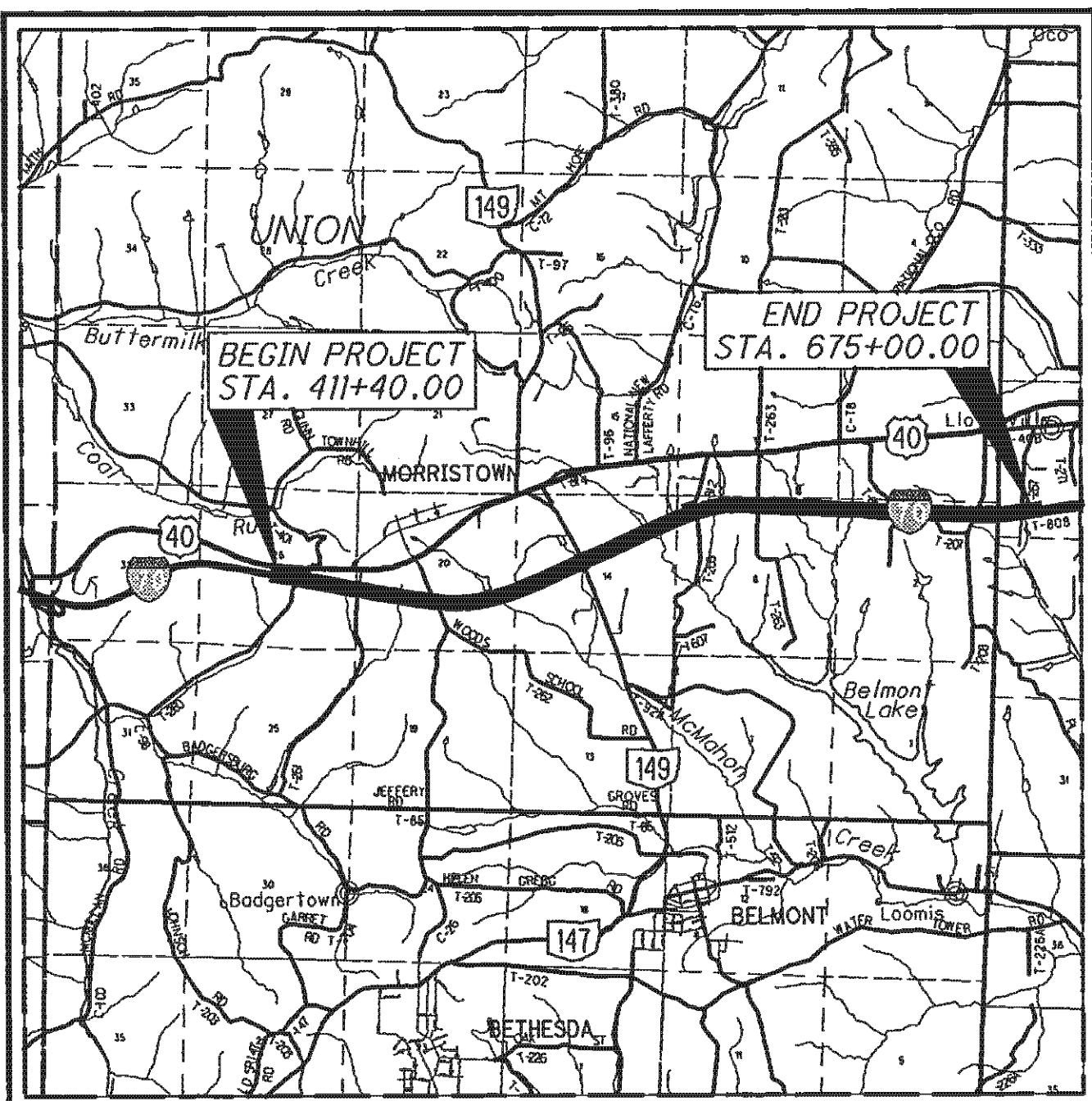


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

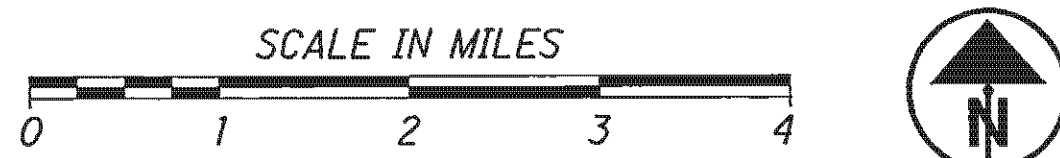
BEL-70-7.61

**RICHLAND AND UNION TOWNSHIPS
BELMONT COUNTY**



LOCATION MAP

LATITUDE: 40°03'41" LONGITUDE: 81°02'55"



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
STATE & FEDERAL ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

DESIGN DESIGNATION

CURRENT ADT (2010)	-----	35870
DESIGN YEAR ADT (2030)	-----	46890
DESIGN HOURLY VOLUME (2030)	-----	4220
DIRECTIONAL DISTRIBUTION	-----	0.55
TRUCKS (24 HOUR B&C)	-----	0.50
DESIGN SPEED	-----	70 MPH
LEGAL SPEED	-----	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:		
RURAL INTERSTATE		
NHS PROJECT	-----	YES

DESIGN EXCEPTIONS

GRADED SHOULDER WIDTH 3/24/2009

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:

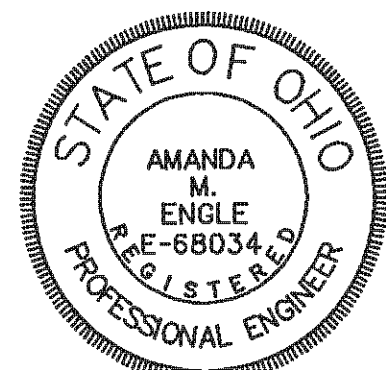


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ENGINEERS SEAL:

FOR STRUCTURES
20' & OVER



SIGNED: *A.M. Engle*
DATE: 05/02/2011

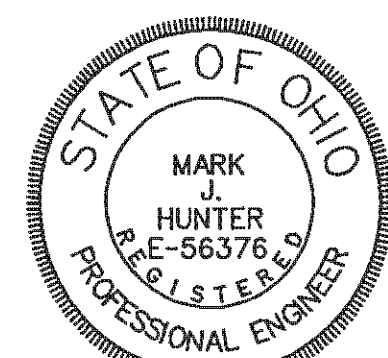
STANDARD CONSTRUCTION DRAWINGS

SUPPLEMENTAL SPECIFICATIONS

BP-2.1	7/18/08	F-1.1	7/16/04	RM-4.1	10/20/06	MT-101.70	1/16/09	HL-10.11	4/17/09	800	10/16/09
BP-2.2	7/18/08	F-2.1	7/28/00	RM-4.3	10/16/09	MT-101.90	1/16/09	HL-10.12	1/19/07	888	4/18/08
BP-2.3	7/16/04	F-3.1	7/28/00	RM-4.5	10/16/09	MT-102.10	7/17/09	HL-10.13	10/16/09	898	7/17/09
BP-3.1	10/19/07	F-3.3	7/28/00	RM-4.6	10/16/09	MT-102.20	4/17/09	HL-20.11	1/19/07		
BP-6.1	7/28/00	F-3.4	7/28/00			MT-102.30	4/17/09	HL-30.11	10/16/09		
				AS-1-81	7/19/02			HL-30.21	1/19/07		
CB-3.1	7/15/05	GR-1.1	7/16/04			TC-41.10	10/19/07	HL-40.10	1/19/07		
CB-3.2	7/15/05	GR-2.1	1/16/04	MT-95.30	7/17/09	TC-42.10	1/19/07	HL-50.11	1/19/07		
		GR-3.1	10/16/09	MT-95.71	7/17/09	TC-42.20	7/16/04	HL-60.11	1/19/07		
HW-2.1	7/30/07	GR-3.2	10/16/09	MT-98.10	7/17/09	TC-51.11	4/20/01	HL-60.31	1/19/07		
HW-2.2	7/30/07	GR-4.2	1/19/07	MT-98.11	7/17/09	TC-52.10	1/19/07				
		GR-5.1	4/18/03	MT-98.20	7/17/09	TC-52.20	1/19/07				
DM-1.1	4/21/06	GR-5.2	1/16/04	MT-98.28	7/17/09	TC-65.10	1/21/05				
DM-1.2	10/21/05	GR-5.3	1/16/04	MT-98.29	7/17/09	TC-65.11	1/21/05				
DM-4.1	7/19/02	GR-6.1	4/18/03	MT-100.00	1/16/09	TC-72.20	10/16/09				
		GR-6.2	4/18/03	MT-101.60	4/17/09	TC-73.10	1/19/01				

ENGINEERS SEAL:

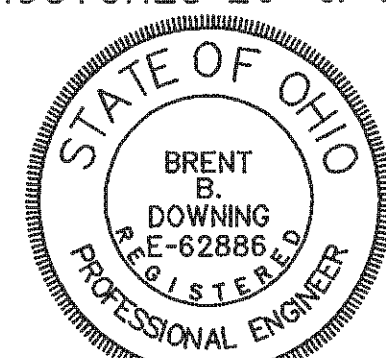
FOR LIGHTING



SIGNED: *Mark J. Hunter*
DATE: 06/09/2010

ENGINEERS SEAL:

FOR ENTIRE PLAN EXCEPT
LIGHTING &
STRUCTURES 20' & OVER



SIGNED: *Brent B. Downing*
DATE: 05/02/2011

PROJECT DESCRIPTION

THE PROJECT INCLUDES THE CONCRETE OVERLAY OF 5.0 MILES OF IR 70 INCLUDING THE SR 149 RAMPS. OTHER ITEMS INCLUDE THE REHABILITATION OF TWO SETS OF MAINLINE STRUCTURES, GUARDRAIL REPLACEMENT, TRAFFIC CONTROL, AND DRAINAGE.

PROJECT EARTH DISTURBED AREA: 100 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 42 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 142 ACRES

LIMITED ACCESS

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

2008 SPECIFICATIONS

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

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

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

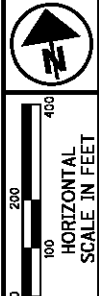
FEDERAL PROJECT NO.
E040(135)

PID NO.
76825

CONSTRUCTION PROJECT NO.
093005

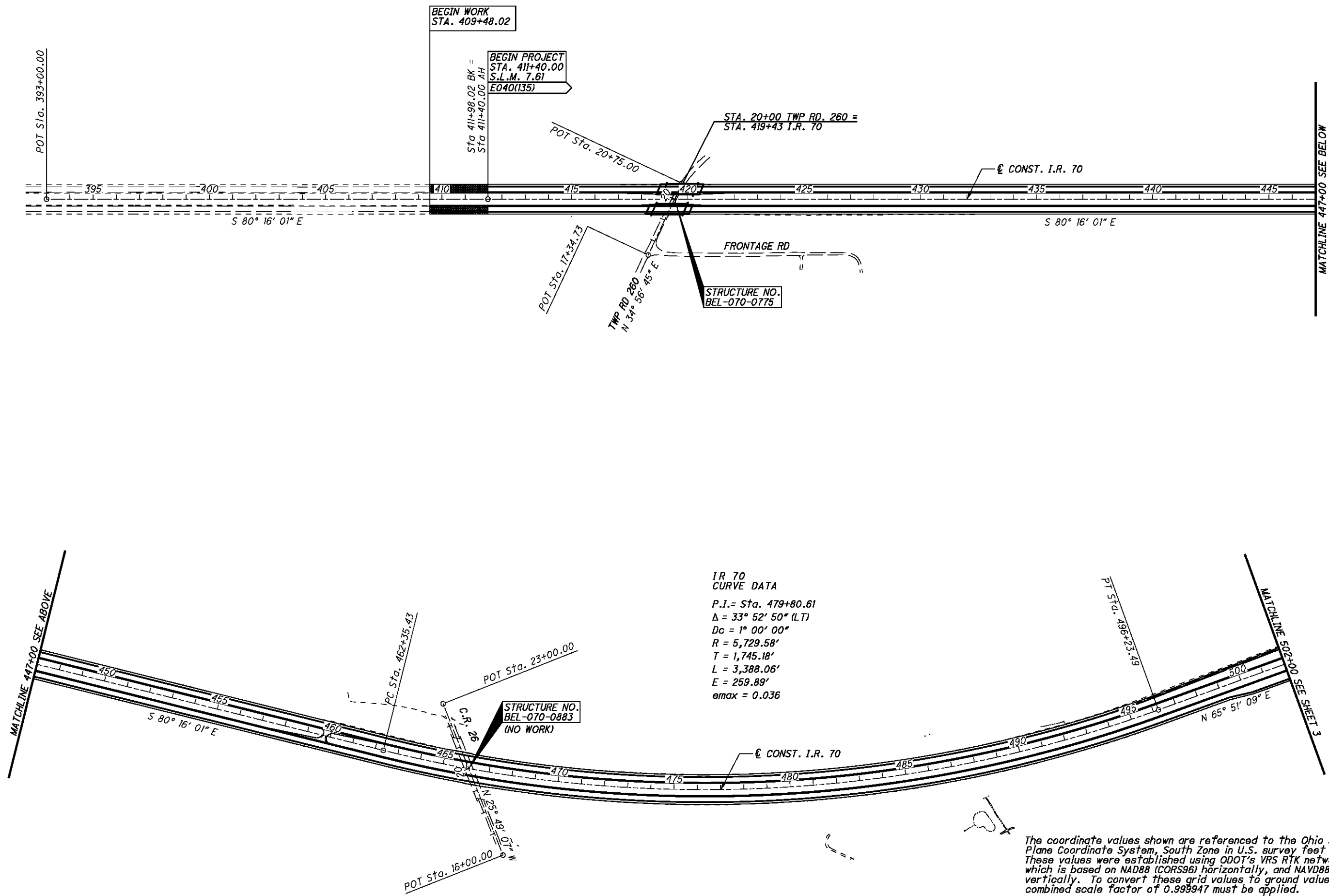
RAILROAD INVOLVEMENT
NONE

BEL-70-7.61



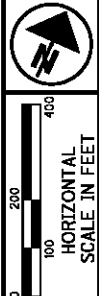
SCHEMATIC PLAN

BEL-70-7.61



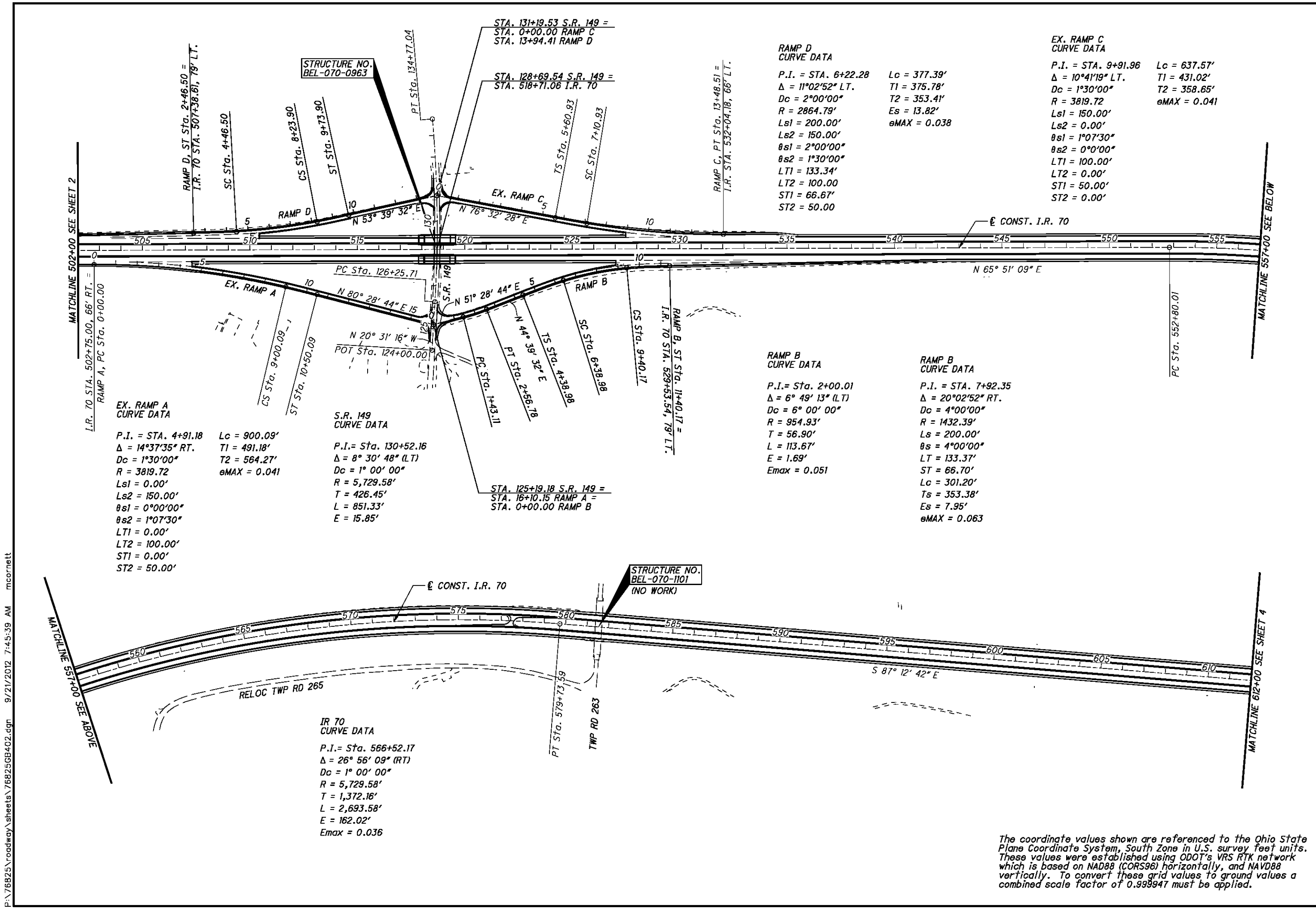
The coordinate values shown are referenced to the Ohio State Plane Coordinate System, South Zone in U.S. survey feet units. These values were established using ODOT's VRS RTK network which is based on NAD88 (CORS96) horizontally, and NAVD88 vertically. To convert these grid values to ground values a combined scale factor of 0.999947 must be applied.

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SCHEMATIC PLAN

BEL-70-7.61



EX. RAMP A CURVE DATA

P.I. = STA. 4+91.18
 $\Delta = 14^\circ 37' 35''$ RT.
 $Dc = 1^\circ 30' 00''$
 $R = 3819.72$
 $Ls1 = 0.00'$
 $Ls2 = 150.00'$
 $\theta s1 = 0^\circ 00' 00''$
 $\theta s2 = 1^\circ 07' 30''$
 $LT1 = 0.00'$
 $LT2 = 100.00'$
 $ST1 = 0.00'$
 $ST2 = 50.00'$

S.R. 149 CURVE DATA

P.I. = Sta. 130+52.16
 $\Delta = 8^\circ 30' 48''$ (LT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 426.45'$
 $L = 851.33'$
 $E = 15.85'$

STA. 125+19.18 S.R. 149 =
 STA. 16+10.15 RAMP A =
 STA. 0+00.00 RAMP B

RAMP B CURVE DATA

P.I. = Sta. 2+00.01
 $\Delta = 6^\circ 49' 13''$ (LT)
 $Dc = 6^\circ 00' 00''$
 $R = 954.93'$
 $T = 56.90'$
 $L = 113.67'$
 $E = 1.69'$
 $E_{max} = 0.051$

RAMP B CURVE DATA

P.I. = STA. 7+92.35
 $\Delta = 20^\circ 02' 52''$ RT.
 $Dc = 4^\circ 00' 00''$
 $R = 1432.39'$
 $Ls = 200.00'$
 $\theta s = 4^\circ 00' 00''$
 $LT = 133.37'$
 $ST = 66.70'$
 $Lc = 301.20'$
 $Ts = 353.38'$
 $Es = 7.95'$
 $e_{MAX} = 0.063$

RAMP D CURVE DATA

P.I. = STA. 6+22.28
 $\Delta = 11^\circ 02' 52''$ LT.
 $Dc = 2^\circ 00' 00''$
 $R = 2864.79'$
 $Ls1 = 200.00'$
 $Ls2 = 150.00'$
 $\theta s1 = 2^\circ 00' 00''$
 $\theta s2 = 1^\circ 30' 00''$
 $LT1 = 133.34'$
 $LT2 = 100.00'$
 $ST1 = 66.67'$
 $ST2 = 50.00'$

EX. RAMP C CURVE DATA

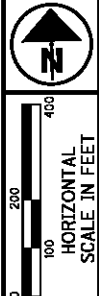
P.I. = STA. 9+91.96
 $\Delta = 10^\circ 41' 19''$ LT.
 $Dc = 1^\circ 30' 00''$
 $R = 3819.72$
 $Ls1 = 150.00'$
 $Ls2 = 0.00'$
 $\theta s1 = 1^\circ 07' 30''$
 $\theta s2 = 0^\circ 00' 00''$
 $LT1 = 100.00'$
 $LT2 = 0.00'$
 $ST1 = 50.00'$
 $ST2 = 0.00'$

IR 70 CURVE DATA

P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,372.16'$
 $L = 2,693.58'$
 $E = 162.02'$
 $E_{max} = 0.036$

The coordinate values shown are referenced to the Ohio State Plane Coordinate System, South Zone in U.S. survey feet units. These values were established using ODOT's VRS RTK network which is based on NAD88 (CORSS96) horizontally, and NAVD88 vertically. To convert these grid values to ground values a combined scale factor of 0.999947 must be applied.

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SCHEMATIC PLAN

BEL-70-7.61

**REST AREA
EX. CURVE DATA (2)**
 P.I. = Sta. 7+62.27
 $\Delta = 38^\circ 24' 19''$ (LT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 104.49'$
 $L = 201.09'$
 $E = 17.68'$

**REST AREA
EX. CURVE DATA (3)**
 P.I. = Sta. 9+29.92
 $\Delta = 45^\circ 21' 54''$ (RT)
 $Dc = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 71.05'$
 $L = 134.60'$
 $E = 14.25'$

**REST AREA
CURVE DATA (4)**
 P.I. = Sta. 17+69.91
 $\Delta = 24^\circ 00' 22''$ (RT)
 $Dc = 34^\circ 06' 17''$
 $R = 168.00'$
 $T = 35.72'$
 $L = 70.39'$
 $E = 3.76'$

**REST AREA
CURVE DATA (5)**
 P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32''$ (LT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$

**REST AREA
CURVE DATA (6)**
 P.I. = Sta. 23+75.94
 $\Delta = 10^\circ 08' 04''$ (LT)
 $Dc = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 338.69'$
 $L = 675.62'$
 $E = 14.99'$
 $E_{max} = 0.032$ (EX.)

**REST AREA
CURVE DATA (7)**
 P.I. = Sta. 2+77.02
 $\Delta = 8^\circ 17' 46''$ (RT)
 $Dc = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 277.02'$
 $L = 553.07'$
 $E = 10.03'$
 $E_{max} = 0.035$ (EX.)

**REST AREA
CURVE DATA (8)**
 P.I. = Sta. 5+96.18
 $\Delta = 11^\circ 21' 23''$ (RT)
 $Dc = 11^\circ 27' 33''$
 $R = 500.00'$
 $T = 49.71'$
 $L = 99.10'$
 $E = 2.47'$

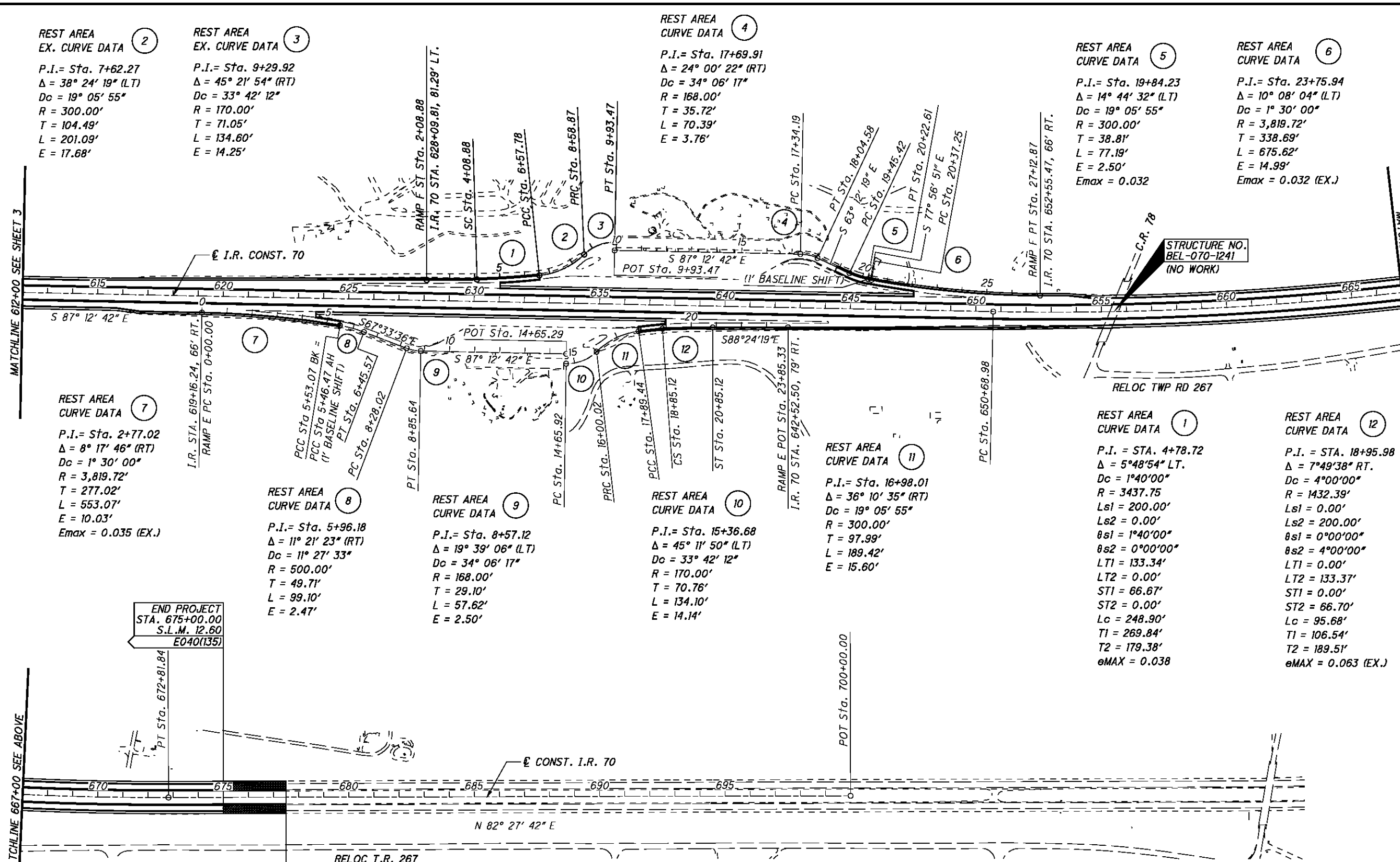
**REST AREA
CURVE DATA (9)**
 P.I. = Sta. 8+57.12
 $\Delta = 19^\circ 39' 06''$ (LT)
 $Dc = 34^\circ 06' 17''$
 $R = 168.00'$
 $T = 29.10'$
 $L = 57.62'$
 $E = 2.50'$

**REST AREA
CURVE DATA (10)**
 P.I. = Sta. 15+36.68
 $\Delta = 45^\circ 11' 50''$ (LT)
 $Dc = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 70.76'$
 $L = 134.10'$
 $E = 14.14'$

**REST AREA
CURVE DATA (11)**
 P.I. = Sta. 16+98.01
 $\Delta = 36^\circ 10' 35''$ (RT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 97.99'$
 $L = 189.42'$
 $E = 15.60'$

**REST AREA
CURVE DATA (1)**
 P.I. = STA. 4+78.72
 $\Delta = 5^\circ 48' 54''$ LT.
 $Dc = 1^\circ 40' 00''$
 $R = 3437.75$
 $Ls1 = 200.00'$
 $Ls2 = 0.00'$
 $\theta s1 = 1^\circ 40' 00''$
 $\theta s2 = 0^\circ 00' 00''$
 $LT1 = 133.34'$
 $LT2 = 0.00'$
 $ST1 = 66.67'$
 $ST2 = 0.00'$
 $Lc = 248.90'$
 $T1 = 269.84'$
 $T2 = 179.38'$
 $e_{MAX} = 0.038$

**REST AREA
CURVE DATA (12)**
 P.I. = STA. 18+95.98
 $\Delta = 7^\circ 49' 38''$ RT.
 $Dc = 4^\circ 00' 00''$
 $R = 1432.39'$
 $Ls1 = 0.00'$
 $Ls2 = 200.00'$
 $\theta s1 = 0^\circ 00' 00''$
 $\theta s2 = 4^\circ 00' 00''$
 $LT1 = 0.00'$
 $LT2 = 133.37'$
 $ST1 = 0.00'$
 $ST2 = 66.70'$
 $Lc = 95.68'$
 $T1 = 106.54'$
 $T2 = 189.51'$
 $e_{MAX} = 0.063$ (EX.)



**IR 70
CURVE DATA**
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36''$ (LT)
 $Dc = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$

**END WORK
STA. 677+50.00**

**END PROJECT
STA. 675+00.00
S.L.M. 12.60
E040(135)**

The coordinate values shown are referenced to the Ohio State Plane Coordinate System, South Zone in U.S. survey feet units. These values were established using ODOT's VRS RTK network which is based on NAD88 (CORS96) horizontally, and NAVD88 vertically. To convert these grid values to ground values a combined scale factor of 0.999947 must be applied.

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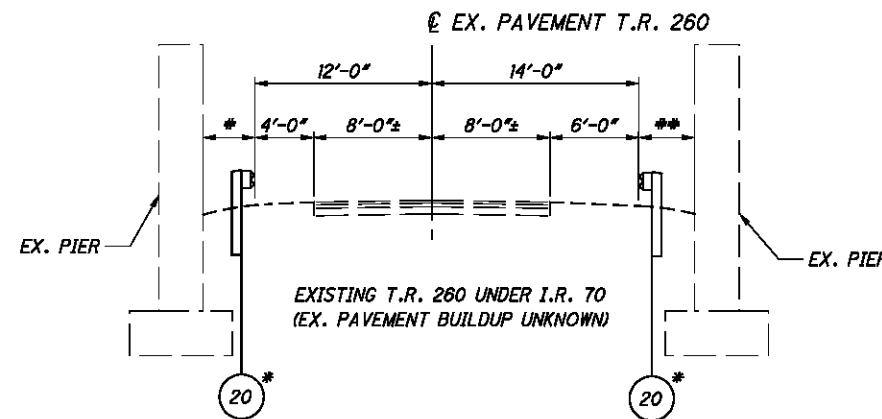
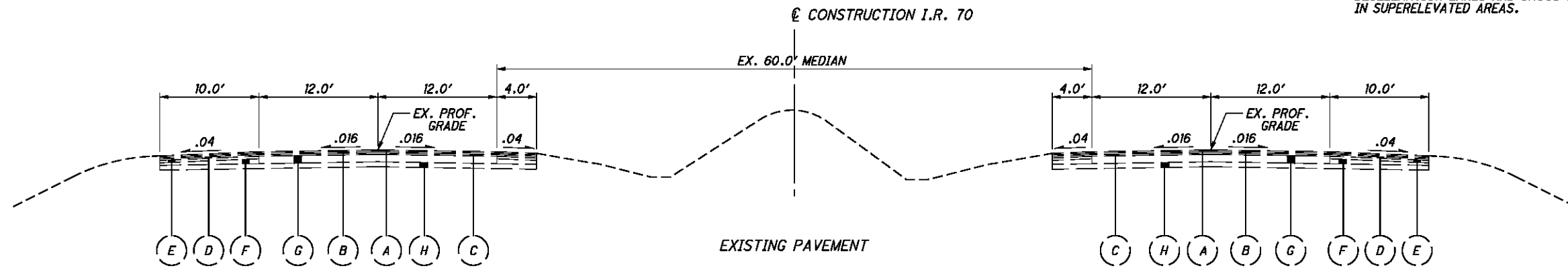
BENCHMARK	ALIGNMENT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	FEATURE
13	I.R. 70	415+99.86	0.02	753,010.0100	2,363,636.2800	1255.63	CENTERLINE MONUMENT FOUND
1397	I.R. 70	420+92.94	-192.26	753,116.1570	2,364,154.7680	1245.95	PK NAIL FOUND
12	I.R. 70	423+99.59	0.01	752,874.8200	2,364,424.5000	1253.64	CENTERLINE MONUMENT FOUND
11	I.R. 70	430+99.51	-0.05	752,756.5500	2,365,114.3500	1249.16	CENTERLINE MONUMENT FOUND
10	I.R. 70	439+99.32	-0.03	752,604.4100	2,366,001.2100	1247.78	CENTERLINE MONUMENT FOUND
9	I.R. 70	446+99.96	-0.09	752,486.0200	2,366,691.7700	1263.04	CENTERLINE MONUMENT FOUND
8	I.R. 70	453+00.11	-0.27	752,384.7300	2,367,283.3100	1275.01	CENTERLINE MONUMENT FOUND
7	I.R. 70	457+99.74	-0.20	752,300.2000	2,367,775.7400	1280.08	CENTERLINE MONUMENT FOUND
6	I.R. 70	462+35.29	-0.14	752,226.5100	2,368,205.0100	1279.65	CENTERLINE MONUMENT FOUND
14	I.R. 70	468+00.09	0.01	752,158.4300	2,368,765.4600	1272.63	CENTERLINE MONUMENT FOUND
15	I.R. 70	473+99.73	0.23	752,146.8300	2,369,364.7200	1256.91	CENTERLINE MONUMENT FOUND
16	I.R. 70	479+99.36	0.48	752,197.8600	2,369,961.9400	1239.44	CENTERLINE MONUMENT FOUND
17	I.R. 70	486+00.04	0.35	752,311.6300	2,370,551.5100	1221.55	CENTERLINE MONUMENT FOUND
18	I.R. 70	490+99.91	-0.06	752,453.2200	2,371,030.7600	1213.36	CENTERLINE MONUMENT FOUND
19	I.R. 70	496+24.39	0.15	752,645.4700	2,371,518.5400	1216.14	CENTERLINE MONUMENT FOUND
20	I.R. 70	506+00.60	0.14	753,044.8300	2,372,409.3200	1223.58	CENTERLINE MONUMENT FOUND
21	I.R. 70	512+00.68	0.16	753,290.3000	2,372,956.9000	1226.57	CENTERLINE MONUMENT FOUND
22	I.R. 70	524+00.62	0.14	753,781.2000	2,374,051.8300	1213.74	CENTERLINE MONUMENT FOUND
23	I.R. 70	530+00.46	0.00	754,026.7100	2,374,599.1300	1197.51	CENTERLINE MONUMENT FOUND
24	I.R. 70	537+00.00	0.00	754,312.8800	2,375,237.4600	1177.52	CENTERLINE MONUMENT FOUND
25	I.R. 70	543+99.52	0.04	754,599.0100	2,375,875.7800	1162.02	CENTERLINE MONUMENT FOUND
26	I.R. 70	552+80.55	0.09	754,959.3800	2,376,679.7400	1176.99	CENTERLINE MONUMENT FOUND
27	I.R. 70	558+00.19	0.03	755,150.1900	2,377,162.8800	1191.86	CENTERLINE MONUMENT FOUND
28	I.R. 70	564+98.42	-0.03	755,336.1900	2,377,835.4300	1211.44	CENTERLINE MONUMENT FOUND
29	I.R. 70	571+99.86	-0.09	755,439.3400	2,378,528.8100	1226.17	CENTERLINE MONUMENT FOUND
44	I.R. 70	579+74.16	0.00	755,453.8000	2,379,302.3900	1229.10	CENTERLINE MONUMENT FOUND
43	I.R. 70	586+99.95	0.05	755,418.4400	2,380,027.3200	1218.94	CENTERLINE MONUMENT FOUND
30	I.R. 70	593+99.92	0.10	755,384.3400	2,380,726.4600	1200.53	CENTERLINE MONUMENT FOUND
31	I.R. 70	599+99.40	-0.01	755,355.2800	2,381,325.2400	1186.09	CENTERLINE MONUMENT FOUND
32	I.R. 70	606+99.44	0.01	755,321.2100	2,382,024.4500	1182.86	CENTERLINE MONUMENT FOUND
33	I.R. 70	614+99.47	0.03	755,282.2700	2,382,823.5300	1189.58	CENTERLINE MONUMENT FOUND
34	I.R. 70	621+00.84	-0.01	755,253.0500	2,383,424.1900	1194.85	CENTERLINE MONUMENT FOUND
35	I.R. 70	627+00.46	0.02	755,223.8600	2,384,023.1000	1199.97	CENTERLINE MONUMENT FOUND
36	I.R. 70	633+00.13	0.02	755,194.6800	2,384,622.0600	1203.07	CENTERLINE MONUMENT FOUND
37	I.R. 70	639+00.09	-0.16	755,165.6800	2,385,221.3200	1200.23	CENTERLINE MONUMENT FOUND
38	I.R. 70	645+00.94	-0.24	755,136.5300	2,385,821.4600	1191.52	CENTERLINE MONUMENT FOUND
39	I.R. 70	650+69.91	-0.43	755,109.0400	2,386,389.7600	1182.31	CENTERLINE MONUMENT FOUND
40	I.R. 70	658+01.00	-0.30	755,095.1500	2,387,120.5900	1178.14	CENTERLINE MONUMENT FOUND
41	I.R. 70	665+00.81	-0.14	755,122.5900	2,387,819.7600	1184.50	CENTERLINE MONUMENT FOUND
42	I.R. 70	672+82.49	0.05	755,200.2700	2,388,597.4300	1193.69	CENTERLINE MONUMENT FOUND
965	S.R. 149	126+29.97	0.88	753,342.5200	2,373,658.1900	1196.07	PK NAIL FOUND
1694	S.R. 149	126+29.99	0.92	753,342.5460	2,373,658.2180	1196.04	PK NAIL FOUND
1695	S.R. 149	130+36.48	0.97	753,717.8390	2,373,502.0790	1205.01	PK NAIL FOUND
1398	T.R. 260	18+22.80	-22.52	752,819.6680	2,363,854.5170	1226.70	PK NAIL FOUND
1779	T.R. 260	18+22.80	-22.52	752,819.6680	2,363,854.5170	1226.70	IRON PIN FOUND
1766	T.R. 260	20+75.00	53.76	753,116.1570	2,364,154.7680	1245.95	PK NAIL FOUND

BENCHMARKS

REFERENCE POINT	STATION	NORTHING	EASTING
CONST. I.R. 70			
P.O.T.	393+00.00	753,408.6500	2,361,312.3400
P.O.T. (STA. EQ.)	411+98.02	753,087.7700	2,363,183.0400
	411+40.00		
P.C.	462+35.43	752,226.3400	2,368,205.1300
P.T.	496+23.49	752,645.2400	2,371,517.6600
P.C.	552+80.00	754,959.2400	2,376,679.2100
P.T.	579+73.59	755,453.8200	2,379,301.8300
P.C.	650+68.98	755,108.6500	2,386,388.8100
P.T.	672+81.84	755,200.2300	2,388,596.7800
P.O.T.	700+00.00	755,556.8200	2,391,291.4500
EX. CONST. RAMP A			
P.C.	0+00.00	752,851.5400	2,372,139.1600
C.S.	9+00.09	753,120.0300	2,372,996.0900
S.T.	10+50.09	753,145.8100	2,373,143.8600
P.O.T.	16+10.15	753,238.4500	2,373,696.2000
EX. CONST. RAMP B			
P.O.T.	0+00.00	753,238.4500	2,373,696.2000
P.C.	1+43.11	753,327.5800	2,373,808.1700
P.T.	2+56.78	753,403.4900	2,373,892.6800
T.S.	4+21.53	753,520.6800	2,374,008.4800
S.C.	6+21.53	753,659.6000	2,374,152.3000
C.S.	9+21.53	753,832.8200	2,374,396.5700
S.T.	11+21.53	753,922.5800	2,374,575.2500
P.O.T.	14+21.50	754,050.9700	2,374,846.3600
EX. CONST. RAMP C			
P.O.T.	0+00.00	753,792.6800	2,373,466.0400
T.S.	5+60.94	753,923.2400	2,374,011.5700
S.C.	7+10.94	753,959.1000	2,374,157.2200
P.T.	13+48.51	754,170.2700	2,374,758.0200
EX. CONST. RAMP D			
P.O.T.	0+00.00	753,072.4600	2,372,277.4900
T.S.	3+00.00	753,200.8600	2,372,548.6200
S.C.	4+50.00	753,266.2400	2,372,683.6200
C.S.	8+50.00	753,471.1400	2,373,026.7800
S.T.	10+00.00	753,558.9600	2,373,148.3700
P.O.T.	13+94.39	753,792.6800	2,373,466.0400
EX. CONST. RAMP E (OFF)			
P.C.	0+00.00	755,196.1200	2,383,236.6000
P.C.C. (STA. EQ.)	5+53.07	755,129.3900	2,383,785.1500
P.C.C. (1' SHIFT)	5+46.47	755,128.4100	2,383,784.9500
P.T.	6+45.57	755,099.8800	2,383,879.6900
P.C.	8+28.02	755,030.2300	2,384,048.3300
P.T.	8+85.64	755,017.7100	2,384,104.2800
P.O.T.	14+65.29	754,989.5100	2,384,683.2500

REFERENCE POINT	STATION	NORTHING	EASTING
EX. CONST. RAMP E (ON)			
P.C.	14+65.92	754,950.5300	2,384,681.3500
P.R.C.	16+00.02	754,994.8100	2,384,804.2700
P.C.C.	17+89.44	755,071.5300	2,384,974.0200
C.S.	18+85.12	755,078.8300	2,385,069.4100
S.T.	20+85.12	755,077.8200	2,385,269.3700
P.O.T.	23+85.33	755,069.4700	2,385,569.4600
EX. CONST. RAMP F (ON)			
P.O.T.	0+00.00	754,950.5300	2,384,681.3500
T.S.	3+00.00	754,994.8100	2,384,804.2700
S.C.	5+00.00	755,071.5300	2,384,974.0200
P.C.C. (STA. EQ.)	6+88.40	755,078.8300	2,385,069.4100
	6+57.78		
P.R.C.	8+58.87	755,077.8200	2,385,269.3700
P.T.	9+93.47	755,069.4700	2,385,569.4600
EX. CONST. RAMP E (OFF)			
P.O.T.	9+93.47	755,396.0100	2,374,887.8000
P.C.	17+34.19	755,359.9800	2,385,627.6400
P.T.	18+04.58	755,342.1400	2,385,695.2000
P.C.	19+45.42	755,278.6500	2,385,820.9200
P.T.	20+22.61	755,253.0500	2,385,893.5100
P.O.T. (1' SHIFT)	20+22.61	755,252.0700	2,385,893.3000
P.C.	20+37.25	755,249.0200	2,385,907.6200
P.T.	27+12.87	755,166.9600	2,386,577.3500
PR. RAMP B			
P.O.T.	0+00.00	753,238.4500	2,373,696.2030
P.C.	1+43.11	753,327.5790	2,373,808.1690
P.T.	2+56.78	753,403.4930	2,373,892.6840
T.S.	4+38.98	753,533.0900	2,374,020.7480
S.C.	6+38.98	753,672.0110	2,374,164.5660
C.S.	9+40.17	753,845.8130	2,374,409.8780
S.T.	11+40.17	753,935.4280	2,374,588.6290
PR. RAMP D			
T.S.	2+46.50	753,173.5070	2,372,502.8870
S.C.	4+46.50	753,261.0510	2,372,682.6970
C.S.	8+23.90	753,455.6600	2,373,005.7240
S.T.	9+73.90	753,543.4880	2,373,127.3170
P.O.T.	13+94.41	753,792.6820	2,373,466.0430
PR. CONST. RAMP F (ON)			
T.S.	2+08.88	755,299.7480	2,384,136.2770
S.C.	4+08.88	755,295.9540	2,384,336.2340
P.C.C.	6+57.78	755,305.0650	2,384,584.9150
P.R.C.	8+58.87	755,383.3620	2,384,766.0650
P.T.	9+93.47	755,427.9790	2,384,889.3520

NOTE:
 EXISTING NORMAL TYPICAL SECTION SHOWN TO ILLUSTRATE PAVEMENT BUILDUP. OUTSIDE LANE WIDTHS VARY AT RAMP ACCELERATION AND DECELERATION LANES AND CROSS SLOPES VARY IN SUPERELEVATED AREAS.



* USE ITEM 606 - GUARDRAIL, TYPE 5A IN FRONT OF BOTH WESTBOUND PIERS.

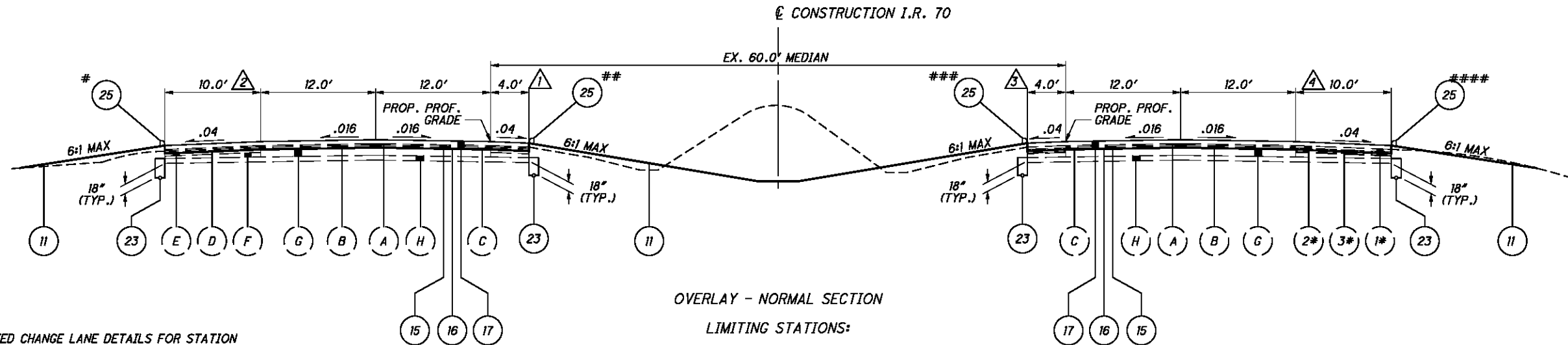
WESTBOUND PIER MIN = 3.5'
 WESTBOUND PIER MAX = 9.8'
 EASTBOUND PIER MIN = 6.0'
 EASTBOUND PIER MAX = 8.5'

** WESTBOUND PIER MIN = 3.5'
 WESTBOUND PIER MAX = 11.7'
 EASTBOUND PIER MIN = 8.3'
 EASTBOUND PIER MAX = 10.8'

LEGEND

- | | |
|---|----------------------------|
| (A) 1 3/4" (±) ASPHALT CONCRETE SURFACE COURSE | (F) 3"-6" POROUS AGGREGATE |
| (B) 1 3/4" (±) ASPHALT CONCRETE INTERMEDIATE COURSE | (G) 9" (±) CONCRETE |
| (C) 2" (±) ASPHALT CONCRETE | (H) 6" (±) SUBBASE |
| (D) 2" (±) ASPHALT CONCRETE BASE | (I) APPROACH SLAB (T=13") |
| (E) 3" (±) WATERPROOF AGGREGATE | |

- | | |
|--|--|
| (1) ITEM 254 - PAVEMENT PLANING, 7.5" DEPTH | (14) ITEM 204 - PROOF ROLLING |
| (2) ITEM 448 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 | (15) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 5" DEPTH |
| (3) ITEM 301 - 4 1/2" ASPHALT CONCRETE BASE | (16) ITEM 442 - 1" ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5MM, TYPE A (448) (THICKNESS VARIES IN PROFILE CHANGE AND SUPERELEVATION AREAS) |
| (4) ITEM 204 - 10" GRANULAR MATERIAL, TYPE B (304 GRADATION) | (17) ITEM 888 - PORTLAND CEMENT CONCRETE PAVEMENT, 9" THICK (NON-REINFORCED PER 452) |
| (5) ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP | (18) ITEM 888 - PORTLAND CEMENT CONCRETE PAVEMENT, 13" THICK (NON-REINFORCED PER 452) |
| (6) ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP | (19) ITEM 304 - 6" AGGREGATE BASE |
| (7) ITEM 206 - CURING COAT | (20) ITEM 606 - GUARDRAIL, TYPE 5 |
| (8) ITEM 204 - EXCAVATION OF SUBGRADE, 3' DEEP | (21) ITEM 209 - LINEAR GRADING, AS PER PLAN |
| (9) ITEM 204 - EXCAVATION OF SUBGRADE, 2.5' DEEP | (22) ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 PG64-22, UNDER GUARDRAIL, AS PER PLAN (2" THICK) |
| (10) ITEM 204 - GRANULAR MATERIAL, TYPE B | (23) ITEM 605 - 6" BASE PIPE UNDERDRAIN |
| (11) ITEM 659 - SEEDING AND MULCHING | (24) ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15") |
| (12) ITEM 832 - CONSTRUCTION SEEDING & MULCHING | (25) ITEM 609 - CURB, TYPE 4-C |
| (13) ITEM 204 - SUBGRADE COMPACTION | |



OVERLAY - NORMAL SECTION

LIMITING STATIONS:

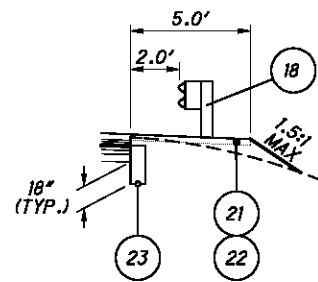
NOTES:

SEE SPEED CHANGE LANE DETAILS FOR STATION LIMITS AND WIDTHS AT ACCELERATION AND DECELERATION LANES.

INSTALL UNDERDRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.2

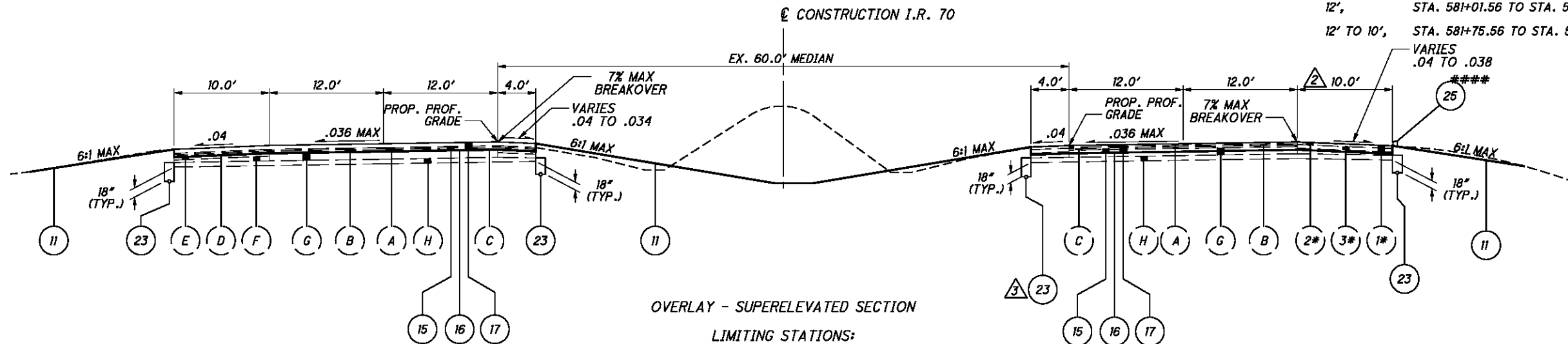
STA. 411+40.00 TO STA. 418+69.02	= 729.02'
STA. 420+53.91 TO STA. 457+85.00	= 3731.09'
STA. 497+89.09 TO STA. 517+87.03	= 1997.94'
STA. 519+58.11 TO STA. 551+14.41	= 3156.30'
STA. 586+90.00 TO STA. 649+79.81	= 6289.81'
STA. 673+70.97 TO STA. 675+00.00	= 129.03'

STA. 411+40.00 TO STA. 418+34.19	= 694.19'
STA. 420+19.08 TO STA. 460+69.83	= 4050.75'
STA. 497+89.09 TO STA. 517+85.28	= 1996.19'
STA. 519+56.37 TO STA. 551+14.41	= 3158.04'
STA. 581+39.19 TO STA. 649+79.81	= 6840.62'
STA. 673+70.97 TO STA. 675+00.00	= 129.03'



GUARDRAIL DETAIL

* STA. 420+68.34 TO STA. 420+69.84	4' TO 9'	STA. 417+40.20 TO STA. 418+65.20	△ 3 4' TO 6.16'	STA. 417+82.64 TO STA. 418+36.81
STA. 519+58.11 TO STA. 519+73.61	9' TO 4'	STA. 420+50.09 TO STA. 421+75.09	6.16' TO 4'	STA. 420+21.69 TO STA. 420+75.86
** STA. 517+77.53 TO STA. 517+87.03	4' TO 7'	STA. 517+02.53 TO STA. 517+77.53	△ 4 10' TO 12'	STA. 465+94.20 TO STA. 466+04.20
STA. 519+58.11 TO STA. 519+67.61	7'	STA. 517+77.53 TO STA. 517+87.03	12'	STA. 466+04.20 TO STA. 466+87.24
*** STA. 517+75.78 TO STA. 517+85.28	7'	STA. 519+58.11 TO STA. 519+67.61	12' TO 10'	STA. 466+87.24 TO STA. 467+37.24
**** STA. 420+04.64 TO STA. 420+06.19	7' TO 4'	STA. 519+67.61 TO STA. 520+42.61	10' TO 12'	STA. 517+59.78 TO STA. 517+69.78
STA. 466+04.20 TO STA. 466+23.97			12'	STA. 517+69.78 TO STA. 517+85.28
STA. 517+69.78 TO STA. 517+85.28			12' TO 10'	STA. 519+56.37 TO STA. 519+71.87
STA. 519+56.37 TO STA. 519+71.87			10' TO 12'	STA. 517+85.28 TO STA. 519+71.87
STA. 581+01.56 TO STA. 581+21.56			12'	STA. 519+71.87 TO STA. 520+21.87
			10' TO 12'	STA. 580+91.56 TO STA. 581+01.56
			12'	STA. 581+01.56 TO STA. 581+75.56
			12' TO 10'	STA. 581+75.56 TO STA. 582+25.56



OVERLAY - SUPERELEVATED SECTION

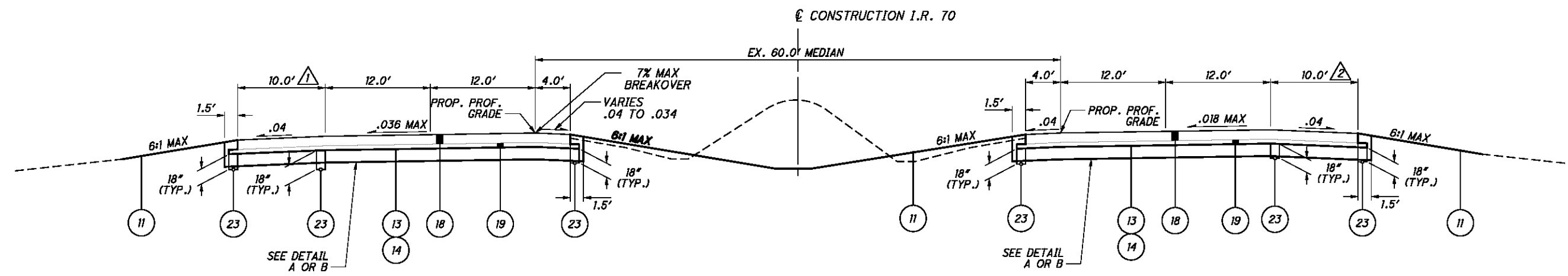
LIMITING STATIONS:

STA. 470+40.00 TO STA. 497+89.09	= 2749.09'
STA. 551+14.41 TO STA. 573+70.00	= 2255.59' (SUPERELEVATION DIRECTION REVERSED)
STA. 649+79.81 TO STA. 652+80.00	= 300.19'
STA. 658+95.00 TO STA. 673+70.97	= 1515.97'

STA. 460+69.83 TO STA. 497+89.09	= 3719.26'
STA. 551+14.41 TO STA. 581+39.19	= 3024.78' (SUPERELEVATION DIRECTION REVERSED)
STA. 649+79.81 TO STA. 652+50.00	= 270.19'
STA. 662+50.00 TO STA. 673+70.97	= 1120.97'

FOR LEGEND, SEE SHEET 7

NOTE:
SEE SPEED CHANGE LANE DETAILS FOR STATION LIMITS AND WIDTHS AT ACCELERATION AND DECELERATION LANES.

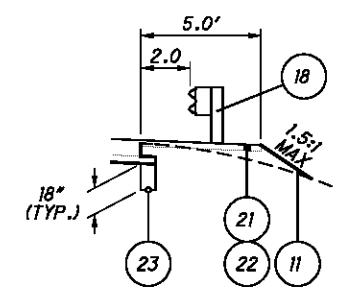


FULL-DEPTH - SUPERELEVATED SECTION
LIMITING STATIONS:

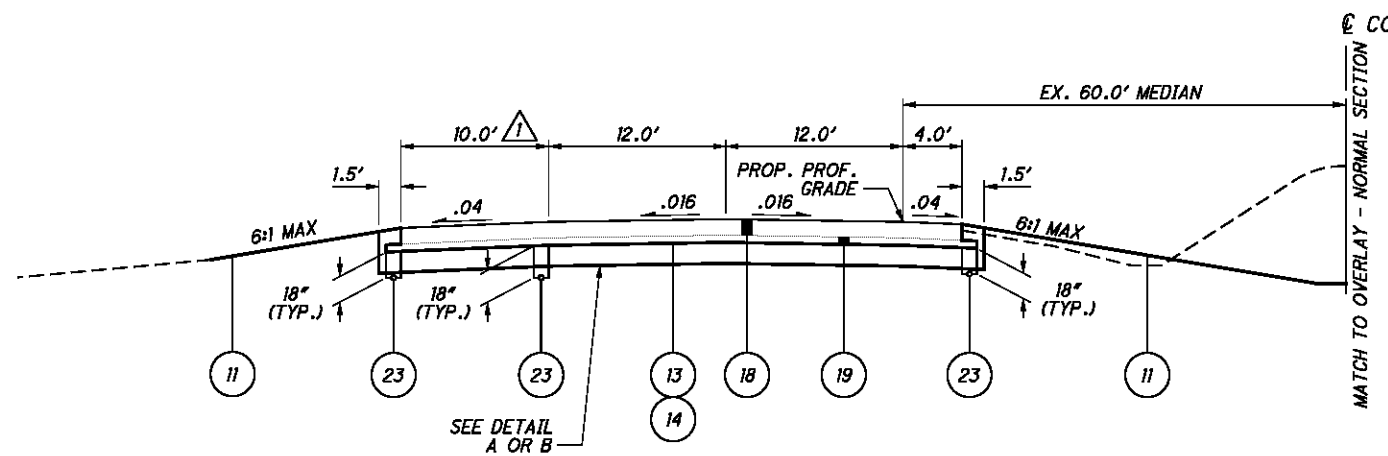
STA. 460+69.83 TO STA. 470+40.00 = 970.17'
 STA. 573+70.00 TO STA. 581+39.19 = 769.19' (SUPERELEVATION DIRECTION REVERSED)
 STA. 652+80.00 TO STA. 658+95.00 = 615.00'

STA. 652+50.00 TO STA. 662+50.00 = 1000.00'

△ 1	10' TO 12',	STA. 464+99.29 TO STA. 465+49.29	△ 2	12,	STA. 655+02.50 TO STA. 655+41.25
	12,	STA. 465+49.29 TO STA. 466+09.00		12' TO 10',	STA. 655+41.25 TO STA. 655+91.25
	12' TO 10',	STA. 466+09.00 TO STA. 466+19.00			
	10' TO 12',	STA. 580+85.00 TO STA. 581+35.00			
	12,	STA. 581+35.00 TO STA. 581+89.00			
	12' TO 10',	STA. 581+89.00 TO STA. 581+99.00			
	10' TO 12',	STA. 654+96.45 TO STA. 655+46.45			
	12,	STA. 655+46.45 TO STA. 656+14.82			
	12' TO 10',	STA. 656+14.82 TO STA. 656+24.82			

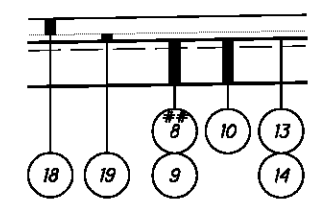


GUARDRAIL DETAIL (RIGHT)

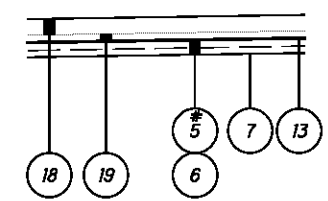


FULL-DEPTH - NORMAL SECTION
LIMITING STATIONS:

STA. 457+85.00 TO STA. 460+69.83 = 284.83'
 STA. 581+39.19 TO STA. 586+90.00 = 550.81'



DETAIL A - UNDERCUT OPTION
NOT TO SCALE
LIMITING STATIONS:



DETAIL B - CEMENT STABILIZATION OPTION
NOT TO SCALE
LIMITING STATIONS:

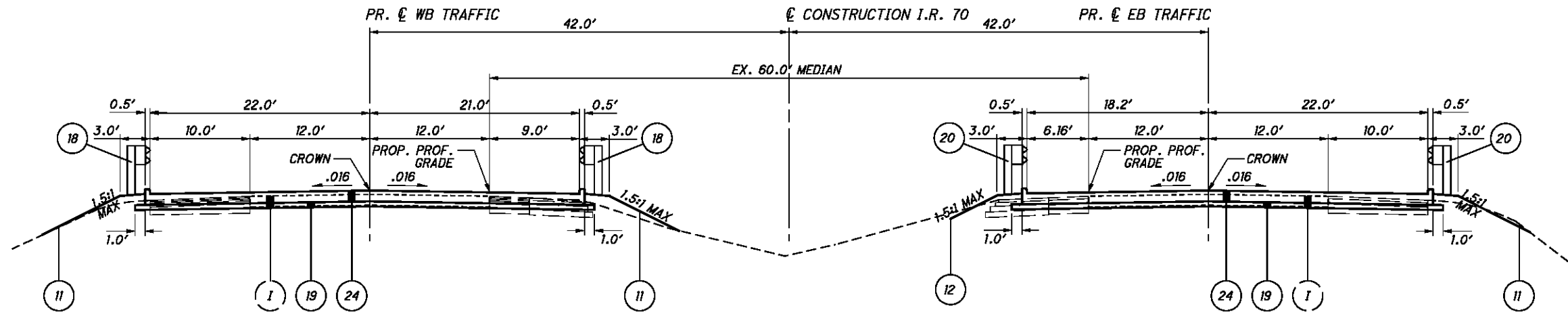
* STA. 457+85.00 TO STA. 461+40.00 WB
 ** STA. 461+40.00 TO STA. 470+40.00 WB
 * STA. 577+40.00 TO STA. 581+40.00 WB
 * & ** STA. 661+40.00 TO STA. 662+50.00 EB
 * USE ITEM 5 INSTEAD OF ITEM 6.
 ** USE ITEM 8 INSTEAD OF ITEM 9.

FOR LEGEND, SEE SHEET 7

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TYPICAL SECTIONS
I.R. 70

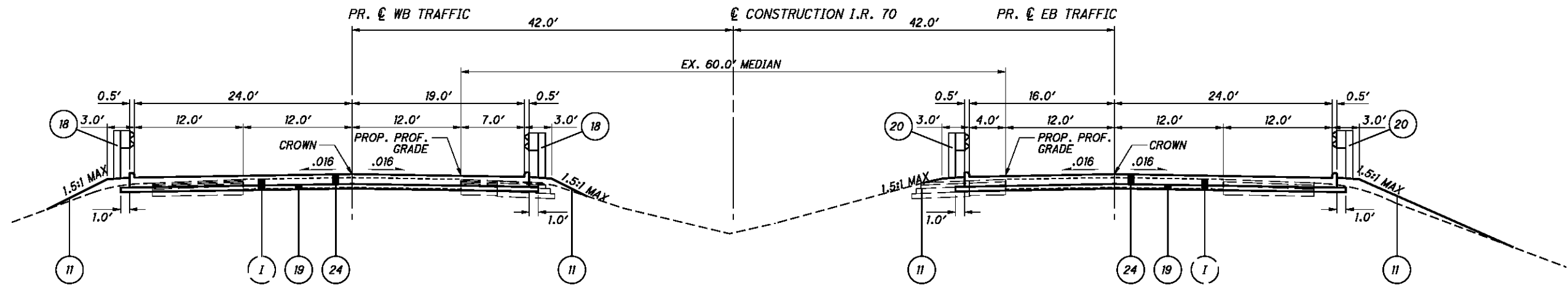
BEL-70-7.61



APPROACH SLABS
 LIMITING STATIONS:

WESTBOUND
 STA. 418+69.02 TO STA. 418+94.02 = 25.00'
 STA. 420+28.91 TO STA. 420+53.91 = 25.00'

EASTBOUND
 STA. 418+34.19 TO STA. 418+59.19 = 25.00'
 STA. 419+94.08 TO STA. 420+19.08 = 25.00'



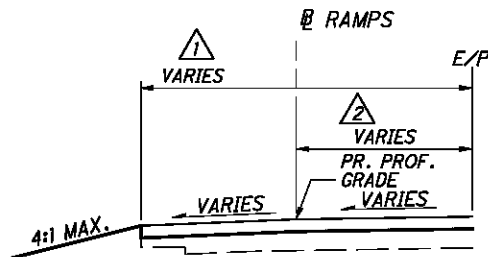
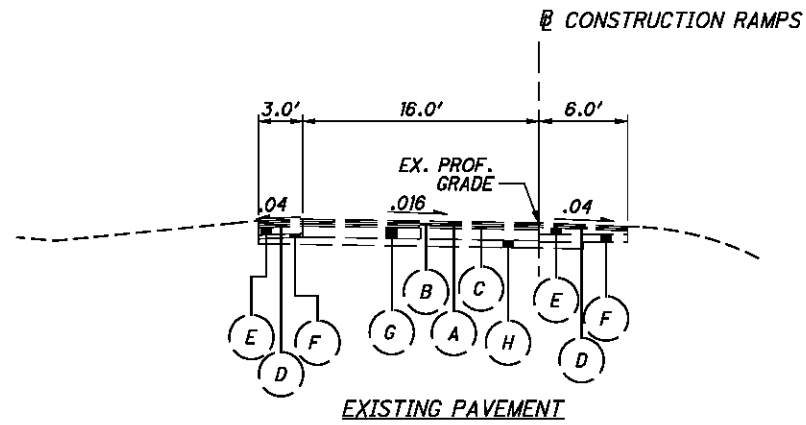
APPROACH SLABS
 LIMITING STATIONS:

WESTBOUND
 STA. 517+87.03 TO STA. 518+12.03 = 25.00'
 STA. 519+33.11 TO STA. 519+58.11 = 25.00'

EASTBOUND
 STA. 517+85.28 TO STA. 518+10.28 = 25.00'
 STA. 519+31.37 TO STA. 519+56.37 = 25.00'

FOR LEGEND, SEE SHEET 7

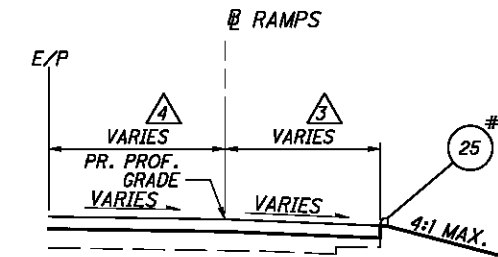
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SPEED CHANGE LANE

△1	10' TO 8',	STA. 494+88.61 TO STA. 495+88.61
	8',	STA. 495+88.61 STA. 507+38.61
	8' TO 6',	STA. 507+38.61 TO STA. 507+88.47
	6',	STA. 507+88.47 TO STA. 510+43.87
	8',	STA. 527+49.87 TO STA. 534+49.49
	8' TO 10',	STA. 534+49.49 TO STA. 535+49.49
	10' TO 8',	STA. 614+45.39 TO STA. 615+45.39
	8',	STA. 615+45.39 TO STA. 628+09.81
	8' TO 6',	STA. 628+09.81 TO STA. 628+59.67
	6',	STA. 628+59.67 TO STA. 631+02.55
	8',	STA. 647+50.32 TO STA. 653+69.59
	8' TO 10'	STA. 653+69.59 TO STA. 654+69.59

△2	0' TO 39.07',	STA. 494+88.61 TO STA. 510+43.87
	39.11' TO 12',	STA. 527+49.87 TO STA. 534+49.49
	12' TO 0',	STA. 534+49.49 TO STA. 535+49.49
	0' TO 39.05',	STA. 614+45.39 TO STA. 631+02.55
	39.11' TO 12',	STA. 647+50.32 TO STA. 653+69.59
	12' TO 0',	STA. 653+69.59 TO STA. 654+69.59



SPEED CHANGE LANE

△3	10' TO 8',	STA. 499+30.68 TO STA. 500+30.68
	8',	STA. 500+30.68 TO STA. 507+30.68
	6',	STA. 527+03.07 TO STA. 529+03.69
	6' TO 8',	STA. 529+03.69 TO STA. 529+53.54
	8',	STA. 529+53.54 TO STA. 541+03.54
	8' TO 10',	STA. 541+03.54 TO STA. 542+03.54
	10' TO 8',	STA. 615+70.76 TO STA. 616+70.76
	8',	STA. 616+70.76 TO STA. 623+70.76
	6',	STA. 637+64.29 TO STA. 639+02.27
	6' TO 8',	STA. 639+02.27 TO STA. 639+52.53
	8',	STA. 639+52.53 TO STA. 654+02.58
	8' TO 9.1',	STA. 654+02.58 TO STA. 654+57.65
	9.1' TO 11.3'	STA. 654+57.65 TO STA. 654+67.65
	11.3' TO 12',	STA. 654+67.65 TO STA. 655+02.50

△4	0' TO 12',	STA. 499+30.68 TO STA. 500+30.68
	12',	STA. 500+30.68 TO STA. 502+75.00
	12' TO 39.11',	STA. 502+75.00 TO STA. 507+30.68
	39.12' TO 0',	STA. 527+03.07 TO STA. 542+03.54
	0' TO 12',	STA. 615+70.76 TO STA. 616+70.76
	12',	STA. 616+70.76 TO STA. 619+16.24
	12' TO 39.11',	STA. 619+16.24 TO STA. 623+70.76
	39.06' TO 0',	STA. 637+64.29 TO STA. 655+02.50

STA. 654+67.65 TO STA. 654+87.54

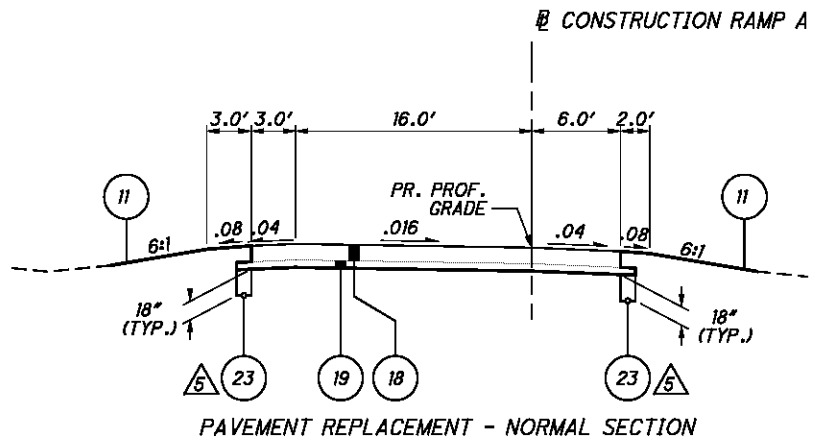
FOR LEGEND, SEE SHEET 7

TYPICAL SECTIONS
RAMPS

BEL-70-7.61

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373

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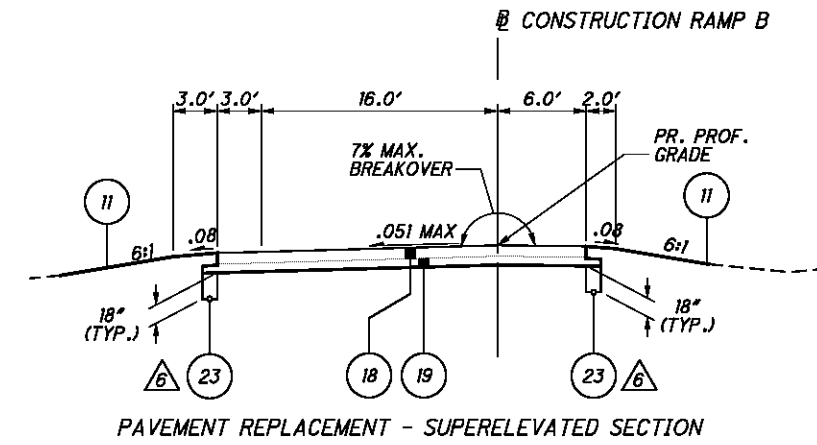
PAVEMENT REPLACEMENT - NORMAL SECTION

LIMITING STATIONS:

RAMP A STA. 13+65.00 TO STA. 15+98.95 = 233.95'

△ RAMP A STA. 13+65.00 TO STA. 14+95.00

SEE INTERSECTION DETAIL:
 RAMP A STA. 15+26.11 TO STA. 15+98.95
 RAMP B STA. 0+13.67 TO STA. 1+23+01

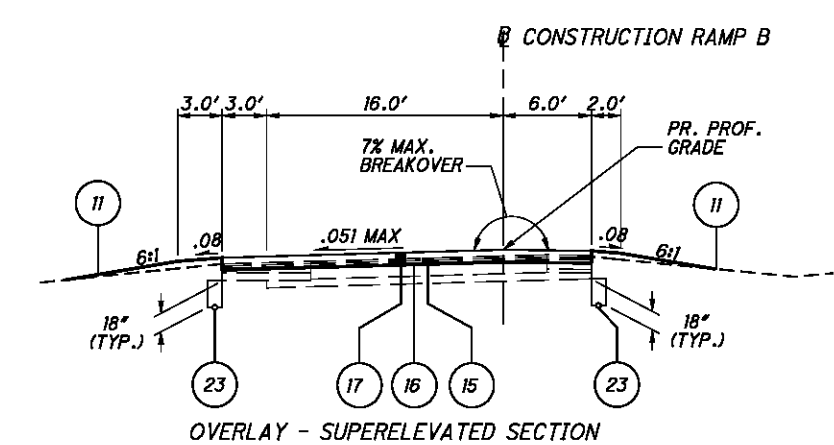


PAVEMENT REPLACEMENT - SUPERELEVATED SECTION

LIMITING STATIONS:

RAMP B STA. 0+13.67 TO STA. 1+75.00 = 161.33'

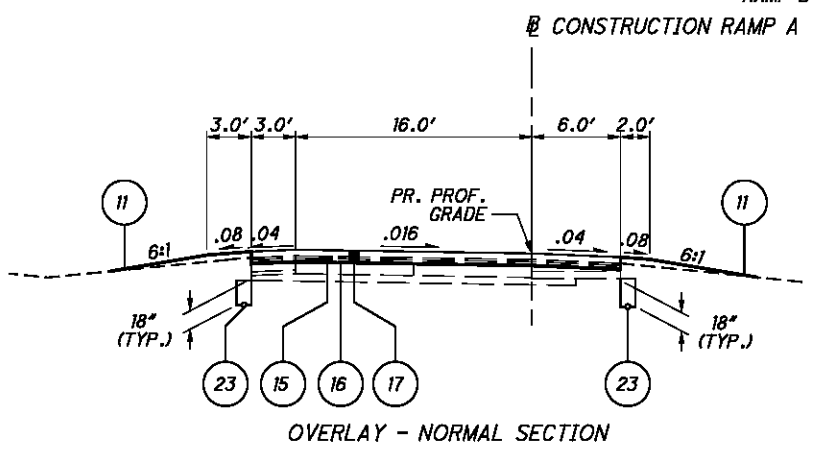
△ RAMP B STA. 0+70.00 TO STA. 1+75.00



OVERLAY - SUPERELEVATED SECTION

LIMITING STATIONS:

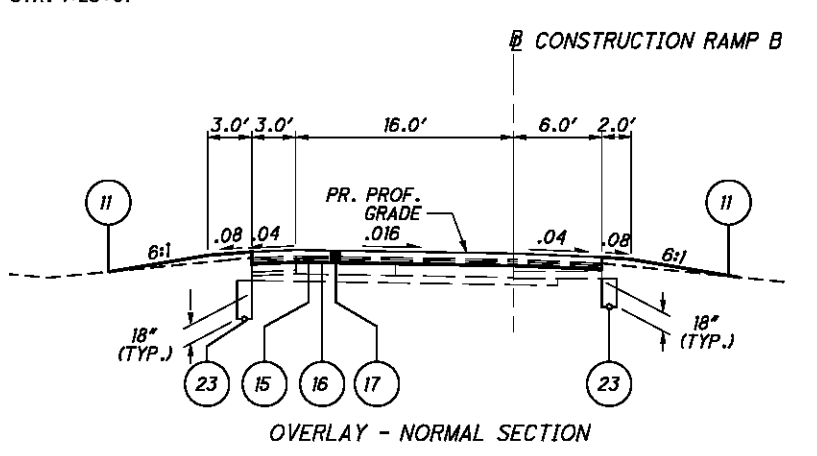
RAMP B STA. 1+75.00 TO STA. 3+89.96 = 214.96'



OVERLAY - NORMAL SECTION

LIMITING STATIONS:

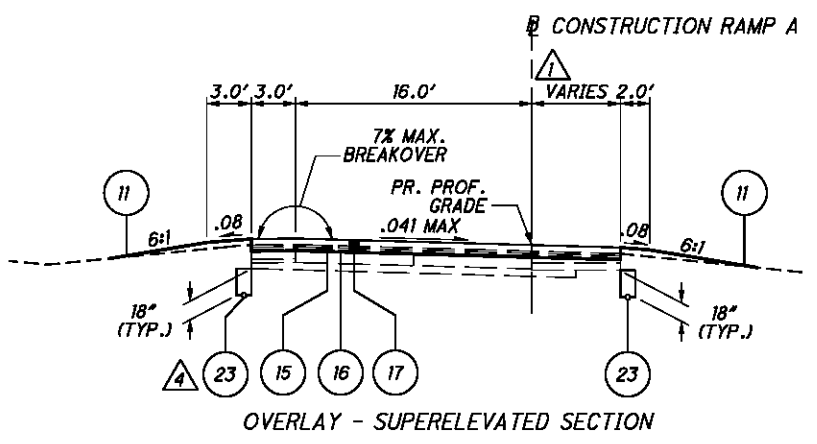
RAMP A STA. 10+50.09 TO STA. 13+65.00 = 314.91'



OVERLAY - NORMAL SECTION

LIMITING STATIONS:

RAMP B STA. 3+89.96 TO STA. 4+38.98 = 49.02'

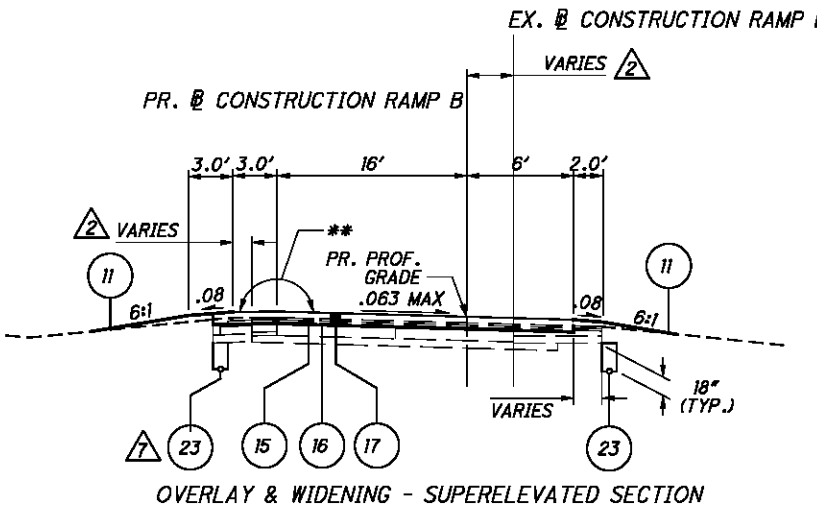


OVERLAY - SUPERELEVATED SECTION

LIMITING STATIONS:

RAMP A STA. 4+54.85 TO STA. 10+50.09 = 595.24'

△ 8' TO 6', RAMP A STA. 4+54.85 TO STA. 5+04.85
 6', RAMP A STA. 5+04.85 TO STA. 10+50.09
 △ RAMP A STA. 5+03.53 TO STA. 10+50.09

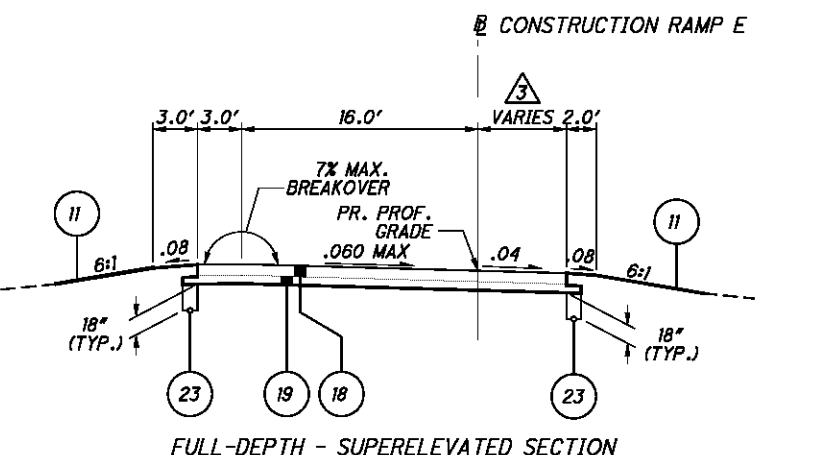


OVERLAY & WIDENING - SUPERELEVATED SECTION

LIMITING STATIONS:

RAMP B STA. 4+38.98 TO STA. 8+91.18 = 452.20'

△ 0' TO 4.35', RAMP B STA. 4+38.98 TO STA. 8+91.18
 △ RAMP B STA. 4+38.98 TO STA. 6+89.88

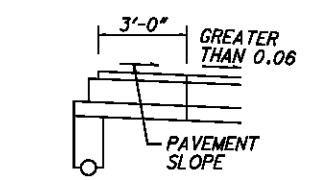


FULL-DEPTH - SUPERELEVATED SECTION

LIMITING STATIONS:

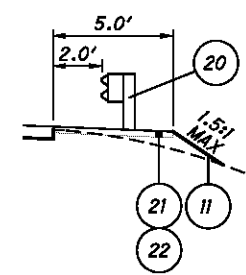
RAMP E STA. 4+53.69 TO STA. 5+53.07 = 99.38'
 RAMP E STA. 17+89.44 TO STA. 18+98.17 = 108.73'

△ 8' TO 6', RAMP E STA. 4+53.69 TO STA. 5+53.69
 6', RAMP E STA. 5+53.69 TO STA. 5+53.07
 6', RAMP E STA. 17+89.44 TO STA. 18+98.17 FOR LEGEND, SEE SHEET 7

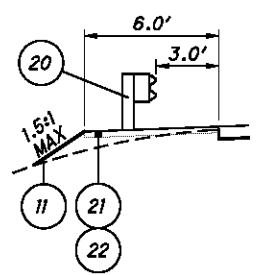


SHOULDER BREAKOVER DETAIL

** VARIES .04 MAX TO .01 MIN AND SHOULDER BREAKOVER IS 7% MAX WHEN PAVEMENT SLOPE IS .06 OR LESS.
 SEE SHOULDER BREAKOVER DETAILS WHEN PAVEMENT SLOPE IS GREATER THAN .06.



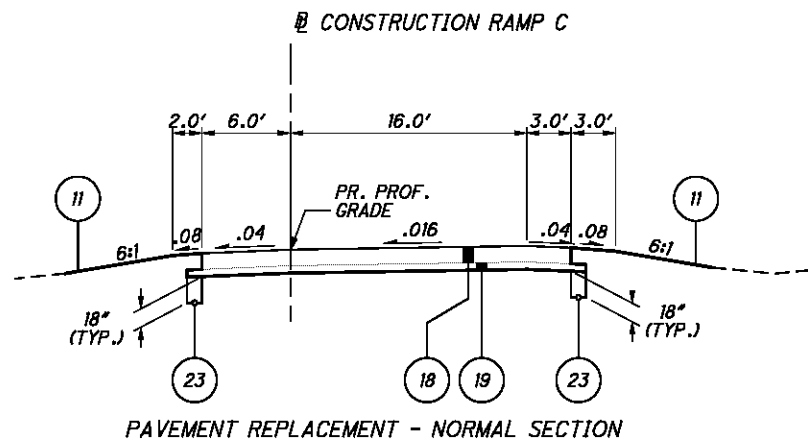
GUARDRAIL DETAIL (RIGHT) (OUTSIDE)



GUARDRAIL DETAIL (LEFT) (INSIDE)

TYPICAL SECTIONS
 RAMPS A, B & E

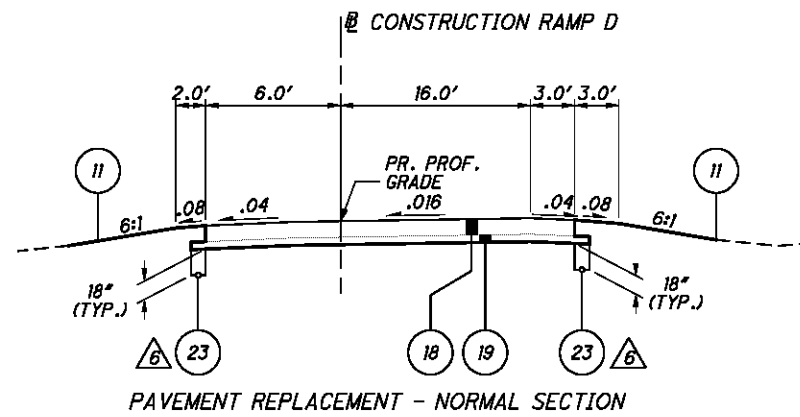
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PAVEMENT REPLACEMENT - NORMAL SECTION

LIMITING STATIONS:

RAMP C STA. 0+12.27 TO STA. 3+00.00 = 287.73'



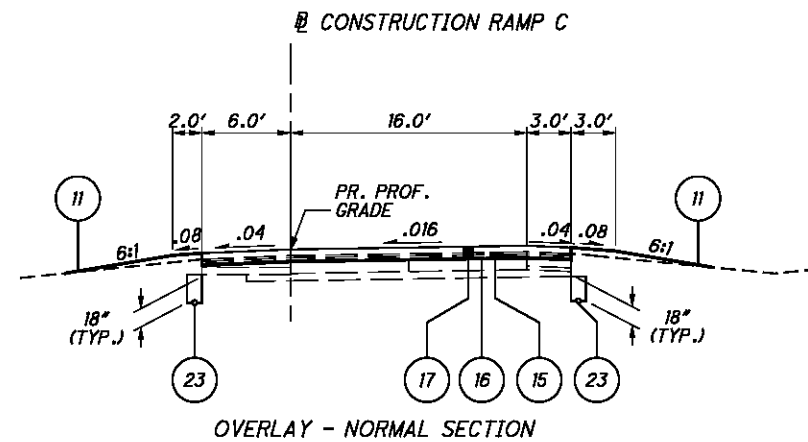
PAVEMENT REPLACEMENT - NORMAL SECTION

LIMITING STATIONS:

RAMP D STA. 10+00.00 TO STA. 13+82.19 = 382.19'

△ RAMP D STA. 10+00.00 TO STA. 13+00.00

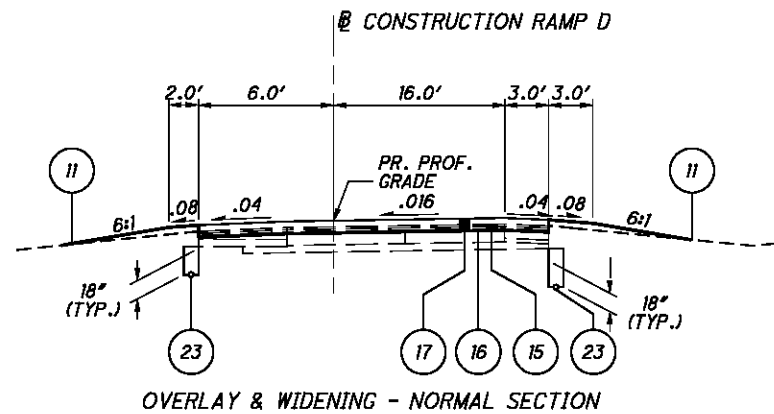
SEE INTERSECTION DETAIL:
RAMP C STA. 0+12.27 TO STA. 0+84.93
RAMP D STA. 12+83.19 TO STA. 13+82.19



OVERLAY - NORMAL SECTION

LIMITING STATIONS:

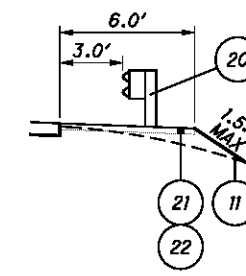
RAMP C STA. 3+00.00 TO STA. 5+60.93 = 260.93'



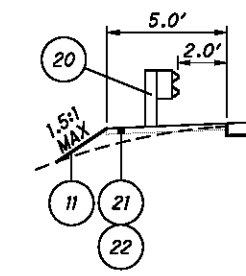
OVERLAY & WIDENING - NORMAL SECTION

LIMITING STATIONS:

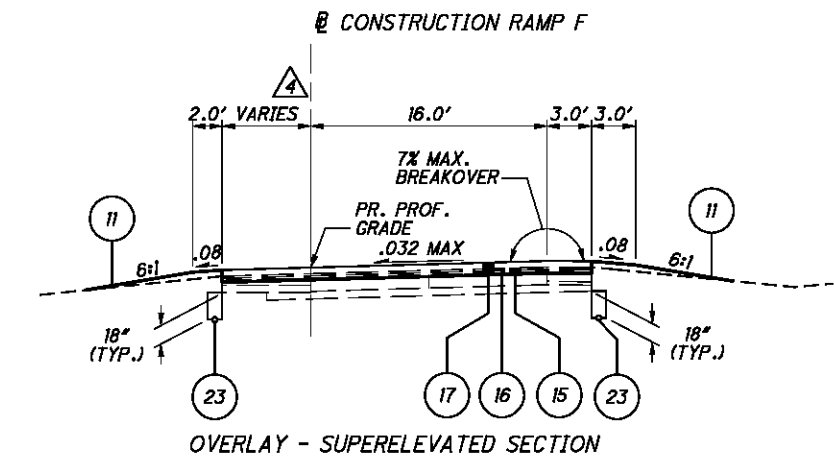
RAMP D STA. 9+73.90 TO STA. 10+00.00 = 26.10'



GUARDRAIL DETAIL (RIGHT) (INSIDE)



GUARDRAIL DETAIL (LEFT) (OUTSIDE)

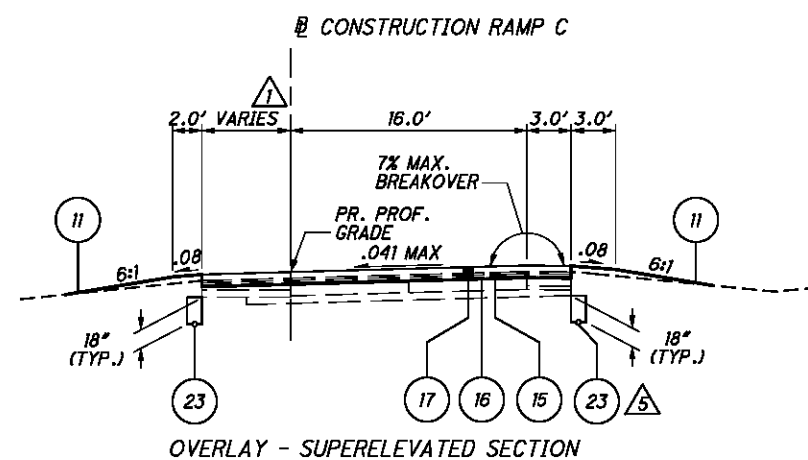


OVERLAY - SUPERELEVATED SECTION

LIMITING STATIONS:

RAMP F STA. 5+00.68 TO STA. 6+10.00 = 109.32'
RAMP F STA. 20+22.61 TO STA. 22+09.58 = 186.97'

△ 6' RAMP F STA. 5+00.68 TO STA. 6+10.00
6' RAMP F STA. 20+22.61 TO STA. 21+59.58
6' TO 8' RAMP F STA. 21+59.58 TO STA. 22+09.58



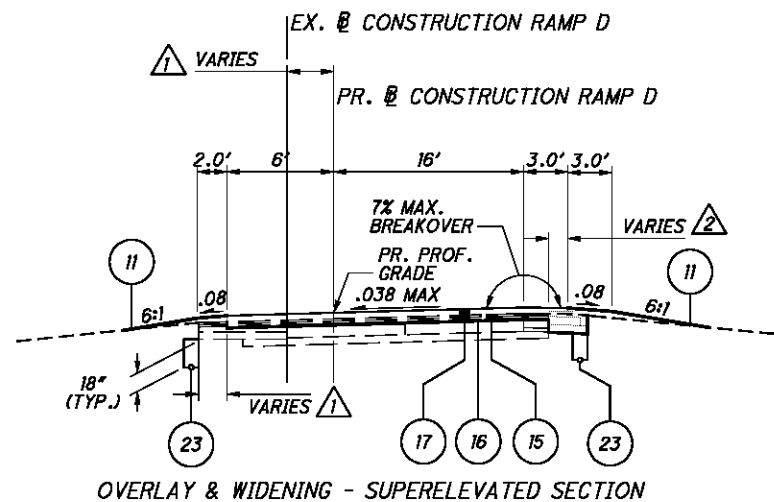
OVERLAY - SUPERELEVATED SECTION

LIMITING STATIONS:

RAMP C STA. 5+60.93 TO STA. 8+95.02 = 334.09'

△ 1 6' RAMP C STA. 5+60.93 TO STA. 8+45.02
6' TO 8' RAMP C STA. 8+45.02 TO STA. 8+95.02

△ 5 RAMP C STA. 5+60.93 TO STA. 6+50.00

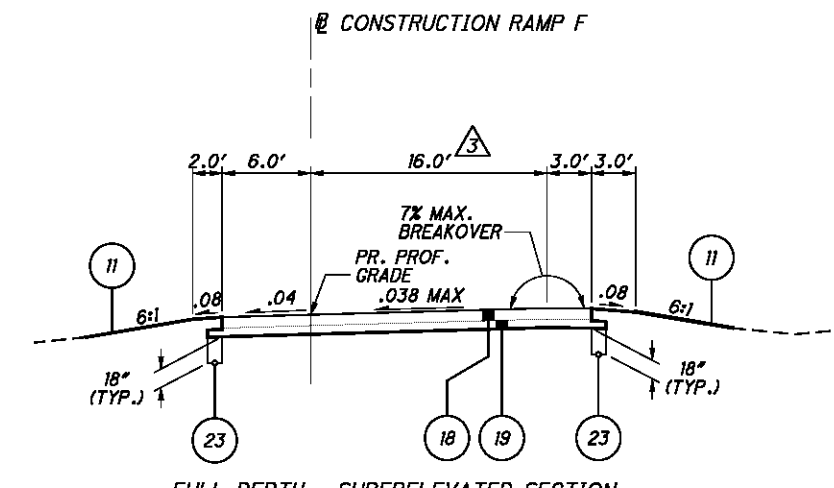


OVERLAY & WIDENING - SUPERELEVATED SECTION

LIMITING STATIONS:

STA. 510+43.87 TO RAMP D STA. 9+73.90 = 423.20'

△ 2 3.27' TO 0', RAMP D STA. 5+50.70 TO STA. 9+73.90



FULL-DEPTH - SUPERELEVATED SECTION

LIMITING STATIONS:

RAMP F STA. 6+10.00 TO STA. 6+57.78 = 47.78'
RAMP F STA. 18+90.00 TO STA. 20+22.61 = 132.61'

△ 3 18', RAMP F STA. 18+90.00 TO STA. 20+22.61

FOR LEGEND, SEE SHEET 7

UTILITIES

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

AEP OHIO POWER COMPANY
P.O. BOX 99
47687 NATIONAL ROAD
ST. CLAIRSVILLE, OHIO 43950
ATTN: JEFF TURNER
(740) 699-7845

SOUTH-CENTRAL POWER COMPANY
37801 BARNESVILLE-BETHESDA ROAD
BARNESVILLE, OHIO 43713
ATTN: JEFF LEWIS
(740) 425-4018

ATT OHIO
3935 NORTHPOINTE ROAD
ZANESVILLE, OHIO 43701
ATTN: SANDI RANDOLPH
(740) 454-3455

BELMONT COUNTY
SANITARY SEWER DISTRICT
P.O. BOX 457
ST. CLAIRSVILLE, OHIO 43950
ATTN: MARK ESPOSITO
(740) 695-3144

WINDSTREAM
32699 OLD NATIONAL ROAD
BARNESVILLE, OHIO 43713
ATTN: GREG KUHNASH
(740) 758-5818

COMCAST
100 WELDAY AVENUE, SUITE A
WINTERSVILLE, OHIO 43953
ATTN: CRAIG TACY
(740) 346-2250

OHIO DEPARTMENT OF TRANSPORTATION
2201 REISER AVENUE, SE
NEW PHILADELPHIA, OHIO 44663
ATTN: TODD MOORE
(330) 339-6633

COLUMBIA GAS OF OHIO, INC.
300 LURAY DRIVE
WINTERSVILLE, OHIO 43953
ATTN: TIM SEECH
(740) 266-4282

COLUMBIA GAS TRANSMISSION
11296 EAST PIKE ROAD
CAMBRIDGE, OHIO 43725
ATTN: BRENT NEUHART
(740) 432-1600

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

ELEVATION DATUM

ALL ELEVATIONS ARE ORTHOMETRIC HEIGHTS USING THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND THE GEOID03 GEOID. HORIZONTAL POSITIONS ARE BASED ON THE OHIO STATE PLANE SOUTH ZONE, A LAMBERT CONFORMAL CONIC MAP PROJECTION, THE NORTH AMERICAN DATUM OF 1983 ADJUSTED TO THE NATIONAL SPATIAL REFERENCE SYSTEM OF 2007 (NAD 83 (NSRS 2007)), AND THE GRS80 ELLIPSOID.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING AS PER PLAN, SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

WHEN CLEAN FILL IS PROVIDED THE USE OF HERBICIDE SHALL NOT BE REQUIRED WHEN PAVING UNDER GUARDRAIL.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN SHALL CONSIST OF PAVING UNDER GUARDRAIL TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:

1. SET GUARDRAIL POSTS
2. PLACE ITEM 448

METHOD B:

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

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

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

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONSTRUCTION LIMITS

UNLESS OTHERWISE SHOWN, THE CONSTRUCTION LIMITS SHALL BE CONSIDERED THE EXISTING RIGHT OF WAY LINE IN ORDER TO FACILITATE CONSTRUCTION OF THE NEW RIGHT OF WAY FENCE.

CONTRACTION AND/OR EXPANSION JOINTS

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

DRAINAGE REMOVAL

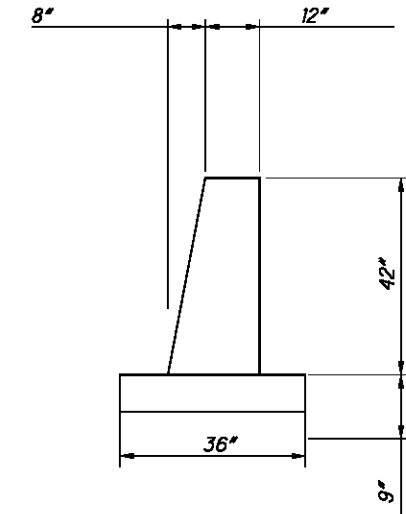
STORM SEWERS THAT ARE ITEMIZED FOR REMOVAL SHALL BE REMOVED TO THE EDGE OF THE EXISTING SHOULDER, OR TO THE NEAREST PIPE JOINT, IF THE JOINT IS WITHIN FOUR (4) FEET OF THE EXISTING SHOULDER. THE ACTUAL LIMITS OF THE PIPE REMOVAL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

FOR PIER PROTECTION UNDER THE BEL-70-0963 STRUCTURE INSTALL ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN AT THE LOCATIONS SPECIFIED IN THE PLANS. PLACEMENT OF THE BARRIER SHALL BE DONE PER THE DETAIL BELOW IF THE CONCRETE BARRIER IS TO BE PLACED ON SOIL.

FOR CONCRETE BARRIER TO BE PLACED ON ASPHALT, CONCRETE, OR AGGREGATE BASE MATERIAL, INSTALL THE CONCRETE BARRIER AS SHOWN BELOW WITHOUT THE 36" X 9" BASE.

ALL OTHER REQUIREMENTS OF SECTION 622 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWING RM-4.5 SHALL STILL APPLY.



CONCRETE BARRIER INSTALLATION DETAIL WHEN PLACED ON SOIL

GENERAL NOTES

BEL-70-7.61

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CALCULATED
MJC
CHECKED
BBD

ITEM 606 - ANCHOR ASSEMBLY, TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT WWW.DOT.STATE.OH.US/DRRC/ UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS:

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

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

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS444	SLOTTED RAIL TERMINAL POST LAYOUT AND	7/12/99 Rev. 1	8/27/99
SS444M	ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99	
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97 Rev. 1	3/6/98

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

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

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98
FLT HINGED CRT	FLARED ENERGY ASORBING TERMINAL (POSTS 1 AND 2 ARE STEEL HINGED)	5/4/06	5/23/06
FLT-SP	FLARED ENERGY ASORBING TERMINAL (A SEVEN POST OPTION USING STANDARD STEEL POSTS)	3/30/09	3/4/09

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

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

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

ITEM 606 - ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT WWW.DOT.STATE.OH.US/DRRC/ UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS:

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

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" 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. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00
SS330	ET2000 PLUS 50'-0" WITH FOUR FOUNDATION TUBES AND FOUR CRT POSTS	3/28/06	3/29/06
SS373	ET2000 PLUS 50'-0" WITH 7 SYT POSTS AND ONE HBA POST	6/20/09	1/20/09

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

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	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
SKT HINGED CRT	SEQUENTIAL KINKING TERMINAL (SKT-350) FOUR POSTS ARE STEEL HINGED AND FIVE POSTS ARE CRT	4/30/06	5/23/06
SKT-SP	SEQUENTIAL KINKING TERMINAL (SKT-350) A SEVEN POST OPTION USING STANDARD STEEL POST	3/30/09	3/4/09

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18", OR 12" X 18" IF APPLIED TO A RECTANGULAR ET-2000 "PLUS" EXTRUDER HEAD.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

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

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 3 EACH

659, TOPSOIL 26,288 CU. YD.

659, SEEDING AND MULCHING 236,823 SQ. YD.

659, REPAIR SEEDING AND MULCHING 11,842 SQ. YD.

659, INTER-SEEDING 11,842 SQ. YD.

659, COMMERCIAL FERTILIZER 33 TON

659, LIME 49 ACRES

659, WATER 1311 M. GAL.

659, MOWING 533 M. SQ. FT.

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 SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

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REF. NO.	SHEET NO.	STATION TO STATION		202																	
				GUARDRAIL REMOVED																	
				FT																	
R-1	24 - 25	412+00.00	419+00.00	700.00																	
R-2	25	420+20.00	422+20.00	200.00																	
R-3	25	420+40.00	421+65.00	125.00																	
R-4	26	433+85.00	438+85.00	500.00																	
R-5	27 - 28	450+75.00	459+25.00	850.00																	
R-6	28 - 31	464+95.00	490+20.00	2525.00																	
R-7	31 - 32	498+90.00	506+90.00	800.00																	
R-8	32 - 33	512+25.00	518+12.50	587.50																	
R-9	33	519+42.00	525+04.50	562.50																	
R-10	33	519+42.00	521+42.00	200.00																	
R-11	34 - 35	534+15.00	538+77.50	462.50																	
R-12	35 - 36	541+55.00	557+42.50	1587.50																	
R-13	37 - 38	565+65.00	577+27.50	1162.50																	
R-14	38 - 40	580+80.00	597+55.00	1675.00																	
R-15	41	611+65.00	617+52.50	587.50																	
R-16	44	648+07.50	657+45.00	937.50																	
R-17	45	662+12.50	665+50.00	337.50																	
R-18	46	671+00.00	675+00.00	400.00																	
R-19	47 - 48	412+00.00	418+50.00	650.00																	
R-20	47 - 48	416+65.00	418+65.00	200.00																	
R-21	24	419+75.00	420+50.00	75.00																	
R-22	25	431+50.00	438+50.00	700.00																	
R-23	50 - 51	446+50.00	457+50.00	1100.00																	
R-24	51 - 54	460+00.00	491+50.00	3150.00																	
R-25	54 - 55	496+75.00	504+00.00	725																	
R-26	55 - 56	511+30.00	518+05.00	675																	
R-27	32	516+00.00	518+00.00	200																	
R-28	32	519+50.00	521+50.00	200																	
R-29	57 - 59	536+00.00	551+75.00	1575																	
R-30	36	562+58.00	572+58.00	1000																	
R-31	37	579+50.00	582+25.00	275																	
R-32	38	586+75.00	597+12.50	1037.5																	
R-33	63 - 64	608+87.50	615+75.00	687.5																	
TOTALS CARRIED TO GENERAL SUMMARY				26450																	

CALCULATED	MJC
	CHECKED
BBD	
REMOVAL SUBSUMMARY	
BEL - 70 - 7.61	
18	
373	

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REF. NO.	SHEET NO.	STATION TO STATION		SIDE OF EB PAVE	606							609	622				626			
					GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5 BARRIER DESIGN	GUARDRAIL, TYPE 5A	ANCHOR ASSEMBLY, TYPE B	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 1	CURB, TYPE 4-C	CONCRETE BARRIER, TYPE D	CONCRETE BARRIER, TYPE D, A.P.P.	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER END ANCHORAGE REINFORCED, TYPE D	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE B
		TO	FROM		FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	EA	EA
GR1	25,27	409+98.02	418+44.21	OUT	856.25				1			1		20					11	
GR2	25,27	415+95.44	418+51.26	IN	231.25			1			1			20					4	
GR3	27	419+80.19	420+17.68	OUT	25					1		1							2	
GR4	29	430+37.50	438+50.00	OUT	750				1	1									10	
GR5	31,33	445+86.80	492+03.95	OUT	4531.25				1	1	1	1		20	64		2		47	1
GR6	33,35	464+85.55	466+54.10	IN	125					1			1						3	
GR7	35	465+81.61	467+50.51	IN	125					1			1						3	
GR8	39,41	496+82.74	504+43.04	OUT	712.5			1		1									9	
GR9	41,43	509+41.64	517+95.78	OUT	806.25				1		1			20					10	
GR10	43	515+30.25	517+95.78	IN	231.25			1			1			20					4	
GR11	43	519+45.87	521+45.87	OUT	187.5					1		1							3	
GR12	45,47,49	534+78.90	553+03.85	OUT	1775			1		1			1						20	
GR13	51	561+50.15	572+50.58	OUT	1037.5			1		1					54		1	1	12	1
GR14	53	578+28.27	581+75.56	OUT	256.25			1			1			20					4	
GR15	53	580+26.58	581+83.22	IN	112.5					1			1						3	
GR16	53	581+25.22	582+79.42	IN	112.5					1			1						3	
GR17	53,55	585+37.50	597+50.00	OUT	1150				1	1									14	
GR18	57,59	607+45.76	618+20.68	OUT	1012.5				1	1									12	
GR19	63,65	639+61.06	655+41.25	OUT	1481.25				1		1			20	54		1	1	17	1
GR20	65	654+23.83	655+80.00	IN	112.5					1			1						3	
GR21	65	655+12.50	656+56.25	IN	25	25	50			1			1						3	
				SIDE OF WB PAVE																
GR22	24,26	411+45.41	419+07.91	OUT	750					1			1						9	
GR23	26	418+48.01	418+89.66	IN	31.25					1		1		20					2	
GR24	26	420+25.63	422+53.75	IN	193.75			1			1			20					4	
GR25	26	420+43.89	422+59.53	OUT	181.25			1			1			20					4	
GR26	28	434+00.00	439+00.00	OUT	437.5				1	1									6	
GR27	30,32	450+75.00	460+50.00	OUT	912.5				1	1									11	
GR28	32-38	465+49.29	492+07.69	OUT	2556.25				1		1			20	45		1	1	28	1
GR29	38,40	499+00.00	508+00.00	OUT	837.5				1	1									10	
GR30	40,42	513+47.53	517+97.53	OUT	437.5					1		1							6	
GR31	42	517+55.88	517+97.53	IN	31.25					1		1		20					2	
GR32	42	519+47.61	522+00.67	IN	218.75			1			1		1	20					4	
GR33	42,44	519+47.61	526+14.26	OUT	618.75				1		1		1	20					8	
GR34	44,46,48	534+50.19	557+93.30	OUT	2312.5			1		1									25	
GR35	50,52	565+50.00	578+00.00	OUT	1187.5				1	1									14	
GR36	52,54,56	581+35.00	597+95.26	OUT	1556.25				1		1			20	40		1	1	18	1
GR37	58	611+50.00	619+49.54	OUT	750			1		1									9	
GR38	64,66	648+44.59	659+20.60	OUT	956.25			1		1		1		20	40		2		12	1
GR39	66	662+22.15	667+49.65	OUT	475			1		1									7	
GR40	68	671+24.15	675+00.00	OUT	362.5					1									5	
				RAMP C																
GR41	183	1+00.00	4+50.00	OUT	287.5					1	1								5	
GR42	183	130+34.04 S.R. 149	4+00.00	IN	350					1									5	
				RAMP D																
GR43	187	11+29.63	130+39.14 S.R. 149	OUT	262.5						1								4	
GR44	187	11+75.62	132+20.71 S.R. 149	IN	218.75					1	1								4	
				S.R. 149																
GR45	173	124+25.24	RAMP A 13+05	OUT	312.5			1		1									5	
GR46	173,43	130+42.81	RAMP A 13+05	OUT/IN	543.75				1		1	1				154	2		7	2
GR47	173,43	130+34.04	RAMP B 16+10.15	OUT/IN	343.75					1		1	1			154	2		5	2
				T.R. 260																
GR48	27	18+68.17	OUT OF AREA	WEST	312.5														6	
GR49	27	18+39.06	OUT OF AREA	EAST	175					1	1								4	
TOTALS CARRIED TO GENERAL SUMMARY					33,268.75	25	125	14	21	34	18	8	6	320	297	308	12	4	426	10

CALCULATED MJC CHECKED BBD
ROADWAY SUBSUMMARY
BEL-70-7.61
 19
 373

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SHEET NO.	STATION		203	203	659
	FROM	TO	EXCAVATION CU. YD.	EMBANKMENT CU. YD.	SEEDING AND MULCHING SQ. YD.
	I.R. 70				
70	409+00.00	411+00.00	174	7	233
71	411+98.02	413+00.00	680	121	2046
72	414+00.00	415+40.00	605	161	1936
73	416+00.00	418+00.00	387	271	2209
74	419+00.00	421+00.00	61	204	2400
75	422+00.00	424+00.00	531	327	2544
76	425+00.00	427+00.00	777	278	2666
77	428+00.00	430+00.00	826	224	2367
78	431+00.00	433+00.00	917	228	2433
79	434+00.00	436+00.00	852	252	2466
80	436+50.00	438+00.00	570	163	1605
81	439+00.00	441+00.00	851	247	2622
82	442+00.00	444+00.00	935	209	2456
83	445+00.00	447+00.00	959	260	2455
84	448+00.00	450+00.00	1232	254	2821
85	451+00.00	452+00.00	851	171	1721
86	453+00.00	454+00.00	651	329	1800
87	455+00.00	456+00.00	669	308	1867
88	457+00.00	458+00.00	821	197	1845
89	459+00.00	461+00.00	1068	235	2557
90	461+40.00	463+00.00	934	175	1758
91	464+00.00	466+00.00	1578	165	2622
92	467+00.00	469+00.00	1436	157	2577
93	470+00.00	472+00.00	1262	339	2778
94	473+00.00	474+00.00	828	280	1810
95	475+00.00	477+00.00	1231	254	2455
96	478+00.00	480+00.00	1378	218	2554
97	481+00.00	483+00.00	1445	185	2622
98	484+00.00	486+00.00	1165	276	2532
99	487+00.00	489+00.00	1160	260	2477
100	490+00.00	492+00.00	1293	213	2444
101	493+00.00	495+00.00	1468	182	2379
102	496+00.00	498+00.00	1387	210	2744
103	499+00.00	501+00.00	1021	230	2433
104	502+00.00	504+00.00	996	273	2433
105	505+00.00	506+00.00	645	199	1567
106	508+40.00	508+00.00	768	180	1680
107	509+00.00	510+00.00	656	192	1716
108	511+00.00	513+00.00	770	327	2499
109	514+00.00	516+00.00	812	236	2400
110	516+50.00	517+00.00	146	103	811
111	517+50.00	518+00.00	62	161	900
112	519+00.00	521+00.00	178	177	2378
113	522+00.00	524+00.00	836	221	2567
114	525+00.00	526+00.00	737	113	1689
115	527+00.00	529+00.00	1046	287	2489
116	530+00.00	532+00.00	1062	310	2644
117	533+00.00	535+00.00	1007	321	2644
118	536+00.00	538+00.00	1096	214	2521
119	539+00.00	541+00.00	1305	208	2577
120	542+00.00	543+00.00	816	174	1633
121	544+00.00	545+00.00	778	175	1710
122	546+00.00	548+00.00	1353	163	2411
123	549+00.00	551+00.00	1381	276	2699
124	552+00.00	554+00.00	1302	208	2290
125	555+00.00	557+00.00	1286	208	2356
126	558+00.00	560+00.00	1365	172	2334
127	561+00.00	563+00.00	1373	221	2422
128	564+00.00	566+00.00	1525	174	2444
129	567+00.00	568+00.00	831	155	1611
SUBTOTALS THIS COLUMN			56135	13038	132659

SHEET NO.	STATION		203	203	659
	FROM	TO	EXCAVATION CU. YD.	EMBANKMENT CU. YD.	SEEDING AND MULCHING SQ. YD.
	I.R. 70				
130	569+00.00	570+00.00	672	219	1644
131	571+00.00	573+00.00	1374	192	2411
132	574+00.00	576+00.00	1401	154	2378
133	577+00.00	578+00.00	755	100	1712
134	579+00.00	581+00.00	1356	193	2422
135	581+40.00	582+00.00	374	126	807
136	583+00.00	585+00.00	1498	173	2566
137	586+00.00	586+50.00	668	123	1312
138	587+00.00	589+00.00	1092	185	2089
139	590+00.00	592+00.00	912	225	2323
140	593+00.00	595+00.00	805	248	2455
141	595+50.00	597+00.00	531	210	1678
142	597+40.00	599+00.00	590	139	1680
143	600+00.00	601+40.00	657	193	2042
144	602+00.00	604+00.00	639	244	2264
145	604+50.00	606+00.00	531	164	1655
146	607+00.00	609+00.00	874	222	2422
147	610+00.00	612+00.00	782	294	2422
148	613+00.00	615+00.00	818	266	2499
149	616+00.00	618+00.00	879	267	2544
150	619+00.00	621+00.00	959	306	2655
151	622+00.00	624+00.00	999	404	2879
152	625+00.00	626+00.00	686	165	1523
153	627+00.00	629+00.00	1066	241	2411
154	630+00.00	632+00.00	1106	237	2600
155	633+00.00	635+00.00	810	330	2745
156	636+00.00	638+00.00	918	264	2743
157	639+00.00	641+00.00	1082	272	2713
158	642+00.00	643+00.00	834	169	1955
159	644+00.00	646+00.00	1237	192	2512
160	647+00.00	649+00.00	1348	233	2555
161	650+00.00	652+00.00	1279	390	2756
162	653+00.00	655+00.00	2275	182	2588
163	655+50.00	657+00.00	2169	38	1995
164	658+00.00	660+00.00	2287	160	2855
165	661+00.00	662+00.00	1029	165	1601
166	663+00.00	665+00.00	1127	367	2678
167	665+40.00	667+00.00	739	245	1797
168	668+00.00	670+00.00	1234	304	2532
169	671+00.00	673+00.00	1114	342	2678
170	674+00.00	676+00.00	898	187	2523
171	677+00.00	678+00.00	188	4	200
SUBTOTALS THIS COLUMN			42592	9134	92819

SHEET NO.	STATION		203	203	659
	FROM	TO	EXCAVATION CU. YD.	EMBANKMENT CU. YD.	SEEDING AND MULCHING SQ. YD.
	RAMP A				
174	5+00.00	6+00.00	29	21	245
175	7+00.00	8+00.00	39	62	645
176	9+00.00	10+00.00	20	107	844
177	11+00.00	13+00.00	70	94	1177
178	14+00.00	15+00.00	304	16	555
	RAMP B				
180	1+00.00	3+00.00	225	18	578
181	4+00.00	5+00.00	66	48	667
182	6+00.00	8+00.00	4	266	1156
	RAMP C				
184	1+00.00	3+00.00	272	549	1100
185	4+00.00	6+00.00	182	96	956
186	7+00.00	8+00.00	105	33	578
	RAMP D				
188	6+00.00	7+00.00	0	81	245
189	8+00.00	10+00.00	118	84	634
190	11+00.00	13+00.00	452	14	644
	RAMP E				
192	4+53.69	6+00.00	59	20	134
193	17+00.00	18+95.23	150	12	254
	RAMP F				
195	5+00.68	7+00.00	94	20	253
196	18+00.00	19+00.00	0	0	0
197	20+00.00	22+00.00	200	56	680
SUBTOTALS THIS COLUMN			2389	1597	11345
SUBTOTALS COLUMN 1			56135	13038	132659
SUBTOTALS COLUMN 2			42592	9134	92819
TOTALS TO GENERAL SUMMARY			101116	23769	236823

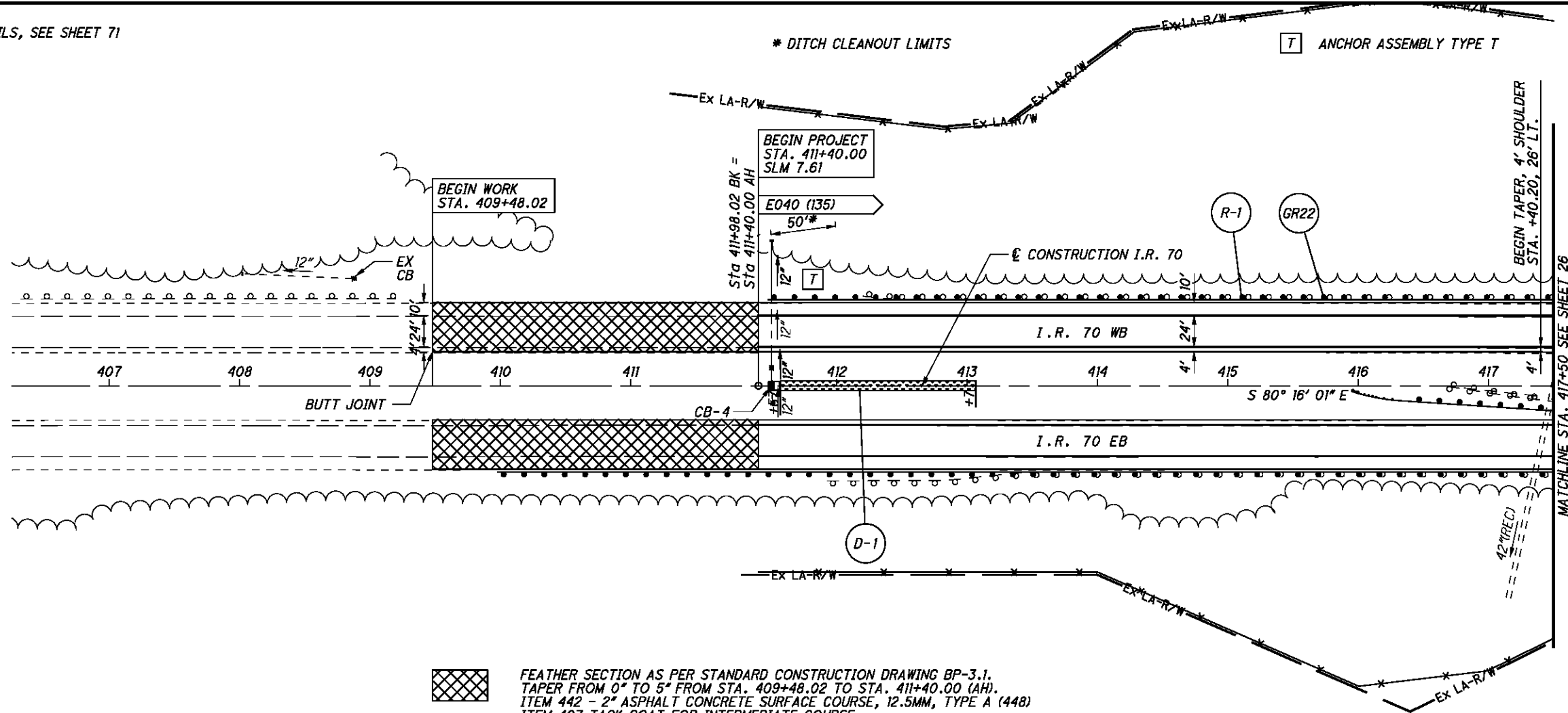
CALCULATED MJC
 CHECKED BBD
EARTHWORK SUBSUMMARY
BEL-70-7.61
 20
 373

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REF. NO.	SHEET NO.	STATION TO STATION		202			602	603						604		670	
				HEADWALL REMOVED EACH	PIPE REMOVED, 24" AND UNDER FT	CATCH BASIN REMOVED EACH	CONCRETE MASONRY CU YD	12" CONDUIT, TYPE C, 706.02 FT	12" CONDUIT, TYPE C, 707.05 FT	15" CONDUIT, TYPE C, 706.02 FT	15" CONDUIT, TYPE C, 707.05 FT	15" CONDUIT, TYPE F, 707.05 TYPE C FT	18" CONDUIT, TYPE C, 706.02 FT	24" CONDUIT, TYPE C, 706.02 FT	CATCH BASIN, NO. 4 EACH	CATCH BASIN, NO. 5 EACH	DITCH EROSION PROTECTION SY
IR 70																	
D-1	24	411+49.82 (AH)	413+07.00	1	89	2	0.2	75							1		125
D-2	25	418+29.68	419+21.85	1	93	1											
D-3	25	419+87.69	420+68.58	1	81	1											
D-4	49	430+43.00	431+99.60		64	2	0.2	49							1		125
D-5	26	435+17.00	438+31.00	1	68	2	0.2	54							1		250
D-6	26 - 27	440+49.42	440+49.46	1	71	2	0.2	57							1		125
D-7	27	449+49.39	451+07.00	1	76	2	0.25	26			36				1		125
D-8	52	467+42.00	469+00.00	1	76	2	0.25				63				1		125
D-9	52	472+50.00	476+99.53	1	62	2	0.2	49							1		368
D-10	53	481+00.00	484+99.68	1	96	2	0.27					83	26		1		328
D-11	54	490+42.00	493+56.00	1	66	2	0.2	53							1		250
D-12	54	498+00.44	499+57.00	1	78	2	0.2	65							1		125
D-13	32	505+00.58	506+58.00	1	74	2	0.2	61							1		125
D-14	55		515+75.78		78	1											
D-15	55	516+03.00	517+52.63	1	127	1	0.21				127				1		125
D-16	55		516+50.72		110	1											
D-17	55	519+81.95	521+37.00	1	82	1	0.21				82					1	125
D-18	33	523+70.00	525+25.78	1	59	2	0.25	26			19				1		125
D-19	34	529+50.00	534+00.88	1	65	2	0.25				52				1		368
D-20	35	538+25.00	542+01.04	1	80	2	0.21				66				1		307
D-21	35	543+44.00	546+58.00	1	91	2	0.25				26			51	1		250
D-22	59	552+99.75	552+99.92	1	64	2	0.25				51				1		
D-23	60 - 61	553+06.00	563+56.00	1	76	2	0.2	63							1		867
D-24	60	569+00.69	570+57.00	1	130	2	0.27					117	26		1		125
D-25	38 - 39	585+18.00	586+75.49	1	89	2	0.25				26			50	1		125
D-26	39	591+50.00	595+74.64	1	77	2	0.25				26			38	1		348
D-27	63	602+92.00	606+06.00	1	72	2	0.31						26	34	1		250
D-28	64	609+99.53	611+56.00	1	67	2	0.21				53				1		125
D-29	41	617+00.43	618+57.00	1	73	2	0.25				59				1		125
D-30	65	625+99.96	627+57.00	1	70	2	0.25				43				1		125
D-31	43	640+69.00	642+25.42	1	86	2	0.27	26			60				1		125
D-32	44	650+44.00	652+01.37	1	85	2	0.27					72	26		1		125
D-33	67 - 68	655+19.00	658+33.00	1	106	2	0.43							106	1		371
D-34	45	664+01.98	665+58.00	1	79	2	0.25				26			39	1		125
D-35	69	673+00.11	674+58.00		107	2	0.25				94				1		125
RAMP F																	
D-36	44	20+23.61	20+31.15		27												27
D-37	44	20+51.74	20+69.05	1	27		0.43										27
TOTALS CARRIED TO GENERAL SUMMARY				28	2658	60	7.69	529	328	581	272	256	26	194	29	1	6207

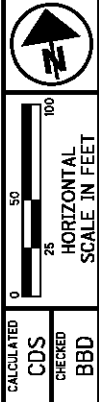
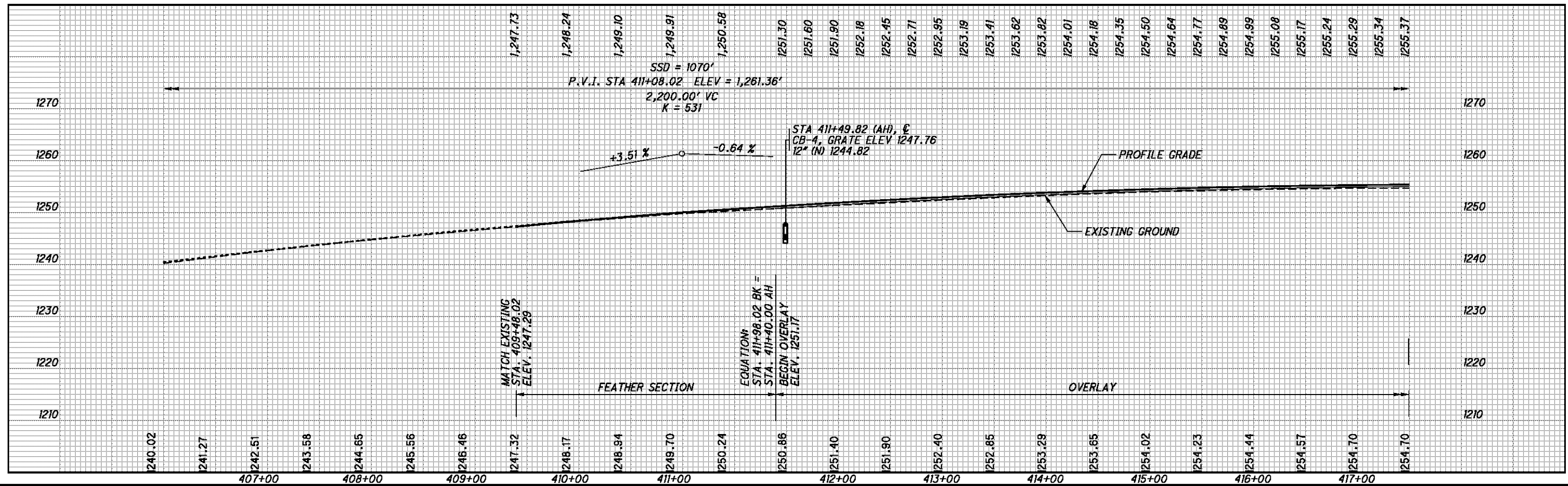
CALCULATED CDS CHECKED BBD	STORM SEWER SUBSUMMARY	BEL - 70 - 7.61	23 373
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FOR STORM SEWER DETAILS, SEE SHEET 71



FEATHER SECTION AS PER STANDARD CONSTRUCTION DRAWING BP-3.1.
 TAPER FROM 0" TO 5" FROM STA. 409+48.02 TO STA. 411+40.00 (AH).
 ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
 ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
 ITEM 442 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
 ITEM 407 TACK COAT

FOR I.R. TO EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

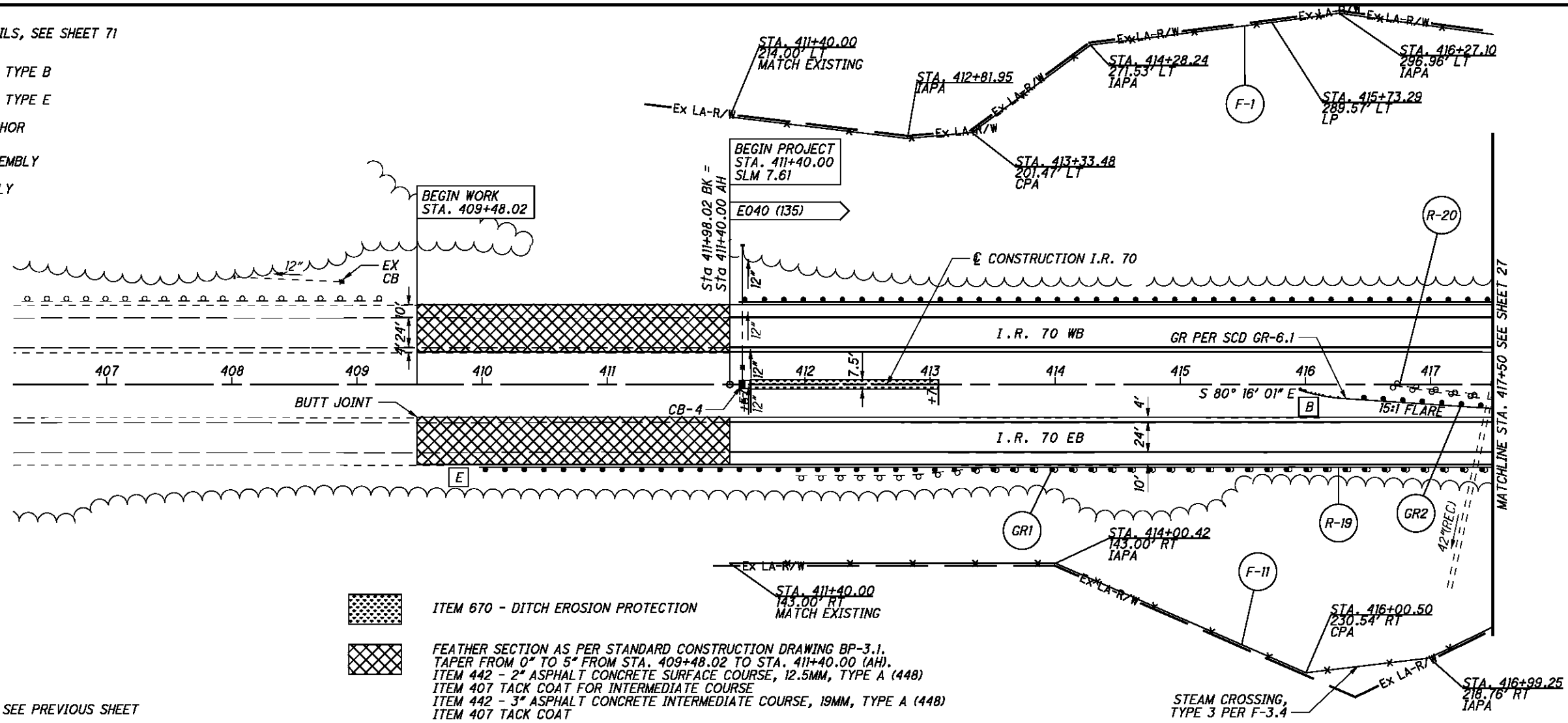
I.R. 70 WB - PLAN AND PROFILE
 STA. 406+50 TO STA. 417+50

BEL-70-7.61

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FOR STORM SEWER DETAILS, SEE SHEET 71

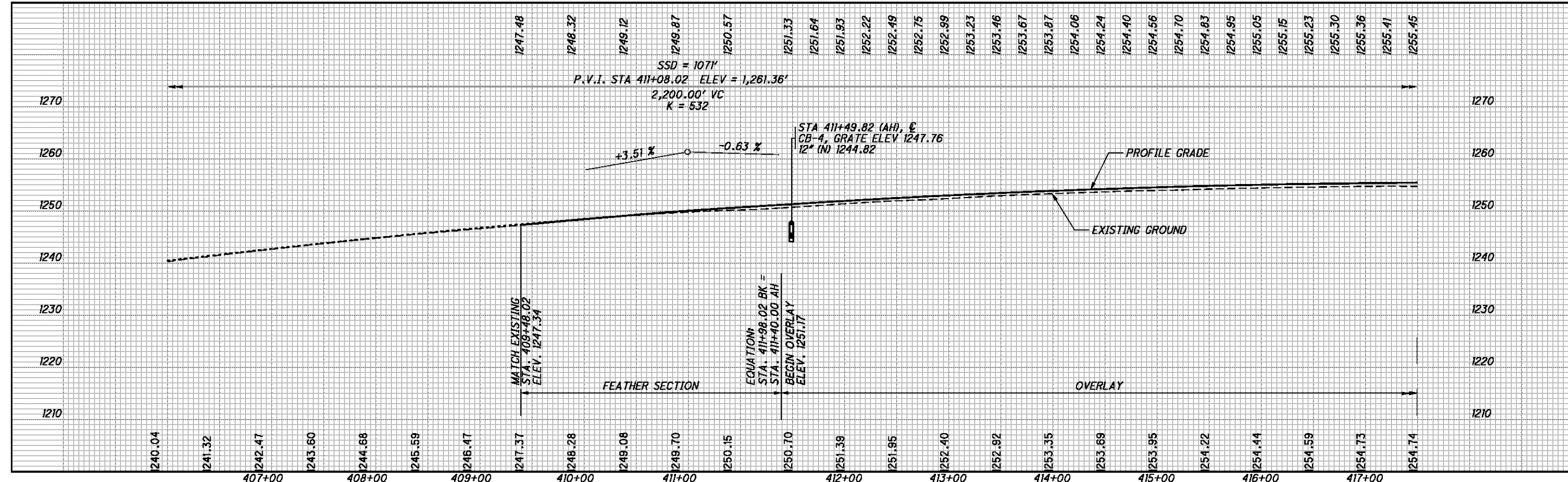
- B** ANCHOR ASSEMBLY TYPE B
- E** ANCHOR ASSEMBLY TYPE E
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST



ITEM 670 - DITCH EROSION PROTECTION

FEATHER SECTION AS PER STANDARD CONSTRUCTION DRAWING BP-3.1.
 TAPER FROM 0" TO 5" FROM STA. 409+48.02 TO STA. 411+40.00 (AH).
 ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
 ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
 ITEM 442 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
 ITEM 407 TACK COAT

FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



0 25 50
 HORIZONTAL SCALE IN FEET

CALCULATED CDS CHECKED BDD

I.R. 70 EB - PLAN AND PROFILE
 STA. 406+50 TO STA. 417+50

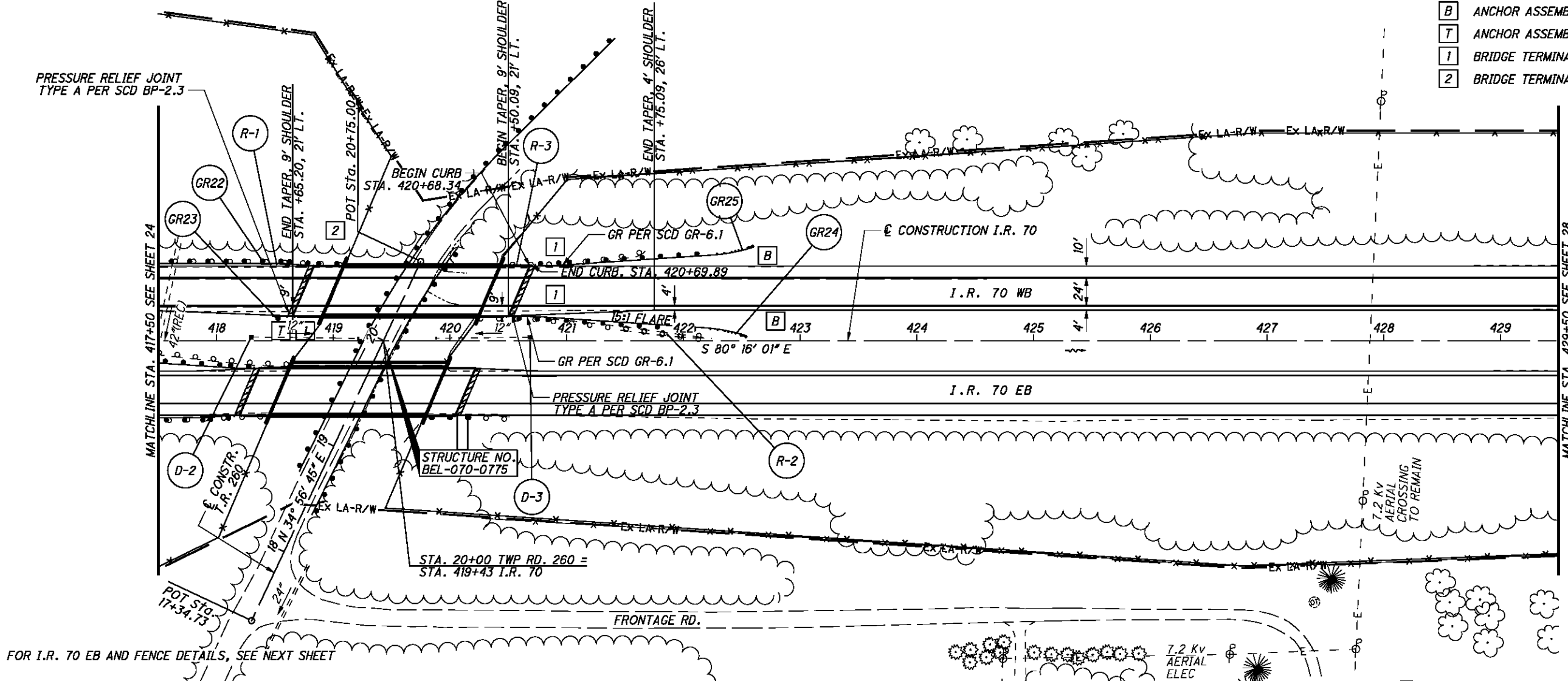
BEL-70-7.61

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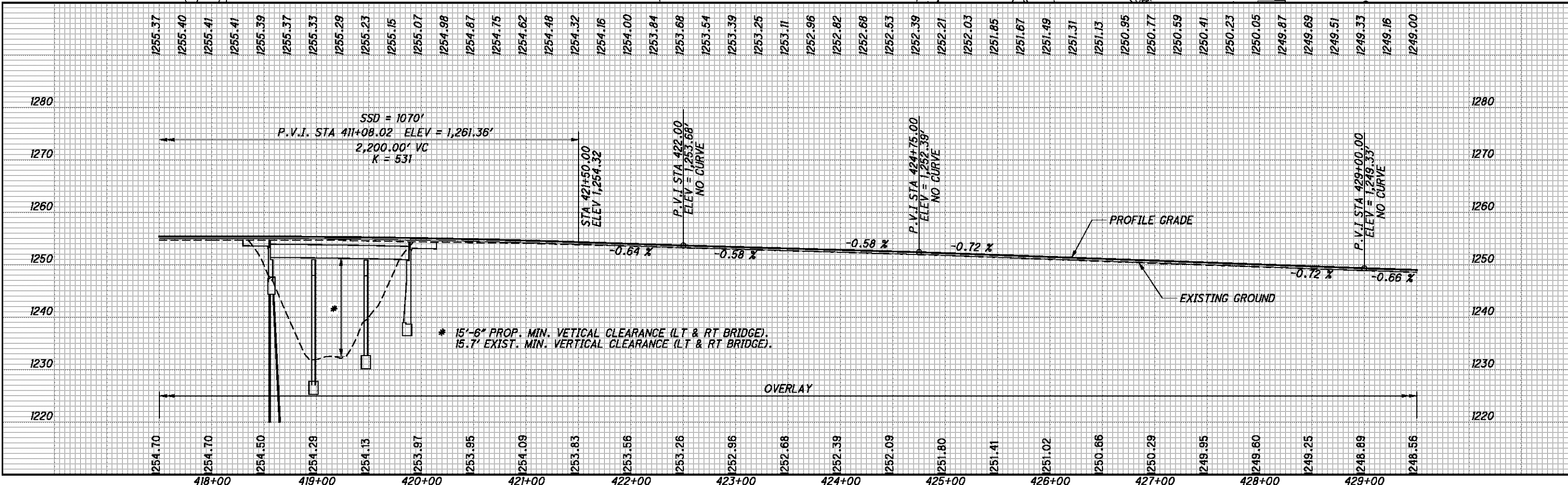


CALCULATED
CDS
CHECKED
BDD

- B ANCHOR ASSEMBLY, TYPE B
- T ANCHOR ASSEMBLY TYPE T
- 1 BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2 BRIDGE TERMINAL ASSEMBLY, TYPE 2



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



I.R. 70 WB - PLAN AND PROFILE
STA. 417+50 TO STA. 429+50

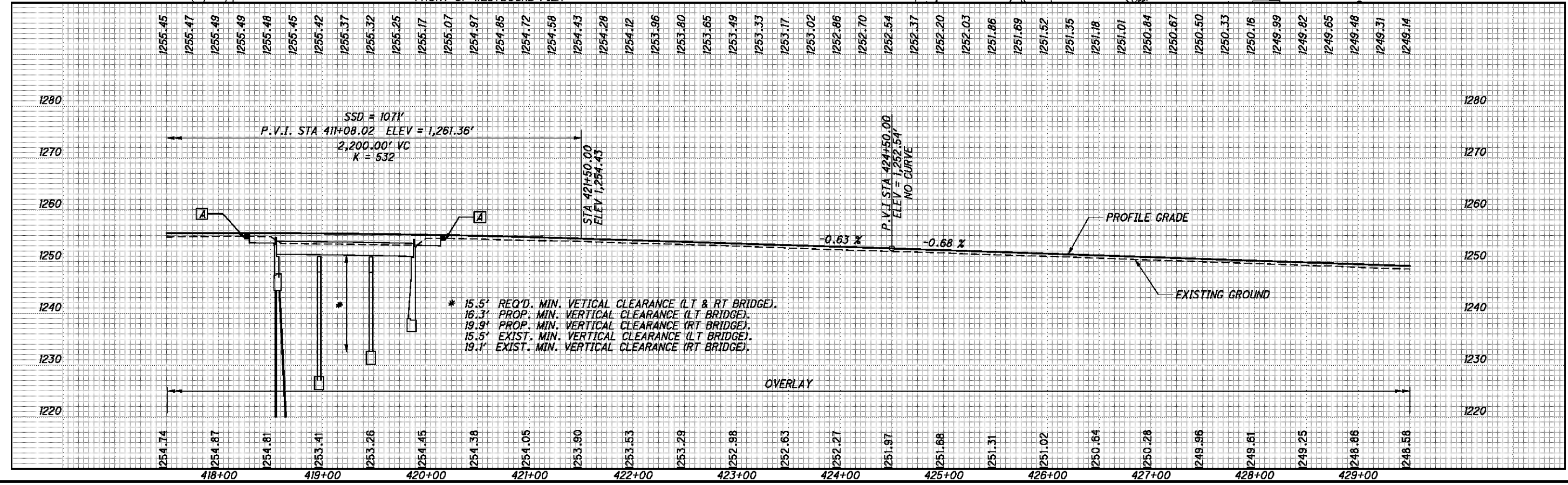
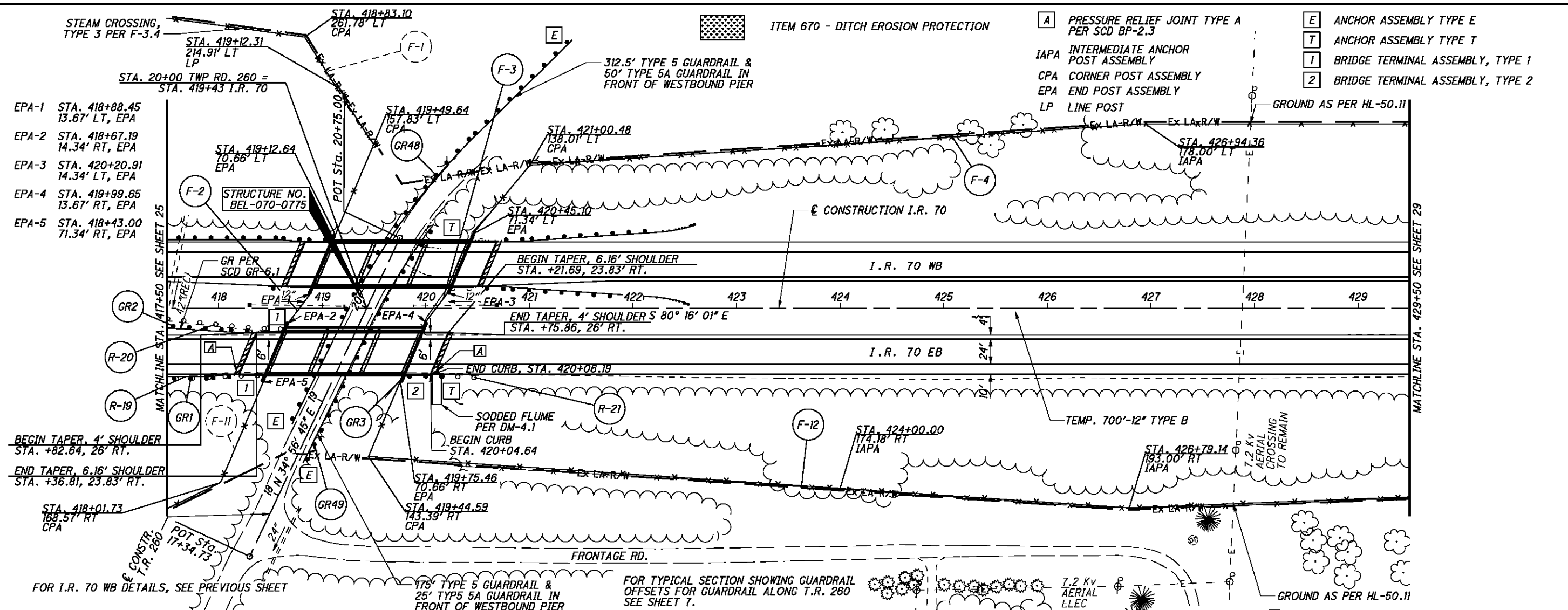
BEL-70-7.61



CALCULATED
CDS
CHECKED
BBD

**I.R. 70 EB - PLAN AND PROFILE
STA. 417+50 TO STA. 429+50**

BEL-70-7.61

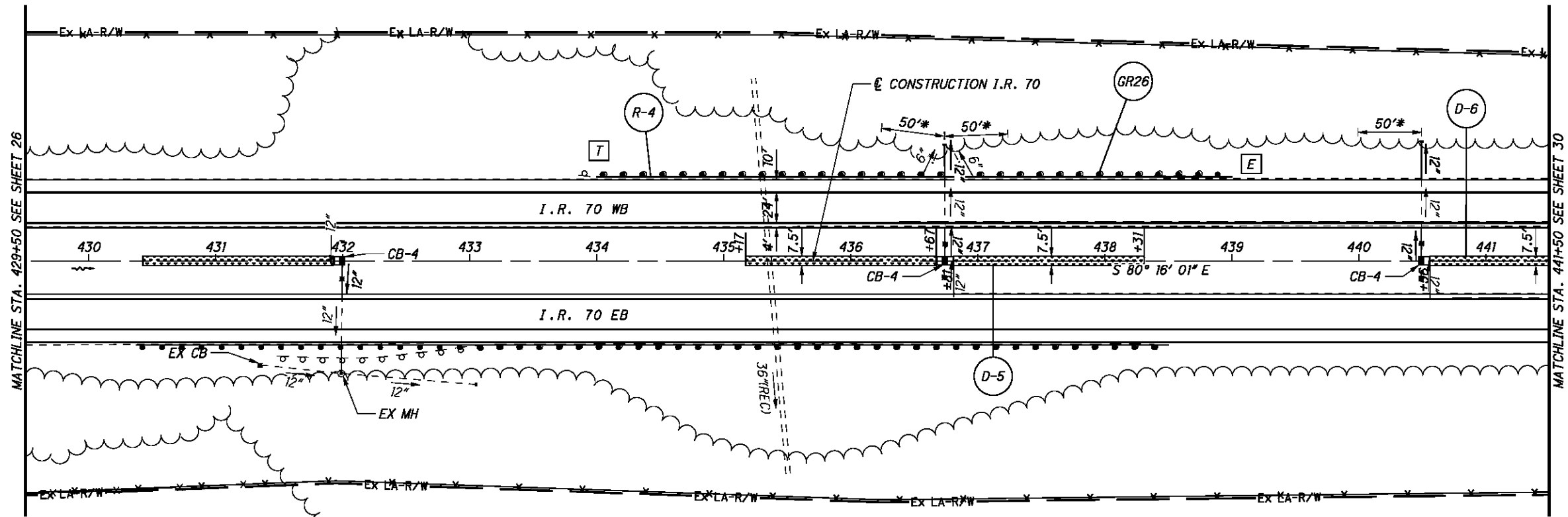


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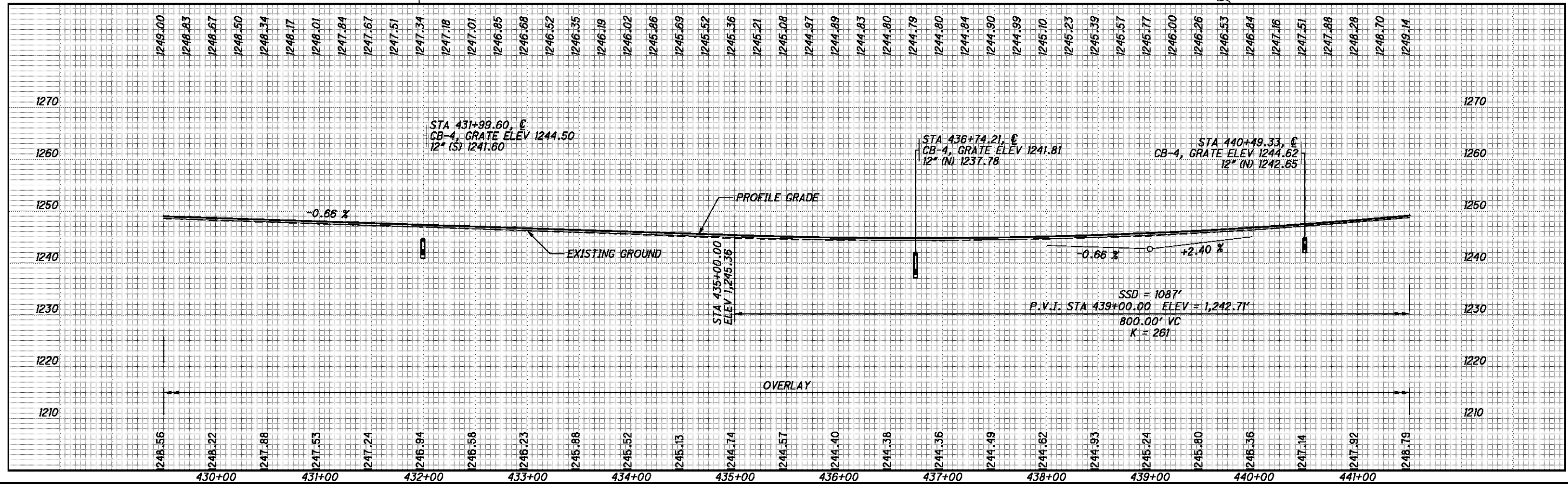
FOR STORM SEWER DETAILS, SEE SHEETS 78, 80, & 81

* DITCH CLEANOUT LIMITS

E ANCHOR ASSEMBLY, TYPE E
T ANCHOR ASSEMBLY, TYPE T



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
 STA. 429+50 TO STA. 441+50

BEL-70-7.61

28
 373

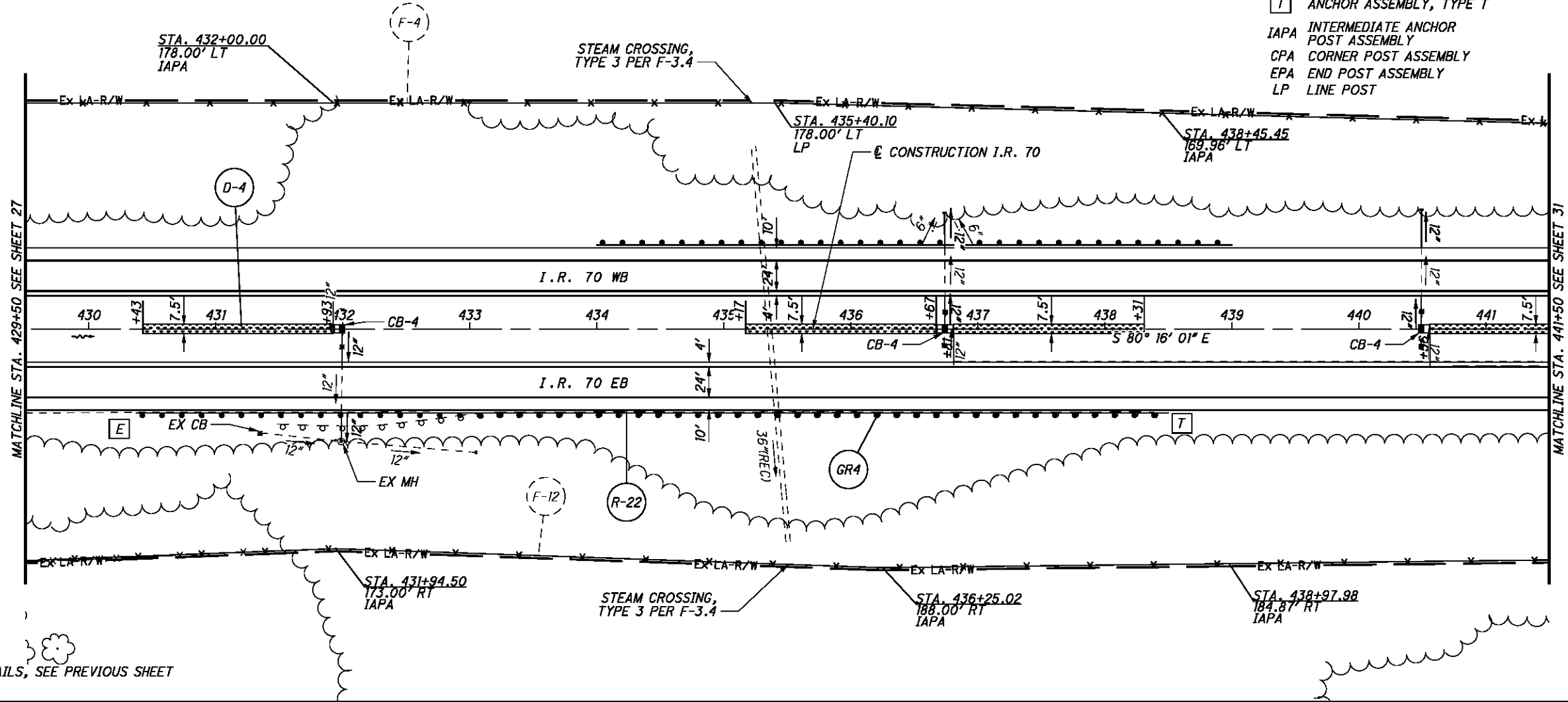
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FOR STORM SEWER DETAILS, SEE SHEETS 78, 80, & 81

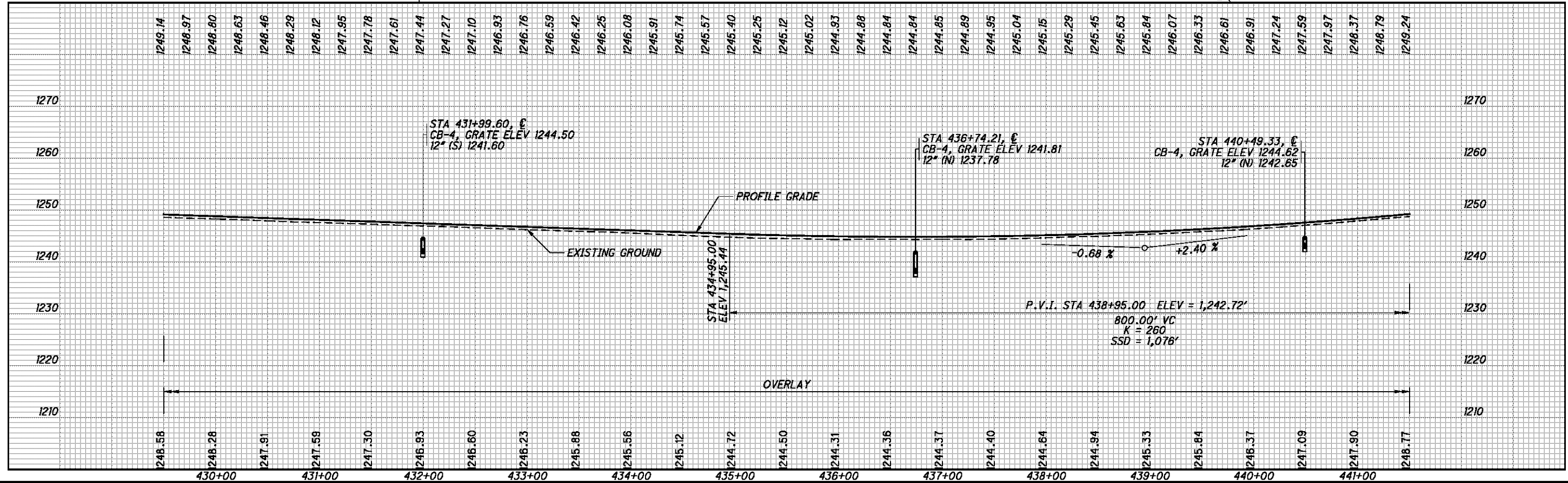


ITEM 670 - DITCH EROSION PROTECTION

- E ANCHOR ASSEMBLY, TYPE E
- T ANCHOR ASSEMBLY, TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 EB - PLAN AND PROFILE
STA. 429+50 TO STA. 441+50

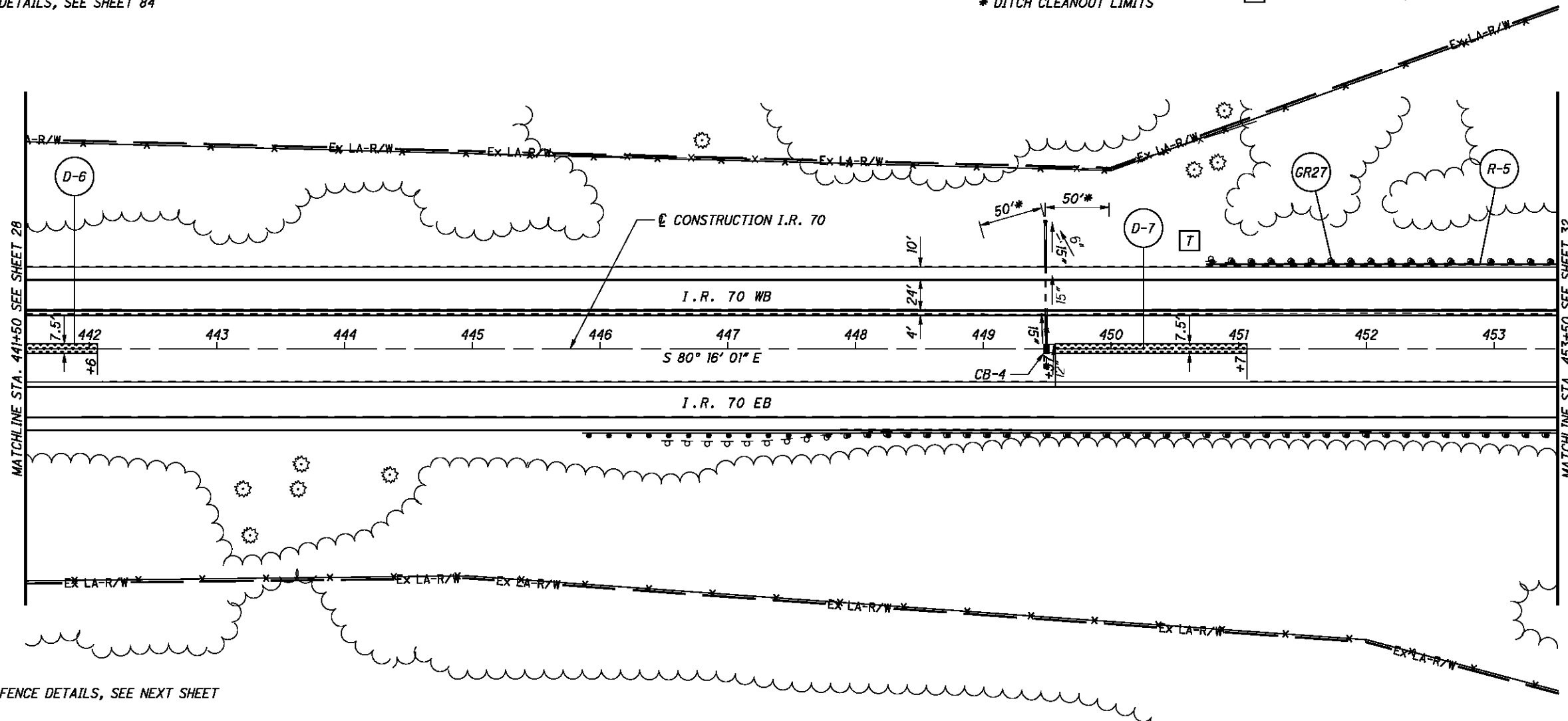
BEL-70-7.61

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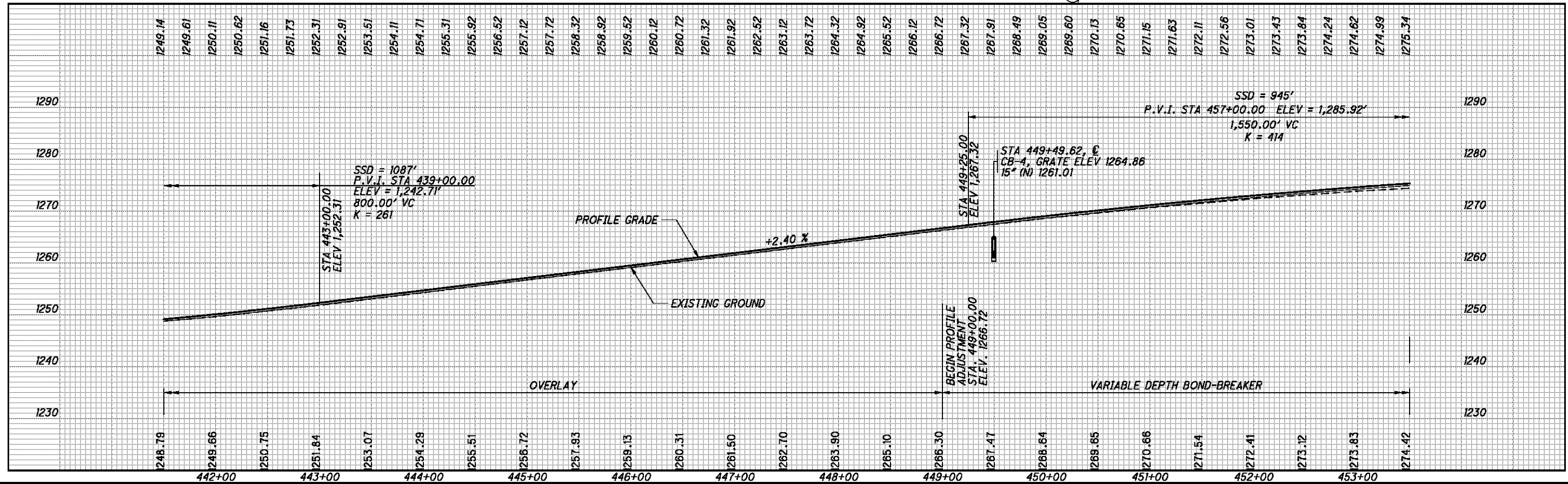
FOR STORM SEWER DETAILS, SEE SHEET 84

* DITCH CLEANOUT LIMITS

T ANCHOR ASSEMBLY, TYPE T



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
 STA. 441+50 TO STA. 453+50

BEL-70-7.61

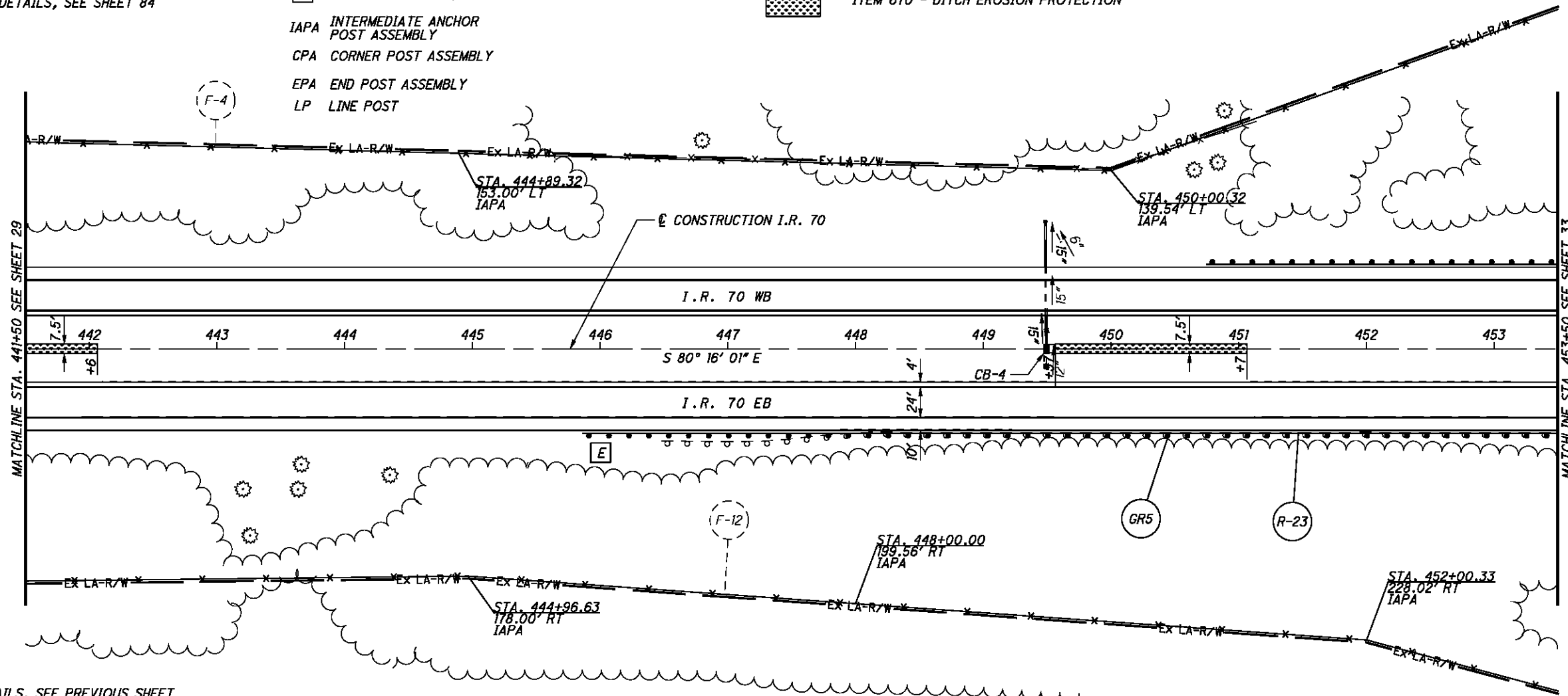
30
 373

P:\76825\roadway\sheet\76825GP304.dgn 9/21/2012 7:46:00 AM mcorbett

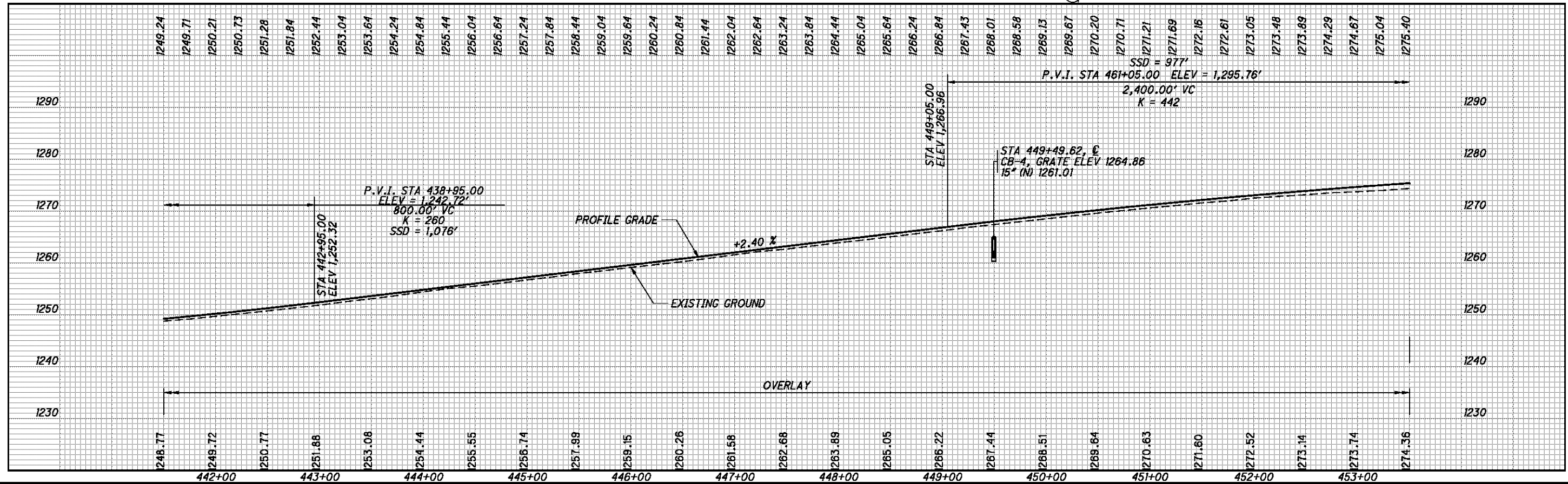
FOR STORM SEWER DETAILS, SEE SHEET 84

- E ANCHOR ASSEMBLY, TYPE E
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

ITEM 670 - DITCH EROSION PROTECTION



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 EB - PLAN AND PROFILE
STA. 441+50 TO STA. 453+50

BEL-70-7.61

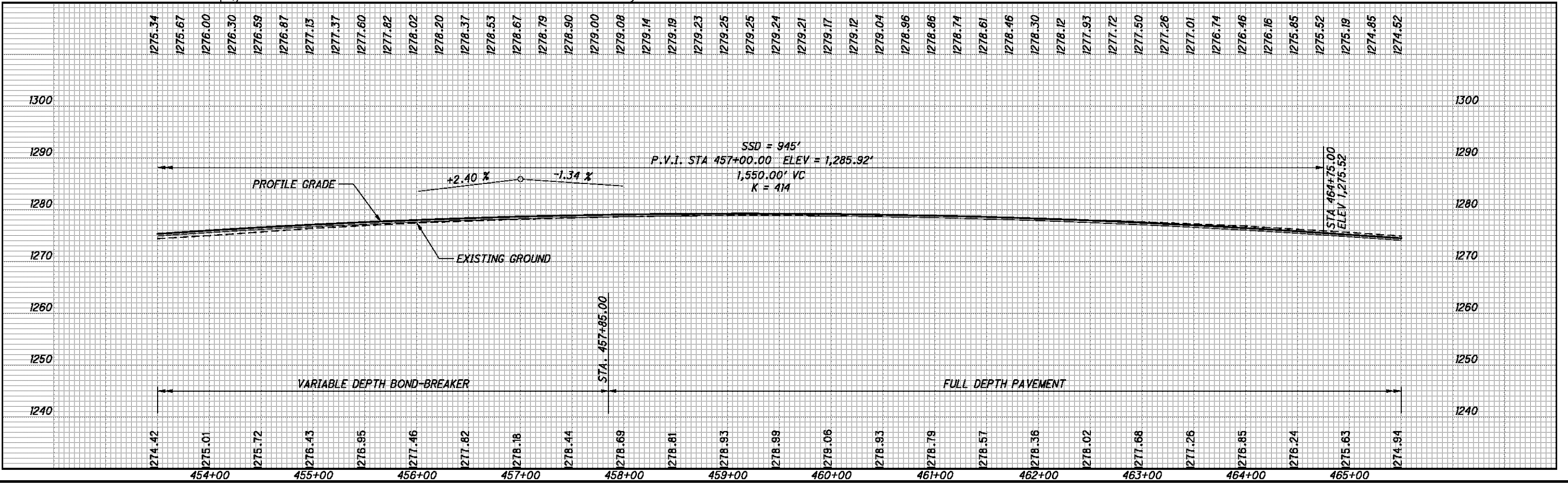
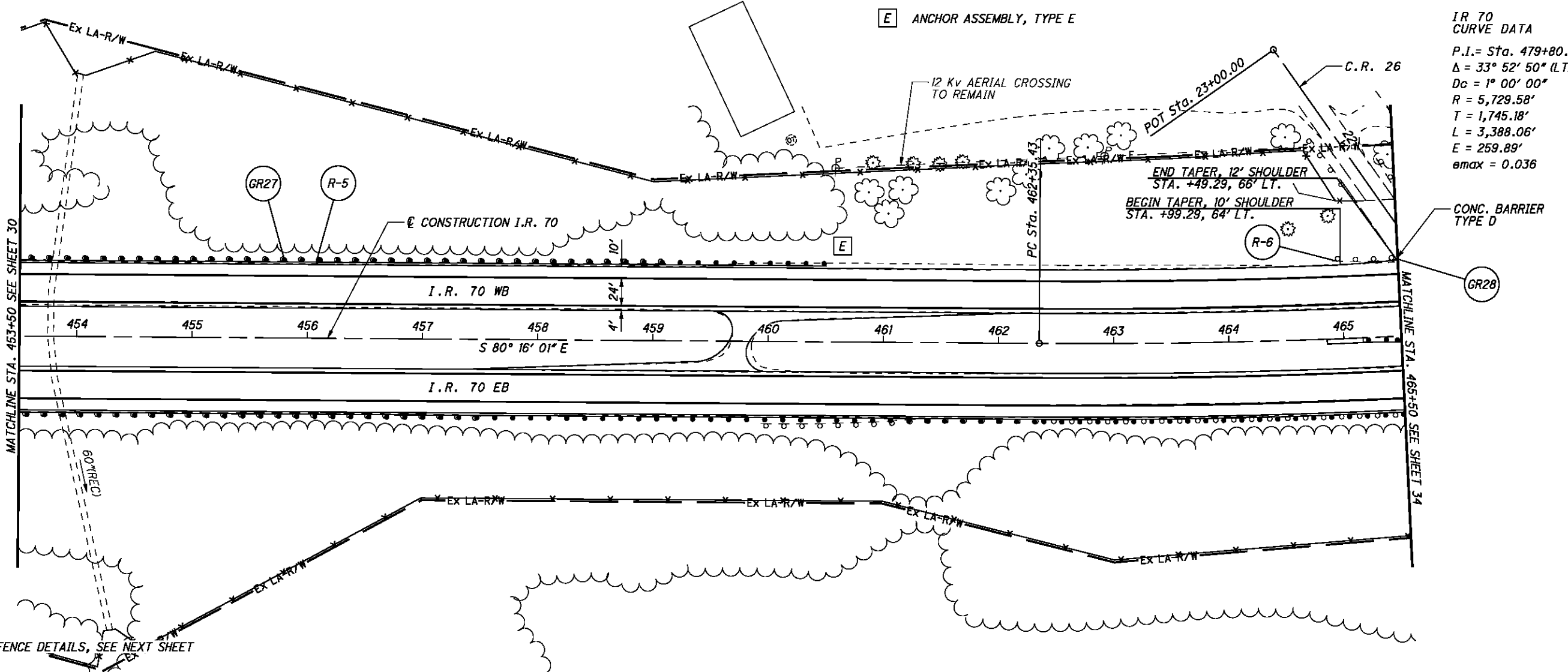
31
373

P:\76825\roadway\sheet\76825GP404.dgn 9/21/2012 7:46:01 AM mcornett

CALCULATED CDS CHECKED BBD

IR 70 CURVE DATA
 P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $e_{max} = 0.036$

HORIZONTAL SCALE IN FEET



I.R. 70 WB - PLAN AND PROFILE
 STA. 453+50 TO STA. 465+50

BEL-70-7.61

32
373

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STEAM CROSSING, TYPE 3 PER F-3.4
 STA. 453+70.10
 272.91' LT
 CPA

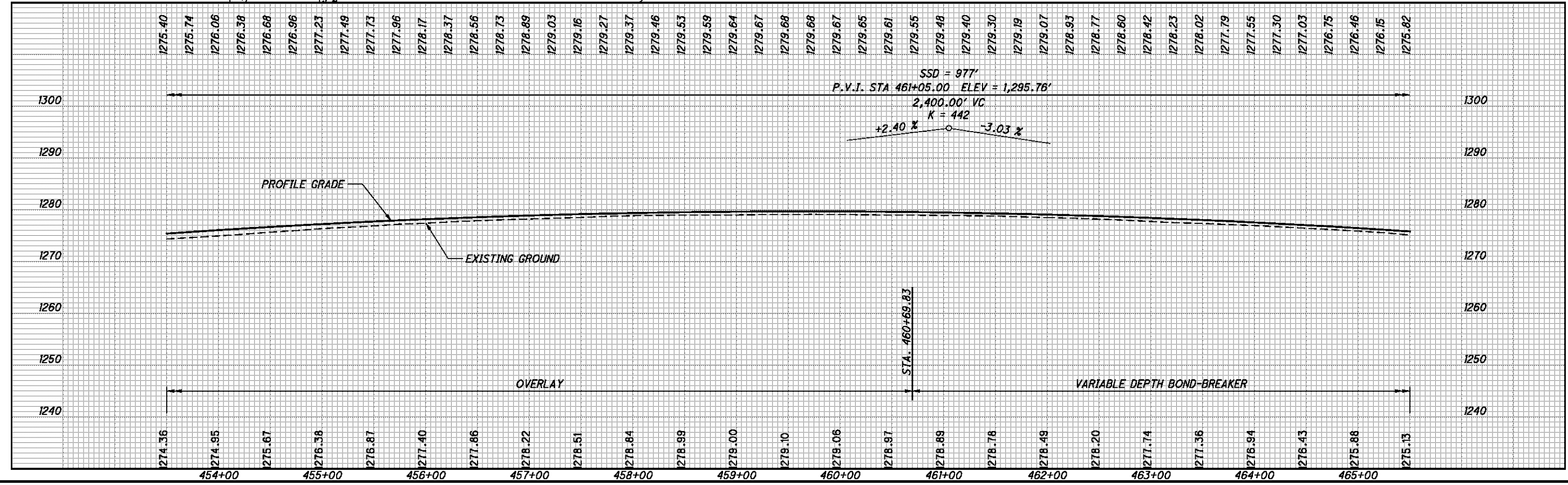
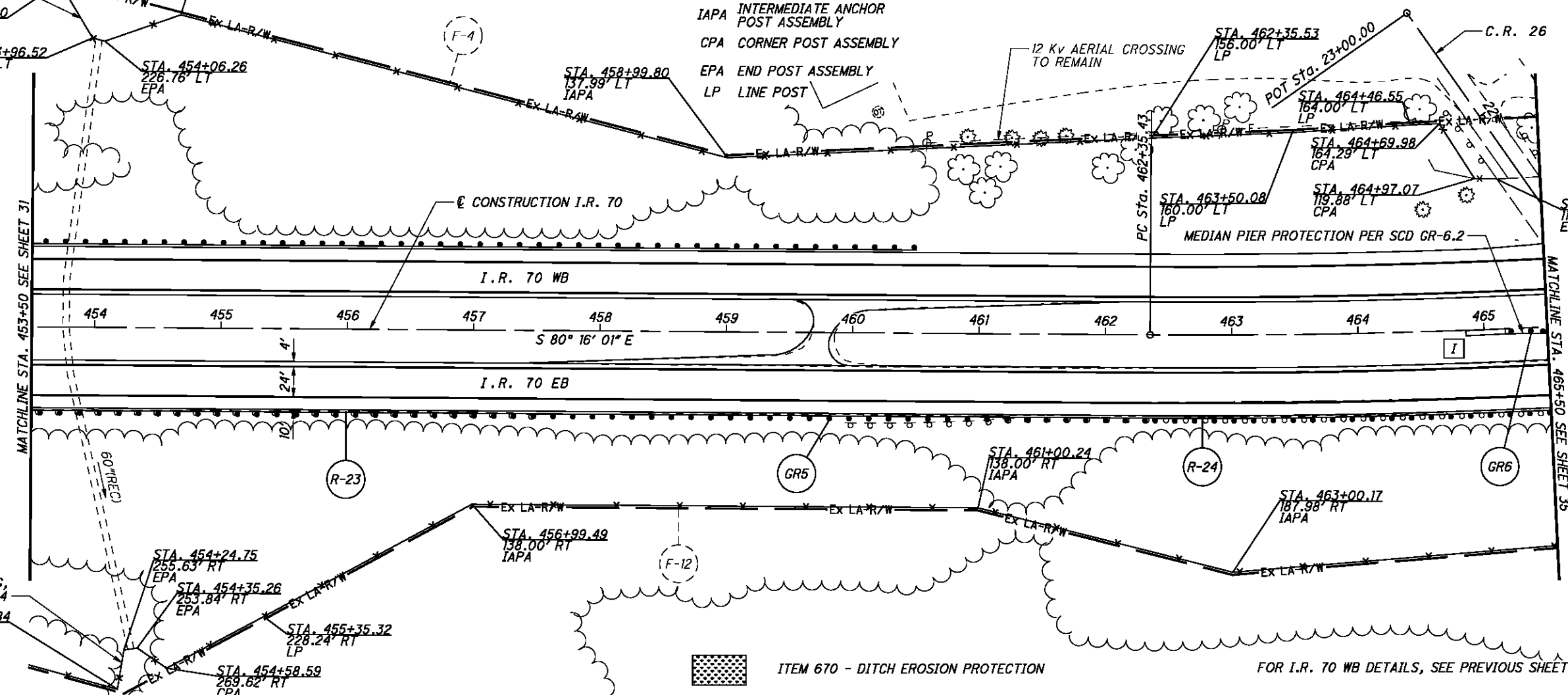
- I IMPACT ATTENUATOR, TYPE I
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

IR 70 CURVE DATA
 P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $e_{max} = 0.036$

CALCULATED CDS CHECKED BDD

HORIZONTAL SCALE IN FEET

30
25
20
15
10
5
0



P:\76825\roadway\sheets\76825GP405.dgn 9/21/2012 7:46:02 AM mcornett

I.R. 70 EB - PLAN AND PROFILE
 STA. 453+50 TO STA. 465+50

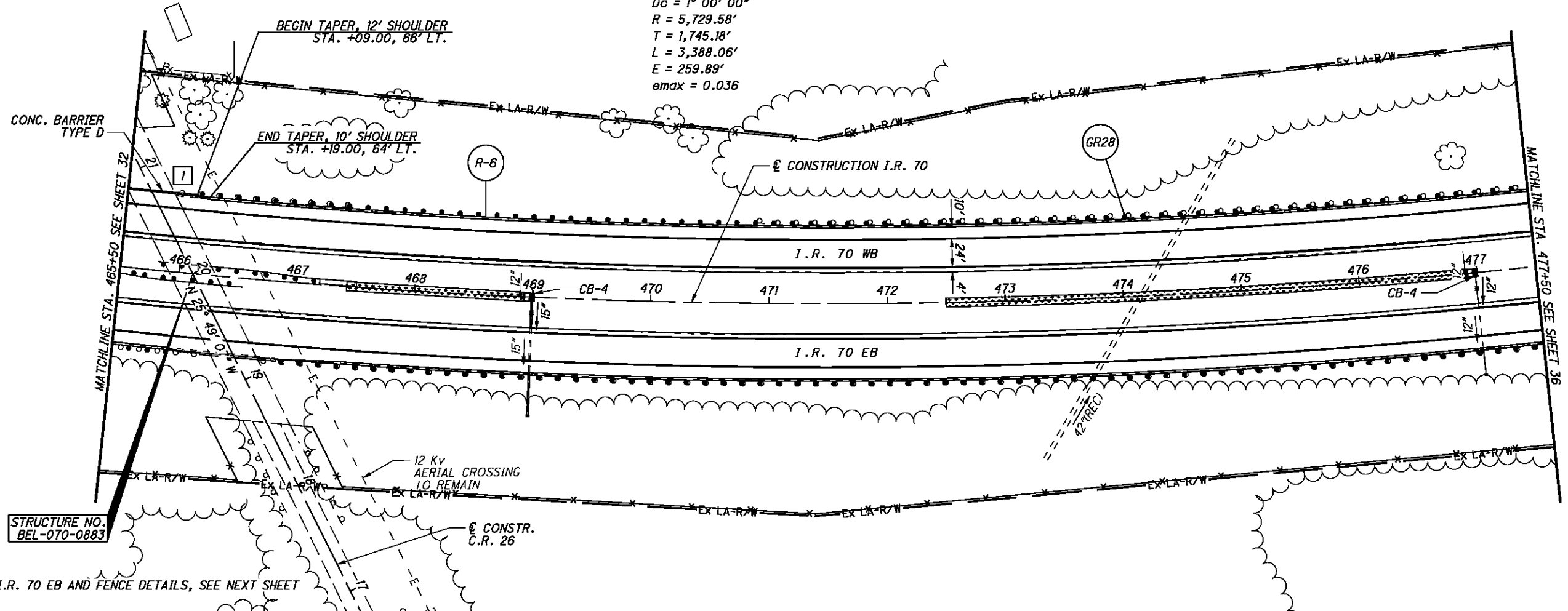
BEL-70-7.61

33
373

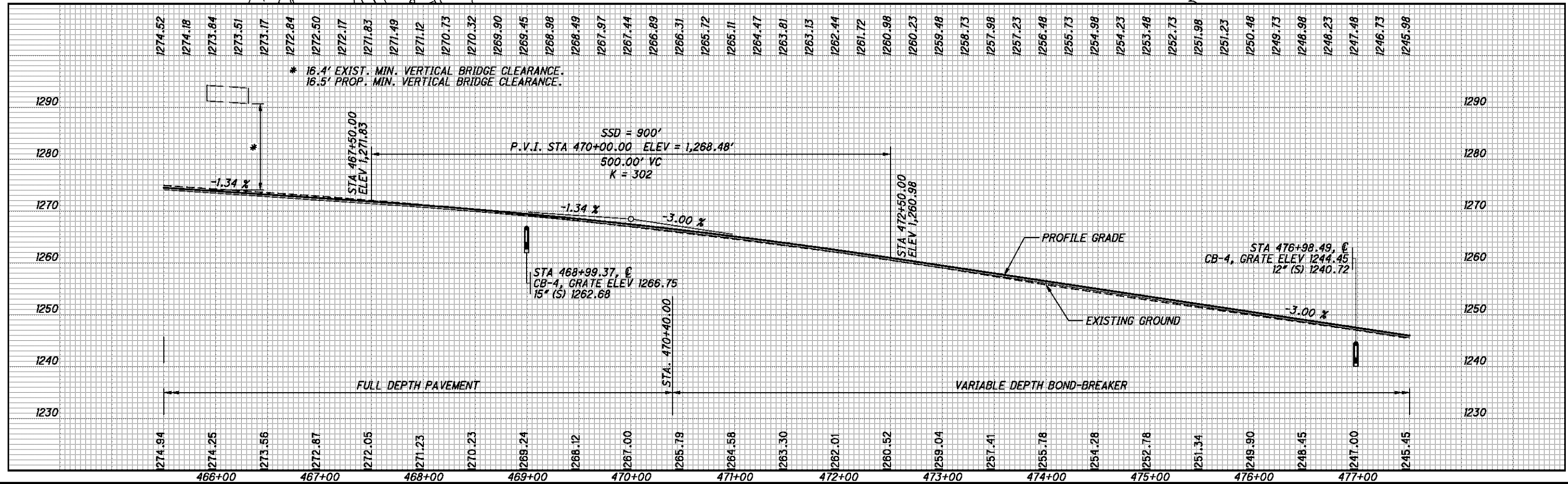
FOR STORM SEWER DETAILS, SEE SHEETS 92 & 95

- T ANCHOR ASSEMBLY TYPE T
- I BRIDGE TERMINAL ASSEMBLY, TYPE 1

IR 70
CURVE DATA
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $e_{max} = 0.036$



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

**I.R. 70 WB - PLAN AND PROFILE
STA. 465+50 TO STA. 477+50**

BEL-70-7.61

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FOR STORM SEWER DETAILS, SEE SHEETS 92 & 95

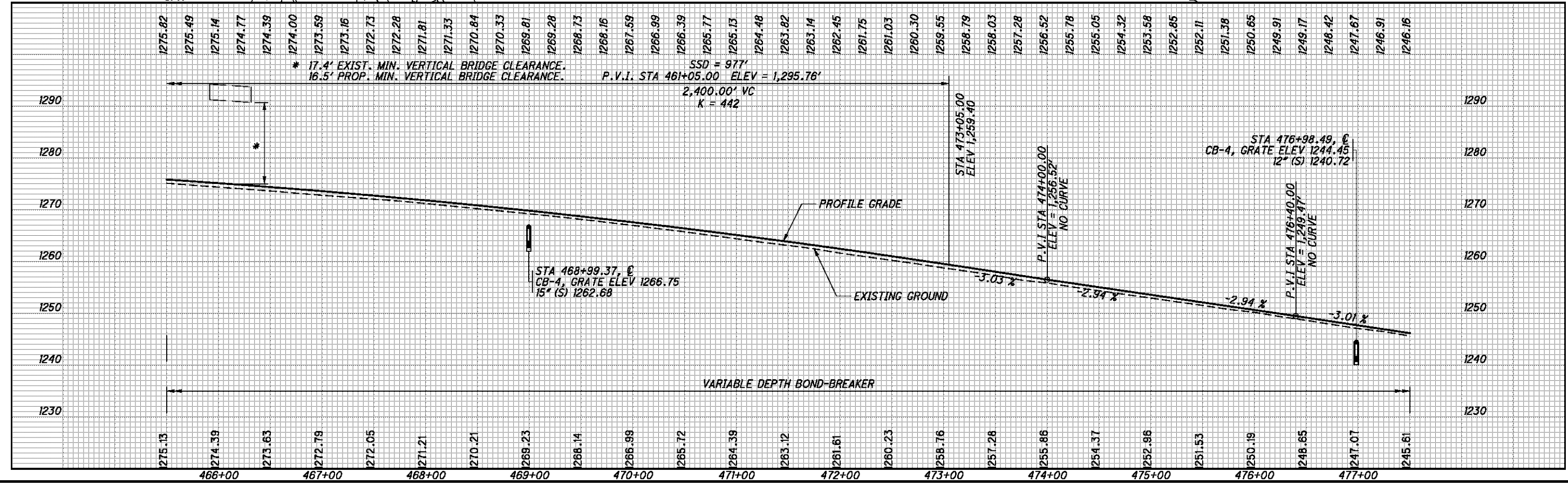
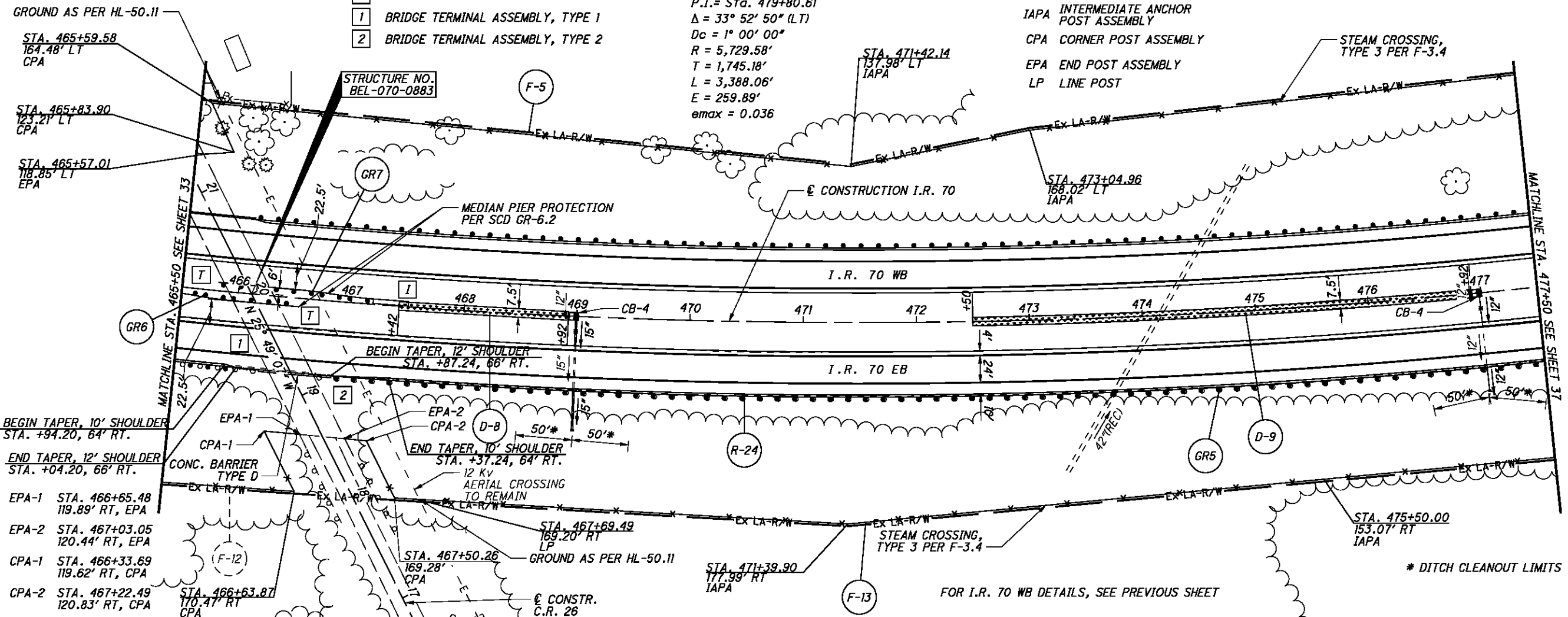
- I** IMPACT ATTENUATOR TYPE I
- T** ANCHOR ASSEMBLY TYPE T
- 1** BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2** BRIDGE TERMINAL ASSEMBLY, TYPE 2

IR 70
CURVE DATA
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $e_{max} = 0.036$

- ITEM 670 - DITCH EROSION PROTECTION
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

CALCULATED CDS CHECKED BDD

0 25 50
HORIZONTAL SCALE IN FEET



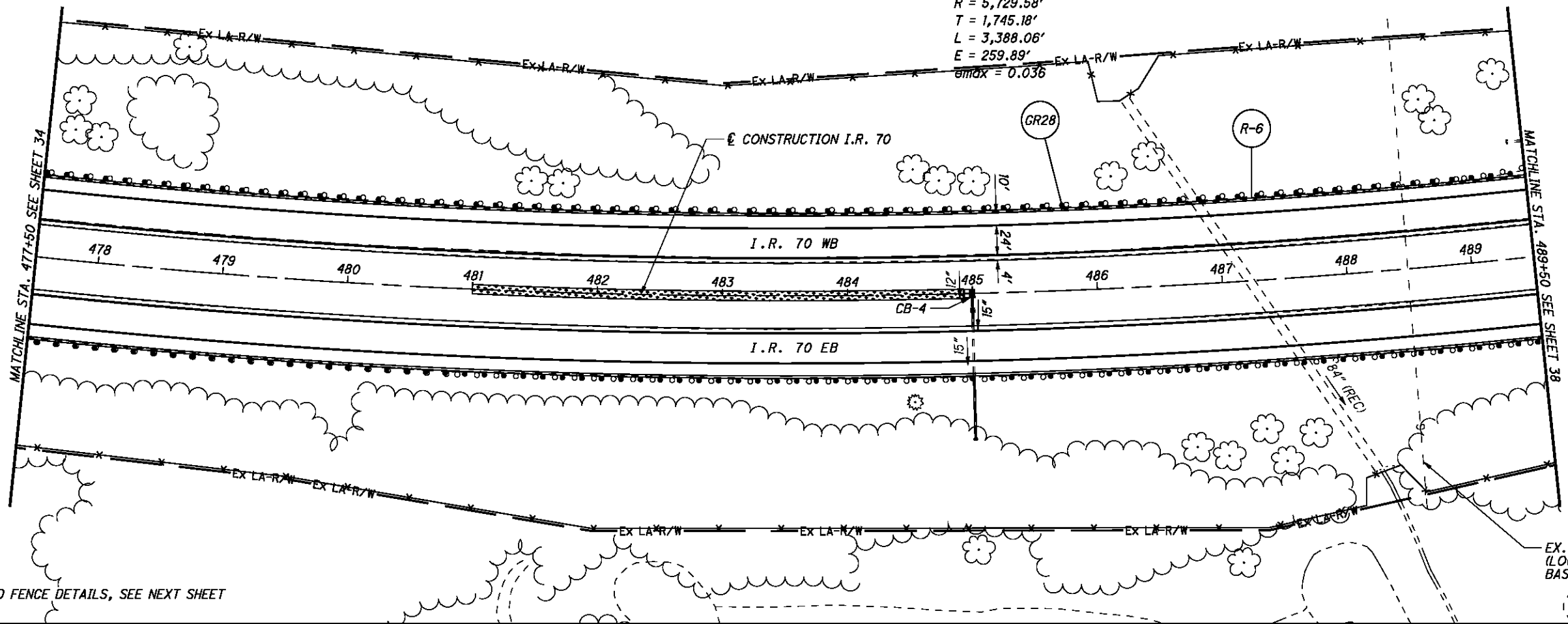
I.R. 70 EB - PLAN AND PROFILE
STA. 465+50 TO STA. 477+50

BEL-70-7.61

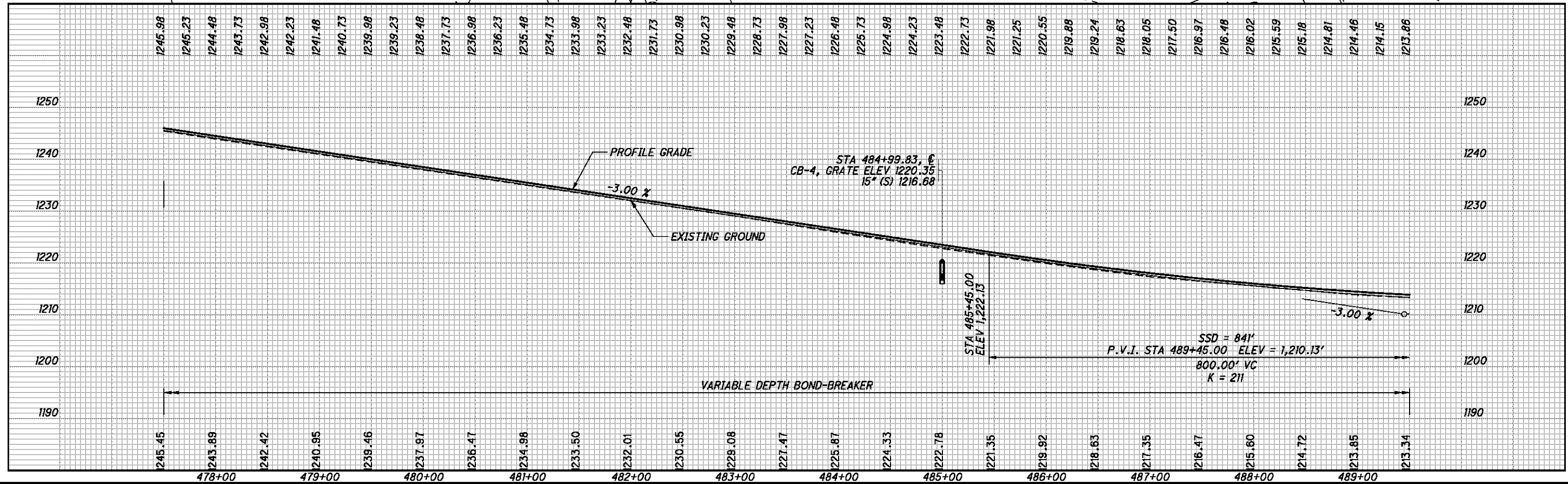
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FOR STORM SEWER DETAILS, SEE SHEET 98

IR 70
CURVE DATA
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $\theta_{max} = 0.036$



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
STA. 477+50 TO STA. 489+50

BEL-70-7.61

36
373

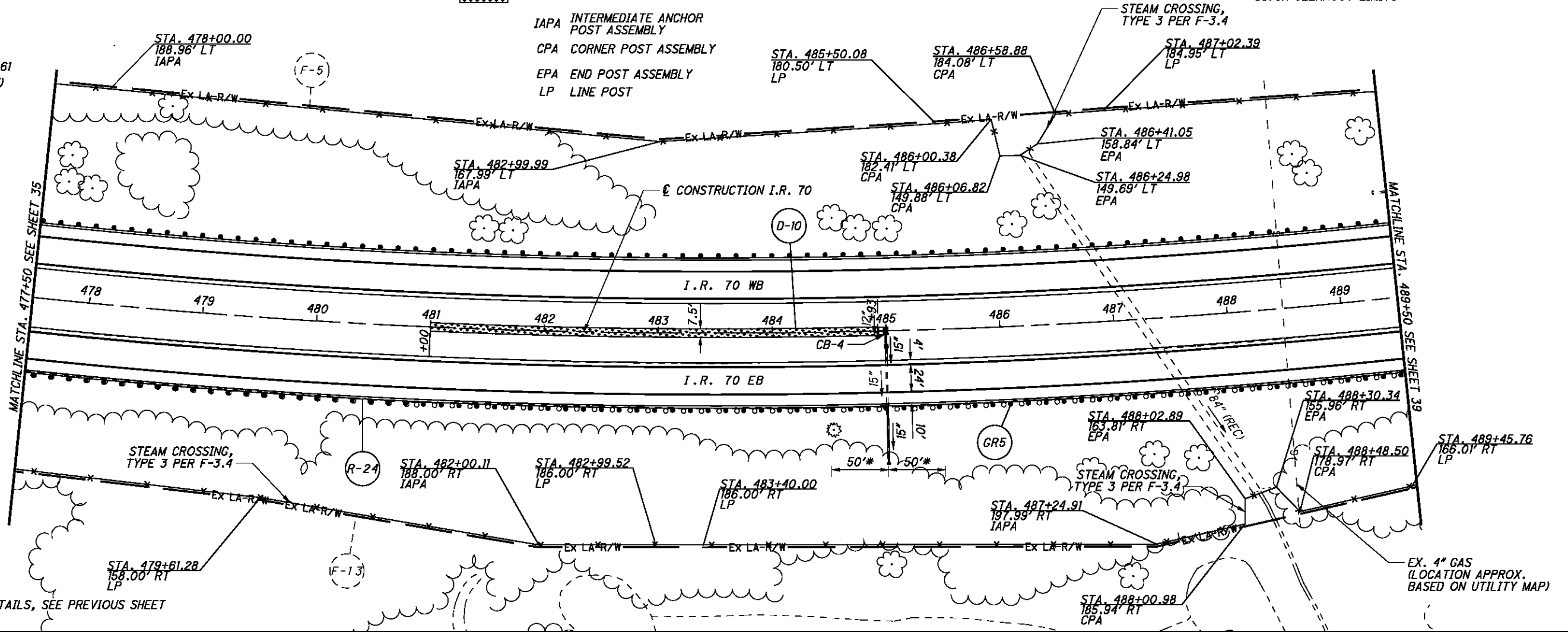
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FOR STORM SEWER DETAILS, SEE SHEET 98

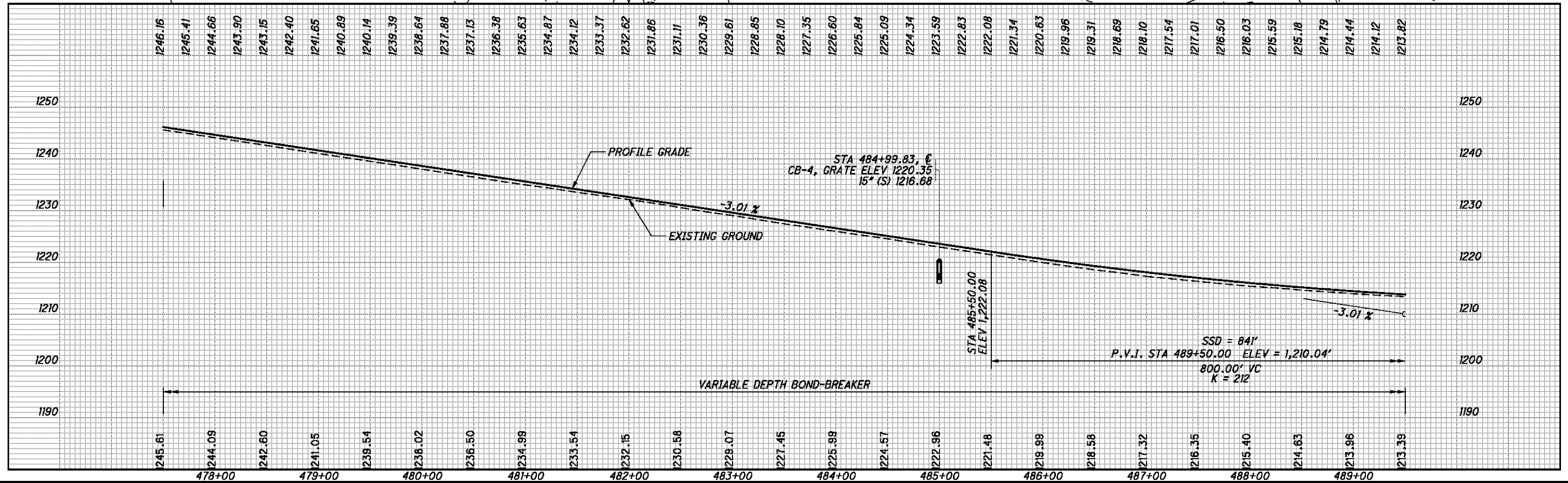
IR 70
CURVE DATA
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $e_{max} = 0.036$

ITEM 670 - DITCH EROSION PROTECTION
IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
CPA CORNER POST ASSEMBLY
EPA END POST ASSEMBLY
LP LINE POST

* DITCH CLEANOUT LIMITS



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 EB - PLAN AND PROFILE
STA. 477+50 TO STA. 489+50

BEL-70-7.61

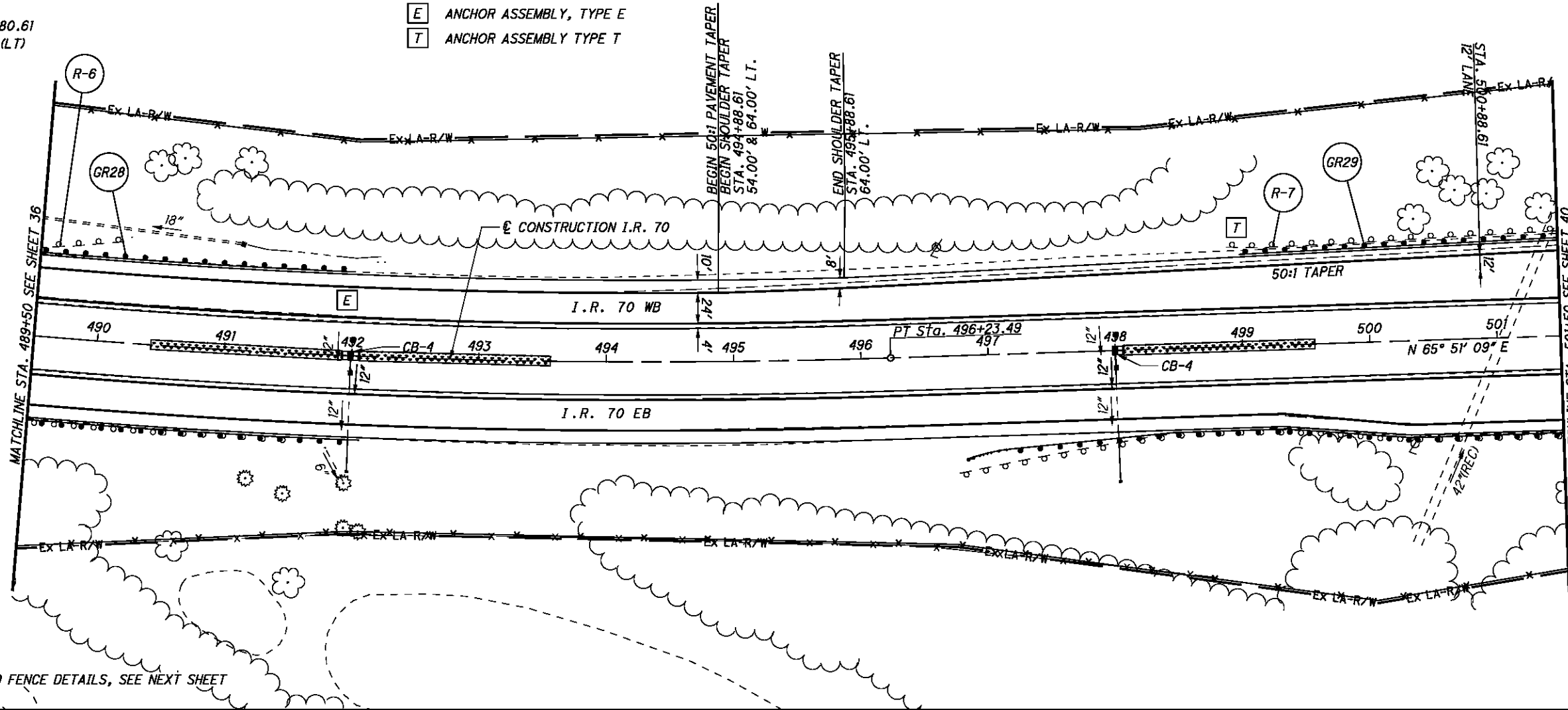
37
373

IR 70
CURVE DATA

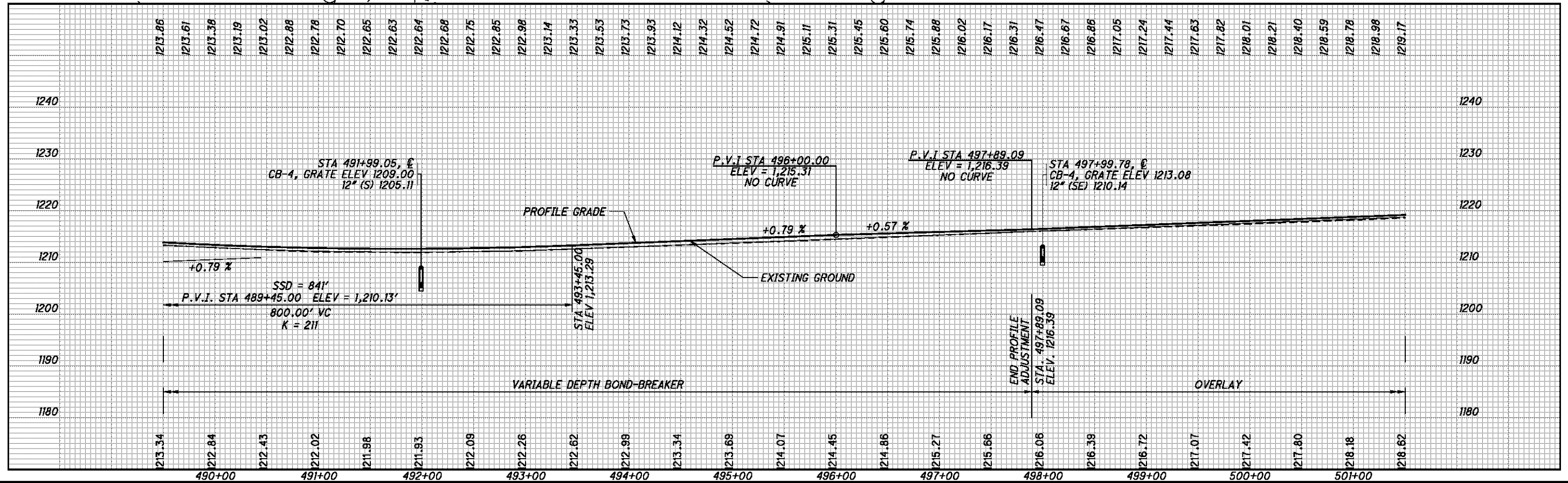
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.08'$
 $E = 259.89'$
 $e_{max} = 0.036$

E ANCHOR ASSEMBLY, TYPE E
T ANCHOR ASSEMBLY TYPE T

FOR STORM SEWER DETAILS, SEE SHEETS 100 & 102



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



I.R. 70 WB - PLAN AND PROFILE
 STA. 489+50 TO STA. 501+50

BEL-70-7.61

38
373

**IR 70
CURVE DATA**

P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.08'$
 $E = 259.89'$
 $e_{max} = 0.036$

- B ANCHOR ASSEMBLY, TYPE B
- T ANCHOR ASSEMBLY TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST



ITEM 670 - DITCH EROSION PROTECTION

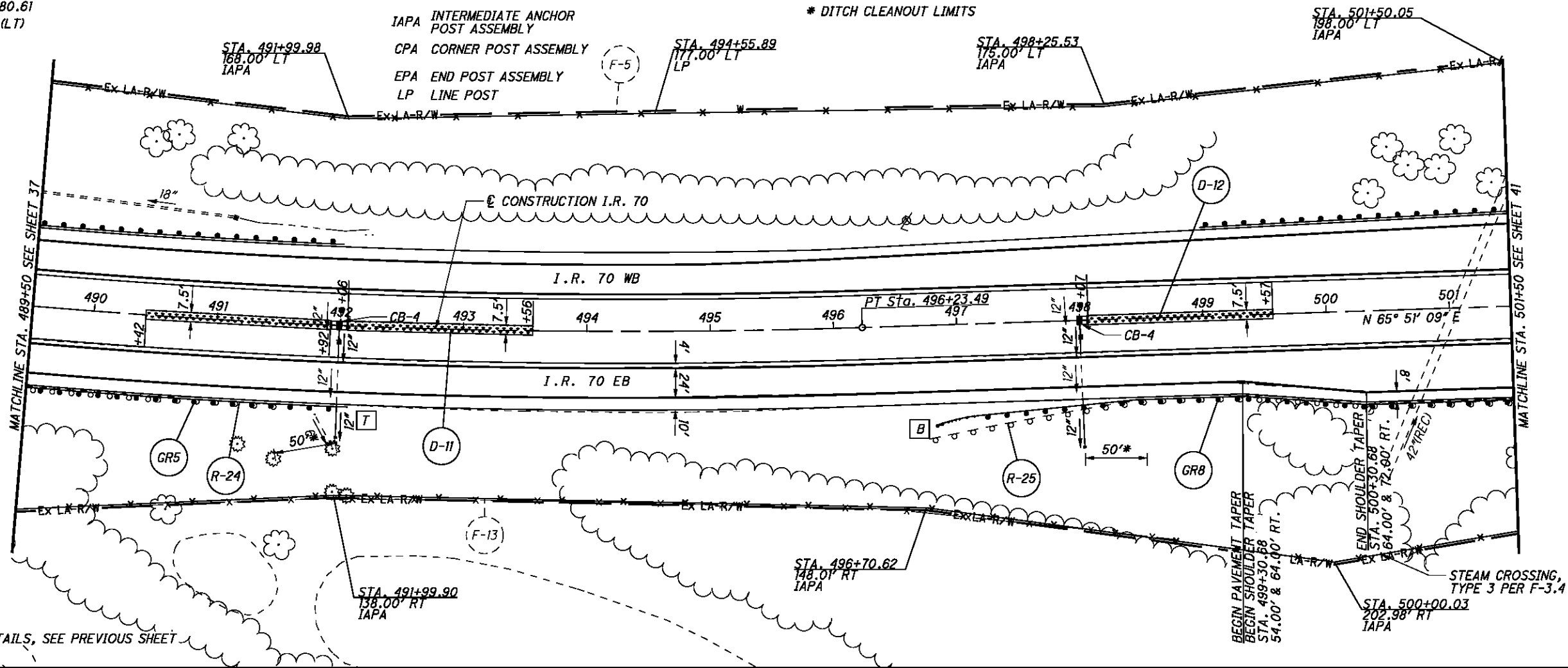
* DITCH CLEANOUT LIMITS

FOR STORM SEWER DETAILS, SEE SHEETS 100 & 102

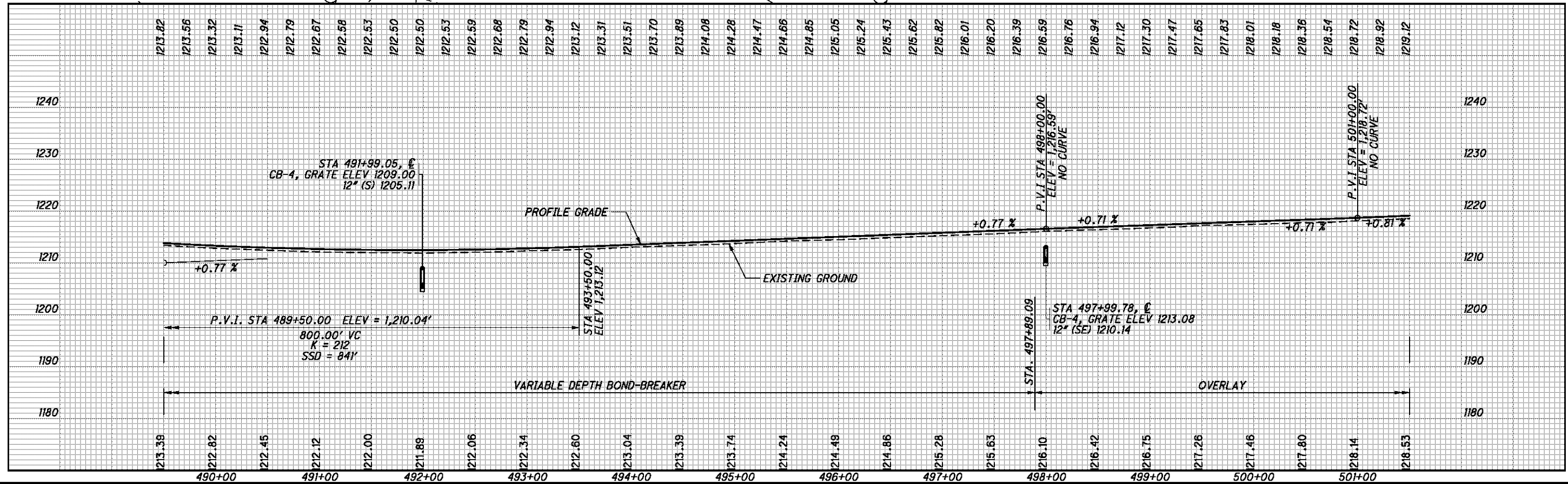
N

50
25
0
HORIZONTAL
SCALE IN FEET

CALCULATED CDS CHECKED BDD



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



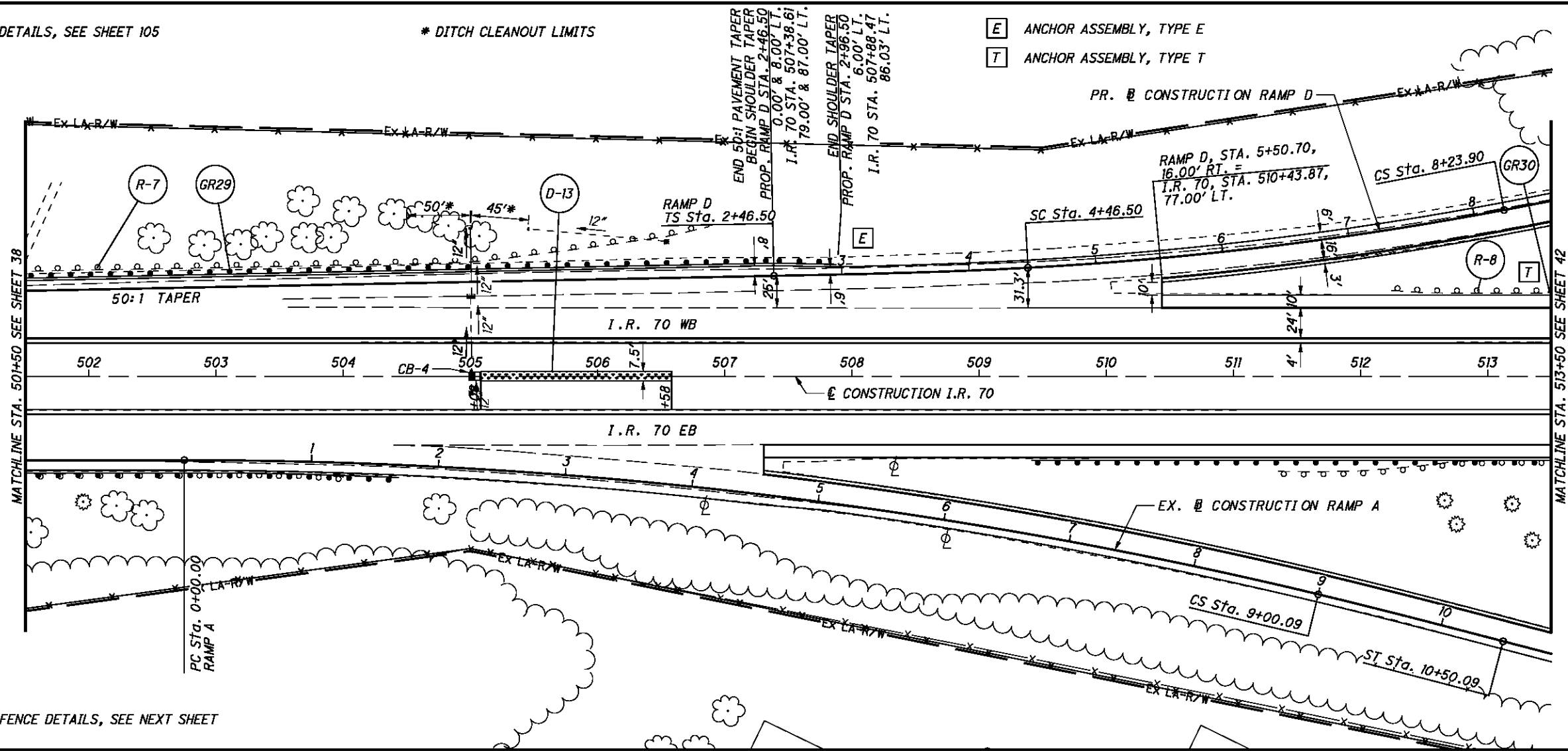
**I.R. 70 EB - PLAN AND PROFILE
STA. 489+50 TO STA. 501+50**

BEL-70-7.61

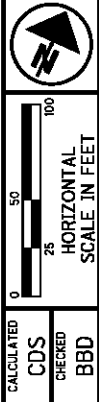
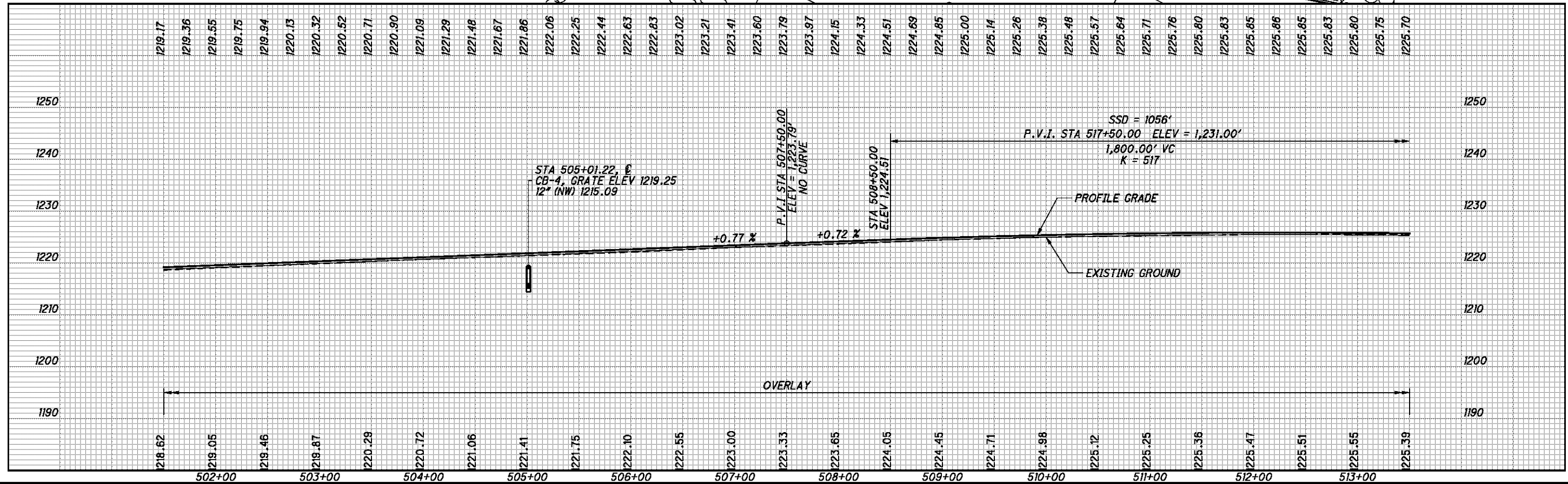
FOR STORM SEWER DETAILS, SEE SHEET 105

* DITCH CLEANOUT LIMITS

- E ANCHOR ASSEMBLY, TYPE E
- T ANCHOR ASSEMBLY, TYPE T



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
STA. 501+50 TO STA. 513+50

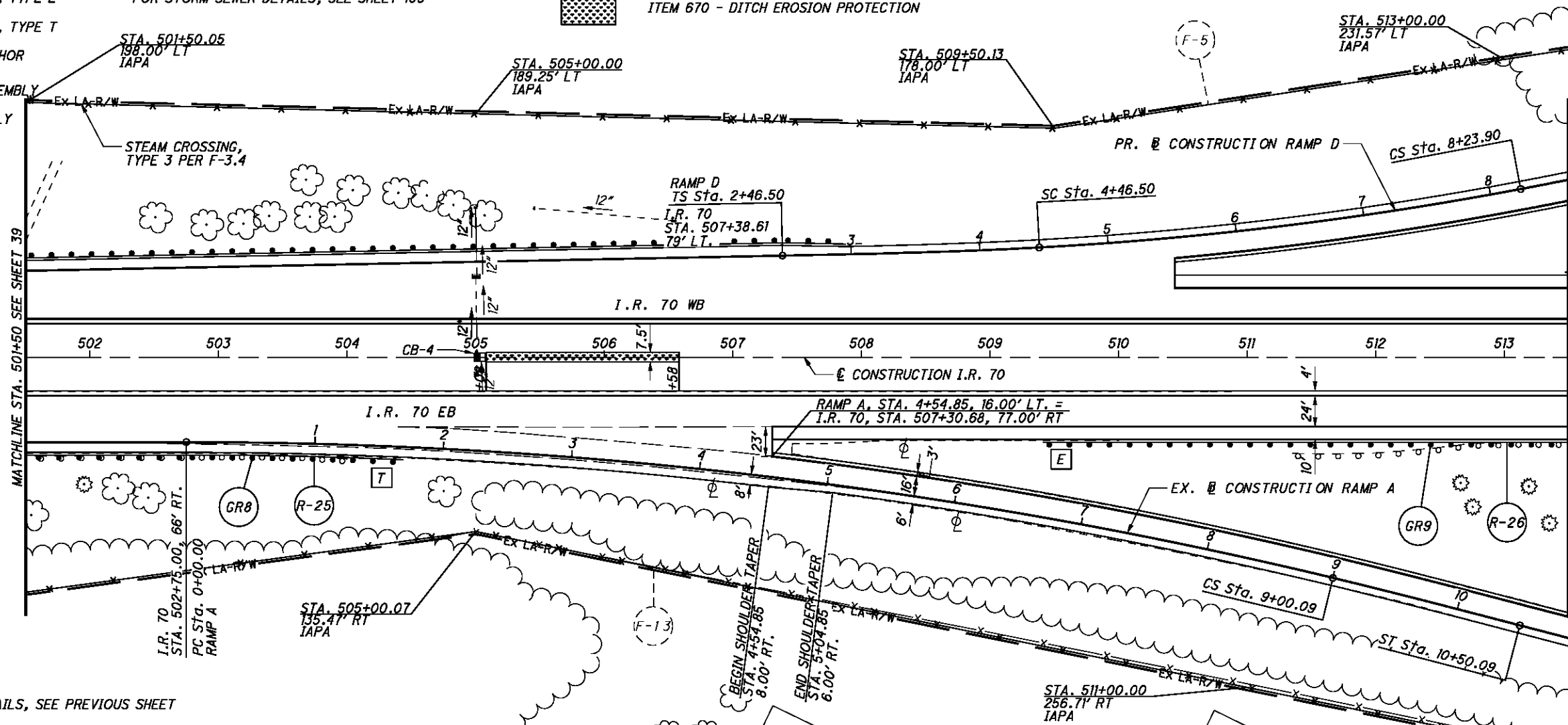
BEL-70-7.61

P:\76825\roadway\sheets\76825GP309.dgn 9/21/2012 7:46:07 AM mcornett

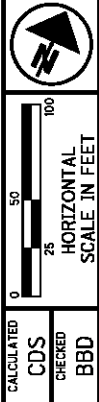
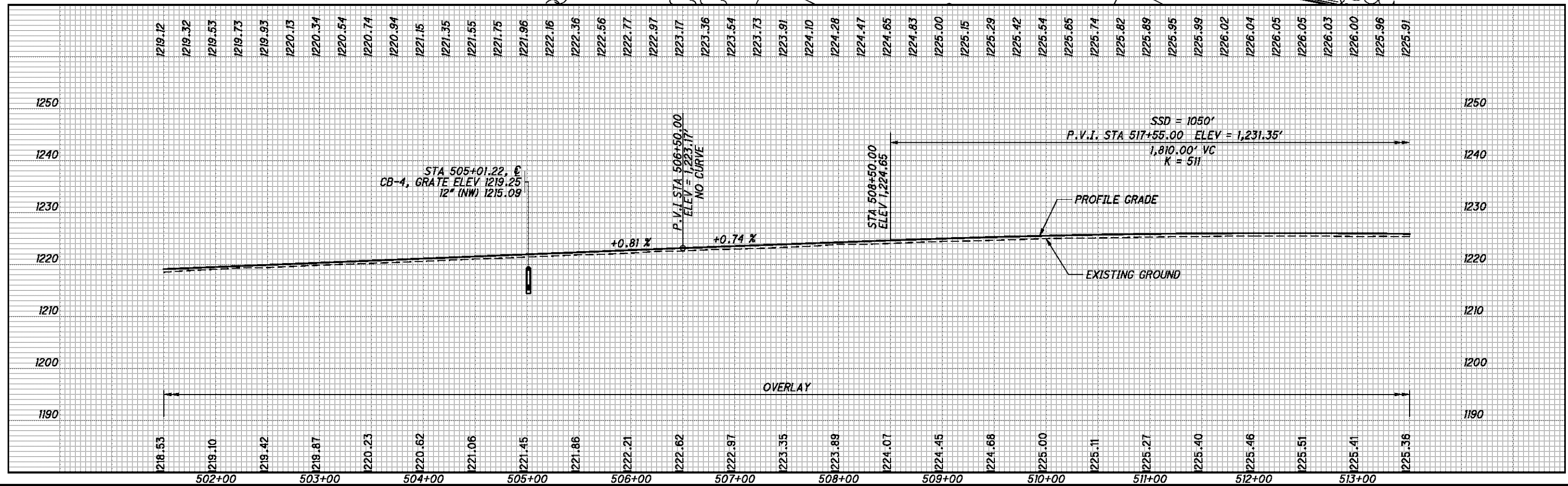
- E ANCHOR ASSEMBLY, TYPE E
- T ANCHOR ASSEMBLY, TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

FOR STORM SEWER DETAILS, SEE SHEET 105

ITEM 670 - DITCH EROSION PROTECTION



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

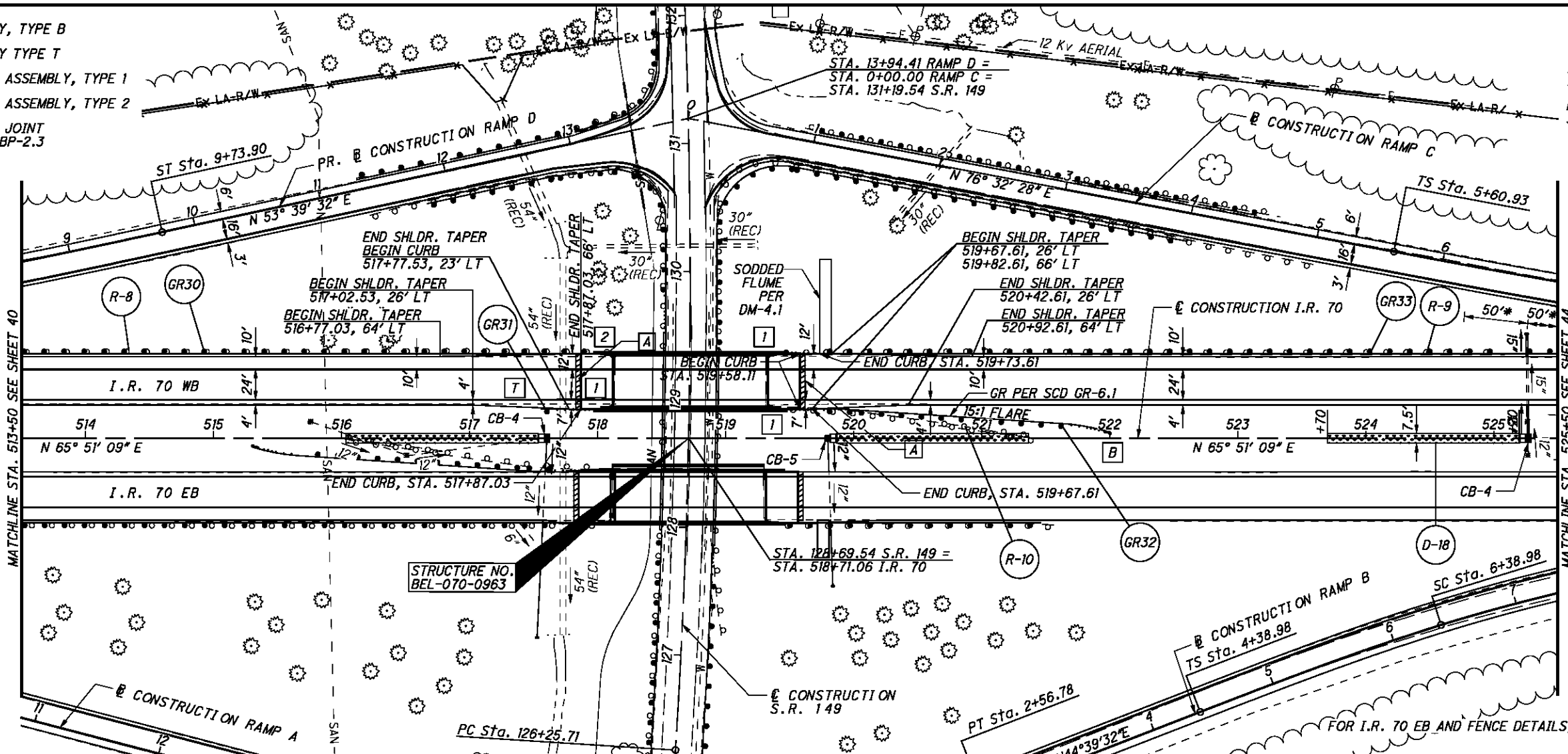
I.R. 70 EB - PLAN AND PROFILE
STA. 501+50 TO STA. 513+50

BEL-70-7.61

P:\76825\roadway\sheet\76825GP409.dgn 9/21/2012 7:46:08 AM mcornett

- B** ANCHOR ASSEMBLY, TYPE B
- T** ANCHOR ASSEMBLY TYPE T
- 1** BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2** BRIDGE TERMINAL ASSEMBLY, TYPE 2
- A** PRESSURE RELIEF JOINT
TYPE A PER SCD BP-2.3

FOR RAMP DETAILS,
SEE SHEETS 183 & 187.
FOR INTERSECTION DETAILS,
SEE SHEETS 221 & 222.
FOR STORM SEWER DETAILS,
SEE SHEETS 111, 112, & 114



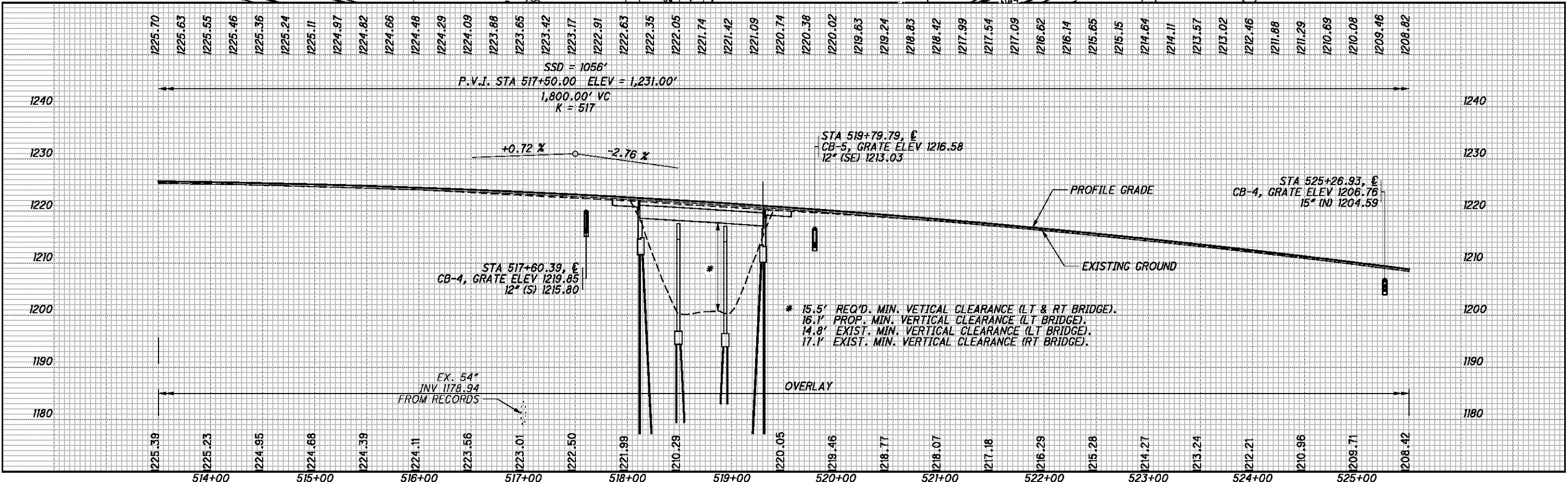
S.R. 149
CURVE DATA

P.I. = Sta. 130+52.16
 $\Delta = 8^\circ 30' 48''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 426.45'$
 $L = 851.33'$
 $E = 15.85'$

* DITCH
CLEANOUT
LIMITS

MATCHLINE STA. 525+50 SEE SHEET 44

MATCHLINE STA. 513+50 SEE SHEET 40



**I.R. 70 WB - PLAN AND PROFILE
STA. 513+50 TO STA. 525+50**

BEL-70-7.61

P:\76825\roadway\sheet\76825GP310.dgn 9/21/2012 7:46:08 AM mcornett

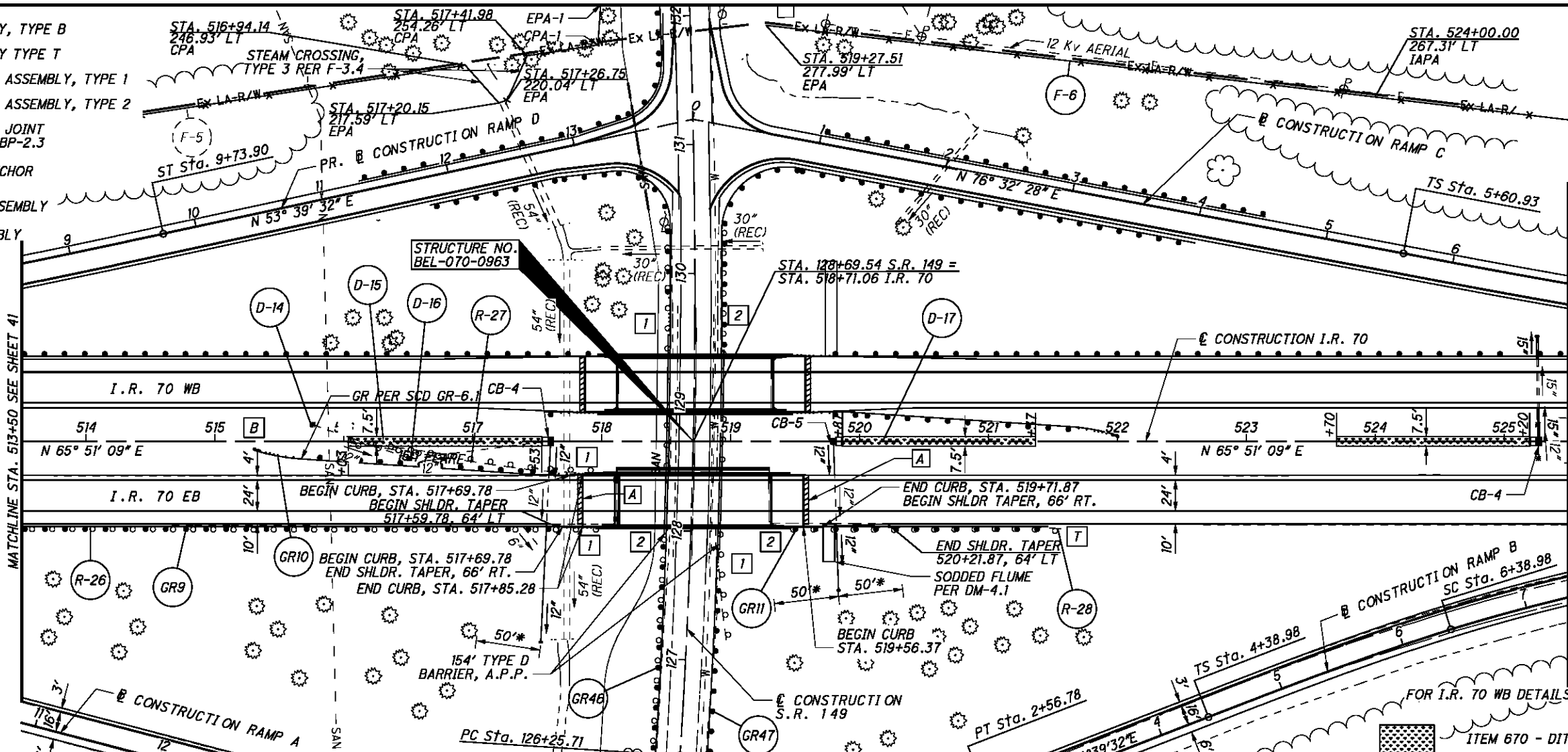
- B** ANCHOR ASSEMBLY, TYPE B
- T** ANCHOR ASSEMBLY TYPE T
- 1** BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2** BRIDGE TERMINAL ASSEMBLY, TYPE 2
- A** PRESSURE RELIEF JOINT TYPE A PER SCD BP-2.3
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

EPA-1 STA. 517+99.97
307.37' LT, EPA

CPA-1 STA. 517+96.98
262.70' LT, CPA

S.R. 149
CURVE DATA

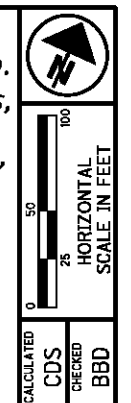
P.I. = Sta. 130+52.16
 $\Delta = 8^\circ 30' 48''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 426.45'$
 $L = 851.33'$
 $E = 15.85'$



FOR RAMP DETAILS,
SEE SHEETS 172, 173, & 179.

FOR INTERSECTION DETAILS,
SEE SHEETS 219 & 220.

