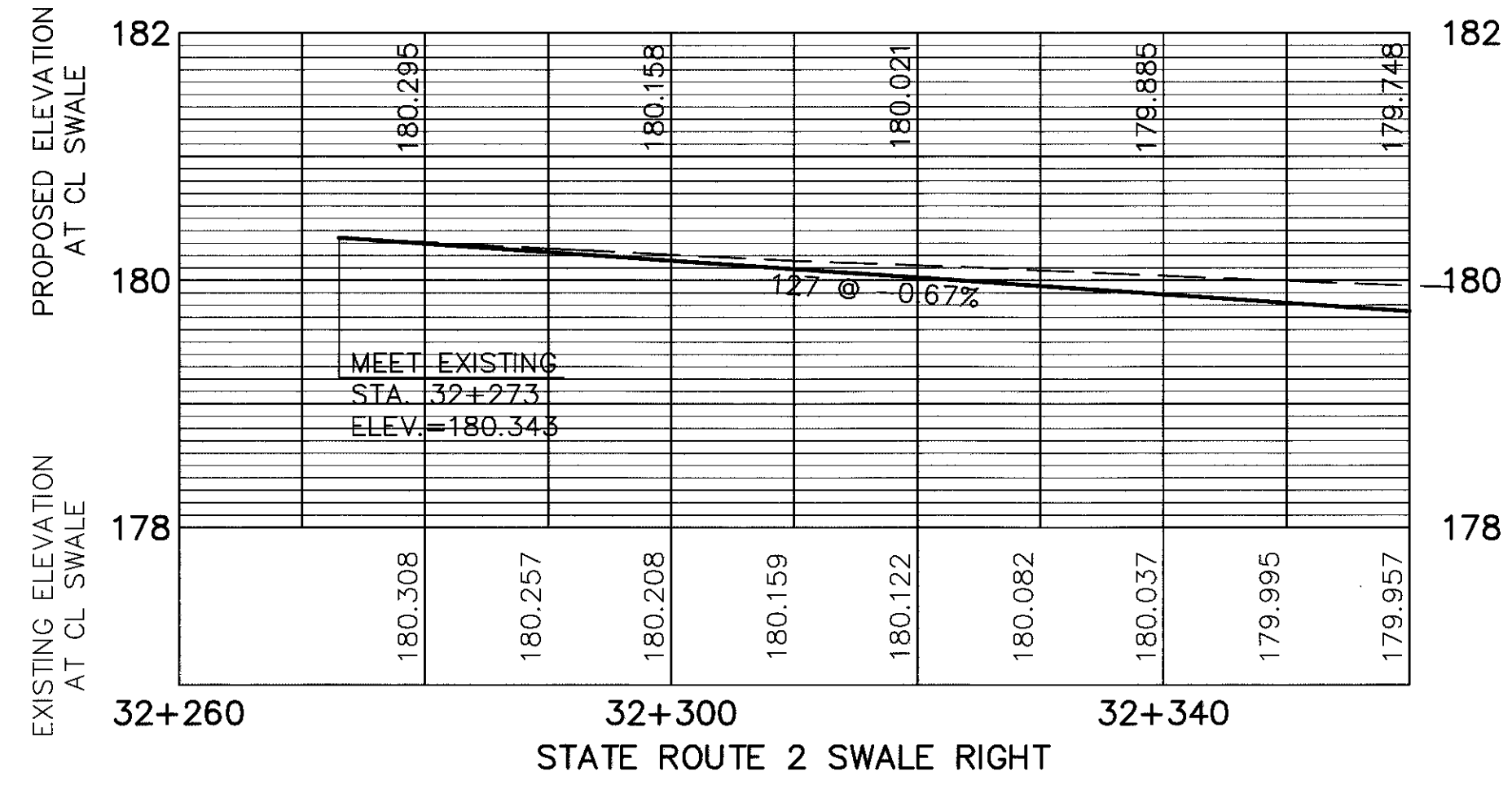
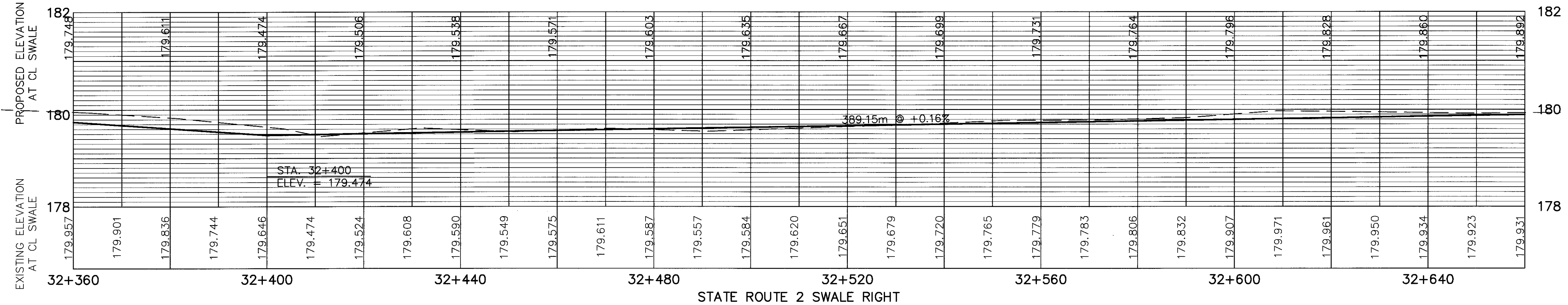
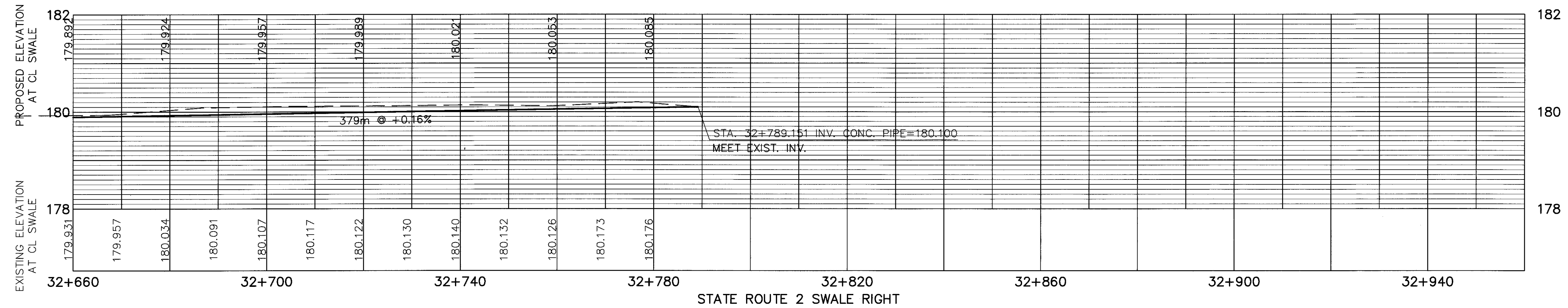


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 DATE: 5-97
 CHECKED BY: P.M.A.
 DATE: 6-97

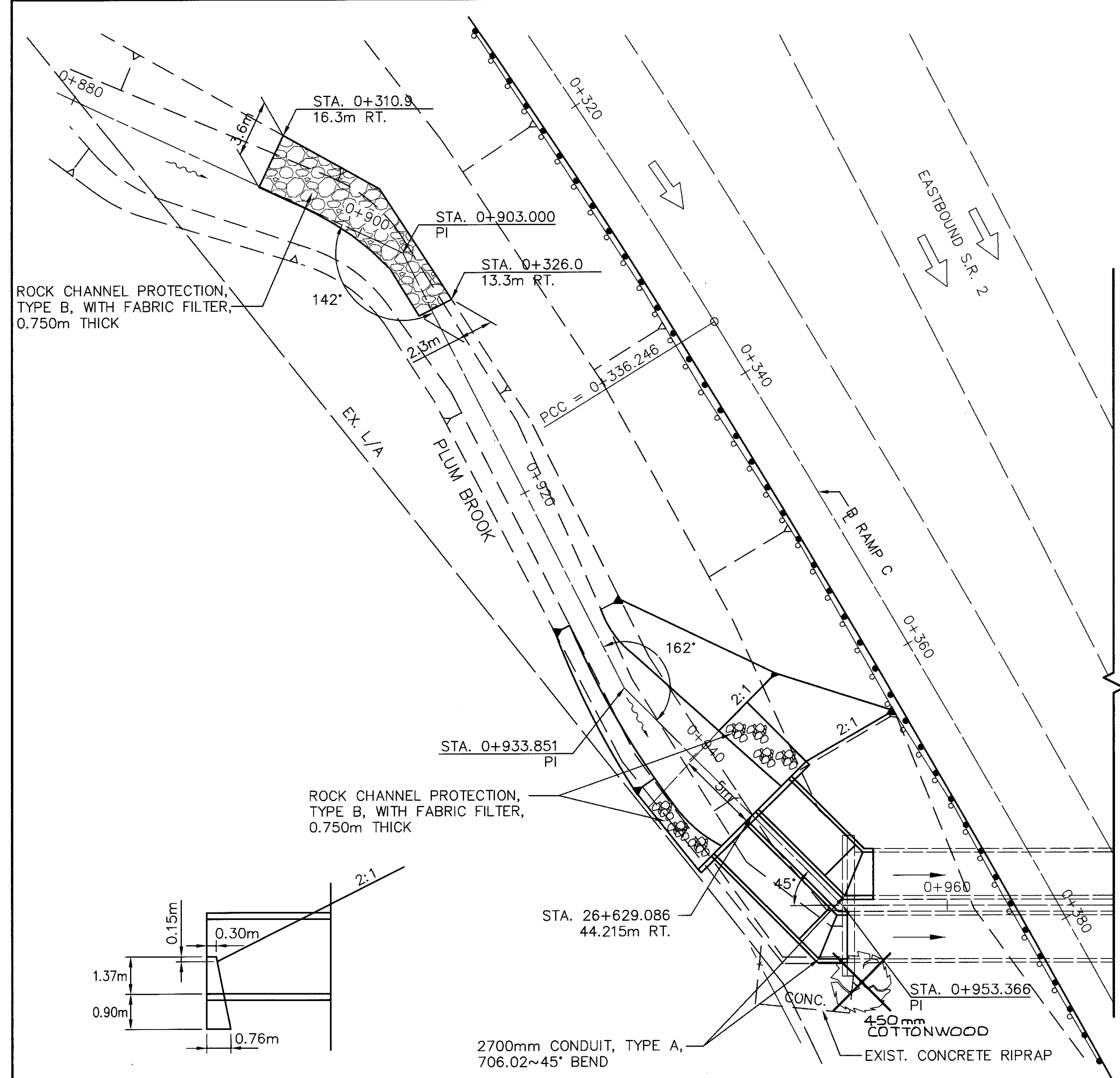
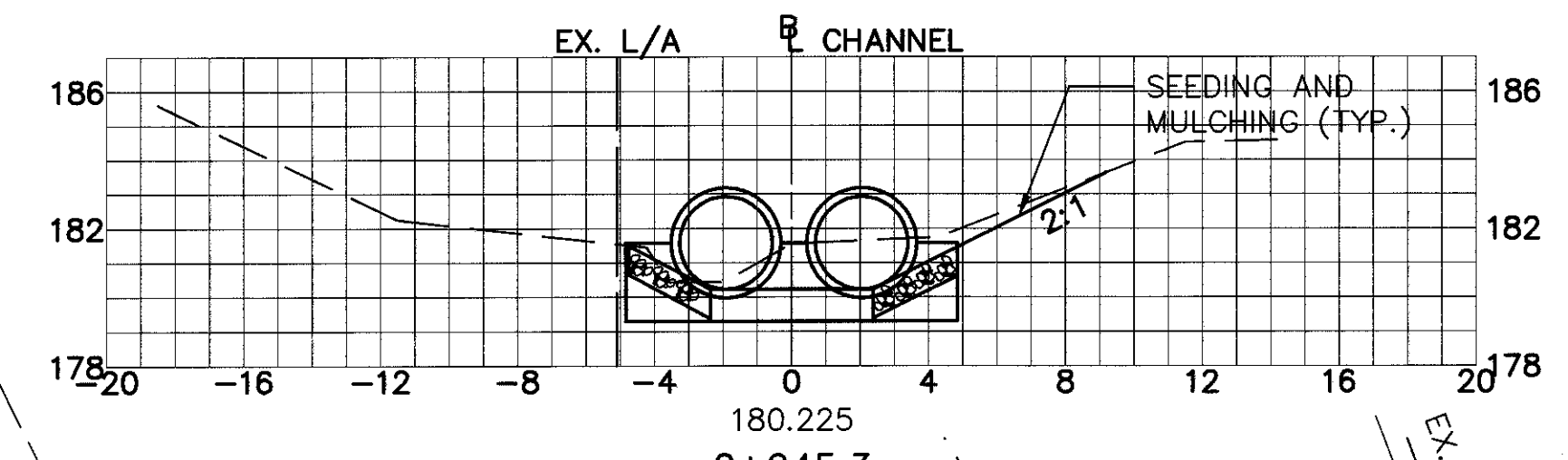
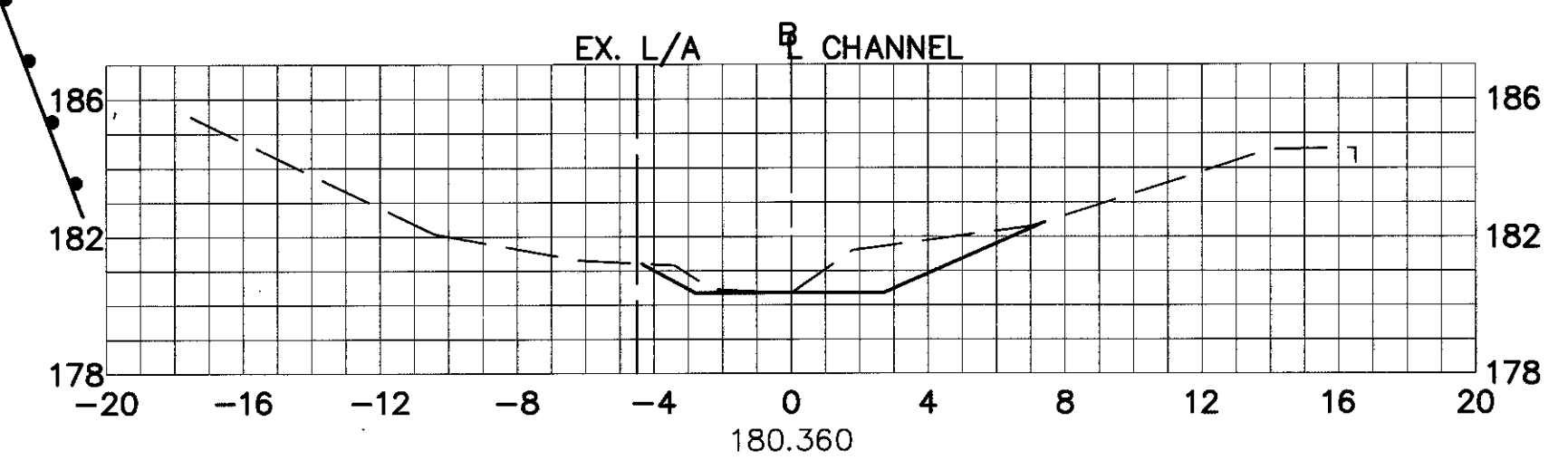
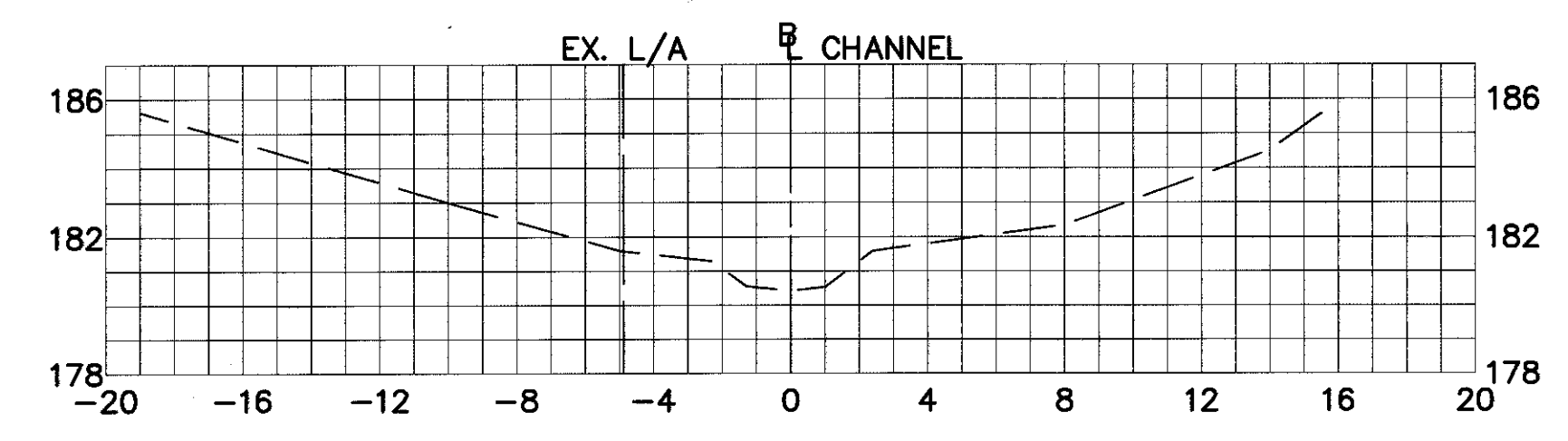
SWALE PROFILE S.R. 2 STA. 31+180 TO STA. 31+480
SWALE PROFILE RYE BEACH ROAD RAMP A and RAMP D

ERI-2-12.558

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 432



STA.	AREA SQ. M		VOLUME CU. M	
	CUT	FILL	CUT	FILL
0+945.3	0	0.3	16	2
0+940	6.0	0	79	0
0+929	8.3	0		
TOTAL			95	2



PLAN

ESTIMATED QUANTITIES *

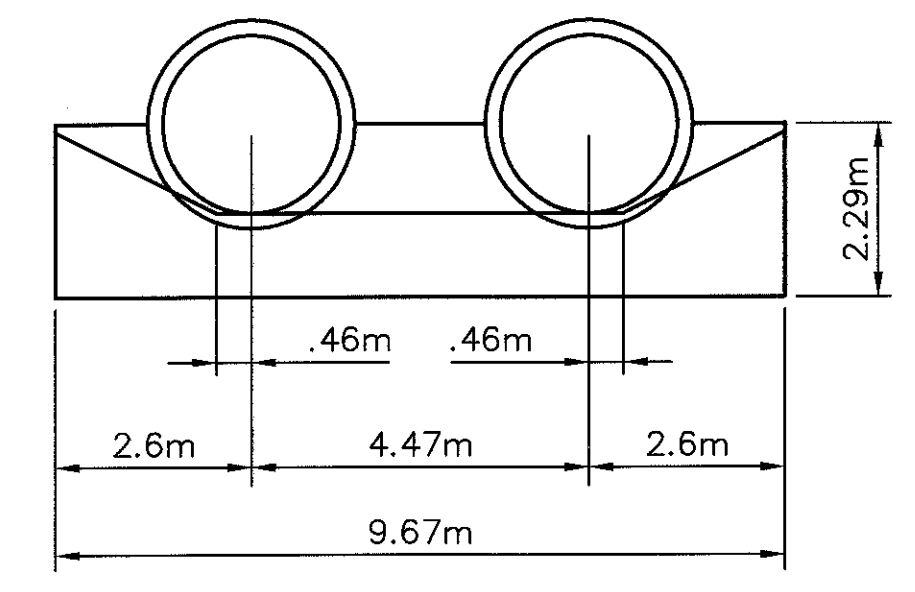
ITEM 202	EMBANKMENT	26 CU. METER
ITEM 202	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION	95 CU. METER
ITEM 601	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER	50 CU. METER
ITEM 602	CONCRETE MASONRY	11.7 CU. METER
ITEM 603	2700mm CONDUIT, TYPE A, 706.02	19 METER
ITEM 603	2700mm ~ 45° BEND (COST INCL. WITH 2700mm CONDUIT, TYPE A, 706.02)	2 EACH
ITEM 659	SEEDING AND MULCHING	205 SQ METER

* QUANTITIES SHOWN HAVE BEEN CARRIED TO THE GENERAL SUMMARY

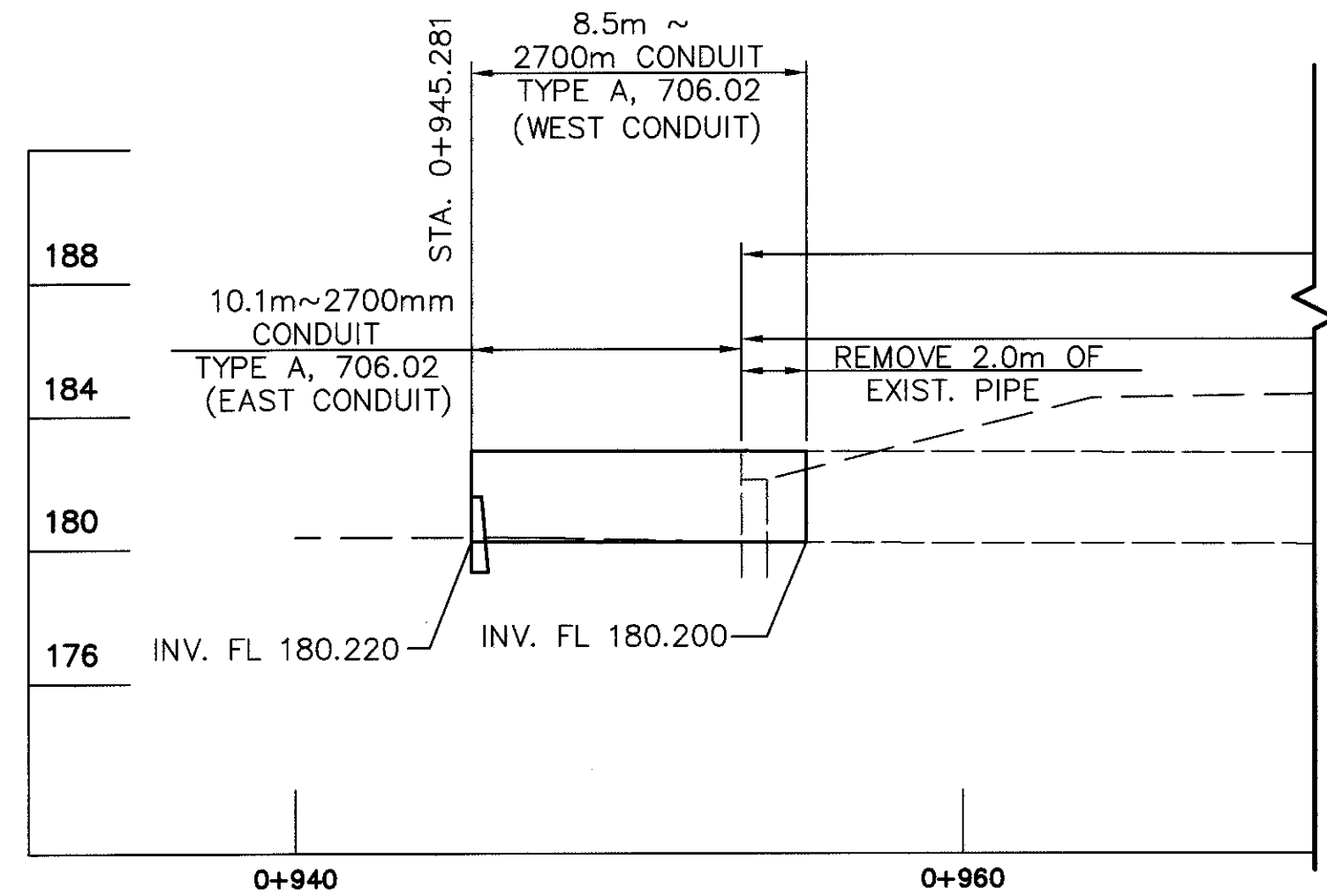
EXISTING STRUCTURE

TYPE:	RCP
SIZE:	2-2700mm
SKEW:	26'30' L.F.
DATE BUILT:	1961
CONDITION:	GOOD

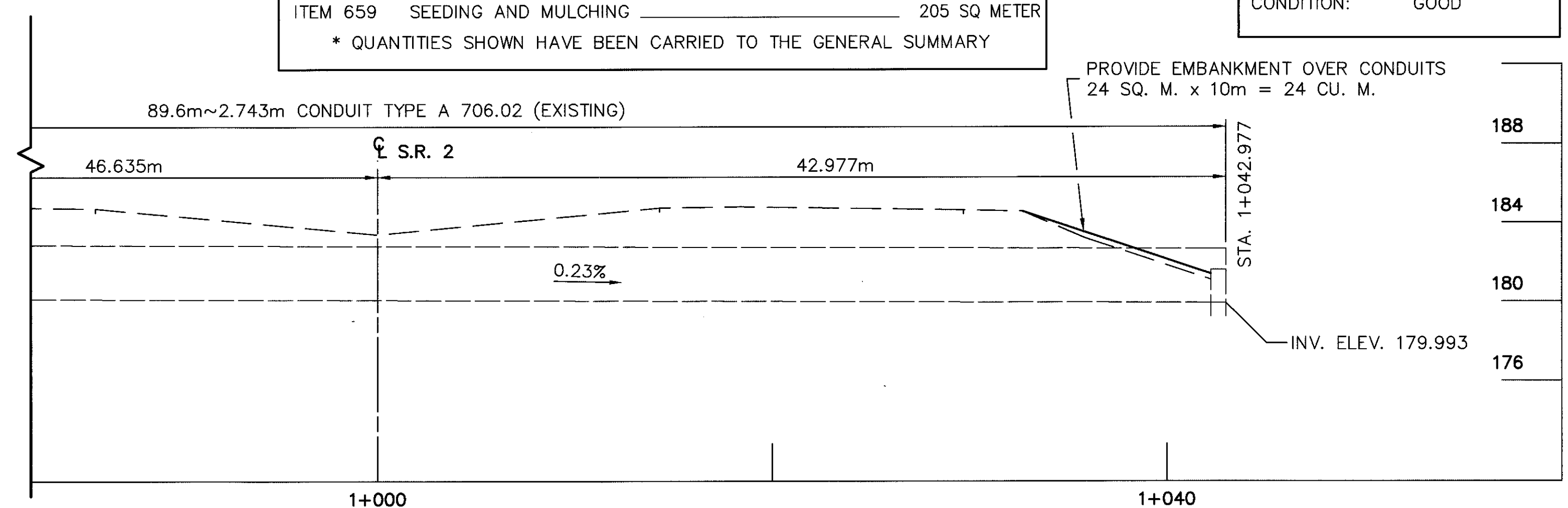
NOTE: THE CHANNEL IS TO BE CLEANED TO THE RIGHT-OF-WAY AT BOTH ENDS. WORK TO BE INCLUDED WITH ITEM 201 CLEARING & GRUBBING.



HEADWALL DETAILS



PROFILE ALONG BL OF CHANNEL



ITEM 621. RAISED PAVEMENT MARKERS

RAISED PAVEMENT MARKERS SHALL BE PLACED AS PER STANDARD DRAWING TC-65.10M, TC-65.11M AND TC-65.12M. STATE ROUTE 2 MAINLINE WILL HAVE WHITE ONE-WAY RAISED PAVEMENT MARKERS ALONG THE LANE LINE FOR EASTBOUND AND WESTBOUND LANES AT 36m SPACING. ALL INTERCHANGE RAMPS SHALL HAVE RAISED PAVEMENT MARKERS AS SPECIFIED IN THE STANDARD DRAWINGS. STATE ROUTE 4 AND U.S. 6 WILL ALSO HAVE RAISED PAVEMENT MARKERS AS PER STANDARD DRAWINGS. ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED FOR STORAGE PRIOR TO REPAVING. PAYMENT SHALL BE FOR INSTALLATION ONLY OF ALL RAISED PAVEMENT MARKERS. THE OHIO DEPARTMENT OF TRANSPORTATION (HEREAFTER REFERRED TO AS THE DEPARTMENT) SHALL PROVIDE THE RAISED PAVEMENT MARKERS.

ITEM 630. REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION. TYPE TC-18.26. AS PER PLAN

THE BRIDGE MOUNTED SIGNS ON STRUCTURE # ERI-2-19312 LEFT AND RIGHT SHALL BE REMOVED IN ORDER THAT THE NEW DECK MAY BE CONSTRUCTED. ONCE THE NEW DECK IS PLACED THE SIGNS SHALL BE REERECTED AS PER STANDARD DRAWING TC-18.26M. THE EXISTING SIGN SUPPORTS SHALL BE USED TO REERECT THE SIGNS. LIGHTING FOR THE SIGN SHALL BE AS PER STANDARD DRAWINGS TC-31.21M AND TC-32.11M. NO SPLICING OF EXISTING WIRE THAT SERVICES SIGN LIGHTING WILL BE PERMITTED.

PAYMENT FOR LIGHTING IS INCLUDED IN THE LIGHTING PLAN. SEE SHEET 311.

THE CONNECTION DETAIL FOR ITEM 630 - OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.26, AS PER PLAN SHALL BE AS PER STANDARD DRAWING SUPPORT, TYPE TC-18.24 EXCEPT THAT THE CONNECTION OF THE LOWER SIGN SUPPORT TO THE BRIDGE END BEAM SHALL BE BOLTED TO THE WEB AS PER THE DETAIL ON SHEET 281 IN THIS PLAN. THE BOLTS SHALL BE 12.7mm STAINLESS STEEL WASHERS AND LOCK NUTS.

PAYMENT SHALL BE AT THE UNIT PRICE FOR THE REMOVAL AND REERECTION OF THE STRUCTURE MOUNTED SIGNS AND SUPPORTS INCLUDING ALL NECESSARY MATERIAL, PARTS, LABOR AND EQUIPMENT.

ITEM 630. CANTILEVER OVERHEAD SIGN REMOVAL AND REERECTION

THE OVERHEAD SIGNS ON RYE BEACH ROAD SHALL NOT BE MODIFIED. THEY WILL BE MOVED TO THE RELOCATION STATION AS PER THE PLANS AND LIGHTING FOR THE SIGN WILL BE SUPPLIED THROUGH THE MAST TOWER LIGHTING POWER SOURCE. SEE SHEET 311 FOR LIGHTING. A NEW FOUNDATION FOR THE SIGN SUPPORT SHALL BE USED AS PER STANDARD DRAWING TC-21.20M FOR TC-12.30 TYPE SUPPORTS.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE FOR THE REMOVAL AND REERECTION OF THE OVERHEAD SIGNS AND SUPPORTS AND PLACEMENT OF EACH NEW FOUNDATIONS, INCLUDING ALL NECESSARY MATERIAL, PARTS, EQUIPMENT, AND LABOR.

ITEM 630. LAMINATED WOOD BEAMS. REMOVE AND REERECT

THE MAJOR SIGN LOCATED ON SHEET 285 (S1) HAS LAMINATED WOOD BEAMS. THE SIGN AND BEAMS ARE TO BE REMOVED AND REERECTED AS PER THE DETAIL ON SHEET 308.

- 1) LAY OUT LOCATION FOR BEAMS. REFER TO SUPPORT SPACING CHART ON STANDARD CONSTRUCTION DRAWING TC-42.10M.
- 2) AUGER HOLES TO REQUIRED DEPTH. USE A 457.200mm DIAMETER HOLE FOR THE TYPE "M" (200.025mm X 200.025mm) BEAMS.
- 3) CUT BEAMS IF NECESSARY.
- 4) SET AND PLUMB THE FIRST BEAM.
- 5) BACKFILL WITH SUITABLE BACKFILL MATERIAL. NORMALLY THE SOIL REMOVED FROM THE HOLE IS SUITABLE FOR BACKFILLING. AS THE HOLE IS BEING BACKFILLED, TAMP THE SOIL FIRMLY AROUND THE BEAM WITH A HYDRAULIC POLE TAMPER. THE BEAM SHOULD BE CHECKED OCCASIONALLY TO VERIFY THAT IT REMAINS PLUMB. EXCESS SOIL SHALL BE MOUNDED UP AROUND THE BEAM TO ACCOUNT FOR SETTLING.
- 6) INSTALL THE SECOND BEAM IN THE SAME MANNER.
- 7) REATTACH DRIVE POSTS TO THE FRONT FACE OF THE WOODEN BEAMS WITH LAG SCREWS AS PER DETAIL ON SHEET NO. 308. ONE 7.938mm DIAMETER LAG SCREW SHOULD BE USED FOR EACH 3.048 SQUARE METERS OF SIGN. SCREWS SHOULD BE 38.100mm TO 50.800mm LONG. 4.763mm PILOT HOLES ARE RECOMMENDED TO EASE INSTALLATION OF SCREWS. THE DRIVE POSTS CAN EXTEND ABOVE THE TOP OF THE WOODEN BEAMS A SMALL AMOUNT AS NECESSARY TO ACHIEVE THE REQUIRED SIGN HEIGHT AND FACILITATE LEVELING OF THE SIGN.
- 8) REATTACH THE SIGN CLIPS.
- 9) INSTALL BREAKAWAY FEATURE AS SHOWN BY DRILLING 25.4mm DIAMETER HOLES AND CONNECTING THE HOLES WITH A SAW CUT. A RECIPROCATING SAW WORKS WELL FOR MAKING THE SAW CUT.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT BID PRICE PER EACH MAJOR SIGN TO BE REMOVED AND REERECTED AND SHALL INCLUDE BUT IS NOT LIMITED TO, WOOD STABILIZERS, LAG BOLTS, NO. 3 STEEL DRIVE POSTS, CONCRETE BLOCK AND ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM WORK.

ITEM 620. DELINEATORS

FLEXIBLE POST DELINEATORS SHALL BE PLACED AS PER STANDARD DRAWING TC-61.10M. DELINEATORS SHALL BE USED ALONG STATE ROUTE 2 MAINLINE AS WELL AS ALONG ALL INTERCHANGE RAMPS. MAINLINE DELINEATORS SHALL BE SPACED AT 122m. DELINEATORS ALONG ACCELERATION AND DECELERATION LANES SHALL BE SPACED AT 30m. RAMP SPACING SHALL BE SPACED ACCORDING TO THE RADIUS OF THE RAMP AS SHOWN IN THE PLANS.

ALL EXISTING DELINEATORS SHALL BE REMOVED AND DISPOSED. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 620 DELINEATOR REMOVED FOR DISPOSAL 300 EACH

A TYPE C DELINEATOR SHOULD BE INSTALLED ON A FLEXIBLE POST AT THE HEAD OF ALL TYPE E-98 ANCHOR ASSEMBLIES.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE

ITEM 620, DELINEATOR, TYPE C, POST MOUNTED 34 EACH

MATERIALS SUPPLIED BY THE DEPARTMENT ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED, EXCEPT THAT THE DEPARTMENT SHALL SUPPLY RAISED PAVEMENT MARKER MATERIALS IN THE QUANTITIES SHOWN HEREIN TO THE CONTRACTOR. PAY ITEMS FOR THE DEPARTMENT SUPPLIED MATERIALS SHALL BE INDICATED AS "INSTALLATION ONLY" FOR THE YELLOW/YELLOW RAISED PAVEMENT MARKERS. ALL OTHER RPM PAY ITEMS SHALL BE FOR THE RAISED PAVEMENT MARKER CASTING AND A SEPARATE ITEM FOR THE PRISMATIC RETROREFLECTOR. THE QUANTITY AND TYPE OF DEPARTMENT SUPPLIED MATERIALS ARE SHOWN ON SHEET 266 OF THIS PLAN.

AT THE PRE-CONSTRUCTION CONFERENCE AN AUTHORIZATION FOR PICK UP FORM WILL BE FURNISHED BY THE DISTRICT CONSTRUCTION ADMINISTRATOR AND THE CONTRACTOR WILL BE INFORMED OF THE LOCATION OF THE DEPARTMENT SUPPLIED MATERIALS TO BE PICKED UP. FOR SOME PROJECTS HAVING QUANTITIES OF LESS THAN 20 RPM'S, THE CONTRACTOR MAY PICK UP RPM MATERIALS AT THE DISTRICT OFFICES. QUANTITIES OVER 20 RPM'S WILL BE PICKED UP AT THE RECYCLER'S CONTRACTOR WAREHOUSE OR AS ARRANGED WITH THE DISTRICT. THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTORS STORAGE FACILITY. THE RECYCLED RAISED PAVEMENT MARKER (RPM) AUTHORIZATION FORM IS TO BE SIGNED BY THE DISTRICT CONSTRUCTION ENGINEER PRIOR TO PICK UP OF THE RPM'S. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND/OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPM'S WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

RETURN OF NON-PREFORMED RAISED PAVEMENT MARKER MATERIAL SUPPLIED BY THE DEPARTMENT RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PREFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN THE BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE OUTSIDE OF EACH CONTAINER THE COLOR OF THE PRISMATIC RETRO-REFLECTOR AND THE STYLE OF CASTING. BOXES SHALL BE PLACED ON SKIDS OR PALLETS IN THE SAME STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORIZED OR NON REFLECTORIZED) AND NO MORE THAN 420 RPM'S (OR 21 BOXES) ON ONE SKID.

ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG OR PART NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBERS, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE.

NON PERFORMED MATERIALS WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM.

IF THE DEPARTMENT HAS TO REPACKAGE THE RPM'S CORRECTLY, THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT'S FORCES.

LOADING OF THE MATERIALS SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE TRUCKS SHALL HAVE A LOADING HEIGHT OF 1219 MILLIMETERS AND BE ABLE TO BACK UP FLUSH TO THE LOADING DOCK.

TRUCKS SHALL NOT HAVE ANY OBSTRUCTIONS OR PROTRUSIONS THAT PREVENT THE LOADING BY A STANDARD FORKLIFT OR LIFT TRUCK. SEMI TRUCKS OR 6.1 METER COMMERCIAL TRUCKS ARE THE MOST APPROPRIATE TRUCKS FOR LOADS IN EXCESS OF 4 PALLETS (1 PALLET = 21 BOXES = 952.5 KILOGRAMS).

STAKE BODY TRUCKS ARE APPROPRIATE TO LOAD LESS LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT BY CHAINING OR STRAPPING DOWN AS NEEDED.

PICKUP TRUCKS ARE APPROPRIATE FOR LOADS OF APPROXIMATELY ONE PALLET, PROVIDED THE PICKUP TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT.

DUMP TRUCKS, TILT BED TRUCKS AND NON COMMERCIAL MOVING VANS WILL NOT BE LOADED.

THE WAREHOUSE SUPERVISOR WILL REFUSE TO LOAD ANY TRUCK THAT IS UNSAFE TO LOAD OR UNSUITABLE FOR THE LOAD BEING PLACED ON THE TRUCK.

ITEM 642. TRAFFIC PAINT

TYPE 2 TRAFFIC PAINT SHALL BE USED FOR PAVEMENT MARKINGS ON ALL OVERPASS BRIDGES AND RYE BEACH ROAD.

ITEM 644. THERMOPLASTIC PAVEMENT MARKING

THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED FOR STATE ROUTE 2 AND ALL INTERCHANGE RAMPS.

ALL TRAFFIC CONTROL SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TRAFFIC CONTROL
GENERAL NOTES

ERI-2-12-558

265
432

FILE NAME: I:\5033\006\TRAN\TRAFFIC_R_11376TNA.DWG 8-3-99 9:26:39 am EST
PLOTTED: JTN

FROM SHEET NUMBER						ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION
265	269	270	272	274						
		929	203	22		202	54100	1154	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE
34	340	52				620	10300	426	EACH	DELINEATOR, TYPE C, POST MOUNTED
	24	77				620	15300	101	EACH	DELINEATOR, TYPE D, POST MOUNTED
300						620	31200	300	EACH	DELINEATOR REMOVED FOR DISPOSAL
	32	17				621	00100	49	EACH	RAISED PAVEMENT MARKER
			30			621	00200	30	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY
	952	216	31			621	00300	1199	EACH	PRISMATIC RETROREFLECTOR
	952	216	31			621	00600	1199	EACH	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY
					2	625	32000	2	EACH	GROUND ROD
					248	630	03100	248	METER	GROUND MOUNTED SUPPORT, NO. 3 POST
					18	630	07500	18	METER	GROUND MOUNTED SUPPORT, W250X32.7 BEAM
					11	630	07600	11	METER	GROUND MOUNTED SUPPORT, W250X17.9 BEAM
					36	630	08000	36	METER	GROUND MOUNTED SUPPORT, W310X44.5 BEAM
					20	630	08004	20	METER	ONE WAY SUPPORT, NO. 3 POST
					8	630	09000	8	EACH	BREAKAWAY BEAM CONNECTION
					10	630	81100	10	SQ. METER	SIGN ERECTED, FLAT SHEET
					8	630	84500	8	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION
					2	630	84510	2	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION
					5	630	85000	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE
					66	630	85100	66	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
					5	630	85600	5	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION
					50	630	86002	50	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
					8	630	86102	8	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
					3	630	86320	3	EACH	REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION
					4	630	87100	4	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION
					2	630	89100	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30M
				3	630	89701	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-18.26MAS PER PLAN (SEE SHEET 265)	
			0.82		642	00102	0.82	KILOMETER	EDGE LINE, TYPE 2	
			0.44		642	00202	0.44	KILOMETER	LANE LINE, TYPE 2	
			0.64		642	00302	0.64	KILOMETER	CENTER LINE, TYPE 2	
			136		642	00402	136	METER	CHANNELIZING LINE, TYPE 2	
			11		642	00502	11	METER	STOP LINE, TYPE 2	
			196		642	00702	196	METER	TRANSVERSE LINE, TYPE 2	
			10		642	01302	10	EACH	LANE ARROW, TYPE 2	
			4		642	01402	4	EACH	WORD ON PAVEMENT, 1800MM, TYPE 2	
	55.64	8.75			644	00100	64.38	KILOMETER	EDGE LINE	
	29.587	280			644	00200	309.99	KILOMETER	LANE LINE	
	1849	440			644	00400	2289	METER	CHANNELIZING LINE	
		74			644	00500	74	METER	STOP LINE	
	620				644	00700	620	METER	TRANSVERSE LINE	
		23			644	01300	23	EACH	LANE ARROW	
		4			644	01410	4	EACH	WORD ON PAVEMENT, 2500MM	

**TRAFFIC CONTROL
 GENERAL SUMMARY**

ERI-2-12.558

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	METER											
		FROM	TO OR AT		202	620	621		644							
					RAISED PAVEMENT MARKER REMOVED FOR STORAGE	DELINEATOR, TYPE C, POST MOUNTED	DELINEATOR, TYPE D, POST MOUNTED	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, ONE WAY WHITE	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, TWO WAY WHITE/RED	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, TWO WAY YELLOW/RED	RAISED PAVEMENT MARKER, ONE WAY WHITE	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	TRANSVERSE LINE, WHITE
280	R1	25+660.000	26+060.000	LT	11			11								
280	R2	25+660.000	26+060.000	RT	11			11								
280	R3	25+660.000	25+732.822	LT	6				6							
280	R4	25+732.822	25+855.138	LT	5					5						
280	R5	25+909.354	25+983.448	RT	7					7						
280	R6	25+909.354	25+983.448	RT	6					6						
280	R7	25+660.000	25+909.000	RT							14					
280	D1	25+660.000	25+855.138	LT		6										
280	D2	25+660.000	25+983.448	RT		9										
280	D3	25+913.000	26+060.000	LT		2										
280	D4	26+013.928	26+060.000	RT		1										
281	M1	26+060.000	26+581.840	LT								521.8				
281	M2	26+060.000	26+660.000	LT									600.0	600.0		
281	M3	26+060.000	26+660.000	LT									600.0			
281	M4	26+060.000	26+660.000	RT										600.0		
281	M5	26+060.000	26+660.000	RT												
281	M6	26+060.000	26+373.210	RT								313.2				
281	M7	26+168.050	26+291.467	RT									123.4			
281	M8	26+168.050	26+660.000	RT								492.0				
281	M9	26+291.467	26+373.210	RT											81.7	
281	M10	26+373.210	26+467.967	RT										94.8		
281	M11	26+612.178	26+660.000	LT								49.0				
281	M12	26+612.178	26+660.000	LT											49.0	
281	M13	26+612.178	26+660.000	LT												80.8
281	M14	26+581.840	26+660.000	LT											78.2	
281	M15	26+591.667	26+660.000	RT									68.3	68.3		
281	M16	26+591.667	26+660.000	RT									68.3			
281	R1	26+060.000	26+660.000	LT	16			16								
281	R2	26+060.000	26+660.000	RT	16			16								
281	R3	26+168.050	26+291.467	RT	6					6						
281	R4	26+291.467	26+373.210	RT	7				7							
281	R5	26+612.178	26+660.000	LT	4				4							
281	R6	26+612.178	26+660.000	LT	5				5							
281	R7	26+591.667	26+660.000	RT	3					3						
281	D1	26+060.000	26+581.840	LT		5										
281	D2	26+060.000	26+168.050	RT		1										
281	D3	26+168.050	26+660.000	RT		11										
281	D4	26+612.178	26+660.000	LT		2										
281	D5	26+591.667	26+660.000	RT		2										
282	M1	26+660.000	27+140.000	LT								481.6				
282	M2	26+660.000	27+140.000	LT									480.0	480.0		
282	M3	26+660.000	27+140.000	LT									480.0			
282	M4	26+660.000	27+140.000	RT									480.0			
282	M5	26+660.000	27+140.000	RT										480.0		
282	M6	26+660.000	27+140.000	RT								480.0				
282	M7	26+660.000	26+688.081	LT											28.1	
282	M8	26+660.000	26+688.081	LT											28.1	
282	M9	26+660.000	26+688.081	LT												9.5
282	M10	26+688.081	26+756.792	LT										68.7		
282	M11	26+660.000	26+760.278	RT								100.3				
282	M12	26+660.000	26+692.001	RT									32.0			
282	M13	26+692.001	26+760.278	RT											68.3	
282	M14	26+760.278	26+839.435	RT										79.2		
282	R1	26+660.000	27+140.000	LT	15			15								
282	R2	26+660.000	27+140.000	LT	15			15								
282	R3	26+660.000	26+688.081	LT	2				2							
282	R4	26+660.000	26+688.081	LT	3				3							
282	R5	26+660.000	26+692.001	RT	1					1						
282	R6	26+692.001	26+760.278	RT	6					6						
TOTAL THIS COLUMN					145	39	0	84	46	15	14	2506.2	2383.7	2402.7	333.4	90.3

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	METER											
		FROM	TO OR AT		202	620	621		644							
					RAISED PAVEMENT MARKER REMOVED FOR STORAGE	DELINEATOR, TYPE C, POST MOUNTED	DELINEATOR, TYPE D, POST MOUNTED	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, ONE WAY WHITE	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, TWO WAY WHITE/RED	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, TWO WAY YELLOW/RED	RAISED PAVEMENT MARKER, ONE WAY WHITE	EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	TRANSVERSE LINE, WHITE
282	D1	26+660.000	26+855.982	LT		6										
282	D2	26+660.000	26+978.520	RT		12										
282	D3	26+855.982	27+140.000	LT		3										
282	D4	26+978.520	27+140.000	RT		1										
283	M1	27+140.000	31+180.000	LT										4040.0		
283	M2	27+140.000	31+180.000	LT											4040.0	
283	M3	27+140.000	31+180.000	LT										4040.0		
283	M4	27+140.000	31+180.000	RT										4040.0		
283	M5	27+140.000	31+180.000	RT											4040.0	
283	M6	27+140.000	31+180.000	RT								4040.0				
283	M7	31+141.053	31+180.000	LT											38.9	
283	R1	27+140.000	31+180.000	LT	113					113						
283	R2	27+140.000	31+180.000	RT	113					113						
283	D1	27+140.000	30+906.782	LT		31										
283	D2	27+140.000	31+180.000	RT		33										
283	D3	30+906.782	31+180.000	LT		9										
283	D4	27+531.000	27+591.000	LT												
283	D5	27+454.000	27+514.000	RT											3	
283	D6	30+937.000	30+997.000	LT											3	
283	D7	31+014.000	31+074.000	RT											3	
284	M1	31+180.000	31+375.797	LT											195.8	
284	M2	31+180.000	31+780.000	LT												600.0
284	M3	31+180.000	31+780.000	LT											600.0	
284	M4	31+180.000	31+780.000	RT											600.0	
284	M5	31+180.000	31+780.000	RT												600.0
284	M6	31+180.000	31+442.106	RT											262.1	
284	M7	31+180.000	31+227.448	LT												47.4
284	M8	31+227.448	31+272.542	LT												45.1
284	M9	31+272.542	31+375.790	LT											103.2	
284	M10	31+227.448	31+780.000	LT											552.6	
284	M11	31+297.586	31+368.349	RT												70.8
284	M12	31+368.349	31+472.586	RT												104.2
284	M13	31+368.349	31+442.106	RT												75.4
284	M14	31+368.349	31+442.106	RT												85.6
284	M15	31+472.586	31+780.000	RT											307.4	
284	R1	31+180.000	31+780.000	LT	16											
284	R2	31+180.000	31+780.000	RT	16											
284	R3	31+227.448	31+272.542	LT	4											
284	R4	31+272.542	31+375.790	LT	5											
284	R5	31+368.349	31+442.106	RT	7											
284	R6	31+368.349	31+442.106	RT	6											
284	D1	31+180.000	31+375.790	LT		4										
284	D2	31+196.342	31+442.106	RT		8										
284	D3	31+408.943	31+780.000	LT		4										
284	D4	31+472.586	31+780.000	RT		4										
TOTAL THIS COLUMN					280	115	12	258	17	5	0	9397.9	9383.2	9437.1	224.7	85.6
TOTAL FROM COLUMN LEFT					145	39	0	84								

FROM SHEET NUMBER	DESIGNATION	STATION		SIDE	202		621		642								
		FROM	TO OR AT		RAISED PAVEMENT MARKER REMOVED FOR STORAGE	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, TWO WAY WHITE/RED	RAISED PAVEMENT MARKER CASTING, INSTALLATION ONLY, ONE WAY WHITE	RAISED PAVEMENT MARKER, INSTALLATION ONLY, TWO WAY YELLOW/YELLOW	EDGE LINE, WHITE, TYPE 2	LANE LINE, TYPE 2	CENTER LINE, DOUBLE SOLID, TYPE 2	CHANNELIZING LINE, TYPE 2	STOP LINE, TYPE 2	TRANSVERSE LINE, YELLOW, TYPE 2	TRANSVERSE LINE, WHITE, TYPE 2	LANE ARROW, TYPE 2	WORD ON PAVEMENT, 1800MM, TYPE 2
					EACH	EACH	METER								EACH		
RYE BEACH RD.																	
301	M1	1+302.000	1+315.000														
301	M2	1+334.677	1+560.000	LT					225.3								
301	M3	1+334.677	1+560.000	RT					225.3								
301	M4	1+334.677	1+560.000	LT							225.3						
301	M5	1+334.677	1+532.740								183.1						
301	M6	1+334.677	1+532.740	LT									107.0				
301	M7	1+342.000	1+522.000	LT										89.0			
301	M8	1+532.740	1+560.000							27.3							
301	R1	OMITTED															
301	R2	1+334.677	1+483.484	LT				8									
301	R3	1+334.677	1+560.000		12			12									
301	R4	OMITTED															
301	R5	1+533.000	1+560.000			3											
302	M1	1+560.000	1+604.239	LT					44.2								
302	M2	1+560.000	1+604.239	LT							44.2						
302	M3	1+560.000	1+604.239														
302	M4	1+560.000	1+611.668	RT					51.7								
302	M5	1+631.153	1+780.686	LT					149.5								
302	M6	1+631.153	1+669.002	LT								37.8					
302	M7	1+669.002	1+780.686	LT							111.7						
302	M8	1+631.153	1+809.000	LT								177.8					
302	M9	1+631.153	1+760.000								128.8						
302	M10	1+631.153	1+760.000	RT							128.8						
302	M11	1+625.271	1+749.066	RT					123.8								
302	M12		1+635.000	LT												2	
302	M13		1+650.000	LT													2
302	M14		1+665.000	LT												2	
302	M15	1+760.000	1+809.000										49.0				
302	M16	1+760.000	1+809.000	RT									49.0				
302	M17		1+778.000													3	
302	M18		1+789.000														2
302	M19		1+801.000													3	
302	M20		1+809.000										10.8				
302	R1	OMITTED															
302	R2	1+560.000	1+604.239	LT	2			2									
302	R3	1+560.000	1+604.239														
302	R4	OMITTED															
302	R5	OMITTED															
302	R6	1+669.002	1+780.686	LT				4									
302	R7	1+631.153	1+669.002	LT				4									
302	R8	1+631.153	1+809.000	LT	8			8									
302	R9	1+631.153	1+760.000														
302	R10	1+631.153	1+760.000	RT													
302	R11	OMITTED															
302	R12	1+760.000	1+809.000					4									
302	R13	1+760.000	1+809.000	RT				4									
SUBTOTALS					22	31	0	30	819.9	440.9	643.5	135.8	10.8	107.0	89.0	10	4
TOTALS TO GENERAL SUMMARY					22	31		30	0.82 KM	0.44 KM	0.64 KM	135.8	10.8	196.0		10	4

CALCULATED BY: JWA
DATE: 8-97
CHECKED BY: JWA
DATE: 8-97

TRAFFIC CONTROL QUANTITIES SIDE ROADS

ERI-2-12.558

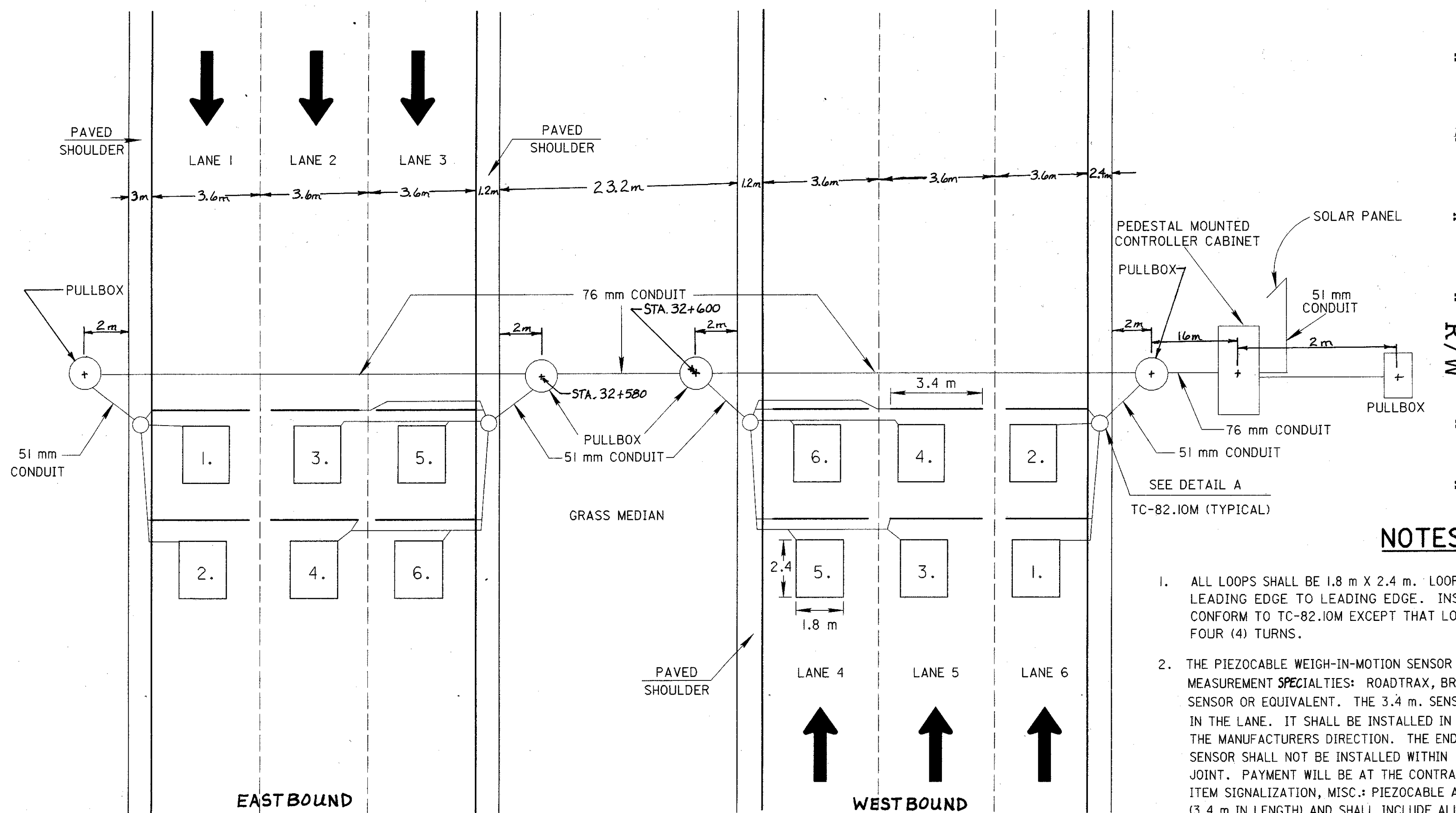
272
432

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

NOTES

(continued)

4. CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (i.e., NB, WB) AND THE LOOP NUMBER AS SHOWN. EACH CABLE AND WIRE SHALL HAVE 1.5 m COILED IN THE CONTROLLER CABINET FOR CONNECTION BY OTHERS.
5. ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE INSTALLED IN OPPOSITE DIRECTIONS, i.e., LANE 1, LOOP 1 AND LANE 2, LOOP 4 CLOCKWISE; LANE 1, LOOP 2 AND LANE 2, LOOP 3 COUNTERCLOCKWISE. EACH LOOP SHALL HAVE A SEPARATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET AND TAGGED.
6. REFERENCE IS MADE TO STANDARD DRAWING HL-30.11M FOR DETAILS OF DRAINING PULLBOXES. UNDERDRAINS FOR PULLBOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 6.0 m. AN ESTIMATED QUANTITY OF 30 METER OF ITEM 603, 100 mm CONDUIT TYPE E IS INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.
7. FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED INSTALLATION, THE CONTRACTOR SHALL CONTACT OFFICE OF TECH. SERVICES AT 614-466-3727.
8. ALL ITEMS SHALL CONFORM TO C&M SPECIFICATIONS 625, 713, 632, 732, 633 AND 733, UNLESS OTHERWISE SPECIFIED.
9. NOT USED
10. LOOPS AND PIEZOCABLES SHALL BE CUT IN THE FINAL ASPHALT COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND FINAL COURSES.
11. PIEZOCABLES SHALL BE INSTALLED WHEN THE TEMP. IS ABOVE 15 DEGREES CENTIGRADE, OR SPECIAL PROVISION MADE TO ENSURE CURING OF EPOXY TAKES PLACE.
12. THE SOLAR PANEL SHALL BE INSTALLED WITH 51 mm RIGID CONDUIT MOUNTED IN CONCRETE BASE WITH PANEL BEING AT A MIN. HEIGHT ABOVE GROUND LEVEL OF 4.6 m. SOLAR PANEL OUTPUT CABLE SHALL BE SECURED AND ROUTED TO THE INSIDE OF THE CABINET FOR CONNECTION TO TERMINAL BLOCK. SOLAR PANEL SHALL BE MOUNTED AT A 45° ANGLE FACING SOUTH.
13. SOLAR PANEL SHALL BE A SOLAREX MODEL VLX 32 (32 WATTS) OR AN APPROVED EQUAL WITH MOUNTING HARDWARE AND CABLES.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND TESTING THE PHONE DROP INSIDE OF THE CONTROLLER CABINET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHARGES INCURRED PRIOR TO THE TRANSFER OF THE TELEPHONE ACCOUNT. THE CONTRACTOR SHALL COORDINATE WITH ODOT, TELECOMMUNICATIONS, MR. MIKE WIGGINS (614-466-4442) TO TRANSFER THE TELEPHONE ACCOUNT AND THE BILLING RESPONSIBILITY FROM THE CONTRACTOR TO ODOT.
15. ALL SENSORS ARE TO BE TESTED BY O.D.O.T. PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS UP AND OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTY SENSOR, AS SOON AS POSSIBLE AT HIS OWN COST.



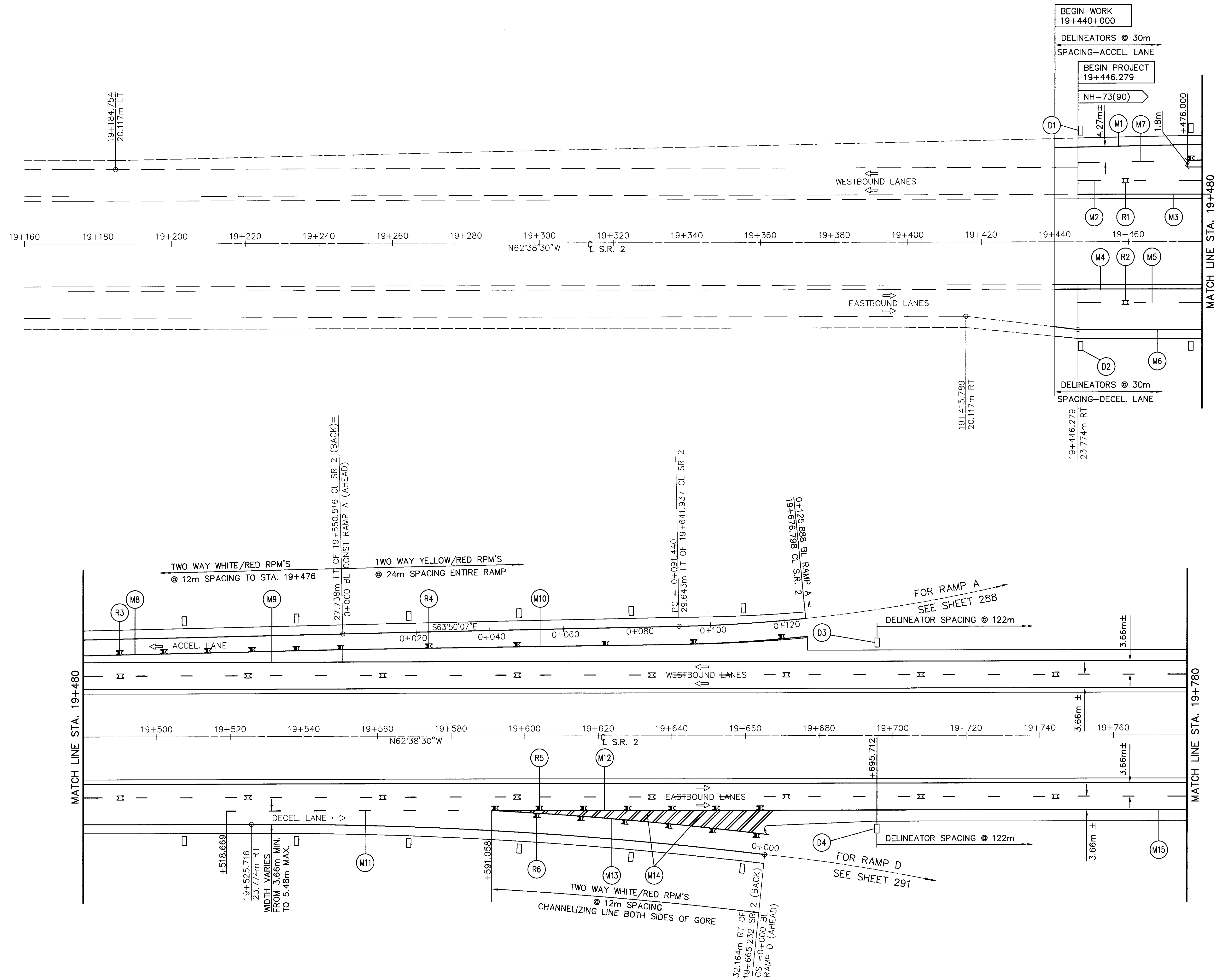
NOTES

1. ALL LOOPS SHALL BE 1.8 m X 2.4 m. LOOPS SHALL BE SPACED 4.9 m FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10M EXCEPT THAT LOOPS SHALL BE INSTALLED WITH FOUR (4) TURNS.
2. THE PIEZOCABLE WEIGH-IN-MOTION SENSOR SHALL BE MADE BY MEASUREMENT SPECIALTIES: ROADTRAX, BRASS LINGUINI (BL), AXLE SENSOR OR EQUIVALENT. THE 3.4 m. SENSOR SHALL BE CENTERED IN THE LANE. IT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS DIRECTION. THE END OF A PIEZOCABLE AXLE SENSOR SHALL NOT BE INSTALLED WITHIN 150 mm OF A LONGITUDINAL JOINT. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (3.4 m IN LENGTH) AND SHALL INCLUDE ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH INSTALLATION, IN PLACE COMPLETE AND ACCEPTED.
3. THE CABINET SHALL BE CLEAN CUT IN DESIGN AND APPEARANCE AND SHALL CONFORM TO THE FOLLOWING:
 - A. IT SHALL BE MADE OF ACCEPTABLE STRENGTH ALUMINUM (NATURAL FINISH).
 - B. THE MINIMUM USEABLE INSIDE DIMENSIONS SHALL BE: HEIGHT 760 mm, WIDTH 480 mm, AND DEPTH 330 mm.
 - C. HINGED DOOR SHALL BE PROVIDED ON THE FRONT OF THE CABINET WHICH SHALL INCLUDE SUBSTANTIALLY THE FULL AREA OF THE FRONT OF THE CABINET.
 - D. THE DOOR SHALL BE FULLY GASKETED SO THAT WHEN CLOSED IT SHALL FIT CLOSELY TO THE GASKETING MATERIAL, MAKING THE CABINET WEATHER RESISTANT. A ONE POINT LATCH SHALL BE PROVIDED FOR THIS PURPOSE.
 - E. THE DOOR SHALL BE PROVIDED WITH AN ACCEPTABLE STRONG LOCK WITH PERMANENT LUBICATION AND A WEATHERPROOF TAB AND FURNISHED WITH TWO KEYS.
 - F. THE DOOR PINS SHALL BE GREASE-LUBRICATED AND OF A NON-CORRODING STEEL MATERIAL.
 - G. THE CABINET SHALL CONTAIN ONE SHELF FOR SUPPORT OF TRAFFIC COUNTING EQUIPMENT. SHELF TO BE CENTERED AT 380 mm FROM THE TOP OF THE CABINET.
 - H. THE CABINET SHALL INCLUDE A VENT.
 - I. 12 WIRE TERMINAL BLOCKS 150 mm FROM BOTTOM OF CABINET CENTERED ON BACK PANEL (PENN UNION # 6012 OR APPROVED EQUAL). 2 LANE-2 TERMINAL STRIPS, 4 LANE-3 TERMINAL STRIPS, 6 LANE 4 TERMINAL STRIPS, 8 LANE-5 TERMINAL STRIPS.
 - J. MOUNTING FACILITIES SHALL INCLUDE ONE BACK PANEL WITH 5 HOLES (ALUMINUM).
 ALL PIECES SHALL BE SMOOTH AND FREE FROM FLAWS, CRACKS, BLOW-HOLES AND OTHER IMPERFECTIONS. THE CABINET SHALL BE ORIENTED SO THAT THE DOOR OPENS TOWARD THE ROADWAY.

**AUTOMATIC TRAFFIC RECORDER INSTALLATION
6 LANE SECTION**

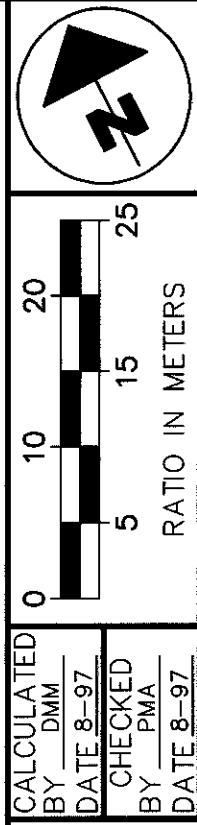
AUTOMATIC TRAFFIC RECORDER GENERAL SUMMARY

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
603	00400	30	METER	100 mm CONDUIT, TYPE E
625	25400	32	METER	CONDUIT, 51 mm, 713.04
625	25500	44	METER	CONDUIT, 76 mm, 713.04
625	25900	38	METER	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 76 mm
625	29000	45	METER	TRENCH
625	30706	5	EACH	PULL BOX, 713.08, 600 mm
625	32000	1	EACH	GROUND ROD
632	26500	12	EACH	DETECTOR LOOP
632	62810	212	METER	INTERCONNECT CABLE, MISC.: COAX CABLE (RG58 TYPE) LEADIN CABLE FOR PIEZOCABLE SENSOR
632	63000	1	EACH	PHONE DROP
632	64020	1	EACH	PEDESTAL FOUNDATION
632	65200	212	METER	LOOP DETECTOR LEAD-IN CABLE
632	89800	1	EACH	PEDESTAL, 1.0 m, TRANSFORMER BASE
632	90400	12	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR CLASS I (3.4 m IN LENGTH)
633	65001	1	EACH	CABINET WITHOUT CONTROLLER, AS PER PLAN, PREWIRED, PEDESTAL MOUNTING, TYPE G
633	99000	1	EACH	CONTROLLER ITEM, MISC.: SOLAR PANEL



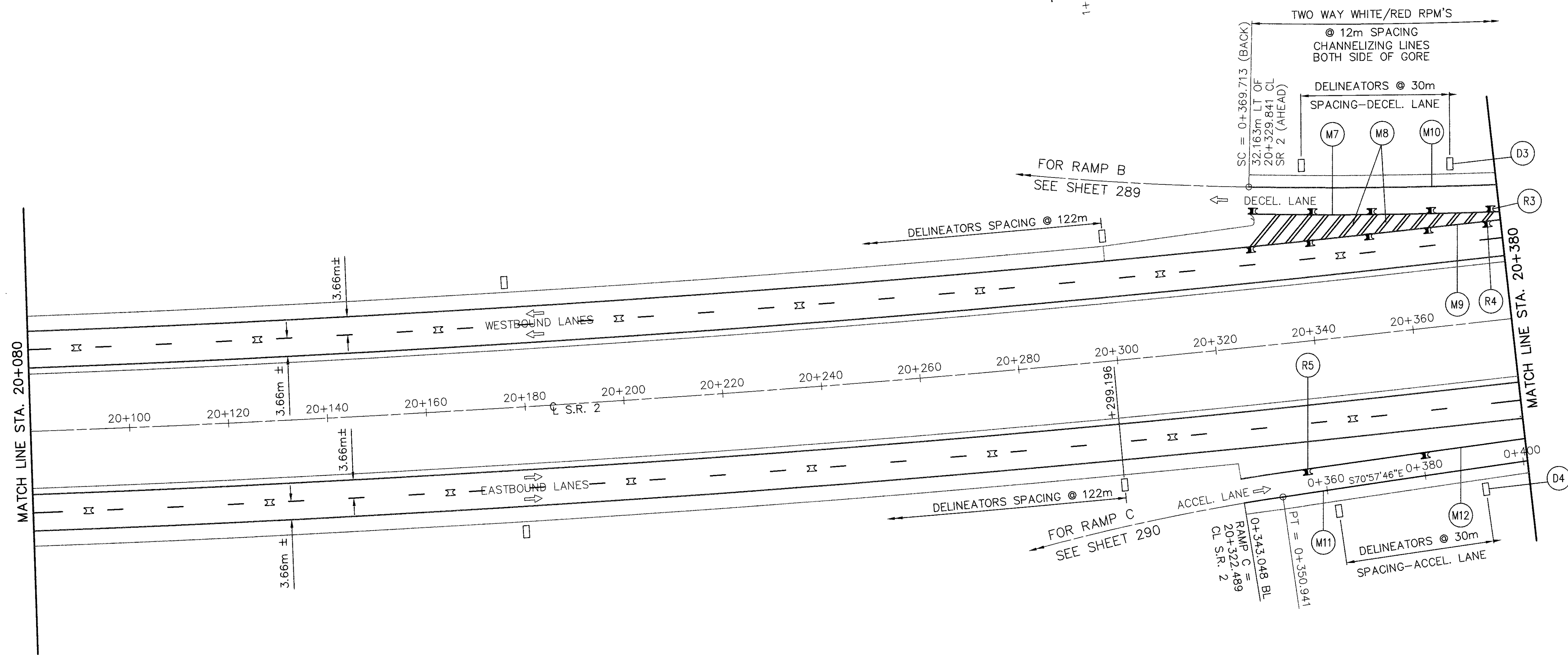
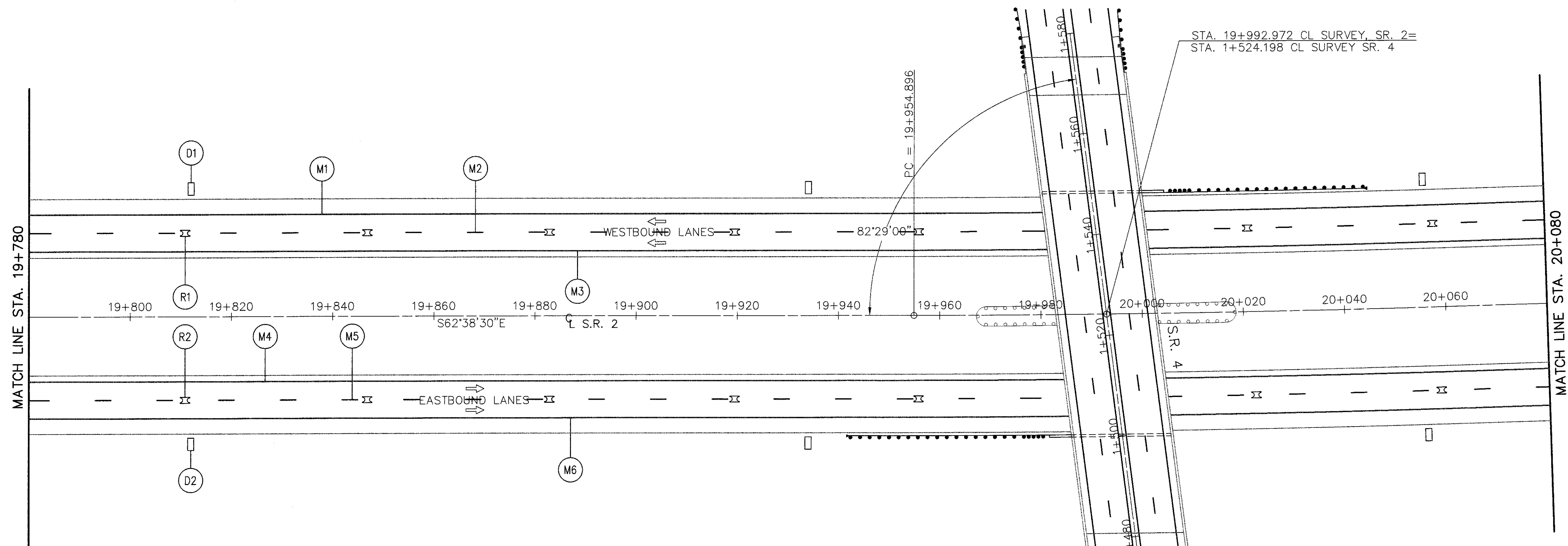
BEGIN WORK
19+440+000
DELINATORS @ 30m
SPACING-ACCEL. LANE
BEGIN PROJECT
19+446.279
NH-73(90)

LEGEND
 □ TYPE C DELINEATOR MARKER
 ≡ ONE WAY REFLECTOR
 ≡≡ TWO WAY REFLECTOR
 SEE SHEET 267 FOR TRAFFIC CONTROL QUANTITIES



**TRAFFIC CONTROL
STA. 19+160 TO STA. 19+780**

ERI-2-12.558



LEGEND

- TYPE C DELINEATOR MARKER
- ⊏ ONE WAY REFLECTOR
- ⊏ TWO WAY REFLECTOR

SEE SHEET 267 FOR TRAFFIC CONTROL QUANTITIES

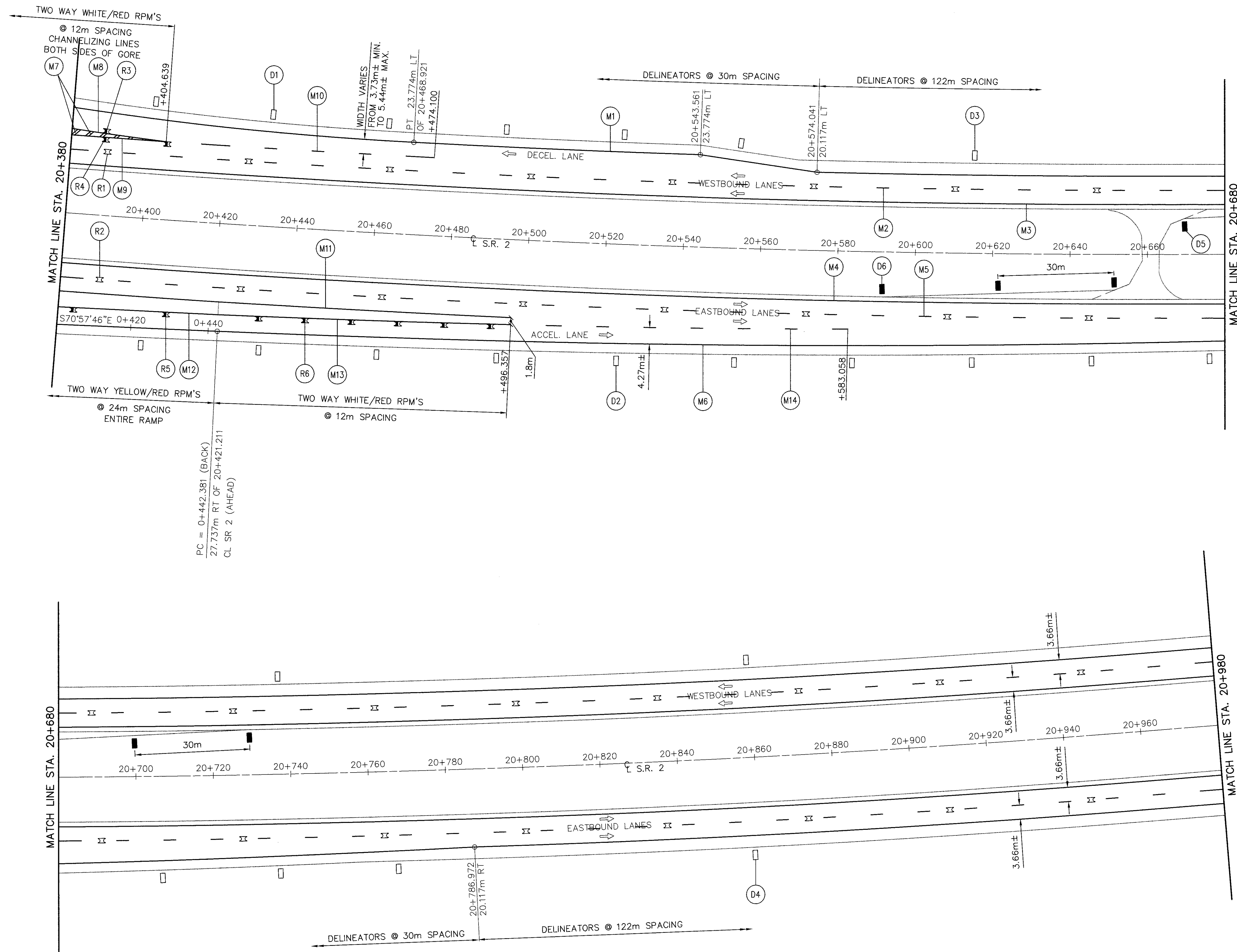
SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

CALCULATED BY: PMA DATE: 8-97
 CHECKED BY: PMA DATE: 8-97

RATIO IN METERS

TRAFFIC CONTROL STA. 19+780 TO STA. 20+380

ERI-2-12.558



LEGEND

- TYPE C DELINEATOR MARKER
- TYPE D DELINEATOR MARKER
- || ONE WAY REFLECTOR
- ⊠ TWO WAY REFLECTOR

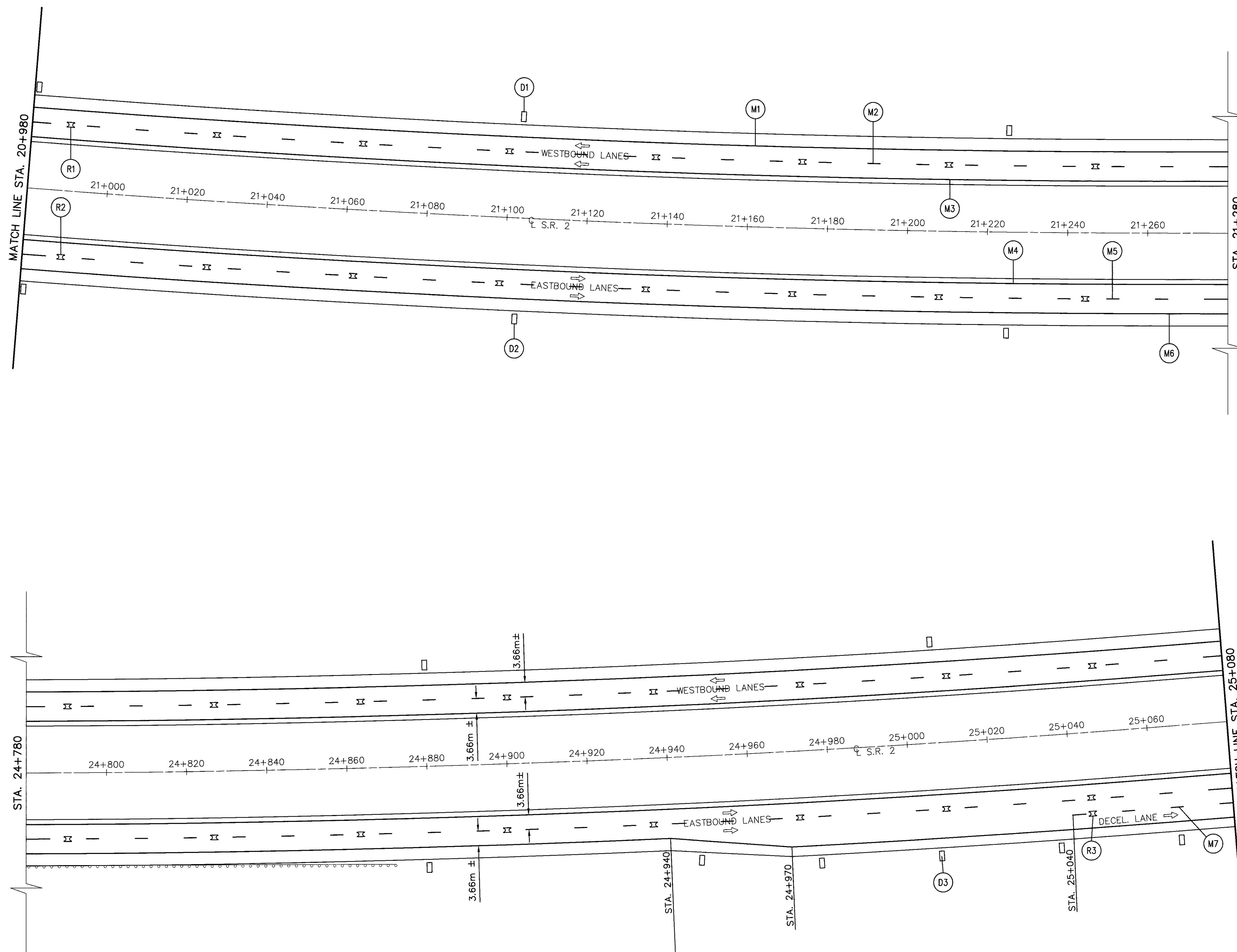
SEE SHEET 267 FOR TRAFFIC CONTROL QUANTITIES

CALCULATED BY: DIM DATE: 8-97
 CHECKED BY: PMA DATE: 8-97

0 10 20
 5 15 25
 RATIO IN METERS

TRAFFIC CONTROL
 STA. 20+380 TO STA. 20+980

ERI-2-12.558



DELINEATORS @ 122m SPACING

DELINEATORS @ 30m SPACING TO STA. 25+983

LEGEND

- TYPE C DELINEATOR MARKER
- ⦿ ONE WAY REFLECTOR

SEE SHEET 267 FOR TRAFFIC CONTROL QUANTITIES

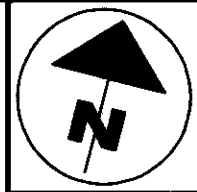
CALCULATED BY: J.E.F. DATE: 3-99

CHECKED BY: GAB DATE: 4-99

0 10 20 25 RATIO IN METERS

TRAFFIC CONTROL
STA. 20+980 TO STA. 25+080

ERI-2-12.558

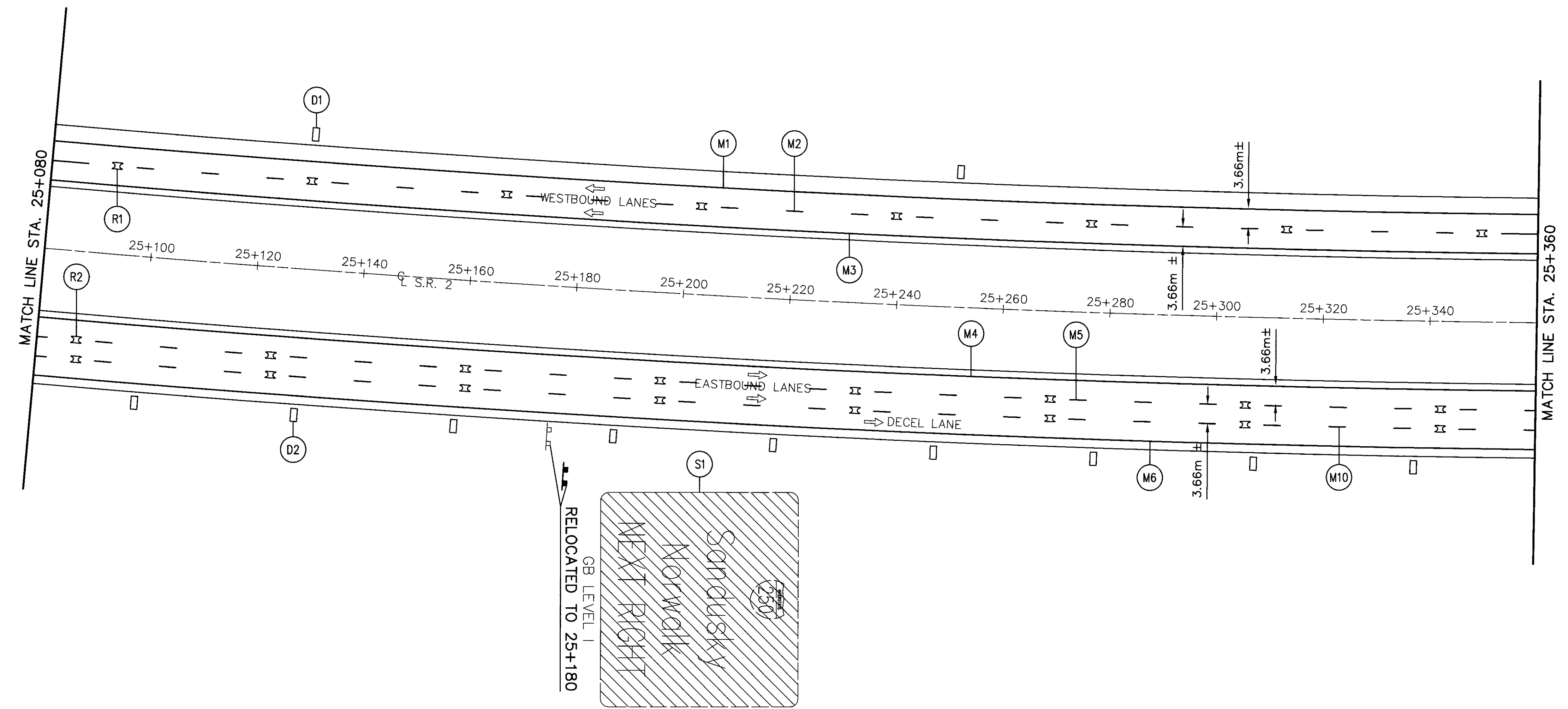
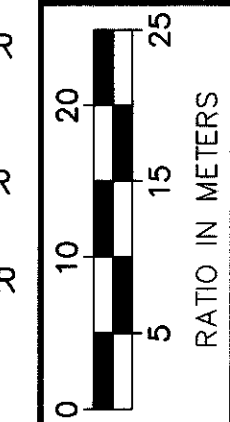


LEGEND

- TYPE C DELINEATOR MARKER
- TYPE D DELINEATOR MARKER
- ≡ ONE WAY REFLECTOR

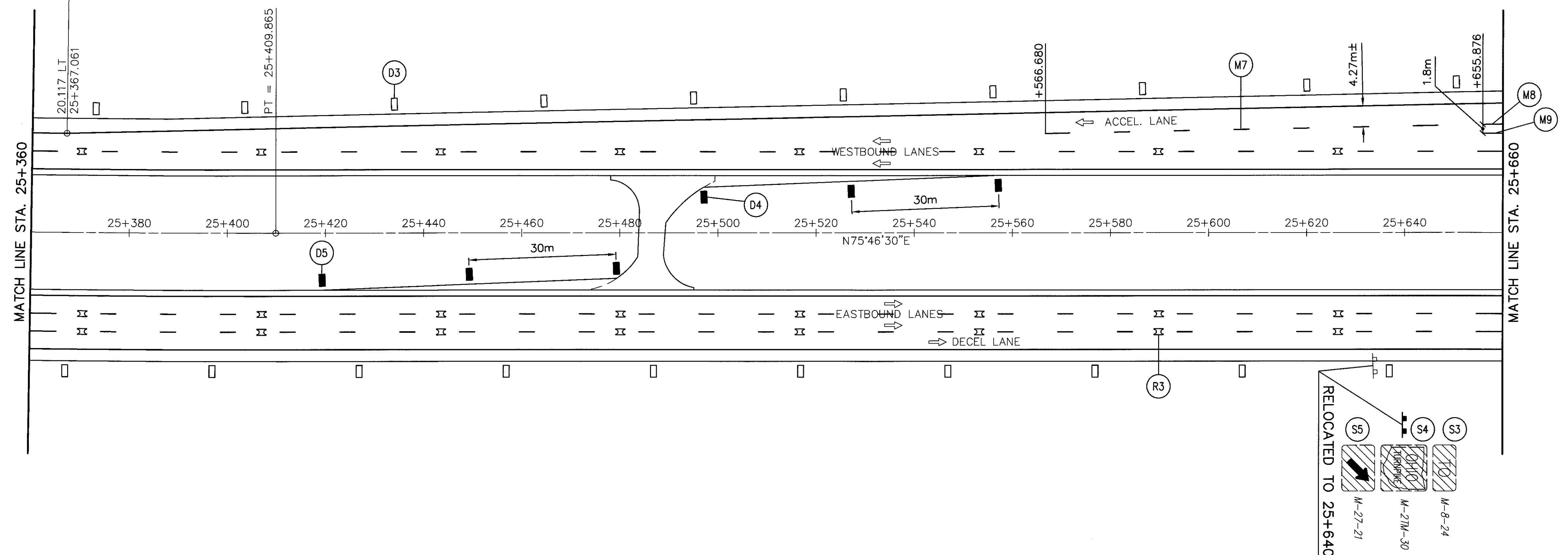
SEE SHEET 267 FOR TRAFFIC CONTROL QUANTITIES

CALCULATED BY	JULY
DATE	3-99
CHECKED BY	GAB
DATE	4-99



DELINEATORS @ 122m SPACING

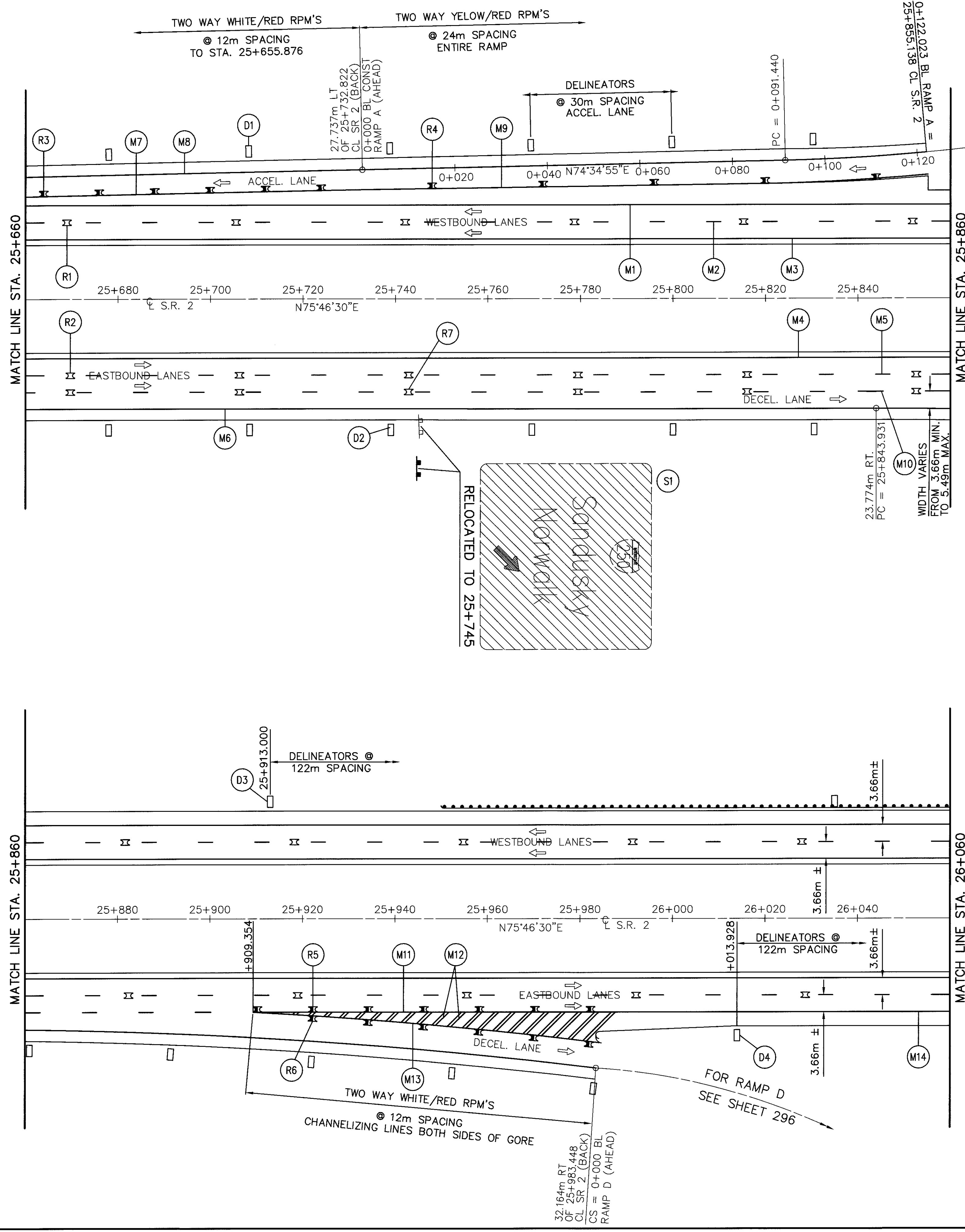
DELINEATORS @ 30m SPACING



TRAFFIC CONTROL STA. 25+080 TO STA. 25+660

ERI-2-12.558

279
432



LEGEND

- TYPE C DELINEATOR MARKER
- ⊘ ONE WAY REFLECTOR
- ⊠ TWO WAY REFLECTOR

SEE SHEET 267-268 FOR TRAFFIC CONTROL QUANTITIES

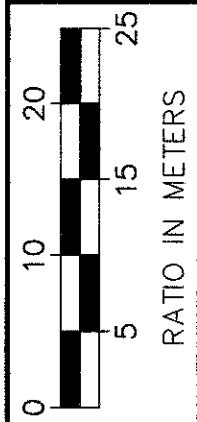
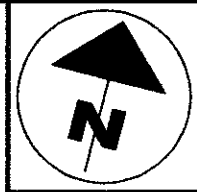
SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

CALCULATED BY: JTY DATE: 3-99 CHECKED BY: GAB DATE: 4-99

0 10 20 25
RATIO IN METERS

TRAFFIC CONTROL
STA. 25+660 TO STA. 26+060

ERI-2-12.558



CALCULATED BY: BMA
DATE: 8-97
CHECKED BY: BMA
DATE: 8-97

LEGEND

- TYPE C DELINEATOR MARKER
- ⊘ ONE WAY REFLECTOR
- ⊠ TWO WAY REFLECTOR

SIGN LEGEND

- ▨ EXISTING SIGN, TO BE REERECTED

SEE SHEET 268 FOR TRAFFIC CONTROL QUANTITIES

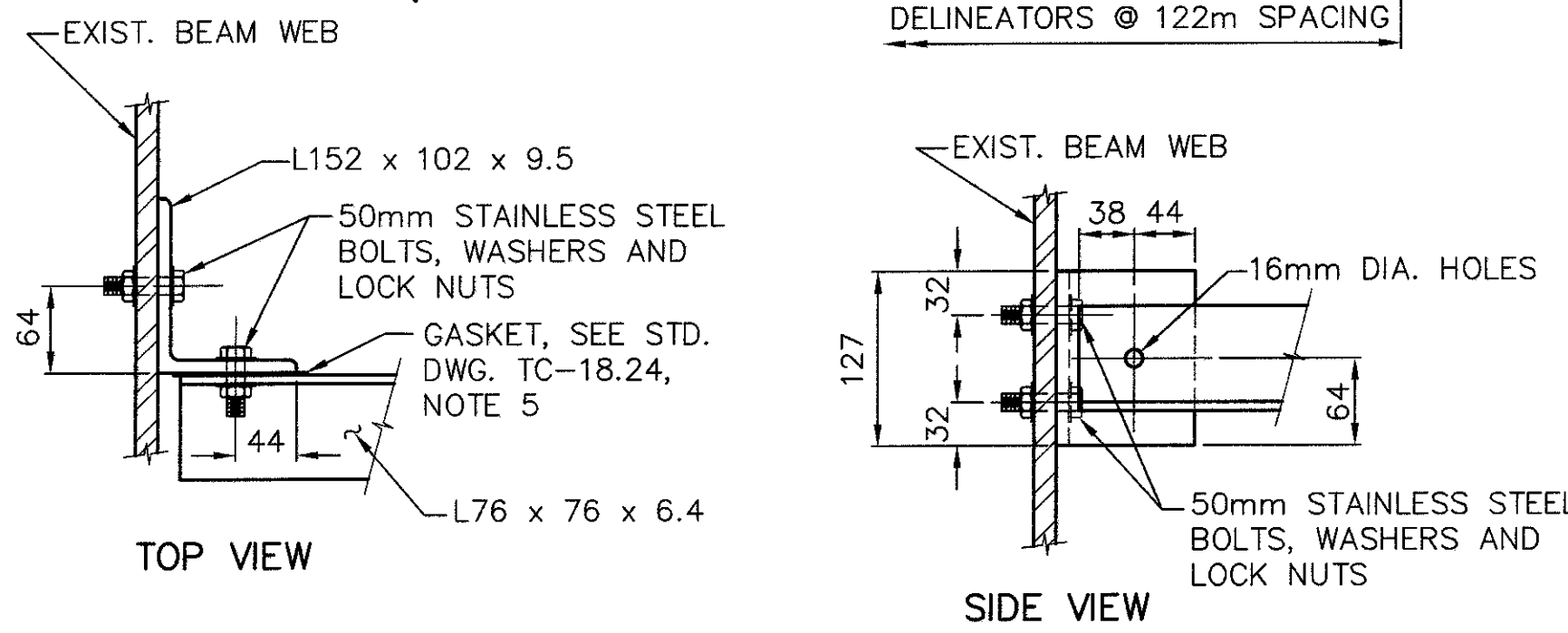
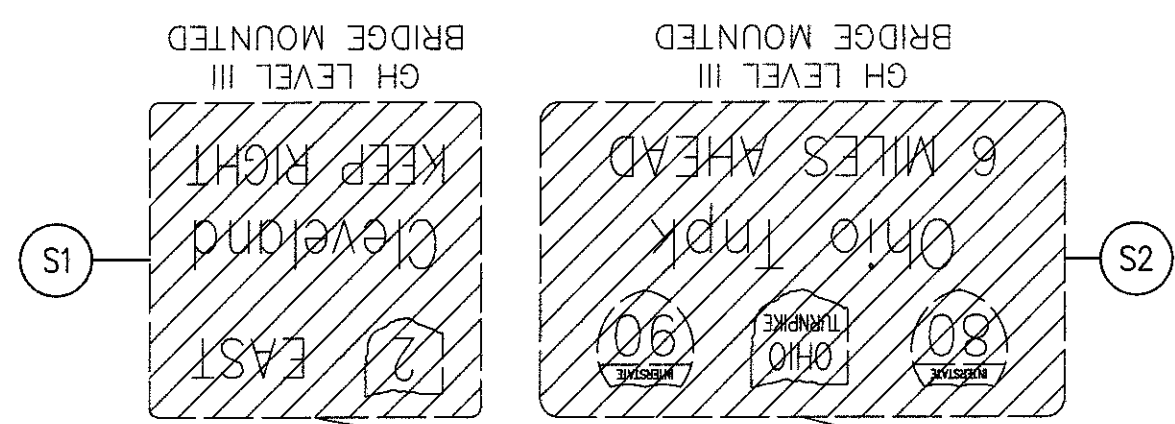
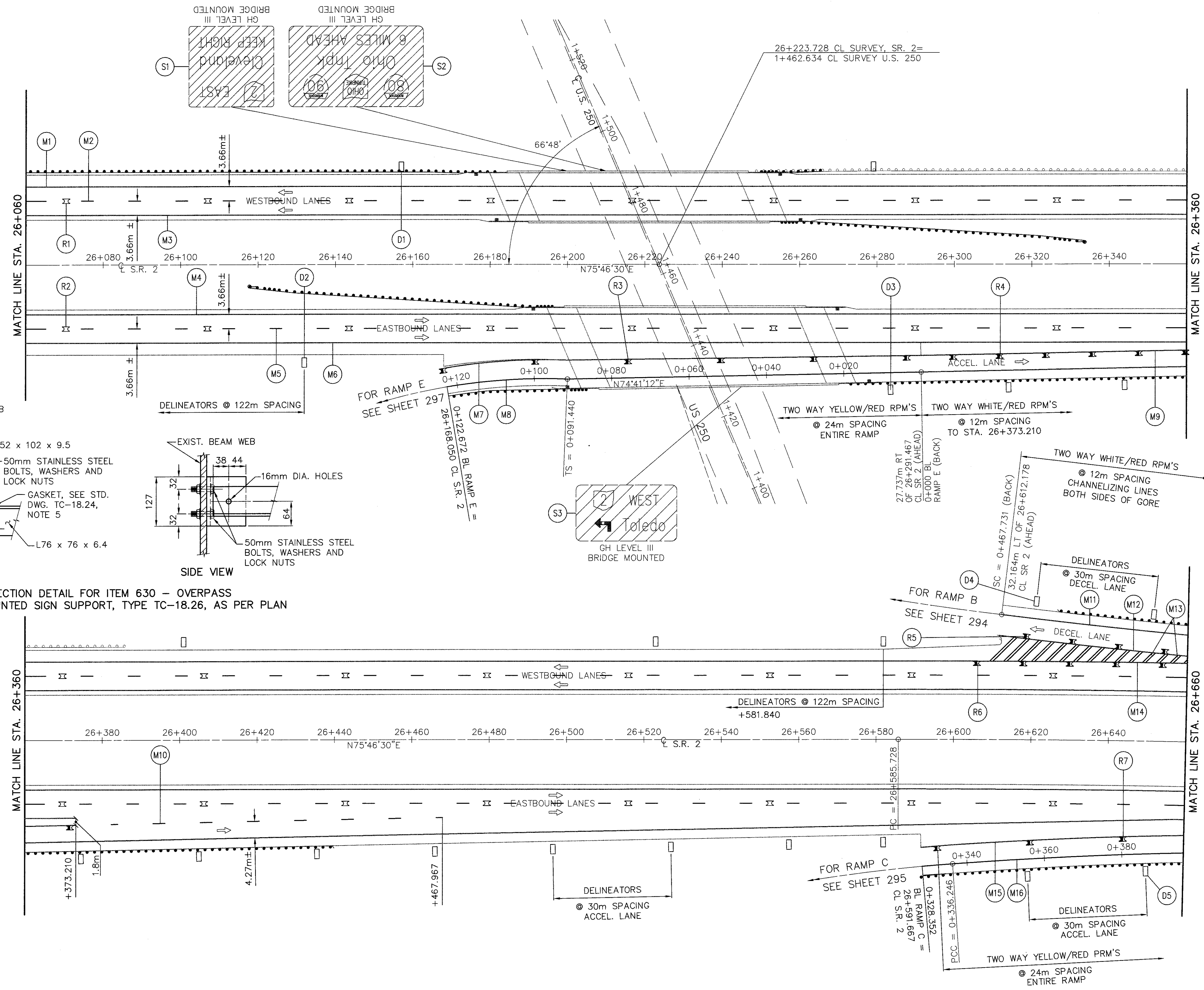
SEE SHEET 273 FOR SIGN QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

TRAFFIC CONTROL STA. 26+060 TO STA. 26+660

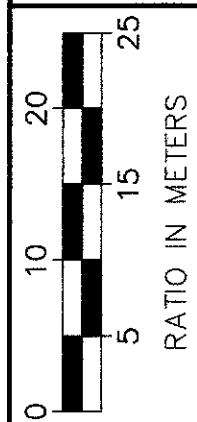
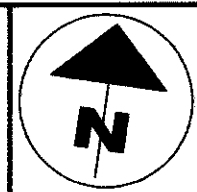
ERI-2-12-558

281
432



CONNECTION DETAIL FOR ITEM 630 - OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.26, AS PER PLAN

FILE NAME: I:\5033\005\TRAN\TRAFFIC\T7
KJB



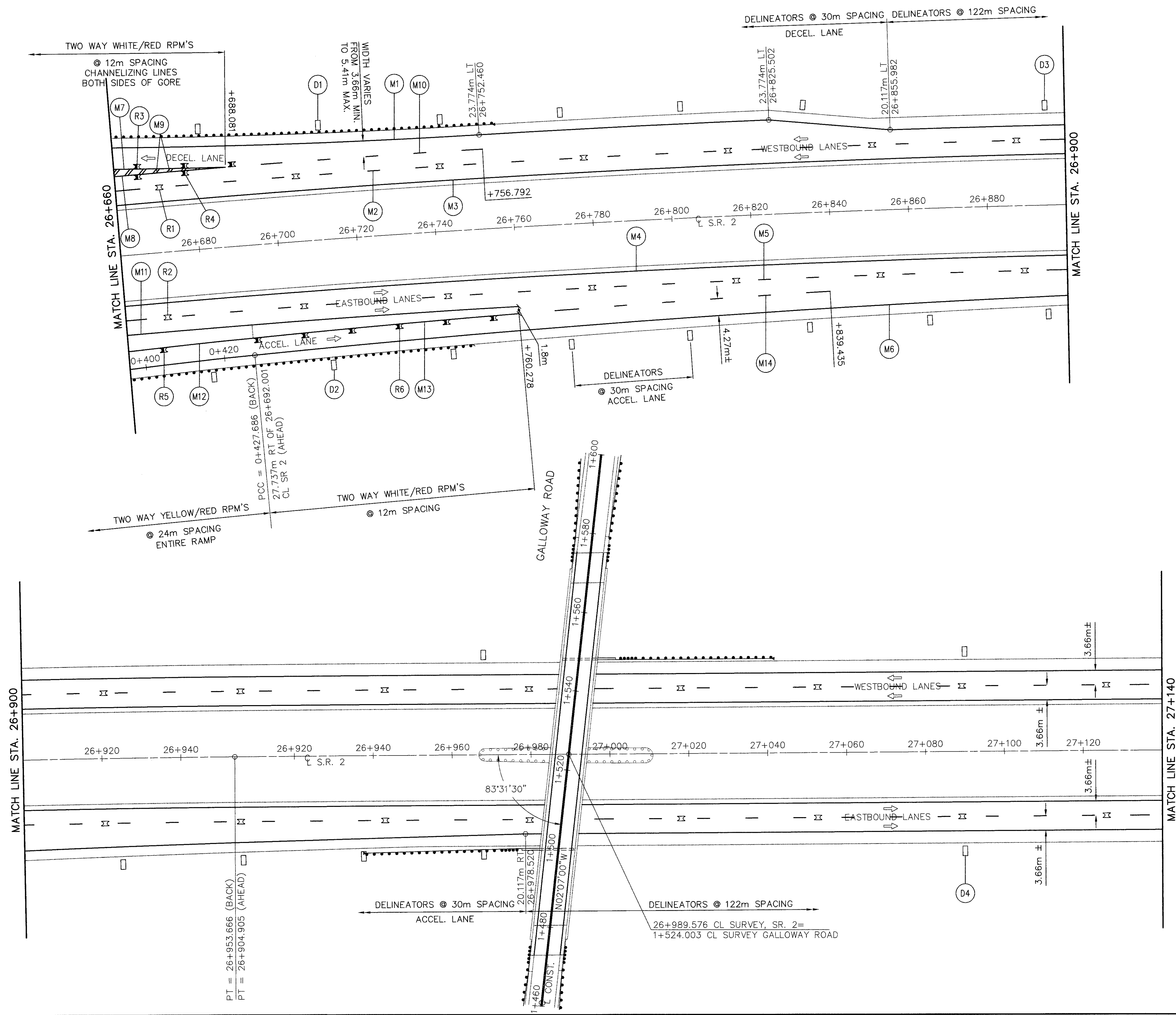
LEGEND

- TYPE C DELINEATOR MARKER
- ≡ ONE WAY REFLECTOR
- ≡≡ TWO WAY REFLECTOR

SEE SHEET 268 FOR TRAFFIC CONTROL QUANTITIES

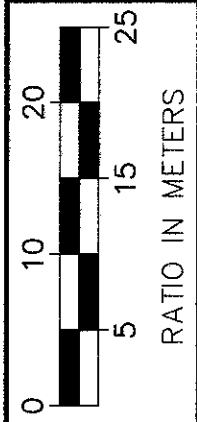
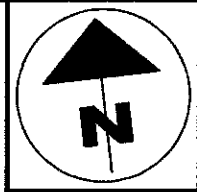
SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

CALCULATED BY: DAM
 DATE: 8-97
 CHECKED BY: PMA
 DATE: 8-97



TRAFFIC CONTROL
STA. 26+660 TO STA. 27+140

ERI-2-12.558



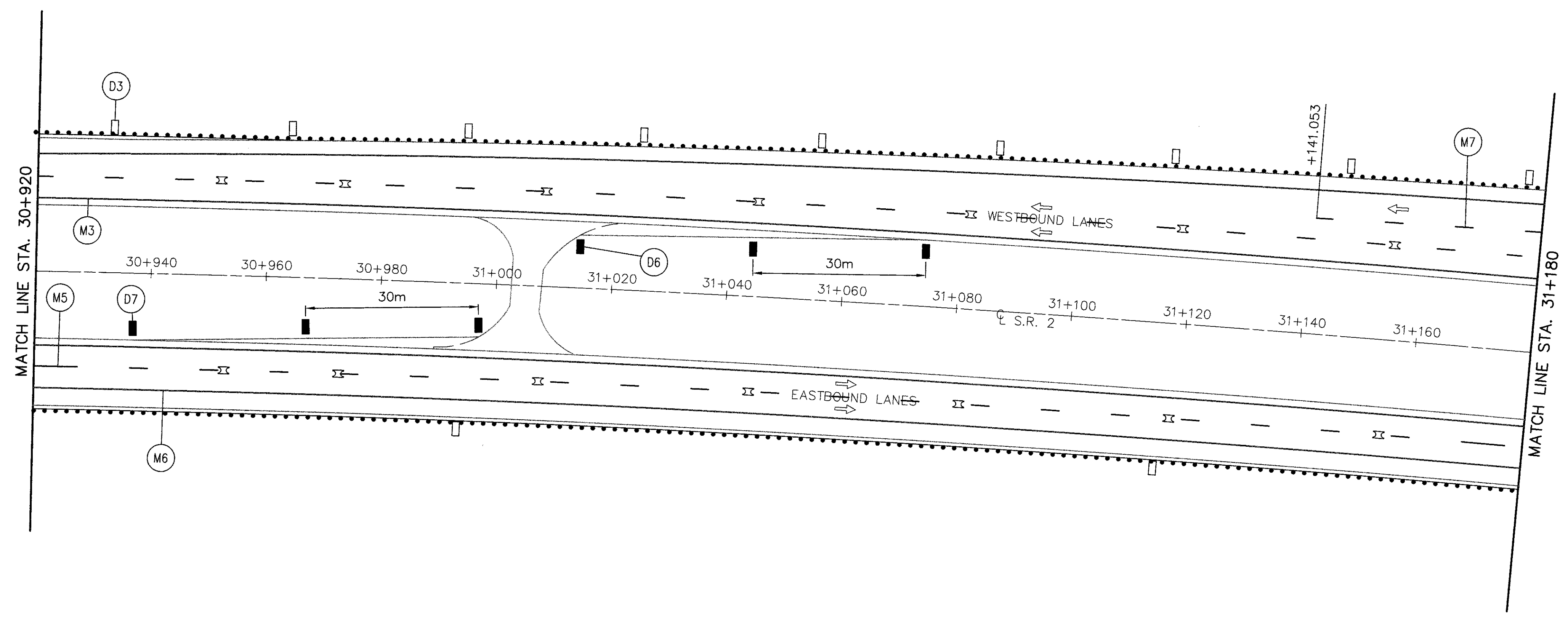
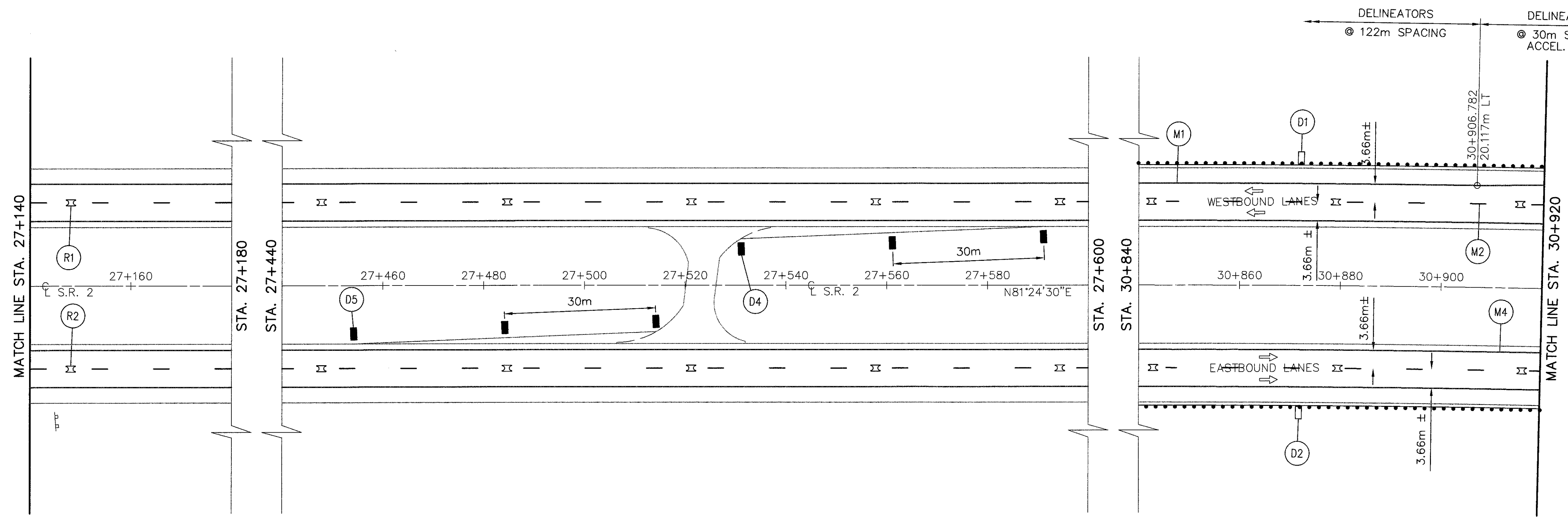
LEGEND

- TYPE C DELINEATOR MARKER
- TYPE D DELINEATOR MARKER
- ⌘ ONE WAY REFLECTOR

SEE SHEET 267 FOR TRAFFIC CONTROL QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

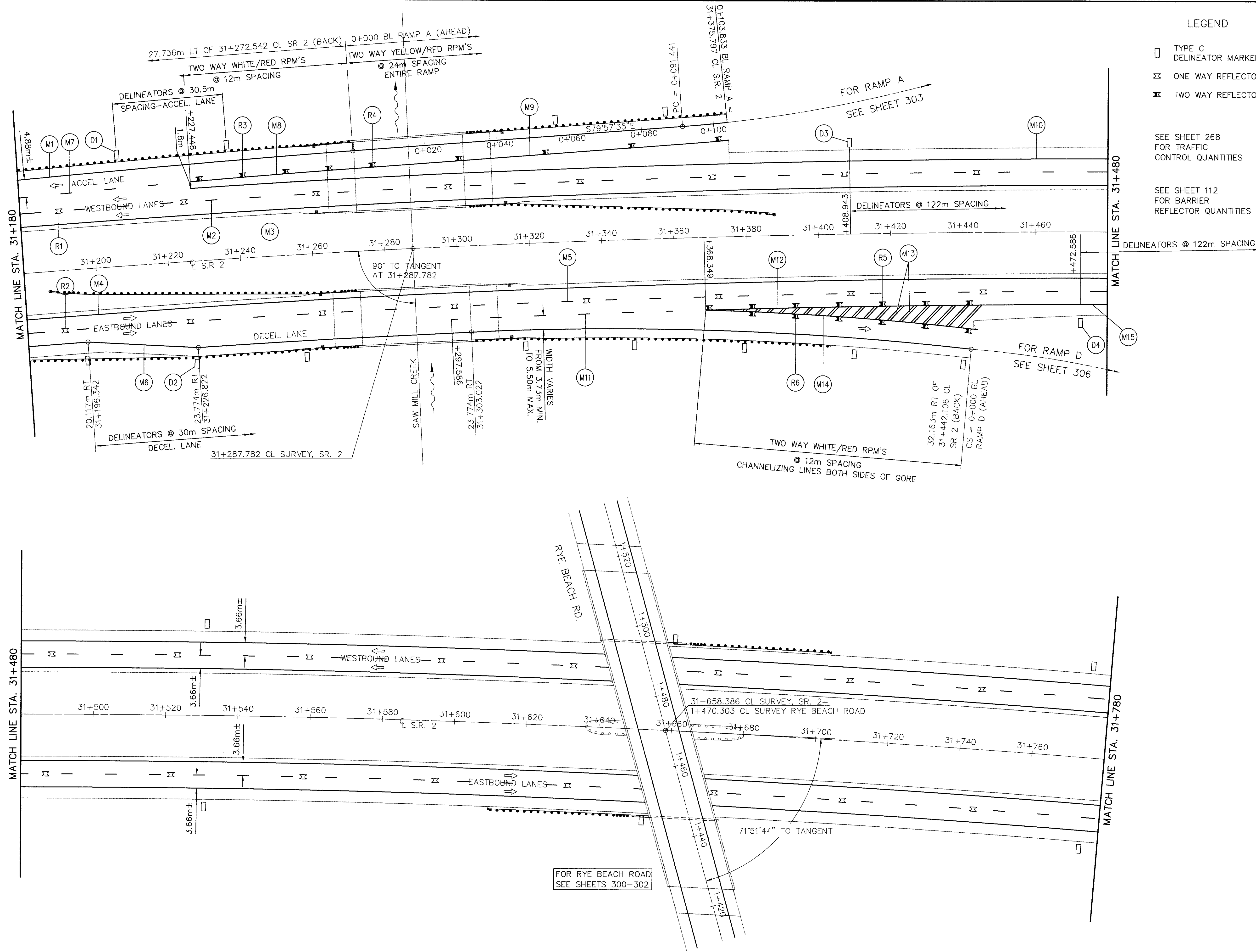
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DATE: 8-97
CHECKED BY: SMA
DATE: 8-97