FOR STORM SEWER DETAILS,
SEE SHEETS 111, 112, & 114

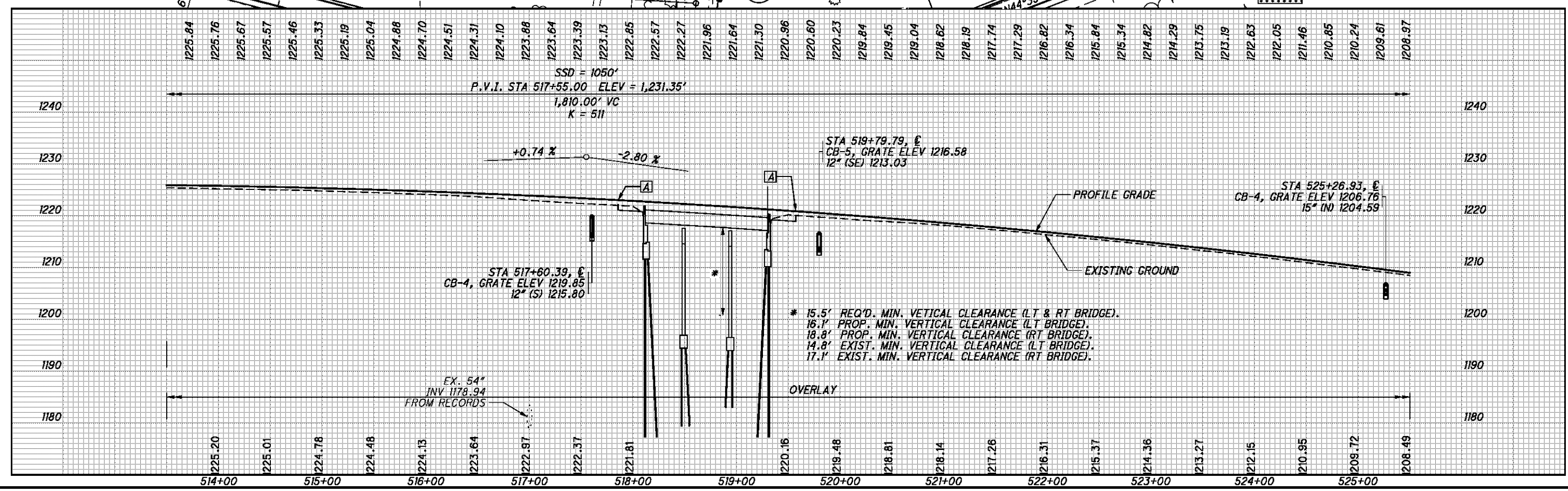


MATCHLINE STA. 513+50 SEE SHEET 41

MATCHLINE STA. 525+50 SEE SHEET 45

* DITCH CLEANOUT LIMITS

ITEM 670 - DITCH EROSION PROTECTION



I.R. 70 EB - PLAN AND PROFILE
STA. 513+50 TO STA. 525+50

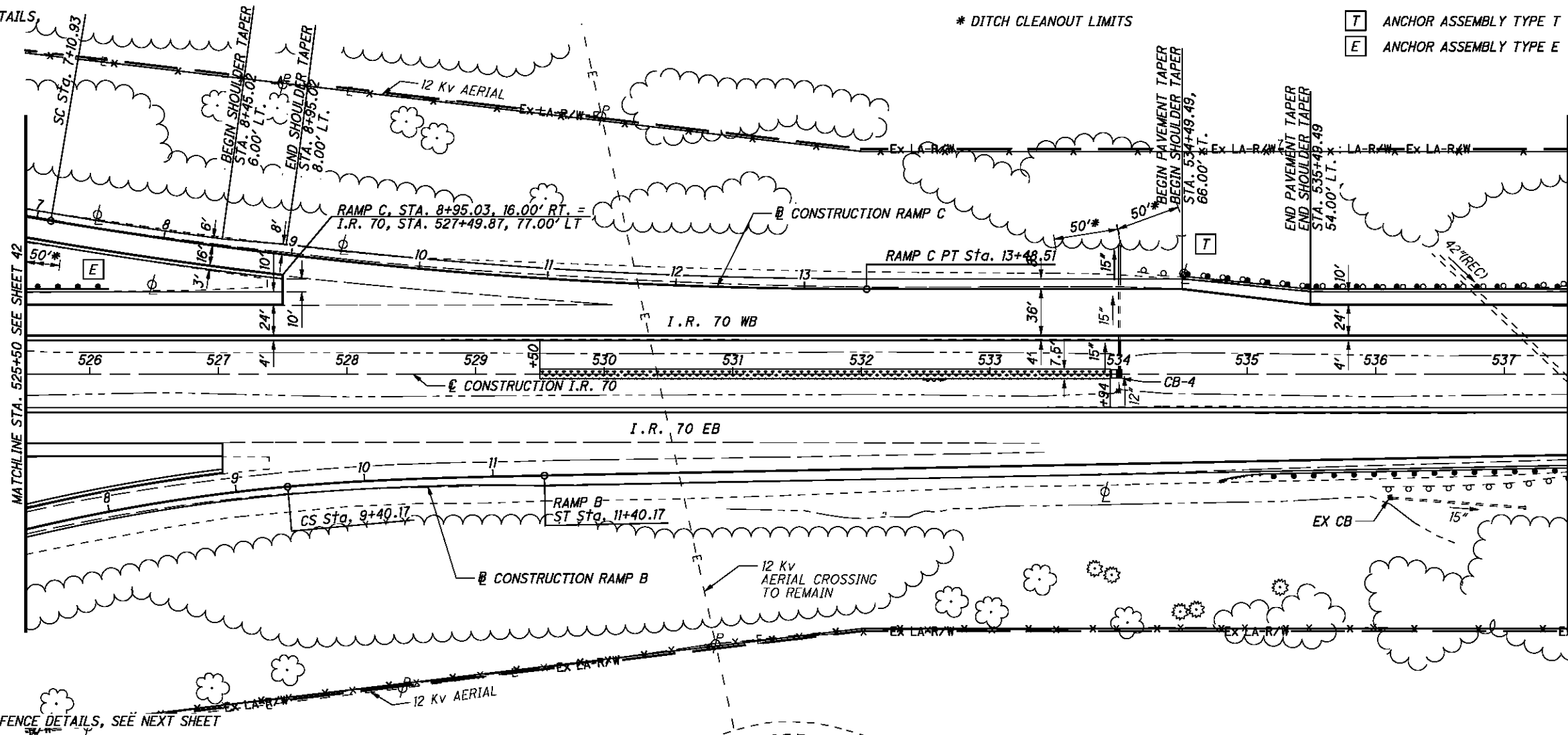
BEL-70-7.61

P:\76825\roadway\sheet\76825GP4.10.dgn 9/21/2012 7:46:09 AM mcornett

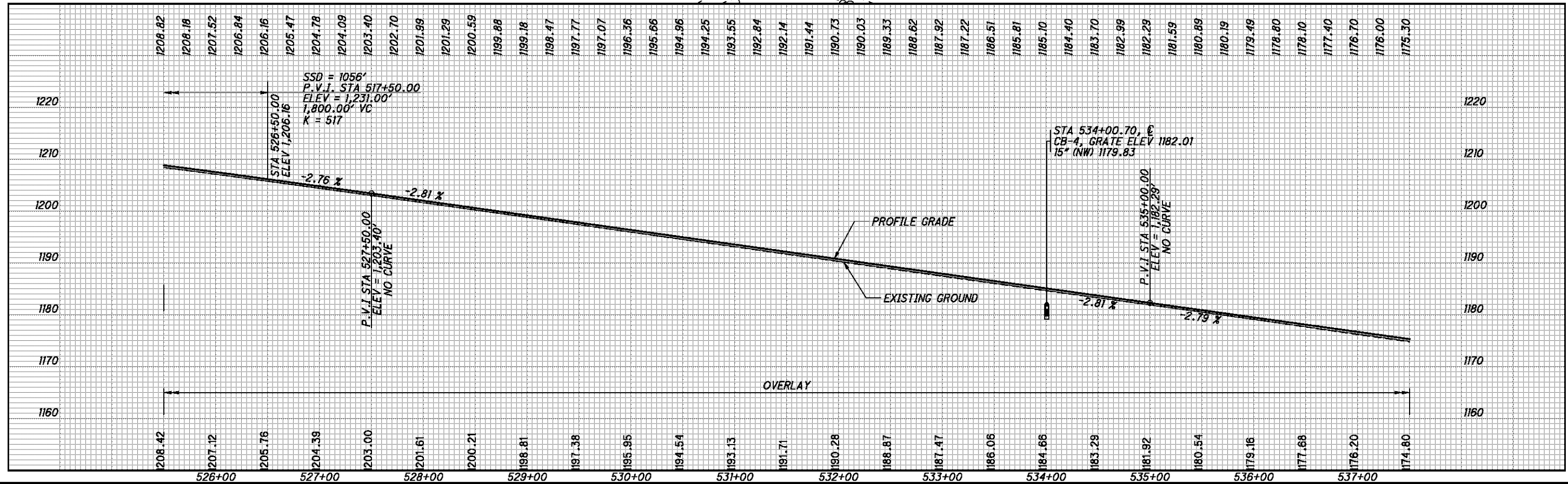
FOR STORM SEWER DETAILS, SEE SHEET 117

* DITCH CLEANOUT LIMITS

T ANCHOR ASSEMBLY TYPE T
E ANCHOR ASSEMBLY TYPE E



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
 STA. 525+50 TO STA. 537+50

BEL-70-7.61

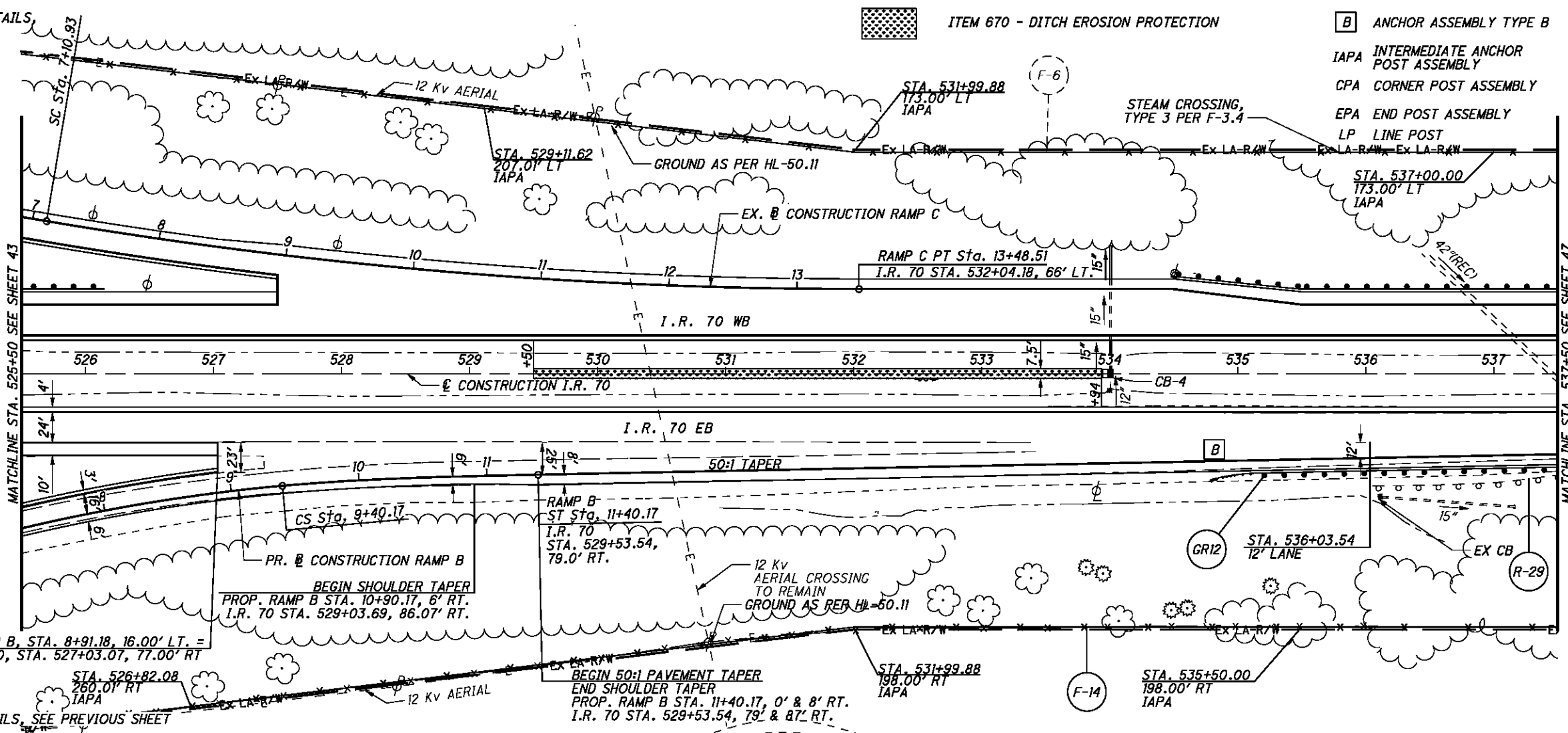
44
 373

P:\76825\roadway\sheet\76825GP311.dgn 9/21/2012 7:46:10 AM mcorneett

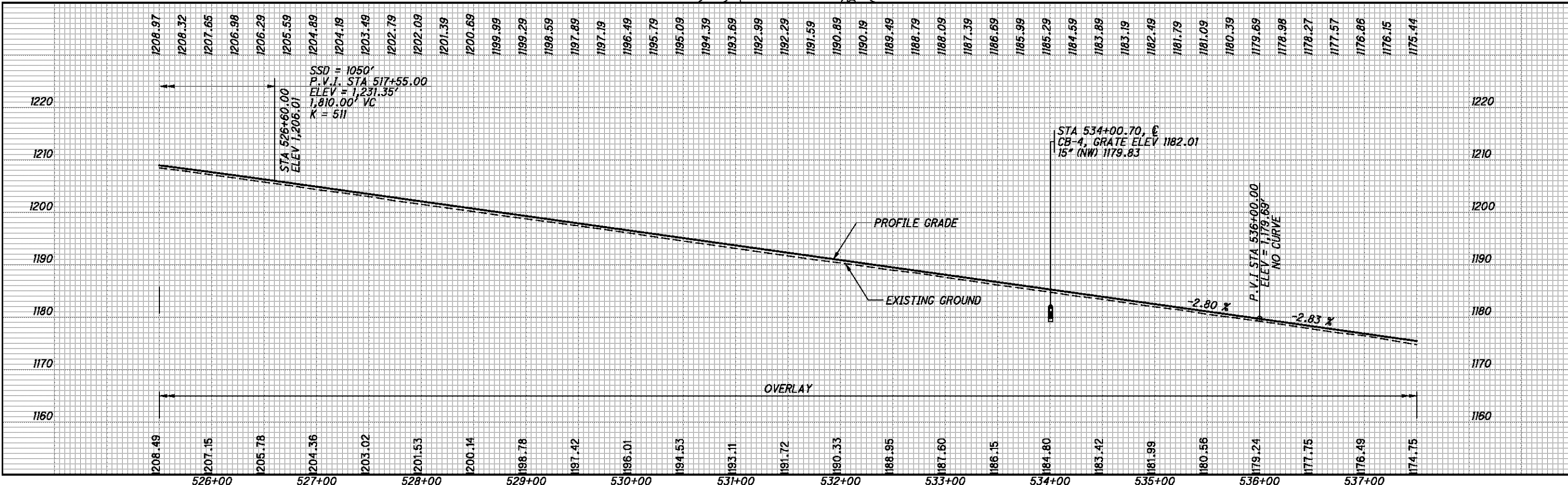
FOR STORM SEWER DETAILS, SEE SHEET 117

ITEM 670 - DITCH EROSION PROTECTION

- [B] ANCHOR ASSEMBLY TYPE B
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET

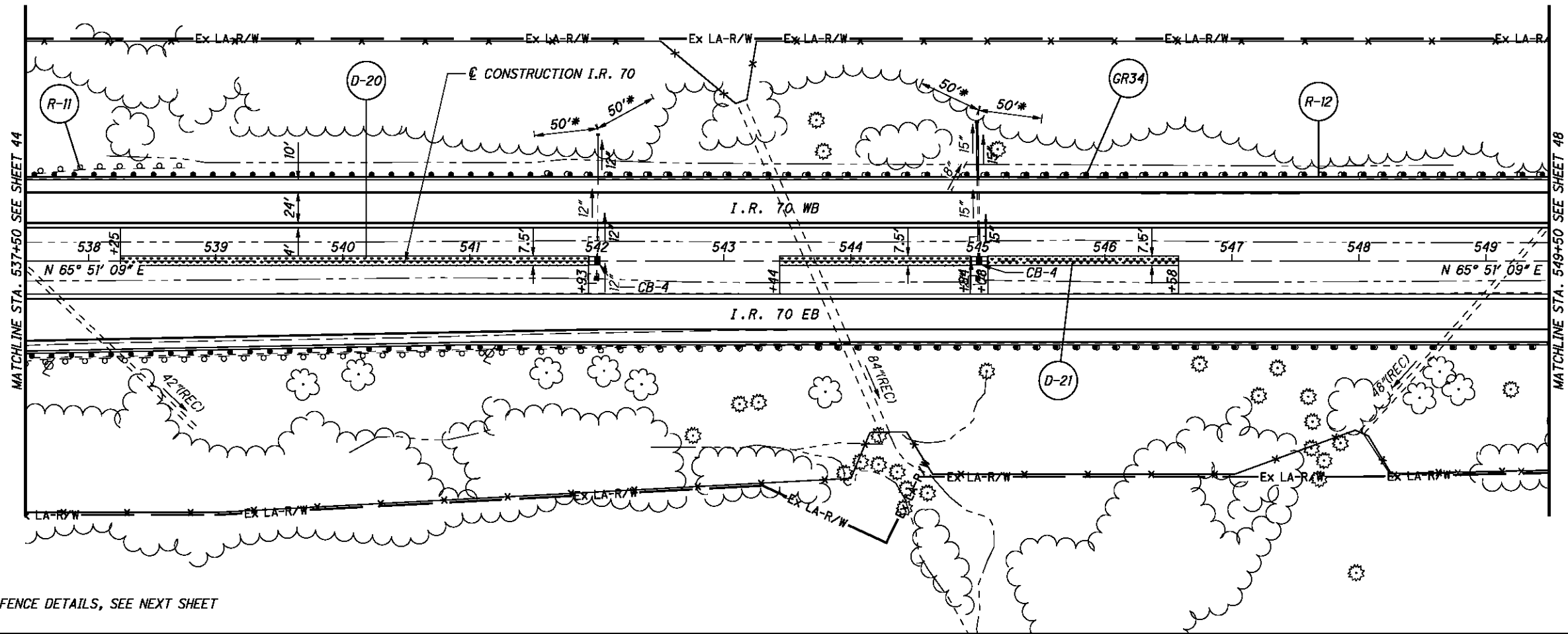


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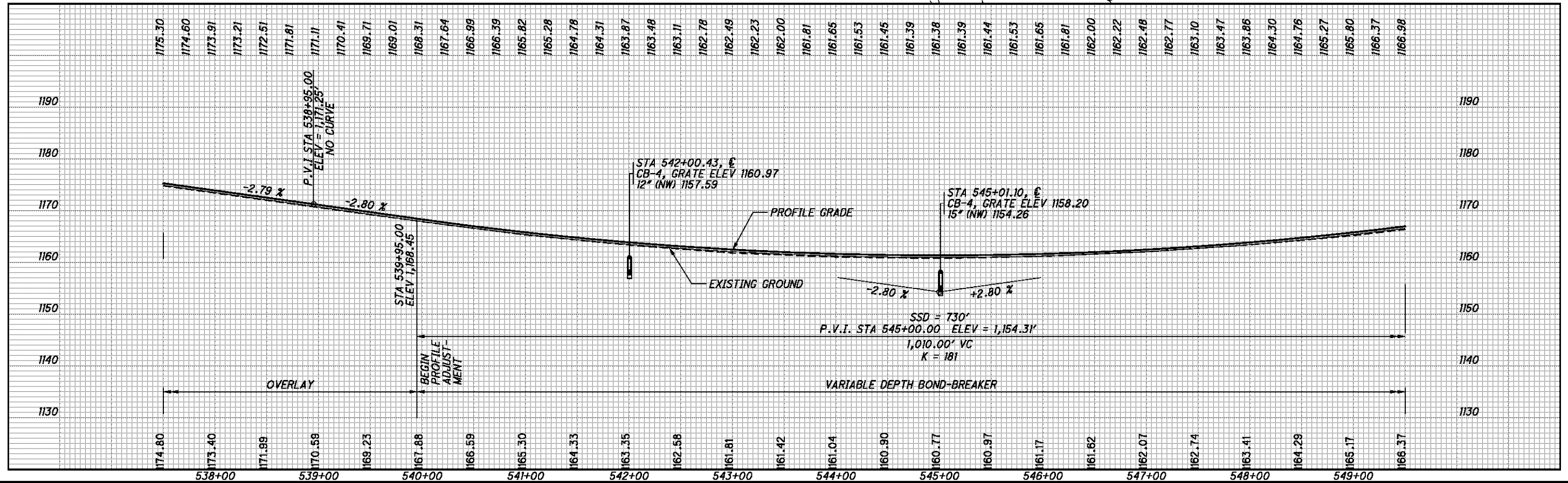
I.R. 70 EB - PLAN AND PROFILE
STA. 525+50 TO STA. 537+50

BEL-70-7.61

45
373



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



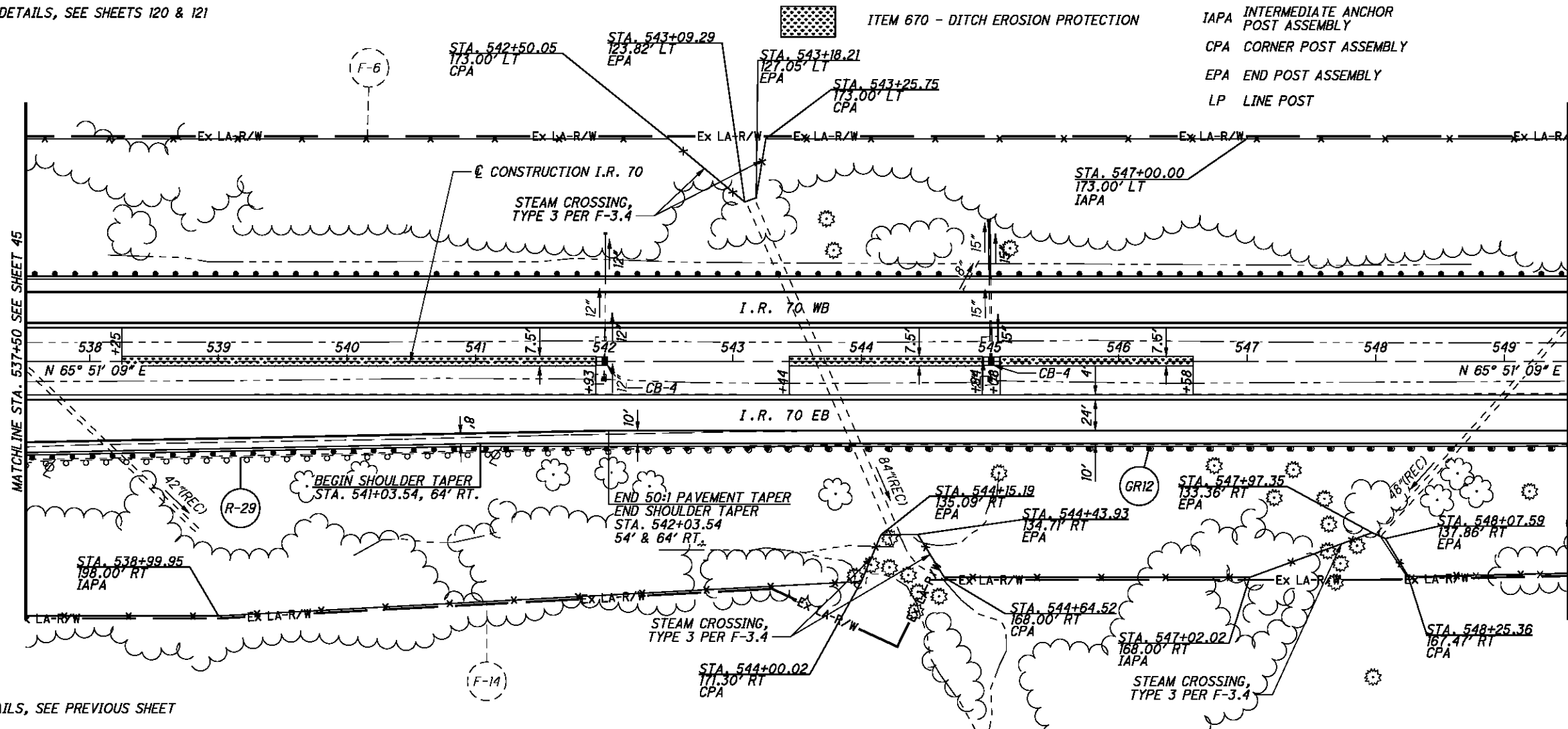
CALCULATED CDS CHECKED BBD

I.R. 70 WB - PLAN AND PROFILE
STA. 537+50 TO STA. 549+50

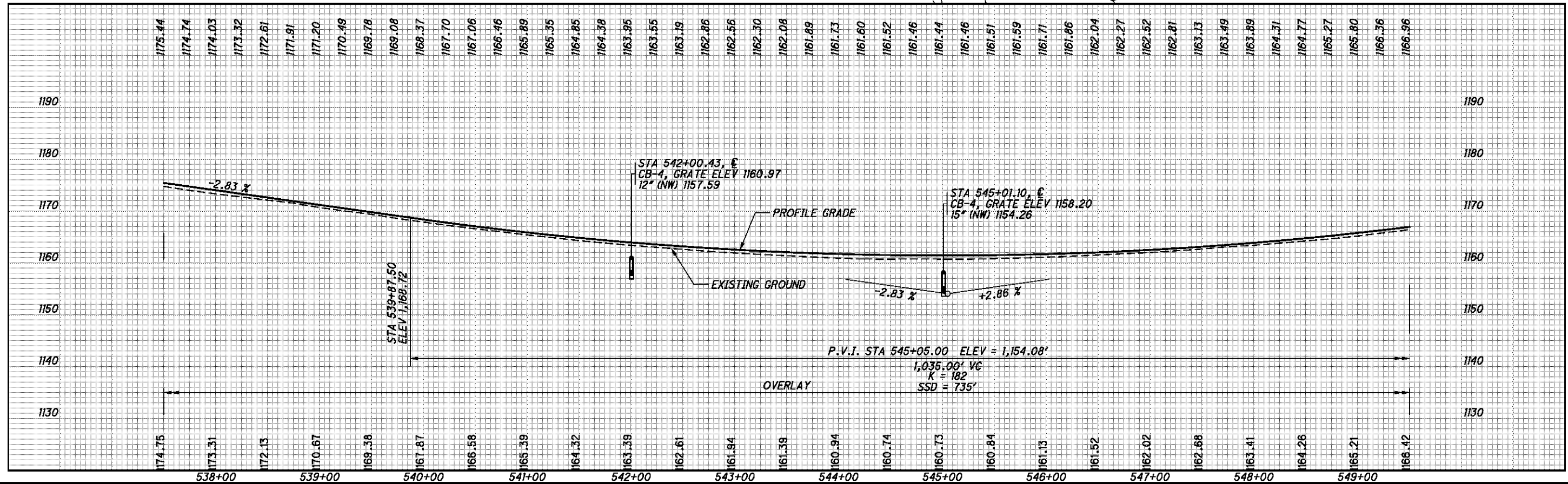
BEL-70-7.61

P:\76825\roadway\sheets\76825GP312.dgn 9/21/2012 7:46:11 AM mcornett

FOR STORM SEWER DETAILS, SEE SHEETS 120 & 121



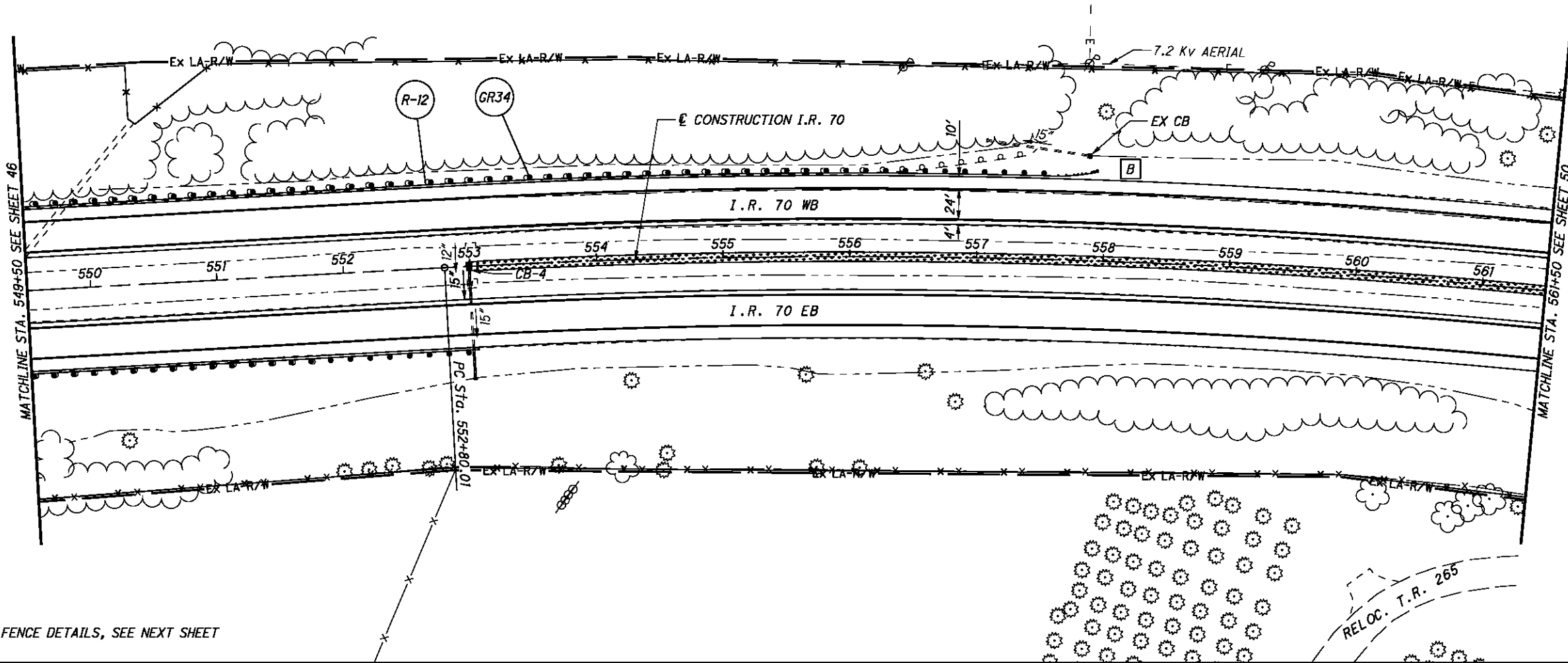
FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



I.R. 70 EB - PLAN AND PROFILE
 STA. 537+50 TO STA. 549+50

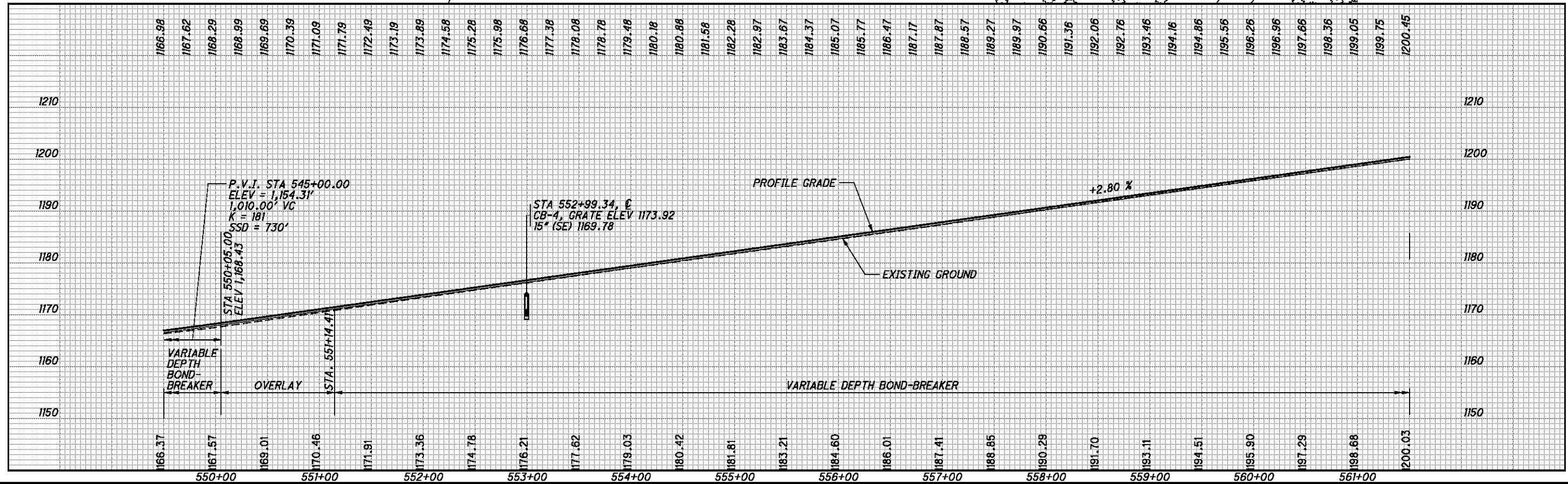
BEL-70-7.61

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IR 70
CURVE DATA
 P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,372.16'$
 $L = 2,693.58'$
 $E = 162.02'$
 $E_{max} = 0.036$

FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
STA 549+50 TO STA. 561+50

BEL-70-7.61

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FOR STORM SEWER DETAILS, SEE SHEET 124

* DITCH CLEANOUT LIMITS



ITEM 670 - DITCH EROSION PROTECTION

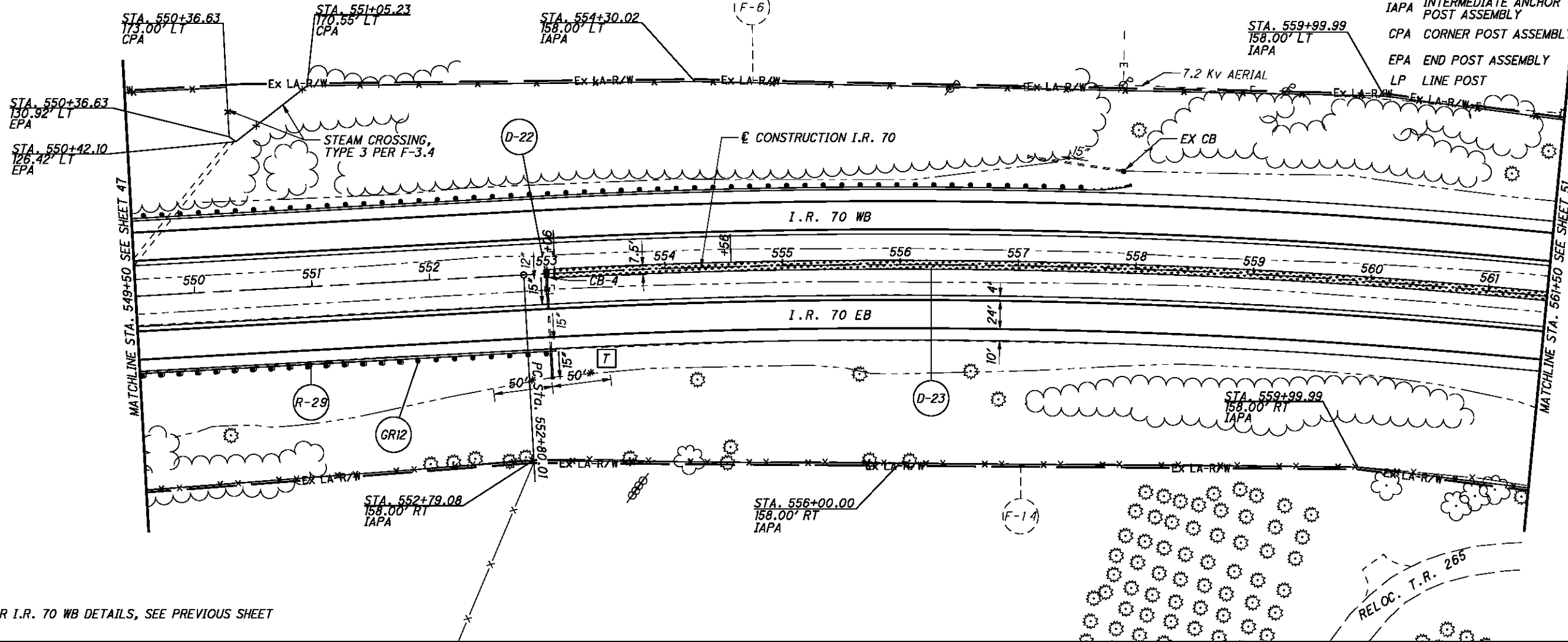
T ANCHOR ASSEMBLY, TYPE T

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY

CPA CORNER POST ASSEMBLY

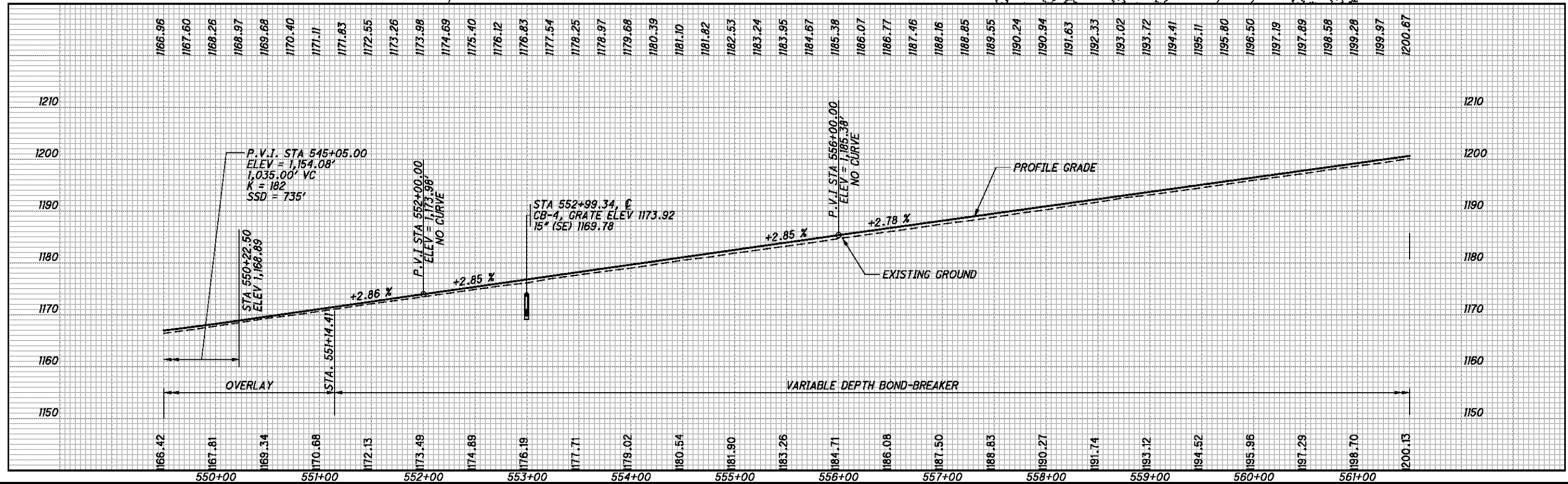
EPA END POST ASSEMBLY

LP LINE POST



IR 70
CURVE DATA
 P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,372.16'$
 $L = 2,693.58'$
 $E = 162.02'$
 $E_{max} = 0.036$

FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 EB - PLAN AND PROFILE
 STA 549+50 TO STA. 561+50

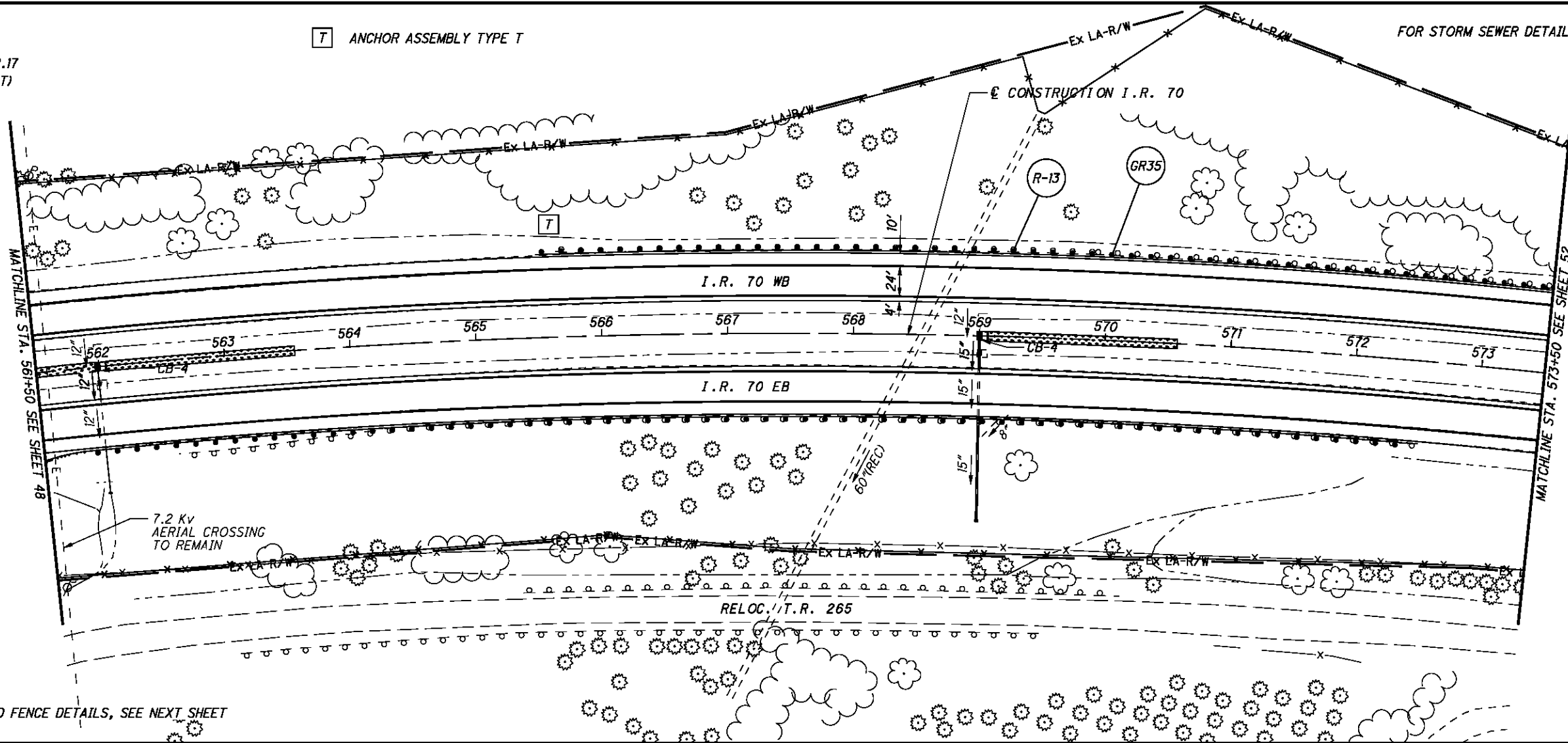
BEL-70-7.61

P:\76825\roadway\sheet\76825GP4.13.dgn 9/21/2012 7:46:13 AM mcornett

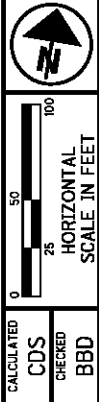
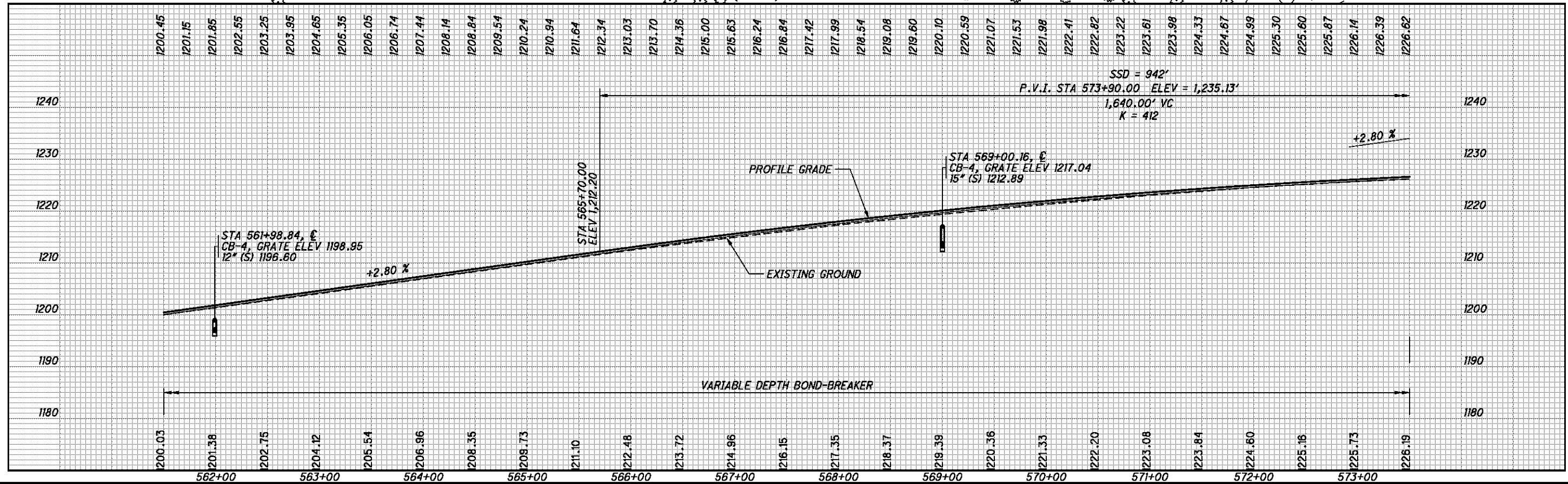
IR 70
CURVE DATA
P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 1,372.16'
L = 2,693.58'
E = 162.02'
Emax = 0.036

T ANCHOR ASSEMBLY TYPE T

FOR STORM SEWER DETAILS, SEE SHEETS 127 & 130



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



I.R. 70 WB - PLAN AND PROFILE
STA. 561+50 TO STA. 573+50

BEL-70-7.61

50
373

IR 70
 CURVE DATA
 P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,372.16'$
 $L = 2,693.58'$
 $E = 162.02'$
 $E_{max} = 0.036$

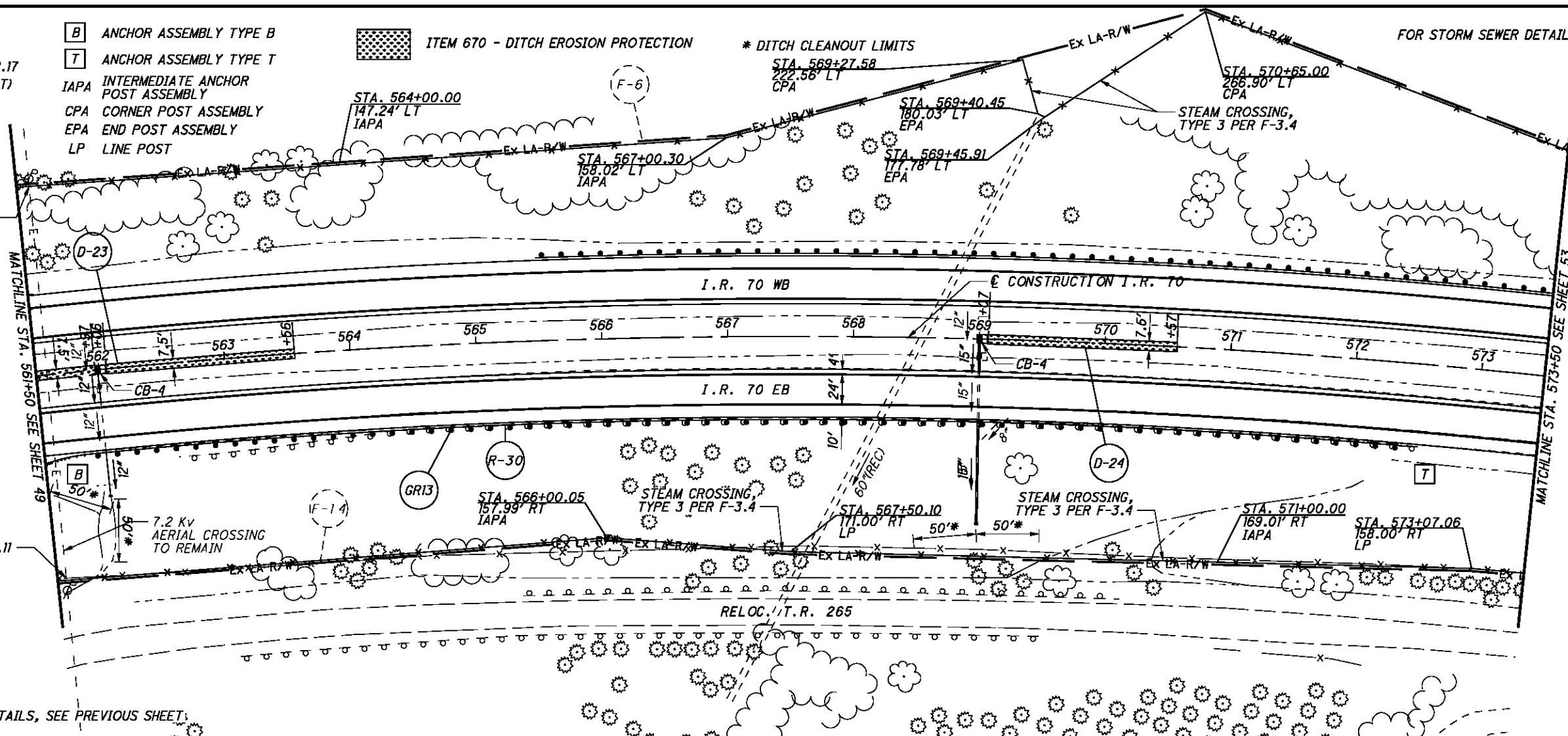
- B** ANCHOR ASSEMBLY TYPE B
- T** ANCHOR ASSEMBLY TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

ITEM 670 - DITCH EROSION PROTECTION

* DITCH CLEANOUT LIMITS

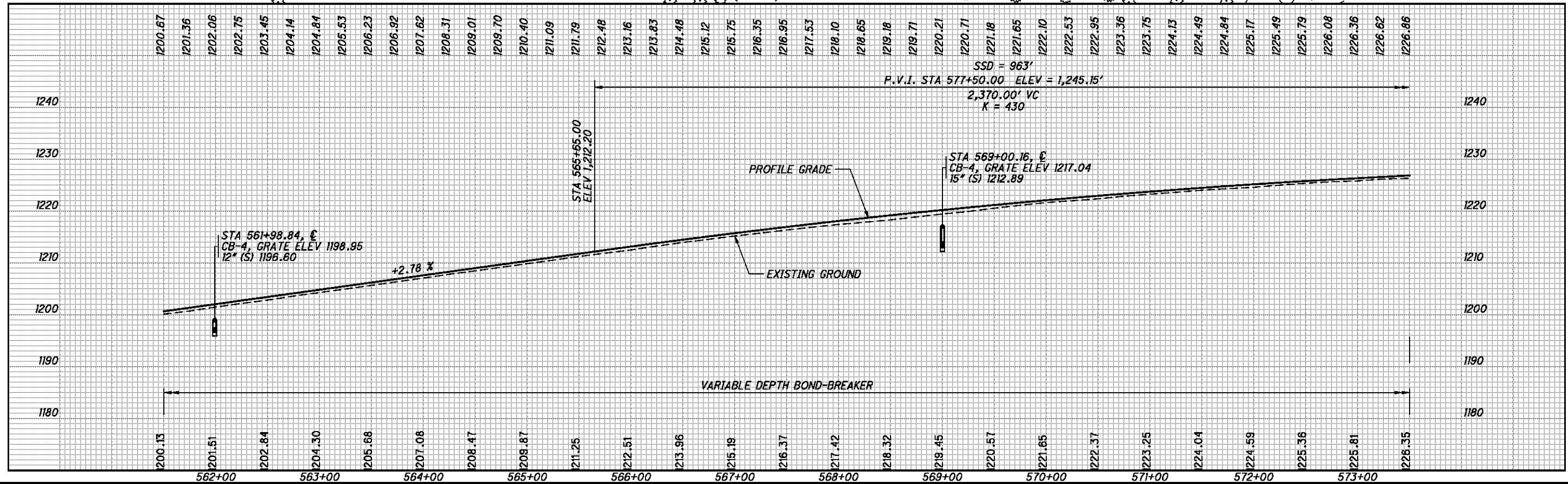
FOR STORM SEWER DETAILS, SEE SHEETS 127 & 130

GROUND AS PER HL-50.11



GROUND AS PER HL-50.11

FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

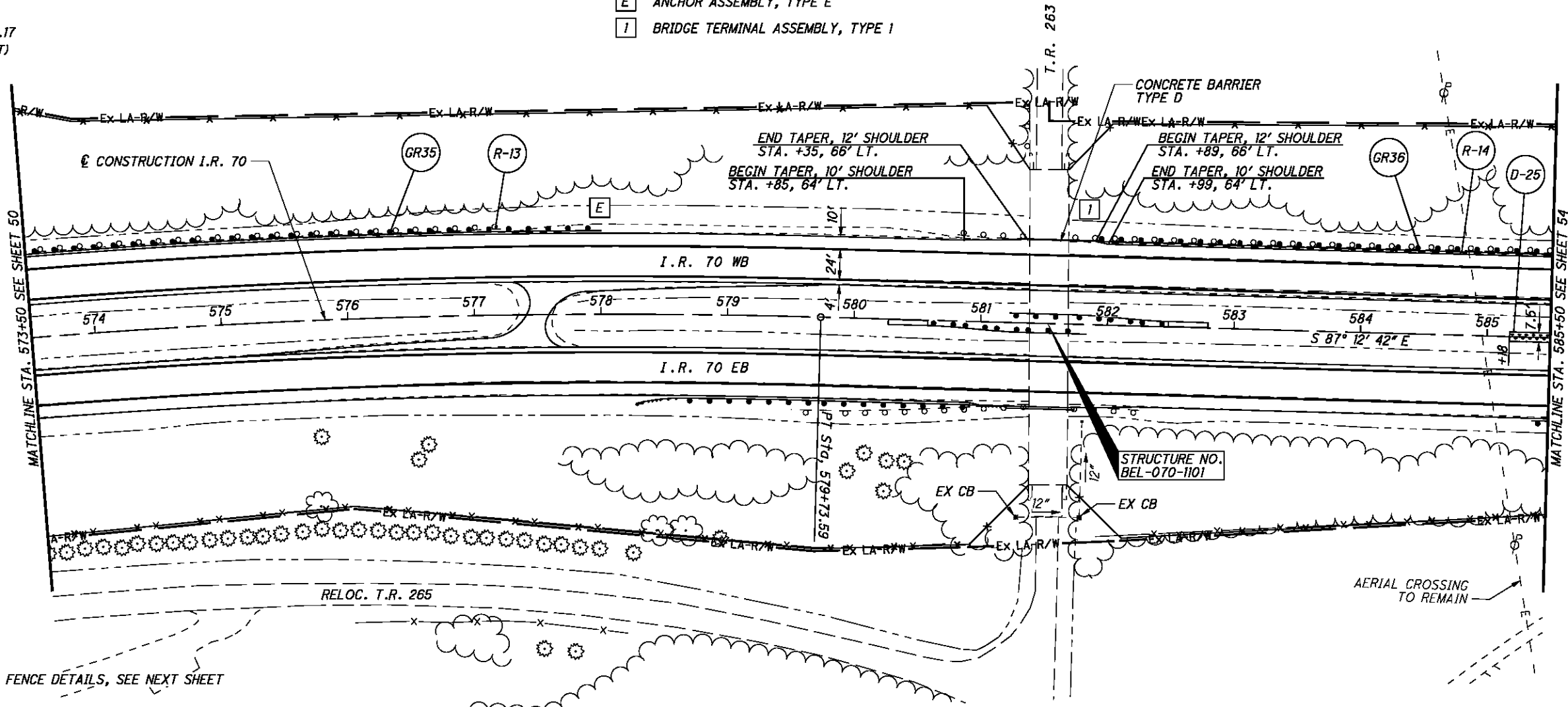
0 25 50 100
 HORIZONTAL SCALE IN FEET

I.R. 70 EB - PLAN AND PROFILE
 STA. 561+50 TO STA. 573+50

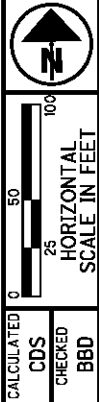
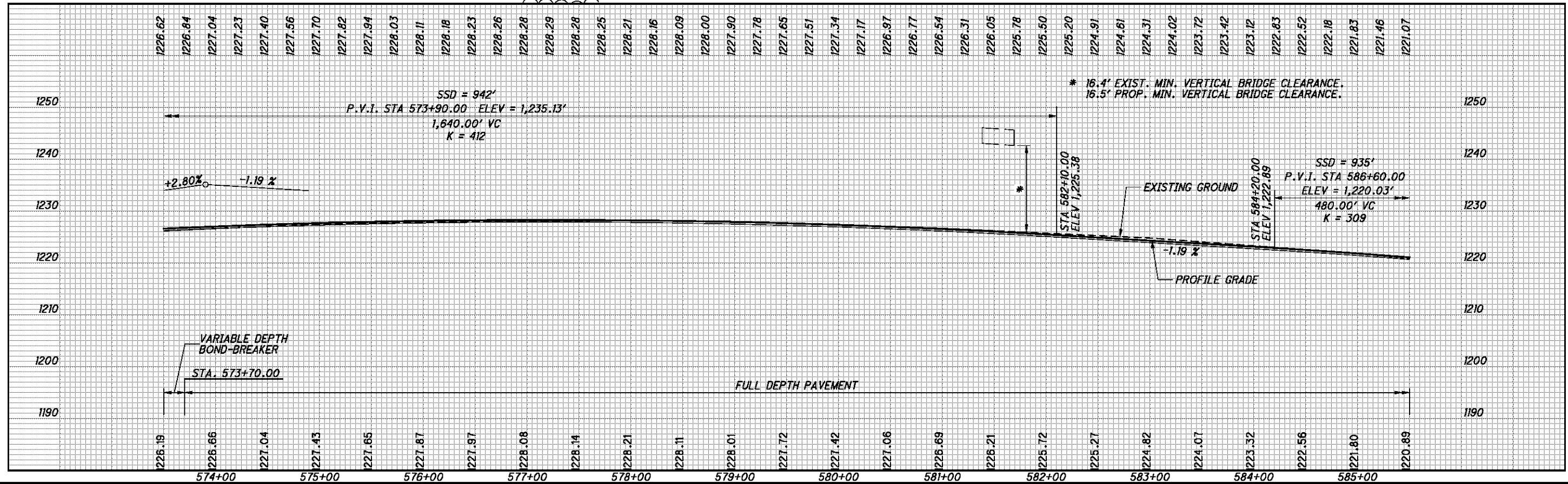
BEL-70-7.61

IR 70
 CURVE DATA
 P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,372.16'$
 $L = 2,693.58'$
 $E = 162.02'$
 $E_{max} = 0.036$

E ANCHOR ASSEMBLY, TYPE E
I BRIDGE TERMINAL ASSEMBLY, TYPE I



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED
 CDS
 CHECKED
 BBD

I.R. 70 WB - PLAN AND PROF
 STA. 573+50 TO STA. 585+50

BEL-70-7.61

52
 373

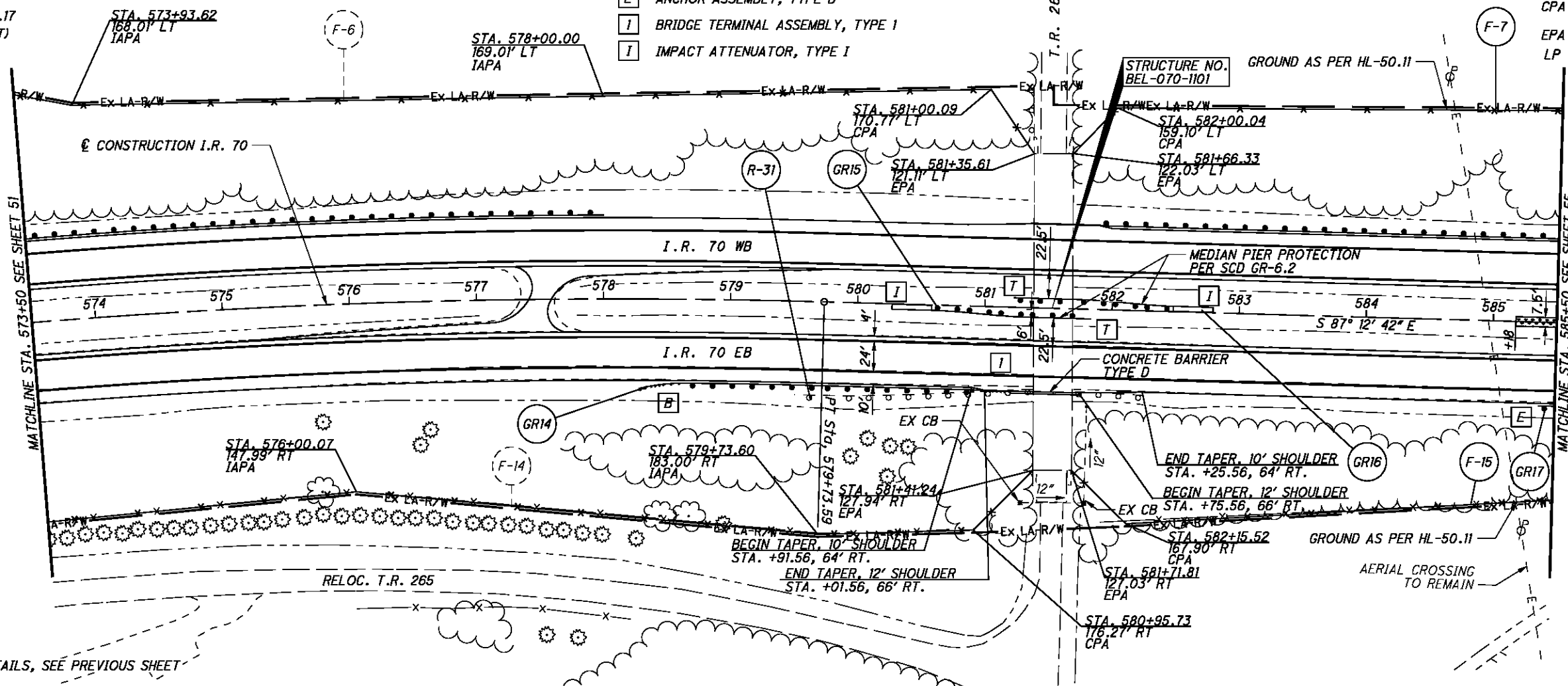
IR 70
CURVE DATA
P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
Dc = $1^\circ 00' 00''$
R = 5,729.58'
T = 1,372.16'
L = 2,693.58'
E = 162.02'
Emax = 0.036

FOR MEDIAN U-TURN DETAILS, SEE SHEET 240.

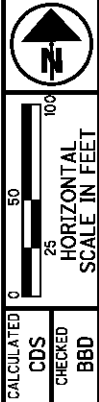
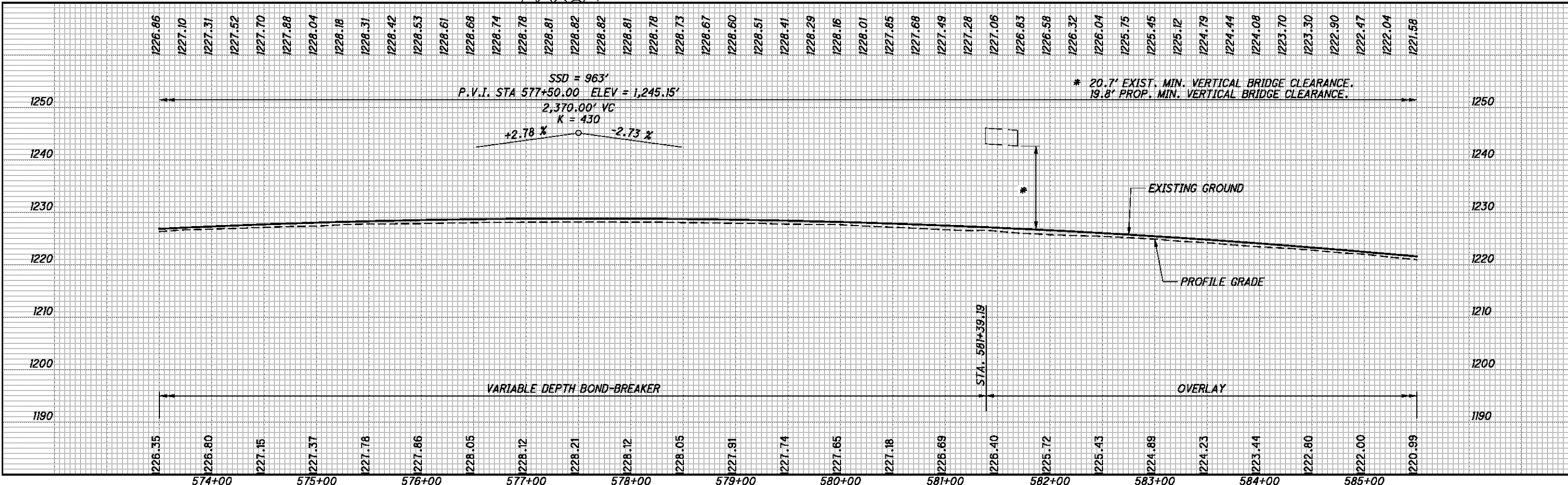
- T ANCHOR ASSEMBLY, TYPE T
- E ANCHOR ASSEMBLY, TYPE B
- I BRIDGE TERMINAL ASSEMBLY, TYPE I
- I IMPACT ATTENUATOR, TYPE I

ITEM 670 - DITCH EROSION PROTECTION

- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET

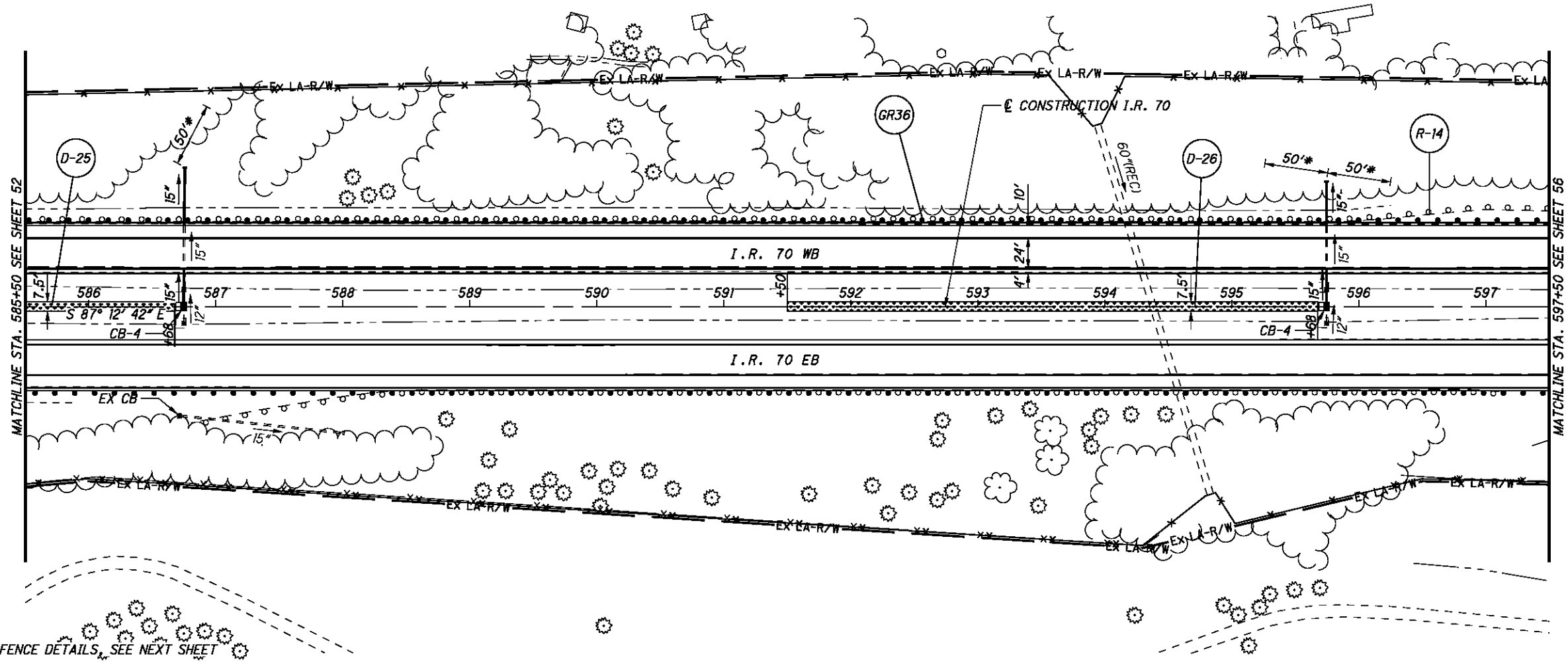


I.R. 70 EB - PLAN AND PROF
STA. 573+50 TO STA. 585+50

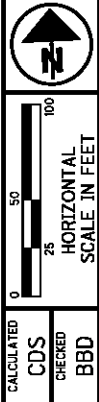
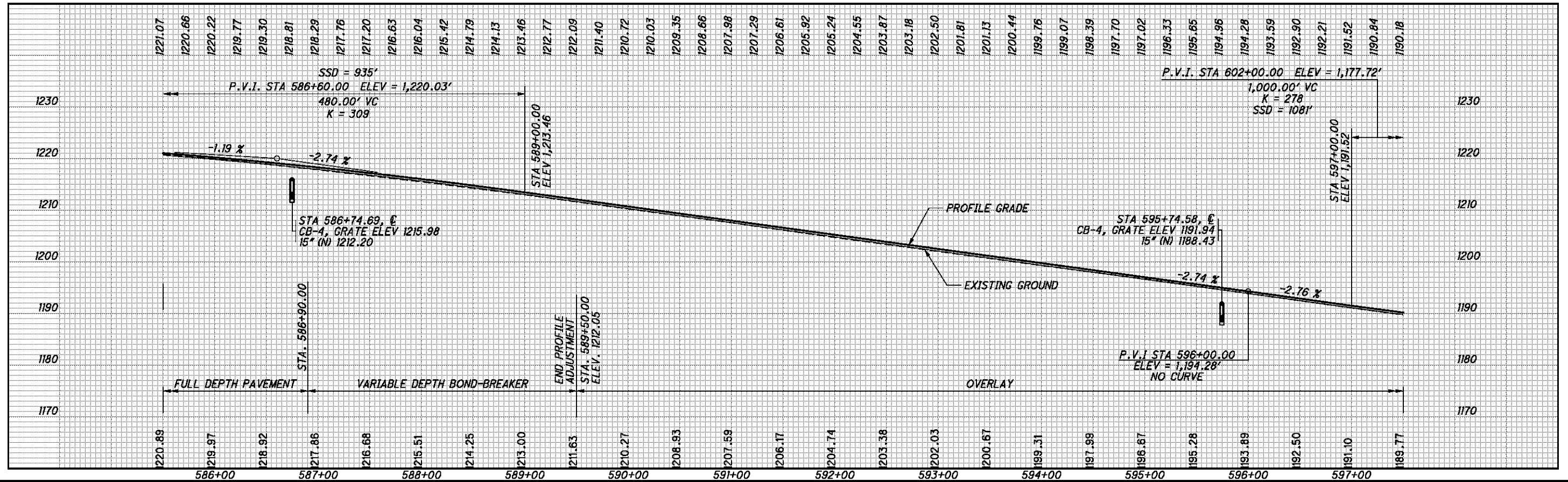
BEL-70-7.61

53
373

P:\76825\roadway\sheets\76825GP4\5.dgn 9/21/2012 7:46:16 AM mcornett



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
STA. 585+50 TO STA. 597+50

BEL-70-7.61

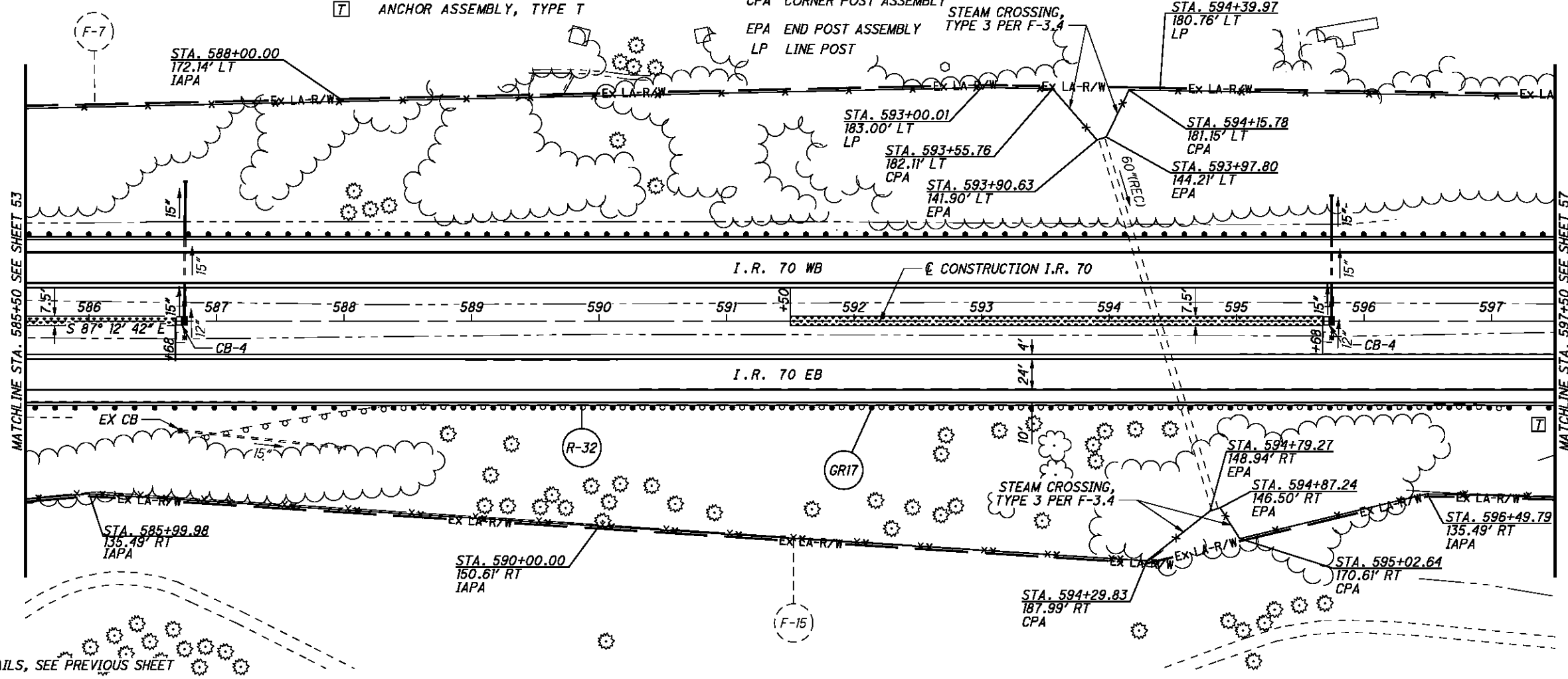
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FOR STORM SEWER DETAILS, SEE SHEETS 137 & 141

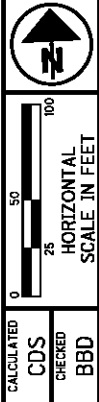
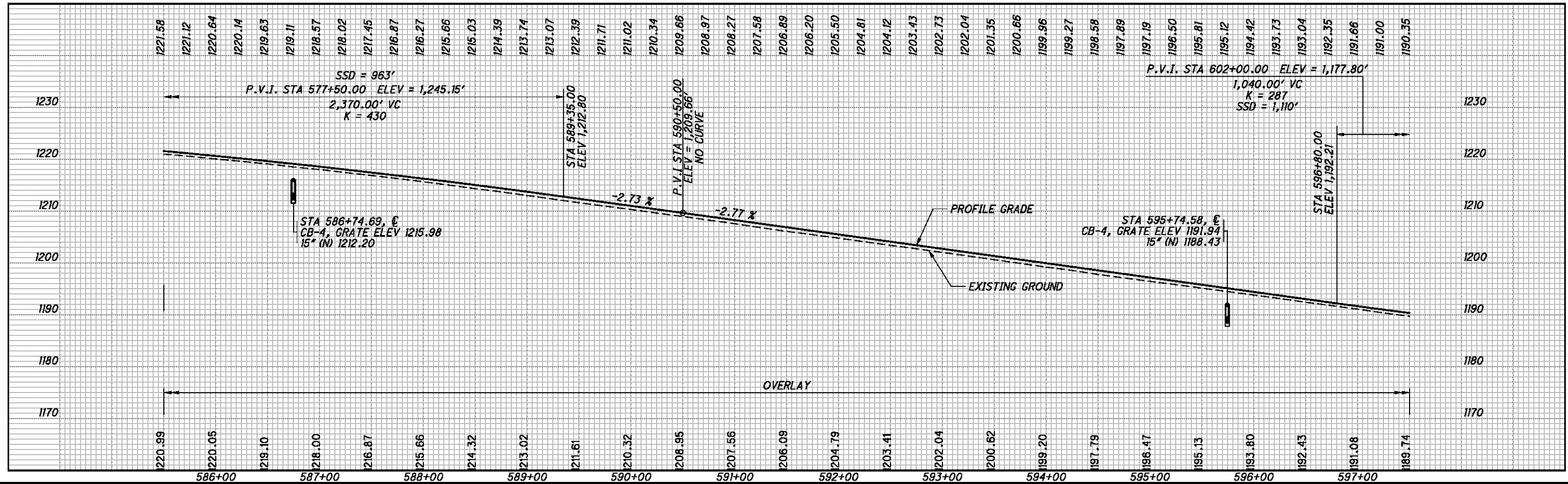
ITEM 670 - DITCH EROSION PROTECTION
 ANCHOR ASSEMBLY, TYPE T

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
 CPA CORNER POST ASSEMBLY
 EPA END POST ASSEMBLY
 LP LINE POST

STEAM CROSSING, TYPE 3 PER F-3.4



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET

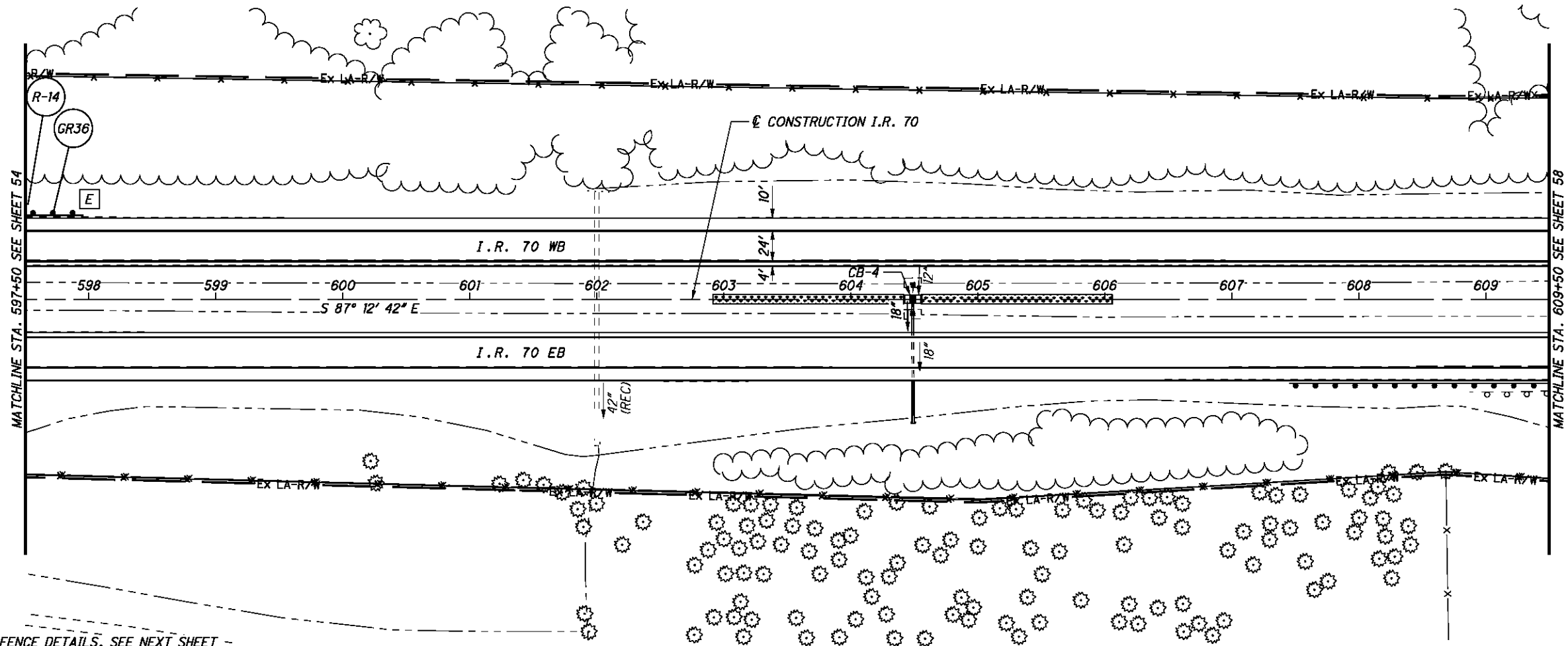


I.R. 70 EB - PLAN AND PROFILE
 STA. 585+50 TO STA. 597+50

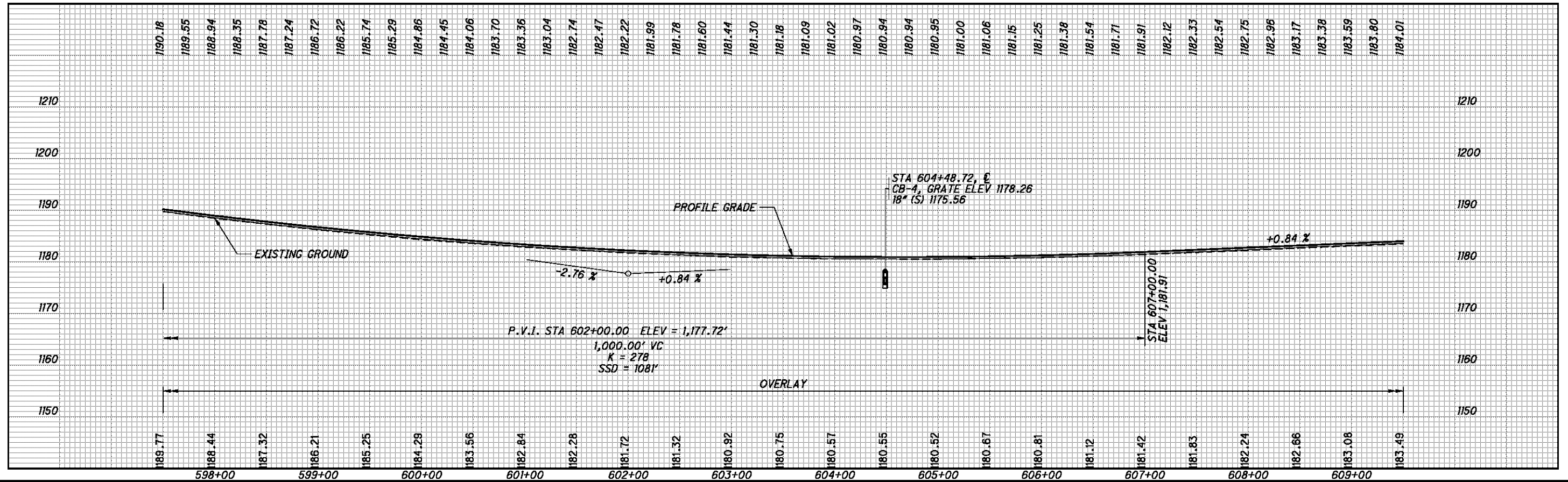
BEL-70-7.61

55
 373

P:\76825\roadway\sheet\76825GP4.16.dgn 9/21/2012 7:46:18 AM mcornett



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET -



0 25 50 100

 HORIZONTAL

 SCALE IN FEET

CALCULATED CDS

 CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
STA. 597+50 TO STA. 609+50

BEL-70-7.61

FOR STORM SEWER DETAILS, SEE SHEET 145

* DITCH CLEANOUT LIMITS

[E] ANCHOR ASSEMBLY, TYPE E



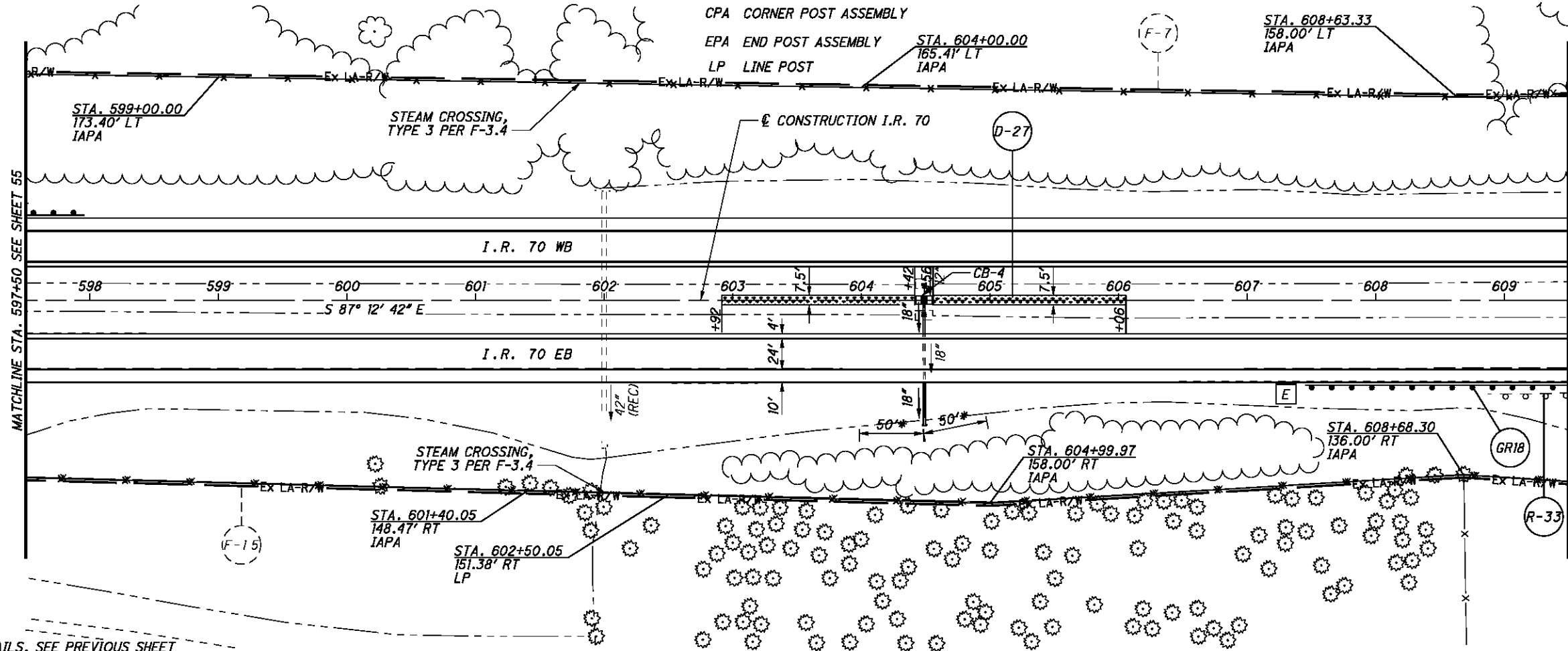
ITEM 670 - DITCH EROSION PROTECTION

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY

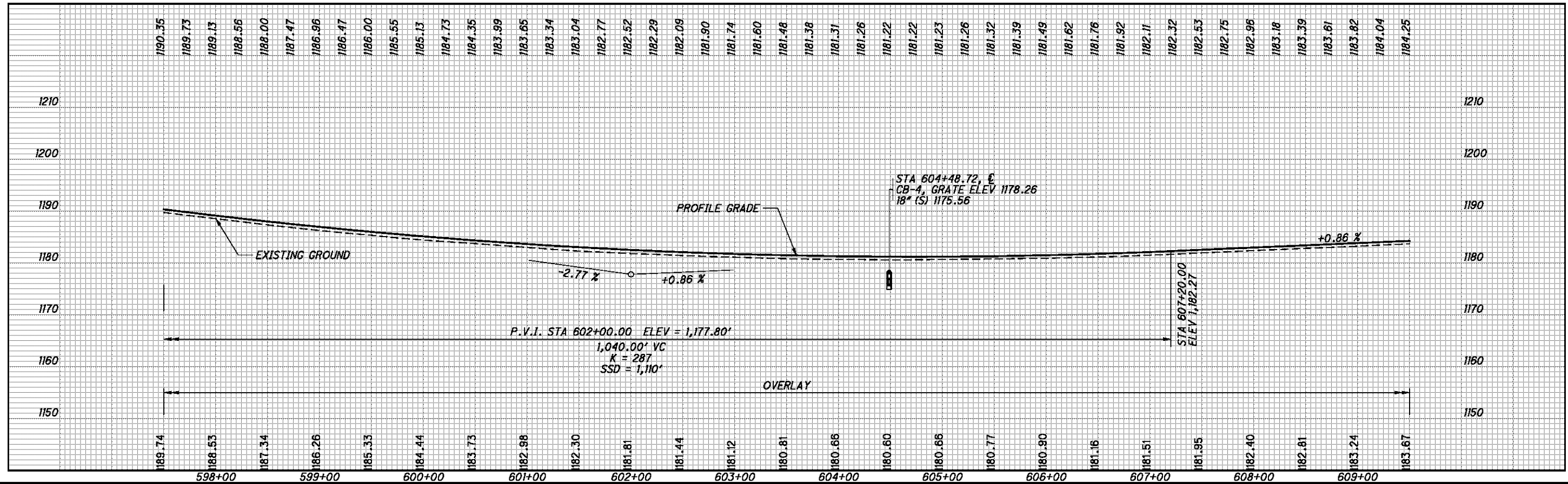
CPA CORNER POST ASSEMBLY

EPA END POST ASSEMBLY

LP LINE POST



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

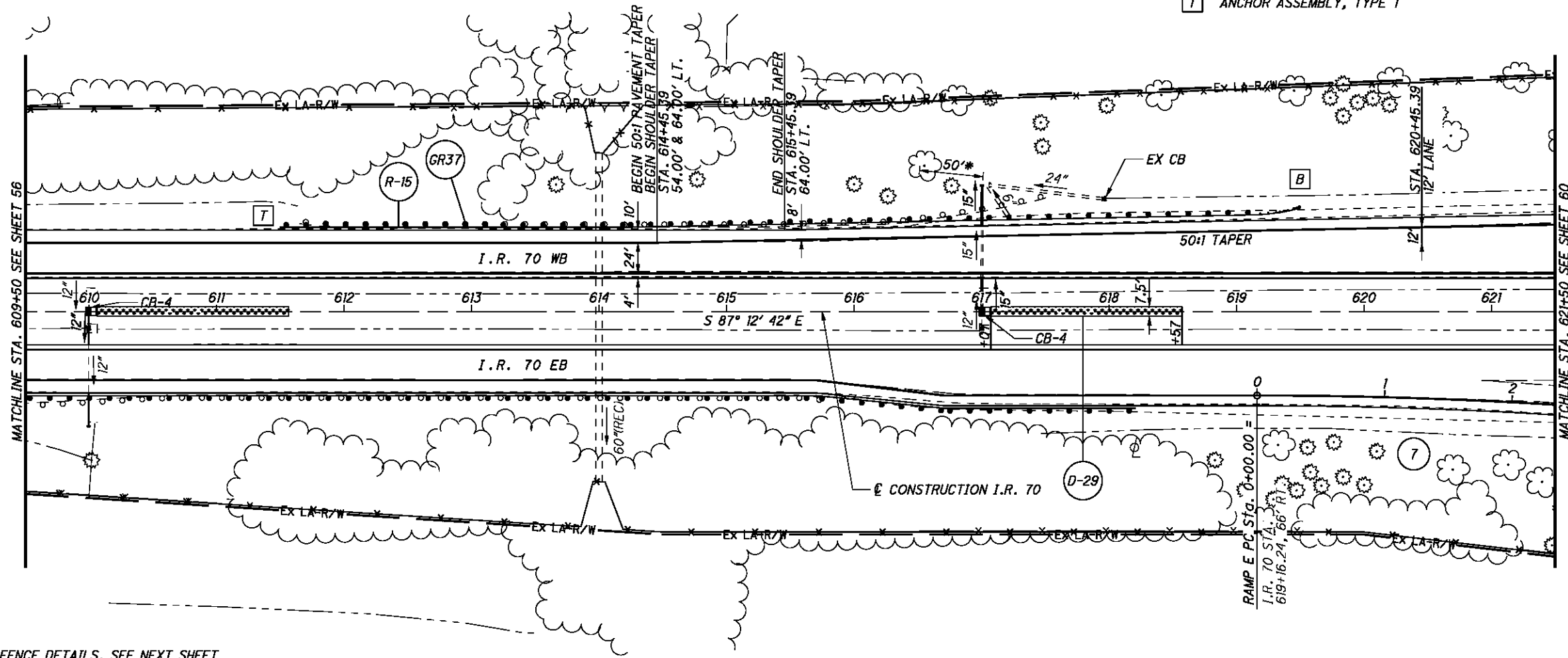
I.R. 70 EB - PLAN AND PROFILE
STA. 597+50 TO STA. 609+50

BEL-70-7.61

57
373

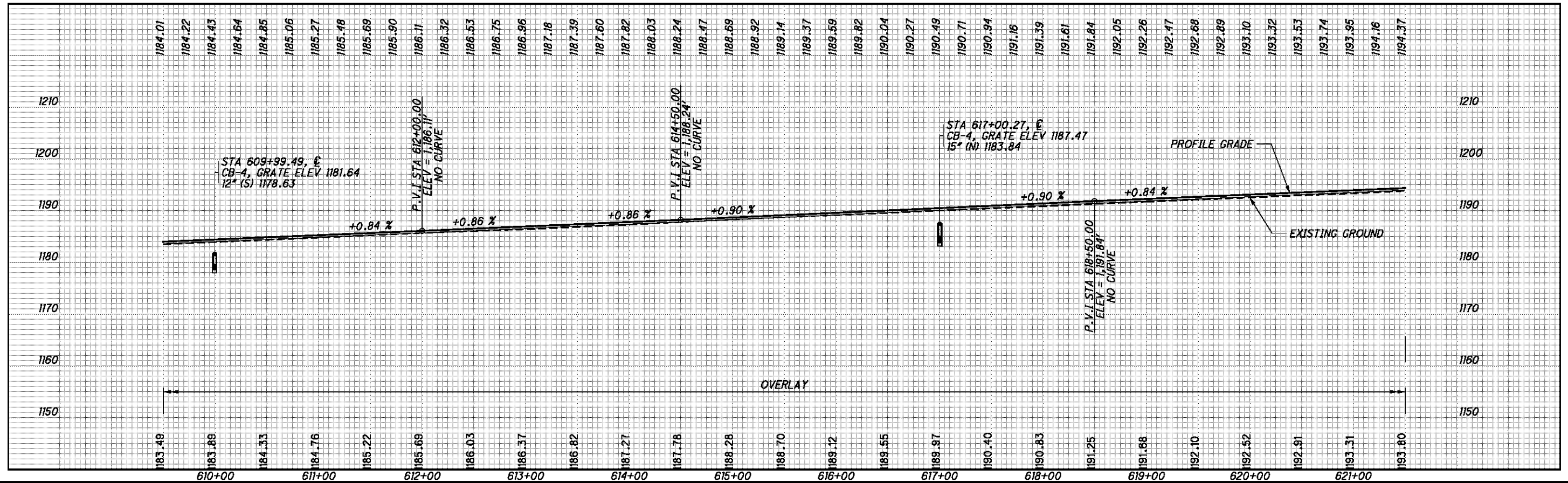
P:\76825\roadway\sheet\76825GP4.17.dgn 9/21/2012 7:46:19 AM mcornett

B ANCHOR ASSEMBLY, TYPE B
T ANCHOR ASSEMBLY, TYPE T



REST AREA CURVE DATA (7)
 P.I. = Sta. 2+77.02
 $\Delta = 8^\circ 17' 46''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 277.02'$
 $L = 553.07'$
 $E = 10.03'$
 $E_{max} = 0.046$ (EX.)

FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
 STA. 609+50 TO STA. 621+50

BEL-70-7.61

P:\76825\roadway\sheet\76825GP318.dgn 9/21/2012 7:46:20 AM mcornett

FOR STORM SEWER DETAILS, SEE SHEETS 147 & 149

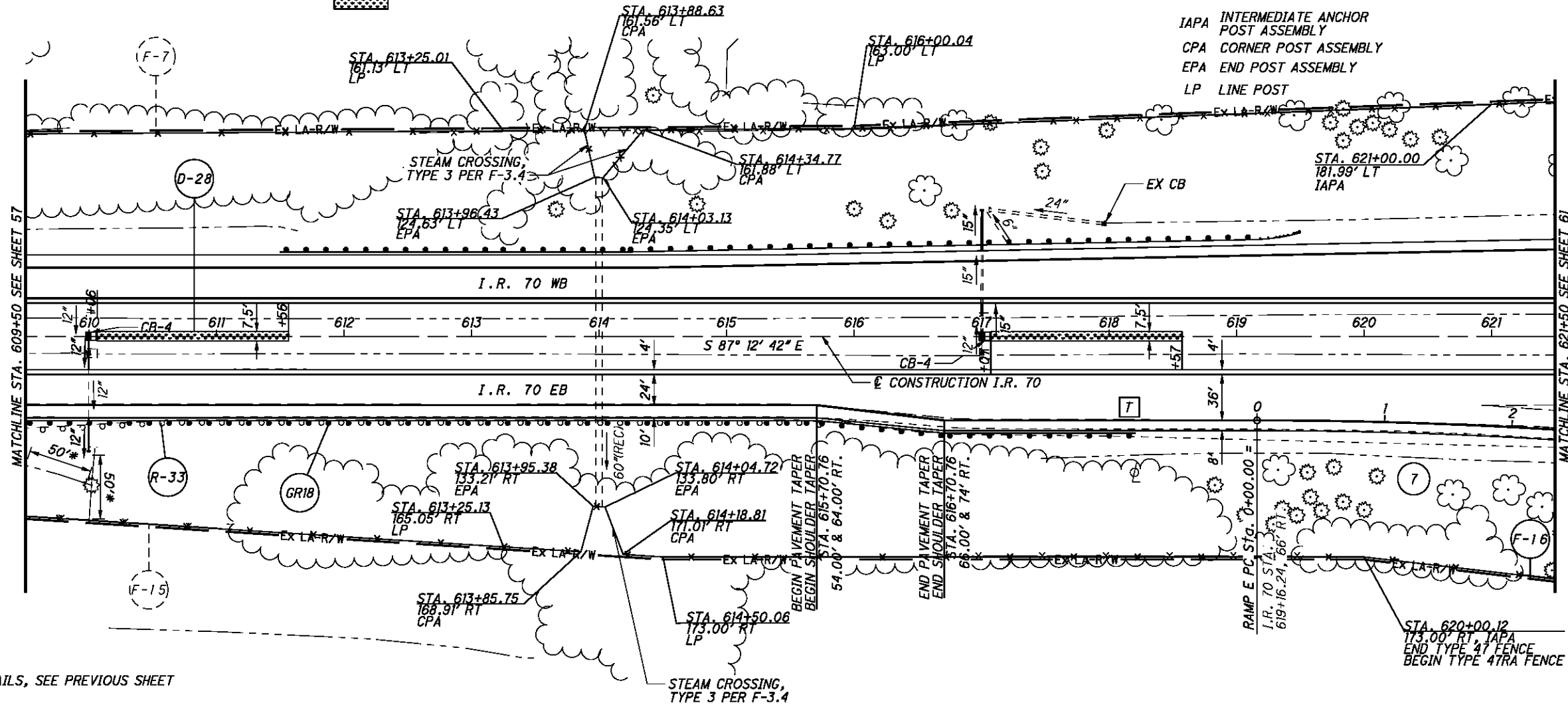


ITEM 670 - DITCH EROSION PROTECTION

* DITCH CLEANOUT LIMITS

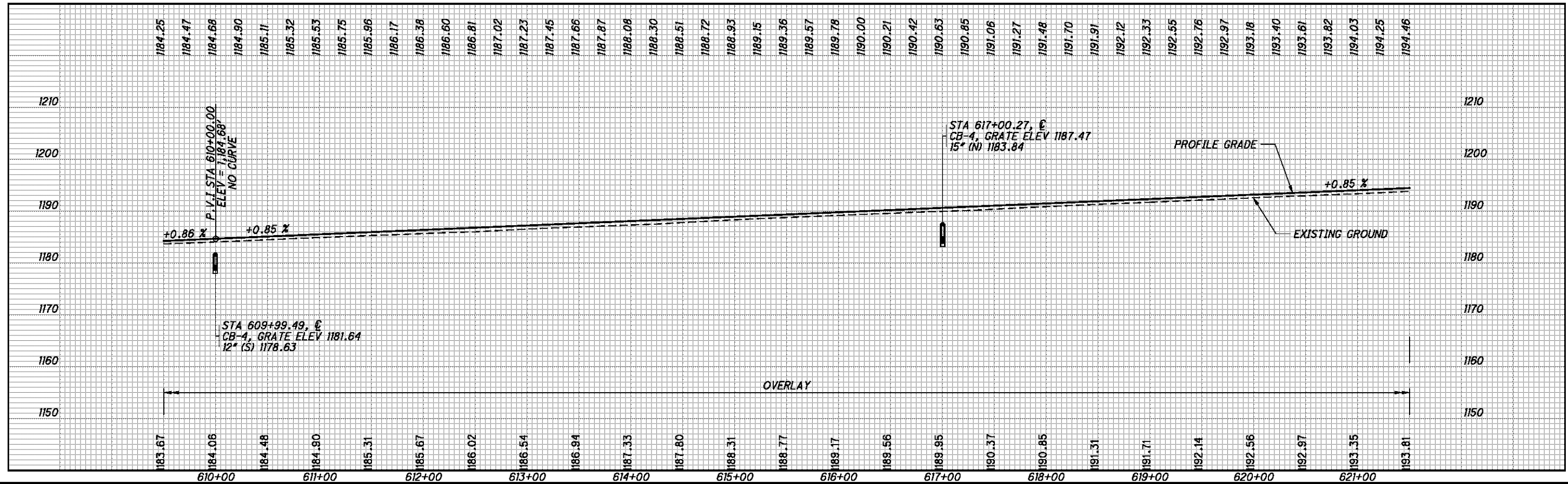
T ANCHOR ASSEMBLY, TYPE T

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
 CPA CORNER POST ASSEMBLY
 EPA END POST ASSEMBLY
 LP LINE POST



REST AREA CURVE DATA (7)
 P.I. = Sta. 2+77.02
 $\Delta = 8^\circ 17' 46''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 277.02'$
 $L = 553.07'$
 $E = 10.03'$
 $E_{max} = 0.046$ (EX.)

FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



CALCULATED CDS CHECKED BDD

I.R. 70 EB - PLAN AND PROFILE
 STA. 609+50 TO STA. 621+50

BEL-70-7.61

59
 373

REST AREA CURVE DATA 1

P.I. = STA. 4+78.72
 $\Delta = 5^{\circ}48'54''$ LT.
 $Dc = 1^{\circ}40'00''$
 $R = 3437.75$
 $Ls1 = 200.00'$
 $Ls2 = 0.00'$
 $\theta s1 = 1^{\circ}40'00''$
 $\theta s2 = 0^{\circ}00'00''$
 $LT1 = 133.34'$
 $LT2 = 0.00'$
 $ST1 = 66.67'$
 $ST2 = 0.00'$
 $Lc = 248.90'$
 $T1 = 269.84'$
 $T2 = 179.38'$
 $eMAX = 0.038$

FOR STORM SEWER DETAILS, SEE SHEET 152
 FOR RAMP F PROFILES, SEE SHEET 194

REST AREA CURVE DATA 2

P.I. = Sta. 7+62.27
 $\Delta = 38^{\circ}24'19''$ (LT)
 $Dc = 19^{\circ}05'55''$
 $R = 300.00'$
 $T = 104.49'$
 $L = 201.09'$
 $E = 17.68'$

REST AREA CURVE DATA 7

P.I. = Sta. 2+77.02
 $\Delta = 8^{\circ}17'46''$ (RT)
 $Dc = 1^{\circ}30'00''$
 $R = 3,819.72'$
 $T = 277.02'$
 $L = 553.07'$
 $E = 10.03'$
 $E_{max} = 0.035$ (EX.)

REST AREA CURVE DATA 8

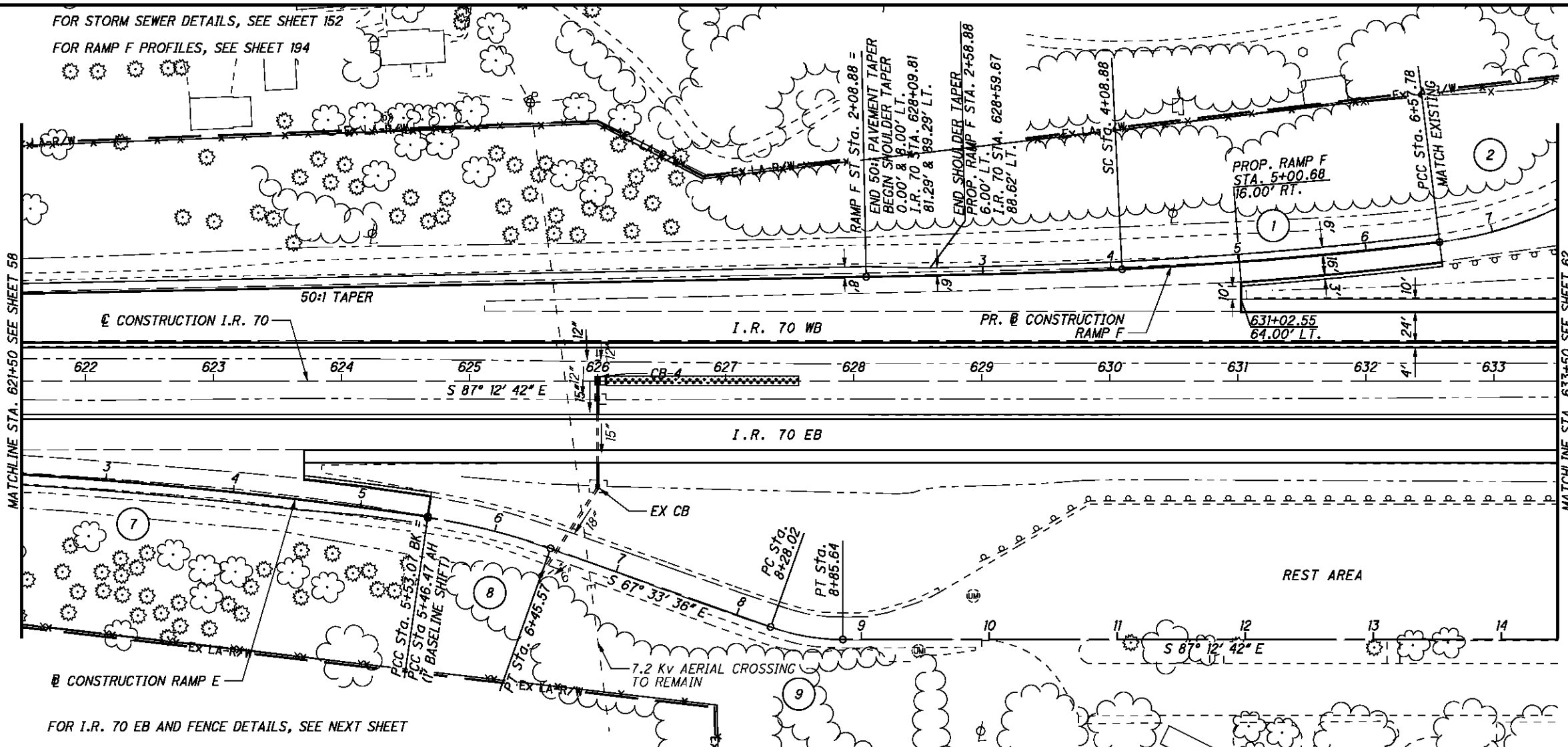
P.I. = Sta. 6+02.79
 $\Delta = 11^{\circ}21'23''$ (RT)
 $Dc = 11^{\circ}27'33''$
 $R = 500.00'$
 $T = 49.71'$
 $L = 99.10'$
 $E = 2.47'$

REST AREA CURVE DATA 9

P.I. = Sta. 8+63.72
 $\Delta = 19^{\circ}39'09''$ (LT)
 $Dc = 34^{\circ}06'17''$
 $R = 168.00'$
 $T = 29.10'$
 $L = 57.62'$
 $E = 2.50'$

MATCHLINE STA. 621+50 SEE SHEET 58

MATCHLINE STA. 633+50 SEE SHEET 62



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET

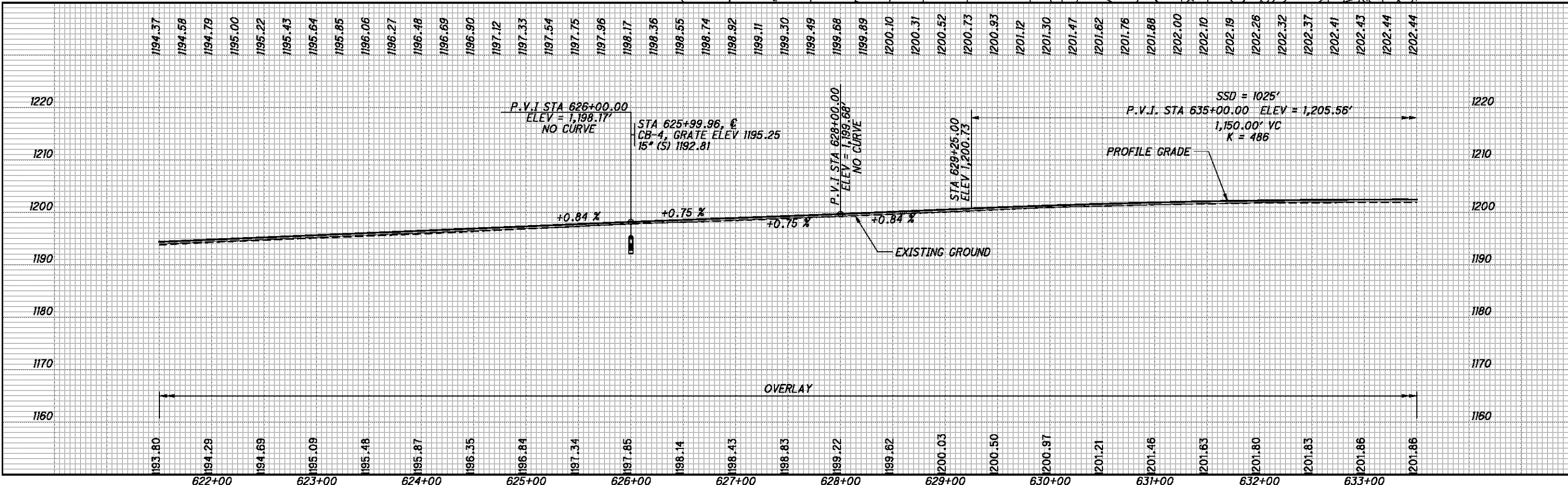


CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE STA. 621+50 TO STA. 633+50

BEL-70-7.61

60
373



REST AREA CURVE DATA 1

P.I. = STA. 4+78.72
 $\Delta = 5^{\circ}48'54''$ LT.
 $D_c = 1^{\circ}40'00''$
 $R = 3437.75$
 $Ls1 = 200.00'$
 $Ls2 = 0.00'$
 $\theta s1 = 1^{\circ}40'00''$
 $\theta s2 = 0^{\circ}00'00''$
 $LT1 = 133.34'$
 $LT2 = 0.00'$
 $ST1 = 66.67'$
 $ST2 = 0.00'$
 $L_c = 248.90'$
 $T1 = 269.84'$
 $T2 = 179.38'$
 $e_{MAX} = 0.038$

FOR STORM SEWER DETAILS, SEE SHEET 152

FOR RAMP E PROFILES, SEE SHEET 191

FOR ADDITIONAL FENCE DETAILS AROUND REST AREAS, SEE BUILDABLE UNIT 5 SHEETS 8-9

ITEM 670 - DITCH EROSION PROTECTION

REST AREA CURVE DATA 2

P.I. = Sta. 7+62.27
 $\Delta = 38^{\circ}24'19''$ (LT)
 $D_c = 19^{\circ}05'55''$
 $R = 300.00'$
 $T = 104.49'$
 $L = 201.09'$
 $E = 17.68'$

REST AREA CURVE DATA 7

P.I. = Sta. 2+77.02
 $\Delta = 8^{\circ}17'46''$ (RT)
 $D_c = 1^{\circ}30'00''$
 $R = 3,819.72'$
 $T = 277.02'$
 $L = 553.07'$
 $E = 10.03'$
 $e_{max} = 0.035$ (EX.)

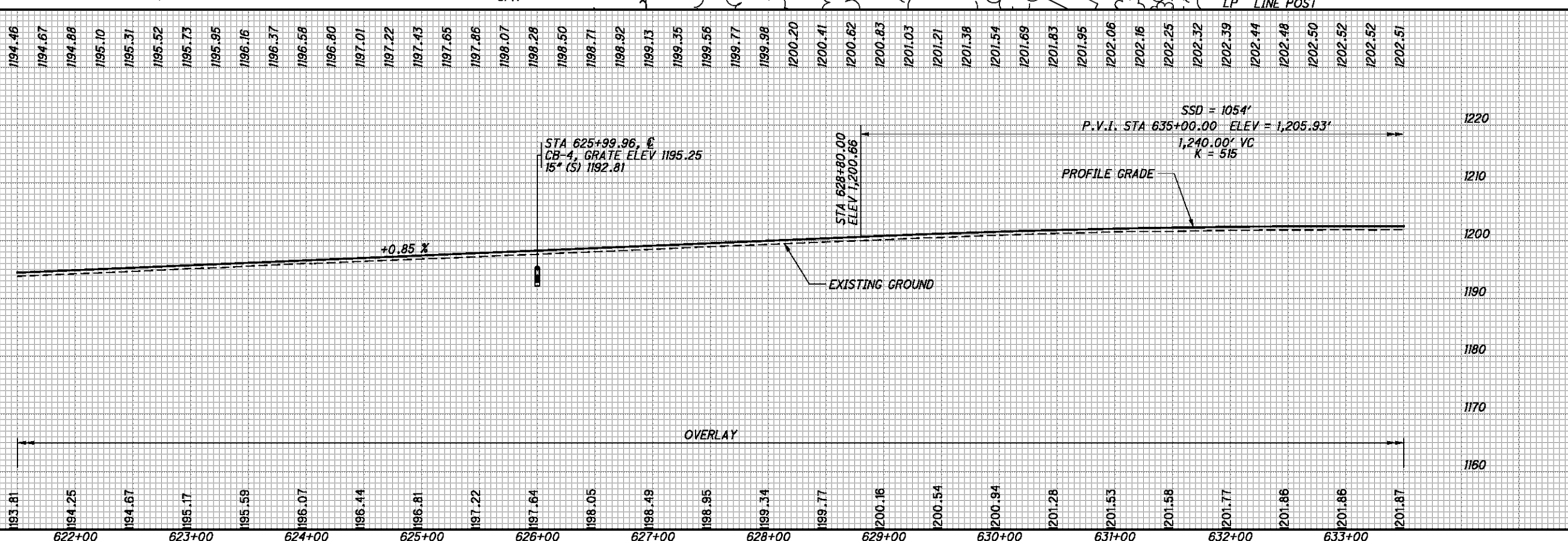
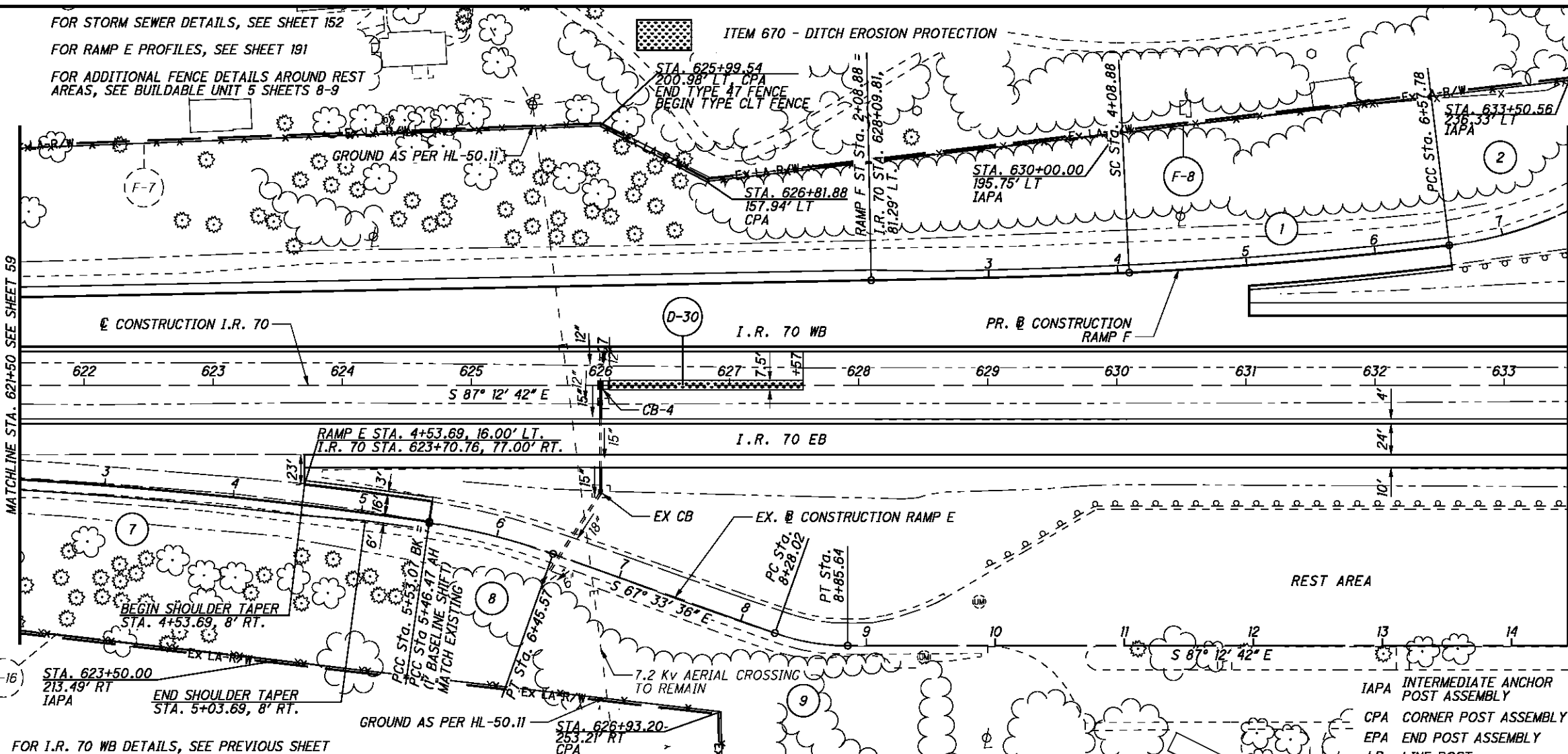
FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET

REST AREA CURVE DATA 8

P.I. = Sta. 6+02.79
 $\Delta = 11^{\circ}21'23''$ (RT)
 $D_c = 11^{\circ}27'33''$
 $R = 500.00'$
 $T = 49.71'$
 $L = 99.10'$
 $E = 2.47'$

REST AREA CURVE DATA 9

P.I. = Sta. 8+63.72
 $\Delta = 19^{\circ}39'09''$ (LT)
 $D_c = 34^{\circ}06'17''$
 $R = 168.00'$
 $T = 29.10'$
 $L = 57.62'$
 $E = 2.50'$



I.R. 70 EB - PLAN AND PROFILE STA. 621+50 TO STA. 633+50

BEL-70-7.61

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REST AREA CURVE DATA (2)

P.I. = Sta. 7+62.27
 $\Delta = 38^\circ 24' 19''$ (LT)
 $D_c = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 104.49'$
 $L = 201.09'$
 $E = 17.68'$

REST AREA CURVE DATA (3)

P.I. = Sta. 9+29.92
 $\Delta = 45^\circ 21' 54''$ (RT)
 $D_c = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 71.05'$
 $L = 134.60'$
 $E = 14.25'$

REST AREA CURVE DATA (10)

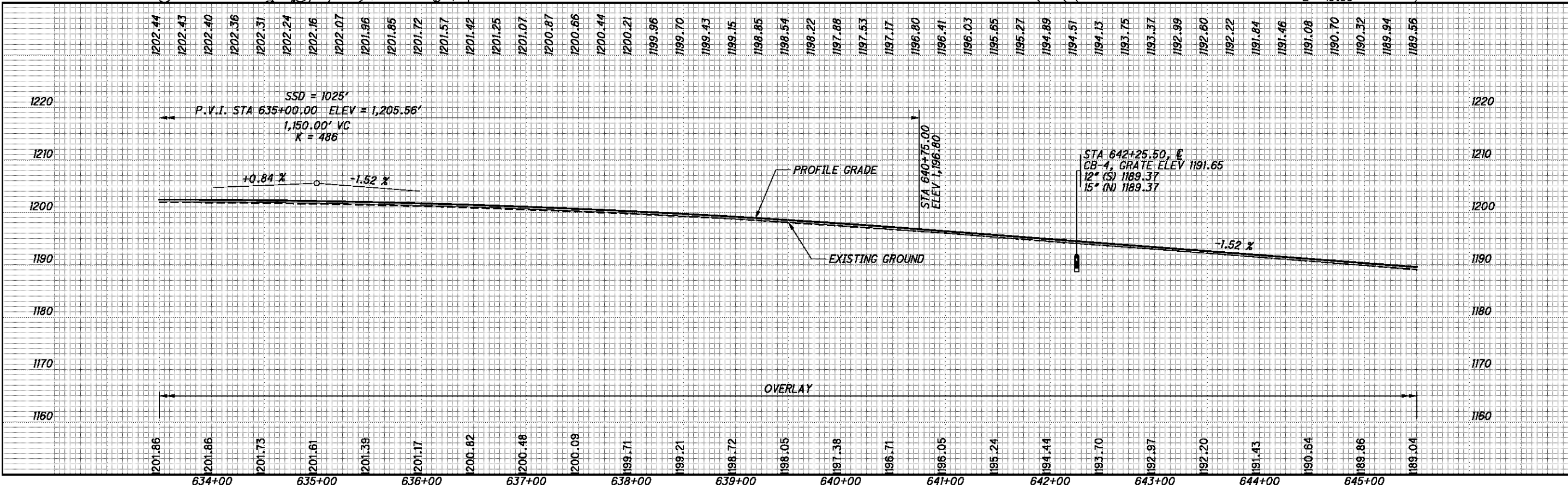
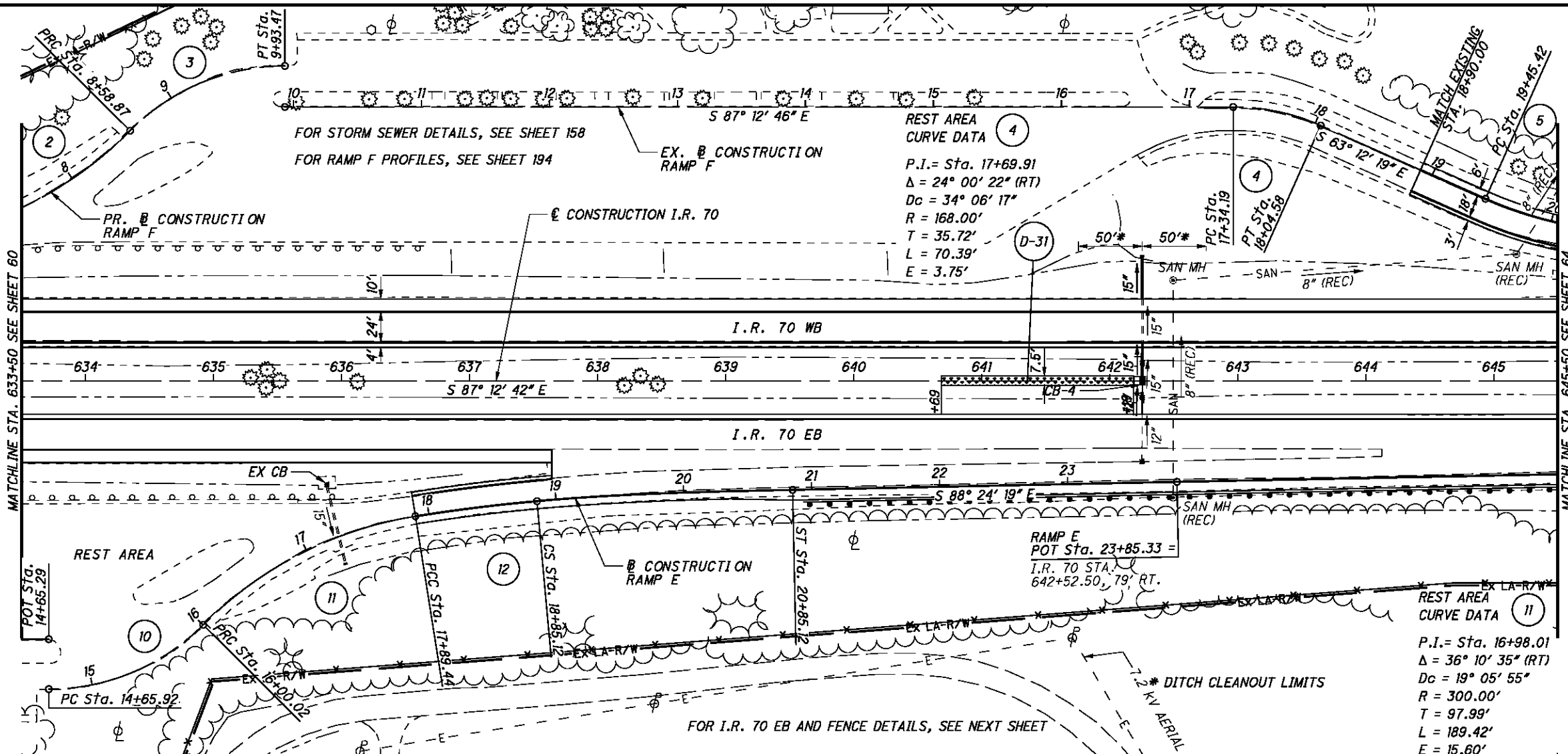
P.I. = Sta. 15+36.68
 $\Delta = 45^\circ 11' 50''$ (LT)
 $D_c = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 70.76'$
 $L = 134.10'$
 $E = 14.14'$

REST AREA CURVE DATA (5)

P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32''$ (LT)
 $D_c = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$

REST AREA CURVE DATA (12)

P.I. = STA. 18+95.98
 $\Delta = 7^\circ 49' 38''$ RT.
 $D_c = 4^\circ 00' 00''$
 $R = 1432.39'$
 $Ls1 = 0.00'$
 $Ls2 = 200.00'$
 $\theta s1 = 0^\circ 00' 00''$
 $\theta s2 = 4^\circ 00' 00''$
 $LT1 = 0.00'$
 $LT2 = 133.37'$
 $ST1 = 0.00'$
 $ST2 = 66.70'$
 $Lc = 95.68'$
 $T1 = 106.54'$
 $T2 = 189.51'$
 $\theta_{MAX} = 0.063$ (EX.)



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I.R. 70 WB - PLAN AND PROFILE STA. 633+50 TO STA. 645+50

BEL-70-7.61

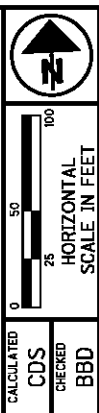
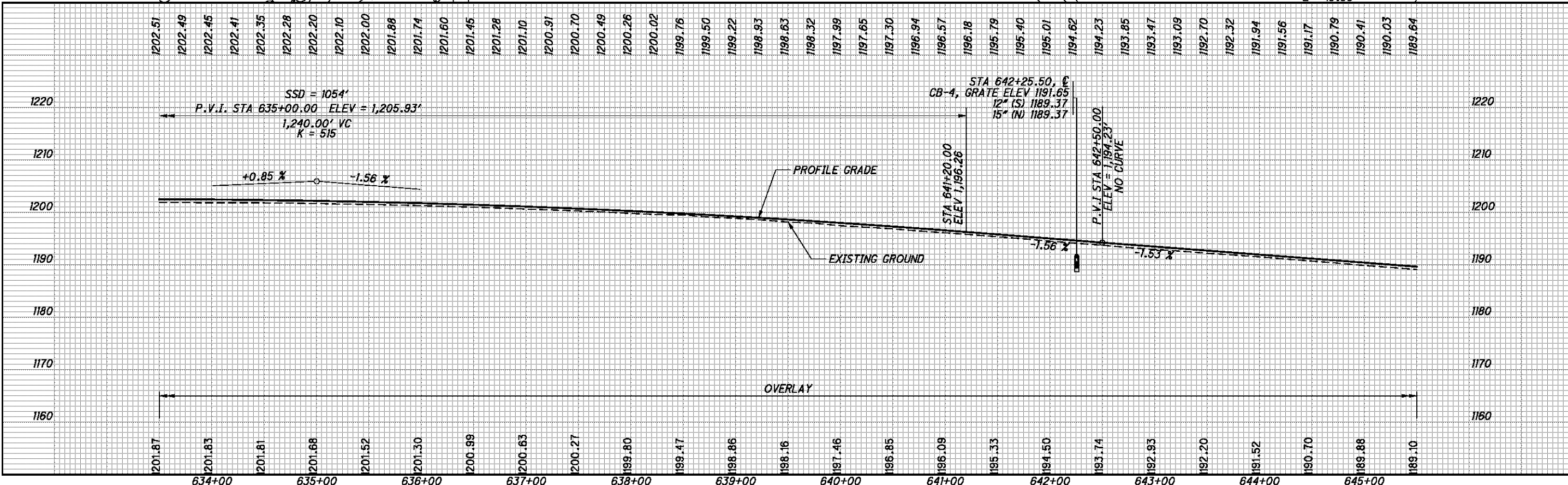
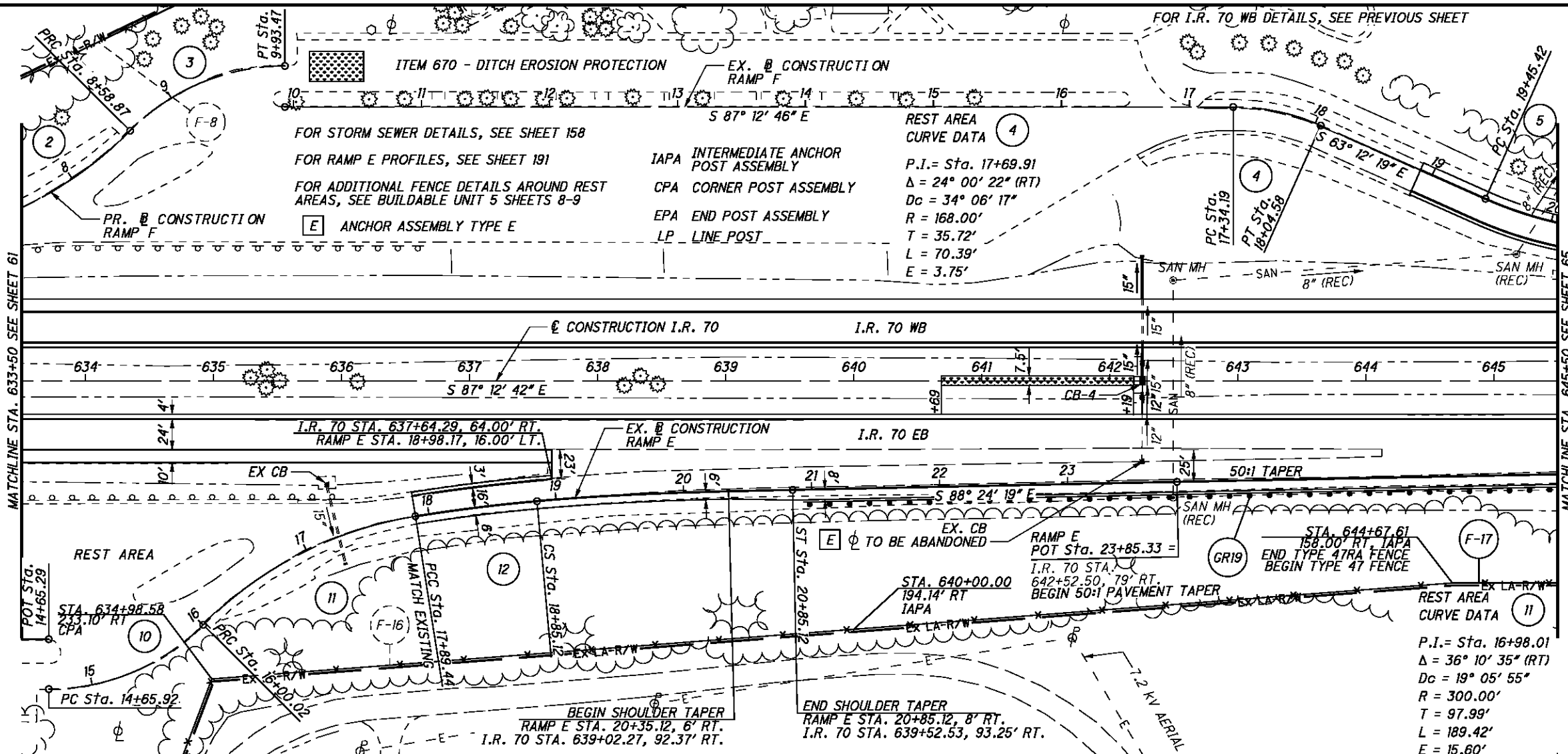
REST AREA CURVE DATA (2)
 P.I. = Sta. 7+62.27
 $\Delta = 38^\circ 24' 19''$ (LT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 104.49'$
 $L = 201.09'$
 $E = 17.68'$

REST AREA CURVE DATA (3)
 P.I. = Sta. 9+29.92
 $\Delta = 45^\circ 21' 54''$ (RT)
 $Dc = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 71.05'$
 $L = 134.60'$
 $E = 14.25'$

REST AREA CURVE DATA (10)
 P.I. = Sta. 15+36.68
 $\Delta = 45^\circ 11' 50''$ (LT)
 $Dc = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 70.76'$
 $L = 134.10'$
 $E = 14.14'$

REST AREA CURVE DATA (5)
 P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32''$ (LT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$

REST AREA CURVE DATA (12)
 P.I. = STA. 18+95.98
 $\Delta = 7^\circ 49' 38''$ RT.
 $Dc = 4^\circ 00' 00''$
 $R = 1432.39'$
 $Ls1 = 0.00'$
 $Ls2 = 200.00'$
 $\theta s1 = 0^\circ 00' 00''$
 $\theta s2 = 4^\circ 00' 00''$
 $LT1 = 0.00'$
 $ST1 = 0.00'$
 $ST2 = 66.70'$
 $Lc = 95.68'$
 $T1 = 106.54'$
 $T2 = 189.51'$
 $\theta_{MAX} = 0.063$ (EX.)



**I.R. 70 EB - PLAN AND PROFILE
 STA. 633+50 TO STA. 645+50**

BEL-70-7.61

FOR STORM SEWER DETAILS, SEE SHEETS 161, 163 & 197

* DITCH CLEANOUT LIMITS

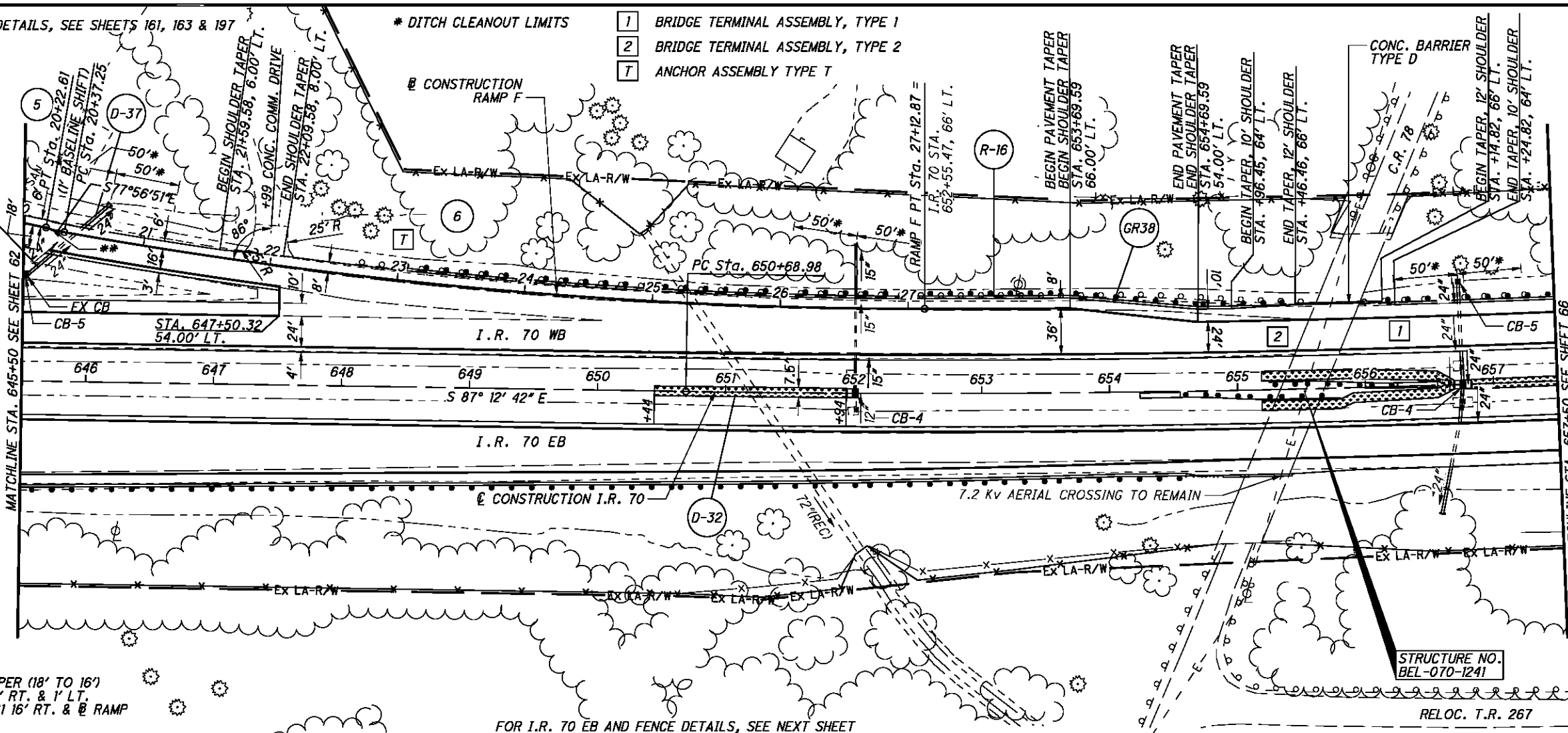
- 1 BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2 BRIDGE TERMINAL ASSEMBLY, TYPE 2
- T ANCHOR ASSEMBLY TYPE T

REST AREA CURVE DATA (6)

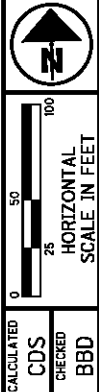
P.I. = Sta. 23+75.94
 $\Delta = 10^\circ 08' 04" (LT)$
 $D_c = 1^\circ 30' 00"$
 $R = 3,819.72'$
 $T = 338.69'$
 $L = 675.62'$
 $E = 14.99'$
 $E_{max} = 0.032 (EX.)$

REST AREA CURVE DATA (5)

P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32" (LT)$
 $D_c = 19^\circ 05' 55"$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$

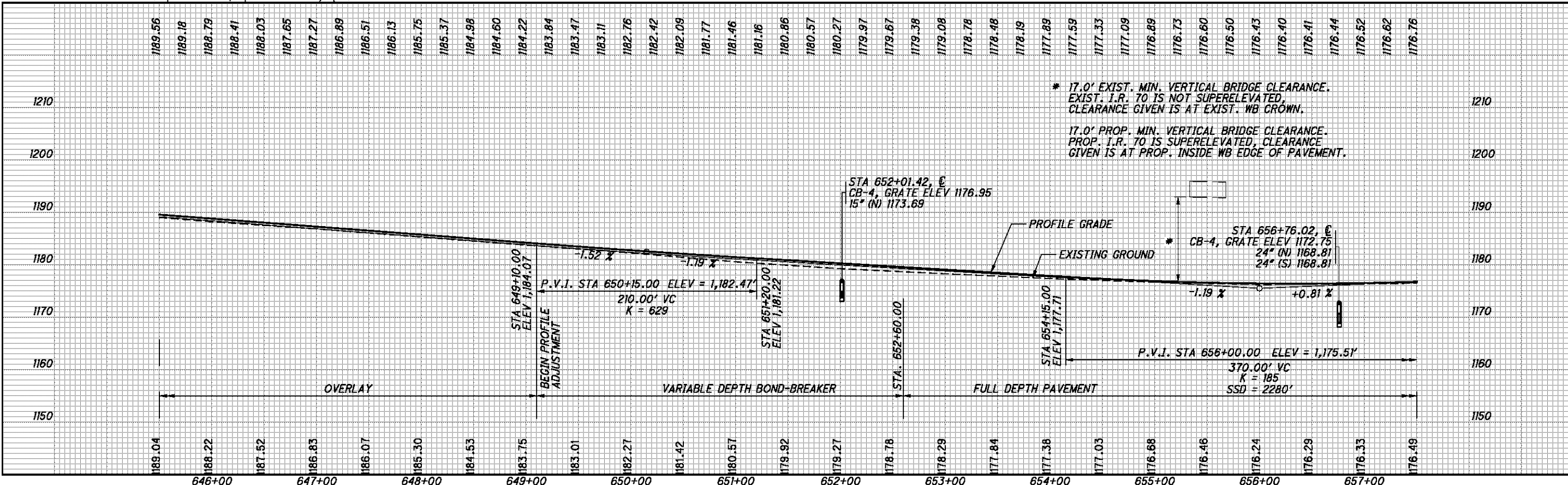


IR 70 CURVE DATA
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36" (LT)$
 $D_c = 0^\circ 28' 00"$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$



** 5:1 PAVEMENT TAPER (18' TO 16')
 STA. 20+22.61 17' RT. & 1' LT.
 TO STA. 20+27.61 16' RT. & RAMP

FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



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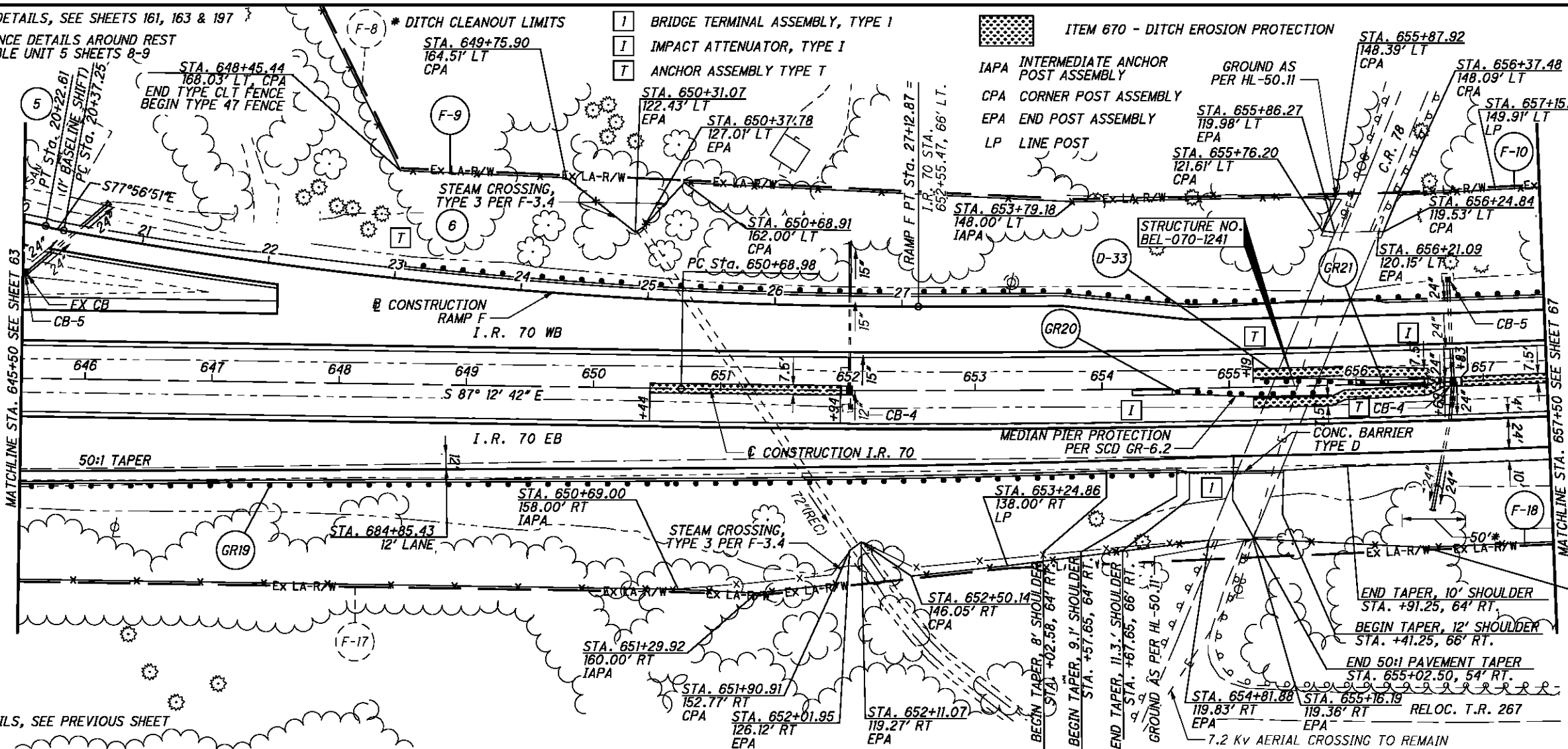
I.R. 70 WB - PLAN AND PROFILE
 STA. 645+50 TO STA. 657+50

BEL-70-7.61

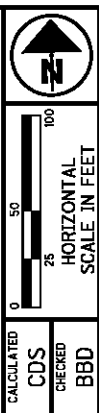
FOR STORM SEWER DETAILS, SEE SHEETS 161, 163 & 197
 FOR ADDITIONAL FENCE DETAILS AROUND REST AREAS, SEE BUILDABLE UNIT 5 SHEETS 8-9

REST AREA CURVE DATA (6)
 P.I. = Sta. 23+75.94
 $\Delta = 10^\circ 08' 04" (LT)$
 $D_c = 1^\circ 30' 00"$
 $R = 3,819.72'$
 $T = 338.69'$
 $L = 675.62'$
 $E = 14.99'$
 $E_{max} = 0.032 (EX.)$

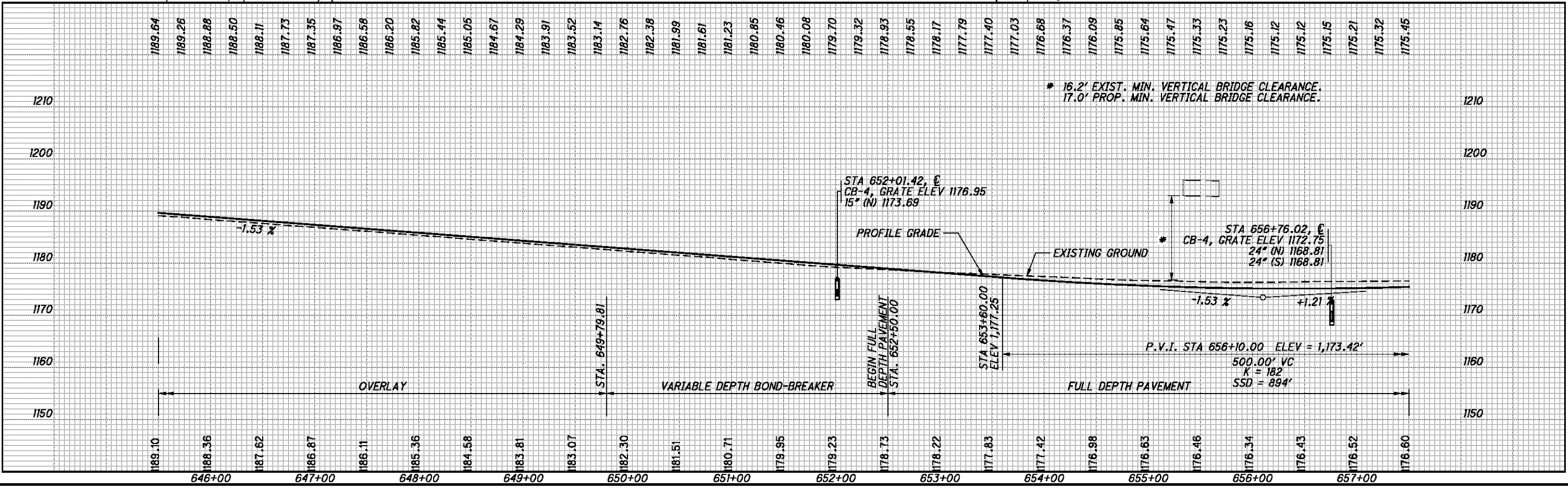
REST AREA CURVE DATA (5)
 P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32" (LT)$
 $D_c = 19^\circ 05' 55"$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$



IR 70 CURVE DATA
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36" (LT)$
 $D_c = 0^\circ 28' 00"$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



I.R. 70 EB - PLAN AND PROFILE
 STA. 645+50 TO STA. 657+50

BEL-70-7.61

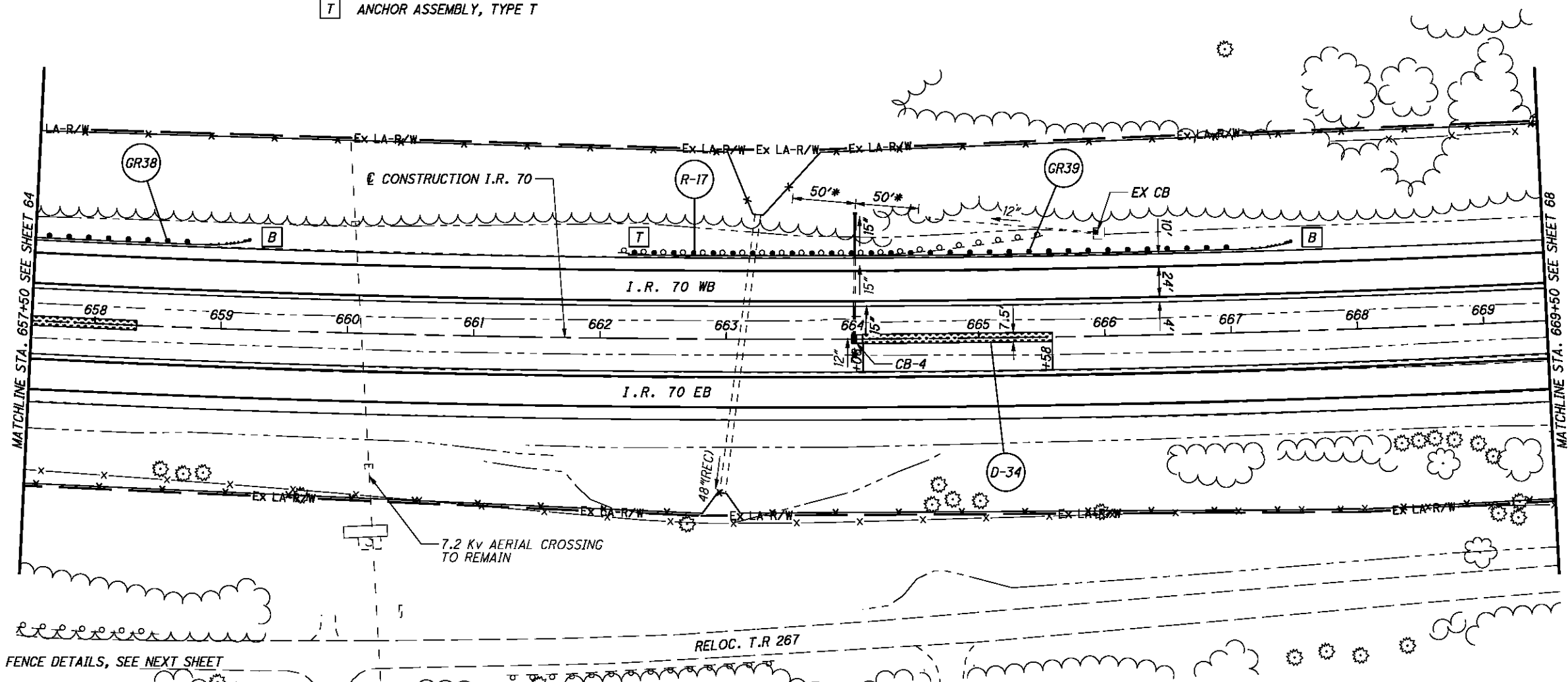
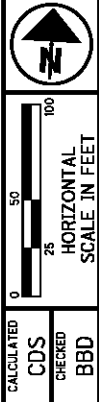
P:\76825\roadway\sheet\76825GP421.dgn 9/21/2012 7:46:25 AM mcorneil

FOR STORM SEWER DETAILS, SEE SHEET 166

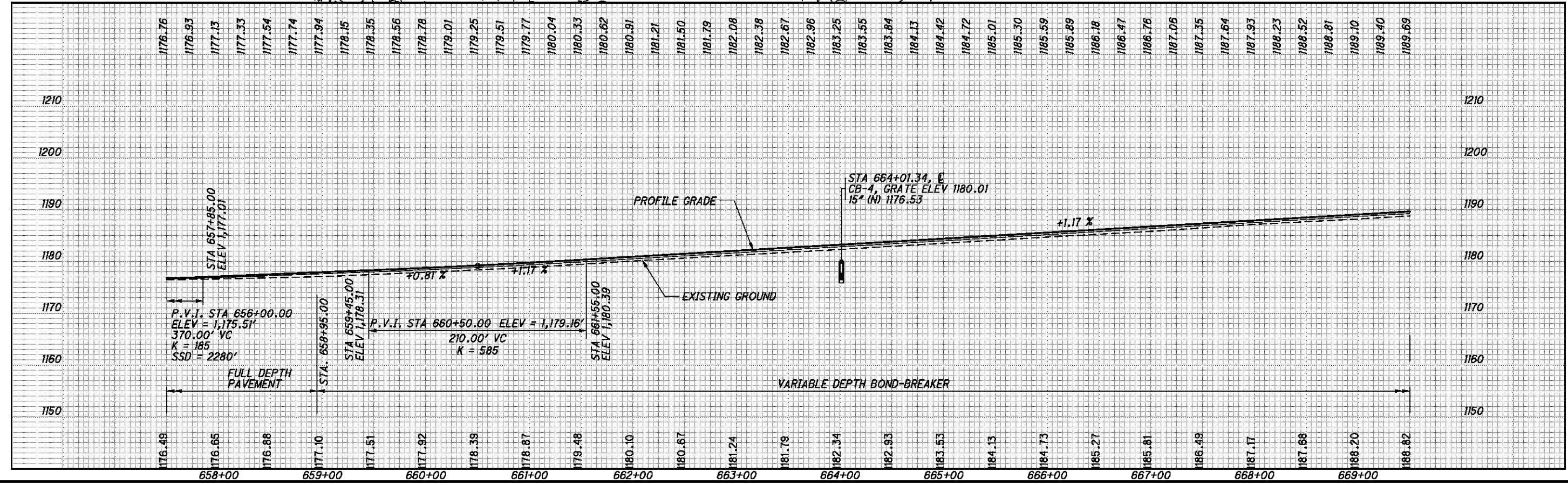
B ANCHOR ASSEMBLY, TYPE B
T ANCHOR ASSEMBLY, TYPE T

* DITCH CLEANOUT LIMITS

IR 70
 CURVE DATA
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36''$ (LT)
 $D_c = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$



FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET



I.R. 70 WB - PLAN AND PROFILE
 STA. 657+50 TO STA. 669+50

BEL-70-7.61

66
 373

P:\76825\roadway\sheet\76825GP322.dgn 9/21/2012 7:46:26 AM mcorbett

FOR STORM SEWER DETAILS, SEE SHEET 166

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
 CPA CORNER POST ASSEMBLY
 EPA END POST ASSEMBLY
 LP LINE POST

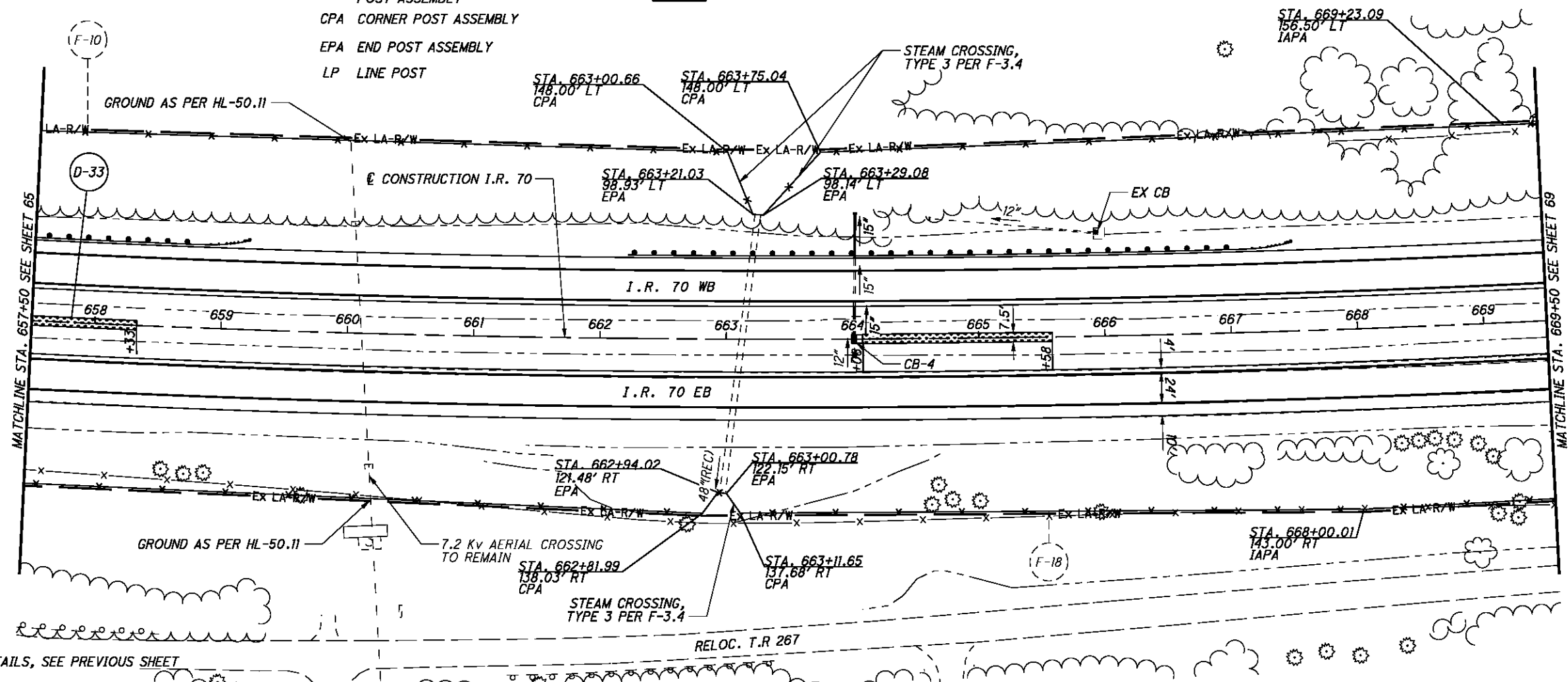


ITEM 670 - DITCH EROSION PROTECTION

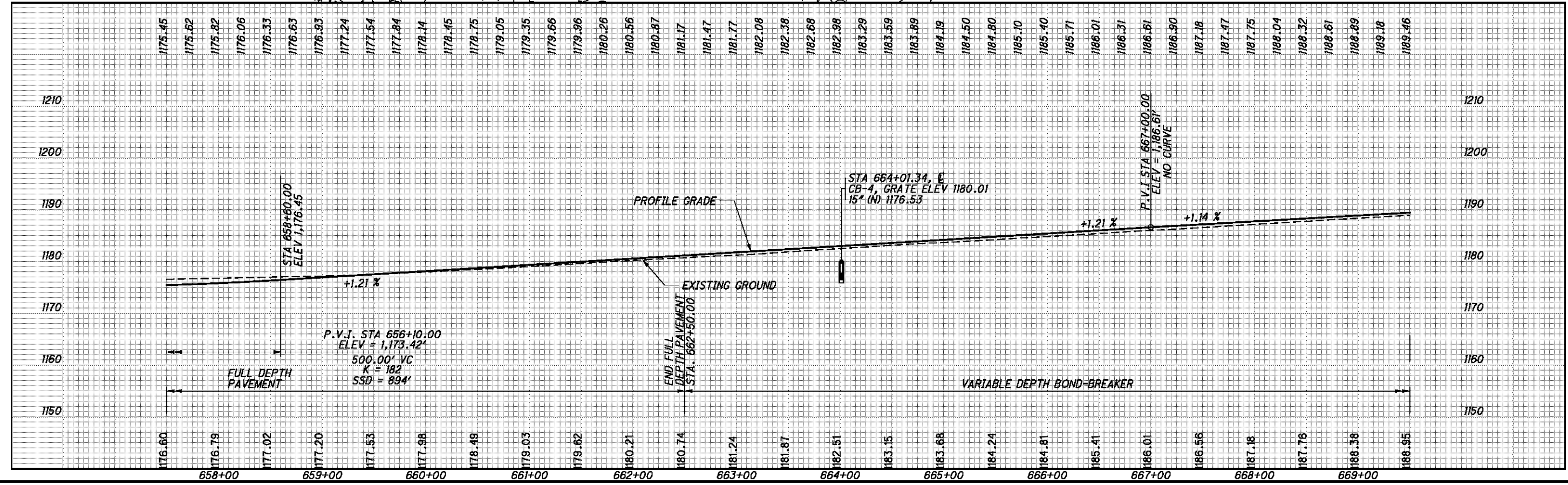
IR 70
 CURVE DATA
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36''$ (LT)
 $D_c = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$

CALCULATED CDS CHECKED BDD

HORIZONTAL SCALE IN FEET



FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



I.R. 70 EB - PLAN AND PROFILE
 STA. 657+50 TO STA. 669+50

BEL-70-7.61

67
 373

P:\76825\roadway\sheet\76825GP422.dgn 9/21/2012 7:46:27 AM mcorbett

FOR STORM SEWER DETAILS, SEE SHEET 169

ANCHOR ASSEMBLY TYPE T

END PROJECT
STA. 675+00.00
SLM 12.60

E040 (135)

CONNECT GUARDRAIL
TO EXISTING
STA. 675+00.00
66.00' LT.

END WORK
STA. 677+50.00

CONSTRUCTION I.R. 70

MATCHLINE STA. 669+50 SEE SHEET 66

670 671 672 673 674 675 676 677 678 679 680 681 682 683

I.R. 70 WB

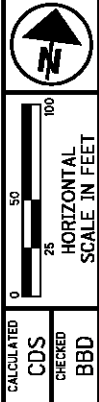
I.R. 70 EB

IR 70
CURVE DATA
P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36''$ (L.T.)
 $D_c = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.0178$

RELOC. T.R. 267

FEATHER SECTION AS PER STANDARD CONSTRUCTION DRAWING BP-3.1.
TAPER FROM 5" TO 0" FROM STA. 675+00.00 TO STA. 677+50.00.
ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
ITEM 442 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
ITEM 407 TACK COAT

FOR I.R. 70 EB AND FENCE DETAILS, SEE NEXT SHEET $\epsilon 42'' = 1156.85$

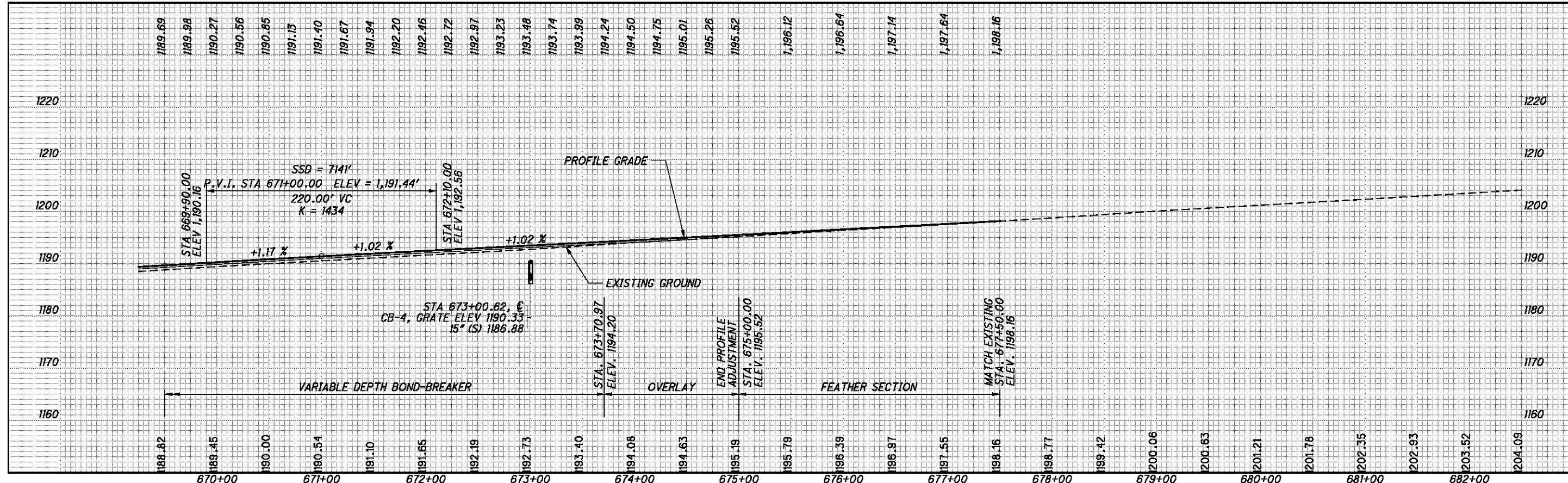


CALCULATED CDS CHECKED BDD

I.R. 70 WB - PLAN AND PROFILE
STA. 669+50 TO STA. 683+00

BEL-70-7.61

68
373

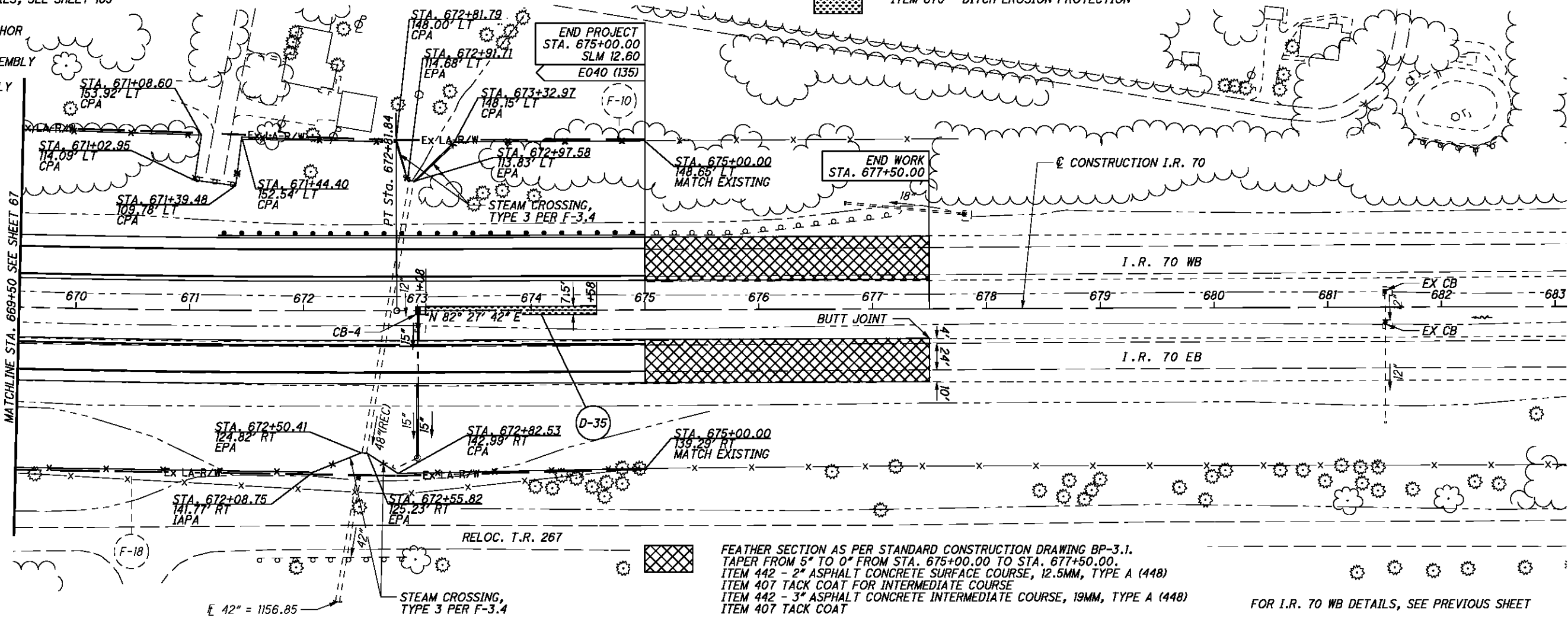


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FOR STORM SEWER DETAILS, SEE SHEET 169

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
 CPA CORNER POST ASSEMBLY
 EPA END POST ASSEMBLY
 LP LINE POST

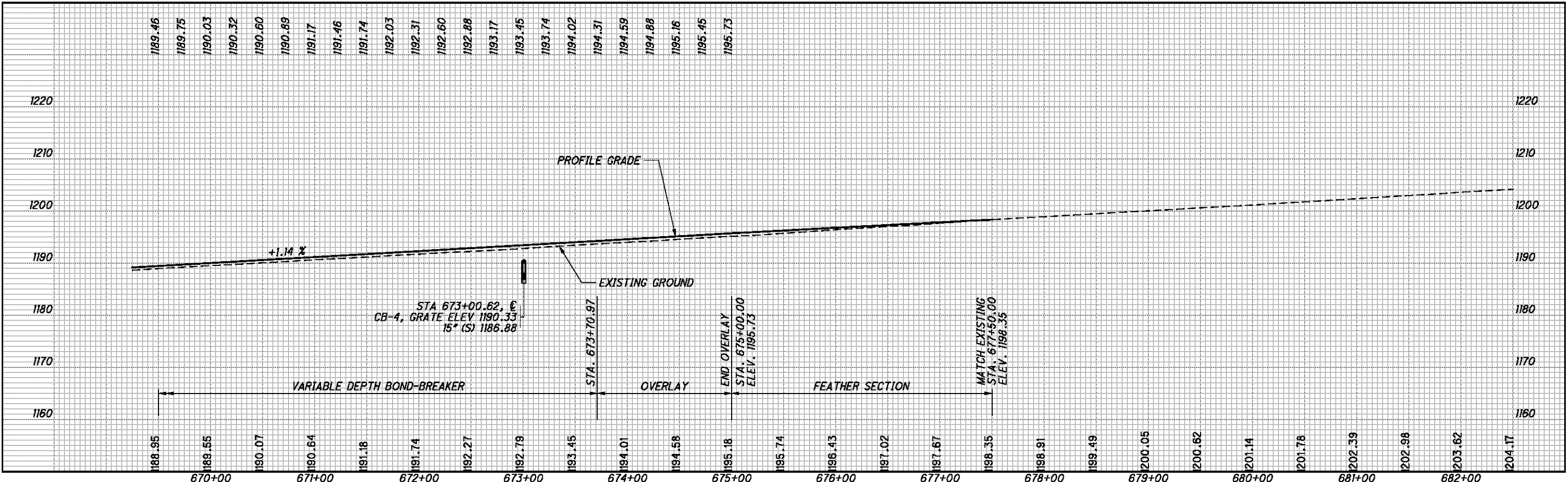
ITEM 670 - DITCH EROSION PROTECTION



IR 70
 CURVE DATA
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36" (LT)$
 $D_c = 0^\circ 28' 00"$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.0178$

FEATHER SECTION AS PER STANDARD CONSTRUCTION DRAWING BP-3.1.
 TAPER FROM 5" TO 0" FROM STA. 675+00.00 TO STA. 677+50.00.
 ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
 ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
 ITEM 442 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
 ITEM 407 TACK COAT

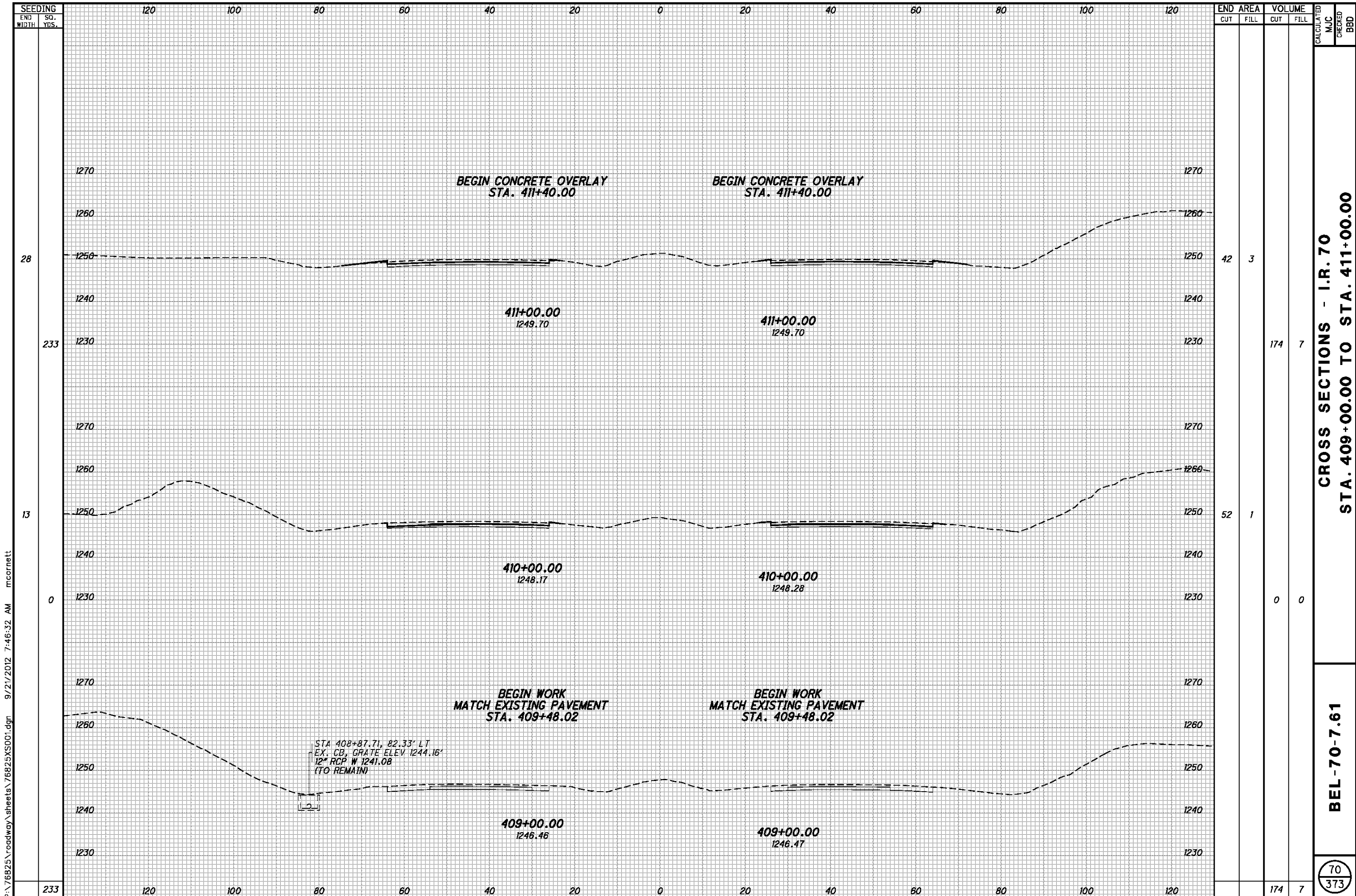
FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



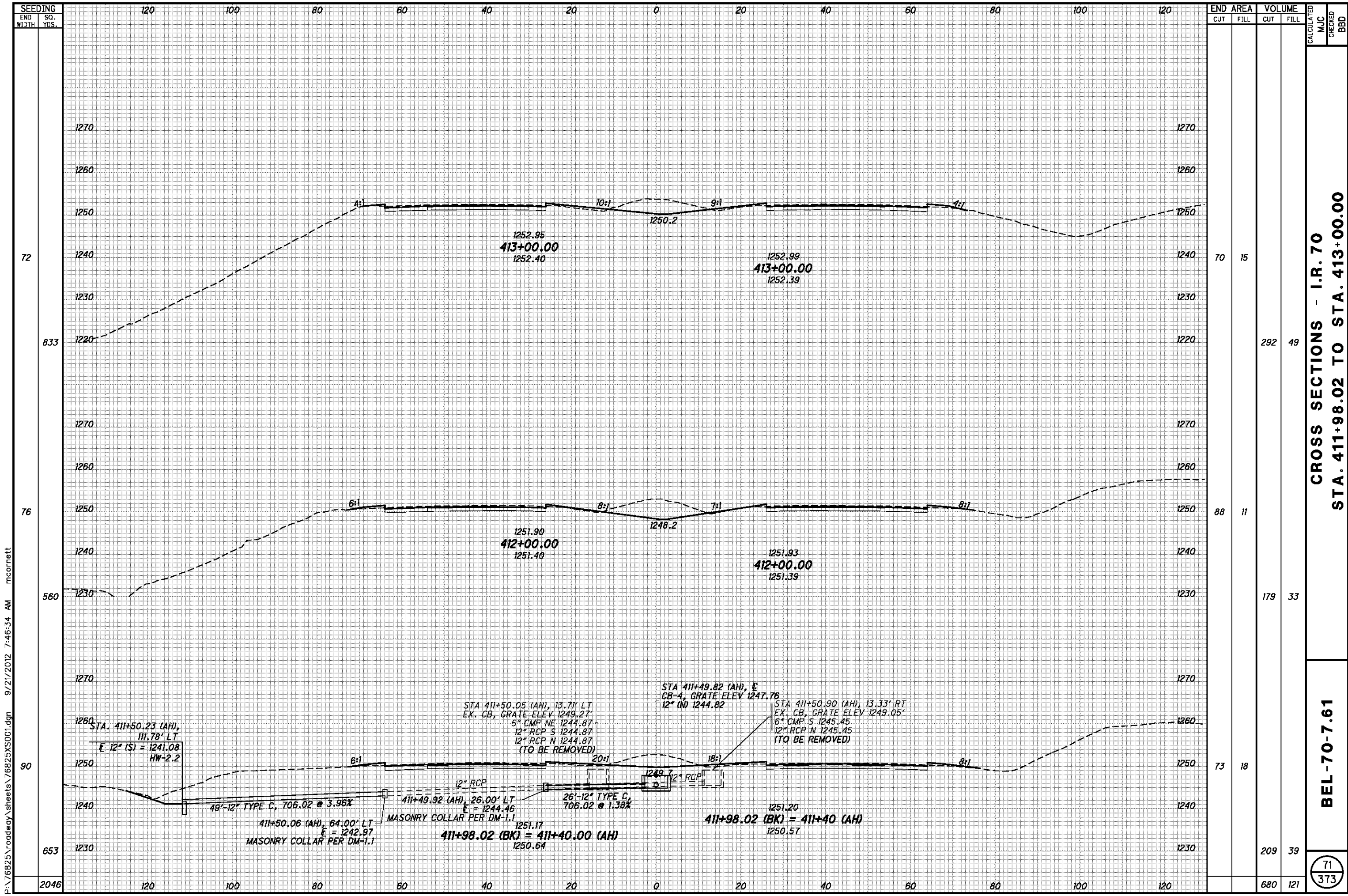
I.R. 70 EB - PLAN AND PROFILE
 STA. 669+50 TO STA. 683+00

BEL-70-7.61

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P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:32 AM mcornett



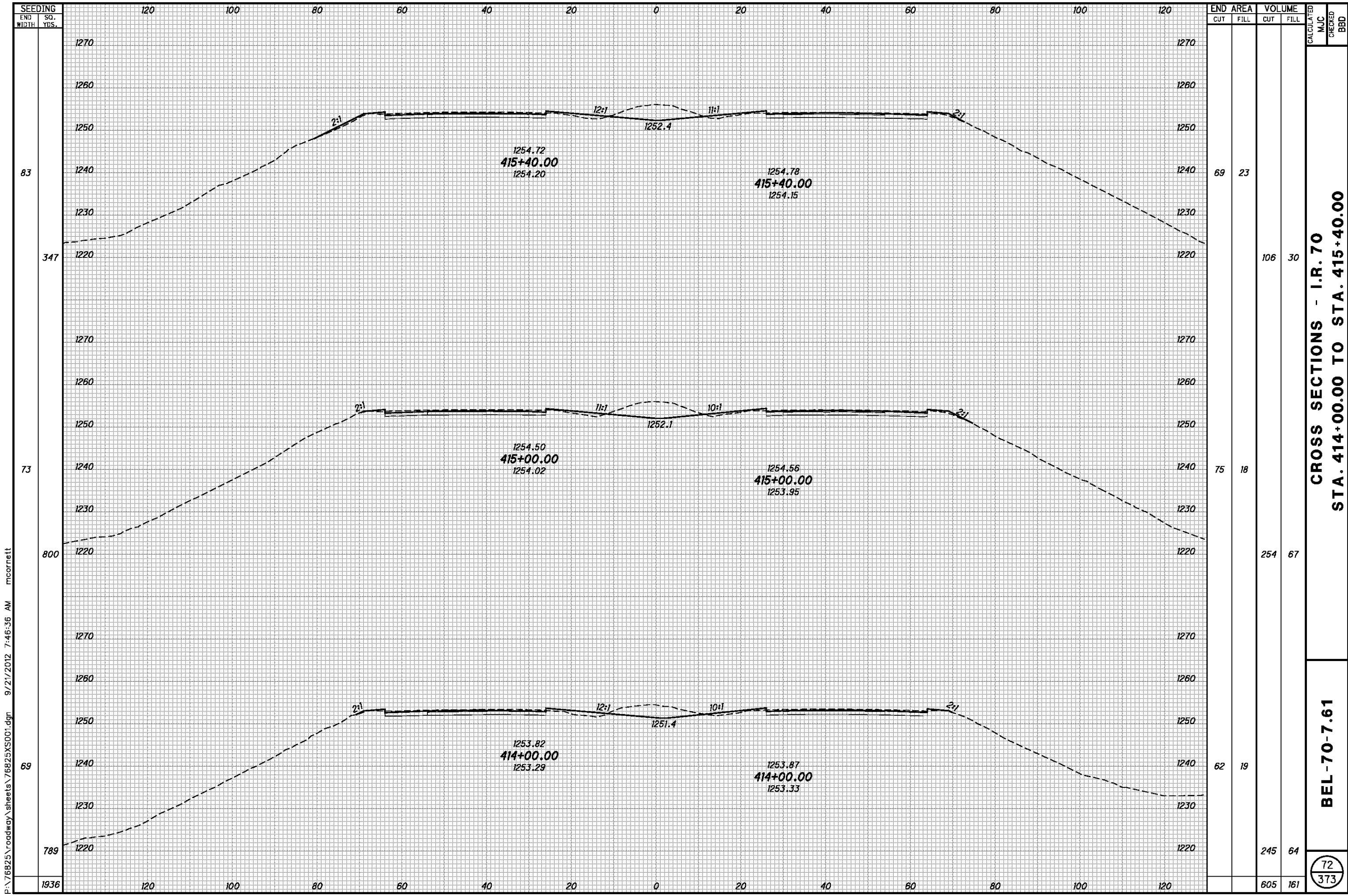
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:34 AM mcornett

END AREA	VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL				
70		15				
88		11				
73		18				
			209	39		
			680	121		

CROSS SECTIONS - I.R. 70
STA. 411+98.02 TO STA. 413+00.00

BEL-70-7.61

71
373



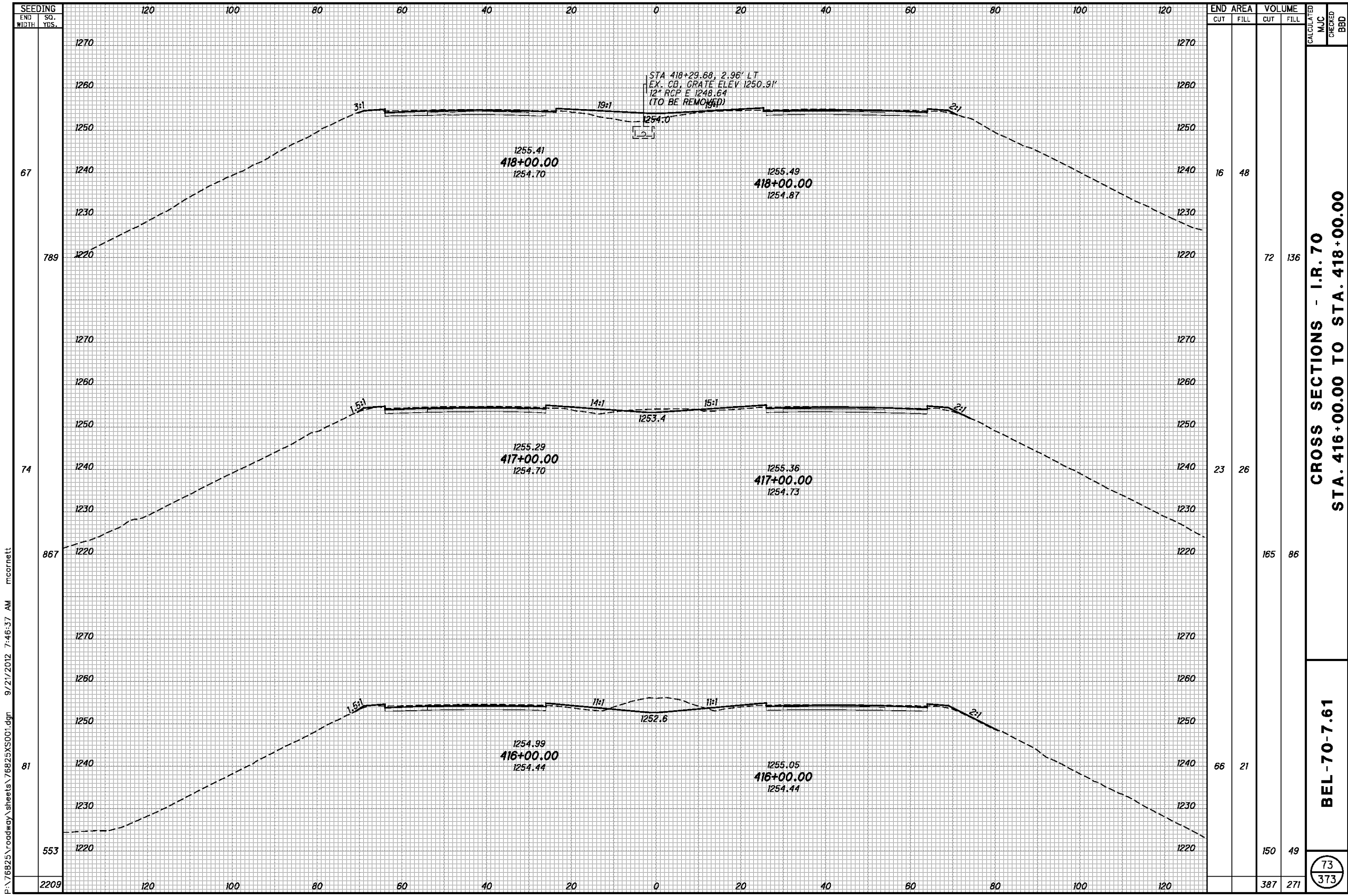
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:36 AM mcorbett

END AREA	VOLUME	CALCULATED	MJC	CHECKED	BBD
69	23				
75	18				
62	19				
106	30				
245	64				
605	161				

**CROSS SECTIONS - I.R. 70
STA. 414+00.00 TO STA. 415+40.00**

BEL-70-7.61

72
373



SEEDING	END	
	WIDTH	SO. YDS.
	67	
	74	
	81	
2209		

END AREA	VOLUME		CALCULATED MJC	CHECKED BBD
	CUT	FILL		
16		48		
23		26		
66		21		
	150	49		
	387	271		

CROSS SECTIONS - I.R. 70
STA. 416+00.00 TO STA. 418+00.00

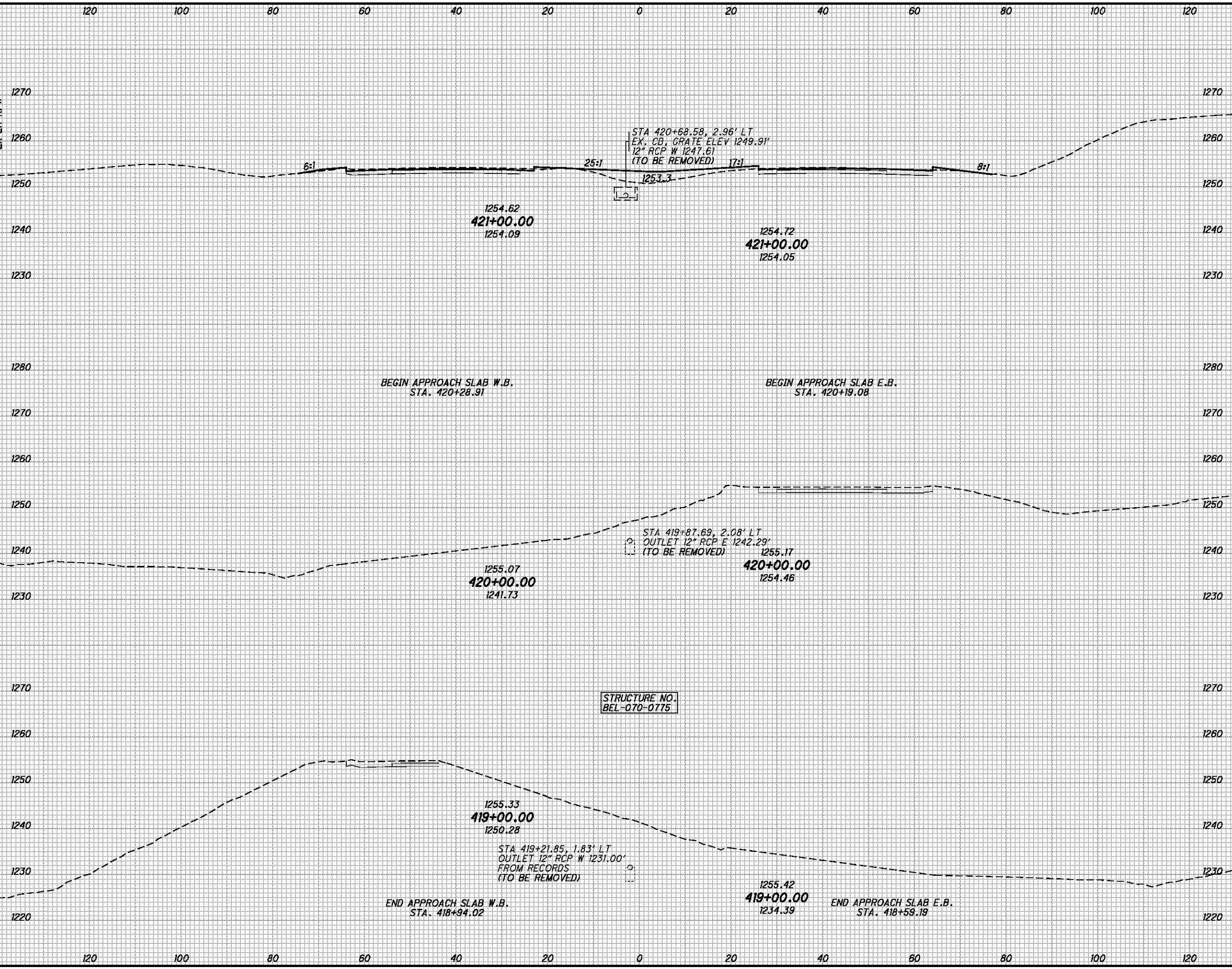
BEL-70-7.61

73
 373

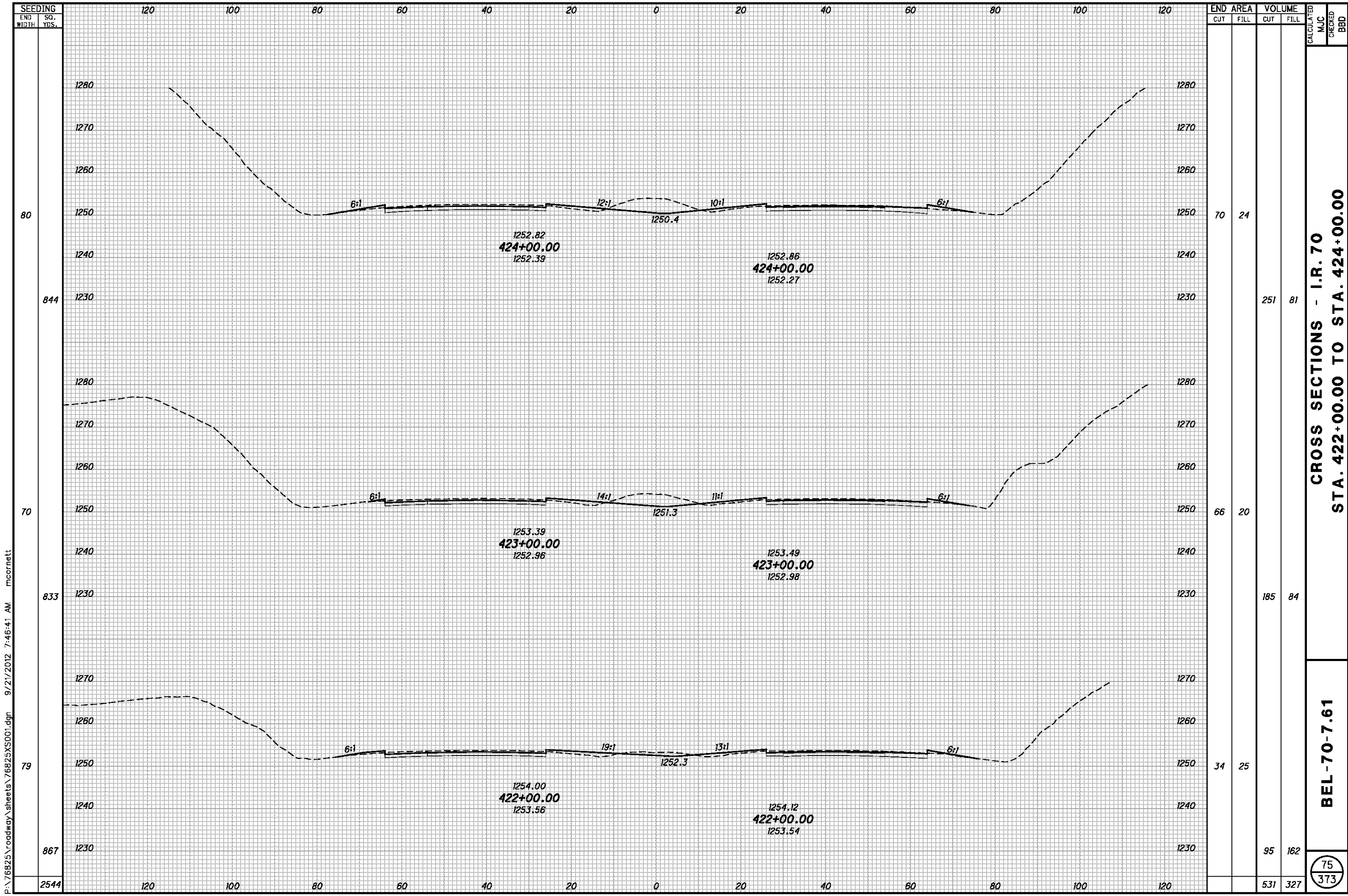
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:37 AM mcorbett

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:39 AM mcorneit

SEEDING	
END WIDTH	SO. YDS.
76	
2400	
2400	



END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
17	62	61	204		
CROSS SECTIONS - I.R. 70 STA. 419+00.00 TO STA. 421+00.00					
BEL-70-7.61					
74 373					



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:41 AM mcornett

SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
80	70	24						
844			251	81				
70	66	20						
833			185	84				
79	34	25						
867			95	162				
2544			531	327				

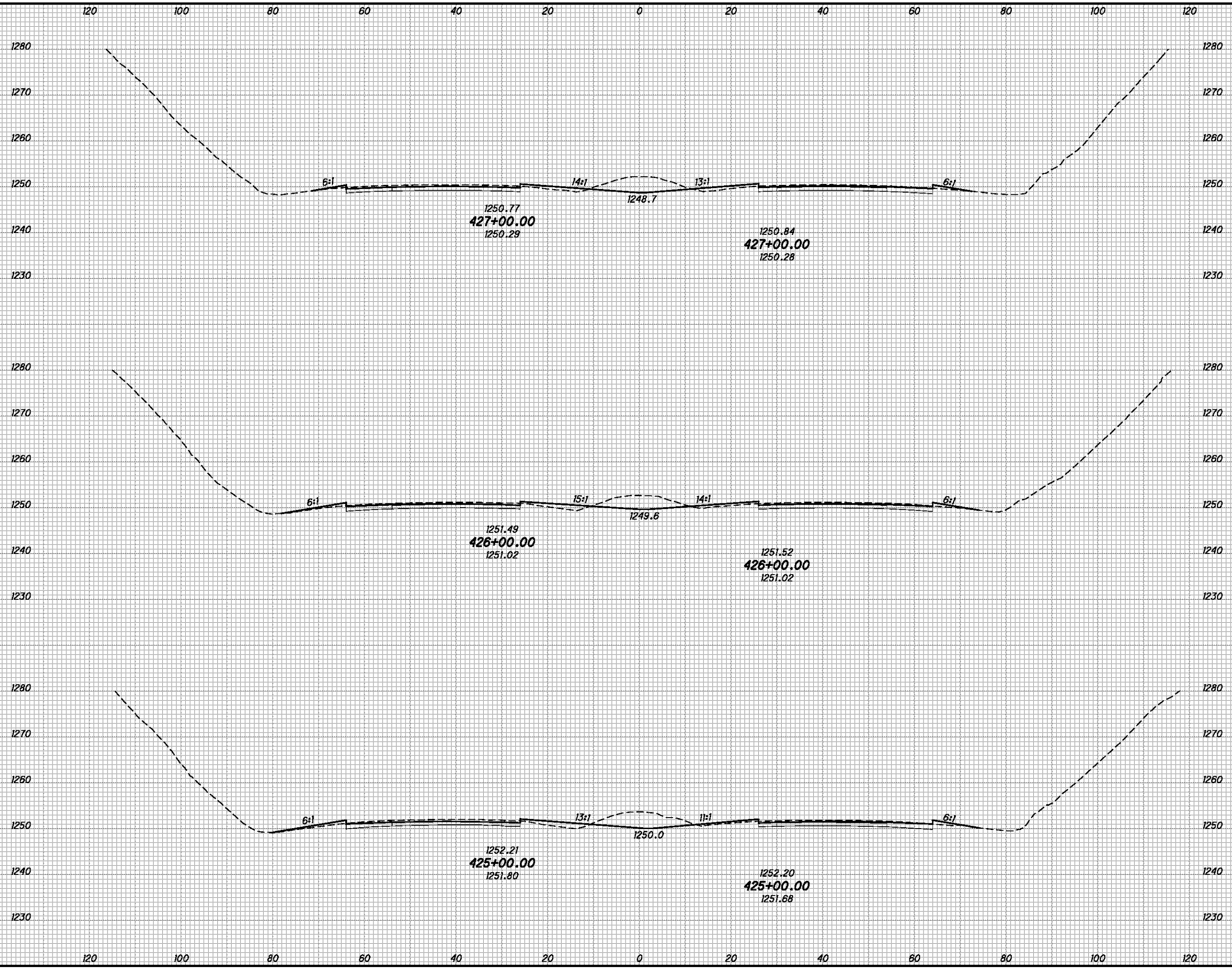
**CROSS SECTIONS - I.R. 70
STA. 422+00.00 TO STA. 424+00.00**

BEL-70-7.61

75
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:43 AM mcornett

SEEDING	END	
	WIDTH	SO. YDS.
73		
855		
80		
900		
82		
911		
2666		

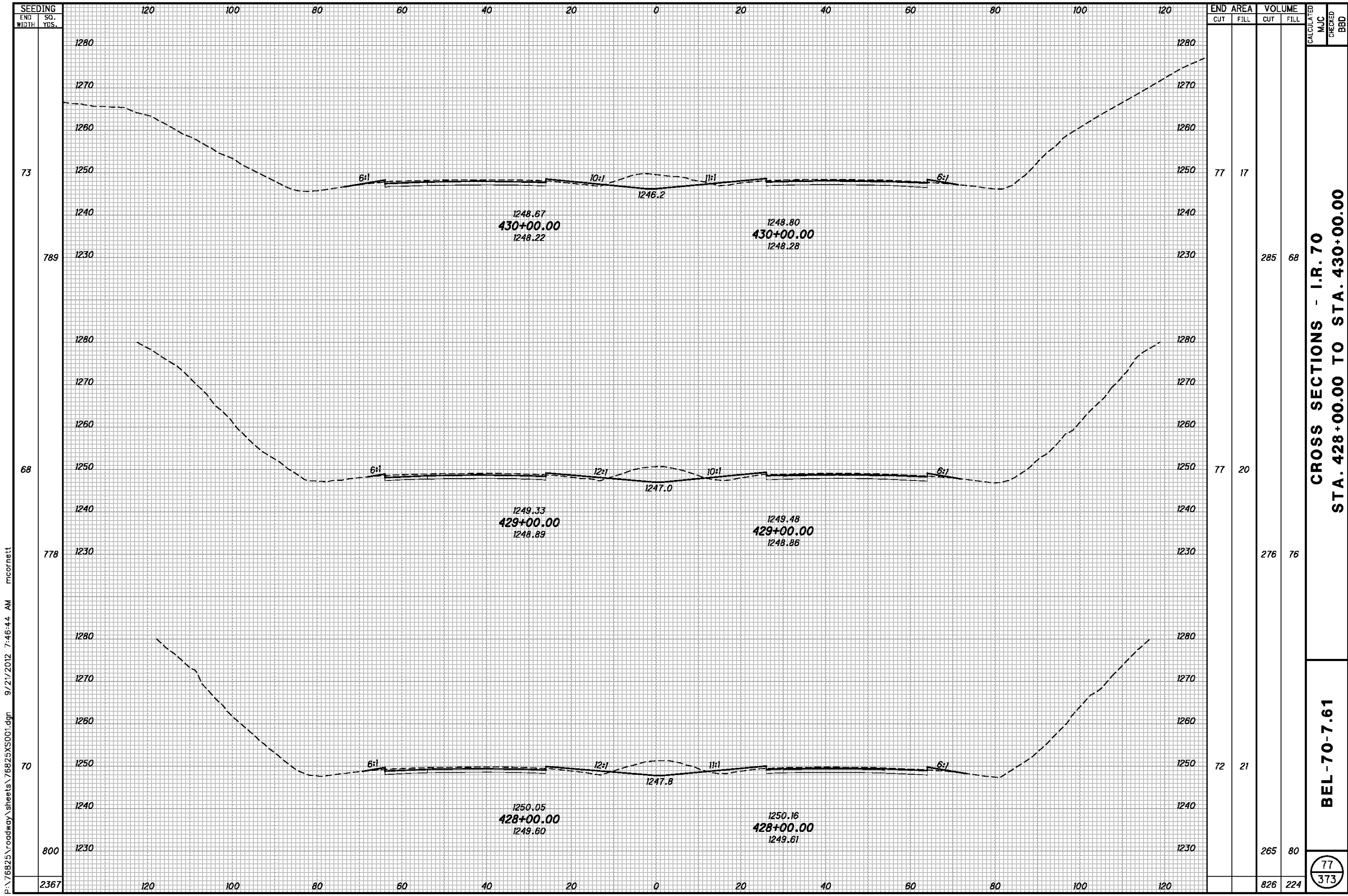


END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
71	22			
	252	89		
65	26			
	258	96		
75	27			
	267	93		
	777	278		

**CROSS SECTIONS - I.R. 70
 STA. 425+00.00 TO STA. 427+00.00**

BEL-70-7.61

76
373



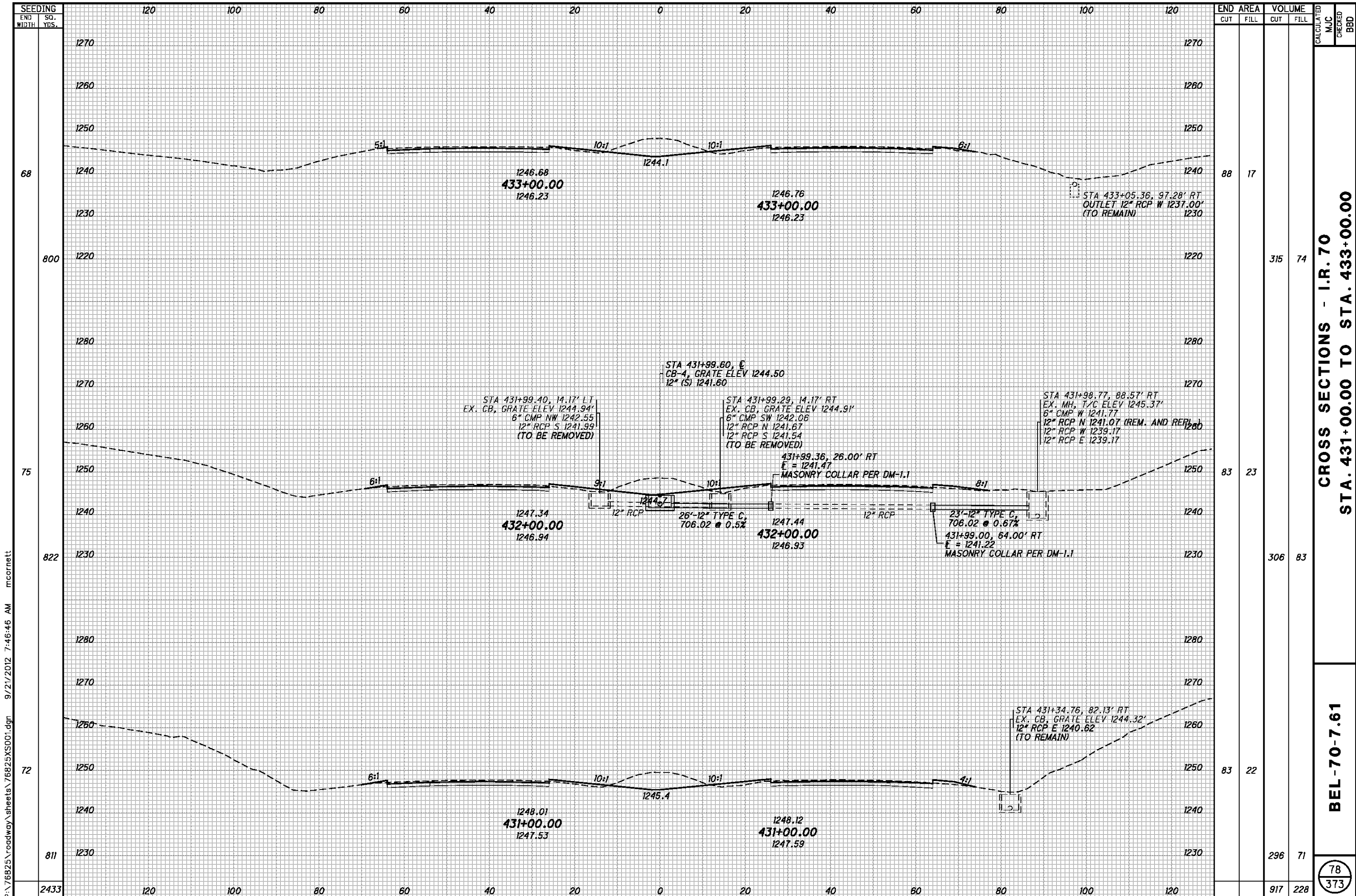
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:44 AM mcorneit

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
73	789	77	17	285	68		
68	778	77	20	276	76		
70	800	72	21	265	80		
2367				826	224		

CROSS SECTIONS - I.R. 70
STA. 428+00.00 TO STA. 430+00.00

BEL-70-7.61

77
373



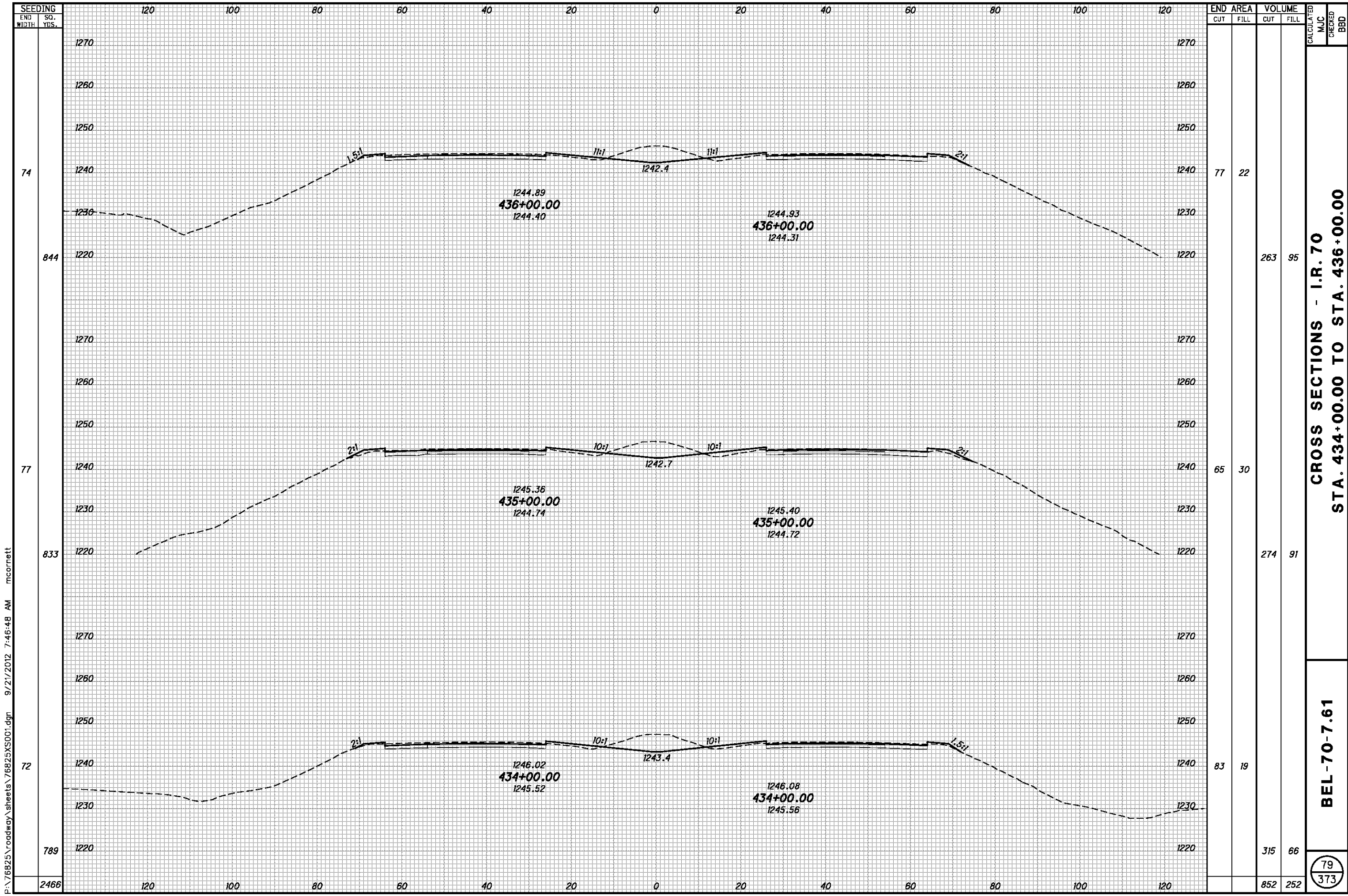
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:46 AM mcorbett

END AREA	VOLUME		CALCULATED	CHECKED	MJC	BBD
	CUT	FILL				
88		17				
800		315	74			
75		23				
822		306	83			
72		22				
811		296	71			
2433	917	228				

CROSS SECTIONS - I.R. 70
STA. 431+00.00 TO STA. 433+00.00

BEL-70-7.61

78
373



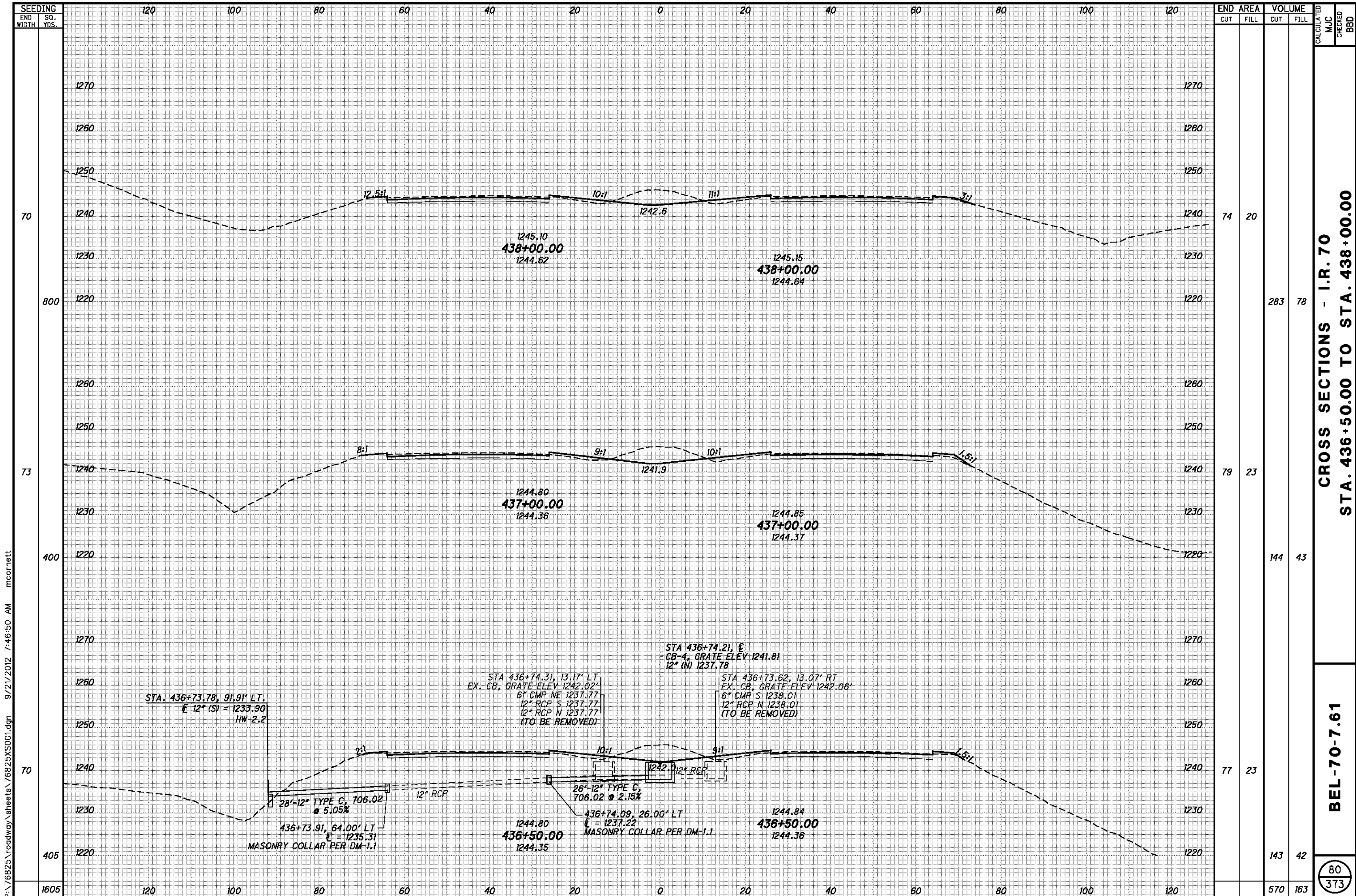
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END AREA	VOLUME	CALCULATED		MJC	CHECKED	BBD
		CUT	FILL			
77	22					
65	30					
83	19					
2466	852	263	95			
		274	91			
		315	66			
		852	252			

CROSS SECTIONS - I.R. 70
STA. 434+00.00 TO STA. 436+00.00

BEL-70-7.61

79
373



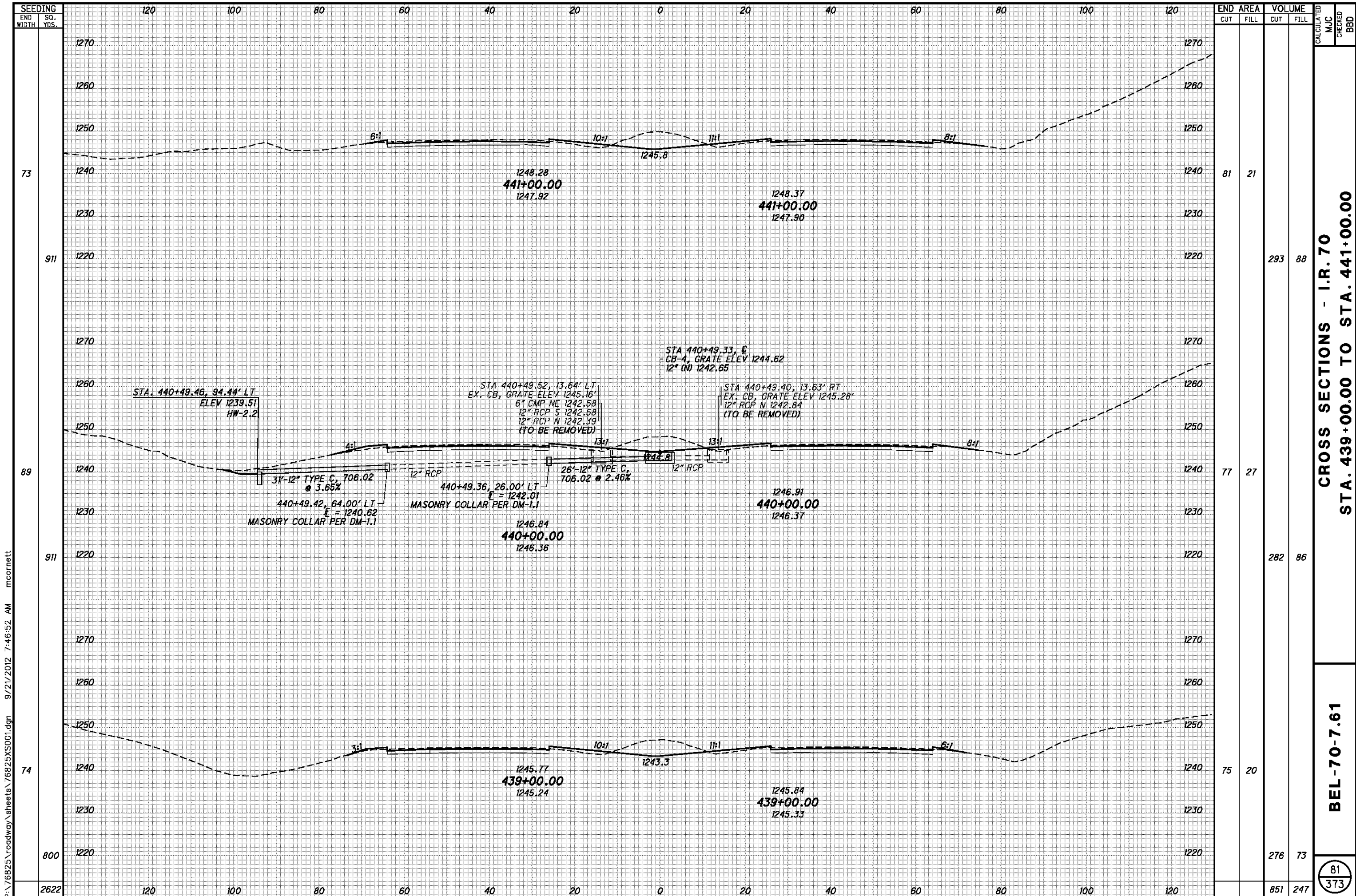
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:50 AM mcornett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
70		74	20				
800				283	78		
73		79	23				
400				144	43		
70		77	23				
405				143	42		
1605				570	163		

CROSS SECTIONS - I.R. 70
STA. 436+50.00 TO STA. 438+00.00

BEL-70-7.61

80
373



SEEDING	END SO.	
	WIDTH	YDS.
73		
911		
89		
911		
74		
800		
2622		

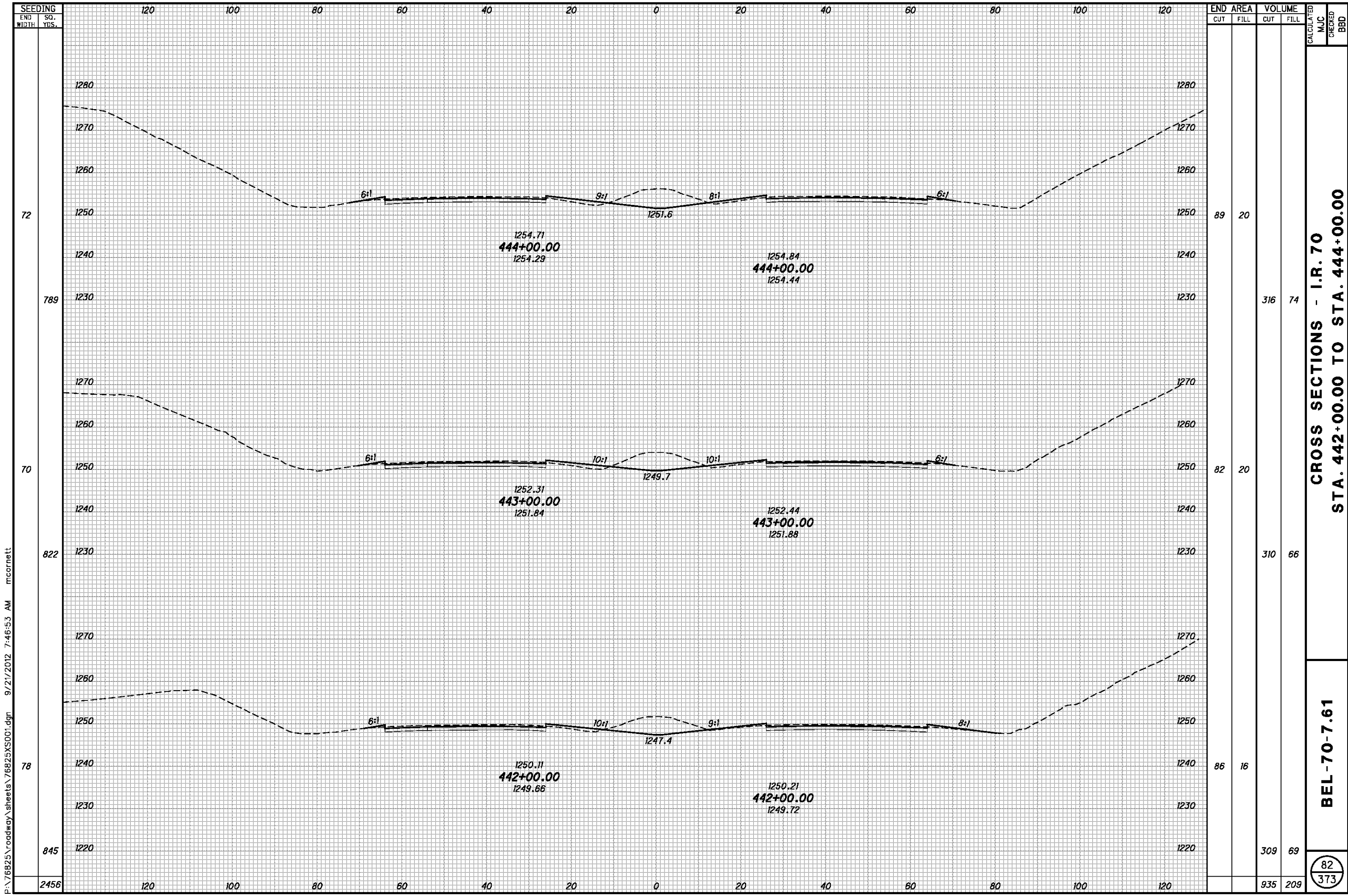
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
81	21			
		293	88	
77	27			
		282	86	
75	20			
		276	73	
		851	247	

CROSS SECTIONS - I.R. 70
STA. 439+00.00 TO STA. 441+00.00

BEL-70-7.61

81
 373

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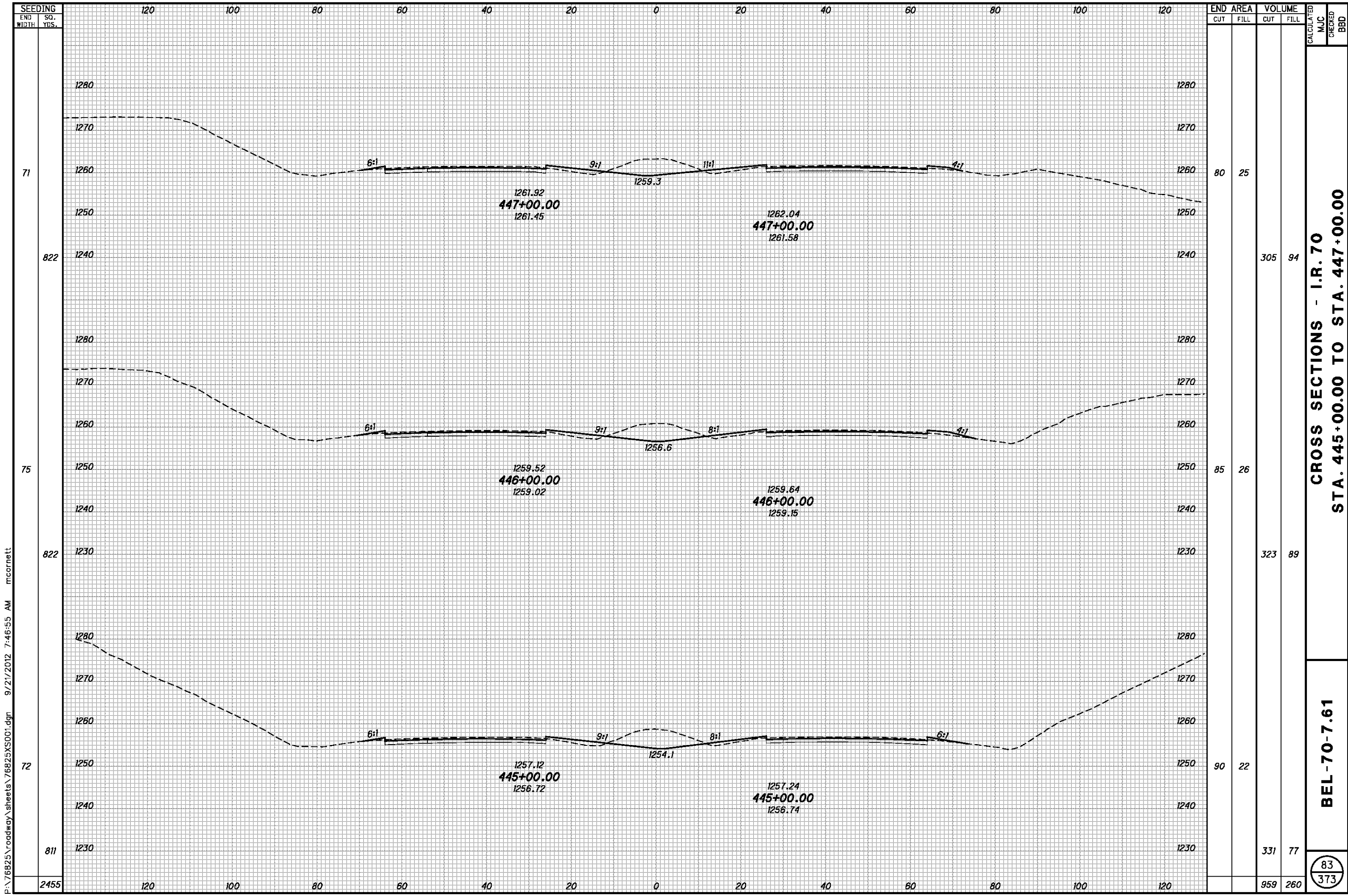
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:53 AM mcorbett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
72	789	89	20	316	74		
70	822	82	20	310	66		
78	845	86	16	309	69		
2456				935	209		

**CROSS SECTIONS - I.R. 70
STA. 442+00.00 TO STA. 444+00.00**

BEL-70-7.61

82
373



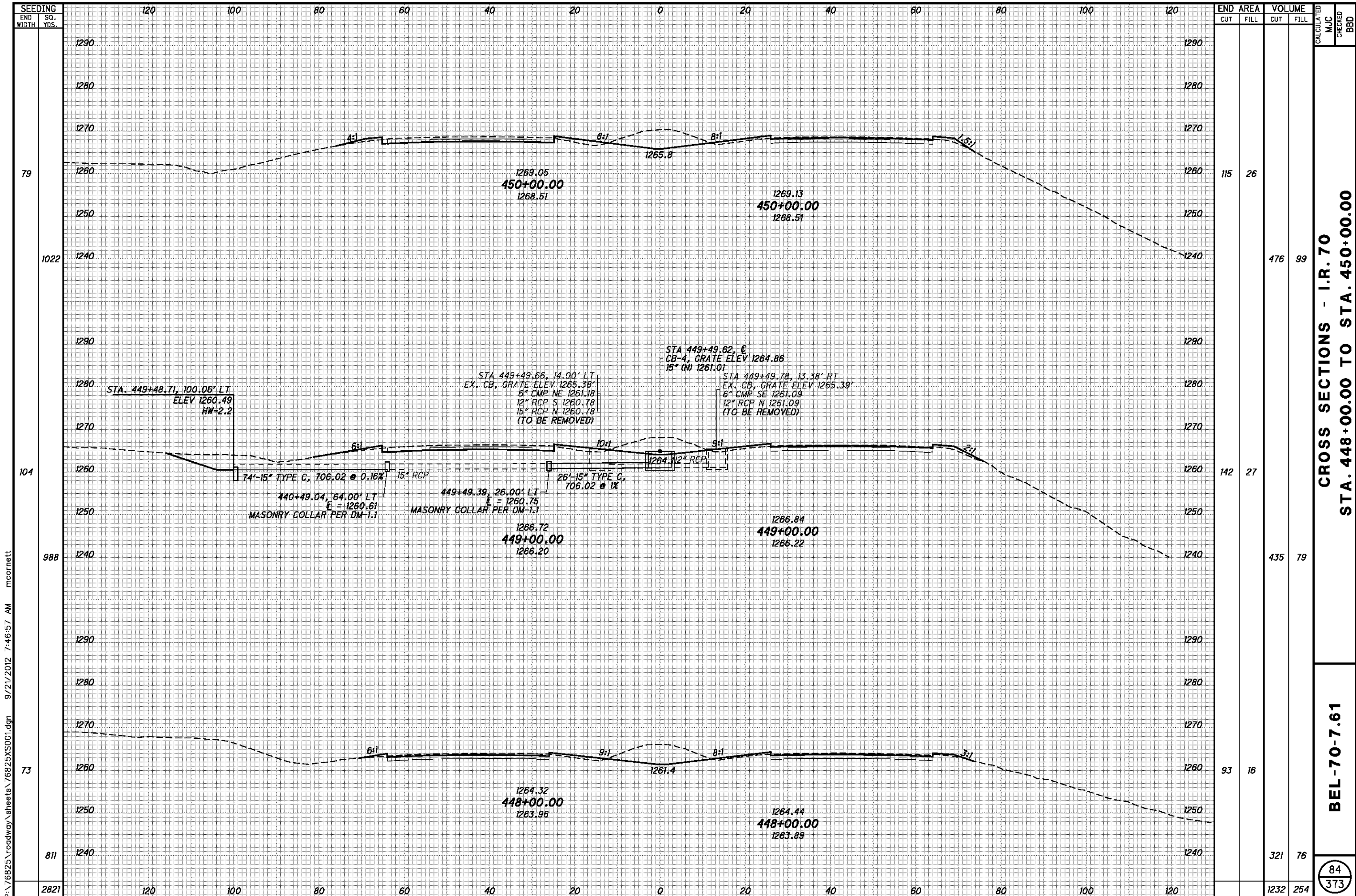
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END AREA	VOLUME	CALCULATED	MJC	CHECKED	BBD
80	25				
822	305	94			
75	26				
822	323	89			
72	22				
811	331	77			
2455	959	260			

**CROSS SECTIONS - I.R. 70
STA. 445+00.00 TO STA. 447+00.00**

BEL-70-7.61

83
373



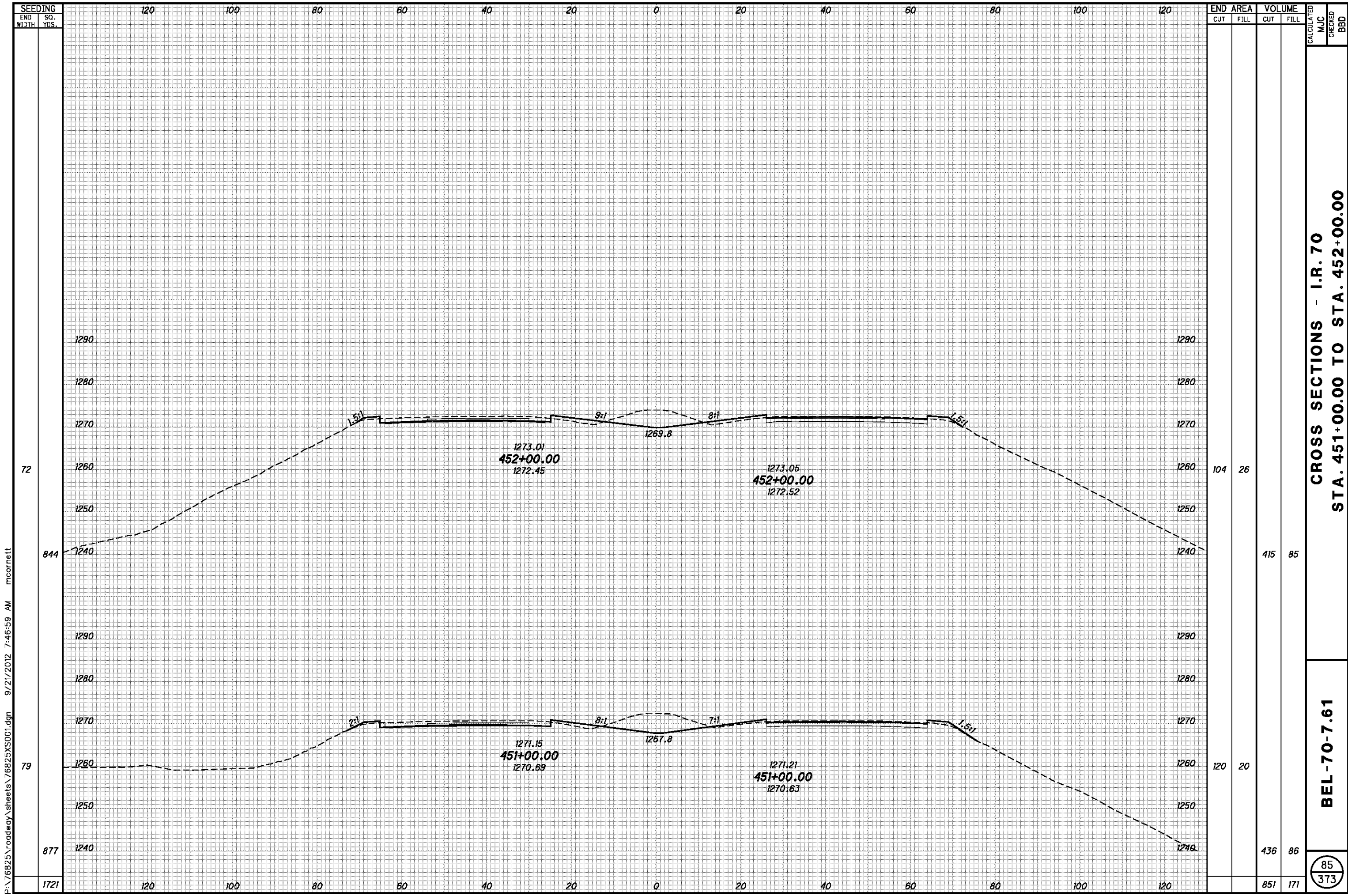
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SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
79	115	26						
1022			476	99				
104	142	27						
988			435	79				
73	93	16						
811			321	76				
2821			1232	254				

CROSS SECTIONS - I.R. 70
STA. 448+00.00 TO STA. 450+00.00

BEL-70-7.61

84
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:59 AM mcorneit

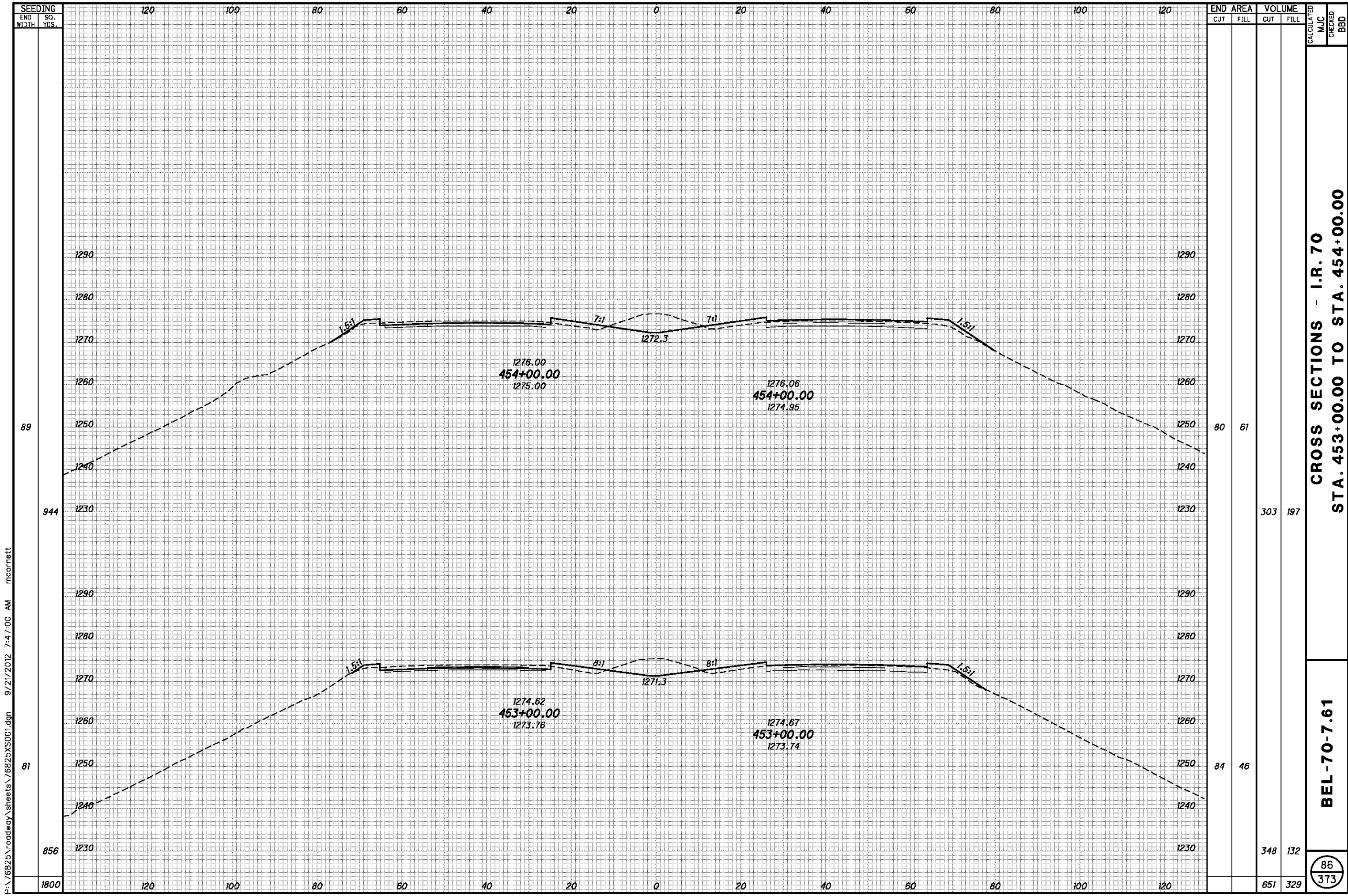
SEEDING	
END WIDTH	SO. YDS.
72	844
79	877
1721	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
104	26	415	85		
120	20	436	86		
		851	171		

**CROSS SECTIONS - I.R. 70
STA. 451+00.00 TO STA. 452+00.00**

BEL-70-7.61

85
373



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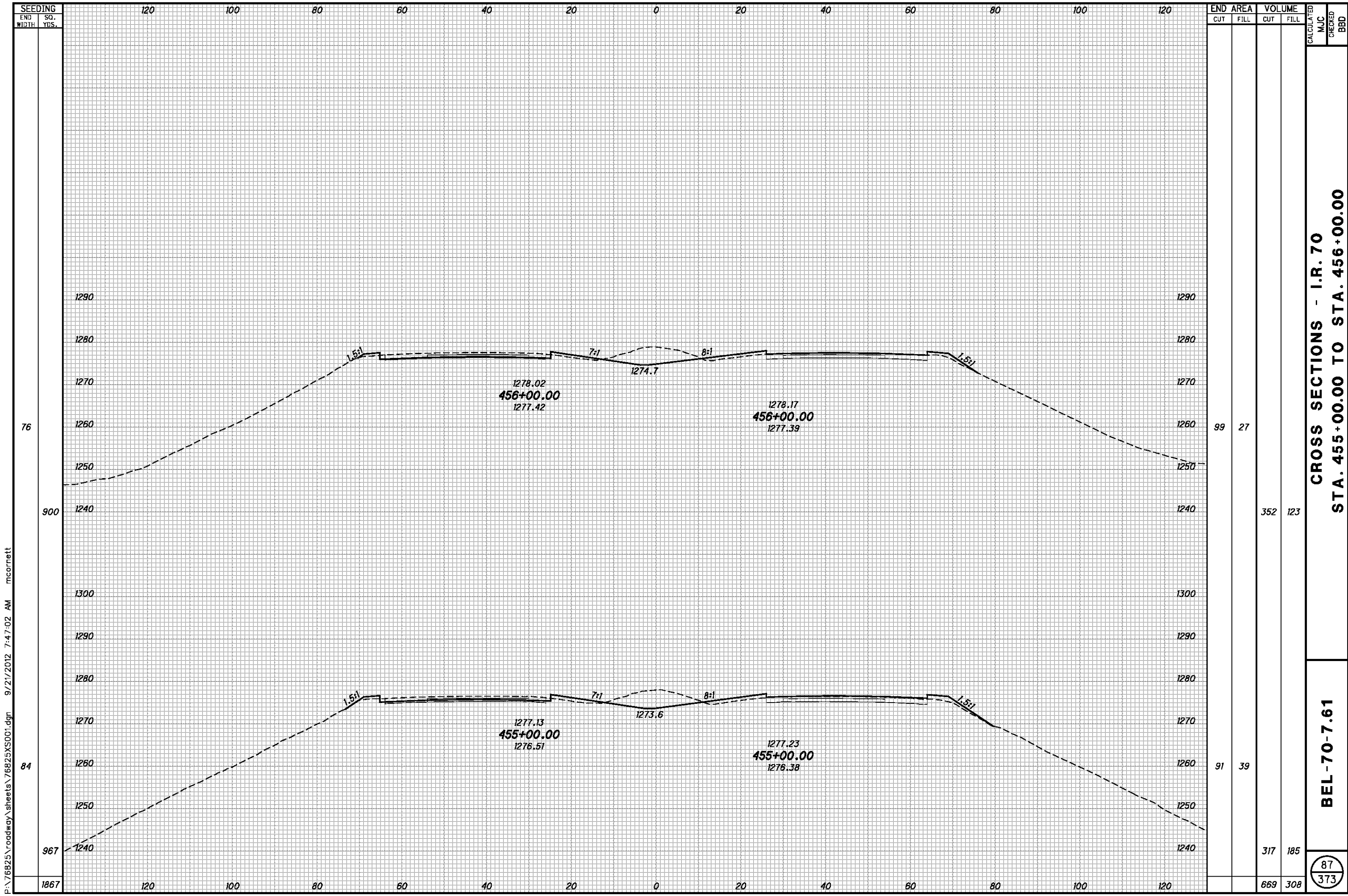
SEEDING	
END WIDTH	SO. YDS.
1800	
856	
81	
944	
89	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
		61			
		303	197		
		46			
		348	132		
		651	329		

**CROSS SECTIONS - I.R. 70
STA. 453+00.00 TO STA. 454+00.00**

BEL-70-7.61

86
373



SEEDING
END SO.
WIDTH YDS.
76
900
84
967
1867

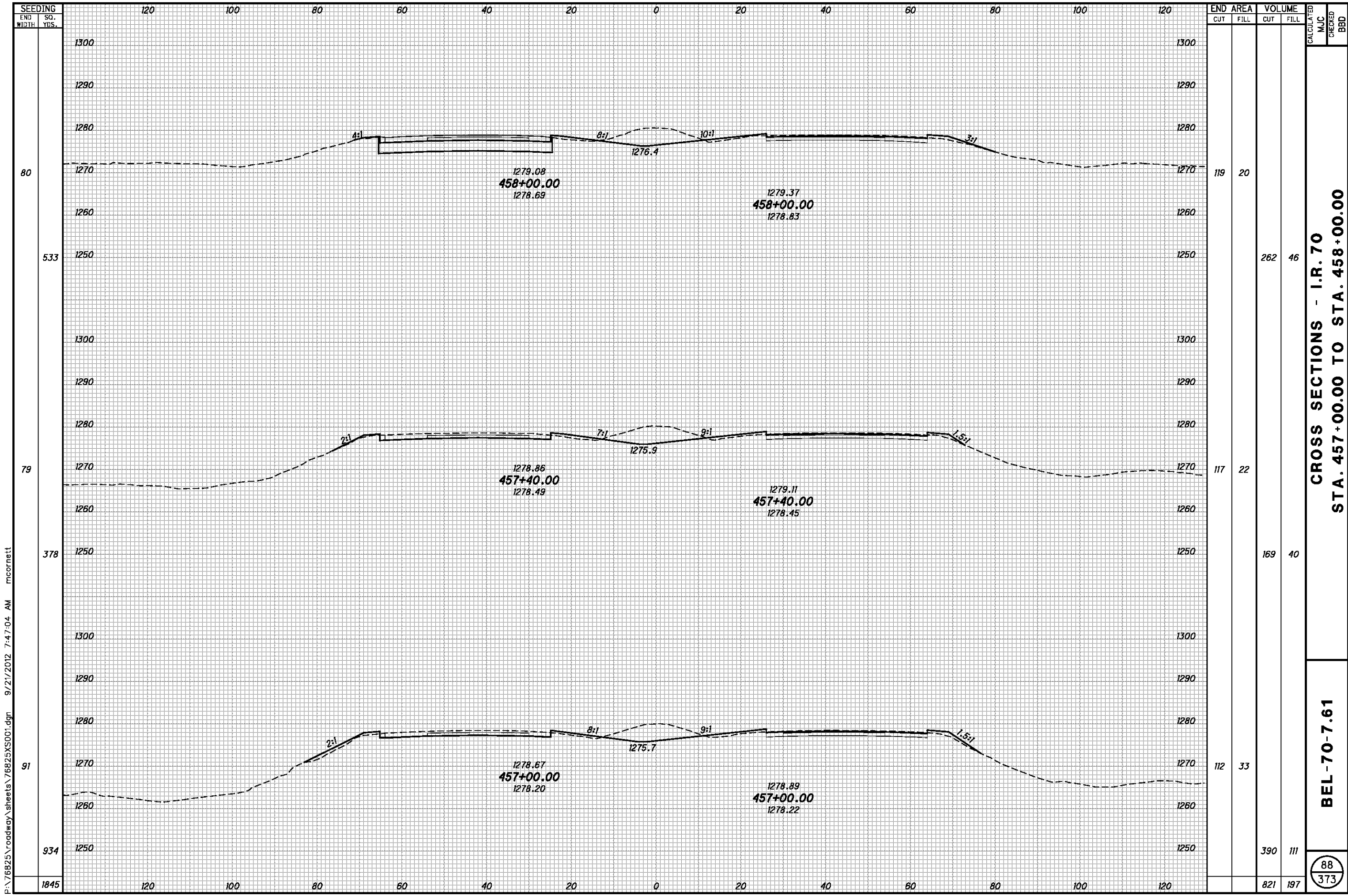
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
99	27	352	123		
91	39	317	185		
		669	308		

CROSS SECTIONS - I.R. 70
STA. 455+00.00 TO STA. 456+00.00

BEL-70-7.61

87
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:02 AM mcorbett



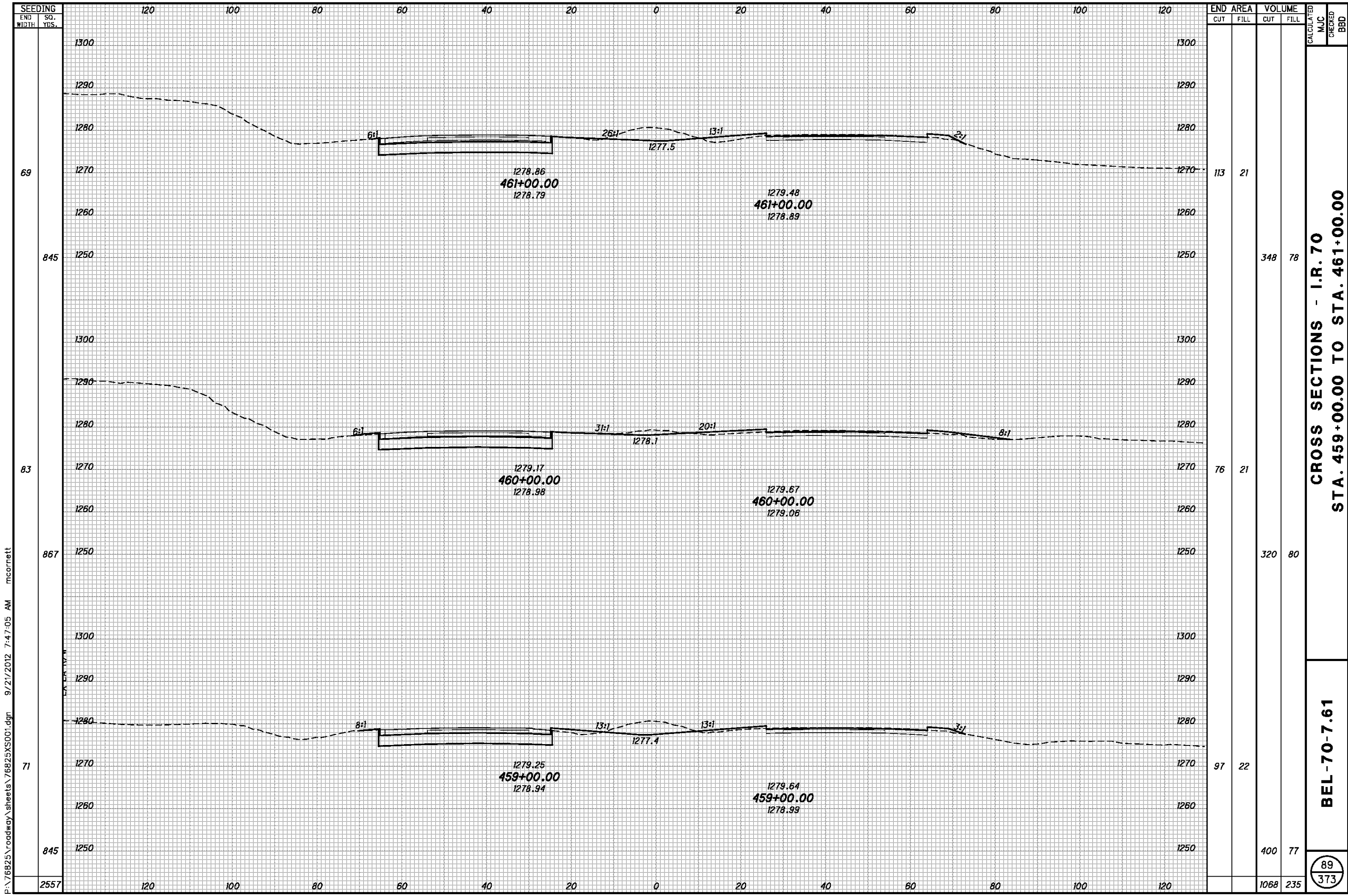
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:04 AM mcornett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
80		119	20				
533				262	46		
79		117	22				
378				169	40		
91		112	33				
934				390	111		
1845				821	197		

CROSS SECTIONS - I.R. 70
STA. 457+00.00 TO STA. 458+00.00

BEL-70-7.61

88
373



SEEDING	END SO.	
	WIDTH	YDS.
69		
845		
83		
867		
71		
845		
2557		

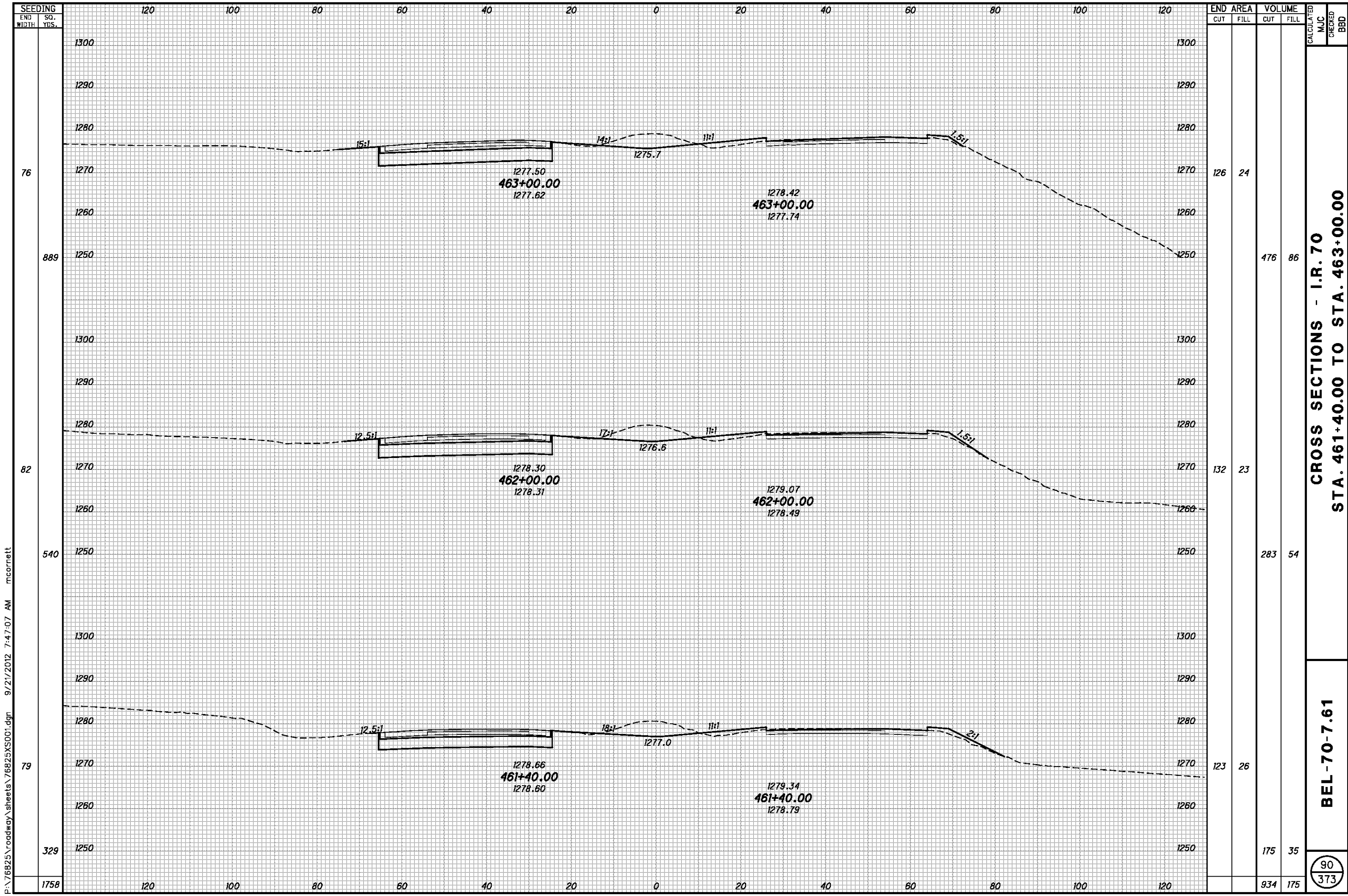
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
113	21			
	348	78		
76	21			
	320	80		
97	22			
	400	77		
	1068	235		

**CROSS SECTIONS - I.R. 70
STA. 459+00.00 TO STA. 461+00.00**

BEL-70-7.61

89
373

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SEEDING	
END WIDTH	SO. YDS.
76	
889	
82	
540	
79	
329	
1758	