TRAFFIC CONTROL STA. 27+140 TO STA. 31+180

ERI-2-12-558

283
432



LEGEND

- TYPE C DELINEATOR MARKER
- ▤ ONE WAY REFLECTOR
- ▤▤ TWO WAY REFLECTOR

SEE SHEET 268 FOR TRAFFIC CONTROL QUANTITIES

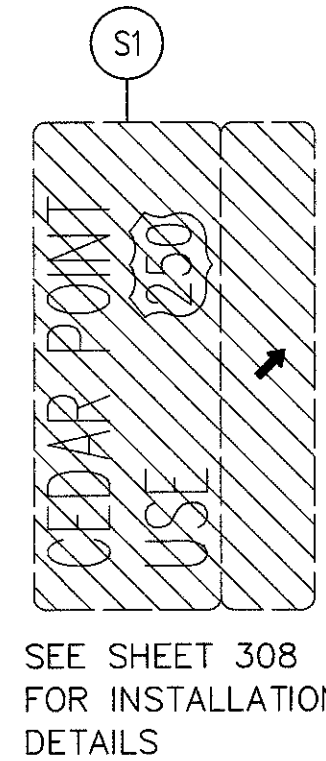
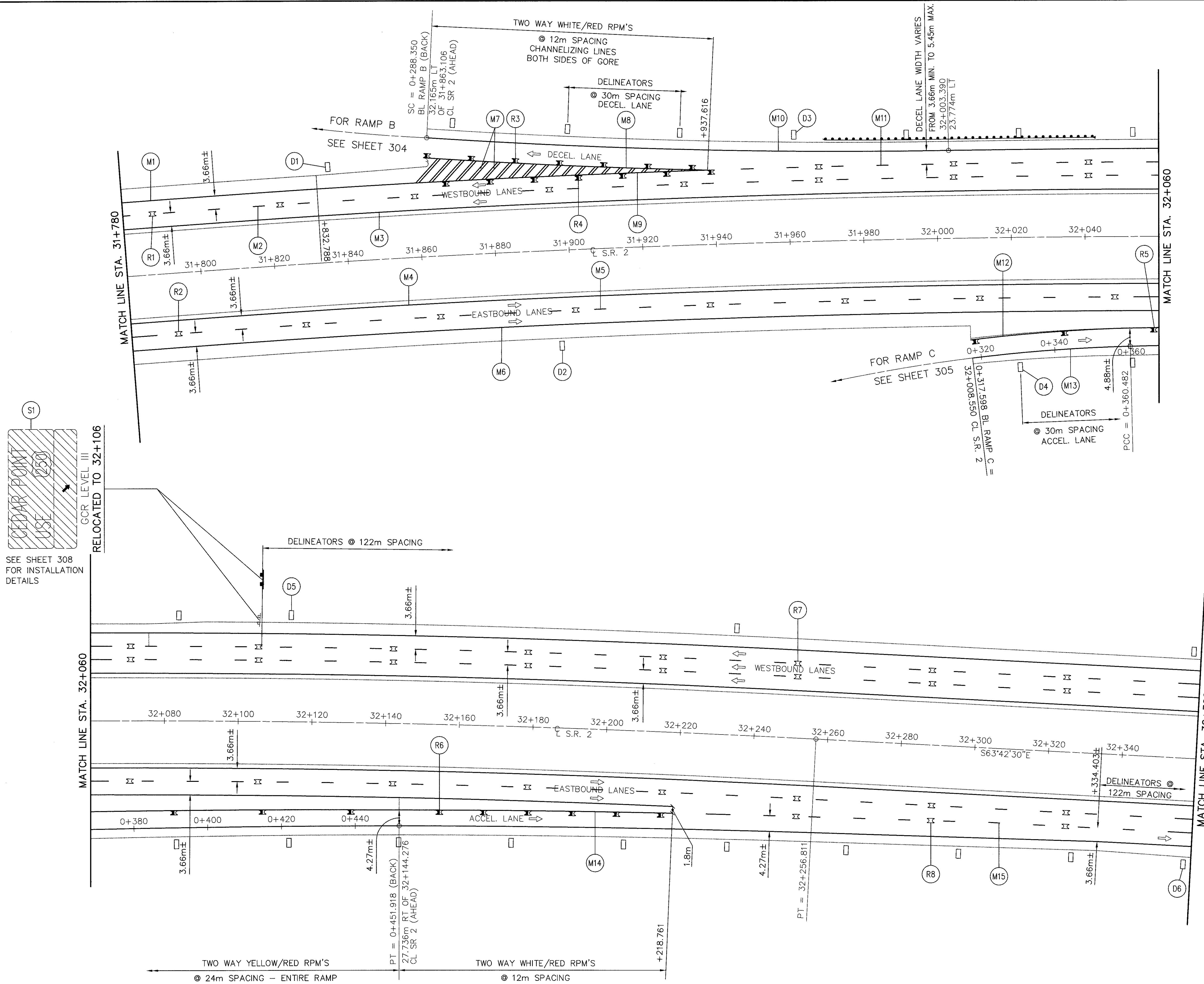
SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

CALCULATED BY: DMW
 DATE: 8-97
 CHECKED BY: PMA
 DATE: 8-97

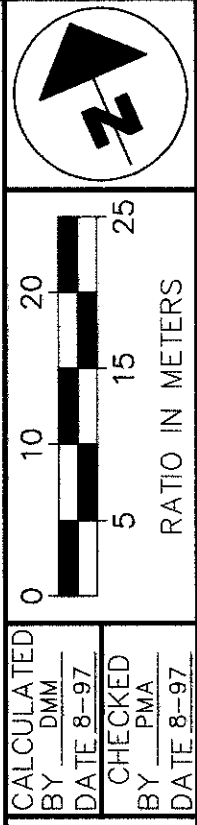
0 10 20
 5 15 25
 RATIO IN METERS

TRAFFIC CONTROL
 STA. 31+180 TO STA. 31+780

ERI-2-12.558



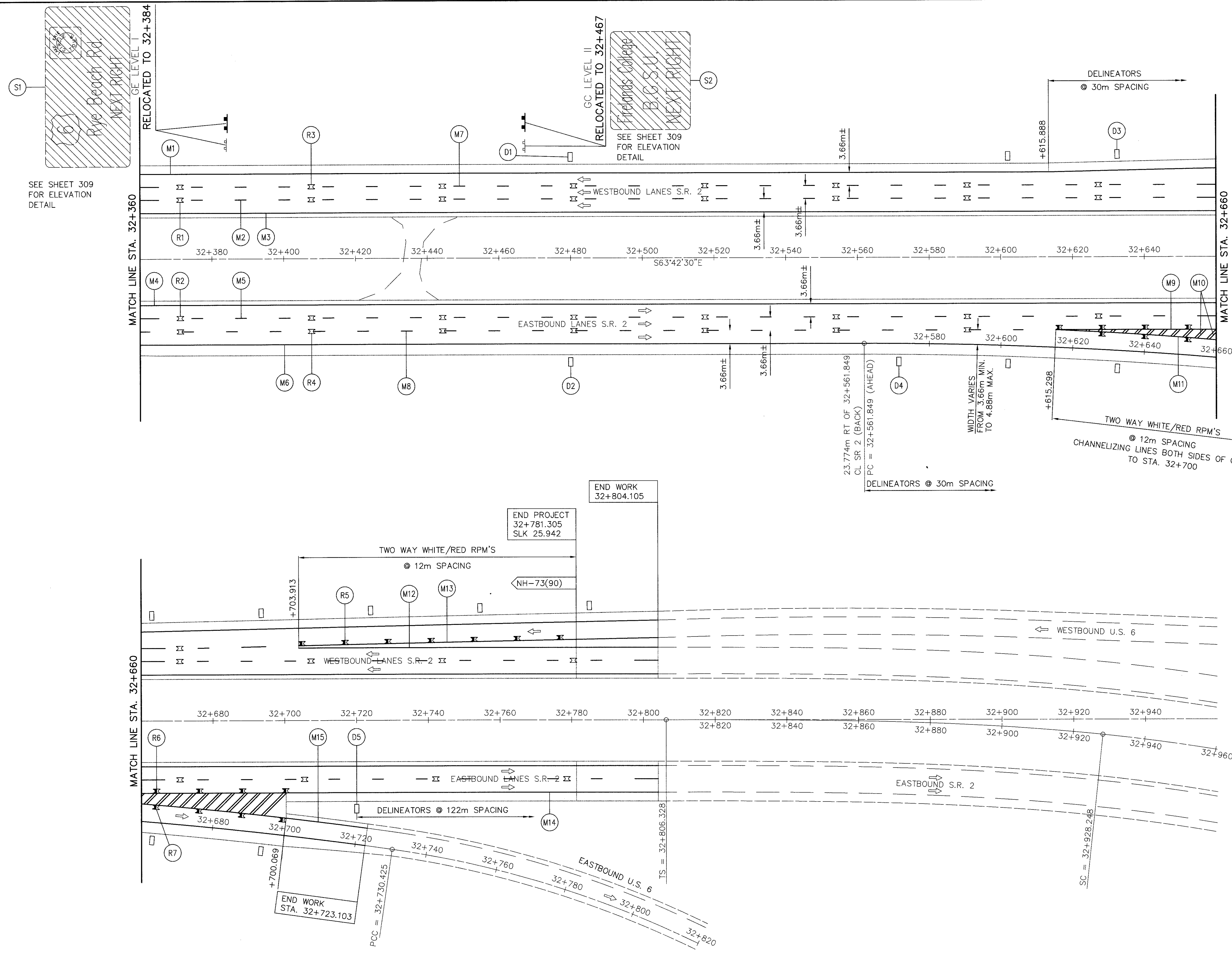
- LEGEND**
- TYPE C DELINEATOR MARKER
 - ⊘ ONE WAY REFLECTOR
 - ⊘ TWO WAY REFLECTOR
- SIGN LEGEND**
- ▨ EXISTING SIGN, TO BE RELOCATED
- SEE SHEET 268-269 FOR TRAFFIC CONTROL QUANTITIES
- SEE SHEET 273 FOR SIGN QUANTITIES
- SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES



CALCULATED BY: DMN
DATE: 8-97
CHECKED BY: PMA
DATE: 8-97

**TRAFFIC CONTROL
STA. 31+780 TO STA. 32+360**

ERI-2-12.558



- LEGEND**
- TYPE C DELINEATOR MARKER
 - ⊘ ONE WAY REFLECTOR
 - ⊠ TWO WAY REFLECTOR
- SIGN LEGEND**
- ▨ EXISTING SIGN, TO BE RELOCATED

SEE SHEET 269 FOR TRAFFIC CONTROL QUANTITIES

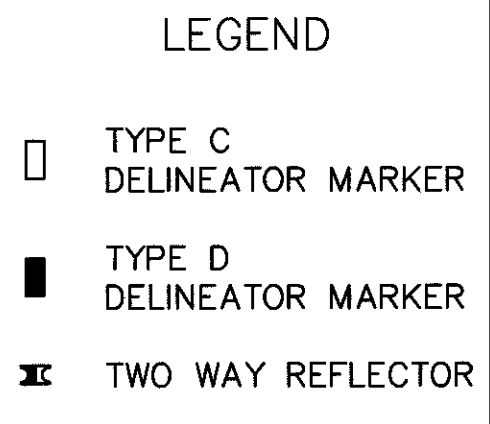
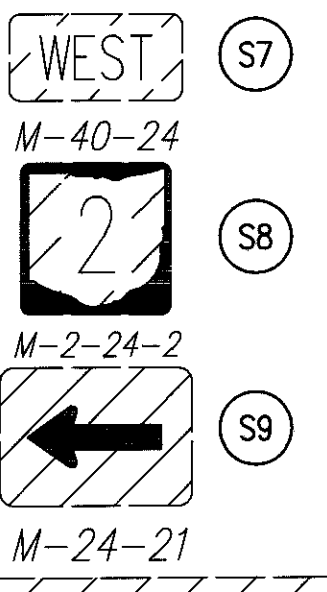
SEE SHEET 273 FOR SIGN QUANTITIES

CALCULATED BY: DM
 DATE: 8-97
 CHECKED BY: PMA
 DATE: 8-97

0 10 20
 0 5 15 25
 RATIO IN METERS

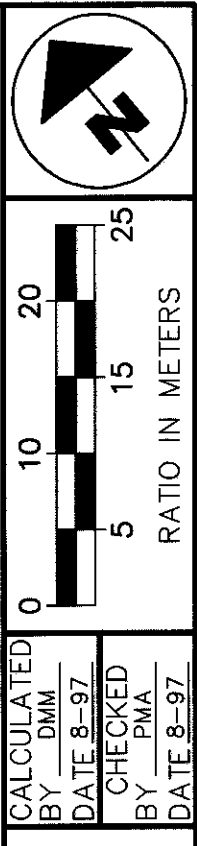
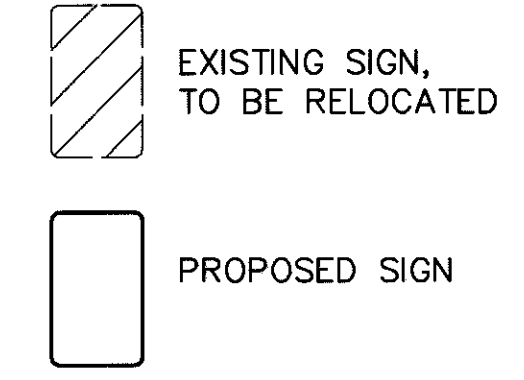
TRAFFIC CONTROL
STA. 32+360 TO STA. 32+960

ERI-2-12.558



SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES

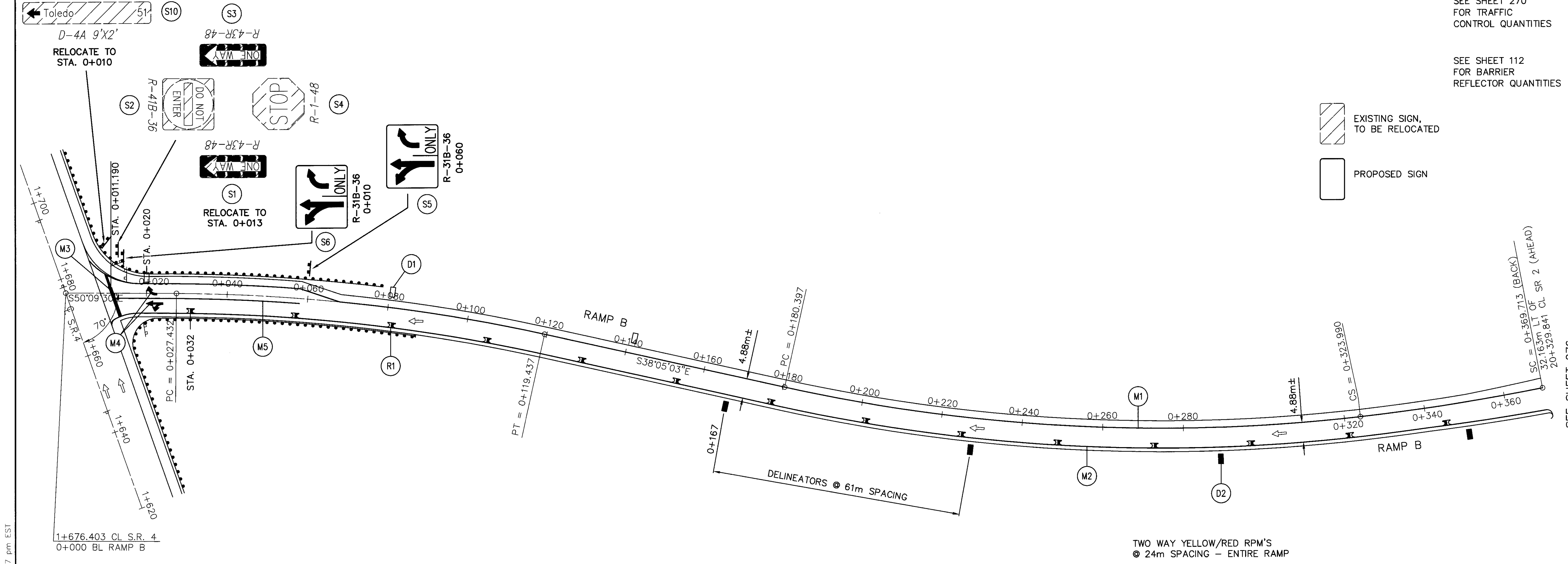
SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES



STATE ROUTE 4 INTERCHANGE RAMP B
 SEE SHEET 276

ERI-2-12.558

289
432



J.E.F. FILE NAME: I:\5033\006\TRAN\TRAFFIC\T15.DWG 3-29-99 2:10:57 pm EST

LEGEND

- TYPE D DELINEATOR MARKER
- ⊠ TWO WAY REFLECTOR

SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

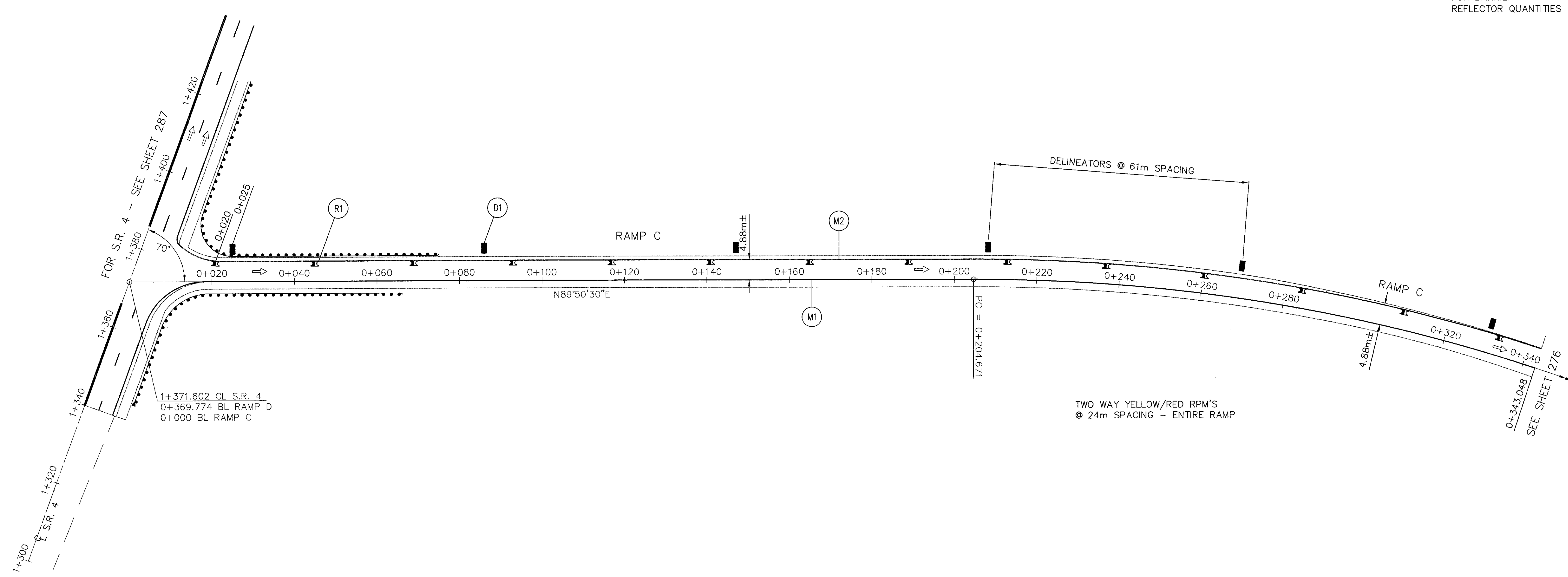
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 CHECKED BY: PMA DATE: 8-97

0 10 20 25
 RATIO IN METERS

TRAFFIC CONTROL STATE ROUTE 4 INTERCHANGE RAMP C

ERI-2-12-558

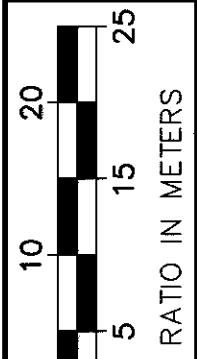
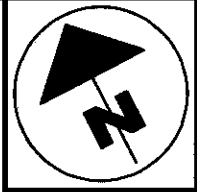
290
432



1+371.602 CL S.R. 4
 0+369.774 BL RAMP D
 0+000 BL RAMP C

TWO WAY YELLOW/RED RPM'S
 @ 24m SPACING - ENTIRE RAMP

FILE NAME: I:\5033\005\TRAN\TRAFFIC\T16



CALCULATED BY: DWA
DATE: 8-97
CHECKED BY: PMA
DATE: 8-97

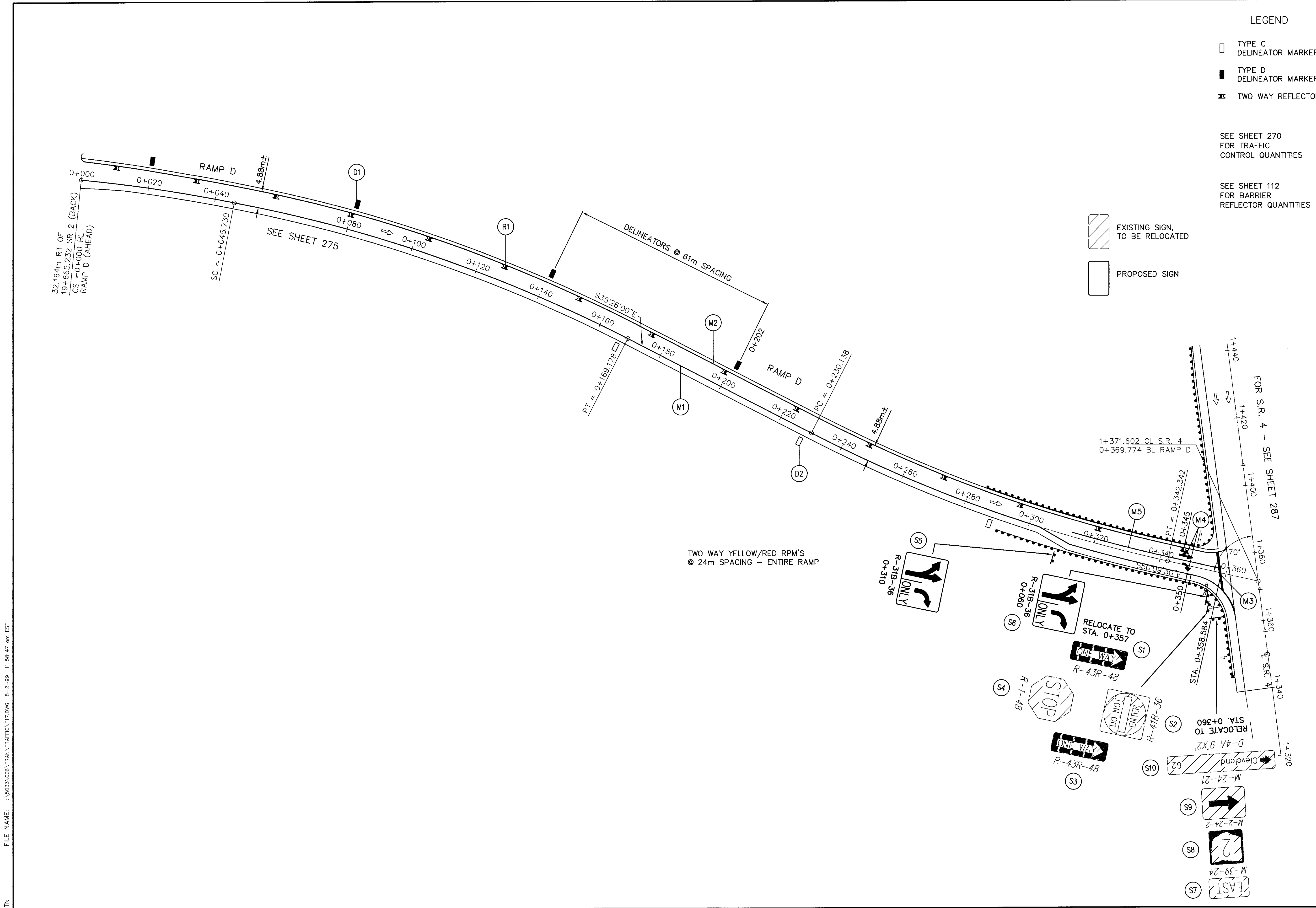
LEGEND

- TYPE C DELINEATOR MARKER
- TYPE D DELINEATOR MARKER
- ⊕ TWO WAY REFLECTOR

SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

- EXISTING SIGN, TO BE RELOCATED
- PROPOSED SIGN



TRAFFIC CONTROL STATE ROUTE 4 INTERCHANGE RAMP D

ERI-2-12.558

291
432

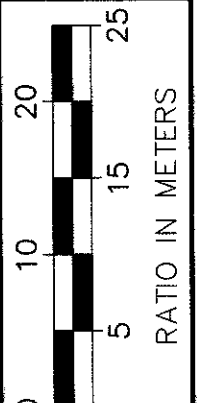
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LEGEND

- TYPE D DELINEATOR MARKER
- ⊠ TWO WAY REFLECTOR

SEE SHEET 270
FOR TRAFFIC
CONTROL QUANTITIES



CALCULATED	BY	DATE
DAM	8-97	
CHECKED	BY	DATE
PMA	8-97	

TRAFFIC CONTROL INTERCHANGE RAMP A
U.S. 250 INTERCHANGE RAMP A

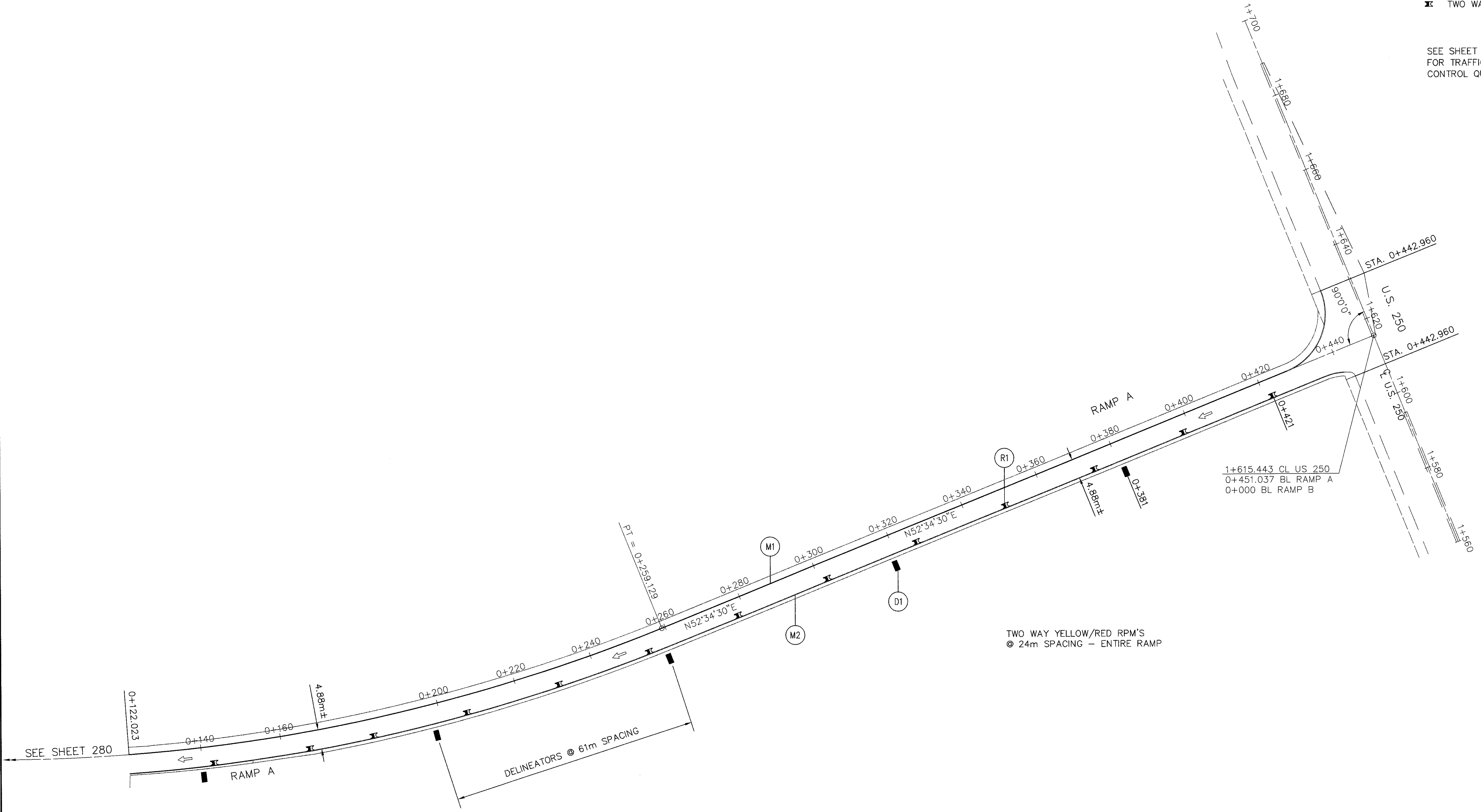
ERI-2-12.558

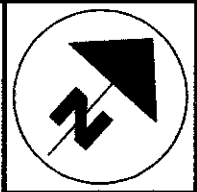
293
432

FILE NAME: I:\5033\005\TRAN\TRAFFIC\T18

KUB

SEE SHEET 280



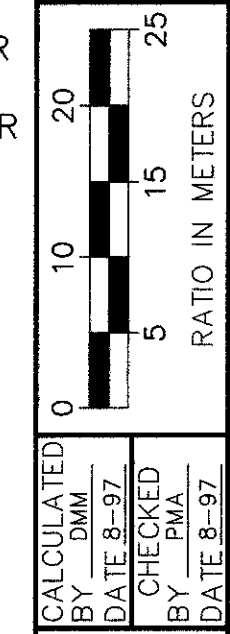


LEGEND

- TYPE D DELINEATOR MARKER
- ▬ TWO WAY REFLECTOR

SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES

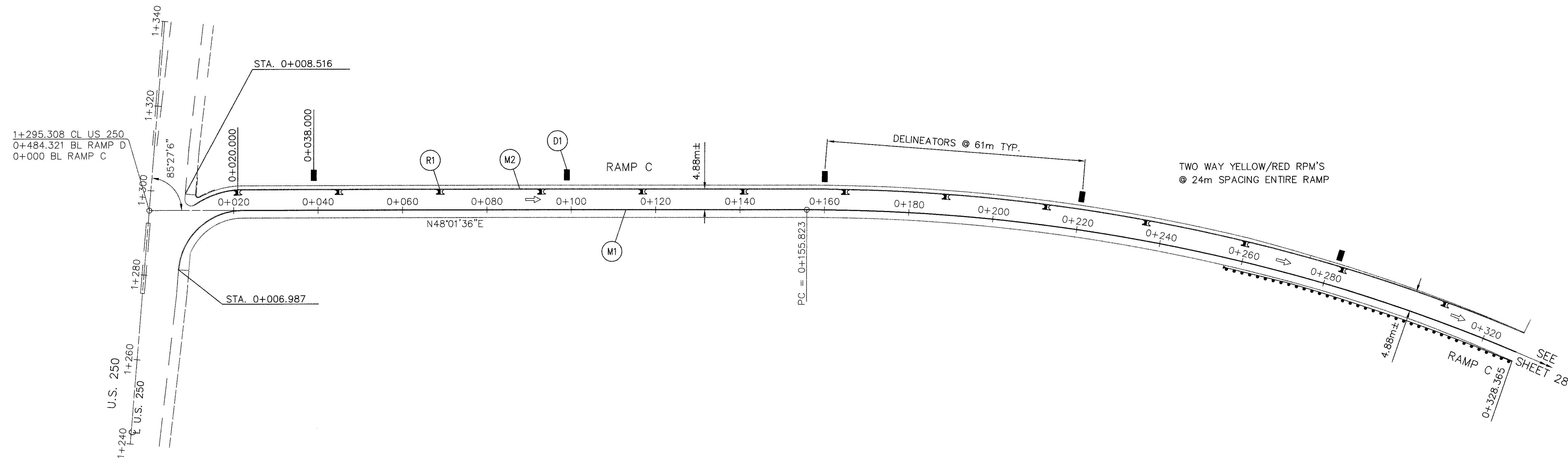
SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES



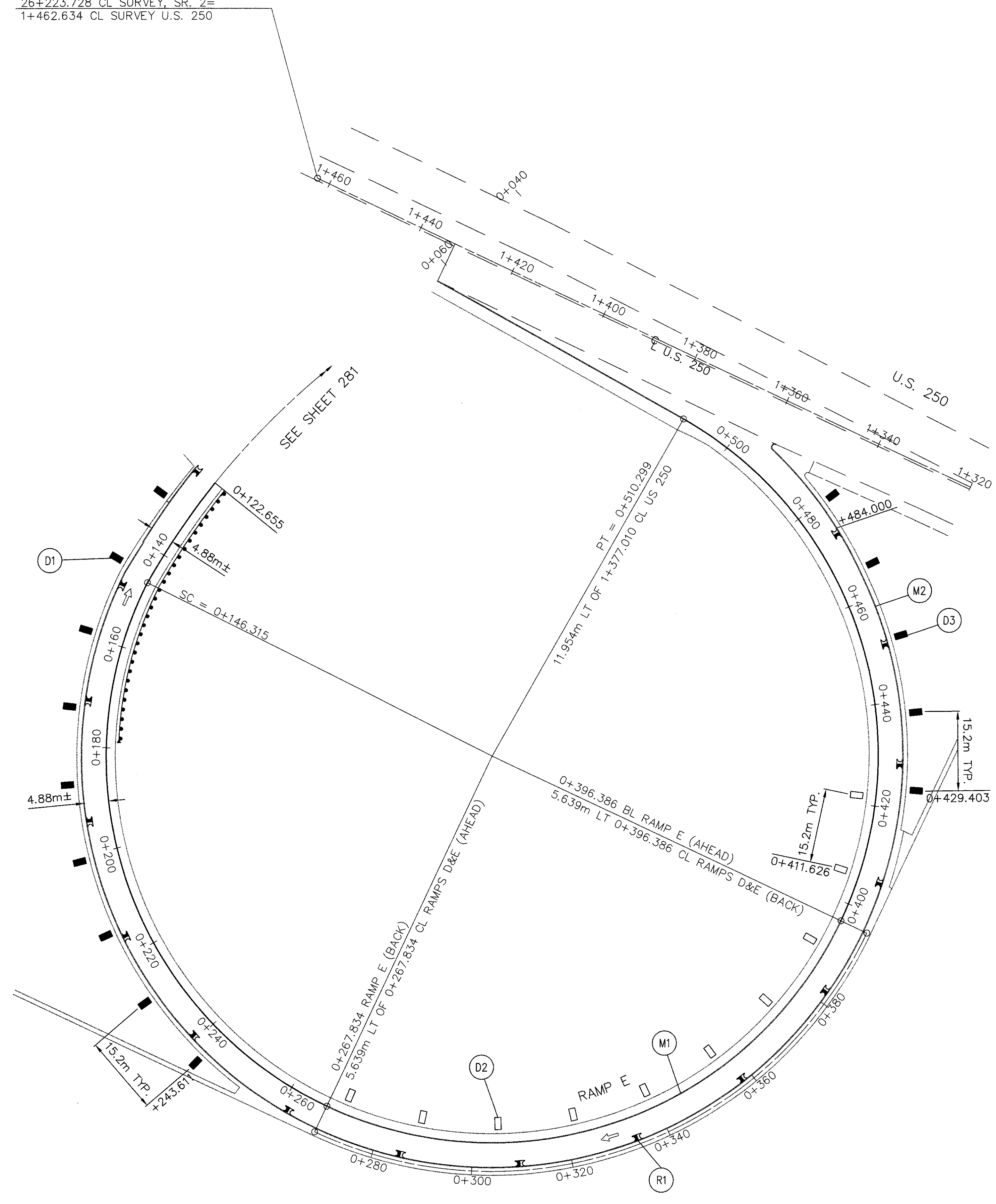
TRAFFIC CONTROL U.S. 250 INTERCHANGE RAMP C

ERI-2-12-558

295
432



26+223.728 CL SURVEY, SR. 2=
 1+462.634 CL SURVEY U.S. 250



TWO WAY YELLOW/RED RPM'S
 @ 24m SPACING ENTIRE RAMP

SEE SHEET 281

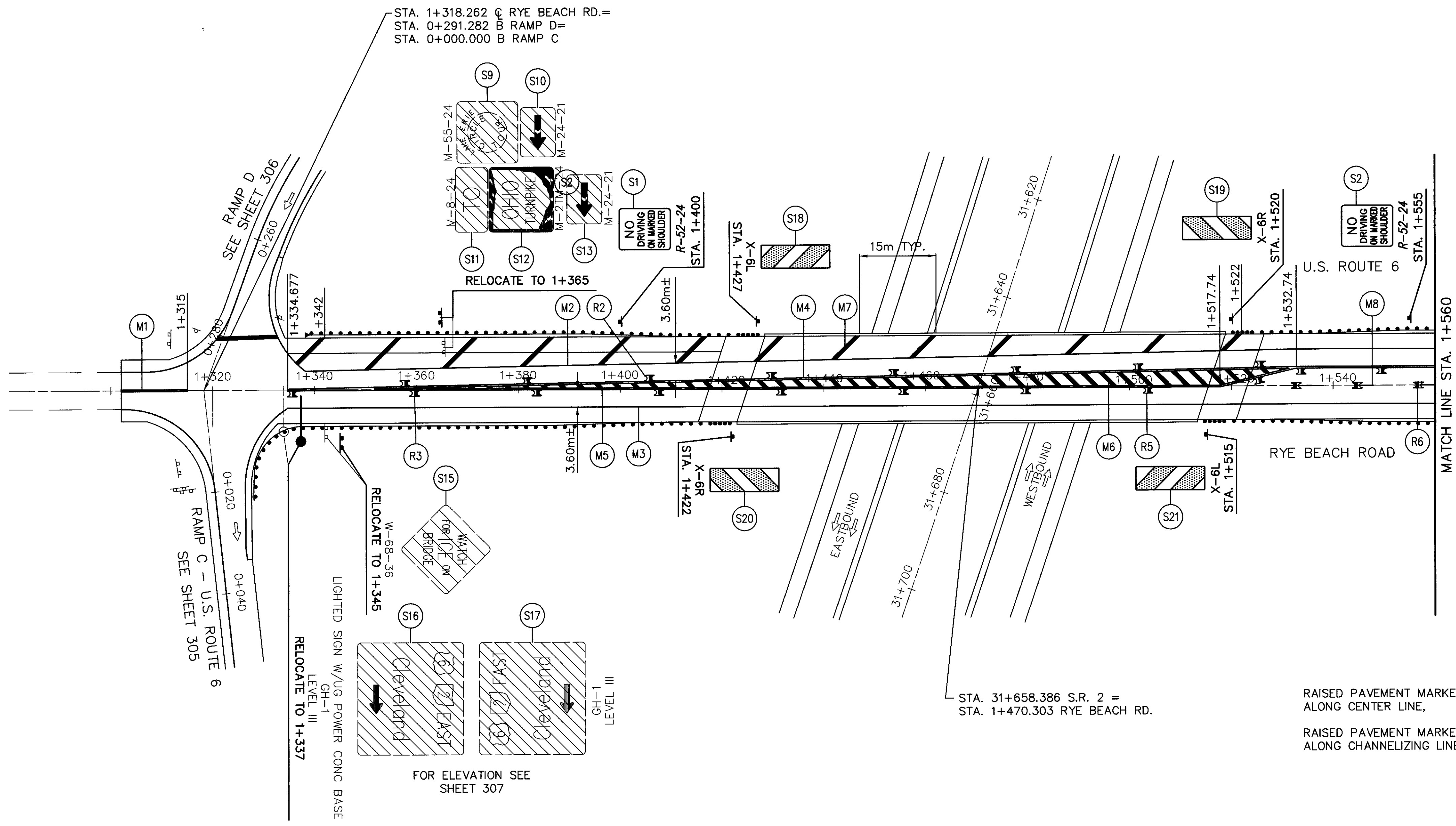
- LEGEND
- TYPE C DELINEATOR MARKER
 - TYPE D DELINEATOR MARKER
 - ⊠ TWO WAY REFLECTOR
- SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES
- SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

CALCULATED BY: DWA DATE: 8-97
 CHECKED BY: PMA DATE: 8-97

0 10 20 25
 RATIO IN METERS

**TRAFFIC CONTROL
 U.S. 250 INTERCHANGE RAMP E**

ERI-2-12-558



LEGEND

- ☒ ONE WAY REFLECTOR
- ☒ TWO WAY REFLECTOR

SIGN LEGEND

- ▨ EXISTING SIGN, TO BE RELOCATED
- PROPOSED SIGN

SEE SHEET 272 FOR TRAFFIC CONTROL QUANTITIES

SEE SHEET 273 FOR SIGN QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

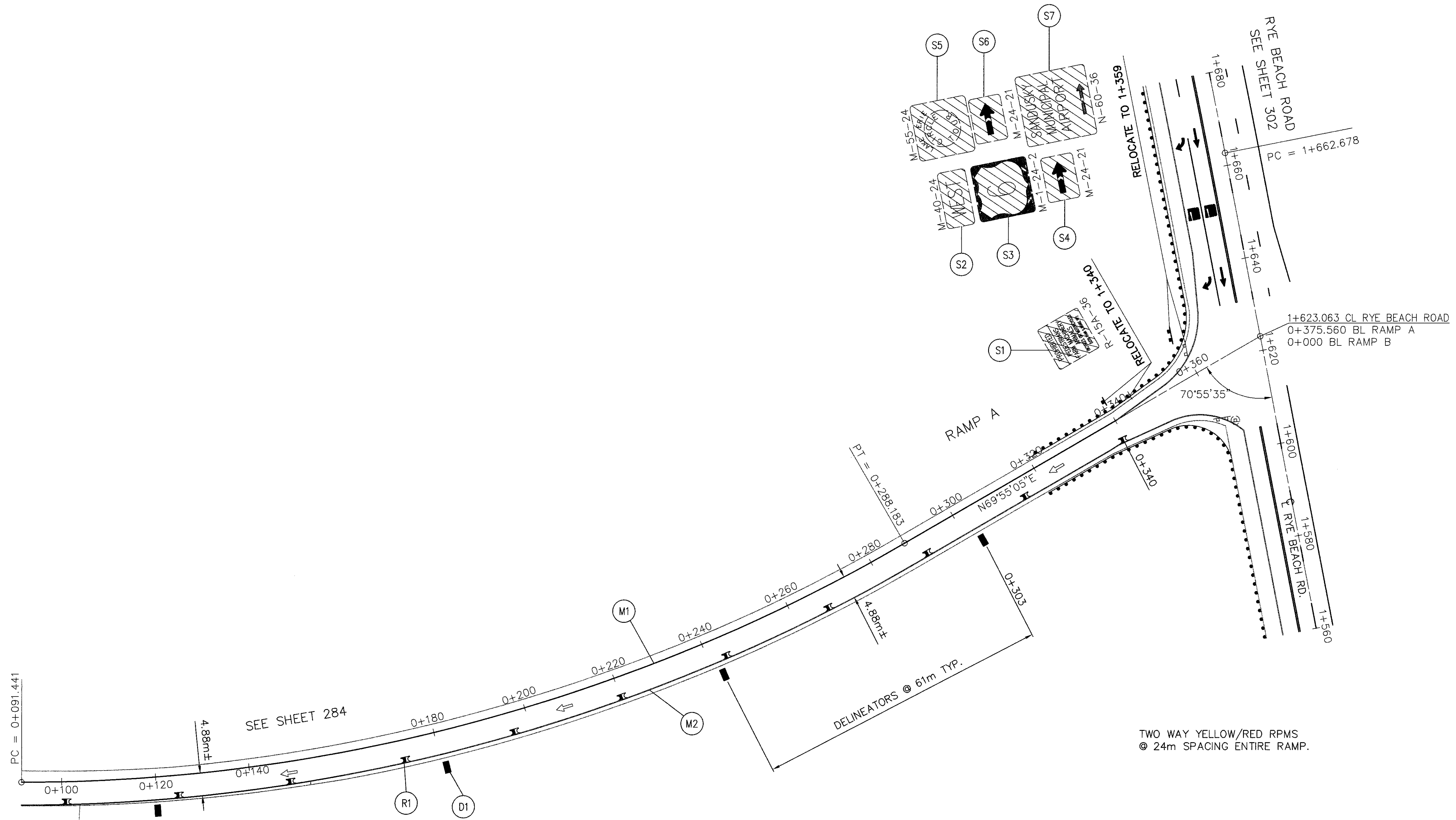
LEGEND

CALCULATED BY: DMH
 DATE: 8-97
 CHECKED BY: PMA
 DATE: 8-97

0 5 10 15 20 25
 RATIO IN METERS

TRAFFIC CONTROL RYE BEACH ROAD

ERI-2-12.558



TWO WAY YELLOW/RED RPMS
 @ 24m SPACING ENTIRE RAMP.

LEGEND

- TYPE D DELINEATOR MARKER
- ⊠ TWO WAY REFLECTOR

SIGN LEGEND

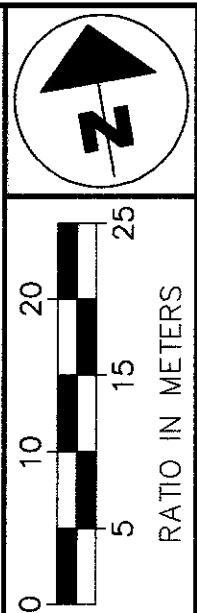
- ▨ EXISTING SIGN, TO BE RELOCATED

SEE SHEET 270
 FOR TRAFFIC
 CONTROL QUANTITIES

SEE SHEET 274
 FOR SIGN QUANTITIES

SEE SHEET 112
 FOR BARRIER
 REFLECTOR QUANTITIES

CALCULATED	BY - DMAL	DATE 8-97
CHECKED	BY - PMA	DATE 8-97

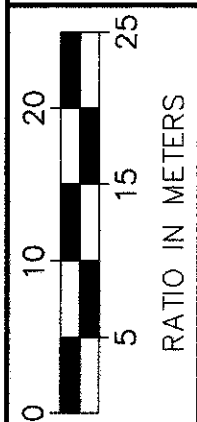
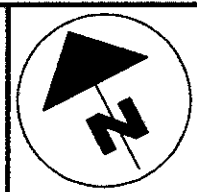


TRAFFIC CONTROL

RYE BEACH RD. INTERCHANGE RAMP A

ERI-2-12-558

303
432



CALCULATED BY: DMH DATE: 8-97
 CHECKED BY: PMA DATE: 8-97

TRAFFIC CONTROL
RYE BEACH RD. INTERCHANGE RAMP B

ERI-2-12.558

304
432

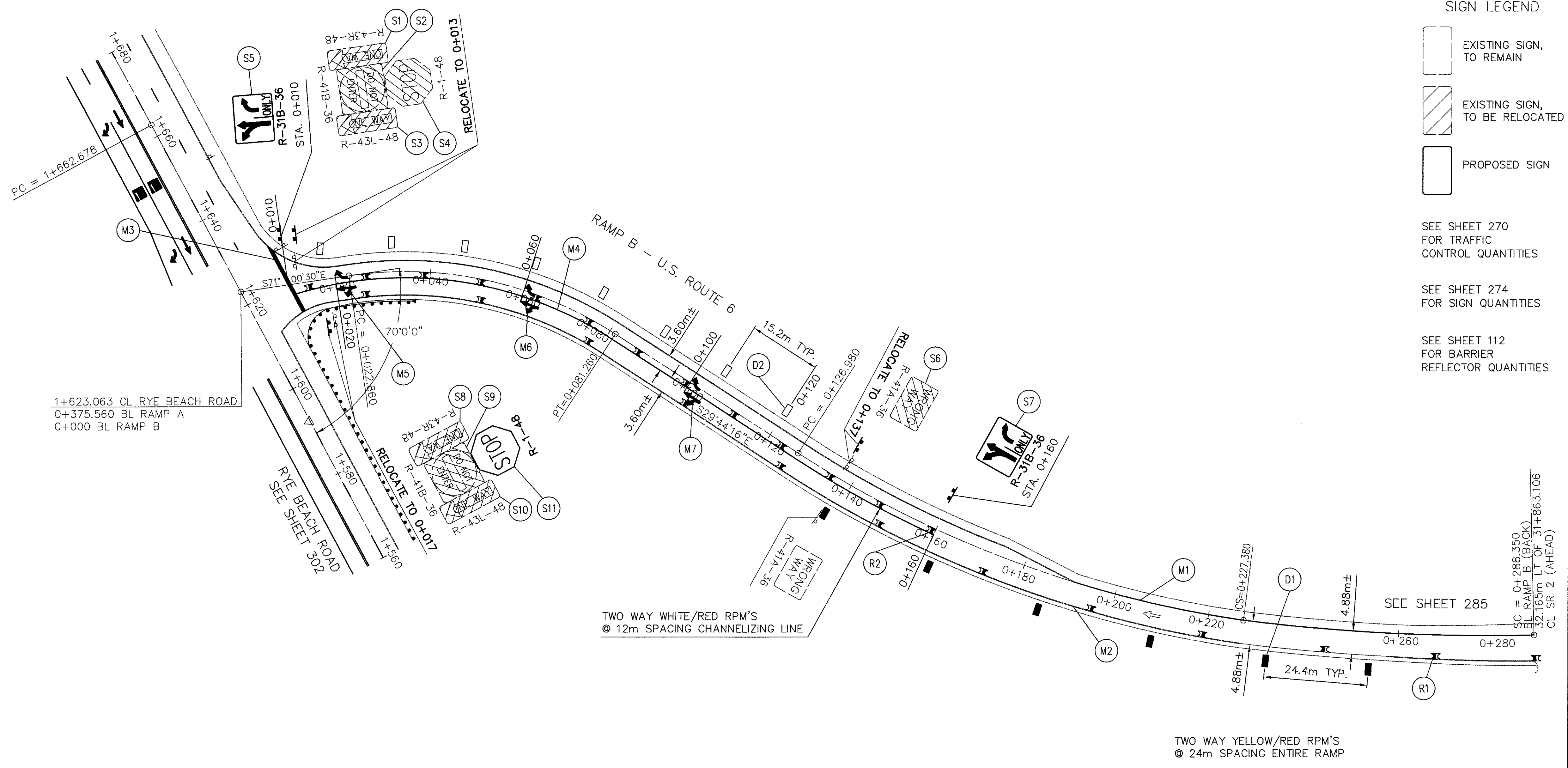
- LEGEND**
- TYPE C DELINEATOR MARKER
 - TYPE D DELINEATOR MARKER
 - ⊠ TWO WAY REFLECTOR

- SIGN LEGEND**
- EXISTING SIGN, TO REMAIN
 - ▨ EXISTING SIGN, TO BE RELOCATED
 - PROPOSED SIGN

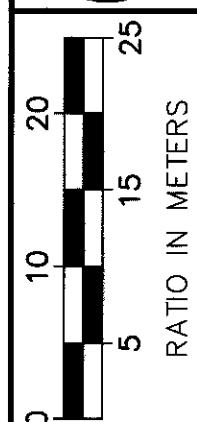
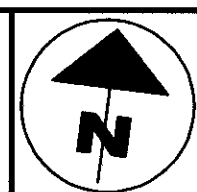
SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES

SEE SHEET 274 FOR SIGN QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES



FILE NAME: I:\5033\005\TRAN\TRAFFIC\T27



CALCULATED BY: DMW
DATE: 8-97
CHECKED BY: PMA
DATE: 8-97

**TRAFFIC CONTROL
RYE BEACH RD. INTERCHANGE RAMP C**

ERI-2-12.558

305
432

LEGEND

- TYPE D DELINEATOR MARKER
- ⌘ TWO WAY REFLECTOR

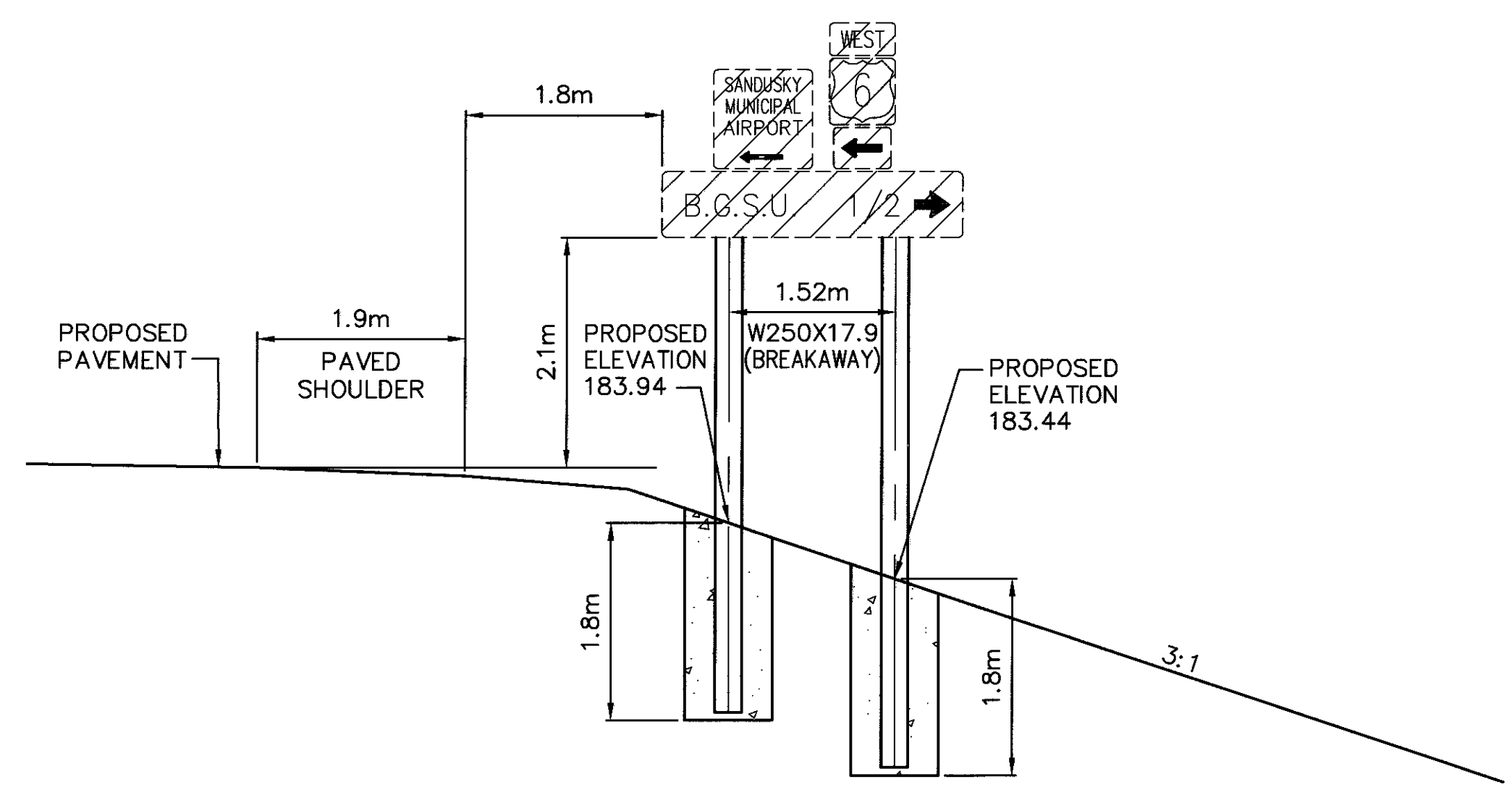
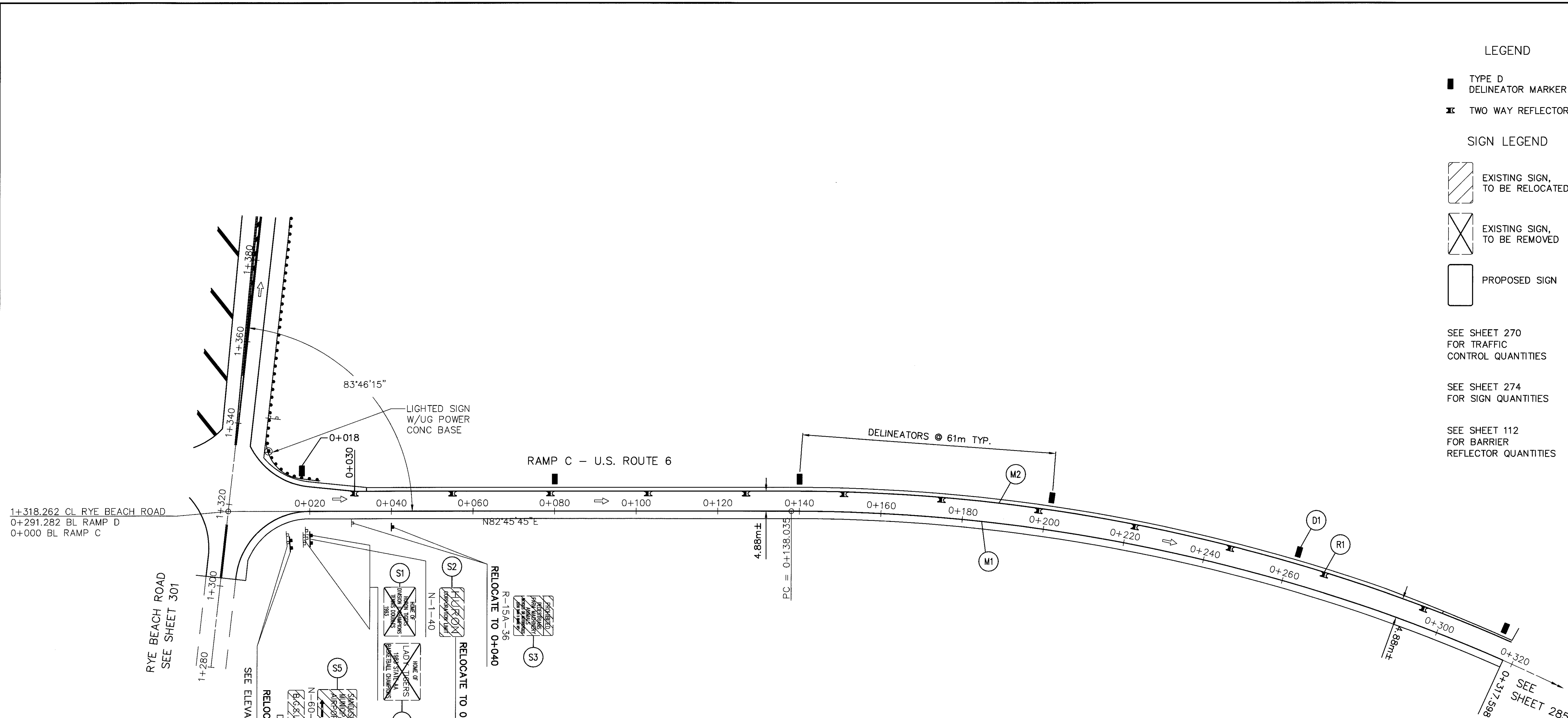
SIGN LEGEND

- EXISTING SIGN, TO BE RELOCATED
- EXISTING SIGN, TO BE REMOVED
- PROPOSED SIGN

SEE SHEET 270
FOR TRAFFIC
CONTROL QUANTITIES

SEE SHEET 274
FOR SIGN QUANTITIES

SEE SHEET 112
FOR BARRIER
REFLECTOR QUANTITIES



STA. 0+015
LOOKING IN DIRECTION OF TRAFFIC
EASTBOUND
ELEVATION DETAIL

TWO WAY YELLOW/RED RPMS @
24m SPACING ENTIRE RAMP

1+318.262 CL RYE BEACH ROAD
0+291.282 BL RAMP D
0+000 BL RAMP C

RYE BEACH ROAD
SEE SHEET 301

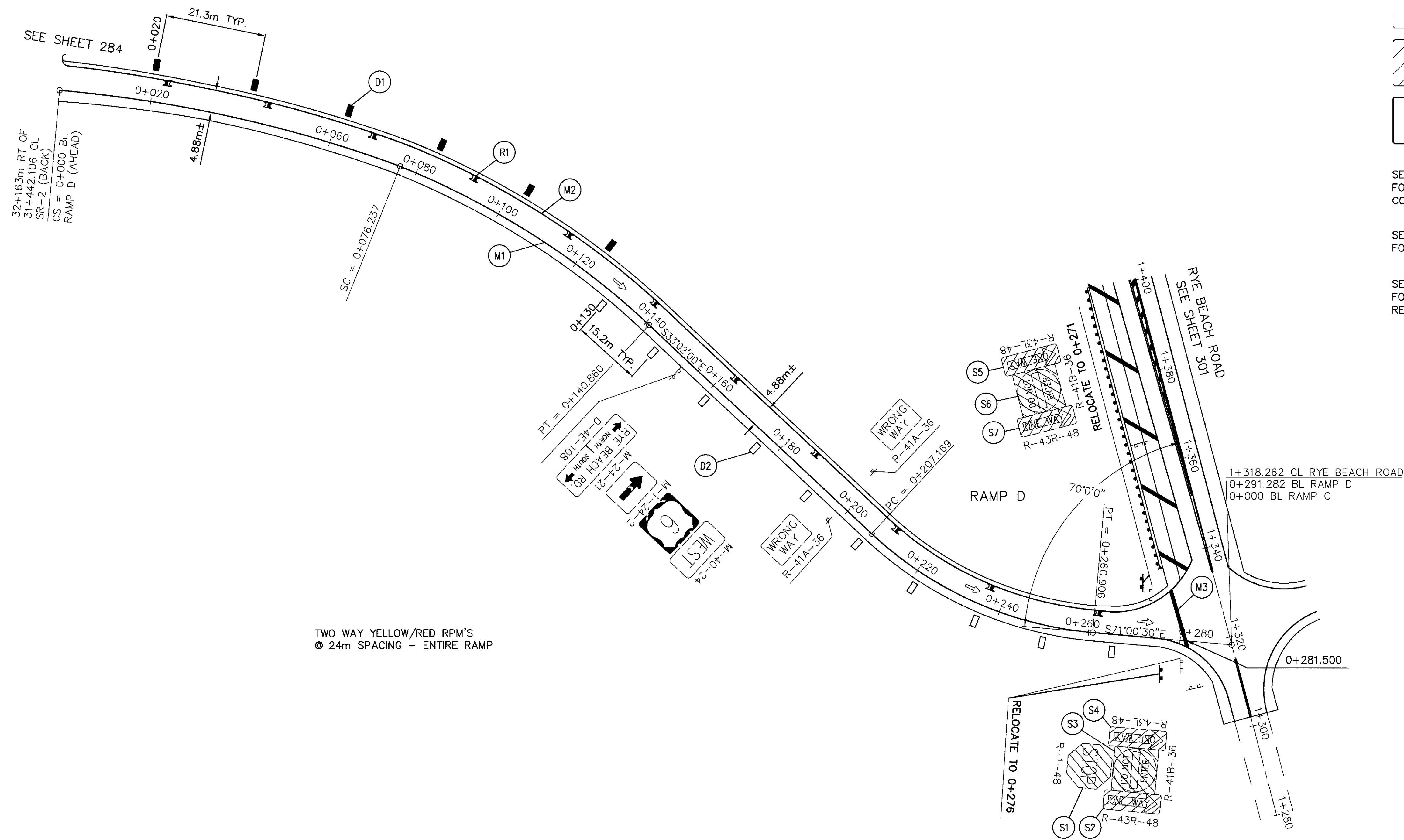
SEE ELEVATION DETAIL BELOW

RELOCATE TO 0+040

RELOCATE TO 0+020

RELOCATE TO 0+015

FILE NAME: I:\5033\006\TRAN\TRAFFIC\REV_T28.DWG 8-9-99 1:18:03 pm EST



LEGEND

- TYPE C DELINEATOR MARKER
- TYPE D DELINEATOR MARKER
- ⊠ TWO WAY REFLECTOR

SIGN LEGEND

- EXISTING SIGN, TO REMAIN
- ▨ EXISTING SIGN, TO BE RELOCATED
- PROPOSED SIGN

SEE SHEET 270 FOR TRAFFIC CONTROL QUANTITIES

SEE SHEET 274 FOR SIGN QUANTITIES

SEE SHEET 112 FOR BARRIER REFLECTOR QUANTITIES

CALCULATED BY: DAM DATE: 8-9-97
 CHECKED BY: PMA DATE: 8-9-97
 RATIO IN METERS
 0 5 10 15 20 25

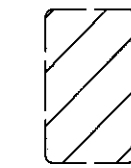
TRAFFIC CONTROL
 RYE BEACH RD. INTERCHANGE RAMP D

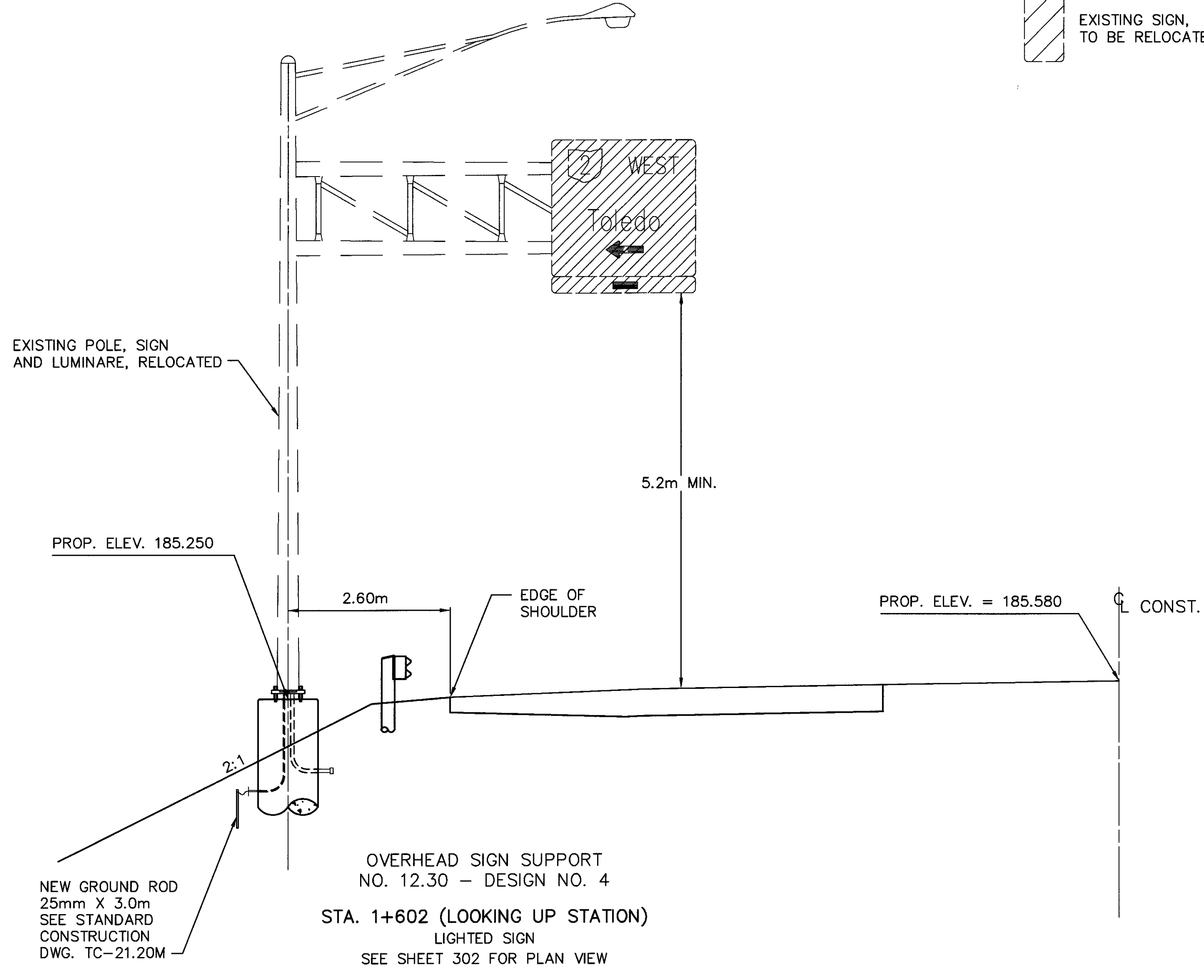
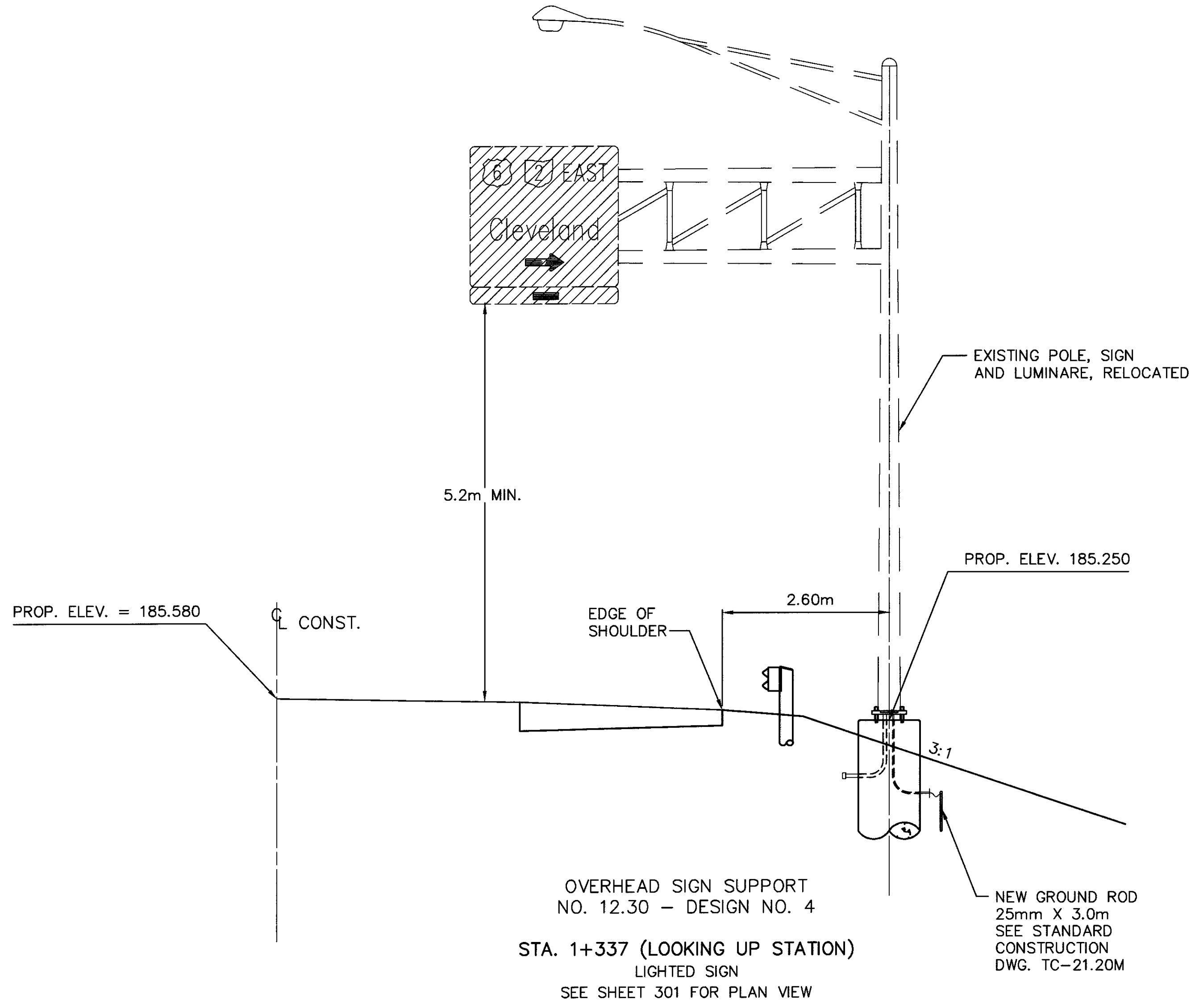
ERI-2-12.558

306
 432

CALCULATED BY: DWM
 DATE: 8-97
 CHECKED BY: PMA
 DATE: 8-97

SIGN LEGEND

 EXISTING SIGN, TO BE RELOCATED



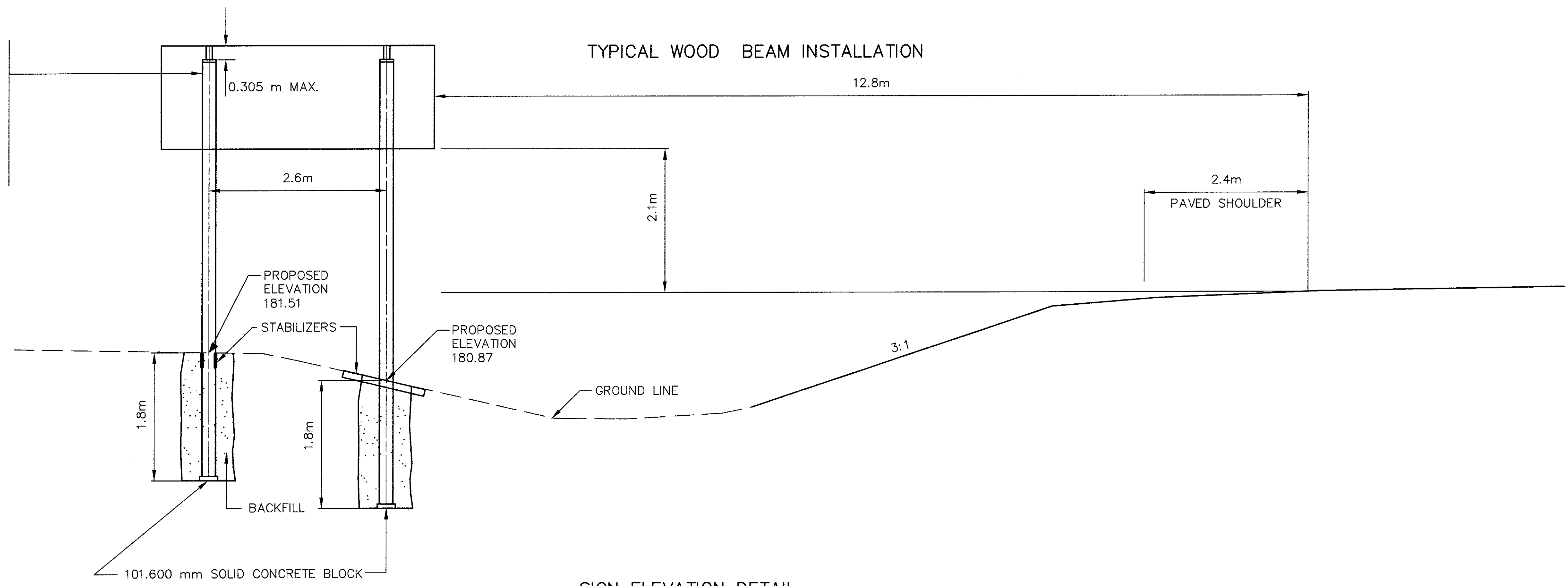
TRAFFIC CONTROL
 OVERHEAD SIGN SUPPORTS - RYE BEACH ROAD

ERI-2-12.558

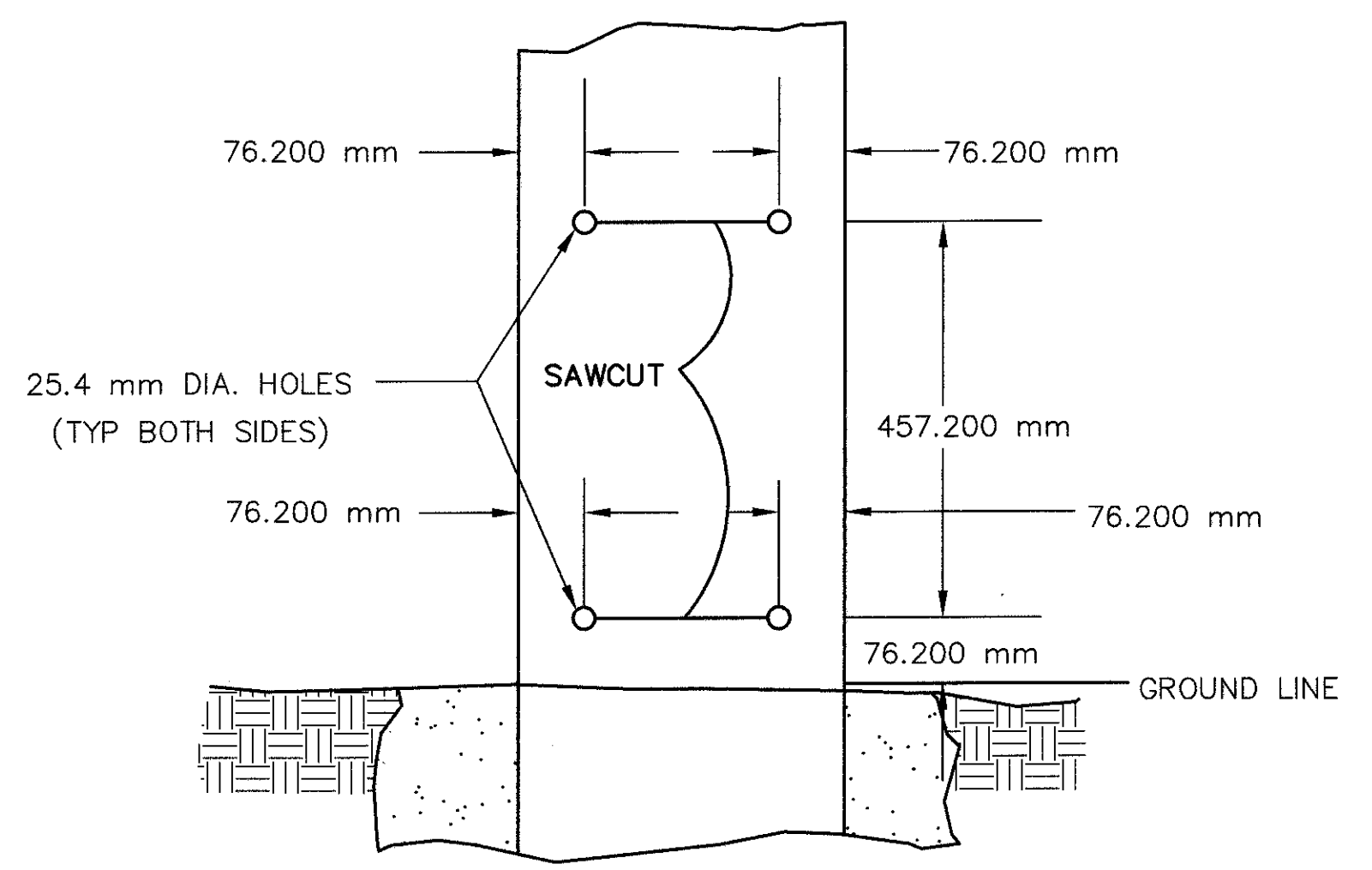
307
 432

FILE NAME: I:\5033\006\TRAN\TRAFFIC\133.DWG 3--25--99 4:32:11 pm EST
 J.E.F.

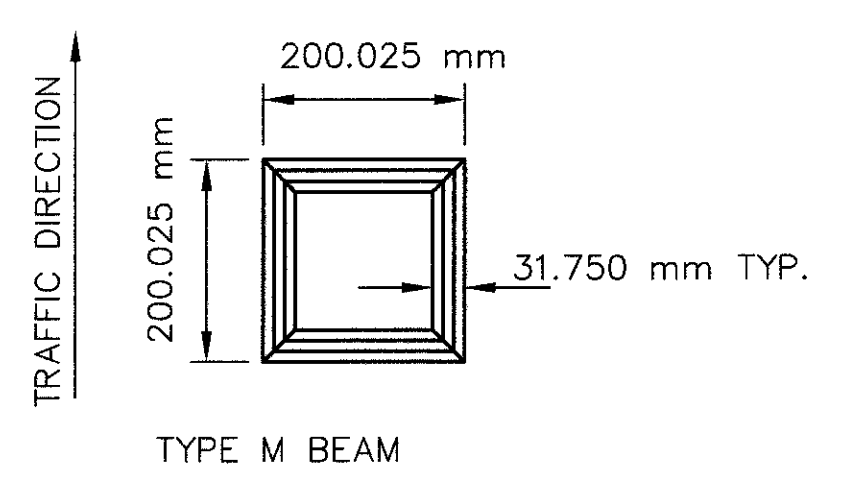
STEEL DRIVE POSTS ATTACHED TO WOOD BOX BEAM WITH LAG SCREWS (SEE DETAIL "B").
 STEEL DRIVE POST MAY BE EXTENDED ABOVE THE TOP OF THE WOOD BOX BEAM, EVEN WITH THE TOP OF THE SIGN, TO LEVEL SIGN.



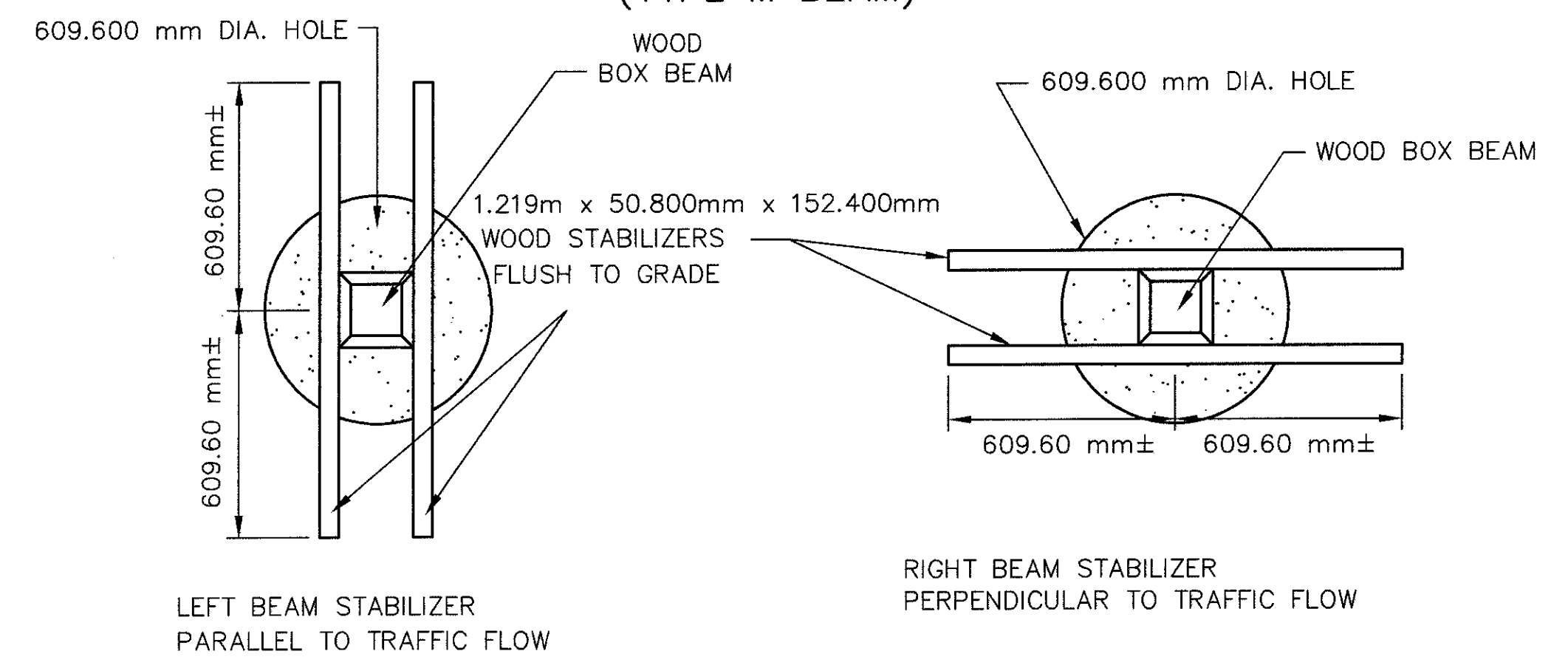
SIGN ELEVATION DETAIL
 STA. 32+106, LT. (SR-2)



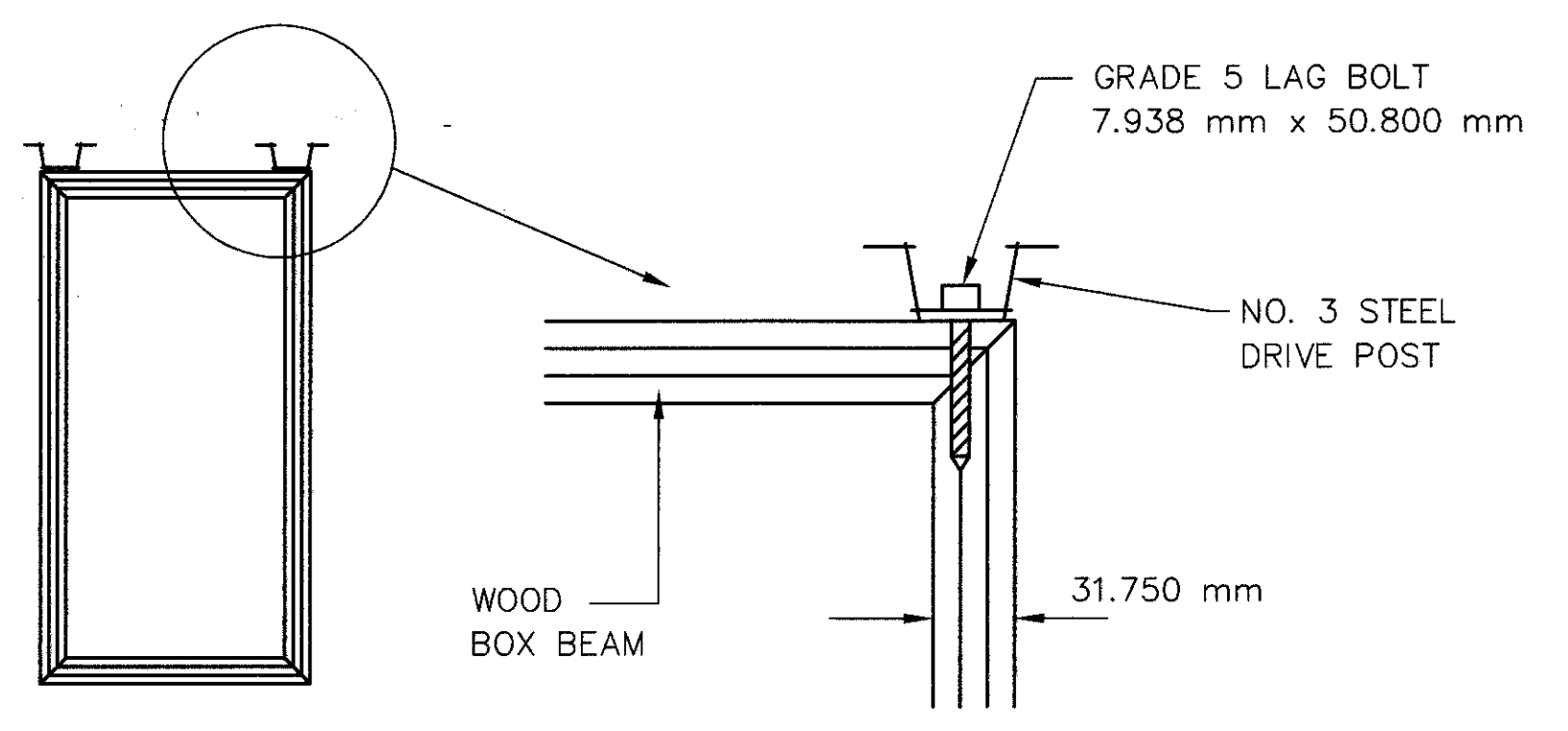
DETAIL "A"
 (TYPE M BEAM)



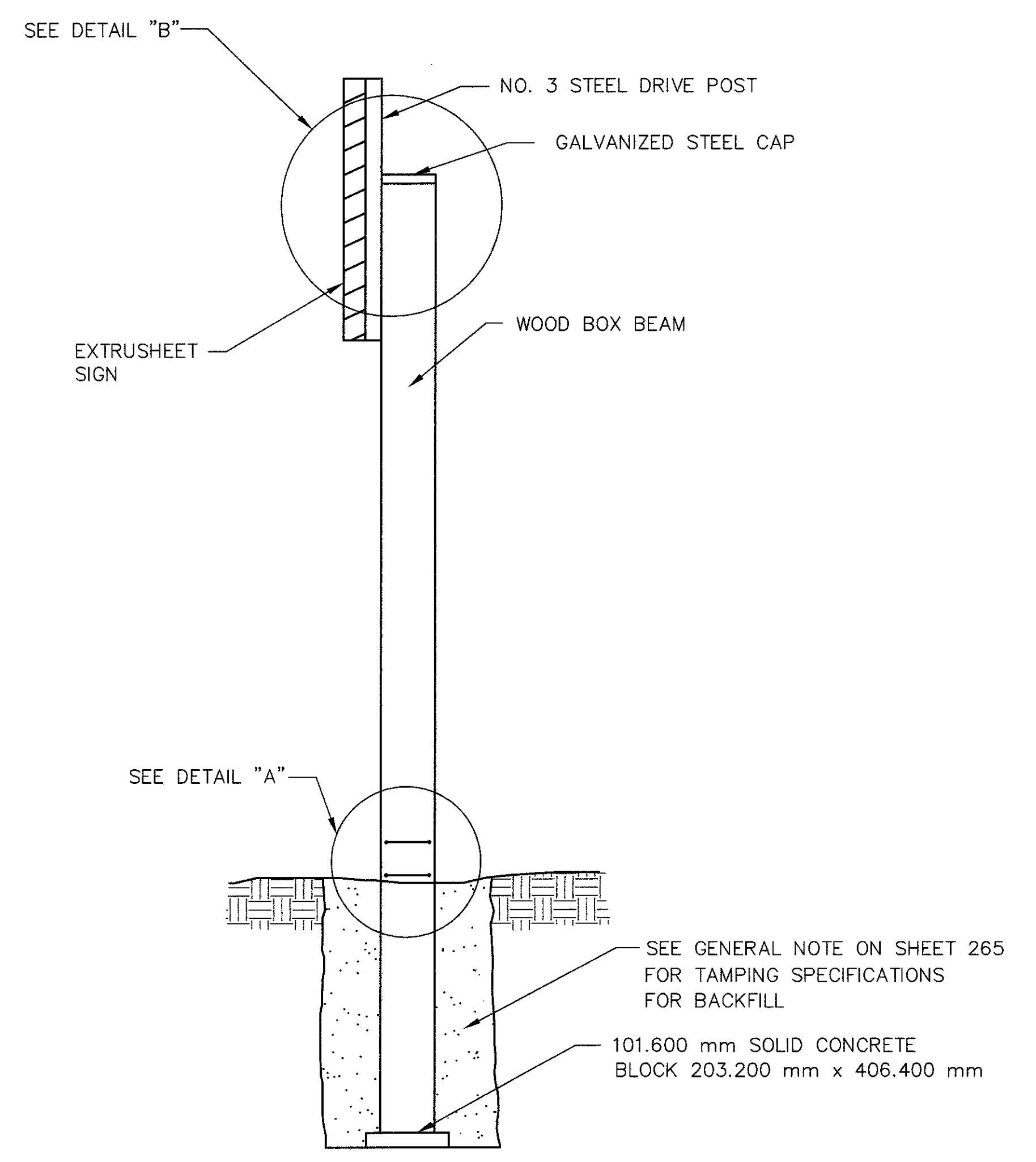
PLACEMENT OF BOX BEAMS



WOOD STABILIZERS



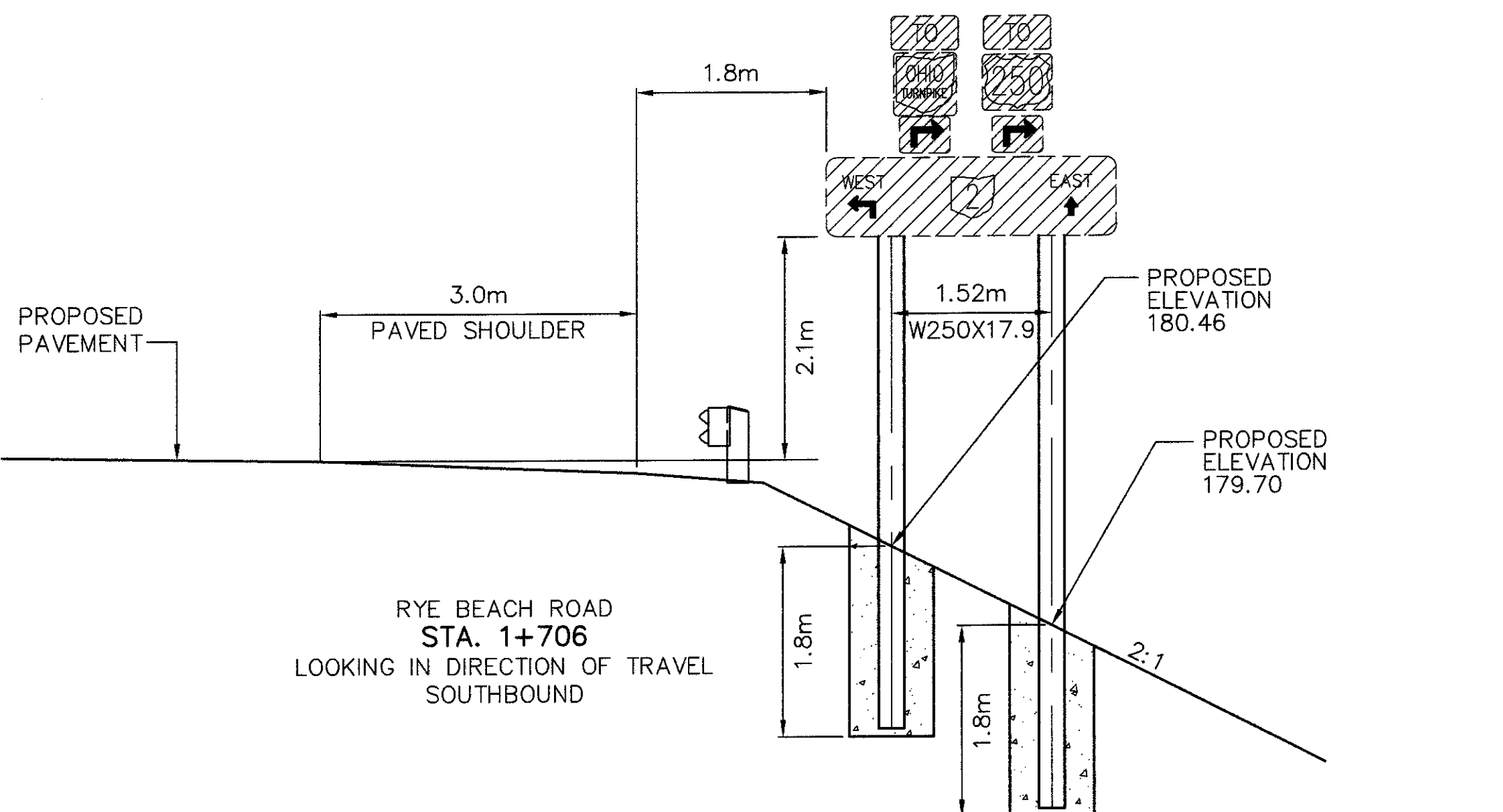
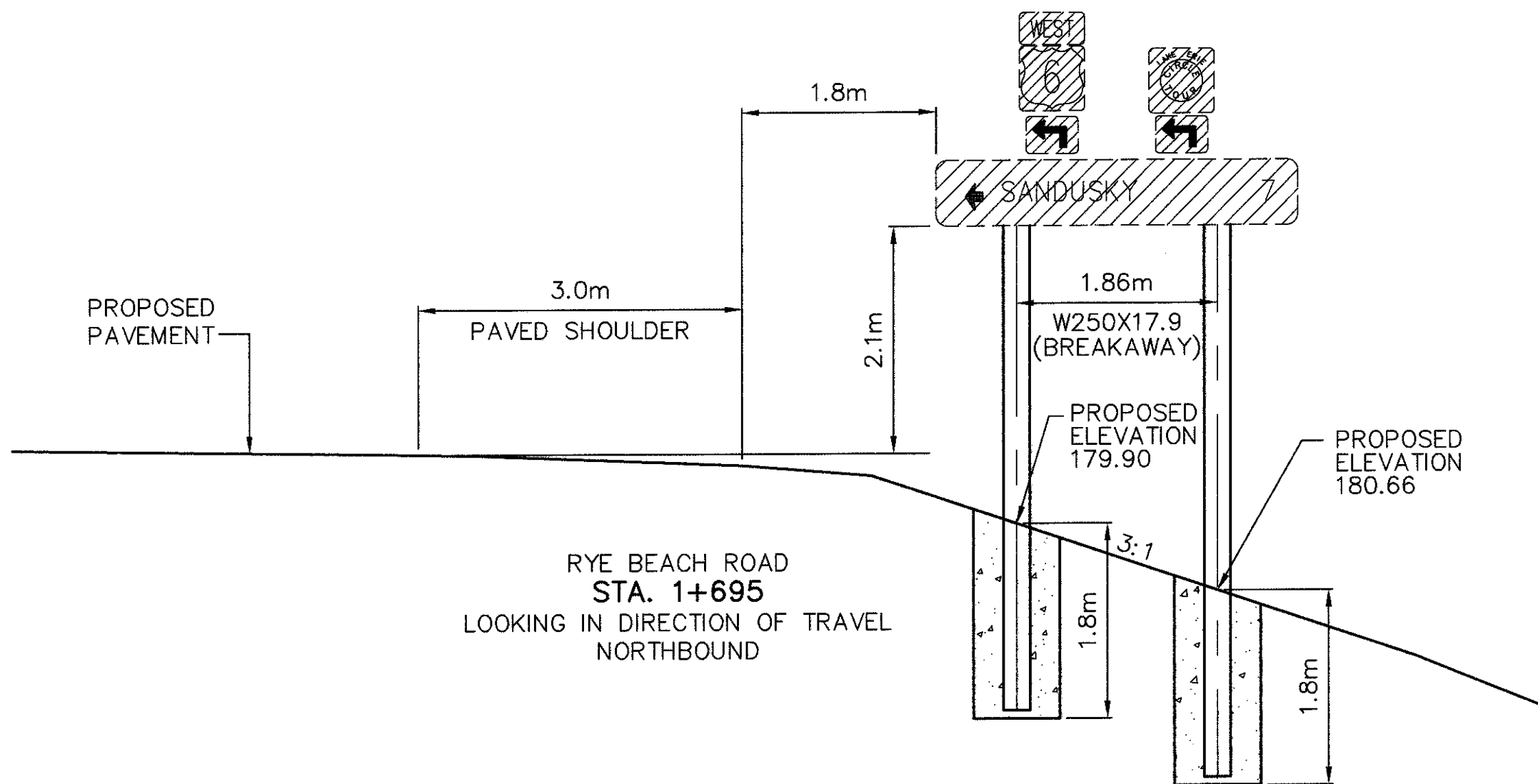
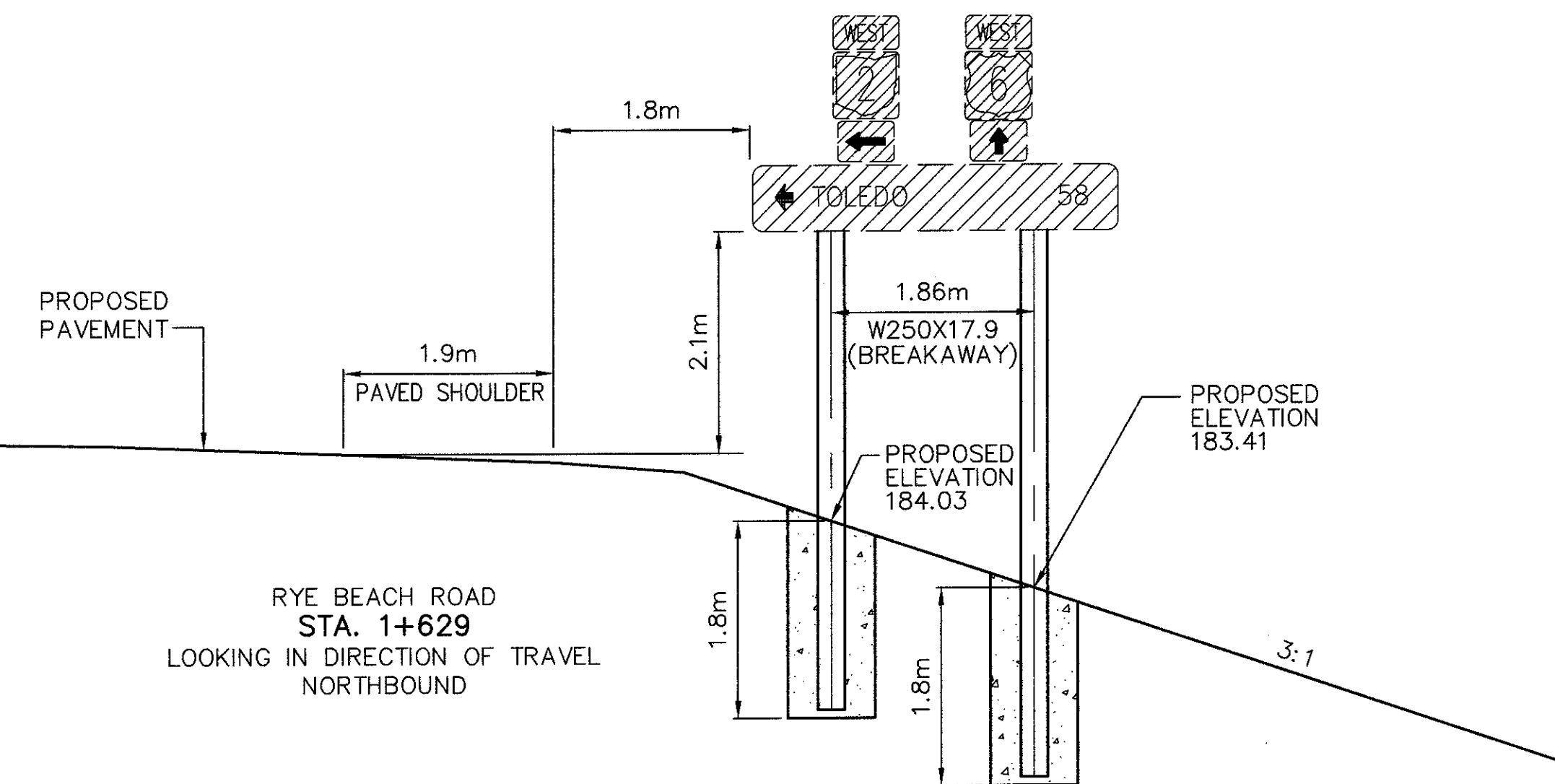
DETAIL "B"



SIDE VIEW

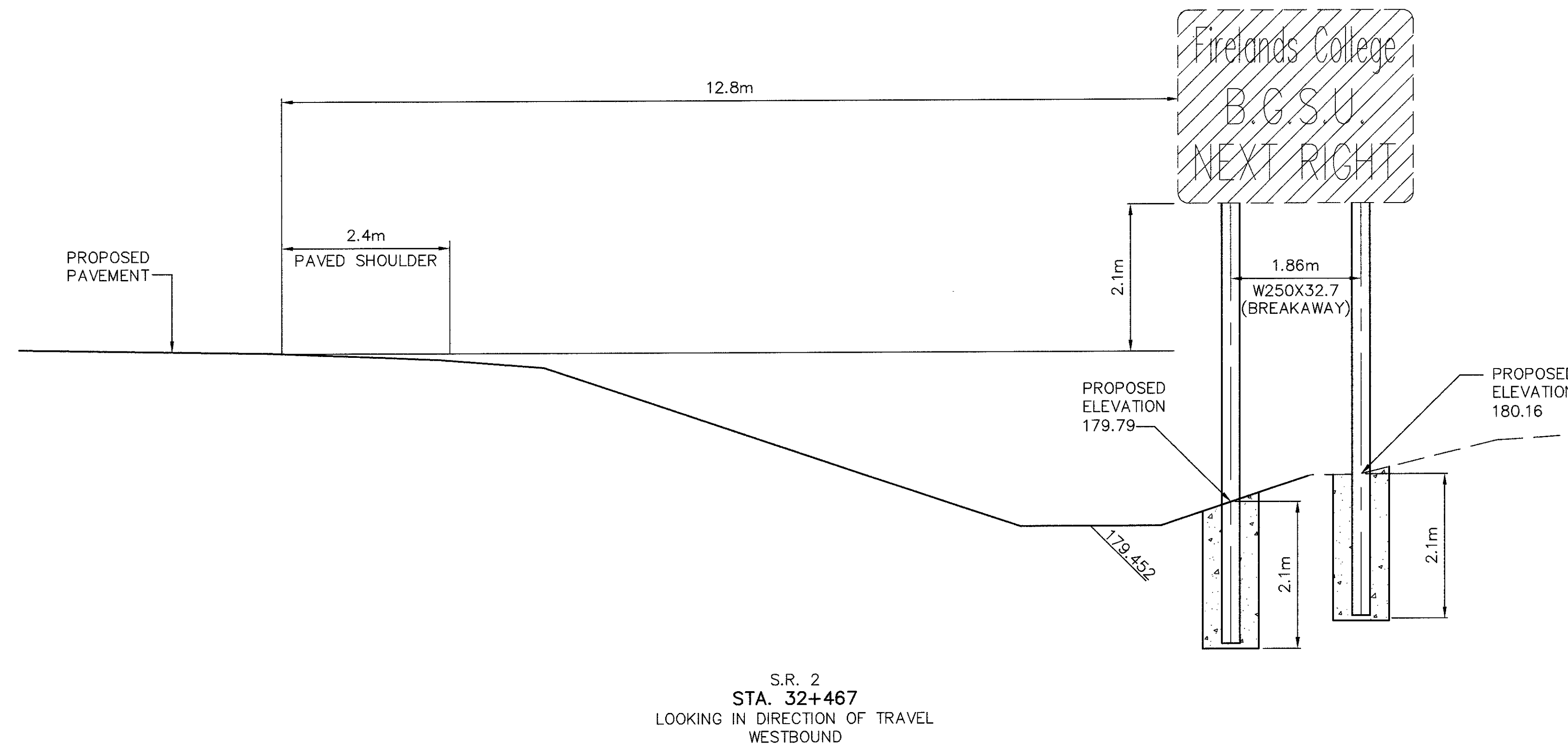
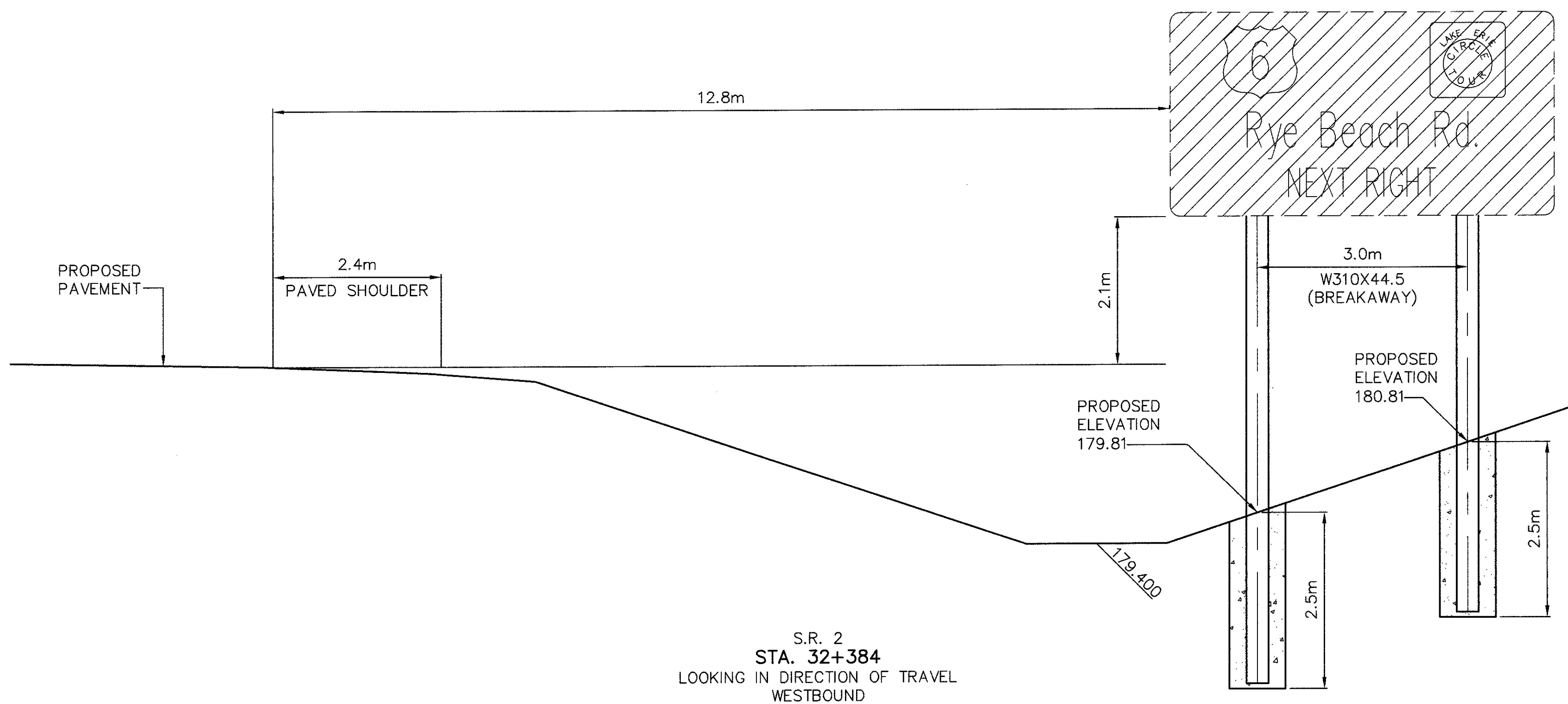
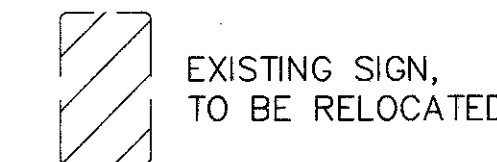
PLOTTED: OCTOBER 24, 1997
 SPJ
 FILE NAME: I:\5033\005\TRAN\TRAFFIC\SIGNDETAILS

RYE BEACH ROAD



SR-2

SIGN LEGEND



CALCULATED BY: DMG
DATE: 10-97
CHECKED BY: G.A.B.
DATE: 10-97

PROPOSED SIGN ELEVATION DETAILS

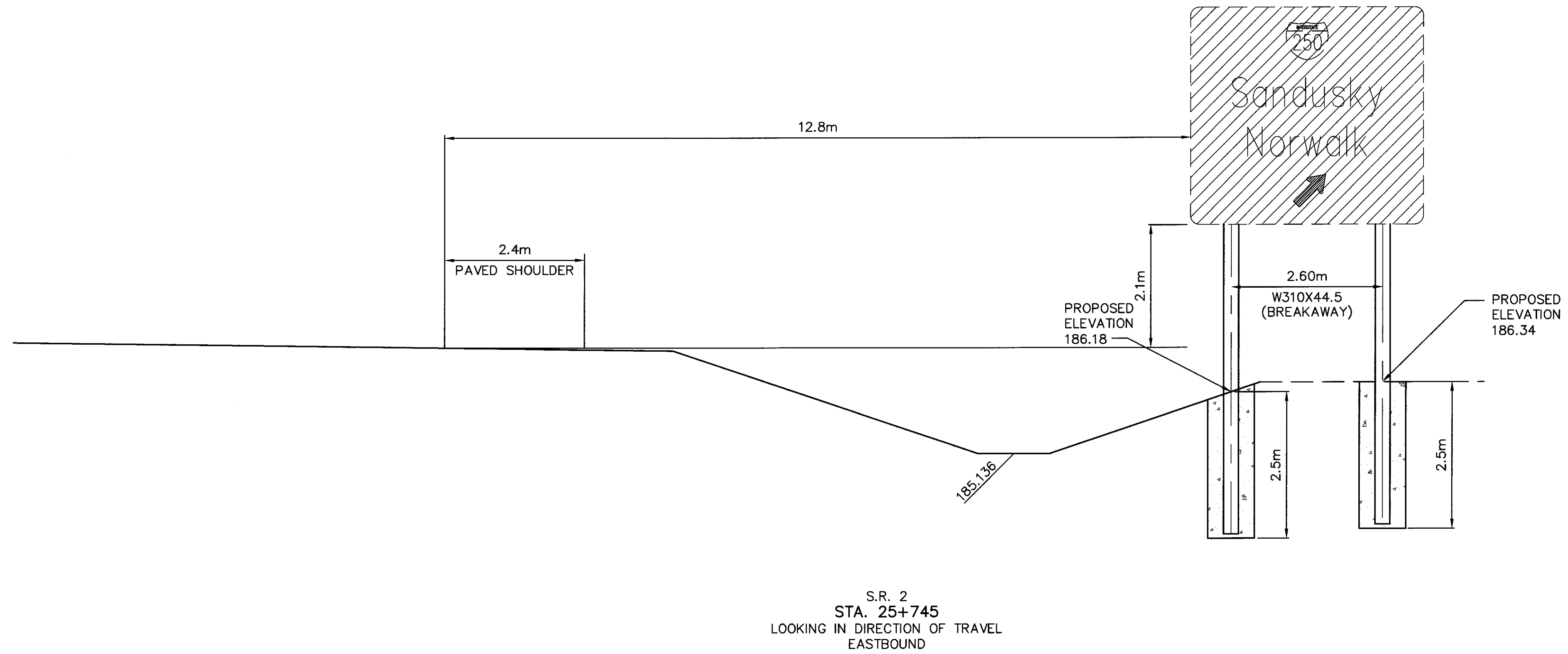
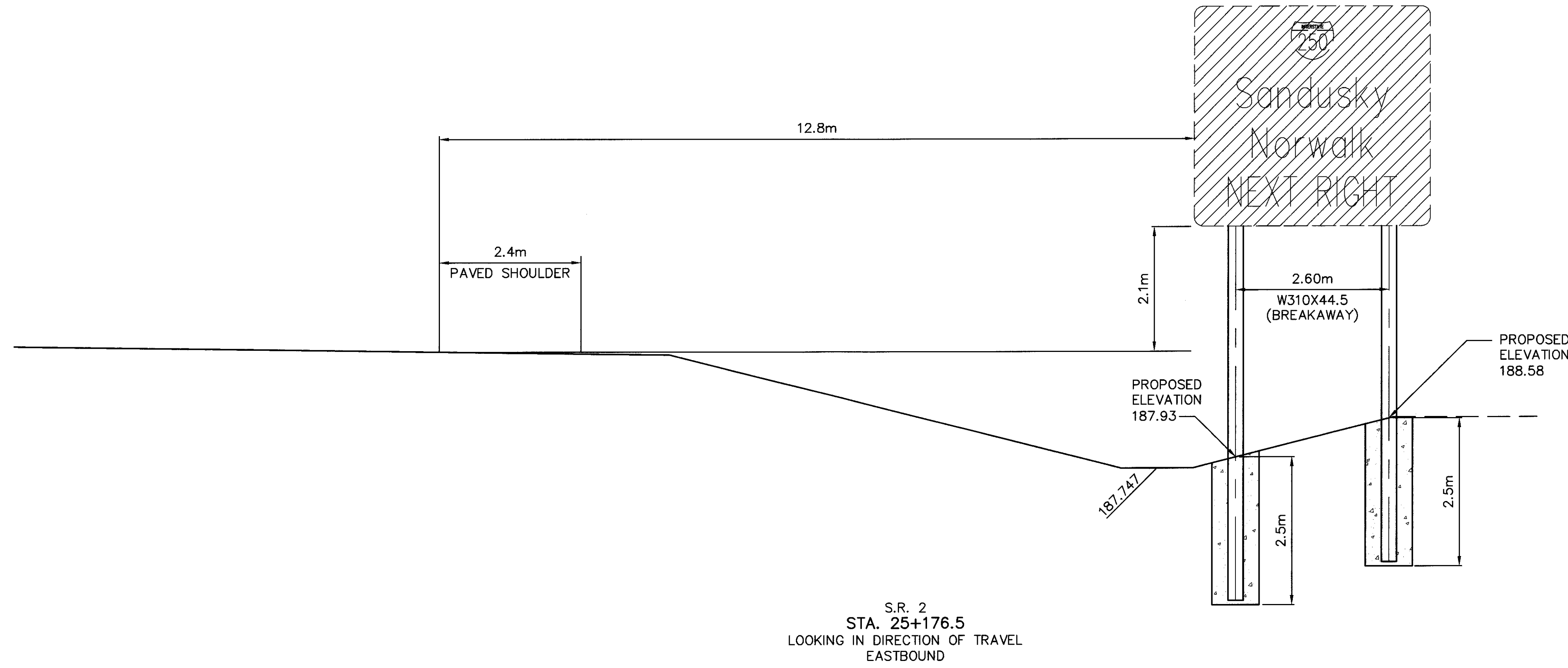
ERI-2-12.558

309
432

PLOTTED: OCTOBER 24, 1997
FILE NAME: I:\5033\005\TRAN\TRAFFIC\RYEB

PLOTTED: MAY 21, 1999
KJB
FILE NAME: I:\5033\006\TRAN\TRAFFIC\11376TEA.DWG 5-21-99 11:16:33 am EST

5033-006



SIGN LEGEND

EXISTING SIGN,
TO BE RELOCATED

CALCULATED
BY JTY
DATE 3-99
CHECKED
BY CAB
DATE 4-99

PROPOSED SIGN ELEVATION DETAILS

ERI-2-12.558

309A
432

GENERAL SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625, 631, AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THESE PLANS.

POWER SUPPLY

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

OHIO EDISON COMPANY
2508 W. PERKINS AVENUE
SANDUSKY, OHIO 44870

THIS PROJECT HAS BEEN DESIGNED ON THE BASIS OF A 5 % VOLTAGE DROP WITH A MAXIMUM TO MINIMUM UNIFORMITY RATIO OF NOT GREATER THAN 6.0 TO 1, AND AN AVERAGE TO MINIMUM RATIO NOT GREATER THAN 3.0 TO 1 FOR HIGH MAST UNITS.

713.14 LAMPS

THE EXISTING LAMPS SHALL BE REPLACED WITH HIGH PRESSURE SODIUM LAMPS, 250 WATT AS SPECIFIED, GENERAL ELECTRIC "LUCALOX", PHILIPS "CERAMALUX", OSRAM/SYLVANIA, OR EQUAL APPROVED BY THE ENGINEER.

LIGHT POLE HANDHOLE LOCATION

THE POLE HANDHOLE SHALL BE LOCATED ON THE SIDE OPPOSITE TRAFFIC FLOW ON THE ROADWAY FROM WHICH THE TOWER IS STATIONED.

HIGH VOLTAGE DIRECT CURRENT TEST

A HIGH VOLTAGE DIRECT CURRENT TEST, AS DESCRIBED IN CONSTRUCTION AND MATERIAL SPECIFICATIONS 625.22(D) SHALL BE PERFORMED ON ALL INSULATED CABLES AND CONNECTIONS INSTALLED BY THE CONTRACTOR.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 625, HIGH VOLTAGE DIRECT CURRENT TEST.

713.07 POLYVINYL CHLORIDE PLASTIC CONDUIT

CONDUIT FURNISHED UNDER THIS SPECIFICATION SHALL CONFORM TO NEMA STANDARDS PUBLICATION NO. CT-6 WITH THE EXCEPTION THAT CONDUIT AND CONDUIT FITTINGS COMPOSED OF ACRYLONITRILE-BUTADIENE-STYRENE (ABS) SHALL NOT BE ACCEPTABLE.

AS AN ALTERNATE TO POLYVINYL CHLORIDE, CORRUGATED COILABLE POLYPROPYLENE CONFORMING TO NEMA STANDARDS PUBLICATION NO. TC-5 MAY BE USED.

ITEM 625 - CONDUIT JACKED UNDER PAVEMENT

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING CONDUIT OF THE SIZE OR SIZES INDICATED UNDER EXISTING PAVEMENT AND CONTIGUOUS SHOULDERS BY AN APPROVED METHOD SUCH AS "DRILLING" OR "JACKING".

THE CONTRACTOR SHALL PLACE THE CONDUIT WITH THE LEAST AMOUNT OF DISTURBANCE TO THE EXISTING PAVEMENT, SUBBASE, BERM PAVEMENT, OR SHOULDERS OF THE ROADWAY. ALL PUSH PITS OR ANY NECESSARY EXCAVATIONS SHALL BE BACKFILLED AND RESTORED IN ACCORDANCE WITH 625.01.

MEASUREMENT OF THE CONDUIT SHALL BE THE ACTUAL AMOUNT OF LINEAL FEET INSTALLED UNDER PAVEMENT AND SHOULDERS, MEASURED IN PLACE, AS ACCEPTED BY THE ENGINEER. THE UNIT PRICE BID FOR ITEM 625 "CONDUIT JACKED UNDER PAVEMENT SHALL BE FULL COMPENSATION FOR EXCAVATION, DRILLING OR JACKING, BACKFILLING, COMPACTION, RESTORATION, AND ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

PULL BOX DRAINS

REFERERENCE IS MADE TO STANDARD DRAWING HL-30.11M FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 6M. AN ESTIMATED QUANTITY OF 185M OF ITEM 605, 100MM SHALLOW PIPE UNDERDRAINS IS INCLUDED IN THE LIGHTING GENERAL SUMMARY.

ITEM 202 - DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR AT A LIGHT POLE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX. ANY CABLE THAT IS TO BE REUSED SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION.

DISCONNECTION AT A LIGHT POLE SHALL INVOLVE THE REMOVAL OF THAT PART OF CABLE THAT IS TO BE ABANDONED FROM THE POLE. THOSE ENDS OF THE CONNECTOR KITS FROM WHICH THE ABANDONED CABLE IS REMOVED, SHALL BE STUBBED AND TAPED. CABLE SPLICE KITS SHALL BE PAID FOR SEPARATELY UNDER EACH ITEM 625 "CABLE SLICE KIT".

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH TIME ITEM 202 "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS

THE PAY ITEMS IN THE LIGHTING GENERAL SUMMARY INCLUDE SERVICE TO THE EXISTING PULL BOX OR JUNCTION BOX ADJACENT TO EACH LIGHTED SIGN AND THE ELECTRICAL SERVICE CONNECTIONS LEADING INTO THE BOX, INCLUDING SPLICES OR CONNECTOR KITS IN THE PULL BOX OR JUNCTION BOX. QUANTITIES FOR ELECTRICAL SERVICE FROM THE CONNECTION IN THE PULL BOX OR JUNCTION BOX TO THE SIGN ARE INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY.

SIGN LIGHTING AND ELECTRICAL SIGN ITEM, MISC.: REMOVAL AND REPLACEMENT OF SERVICE AT STRUCTURE No. ERI-2-19312 L & R (USR 250)

THIS ITEM SHALL CONSIST OF DISASSEMBLING AND RECONSTRUCTING A PARTIAL ELECTRICAL SERVICE UTILIZING EXISTING LUMINAIRES AND STRUCTURE GROUNDING, FOR THREE LIGHTED SIGNS. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS, JUNCTION BOXES, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE, READY TO USE, THE SERVICE AS DETAILED ON SHEET 317. THE LUMP SUM PRICE BID FOR SIGN LIGHTING AND ELECTRICAL SIGN ITEM, MISC.: REMOVAL AND REPLACEMENT OF SERVICE AT STRUCTURE NO. ERI-2-19312 L&R (USR 250) SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE FURNISHED AND CONSIDERED PAID AS PART OF THIS ITEM.

CALCULATED
BY
DATE 5-97
CHECKED
BY
DATE 5-99

LIGHTING GENERAL NOTES

ERI-2-12.558

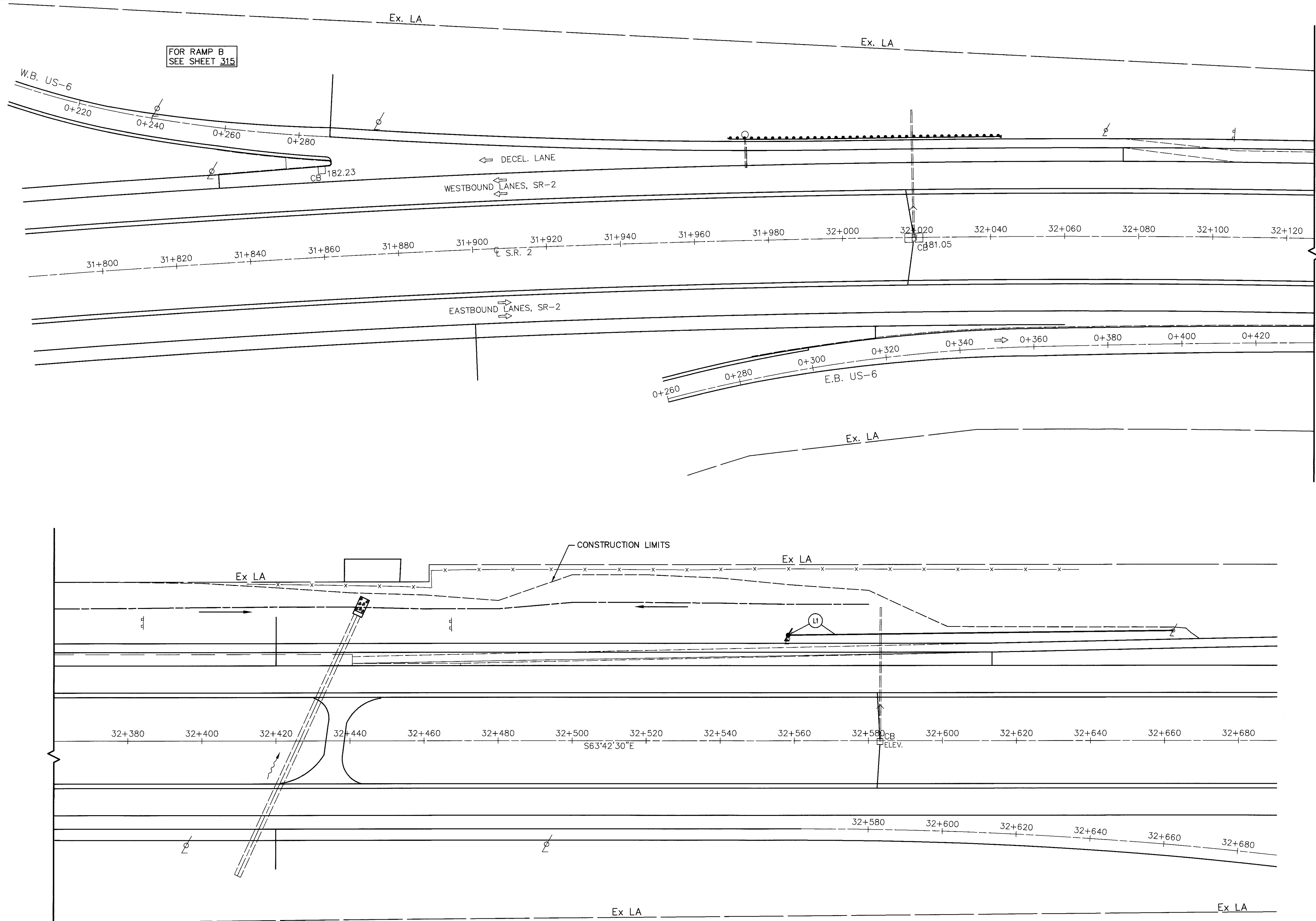
310
432

FROM SHEET NUMBER				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
310		313							
		2		202	75300	2	EACH	PULL BOX REMOVED	
		5		202	75500	5	EACH	LIGHT POLE FOUNDATION REMOVED	
		1		202	75800	1	EACH	DISCONNECT EXISTING CIRCUIT	310
185				605	05100	185	METER	100 MM SHALLOW PIPE UNDERDRAIN	
		14		625	00500	14	EACH	CONNECTOR KIT, TYPE II	
		24		625	01500	24	EACH	CABLE SPLICING KIT	
		3		625	14100	3	EACH	LIGHT POLE FOUNDATION, 610 MM X 2.4 M DEEP	
		474		625	23200	474	METER	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
		150		625	23400	150	METER	NO. 10 AWG POLE AND BRACKET CABLE	
		564		625	24100	564	METER	38 MM DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES	
		120		625	25400	120	METER	CONDUIT, 51 MM, 713.04	
		105		625	25900	105	METER	CONDUIT, JACKED OR DRILLED, 76 MM	
		3		625	27520	3	EACH	REMOVAL OF LUMINAIRE AND REERECTION	
		557		625	29000	557	METER	TRENCH	
		8		625	30706	8	EACH	PULL BOX, 713.08, 600 MM	
		3		625	32000	3	EACH	GROUND ROD	
LUMP				625	38000	LUMP		HIGH VOLTAGE TEST	
		3		625	60010	3	EACH	LIGHT POLE REMOVED FOR REERECTION	
		2		631	94100	2	EACH	REMOVAL OF LUMINAIRE AND REERECTION	
		2		631	94306	2	EACH	REMOVAL OF DISCONNECT SWITCH AND RE-ERECTION	
		2		631	94402	2	EACH	REMOVAL OF BALLAST AND REERECTION	
LUMP				631	95000	LUMP		SIGN LIGHTING, MISC.: REMOVAL AND REPLACEMENT OF SERVICE AT STRUCTURE NO. ERI-2-19312 L & R	317

LIGHTING GENERAL SUMMARY

ERI-2-12.558

K:IB FILE NAME: I:\5033\006\TRAN\LIGHTING\PLAN\11376LPC.DWG 5-12-99 11:55:04 am EST



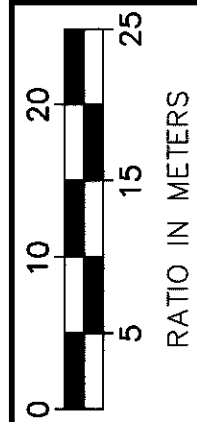
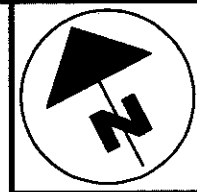
CALCULATED BY: P.M.A.
 DATE: 8-97
 CHECKED BY: G.M.W.
 DATE: 8-97

0 5 10 15 20
 RATIO IN METERS

**LIGHTING PLAN STATE ROUTE 2
STA. 31+780 TO STA. 32+360**

ERI-2-12.558

314
432

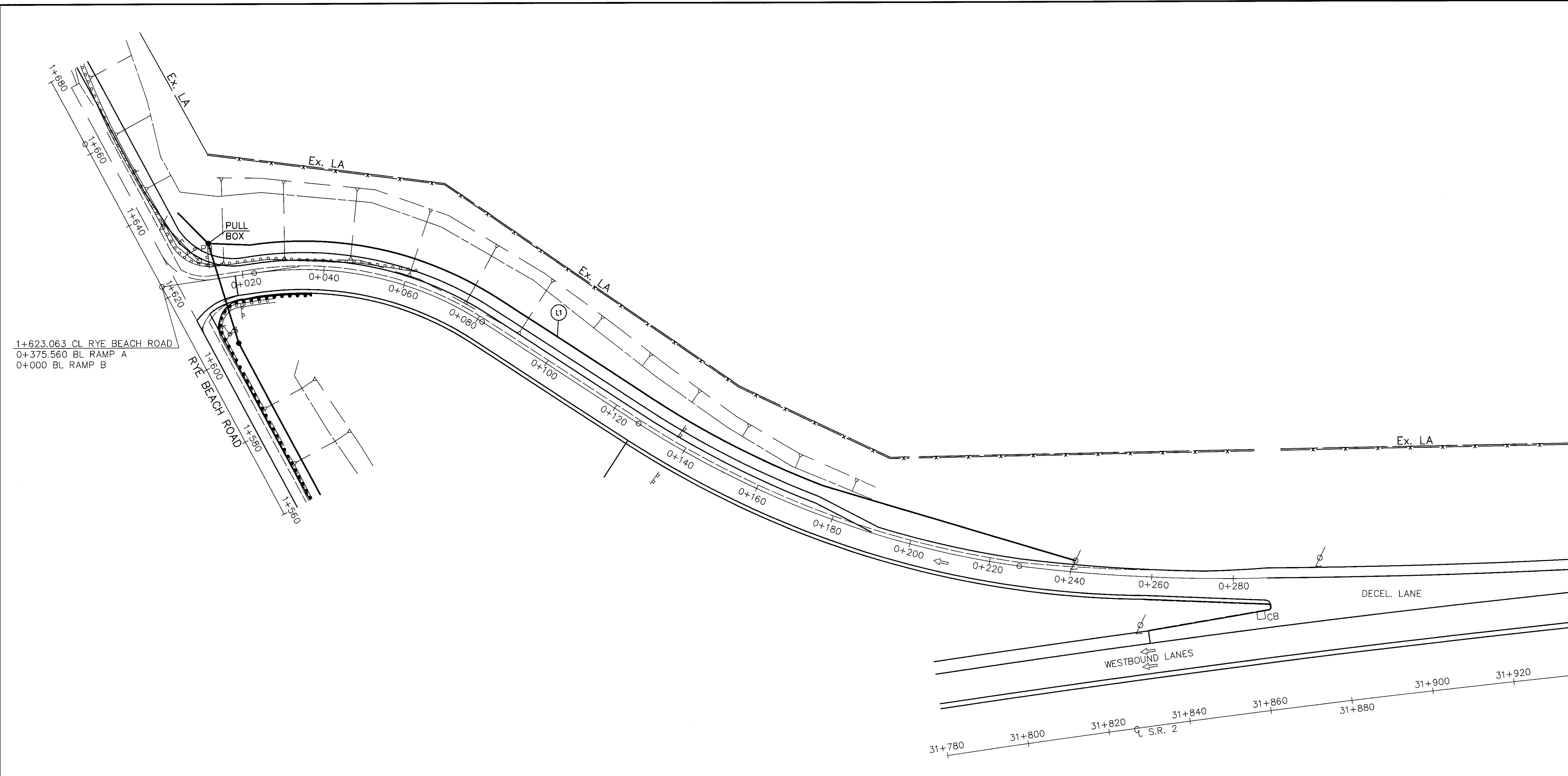


CALCULATED	DATE 5-97
BY P.M.A.	CHECKED
DATE 5-97	BY G.M.W.
	DATE 8-97

**LIGHTING PLAN RAMP B
STA. 0+000 TO STA. 0+288.350**

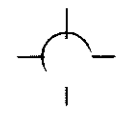
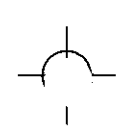
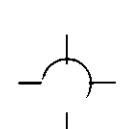
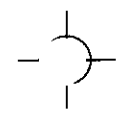
ERI-2-12.558

315
432



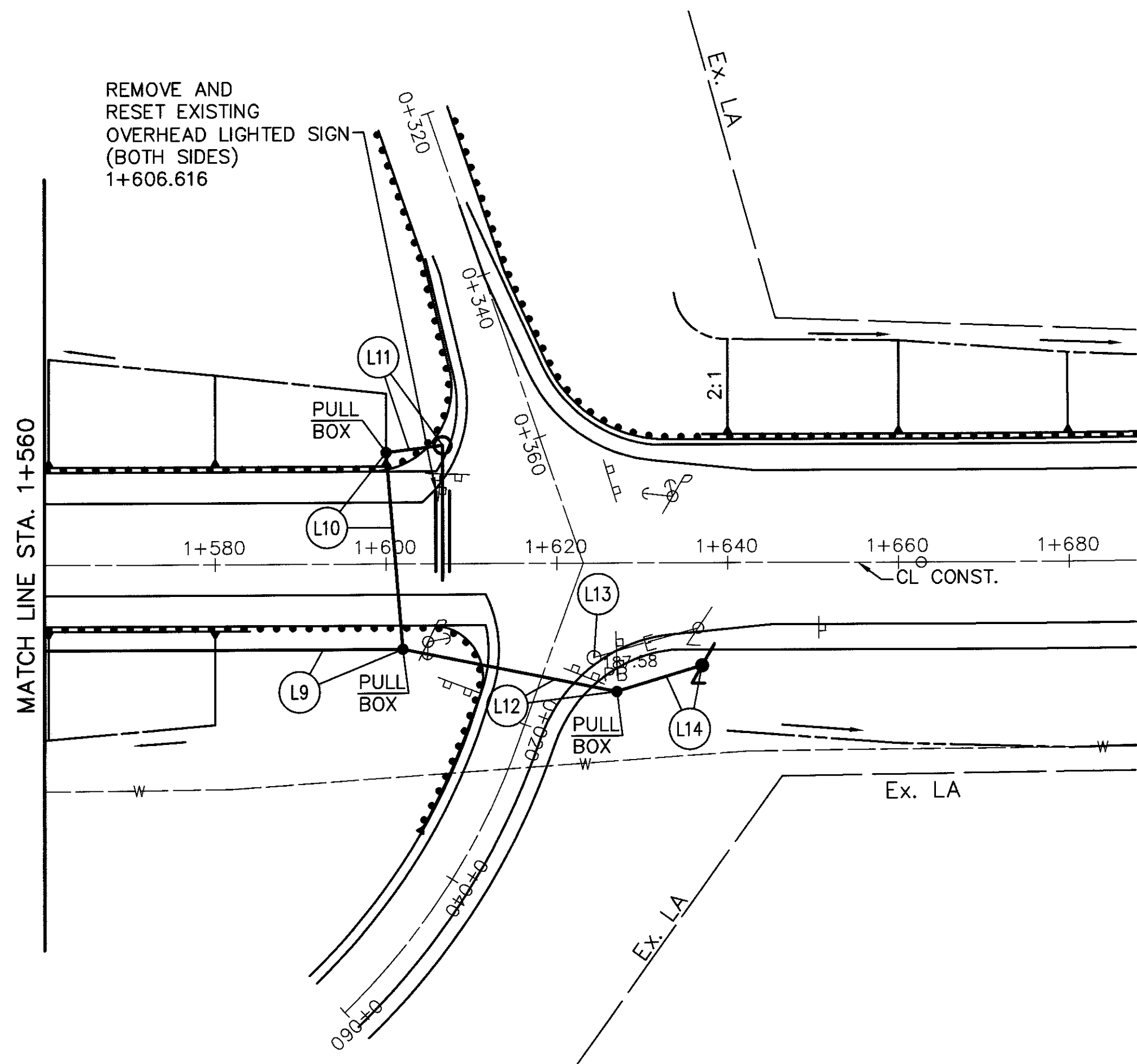
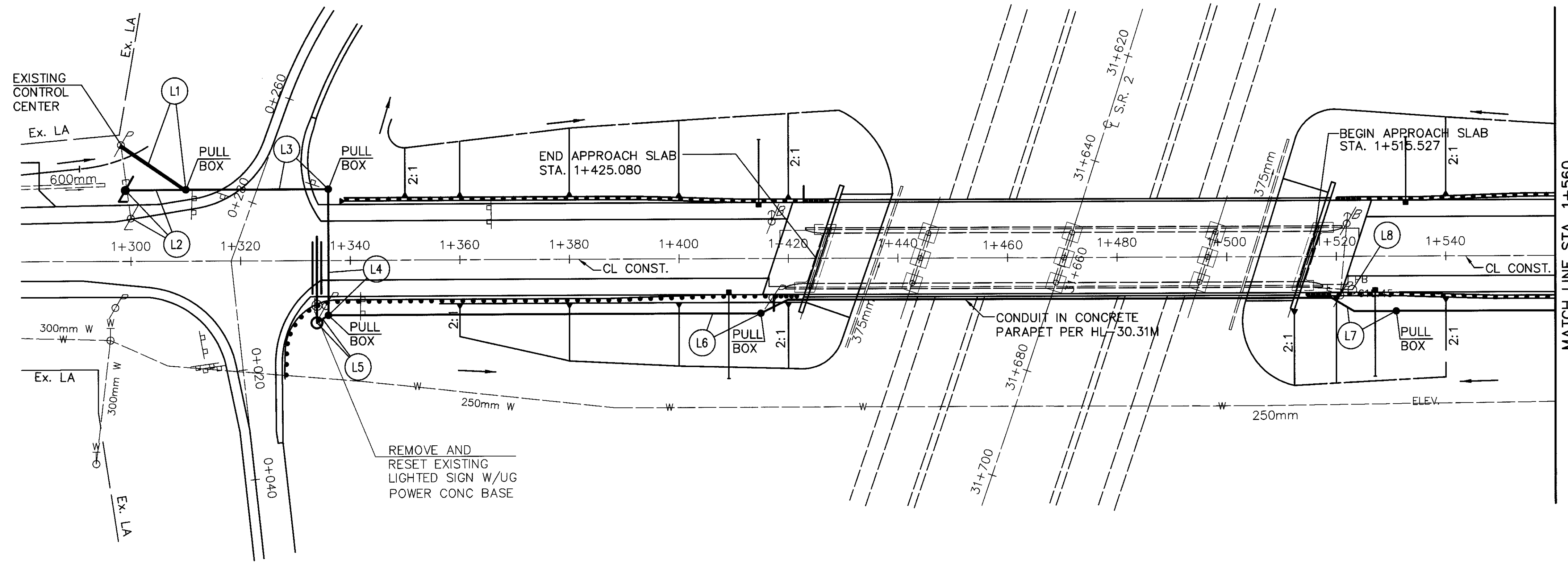
1+623.063 CL RYE BEACH ROAD
0+375.560 BL RAMP A
0+000 BL RAMP B

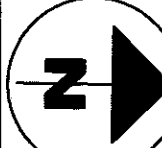
FOR SR-2
SEE SHEET 314

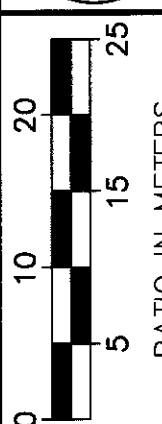


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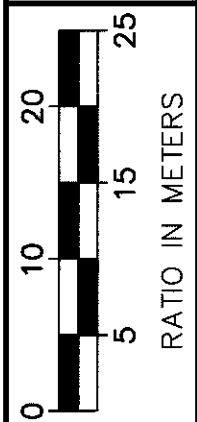
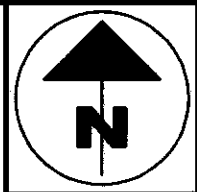
 RATIO IN METERS

LIGHTING PLAN - RYE BEACH ROAD
STA. 1+280 TO STA. 1+560

ERI-2-12.558

316
 432

NOTE:
ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



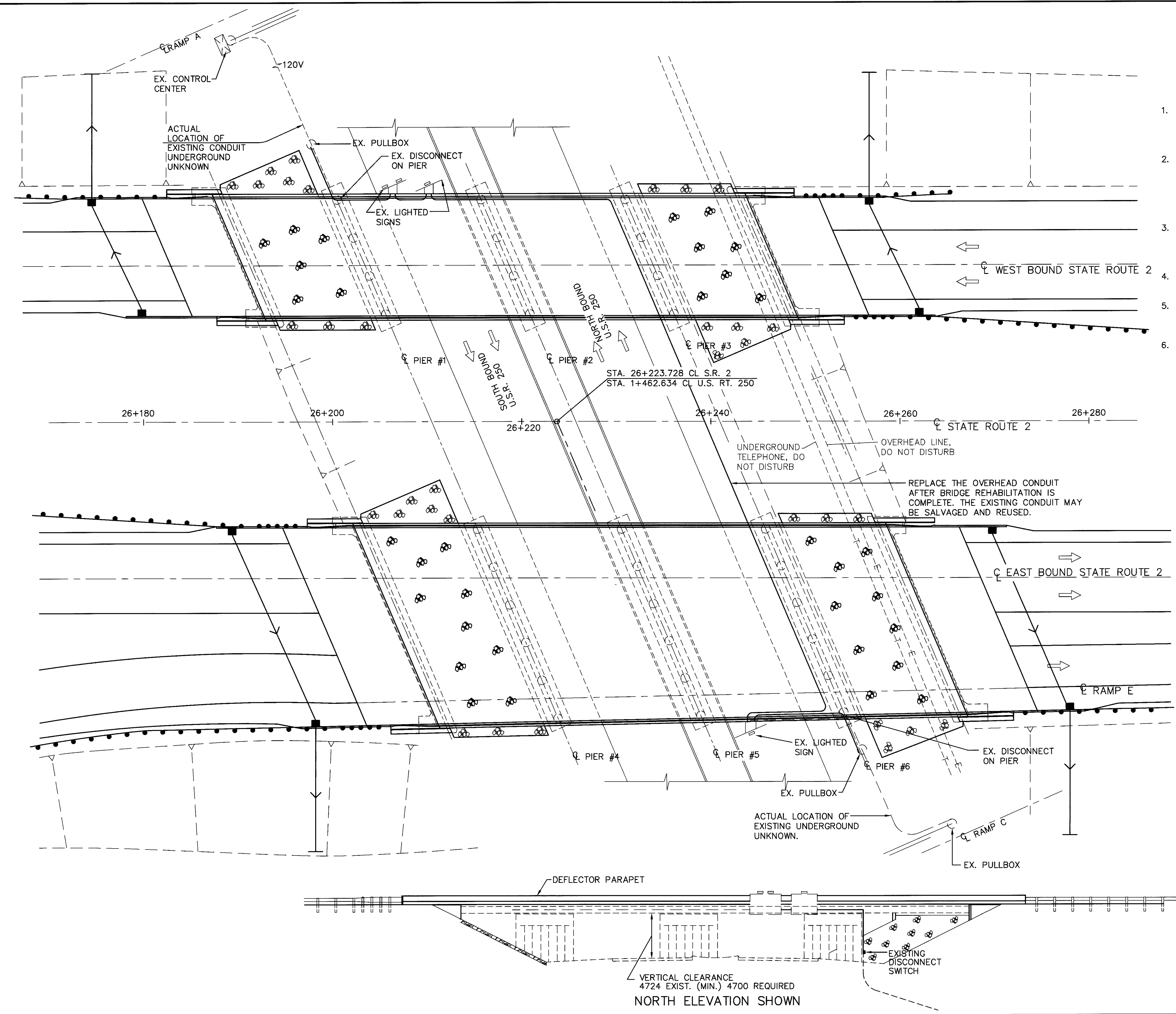
CALCULATED BY: P.M.A. DATE: 8-97
CHECKED BY: G.W.L. DATE: 8-97

1. REMOVE ALL FOUR ATTACHED LUMINAIRES, ON THESE TWO STRUCTURES, AND ALL CONDUIT AND APPURTENANCES FROM THE STRUCTURES TO SERVES ENTER AT THE PULLBOX AT EACH OF THE TWO LOCATIONS.
2. IN COORDINATION WITH THE BRIDGE REHABILITATION, NEW 38 mm CONDUIT (713.04), TO THE TOP OF THE PIER AND FLEXIBLE CONDUIT UNDER THE BRIDGE DECKS SHALL BE CONSTRUCTED BETWEEN THE EXISTING PULLBOXES PER STANDARD DWG. HL-30.31M, ALSO JUNCTION BOXES SHALL BE ADDED PER STANDARD DRAWINGS.
3. UPON COMPLETION OF THE BRIDGE REHABILITATION, THE EXISTING LUMINAIRES SHALL BE REASSEMBLED AND THE ENTIRE CIRCUIT WIRED USING NEW NO. 4 AWG, 5000 VOLT DISTRIBUTION CABLE.
4. ALL OTHER CONNECTIONS SHALL UTILIZE CONNECTOR KITS.
5. THE TWO EXISTING DISCONNECTS SHALL BE REINSTALLED ON THE SAME PIERS FOLLOWING BRIDGE RECONSTRUCTION.
6. THIS ITEM INCLUDES ALL COSTS FOR ELECTRICAL WORK INCLUDING NEW WIRING AND CONDUIT (AS NECESSARY) FROM THE EXISTING PULLBOX AT THE NW CORNER OF THE LEFT STRUCTURE, THROUGH THE TWO BRIDGES, TO THE PULLBOX AT THE SE CORNER OF THE RIGHT STRUCTURE AND SHALL BE PAID UNDER THE LUMP SUM BID PRICE FOR SIGN LIGHTING AND ELECTRICAL SIGN ITEM, MISC.: REMOVAL AND REPLACEMENT OF SERVICE AT ERI-2-19312 LT & RT.

**LIGHTING PLAN
STATE ROUTE 250**

ERI-2-12.558

317
432



KJB FILE NAME: I:\5033\006\TRAN\LIGHTING\PLAN\US250.DWG 7-12-99 1:13:06 pm EST

REFERENCE SHALL BE MADE TO STANDARD DRAWING(S):

BS-1-93M	DATED	12-15-94
VPF-1-90M	DATED	3-20-95
PCB-91M	DATED	7-6-99
AS-1-81M	DATED	10-25-94
BR-1M	DATED	1-6-99
CS-1-93M	DATED	6-30-95
EXJ-4-87M	DATED	2-18-97
IRJ-8-95M	DATED	7-06-95
SICD-1-96M	DATED	2-12-97
RB-1-55M	DATED	10-25-94
GSD-1-96M	DATED	11-21-97

AND TO SUPPLEMENTAL SPECIFICATION(S):

815	DATED	5-30-96	863	DATED	9-9-97
816	DATED	4-21-97	910	DATED	7-28-98
844	DATED	1-6-99	954	DATED	9-9-97
846	DATED	9-9-97			

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: MS18 (CASE I) AND THE ALTERNATE MILITARY LOADING FOR S.R. 2 MAINLINE STRUCTURES.

MS18 (CASE II) AND THE ALTERNATE MILITARY LOADING FOR ALL OTHER STRUCTURES.

DESIGN DATA:

CONCRETE CLASS S - COMPRESSIVE STRENGTH 31.0 MPA (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 27.5 MPA (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615M, A616M, OR A617M
GRADE 400 MINIMUM YIELD STRENGTH 400 MPA
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82M OR A615M.

STRUCTURAL STEEL
ASTM A572M - YIELD STRENGTH 350 MPA (RYE BEACH ROAD STRUCTURE)
A36M - YIELD STRENGTH 250 MPA (ALL OTHER STRUCTURES)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL.

65MM CONCRETE COVER

MICRO-SILICA, MODIFIED CONCRETE OVERLAY.

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 25MM THICK.

PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN, SUPERSTRUCTURE

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). CARE SHALL BE TAKEN DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED.

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.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK SHALL BE DRAWN ON THE SURFACE OF DECK. SMALL DIAMETER PILOT HOLES SHALL BE DRILLED 50mm OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 50mm OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 50mm OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. DURING CUTTING OF THE DECK SLAB, CARE SHALL BE TAKEN NOT TO DAMAGE STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS, EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS ABOVE STEEL MEMBERS, A HAMMER HEAVIER THAN 16 kg BUT NOT TO EXCEED 41 kg MAY BE USED AT THE APPROVAL OF THE ENGINEER, TO ENSURE ADEQUATE DEPTH CONTROL AND TO PREVENT NICKING OR GOUGING THE PRIMARY STEEL MEMBERS.

DECK REMOVALS: DUE TO THE POSSIBLE PRESENCE OF WELDED ATTACHMENTS TO EXISTING STRUCTURAL STEEL (FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.), CARE SHALL BE TAKEN DURING DECK REMOVAL TO AVOID DAMAGING STRINGERS WHICH ARE TO REMAIN. STRINGERS DAMAGED BY THE CONTRACTOR'S REMOVAL OPERATIONS SHALL, AT NO COST TO THE PROJECT, BE REPLACED OR REPAIRED. PROPOSED REPAIRS, DEVELOPED BY A REGISTERED PROFESSIONAL ENGINEER, SHALL BE SUBMITTED IN WRITING FOR REVIEW AND APPROVAL BY THE DIRECTOR.

EXTRANEOUS MEMBERS: EXISTING EXTRANEOUS MEMBERS (I.E., FINISHING MACHINE AND FORM SUPPORTS, ETC., AND THE SUPPORT FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) ATTACHED BY WELDED CONNECTIONS TO PORTIONS OF THE TOP FLANGES DESIGNATED "TENSION" SHALL BE REMOVED AND THE FLANGE SURFACES GROUND SMOOTH. GRINDING SHALL BE CAREFULLY DONE AND PARALLEL TO THE FLANGES.

LOADING LIMITATIONS: NO PART OF THE STRUCTURE SHALL BE SUBJECTED TO UNIT STRESSES THAT EXCEED 136.5% OF THE ALLOWABLE UNIT STRESSES GIVEN IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DUE EITHER TO DEMOLITION OR ERECTION EQUIPMENT ON OR ACROSS THE STRUCTURE. STRUCTURAL ANALYSIS COMPUTATIONS, BY A REGISTERED PROFESSIONAL ENGINEER, SHOWING THE ALLOWABLE STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE CONTRACTOR'S METHODS OR EQUIPMENT SHALL BE SUBMITTED TO THE DIRECTOR FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO THE START OF THE WORK.

PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF 202, AND TO THE SATISFACTION OF THE ENGINEER.

PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN, SUBSTRUCTURE 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 16 kg FOR REMOVAL WITHIN 450mm OR PORTIONS TO BE PRESERVED. OUTSIDE THE 450mm LIMITS, A HAMMER HEAVIER THAN 16 kg, BUT NOT TO EXCEED 41 kg, MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF 202, AND TO THE SATISFACTION OF THE ENGINEER.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 25mm 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.

ERI-2-24816 (1542)

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANT OF 60 METERS BEHIND EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

ERI-2-24816 (1542)

PILES TO BEDROCK: PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL MILLIMETERS WITH A MINIMUM RESISTANCE OF 20 BLOWS PER 25mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THE RECEIVED AT LEAST 20 BLOWS.

THE ULTIMATE BEARING VALUE IS 529 kN PER PILE FOR THE HP250X62 ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 727 kN PER PILE FOR THE HP310X79 PIER PILES.

ABUTMENT PILES:

10 PILES 7 METERS LONG, ESTIMATED LENGTH
10 PILES OF ORDER LENGTH 8.5 METERS LONG
10 PILES 8 METERS LONG, ESTIMATED LENGTH
10 PILES OF ORDER LENGTH 9.5 METERS LONG
10 SPLICES

PIER PILES:

36 PILES 4 METERS LONG, ESTIMATED LENGTH
36 PILES OF ORDER LENGTH 5.5 METERS LONG
18 SPLICES

ITEM 507, STEEL POINTS, AS PER PLAN: STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED STEEL "H" PILING. THE STEEL POINTS SHALL BE FURNISHED BY ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BLVD., CLIFTON, NEW JERSEY 07014; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC., 301 WAREHOUSE DRIVE, MATTHEWS, NORTH CAROLINA 28015; DOUGHERTY FOUNDATION PRODUCTS, INC., P.O. BOX 688, FRANKLIN LAKES, NEW JERSEY 07417; VERSA STEEL INC., 3601 N.W. YEON AVENUE, P.O. BOX 10559, PORTLAND, OREGON 97210; PILING ASSOCIATES, INC., 3467 GRIBBLE ROAD, MATHEWS, NORTH CAROLINA 28105; OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO DIRECTOR.

ERI-2-23770 (1477)

RAILROAD CONSTRUCTION CLEARANCE OF 5.486 METERS HORIZONTALLY FROM THE CENTER OF TRACKS AND 6.706 METERS VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 1.8 METERS FROM THE CENTER OF TRACKS, SHALL BE MAINTAINED AT ALL TIMES.

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATION OF THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITIES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

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

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

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED IN TO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT THEIR COST. ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL. INCLUDED WITH ITEM 511 FOR PAYMENT.

ERI-2-19312 (1200)

ERI-2-23770 (1477)

ITEM 863, STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION, AS PER PLAN STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE ENGINEER SHALL HAVE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED ON REQUEST BY THE BUREAU OF BRIDGES. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING STEEL ITEMS INTO THE WORK, AS REQUIRED BY 501.07. AFTER FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND ONE APPROVED SET TO THE BUREAU OF BRIDGES FOR INFORMATION. PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH SS 863 AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL. THE FABRICATOR SHALL FURNISH A 35 MILLIMETER MICROFILM COPY OF EACH SHOP DRAWING, WHICH SHALL BE MOUNTED ON AN APERTURE CARD AS SPECIFIED IN 501.05.

STEEL MEMBERS INCLUDED IN THIS ITEM INCLUDE CROSS FRAMES.

ITEM 518, POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN POROUS BACKFILL SHALL BE #57 GRAVEL IN LIEU OF THE MATERIAL LISTED IN 518.02

ERI-2-24816(1542)

ITEM 516 - REFURBISHING & RESETTING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY RESET & ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING AS REQUIRED BY SYSTEM OZEU, REPLACEMENT OF ANY DAMAGED STEEL LEAD (711.19), INSTALLATION OF ANY NECESSARY STEEL SHIM OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 16°C, LUBRICATING SLIDING SURFACES, REASSEMBLY OF THE BEARINGS, AND PLACEMENT OF NEW ANCHOR BOLTS FOR BOLSTERS. THE CONTRACTOR SHALL BE SURE THAT ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT THE OPTION OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE STATE, NEW BEARINGS OF THE SAME TYPE AS THE EXISTING MAY BE INSTALLED IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT BID PRICE FOR ITEM 516 - REFURBISH AND RESET BEARING DEVICES, AS PER PLAN.

SEE PROPOSAL NOTE FOR THE FOLLOWING ITEMS:

ITEM SPECIAL: SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ITEM SPECIAL: CONCRETE REPAIR BY EPOXY INJECTION INCLUDING SURFACE PREPARATION

SEALING OF CONCRETE SURFACES: EPOXY-URETHANE SEALER SHALL BE THE "BUFF" COLOR PER FEDERAL COLOR STANDARD NO. 37722, AND APPLIED PER THE LOCATIONS DETAILED IN THE PLANS.

SURVEY DISC ON STRUCTURE THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE(1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE HEADWALL/ABUTMENT. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE(1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE HEADWALL/ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK IS CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

THE FOLLOWING STRUCTURES APPLY:
ERI-2-14822 L/R ERI-2-17638 L/R ERI-2-19312 L/R ERI-2-23770 L/R
ERI-2-24430 L/R ERI-2-24816

DESIGN AGENCY: **POGEMEYER DESIGN GROUP, INC.**
 ARCHITECTS + ENGINEERS + PLANNERS
 BIRMINGHAM, AL 35202
 DATE: 10-97
 G.A.B. STRUCTURE FILE NUMBER
 DRAWN: RAN
 CHECKED: J.T.Y.
 DESIGNED: M.E.M.
 STRUCTURAL NOTES
 ERI-2-12.558
 324
 432

PLOTTED: MAY 21, 1999
 FILE NAME: SHT 1: 5033\006\TRAN\BRIDGE\GENNOTE.DWG 7-20-99 2:01:33 pm EST
 J.E.F.

ITEM 516. JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE:
THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT TO RAISE OR REPOSITION ANY EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND OPERATION OF AN ADEQUATE JACKING SYSTEM, INCLUDING ANY TEMPORARY OR PERMANENT SUPPORTS, TO PERFORM THE WORK DESCRIBED IN THE PROJECT PLANS. THREE (3) SETS OF JACKING PLANS, WHICH INCLUDE THE INFORMATION DESCRIBED IN THIS NOTE, SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN. THE PLANS SHALL BE PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER.

JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

1. THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THE SUBMITTAL.
2. CALCULATIONS AND ANALYSIS OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE CONTRACTOR'S SELECTED JACKING POINTS.
3. A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.
4. A SCHEMATIC LAYOUT OF JACKS, CHECK VALVES, PUMPS WITH 3 WAY RETRACTOR VALVE, PRESSURE GAGES, FLOW CONTROL VALVES, ETC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS FOR EACH ABUTMENT OR PIER SHALL BE THE SAME SIZE.
5. ANALYSIS AND CALCULATION OF STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY OR PERMANENT SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY OR PERMANENT SUPPORT.
6. PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORT. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.
7. A STEP BY STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION.
8. METHOD OF ATTACHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS WILL NOT BE PERMITTED.

THE ENTIRE SYSTEM INCLUDING JACKS SHALL HAVE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED LOADS.

FOR LIFTS GREATER THAN 25mm, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT.

JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK.

JACKS ALONE SHALL NOT BE USED TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. TEMPORARY SUPPORTS, BLOCKING OR OTHER METHODS APPROVED BY THE DIRECTOR SHALL BE USED.

SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM SHALL NOT BE USED.

SPARE EQUIPMENT SHALL BE AVAILABLE ON SITE FOR THE REQUIRED STRUCTURE RAISING TO PROCEED IN THE EVENT OF BREAKDOWN. A LIST OF SPARE EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER.

AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY. THE ONLY EXCEPTION IS THE SITUATION WHERE THE WORK INVOLVES REPLACING OR REHABILITATING INDIVIDUAL BEARINGS; NO PERMANENT SHIMMING IS REQUIRED AND THE HEIGHT OF THE LIFT SHALL NOT EXCEED 6mm.

MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE 25mm OR LESS.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, THE JACKING OPERATION SHALL IMMEDIATELY CEASE AND APPROVED SUPPORTS SHALL BE INSTALLED. THE CONTRACTOR SHALL THEN ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. ANY BEAMS THAT SEPARATE FROM THE DECK SHALL BE EPOXY INJECTED FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH THE PROPOSAL NOTE "CONCRETE REPAIR BY EPOXY INJECTION." COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT THE BRIDGE BEARINGS ARE FULLY SEATED BETWEEN ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUITABLE MEANS OF REPAIR, SUBJECT TO THE APPROVAL OF THE ENGINEER, WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

THE JACKING OPERATION SHALL BE DIRECTED BY A PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR. FAILURE TO HAVE A PROFESSIONAL ENGINEER PRESENT SHALL BE CAUSE FOR CEASING JACKING OPERATIONS.

PAYMENT SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE AND SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

PAINTING OF 863 STEEL NEW STEEL SHALL BE SHOP PRIMED, WHICH SHALL BE INCLUDED IN THE COST OF ITEM 863. THE NEW STEEL SHALL ALSO BE PREPARED AND PAINTED PER SUPPLEMENTAL SPECIFICATION 815 IN THE FIELD AS IF IT WERE EXISTING STEEL. QUANTITIES AND PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE SQUARE FOOT (SQ M) UNIT PRICE BID FOR EACH OF THE 815 ITEMS.

INSPECTION OF STRUCTURAL STEEL: THE ENGINEER SHALL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLAT FILLET WELDS TO ENSURE THAT THEY ARE FREE OF DEFECTS. THE DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS SHALL NOT BE ERRECTED UNTIL AFTER THE ENGINEER HAS COMPLETED THIS INSPECTION SHALL NOT TAKE PLACE UNTIL AFTER THE TOP FLANGES ARE CLEANED AS SPECIFIED IN 511.08, BUT IT SHALL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE COST ASSOCIATED WITH THIS INSPECTION SHALL BE INCLUDED WITH ITEM 511, SUPERSTRUCTURE CONCRETE FOR PAYMENT.

ITEM 842. CLASS S & CLASS C CONCRETE, AS PER PLAN: COARSE AGGREGATE SHALL BE NO. 8 LIMESTONE. SLIPFORMING OF PARAPETS IS NOT ALLOWED.

ITEM 844 - HIGH PERFORMANCE CONCRETE, AS PER PLAN THE DESIGN MIX SHALL BE MIX NO. 4 LIMESTONE. THE OPTION OF SLIPFORM CONSTRUCTION OF THE BRIDGE RAILING IS NOT PERMITTED.

ERI-2-17638 (1096)
ERI-2-19312 (1200)
ERI-2-23770 (1477)
ER-2-24816 (1542)

ITEM 842. CLASS C CONCRETE, ABUTMENT, AS PER PLAN: COARSE AGGREGATE SHALL BE NO. 8 LIMESTONE.

INSTALL A 900mm WIDE STRIP, 2.5mm INCH THICK, GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT LOCATIONS SHOWN IN THE PLAN. SECURE THE 1 METER WIDE NEOPRENE SHEETING TO THE CONCRETE WITH 32mm X 3mm (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 25mm OUTSIDE DIAMETER, 3mm GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 225mm. OTHER SIMILAR GALVANIZED DEVICES WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 150 mm (+/-) FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 150mm CENTER TO CENTER ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHOULD COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAPS IN THE LENGTH OF THE HORIZONTAL STRIPS DUE TO MATERIAL MANUFACTURING SHALL BE AT LEAST 300mm IN LENGTH, IF NOT VULCANIZED OR ADHESIVE BONDED, OR 150mm IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 2.5mm THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE", BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, mm	D 751	2.5+/-0.25
BREAKING STRENGTH, GRAB WXF, N. MINIMUM	D 751	3130 X 3130
ADHESIVE 25mm STRIP, 50mm MIN., N MIN.	D 751	27
BURST STRENGTH (MULLEN) MPa, MINIMUM	D 751	9.65
HEAT AGING 70 HOURS T 100°C, 180° BEND WITHOUT CRACKING	D 2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLINESS 1 HOUR AT 40°C, BEND AROUND 6mm MANDREL	D2136	NO CRACKING OF COATING

PAYMENT FOR LABOR, MATERIALS AND INSTALLATION OF THESE ITEMS SHALL BE INCLUDED IN ITEM 842 CLASS C CONCRETE, ABUTMENT, AS PER PLAN.

ERI-2-19312 (1200)

ITEM 842 - CLASS C CONCRETE, MISC.: PIER ENCASEMENT.

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THE COARSE AGGREGATE SHALL BE NO. 8 LIMESTONE.

THE FORMS SHALL BE LEFT IN PLACE FOR SEVEN DAYS. ANY EXPOSED AREAS SHALL BE WATER CURED THAT SAME 7 DAYS.

NOT MORE THAN 48 HOURS PRIOR TO PLACING THE CONCRETE, ALL EXISTING SURFACES TO WHICH THE CONCRETE IS TO BOND, INCLUDING EXPOSED REINFORCING AND STRUCTURAL STEEL SHALL BE CLEANED BY ABRASIVE BLASTING. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LANTANCE, AND OTHER CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.

IMMEDIATELY BEFORE THE CONCRETE IS PLACED ALL ADJACENT CONCRETE SURFACES SHALL BE COVERED WITH A THIN LAYER OF BONDING GROUT. THE BONDING GROUT SHALL CONSIST OF EQUAL PARTS BY VOLUME OF PORTLAND CEMENT AND SAND MIXED WITH ENOUGH WATER TO FORM A SLURRY OF PAINT-LIKE CONSISTENCY WHICH SHALL BE SUCH AS TO ALLOW IT TO BE APPLIED WITH A STIFF BRUSH OR BROOM TO EXISTING CONCRETE SURFACES IN A THIN EVEN COATING THAT WILL NOT RUN OR PUDDLE. THE GROUT SHALL BE APPLIED FOR A SHORT DISTANCE IN ADVANCE OF THE PLACEMENT OF THE CONCRETE AND SHALL NOT BE DRY.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC METER FOR ITEM 842 WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

DOWEL HOLES WITH NON-SHRINK, NON-METALLIC GROUT ALL DOWEL HOLES SHALL BE CORE DRILLED AND GROUTED WITH AN EPOXY MORTAR MEETING THE REQUIREMENTS OF CMS 510. PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED WITH THE APPROPRIATE 842 CONCRETE ITEM.

DRIP GROOVES THE DRIP GROOVES AS DETAILED ON STANDARD CONSTRUCTION DRAWINGS SHALL NOT BE CONSTRUCTED.

FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES FOR DECK REPLACEMENT PROJECT

DESCRIPTION: THIS ITEM SHALL CONSIST OF CONSTRUCTING AND REMOVING RIGID TEMPORARY CONSTRUCTIONS REQUIRED TO COMPLETE THE WORK EXCLUSIVE OF FORMWORK AND ITEMS WHICH ARE SPECIFICALLY INCLUDED ELSEWHERE. THE ITEM INCLUDES PLATFORMS OR STAGING AS NEEDED TO PERMIT ACCESS FOR INSPECTION, TEMPORARY PLYWOOD OR OTHER SHEETING MATERIAL FOR CATCHING BROKEN CONCRETE OR OTHER MATERIALS, AND FOR ALL TEMPORARY SUPPORTS AND BRACES REQUIRED TO MAINTAIN A COMPLETELY STABLE STRUCTURE AT ALL TIMES.

REQUIREMENTS: THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SUPPORTS UNDER PORTIONS OF THE STRUCTURE DURING REMOVAL, RECONSTRUCTION, AND CONSTRUCTION OPERATIONS, AS REQUIRED TO MAINTAIN A COMPLETELY STABLE STRUCTURE AT ALL TIMES. IF, IN THE OPINION OF THE ENGINEER, ADDITIONAL SUPPORTS ARE REQUIRED, THEY SHALL BE PROVIDED BY THE CONTRACTOR ENTIRELY AT HIS EXPENSE.

IN ORDER TO PROTECT VEHICULAR TRAFFIC AND PAVEMENTS AGAINST DAMAGE FROM FALLING MATERIAL, DEBRIS AND OTHER DEMOLITION OPERATIONS, WHILE SUPERSTRUCTURE CONCRETE IS BEING REMOVED OR WHILE THE CONTRACTOR IS WORKING OVERHEAD, THE CONTRACTOR SHALL FURNISH AND ERECT A TEMPORARY PROTECTIVE STRUCTURE UNDER THE SPANS THAT ARE DIRECTLY OVER THE ROADWAY AND SHOULDER AREAS PLUS ENOUGH ADDITIONAL COVERAGE IN THE AREA TO PREVENT ANY FALLING MATERIAL FROM ANY SPAN FROM REACHING THESE AREAS.

IN ADDITION TO THE TEMPORARY PROTECTIVE STRUCTURE, THE CONTRACTOR SHALL PROVIDE PLASTIC SHEETING OR OTHER APPROVED METHODS TO CONTROL WATER USED IN THE SAW CUTTING OPERATION FROM FALLING ON VEHICULAR TRAFFIC.

THE PROTECTIVE STRUCTURES SHALL MEET WITH THE APPROVAL OF THE ENGINEER. THE FLOORING AND SIDING OF THE STRUCTURES SHALL HAVE NO CRACKS OR OPENINGS THROUGH WHICH MATERIAL PARTICLES MAY FALL. AS A MINIMUM, TWO LAYERS OF 19mm PLYWOOD WITH LAPPED JOINTS OR AN EQUIVALENT DESIGN SHALL BE PLACED BETWEEN THE LOWER FLANGES OF THE STRUCTURAL STEEL BEAMS ABOVE THE PAVEMENT AND SHOULDERS OF ROADWAYS ON WHICH VEHICULAR TRAFFIC IS BEING MAINTAINED ON THE EXISTING LANES OR BY PARTIAL LANE CLOSURES. THE PROTECTION IN ALL CASES SHALL EXTEND BEYOND THE EXISTING AND/OR NEW EXTERIOR STRUCTURAL BEAMS A SUFFICIENT DISTANCE TO PROTECT UNDER THE EXISTING AND PROPOSED PARAPETS, AND SHALL HAVE SIDE WALLS EXTENDING UP 1220mm MINIMUM.

SIDEWALLS SHALL BE BRACED SUBSTANTIALLY TO RESIST WIND LOADS. DURING SAWCUTTING AND DECK REMOVAL OPERATIONS, TEMPORARY SHIELDS ATTACHED TO THE SIDE WALLS AND EXTENDING 305mm ABOVE THE TOP OF PARAPET, SHALL BE INSTALLED TO LIMITS AS DIRECTED BY THE ENGINEER. TEMPORARY SHIELDS SHALL BE REMOVED IMMEDIATELY AFTER THEY HAVE SERVED THEIR PURPOSE. DEBRIS SHALL NOT BE PERMITTED TO COLLECT ON THE PROTECTIVE STRUCTURES.

WHEN SUPPORTING THE PROTECTIVE STRUCTURES FROM THE STEEL WORK OF THE BRIDGE(S), ALL CONNECTIONS THERETO SHALL BE MADE BY MEANS OF APPROVED CLAMPS ON BOTH SIDES OF THE BEAM FLANGE. THE DRILLING OF HOLES IN THE STEEL WORK, OR WELDING THERETO, FOR THIS PURPOSE WILL NOT BE PERMITTED. NO PORTION OF THE TEMPORARY SUPPORT SYSTEM AND/OR PROTECTIVE STRUCTURES (INCLUDING CONNECTION DEVICES) SHALL EXTEND MORE THAN 255mm BELOW THE BOTTOM FLANGE OF THE STEEL STRINGERS OR COVER PLATES THAT IS OVER THE TRAVELED WAY (PAVEMENT AND SHOULDERS) OF A HIGHWAY ON WHICH TRAFFIC IS BEING MAINTAINED. HOWEVER, IN NO INSTANCE SHALL THE UNDERCLEARANCE BE LESS THAN 4270mm.

AFTER THE FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES HAVE SERVED THEIR PURPOSE, AND WHEN SO DIRECTED BY THE ENGINEER, THEY SHALL BE REMOVED. PROTECTIVE STRUCTURES, INCLUDING SIDEWALLS, SHALL NOT BE REMOVED UNTIL THE PARAPETS ARE COMPLETED. ALL MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.

DETAILS OF THE FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES FOR CATCHING BROKEN CONCRETE AD OTHER MATERIALS SHALL BE SUBMITTED, IN QUADRUPLET, TO THE ENGINEER FOR APPROVAL. DETAILS SHALL INCLUDE THE EXISTING AND THE PROPOSED TEMPORARY UNDERCLEARANCES TO THE TRAVELLED WAY.

MEASUREMENT AND PAYMENT FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES WILL BE MEASURED AS A UNIT AND SHALL BE INCLUDED WITH ITEM 202, PORTION OF STRUCTURE REMOVED, AS PER PLAN, FOR PAYMENT. THIS PRICE SHALL BE PAYMENT IN FULL FOR ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

CONCRETE PARAPETS: AS SOON AS THE CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 25mm DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. THE SAW CUTS SHALL BE PLACED AT A MINIMUM OF 2000mm AND A MAXIMUM OF 3000mm CENTERS. THE USE OF AN EDGE GUIDE, FENCE OR JIG IS REQUIRED TO ENSURE THAT THE CUT IS STRAIGHT, TRUE AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 6mm. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E TO A MINIMUM DEPTH OF 25mm. SLIP FORMING OF CONCRETE PARAPETS IS NOT ALLOWED.

ITEM 815 - FIELD PAINTING SYSTEM OZEU ALL EXISTING AND NEW STEEL SHALL BE CLEANED AND PAINTED WITH A PRIME, INTERMEDIATE, AND FINISHED COAT OF PAINT IN THE FIELD USING SYSTEM OZEU. THE COST OF THIS WORK SHALL BE INCLUDED WITH SEVERAL FIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU ITEMS FOR PAYMENT. THE COLOR OF THE FINISH COAT SHALL BE A GREEN COLOR MEETING FEDERAL STANDARD NUMBER 15056. IN ADDITION TO THE SURFACE AREA OF THE STEEL STRINGERS TO BE PAINTED, AN ADDITIONAL TWENTY FIVE PERCENT OF THIS AMOUNT HAS BEEN ADDED TO THE SQUARE METER TOTALS TO ACCOUNT FOR INCIDENTALS SUCH AS CROSS FRAMES AND BEARINGS. SEE SUPPLEMENTAL SPECIFICATION 815.

POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1188 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402

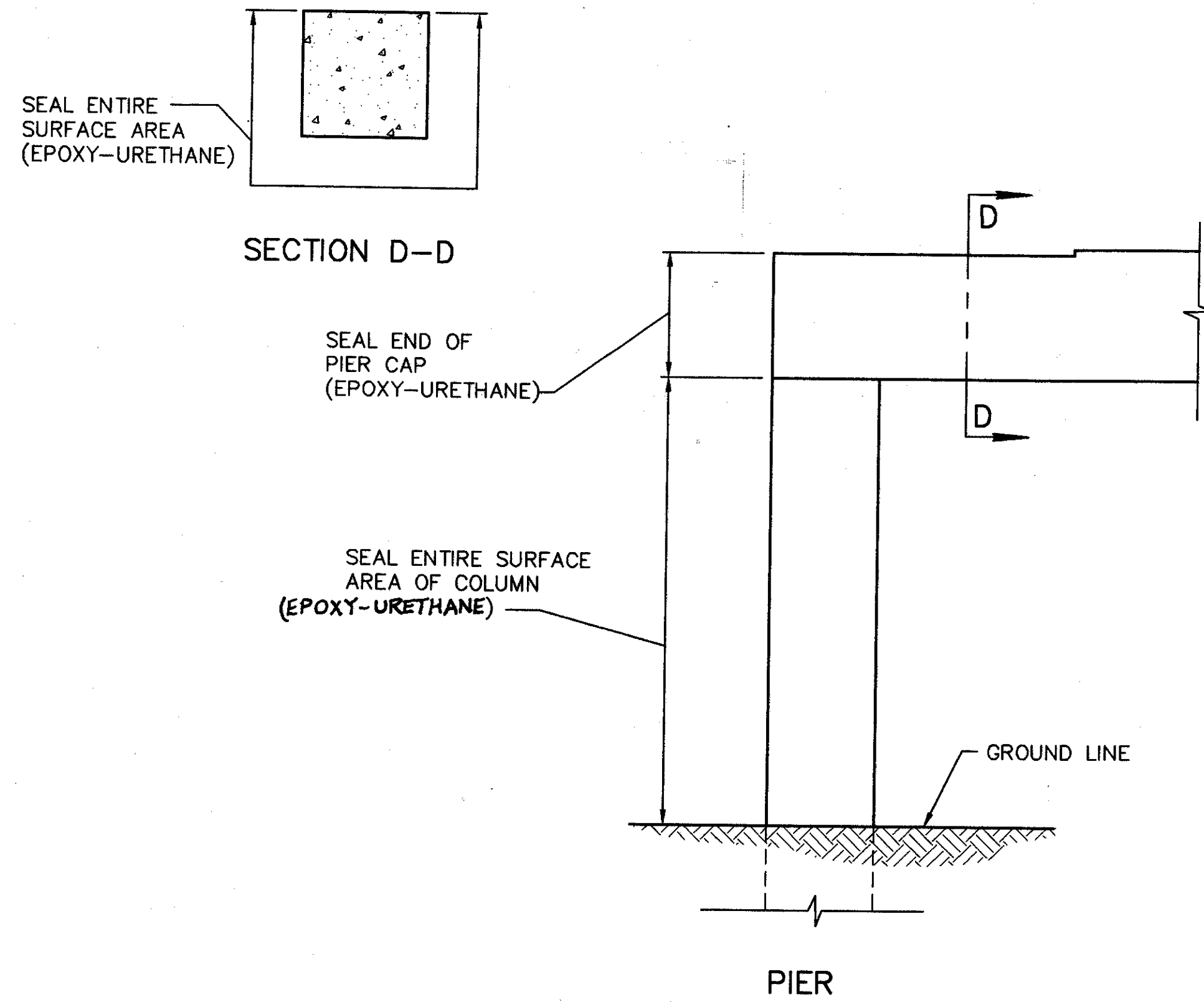
DESIGN AGENCY
 DATE: 10-97
 REVIEWED: G.A.B. STRUCTURE FILE NUMBER
 DRAWN: RAN
 DESIGNED: J.T.Y. CHECKED: M.E.M.

STRUCTURAL NOTES

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PLOTTED: MAY 21, 1999
 FILE NAME: SHT2 I:\5033\006\TRAN\BRIDGE\GENNOTE.DWG 7-12-99 5:00:10 pm EST
 J.E.F.

SR 2 UNDER SR 4 ERI-2-13084 (0813) SFN #2201356							
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	PIER #1	PIER #2	PIER #3
SPECIAL	51267510	405	SQ. METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	135	135	135
SR 2 UNDER CAMPBELL ST. ERI-2-15031 (0934) SFN #2200724							
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	PIER #1	PIER #2	PIER #3
SPECIAL	51267510	207	SQ. METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	69	69	69
SR 2 UNDER GALLOWAY ROAD ERI-2-20133 (1251) SFN #2200996							
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	PIER #1	PIER #2	PIER #3
SPECIAL	51267510	156	SQ. METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	52	52	52
SR 2 UNDER CAMP ROAD ERI-2-22724 (1412) SFN #2201054							
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	PIER #1	PIER #2	PIER #3
SPECIAL	51267510	156	SQ. METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	52	52	52

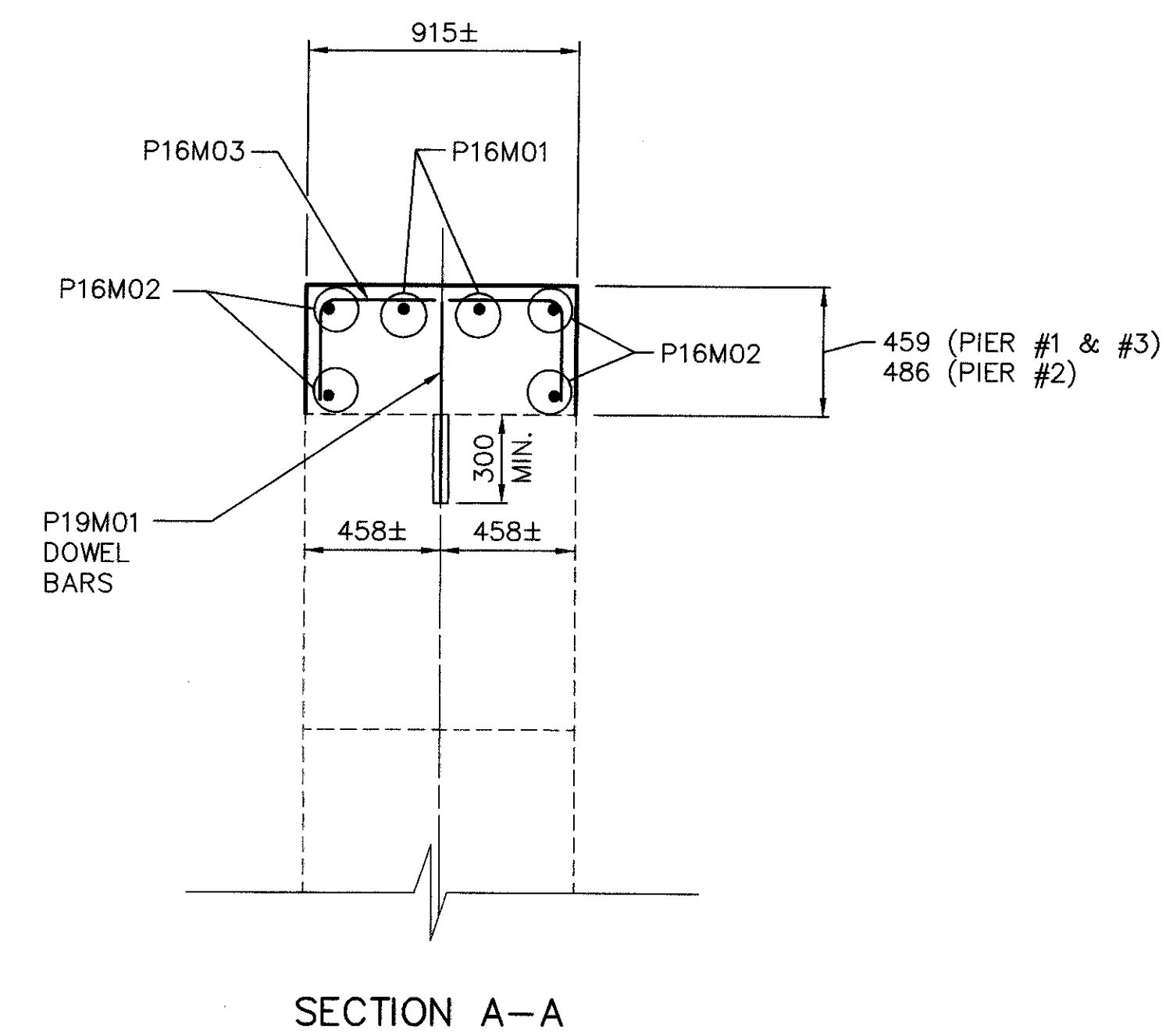
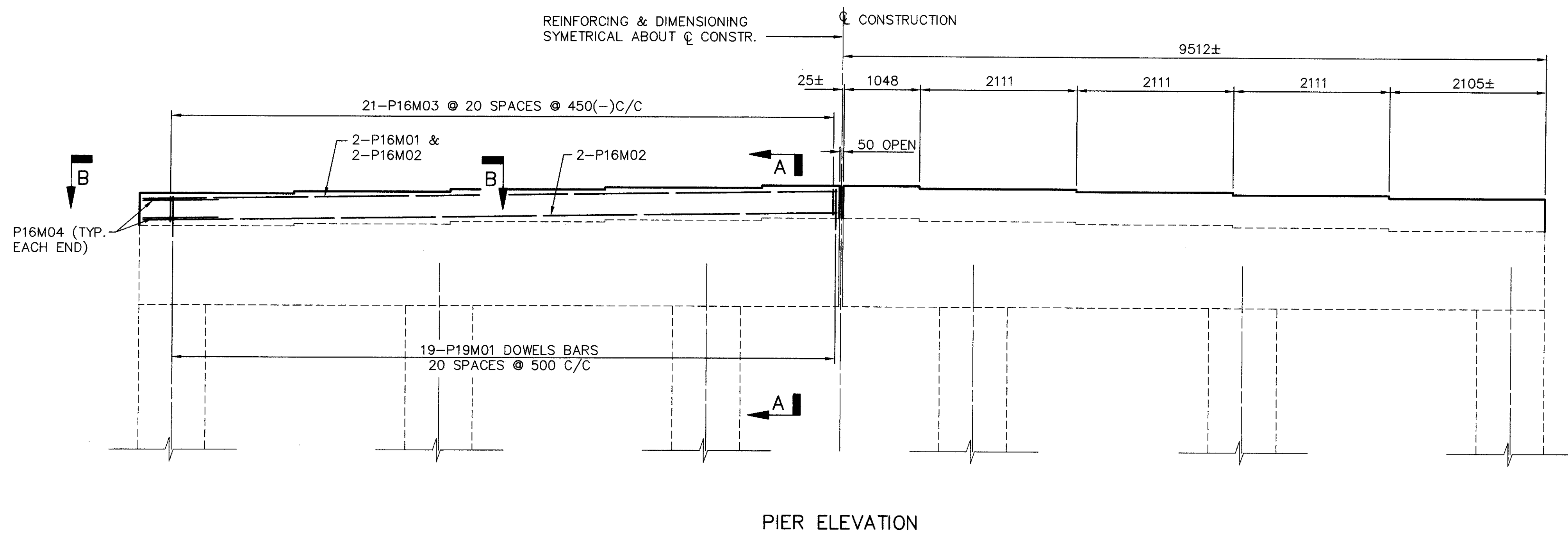


LIMITS OF SEALING OF CONCRETE SURFACES

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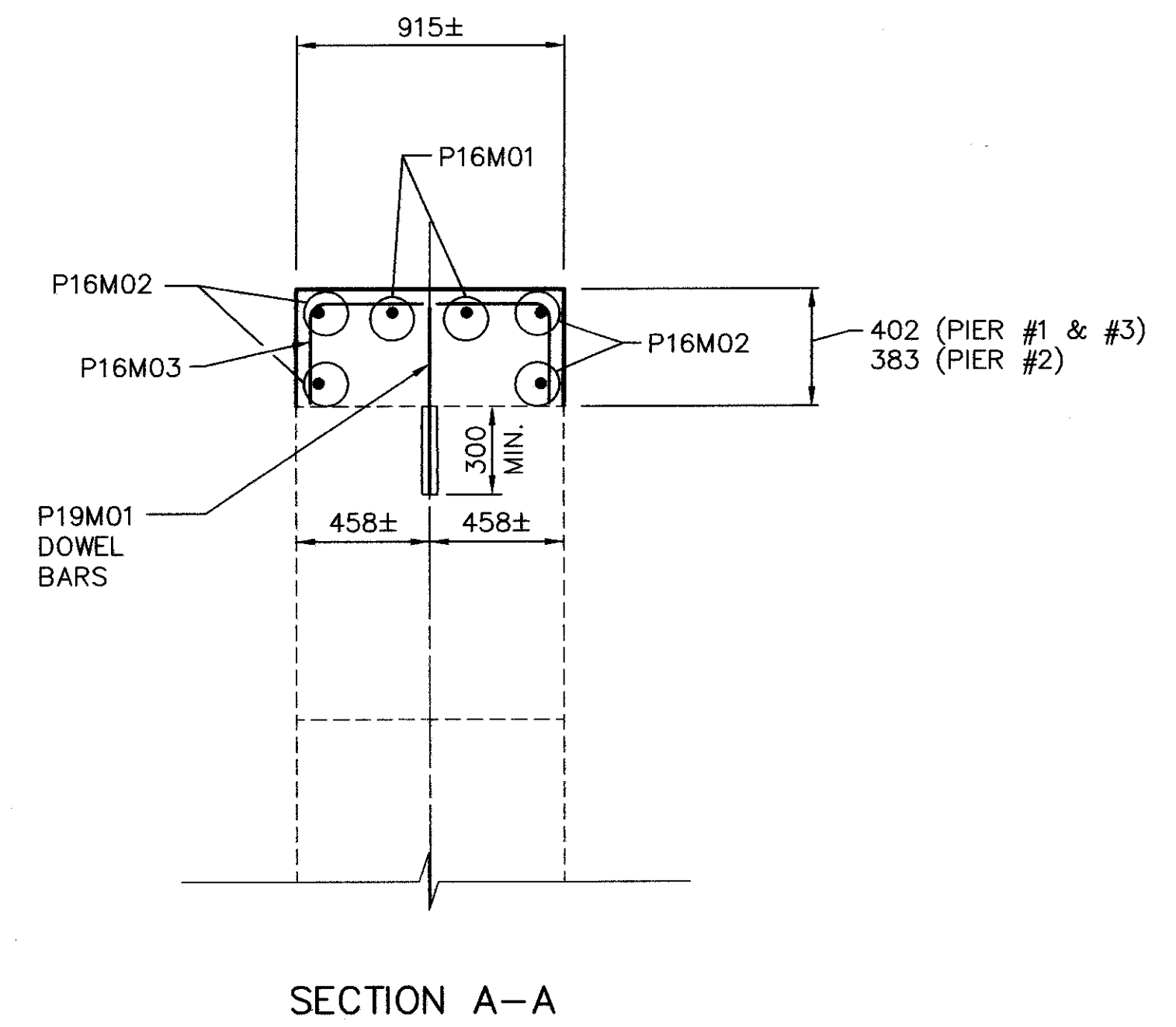
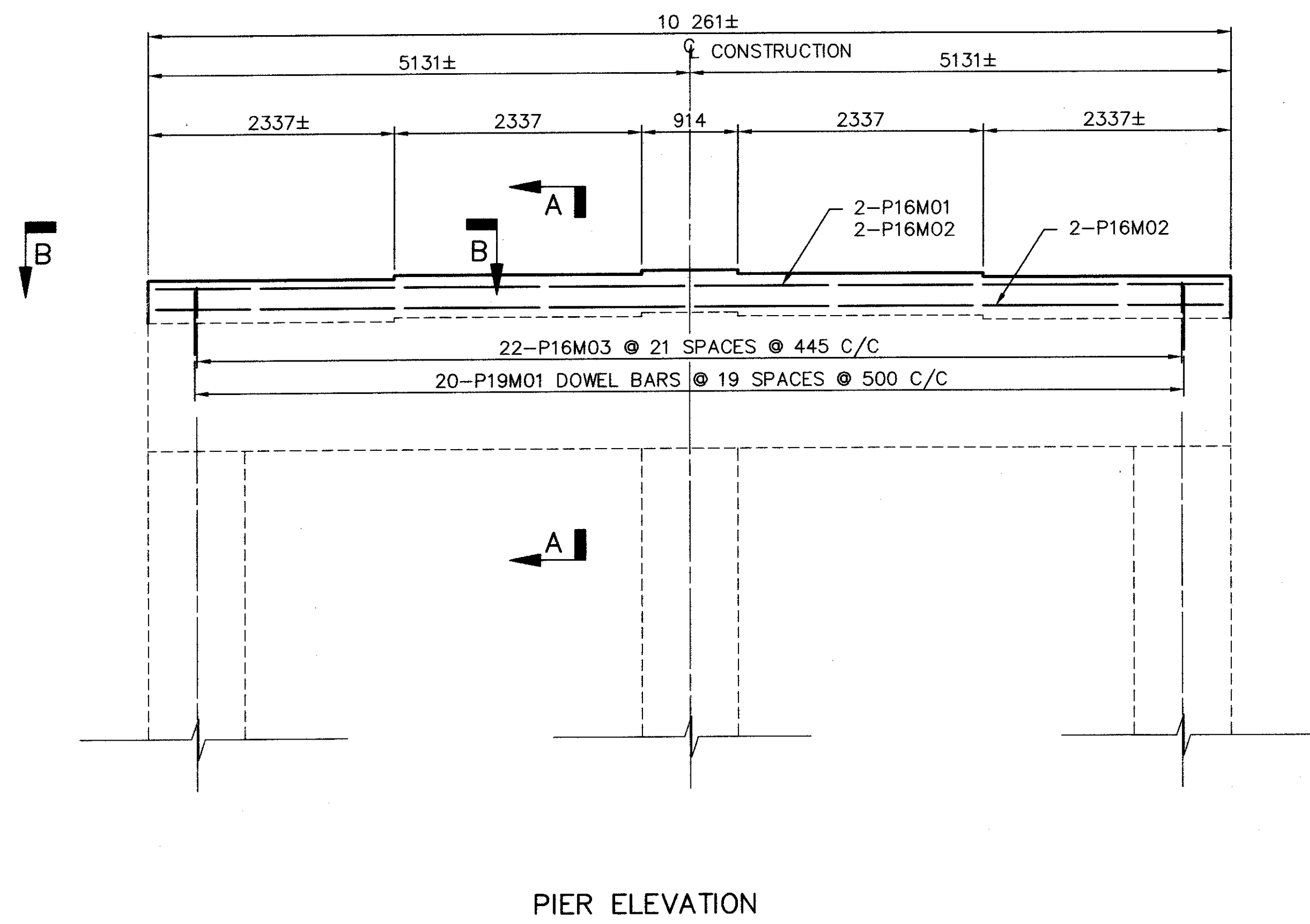
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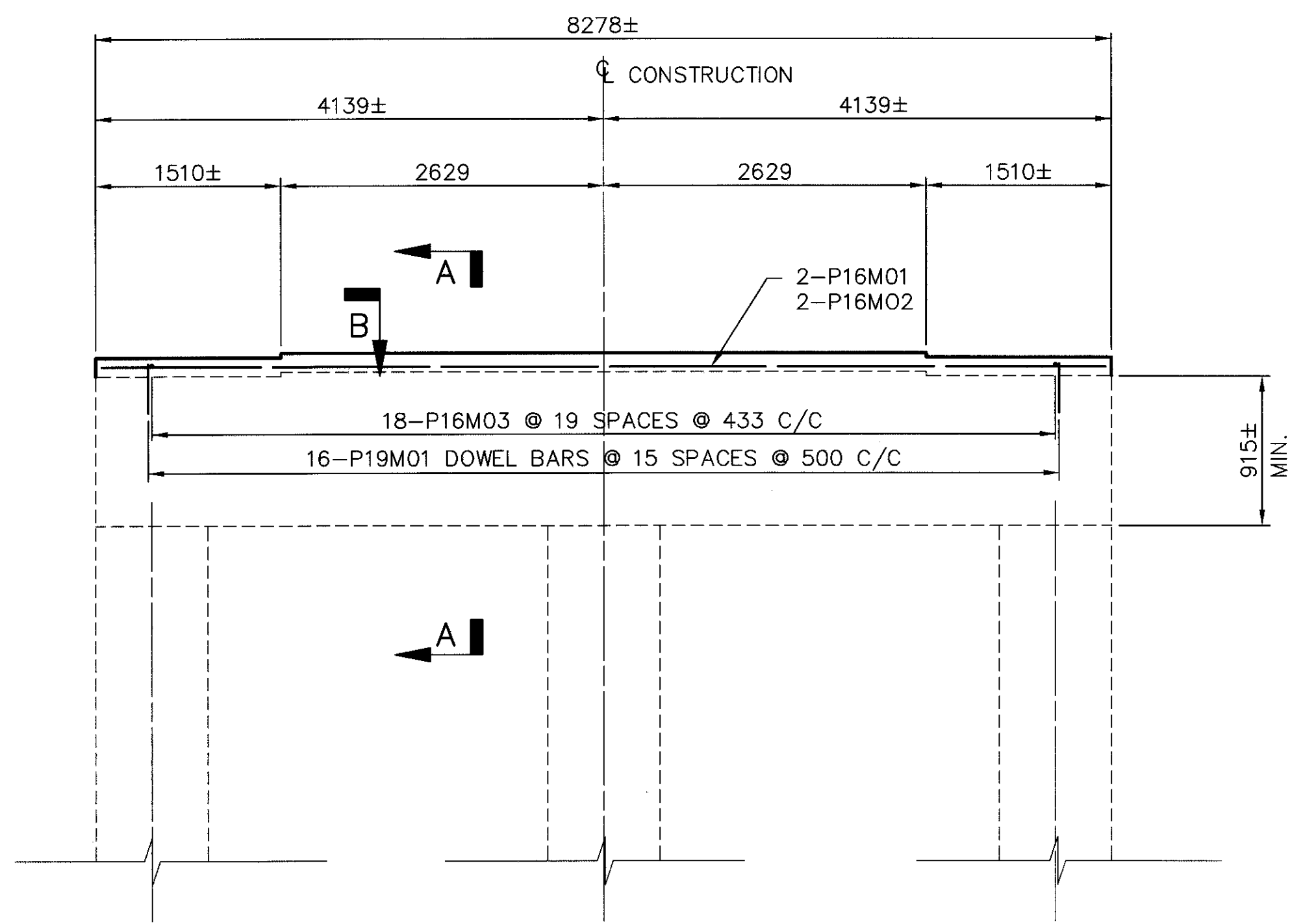
NOTE:
 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.
 THIS SHEET IS FOR INFORMATION FOR SEALING THE CONCRETE SURFACES ONLY.

		DESIGN AGENCY POCOSNEY DESIGN GROUP, INC. ARCHITECTS & ENGINEERS 1188 NORTH MAIN STREET BOWLING GREEN, OHIO 43402
DESIGNED J.T.Y. CHECKED M.E.M.	DRAWN RAN REVISED	REVIEWED C.A.B. STRUCTURE FILE NUMBER 2201356
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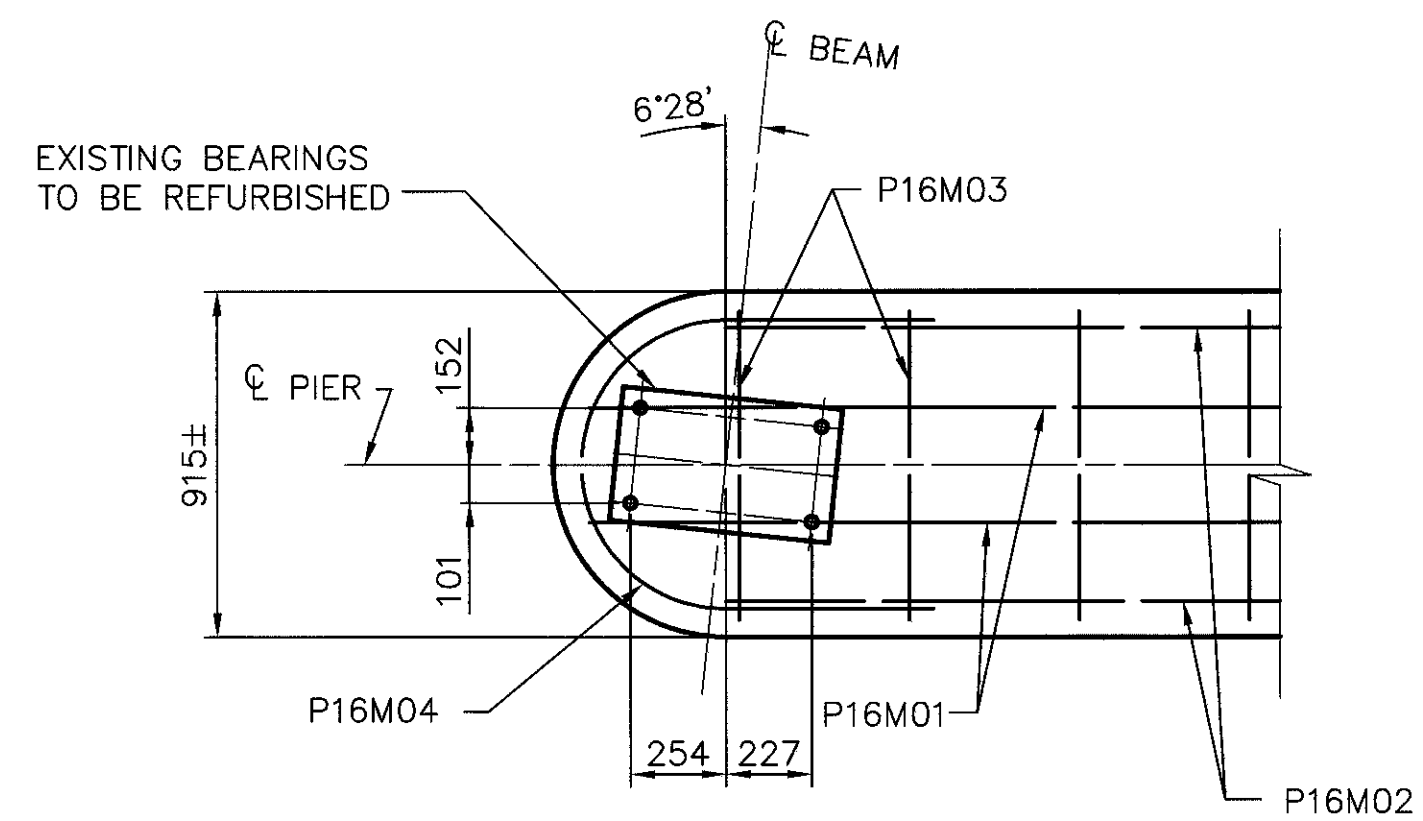


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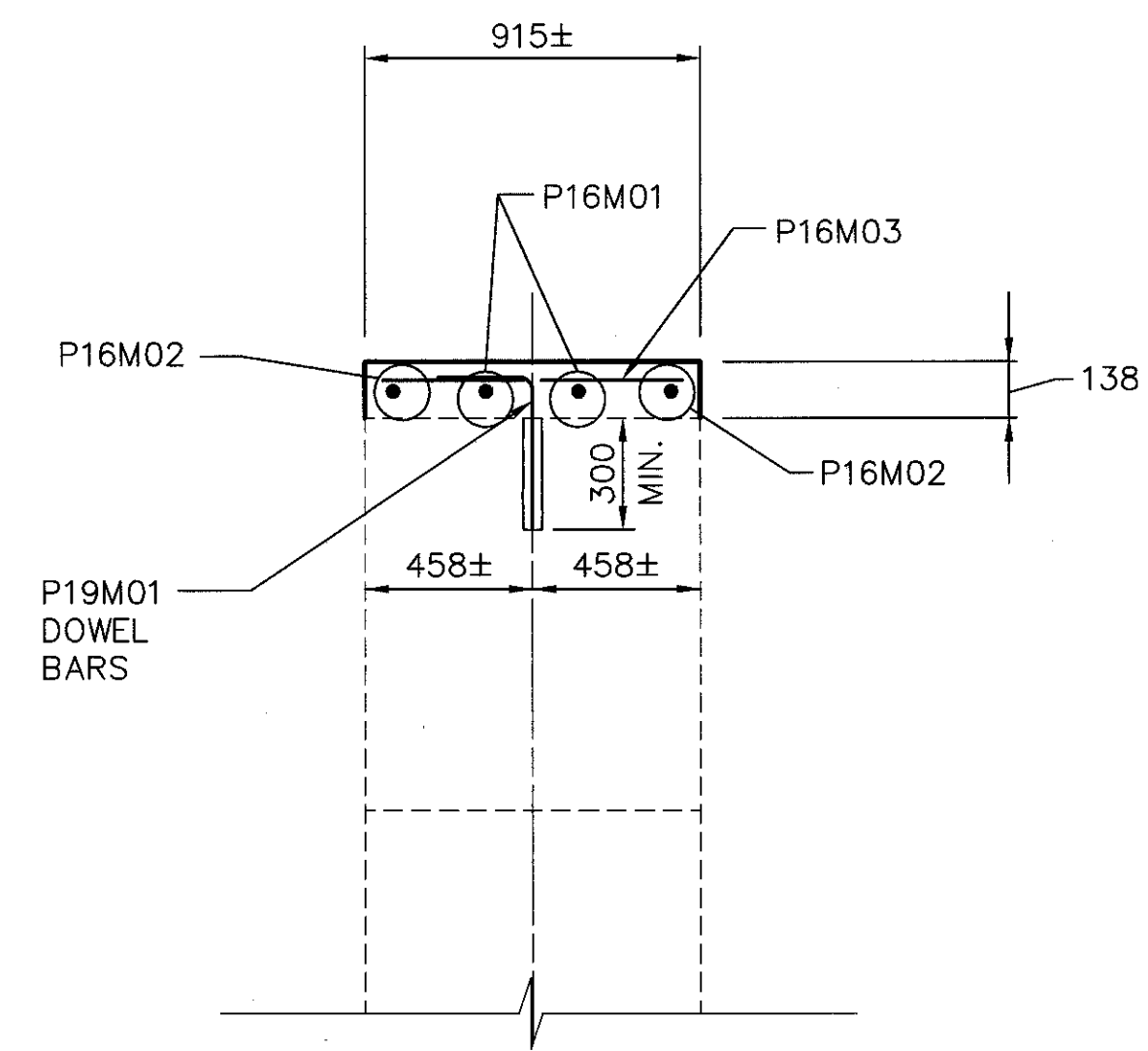
		DESIGN AGENCY POGEMEYER DESIGN GROUP, INC. ARCHITECTS + ENGINEERS + PLANNERS 1000 W. MAIN STREET BOULDER, CO 80502	
DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REVISED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2200724
DATE	10-97		
PIER ELEVATION AND DETAILS BRIDGE NO. ERI-2-15031 (0934) UNDER CAMPBELL STREET			
ERI-2-12.558			
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PIER ELEVATION



SECTION B-B
 (ANCHOR BOLT LOCATION, PIER #2)



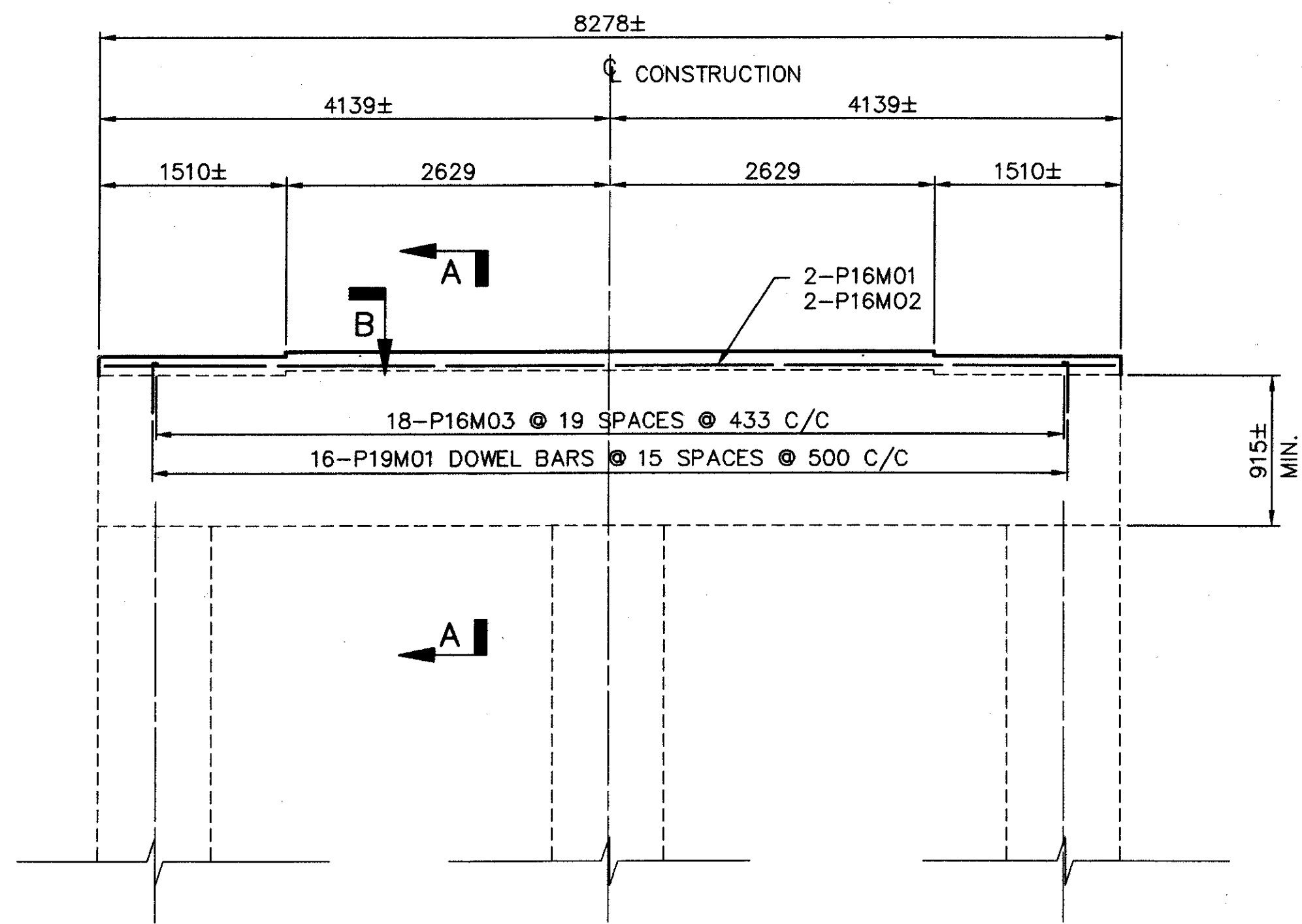
SECTION A-A

NOTE:
 ALL BARS SHALL BE
 EPOXY COATED

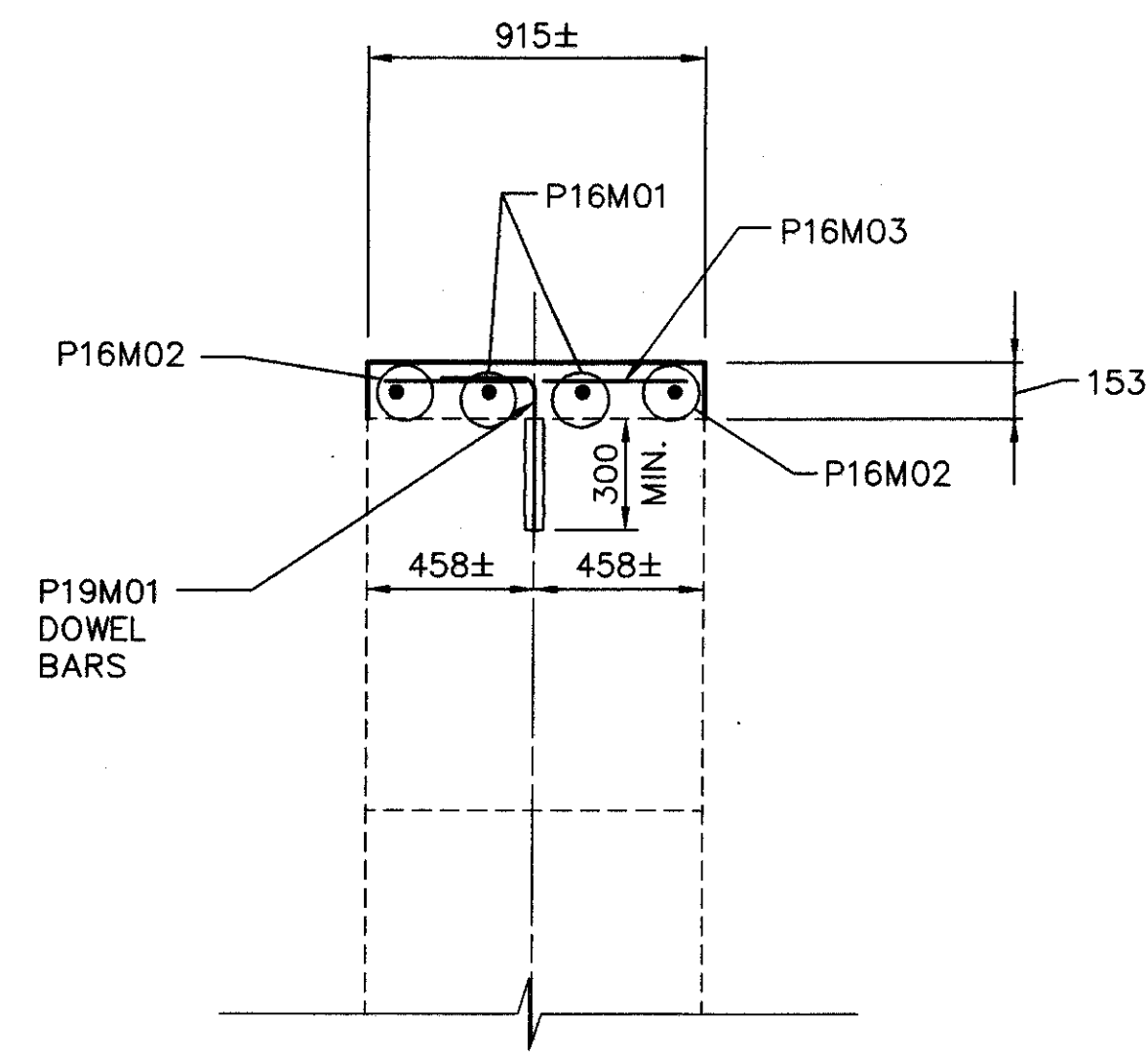
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 UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING
 AND ELEVATIONS WHICH ARE GIVEN IN METERS.

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 SEALING THE CONCRETE SURFACES ONLY.

DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REVISED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2200596
DATE	10-97		



PIER ELEVATION



SECTION A-A

NOTE:
 ALL BARS SHALL BE
 EPOXY COATED

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS
 UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING
 AND ELEVATIONS WHICH ARE GIVEN IN METERS.

THIS SHEET IS FOR INFORMATION FOR
 SEALING THE CONCRETE SURFACES ONLY.

DESIGN AGENCY POGEMEYER DESIGN GROUP, INC. ARCHITECTS + ENGINEERS + PLANNERS 1188 NORTH MAIN STREET BRIDGEVIEW, OHIO 43082	
DATE 10-97	STRUCTURE FILE NUMBER 2201054
REVIEWED G.A.B.	DRAWN RAN
DESIGNED J.T.Y.	CHECKED M.E.M.
PIER ELEVATION AND DETAILS BRIDGE NO. ERI-2-22724 (1412) UNDER CAMP ROAD	
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330 432	

BENCH MARK No. 9

TOP HEADWALL NORTH SIDE EAST END
STAMPING ERI-002-9.14 1995
STA. 21+609.754, 34.14m LT.
ELEV. 186.858

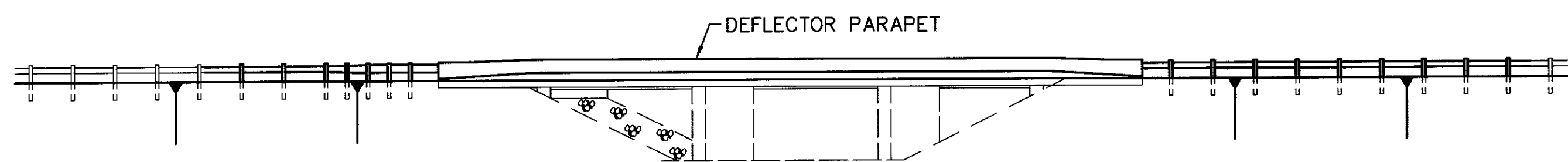
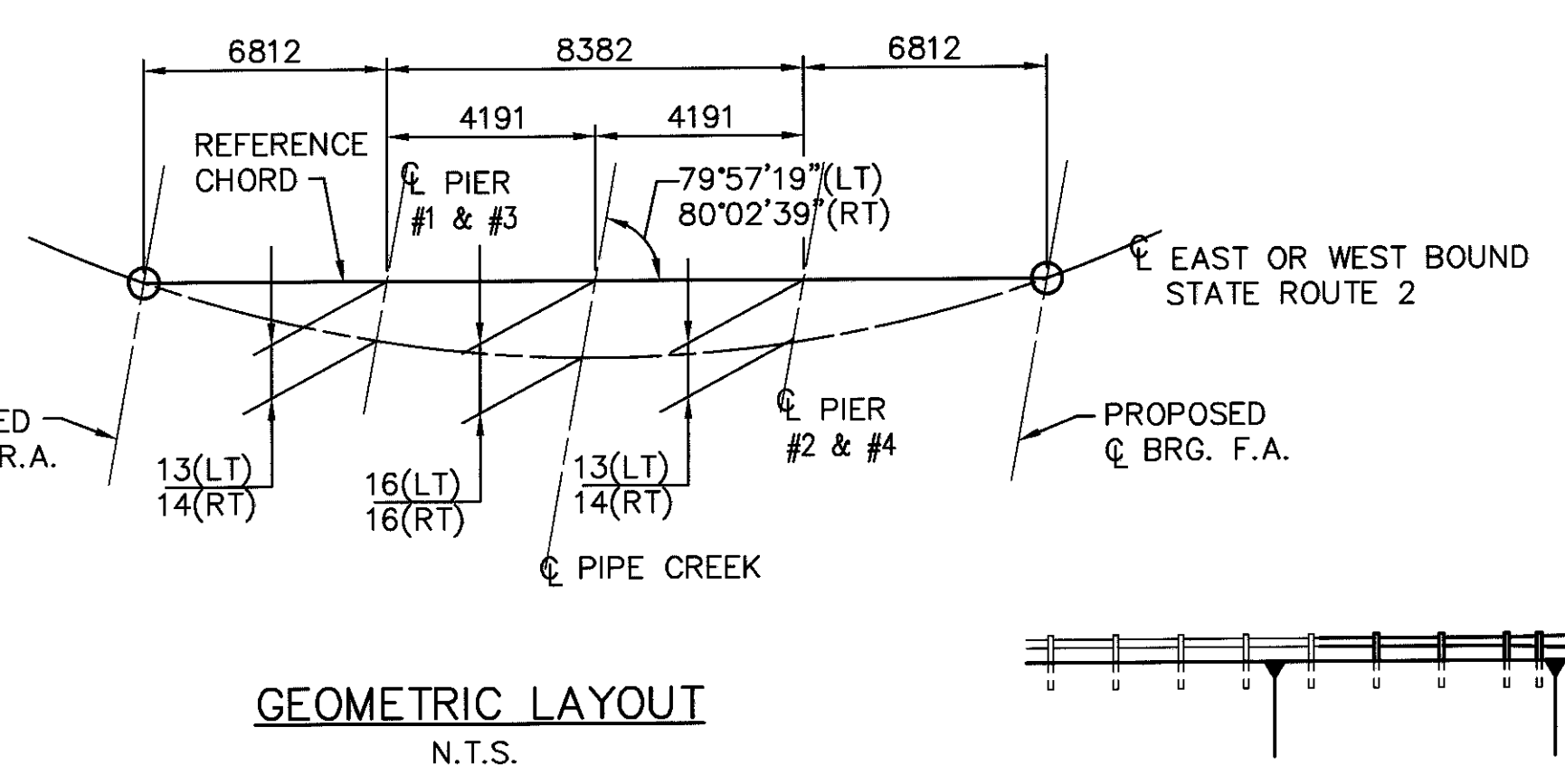
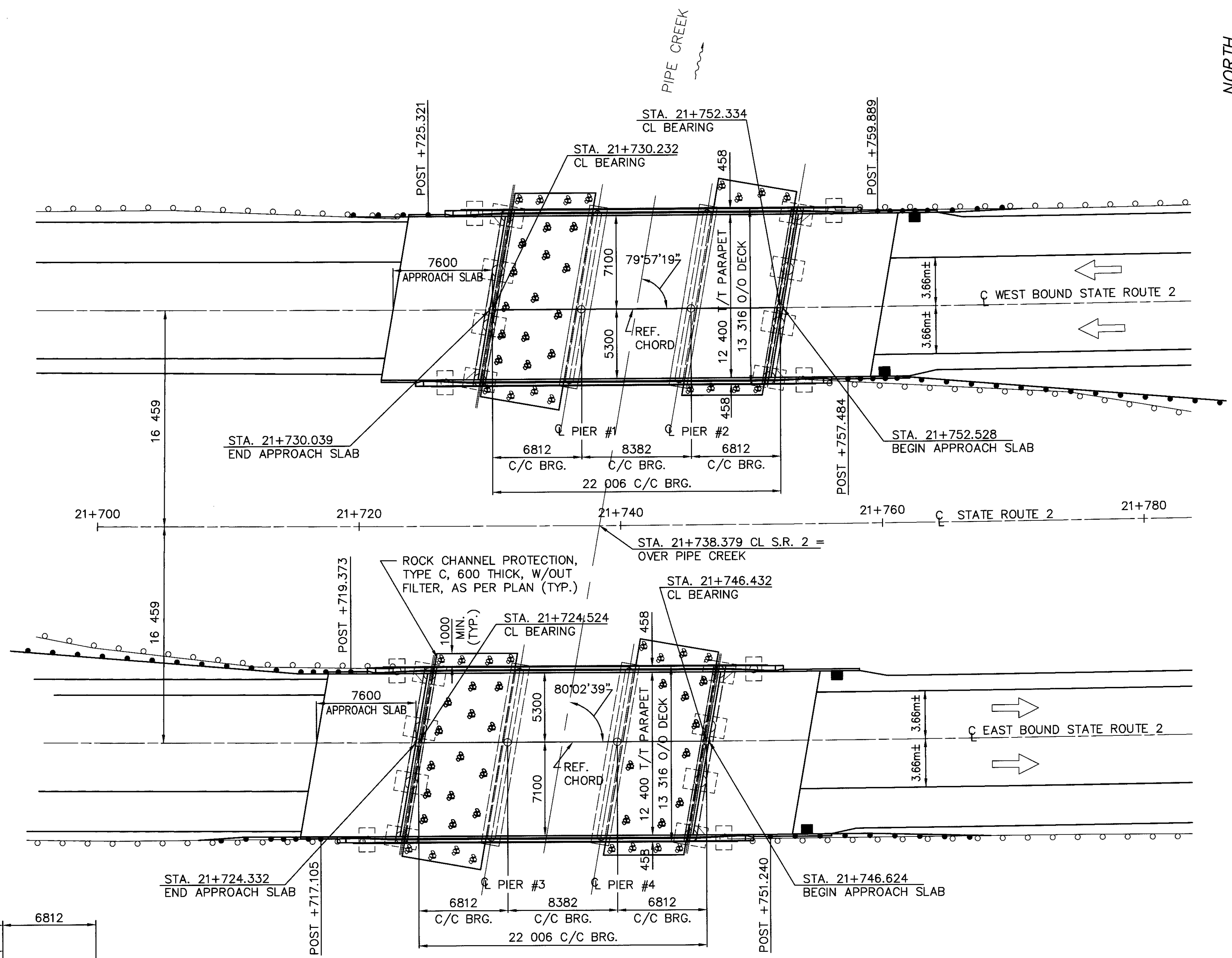
BENCH MARK No. 10

MONUMENT FOUND (P.T.)
STA. 21+852.825, ELEV. 187.702

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1800 W. 10TH AVENUE, SUITE 200
DENVER, COLORADO 80202
PHONE: 303.733.1442

DATE
10-97
REVIEWED
G.A.B.
STRUCTURE FILE NUMBER
2200635 & 2200694
DRAWN
RAN
REMOVED
DESIGNED
J.T.Y.
CHECKED
M.E.M.

NOTE:
ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.
ALL DIMENSIONS REFERENCING THE CL OF STRUCTURE ARE TO THE REFERENCE CHORD.
CURRENT YEAR ADT (1998) = 11 140*
DESIGN YEAR ADT (2018) = 16 100*
DESIGN YEAR ADTT (2018) = 3220*
* - ONE DIRECTION



EXISTING STRUCTURE
TYPE: CONTINUOUS REINFORCED CONCRETE SLAB SUPERSTRUCTURE W/REINFORCED CONCRETE SUBSTRUCTURE W/U TYPE ABUTMENTS ON PEDESTALS & SOLID WALL PIERS.
SPAN: 6706±, 8382±, 6706± C/C BRGS
ROADWAY: 12 802± F/F OF PARAPETS
LOAD FREQUENCY: CF-400 (57)
SKEW: 10°-00'± L.F.
WEARING SURFACE: 25 MONOLITHIC CONCRETE
STRUCTURE FILE NUMBER: 2200635(LT) & 2200694(RT)
APPROACH SLABS: AS-1-54 (7620 LONG)
DATE BUILT: 1961
ALIGNMENT: 0°-28' CURVE LEFT, NORMAL CROWN

PROPOSED STRUCTURE
PROPOSED WORK: NEW SUPERSTRUCTURE & ABUTMENTS ABOVE PEDESTALS.
TYPE: CONTINUOUS REINFORCED CONCRETE SLAB SUPERSTRUCTURE W/NEW REINFORCED CONCRETE U TYPE ABUTMENTS ON EXISTING PEDESTALS & EXISTING SOLID WALL PIERS.
SPAN: 6812, 8382, 6812 C/C BRGS
ROADWAY: 12 400 T/T PARAPETS
LOADING: MS18 & THE ALTERNATE MILITARY LOAD
SKEW: 10°02'41" LEFT BRIDGE (FROM REFERENCE CHORD)
9°57'21" RIGHT BRIDGE (FROM REFERENCE CHORD)
WEARING SURFACE: 25 MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81M (7600 LONG)
CROWN: 0.016
ALIGNMENT: 0°-28' CURVE LEFT, NORMAL CROWN
LONGITUDE: W-82°42'30" LATITUDE: N-41°24'00"

- PROPOSED WORK:
1. REMOVE AND REPLACE EXISTING ABUTMENTS DOWN TO EXISTING PEDESTALS.
 2. REMOVE AND REPLACE EXISTING SLAB WITH NEW SLAB AND DEFLECTOR PARAPETS.
 - 3.
 4. PLACE POROUS BACKFILL WITH FILTER FABRIC AND NEW DRAINAGE PIPE BEHIND ABUTMENTS.
 5. REPLACE APPROACH SLABS.
 6. SEAL CONCRETE SURFACES.
 7. REPAIR SLOPE PROTECTION

NOTE:
STRUCTURES ARE DETAILED FOR STAGED CONSTRUCTION, BUT SHALL BE BUILT PER THE MAINTENANCE OF TRAFFIC PLANS. THE RIGHT STRUCTURE SHALL BE BUILT DURING PHASE 1 AND THE LEFT STRUCTURE DURING PHASE 2.

GENERAL PLAN AND ELEVATION
BRIDGE NO. ERI-2-14822 (0921)
OVER PIPE CREEK

ERI-2-12.558

1/7
336
432

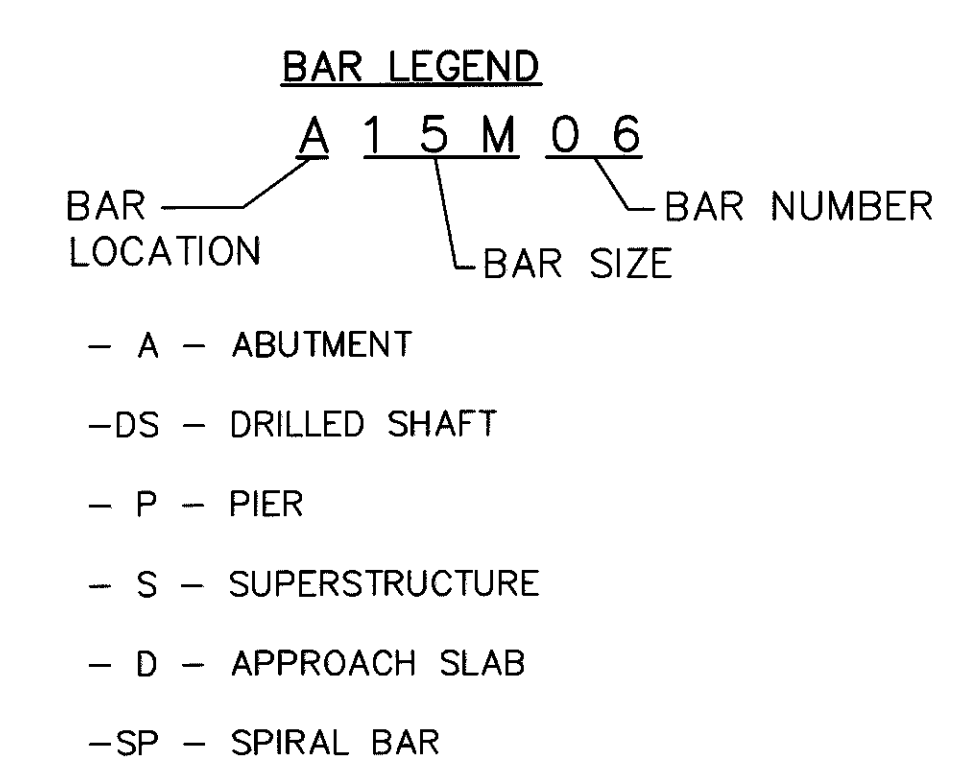
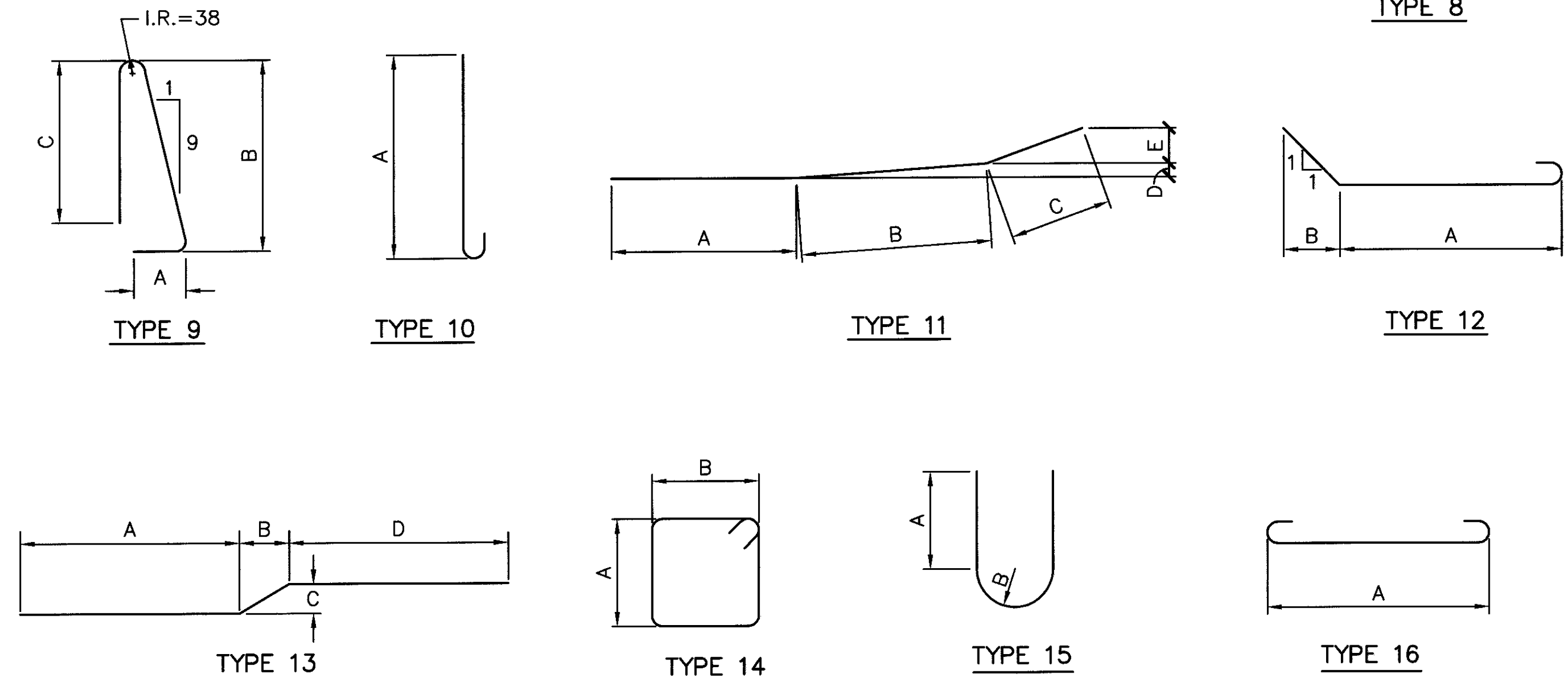
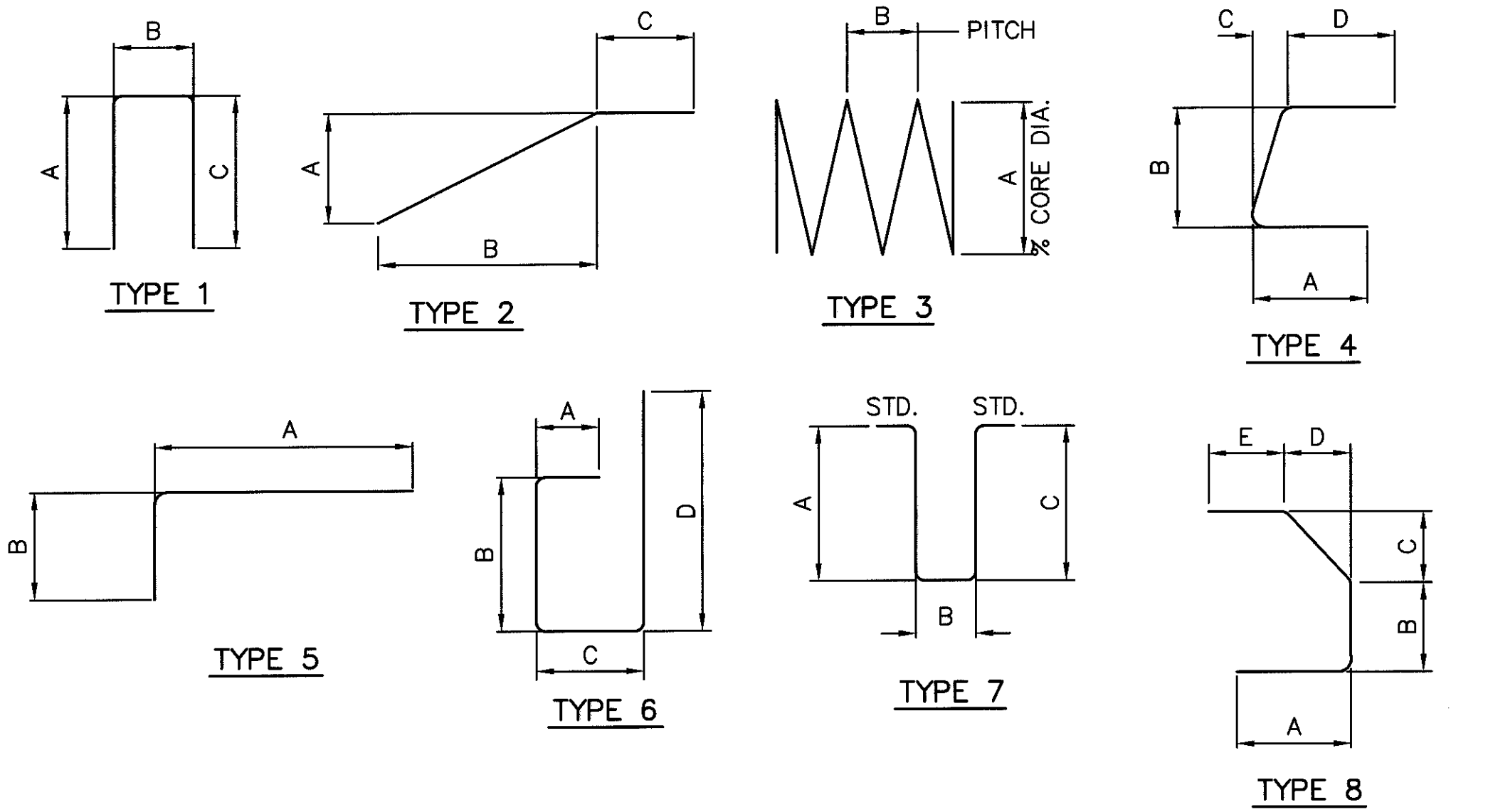
FILE NAME: I:\5033\005\TRAN\BRIDGE\2-14822\14822PNDWG 5-21-99 2:48:22 pm EST
J.E.F.

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL LEFT BRIDGE	TOTAL RIGHT BRIDGE	UNIT	DESCRIPTION	AS PER PLAN SHEET #	SUPER		ABUTMENTS			
							LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. R.A.
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION							
SPECIAL	51267510	201	201	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		147	147	27	27	27	27
516	13200	2	2	SQ METER	13mm PREFORMED EXPANSION JOINT FILLER				1	1	1	1
516	13600	8	8	SQ METER	25mm PREFORMED EXPANSION JOINT FILLER				4	4	4	4
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324			LUMP	LUMP	LUMP	LUMP
518	40000	24	24	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE				12	12	12	12
518	40010	14	14	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS				7	7	7	7
842	43501	54	54	CU METER	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN	325			27	27	27	27
844	48001	116	116	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN, MIX 4	325	116	116				
844	48021	15	15	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET), AS PER PLAN, MIX 4	325	15	15				
844	49000	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX		LUMP	LUMP				
844	49010	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TESTING		LUMP	LUMP				

REINFORCING STEEL LIST

MARK	TOTAL	SUPER		ABUTMENTS				LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.								
A16M01	352			88	88	88	88	2120	1	700	800	700			
A16M02	32			8	8	8	8	6890	S	6890					
A16M03	116			29	29	29	29	2740	1	1120	580	1120			
A16M04	16			4	4	4	4	5137	2	686	1950	3080			
A16M05	16			4	4	4	4	4070	S	4070					
A16M06	32			8	8	8	8	4985	S	4985					
A16M07	48			12	12	12	12	4600	S	4600					
A16M08	8			2	2	2	2	920	10	740				25	
A16M08	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO							
A16M09	11			11	11	11	11	1170	10	990					
A16M10	16			4	4	4	4	2130	9	205	990	915			
A16M11	16			4	4	4	4	1725	S	1725					
A16M12	32			8	8	8	8	3050	S	3050					
A16M13	32			8	8	8	8	1040	S	1040					
A16M14	32			8	8	8	8	6530	S	6530					
A16M15	24			6	6	6	6	2160	16	1800					
A19M01	16			4	4	4	4	740	S	740					
A19M01	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO						158	
A19M02	5			5	5	5	5	1372	S	1372					
A19M02	96			24	24	24	24	1430	S	1430					
A19M03	64			16	16	16	16	1375	S	1375					
A19M04	104			26	26	26	26	1084	8	0	685	216	152	205	
A19M05	88			22	22	22	22	1375	S	1375					
A19M06	16			4	4	4	4	865	S	865					
A25M01	16			4	4	4	4	6890	S	6890					
A25M02	16			4	4	4	4	6530	S	6530					
D25M01	116			29	29	29	29	1501	12	800	305				
A32M01	16			4	4	4	4	6890	S	6890					
A32M02	24			6	6	6	6	3270	5	1850	1520				
A32M03	16			4	4	4	4	6530	S	6530					
S13M01(J)	220	110	110					6815	S	6815					
S13M02(J)	220	110	110					6400	S	6400					
S13M03(L)	100	50	50					4938	S	4938					
S13M04(Q)	50	25	25					4343	S	4343					
S13M05(E)	96	48	48					3429	S	3429					
S13M06(U)	440	220	220					928	1	380	228	380			
S13M07	148	74	74					6815	S	6815					
S13M08	148	74	74					6400	S	6400					
S16M01	64	32	32					9144	S	9144					
S16M02	32	16	16					5480	S	5480					
S16M03	300	150	150					2130	9	205	990	915			
S19M01	300	150	150					929	8	125	380	216	152	230	
S19M02	300	150	150					755	5	525	280				
S25M01(K)	52	26	26					5675	S	5675					
S25M02(A)	108	54	54					5878	S	5878					
S25M03(B)	96	48	48					5827	S	5827					
S25M04(C)	96	48	48					5624	10	5344					
S25M05(P)	52	26	26					5817	S	5817					
S25M06(F)	54	27	27					5436	S	5436					
S25M07(H)	48	24	24					4801	S	4801					
S25M08(G)	48	24	24					4801	S	4801					
S25M09(M)	104	54	54					5182	S	5182					
S25M10(O)	100	50	50					5563	S	5563					
S25M11(N)	100	50	50					5563	S	5563					
S25M12(D)	104	54	54					4343	S	4343					



BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
ALL REINFORCING STEEL TO BE EPOXY COATED.

DESIGN AGENCY: **POGEMEYER DESIGN GROUP, INC.**
ARCHITECTS & ENGINEERS & PLANNERS
BIRMINGHAM, ALABAMA 35202

DATE: 10-97
REVIEWED: C.A.B.
DRAWN: J.T.Y.
DESIGNED: J.T.Y.
CHECKED: M.E.M.