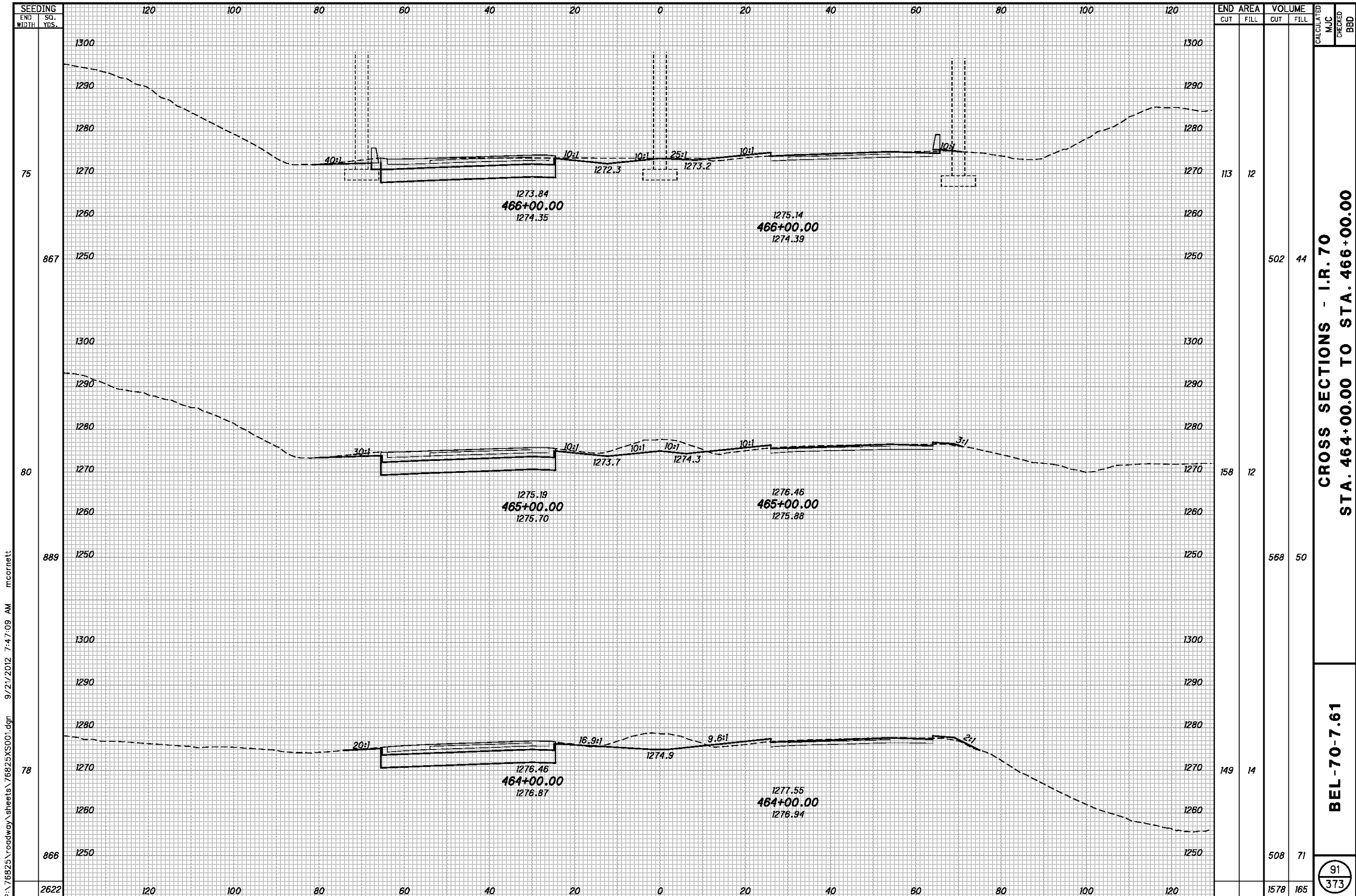
END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	MJC	BBD
126	24	476	86		
132	23	283	54		
123	26	175	35		
		934	175		

CROSS SECTIONS - I.R. 70
STA. 461+40.00 TO STA. 463+00.00

BEL-70-7.61

90
 373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:07 AM mcorbett



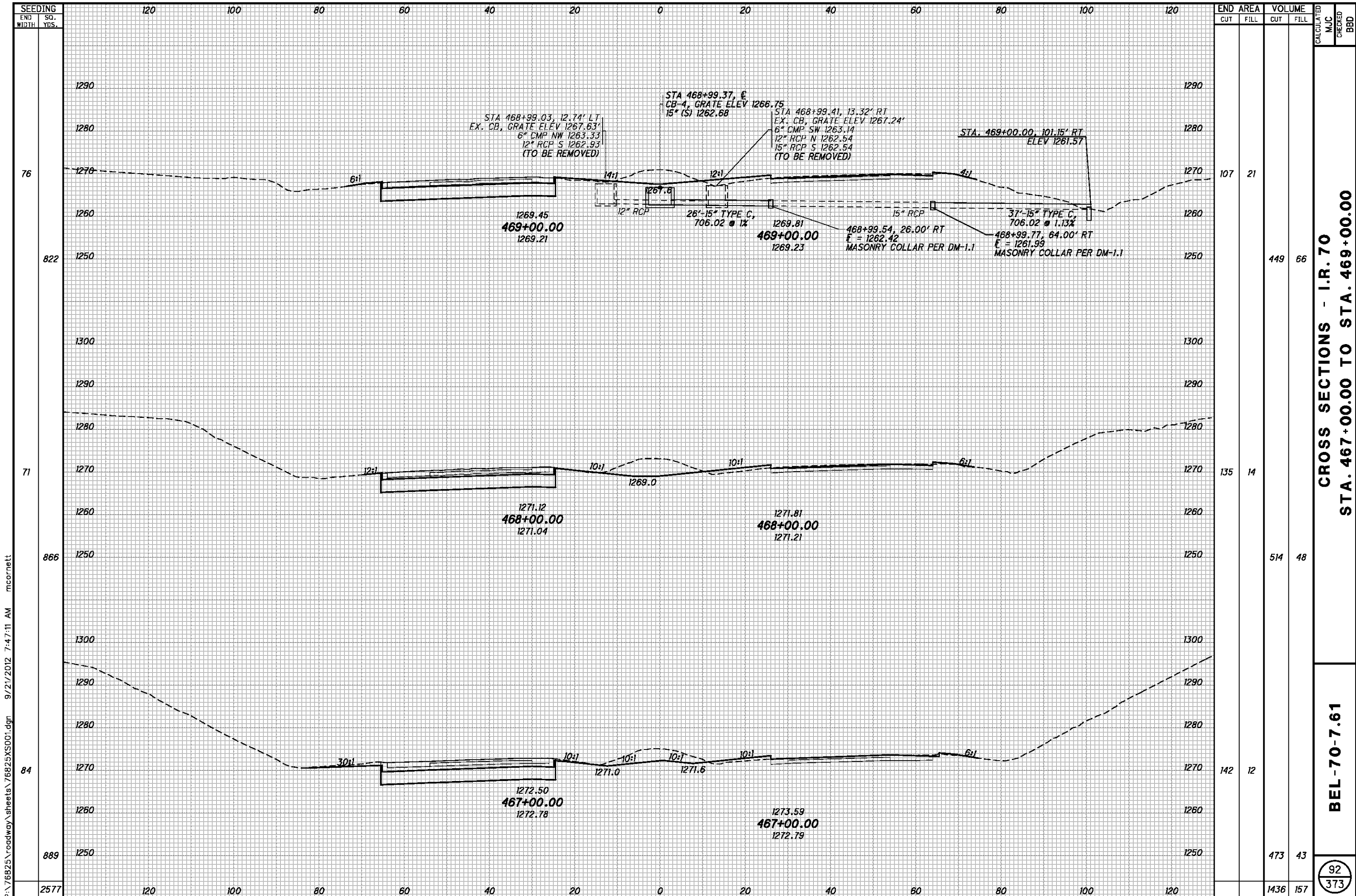
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:47:09 AM mcornett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
75		113	12				
867				502	44		
80		158	12				
889				568	50		
78		149	14				
866				508	71		
2622				1578	165		

**CROSS SECTIONS - I.R. 70
STA. 464+00.00 TO STA. 466+00.00**

BEL-70-7.61

91
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:11 AM mcorneett

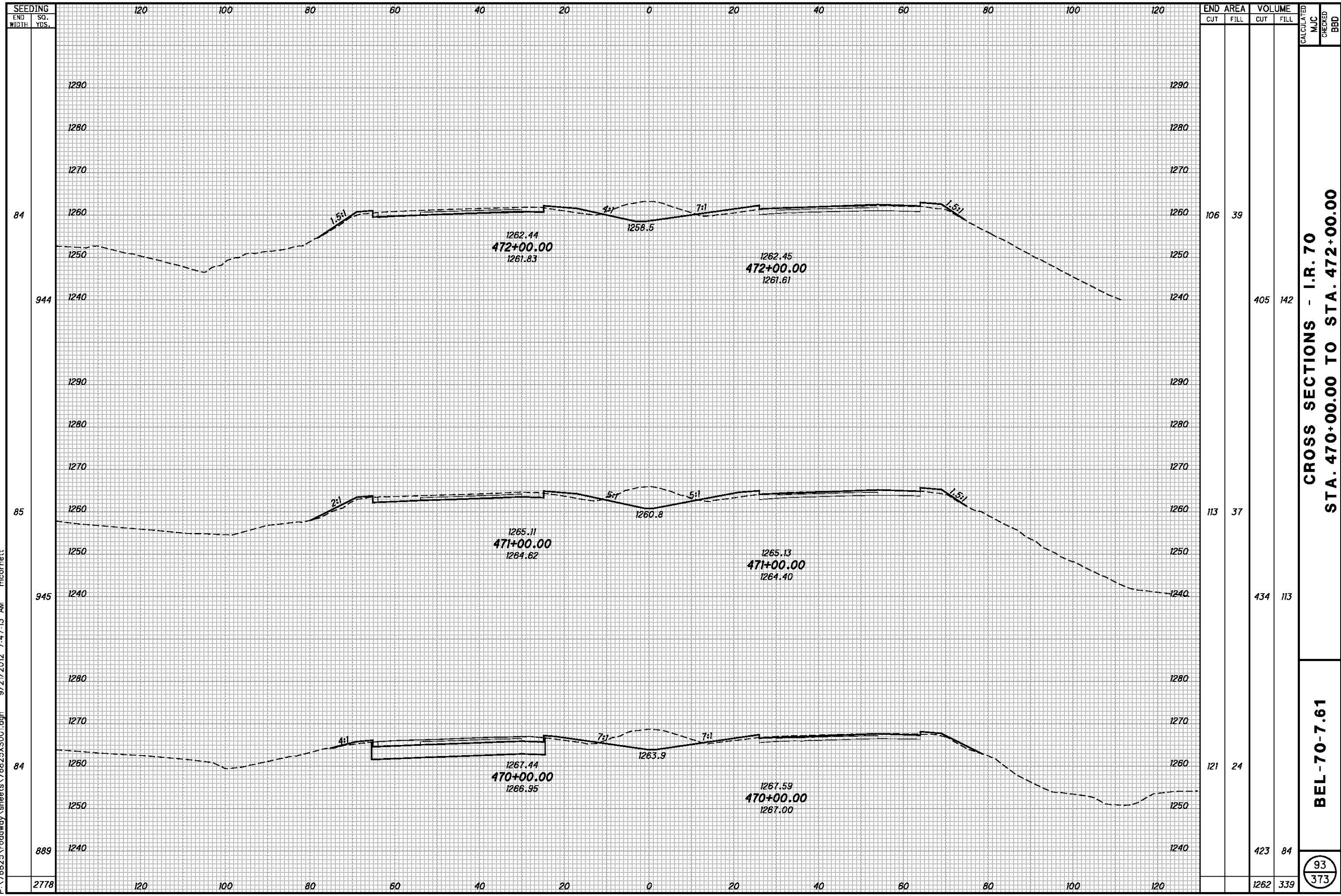
SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
76	107	21	449	66				
71	135	14	514	48				
84	142	12	473	43				
2577			1436	157				

CROSS SECTIONS - I.R. 70
STA. 467+00.00 TO STA. 469+00.00

BEL-70-7.61

92
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:13 AM mcornett



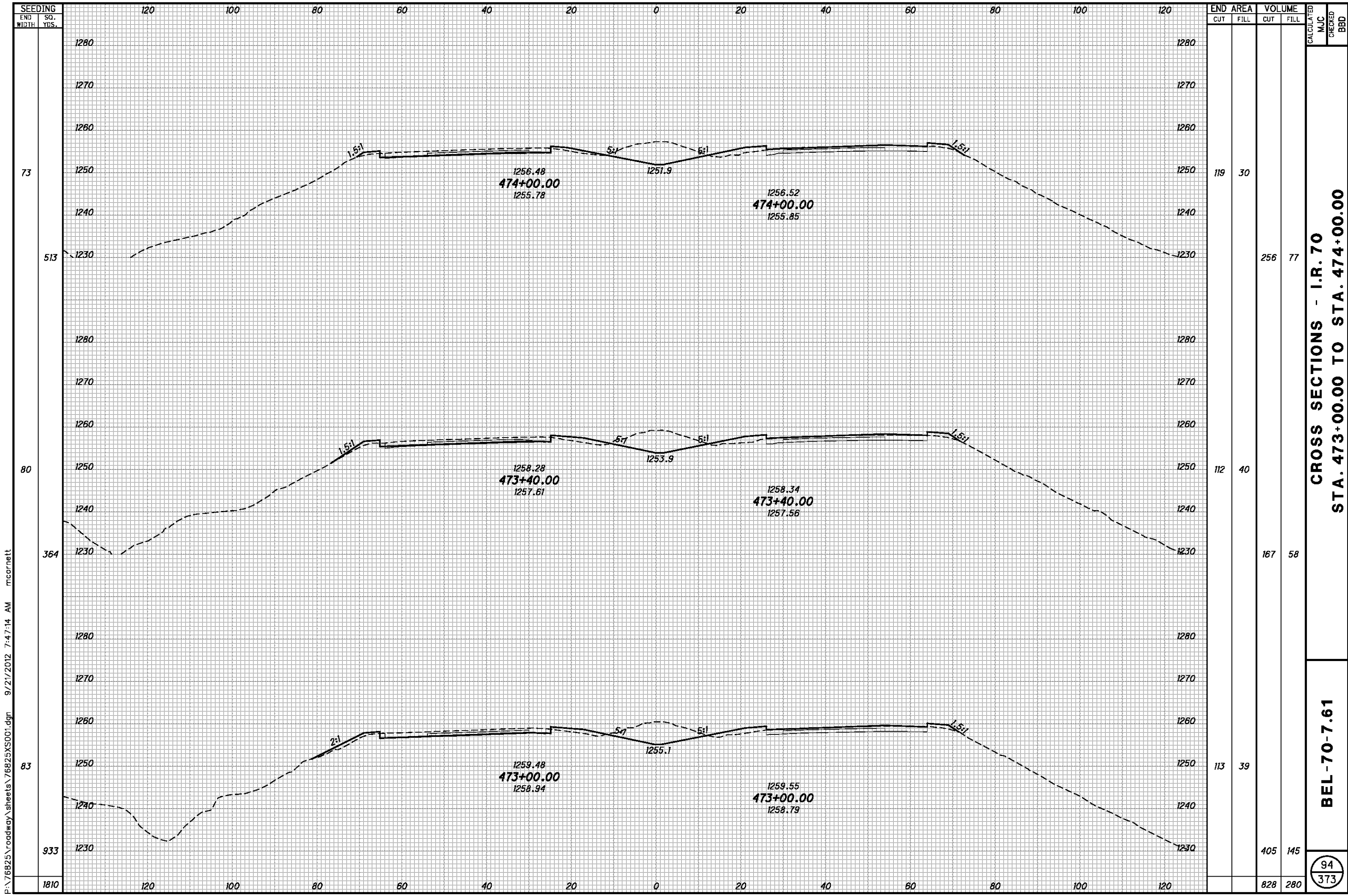
SEEDING	
END WIDTH	SO. YDS.
84	
944	
85	
945	
84	
889	
2778	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
106	39	405	142		
113	37	434	113		
121	24	423	84		
		1262	339		

**CROSS SECTIONS - I.R. 70
STA. 470+00.00 TO STA. 472+00.00**

BEL-70-7.61

93
373



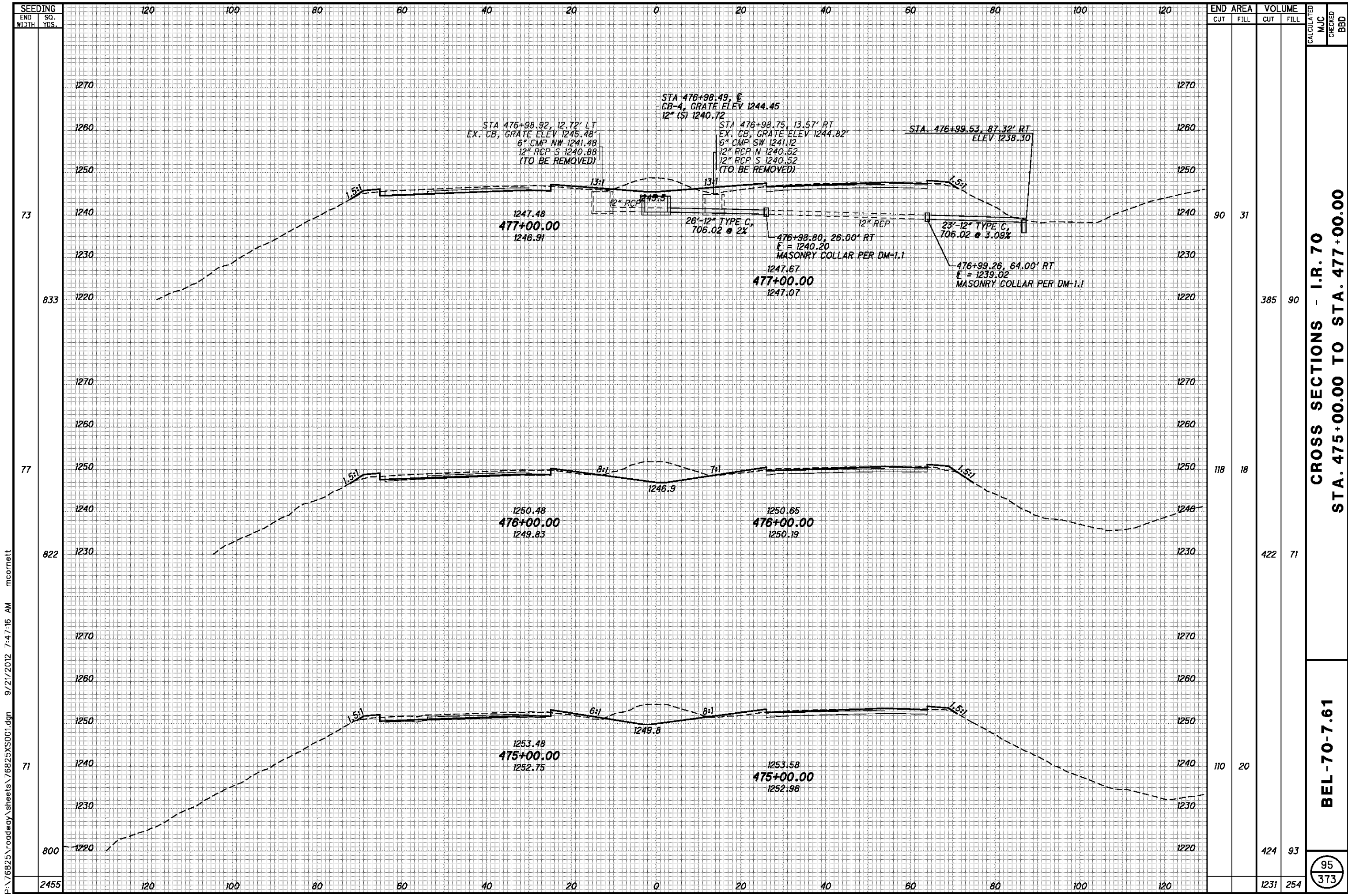
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:14 AM mcornett

END STA.	AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
73	119	30	256	77				
80	112	40	167	58				
83	113	39	405	145				
1810			828	280				

**CROSS SECTIONS - I.R. 70
STA. 473+00.00 TO STA. 474+00.00**

BEL-70-7.61

94
373

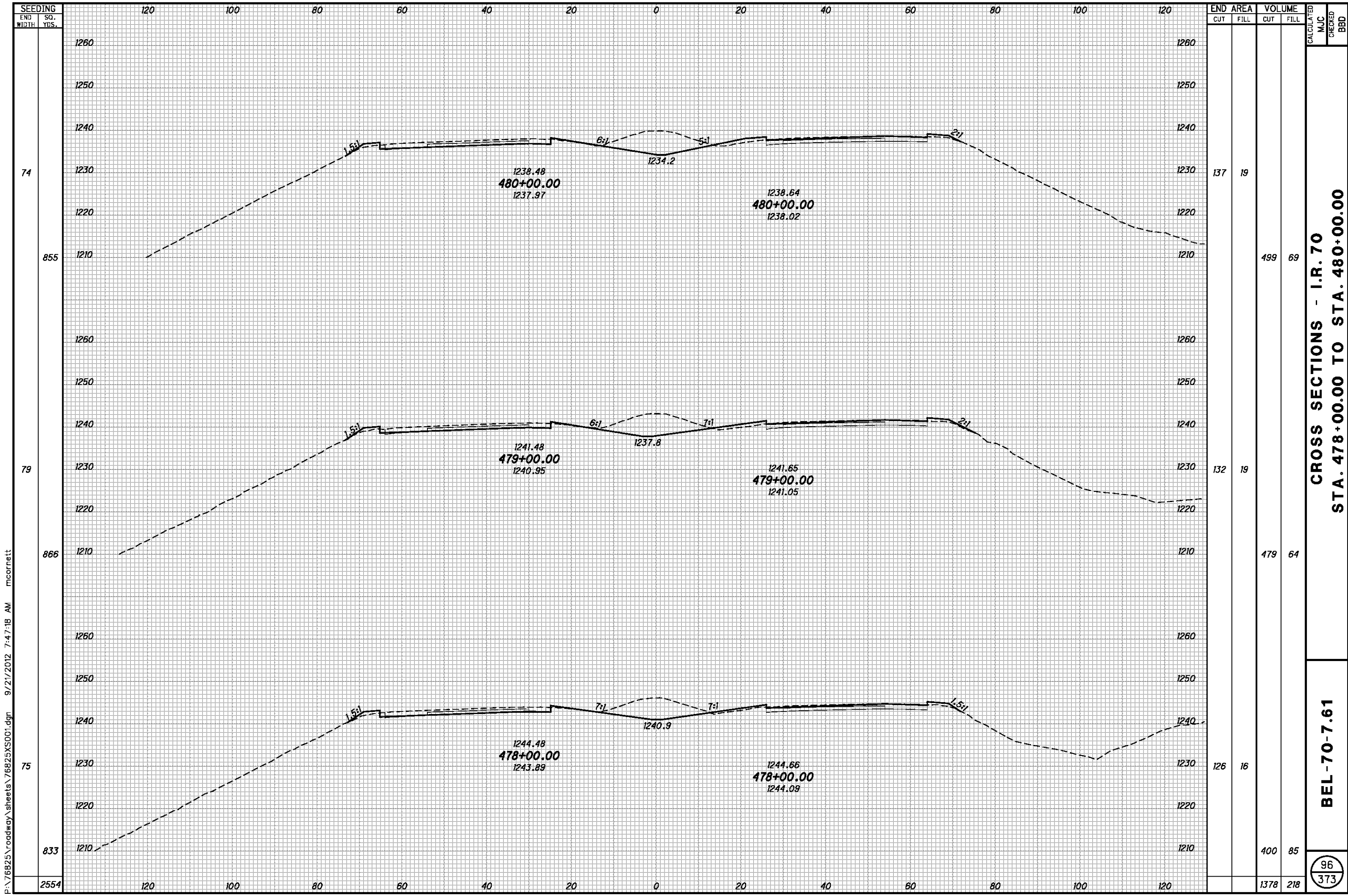


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CROSS SECTIONS - I.R. 70
STA. 475+00.00 TO STA. 477+00.00

BEL-70-7.61

95
 373



SEEDING	END WIDTH		SO. YDS.
	CUT	FILL	
74	855		
79	866		
75	833		
2554			

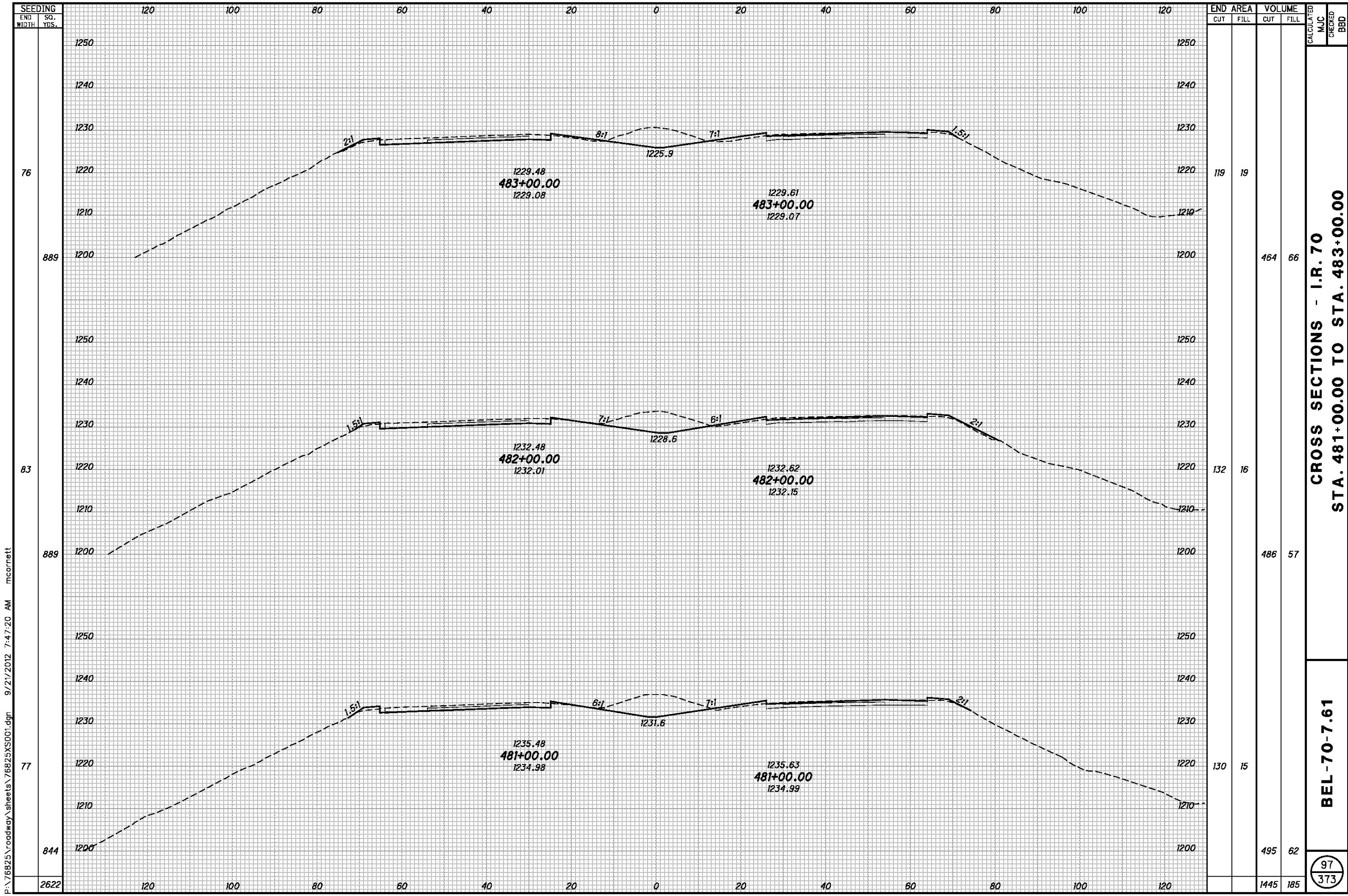
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
137	499	69		
132	479	64		
126	400	85		
	1378	218		

**CROSS SECTIONS - I.R. 70
STA. 478+00.00 TO STA. 480+00.00**

BEL-70-7.61

96
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:18 AM mcornett



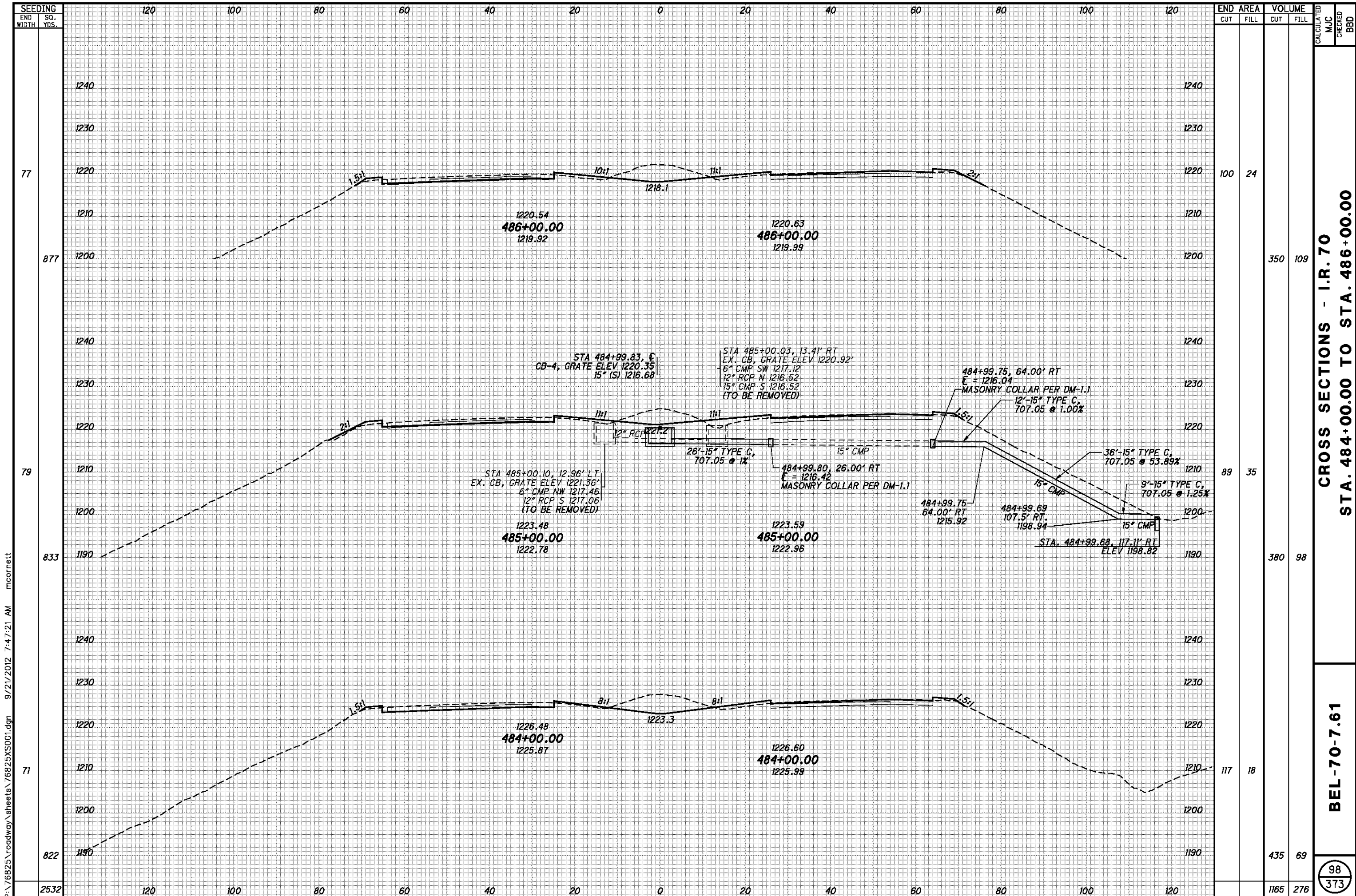
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:20 AM mcorbett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
76		119	19				
889				464	66		
83		132	16				
889				486	57		
77		130	15				
844				495	62		
2622				1445	185		

**CROSS SECTIONS - I.R. 70
STA. 481+00.00 TO STA. 483+00.00**

BEL-70-7.61

97
373



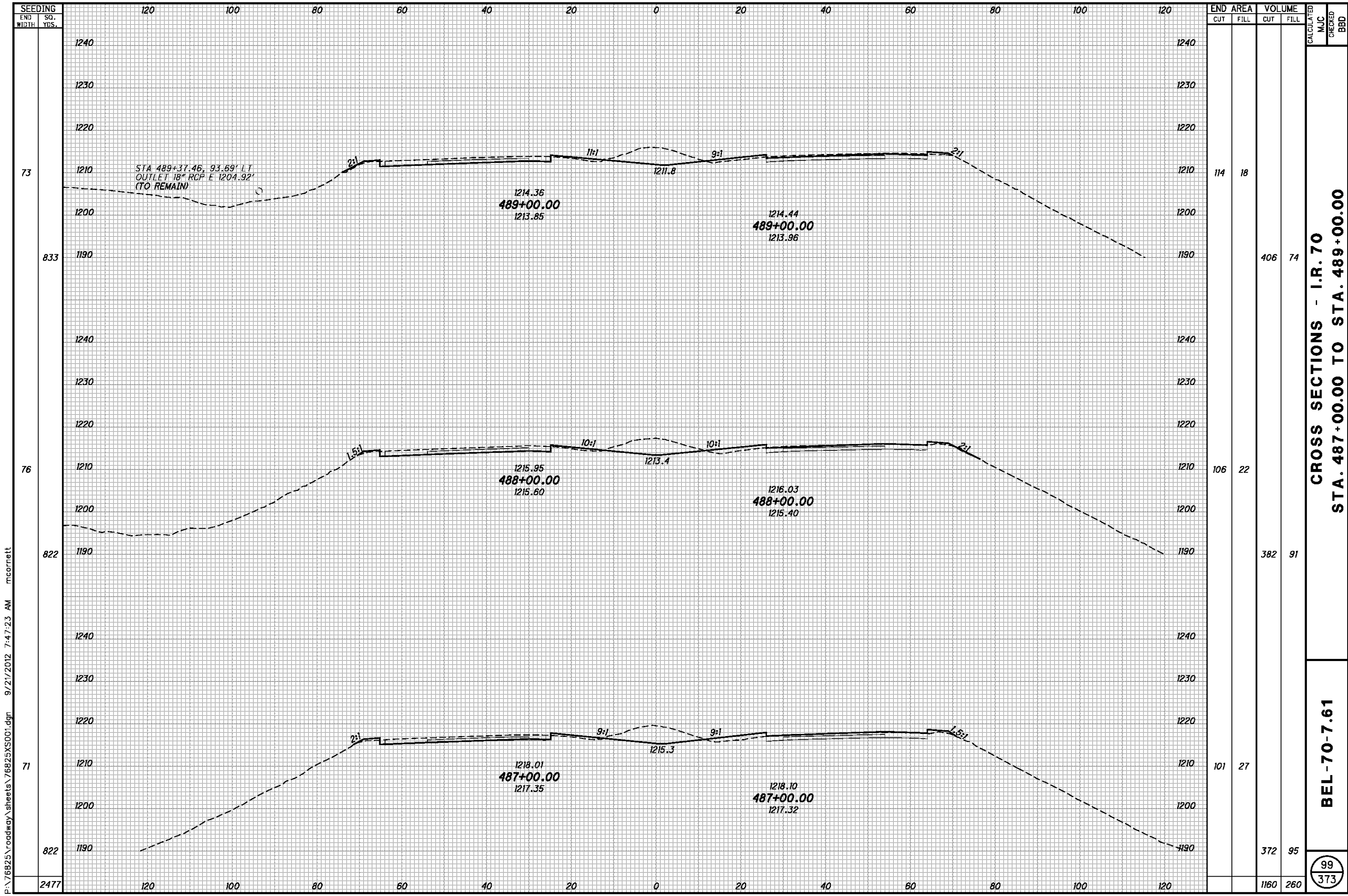
END AREA	VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL				
100		24				
350		109				
89		35				
380		98				
117		18				
435		69				
1165		276				

CROSS SECTIONS - I.R. 70
STA. 484+00.00 TO STA. 486+00.00

BEL-70-7.61

98
373

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P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:23 AM mcorbett

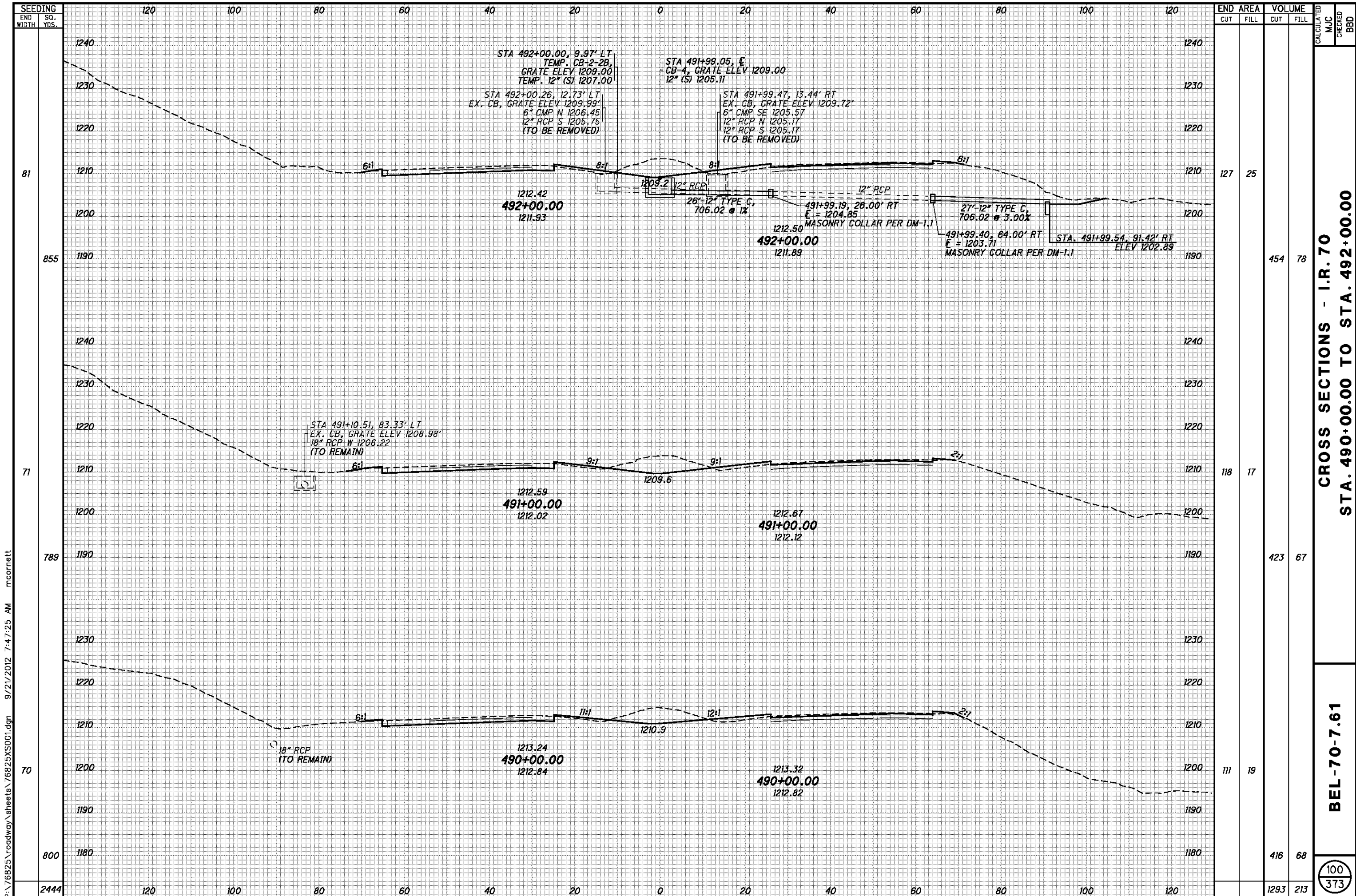
SEEDING	SO. YDS.	
	END WIDTH	
	73	
	833	
	76	
	822	
	71	
	822	
	2477	

END AREA	VOLUME		CALCULATED MJC	CHECKED BBD
	CUT	FILL		
114		18		
	406	74		
106		22		
	382	91		
101		27		
	372	95		
	1160	260		

CROSS SECTIONS - I.R. 70
STA. 487+00.00 TO STA. 489+00.00

BEL-70-7.61

99
373



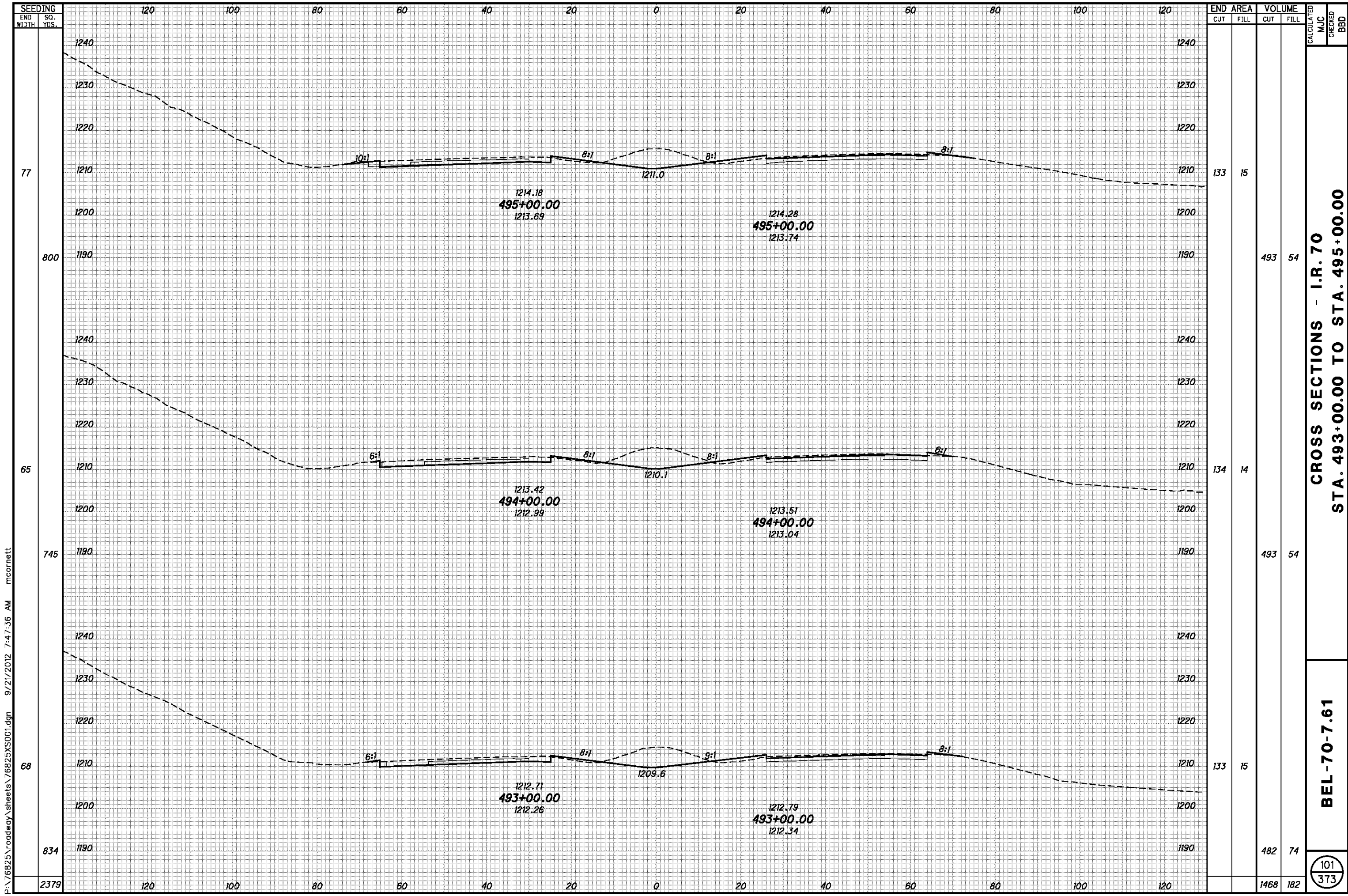
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:47:25 AM mcorbett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
81	855	127	25	454	78		
71	789	118	17	423	67		
70	800	111	19	416	68		
2444		1293	213				

CROSS SECTIONS - I.R. 70
STA. 490+00.00 TO STA. 492+00.00

BEL-70-7.61

100
373



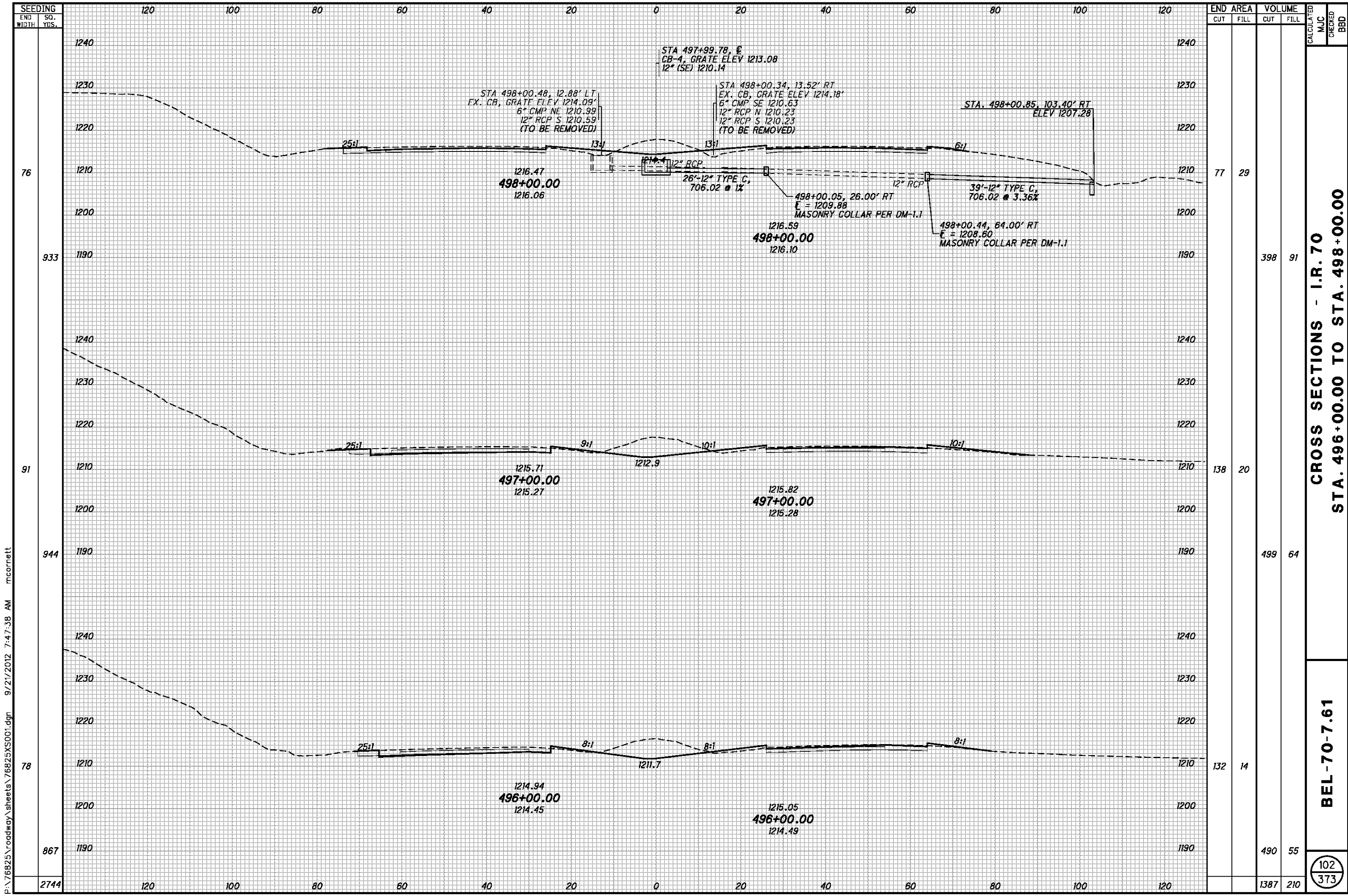
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:36 AM mcornett

END AREA	VOLUME	CALCULATED		MJC	CHECKED	BBD
		CUT	FILL			
133	15					
493	54					
134	14					
493	54					
133	15					
482	74					
	1468	182				

**CROSS SECTIONS - I.R. 70
STA. 493+00.00 TO STA. 495+00.00**

BEL-70-7.61

101
373

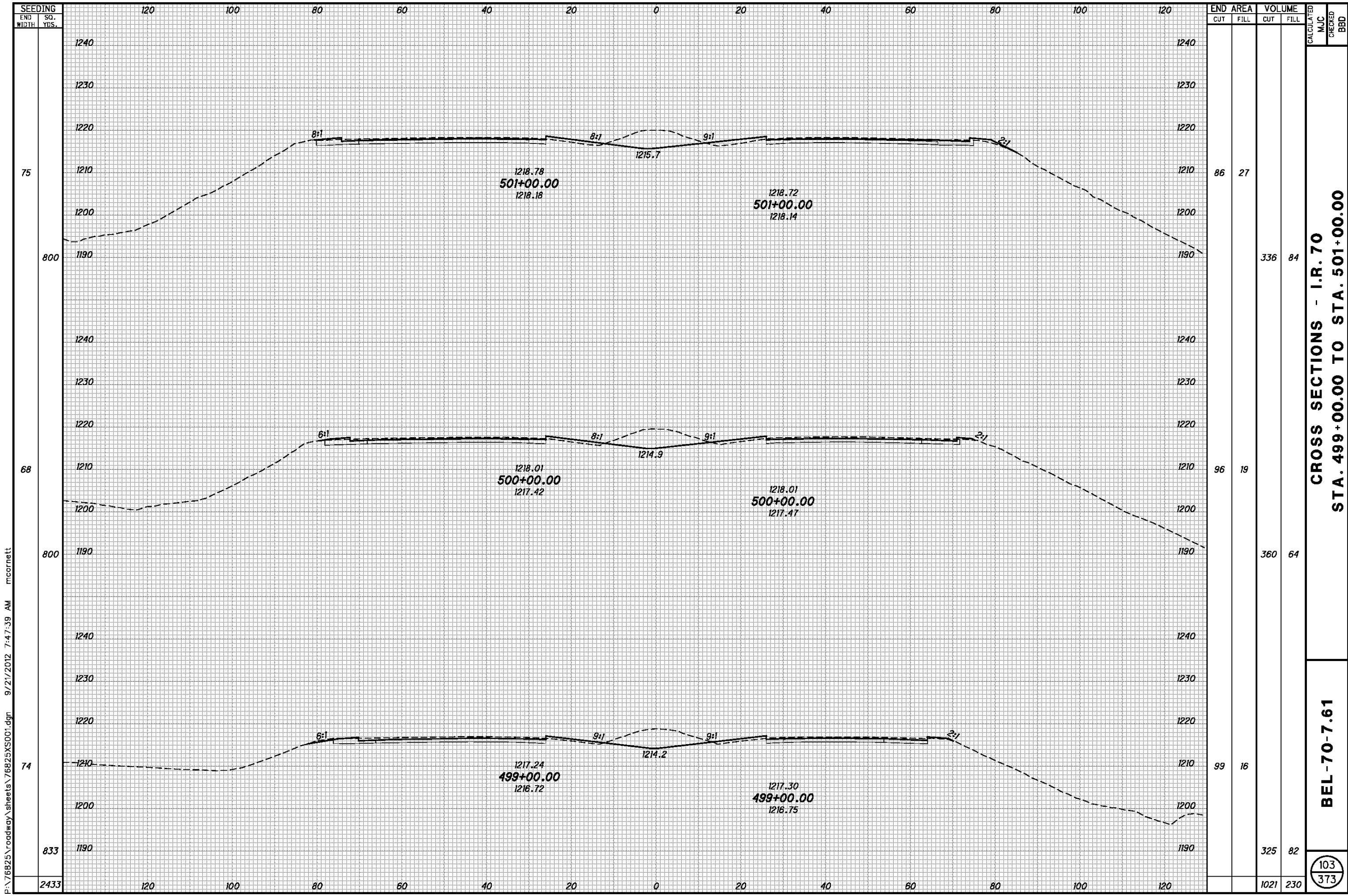


CROSS SECTIONS - I.R. 70
STA. 496+00.00 TO STA. 498+00.00

BEL-70-7.61

102
 373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:38 AM mcorbett



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:39 AM mcornett

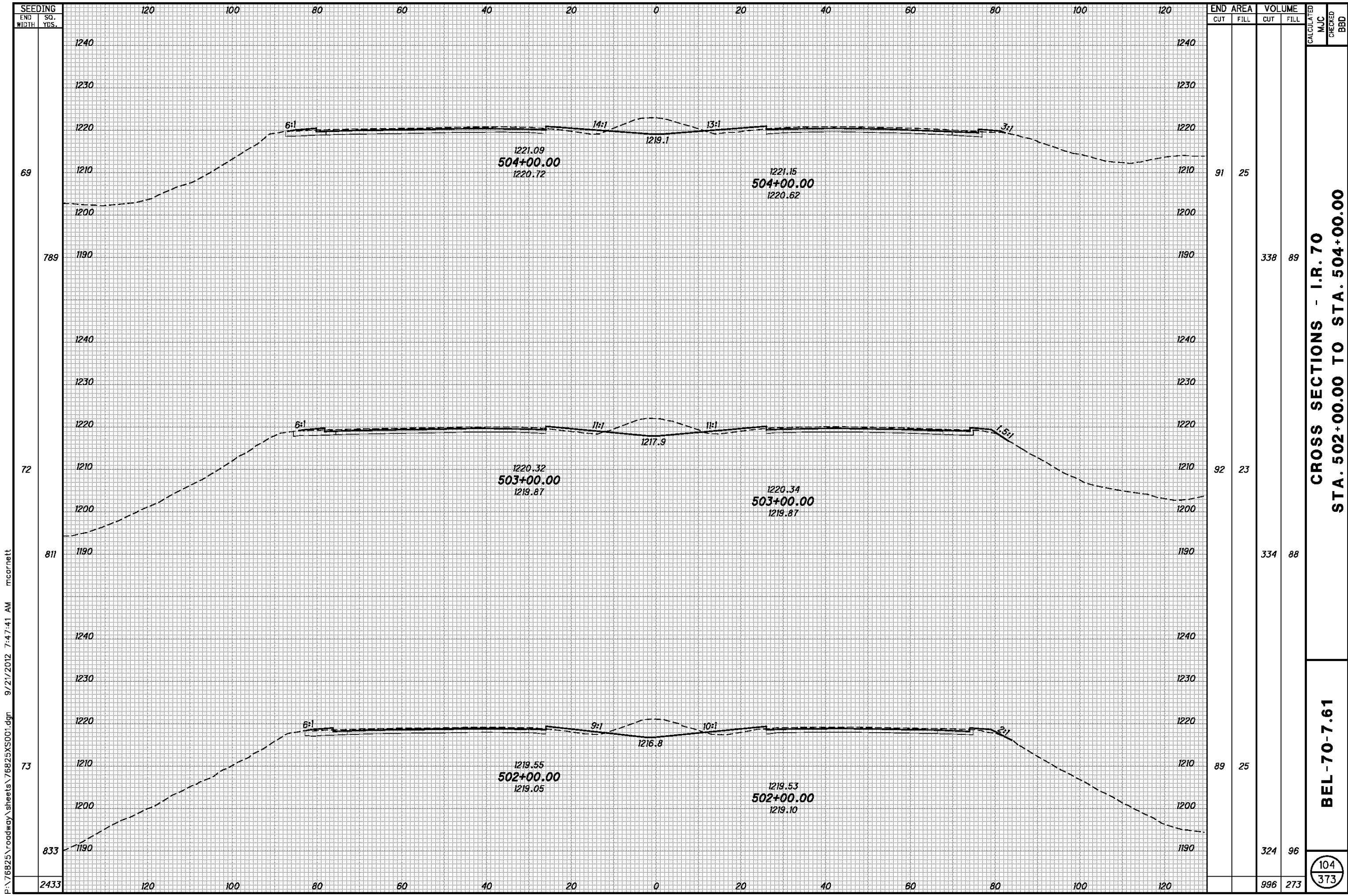
SEEDING	
END WIDTH	SO. YDS.
75	
800	
68	
800	
74	
833	
2433	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
86	27	336	84		
96	19	360	64		
99	16	325	82		
		1021	230		

**CROSS SECTIONS - I.R. 70
STA. 499+00.00 TO STA. 501+00.00**

BEL-70-7.61

103
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:41 AM mcornett

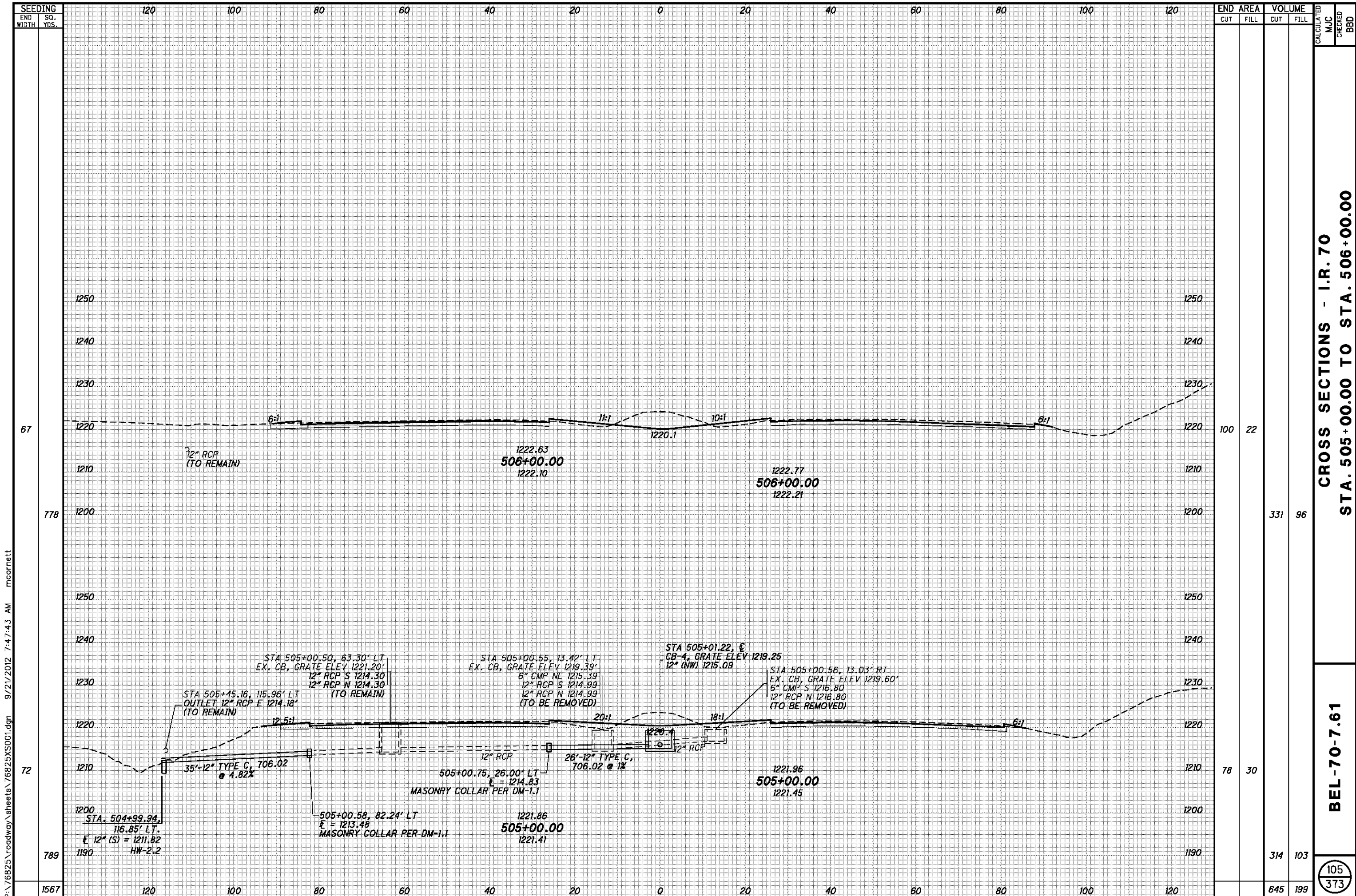
SEEDING	END	
	WIDTH	SO. YDS.
	69	
	789	
	72	
	811	
	73	
	833	
	2433	

END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
91		25				
92		23	338	89		
89		25	334	88		
996		273	996	273		

**CROSS SECTIONS - I.R. 70
STA. 502+00.00 TO STA. 504+00.00**

BEL-70-7.61

104
373



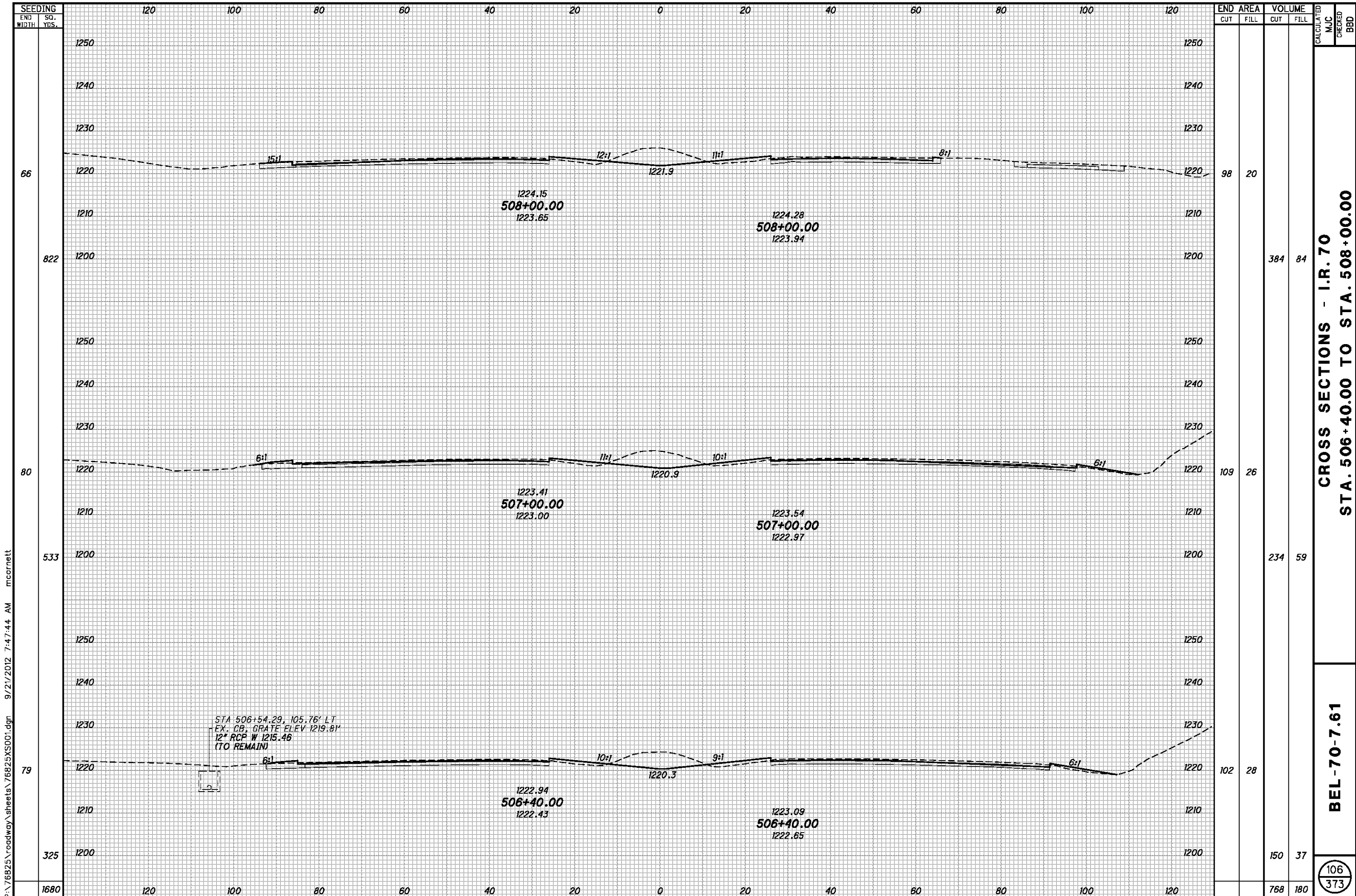
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:47:43 AM mcorneit

SEEDING		END AREA		VOLUME		CALCULATED	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	MJC	BBD
67		100	22				
778				331	96		
72		78	30				
789				314	103		
1567				645	199		

CROSS SECTIONS - I.R. 70
STA. 505+00.00 TO STA. 506+00.00

BEL-70-7.61

105
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:44 AM mcornett

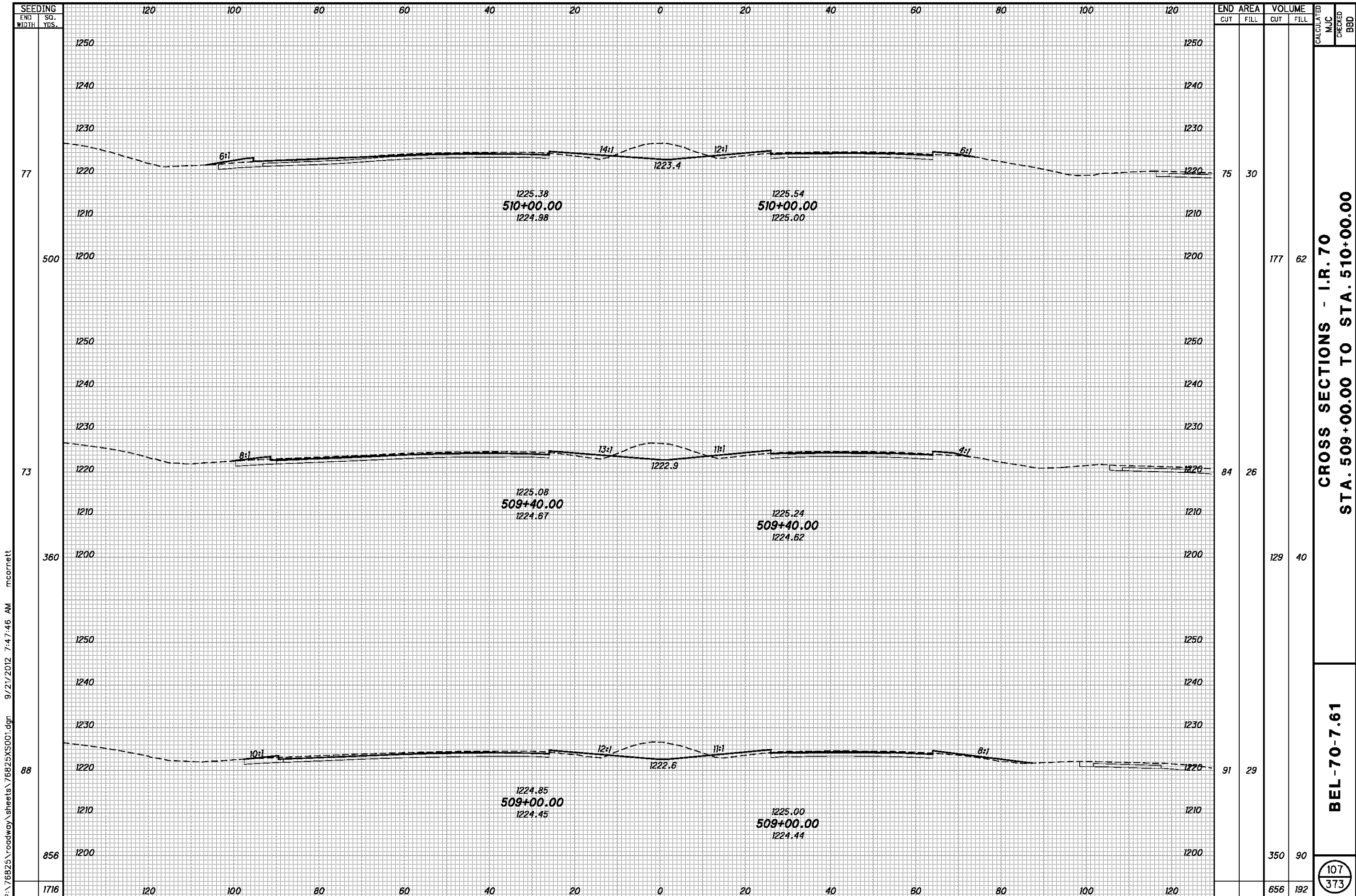
SEEDING	END AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
66	98	20				
822			384	84		
80	109	26				
533			234	59		
79	102	28				
325			150	37		
1680			768	180		

STA 506+54.29, 105.76' LT
 EX. CB, GRATE ELEV 1219.81'
 12" RCP W 1215.46
 (TO REMAIN)

CROSS SECTIONS - I.R. 70
 STA. 506+40.00 TO STA. 508+00.00

BEL-70-7.61

106
373



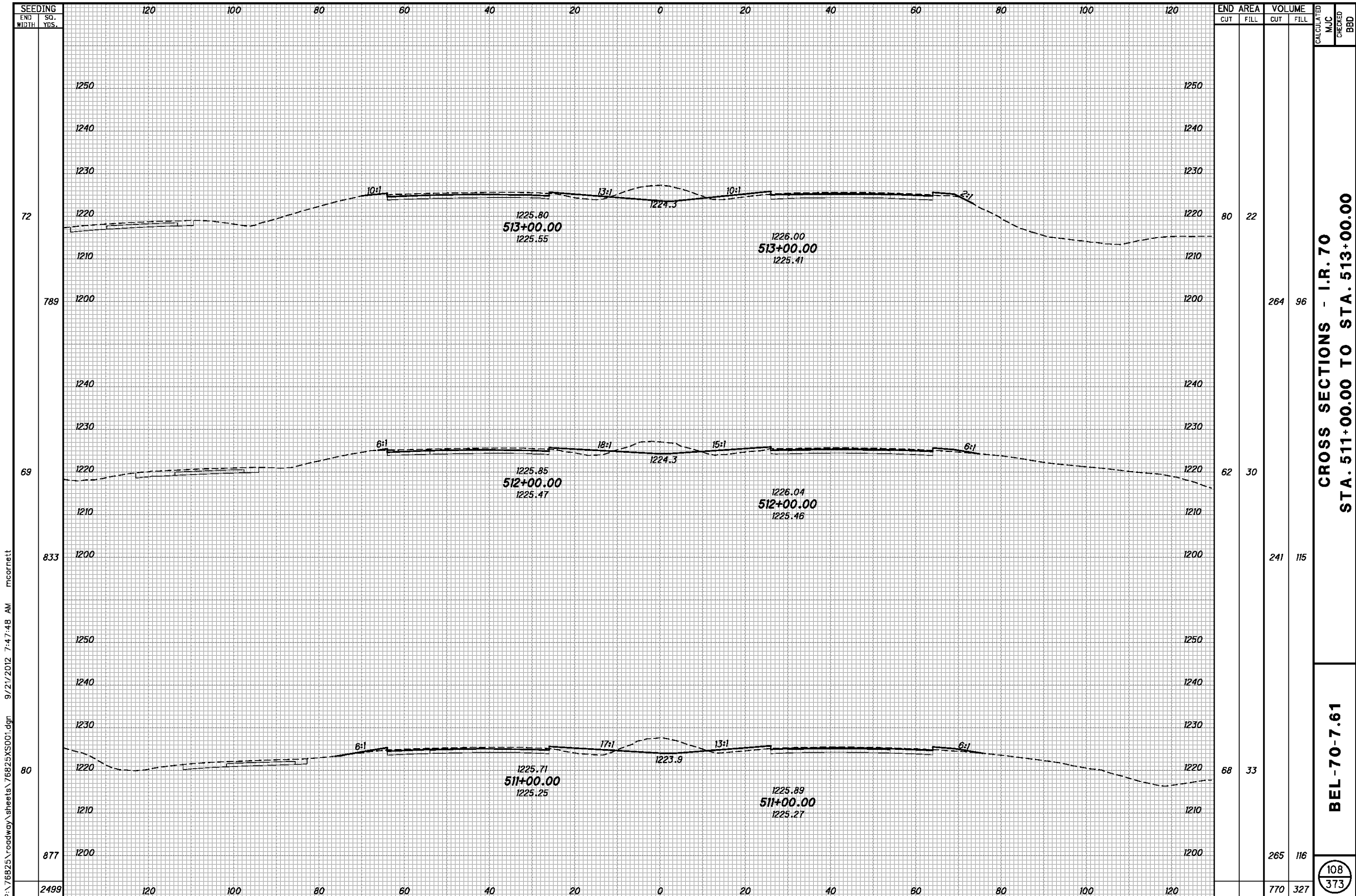
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:46 AM mcorbett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
77	500	75	30	177	62		
73	360	84	26	129	40		
88	856	91	29	350	90		
1716				656	192		

CROSS SECTIONS - I.R. 70
STA. 509+00.00 TO STA. 510+00.00

BEL-70-7.61

107
373



SEEDING	
END WIDTH	SO. YDS.
72	
789	
69	
833	
80	
877	
2499	

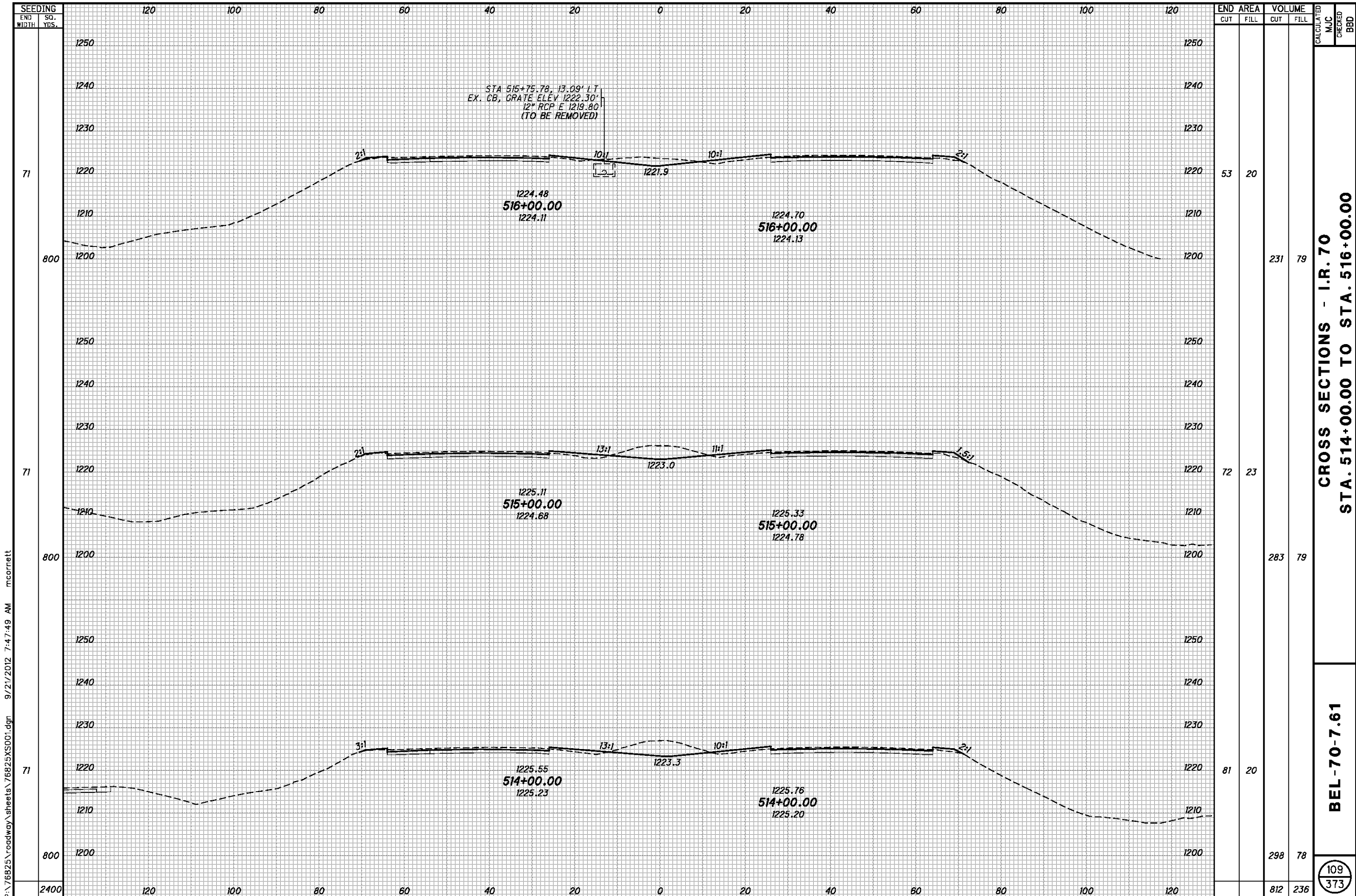
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
80	22				
		264	96		
62	30				
		241	115		
68	33				
		265	116		
		770	327		

CROSS SECTIONS - I.R. 70
STA. 511+00.00 TO STA. 513+00.00

BEL-70-7.61

108
 373

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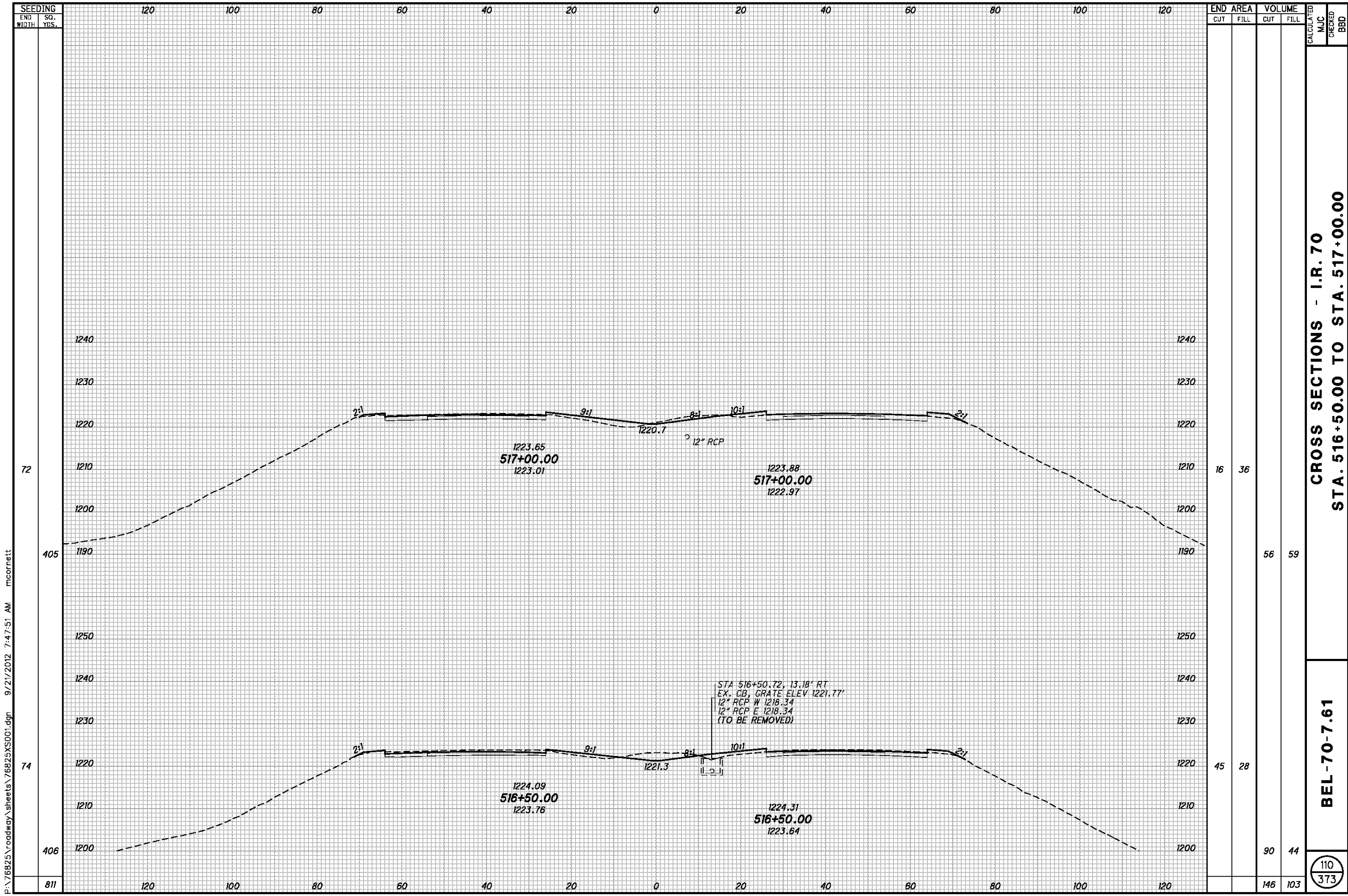
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:49 AM mcorbett

END AREA	VOLUME	CALCULATED	MJC	CHECKED	BBD
53	20				
72	23				
81	20				
812	236				

**CROSS SECTIONS - I.R. 70
STA. 514+00.00 TO STA. 516+00.00**

BEL-70-7.61

109
373

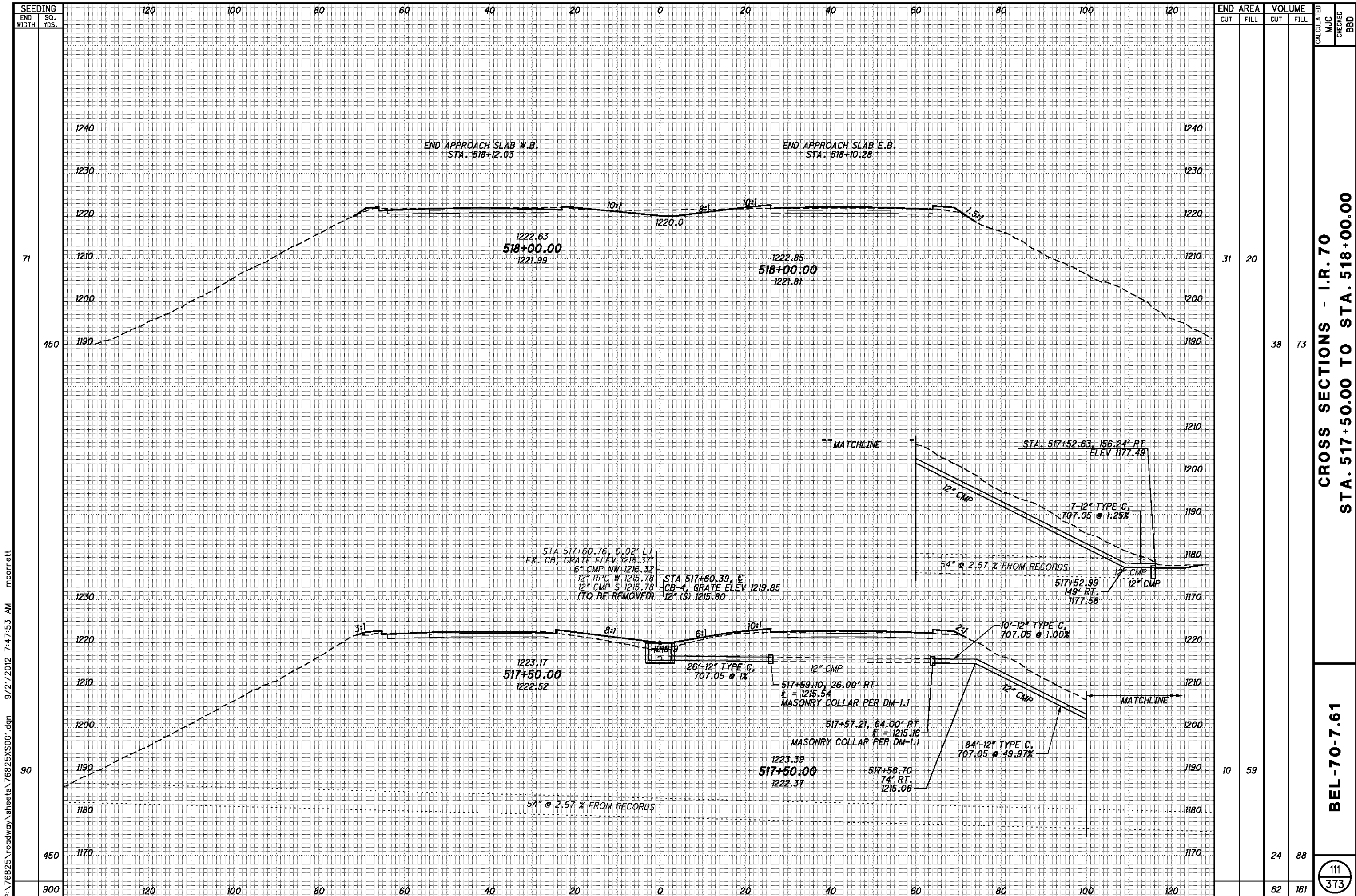


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CROSS SECTIONS - I.R. 70
STA. 516+50.00 TO STA. 517+00.00

BEL-70-7.61

110
373



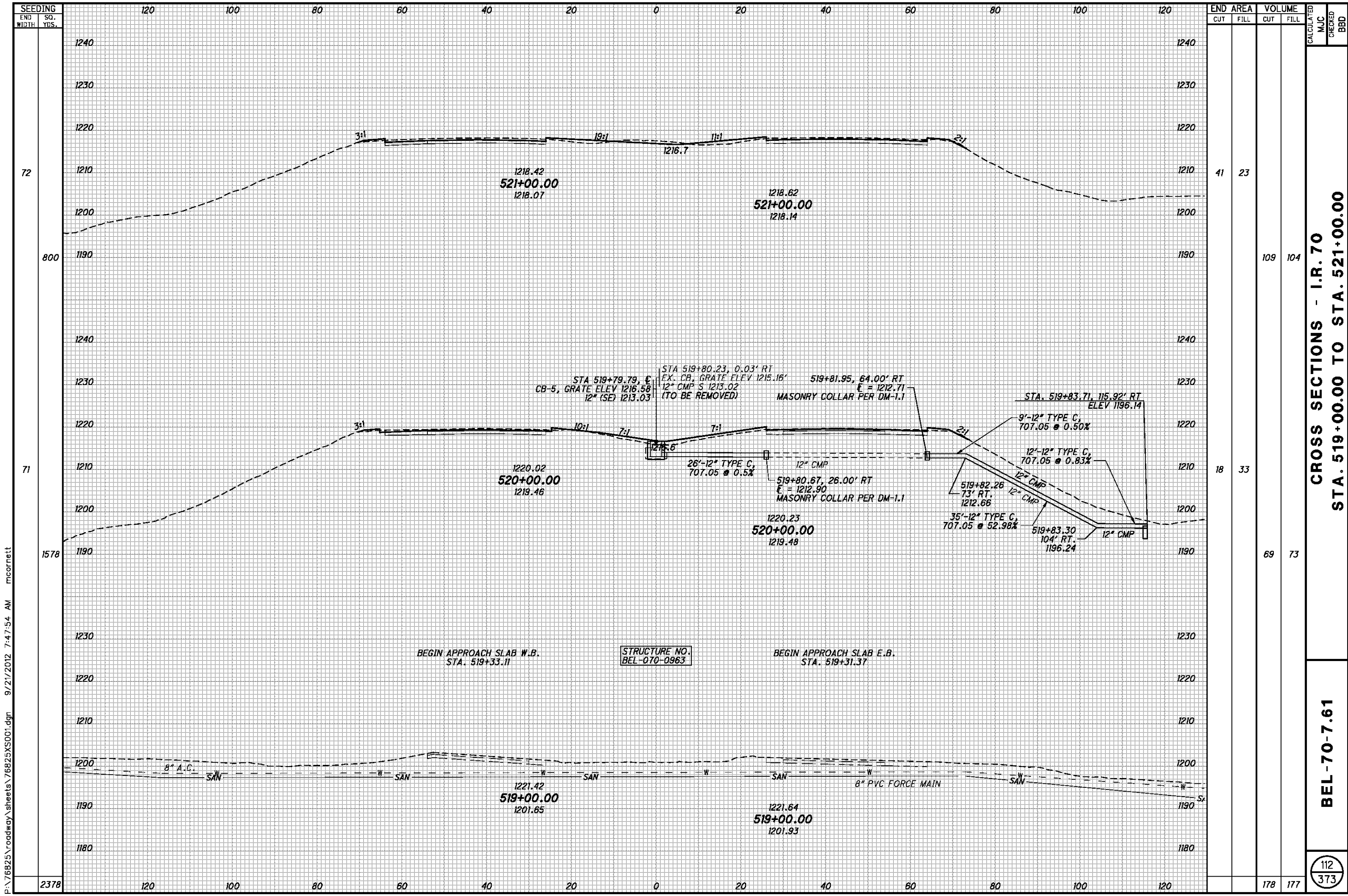
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:53 AM mcorbett

SEEDING		END AREA		VOLUME		CALCULATED	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	MJC	BBD
71		31	20				
450				38	73		
90		10	59				
450				24	88		
900				62	161		

CROSS SECTIONS - I.R. 70
STA. 517+50.00 TO STA. 518+00.00

BEL-70-7.61

111
373



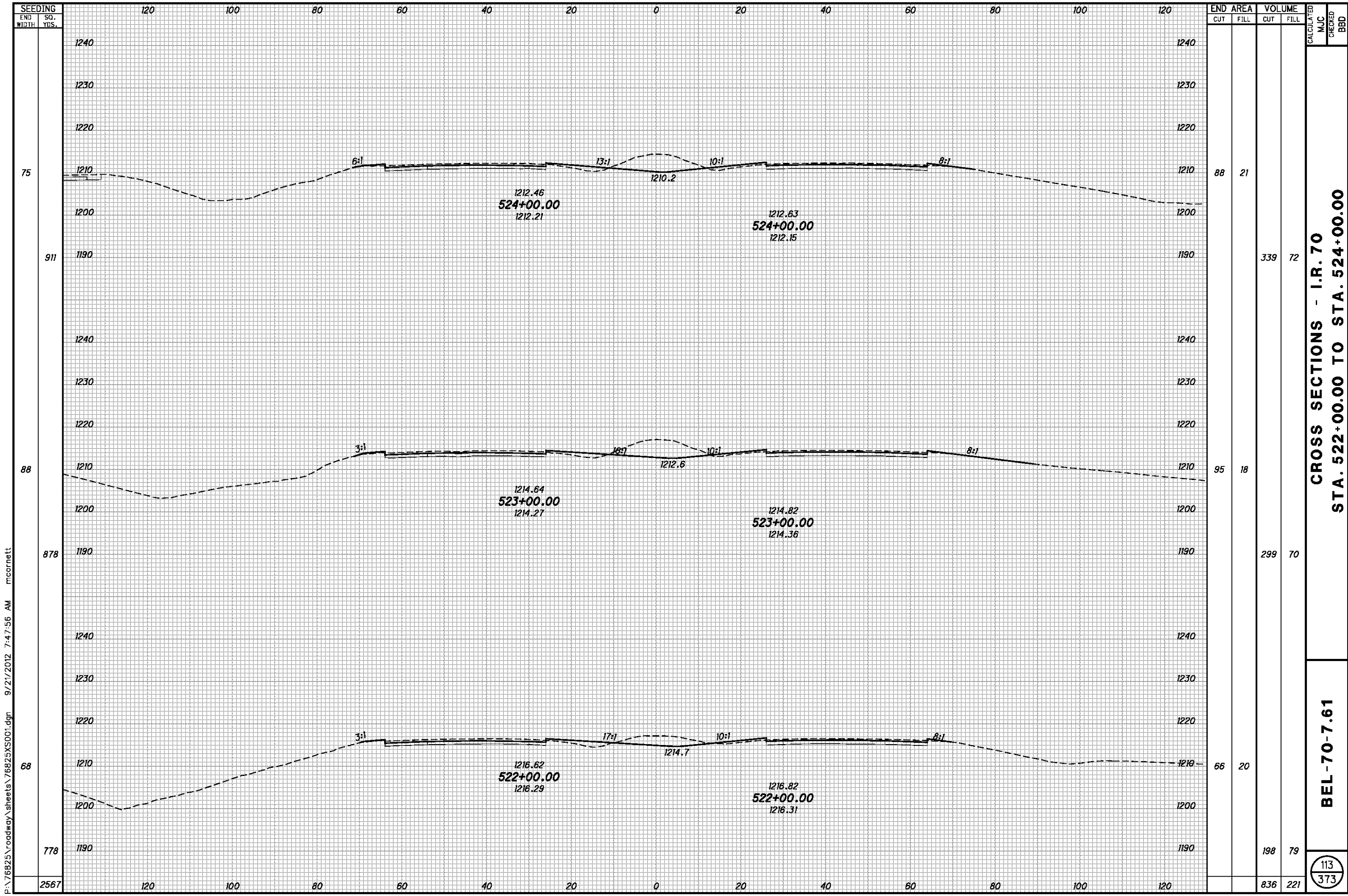
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SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	END WIDTH	SO. YDS.	CUT	FILL				
72	800	1200	41	23				
71	1578	1190	18	33	109	104		
	2378	1180	69	73				
			178	177				

CROSS SECTIONS - I.R. 70
STA. 519+00.00 TO STA. 521+00.00

BEL-70-7.61

112
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:56 AM mcornett

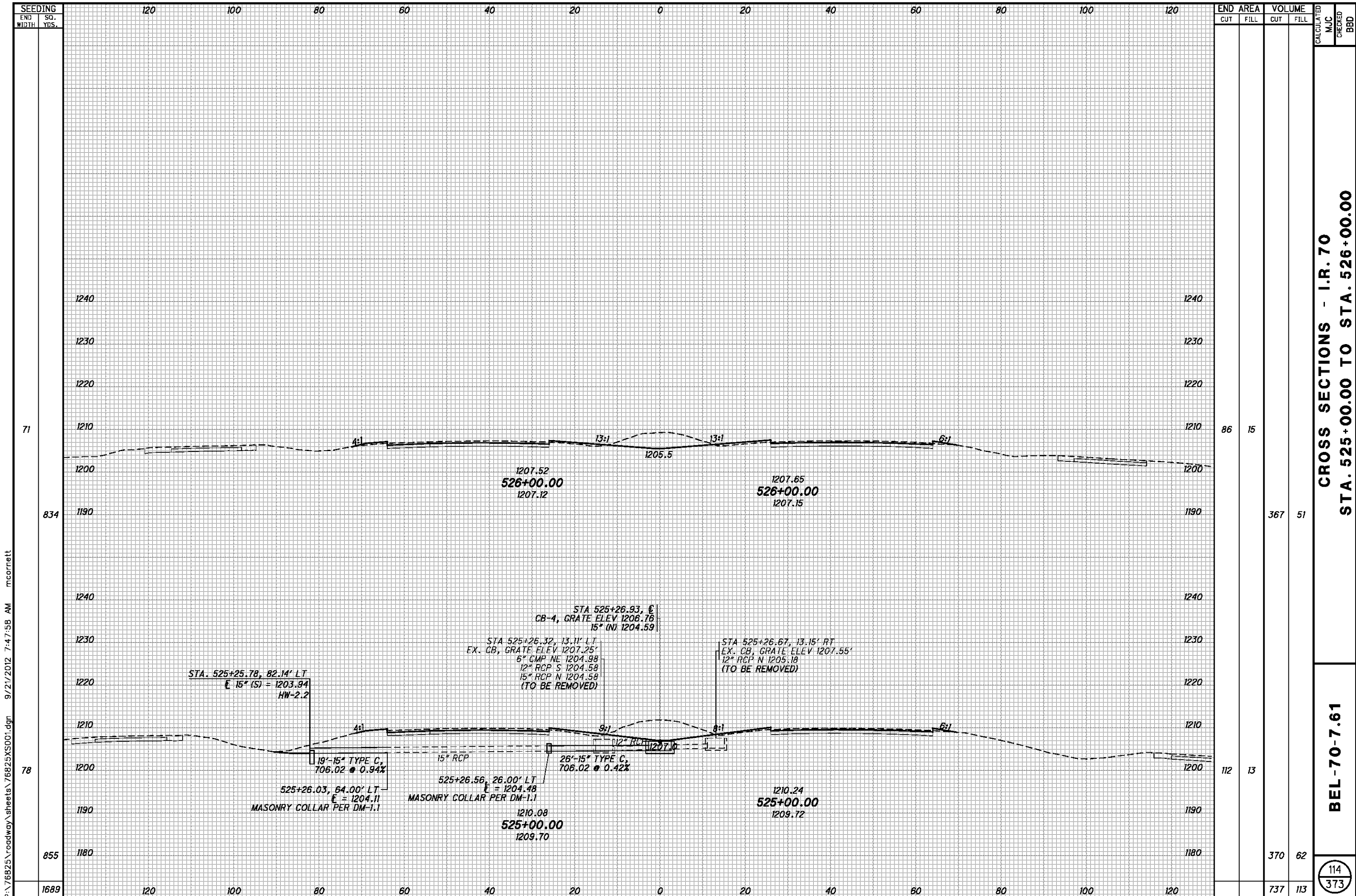
SEEDING	
END WIDTH	SO. YDS.
75	
911	
88	
878	
68	
778	
2567	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
88	21				
		339	72		
95	18				
		299	70		
66	20				
		198	79		
		836	221		

**CROSS SECTIONS - I.R. 70
 STA. 522+00.00 TO STA. 524+00.00**

BEL-70-7.61

113
373



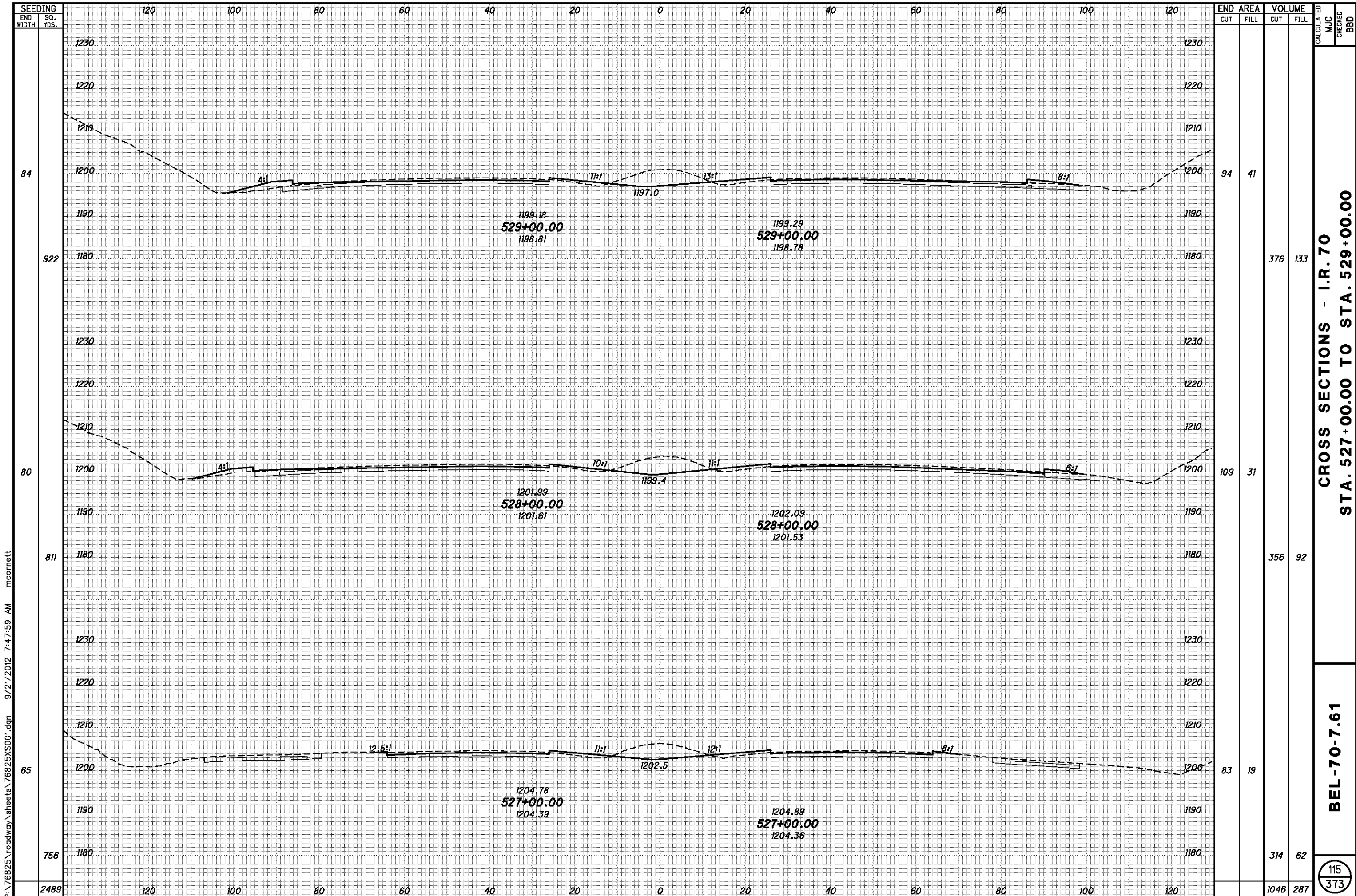
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END AREA	VOLUME	CALCULATED		CHECKED	BBD
		CUT	FILL		
86	15				
834	367	51			
78	112	13			
855	370	62			
1689	737	113			

CROSS SECTIONS - I.R. 70
 STA. 525+00.00 TO STA. 526+00.00

BEL-70-7.61

114
 373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:59 AM mcorbett

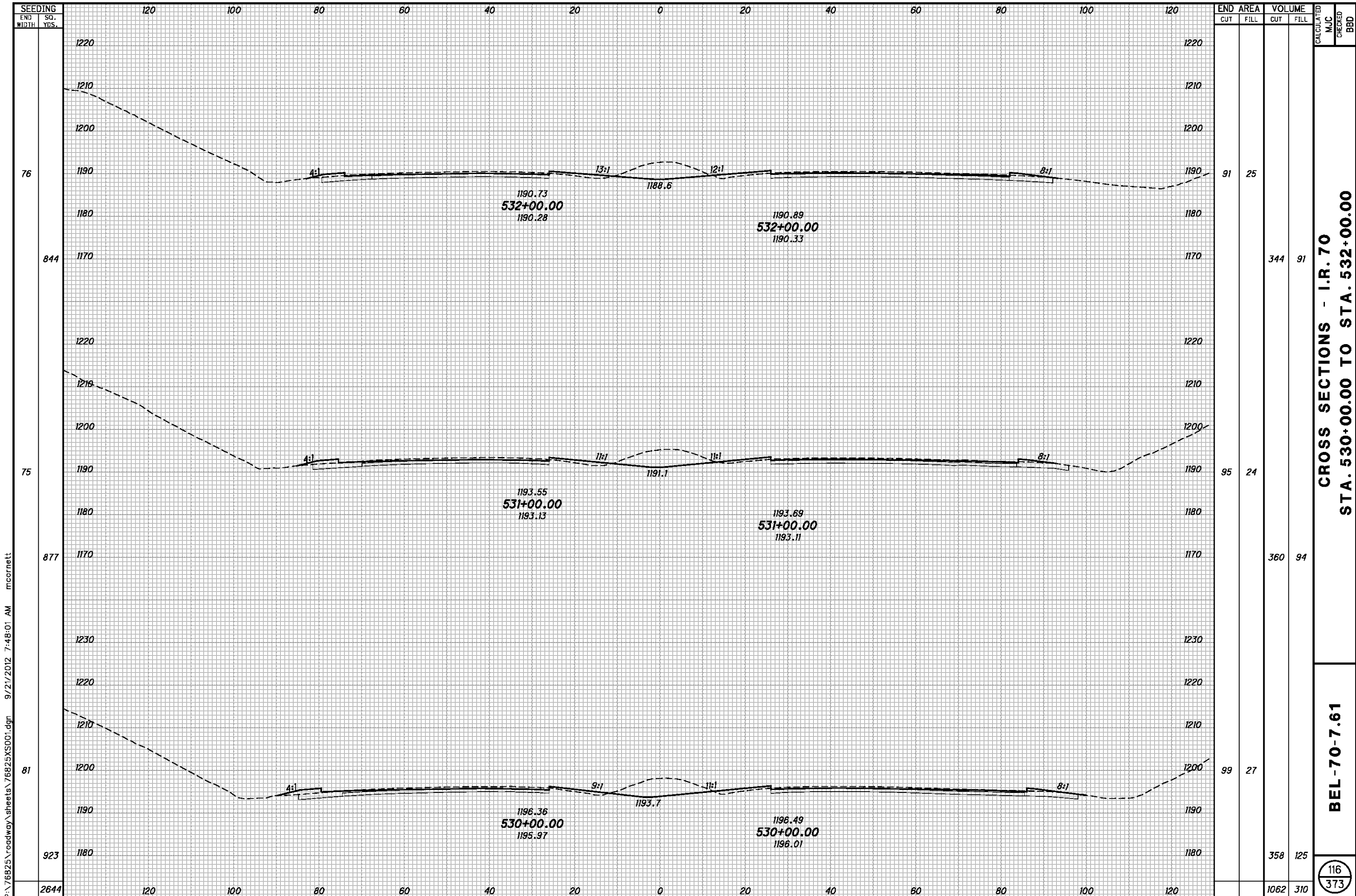
SEEDING	END WIDTH		SO. YDS.
	CUT	FILL	
84	94	41	
922	376	133	
80	109	31	
811	356	92	
65	83	19	
756	314	62	
2489	1046	287	

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
94	376	133		
109	356	92		
83	314	62		
	1046	287		

**CROSS SECTIONS - I.R. 70
STA. 527+00.00 TO STA. 529+00.00**

BEL-70-7.61

115
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:01 AM mcornett

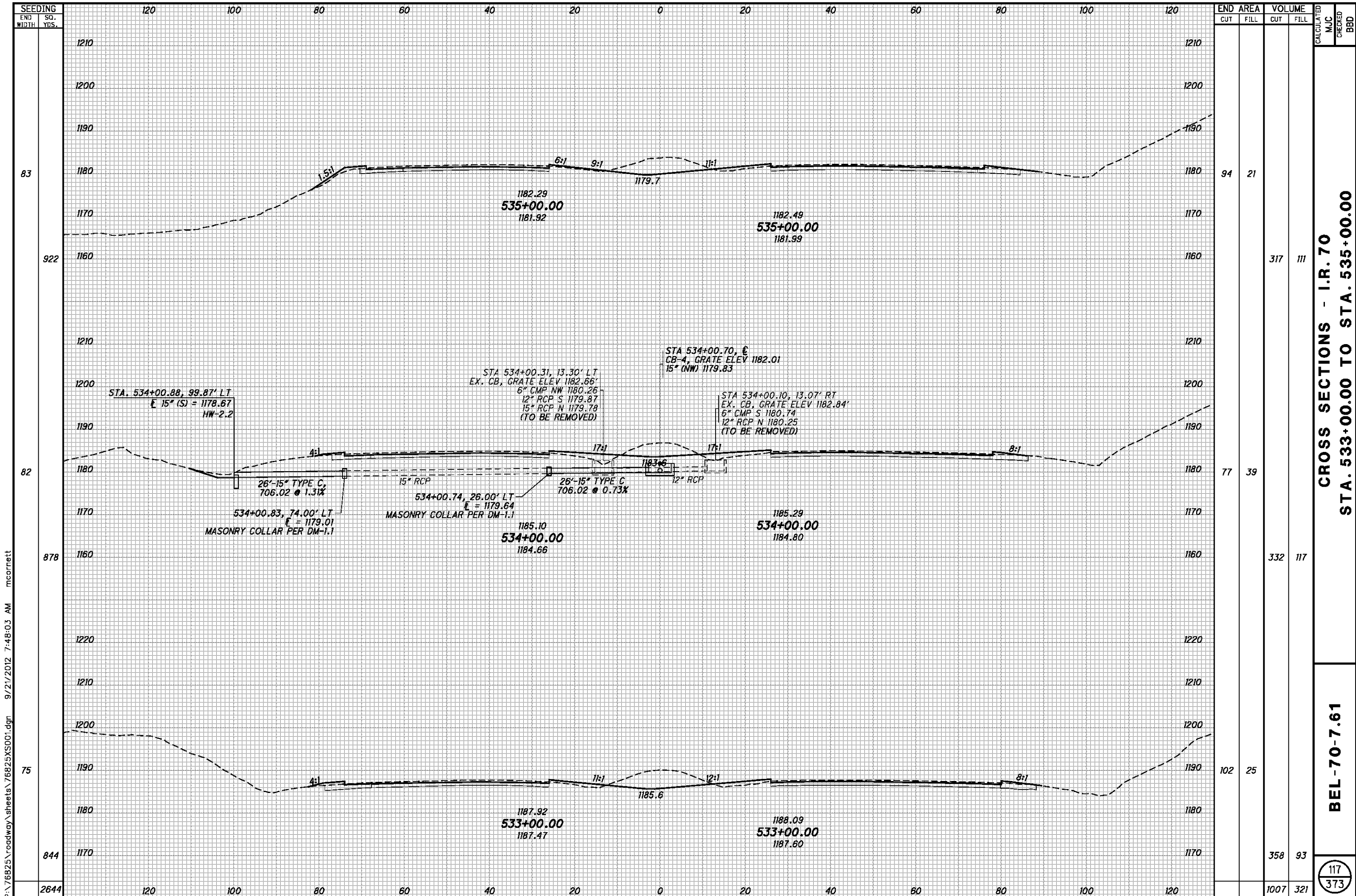
SEEDING	END	
	WIDTH	SO. YDS.
	76	
	844	
	75	
	877	
	81	
	923	
	2644	

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
91	25			
344	91			
95	24			
360	94			
99	27			
358	125			
	1062	310		

**CROSS SECTIONS - I.R. 70
STA. 530+00.00 TO STA. 532+00.00**

BEL-70-7.61

116
373



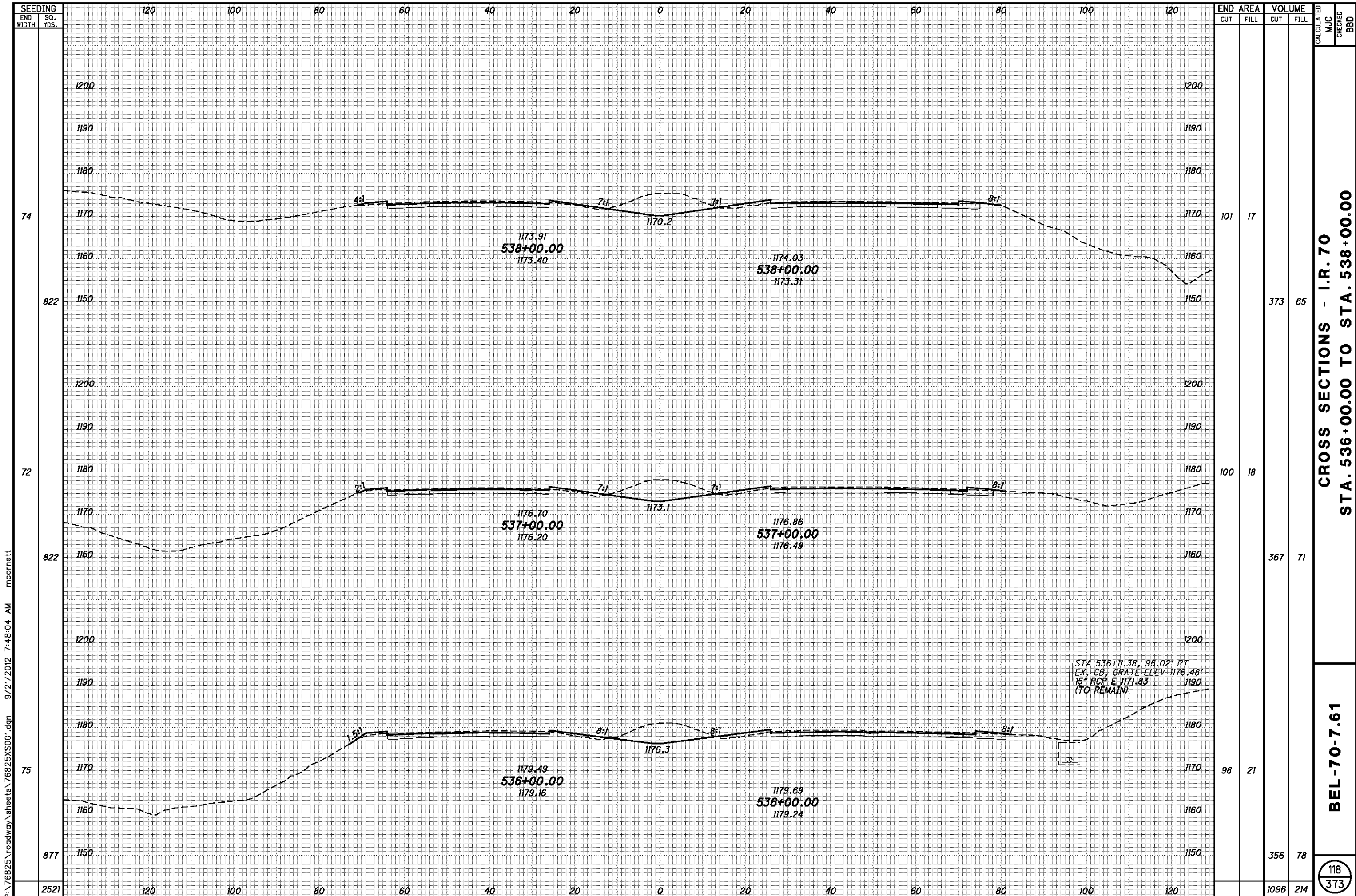
END STA	AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
83	94	21						
922			317	111				
82	77	39						
878			332	117				
75	102	25						
844			358	93				
2644			1007	321				

CROSS SECTIONS - I.R. 70
STA. 533+00.00 TO STA. 535+00.00

BEL-70-7.61

117
 373

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SEEDING
 END SO. WIDTH YDS.
 74
 822
 72
 822
 75
 877
 2521

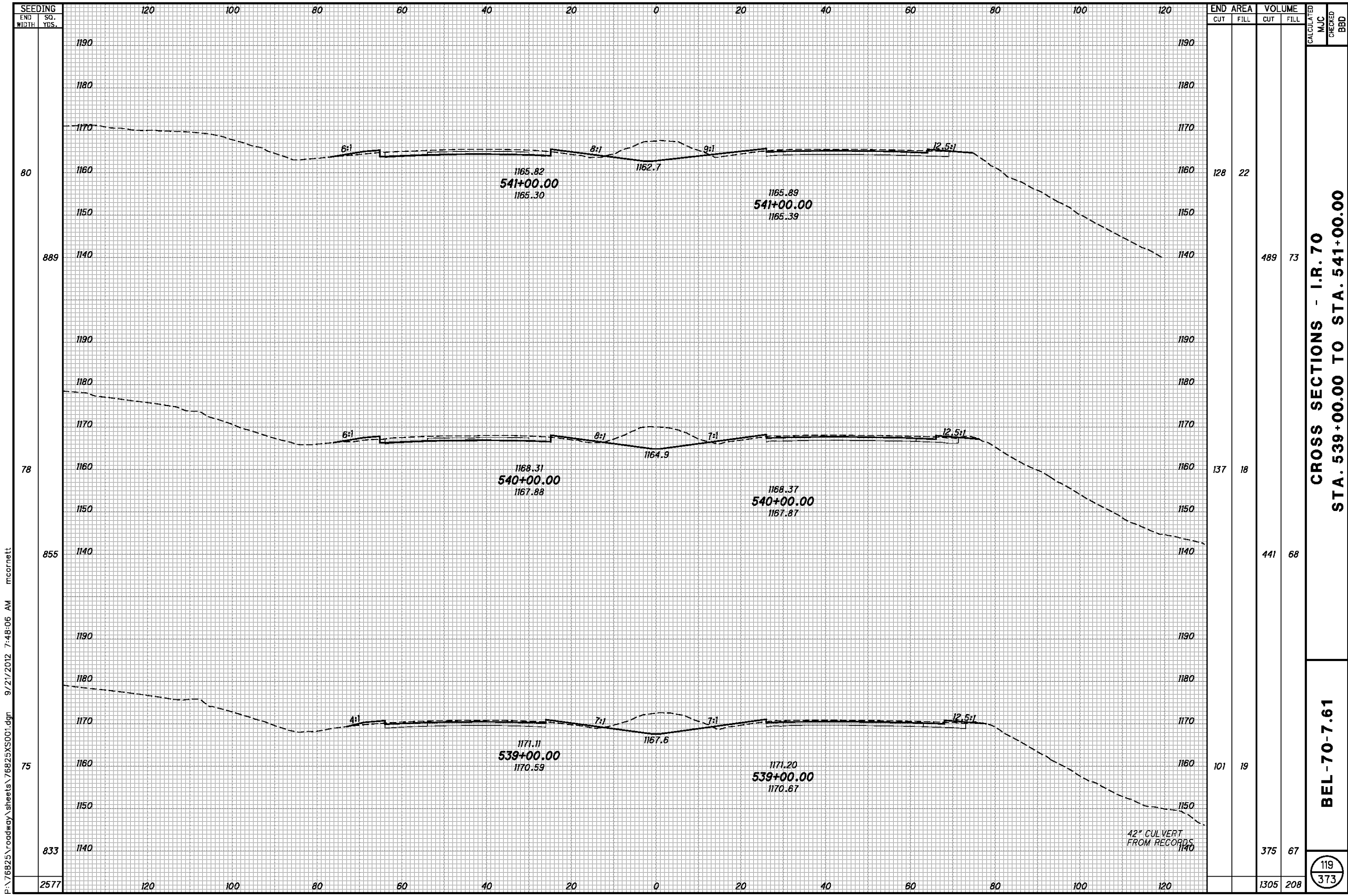
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
101	17	373	65		
100	18	367	71		
98	21	356	78		
		1096	214		

CROSS SECTIONS - I.R. 70
STA. 536+00.00 TO STA. 538+00.00

BEL-70-7.61

118
 373

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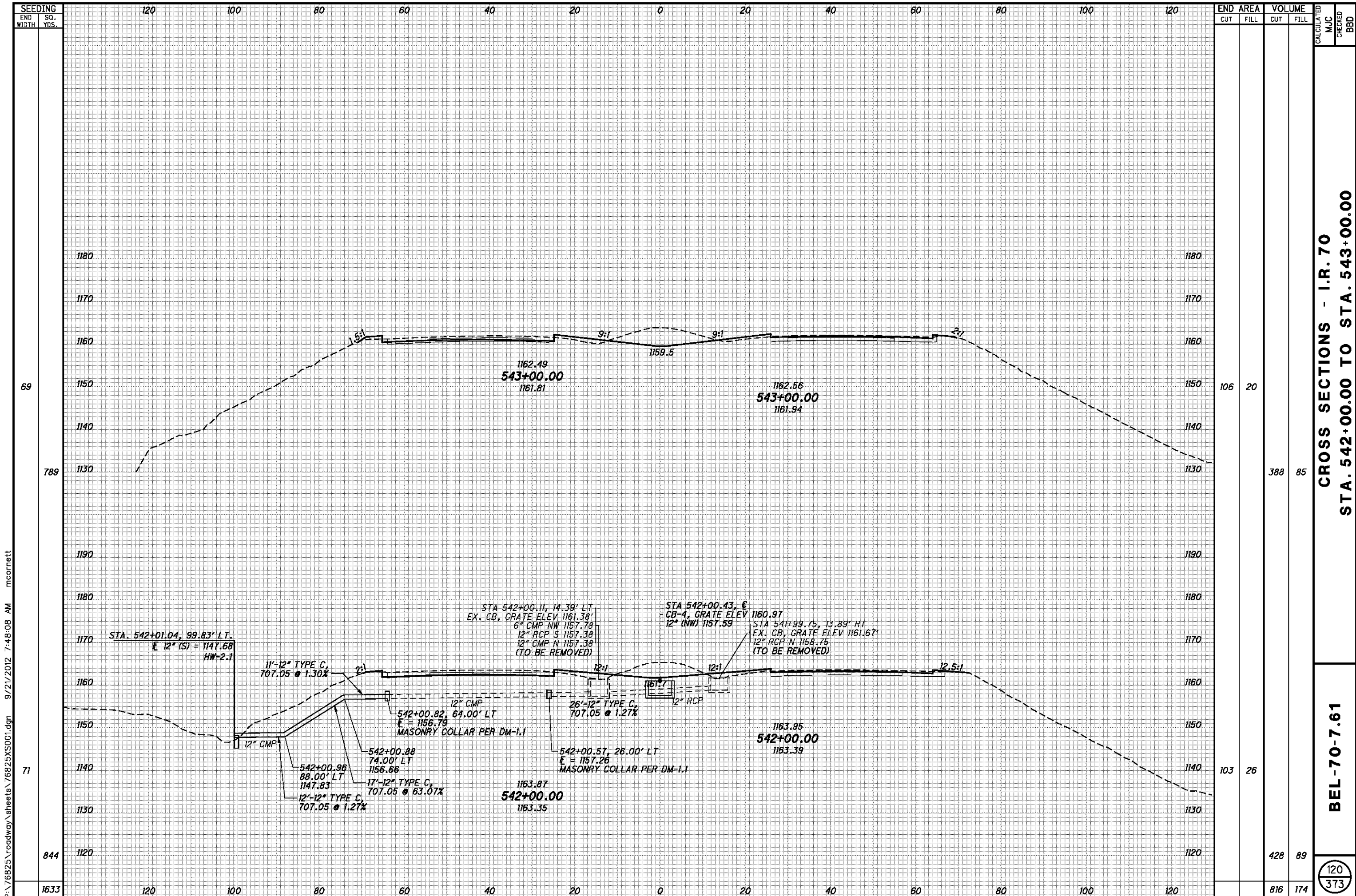
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:06 AM mcornett

SEEDING	END AREA		VOLUME		CALCULATED	CHECKED
	END WIDTH	SO. YDS.	CUT	FILL		
80	128	22				
889			489	73		
78	137	18				
855			441	68		
75	101	19				
833			375	67		
2577			1305	208		

**CROSS SECTIONS - I.R. 70
STA. 539+00.00 TO STA. 541+00.00**

BEL-70-7.61

119
373



SEEDING	
END WIDTH	SO. YDS.
69	
789	
71	
844	
1633	

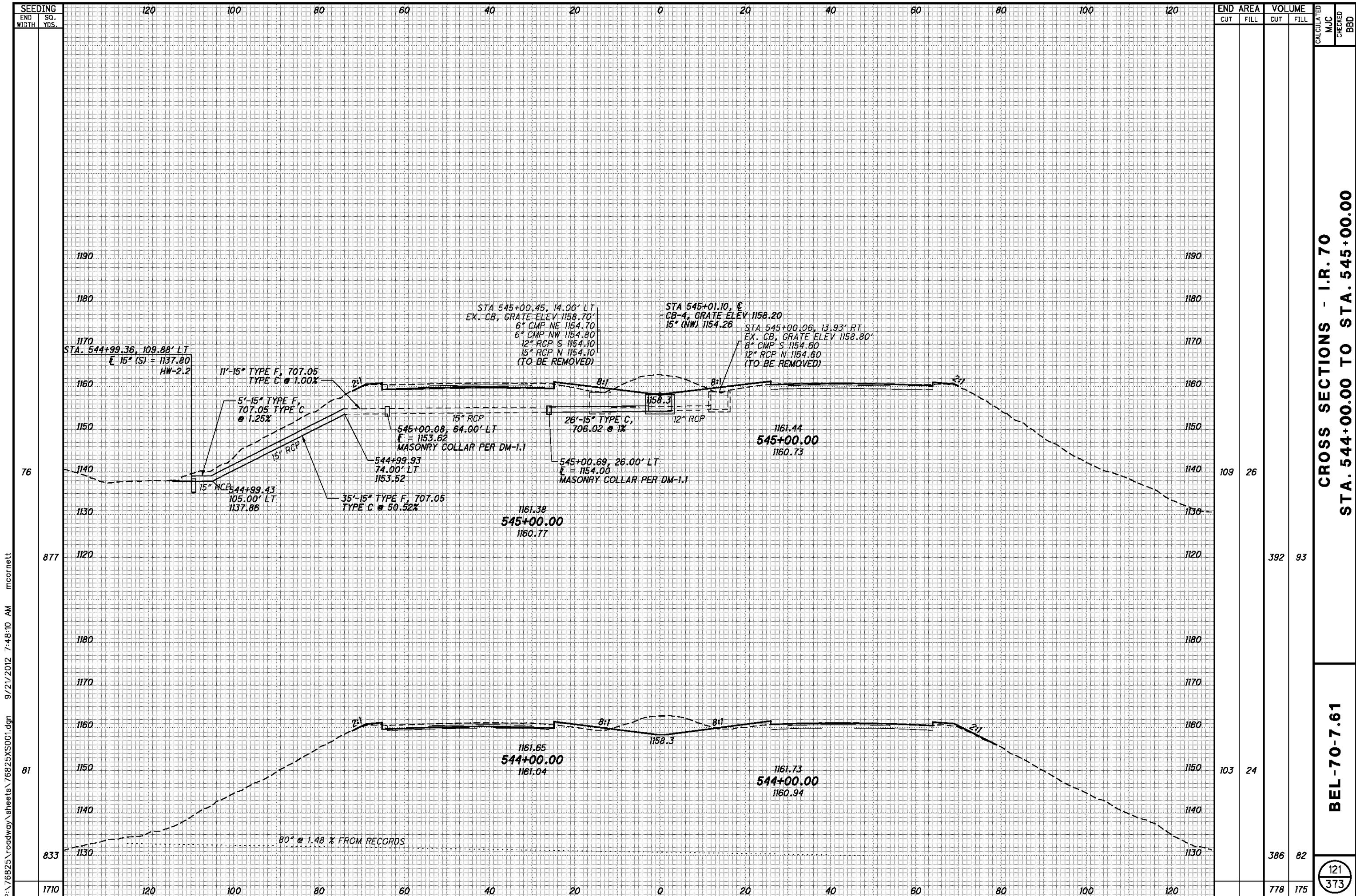
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
106	20	388	85		
103	26	428	89		
		816	174		

CROSS SECTIONS - I.R. 70
STA. 542+00.00 TO STA. 543+00.00

BEL-70-7.61

120
373

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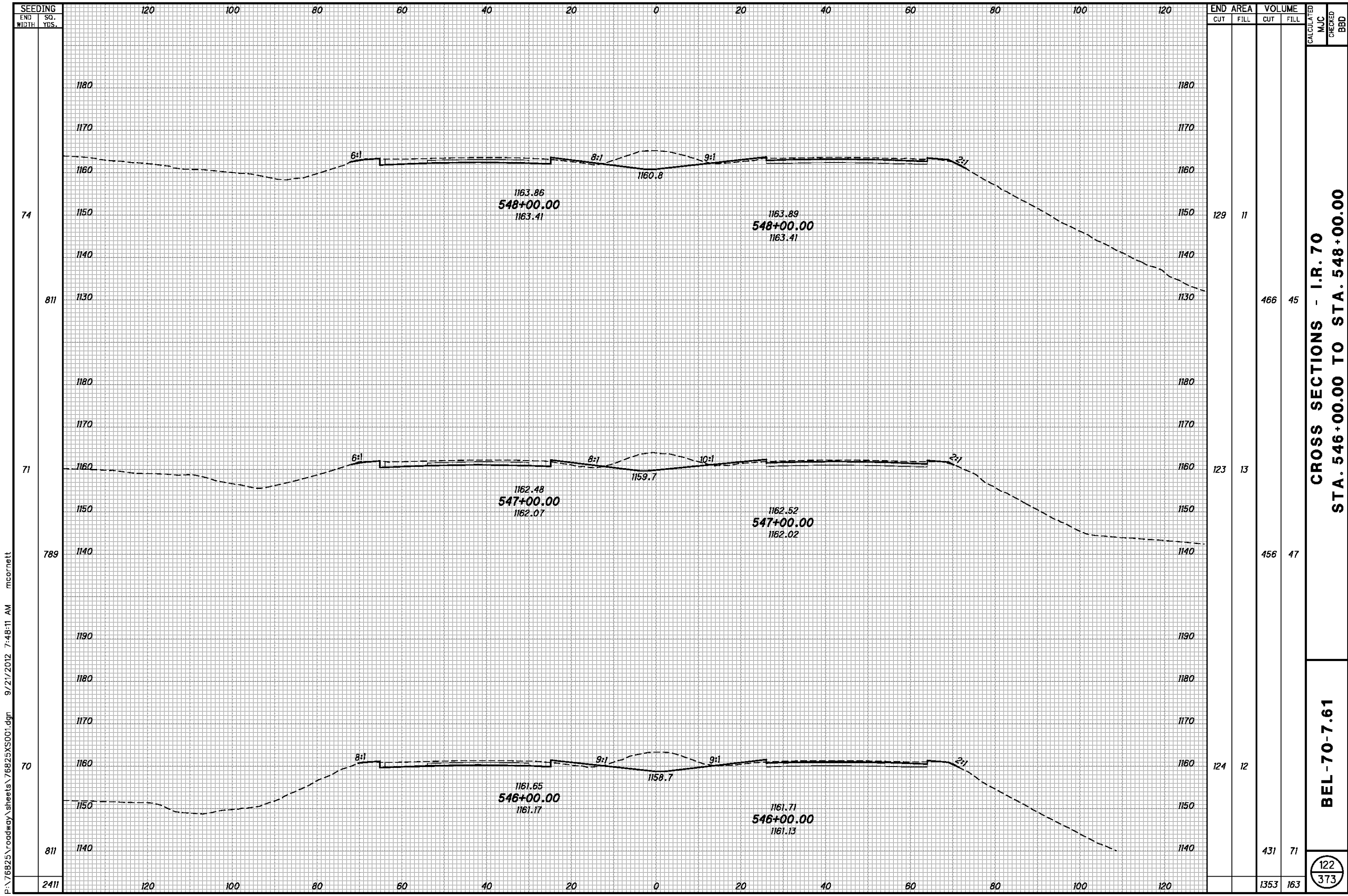
SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
76			109	26
77			392	93
81			103	24
83			386	82
1710			778	175

CALCULATED	MJC	CHECKED	BBD

CROSS SECTIONS - I.R. 70
STA. 544+00.00 TO STA. 545+00.00

BEL-70-7.61

121
373



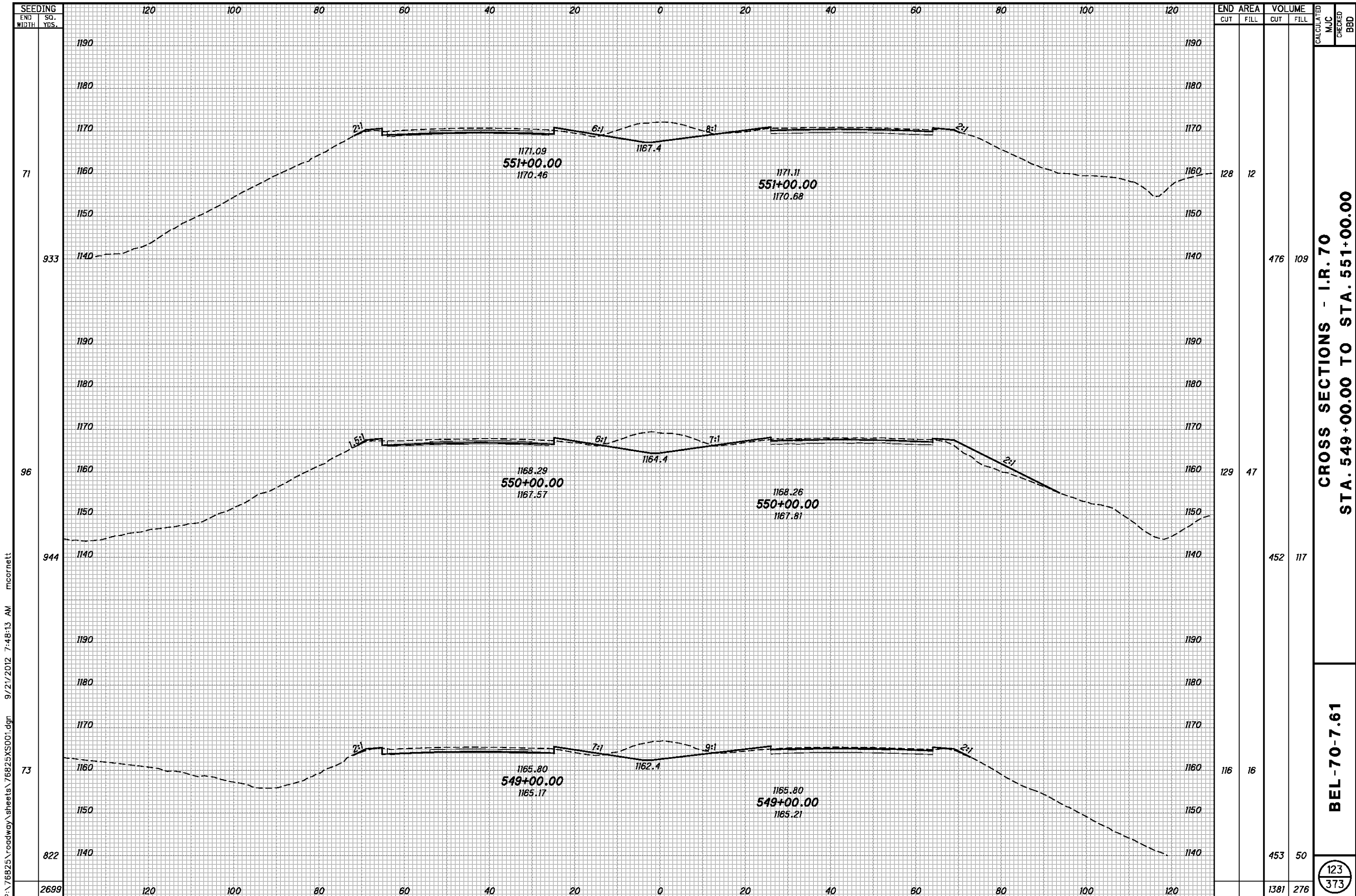
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:11 AM mcorneett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
74	811	129	11	466	45		
71	789	123	13	456	47		
70	811	124	12	431	71		
2411				1353	163		

**CROSS SECTIONS - I.R. 70
STA. 546+00.00 TO STA. 548+00.00**

BEL-70-7.61

122
373

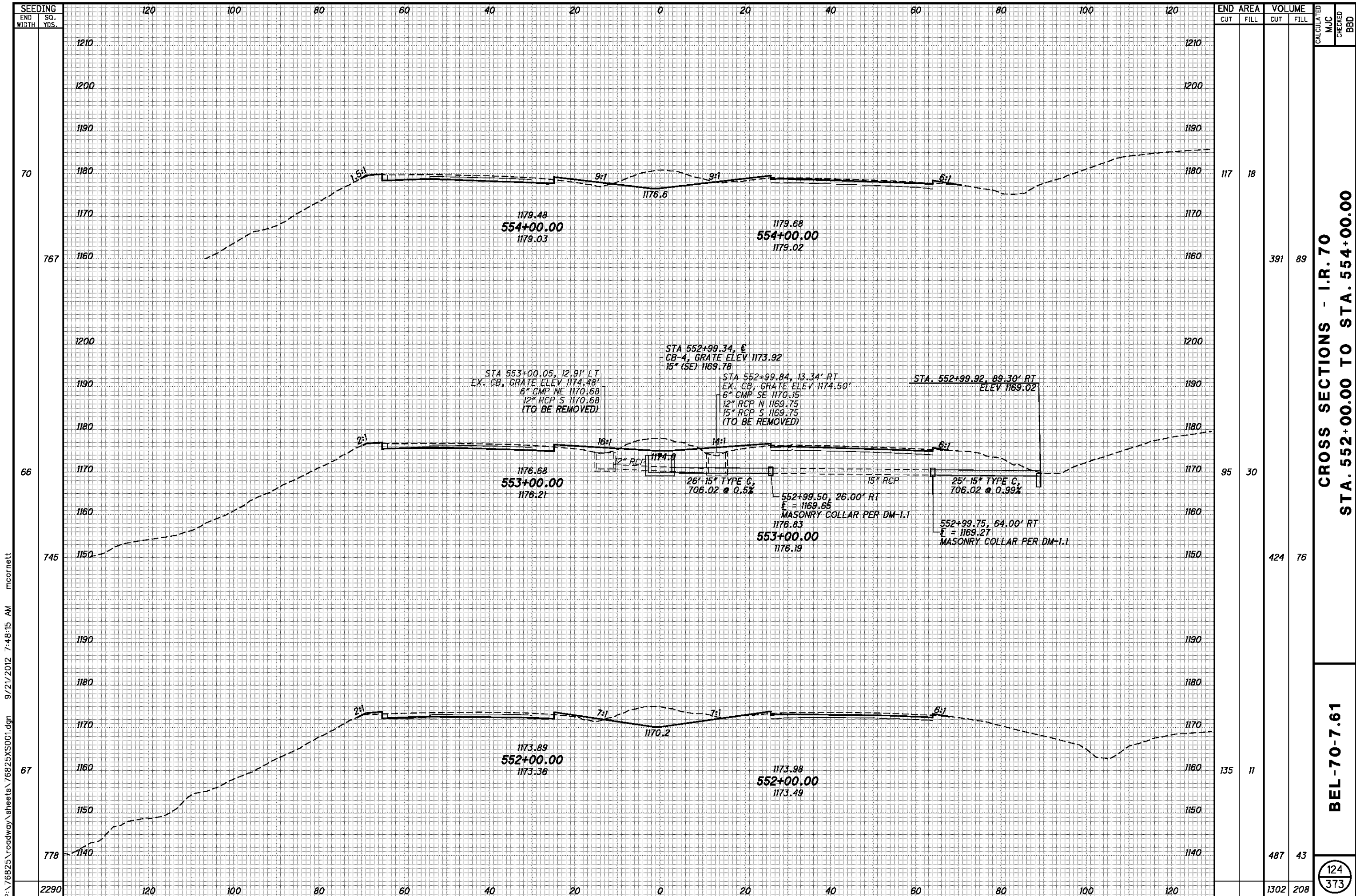


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**CROSS SECTIONS - I.R. 70
STA. 549+00.00 TO STA. 551+00.00**

BEL-70-7.61

123
373



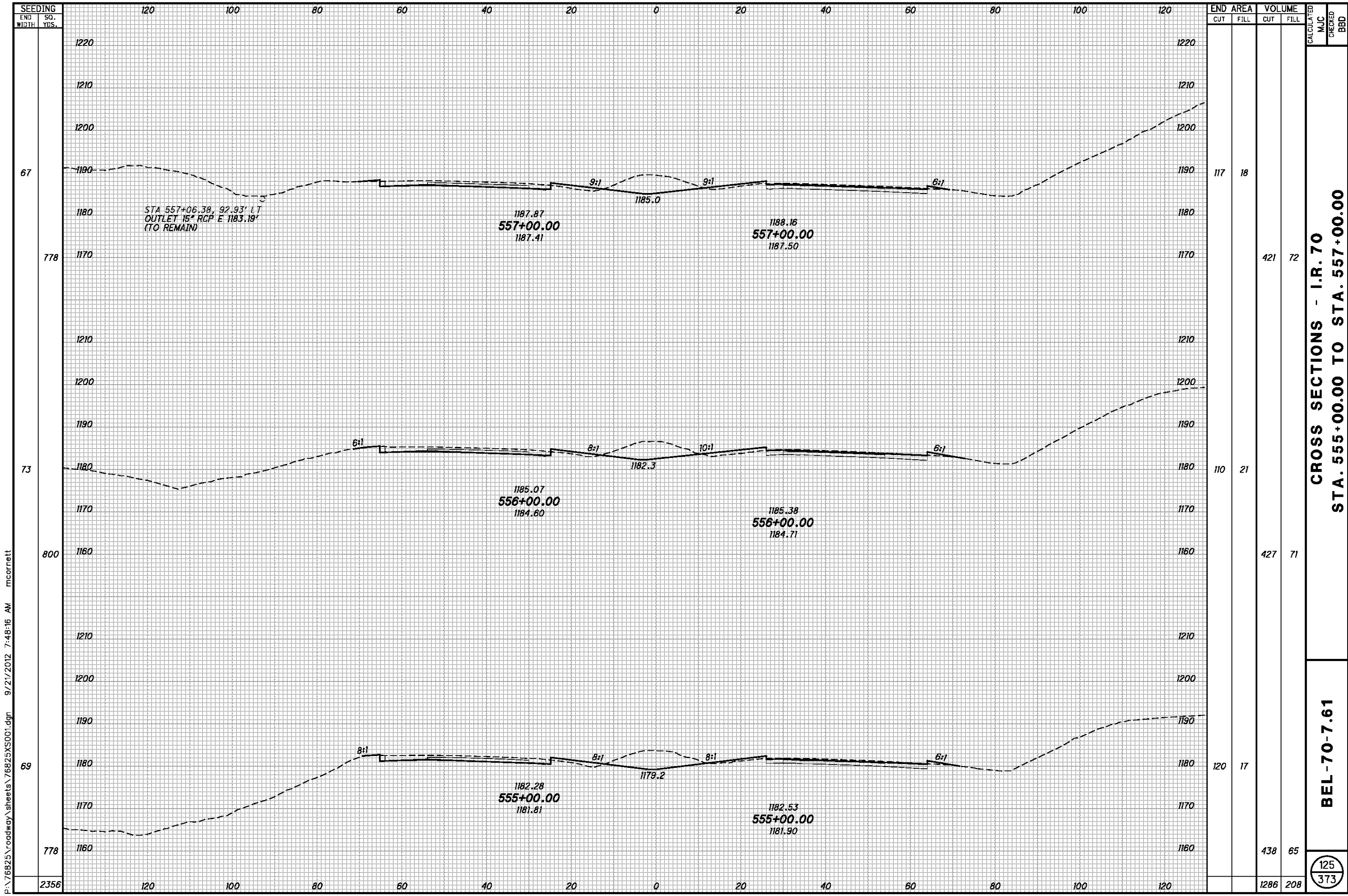
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:15 AM mcornett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
70	767	117	18	391	89		
66	745	95	30	424	76		
67	778	135	11	487	43		
2290				1302	208		

**CROSS SECTIONS - I.R. 70
STA. 552+00.00 TO STA. 554+00.00**

BEL-70-7.61

124
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:16 AM mcorrett

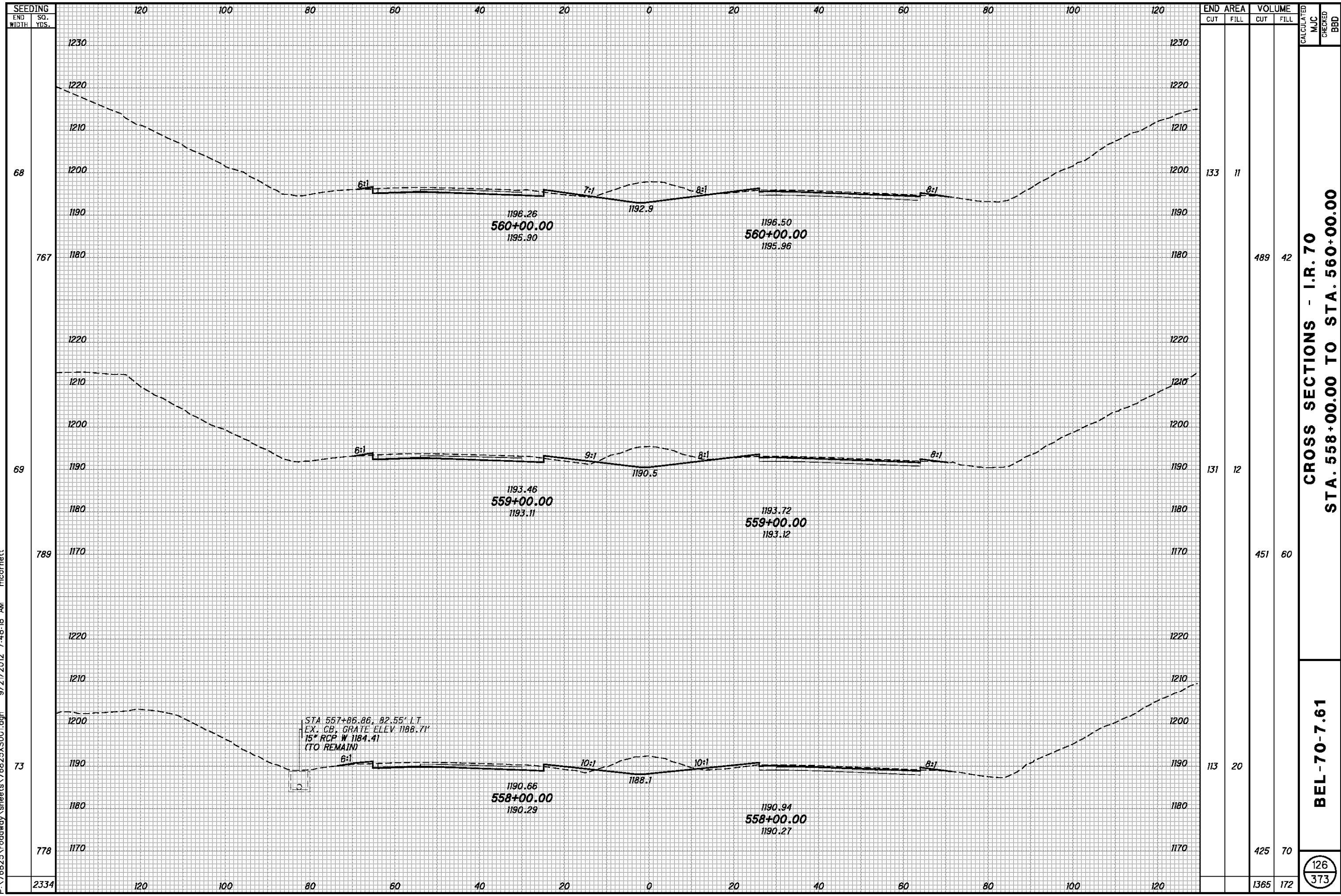
SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
67	778	117	18	421	72		
73	800	110	21	427	71		
69	778	120	17	438	65		
2356				1286	208		

**CROSS SECTIONS - I.R. 70
STA. 555+00.00 TO STA. 557+00.00**

BEL-70-7.61

125
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:18 AM mcornett

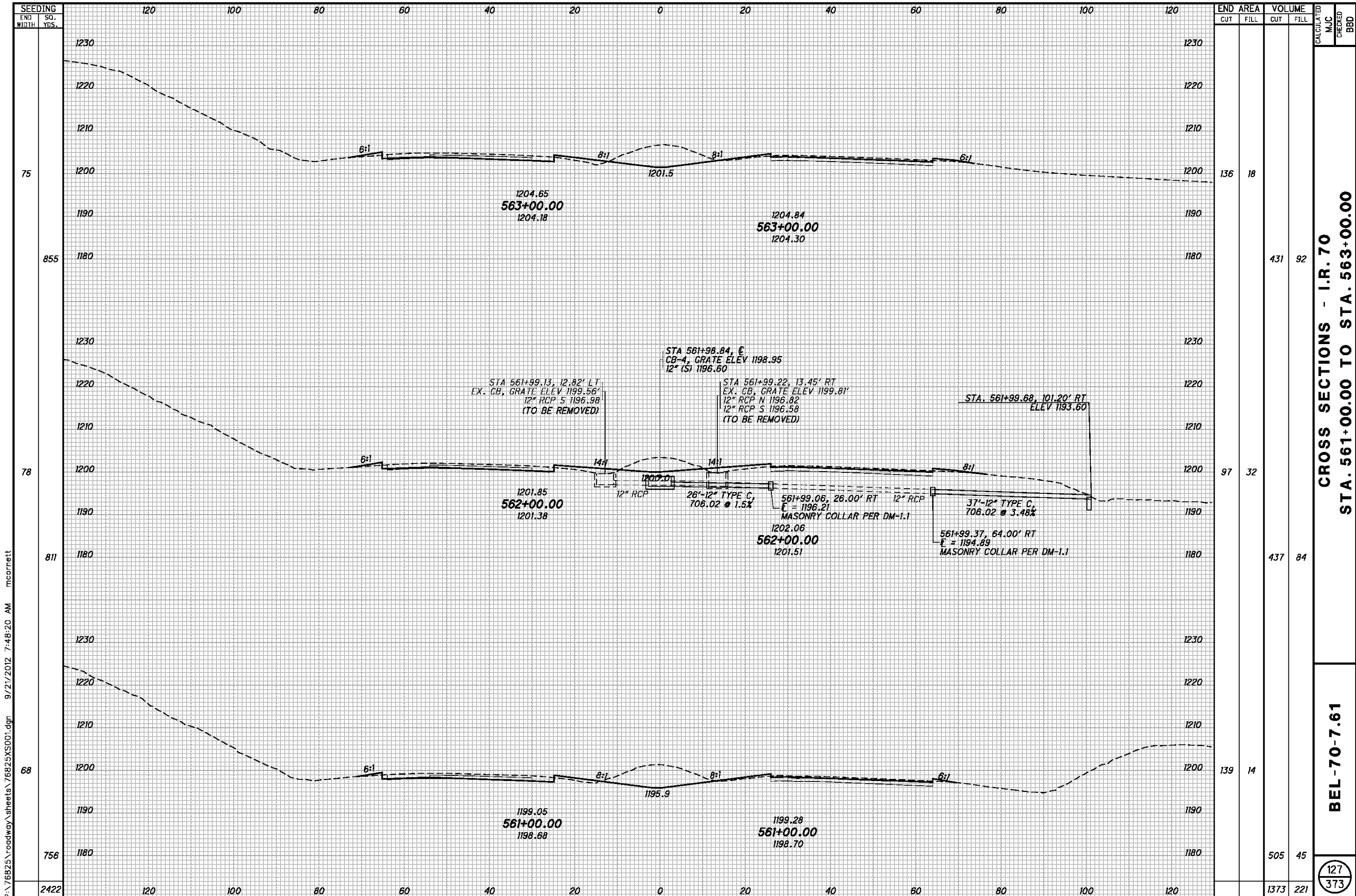


END AREA	VOLUME	CALCULATED		MJC	CHECKED	BBD
		CUT	FILL			
133	11					
489	42					
131	12					
451	60					
113	20					
425	70					
1365	172					

CROSS SECTIONS - I.R. 70
STA. 558+00.00 TO STA. 560+00.00

BEL-70-7.61

126
373



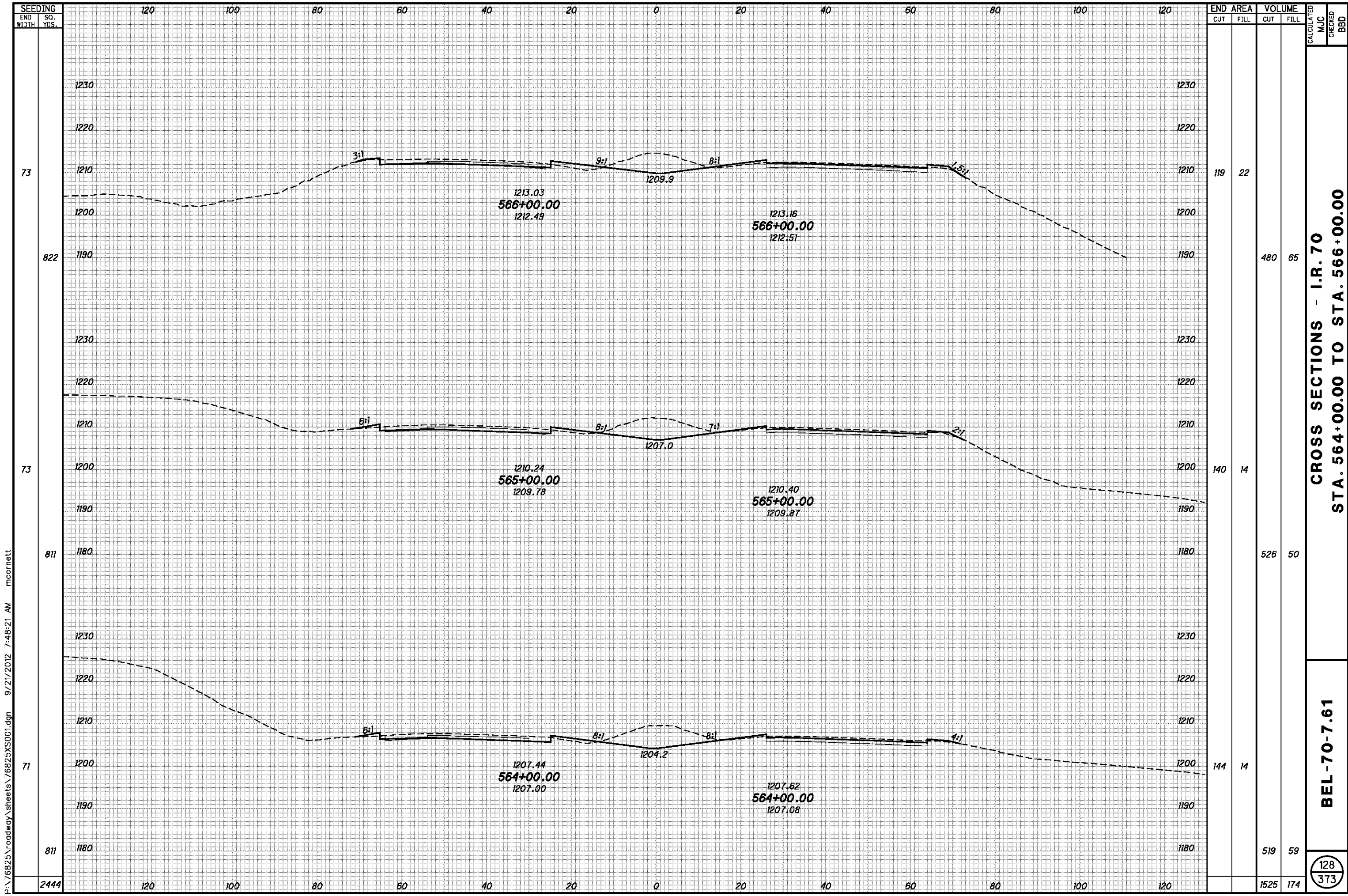
END AREA	VOLUME	CALCULATED		MJC	CHECKED	BBD
		CUT	FILL			
136	18					
431	92					
97	32					
437	84					
139	14					
505	45					
1373	221					

CROSS SECTIONS - I.R. 70
STA. 561+00.00 TO STA. 563+00.00

BEL-70-7.61

127
 373

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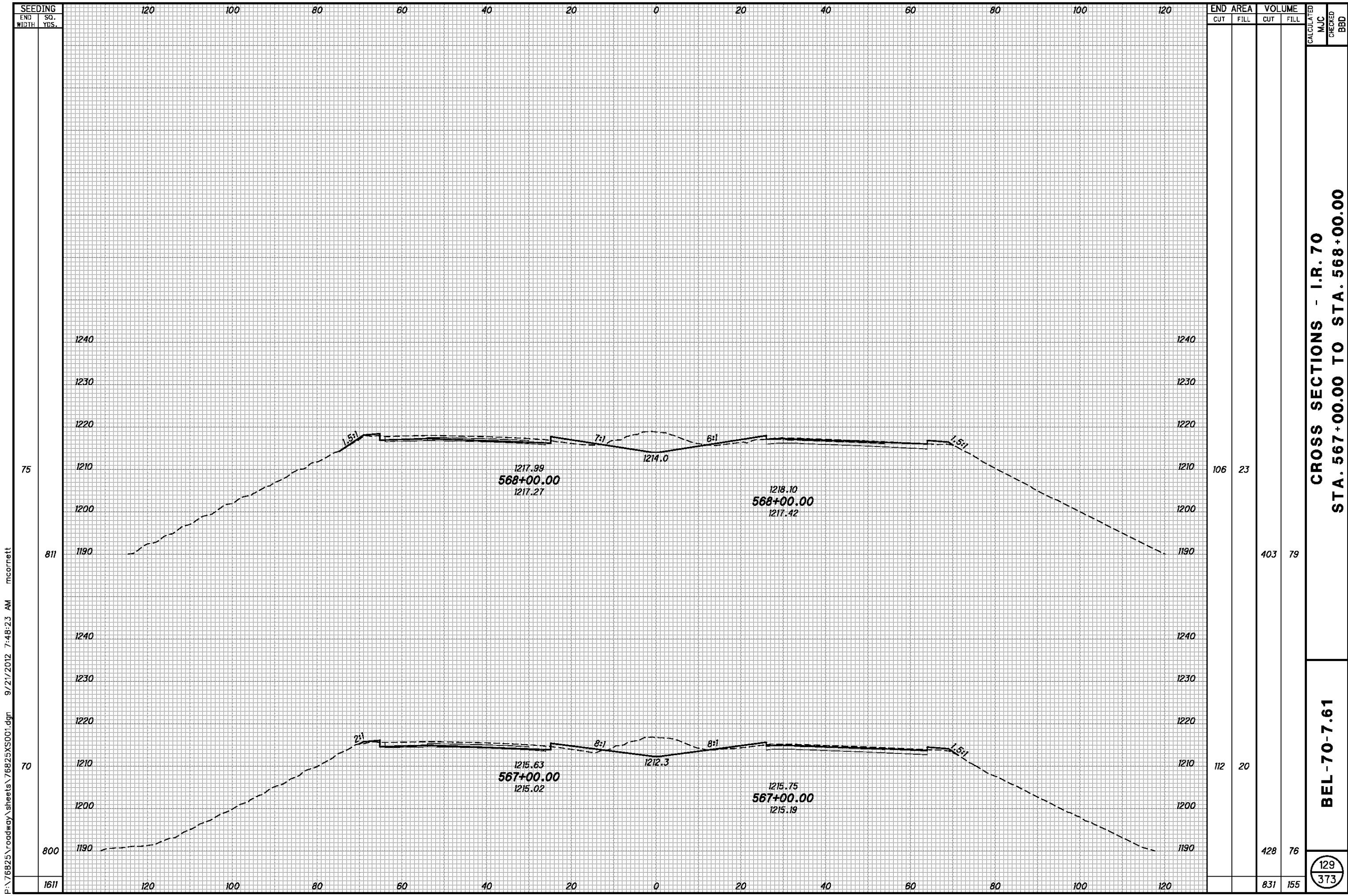
SEEDING	END SO. YDS.	
	WIDTH	YDS.
	73	822
	73	811
	71	811
	2444	

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
119	22	480	65	
140	14	526	50	
144	14	519	59	
		1525	174	

**CROSS SECTIONS - I.R. 70
STA. 564+00.00 TO STA. 566+00.00**

BEL-70-7.61

128
373



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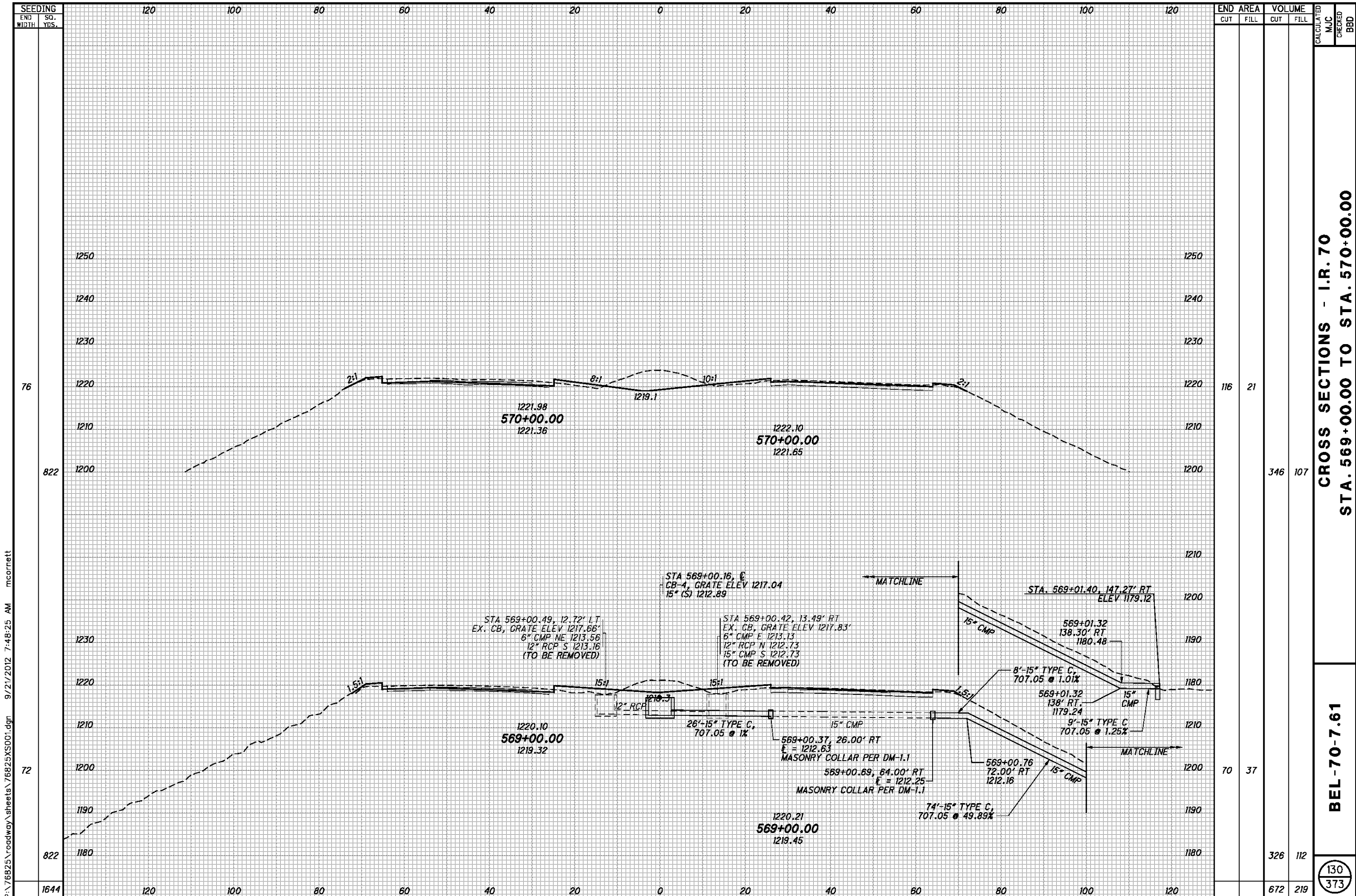
SEEDING	
END WIDTH	SO. YDS.
1611	

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	MJC	BBD
106	23	403	79		
112	20	428	76		
		831	155		

CROSS SECTIONS - I.R. 70
STA. 567+00.00 TO STA. 568+00.00

BEL-70-7.61

129
373



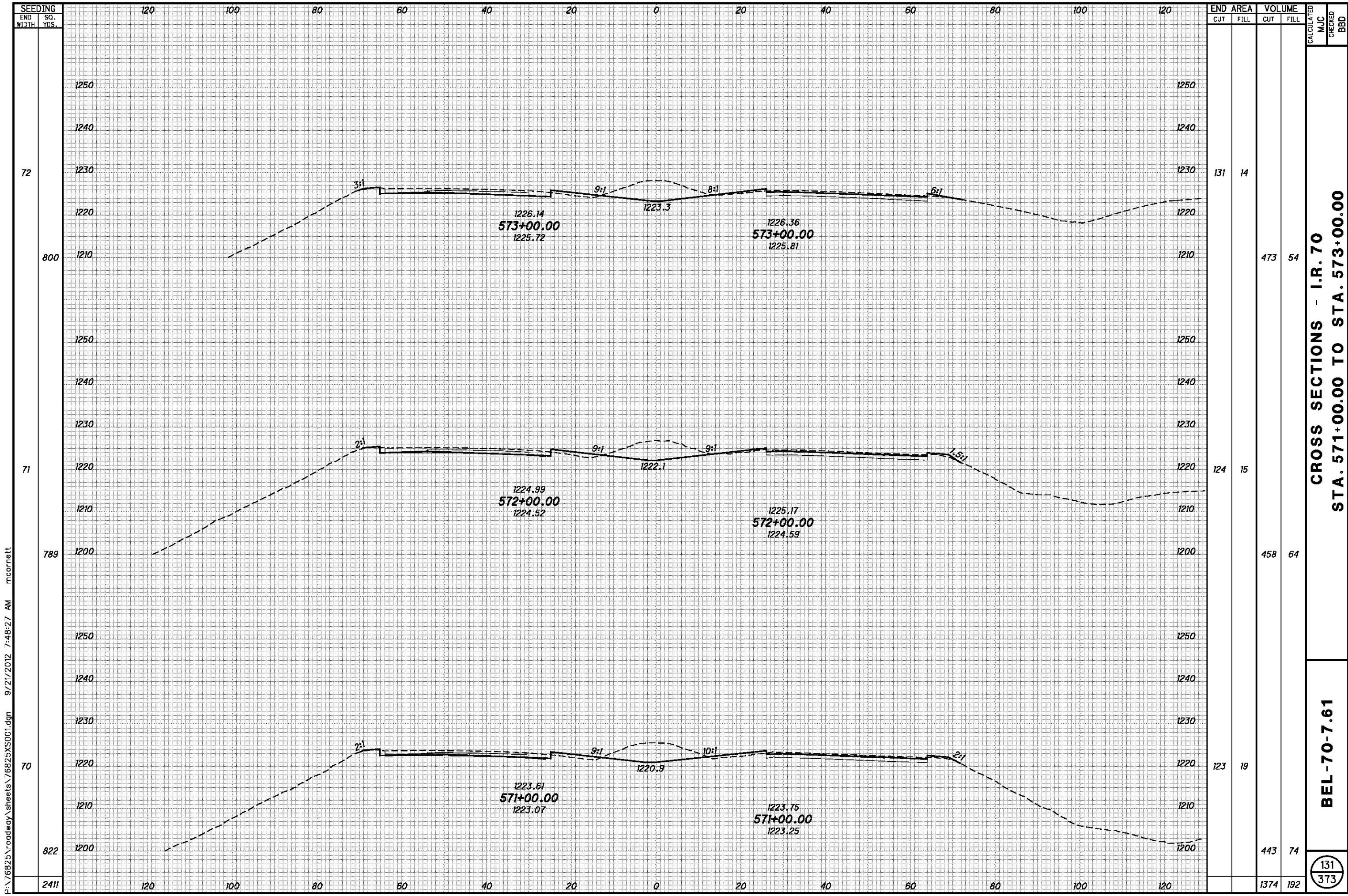
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END AREA	VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL				
116		21				
346		107				
70		37				
326		112				
672		219				

CROSS SECTIONS - I.R. 70
STA. 569+00.00 TO STA. 570+00.00

BEL-70-7.61

130
373



SEEDING	
END WIDTH	SO. YDS.
72	
800	
71	
789	
70	
822	
2411	

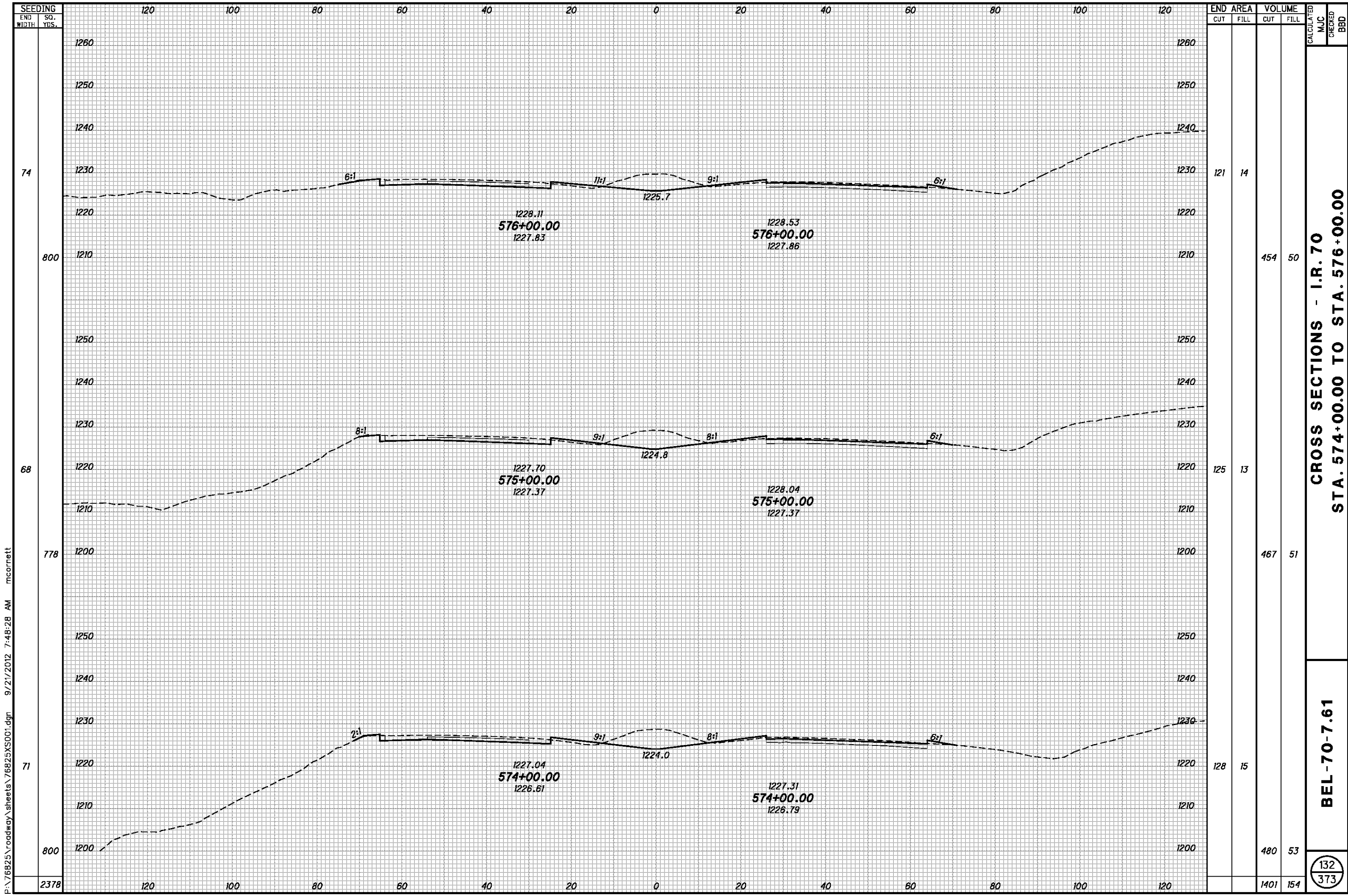
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
131	14	473	54		
124	15	458	64		
123	19	443	74		
		1374	192		

CROSS SECTIONS - I.R. 70
STA. 571+00.00 TO STA. 573+00.00

BEL-70-7.61

131
 373

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P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:28 AM mcorbett

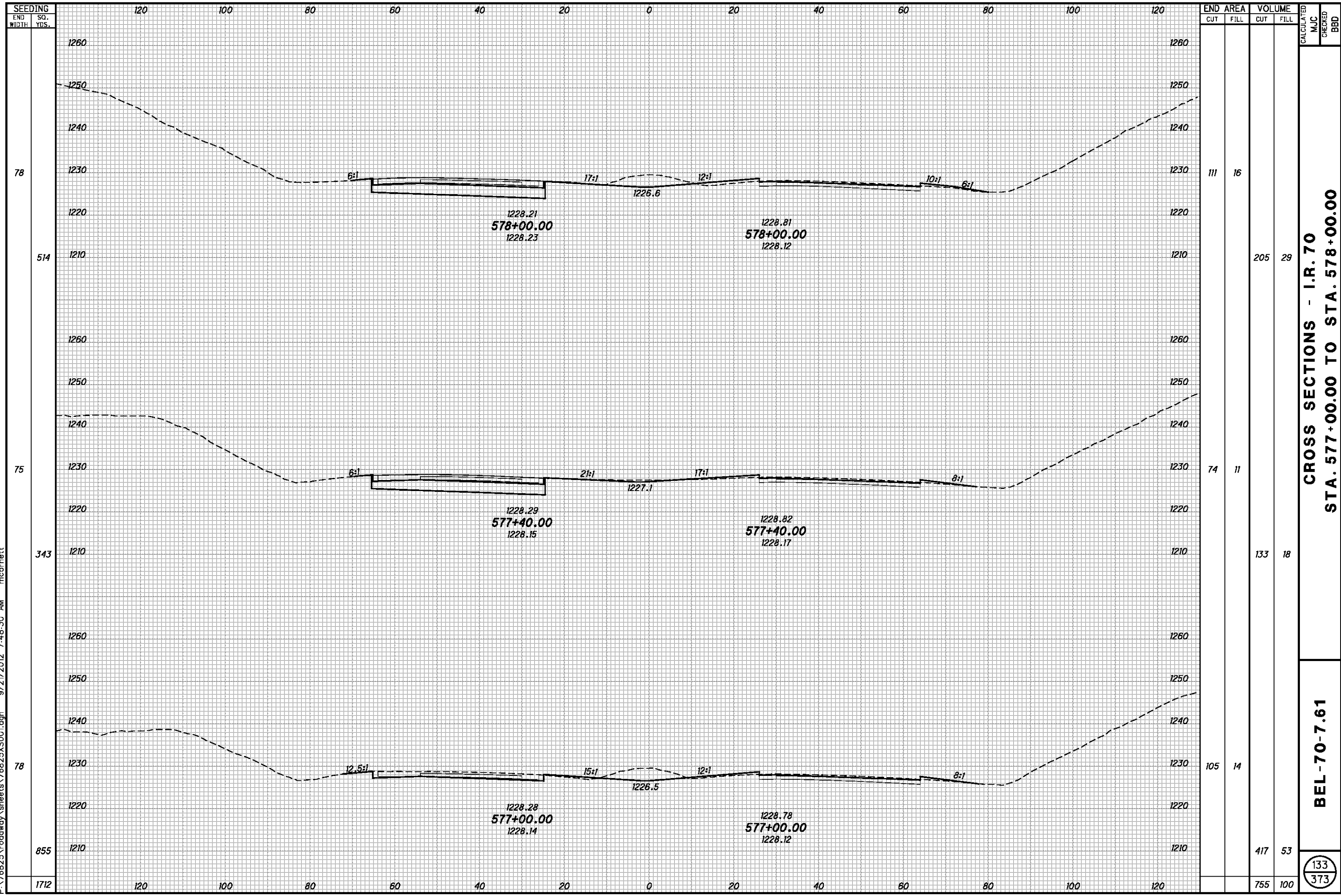
SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
74	800	121	14	454	50		
68	778	125	13	467	51		
71	800	128	15	480	53		
2378				1401	154		

CROSS SECTIONS - I.R. 70
STA. 574+00.00 TO STA. 576+00.00

BEL-70-7.61

132
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:30 AM mcornett

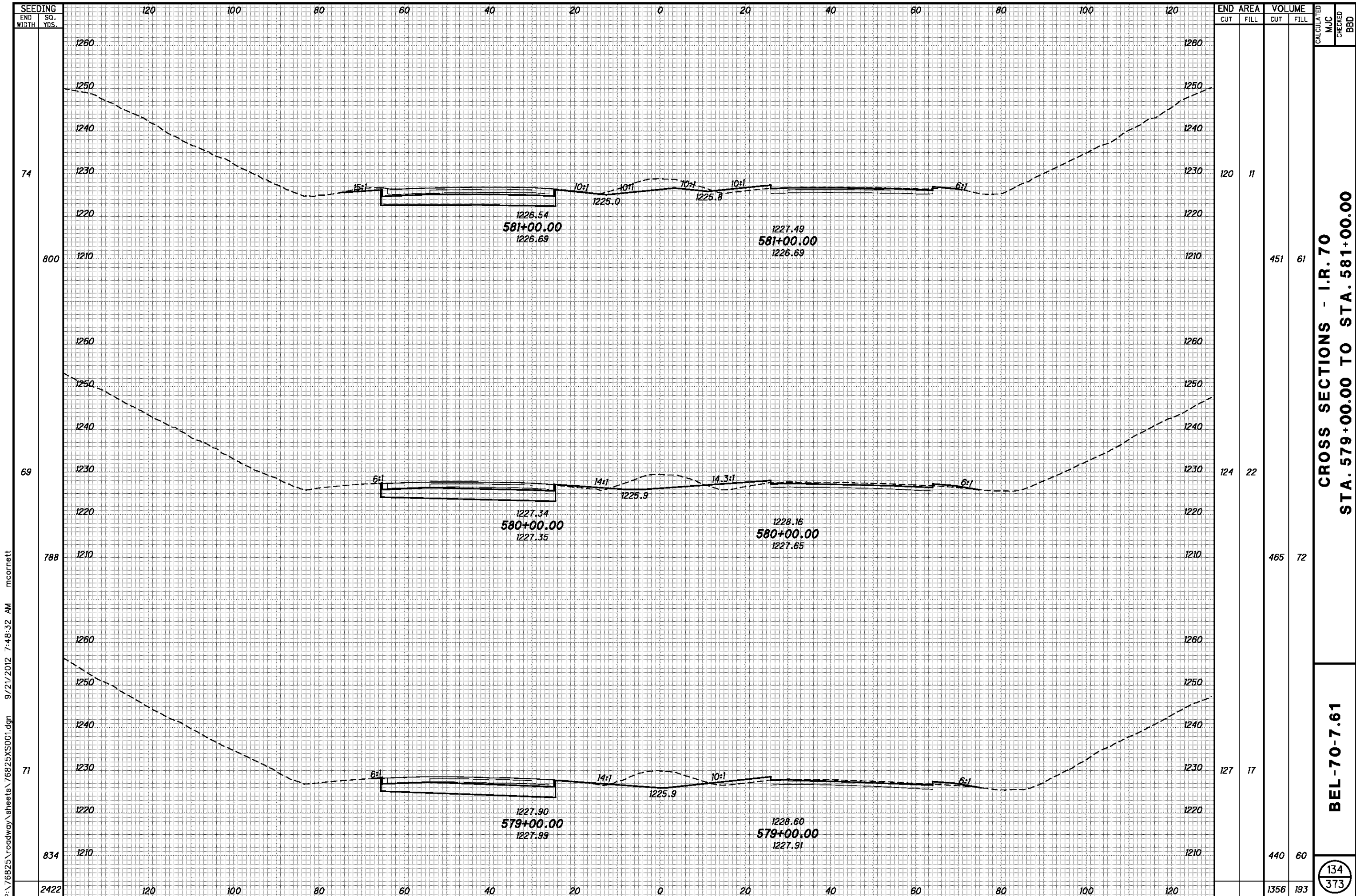


SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
78	514	111	16	205	29		
75	343	74	11	133	18		
78	855	105	14	417	53		
1712				755	100		

**CROSS SECTIONS - I.R. 70
STA. 577+00.00 TO STA. 578+00.00**

BEL-70-7.61

133
373



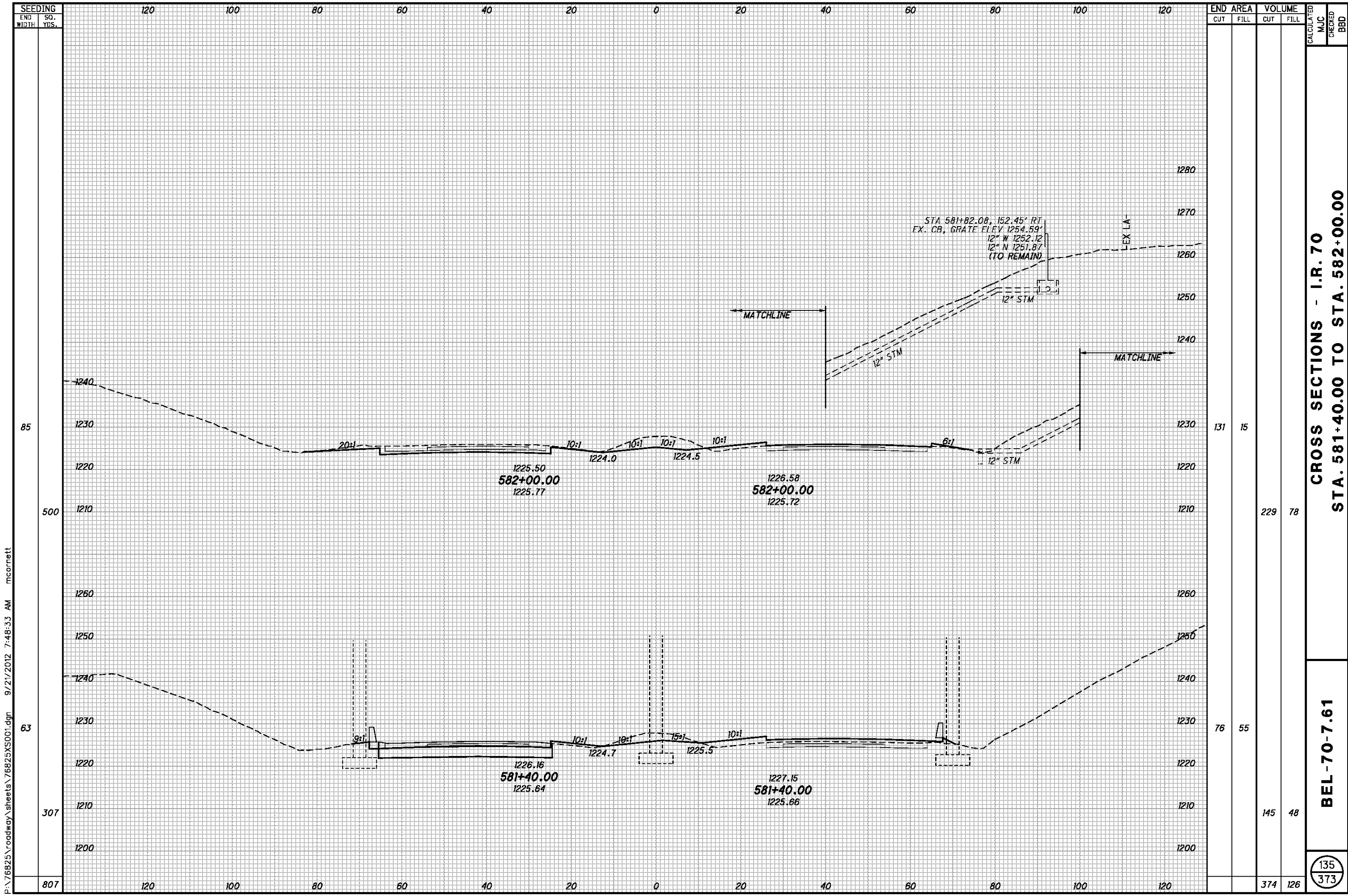
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SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
74	120	11	451	61				
69	124	22	465	72				
71	127	17	440	60				
2422			1356	193				

CROSS SECTIONS - I.R. 70
STA. 579+00.00 TO STA. 581+00.00

BEL-70-7.61

134
373



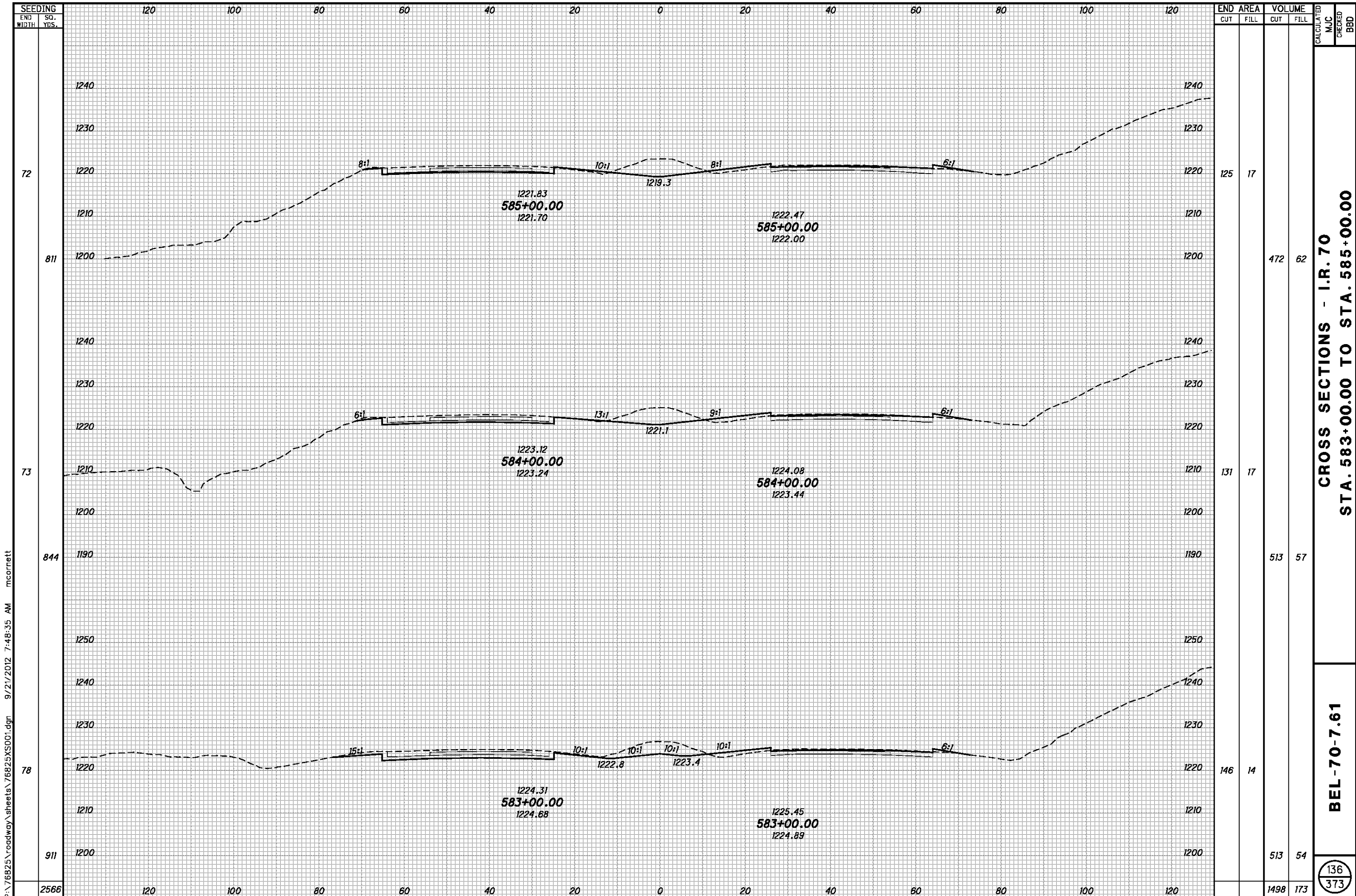
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:33 AM mcorbett

SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	END WIDTH	SO. YDS.	CUT	FILL				
85			131	15				
500					229	78		
63			76	55				
307					145	48		
807					374	126		

CROSS SECTIONS - I.R. 70
STA. 581+40.00 TO STA. 582+00.00

BEL-70-7.61

135
373

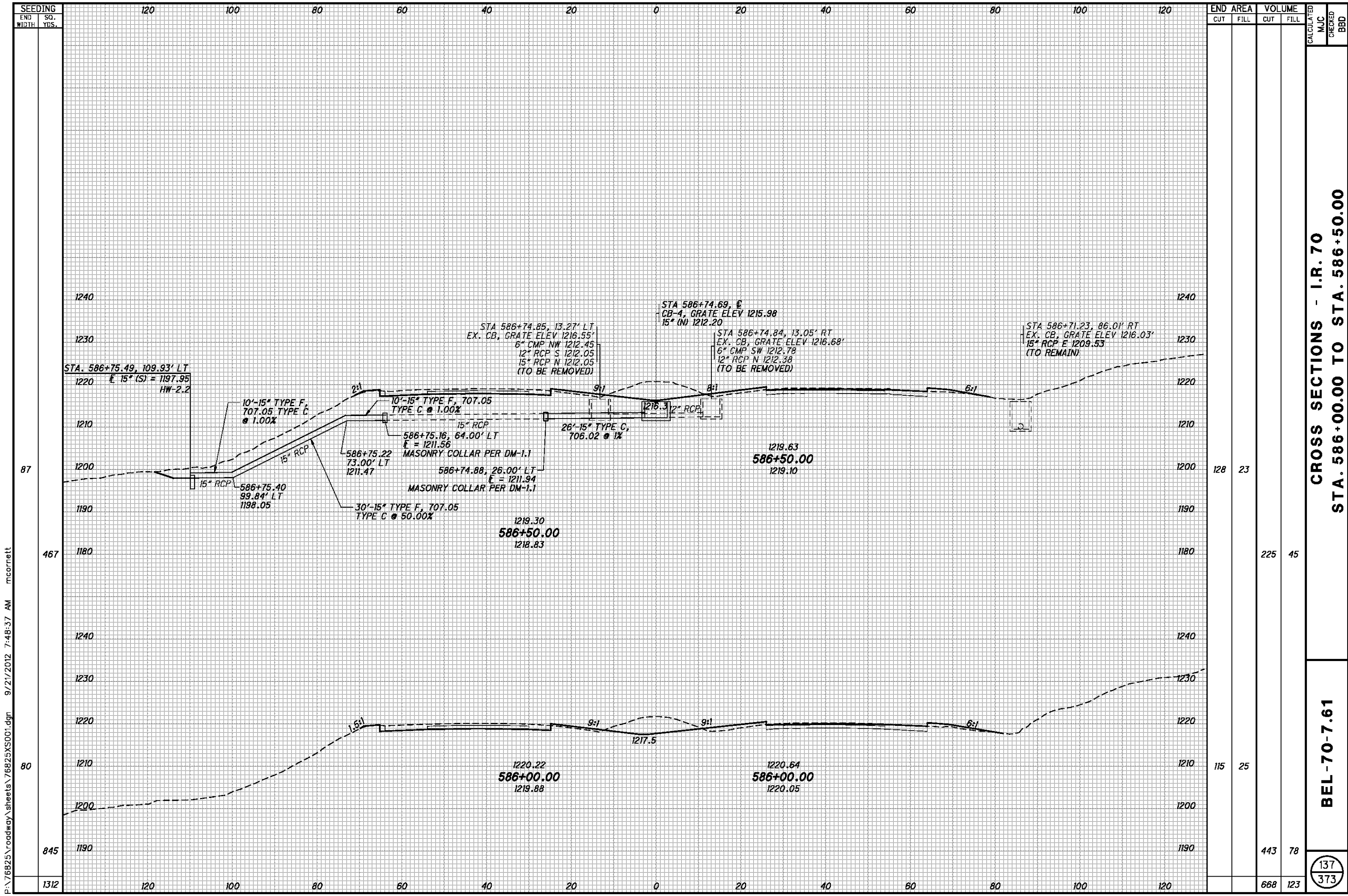


P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:35 AM mcornett

**CROSS SECTIONS - I.R. 70
STA. 583+00.00 TO STA. 585+00.00**

BEL-70-7.61

136
373



P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:48:37 AM mcorbett

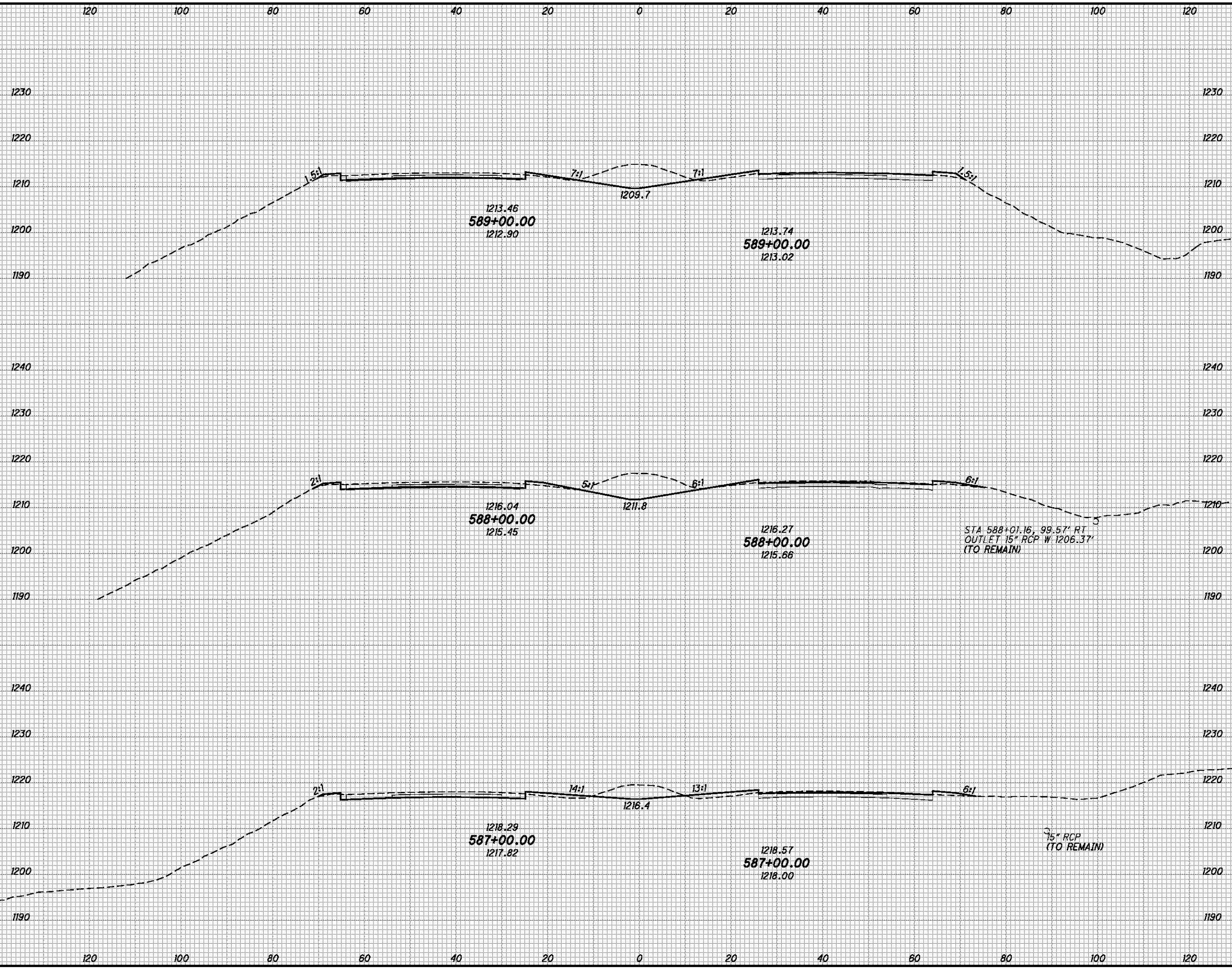
CROSS SECTIONS - I.R. 70
STA. 586+00.00 TO STA. 586+50.00

BEL-70-7.61

137
 373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:38 AM mcornett

SEEDING	END SO.	
	WIDTH	YDS.
71	822	1190
76	822	1190
72	445	1190
2089		

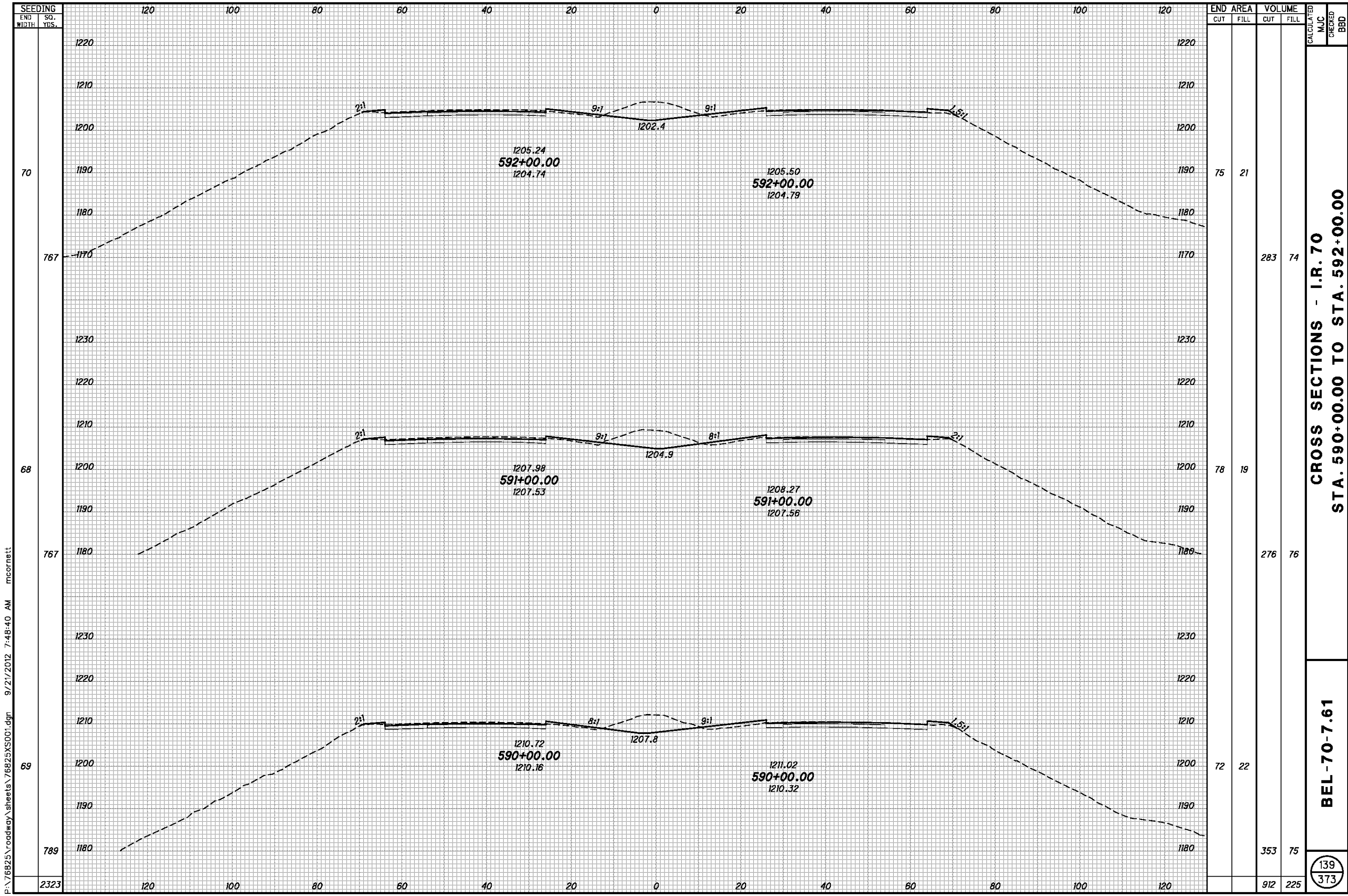


END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
119	19	470	62	
135	15	419	77	
92	27	203	46	
		1092	185	

CROSS SECTIONS - I.R. 70
STA. 587+00.00 TO STA. 589+00.00

BEL-70-7.61

138
373

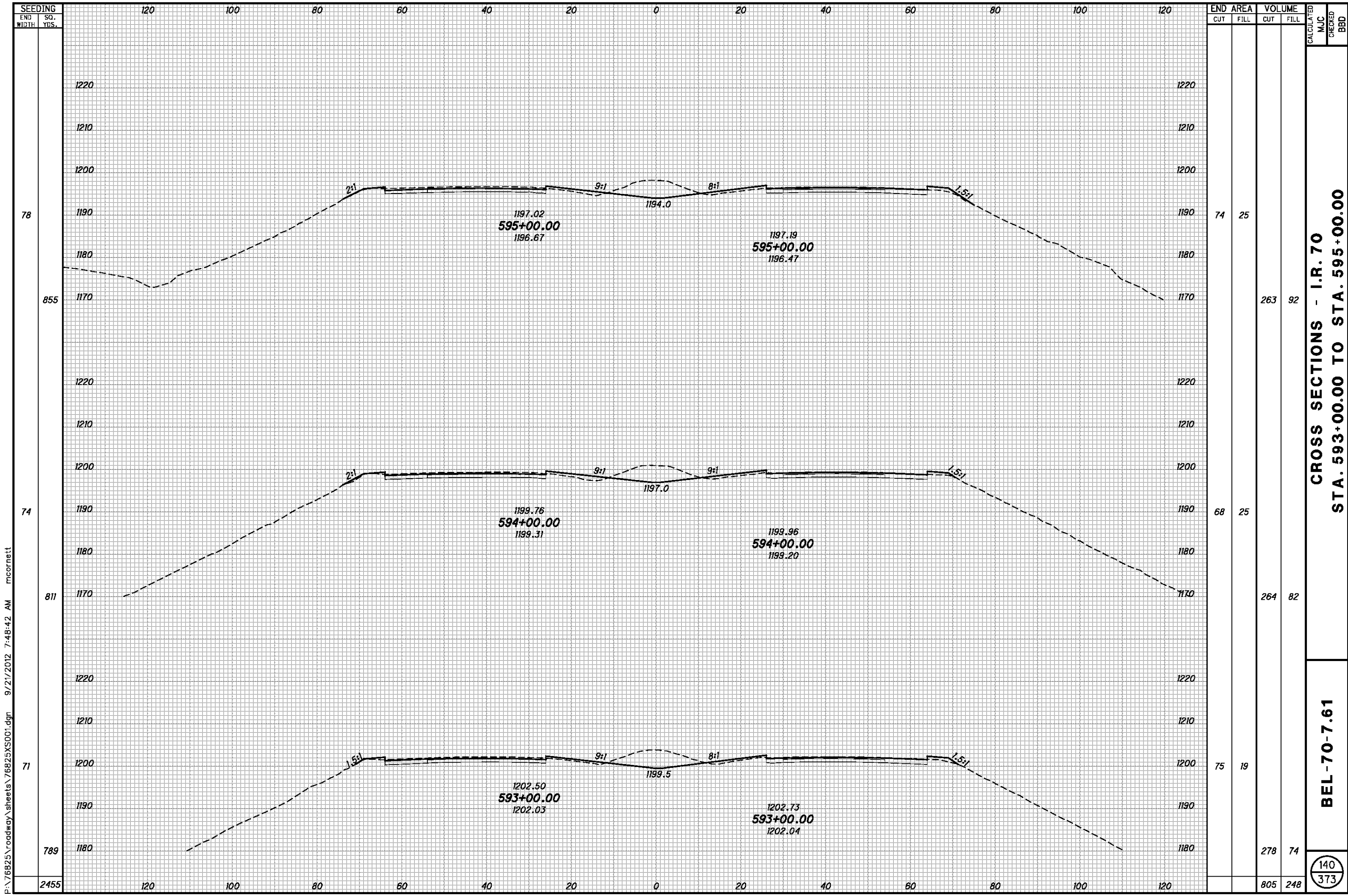


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**CROSS SECTIONS - I.R. 70
STA. 590+00.00 TO STA. 592+00.00**

BEL-70-7.61

139
373



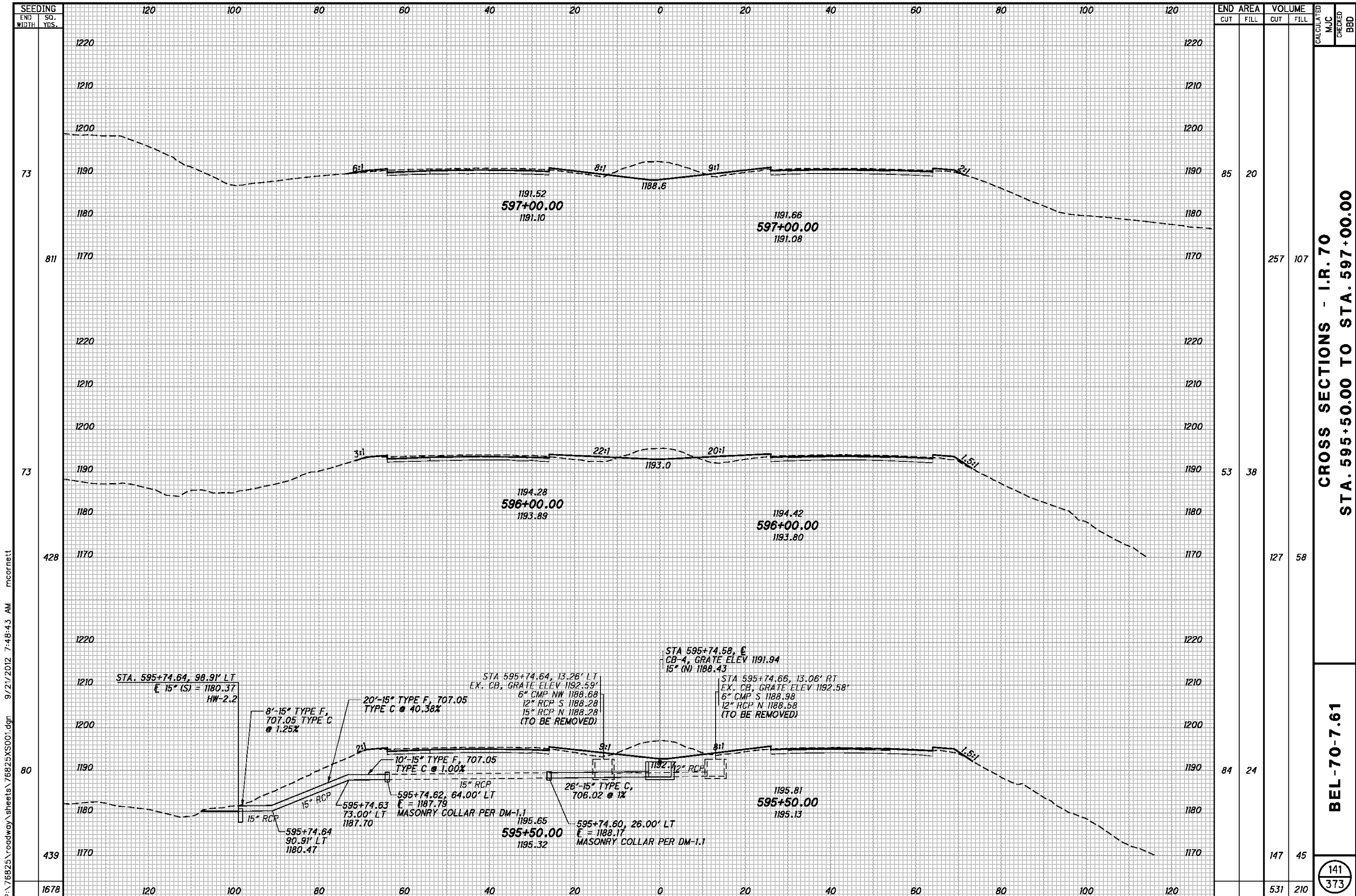
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:42 AM mcornett

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
74	25	263	92	
68	25	264	82	
75	19	278	74	
		805	248	

CROSS SECTIONS - I.R. 70
STA. 593+00.00 TO STA. 595+00.00

BEL-70-7.61

140
373



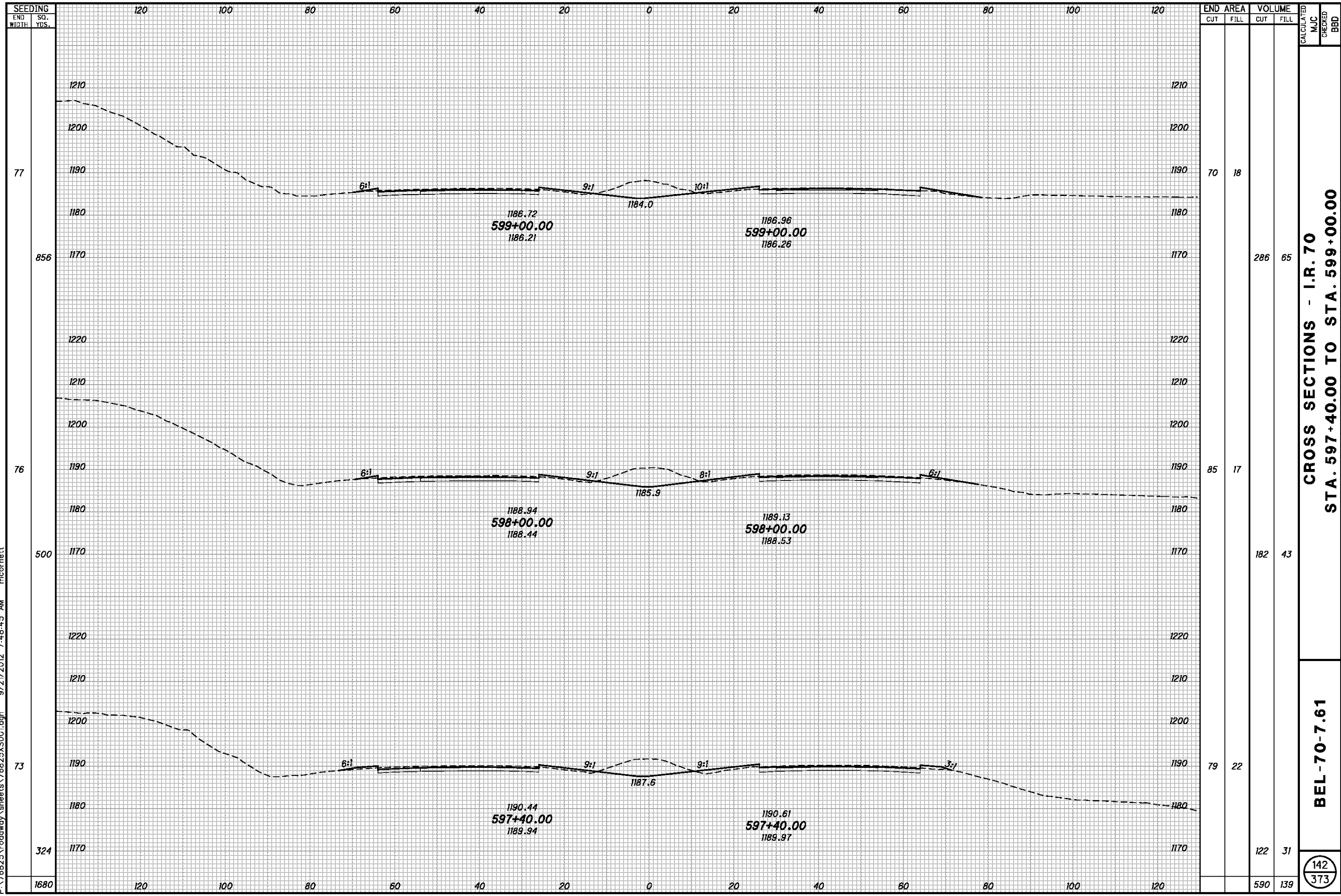
CROSS SECTIONS - I.R. 70
STA. 595+50.00 TO STA. 597+00.00

BEL-70-7.61

141
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:43 AM mcornett

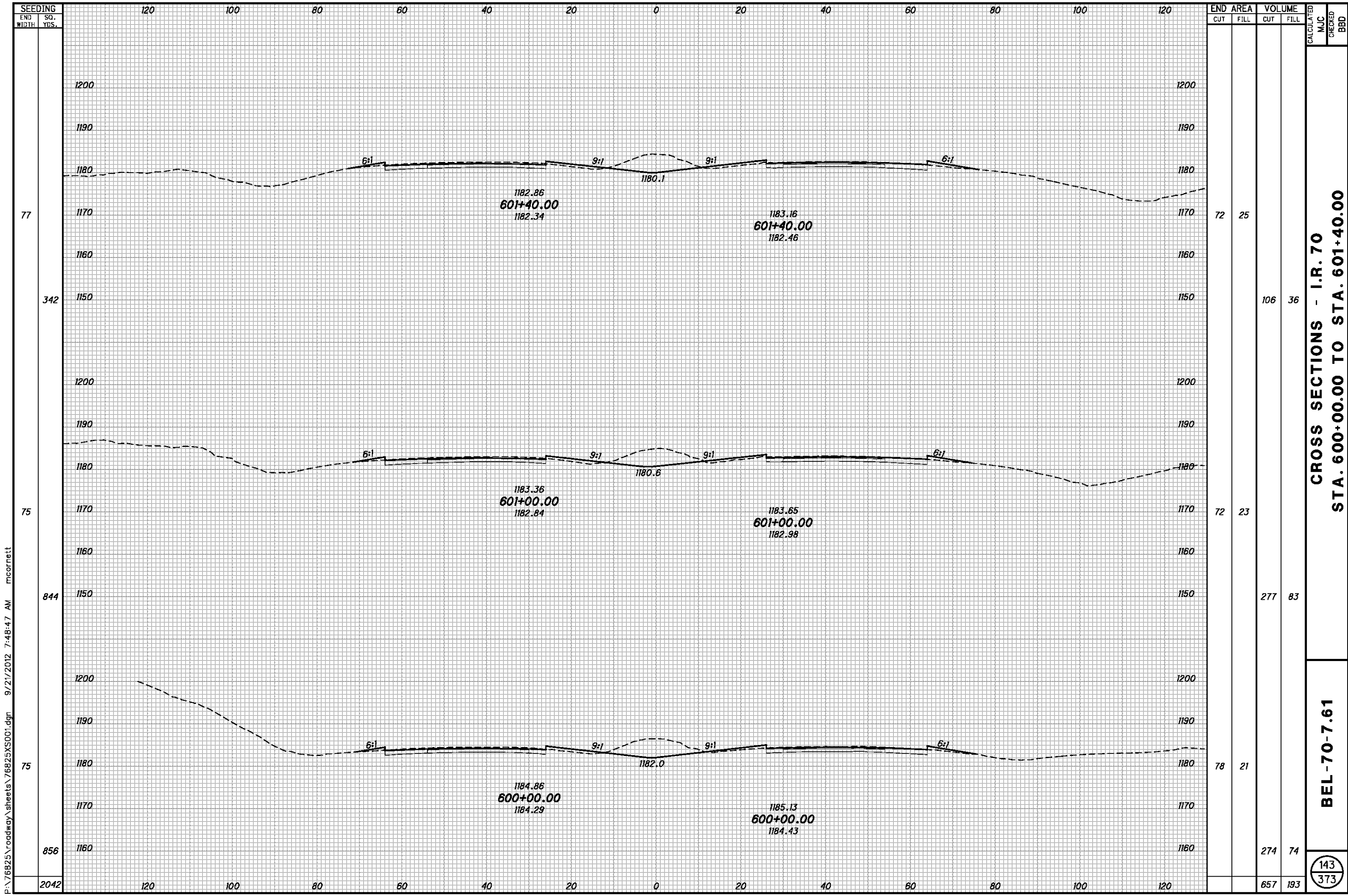
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:45 AM mcornett



**CROSS SECTIONS - I.R. 70
STA. 597+40.00 TO STA. 599+00.00**

BEL-70-7.61

142
373



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SEEDING	END	
	WIDTH	SO. YDS.
	77	
	342	
	75	
	844	
	75	
	856	
	2042	

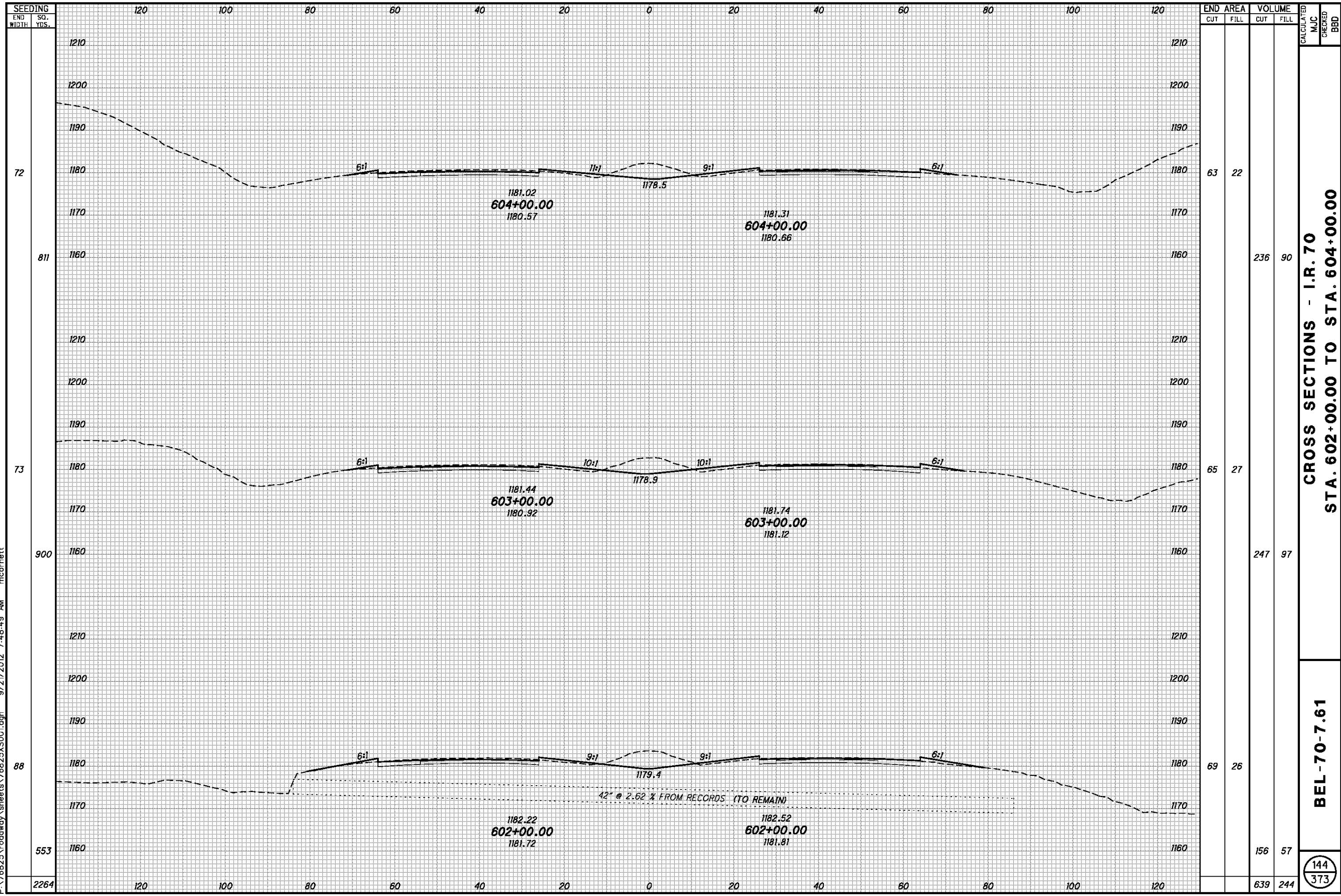
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
72	25			
	106	36		
72	23			
	277	83		
78	21			
	274	74		
	657	193		

**CROSS SECTIONS - I.R. 70
STA. 600+00.00 TO STA. 601+40.00**

BEL-70-7.61

143
373

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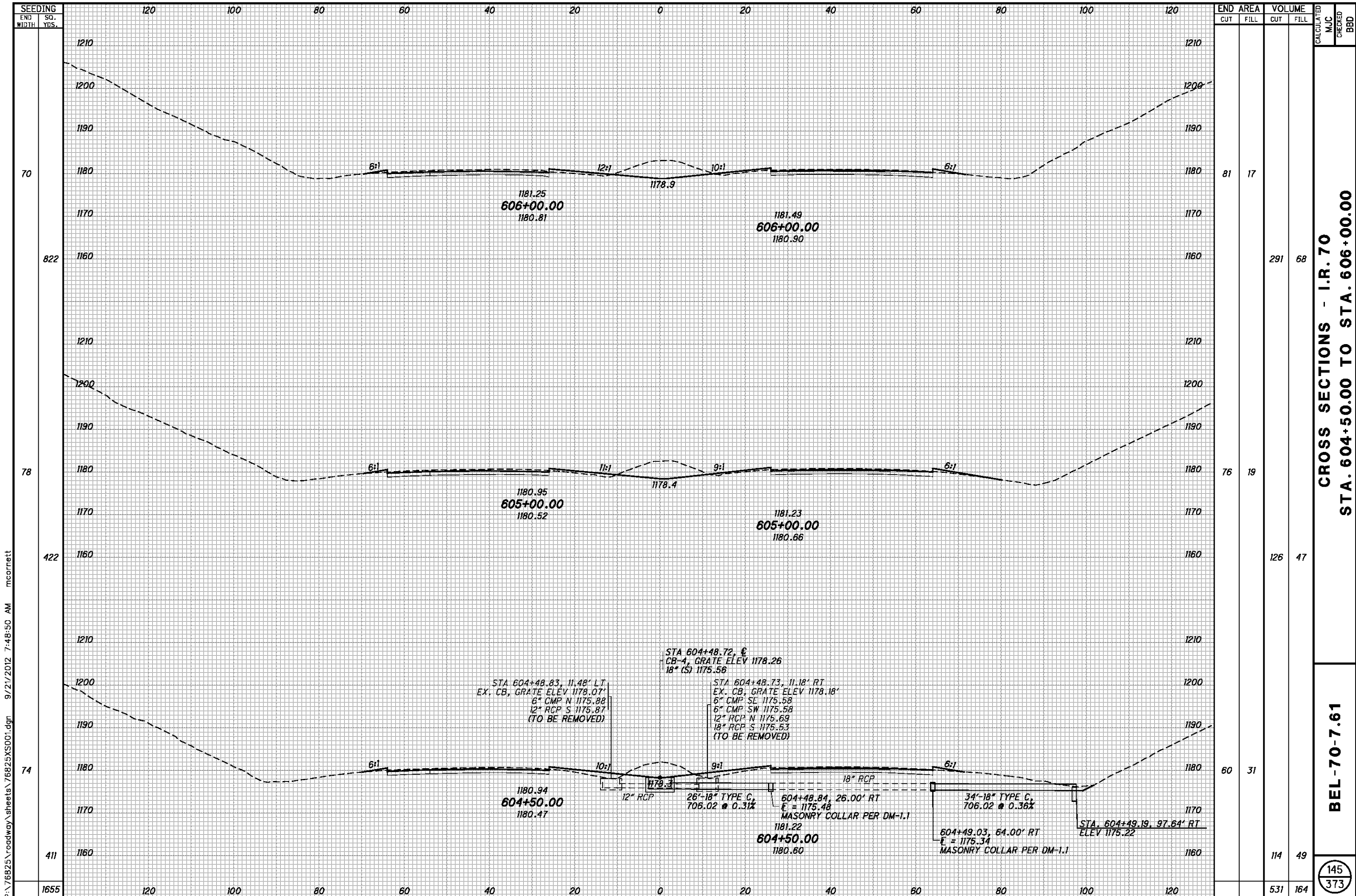


END AREA	VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL				
63	22					
811	236	90				
73	27					
900	247	97				
88	26					
553	156	57				
2264	639	244				

CROSS SECTIONS - I.R. 70
STA. 602+00.00 TO STA. 604+00.00

BEL-70-7.61

144
373



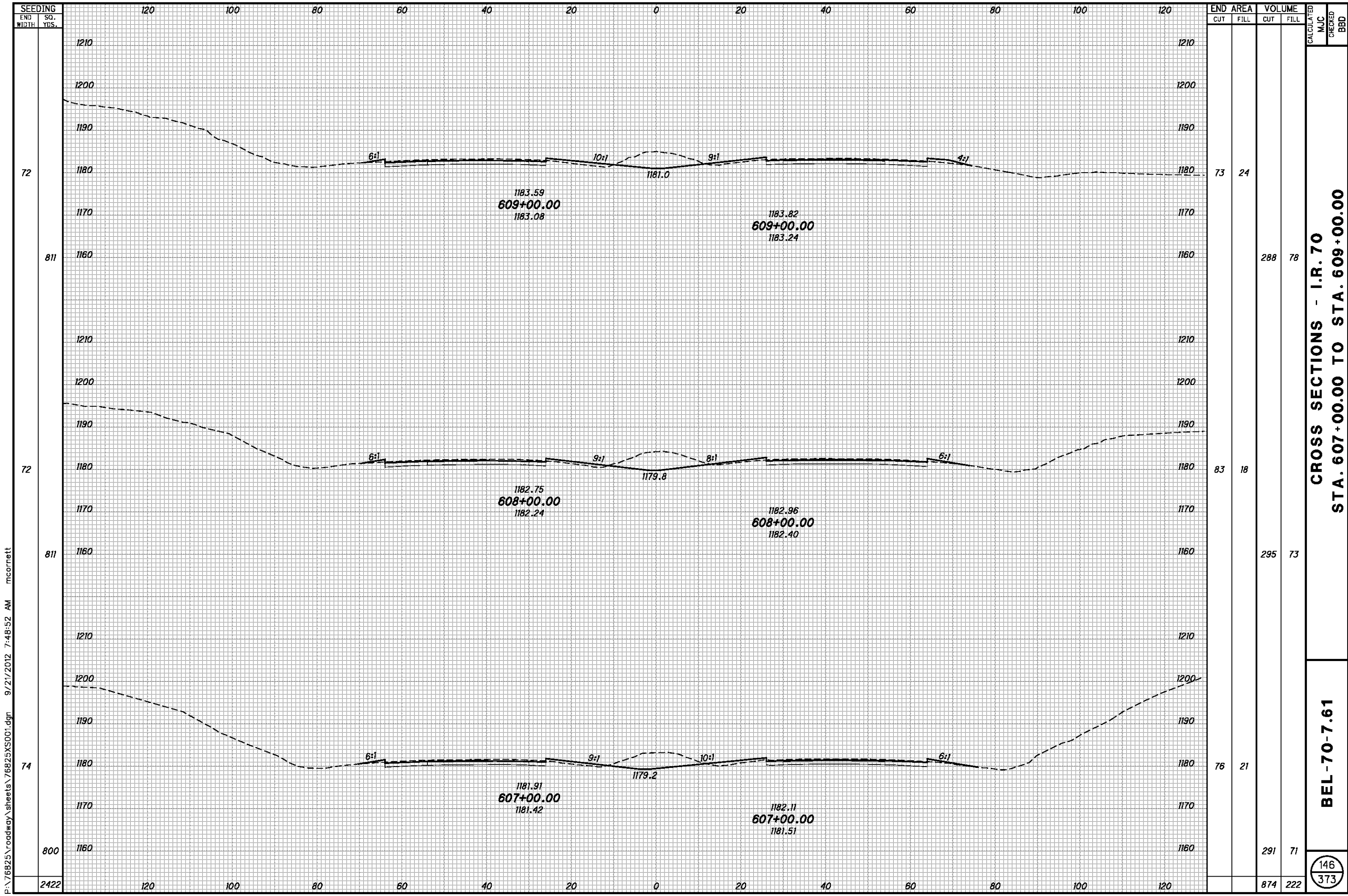
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:50 AM mcornett

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
81	17			
822	291	68		
78	19			
422	126	47		
74	31			
411	114	49		
1655	531	164		

CROSS SECTIONS - I.R. 70
STA. 604+50.00 TO STA. 606+00.00

BEL-70-7.61

145
373



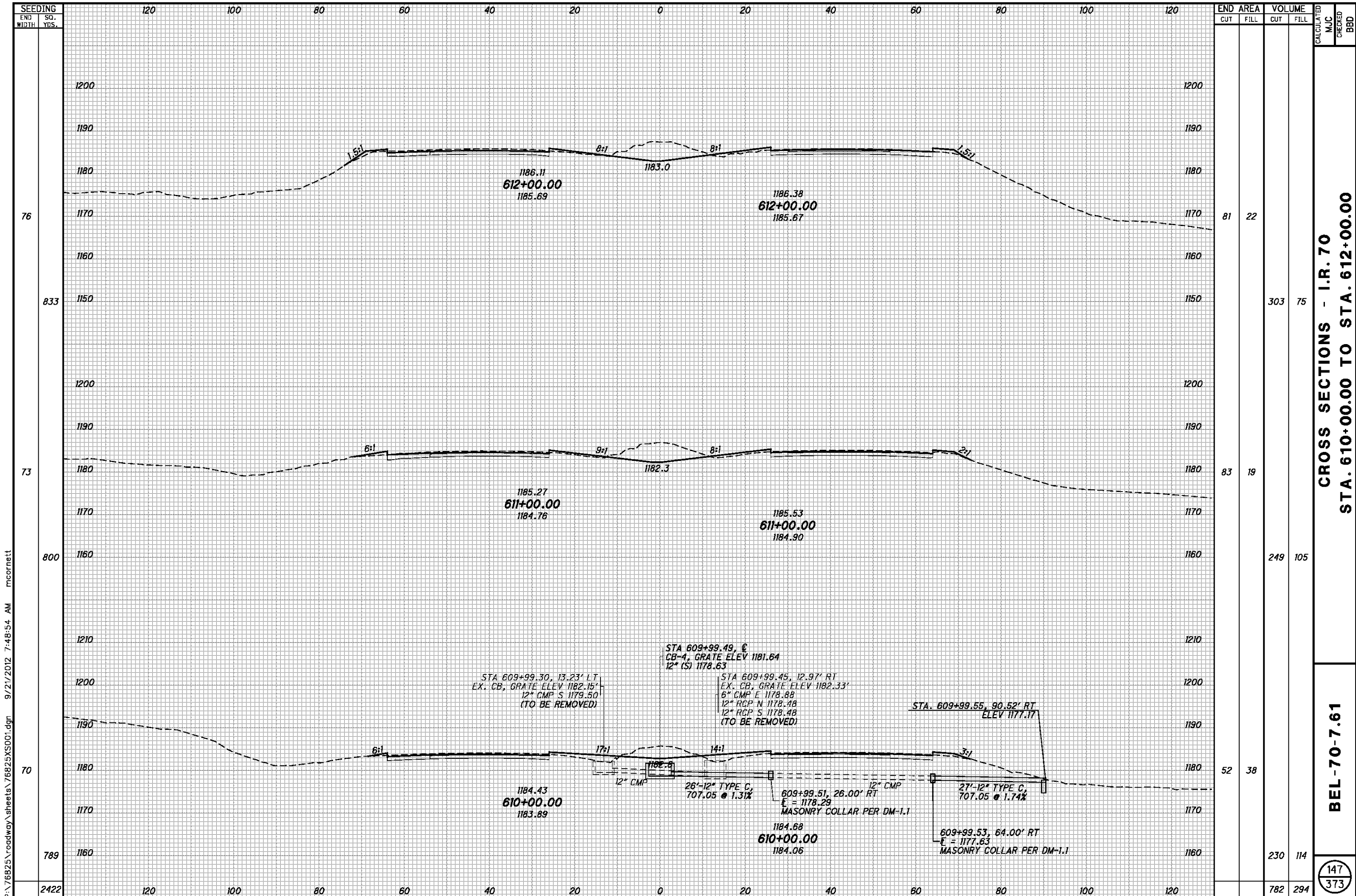
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
73	24			
811	288	78		
72	18			
811	295	73		
74	21			
800	291	71		
2422	874	222		

CROSS SECTIONS - I.R. 70
STA. 607+00.00 TO STA. 609+00.00

BEL-70-7.61

146
 373

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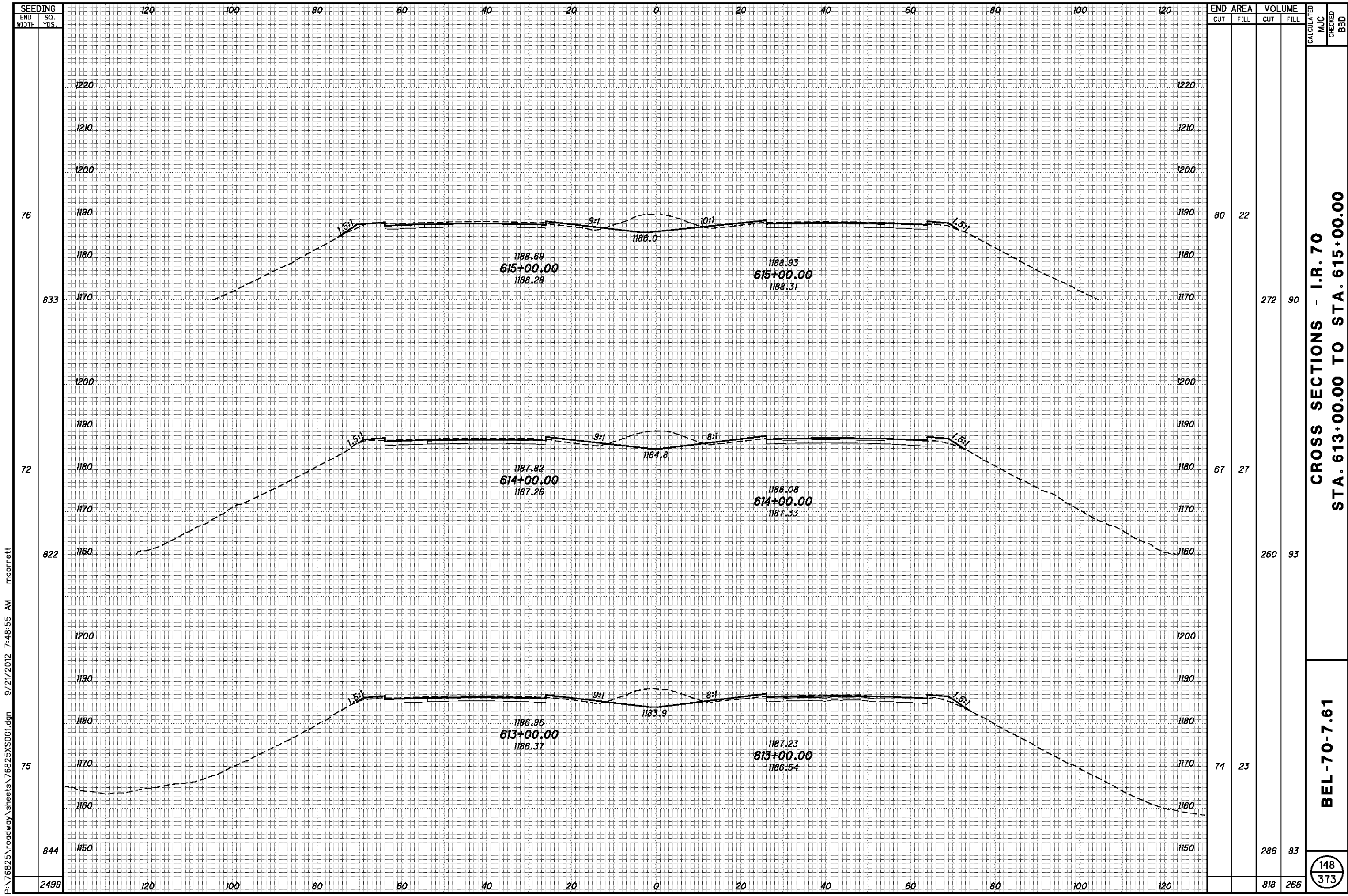


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CROSS SECTIONS - I.R. 70
STA. 610+00.00 TO STA. 612+00.00

BEL-70-7.61

147
373



SEEDING	END	
	WIDTH	SO. YDS.
76	833	120
72	822	120
75	844	120
2499		120

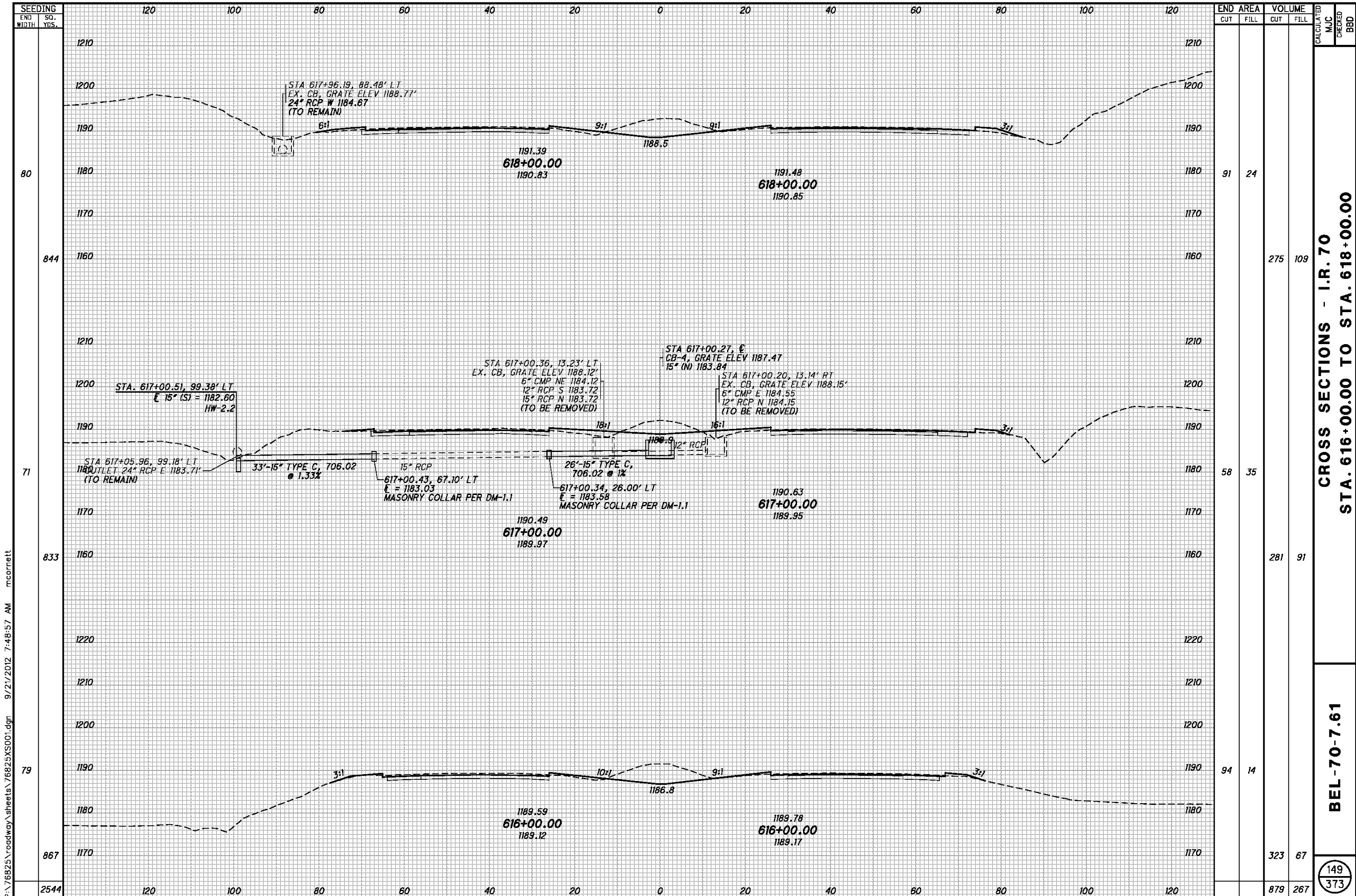
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
80	22	272	90	
67	27	260	93	
74	23	286	83	
		818	266	

CROSS SECTIONS - I.R. 70
STA. 613+00.00 TO STA. 615+00.00

BEL-70-7.61

148
 373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:55 AM mcorbett

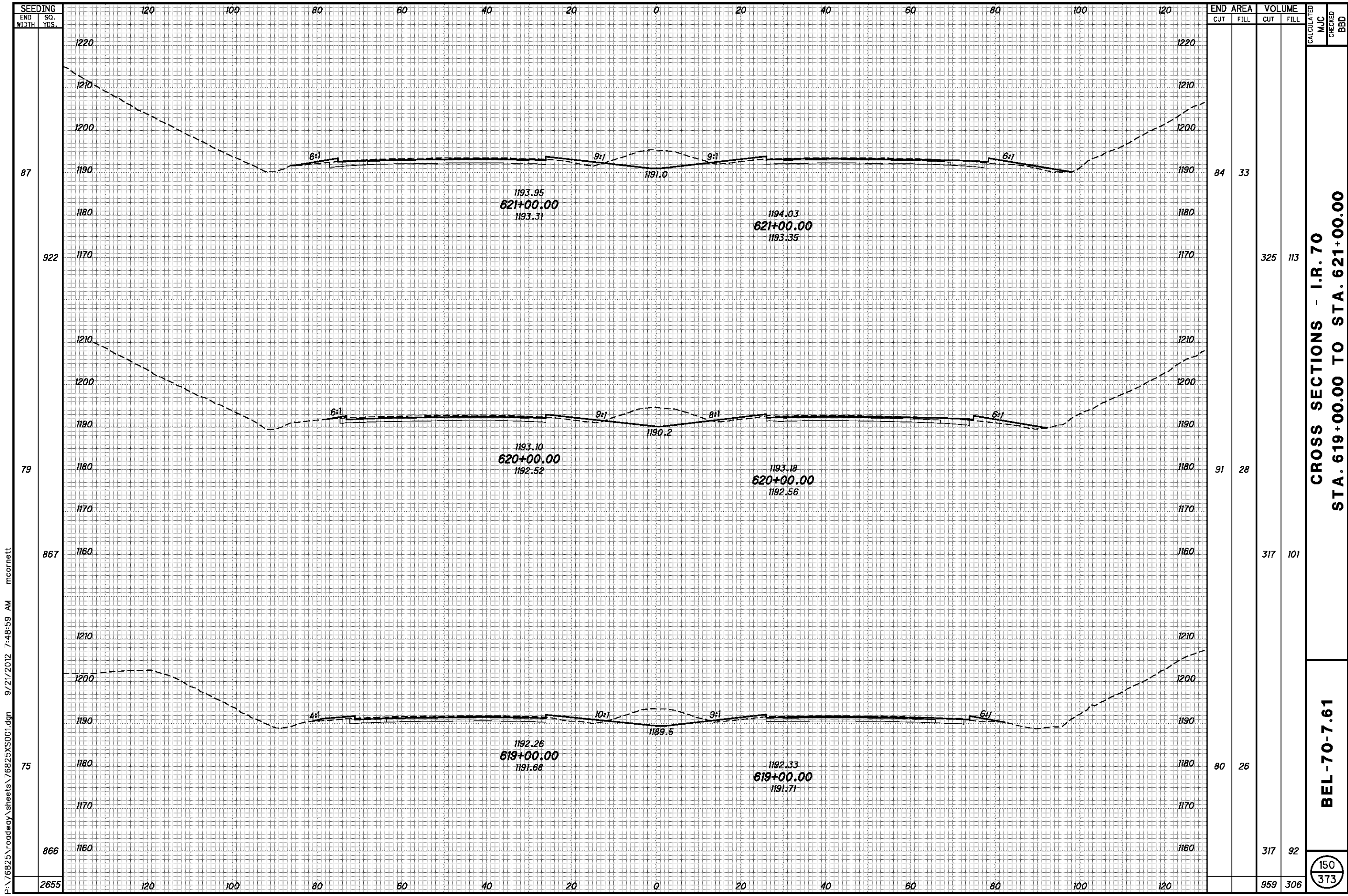


CROSS SECTIONS - I.R. 70
STA. 616+00.00 TO STA. 618+00.00

BEL-70-7.61

149
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:57 AM mcorbett



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:59 AM mcornett

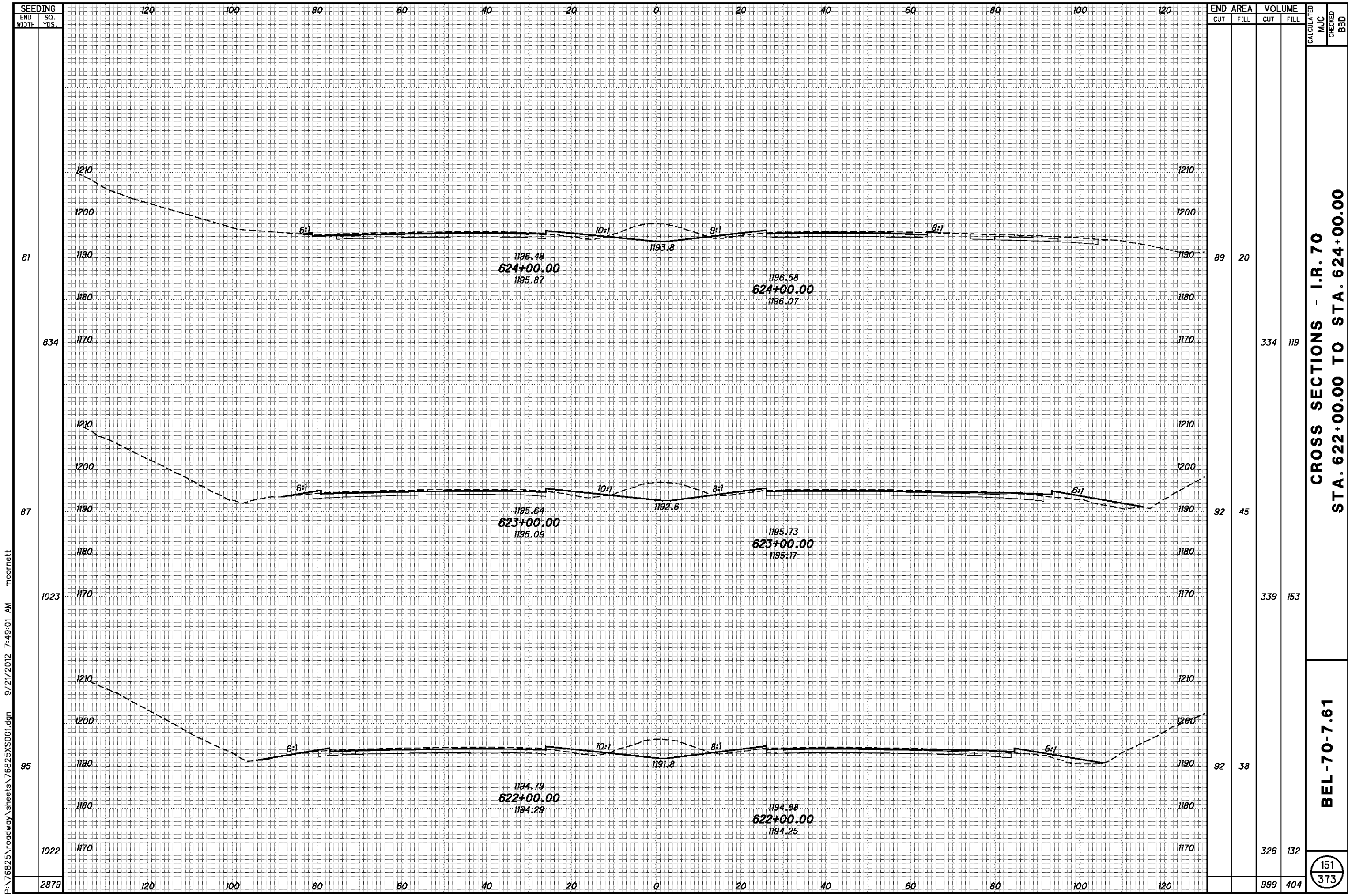
SEEDING	
END WIDTH	SO. YDS.
87	
922	
79	
867	
75	
866	
2655	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
84	33				
		325	113		
91	28				
		317	101		
80	26				
		317	92		
		959	306		

**CROSS SECTIONS - I.R. 70
STA. 619+00.00 TO STA. 621+00.00**

BEL-70-7.61

150
373

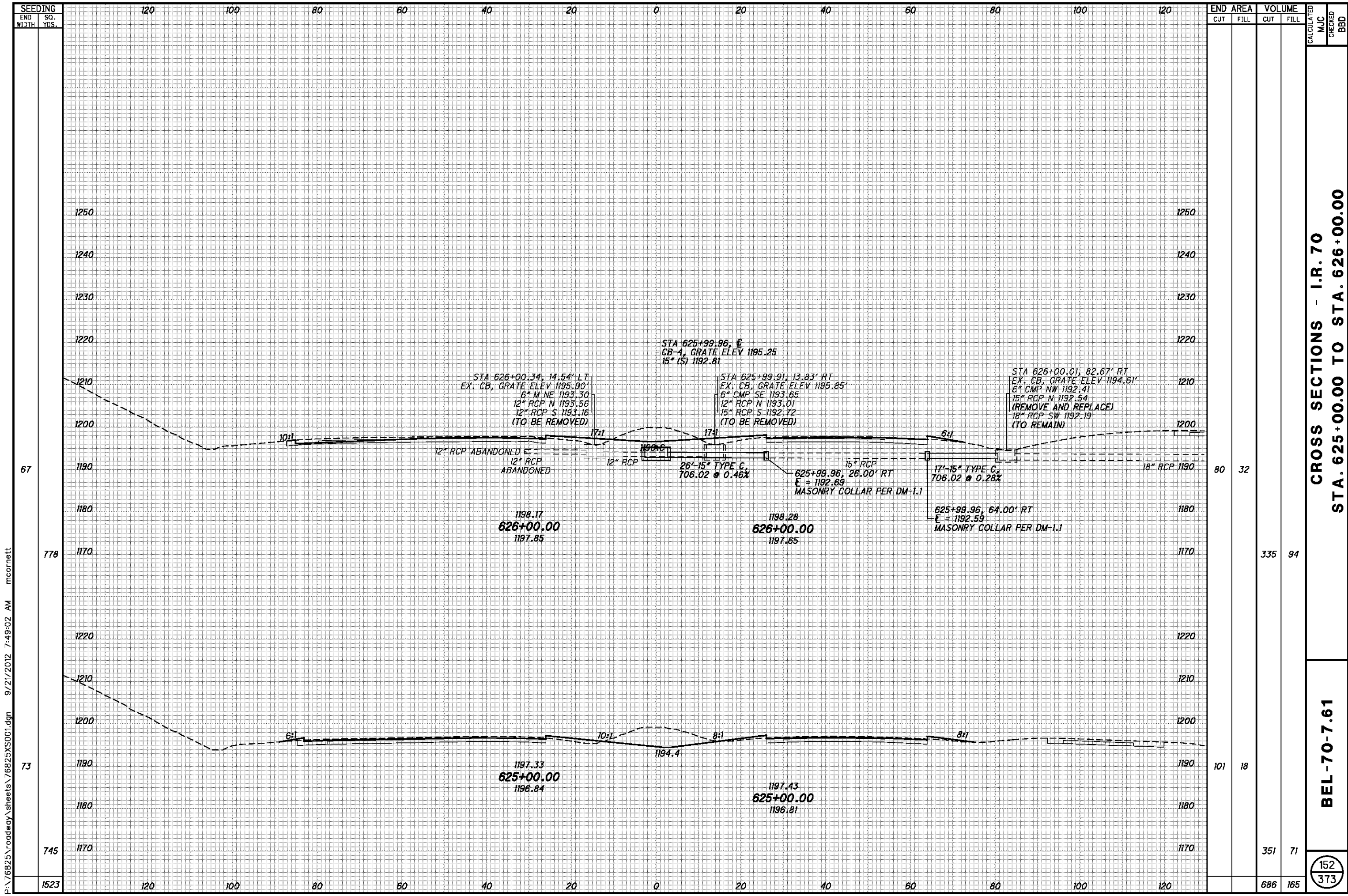


P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:01 AM mcornett

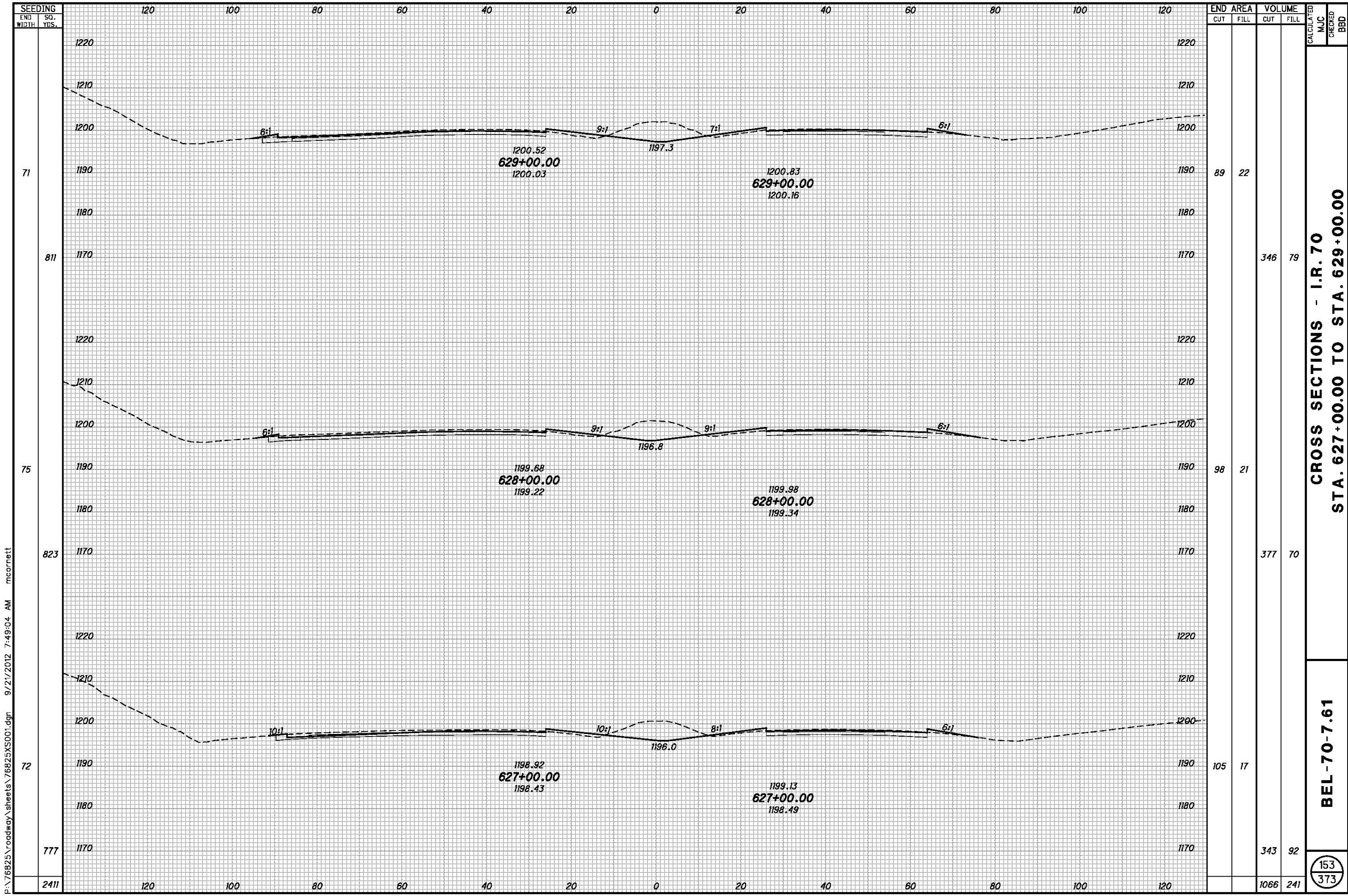
**CROSS SECTIONS - I.R. 70
STA. 622+00.00 TO STA. 624+00.00**

BEL-70-7.61

151
373



P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:49:02 AM mcorbett



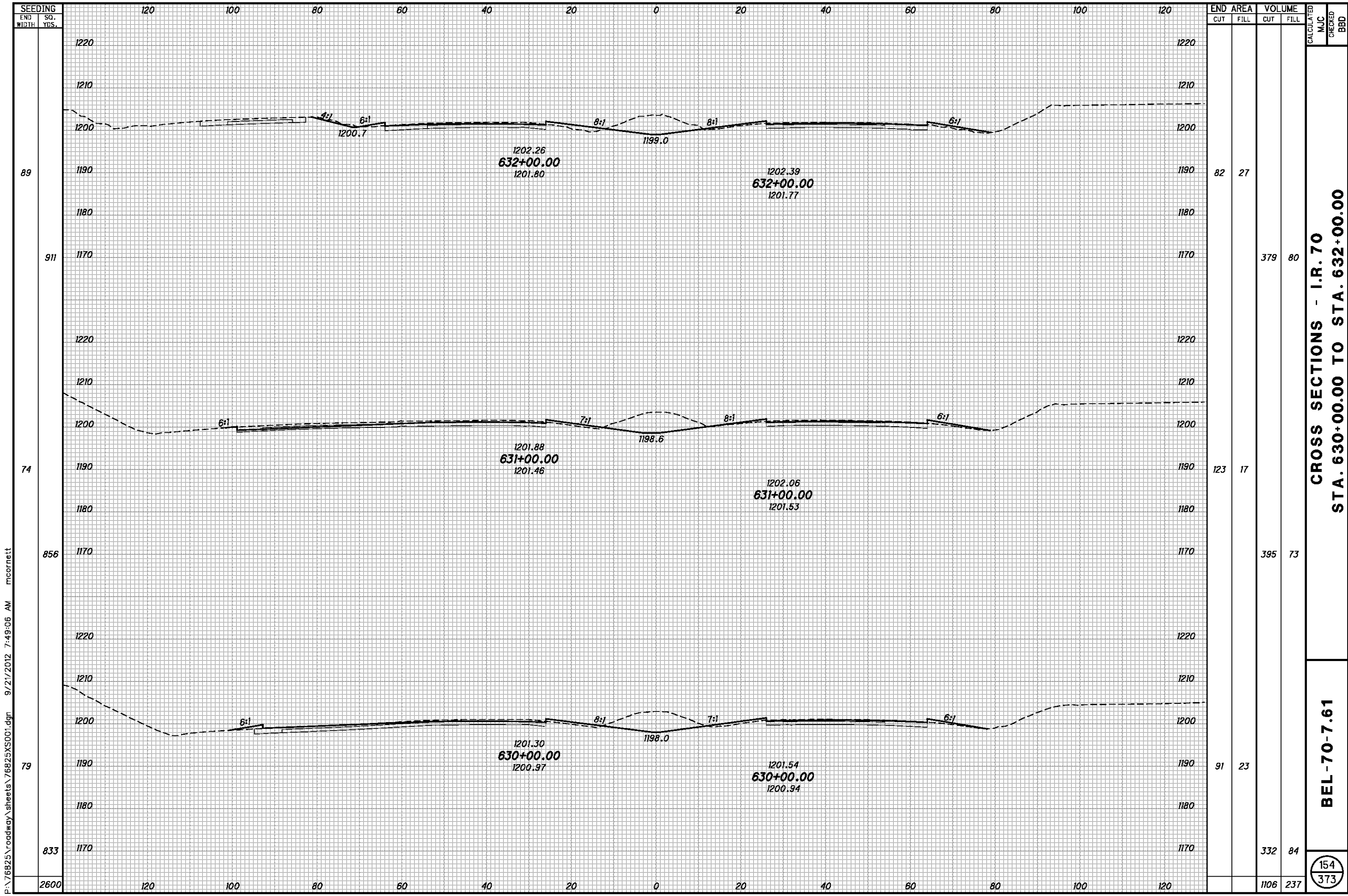
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:04 AM mcorbett

END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
71	89	22				
811			346	79		
75	98	21				
823			377	70		
72	105	17				
777			343	92		
2411			1066	241		

CROSS SECTIONS - I.R. 70
STA. 627+00.00 TO STA. 629+00.00

BEL-70-7.61

153
373



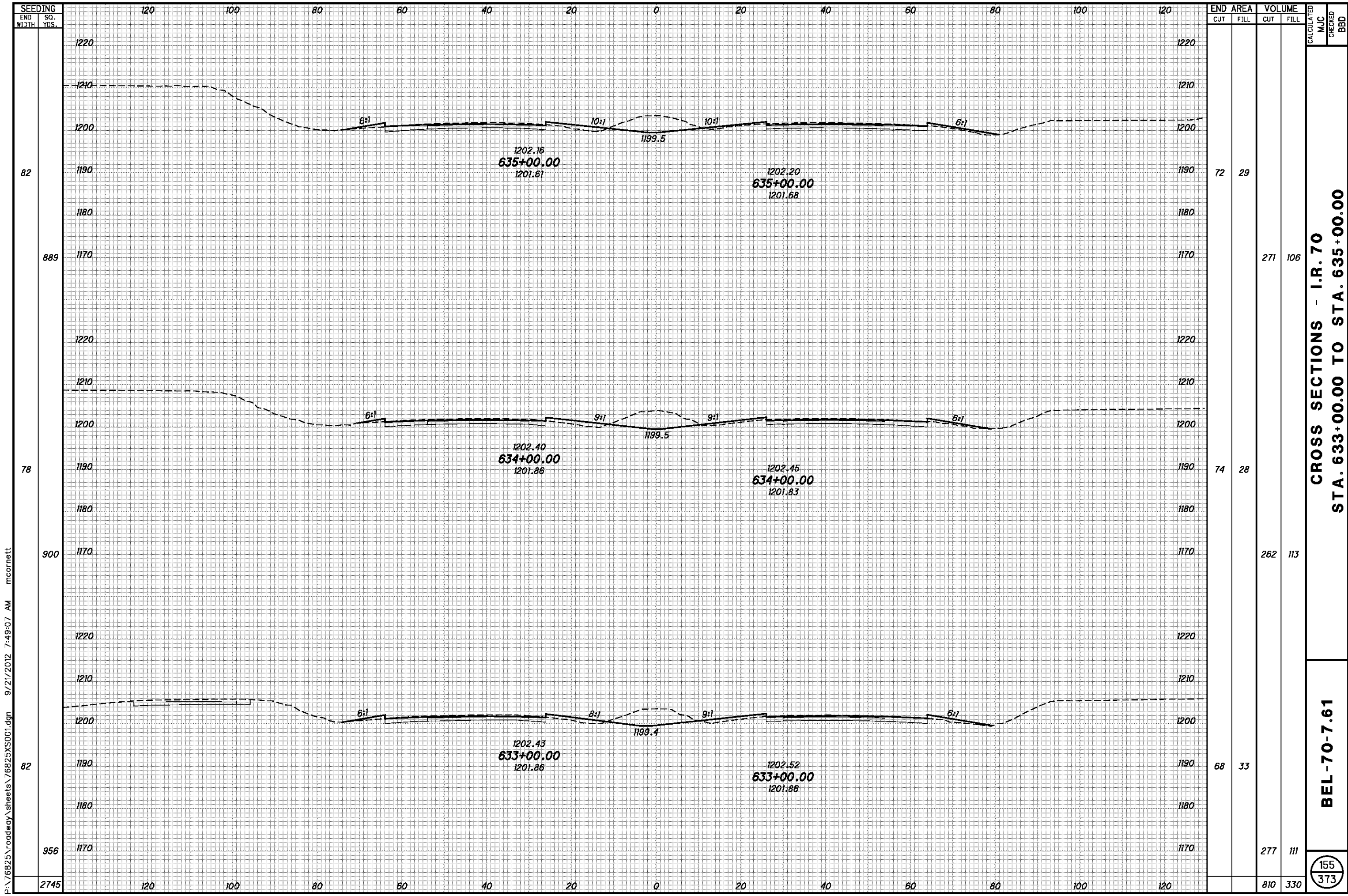
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:06 AM mcornett

SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
89	82	27						
911			379	80				
74	123	17						
856			395	73				
79	91	23						
833			332	84				
2600			1106	237				

CROSS SECTIONS - I.R. 70
STA. 630+00.00 TO STA. 632+00.00

BEL-70-7.61

154
373

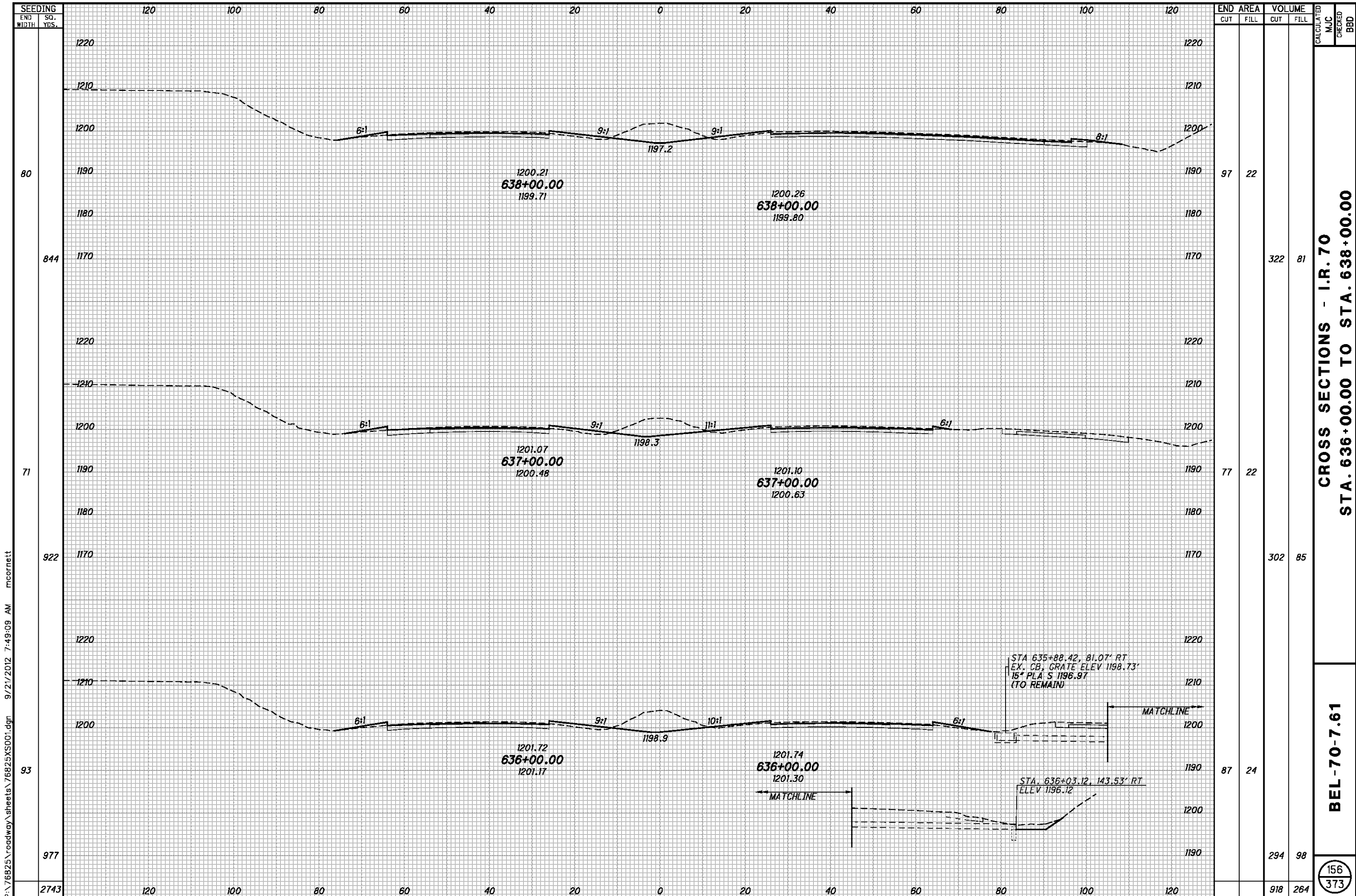


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**CROSS SECTIONS - I.R. 70
STA. 633+00.00 TO STA. 635+00.00**

BEL-70-7.61

155
373



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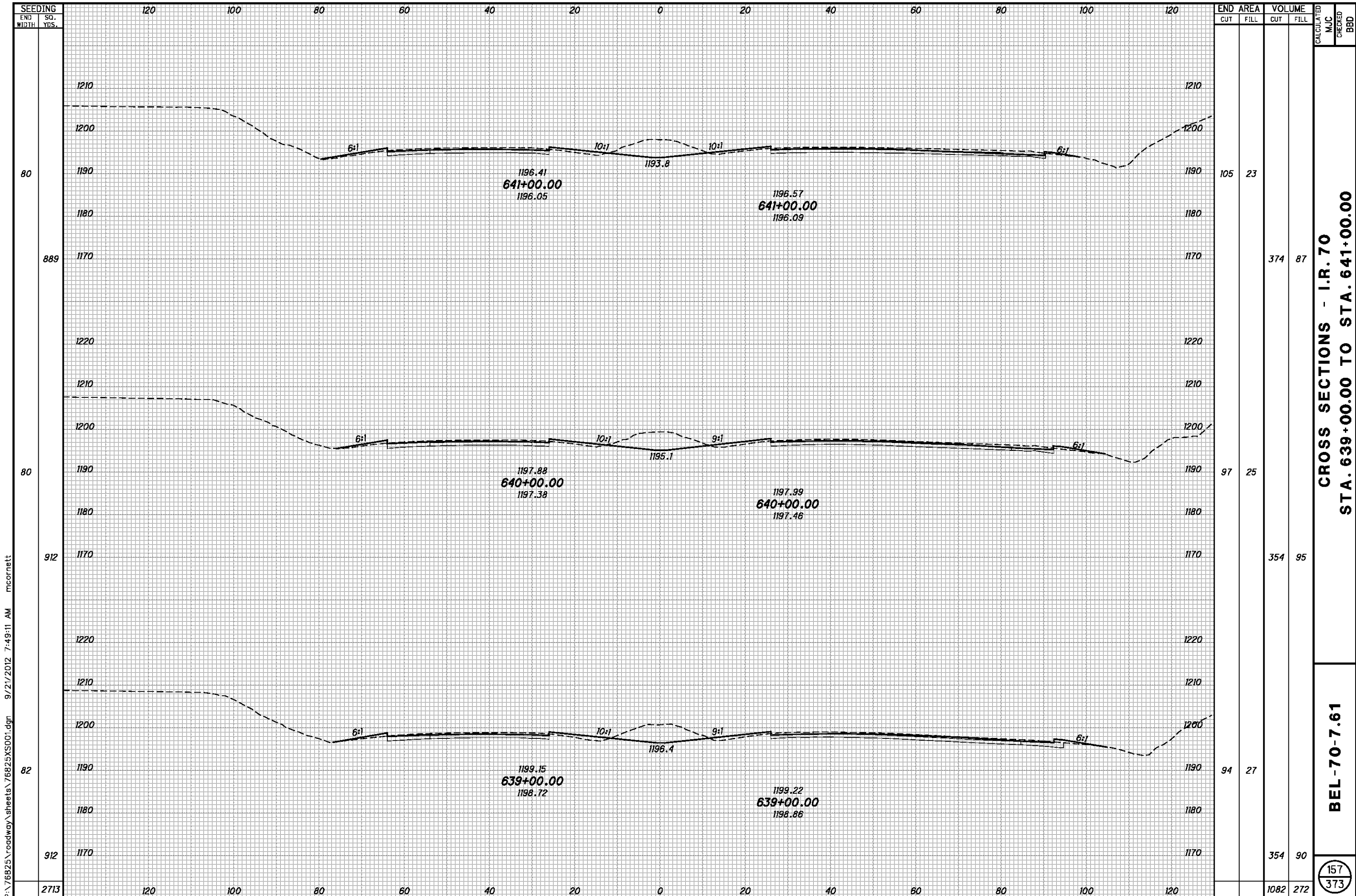
SEEDING	END	
	WIDTH	SO. YDS.
	80	
	844	
	71	
	922	
	93	
	977	
	2743	

END AREA	VOLUME		CALCULATED MJC	CHECKED BBD
	CUT	FILL		
97	22			
	322	81		
77	22			
	302	85		
87	24			
	294	98		
	918	264		

CROSS SECTIONS - I.R. 70
STA. 636+00.00 TO STA. 638+00.00

BEL-70-7.61

156
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:11 AM mcornett

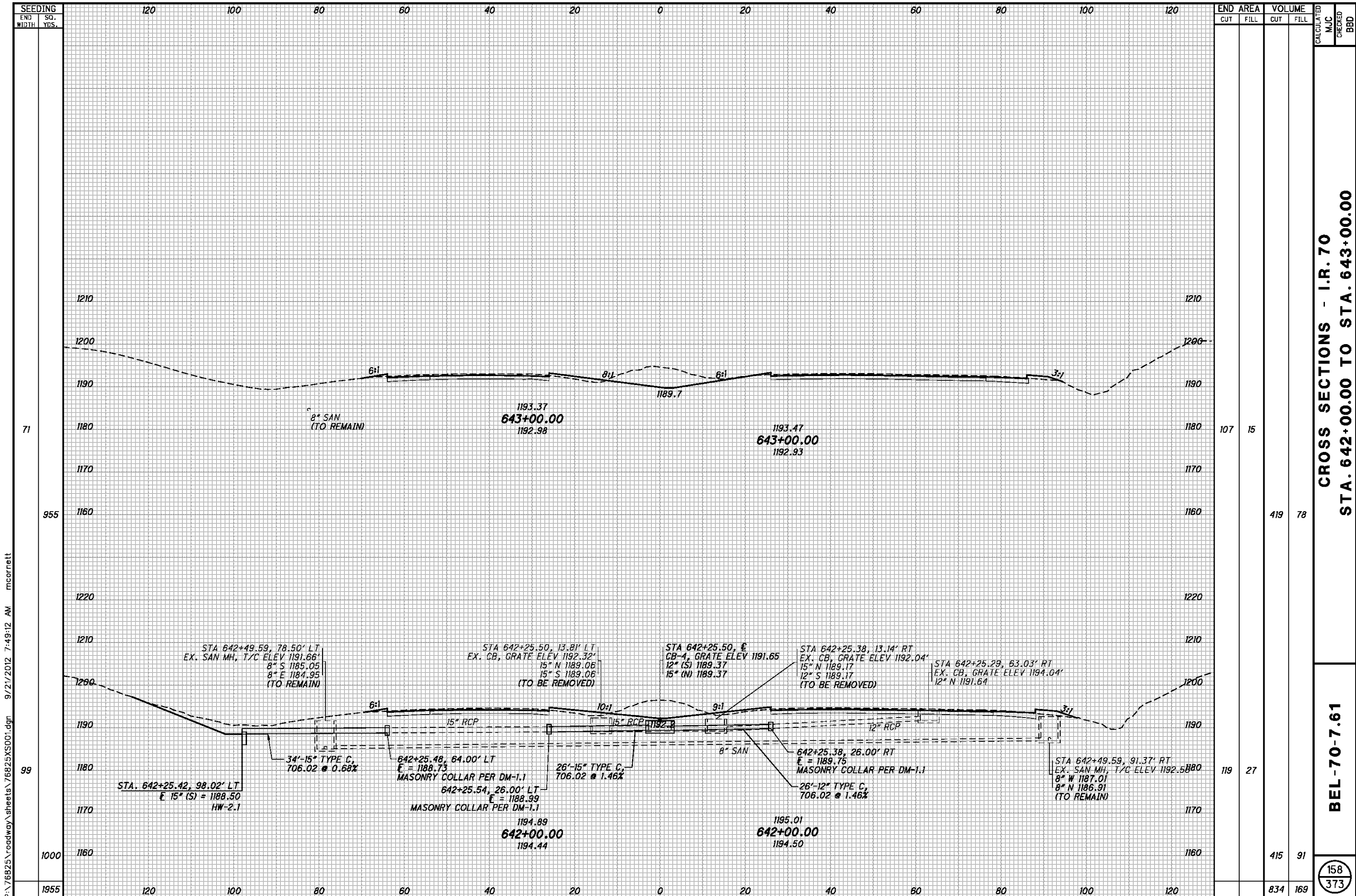
SEEDING	
END WIDTH	SO. YDS.
80	
889	
80	
912	
82	
912	
2713	

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
105	23				
		374	87		
97	25				
		354	95		
94	27				
		354	90		
		1082	272		

**CROSS SECTIONS - I.R. 70
STA. 639+00.00 TO STA. 641+00.00**

BEL-70-7.61

157
373



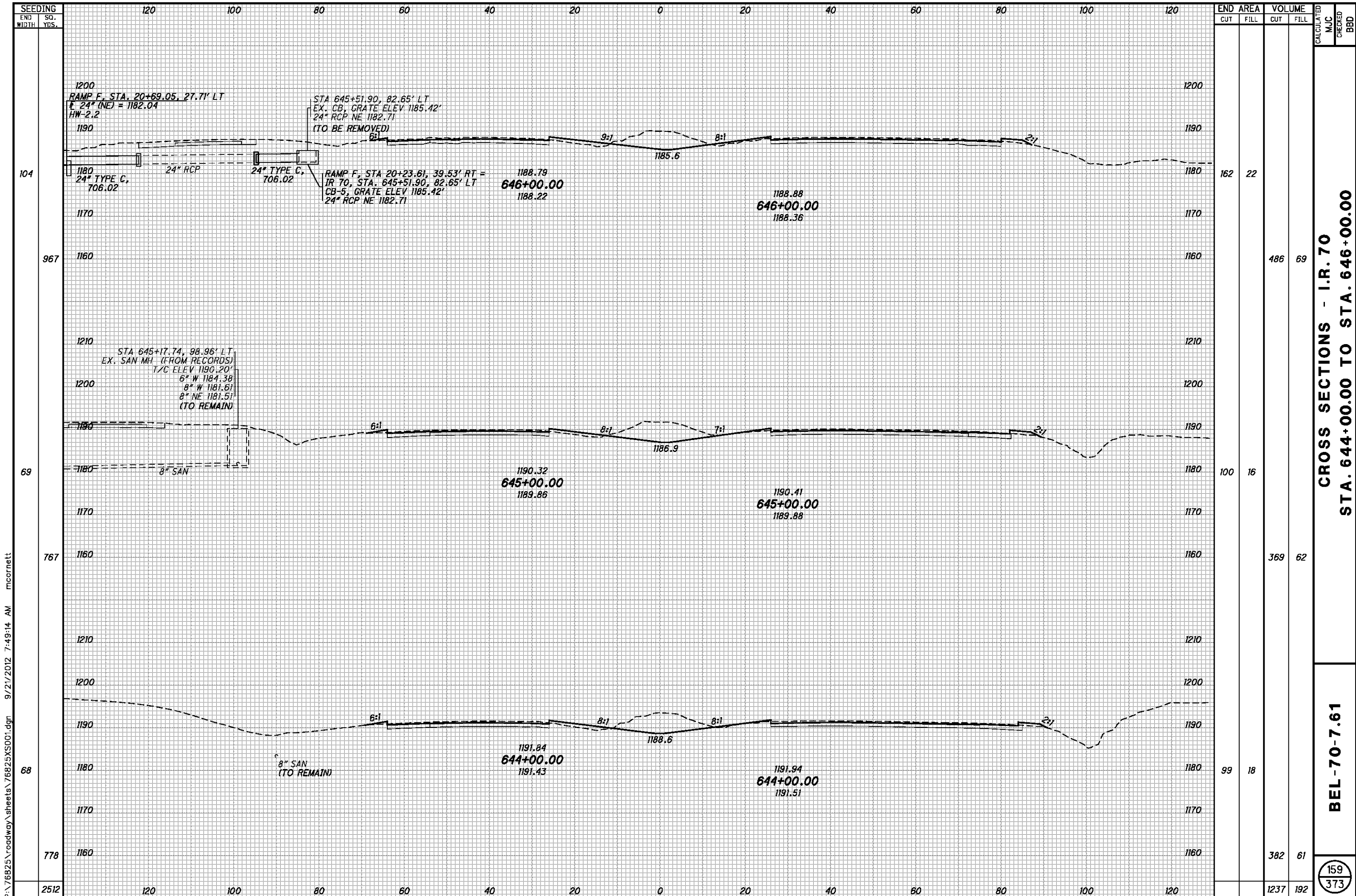
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:49:12 AM mcorrett

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
107	15			
419	78			
119	27			
415	91			
834	169			

CROSS SECTIONS - I.R. 70
STA. 642+00.00 TO STA. 643+00.00

BEL-70-7.61

158
373



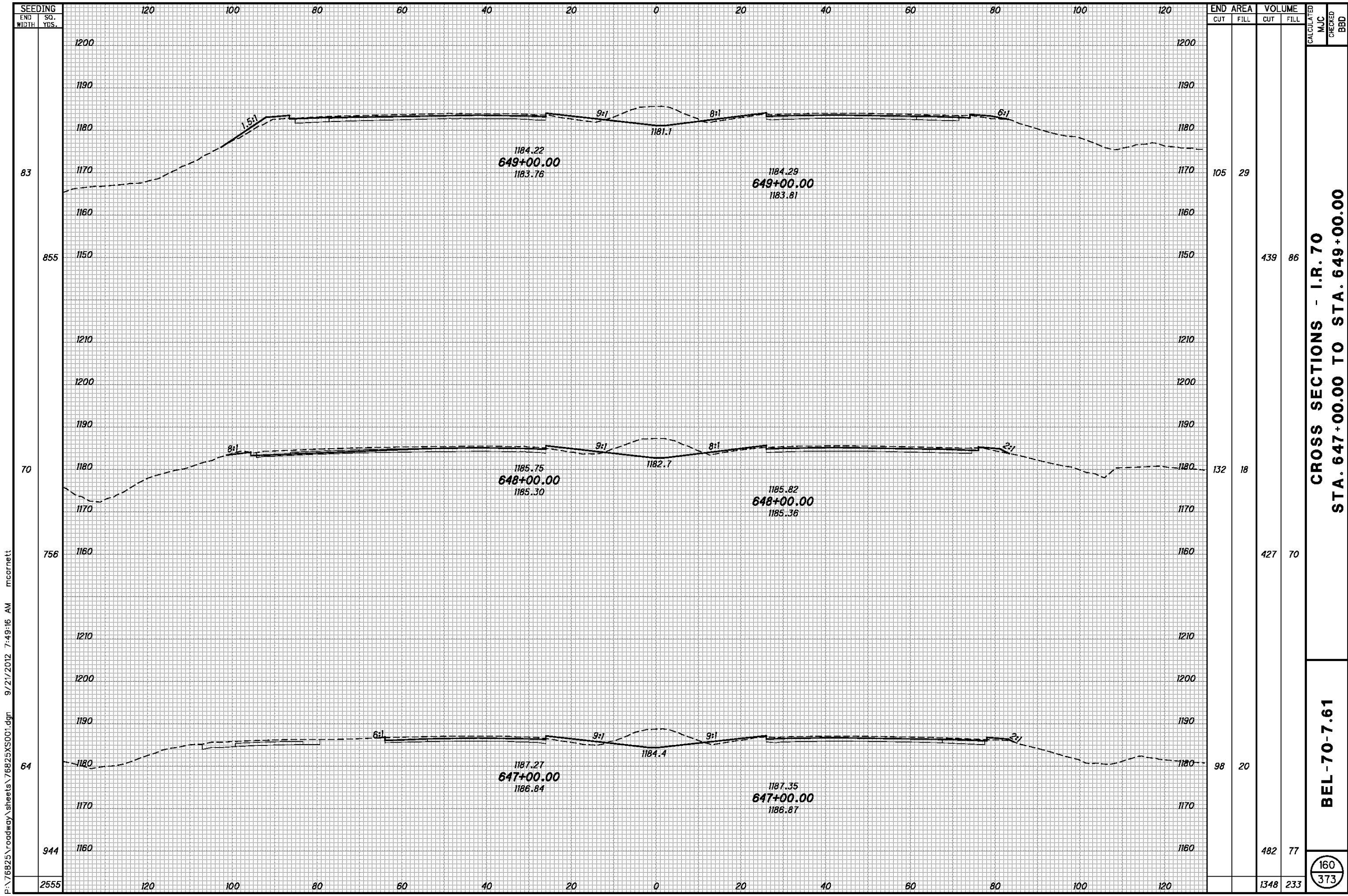
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:14 AM mcornett

END STA.	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
120						
104	162	22				
967			486	69		
69	100	16				
767			369	62		
68	99	18				
778			382	61		
2512			1237	192		

CROSS SECTIONS - I.R. 70
 STA. 644+00.00 TO STA. 646+00.00

BEL-70-7.61

159
 373

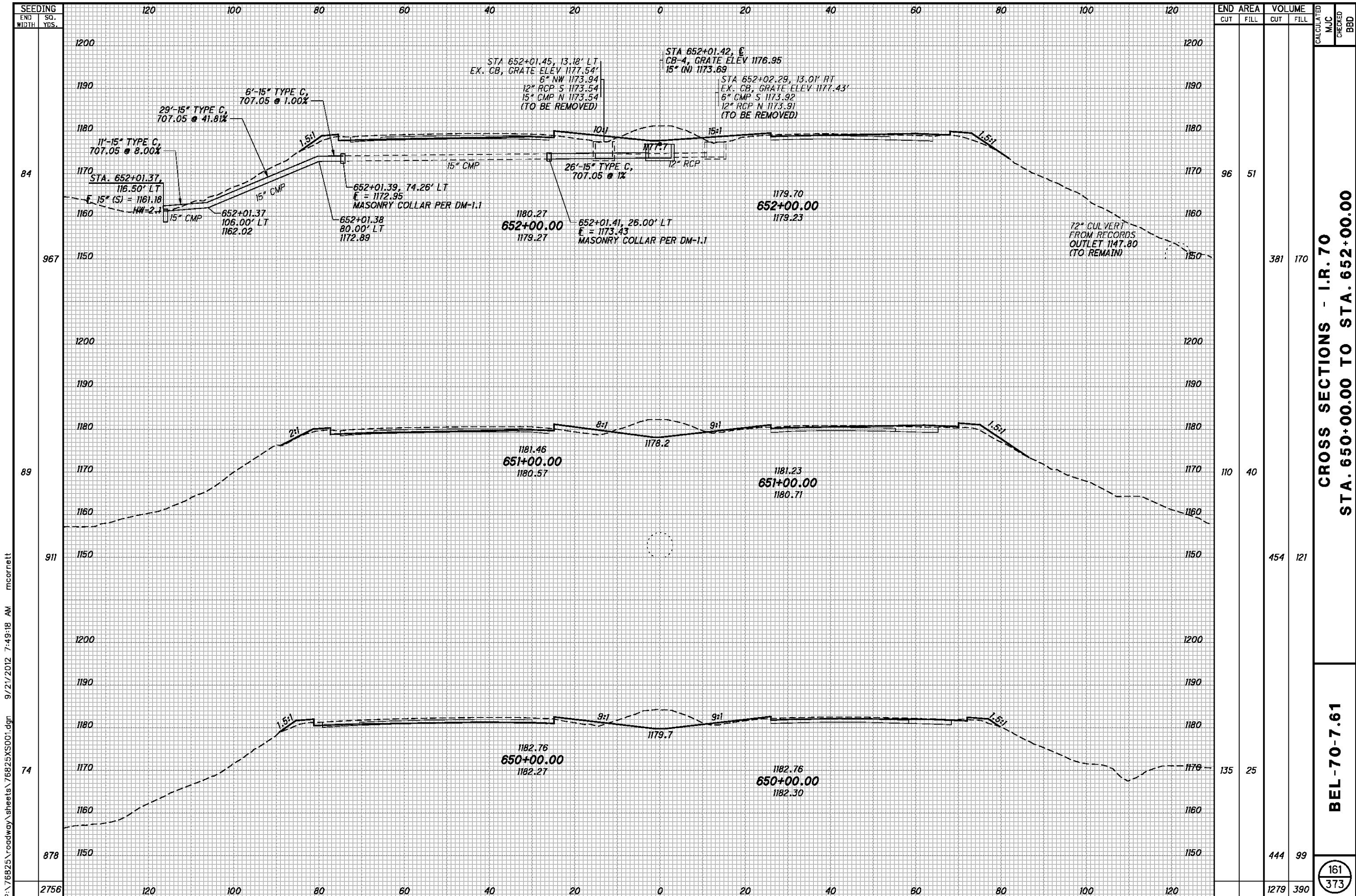


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**CROSS SECTIONS - I.R. 70
STA. 647+00.00 TO STA. 649+00.00**

BEL-70-7.61

160
373



SEEDING
END SO. WIDTH YDS.