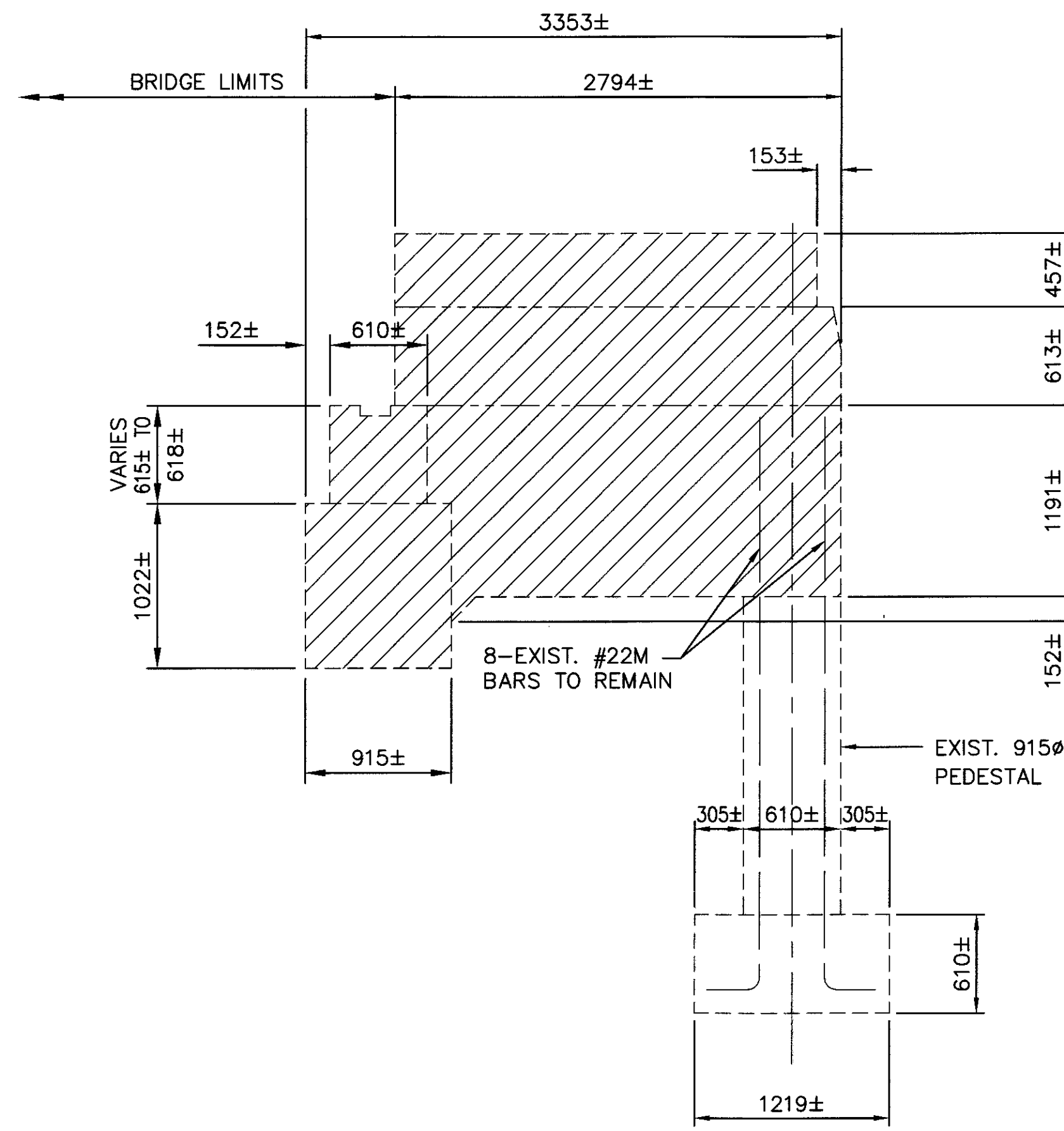
ESTIMATED QUANTITIES AND REINFORCING SCHEDULE
BRIDGE NO. ERI-2-14822 (0921)
OVER PIPE CREEK

ERI-2-12.558

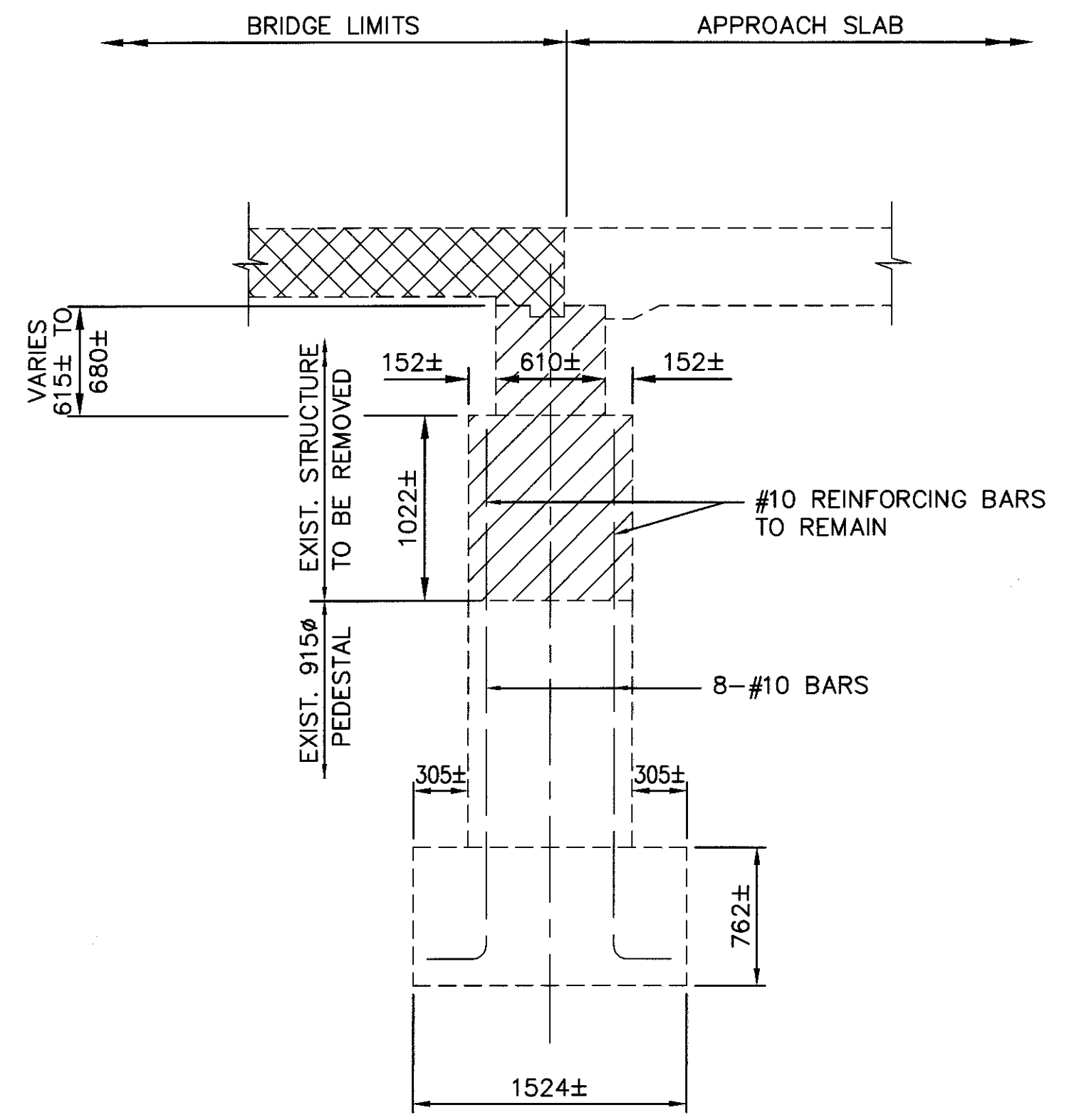
2/7

337
432

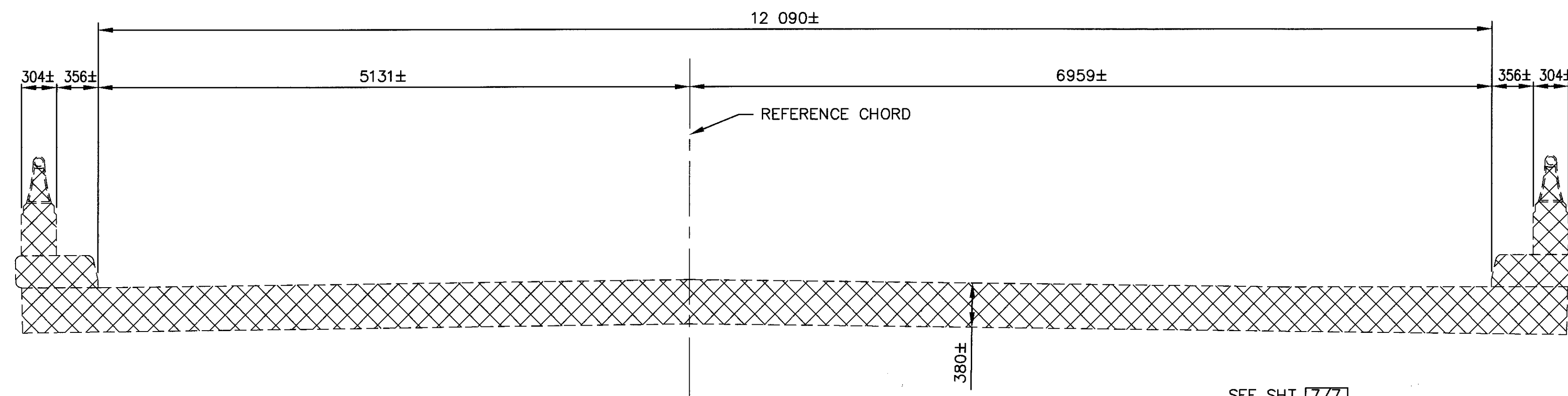
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WINGWALL SECTION

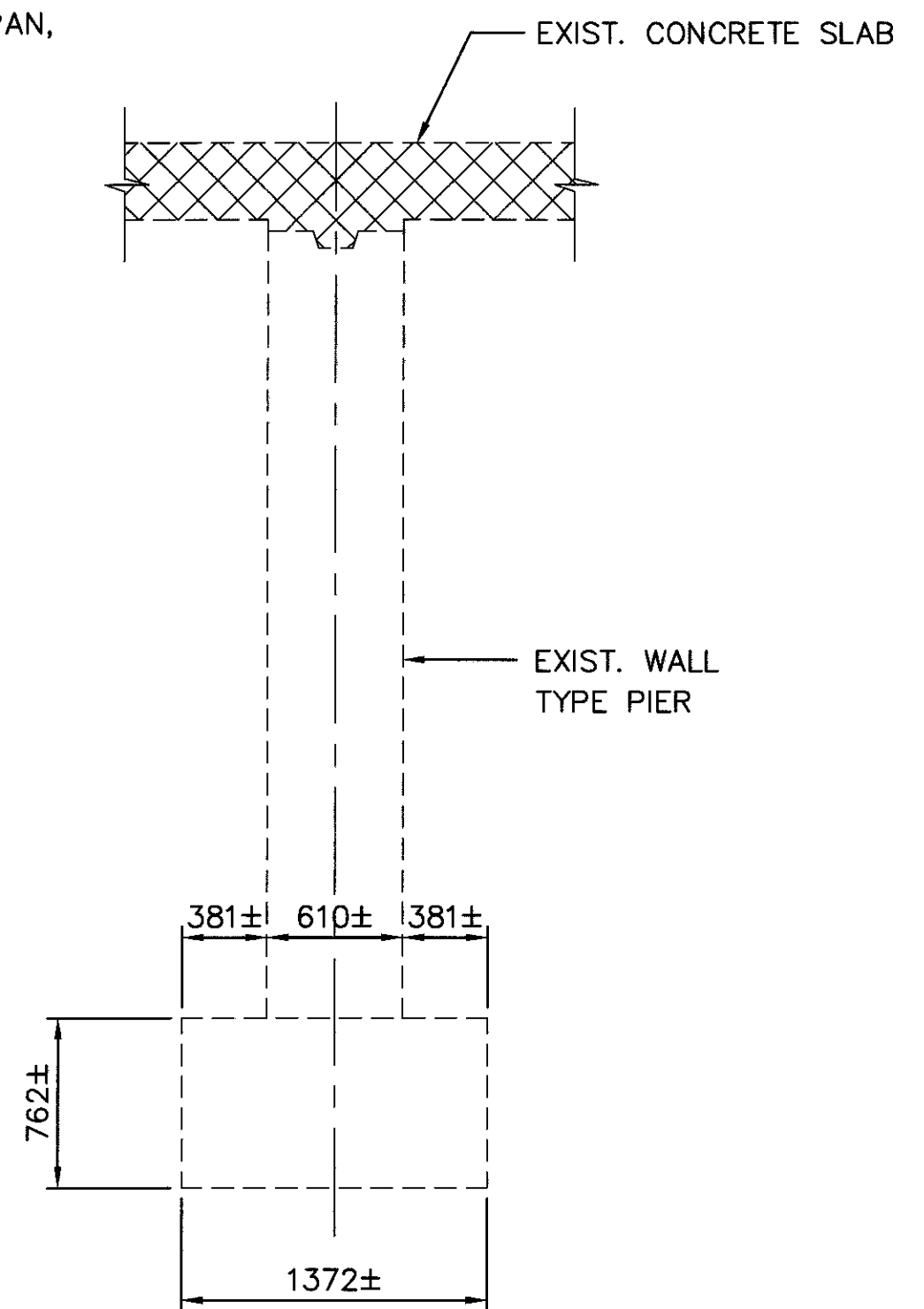


ABUTMENT SECTION



TRANSVERSE SECTION

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUPERSTRUCTURE)

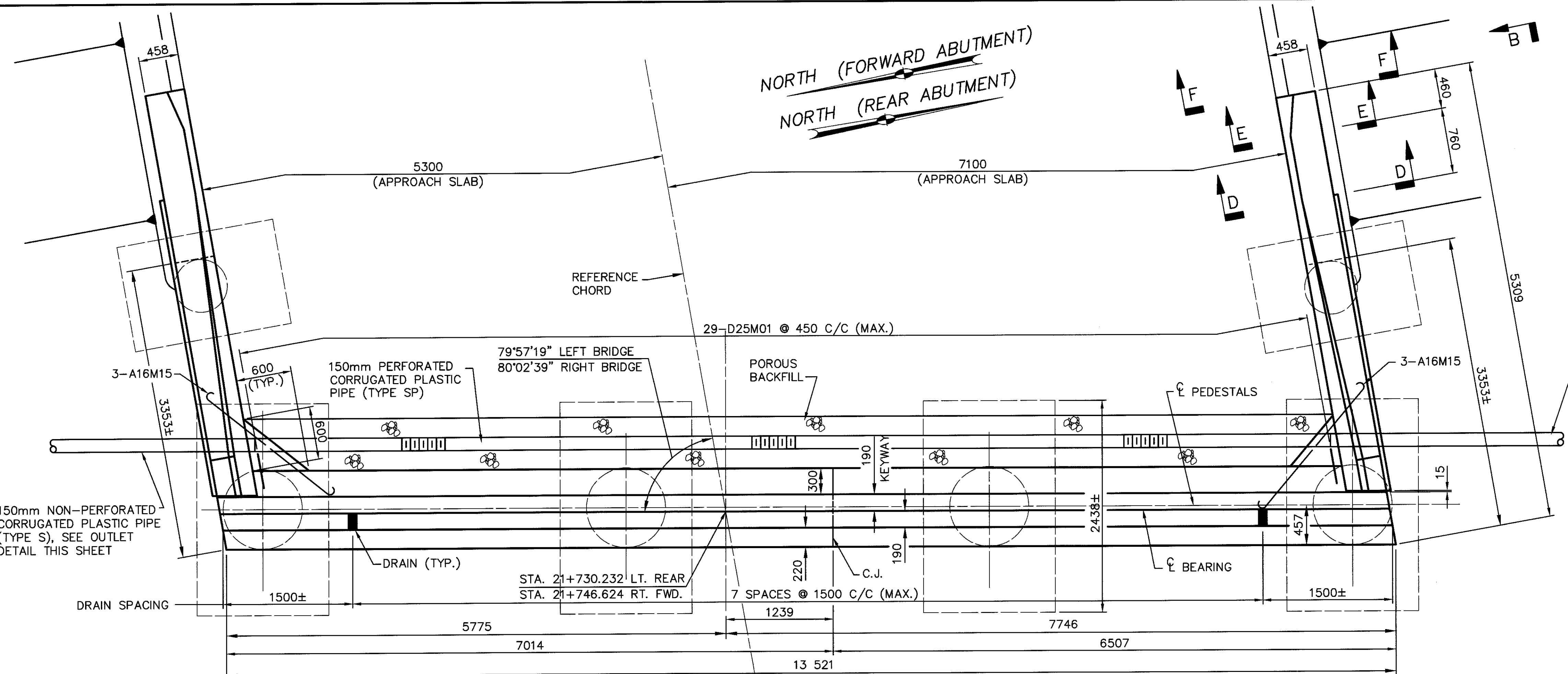


PIER SECTION

SEE SHT. 777 FOR ADDITIONAL DETAILS

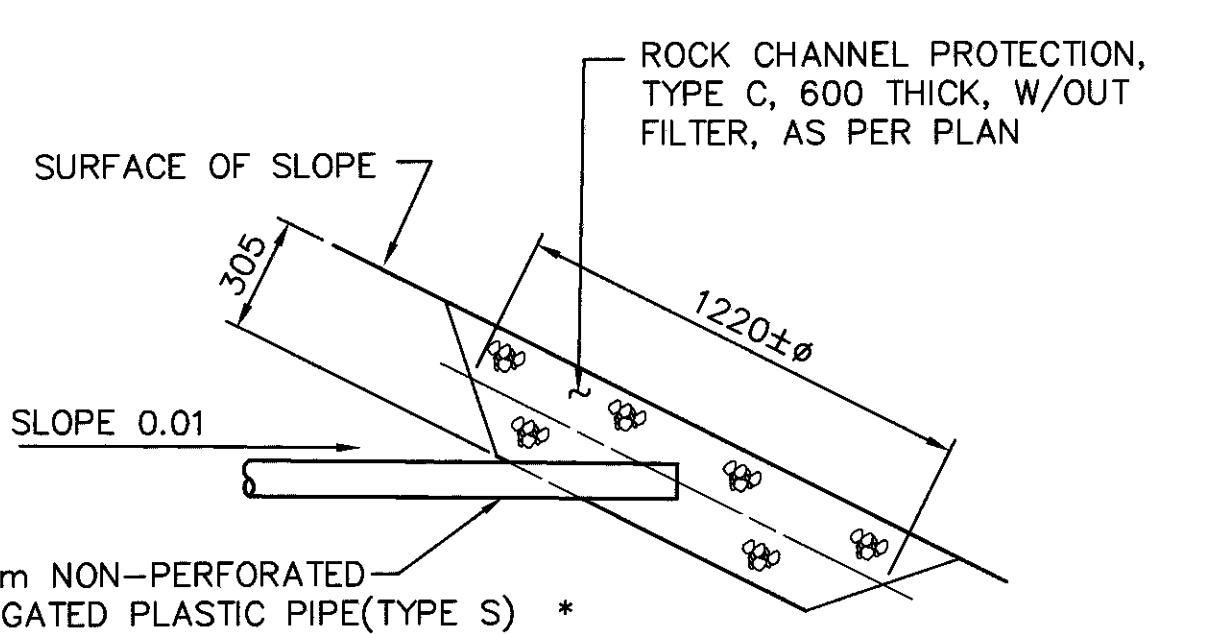
DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAM	REVISED	
REVIEWED	G.A.B.	DATE	10-97
STRUCTURE FILE NUMBER		2200635 & 2200694	

PLOTTED: MAY 21, 1999
 FILE NAME: I:\5033\006\TRAN\BRIDGE\2-14822\14822AB.DWG 7-13-99 9:33:06 am EST
 J.E.F.



		ELEVATION		DIMENSIONS	
		A	B	C	D
RIGHT BRIDGE	R.A.	186.82±	188.407	684±	1584±
	F.A.	186.76±	188.348	684±	1584±
LEFT BRIDGE	R.A.	186.84±	188.429	694±	1594±
	F.A.	186.77±	188.368	694±	1594±

150mm NON-PERFORATED CORRUGATED PLASTIC PIPE (TYPE S), SEE OUTLET DETAIL THIS SHEET



OUTLET DETAIL

* ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLETS OF THESE DRAINAGE PIPES PER DM-1.1M. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM 518 - 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.

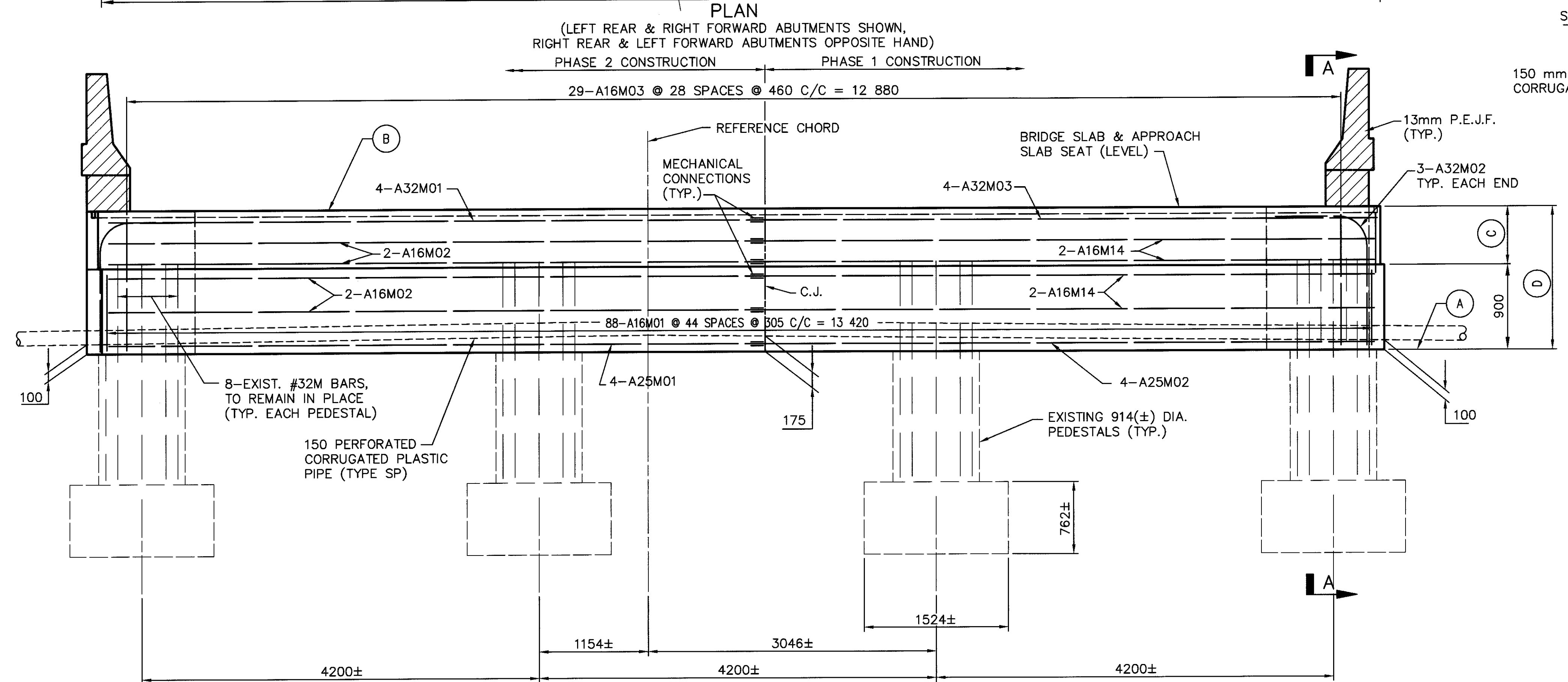
13mm P.E.J.F.

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

- LEGEND**
- R.A. = REAR ABUTMENT
 - F.A. = FORWARD ABUTMENT
 - E.F. = EACH FACE
 - C.J. = CONSTRUCTION JOINT
 - RCP = ROCK CHANNEL PROTECTION
 - P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

ALL NEW REINF. BARS SHALL BE EPOXY COATED

NOTE: LAP #16M BARS 740
 LAP #19M BARS 880
 LAP #25M BARS 1400
 LAP #32M BARS 2390
 UNLESS OTHERWISE NOTED

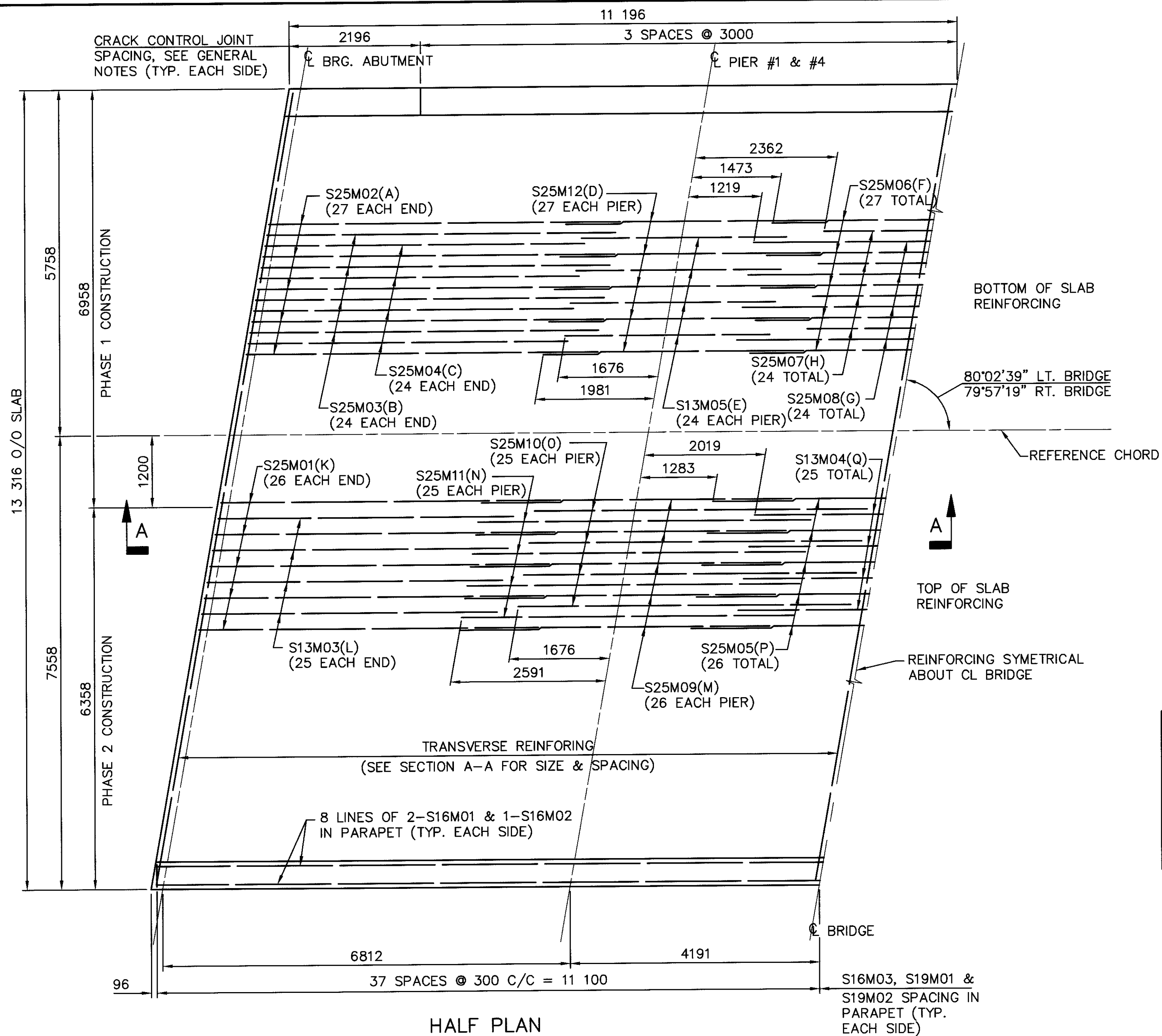


ELEVATION
 (LEFT REAR & RIGHT FORWARD ABUTMENTS SHOWN,
 RIGHT REAR & LEFT FORWARD ABUTMENTS OPPOSITE HAND)

SEE SHEET 3/7 & 7/7 REMOVAL SECTIONS
 SEE SHEET 5/7 FOR SECTIONS A-A THRU F-F

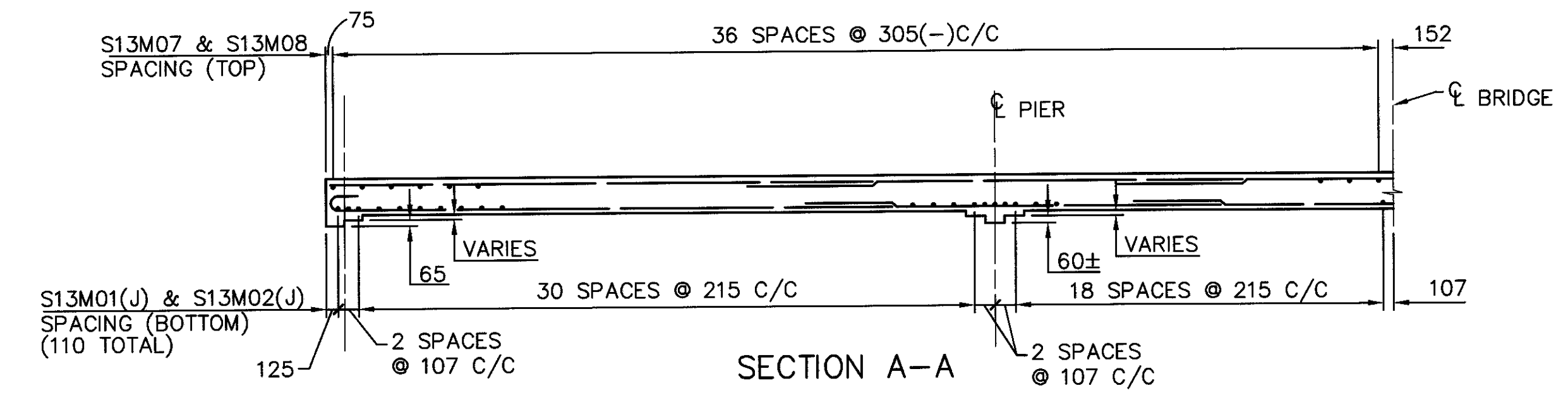
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NORTH (LEFT BRIDGE)
NORTH (RIGHT BRIDGE)



HALF PLAN

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

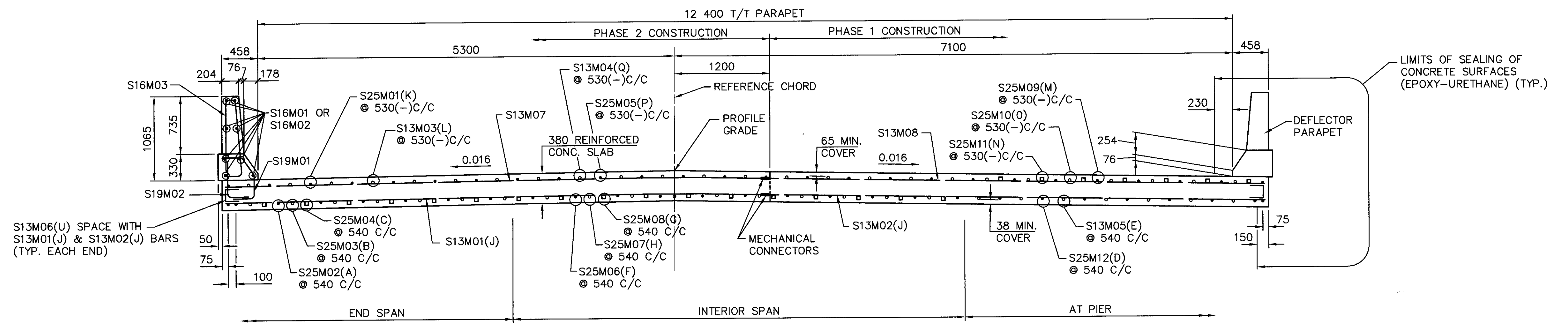


SECTION A-A

SCREED ELEVATIONS

		R. ABUT.	1/2 PT.	CL PIER #1 OR #3	1/2 PT.	CL PIER #2 OR #4	1/2 PT.	F. ABUT
LEFT BRIDGE	LEFT EDGE OF DECK	188.810	188.801	188.791	188.779	188.768	188.758	188.749
	PROFILE GRADE	188.934	188.925	188.915	188.903	188.892	188.882	188.873
	RIGHT EDGE OF DECK	188.817	188.808	188.798	188.786	188.775	188.765	188.756
RIGHT BRIDGE	LEFT EDGE OF DECK	188.787	188.777	188.766	188.753	188.741	188.730	188.720
	PROFILE GRADE	188.912	188.902	188.891	188.878	188.866	188.855	188.845
	RIGHT EDGE OF DECK	188.794	188.784	188.773	188.760	188.748	188.737	188.727

SCREED ELEVATIONS ARE FOR THE FINISHED SLAB SURFACE. CONTRACTOR TO PROVIDE ANY FALSEWORK DEFLECTION CALCULATIONS REQUIRED.



TRANSVERSE SECTION
(LOOKING IN DIRECTION OF TRAFFIC)

POGGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
BOWLING GREEN, OHIO 43402

DESIGN AGENCY

DATE 10-97
REVIEWED G.A.B.
STRUCTURE FILE NUMBER 2200635 & 2200694

DRAWN RAN
REVISION

DESIGNED J.T.Y.
CHECKED M.E.M.

SUPERSTRUCTURE PLAN AND SECTION
BRIDGE NO. ERI-2-14822 (0921)
OVER PIPE CREEK

ERI-2-12.558

6 / 7

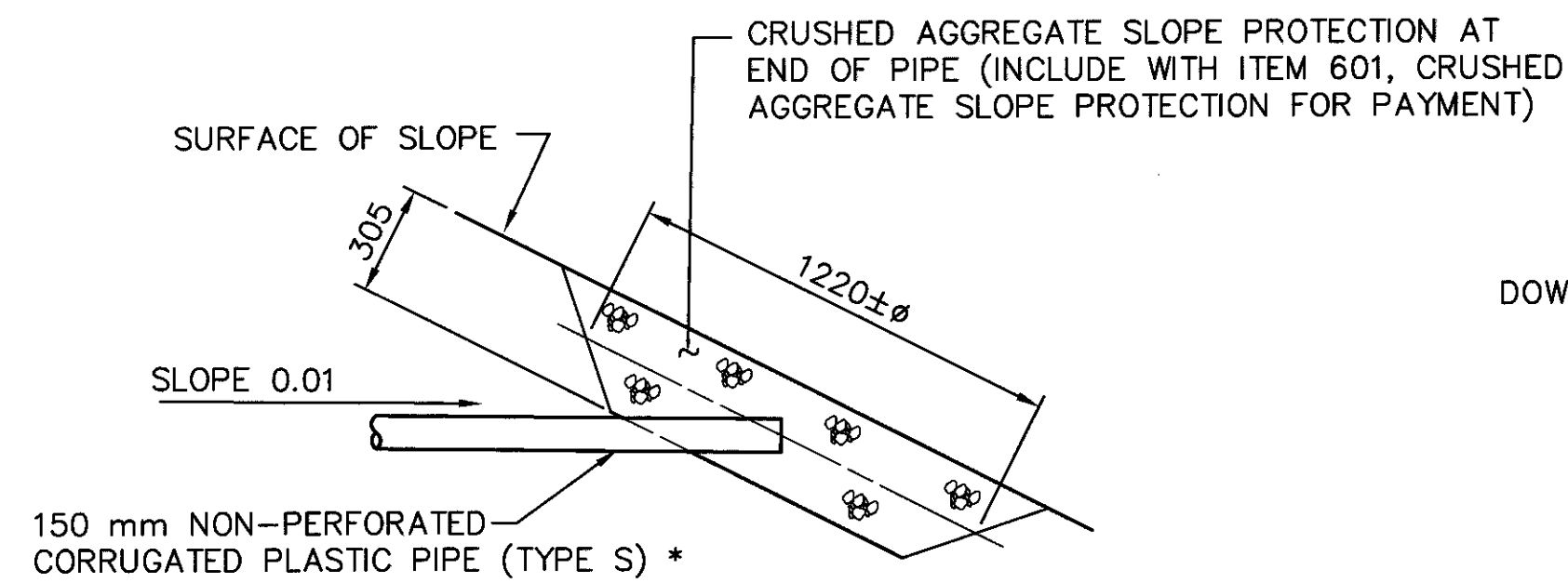
341

432

ESTIMATED QUANTITIES

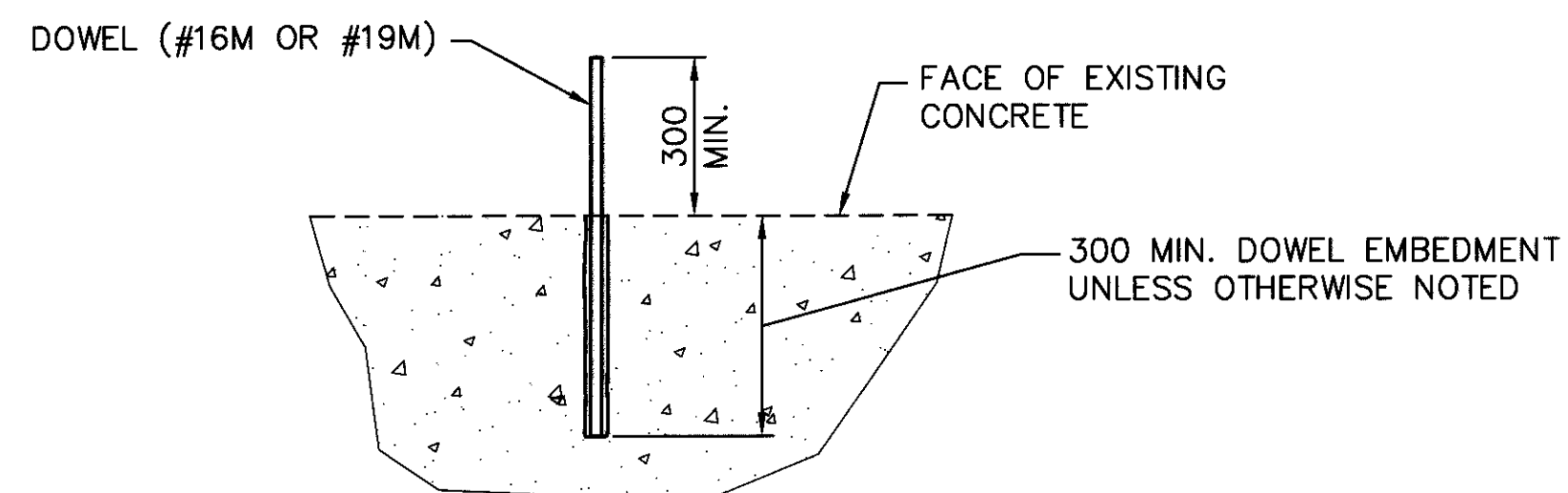
ITEM	ITEM EXT.	TOTAL LT. BRIDGE	TOTAL RT. BRIDGE	UNIT	DESCRIPTION	AS PER PLAN SHEET #	ABUTMENTS				PIERS				SUPERSTRUCTURE		GENERAL
							LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.	LT. #1	LT. #2	RT. #3	RT. #4	LEFT	RIGHT	
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6 METER SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP					LU MP	LUMP	
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION		LUMP	LUMP	LUMP	LUMP							
SPECIAL	51267510	580	588	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		15	15	15	15	86	86	90	90	378	378	
516	13600	2	2	SQ METER	25mm PREFORMED EXPANSION JOINT FILLER		1	1	1	1							
516	13900	12	12	SQ METER	51mm PREFORMED EXPANSION JOINT FILLER		6	6	6	6							
516	44001	12	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 36.1mm x 230mm x 355mm PAD AND 60.3mm x 256mm x 381mm LOAD PLATE	324									12	12	
516	47000	LUMP	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE										LUMP	LUMP	
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP							
518	40000	34	34	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE		17	17	17	17							
518	40010	14	14	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		7	7	7	7							
519	11100	40	37	SQ METER	PATCHING CONCRETE STRUCTURE		19	21	19	18							
815	00050	1300	1300	SQ. METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU										1300	1300	
815	00056	1300	1300	SQ. METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU										1300	1300	
815	00060	1300	1300	SQ. METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU										1300	1300	
815	00066	1300	1300	SQ. METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU										1300	1300	
815	00504	50	50	MAN HOUR	GRINDING FINNS, TEARS, SLIVERS										50	50	
815	00508	147	147	METER	GRINDING FLANGE EDGES										147	147	
842	45701	18	18	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	325	9	9	9	9							
844	48001	230	230	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN, MIX 4	325									230	230	
844	48021	38	38	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET), AS PER PLAN, MIX 4	325									38	38	
844	49000	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX										LUMP	LUMP	
844	49010	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TESTING										LUMP	LUMP	
863	20000	3438	3438	EACH	WELDED STUD SHEAR CONNECTOR										3438	3438	
863	90000	1588	1588	KILOGRAM	STRUCTURAL STEEL, MISC.: END BOLTED COVER PLATES										1588	1588	

NOTE:
STRUCTURES ARE DETAILED FOR STAGED CONSTRUCTION, BUT SHALL BE BUILT PER THE MAINTENANCE OF TRAFFIC PLANS. THE RIGHT STRUCTURE SHALL BE BUILT DURING PHASE 1 AND THE LEFT STRUCTURE DURING PHASE 2.



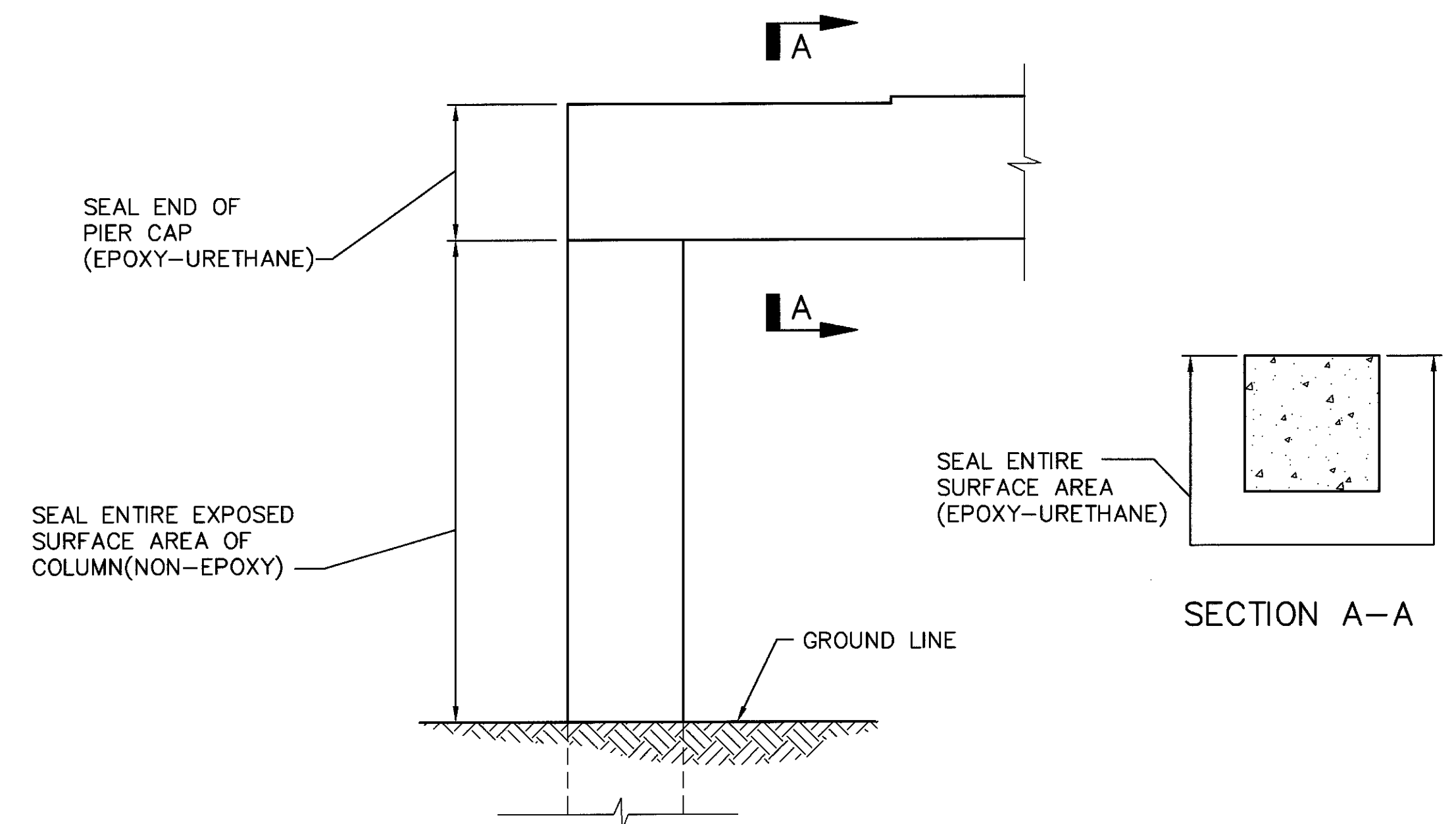
OUTLET DETAIL

* ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLETS OF THESE DRAINAGE PIPES PER DM-1.1M. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM 518 - 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.



DOWEL DETAIL

DOWEL BARS, SHALL BE DRILLED AND GROUTED INTO THE EXISTING STRUCTURE AS SHOWN AND IN ACCORDANCE WITH CMS 510, DOWEL HOLES, EXCEPT THAT GROUT SHALL BE NON-SHRINK, NON-METALIC EPOXY MORTAR, COST TO BE INCLUDED WITH THE APPROPRIATE 842 CONCRETE ITEM.

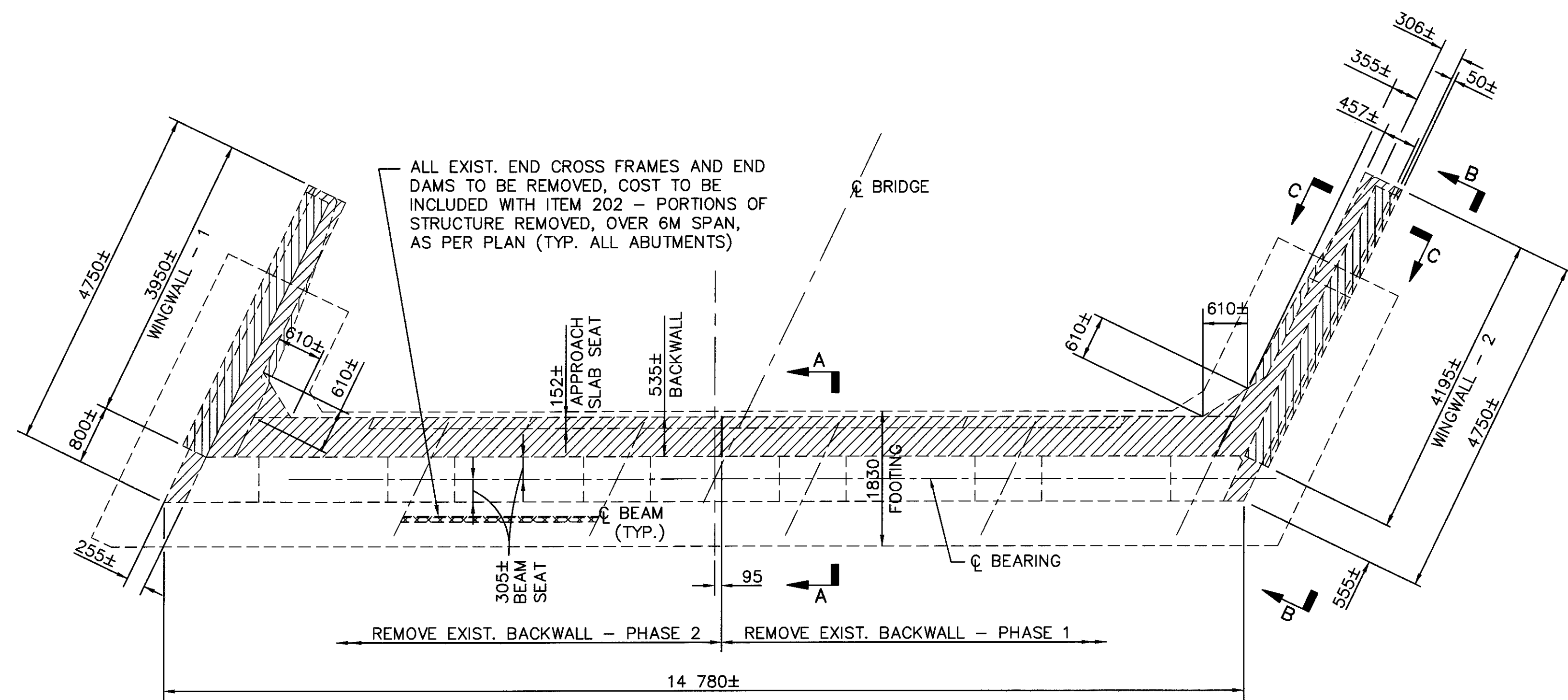


LIMITS OF SEALING OF PIERS

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-17638\1763801.DWG 7-20-99 2:07:57 pm EST

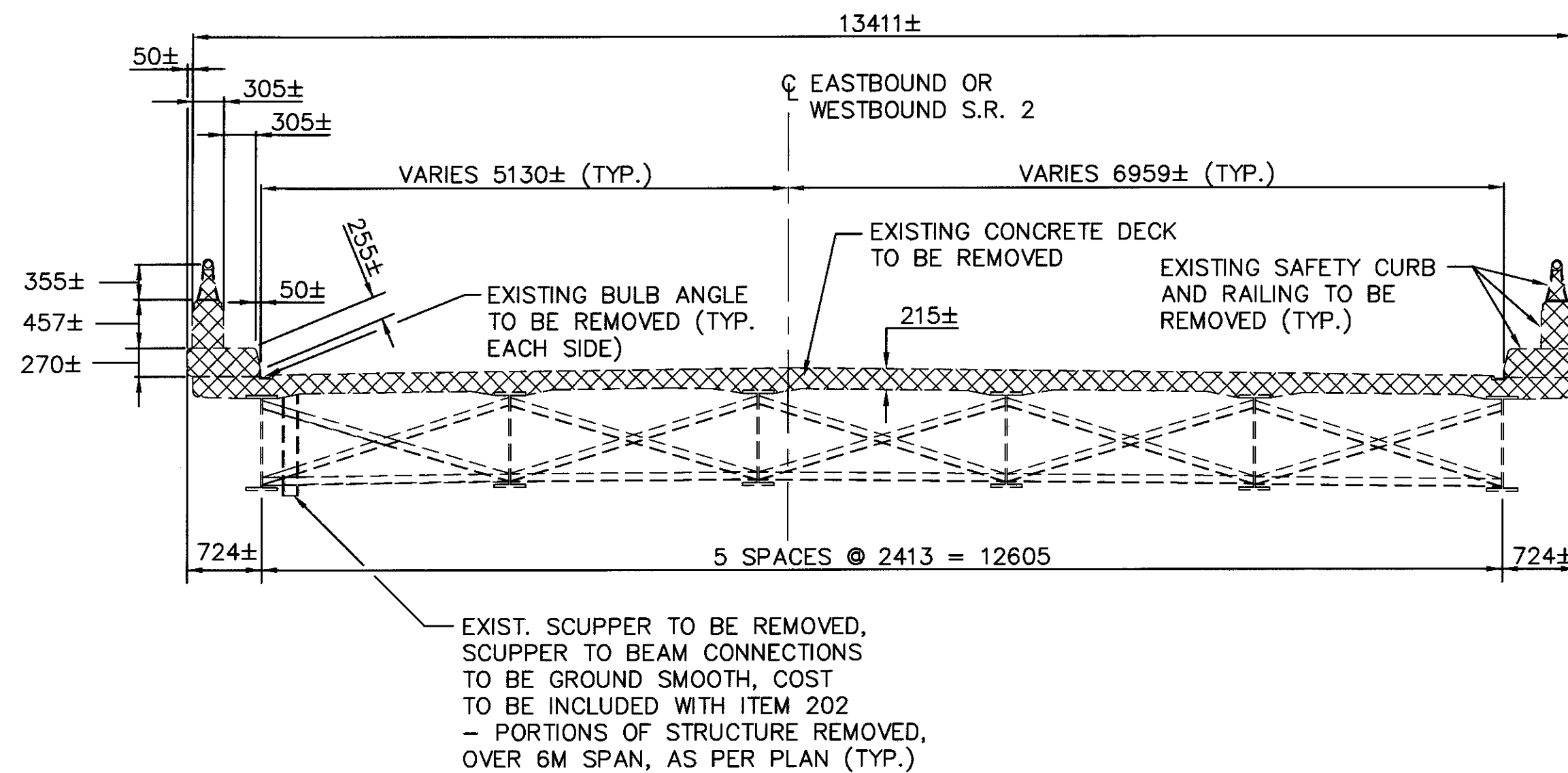
PLOTTED: JTN

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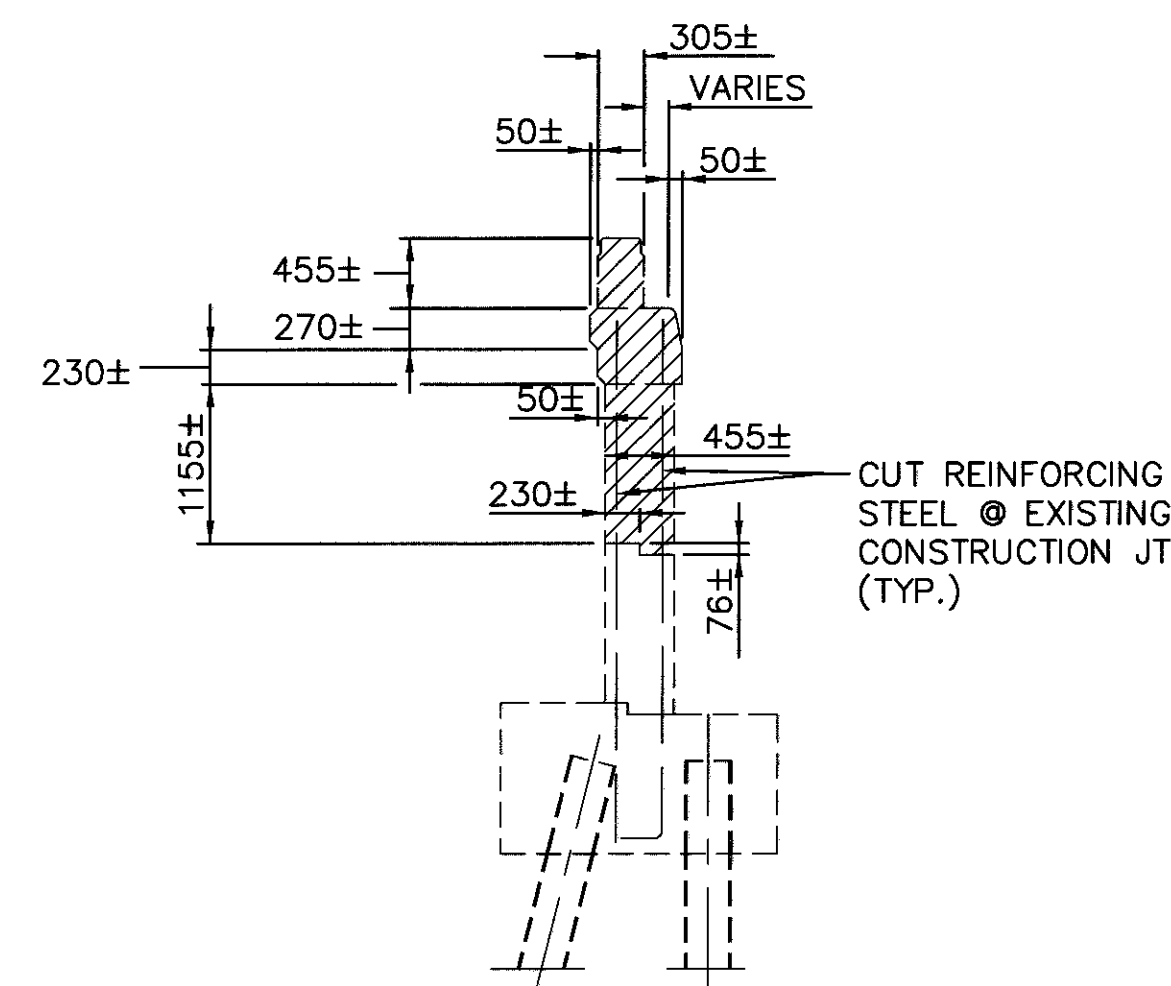
LIMITS OF ABUTMENT REMOVAL
(TYP. EACH ABUTMENT) (LEFT REAR & RIGHT FORWARD SHOWN OTHER ABUTMENTS SIMILAR)

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUPERSTRUCTURE)

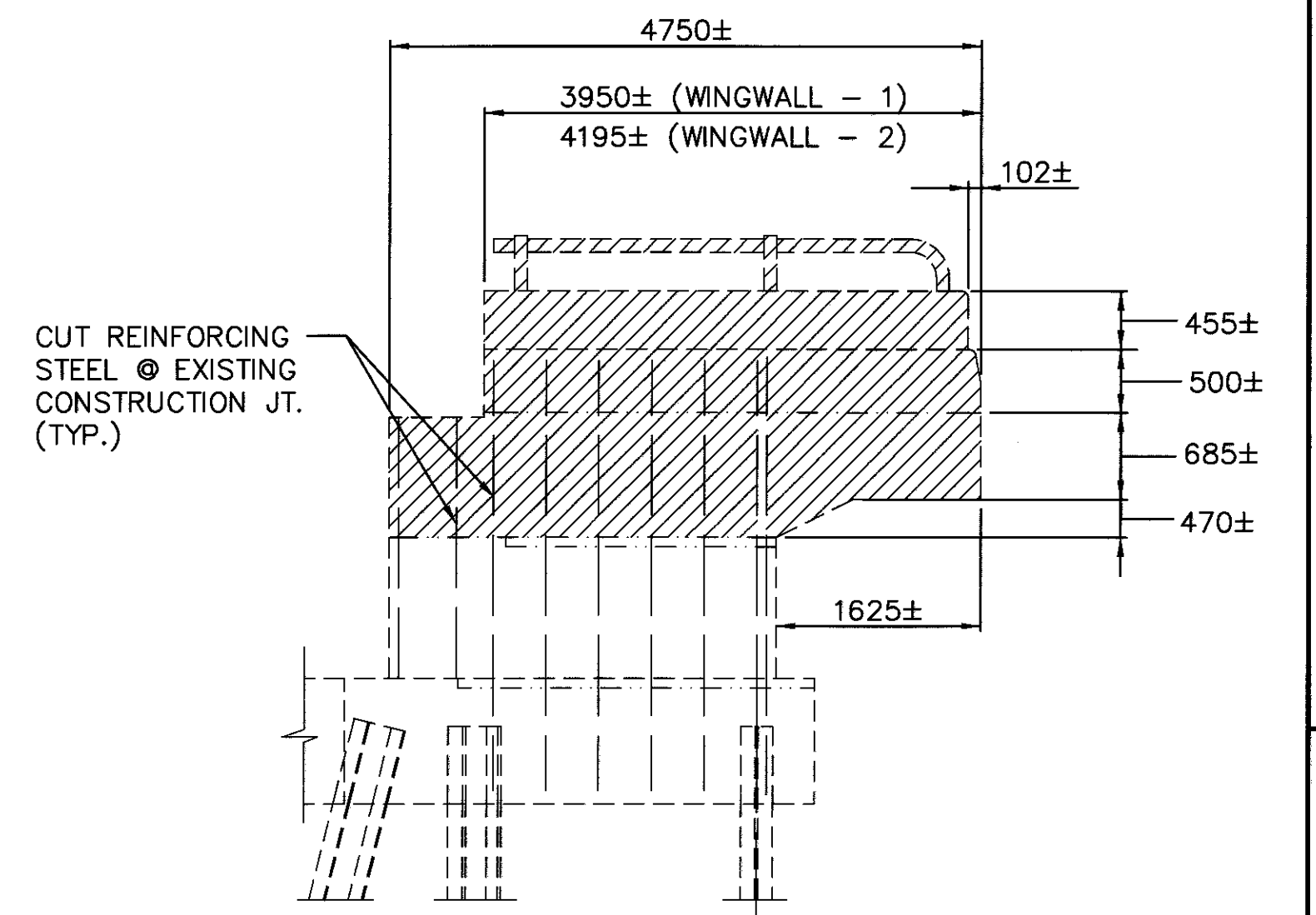


TRANSVERSE SECTION OF DECK
(LOOKING IN THE DIRECTION OF TRAFFIC)

SEE SHEET [10/11] FOR STAGE CONSTRUCTION REMOVAL LIMITS



SECTION C-C



VIEW B-B

* - POROUS BACKFILL TO BE REMOVED SHALL BE CONSIDERED INCIDENTAL AND PAID FOR WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1188 NORTH MAIN STREET
BURLING GREEN, OHIO 44024

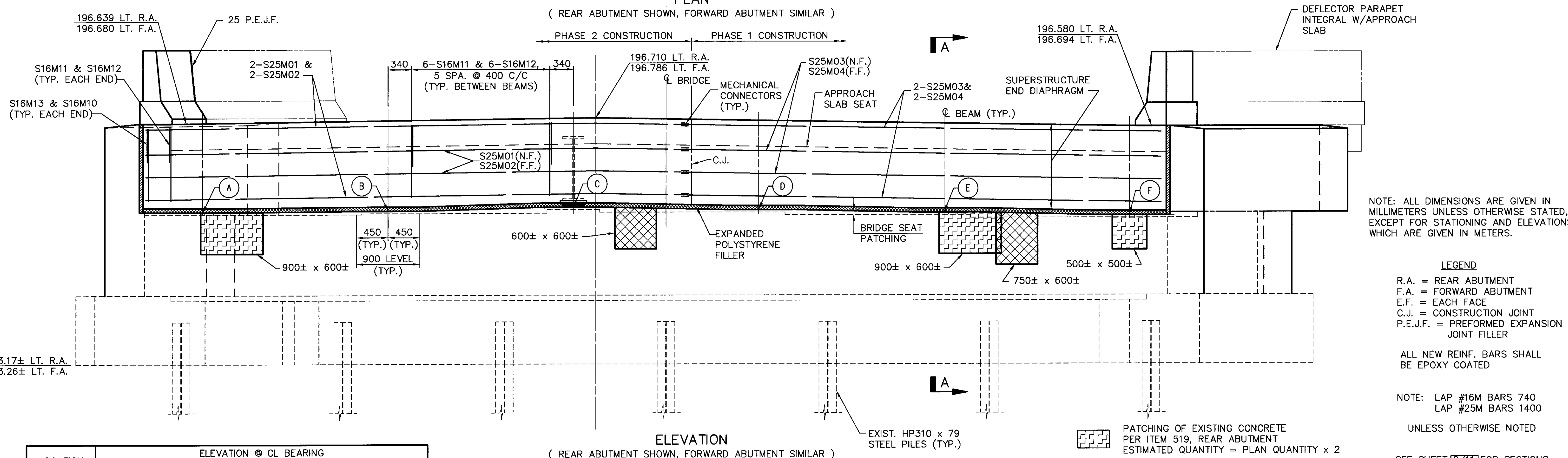
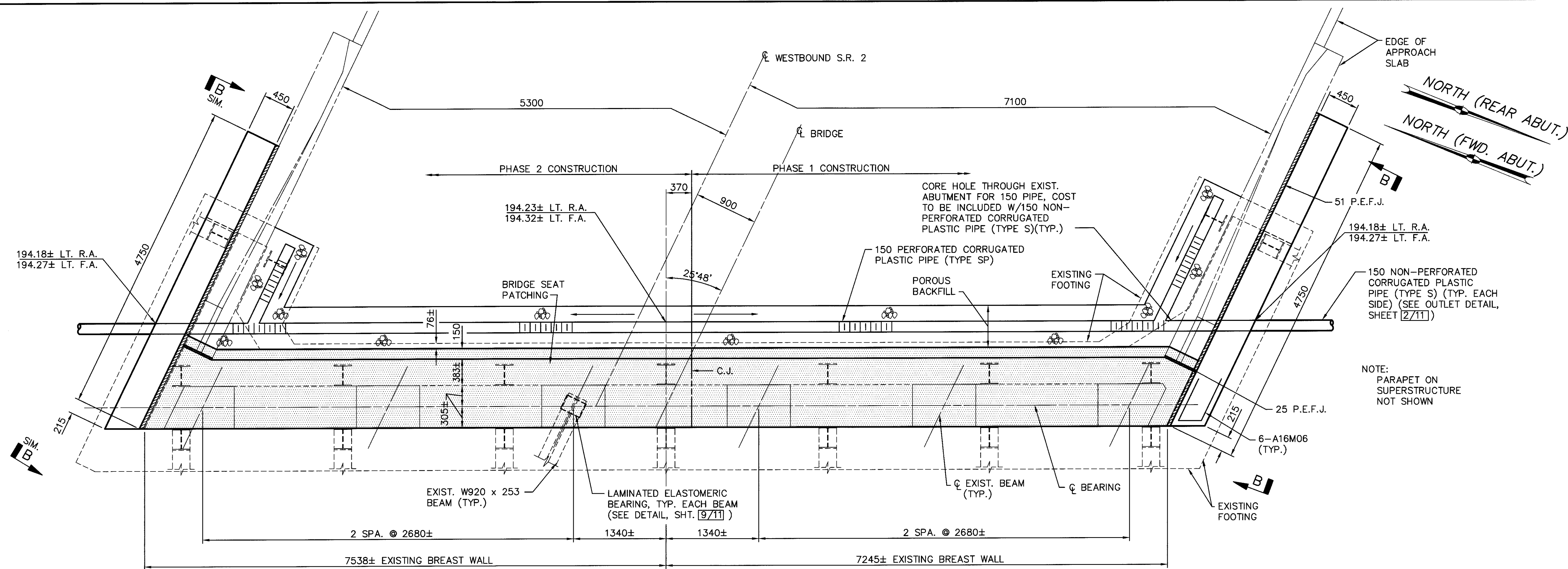
DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REVISED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2200848 & 2200872
DATE	10-97		

BRIDGE DEMOLITION PLAN
BRIDGE NO. ERI-2-17638 (1096)
OVER COLUMBUS AVENUE

ERI-2-12.558

3 / 11

356
432



LOCATION	ELEVATION @ CL BEARING					
	A	B	C	D	E	F
REAR ABUT.	195.332	195.366	195.390	195.369	195.332	195.281
FWD. ABUT.	195.360	195.399	195.439	195.460	195.424	195.375

NOTE:
 BOTTOM OF EXISTING BEAM ELEVATIONS TO REMAIN THE SAME

- PATCHING OF EXISTING CONCRETE PER ITEM 519, REAR ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING CONCRETE PER ITEM 519, FORWARD ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING BRIDGE SEAT PER ITEM 519

LEGEND

R.A. = REAR ABUTMENT
 F.A. = FORWARD ABUTMENT
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

ALL NEW REINF. BARS SHALL BE EPOXY COATED

NOTE: LAP #16M BARS 740
 LAP #25M BARS 1400

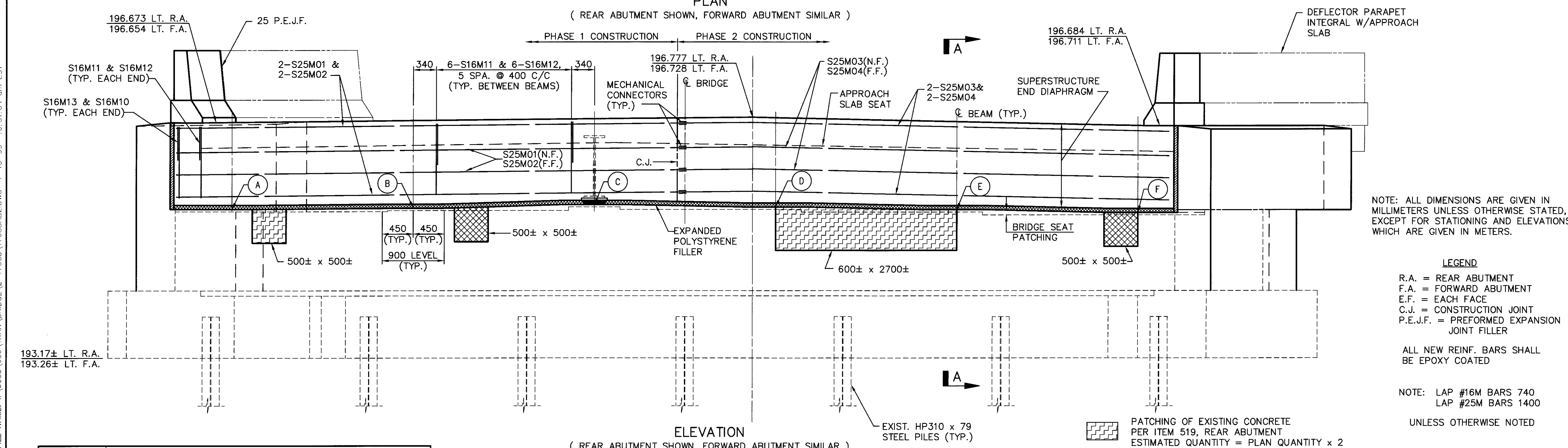
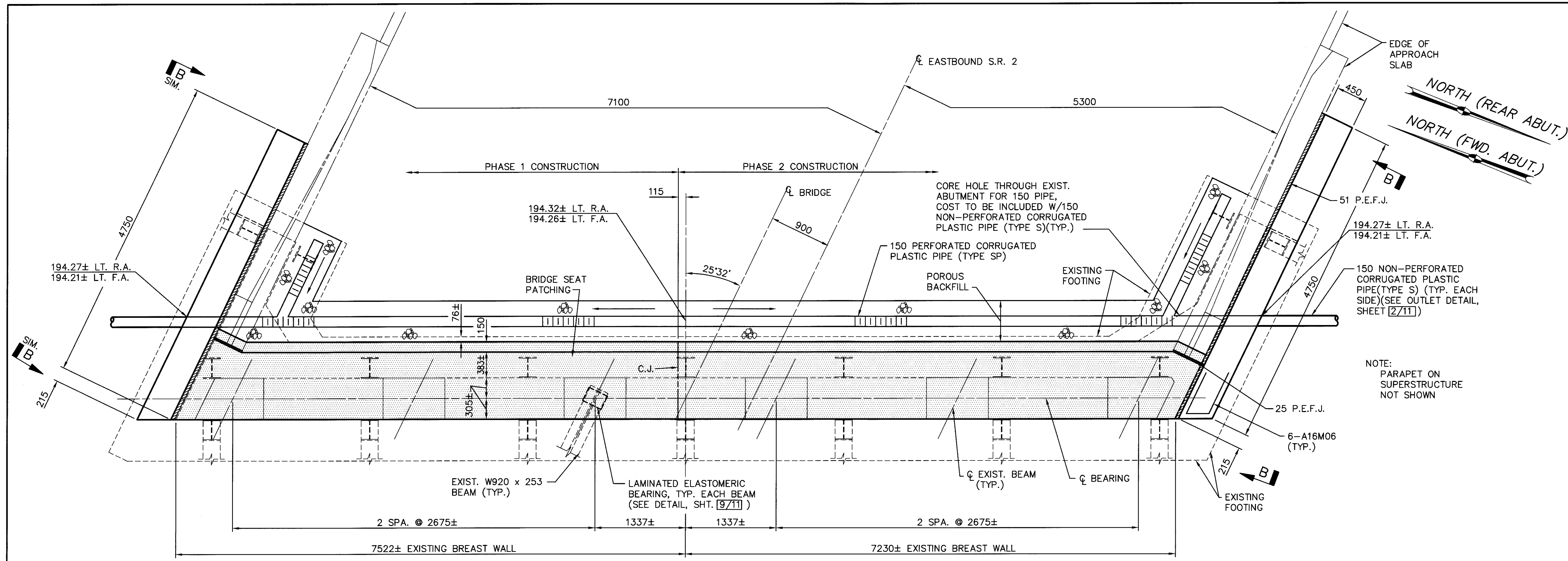
UNLESS OTHERWISE NOTED

SEE SHEET [6/11] FOR SECTIONS

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-17638\17638AB1.DWG 7-13-99 10:26:01 am EST

PLOTTED: KJB

5033-006



LOCATION	ELEVATION @ CL BEARING					
	A	B	C	D	E	F
REAR ABUT.	195.366	195.403	195.427	195.448	195.406	195.363
FWD. ABUT.	195.332	195.375	195.403	195.375	195.332	195.287

NOTE: BOTTOM OF EXISTING BEAM ELEVATIONS TO REMAIN THE SAME

- PATCHING OF EXISTING CONCRETE PER ITEM 519, REAR ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING CONCRETE PER ITEM 519, FORWARD ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING BRIDGE SEAT PER ITEM 519

LEGEND

R.A. = REAR ABUTMENT
 F.A. = FORWARD ABUTMENT
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

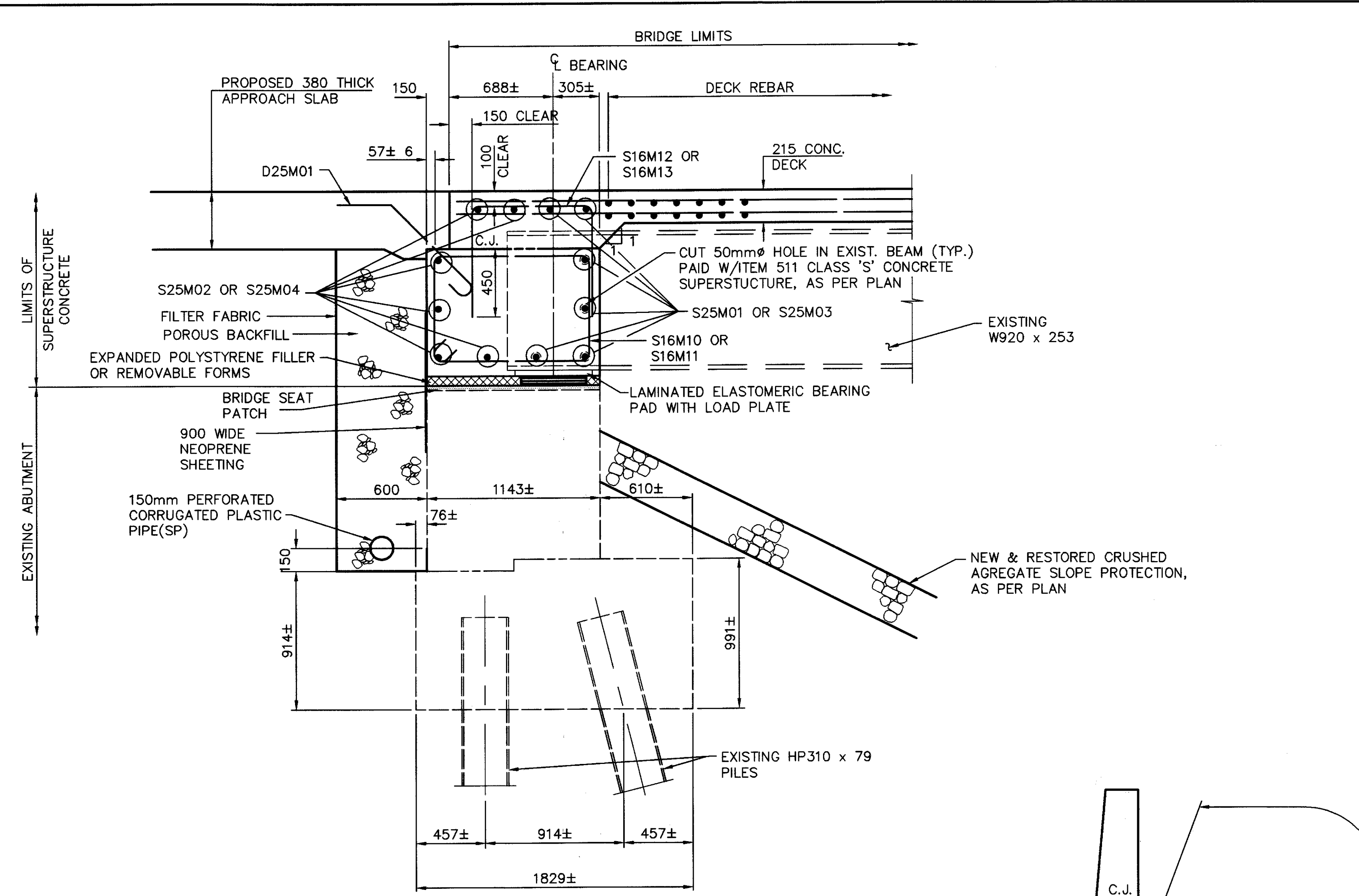
ALL NEW REINF. BARS SHALL BE EPOXY COATED

NOTE: LAP #16M BARS 740
 LAP #25M BARS 1400

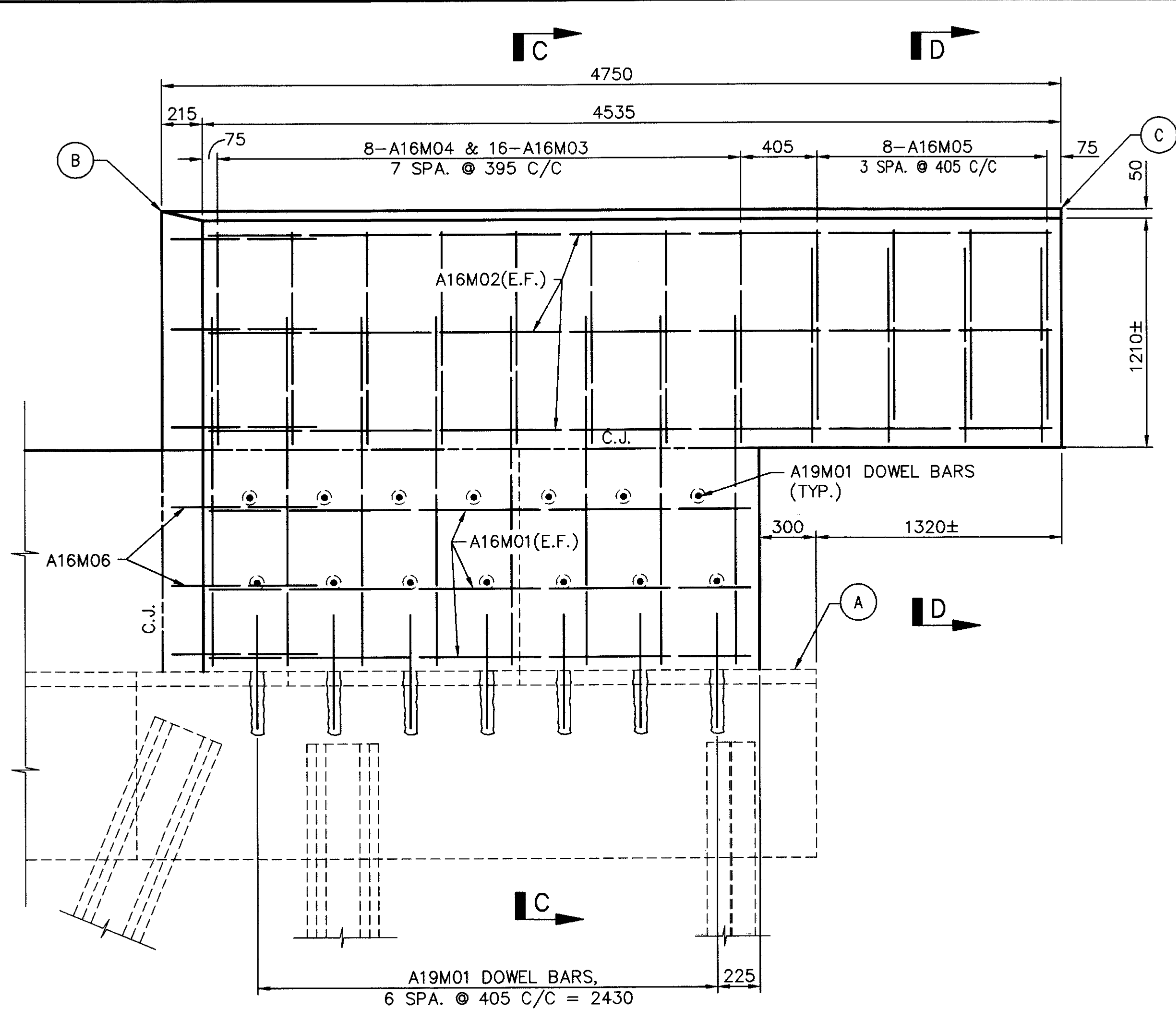
UNLESS OTHERWISE NOTED

SEE SHEET [6/11] FOR SECTIONS

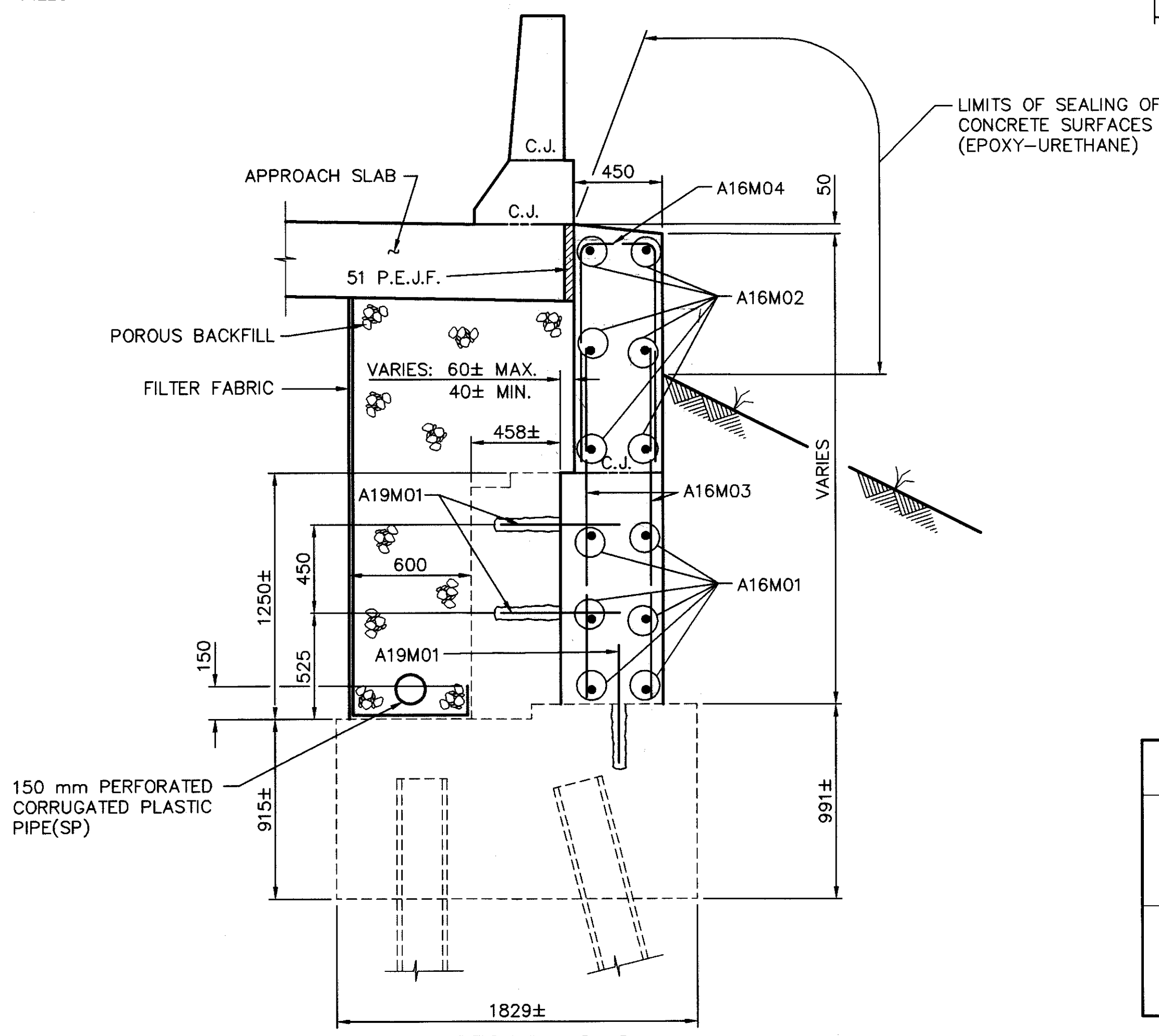
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 PLOTTED: K:JB



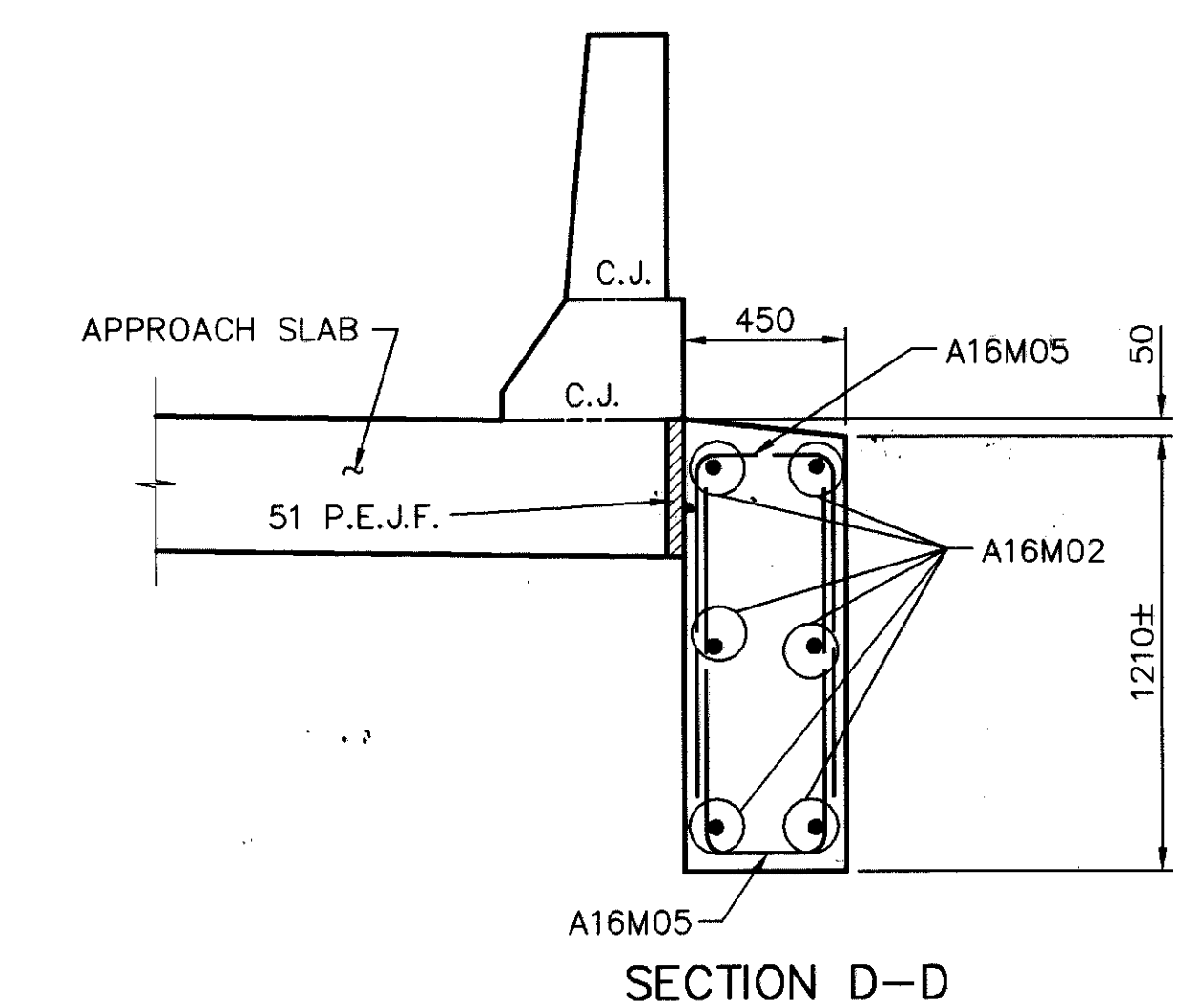
SECTION A-A



VIEW B-B



SECTION C-C



SECTION D-D

NOTES

POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN 600 THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 305 BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS, GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. THE BOTTOM OF THE POROUS BACKFILL SHALL BE SLOPED (8%) Laterally TO DRAIN. GEOTEXTILE FABRIC IS INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.

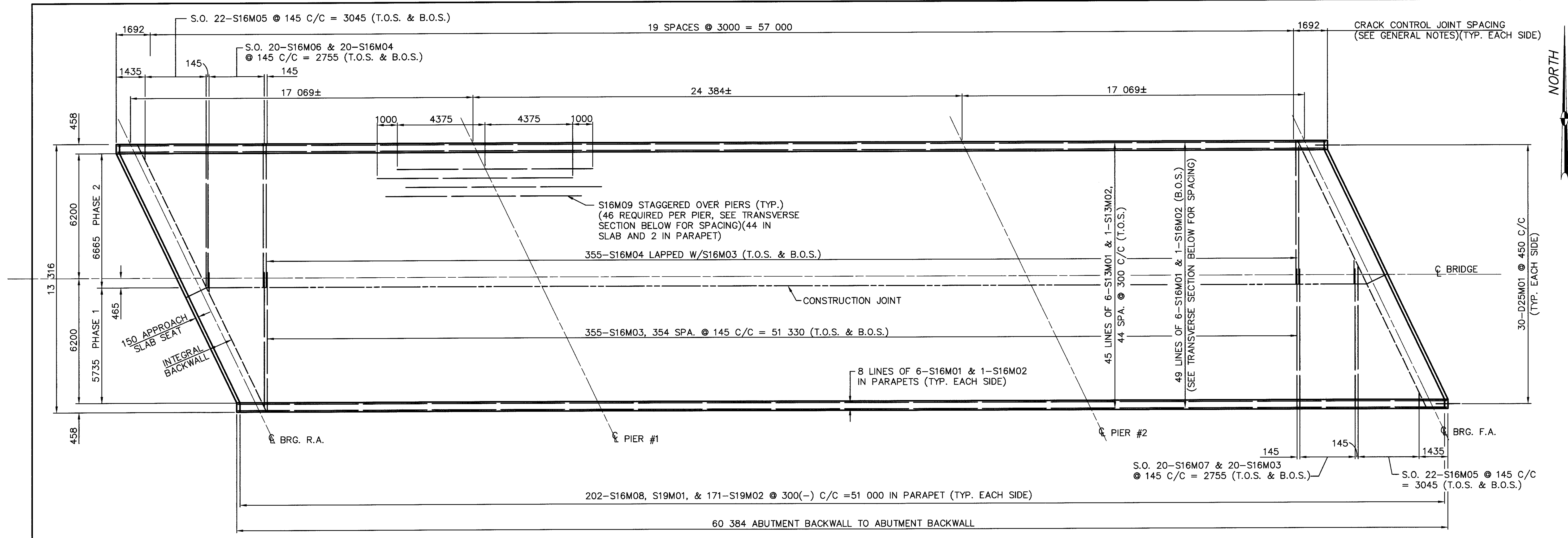
ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED. EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

SEE SHT. [5/11] & [6/11] FOR SECTION & VIEW CUTS

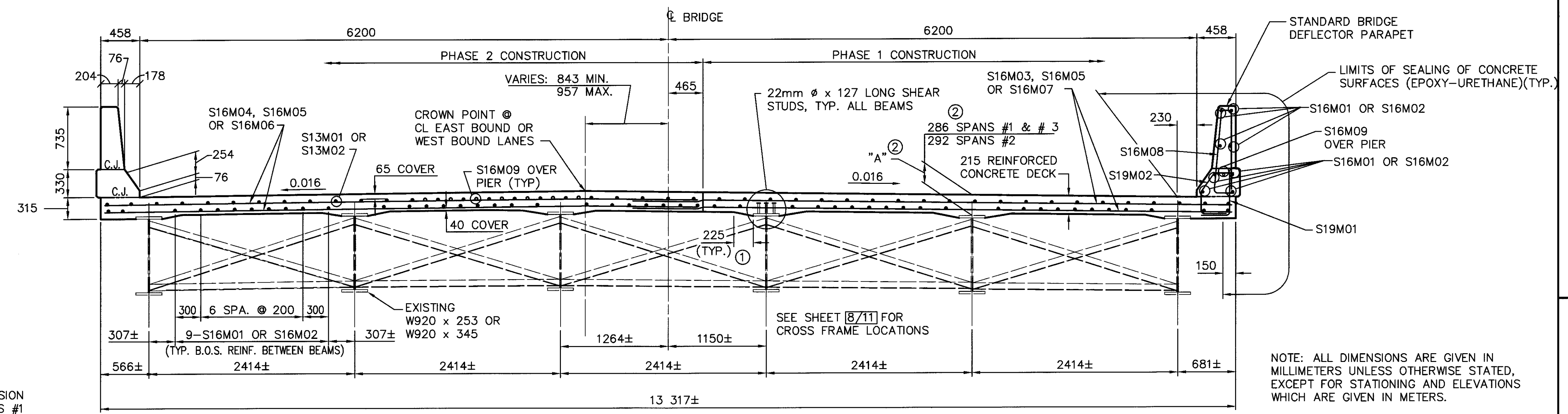
PARAPET DETAILS: SEE SHEET 328

LOCATION		ELEVATION		
		A	B	C
LT. BRIDGE	LT. REAR WING	194.16±	196.580	196.568
	RT. REAR WING	194.16±	196.639	196.624
	LT. FWD. WING	194.25±	196.680	196.653
	RT. FWD. WING	194.25±	196.694	196.670
RT. BRIDGE	LT. REAR WING	194.19±	196.684	196.663
	RT. REAR WING	194.19±	196.673	196.646
	LT. FWD. WING	194.25±	196.654	196.636
	RT. FWD. WING	194.25±	196.711	196.699

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DECK SLAB REINFORCING PLAN
 (RIGHT BRIDGE SHOWN, LEFT BRIDGE SIMILAR)



TRANSVERSE SECTION
 LOOKING IN DIRECTION OF TRAFFIC

REFERENCES
 FOR SHEAR STUD DETAILS SEE 8/11

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

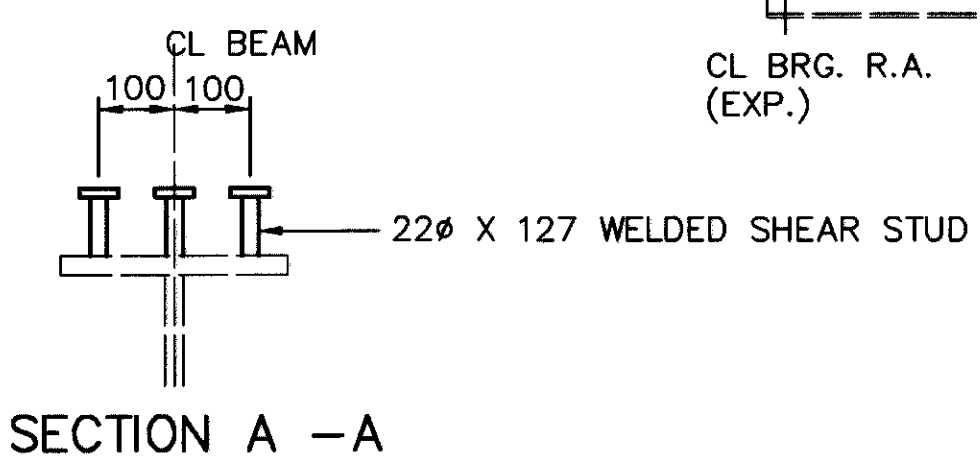
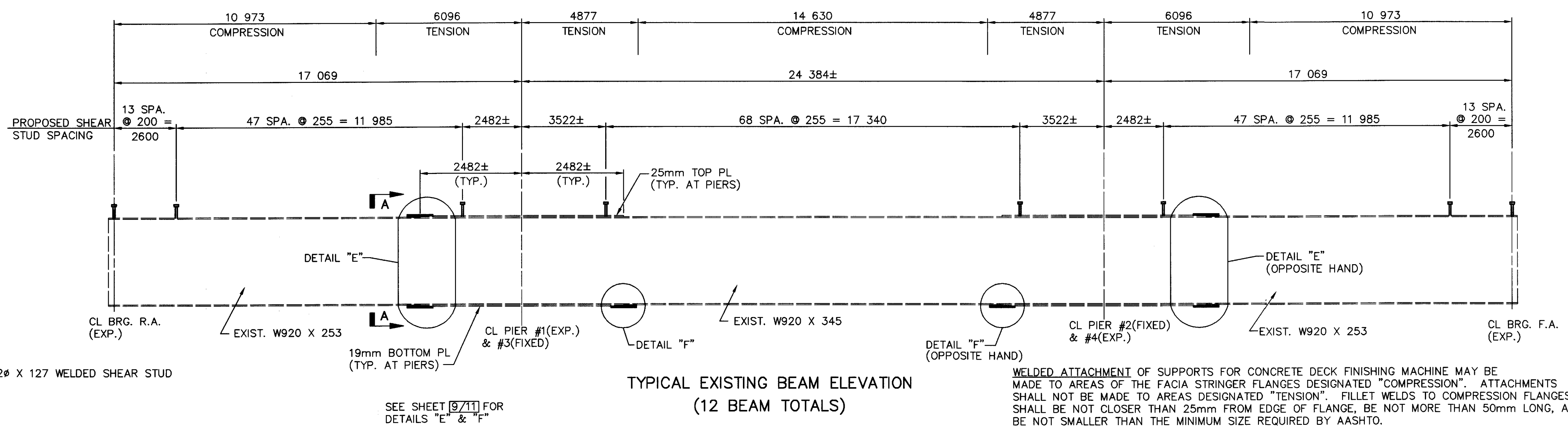
LEGEND
 T.O.S. = TOP OF STEEL
 B.O.S. = BOTTOM OF STEEL
 S.O. = SERIES OF

NOTE: LAP #13M BARS 590
 LAP #16M BARS 740
 LAP #19M BARS 880

UNLESS OTHERWISE NOTED

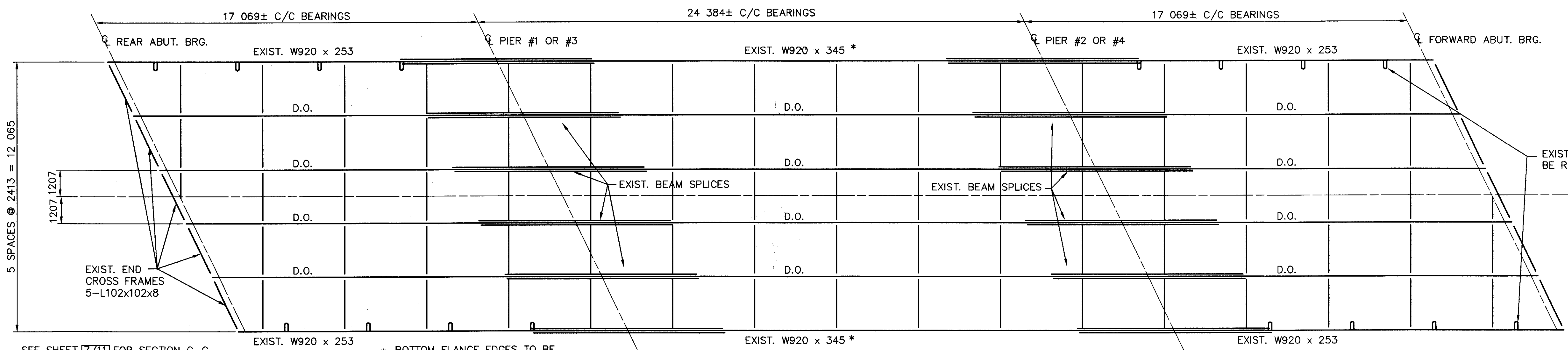
- NOTES**
1. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH MAY VARY BETWEEN 150 mm AND 300 mm.
 2. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 71 mm FOR SPANS #1 & #3 & 77 mm FOR SPAN #2. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. CONTRACTOR TO VERIFY BEAM PROFILES WITH PROFILE GRADE TO VERIFY DECK SLAB DEPTH (DIMENSION "A"), SEE SHEET 8/11 FOR DIMENSION "A".

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-17638\17638ST.DWG 7-13-99 10:35:26 am EST



TYPICAL EXISTING BEAM ELEVATION
 (12 BEAM TOTALS)

WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FACIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.



STEEL FRAMING PLAN
 (TYP. FOR BOTH SUPERSTRUCTURES)

SEE SHEET [7/11] FOR SECTION C-C AND DETAIL "B" & "D" LOCATIONS

* BOTTOM FLANGE EDGES TO BE GRINDED PER ITEM 815 - GRINDING FLANGE EDGES (TYPICAL ALL BEAMS IN SPAN 2)

SCREED ELEVATIONS

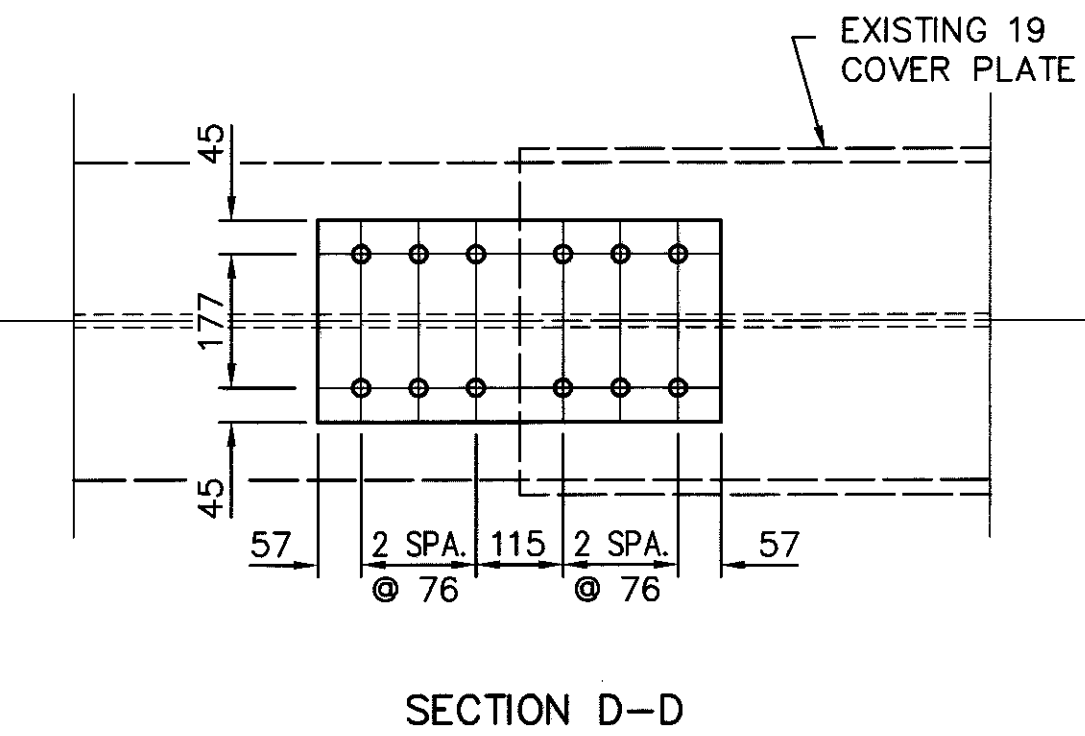
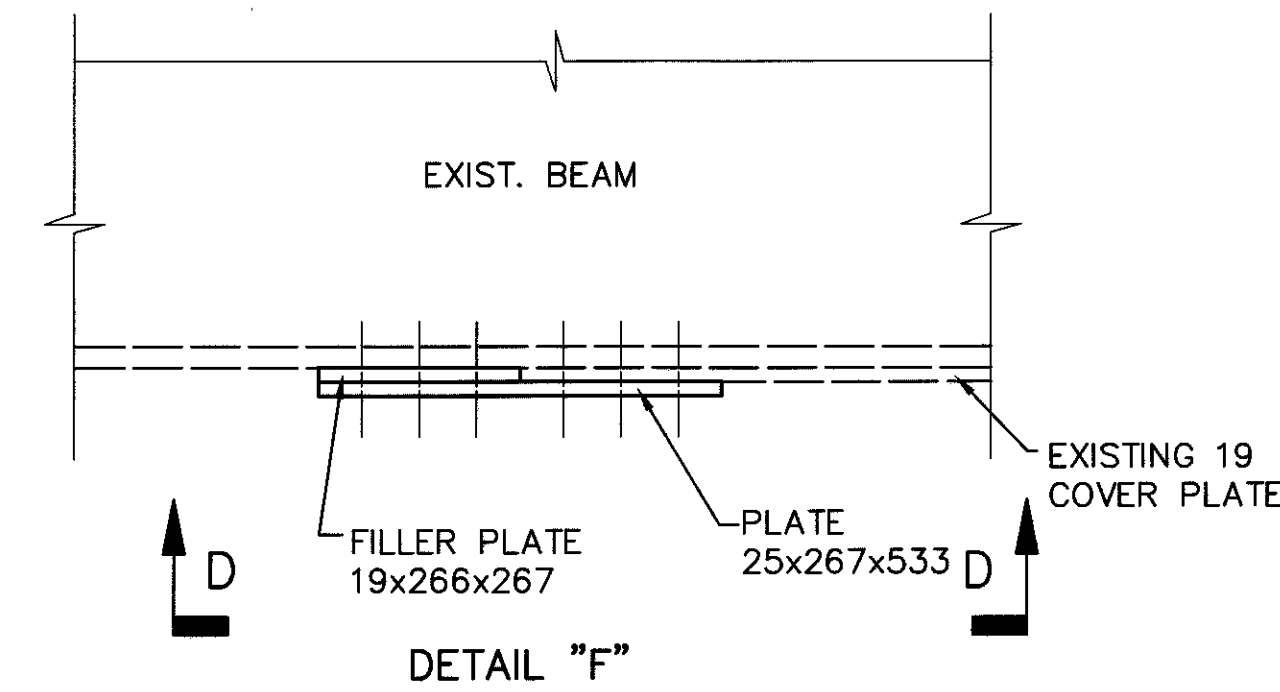
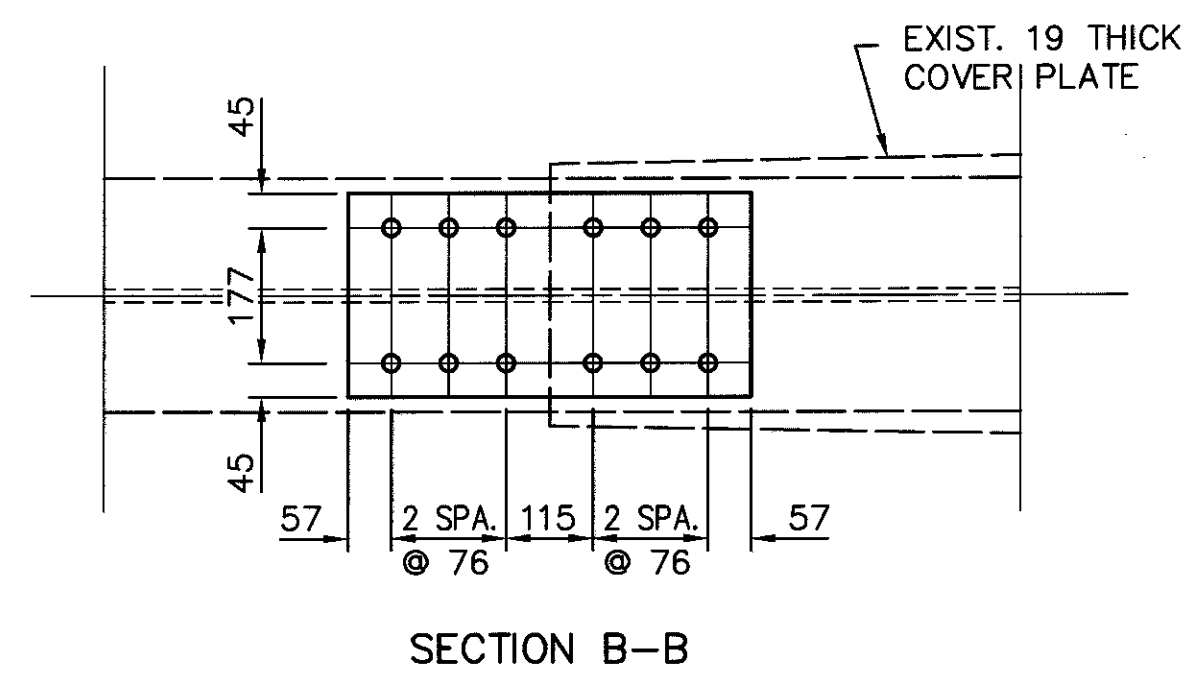
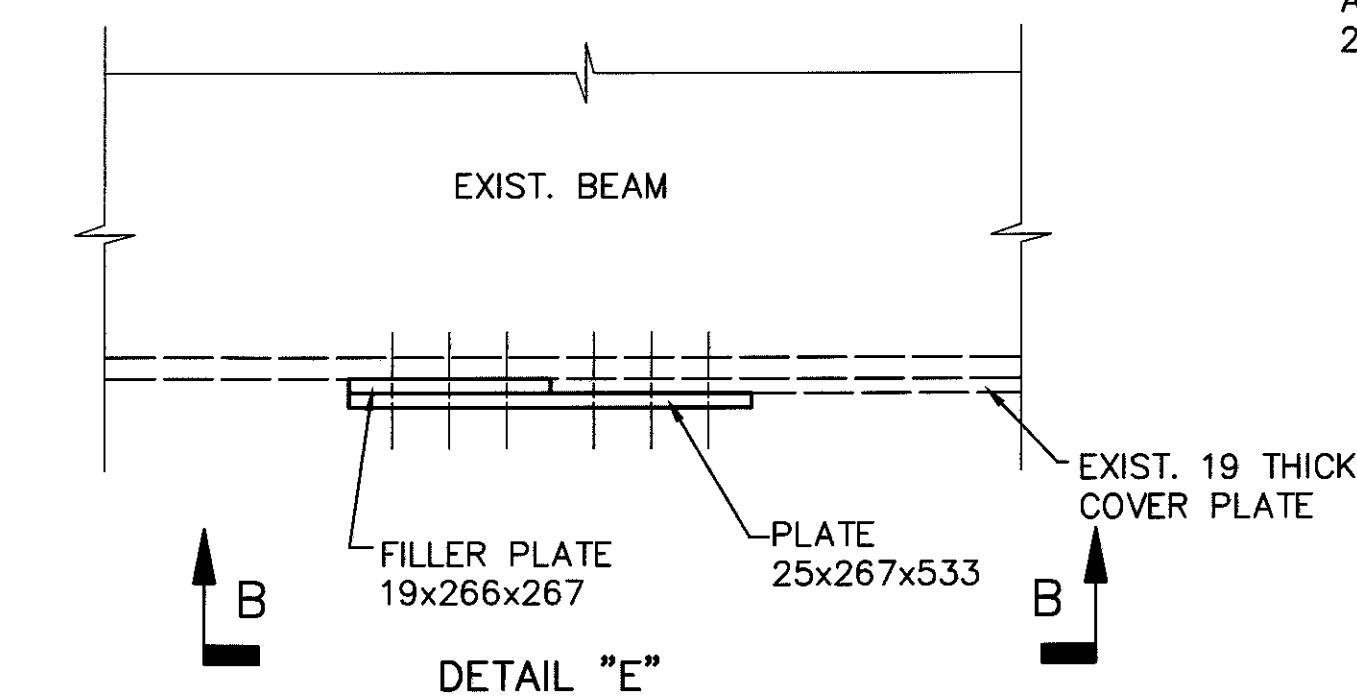
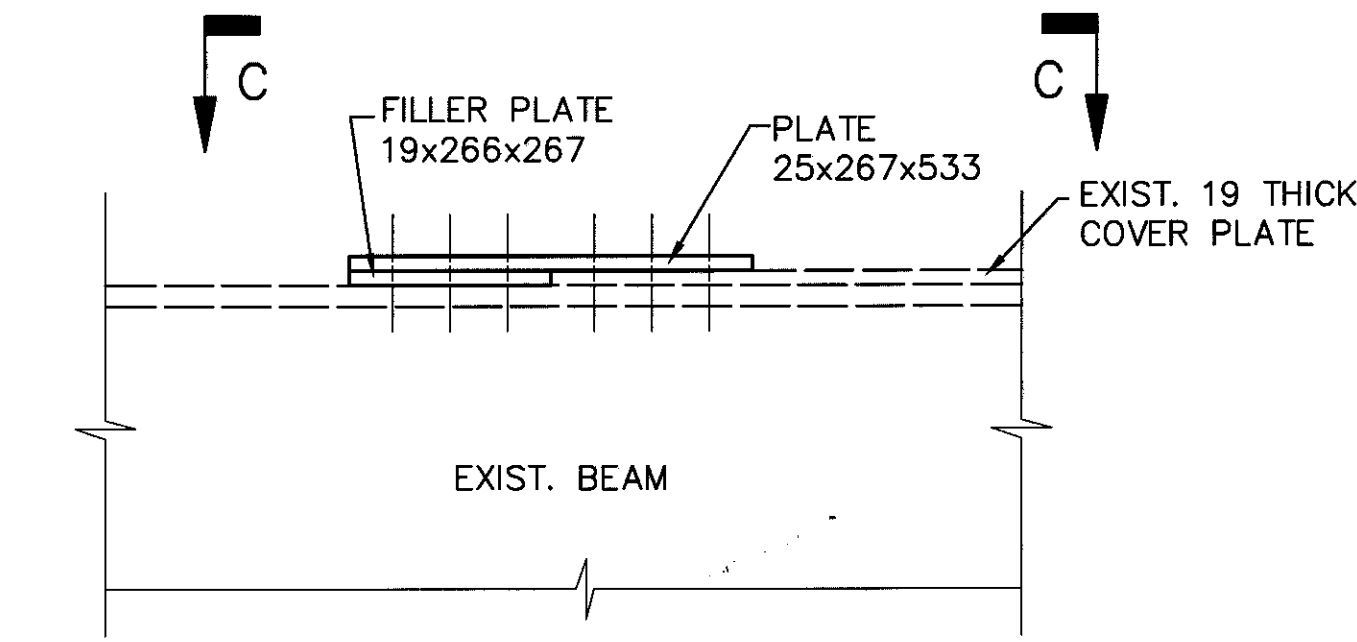
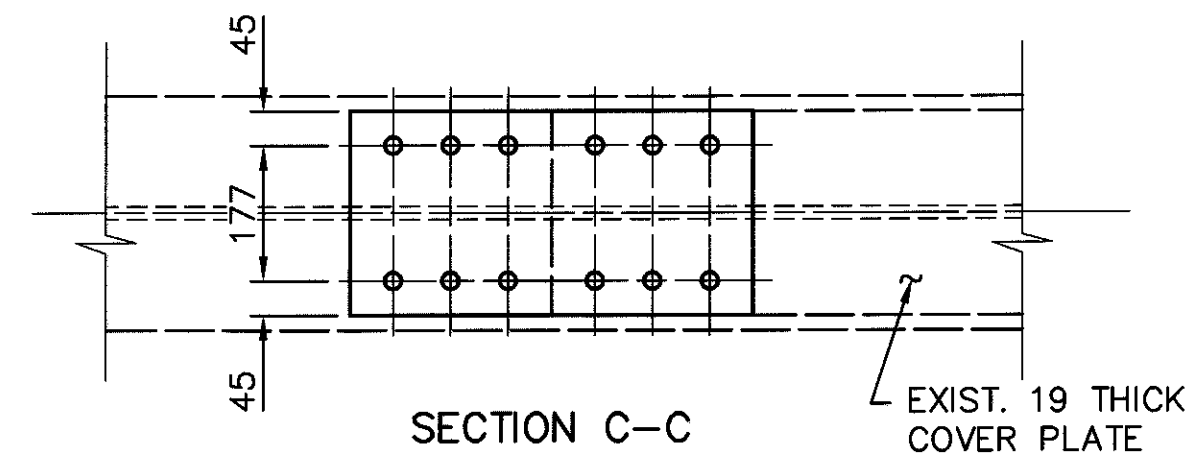
DIMENSION "A"

	R. ABUT.	1/2 PT.	CL PIER #1 OR #3	1/2 PT.	CL PIER #2 OR #4	1/2 PT.	F. ABUT
LEFT BRIDGE	BEAM #1	0.279	0.275	0.269	0.274	0.300	0.299
	BEAM #2	0.275	0.280	0.275	0.303	0.280	0.296
	BEAM #3	0.279	0.283	0.278	0.298	0.275	0.292
	BEAM #4	0.294	0.290	0.279	0.292	0.277	0.297
	BEAM #5	0.285	0.289	0.284	0.297	0.274	0.291
	BEAM #6	0.286	0.288	0.275	0.303	0.281	0.300
RIGHT BRIDGE	BEAM #1	0.300	0.303	0.275	0.305	0.283	0.301
	BEAM #2	0.301	0.305	0.288	0.297	0.277	0.291
	BEAM #3	0.300	0.305	0.287	0.298	0.285	0.298
	BEAM #4	0.295	0.302	0.283	0.308	0.284	0.290
	BEAM #5	0.285	0.295	0.282	0.295	0.281	0.289
	BEAM #6	0.285	0.291	0.277	0.295	0.282	0.305

CONTRACTOR TO VERIFY DIMENSION "A"

	R. ABUT.	1/2 PT.	CL PIER #1 OR #3	1/3 PT.	2/3 PT.	CL PIER #2 OR #4	1/2 PT.	F. ABUT
LEFT BRIDGE	TOE OF LEFT PARAPET	196.580	196.627	196.656	196.692	196.706	196.698	196.680
	BEAM #1	196.583	196.630	196.658	196.695	196.709	196.701	196.683
	BEAM #2	196.628	196.674	196.701	196.736	196.749	196.739	196.719
	BEAM #3	196.672	196.717	196.743	196.777	196.788	196.777	196.755
	PROFILE GRADE	196.712	196.755	196.780	196.813	196.823	196.811	196.808
	BEAM #4	196.708	196.751	196.775	196.808	196.819	196.806	196.781
	BEAM #5	196.675	196.717	196.740	196.772	196.781	196.767	196.739
BEAM #6	196.642	196.683	196.704	196.735	196.743	196.728	196.697	
TOE OF RIGHT PARAPET	196.639	196.680	196.702	196.732	196.740	196.725	196.719	
RIGHT BRIDGE	TOE OF LEFT PARAPET	196.684	196.713	196.722	196.740	196.736	196.709	196.654
	BEAM #1	196.687	196.716	196.725	196.743	196.739	196.712	196.657
	BEAM #2	196.730	196.757	196.765	196.782	196.776	196.748	196.690
	BEAM #3	196.772	196.798	196.804	196.820	196.814	196.784	196.724
	PROFILE GRADE	196.777	196.803	196.809	196.825	196.818	196.789	196.728
	BEAM #4	196.746	196.771	196.776	196.791	196.783	196.752	196.689
	BEAM #5	196.711	196.734	196.738	196.751	196.742	196.710	196.645
BEAM #6	196.675	196.697	196.700	196.712	196.701	196.668	196.644	
TOE OF RIGHT PARAPET	196.673	196.695	196.697	196.709	196.699	196.666	196.641	

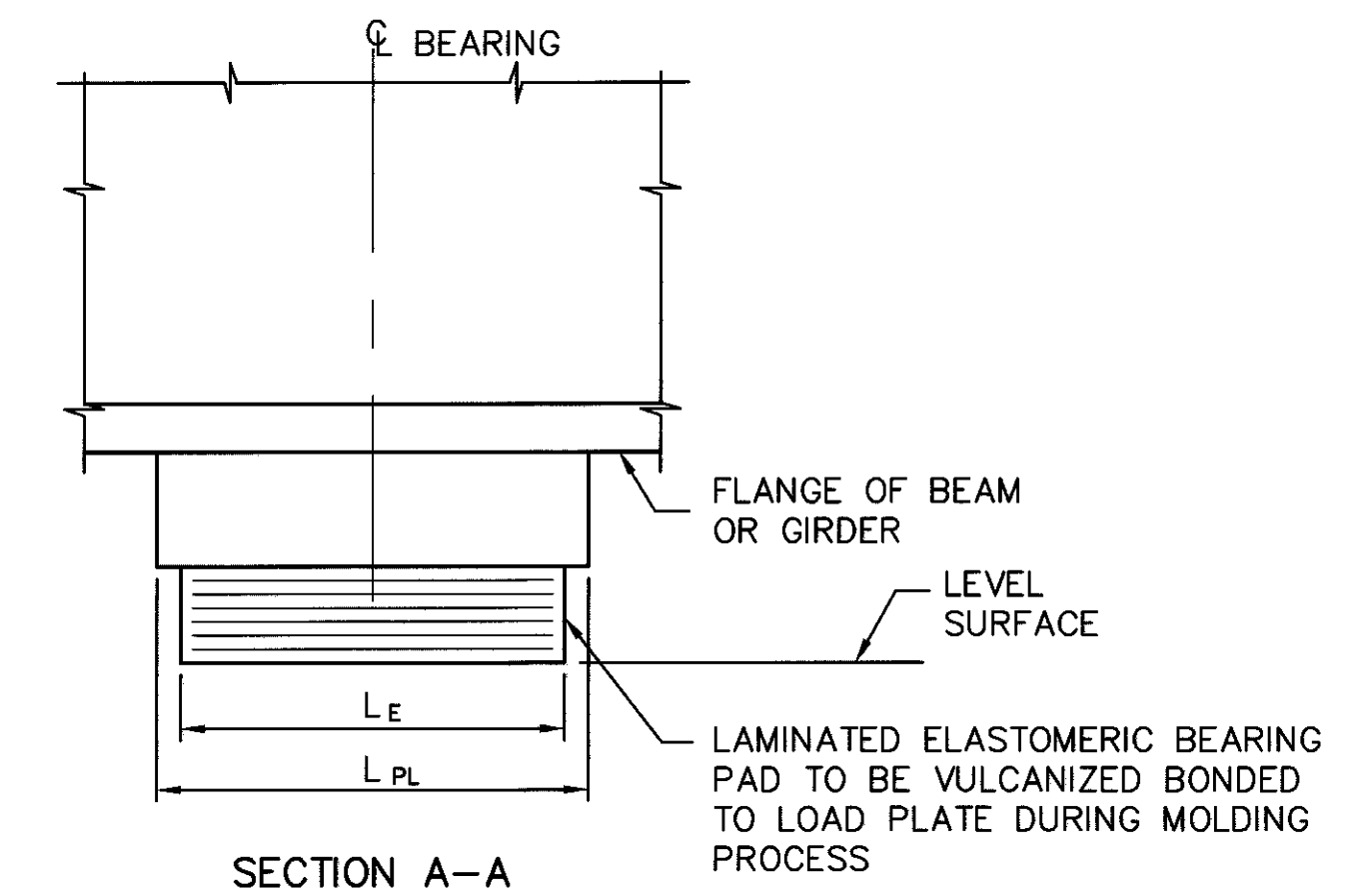
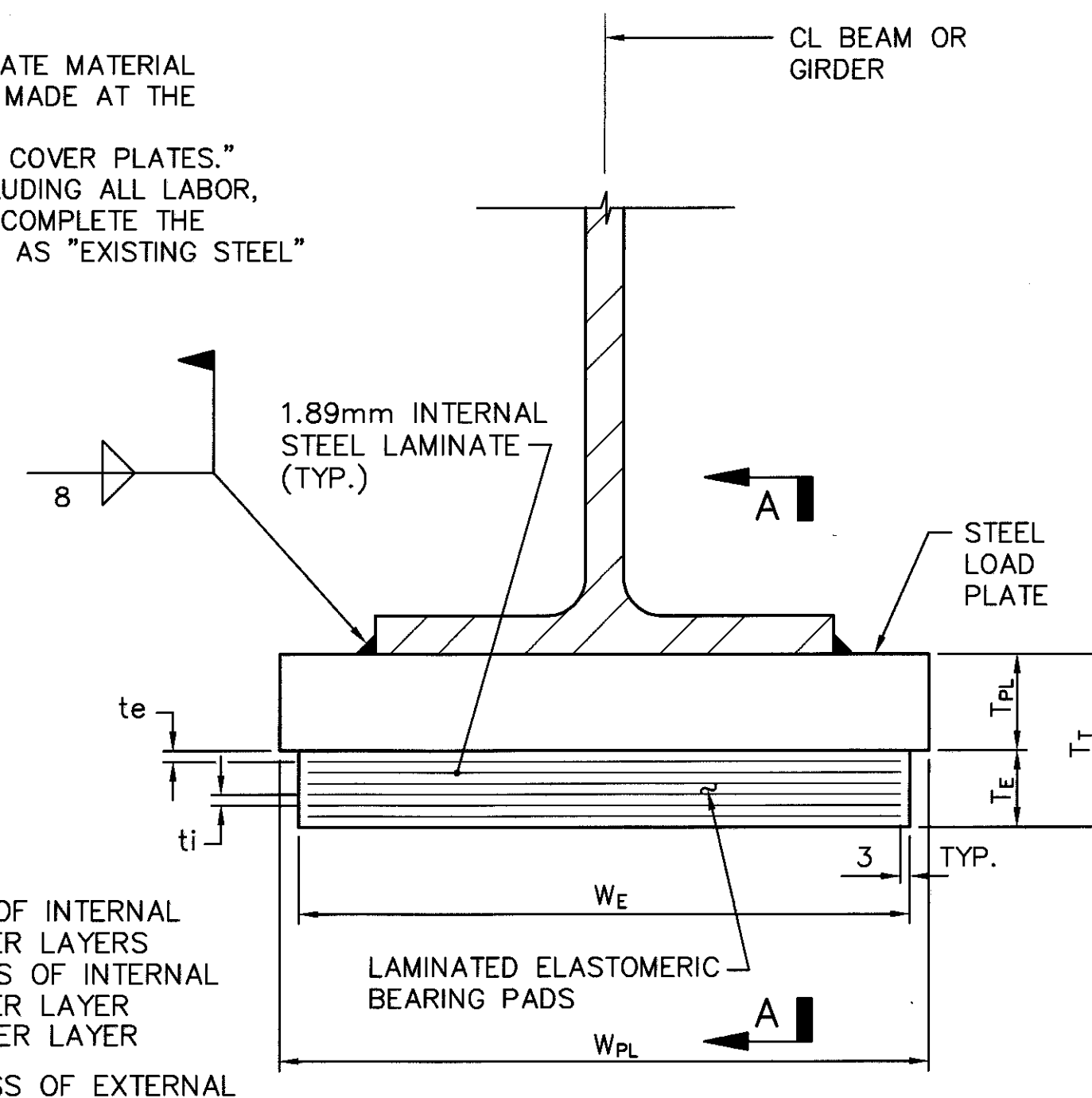
SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTION.