84
967
89
911
74
878
2756

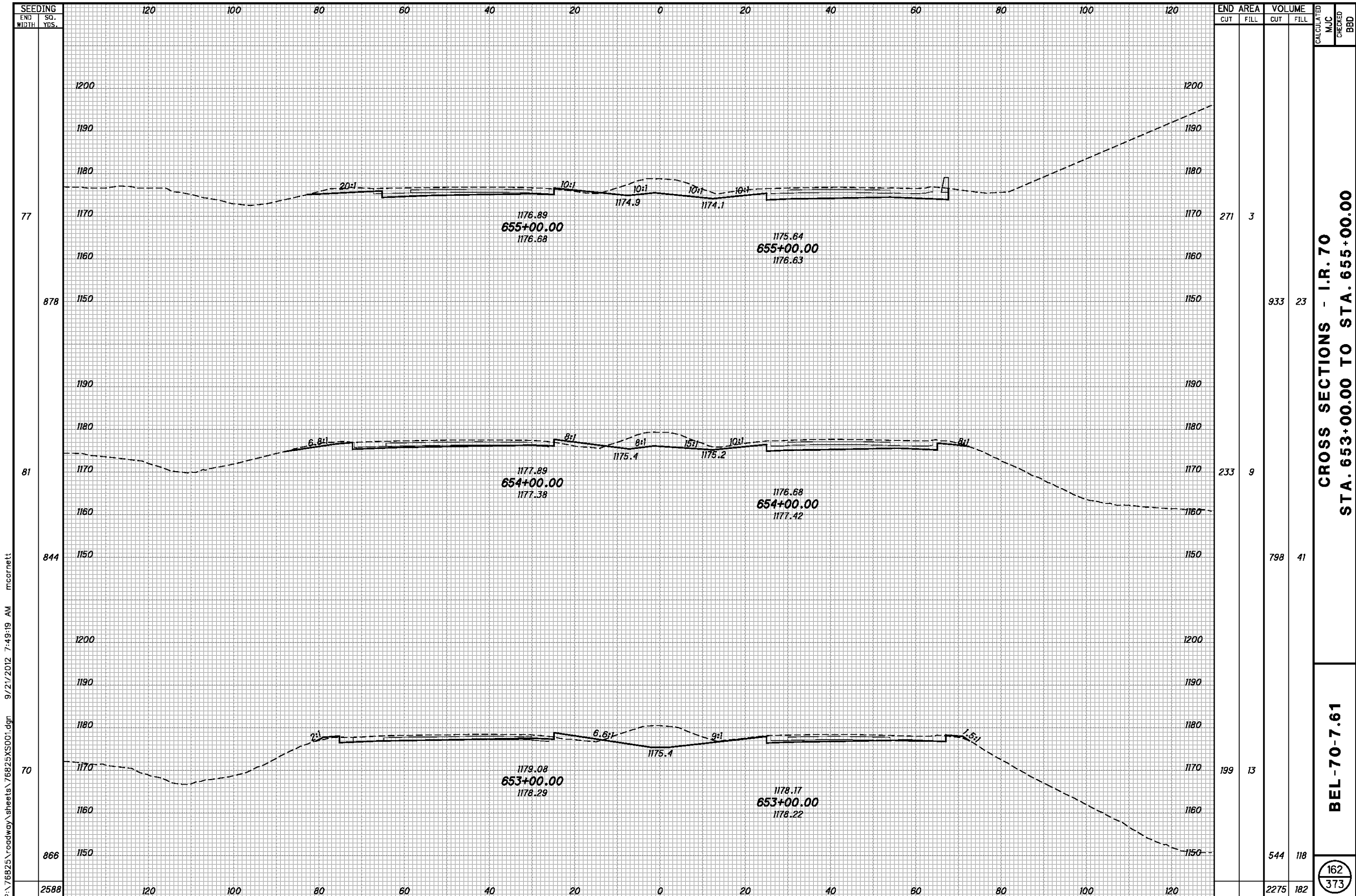
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
96	51	381	170		
110	40	454	121		
135	25	444	99		
		1279	390		

CROSS SECTIONS - I.R. 70
STA. 650+00.00 TO STA. 652+00.00

BEL-70-7.61

161
373

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SEEDING	
END WIDTH	SO. YDS.
77	
878	
81	
844	
70	
866	
2588	

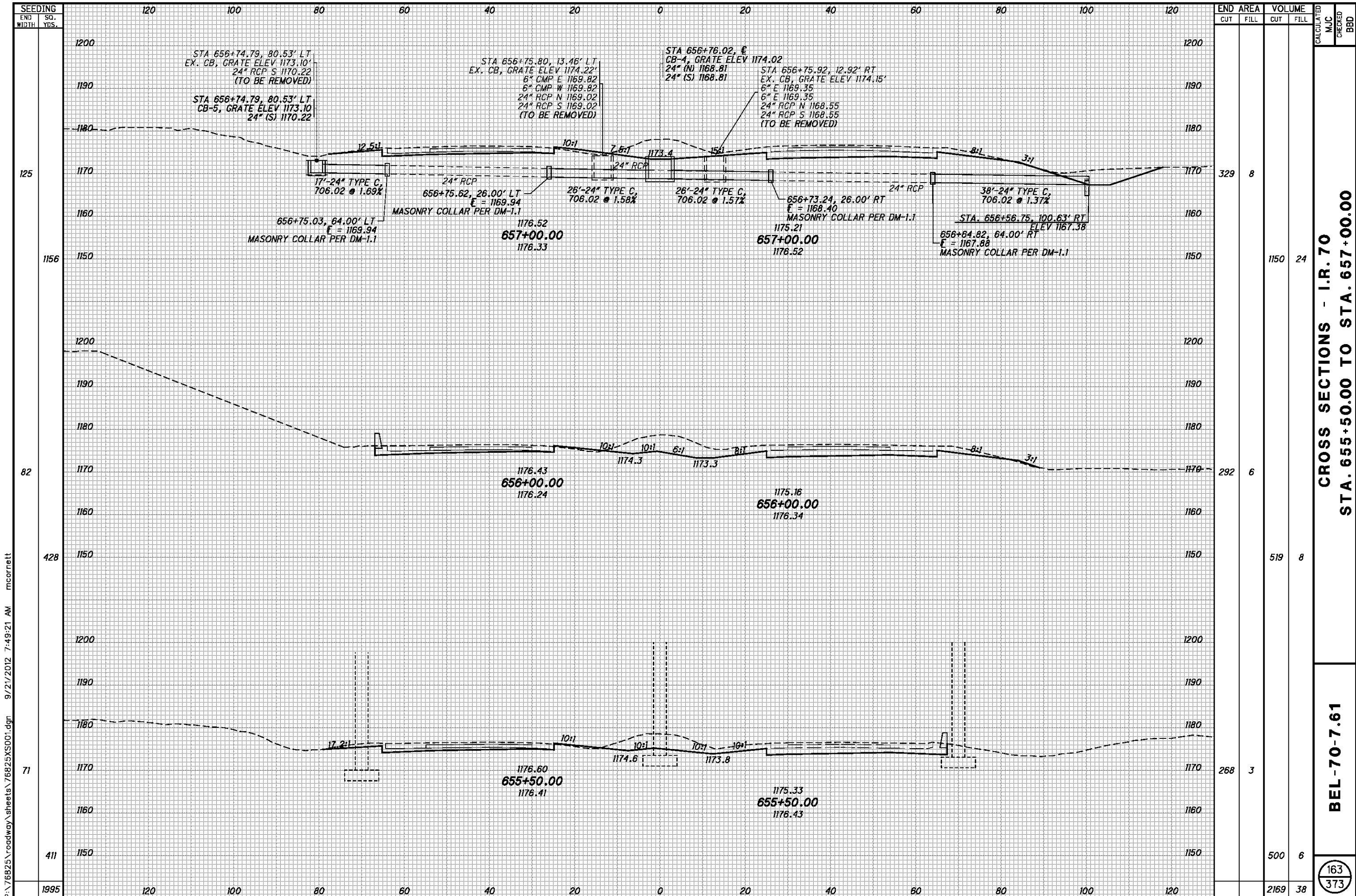
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
271	3	933	23		
233	9	798	41		
199	13	544	118		
		2275	182		

CROSS SECTIONS - I.R. 70
STA. 653+00.00 TO STA. 655+00.00

BEL-70-7.61

162
 373

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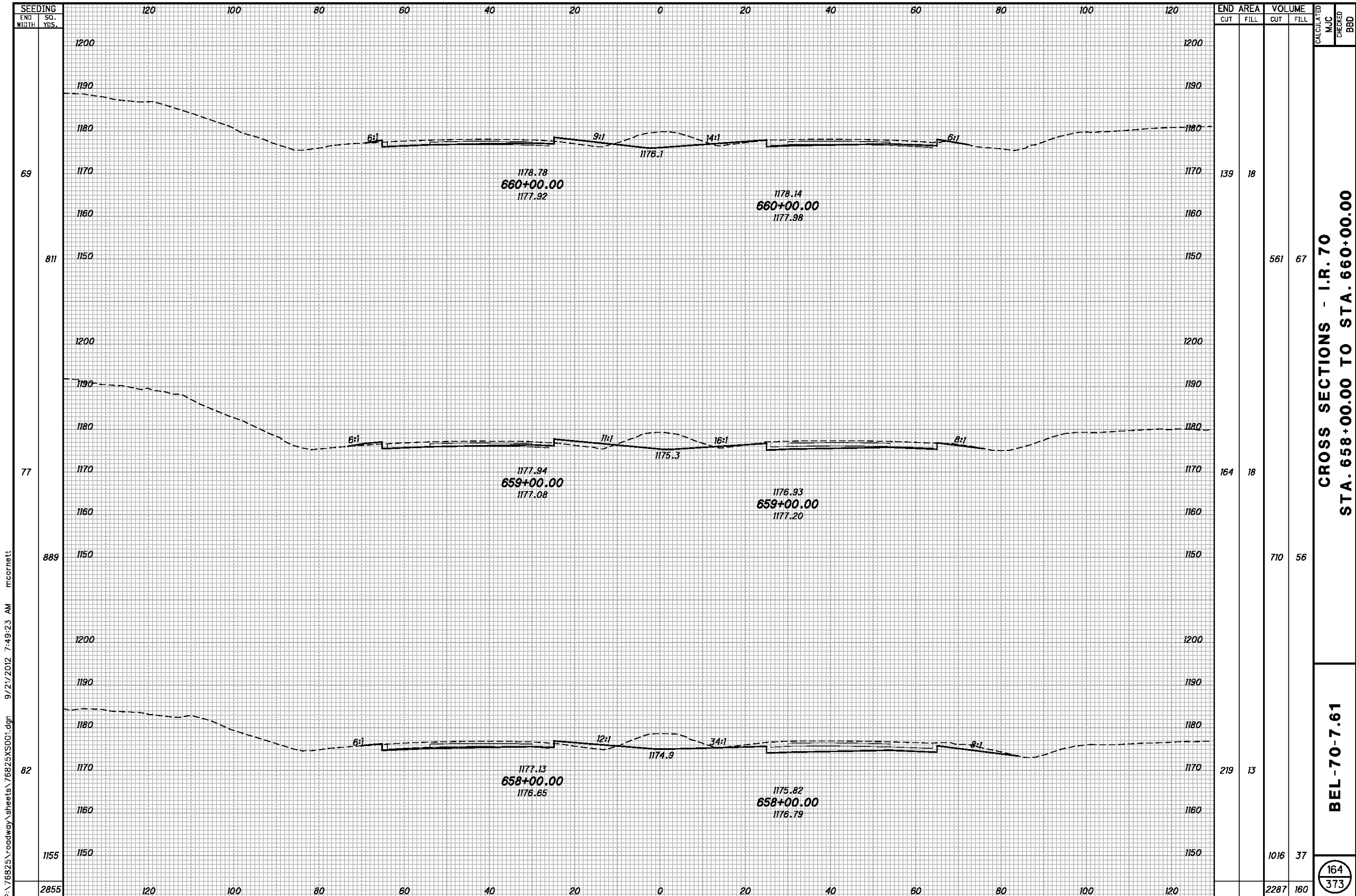
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:49:21 AM mcorrett

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
329	8			
1150	24			
292	6			
519	8			
268	3			
500	6			
2169	38			

CROSS SECTIONS - I.R. 70
STA. 655+50.00 TO STA. 657+00.00

BEL-70-7.61

163
373



SEEDING	
END WIDTH	SO. YDS.
69	
811	
77	
889	
82	
1155	
2855	

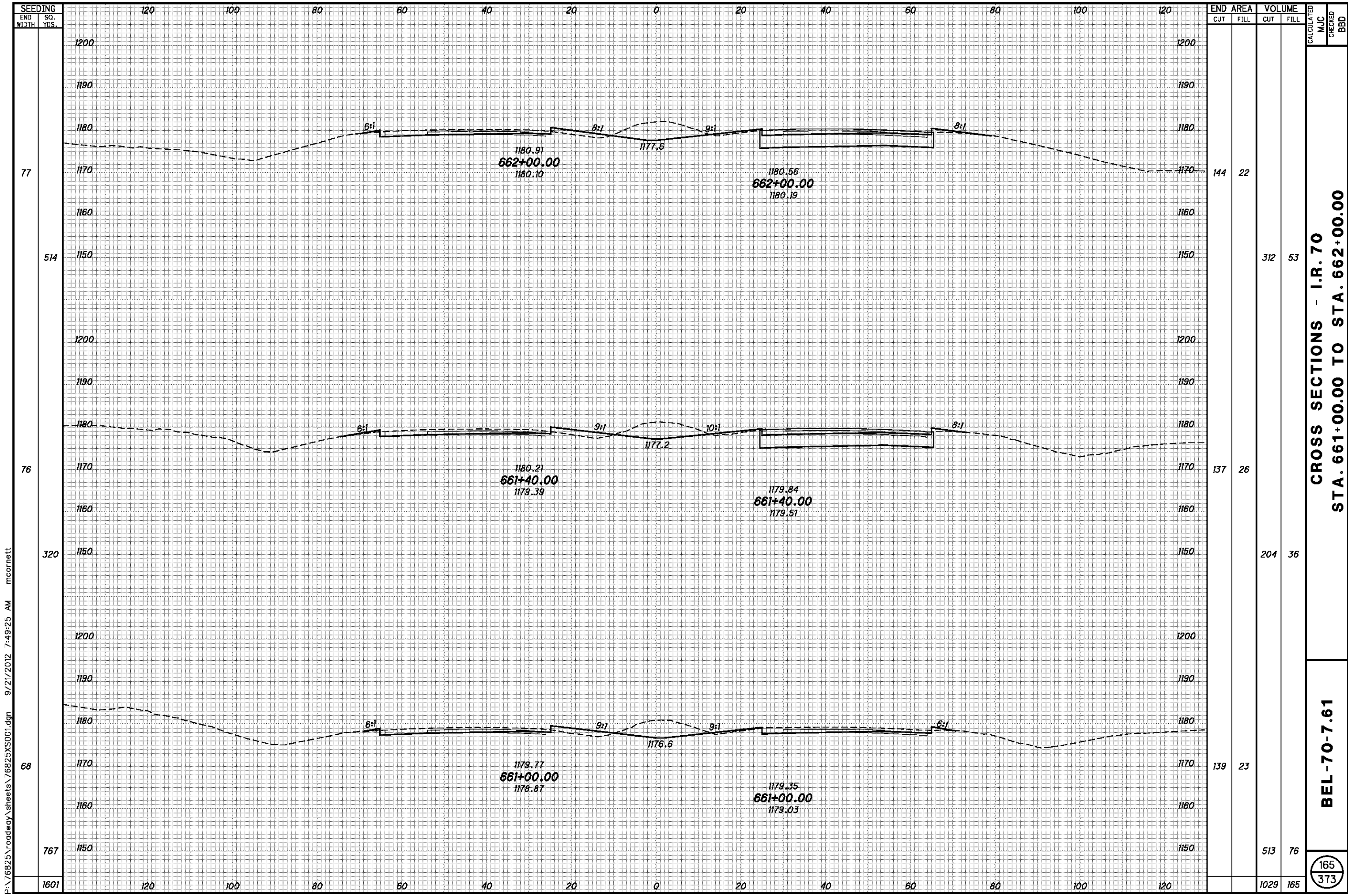
END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
139	18	561	67		
164	18	710	56		
219	13	1016	37		
		2287	160		

CROSS SECTIONS - I.R. 70
 STA. 658+00.00 TO STA. 660+00.00

BEL-70-7.61

164
373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:23 AM mcornett



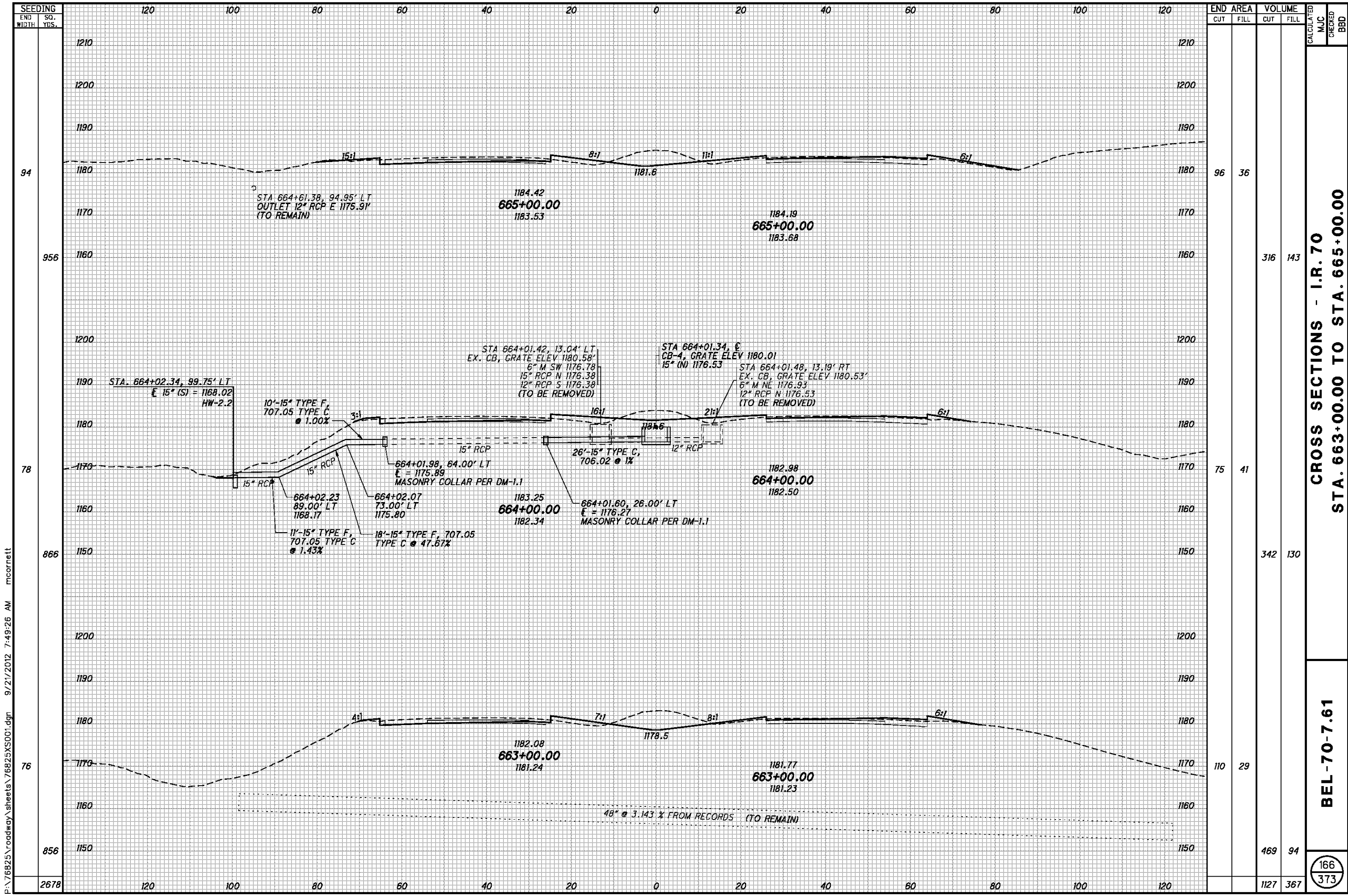
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:25 AM mcornett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
77	514	144	22	312	53		
76	320	137	26	204	36		
68	767	139	23	513	76		
1601				1029	165		

**CROSS SECTIONS - I.R. 70
STA. 661+00.00 TO STA. 662+00.00**

BEL-70-7.61

165
373



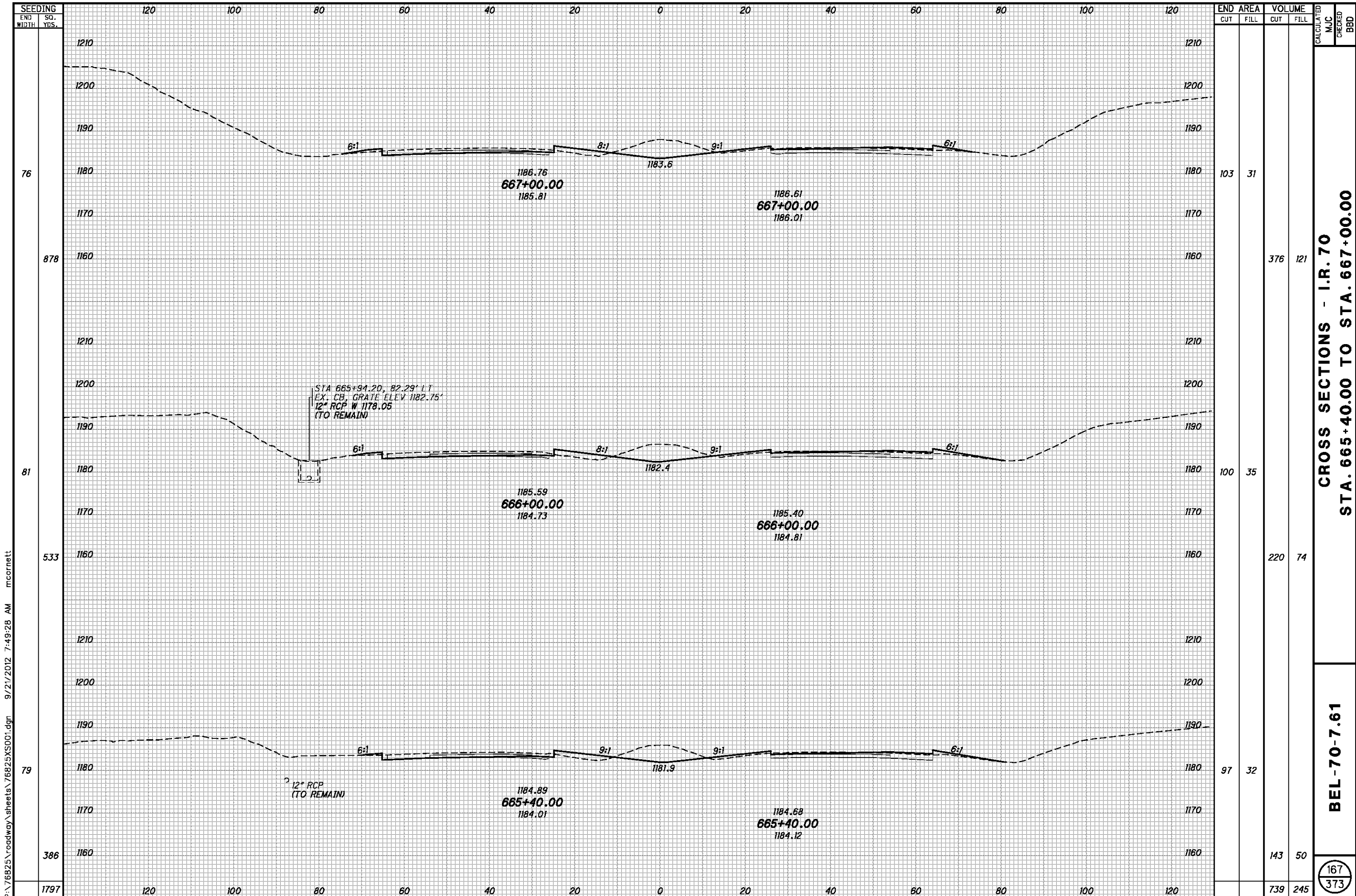
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:49:26 AM mcorbett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
94				96	36		
956					316	143	
78				75	41		
866					342	130	
76				110	29		
856					469	94	
2678					1127	367	

CROSS SECTIONS - I.R. 70
STA. 663+00.00 TO STA. 665+00.00

BEL-70-7.61

166
 373



STA 665+94.20, 82.29' LT
 EX. CB. GRATE ELEV 1182.75'
 12" RCP W 1178.05
 (TO REMAIN)

12" RCP
 (TO REMAIN)

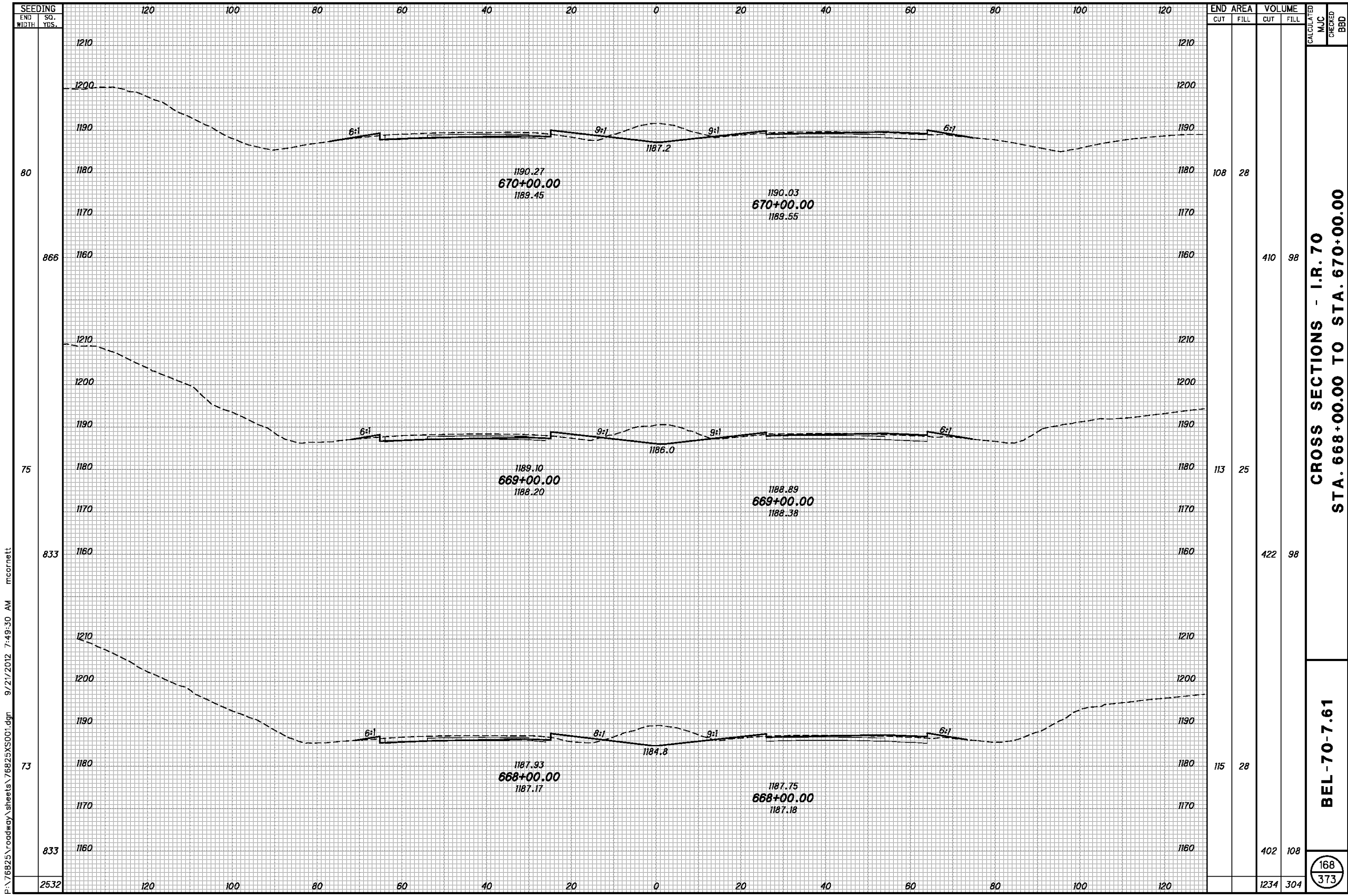
END	AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	CUT	FILL	CUT	FILL				
76	103	31						
878			376	121				
81	100	35						
533			220	74				
79	97	32						
386			143	50				
1797			739	245				

CROSS SECTIONS - I.R. 70
 STA. 665+40.00 TO STA. 667+00.00

BEL-70-7.61

167
 373

P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:28 AM mcorbett



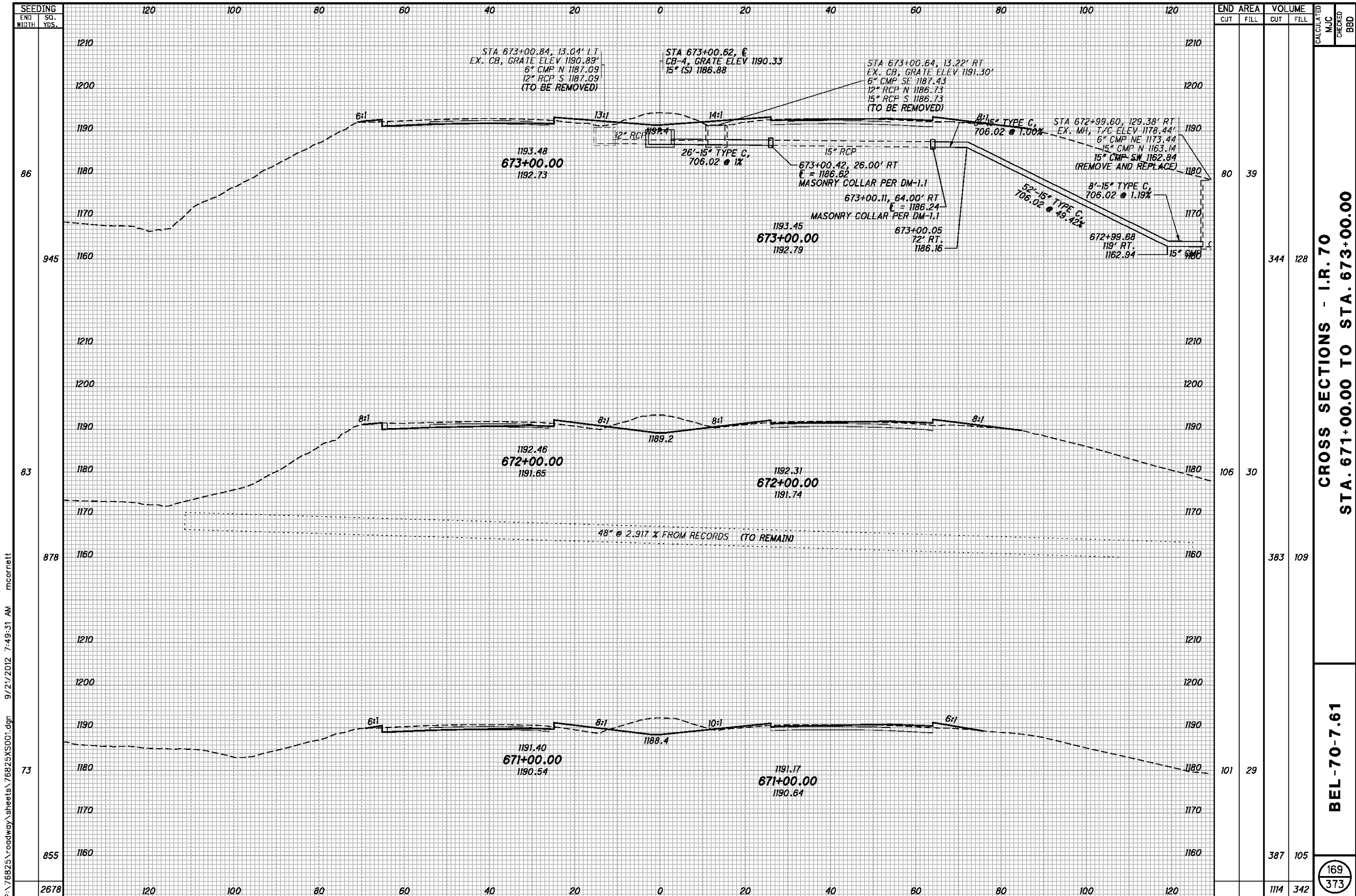
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:30 AM mcornett

END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
108	28			
	410	98		
113	25			
	422	98		
115	28			
	402	108		
	1234	304		

CROSS SECTIONS - I.R. 70
STA. 668+00.00 TO STA. 670+00.00

BEL-70-7.61

168
373



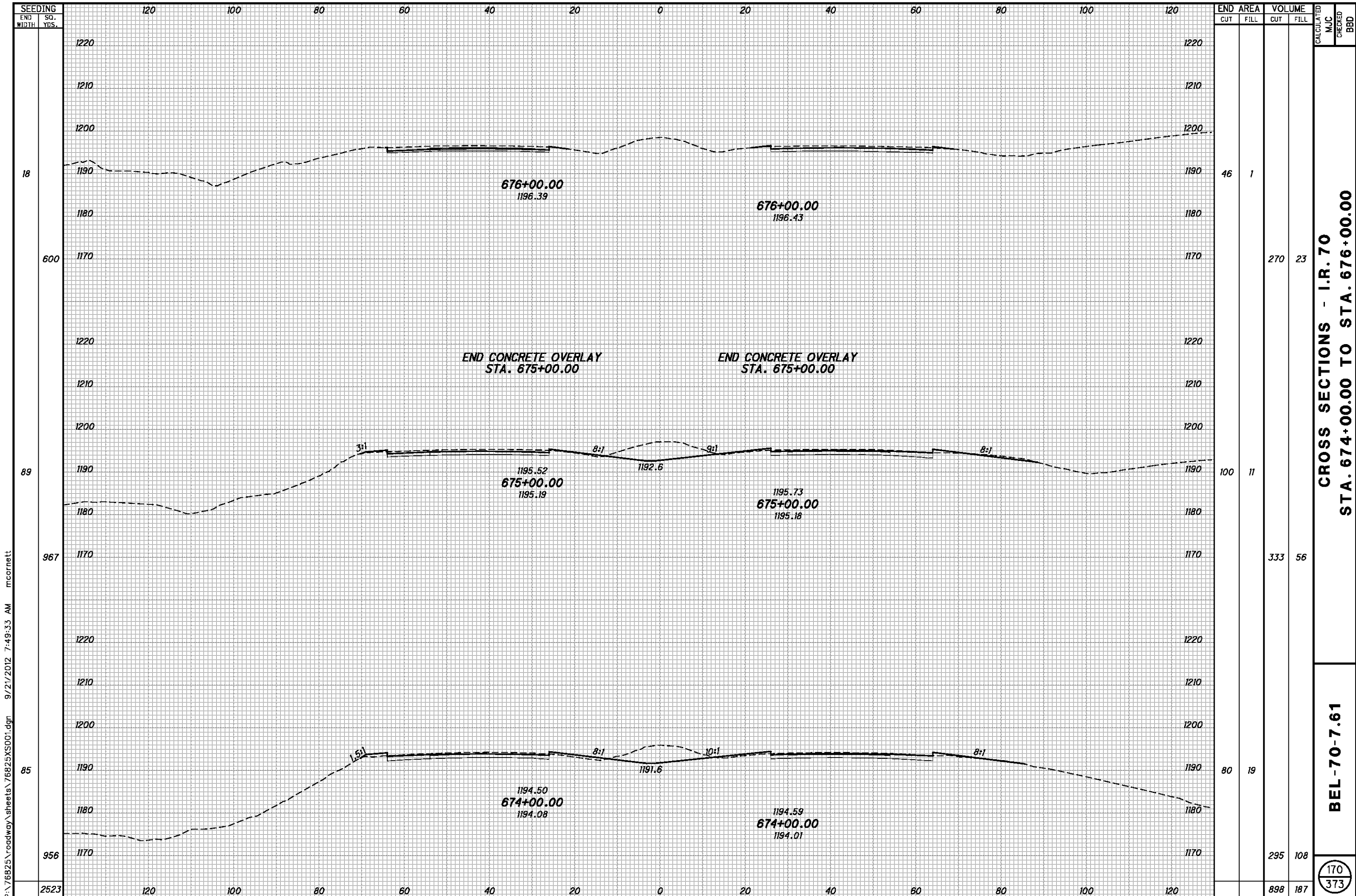
END AREA	VOLUME	CALCULATED	MJC	CHECKED	BBD
80	39				
945	344	128			
83	106	30			
878	383	109			
73	101	29			
855	387	105			
2678	1114	342			

CROSS SECTIONS - I.R. 70
STA. 671+00.00 TO STA. 673+00.00

BEL-70-7.61

169
 373

P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:49:31 AM mcorrett



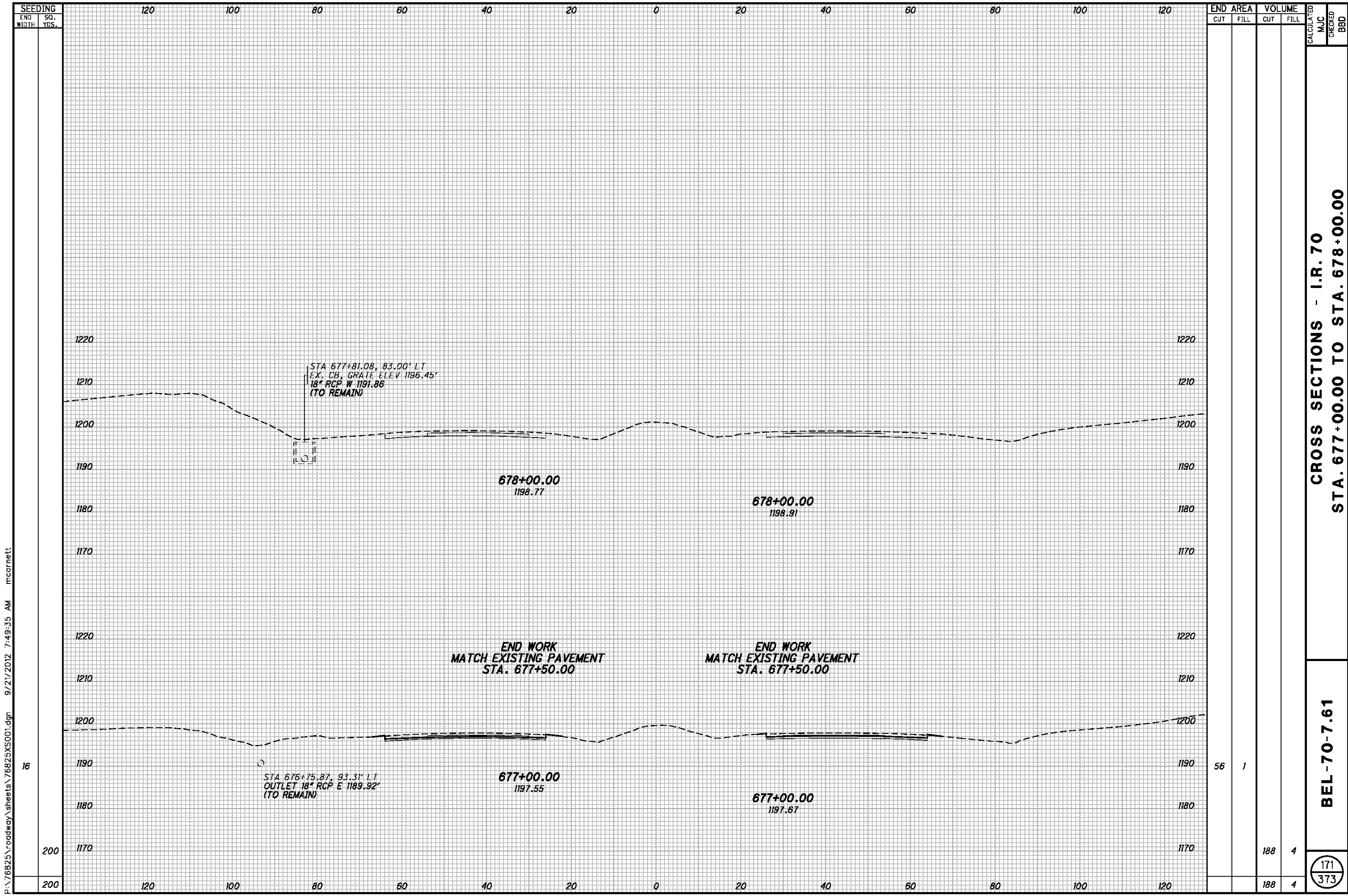
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:33 AM mcorbett

SEEDING	END AREA		VOLUME		CALCULATED	CHECKED	MJC	BBD
	CUT	FILL	CUT	FILL				
18	46	1						
600			270	23				
89	100	11						
967			333	56				
85	80	19						
956			295	108				
2523			898	187				

**CROSS SECTIONS - I.R. 70
STA. 674+00.00 TO STA. 676+00.00**

BEL-70-7.61

170
373



P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:35 AM mcornett

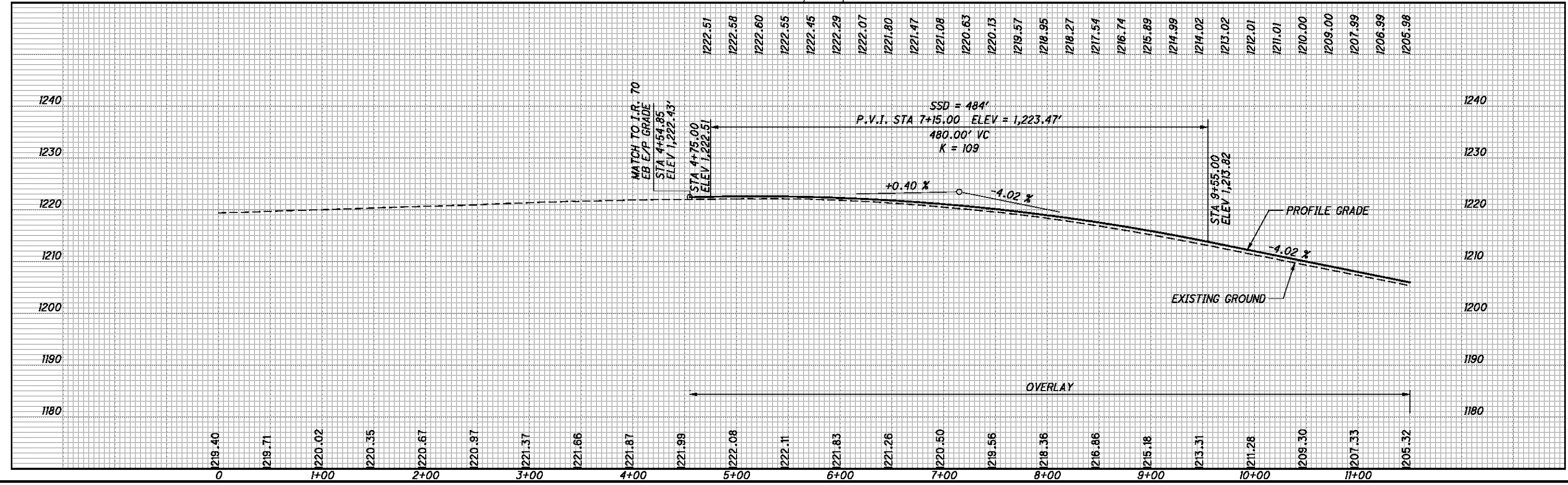
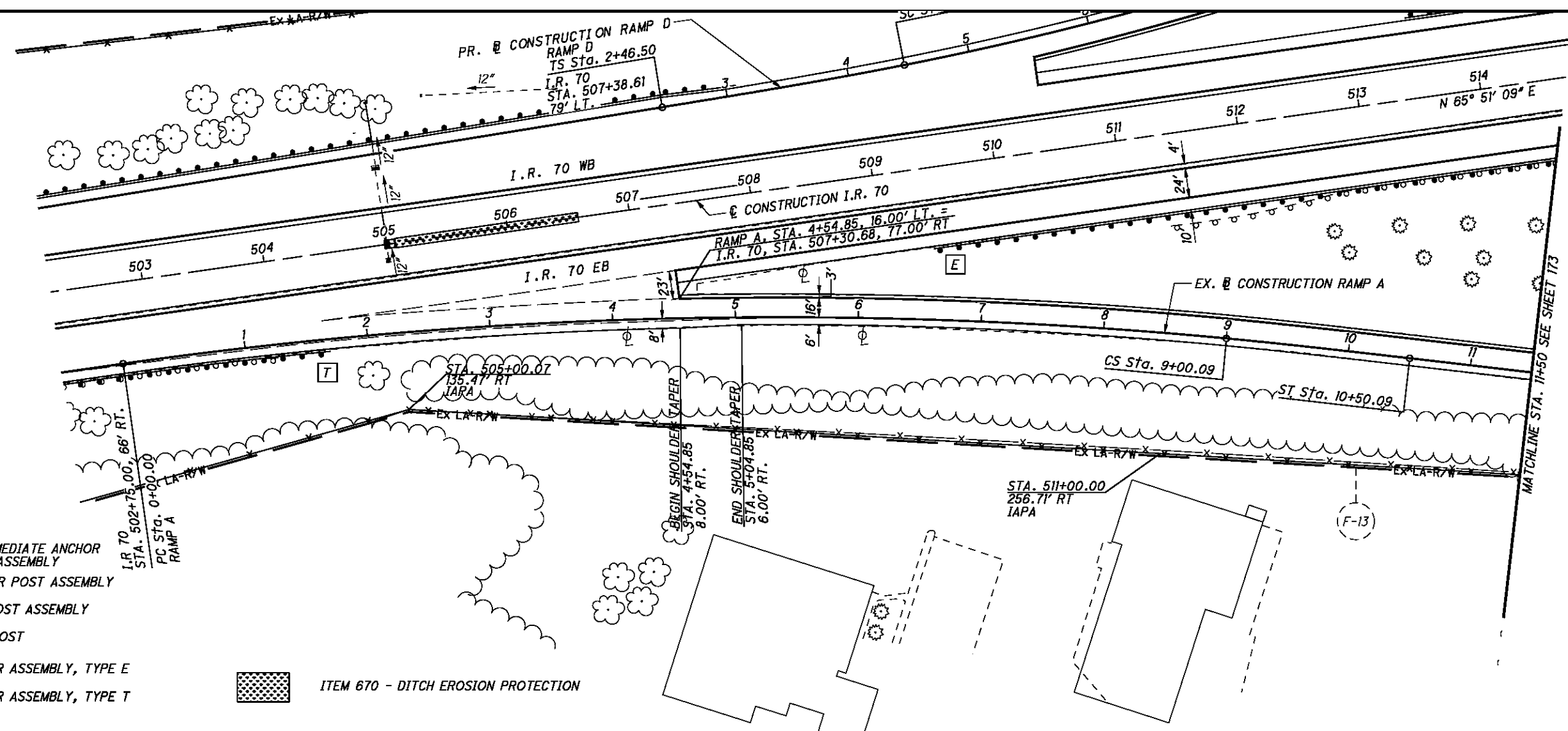
SEEDING	
END WIDTH	SO. YDS.
200	200
16	16

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	MJC	BBD
56	1	188	4	171	373

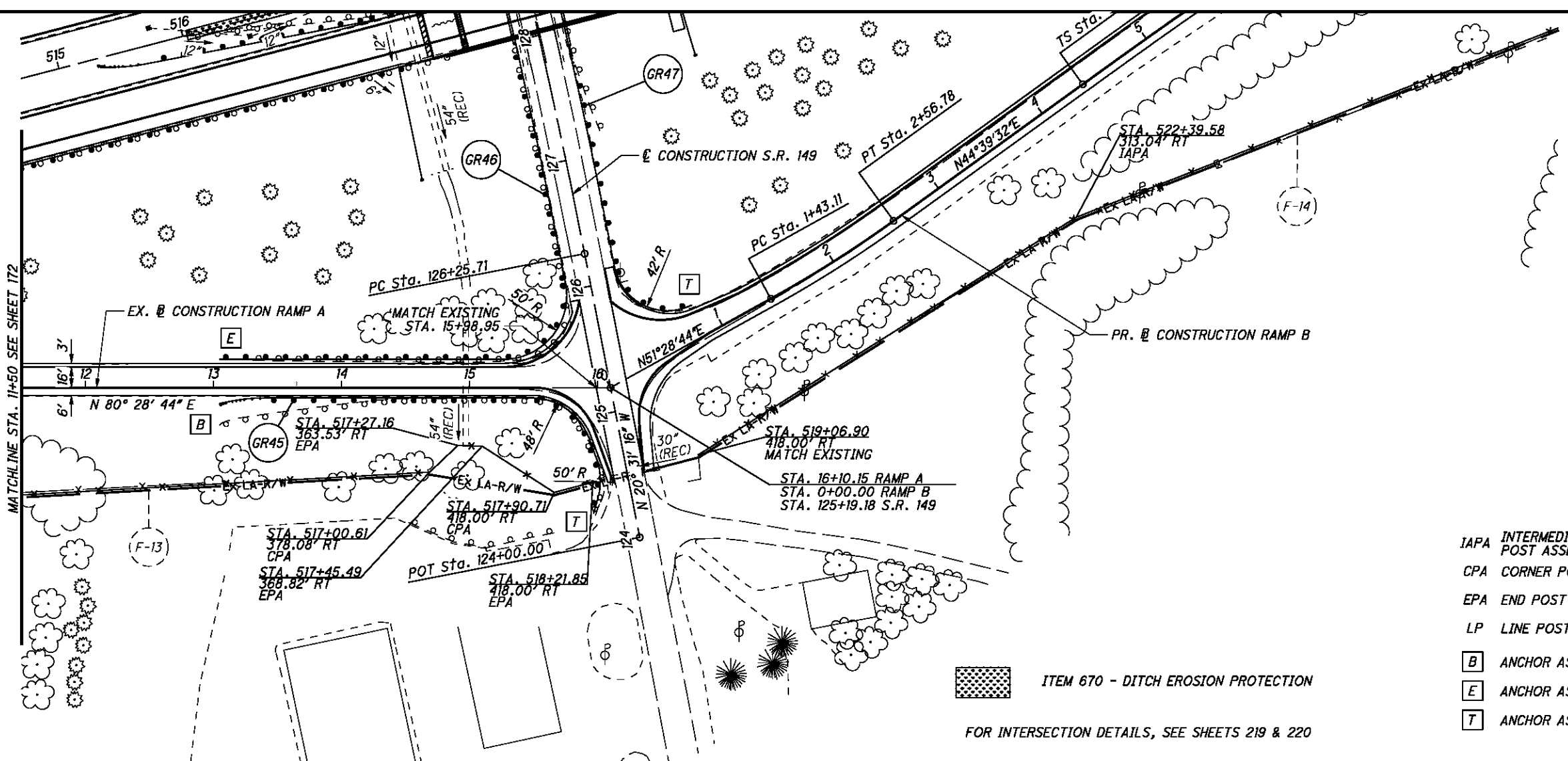
CROSS SECTIONS - I.R. 70
STA. 677+00.00 TO STA. 678+00.00

BEL-70-7.61

171
373

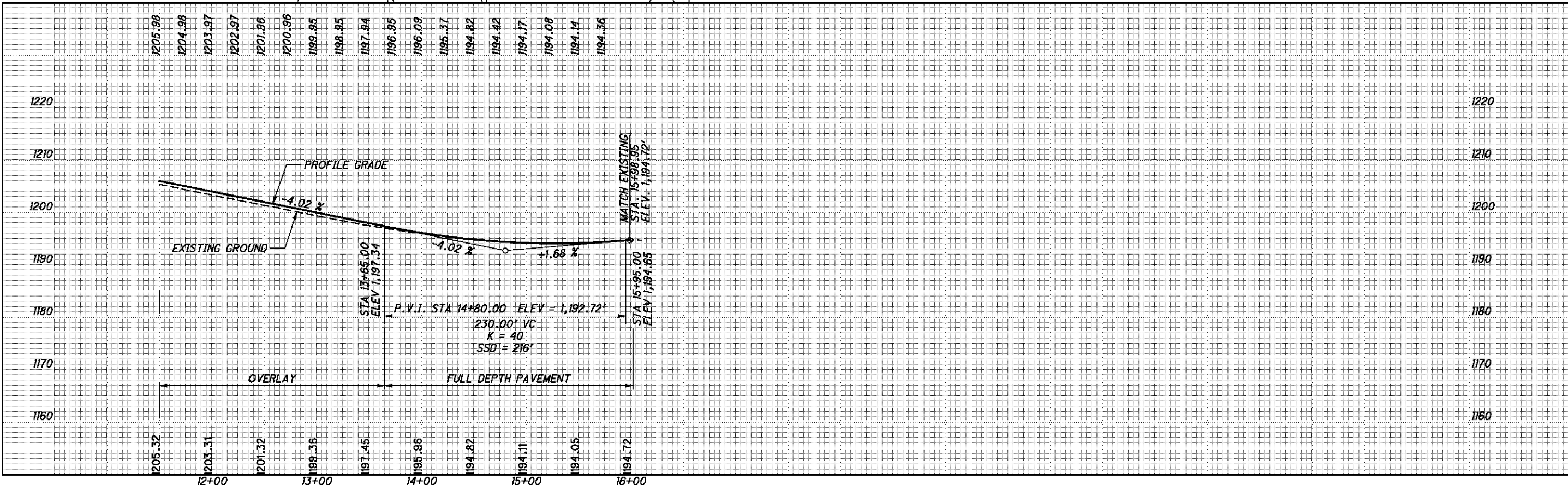


P:\76825\roadway\sheet\76825GP4.30.dgn 9/21/2012 7:49:40 AM mcornett

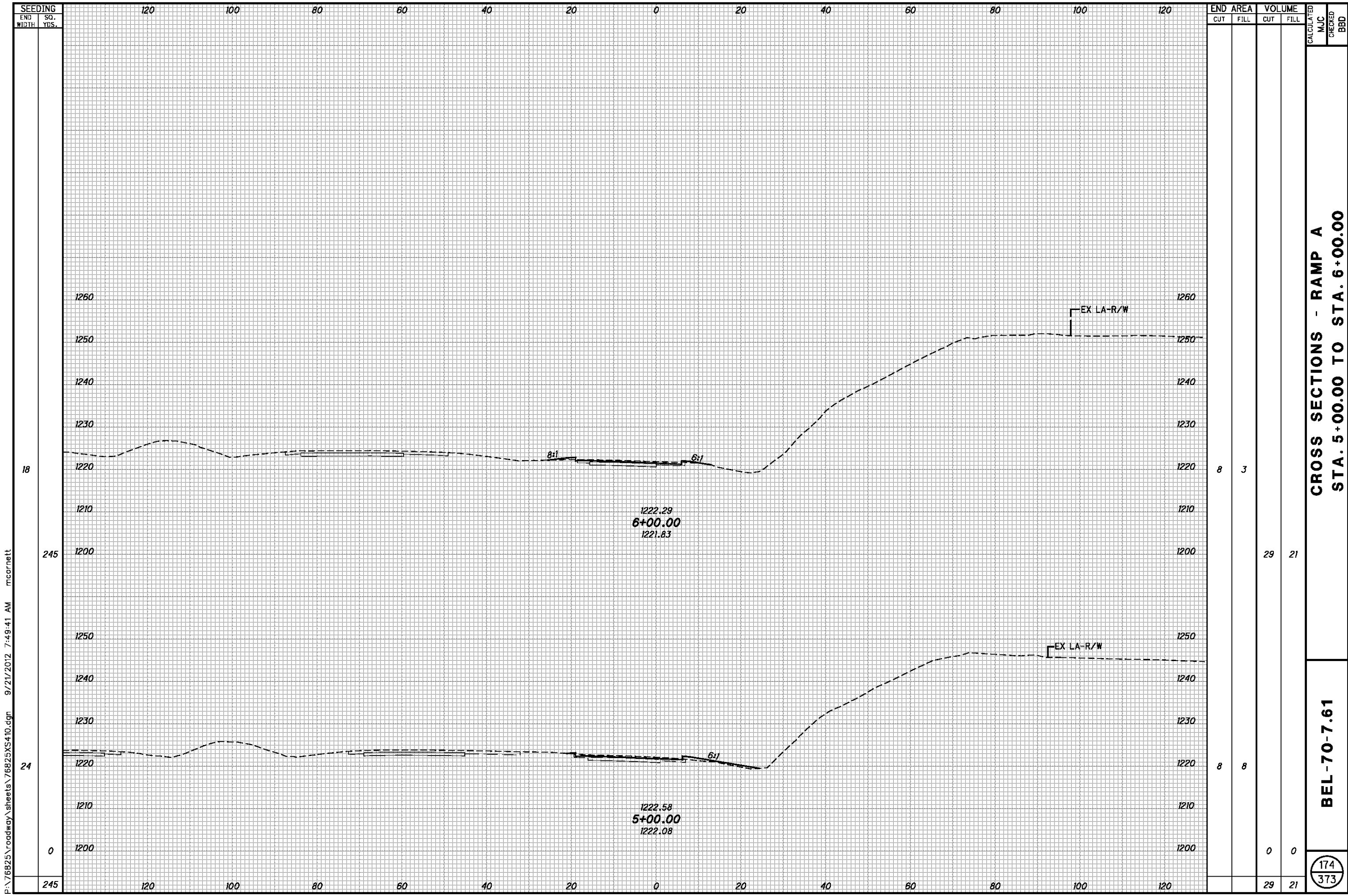


- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST
- [B] ANCHOR ASSEMBLY, TYPE B
- [E] ANCHOR ASSEMBLY, TYPE E
- [T] ANCHOR ASSEMBLY, TYPE T

[ITEM 670] ITEM 670 - DITCH EROSION PROTECTION
 FOR INTERSECTION DETAILS, SEE SHEETS 219 & 220



P:\76825\roadway\sheets\76825GP4.31.dgn 9/21/2012 7:49:41 AM mcorbett



P:\76825\roadway\sheets\76825XS410.dgn 9/21/2012 7:49:41 AM mcornett

SEEDING	
END WIDTH	SO. YDS.
245	0
245	18

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	MJC	BBD
8	3	29	21		
8	8	0	0		
		29	21		

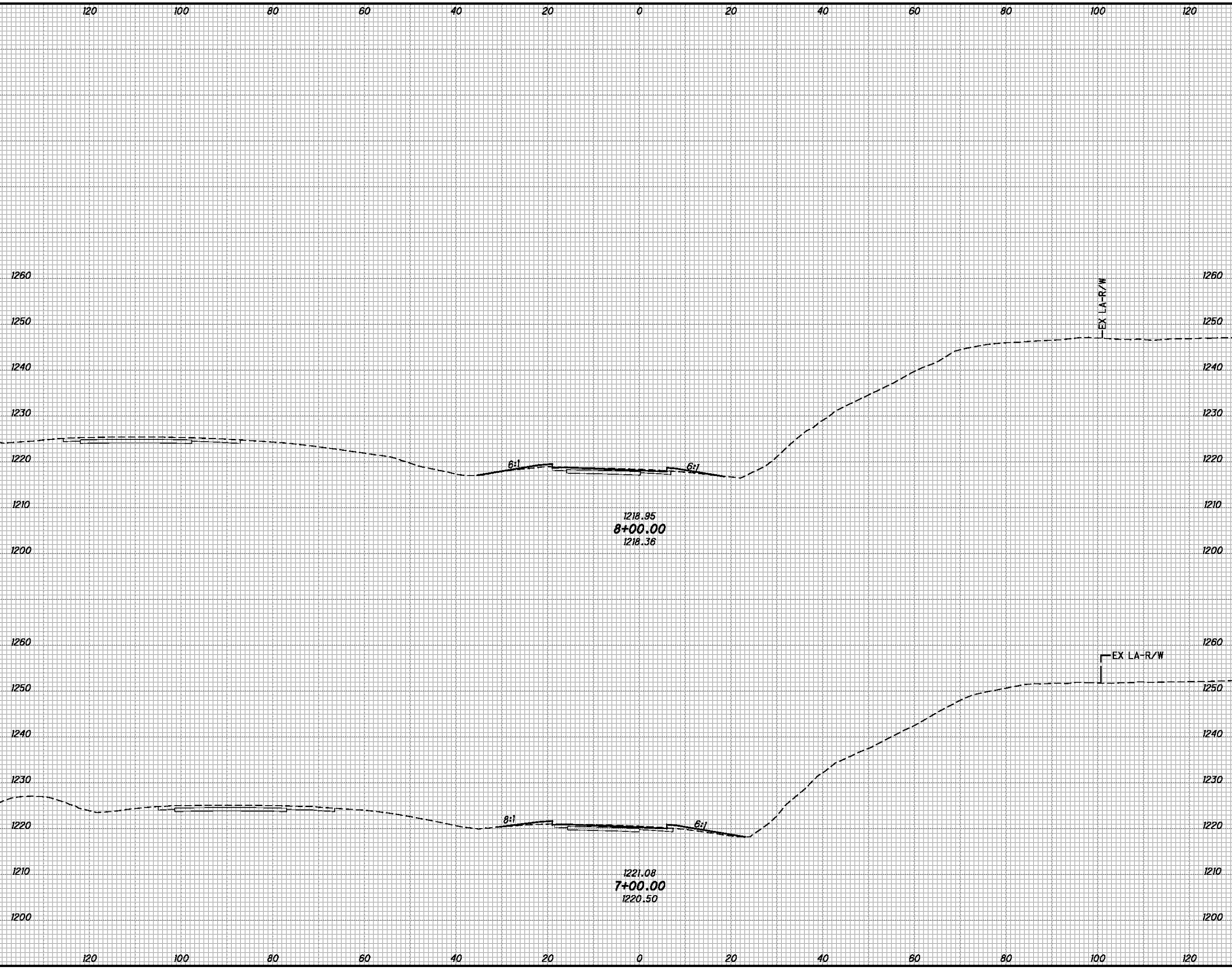
CROSS SECTIONS - RAMP A
STA. 5+00.00 TO STA. 6+00.00

BEL-70-7.61

174
373

P:\76825\roadway\sheets\76825XS410.dgn 9/21/2012 7:49:42 AM mcorneit

SEEDING	
END WIDTH	SO. YDS.
645	
278	
32	
367	
34	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4	8	16	36
5	11	23	26
		39	62

CALCULATED	
MJC	BBD

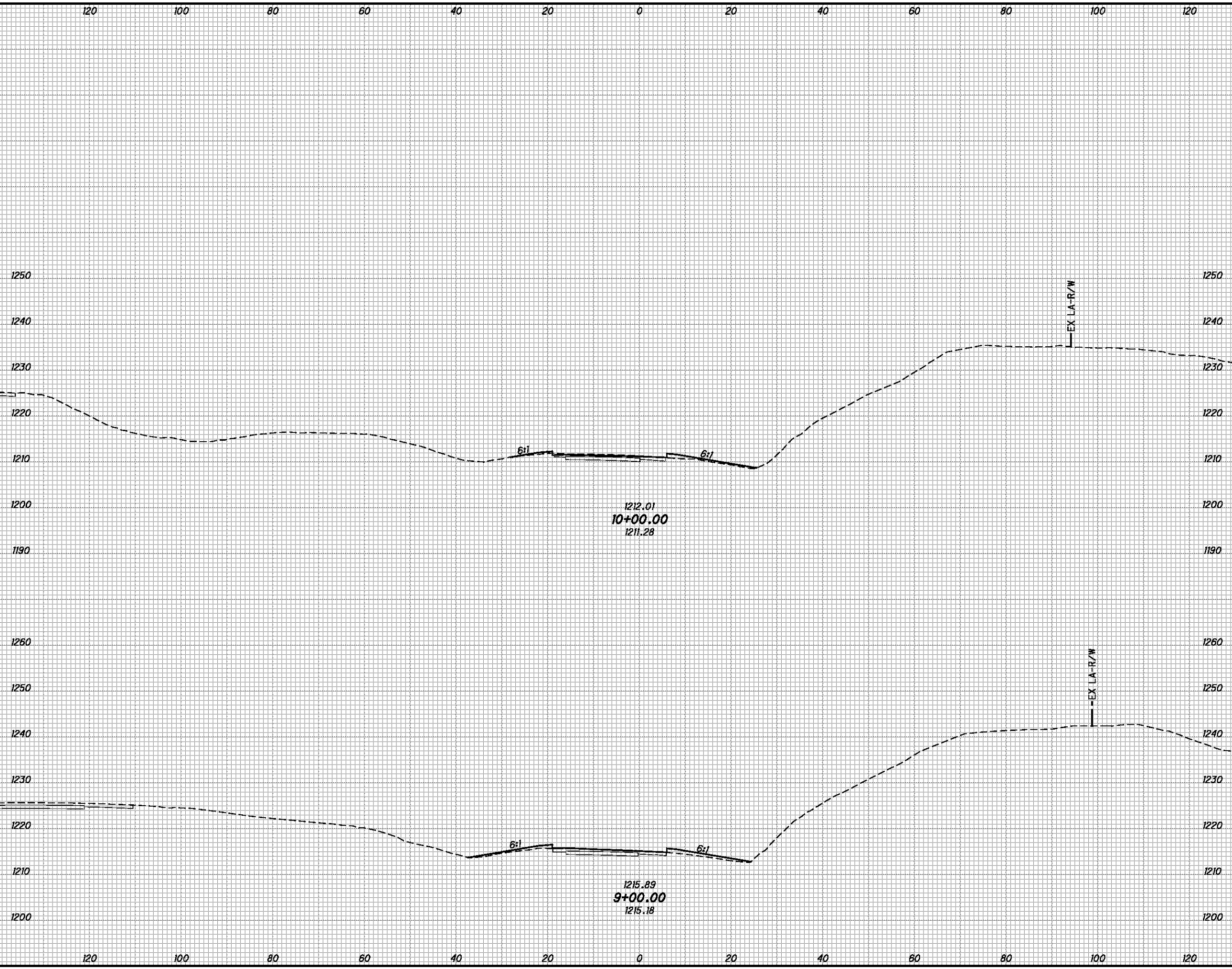
CROSS SECTIONS - RAMP A
STA. 7+00.00 TO STA. 8+00.00

BEL-70-7.61

175
373

P:\76825\roadway\sheets\76825XS410.dgn 9/21/2012 7:49:42 AM mcorneit

SEEDING	
END WIDTH	SO. YDS.
33	
422	
42	
422	
844	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4	11	10	56
1	19	10	51
		20	107

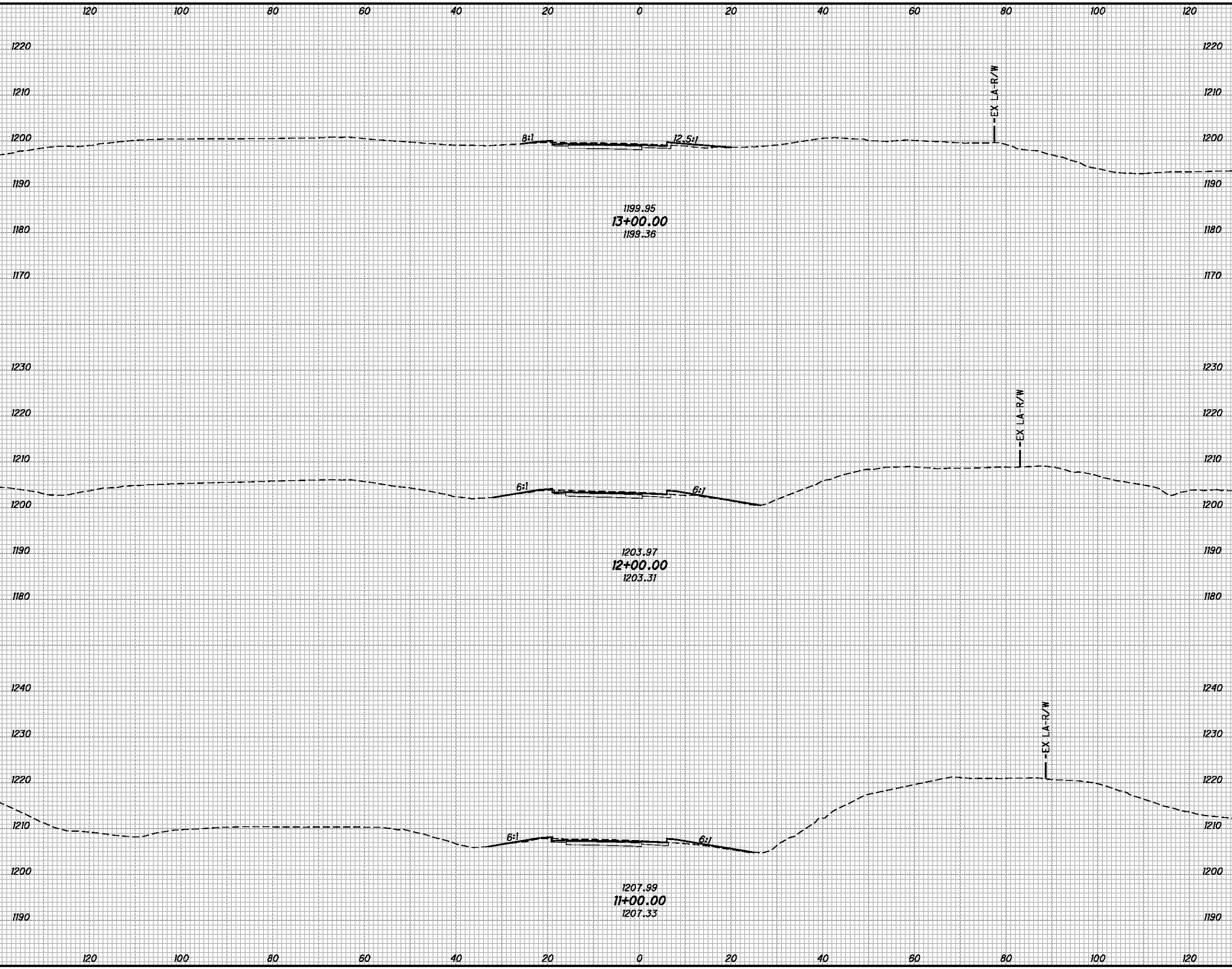
CROSS SECTIONS - RAMP A
 STA. 9+00.00 TO STA. 10+00.00

BEL-70-7.61

176
373

P:\76825\roadway\sheets\76825XS410.dgn 9/21/2012 7:49:42 AM mcorneit

SEEDING	
END WIDTH	SO. YDS.
25	
355	
38	
422	
37	
400	
1,177	



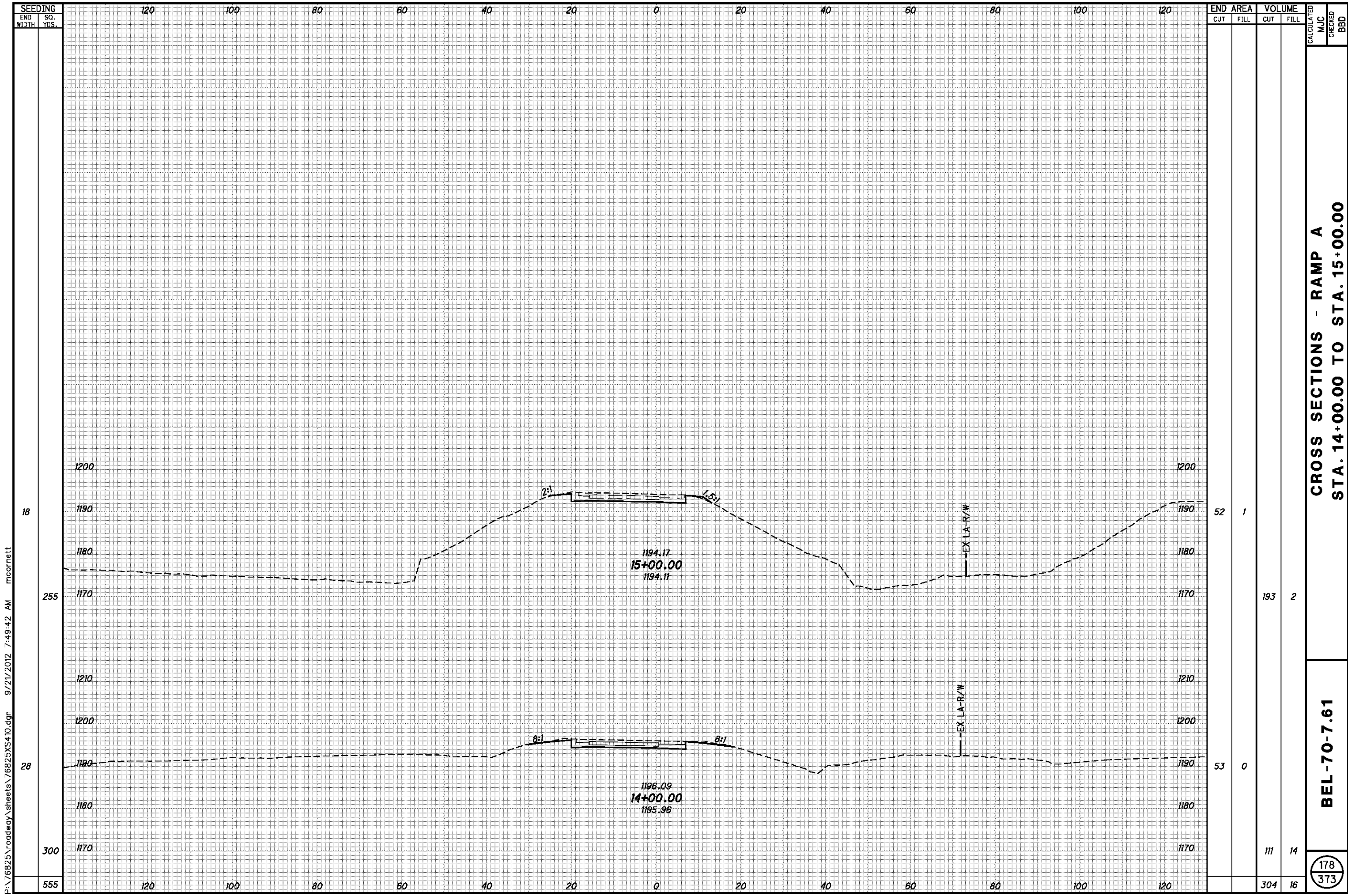
END AREA		VOLUME	
CUT	FILL	CUT	FILL
7	7	26	27
7	7	24	30
6	9	20	37
		70	94

CROSS SECTIONS - RAMP A
STA. 11+00.00 TO STA. 13+00.00

BEL-70-7.61

CALCULATED	MJC
CHECKED	BBD

(177)
373

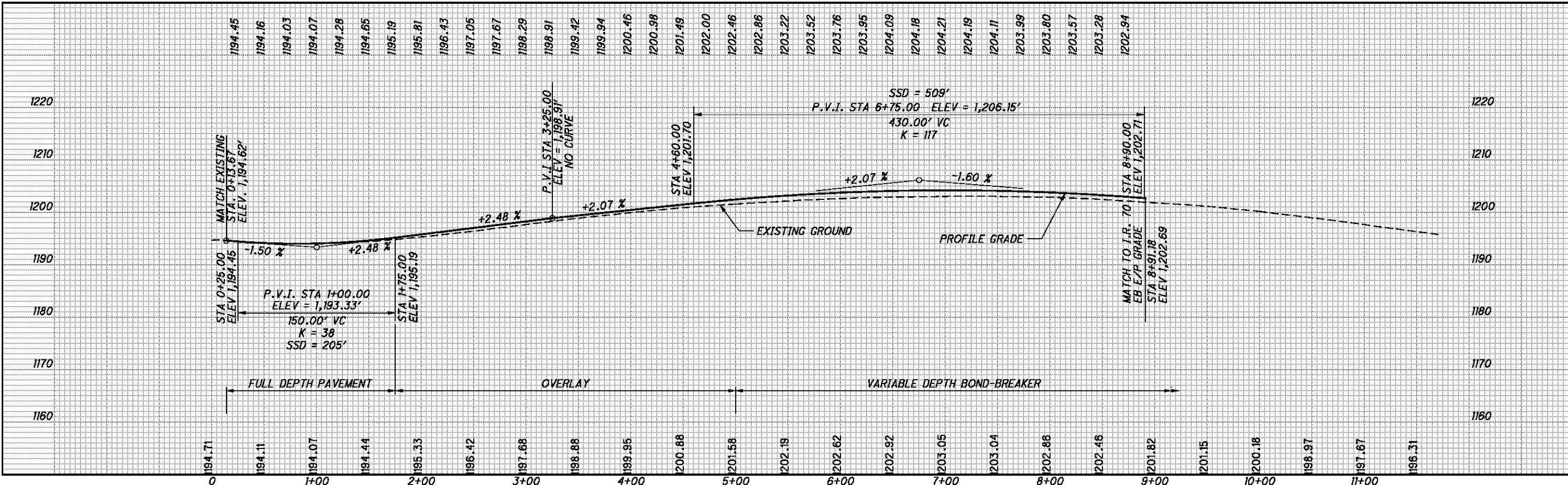
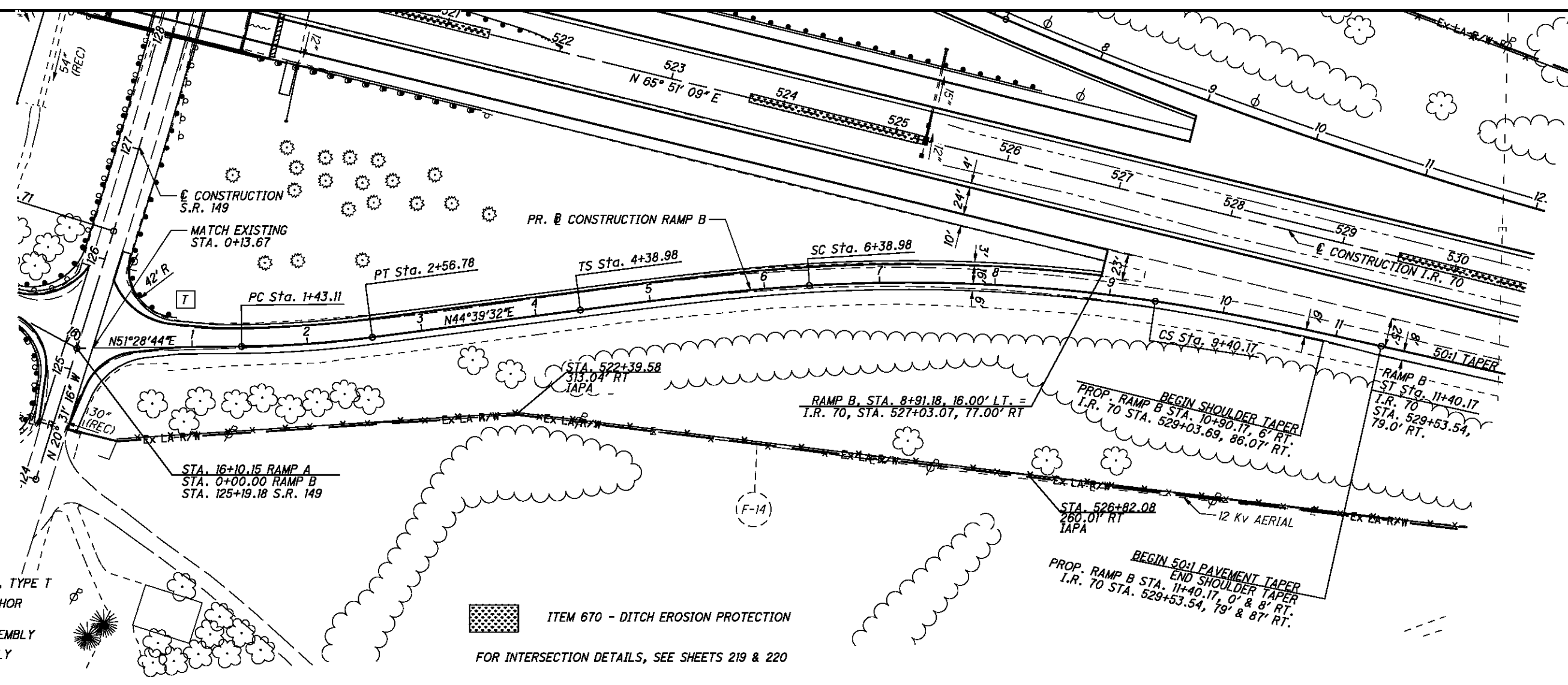


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**CROSS SECTIONS - RAMP A
STA. 14+00.00 TO STA. 15+00.00**

BEL-70-7.61

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373



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SEEDING
 END SO. WIDTH YDS.
 25
 278
 25
 300
 29
 0
 578

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
12	7	59	16		
20	1	166	2		
70	0	0	0		
		225	18		

CROSS SECTIONS - RAMP B
STA. 1+00.00 TO STA. 3+00.00

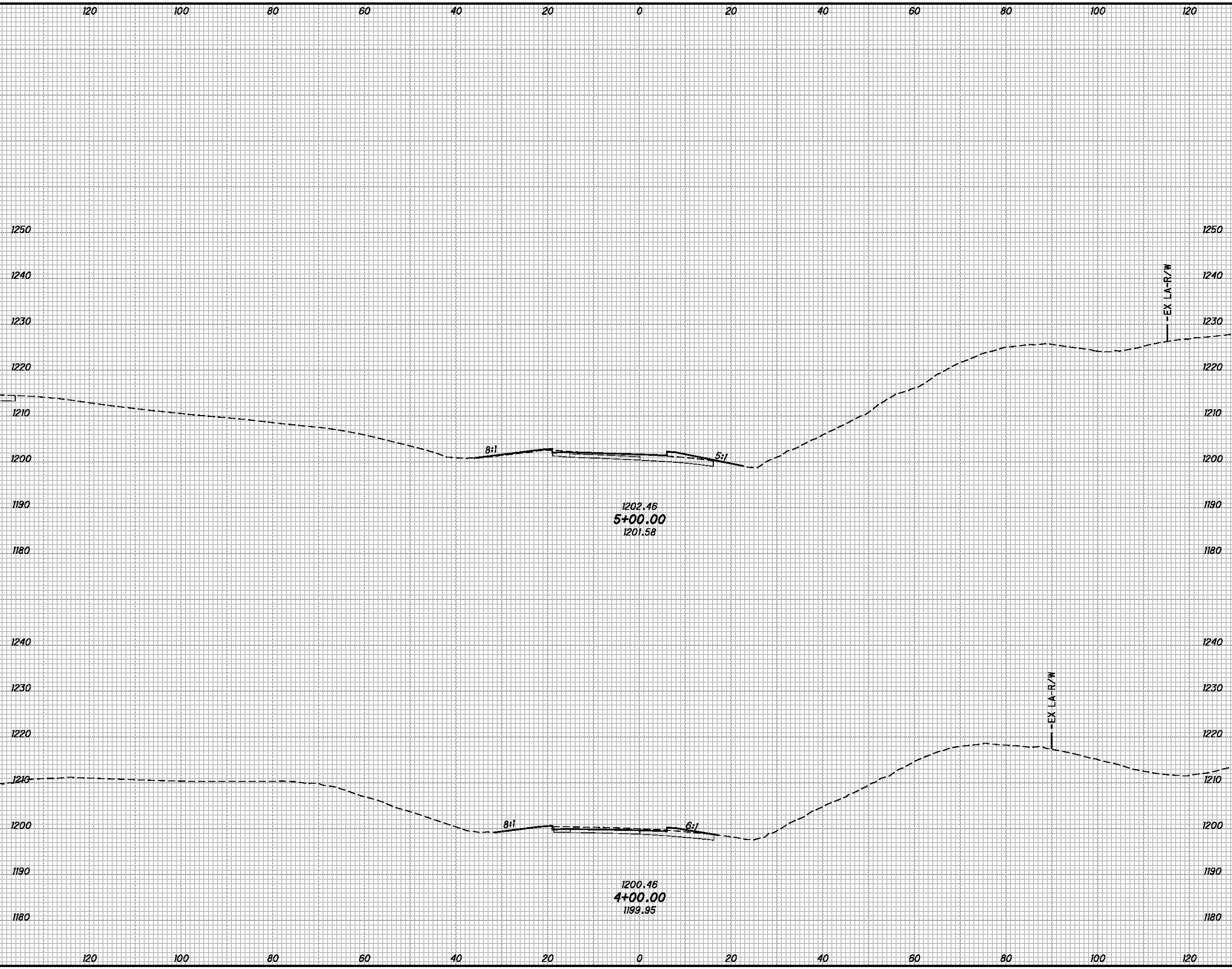
BEL-70-7.61

180
373

P:\76825\roadway\sheets\76825XS420.dgn 9/21/2012 7:49:45 AM mcorbett

P:\76825\roadway\sheets\76825XS420.dgn 9/21/2012 7:49:45 AM mcornett

SEEDING	
END WIDTH	SO. YDS.
38	
367	
28	
300	
667	



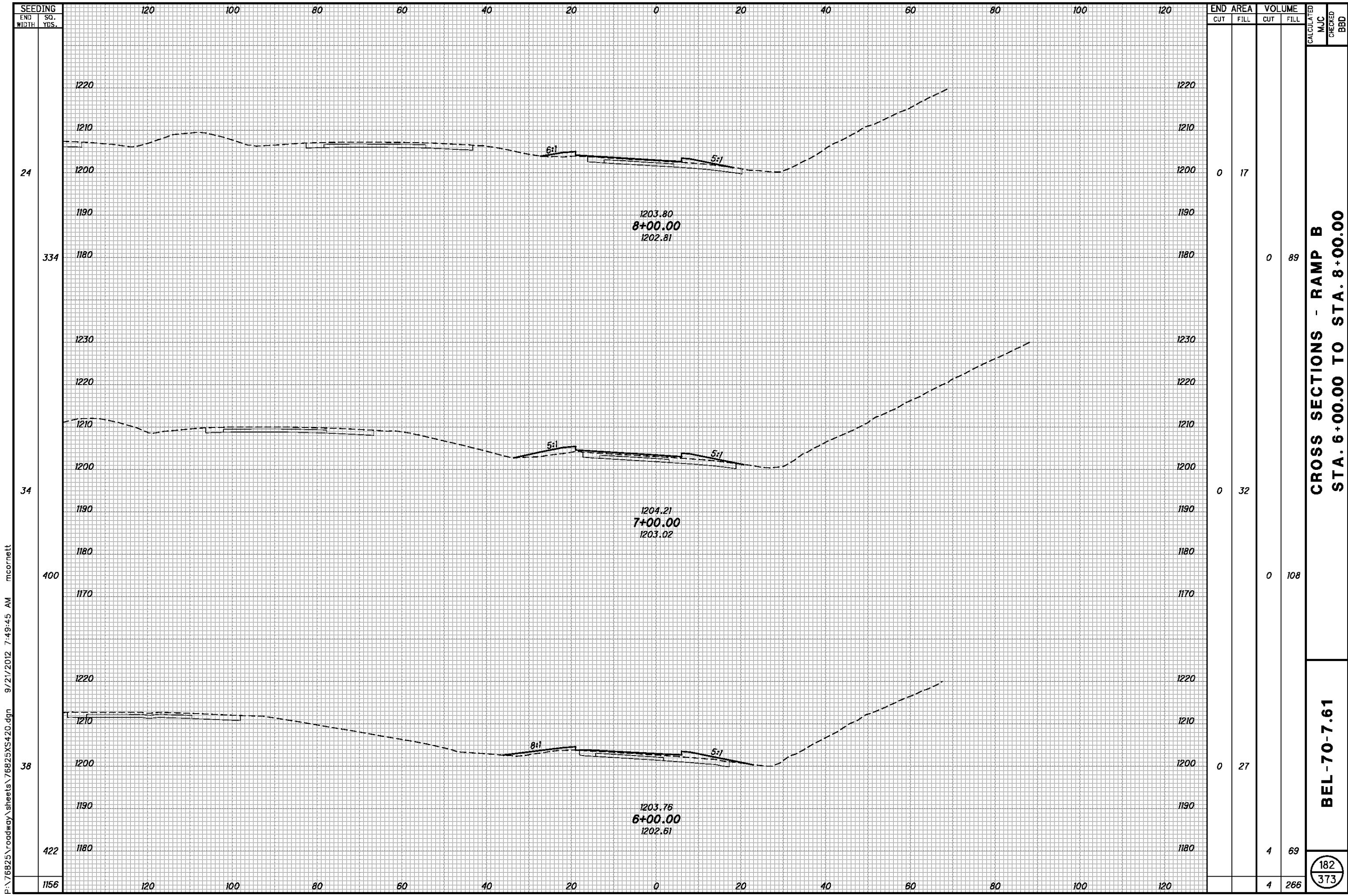
END AREA		VOLUME	
CUT	FILL	CUT	FILL
2	11	24	27
11	4	42	21
		66	48

CALCULATED	CHECKED
MJC	BBD

CROSS SECTIONS - RAMP B
STA. 4+00.00 TO STA. 5+00.00

BEL-70-7.61

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373



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SEEDING	
END WIDTH	SO. YDS.
24	
334	
34	
400	
38	
422	
1156	

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	MJC	BBD
0	17	0	89		
0	32	0	108		
0	27	4	69		
		4	266		

CROSS SECTIONS - RAMP B
STA. 6+00.00 TO STA. 8+00.00

BEL-70-7.61

182
373

RAMP C
 CURVE DATA
 P.I. = STA. 9+91.96
 $\Delta = 10^{\circ}41'19''$ LT.
 $D_c = 1^{\circ}30'00''$
 $R = 3819.72$
 $Ls1 = 150.00'$
 $Ls2 = 0.00'$
 $\theta s1 = 1^{\circ}07'30''$
 $\theta s2 = 0^{\circ}0'00''$
 $LT1 = 100.00'$
 $LT2 = 0.00'$
 $ST1 = 50.00'$
 $ST2 = 0.00'$
 $Lc = 637.57'$
 $T1 = 431.02'$
 $T2 = 358.65'$
 $e_{MAX} = 0.041$

E ANCHOR ASSEMBLY, TYPE E
T ANCHOR ASSEMBLY TYPE T

 ITEM 670 - DITCH EROSION PROTECTION

FOR INTERSECTION DETAILS, SEE SHEETS 221 & 222

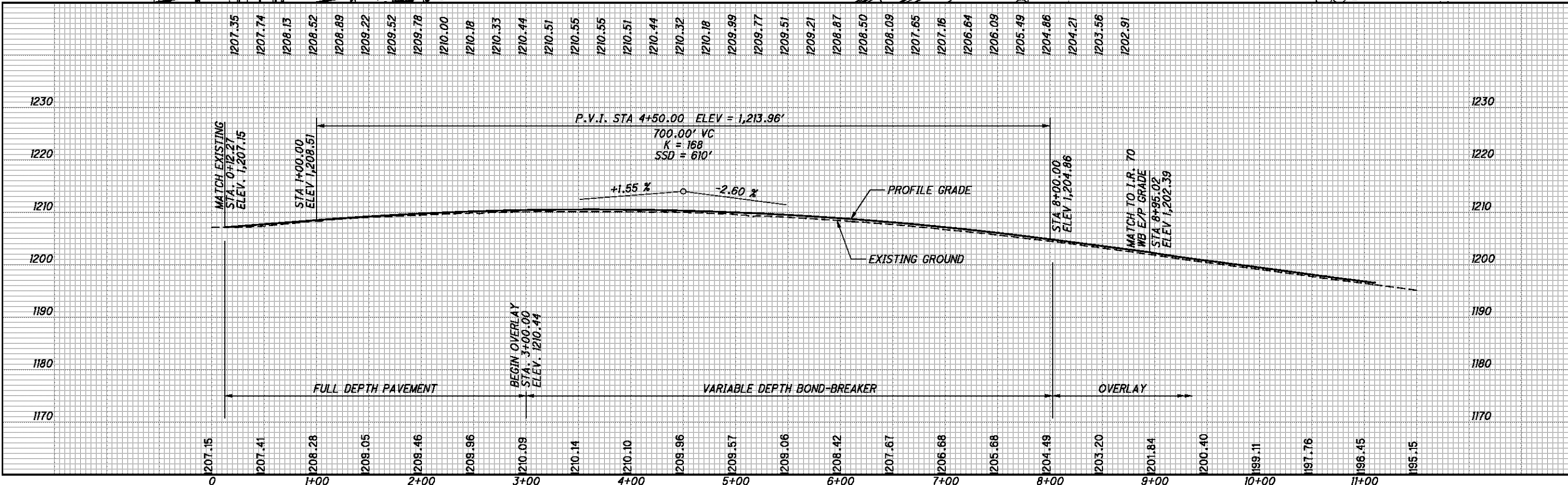
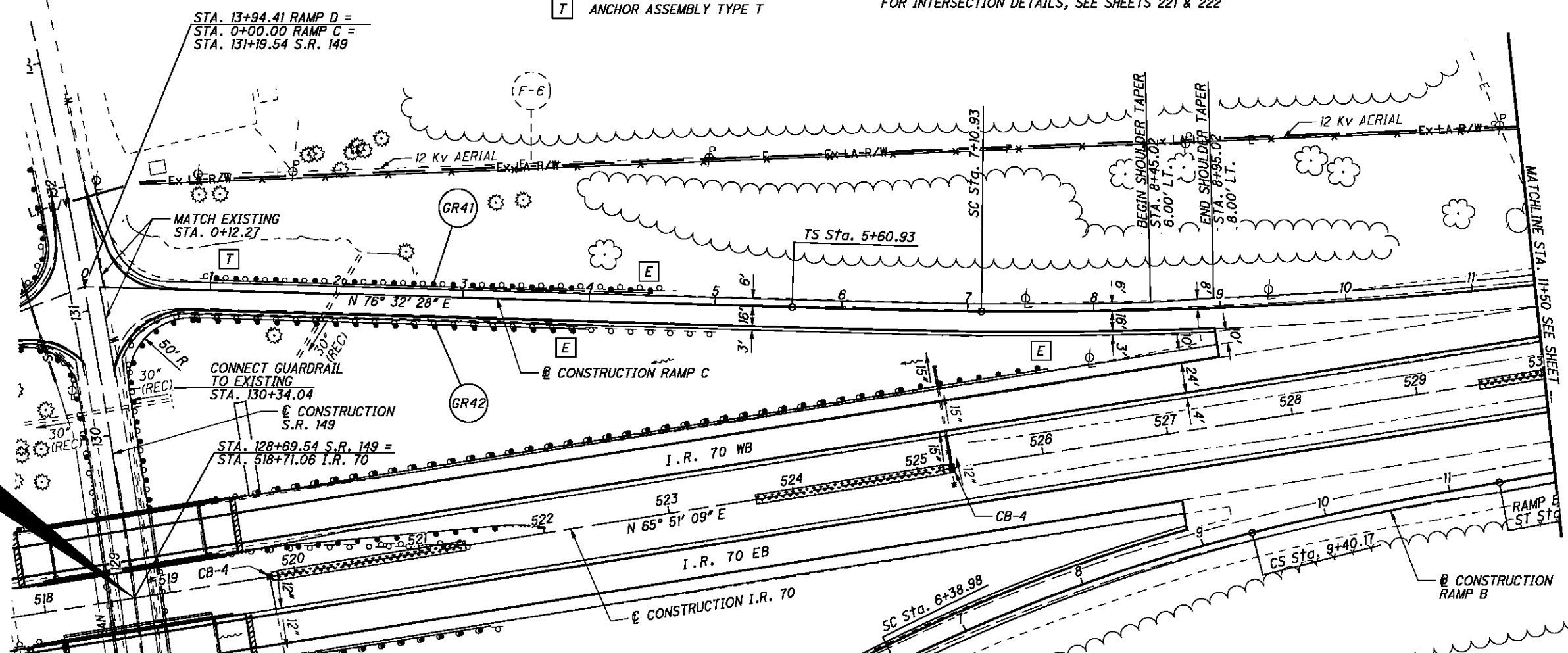


CALCULATED CDS CHECKED BDD

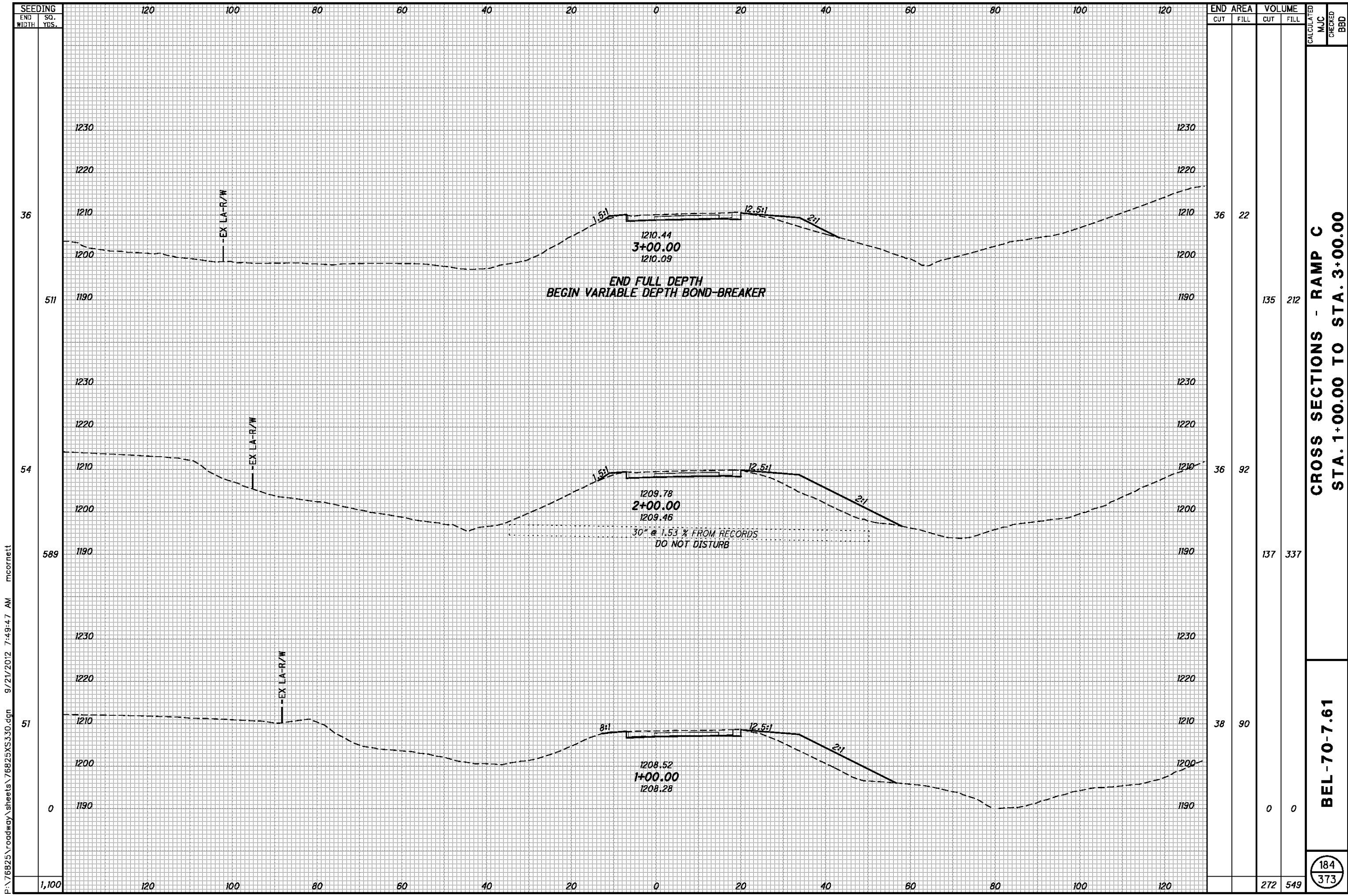
RAMP C - PLAN AND PROFILE
 STA. 0+00 TO STA. 11+50

BEL-70-7.61

183
 373



P:\76825\roadway\sheet\76825GP330.dgn 9/21/2012 7:49:47 AM mcorneett



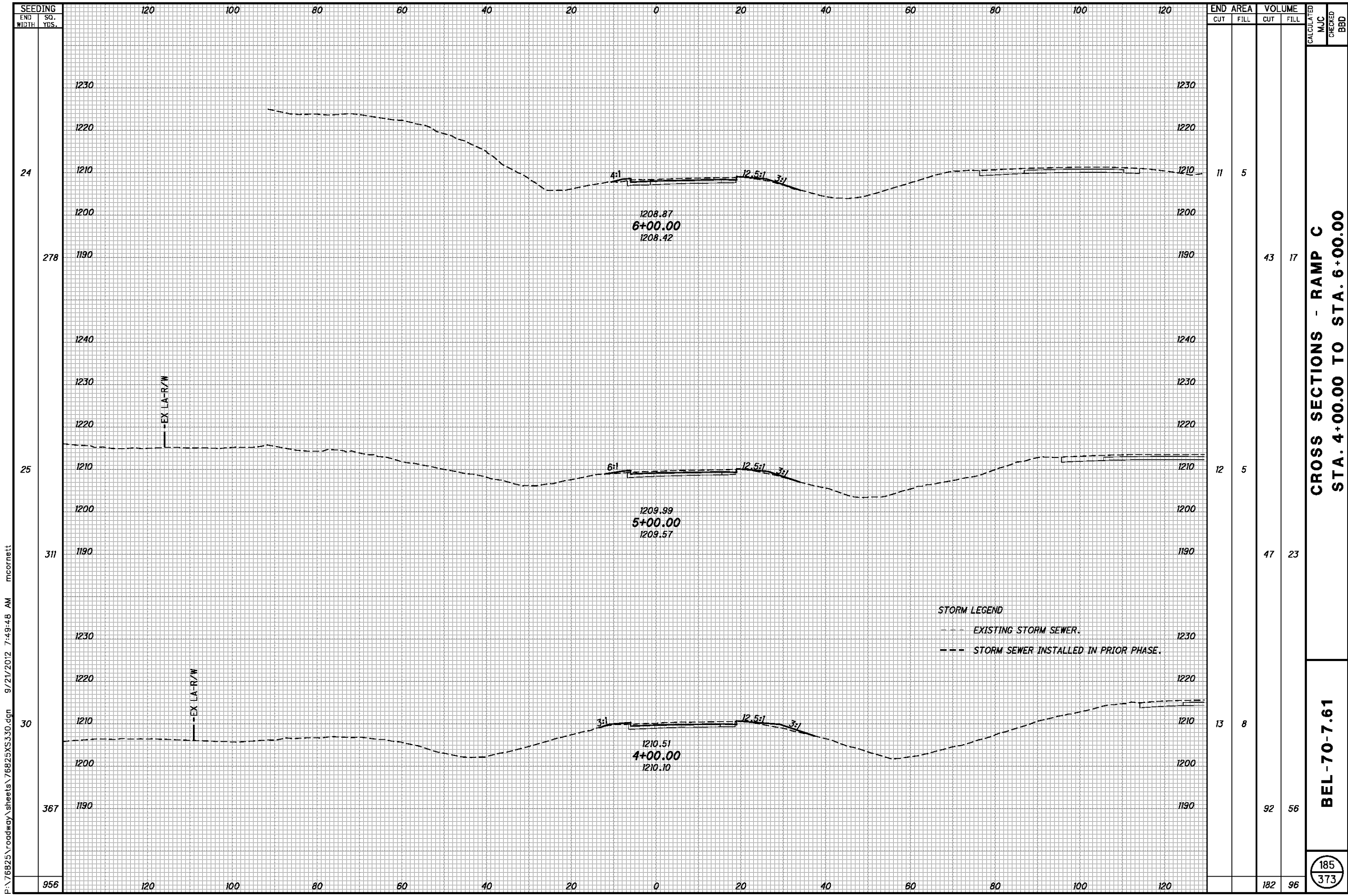
P:\76825\roadway\sheets\76825XS330.dgn 9/21/2012 7:49:47 AM mcorneit

SEEDING	END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
	END WIDTH	SO. YDS.	CUT	FILL				
36	120	120	36	22				
511	120	120	135	212				
54	120	120	36	92				
589	120	120	137	337				
51	120	120	38	90				
0	120	120	0	0				
1,100	120	120	272	549				

CROSS SECTIONS - RAMP C
STA. 1+00.00 TO STA. 3+00.00

BEL-70-7.61

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CROSS SECTIONS - RAMP C
STA. 4+00.00 TO STA. 6+00.00

BEL-70-7.61

P:\76825\roadway\sheets\76825XS330.dgn 9/21/2012 7:49:48 AM mcorbett



SEEDING	
END WIDTH	SO. YDS.
120	120
100	100
80	80
60	60
40	40
20	20
0	0
20	20
40	40
60	60
80	80
100	100
120	120

END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
CUT	FILL	CUT	FILL		
10	2	51	14		
18	6	54	19		
		105	33		

CROSS SECTIONS - RAMP C
STA. 7+00.00 TO STA. 8+00.00

BEL-70-7.61

186
373

P:\76825\roadway\sheets\76825XS330.dgn 9/21/2012 7:49:48 AM mcorneett



ITEM 670 - DITCH EROSION PROTECTION

FOR INTERSECTION DETAILS, SEE SHEETS 221 & 222

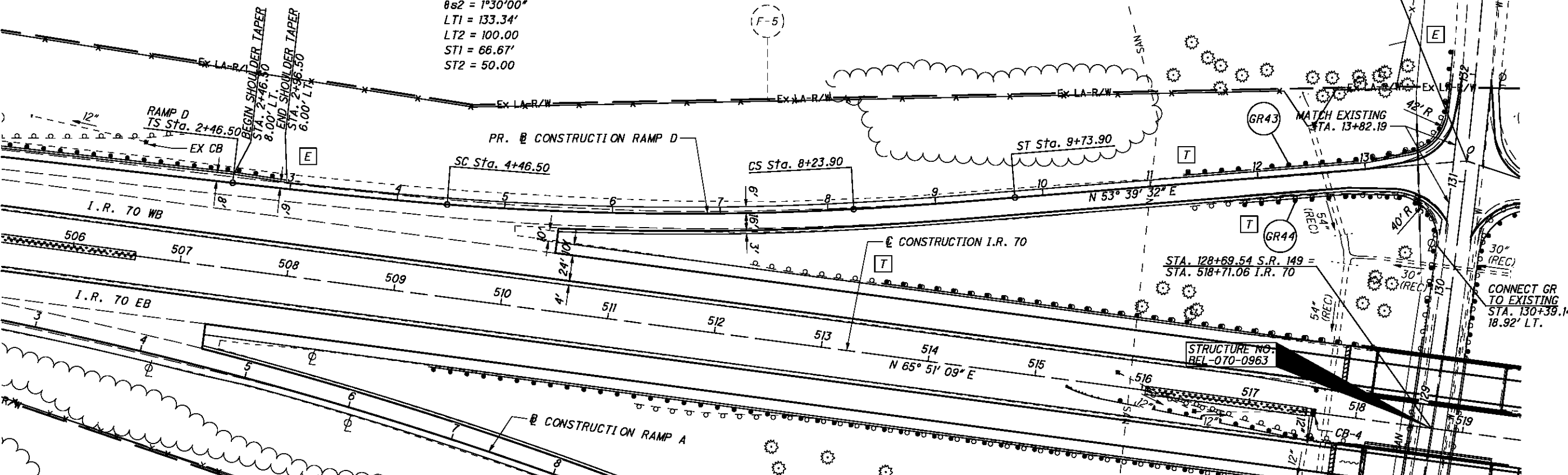
RAMP D
CURVE DATA

P.I. = STA. 6+22.28 $L_c = 377.39'$
 $\Delta = 11^\circ 02' 52''$ LT. $T1 = 375.78'$
 $D_c = 2^\circ 00' 00''$ $T2 = 353.41'$
 $R = 2864.79'$ $E_s = 13.82'$
 $Ls1 = 200.00'$ $\theta_{MAX} = 0.038$
 $Ls2 = 150.00'$
 $\theta s1 = 2^\circ 00' 00''$
 $\theta s2 = 1^\circ 30' 00''$
 $LT1 = 133.34'$
 $LT2 = 100.00'$
 $ST1 = 66.67'$
 $ST2 = 50.00'$

E ANCHOR ASSEMBLY, TYPE E
T ANCHOR ASSEMBLY TYPE T

CONSTRUCTION
S.R. 149

STA. 13+94.41 RAMP D =
 STA. 0+00.00 RAMP C =
 STA. 131+19.54 S.R. 149

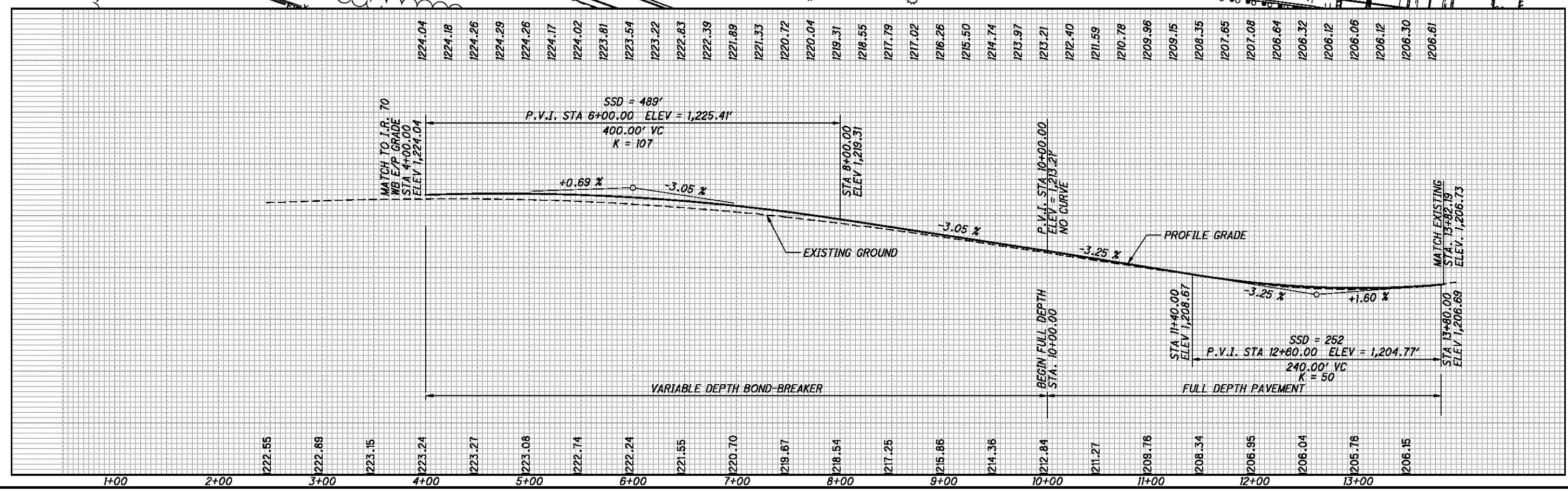


CALCULATED CDS CHECKED BDD

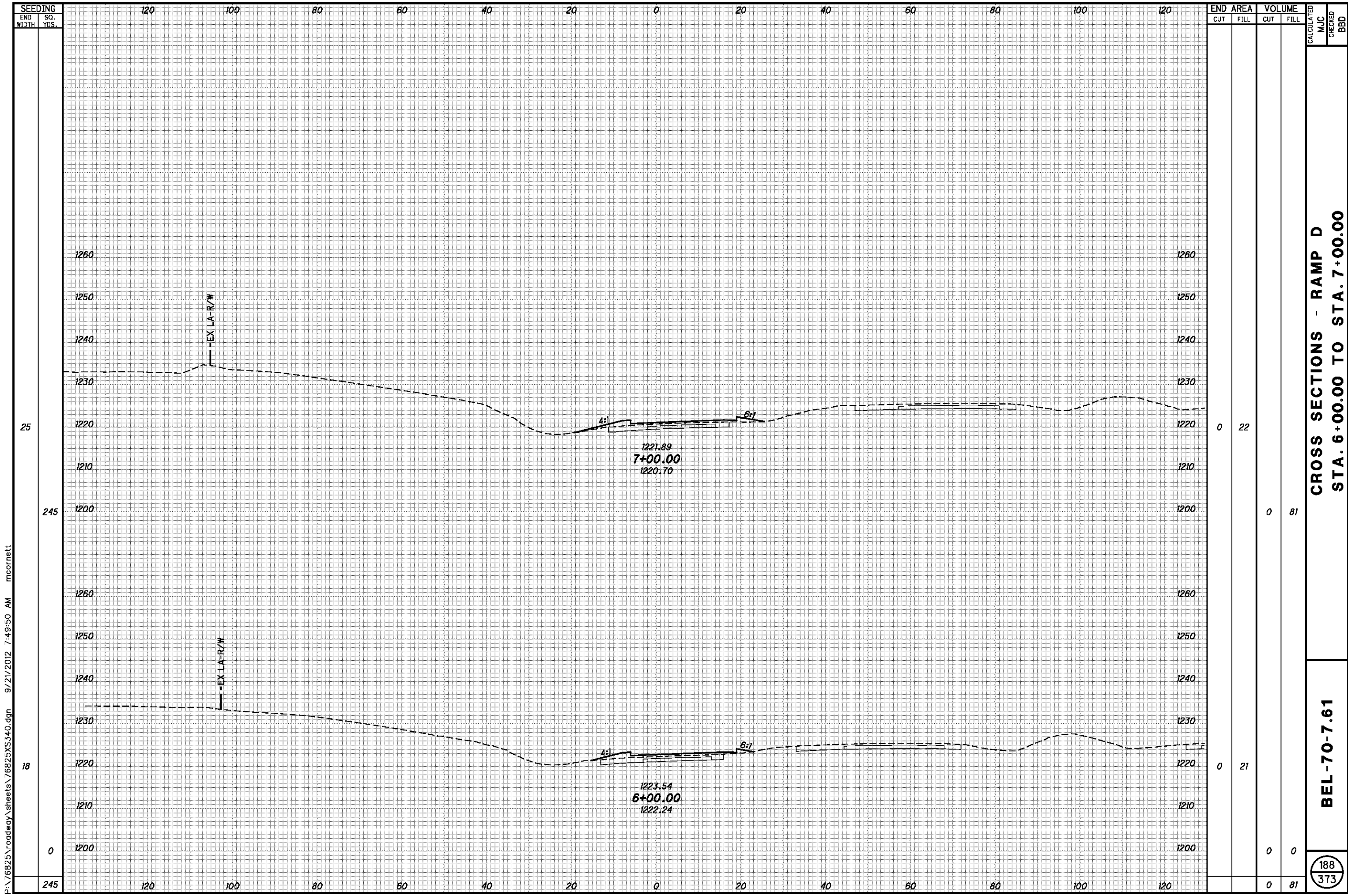
RAMP D - PLAN AND PROFILE
STA. 4+46.50 TO STA. 13+94.41

BEL-70-7.61

187
373



P:\76825\roadway\sheet\76825GP340.dgn 9/21/2012 7:49:50 AM mcorneett



P:\76825\roadway\sheets\76825XS340.dgn 9/21/2012 7:49:50 AM mcornett

SEEDING	
END WIDTH	SO. YDS.
25	
245	
18	
0	
245	

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	MJC	BBD
0	22	0	22		
0	81	0	81		
0	21	0	21		
0	81	0	81		

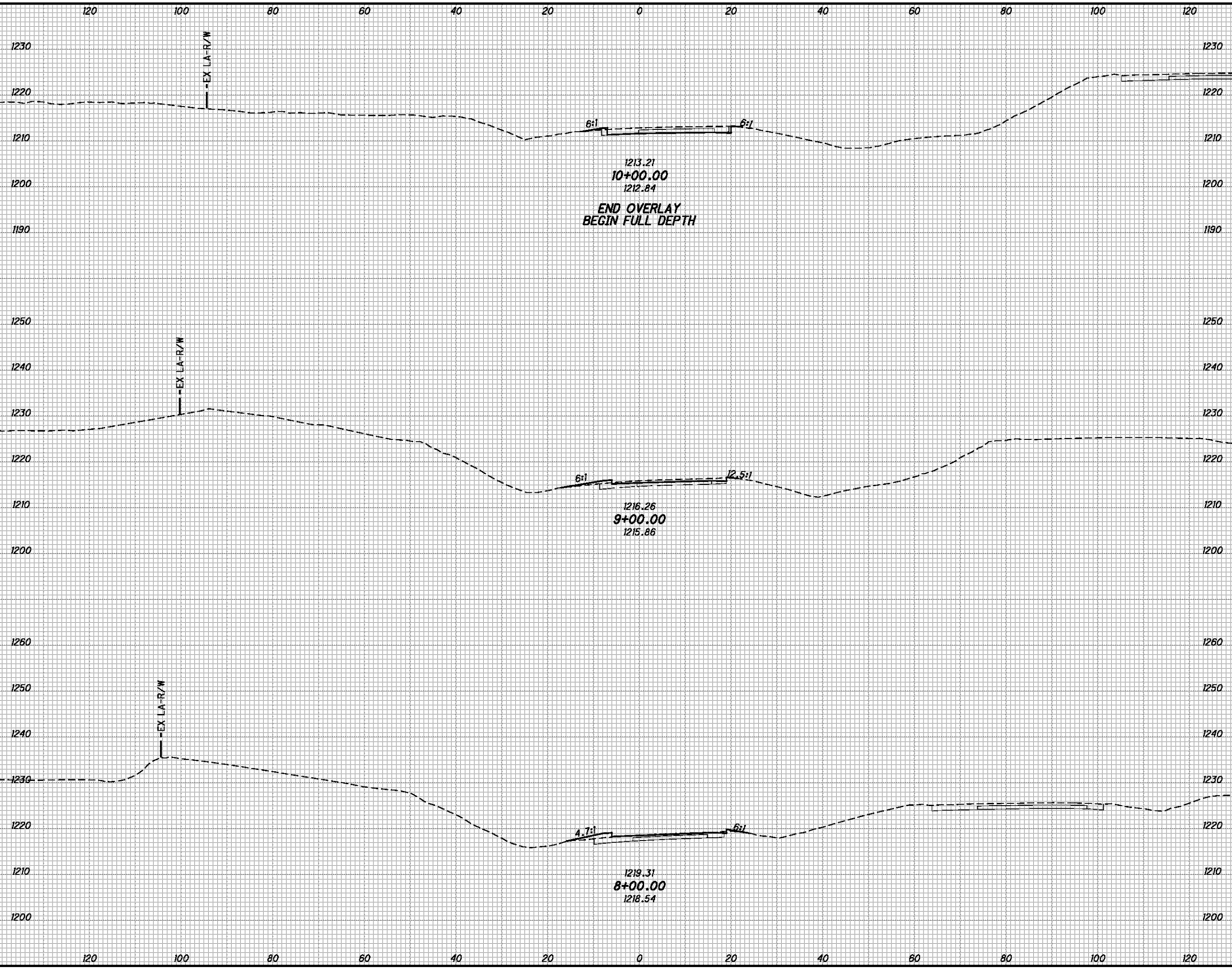
CROSS SECTIONS - RAMP D
STA. 6+00.00 TO STA. 7+00.00

BEL-70-7.61

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373

P:\76825\roadway\sheets\76825XS340.dgn 9/21/2012 7:49:51 AM mcorbett

SEEDING	END	
	WIDTH	SO. YDS.
14		
178		
17		
211		
19		
245		
634		



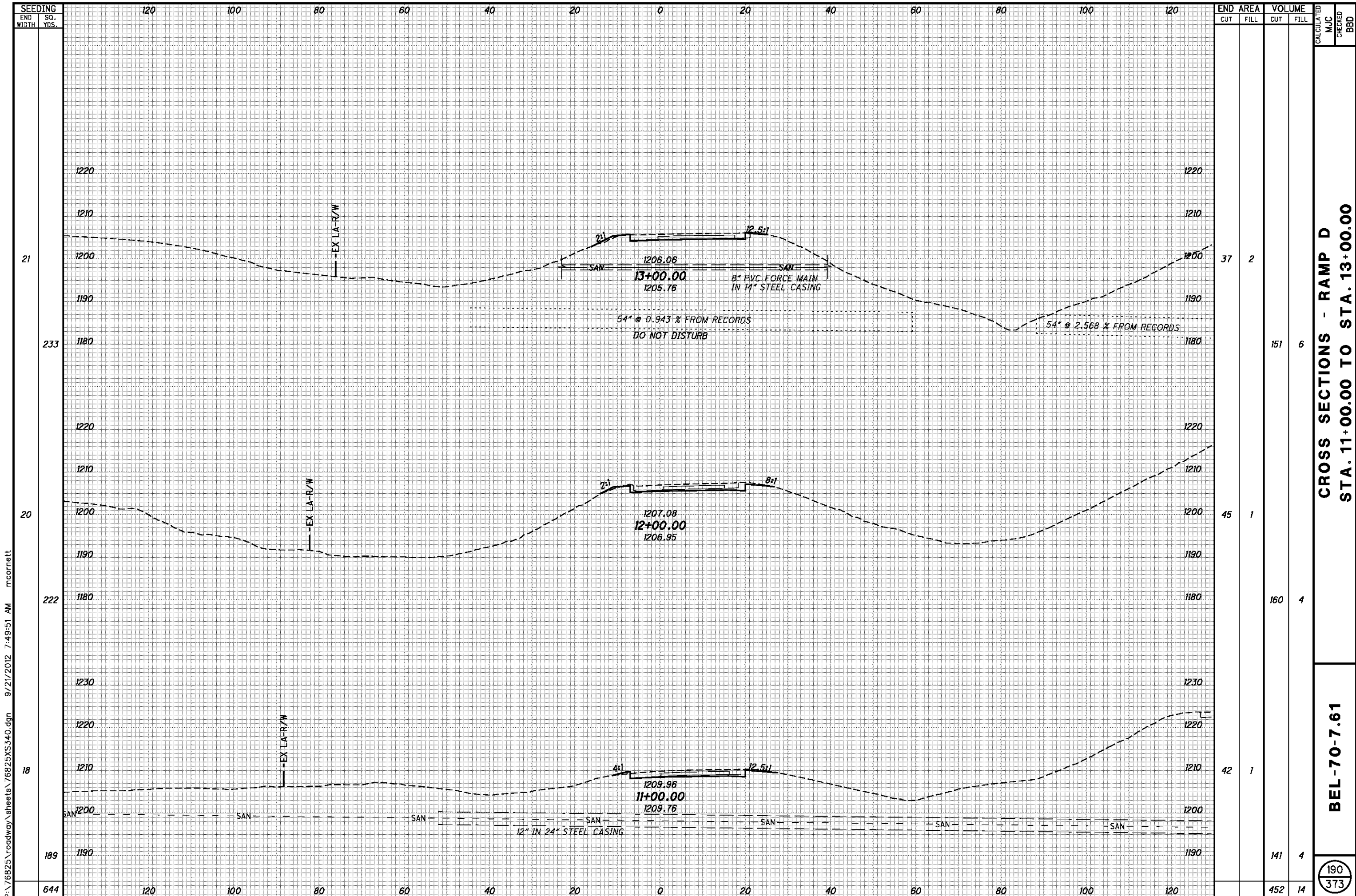
END AREA	VOLUME	
	CUT	FILL
35	1	
86	10	
12	4	
27	20	
3	7	
5	54	
118	84	

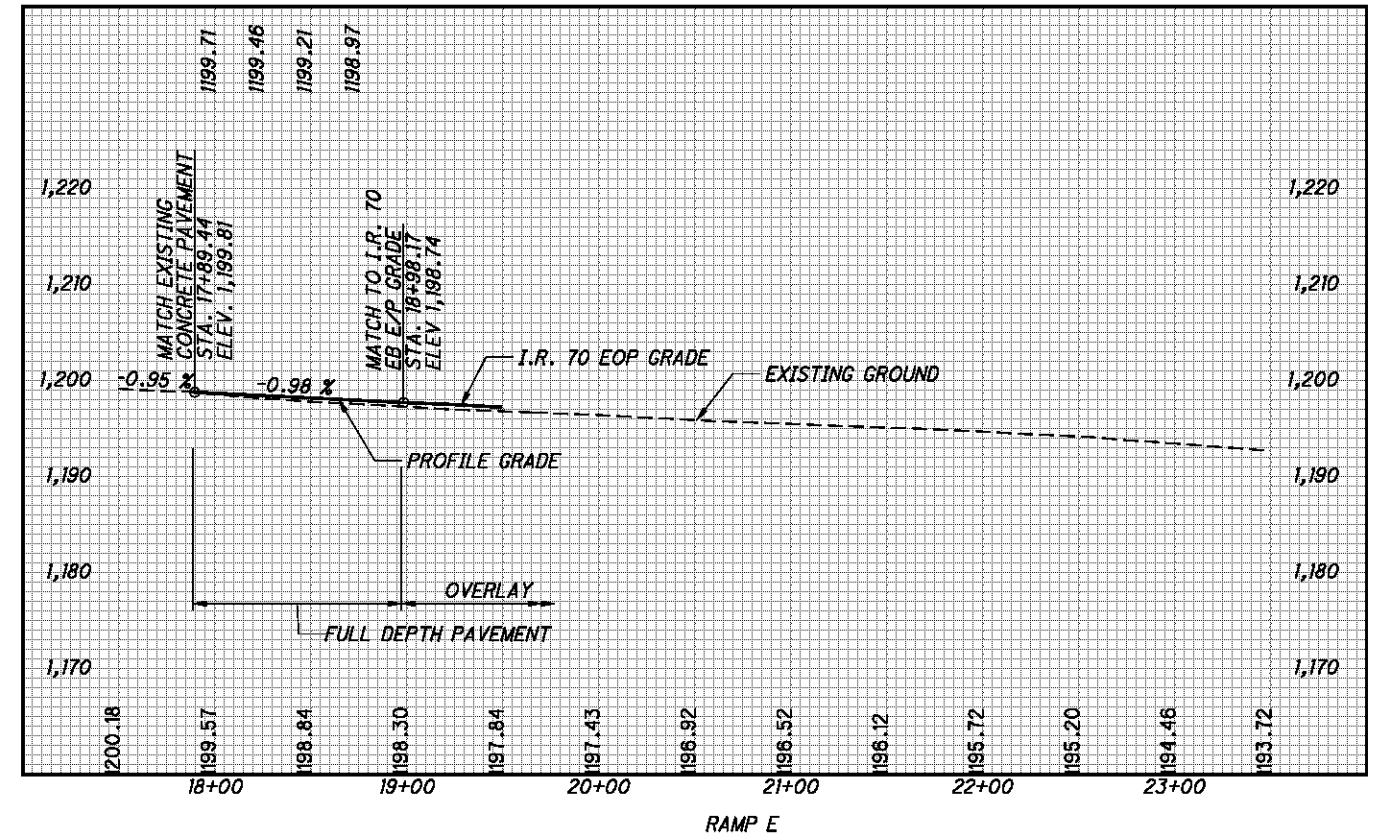
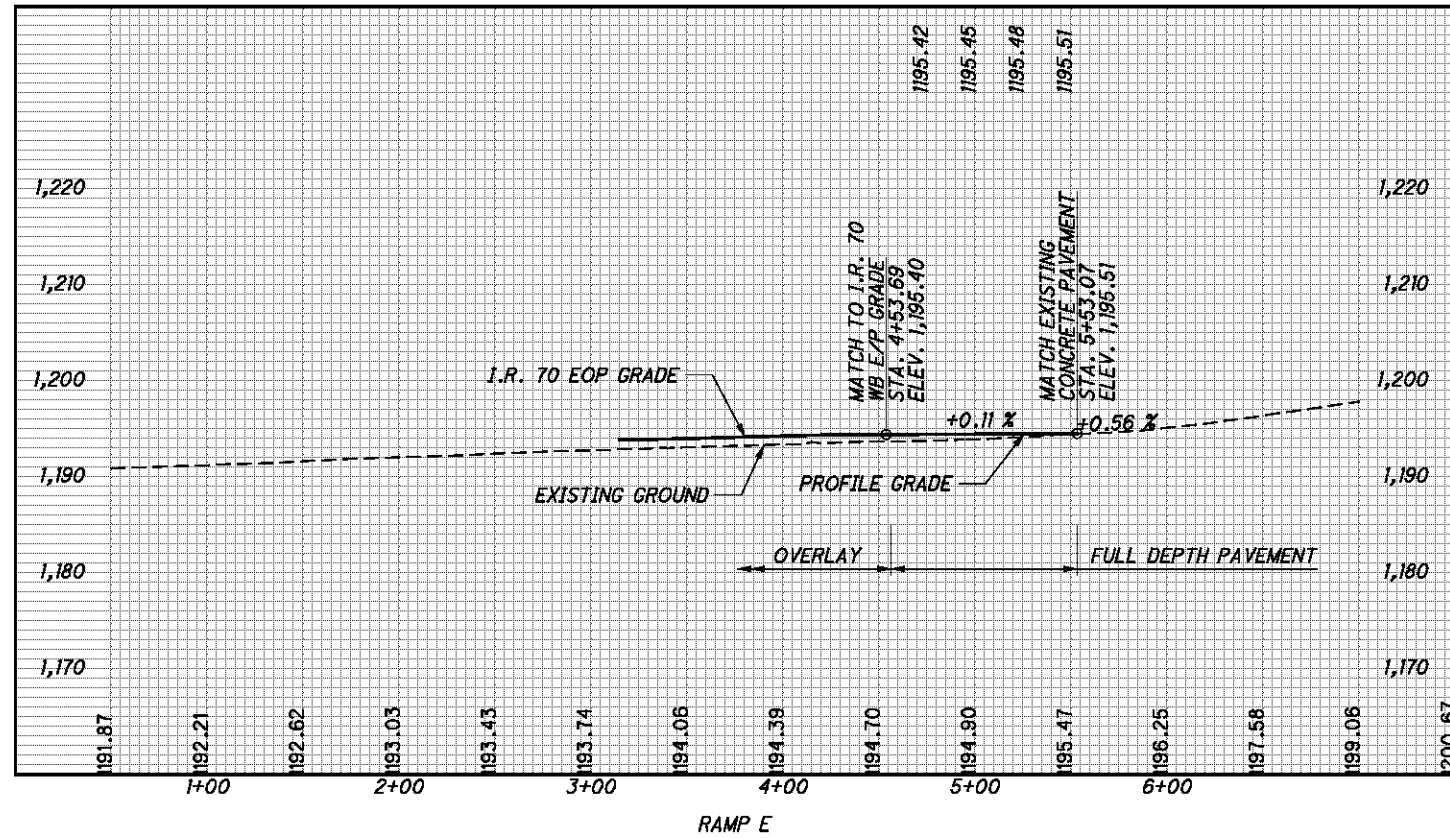
CALCULATED	MJC	CHECKED	BBD

CROSS SECTIONS - RAMP D
STA. 8+00.00 TO STA. 10+00.00

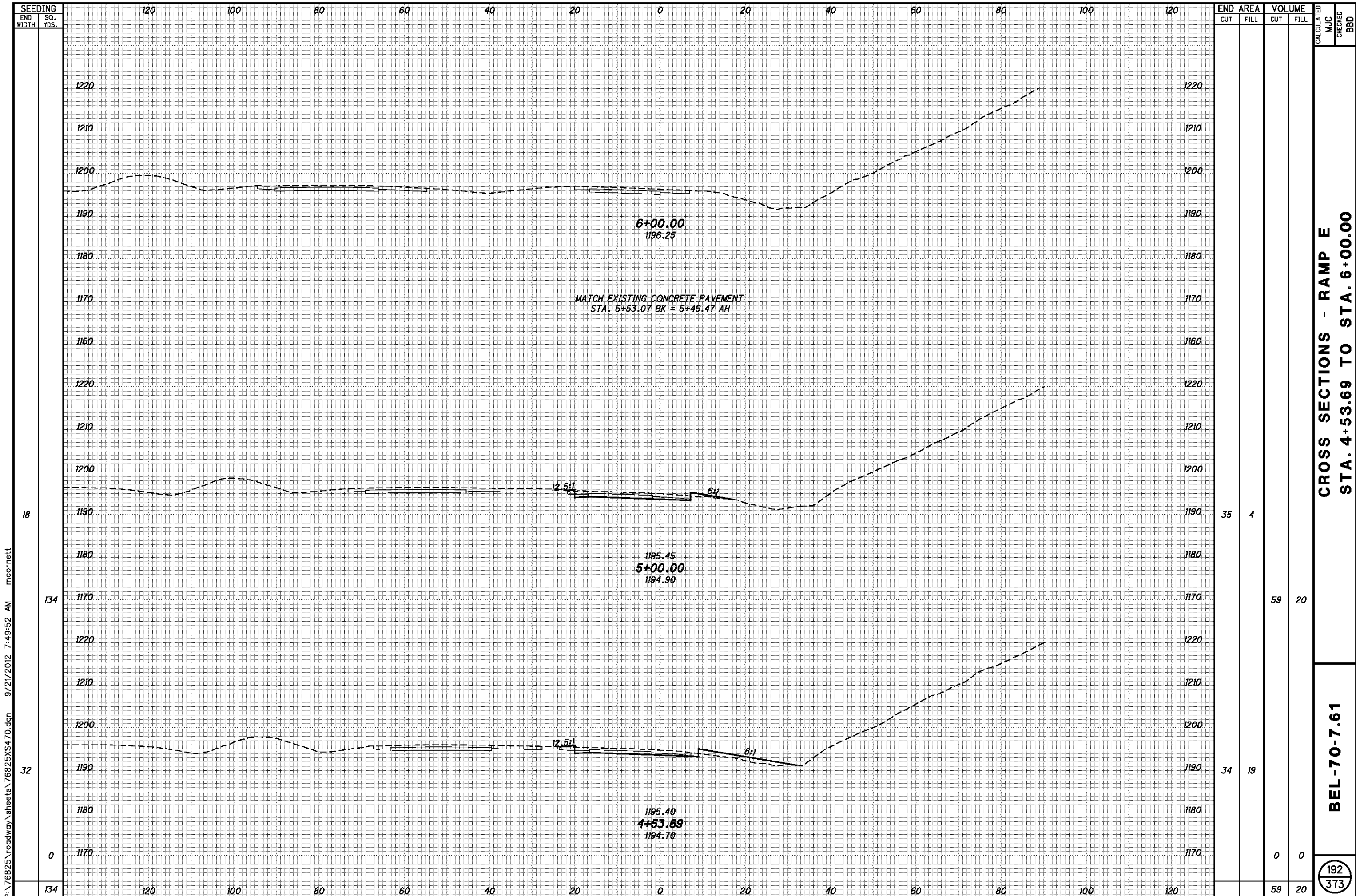
BEL-70-7.61

189
373

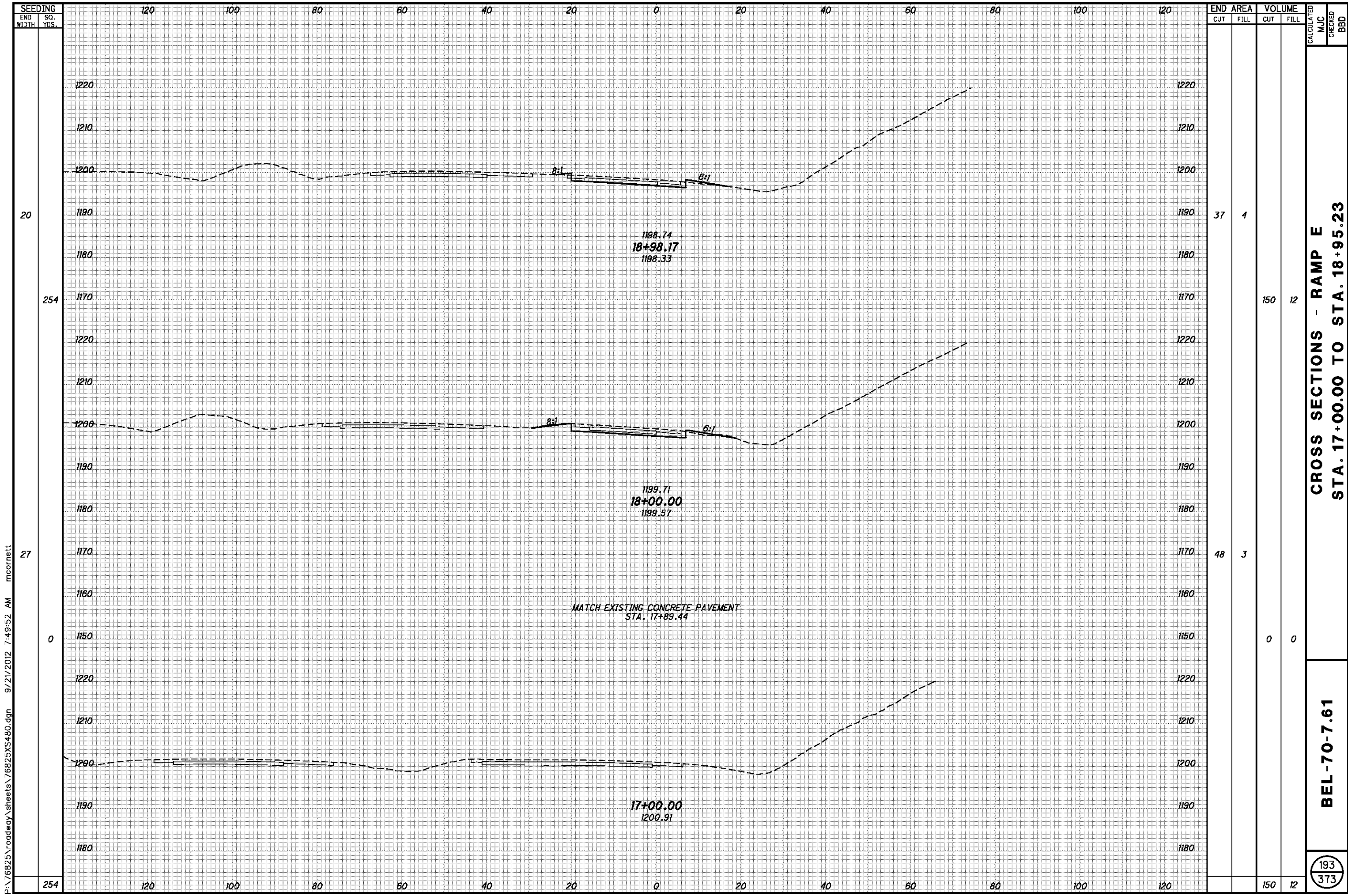




SEE SHEET 61, 53, & 65 FOR RAMP E PLAN VIEW



P:\76825\roadway\sheets\76825XS470.dgn 9/21/2012 7:49:52 AM mcorneit



P:\76825\roadway\sheets\76825XS480.dgn 9/21/2012 7:49:52 AM mcornett

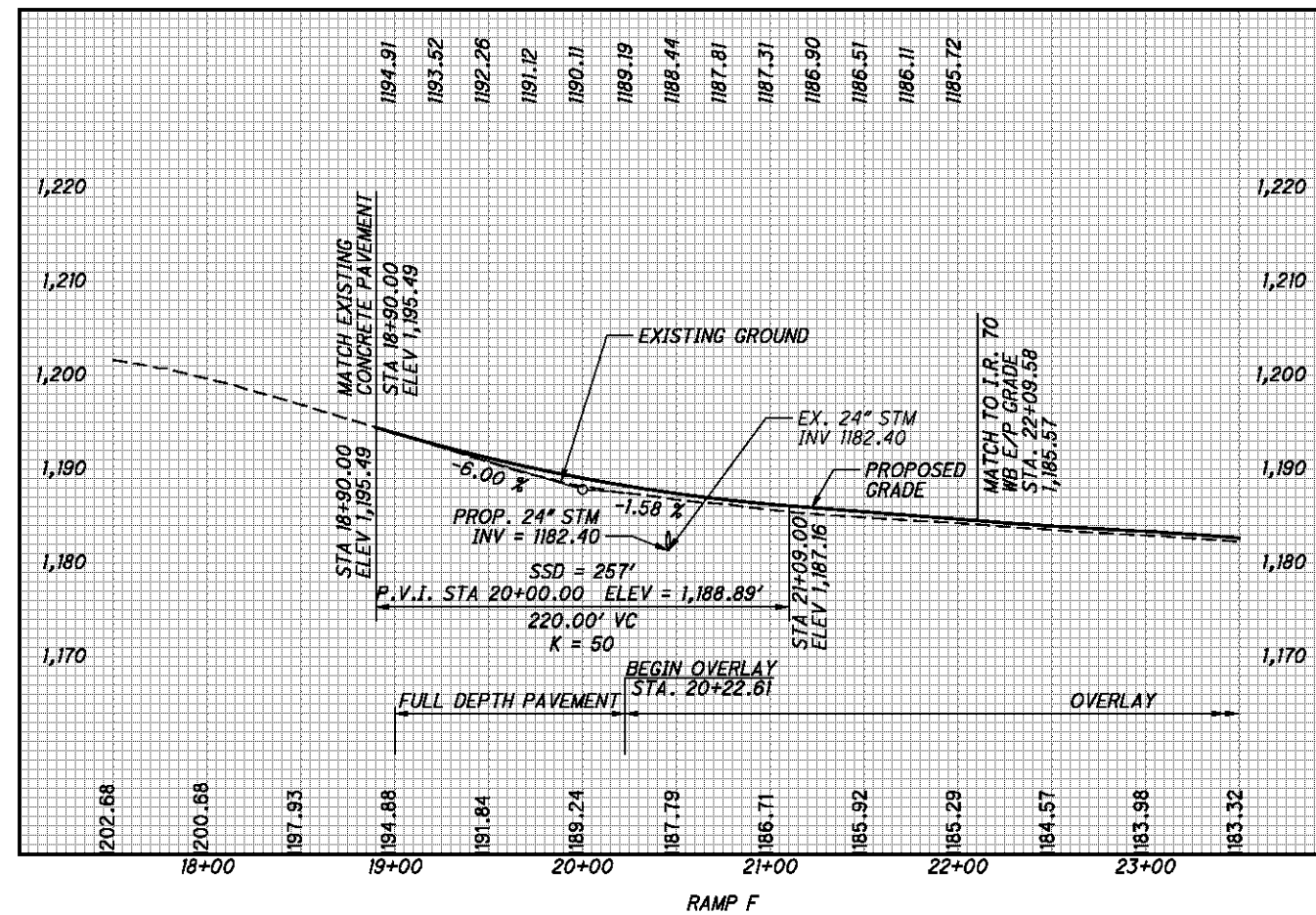
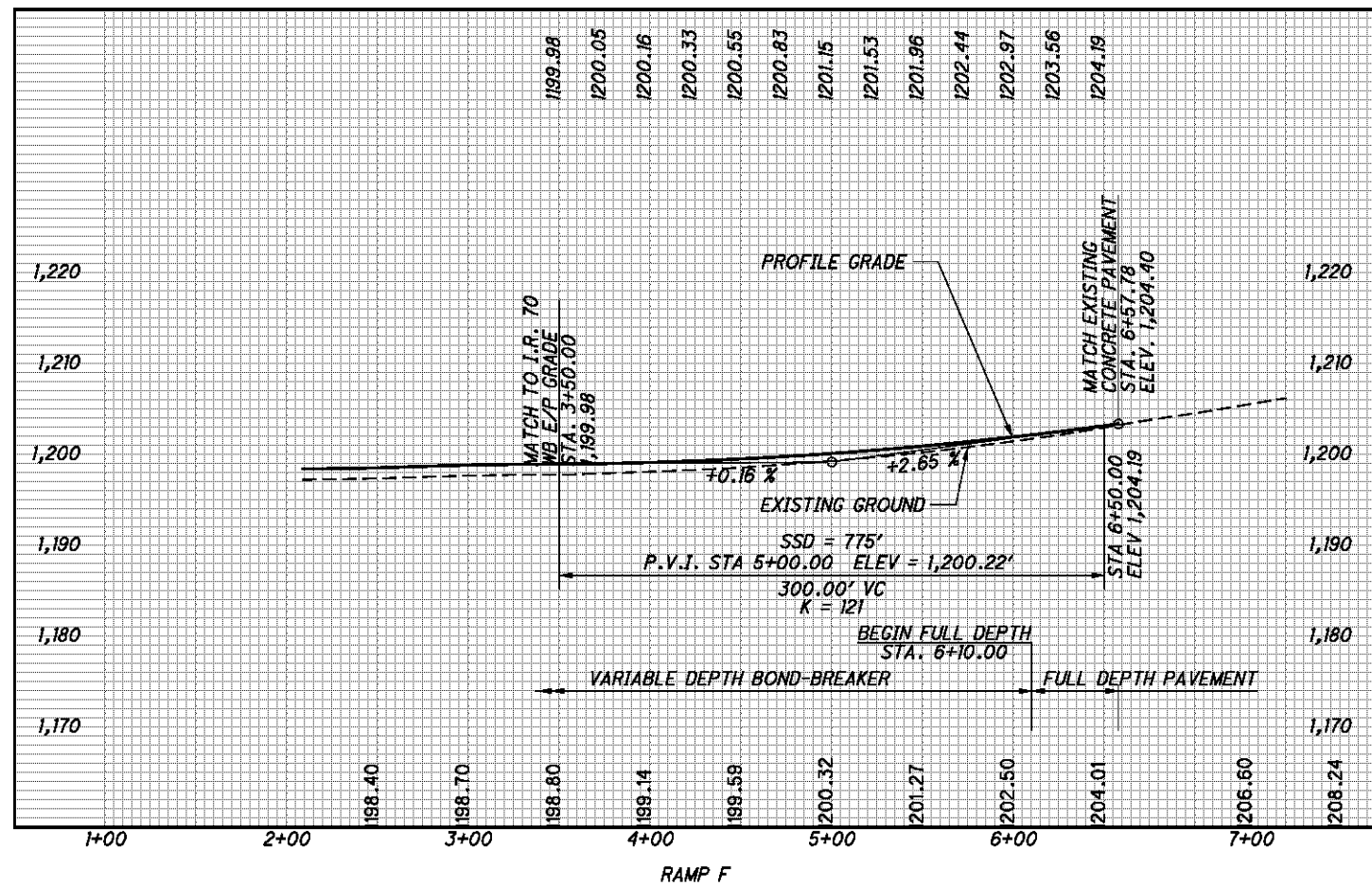
SEEDING	END SO.	
	WIDTH	YDS.
	20	
	254	
	27	
	0	
	254	

END AREA		VOLUME		CALCULATED	MJC	CHECKED	BBD
CUT	FILL	CUT	FILL				
37	4						
		150	12				
48	3	0	0				
		150	12				

CROSS SECTIONS - RAMP E
STA. 17+00.00 TO STA. 18+95.23

BEL-70-7.61

193
373

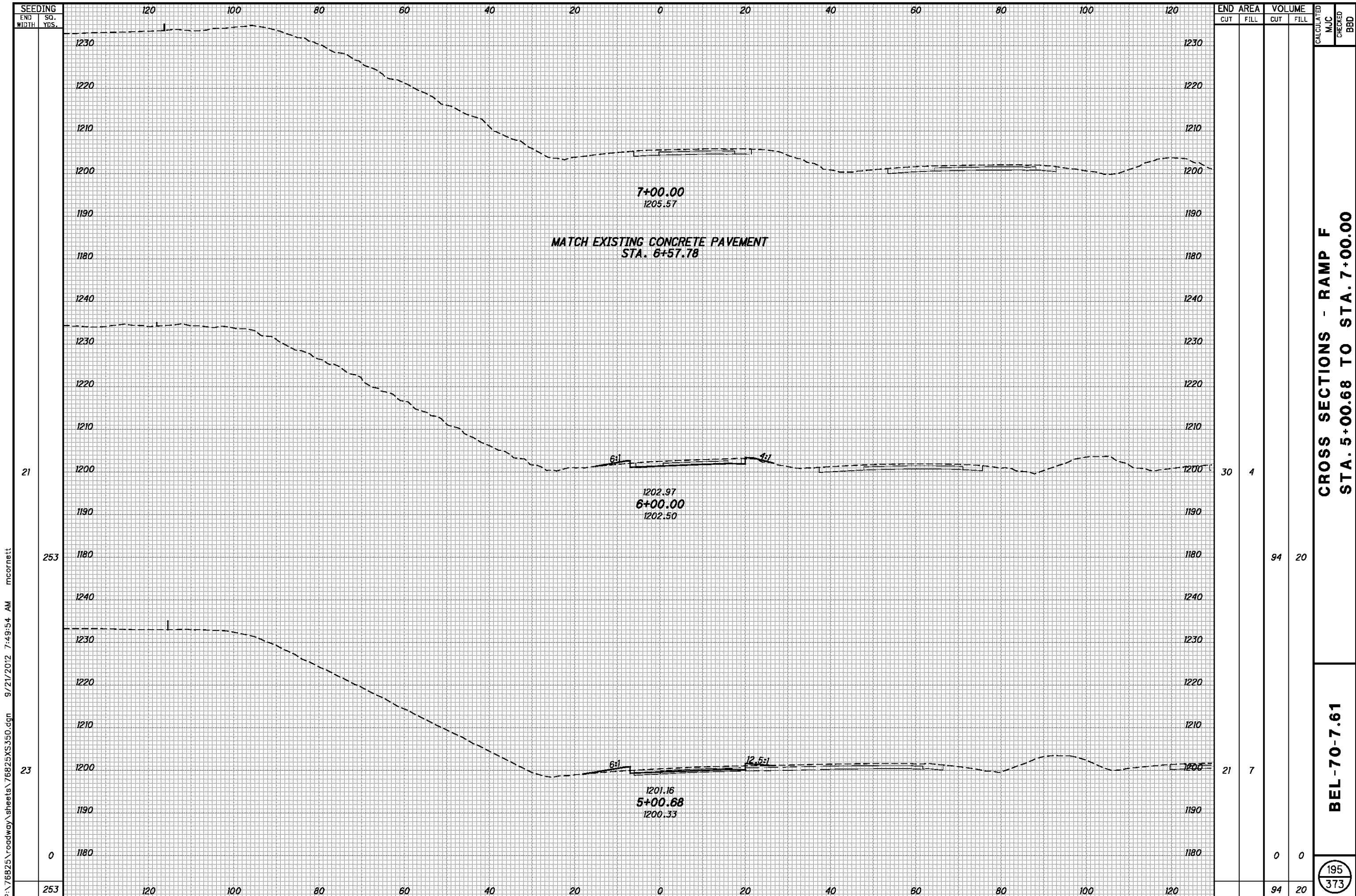


RAMP F PROFILES

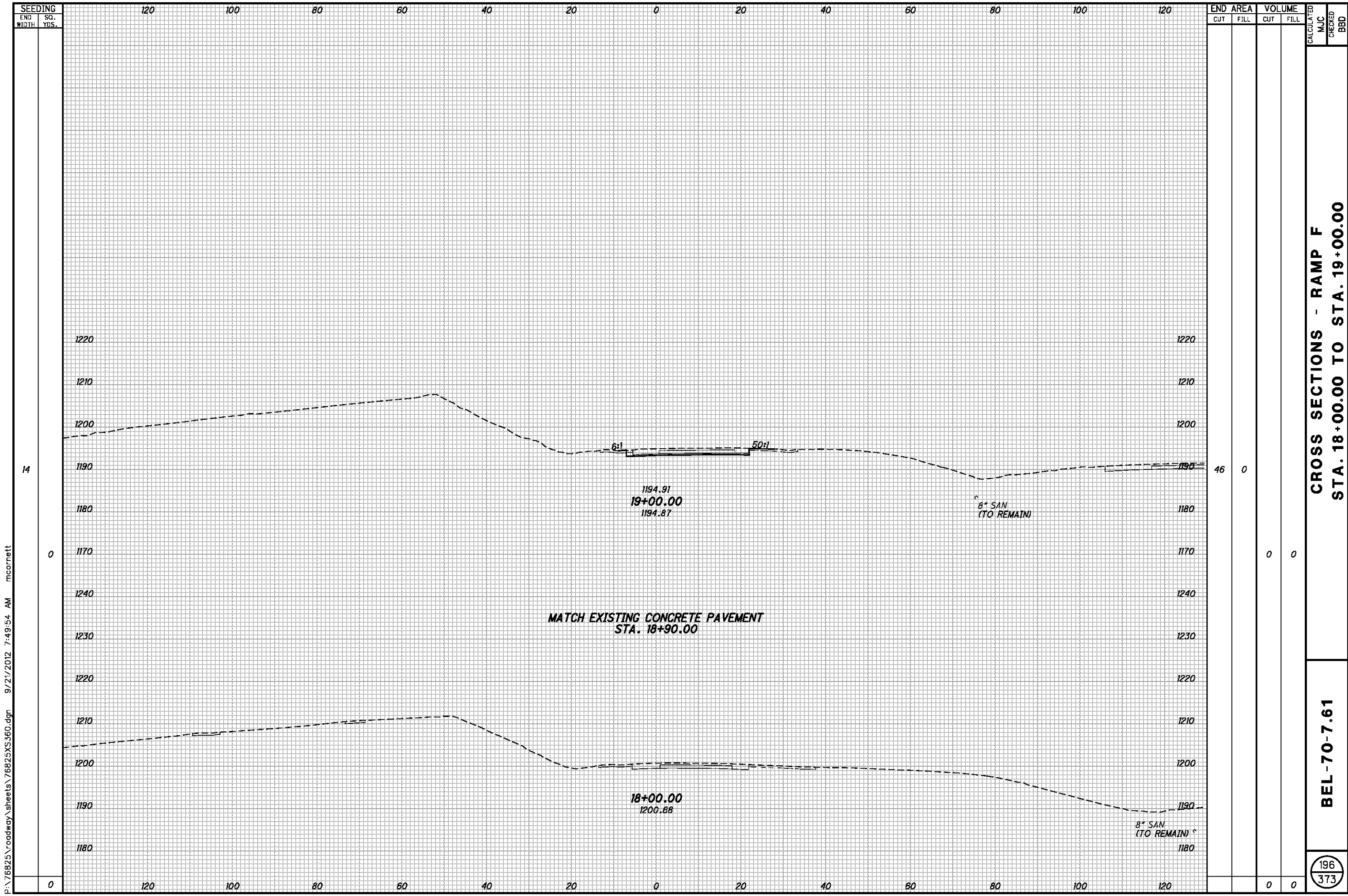
P:\76825\roadway\sheets\76825GF-300.dgn 9/21/2012 7:49:53 AM mcornett

SEE SHEET 60, 62, & 64 FOR RAMP F PLAN VIEW

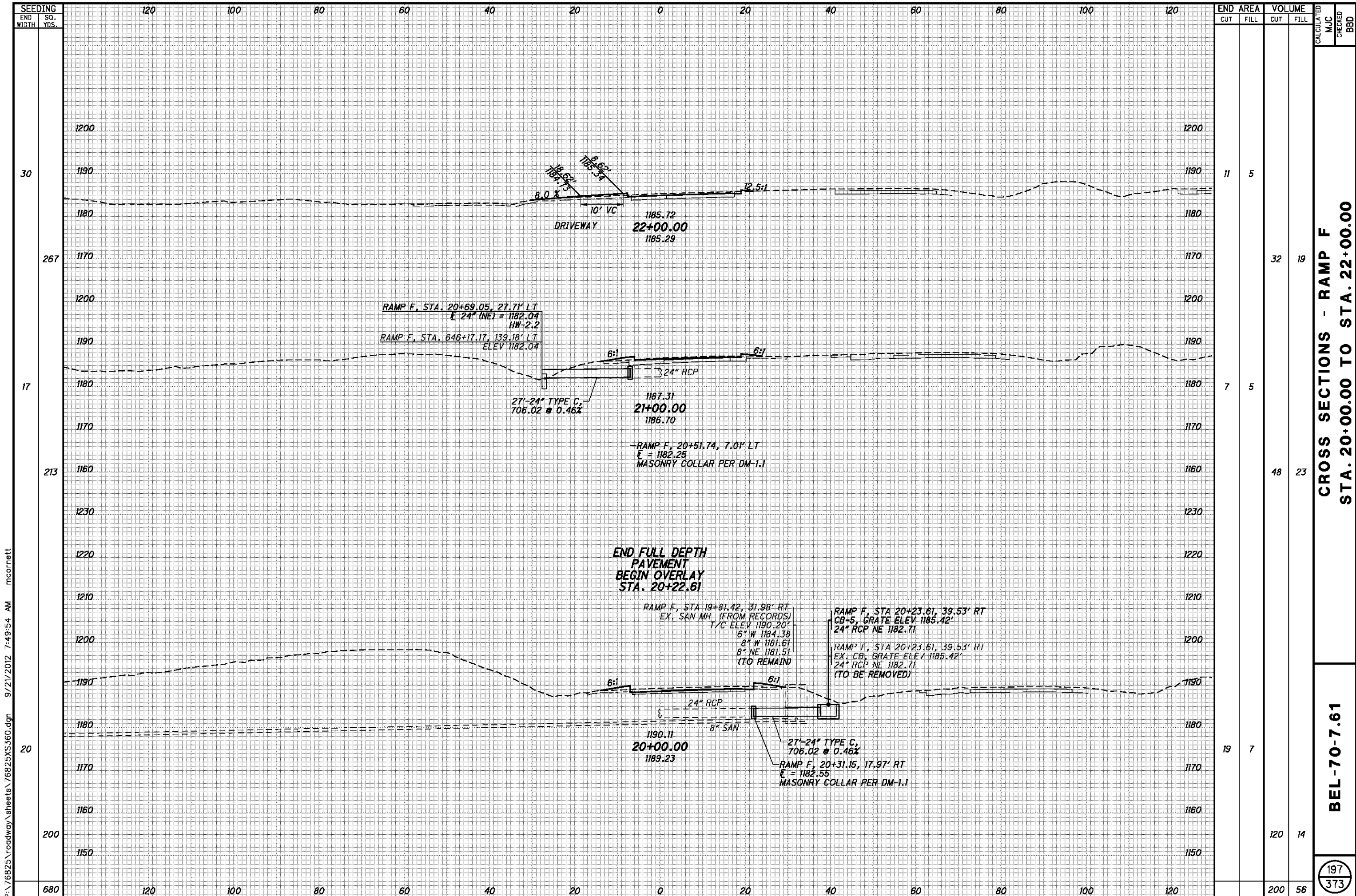
BEL-70-7.61



P:\76825\roadway\sheets\76825XS350.dgn 9/21/2012 7:49:54 AM mcornett



P:\76825\roadway\sheets\76825XS360.dgn 9/21/2012 7:49:54 AM mcornett



P:\76825\roadway\sheets\76825XS360.dgn 9/21/2012 7:49:54 AM mcornett

SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED MJC	CHECKED BBD
		CUT	FILL	CUT	FILL		
30				11	5		
267					32	19	
17				7	5		
213					48	23	
20				19	7		
200					120	14	
680					200	56	

**CROSS SECTIONS - RAMP F
STA. 20+00.00 TO STA. 22+00.00**

BEL-70-7.61

197
373

I.R. 70 CURVE 1 SUPERELEVATION TABLE

P.I. STA. 479+80.61 Dc = 1° 00' 00"

Table with columns for REMARKS, OUTSIDE EDGE (ELEVATION, CORRECTION, CROSS SLOPE, TRANSITION RATE, WIDTH), CENTERLINE OF LANES (ELEVATION, CORRECTION, CROSS SLOPE, TRANSITION RATE, WIDTH), INSIDE EDGE (PROFILE GRADE) (ELEVATION, OFFSET), STATION, INSIDE EDGE (PROFILE GRADE) (OFFSET, ELEVATION), CENTERLINE OF LANES (WIDTH, TRANSITION RATE, CROSS SLOPE, ELEVATION CORRECTION, ELEVATION), and REMARKS. Includes vertical curve data and elevation correction details.

P:\76825\roadway\sheet76825GE001.dgn 9/21/2012 7:49:55 AM mcornett

CALCULATED
MJC
CHECKED
BBD

SUPERELEVATION TABLE - I.R. 70

BEL - 70 - 7.61

I.R. 70 CURVE 2 SUPERELEVATION TABLE

P.I. STA. 566+52.17 $D_c = 1^\circ 00' 00''$

CALCULATED
MJC
CHECKED
BBD

REMARKS	OUTSIDE EDGE -					CENTERLINE OF LANES					INSIDE EDGE (PROFILE GRADE)		STATION	INSIDE EDGE (PROFILE GRADE)		CENTERLINE OF LANES					OUTSIDE EDGE -					REMARKS
	ELEVATION	ELEVATION CORRECTION	CROSS SLOPE	TRANSITION RATE	WIDTH	ELEVATION	ELEVATION CORRECTION	CROSS SLOPE	TRANSITION RATE	WIDTH	ELEVATION	OFFSET		OFFSET	ELEVATION	WIDTH	TRANSITION RATE	CROSS SLOPE	ELEVATION CORRECTION	ELEVATION	WIDTH	TRANSITION RATE	CROSS SLOPE	ELEVATION CORRECTION	ELEVATION	
	1228.95	0.43	0.0360		12	1228.52	0.43	0.0360		12	1228.09	30	578+50.00	30	1228.73	12		-0.0360	-0.43	1228.30	12		-0.0360	-0.43	1227.87	
	1228.86	0.43	0.0360		12	1228.43	0.43	0.0360		12	1228.00	30	578+75.00	30	1228.67	12		-0.0360	-0.43	1228.24	12		-0.0360	-0.43	1227.81	
	1228.76	0.43	0.0360		12	1228.33	0.43	0.0360		12	1227.90	30	579+00.00	30	1228.60	12		-0.0360	-0.43	1228.17	12		-0.0360	-0.43	1227.74	
F.S.	1228.65	0.43	0.0360		12	1228.22	0.43	0.0360		12	1227.79	30	579+23.19	30	1228.52	12		-0.0360	-0.43	1228.09	12		-0.0360	-0.43	1227.66	F.S.
	1228.64	0.43	0.0357		12	1228.21	0.43	0.0357		12	1227.78	30	579+25.00	30	1228.51	12		-0.0357	-0.43	1228.08	12		-0.0357	-0.43	1227.65	
	1228.41	0.38	0.0315		12	1228.03	0.38	0.0315		12	1227.65	30	579+50.00	30	1228.41	12		-0.0315	-0.38	1228.03	12		-0.0315	-0.38	1227.65	
P.T.	1228.17	0.33	0.0276		12	1227.84	0.33	0.0276		12	1227.51	30	579+73.59	30	1228.30	12		-0.0276	-0.33	1227.97	12		-0.0276	-0.33	1227.64	P.C.
	1228.17	0.33	0.0274		12	1227.84	0.33	0.0274		12	1227.51	30	579+75.00	30	1228.29	12		-0.0274	-0.33	1227.96	12		-0.0274	-0.33	1227.63	
	1227.90	0.28	0.0232		12	1227.62	0.28	0.0232		12	1227.34	30	580+00.00	30	1228.16	12		-0.0232	-0.28	1227.88	12		-0.0232	-0.28	1227.60	
	1227.63	0.23	0.0190		12	1227.40	0.23	0.0190		12	1227.17	30	580+25.00	30	1228.01	12		-0.0190	-0.23	1227.78	12		-0.0190	-0.23	1227.55	
R.C.	1227.41	0.19	0.0160		12	1227.22	0.19	0.0160		12	1227.03	30	580+43.19	30	1227.90	12		-0.0160	-0.19	1227.71	12		-0.0160	-0.19	1227.52	R.C.
	1227.33	0.16	0.0137		12	1227.16	0.19	0.0160		12	1226.97	30	580+50.00	30	1227.85	12		-0.0137	-0.16	1227.69	12		-0.0160	-0.19	1227.49	
	1227.03	0.06	0.0054		12	1226.96	0.19	0.0160		12	1226.77	30	580+75.00	30	1227.68	12		-0.0054	-0.06	1227.62	12		-0.0160	-0.19	1227.42	
1/2 FLAT	1226.81	0.00	0.0000		12	1226.81	0.19	0.0160		12	1226.62	30	580+91.19	30	1227.56	12		0.0000	0.00	1227.56	12		-0.0160	-0.19	1227.37	1/2 FLAT
	1226.70	-0.04	-0.0029		12	1226.73	0.19	0.0160		12	1226.54	30	581+00.00	30	1227.49	12		0.0029	0.04	1227.53	12		-0.0160	-0.19	1227.33	
	1226.37	-0.14	-0.0113		12	1226.50	0.19	0.0160		12	1226.31	30	581+25.00	30	1227.28	12		0.0113	0.14	1227.42	12		-0.0160	-0.19	1227.22	
N.C.	1226.16	-0.19	-0.0160		12	1226.35	0.19	0.0160		12	1226.16	30	581+39.19	30	1227.16	12		0.0160	0.19	1227.35	12		-0.0160	-0.19	1227.16	N.C.

SUPERELEVATION TABLE - I.R. 70

BEL - 70-7.61

P:\76825\roadway\sheets\76825GE006.dgn 9/21/2012 7:50:06 AM mcornett

P:\76825\roadway\sheet\76825\GE4.30.dgn 9/21/2012 7:50:08 AM mcornett

RAMP A SUPERELEVATION TABLE

P.I. STA. 4+91.18 RAMP A $D_c = 1^{\circ} 30' 00''$

REMARKS	LEFT SIDE					BASELINE CONTROL							
	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION						
	1223.09		0.66	0.0410	16	1222.43	4+54.85						
	1223.17		0.66	0.0410	16	1222.51	4+75.00						
	1223.24		0.66	0.0410	16	1222.58	5+00.00						
	1223.26		0.66	0.0410	16	1222.60	5+25.00						
	1223.21		0.66	0.0410	16	1222.55	5+50.00						
	1223.11		0.66	0.0410	16	1222.45	5+75.00						
	1222.95		0.66	0.0410	16	1222.29	6+00.00						
	1222.73		0.66	0.0410	16	1222.07	6+25.00						
	1222.46		0.66	0.0410	16	1221.80	6+50.00						
	1222.13		0.66	0.0410	16	1221.47	6+75.00						
	1221.74		0.66	0.0410	16	1221.08	7+00.00						
	1221.29		0.66	0.0410	16	1220.63	7+25.00						
	1220.79		0.66	0.0410	16	1220.13	7+50.00						
	1220.23		0.66	0.0410	16	1219.57	7+75.00						
	1219.61		0.66	0.0410	16	1218.95	8+00.00						
	1218.93		0.66	0.0410	16	1218.27	8+25.00						
	1218.20		0.66	0.0410	16	1217.54	8+50.00						
	1217.40		0.66	0.0410	16	1216.74	8+75.00						
C.S.	1216.55		0.66	0.0410	16	1215.89	9+00.00						
	1216.55		0.66	0.0410	16	1215.89	9+00.09						
	1215.58		0.59	0.0368	16	1214.99	9+25.00						
	1214.54		0.52	0.0327	16	1214.02	9+50.00						
	1213.48		0.46	0.0285	16	1213.02	9+75.00						
	1212.40		0.39	0.0243	16	1212.01	10+00.00						
	1211.33		0.32	0.0202	16	1211.01	10+25.00						
	1210.26		0.26	0.0160	16	1210.00	10+50.00						
S.T.	1210.26		0.26	0.0160	16	1210.00	10+50.09						

RAMP B SUPERELEVATION TABLE

P.I. STA. 2+00.01 RAMP B $D_c = 6^{\circ} 00' 00''$

REMARKS	LEFT SIDE					BASELINE CONTROL							
	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION						
RC	1193.78	16% ↑	-0.26	-0.0160	16	1194.04	0+92.36						
	1193.77		-0.30	-0.0190	16	1194.07	1+00.00						
	1193.82		-0.46	-0.0287	16	1194.28	1+25.00						
P.C.	1193.96		-0.57	-0.0357	16	1194.53	1+43.11						
	1194.04		-0.61	-0.0384	16	1194.65	1+50.00						
	1194.42		-0.77	-0.0481	16	1195.19	1+75.00						
FS	1194.55	-0.82	-0.0510	16	1195.37	1+82.52							
	1194.99	-0.82	-0.0510	16	1195.81	2+00.00							
FS	1195.42	-0.82	-0.0510	16	1196.24	2+17.37							
	1195.66	-0.77	-0.0480	16	1196.43	2+25.00							
	1196.44	-0.61	-0.0383	16	1197.05	2+50.00							
P.T.	1196.64	-0.57	-0.0357	16	1197.21	2+56.78							
	1197.21	-0.46	-0.0286	16	1197.67	2+75.00							
	1197.99	-0.30	-0.0189	16	1198.29	3+00.00							
RC	1198.21	-0.26	-0.0160	16	1198.47	3+07.53							
	1198.76	-0.15	-0.0092	16	1198.91	3+25.00							
	1199.43	0.01	0.0005	16	1199.42	3+50.00							
	1200.10	0.16	0.0102	16	1199.94	3+75.00							
NC	1200.51	0.26	0.0160	16	1200.25	3+89.96							

RAMP B SUPERELEVATION TABLE

P.I. STA. 7+95.35 RAMP B $D_c = 4^{\circ} 00' 00''$

REMARKS	EDGE ELEVATION	TRANSITION RATE	LEFT SIDE		WIDTH	BASELINE CONTROL							
			ELEVATION CORRECTION	CROSS SLOPE		PROFILE GRADE	STATION						
T.S.	1201.52	266% ↓	0.26	0.0160	16	1201.26	4+38.98						
	1201.79		0.30	0.0186	16	1201.49	4+50.00						
	1202.39		0.39	0.0245	16	1202.00	4+75.00						
	1202.95		0.49	0.0303	16	1202.46	5+00.00						
	1203.44		0.58	0.0362	16	1202.86	5+25.00						
	1203.89		0.67	0.0421	16	1203.22	5+50.00						
	1204.29		0.77	0.0480	16	1203.52	5+75.00						
	1204.62		0.86	0.0538	16	1203.76	6+00.00						
	1204.91		0.96	0.0597	16	1203.95	6+25.00						
S.C.	1205.05		1.01	0.0630	16	1204.04	6+38.98						
	1205.10		1.01	0.0630	16	1204.09	6+50.00						
	1205.19		1.01	0.0630	16	1204.18	6+75.00						
	1205.22		1.01	0.0630	16	1204.21	7+00.00						
	1205.20		1.01	0.0630	16	1204.19	7+25.00						
	1205.12		1.01	0.0630	16	1204.11	7+50.00						
	1205.00		1.01	0.0630	16	1203.99	7+75.00						
	1204.81		1.01	0.0630	16	1203.80	8+00.00						
	1204.58	1.01	0.0630	16	1203.57	8+25.00							
	1204.29	1.01	0.0630	16	1203.28	8+50.00							
	1203.95	1.01	0.0630	16	1202.94	8+75.00							
	1203.70	1.01	0.0630	16	1202.69	8+91.18							

SUPERELEVATION TABLE - RAMPS A & B
CALCULATED MJC CHECKED BBD
BEL - 70 - 7.61
206
373

RAMP C SUPERELEVATION TABLE

P.I. STA. 9+91.96 RAMP C

$D_c = 1^\circ 30' 00''$

					BASELINE CONTROL		RIGHT SIDE				REMARKS
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION					
5+60.93	1209.38	16	0.0160	0.26	\updownarrow 375ft	1209.64					T.S.
5+75.00	1209.21	16	0.0183	0.29		1209.50					
6+00.00	1208.87	16	0.0225	0.36		1209.23					
6+25.00	1208.50	16	0.0267	0.43		1208.93					
6+50.00	1208.09	16	0.0308	0.49		1208.58					
6+75.00	1207.65	16	0.0350	0.56		1208.21					
7+00.00	1207.16	16	0.0392	0.63		1207.79					
7+10.93	1206.94	16	0.0410	0.66		1207.60					S.C.
7+25.00	1206.64	16	0.0410	0.66		1207.30					
7+50.00	1206.09	16	0.0410	0.66		1206.75					
7+75.00	1205.49	16	0.0410	0.66	1206.15						
8+00.00	1204.86	16	0.0410	0.66	1205.52						
8+25.00	1204.21	16	0.0410	0.66	1204.87						
8+50.00	1203.56	16	0.0410	0.66	1204.22						
8+75.00	1202.91	16	0.0410	0.66	1203.57						
8+95.02	1202.39	16	0.0410	0.66	1203.05						

SEE PAVEMENT DETAIL SHEETS 210 & 211

RAMP D SUPERELEVATION TABLE

P.I. STA. 6+22.28 RAMP D

$D_c = 2^\circ 00' 00''$

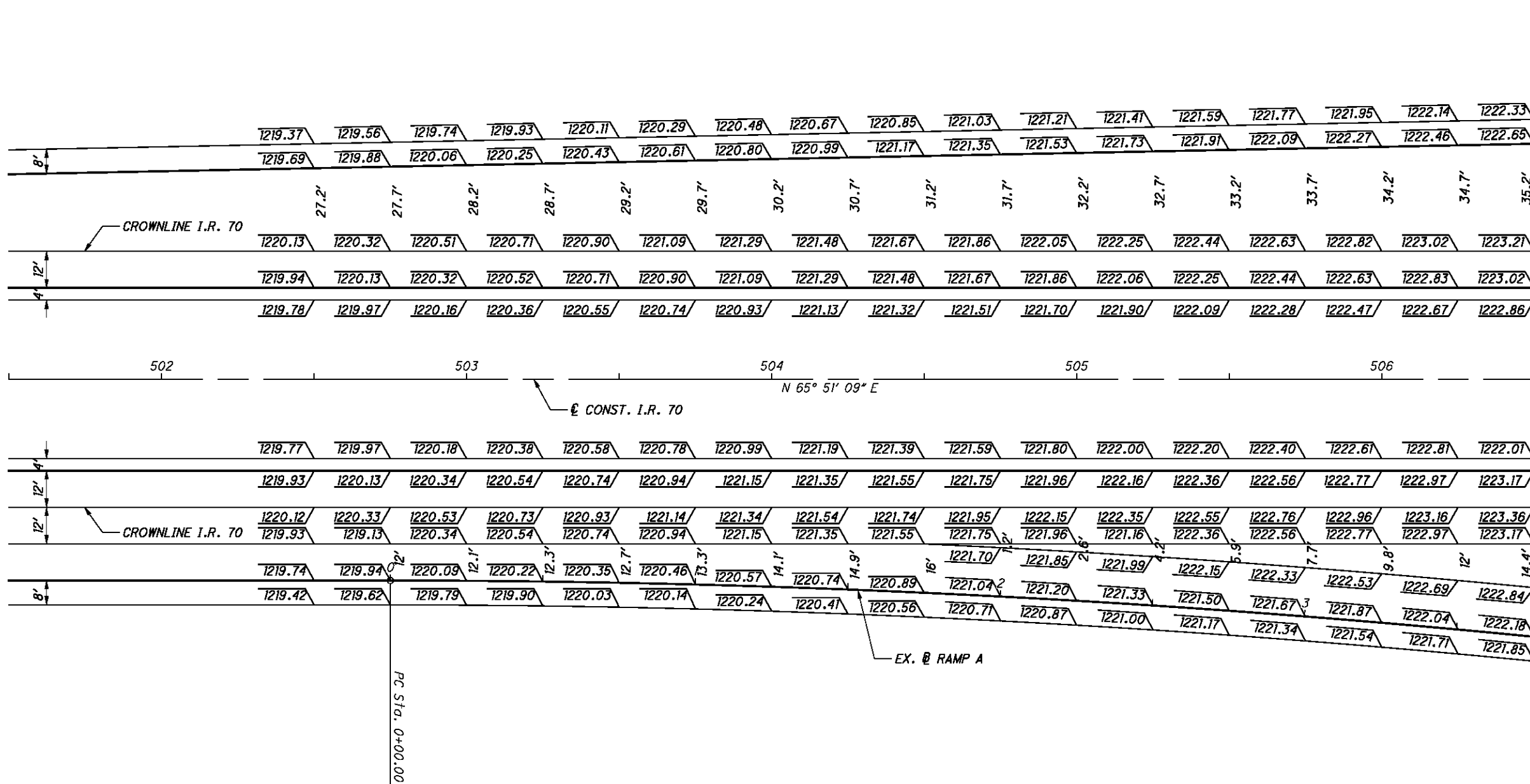
					BASELINE CONTROL		RIGHT SIDE				REMARKS
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION					
SEE PAVEMENT DETAIL SHEETS 208 & 209											
5+50.70	1224.01	16	0.0380	0.61		1224.62					
5+75.00	1223.81	16	0.0380	0.61		1224.42					
6+00.00	1223.54	16	0.0380	0.61		1224.15					
6+25.00	1223.22	16	0.0380	0.61		1223.83					
6+50.00	1222.83	16	0.0380	0.61		1223.44					
6+75.00	1222.39	16	0.0380	0.61		1223.00					
7+00.00	1221.89	16	0.0380	0.61		1222.50					
7+25.00	1221.33	16	0.0380	0.61		1221.94					
7+50.00	1220.72	16	0.0380	0.61		1221.33					
7+75.00	1220.04	16	0.0380	0.61		1220.65					
8+00.00	1219.31	16	0.0380	0.61		1219.92					
8+23.90	1218.58	16	0.0380	0.61		1219.19					C.S.
8+25.00	1218.55	16	0.0378	0.61		1219.16					
8+50.00	1217.79	16	0.0342	0.55		1218.34					
8+75.00	1217.02	16	0.0305	0.49		1217.51					
9+00.00	1216.26	16	0.0268	0.43		1216.69					
9+25.00	1215.50	16	0.0232	0.37		1215.87					
9+50.00	1214.74	16	0.0195	0.31		1215.05					
9+73.90	1214.01	16	0.0160	0.26		1214.27					S.T.

\updownarrow
426ft

SUPERELEVATION TABLE - RAMPS C & D

BEL-70-7.61

CALCULATED
MJC
CHECKED
BBD



CALCULATED
MJC
CHECKED
BBD

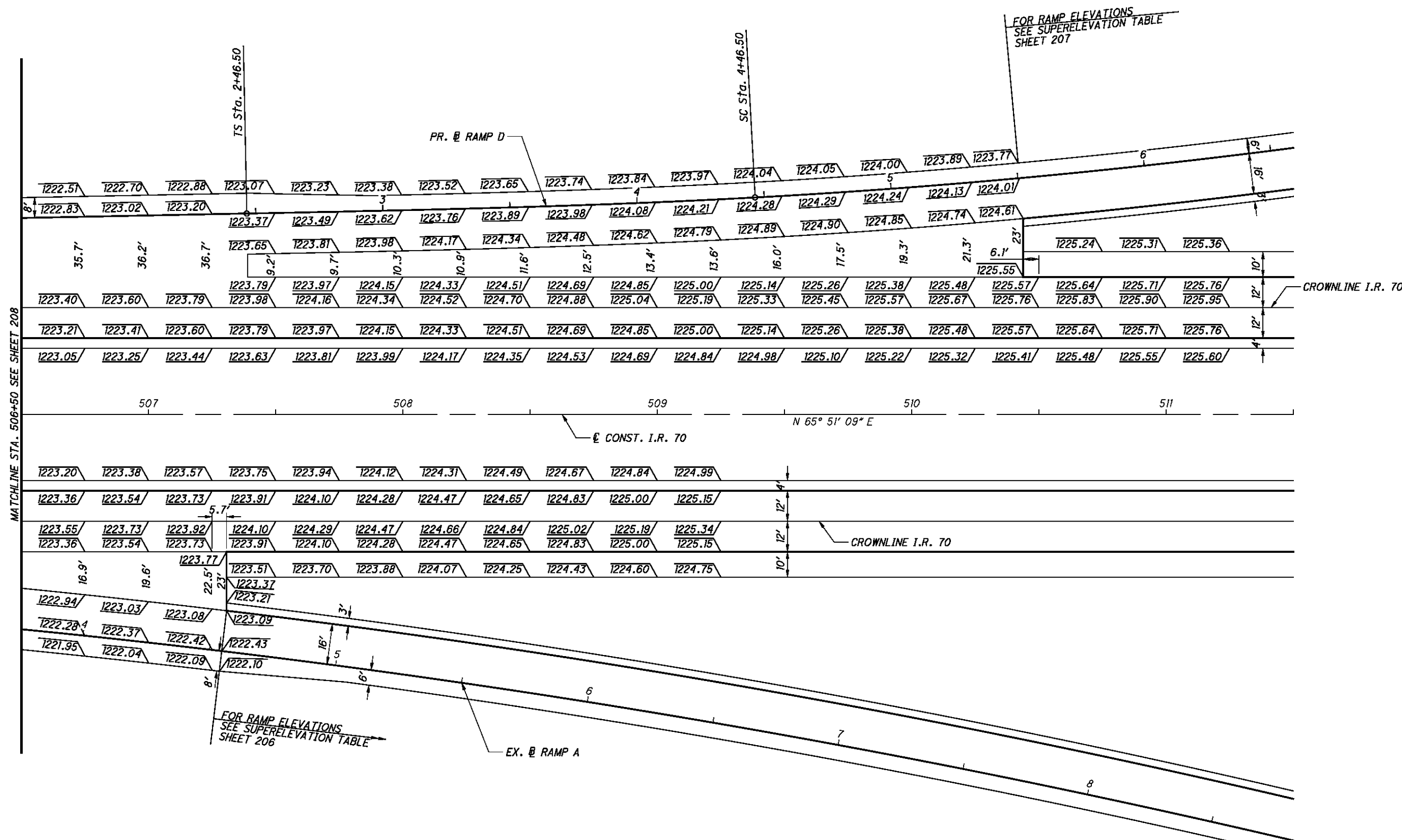
0 10 20 40
HORIZONTAL
SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
STA. 501+50 TO STA. 506+50**

BEL-70-7.61

NOTE:
FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

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CALCULATED
MJC
CHECKED
BBD

0 10 20 30 40
HORIZONTAL SCALE IN FEET

N

I.R. 70 PAVEMENT DETAILS
STA. 506+50 TO STA. 511+50

BEL-70-7.61

NOTE:
FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

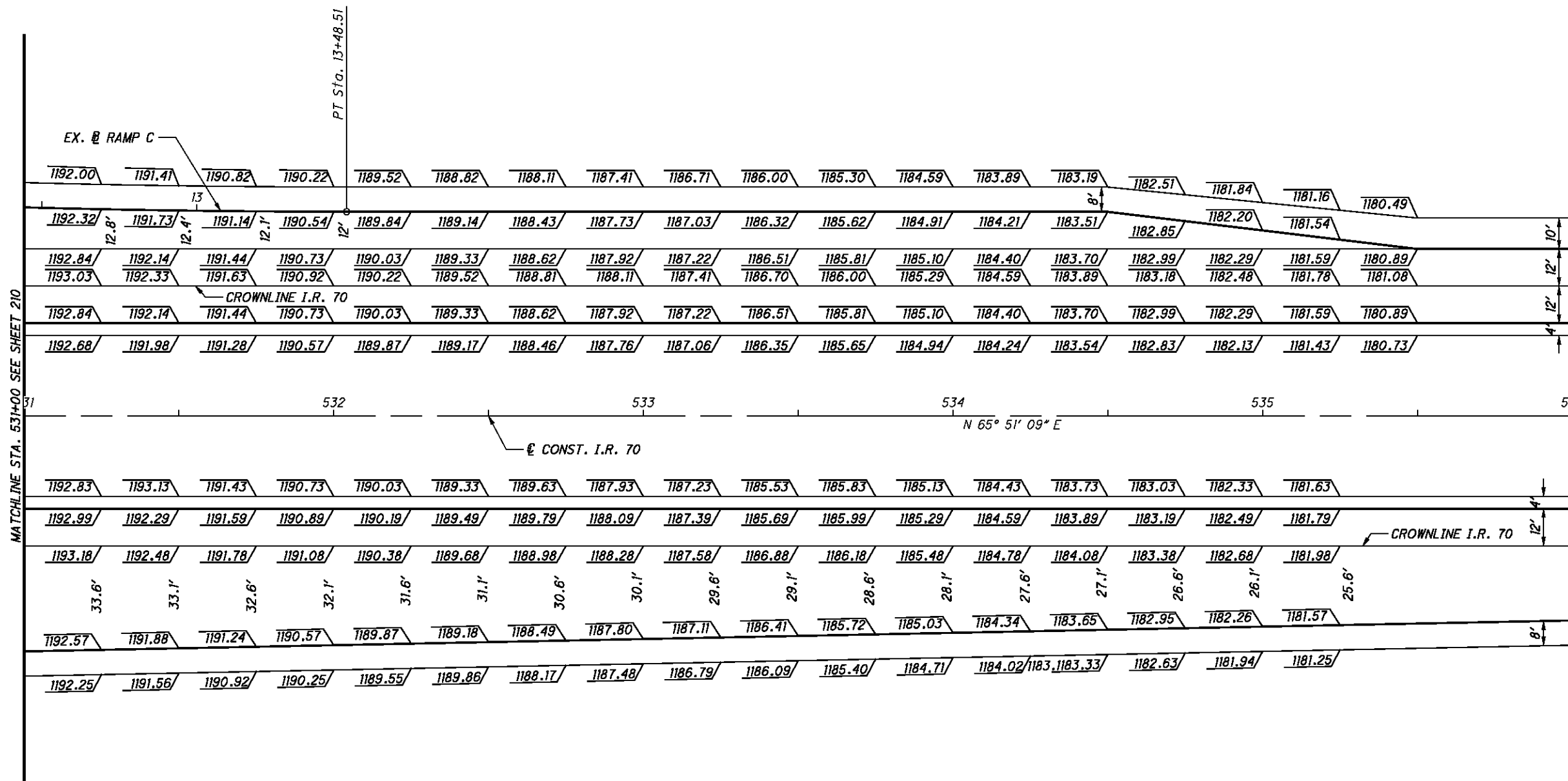
I.R. 70 PAVEMENT DETAILS
STA. 526+00 TO STA. 531+00

BEL-70-7.61



NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

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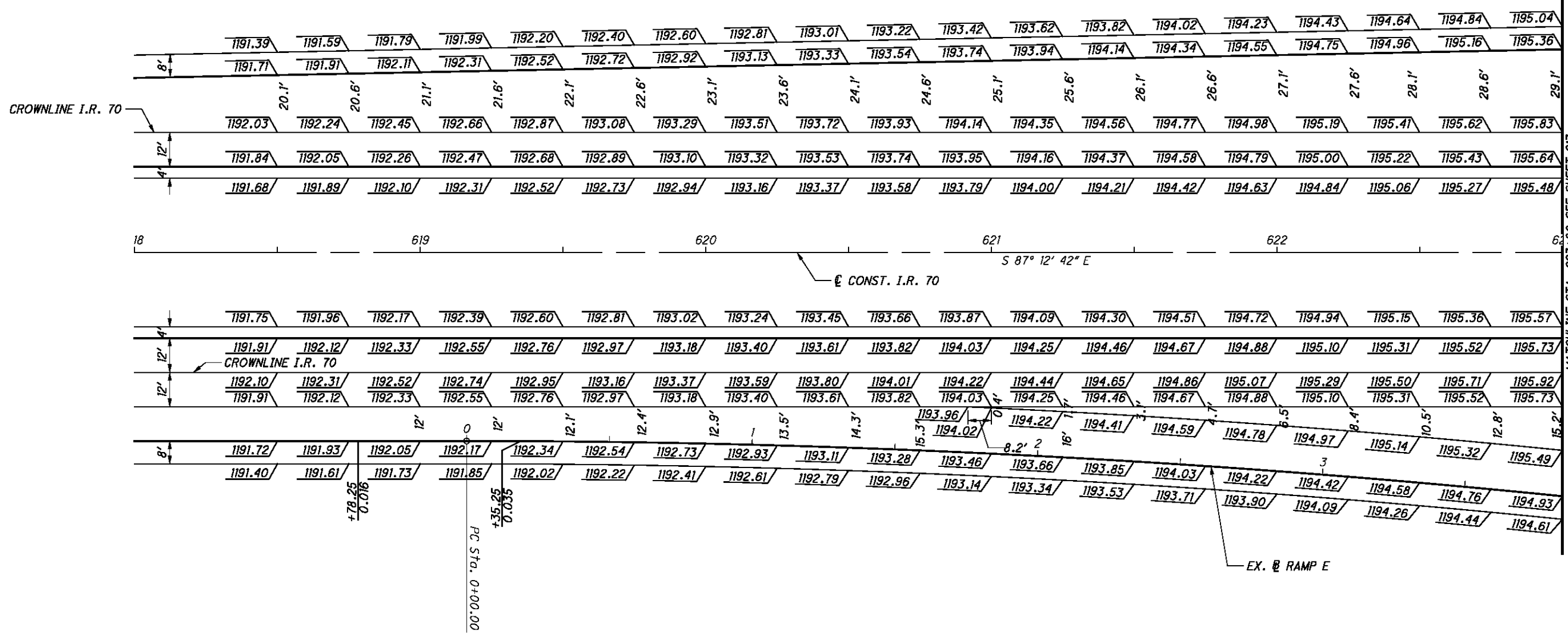
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
 STA. 531+00 TO STA. 536+00**

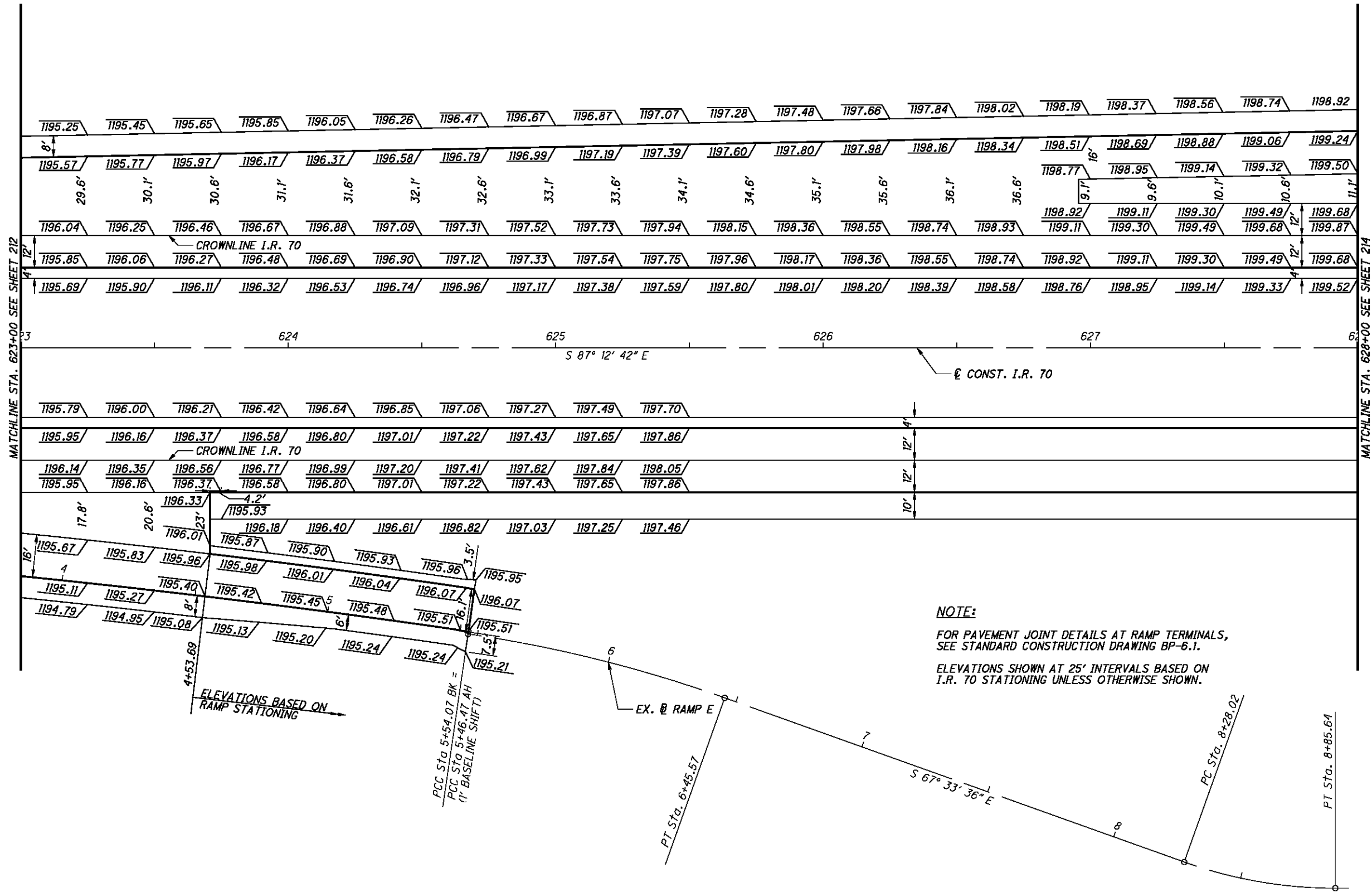
BEL-70-7.61



NOTE:
FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

**I.R. 70 PAVEMENT DETAILS
STA. 618+00 TO STA. 623+00**

BEL-70-7.61



MATCHLINE STA. 623+00 SEE SHEET 212

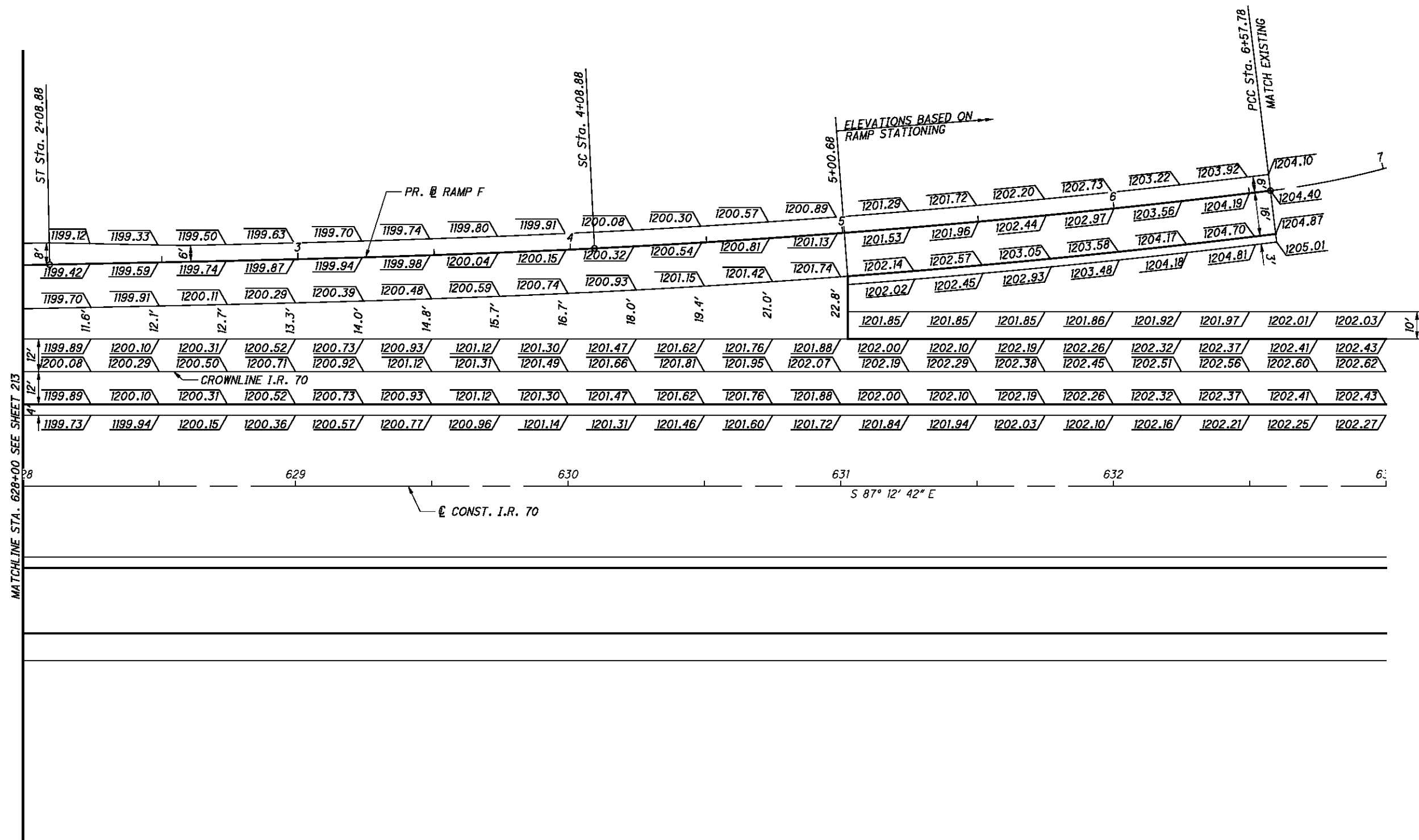
MATCHLINE STA. 628+00 SEE SHEET 214

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
 STA. 623+00 TO STA. 628+00**

BEL-70-7.61

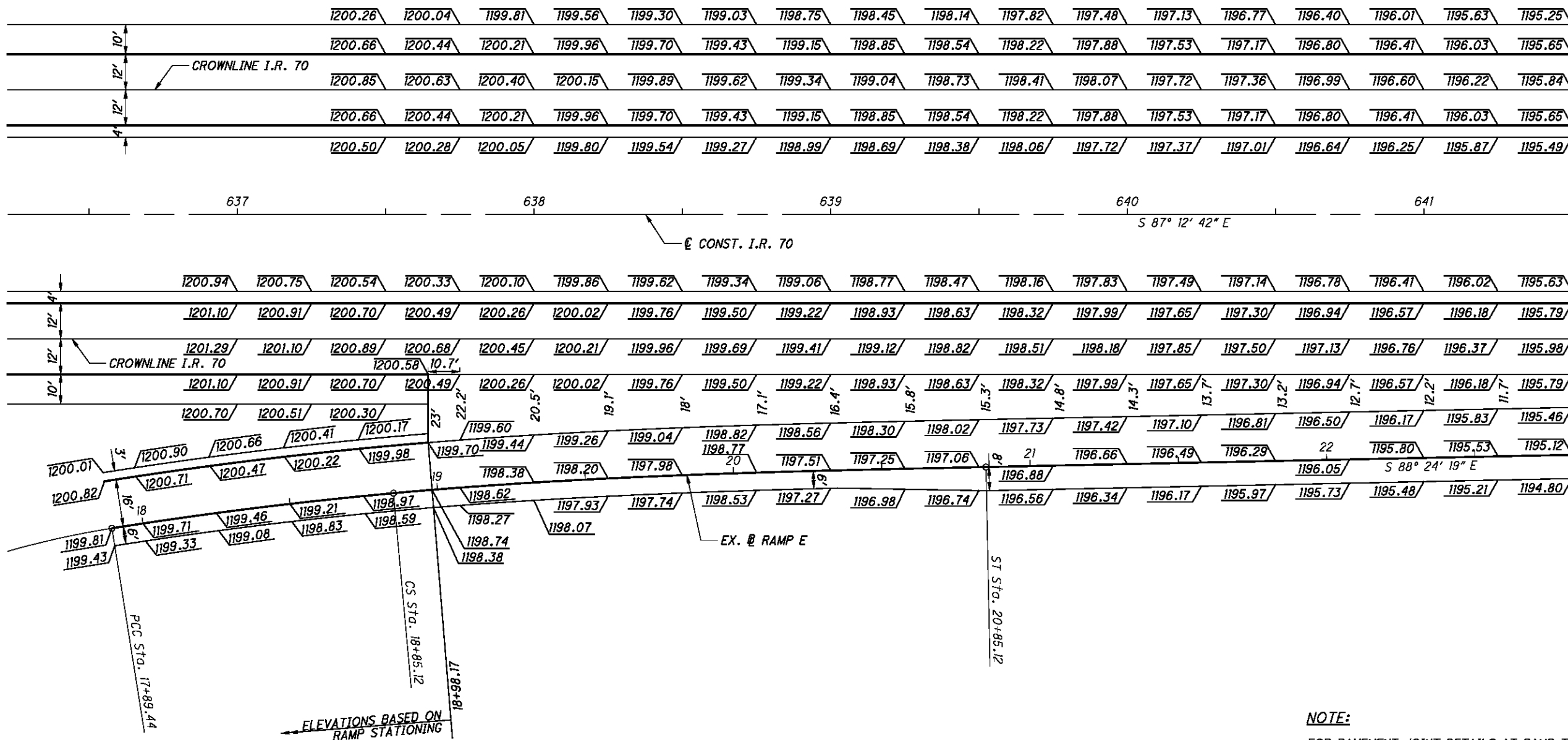


NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
 STA. 628+00 TO STA. 633+00**



ELEVATIONS BASED ON RAMP STATIONING

NOTE:

FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS, SEE STANDARD CONSTRUCTION DRAWING BP-6.1.

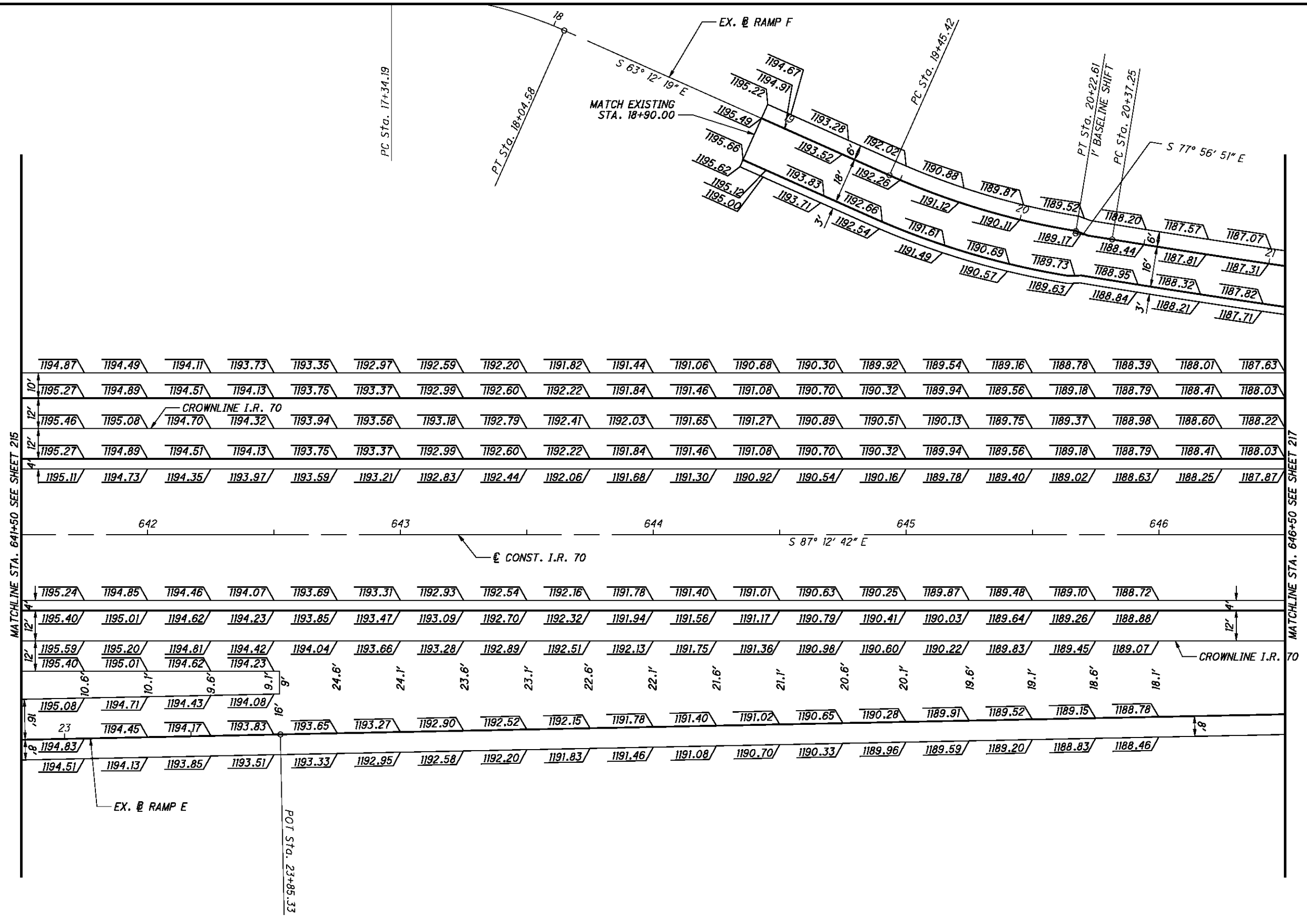
ELEVATIONS SHOWN AT 25' INTERVALS BASED ON I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
MJC
CHECKED
BBD

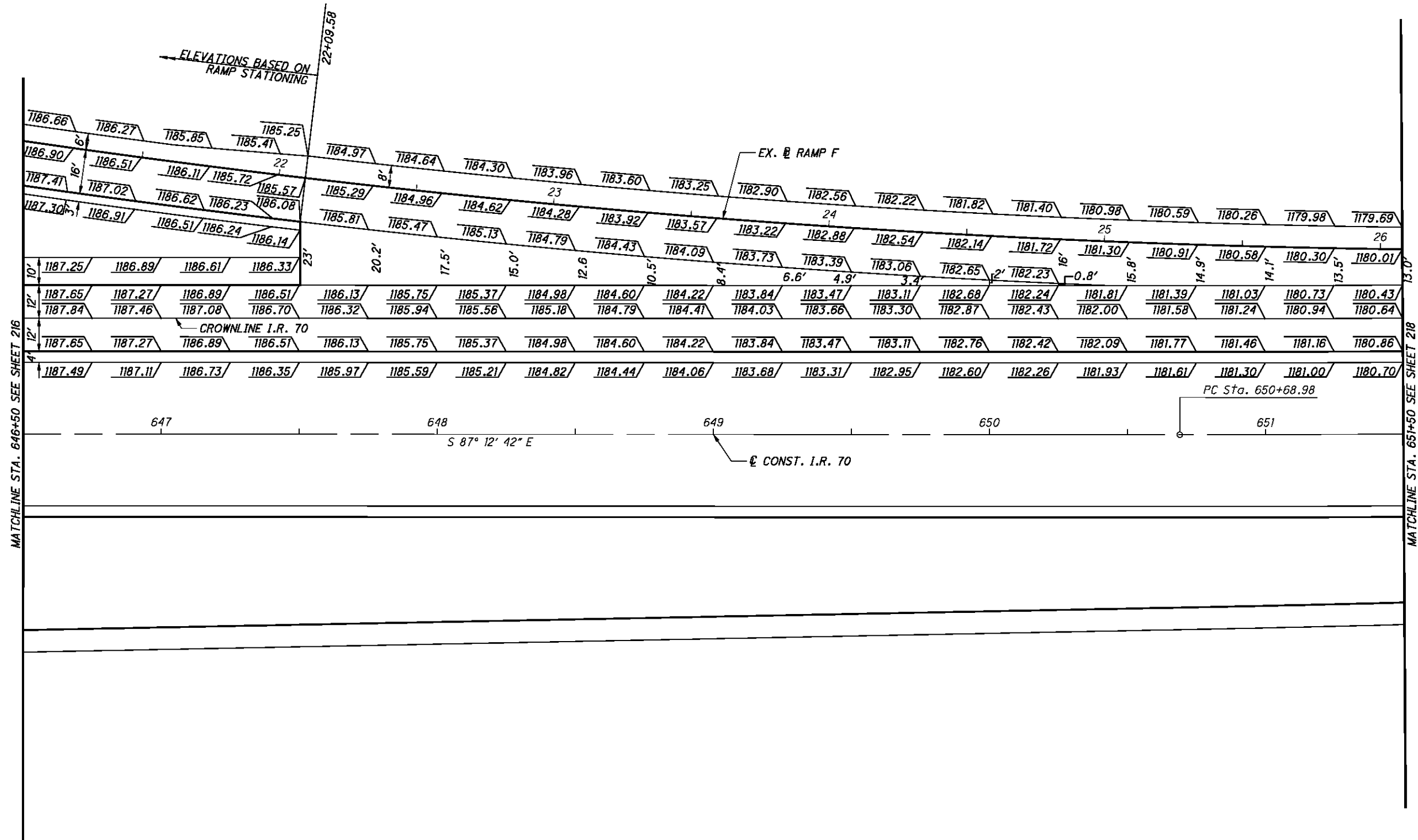
0 10 20 40
HORIZONTAL SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
STA. 636+50 TO STA. 641+50**

BEL-70-7.61



NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.



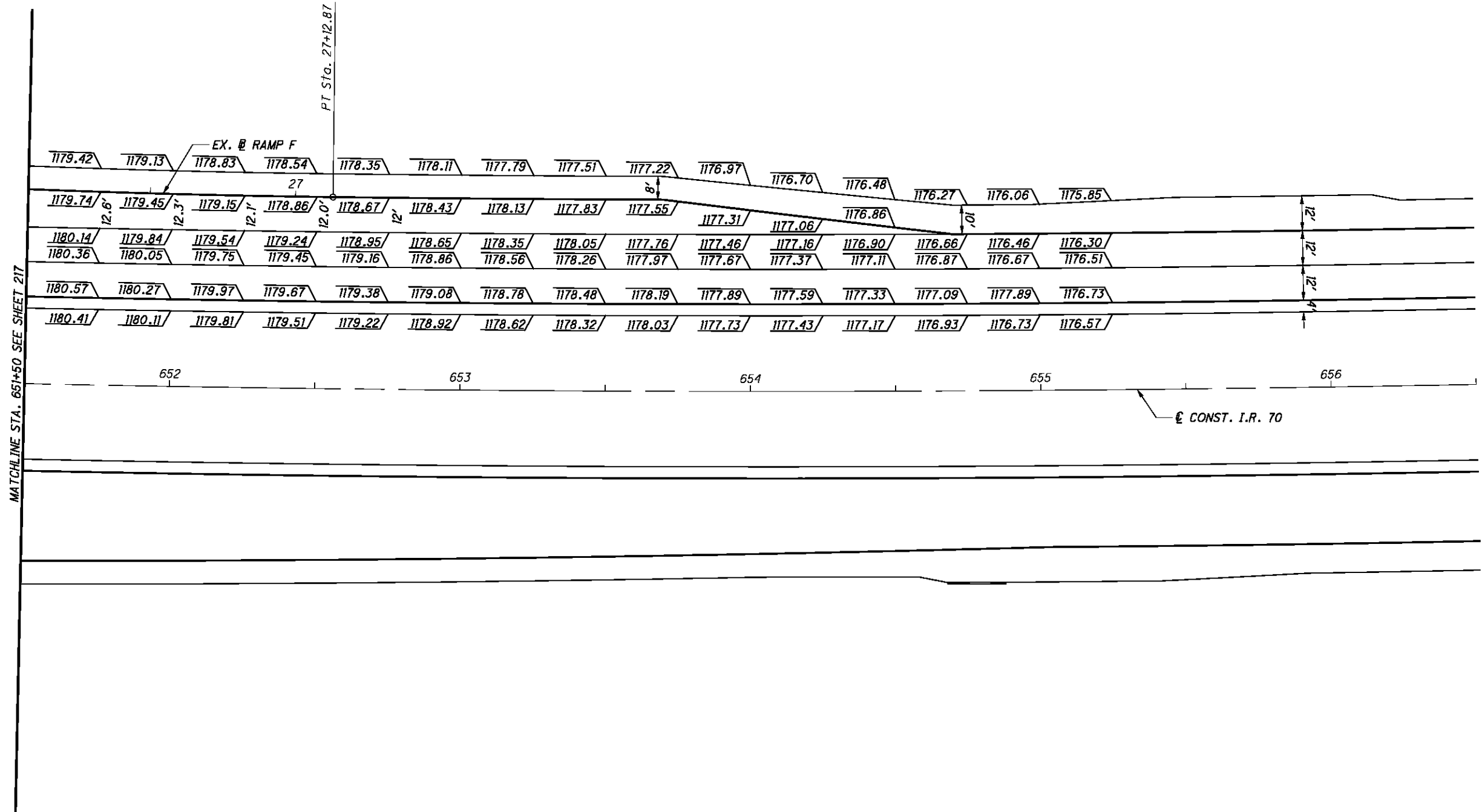
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS, SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.



CALCULATED MJC CHECKED BBD

**I.R. 70 PAVEMENT DETAILS
 STA. 646+50 TO STA. 651+50**

BEL-70-7.61



MATCHLINE STA. 651+50 SEE SHEET 217

PT Sta. 27+12.87

CONST. I.R. 70

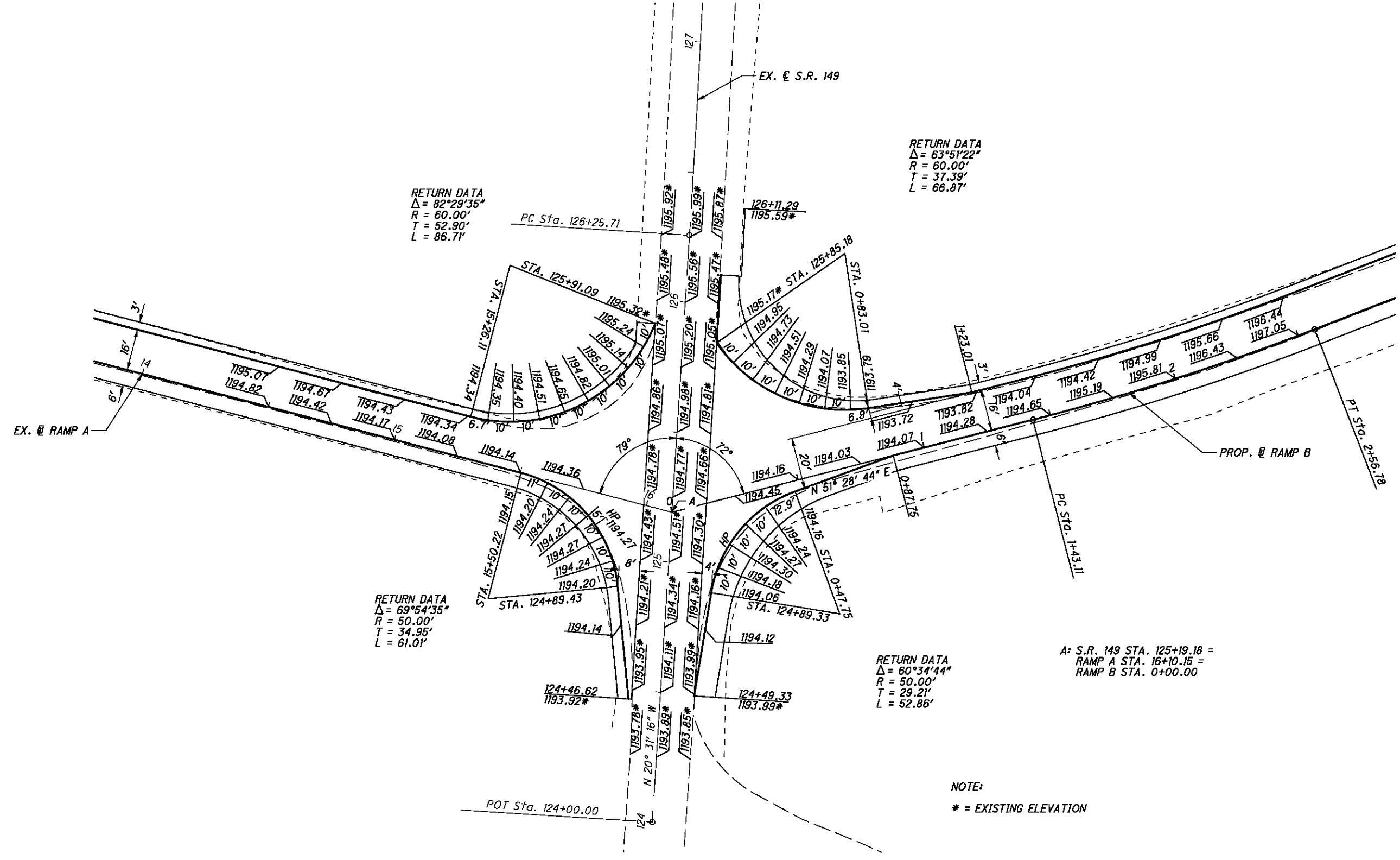
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
 STA. 651+50 TO STA. 656+50**

BEL-70-7.61

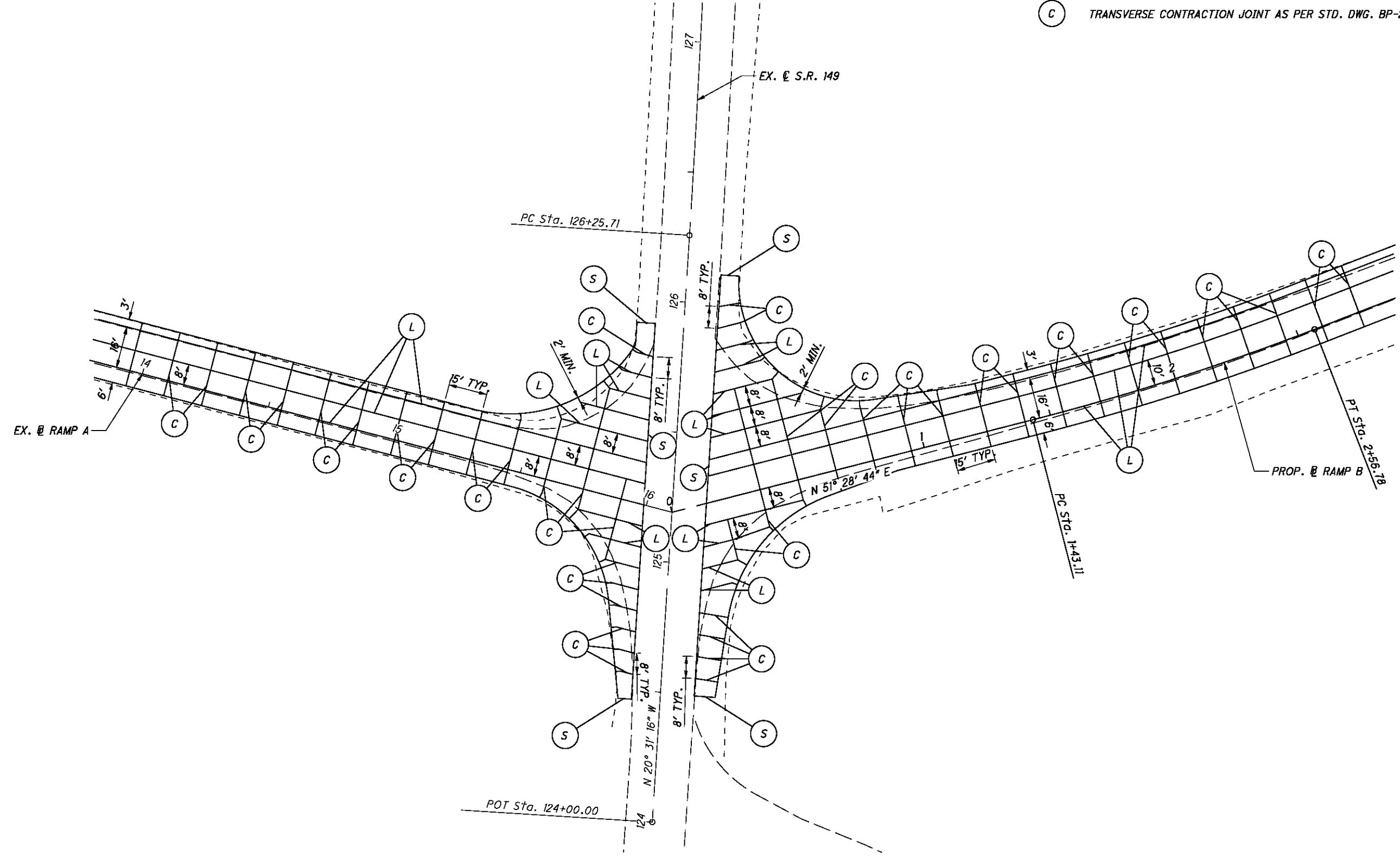


CALCULATED
MJC
CHECKED
BDD

0 10 20 40
HORIZONTAL
SCALE IN FEET

INTERSECTION DETAILS
S.R. 149, RAMP A & RAMP B

BEL-70-7.61



LEGEND

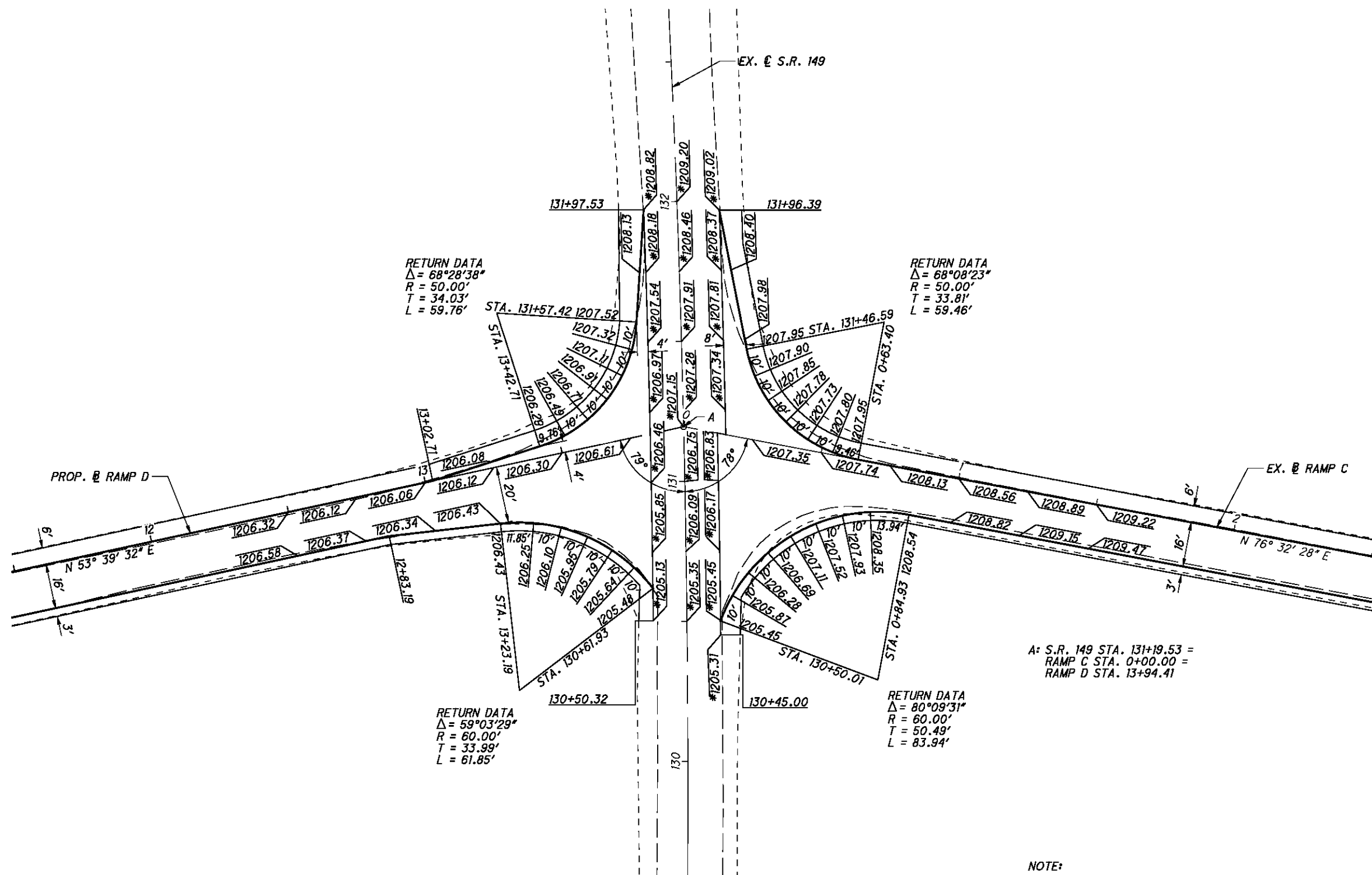
- (L) STANDARD LONGITUDINAL JOINT AS PER STD. DWG. BP-2.1
- (S) LONGITUDINAL JOINT WITHOUT TIE BARS AS PER STD. DWG. BP-2.1
- (C) TRANSVERSE CONTRACTION JOINT AS PER STD. DWG. BP-2.2

CALCULATED
MJC
CHECKED
BBD

0 20 40
HORIZONTAL
SCALE IN FEET

**INTERSECTION JOINT DETAILS
S.R. 149, RAMP A & RAMP B**

BEL-70-7.61



A: S.R. 149 STA. 131+19.53 =
 RAMP C STA. 0+00.00 =
 RAMP D STA. 13+94.41

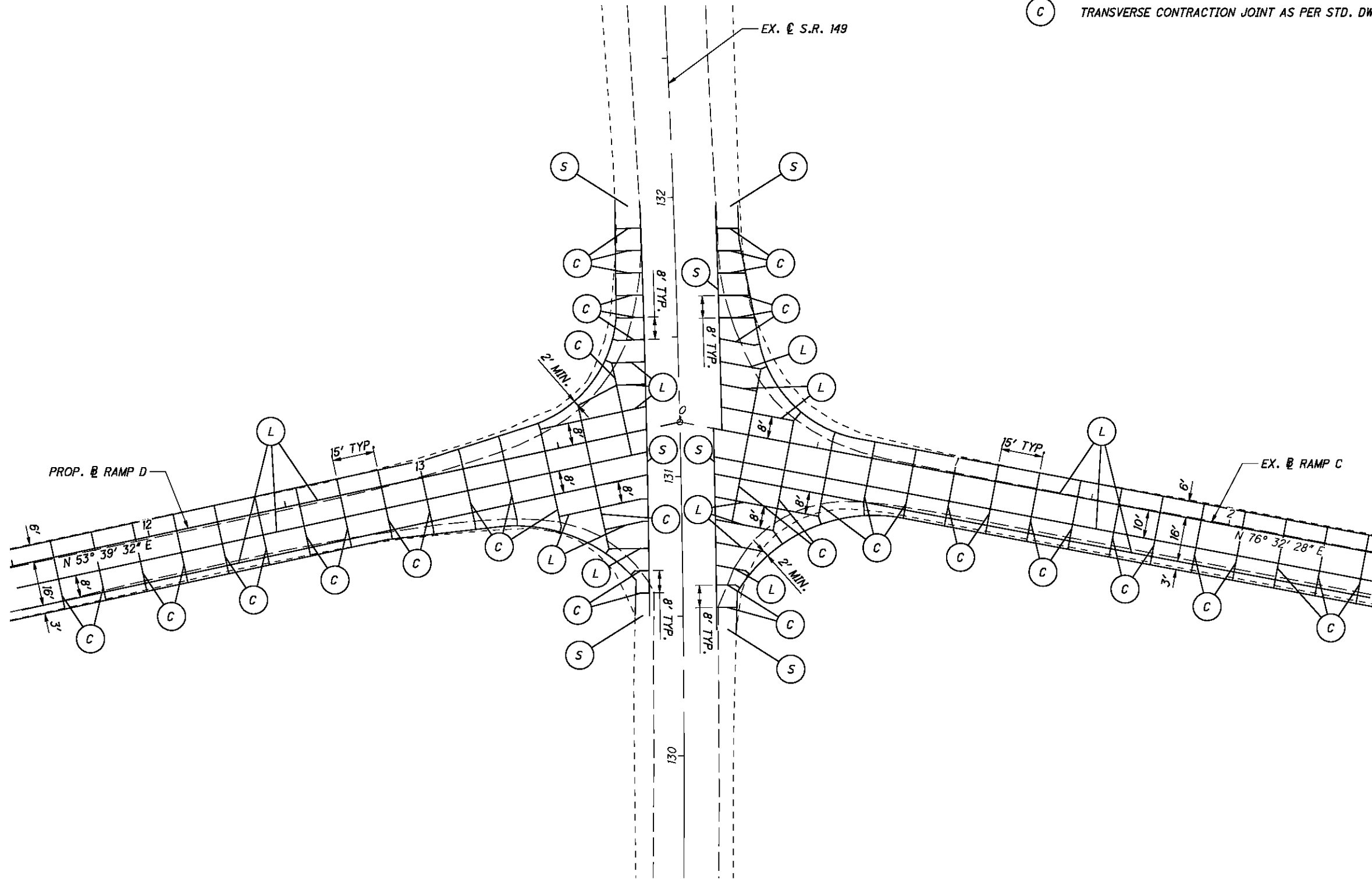
NOTE:
 * = EXISTING ELEVATION

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

INTERSECTION DETAILS
S.R. 149, RAMP C & RAMP D

BEL-70-7.61



LEGEND

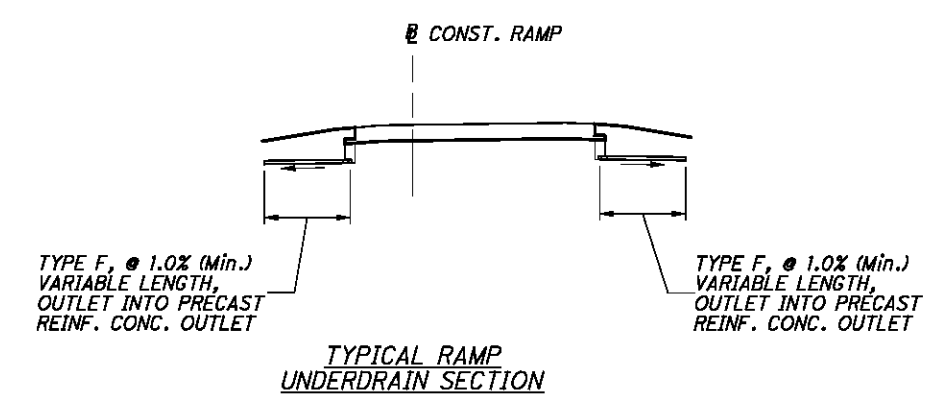
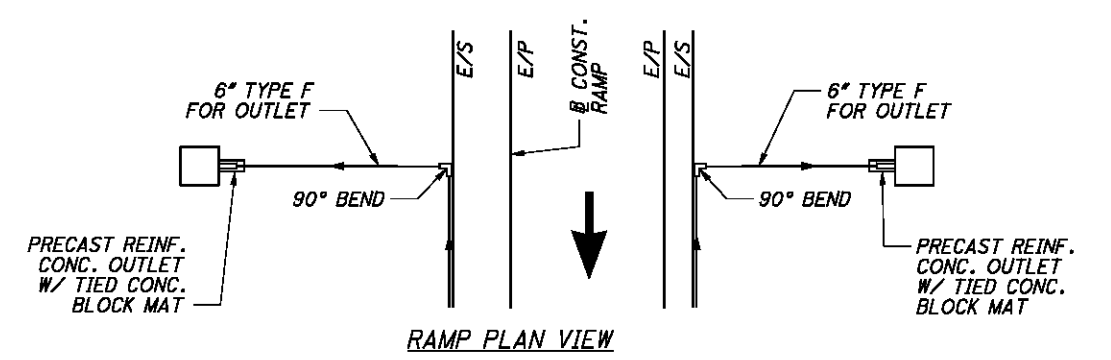
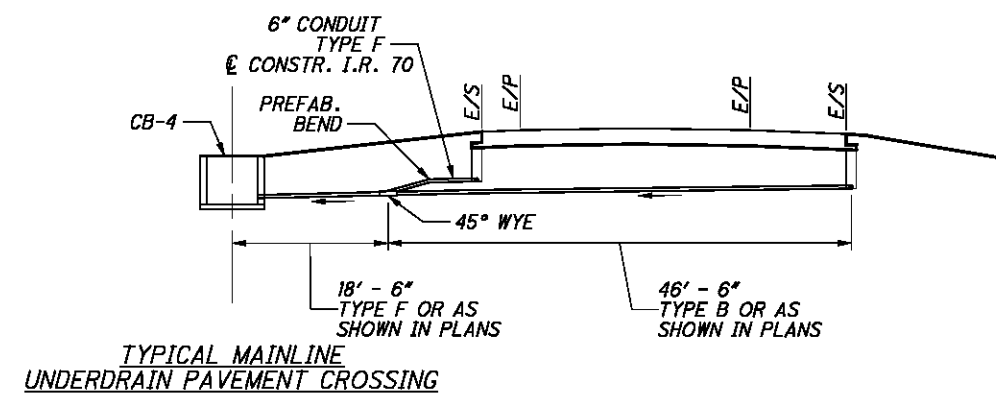
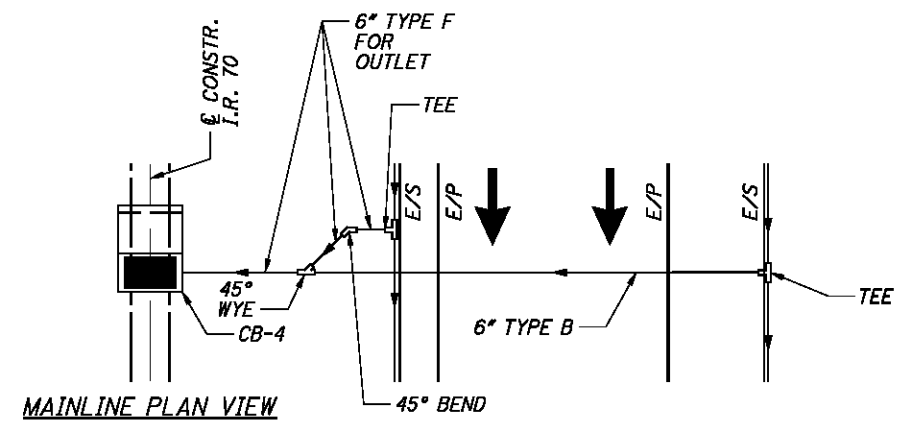
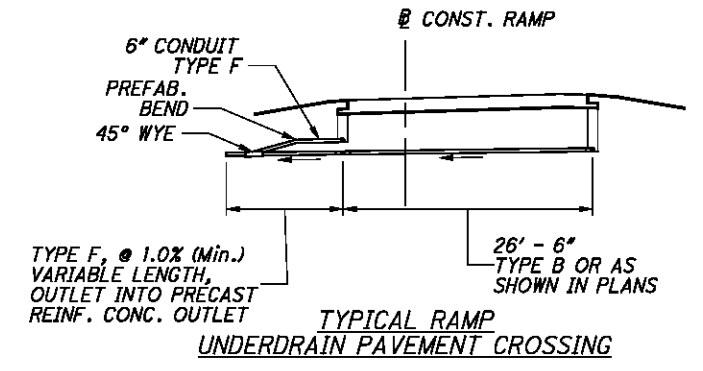
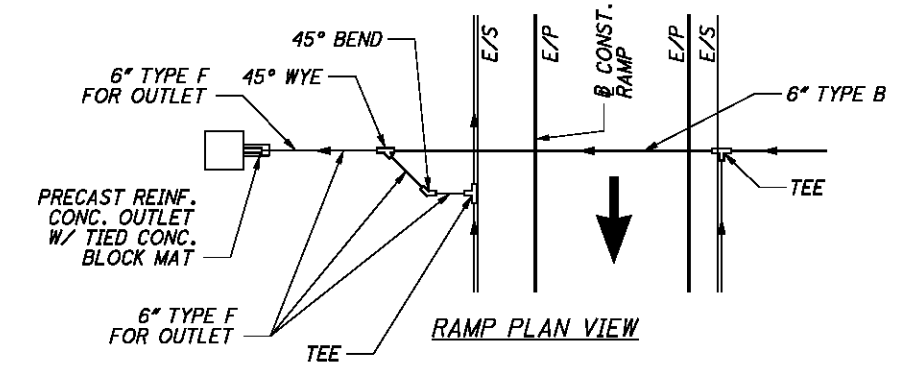
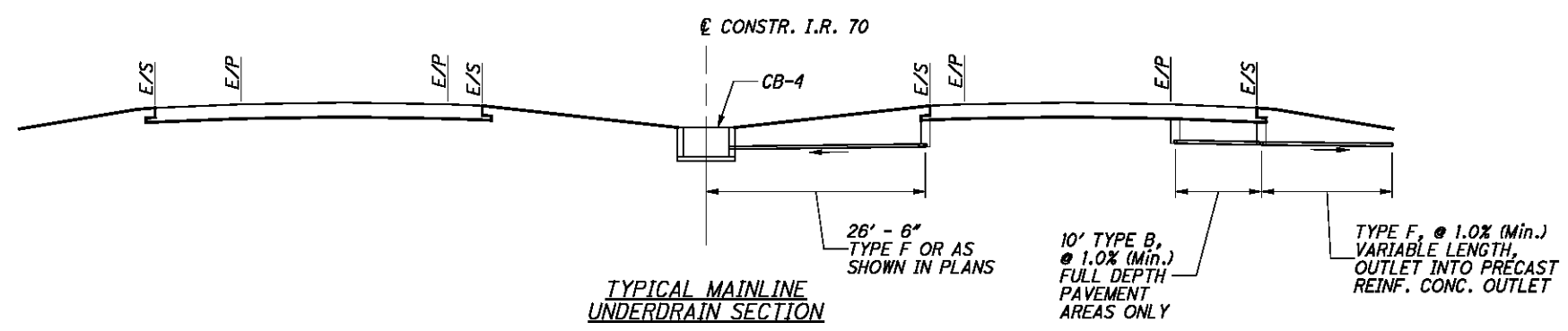
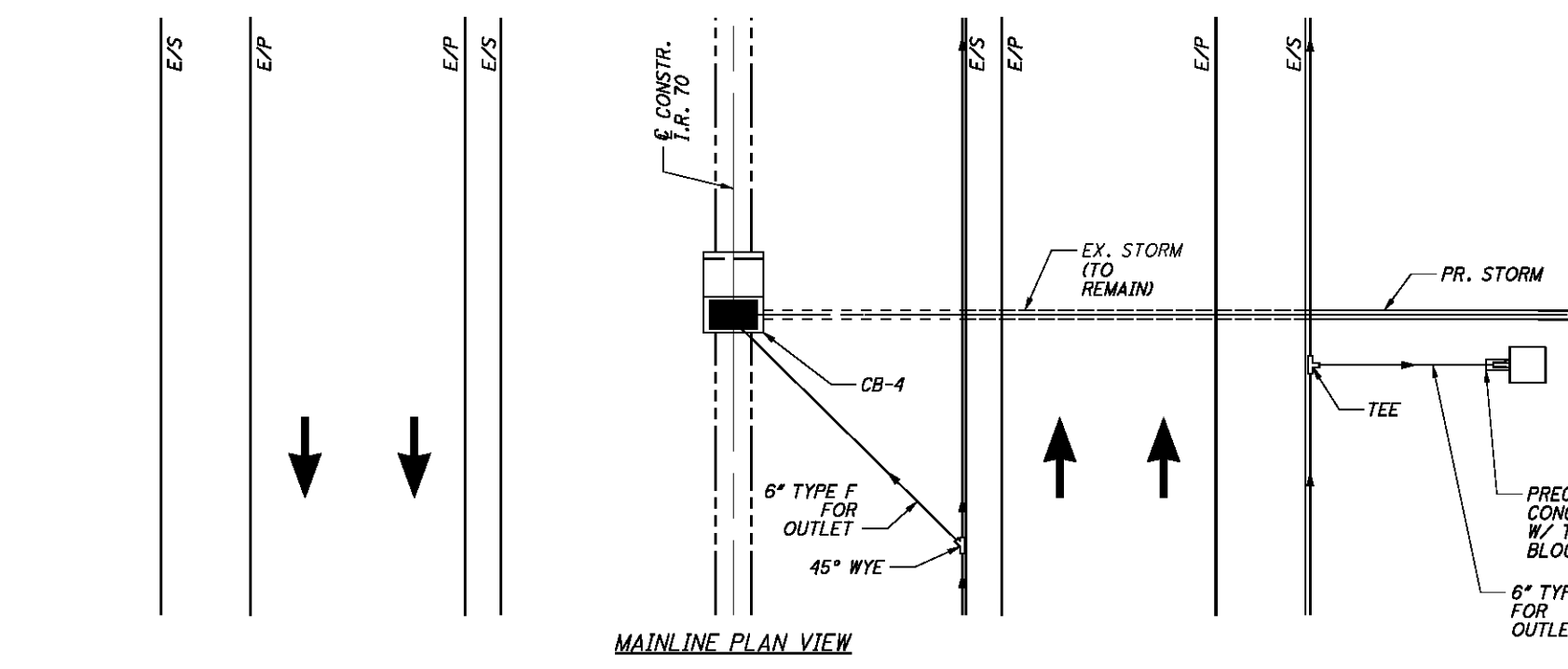
- (L) STANDARD LONGITUDINAL JOINT AS PER STD. DWG. BP-2.1
- (S) LONGITUDINAL JOINT WITHOUT TIE BARS AS PER STD. DWG. BP-2.1
- (C) TRANSVERSE CONTRACTION JOINT AS PER STD. DWG. BP-2.2

CALCULATED	MJC
CHECKED	BBD

0 20 40
HORIZONTAL SCALE IN FEET

INTERSECTION JOINT DETAILS
S.R. 149, RAMP C & RAMP D

BEL-70-7.61



P:\76825\drainage\sheets\76825DM001.dgn 9/21/2012 7:50:20 AM mcornett

P:\76825\drainage\sheet\76825DS005.dgn 9/21/2012 7:50:23 AM mcorbett

BUILDABLE UNIT NO.	SHEET NO.	REFERENCE NO.	ROADWAY	STATION	OFFSET	SIDE	INVERT	STATION	OFFSET	SIDE	INVERT	OUTLET TYPE	601	603	603	604	605	605	BENDS AND BRANCHES (FOR INFORMATION ONLY)											
				FROM				TO					TIED CONCRETE BLOCK MAT, TYPE 1	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	6" CONDUIT, TYPE B	PRECAST REINFORCED CONCRETE OUTLET	6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS							PLUG	TEE	45° WYE	CROSS	90° BEND	45° BEND
				FROM	FT	LT/RT	FT	TO	FT	LT/RT	FT		SY	FT	FT	EACH	FT	FT							EACH	EACH	EACH	EACH	EACH	EACH
3	236-237	UD149	I.R. 70	642+20.00	64.25	LT	1190.63	647+50.07	73.76	LT	1181.23	UD154		10			531							1						
3	236-237	UD150	I.R. 70	642+00.00	25.75	LT	1191.17	652+01.41		C/L	1175.78	PR CB		37			975			1										
2	236-237	UD151	I.R. 70	642+00.00	25.75	RT	1191.37	652+01.41		C/L	1175.78	PR CB		37			975			1										
4	236-237	UD152	I.R. 70	642+26.00	87.80	RT	1190.03	652+01.00	79.00	RT	1175.19	OUTLET	1.78	11		1	975													
3	237	UD153	RAMP F	18+90.00	6.25	LT	1192.24	22+25.05	8.25	LT	1181.61	UD155					333		1	1										
3	237	UD154	RAMP F	18+90.00	21.25	RT	1192.65	22+25.05	8.25	LT	1181.61	UD155			32		326		1	1										
3	237	UD155	RAMP F	22+25.05	8.25	LT	1181.61	26+52.52	17.67	LT	1175.11	OUTLET	1.78	10		1	427			1										
3	237	UD156	I.R. 70	651+95.00	74.58	LT	1175.74	656+74.79	80.53	LT	1171.93	EX CB		17			480				1									
3	237	UD157	I.R. 70	651+75.00	25.75	LT	1176.33	656+76.02		C/L	1172.85	PR CB		36			476									1				
4	237	UD158	I.R. 70	651+75.00	25.75	RT	1175.78	656+76.02		C/L	1172.85	PR CB		36			476													
4	237	UD159	I.R. 70	652+01.00	68.28	RT	1176.05	656+75.67	82.00	RT	1172.88	OUTLET	1.78	18		1	475													
3	237	UD160	I.R. 70	656+74.79	64.25	LT	1172.91	664+05.00	64.25	LT	1179.10	UD156					727													
3	237	UD161	I.R. 70	656+76.02		C/L	1172.85	664+26.00	25.75	LT	1179.49	PR CB		36			724									1				
4	237	UD162	I.R. 70	656+76.02		C/L	1172.85	664+26.00	25.75	RT	1179.86	PR CB		36			727													
4	237	UD163	I.R. 70	656+75.67	64.25	RT	1173.89	664+05.00	64.25	RT	1173.89	UD159					733													
4	237	UD164	I.R. 70	652+50.00	59.30	RT	1176.37	656+75.67	80.00	RT	1173.12	UD159		10			426													
4	237	UD165	I.R. 70	656+75.67	54.25	RT	1174.17	662+50.00	54.25	RT	1178.52	UD164					575													
4	236	UD166	I.R. 70	635+71.60	64.25	RT	1197.78	637+64.04	73.76	RT	1199.37	UD145		10			193													
3	237-238	UD167	I.R. 70	664+05.00	76.00	LT	1178.72	673+05.00	64.25	LT	1183.86	OUTLET	1.78	12		1	896		1											
3	237-238	UD168	I.R. 70	664+01.34		C/L	1178.84	673+25.00	25.75	LT	1190.06	PR CB		36			897			1										
2	237-238	UD169	I.R. 70	664+01.34		C/L	1178.84	673+25.00	25.75	RT	1190.03	PR CB		36			901			1										
4	237-238	UD170	I.R. 70	664+05.00	94.00	RT	1178.65	673+05.00	64.25	RT	1189.31	OUTLET	1.78	30		1	905													
3	238	UD171	I.R. 70	673+05.00	87.00	LT	1183.86	675+00.00	64.25	LT	1191.78	OUTLET	1.78	23		1	195		1	1										
3	238	UD172	I.R. 70	673+00.62		C/L	1189.16	675+00.00	25.75	LT	1192.09	PR CB		36			175		1		1									
2	238	UD173	I.R. 70	673+00.62		C/L	1189.16	675+00.00	25.75	RT	1192.13	PR CB		36			175		1		1									
4	238	UD174	I.R. 70	673+05.00	93.00	RT	1189.00	675+00.00	64.25	RT	1191.55	OUTLET	1.78	29		1	195													
3	236	UD175	I.R. 70	652+80.00	66.25	LT	1175.60	656+74.79	64.25	LT	1172.91	UD156		10			395		1	1										
3	236	UD176	I.R. 70	656+74.79	54.25	LT	1172.94	658+95.00	54.25	LT	1177.40	UD175					221		1											
3	229	UD177	I.R. 70	420+45.00	75.00	LT	1249.80	423+00.00	64.25	LT	1249.75	OUTLET	1.78	28		1	280		1											
2	229	UD178	I.R. 70	420+10.00	6.00	LT	1249.90	423+00.00	25.75	LT	1249.99	OUTLET	1.78	44		1	300		1											
2	229	UD179	I.R. 70	420+01.00	6.00	RT	1249.66	423+00.00	25.75	RT	1249.99	OUTLET	1.78	50		1	304		1											
4	229	UD180	I.R. 70	419+77.00	80.00	RT	1249.94	423+00.00	64.25	RT	1249.75	OUTLET	1.78	42		1	335		1											
4	229	UD181	I.R. 70	446+76.00	64.25	RT	1257.98	449+52.00	64.25	RT	1255.22	UD24					276		1											
3	236	UD182	I.R. 70	612+00.00	73.50	LT	1182.25	617+05.00	67.44	LT	1186.72	OUTLET	1.78	10		1	505			1										
3	233	UD183	RAMP C	6+50.00	6.25	LT	1204.88	533+97.00	99.00	LT	1180.55	OUTLET	1.78			1	890													
3	234	UD184	I.R. 70	566+00.00	78.00	LT	1210.03	569+00.00	64.25	LT	1216.83	OUTLET	1.78	14		1	304													
4	228	UD185	I.R. 70	411+40.00	64.25	RT	1247.22	413+00.00	64.25	RT	1247.06	UD5					160		1											
TOTALS THIS SHEET													25	740	32	14	15509	3354					13	7	6	1	1	2		
TOTALS CARRIED FROM SHEET 224													25	1160	66	14	33135	239					9	18	16	1	4	14		
TOTALS CARRIED FROM SHEET 225													45	1200	62	25	31701	831					18	16	14	0	14	6		
TOTALS CARRIED FROM SHEET 226													24	903	211	13	30462	20					15	15	16	1	5	11		
TOTALS CARRIED TO GENERAL SUMMARY													119	4003	371	66	110807	4444					55	56	52	3	24	33		

CALCULATED
 CHECKED
 BBD
UNDERDRAIN SUBSUMMARY
BEL - 70 - 7.61
 227
 373

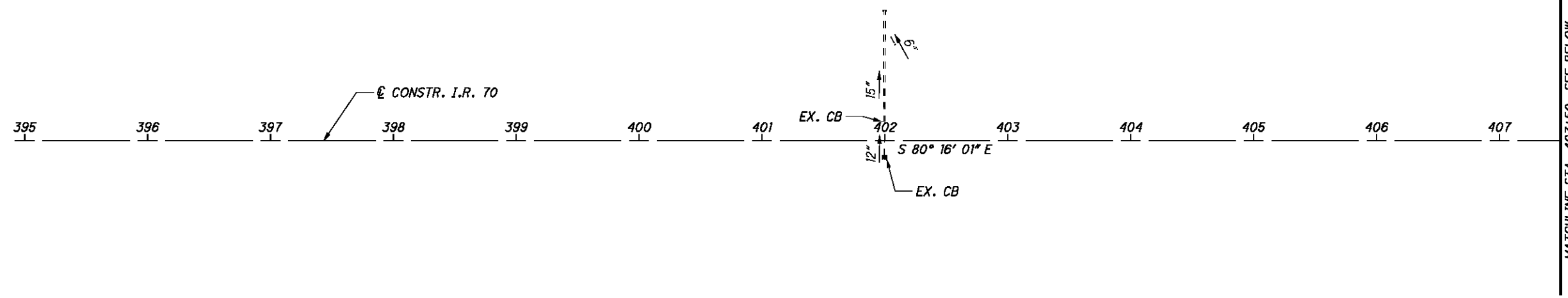


CALCULATED
CDS
CHECKED
BDD

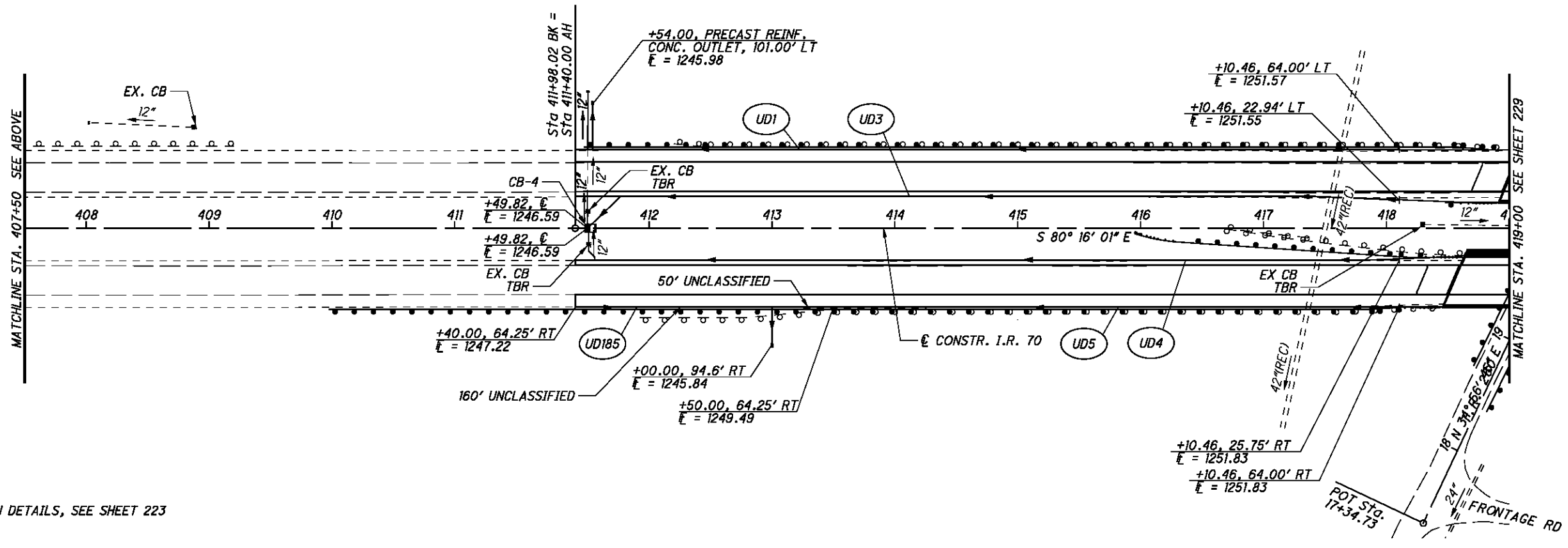
UNDERDRAIN DETAILS
STA. 395+00 TO STA. 419+00

BEL-70-7.61

228
373

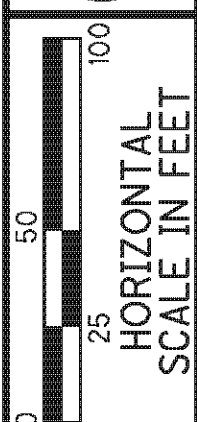


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

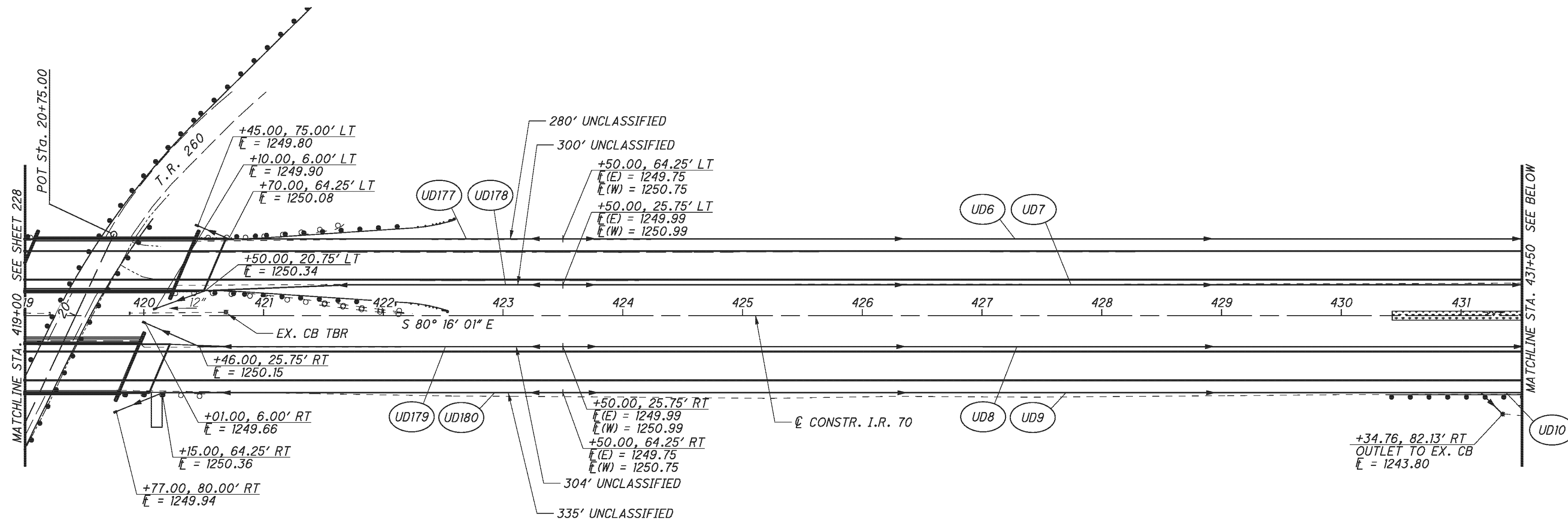
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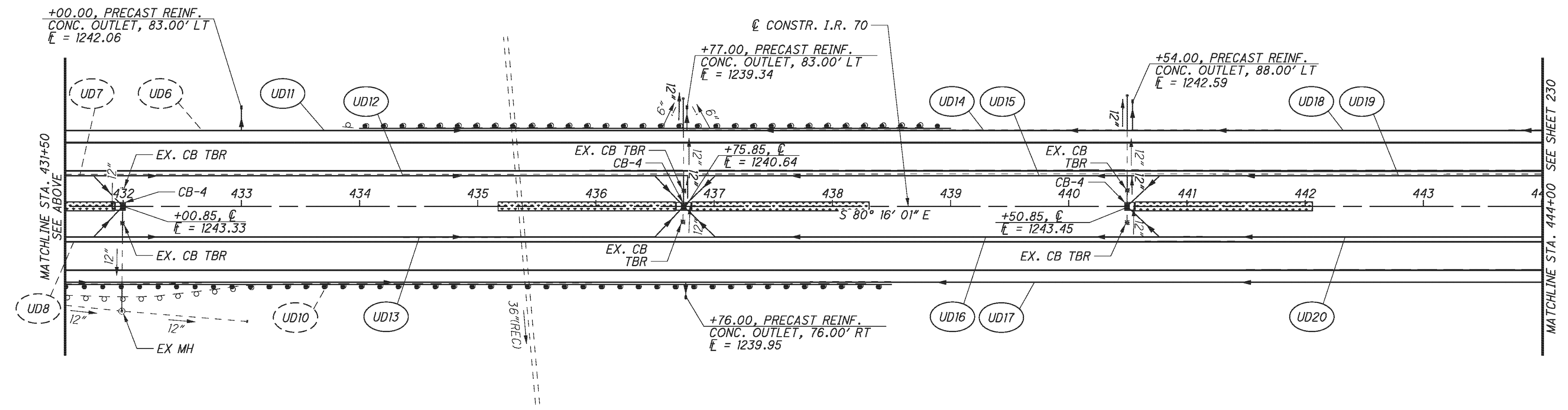
CALCULATED
CDS
CHECKED
BDD

UNDERDRAIN DETAILS
STA. 419+00 TO STA. 444+00

BEL-70-7.61



NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

P:\76825\drainage\sheets\76825DD002.dgn 11/9/2012 2:16:05 PM mcorneett



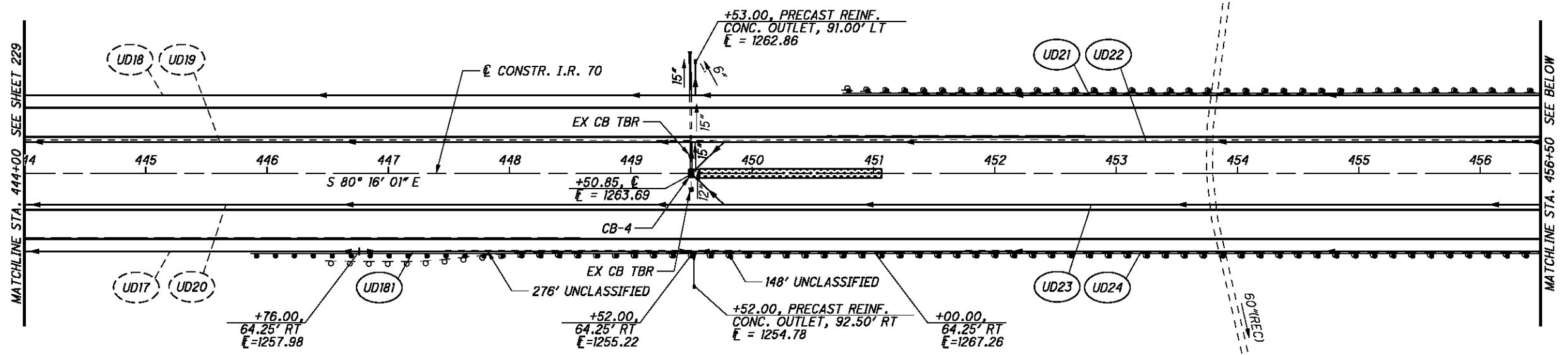
0 50 100
 25
 HORIZONTAL
 SCALE IN FEET

CALCULATED
 CDS
 CHECKED
 BDD

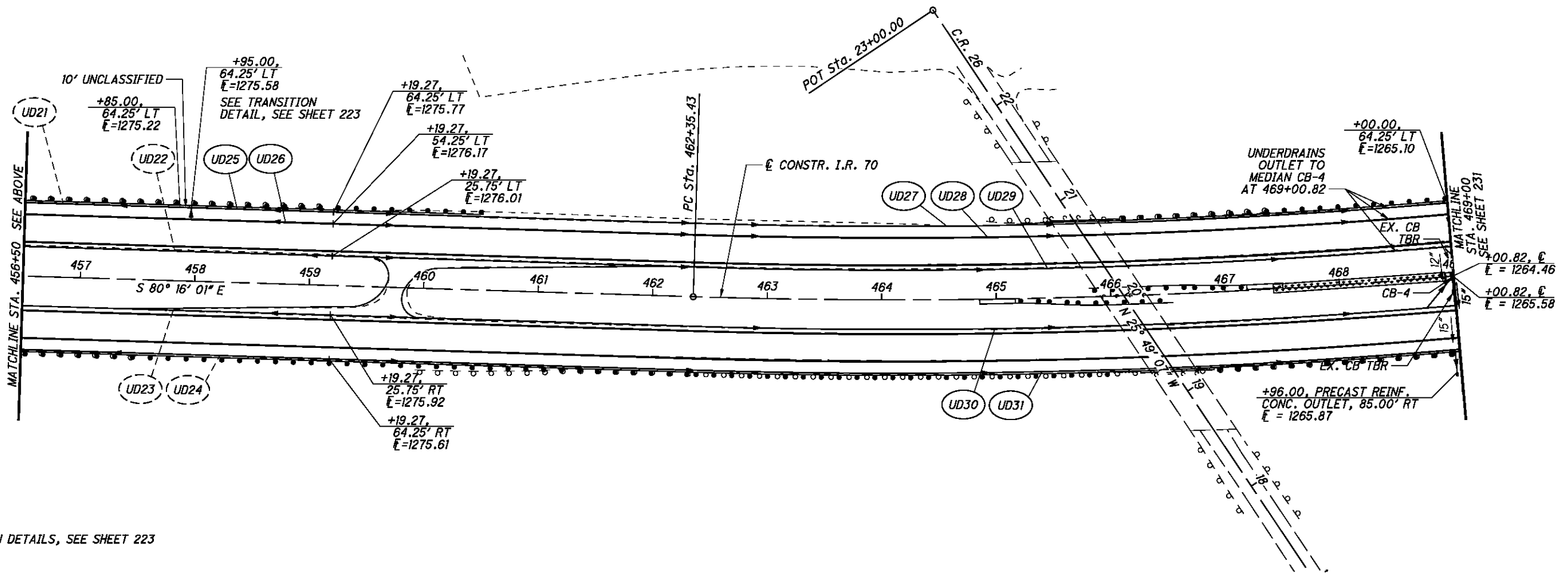
UNDERDRAIN DETAILS
STA. 444+00 TO STA. 469+00

BEL-70-7.61

230
 373



NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

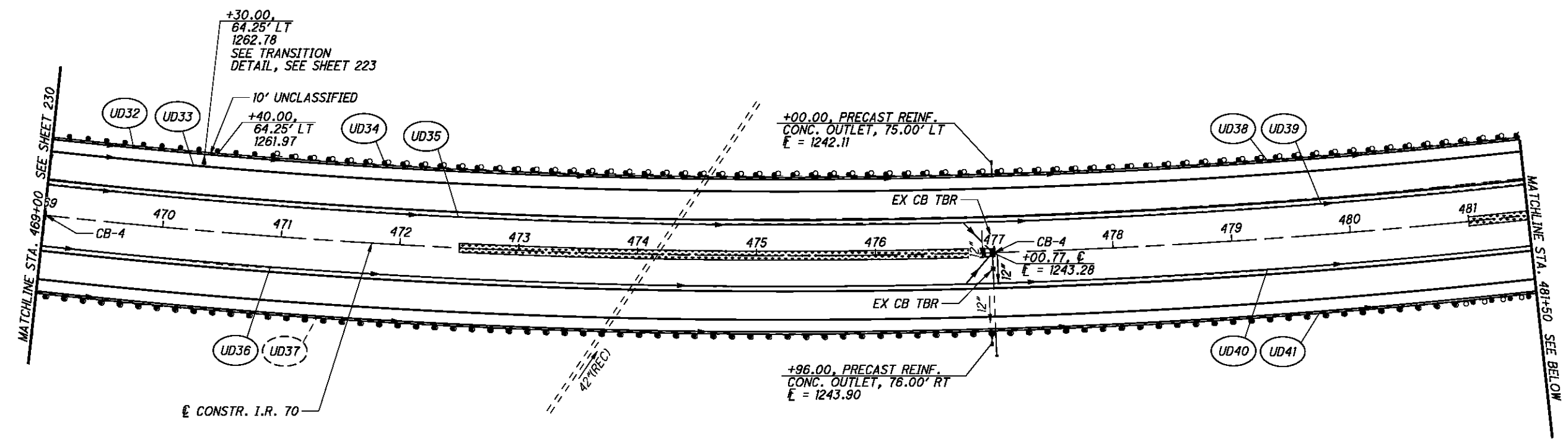
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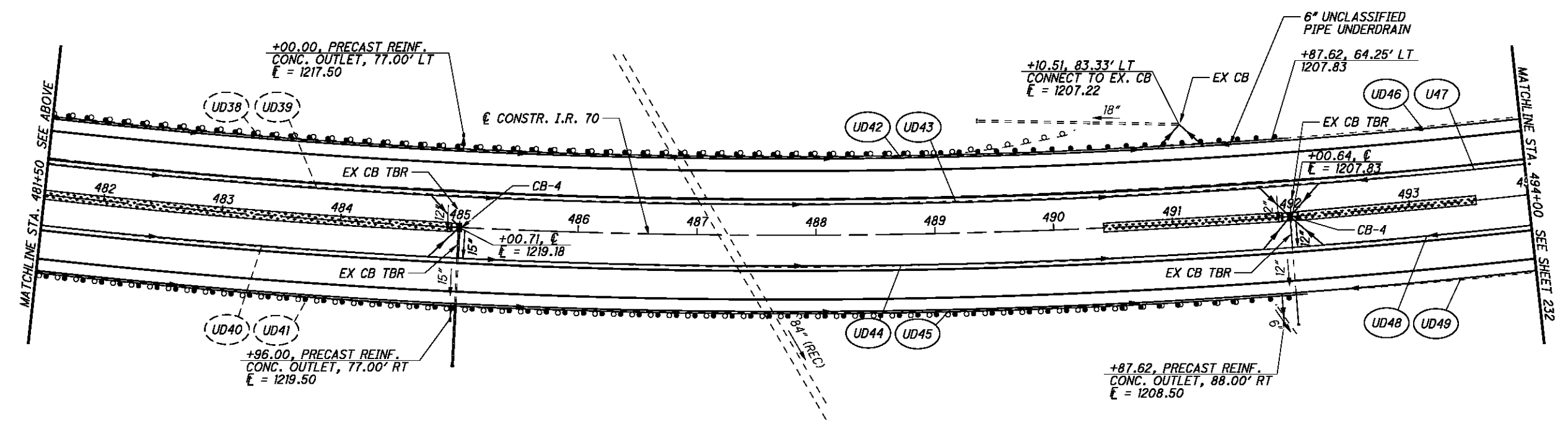
CALCULATED
CDS
CHECKED
BBD

UNDERDRAIN DETAILS
STA. 469+00 TO STA. 494+00

BEL-70-7.61

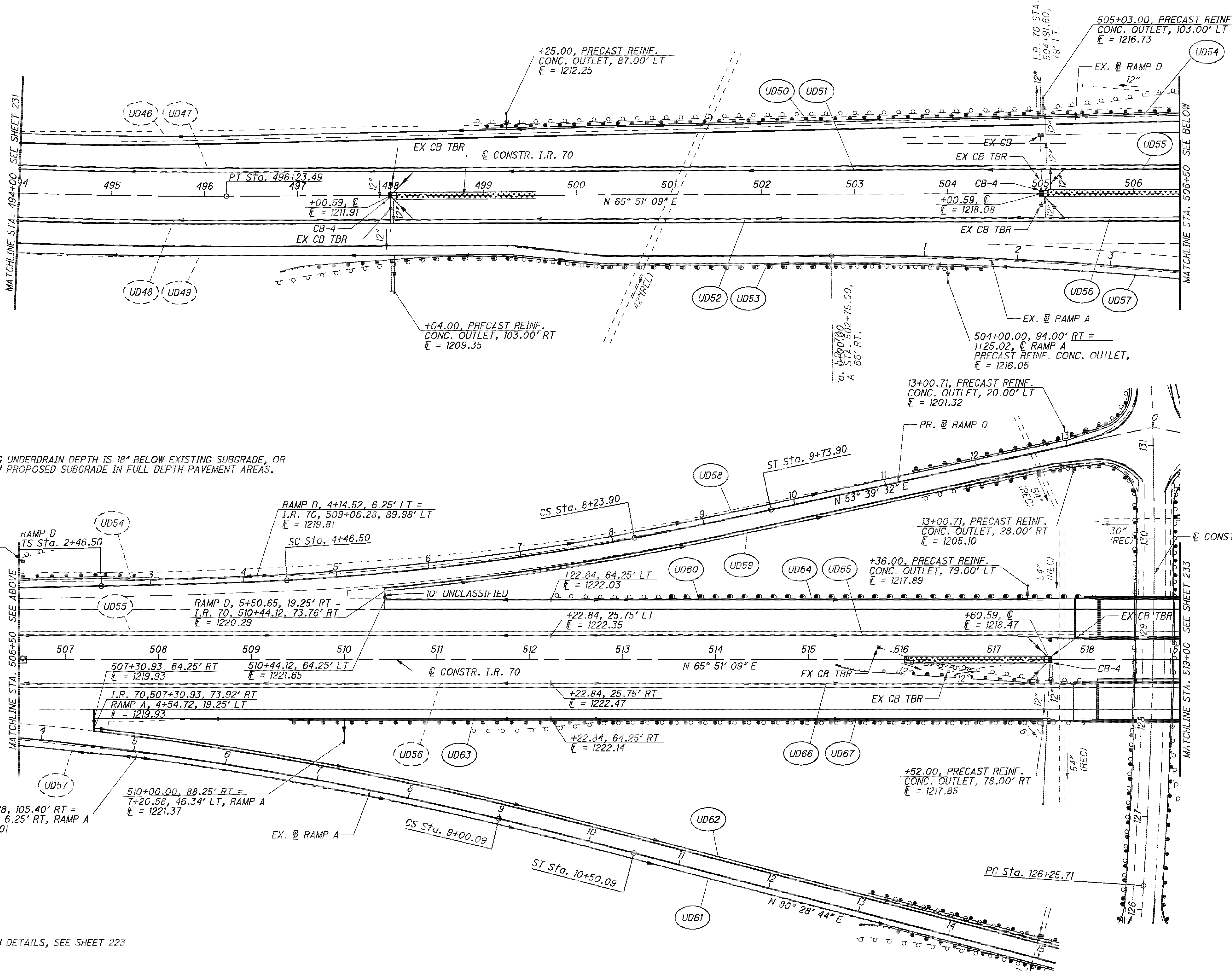


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

P:\76825\drainage\sheets\76825DD004.dgn 9/21/2012 7:50:26 AM mcorneett

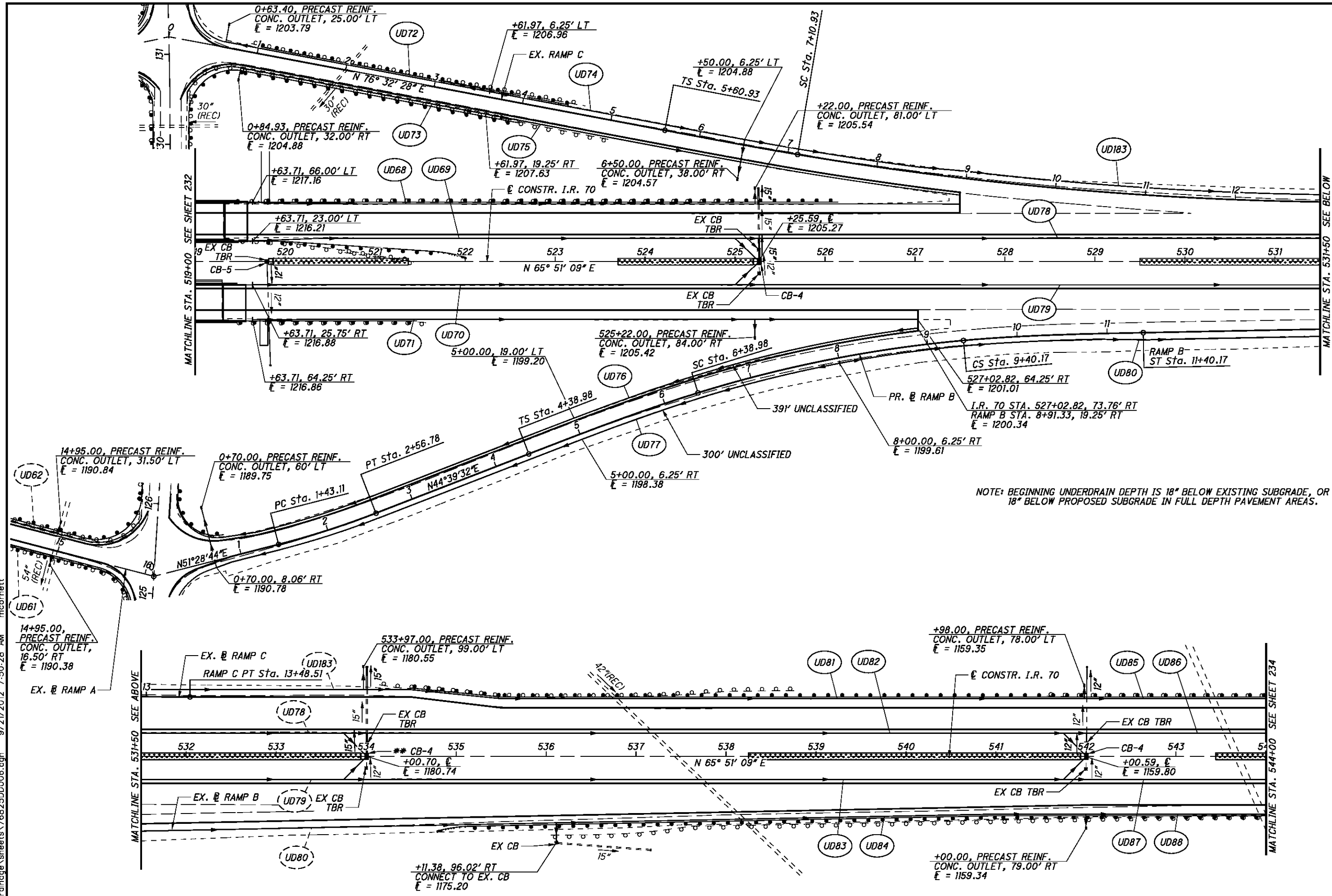


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.

FOR UNDERDRAIN DETAILS, SEE SHEET 223

P:\76825\drainage\sheets\76825DD005.dgn 11/9/2012 2:24:46 PM mcornett

P:\76825\drainage\sheets\76825DD006.dgn 9/21/2012 7:50:28 AM mcorbett



NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.

CALCULATED CDS CHECKED BDD

0 50 100
HORIZONTAL SCALE IN FEET

UNDERDRAIN DETAILS
STA. 519+00 TO STA. 544+00

BEL-70-7.61

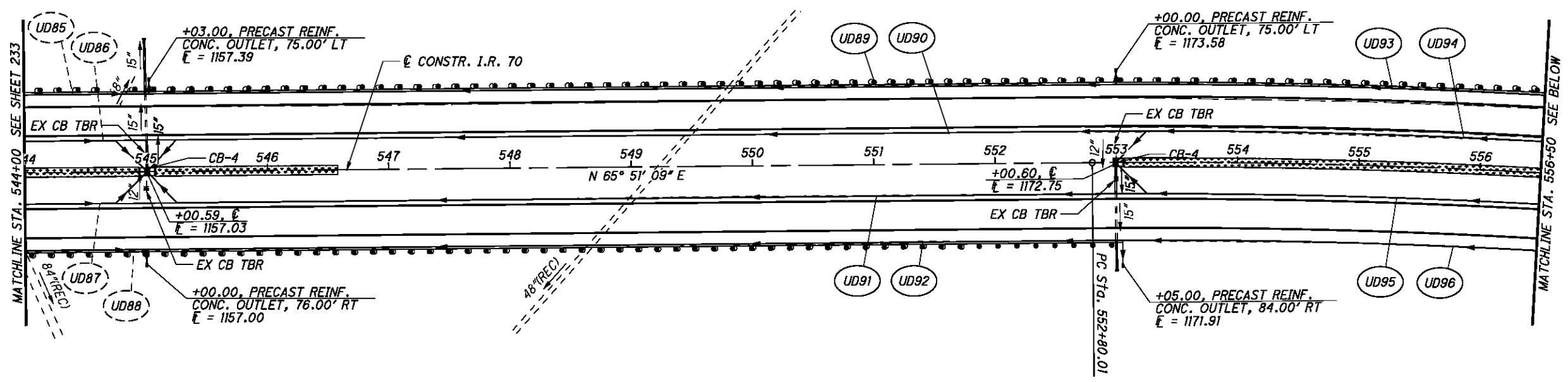
FOR UNDERDRAIN DETAILS, SEE SHEET 223



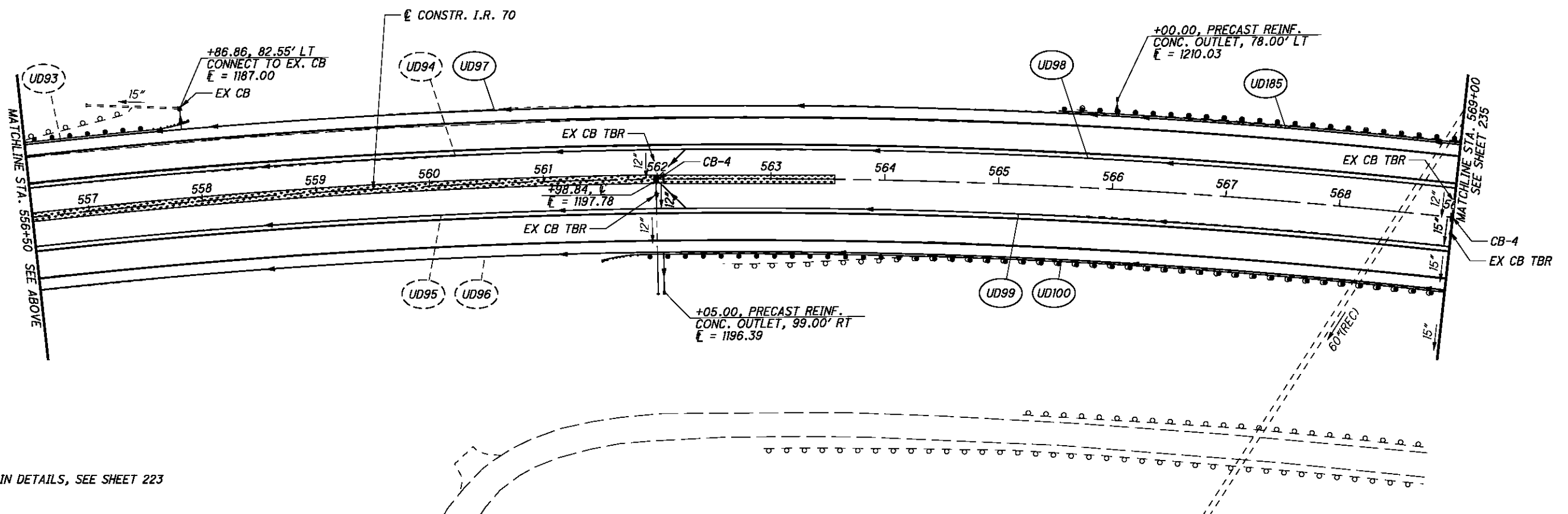
CALCULATED
CDS
CHECKED
BDD

UNDERDRAIN DETAILS
STA. 544+00 TO STA. 569+00

BEL-70-7.61



NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

P:\76825\drainage\sheet\76825DD007.dgn 9/21/2012 7:50:28 AM mcornett

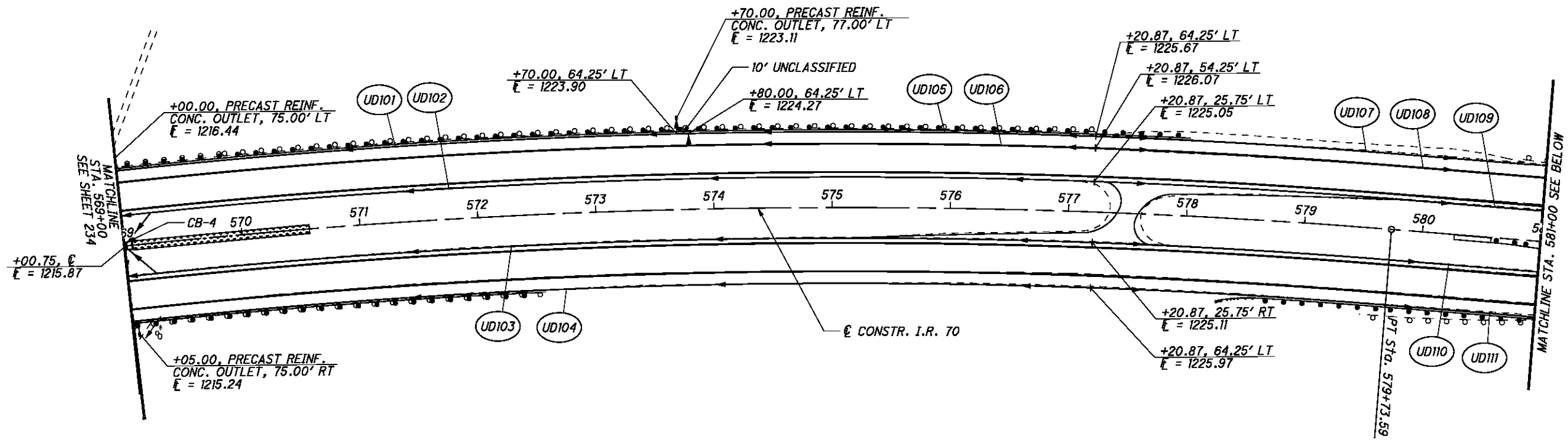


CALCULATED
CDS
CHECKED
BDD

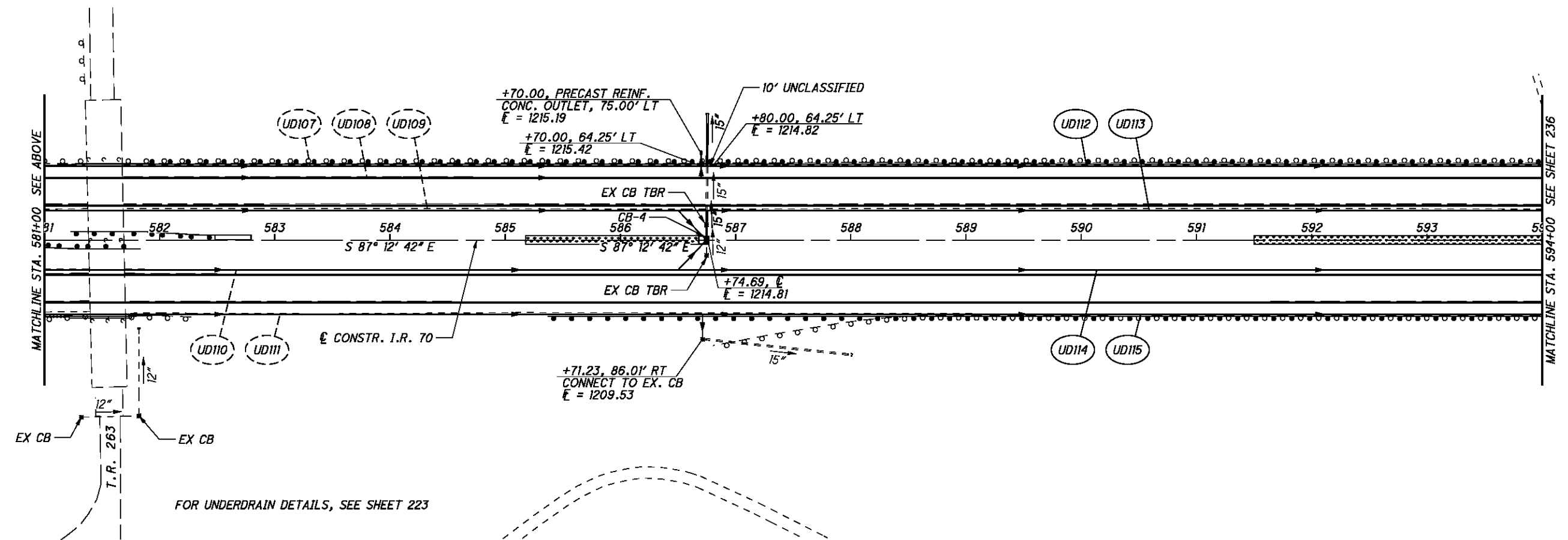
UNDERDRAIN DETAILS
STA. 569+00 TO STA. 594+00

BEL-70-7.61

235
373



NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

P:\76825\drainage\sheets\76825DD00B.dgn 9/21/2012 7:50:29 AM mcornett

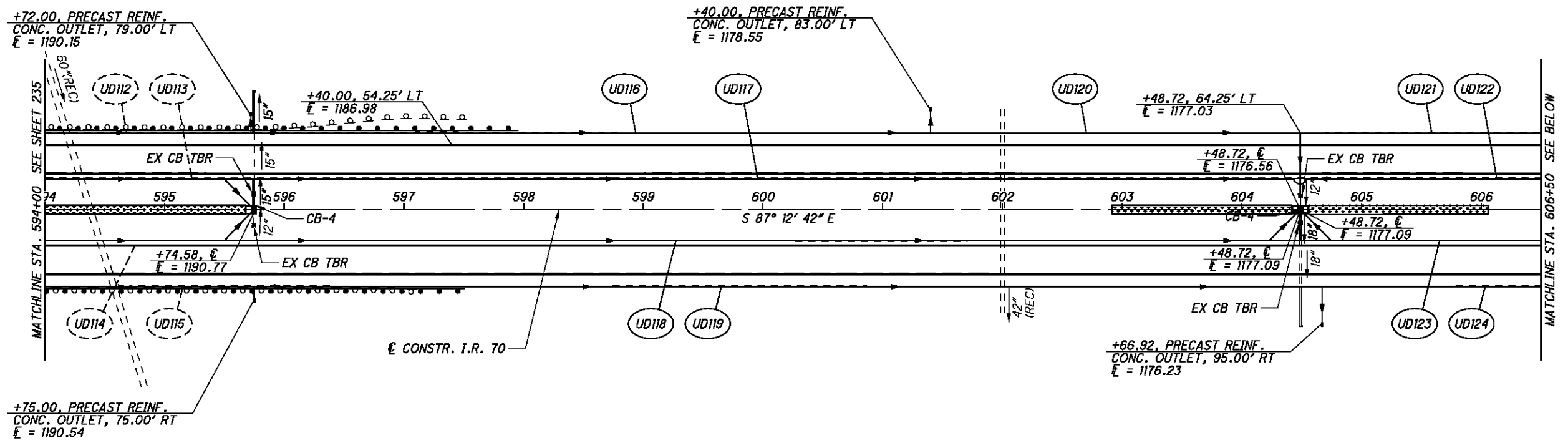


CALCULATED
CDS
CHECKED
BDD

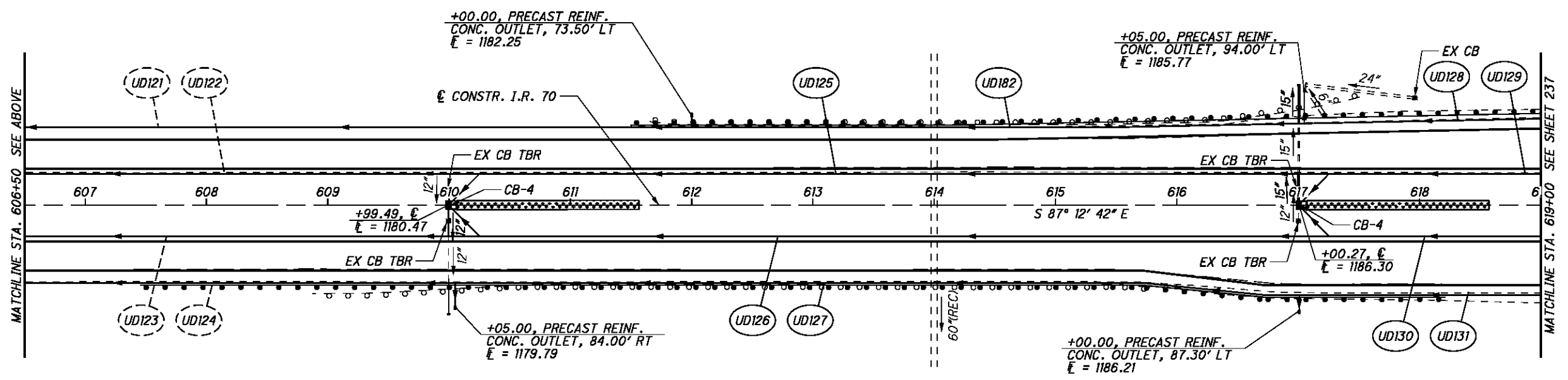
UNDERDRAIN DETAILS
STA. 594+00 TO STA. 619+00

BEL-70-7.61

236
373



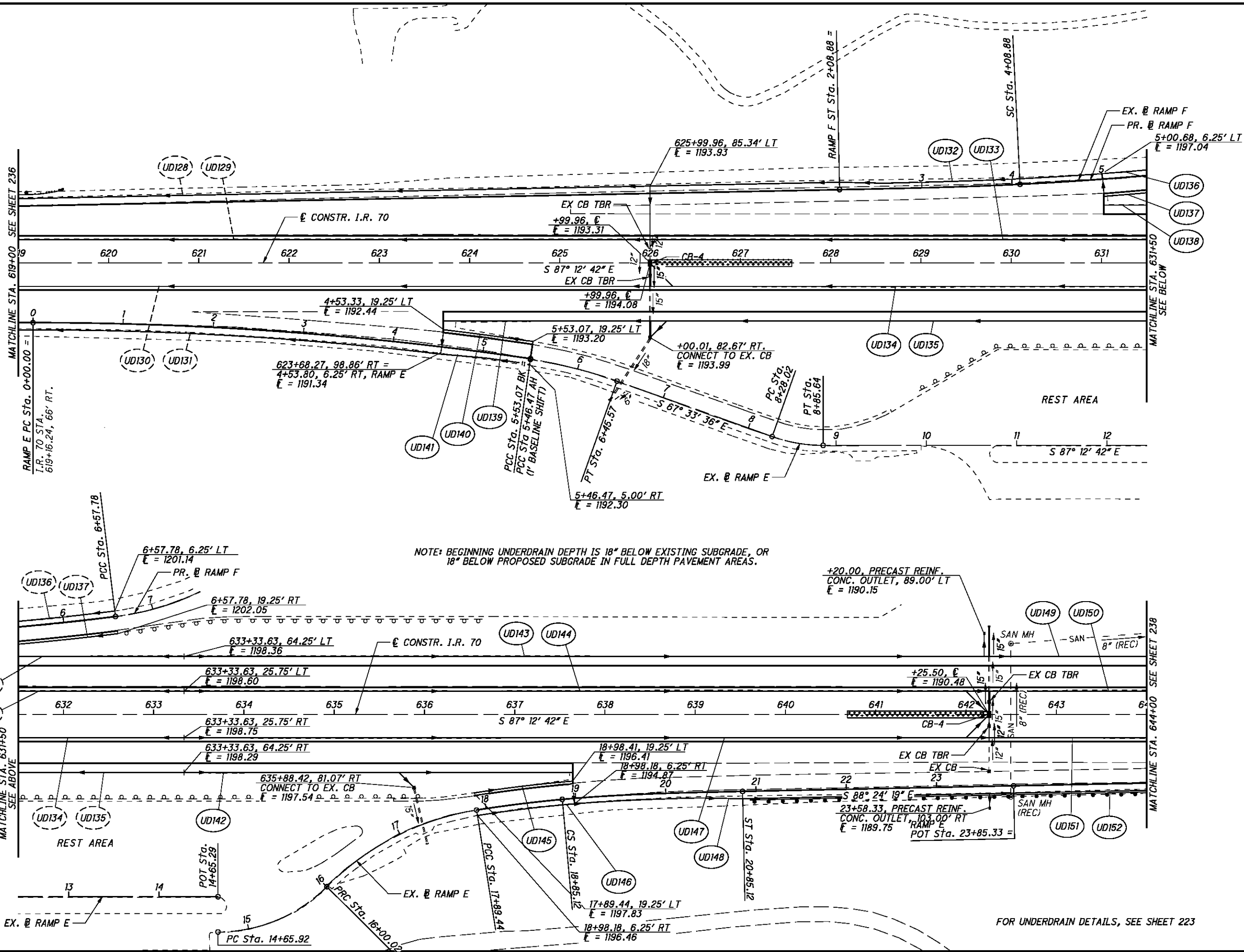
NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

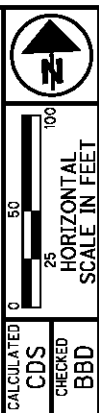
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P:\76825\drainage\sheets\76825DD010.dgn 9/21/2012 7:50:30 AM mcornett



NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.

FOR UNDERDRAIN DETAILS, SEE SHEET 223



CALCULATED
CDS
CHECKED
BDD

UNDERDRAIN DETAILS
STA. 619+00 TO STA. 644+00

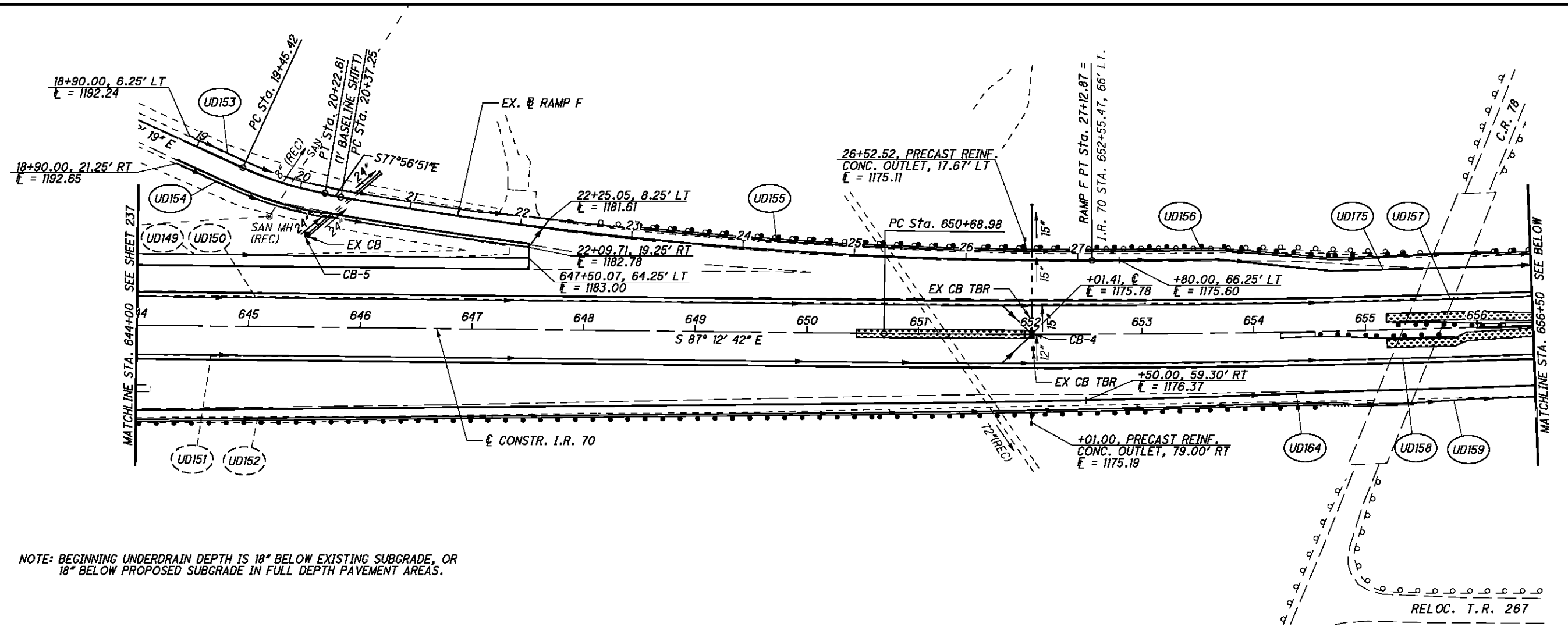
BEL-70-7.61

0 50 100
HORIZONTAL
SCALE IN FEET

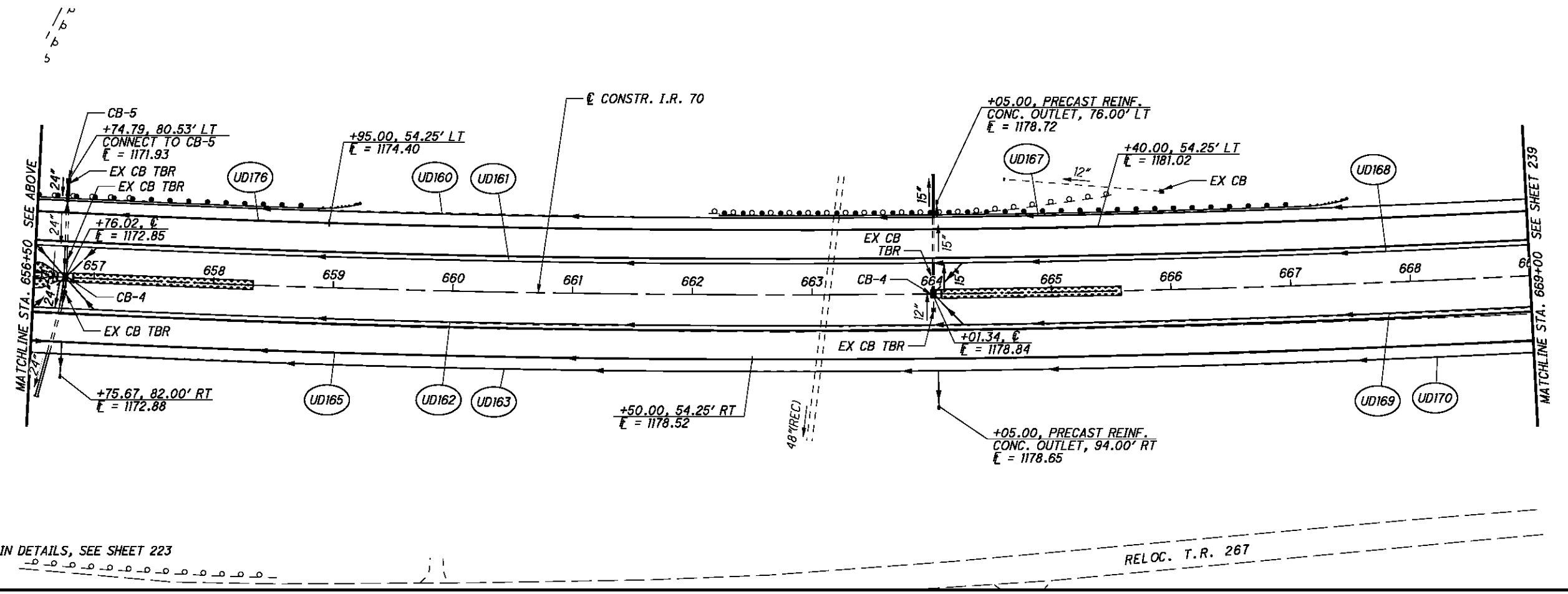
CALCULATED
CDS
CHECKED
BBD

UNDERDRAIN DETAILS
STA. 644+00 TO STA. 669+00

BEL-70-7.61



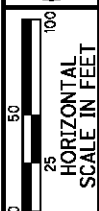
NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



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FOR UNDERDRAIN DETAILS, SEE SHEET 223

RELOC. T.R. 267

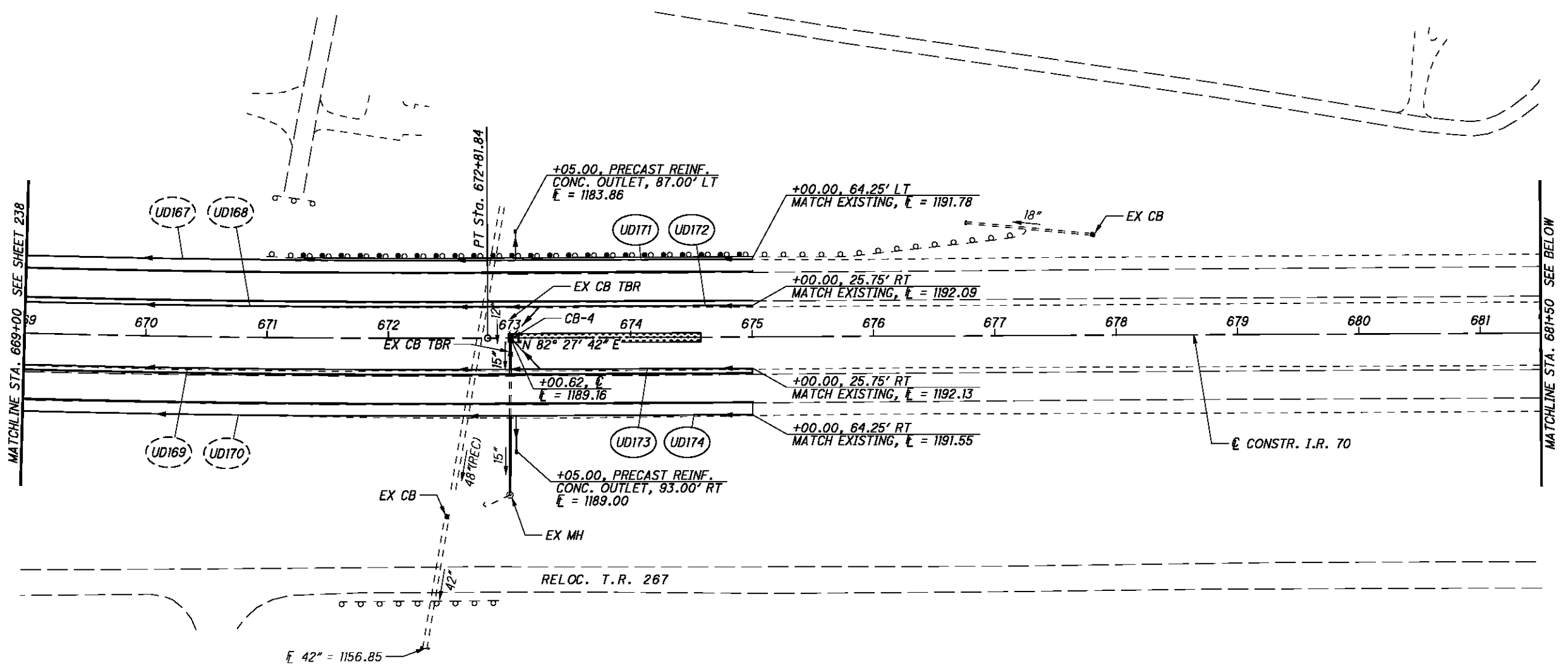


CALCULATED
CDS
CHECKED
BDD

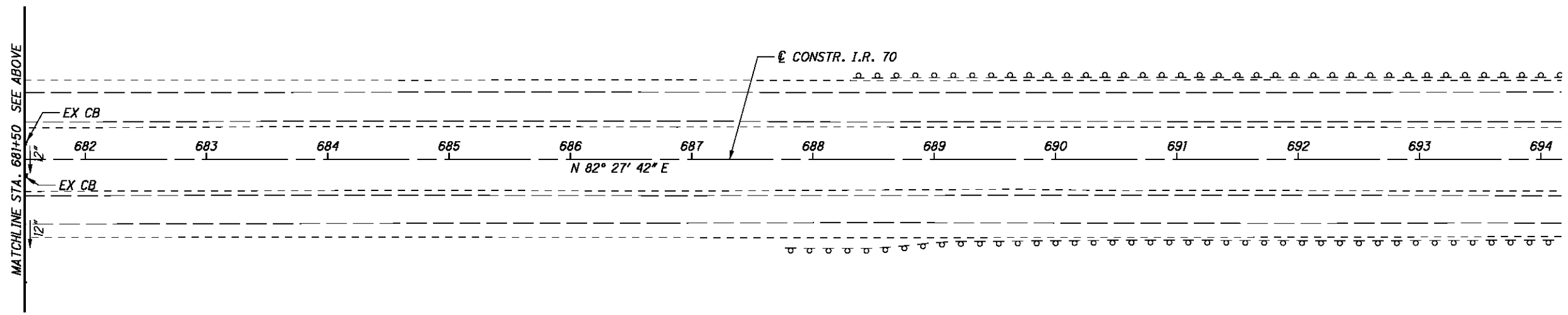
UNDERDRAIN DETAILS
STA. 669+00 TO STA. 694+00

BEL-70-7.61

239
373

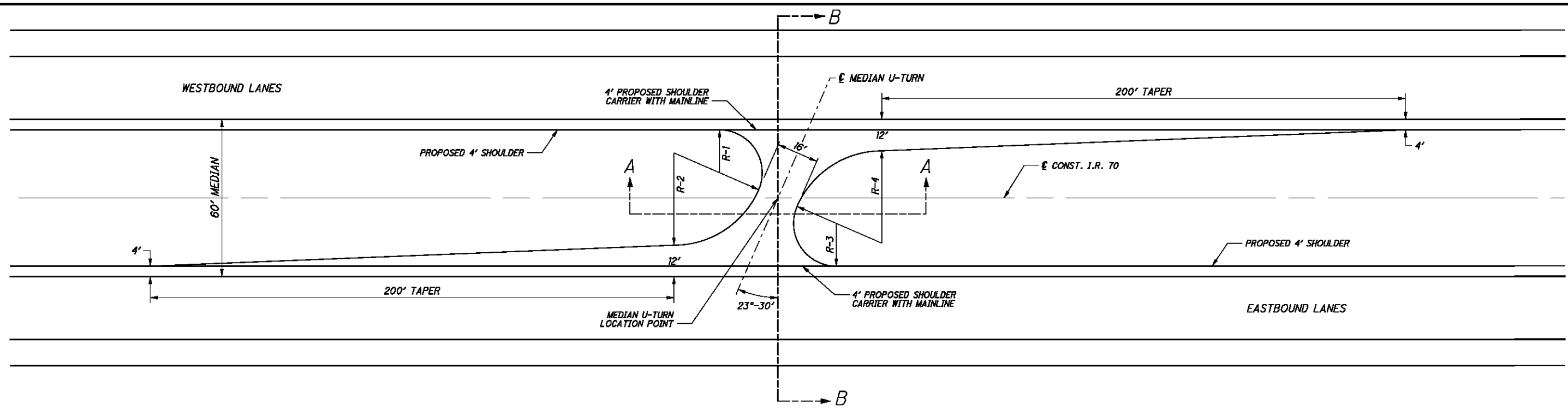


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.

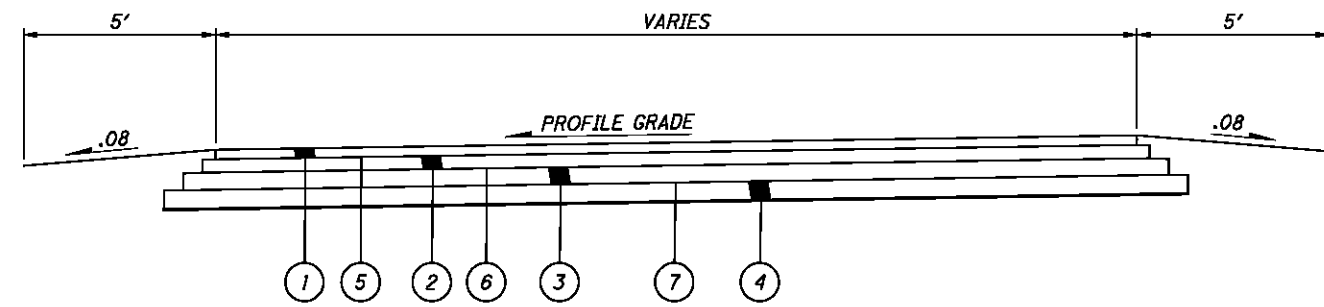


FOR UNDERDRAIN DETAILS, SEE SHEET 223

P:\76825\drainage\sheets\76825DD012.dgn 9/21/2012 7:50:32 AM mcorbett

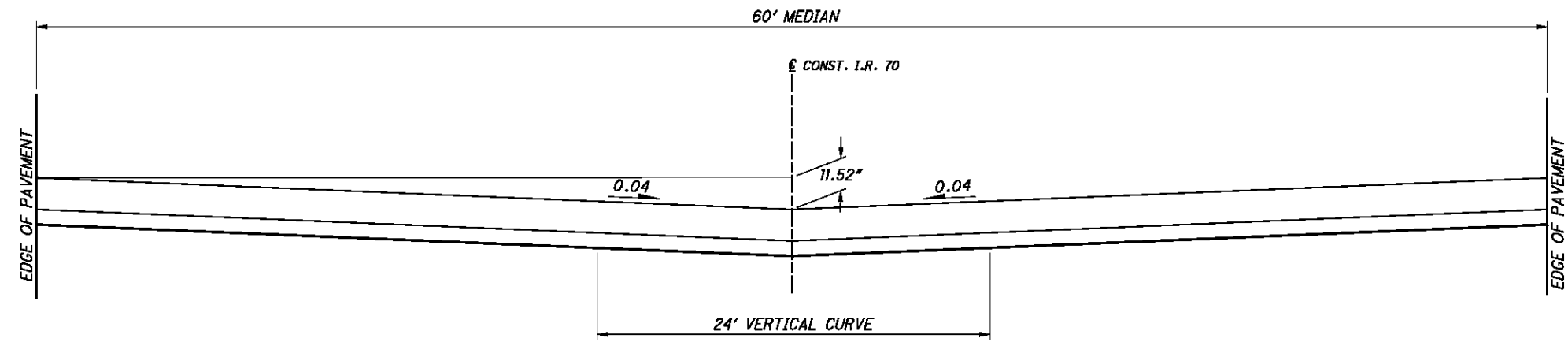


U-TURN STA.	R-1		R-2		R-3		R-4	
	R	CENTER	R	CENTER	R	CENTER	R	CENTER
459+75	16.3'	459+52.71, 9.69' LT	35.2'	459+35.34, 17.24' LT	16.3'	459+97.29, 9.69' RT	35.2'	460+14.66, 17.24' RT
577+50	16.3'	577+27.77, 9.72' LT	35.5'	577+10.25, 17.47' LT	16.3'	577+72.36, 9.66' RT	35.0'	577+89.57, 17.02' RT



- LEGEND**
- ① ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 mm TYPE A (448)
 - ② ITEM 442 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm TYPE A (448)
 - ③ ITEM 302 - 9" ASPHALT CONCRETE BASE, PG64-22
 - ④ ITEM 304 - 6" AGGREGATE BASE
 - ⑤ ITEM 407 - TACK COAT FOR INTERMEDIATE COAT
 - ⑥ ITEM 407 - TACK COAT
 - ⑦ ITEM 408 - PRIME COAT

SECTION A-A



SECTION B-B

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REFERENCE LOCATION SIGNS

THE LOCATION OF REFERENCE LOCATION SIGNS ON THE PLANS ARE APPROXIMATE AND A MORE PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF THE PLANNED DATE OF REFERENCE LOCATION SIGN INSTALLATION. THE ENGINEER WILL CONTACT THE OFFICE OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF REFERENCE LOCATION SIGNS BY MEANS OF A PAINT MARK ON THE PAVEMENT EDGE. ALTERNATE MARKS WILL NOT BE PROVIDED ON DIVIDED HIGHWAYS AND THE CONTRACTOR SHALL SET REFERENCE LOCATION SIGNS FOR THE OPPOSITE ROADWAY ACROSS FROM THE PROVIDED MARK. DELINEATORS WHOSE NORMAL POSITION FALLS WITHIN 50 FEET OF A REFERENCE LOCATION SIGN SHALL BE OMITTED.

ITEM 630 SIGN, EXTRUSHEET GUIDE

THE DESIGNABLE EXTRUSHEET GUIDE SIGNS SHOWN IN THIS PLAN WERE DESIGNED USING THE FHWA STANDARD HIGHWAY ALPHABETS. THE CONTRACTOR SHALL USE CLEARVIEW FONTS FOR THESE SIGNS AS REQUIRED IN SECTION 630.04 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. DO NOT REVISE OVERALL SIGN SIZES FROM WHAT IS SHOWN IN THE PLANS. THE EDGE SPACE BETWEEN THE BORDER AND THE TEXT MAY BE REDUCED FROM WHAT IS NORMALLY ACCEPTABLE TO ACHIEVE THE SIGN WIDTHS SHOWN. IF THIS RESULTS IN CROWDING OF THE BORDER, A SLIGHT REDUCTION IN INTER-LETTER AND INTER-WORD SPACING MAY BE USED.

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CALCULATED
CDS
CHECKED
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TRAFFIC CONTROL GENERAL NOTES

BEL-70-7.61

241
373

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SHEET NUMBER										PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		243		247													
		622										621	00100	622	EACH	RPM	
				857								630	03100	857	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
				58								630	04100	58	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
				72								630	06100	72	FT	GROUND MOUNTED SUPPORT, NO. 6 POST	
				201								630	06400	201	FT	GROUND MOUNTED SUPPORT, S4X7.7 BEAM	
				297								630	06500	297	FT	GROUND MOUNTED SUPPORT, W6X9 BEAM	
				144								630	07000	144	FT	GROUND MOUNTED SUPPORT, W8X18 BEAM	
				103								630	07500	103	FT	GROUND MOUNTED SUPPORT, W10X22 BEAM	
				438								630	07600	438	FT	GROUND MOUNTED SUPPORT, W10X12 BEAM	
				439								630	08000	439	FT	GROUND MOUNTED SUPPORT, W12X30 BEAM	
				34								630	09000	34	EACH	BREAKAWAY BEAM CONNECTION	
				478								630	80100	478	SQ FT	SIGN, FLAT SHEET	
				2918								630	80200	2918	SQ FT	SIGN, GROUND MOUNTED EXTRUSHEET	
				10								630	81000	10	EACH	MAINLINE REFERENCE MARKER	
				25								630	82000	25	EACH	SIGN BACKING ASSEMBLY	
				72								630	84500	72	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
				94								630	84900	94	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				51								630	85400	51	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
				67								630	86002	67	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
				67								630	86102	67	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL	
		22.7										646	10000	22.7	MILE	EDGE LINE	
		10.51										646	10100	10.51	MILE	LANE LINE	
		4603										646	10300	4603	FT	CHANNELIZING LINE	
		141										646	10400	141	FT	STOP LINE	

CALCULATED MJC CHECKED BBD
TRAFFIC CONTROL GENERAL SUMMARY
BEL-70-7.61
 242
 373

STATION	DIRECTION	SIDE	CODE	SIZE (INCHES)	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630				
					GROUND MOUNTED SUPPORT, NO. 3 POST FT.	GROUND MOUNTED SUPPORT, NO. 4 POST FT.	GROUND MOUNTED SUPPORT, NO. 6 POST FT.	BREAKAWAY BEAM CONNECTION EACH	GROUND MOUNTED SUPPORT, S4X7.7 BEAM FT.	GROUND MOUNTED SUPPORT, W6X9 BEAM FT.	GROUND MOUNTED SUPPORT, W8X18 BEAM FT.	GROUND MOUNTED SUPPORT, W10X22 BEAM FT.	GROUND MOUNTED SUPPORT, W10X12 BEAM FT.	GROUND MOUNTED SUPPORT, W12X30 BEAM FT.	SIGN, FLAT SHEET SQ.FT.	SIGN, GROUND MOUNTED EXTRUSHEET SQ.FT.	MAINLINE REFERENCE MARKER EACH	SIGN BACKING ASSEMBLY EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL EACH					
RAMP C, 0+57	WB	LT	R5-1-36	36 X 36	29										9.00									2	2			
RAMP C, 4+62	WB	LT	RI-1-36	36 X 36		2									9.00									3	2	6	2	2
			M1-5-30-3	30 X 24											6.00													
			M6-4-21	21 X 15											5.00													
			M4-5-24	24 X 12											2.19													
			M1-4-24	24 X 24											2.00													
			M6-1R-21	21 X 15											4.00													
			D1-H6A-132	132 X 48											2.19													
			D1-H6A-132	132 X 48											44.00													
RAMP C, 4+80	WB	RT	R5-1A-36	36 X 24	27									6.00										1	2			
RAMP D, 12+60	WB	RT	R5-H10D-36	36 X 36	29										9.00									1	2			
RAMP D, 13+55	WB	LT	D7-H4-72	72 X 24			33.9								2.25											7	2	
			D9-9-18	18 X 18											1.00													
			I-H12-24	24 X 6											2.25													
			D9-3A-18	18 X 18											1.00													
			I-H12-24	24 X 6											6.00													
			D7-H4-72	72 X 12											12.00													
RAMP D, 13+58	WB	LT	D9-11-18	18 X 18	14.0									2.25										3	1			
RAMP D, 13+58	WB	LT	D9-8-18	18 X 18										2.25														
RAMP D, 13+58	WB	LT	I-H12-24	24 X 6										1.00														
RAMP F, 19+00	WB	LT&RT	R5-1-36	36 X 36	58										18.00										2	4		
SR 149, 115+00	NB	RT	M2-1-21	21 X 15										2.19												1	1	
			M1-1-24-2	24 X 24										4.00														
SR 149, 118+00	NB	RT	M2-H4-108	108 X 30				2	28.8						22.50									2	1	2		
SR 149, 122+07.50	NB	RT	D1-H6A-132	132 X 48				2	32.8						44.00									2	1	2		
SR 149, 124+86	NB	RT	R7-1-12	12 X 18	12.0										1.50									1	1			
SR 149, 125+02	NB	LT	R7-1-12	12 X 18	12.0										1.50									1	1			
SR 149, 125+02	NB	LT	E6-2A-72	72 X 66				2	41.5						33.00									2	1	2		
SR 149, 126+00	NB	RT	M2-H4-108	108 X 30				2	28.8						22.50									2	1	2		
SR 149, 130+51	SB	LT	M2-H4-108	108 X 30				2	35.9						22.50									2	1	2		
SR 149, 131+59	SB	RT	E6-2A-72	72 X 66				2	41.5						33.00									2	1	2		
SR 149, 134+10	SB	LT	D1-H6A-132	132 X 48				2	36.2						44.00									2	1	2		
SR 149, 139+15	SB	LT	M2-H4-108	108 X 30				2	35.9						22.50									2	1	2		
SR 149, 140+70	SB	LT	M2-1-21	21 X 15										2.19											1	1		
			M1-1-24-2	24 X 24										4.00														

CALCULATED		CDS	CHECKED	BBD
SIGNING SUBSUMMARY				
BEL-70-7.61				
(245)				
(373)				

SUBTOTALS THIS SHEET

181 28 34 18 130 152 0 56 0 0 118 332 0 3 18 28 10 17 18

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Table with 25 columns: STATION, DIRECTION, SIDE, CODE, SIZE (INCHES), and 20 material categories (e.g., GROUND MOUNTED SUPPORT, BREAKAWAY BEAM CONNECTION, etc.). Rows include station locations from 418+31.00 to 662+32.97 and a SUBTOTALS THIS SHEET row.

SIGNING SUBSUMMARY

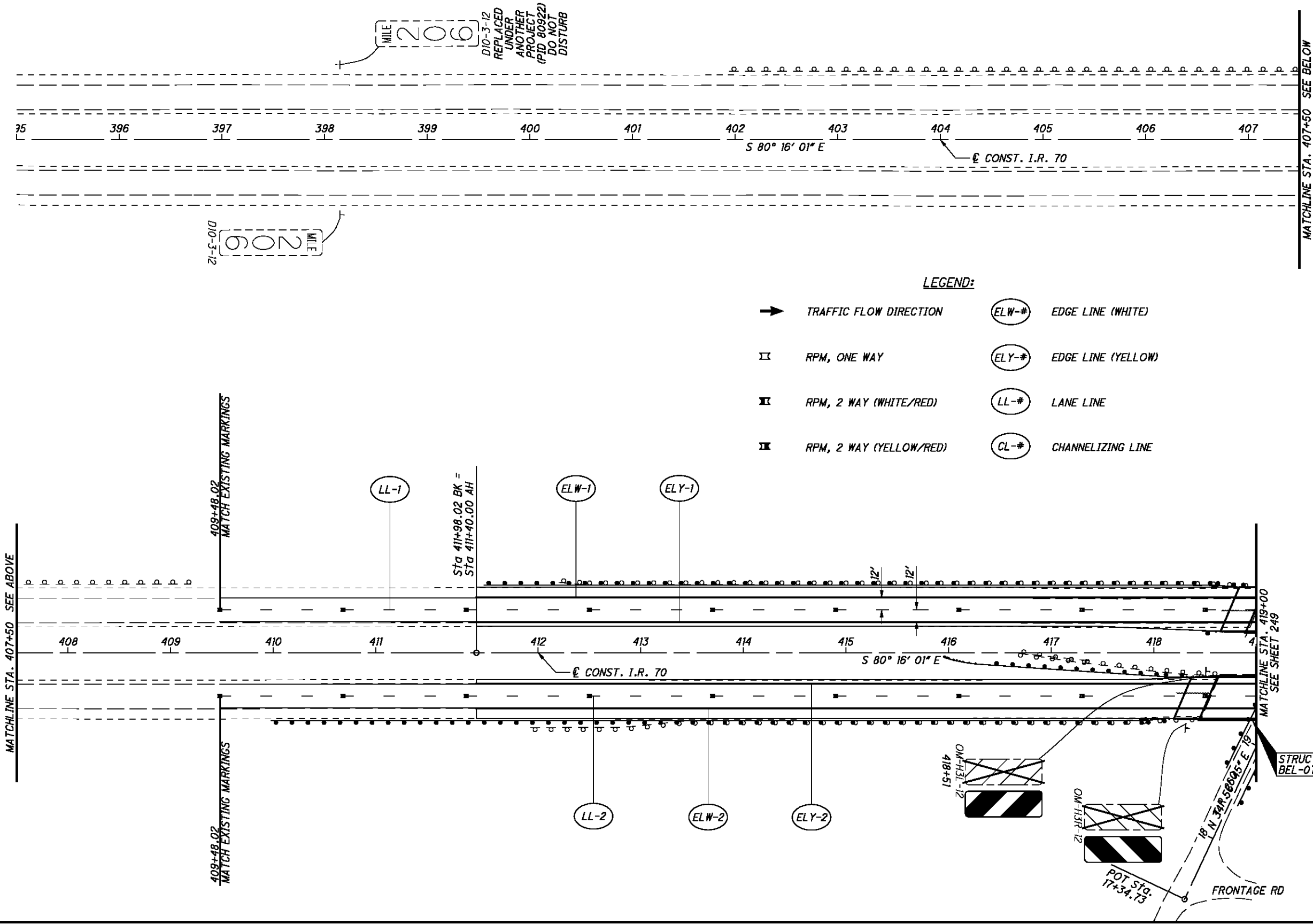
CALCULATED
CDS
CHECKED
BBD

BEL-70-7.61

246
373

STATION	DIRECTION	SIDE	CODE	SIZE (INCHES)	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630			
					GROUND MOUNTED SUPPORT, NO. 3 POST FT.	GROUND MOUNTED SUPPORT, NO. 4 POST FT.	GROUND MOUNTED SUPPORT, NO. 6 POST FT.	BREAKAWAY BEAM CONNECTION EACH	GROUND MOUNTED SUPPORT, SAX7.7 BEAM FT.	GROUND MOUNTED SUPPORT, W6X9 BEAM FT.	GROUND MOUNTED SUPPORT, WBX18 BEAM FT.	GROUND MOUNTED SUPPORT, W10X22 BEAM FT.	GROUND MOUNTED SUPPORT, W10X12 BEAM FT.	GROUND MOUNTED SUPPORT, W12X30 BEAM FT.	SIGN, FLAT SHEET SQ.FT.	SIGN, GROUND MOUNTED EXTRUSHEET SQ.FT.	MAINLINE REFERENCE MARKER EACH	SIGN BACKING ASSEMBLY EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL EACH		
RAMP A																									
13+50.00	EB	RT	M4-5-24	24 X 12				2		46.2					2.00			2	2	7	2	2			
			M1-4-24	24 X 24					4.00																
			M6-1L-21	21 X 15					2.19																
			M1-5-30-3	30 X 24					5.00																
			M6-4-21	21 X 15					2.19																
			D1-H6A-132	132 X 48					44.00																
12+85.00	EB	LT&RT	R5-1A-36	36 X 24	27									6.00							1	2			
15+43.00	EB	LT	R6-1L-36	36 X 12	15.5									3.00							3	2			
			R6-1R-36	36 X 12								3.00													
			R5-1-36	36 X 36								9.00													
15+49.00	EB	RT	R5-1-36	36 X 36	29									9.00							2	2			
R5-1-36	36 X 36													9.00											
RAMP B																									
0+47.00	EB	RT	D7-H2-72	72 X 24	37.9																				
			D9-9-18	18 X 18								2.25													
			I-H12-24	24 X 6								1.00													
			D9-3A-18	18 X 18								2.25												7	2
			I-H12-24	24 X 6								1.00													
			D7-H4-72	72 X 12								6.00													
0+46.00	EB	RT	D9-11-18	18 X 18	13																				
			D9-8-18	18 X 18							2.25												3	1	
			I-H12A-24	24 X 6							1.00														
1+29.00	EB	RT	R5-H10D-36	36 X 36	29									9.00							1	2			
RAMP C																									
0+52.00	WB	LT	R6-1L-36	36 X 12	29										3.00										
			R6-1R-36	36 X 12								3.00													
			R5-1-36	36 X 36								9.00												3	2
RAMP E																									
6+00.00	EB	LT	R7-1-12	12 X 18	13										1.50							1	1		
6+07.00	EB	RT	R5-1A-36	36 X 24	27										6.00							1	2		
			D5-H22-48	36 X 24							6.00												1		
6+11.00	EB	LT	R5-1A-36	36 X 24	27										6.00							1	2		
8+00.00	EB	LT	R7-1-12	12 X 18	13										1.50							1	1		
8+86.00	EB	LT	R5-1-36	36 X 36	29										9.00							1	2		
8+86.00	EB	RT	R5-1-36	36 X 36	29										9.00							1	2		
SUBTOTALS THIS SHEET					281	0	38	2	0	0	47	0	0	0	148	88	0	2	2	34	2	23	2		
SUBTOTALS FROM SHEET 244					218	15	0	6	35	70	51	0	214	240	118	1291	5	10	26	17	19	14	24		
SUBTOTALS FROM SHEET 245					181	28	34	18	130	152	0	56	0	0	118	332	0	3	18	28	10	17	18		
SUBTOTALS FROM SHEET 246					177	15	0	8	36	75	46	47	224	199	94	1207	5	10	26	15	20	13	23		
TOTALS CARRIED TO GENERAL SUMMARY					857	58	72	34	201	297	144	103	438	439	478	2918	10	25	72	94	51	67	67		

CALCULATED	CDS	CHECKED	BBD
SIGNING SUBSUMMARY			
BEL-70-7.61			
(247)			
(373)			



MILE 206
D10-3-12

MILE 206
D10-3-12
REPLACED
UNDER
ANOTHER
PROJECT
(PID: 80922)
DO NOT
DISTURB

LEGEND:

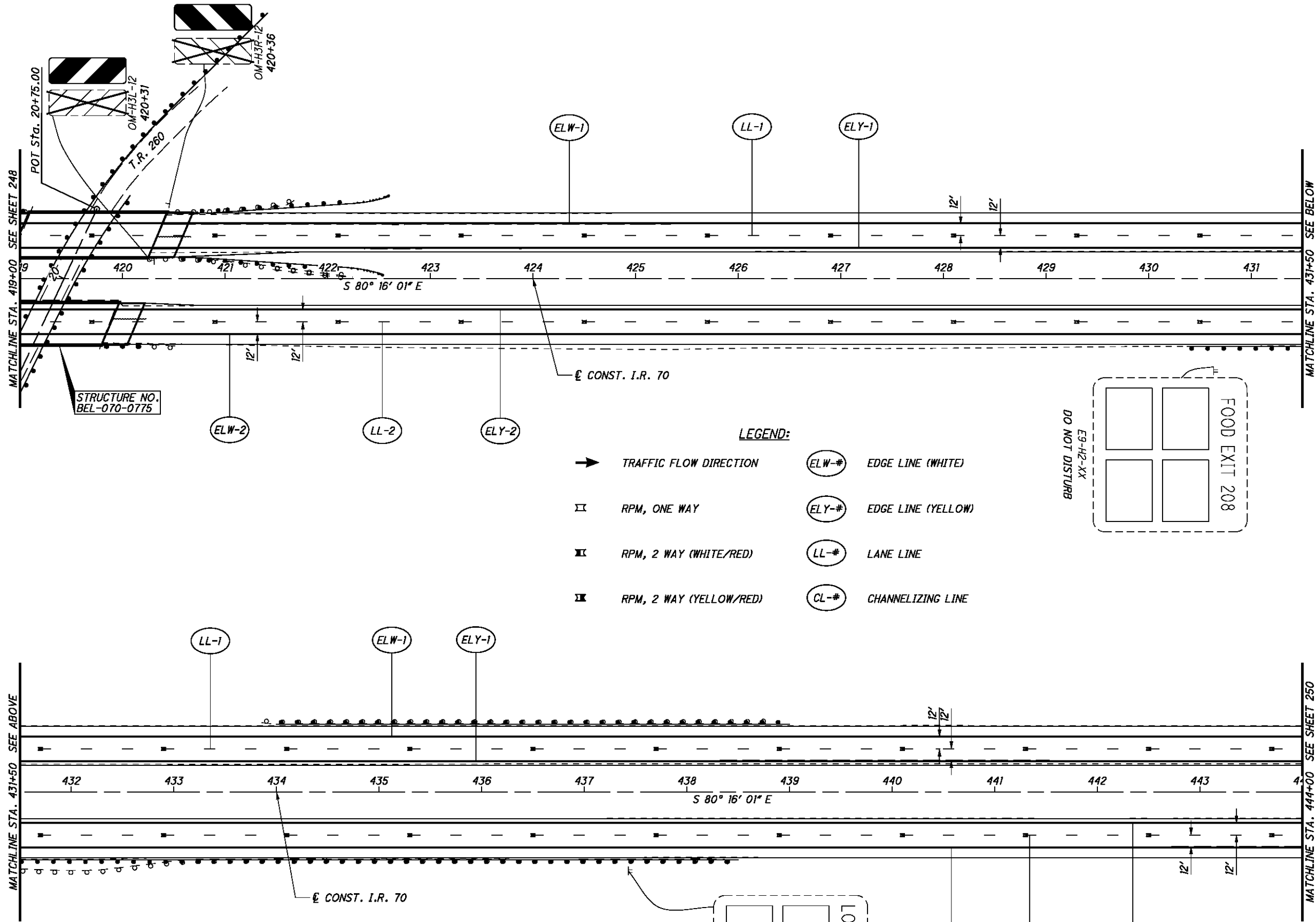
- ➔ TRAFFIC FLOW DIRECTION
- ⊏ RPM, ONE WAY
- ⊏ RPM, 2 WAY (WHITE/RED)
- ⊏ RPM, 2 WAY (YELLOW/RED)
- ELW-# EDGE LINE (WHITE)
- ELY-# EDGE LINE (YELLOW)
- LL-# LANE LINE
- CL-# CHANNELIZING LINE

CALCULATED
MJC
CHECKED
BBD

0 25 50 100
HORIZONTAL
SCALE IN FEET

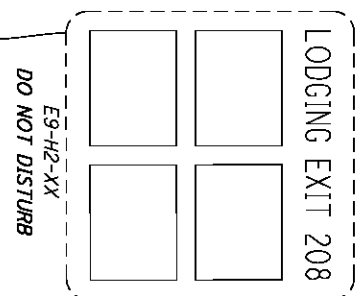
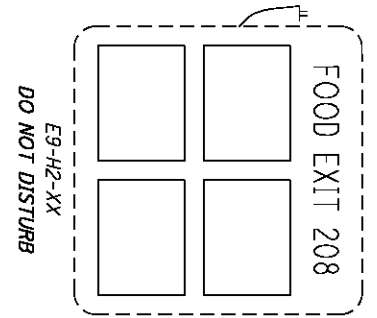
SIGNING AND PAVEMENT MARKING PLAN
STA. 395+00 TO STA. 419+00

BEL-70-7.61



LEGEND:

➔	TRAFFIC FLOW DIRECTION	(ELW-#)	EDGE LINE (WHITE)
⊏	RPM, ONE WAY	(ELY-#)	EDGE LINE (YELLOW)
⊏	RPM, 2 WAY (WHITE/RED)	(LL-#)	LANE LINE
⊏	RPM, 2 WAY (YELLOW/RED)	(CL-#)	CHANNELIZING LINE

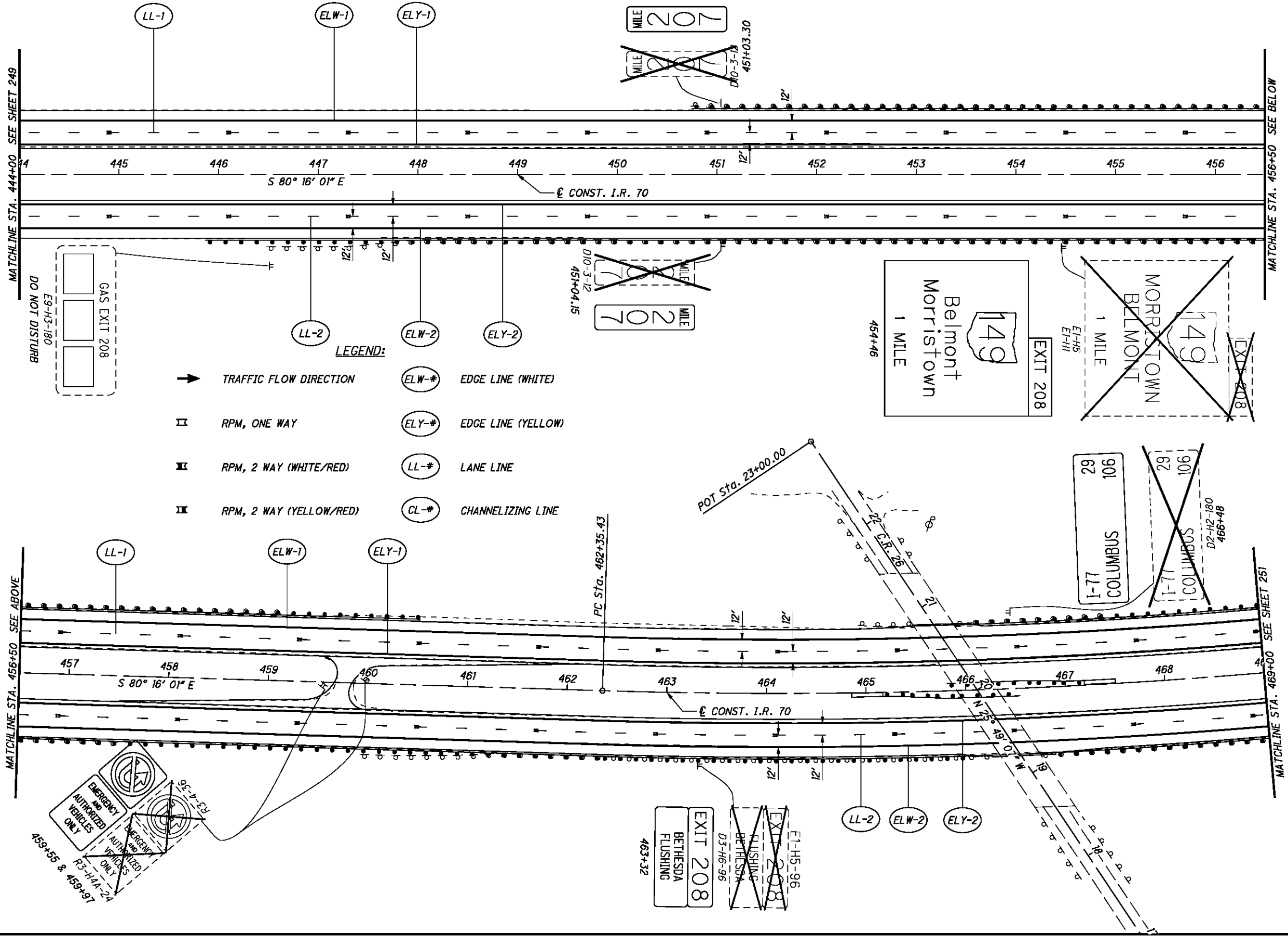


CALCULATED
MJC
CHECKED
BBD

0 50 100
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 419+00 TO STA. 444+00

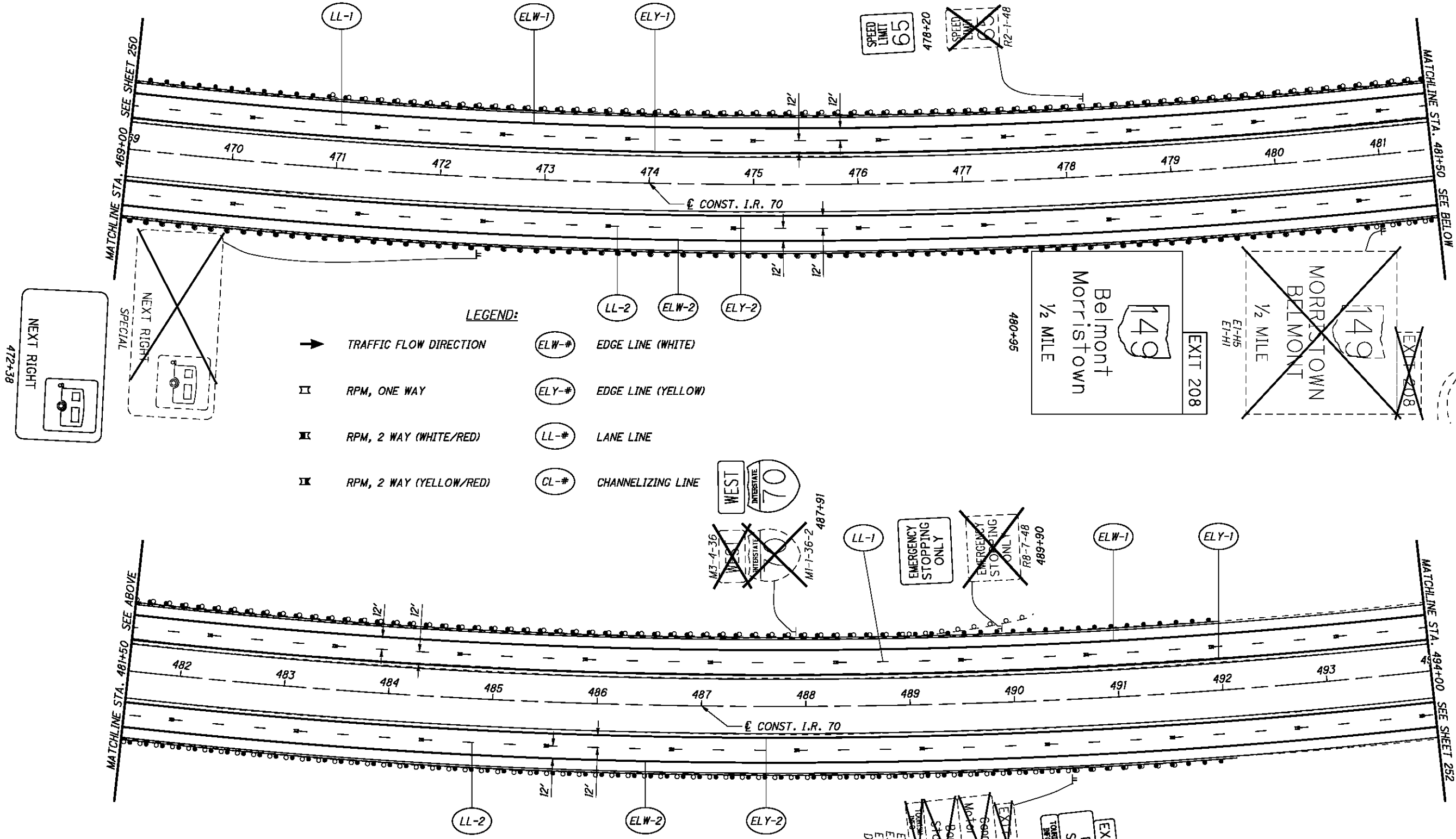
BEL-70-7.61



CALCULATED
MJC
CHECKED
BBD

0 50 100
HORIZONTAL SCALE IN FEET

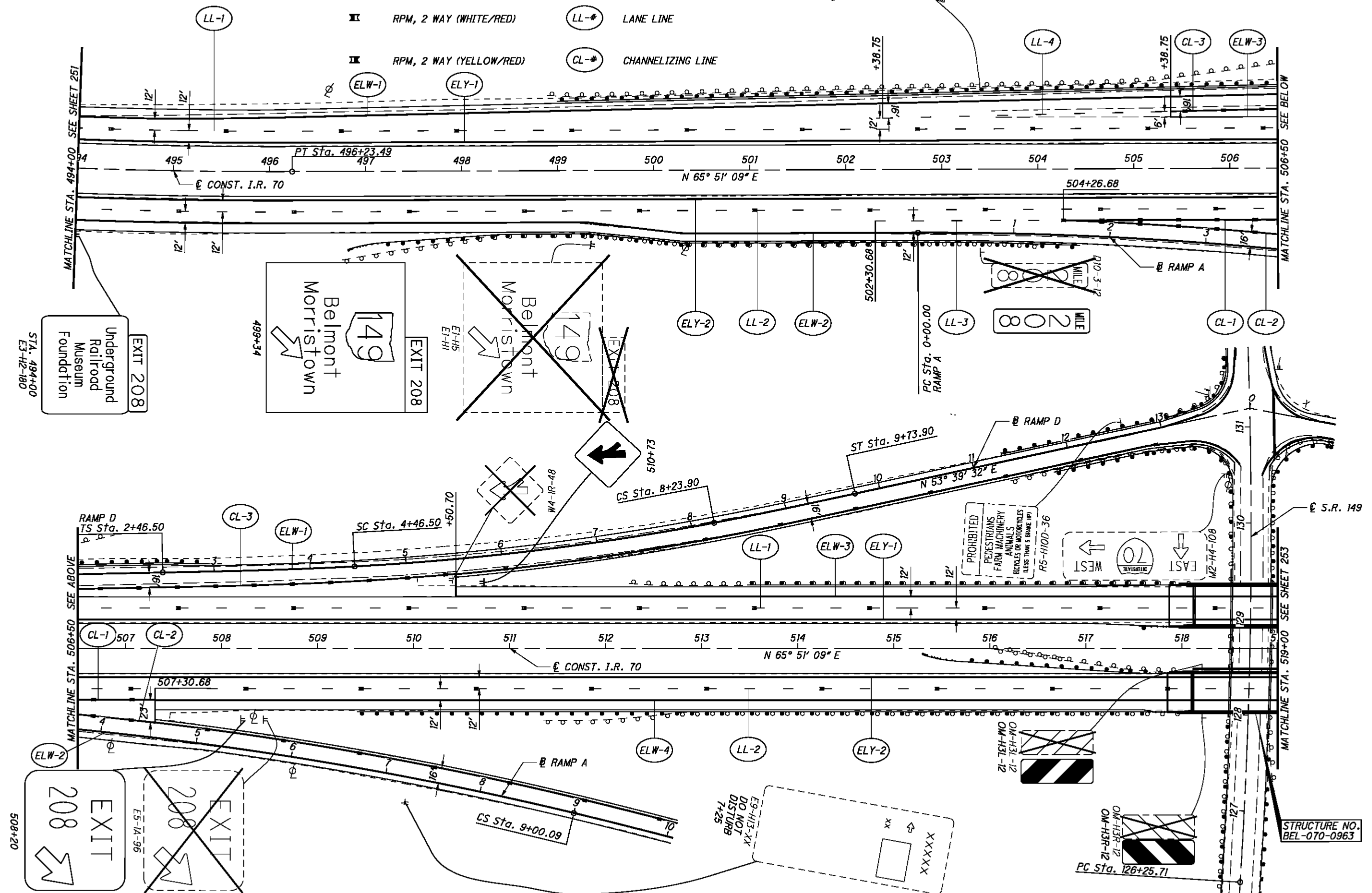
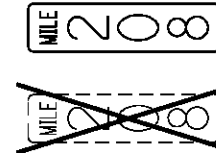
SIGNING AND PAVEMENT MARKING PLAN
STA. 444+00 TO STA. 469+00



FOR RAMP SIGNING AND MARKING DETAILS, SEE SHEET 260

LEGEND:

- ➔ TRAFFIC FLOW DIRECTION
- ⊥ RPM, ONE WAY
- ⊥ RPM, 2 WAY (WHITE/RED)
- ⊥ RPM, 2 WAY (YELLOW/RED)
- ELW-# EDGE LINE (WHITE)
- ELY-# EDGE LINE (YELLOW)
- LL-# LANE LINE
- CL-# CHANNELIZING LINE



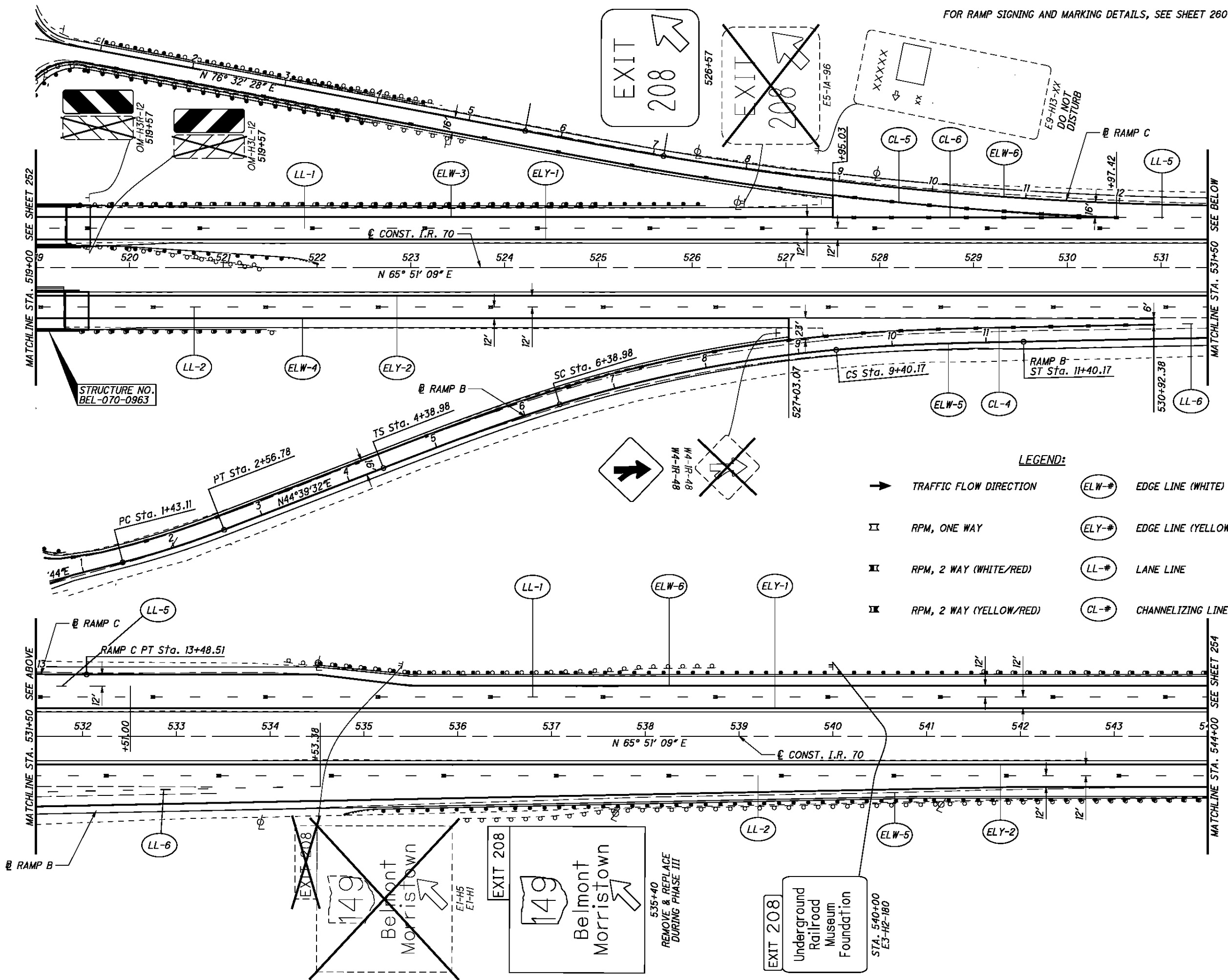
CALCULATED MJC CHECKED BBD

0 50 100
25
HORIZONTAL SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 494+00 TO STA. 519+00

BEL-70-7.61

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FOR RAMP SIGNING AND MARKING DETAILS, SEE SHEET 260

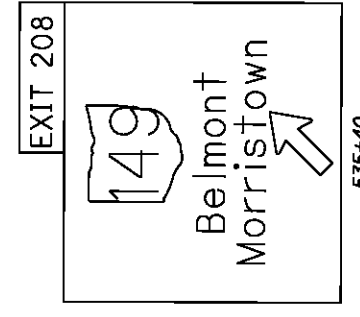
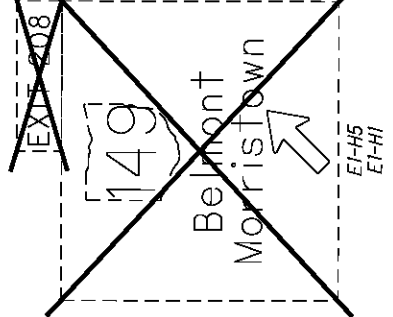
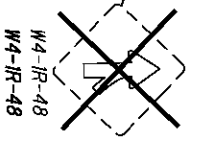
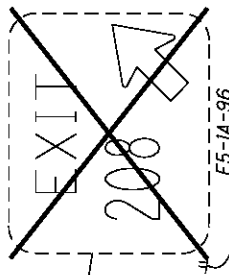
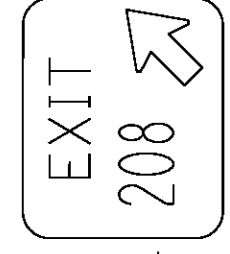
MATCHLINE STA. 519+00 SEE SHEET 252

MATCHLINE STA. 531+50 SEE BELOW

MATCHLINE STA. 531+50 SEE ABOVE

MATCHLINE STA. 544+00 SEE SHEET 254

STRUCTURE NO.
BEL-070-0963



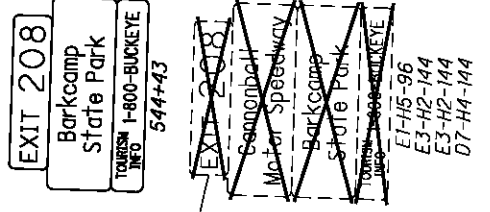
LEGEND:

- ➔ TRAFFIC FLOW DIRECTION
- ➔ RPM, ONE WAY
- ➔ RPM, 2 WAY (WHITE/RED)
- ➔ RPM, 2 WAY (YELLOW/RED)
- ELW-# EDGE LINE (WHITE)
- ELY-# EDGE LINE (YELLOW)
- LL-# LANE LINE
- CL-# CHANNELIZING LINE

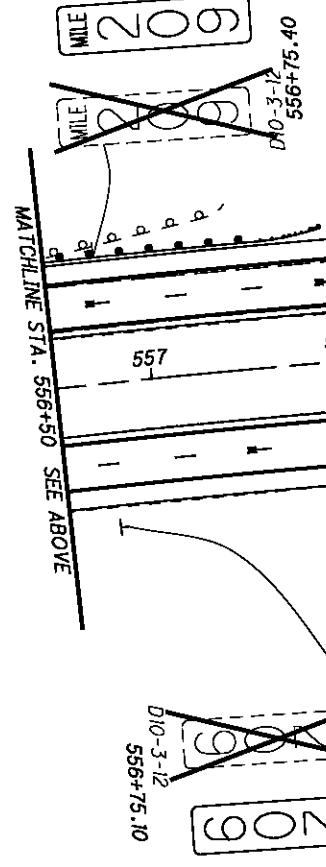


SIGNING AND PAVEMENT MARKING PLAN
STA. 519+00 TO STA. 544+00

BEL-70-7.61



- LEGEND:**
- TRAFFIC FLOW DIRECTION
 - RPM, ONE WAY
 - RPM, 2 WAY (WHITE/RED)
 - RPM, 2 WAY (YELLOW/RED)
 - ELW-# EDGE LINE (WHITE)
 - ELY-# EDGE LINE (YELLOW)
 - LL-# LANE LINE
 - CL-# CHANNELIZING LINE



0 50 100

 HORIZONTAL

 SCALE IN FEET

CALCULATED

 MJC

 CHECKED

 BBD

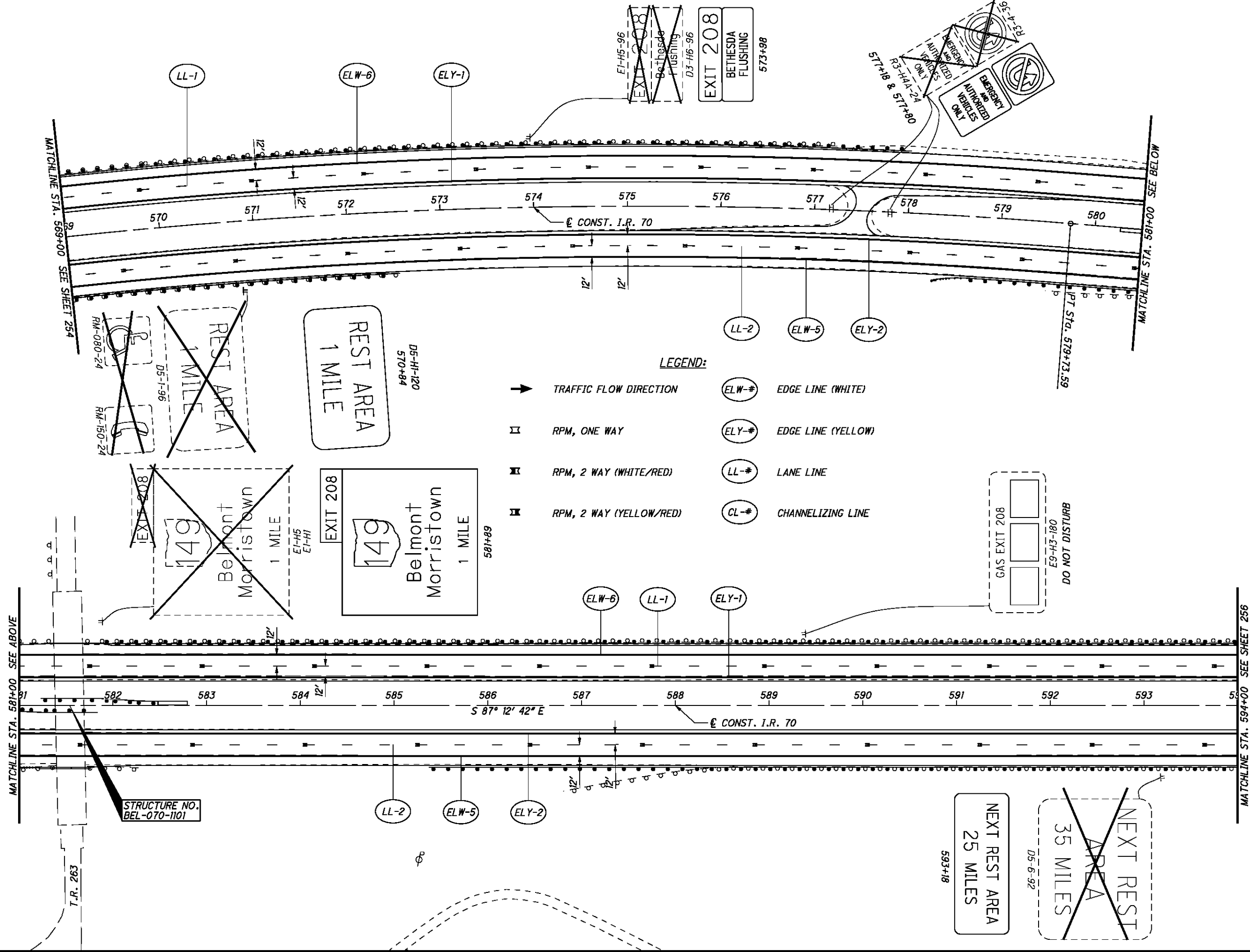
SIGNING AND PAVEMENT MARKING PLAN

STA. 544+00 TO STA. 569+00

BEL-70-7.61

254

373

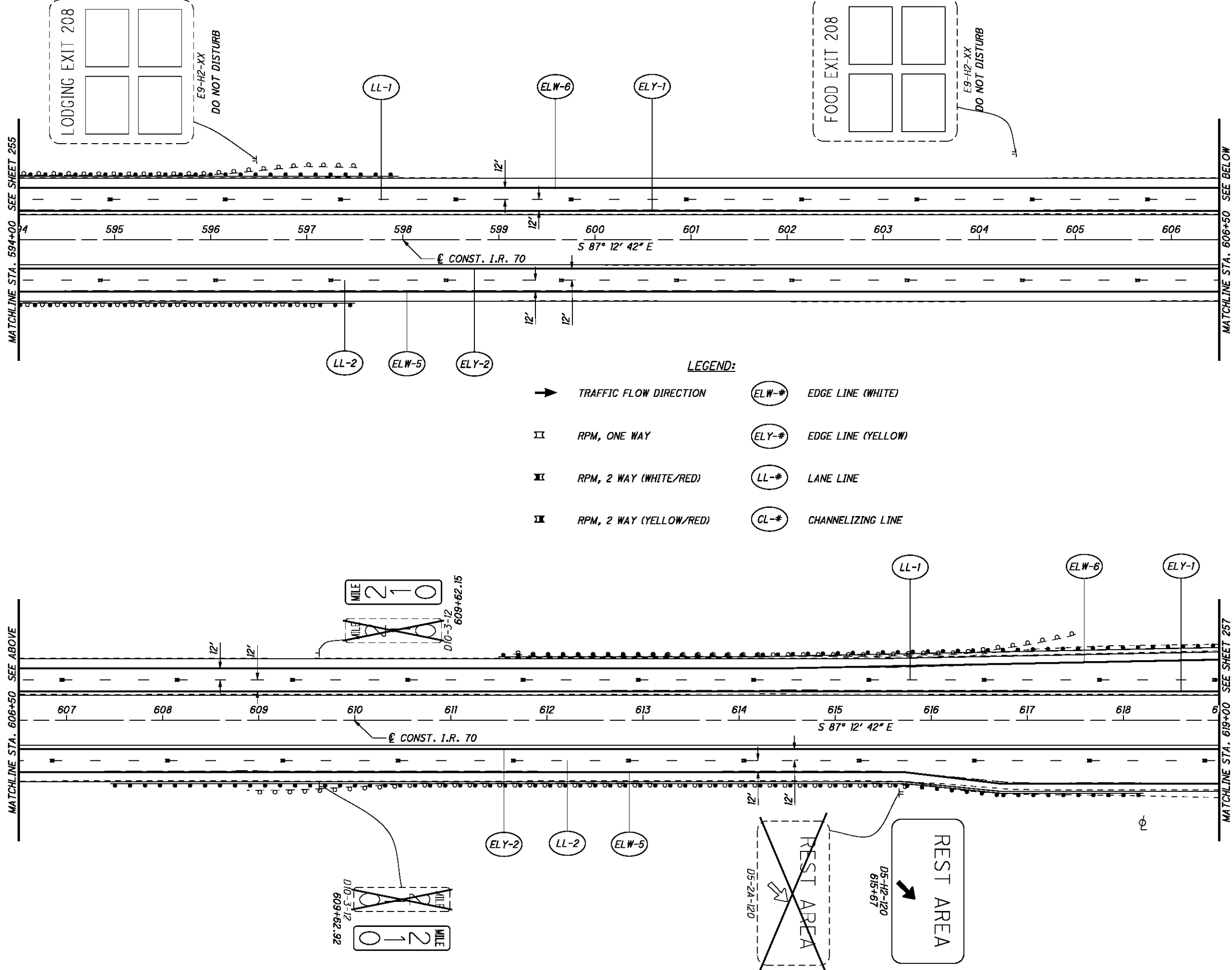


- LEGEND:**
- ➔ TRAFFIC FLOW DIRECTION
 - ▤ RPM, ONE WAY
 - ▥ RPM, 2 WAY (WHITE/RED)
 - ▧ RPM, 2 WAY (YELLOW/RED)
 - ELW-# EDGE LINE (WHITE)
 - ELY-# EDGE LINE (YELLOW)
 - LL-# LANE LINE
 - CL-# CHANNELIZING LINE

CALCULATED MJC
CHECKED BBD

0 25 50 100
HORIZONTAL SCALE IN FEET

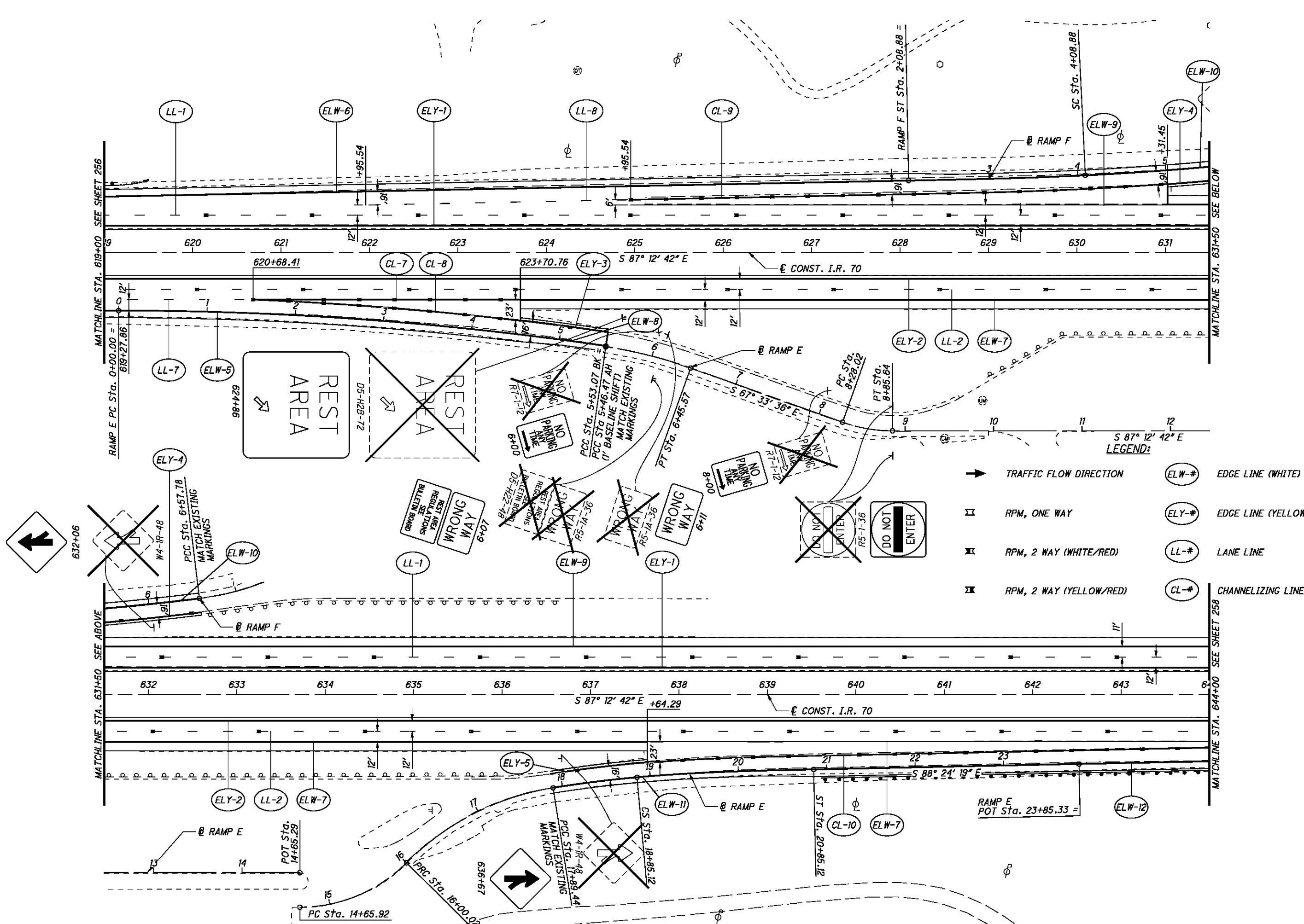
SIGNING AND PAVEMENT MARKING PLAN
STA. 569+00 TO STA. 594+00



CALCULATED
MJC
CHECKED
BBD

0 50 100
25
HORIZONTAL
SCALE IN FEET

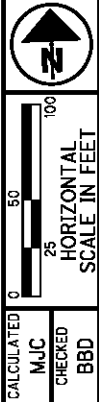
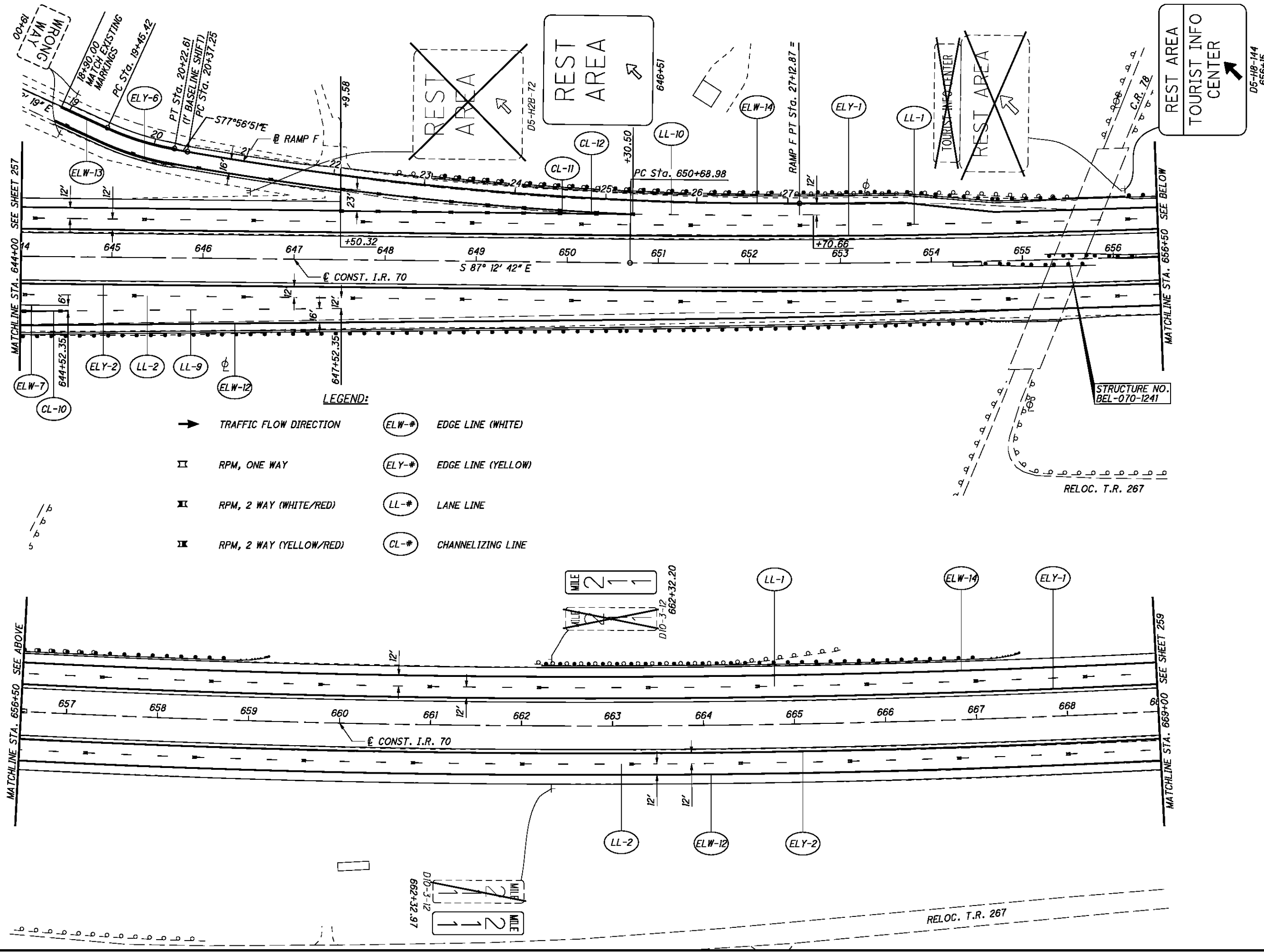
SIGNING AND PAVEMENT MARKING PLAN
STA. 594+00 TO STA. 619+00



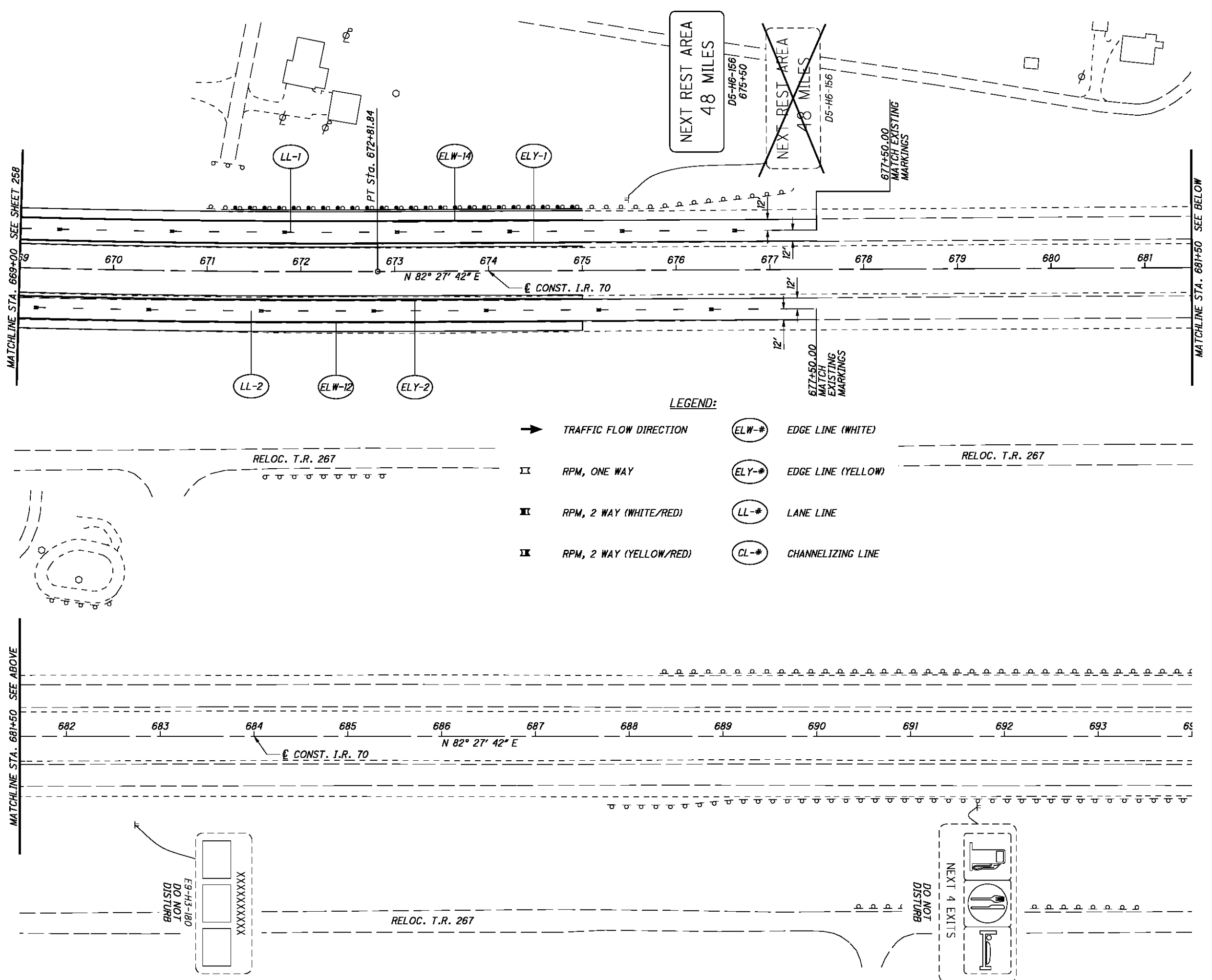
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MJC
CHECKED
BBD

0 50 100
25
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 619+00 TO STA. 644+00



SIGNING AND PAVEMENT MARKING PLAN
STA. 644+00 TO STA. 669+00



LEGEND:

➔	TRAFFIC FLOW DIRECTION	○ ELW-#	EDGE LINE (WHITE)
▬▬▬	RPM, ONE WAY	○ ELY-#	EDGE LINE (YELLOW)
▬▬▬▬	RPM, 2 WAY (WHITE/RED)	○ LL-#	LANE LINE
▬▬▬▬▬	RPM, 2 WAY (YELLOW/RED)	○ CL-#	CHANNELIZING LINE

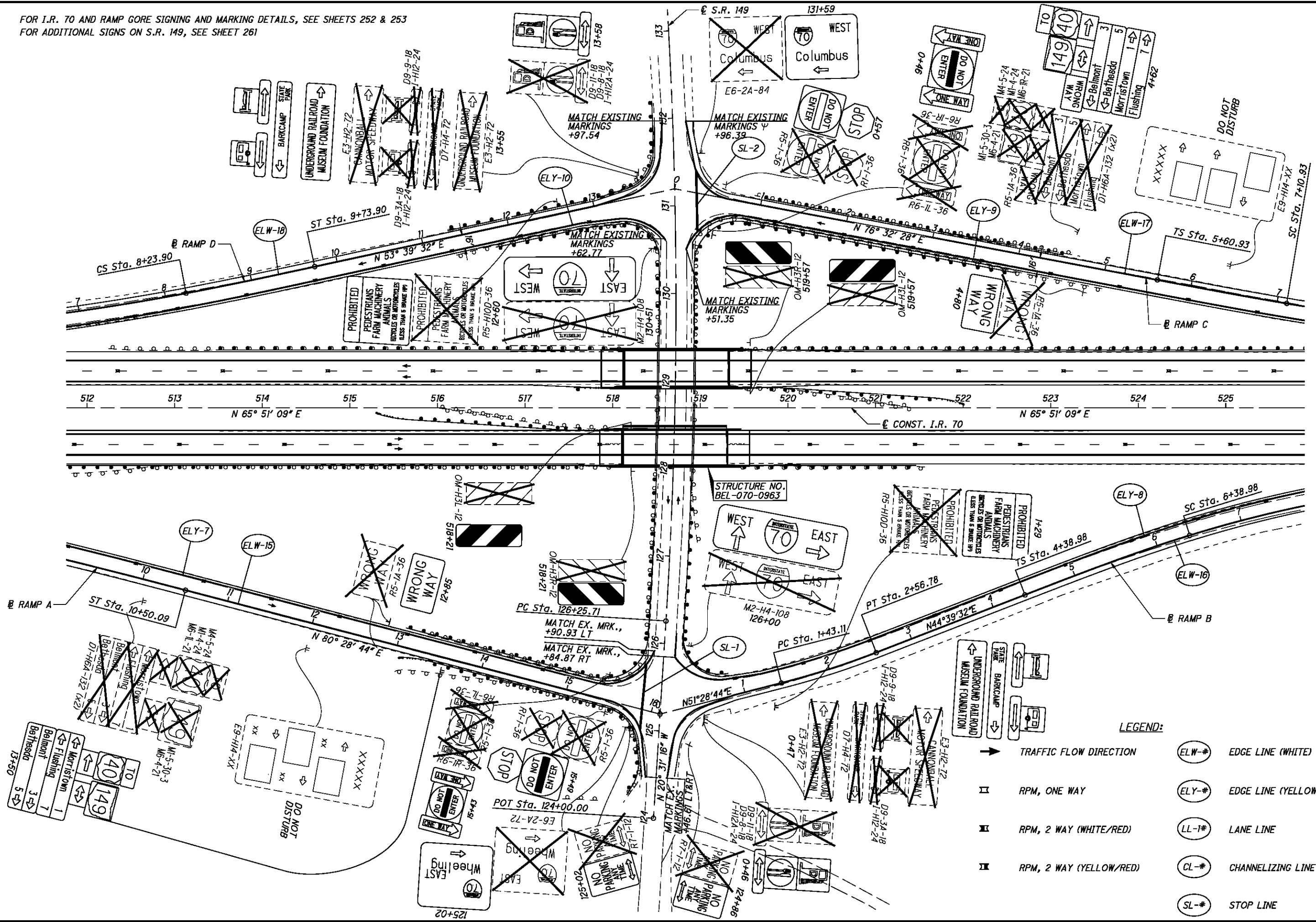
CALCULATED
MJC
CHECKED
BBD

0 50 100
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 669+00 TO STA. 694+00

BEL-70-7.61

FOR I.R. 70 AND RAMP GORE SIGNING AND MARKING DETAILS, SEE SHEETS 252 & 253
 FOR ADDITIONAL SIGNS ON S.R. 149, SEE SHEET 261



SIGNING AND PAVEMENT MARKING PLAN
S.R. 149 INTERCHANGE

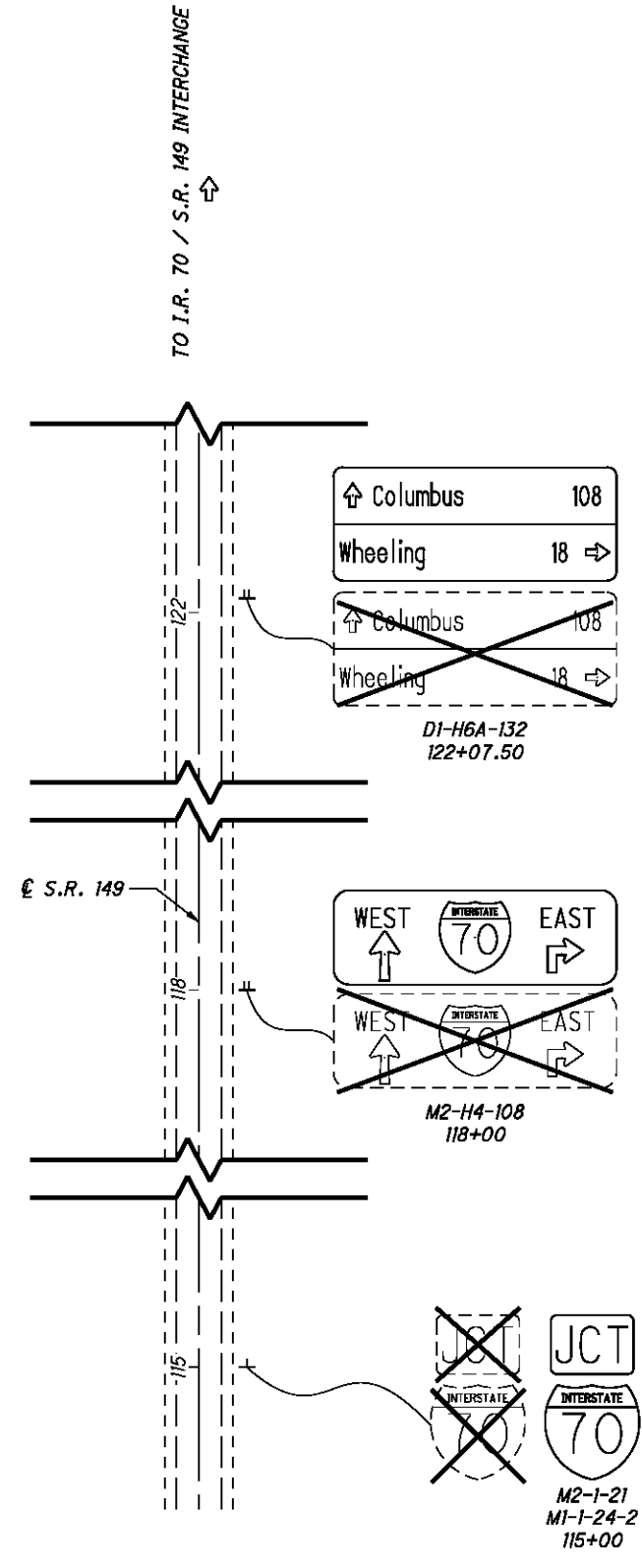
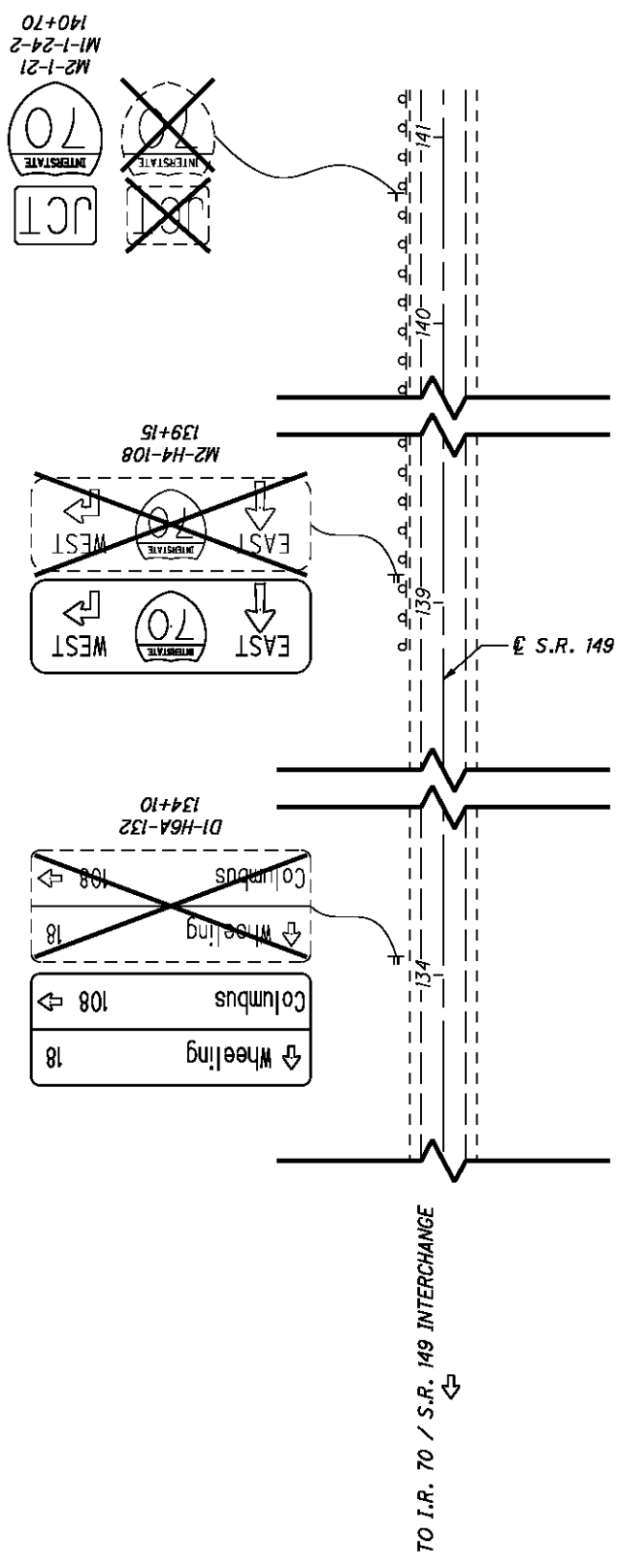
BEL-70-7.61

260
373

CALCULATED MJC CHECKED BBD

- LEGEND:**
- TRAFFIC FLOW DIRECTION
 - ▬ RPM, ONE WAY
 - ▬▬ RPM, 2 WAY (WHITE/RED)
 - ▬▬▬ RPM, 2 WAY (YELLOW/RED)
 - ELW-# EDGE LINE (WHITE)
 - ELY-# EDGE LINE (YELLOW)
 - LL-# LANE LINE
 - CL-# CHANNELIZING LINE
 - SL-# STOP LINE

P:\76825\traffic\sheets\76825TP320.dgn 9/21/2012 7:50:45 AM mcorneet

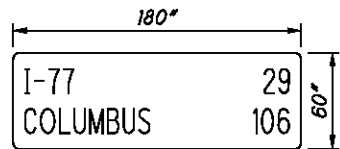


CALCULATED
MJC
CHECKED
BBD

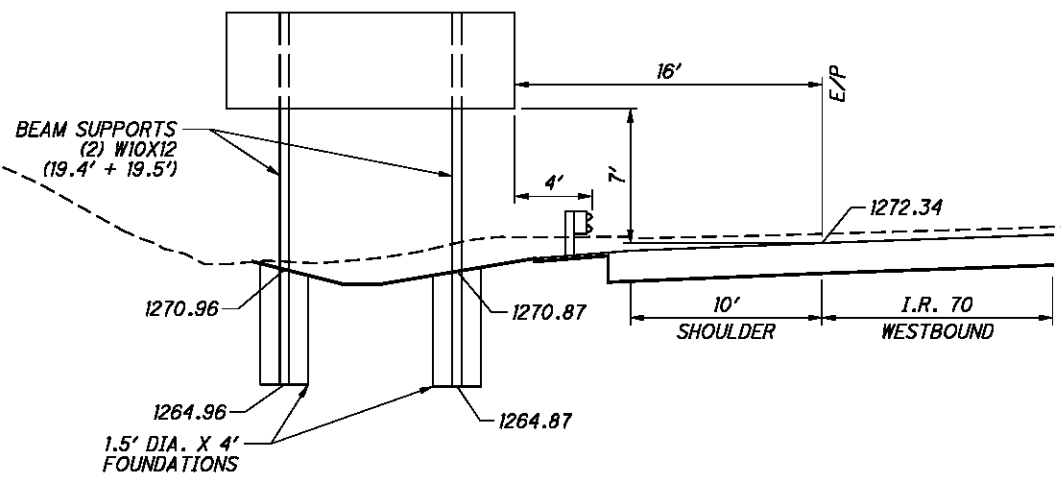
0 25 50 100
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
S.R. 149

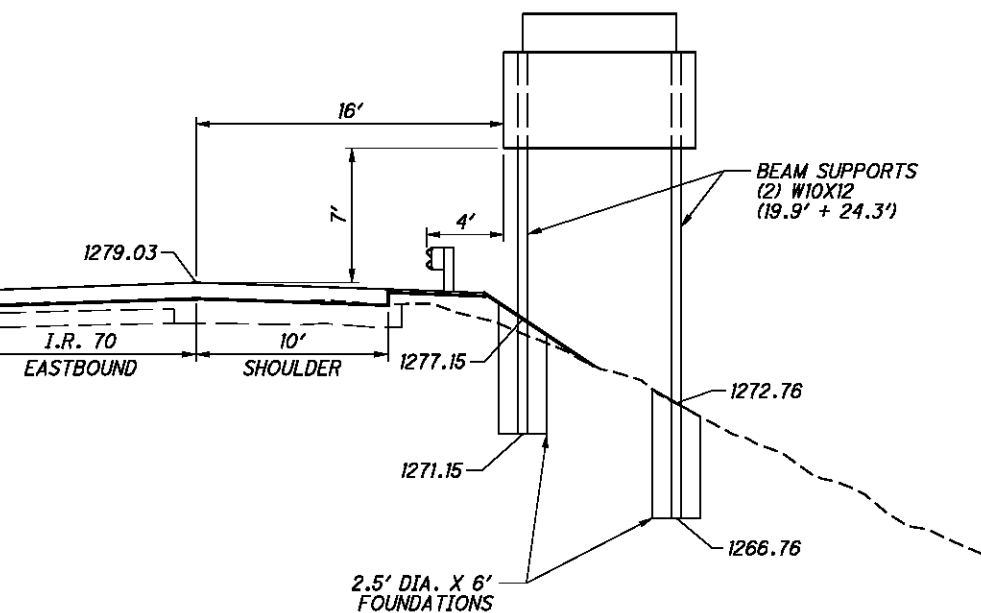
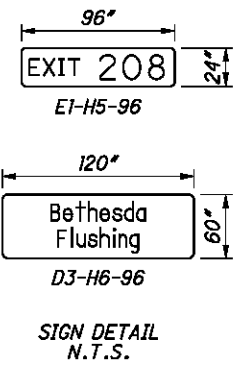
BEL - 70-7.61



D2-H2-180
SIGN DETAIL
N.T.S.

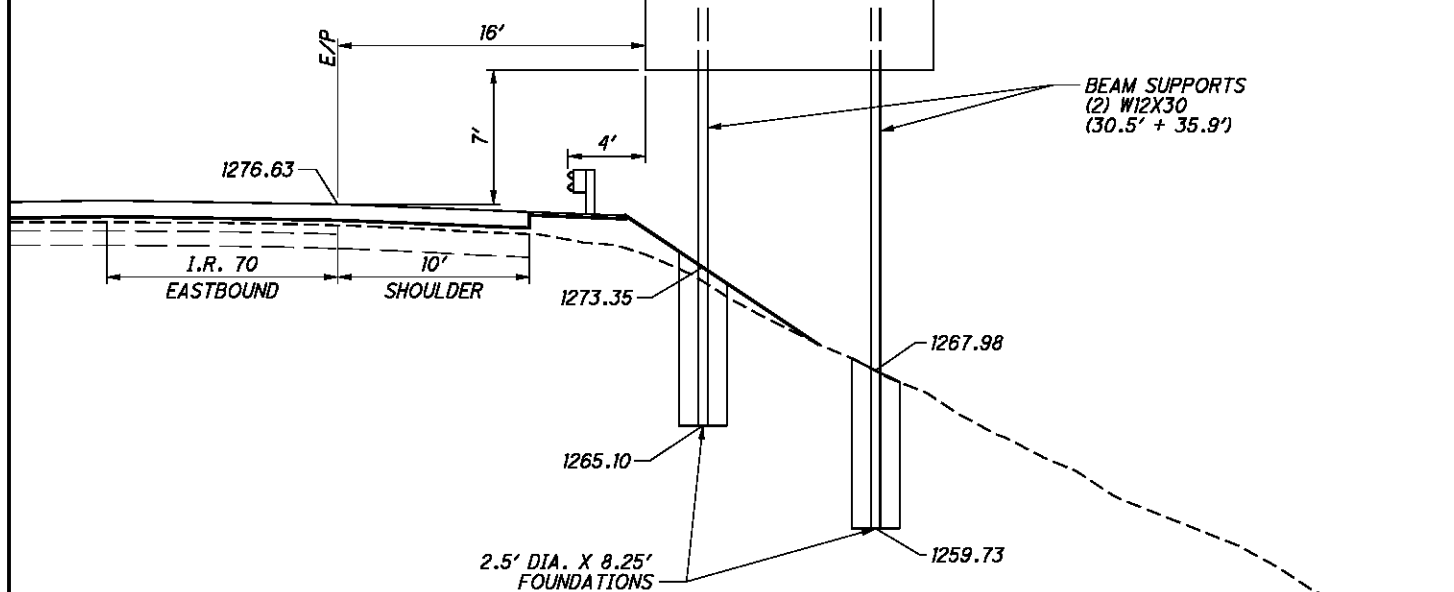
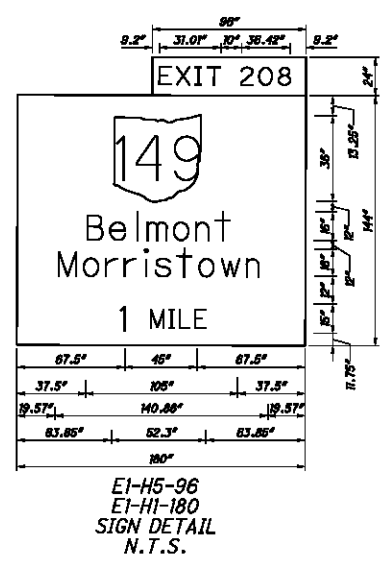


BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 466+48, LT (FACING WEST)



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 463+32, RT (FACING EAST)

SIGN INFORMATION	
DESIGN LEVEL	1
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	GREEN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	E1-H5-96
TEXT FONT	E (M)
TEXT SIZE (INCH)	16
BACKGROUND	GREEN
FILL COLOR	WHITE
PANEL SIZE	15' X 12'
ARROW	A-1
SIGN DESIGNATION	E1-H1-180



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 454+46, RT (FACING EAST)

3.00" Radius, 2.00" Border, White on Green
EXIT 208 E
12.00" Radius, 2.00" Border, White on Green
State Highway 149, MI-H5-45-2; (Belmont) E (M); (Morristown) E (M)
EXIT 1 MILE E (M)

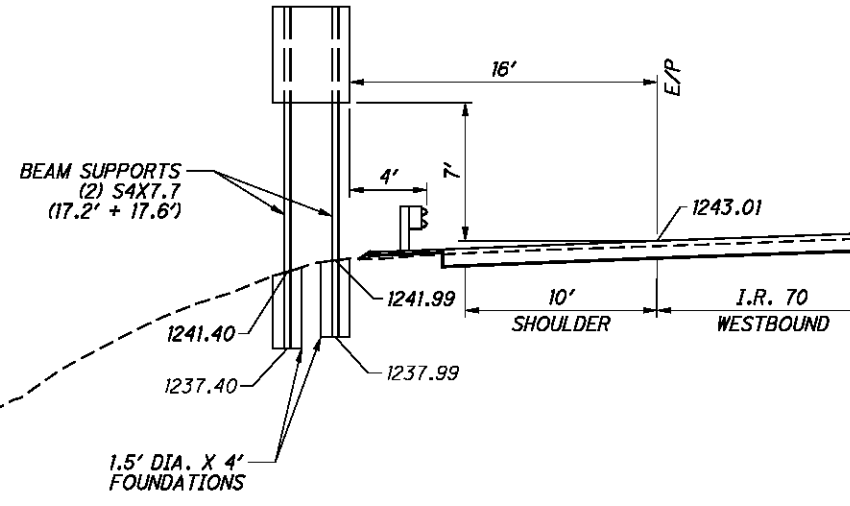
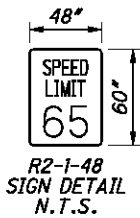
		8'															
		96.00															
		9.20	31.18		10.00		36.42		9.20		4.50						
2'	24.00	7.00											4.50	24.00			
	10.00	7.00											15.00				
	7.00	4.25											4.50				
	9.00	36.00	67.50	45.00	67.50						4.50						
	12.00	16.00	B	6	I	m	o	n	f	37.50							
	12.00	16.00	14.25	14.09	9.60	24.01	14.41	16.97	11.68								
	16.00	3.57	16.00	M	o	r	r	r	9.60	13.77	11.68	14.41	19.21	16.97	16.00	3.57	
	12.00																
	15.00	83.85		52.30						63.85						Longest line	
	7.50	3.57		16.00		140.86						16.00		3.57			
4.25											180.00		15'				



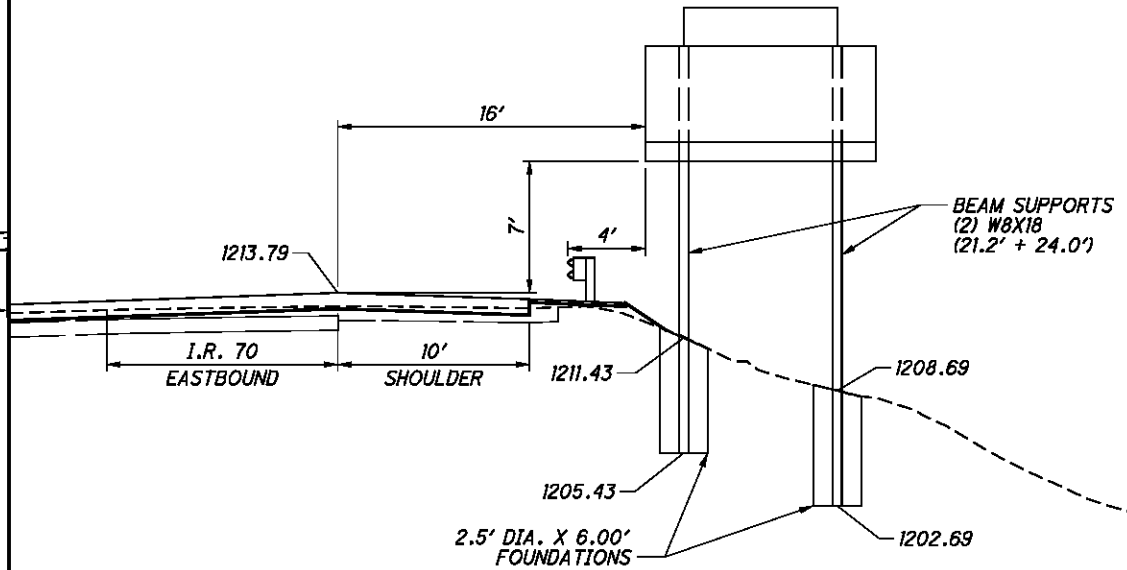
CALCULATED
CDS
CHECKED
BDD

SIGN ELEVATIONS
I.R. 70

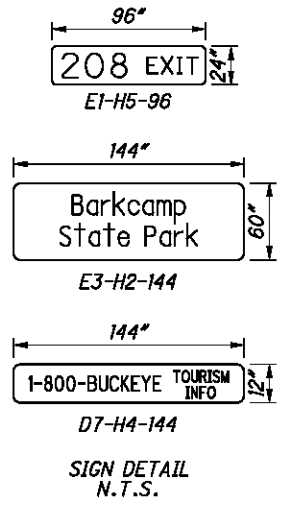
BEL-70-7.61
262
373



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 478+20, LT (FACING WEST)

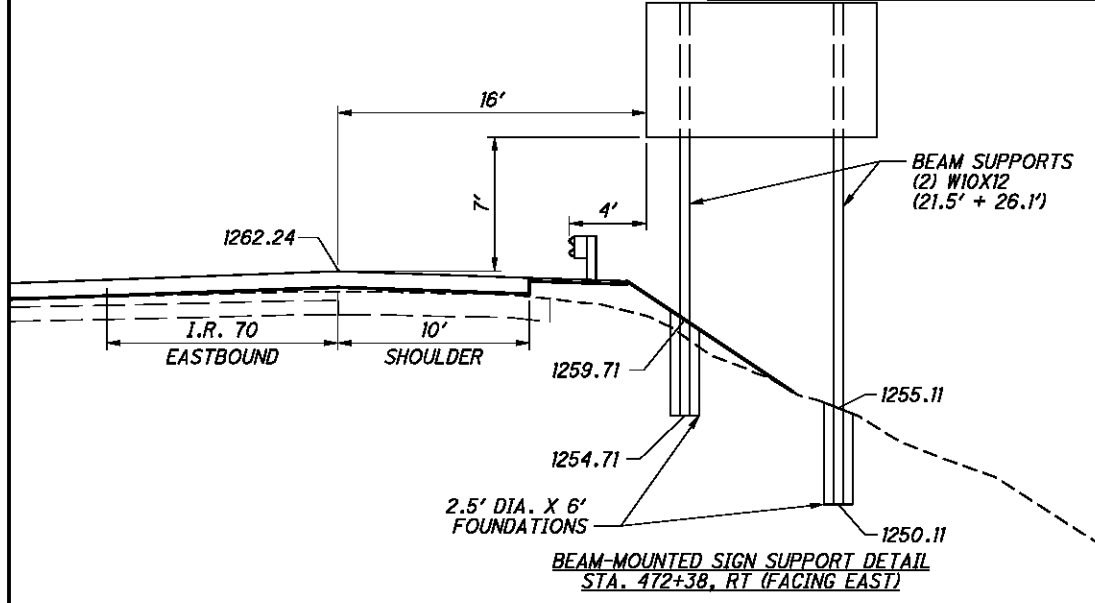
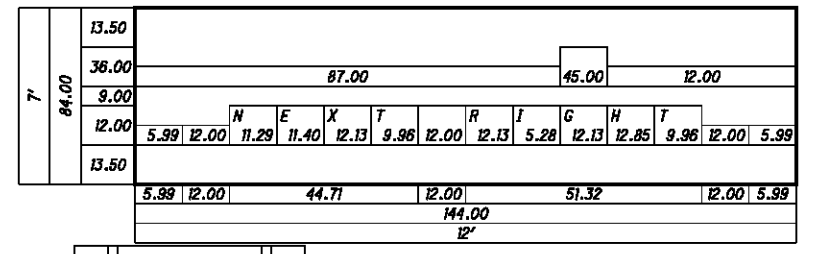


BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 490+52, RT (FACING EAST)

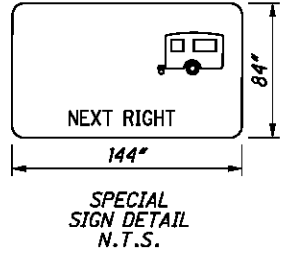


SIGN INFORMATION	
DESIGN LEVEL	1
TEXT FONT	E
TEXT SIZE (INCH)	12
BACKGROUND	BLUE
FILL COLOR	WHITE
SIZE	12' X 7'
SIGN DESIGNATION	SPECIAL

6.00' Radius, 2.00' Border, White on Blue
Symbol RM020
(NEXT RIGHT) E



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 472+38, RT (FACING EAST)



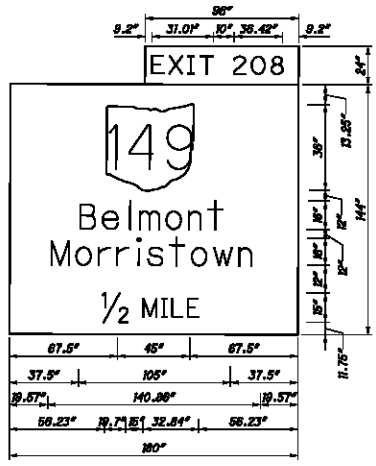
SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

SIGN INFORMATION	
DESIGN LEVEL	I
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	GREEN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	EI-H5-96
TEXT FONT	E (M)
TEXT SIZE (INCH)	16
BACKGROUND	GREEN
FILL COLOR	WHITE
PANEL SIZE	15' X 12'
ARROW	A-1
SIGN DESIGNATION	EI-HI-180

3.00' Radius, 2.00' Border, White on Green
 EXIT 208 E
 12.00' Radius, 2.00' Border, White on Green
 State Highway 149, MI-H5-45-2; [Belmont] E (M); [Morristown] E (M)
 [EXIT 1/2 MILE] E (M)

		8'												
		96.00												
		9.20	31.18	10.00	36.42	9.20						4.50	24.00	
		E	X	I	T	Z	O	B				15.00		
		9.20	8.20	10.11	4.40	8.30	10.00	15.05	16.92	4.45	9.20	4.50	24.00	
2'	24.00													
	10.00													
12'	7.00													
	4.25													
	9.00													
	36.00	67.50	45.00	67.50										
	12.00													
	16.00	37.50	B	e	I	m	o	n	T					37.50
	12.00													
	18.00	3.57	16.00	M	o	r	r	i	s	t	o	w	n	
	12.00													
	15.00	56.23	19.70	15.00	32.84								56.23	
	7.50													
	4.25													
		3.57	16.00	140.86								16.00	3.57	
												180.00		
												15'		

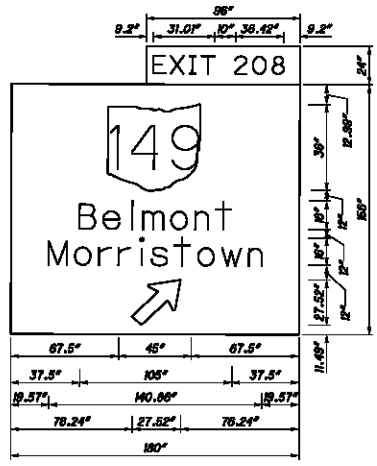


EI-H5-96
 EI-HI-180
 SIGN DETAIL
 N.T.S.

SIGN INFORMATION	
DESIGN LEVEL	I
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	GREEN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	EI-H5-96
TEXT FONT	E (M)
TEXT SIZE (INCH)	16
BACKGROUND	GREEN
FILL COLOR	WHITE
PANEL SIZE	15' X 13'
ARROW	A-1
SIGN DESIGNATION	EI-HI-180

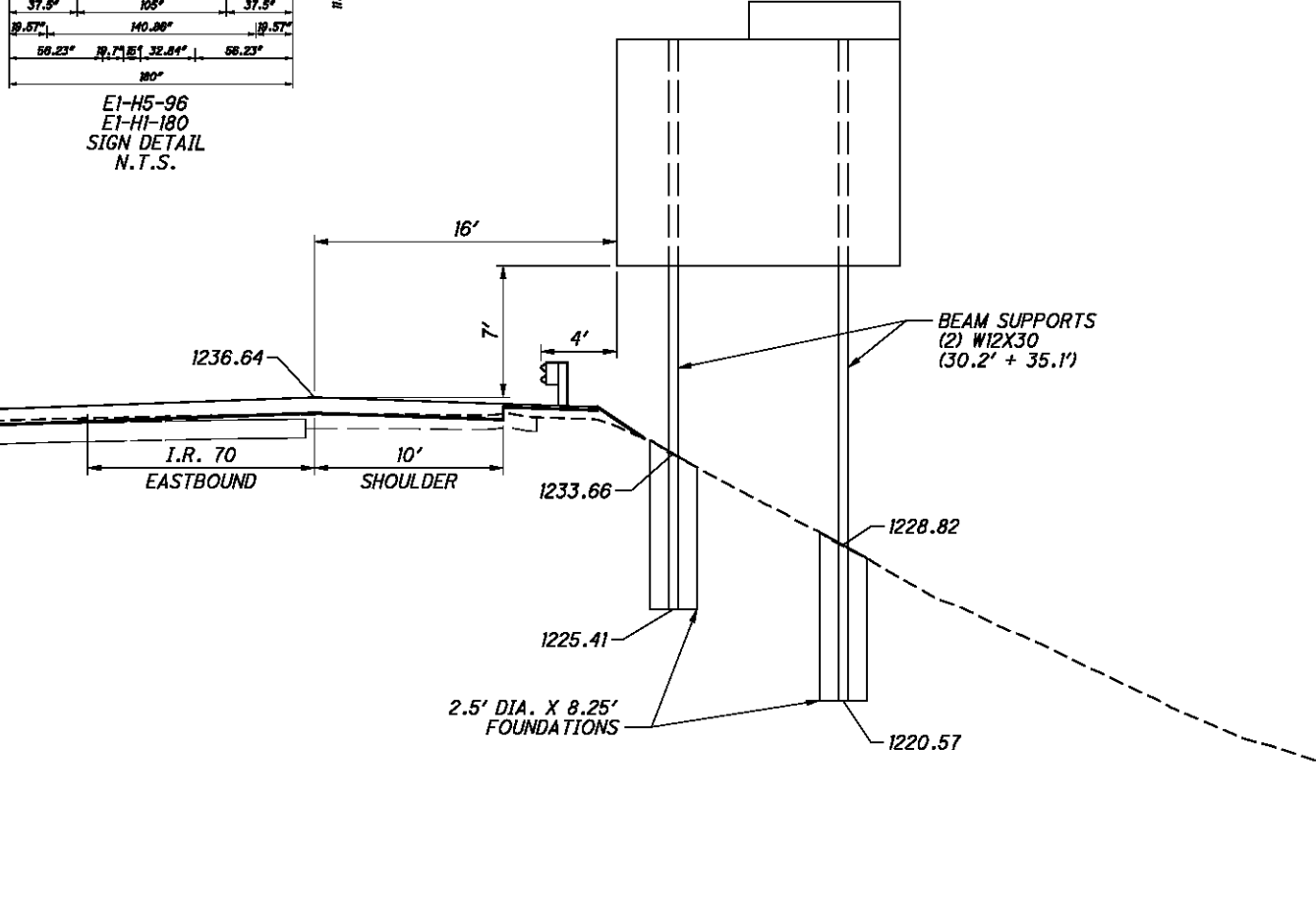
3.00' Radius, 2.00' Border, White on Green
 EXIT 208 E
 12.00' Radius, 2.00' Border, White on Green
 State Highway 149, MI-H5-45-2; [Belmont] E Mod; [Morristown] E Mod
 Arrow A-1 35.00' 45°

		8'												
		96.00												
		9.20	31.18	10.00	36.42	9.20						4.50	24.00	
		E	X	I	T	Z	O	B				15.00		
		9.20	9.40	10.67	3.78	17.34	10.00	15.05	16.92	4.45	9.20	4.50	24.00	
2'	24.00													
	10.00													
12'	7.00													
	3.99													
	9.00													
	36.00	67.50	45.00	67.50										
	12.00													
	16.00	37.50	B	e	I	m	o	n	T					37.50
	12.00													
	18.00	3.57	16.00	M	o	r	r	i	s	t	o	w	n	
	12.00													
	15.00	56.23	19.70	15.00	32.84								56.23	
	7.50													
	3.99													
		3.57	16.00	140.86								16.00	3.57	
												180.00		
												15'		

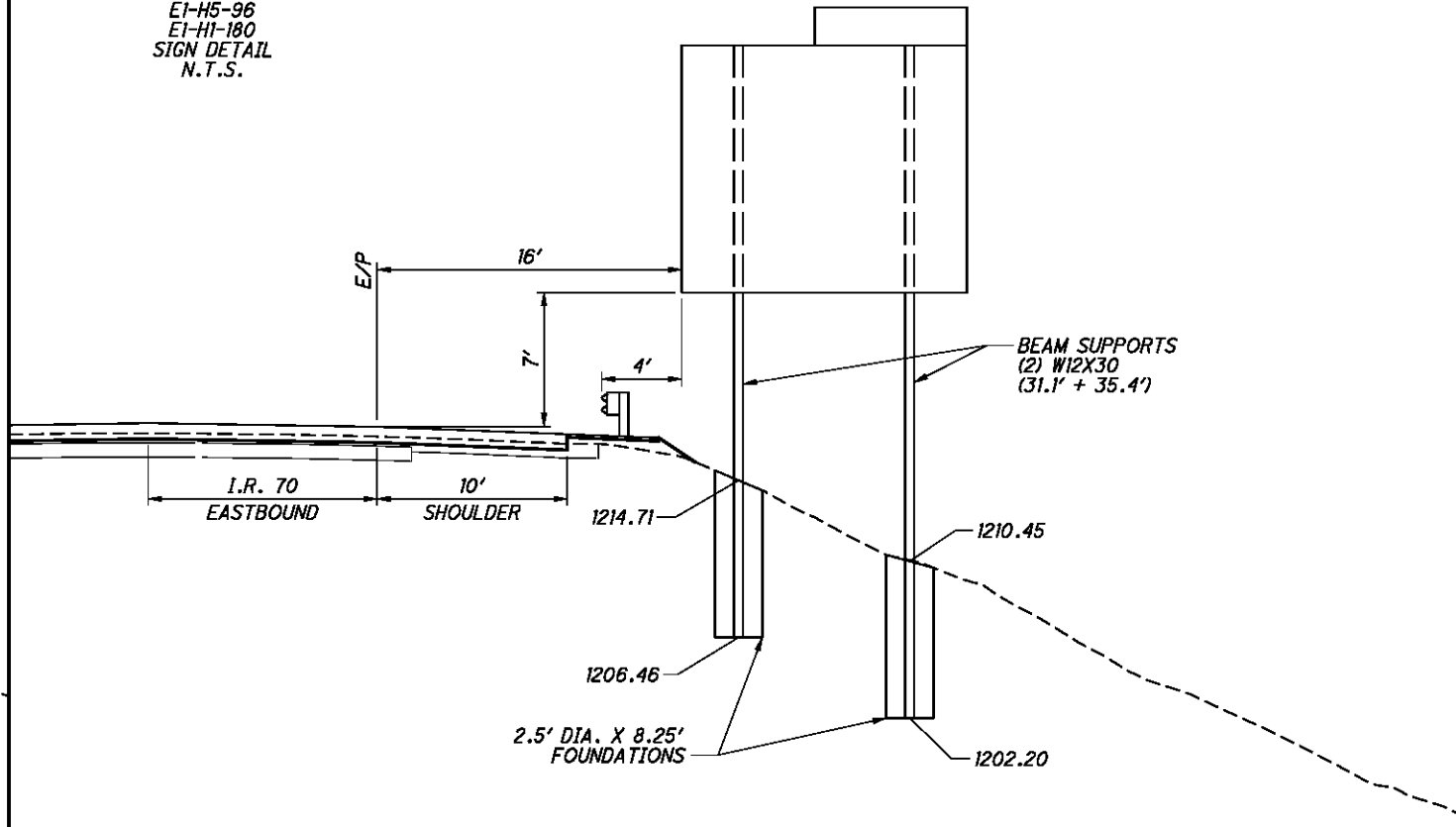


EI-H5-96
 EI-HI-180
 SIGN DETAIL
 N.T.S.

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BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 480+95, RT (FACING EAST)



BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 499+34, RT (FACING EAST)

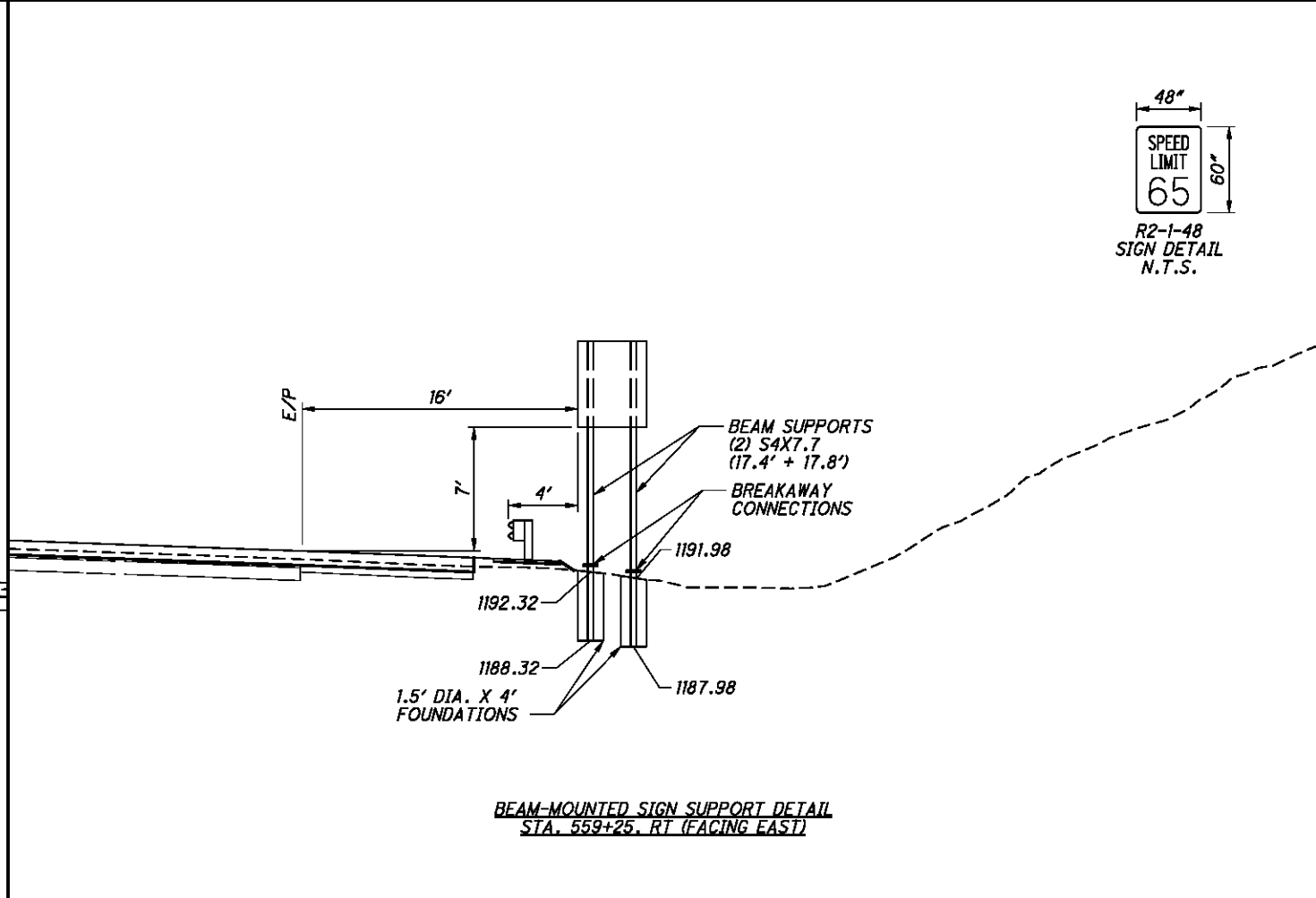
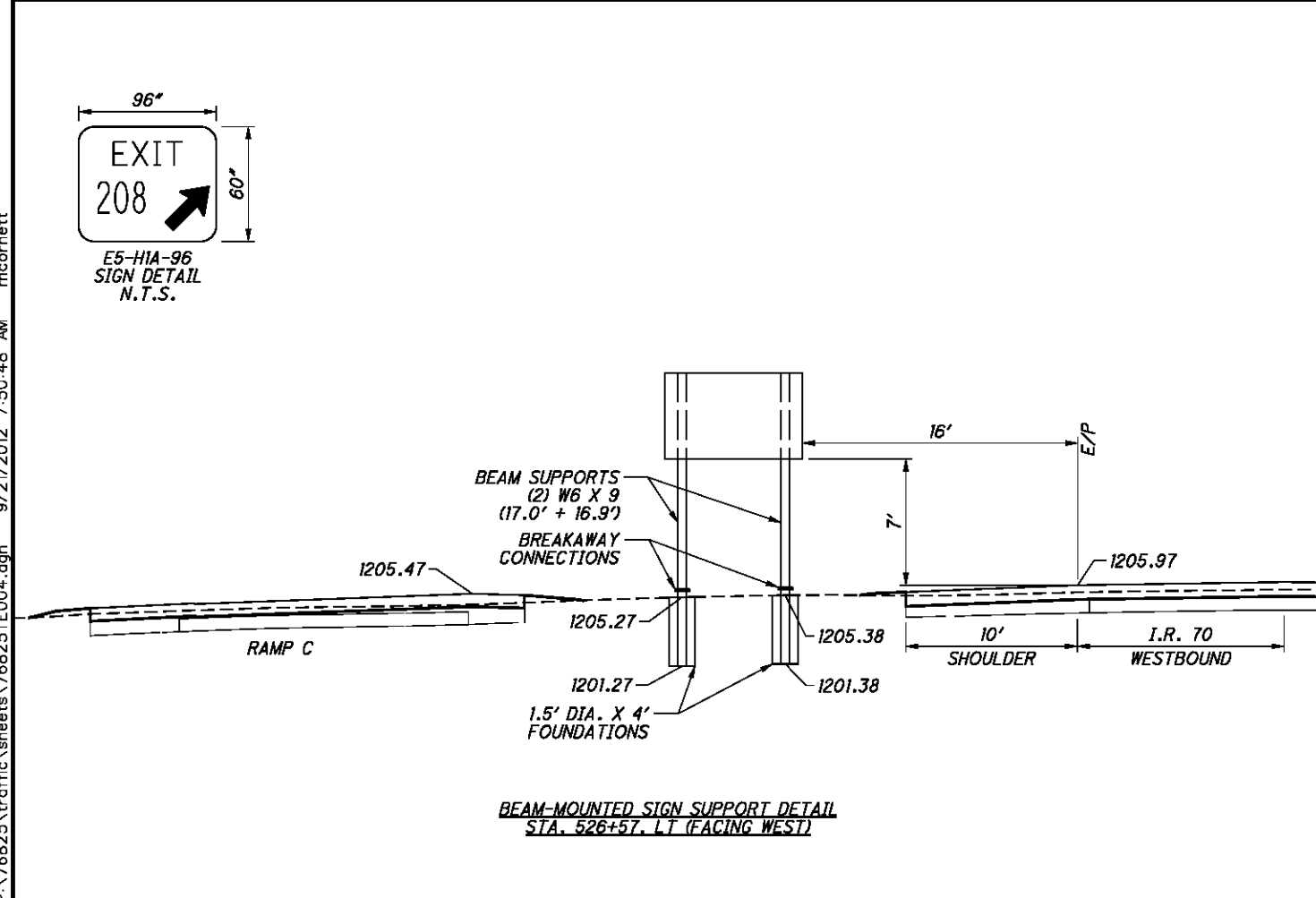
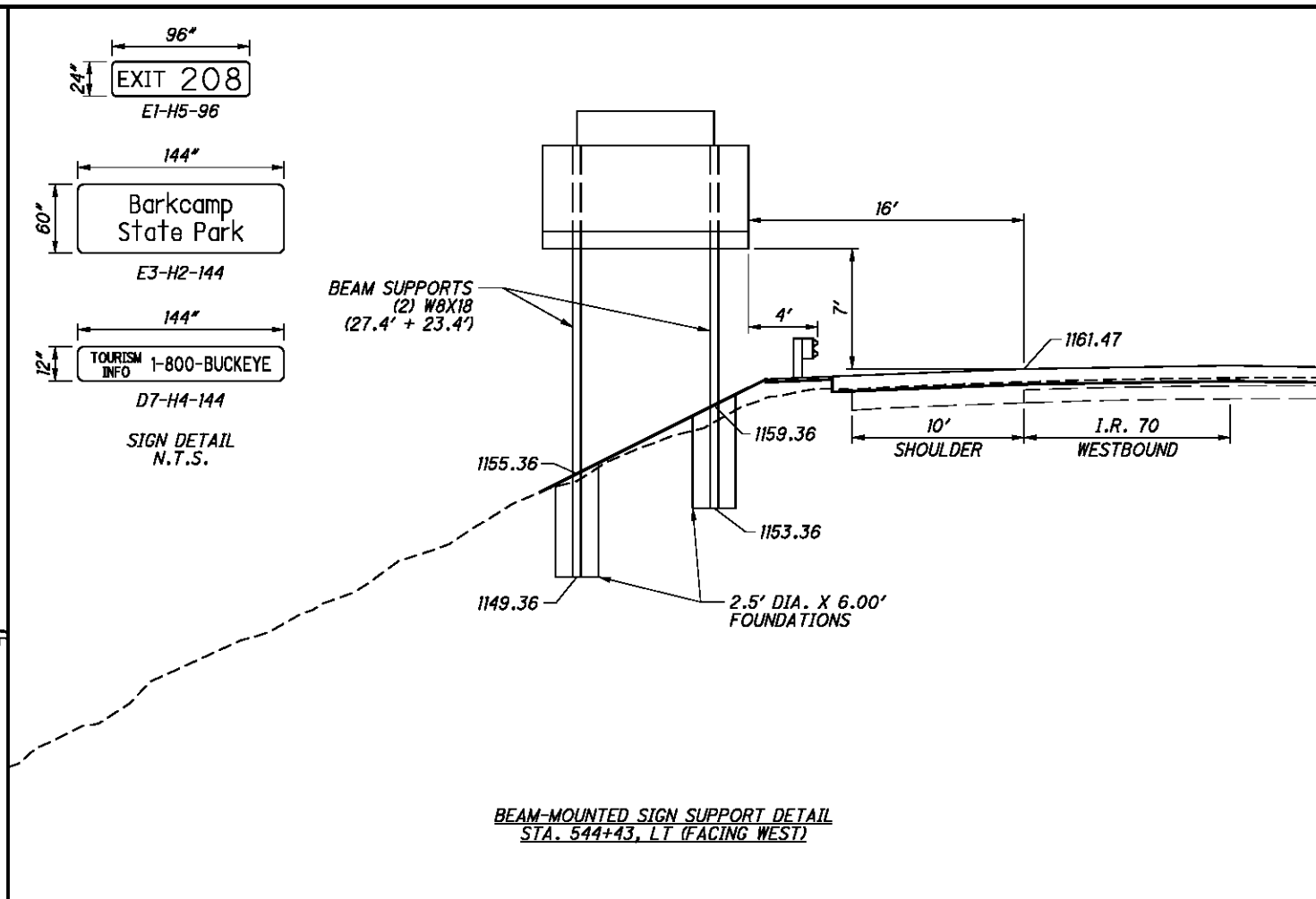
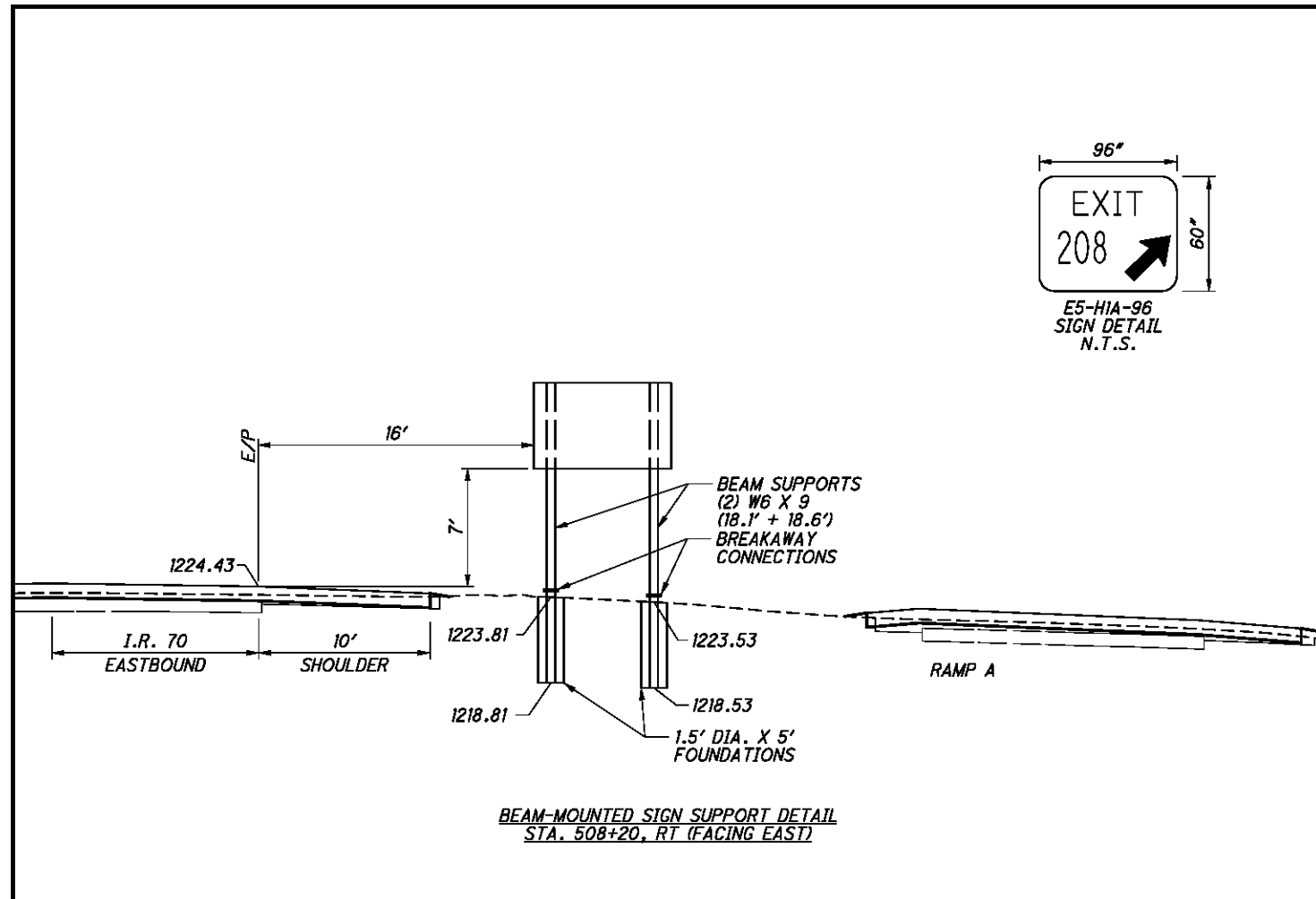
SIGN ELEVATIONS
 I.R. 70

BEL-70-7.61

264
 373



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CALCULATED
CDS
CHECKED
BDD

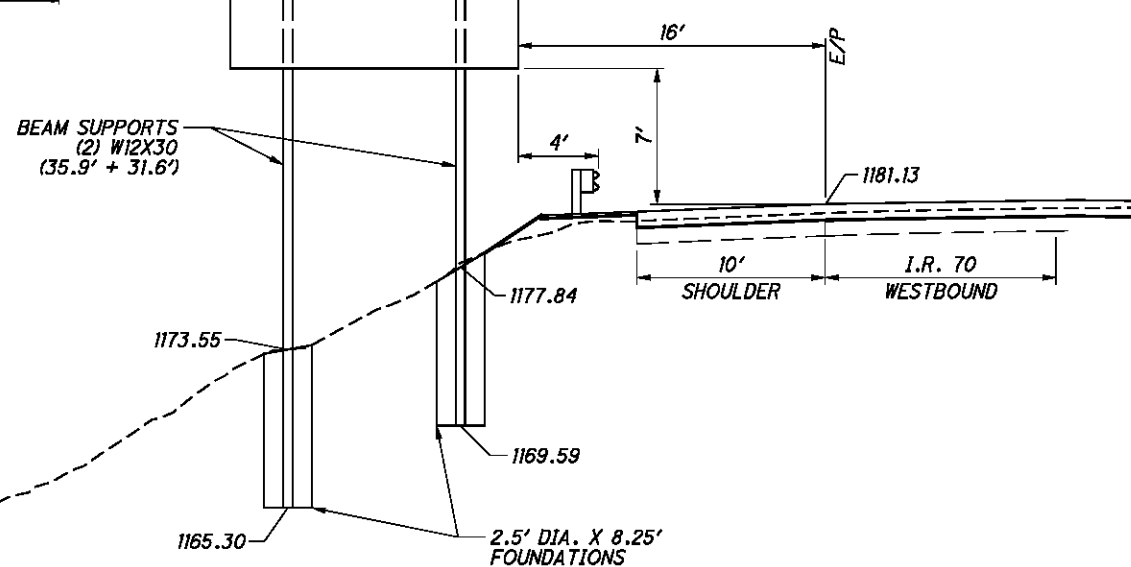
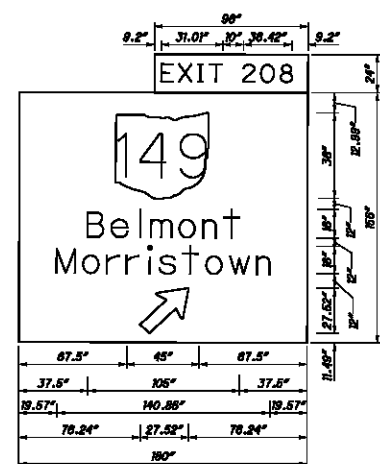
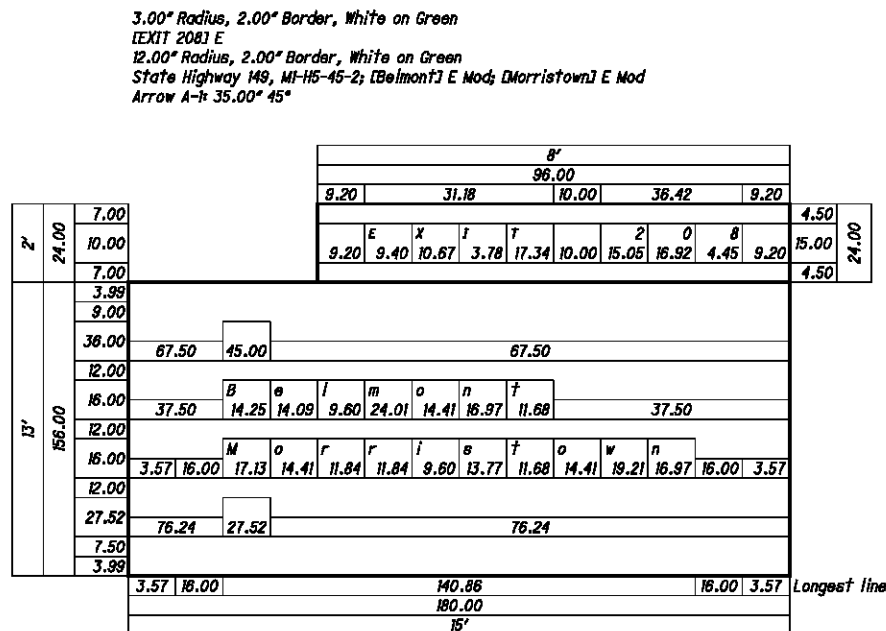
2.5' HORIZONTAL
SCALE IN FEET

**SIGN ELEVATIONS
I.R. 70**

BEL-70-7.61

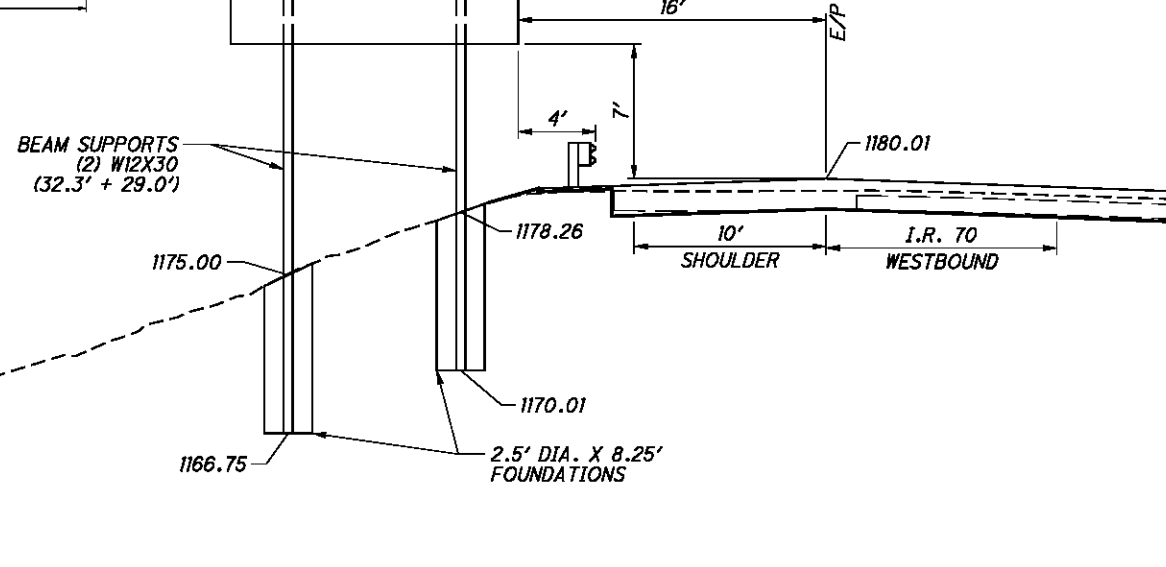
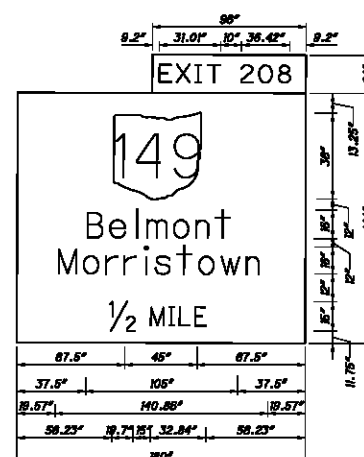
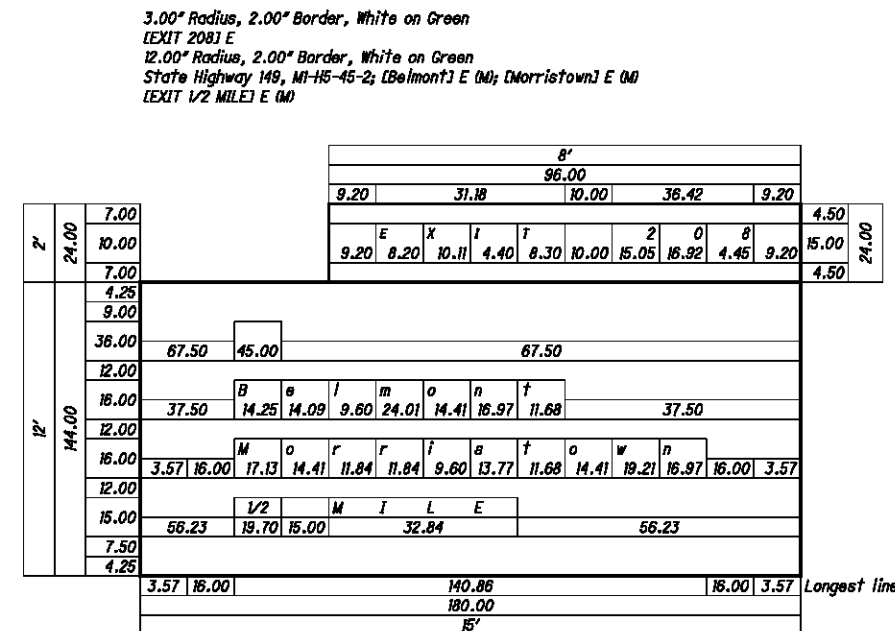
265
373

SIGN INFORMATION	
DESIGN LEVEL	1
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	GREEN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	EI-H5-96
TEXT FONT	E (M)
TEXT SIZE (INCH)	16
BACKGROUND	GREEN
FILL COLOR	WHITE
PANEL SIZE	15' X 13'
ARROW	A-1
SIGN DESIGNATION	EI-HI-180



BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 535+40. LT (FACING WEST)

SIGN INFORMATION	
DESIGN LEVEL	1
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	GREEN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	EI-H5-96
TEXT FONT	E (M)
TEXT SIZE (INCH)	16
BACKGROUND	GREEN
FILL COLOR	WHITE
PANEL SIZE	15' X 12'
ARROW	A-1
SIGN DESIGNATION	EI-HI-180



BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 553+88. LT (FACING WEST)

CALCULATED
 CDS
 CHECKED
 BDD

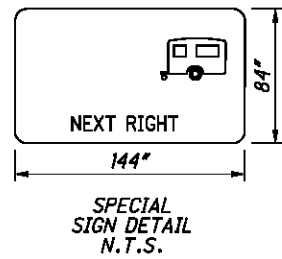
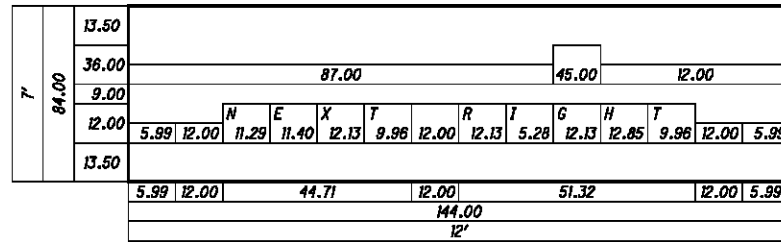
SIGN ELEVATIONS
 I.R. 70

BEL-70-7.61

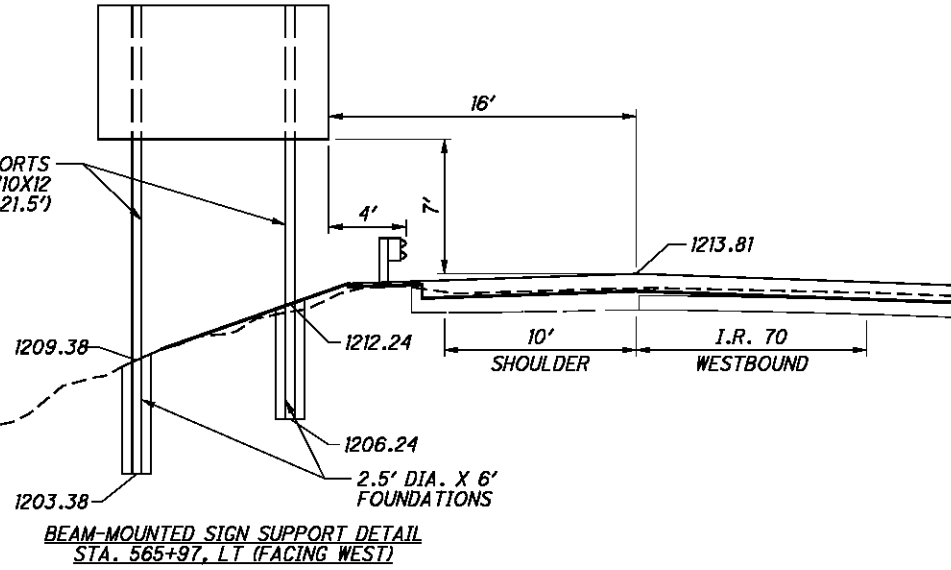
P:\76825\traffic\sheets\76825\TE006.dgn 9/21/2012 7:50:49 AM mcorneet

SIGN INFORMATION	
DESIGN LEVEL	1
TEXT FONT	E
TEXT SIZE (INCH)	12
BACKGROUND	BLUE
FILL COLOR	WHITE
SIZE	12' X 7'
SIGN DESIGNATION	SPECIAL

6.00° Radius, 2.00° Border, White on Blue
Symbol RM020
(NEXT RIGHT) E

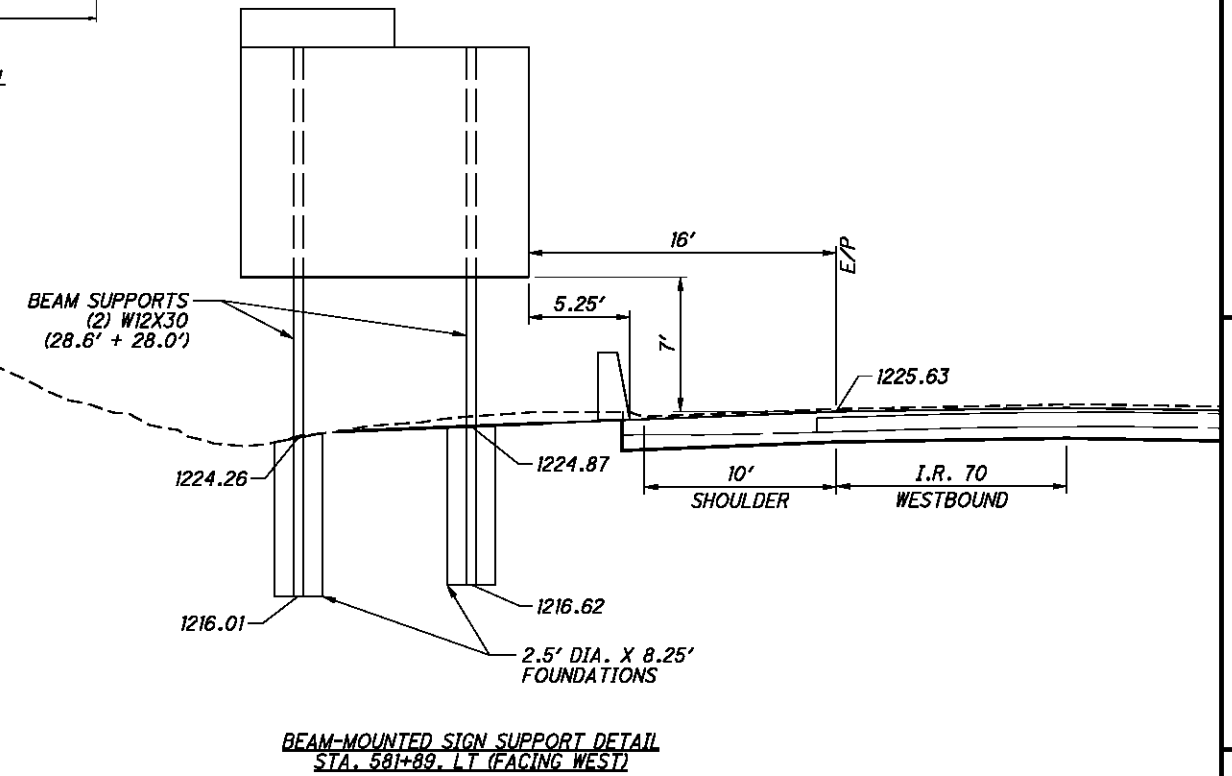
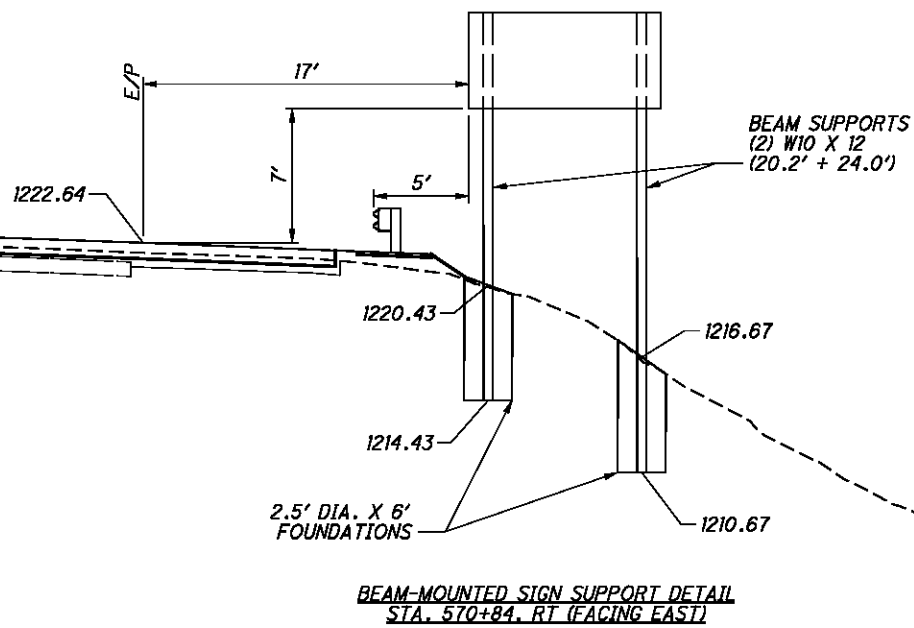
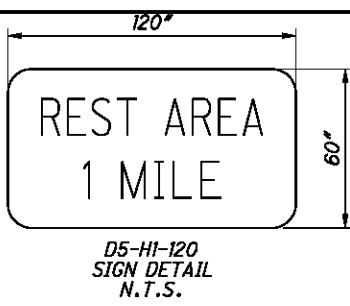
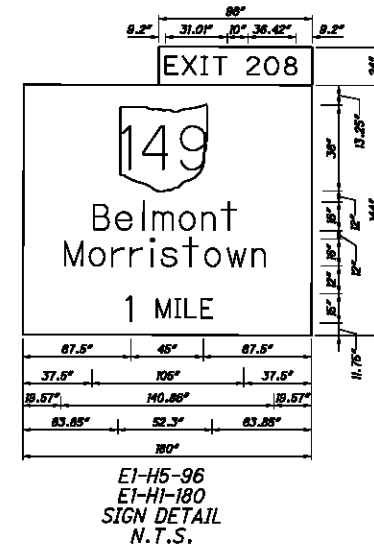
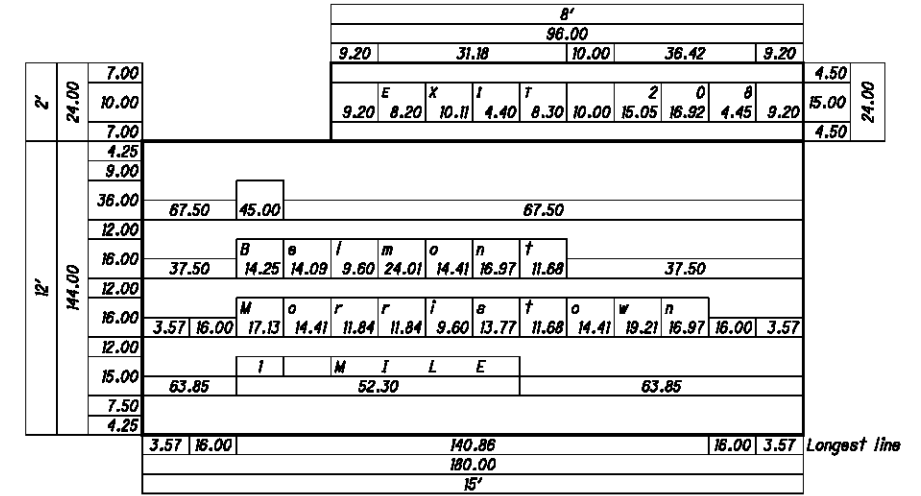


BEAM SUPPORTS
(2) W10X12
(24.5' + 21.5')



SIGN INFORMATION	
DESIGN LEVEL	1
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	GREEN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	EI-H5-96
TEXT FONT	E (M)
TEXT SIZE (INCH)	16
BACKGROUND	GREEN
FILL COLOR	WHITE
PANEL SIZE	15' X 12'
ARROW	A-1
SIGN DESIGNATION	EI-HI-180

3.00° Radius, 2.00° Border, White on Green
(EXIT 208) E
12.00° Radius, 2.00° Border, White on Green
State Highway 149, MI-H5-45-2; (Belmont) E (M); (Morristown) E (M)
(EXIT 1 MILE) E (M)

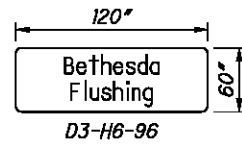
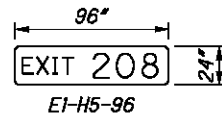


CALCULATED
CDS
CHECKED
BDD

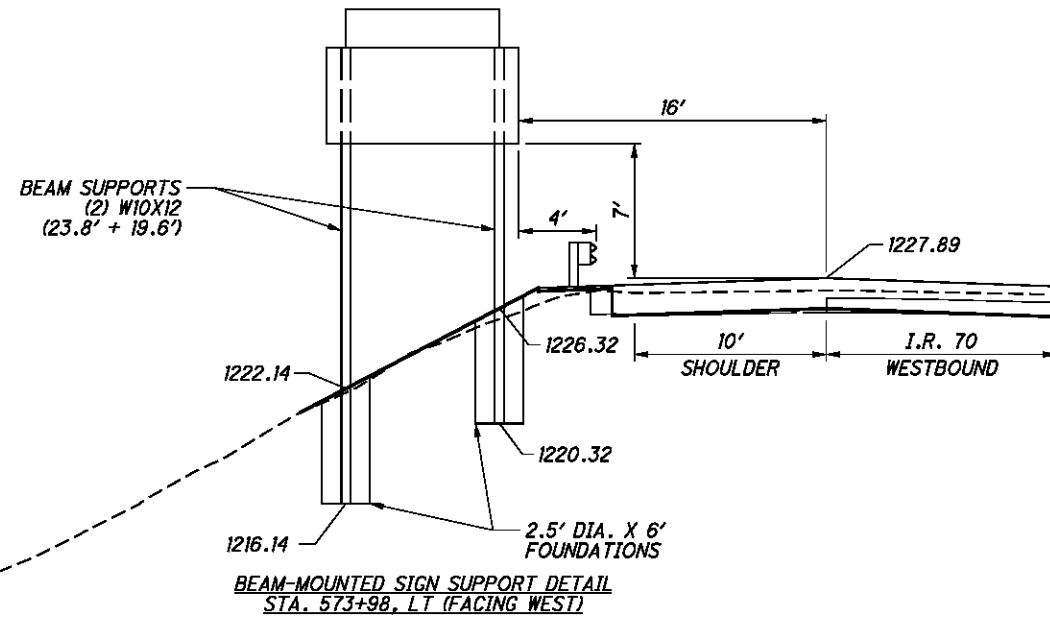


SIGN ELEVATIONS
I.R. 70

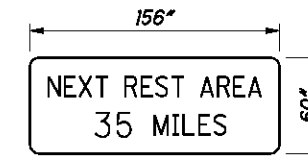
BEL-70-7.61
267
373



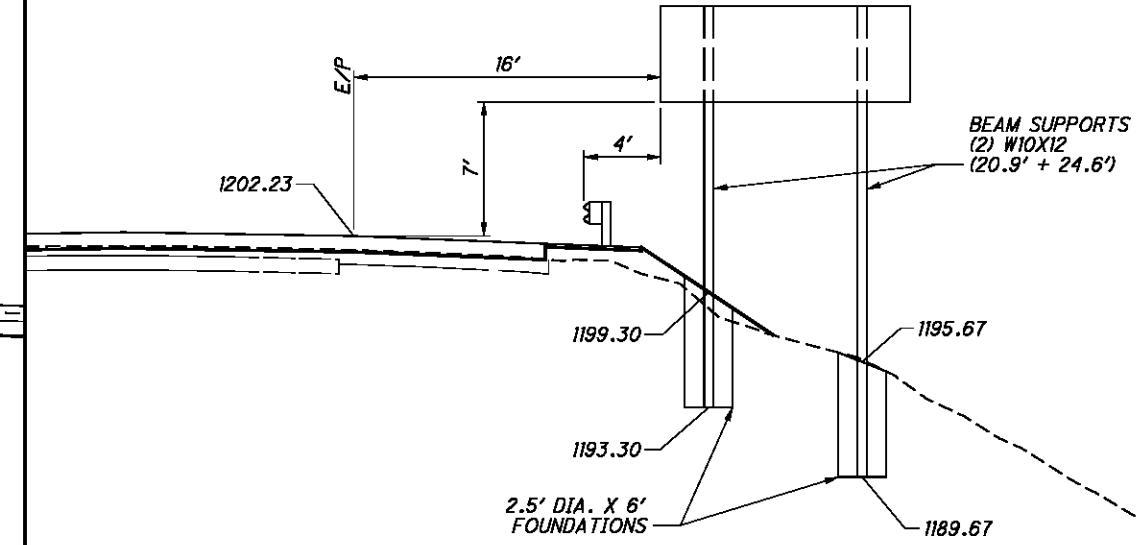
SIGN DETAIL
N.T.S.



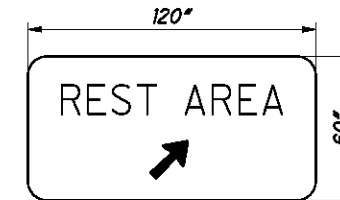
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 573+98, LT (FACING WEST)



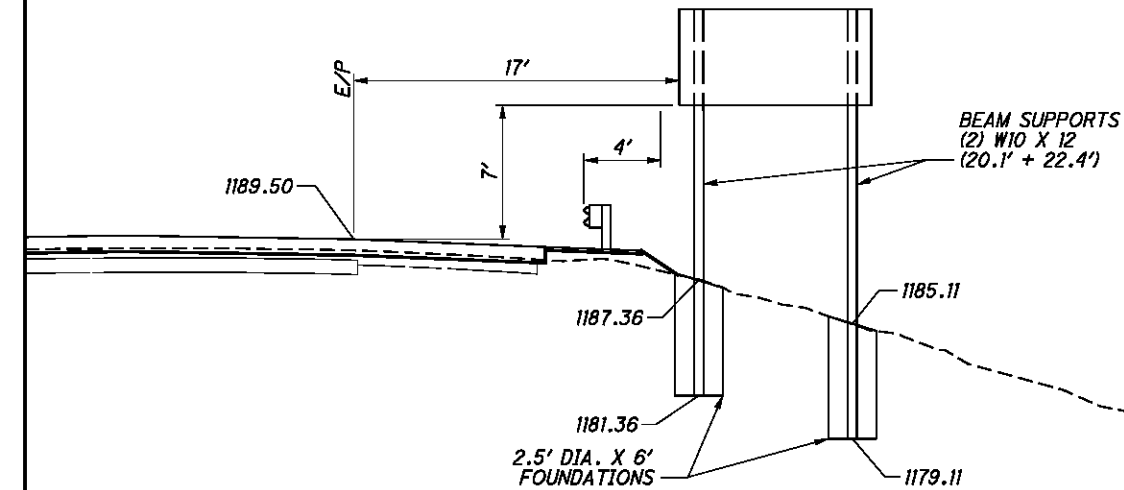
D5-H6-156
SIGN DETAIL
N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 593+18, RT (FACING EAST)



D5-H2A-120
SIGN DETAIL
N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 615+67, RT (FACING EAST)

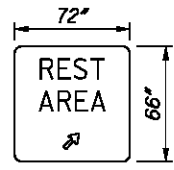


CALCULATED CDS CHECKED BDD

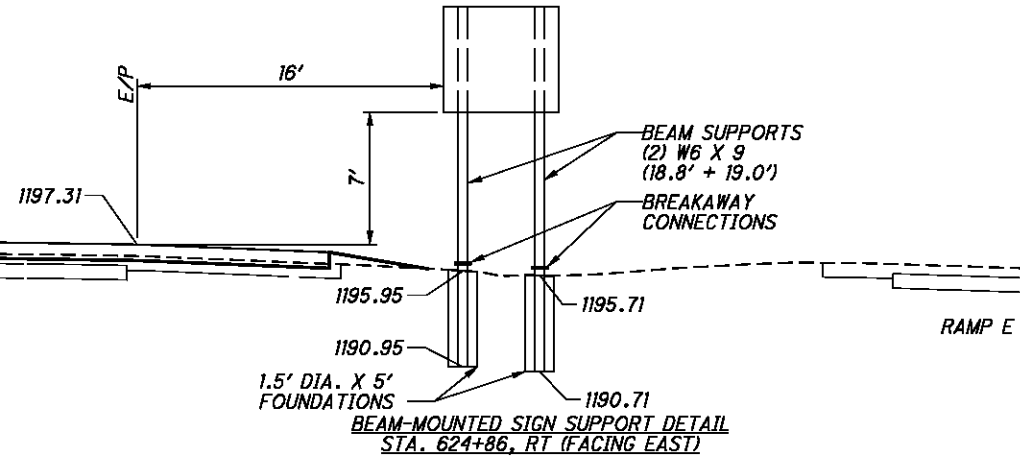
SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

268
373



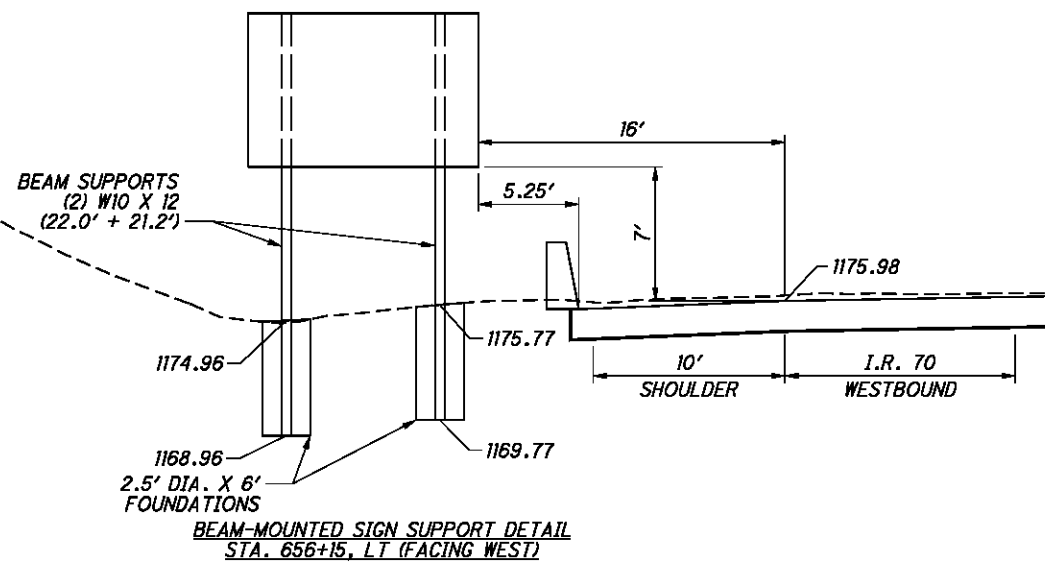
D5-H2B-72
SIGN DETAIL
N.T.S.



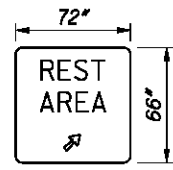
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 624+86, RT (FACING EAST)



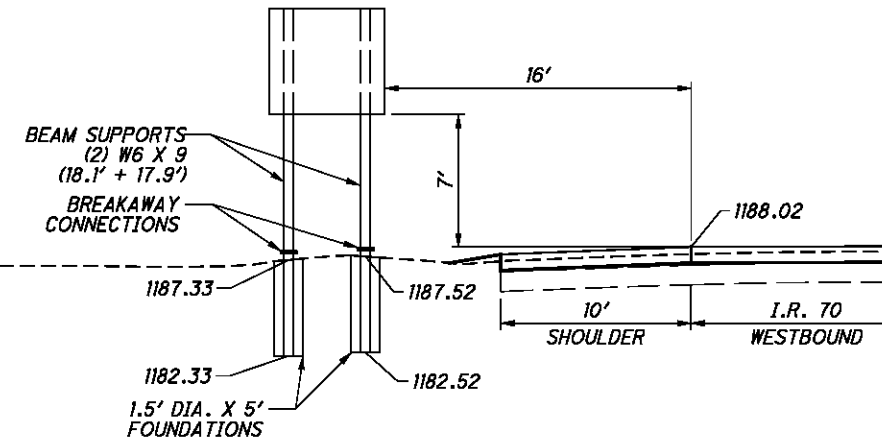
D5-H8-144
SIGN DETAIL
N.T.S.