NOTE:
ALL BOLTS SHALL BE
22Ø, A325 BOLTS

SEE SHEET [B/11] FOR
DETAIL LOCATIONS

END BOLTED COVER PLATES - COVER PLATE MATERIAL SHALL BE A36 STEEL. PAYMENT WILL BE MADE AT THE UNIT PRICE PER KILOGRAM ITEM 863, "STRUCTURAL STEEL, MISC.: END BOLTED COVER PLATES." THIS SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS & INCIDENTALS REQUIRED TO COMPLETE THE WORK. THIS ITEM SHALL BE CONSIDERED AS "EXISTING STEEL" WHEN PAINTING THE STRUCTURE.



BEARING DETAILS

LOAD PLATES THE STEEL LOAD PLATE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 150° C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

ELASTOMERIC BEARINGS, AS PER PLAN SHALL COMPLY WITH ITEM 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.

BRIDGE NO. ERI-2-19312		ELASTOMER								STEEL LAMINATES		LOAD PLATE			LOADS (KN)		
LOCATION	TYPE	T _T	DUROMETER	L _E	W _E	T _E	t _i	t _e	N	No.	t	L _{PL}	W _{PL}	T _{PL}	DL	LL	TOTAL
RA & FA	EXP.	99	50	230	355	61.2	6.5	4.5	6	7	1.89	256	381	38	293	185	478

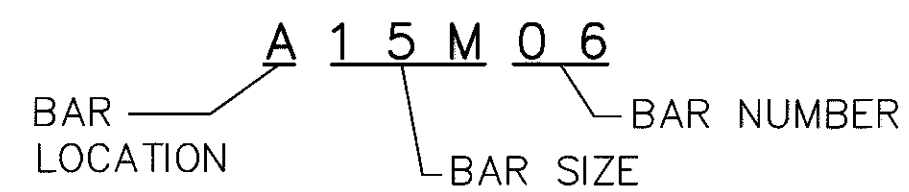
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PLOTTED:
KJB

REINFORCING SCHEDULE

MARK	TOTAL	SUPER		ABUTMENTS				PIERS	LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.									
A16M01	48			12	12	12	12		2710	S	2710					
A16M02	48			12	12	12	12		4435	S	4435					
A16M03	128			32	32	32	32		1770	S	1770					
A16M04	64			16	16	16	16		2570	1	1150	350	1150			
A16M05	64			16	16	16	16		2120	1	925	350	925			
A16M06	48			12	12	12	12		2368	4	1030	350	167	1030		
A19M01	168			42	42	42	42		600	S	600					
D25M01	120			30	30	30	30		1559	12	858	305				
S13M01	540	270	270						9144	S	9144					
S13M02	90	45	45						8630	S	8630					
S16M01	780	390	390						9144	S	9144					
S16M02	130	65	65						9540	S	9540					
S16M03	1500	750	750						6885	S	6885					
S16M04	1500	750	750						7070	S	7070					
S16M05	SER. OF	SER. OF	SER. OF						TO		TO					300
	22	22	22						6990	S	6990					
	4	2	2						955	S	955					
S16M06	SER. OF	SER. OF	SER. OF						TO		TO					300
	20	20	20						6655	S	6655					
	4	2	2						1145	S	1145					
S16M07	SER. OF	SER. OF	SER. OF						TO		TO					300
	20	20	20						6845	S	6845					
S16M08	808	404	404						2130	9	205	990	915			
S16M09	184	92	92						9750	S	9750					
S16M10	8	4	4						3880	14	720	1140				
S16M11	128	64	64						3660	14	720	1030				
S16M12	128	64	64						2170	1	730	790	730			
S16M13	8	4	4						2240	1	730	860	730			
S19M01	808	404	404						630	5	400	280				
S19M02	808	404	404						779	8	125	230	216	152	230	
S25M01	24	12	12						7375	S	7375					
S25M02	24	12	12						7055	S	7055					
S25M03	24	12	12						7135	S	7135					
S25M04	24	12	12						7455	S	7455					

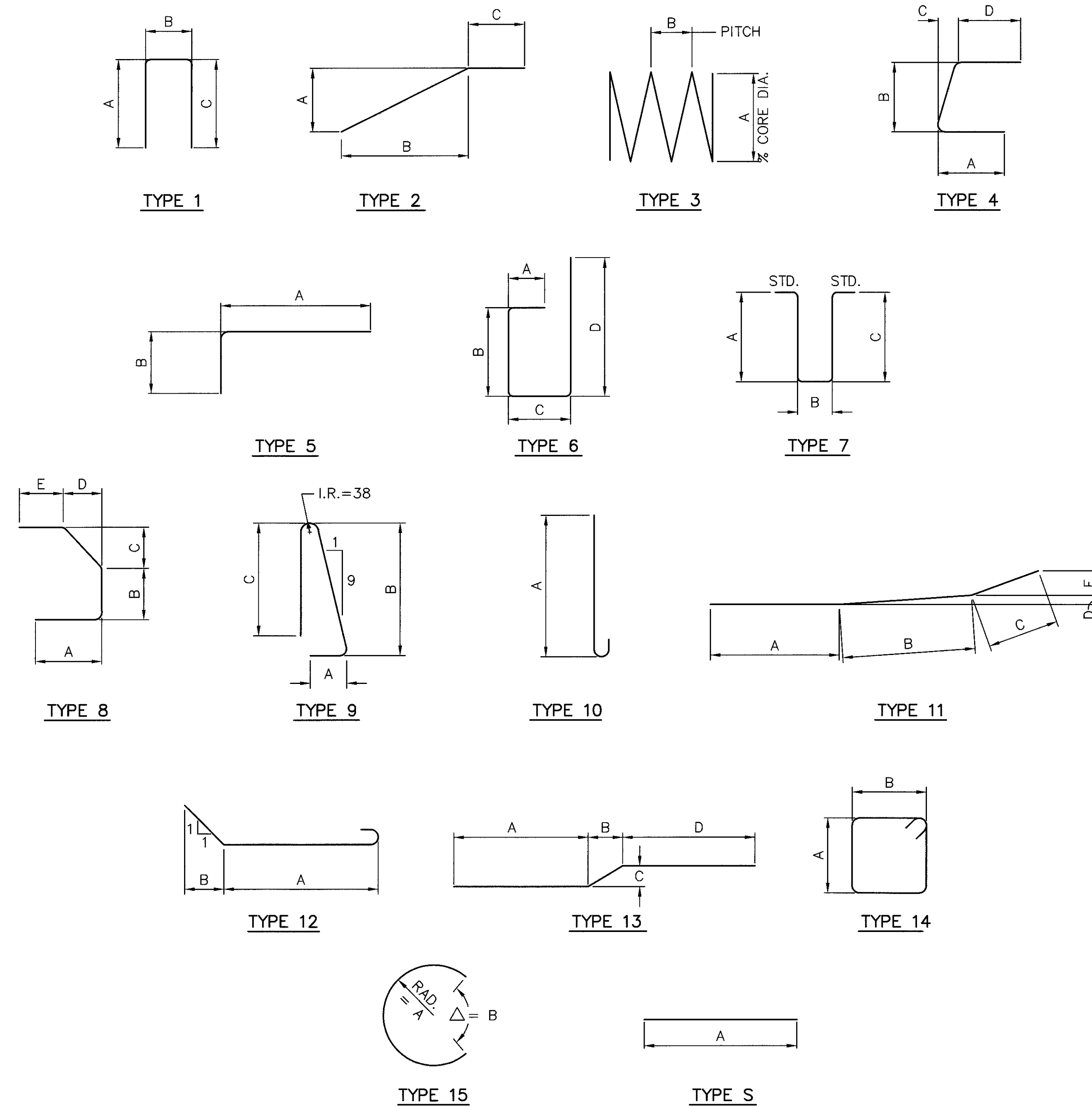
BAR LEGEND



- A - ABUTMENT
- DS - DRILLED SHAFT
- P - PIER
- S - SUPERSTRUCTURE
- D - APPROACH SLAB
- SP - SPIRAL BAR

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.



PLOTTED: OCTOBER 16, 1997
 FILE NAME: I:\5033\005\TRAN\BRIDGE\2-19312\19312SR

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 BOSTON, MA 02114

DATE
 10-97

REVIEWED
 G.A.B.

STRUCTURE FILE NUMBER
 2200902 & 2200937

DRAWN
 R.A.N.

REVISIONS

DESIGNED
 J.T.Y.

CHECKED
 M.E.M.

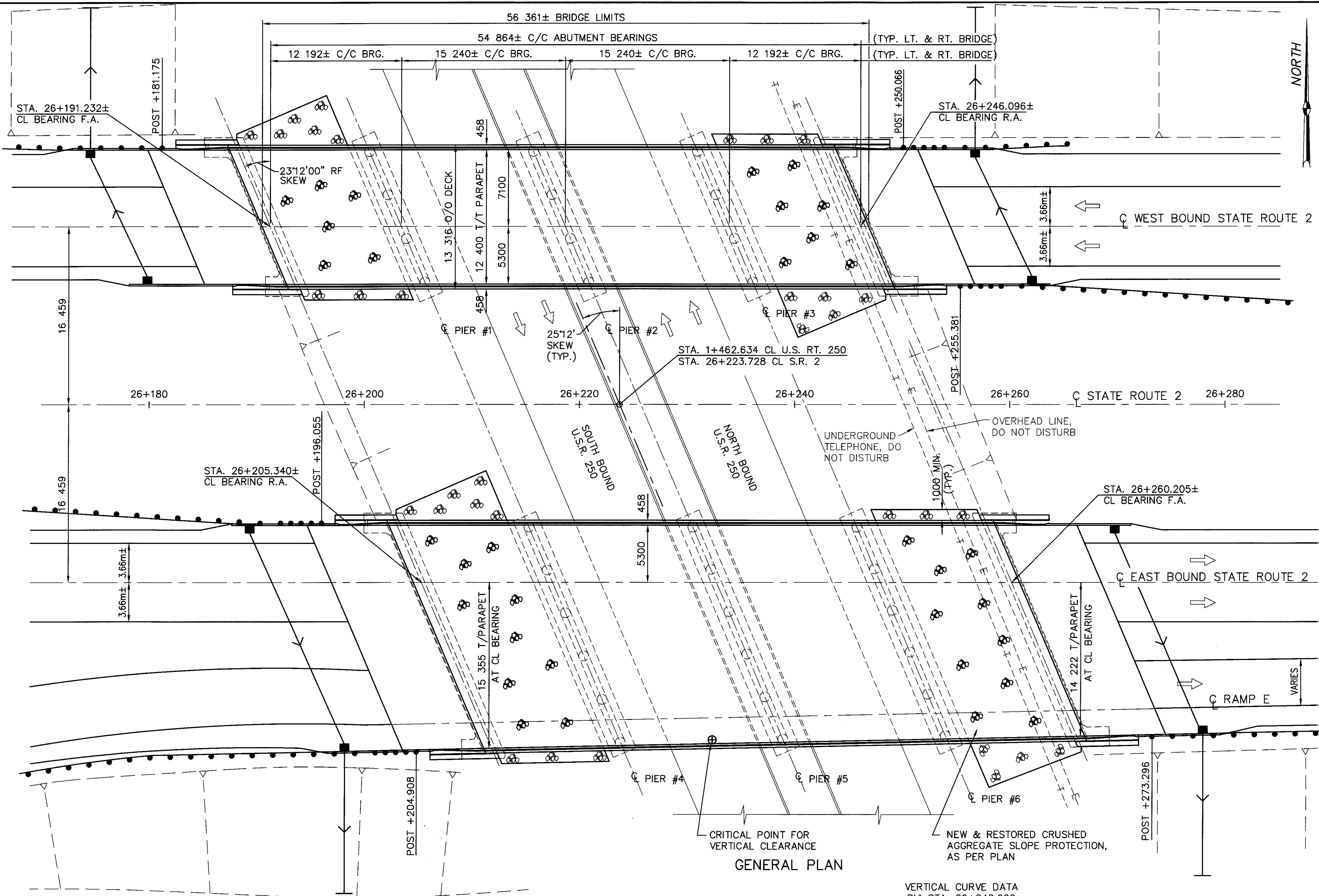
REINFORCING SCHEDULE
 BRIDGE NO. 17638 (1096)
 OVER COLUMBUS AVENUE

ERI-2-12.558

11 / 11

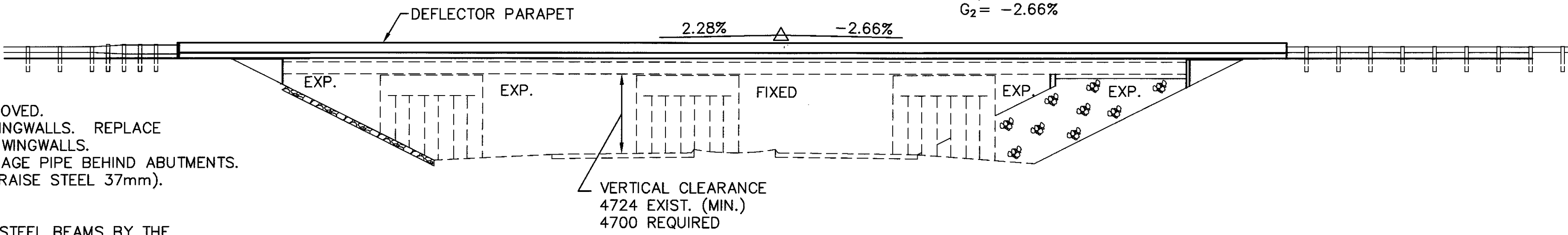
364
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FILE NAME: I:\5033\006\TRAN\BRIDGE\2-19312\19312PN.DWG 7-13-99 10:52:44 am EST



GENERAL PLAN

VERTICAL CURVE DATA
 PVI STA. 26+242.060
 Lc = 396.240
 G₁ = 2.28%
 G₂ = -2.66%



GENERAL ELEVATION

- PROPOSED WORK:
- EXISTING CONCRETE DECK, RAILING AND SCUPPERS TO BE REMOVED.
 - REMOVE EXISTING ABUTMENT BACKWALLS AND PORTIONS OF WINGWALLS. REPLACE BACKWALL WITH SEMI-INTEGRAL CAP AND PROVIDE STRAIGHT WINGWALLS.
 - PLACE POROUS BACKFILL WITH FILTER FABRIC AND NEW DRAINAGE PIPE BEHIND ABUTMENTS.
 - RAISE DECK PROFILE TO MATCH S.R. 2 RESURFACING DEPTH (RAISE STEEL 37mm).
 - REPLACE BEARINGS.
 - REPLACE APPROACH SLABS.
 - NEW CONCRETE DECK TO BE MADE COMPOSITE WITH EXISTING STEEL BEAMS BY THE ADDITION OF STUD SHEAR CONNECTORS.
 - SEAL CONCRETE SURFACES.
 - REPAIR SLOPE PROTECTION.
 - CLEAN AND REPAINT STEEL.
 - ENCASE PIER COLUMNS.

BENCH MARK No. 27
MONUMENT FOUND (P.O.T.) STA. 25+999.492, ELEV. 185.797
BENCH MARK No. 28
MONUMENT FOUND (P.O.T.) STA. 26+304.297, ELEV. 189.821

NOTE:
 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

CURRENT YEAR ADT (1998) = 11 140*
 DESIGN YEAR ADT (2018) = 16 100*
 DESIGN YEAR ADTT (2018) = 3220*
 * - ONE DIRECTION

EXISTING STRUCTURE	
TYPE:	CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK. REINFORCED CONCRETE PIER BENTS AND STUB ABUTMENTS
SPAN:	12 192±, 15 240±, 15 240±, 12 192± C/C BRGS
ROADWAY:	12 090± F/F OF 356± CURBS ON LEFT BRIDGE VARIABLE ON RIGHT BRIDGE.
LOAD FREQUENCY:	CF-400(57)
SKEW:	23'-12' R.F.
WEARING SURFACE:	25 MONOLITHIC CONCRETE
APPROACH SLABS:	AS-1-54 (7620 LONG)
ALIGNMENT:	TANGENT
DATE BUILT:	1961
STRUCTURE FILE NUMBER:	2200902(LT.) & 2200937(RT.)

PROPOSED STRUCTURE	
PROPOSED WORK:	NEW COMPOSITE REINFORCED CONC. DECKS. RAISE STRUCTURE.
TYPE:	EXISTING CONTINUOUS STEEL BEAM WITH NEW COMPOSITE REINFORCED CONCRETE DECK & EXISTING CONCRETE SUPERSTRUCTURE.
SPAN:	12 192±, 15 240±, 15 240±, 12 192± C/C BRGS
ROADWAY:	12 400 T/T PARAPETS LEFT BRIDGE VARIABLE RIGHT BRIDGE
LOADING:	MS18 (CASE I) & THE ALTERNATE MILITARY LOAD
SKEW:	23'12' R.F.
WEARING SURFACE:	25 MONOLITHIC CONCRETE
APPROACH SLABS:	AS-1-81M (7600 LONG)
CROWN:	0.016
ALIGNMENT:	TANGENT
LONGITUDE:	W-82°39'20"
LATITUDE:	N-41°24'00"

DESIGN AGENCY: **POGGEMEYER DESIGN GROUP, INC.**
 ARCHITECTS + ENGINEERS + PLANNERS
 118 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402

DATE: 10-97
 G.A.B. 10-97
 STRUCTURE FILE NUMBER: 2200902 & 2200937

DESIGNED: J.T.Y.
 CHECKED: M.E.M.

GENERAL PLAN AND ELEVATION
 BRIDGE NO. ERI-2-19312 (1200) L & R
 OVER U.S.R. 250

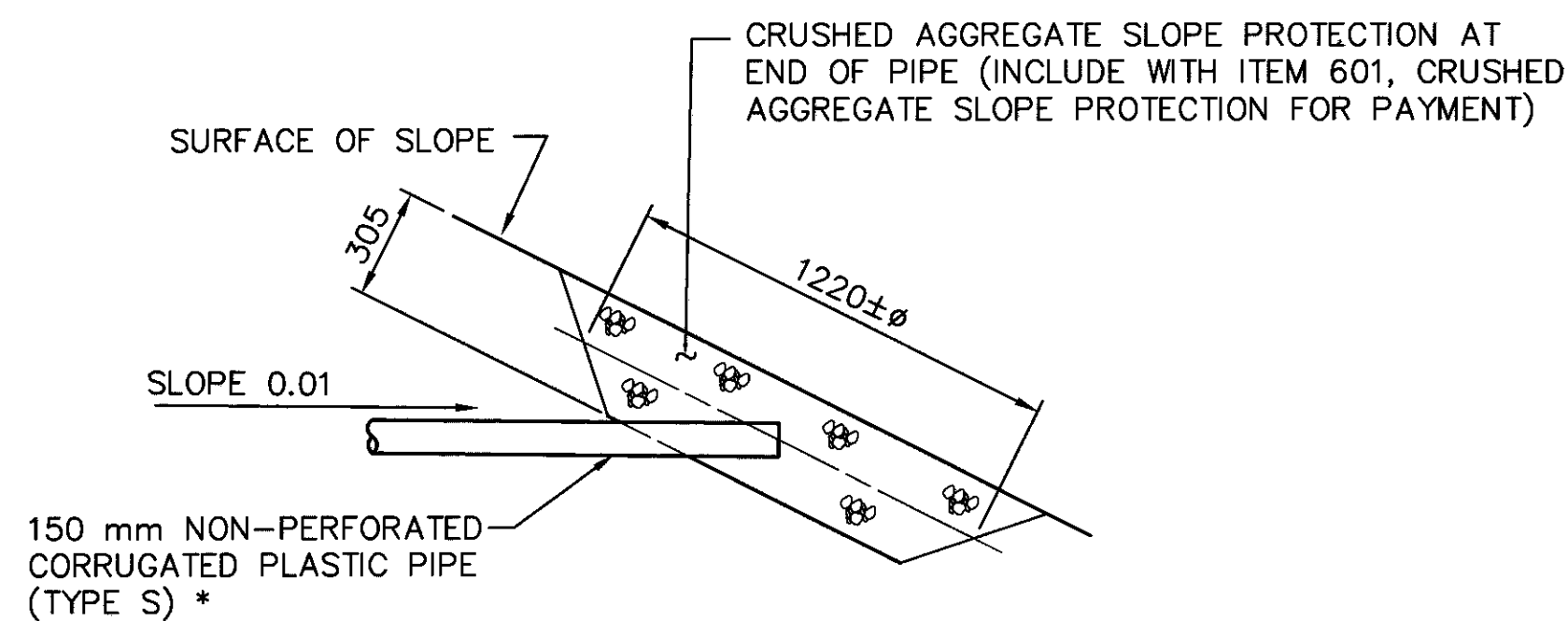
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1/14

365
432

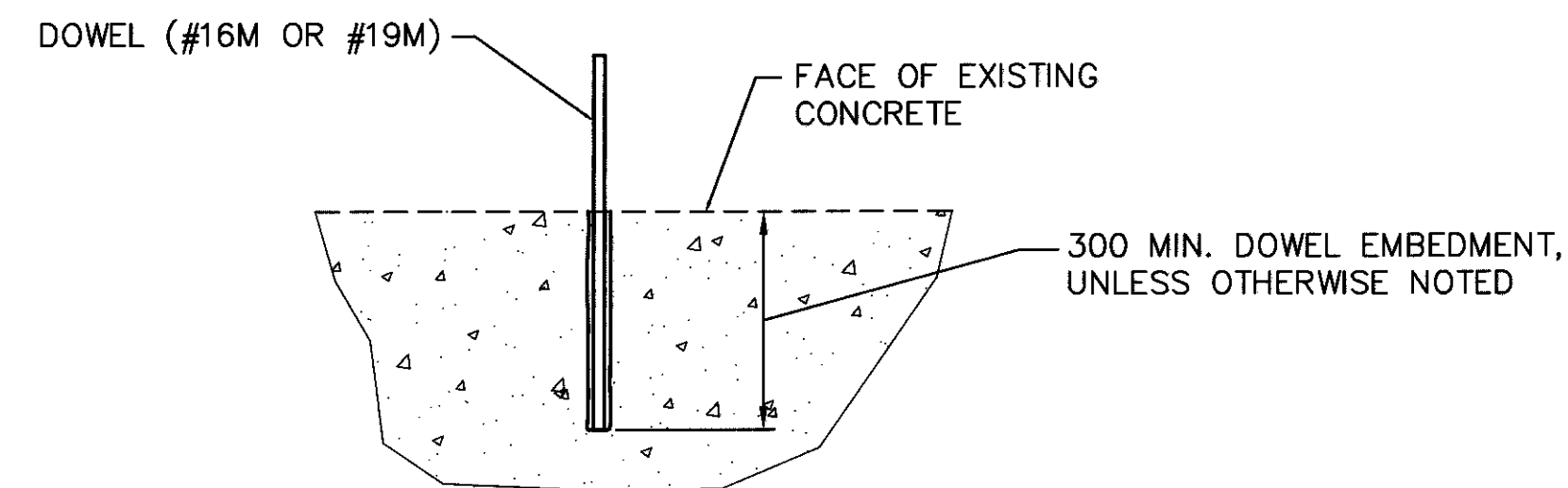
ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL LT. BRIDGE	TOTAL RT. BRIDGE	UNIT	DESCRIPTION	AS PER PLAN SHEET #	ABUTMENTS				PIERS						SUPERSTRUCTURE		GENERAL
							LT. R.A.	RT. R.A.	LT. F.A.	RT F.A.	1	2	3	4	5	6	LEFT	RIGHT	
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6 METER SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP							LUMP	LUMP	
503	11100	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING														LUMP
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION		LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP				
512	44400	2	2	SQ METER	TYPE B WATERPROOFING		1	1	1	1									
SPECIAL	51267510	705	908	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		12	12	12	12	111	102	111	182	166	179	357	357	
516	13600	2	2	SQ METER	25mm PREFORMED EXPANSION JOINT FILLER		1	1	1	1									
516	13900	10	10	SQ METER	51mm PREFORMED EXPANSION JOINT FILLER		5	5	5	5									
516	44001	6	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 33.5mm x 240mm x 380mm PAD AND 38mm x 266mm x 530mm LOAD PLATE	325											6	10	
516	44001	12	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 36.1mm x 230mm x 355mm PAD AND 60.3mm x 256mm x 381mm LOAD PLATE	325											12	20	
516	44001	12	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 41.5mm x 215mm x 305mm PAD AND 51mm x 241mm x 331mm LOAD PLATE	325											12	20	
516	47000	LUMP	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE												LUMP	LUMP	
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP									
518	40000	32	49	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE		16	25	16	24									
518	40010	20	20	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		10	10	10	10									
519	11100	23	36	SQ METER	PATCHING CONCRETE STRUCTURE		11	19	12	17									
SPECIAL	51912610	7	2	METER	CONCRETE REPAIR BY EPOXY INJECTION INCLUDING SURFACE PREPARATION		2		2	2	3								
815	00050	1080	1810	SQ. METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU												1080	1810	
815	00056	1080	1810	SQ. METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU												1080	1810	
815	00060	1080	1810	SQ. METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU												1080	1810	
815	00066	1080	1810	SQ. METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU												1080	1810	
815	00504	50	50	MAN HOUR	GRINDING FINES, TEARS, SLIVERS												50	50	
815	00508	183	305	METER	GRINDING FLANGE EDGES												183	305	
842	45701	16	16	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	325	8	8	8	8									
842	71100	29	40	CU METER	CLASS C CONCRETE, MISC: PIER ENCASEMENT						10	9	10	14	12	14			
844	48001	205	321	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN, MIX 4	325											205	321	
844	48021	37	37	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET), AS PER PLAN, MIX 4	325											37	37	
844	49000	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX												LUMP	LUMP	
844	49010	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TESTING												LUMP	LUMP	
863	10201	877	2571	KILOGRAM	STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION, AS PER PLAN	324											877	2571	
863	20000	3240	5400	EACH	WELDED STUD SHEAR CONNECTOR												3240	5400	



OUTLET DETAIL

* ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLETS OF THESE DRAINAGE PIPES PER DM-1.1M. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM 518 - 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.



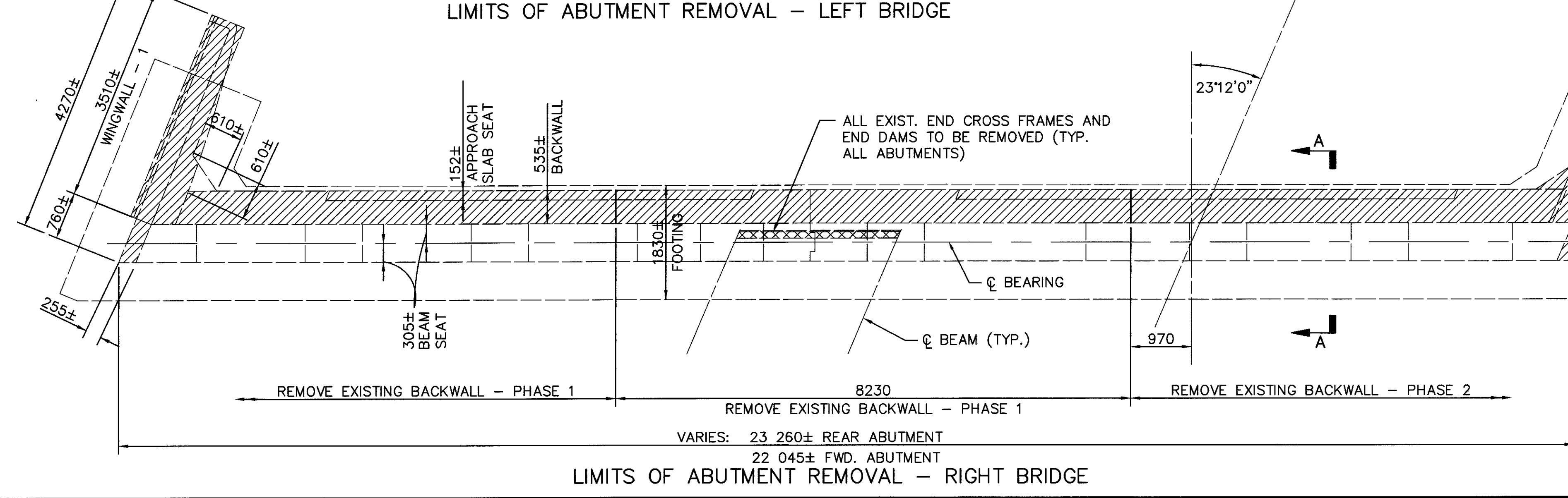
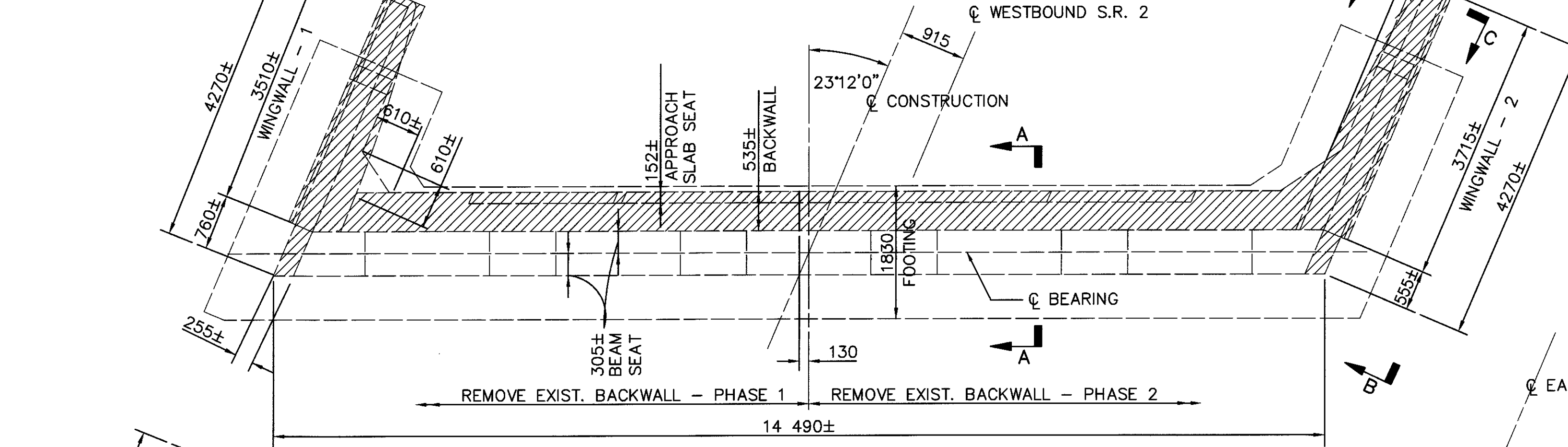
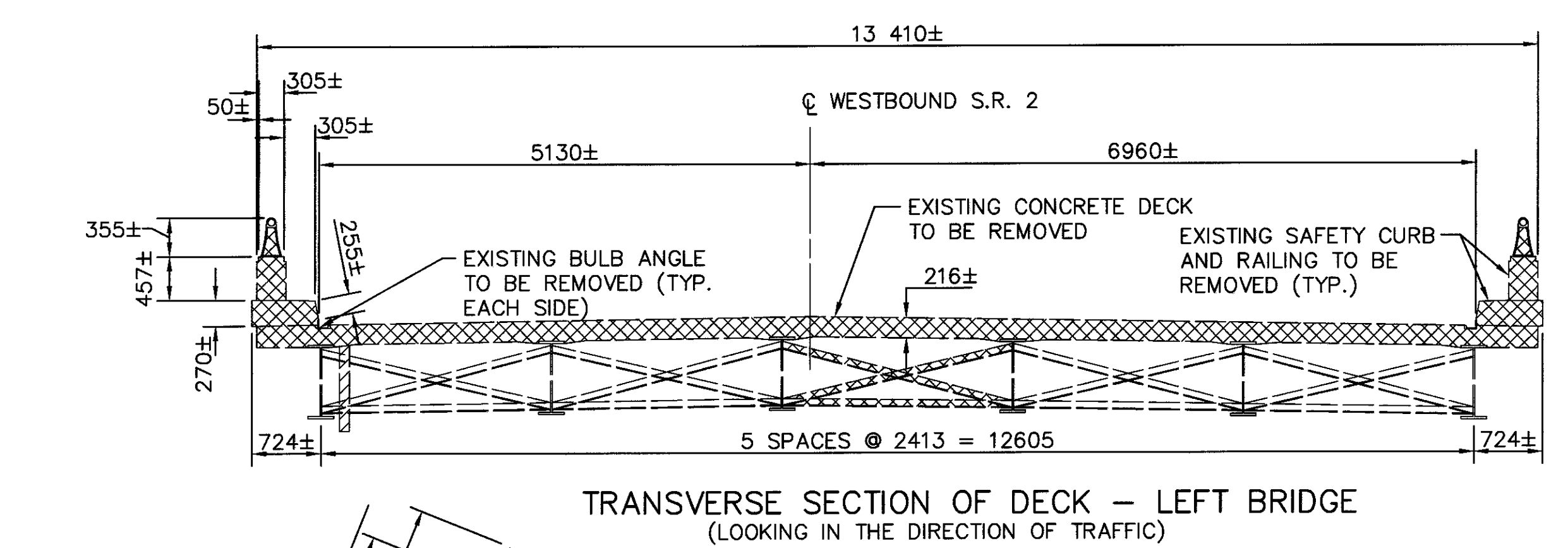
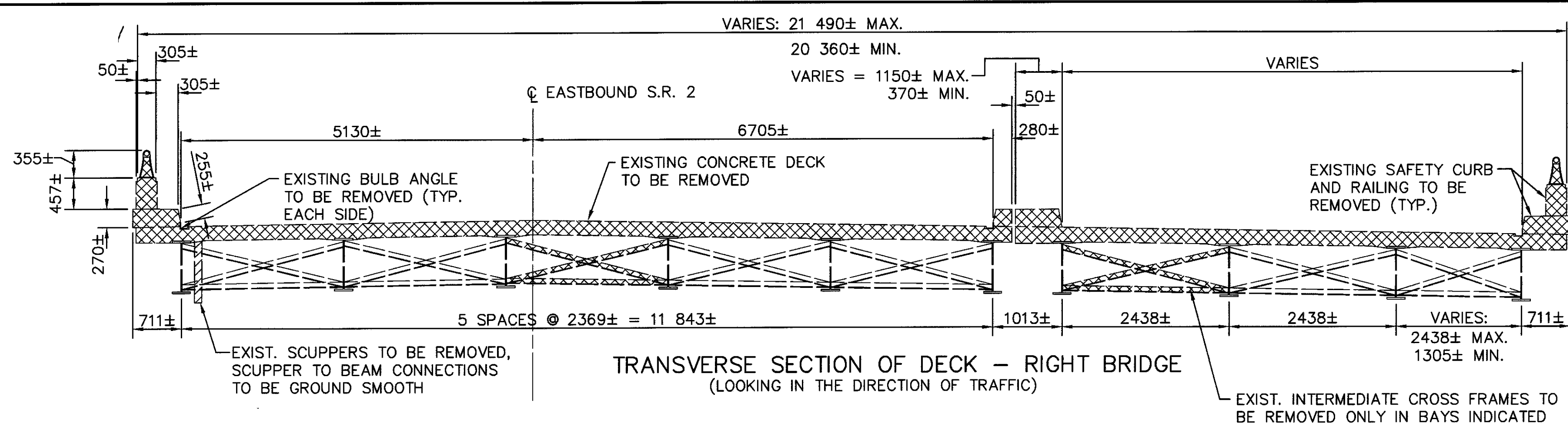
DOWEL DETAIL

DOWEL BARS, SHALL BE DRILLED AND GROUTED INTO THE EXISTING STRUCTURE AS SHOWN AND IN ACCORDANCE WITH CMS 510, DOWEL HOLES, EXCEPT THAT GROUT SHALL BE NON-SHRINK, NON-METALIC EPOXY MORTAR, COST TO BE INCLUDED WITH THE APPROPRIATE 842 CONCRETE ITEM.

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PLOTTED: KJB

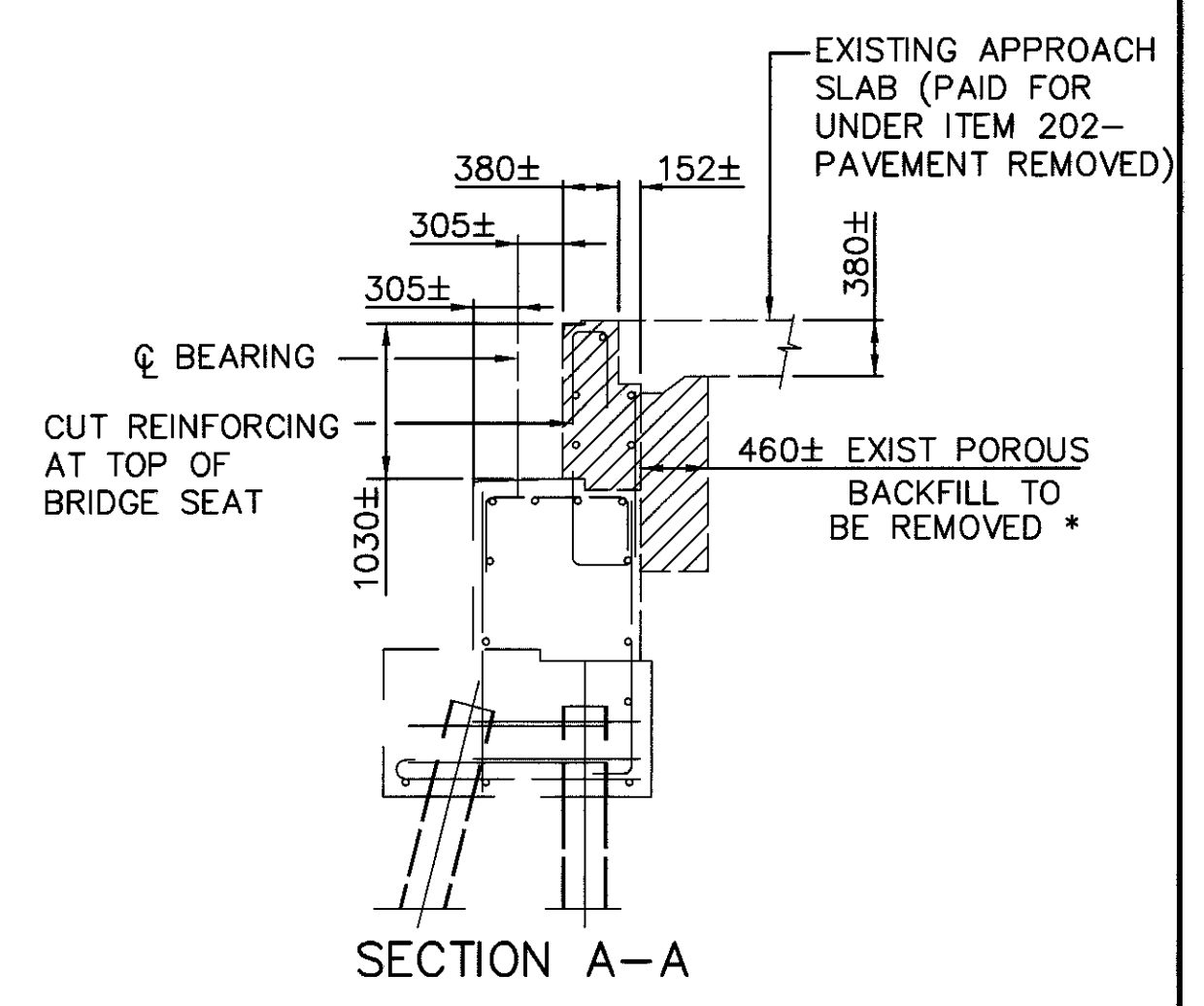
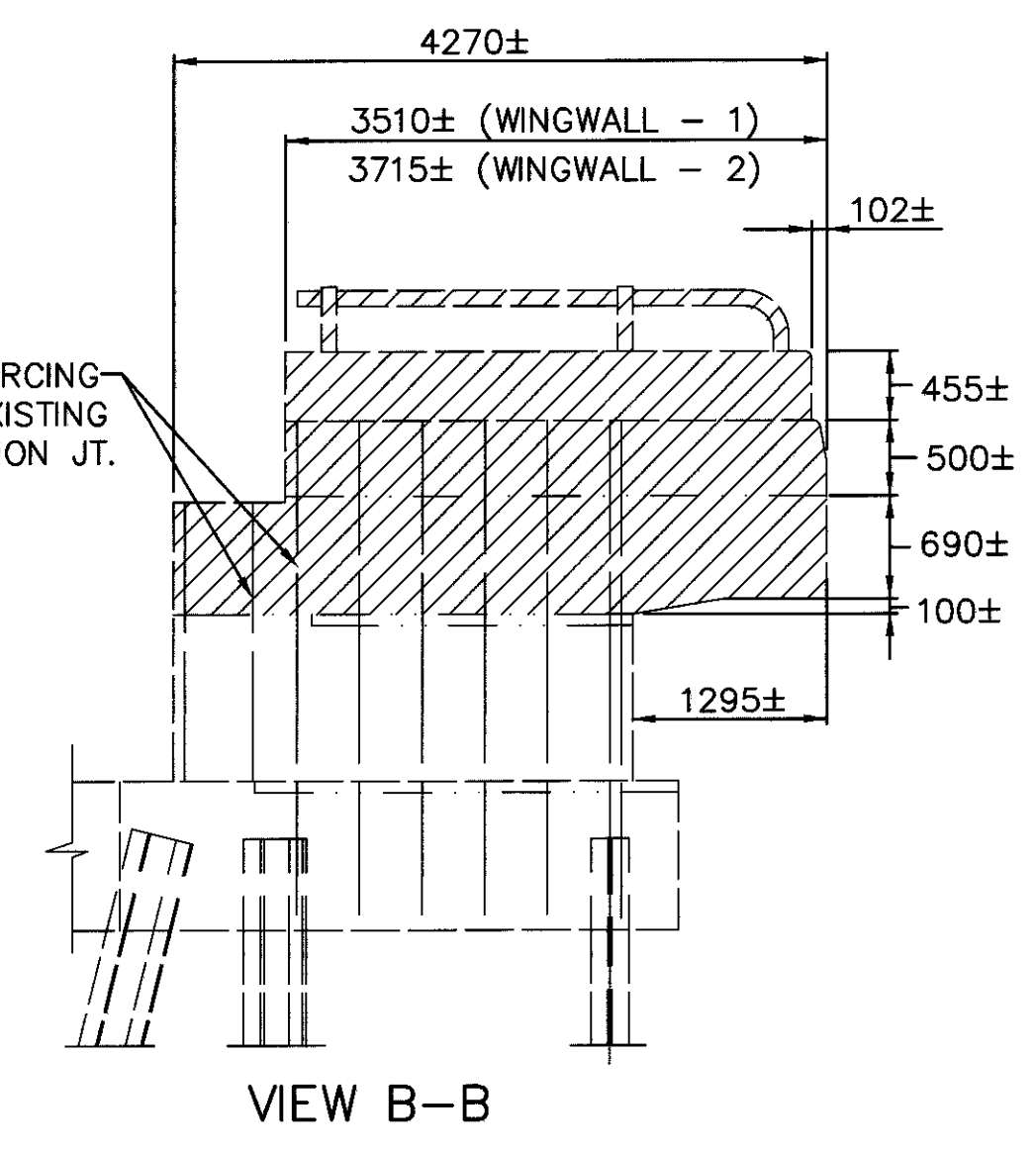
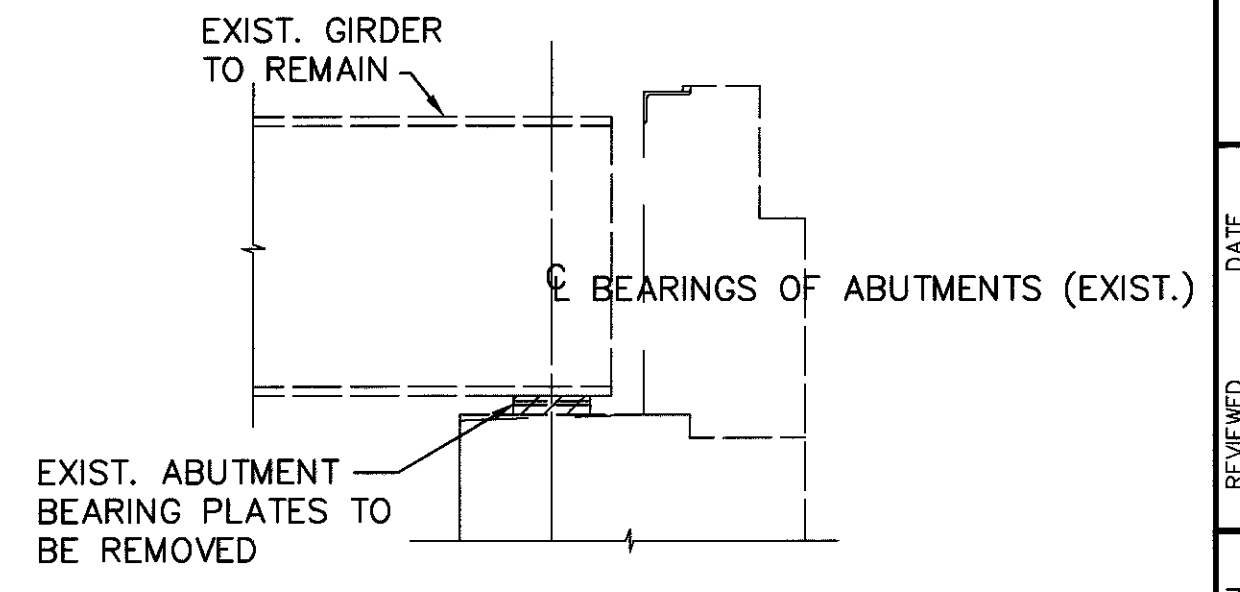
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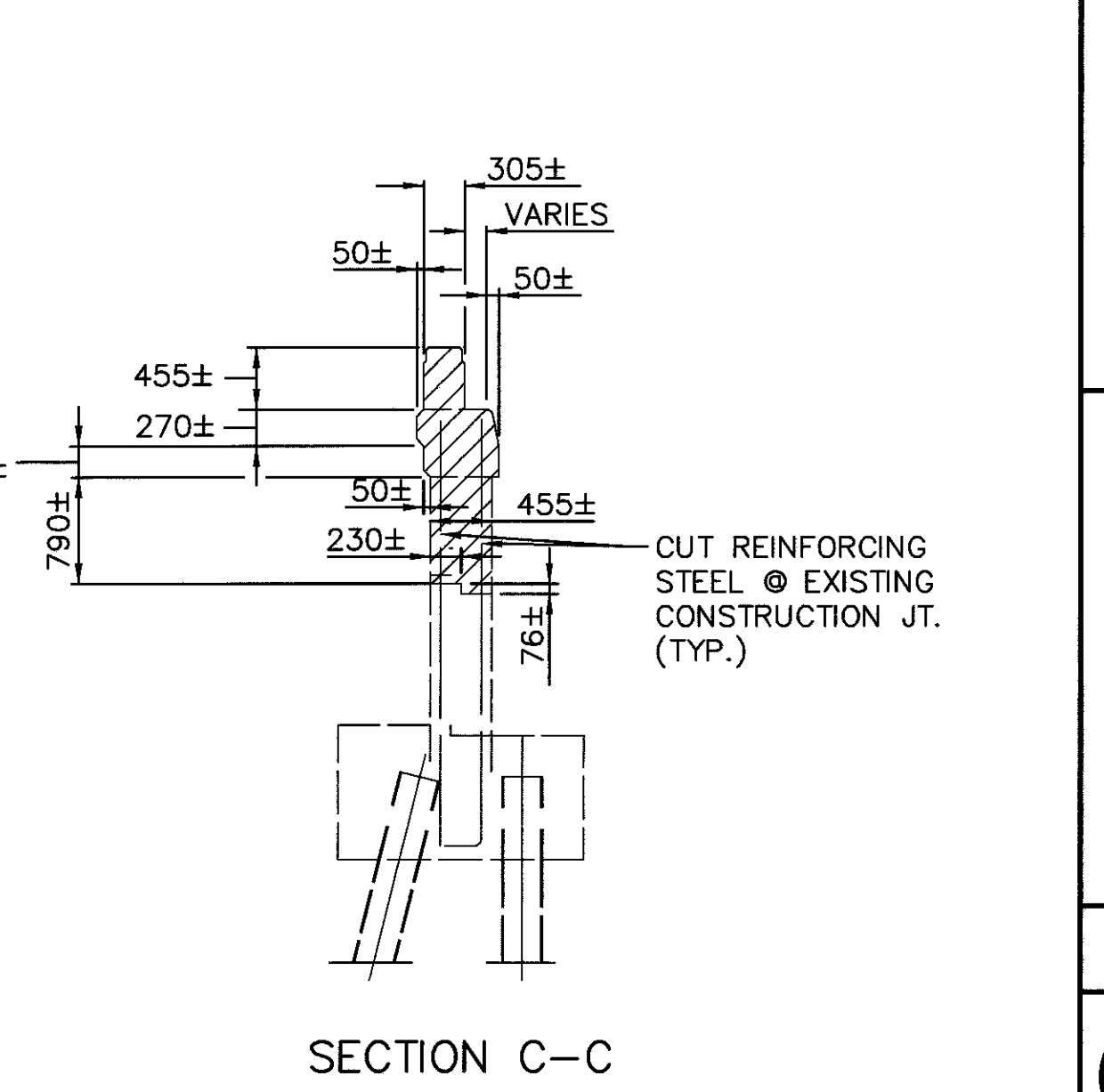
SEE SHEET [13/14] FOR STAGE CONSTRUCTION REMOVAL LIMITS

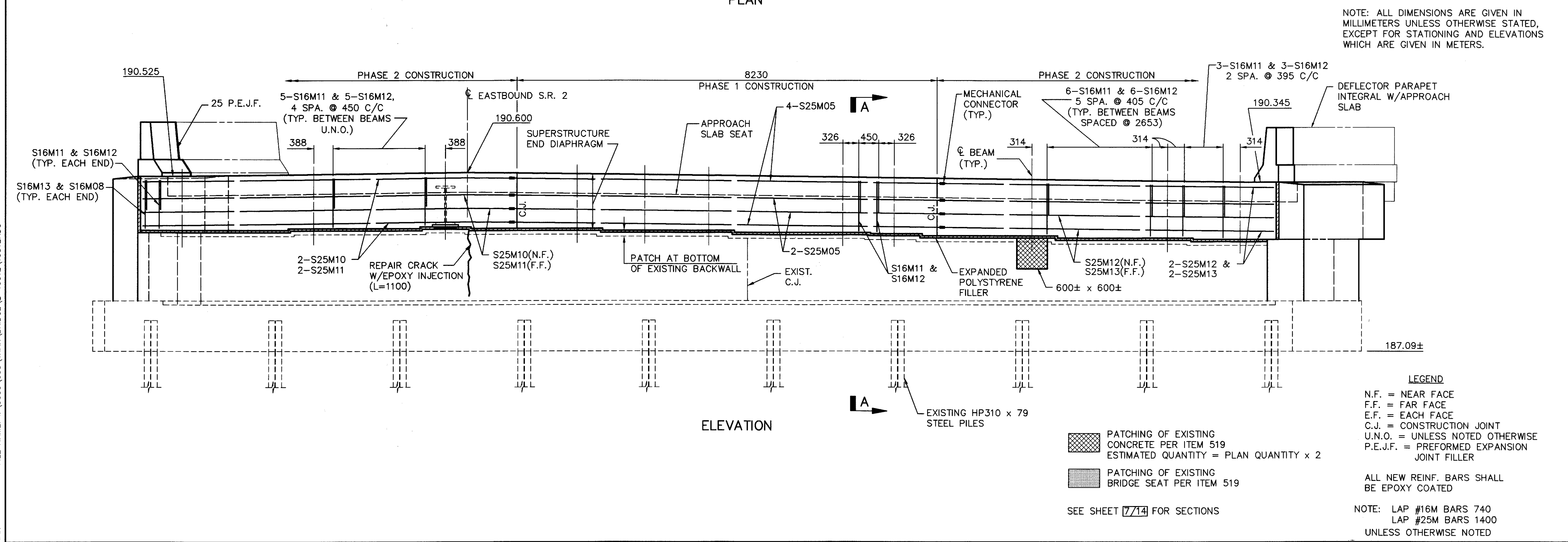
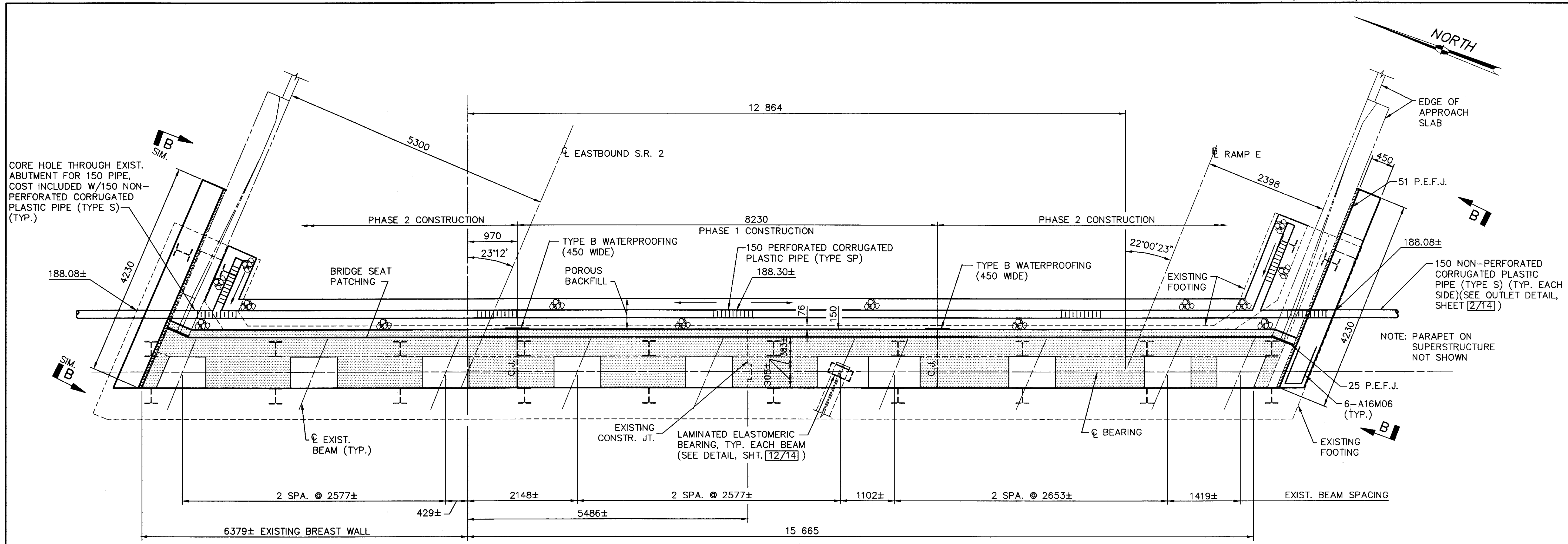
NORTH (FORWARD ABUTMENT)
NORTH (REAR ABUTMENT)

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN



* - POROUS BACKFILL TO BE REMOVED SHALL BE CONSIDERED INCIDENTAL AND PAID FOR WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN.





FILE NAME: I:\5033\005\TRAN\BRIDGE\2-19312\19312AD3

PLOTTED: APRIL 13, 1998

RAN

5033-005

DESIGN AGENCY: **POGEMEYER DESIGN GROUP, INC.**
ARCHITECTS + ENGINEERS + PLANNERS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402

DATE: 10-97

REVIEWED: C.A.B.

DRAWN: RAN

DESIGNED: J.T.Y.

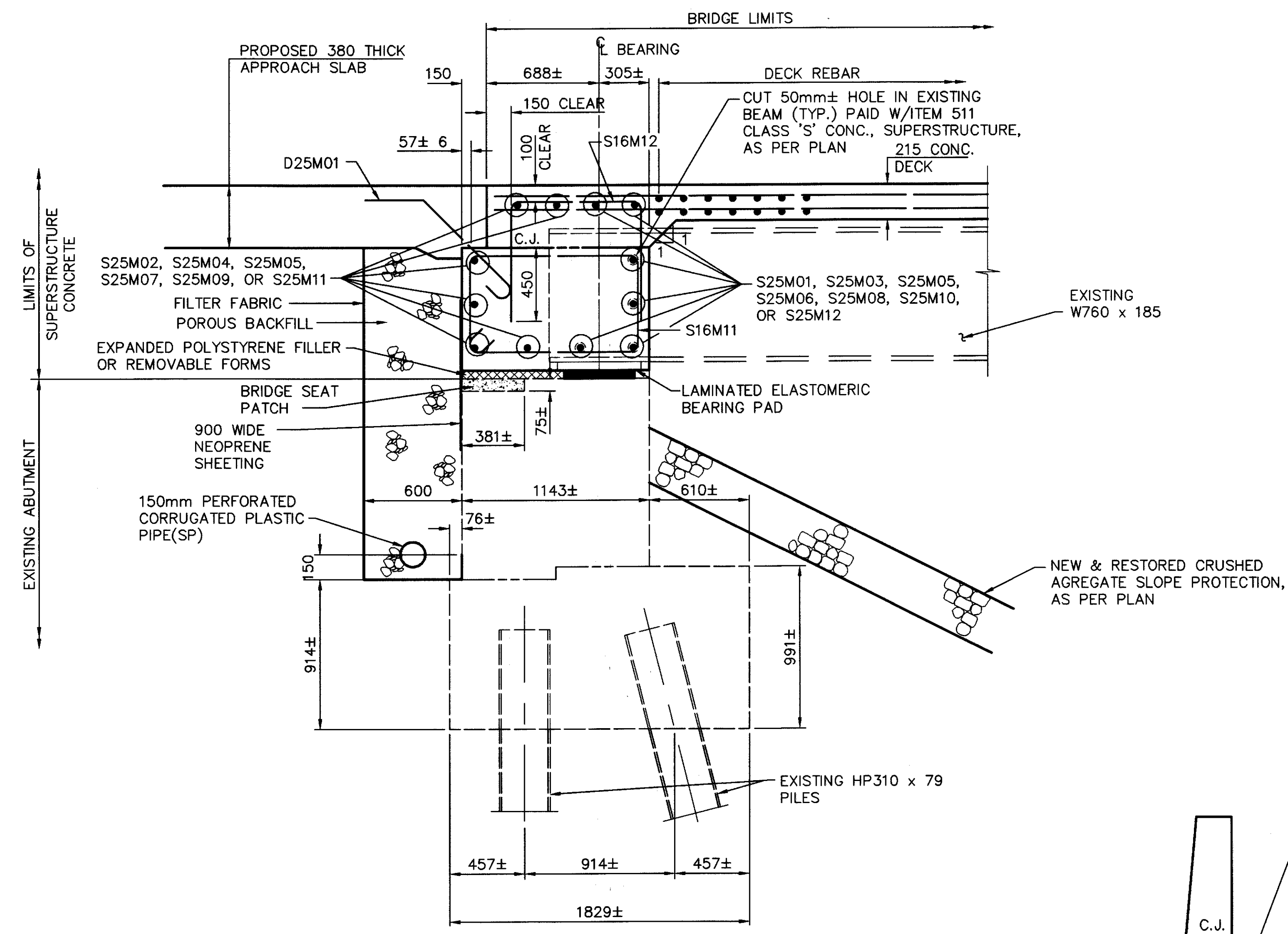
STRUCTURE FILE NUMBER: 2200902 & 2200937

RIGHT FORWARD ABUTMENT PLAN AND ELEVATION
BRIDGE NO. ERI-2-19312 (1200)
OVER U.S.R. 250

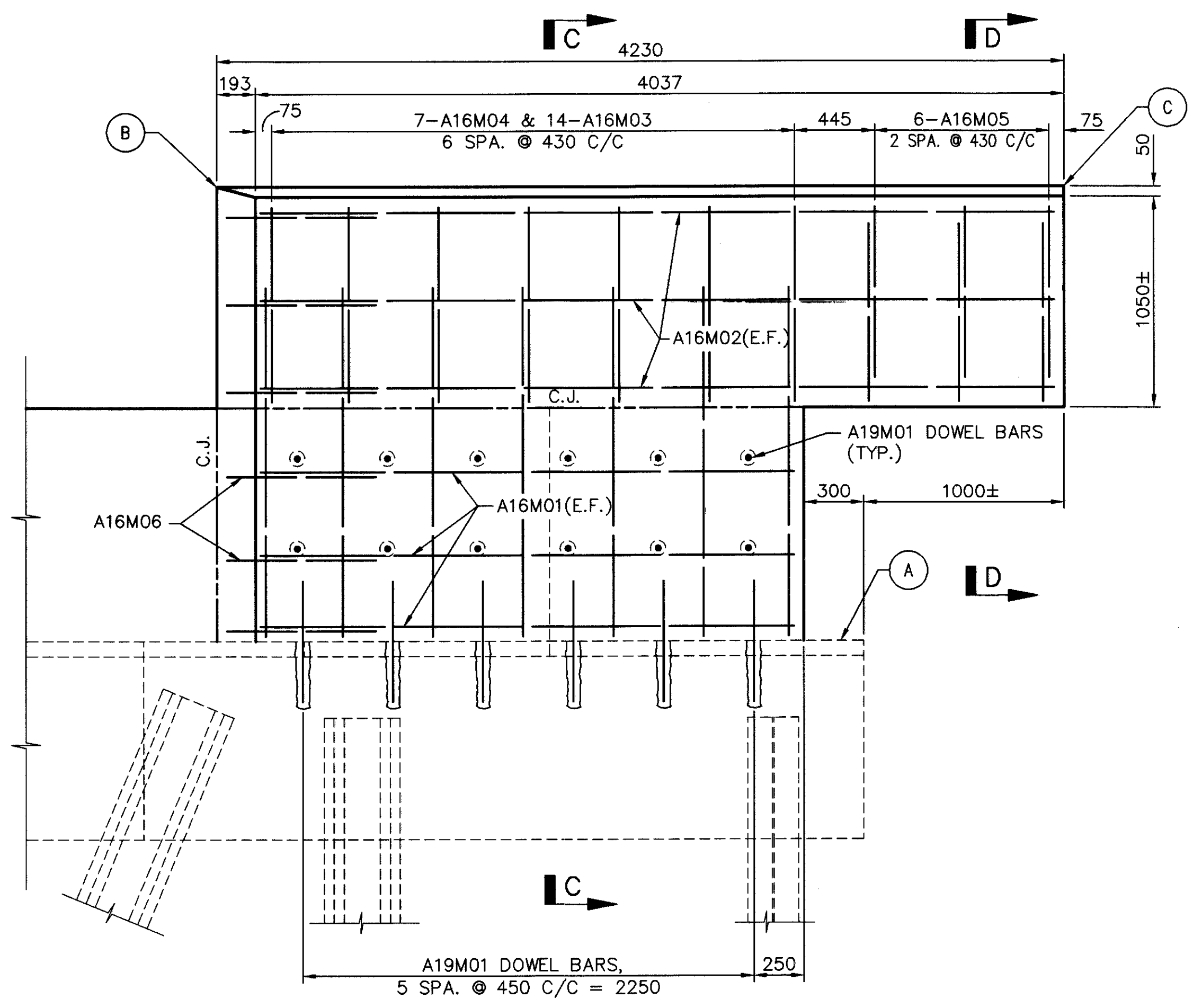
ERI-2-12.558

6/14

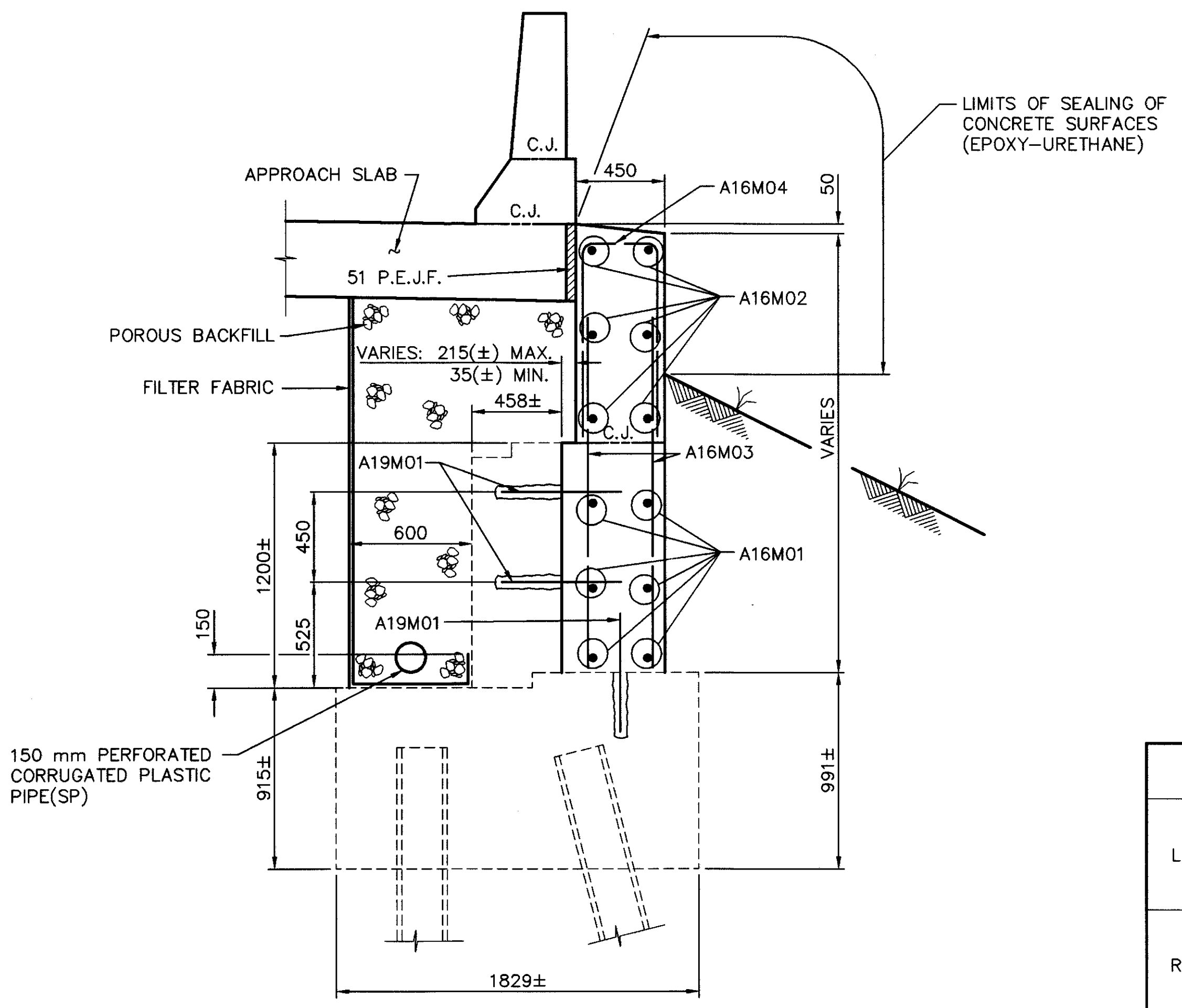
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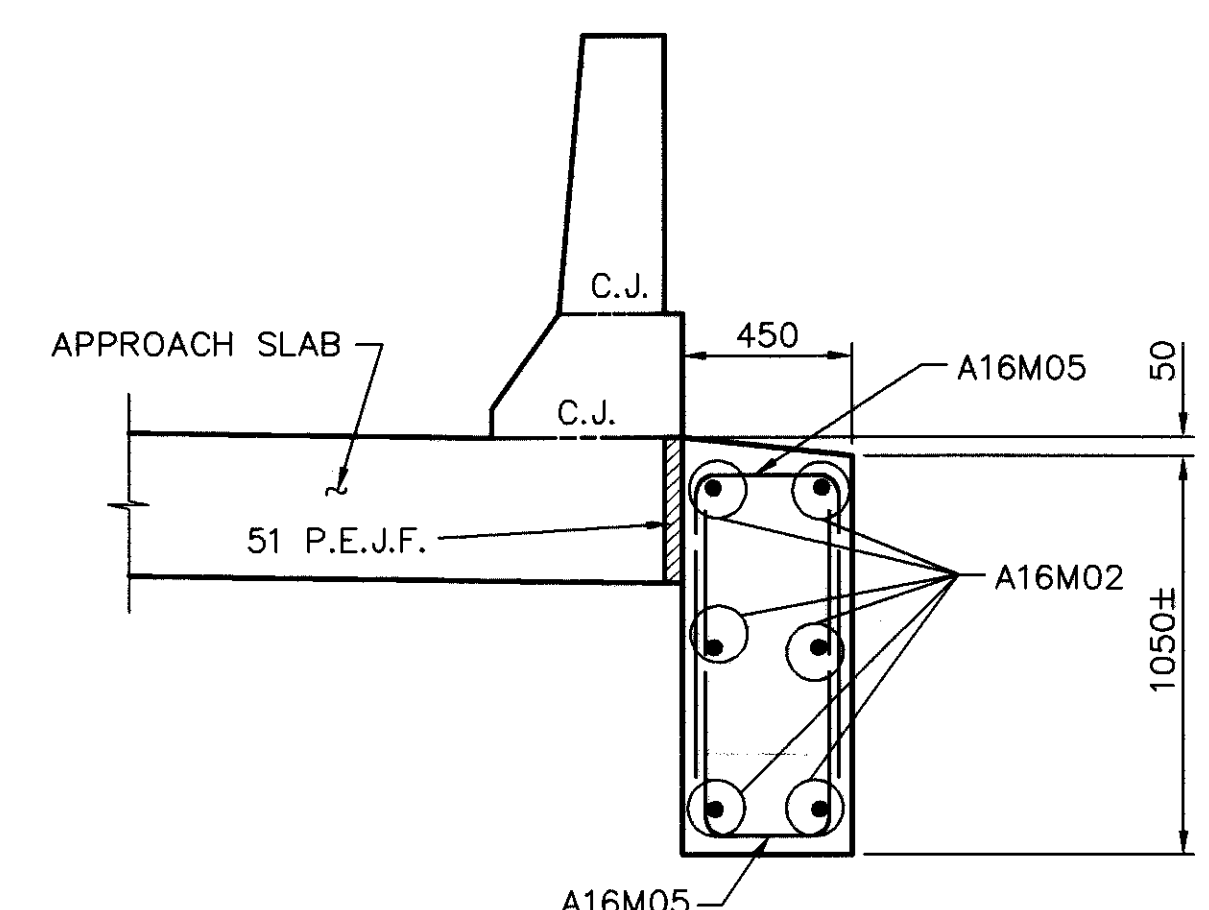
SECTION A-A



VIEW B-B



SECTION C-C



SECTION D-D

NOTES

POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN 600 THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 305 BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS, GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. THE BOTTOM OF THE POROUS BACKFILL SHALL BE SLOPED (8%) Laterally TO DRAIN. GEOTEXTILE FABRIC IS INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.

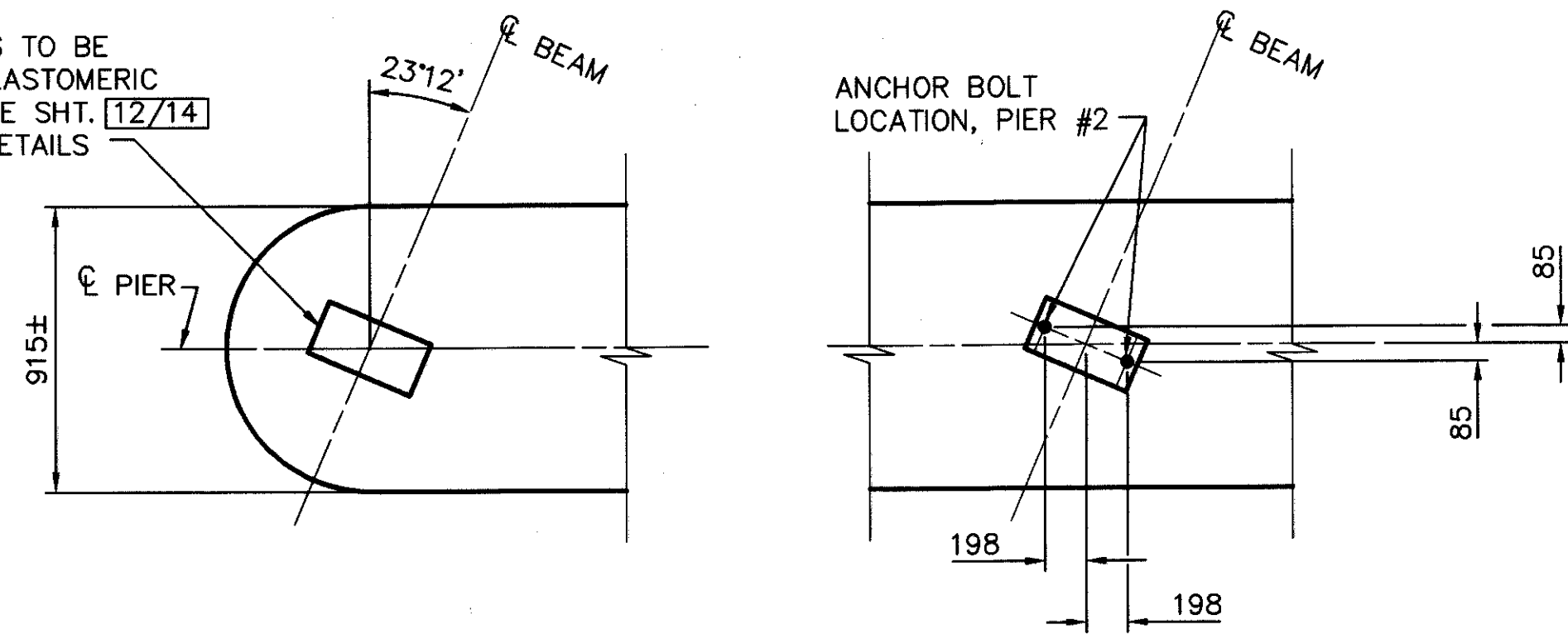
ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED. EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

PARAPET DETAILS: SEE SHEET 328

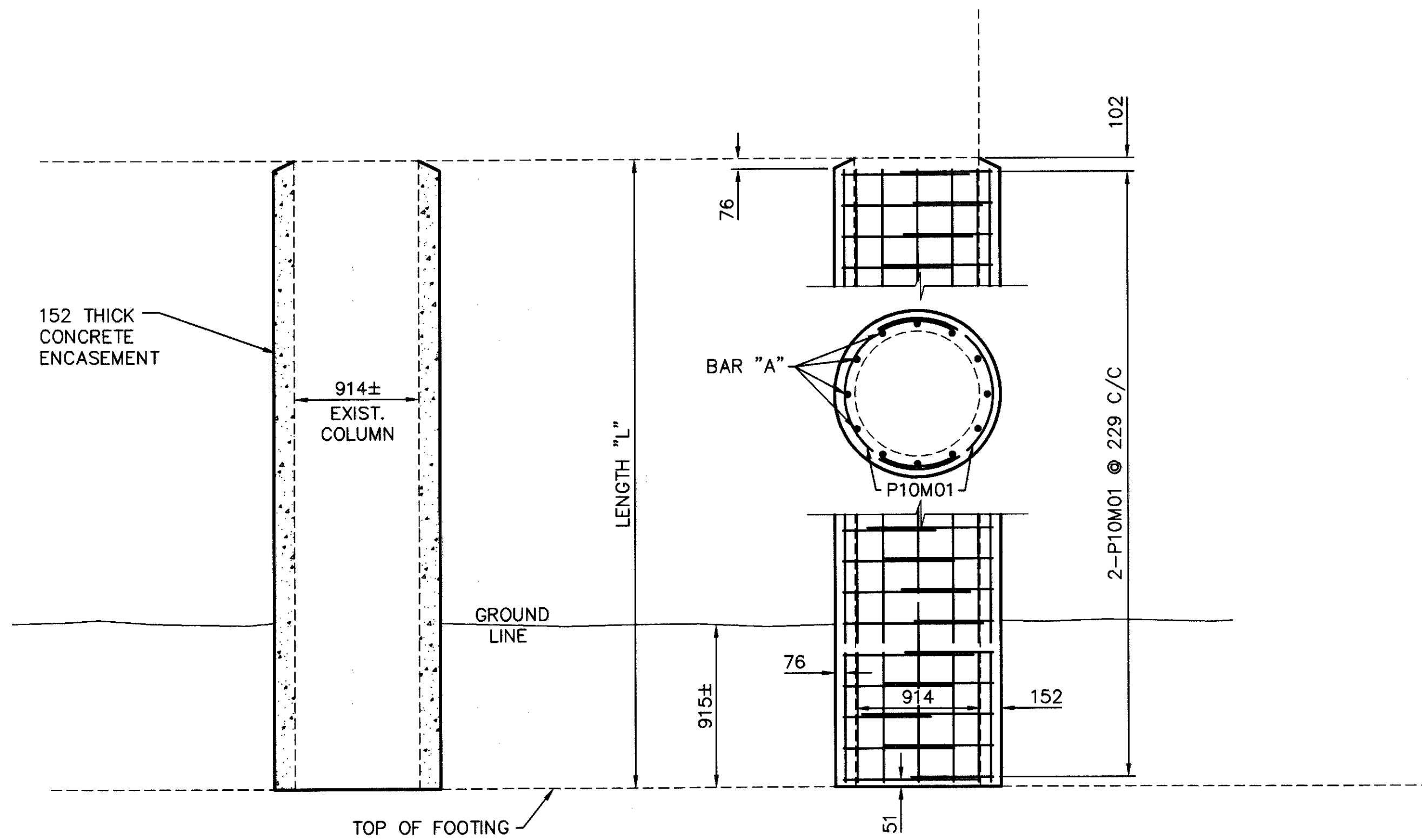
LOCATION		ELEVATION @ CL BEARING		
		A	B	C
LT. BRIDGE	LT. REAR WING	188.20±	190.463	190.445
	RT. REAR WING	188.20±	190.515	190.500
	LT. FWD. WING	188.26±	190.540	190.534
RT. BRIDGE	RT. FWD. WING	188.26±	190.556	190.547
	LT. REAR WING	188.14±	190.550	190.538
	RT. REAR WING	188.14±	190.410	190.404
	LT. FWD. WING	188.08±	190.525	190.510
	RT. FWD. WING	188.08±	190.345	190.327

SEE SHEETS [4/14], [5/14] & [6/14] FOR SECTION & VIEW CUTS

EXISTING BEARINGS TO BE REPLACED WITH ELASTOMERIC BEARING PADS, SEE SHT. 12/14 FOR ADDITIONAL DETAILS



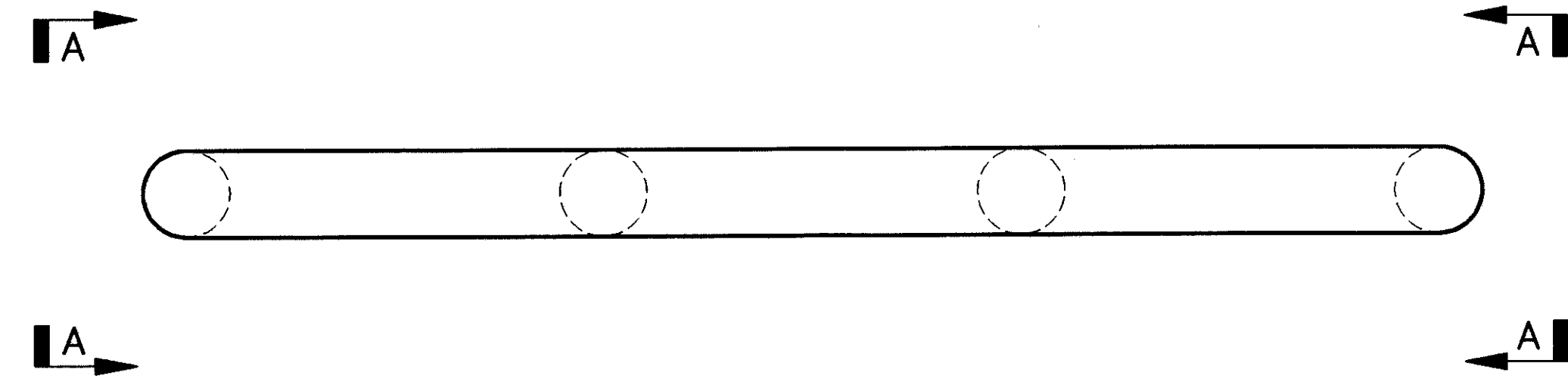
ANCHOR BOLT LOCATION



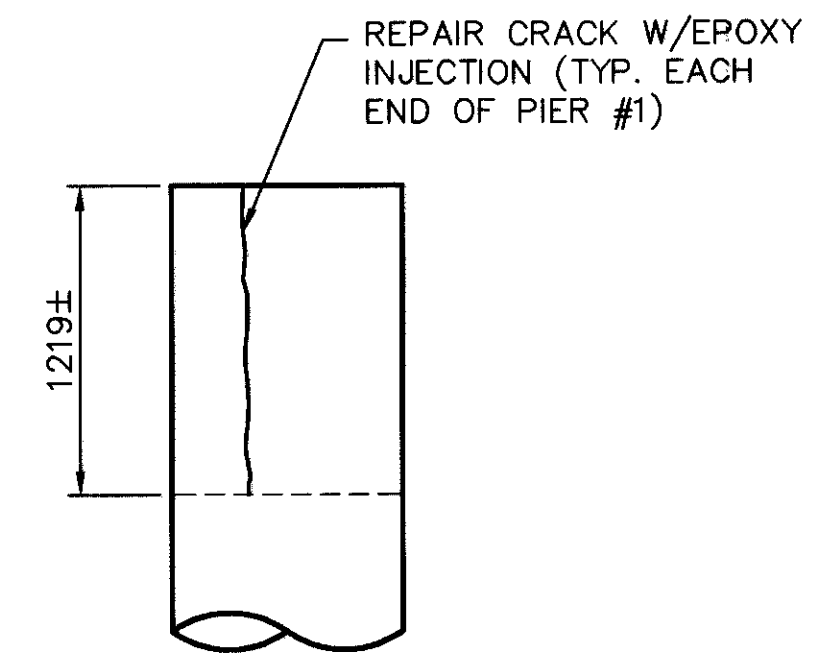
PIER ENCASEMENT DETAIL

PIER #	DIM. "L"	NUMBER OF COLUMNS PER PIER	REINF. BAR MARK - A	NUMBER OF P10M01 BARS PER COLUMNS
#1	4623	4	P10M02	42
#2	4077	4	P10M03	36
#3	4667	4	P10M04	42
#4	4543	6	P10M05	40
#5	3956	6	P10M06	36
#6	4509	6	P10M07	40

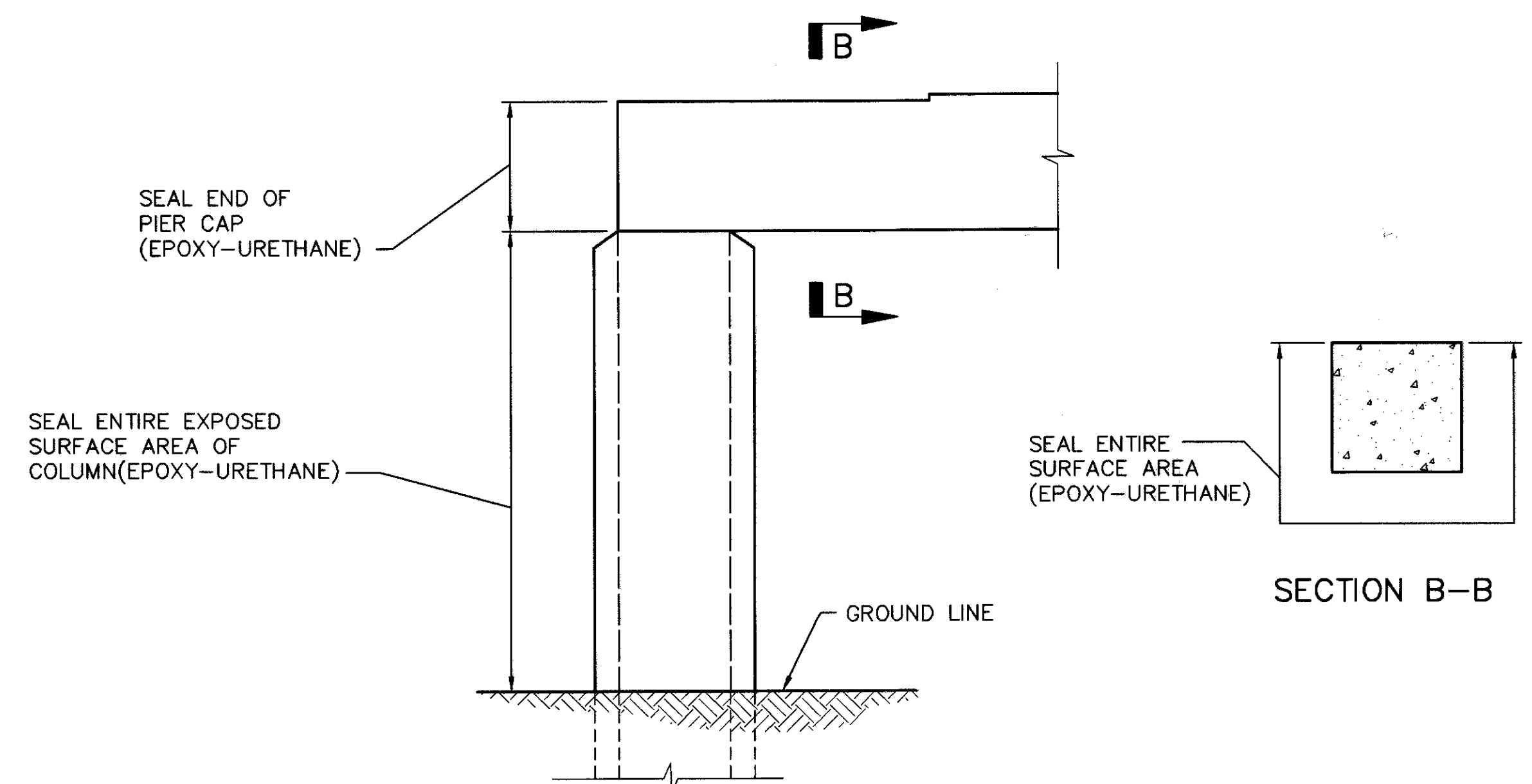
NORTH



CRACK REPAIR, PIER #1 - PLAN



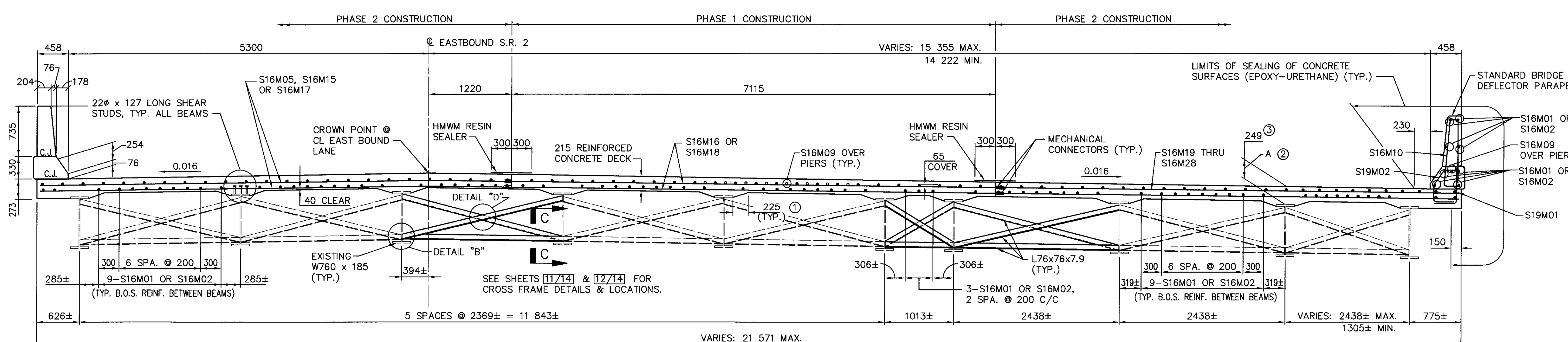
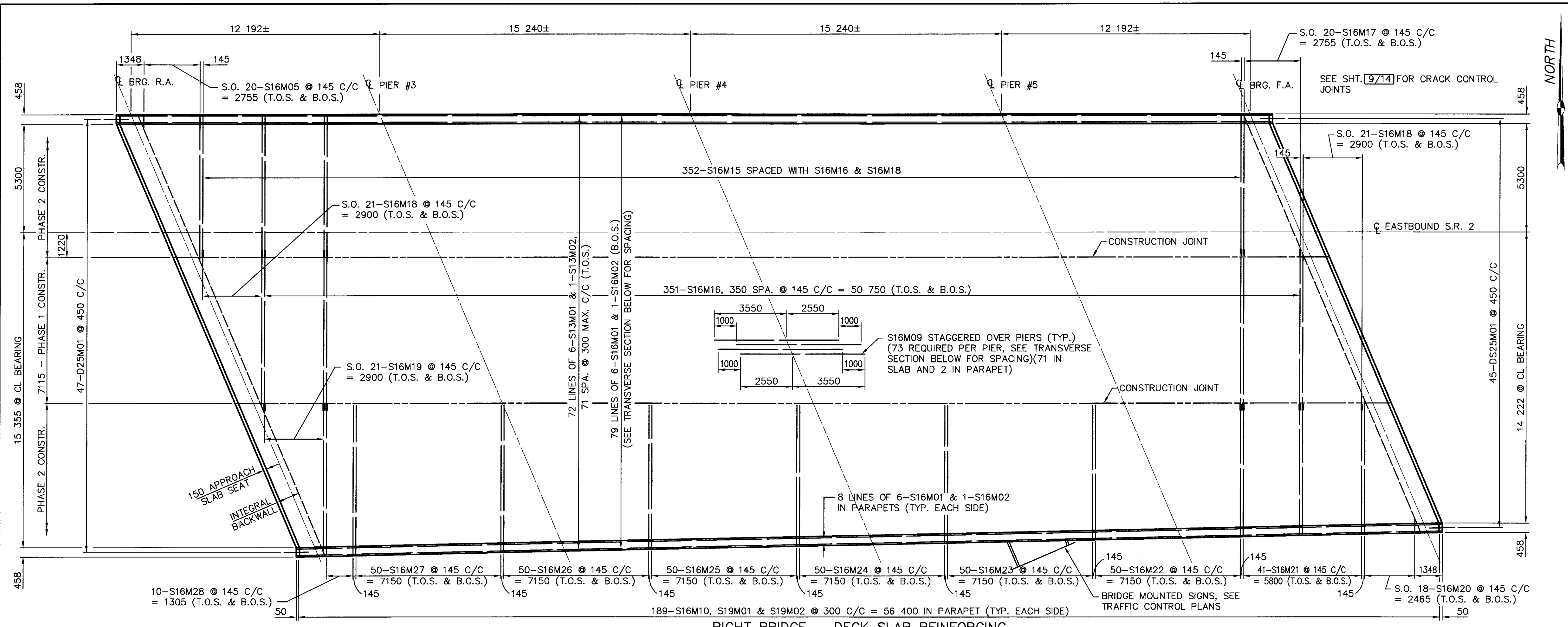
VIEW A-A



LIMITS OF SEALING OF PIERS

PLOTTED: APRIL 13, 1998
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NOTES

1. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH MAY VARY BETWEEN 150 mm AND 300 mm.
2. CONTRACTOR TO VERIFY BEAM PROFILES WITH PROFILE GRADE TO VERIFY DECK SLAB DEPTH (DIMENSION "A"). THE TABLE ON SHEET 11/14 IS PROVIDED TO RECORD DIMENSION "A".

3. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 34 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.

RIGHT BRIDGE - TRANSVERSE SECTION
LOOKING IN DIRECTION OF TRAFFIC

4. EXISTING INTERMEDIATE CROSS FRAMES AS INDICATED, TO BE REMOVED AND REPLACED TO FACILITATE RAISING THE STEEL SUPERSTRUCTURE. SEE SHEET 3/14 FOR ADDITIONAL DETAILS.

LEGEND
T.O.S. = TOP OF STEEL
B.O.S. = BOTTOM OF STEEL

NOTE: LAP #13M BARS 590
LAP #16M BARS 740
UNLESS OTHERWISE NOTED

POGGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402

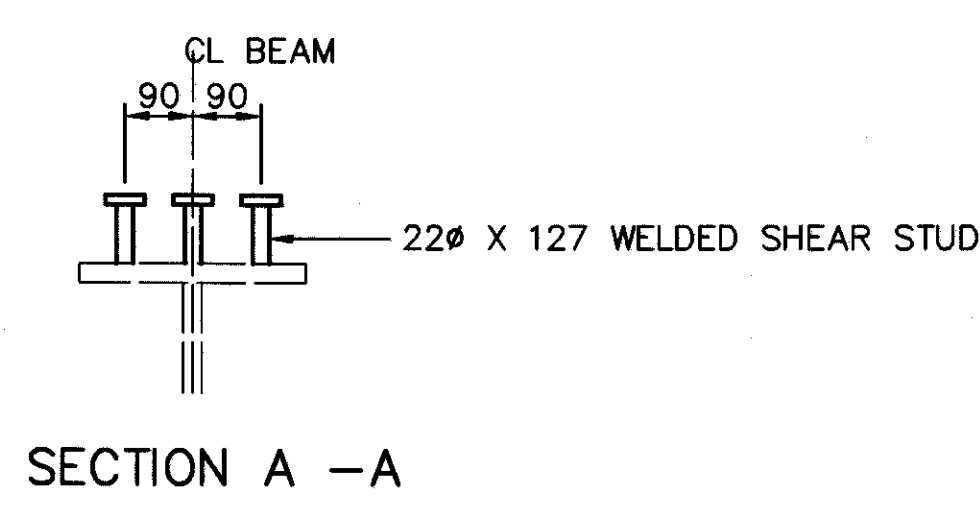
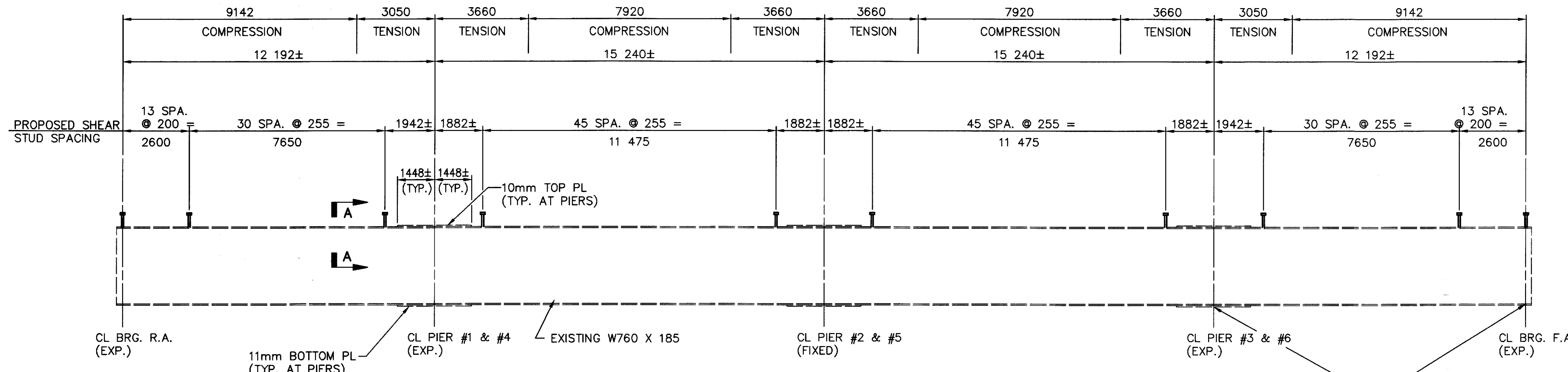
DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REVISED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2200902 & 2200937
DATE	10-97		

SUPERSTRUCTURE SECTIONS
ERI-2-19312 (1200) L & R
OVER U.S.R. 250

ERI-2-12.558

10/14

374
432

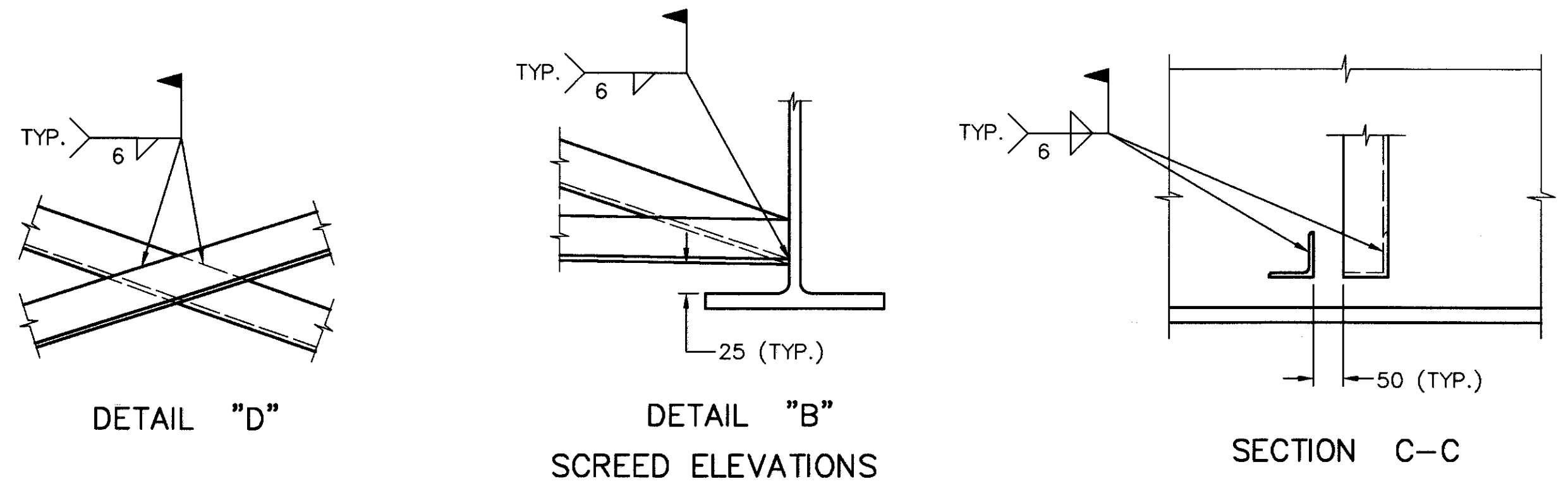


TYPICAL EXISTING BEAM ELEVATION
(16 BEAM TOTALS)

EXISTING BEARING PLATES TO BE REMOVED, COST TO BE INCLUDED WITH PORTIONS OF STRUCTURE REMOVED—SUPERSTRUCTURE, AS PER PLAN (TYP.) SEE DEMOLITION PLAN SHEET 3/14

SEE SHEETS 9/14 AND 10/14 FOR SECTION AND DETAIL CUTS

WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FACIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.



DIMENSION "A"

DETAIL "D"

DETAIL "B"
SCREED ELEVATIONS

SECTION C-C

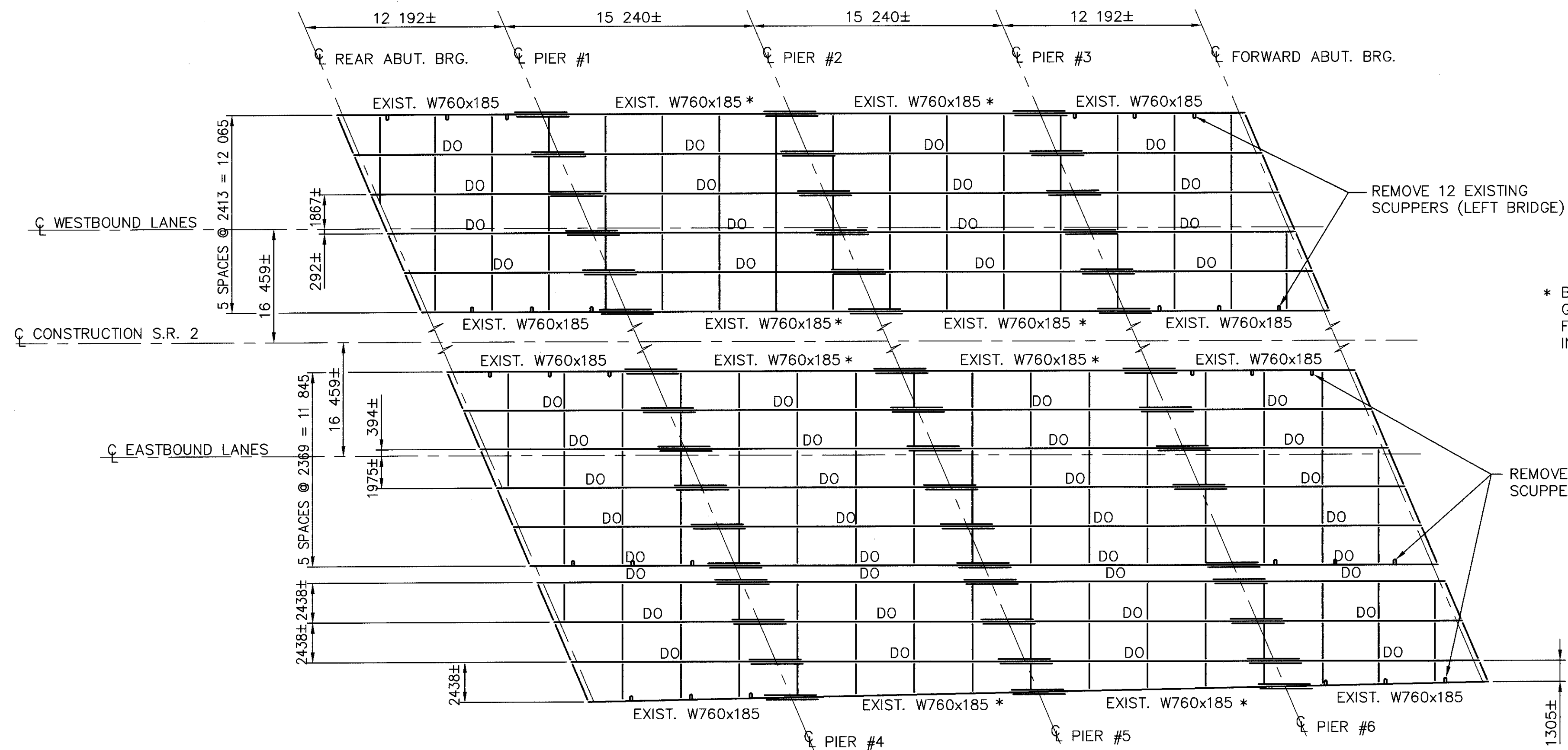
		R. ABUT.	1/2 PT. W	CL PIER #1 OR #4	1/2 PT.	CL PIER #2 OR #5	1/2 PT.	CL PIER #3 OR #6	1/2 PT.	F. ABUT.
LEFT BRIDGE	BEAM #1	0.257	0.240	0.245	0.240	0.245	0.235	0.236	0.236	0.247
	BEAM #2	0.245	0.239	0.248	0.240	0.242	0.235	0.241	0.238	0.242
	BEAM #3	0.242	0.242	0.250	0.242	0.251	0.236	0.238	0.237	0.241
	BEAM #4	0.249	0.242	0.254	0.242	0.248	0.242	0.252	0.244	0.247
	BEAM #5	0.245	0.241	0.255	0.245	0.240	0.240	0.252	0.235	0.233
	BEAM #6	0.245	0.240	0.244	0.242	0.243	0.235	0.239	0.235	0.246
RIGHT BRIDGE	BEAM #1	0.242	0.240	0.245	0.242	0.244	0.234	0.237	0.232	0.229
	BEAM #2	0.244	0.242	0.252	0.244	0.244	0.240	0.246	0.245	0.239
	BEAM #3	0.251	0.250	0.257	0.244	0.245	0.244	0.250	0.240	0.233
	BEAM #4	0.249	0.241	0.242	0.239	0.243	0.240	0.250	0.240	0.234
	BEAM #5	0.248	0.240	0.245	0.241	0.250	0.240	0.242	0.238	0.232
	BEAM #6	0.253	0.245	0.248	0.245	0.260	0.245	0.250	0.245	0.235
	BEAM #7	0.252	0.242	0.244	0.239	0.247	0.241	0.242	0.240	0.241
	BEAM #8	0.249	0.242	0.242	0.242	0.256	0.245	0.249	0.240	0.234
	BEAM #9	0.246	0.239	0.243	0.240	0.248	0.241	0.240	0.235	0.227
	BEAM #10	0.242	0.239	0.242	0.239	0.248	0.235	0.234	0.235	0.236

CONTRACTOR TO VERIFY DIMENSION "A"

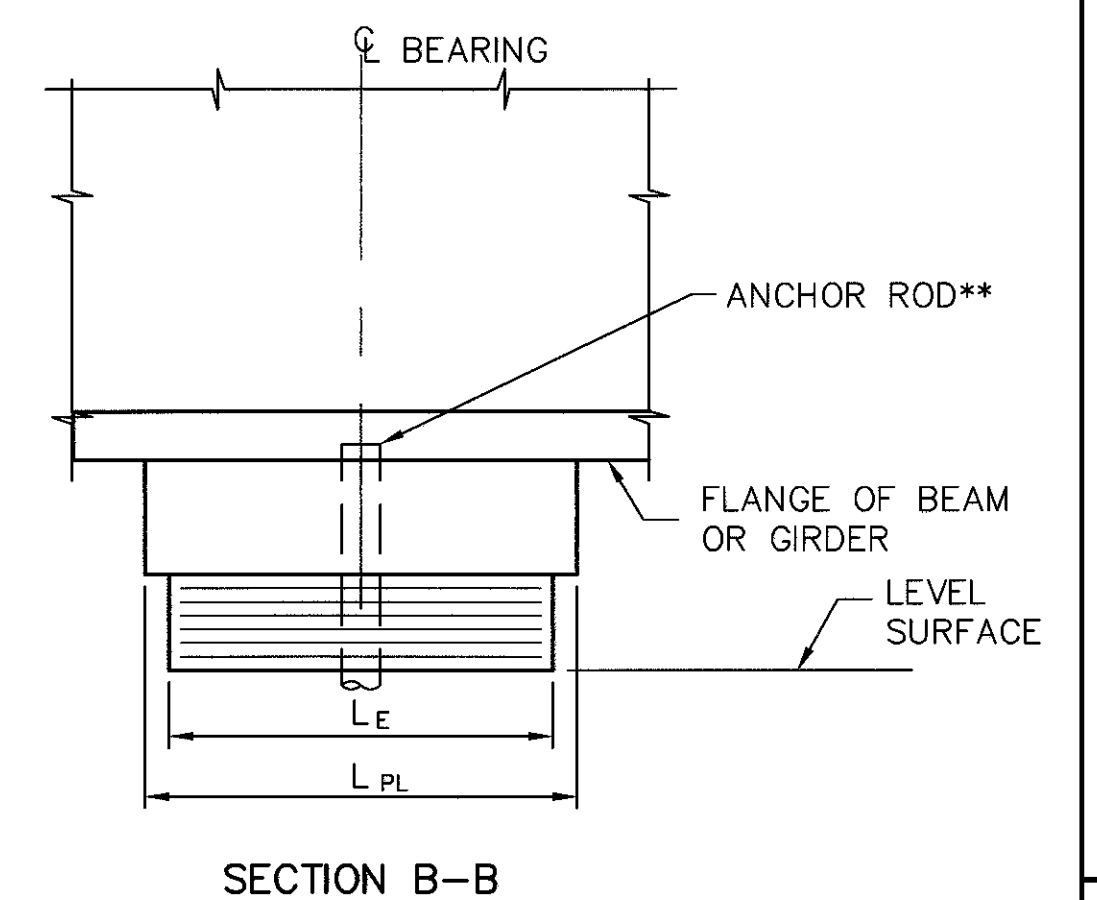
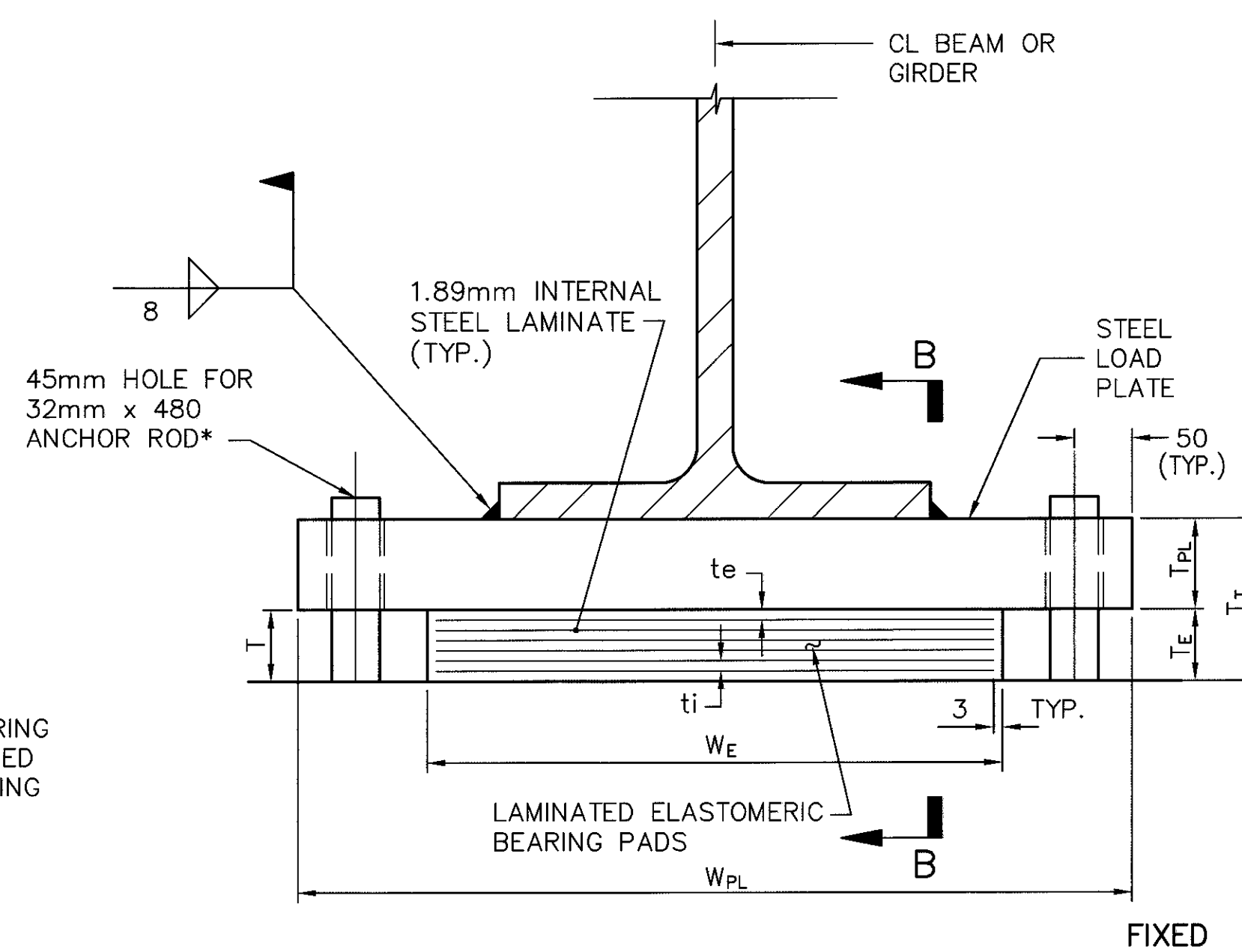
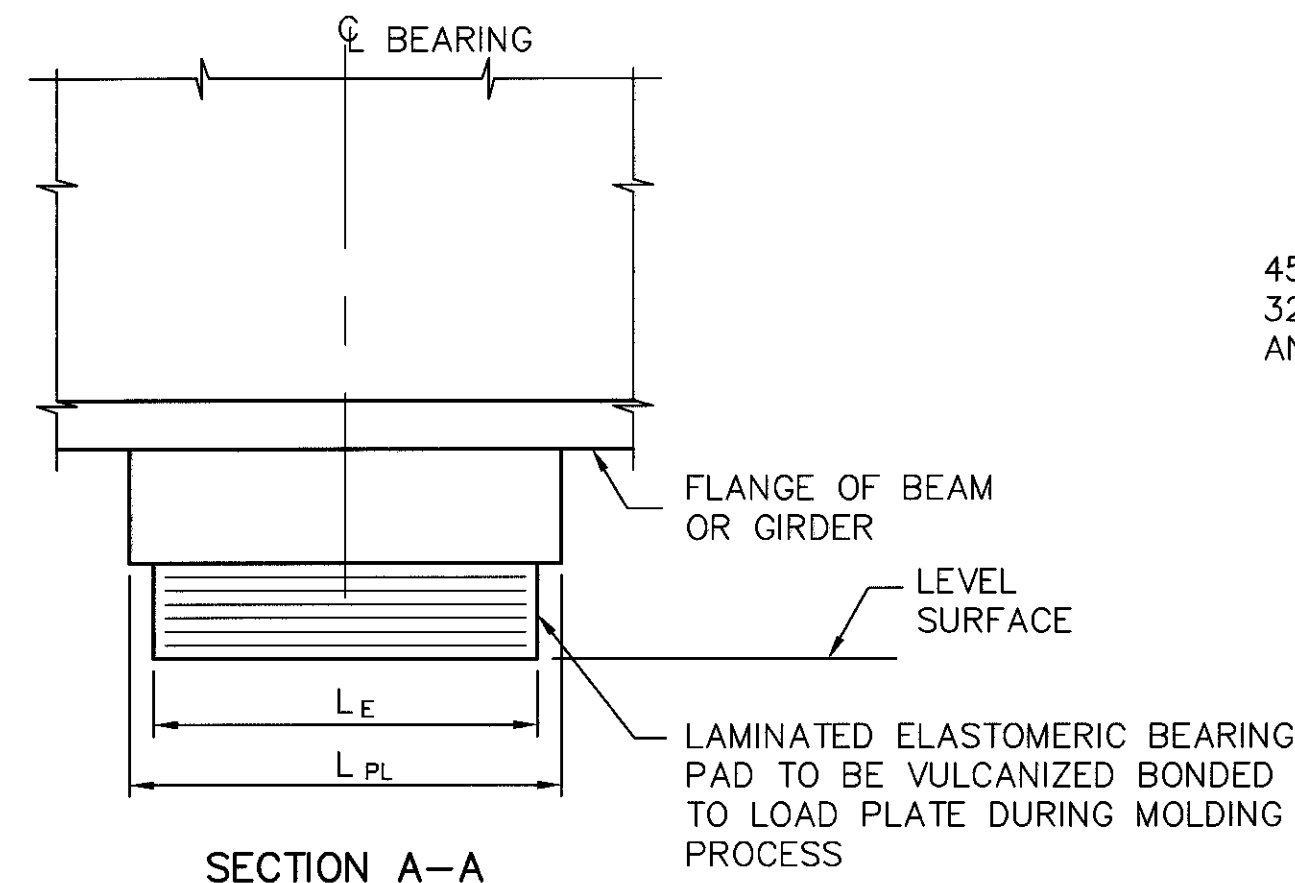
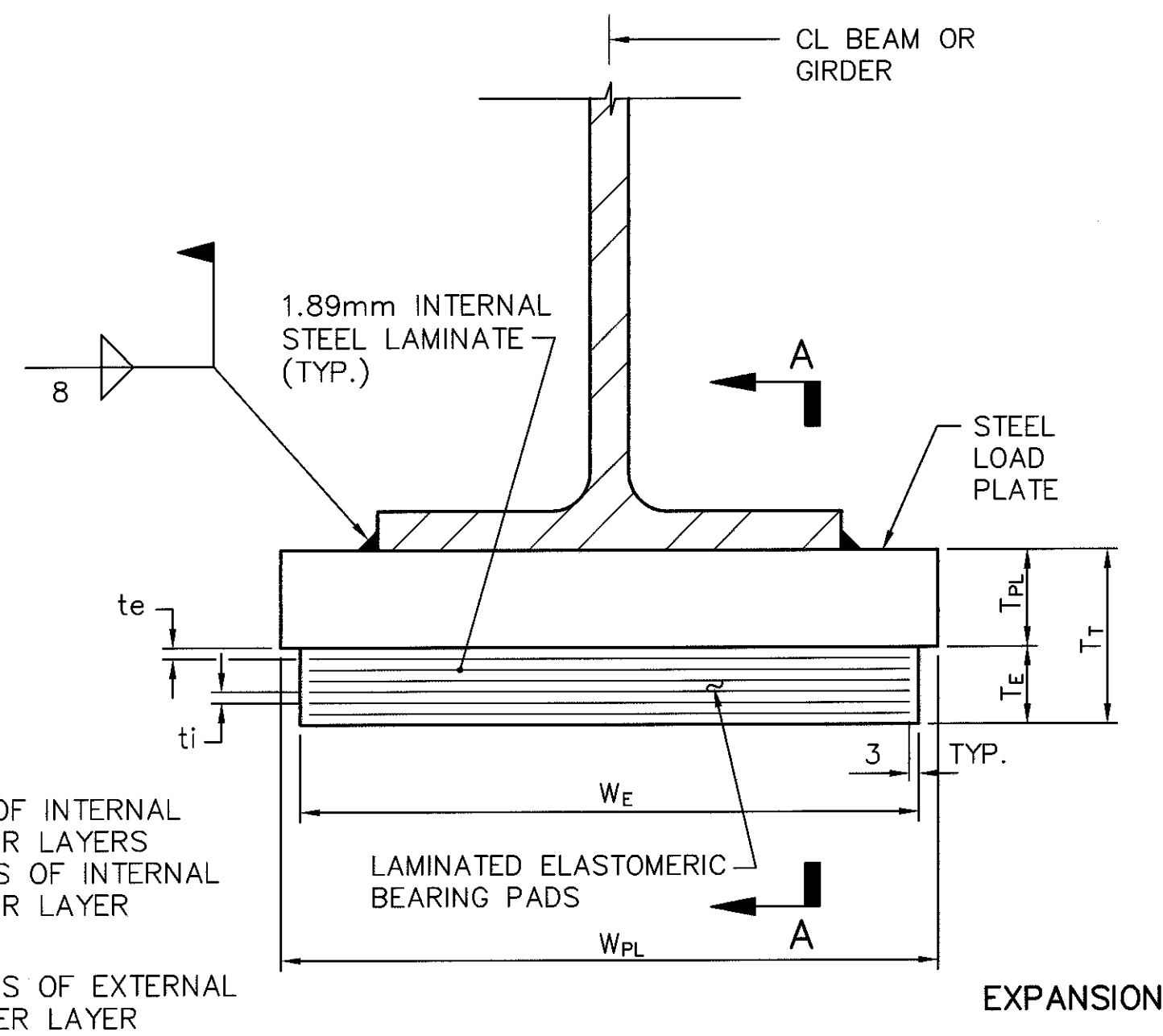
		R. ABUT.	1/2 PT.	CL PIER #1 OR #4	1/2 PT.	CL PIER #2 OR #5	1/2 PT.	CL PIER #3 OR #6	1/2 PT.	F. ABUT.
LEFT BRIDGE	TOE OF LEFT PARAPET	190.463	190.494	190.512	190.538	190.548	190.559	190.554	190.540	190.540
	BEAM #1	190.466	190.497	190.515	190.540	190.551	190.562	190.558	190.556	190.542
	BEAM #2	190.509	190.539	190.557	190.581	190.591	190.601	190.596	190.593	190.579
	BEAM #3	190.552	190.582	190.599	190.622	190.631	190.640	190.633	190.630	190.615
	PROFILE GRADE	190.591	190.619	190.635	190.658	190.665	190.674	190.667	190.663	190.647
	BEAM #4	190.586	190.615	190.631	190.654	190.661	190.669	190.662	190.658	190.642
	BEAM #5	190.552	190.580	190.595	190.617	190.623	190.630	190.622	190.618	190.601
	BEAM #6	190.518	190.545	190.560	190.580	190.586	190.592	190.582	190.577	190.559
TOE OF RIGHT PARAPET	190.515	190.543	190.557	190.577	190.583	190.589	190.579	190.574	190.556	
RIGHT BRIDGE	TOE OF LEFT PARAPET	190.550	190.569	190.576	190.588	190.584	190.581	190.563	190.550	190.525
	BEAM #1	190.552	190.572	190.579	190.591	190.587	190.584	190.565	190.553	190.527
	BEAM #2	190.593	190.612	190.619	190.629	190.624	190.620	190.601	190.587	190.561
	BEAM #3	190.634	190.652	190.658	190.667	190.661	190.656	190.636	190.622	190.595
	PROFILE GRADE	190.641	190.659	190.664	190.674	190.668	190.662	190.642	190.627	190.600
	BEAM #4	190.611	190.629	190.634	190.642	190.635	190.629	190.608	190.593	190.565
	BEAM #5	190.576	190.593	190.597	190.604	190.596	190.589	190.567	190.551	190.523
	BEAM #6	190.541	190.556	190.560	190.566	190.557	190.550	190.526	190.510	190.481
	BEAM #7	190.525	190.541	190.544	190.550	190.541	190.532	190.509	190.492	190.462
	BEAM #8	190.489	190.503	190.506	190.511	190.501	190.491	190.467	190.449	190.419
	BEAM #9	190.452	190.466	190.467	190.471	190.460	190.450	190.424	190.406	190.375
	BEAM #10	190.415	190.430	190.433	190.438	190.429	190.421	190.397	190.380	190.351
TOE OF RIGHT PARAPET	190.410	190.425	190.428	190.433	190.424	190.415	190.392	190.375	190.345	

SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTION.