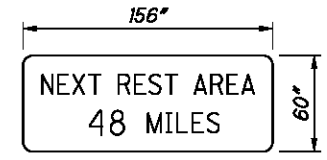
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 656+15, LT (FACING WEST)



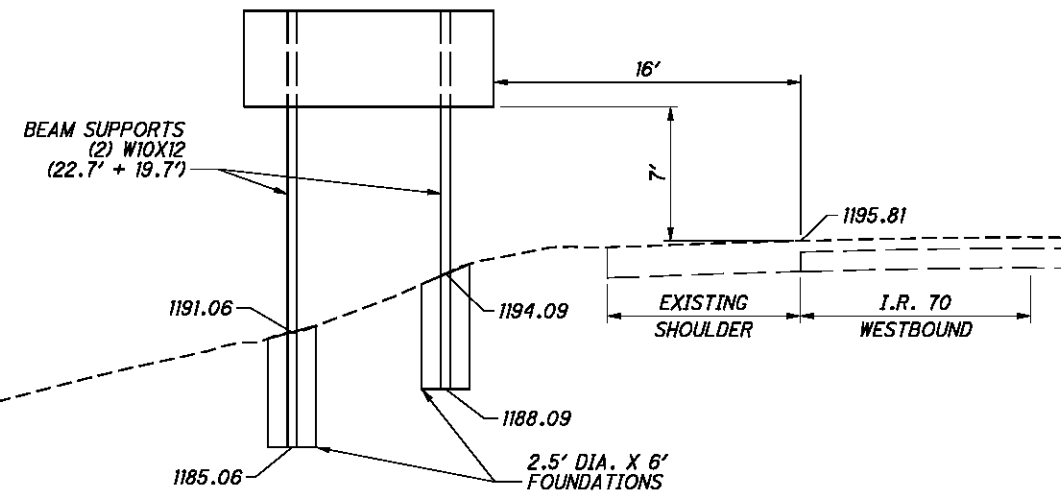
D5-H2B-72
SIGN DETAIL
N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 646+51, LT (FACING WEST)



D5-H6-156
SIGN DETAIL
N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 675+50, LT (FACING WEST)



CALCULATED
CDS
CHECKED
BDD

SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

269
373

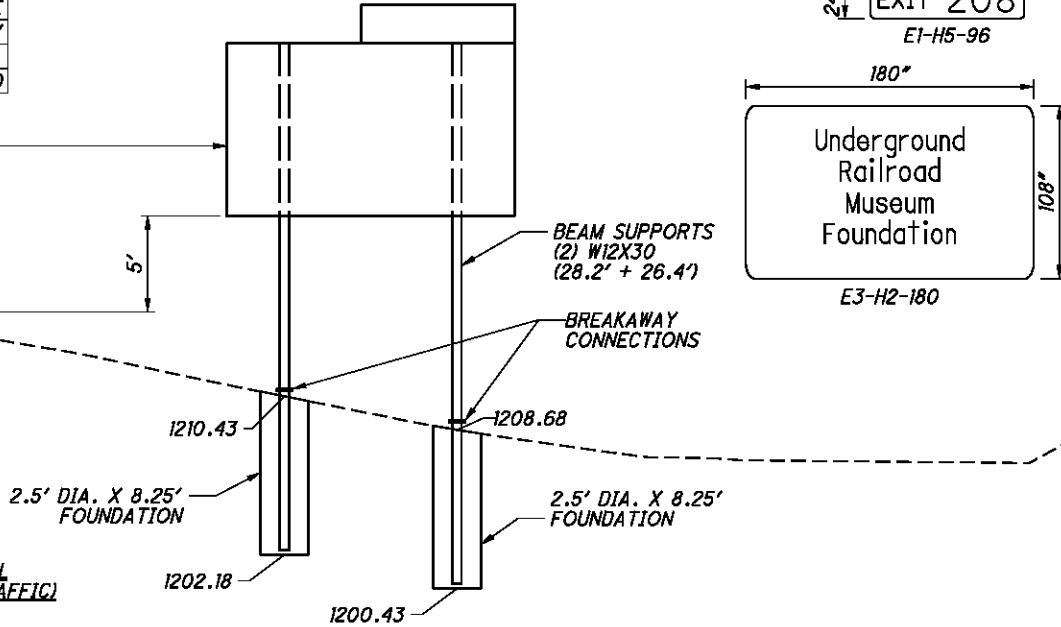
P:\76825\traffic\sheets\76825\T008.dgn 9/21/2012 7:50:50 AM mcornett

3.00" Radius, 2.00" Border, White on Brown
 EXIT 208 E
 12.00" Radius, 2.00" Border, White on Brown
 Underground (5-W); Railroad (5-W); Museum (5-W); Foundation (5-W)

		8'																		
		96.00																		
		6.68	30.61			10.00			42.03		6.68									
2'	24.00	7.00																		
		10.00																		
		2.35																		
		10.00																		
		13.33	17.96	U	R	d	e	r	g	r	o	u	n	d						17.96
		10.00																		
		13.33	44.74	R	a	i	l	r	o	a	d									44.74
		10.00																		
		13.33	46.80	M	u	e	e	u	m											46.80
		10.00																		
		13.33	28.54	F	o	u	n	d	a	r	i	o	n							28.54
		10.00																		
		2.35	4.63	13.33												144.09			13.33	4.63
				180.00																
				15'																

SIGN INFORMATION	
DESIGN LEVEL	2
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	BROWN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	E1-H5-96
TEXT FONT	5-W
TEXT SIZE (INCH)	13.33
BACKGROUND	BROWN
FILL COLOR	WHITE
PANEL SIZE	9' X 15'
ARROW	
SIGN DESIGNATION	E3-H2-180

BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 494+00, RT (FACING EASTBOUND TRAFFIC)

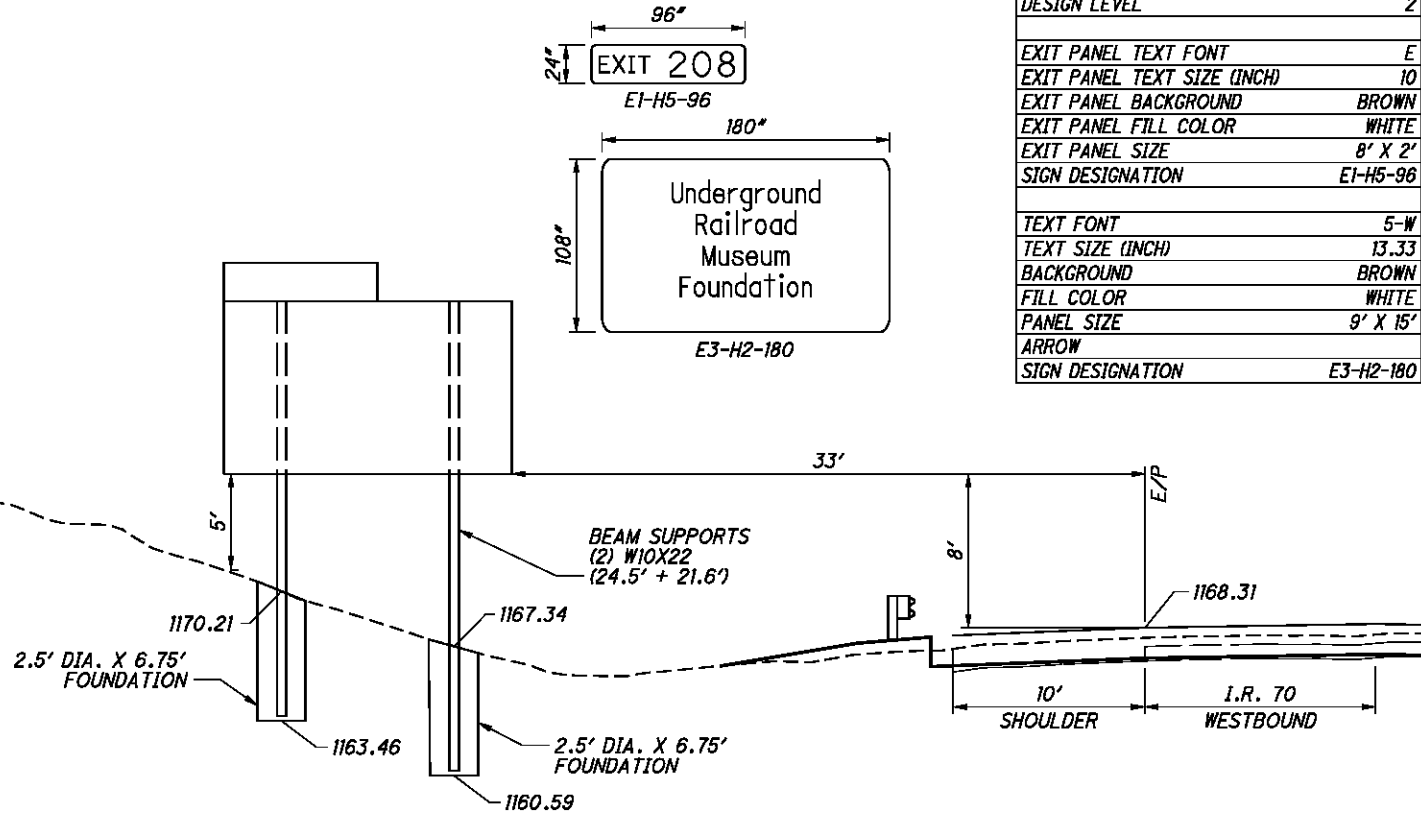


SIGN ELEVATIONS
I.R. 70

3.00" Radius, 2.00" Border, White on Brown
 EXIT 208 E
 12.00" Radius, 2.00" Border, White on Brown
 Underground (5-W); Railroad (5-W); Museum (5-W); Foundation (5-W)

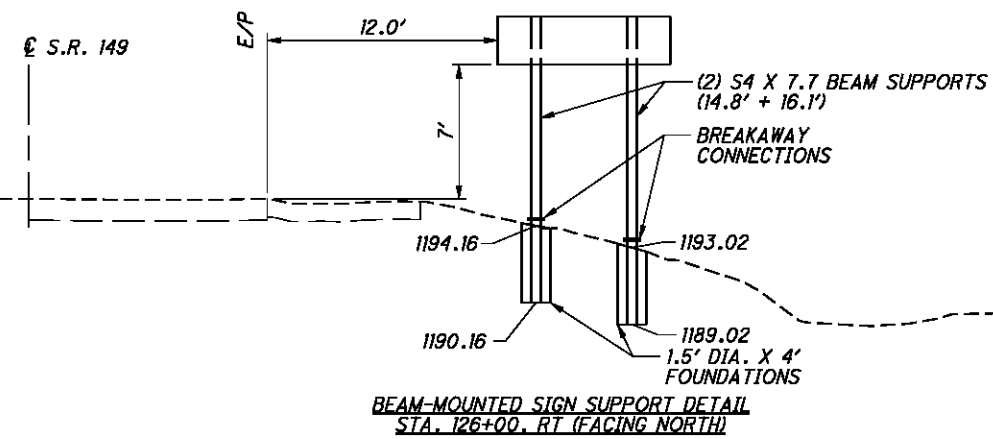
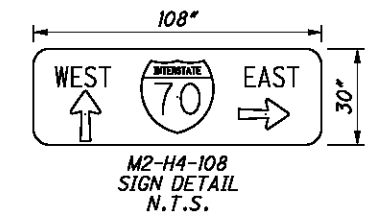
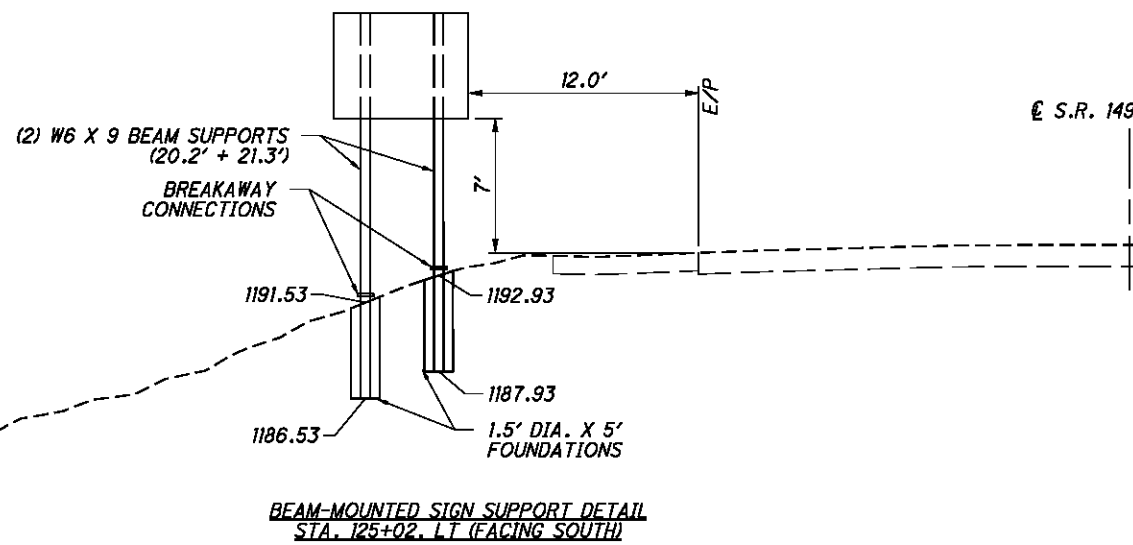
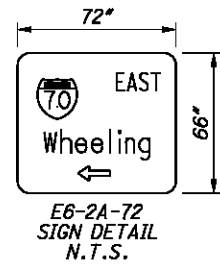
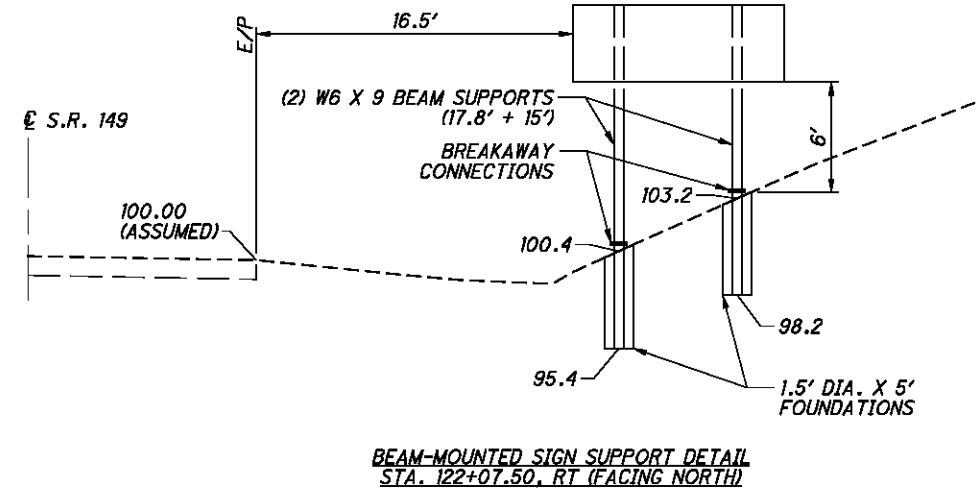
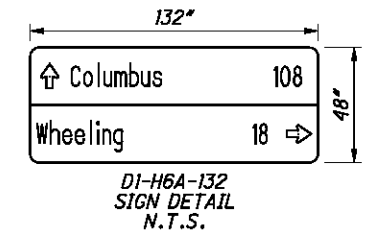
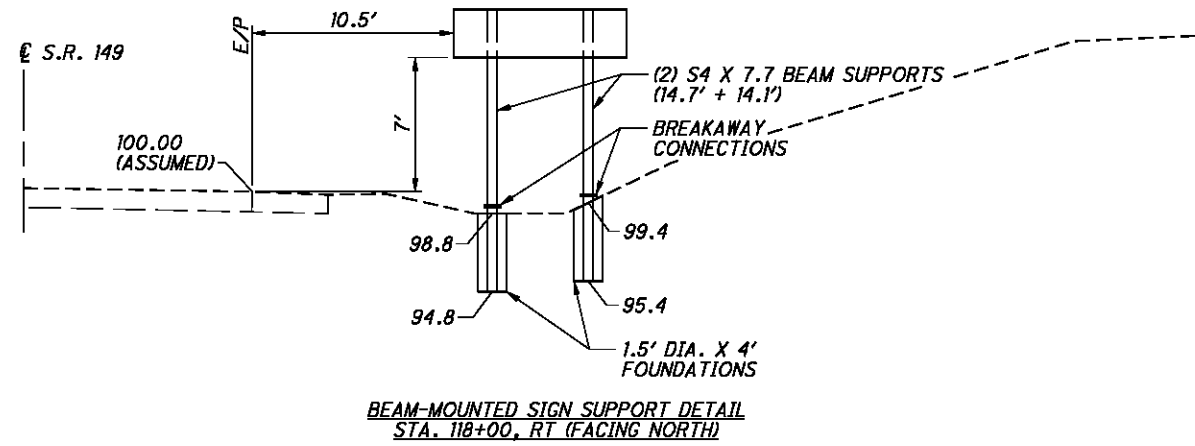
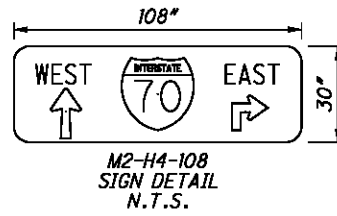
		8'																		
		96.00																		
		6.68	30.61			10.00			42.03		6.68									
2'	24.00	7.00																		
		10.00																		
		2.35																		
		10.00																		
		13.33	17.96	U	R	d	e	r	g	r	o	u	n	d						17.96
		10.00																		
		13.33	44.74	R	a	i	l	r	o	a	d									44.74
		10.00																		
		13.33	46.80	M	u	e	e	u	m											46.80
		10.00																		
		13.33	28.54	F	o	u	n	d	a	r	i	o	n							28.54
		10.00																		
		2.35	4.63	13.33												144.09			13.33	4.63
				180.00																
				15'																

SIGN INFORMATION	
DESIGN LEVEL	2
EXIT PANEL TEXT FONT	E
EXIT PANEL TEXT SIZE (INCH)	10
EXIT PANEL BACKGROUND	BROWN
EXIT PANEL FILL COLOR	WHITE
EXIT PANEL SIZE	8' X 2'
SIGN DESIGNATION	E1-H5-96
TEXT FONT	5-W
TEXT SIZE (INCH)	13.33
BACKGROUND	BROWN
FILL COLOR	WHITE
PANEL SIZE	9' X 15'
ARROW	
SIGN DESIGNATION	E3-H2-180



BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 540+00, LT (FACING WESTBOUND TRAFFIC)

SIGN ELEVATIONS
BEL-70-7.61

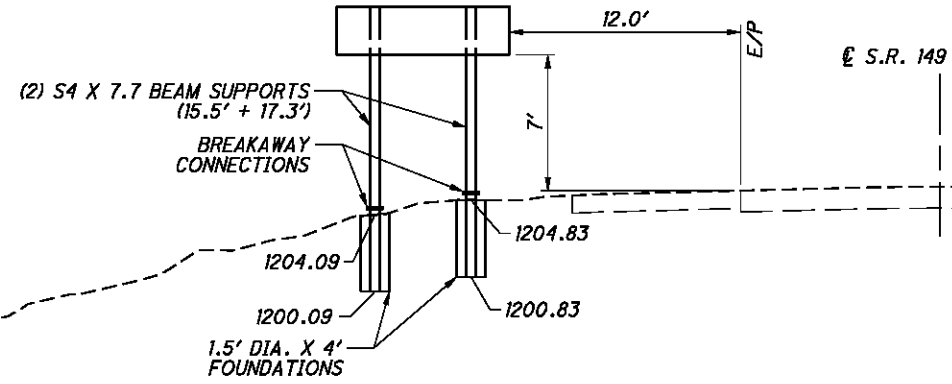
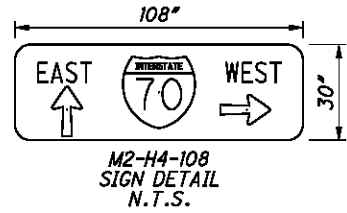


CALCULATED
CDS
CHECKED
BDD

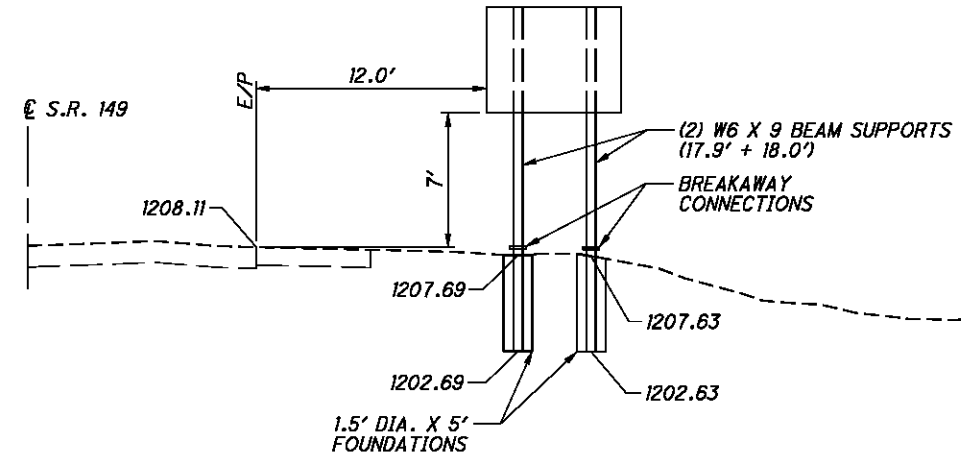
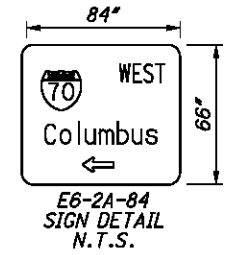
SIGN ELEVATIONS
S.R. 149

BEL-70-7.61

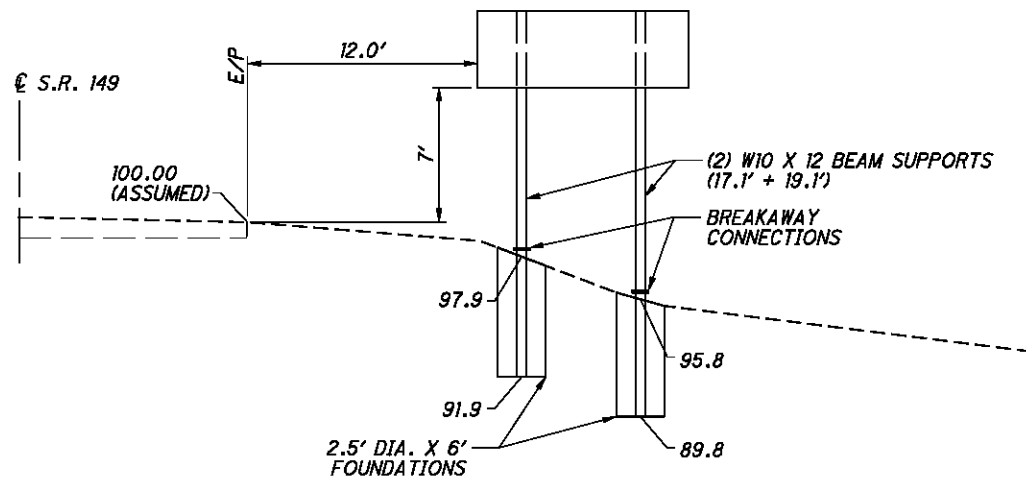
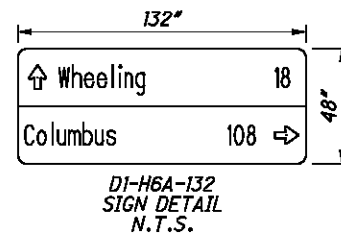
271
373



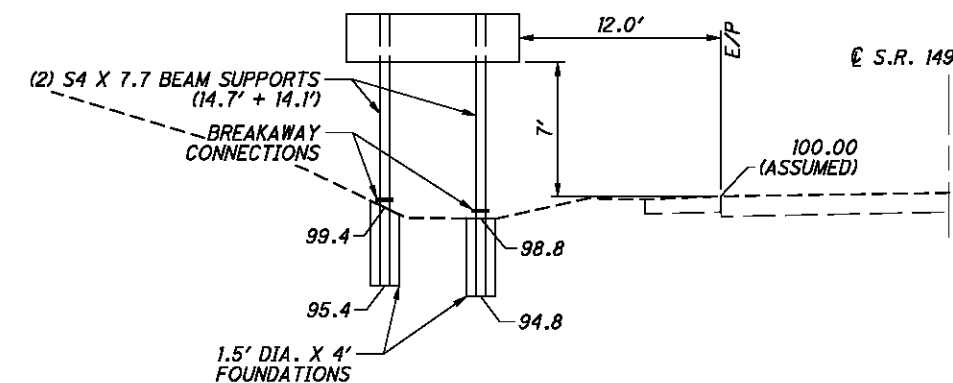
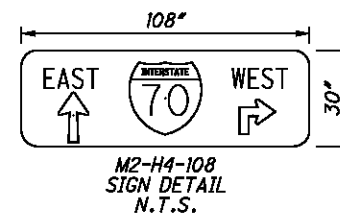
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 130+51, LT (FACING SOUTH)



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 131+59, RT (FACING NORTH)



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 134+10, RT (FACING NORTH)



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 139+15, LT (FACING SOUTH)

CALCULATED
CDS
CHECKED
BDD

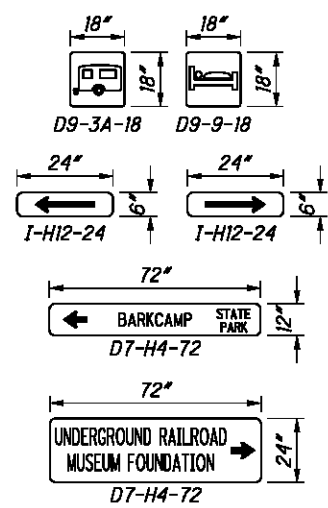
0 5 10
2.5'
HORIZONTAL
SCALE IN FEET

SIGN ELEVATIONS
S.R. 149

BEL-70-7.61

272
373

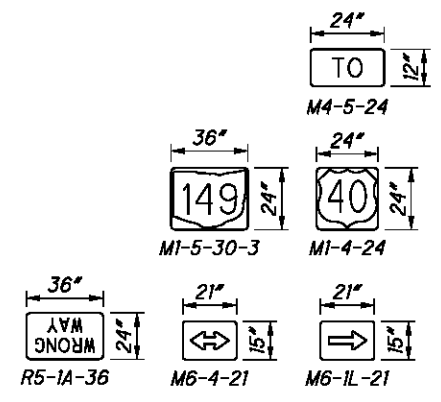
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(2) #6 POST SUPPORTS
(xx.x' + xx.x')

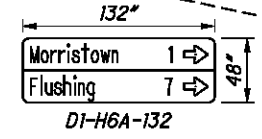
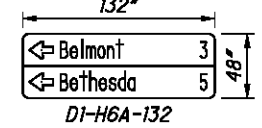
SIGN DETAIL
N.T.S.

BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP D, STA. 13+55, LT (FACING WESTBOUND)



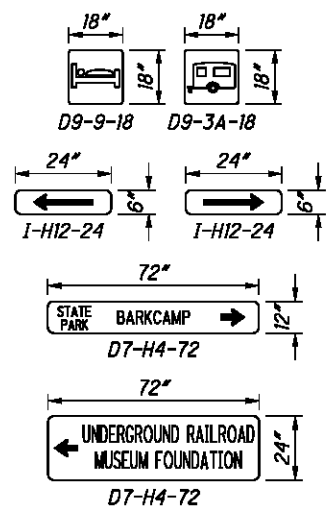
BEAM SUPPORTS
(2) W10X22
(27.8' + 27.3')

BREAKAWAY CONNECTIONS



SIGN DETAIL
N.T.S.

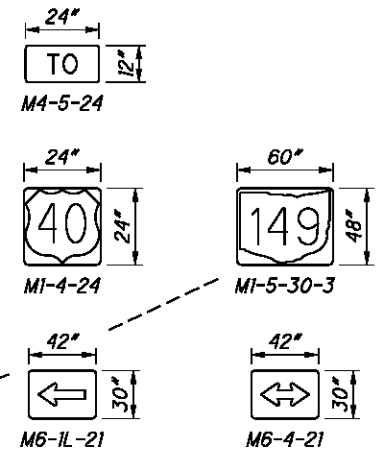
BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP C, STA. 4+62, LT (FACING WESTBOUND)



(2) #6 POST SUPPORTS
(18.8' + 19.1')

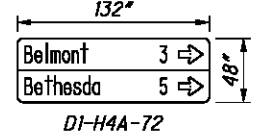
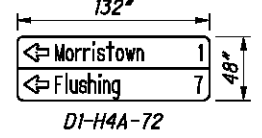
SIGN DETAIL
N.T.S.

BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP B, STA. 0+47, RT (FACING EASTBOUND)



(2) W8X18
BEAM SUPPORTS
(24.0' + 22.2')

BREAKAWAY CONNECTIONS



SIGN DETAIL
N.T.S.

BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP A, STA. 10+06, RT (FACING EASTBOUND)



CALCULATED
CDS
CHECKED
BBD

SIGN ELEVATIONS
RAMPS

BEL-70-7.61

273
373

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE HL AND TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
 - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
 - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
 - C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
 - D. METAL PULL BOX LIDS SHALL BE BONDED BY ATTACHMENT OF THE EQUIPMENT GROUNDING CONDUCTOR TO THE FRAME DIAGONAL AS PROVIDED ON HL-30.11.
 - E. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
 - F. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
 - G. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.
2. CONDUITS.
 - A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
 - B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
 - C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
 - D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. WIRE FOR GROUNDING AND BONDING.
 - A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
 - I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
 - II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES

- IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/ LABELS INSTALLED AT ALL ACCESS POINTS.
- B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
4. GROUND ROD.
 - A. A 3/4 INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
 - B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.
5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.
 - A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
 - B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
 - I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
 - II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.
7. STRUCTURE GROUNDING: HL-50.21 SHOWS A 1/0 AWG STRANDED COPPER CABLE USED FOR STRUCTURE GROUNDING. ADDITIONALLY, THIS SAME CABLE SHALL BE INSULATED AND ANY CONNECTIONS AND BARE COPPER STRANDS EXPOSED TO CONCRETE SHALL BE COVERED WITH MASTIC TO PREVENT CONTACT WITH THE CONCRETE.

8. PAYMENT.
 - A. ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.
 - B. WORK ON BRIDGES MAY BE INCLUDED IN THE BID ITEM FOR "ITEM 625, STRUCTURE GROUNDING."
 - C. IN A 3-WIRE HIGHWAY LIGHTING SYSTEM, THE THIRD CONDUCTOR OF THE DUCT CABLE OR DISTRIBUTION CABLE WILL BE USED AS THE EQUIPMENT GROUNDING CONDUCTOR AND MAY AS SUCH BE PART OF THE CABLE BID ITEM.

LIGHT POLE REMOVED
THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE. THE LIGHT POLE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT POLE REMOVED" FOR EACH POLE REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LIGHT POLE FOUNDATION REMOVED
THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE FOUNDATION TO A MINIMUM OF 1 FOOT (0.3 METER) BELOW FINISHED GRADE, OR REMOVING THE FOUNDATION COMPLETELY, BACKFILLING THE RESULTANT DEPRESSION WITH COMPACTED SOIL AND RESTORING THE DISTURBED AREA.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT POLE FOUNDATION REMOVED" FOR EACH FOUNDATION REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

PULL BOX REMOVED
THIS ITEM OF WORK WILL CONSIST OF REMOVING AND PROPERLY DISPOSING OF AN EXISTING PULL BOX. THE RESULTANT OPENING SHALL THEN BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SOIL AND RESTORED TO MATCH THE SURROUNDING AREA.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "PULL BOX REMOVED" FOR EACH PULL BOX REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

POWER SERVICE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF AN EXISTING POWER SERVICE. INCLUDED FOR REMOVAL WILL BE ALL POWER SERVICE COMPONENTS SUCH AS THE WOOD POLE, WEATHER HEAD AND ALL ABOVE GRADE WIRING, CONTROL CENTER ENCLOSURE, PHOTOELECTRIC CELL AND ALL OTHER APPURTENANCES. THE CABLE ENCLOSED IN THE 2-INCH (50-MILLIMETER) CONDUIT WHICH RUNS INTO THE GROUND SHALL BE CUT WHERE IT EXITS THE 2-INCH (50-MILLIMETER) CONDUIT, APPROXIMATELY 2 FEET (0.6 METER) BELOW THE GROUND, AND SHALL BE REMOVED WITH THE 2-INCH (50-MILLIMETER) CONDUIT. THE REMAINING BURIED CABLE SHALL BE ABANDONED. ALL DISTURBED AREAS SHALL BE RESTORED TO MATCH THE SURROUNDING AREA. ALL POWER SERVICE COMPONENTS INCLUDING THE CONTROL CENTER, POLE, PHOTOELECTRIC CELL, 2-INCH (50-MILLIMETER) CONDUIT, WEATHER HEAD AND ALL ABOVE-GROUND WIRING SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF THE PROJECT SITE. THIS ITEM WILL ALSO COMPENSATE THE CONTRACTOR FOR COORDINATING WITH THE POWER COMPANY TO ENSURE THAT THE COMPANY DISCONNECTS THE SERVICE, AND THAT ITEMS WHICH BELONG TO THE POWER COMPANY AND ARE REMOVED BY THE CONTRACTOR SUCH AS THE METER BASE SHALL BE RETURNED TO THE POWER COMPANY.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "POWER SERVICE REMOVED, AS PER PLAN" FOR EACH SERVICE REMOVED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LUMINAIRE, CONVENTIONAL, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS: LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS WITH AN IES II-M-SC DISTRIBUTION AND 200 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 126" WITH PHOTOMETRIC DISTRIBUTION AE38491, COOPER "OVD" WITH PHOTOMETRIC DISTRIBUTION OVD2S2F, GENERAL ELECTRIC "M-400" WITH PHOTOMETRIC DISTRIBUTION 1014, OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "LUMINAIRE, CONVENTIONAL, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS 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 20 FEET (6.1 METERS). AN ANIMAL GUARD SHALL BE INCLUDED AT THE OUTLET END OF THE DRAIN.

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SHEET NO.	LOCATION	SIDE	CIRCUIT NODES	625															
				LUMINAIRE, TYPE II, 200W HPS, AS PER PLAN	LIGHT POLE, CONVENTIONAL, 32.5'	LIGHT POLE FOUNDATION, 24" X 6" DEEP	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTOR KIT, TYPE II	GROUND ROD	1 1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT-JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	TRENCH, 24" DEEP	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	POWER SERVICE, AS PER PLAN		
	FROM - TO			EACH	EACH	EACH	FT	EACH	EACH	FT	FT	FT	FT	EACH	EACH	FT	EACH		
279	STA. 495+70	LT	LI-18	1	1	1	110	2	1										
279	STA. 495+70 TO STA. 499-10	LT	LI-18 TO LI-19							350			340						
279	STA. 499+10	LT	LI-19	1	1	1	106	2	1										
279	STA. 499+10 TO STA. 502+50	LT	LI-19 TO LI-20							350			340						
279	STA. 502+50	LT	LI-20	1	1	1	106	2	1										
279/280	STA. 502+50 TO STA. 505+90	LT	LI-20 TO LI-21							350			340						
280	STA. 505+90	LT	LI-21	1	1	1	106	2	1										
280	STA. 505+90 TO STA. 3+95	LT/RT	LI-21 TO LI-22							350			340						
280	STA. 3+95	RT	LI-22	1	1	1	100	2	1										
280/281	STA. 3+95 TO STA. 132+30	RT/LT	LI-22 TO PB-5							1135			1125						
281	STA. 132+30	LT	PB-5												1				
281	STA. 132+30 TO STA. 132+41	LT	PB-5 TO CC								30		30			120			
281	STA. 132+41	LT	CC														1		
281	STA. 132+30 TO STA. 131+90	LT/RT	PB-5 TO LI-17								20	50	20			240			
281	STA. 131+90	RT	LI-17	1	1	1	100	2	1										
281	STA. 131+90 TO 131+29	RT	LI-17 TO PB-4							75									
281	STA. 131+29	RT	PB-4											1					
281	STA. 131+29 TO STA. 130+58	RT	PB-4 TO PB-3								20	50	20			225			
281	STA. 130+58	RT	PB-3												1				
281	STA. 130+58	RT/LT	PB-3 TO LI-12								10	50	10			210			
281	STA. 130+30	LT	LI-12	1	1	1	106	2	1										
281	STA. 131+29 TO STA. 7+35	RT/LT	PB-4 TO LI-15							795									
281	STA. 7+35	LT	LI-15	1	1	1	100	2	1										
281	STA. 7+35 TO 526+40	LT	LI-15 TO LI-16								45	35	35			270			
281	STA. 526+40	LT	LI-16	1	1	1	110	2	1										
281	STA. 7+35 TO 9+25	LT	LI-15 TO LI-14							200									
281	STA. 9+25	LT	LI-14	1	1	1	106	2	1										
281/282	STA. 9+25 TO STA. 534+45	LT	LI-14 TO LI-13							680									
282	STA. 534+45	LT	LI-13	1	1	1	106	2	1										
279	STA. 500+55	RT	LI-6	1	1	1	100	2	1										
279/280	STA. 500+55 TO STA. 4+20	RT	LI-6 TO LI-7							650									
280	STA. 4+20	RT	LI-7	1	1	1	100	2	1										
280	STA. 4+20 TO STA. 6+15	RT	LI-7 TO LI-8							205									
280	STA. 6+15	RT	LI-8	1	1	1	100	2	1										
280	STA. 6+15 TO STA. 508+40	RT	LI-8 TO LI-9								35	35	35			240			
280	STA. 508+40	RT	LI-9	1	1	1	110	2	1										
280/281	STA. 6+15 TO STA. 125+02	RT/LT	LI-8 TO PB-1							1055									
281	STA. 125+02	LT	PB-1												1				
281	STA. 125+02 TO STA. 124+81	LT	PB-1 TO LI-10							35									
281	STA. 124+81	LT	LI-10	1	1	1	106	2	1										
SUBTOTALS CARRIED TO NEXT SHEET				16	16	16	1572	32	16	6230	160	220	6260	1	3	1305	1		

CALCULATED
 GAM
 CHECKED
 MJH

LIGHTING SUBSUMMARY

BEL - 70 - 7.61

(276)
 373

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SHEET NO.	LOCATION FROM - TO	SIDE	CIRCUIT NODES	625														POWER SERVICE, AS PER PLAN
				LUMINAIRE, TYPE II, 200W HPS, AS PER PLAN	LIGHT POLE, CONVENTIONAL, 32.5'	LIGHT POLE FOUNDATION, 24" X 6" DEEP	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTOR KIT, TYPE II	GROUND ROD	1 1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT-JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04	TRENCH, 24" DEEP	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE		
				EACH	EACH	EACH	FT	EACH	EACH	FT	FT	FT	FT	EACH	EACH	FT	EACH	
281	STA. 6+15 TO STA. 508+40	RT	PB-1 TO PB-2								25	55	25			270		
281	STA. 125+02	RT	PB-2												1			
281	STA. 125+02 TO STA. 126+13	RT	PB-2 TO LI-II							65	50	65				375		
281	STA. 126+13	RT	LI-II	1	1	1	106	2	1									
281	STA. 126+13 TO STA. 130+58	RT	LI-II TO PB-3							450			440					
281	STA. 125+02 TO STA. 10+75	RT	PB-2 TO LI-5							1060			1050					
281	STA. 10+75	RT	LI-5	1	1	1	100	2	1									
281/282	STA. 10+75 TO STA. 531+90	RT	LI-5 TO LI-4							350			340					
282	STA. 531+90	RT	LI-4	1	1	1	106	2	1									
282	STA. 531+90 TO STA. 535+30	RT	LI-4 TO LI-3							350			340					
282	STA. 535+30	RT	LI-3	1	1	1	106	2	1									
282	STA. 535+30 TO STA. 538+70	RT	LI-3 TO LI-2							350			340					
282	STA. 538+70	RT	LI-2	1	1	1	106	2	1									
282	STA. 538+70 TO STA. 542+10	RT	LI-2 TO LI-1							350			340					
282	STA. 542+10	RT	LI-1	1	1	1	106	2	1									
SUBTOTALS THIS SHEET				6	6	6	630	12	6	2910	90	105	2940		1	645		
SUBTOTALS PREVIOUS SHEET				16	16	16	1572	32	16	6230	160	220	6260	1	3	1305	1	
TOTALS CARRIED TO GENERAL SUMMARY				22	22	22	2202	44	22	9140	250	325	9200	1	4	1950	1	

CALCULATED	GAM
CHECKED	MJH
LIGHTING SUBSUMMARY	
BEL - 70 - 7.61	
(277 373)	



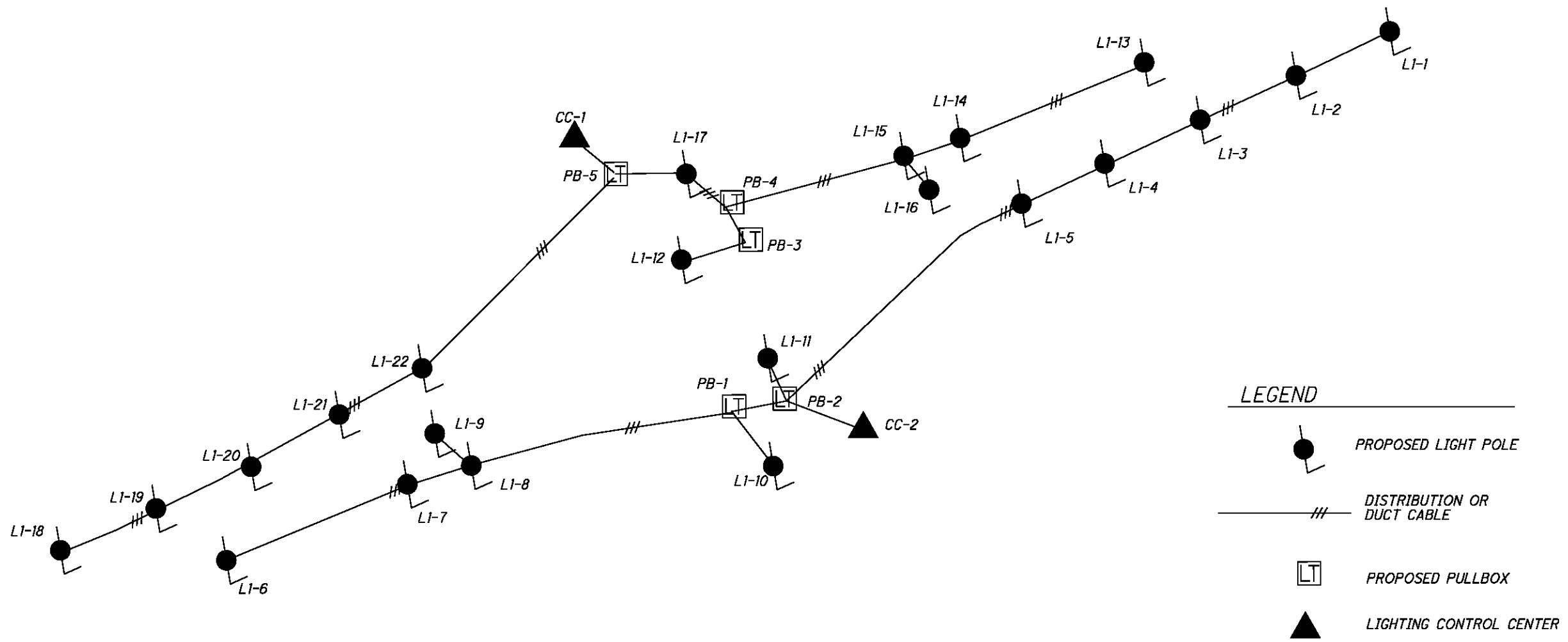
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CALCULATED
MJH
CHECKED
KAE

LIGHTING CIRCUIT DIAGRAM

BEL-70-7.61

278
373



- LEGEND**
- PROPOSED LIGHT POLE
 - DISTRIBUTION OR DUCT CABLE
 - PROPOSED PULLBOX
 - LIGHTING CONTROL CENTER

CONTROL CENTER DATA									
CONTROL CENTER	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
S.R. 149 STA. 132+41	480V	2.9	4 AWG	60	1	6.14	60	4 AWG	ODOT
S.R. 149 STA. 124+85	480V	2.9	4 AWG	60	1	6.14	60	4 AWG	ODOT

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD DRAWINGS





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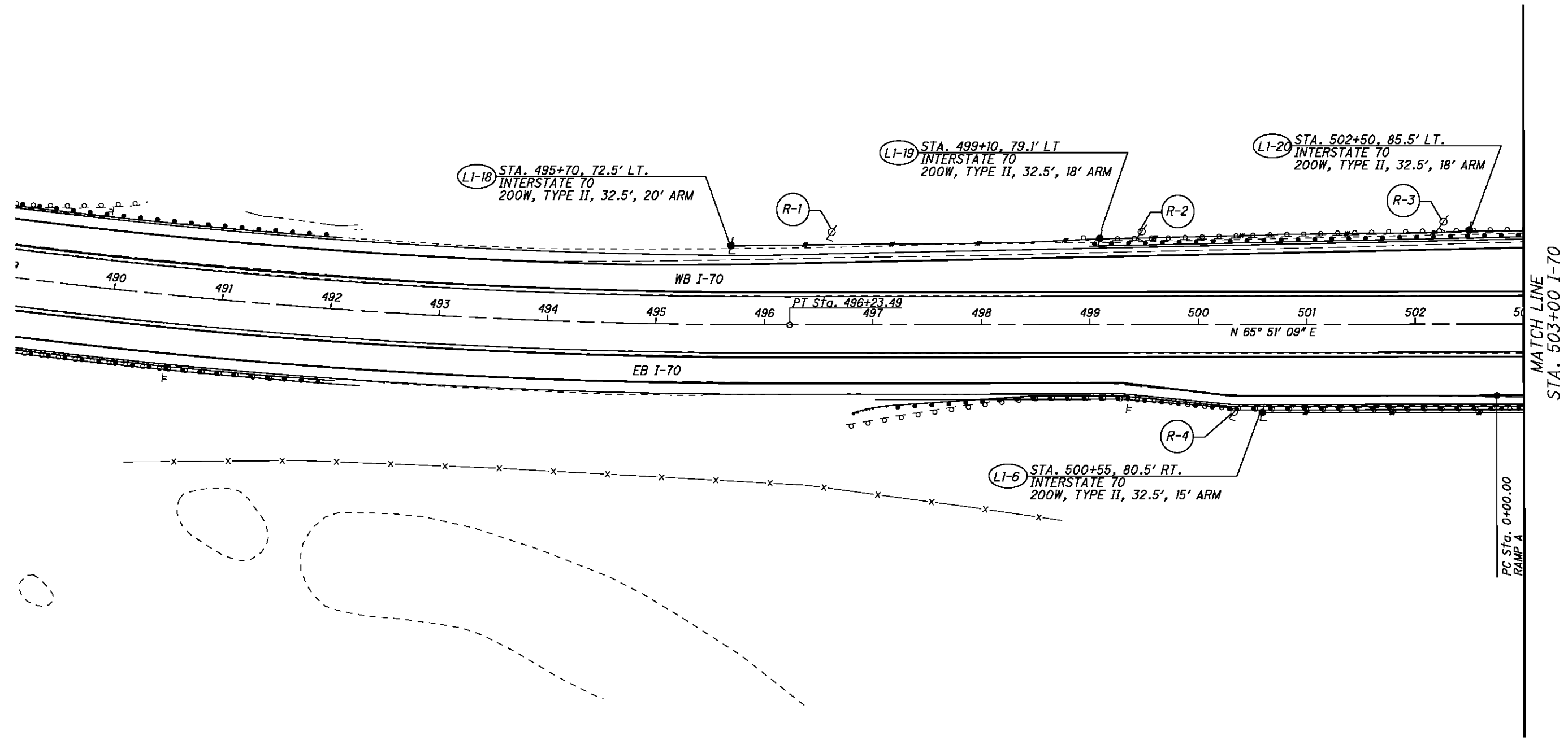




 CALCULATED MJH
 CHECKED KAE

LEGEND

-  LIGHT POLE
-  LIGHTING CONTROL CENTER
-  DUCT CABLE (3/C, No. 4 AWG)
-  3" METAL CONDUIT W/3-#4 AWG DIST. CABLE



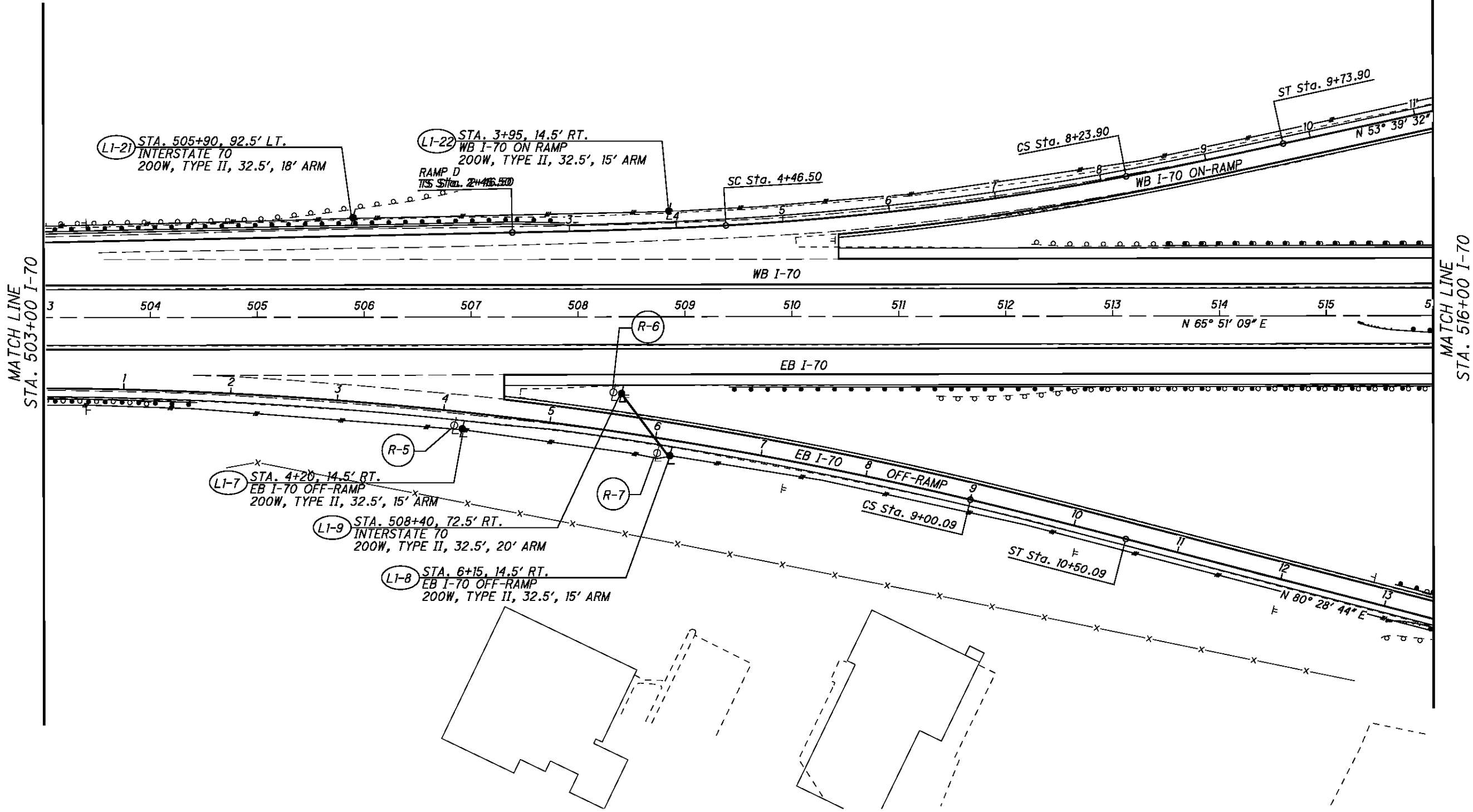
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LIGHTING PLAN
STA. 489+00 TO STA. 503+00

BEL-70-7.61

LEGEND

- LIGHT POLE
- ◀ LIGHTING CONTROL CENTER
- DUCT CABLE (3/C, No. 4 AWG)
- 3" METAL CONDUIT W/3-#4 AWG DIST. CABLE



CALCULATED MJH
 CHECKED KAE

0 50 100 200
 HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 503+00 TO STA. 516+00

BEL-70-7.61

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CALCULATED MJH
CHECKED KAE

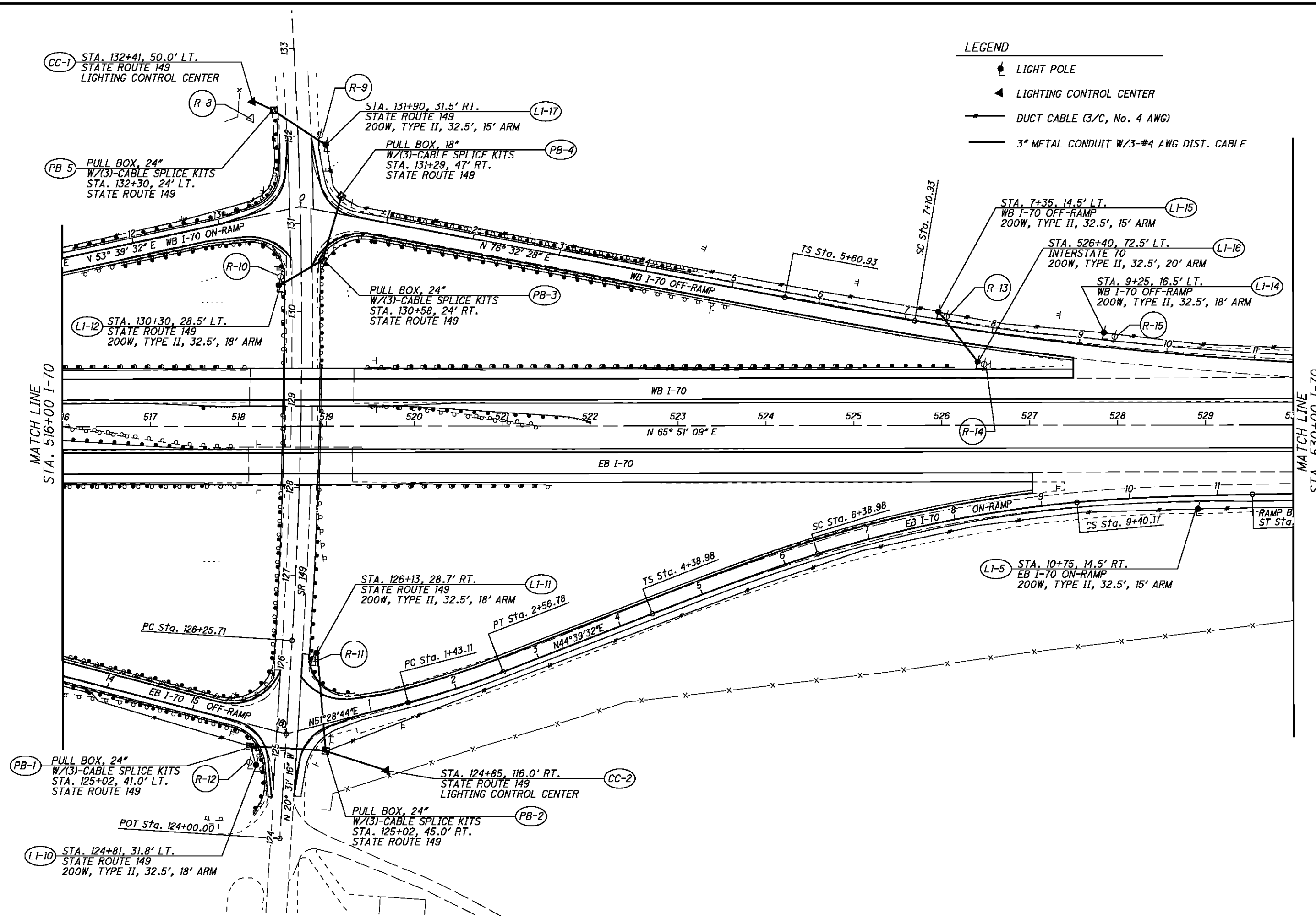
LIGHTING PLAN
STA. 516+00 TO STA. 530+00

BEL-70-7.61

281
373

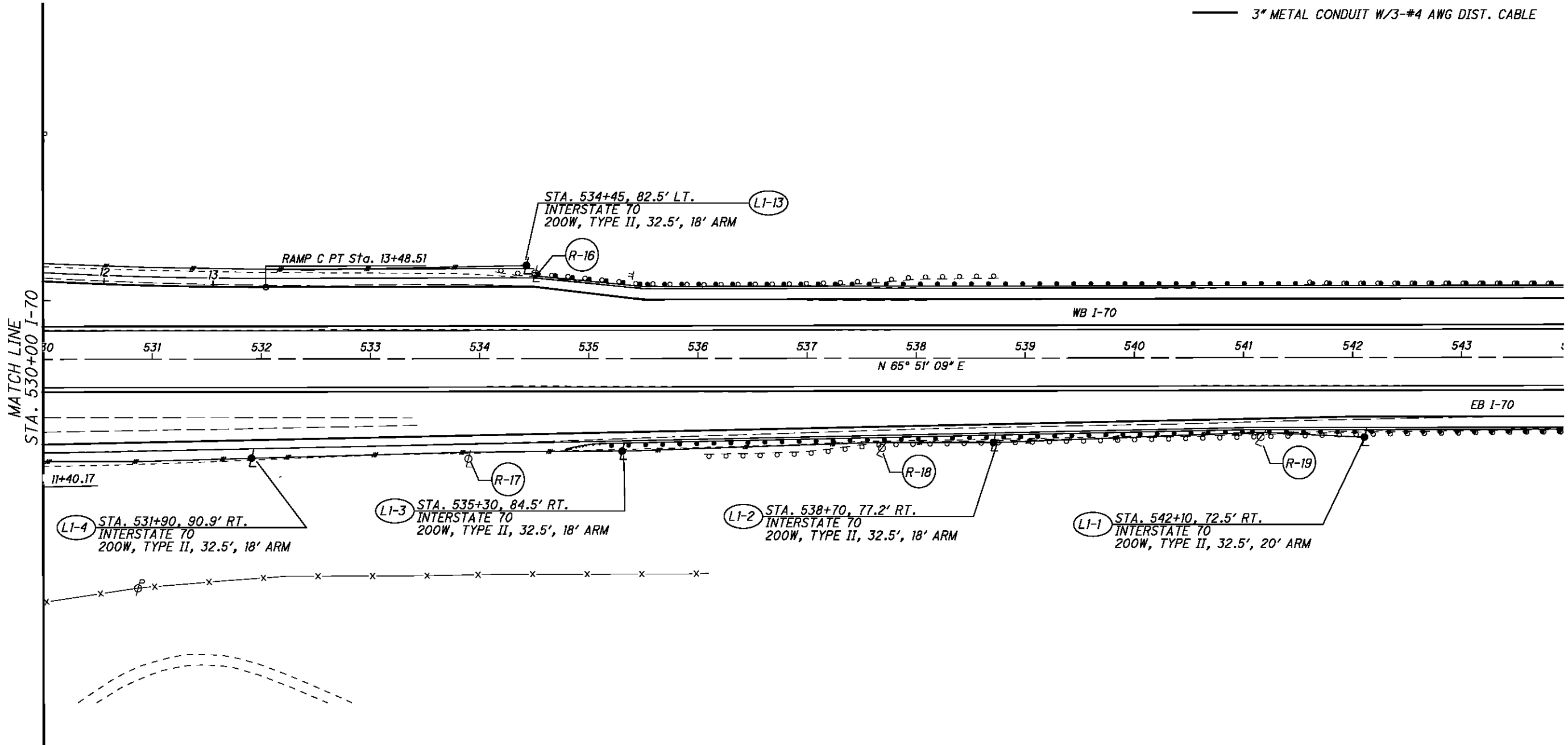
LEGEND

- LIGHT POLE
- LIGHTING CONTROL CENTER
- DUCT CABLE (3/C, No. 4 AWG)
- 3" METAL CONDUIT W/3-#4 AWG DIST. CABLE



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LEGEND

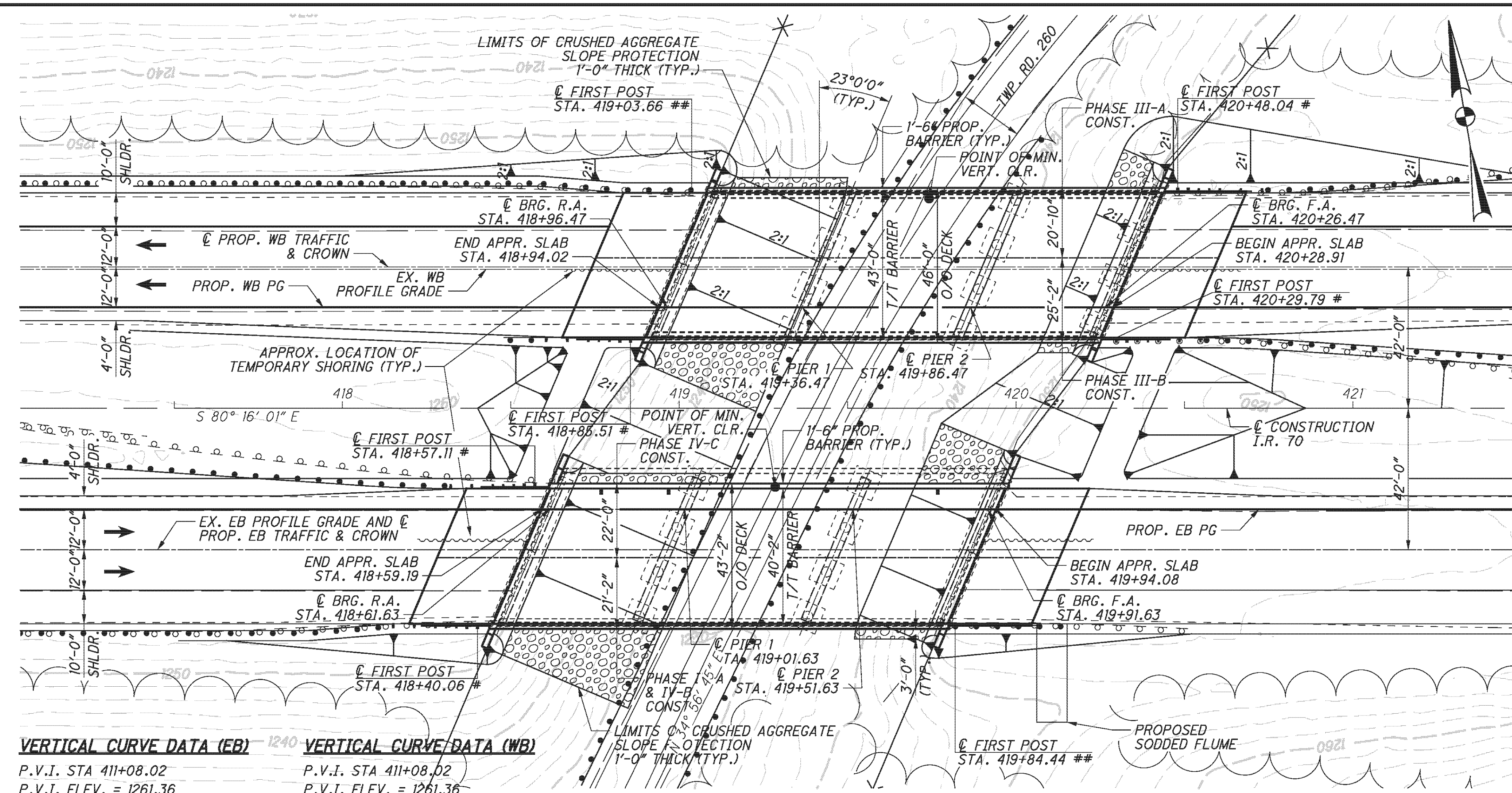
- LIGHT POLE
- ▲ LIGHTING CONTROL CENTER
- #— DUCT CABLE (3/C, No. 4 AWG)
- 3" METAL CONDUIT W/3-#4 AWG DIST. CABLE

CALCULATED MJH
CHECKED KAE

0 50 100
25
HORIZONTAL SCALE IN FEET

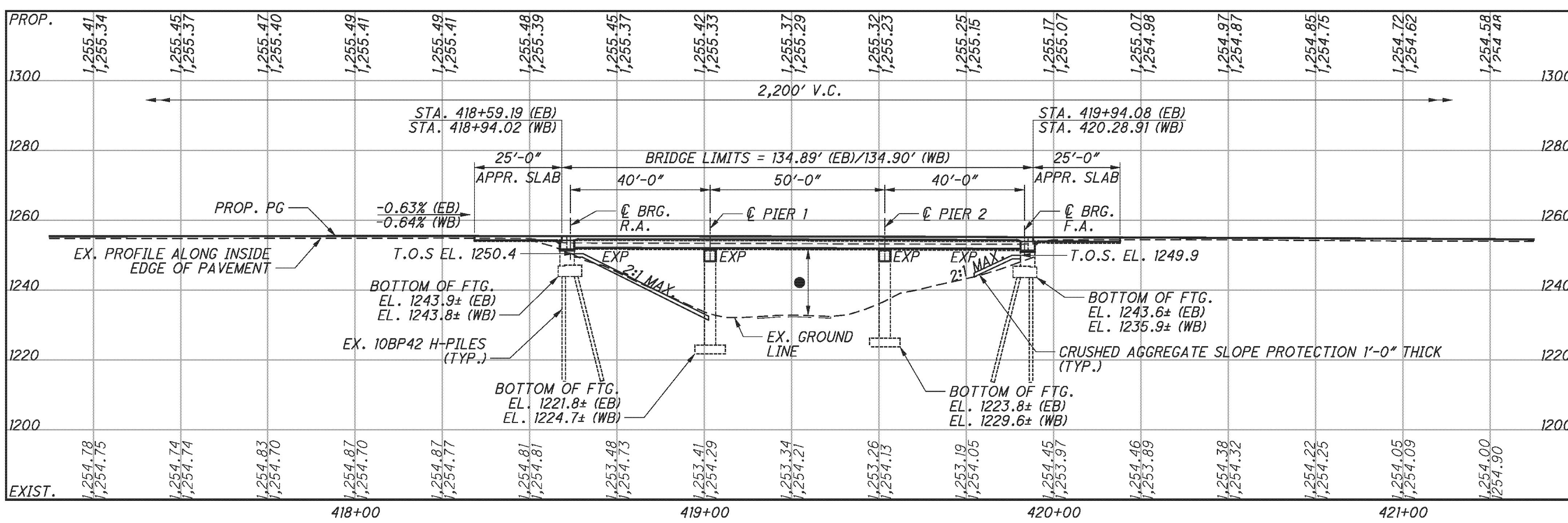
LIGHTING PLAN
STA. 530+00 TO STA 544+00

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PLAN

VERTICAL CURVE DATA (EB)		VERTICAL CURVE DATA (WB)	
P.V.I. STA 411+08.02	P.V.I. STA 411+08.02	P.V.I. STA 411+08.02	P.V.I. STA 411+08.02
P.V.I. ELEV. = 1261.36	P.V.I. ELEV. = 1261.36	P.V.I. ELEV. = 1261.36	P.V.I. ELEV. = 1261.36
G1 = +3.51%	G1 = +3.51%	G2 = -0.64%	G2 = -0.64%
G2 = -0.63%	G2 = -0.63%	V.C. = 2,200'	V.C. = 2,200'



PROFILE ALONG EASTBOUND PROFILE GRADE

BENCHMARK DATA

BM #12 STA. 423+99.59, ELEV. 1253.64, OFFSET 0.01' LT
 CENTERLINE MONUMENT FOUND
 BM #13 STA. 415+99.86, ELEV. 1255.63, OFFSET 0.02' LT
 CENTERLINE MONUMENT FOUND

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 5/267

NOTES

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
 - ALL EXISTING DIMENSIONS ARE ±.
- DESIGN TRAFFIC:
 2010 ADT = 35,870 2010 ADTT = 17,935
 2030 ADT = 46,890 2030 ADTT = 23,445
 DIRECTIONAL DISTRIBUTION = 0.55

LEGEND

- - 15.5' EXISTING MINIMUM VERTICAL CLEARANCE LEFT BRIDGE
 - - 19.1' EXISTING MINIMUM VERTICAL CLEARANCE RIGHT BRIDGE
 - 16.3' PROPOSED MINIMUM VERTICAL CLEARANCE LEFT BRIDGE
 - 19.9' PROPOSED MINIMUM VERTICAL CLEARANCE RIGHT BRIDGE
 - 15.5' REQUIRED MINIMUM VERTICAL CLEARANCE BOTH BRIDGES
- # BRIDGE TERMINAL ASSEMBLY TYPE 1
 ## BRIDGE TERMINAL ASSEMBLY TYPE 2
 BRIDGE TERMINAL ASSEMBLIES ARE INCLUDED WITH ROADWAY QUANTITIES FOR PAYMENT

PROPOSED WORK

- REMOVE AND REPLACE CONCRETE DECK, STEEL BEAMS, CONCRETE PIER CAPS AND APPROACH SLABS.
- CONVERT ABUTMENTS TO SEMI-INTEGRAL.
- PATCH PIER COLUMNS.
- INSTALL CRUSHED AGGREGATE SLOPE PROTECTION.
- REMOVE BRUSH UNDER STRUCTURE AND FROM 20 FT EACH SIDE OF STRUCTURE.
- EPOXY WRAP ALL PIER COLUMNS.
- SEAL CONCRETE SURFACES ON PIERS, ABUTMENTS, AND PARAPETS.

EXISTING STRUCTURE

TYPE: 3-SPAN CONTINUOUS STEEL BEAM WITH CONCRETE DECK AND SUBSTRUCTURE
 SPANS: 40'-0" ± - 50'-0" ± - 40'-0" ± C/C BEARINGS
 ROADWAY: 39'-8" T/T SAFETY CURB (WB)
 43'-0" T/T SAFETY CURB TO T/ PARAPET (EB)
 LOADING: CF 2000 (57) (WB)
 HS20 AND THE ALTERNATE MILITARY LOADING (EB)
 SKEW: 23°00'00" ± LF
 APPROACH SLABS: AS-1-54 (25' LONG)
 WEARING SURFACE: MICROSILICA MODIFIED CONCRETE OVERLAY (WB)
 1" MONOLITHIC CONCRETE AND MICROSILICA MODIFIED CONCRETE OVERLAY (EB)
 ALIGNMENT: TANGENT
 CROWN: 0.1875
 STRUCTURAL FILE NUMBER: 0702137L/0702161R
 DATE BUILT: 1964

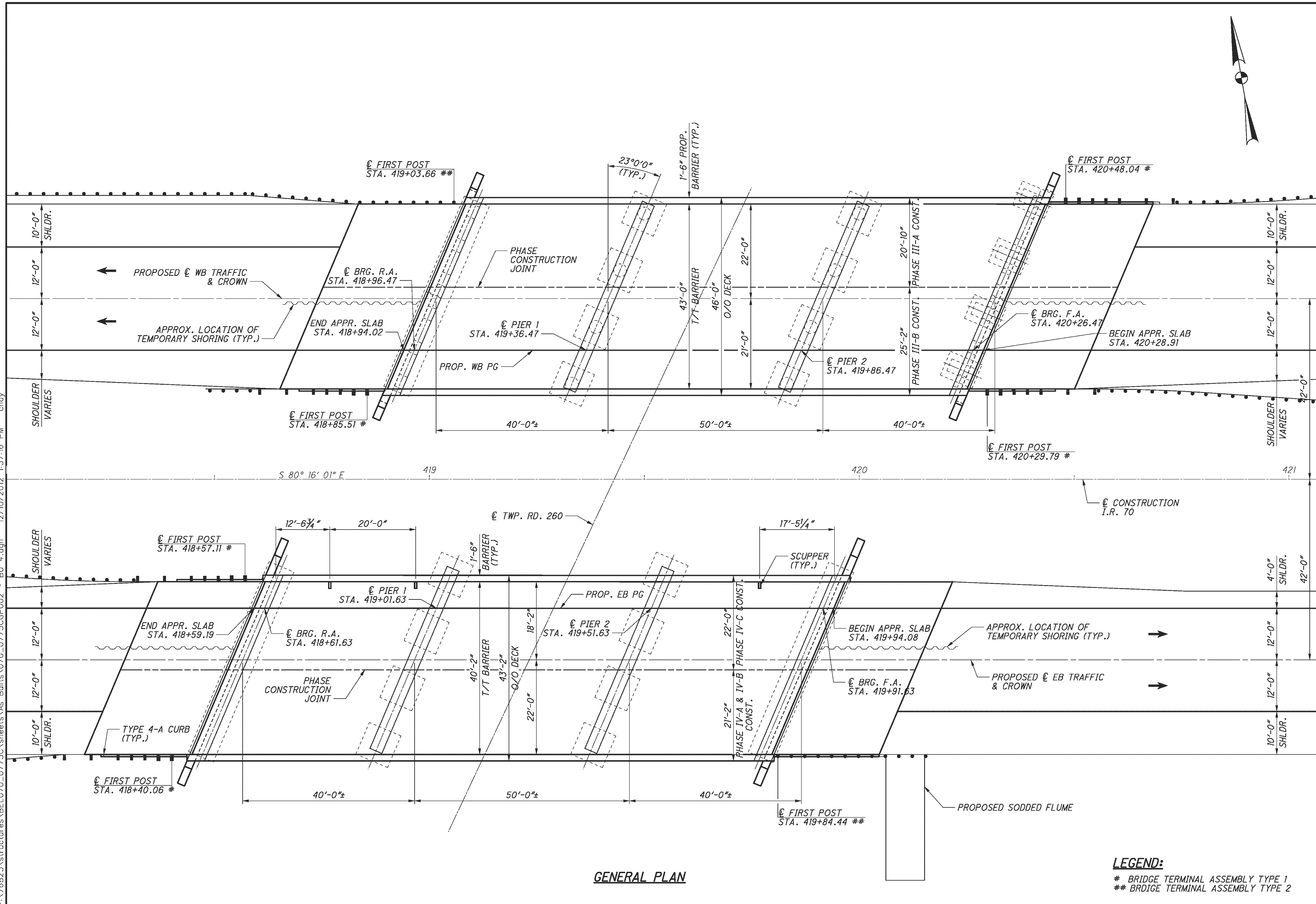
PROPOSED STRUCTURE

TYPE: 3-SPAN CONTINUOUS STEEL BEAM A709 GRADE 50W SUPPORTED BY MODIFIED SUBSTRUCTURE
 SPANS: 40'-0" - 50'-0" - 40'-0" C/C BEARINGS
 ROADWAY: 40'-2" T/T BARRIER (EB) / 43'-0" T/T BARRIER (WB)
 LOADING: HS20 CASE I AND THE ALTERNATE MILITARY LOADING
 FUTURE WEARING SURFACE: 60 PSF
 SKEW: 23°00'00" LF
 APPROACH SLABS: 25'-0" LONG (AS-1-81)
 ALIGNMENT: TANGENT
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 CROWN: 0.0156
 COORDINATES: LATITUDE 40°3'32" N
 LONGITUDE 81°5'14" W

E.L. ROBINSON
 The Challenge, the Choice
 1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE	2/3/11
REVIEWED	RER
STRUCTURE FILE NUMBER	0702137L/0702161R
DRAWN	DTA
CHECKED	DTA
DESIGNED	DTA
BELMONT COUNTY (WEST BOUND)	STA. 418+94.02
BELMONT COUNTY (EAST BOUND)	STA. 419+94.08
SITE PLAN	BRIDGE NO. BEL-70-0775 L/R
	I.R. 70 OVER TWP. RD. 260
BEL-70-7.61	PID No. 76825
1	46
283	373

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GENERAL PLAN

LEGEND:
 # BRIDGE TERMINAL ASSEMBLY TYPE 1
 ## BRIDGE TERMINAL ASSEMBLY TYPE 2

E.L. ROBINSON the Challenge, the Choice 1901 Watermark Drive, Suite 310 - Columbus, Ohio 43215		DATE	2/3/11
		REVIEWED	RER
DESIGNED	DTA	CHECKED	RLE
DRAWN	DTA	REVISED	
BELMONT COUNTY (WEST BOUND)	STA. 418+94.02	BELMONT COUNTY (EAST BOUND)	STA. 419+94.08
BELMONT COUNTY (WEST BOUND)	STA. 418+94.02	BELMONT COUNTY (EAST BOUND)	STA. 419+94.08
GENERAL PLAN BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260		BEL-70-7.61 PID No. 76825	
		2 / 46	
		(284) (373)	

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):
 AS-1-81 REVISED 7-19-02
 GSD-1-96 REVISED 7-19-02
 SBR-1-99 REVISED 7-19-02
 SICD-1-96 REVISED 7-19-02
 AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):
 898 DATED 7-17-09

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS, 2002 - 17th EDITION AND THE 2004 ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

DESIGN LOADING -
 SUPERSTRUCTURE - HS20, CASE I AND THE ALTERNATE MILITARY LOADING

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996
 - GRADE 60 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50,000 P.S.I.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

EXISTING BRIDGE PLANS

EXISTING BRIDGE PLANS MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR AT THE ODOT DISTRICT ELEVEN OFFICE IN NEW PHILADELPHIA OHIO.

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

MAINTENANCE OF TRAFFIC

SEE ROADWAY PLANS FOR ADDITIONAL MAINTENANCE OF TRAFFIC NOTES AND DETAILS.

ITEM 201 - CLEARING AND GRUBBING

CLEAR AND GRUB ALL VEGETATION UNDER AND WITHIN 20 FEET OF EACH SIDE OF THE EXISTING STRUCTURE.

ITEM 202. PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:
 THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION:
 SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL:
 REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

ITEM 509 EPOXY COATED REINFORCING STEEL, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. AN ALLOWANCE OF 100 POUNDS IS INCLUDED IN ITEM 509 FOR THIS PURPOSE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 516-SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE

DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE, WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES,+/-, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES,+/-, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY-DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D751	0.094 ± 0.01
BREAKING STRENGTH, GRAB, LBS MINIMUM (LONG. X TRANS.)	D751	700 x 700
ADHESIVE STRIP, 1" WIDE x 2" LONG, LBS MINIMUM	D751	9
BURST STRENGTH, PSI MINIMUM	D751	1400
HEAT AGING, 70 HR, 212 °F, 180° BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLENESS, 1 HR, -40°F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING. A QUANTITY OF 135 SQUARE FEET HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES. THIS ITEM IS TO BE USED AS DIRECTED BY THE ENGINEER AT THE PIER COLUMNS.

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STRUCTURE FILE NUMBER	0702137L/0702161R

GENERAL NOTES
 BRIDGE NO. BEL-70-0775 L/R
 I.R. 70 OVER TWP. RD 260

BEL-70-7.61
 PID No. 76825

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ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526 EXCEPT CONCRETE SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 898, QC/QA CONCRETE, CLASS QSC2. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, PARAPETS, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, AND WATERPROOFING. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS. THE DEPARTMENT WILL INITIALLY PAY THE FULL BID PRICE TO THE CONTRACTOR UPON COMPLETING THE WORK. THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN

THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

DECK PLACEMENT DESIGN ASSUMPTIONS:

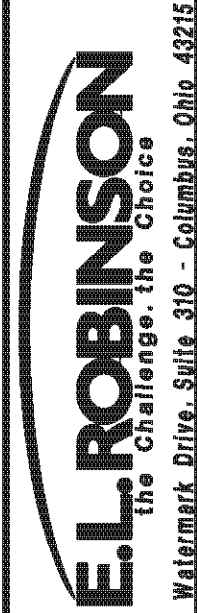
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 0.95 KIPS FOR A TOTAL MACHINE LOAD OF 7.6 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".



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DATE	2/3/11		

GENERAL NOTES
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD 260

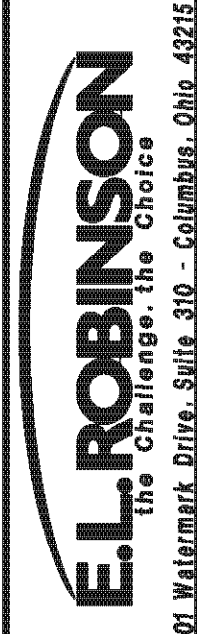
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PID No. 76825

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ESTIMATED QUANTITIES										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #	
201	11000	LUMP		CLEARING AND GRUBBING				LUMP		
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP		
202	22900	134	SQ YD	APPROACH SLAB REMOVED				134		
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP		
503	21300	LUMP		UNCLASSIFIED EXCAVATION				LUMP		
509	10001	65,483	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	6208	6213	53,062			
510	10000	40	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	40					
512	10100	583	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	64	208	311			
512	33000	3	SQ YD	TYPE 2 WATERPROOFING	3					
513	10260	98,614	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3			98,614			
513	20000	2,358	EACH	WELDED STUD SHEAR CONNECTORS			2,358			
516	13900	36	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	36					
516	14021	128	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	128					
516	44001	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10"x14"x1.924" PAD WITH 11"x15"x1 1/2" LOAD PLATE)	12					
516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x15"x1.924" PAD WITH 12"x16"x1 1/2" LOAD PLATE)		12				
518	21200	64	CU YD	POROUS BACKFILL WITH FILTER FABRIC	64					
518	40000	122	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	122					
518	40011	54	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	54					
519	11101	68	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN				68		
601	20000	350	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION				350		
898	10211	236	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			236			
898	10705	243	SQ YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15'), AS PER PLAN				243		
898	11001	42	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN			42			
898	20110	42	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (PIER CAP)		42				
898	20151	7	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (ABUTMENT), AS PER PLAN	7					



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DRAWN
DESIGNED

BMG
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STRUCTURE FILE NUMBER
0702137L/0702161R

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ESTIMATED QUANTITIES - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

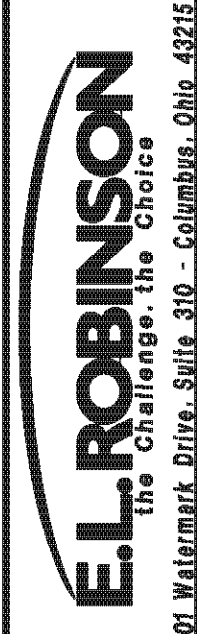
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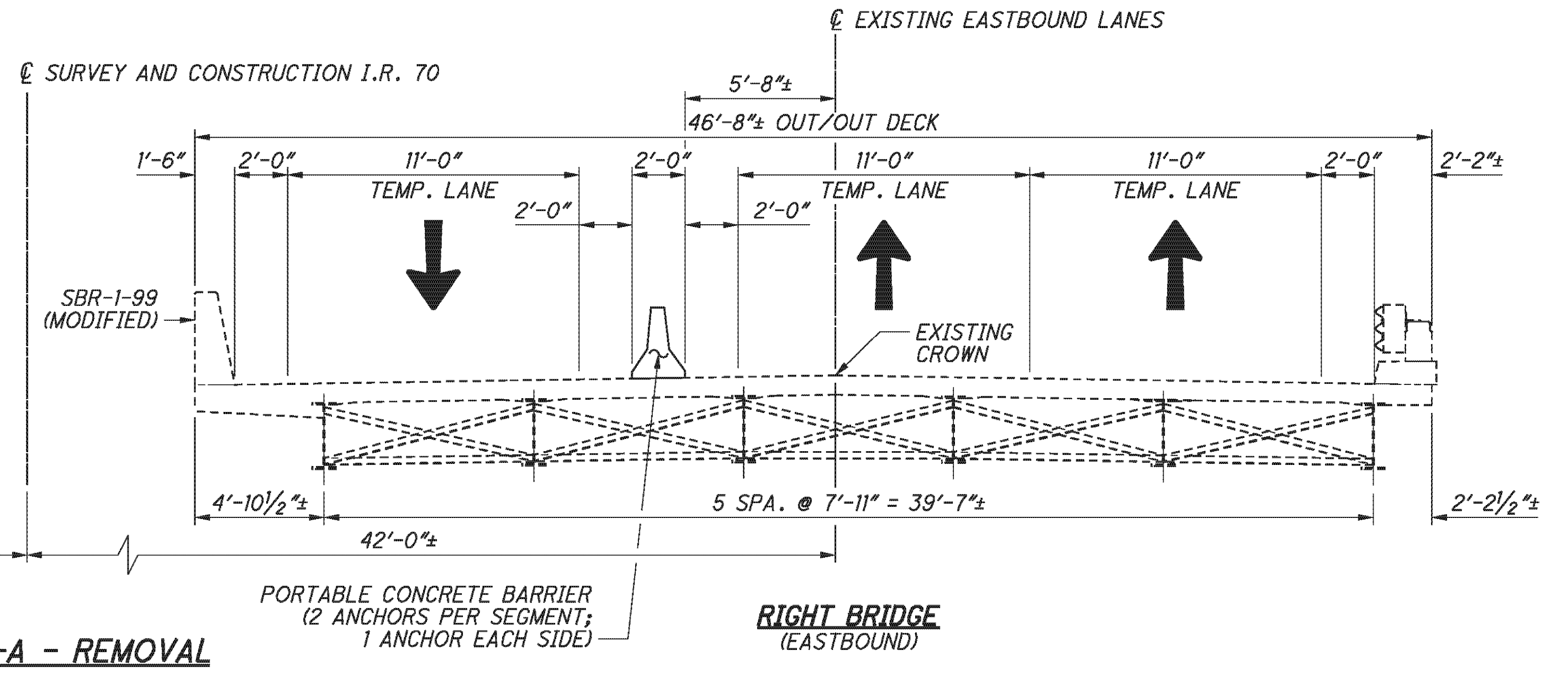
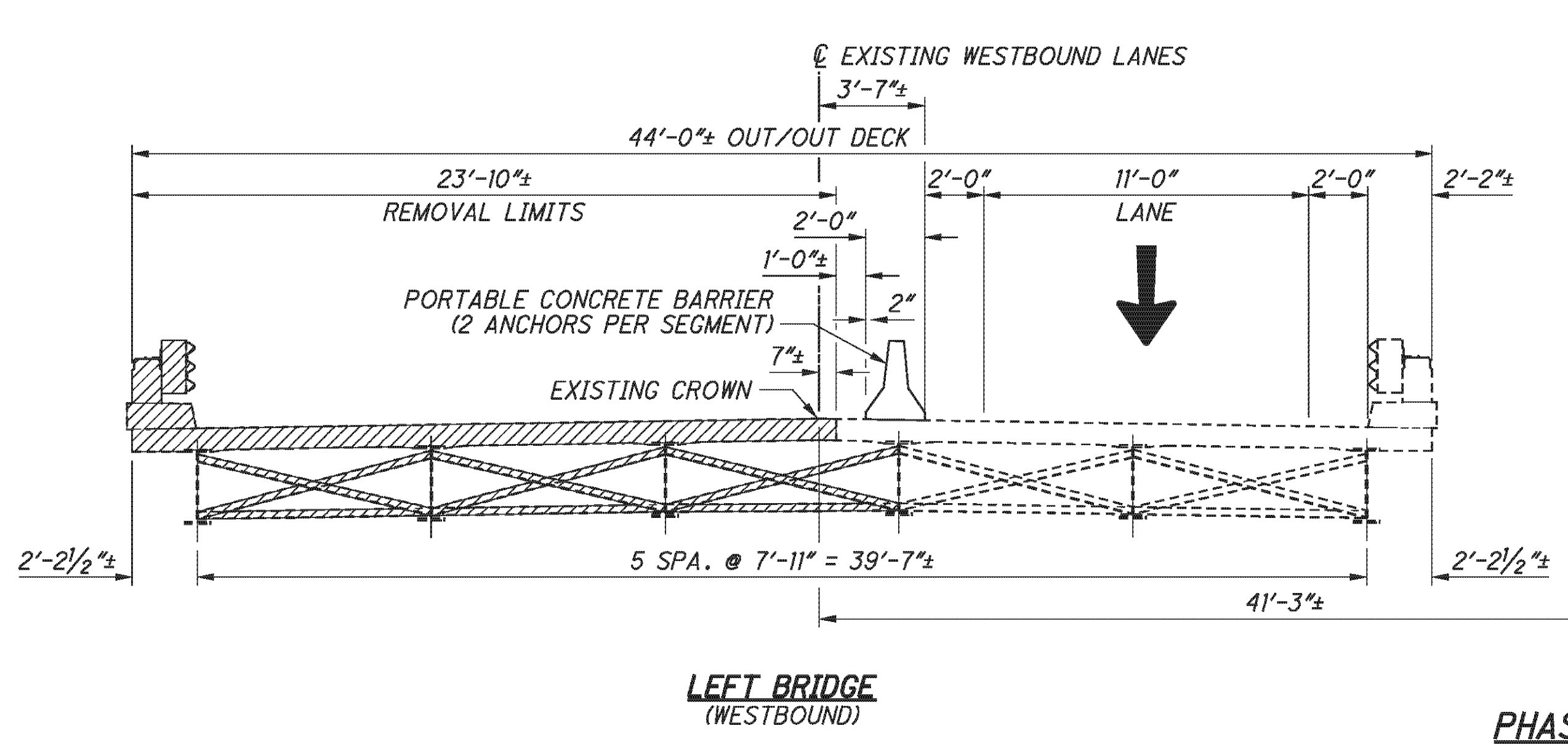
ESTIMATED QUANTITIES										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #	
201	11000	LUMP		CLEARING AND GRUBBING				LUMP		
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP		
202	22900	134	SQ YD	APPROACH SLAB REMOVED				134		
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP		
503	21300	LUMP		UNCLASSIFIED EXCAVATION				LUMP		
509	10001	59,421	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	3,092	6,080	50,249			
510	10000	48	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	48					
512	10100	597	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	66	215	316			
512	33000	3	SQ YD	TYPE 2 WATERPROOFING	3					
513	10260	98,367	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3			98,367			
513	20000	2,358	EACH	WELDED STUD SHEAR CONNECTORS			2,358			
516	13900	35	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	35					
516	14021	122	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	122					
516	44001	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10"x14"x1.924" PAD WITH 11"x15"x1 1/2" LOAD PLATE)	12					
516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x15"x1.924" PAD WITH 12"x16"x1 1/2" LOAD PLATE)		12				
518	12200	3	EACH	SCUPPERS, INCLUDING SUPPORTS			3			
518	21200	62	CU YD	POROUS BACKFILL WITH FILTER FABRIC	62					
518	40000	122	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	122					
518	40011	64	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	64					
519	11101	68	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN				68		
601	20000	350	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION				350		
898	10211	208	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			208			
898	10705	227	SQ YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15'), AS PER PLAN				227		
898	11001	42	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN			42			
898	20110	41	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (PIER CAP)		41				
898	20151	7	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (ABUTMENT), AS PER PLAN	7					



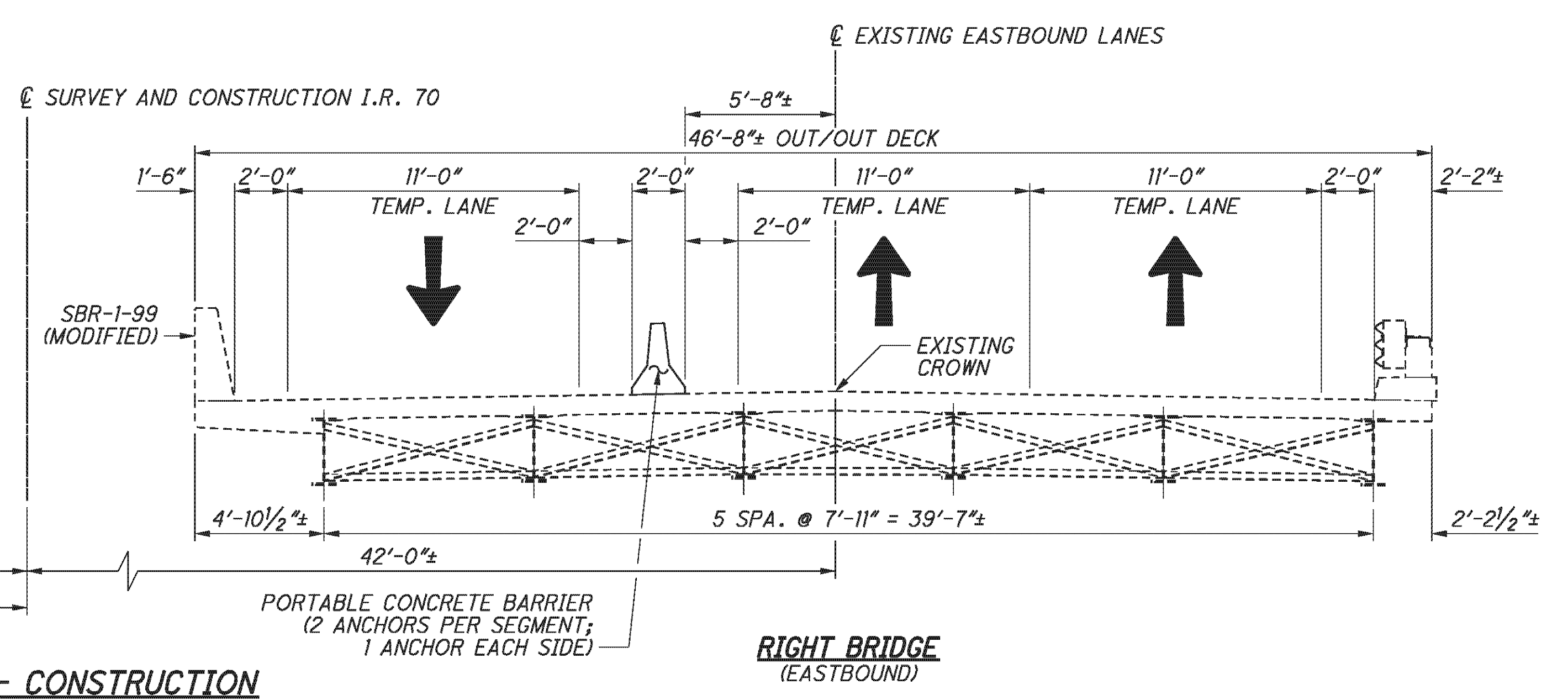
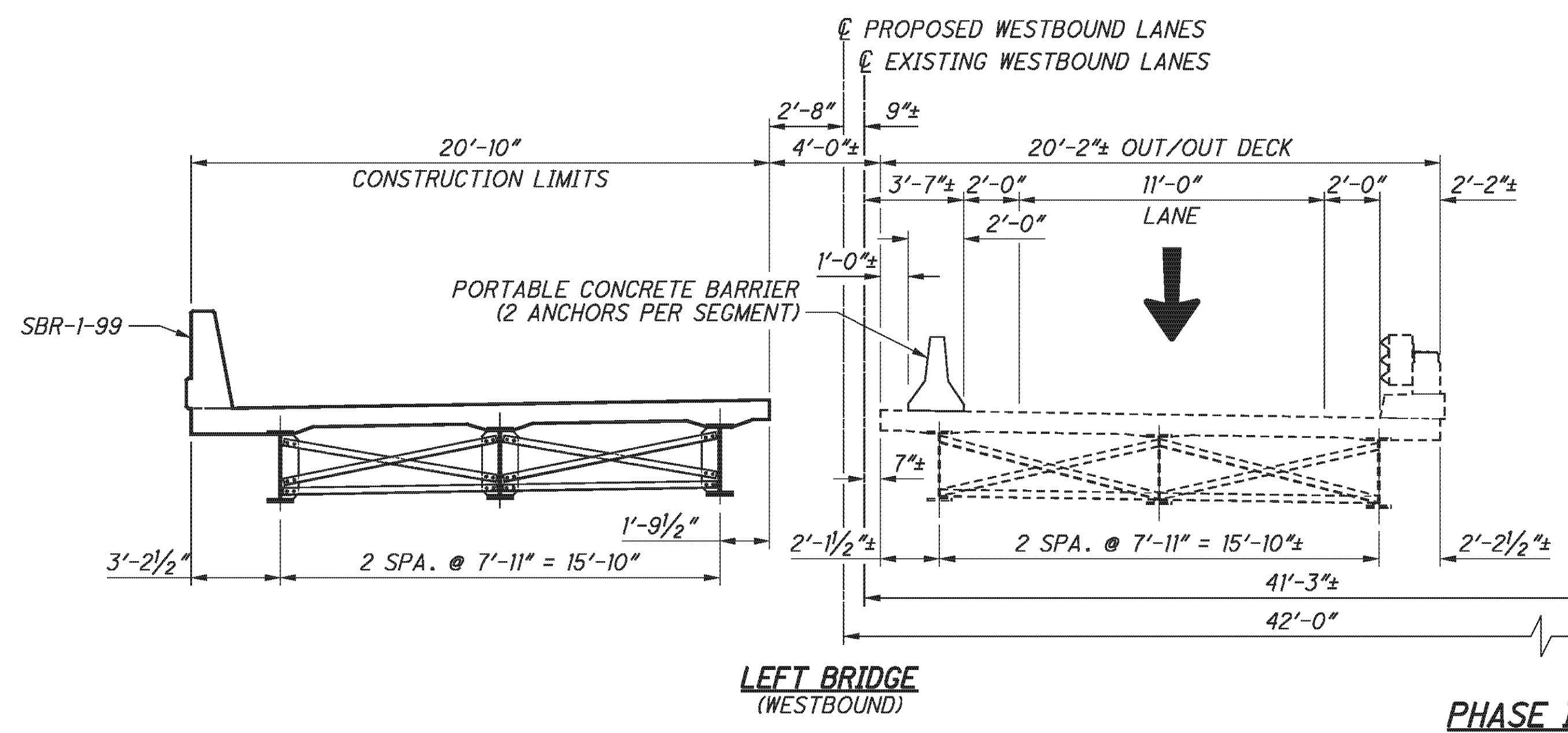
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 DRAWN: BMG
 REVISION: BMG
 REVIEWED: 0702137L/0702161R
 DATE: 0702137L/0702161R

ESTIMATED QUANTITIES - RIGHT BRIDGE
 BRIDGE NO. BEL-70-0775 L/R
 I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
 PID No. 76825



PHASE III-A - REMOVAL



PHASE III-A - CONSTRUCTION

PHASE III-A REMOVAL

1. INSTALL PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE III-A CONSTRUCTION

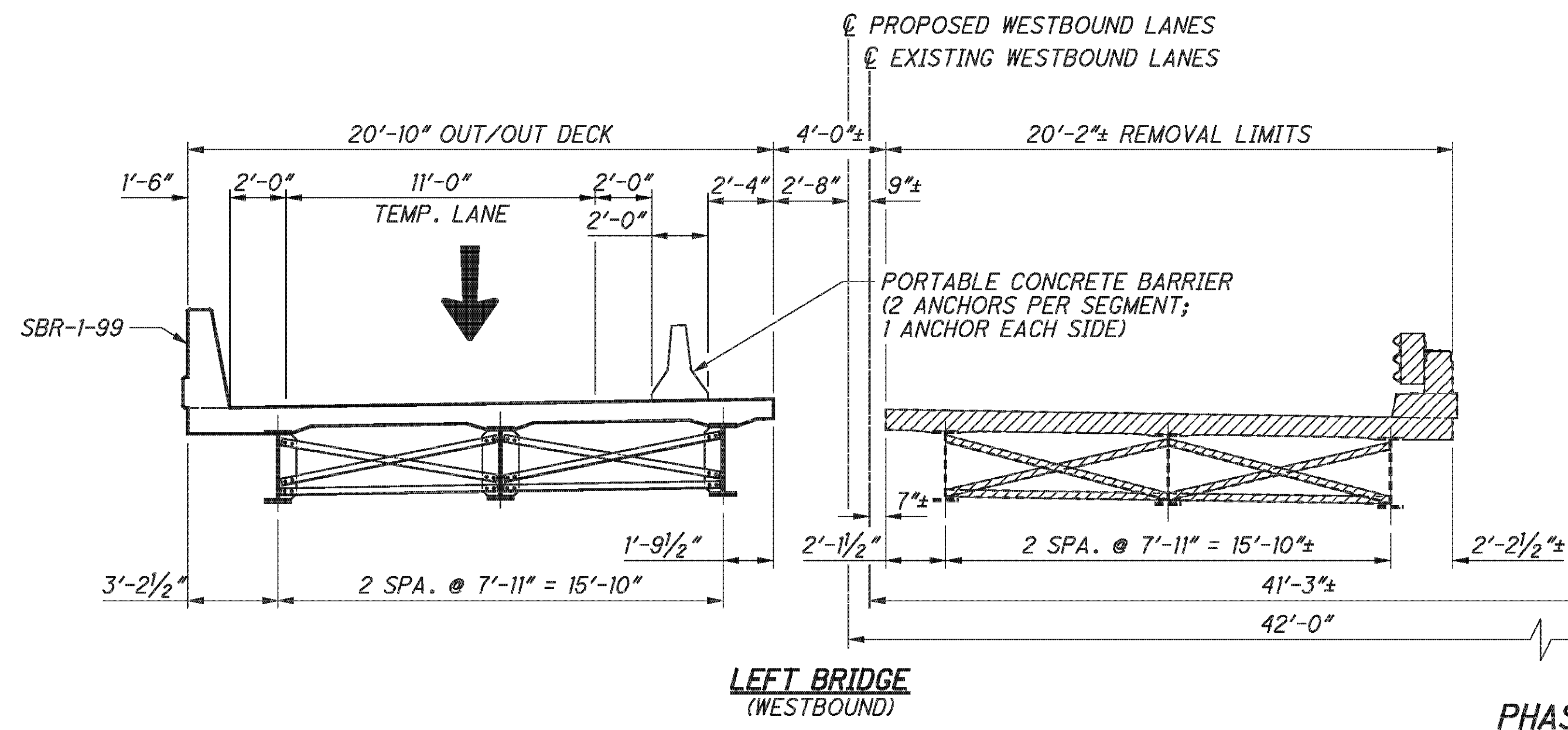
1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:



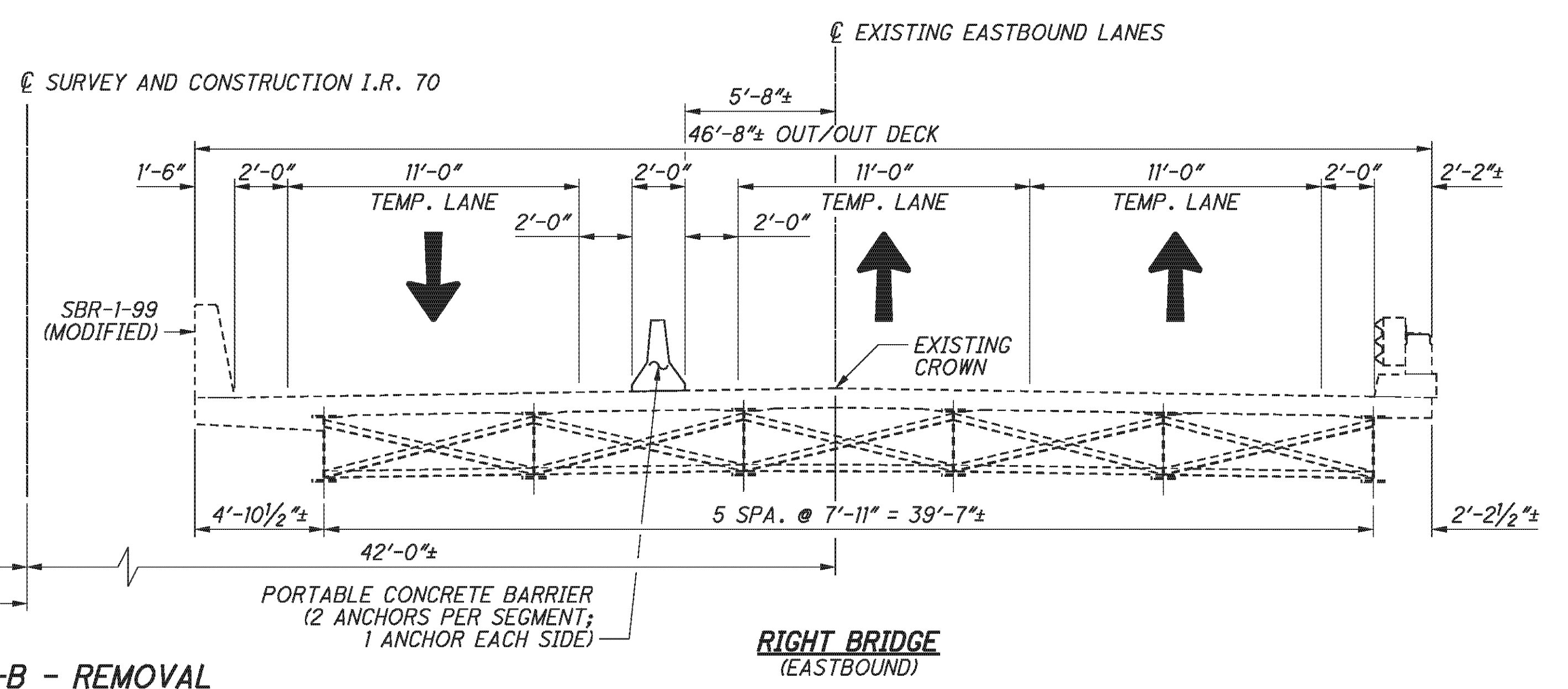
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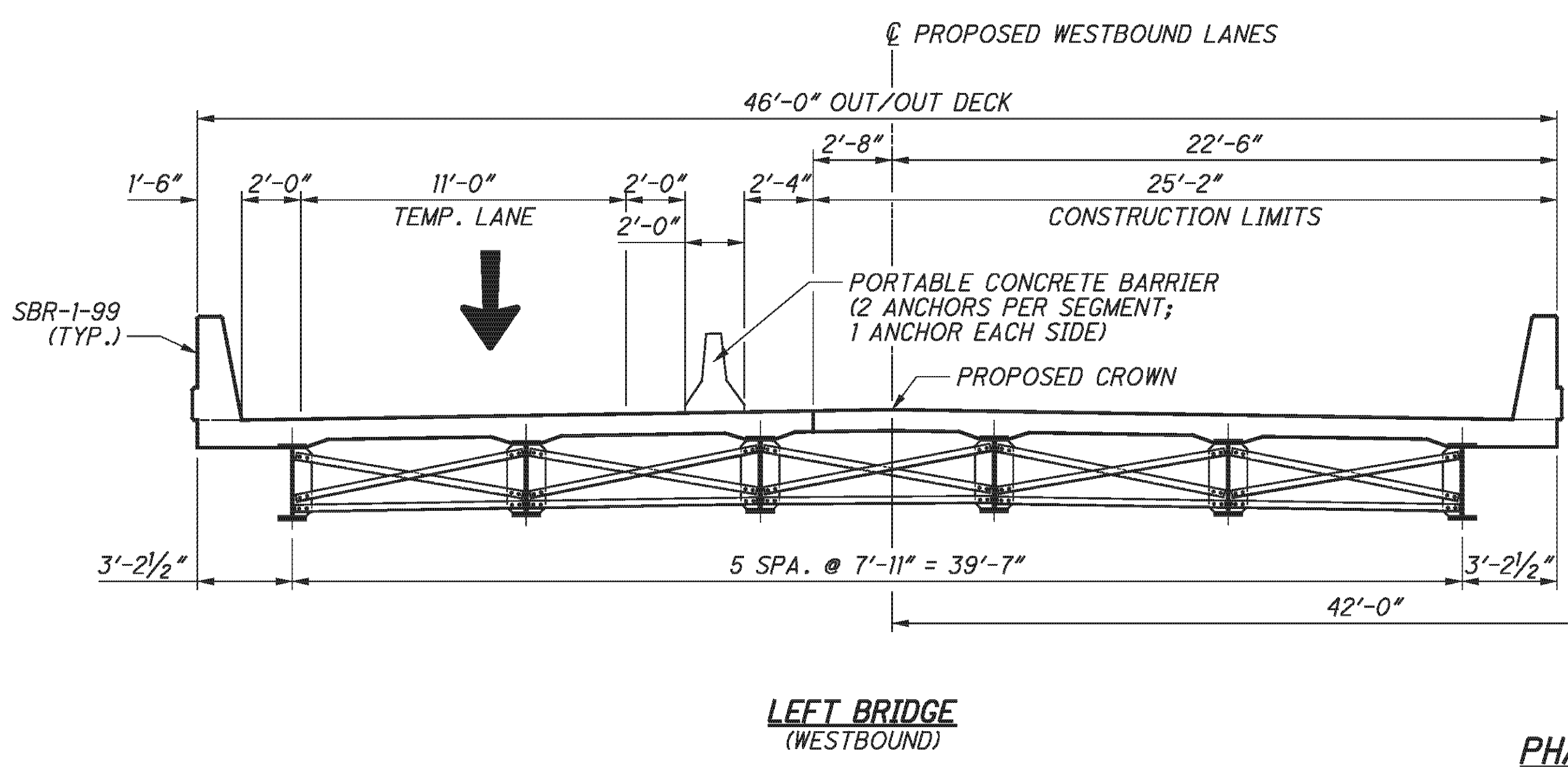


LEFT BRIDGE
(WESTBOUND)

PHASE III-B - REMOVAL

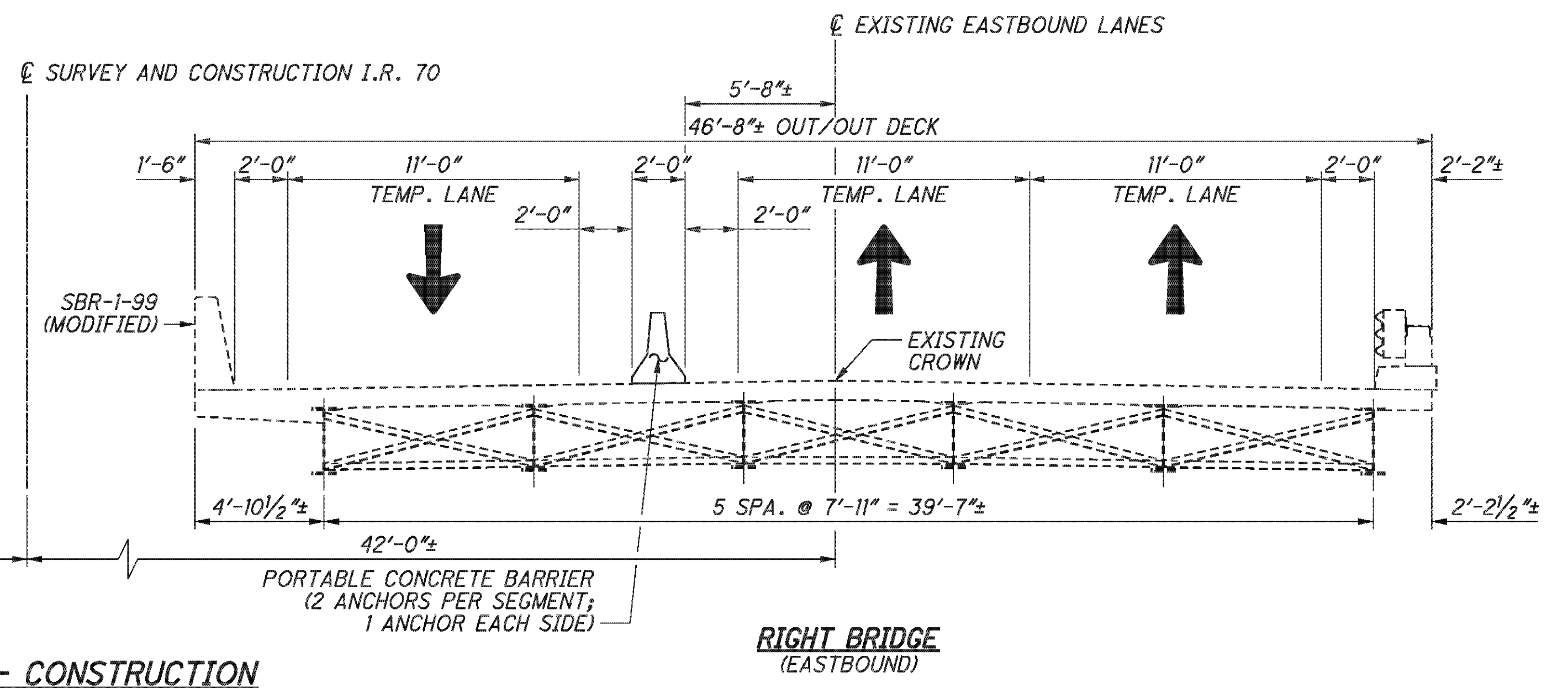


RIGHT BRIDGE
(EASTBOUND)



LEFT BRIDGE
(WESTBOUND)

PHASE III-B - CONSTRUCTION



RIGHT BRIDGE
(EASTBOUND)

PHASE III-B REMOVAL

1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE III-B CONSTRUCTION

1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:



E.L. ROBINSON
The Challenge, the Choice
1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

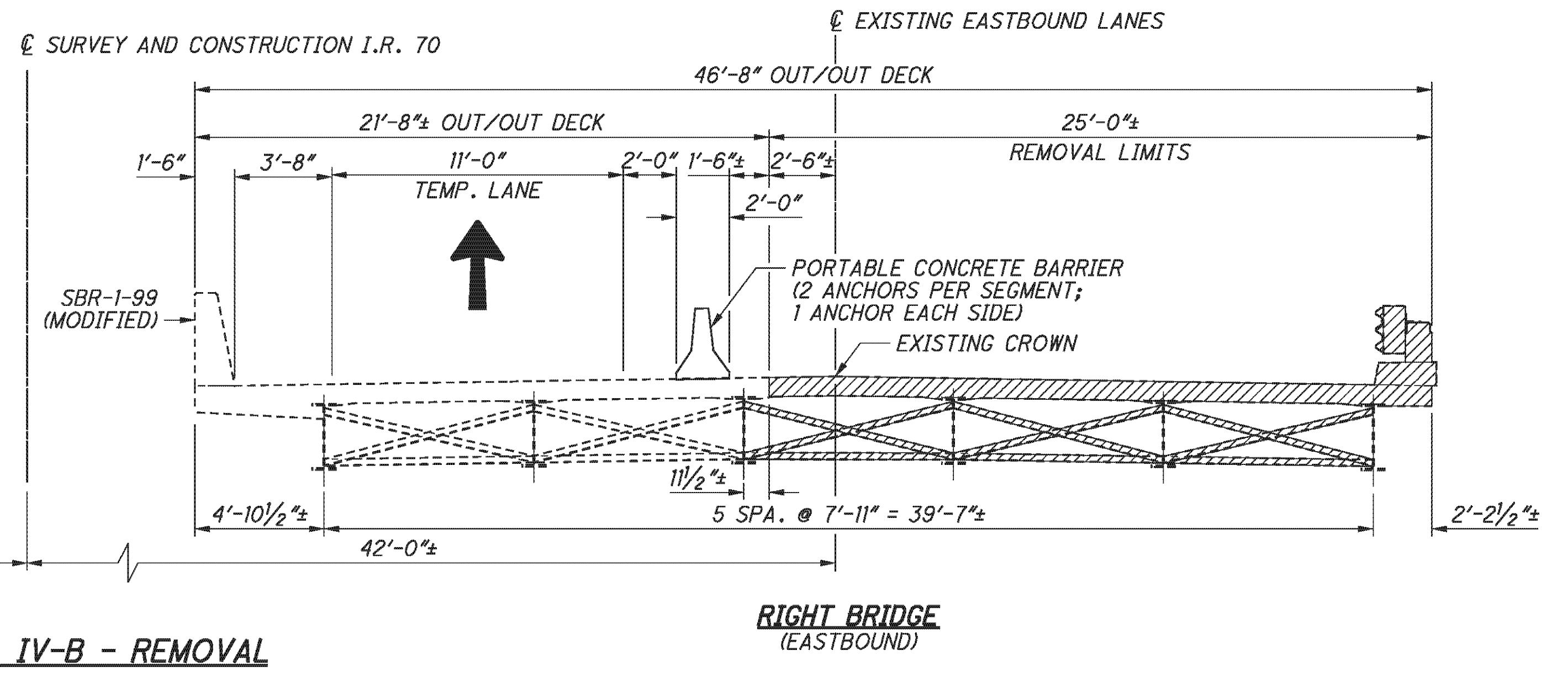
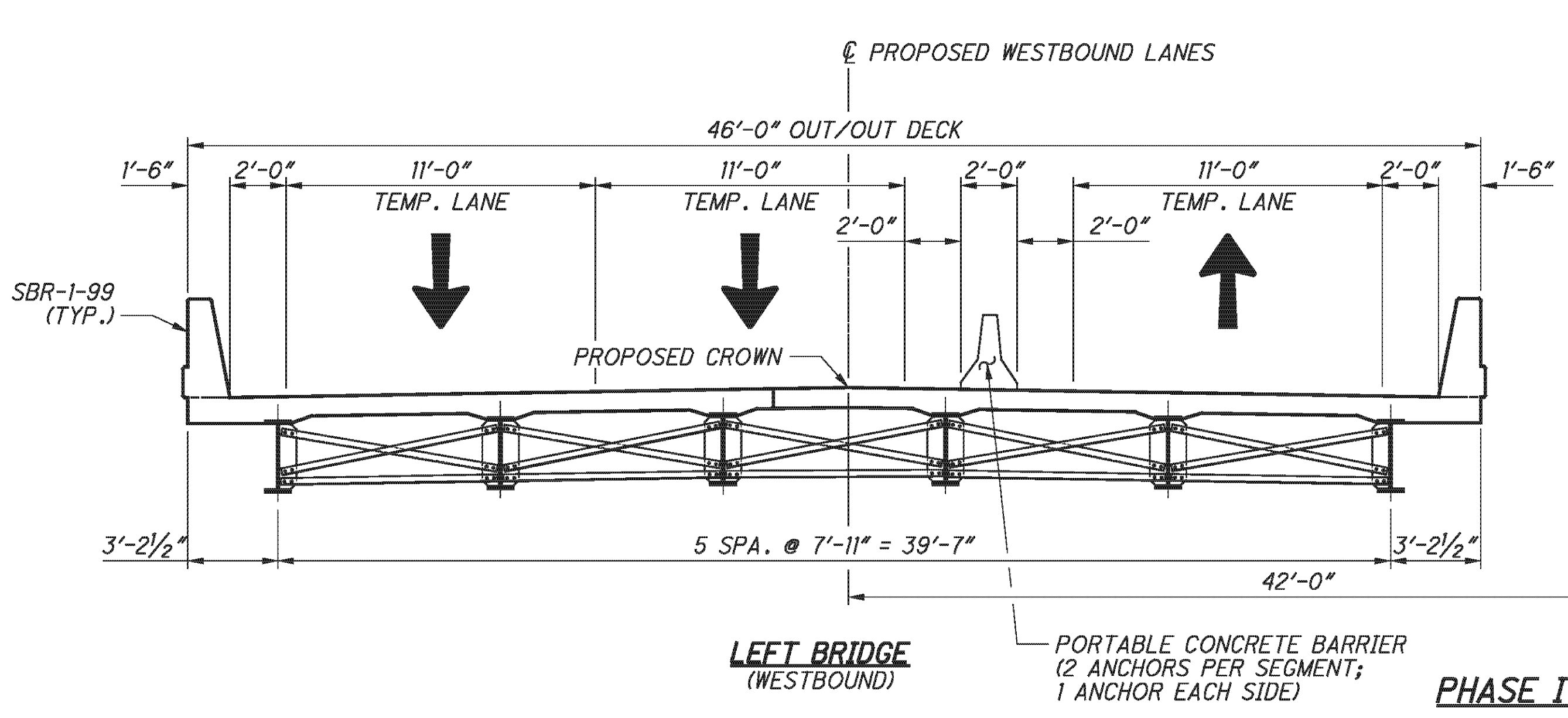
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PHASE CONSTRUCTION DETAILS
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

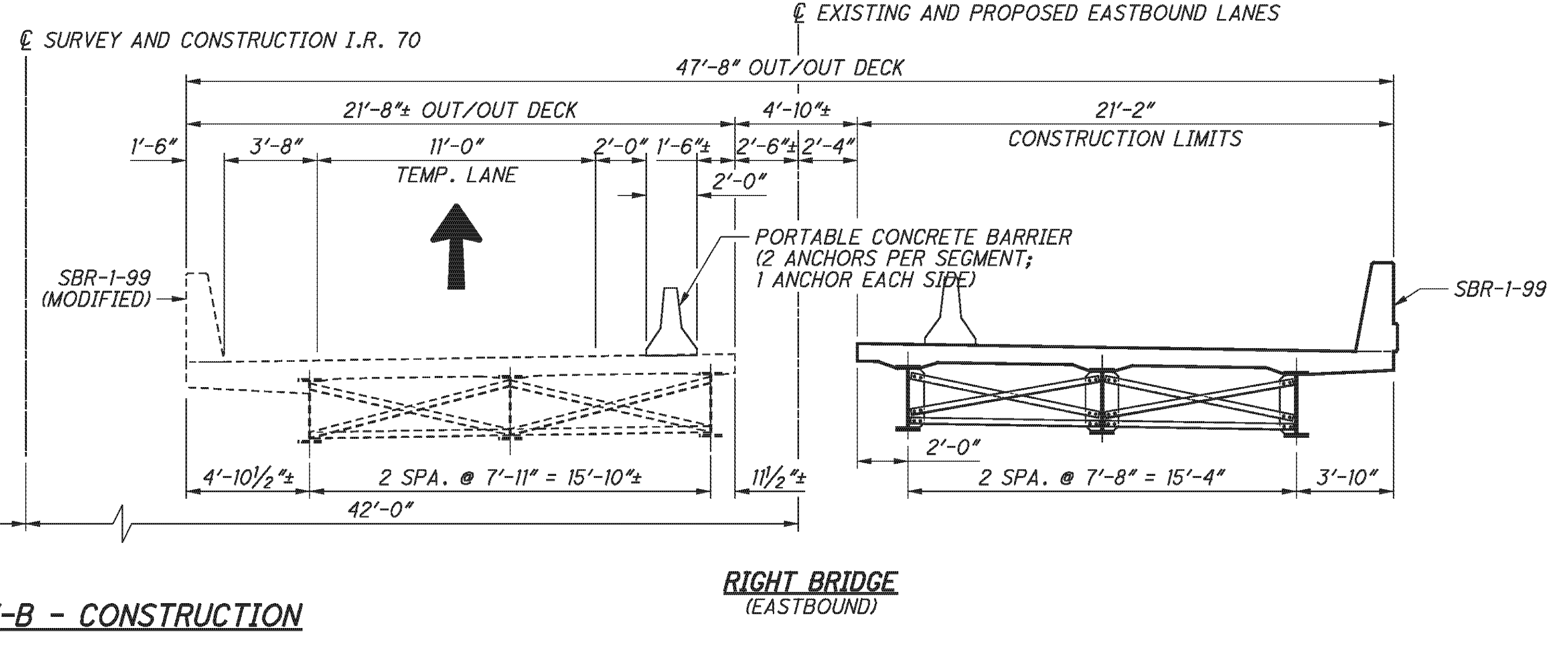
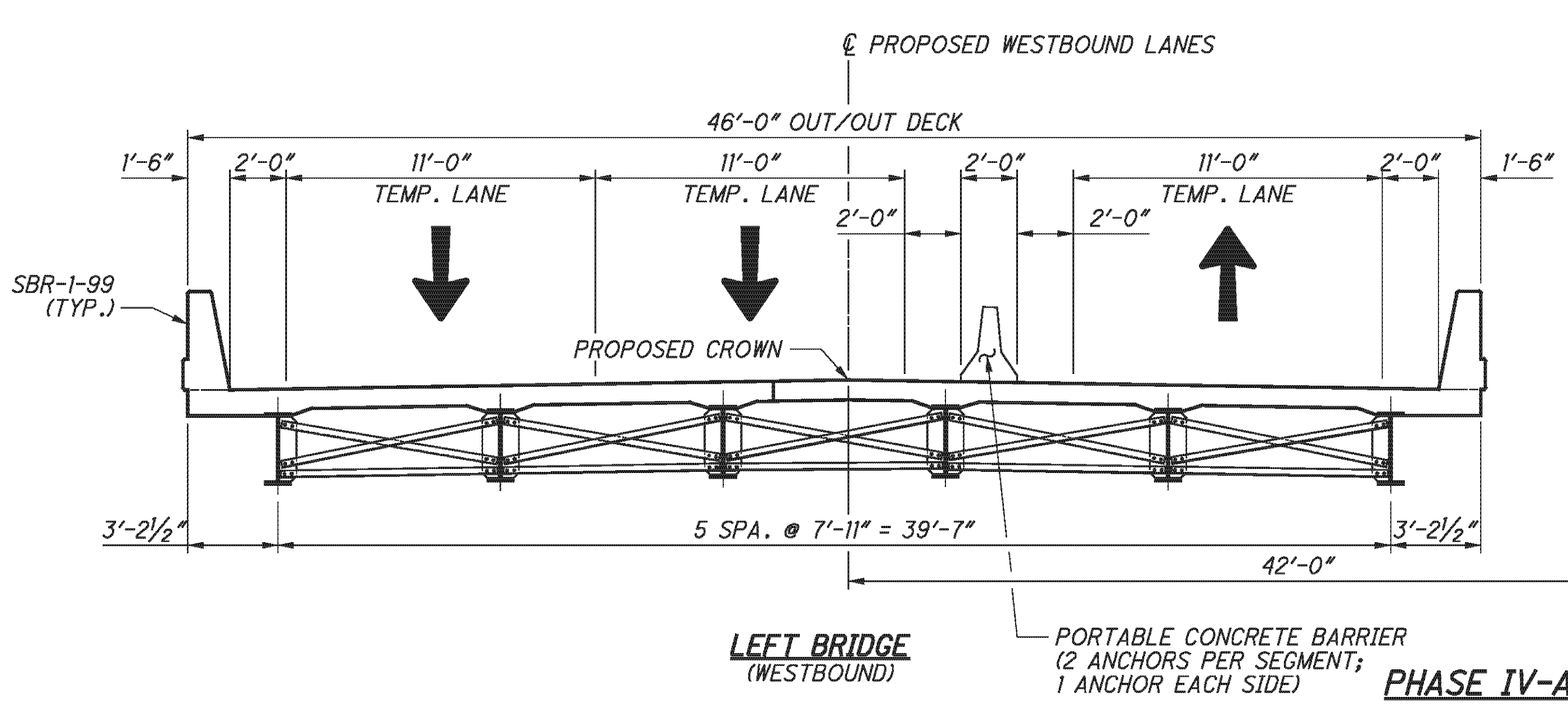
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PID No. 76825

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PHASE IV-A & IV-B - REMOVAL



PHASE IV-A & IV-B - CONSTRUCTION

PHASE IV-A REMOVAL

1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

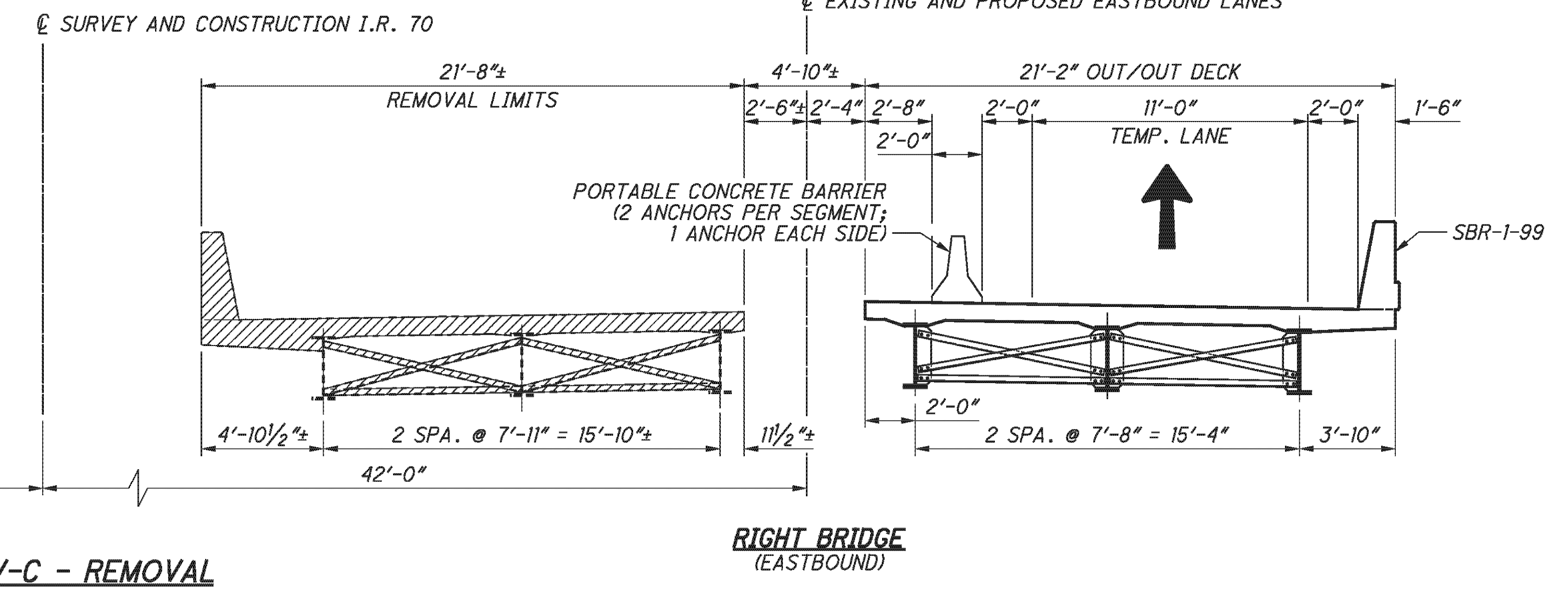
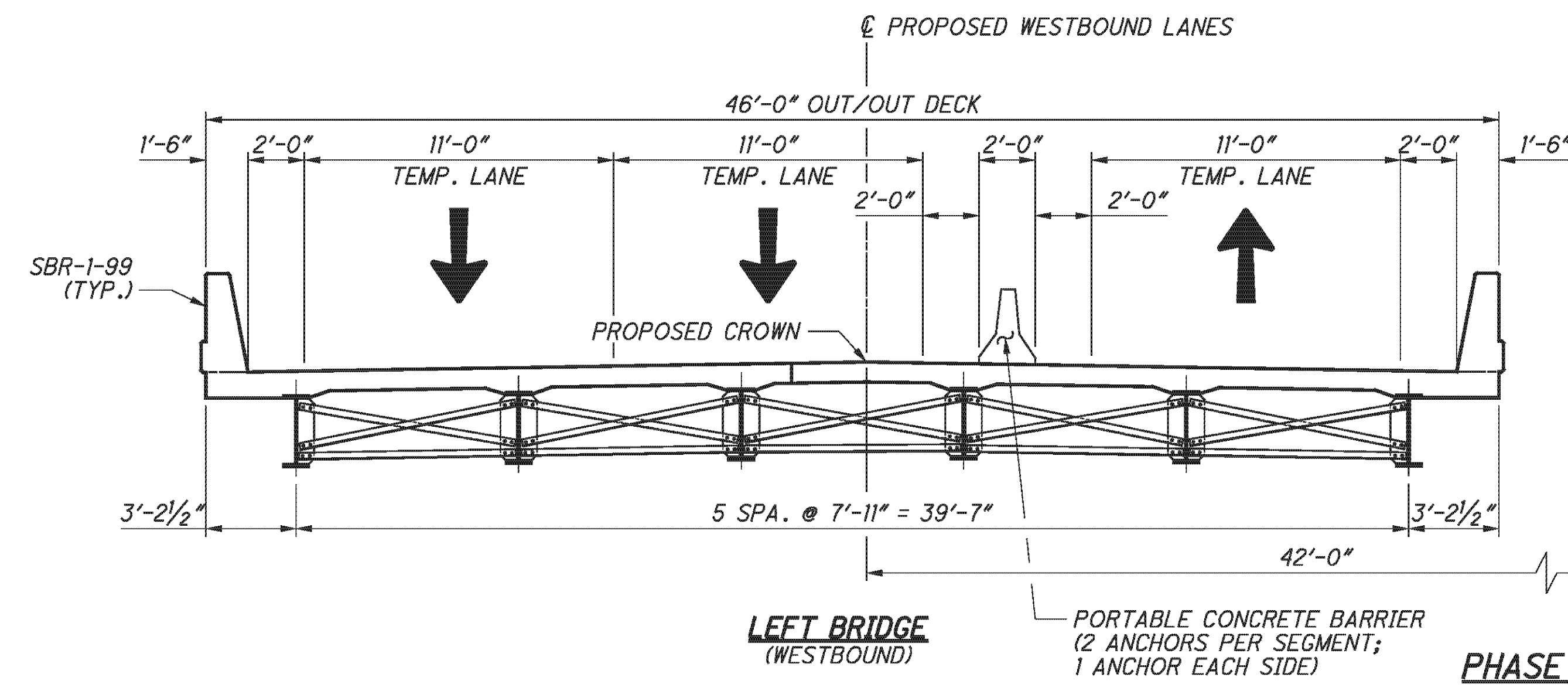
PHASE IV-A CONSTRUCTION

1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

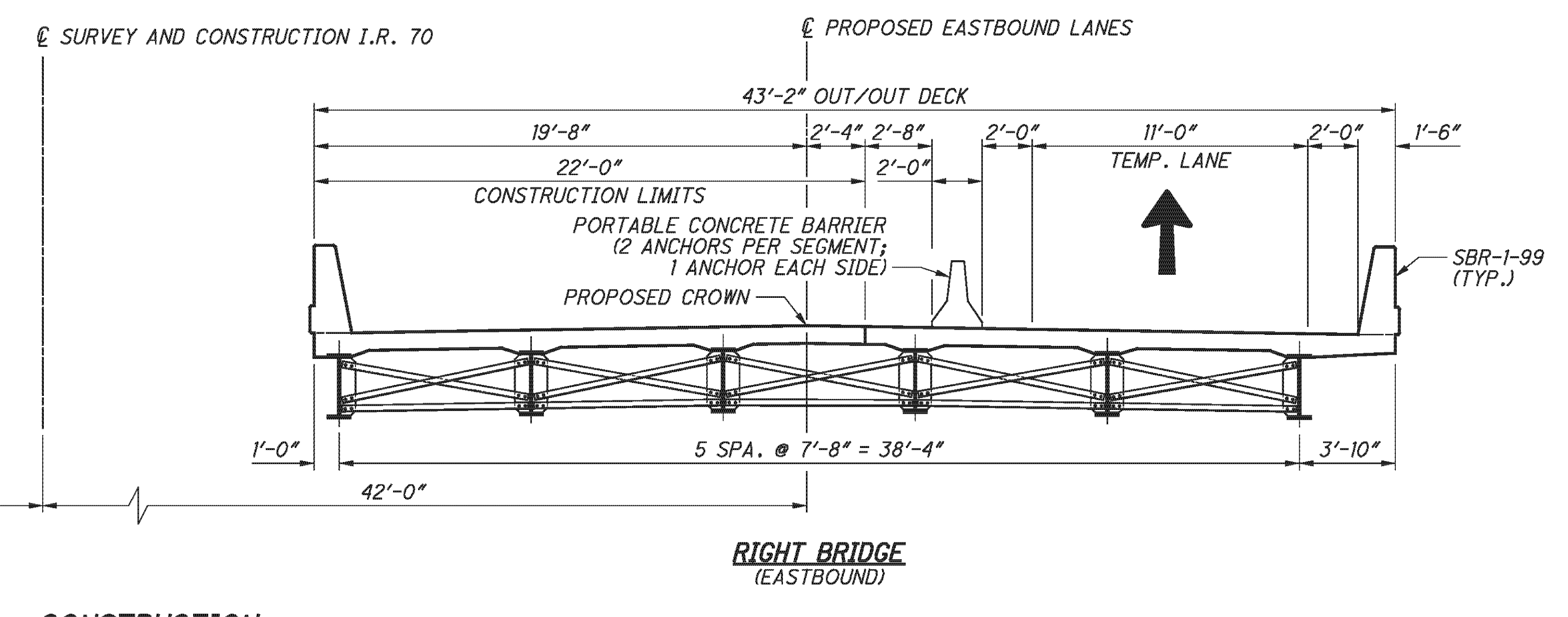
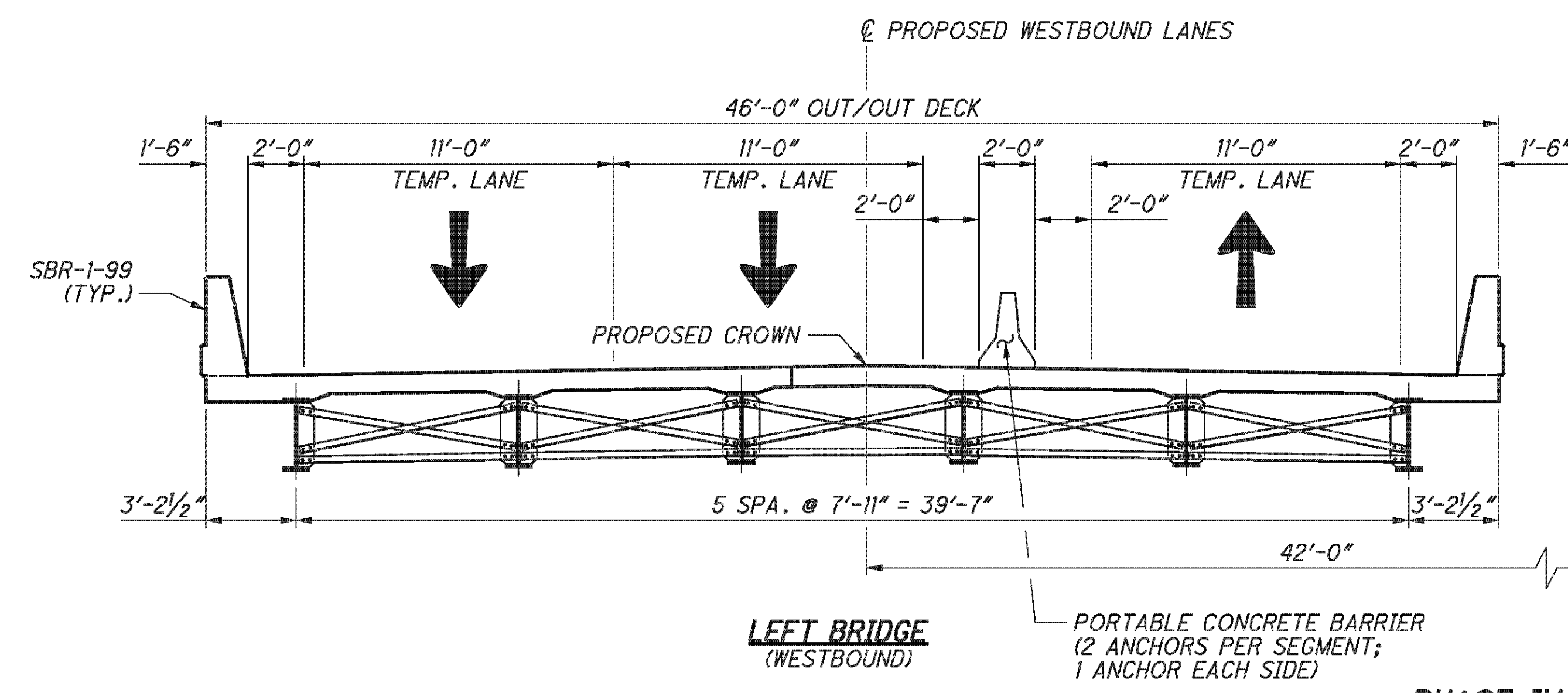
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LIMITS OF REMOVAL

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PHASE IV-C - REMOVAL



PHASE IV-C - CONSTRUCTION

PHASE IV-B REMOVAL

1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

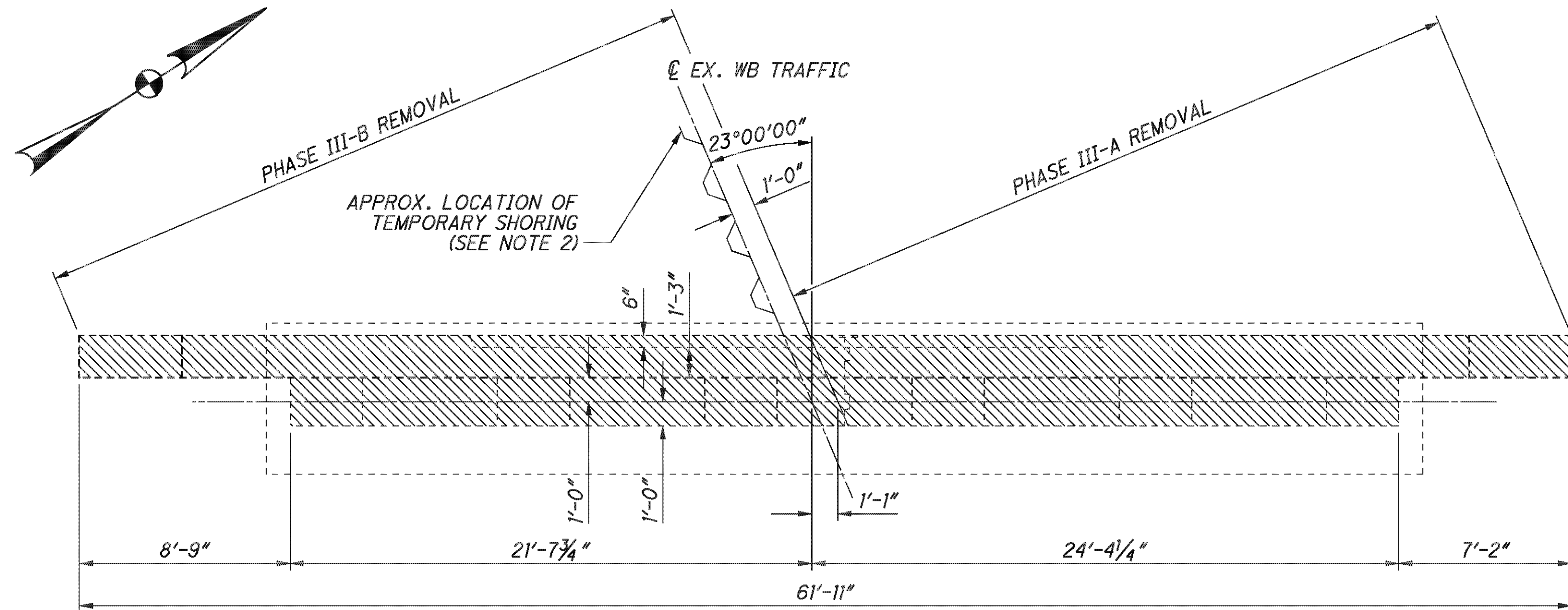
PHASE IV-B CONSTRUCTION

1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. INSTALL NEW CROSSFRAMES UNDER THE CLOSURE POUR. CAST THE CLOSURE POUR.
5. SEAL CONCRETE SURFACES.
6. REMOVE THE PORTABLE CONCRETE BARRIERS.

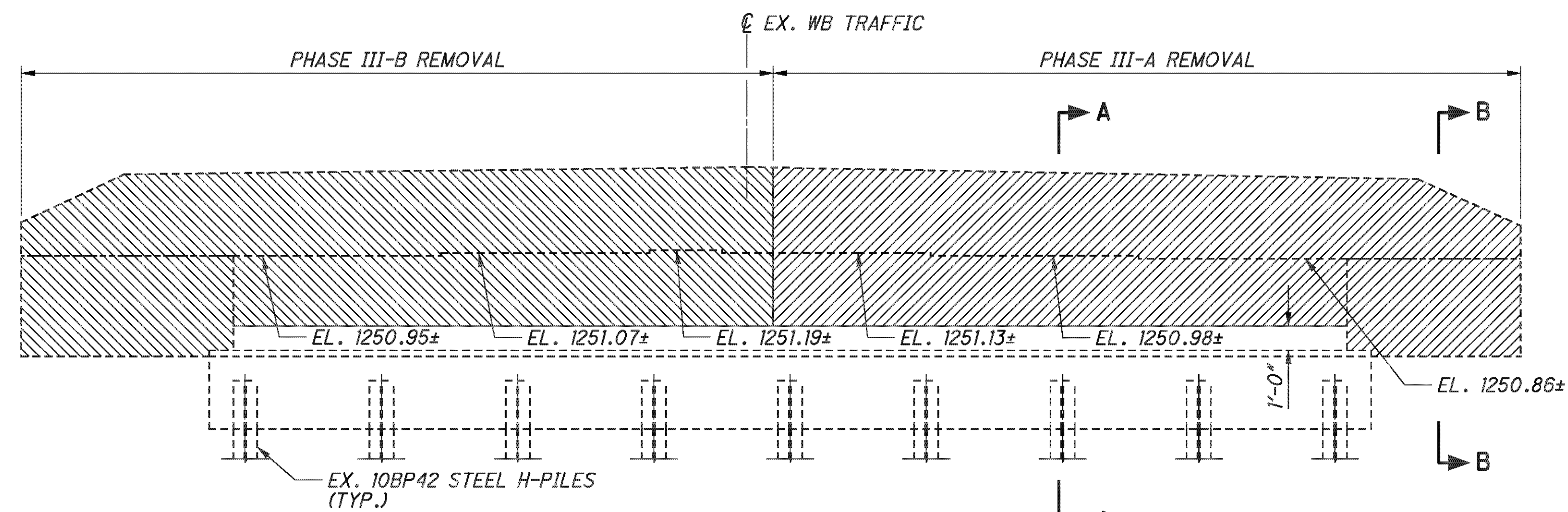
LEGEND:



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EXISTING ABUTMENT REMOVAL PLAN
LEFT BRIDGE REAR ABUTMENT



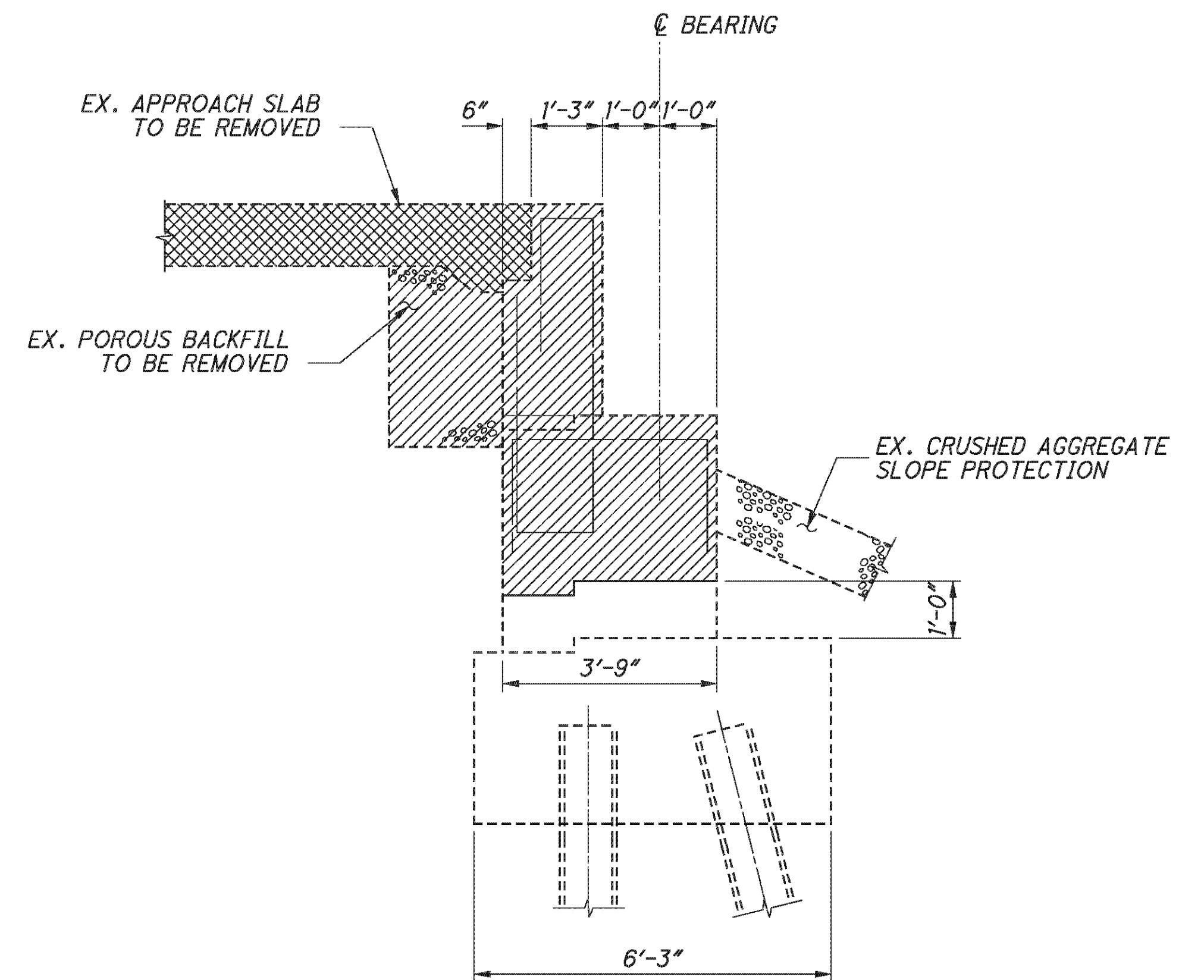
EXISTING ABUTMENT REMOVAL ELEVATION
LEFT BRIDGE REAR ABUTMENT

LEGEND:

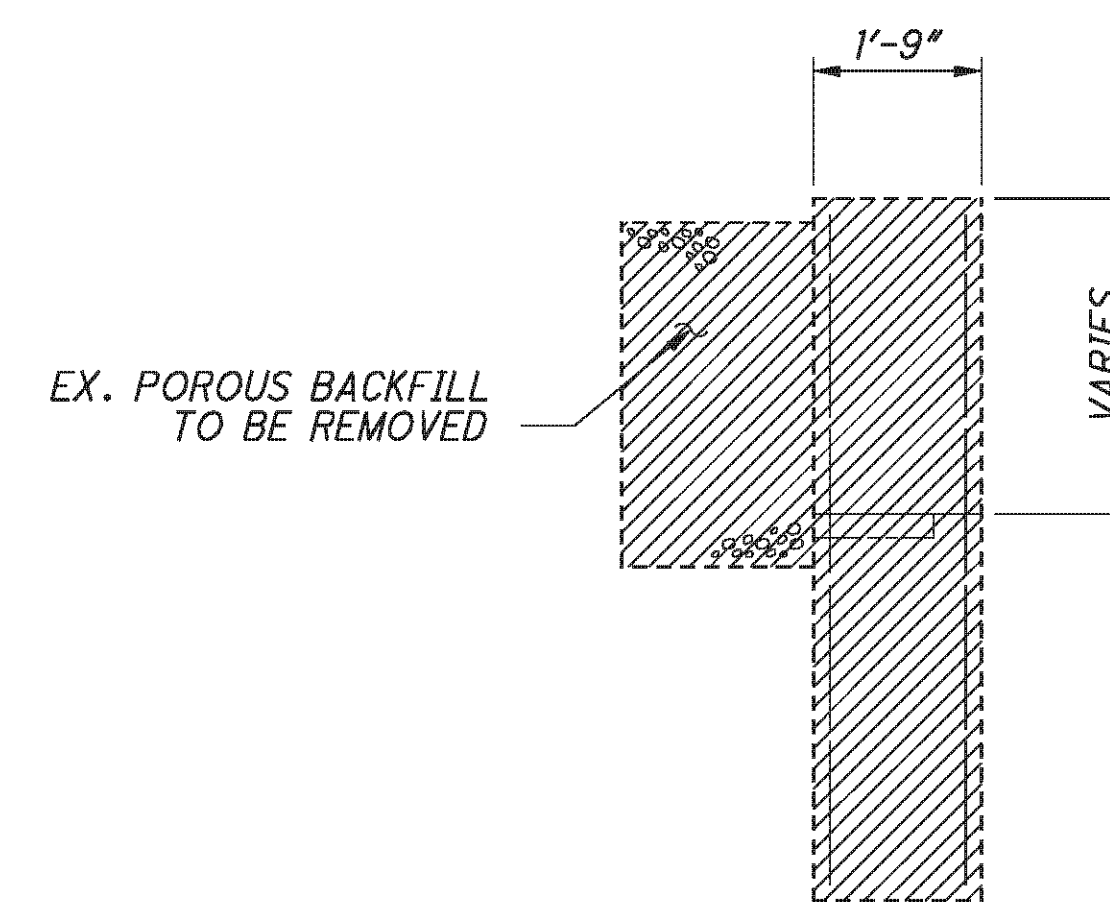
- PHASE III-A REMOVAL
- PHASE III-B REMOVAL
- APPROACH SLAB REMOVED

NOTES:

1. ALL EXISTING DIMENSIONS ARE ±
2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE PLACEMENT OF TEMPORARY SHORING DOES NOT DAMAGE THE ABUTMENT STEM OR FOOTING.



SECTION A-A



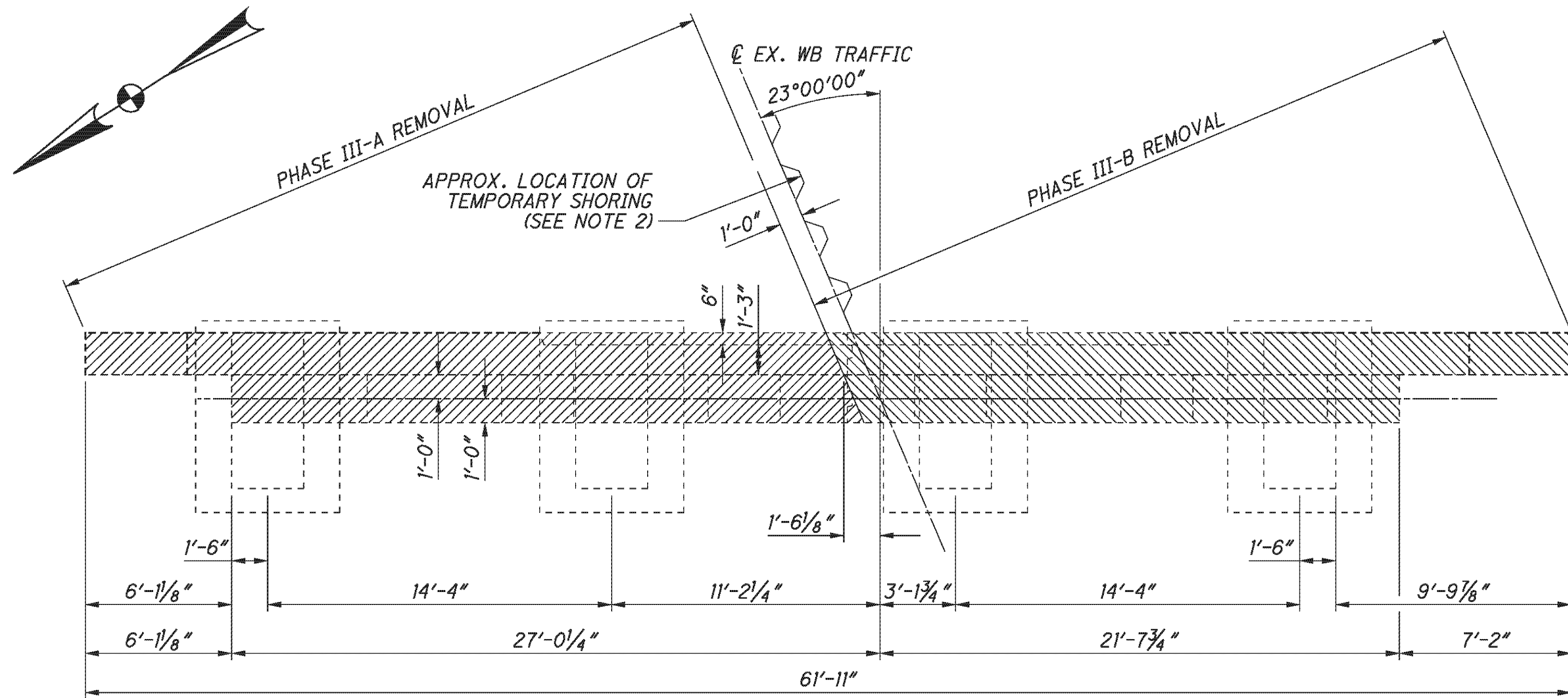
SECTION B-B

DESIGNED	DTA	CHECKED	AME
DRAWN	BMG	REVISED	
REVIEWED	DFT	STRUCTURE FILE NUMBER	0702137L/0702161R
DATE	5/11/10		

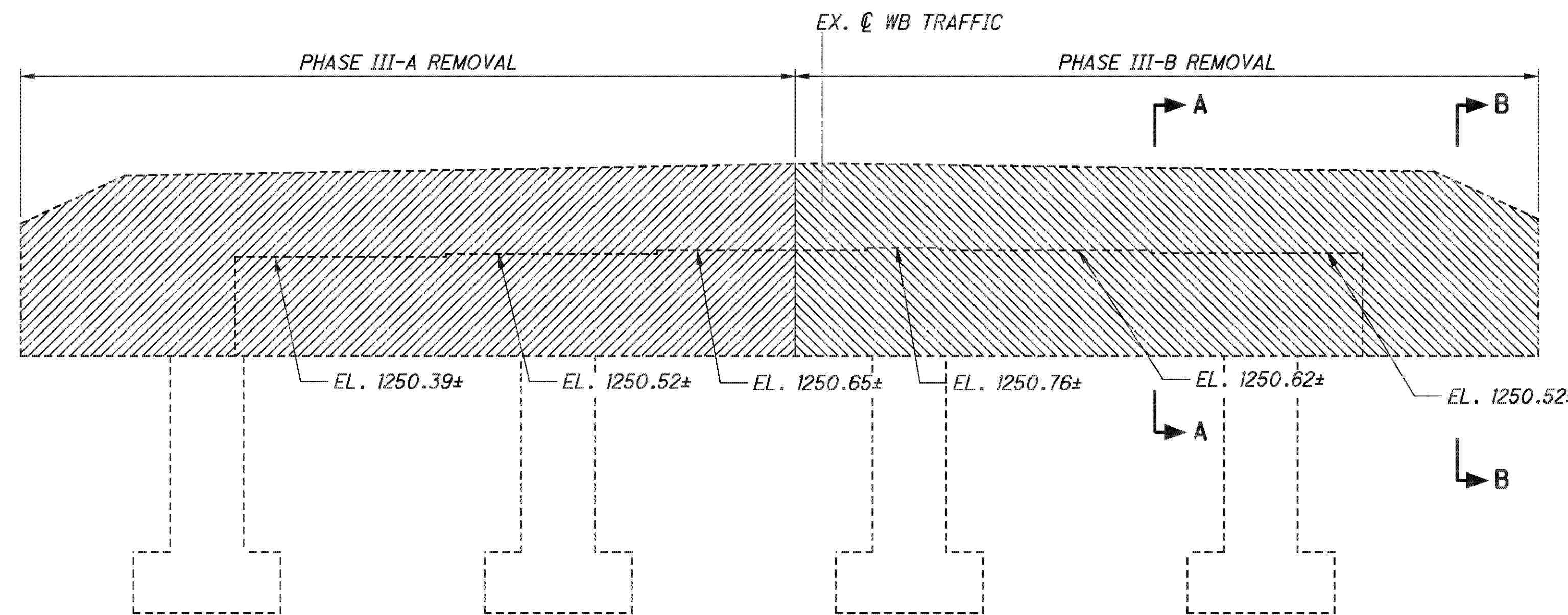
ABUTMENT REMOVAL DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

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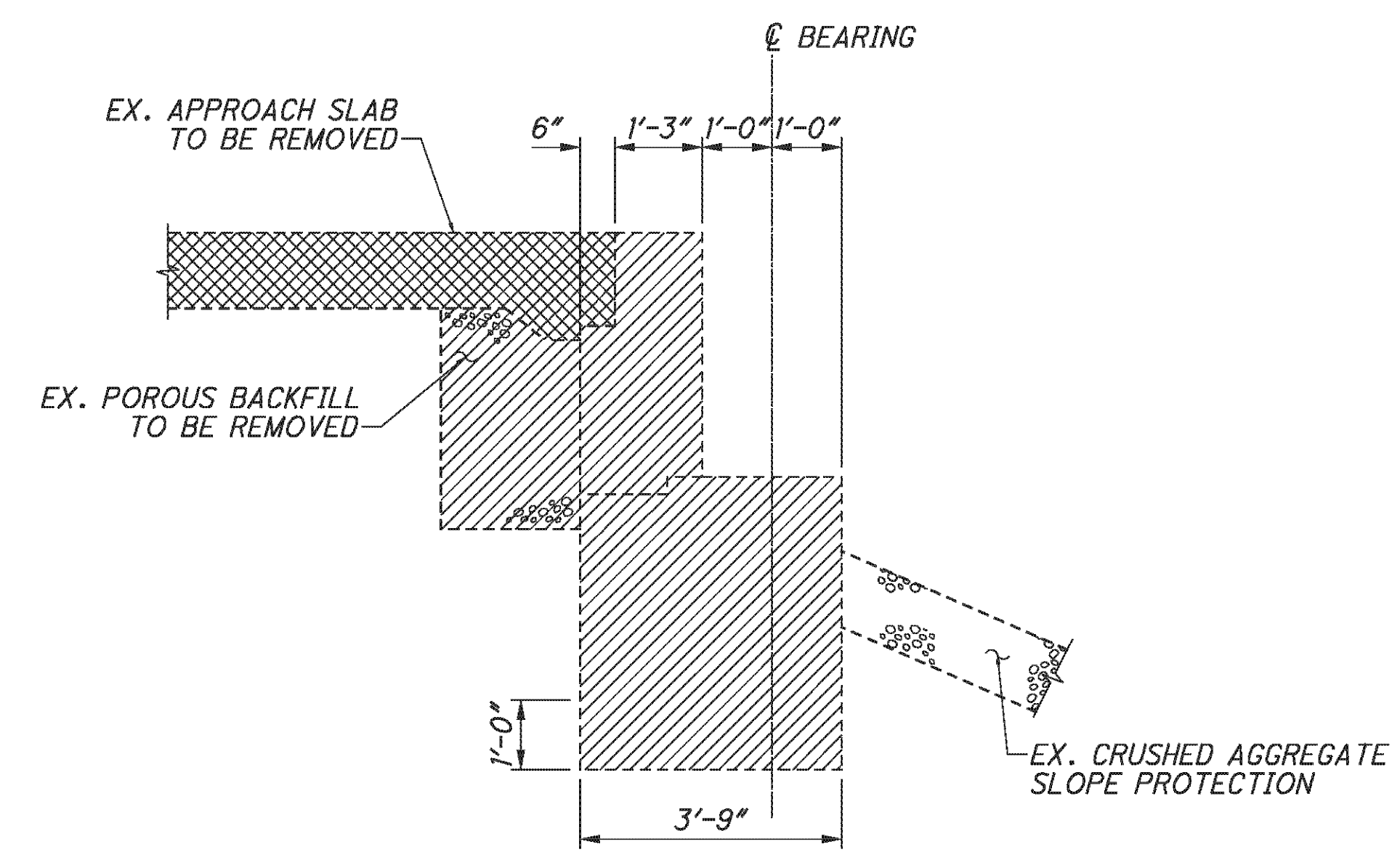
EXISTING ABUTMENT REMOVAL PLAN
LEFT BRIDGE FORWARD ABUTMENT



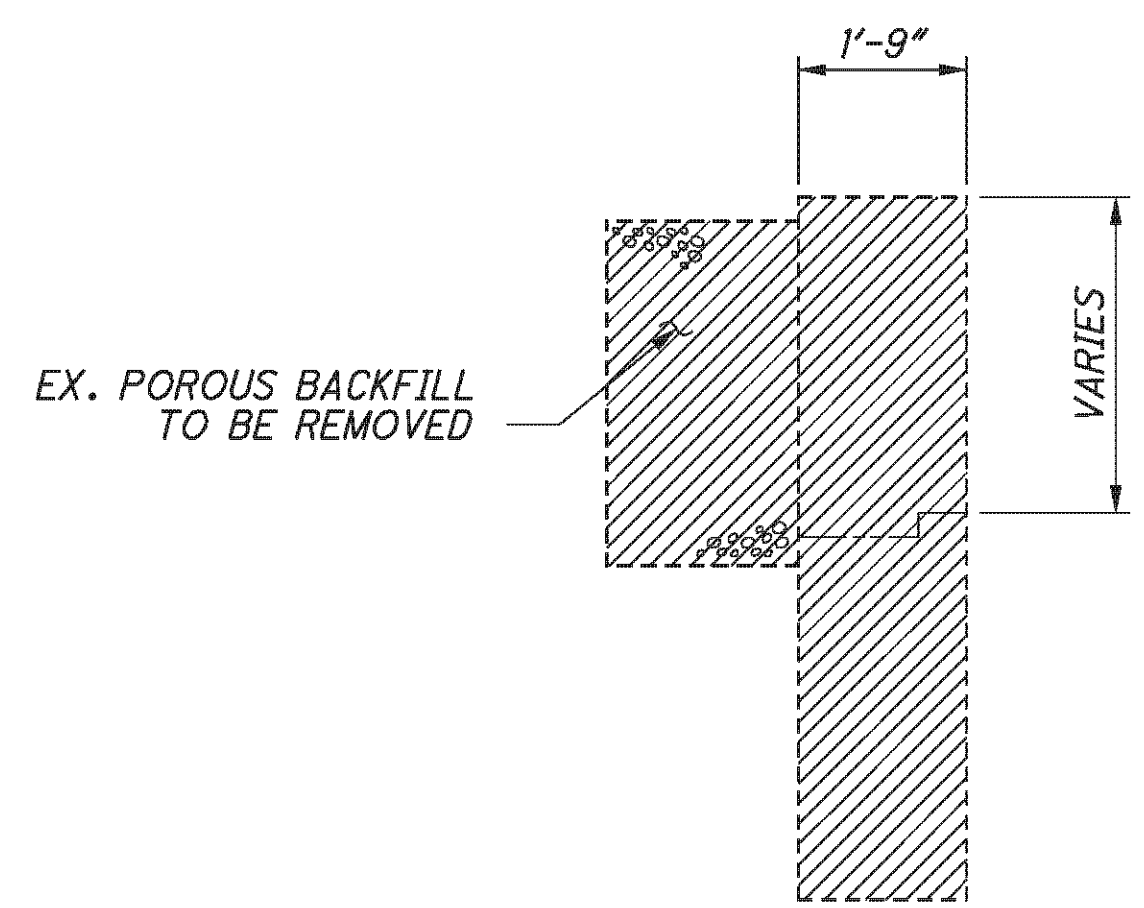
EXISTING ABUTMENT REMOVAL ELEVATION
LEFT BRIDGE FORWARD ABUTMENT

- LEGEND:**
- PHASE III-A REMOVAL
 - PHASE III-B REMOVAL
 - APPROACH SLAB REMOVED

- NOTES:**
1. ALL EXISTING DIMENSIONS ARE ±
 2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE PLACEMENT OF TEMPORARY SHORING DOES NOT DAMAGE THE ABUTMENT STEM OR FOOTING.



SECTION A-A



SECTION B-B

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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DRAWN	BMG	REVISOR	
REVIEWED	DFT	STRUCTURE FILE NUMBER	0702137L/0702161R
DATE	5/11/10		

ABUTMENT REMOVAL DETAILS - LEFT BRIDGE

BRIDGE NO. BEL-70-0775 L/R

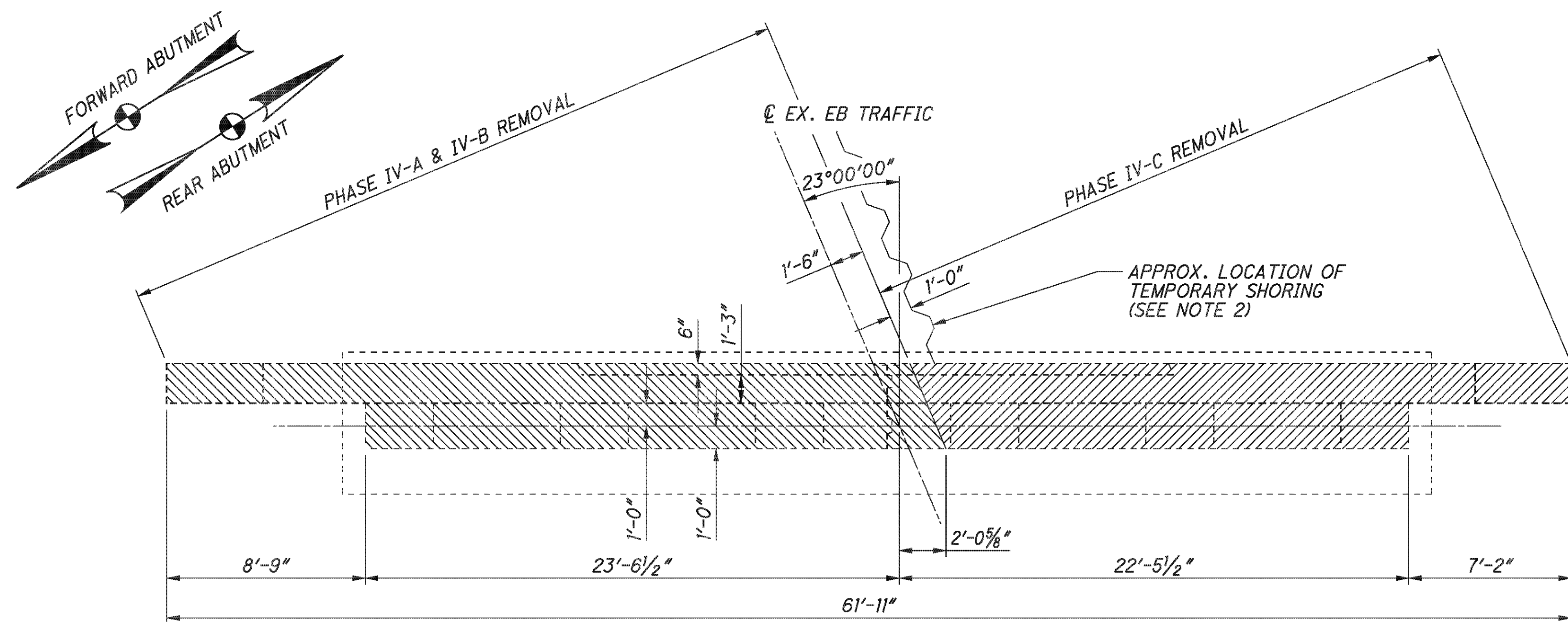
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

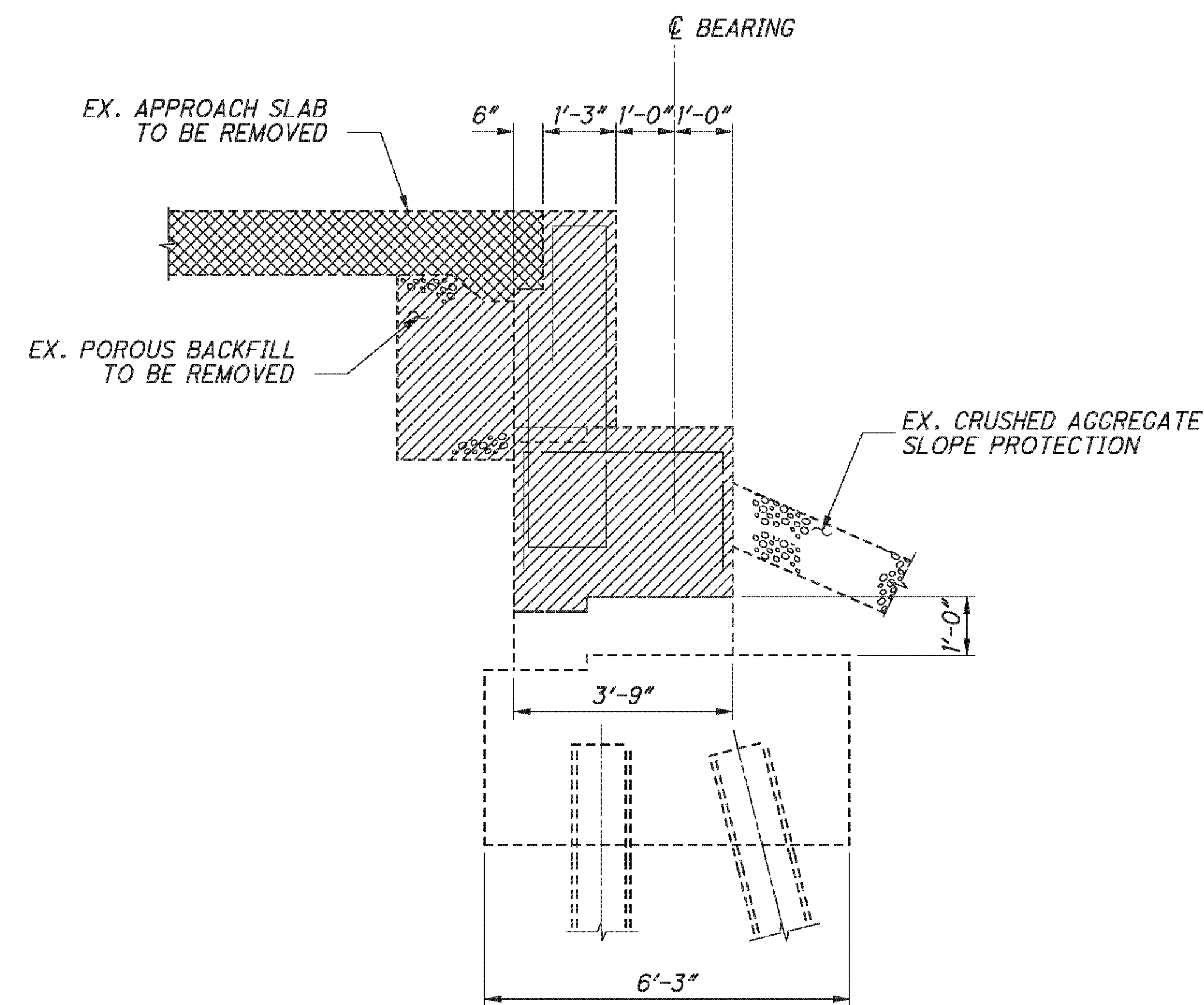
12 / 46
294

373

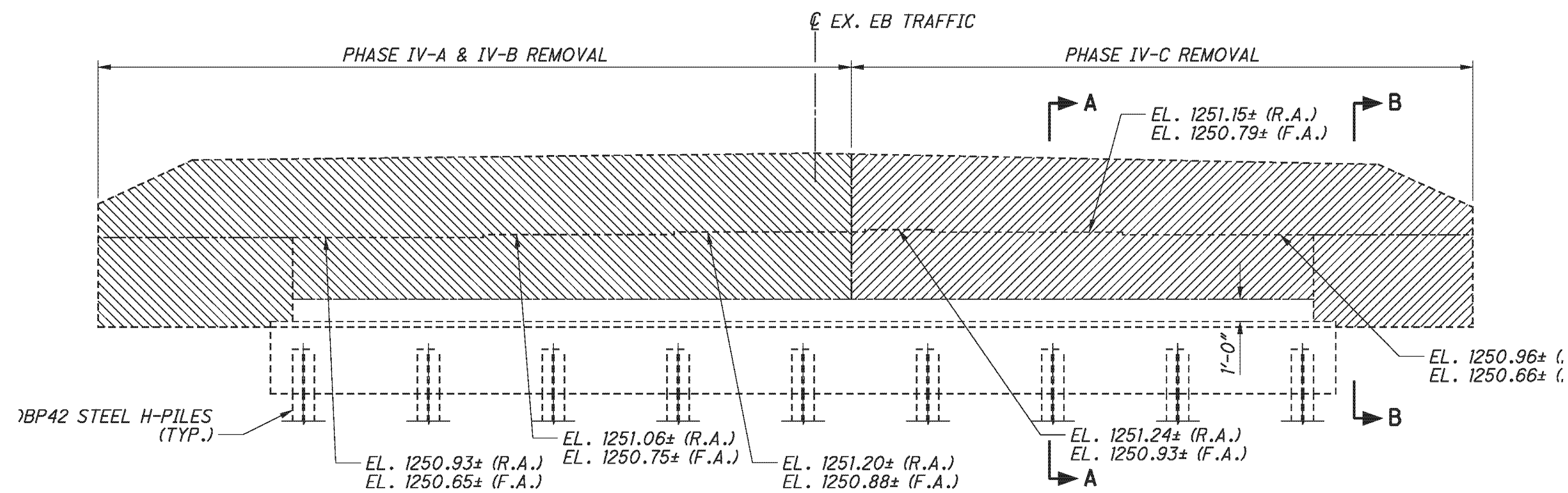
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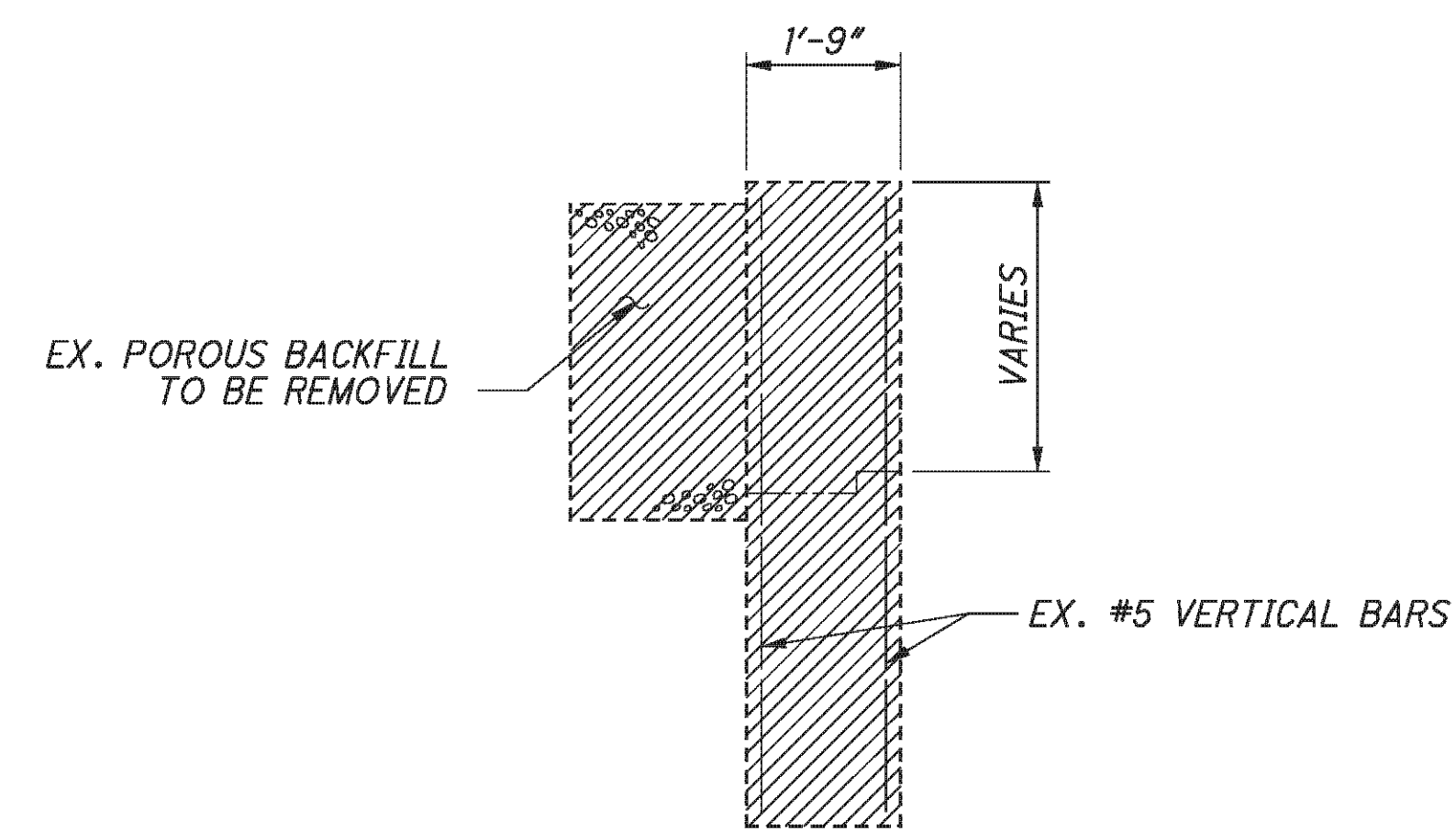
EXISTING ABUTMENT REMOVAL PLAN
RIGHT BRIDGE REAR ABUTMENT SHOWN
(RIGHT BRIDGE FORWARD ABUTMENT OPPOSITE HAND)



SECTION A-A



EXISTING ABUTMENT REMOVAL ELEVATION
RIGHT BRIDGE REAR ABUTMENT SHOWN
(RIGHT BRIDGE FORWARD ABUTMENT OPPOSITE HAND)



SECTION B-B

LEGEND:

- PHASE IV-A REMOVAL
- PHASE IV-B REMOVAL
- APPROACH SLAB REMOVED

LEGEND:

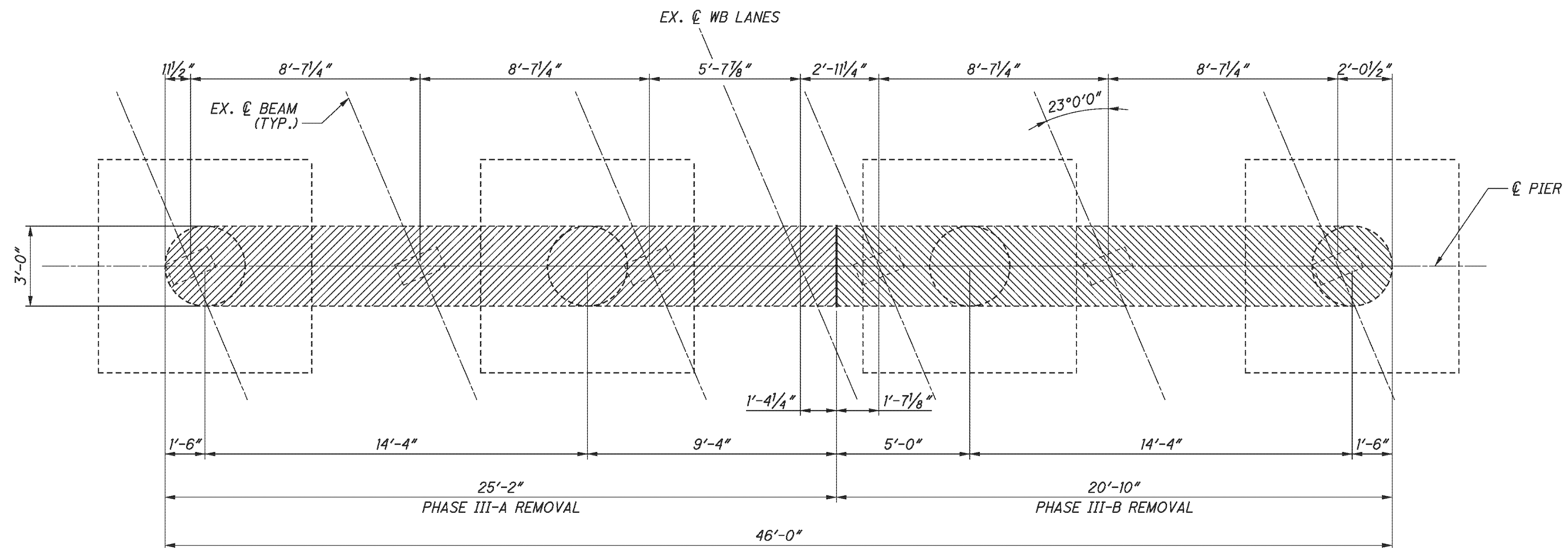
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT

NOTES:

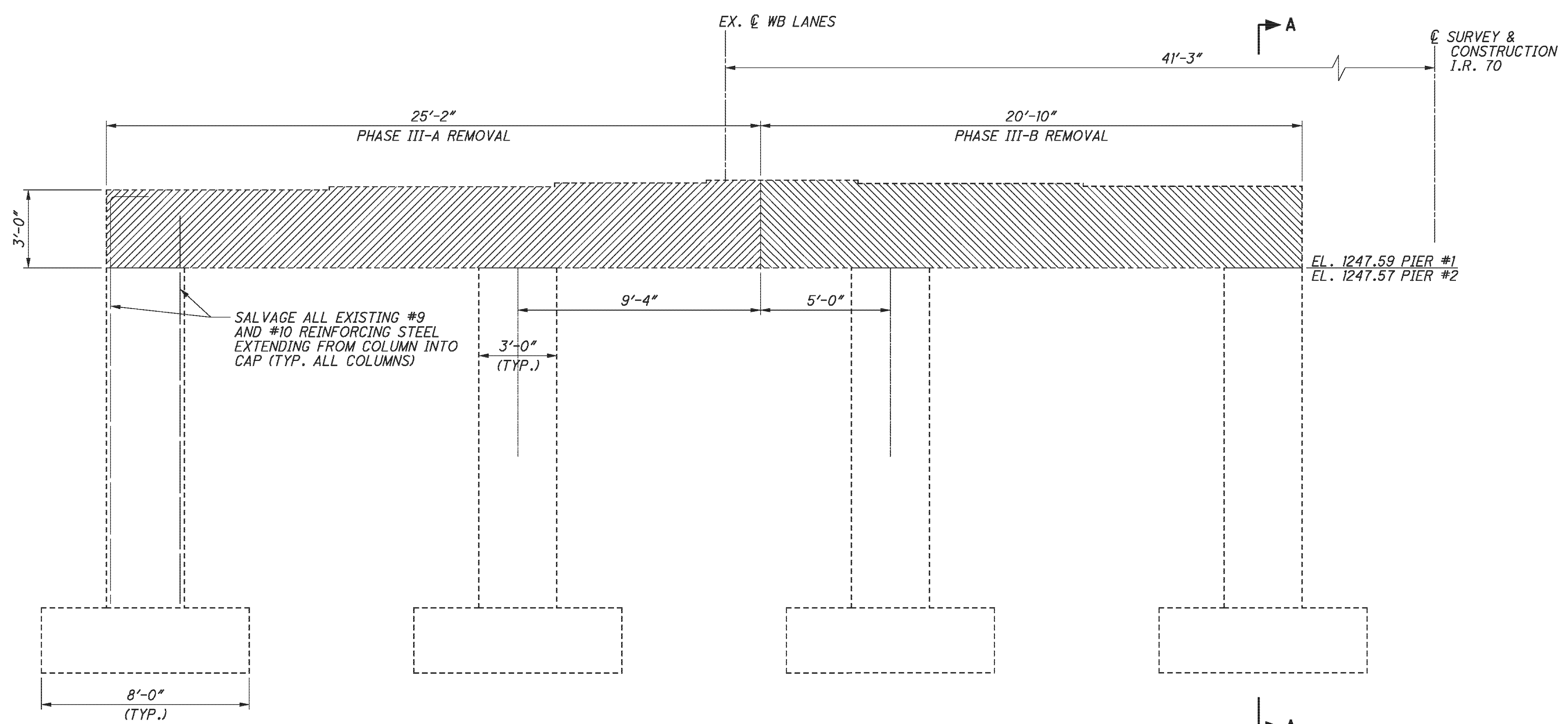
1. ALL EXISTING DIMENSIONS ARE ±
2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE PLACEMENT OF TEMPORARY SHORING DOES NOT DAMAGE THE ABUTMENT STEM OR FOOTING.

E.L. ROBINSON <small>the Challenge, the Choice</small> 1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215	
DATE 2/3/11	REVIEWED RER
DESIGNED DTA	STRUCTURE FILE NUMBER 0702137L/0702161R
DRAWN DTA	CHECKED AME
ABUTMENT REMOVAL DETAILS - RIGHT BRIDGE	
BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260	
BEL-70-7.61	PID No. 76825
13 / 46	295 373

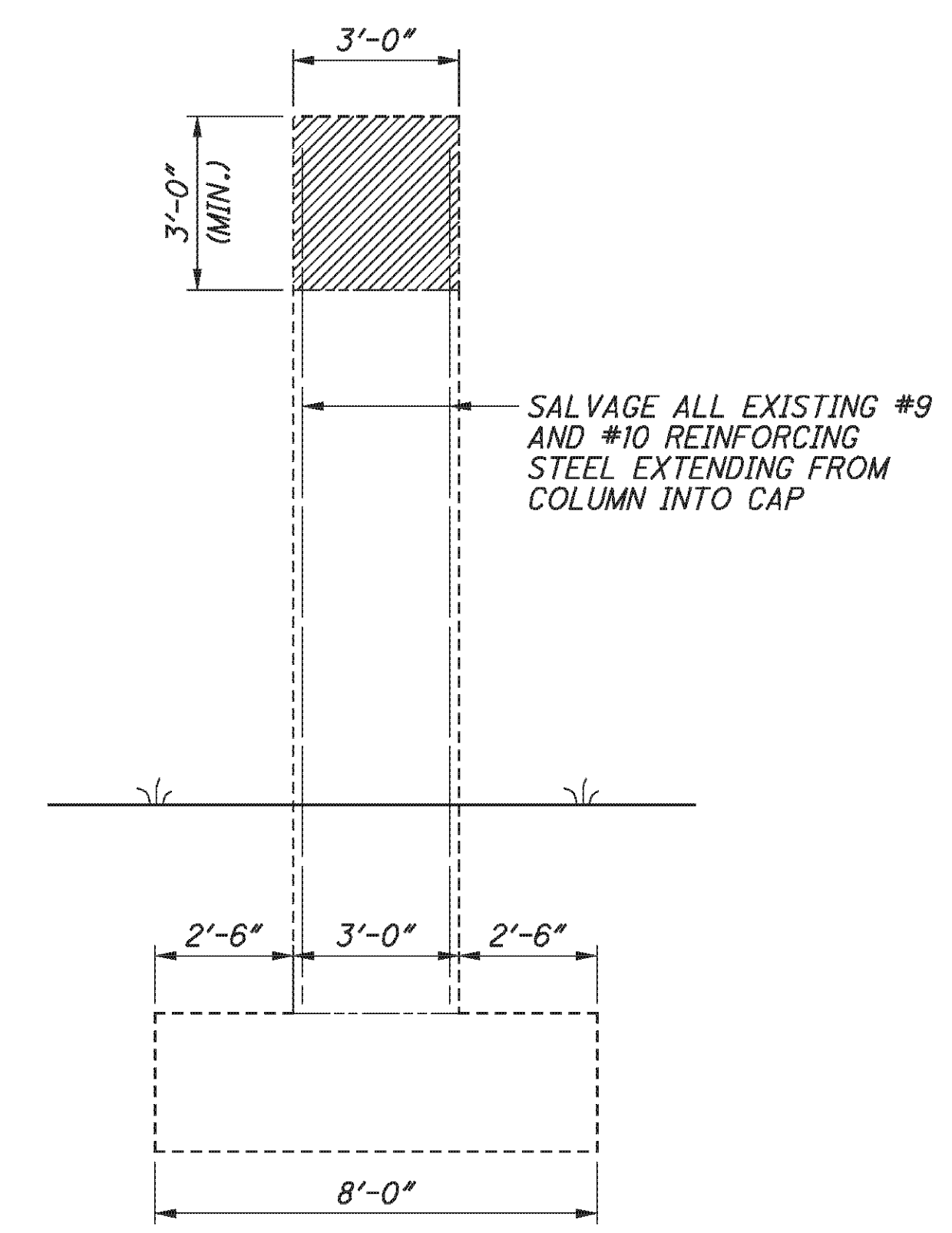
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EXISTING TYPICAL PIER PLAN
LEFT BRIDGE



EXISTING TYPICAL PIER ELEVATION
LEFT BRIDGE



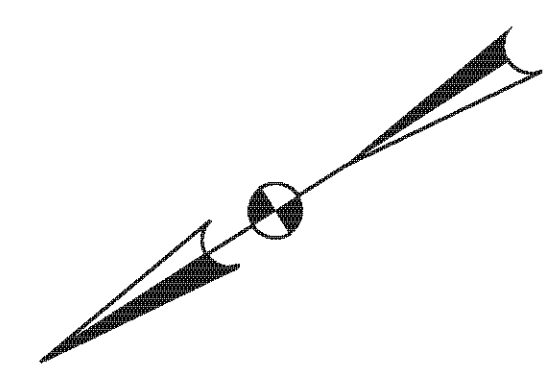
EXISTING PIER SECTION
LEFT BRIDGE

LEGEND:

- PHASE III-A REMOVAL
- PHASE III-B REMOVAL

NOTE:

ALL EXISTING DIMENSIONS ARE ±



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DESIGNED	DATE	REVIEWED	DATE
DTA	5/11/10	DFT	5/11/10
CHECKED	FILE NUMBER	STRUCTURE	FILE NUMBER
AME	0702137L/070216R		

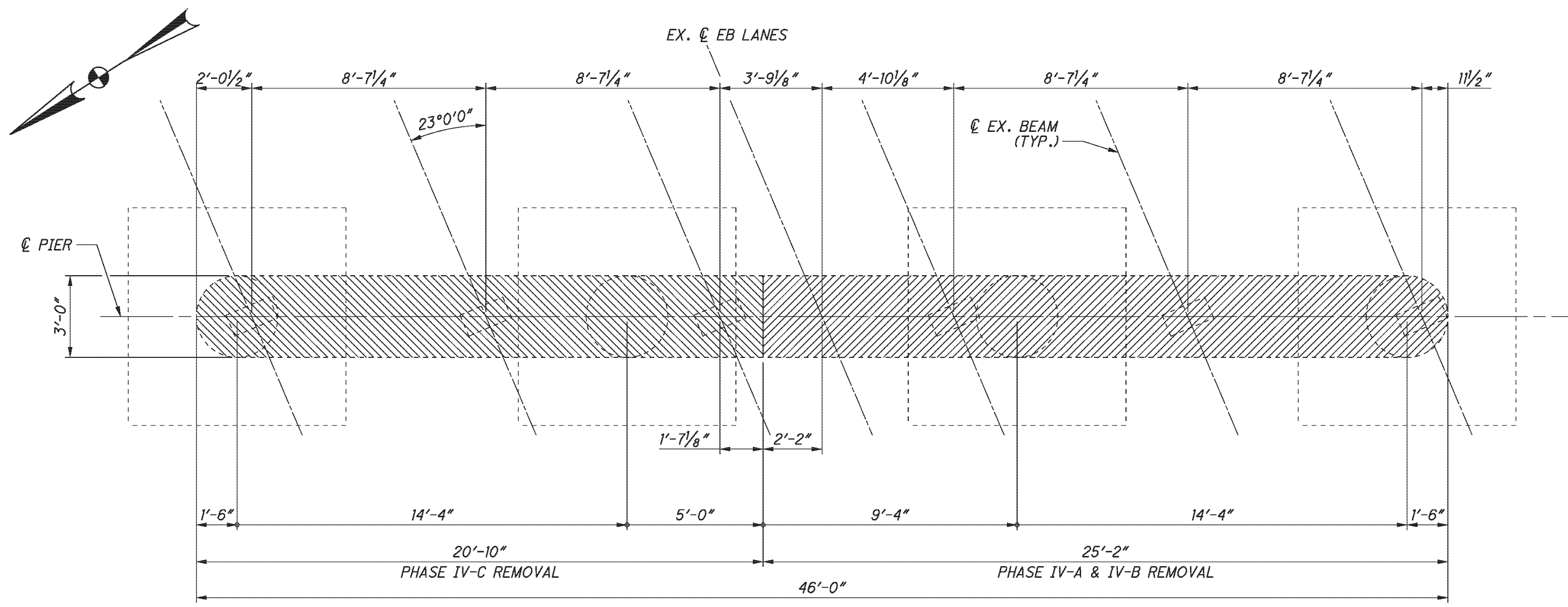
PIER REMOVAL DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

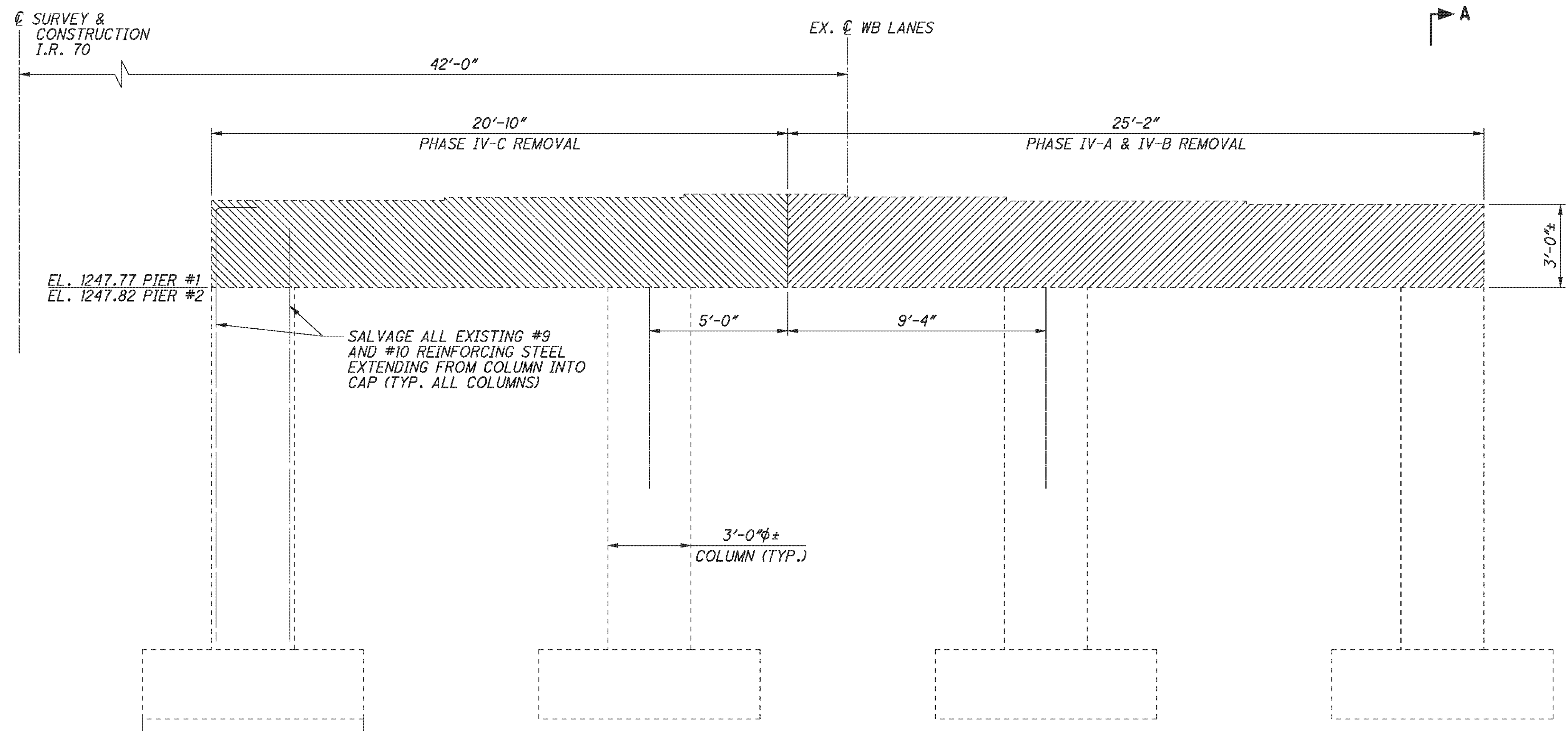
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373

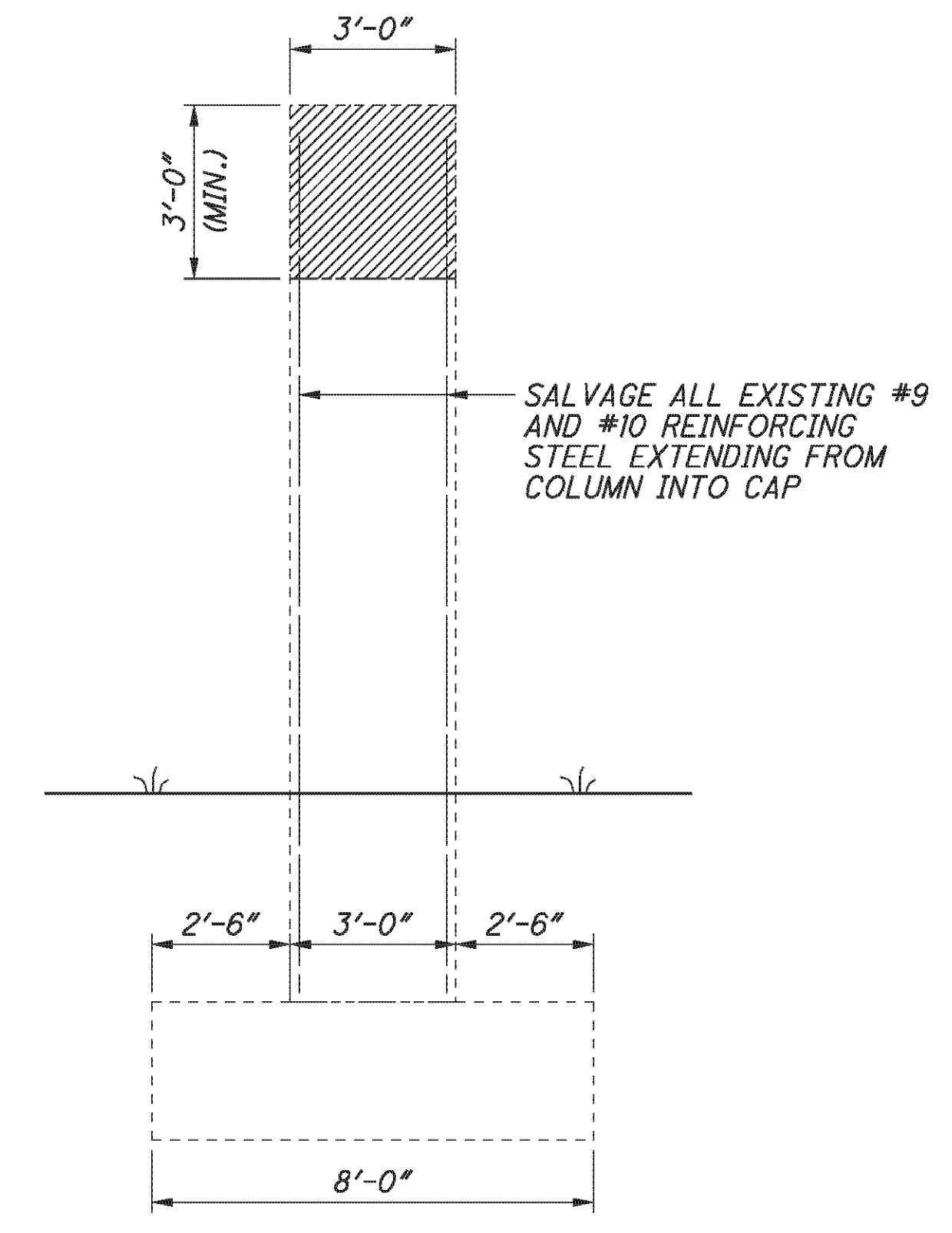
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EXISTING TYPICAL PIER PLAN
RIGHT BRIDGE (PIERS 1 & 2)



EXISTING TYPICAL PIER ELEVATION
RIGHT BRIDGE (PIERS 1 & 2)

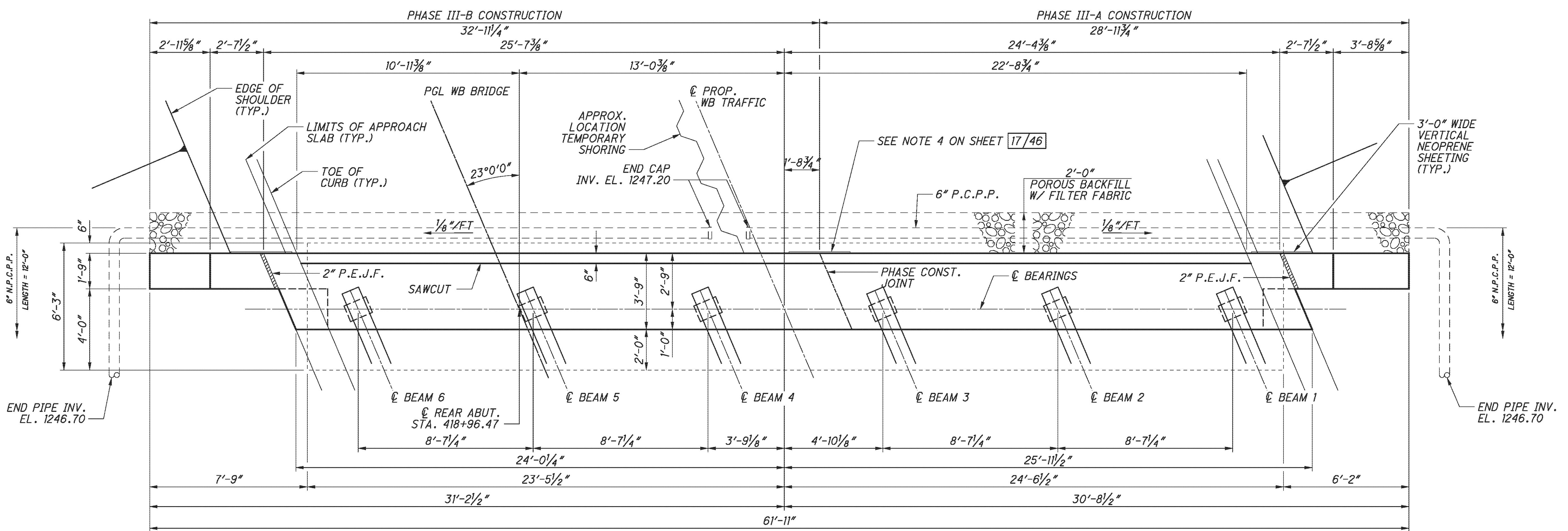


EXISTING PIER SECTION
RIGHT BRIDGE

- LEGEND:**
- PHASE IV-A REMOVAL
 - PHASE IV-B REMOVAL

NOTE:
ALL EXISTING DIMENSIONS ARE ±

E.L. ROBINSON <small>the Challenge, the Choice</small>	
DESIGNED DTA	DATE 2/3/11
DRAWN BMG	REVIEWED RER
CHECKED AME	STRUCTURE FILE NUMBER 0702137L/0702161R
PIER REMOVAL DETAILS - RIGHT BRIDGE	
BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER S.R. 260	
BEL-70-7.61	PID No. 76825
15 / 46	297 373



REAR ABUTMENT PLAN
LEFT BRIDGE

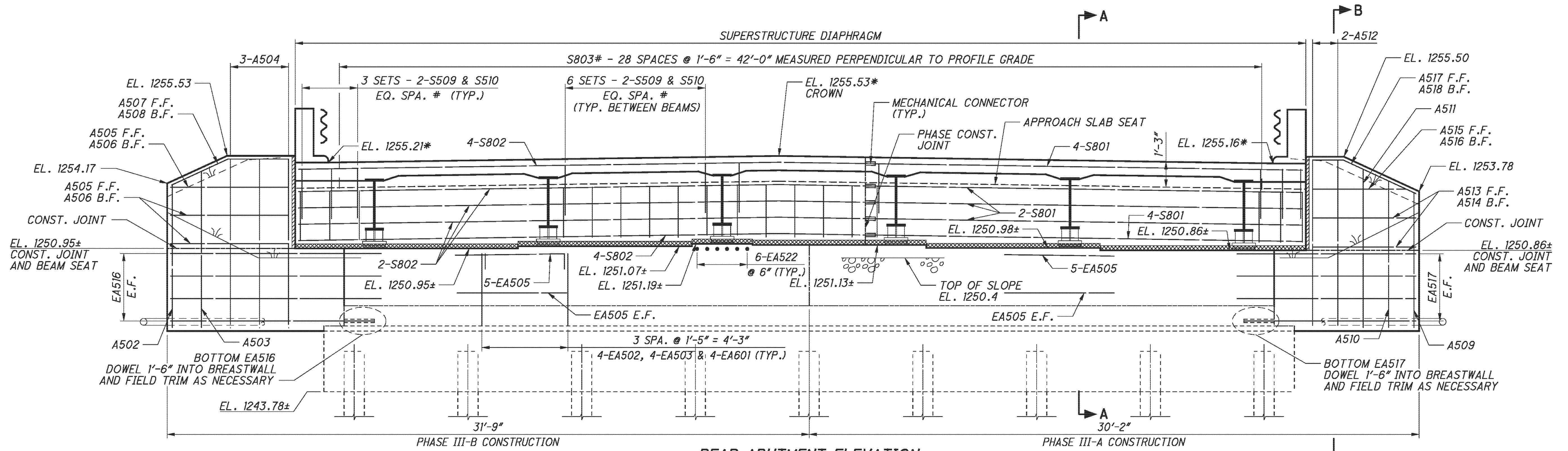
NOTES:

1. FOR SECTIONS A-A AND B-B SEE SHEET 17/46
2. 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN PIPE TERMINATION DETAIL ON SHEET 17/46
3. FOR ADDITIONAL PLAN NOTES SEE SHEET 17/46

LAP LENGTHS	
NO. 5 BARS	2'-6" MIN.

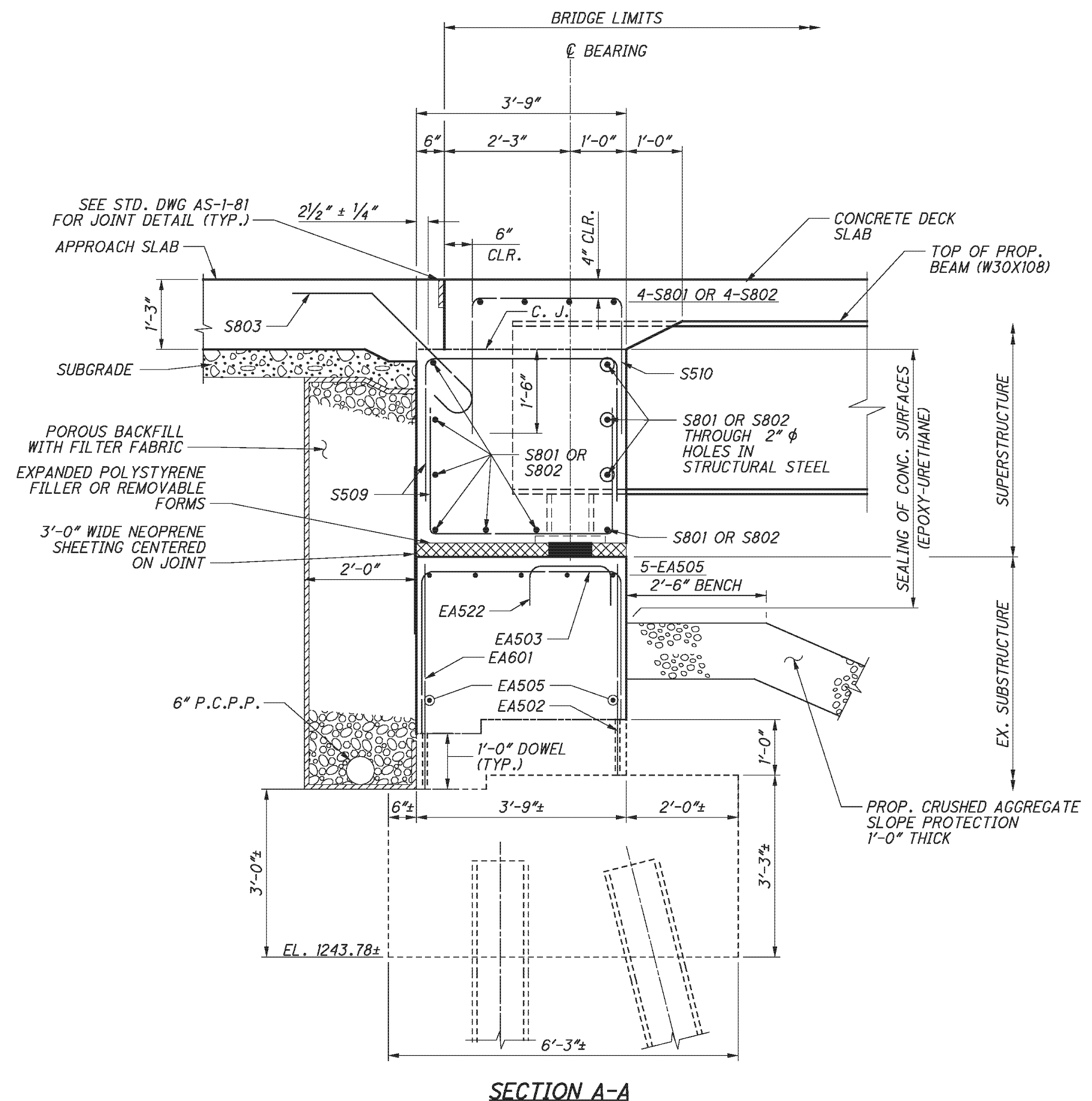
LEGEND:

- * - ELEVATION GIVEN AT BRIDGE LIMIT
- # - PLACED PARALLEL TO PROFILE GRADE

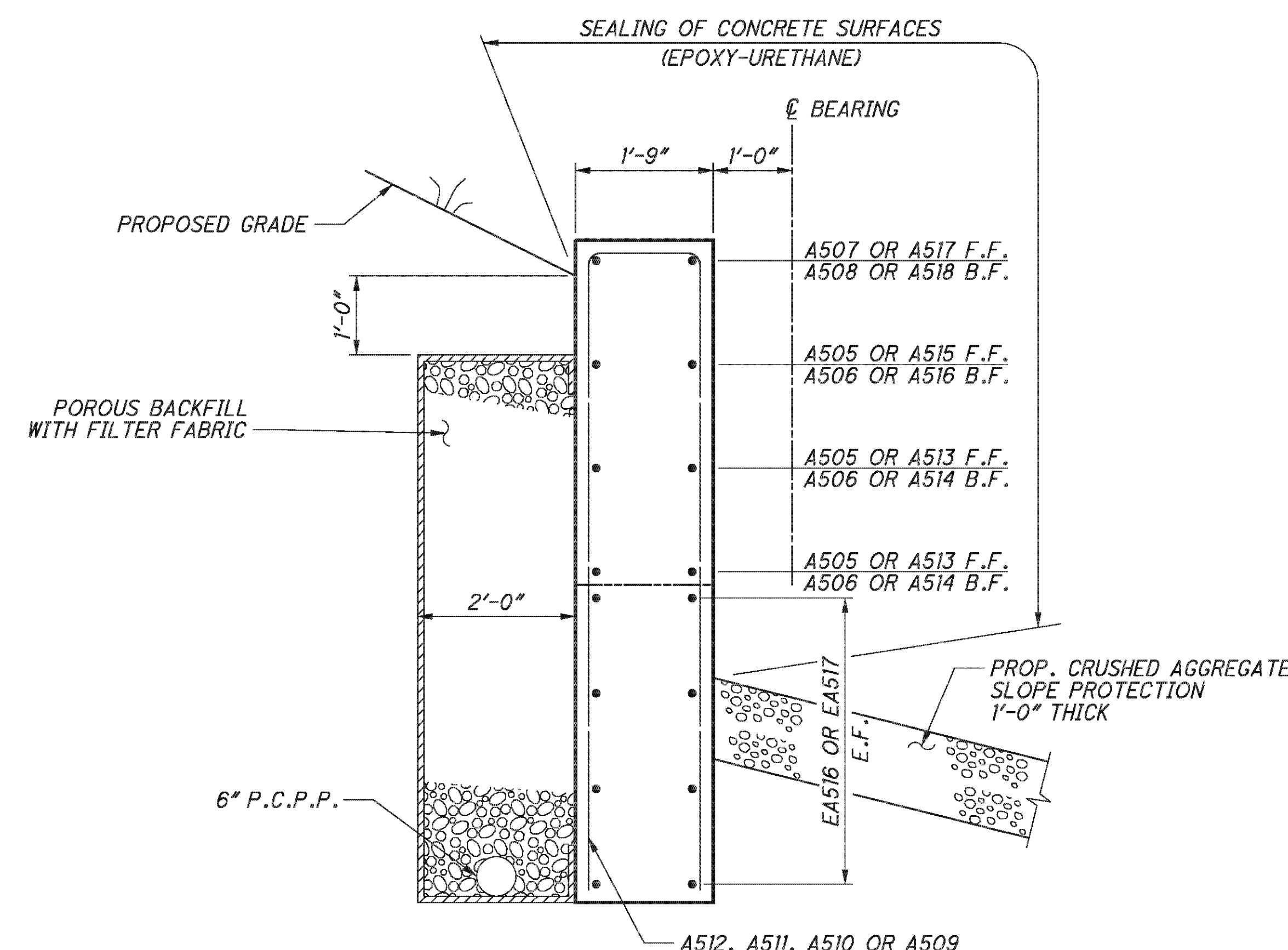


REAR ABUTMENT ELEVATION
LEFT BRIDGE

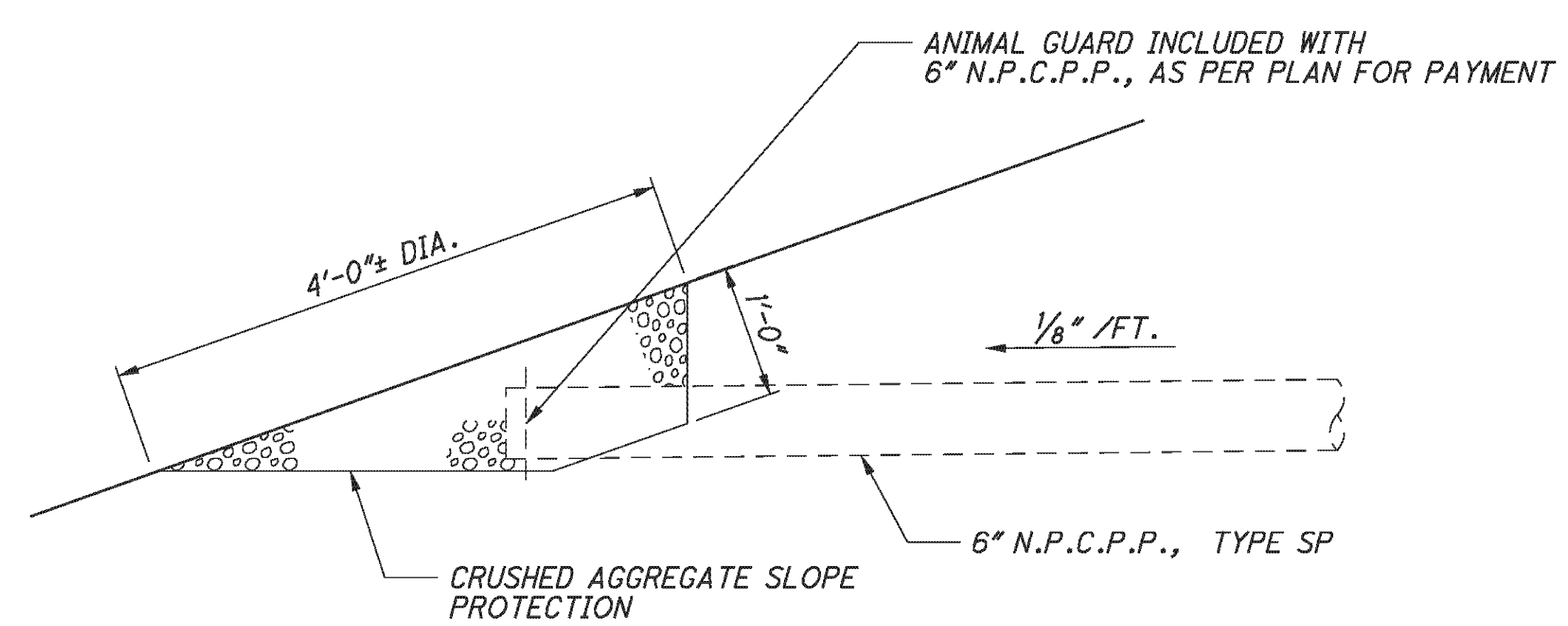
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SECTION A-A



SECTION B-B



TERMINATION OF 6" N.P.C.P.P. DETAIL

NOTES:

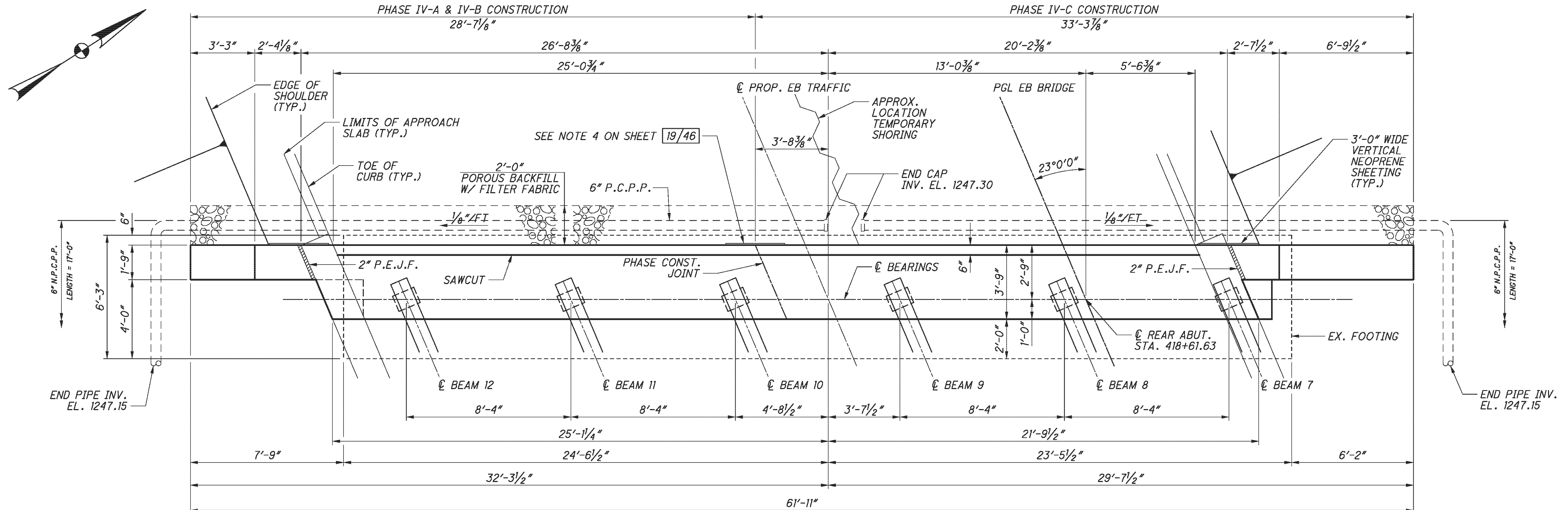
1. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE THE CONCRETE IN THE ABUTMENT DIAPHRAGM ENCASEING STRUCTURAL STEEL MEMBERS OF AN INDIVIDUAL PHASE SEPARATELY OR WITH THE DECK CONCRETE OF THAT PHASE. IF THE DIAPHRAGM CONCRETE IS PLACED SEPARATELY, ALLOW AT LEAST 48 HOURS OF SET TIME BEFORE PLACING DECK CONCRETE. LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
3. FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS SEE ODOT STD. DWG. SICD-1-96.
4. VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO APPROACH SLAB SEAT.
5. MECHANICAL CONECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
6. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMEBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
7. FOR ADDITIONAL BEARING DETAILS, SEE SHEET **30/46**.
8. FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEET **16/46**.

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DATE	5/11/10
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DRAWN	DTA
DESIGNED	DTA
CHECKED	AME
STRUCTURE FILE NUMBER	0702137L/070216R

REAR ABUTMENT DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825



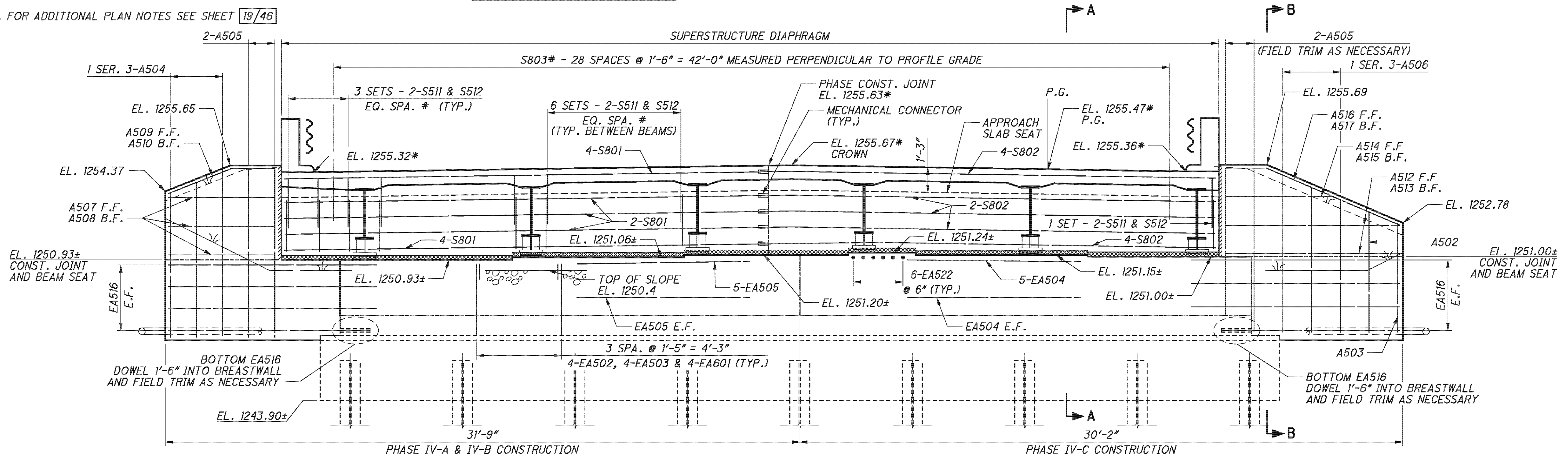
NOTES:

- FOR SECTIONS A-A AND B-B SEE SHEET 19/46
- 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN PIPE TERMINATION DETAIL ON SHEET 19/46
- FOR ADDITIONAL PLAN NOTES SEE SHEET 19/46

LAP LENGTHS	
NO. 5 BARS	2'-6" MIN.

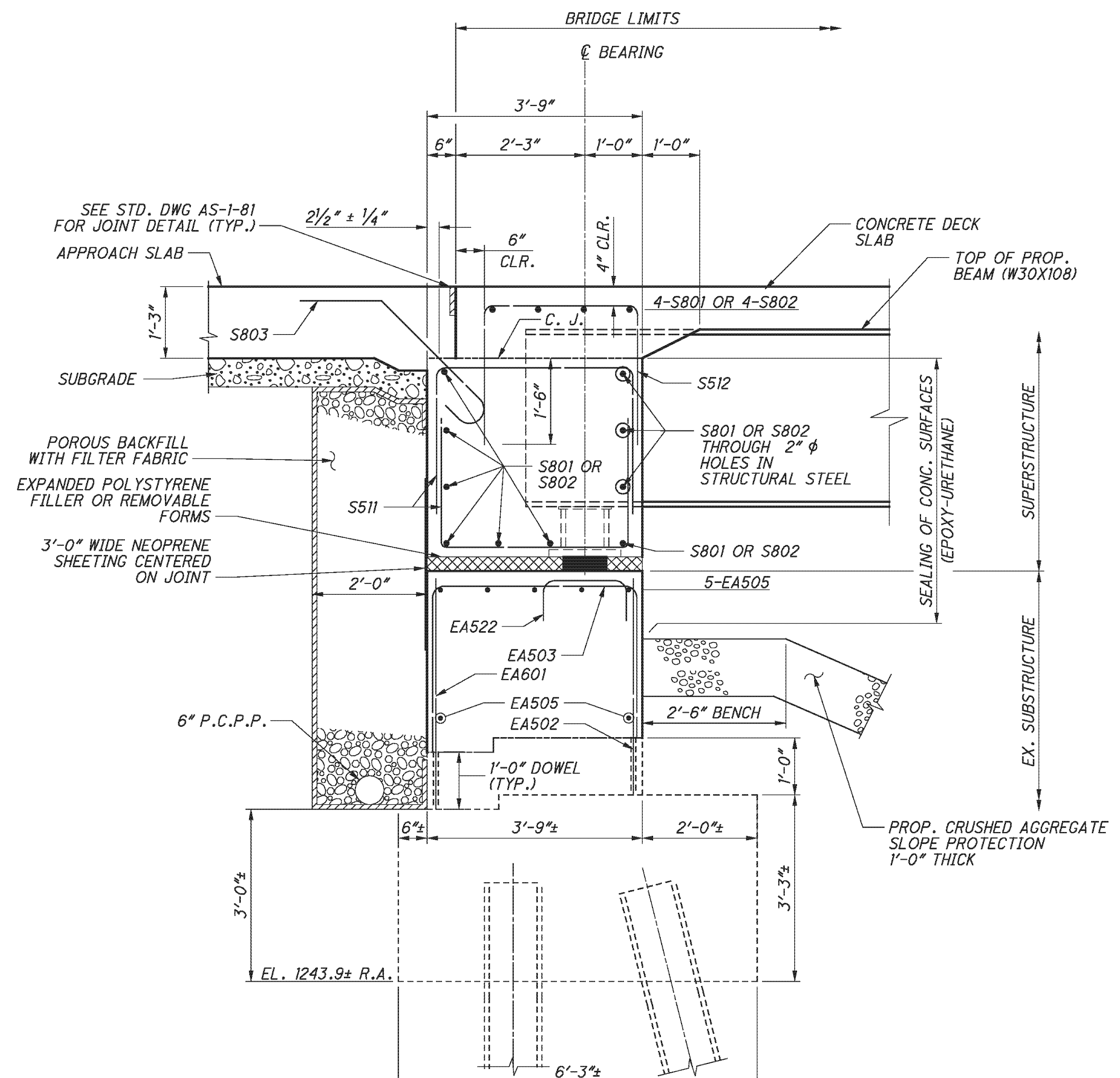
LEGEND:

- * - ELEVATION GIVEN AT BRIDGE LIMIT
- # - PLACED PARALLEL TO PROFILE GRADE

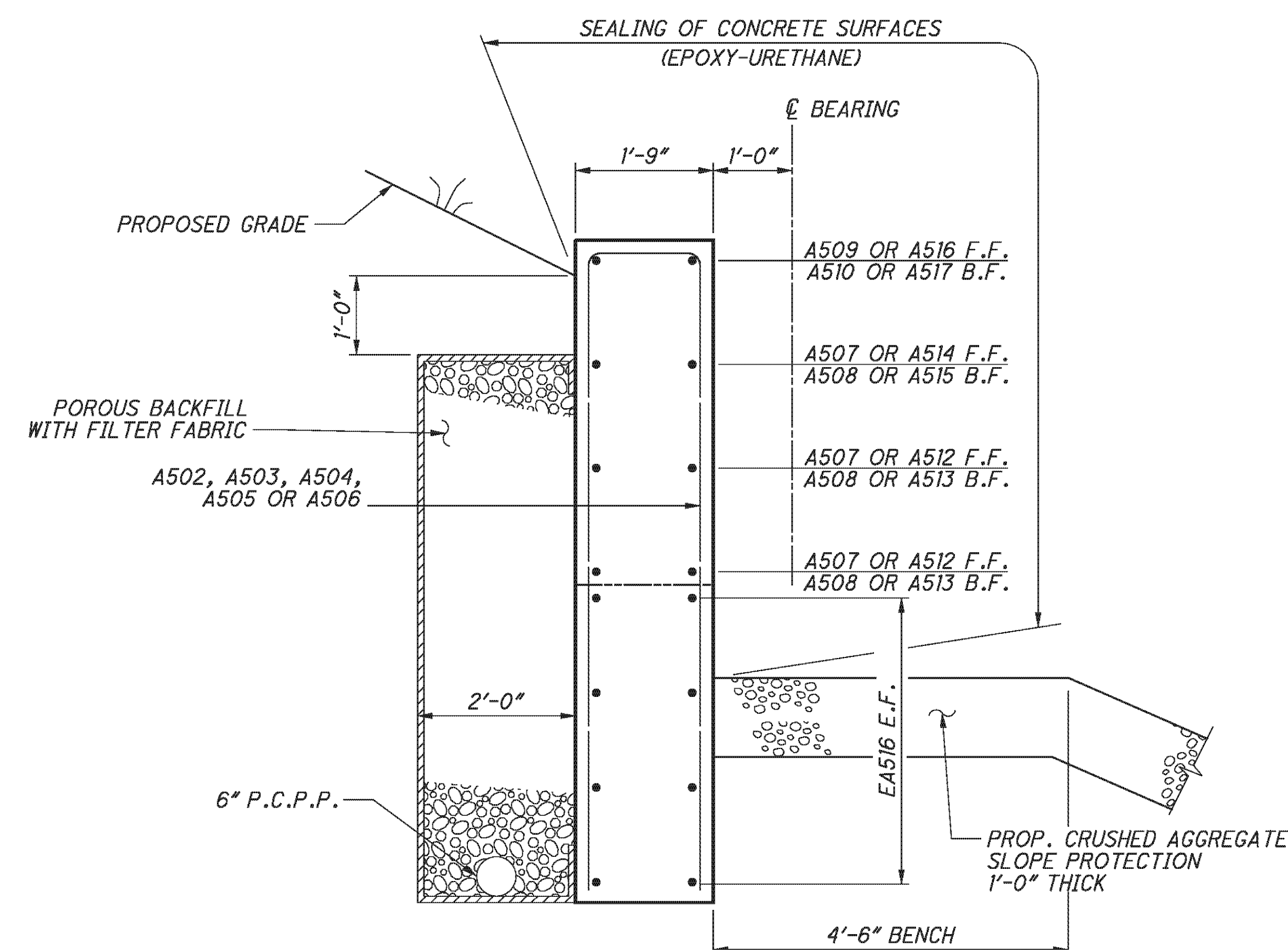


REAR ABUTMENT ELEVATION
RIGHT BRIDGE

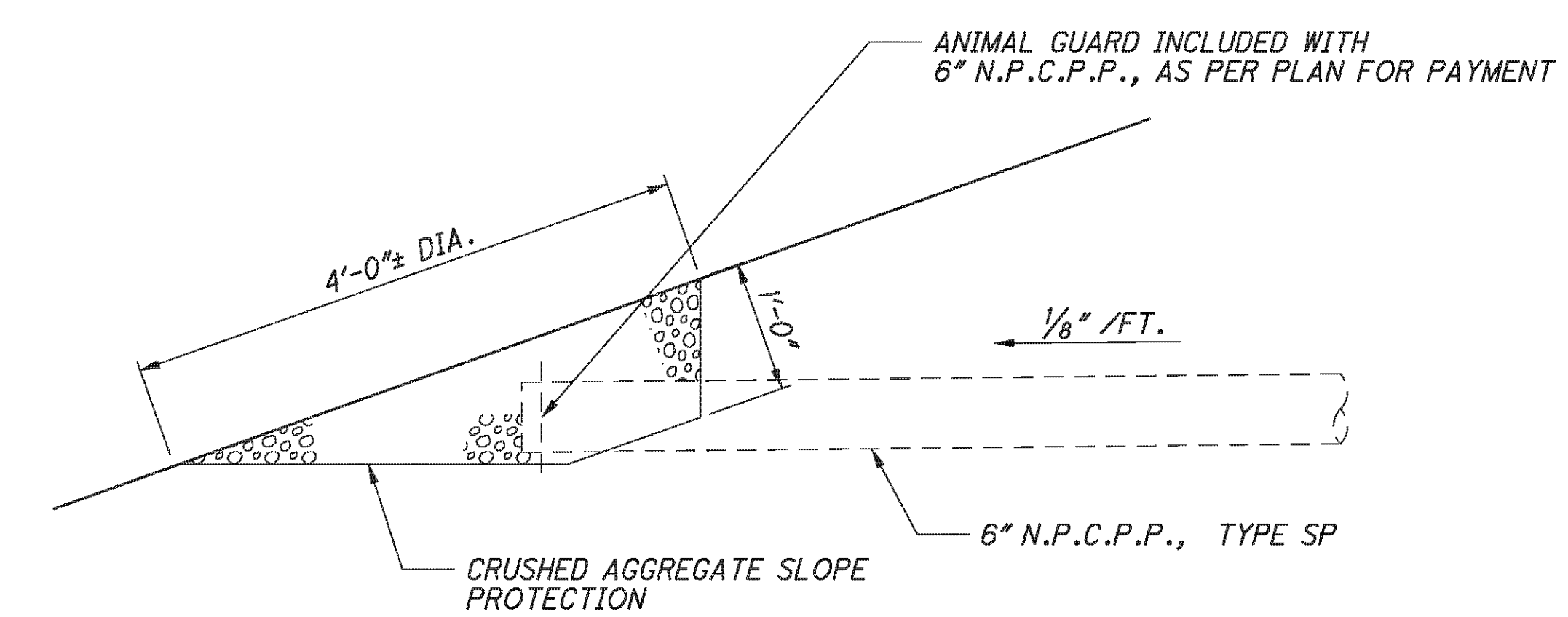
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SECTION A-A
(THROUGH BEAM SEAT)



SECTION B-B
(THROUGH WINGWALL)



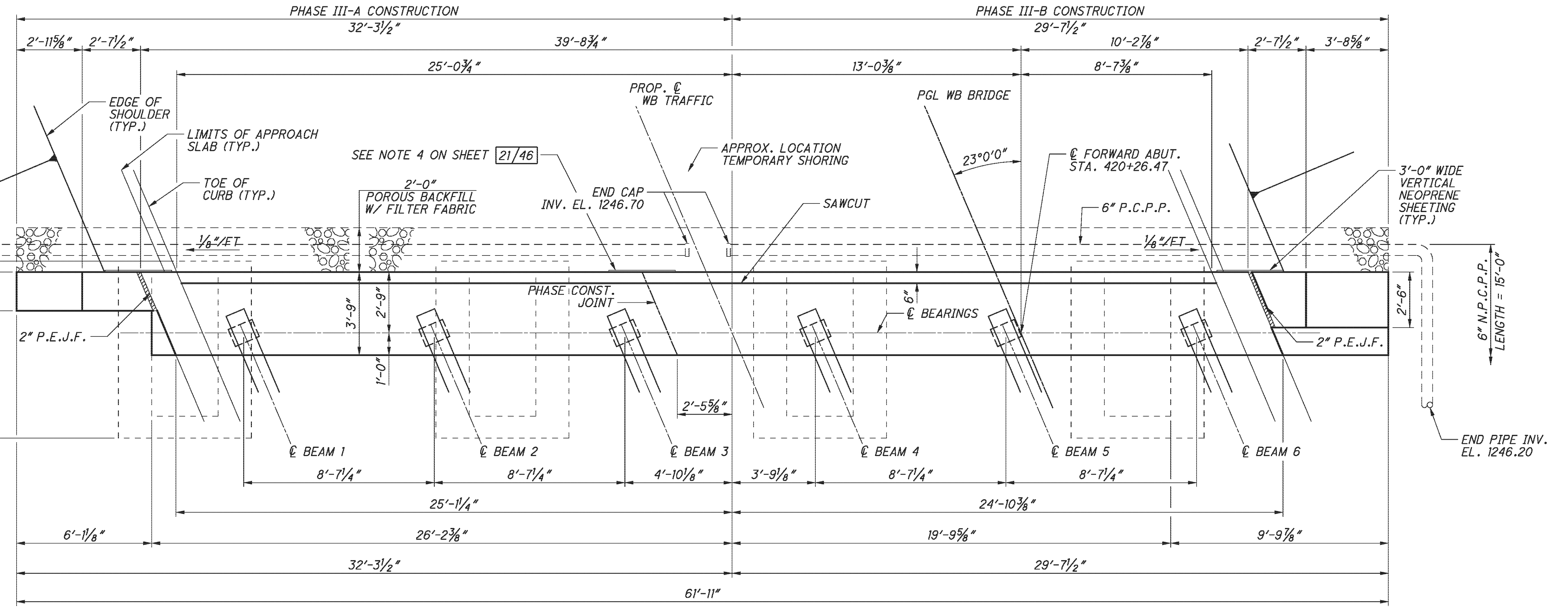
TERMINATION OF 6" N.P.C.P.P. DETAIL

NOTES:

1. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE THE CONCRETE IN THE ABUTMENT DIAPHRAGM ENCASEING STRUCTURAL STEEL MEMBERS OF AN INDIVIDUAL PHASE SEPARATELY OR WITH THE DECK CONCRETE OF THAT PHASE. IF THE DIAPHRAGM CONCRETE IS PLACED SEPARATELY, ALLOW AT LEAST 48 HOURS OF SET TIME BEFORE PLACING DECK CONCRETE. LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
3. FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS SEE ODOT STD. DWG. SICD-1-96.
4. VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO APPROACH SLAB SEAT.
5. MECHANICAL CONECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
6. FOR ADDITIONAL BEARING DETAILS, SEE SHEET **31/46**.
7. FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEET **18/46**.

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E.L. ROBINSON <small>the Challenge, the Choice</small>	
REAR ABUTMENT DETAILS - RIGHT BRIDGE BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260	BEL-70-7.61 PID No. 76825
DESIGNED: DTA CHECKED: AME	DATE: 2/3/11 STRUCTURE FILE NUMBER: 0702137L/070216R
DRAWN: DTA REVISED:	REVIEWED: RER FILE NUMBER:
19 / 46	
301 373	

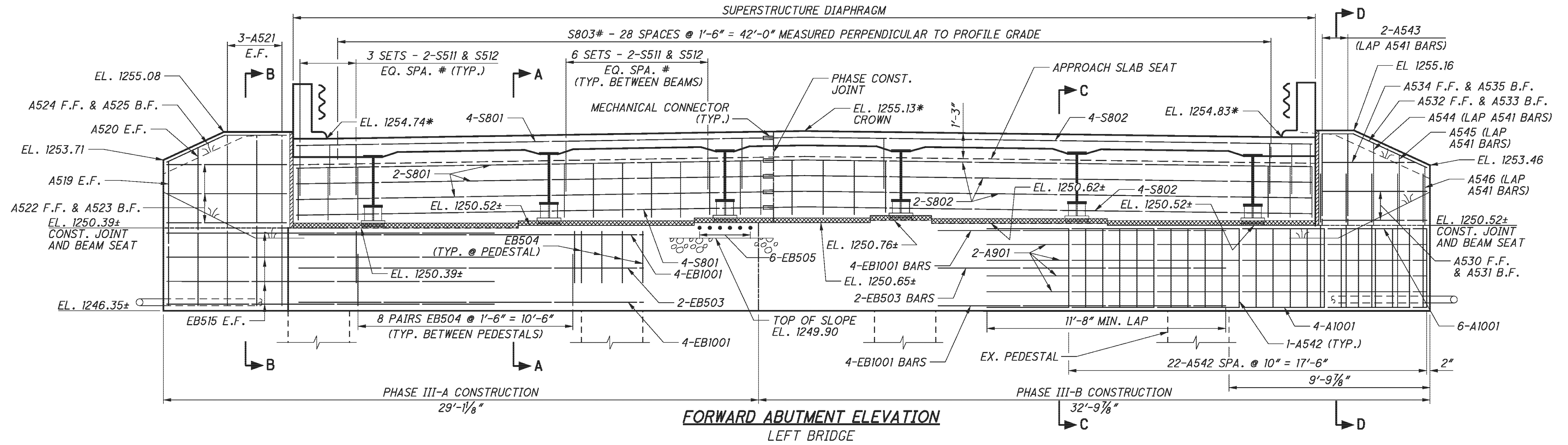


FORWARD ABUTMENT PLAN
LEFT BRIDGE

- NOTES:**
1. FOR SECTIONS A-A AND B-B SEE SHEET 21/46
 2. 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN TERMINATION DETAIL ON SHEET 21/46
 3. FOR ADDITIONAL PLAN NOTES SEE SHEET 21/46

LAP LENGTHS	
NO. 5 BARS	2'-6" MIN.

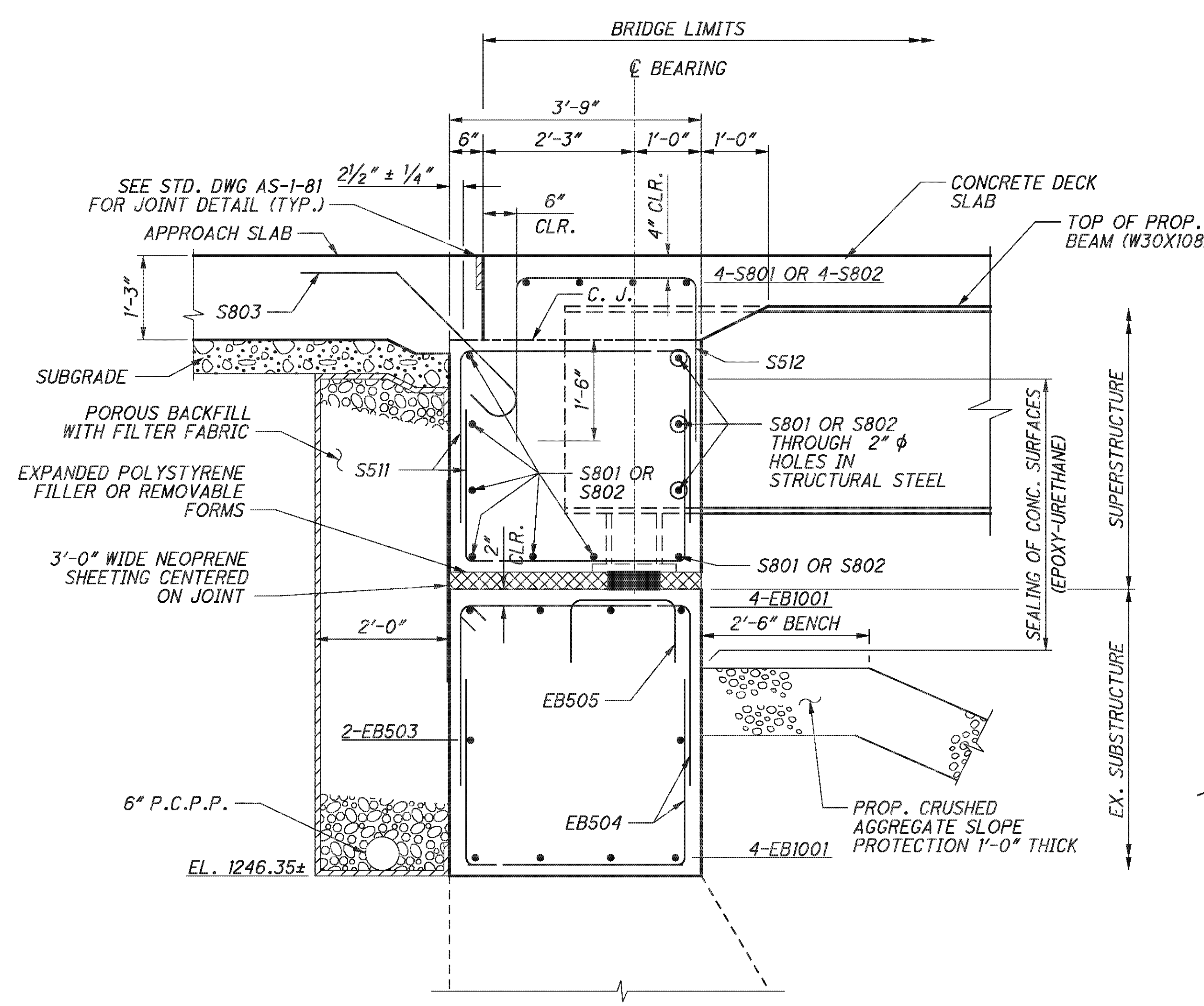
- LEGEND:**
- * - ELEVATION GIVEN AT BRIDGE LIMIT
 - # - PLACED PARALLEL TO PROFILE GRADE



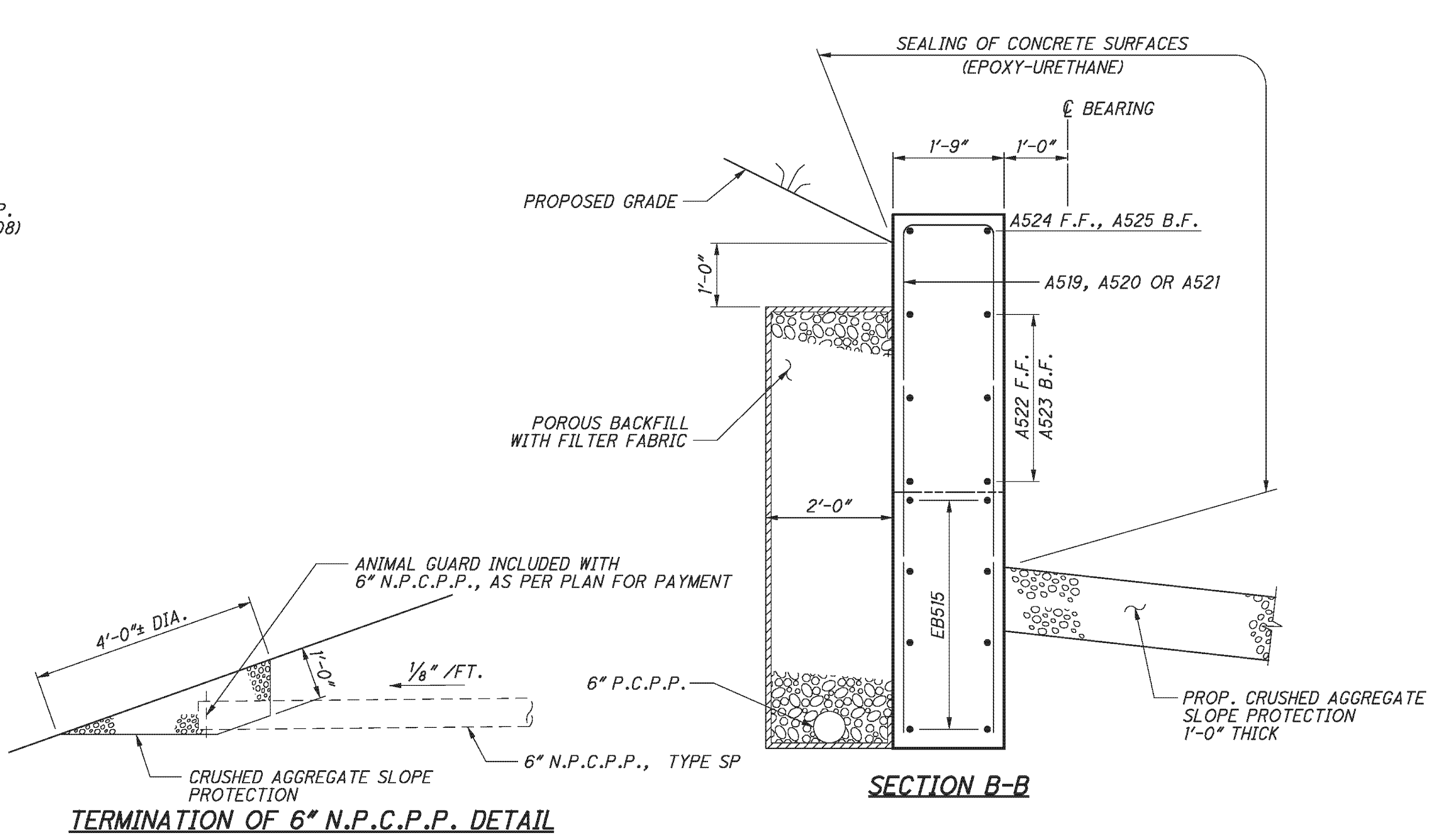
FORWARD ABUTMENT ELEVATION
LEFT BRIDGE

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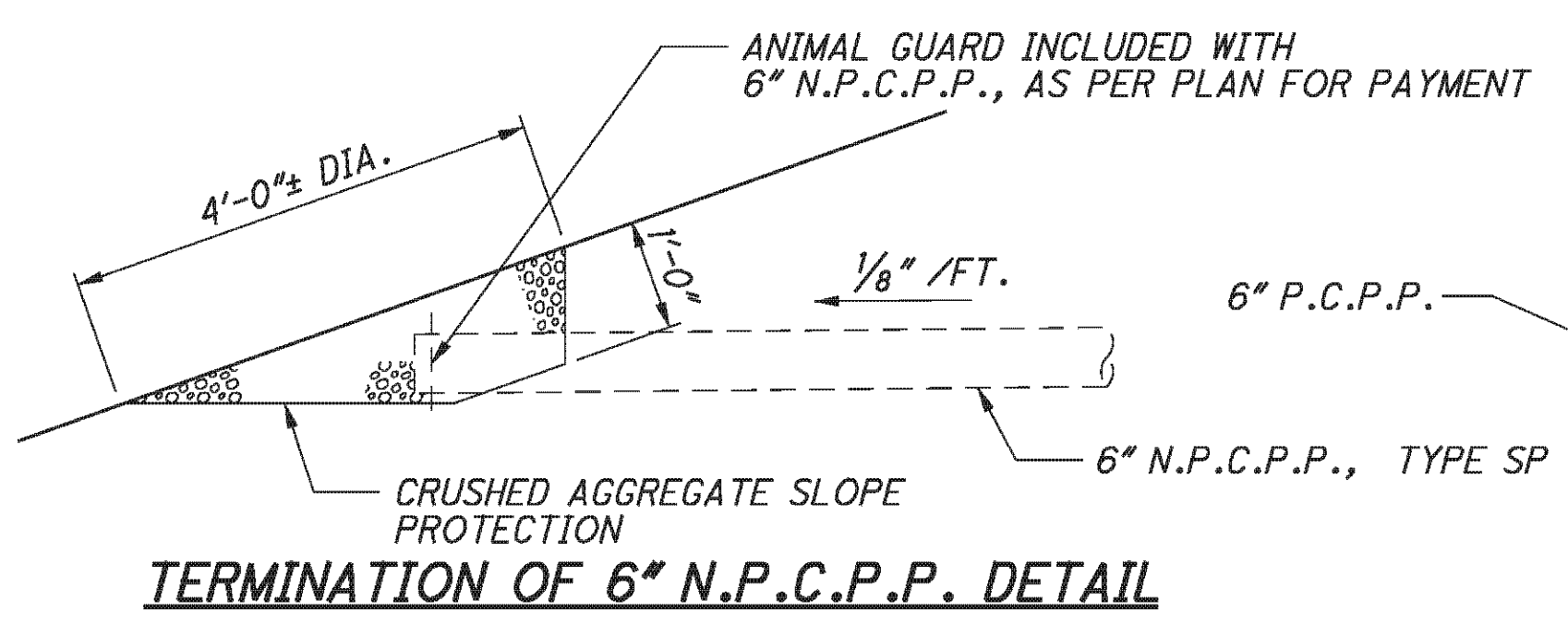
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SECTION A-A



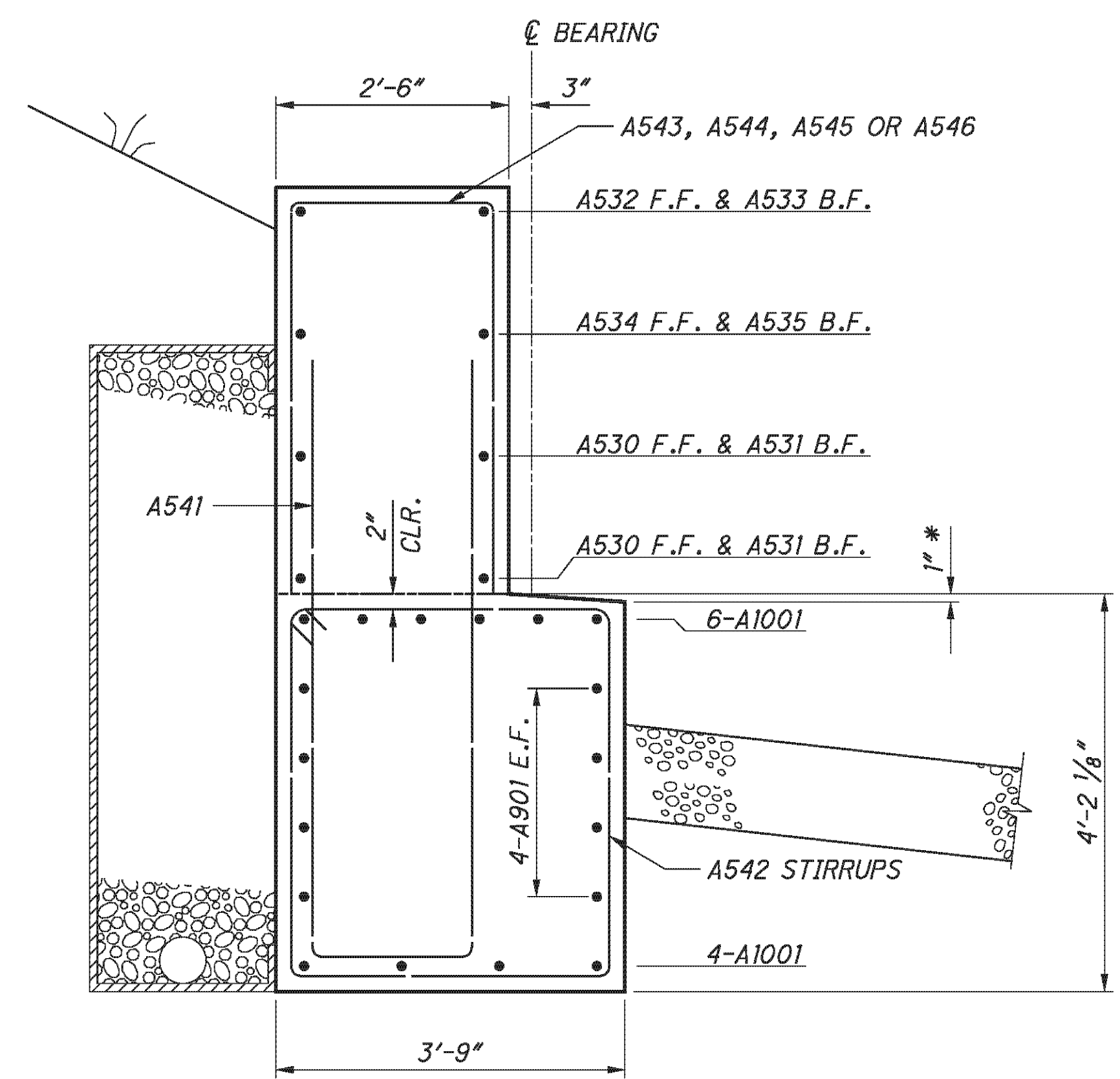
SECTION B-B



TERMINATION OF 6" N.P.C.P.P. DETAIL

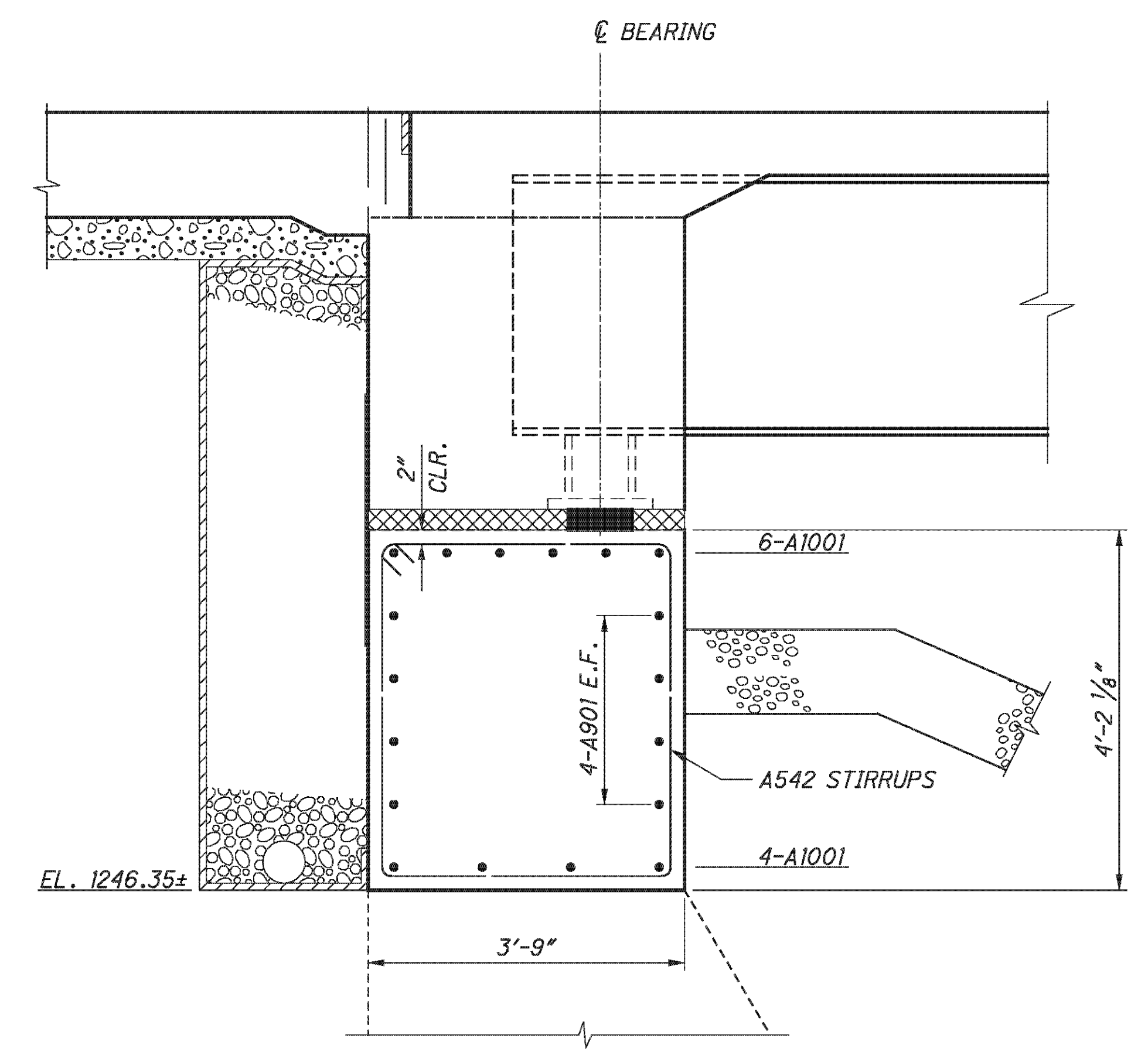
NOTES:

1. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE THE CONCRETE IN THE ABUTMENT DIAPHRAGM ENCASEING STRUCTURAL STEEL MEMBERS OF AN INDIVIDUAL PHASE SEPARATELY OR WITH THE DECK CONCRETE OF THAT PHASE. IF THE DIAPHRAGM CONCRETE IS PLACED SEPARATELY, ALLOW AT LEAST 48 HOURS OF SET TIME BEFORE PLACING DECK CONCRETE. LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
3. FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS SEE ODOT STD. DWG. SICD-1-96.
4. VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO APPROACH SLAB SEAT.
5. MECHANICAL CONECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
6. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMEBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
7. FOR ADDITIONAL BEARING DETAILS, SEE SHEET 30/46.
8. FOR LOCATIONS OF SECTIONS A-A, B-B, C-C AND D-D SEE SHEET 20/46.