P10TTED: OCTOBER 8 1997
FILE NAME: I:\5033\005\TRAN\BRIDGE\2-19312\19312SD



STEEL FRAMING PLAN



**ANCHOR ROD TO BE GALVANIZED ACCORDING TO 711.02. INSTALL ANCHOR ROD PER 510. INCLUDE DOWEL HOLES AND ANCHOR RODS WITH ITEM 516 FOR PAYMENT.

BEARING DETAILS

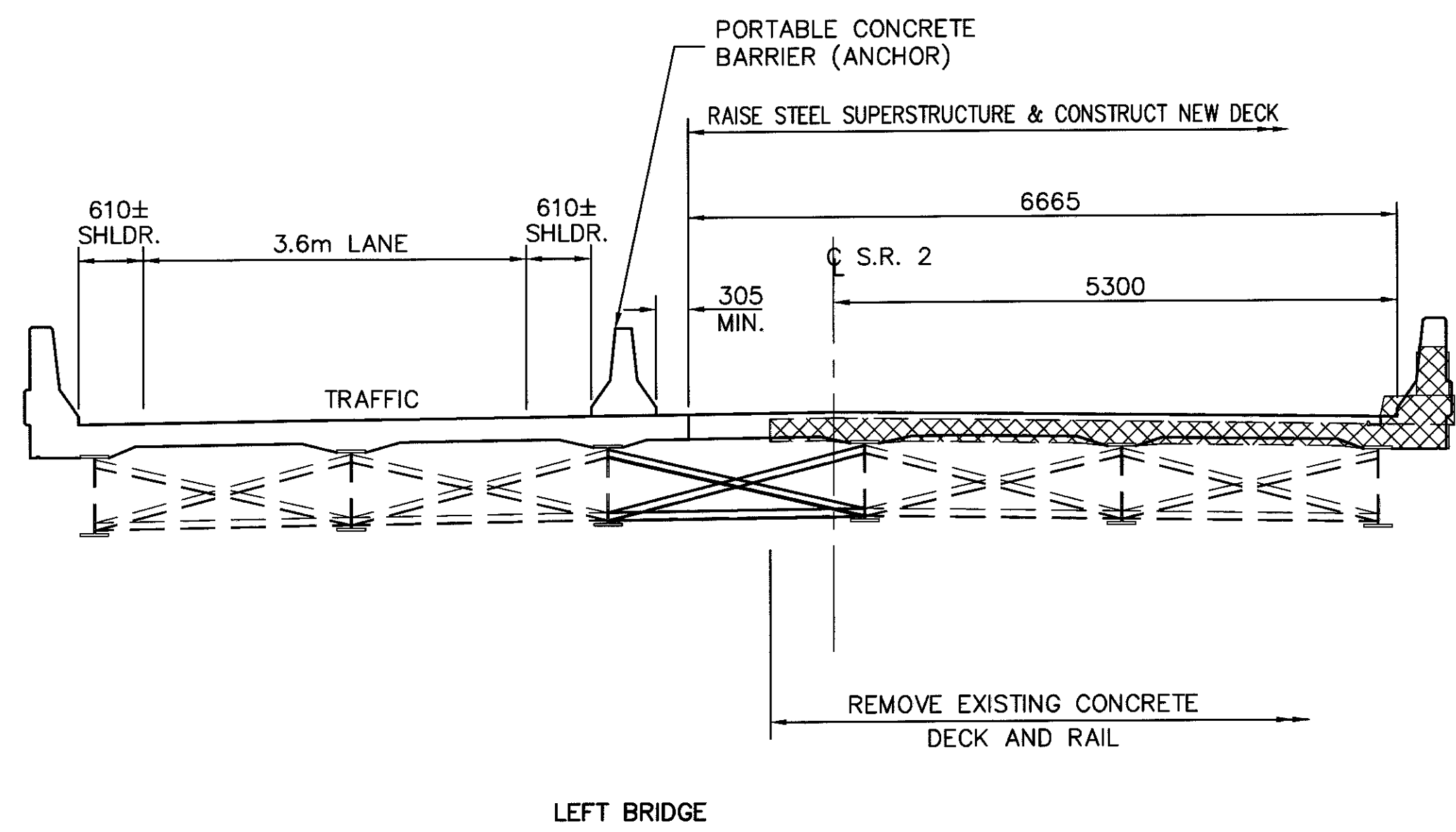
LOAD PLATES THE STEEL LOAD PLATE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 150° C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

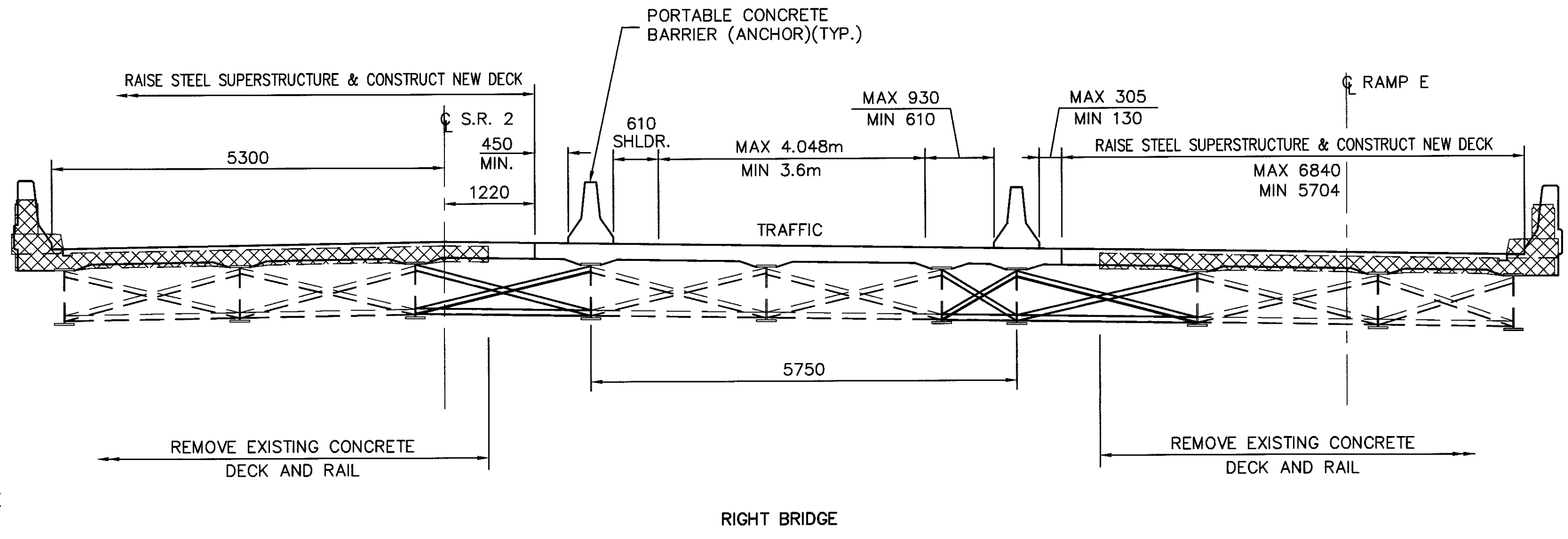
ELASTOMERIC BEARINGS, AS PER PLAN SHALL COMPLY WITH ITEM 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.

BRIDGE NO. ERI-2-19312		ELASTOMER								STEEL LAMINATES			LOAD PLATE		LOADS (KN)		
LOCATION	TYPE	T _T	DUROMETER	L _E	W _E	T _E	t _i	t _e	N	No.	t	L _{PL}	W _{PL}	T _{PL}	DL	LL	TOTAL
RA & FA	EXP.	92	50	215	305	41.5	6.0	4.0	4	5	1.89	241	331	51	205	169	374
PIER #1, #3, #4 & #6	EXP.	96	50	230	355	36.1	6.5	4.5	3	4	1.89	256	381	60.3	332	214	546
PIER #2 & #5	FIXED	72	50	240	380	33.5	6	4	2	3	1.89	266	530	38	369	214	583

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-19312\19312SC.DWG 7-13-99 11:41:46 am EST



LEFT BRIDGE

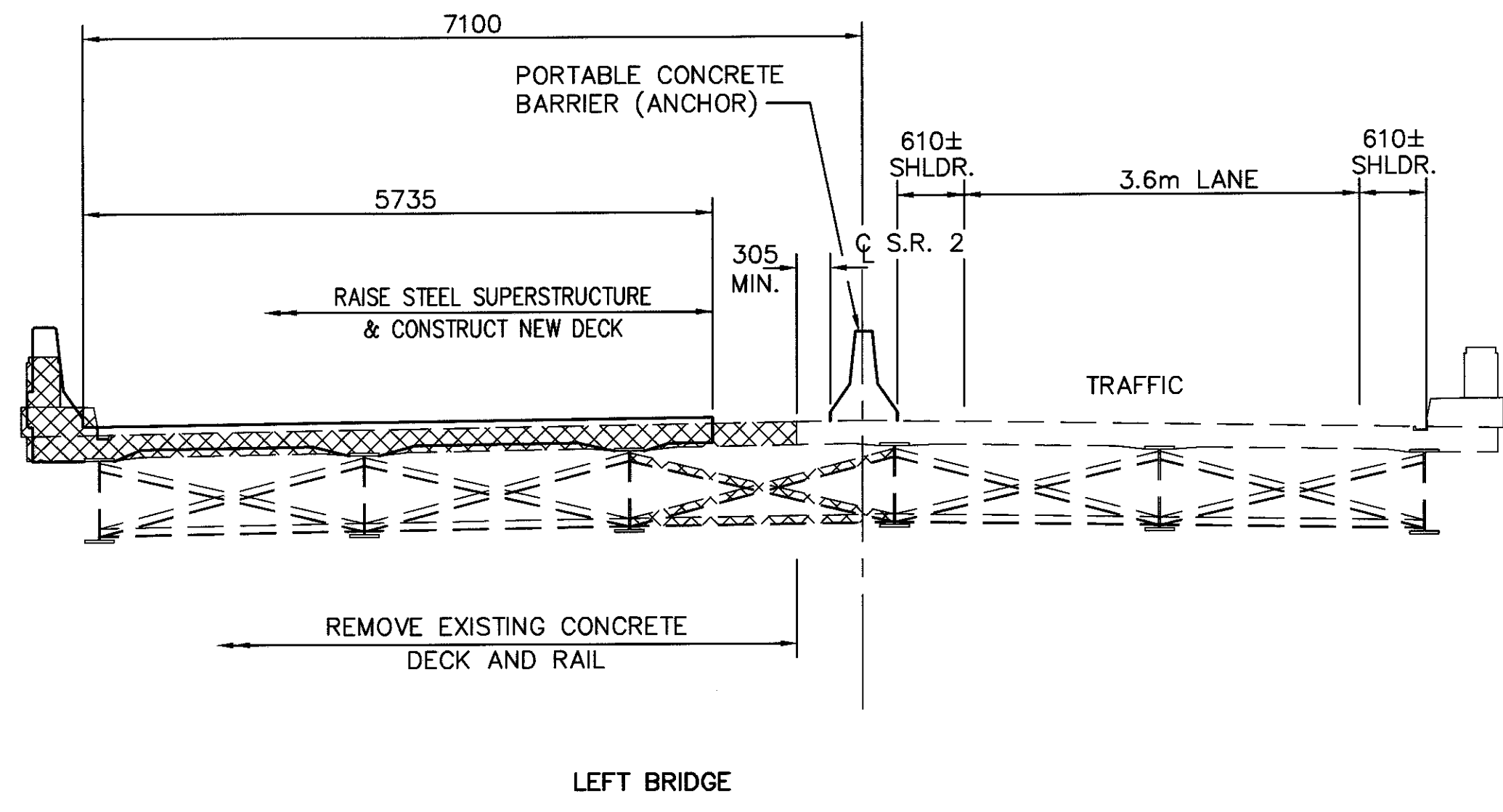


RIGHT BRIDGE

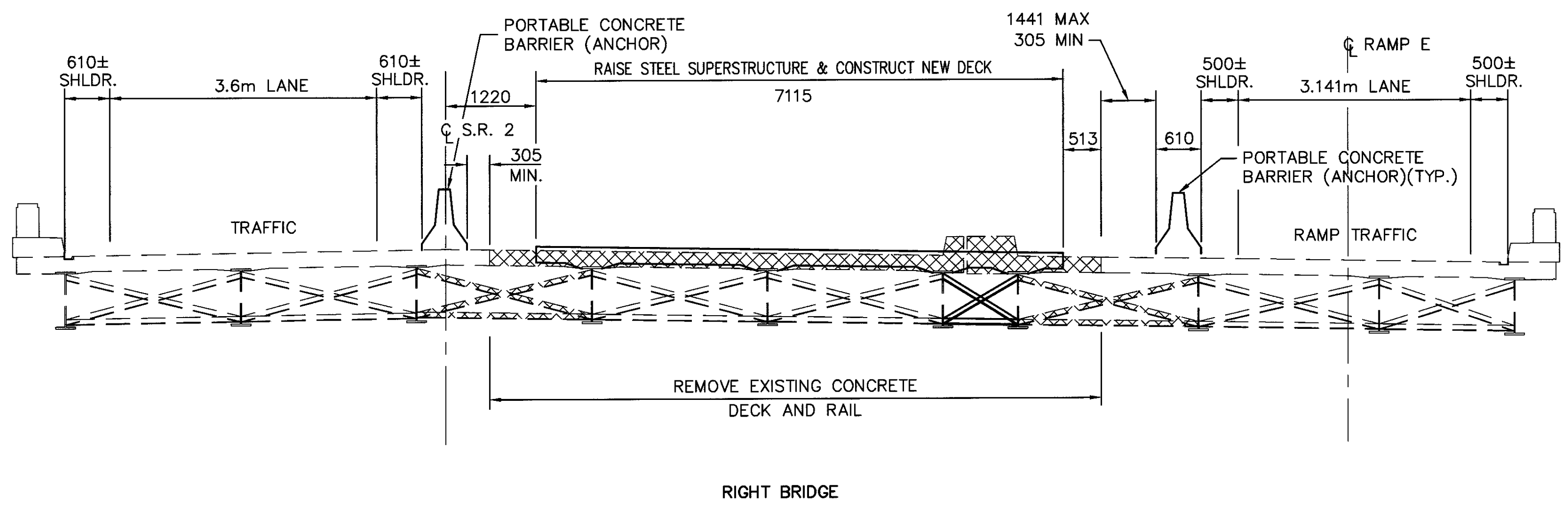
PHASE 2

NOTE: EXISTING STEEL SUPERSTRUCTURE TO BE RAISED 37mm

INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN



LEFT BRIDGE



RIGHT BRIDGE

PHASE 1

DESIGN AGENCY: **POGEMEYER DESIGN GROUP, INC.**
 ARCHITECTS + ENGINEERS + PLANNERS
 1188 NORTH MAIN STREET
 BOHIO GREEN, VIRG. 22093

DATE: 10-97
 G.A.B.
 STRUCTURE FILE NUMBER: 2200902 & 2200937

DESIGNED: J.T.Y.
 CHECKED: M.E.M.

DRAWN: RAN
 REVISED:

STAGED CONSTRUCTION
 BRIDGE NO. ERI-2-19312 (1200) L & R
 OVER U.S.R. 250

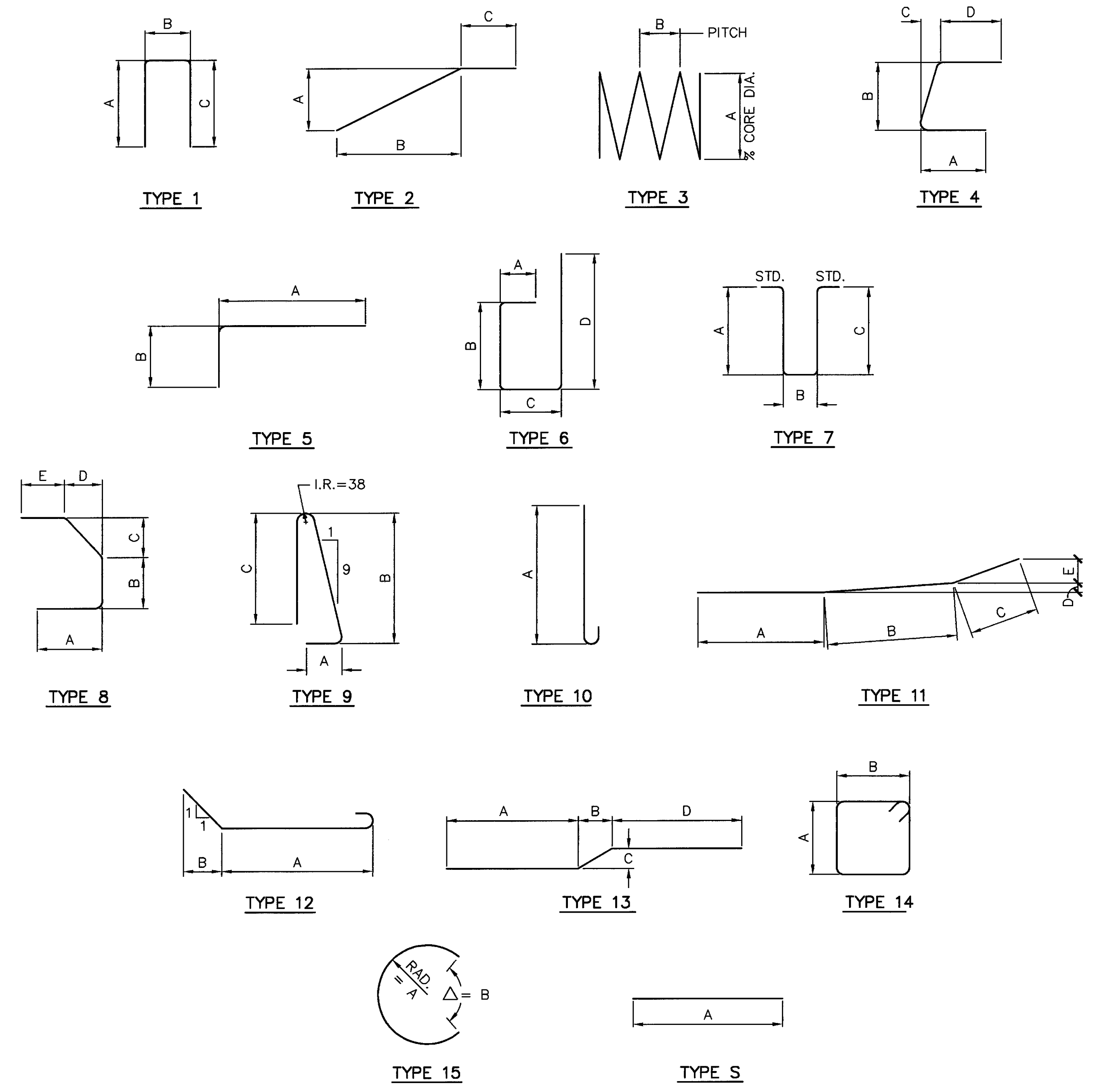
ERI-2-12.558

13/14

377
 432

REINFORCING SCHEDULE

MARK	TOTAL	SUPER		ABUTMENTS				PIERS	LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.									
A16M01	48			12	12	12	12		2635	S	2635					
A16M02	48			12	12	12	12		3935	S	3935					
A16M03	112			28	28	28	28		1950	S	1950					
A16M04	56			14	14	14	14		2220	1	975	350	975			
A16M05	48			12	12	12	12		1930	1	830	350	830			
A16M05	48			12	12	12	12		2277	4	990	350	140	990		
A19M01	144			36	36	36	36		600	S	600					
D25M01	152			30	47	30	45		1559	12	858	305				
S13M01	702	270	432						9144	S	9144					
S13M02	117	45	72						5840	S	5840					
S16M01	960	390	570						9144	S	9144					
S16M02	160	65	95						4880	S	4880					
S16M03	352	352							7073	S	7073					
S16M04	352	352							6883	S	6883	990	915			
S16M04	6	4	2						590	S	590					
S16M05	SER. OF	SER. OF	SER. OF						TO	TO					338	
S16M05	20	20	20						7018	S	7018					
S16M05	2	2							1215	S	1215					
S16M06	SER. OF	SER. OF							TO	TO					338	
S16M06	18	18							6966	S	6966					
S16M06	2	2							1020	S	1020					
S16M07	SER. OF	SER. OF							TO	TO					338	
S16M07	18	18							6771	S	6771					
S16M08	8	4	4						3460	14	530	1120				
S16M09	357	138	219						6100	S	6100					
S16M10	756	378	378						2130	9	205	990	915			
S16M11	155	64	91						3280	14	530	1030				
S16M12	155	64	91						2170	1	730	790	730			
S16M13	8	4	4						2240	1	730	860	730			
S16M14				NOT USED												
S16M15	352		352						6825	S	6825					
S16M16	351		351						7315	S	7315					
S16M16	2		2						291	S	291					
S16M17	SER. OF	SER. OF							TO	TO					338	
S16M17	20	20							6719	S	6719					
S16M17	4	4							515	S	515					
S16M18	SER. OF	SER. OF							TO	TO					338	
S16M18	21	21							7281	S	7281					
S16M18	2	2							317	S	317					
S16M19	SER. OF	SER. OF							TO	TO					338	
S16M19	21	21							7083	S	7083					
S16M19	2	2							603	S	603					
S16M20	SER. OF	SER. OF							TO	TO					341	
S16M20	18	18							6407	S	6407					
S16M21	82		82						6246	S	6246					
S16M22	100		100						6372	S	6372					
S16M23	100		100						6526	S	6526					
S16M24	100		100						6679	S	6679					
S16M25	100		100						6832	S	6832					
S16M26	100		100						6986	S	6986					
S16M27	100		100						7139	S	7139					
S16M28	20		20						7293	S	7293					
S19M01	756	378	378						630	5	400	280				
S19M02	756	378	378						779	8	125	230	216	152	230	
S25M01	12	12							7060	S	7060					
S25M02	12	12							7300	S	7300					
S25M03	12	12							7200	S	7200					
S25M04	12	12							6960	S	6960					
S25M05	24		24						8430	S	8430					
S25M06	6		6						6980	S	6980					
S25M07	6		6						7220	S	7220					
S25M08	6		6						7780	S	7780					
S25M09	6		6						7510	S	7510					
S25M10	6		6						6150	S	6150					
S25M11	6		6						7030	S	7030					
S25M12	6		6						6510	S	6510					
S25M13	6		6						6780	S	6780					
P10M01	1176							1176	2419	15	533	100				
P10M02	48							48	4495	S	4495					
P10M03	48							48	3950	S	3950					
P10M04	48							48	4540	S	4540					
P10M05	72							72	4415	S	4415					
P10M06	72							72	3830	S	3830					
P10M07	72							72	4380	S	4380					



BAR LEGEND
A 1 5 M 0 6
 BAR LOCATION BAR NUMBER
 BAR SIZE

- A - ABUTMENT
- DS - DRILLED SHAFT
- P - PIER
- S - SUPERSTRUCTURE
- D - APPROACH SLAB
- SP - SPIRAL BAR

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.

PLOTTED: OCTOBER 16, 1997
 FILE NAME: I:\5033\005\TRAN\BRIDGE\2-19312\19312SR

DESIGN AGENCY
POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1108 NORTH MAIN STREET
 BOULDER, COLORADO 80502

DESIGNED BY: J.T.Y. CHECKED BY: M.E.M.
 DRAWN BY: RAN REVISIONS:
 REVIEWED BY: G.A.B. STRUCTURE FILE NUMBER: 2200902 & 2200937
 DATE: 10-97

REINFORCING SCHEDULE
 BRIDGE NO. ERI-2-19312 (1200)
 OVER U.S.R. 250

ERI-2-12.558

14/14
 378
 432

BENCH MARK No. 40
 MONUMENT FOUND (P.O.C.)
 STA. 30+480.061, ELEV. 190.705

BENCH MARK No. 41
 MONUMENT FOUND (P.O.C.)
 STA. 30+784.862, ELEV. 190.686

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1108 NORTH MAIN STREET
 BIRMINGHAM, AL 35202

DATE
 10-97

REVIEWED
 G.A.B.
 STRUCTURE FILE NUMBER
 2201089 & 2201119

DRAWN
 RAN
 REVISED

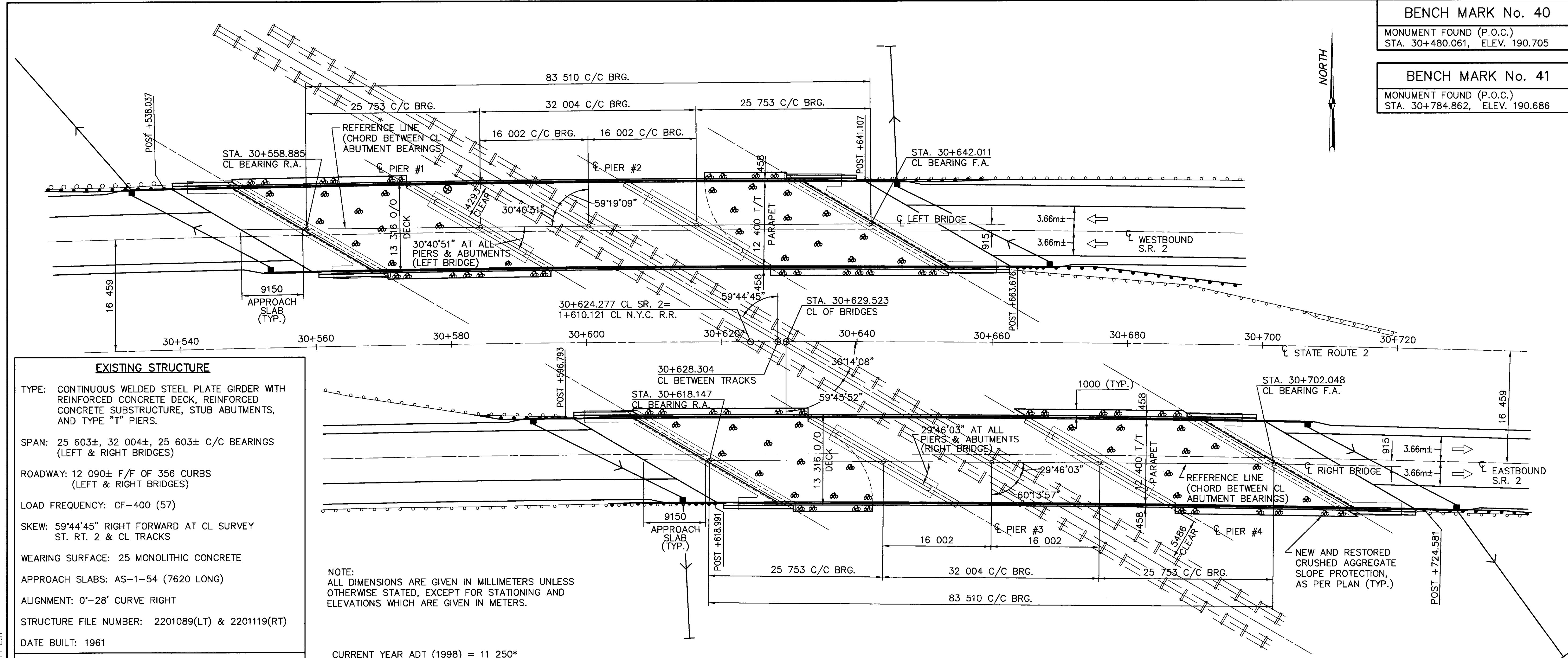
DESIGNED
 M.E.M.
 CHECKED
 J.T.Y.

GENERAL PLAN AND ELEVATION
 BRIDGE NO. ERI-2-23770 (1477) L & R
 OVER NORFOLK SOUTHERN RAILWAY

ERI-2-12.558

1/12

389
 432



EXISTING STRUCTURE

TYPE: CONTINUOUS WELDED STEEL PLATE GIRDER WITH REINFORCED CONCRETE DECK, REINFORCED CONCRETE SUBSTRUCTURE, STUB ABUTMENTS, AND TYPE "T" PIERS.

SPAN: 25 603±, 32 004±, 25 603± C/C BEARINGS (LEFT & RIGHT BRIDGES)

ROADWAY: 12 090± F/F OF 356 CURBS (LEFT & RIGHT BRIDGES)

LOAD FREQUENCY: CF-400 (57)

SKEW: 59°44'45" RIGHT FORWARD AT CL SURVEY ST. RT. 2 & CL TRACKS

WEARING SURFACE: 25 MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-54 (7620 LONG)

ALIGNMENT: 0°-28' CURVE RIGHT

STRUCTURE FILE NUMBER: 2201089(LT) & 2201119(RT)

DATE BUILT: 1961

PROPOSED STRUCTURE

PROPOSED WORK: NEW COMPOSITE REINFORCED CONC. DECKS, NEW REINF. CONC. ABUTMENTS, RAISE PROFILE GRADE.

TYPE: CONTINUOUS WELDED STEEL PLATE GIRDER W/COMPOSITE REINF. CONC. DECK & CONC. SUBSTRUCTURES. SEMI-INTEGRAL ABUTMENTS ON EXISTING STEEL PILES.

SPAN: 25 753, 32 004, 25 753 C/C BRGS

ROADWAY: 12 400 T/T PARAPETS

LOADING: MS18 (CASE I) & THE ALTERNATE MILITARY LOAD

SKEW: 59°44'45"± R.F.

WEARING SURFACE: 25 MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81M (9150 LONG) T=430

ALIGNMENT: 0°-28' CURVE RIGHT

LONGITUDE: W-82°36'15" LATITUDE: N-41°24'20"

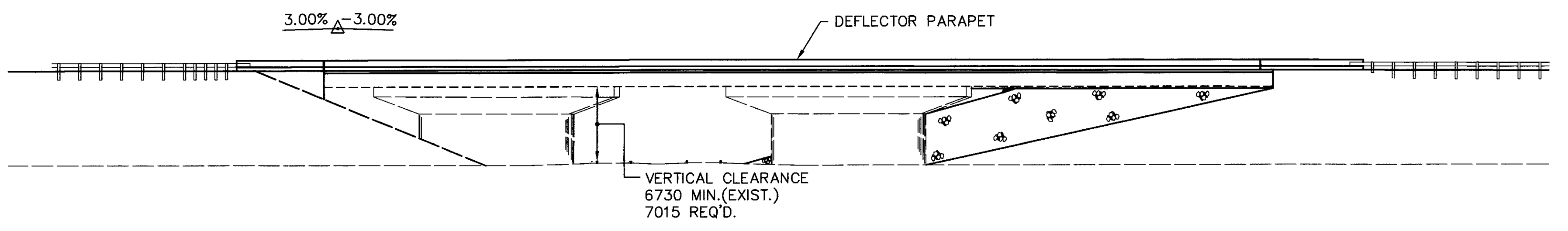
NOTE:
 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

CURRENT YEAR ADT (1998) = 11 250*
 DESIGN YEAR ADT (2018) = 16 250*
 DESIGN YEAR ADTT (2018) = 3088*

* - ONE DIRECTION

VERTICAL CURVE
 PVI STA. = 30+629.523
 PVI ELEV. = 197.800
 G1 = 3.00%
 G2 = -3.00%
 A = 6.00
 L = 487.680m
 K = 81.28

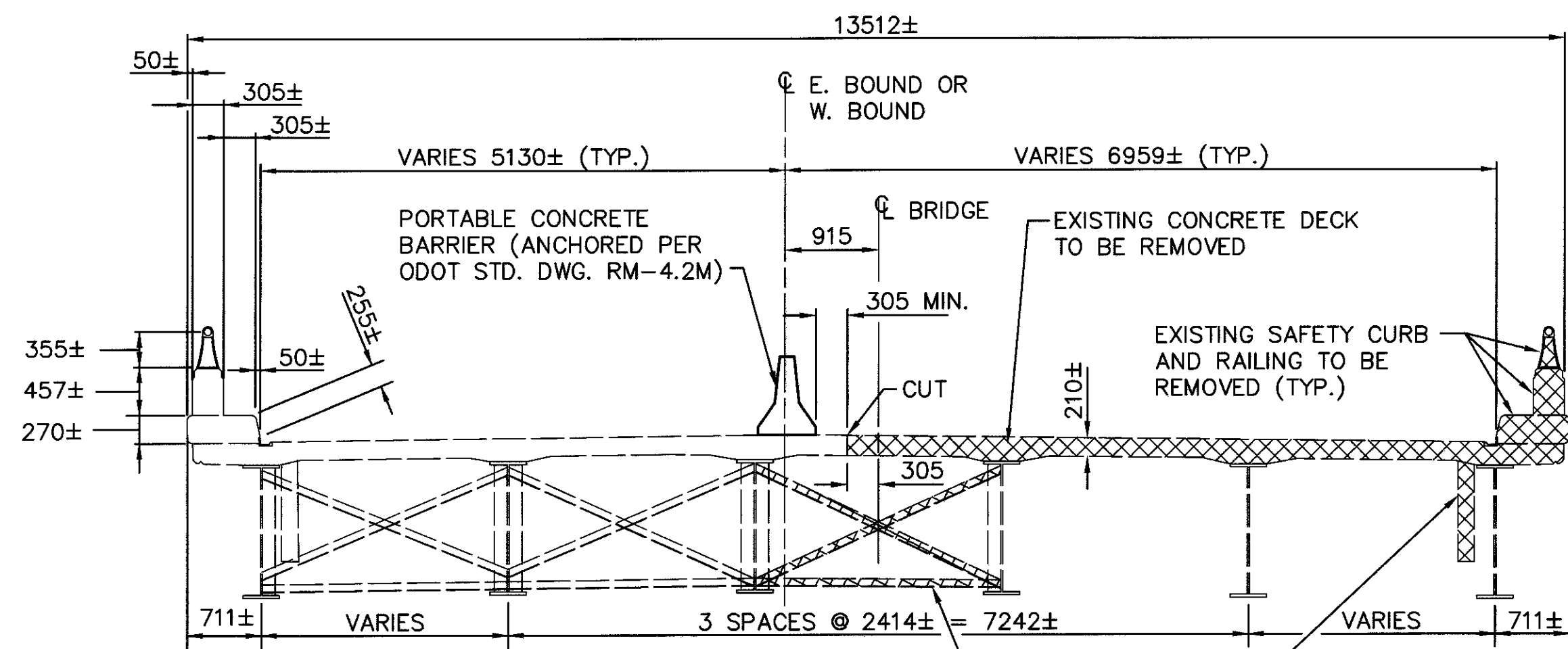
3.00% ▽ -3.00%



- PROPOSED WORK:
- EXISTING CONCRETE DECK, RAILING AND SCUPPERS TO BE REMOVED.
 - REMOVE EXISTING ABUTMENTS (STEEL PILES TO REMAIN) AND WINGWALLS. REPLACE WITH SEMI-INTEGRAL ABUTMENT AND PROVIDE TURN BACK WINGWALLS.
 - PLACE POROUS BACKFILL WITH FILTER FABRIC AND NEW DRAINAGE PIPE BEHIND ABUTMENTS.
 - RAISE DECK PROFILE TO MATCH S.R. 2 RESURFACING DEPTH
 - REPLACE APPROACH SLABS.
 - NEW CONCRETE DECK TO BE MADE COMPOSITE WITH EXISTING STEEL BEAMS BY THE ADDITION OF STUD SHEAR CONNECTORS.
 - REMOVE SCUPPERS & PLACE CATCH BASINS
 - SEAL CONCRETE SURFACES.
 - REPAIR SLOPE PROTECTION
 - CLEAN AND REPAINT STEEL.

ESTIMATED QUANTITIES

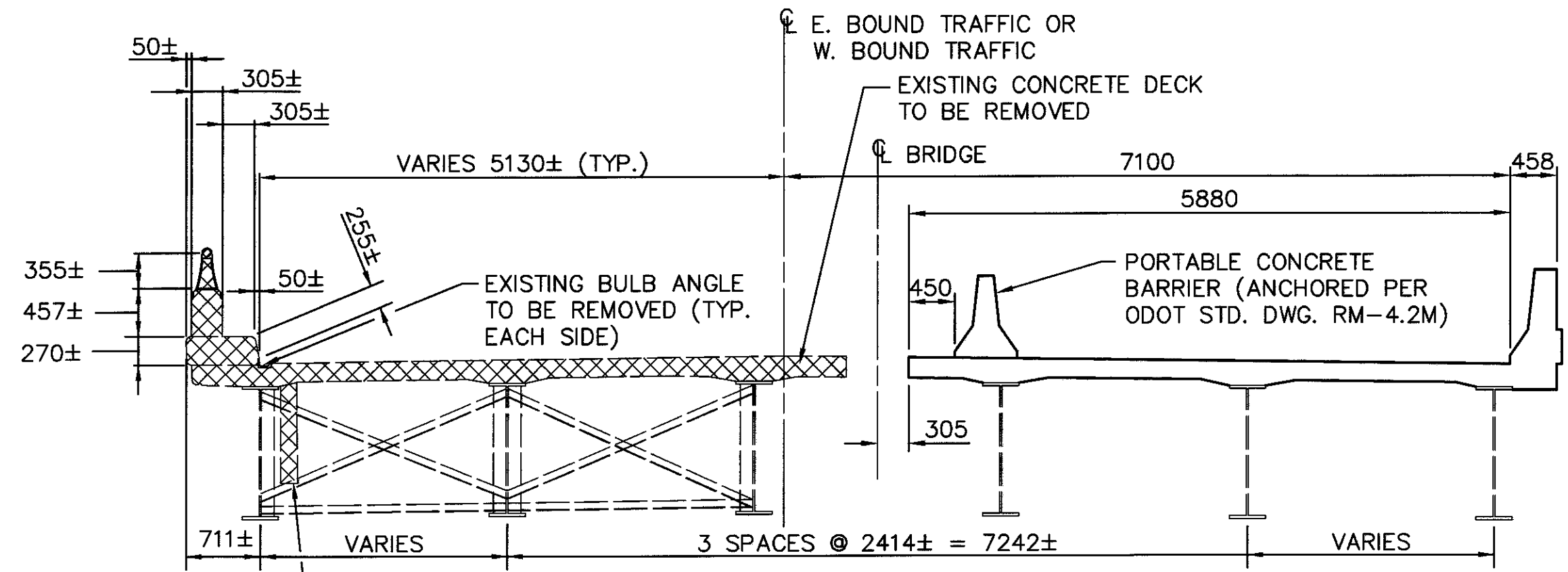
ITEM	ITEM EXT.	TOTAL LT. BRIDGE	TOTAL RT. BRIDGE	UNIT	DESCRIPTION	AS PER PLAN SHEET #	ABUTMENTS				SUPERSTRUCTURE		GENERAL
							LT. R.A.	RT. R.A.	LT. F.A.	RT F.A.	LEFT	RIGHT	
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6 METER SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP	LUMP		
503	11100	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING							LUMP	
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION		LUMP	LUMP	LUMP	LUMP			
512	44400	4	4	SQ METER	TYPE B WATERPROOFING		2	2	2	2			
SPECIAL	51267510	606	606	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		26	26	26	26	554	554	
516	13600	2	2	SQ METER	25mm PREFORMED EXPANSION JOINT FILLER		1	1	1	1			
516	13900	30	30	SQ METER	51mm PREFORMED EXPANSION JOINT FILLER		15	15	15	15			
516	44201	12	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),	324					12	12	
516	47000	LUMP	LUMP		AS PER PLAN, 78mm x 240mm x 380mm PAD AND 38mm x 266mm x 530mm LOAD PLATE JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE						LUMP	LUMP	
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP			
518	40000	74	74	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE		37	37	37	37			
518	40010	20	20	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		10	10	10	10			
815	00050	2863	2863	SQ. METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU						2863	2863	
815	00056	2863	2863	SQ. METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU						2863	2863	
815	00060	2863	2863	SQ. METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU						2863	2863	
815	00066	2863	2863	SQ. METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU						2863	2863	
815	00504	50	50	MAN HOUR	GRINDING FINIS, TEARS, SLIVERS						50	50	
842	45701	305	311	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	325	153	152	152	159			
844	48001	280	280	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN, MIX 4	325					280	280	
844	48021	55	55	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET), AS PER PLAN, MIX 4	325					55	55	
844	49000	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX								
844	49010	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TESTING								
863	10201	1210	1210	KILOGRAM	STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION, AS PER PLAN	324					1210	1210	
863	20000	4248	4248	EACH	WELDED STUD SHEAR CONNECTOR						4248	4248	



TRANSVERSE SECTION OF DECK - PHASE 1 DEMOLITION
(LOOKING IN THE DIRECTION OF TRAFFIC)

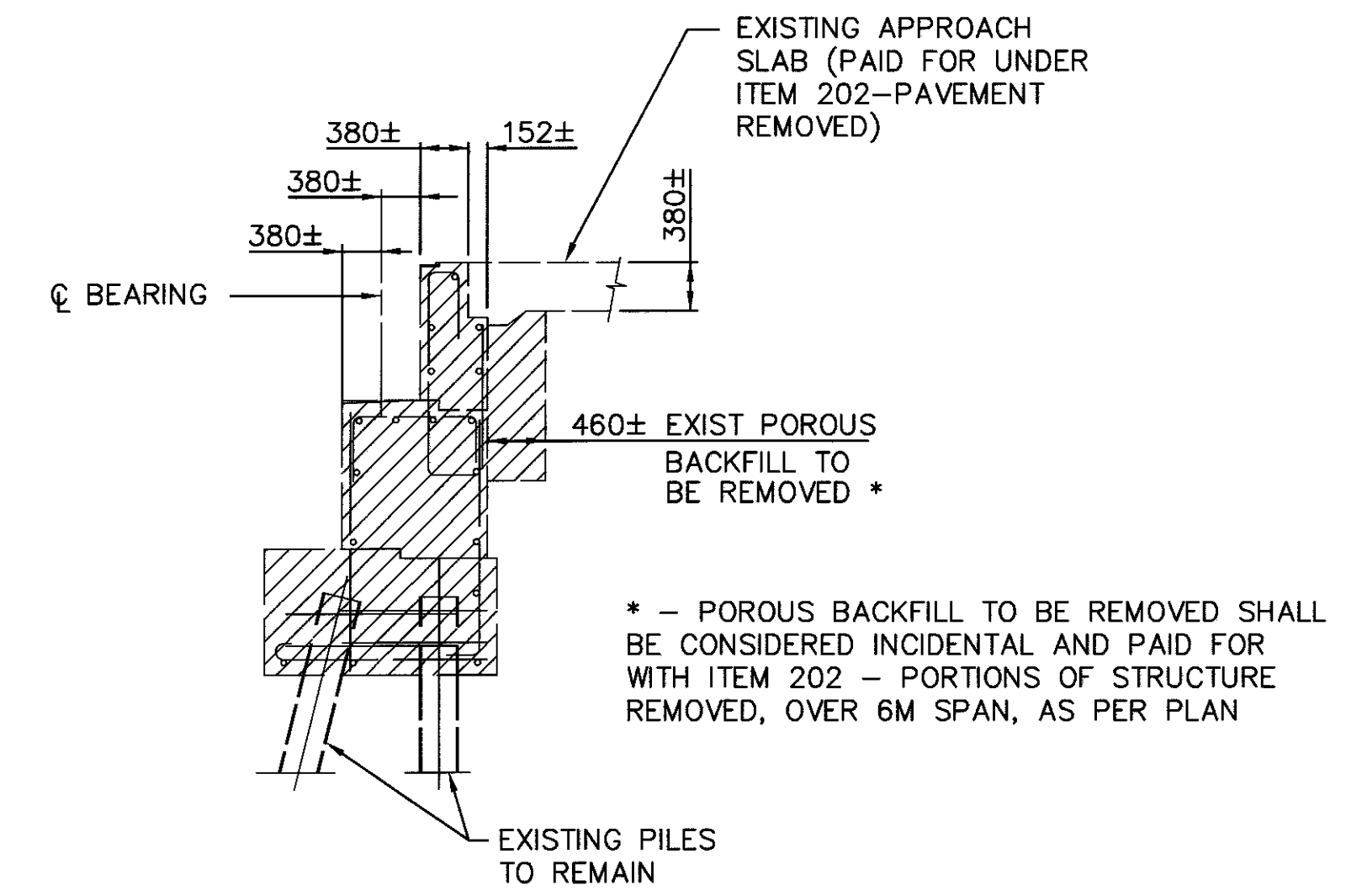
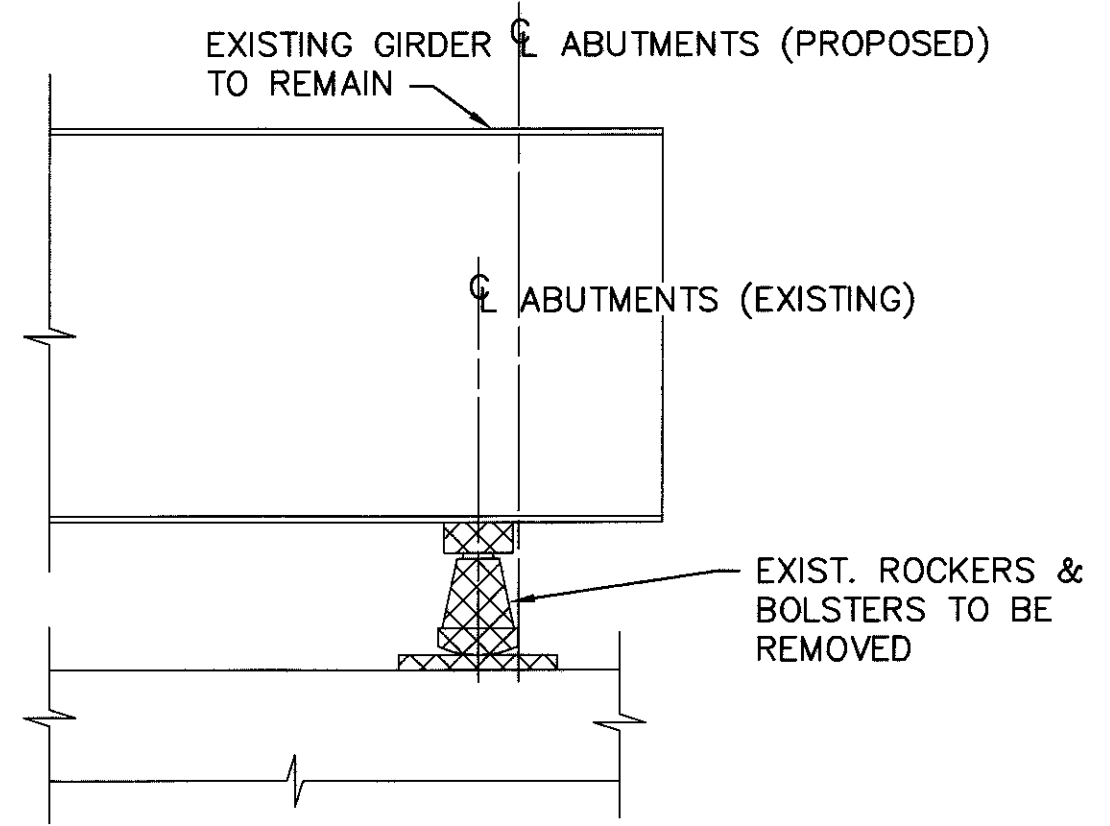
EXIST. SCUPPERS TO BE REMOVED, SCUPPER TO BEAM CONNECTIONS TO BE GROUND SMOOTH, COST TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (TYP.) (10 PER BRIDGE)

EXIST. INTERMEDIATE CROSS FRAMES TO BE REMOVED ONLY IN MIDDLE BAY, STIFFENER PLATES TO REMAIN. COST TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (TYP.).



TRANSVERSE SECTION OF DECK - PHASE 2 DEMOLITION
(LOOKING IN THE DIRECTION OF TRAFFIC)

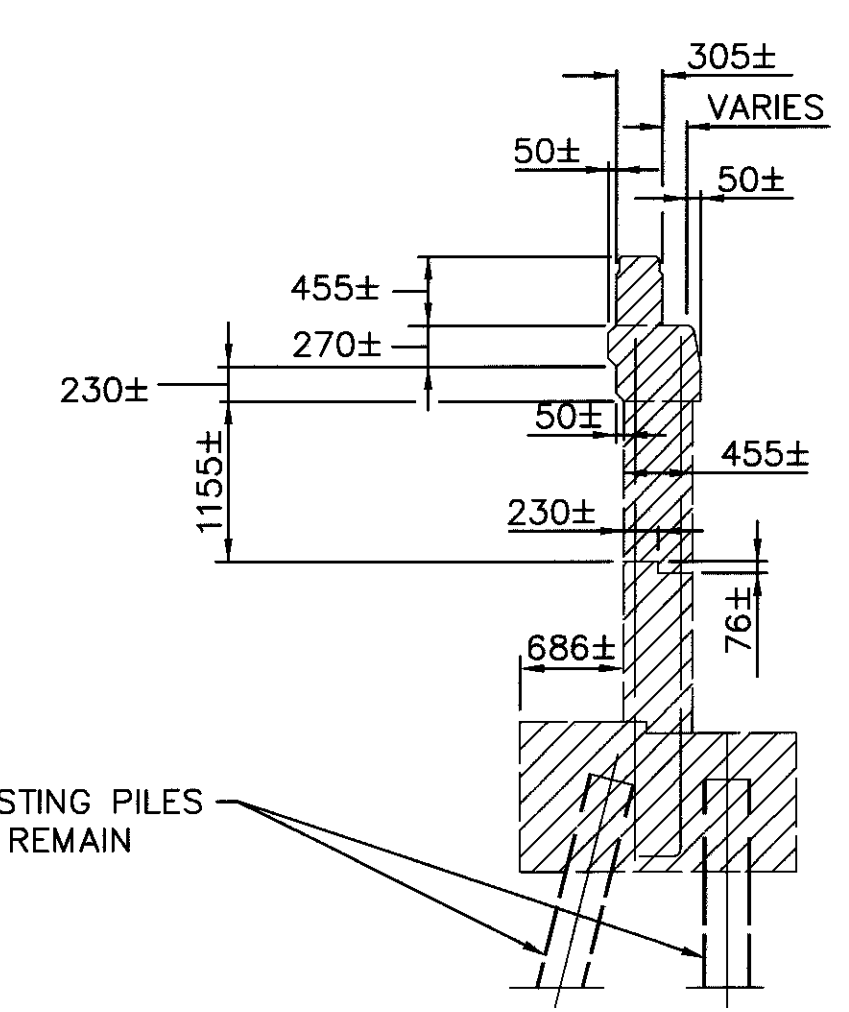
EXIST. SCUPPERS TO BE REMOVED, SCUPPER TO BEAM CONNECTIONS TO BE GROUND SMOOTH, COST TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (TYP.) (10 PER BRIDGE)



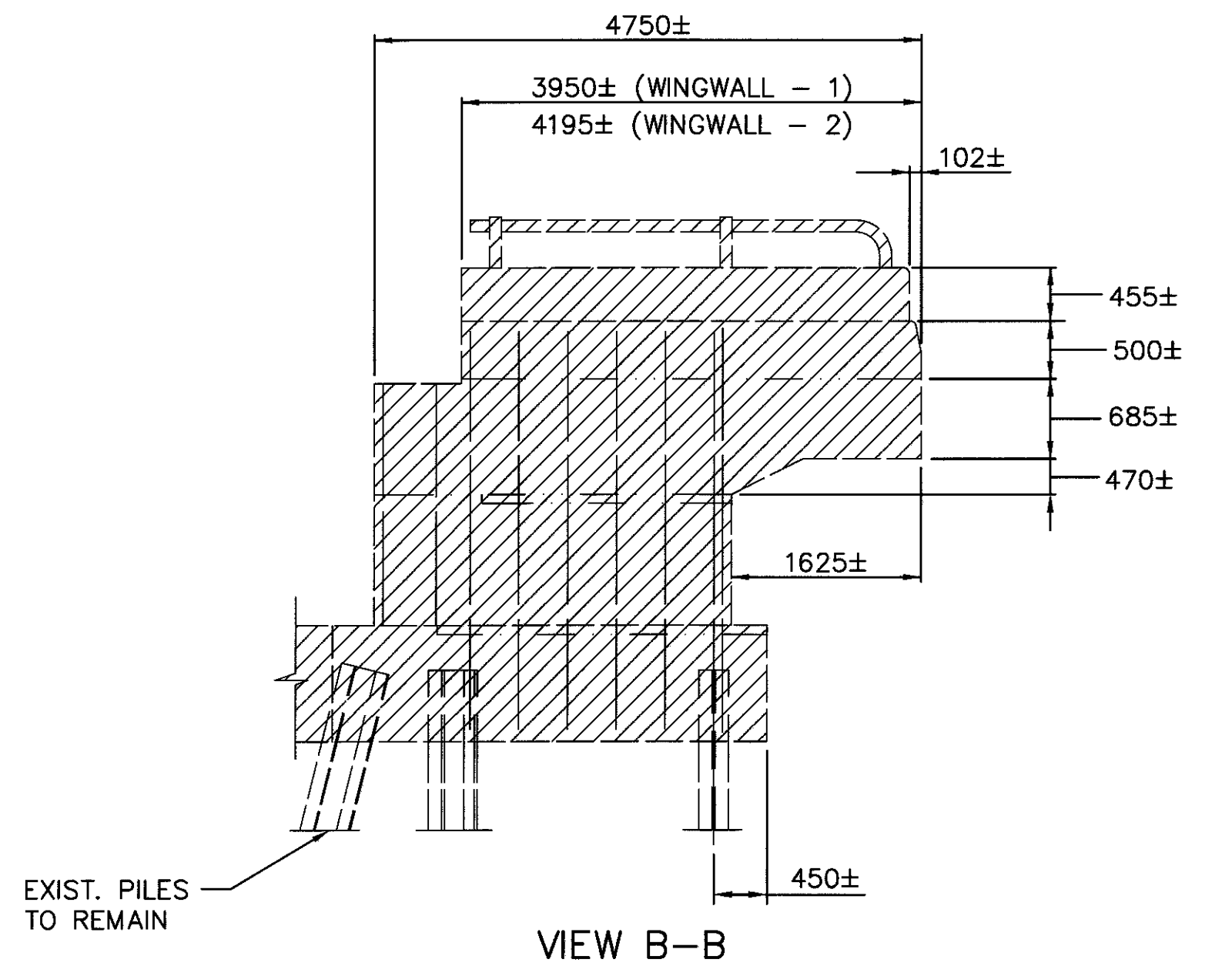
SECTION A-A

* - POROUS BACKFILL TO BE REMOVED SHALL BE CONSIDERED INCIDENTAL AND PAID FOR WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN

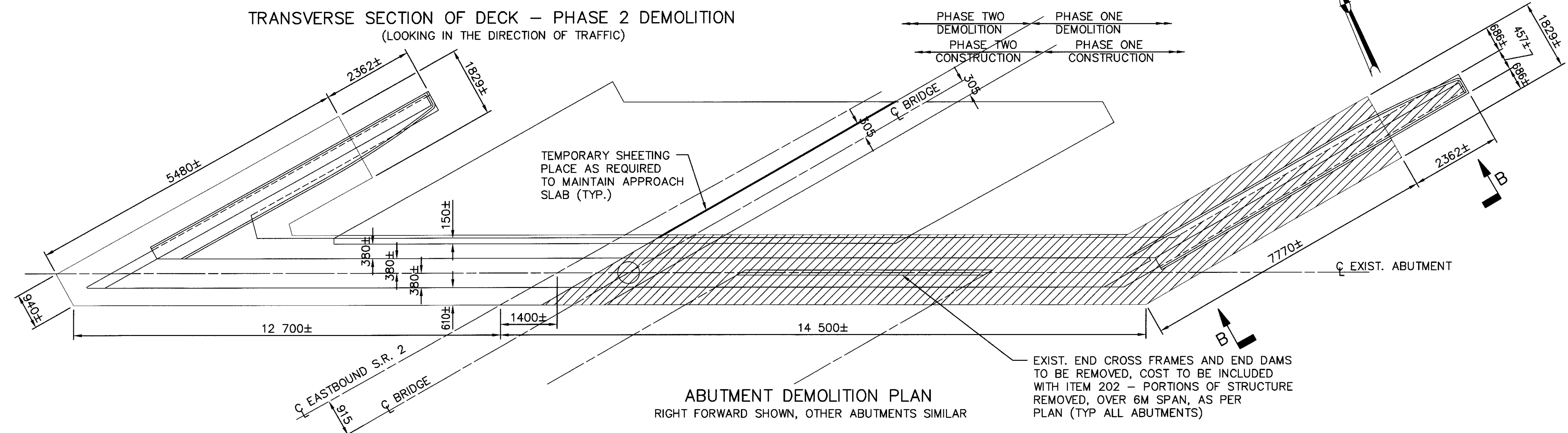
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUPERSTRUCTURE)



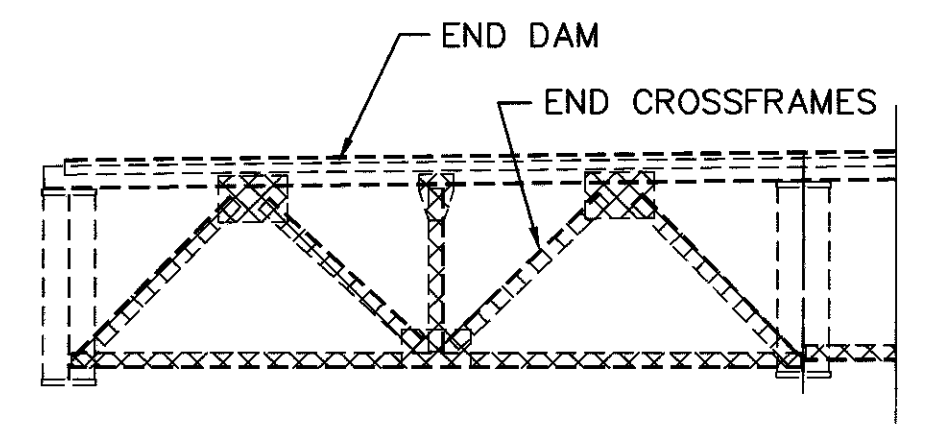
SECTION C-C



VIEW B-B



ABUTMENT DEMOLITION PLAN
RIGHT FORWARD SHOWN, OTHER ABUTMENTS SIMILAR



TYPICAL END CROSSFRAME DETAIL

NOTE:
SEE SHEET [11/13] FOR STAGE CONSTRUCTION REMOVAL LIMITS.

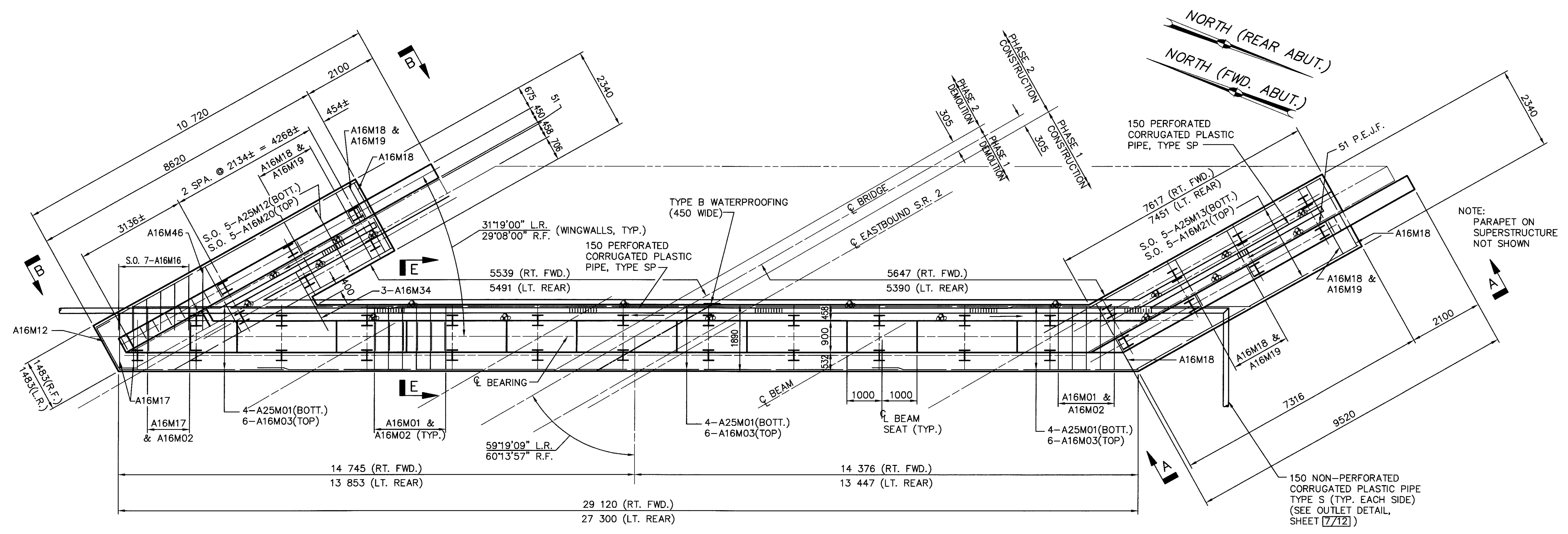
FILE NAME: I:\5033\006\TRAN\BRIDGE\2-23770\23770DM.DWG 7-14-99 9:37:15 am EST

DESIGN AGENCY: **POGEMeyer DESIGN GROUP, INC.**
 ARCHITECTS + ENGINEERS + PLANNERS
 1108 NORTH MAIN STREET
 BOILING SPRING, MISSISSIPPI 38750

DESIGNED	M.E.M.	CHECKED	J.T.Y.
DRAWN	J.A.B.	REVISED	
REVIEWED	C.A.B.	DATE	10-97
		STRUCTURE FILE NUMBER	2201089 & 2201119

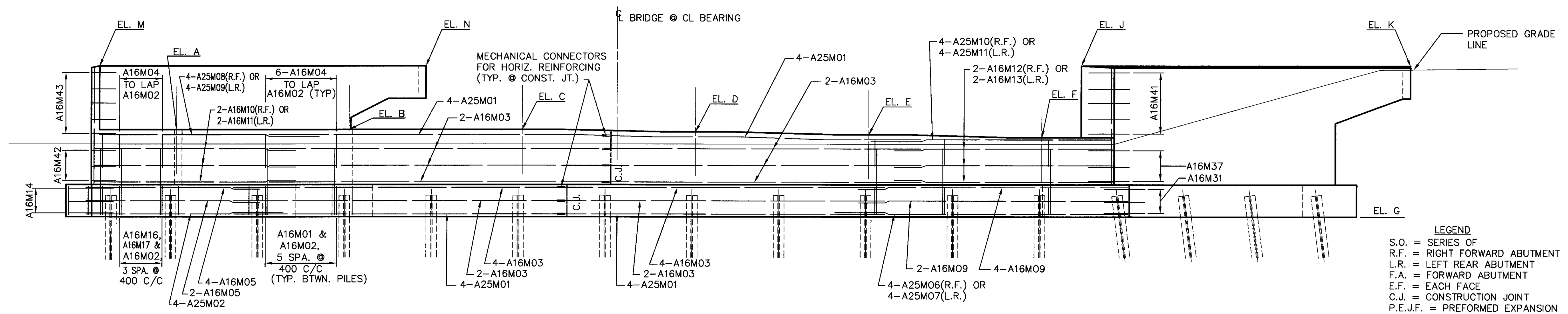
BRIDGE DEMOLITION PLAN
 BRIDGE NO. ERI-2-23770 (1477) L & R
 OVER NORFOLK SOUTHERN RAILWAY

ERI-2-12.558
 3/12
 391/432



PLAN
 (RIGHT FWD ABUTMENT SHOWN, LEFT REAR ABUTMENT SIMILAR)

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



ELEVATION
 (RIGHT FWD ABUTMENT SHOWN, LEFT REAR SIMILAR)

LEGEND
 S.O. = SERIES OF
 R.F. = RIGHT FORWARD ABUTMENT
 L.R. = LEFT REAR ABUTMENT
 F.A. = FORWARD ABUTMENT
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

ALL NEW REINF. BARS SHALL BE EPOXY COATED

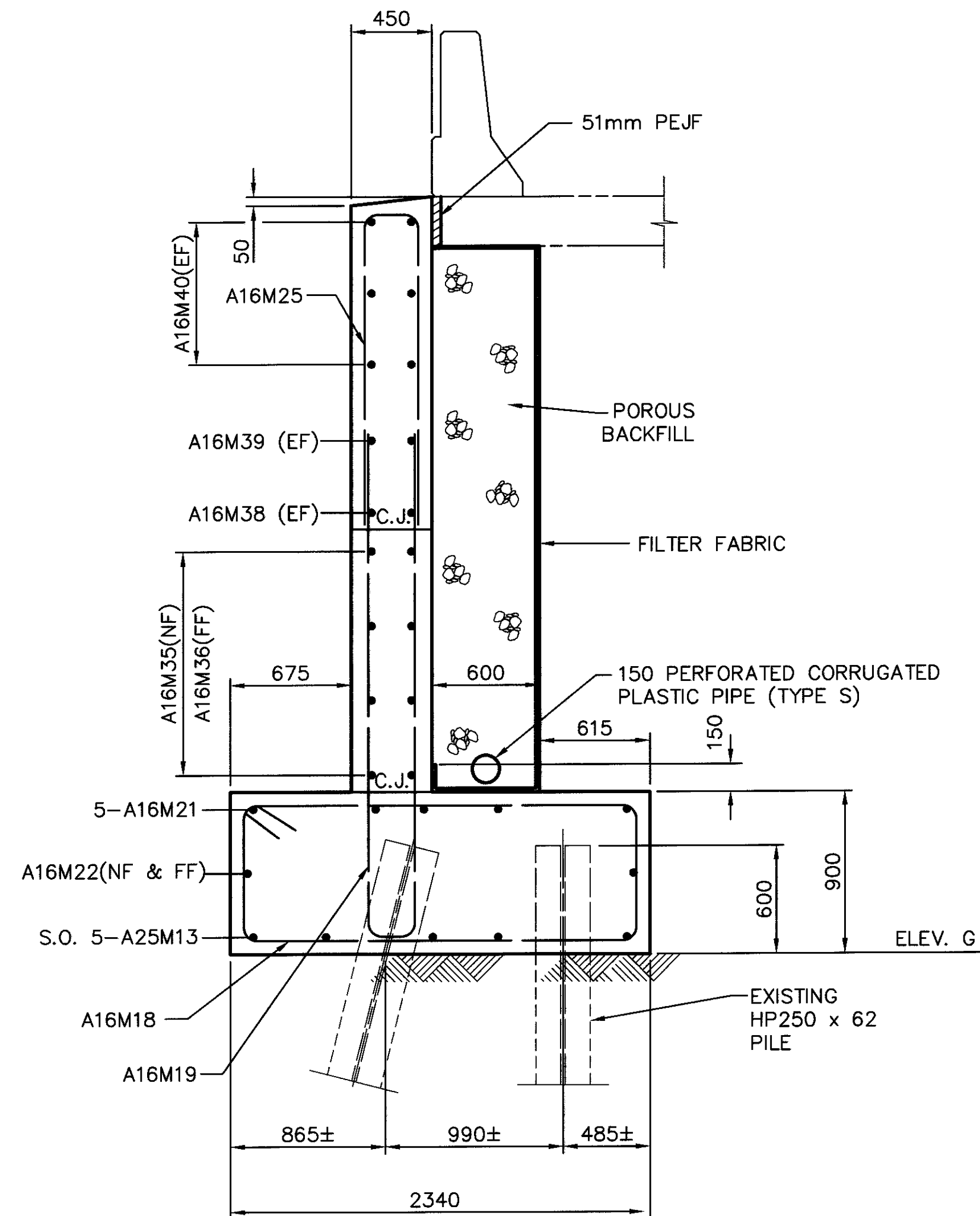
NOTE: LAP #13M BARS 590
 LAP #16M BARS 740
 LAP #19M BARS 880
 LAP #25M BARS 1400
 UNLESS OTHERWISE NOTED

SEE SHEET [6/12] & [7/12] FOR SECTIONS

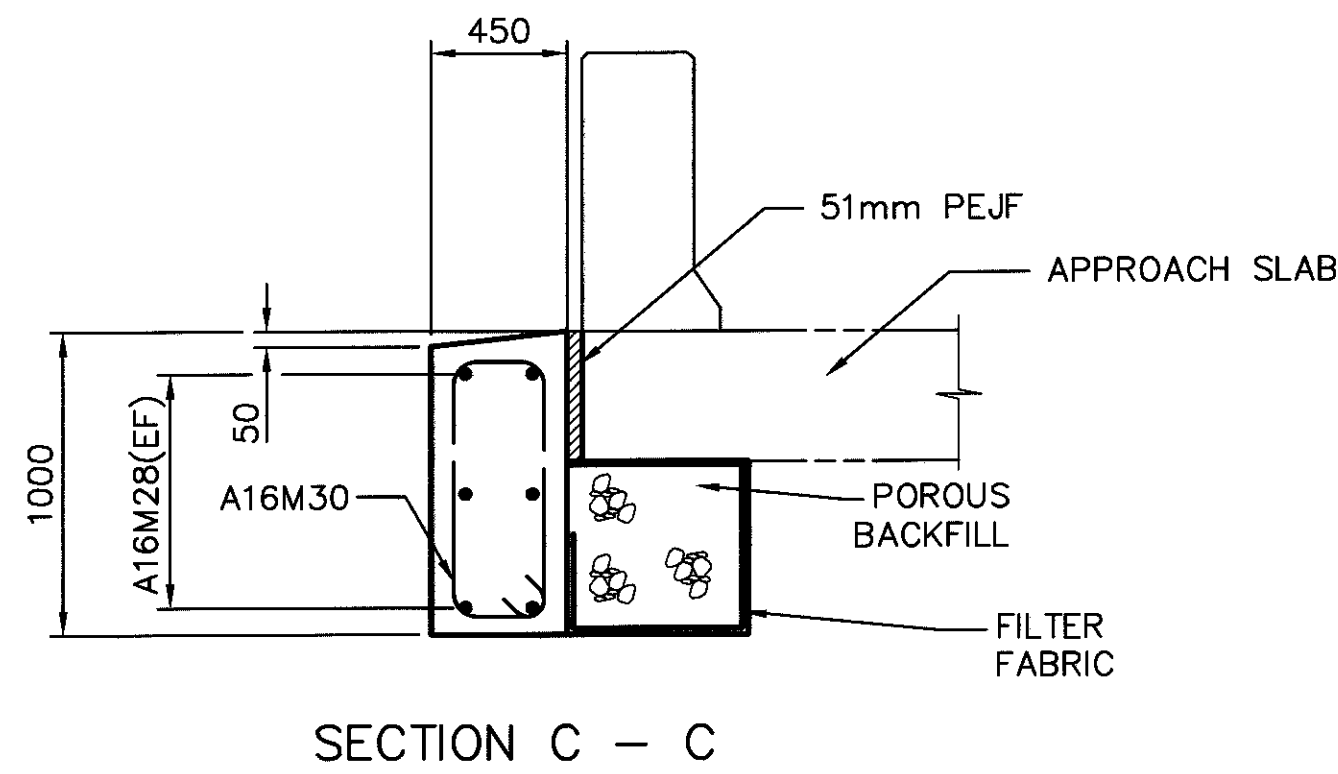
*-ELEV. AT @ BEARING

ELEV.	A*	B*	C*	D*	E*	F*	G	J	K	M	N
L.R.	191.601	191.680	191.748	191.811	191.812	191.796	189.37	194.139	194.033	194.347	194.286
R.F.	191.613	191.687	191.769	191.833	191.824	191.815	189.34	194.118	194.005	194.340	194.270

POROUS BACKFILL, AS PER PLAN WITH FILTER FABRIC, 600 THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 305 BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS. GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. THE BOTTOM OF THE POROUS BACKFILL SHALL BE SLOPED (8%) Laterally TO DRAIN. GEOTEXTILE FABRIC IS INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

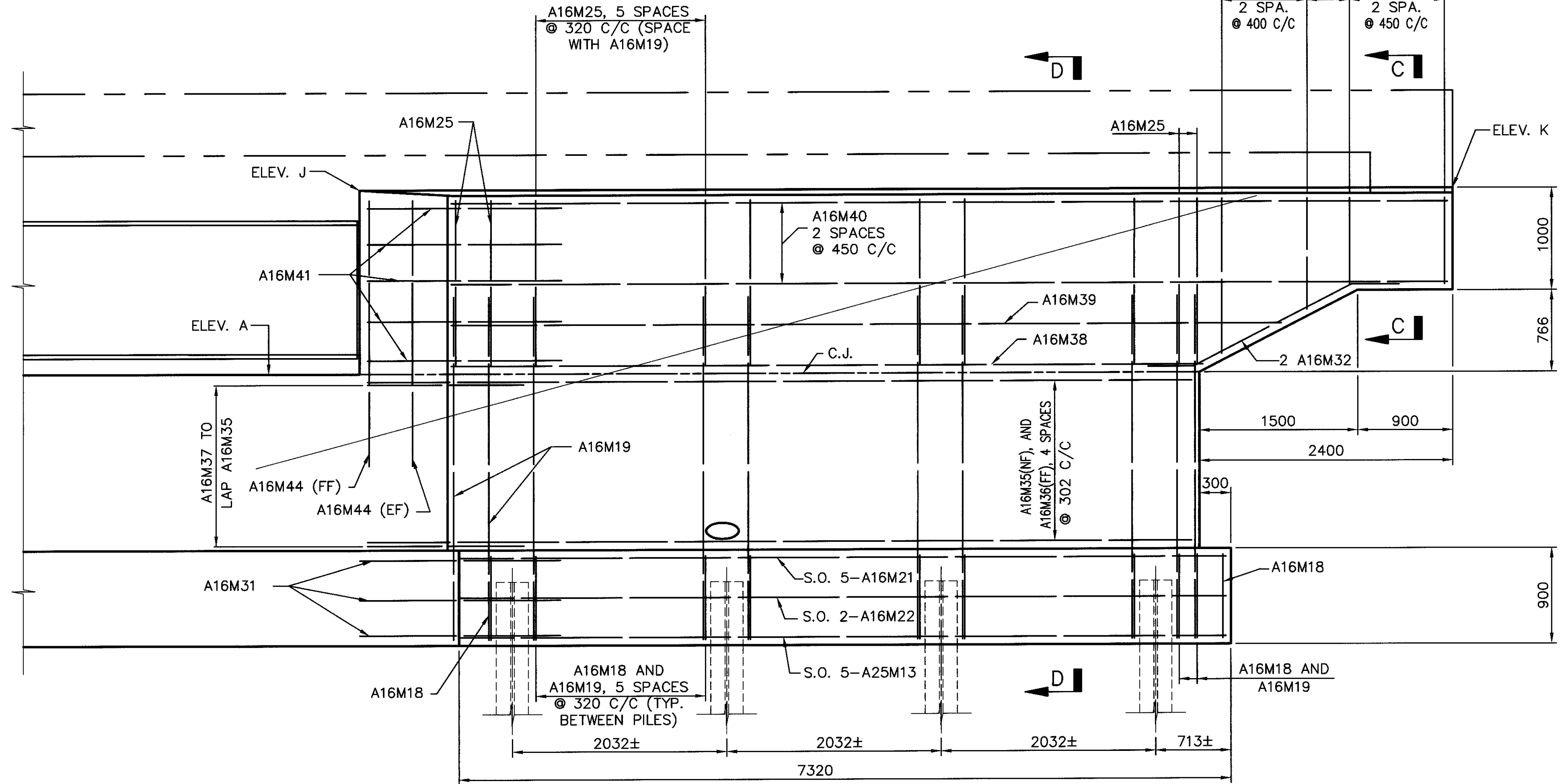


WINGWALL SECTION D - D
(WINGWALL ELEVATION A-A SHOWN, ELEVATION B-B SIMILAR)

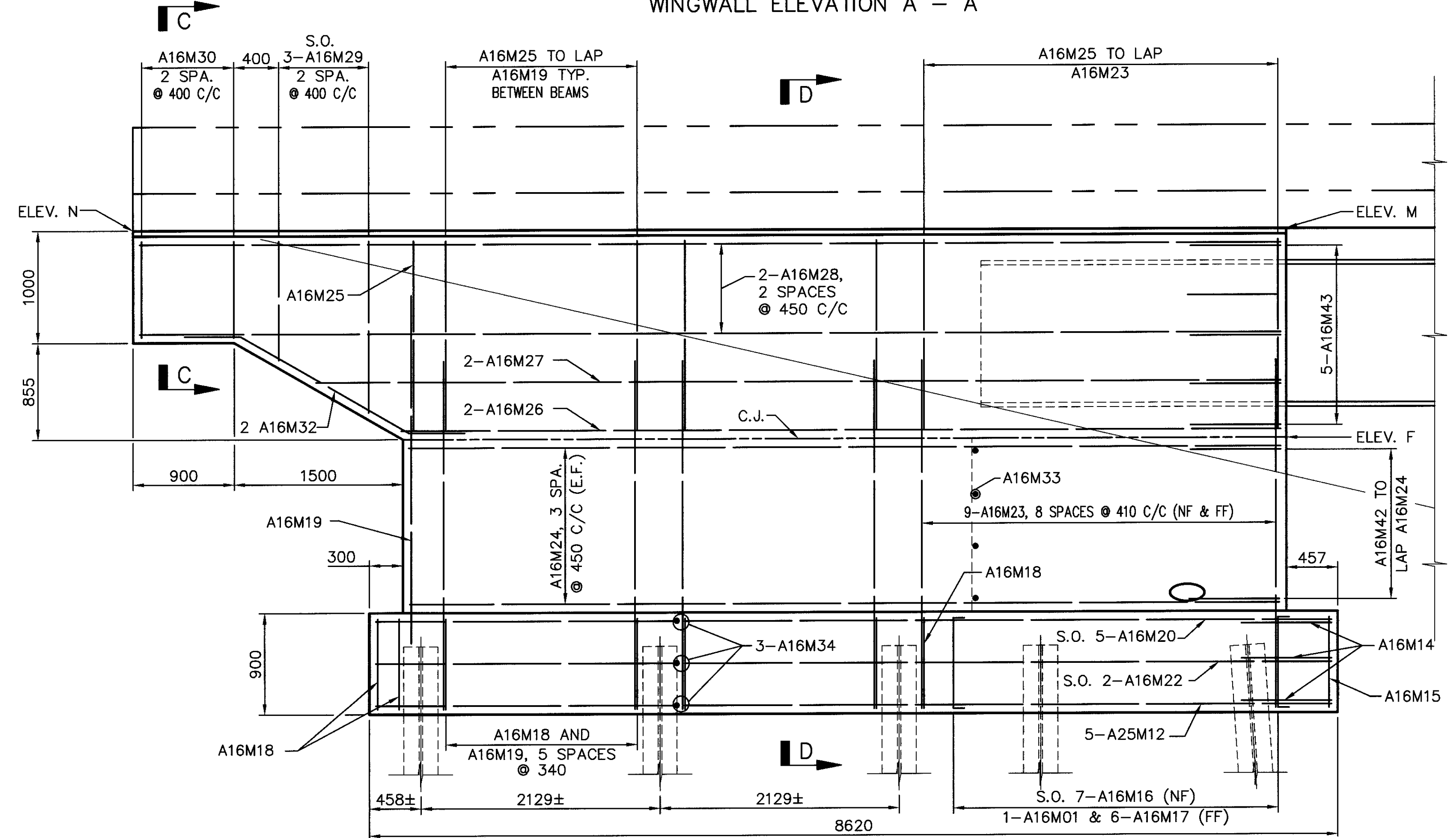


SECTION C - C

SEE SHEETS [4/12] & [5/12]
FOR ELEVATIONS

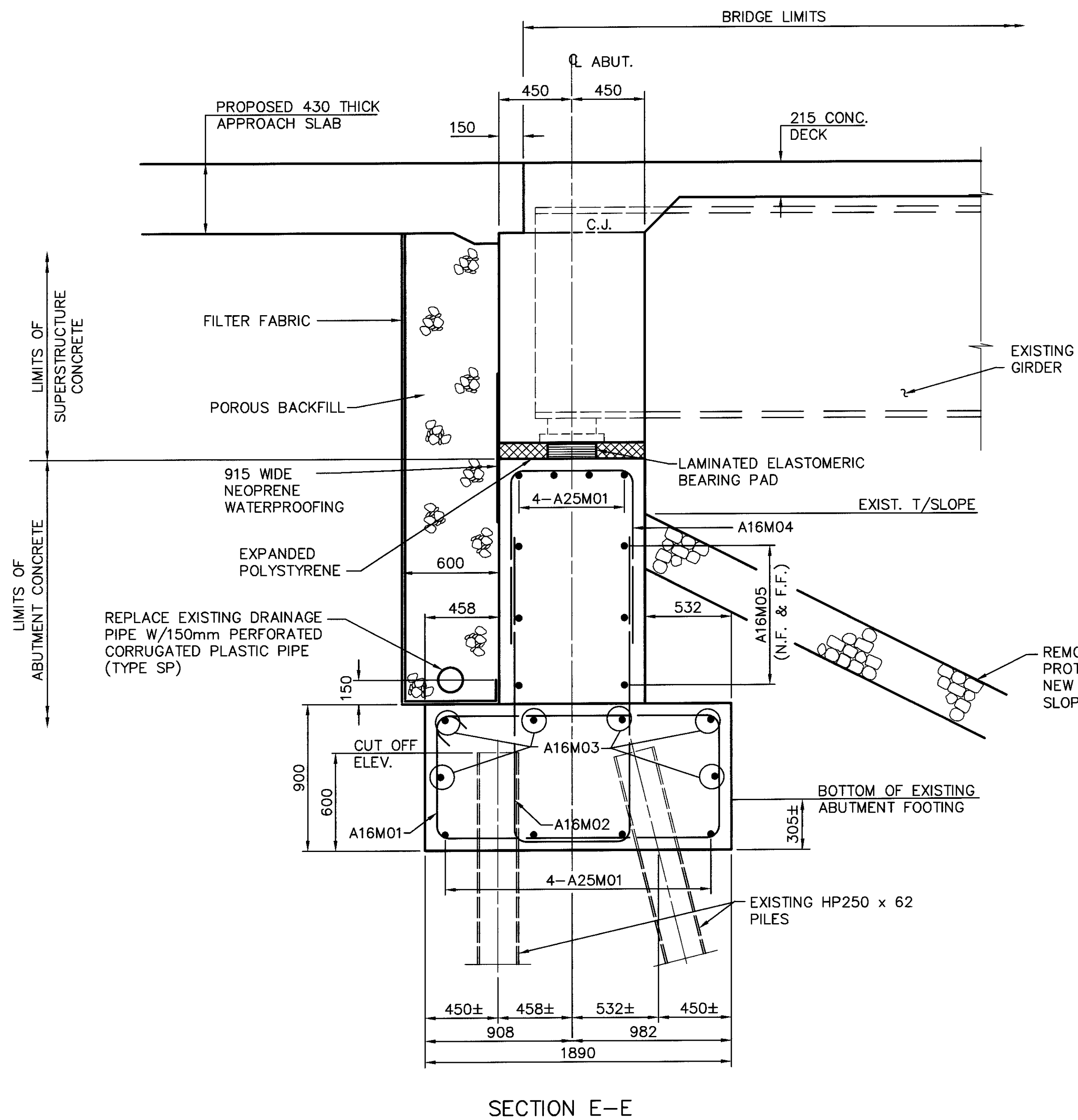


WINGWALL ELEVATION A - A



WINGWALL ELEVATION B - B

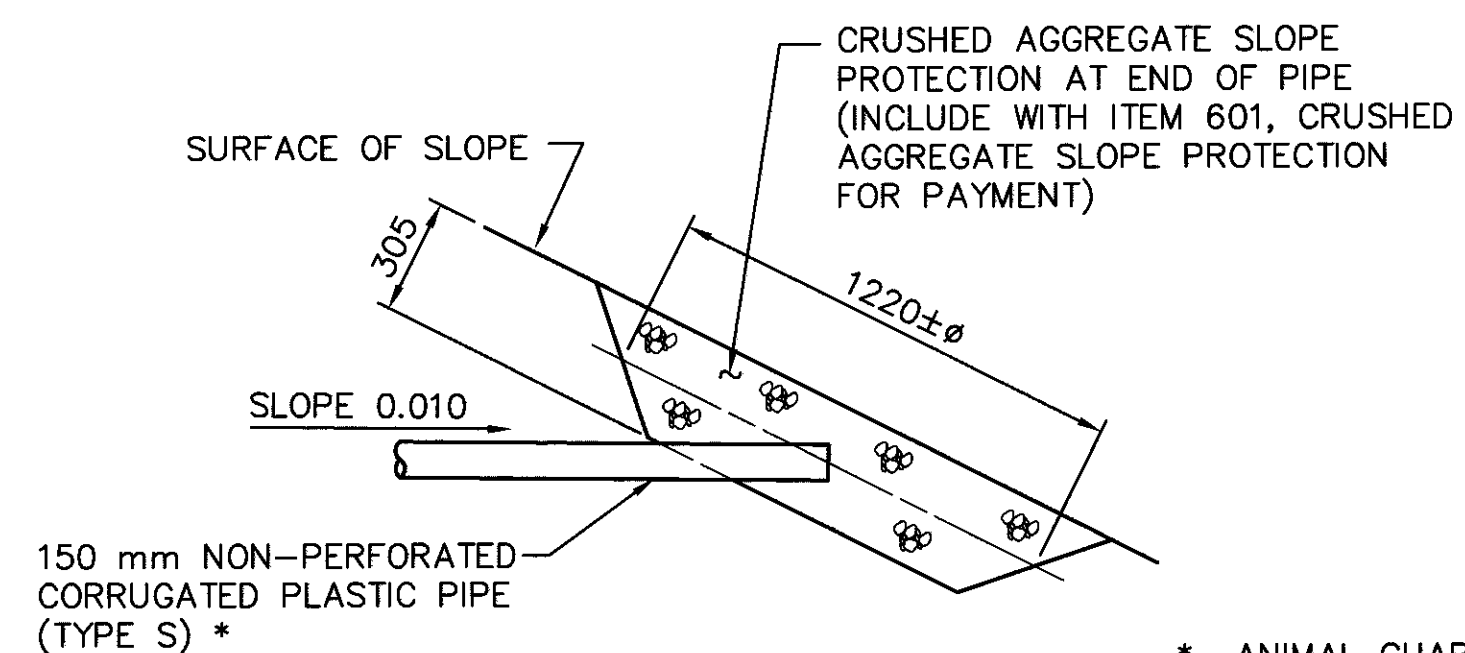
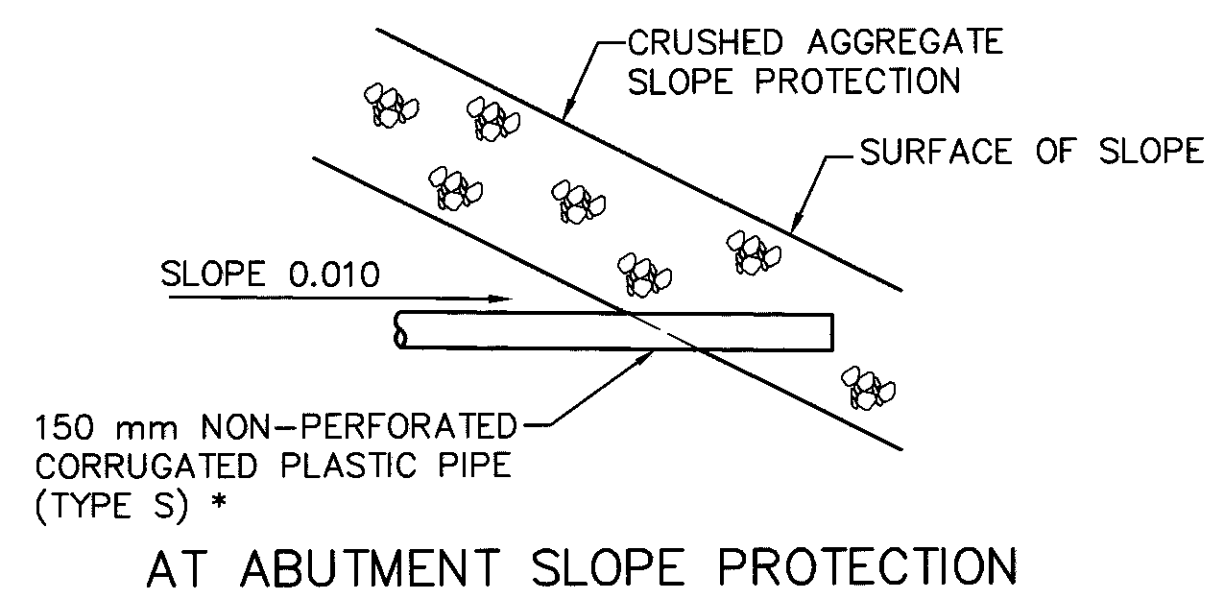
K:IB FILE NAME: I:\5033\006\TRAN\BRIDGE\2-23770\23770WD.DWG 7-14-99 10:11:58 am EST



SECTION E-E

POROUS BACKFILL, AS PER PLAN WITH FILTER FABRIC, 600 THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 305 BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS, GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. THE BOTTOM OF THE POROUS BACKFILL SHALL BE SLOPED (8%) Laterally TO DRAIN. GEOTEXTILE FABRIC IS INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.



* ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLETS OF THESE DRIANAGE PIPES PER DM-1.1M. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM 518 - 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.

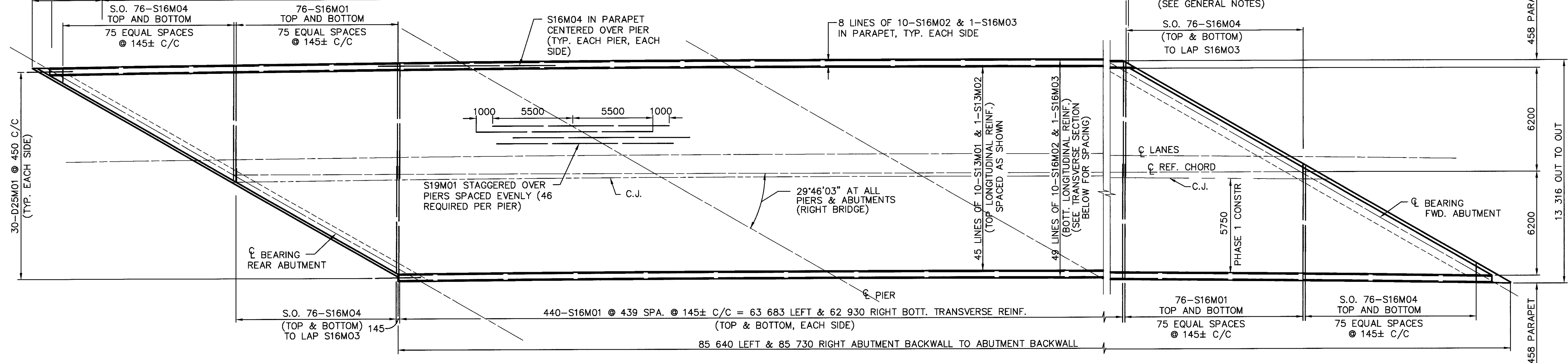
OUTLET DETAILS

DESIGNED	J. T. Y.	CHECKED	M. E. M.
DRAWN	RAV	REVISED	
REVIEWED	G. A. B.	STRUCTURE FILE NUMBER	2207089 & 2207119
DATE	10-97		

278-S16M05, 278-S19M02, & 278-S19M03, 278 SPA. @ 300 C/C = 83 500 IN PARAPET (TYP. EACH SIDE)

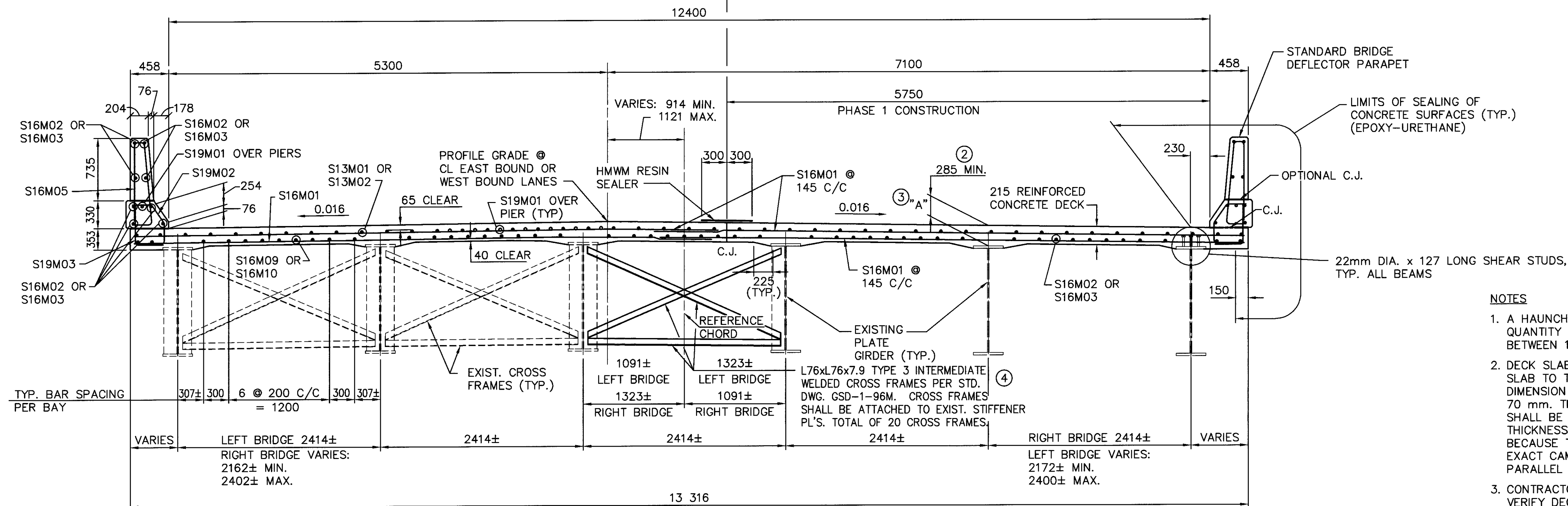
32 SPACES @ 2398 = 76 756

CRACK CONTROL JOINT SPACING
(SEE GENERAL NOTES)



DECK SLAB REINFORCING PLAN

PHASE 2 CONSTRUCTION PHASE 1 CONSTRUCTION



TRANSVERSE SECTION
LOOKING IN DIRECTION OF TRAFFIC

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

LEGEND
T.O.S. = TOP OF STEEL
B.O.S. = BOTTOM OF STEEL
S.O. = SERIES OF

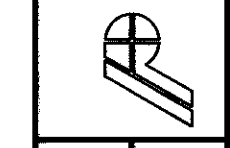
NOTE: LAP #13M BARS 590
LAP #16M BARS 740
LAP #19M BARS 880

UNLESS OTHERWISE NOTED

NOTES

1. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH MAY VARY BETWEEN 150 mm AND 300 mm.
2. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 70 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
3. CONTRACTOR TO VERIFY BEAM ROFILES WITH PROFILE GRADE TO VERIFY DECK SLAB DEPTH (DIMENSION "A"). SEE SHEET 10/12 FOR DIMENSION "A".
4. EXISTING CROSS FRAMES AS INDICATED TO BE REMOVED AND REPLACED TO FACILITATE JACKING THE STEEL SUPERSTRUCTURE. CROSS FRAMES ARE NOT TO BE WELDED UNTIL AFTER THE PHASE 2 DECK HAS BEEN POURED.

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS • ENGINEERS • PLANNERS
BIRMINGHAM, ALABAMA 35202



DATE	10-97
REVIEWED	C.A.B.
STRUCTURE FILE NUMBER	2201089 & 2201119
DESIGNED	J.T.Y.
CHECKED	M.E.M.
DRAWN	RAW
REVISED	

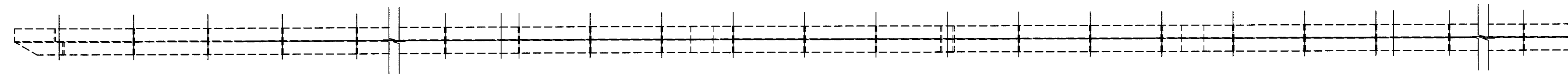
SUPERSTRUCTURE PLAN and SECTION
BRIDGE NO. ERI-2-23770 (1477) L & R
OVER NORFOLK SOUTHERN RAILWAY

ERI-2-12.558

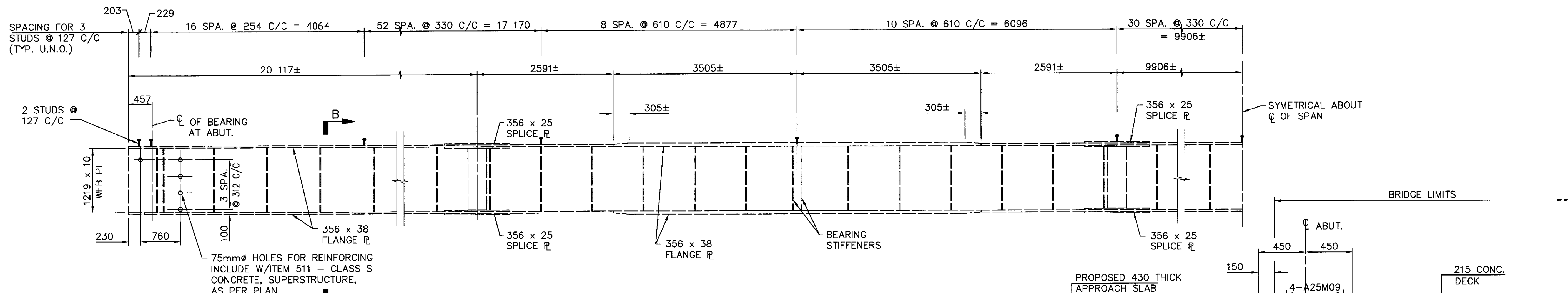
8 / 12

396
432

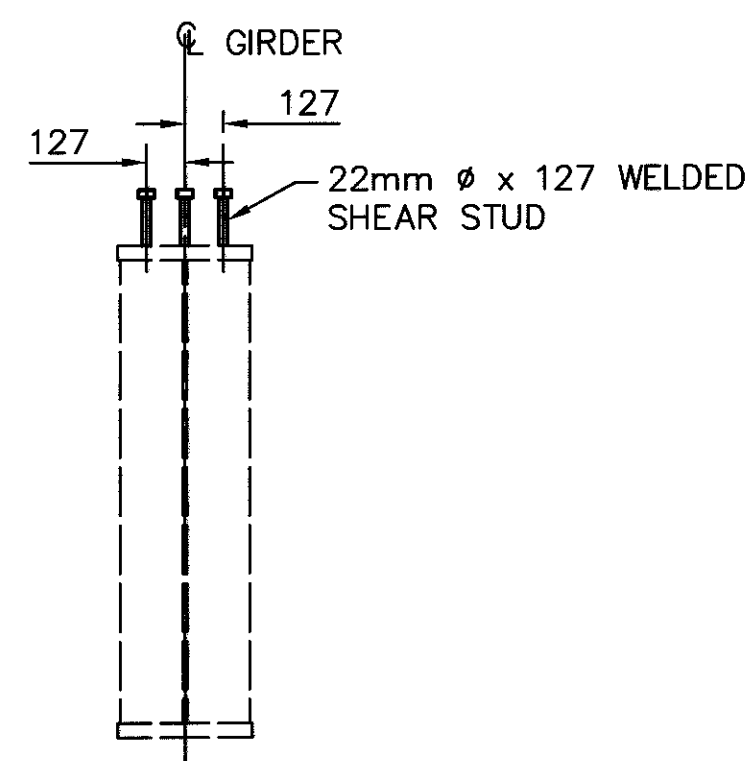
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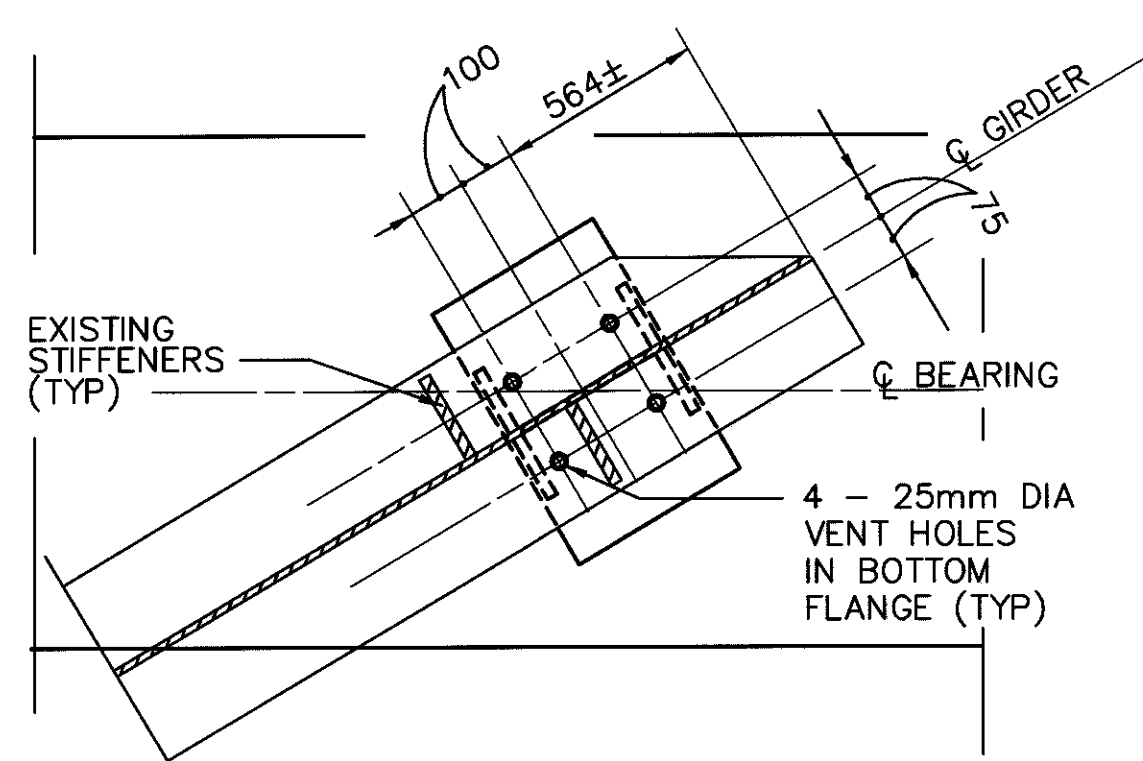
GIRDER PLAN



GIRDER HALF-ELEVATION

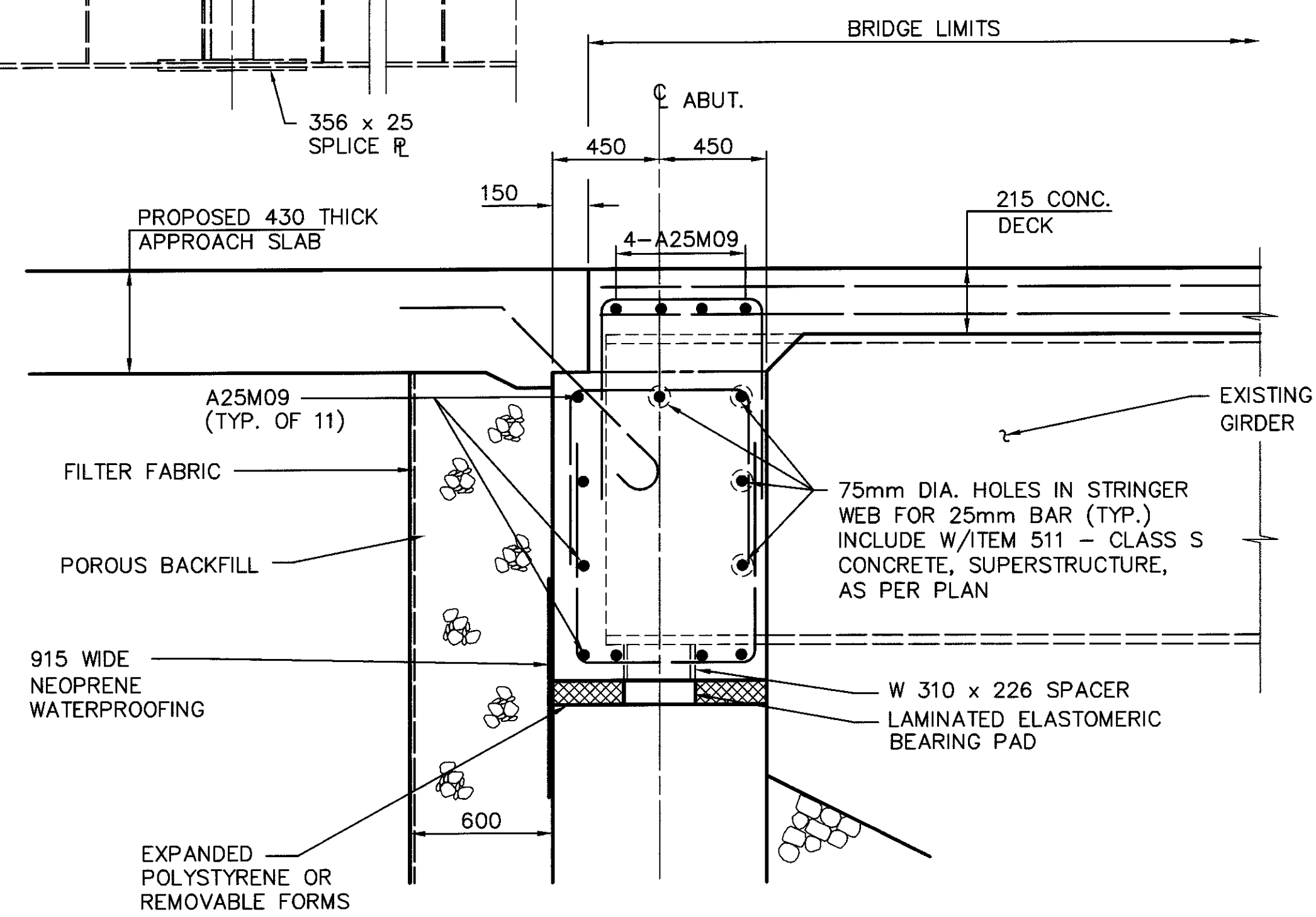


SECTION B-B

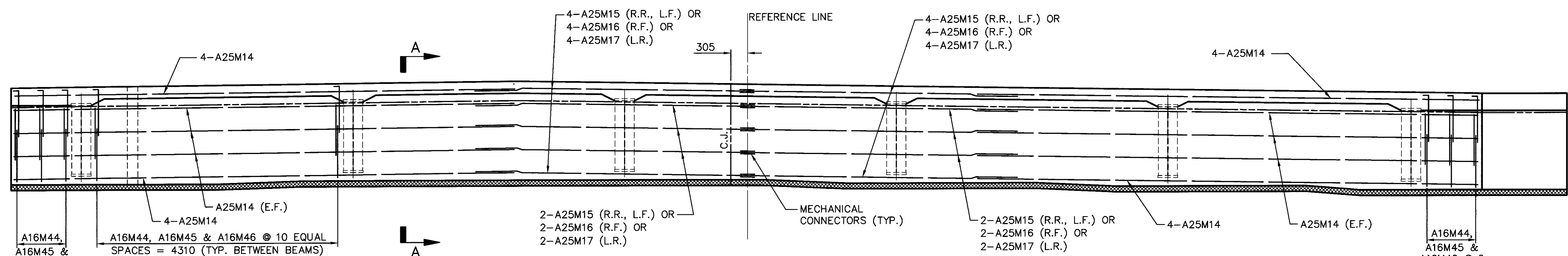


VENT HOLE DETAIL
(TYPICAL EACH BEAM END)

LEGEND
 N.F. = NEAR FACE
 F.F. = FAR FACE
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 ALL NEW REINF. BARS SHALL BE EPOXY COATED
 NOTE: LAP #16M BARS 740
 LAP #25M BARS 1400
 UNLESS OTHERWISE NOTED



SECTION A-A



END DIAPHRAGM
(RIGHT REAR ABUTMENT SHOWN, LEFT FWD. ABUTMENT SIMILAR)

FILE NAME: I:\5033\06\TRAN\BRIDGE\2-23770\23770SD1.DWG 7-14-99 2:34:06 pm EST

PLOTTED: KJB

5033-006

SCREED ELEVATIONS LEFT BRIDGE

	CURB LINE	BEAM LINE 1	BEAM LINE 2	BEAM LINE 3	PROFILE GRADE	BEAM LINE 4	BEAM LINE 5	BEAM LINE 6	CURB LINE
CL BRG REAR ABUT	193.400	193.406	193.487	193.565	193.632	193.632	193.629	193.624	193.623
1/4 PT	193.470	193.475	193.553	193.624	193.693	193.692	193.686	193.678	193.677
1/2 PT	193.531	193.536	193.610	193.676	193.744	193.743	193.733	193.722	193.721
3/4 PT	193.576	193.581	193.652	193.718	193.779	193.778	193.765	193.750	193.749
CL PIER #1	193.621	193.625	193.693	193.758	193.813	193.812	193.795	193.777	193.775
1/4 PT	193.680	193.684	193.748	193.805	193.861	193.858	193.838	193.815	193.813
1/2 PT	193.731	193.735	193.795	193.845	193.900	193.897	193.872	193.845	193.843
3/4 PT	193.762	193.766	193.821	193.870	193.918	193.915	193.886	193.855	193.852
CL PIER #2	193.784	193.787	193.838	193.887	193.927	193.924	193.890	193.855	193.852
1/4 PT	193.807	193.810	193.857	193.900	193.940	193.936	193.900	193.861	193.858
1/2 PT	193.827	193.830	193.874	193.910	193.951	193.946	193.907	193.865	193.862
3/4 PT	193.832	193.835	193.876	193.910	193.946	193.941	193.898	193.853	193.849
CL BRG FWD ABUT	193.825	193.827	193.865	193.900	193.929	193.923	193.877	193.828	193.824

SCREED ELEVATIONS RIGHT BRIDGE

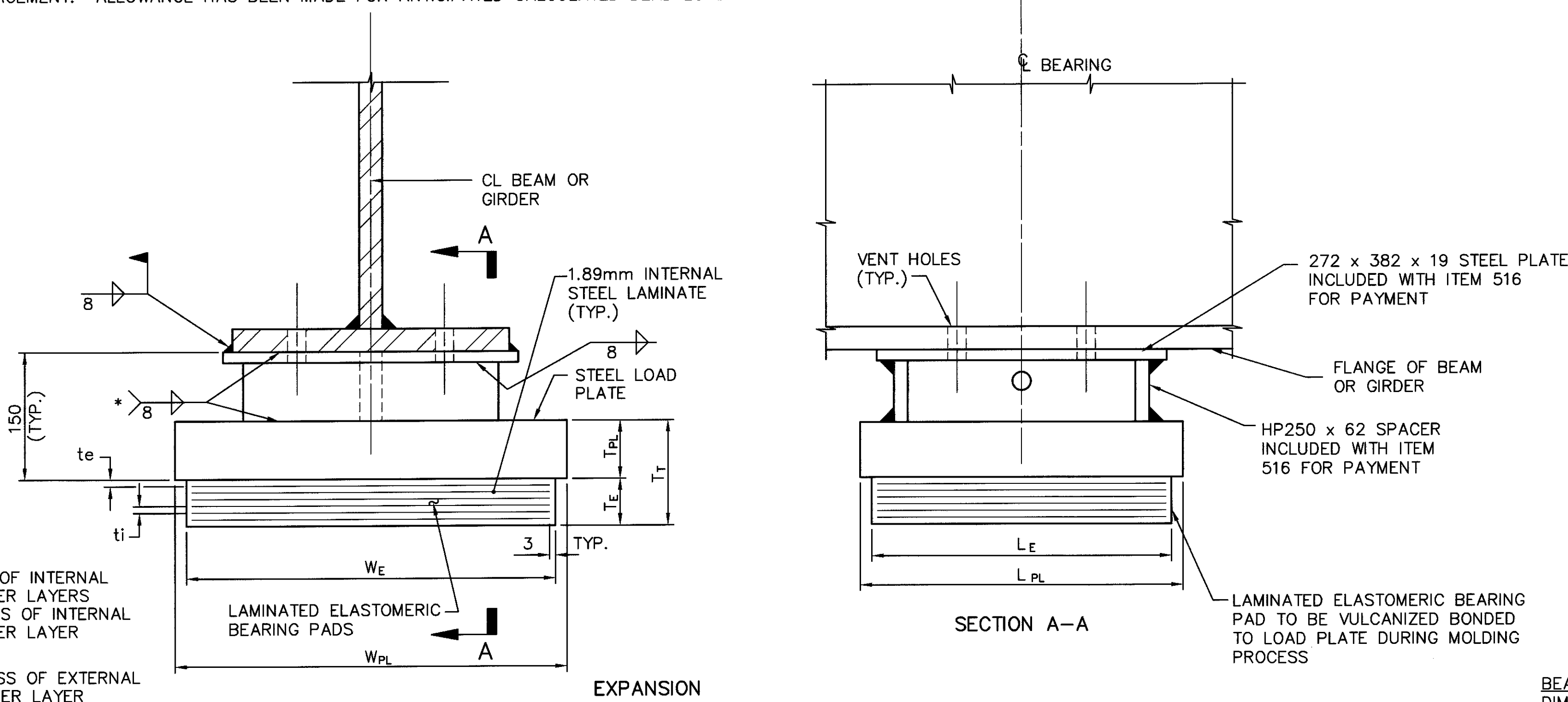
	CURB LINE	BEAM LINE 1	BEAM LINE 2	BEAM LINE 3	PROFILE GRADE	BEAM LINE 4	BEAM LINE 5	BEAM LINE 6	CURB LINE
CL BRG REAR ABUT	193.827	193.831	193.879	193.926	193.930	193.901	193.865	193.827	193.824
1/4 PT	193.841	193.844	193.890	193.933	193.938	193.906	193.868	193.827	193.825
1/2 PT	193.851	193.854	193.896	193.936	193.941	193.906	193.865	193.821	193.818
3/4 PT	193.854	193.857	193.896	193.932	193.937	193.899	193.854	193.807	193.803
CL PIER #1	193.852	193.854	193.889	193.921	193.925	193.884	193.835	193.783	193.780
1/4 PT	193.847	193.849	193.881	193.910	193.913	193.869	193.816	193.761	193.757
1/2 PT	193.833	193.835	193.862	193.887	193.890	193.842	193.785	193.726	193.722
3/4 PT	193.809	193.810	193.833	193.854	193.856	193.805	193.743	193.680	193.676
CL PIER #2	193.768	193.769	193.787	193.803	193.804	193.748	193.682	193.614	193.609
1/4 PT	193.746	193.748	193.763	193.776	193.777	193.719	193.651	193.580	193.575
1/2 PT	193.713	193.714	193.726	193.735	193.736	193.675	193.603	193.529	193.524
3/4 PT	193.671	193.672	193.681	193.687	193.688	193.624	193.548	193.471	193.466
CL BRG FWD ABUT	193.609	193.610	193.614	193.616	193.616	193.548	193.468	193.387	193.381

SCREEN ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTION.

DIMENSION "A"

	R. ABUT.	1/2 PT.	CL PIER #1 OR #3	1/2 PT.	CL PIER #2 OR #4	1/2 PT.	F. ABUT
LEFT BRIDGE	BEAM #1	0.260	0.270	0.276	0.289	0.280	0.273
	BEAM #2	0.262	0.270	0.280	0.290	0.288	0.280
	BEAM #3	0.273	0.275	0.284	0.276	0.291	0.270
	BEAM #4	0.276	0.275	0.289	0.297	0.294	0.290
	BEAM #5	0.273	0.280	0.290	0.312	0.303	0.295
	BEAM #6	0.283	0.290	0.303	0.312	0.289	0.280
RIGHT BRIDGE	BEAM #1	0.280	0.285	0.292	0.278	0.274	0.270
	BEAM #2	0.288	0.280	0.281	0.277	0.264	0.260
	BEAM #3	0.299	0.285	0.282	0.263	0.277	0.270
	BEAM #4	0.265	0.280	0.288	0.285	0.274	0.270
	BEAM #5	0.274	0.280	0.282	0.292	0.275	0.265
	BEAM #6	0.288	0.280	0.278	0.285	0.265	0.260

CONTRACTOR TO VERIFY DIMENSION "A"



BEARING DETAILS

N=NUMBER OF INTERNAL ELASTOMER LAYERS
 ti=THICKNESS OF INTERNAL ELASTOMER LAYER
 te=THICKNESS OF EXTERNAL ELASTOMER LAYER
 *- FIELD WELD OPTION

ELASTOMER										STEEL LAMINATES		LOAD PLATE			LOADS (KN)		
LOCATION	TYPE	T _T	DUROMETER	L _E	W _E	T _E	t _i	t _e	N	No.	t	L _{PL}	W _{PL}	T _{PL}	DL	LL	TOTAL
RA & FA	EXP.	127	50	270	325	87	7.5	5.0	8	9	1.89	295	350	40	400	169	569

BEARING RETAINERS ARE REQUIRED AND SHALL BE INSTALLED PER SICD-1-96M. THE "H" DIMENSION FOR THE VERTICAL LEG OF THE ANGLE SHALL BE 152mm.

LOAD PLATES THE STEEL LOAD PLATE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 150° C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

ELASTOMERIC BEARINGS, AS PER PLAN SHALL COMPLY WITH ITEM 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-23770\23770B6.DWG 7-14-99 2:37:45 pm EST

DESIGN AGENCY: POGGEMEYER DESIGN GROUP, INC. ARCHITECTS + ENGINEERS + PLANNERS 1188 NORTH MAIN STREET BOULDER, CO 80502

DATE: 10-97

REVIEWED: G.A.B. STRUCTURE FILE NUMBER: 2201089 & 2201119

DRAWN: RAN

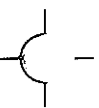
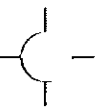
DESIGNED: J.T.Y. CHECKED: M.E.M.

BEARING DETAILS BRIDGE NO. ERI-2-23770 (1477) L & R OVER NORFOLK SOUTHERN RAILWAY

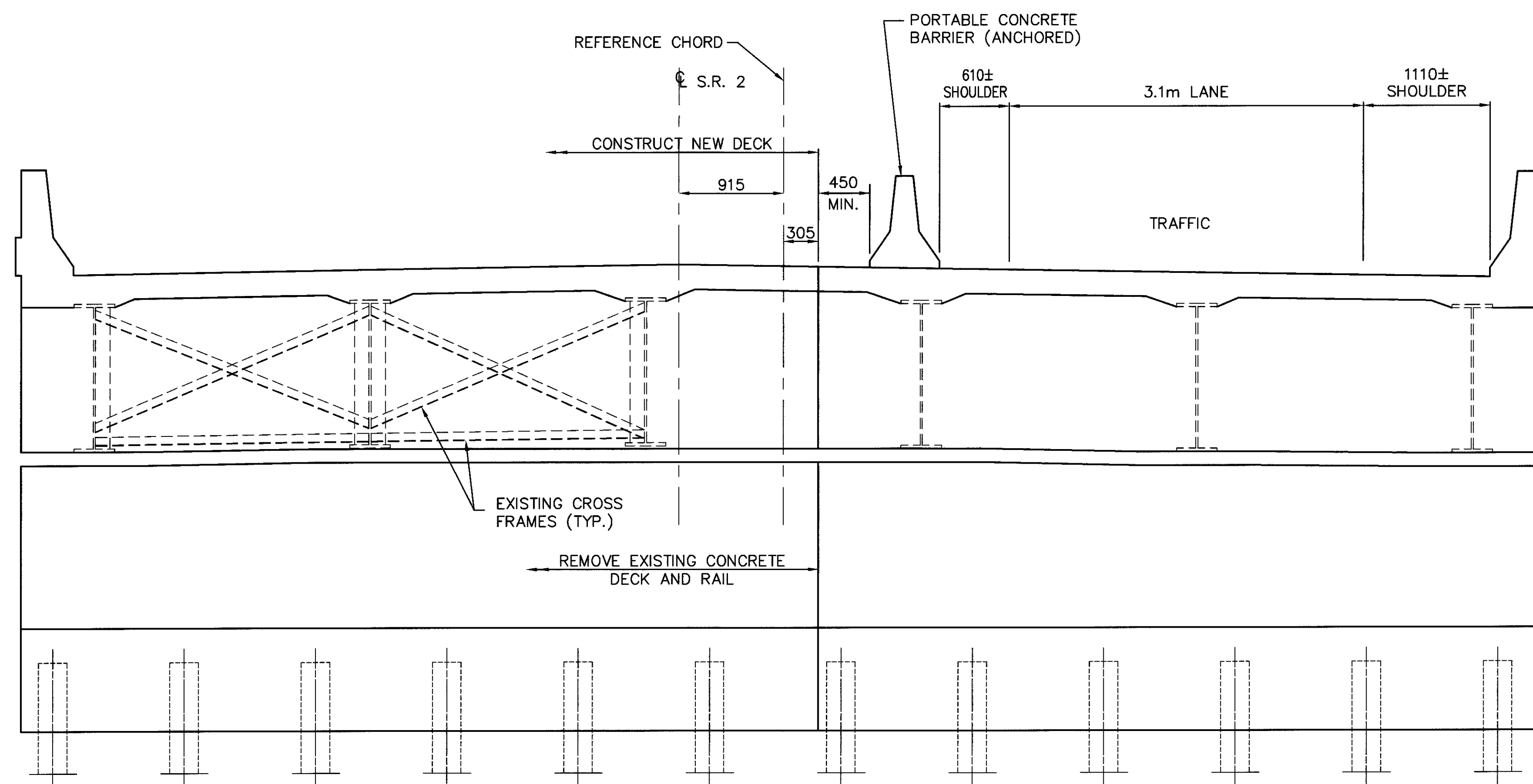
ERI-2-12.558

10/12

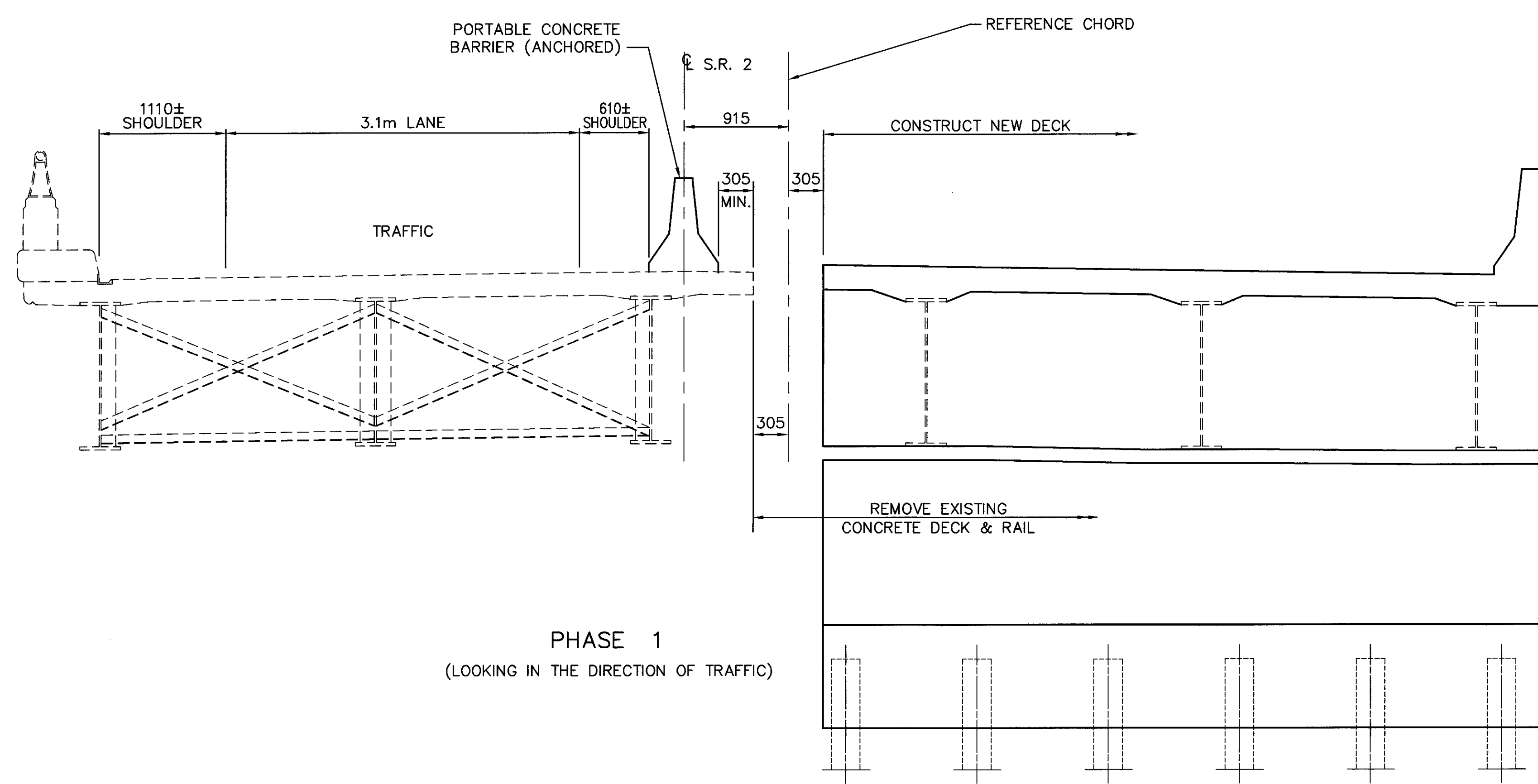
398/432



FILE NAME: I:\5033\006\TRAN\BRIDGE\2-23770\23770SC.DWG 7-14-99 2:41:45 pm EST



PHASE 2
(LOOKING IN THE DIRECTION OF TRAFFIC)



PHASE 1
(LOOKING IN THE DIRECTION OF TRAFFIC)

DESIGN AGENCY
POGGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1186 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402

DESIGNED
J.T.Y.
CHECKED
M.E.M.

DRAWN
RAN
REVISED

REVIEWED
C.A.B.
STRUCTURE FILE NUMBER
2207089 & 2201119

DATE
10-97

STAGED CONSTRUCTION
BRIDGE NO. ERI-2-23770 (1477) L & R
OVER NORFOLK SOUTHERN RAILWAY

ERI-2-12.558

11/12

399
432

REINFORCING SCHEDULE

MARK	TOTAL	SUPER		ABUTMENTS				LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.								
A16M01	254			65	62	62	65	5140	14	750	1740				
A16M02	270			69	66	66	69	4520	1	1900	800	1900			
A16M03	96			24	24	24	24	9144	S	9144					
A16M04	270			69	66	66	69	3320	1	1300	800	1300			
A16M05	24			6	6	6	6	5000	S	5000					
A16M06	24			6	6	6	6	7300	S	7300					
A16M07	12			6	6	6	6	5900	S	5900					
A16M08	12			6	6	6	6	5700	S	5700					
A16M09	6						6	7750	S	7750					
A16M10	6						6	6300	S	6300					
A16M11	6			6				5600	S	5600					
A16M12	6						6	6400	S	6400					
A16M13	6			6				5450	S	5450					
A16M14	12			3	3	3	3	2846	8	740	1370	380	700		
A16M15	4			1	1	1	1	800	S	800					
A16M16	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					314
A16M17	24			6	6	6	6	4670	1	2000	750	2000			
A16M18	152			38	38	38	38	5970	14	750	2155				
A16M19	140			35	35	35	35	6670	1	3200	350	3200			
A16M20	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					300
A16M21	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					320
A16M22	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					750
A16M23	72			18	18	18	18	3200	S	3200					
A16M24	32			8	8	8	8	7760	S	7760					
A16M25	176			44	44	44	44	3570	1	1650	350	1650			
A16M26	8			2	2	2	2	7800	S	7800					
A16M27	8			2	2	2	2	8600	S	8600					
A16M28	24			6	6	6	6	10600	S	10600					
A16M29	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					147
A16M30	3			3	3	3	3	3530	14	1335	350				
A16M31	12			3	3	3	3	1586	2	380	700	800			
A16M32	16			4	4	4	4	3187	13	740	1500	855	740		
A16M33	20			5	5	5	5	1800	S	1800					
A16M34	12			3	3	3	3	2000	S	2000					
A16M35	20			5	5	5	5	7000	S	7000					
A16M36	20			5	5	5	5	7800	S	7800					
A16M37	12			3	3	3	3	1490	2	375	650	750			
A16M38	20			5	5	5	5	7050	S	7050					
A16M39	20			5	5	5	5	7900	S	7900					
A16M40	24			6	6	6	6	9450	S	9450					
A16M41	20			5	5	5	5	2161	4	1040	350	300	740		
A16M42	14			3	4	4	3	1826	8	740	350	380	700		
A16M43	20			5	5	5	5	1750	1	740	350	740			
A16M44	12			3	3	3	3	2500	S	2500					

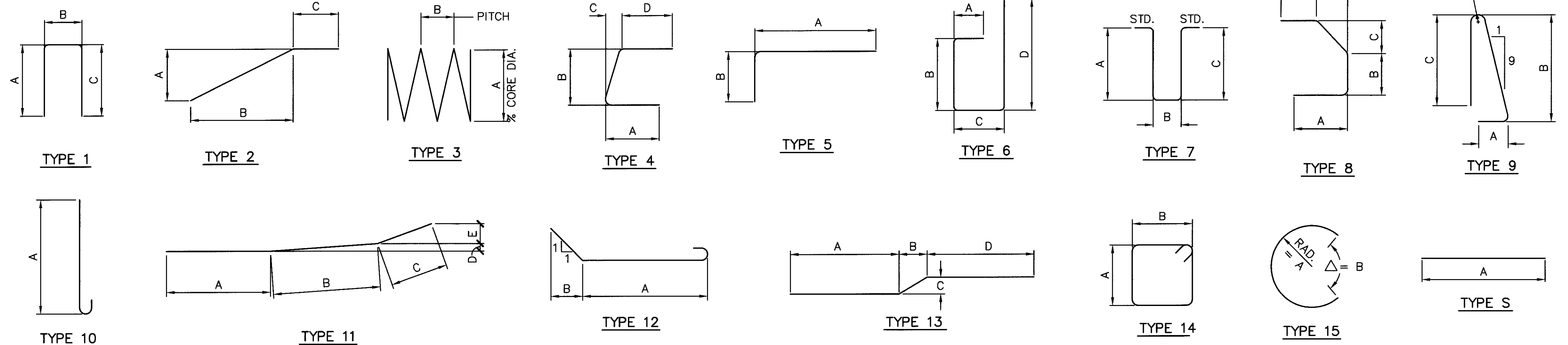
MARK	TOTAL	SUPER		ABUTMENTS				LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.								
A25M01	64			16	16	16	16	9144	S	9144					
A25M02	14			4	4	4	2	6000	S	6000					
A25M03	8			4	4	4		7900	S	7900					
A25M04	8			4	4	4		6700	S	6700					
A25M05	8			4	4	4		6500	S	6500					
A25M06	4						4	8400	S	8400					
A25M07	4						4	7400	S	7400					
A25M08	4						4	7100	S	7100					
A25M09	8			4			4	6100	S	6100					
A25M10	4						4	7000	S	7000					
A25M11	4			4				6000	S	6000					
A25M12	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					300
A25M13	SER. OF			SER. OF	SER. OF	SER. OF	SER. OF	TO		TO					360
A25M14	112			28	28	28	28	9144	S	9144					
A25M15	56			28	28	28		5700	S	5700					
A25M16	28						28	6200	S	6200					
A25M17	4			28				5400	S	5400					
D25M01	200			50	50	50	50	1459	12	858	305				
S13M01	900	450	450					9144	S	9144					
S13M02	90	45	45					2000	S	2000					
S16M01	4128	2064	2064					6908	S	6908					
S16M02	1300	650	650					9144	S	9144					
S16M03	130	65	65					1800	S	1800					
S16M04	SER. OF	SER. OF	SER. OF					TO		TO					80
S16M05	357	138	219					2130	9	205	990	915			
S19M01	196	98	98					12000	S	12000					
S19M02	756	378	378					789	8	125	230	216	152	230	
S19M03	756	378	378					790	5	550	280				

BAR LEGEND

- BAR LOCATION: A 1 6 M 0 6
 BAR SIZE: 6
 BAR NUMBER: 6
- A - ABUTMENT
 - DS - DRILLED SHAFT
 - P - PIER
 - S - SUPERSTRUCTURE
 - D - APPROACH SLAB
 - SP - SPIRAL BAR

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.



FILE NAME: I:\5033\006\TRAN\BRIDGE\2-23770\23770SR.DWG 7-14-99 2:46:03 pm EST
 PLOTTED: KJB

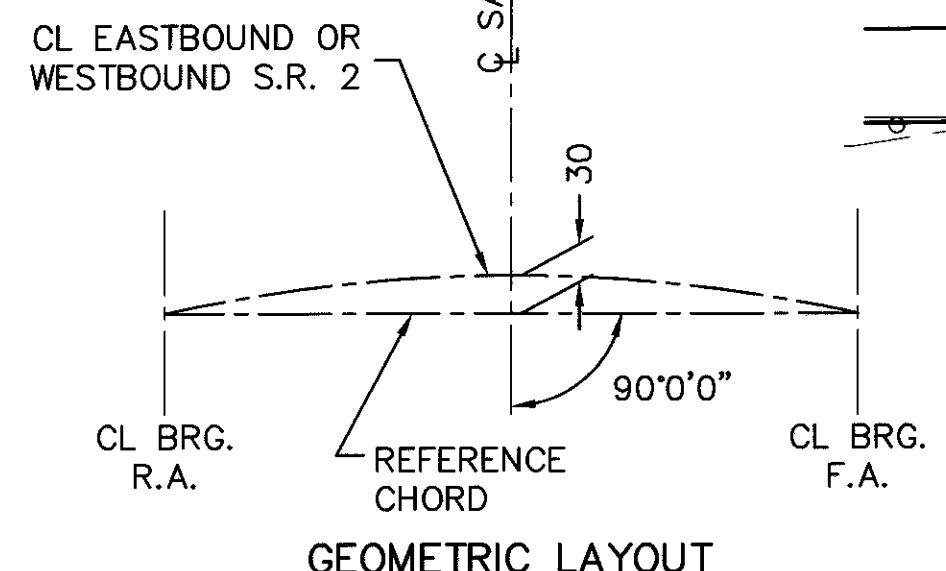
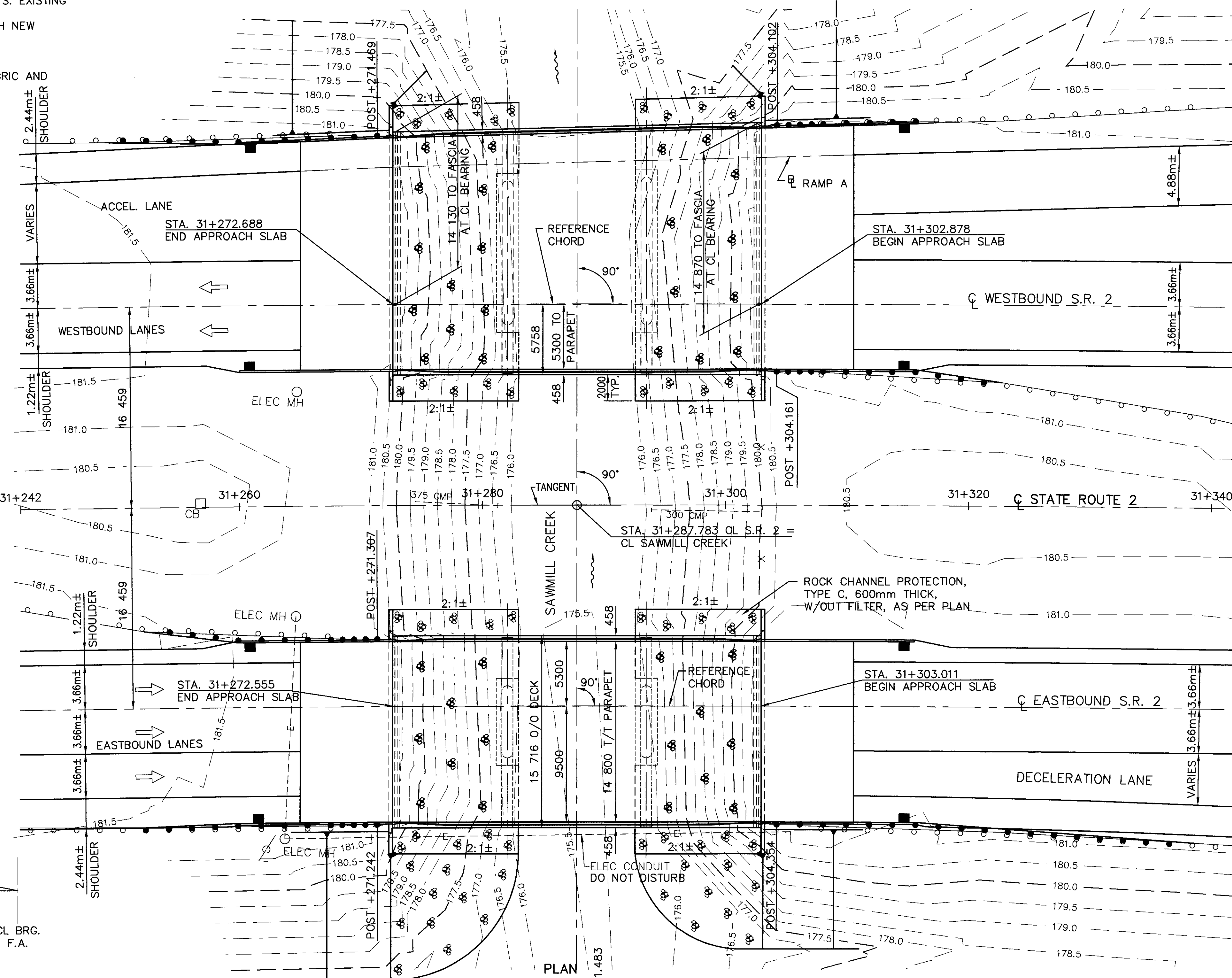
DESIGN AGENCY: POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS & ENGINEERS - PLANNERS
 1188 NORTH MAIN STREET, BOWLING GREEN, OHIO 43402
 DATE: 10-97
 REVIEWED: G.A.B. STRUCTURE FILE NUMBER: 2201089 & 2201119
 DRAWN: R.A.V. REVISED:
 DESIGNED: M.E.M. CHECKED: J.T.Y.
 REINFORCING SCHEDULE
 BRIDGE NO. ERI-2-23770 (1477) L & R
 OVER NORFOLK SOUTHERN RAILWAY
 ERI-2-12.558
 12/12
 400/432

PROPOSED WORK:

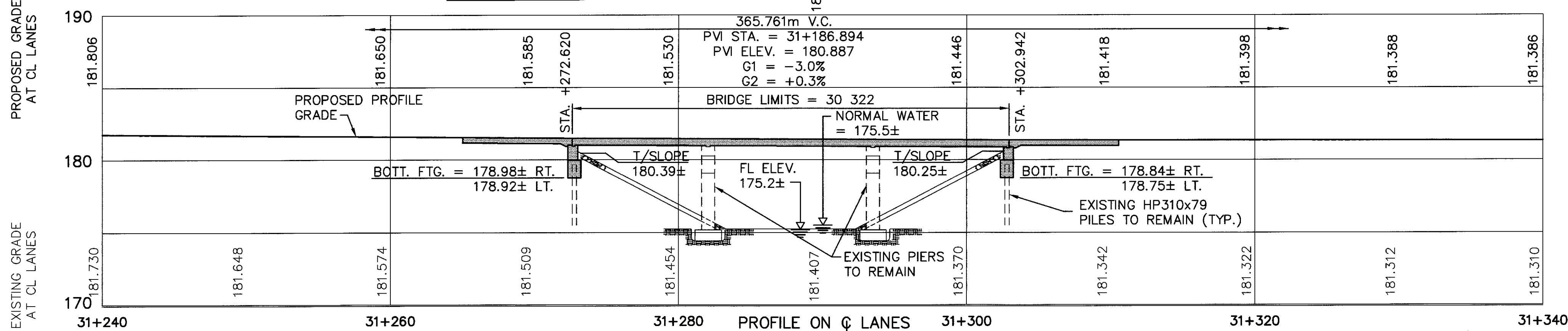
1. REMOVE AND REPLACE EXISTING ABUTMENTS. EXISTING STEEL PILES TO REMAIN.
2. REMOVE AND REPLACE EXISTING SLAB WITH NEW SLAB AND DEFLECTOR PARAPETS.
3. RAISE DECK PROFILE TO MATCH S.R. 2 RESURFACING DEPTH
4. PLACE POROUS BACKFILL WITH FILTER FABRIC AND NEW DRAINAGE PIPE BEHIND ABUTMENTS.
5. REPLACE APPROACH SLABS.
6. SEAL CONCRETE SURFACES.
7. REPAIR SLOPE PROTECTION
8. PLACE CATCH BASINS

MAINLINE CURVE DATA

$\Delta = 34^{\circ}53'00''$
 $R = 3742.241m$
 $T = 1175.737m$
 $L = 2278.385m$



GEOMETRIC LAYOUT



PROFILE ON CL LANES

BENCH MARK No. 42
MONUMENT FOUND (P.O.C.) STA. 31+089.662, ELEV. 182.313
BENCH MARK No. 43
MONUMENT FOUND (P.O.C.) STA. 31+394.463, ELEV. 180.521

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFIRM TO THE PLAN CROSS SECTIONS.

NOTE:
 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.
 ALL DIMENSIONS REFERENCING THE CL OF STRUCTURE ARE TO THE REFERENCE CHORD.

CURRENT YEAR ADT (1998) = 11 250*
 DESIGN YEAR ADT (2018) = 16 250*
 DESIGN YEAR ADTT (2018) = 3090*
 * - ONE DIRECTION

EXISTING STRUCTURE	
TYPE:	CONTINUOUS REINFORCED CONCRETE SLAB SUPERSTRUCTURE W/REINFORCED CONCRETE SUBSTRUCTURE W/ U TYPE ABUTMENTS ON PILES & T TYPE PIERS.
SPAN:	9144±, 11 430±, 9144± C/C BRGS
ROADWAY:	VARIES, LEFT BRIDGE 15 240± F/F PARAPET, RIGHT BRIDGE
LOAD FREQUENCY:	CF-400 (57)
SKEW:	NONE
WEARING SURFACE:	25 MONOLITHIC CONCRETE
STRUCTURE FILE NUMBER:	2201143(LT.) & 2201178(RT.)
APPROACH SLABS:	AS-1-54 (7620 LONG)
DATE BUILT:	1961
ALIGNMENT:	0'-28' CURVE RIGHT, NO SUPERELEVATION

PROPOSED STRUCTURE	
PROPOSED WORK:	NEW SUPERSTRUCTURE & ABUTMENTS. RAISE STRUCTURE.
TYPE:	CONTINUOUS REINFORCED CONCRETE SLAB. REINF. CONC. SUBSTRUCTURE: CAPPED PILES ABUTMENTS ON REUSED H-PILES, EXISTING REUSED TYPE T PIERS.
SPAN:	9256, 11 430, 9256 C/C BEARINGS
ROADWAY:	VARIES 18 972 TO 19 712 T/T PARAPETS, LEFT BRIDGE 14 800 T/T PARAPETS, RIGHT BRIDGE
LOADING:	MS18 & THE ALTERNATE MILITARY LOAD
SKEW:	NONE
CROWN:	0.016
WEARING SURFACE:	25 MONOLITHIC CONCRETE
APPROACH SLABS:	AS-1-81M (7600 LONG)
ALIGNMENT:	0'-28' CURVE RIGHT, NO SUPERELEVATION
LONGITUDE:	W-82°35'45"
LATITUDE:	N-41°24'15"

DESIGN AGENCY
POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1100 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402

DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REVIEWED	
DATE	10-97	G.A.B.	2201143 & 2201178
STRUCTURE FILE NUMBER			

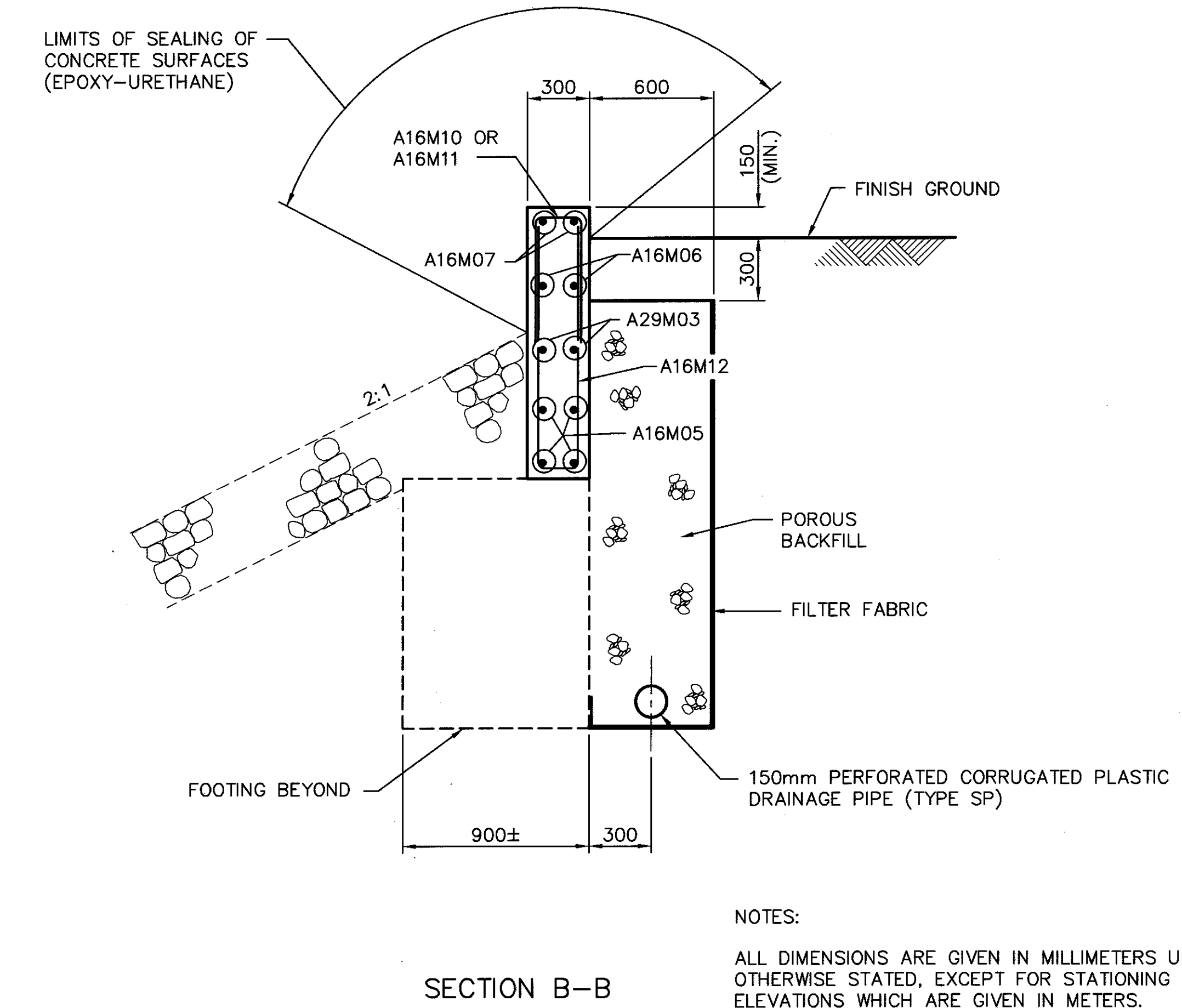
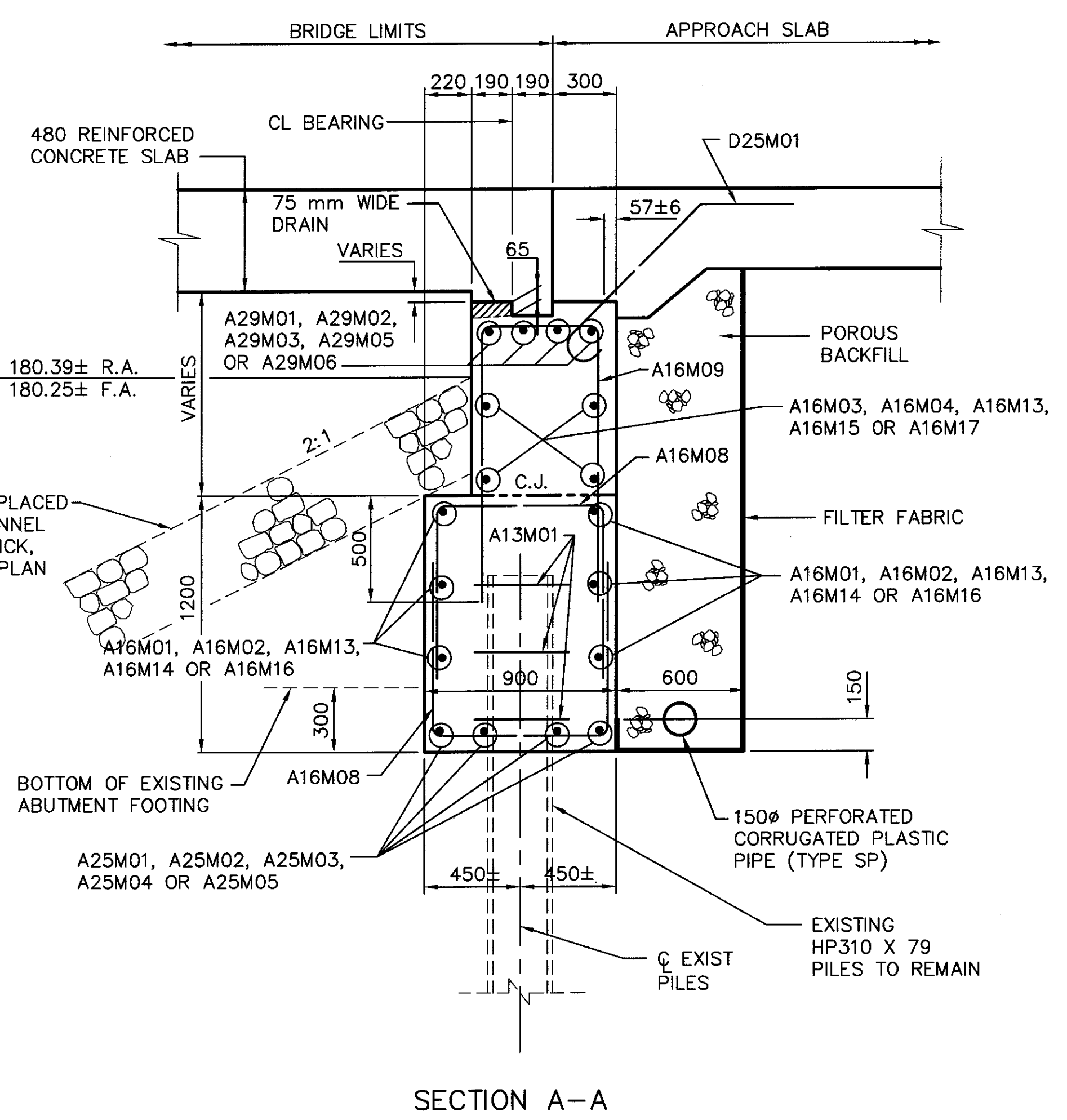
SITE PLAN
 BRIDGE NO. ERI-2-24430 (1518) L & R
 OVER SAW MILL CREEK

ERI-2-12.558

ESTIMATED QUANTITIES

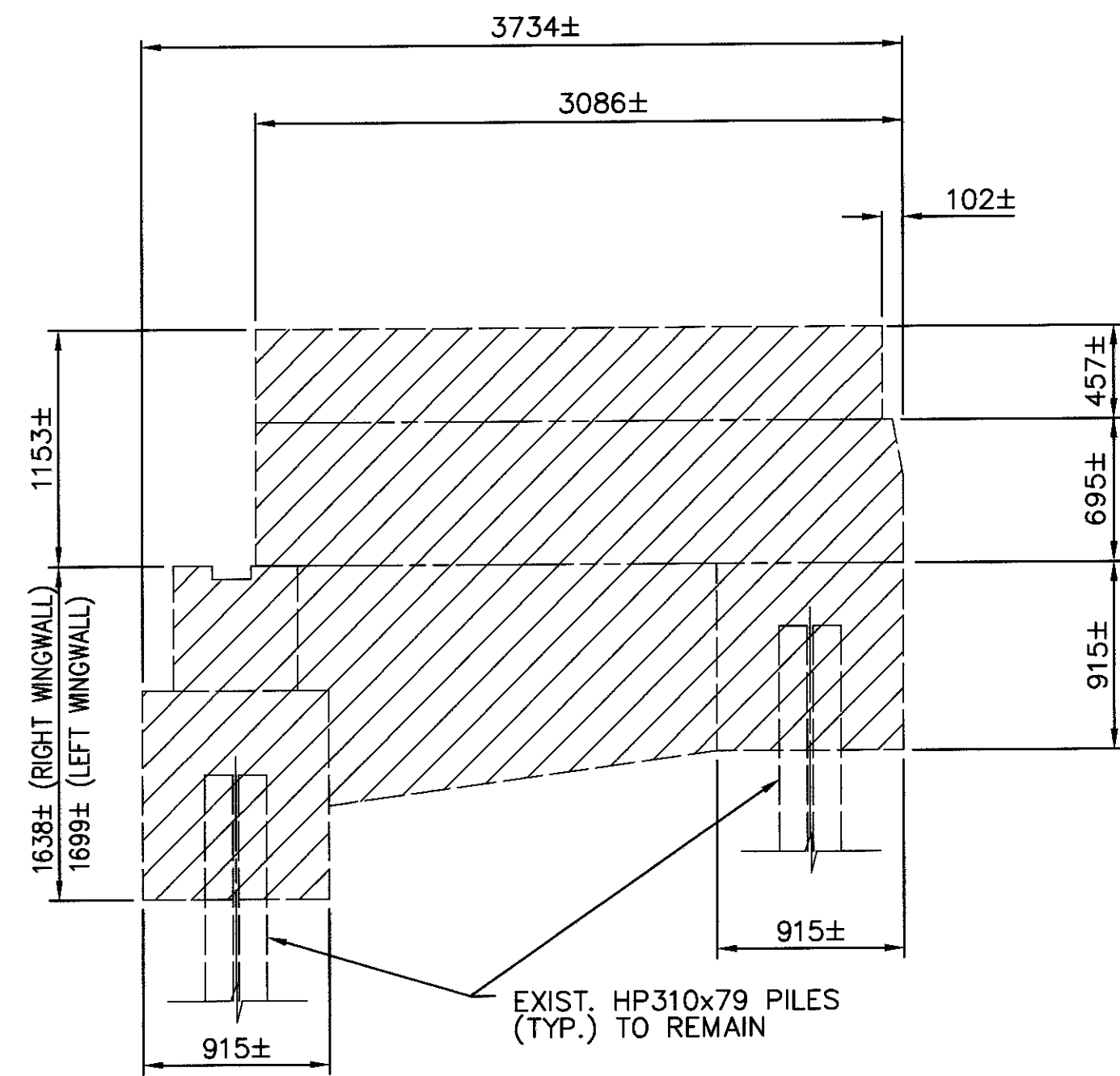
ITEM	ITEM EXT.	TOTAL LEFT BRIDGE	TOTAL RIGHT BRIDGE	UNIT	DESCRIPTION	AS PER PLAN SHEET #	SUPER		ABUTMENTS				GENERAL
							LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. R.A.	
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6 METER SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	
503	11100	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING								LUMP
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION				LUMP	LUMP	LUMP	LUMP	
512	44400	2	2	SQ METER	TYPE B WATERPROOFING				1	1	1	1	
SPECIAL	51267510	216	216	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		204	204	6	6	6	6	
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324			LUMP	LUMP	LUMP	LUMP	
518	40000	43	34	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE				21	17	22	17	
518	40010	12	12	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS				6	6	6	6	
842	43501	69	54	CU METER	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN	325			34	27	35	27	
844	48001	300	232	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN, MIX 4	325	300	232					
844	48021	20	20	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET), AS PER PLAN, MIX 4	325	20	20					
844	49000			LUMP	HIGH PERFORMANCE CONCRETE TRIAL MIX		LUMP	LUMP					
844	49010			LUMP	HIGH PERFORMANCE CONCRETE TESTING		LUMP	LUMP					

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24430\24430A.S.DWG 5-21-99 3:08:23 pm EST

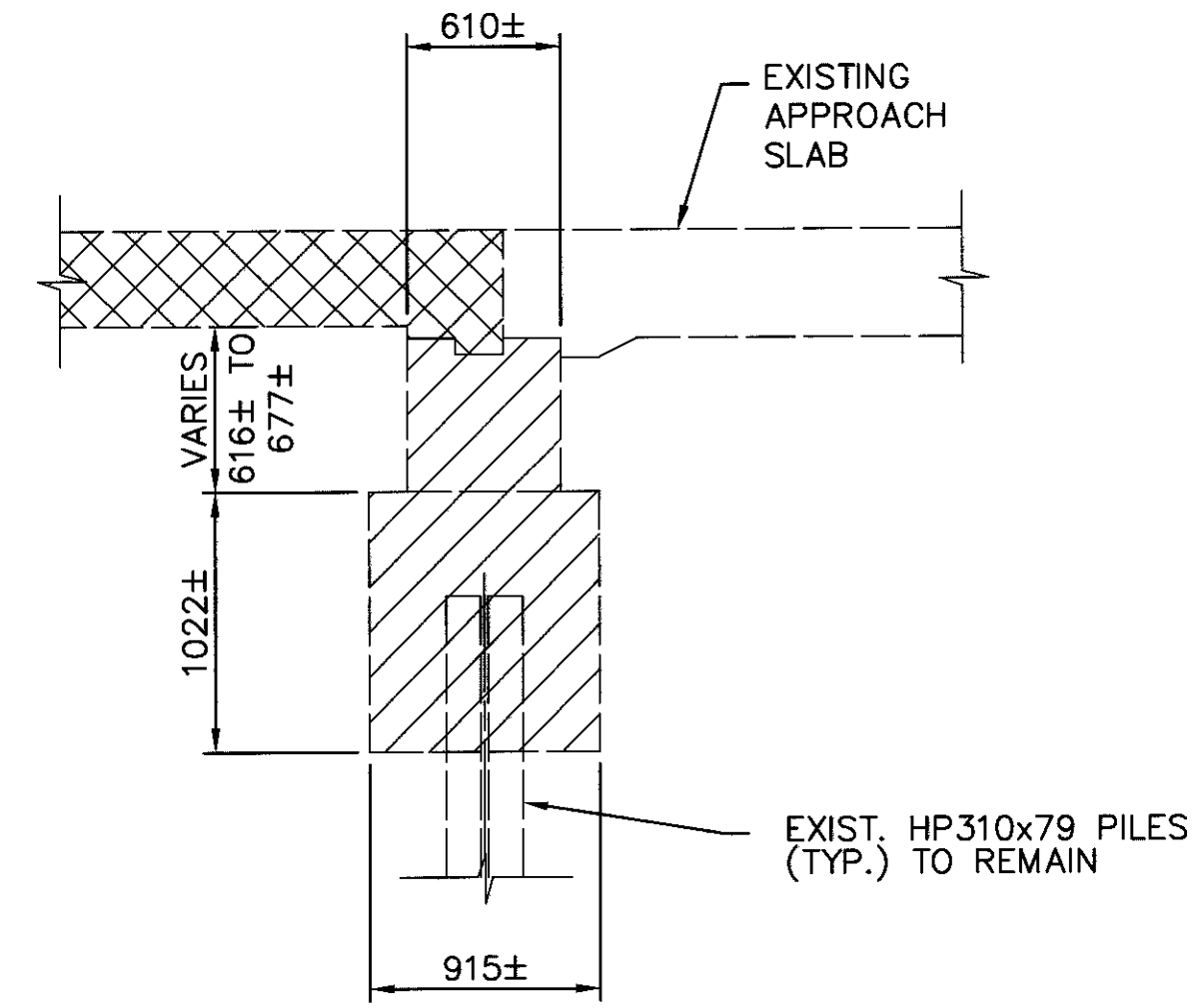


NOTES:
 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.
 SEE SHEET 4/11 FOR ABUTMENT PLAN AND ELEVATIONS.

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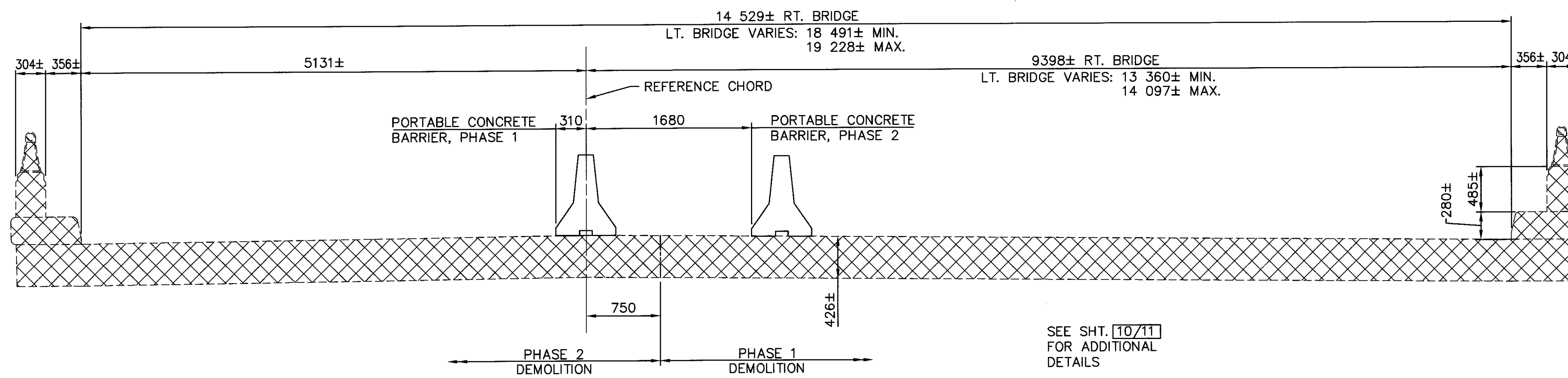


WINGWALL SECTION



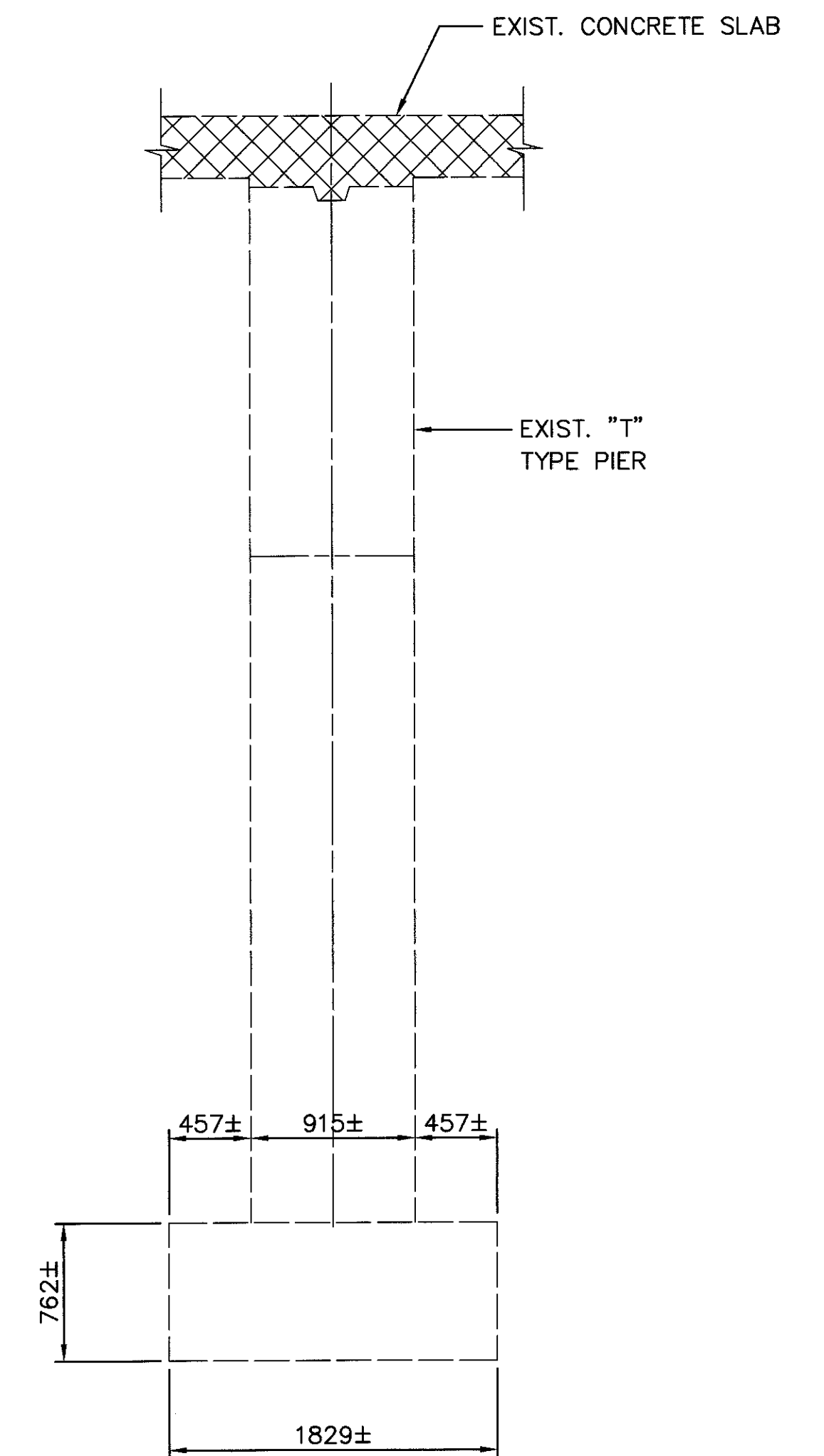
ABUTMENT SECTION

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUPERSTRUCTURE)



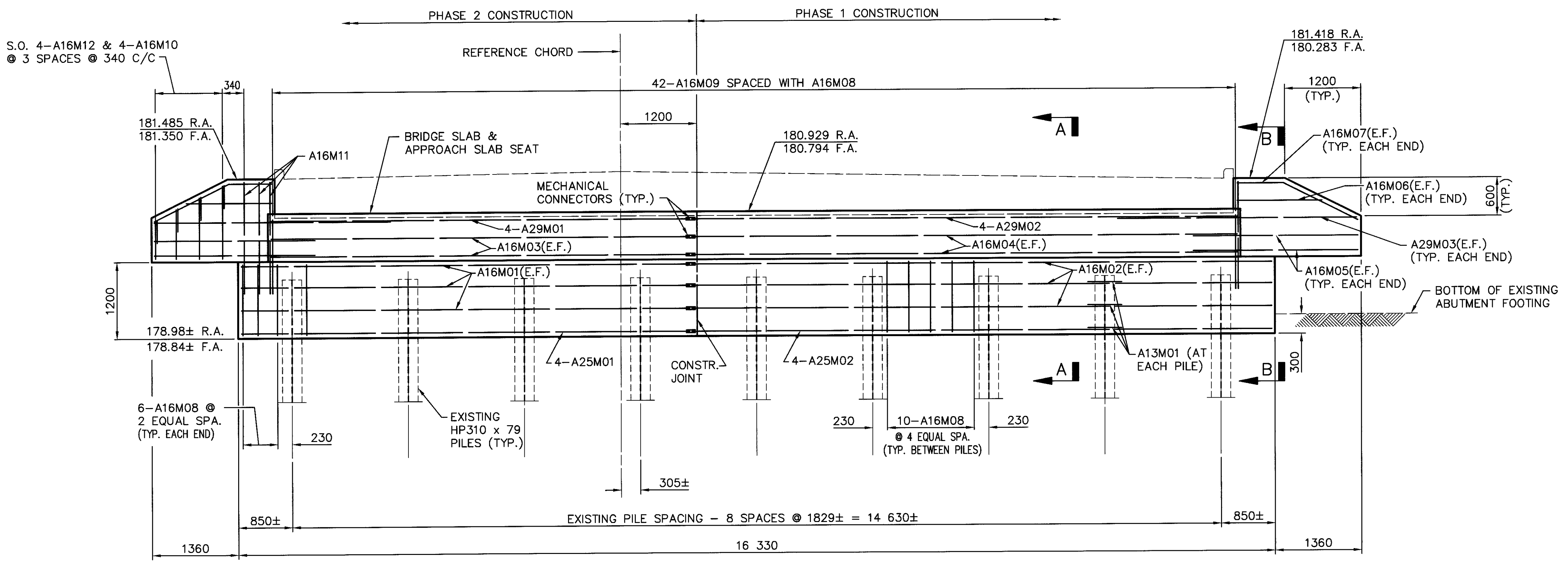
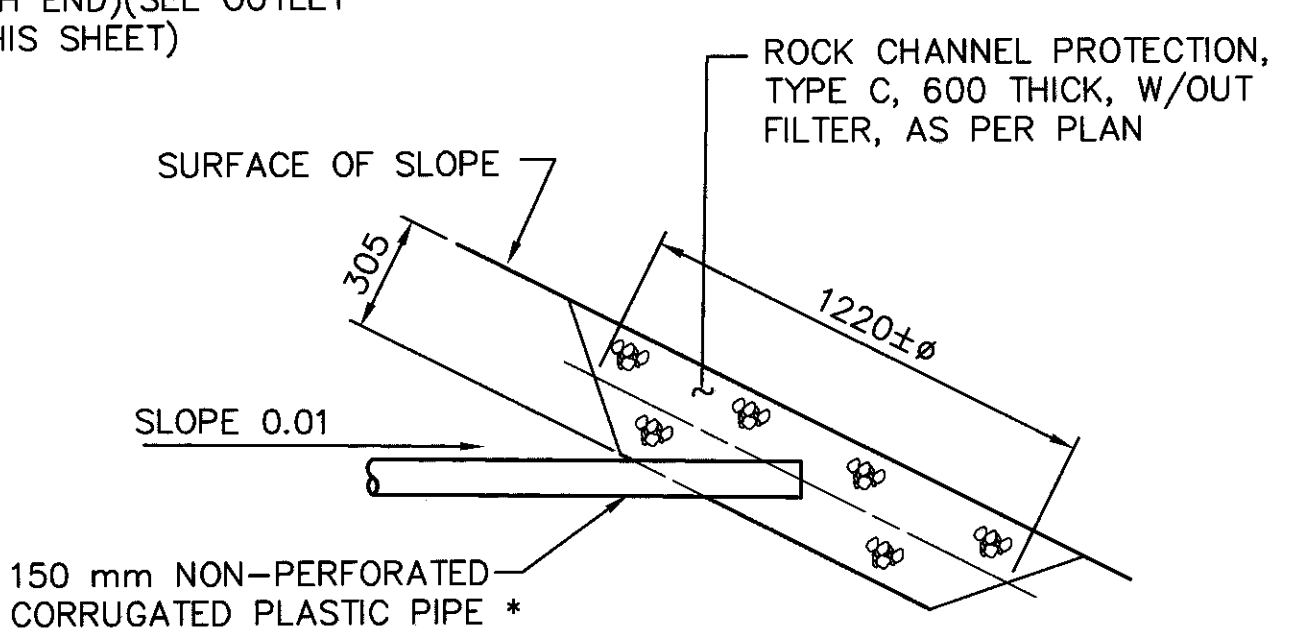
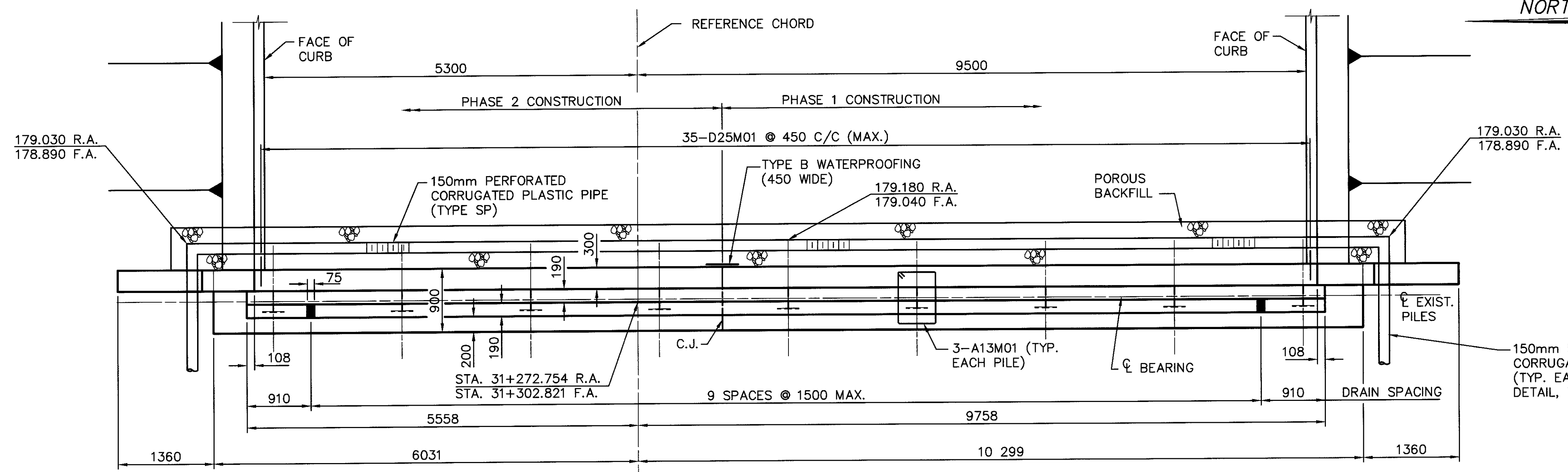
TRANSVERSE SECTION (LOOKING IN DIRECTION OF TRAFFIC)

SEE SHT. 10/11 FOR ADDITIONAL DETAILS



PIER SECTION

DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAV	REVISED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2201143& 2201178
DATE	10-97		



LEGEND
 R.A. = REAR ABUTMENT
 F.A. = FORWARD ABUTMENT
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 RCP = ROCK CHANNEL PROTECTION
 P.E.J.F. = PERFORMED EXPANSION JOINT FILLER

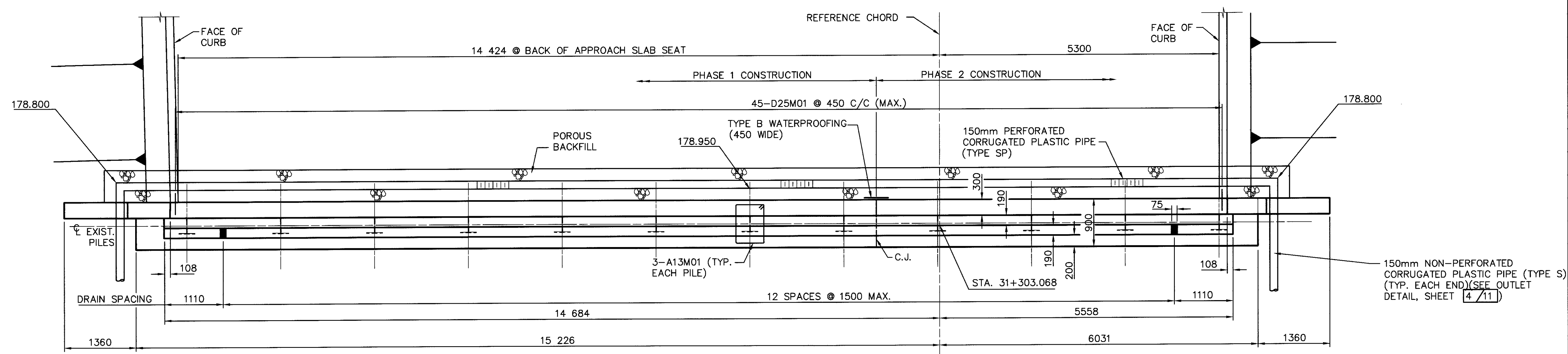
ALL NEW REINF. BARS SHALL BE EPOXY COATED

NOTE: LAP #16M BARS 740
 LAP #25M BARS 1400
 LAP #29M BARS 1880
 UNLESS OTHERWISE NOTED

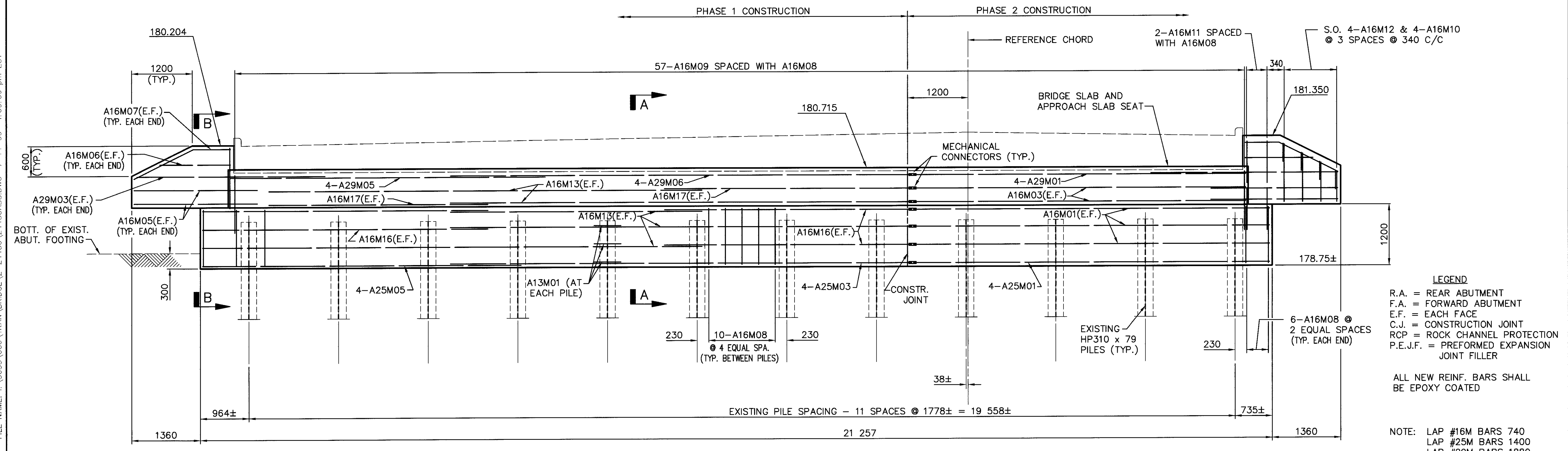
SEE SHEET 2/11 FOR SECTIONS

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24430\24430AB1.DWG 7-14-99 3:45:53 pm EST
 PLOTTED: KJB

NORTH



NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



LEGEND

R.A. = REAR ABUTMENT
 F.A. = FORWARD ABUTMENT
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 RCP = ROCK CHANNEL PROTECTION
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

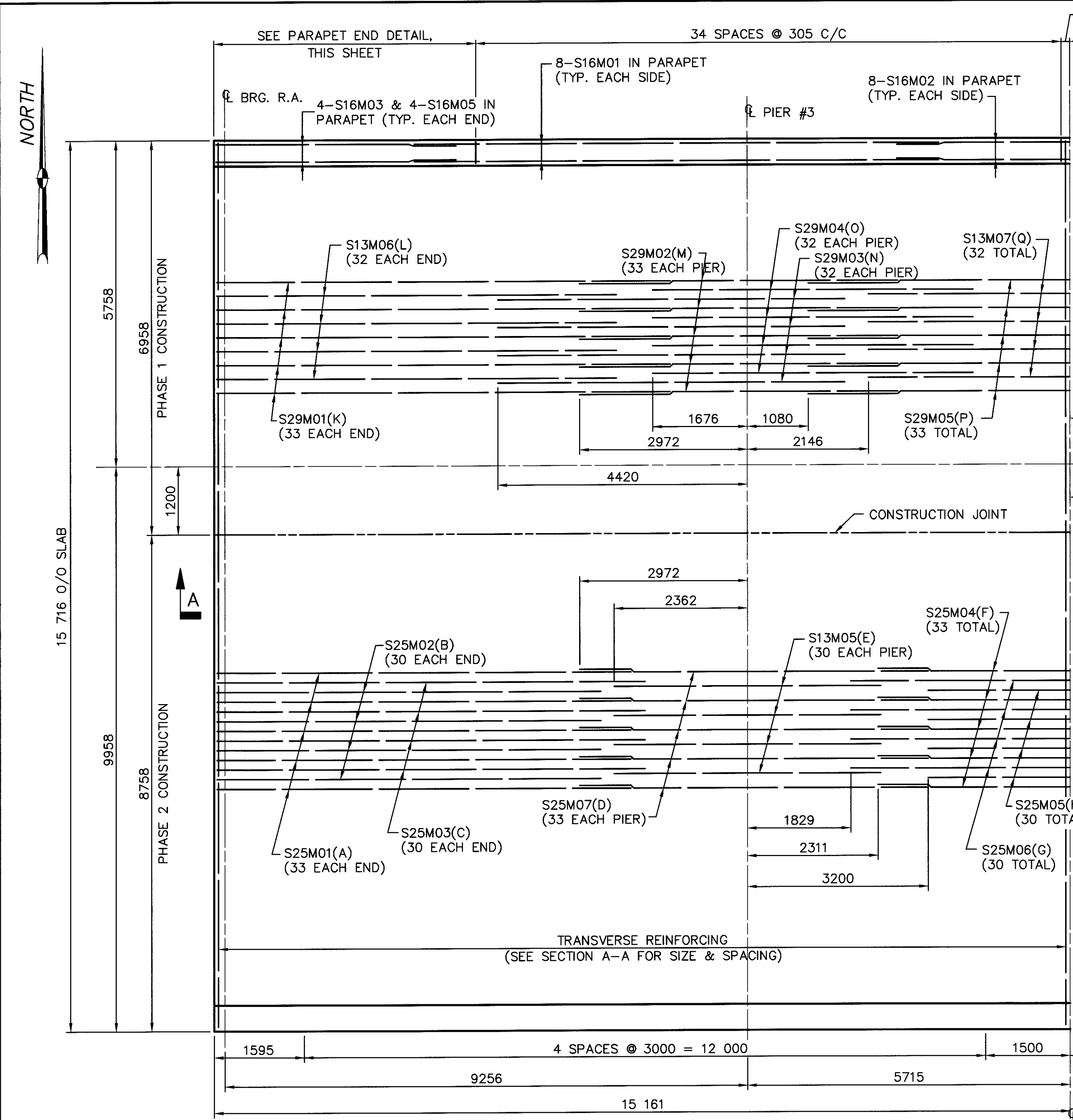
ALL NEW REINF. BARS SHALL BE EPOXY COATED

NOTE: LAP #16M BARS 740
 LAP #25M BARS 1400
 LAP #29M BARS 1880
 UNLESS OTHERWISE NOTED

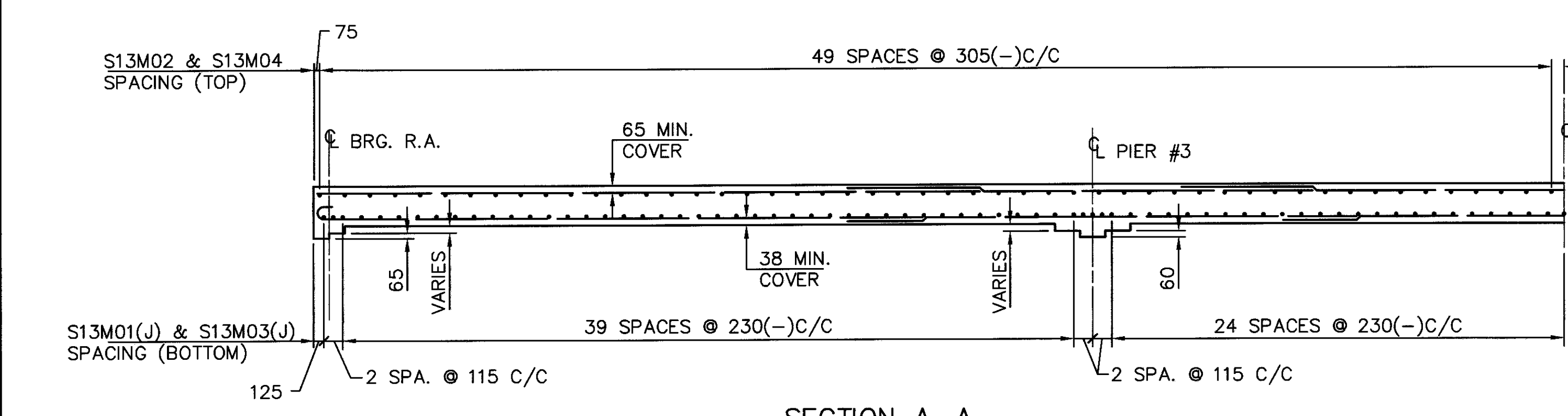
SEE SHEET 2/11 FOR SECTIONS

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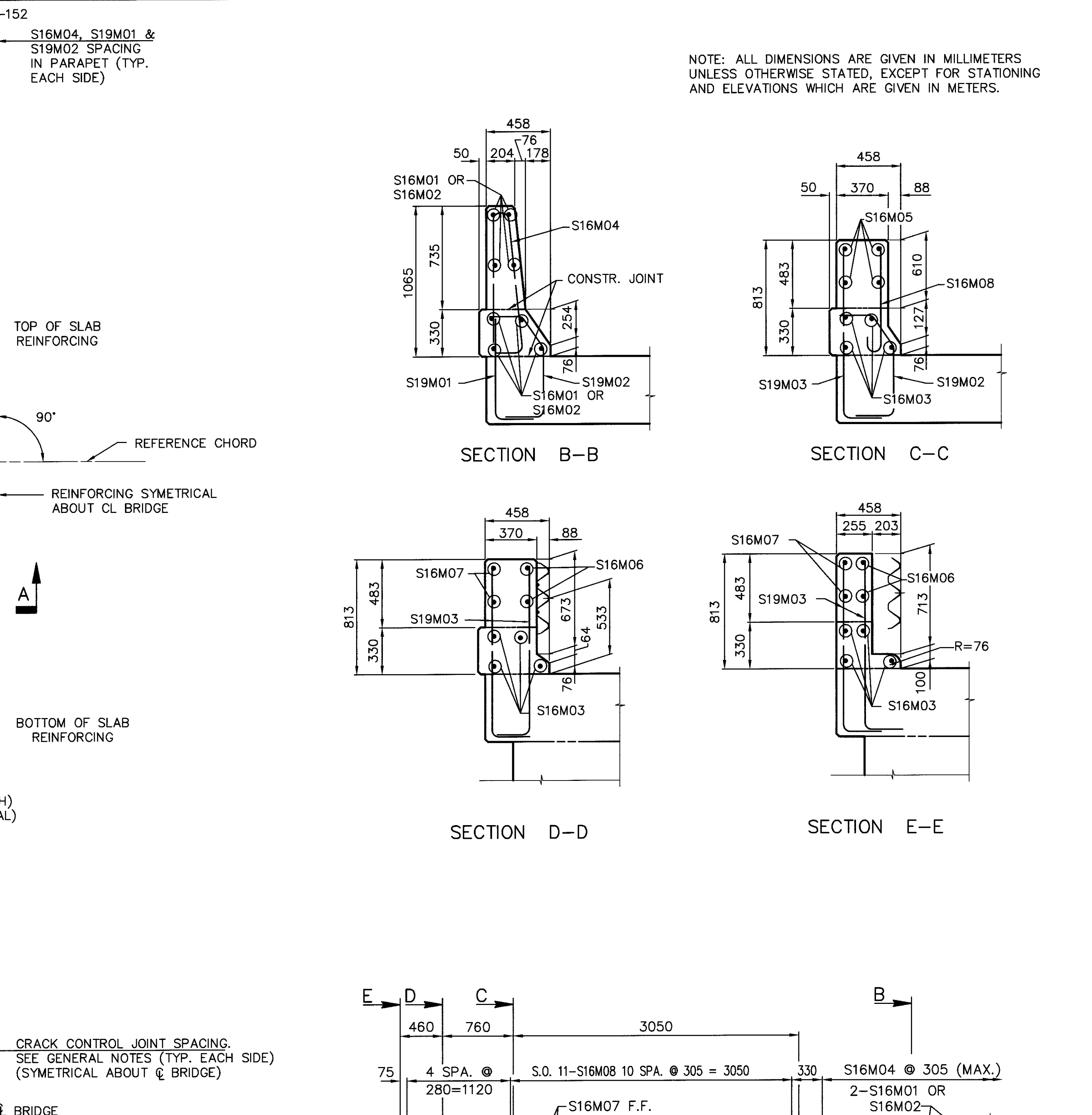
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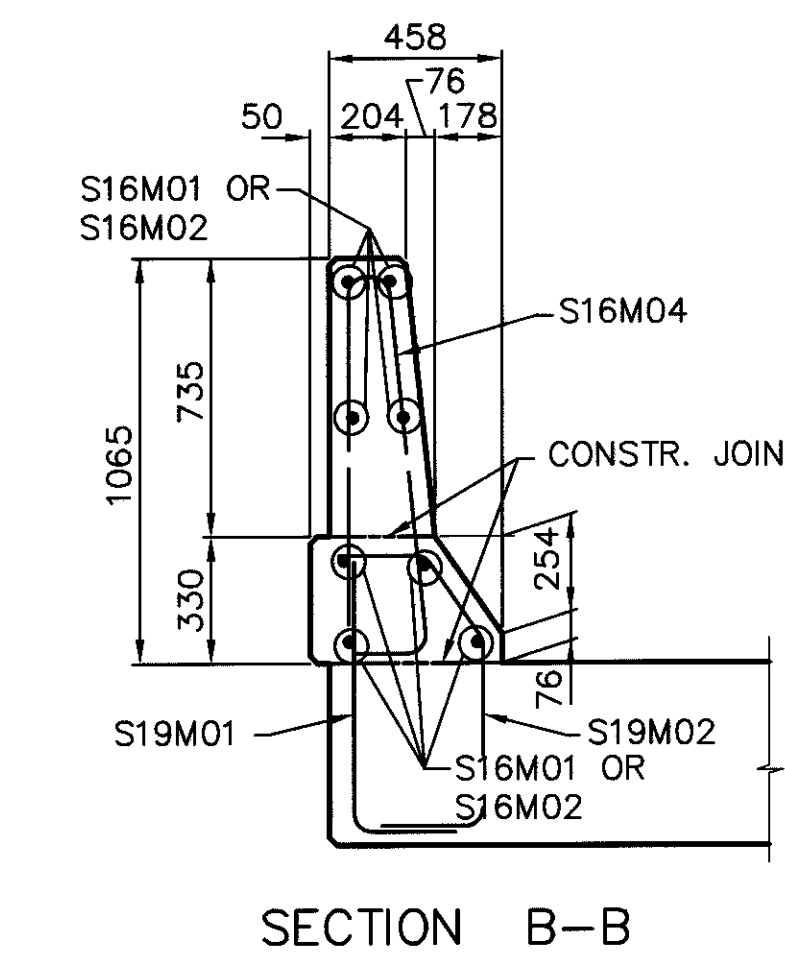
RIGHT BRIDGE - PLAN



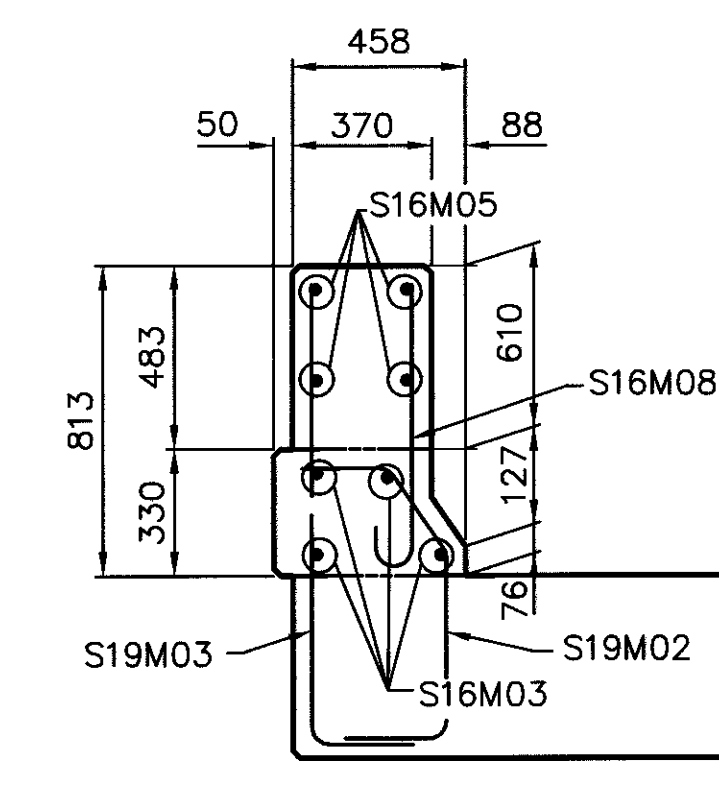
SECTION A-A



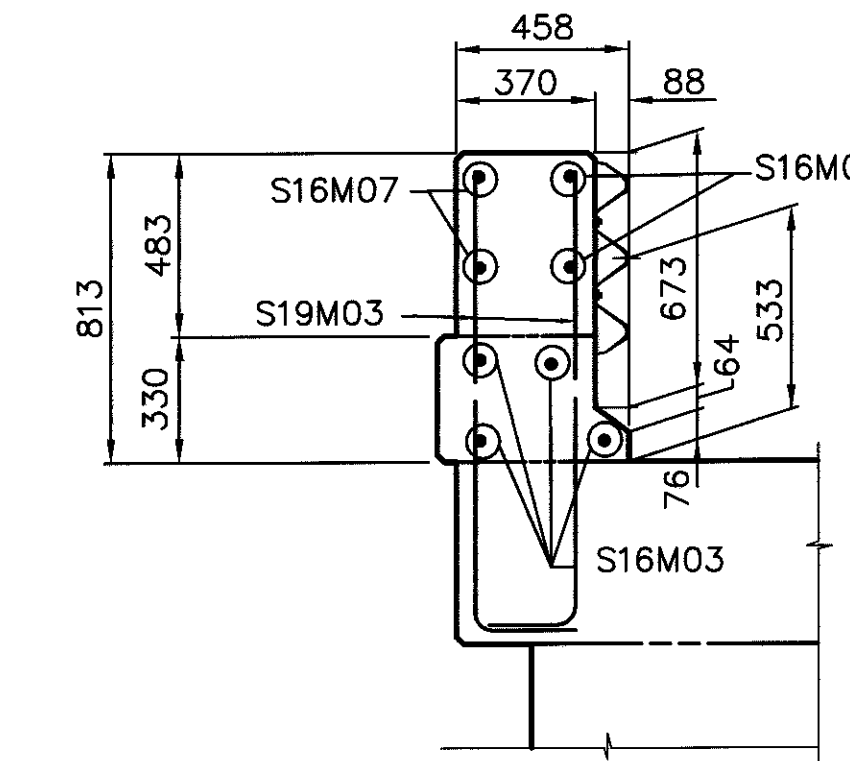
PARAPET END DETAIL - ELEVATION



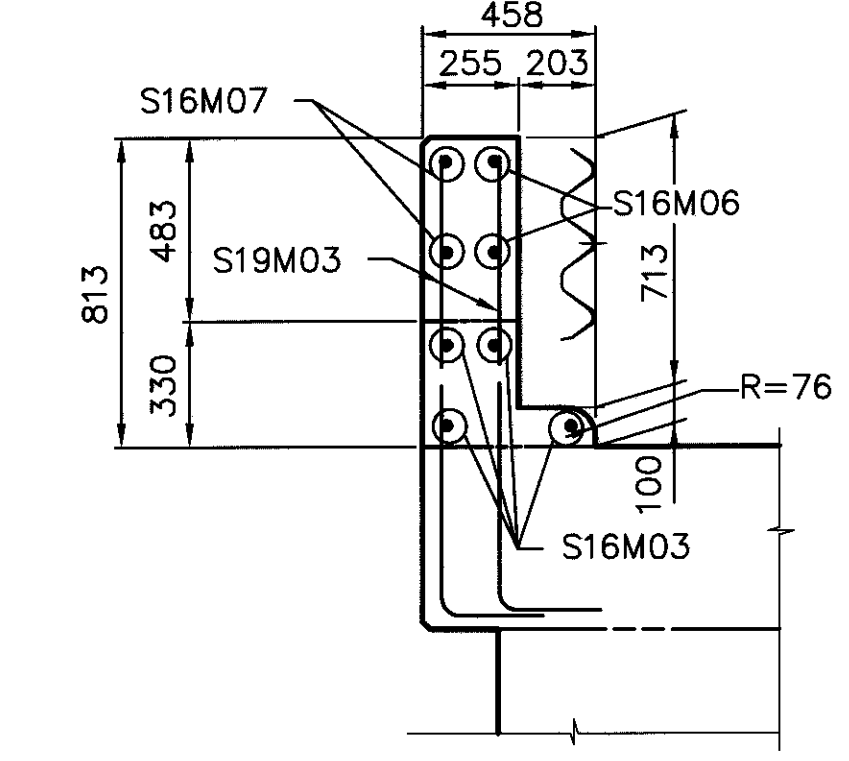
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

DESIGN AGENCY: **POGGEMEYER DESIGN GROUP, INC.**
 ARCHITECTS & ENGINEERS & PLANNERS
 1188 NORTH MAIN STREET
 BOULDER CREEK, OHIO 43084

DATE: 10-97
 REVIEWED: G.A.B.
 DRAWN: RAN
 CHECKED: J.T.Y.
 DESIGNED: M.E.M.

STRUCTURE FILE NUMBER: 2201143 & 2201178

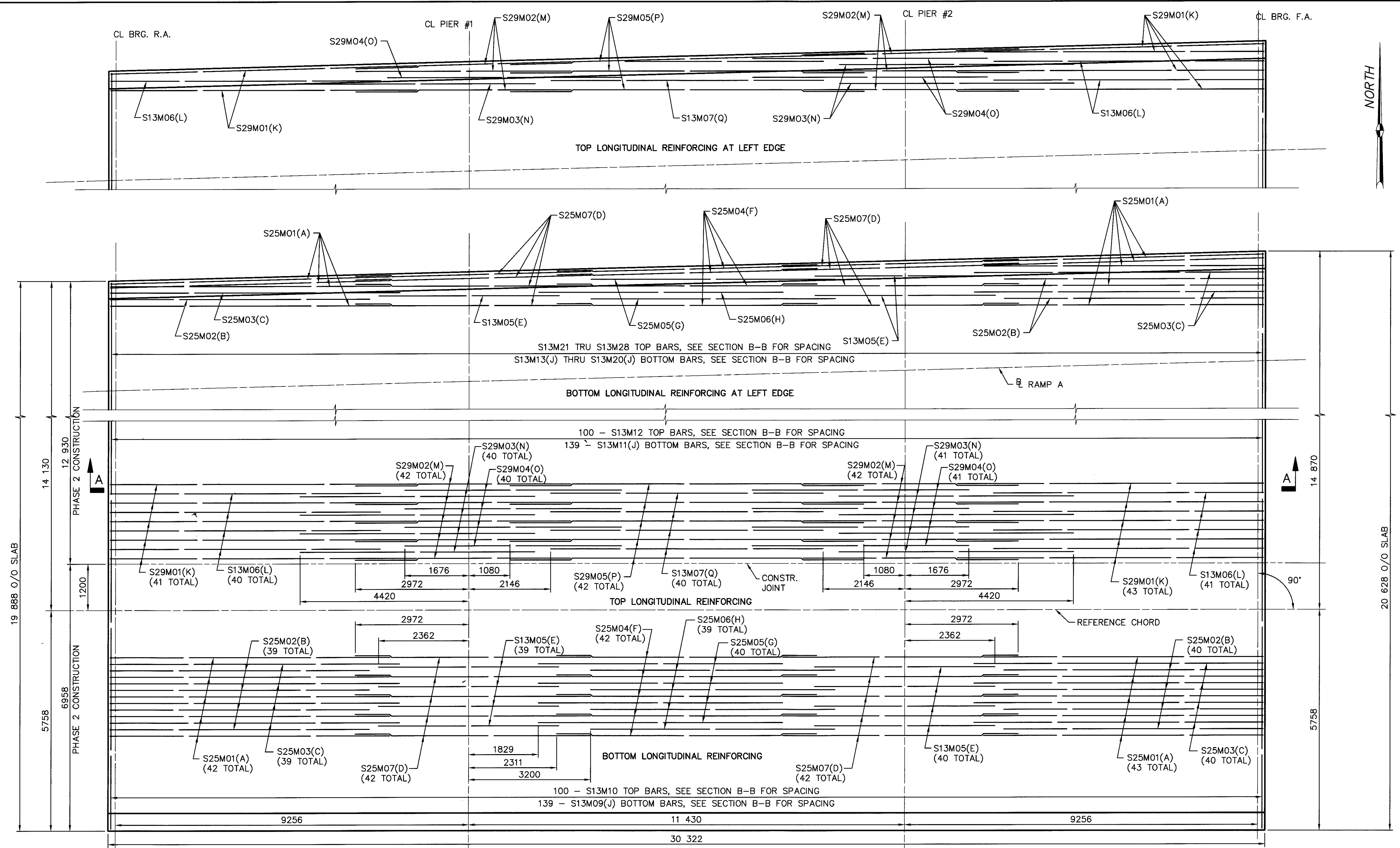
SUPERSTRUCTURE PLAN AND SECTION
 BRIDGE NO. ERI-2-24430 (1518) L & R
 OVER SAW MILL CREEK

ERI-2-12.558

8 / 11

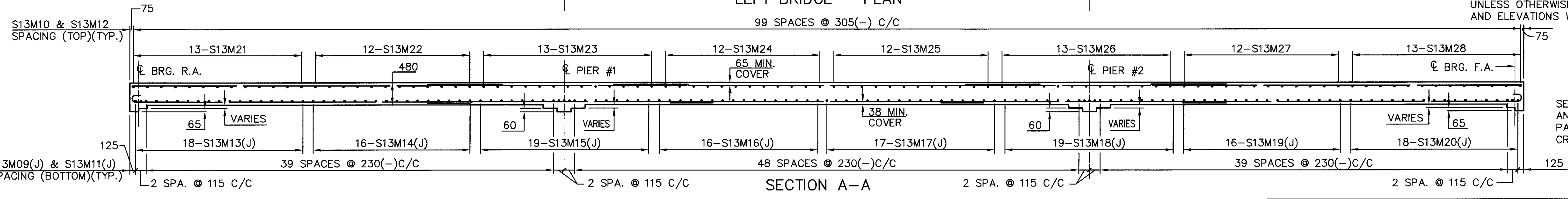
NOTE: LAP #16M BARS 740

FILE NAME: I:\5033\006\TRAIN\BRIDGE\2-24430\24430ST1.DWG 7-14-99 4:42:34 pm EST



LEFT BRIDGE - PLAN

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



SEE LEFT SUPERSTRUCTURE PLAN AND SECTION SH. [8/11] FOR PARAPET REINFORCING & PARAPET CRACK CONTROL JOINT SPACING

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
BOWLING GREEN, OHIO 43402

DATE	10-97
REVIEWED	G.A.B.
DRAWN	RAM
DESIGNED	J.T.Y.
CHECKED	M.E.M.
STRUCTURE FILE NUMBER	2207143 & 2207178

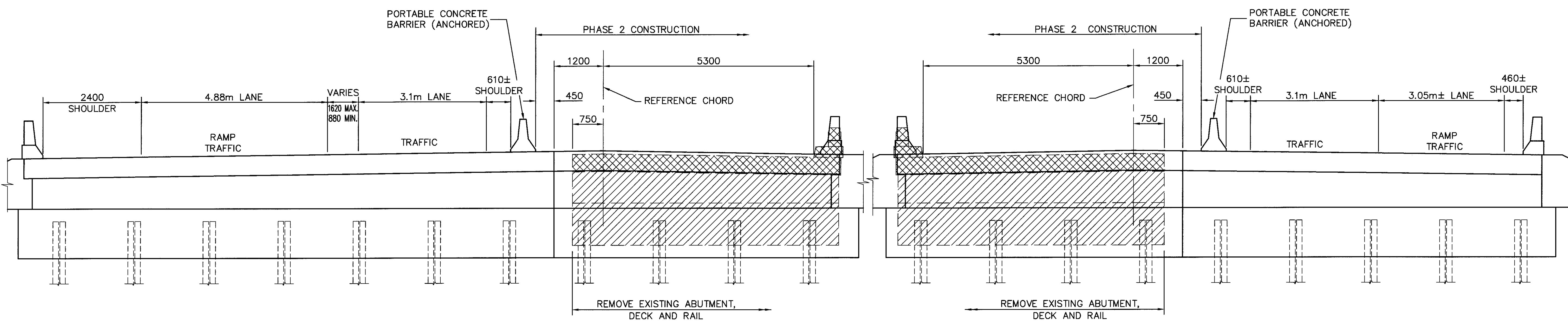
SUPERSTRUCTURE PLAN AND SECTION
BRIDGE NO. ERI-2-24430 (151/8) L & R
OVER SAW MILL CREEK

ERI-2-12.558

9 / 11

409
432

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24430\24430SC.DWG 7-14-99 4:47:54 pm EST

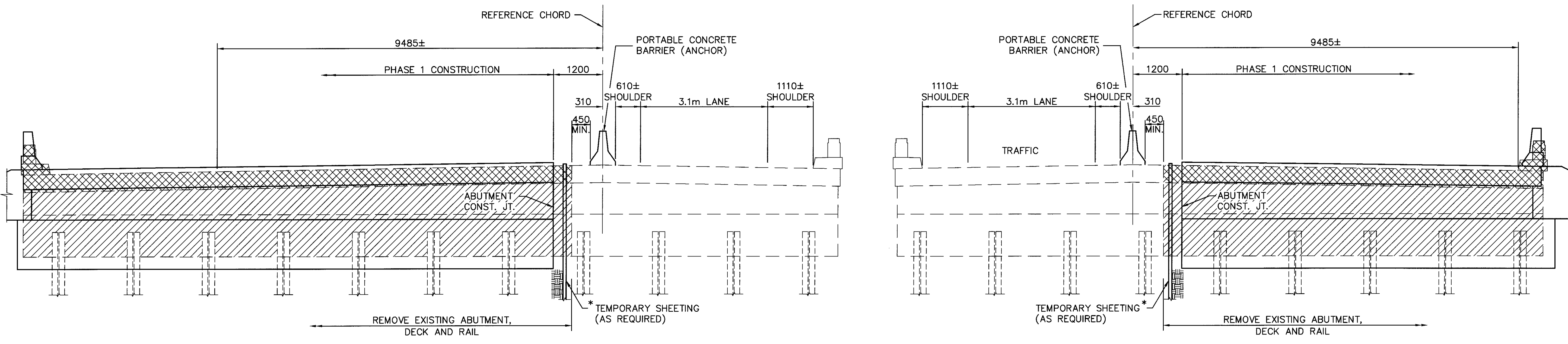


LEFT BRIDGE

RIGHT BRIDGE

PHASE 2

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUPERSTRUCTURE)



LEFT BRIDGE

RIGHT BRIDGE

PHASE 1

* PORTIONS OF TEMPORARY SHEETING UNDER THE APPROACH SLAB (150mm MIN. CLEARANCE) MAY REMAIN IN PLACE AT THE DIRECTION OF THE ENGINEER.

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1108 NORTH MAIN STREET
BOULDER, CO 80502

DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REVIEWED	
REVIEWED	G.A.B.	DATE	10-97
STRUCTURE FILE NUMBER	2201143 & 2201178		

STAGED CONSTRUCTION
BRIDGE NO. ERI-2-24430 (1518) L & R
OVER SAW MILL CREEK

ERI-2-12.558

10/11

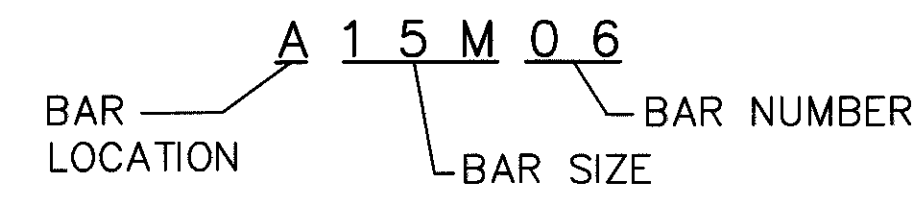
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432

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24430\24430SR.DWG 7-14-99 4:59:05 pm EST

MARK	TOTAL	SUPER		ABUTMENTS				LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.								
S13M01(J)	139		139					8800	S	8800					
S13M02	100		100					8800	S	8800					
S13M03(J)	139		139					6800	S	6800					
S13M04	100		100					6800	S	6800					
S13M05(E)	139	79	60					4724	S	4724					
S13M06(L)	145	81	64					7076	S	7076					
S13M07(Q)	72	40	32					7137	S	7137					
S13M08(U)	556	278	278					1028	1	380	328	380			
S13M09(J)	139	139						6800	S	6800					
S13M10	100	100						6800	S	6800					
S13M11(J)	139	139						9144	S	9144					
S13M12	100	100						9144	S	9144					
S13M13(J)	18	18						4480	S	4480					
S13M14(J)	16	16						4585	S	4585					
S13M15(J)	19	19						4690	S	4690					
S13M16(J)	16	16						4795	S	4795					
S13M17(J)	17	17						4900	S	4900					
S13M18(J)	19	19						5005	S	5005					
S13M19(J)	16	16						5110	S	5110					
S13M20(J)	18	18						5215	S	5215					
S13M21	13	13						4480	S	4480					
S13M22	12	12						4585	S	4585					
S13M23	13	13						4690	S	4690					
S13M24	12	12						4795	S	4795					
S13M25	12	12						4900	S	4900					
S13M26	13	13						5005	S	5005					
S13M27	12	12						5110	S	5110					
S13M28	13	13						5215	S	5215					
S16M01	64	32	32					9144	S	9144					
S16M02	32	16	16					6422	S	6422					
S16M03	32	16	16					4170	S	4170					
S16M04	280	140	140					2130	9	205	990	915			
S16M05	32	16	16					3050	S	3050					
S16M06	16	8	8					1725	11	555	738	432	38	127	
S16M07	16	8	8					1725	S	1725					
S16M08	8	4	4					920	10	740					
S16M08	SER. OF	SER. OF	SER. OF					TO		TO					25
	11	11	11					1170	10	990					
S19M01	280	140	140					915	5	685	280				
S19M02	368	184	184					1014	8	125	465	216	152	230	
S19M03	88	44	44					1400	5	1170	280				
S25M01(A)	151	85	66					7330	S	7330					
S25M02(B)	139	79	60					7582	S	7582					
S25M03(C)	139	79	60					6720	10	6440					
S25M04(F)	75	42	33					6807	S	6807					
S25M05(G)	70	40	30					6401	S	6401					
S25M06(H)	69	39	30					6401	S	6401					
S25M07(D)	150	84	66					6172	S	6172					
S29M01(K)	150	84	66					8142	S	8142					
S29M02(M)	150	84	66					5639	S	5639					
S29M03(N)	145	81	64					6147	S	6147					
S29M04(O)	145	81	64					6147	S	6147					
S29M05(P)	75	42	33					9271	S	9271					

MARK	TOTAL	SUPER		ABUTMENTS				LENGTH	TYPE	A	B	C	D	E	INCR					
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.													
A13M01	123							33	27	36	27			2660	14	530	730			
A16M01	24							6	6	6	6			7080	S	7080				
A16M02	12							6	6	6	6			9144	S	9144				
A16M03	16							4	4	4	4			6610	S	6610				
A16M04	8							4	4	4	4			8610	S	8610				
A16M05	32							8	8	8	8			2300	S	2300				
A16M06	16							4	4	4	4			1330	S	1330				
A16M07	16							4	4	4	4			2062	2	600	1200	730		
A16M08	418							112	92	122	92			2540	1	910	800	910		
A16M09	195							54	42	57	42			2780	1	1140	580	1140		
A16M10	32							8	8	8	8			840	1	360	200	360		
A16M11	22							6	6	4	6			3620	1	1750	200	1750		
A16M11	8							2	2	2	2			1320	1	600	200	600		
A16M12	SER. OF							SER. OF	SER. OF	SER. OF	SER. OF			TO		TO	TO			158
	4							4	4	4	4			2270	1	1075	200	1075		
A16M13	20							10	10	10	10			9144	S	9144				
A16M14	6							6	6	6	6			4880	S	4880				
A16M15	4							4	4	4	4			4340	S	4340				
A16M16	6							6	6	6	6			5650	S	5650				
A16M17	4							4	4	4	4			5110	S	5110				
A25M01	16							4	4	4	4			7080	S	7080				
A25M02	8							4	4	4	4			9144	S	9144				
A25M03	8							4	4	4	4			9144	S	9144				
A25M04	4							4	4	4	4			5540	S	5540				
A25M05	4							4	4	4	4			6310	S	6310				
D25M01	159							44	35	45	35			1851	12	1150	305			
A29M01	16							4	4	4	4			6610	S	6610				
A29M02	8							4	4	4	4			8610	S	8610				
A29M03	16							4	4	4	4			3700	S	3700				
A29M04	4							4	4	4	4			5500	S	5500				
A29M05	4							4	4	4	4			6250	S	6250				
A29M06	8							4	4	4	4			9144	S	9144				

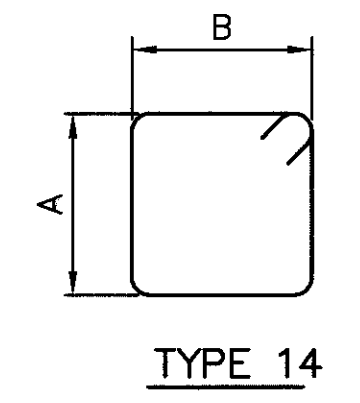
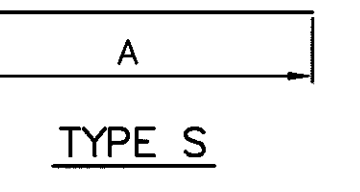
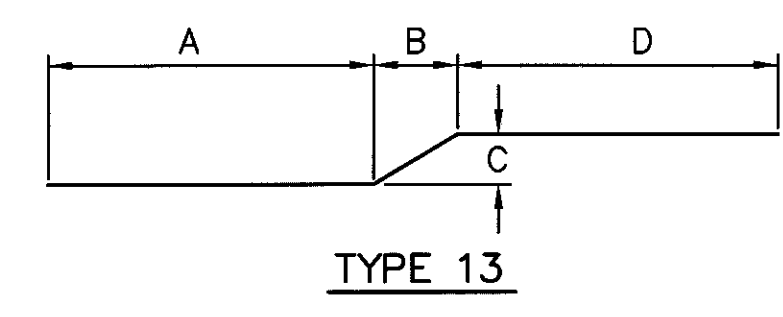
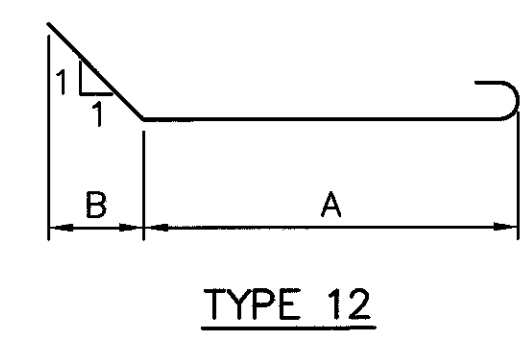
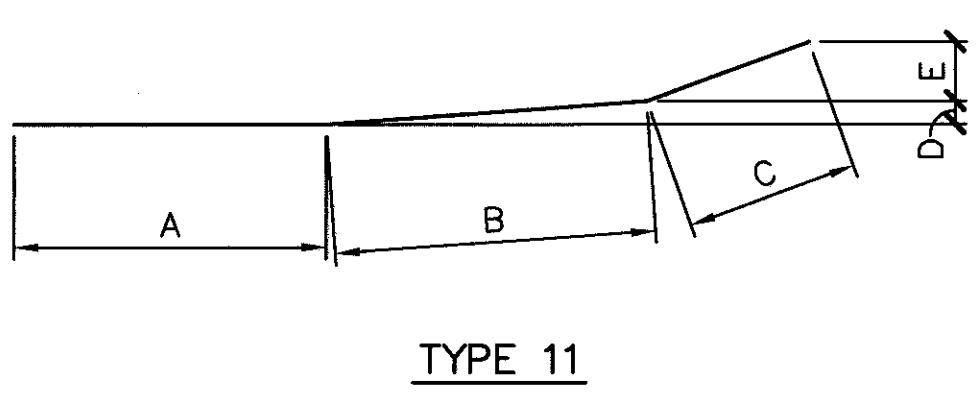
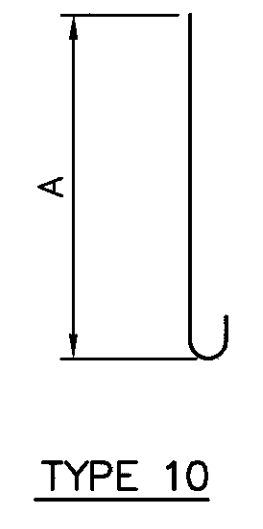
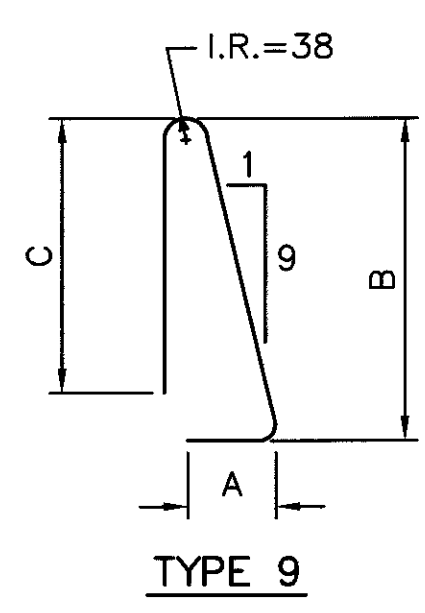
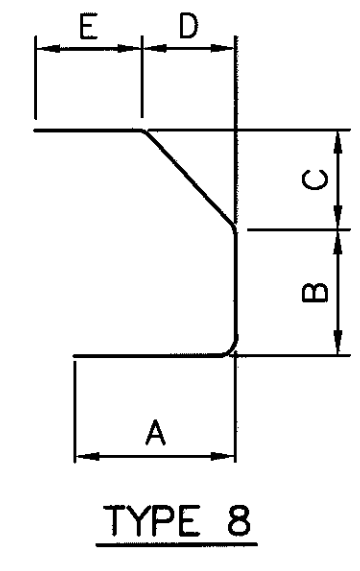
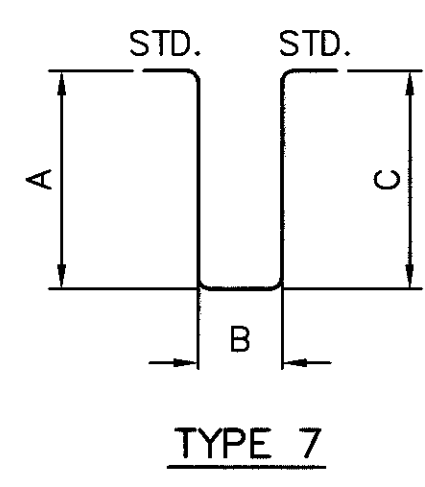
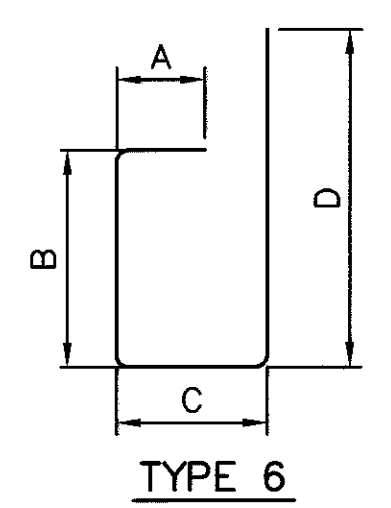
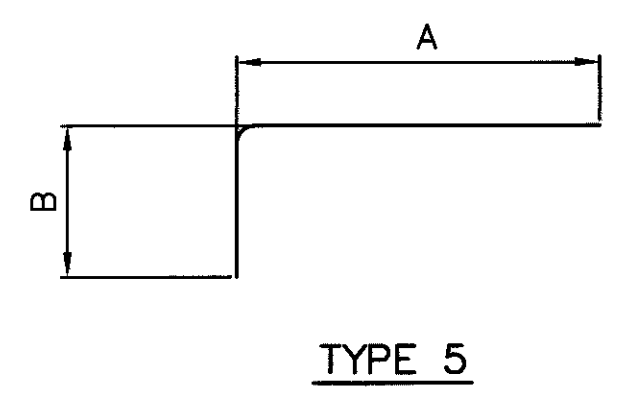
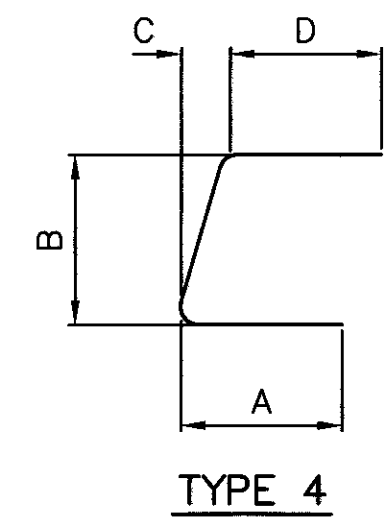
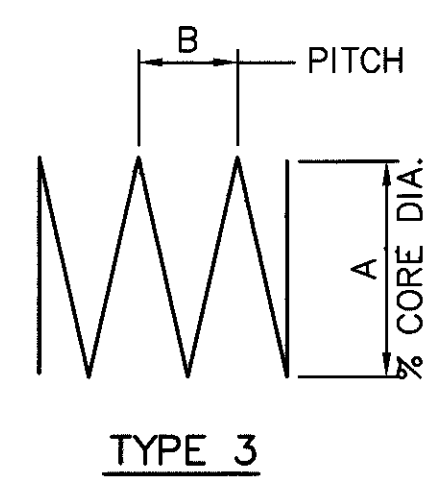
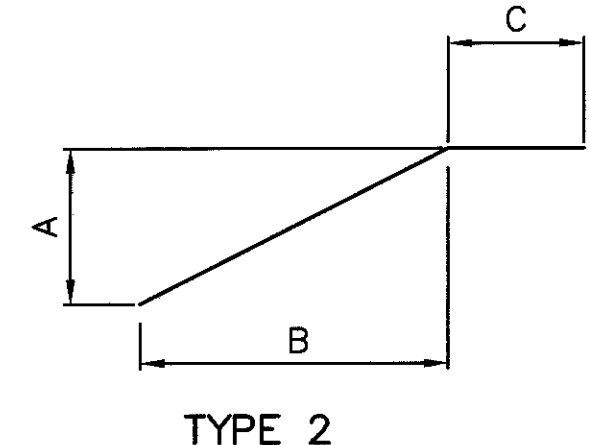
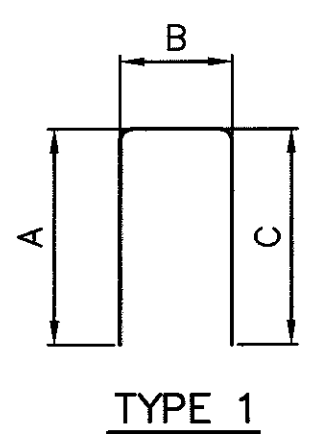
BAR LEGEND



- A - ABUTMENT
- DS - DRILLED SHAFT
- P - PIER
- S - SUPERSTRUCTURE
- D - APPROACH SLAB
- SP - SPIRAL BAR

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.



DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
BIRMINGHAM, ALABAMA

DATE
10-97
REVIEWED
G.A.B.
DRAWN
J.T.Y.
DESIGNED
M.E.M.

BRIDGE NO. ERI-2-24430 (1518) L & R
OVER SAW MILL CREEK

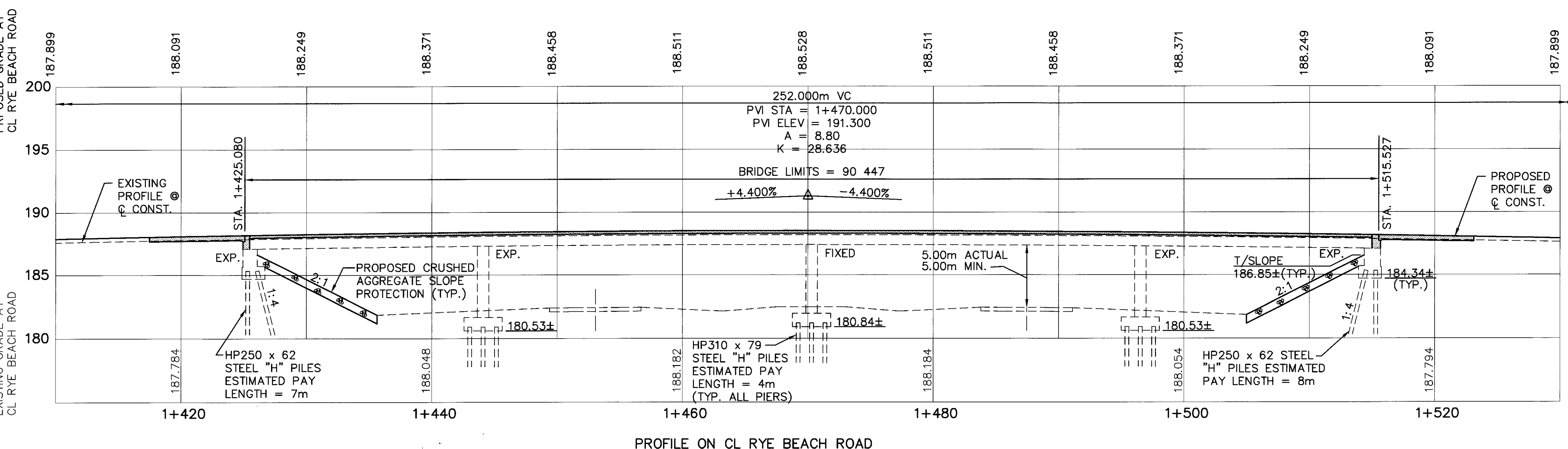
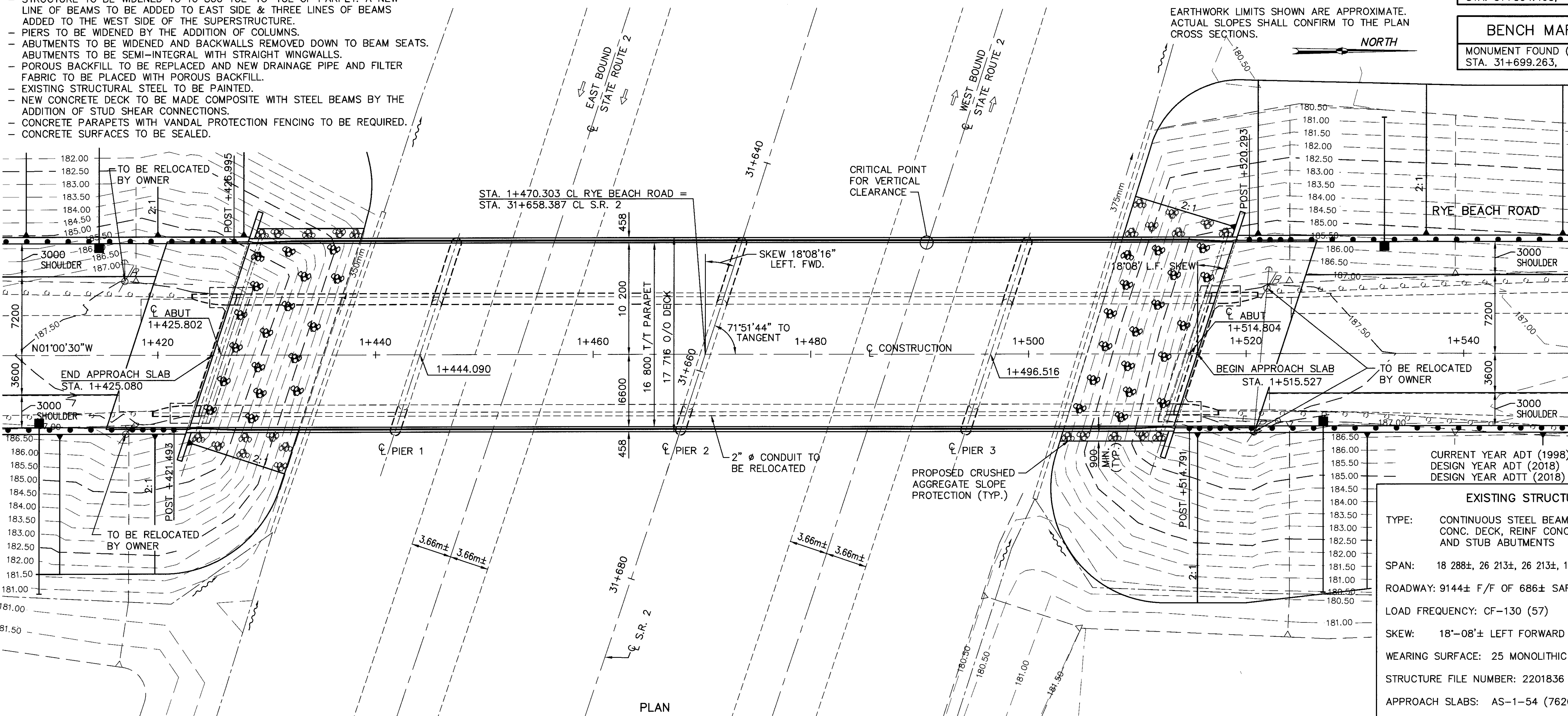
REINFORCING SCHEDULE
2201143 & 2201178

PROPOSED WORK:

- EXISTING CONCRETE DECK AND SCUPPERS TO BE REMOVED
- PROFILE GRADE OF STRUCTURE TO BE RAISED
- STRUCTURE TO BE WIDENED TO 16 800 TOE-TO-TOE OF PARPET. A NEW LINE OF BEAMS TO BE ADDED TO EAST SIDE & THREE LINES OF BEAMS ADDED TO THE WEST SIDE OF THE SUPERSTRUCTURE.
- PIERS TO BE WIDENED BY THE ADDITION OF COLUMNS.
- ABUTMENTS TO BE WIDENED AND BACKWALLS REMOVED DOWN TO BEAM SEATS. ABUTMENTS TO BE SEMI-INTEGRAL WITH STRAIGHT WINGWALLS.
- POROUS BACKFILL TO BE REPLACED AND NEW DRAINAGE PIPE AND FILTER FABRIC TO BE PLACED WITH POROUS BACKFILL.
- EXISTING STRUCTURAL STEEL TO BE PAINTED.
- NEW CONCRETE DECK TO BE MADE COMPOSITE WITH STEEL BEAMS BY THE ADDITION OF STUD SHEAR CONNECTIONS.
- CONCRETE PARAPETS WITH VANDAL PROTECTION FENCING TO BE REQUIRED.
- CONCRETE SURFACES TO BE SEALED.

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

BENCH MARK No. 43
MONUMENT FOUND (P.O.C.)
STA. 31+394.463, ELEV. 180.521
BENCH MARK No. 44
MONUMENT FOUND (P.O.C.)
STA. 31+699.263, ELEV. 181.387



CURRENT YEAR ADT (1998) = 7000	
DESIGN YEAR ADT (2018) = 9200	
DESIGN YEAR ADTT (2018) = 280	
EXISTING STRUCTURE	
TYPE:	CONTINUOUS STEEL BEAM WITH REINF. CONC. DECK, REINF CONC. PIER BENTS AND STUB ABUTMENTS
SPAN:	18 288±, 26 213±, 26 213±, 18 288± C/C BRGS
ROADWAY:	9144± F/F OF 686± SAFETY CURBS
LOAD FREQUENCY:	CF-130 (57)
SKIEW:	18°-08'± LEFT FORWARD
WEARING SURFACE:	25 MONOLITHIC CONCRETE
STRUCTURE FILE NUMBER:	2201836
APPROACH SLABS:	AS-1-54 (7620 LONG)
DATE BUILT:	1961
ALIGNMENT:	TANGENT
PROPOSED STRUCTURE	
PROPOSED WORK: WIDEN SUPERSTRUCTURE & SUB-STRUCTURE W/NEW COMPOSITE REINF. CONCRETE DECK. RAISE STRUCTURE.	
TYPE:	EXIST. & PROPOSED 4 SPAN CONTINUOUS STEEL BEAM COMPOSITE WITH A NEW REINFORCED CONCRETE DECK SUPERSTRUCTURE SUPPORTED BY REHABILITATED & WIDENED REINFORCED CONCRETE ABUTMENTS & PIERS.
SPAN:	18 288, 26 213, 26 213, 18 288 C/C BRG.
ROADWAY:	16 800 T/T PARAPET
LOADING:	MS18 (CASE II) & THE ALTERNATE MILITARY LOAD
SKIEW:	18°08'16\"/>
CROWN:	0.016
WEARING SURFACE:	25 MONOLITHIC CONCRETE
APPROACH SLABS:	AS-1-81M (7600 LONG)
ALIGNMENT:	TANGENT
LONGITUDE:	W-82°33'30\"/>

DESIGN AGENCY: **POGEMEYER DESIGN GROUP, INC.**
 ARCHITECTS + ENGINEERS + PLANNERS
 1108 NORTH MAIN STREET
 BOARDING GREEN, OHIO 44024

DATE: 8-97
 C.A.B.:
 DRAWN: RAM
 CHECKED: M.E.M.
 STRUCTURE FILE NUMBER: 2201836

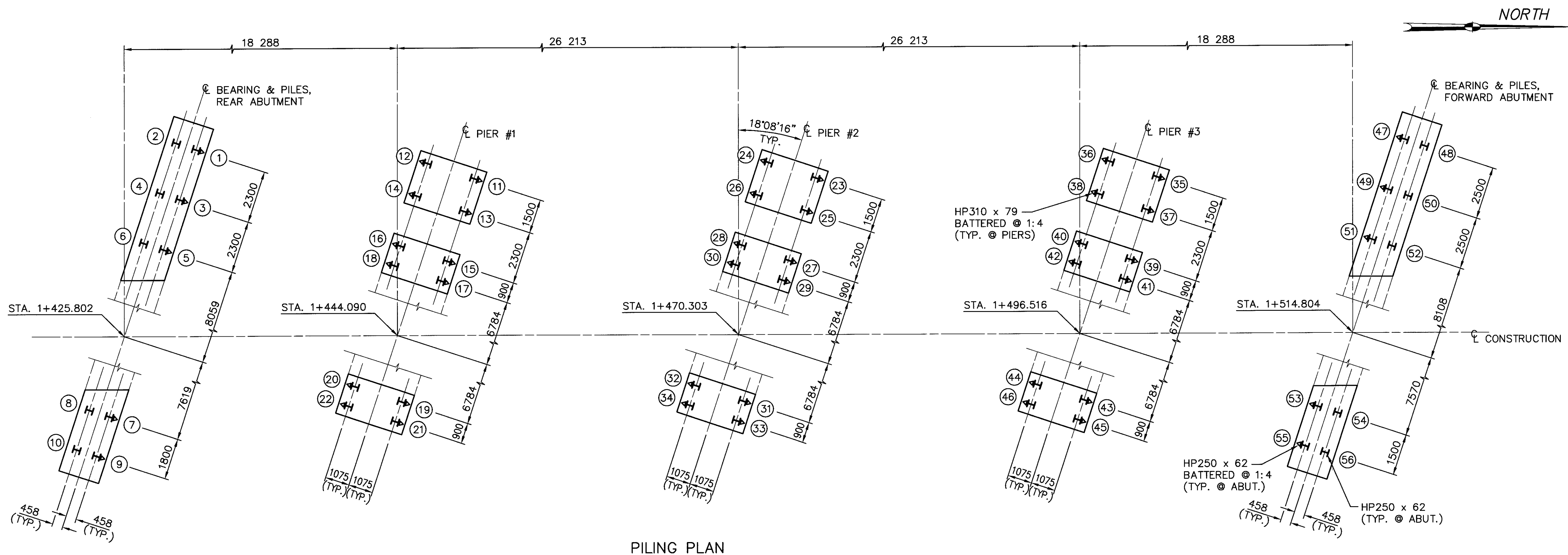
ERIE COUNTY
 STA. 1+425.080
 STA. 1+515.527

SITE PLAN
 BRIDGE NO. ERI-2-24816 (1542)
 UNDER RYE BEACH ROAD

ERI-2-12.558
 1/17
 412
 432

PLOTTED: MAY 21, 1999
 FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24816\24816SP.DWG 5-21-99 3:11:34 pm EST
 J.E.F.

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	AS PER PLAN SHEET #	ABUTMENTS		PIERS			SUPER	GENERAL
						REAR	FWD.	1	2	3		
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6 METER SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION		LUMP	LUMP	LUMP	LUMP	LUMP		
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION								LUMP
507	00100	180	METER	STEEL PILES HP250X62, FURNISHED		85	95					
507	00150	180	METER	STEEL PILES HP250X62, DRIVEN		85	95					
507	00200	198	METER	STEEL PILES HP310X79, FURNISHED				66	66	66		
507	00250	198	METER	STEEL PILES HP310X79, DRIVEN				66	66	66		
507	50500	28	EACH	STEEL PILE SPLICES								28
507	93300	56	EACH	STEEL POINT(OR SHOE)		10	10	12	12	12		
SPECIAL	51267510	829	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		13	13	108	108	108	479	
516	13900	2	SQ METER	51mm PREFORMED EXPANSION JOINT FILLER		1	1					
516	44101	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 69.6mm x 230mm x 355mm PAD AND 38mm x 256mm x 381mm LOAD PLATE	324	9	9					
516	46000	4	EACH	BEARING DEVICE, BOLSTER				4				
516	46200	8	EACH	BEARING DEVICE, ROCKER				4		4		
516	46801	15	EACH	REFURBISH AND RESET BEARING, AS PER PLAN				5	5	5		
516	47000	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE								LUMP
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324	LUMP	LUMP					
518	40000	50	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE		25	25					
518	40010	12	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		6	6					
SPECIAL	60739900	180	METER	VANDAL PROTECTION FENCE, 1.8 METER STRAIGHT, COATED FABRIC							180	
815	00050	2660	SQ. METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU							2660	
815	00056	2660	SQ. METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU							2660	
815	00060	2660	SQ. METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU							2660	
815	00066	2660	SQ. METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU							2660	
815	00504	75	MAN HOUR	GRINDING FINES, TEARS, SLIVERS							75	
815	00508	262	METER	GRINDING FLANGE EDGES							262	
842	31509	473	CU METER	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN	325						473	
842	41001	62	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN	325			21	20	21		
842	44101	80	CU METER	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	325	40	40					
842	46501	100	CU METER	CLASS C CONCRETE, FOOTING, AS PER PLAN	325	20	20	20	20	20		
863	10240	95200	KILOGRAM	STRUCTURAL STEEL MEMBERS, LEVEL(2) FABRICATION (A572-50)							95200	
863	20000	5427	EACH	WELDED STUD SHEAR CONNECTOR							5427	



PILING PLAN

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS & ENGINEERS & PLANNERS
 1788 NORTH MAIN STREET
 GROUND BEACH, FL 32142

DATE
 10-97

REVIEWED
 G.A.B.
 STRUCTURE FILE NUMBER
 2201836

DRAWN
 RAN
 REVISED

DESIGNED
 J.T.Y.
 CHECKED
 M.E.M.