SECTION D-D

FOR ADDITIONAL DIMENSIONS AND SEALING LIMITS, SEE SECTION B-B



SECTION C-C

FOR ADDITIONAL DIMENSIONS AND SEALING LIMITS, SEE SECTION A-A

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The Challenge, the Choice
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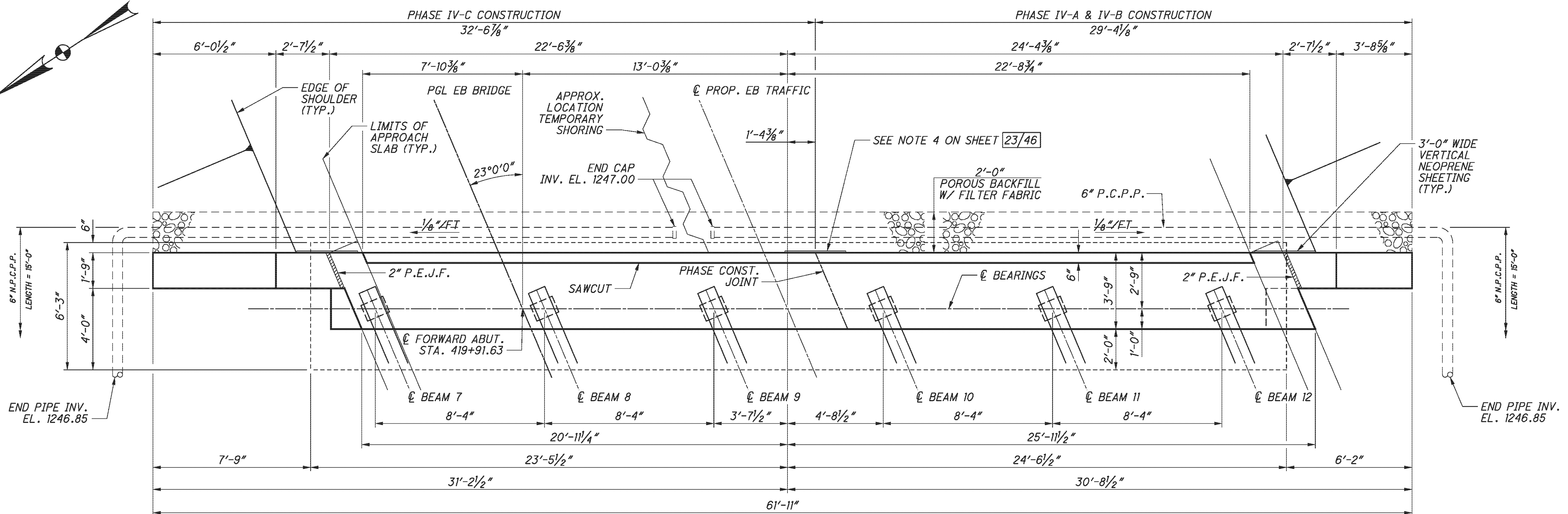
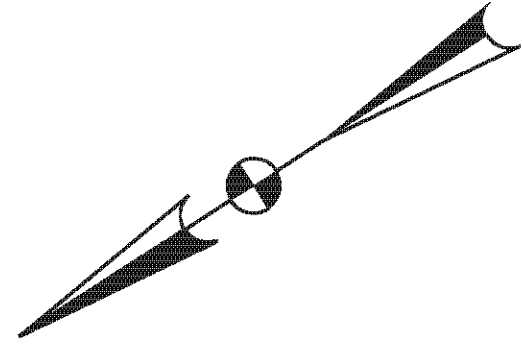
DESIGNED	DTA	CHECKED	AME
DRAWN	DTA	REVISED	
REVIEWED	DFT	STRUCTURE FILE NUMBER	070213TL/070216R
DATE	5/11/10		

FORWARD ABUTMENT DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

21/46

303
373



FORWARD ABUTMENT PLAN
RIGHT BRIDGE

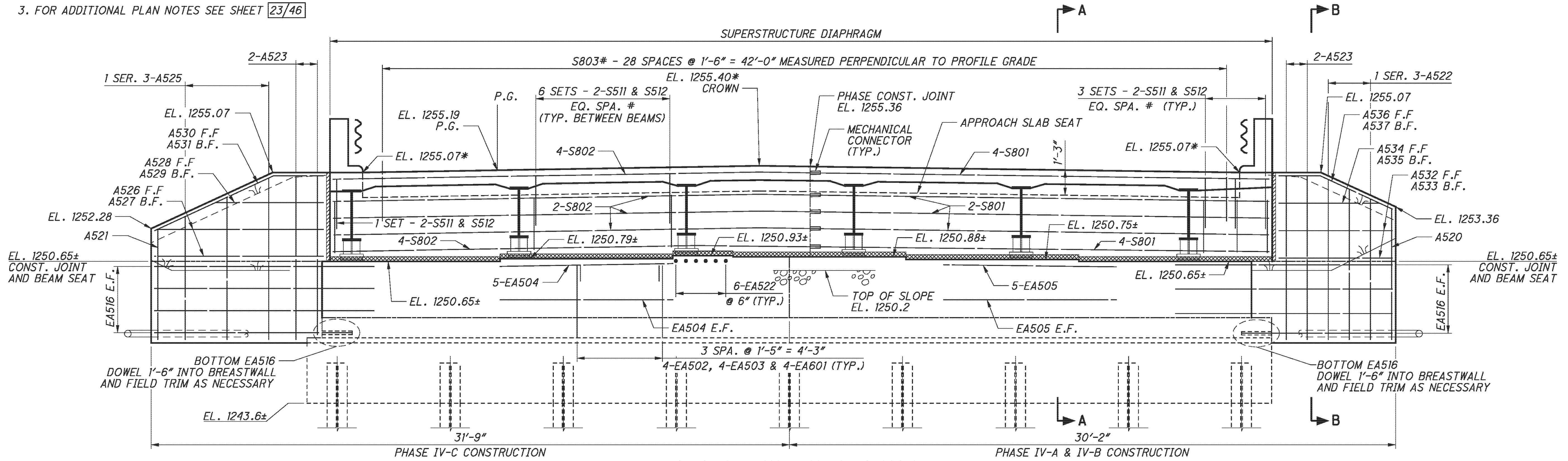
NOTES:

- FOR SECTIONS A-A AND B-B SEE SHEET 23/46
- 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN PIPE TERMINATION DETAIL ON SHEET 23/46
- FOR ADDITIONAL PLAN NOTES SEE SHEET 23/46

LAP LENGTHS	
NO. 5 BARS	2'-6" MIN.

LEGEND:

- * - ELEVATION GIVEN AT BRIDGE LIMIT
- # - PLACED PARALLEL TO PROFILE GRADE



FORWARD ABUTMENT ELEVATION
RIGHT BRIDGE

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DESIGNED	DTA	CHECKED	RLE
DRAWN	DTA	REVISOR	
REVIEWED	RER	DATE	2/3/11
STRUCTURE FILE NUMBER	0702137L/0702161R		

FORWARD ABUTMENT DETAILS - RIGHT BRIDGE

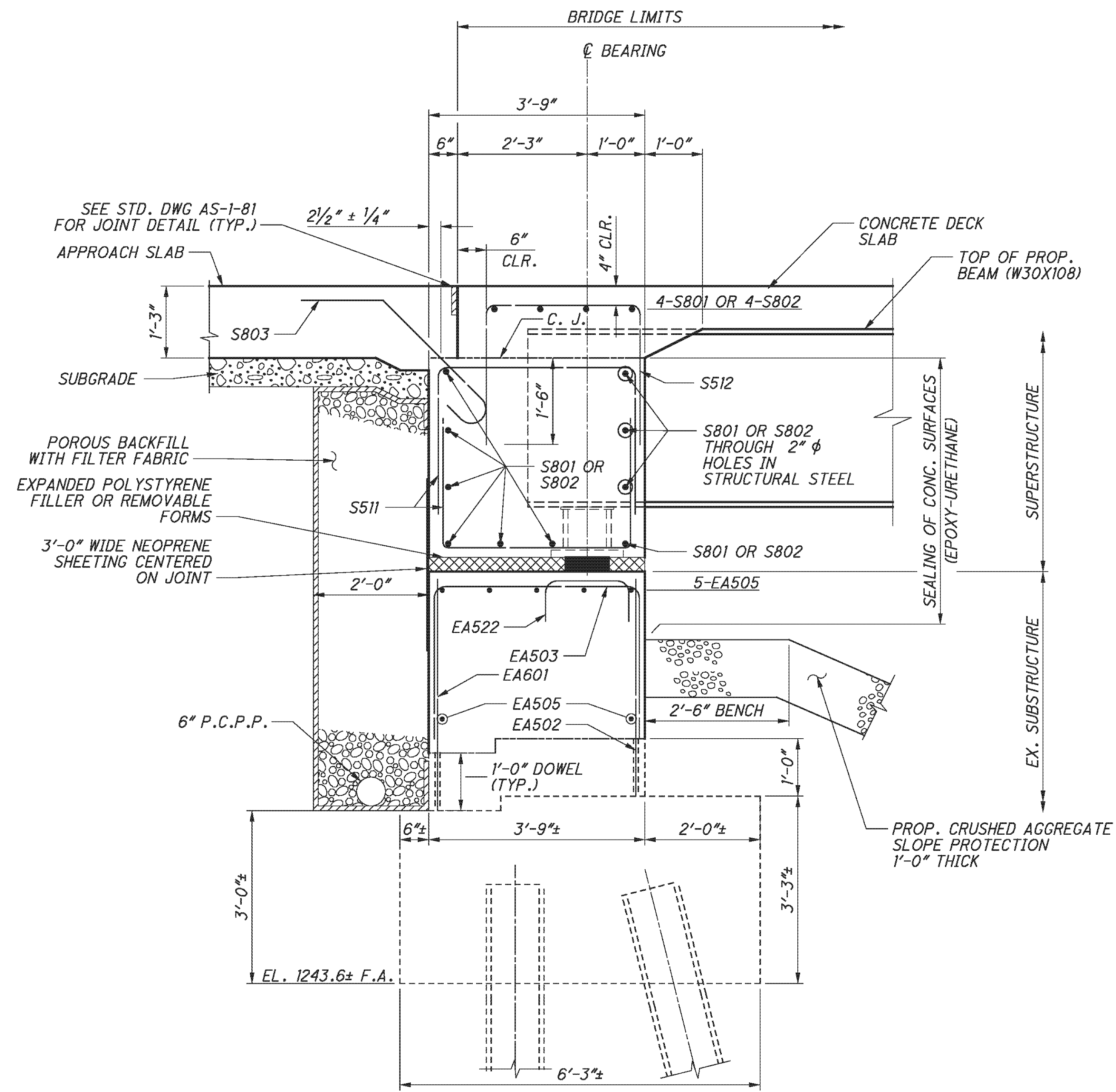
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

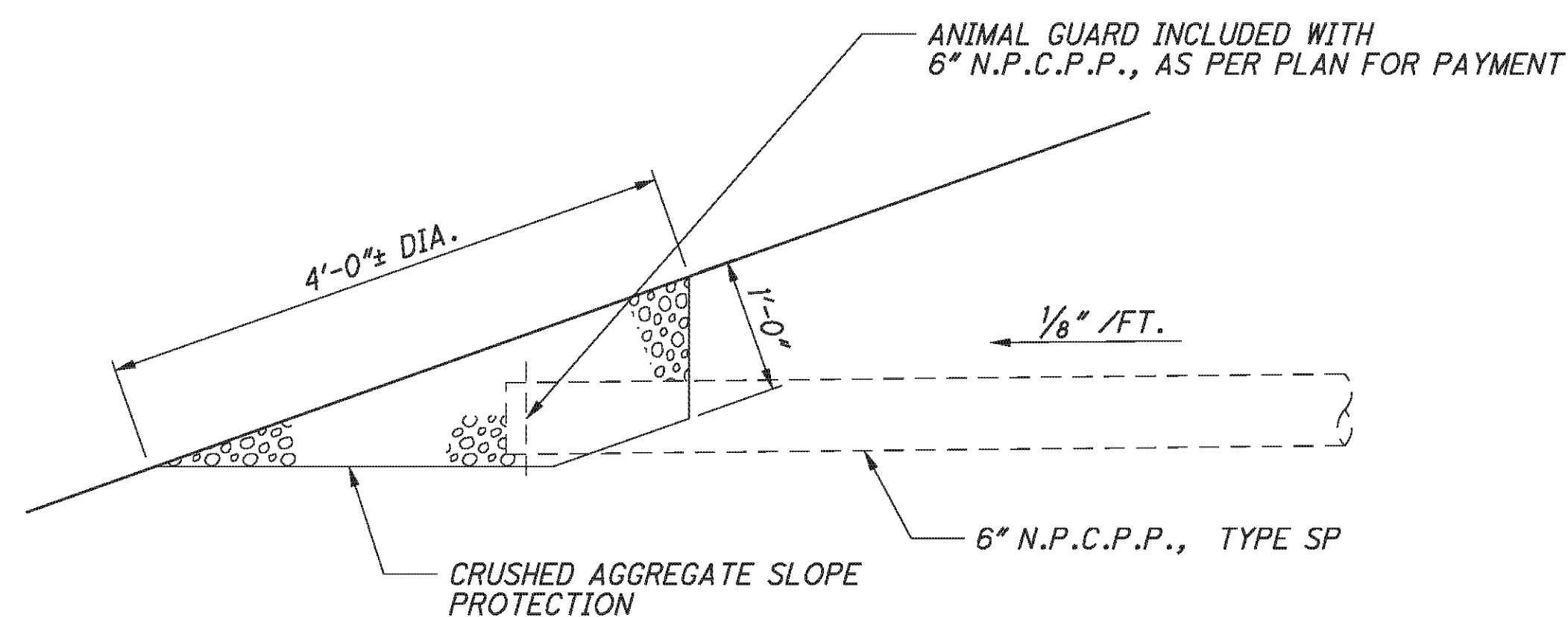
22/46

304
373

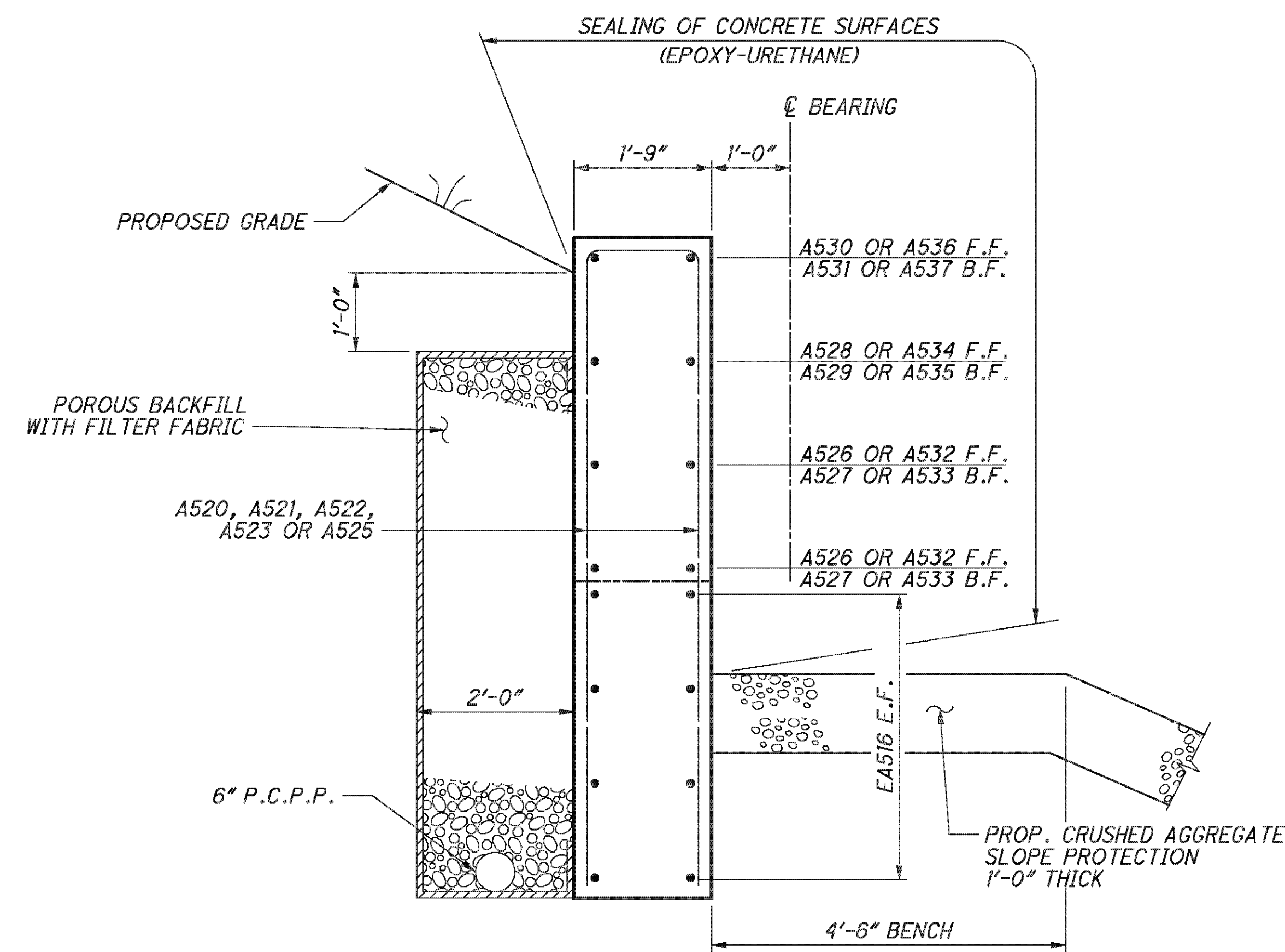
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SECTION A-A
(THROUGH BEAM SEAT)



TERMINATION OF 6" N.P.C.P.P. DETAIL



SECTION B-B
(THROUGH WINGWALL)

NOTES:

1. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
2. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE, PHASED CONSTRUCTION: PLACE THE CONCRETE IN THE ABUTMENT DIAPHRAGM ENCASEING STRUCTURAL STEEL MEMBERS OF AN INDIVIDUAL PHASE SEPARATELY OR WITH THE DECK CONCRETE OF THAT PHASE. IF THE DIAPHRAGM CONCRETE IS PLACED SEPARATELY, ALLOW AT LEAST 48 HOURS OF SET TIME BEFORE PLACING DECK CONCRETE. LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
3. FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS SEE ODOT STD. DWG. SICD-1-96.
4. VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO APPROACH SLAB SEAT.
5. MECHANICAL CONECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
6. FOR ADDITIONAL BEARING DETAILS, SEE SHEET **31/46**.
7. FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEET **22/46**.

E.L. ROBINSON
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1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE	2/3/11
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FILE NUMBER	0702137L/0702161R
FILE NAME	FILE

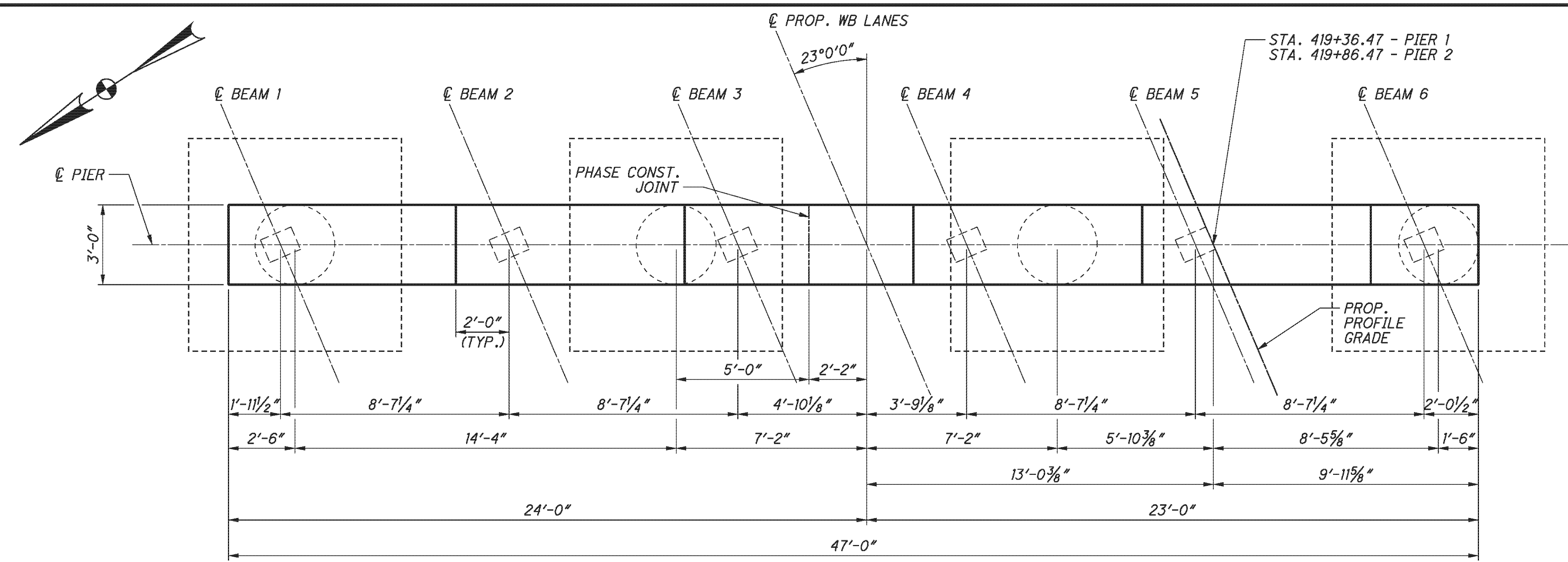
FORWARD ABUTMENT DETAILS - RIGHT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

23/46

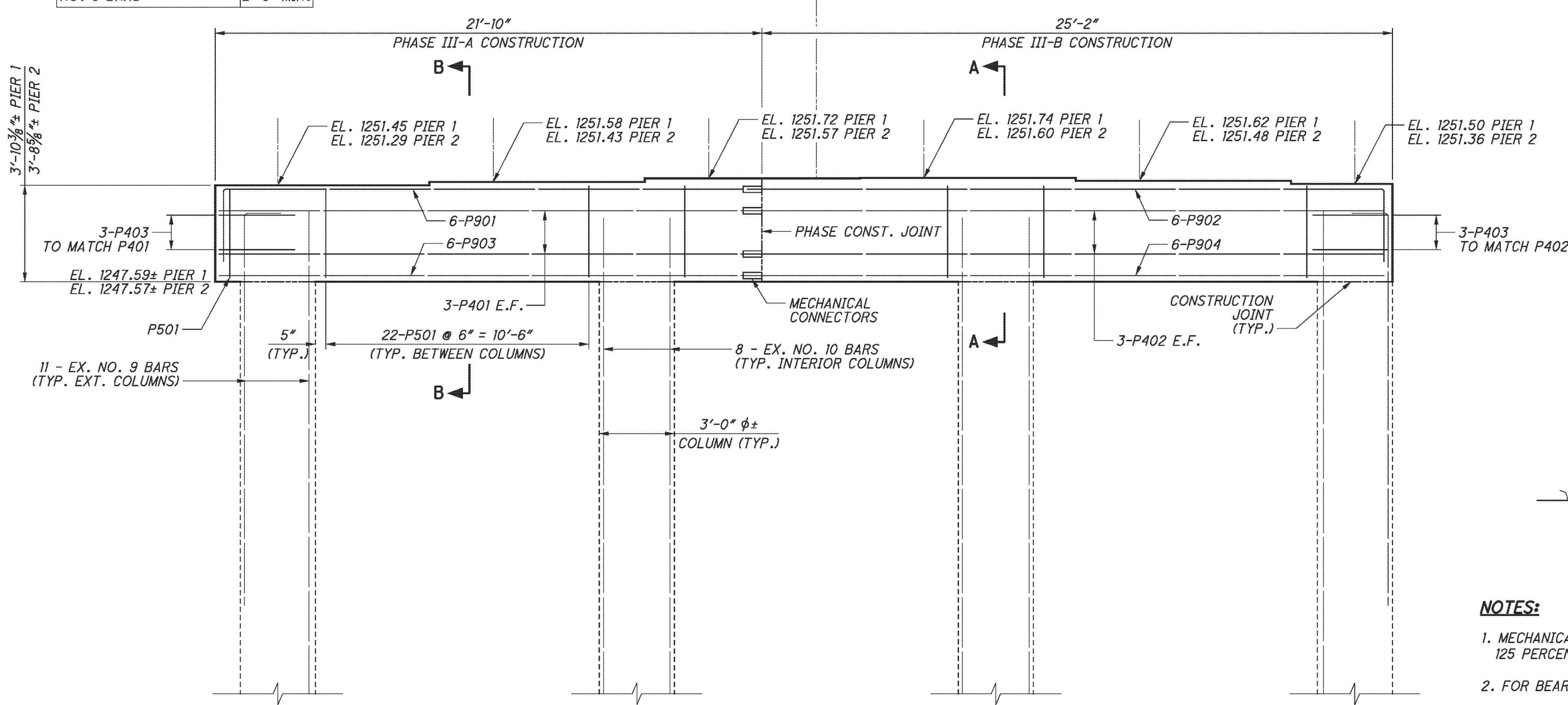
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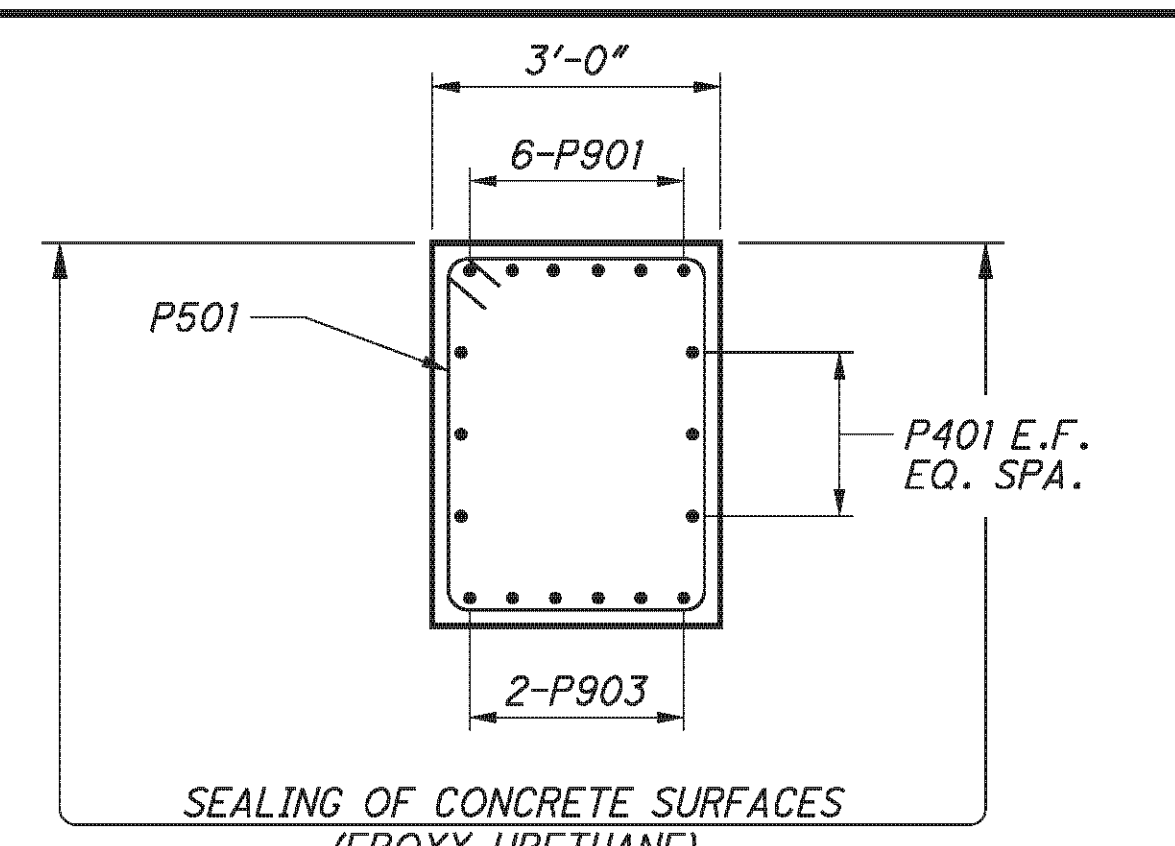


PLAN - LEFT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)

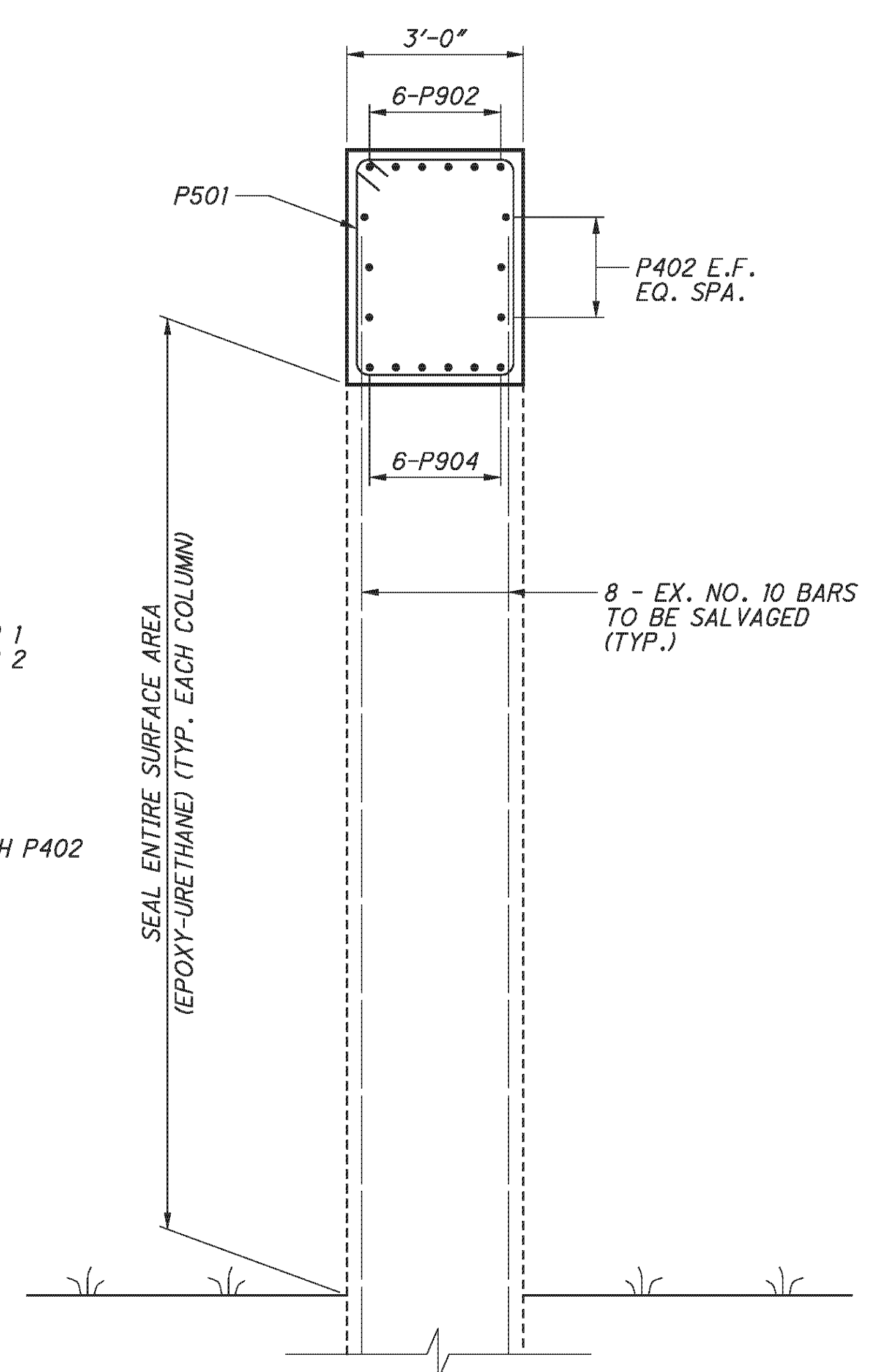
LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS	2'-6" MIN.



ELEVATION - LEFT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)



SECTION B-B



SECTION A-A

NOTES:

1. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
2. FOR BEARING DETAILS, SEE SHEET 30/46.
3. FOR PHASE CONSTRUCTION DETAILS, SEE SHEET 7/46 THROUGH 8/46.
4. FOR REINFORCING SCHEDULE, SEE SHEET 43/46.

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DRAWN	DTA	REVISED	
REVIEWED	DFT	STRUCTURE FILE NUMBER	0702137L/070216R
DATE	5/11/10		

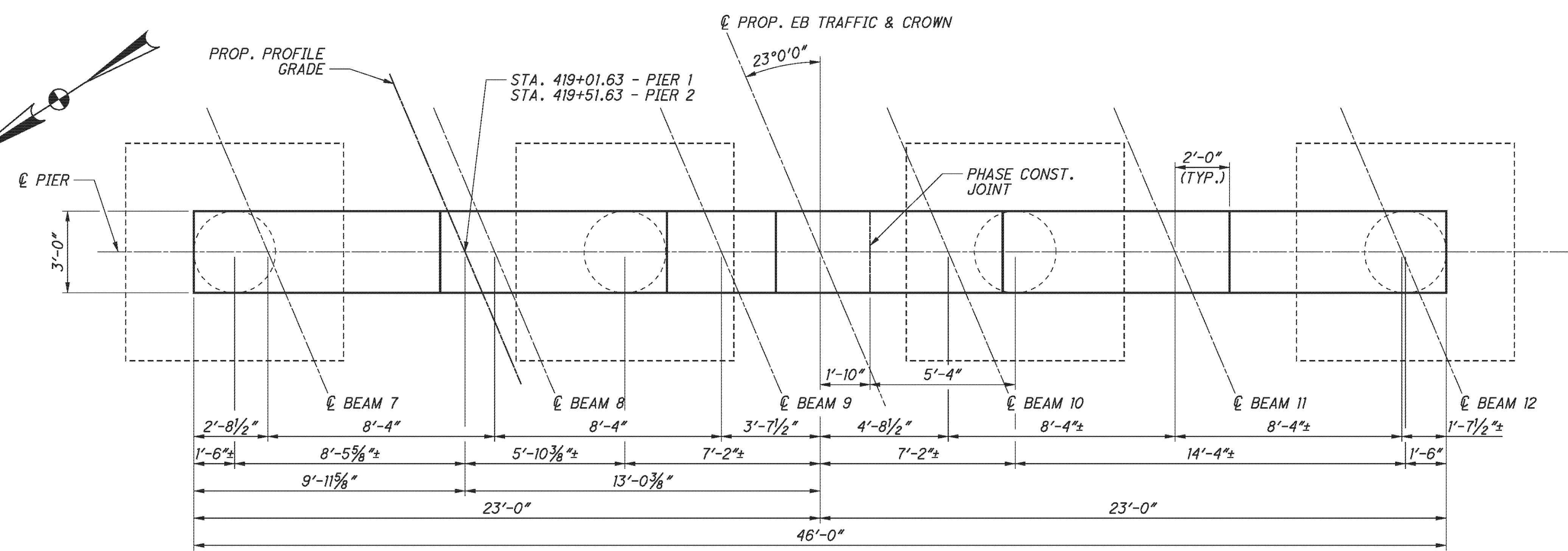
PIER DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

24/46

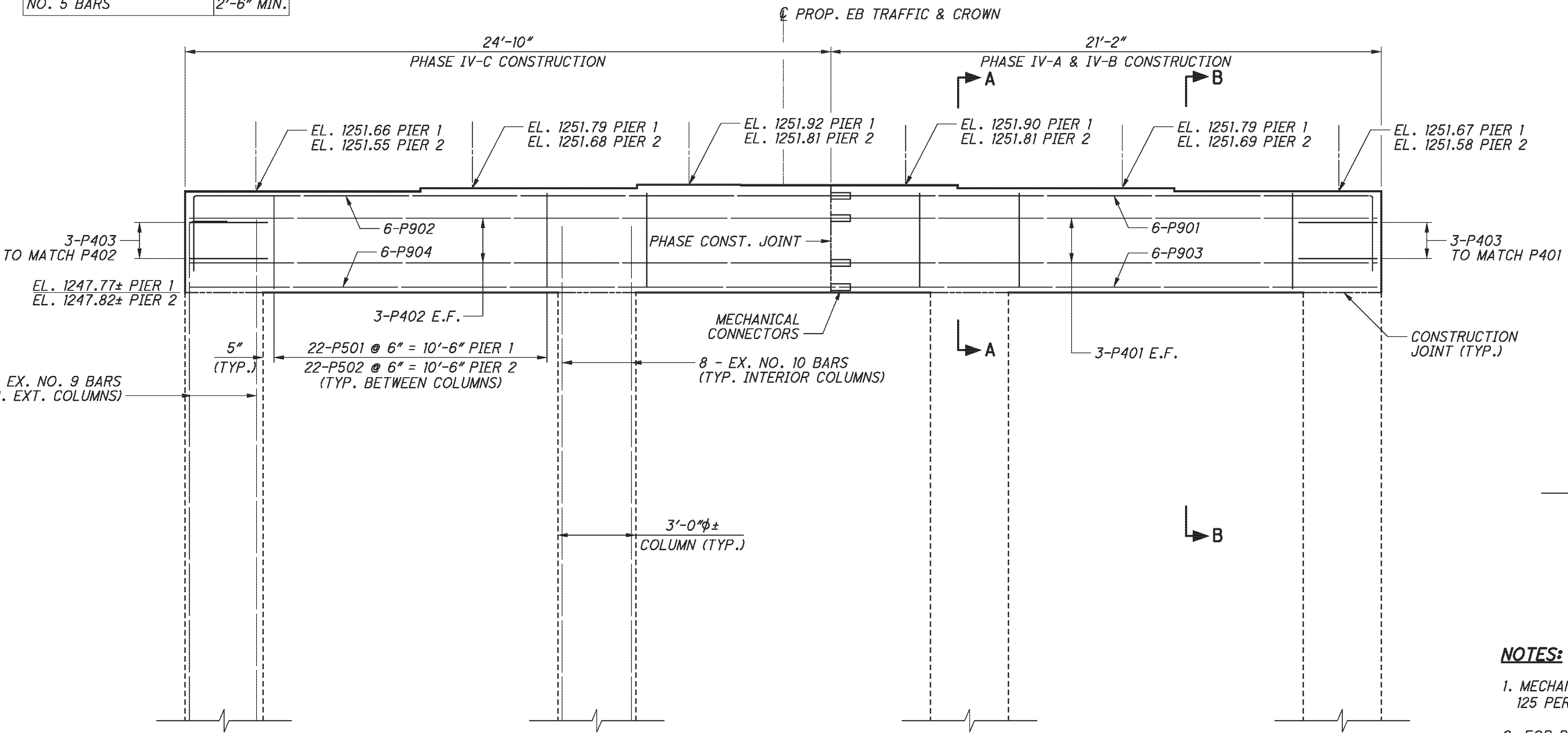
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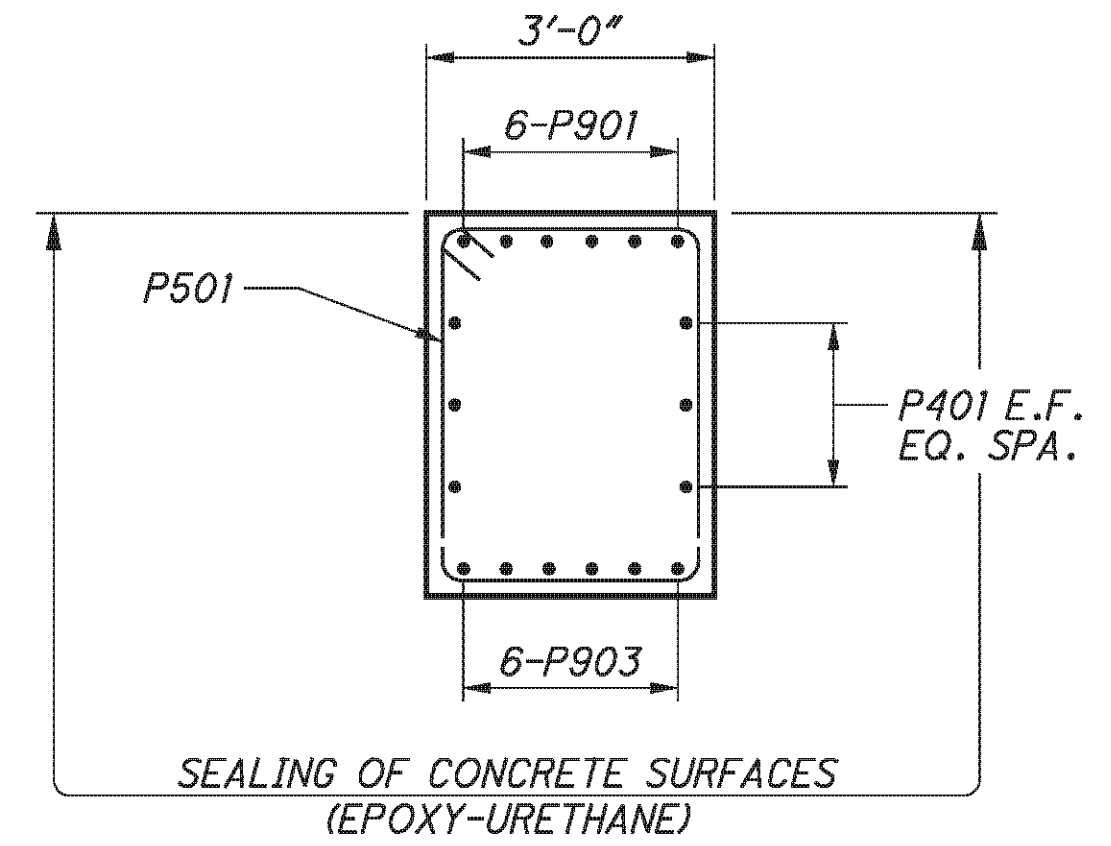


PLAN - RIGHT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)

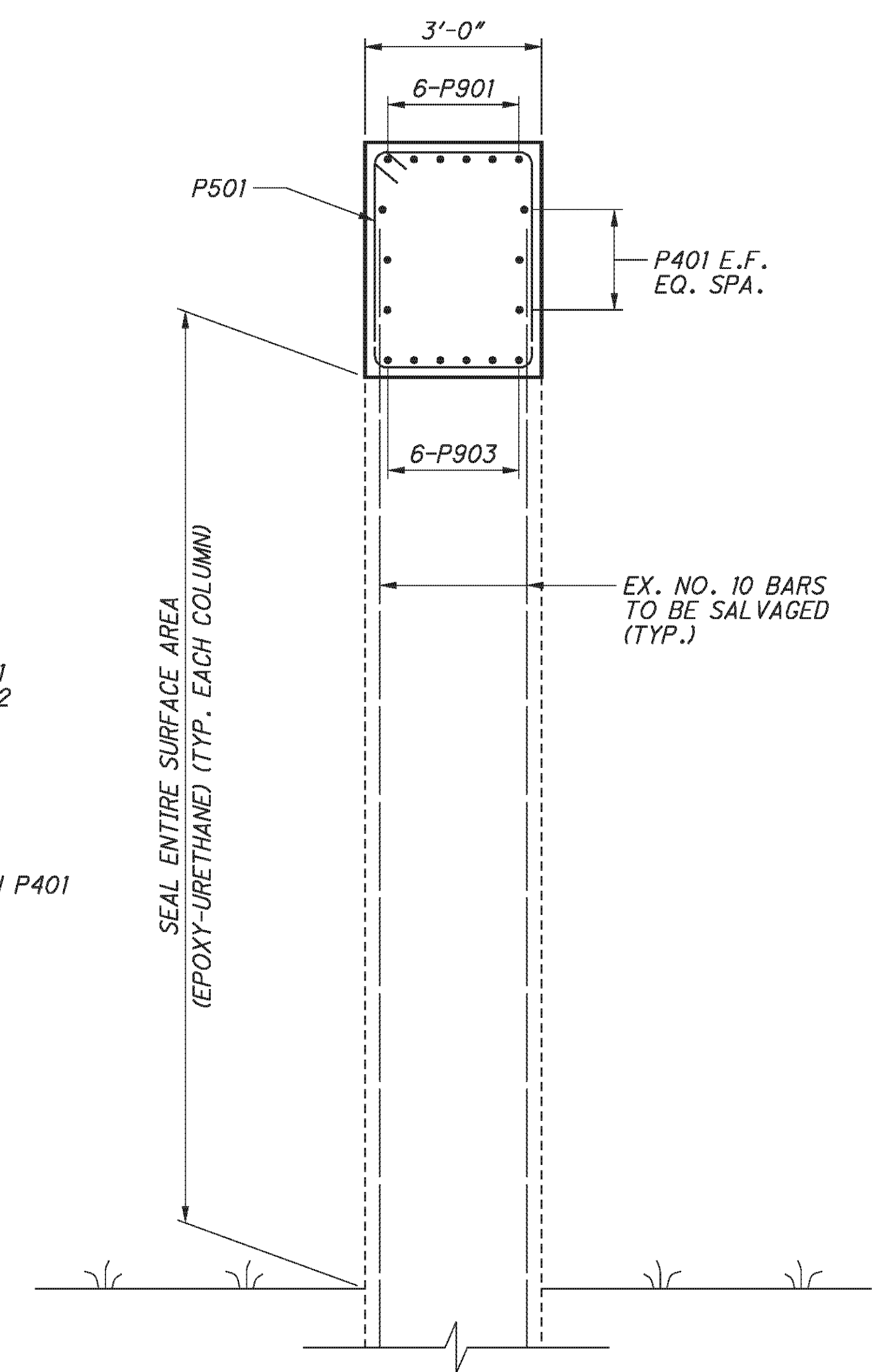
LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS	2'-6" MIN.



ELEVATION - RIGHT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)



SECTION B-B



SECTION A-A

- NOTES:**
1. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
 2. FOR BEARING DETAILS, SEE SHEET 31/46.
 3. FOR PHASE CONSTRUCTION DETAILS, SEE SHEET 9/46 THROUGH 10/46.
 4. FOR REINFORCING SCHEDULE, SEE SHEET 45/46.

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1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

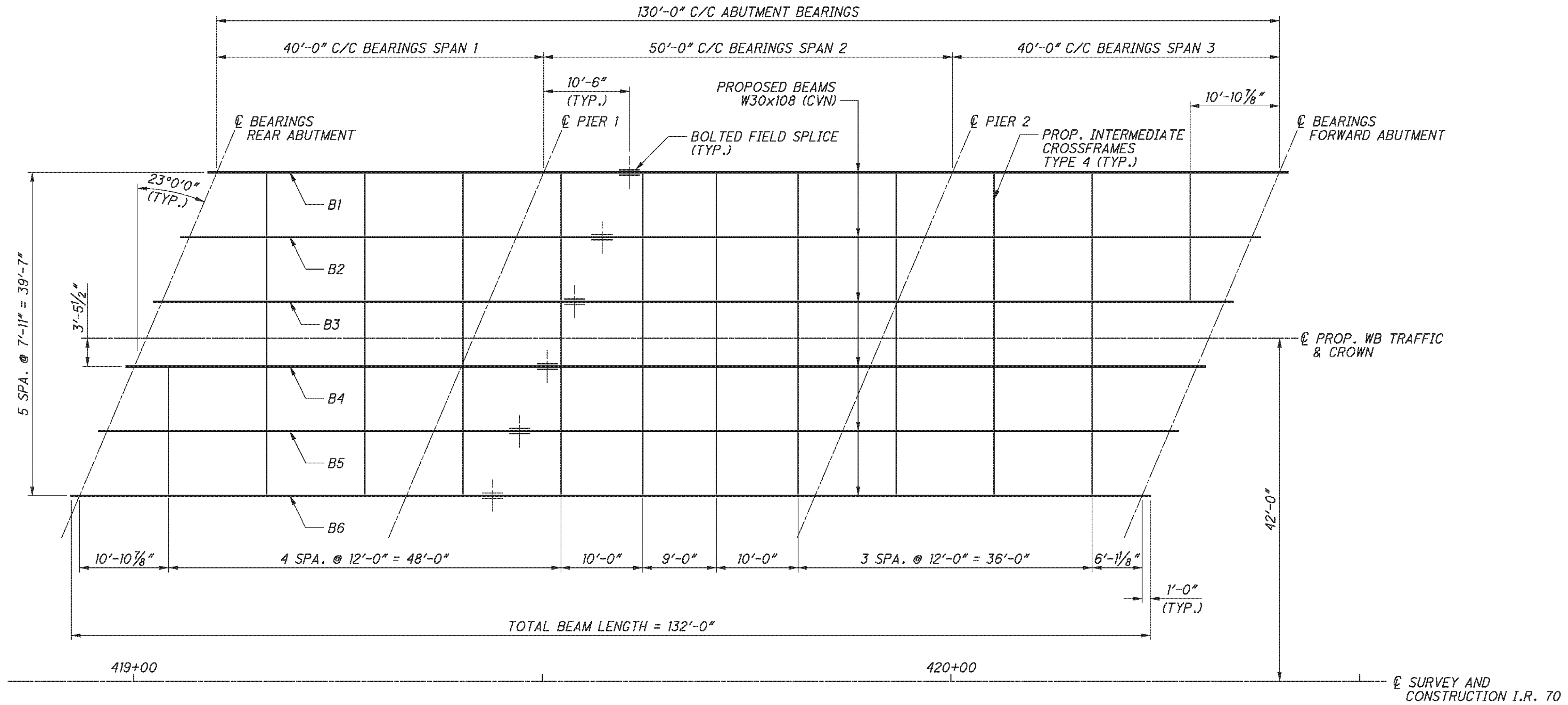
DATE	2/3/11
REVIEWED	RER
STRUCTURE FILE NUMBER	0702137L/0702161R
DRAWN	BMG
DESIGNED	DTA
CHECKED	RLE
REVISION	

PIER DETAILS - RIGHT BRIDGE
BEL-70-0775 L/R
I.R. 70 OVER S.R. 260

BEL-70-7.61
PID No. 76825

25/46

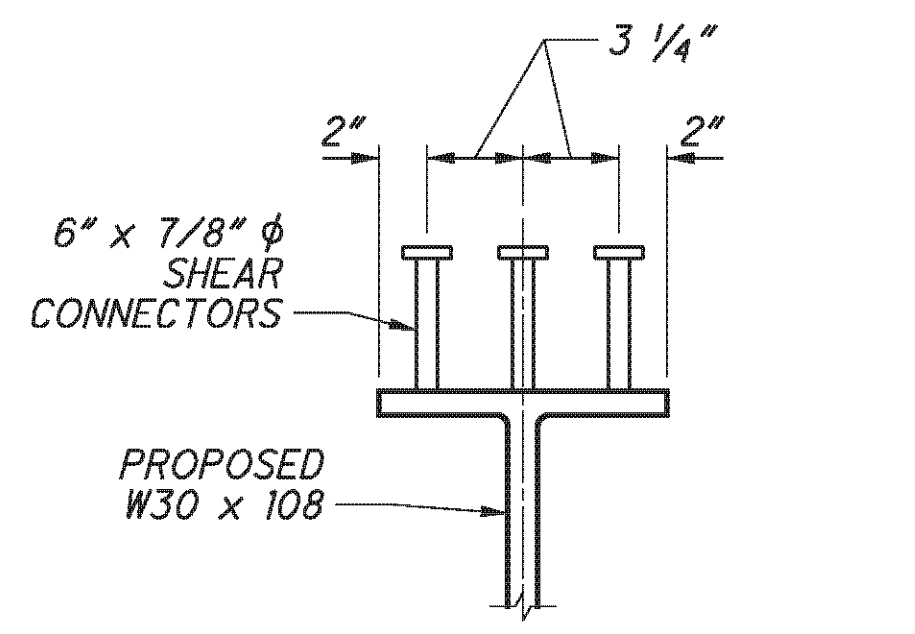
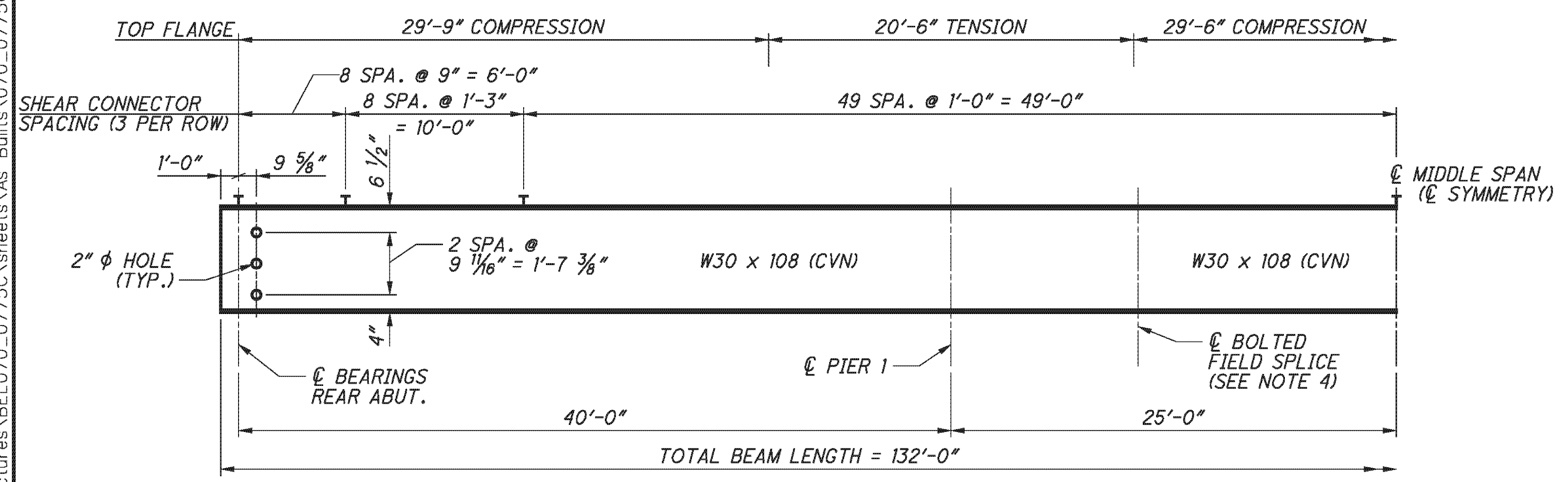
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FRAMING PLAN

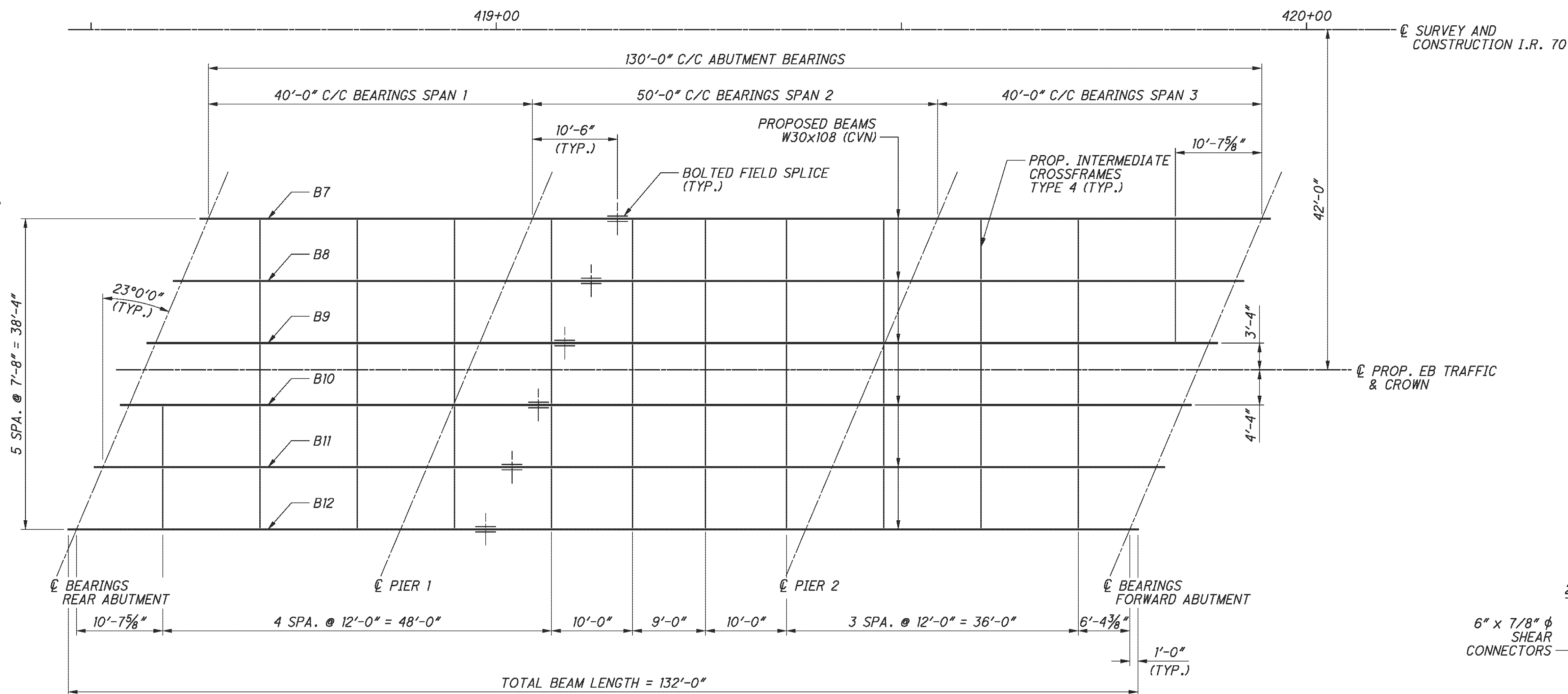
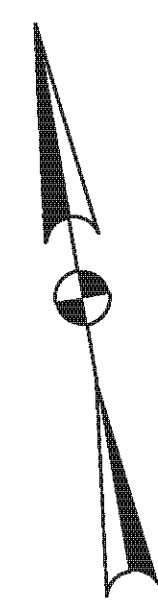
NOTES:

- ALL PROPOSED BEAMS, CROSS-FRAMES AND FIELD SPLICE PLATES SHALL BE ASTM A709, GRADE 50W.
- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
- CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- SHEAR CONNECTOR PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. SPACING OF WELDED SHEAR CONNECTORS MAY BE ALTERED AT FIELD SPLICE LOCATIONS TO AVOID INTERFERENCE WITH FLANGE SPLICE PLATES. THE TOTAL NUMBER OF SHEAR CONNECTORS SPECIFIED IN THE BEAM ELEVATION SHALL REMAIN THE SAME WITHIN EACH TENSION OR COMPRESSION ZONE.
- FOR CROSSFRAME DETAILS, SEE ODOT STANDARD DRAWING GSD-1-96, TYPE 4 INTERMEDIATE WELDED CROSSFRAME DETAILS, SHEET 1 OF 3.
- FOR DEFLECTION AND CAMBER INFORMATION, SEE SHEET 28/46.
- FOR BEARING DETAILS, SEE SHEET 30/46.

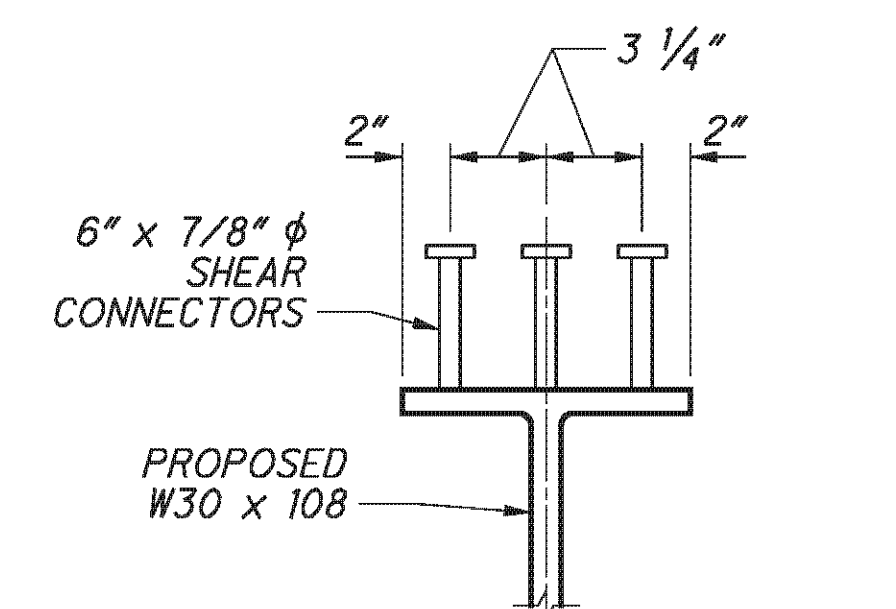


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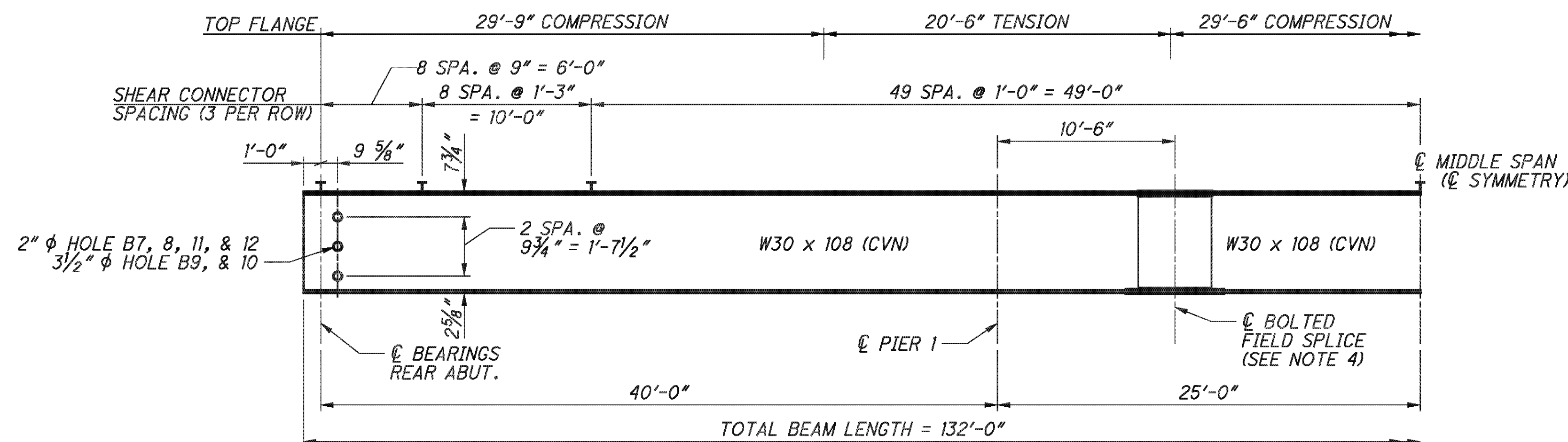
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FRAMING PLAN



SHEAR CONNECTOR DETAIL



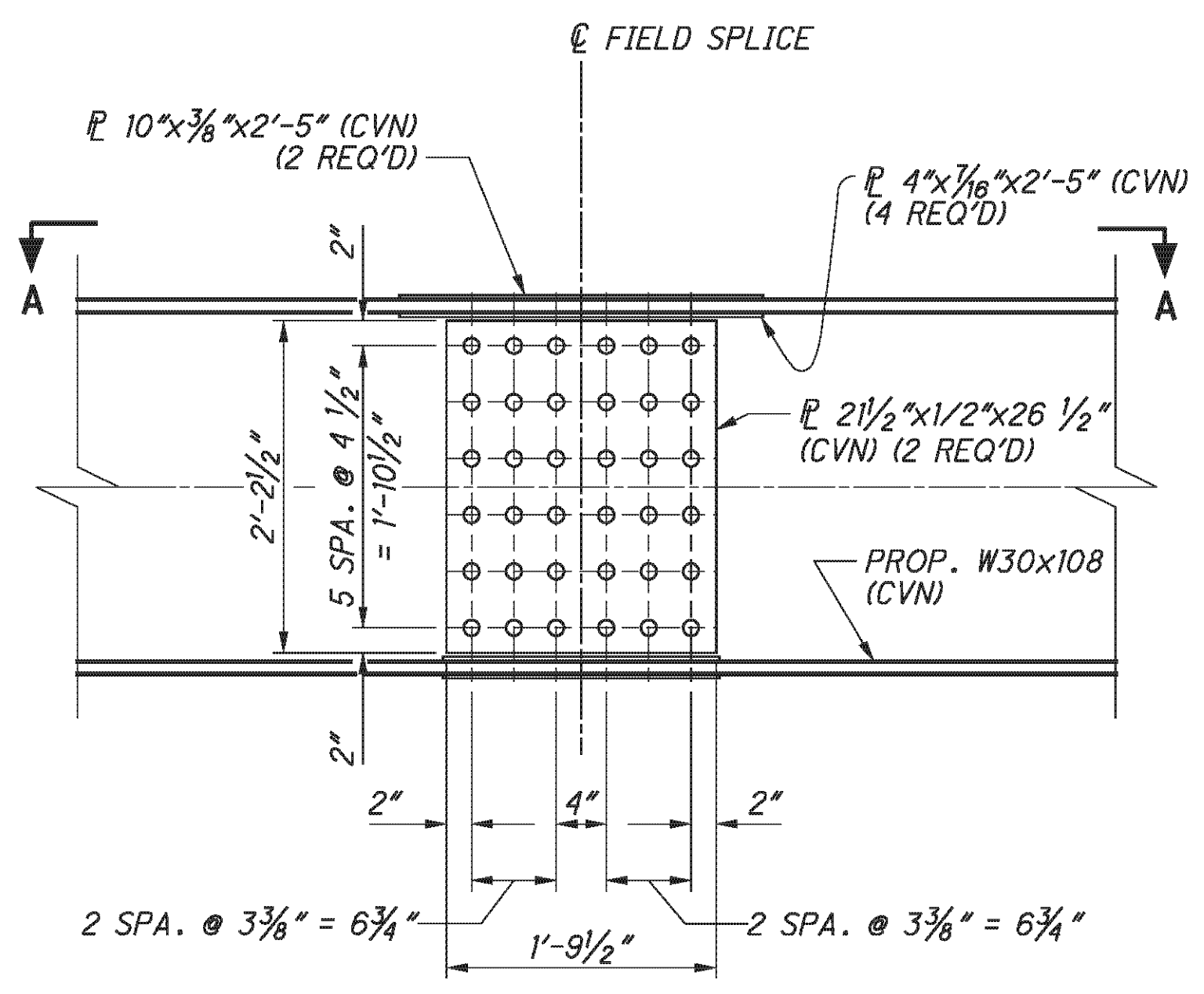
PROPOSED BEAM ELEVATION

BEAM 7 - BEAM 12

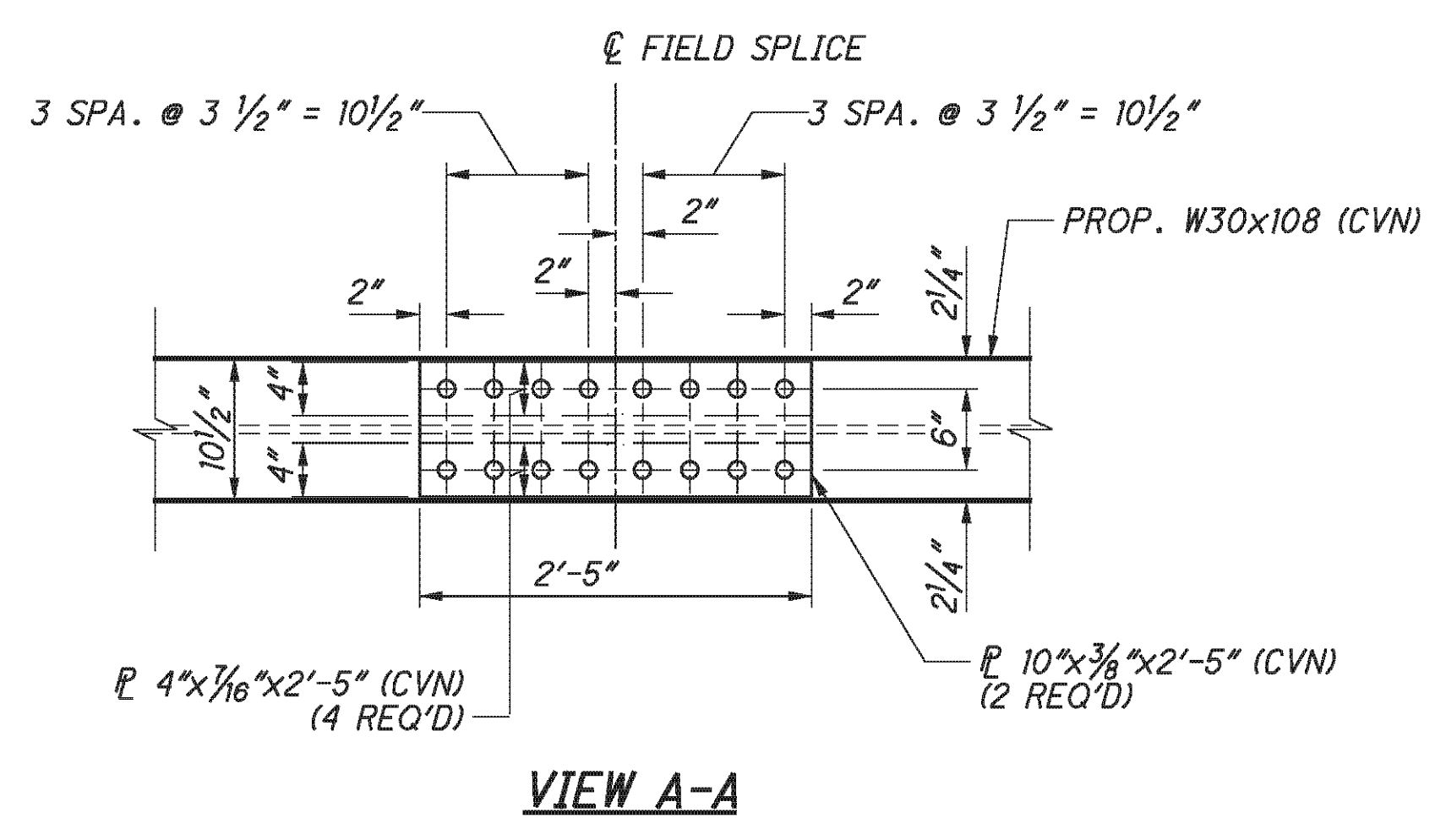
NOTES:

1. ALL PROPOSED BEAMS, CROSS-FRAMES AND FIELD SPLICE PLATES SHALL BE ASTM A709, GRADE 50W.
2. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
3. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
4. SHEAR CONNECTOR PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. SPACING OF WELDED SHEAR CONNECTORS MAY BE ALTERED AT FIELD SPLICE LOCATIONS TO AVOID INTERFERENCE WITH FLANGE SPLICE PLATES. THE TOTAL NUMBER OF SHEAR CONNECTORS SPECIFIED IN THE BEAM ELEVATION SHALL REMAIN THE SAME WITHIN EACH TENSION OR COMPRESSION ZONE.
5. FOR CROSSFRAME DETAILS, SEE ODOT STANDARD DRAWING GSD-1-96, TYPE 4 INTERMEDIATE WELDED CROSSFRAME DETAILS, SHEET 1 OF 3.
6. FOR DEFLECTION AND CAMBER INFORMATION, SEE SHEET [29/46].
7. FOR BEARING DETAILS, SEE SHEET [31/46].

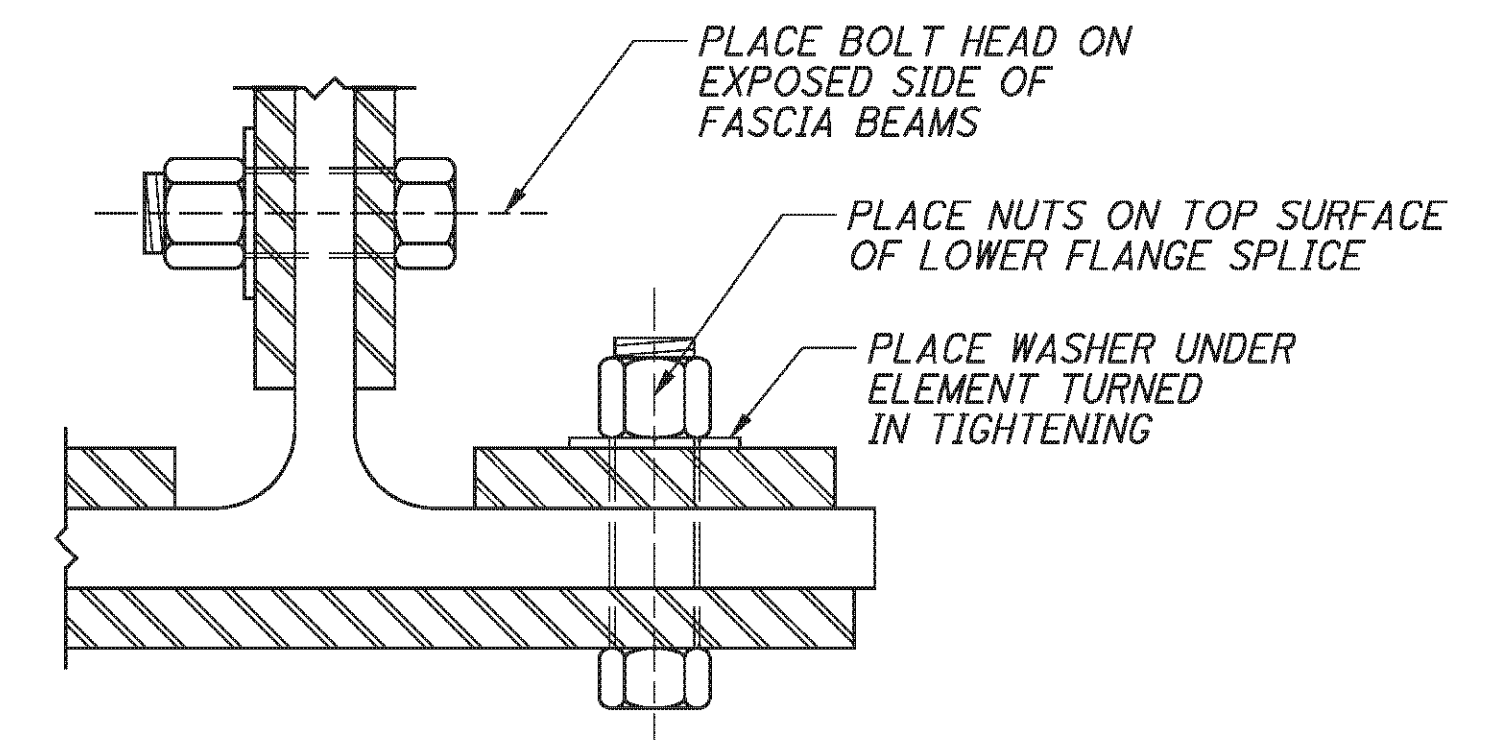
E.L. ROBINSON <small>the Challenge, the Choice</small>	
DESIGNED: AME CHECKED: RLE DRAWN: DTA REVIEWED: RER DATE: 2/3/11 STRUCTURE FILE NUMBER: 0702137L/0702161R	FRAMING PLAN - RIGHT BRIDGE BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260
BEL-70-7.61 PID No. 76825	
27/46 309 373	



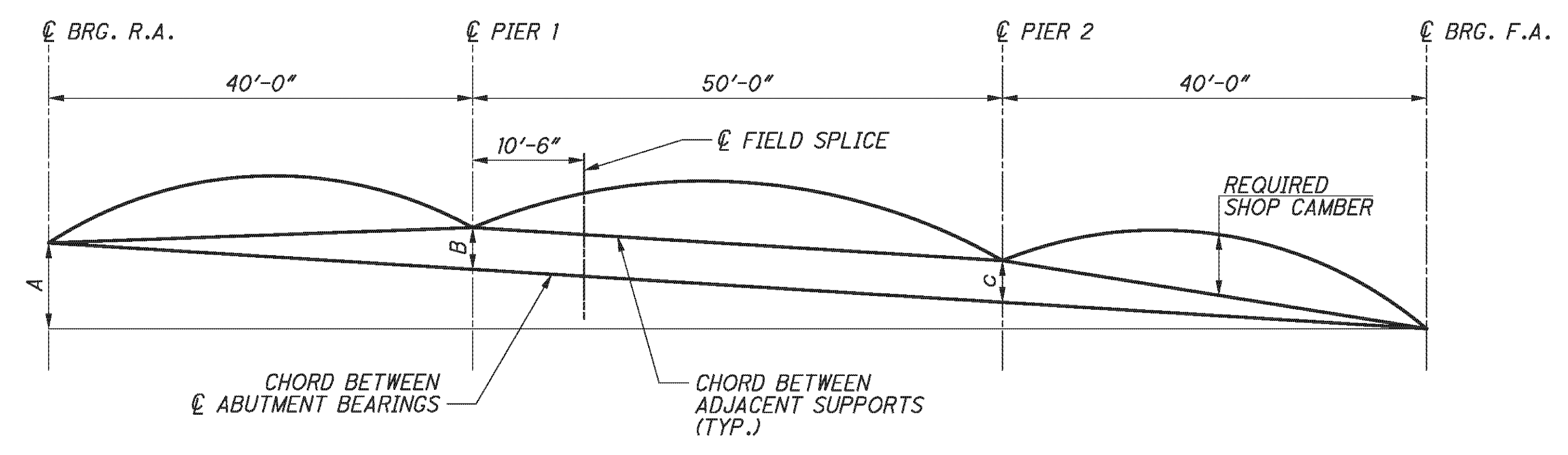
BOLTED FIELD SPLICE ELEVATION



VIEW A-A



PARTIAL SECTION
(AT C OF BEAM SPLICE)



CAMBER DIAGRAM

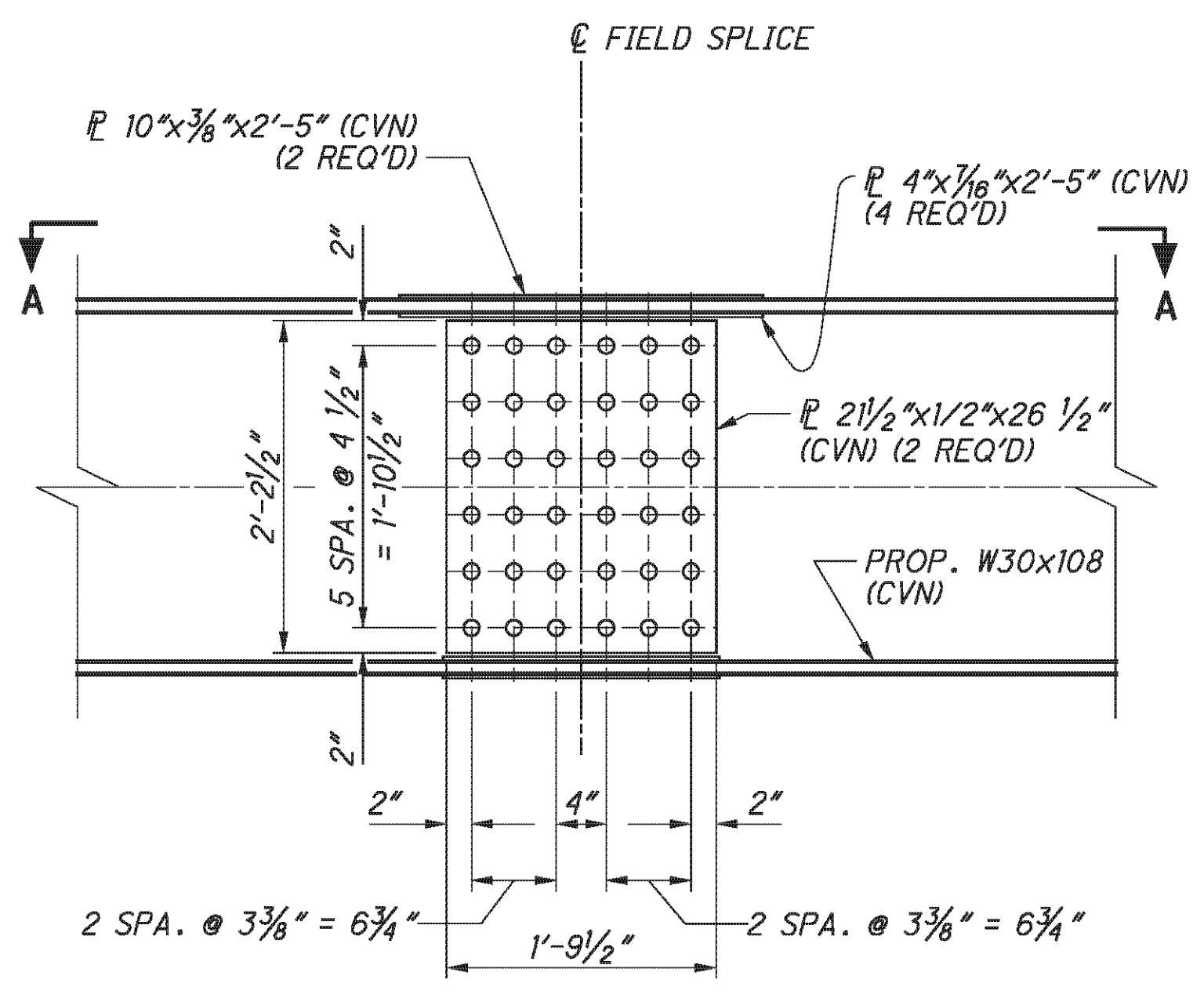
CAMBER DIAGRAM DIMENSIONS						
	B1	B2	B3	B4	B5	B6
DIM A	4 3/16"	4 3/4"	4 5/8"	4 9/16"	4 7/16"	4 3/8"
DIM B	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"
DIM C	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"

DEFLECTION AND CAMBER TABLE										
	SPAN 1			SPAN 2				SPAN 3		
	1/4	1/2	3/4	SPLICE	1/4	1/2	3/4	1/4	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/8"	3/16"	1/8"	1/8"	1/8"	1/4"	1/8"	1/16"	3/16"	1/8"
ADJUSTMENT FOR VERTICAL CURVE	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"
REQUIRED SHOP CAMBER	3/16"	1/4"	1/8"	3/16"	3/16"	5/16"	3/16"	1/8"	1/4"	3/16"

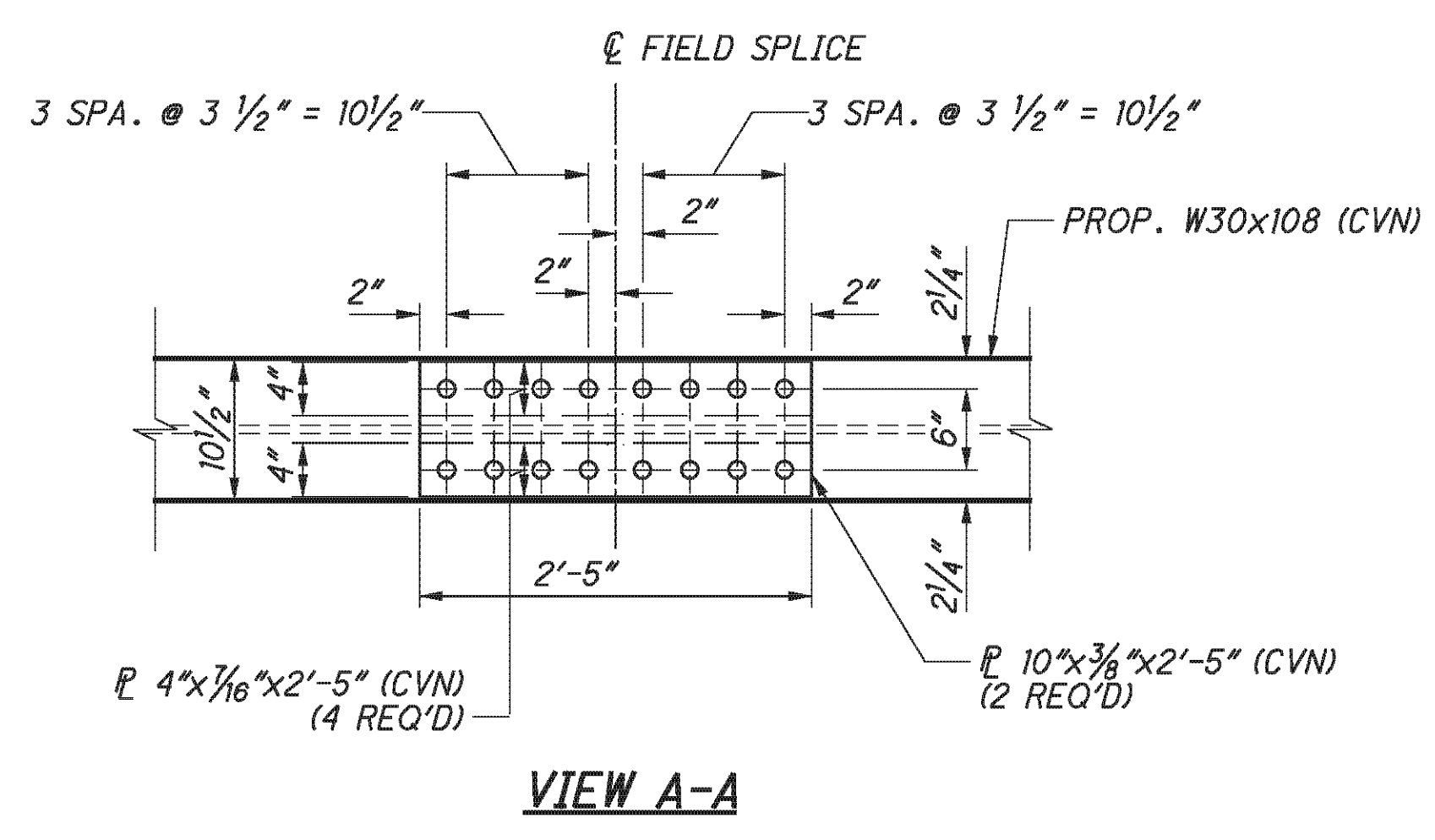
NOTES:

- ALL FIELD SPLICE PLATES SHALL BE ASTM A709W, 50 KSI, WEATHERING STEEL.
- HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER A325, TYPE III UNLESS OTHERWISE NOTED.
- CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- FOR FIELD SPLICE LOCATIONS, SEE SHEETS 26/46.

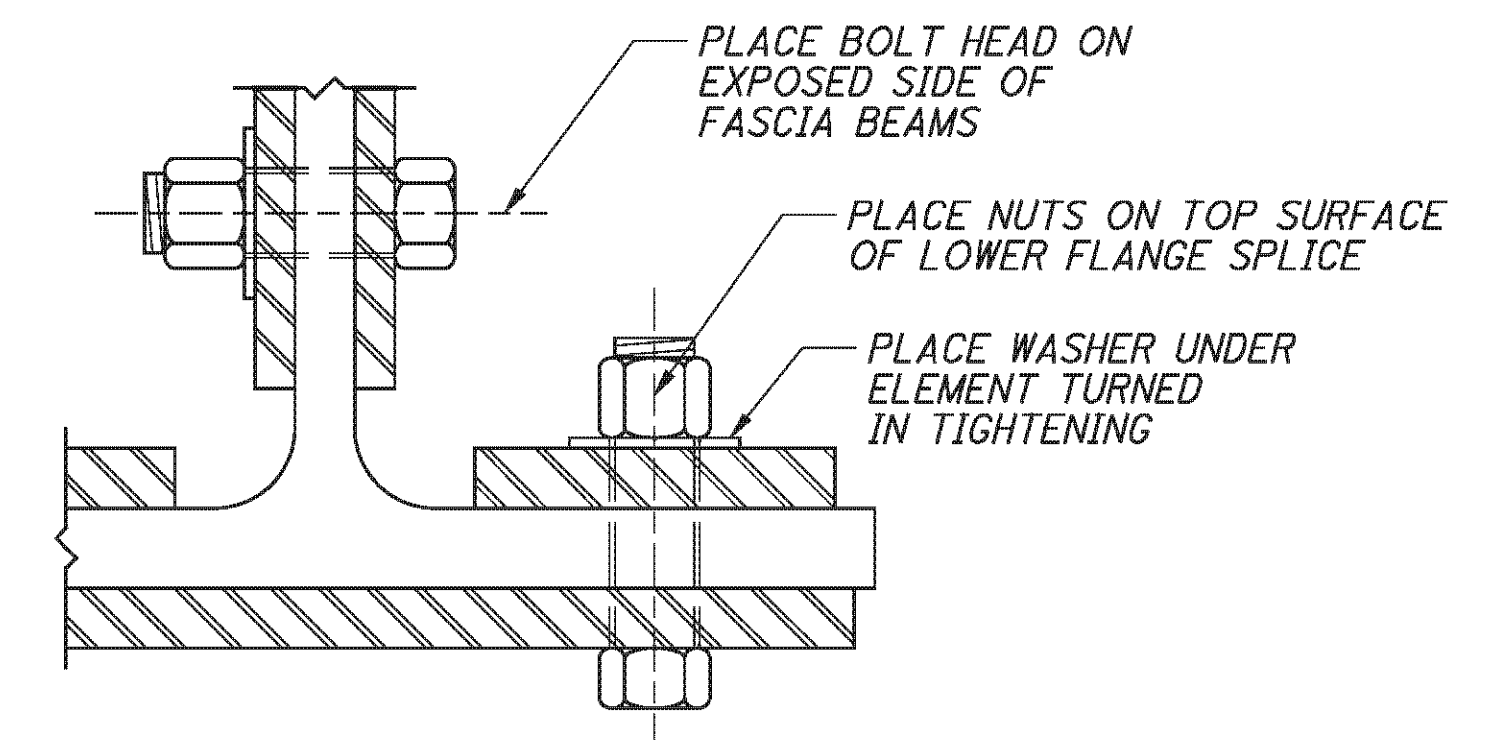
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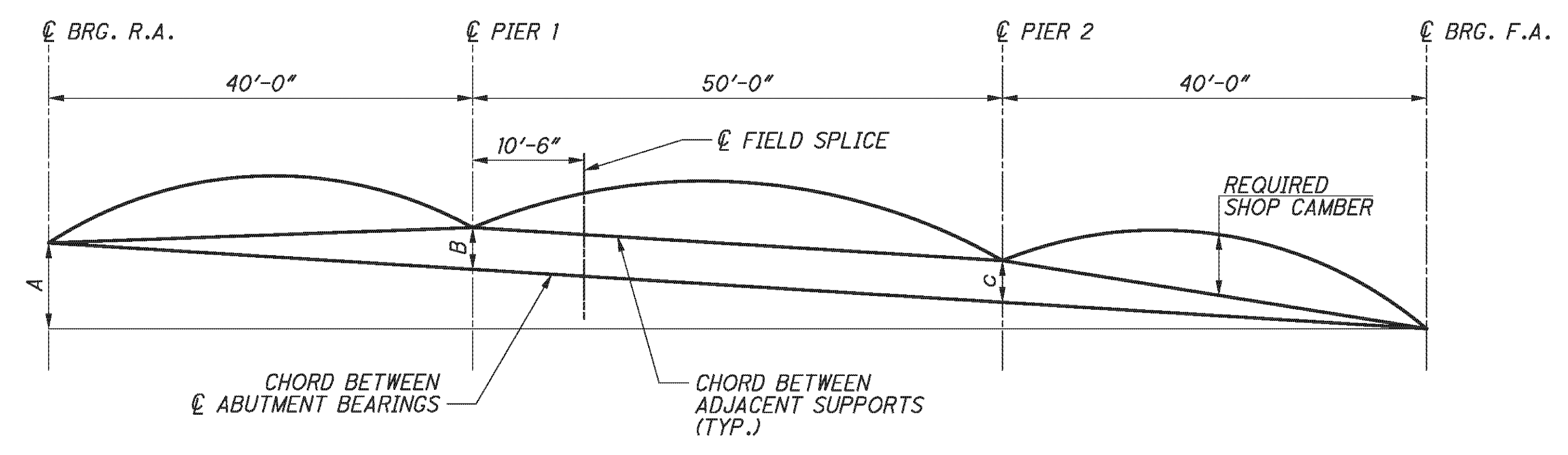
BOLTED FIELD SPLICE ELEVATION



VIEW A-A



**PARTIAL SECTION
(AT C OF BEAM SPLICE)**



CAMBER DIAGRAM

CAMBER DIAGRAM DIMENSIONS						
	B7	B8	B9	B10	B11	B12
DIM A	3 3/8"	3 1/4"	3 3/16"	3 1/16"	3"	2 7/8"
DIM B	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
DIM C	3/8"	1/8"	3/8"	1/16"	3/8"	1/8"

DEFLECTION AND CAMBER TABLE										
	SPAN 1			SPAN 2				SPAN 3		
	1/4	1/2	3/4	SPLICE	1/4	1/2	3/4	1/4	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/8"	3/16"	1/8"	1/8"	1/8"	3/16"	1/8"	1/16"	3/16"	1/8"
ADJUSTMENT FOR VERTICAL CURVE	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"
REQUIRED SHOP CAMBER	3/16"	1/4"	1/8"	3/16"	3/16"	1/4"	3/16"	1/8"	1/4"	3/16"

NOTES:

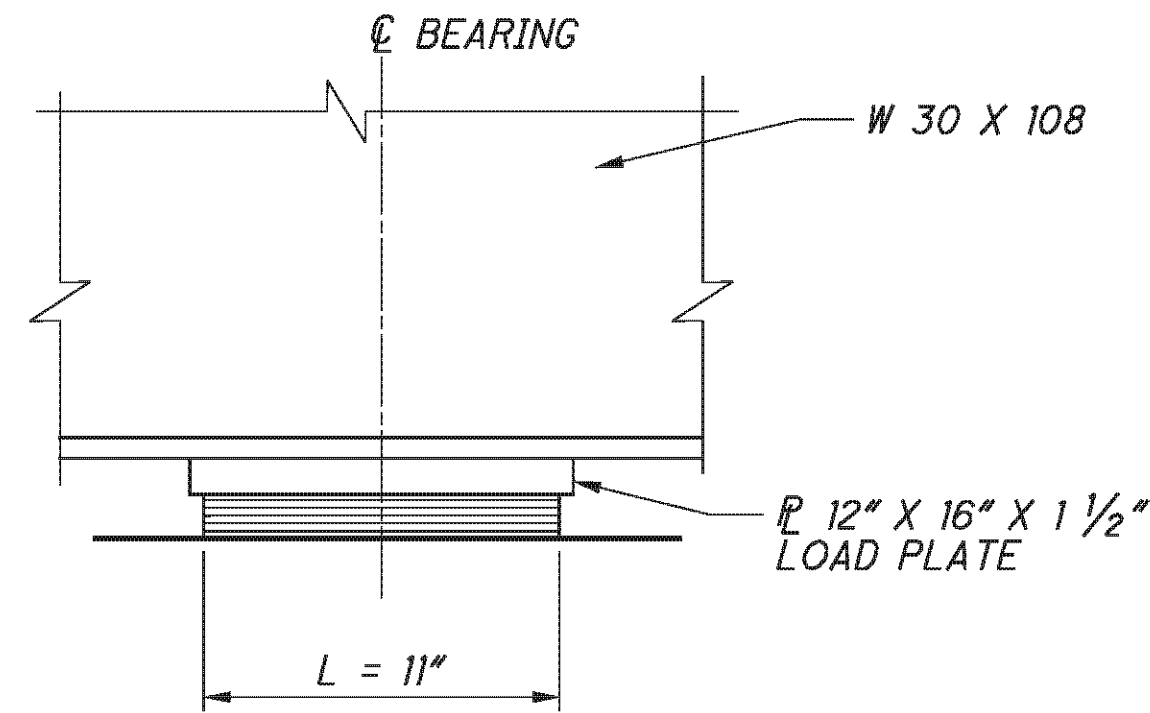
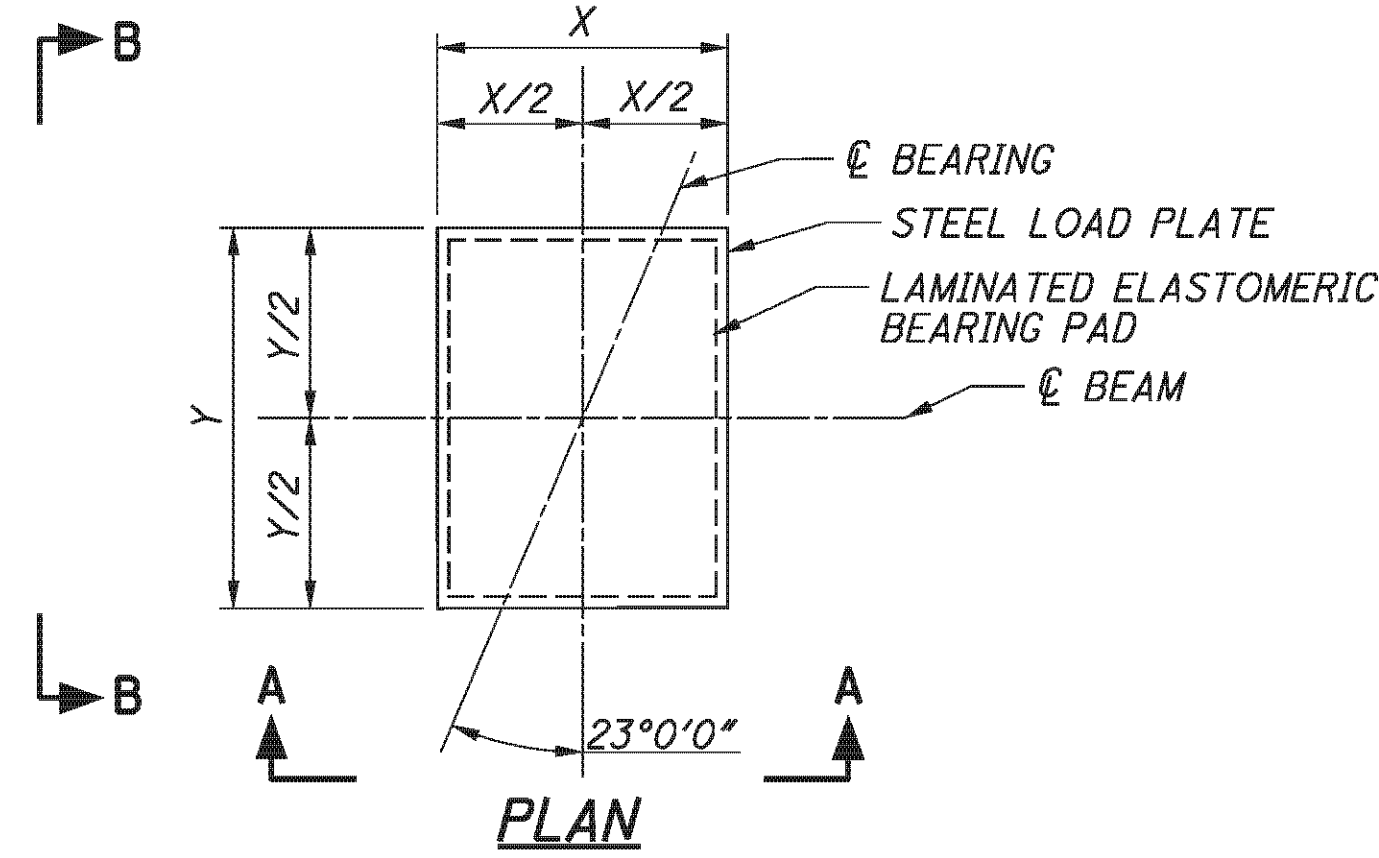
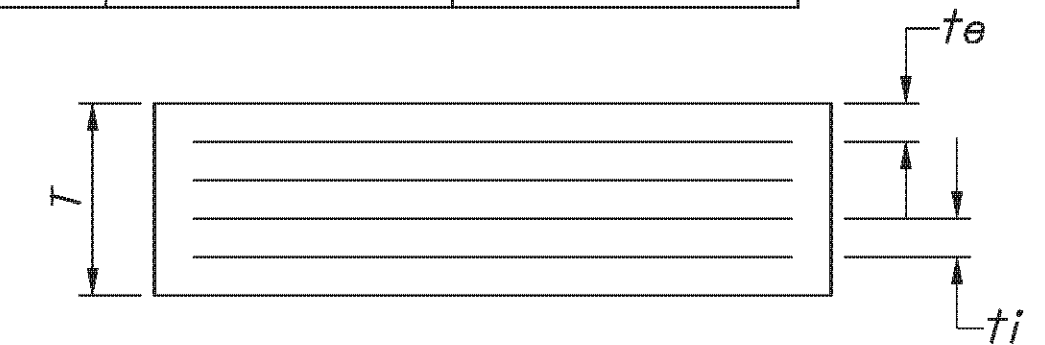
- ALL FIELD SPLICE PLATES SHALL BE ASTM A709W, 50 KSI, WEATHERING STEEL.
- HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER A325, TYPE III UNLESS OTHERWISE NOTED.
- CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- FOR FIELD SPLICE LOCATIONS, SEE SHEETS 27/46.

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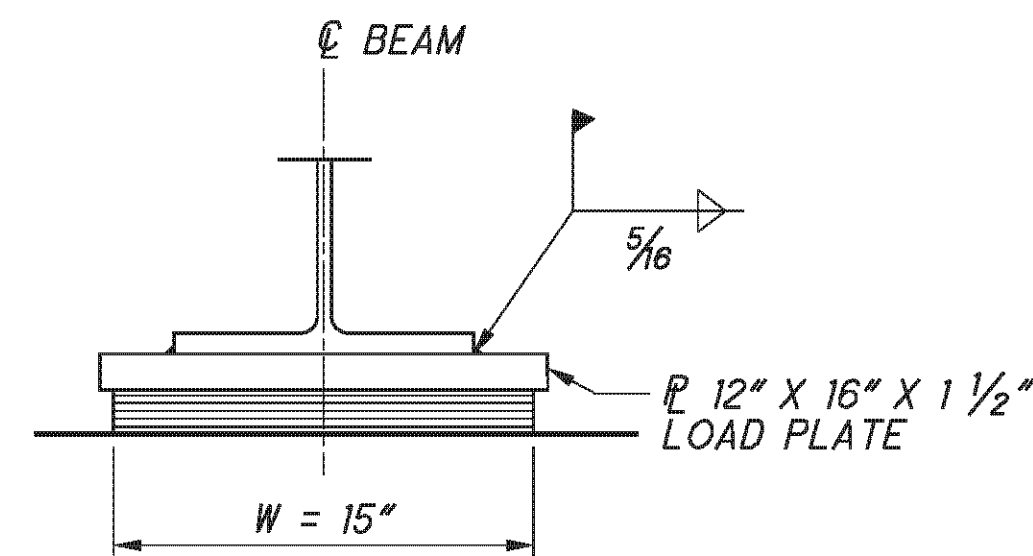
LAMINATED ELASTOMERIC BEARINGS													
LOCATION	BEARING DIMENSIONS							STEEL LOAD PLATE			REACTIONS		MAXIMUM DESIGN LOAD
	L	W	t _i	t _e	T	n	N	X	Y	Z	DL	LL W/O IMPACT	
ABUTMENTS	10"	14"	0.375"	0.25"	1.924"	3	4	11"	15"	1 1/2"	57 K	43 K	100 K
PIERS	11"	15"	0.375"	0.25"	1.924"	3	4	12"	16"	1 1/2"	82 K	50 K	132 K

t_i = THICKNESS OF INTERNAL LAYER
t_e = THICKNESS OF EXTERNAL LAYER
T = TOTAL THICKNESS OF ELASTOMERIC BEARING
n = NUMBER OF INTERNAL ELASTOMER LAYERS

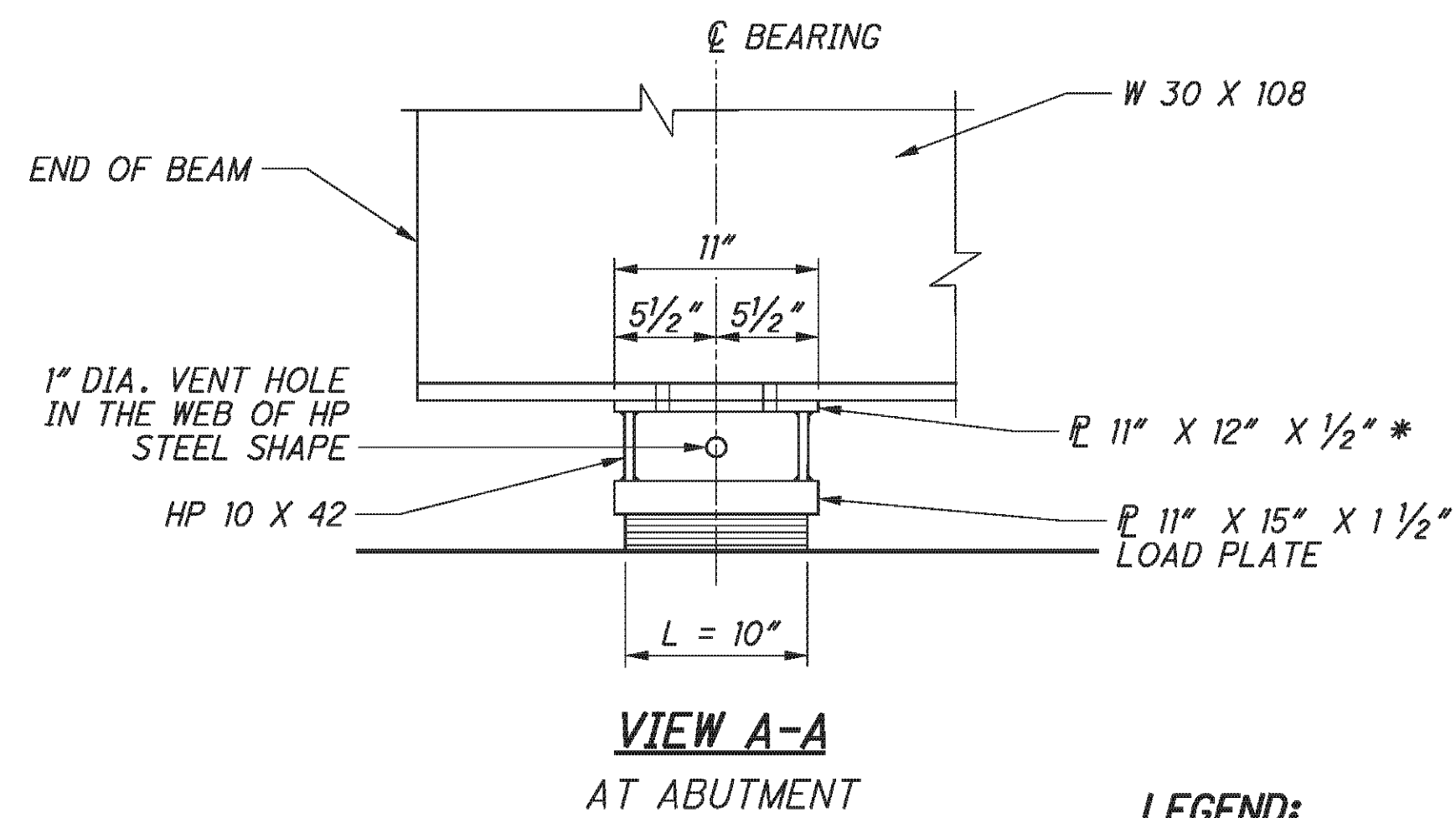
N = NO. OF STEEL LAMINATES
INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
DUROMETER OF ELASTOMER = 50 DUROMETER



VIEW A-A
AT PIER

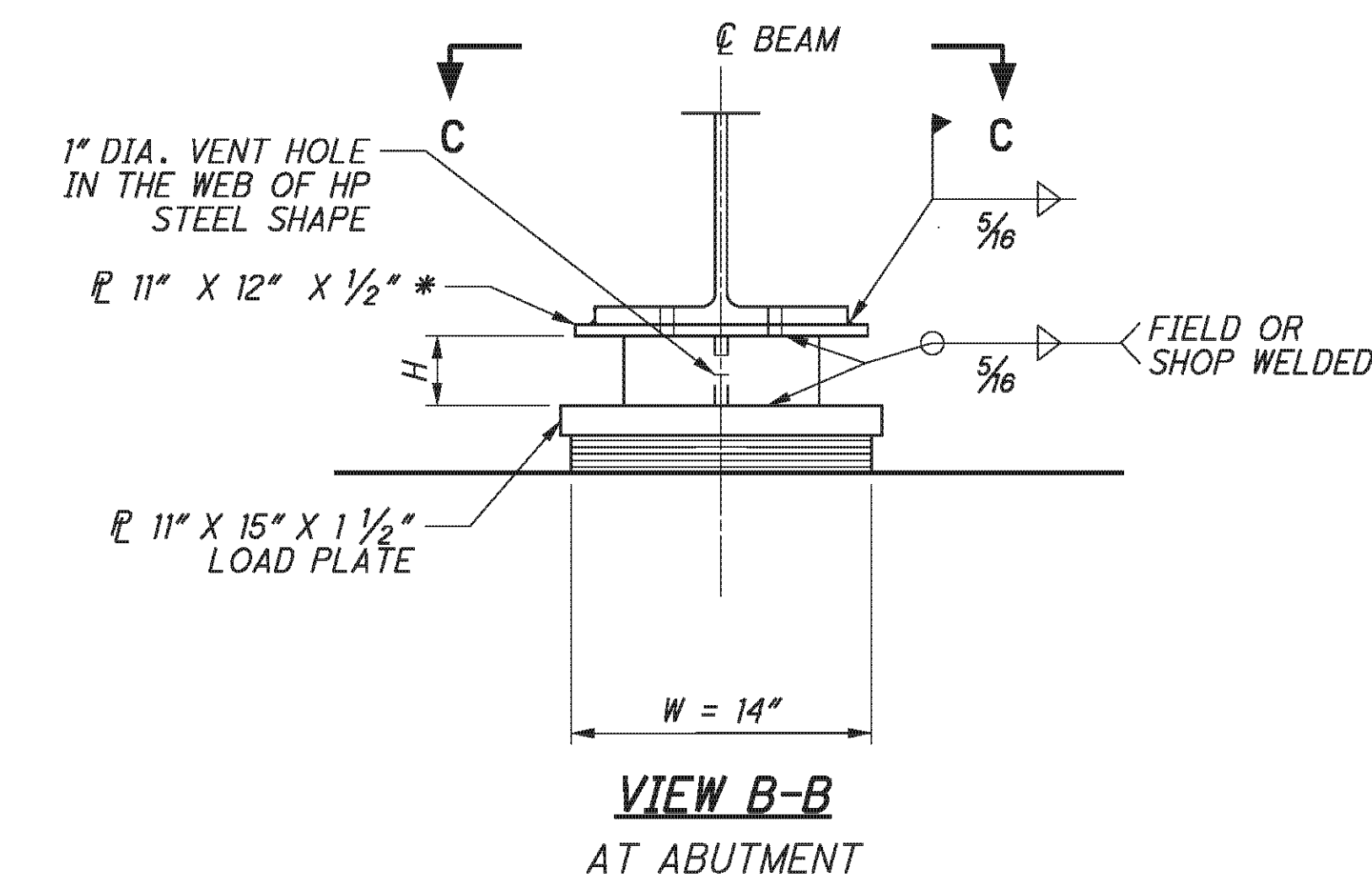


VIEW B-B
AT PIER



VIEW A-A
AT ABUTMENT

LEGEND:
* - FIELD DRILL VENT HOLES IN THE 1/2" TOP PLATE.



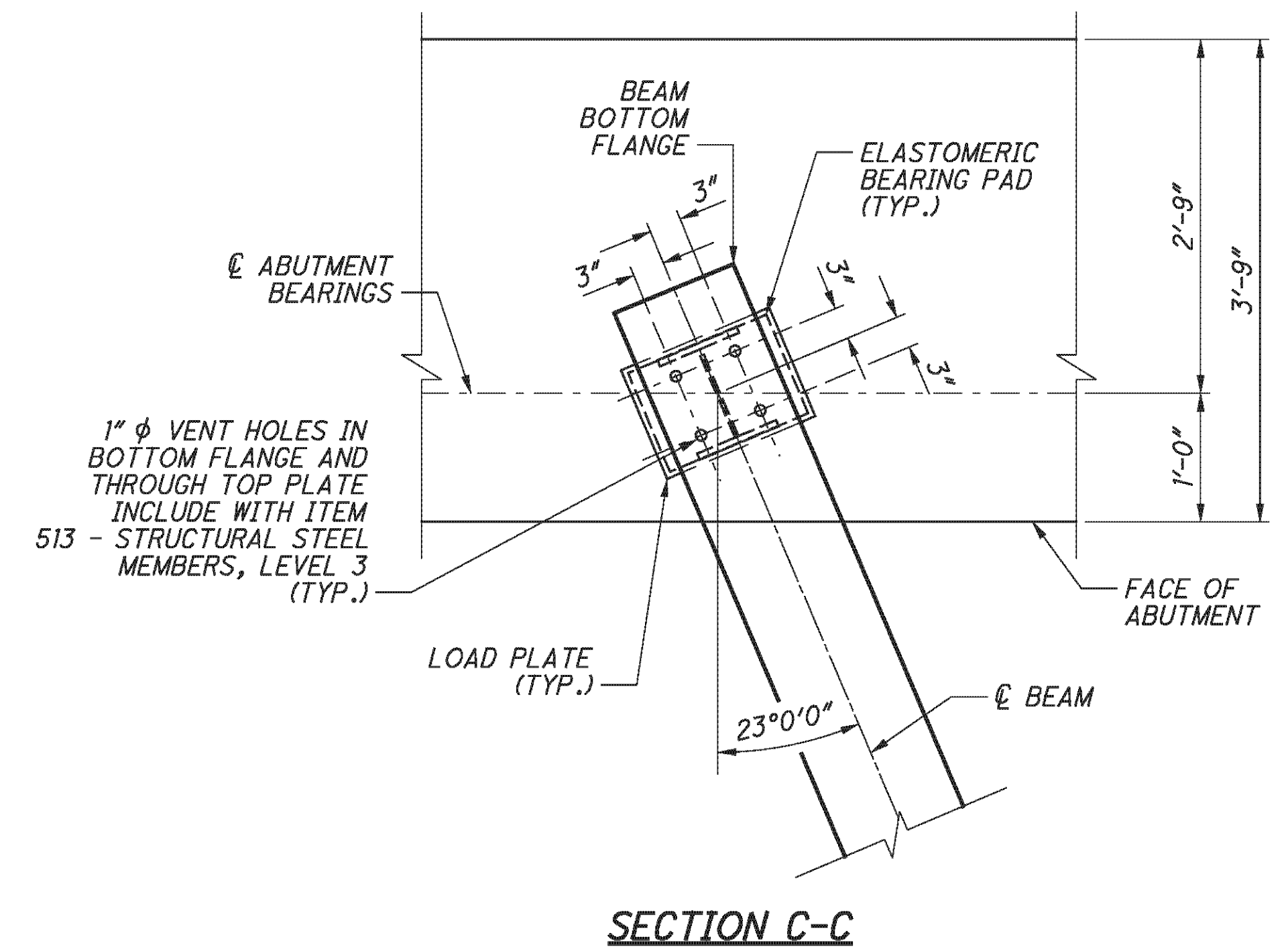
VIEW B-B
AT ABUTMENT

HP 10X42 POST HEIGHT LEFT BRIDGE		
		H
REAR ABUT.	BEAM 1	7 5/8"
	BEAM 2	7 3/4"
	BEAM 3	7 9/16"
	BEAM 4	7 1/8"
	BEAM 5	7 1/16"
	BEAM 6	7 1/16"
FWD. ABUT.	BEAM 1	8 1/16"
	BEAM 2	8 9/16"
	BEAM 3	8 1/16"
	BEAM 4	7 3/4"
	BEAM 5	8 1/16"
	BEAM 6	7 1/8"

NOTES:

1. THE STEEL LOAD PLATE, TOP PLATE AND HP SECTION SHALL BE GALVANIZED ASTM A709 GRADE 50 STEEL.
2. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 °F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
3. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

4. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80 °F OR LOWER THAN 40 °F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60 °F ±10 °F RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60 °F ±10 °F.
5. THE UNIT BID PRICE FOR THE ABUTMENT BEARINGS SHALL INCLUDE THE LOAD PLATE, HP POST AND ALL OTHER MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.



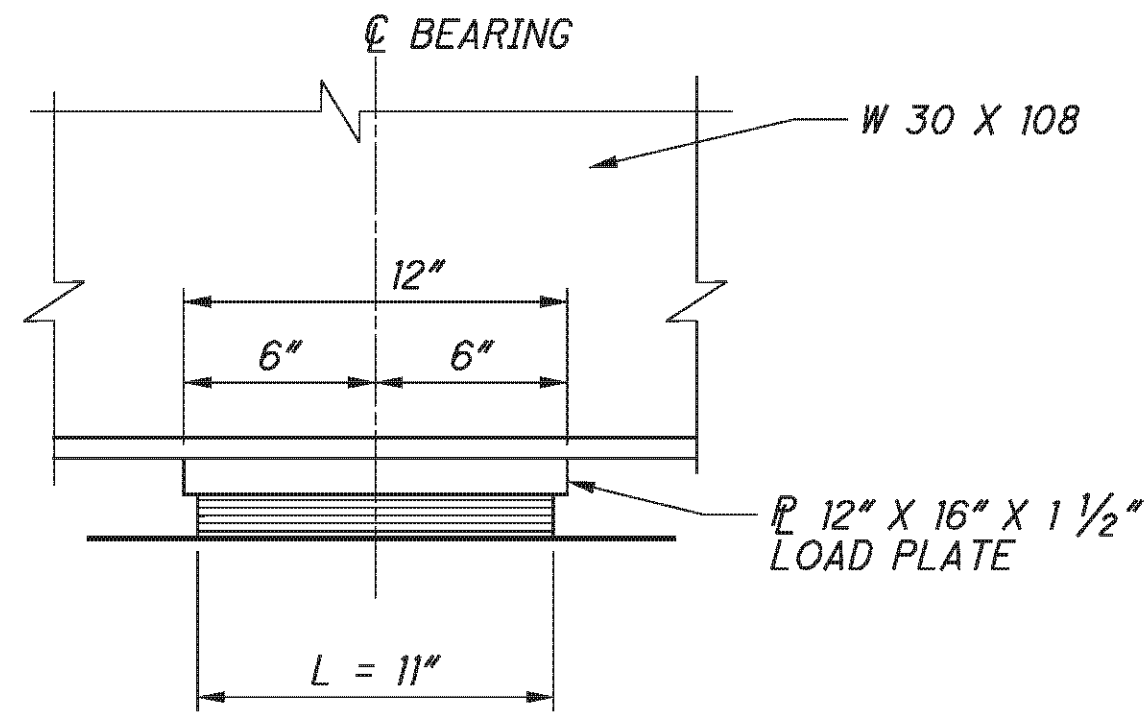
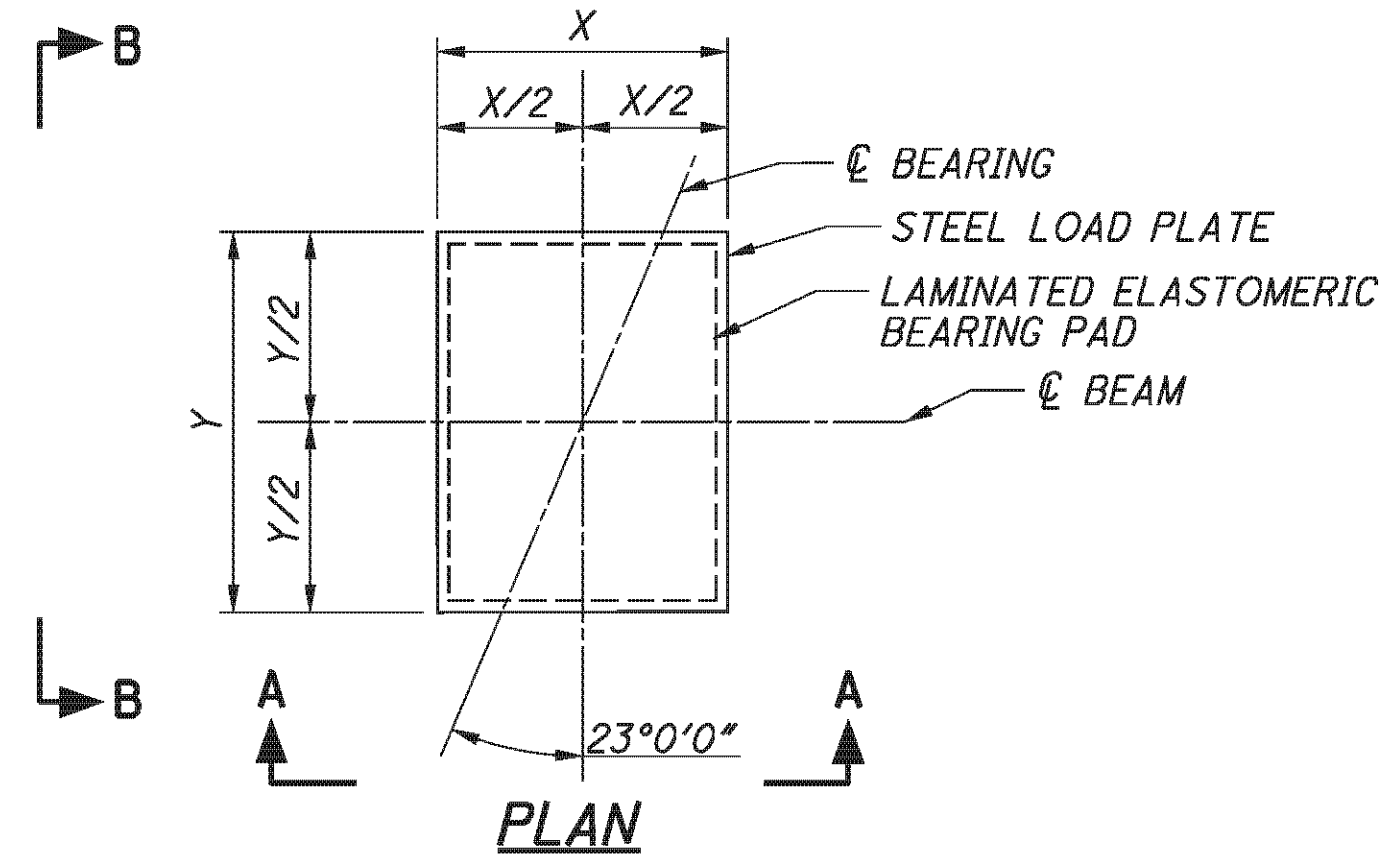
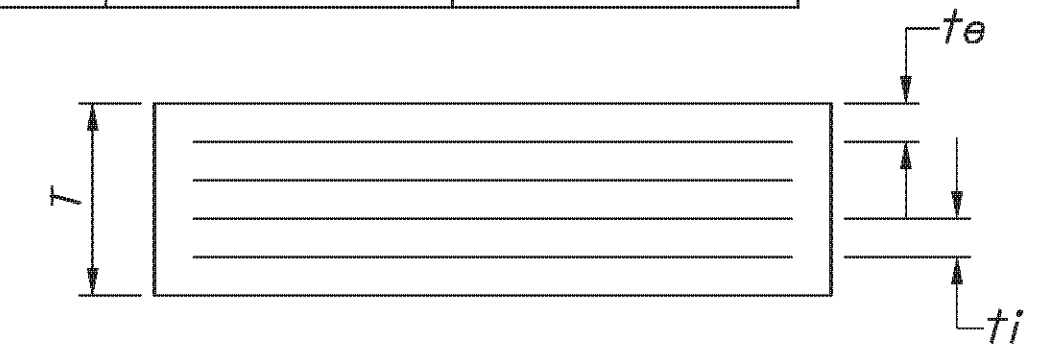
SECTION C-C

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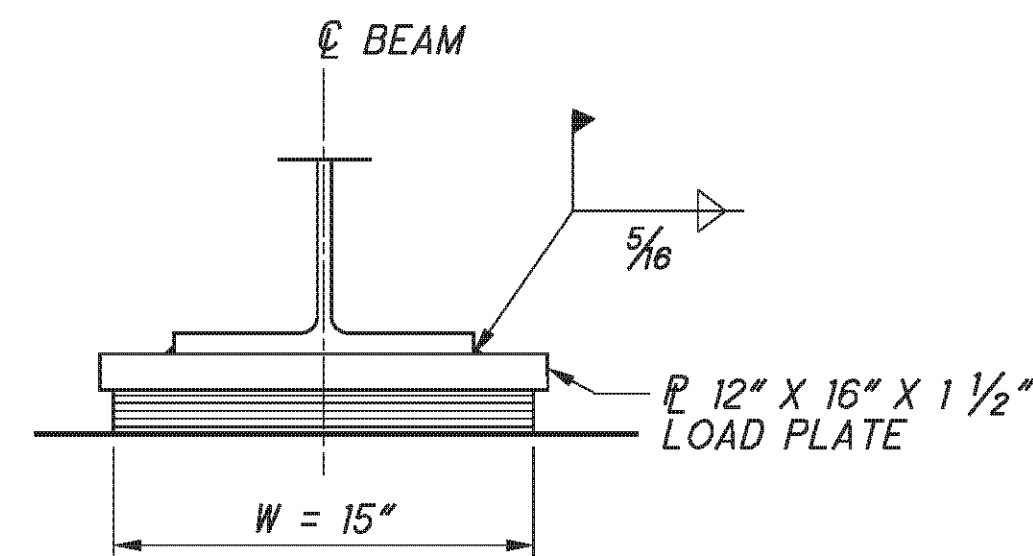
LAMINATED ELASTOMERIC BEARINGS													
LOCATION	BEARING DIMENSIONS							STEEL LOAD PLATE			REACTIONS		MAXIMUM DESIGN LOAD
	L	W	t _i	t _e	T	n	N	X	Y	Z	DL	LL W/O IMPACT	
ABUTMENTS	10"	14"	0.375"	0.25"	1.924"	3	4	11"	15"	1 1/2"	55 K	42 K	97 K
PIERS	11"	15"	0.375"	0.25"	1.924"	3	4	12"	16"	1 1/2"	80 K	49 K	129 K

t_i = THICKNESS OF INTERNAL LAYER
t_e = THICKNESS OF EXTERNAL LAYER
T = TOTAL THICKNESS OF ELASTOMERIC BEARING
n = NUMBER OF INTERNAL ELASTOMER LAYERS

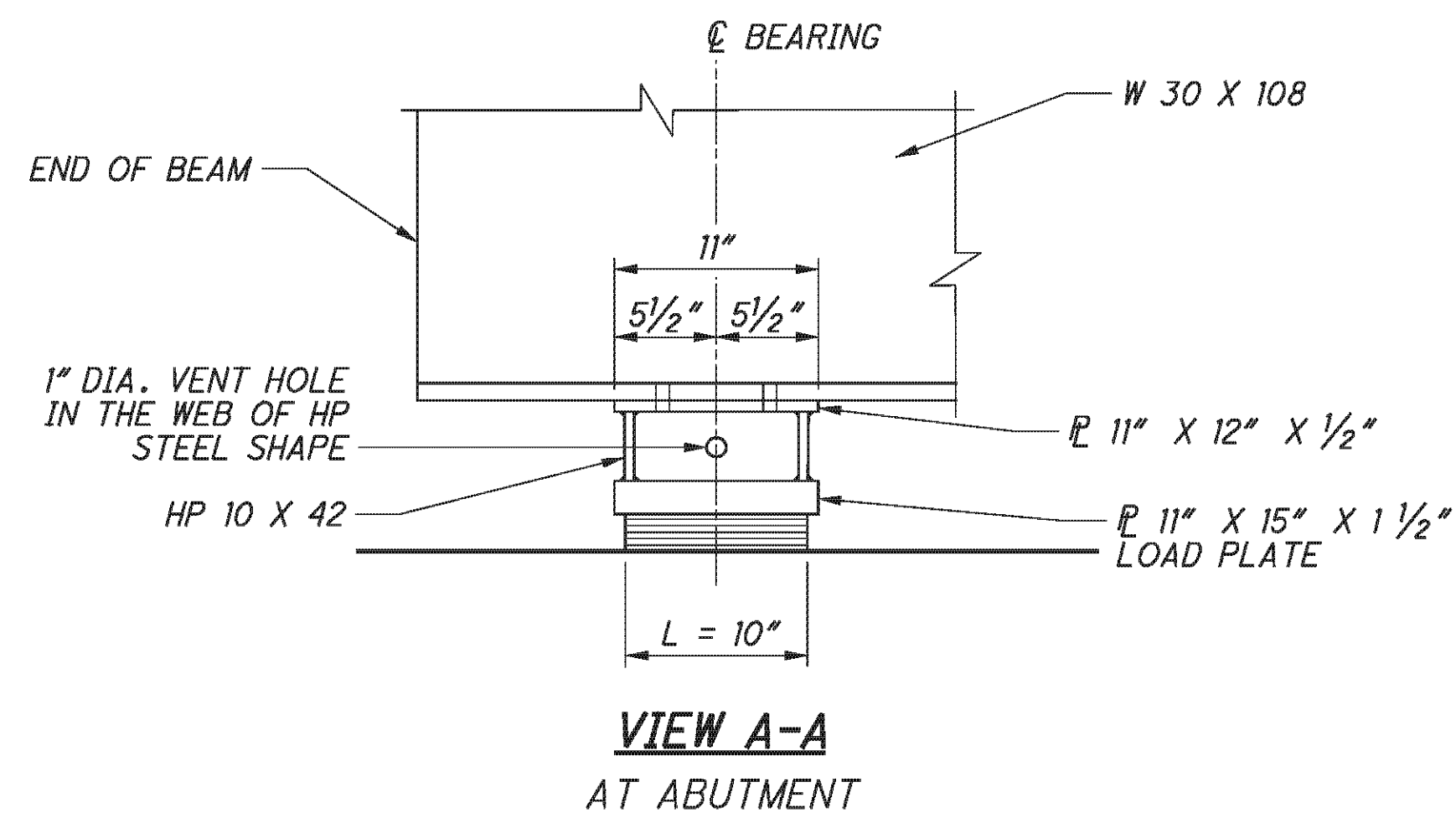
N = NO. OF STEEL LAMINATES
INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
DUROMETER OF ELASTOMER = 50 DUROMETER



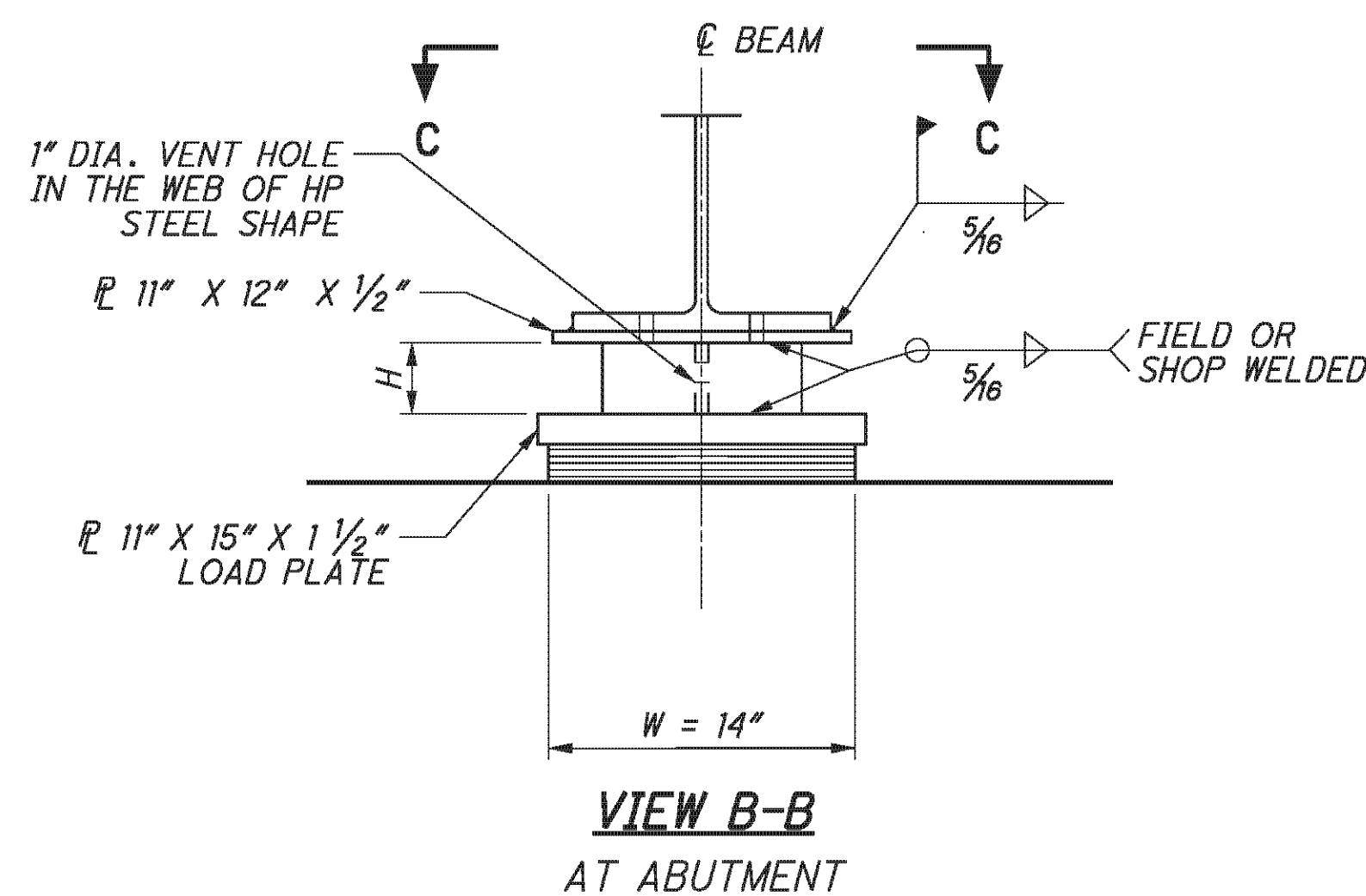
VIEW A-A
AT PIER



VIEW B-B
AT PIER



VIEW A-A
AT ABUTMENT



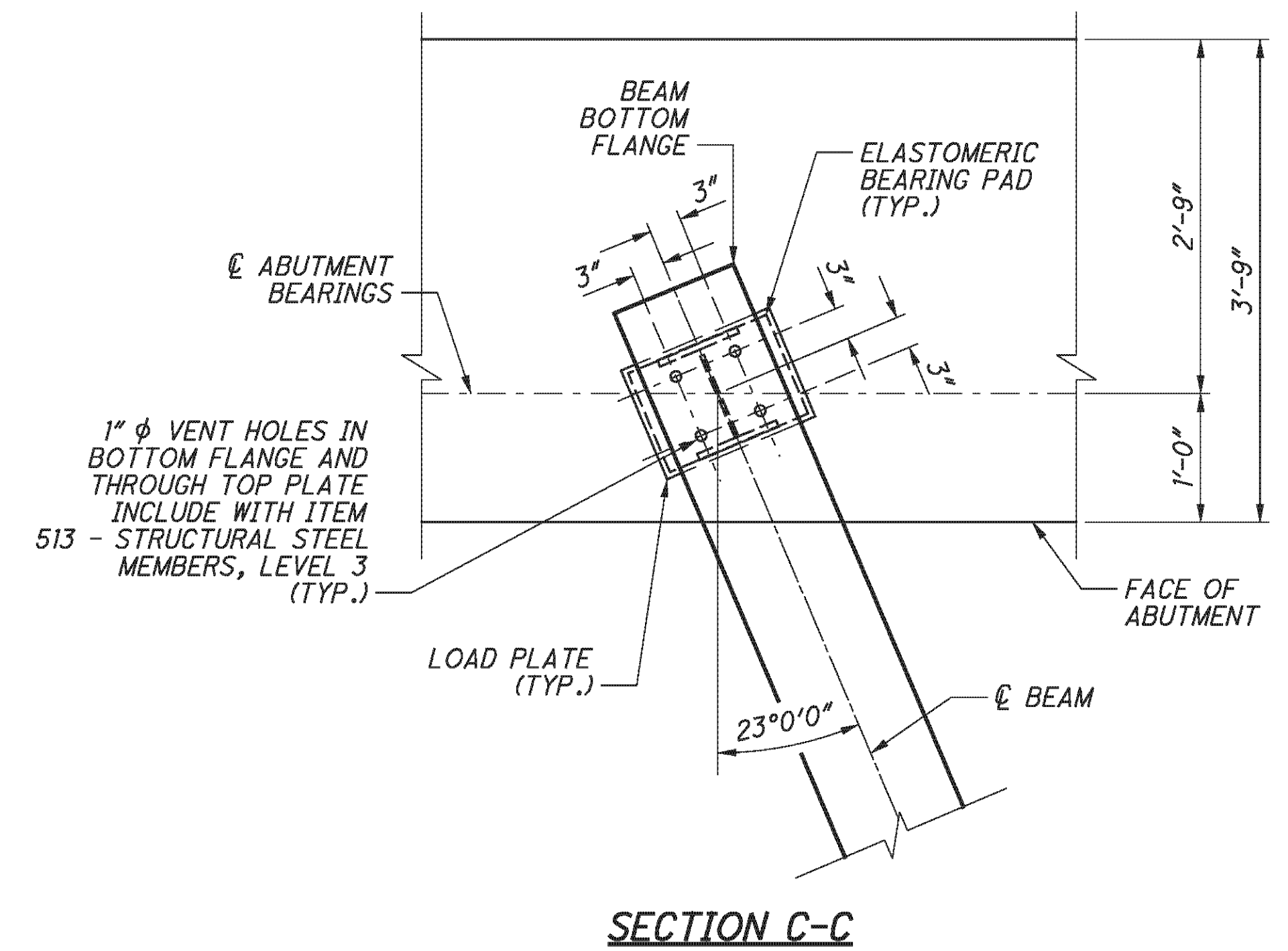
VIEW B-B
AT ABUTMENT

HP 10X42 POST HEIGHT RIGHT BRIDGE		
		H
REAR ABUT.	BEAM 7	8 1/8"
	BEAM 8	7 3/4"
	BEAM 9	8 1/16"
	BEAM 10	8 9/16"
	BEAM 11	8 3/4"
	BEAM 12	8 13/16"
FWD. ABUT.	BEAM 7	8 1/8"
	BEAM 8	8 13/16"
	BEAM 9	8 1/16"
	BEAM 10	9 1/4"
	BEAM 11	9 1/16"
	BEAM 12	9 5/16"

NOTES:

1. THE STEEL LOAD PLATE, TOP PLATE AND HP SECTION SHALL BE GALVANIZED ASTM A709 GRADE 50 STEEL.
2. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 °F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
3. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

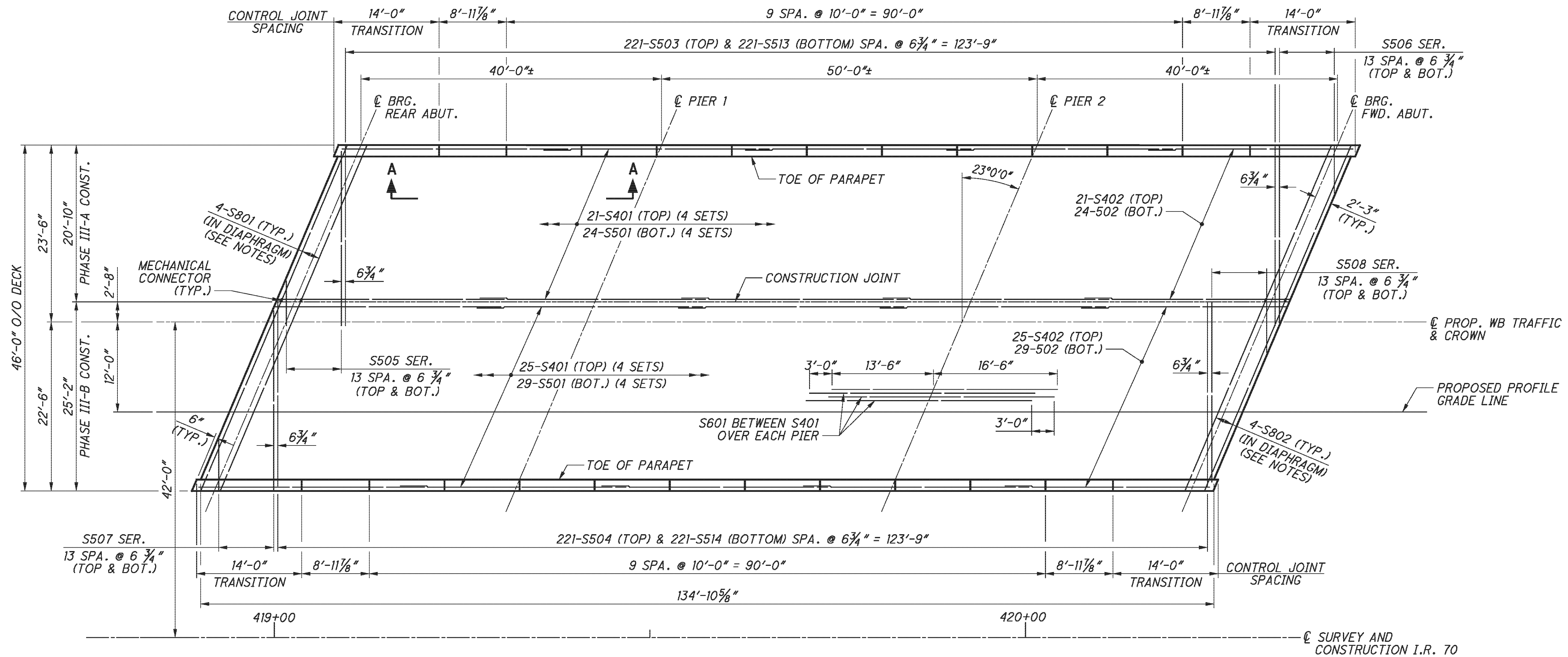
4. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80 °F OR LOWER THAN 40 °F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60 °F ±10 °F RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60 °F ±10 °F.



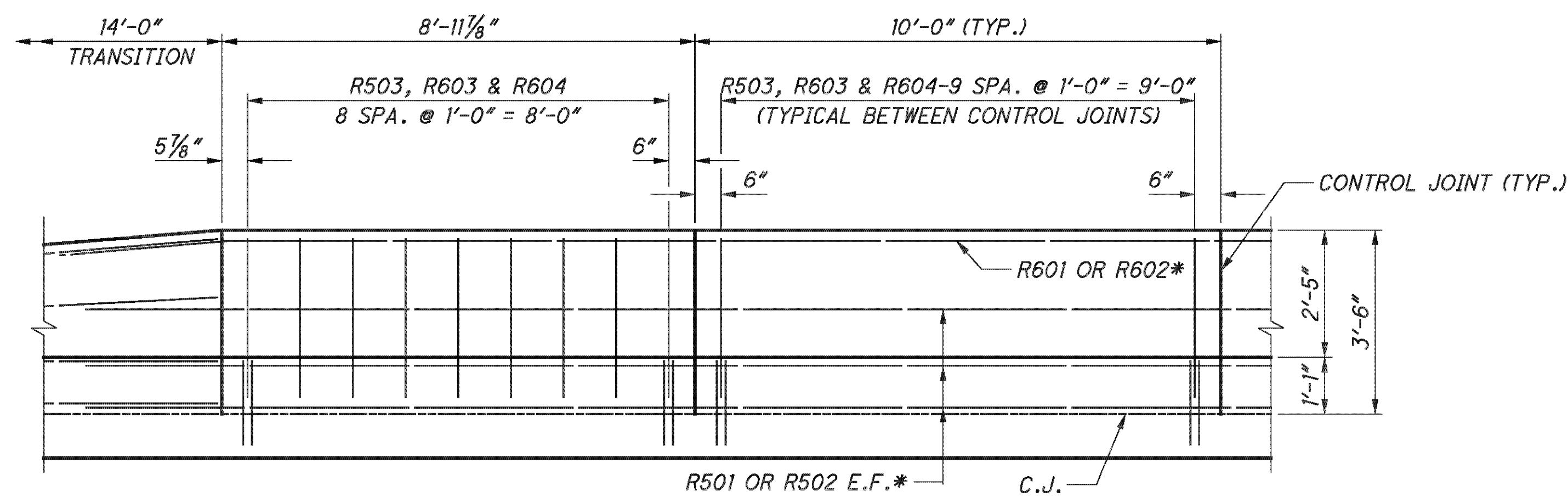
SECTION C-C

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DECK PLAN



VIEW A-A

LEGEND:

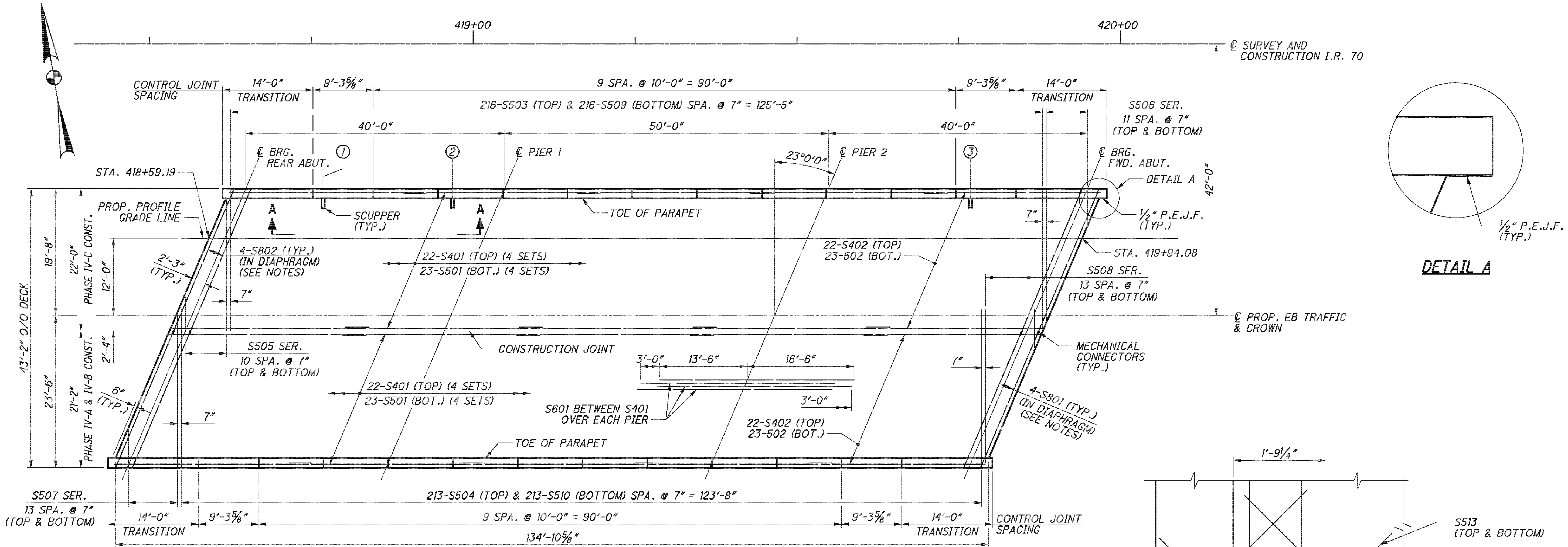
* - 6-R501 & 1-R601 (4 SETS) AND 6-R502 & 1-R602 (1 SET) ALONG PARAPET

LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.

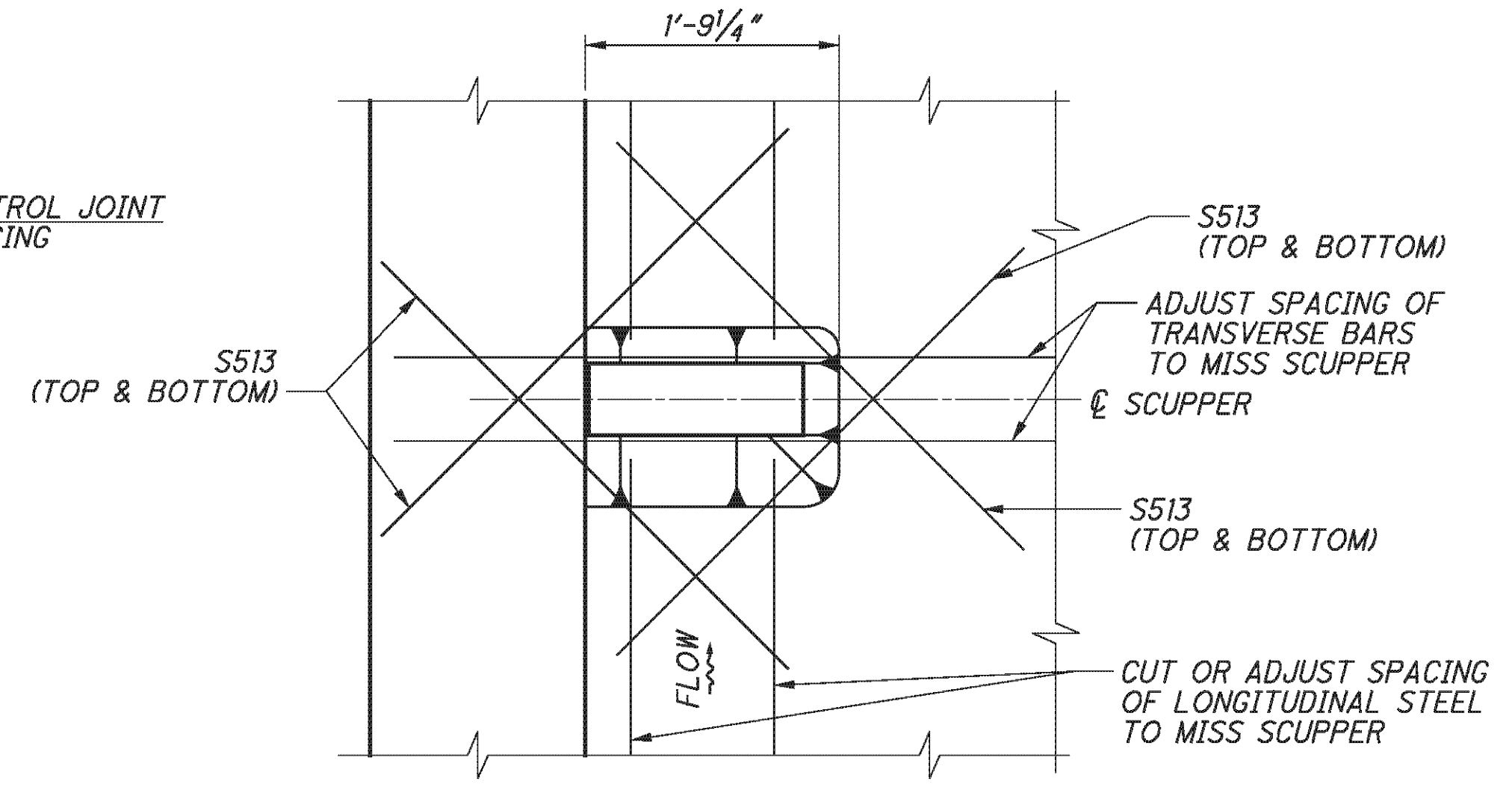
NOTES:

- FOR TRANSVERSE SECTION AND ADDITIONAL NOTES, SEE SHEET [34/46](#).
- FOR ABUTMENT DETAILS, INCLUDING NO. 8 BARS IN DIAPHRAGM, SEE SHEETS [16/46](#) THROUGH [17/46](#) AND [20/46](#) THROUGH [21/46](#).
- FOR PARAPET DETAIL, SEE SHEET [34/46](#).
- FOR SCREED ELEVATIONS, TOP OF HAUNCH, AND FINAL DECK SURFACE ELEVATIONS, SEE SHEET [38/46](#).
- FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS [7/46](#) THROUGH [8/46](#).
- FOR PARAPET CONTROL JOINT DETAILS, SEE ODOT STD. DRAWING SBR-1-99.
- DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF ABUTMENT DIAPHRAGM.
- FOR REINFORCEMENT SCHEDULE, SEE SHEET [44/46](#).

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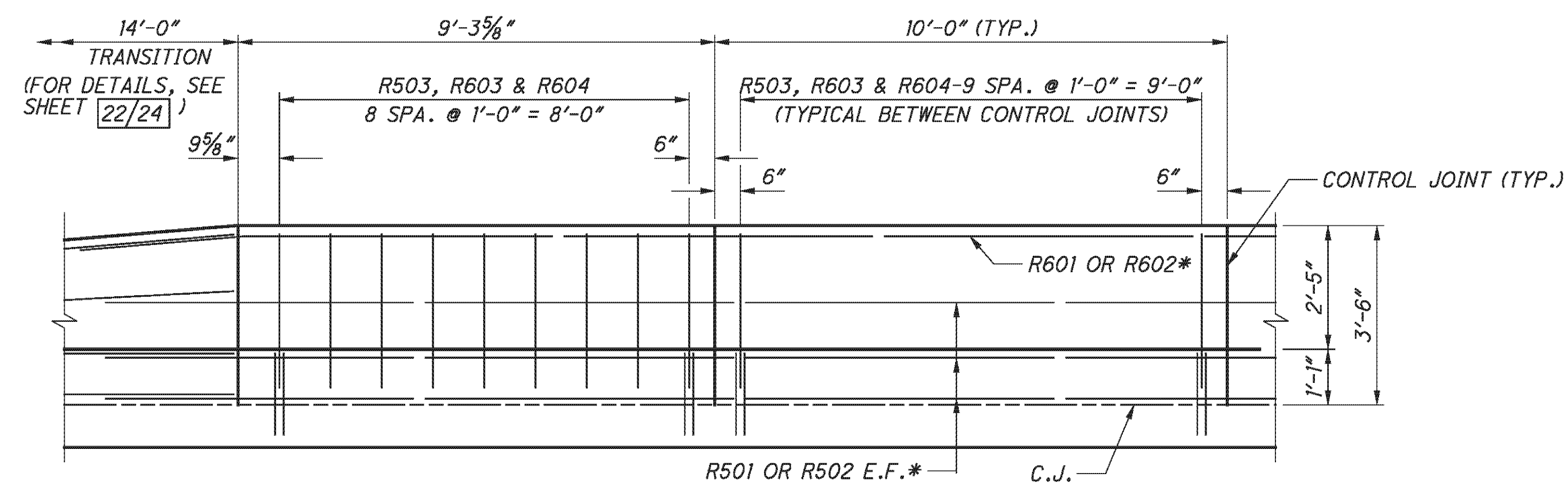


DECK PLAN



SCUPPER DETAIL

FOR ADDITIONAL SCUPPER DETAILS SEE STD. DWG. GSD-1-96 SHEET 3/3



VIEW A-A

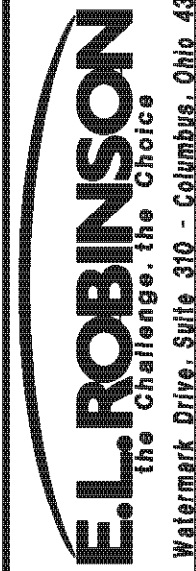
LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.

LEGEND:

- * - 6-R501 & 1-R601 (4 SETS) AND 6-R502 & 1-R602 (1 SET) ALONG PARAPET
- ① SCUPPER NO. 1, STA 418+76.81
- ② SCUPPER NO. 2, STA 418+96.81
- ③ SCUPPER NO. 3, STA 419+76.81

NOTES:

1. FOR TRANSVERSE SECTION AND ADDITIONAL NOTES, SEE SHEET 35/46.
2. FOR ABUTMENT DETAILS, INCLUDING NO. 8 BARS IN DIAPHRAGM, SEE SHEETS 18/46 THROUGH 19/46 AND 22/46 THROUGH 23/46.
3. FOR PARAPET DETAIL, SEE SHEET 35/46.
4. FOR SCREED ELEVATIONS, TOP OF HAUNCH, AND FINAL DECK SURFACE ELEVATIONS, SEE SHEET 39/46.
5. FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 9/46 THROUGH 10/46.
6. FOR PARAPET CONTROL JOINT DETAILS, SEE ODOT STD. DRAWING SBR-1-99.
7. DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF ABUTMENT DIAPHRAGM.
8. FOR REINFORCEMENT SCHEDULE, SEE SHEET 46/46.

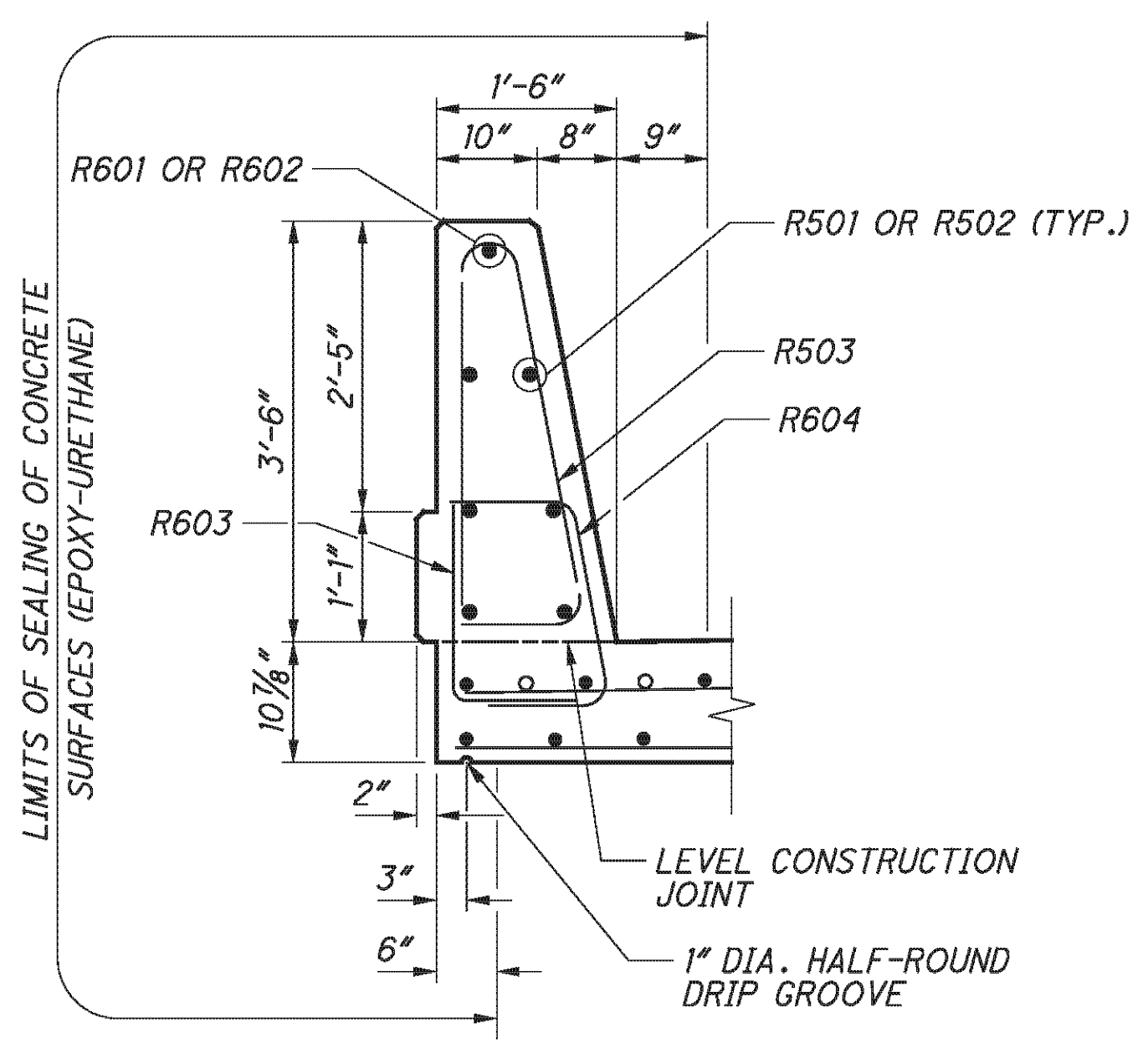
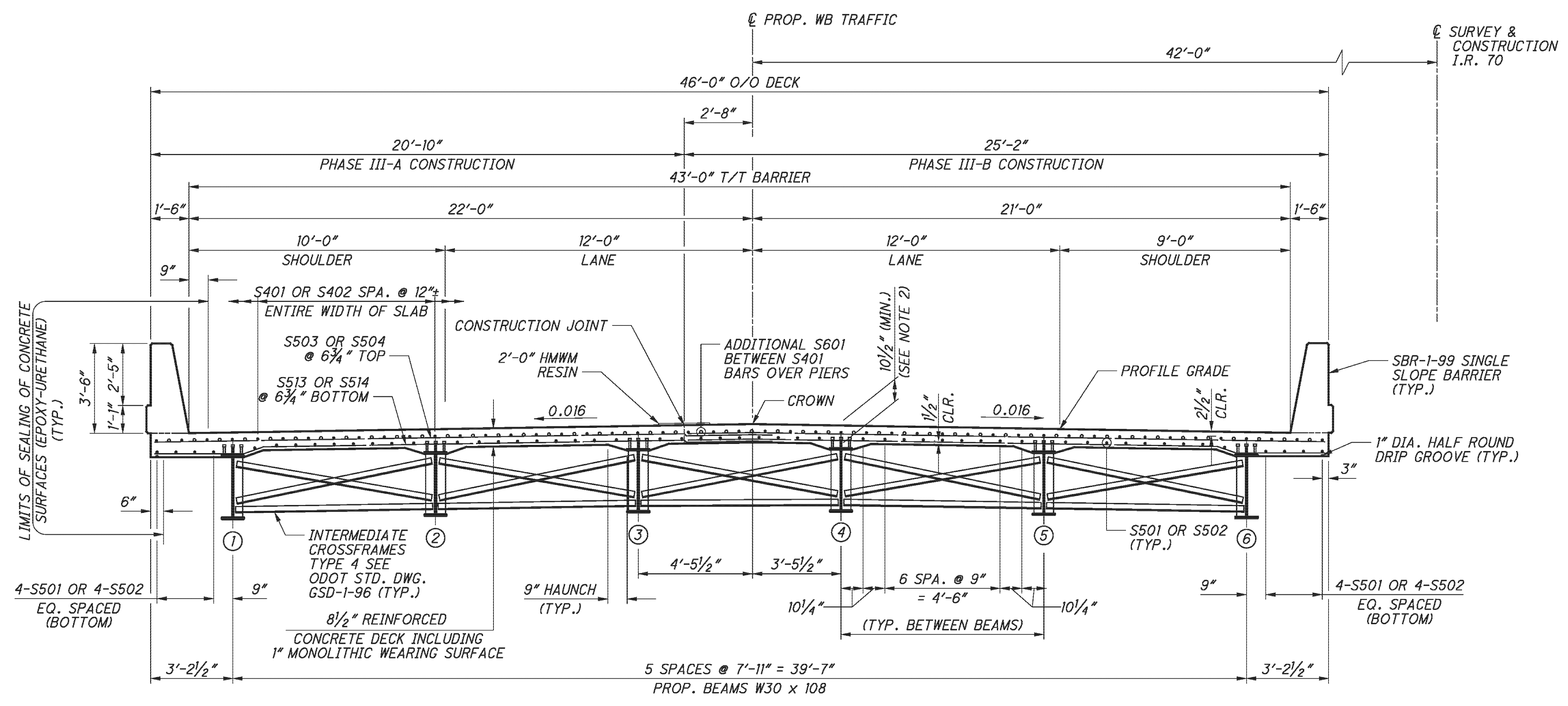


DATE: 2/3/11
 REVIEWED: RER
 STRUCTURE FILE NUMBER: 0702137L/0702161R
 DRAWN: DTA
 DESIGNED: DTA
 CHECKED: RLE
 REVISIONS: RLE

DECK PLAN - RIGHT BRIDGE
 BRIDGE NO. BEL-70-0775 L/R
 I.R. 70 OVER S.R. 260

BEL-70-7.61
 PID No. 76825

33/46
 315
 373



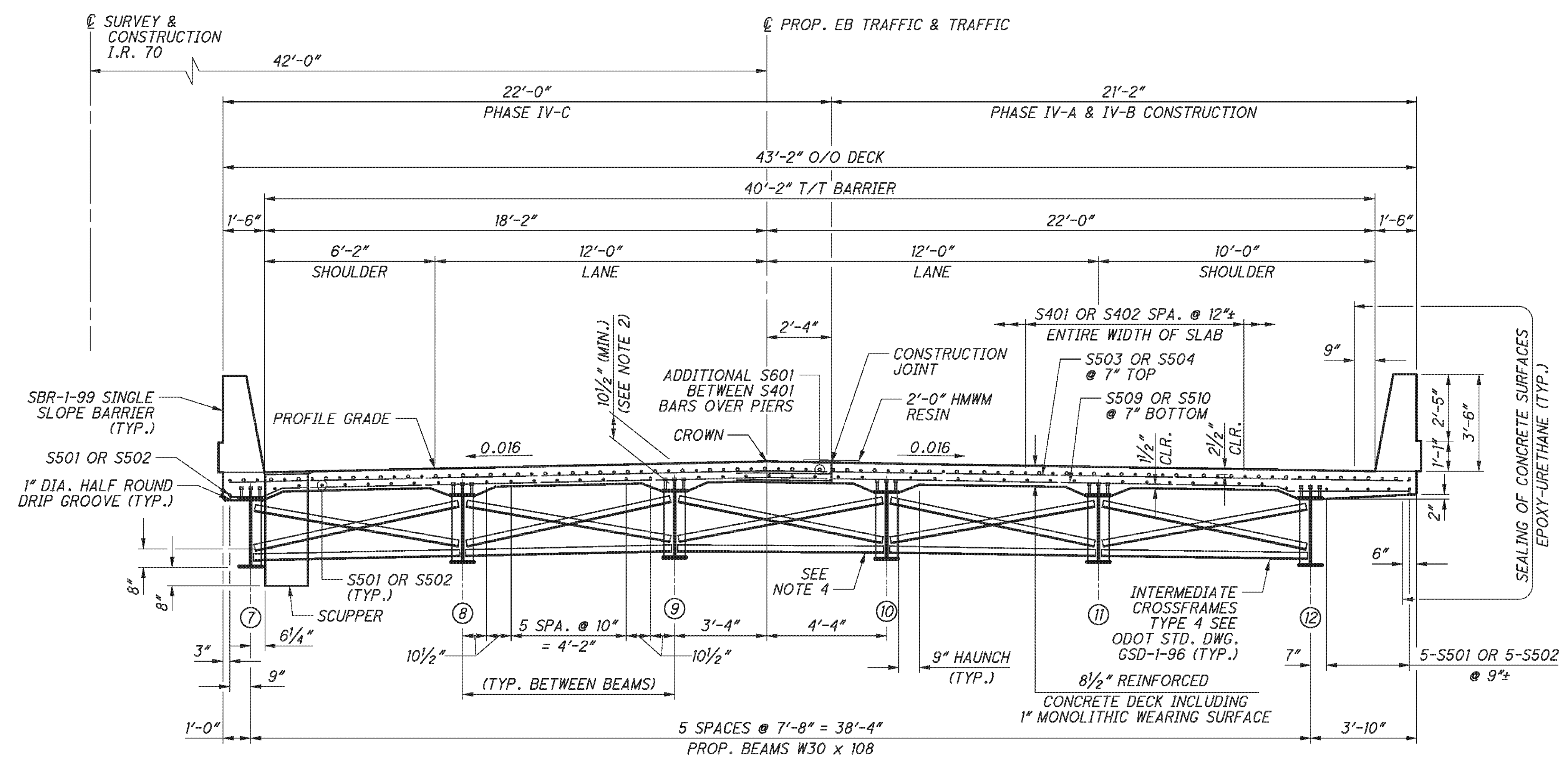
LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.

NOTES:

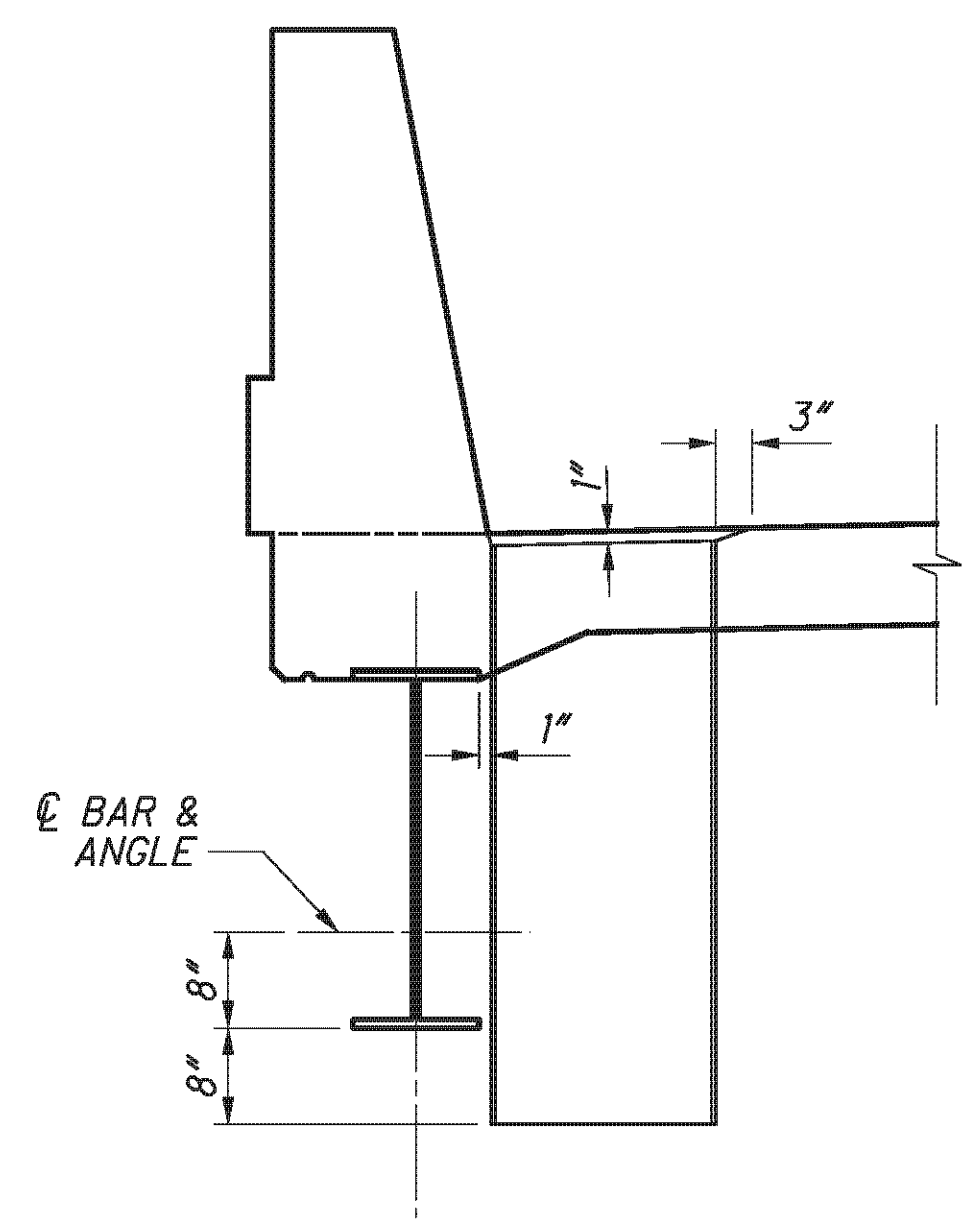
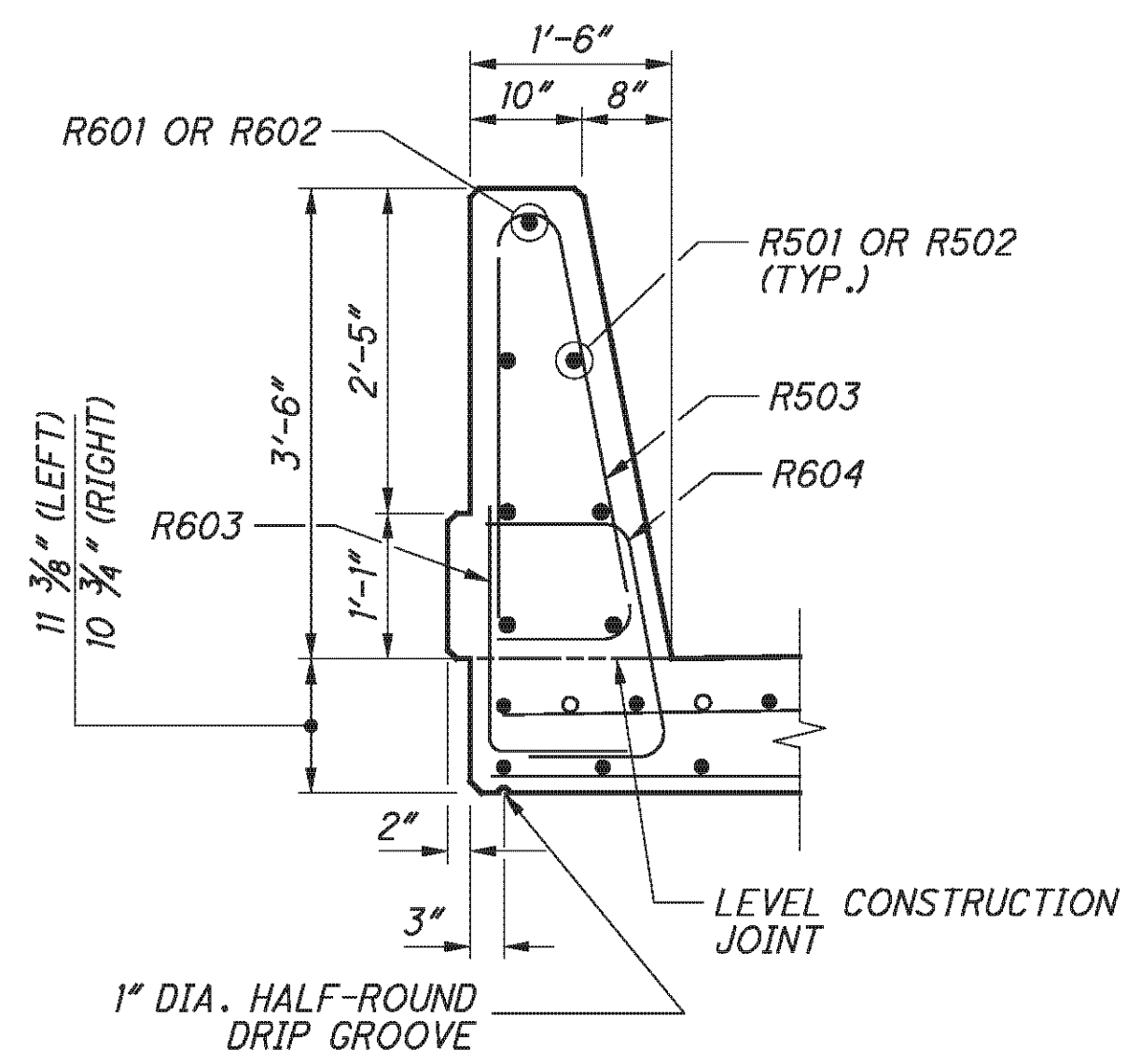
- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS.
- FOR PARAPET JOINT SPACING AND REINFORCING DETAILS SEE SHEET 32/46.
- FOR SLAB PLAN, SEE SHEET 32/46.
- FOR SCREED ELEVATIONS, TOP OF HAUNCH AND FINAL DECK SURFACE ELEVATIONS SEE SHEETS 38/46.
- FOR REINFORCEMENT SCHEDULE, SEE SHEET 44/46.
- THE HMWM SEAL AT THE CONSTRUCTION JOINT SHALL BE PAID FOR WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN.

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REQUIRED LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.



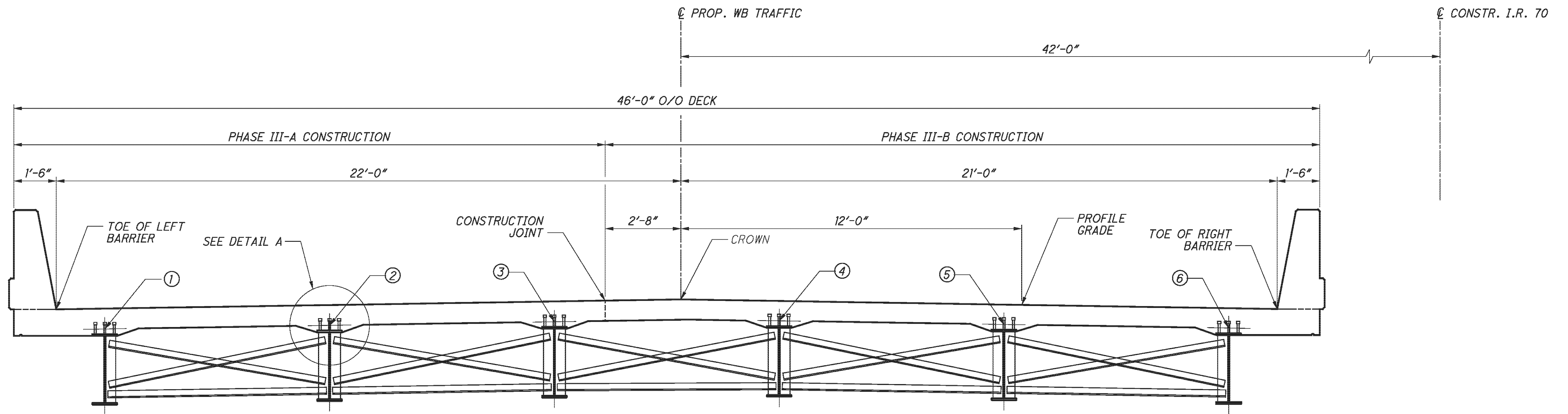
NOTES:

- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.

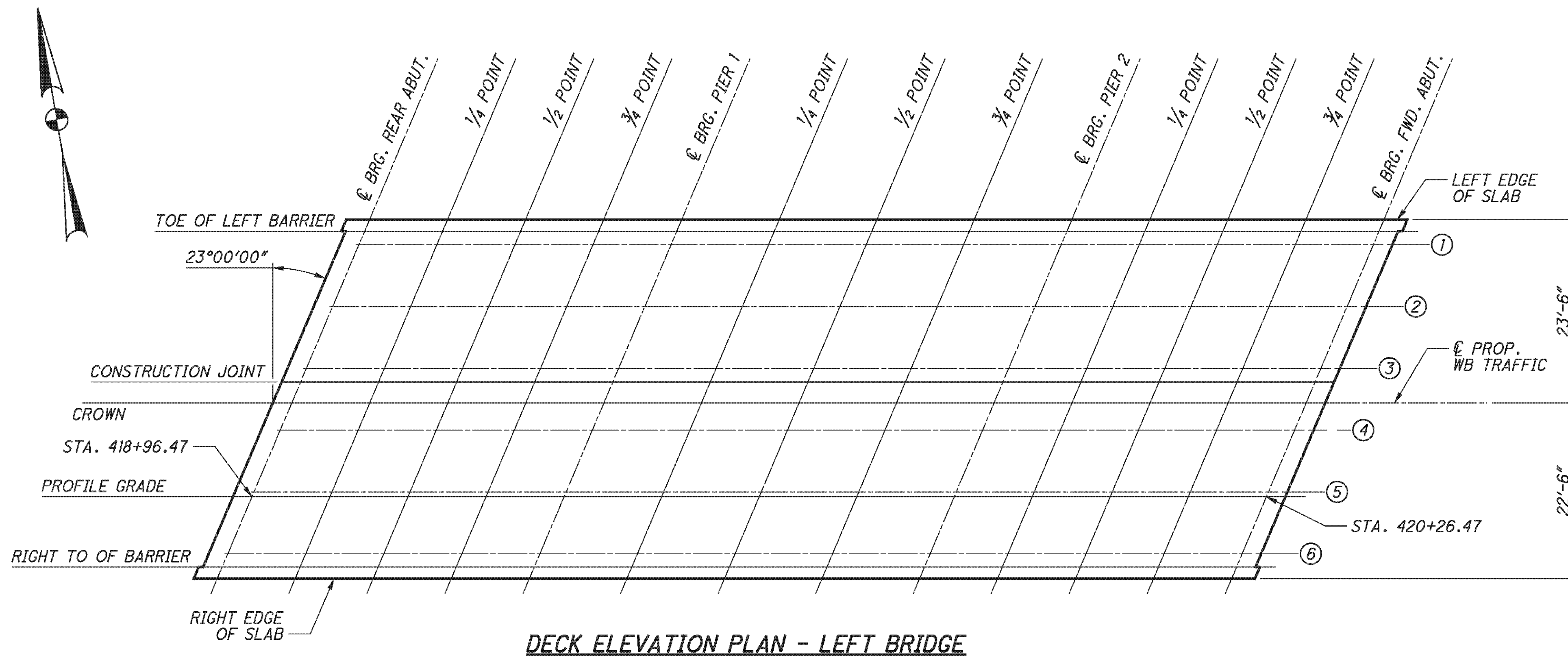
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS.
- FOR PARAPET JOINT SPACING AND REINFORCING DETAILS SEE SHEET [33/46].
- CROSS FRAMES IN THE BAY BETWEEN BEAMS 9 & 10 SHOULD NOT BE PERMANENTLY ATTACHED UNTIL THE CONCRETE DECKS AND PARAPETS LOCATED IN THE ADJACENT PHASES HAVE BEEN PLACED.
- FOR SLAB PLAN, SEE SHEET [33/46].
- FOR SCREED ELEVATIONS, TOP OF HAUNCH AND FINAL DECK SURFACE ELEVATIONS SEE SHEET [39/46].
- FOR REINFORCEMENT SCHEDULE, SEE SHEET [46/46].
- THE HMWM SEAL AT THE CONSTRUCTION JOINT SHALL BE PAID FOR WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN.
- FOR ADDITIONAL SCUPPER DETAILS SEE STD. DWG. GSD-1-96 SHEET 3/3.

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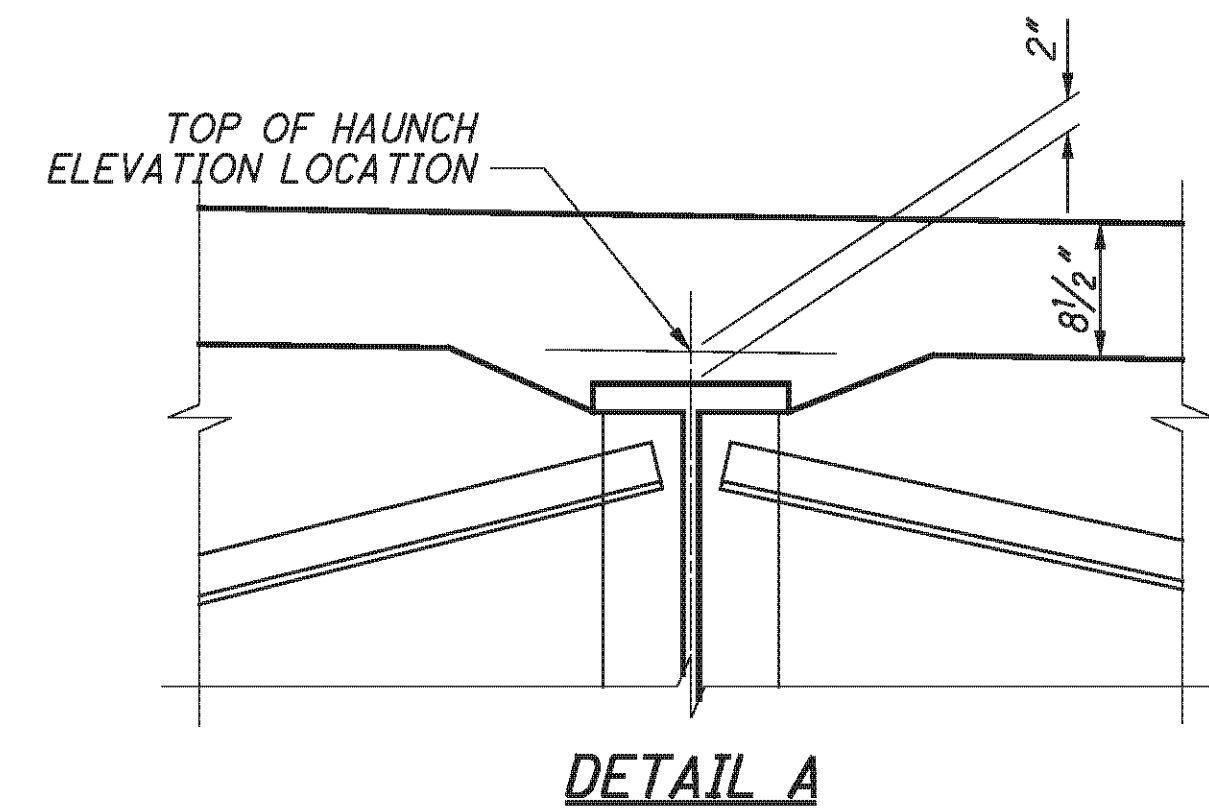
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SCREED LINE & TOP OF HAUNCH LOCATIONS



DECK ELEVATION PLAN - LEFT BRIDGE



NOTES:

1. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. FOR SCREED ELEVATIONS, TOP OF HAUNCH AND FINAL DECK ELEVATION TABLES SEE SHEET 38/46

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DESIGNED	DTA	CHECKED	AME
DRAWN	DTA	REVISED	
REVIEWED	DFT	STRUCTURE FILE NUMBER	070213TL/070216R
DATE	5/11/10		

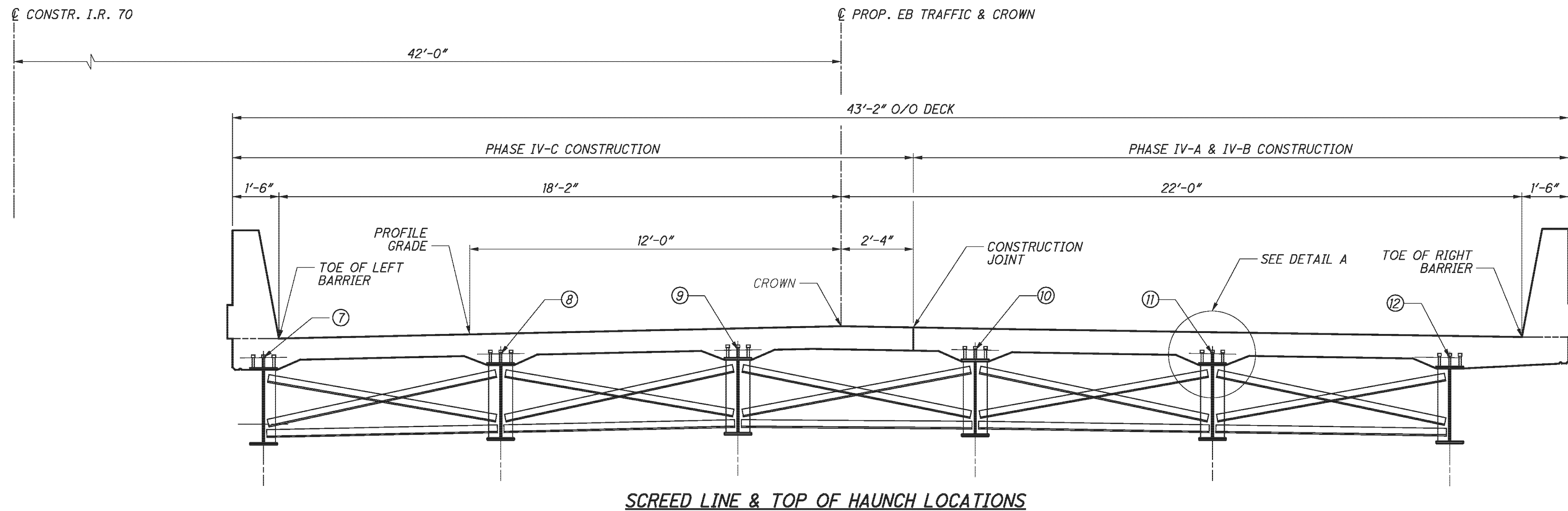
TOP OF HAUNCH & SCREED TABLE - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

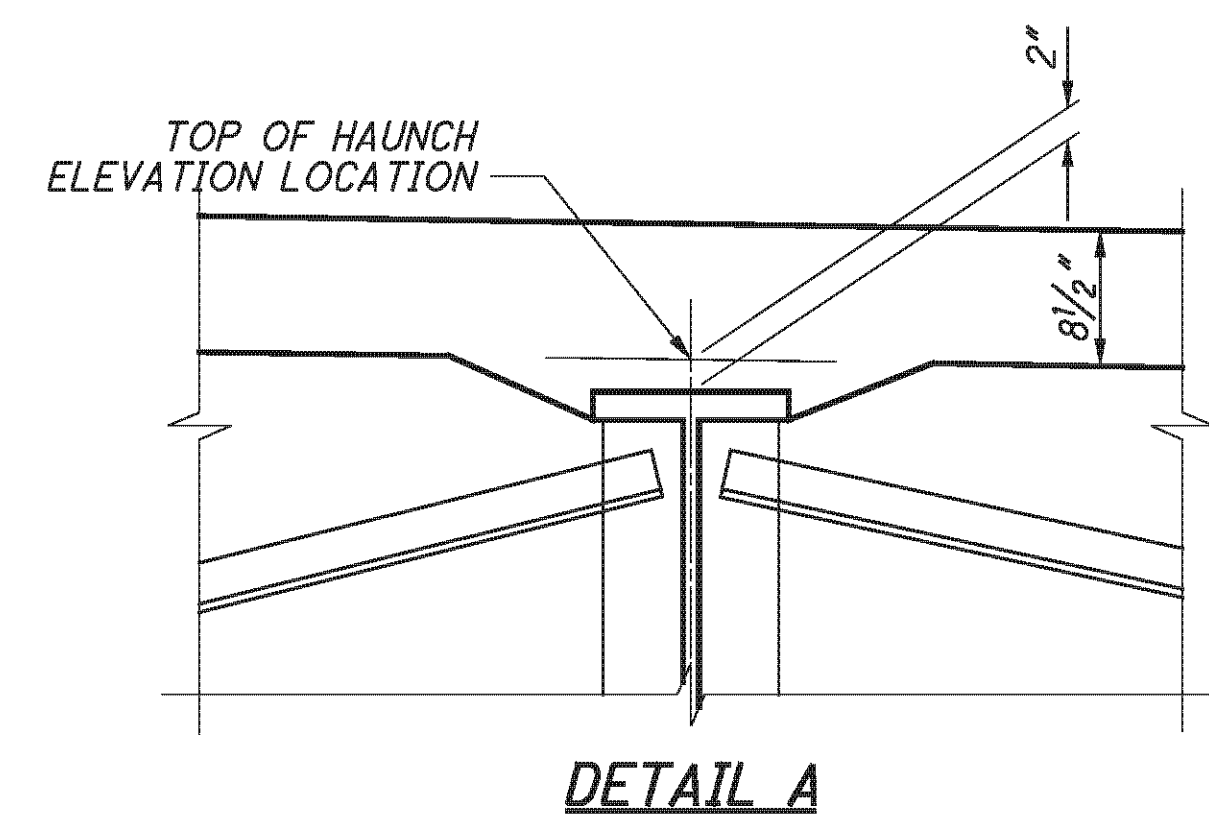
36/46

318
373

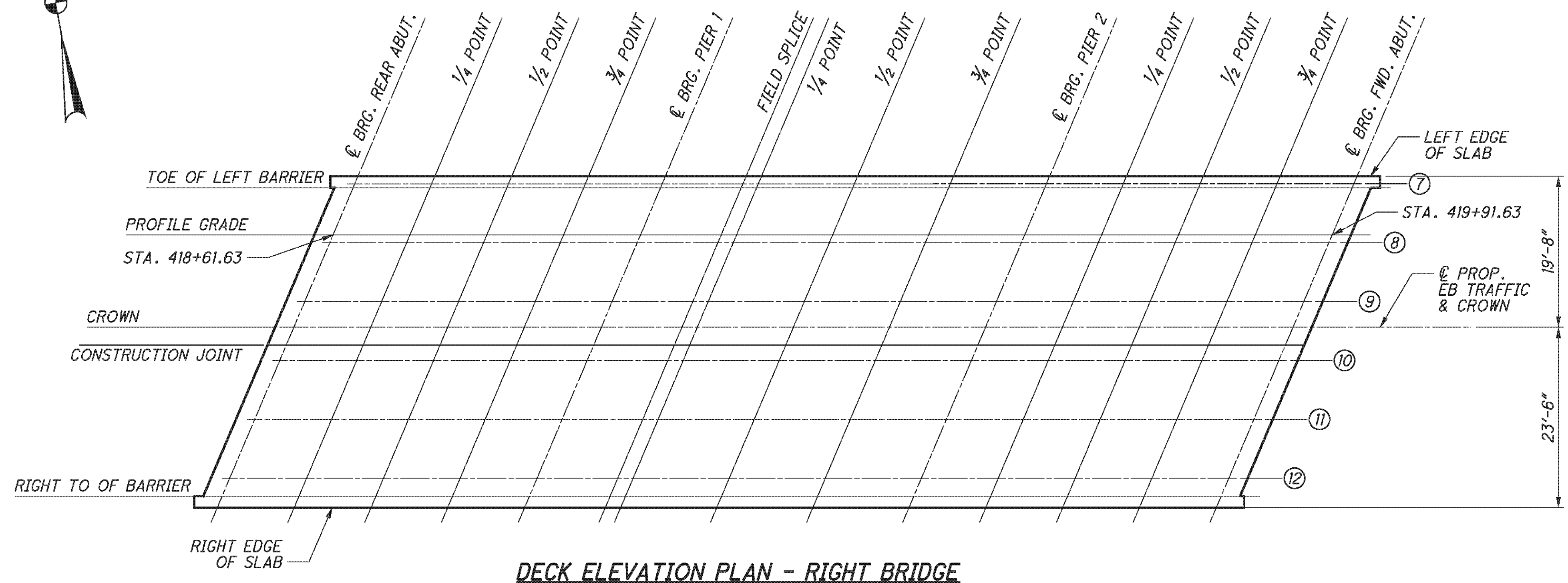
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SCREED LINE & TOP OF HAUNCH LOCATIONS



DETAIL A



DECK ELEVATION PLAN - RIGHT BRIDGE

NOTES:

1. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. FOR SCREED ELEVATIONS, TOP OF HAUNCH AND FINAL DECK ELEVATION TABLES SEE SHEET 39/46

		DATE	2/3/11
		REVIEWED	RER
DESIGNED	DTA	CHECKED	RLE
DRAWN	DTA	REVISID	
STRUCTURE FILE NUMBER	070213TL/070216IR		
TOP OF HAUNCH & SCREED TABLE - RIGHT BRIDGE BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260			
BEL-70-7.61 PID No. 76825		37/46 319 373	

TOP OF HAUNCH ELEVATION TABLE (LEFT BRIDGE)

LOCATION	BEAM 1		BEAM 2		BEAM 3		BEAM 4		BEAM 5		BEAM 6		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	419+10.17	1254.47	419+06.81	1254.61	419+03.45	1254.74	419+00.09	1254.76	418+96.73	1254.64	418+93.37	1254.52
	0.25L	419+20.17	1254.47	419+16.81	1254.60	419+13.45	1254.73	419+10.09	1254.76	419+06.73	1254.64	419+03.37	1254.51
	0.50L	419+30.17	1254.45	419+26.81	1254.58	419+23.45	1254.71	419+20.09	1254.74	419+16.73	1254.62	419+13.37	1254.50
	0.75L	419+40.17	1254.42	419+36.81	1254.55	419+33.45	1254.69	419+30.09	1254.71	419+26.73	1254.59	419+23.37	1254.47
SPAN 2	0.00L	419+50.17	1254.38	419+46.81	1254.52	419+43.45	1254.65	419+40.09	1254.68	419+36.73	1254.56	419+33.37	1254.44
	SPLICE	419+60.67	1254.36	419+57.31	1254.50	419+53.95	1254.64	419+50.59	1254.66	419+47.23	1254.54	419+43.87	1254.42
	0.25L	419+62.67	1254.36	419+59.31	1254.50	419+55.95	1254.63	419+52.59	1254.66	419+49.23	1254.54	419+45.87	1254.42
	0.50L	419+75.17	1254.33	419+71.81	1254.47	419+68.45	1254.60	419+65.09	1254.63	419+61.73	1254.51	419+58.37	1254.40
	0.75L	419+87.67	1254.28	419+84.31	1254.42	419+80.95	1254.56	419+77.59	1254.58	419+74.23	1254.47	419+70.87	1254.35
SPAN 3	0.00L	420+00.17	1254.23	419+96.81	1254.37	419+93.45	1254.51	419+90.09	1254.53	419+86.73	1254.42	419+83.37	1254.30
	0.25L	420+10.17	1254.20	420+06.81	1254.34	420+03.45	1254.48	420+00.09	1254.50	419+96.73	1254.39	419+93.37	1254.27
	0.50L	420+20.17	1254.17	420+16.81	1254.31	420+13.45	1254.45	420+10.09	1254.48	420+06.73	1254.36	420+03.37	1254.25
	0.75L	420+30.17	1254.12	420+26.81	1254.27	420+23.45	1254.41	420+20.09	1254.43	420+16.73	1254.32	420+13.37	1254.21
	0.00L	420+40.17	1254.07	420+36.81	1254.21	420+33.45	1254.35	420+30.09	1254.38	420+26.73	1254.27	420+23.37	1254.16

SCREED ELEVATION TABLE (LEFT BRIDGE)

LOCATION	TOE OF LEFT BARRIER		CONSTRUCTION JOINT		CROWN		PROFILE GRADE		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	419+10.90	1255.15	419+02.69	1255.48	419+01.56	1255.52	418+96.47	1255.34	418+92.65	1255.20
	0.25L	419+20.90	1255.15	419+12.69	1255.47	419+11.56	1255.52	419+06.47	1255.33	419+02.65	1255.20
	0.50L	419+30.90	1255.13	419+22.69	1255.45	419+21.56	1255.50	419+16.47	1255.32	419+12.65	1255.18
	0.75L	419+40.90	1255.09	419+32.69	1255.42	419+31.56	1255.47	419+26.47	1255.29	419+22.65	1255.15
SPAN 2	0.00L	419+50.90	1255.06	419+42.69	1255.39	419+41.56	1255.44	419+36.47	1255.26	419+32.65	1255.12
	SPLICE	419+61.40	1255.04	419+53.19	1255.37	419+52.06	1255.42	419+46.97	1255.24	419+43.15	1255.11
	0.25L	419+63.40	1255.04	419+55.19	1255.37	419+54.06	1255.42	419+48.97	1255.24	419+45.15	1255.10
	0.50L	419+75.90	1255.01	419+67.69	1255.34	419+66.56	1255.39	419+61.47	1255.21	419+57.65	1255.08
	0.75L	419+88.40	1254.96	419+80.19	1255.30	419+79.06	1255.34	419+73.97	1255.17	419+70.15	1255.04
SPAN 3	0.00L	420+00.90	1254.91	419+92.69	1255.25	419+91.56	1255.29	419+86.47	1255.12	419+82.65	1254.99
	0.25L	420+10.90	1254.88	420+02.69	1255.22	420+01.56	1255.26	419+96.47	1255.09	419+92.65	1254.96
	0.50L	420+20.90	1254.85	420+12.69	1255.19	420+11.56	1255.23	420+06.47	1255.06	420+02.65	1254.93
	0.75L	420+30.90	1254.80	420+22.69	1255.15	420+21.56	1255.19	420+16.47	1255.02	420+12.65	1254.89
	0.00L	420+40.90	1254.75	420+32.69	1255.09	420+31.56	1255.14	420+26.47	1254.97	420+22.65	1254.84

FINAL DECK SURFACE ELEVATION TABLE (LEFT BRIDGE)

LOCATION	TOE OF LEFT BARRIER		BEAM 1		BEAM 2		BEAM 3		CONSTRUCTION JOINT		CROWN		BEAM 4		BEAM 5		PROFILE GRADE		BEAM 6		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	419+10.90	1255.15	419+10.17	1255.18	419+06.81	1255.32	419+03.45	1255.45	419+02.69	1255.48	419+01.56	1255.52	419+00.09	1255.47	418+96.73	1255.35	418+96.47	1255.34	418+93.37	1255.23	418+92.65	1255.20
	0.25L	419+20.90	1255.13	419+20.17	1255.16	419+16.81	1255.30	419+13.45	1255.43	419+12.69	1255.46	419+11.56	1255.50	419+10.09	1255.45	419+06.73	1255.33	419+06.47	1255.32	419+03.37	1255.21	419+02.65	1255.18
	0.50L	419+30.90	1255.11	419+30.17	1255.14	419+26.81	1255.28	419+23.45	1255.41	419+22.69	1255.44	419+21.56	1255.48	419+20.09	1255.43	419+16.73	1255.31	419+16.47	1255.30	419+13.37	1255.19	419+12.65	1255.17
	0.75L	419+40.90	1255.09	419+40.17	1255.12	419+36.81	1255.25	419+33.45	1255.39	419+32.69	1255.42	419+31.56	1255.46	419+30.09	1255.41	419+26.73	1255.29	419+26.47	1255.28	419+23.37	1255.17	419+22.65	1255.15
SPAN 2	0.00L	419+50.90	1255.06	419+50.17	1255.09	419+46.81	1255.23	419+43.45	1255.36	419+42.69	1255.39	419+41.56	1255.44	419+40.09	1255.39	419+36.73	1255.27	419+36.47	1255.26	419+33.37	1255.15	419+32.65	1255.12
	SPLICE	419+61.40	1255.03	419+60.67	1255.06	419+57.31	1255.20	419+53.95	1255.34	419+53.19	1255.37	419+52.06	1255.41	419+50.59	1255.36	419+47.23	1255.24	419+46.97	1255.23	419+43.87	1255.12	419+43.15	1255.10
	0.25L	419+63.40	1255.03	419+62.67	1255.06	419+59.31	1255.19	419+55.95	1255.33	419+55.19	1255.36	419+54.06	1255.41	419+52.59	1255.36	419+49.23	1255.24	419+48.97	1255.23	419+45.87	1255.12	419+45.15	1255.09
	0.50L	419+75.90	1254.99	419+75.17	1255.02	419+71.81	1255.16	419+68.45	1255.29	419+67.69	1255.33	419+66.56	1255.37	419+65.09	1255.32	419+61.73	1255.20	419+61.47	1255.19	419+58.37	1255.09	419+57.65	1255.06
	0.75L	419+88.40	1254.95	419+87.67	1254.98	419+84.31	1255.12	419+80.95	1255.26	419+80.19	1255.29	419+79.06	1255.33	419+77.59	1255.28	419+74.23	1255.17	419+73.97	1255.16	419+70.87	1255.05	419+70.15	1255.02
SPAN 3	0.00L	420+00.90	1254.91	420+00.17	1254.94	419+96.81	1255.08	419+93.45	1255.21	419+92.69	1255.25	419+91.56	1255.29	419+90.09	1255.24	419+86.73	1255.13	419+86.47	1255.12	419+83.37	1255.01	419+82.65	1254.99
	0.25L	420+10.90	1254.87	420+10.17	1254.90	420+06.81	1255.04	420+03.45	1255.18	420+02.69	1255.21	420+01.56	1255.26	420+00.09	1255.21	419+96.73	1255.09	419+96.47	1255.08	419+93.37	1254.98	419+92.65	1254.95
	0.50L	420+20.90	1254.83	420+20.17	1254.86	420+16.81	1255.00	420+13.45	1255.14	420+12.69	1255.17	420+11.56	1255.22	420+10.09	1255.17	420+06.73	1255.06	420+06.47	1255.05	420+03.37	1254.94	420+02.65	1254.92
	0.75L	420+30.90	1254.79	420+30.17	1254.82	420+26.81	1254.96	420+23.45	1255.10	420+22.69	1255.13	420+21.56	1255.18	420+20.09	1255.13	420+16.73	1255.02	420+16.47	1255.01	420+13.37	1254.90	420+12.65	1254.88
	0.00L	420+40.90	1254.75	420+40.17	1254.78	420+36.81	1254.92	420+33.45	1255.06	420+32.69	1255.09	420+31.56	1255.14	420+30.09	1255.09	420+26.73	1254.98	420+26.47	1254.97	420+23.37	1254.87	420+22.65	1254.84

NOTES:

- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
- FOR LOCATIONS OF SCREED ELEVATIONS, TOP OF HAUNCH ELEVATIONS AND FINAL DECK SURFACE ELEVATIONS SEE SHEET 36/46.

FINAL DECK ELEVATION TABLE - LEFT BRIDGE

BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

DATE: 5/11/10
FILE NUMBER: 0702137L/070216R

DRAWN: DTA
REVISED:

DESIGNED: DTA
CHECKED: ABE

REVIEWED: DFT

DATE: 5/11/10

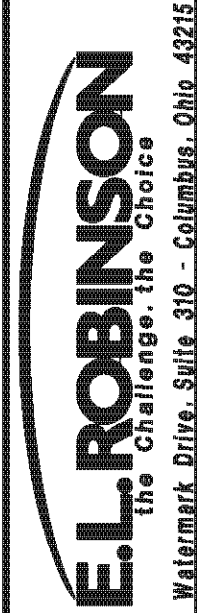
TOP OF HAUNCH ELEVATION TABLE (RIGHT BRIDGE)													
LOCATION	BEAM 7		BEAM 8		BEAM 9		BEAM 10		BEAM 11		BEAM 12		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	418+64.46	1254.65	418+61.21	1254.78	418+57.95	1254.90	418+54.70	1254.89	418+51.45	1254.77	418+48.19	1254.65
	0.25L	418+74.46	1254.65	418+71.21	1254.78	418+67.95	1254.90	418+64.70	1254.89	418+61.45	1254.77	418+58.19	1254.65
	0.50L	418+84.46	1254.64	418+81.21	1254.77	418+77.95	1254.89	418+74.70	1254.88	418+71.45	1254.76	418+68.19	1254.64
	0.75L	418+94.46	1254.62	418+91.21	1254.75	418+87.95	1254.87	418+84.70	1254.86	418+81.45	1254.74	418+78.19	1254.63
SPAN 2	0.00L	419+04.46	1254.60	419+01.21	1254.73	418+97.95	1254.85	418+94.70	1254.84	418+91.45	1254.72	418+88.19	1254.61
	SPLICE	419+14.96	1254.59	419+11.71	1254.72	419+08.45	1254.84	419+05.20	1254.83	419+01.95	1254.71	418+98.69	1254.60
	0.25L	419+16.96	1254.59	419+13.71	1254.71	419+10.45	1254.84	419+07.20	1254.83	419+03.95	1254.71	419+00.69	1254.60
	0.50L	419+29.46	1254.57	419+26.21	1254.70	419+22.95	1254.83	419+19.70	1254.82	419+16.45	1254.70	419+13.19	1254.58
	0.75L	419+41.96	1254.53	419+38.71	1254.66	419+35.45	1254.79	419+32.20	1254.78	419+28.95	1254.67	419+25.69	1254.55
SPAN 3	0.00L	419+54.46	1254.49	419+51.21	1254.62	419+47.95	1254.75	419+44.70	1254.74	419+41.45	1254.63	419+38.19	1254.51
	0.25L	419+64.46	1254.47	419+61.21	1254.60	419+57.95	1254.73	419+54.70	1254.72	419+51.45	1254.61	419+48.19	1254.50
	0.50L	419+74.46	1254.45	419+71.21	1254.58	419+67.95	1254.71	419+64.70	1254.70	419+61.45	1254.59	419+58.19	1254.48
	0.75L	419+84.46	1254.41	419+81.21	1254.55	419+77.95	1254.68	419+74.70	1254.67	419+71.45	1254.56	419+68.19	1254.45
	0.00L	419+94.46	1254.37	419+91.21	1254.50	419+87.95	1254.64	419+84.70	1254.63	419+81.45	1254.52	419+78.19	1254.41

SCREED ELEVATION TABLE (RIGHT BRIDGE)											
LOCATION	TOE OF LEFT BARRIER		PROFILE GRADE		CROWN		CONSTRUCTION JOINT		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	418+64.25	1255.37	418+61.63	1255.47	418+56.54	1255.66	418+55.55	1255.63	418+47.20	1255.32
	0.25L	418+74.25	1255.37	418+71.63	1255.47	418+66.54	1255.67	418+65.55	1255.63	418+57.20	1255.32
	0.50L	418+84.25	1255.36	418+81.63	1255.46	418+76.54	1255.66	418+75.55	1255.62	418+67.20	1255.32
	0.75L	418+94.25	1255.34	418+91.63	1255.44	418+86.54	1255.64	418+85.55	1255.60	418+77.20	1255.30
SPAN 2	0.00L	419+04.25	1255.31	419+01.63	1255.42	418+96.54	1255.62	418+95.55	1255.58	418+87.20	1255.28
	SPLICE	419+14.75	1255.30	419+12.13	1255.41	419+07.04	1255.61	419+06.05	1255.57	418+97.70	1255.27
	0.25L	419+16.75	1255.30	419+14.13	1255.41	419+09.04	1255.61	419+08.05	1255.57	418+99.70	1255.27
	0.50L	419+29.25	1255.28	419+26.63	1255.39	419+21.54	1255.59	419+20.55	1255.56	419+12.20	1255.26
	0.75L	419+41.75	1255.25	419+39.13	1255.35	419+34.04	1255.56	419+33.05	1255.52	419+24.70	1255.22
SPAN 3	0.00L	419+54.25	1255.21	419+51.63	1255.31	419+46.54	1255.52	419+45.55	1255.48	419+37.20	1255.19
	0.25L	419+64.25	1255.19	419+61.63	1255.29	419+56.54	1255.50	419+55.55	1255.46	419+47.20	1255.17
	0.50L	419+74.25	1255.16	419+71.63	1255.27	419+66.54	1255.48	419+65.55	1255.44	419+57.20	1255.15
	0.75L	419+84.25	1255.13	419+81.63	1255.24	419+76.54	1255.45	419+75.55	1255.41	419+67.20	1255.12
	0.00L	419+94.25	1255.09	419+91.63	1255.19	419+86.54	1255.40	419+85.55	1255.37	419+77.20	1255.08

FINAL DECK SURFACE ELEVATION TABLE (RIGHT BRIDGE)																							
LOCATION	BEAM 7		TOE OF LEFT BARRIER		PROFILE GRADE		BEAM 8		BEAM 9		CROWN		CONSTRUCTION JOINT		BEAM 10		BEAM 11		BEAM 12		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	418+64.46	1255.36	418+64.25	1255.37	418+61.63	1255.47	418+61.21	1255.48	418+57.95	1255.61	418+56.54	1255.66	418+55.55	1255.63	418+54.70	1255.60	418+51.45	1255.48	418+48.19	1255.35	418+47.20	1255.32
	0.25L	418+74.46	1255.35	418+74.25	1255.36	418+71.63	1255.46	418+71.21	1255.47	418+67.95	1255.60	418+66.54	1255.65	418+65.55	1255.62	418+64.70	1255.59	418+61.45	1255.47	418+58.19	1255.35	418+57.20	1255.31
	0.50L	418+84.46	1255.34	418+84.25	1255.34	418+81.63	1255.45	418+81.21	1255.46	418+77.95	1255.59	418+76.54	1255.64	418+75.55	1255.61	418+74.70	1255.58	418+71.45	1255.46	418+68.19	1255.34	418+67.20	1255.30
	0.75L	418+94.46	1255.32	418+94.25	1255.33	418+91.63	1255.43	418+91.21	1255.45	418+87.95	1255.58	418+86.54	1255.63	418+85.55	1255.60	418+84.70	1255.56	418+81.45	1255.45	418+78.19	1255.33	418+77.20	1255.29
SPAN 2	0.00L	419+04.46	1255.31	419+04.25	1255.31	419+01.63	1255.42	419+01.21	1255.43	418+97.95	1255.56	418+96.54	1255.62	418+95.55	1255.58	418+94.70	1255.55	418+91.45	1255.43	418+88.19	1255.31	418+87.20	1255.28
	SPLICE	419+14.96	1255.29	419+14.75	1255.30	419+12.13	1255.40	419+11.71	1255.42	419+08.45	1255.54	419+07.04	1255.60	419+06.05	1255.56	419+05.20	1255.54	419+01.95	1255.42	418+98.69	1255.31	418+97.70	1255.26
	0.25L	419+16.96	1255.28	419+16.75	1255.29	419+14.13	1255.40	419+13.71	1255.41	419+10.45	1255.54	419+09.04	1255.60	419+08.05	1255.56	419+07.20	1255.53	419+03.95	1255.41	419+00.69	1255.30	418+99.70	1255.26
	0.50L	419+29.46	1255.26	419+29.25	1255.27	419+26.63	1255.37	419+26.21	1255.39	419+22.95	1255.52	419+21.54	1255.57	419+20.55	1255.54	419+19.70	1255.51	419+16.45	1255.39	419+13.19	1255.27	419+12.20	1255.24
	0.75L	419+41.96	1255.23	419+41.75	1255.24	419+39.13	1255.34	419+38.71	1255.36	419+35.45	1255.49	419+34.04	1255.55	419+33.05	1255.51	419+32.20	1255.48	419+28.95	1255.37	419+25.69	1255.25	419+24.70	1255.21
SPAN 3	0.00L	419+54.46	1255.20	419+54.25	1255.21	419+51.63	1255.31	419+51.21	1255.33	419+47.95	1255.46	419+46.54	1255.52	419+45.55	1255.48	419+44.70	1255.45	419+41.45	1255.34	419+38.19	1255.22	419+37.20	1255.19
	0.25L	419+64.46	1255.17	419+64.25	1255.18	419+61.63	1255.29	419+61.21	1255.30	419+57.95	1255.43	419+56.54	1255.49	419+55.55	1255.46	419+54.70	1255.43	419+51.45	1255.31	419+48.19	1255.20	419+47.20	1255.16
	0.50L	419+74.46	1255.14	419+74.25	1255.15	419+71.63	1255.26	419+71.21	1255.27	419+67.95	1255.41	419+66.54	1255.46	419+65.55	1255.43	419+64.70	1255.40	419+61.45	1255.29	419+58.19	1255.17	419+57.20	1255.14
	0.75L	419+84.46	1255.11	419+84.25	1255.12	419+81.63	1255.23	419+81.21	1255.24	419+77.95	1255.38	419+76.54	1255.43	419+75.55	1255.40	419+74.70	1255.37	419+71.45	1255.26	419+68.19	1255.14	419+67.20	1255.11
	0.00L	419+94.46	1255.08	419+94.25	1255.09	419+91.63	1255.19	419+91.21	1255.21	419+87.95	1255.35	419+86.54	1255.40	419+85.55	1255.37	419+84.70	1255.34	419+81.45	1255.23	419+78.19	1255.11	419+77.20	1255.08

NOTES:

1. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
4. FOR LOCATIONS OF SCREED ELEVATIONS, TOP OF HAUNCH ELEVATIONS AND FINAL DECK SURFACE ELEVATIONS SEE SHEET 37/46.

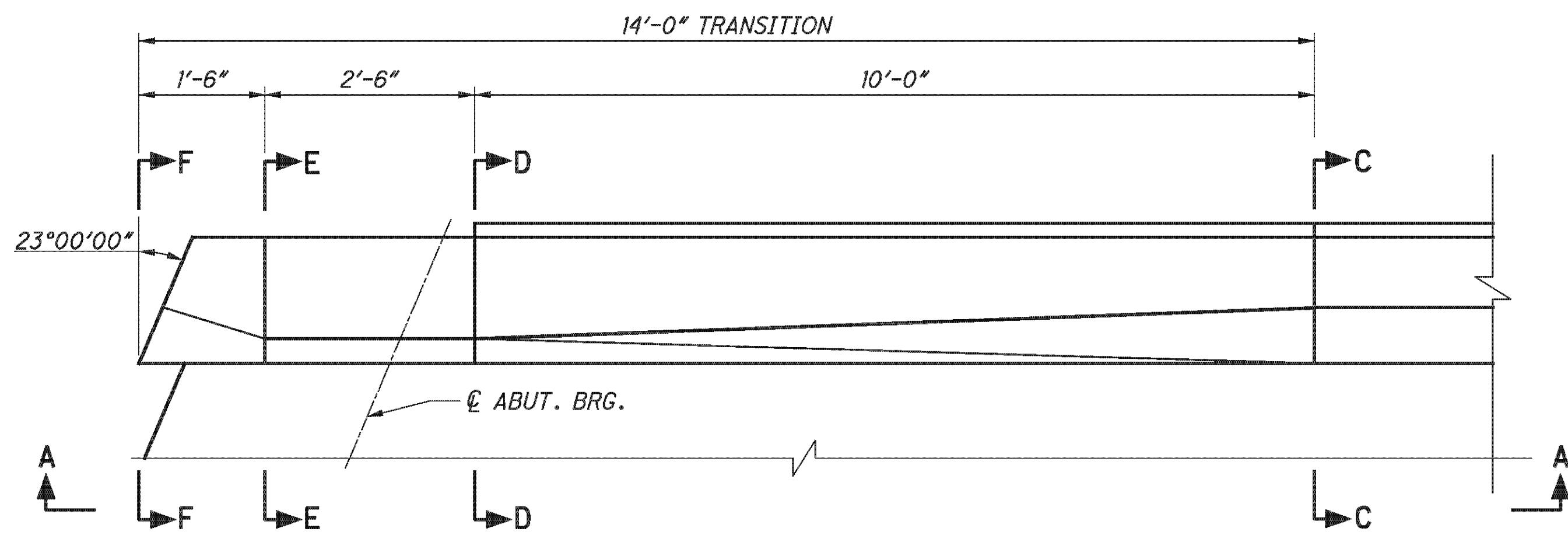


DATE: 2/3/11
 REVISION: 0702137L/070216R

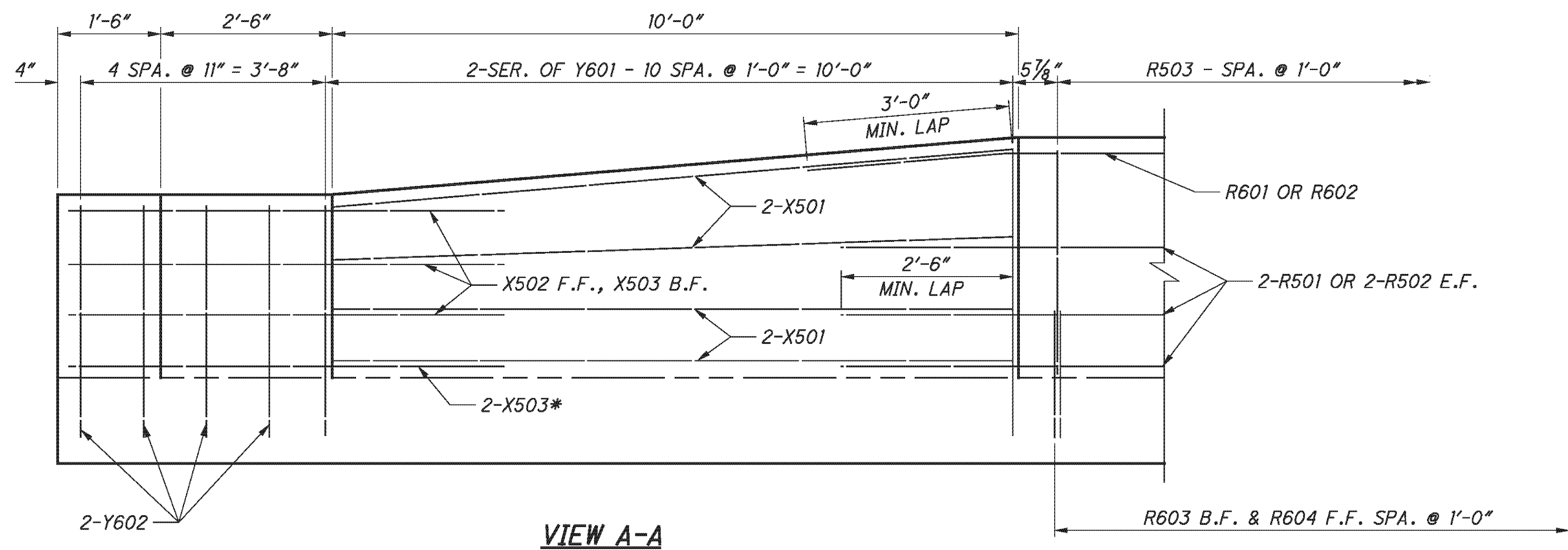
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 DESIGNED: DTA
 CHECKED: RLE

FINAL DECK ELEVATION TABLE - RIGHT BRIDGE
 BRIDGE NO. BEL-70-0775 L/R
 I.R. 70 OVER TWP. RD. 260

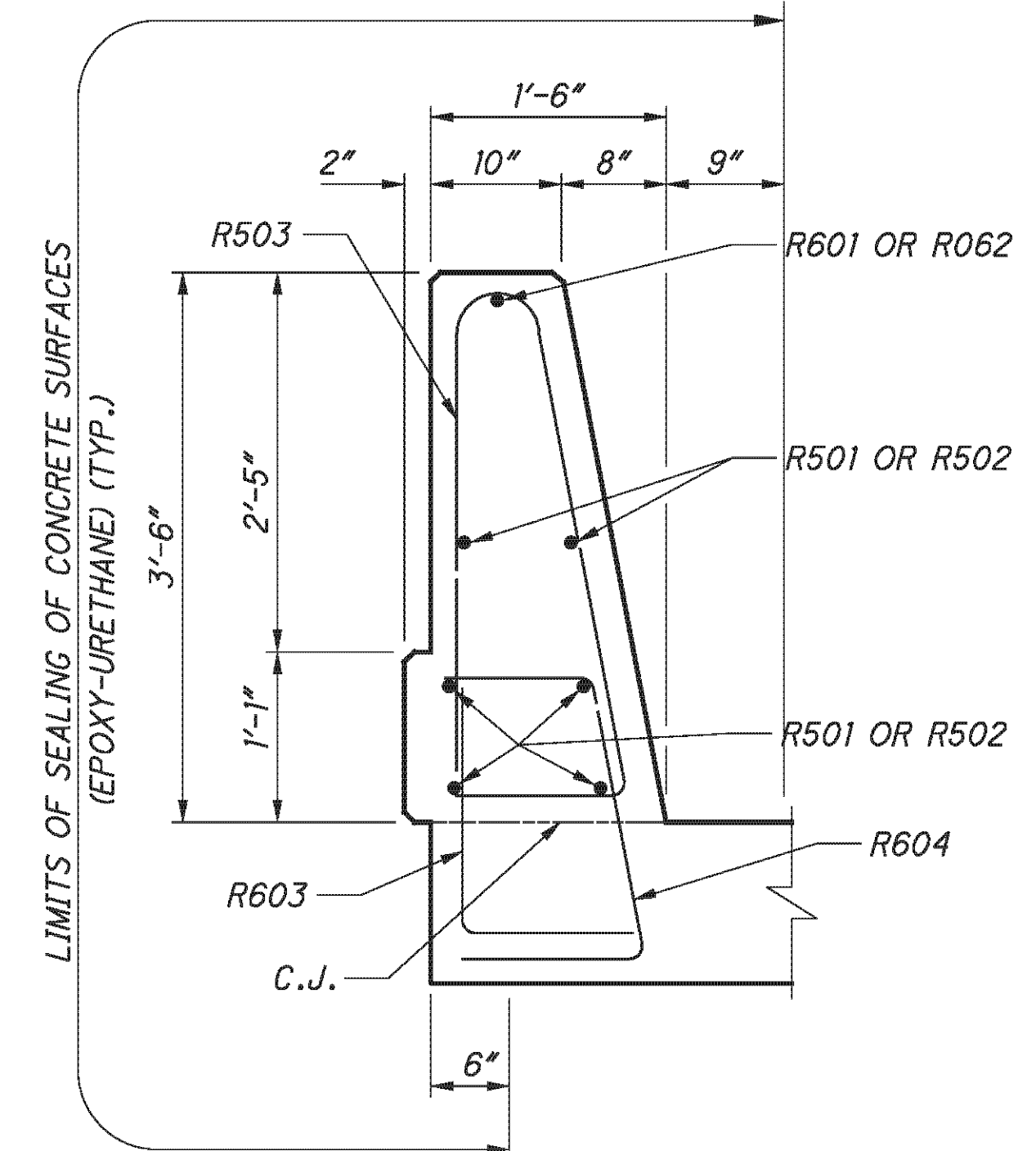
BEL-70-7.61
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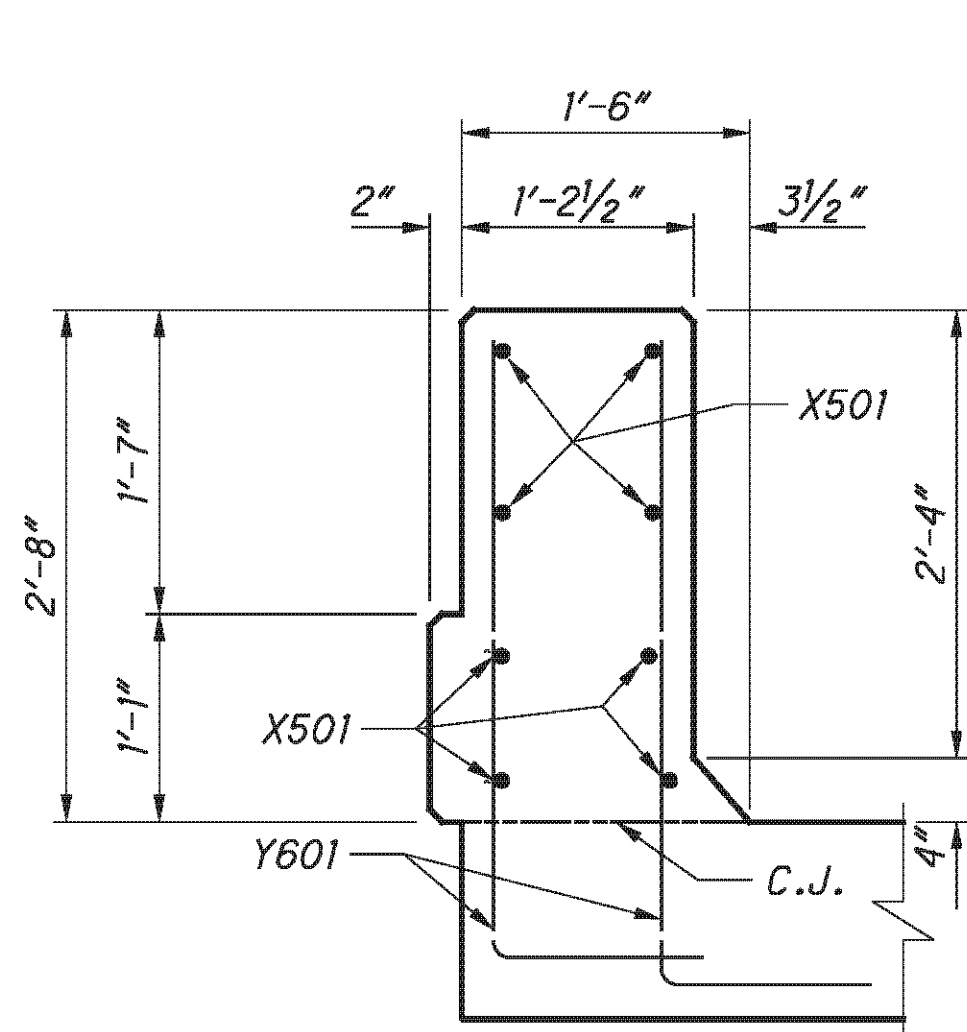
TYPICAL PARAPET TRANSITION DETAIL
LEFT REAR PARAPET SHOWN, OTHER SIMILAR



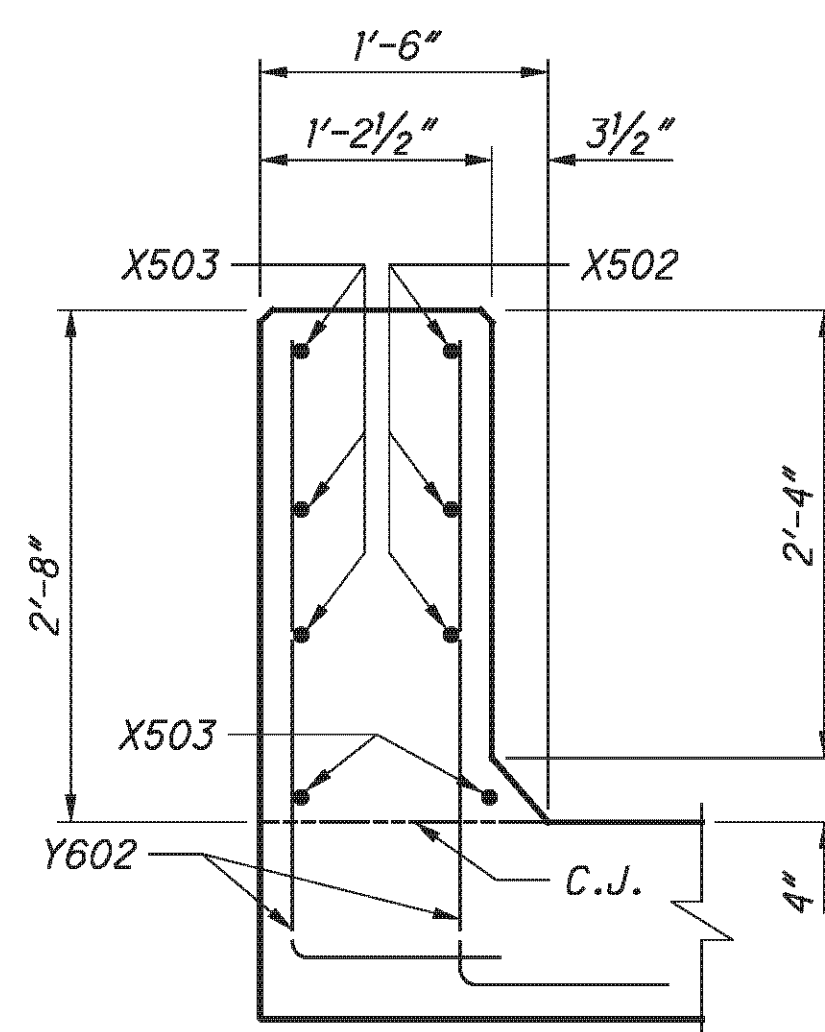
VIEW A-A



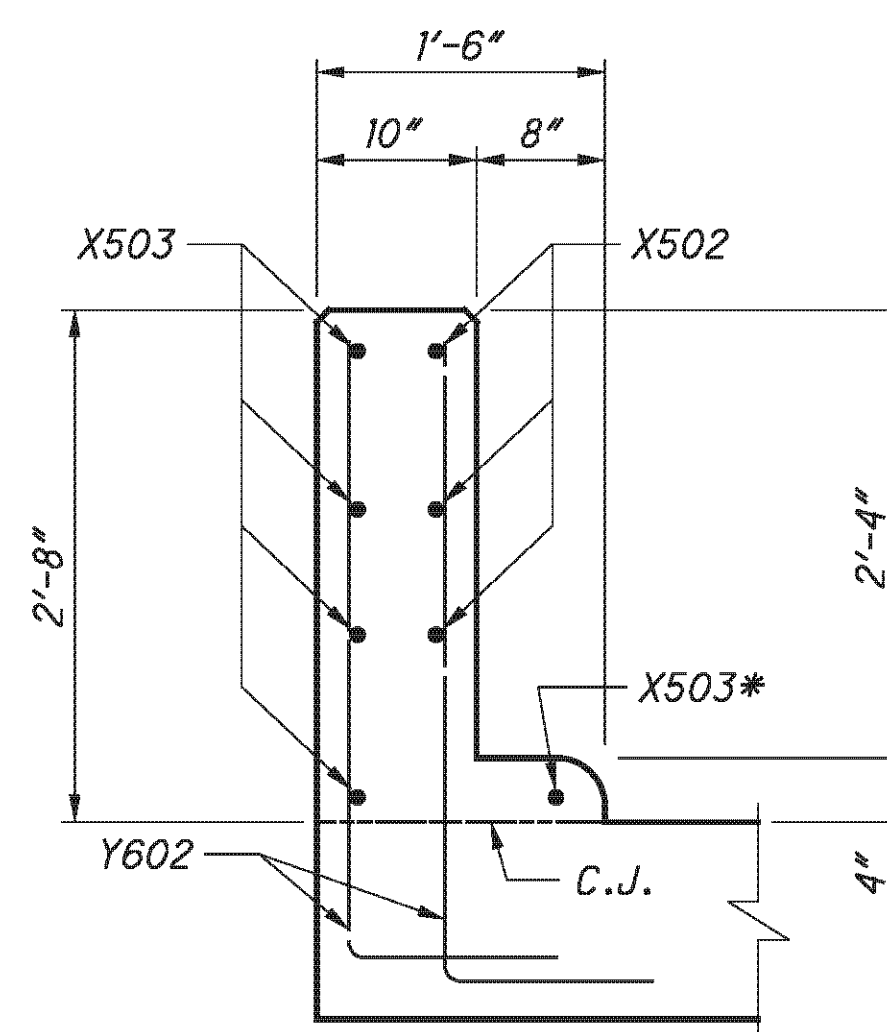
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

LEGEND:

* - FIELD BEND IF NECESSARY

NOTES:

- FOR NOTES AND DETAILS ON CONTROL JOINTS AND OTHER DETAILS NOT SHOWN, SEE ODOT STD. DWG. SBR-1-99.
- FOR BRIDGE TERMINAL ASSEMBLIES, SEE STANDARD CONSTRUCTION DRAWINGS GR-3.1 AND GR-3.2.

P:\76825\structures\BEL070_0775C\sheets\As Builts\070_0775C\MDO002.dgn 12/10/2012 1:57:58 PM cnay

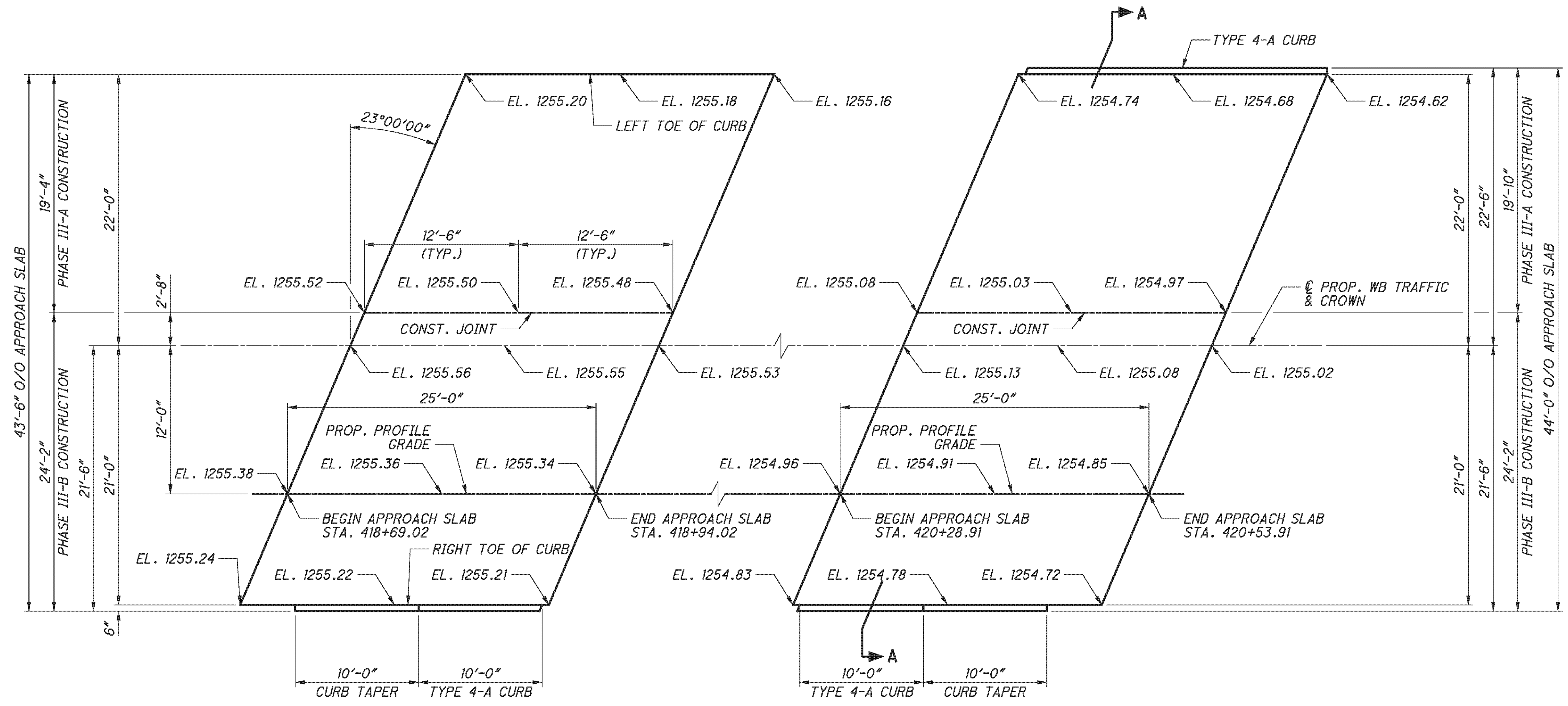
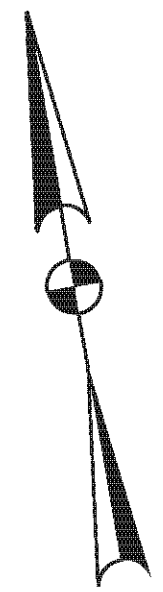
DATE	5/11/10
REVIEWED	DFT
DRAWN	DTA
DESIGNED	DTA
CHECKED	AME
STRUCTURE FILE NUMBER	0702137L/070216R

PARAPET TRANSITION DETAILS

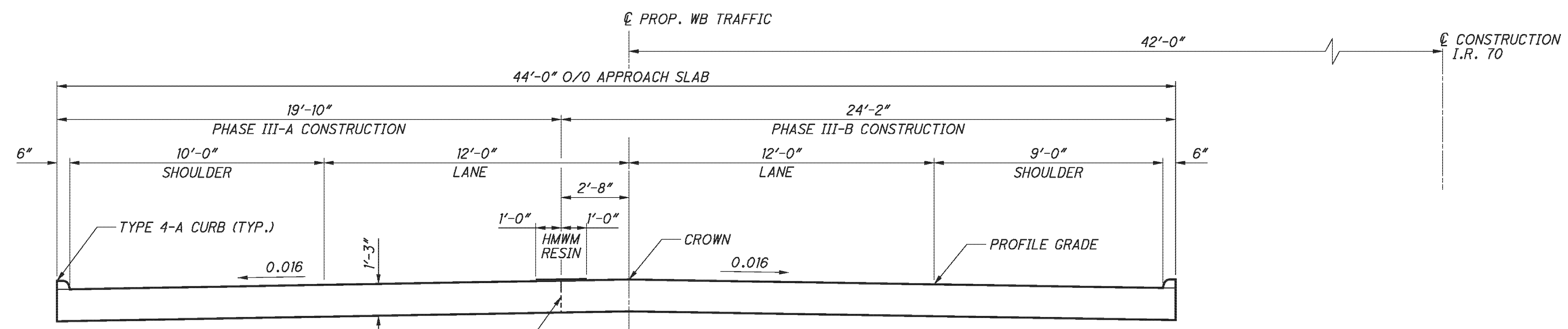
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

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APPROACH SLAB PLAN - LEFT BRIDGE



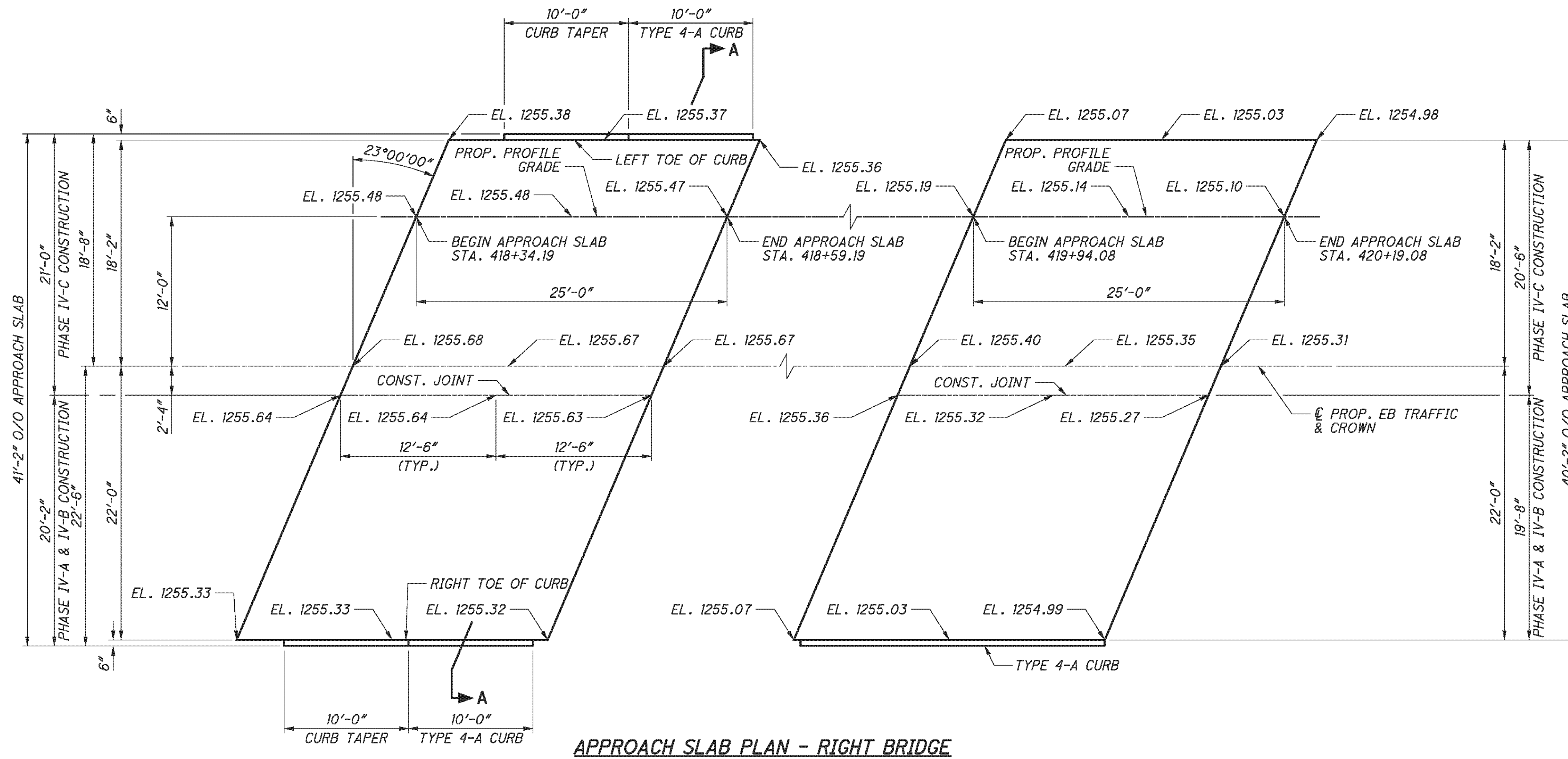
SECTION A-A
TRANSVERSE TO CENTERLINE

NOTES

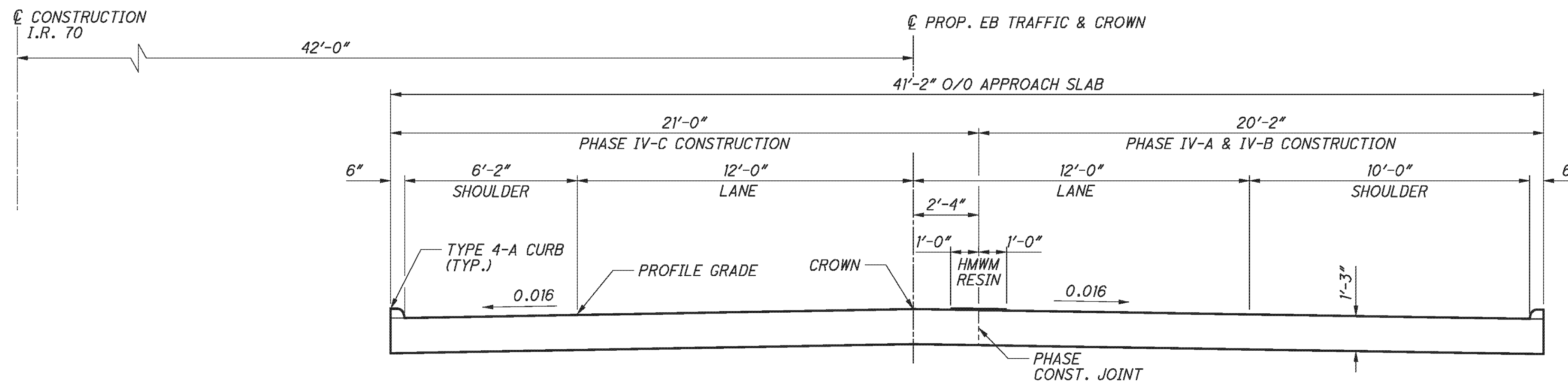
1. SEE ODOT STD. DWG. AS-1-81 FOR ADDITIONAL APPROACH SLAB DETAILS.
2. FOR ADDITIONAL CURB DETAILS SEE ODOT STD. CONSTRUCTION DWG. BP-5.1.
3. TYPE 4-A CURB AND SEALING CONCRETE APPROACH SLAB CONSTRUCTION JOINT WITH HMWM RESIN IS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15"), AS PER PLAN.

E.L. ROBINSON <small>the Challenge, the Choice</small> 1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215	DATE 5/11/10
	REVISION DFT STRUCTURE FILE NUMBER 070213TL/070216IR
DRAWN DTA	CHECKED AME
DESIGNED DTA	REVISED AME
APPROACH SLAB DETAILS - LEFT BRIDGE BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260	
BEL-70-7.61 PID No. 76825	41/46 323 373

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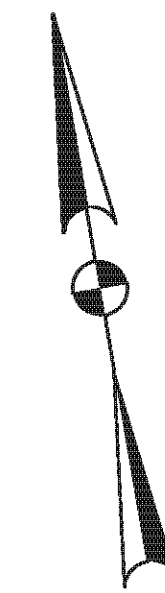
APPROACH SLAB PLAN - RIGHT BRIDGE



SECTION A-A
TRANSVERSE TO CENTERLINE

NOTES

1. SEE ODOT STD. DWG. AS-1-81 FOR ADDITIONAL APPROACH SLAB DETAILS.
2. FOR ADDITIONAL CURB DETAILS SEE ODOT STD. CONSTRUCTION DWG. BP-5.1.
3. TYPE 4-A CURB AND SEALING CONCRETE APPROACH SLAB CONSTRUCTION JOINT WITH HMWM RESIN IS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15'), AS PER PLAN.