ESTIMATED QUANTITIES AND PILE LAYOUT
 BRIDGE NO. ERI-2-24816 (1542)
 UNDER RYE BEACH ROAD

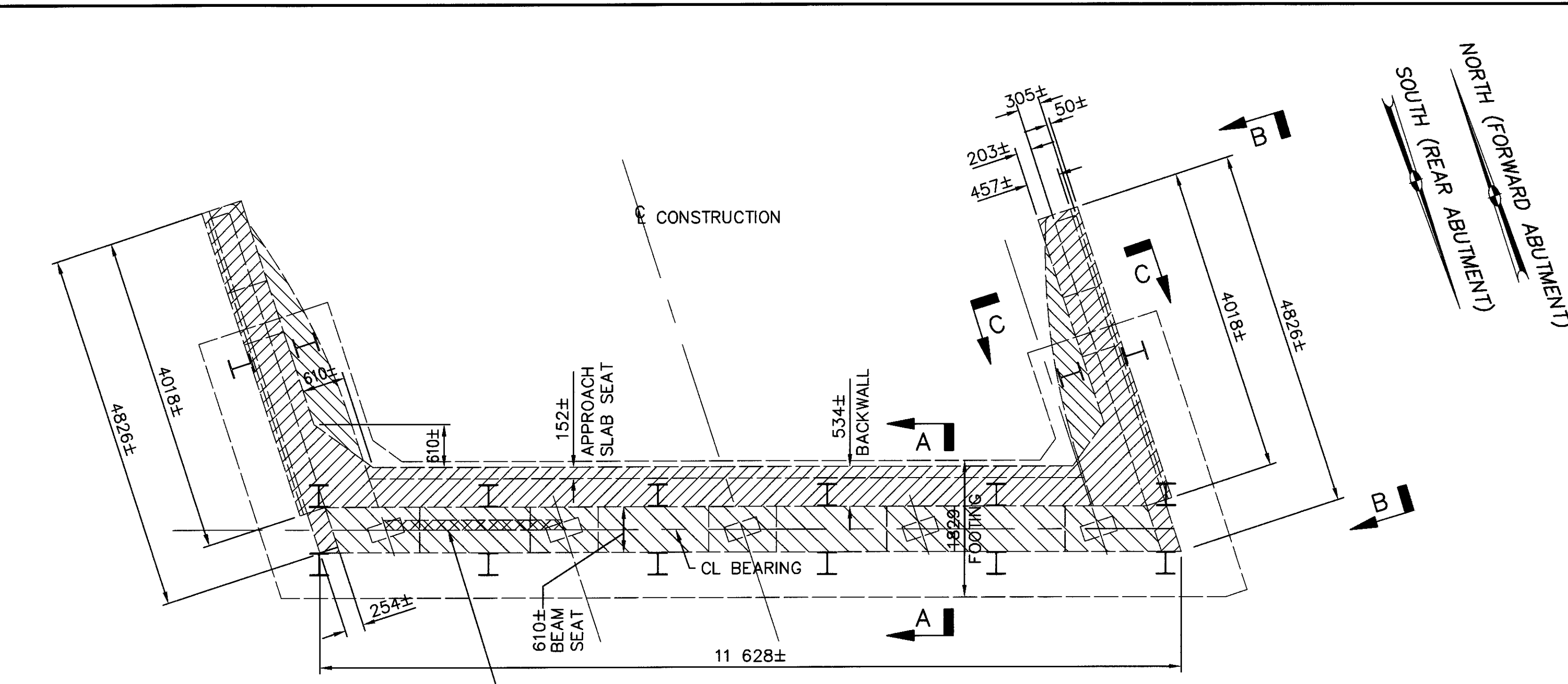
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 413
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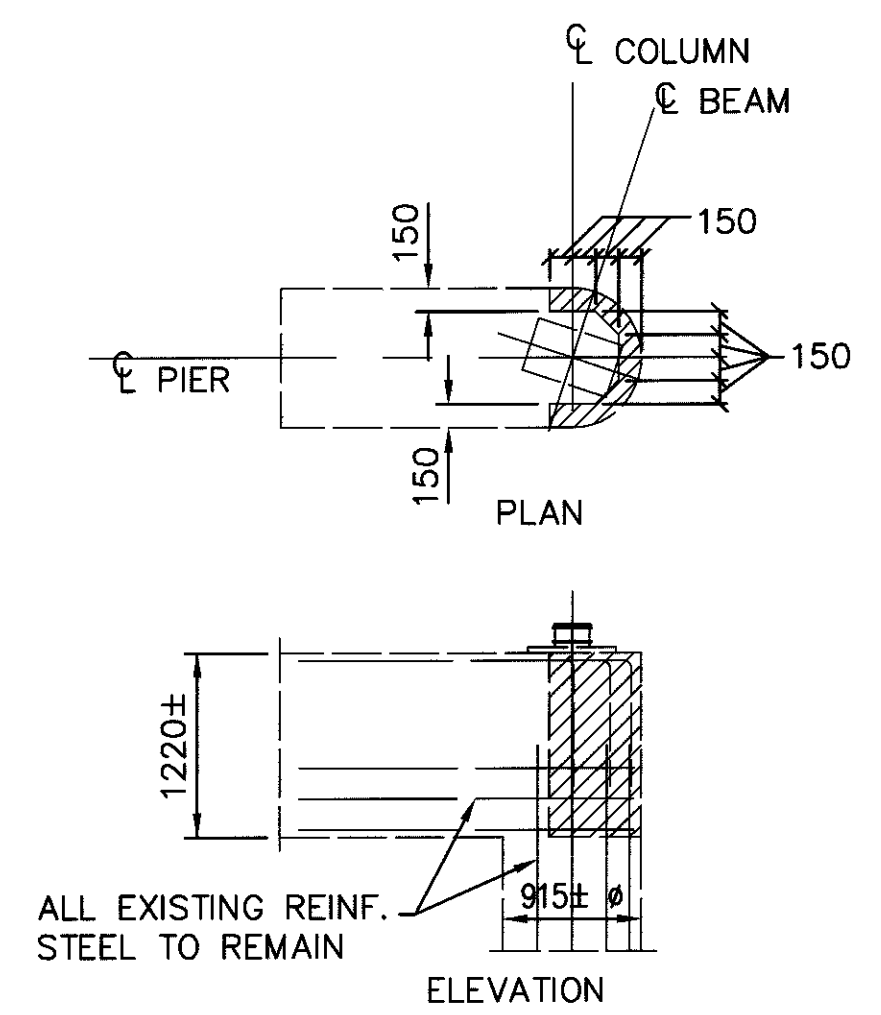
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PLOTTED: JTN



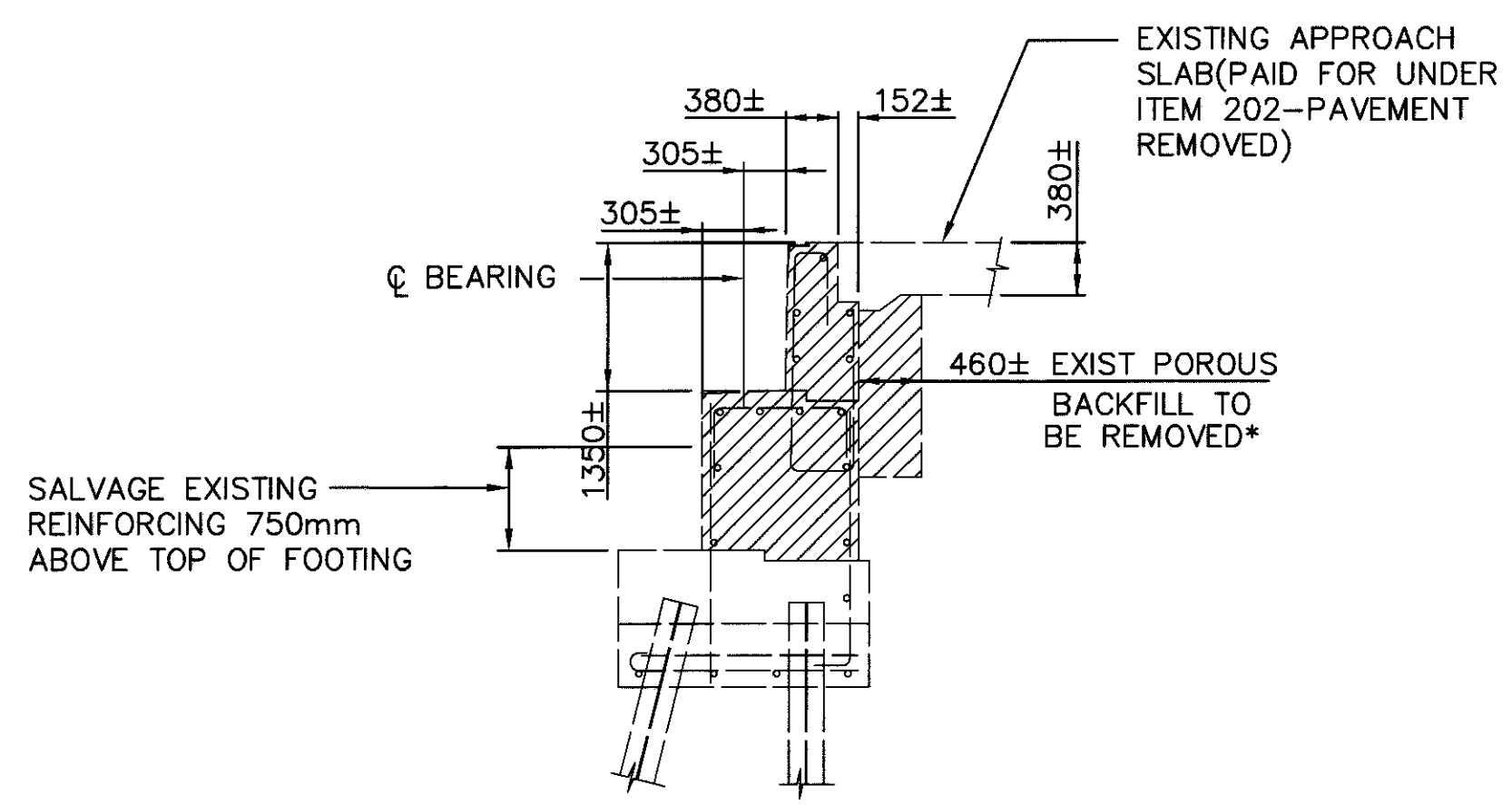
ALL EXIST. END CROSS FRAMES AND END DAMS TO BE REMOVED, COST TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (TYP. EACH ABUTMENT)

LIMITS OF ABUTMENT REMOVAL (TYP. EACH ABUTMENT)



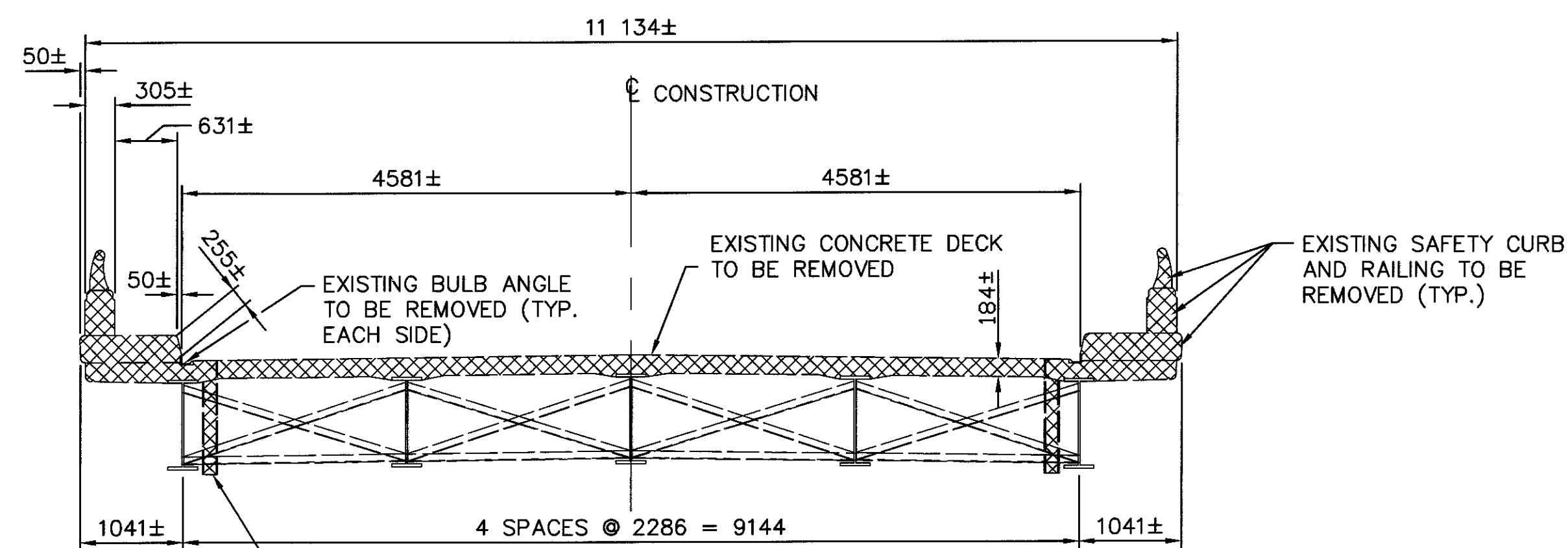
LIMITS OF PIER REMOVAL (TYP. EAST END OF PIER)

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN, (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN, (SUPERSTRUCTURE)



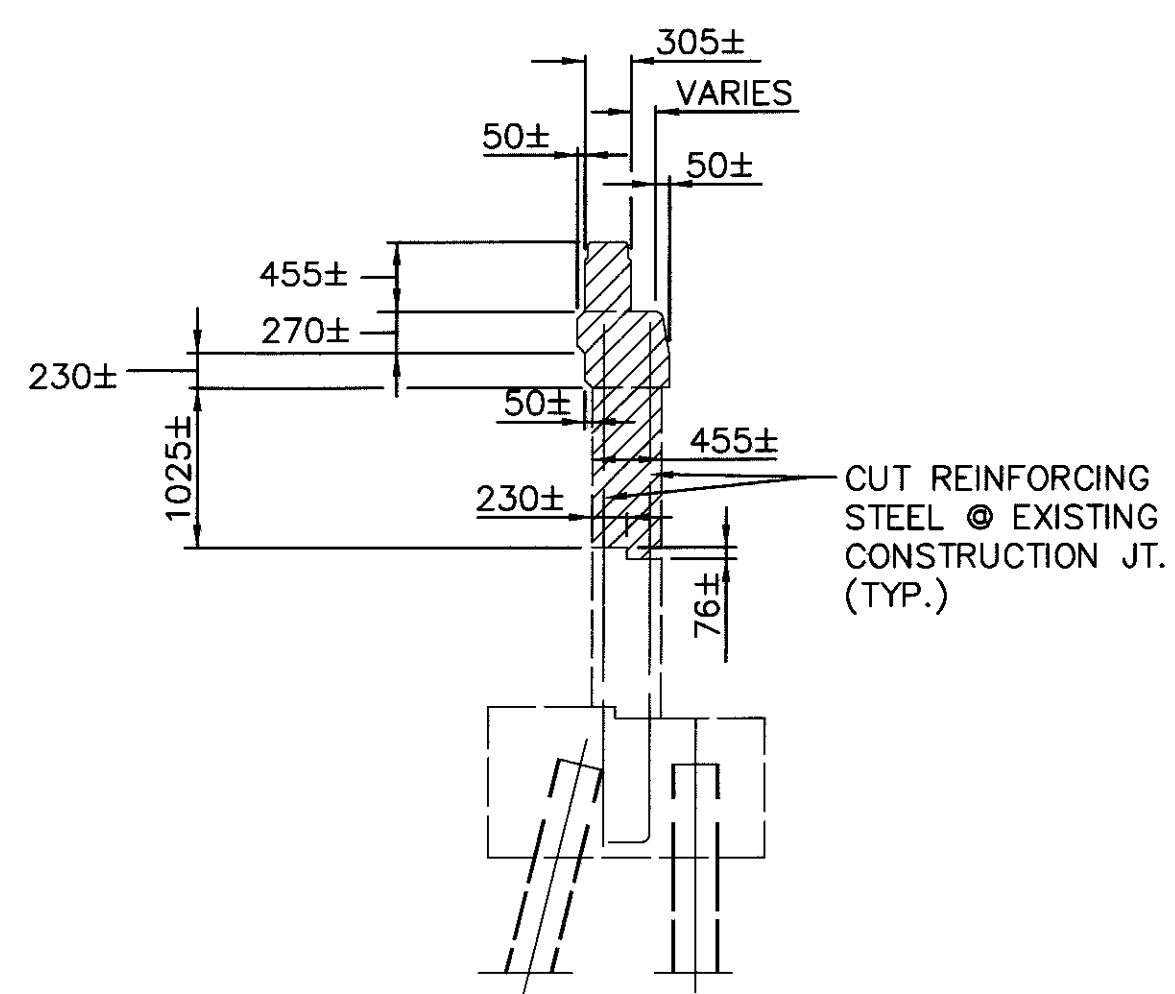
SECTION A-A

* - POROUS BACKFILL TO BE REMOVED SHALL BE CONSIDERED INCIDENTAL AND PAID FOR WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN

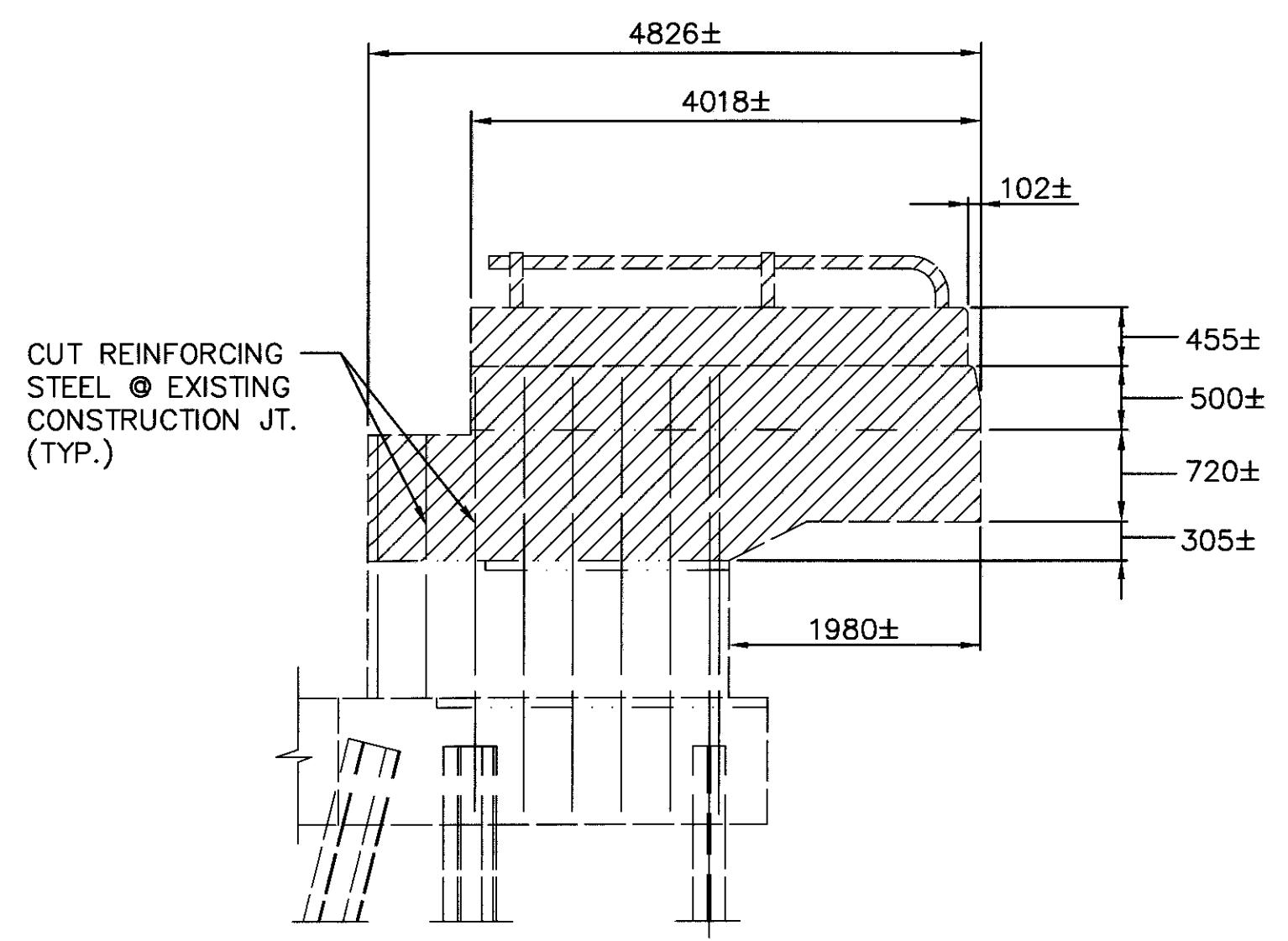


TRANSVERSE SECTION OF DECK

EXIST. SCUPPER TO BE REMOVED, SCUPPER TO BEAM CONNECTIONS TO BE GROUND SMOOTH, COST TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (TYP.)



SECTION C-C



SECTION B-B

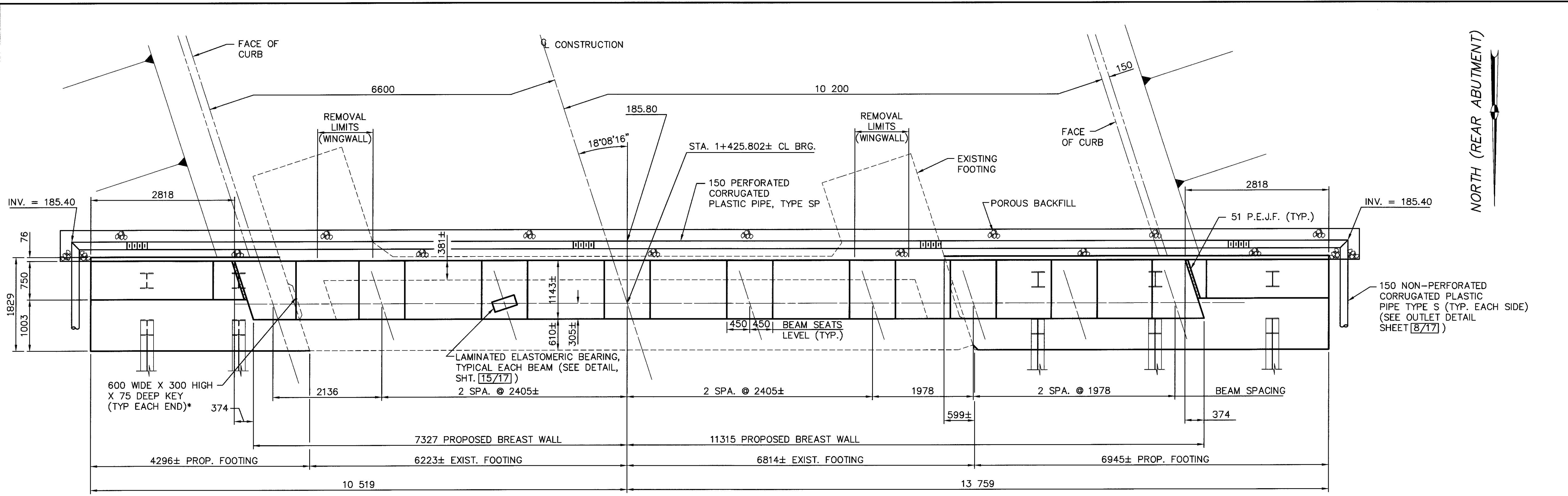
DESIGN AGENCY
POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1188 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402

DESIGNED	DATE	REVIEWED	DATE
J.T.Y.	10-97	C.A.B.	10-97
CHECKED	STRUCTURE FILE NUMBER	DRAWN	REVISION
MEM	2201836	RAM	

BRIDGE DEMOLITION PLAN
 BRIDGE NO. 2-24816 (1542)
 UNDER RYE BEACH ROAD

ERI-2-12.558
 3/17
 414
 432

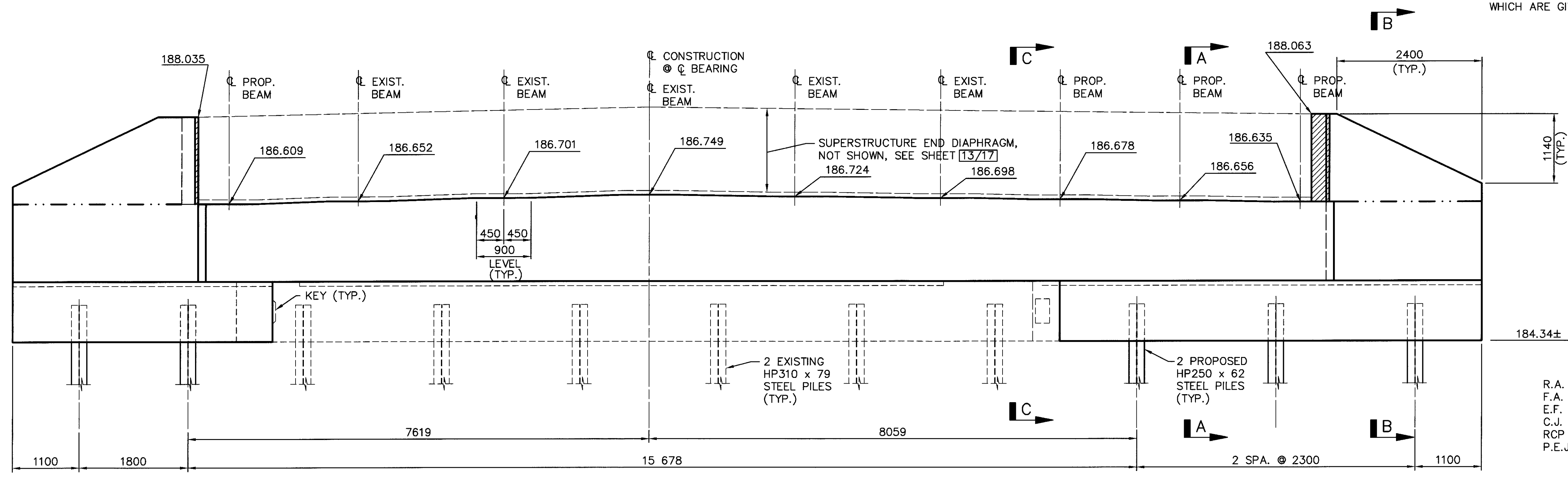
FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24816\24816AB.DWG 7-16-99 8:52:19 am EST
 PLOTTED: JTN



* - COST INCLUDED W/ THE APPROPRIATE 842 CONCRETE ITEM.

PLAN (REAR ABUTMENT)

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



- LEGEND**
- R.A. = REAR ABUTMENT
 - F.A. = FORWARD ABUTMENT
 - E.F. = EACH FACE
 - C.J. = CONSTRUCTION JOINT
 - RCP = ROCK CHANNEL PROTECTION
 - P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

SEE SHEET 5/17 FOR REINFORCING DETAILS

SEE SHEET 8/17 FOR SECTIONS

DESIGN AGENCY
POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1108 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402

DATE
 10-97

REVIEWED
 G.A.B.

DRAWN
 RAN

DESIGNED
 J.T.Y.

STRUCTURE FILE NUMBER
 2201836

REVISIONS
 REVISED
 M.E.M.

REAR ABUTMENT PLAN AND ELEVATION
 BRIDGE NO. ERI-2-24816 (1542)
 UNDER RYE BEACH ROAD

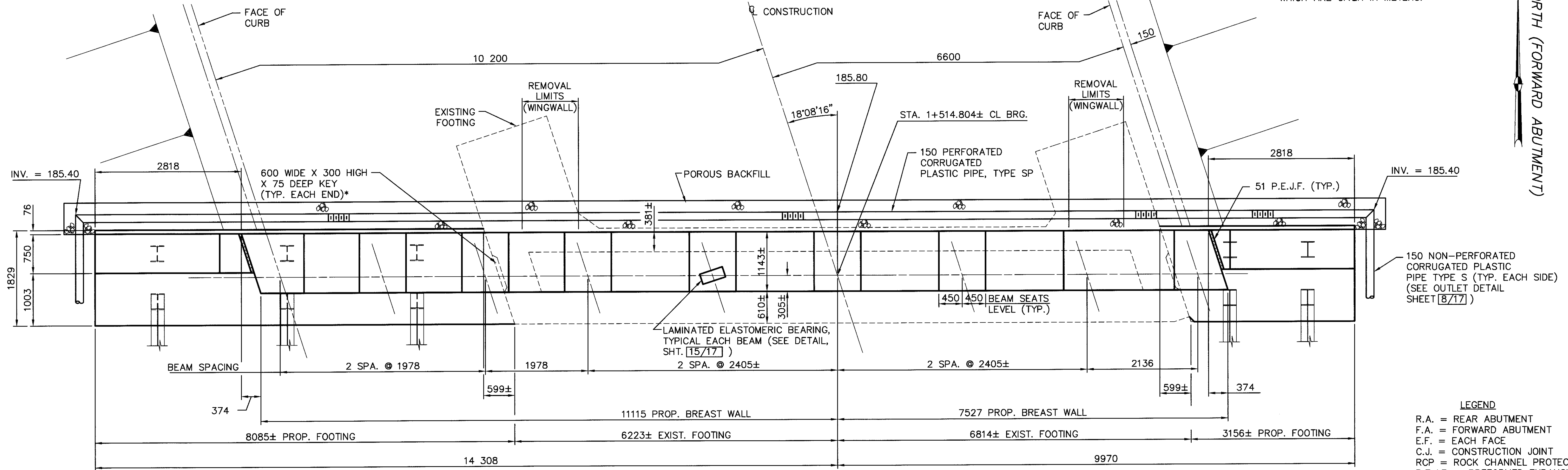
ERI-2-12.558

4 / 17

415
 432

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

NORTH (FORWARD ABUTMENT)



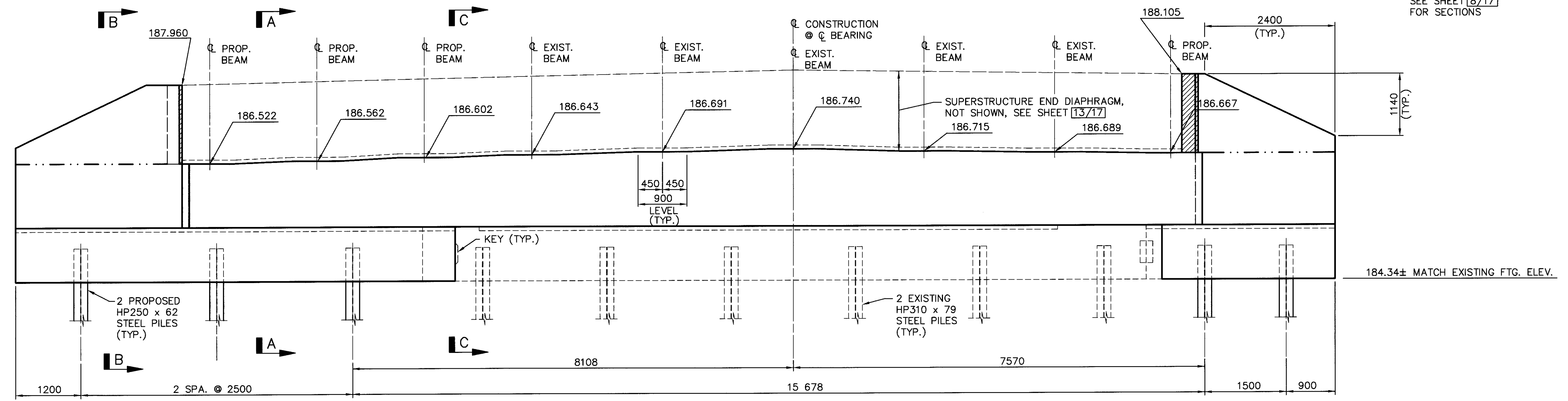
* - COST INCLUDED W/ THE APPROPRIATE 842 CONCRETE ITEM

PLAN (FORWARD ABUTMENT)

- LEGEND**
- R.A. = REAR ABUTMENT
 - F.A. = FORWARD ABUTMENT
 - E.F. = EACH FACE
 - C.J. = CONSTRUCTION JOINT
 - RCP = ROCK CHANNEL PROTECTION
 - P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

SEE SHEET 7/17 FOR REINFORCING DETAILS

SEE SHEET 8/17 FOR SECTIONS



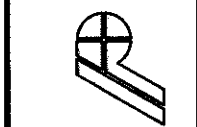
ELEVATION (FORWARD ABUTMENT)

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-24816\24816A2.DWG 7-16-99 9:54:55 am EST

PLOTTED: JTN

5033-005

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS & ENGINEERS & PLANNERS
1188 NORTH MAIN STREET
BOULDER, CO, 80502



DATE
10-97
REVIEWED
G.A.B.
STRUCTURE FILE NUMBER
2201836

DESIGNED
J.T.Y.
CHECKED
M.E.M.

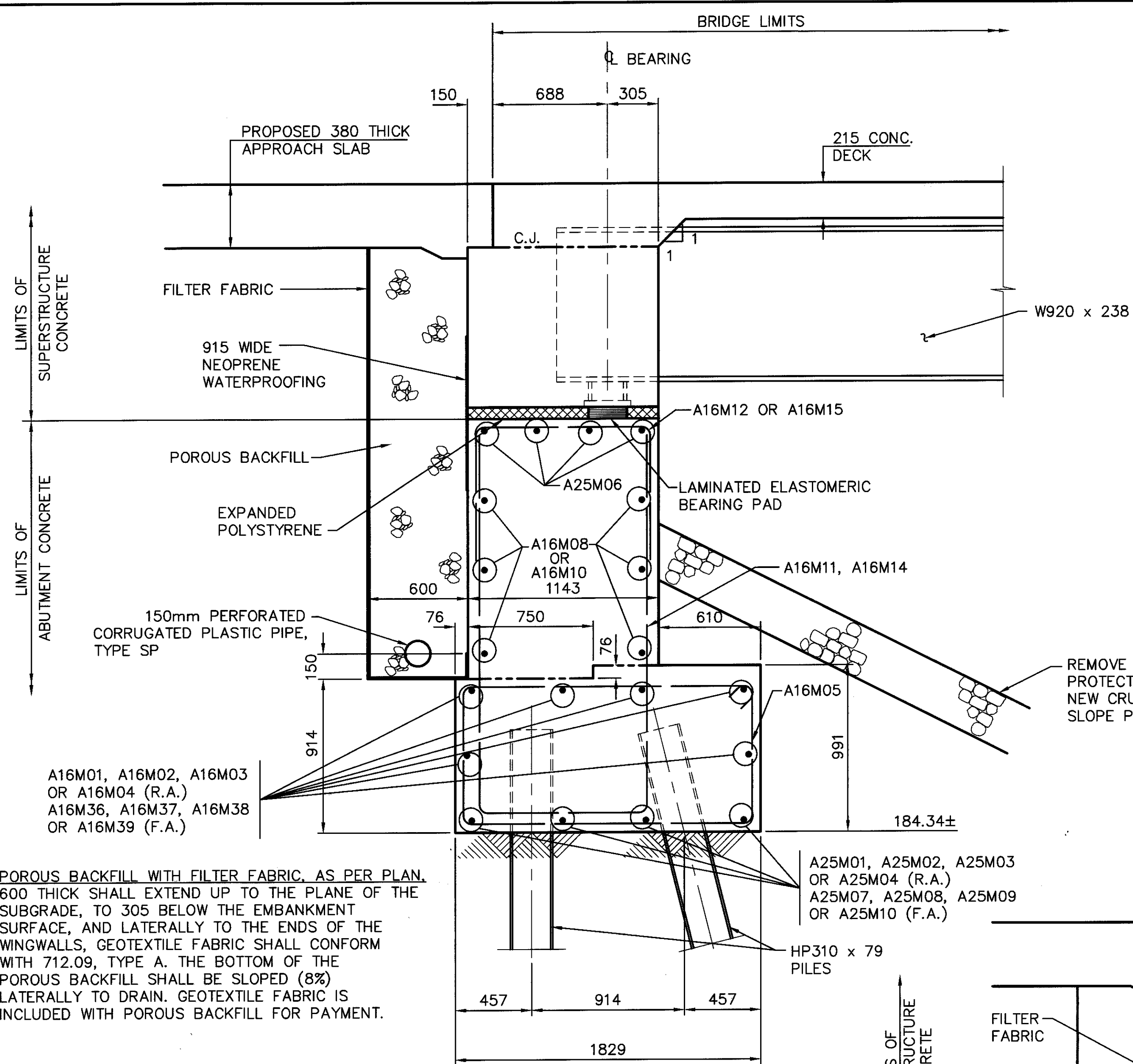
FORWARD ABUTMENT PLAN AND ELEVATION
BRIDGE NO. ERI-2-24816 (1542)
UNDER RYE BEACH ROAD

ERI-2-12.558

6/17

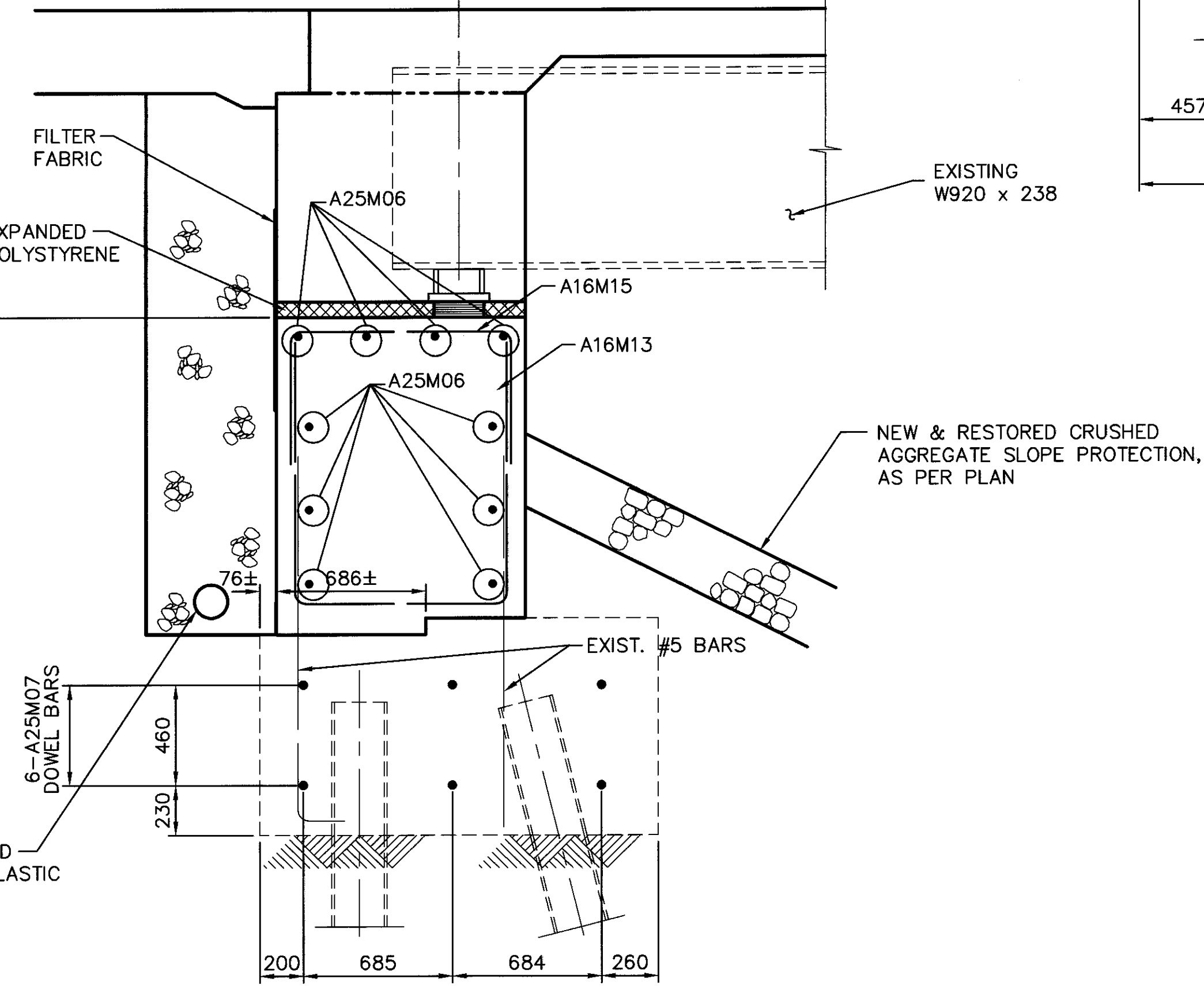
417
432

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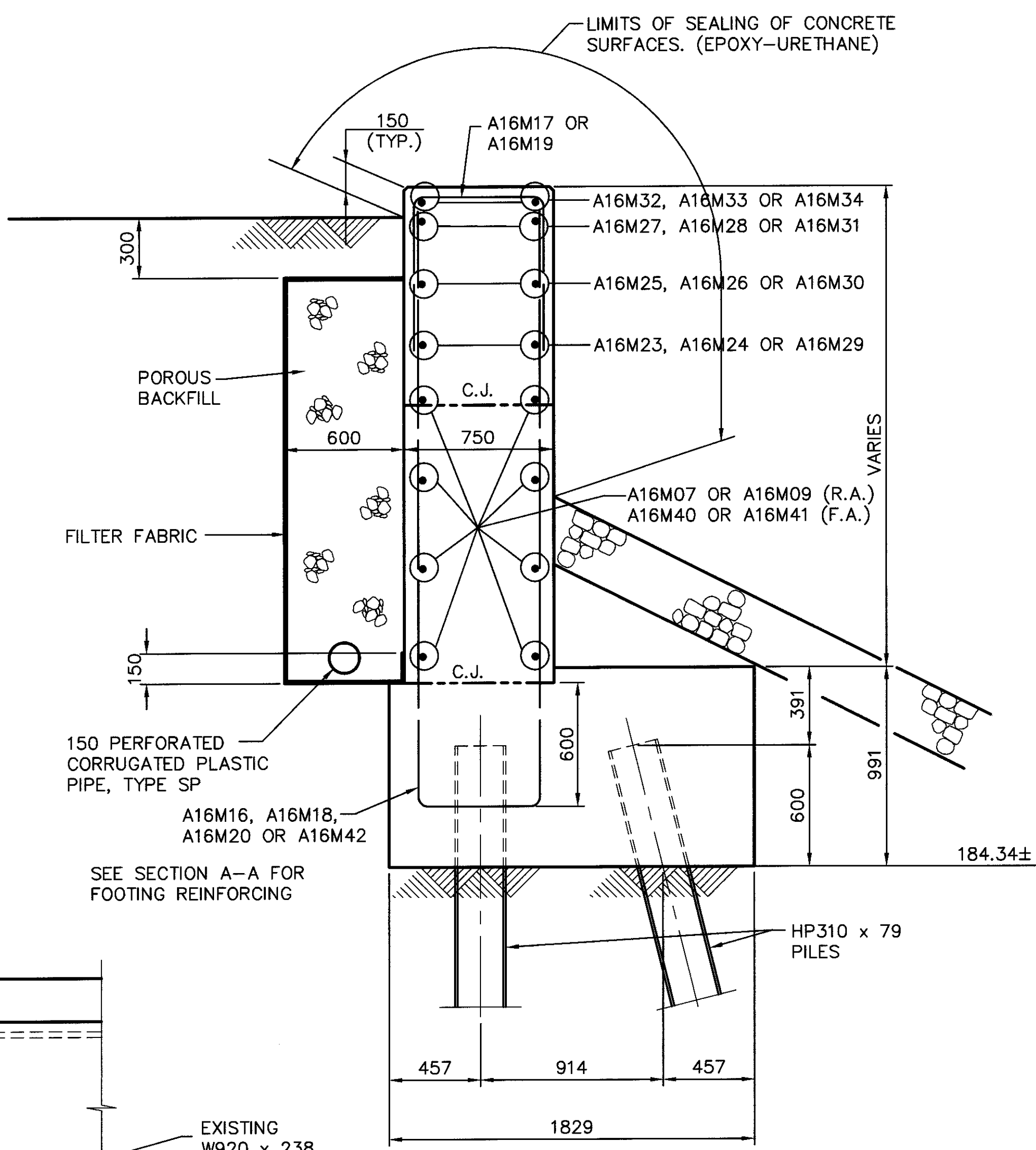


SECTION A - A

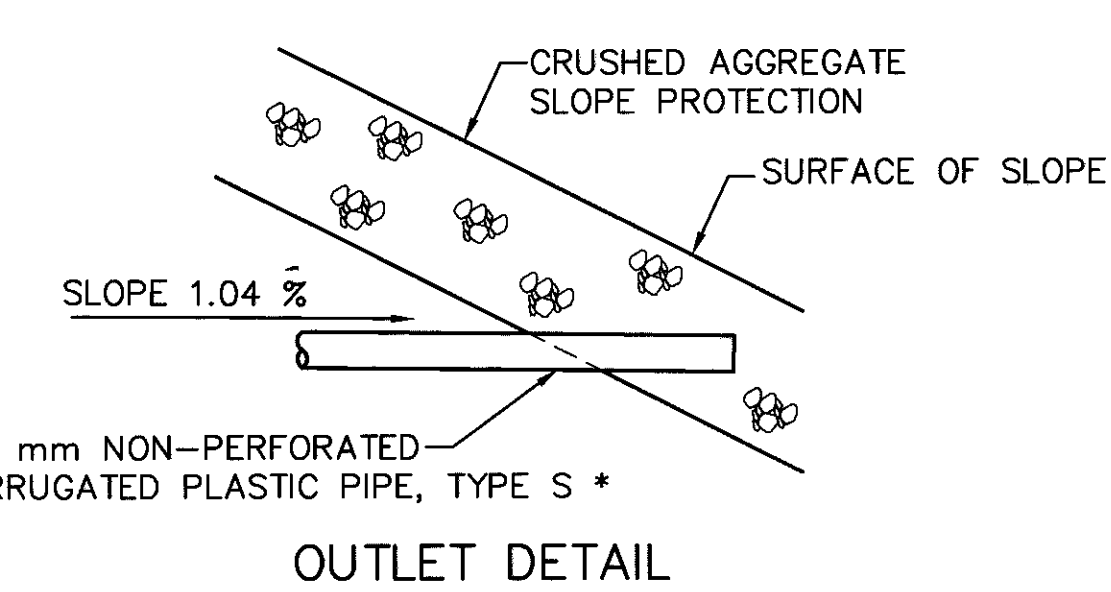
POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN. 600 THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 305 BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS, GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. THE BOTTOM OF THE POROUS BACKFILL SHALL BE SLOPED (8%) Laterally TO DRAIN. GEOTEXTILE FABRIC IS INCLUDED WITH POROUS BACKFILL FOR PAYMENT.



SECTION C-C



SECTION B-B



* ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLETS OF THESE DRAINAGE PIPES PER DM-1.1M. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM 518 - 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 5000 GREEN OAK AVENUE
 SUITE 1000
 COLUMBUS, OHIO 43242

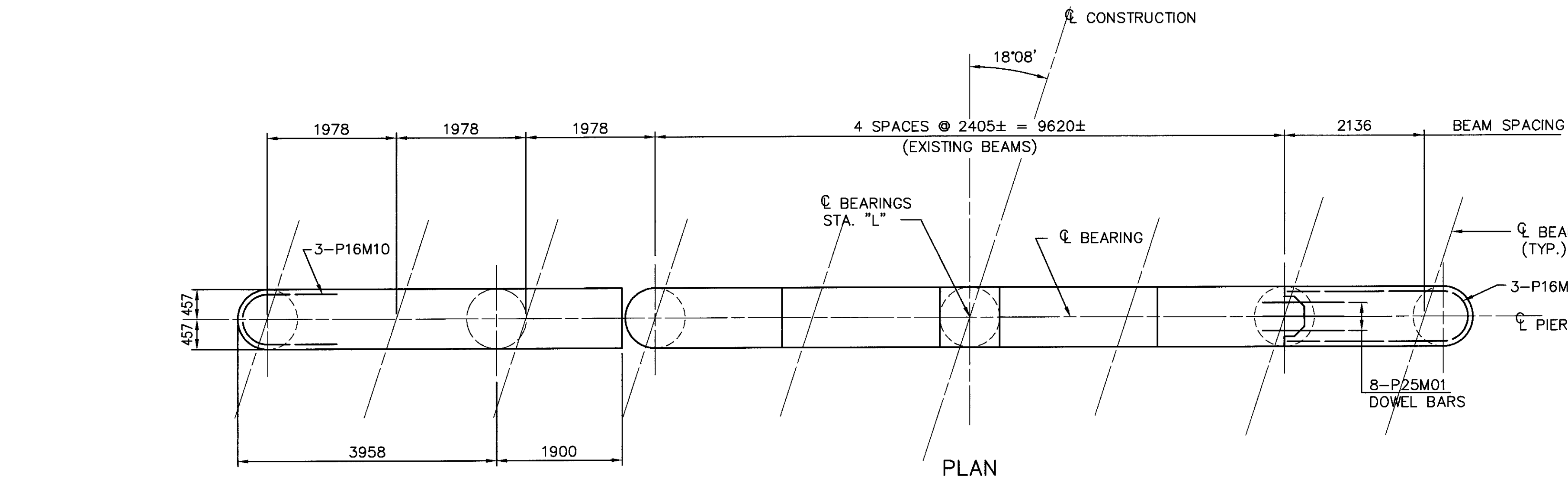
DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAW	REVISED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2201836
DATE	8-97		

ABUTMENT SECTIONS
 BRIDGE NO. ERI-2-24816 (1542)
 UNDER RYE BEACH ROAD

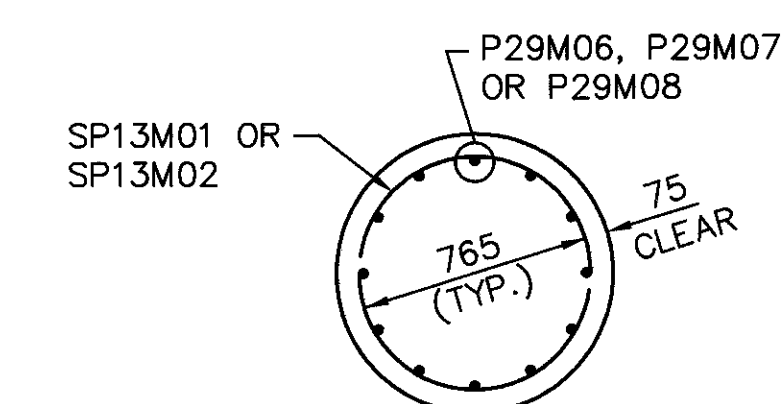
ERI-2-12.558

8 / 17

419
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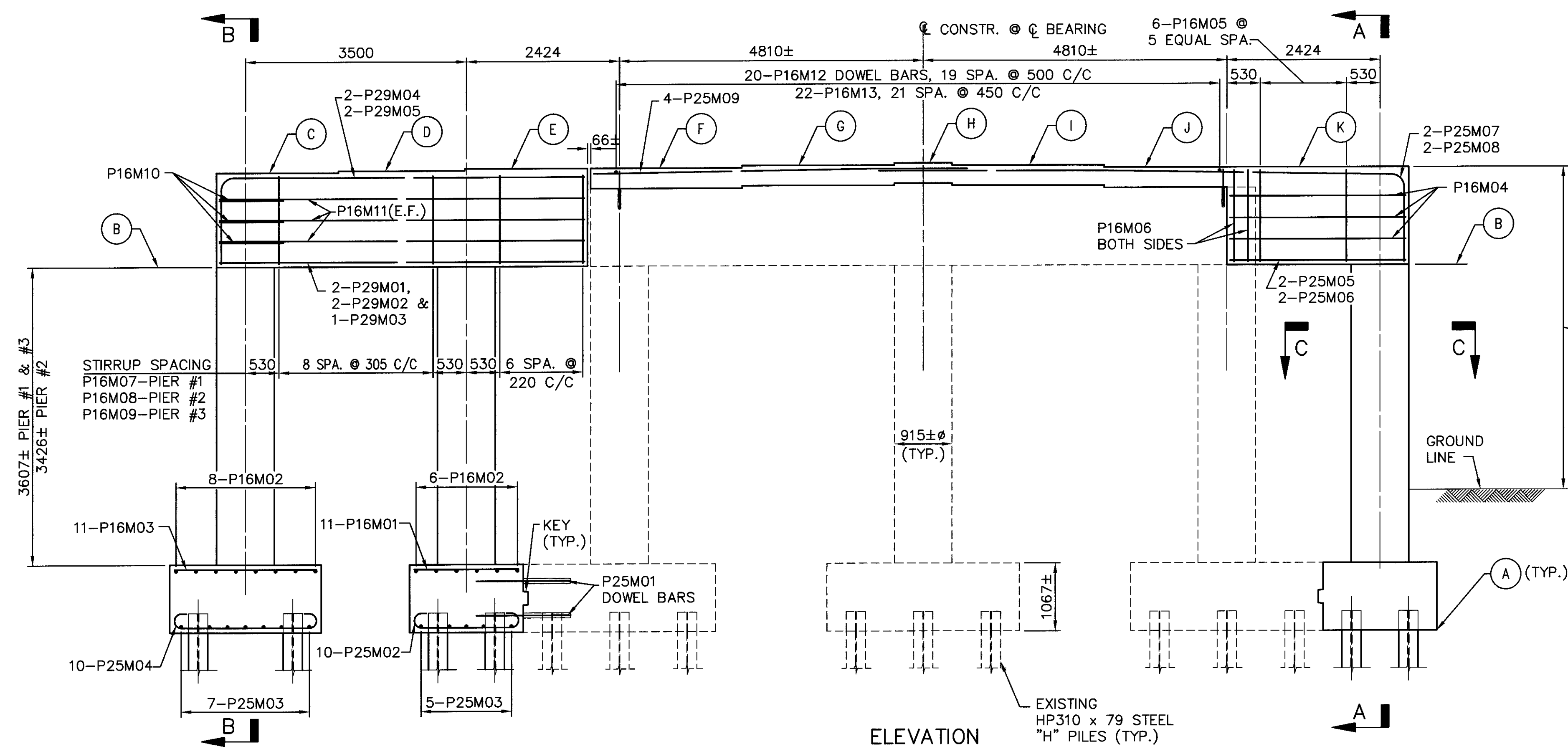


PLAN



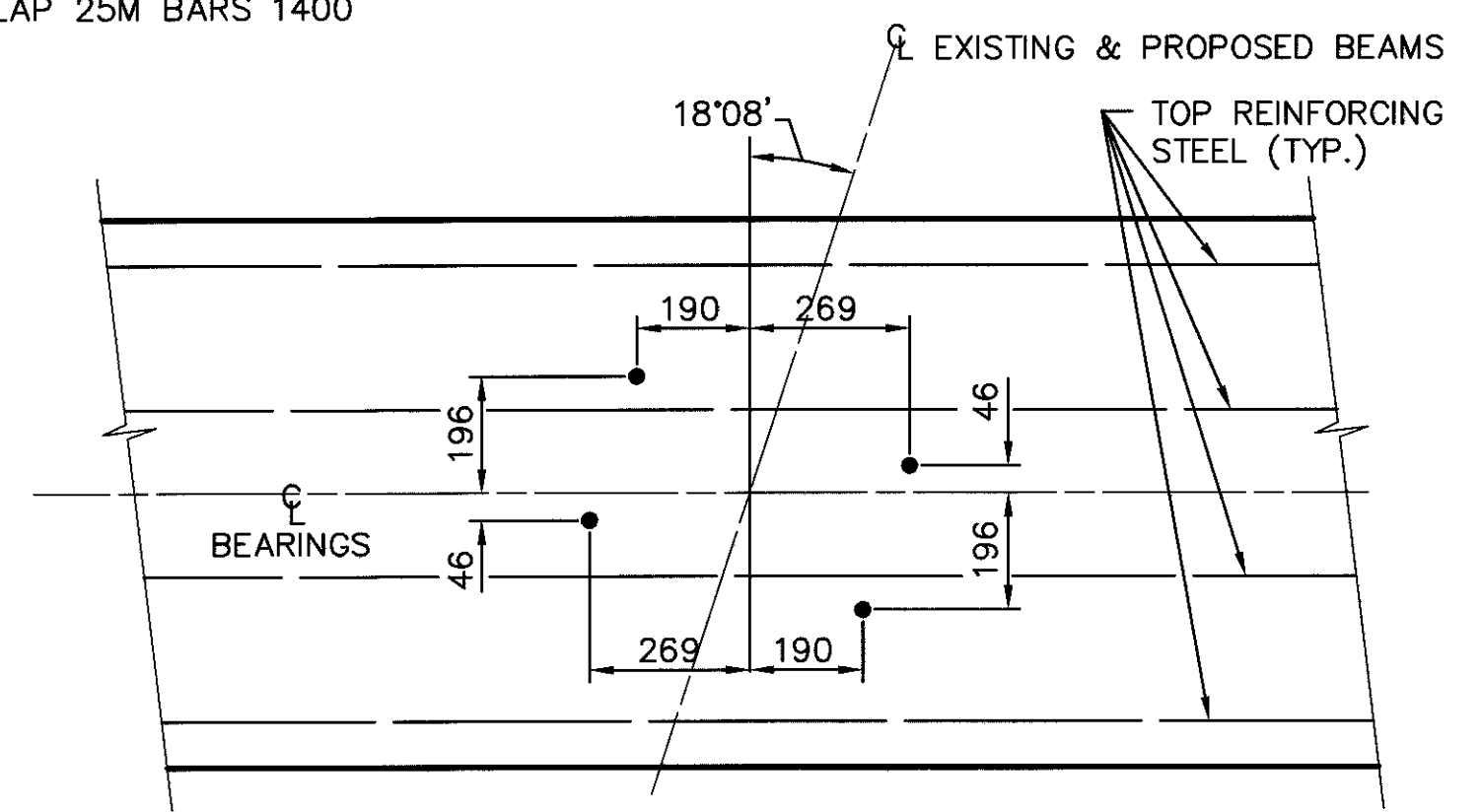
SECTION C-C

PIER ELEVATIONS AND STATIONS			
	PIER #1	PIER #2	PIER #3
A	180.53±	180.84±	180.53±
B	185.21±	185.33±	185.21±
C	186.709	186.795	186.642
D	186.734	186.826	186.678
E	186.759	186.857	186.715
F	186.711	186.814	186.678
G	186.741	186.851	186.722
H	186.771	186.888	186.765
I	186.698	186.851	186.735
J	186.684	186.815	186.706
K	186.718	186.855	186.752
STA. "L"	1+444.090±	1+470.303±	1+496.516±



ELEVATION

NOTE: LAP #16M BARS 740
LAP 25M BARS 1400

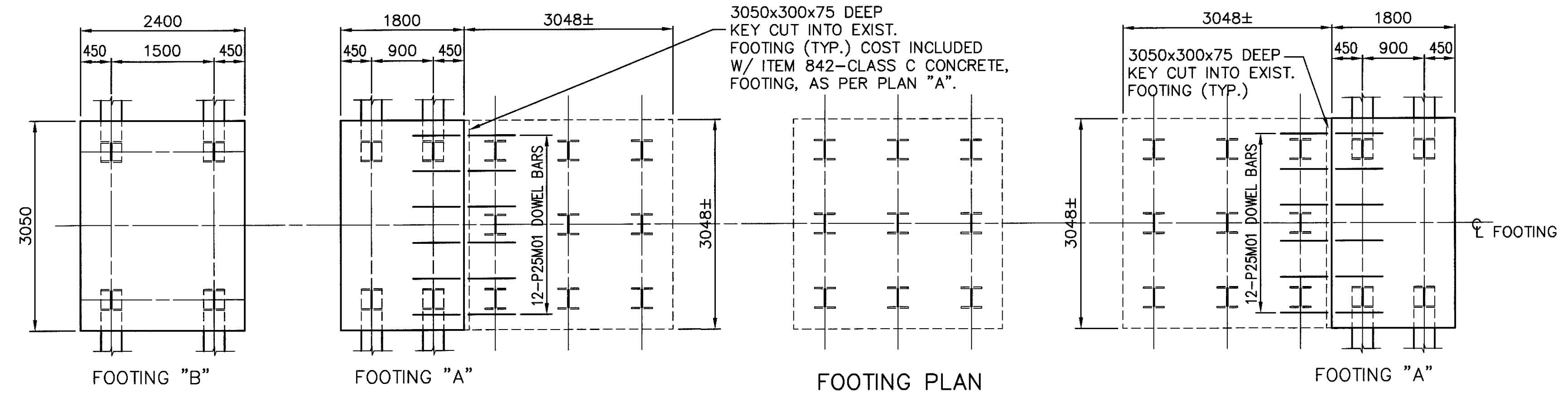


ANCHOR LOCATION DETAIL

BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.

SEE SHEET [10/17] FOR SECTIONS A-A & B-B

SEE SHEET [5/17] FOR DOWEL DETAILS



3050x300x75 DEEP KEY CUT INTO EXIST. FOOTING (TYP.) COST INCLUDED W/ ITEM 842-CLASS C CONCRETE, FOOTING, AS PER PLAN "A".

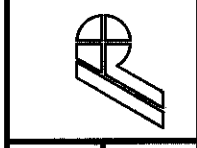
3050x300x75 DEEP KEY CUT INTO EXIST. FOOTING (TYP.)

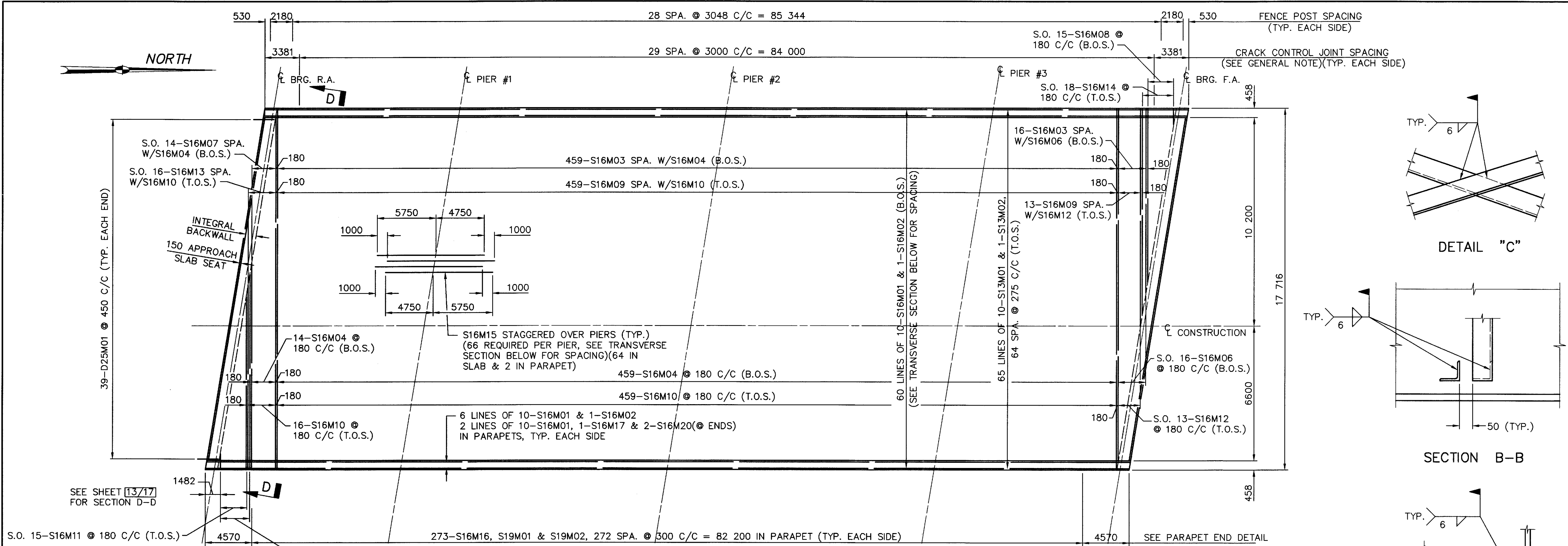
FOOTING "B"

FOOTING "A"

FOOTING PLAN

FOOTING "A"





DECK SLAB REINFORCING PLAN

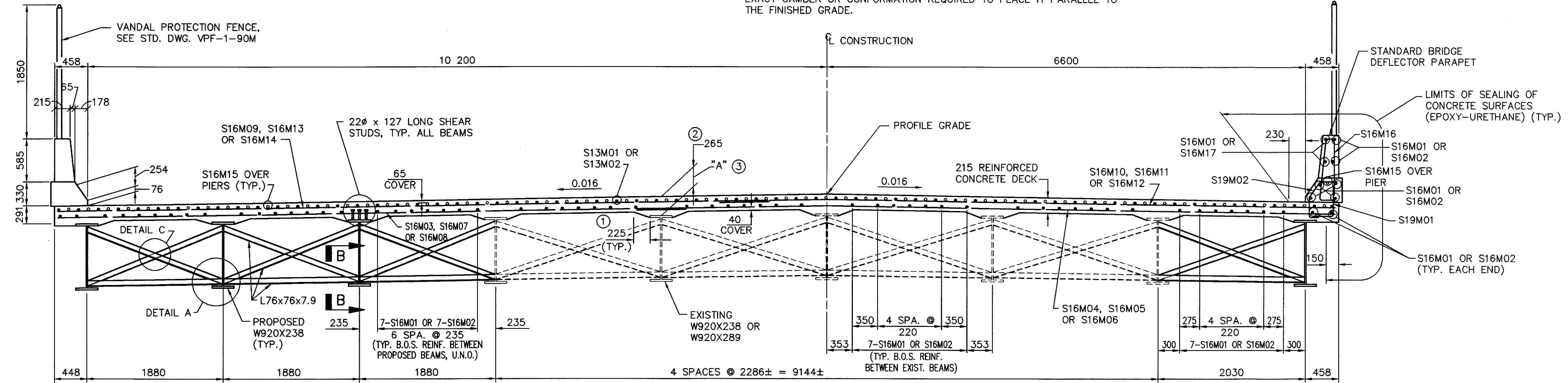
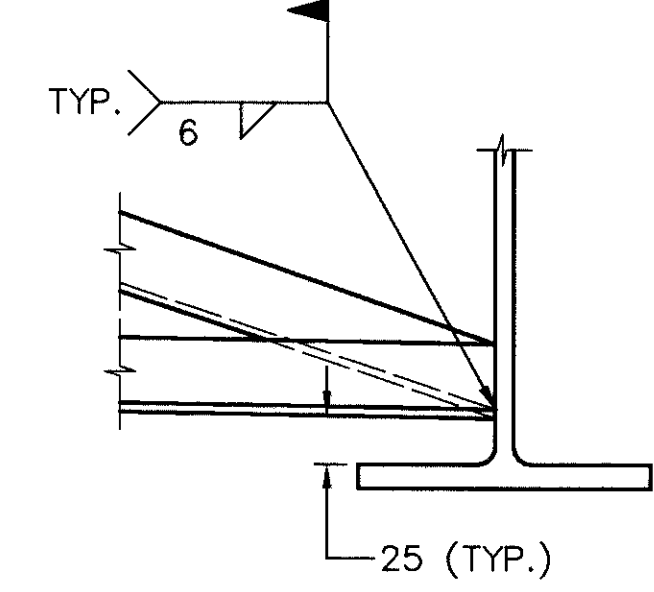
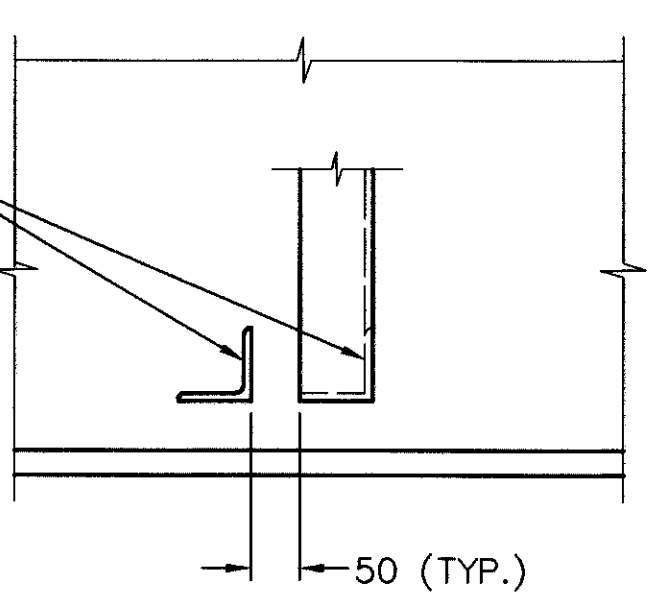
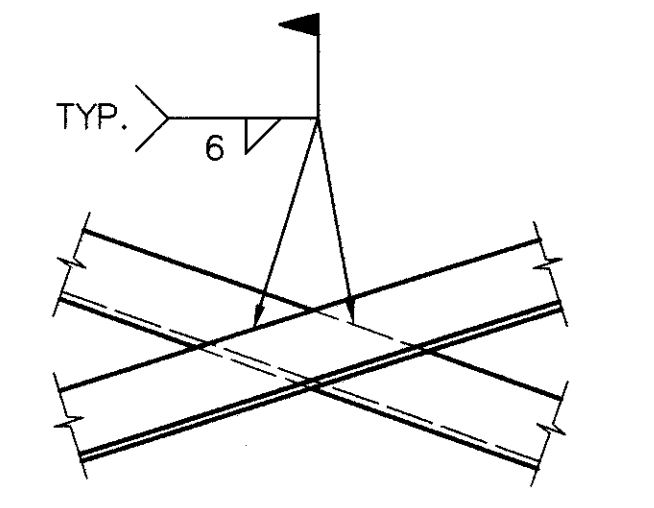
NOTES

1. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH MAY VARY BETWEEN 150 mm AND 300 mm.
2. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR IS BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
3. CONTRACTOR TO VERIFY BEAM PROFILES WITH PROFILE GRADE TO VERIFY DECK SLAB DEPTH (DIMENSION "A"). SEE SHEET [14/17] FOR DIMENSION "A".
4. SEE SHT. [14/17] FOR SHEAR STUD DETAILS

LEGEND

BOTT. - BOTTOM
 U.N.O. - UNLESS OTHERWISE NOTED
 T.O.S. - TOP OF SLAB
 B.O.S. - BOTTOM OF SLAB
 S.O. - SERIES OF
 NOTE: LAP #13M BARS 590
 LAP #16M BARS 740
 LAP #19M BARS 880
 UNLESS OTHERWISE NOTED

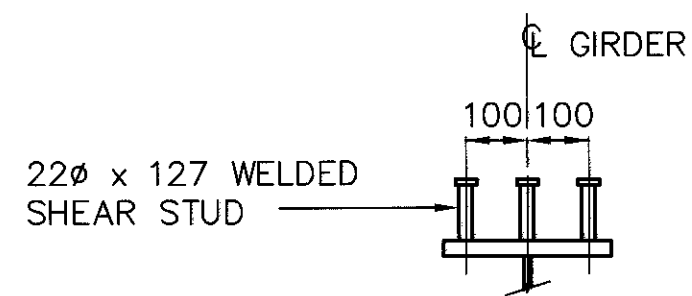
NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



TRANSVERSE SECTION

DESIGN AGENCY: **POGGEMEYER DESIGN GROUP, INC.**
 ARCHITECTS + ENGINEERS + PLANNERS
 1108 NORTH MAIN STREET
 BIRMINGHAM, OHIO 43402
 DATE: 10-97
 C.A.B. STRUCTURE FILE NUMBER: 2201836
 DRAWN: RAN
 CHECKED: M.E.M.
 DESIGNED: J.T.Y.
 REVIEWED: C.A.B.
 SUPERSTRUCTURE PLAN AND SECTION
 BRIDGE NO. ERI-2-24816 (1542)
 UNDER RYE BEACH ROAD
 ERI-2-12.558
 11/17
 422
 432

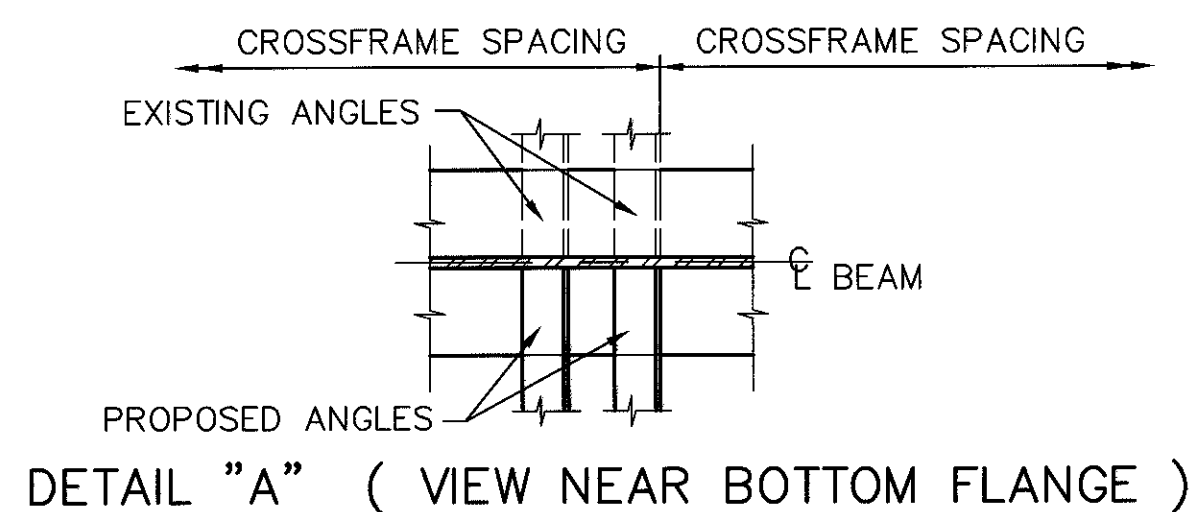
FILE NAME: I:\5033\005\TRAM BRIDGE\2-24816\24816ST
 RAN



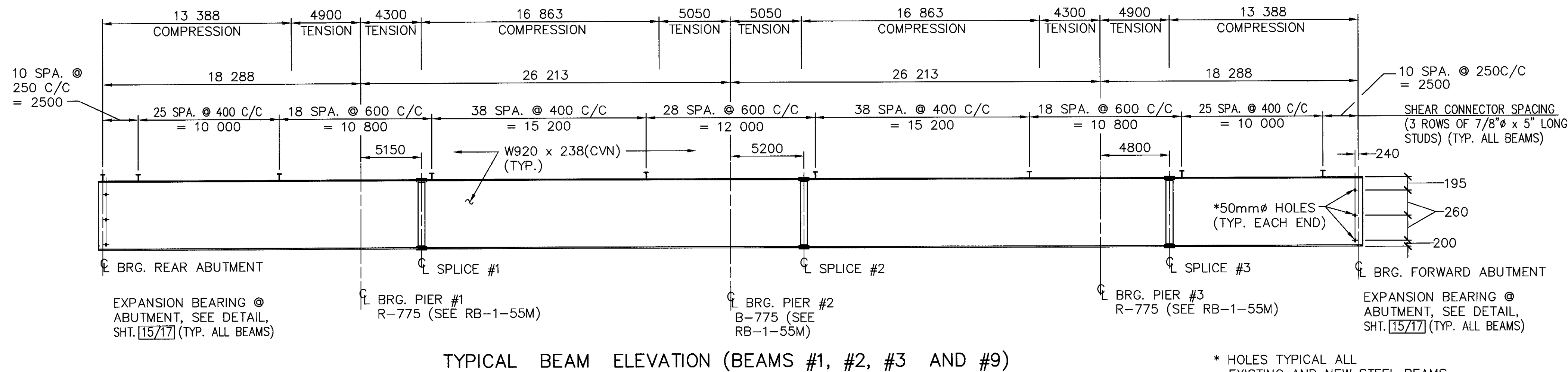
DETAIL AT SHEAR CONNECTOR

NOTES:

- 1) WHERE A SHAPE OR PLATE IS DESIGNED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- 2) WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
- 3) SEE STD. DWG. BS-1-93M FOR BOLTED BEAM SPLICE, 345 MPG STEEL.
- 4) SEE SHT. 13/17 FOR CAMBER TABLE
- 5) SEE SHT. 14/17 FOR SKEW TABLE

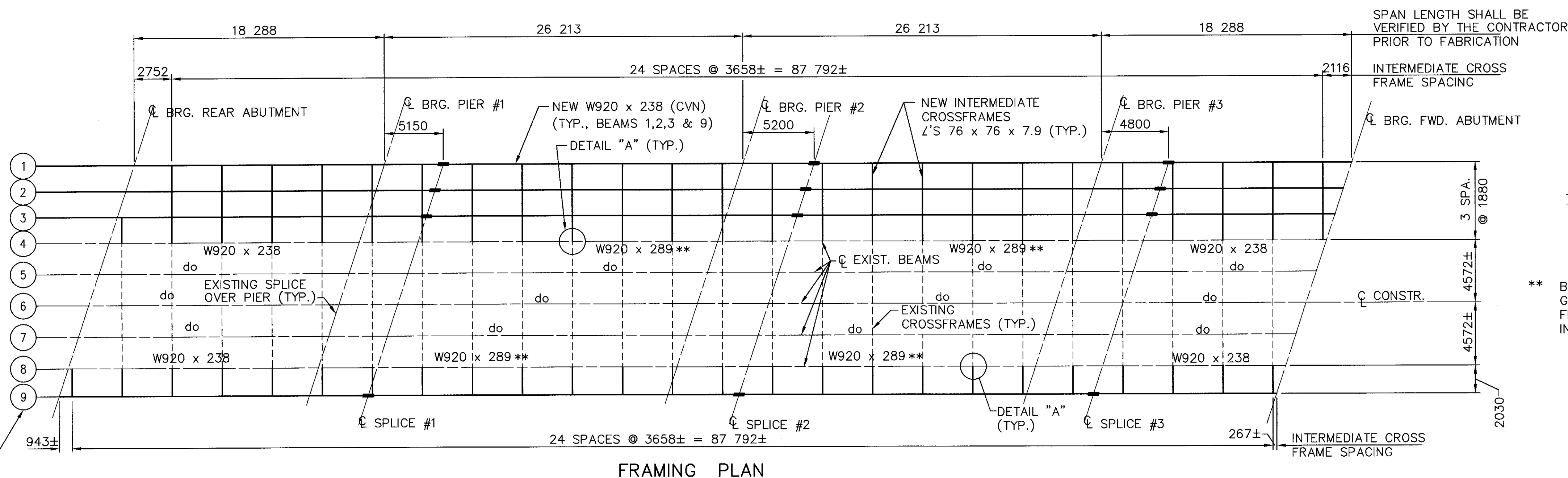


NOTE:
ALL SPLICE PLATE MATERIAL SHALL BE A572, CVN.



TYPICAL BEAM ELEVATION (BEAMS #1, #2, #3 AND #9)

* HOLES TYPICAL ALL EXISTING AND NEW STEEL BEAMS



FRAMING PLAN

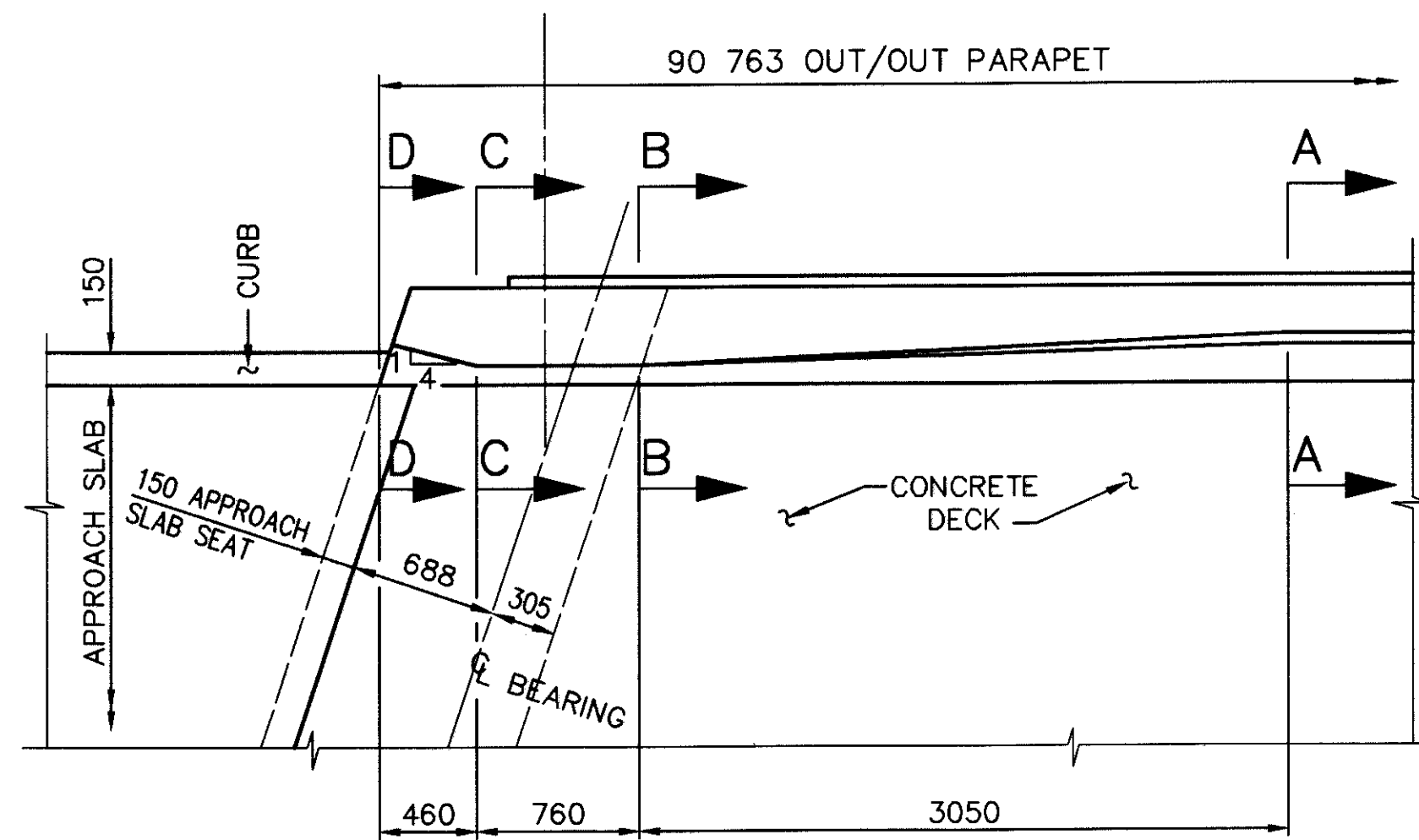
SPAN LENGTH SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION



** BOTTOM FLANGE EDGES TO BE GRINDED PER ITEM 815 - GRINDING FLANGE EDGES (TYPICAL ALL BEAMS IN SPANS 2 & 3)

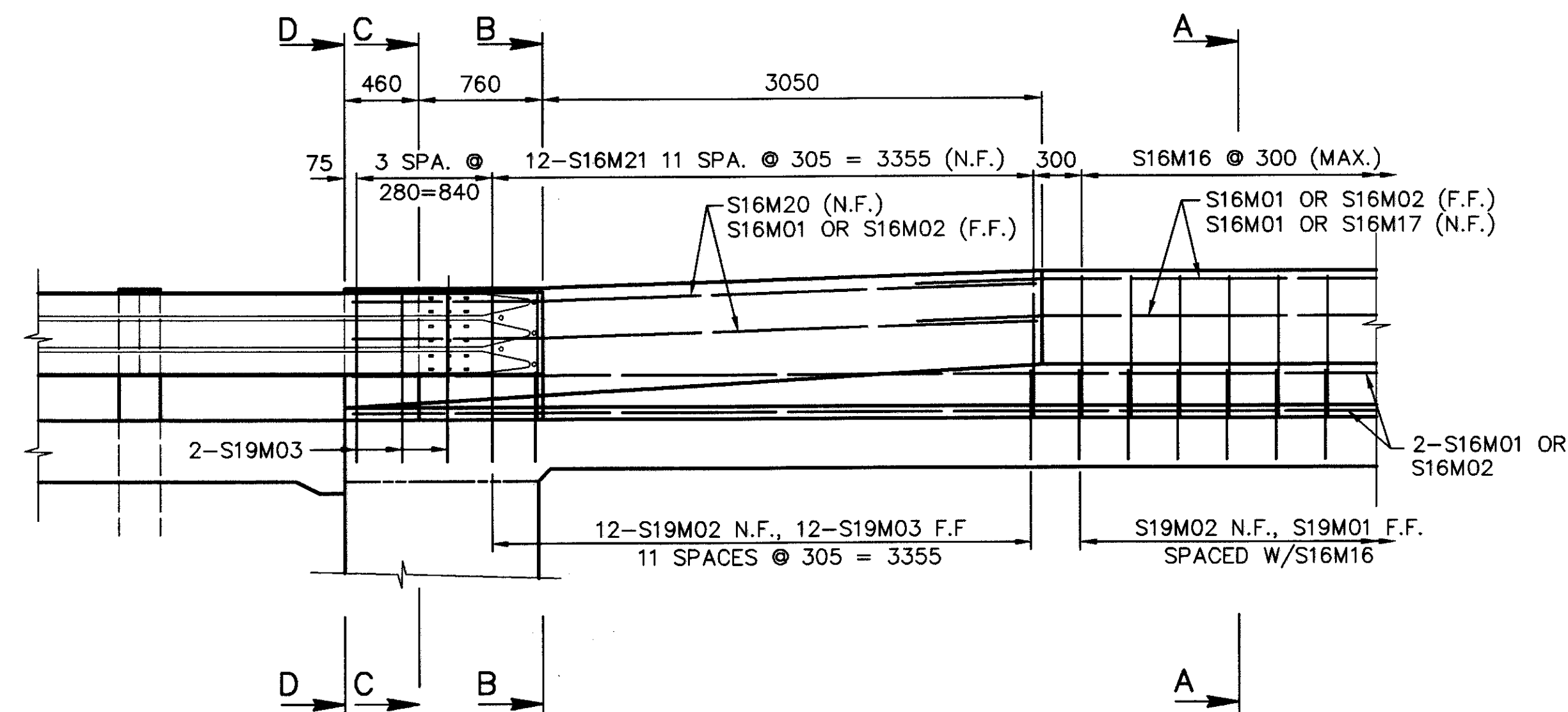


FILE NAME: I:\5033\005\TRAN\BRIDGE\2-24816\24816SD



PARAPET END DETAIL - PLAN

NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.



PARAPET END DETAIL - ELEVATION

NOTE: LAP #16M BARS 740

DIMENSION "A"

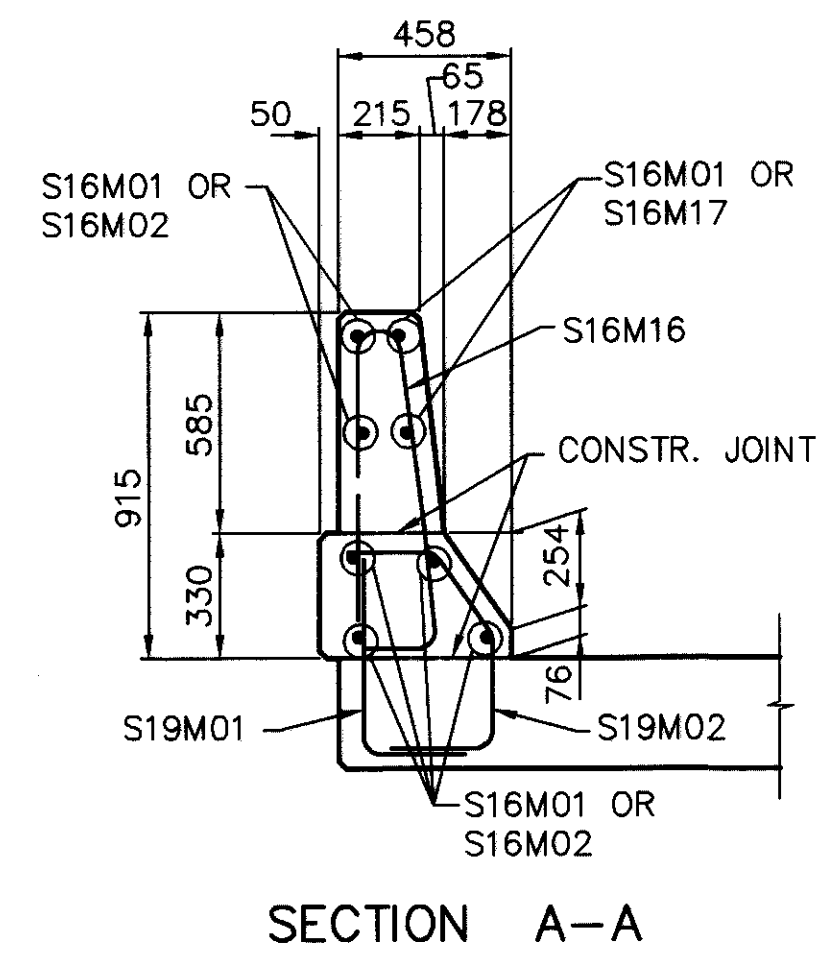
	R. ABUT.	1/2 PT.	CL PIER #1	1/2 PT.	CL PIER #2	1/2 PT.	CL PIER #3	1/2 PT.	F. ABUT
CL OF CONSTRUCTION	BEAM #4	0.265	0.295	0.330	0.335	0.400	0.335	0.330	0.265
	BEAM #5	0.265	0.295	0.330	0.335	0.400	0.335	0.330	0.265
	BEAM #6	0.265	0.295	0.330	0.335	0.400	0.335	0.330	0.265
	BEAM #7	0.265	0.295	0.330	0.335	0.400	0.335	0.330	0.265
	BEAM #8	0.265	0.295	0.330	0.335	0.400	0.335	0.330	0.265

CONTRACTOR TO VERIFY DIMENSION "A"

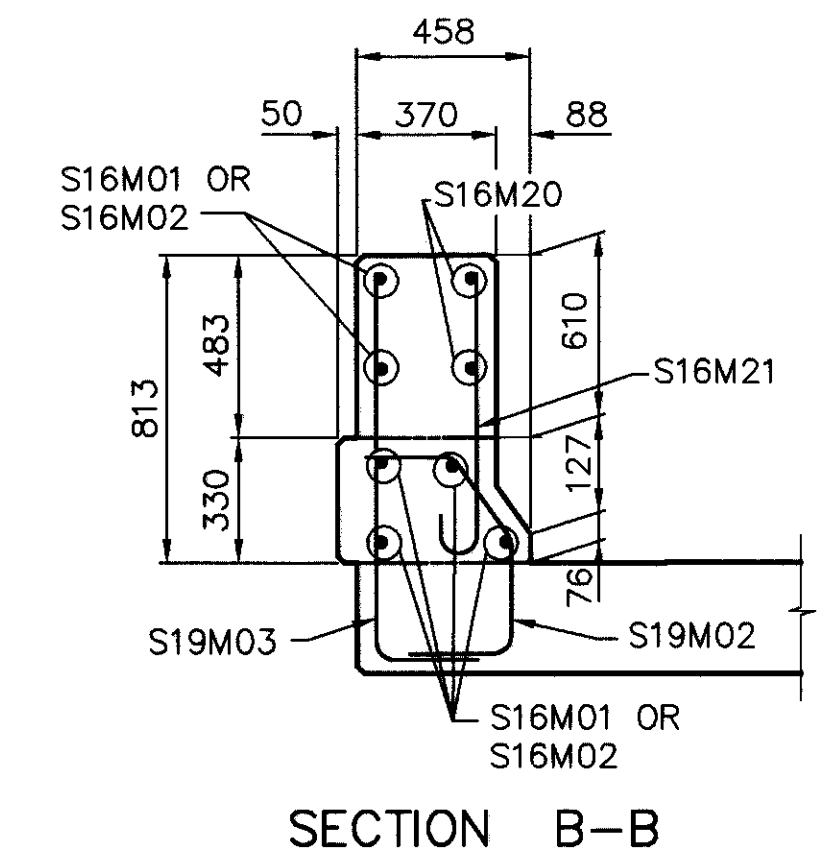
SCREED TABLE

LOCATION		R. ABUT.	1/4 PT.	1/2 PT.	3/4 PT.	CL PIER #1	SPLICE #1	1/4 PT.	1/2 PT.	3/4 PT.	CL PIER #2	SPLICE #2	1/4 PT.	1/2 PT.	3/4 PT.	CL PIER #3	1/4 PT.	SPLICE #3	1/2 PT.	3/4 PT.	F. ABUT
TOE OF LT. PARAPET	BEAM #1	188.073	188.142	188.197	188.238	188.276	188.320	188.335	188.373	188.376	188.362	188.361	188.359	188.340	188.285	188.209	188.160	188.156	188.107	188.040	187.960
	BEAM #2	188.094	188.164	188.220	188.262	188.301	188.346	188.361	188.401	188.406	188.393	188.393	188.392	188.373	188.320	188.245	188.193	188.145	188.079	188.000	
	BEAM #3	188.116	188.186	188.243	188.286	188.326	188.372	188.388	188.429	188.435	188.424	188.425	188.424	188.407	188.355	188.282	188.234	188.230	188.184	188.119	188.040
CL OF CONSTRUCTION	BEAM #4	188.136	188.208	188.266	188.310	188.351	188.398	188.414	188.457	188.464	188.454	188.456	188.456	188.440	188.389	188.318	188.271	188.268	188.222	188.158	188.081
	BEAM #5	188.162	188.235	188.294	188.339	188.381	188.430	188.446	188.490	188.499	188.491	188.495	188.494	188.480	188.432	188.362	188.316	188.313	188.268	188.205	188.129
	BEAM #6	188.187	188.261	188.321	188.368	188.411	188.461	188.478	188.523	188.534	188.528	188.533	188.533	188.521	188.473	188.405	188.361	188.358	188.314	188.252	188.178
TOE OF RT. PARAPET	BEAM #7	188.139	188.214	188.276	188.323	188.367	188.419	188.436	188.483	188.496	188.491	188.497	188.498	188.487	188.442	188.375	188.333	188.329	188.287	188.226	188.153
	BEAM #8	188.090	188.167	188.230	188.278	188.324	188.376	188.433	188.443	188.457	188.455	188.462	188.463	188.454	188.410	188.346	188.304	188.301	188.259	188.200	188.127
	BEAM #9	188.047	188.124	188.189	188.238	188.285	188.339	188.357	188.407	188.423	188.422	188.430	188.432	188.424	188.382	188.319	188.278	188.275	188.234	188.176	188.105

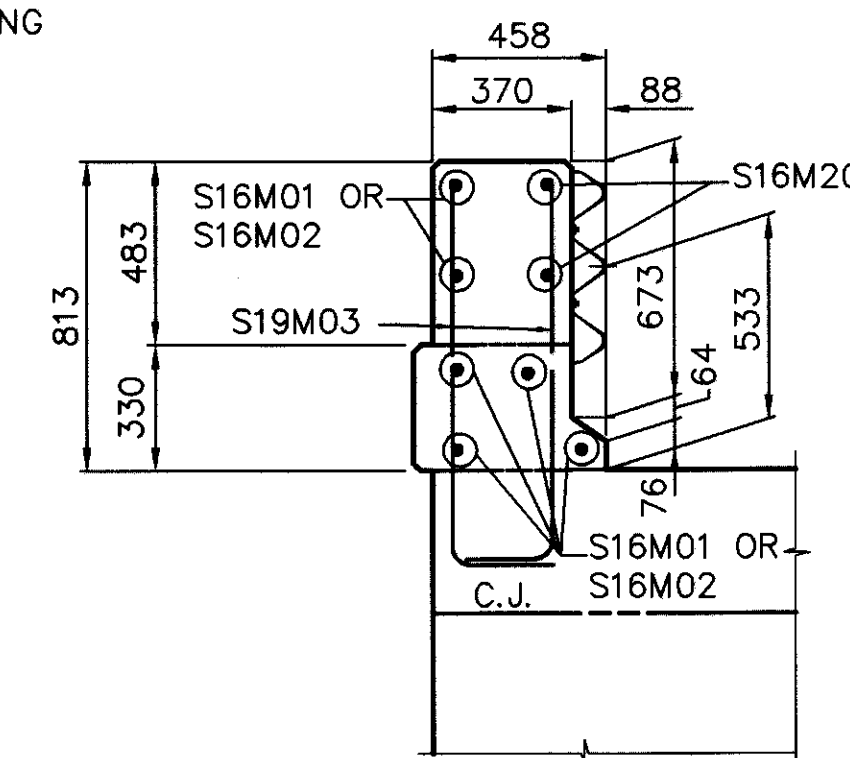
SCREED ELEVATIONS SHOWN ARE FOR THE DECK SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTION.



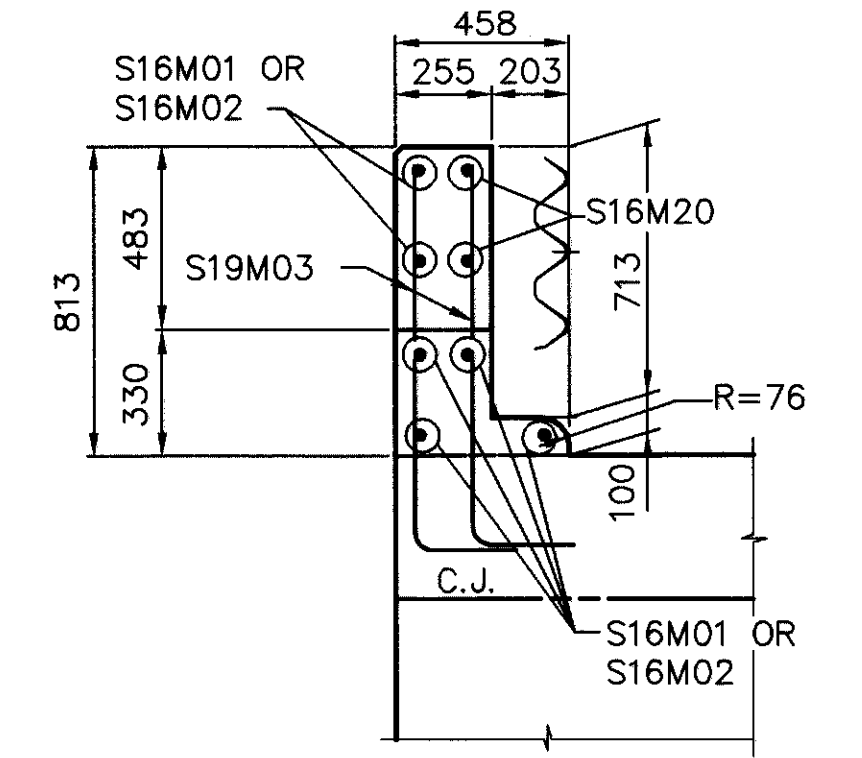
SECTION A-A



SECTION B-B



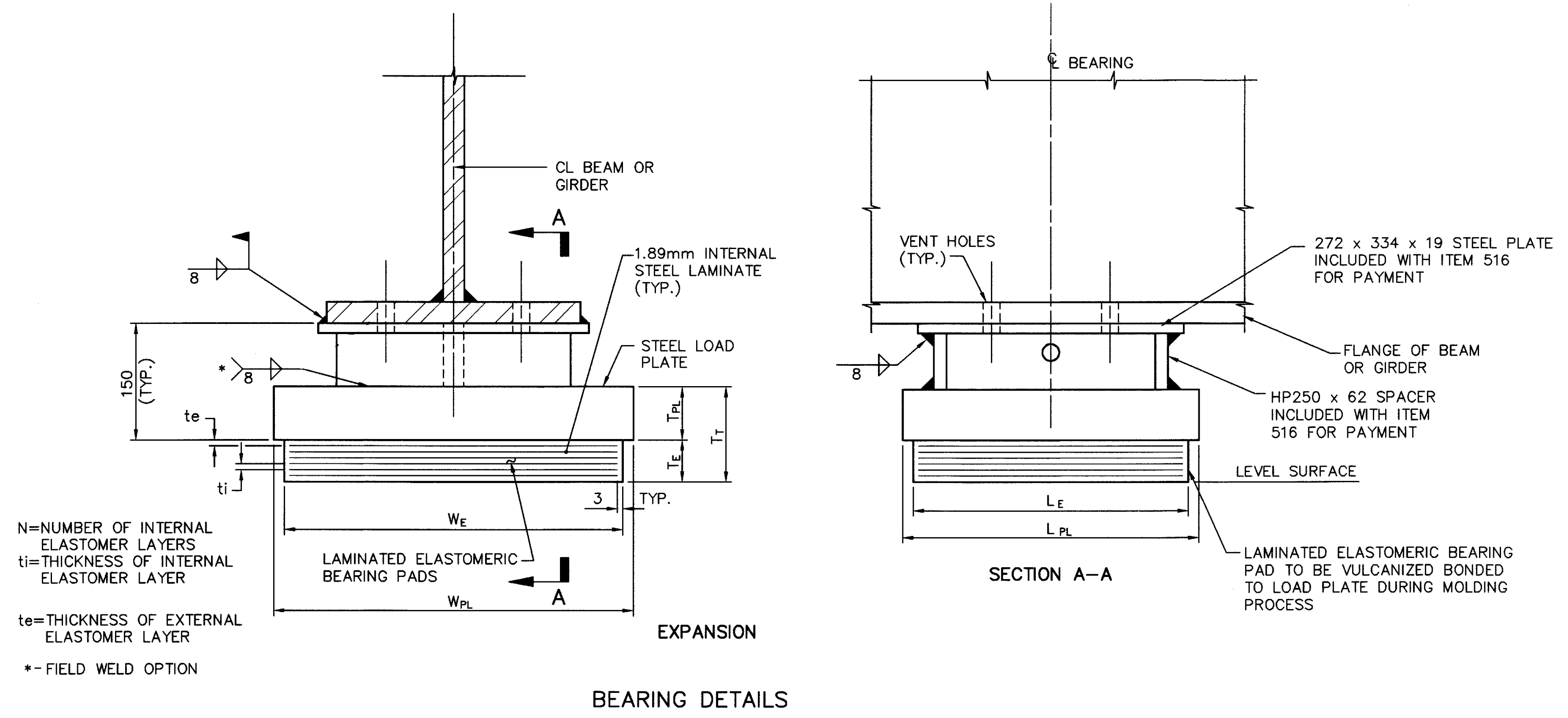
SECTION C-C



SECTION D-D

DESIGN AGENCY: POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1188 NORTH MAIN STREET
 DENVER, CO 80202
 DATE: 8-97
 G.A.B.
 STRUCTURE FILE NUMBER: 2201836
 DRAWN: RAN
 REVISIONS:
 DESIGNED: J.T.Y.
 CHECKED: M.E.M.
 SUPERSTRUCTURE DETAILS
 BRIDGE NO. ERI-2-24816 (1542)
 UNDER RYE BEACH ROAD
 ERI-2-12.558
 14/17
 425
 432

FILE NAME: I:\5033\005\TRAN\BRIDGE\2-24816\24816ST2
 RAN



LOAD PLATES THE STEEL LOAD PLATE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

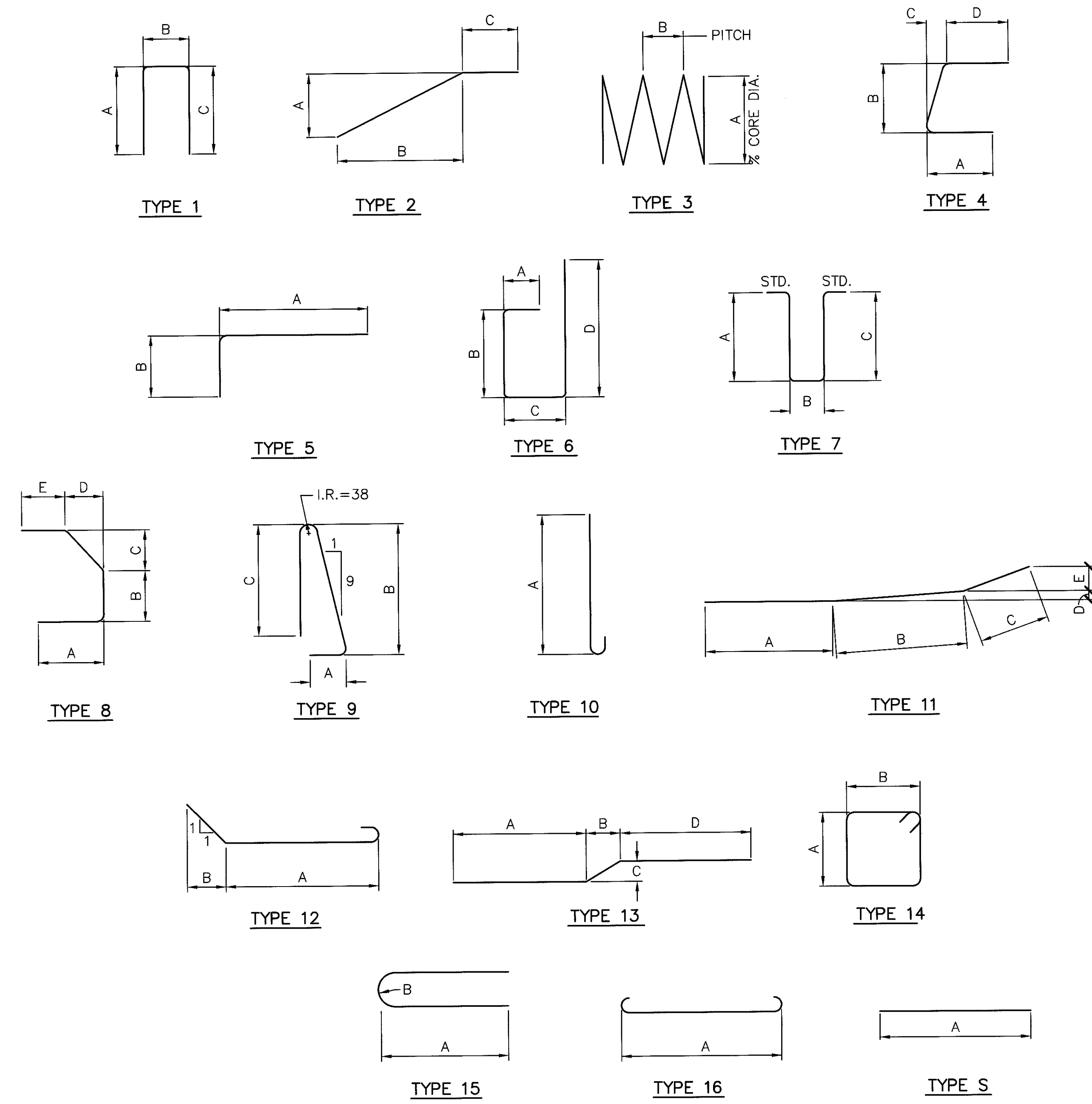
THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 150° C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

ELASTOMERIC BEARINGS, AS PER PLAN SHALL COMPLY WITH ITEM 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.

BRIDGE NO. ERI-2-24816			ELASTOMER							STEEL LAMINATES		LOAD PLATE			LOADS (KN)		
LOCATION	TYPE	T _T	DUROMETER	L _E	W _E	T _E	t _i	t _e	N	No.	t	L _{PL}	W _{PL}	T _{PL}	DL	LL	TOTAL
RA & FA	EXP.	108	50	230	355	69.6	6.5	4.5	7	8	1.89	256	381	38	289	177	466

REINFORCING SCHEDULE

MARK	TOTAL	SUPER	ABUTMENTS		PIERS			LENGTH	TYPE	A	B	C	D	E	INCR
			R.A.	F.A.	#1	#2	#3								
PIERS															
SP13M01	6				3		3	3607	3	765	115				
SP13M02	3					3	3426	3	765	115					
P16M01	66				22	22	22	1700	S	1700					
P16M02	60				20	20	20	2945	S	2945					
P16M03	33				11	11	11	2300	S	2300					
P16M04	9				3	3	3	6062	15	2390	408				
P16M05	18				6	6	6	4620	14	1415	815				
P16M06	12				4	4	4	1415	S	1415					
P16M07	16				16			4590	14	815	1400				
P16M08	16					16		4510	14	815	1360				
P16M09	16						16	4430	14	815	1320				
P16M10	9				3	3	3	2882	15	800	408				
P16M11	18				6	6	6	5350	S	5350					
P16M12	60				20	20	20	540	S	540					
P16M13	66				22	22	22	815	S	815					
P25M01	96				32	32	32	1200	S	1200					
P25M02	60				20	20	20	2260	16	1700					
P25M03	51				17	17	17	3505	16	2945					
P25M04	30				10	10	10	2860	16	2300					
P25M05	6				2	2	2	2400	S	2400					
P25M06	6				2	2	2	2470	S	2470					
P25M07	6				2	2	2	9290	5	7930	1420				
P25M08	6				2	2	2	9660	5	8300	1420				
P25M09	12				4	4	4	5900	S	5900					
P29M01	6				2	2	2	5360	S	5360					
P29M02	6				2	2	2	5710	S	5710					
P29M03	3				1	1	1	5770	S	5770					
P29M04	6				2	2	2	6600	5	5360	1330				
P29M05	6				2	2	2	6990	5	5750	1330				
P29M06	108				36	36	36	3135	5	2830	395				
P29M07	72				36	36	36	4970	S	4970					
P29M08	36					36		4790	S	4790					
SUPERSTRUCTURE															
D25M01	78	78						1531	12	830	305				
S13M01	650	650						9144	S	9144					
S13M02	65	65						4810	S	4810					
S16M01	760	760						9144	S	9144					
S16M02	72	72						6310	S	6310					
S16M03	475	475						8700	S	8700					
S16M04	473	473						9670	S	9670					
S16M05	SER. OF	SER. OF						725	S	725					550
	17	17						9525	S	9525					
	1	1						1015	S	1015					
S16M06	SER. OF	SER. OF						TO		TO					550
	16	16						9265	S	9265					
	1	1						1150	S	1150					
S16M07	SER. OF	SER. OF						TO		TO					550
	14	14						8300	S	8300					
	1	1						725	S	725					
S16M08	SER. OF	SER. OF						TO		TO					550
	15	15						8425	S	8425					
S16M09	472	472						9840	S	9840					
S16M10	475	475						8520	S	8520					
	1	1						725	S	725					
S16M11	SER. OF	SER. OF						TO		TO					550
	15	15						8425	S	8425					
	1	1						1520	S	1520					
S16M12	SER. OF	SER. OF						TO		TO					550
	13	13						8120	S	8120					
	1	1						1190	S	1190					
S16M13	SER. OF	SER. OF						TO		TO					550
	16	16						9440	S	9440					
	1	1						725	S	725					
S16M14	SER. OF	SER. OF						TO		TO					550
	18	18						10075	S	10075					
S16M15	198	198						6825	S	6825					
S16M16	546	546						1825	9	205	840	765			
S16M17	4	4						8810	S	8810					
S16M18	96	96						3940	14	1040	850				
S16M19	96	96						2170	1	730	790	730			
S16M20	8	8						4220	11	3050	738	432	38	127	
S16M21	12	12						920	10	740					
S19M01	546	546						630	5	400	280				
S19M02	594	594						779	8	125	230	216	152	230	
S19M03	72	72						1205	5	975	280				
S25M01	28	28						9280	S	9280					
S25M02	28	28						10660	S	10660					



PLOTTED: OCTOBER 16, 1997
 FILE NAME: I:\5033\005\TRAIN\BRIDGE\2-24816\24816SR~R2
 JTN

DESIGN AGENCY
POGGMAYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 BOWLING GREEN, OHIO 43402

DATE: 8-97
REVIEWED: G.A.B.

DRAWN: R.A.M.
CHECKED: M.E.M.

STRUCTURE FILE NUMBER: 2201836
REVISIONS:

REINFORCING SCHEDULE
 BRIDGE NO. ERI-2-24816(1542)
 UNDER RYE BEACH ROAD

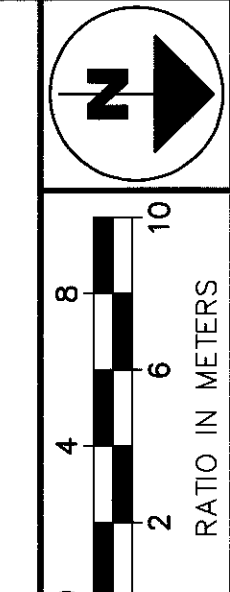
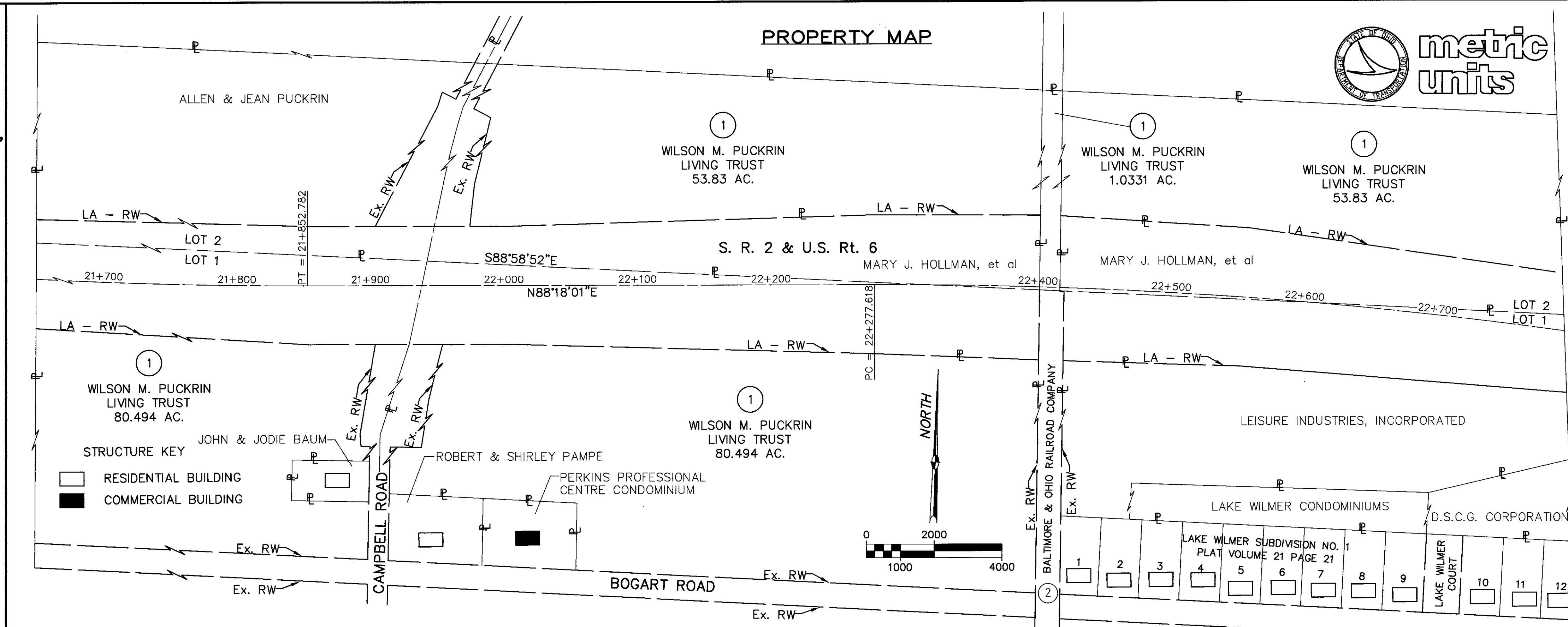
ERI-2--12.558
17/17

428
432

S.R. 2 & U.S. RT. 6/B&O RAILROAD
RIGHT OF WAY
PERKINS TOWNSHIP, ERIE COUNTY
LOTS 1 & 2, BEATTY 1372 ACRE TRACT,
SECTION 3, TOWNSHIP 6 NORTH,
RANGE 23 WEST

CONVENTIONAL SIGNS

County Line	---
Township Line	---
Section Line	---
Corporation Line	---
Fence Line (existing)	---
Fence Line (proposed)	---
Center Line	---
Trees	⊗
Stumps	⊗ (to be removed)
Utility Poles: Telephone	⊙
Power	⊙
Light	⊙
Limited Access (only)	LA
Right of Way (only)	R/W
Limited Access & Right of Way	LA-R/W
Existing Right of Way	---
Property Line	---
Railroad	---
Guardrail (existing)	---
Guardrail (proposed)	---
Construction Limits	---

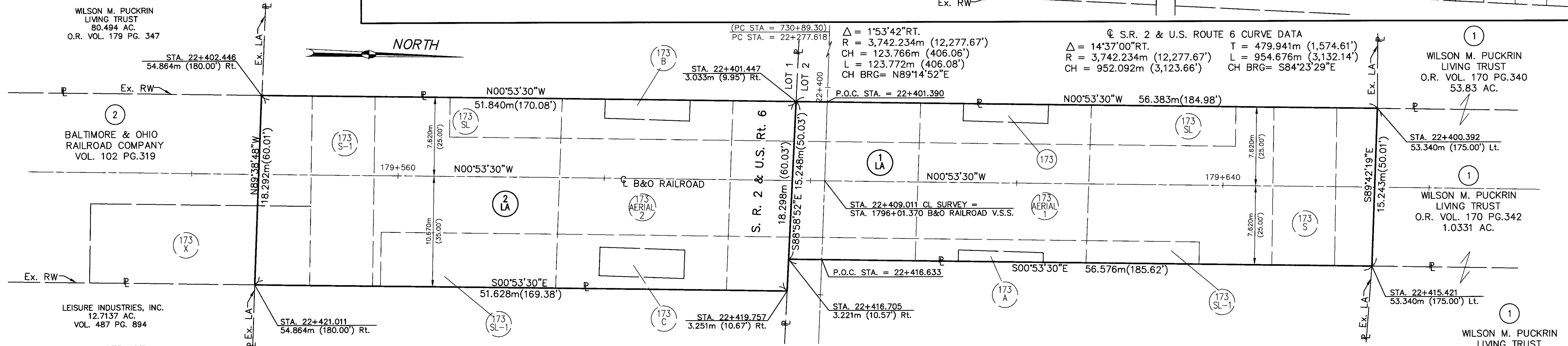


PID NO. 11376

RIGHT OF WAY PLAN

ERI-2-12-588 (7.80)

1/1
432
432



SUMMARY OF ADDITIONAL RIGHT OF WAY

TOTAL NUMBER OF:
 OWNERSHIPS OWNERSHIPS WITH STRUCTURES INVOLVED
 TOTAL TAKES OWNERSHIPS WITH "P" ITEMS

PARCEL	OWNER	DEED RECORDED		AUDITORS I.D. NUMBER	RECORD AREA		TOTAL P.R.O.		GROSS TAKE		P.R.O. IN TAKE		NET TAKE			NET RESIDUE				TYPE FUNDS	REMARKS AND PERSONALTY	AS ACQUIRED	
		VOLUME	PAGE		HECTARES	ACRES	HECTARES	ACRES	HECTARES	ACRES	HECTARES	ACRES	HECTARES	ACRES	BLDG.	HECTARES	ACRES	HECTARES	ACRES			VOLUME	PAGE
1LA	WILSON M. PUCKRIN LIVING TRUST	O.R.179	342	32-04281.000	0.4181	1.0331	0.0023	0.0056	0.0861	0.2127	0.0023	0.0056	0.0838	0.2071	NONE	0.3320	0.8204			STATE			
		O.R.179	340	32-02850.000	21.7971	53.86	4.5164	11.16								17.2807	42.70						
		O.R.179	344	32-02851.000	24.4520	60.42	0.7406	1.83								23.7114	58.59						
		O.R.179	347	32-04745.000	32.5759	80.494	1.3060	3.227								31.2699	77.267	31.2700	77.267				
GRAND TOTAL					79.2431	195.8071	5.4505	16.2226	0.0861	0.2127	0.0023	0.0056	0.3320	0.8204		72.5940	179.3774	31.2700	77.267				
2LA	BALTIMORE AND OHIO RAILROAD	102	319	32-90028.000	6.6209	16.36	0.0038	0.0095	0.0946	0.2338	0.0038	0.0095	0.0908	0.2243	NONE			6.5263	16.1262	STATE			

N.A. = NOT AVAILABLE

NOTE: THE EXISTING RIGHT OF WAY WIDTH IS BASED ON O.D.O.T. PROJECT ERI-6-7.31 DATED SEPTEMBER 1960, 1932, ERI-6-11.30 DATED MAY 1960, AND ERI-6-14.93. REFERENCE RAILROAD RIGHT OF WAY PLANS DATED JUNE 1918 AND REVISED DECEMBER 1983.

STATIONING
 ALL STATIONING IS BASED UPON THE CENTERLINE OF U.S. U.S. ROUTE 6 AS SHOWN ON OHIO DEPARTMENT OF TRANSPORTATION PROJECT ERI-6-7.31. THE CENTER-LINE OF WHICH IS RECORDED IN PLAT VOLUME 14 PAGES 65 AND 66 OF THE ERIE COUNTY PLAT RECORDS.

BEARINGS
 BEARINGS ARE BASED UPON THE CENTER LINE OF RIGHT OF WAY OF THE BALTIMORE AND OHIO RAILROAD AS BEING N00°53'30"W AS REPORTED ON O.D.O.T. RIGHT OF WAY PLANS ERI-6-7.31 DESIGNED IN 1960.

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE. THE METRIC TO ENGLISH CONVERSION FACTOR IS BASED ON THE U.S. SURVEY FOOT.
 1 FOOT = 0.3048006096
 1 METER = 3.28083333333
 1 HECTARE = 2.471044 ACRES

REV.	DATE	DESCRIPTION
DATE OF COMPLETION		

FILE NAME: I:\5033\006\TRAN\RIGHT OF WAY\11376RM.DWG 8-17-99 4:50:06 pm EST