		DATE	2/3/11
		REVIEWED	RER
DESIGNED	DTA	CHECKED	RLE
DRAWN	DTA	REVIS	
STRUCTURE FILE NUMBER	0702137L/070216R		
APPROACH SLAB DETAILS - RIGHT BRIDGE BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260			
BEL-70-7.61 PID No. 76825		42 / 46 324 373	

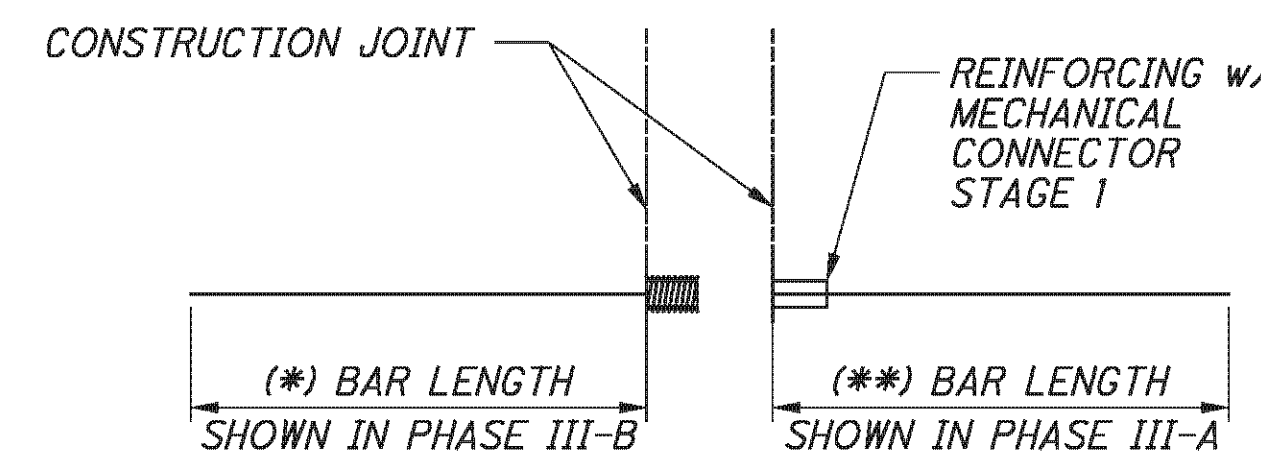
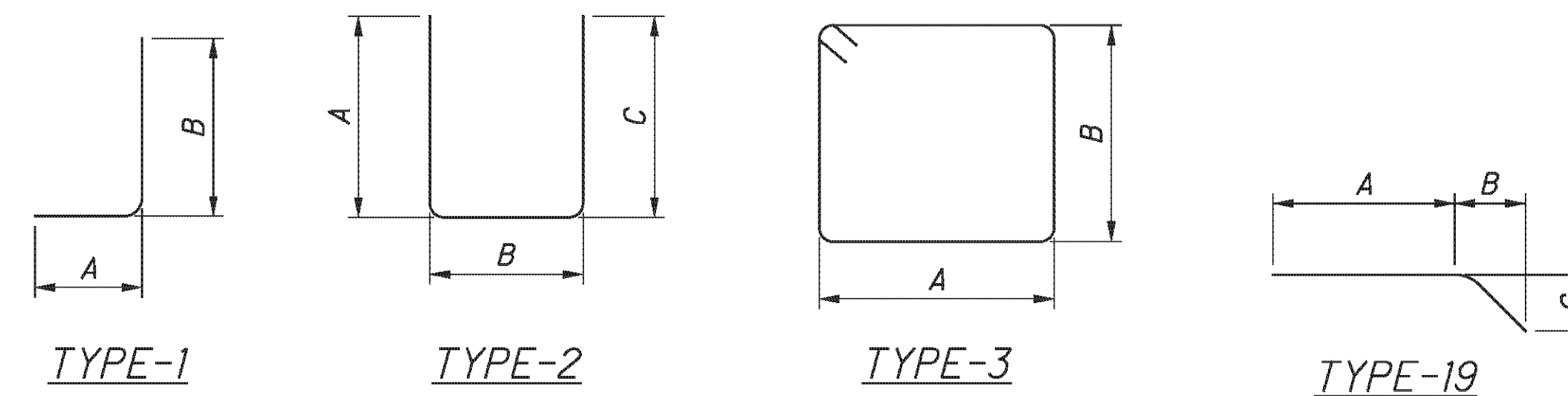
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MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
REAR ABUTMENT - LEFT BRIDGE											
A502	1	15'-4"	16	2	7'-1"	1'-5"	7'-1"				
A503	1	16'-8"	17	2	7'-9"	1'-5"	7'-9"				
A504	3	17'-10"	56	2	8'-4"	1'-5"	8'-4"				
A505	3	5'-9"	18	STR							
A506	3	5'-2"	16	STR							
A507	1	6'-1"	6	19	3'-1"	2'-9"	1'-3"				
A508	1	5'-5"	6	19	3'-1"	2'-1"	1'-0"				
A509	1	14'-8"	15	2	6'-9"	1'-5"	6'-9"				
A510	1	15'-10"	17	2	7'-4"	1'-5"	7'-4"				
A511	1	17'-0"	18	2	7'-11"	1'-5"	7'-11"				
A512	2	17'-10"	37	2	8'-4"	1'-5"	8'-4"				
A513	2	5'-2"	11	STR							
A514	2	5'-9"	12	STR							
A515	1	4'-8"	5	STR							
A516	1	5'-3"	5	STR							
A517	1	5'-7"	6	19	4'-0"	1'-5"	0'-8"				
A518	1	6'-2"	6	19	4'-0"	2'-0"	0'-11"				
SUB-TOTAL		267									

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
FORWARD ABUTMENT - LEFT BRIDGE											
A519	1	15'-0"	16	2	6'-11"	1'-5"	6'-11"				
A520	1	16'-4"	17	2	7'-7"	1'-5"	7'-7"				
A521	3	17'-6"	55	2	8'-2"	1'-5"	8'-2"				
A522	3	5'-9"	18	STR							
A523	3	5'-2"	16	STR							
A524	1	6'-1"	6	19	3'-2"	2'-8"	1'-3"				
A525	1	5'-6"	6	19	3'-2"	2'-1"	1'-0"				
A530	2	5'-2"	11	STR							
A531	2	5'-9"	12	STR							
A532	1	5'-7"	6	19	4'-0"	1'-5"	0'-8"				
A533	1	6'-2"	6	19	4'-0"	2'-0"	0'-11"				
A534	1	4'-7"	5	STR							
A535	1	5'-2"	5	STR							
A541	5	13'-11"	73	2	6'-6"	1'-2"	6'-6"				
A542	22	15'-2"	348	3	3'-5"	3'-10"					
A543	2	10'-11"	23	2	4'-6"	2'-2"	4'-6"				
A544	1	9'-11"	10	2	4'-0"	2'-2"	4'-0"				
A545	1	8'-9"	9	2	3'-5"	2'-2"	3'-5"				
A546	1	7'-7"	8	2	2'-10"	2'-2"	2'-10"				
A901	8	21'-6"	585	STR							
A1001	10	24'-8"	1061	1	3'-6"	21'-6"					
SUB-TOTAL		2,296									

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
PIERS - LEFT BRIDGE											
** P401	12	21'-8"	174	STR							
* P402	12	25'-0"	200	STR							
P403	12	6'-6"	52	2	2'-0"	2'-8"	2'-0"				
P501	134	12'-8"	1770	3	2'-8"	3'-4"					
** P901	12	24'-3"	990	1	2'-10"	21'-8"					
* P902	12	27'-6"	1123	1	2'-10"	25'-0"					
** P903	12	21'-8"	884	STR							
* P904	12	25'-0"	1020	STR							
SUB-TOTAL		6,213									

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R
EXISTING BARS - LEFT BRIDGE												
EA502	32		32	3'-9"	125	STR						
EA503	32		32	8'-10"	295	2	2'-10"	3'-5"	2'-10"			
** EA505	14		14	22'-8"	331	STR						
EA516	8		8	10'-4"	86	STR						
EA517	8		8	8'-9"	73	STR						
EA522	36		36	3'-5"	128	2	0'-9"	2'-2"	0'-9"			
EA601	32		32	4'-0"	192	STR						
EB503		4	4	22'-8"	95	STR						
EB504		64	64	8'-2"	545	2	2'-6"	3'-5"	2'-6"			
EB505		36	36	3'-5"	128	2	0'-9"	2'-2"	0'-9"			
EB515		8	8	10'-4"	86	STR						
EB1001		16	16	22'-8"	1561	STR						
SUB-TOTAL		3,645										



LEGEND:

- * - BAR CONTAINED IN PHASE III-B
- ** - BAR CONTAINED IN PHASE III-A

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
2. ALL REINFORCING STEEL TO BE EPOXY COATED.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Split, Ohio 43215

DESIGNED: DTA
CHECKED: AME

DRAWN: DTA
REVISED:

REVIEWED: DFT
STRUCTURE FILE NUMBER: 0702137L/0702161R

DATE: 5/11/10

REINFORCING STEEL LIST

BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

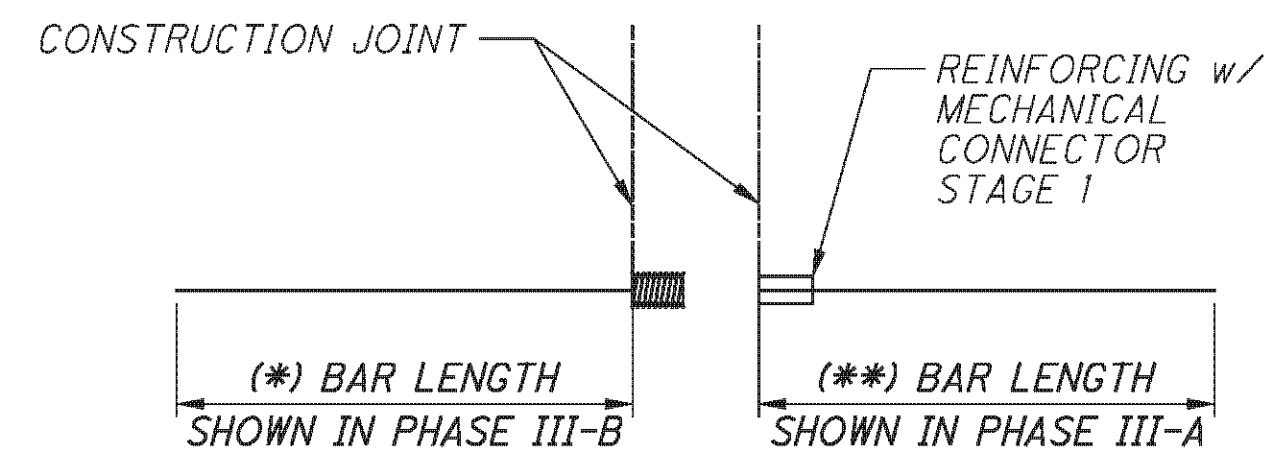
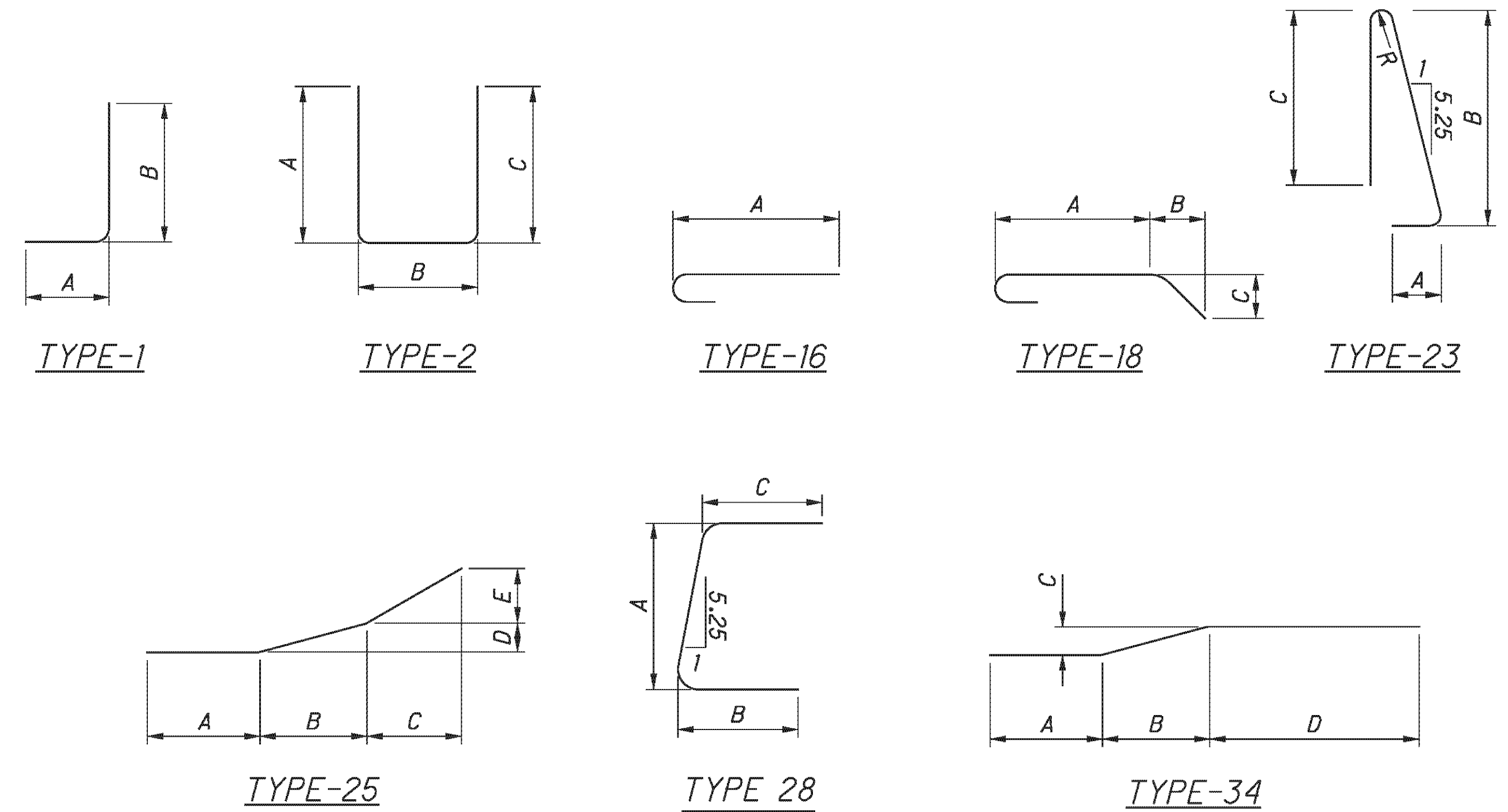
BEL-70-7.61
PID No. 76825

43/46

325
373

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
SUPERSTRUCTURE - LEFT BRIDGE											
S401	184		30'-0"	3687	STR						
S402	46		22'-7"	694	STR						
S501	212		30'-0"	6633	STR						
S502	53		27'-7"	1525	STR						
S503	221		23'-10"	5494	STR						
S504	221		25'-0"	5763	STR						
	2 SR		5'-11"								
S505	OF		TO	425	STR						1'-4"
	14		23'-2"								
	2 SR		6'-2"								
S506	OF		TO	432	STR						1'-4"
	14		23'-5"								
	2 SR		6'-6"								
S507	OF		TO	442	STR						1'-4"
	14		23'-9"								
	2 SR		6'-9"								
S508	OF		TO	449	STR						1'-4"
	14		24'-0"								
S509	72		8'-2"	613	2	2'-6"	3'-5"	2'-6"			
S510	36		7'-2"	269	2	2'-5"	2'-7"	2'-5"			
S511	72		8'-6"	638	2	2'-8"	3'-5"	2'-8"			
S512	36		7'-2"	269	2	2'-5"	2'-7"	2'-5"			
S513	221		24'-1"	5551	34	3'-5"	0'-9 1/2"	0'-3 1/2"	19'-10"		
S514	221		24'-11"	5743	34	3'-5"	0'-8 1/2"	0'-3"	20'-8"		
S601	92		30'-0"	4146	STR						
* S801	28		22'-5"	1676	STR						
** S802	28		27'-2"	2031	STR						
S803	58		5'-2"	800	18	2'-10"	1'-0"	1'-0"			
SUB-TOTAL				47,280							

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
PARAPET - LEFT BRIDGE											
R501	18		30'-0"	563	STR						
R502	6		8'-4"	52	STR						
R503	216		7'-5"	1671	23	1'-1"	3'-2"	3'-0"			0'-2 3/4"
R601	6		30'-0"	270	STR						
R602	2		11'-0"	33	STR						
R603	216		2'-5"	784	1	1'-1"	1'-6"				
R604	216		3'-4"	1081	28	1'-6"	1'-1"	1'-6"			
X501	32		10'-0"	334	STR						
X502	12		5'-6"	69	25	1'-8"	2'-5"	1'-4"	0'-1 1/2"	0'-5"	
X503	20		5'-0"	104	STR						
	8 SR		4'-3"				3'-4"				
Y601	OF		TO	617	1	1'-1"	TO				0'-1"
	11		5'-1"				4'-2"				
Y602	32		4'-3"	204	1	1'-1"	3'-4"				
SUB-TOTAL				5,782							



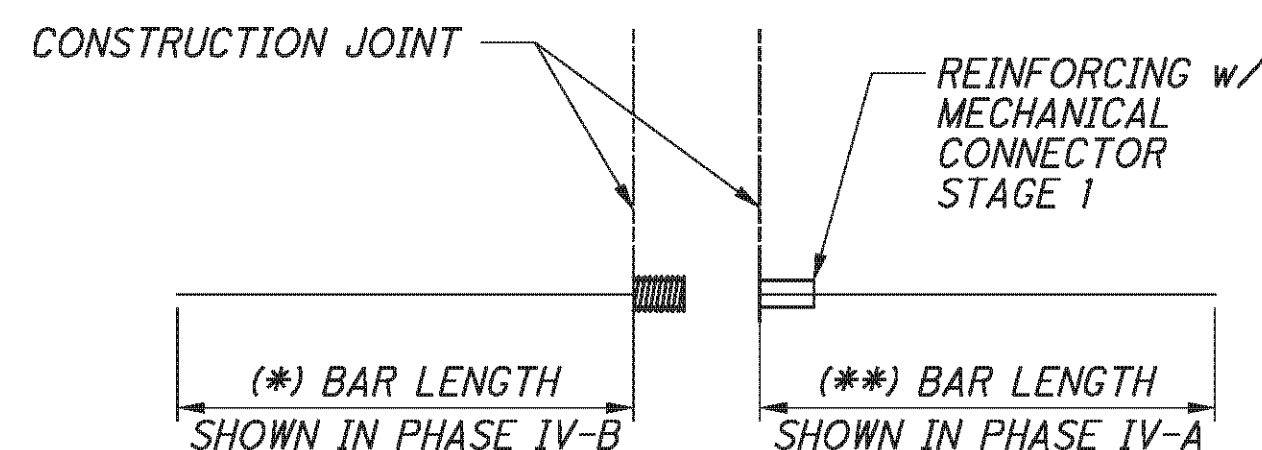
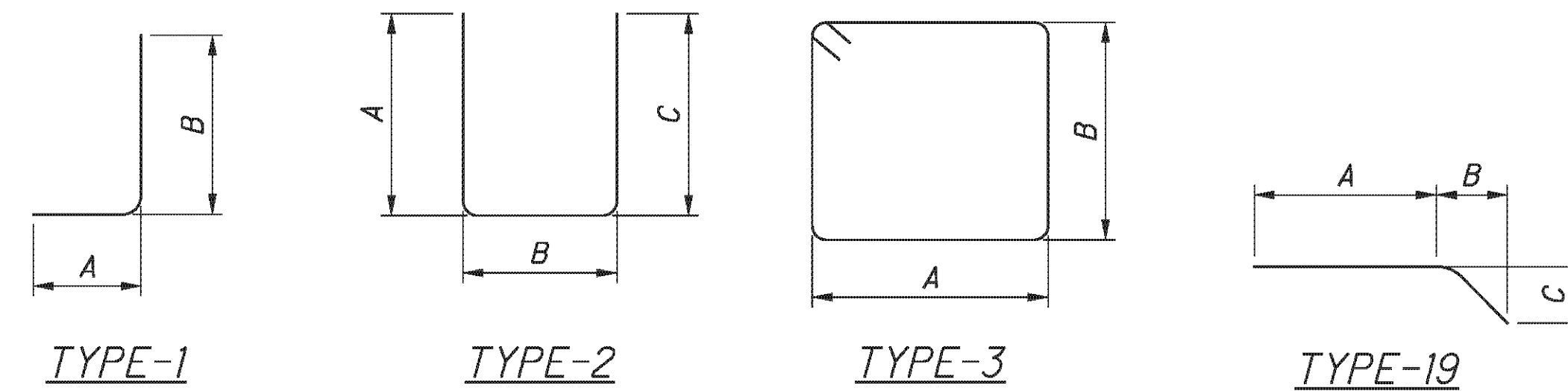
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MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
REAR ABUTMENT - RIGHT BRIDGE											
A502	1	12'-0"	13	2	5'-5"	1'-5"	5'-5"				
A503	1	10'-8"	11	2	4'-9"	1'-5"	4'-9"				
	1 SR	15'-2"			7'-0"		7'-0"				
A504	OF	TO	51	2	TO	1'-5"	TO				0'-6"
	3	17'-2"			8'-0"		8'-0"				
A505	4	17'-10"	74	2	8'-4"	1'-5"	8'-4"				
	1 SR	13'-2"			6'-0"		6'-0"				
A506	OF	TO	45	2	TO	1'-5"	TO				0'-7 1/2"
	3	15'-8"			7'-3"		7'-3"				
A507	3	5'-9"	18	STR							
A508	3	5'-2"	16	STR							
A509	1	5'-11"	6	19	3'-4"	2'-5"	1'-0"				
A510	1	5'-4"	6	19	3'-4"	1'-10"	0'-9"				
A512	2	8'-2"	17	STR							
A513	2	8'-9"	18	STR							
A514	1	4'-11"	5	STR							
A515	1	5'-6"	6	STR							
A516	1	8'-10"	9	19	7'-3"	1'-5"	0'-8"				
A517	1	9'-6"	10	19	7'-3"	2'-1"	0'-11"				
SUB-TOTAL			305								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
FORWARD ABUTMENT - RIGHT BRIDGE											
A520	1	12'-10"	13	2	5'-10"	1'-5"	5'-10"				
A521	1	11'-8"	12	2	5'-3"	1'-5"	5'-3"				
	1 SR	14'-2"			6'-6"		6'-6"				
A522	OF	TO	48	2	TO	1'-5"	TO				0'-7 1/2"
	3	16'-8"			7'-9"		7'-9"				
A523	4	17'-2"	72	2	8'-0"	1'-5"	8'-0"				
	1 SR	13'-10"			6'-4"		6'-4"				
A525	OF	TO	47	2	TO	1'-5"	TO				0'-8"
	3	16'-6"			7'-8"		7'-8"				
A526	2	8'-10"	18	STR							
A527	2	8'-2"	17	STR							
A528	1	5'-9"	6	STR							
A529	1	5'-2"	5	STR							
A530	1	9'-5"	10	19	6'-6"	2'-8"	1'-3"				
A531	1	8'-10"	9	19	6'-6"	2'-1"	1'-0"				
A532	2	5'-2"	11	STR							
A533	2	5'-9"	12	STR							
A534	1	4'-6"	5	STR							
A535	1	5'-1"	5	STR							
A536	1	5'-6"	6	19	3'-11"	1'-5"	0'-8"				
A537	1	6'-1"	6	19	3'-11"	2'-0"	0'-11"				
SUB-TOTAL			302								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
PIERS - RIGHT BRIDGE											
P401	12	20'-10"	167	STR							
P402	12	24'-6"	196	STR							
P403	12	6'-6"	52	2	2'-0"	2'-8"	2'-0"				
P501	66	12'-10"	883	3	2'-8"	3'-5"					
P502	66	12'-8"	872	3	2'-8"	3'-4"					
** P901	12	23'-5"	955	1	2'-10"	20'-10"					
* P902	12	27'-1"	1105	1	2'-10"	24'-6"					
** P903	12	20'-10"	850	STR							
* P904	12	24'-6"	1000	STR							
SUB-TOTAL			6,080								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R
EXISTING BARS - LEFT BRIDGE												
EA502	32	32	64	3'-9"	250	STR						
EA503	32	32	64	8'-10"	590	2	2'-10"	3'-5"	2'-10"			
** EA504	7	7	14	22'-5"	327	STR						
* EA505	7	7	14	22'-8"	331	STR						
EA516	16	16	32	10'-4"	345	STR						
EA522	36	36	72	3'-5"	257	2	0'-9"	2'-2"	0'-9"			
EA601	32	32	64	4'-0"	385	STR						
SUB-TOTAL					2,485							



MECHANICAL CONNECTOR DETAIL

LEGEND:

- * - BAR CONTAINED IN PHASE IV-B
- ** - BAR CONTAINED IN PHASE IV-A

NOTES:

- THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
- ALL REINFORCING STEEL TO BE EPOXY COATED.

DESIGNED	DATE	REVIEWED	DATE
DTA	2/3/11	RER	2/3/11
CHECKED	FILE NUMBER	STRUCTURE	FILE NUMBER
RLE	0702137L/070216R	0702137L/070216R	0702137L/070216R

REINFORCING STEEL LIST

BRIDGE NO. BEL-70-0775 L/R

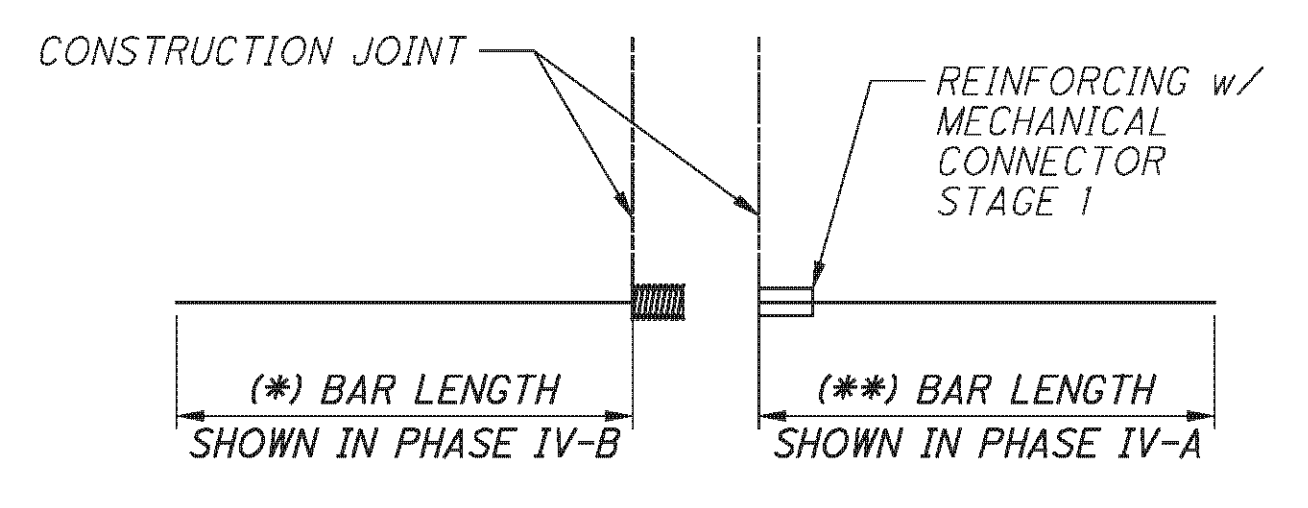
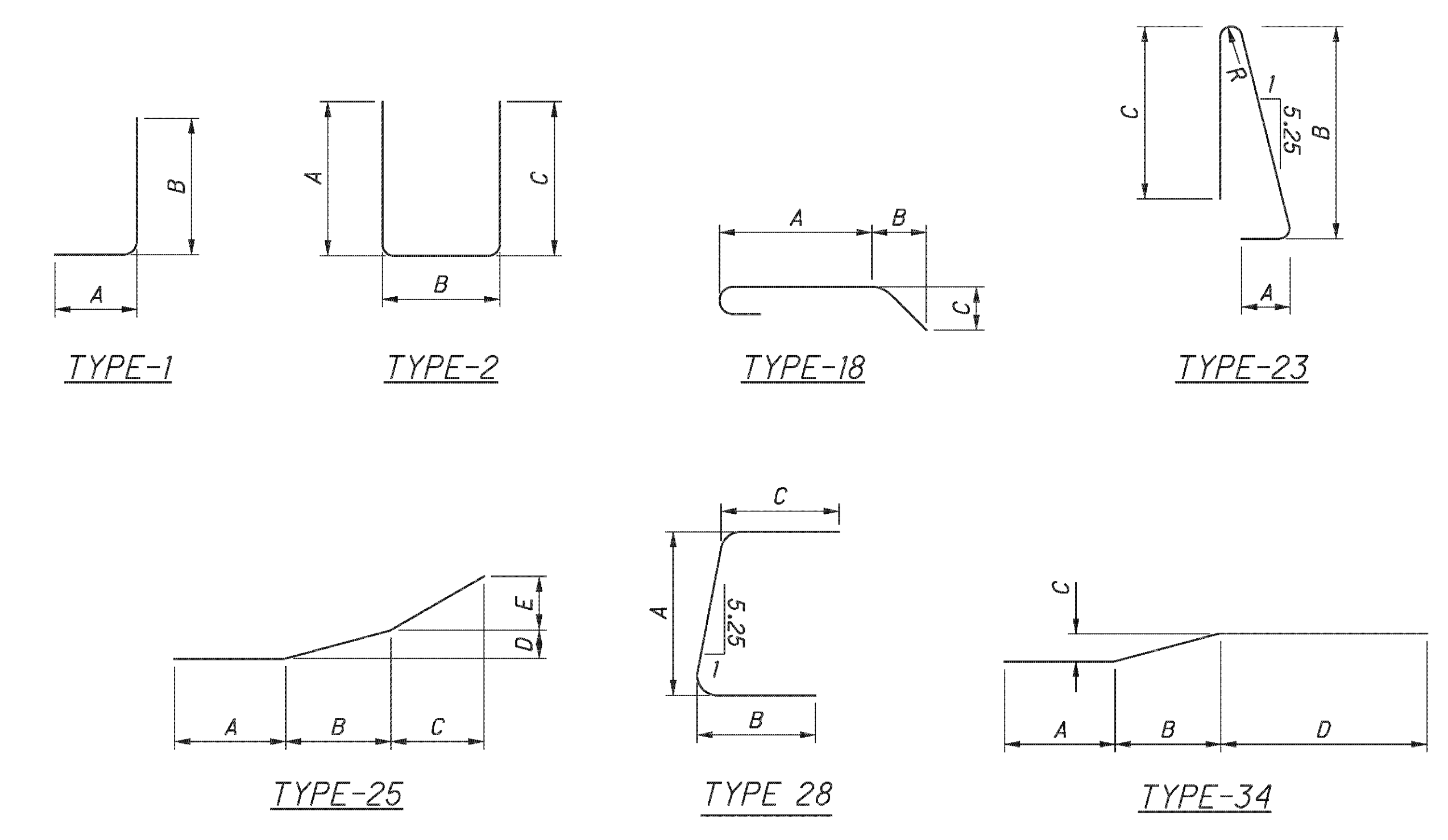
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61	45 / 46
PID No. 76825	(327)
	(373)

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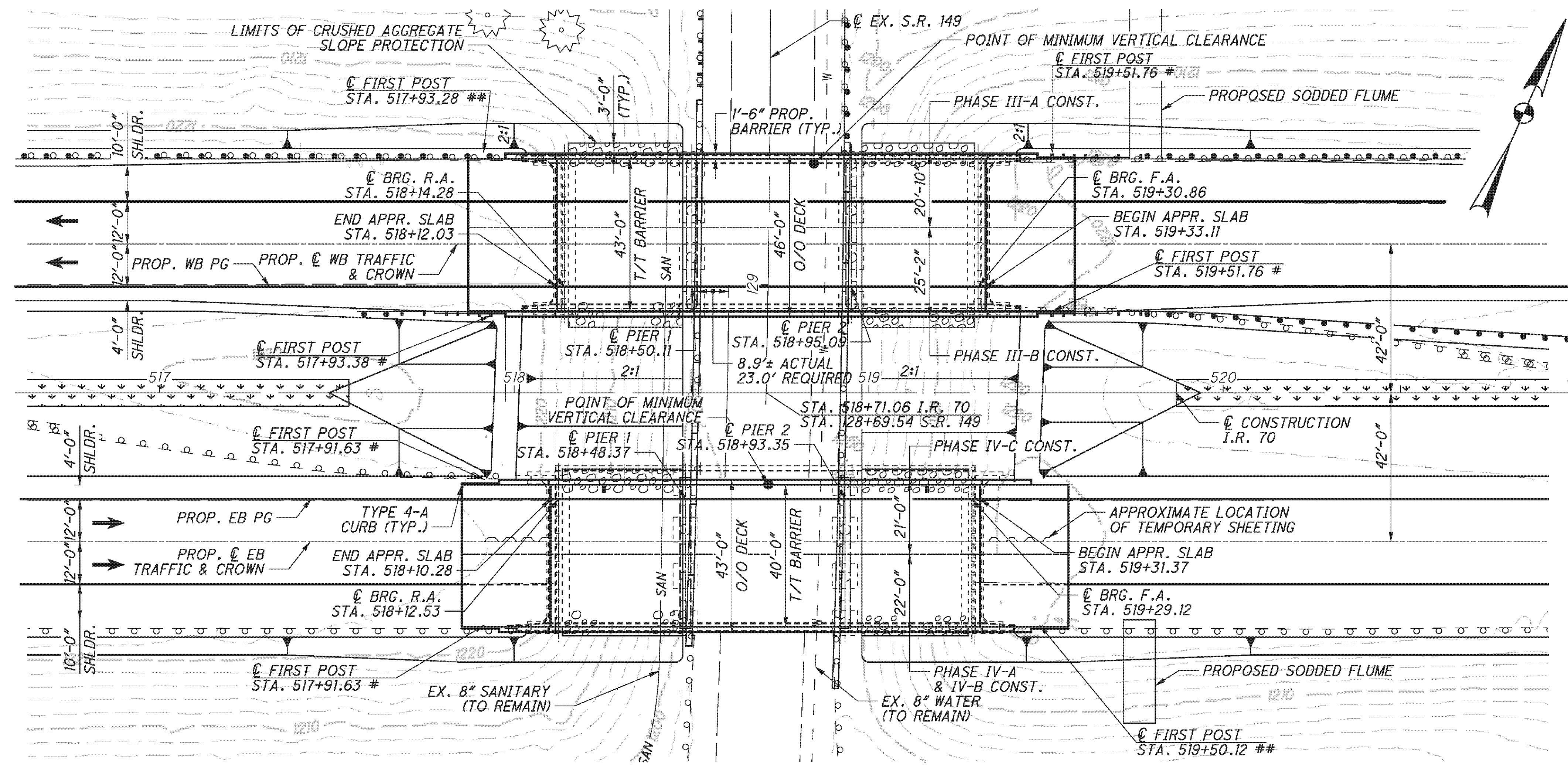
MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
SUPERSTRUCTURE - RIGHT BRIDGE											
S401	176		30'-0"	3527	STR						
S402	44		22'-7"	664	STR						
S501	184		30'-0"	5757	STR						
S502	46		27'-7"	1323	STR						
S503	216		21'-9"	4900	STR						
S504	213		24'-5"	5424	STR						
	2 SR		5'-0"								
S505	OF		TO	315	STR						1'-4 1/2"
	12		20'-2"								
	2 SR		4'-9"								
S506	OF		TO	309	STR						1'-4 1/2"
	12		19'-11"								
	2 SR		5'-4"								
S507	OF		TO	417	STR						1'-4 1/2"
	14		23'-3"								
	2 SR		5'-11"								
S508	OF		TO	434	STR						1'-4 1/2"
	14		23'-10"								
S509	216		21'-8"	4881	34	1'-3"	0'-9"	0'-3"	19'-8"		
S510	213		24'-5"	5424	34	4'-1"	0'-9"	0'-3"	19'-7"		
S511	136		8'-6"	1206	2	2'-8"	3'-5"	2'-8"			
S512	68		7'-2"	508	2	2'-5"	2'-7"	2'-5"			
S513	24		4'-0"	100	STR						
S601	86		30'-0"	3875	STR						
* S801	28		22'-10"	1707	STR						
** S802	28		23'-8"	1769	STR						
S803	58		5'-2"	800	18	2'-10"	1'-0"	1'-0"			
SUB-TOTAL			43,340								

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
PARAPET - RIGHT BRIDGE											
R501	48		30'-0"	1502	STR						
R502	12		8'-4"	104	STR						
R503	216		7'-5"	1671	23	1'-1"	3'-2"	3'-0"			0'-2 3/4"
R601	8		30'-0"	360	STR						
R602	2		11'-0"	33	STR						
R603	216		2'-7"	838	1	1'-1"	1'-8"				
R604	216		3'-4"	1081	28	1'-8"	1'-1"	0'-11"			
X501	32		10'-0"	334	STR						
X502	12		5'-6"	69	25	1'-8"	2'-5"	1'-4"	0'-1 1/2"	0'-5"	
X503	20		5'-0"	104	STR						
	8 SR		4'-2"				3'-3"				
Y601	OF		TO	617	1	1'-1"	TO				0'-1"
	11		5'-1"				4'-1"				
Y602	32		4'-1"	196	1	1'-1"	3'-2"				
SUB-TOTAL			6,909								

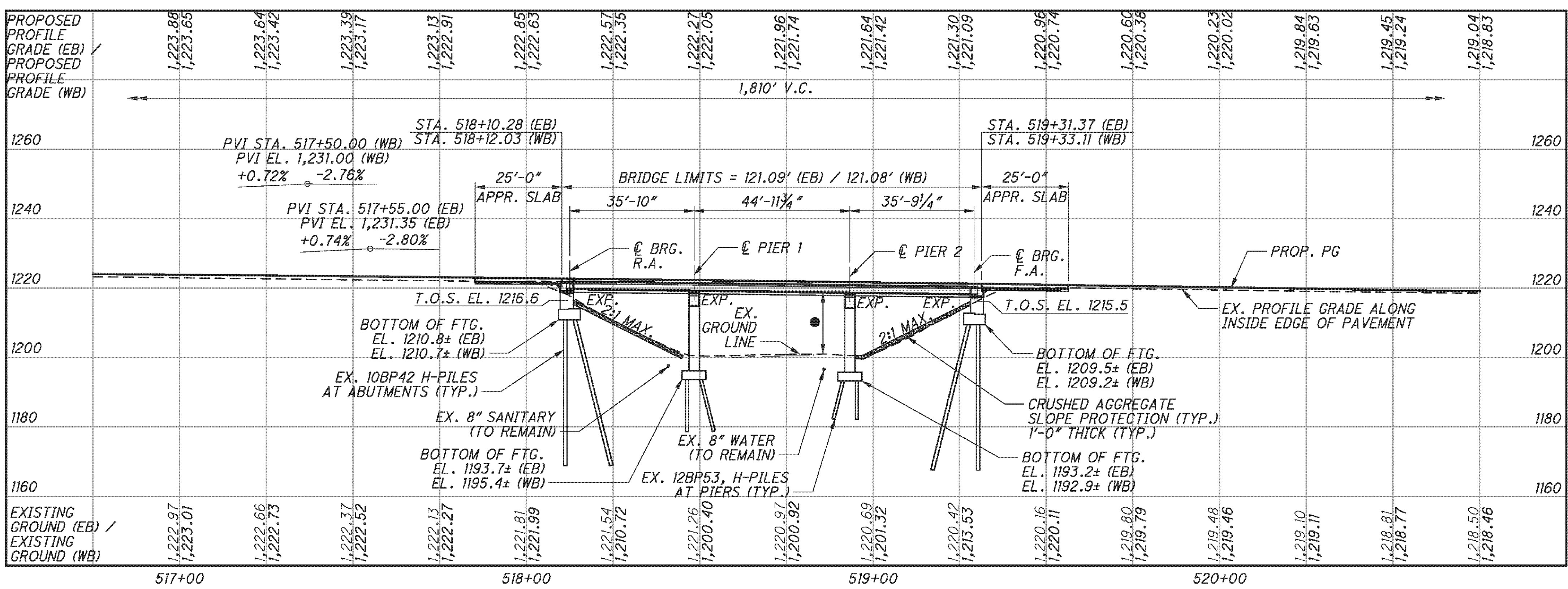


MECHANICAL CONNECTOR DETAIL

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PLAN



PROFILE ALONG EASTBOUND PROFILE GRADE

BENCHMARK DATA

BM #21 STA. 512+00.68, ELEV. 1226.57, OFFSET 0.16 RT., CENTERLINE MONUMENT FOUND
 BM #22 STA. 524+00.62, ELEV. 1213.74, OFFSET 0.14 RT., CENTERLINE MONUMENT FOUND

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 5/372

NOTES

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
 - ALL EXISTING DIMENSIONS ARE ±.
- DESIGN TRAFFIC:
 2010 ADT = 35,870 2010 ADTT = 17,935
 2030 ADT = 46,890 2030 ADTT = 23,445
 DIRECTIONAL DISTRIBUTION = 0.55

LEGEND

- 14.8' EXISTING MINIMUM VERTICAL CLEARANCE - LEFT BRIDGE
- 17.1' EXISTING MINIMUM VERTICAL CLEARANCE - RIGHT BRIDGE
- 16.1' PROPOSED MINIMUM VERTICAL CLEARANCE - LEFT BRIDGE
- 18.8' PROPOSED MINIMUM VERTICAL CLEARANCE - RIGHT BRIDGE
- 15.5' REQUIRED MINIMUM VERTICAL CLEARANCE BOTH BRIDGES

BRIDGE TERMINAL ASSEMBLY TYPE 1
 ## BRIDGE TERMINAL ASSEMBLY TYPE 2
 BRIDGE TERMINAL ASSEMBLIES ARE INCLUDED WITH ROADWAY QUANTITIES FOR PAYMENT

PROPOSED WORK

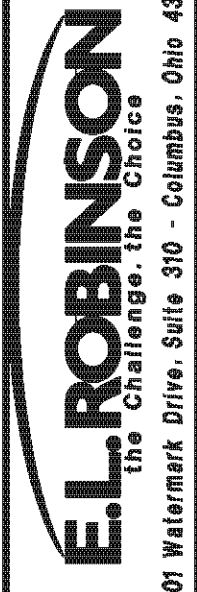
- REMOVE AND REPLACE CONCRETE DECK, STEEL BEAMS, CONCRETE PIER CAPS AND APPROACH SLABS IN PHASES.
- CONVERT ABUTMENTS TO SEMI-INTEGRAL.
- PATCH PIER COLUMNS.
- INSTALL CRUSHED AGGREGATE SLOPE PROTECTION.
- REMOVE BRUSH UNDER STRUCTURE AND FROM 20 FT. EACH SIDE OF STRUCTURE.
- SEAL CONCRETE SURFACES ON PIERS, ABUTMENTS & SUPERSTRUCTURE.

EXISTING STRUCTURE

TYPE: 3-SPAN CONTINUOUS STEEL BEAM WITH CONCRETE DECK AND SUBSTRUCTURE
 SPANS: 35'-10" ± - 44'-11 3/4" ± - 35'-9 1/4" C/C BEARINGS
 ROADWAY: 39'-8" T/T SAFETY CURB (WB), 43'-0" T/T SAFETY CURB TO T/ PARAPET (EB)
 LOADING: CF 2000 (57) (WB), HS20 AND THE ALTERNATE MILITARY LOADING (EB) (SUPERSTRUCTURE)
 SKEW: NONE
 APPROACH SLABS: AS-1-54 (25' LONG)
 WEARING SURFACE: MICROSILICA MODIFIED CONCRETE OVERLAY (WB), 1" MONOLITHIC CONCRETE AND MICROSILICA MODIFIED CONCRETE OVERLAY (EB)
 ALIGNMENT: TANGENT
 CROWN: 0.016
 STRUCTURE FILE NUMBER: 0702226L/0702250R
 DATE BUILT: 1964

PROPOSED STRUCTURES

TYPE: 3-SPAN CONTINUOUS COMPOSITE STEEL BEAM A709 GRADE 50W SUPPORTED BY MODIFIED SUBSTRUCTURE
 SPANS: 35'-10" ± - 44'-11 3/4" ± - 35'-9 1/4" C/C BEARINGS
 ROADWAY: 40'-0" T/T BARRIER (EB), 43'-0" T/T BARRIER (WB)
 LOADING: HS20 CASE I AND THE ALTERNATE MILITARY LOADING (SUPERSTRUCTURE)
 FUTURE WEARING SURFACE: 60 PSF
 SKEW: NONE
 APPROACH SLABS: AS-1-81, 25' LONG (MODIFIED)
 ALIGNMENT: TANGENT
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 CROWN: 0.016
 COORDINATES: LATITUDE 40°03'36" N, LONGITUDE 81°03'10" W
 STRUCTURE FILE NUMBER: 0702226L/0702250R



DATE: 2/3/11
 REVISION: RER
 STRUCTURE FILE NUMBER: 0702226L/0702250R

DRAWN: DTA
 CHECKED: AME

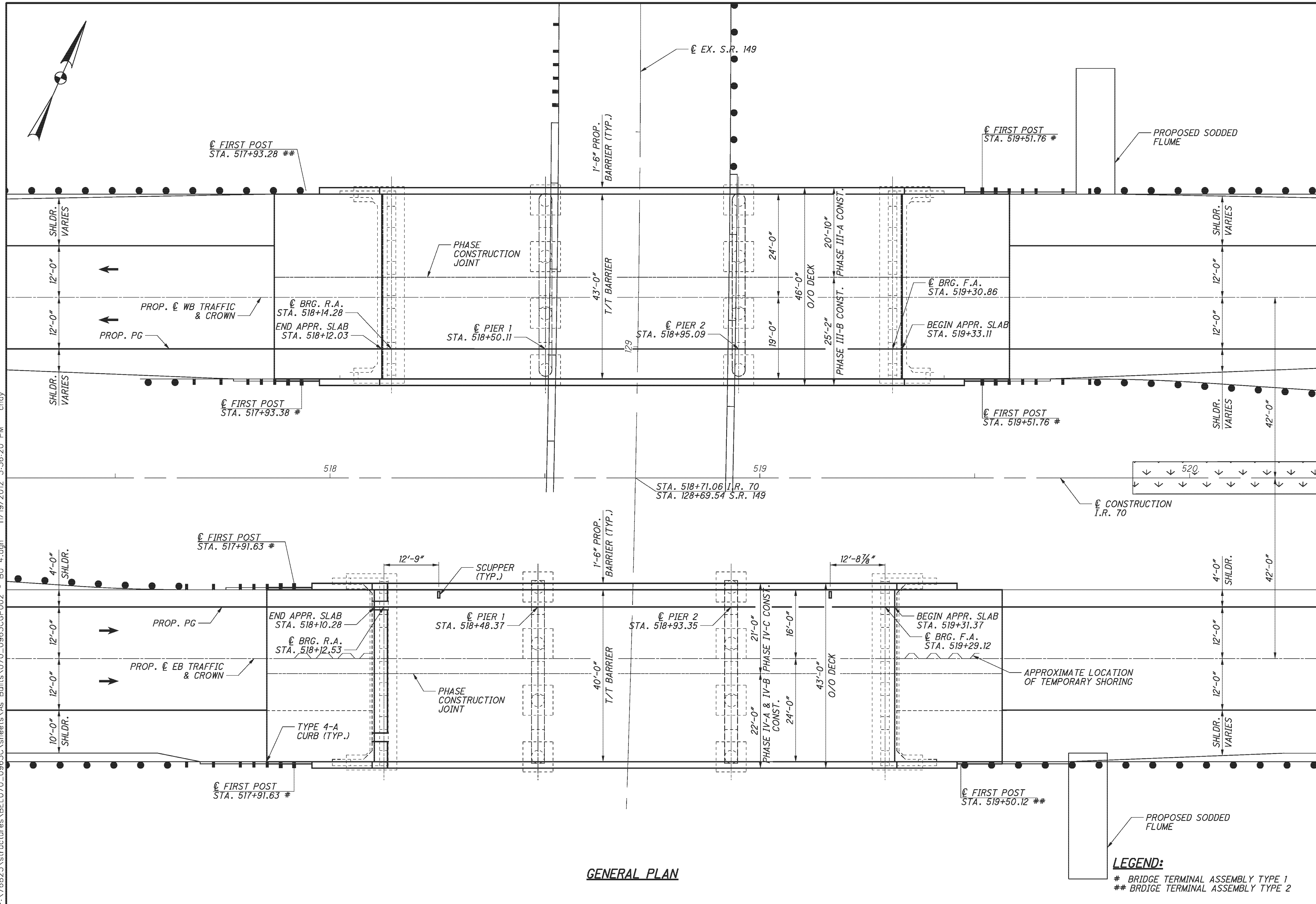
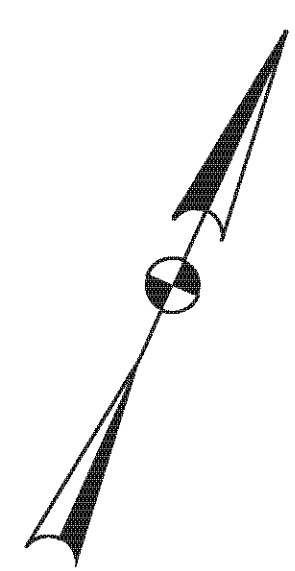
BELMONT COUNTY (WESTBOUND)
 STA. 518+12.03
 STA. 519+33.11

BELMONT COUNTY (EASTBOUND)
 STA. 518+10.28
 STA. 519+31.37

SITE PLAN
 BRIDGE NO. BEL-70-0963 L/R
 I.R. 70 OVER S.R. 149

BEL-70-7.61
 PID No. 76825

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GENERAL PLAN

LEGEND:
BRIDGE TERMINAL ASSEMBLY TYPE 1
BRIDGE TERMINAL ASSEMBLY TYPE 2

E.L. ROBINSON
The Challenge, the Choice
1901 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE	2/3/11
REVIEWED	RER
DRAWN	DTA
DESIGNED	DTA
CHECKED	RLE
STRUCTURE FILE NUMBER	0702226L/0702250R

BEL-70-7.61
PID No. 76825

GENERAL PLAN
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BELMONT COUNTY (WESTBOUND)
STA. 518+12.03
STA. 519+33.11

BELMONT COUNTY (EASTBOUND)
STA. 518+10.28
STA. 519+31.37

2/45

330
373

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):
AS-1-81 REVISED 7-19-02
GSD-1-96 REVISED 7-19-02
SBR-1-99 REVISED 7-19-02
SICD-1-96 REVISED 7-19-02
AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):
898 DATED 7-17-09

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS, 2002 - 17th EDITION AND THE 2004 ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

DESIGN LOADING -
SUPERSTRUCTURE - HS20, CASE I AND THE ALTERNATE MILITARY LOADING

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996
- GRADE 60 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50,000 P.S.I.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

EXISTING BRIDGE PLANS

EXISTING BRIDGE PLANS MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR AT THE ODOT DISTRICT ELEVEN OFFICE IN NEW PHILADELPHIA OHIO.

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

MAINTENANCE OF TRAFFIC

SEE ROADWAY PLANS FOR ADDITIONAL MAINTENANCE OF TRAFFIC NOTES AND DETAILS.

ITEM 201 - CLEARING AND GRUBBING

CLEAR AND GRUB ALL VEGETATION UNDER AND WITHIN 20 FEET OF EACH SIDE OF THE EXISTING STRUCTURE.

ITEM 202. PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:
THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL:
REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

ITEM 509 EPOXY COATED REINFORCING STEEL, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. AN ALLOWANCE OF 100 POUNDS IS INCLUDED IN ITEM 509 FOR THIS PURPOSE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 516-SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE

DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE, WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES,+/-, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES,+/-, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY-DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D751	0.094 ± 0.01
BREAKING STRENGTH, GRAB, LBS MINIMUM (LONG. X TRANS.)	D751	700 x 700
ADHESIVE STRIP, 1" WIDE x 2" LONG, LBS MINIMUM	D751	9
BURST STRENGTH, PSI MINIMUM	D751	1400
HEAT AGING, 70 HR, 212 °F, 180° BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLENESS, 1 HR, -40°F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING. A QUANTITY OF 135 SQUARE FEET HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES. THIS ITEM IS TO BE USED AS DIRECTED BY THE ENGINEER AT THE PIER COLUMNS.

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E.L. ROBINSON
The Challenge, the Choice
1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE: 2/3/11
REVIEWED: RER
DRAWN: DTA
DESIGNED: DTA
CHECKED: TUE
STRUCTURE FILE NUMBER: 0702226L/0702250R

GENERAL NOTES
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526 EXCEPT CONCRETE SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 898, QC/QA CONCRETE, CLASS QSC2. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, PARAPETS, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, AND WATERPROOFING. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS. THE DEPARTMENT WILL INITIALLY PAY THE FULL BID PRICE TO THE CONTRACTOR UPON COMPLETING THE WORK. THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN

THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

DECK PLACEMENT DESIGN ASSUMPTIONS:

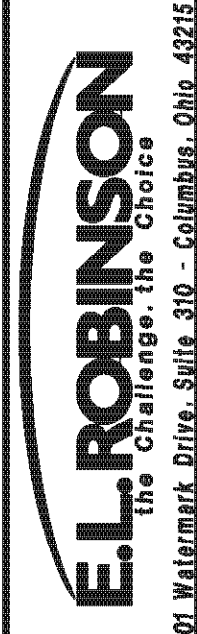
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 0.95 KIPS FOR A TOTAL MACHINE LOAD OF 7.6 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".



DESIGNED	DRAWN	REVIEWED	DATE
DTA	DTA	DFT	5/11/10
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TUE		0702226L/0702250R	

GENERAL NOTES
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

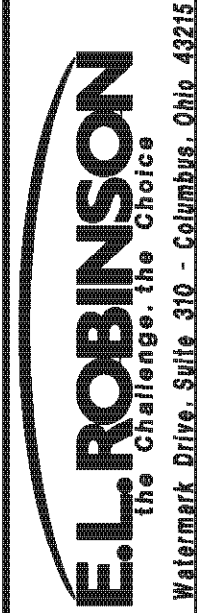
BEL-70-7.61
PID No. 76825

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ESTIMATED QUANTITIES										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #	
201	11000	LUMP		CLEARING AND GRUBBING				LUMP		
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP	LUMP	LUMP			
202	22900	134	SQ YD	APPROACH SLAB REMOVED				134		
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP		
503	21300	LUMP		UNCLASSIFIED EXCAVATION				LUMP		
509	10001	61,792	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	7,522	4,997	49,273			
510	10000	72	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	72					
512	10100	669	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	61	220	388			
512	33000	3	SQ YD	TYPE 2 WATERPROOFING	3					
513	10260	91,438	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3			91,438			
513	20000	2502	EACH	WELDED STUD SHEAR CONNECTORS			2502			
516	13600	17	SQ FT	1" PREFORMED EXPANSION JOINT FILLER			17			
516	13900	112	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	112					
516	14021	122	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	122					
516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10"x14"x1.924" PAD WITH 11"x15"x1 1/2" LOAD PLATE)	12					
516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x14"x1.924" PAD WITH 12"x15"x1 1/2" LOAD PLATE)		12				
518	21231	78	CU YD	POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	78					
518	40000	105	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	105					
518	40012	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	60					
519	11101	68	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN				68		
601	20001	425	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN				425		
898	10211	201	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			201			
898	10705	250	SQ YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15"), AS PER PLAN				250		
898	11001	46	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN			46			
898	201	40	CU YD	QC/QA CONCRETE, CLASS QSC2, SUBSTRUCTURE (PIERCAP)		40				
898	20	64	CU YD	QC/QA CONCRETE, CLASS QSC2, SUBSTRUCTURE (ABUTMENT)	64					



DESIGNED	CMH	CHECKED	DTA
DRAWN	DTA	REVISD	
REVIEWED		DATE	
STRUCTURE FILE NUMBER		0702226L/0702250R	

ESTIMATED QUANTITIES - LEFT BRIDGE
 BRIDGE NO. BEL-70-0963 L/R
 I.R. 70 OVER S.R. 149

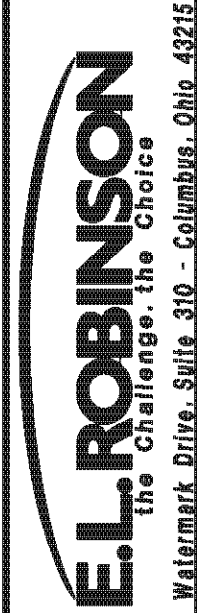
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PID No. 76825

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ESTIMATED QUANTITIES										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #	
201	11000	LUMP		CLEARING AND GRUBBING				LUMP		
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP	LUMP	LUMP			
202	22900	134	SQ YD	APPROACH SLAB REMOVED				LUMP		
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP		
503	21300	LUMP		UNCLASSIFIED EXCAVATION				LUMP		
509	10001	59,559	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	7,018	5,142	47,399			
510	10000	80	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	80					
512	10100	679	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	115	226	338			
512	33000	3	SQ YD	TYPE 2 WATERPROOFING	3					
513	10260	91304	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3			91,304			
513	20000	2592	EACH	WELDED STUD SHEAR CONNECTORS			2592			
516	13600	17	SQ FT	1" PREFORMED EXPANSION JOINT FILLER			17			
516	13900	115	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	115					
516	14021	104	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	104					
516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10"x14"x1.924" PAD WITH 11"x15"x1 1/2" LOAD PLATE)	12					
516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x14"x1.924" PAD WITH 12"x15"x1 1/2" LOAD PLATE)		12				
518	12200	2	EACH	SCUPPERS, INCLUDING SUPPORTS			2			
518	21231	78	CU YD	POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	78					
518	40000	103	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	103					
518	40012	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	60					
519	11101	68	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN			68			
601	20001	425	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN			425			
898	10211	195	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			195			
898	10705	233	SQ YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15"), AS PER PLAN				233		
898	11001	46	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN			46			
898	201	43	CU YD	QC/QA CONCRETE, CLASS QSC2, SUBSTRUCTURE (PIER CAP)		43				
898	20	64	CU YD	QC/QA CONCRETE, CLASS QSC2, SUBSTRUCTURE (ABUTMENT)	64					



DESIGNED	CMH	CHECKED	DTA
DRAWN	DTA	REVISED	
REVIEWED		DATE	
STRUCTURE FILE NUMBER		0702226L/0702250R	

ESTIMATED QUANTITIES - RIGHT BRIDGE
 BRIDGE NO. BEL-70-0963 L/R
 I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

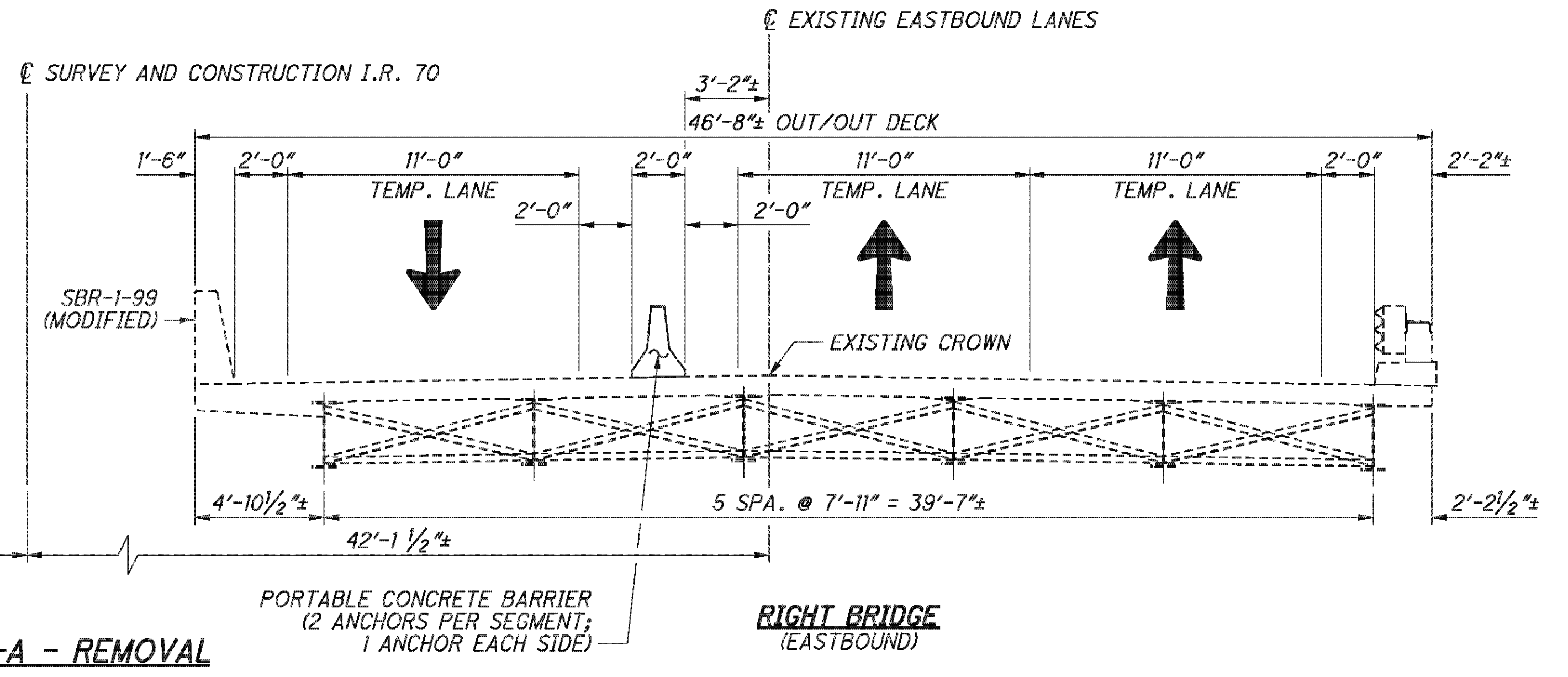
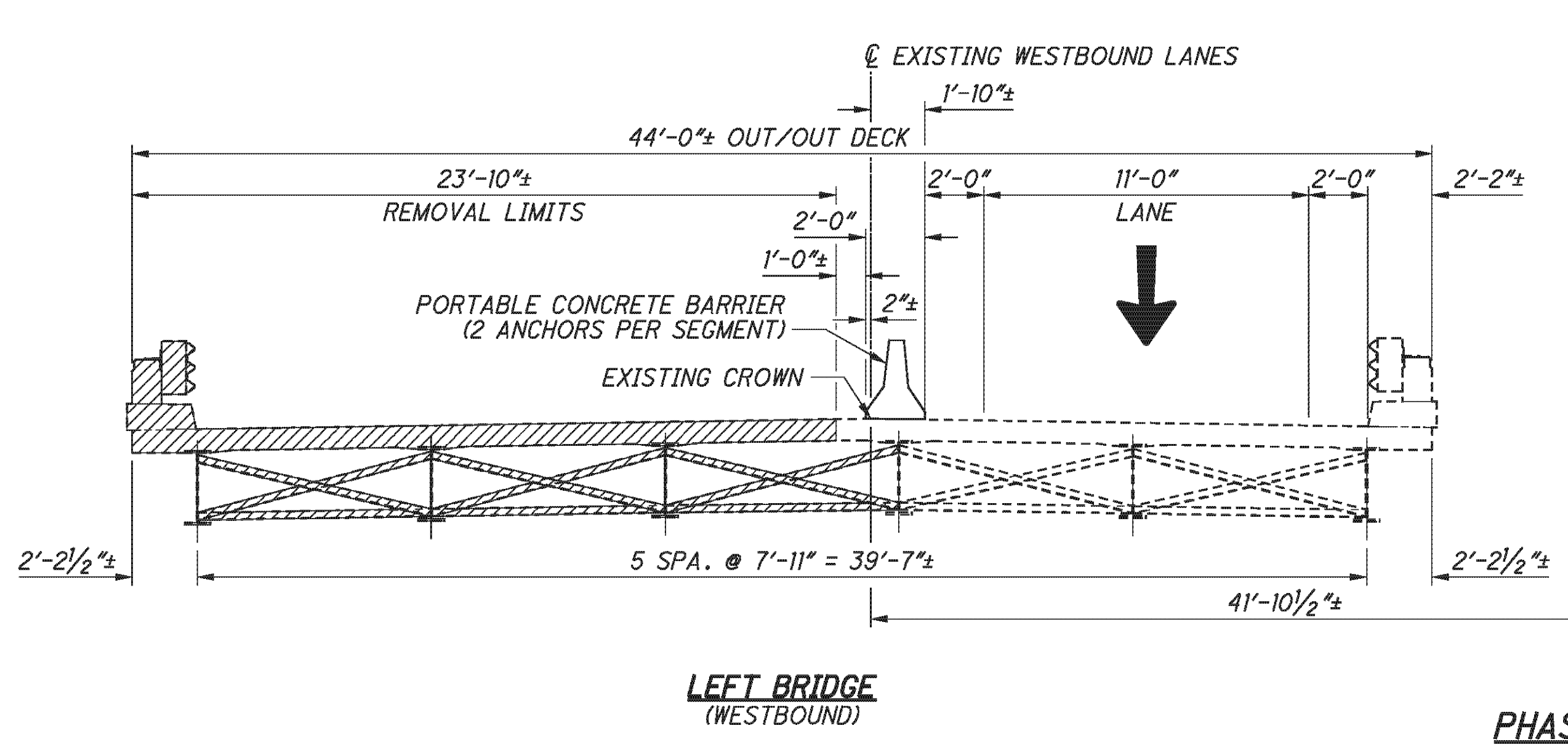
6 / 45

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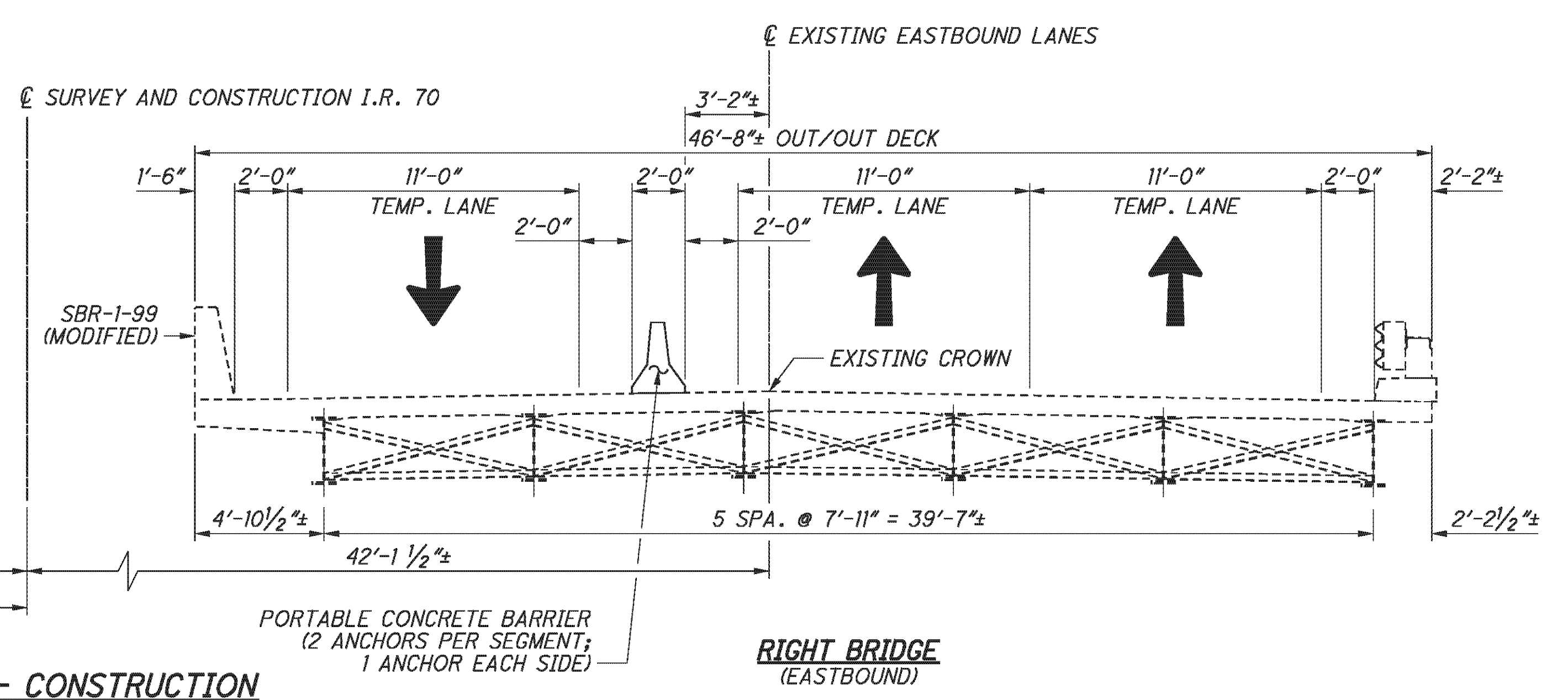
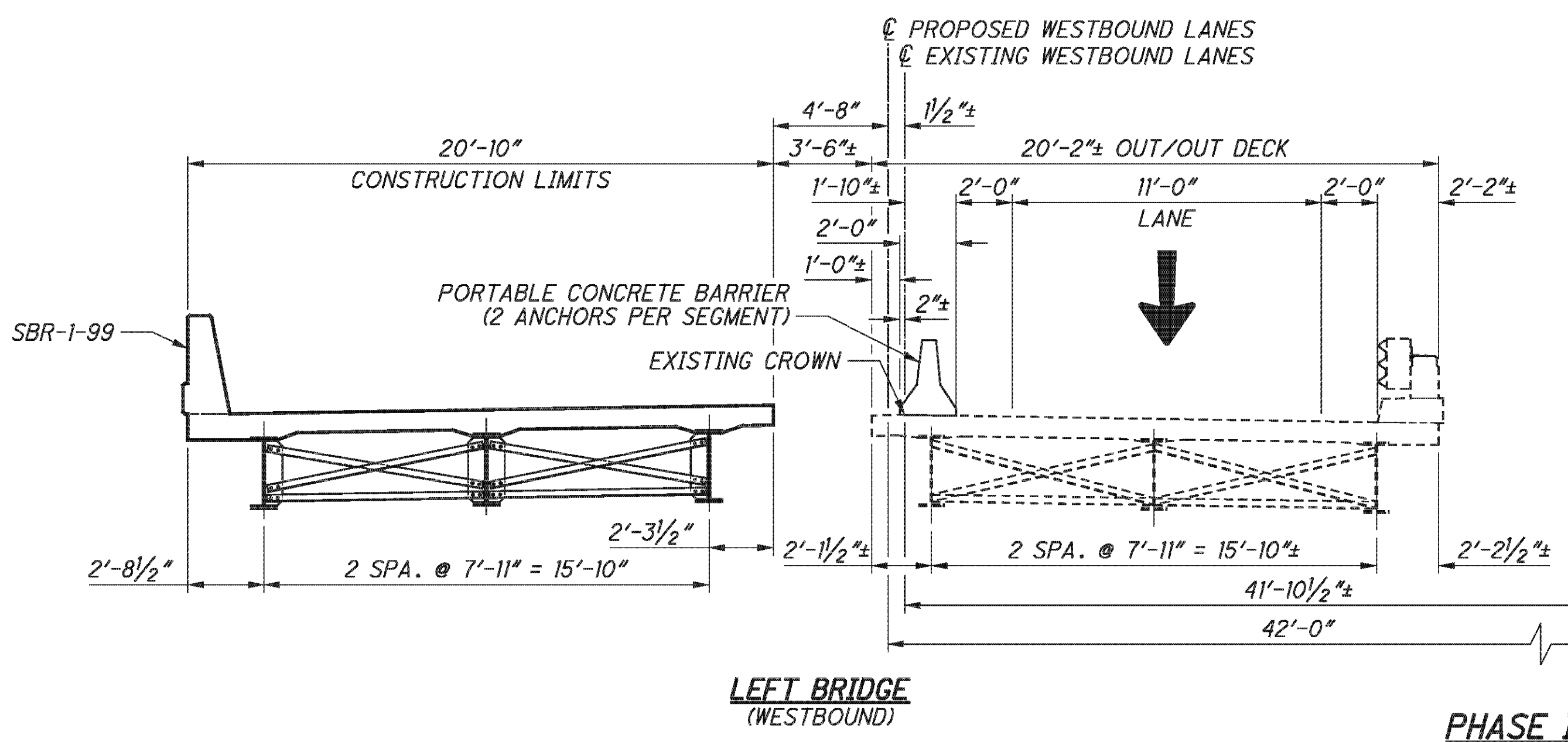
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REVIEWED	DFT
STRUCTURE FILE NUMBER	0702226L/0702250R
DRAWN	TJE
DESIGNED	TJE
CHECKED	AME

PHASE CONSTRUCTION DETAILS
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825



PHASE III-A - REMOVAL



PHASE III-A - CONSTRUCTION

PHASE III-A REMOVAL

1. INSTALL PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE III-A CONSTRUCTION

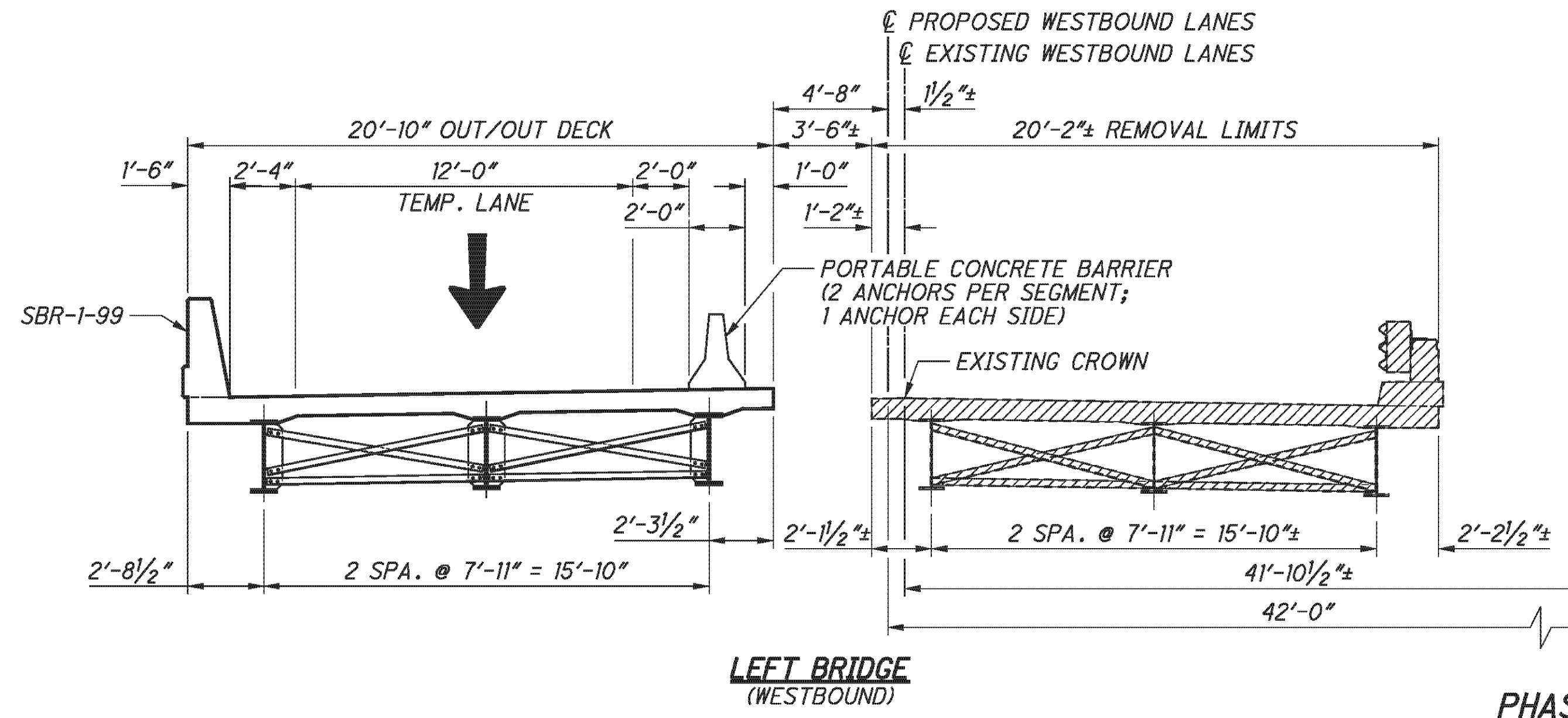
1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:

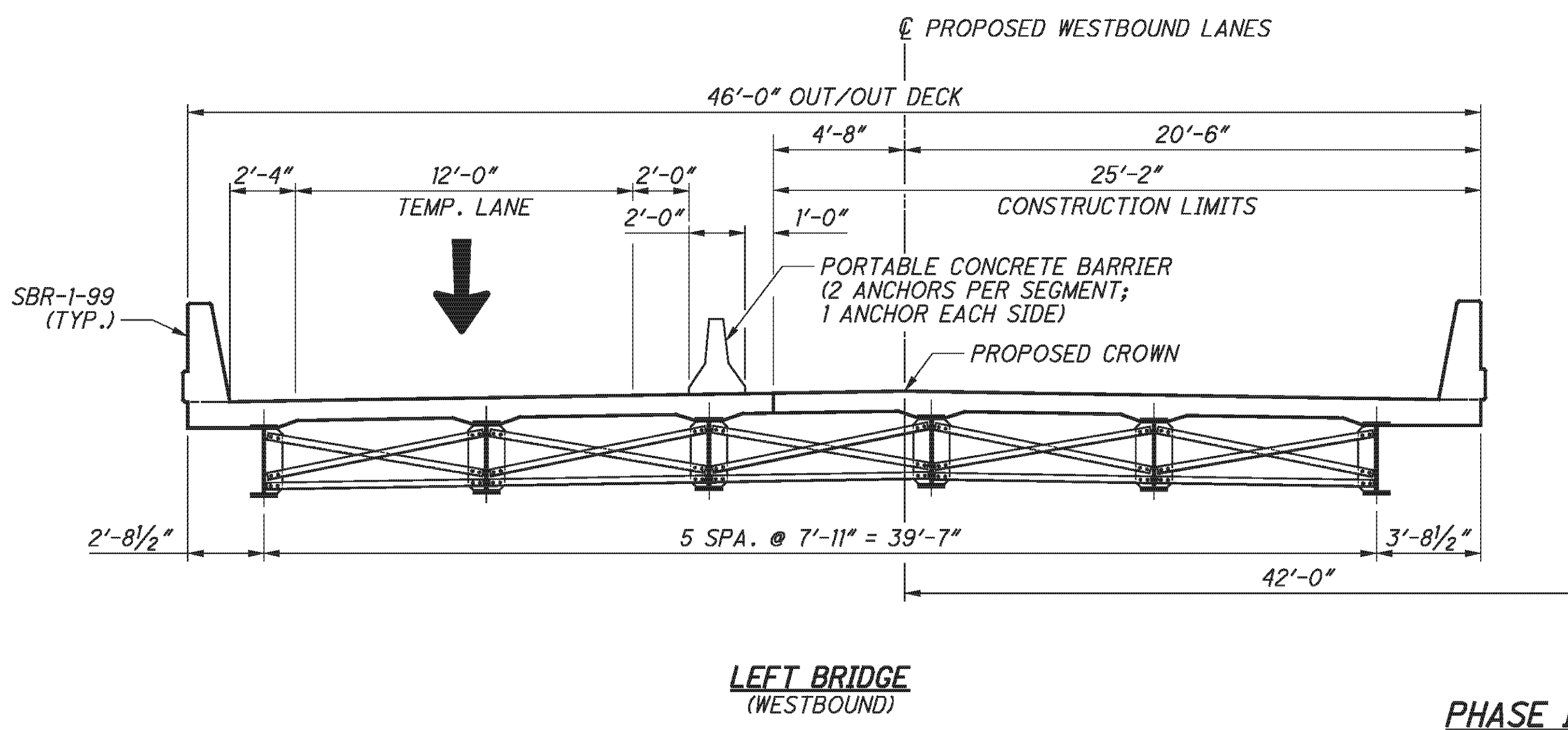
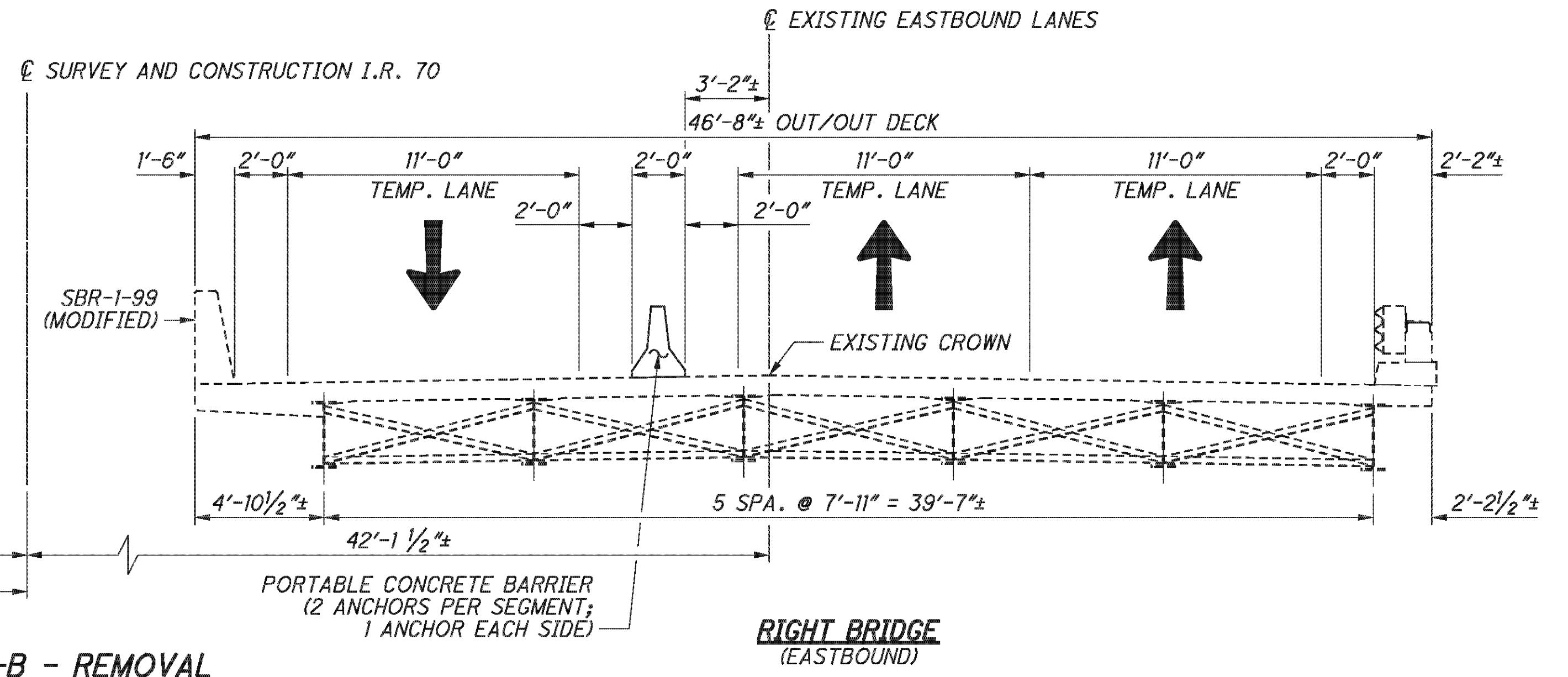


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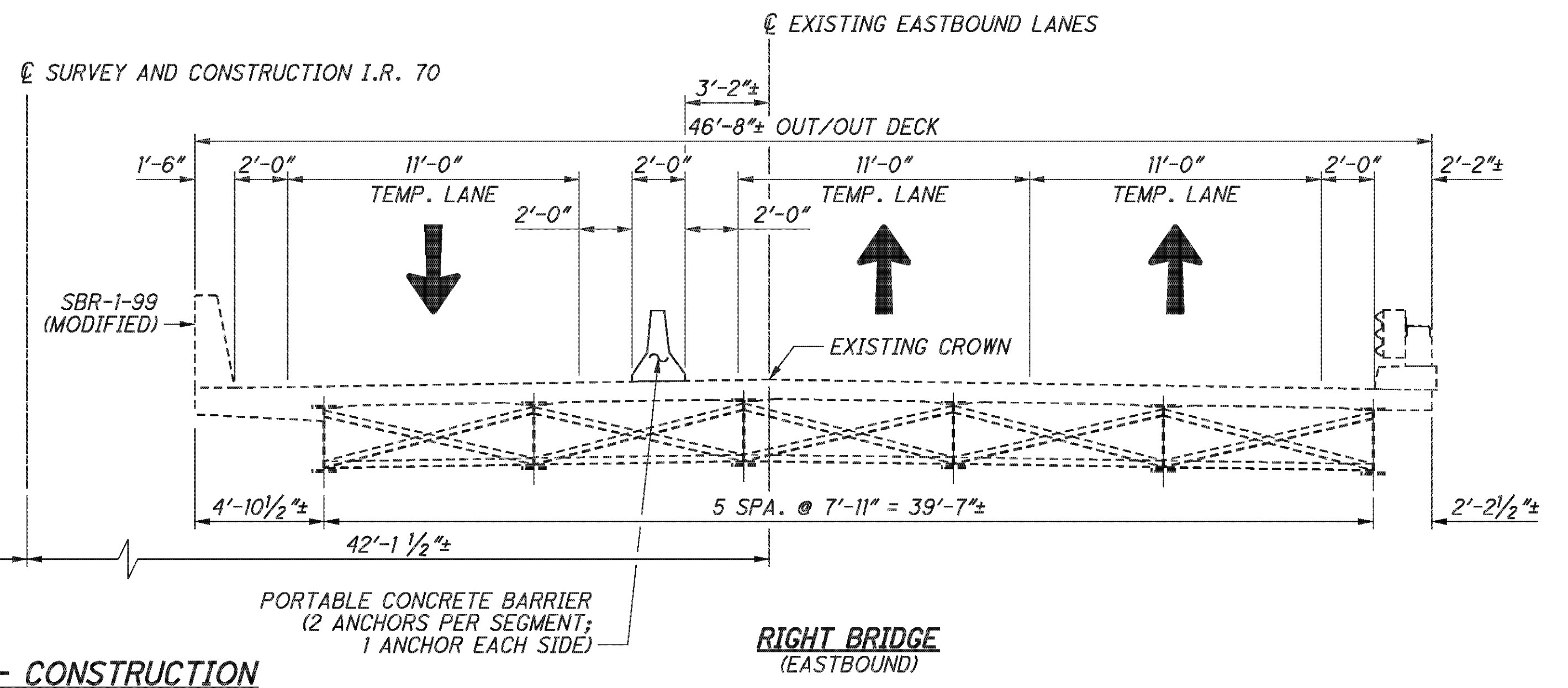
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PHASE III-B - REMOVAL



PHASE III-B - CONSTRUCTION



PHASE III-B REMOVAL

1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE III-B CONSTRUCTION

1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:
 LIMITS OF REMOVAL

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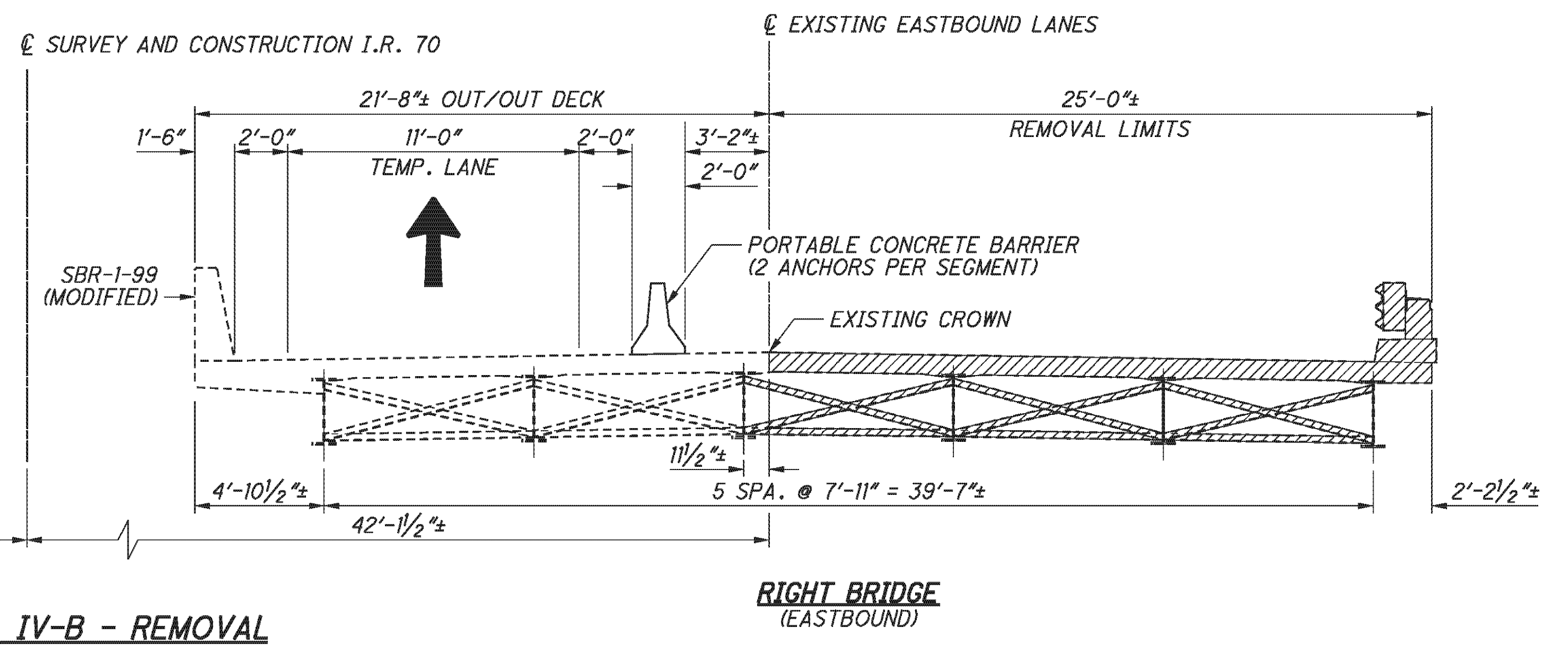
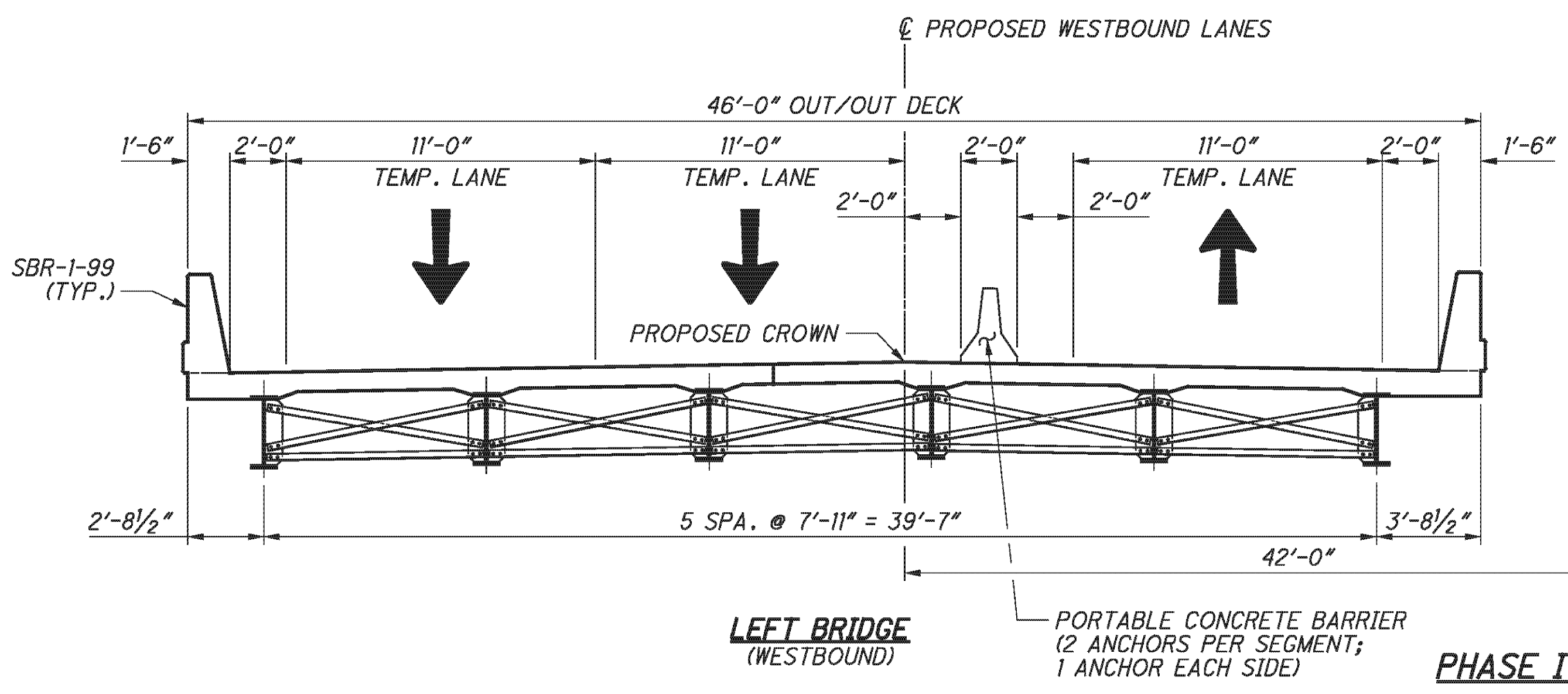
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DESIGNED	TJE
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STRUCTURE FILE NUMBER	0702226L/0702250R

PHASE CONSTRUCTION DETAILS
 BRIDGE NO. BEL-70-0963 L/R
 I.R. TO OVER S.R. 149

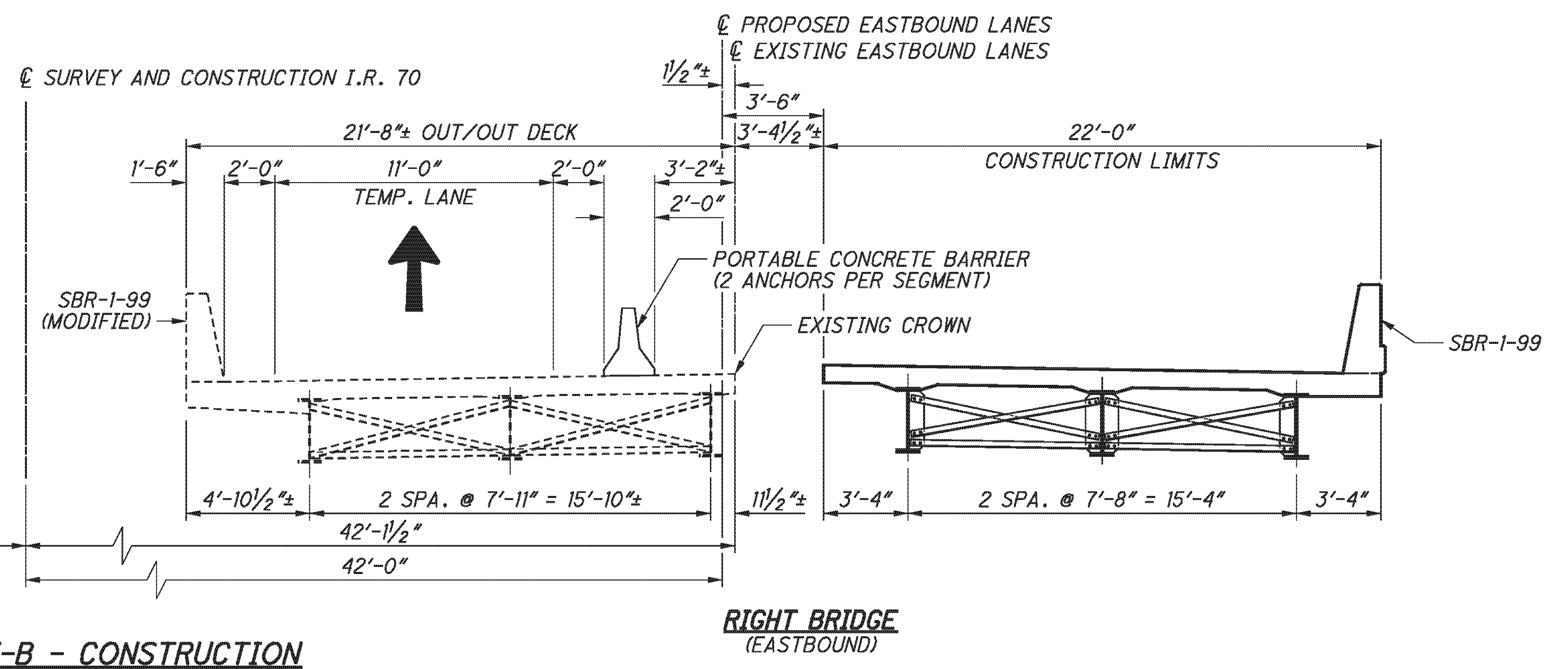
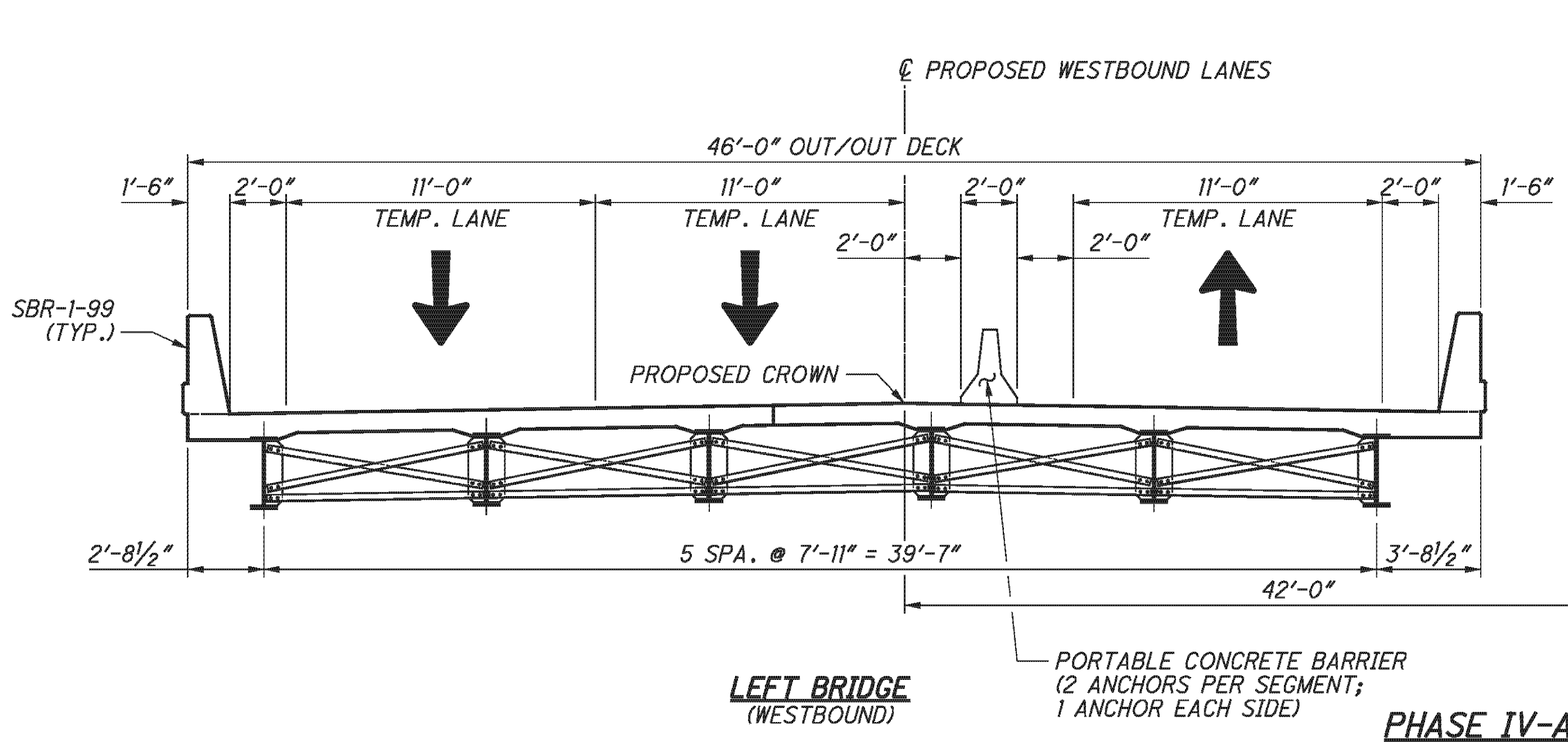
BEL-70-7.61
 PID No. 76825

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PHASE IV-A & IV-B - REMOVAL



PHASE IV-A & IV-B - CONSTRUCTION

PHASE IV-A REMOVAL

1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE IV-A CONSTRUCTION

1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:

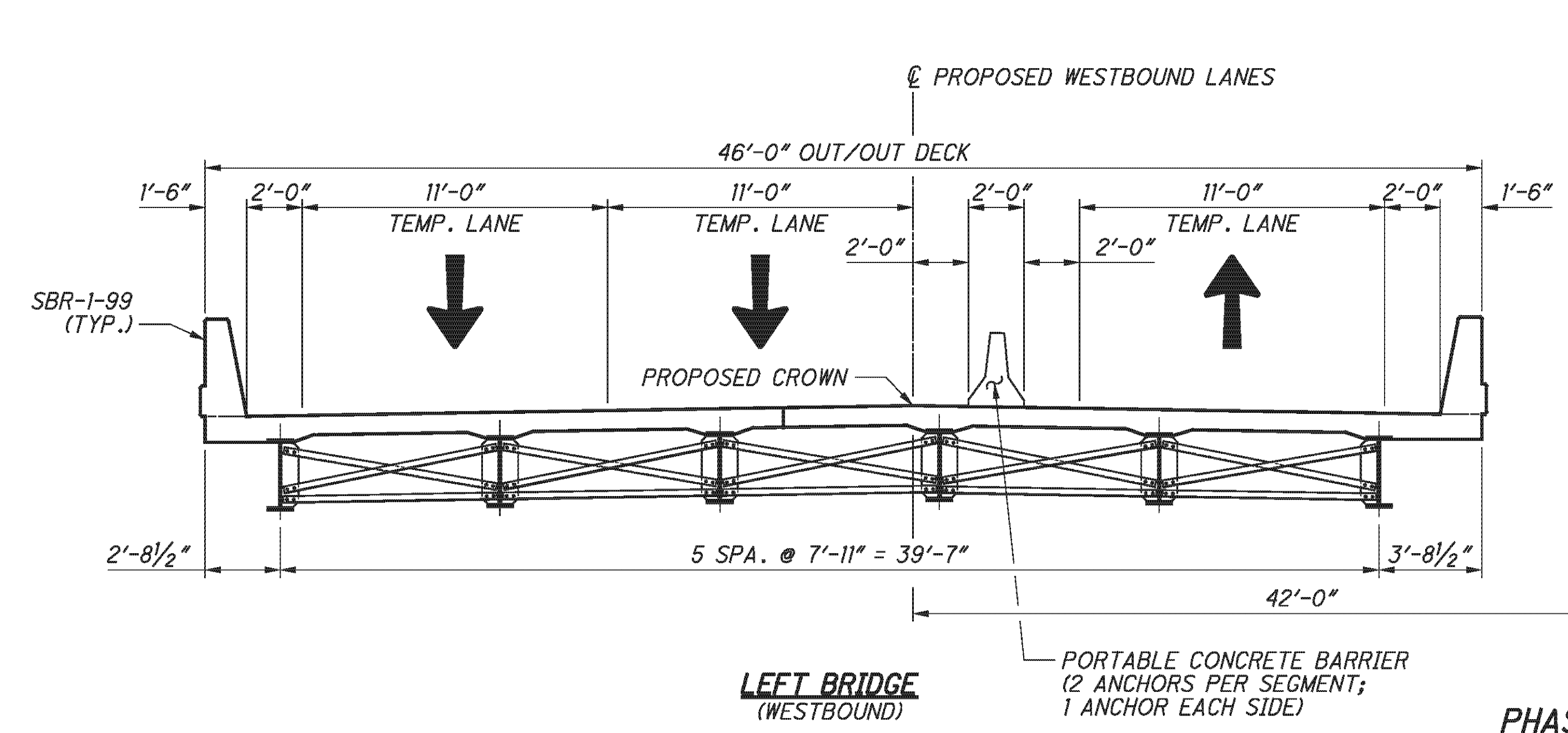


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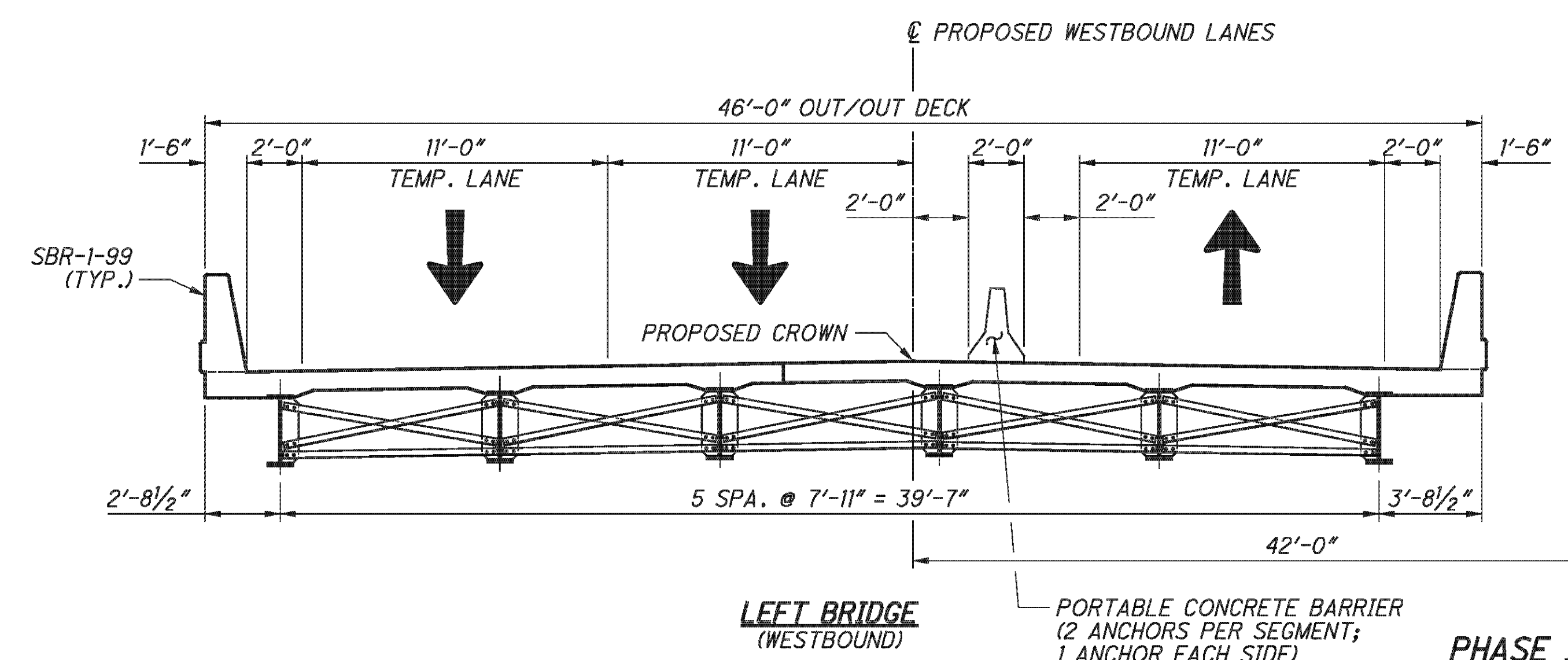
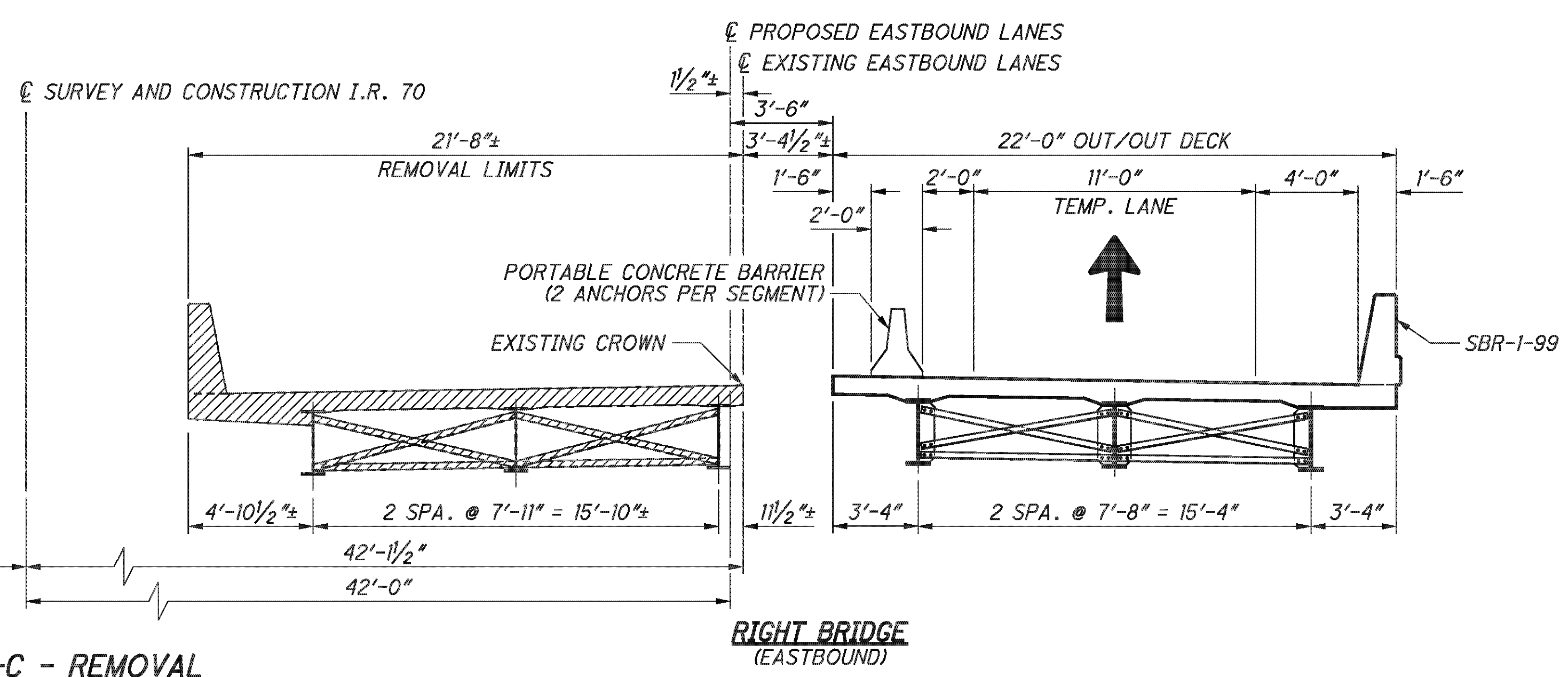
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PHASE CONSTRUCTION DETAILS
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

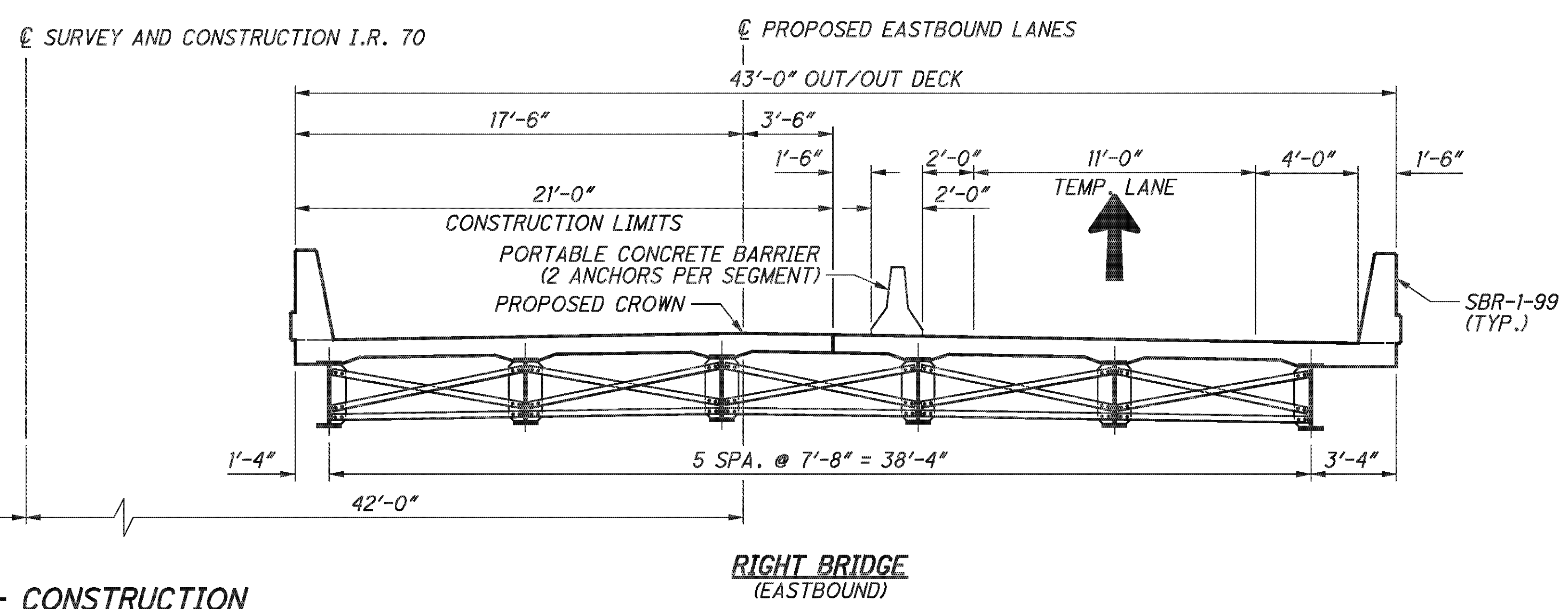
BEL-70-7.61
PID No. 76825



PHASE IV-C - REMOVAL



PHASE IV-C - CONSTRUCTION



PHASE IV-B REMOVAL

1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE IV-B CONSTRUCTION

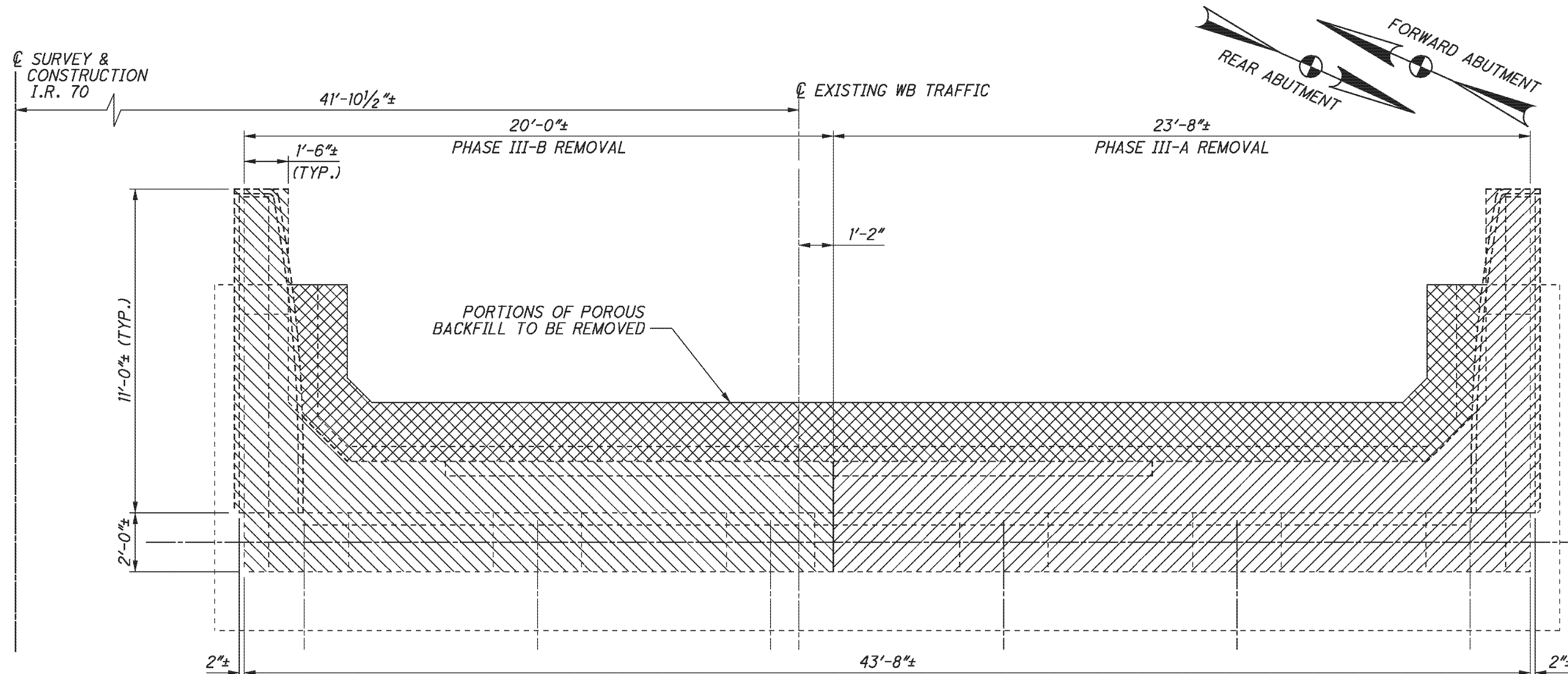
1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. INSTALL NEW CROSSFRAMES UNDER THE CLOSURE POUR. CAST THE CLOSURE POUR.
5. SEAL CONCRETE SURFACES.
6. REMOVE THE PORTABLE CONCRETE BARRIERS.

LEGEND:

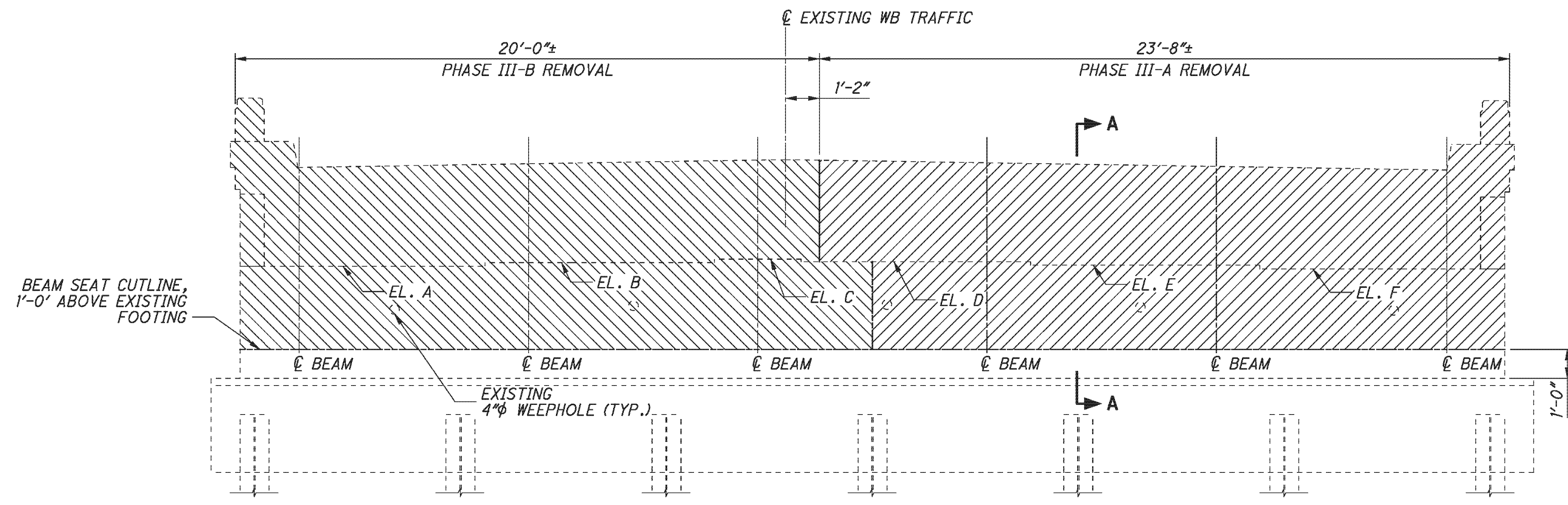


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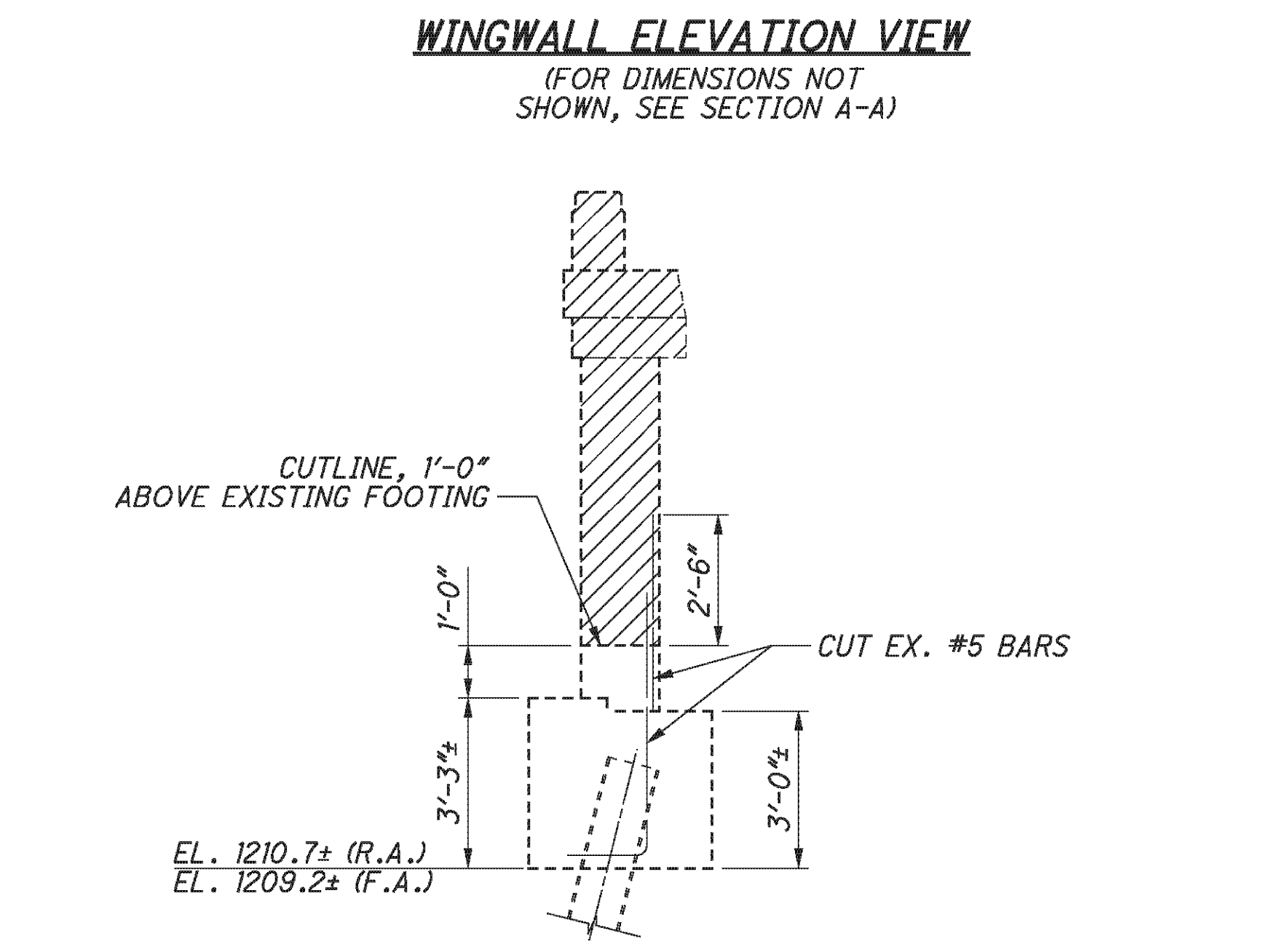
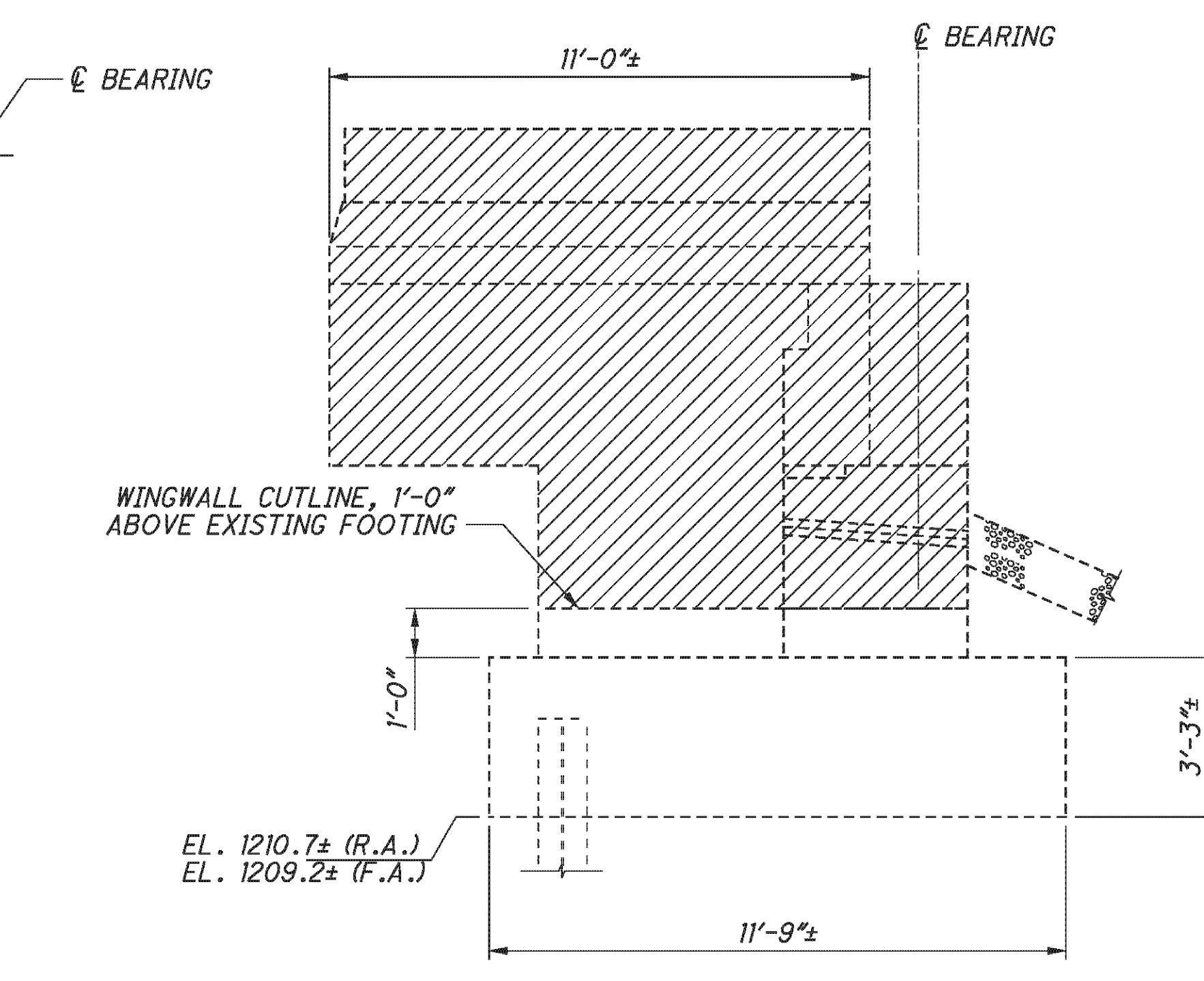
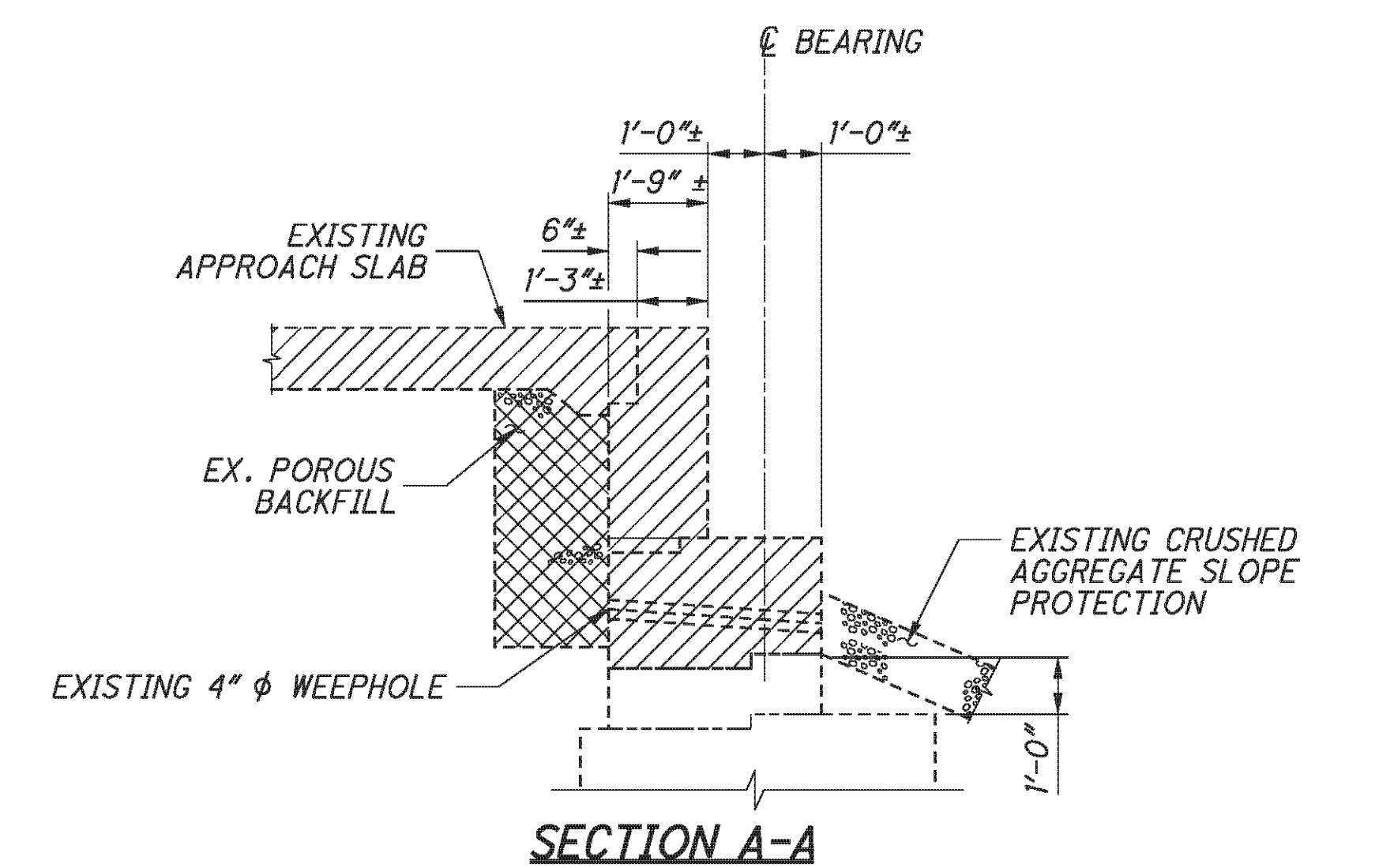
BEAM SEAT ELEVATIONS						
	A	B	C	D	E	F
REAR ABUTMENT	1217.89±	1218.02±	1218.15±	1218.06±	1217.97±	1217.86±
FORWARD ABUTMENT	1216.48±	1216.60±	1216.71±	1216.82±	1216.69±	1216.56±



- LEGEND:**
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE III-A
 - ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE III-B
 - ITEM 202 - PORTIONS OF POROUS BACKFILL TO BE REMOVED

NOTES:

1. PAYMENT FOR ABUTMENT REMOVAL TO BE INCLUDED IN ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.



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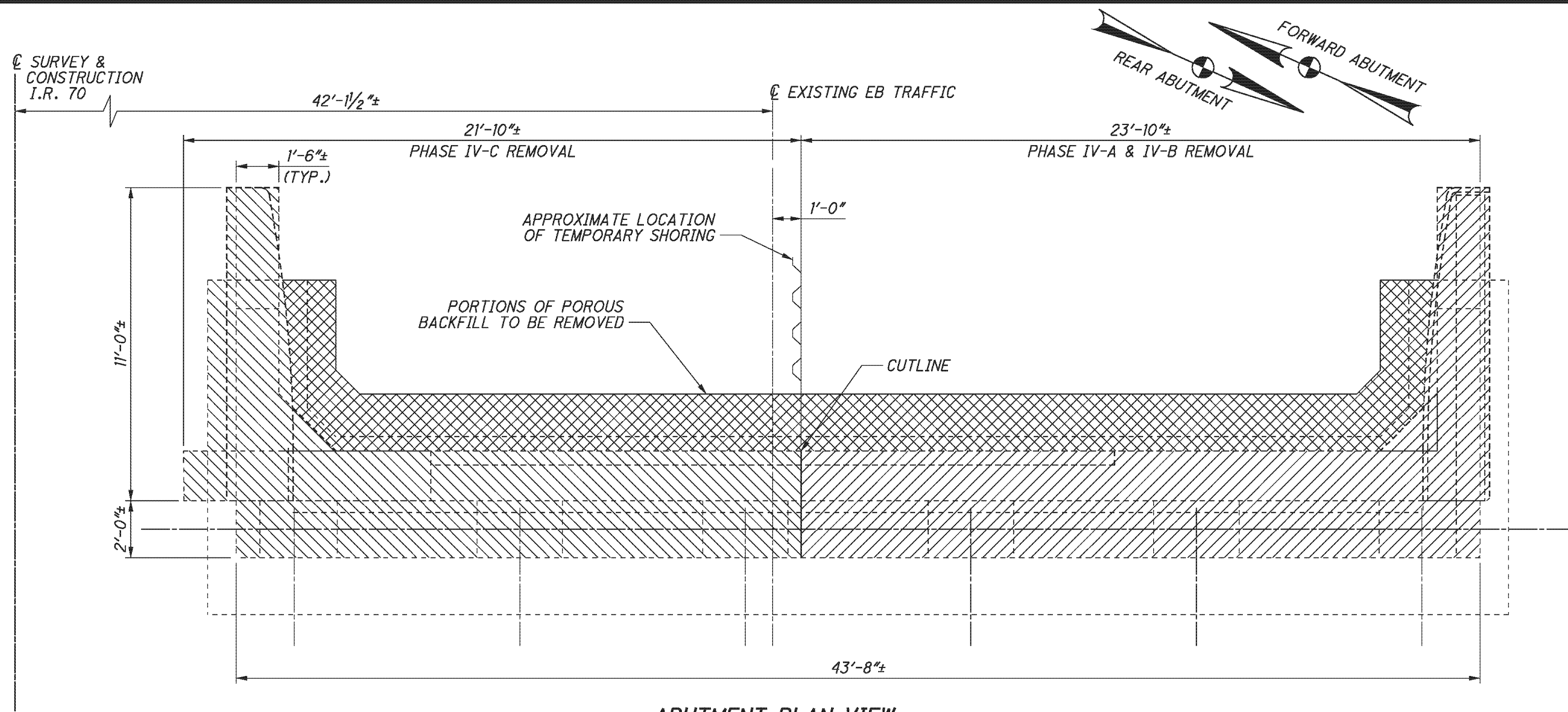
DATE: 5/11/10
DFT: 0702226L/0702250R
DESIGNED: BMG
CHECKED: TJE
DRAWN: BMG
REVISYD: BMG

ABUTMENT REMOVAL DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

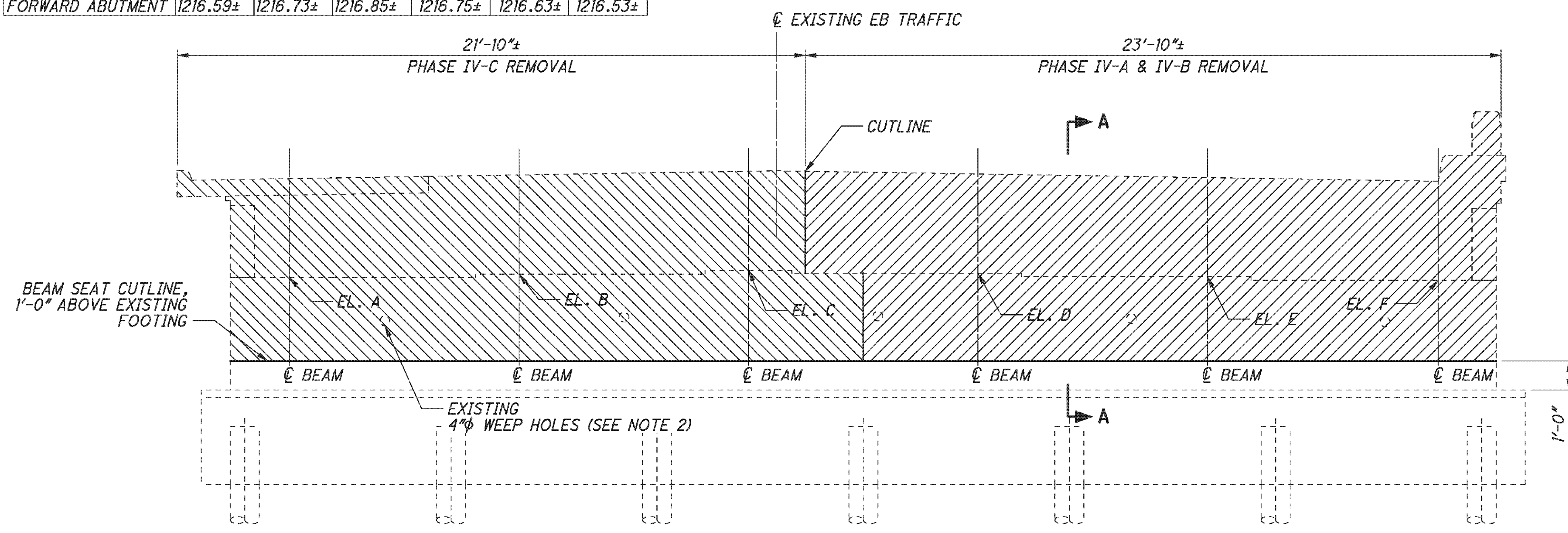
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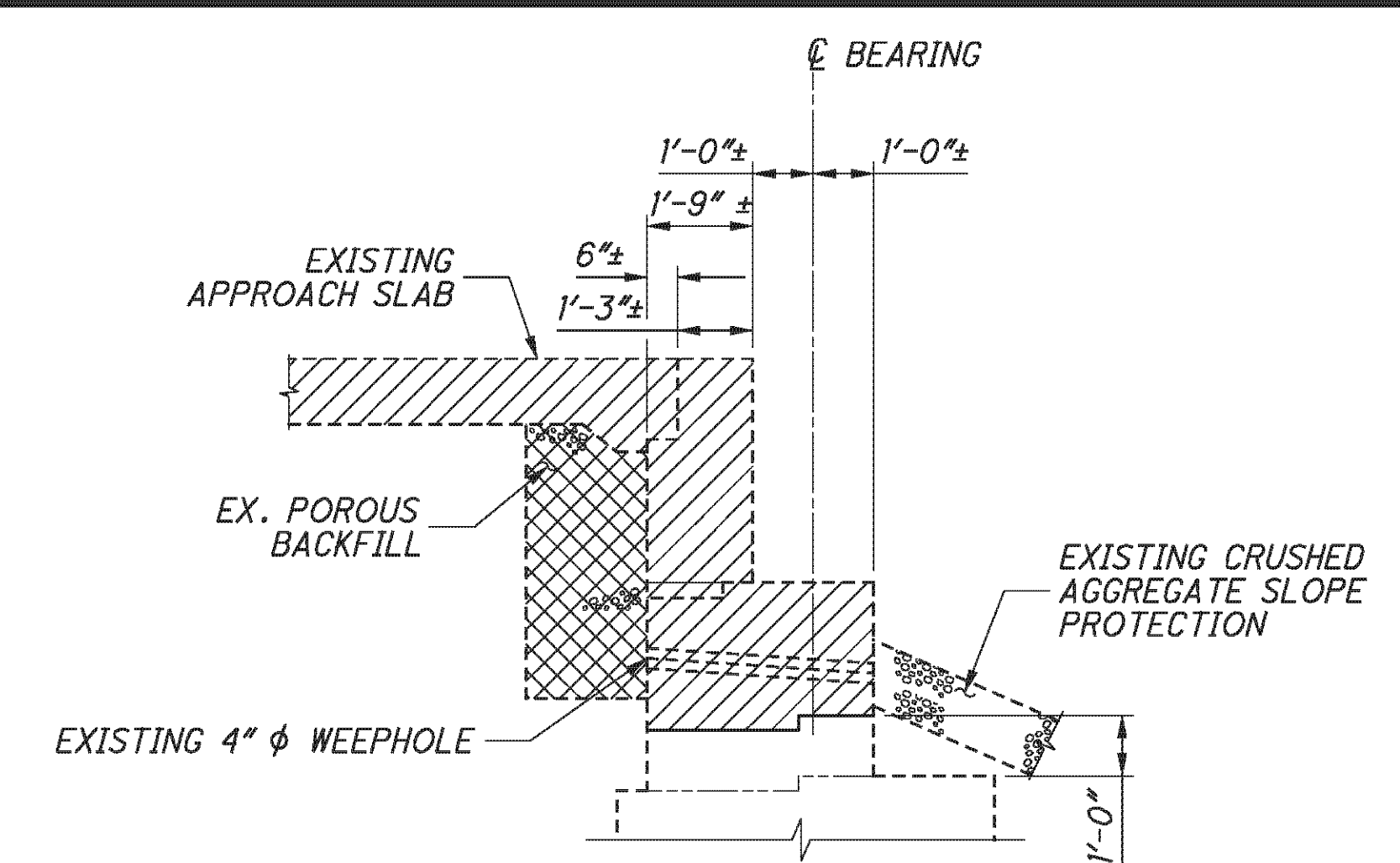
ABUTMENT PLAN VIEW
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT OPPOSITE HAND)

BEAM SEAT ELEVATIONS						
	A	B	C	D	E	F
REAR ABUTMENT	1217.93±	1218.07±	1218.21±	1218.13±	1217.98±	1217.93±
FORWARD ABUTMENT	1216.59±	1216.73±	1216.85±	1216.75±	1216.63±	1216.53±

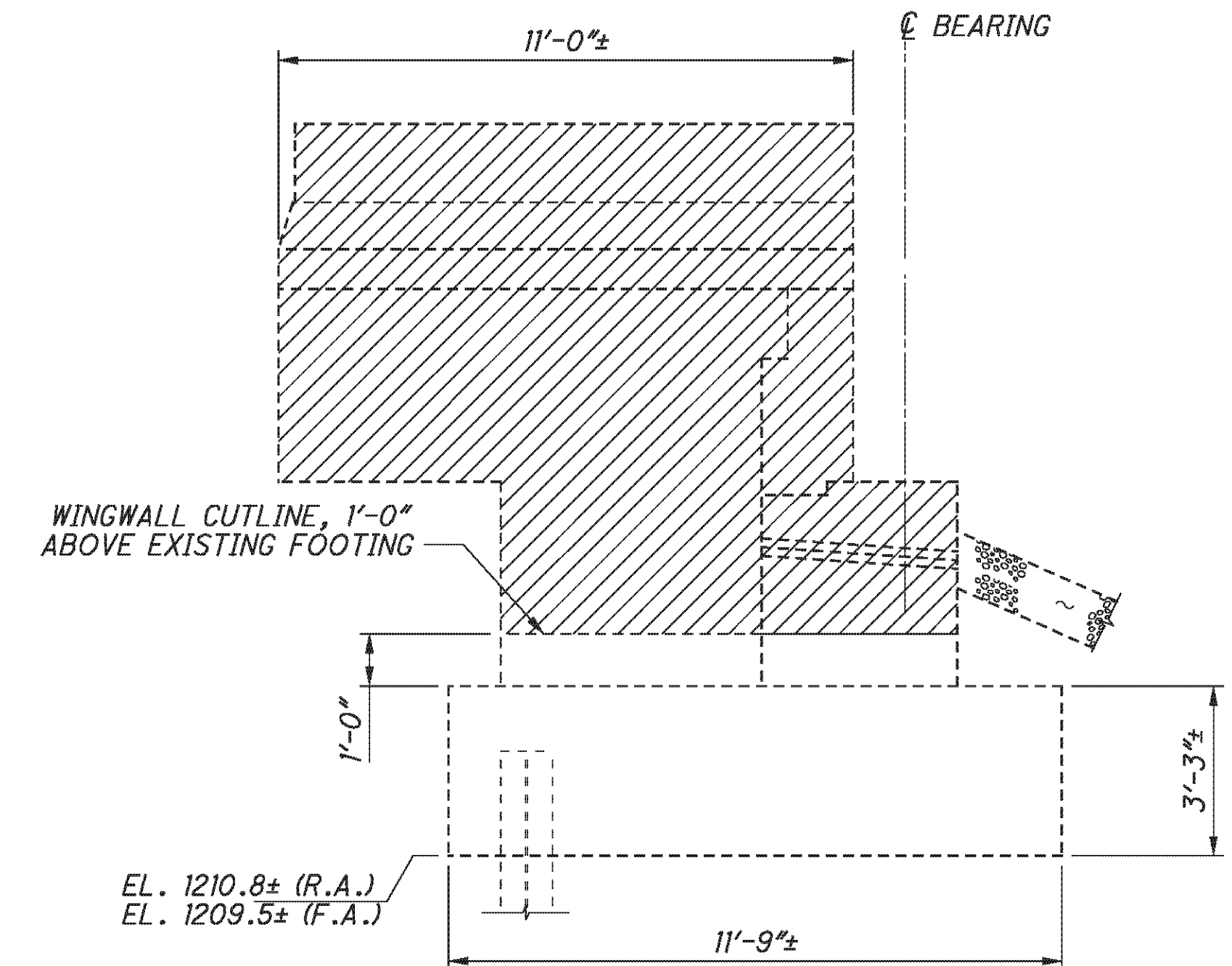


ABUTMENT ELEVATION VIEW
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT OPPOSITE HAND)

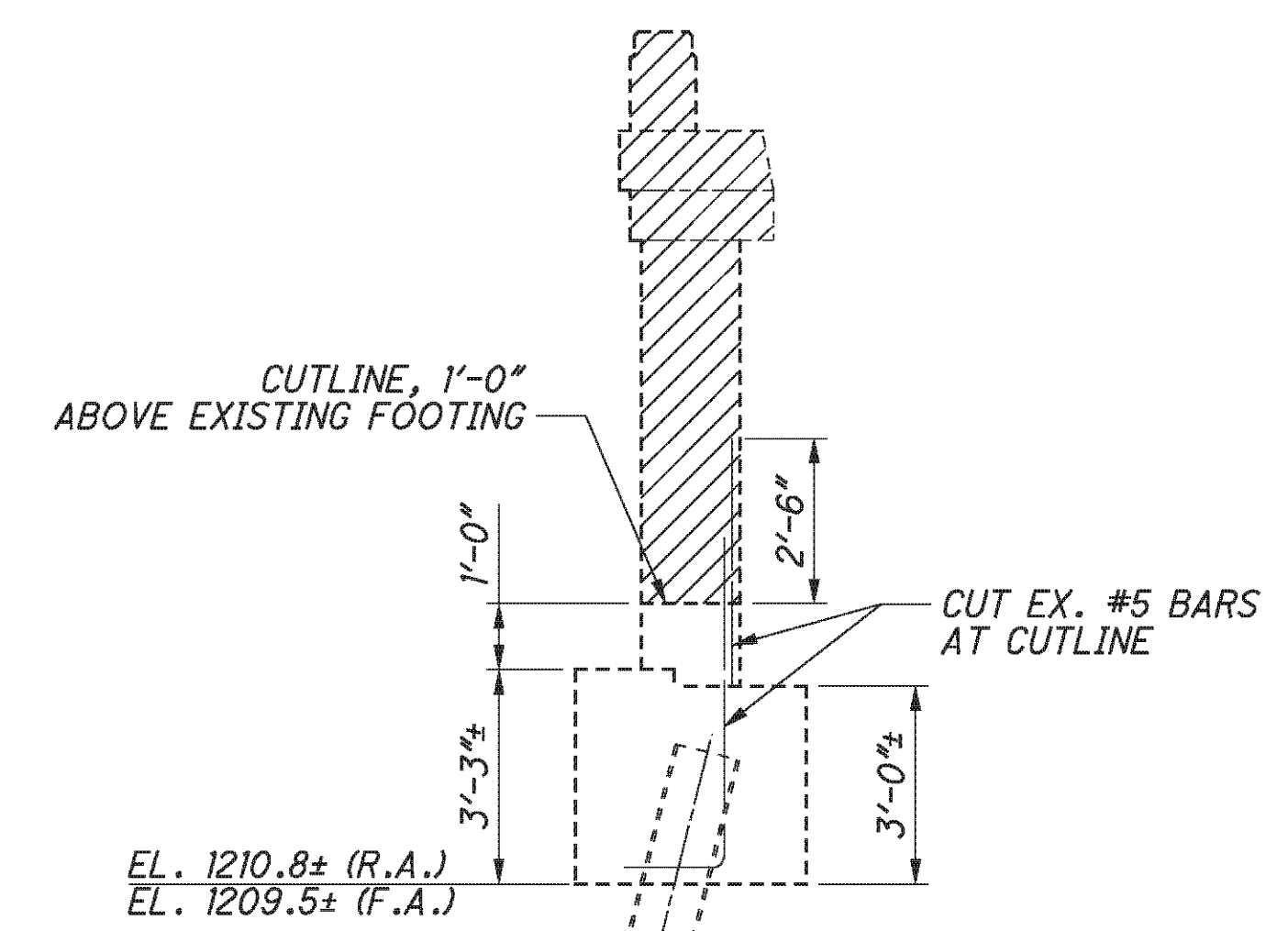
- LEGEND:**
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE IV-A
 - ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE IV-B
 - ITEM 202 - PORTIONS OF POROUS BACKFILL TO BE REMOVED



SECTION A-A



WINGWALL ELEVATION VIEW
(FOR DIMENSIONS NOT SHOWN, SEE SECTION A-A)



EXISTING WINGWALL SECTION

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DRAWN	BMG
DESIGNED	BMG
CHECKED	AME

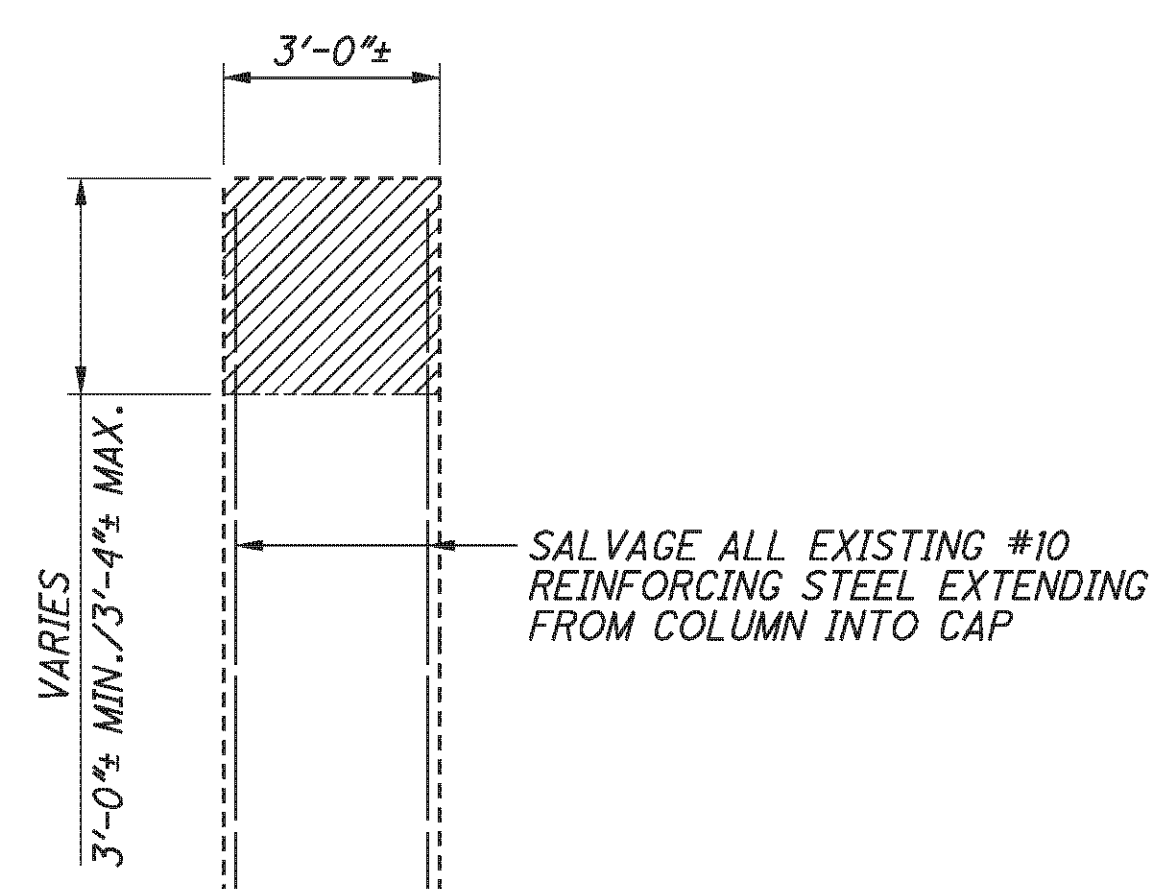
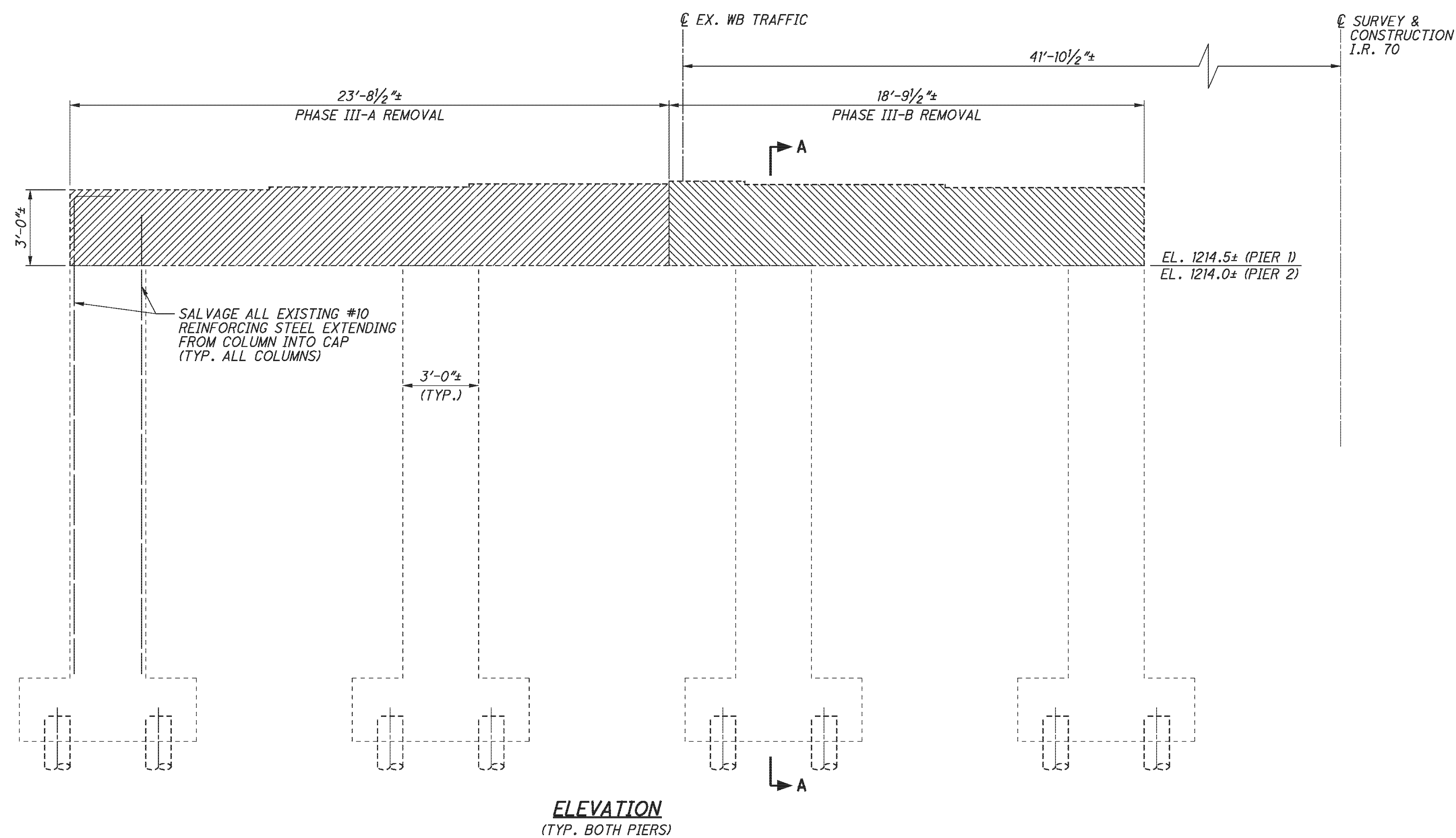
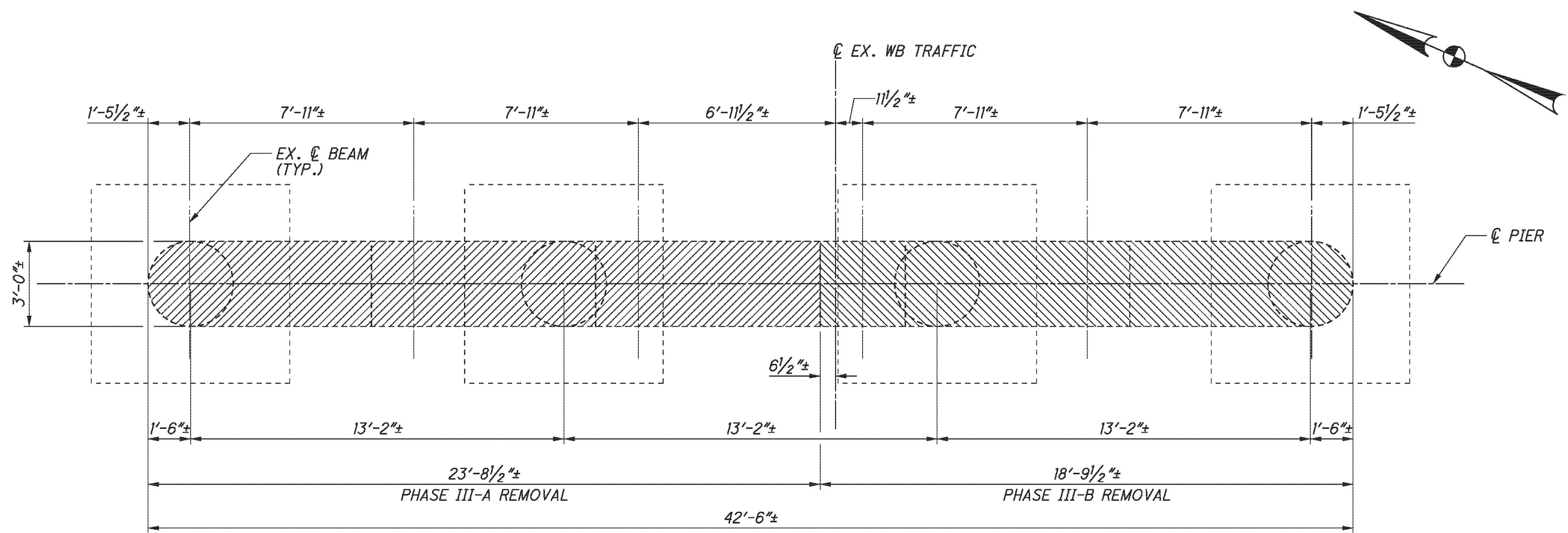
ABUTMENT REMOVAL DETAILS - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

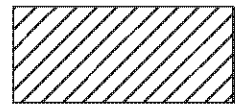
12 / 45

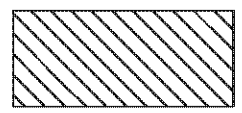
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LEGEND:

 PHASE III-A REMOVAL

 PHASE III-B REMOVAL

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DRAWN	BMG	REVISOR	
REVIEWED	DFT	STRUCTURE FILE NUMBER	0702226L/0702250R
DATE	5/11/10		

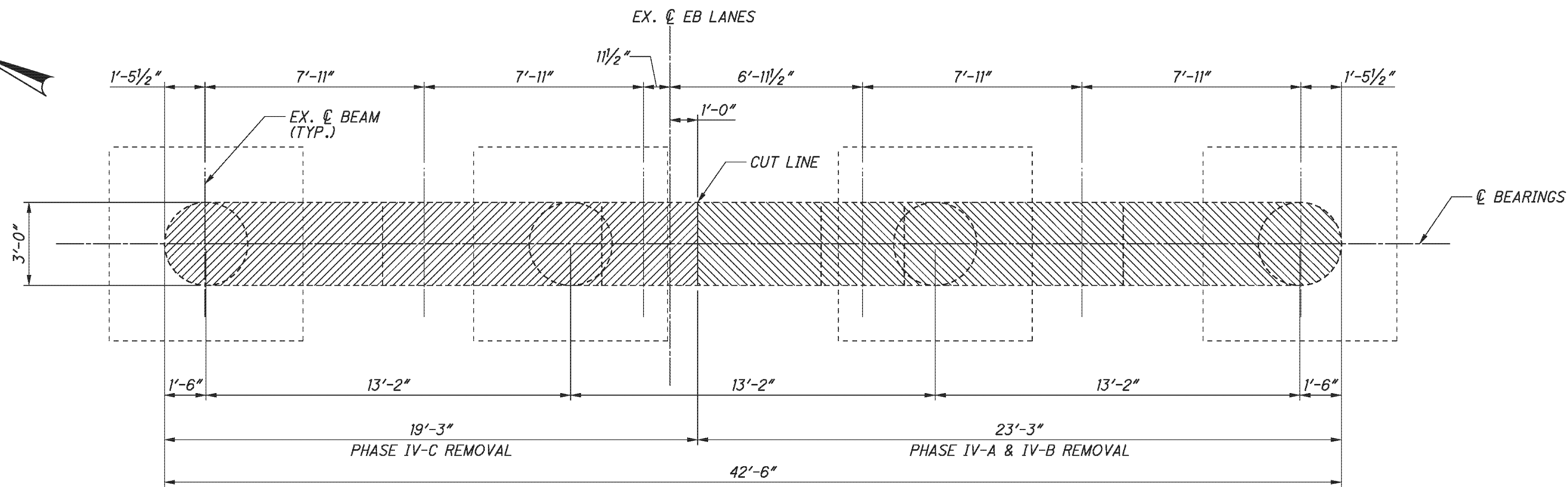
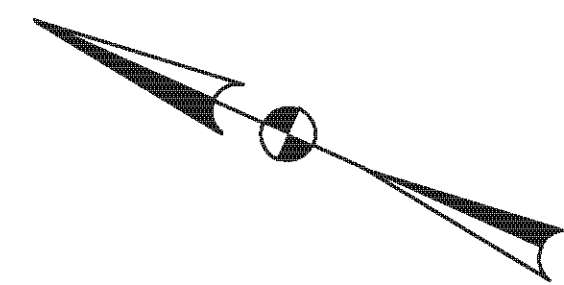
PIER REMOVAL - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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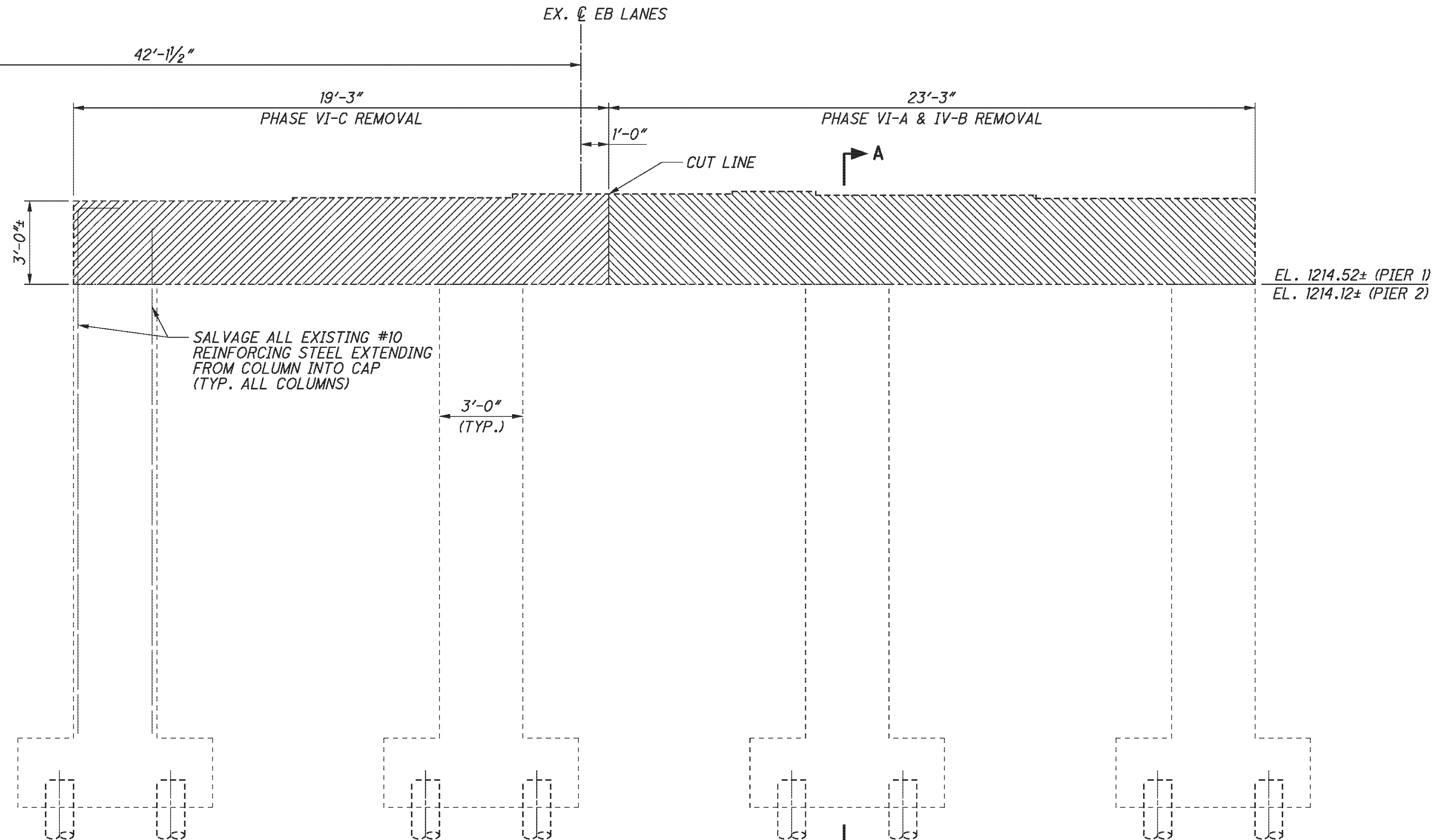
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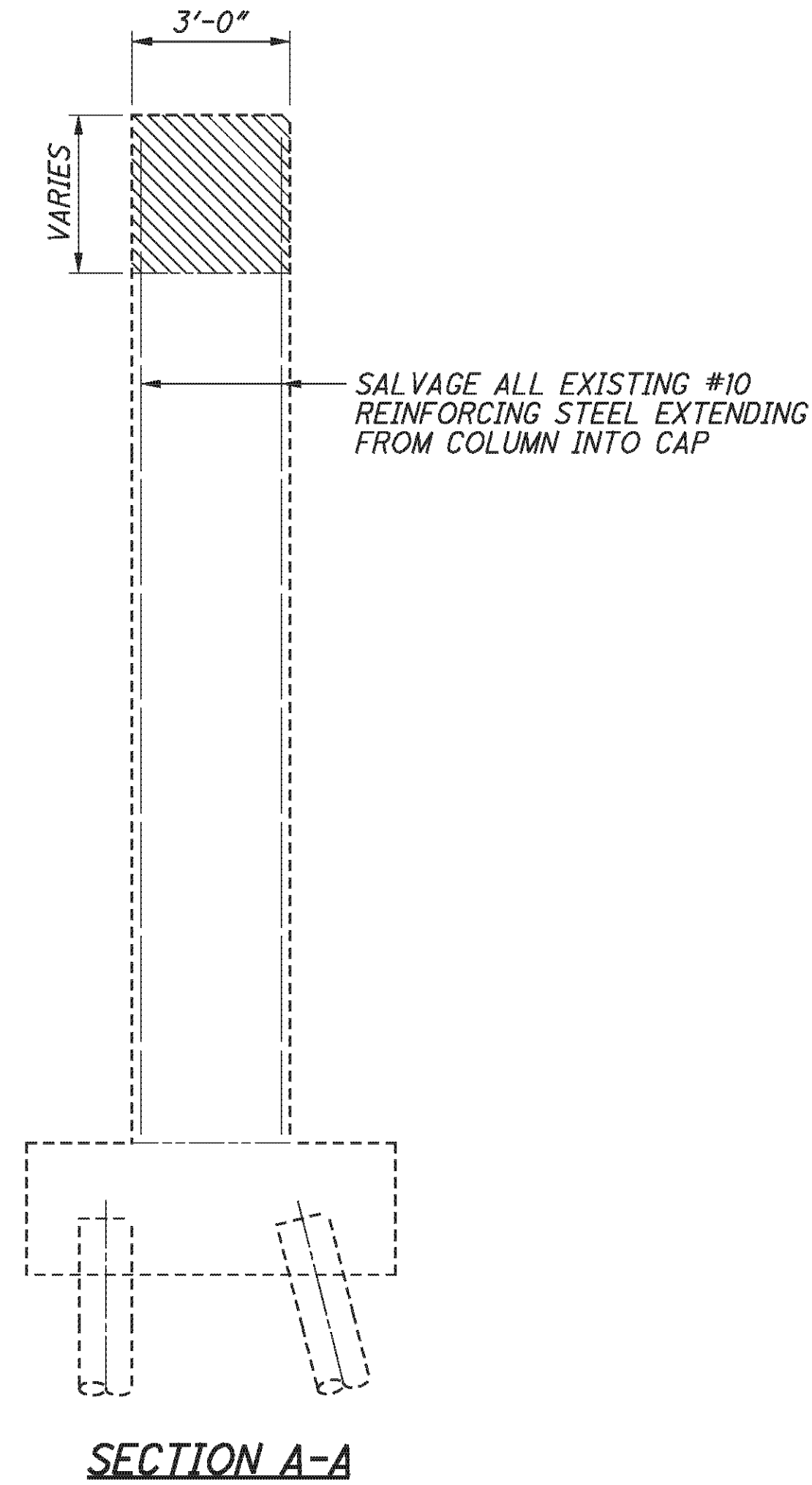
PLAN

RIGHT BRIDGE

CL SURVEY & CONSTRUCTION I.R. 70



EXISTING TYPICAL PIER ELEVATION
RIGHT BRIDGE (TYP. BOTH PIERS)



SECTION A-A

NOTES:

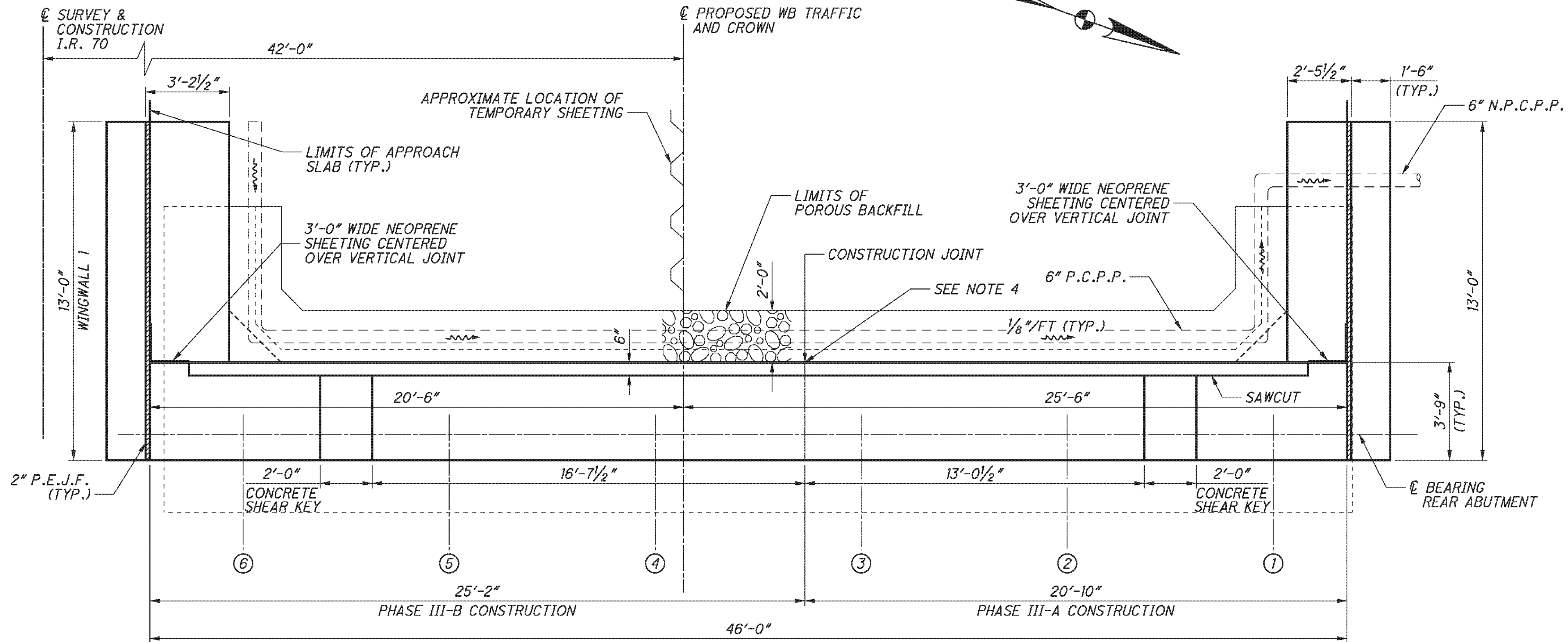
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LEGEND:

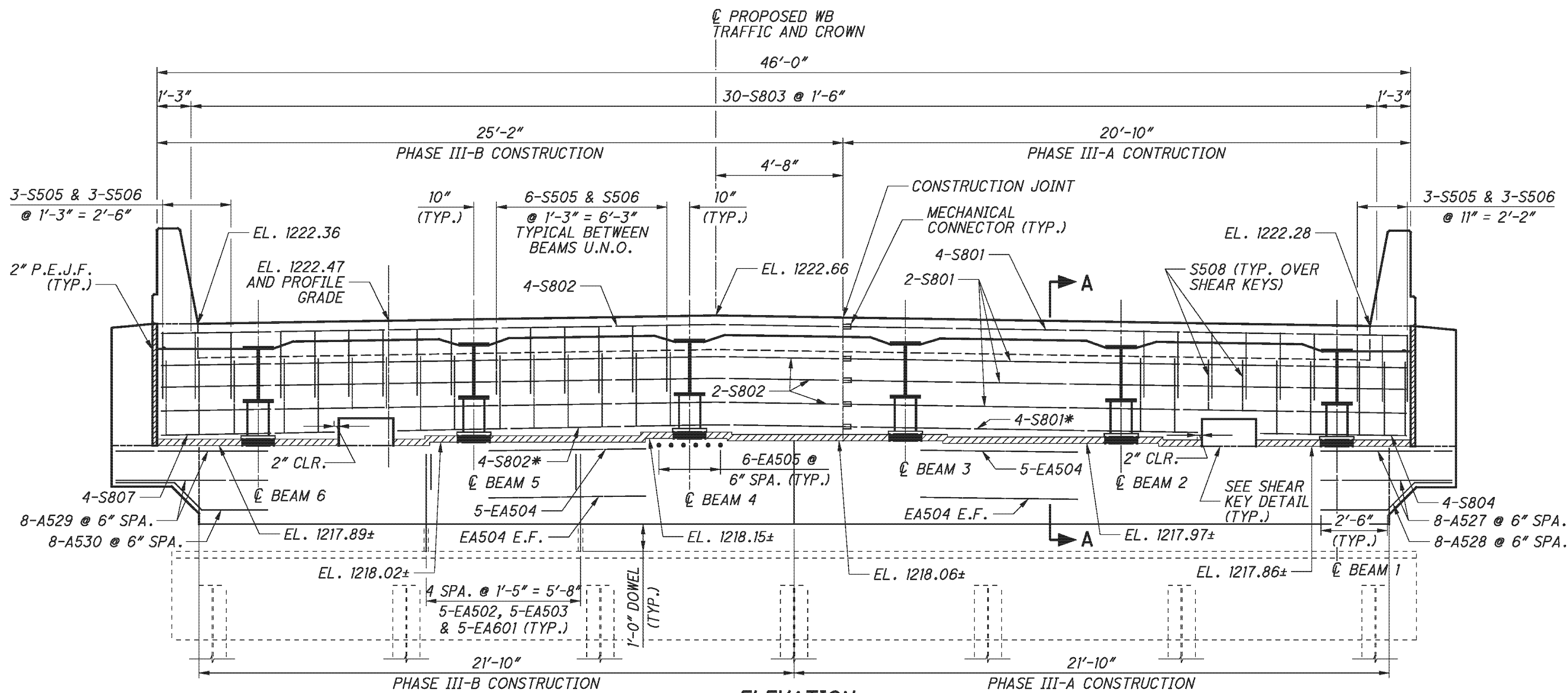
- PHASE IV-A REMOVAL
- PHASE IV-B REMOVAL

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DESIGNED AME	DATE 2/3/11
DRAWN BMG	REVIEWED RER
CHECKED AME	STRUCTURE FILE NUMBER 0702226L/0702250R
PIER REMOVAL - RIGHT BRIDGE	
BRIDGE NO. BEL-70-0963 L/R	
I.R. 70 OVER S.R. 149	
BEL-70-7.61	PID No. 76825
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PLAN



ELEVATION

LEGEND:

* - FIELD CUT AT SHEAR KEY

NOTES:

- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
- FOR BEARING DETAILS, SEE SHEET [29/45].
- POROUS BACKFILL, 2'-0" THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND Laterally TO THE END OF THE WINGWALLS TO THE LIMITS SHOWN. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE. THE DEPARTMENT WILL INCLUDE BAGGED AGGREGATE WITH ITEM 518, POROUS BACKFILL WITH FILTER FABRIC FOR PAYMENT.
- VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO BOTTOM OF APPROACH SLAB.
- ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
- FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS, SEE ODOT STD. DRAWING SICD-1-96.
- THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ± 1" TO ACCOMMODATE THE A901 BARS IN THE SHEAR KEY.
- FOR SECTION A-A, SHEAR KEY DETAILS AND WINGWALL DETAILS, SEE SHEET [16/45].

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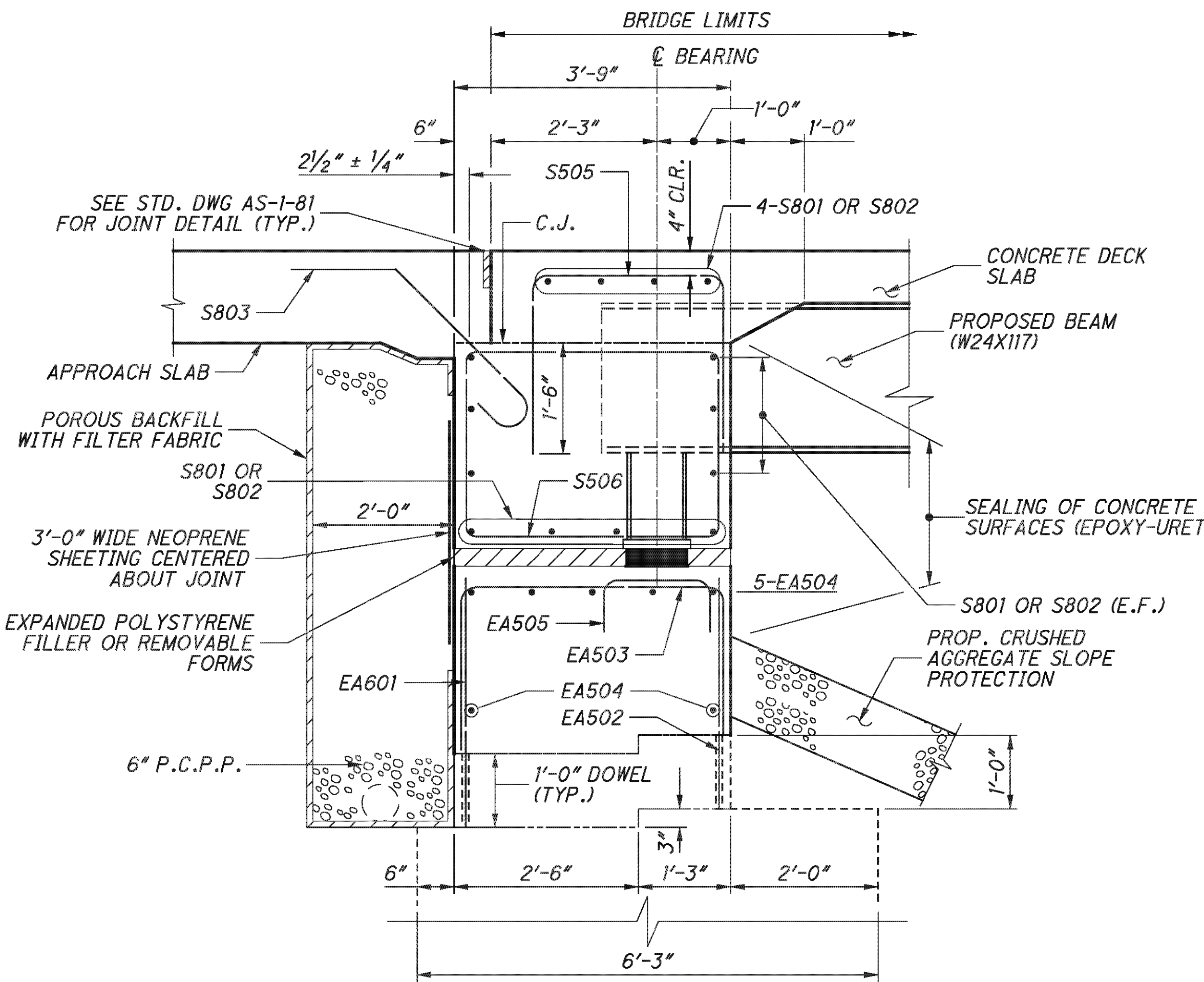
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DRAWN	BMG	REVIEWED	
REVIEWED	DFT	DATE	5/11/10
STRUCTURE FILE NUMBER	0702226L/0702250R		

REAR ABUTMENT - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

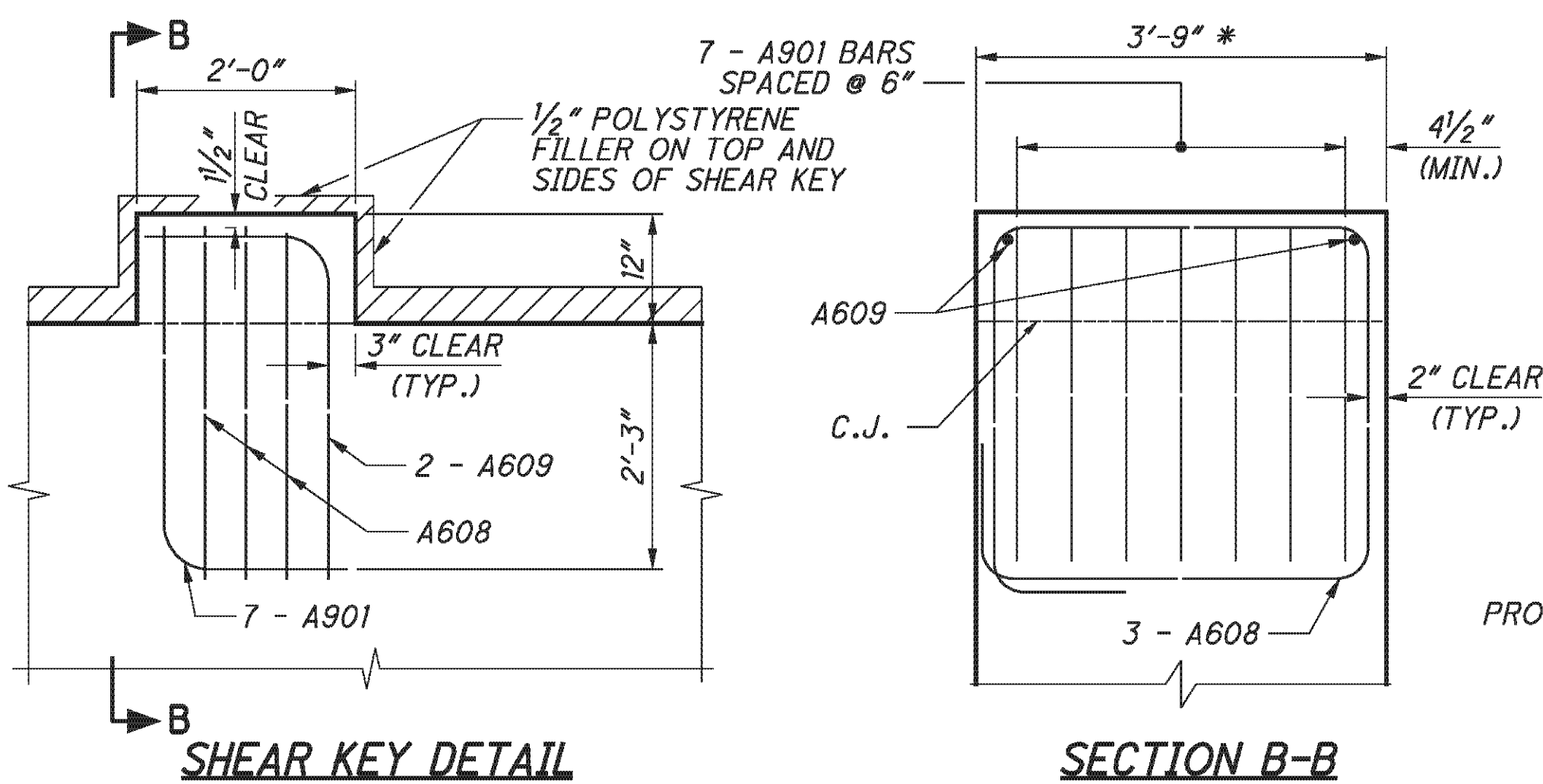
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PID No. 76825

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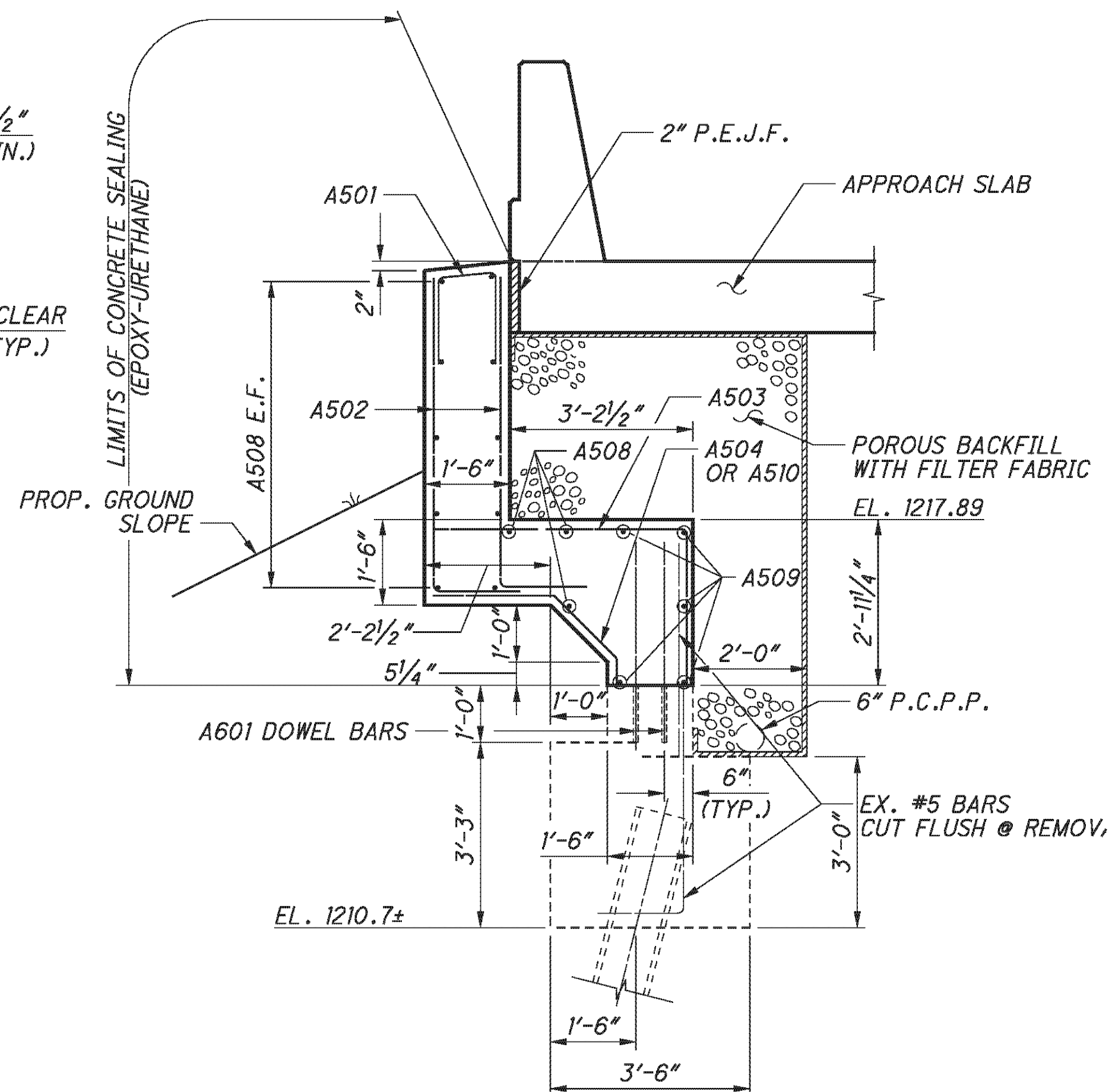
SECTION A-A



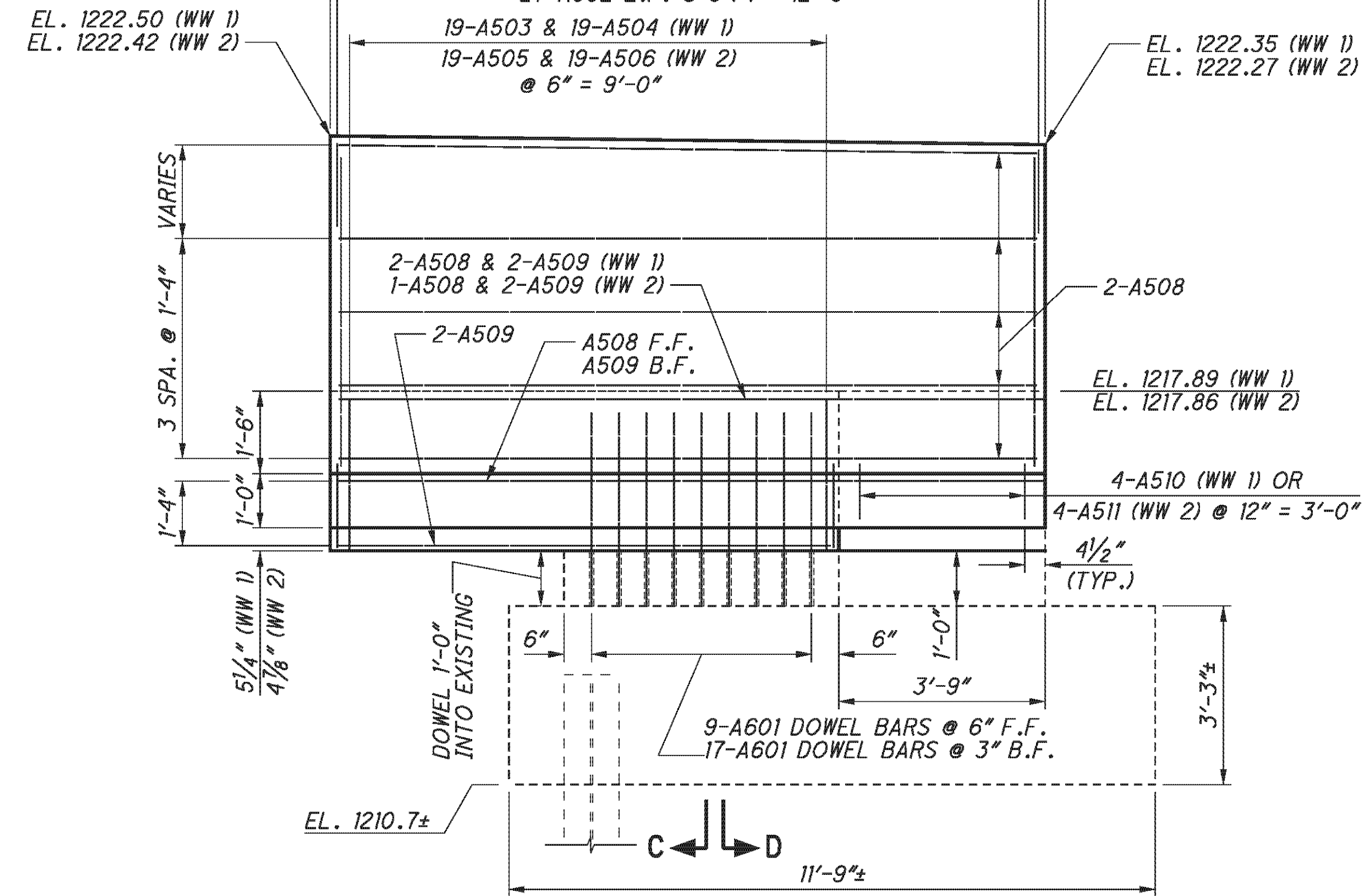
SHEAR KEY DETAIL

SECTION B-B

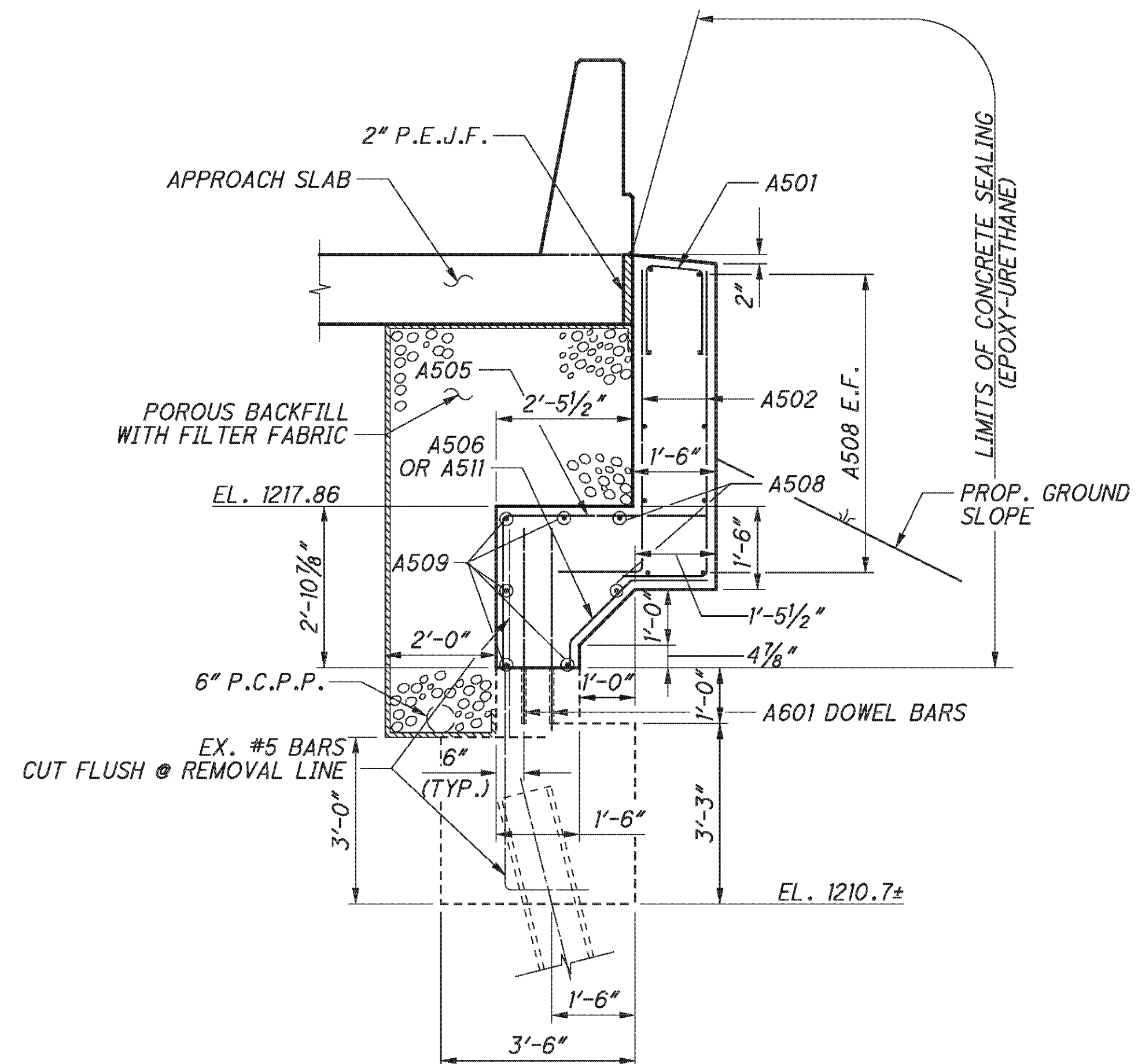
*-THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



SECTION C-C (WINGWALL 1)



REAR ABUTMENT WINGWALL ELEVATION
(WINGWALL 1 SHOWN, WINGWALL 2 SIMILAR)



SECTION D-D (WINGWALL 2)

NOTE:

FOR SHEAR KEY LOCATIONS, AND LOCATION OF SECTION A-A, SEE SHEET 15/45.

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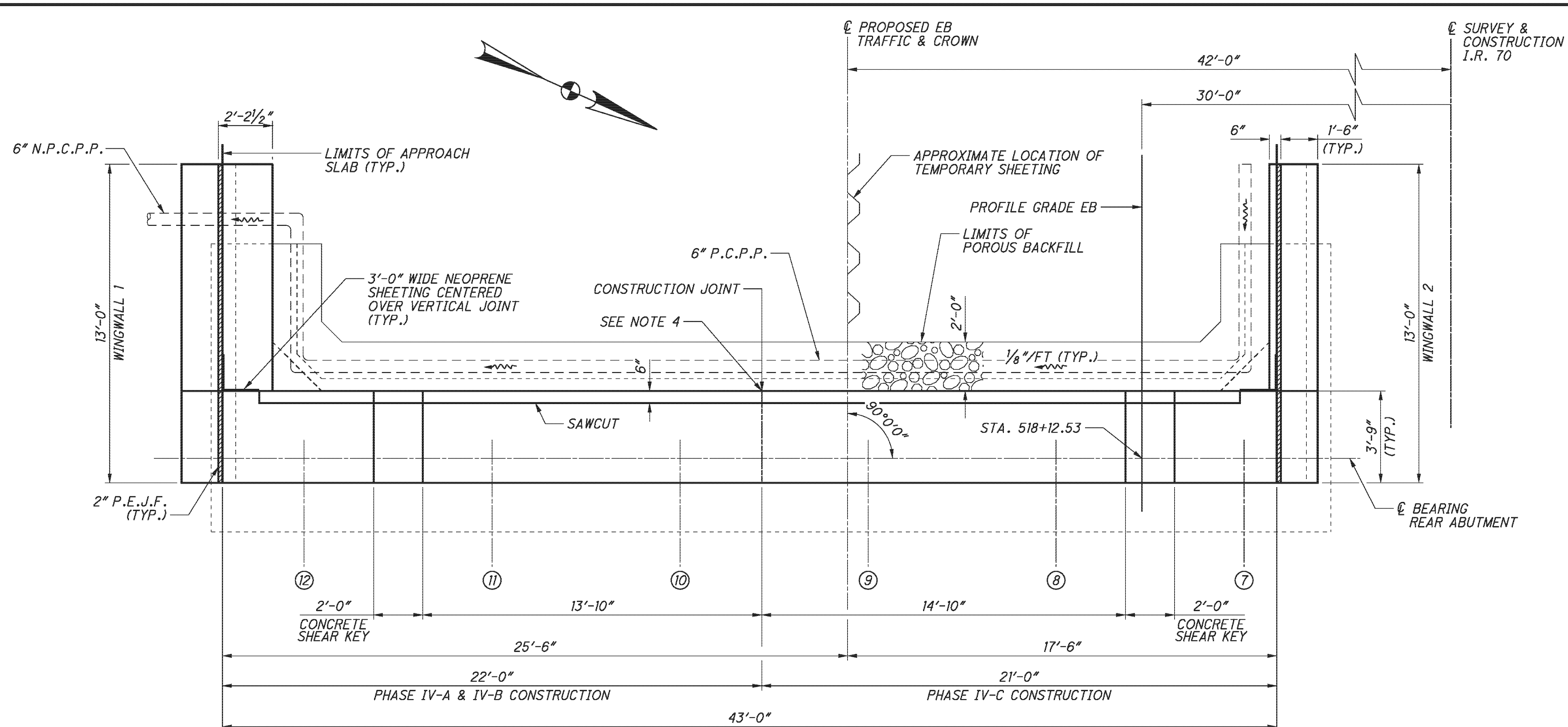
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REVIEWED	DFT
DESIGNED	BMG
CHECKED	TUE
DRAWN	BMG
REVISED	
STRUCTURE FILE NUMBER	0702226L/0702250R

BEL-70-7.61
BRIDGE NO. BEL-70-0963 L/R
PID No. 76825
I.R. TO OVER S.R. 149

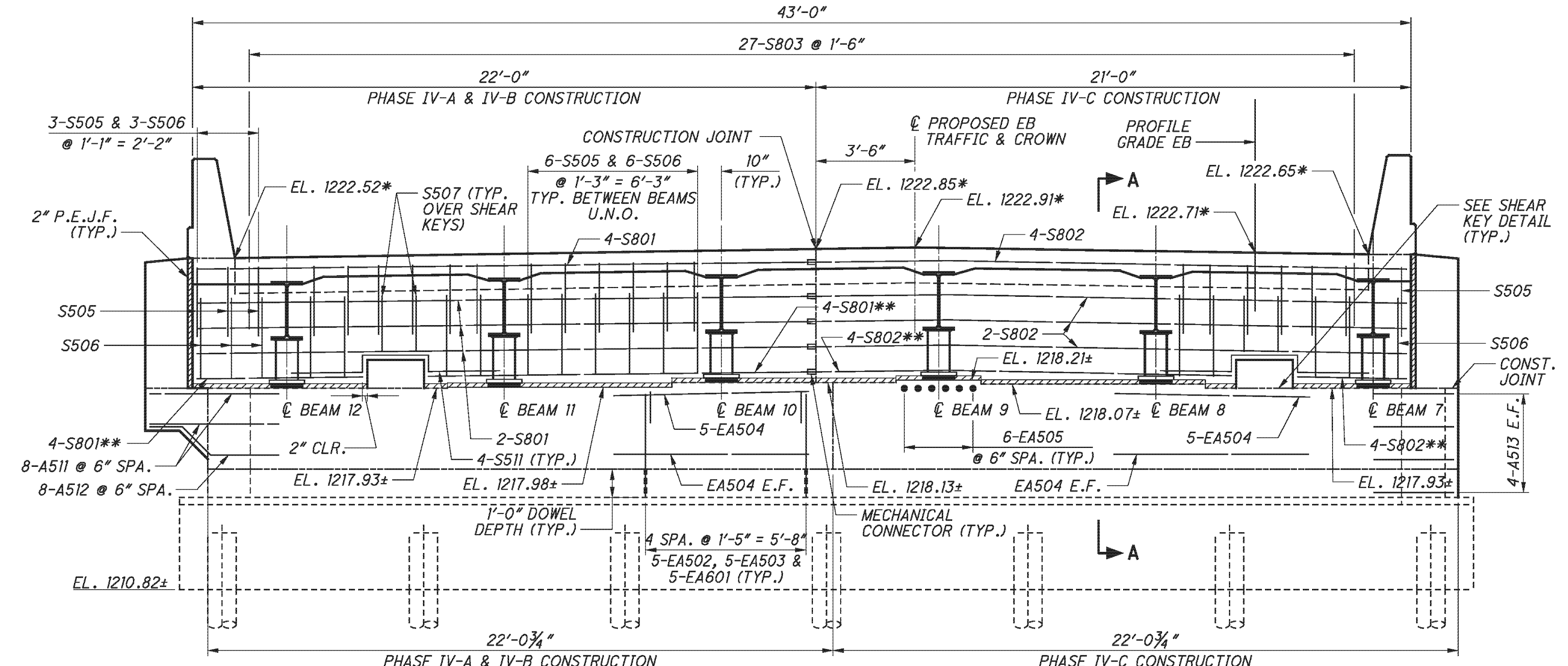
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PLAN



ELEVATION

LEGEND:

- * - ELEVATION GIVE AT \odot BEARINGS
- ** - FIELD CUT AT SHEAR KEYS

NOTES:

1. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
2. FOR BEARING DETAILS, SEE SHEET [30/45].
3. POROUS BACKFILL, 2'-0" THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND Laterally TO THE END OF THE WINGWALLS TO THE LIMITS SHOWN. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE.
4. VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO BOTTOM OF APPROACH SLAB.
5. ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
6. FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS, SEE ODOT STD. DRAWING SICD-1-96.
7. THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY $\pm 1"$ TO ACCOMMODATE THE A901 BARS IN THE SHEAR KEY.
8. FOR SECTION A-A, SHEAR KEY DETAILS AND WINGWALL DETAILS, SEE SHEET [18/45].

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DATE	2/3/11		

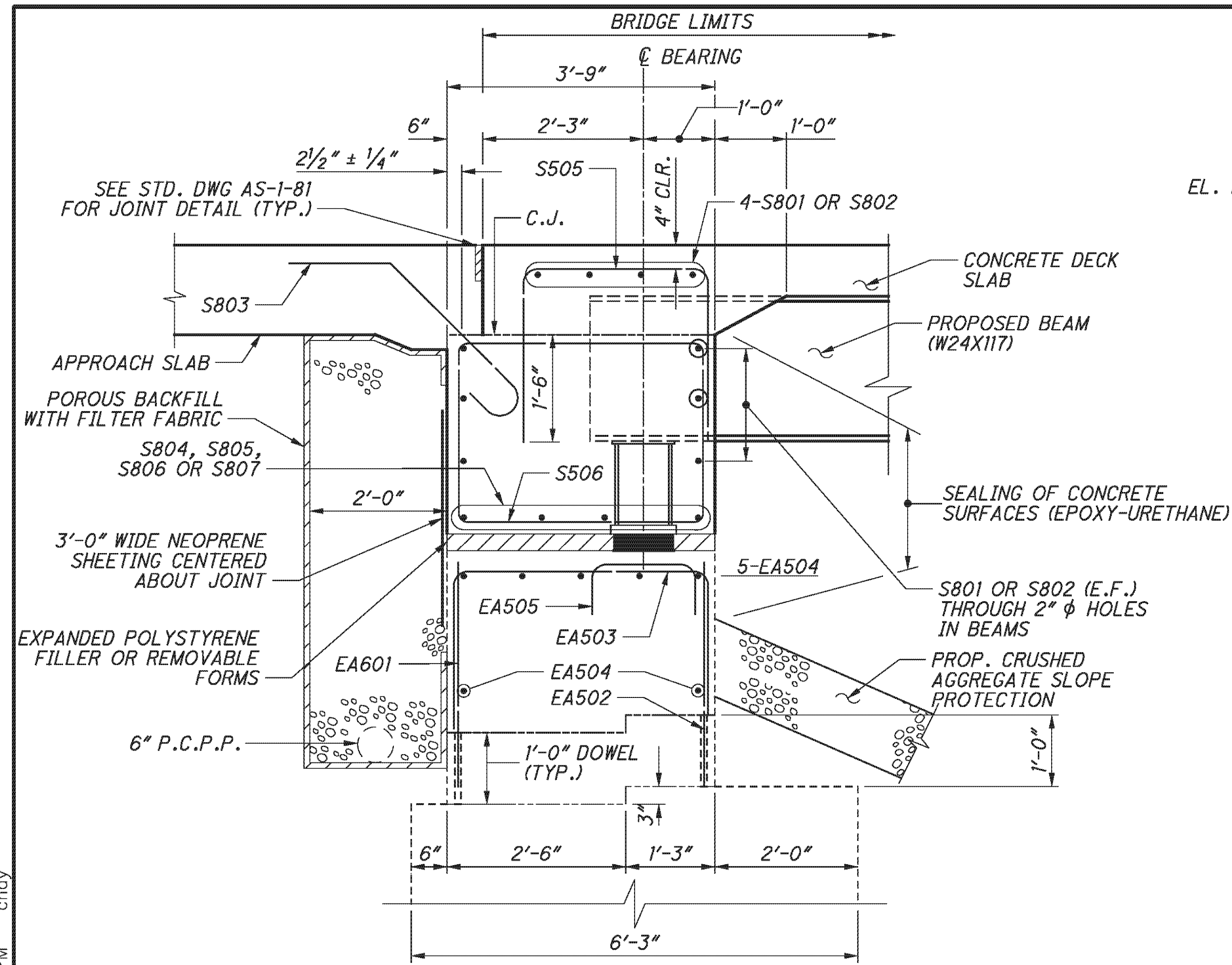
REAR ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

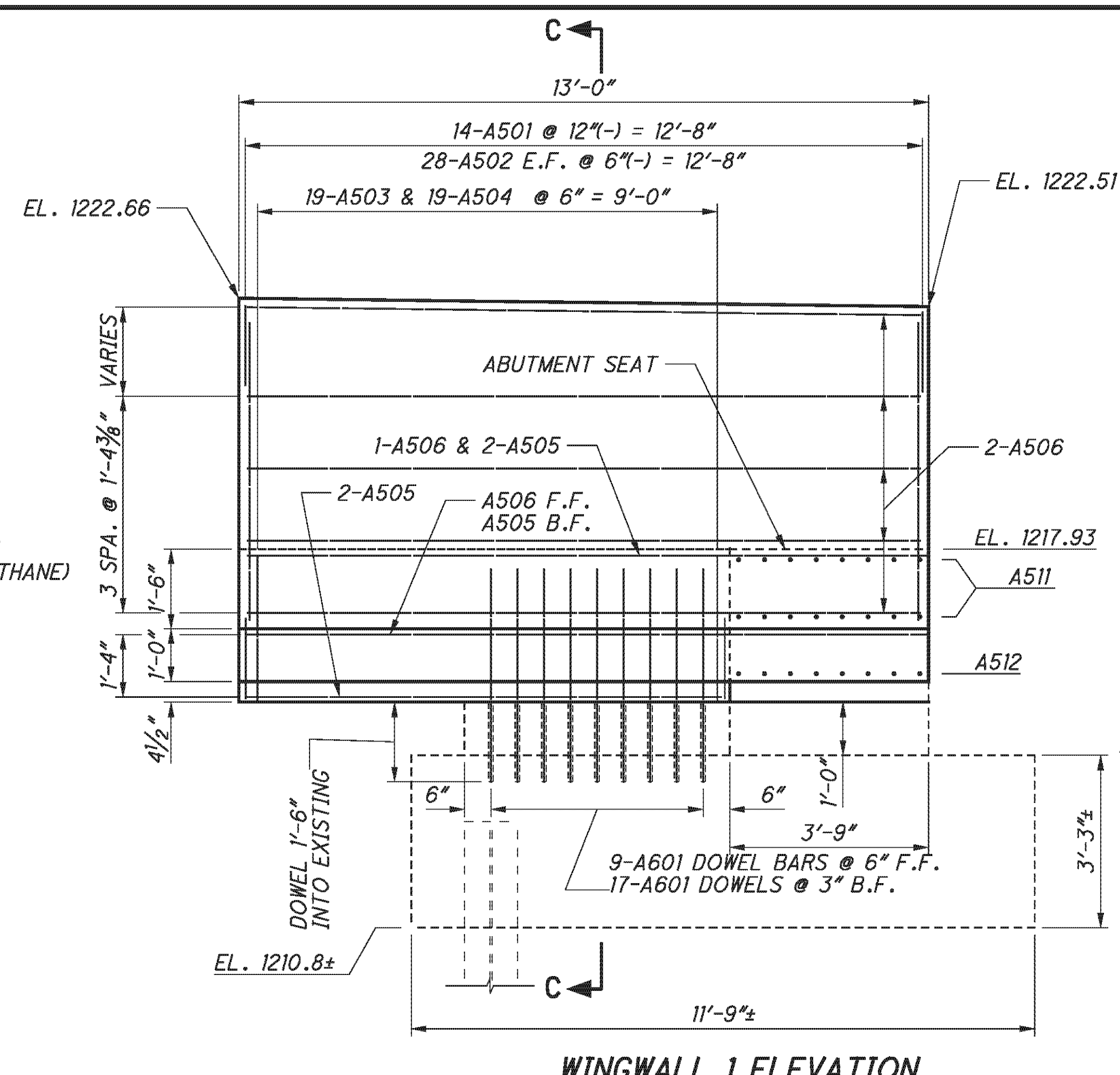
17 / 45

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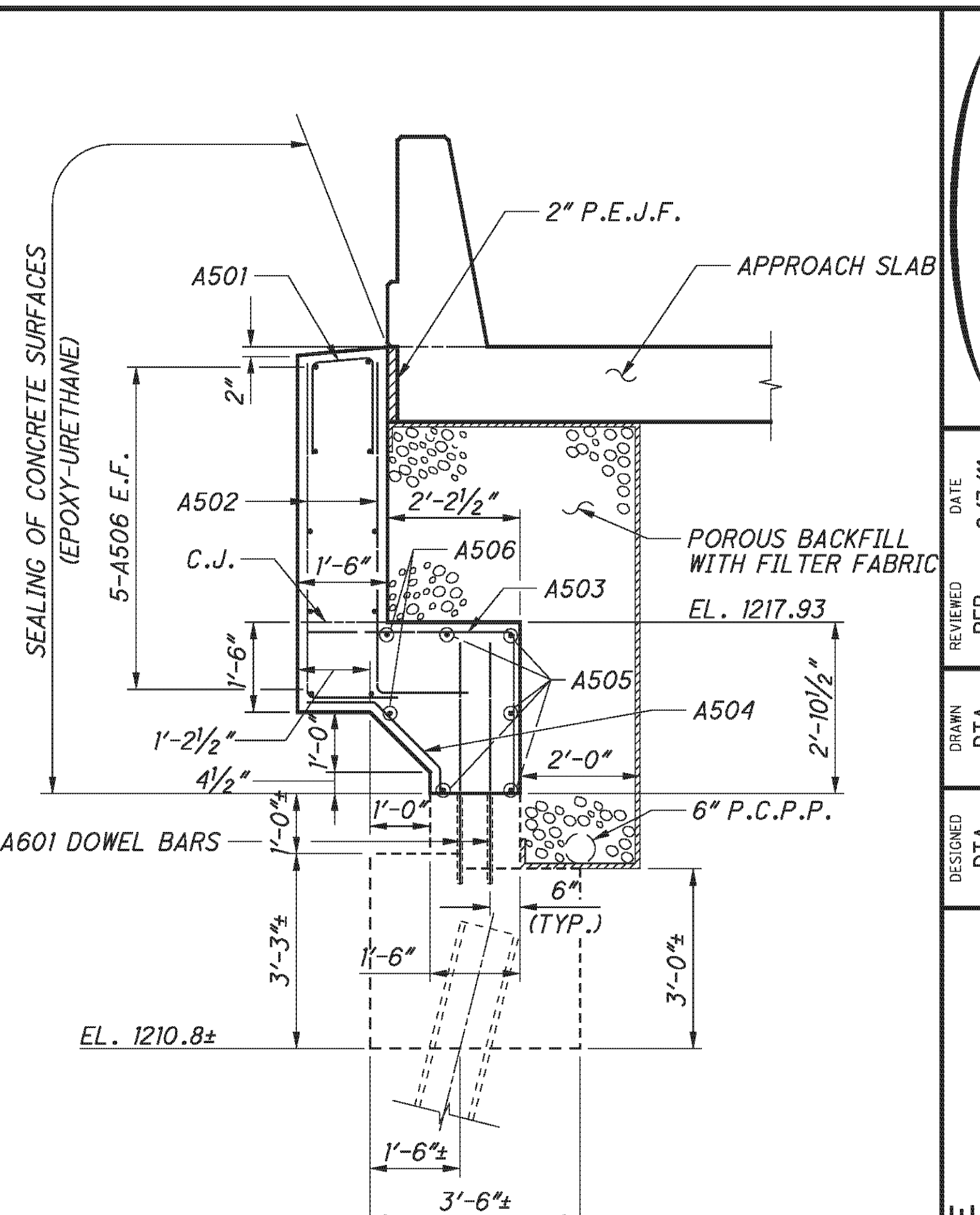
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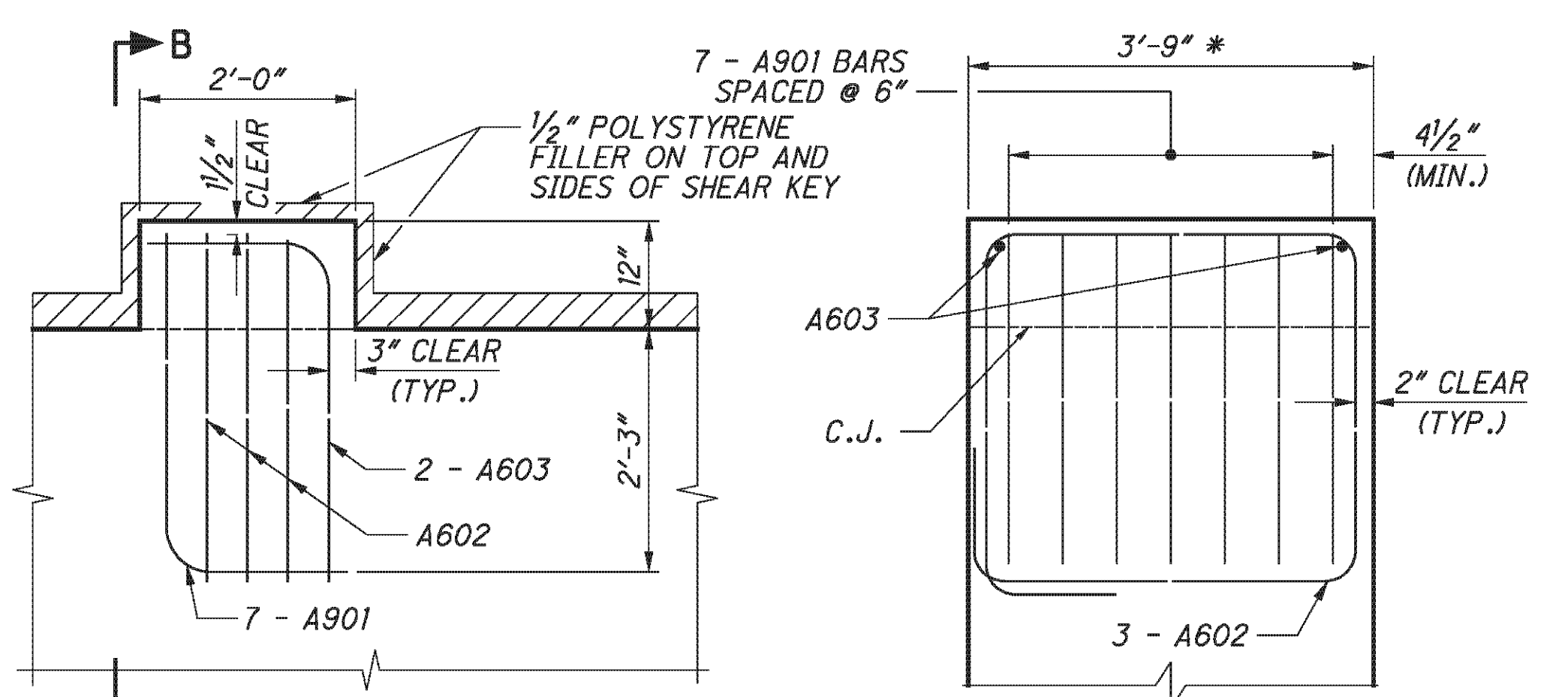
SECTION A-A



WINGWALL 1 ELEVATION



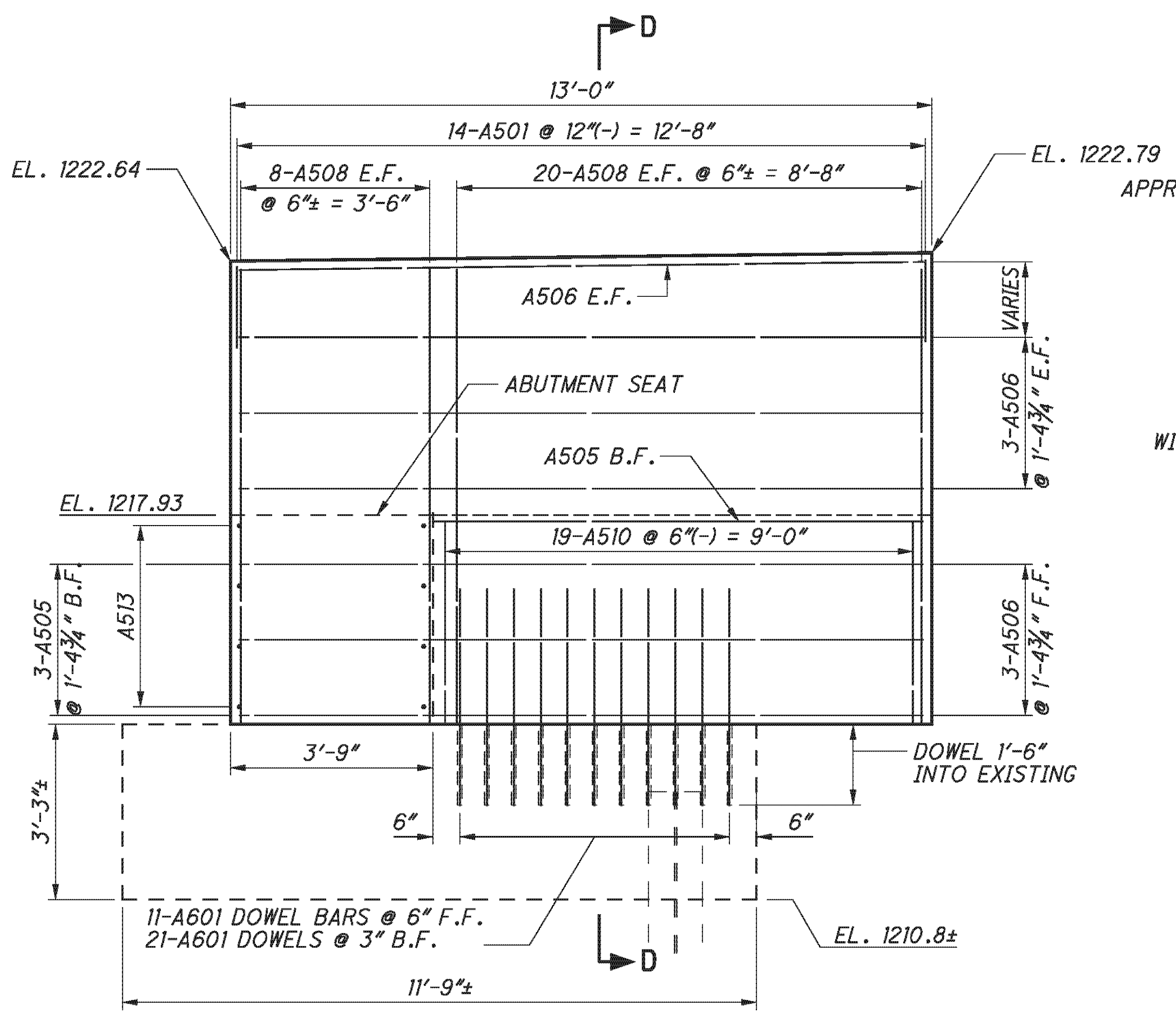
SECTION C-C



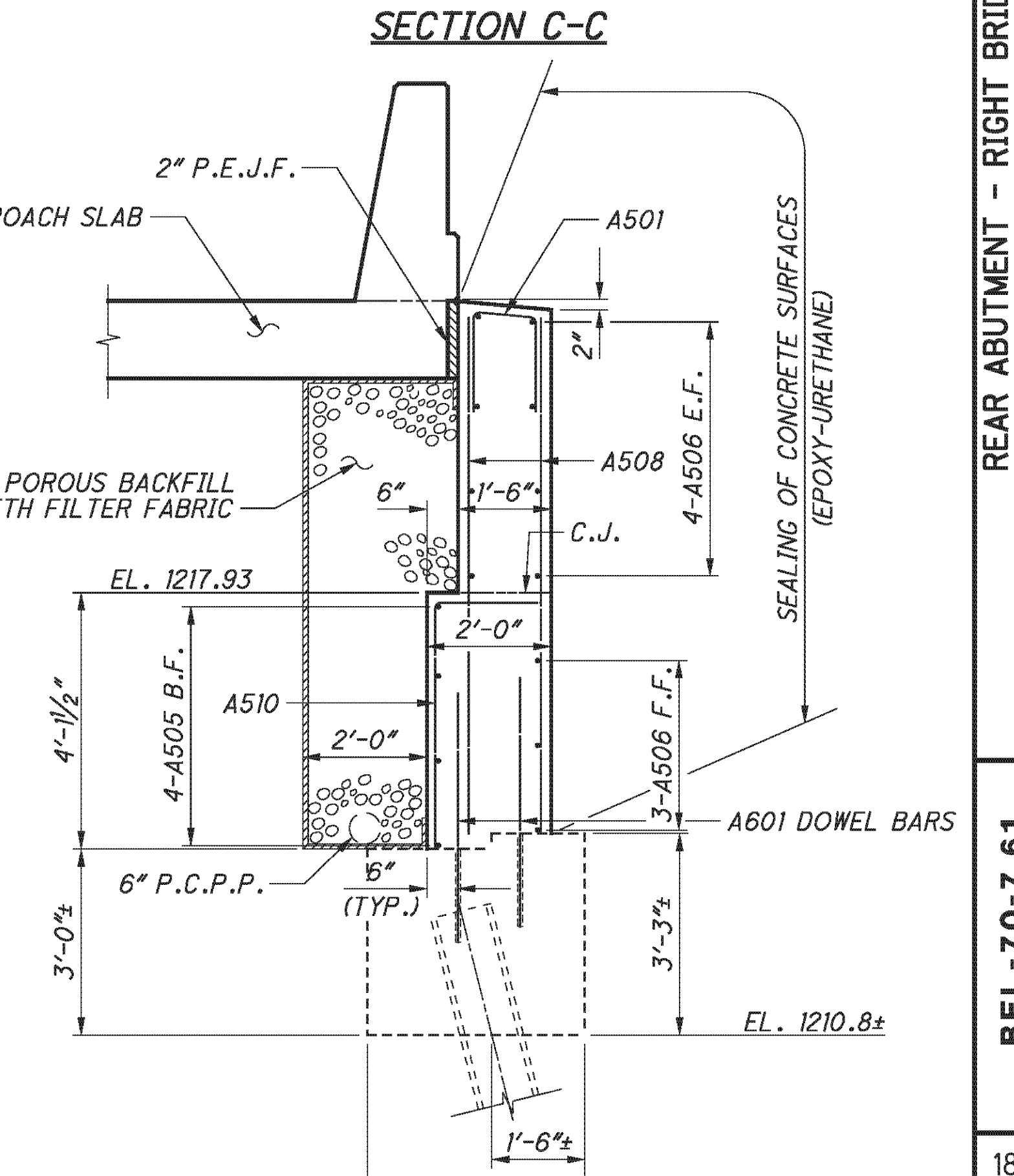
SHEAR KEY DETAIL

VIEW B-B

*-THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



WINGWALL 2 ELEVATION



SECTION D-D

- NOTE:**
1. FOR SHEAR KEY LOCATIONS, AND LOCATION OF SECTION A-A, SEE SHEET 17/45.
 2. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE.

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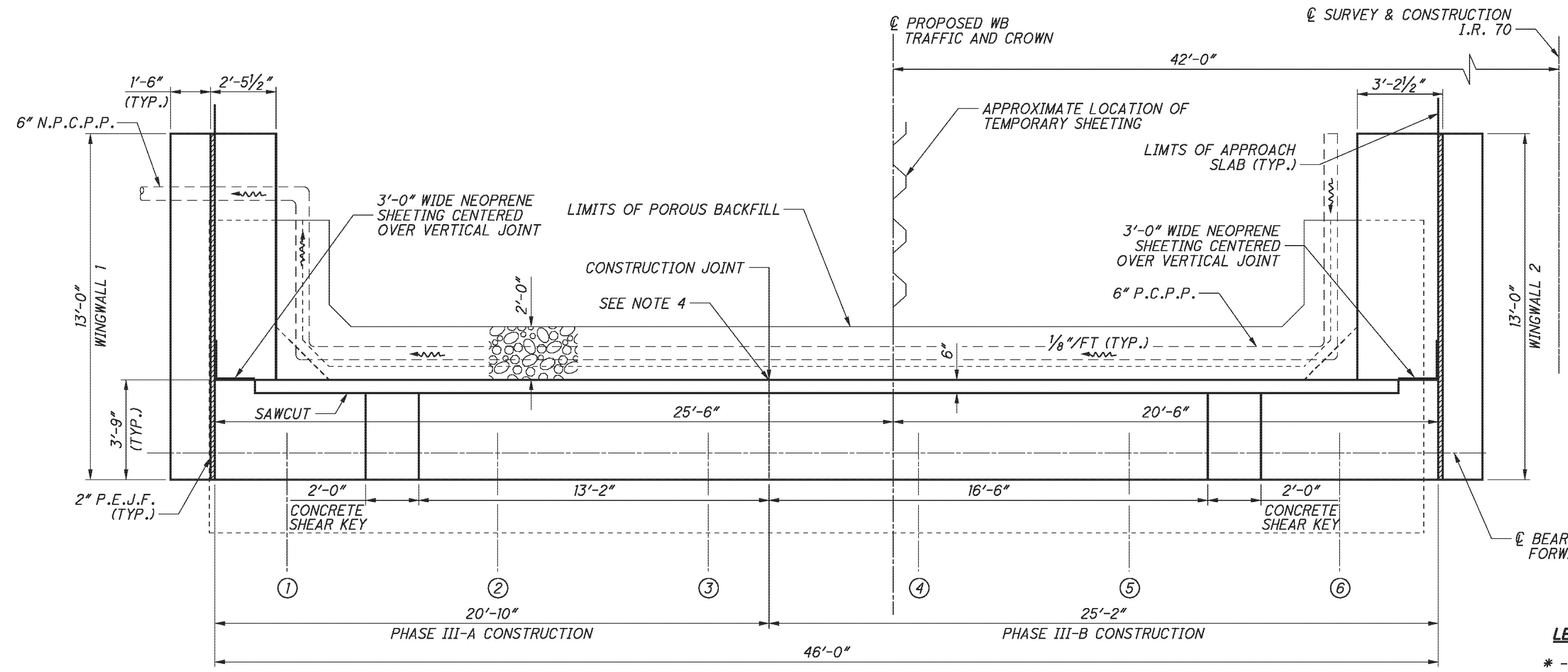
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STRUCTURE FILE NUMBER	0702226L/0702250R
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REAR ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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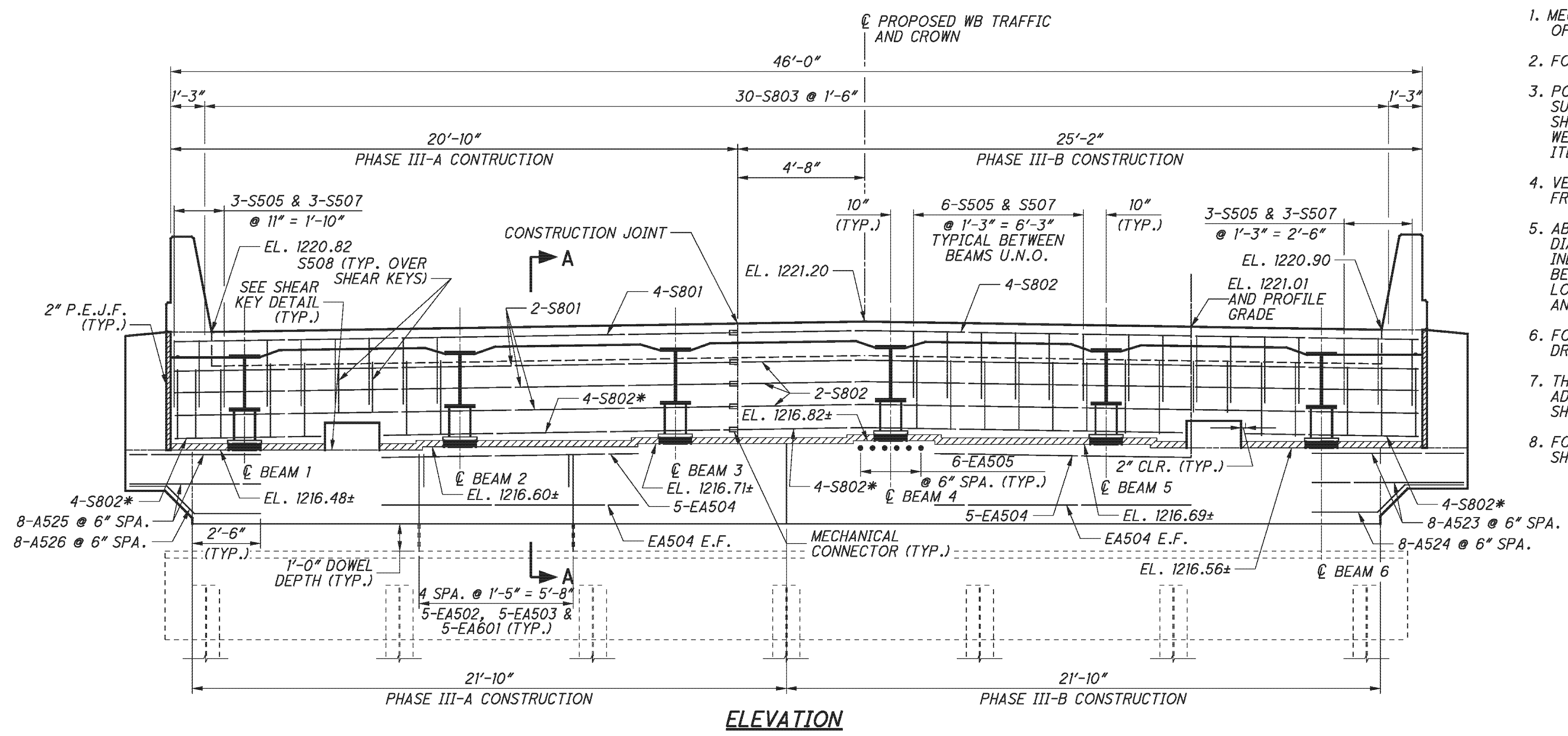


LEGEND:

* - FIELD BEND AT SHEAT KEYS

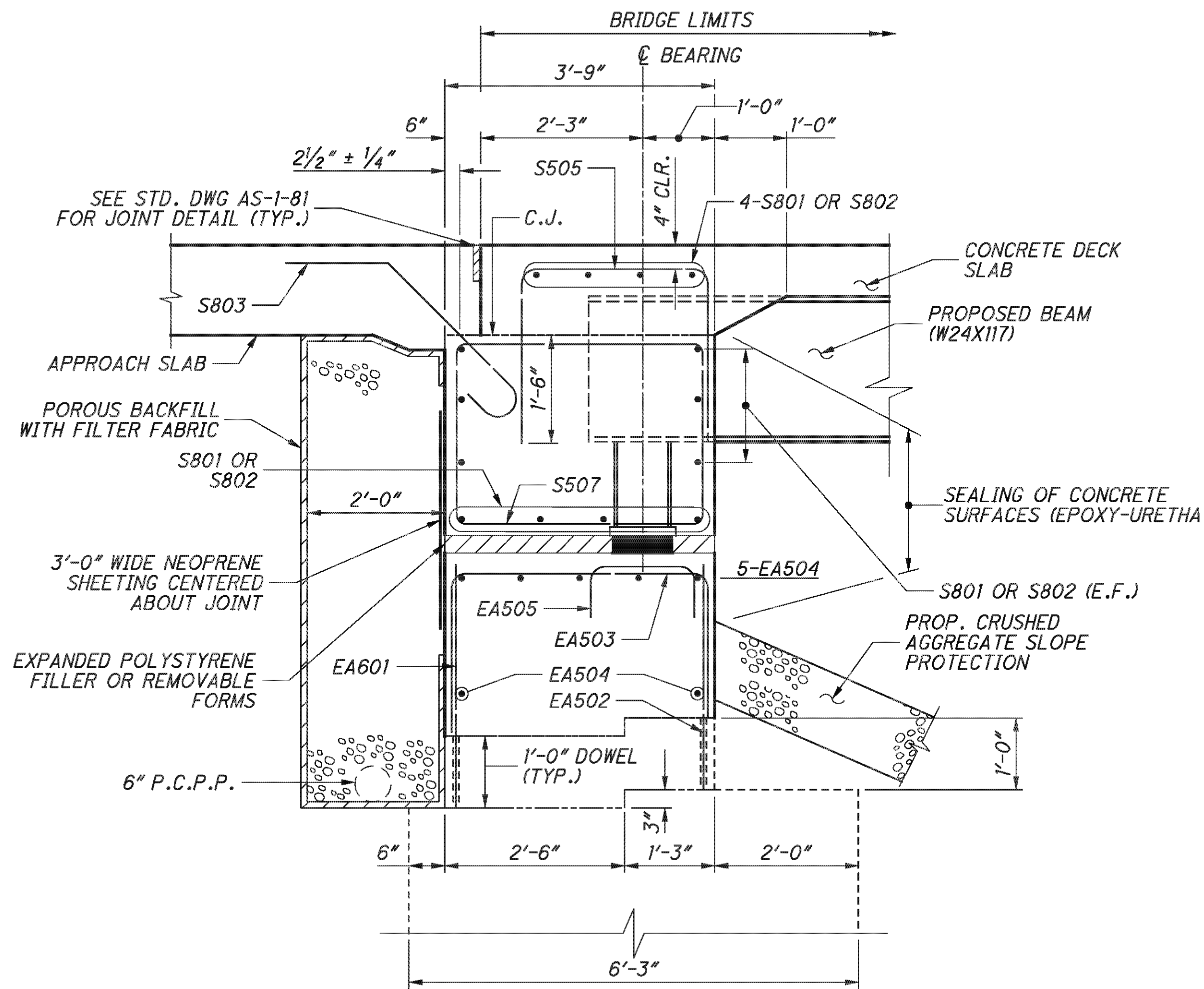
NOTES:

- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
- FOR BEARING DETAILS, SEE SHEET [29/45].
- POROUS BACKFILL, 2'-0" THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND Laterally TO THE END OF THE WINGWALLS TO THE LIMITS SHOWN. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEP HOLE. THE DEPARTMENT WILL INCLUDE BAGGED AGGREGATE WITH ITEM 518, POROUS BACKFILL WITH FILTER FABRIC FOR PAYMENT.
- VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO BOTTOM OF APPROACH SLAB.
- ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
- FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS, SEE ODOT STD. DRAWING SICD-1-96.
- THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ± 1" TO ACCOMMODATE THE A901 BARS IN THE SHEAR KEY.
- FOR SECTION A-A, SHEAR KEY DETAILS AND WINGWALL DETAILS, SEE SHEET [20/45].

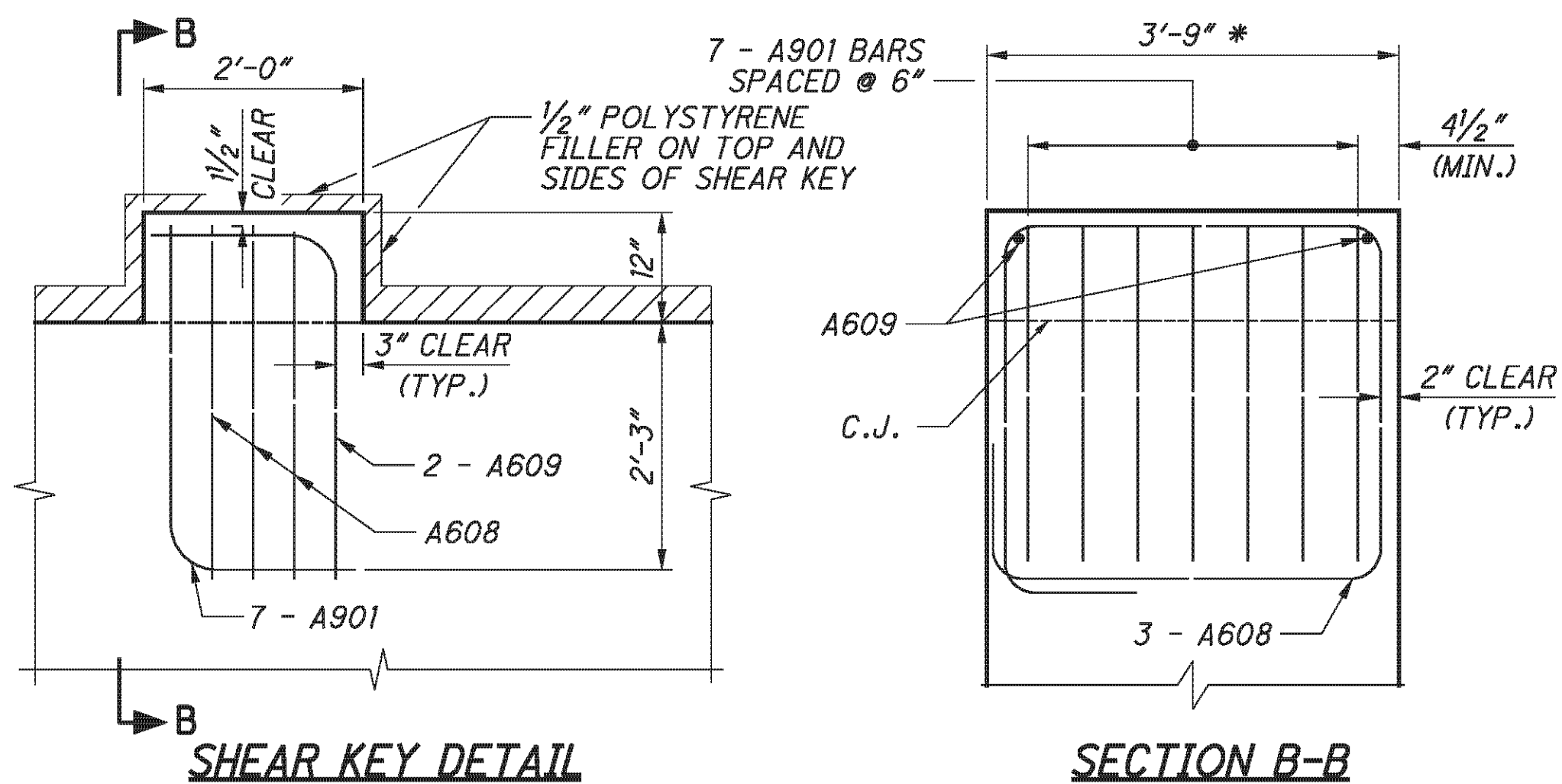


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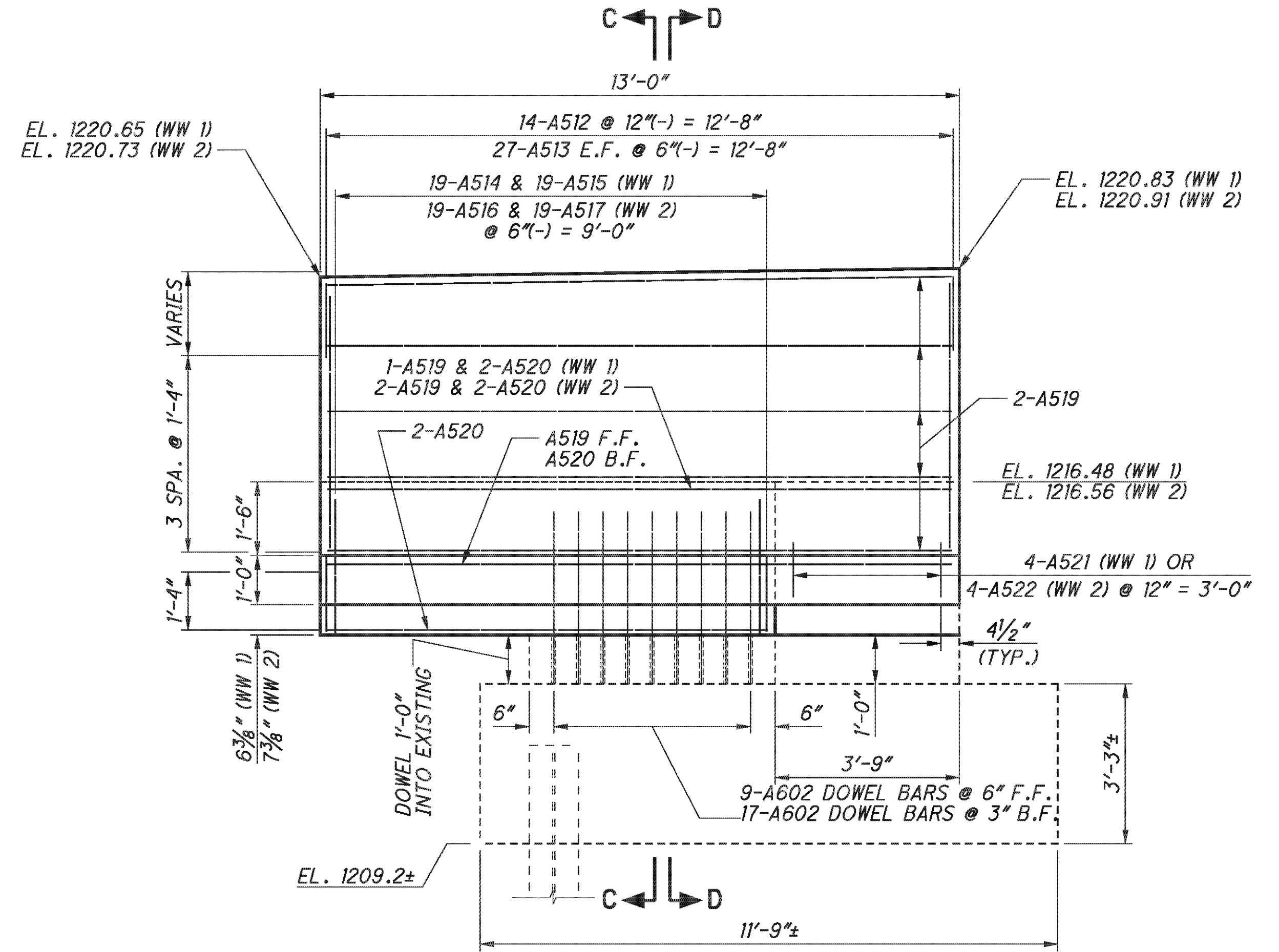


SECTION A-A

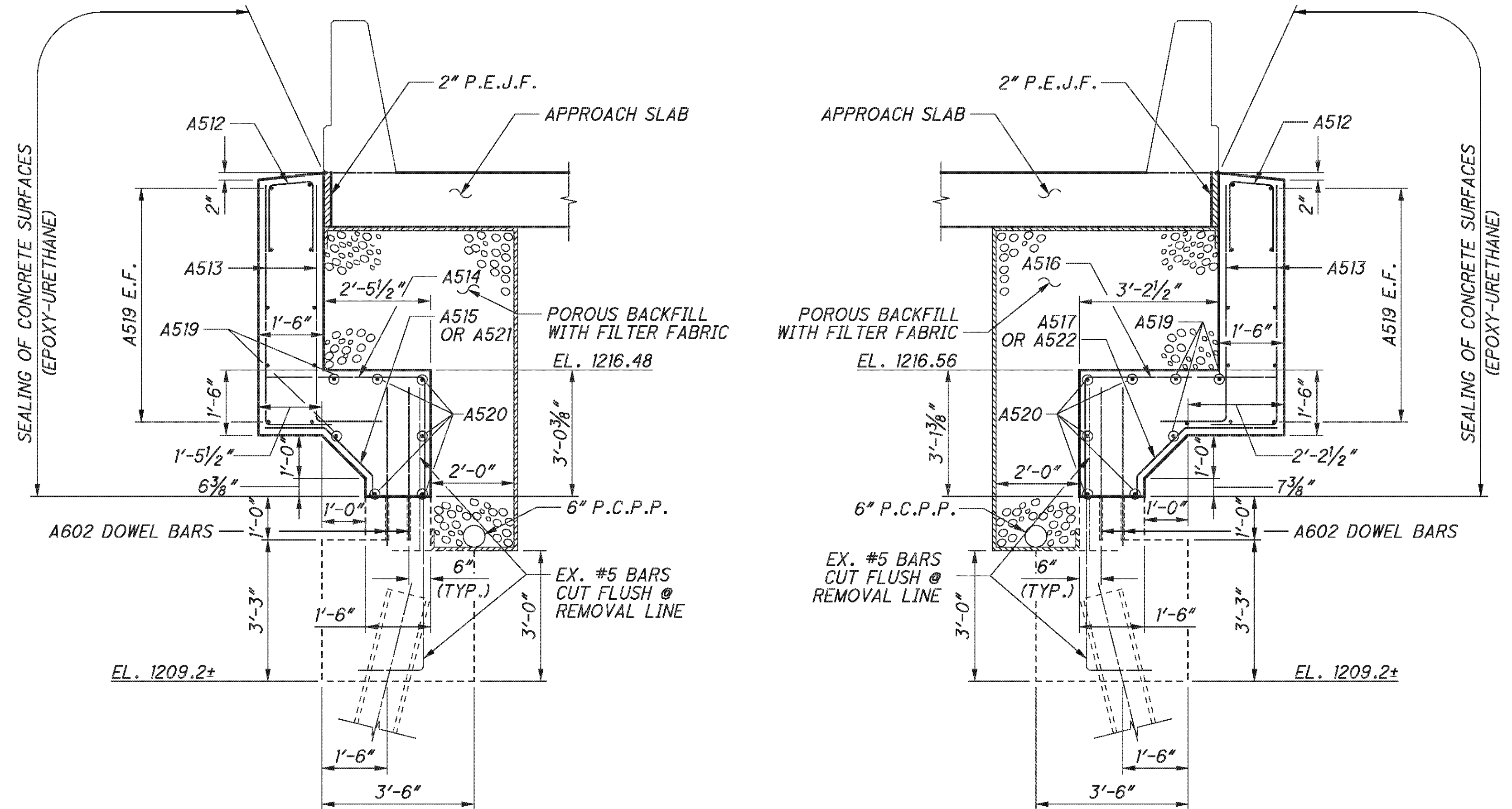


*-THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE 1/4" DEEP MINIMUM.

NOTE:
FOR SHEAR KEY LOCATIONS, AND LOCATION OF SECTION A-A, SEE SHEET 19/45.



FORWARD ABUTMENT WINGWALL ELEVATION
(WINGWALL 1 SHOWN, WINGWALL 2 SIMILAR)



SECTION C-C (WINGWALL 1)

SECTION D-D (WINGWALL 2)

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1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DESIGNED	BMG	CHECKED	TUE
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DATE	5/11/10		

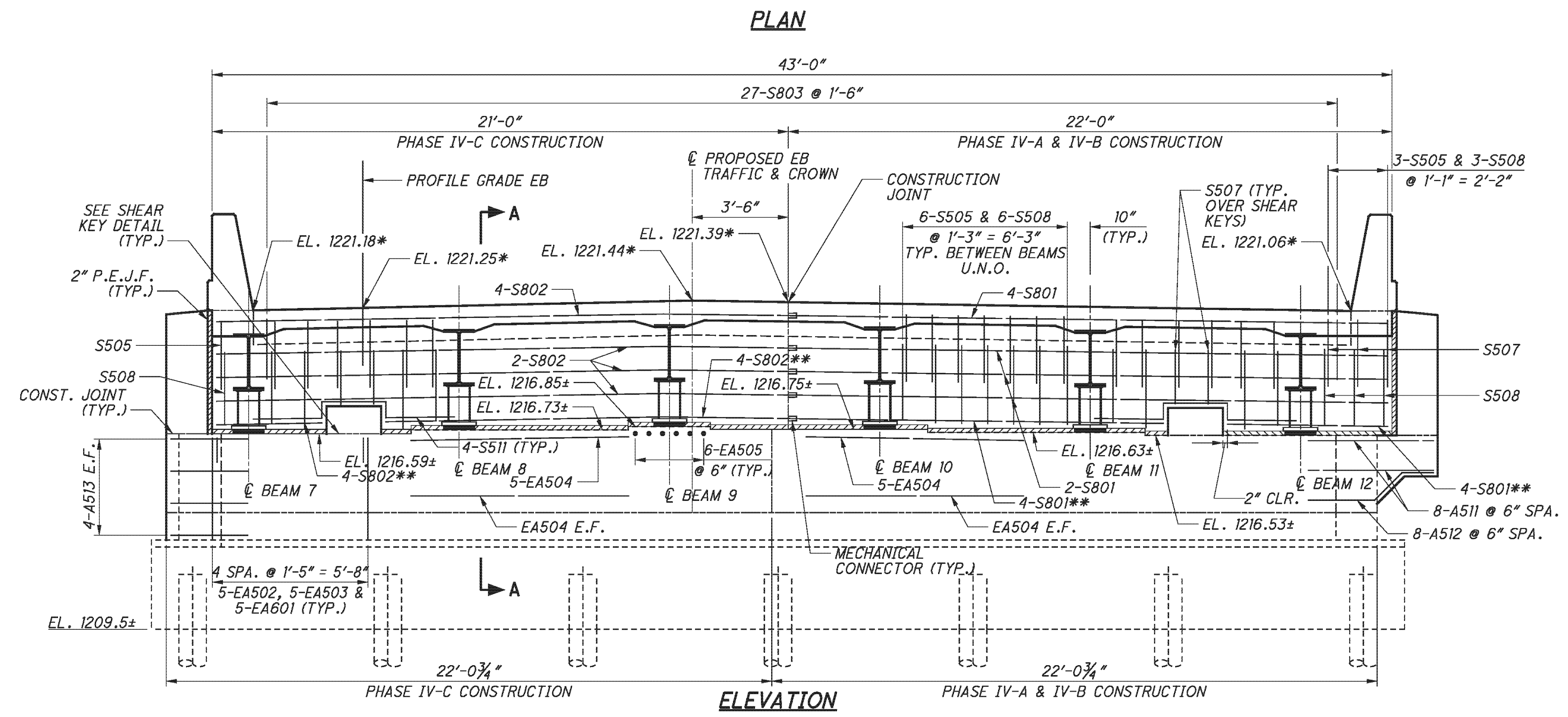
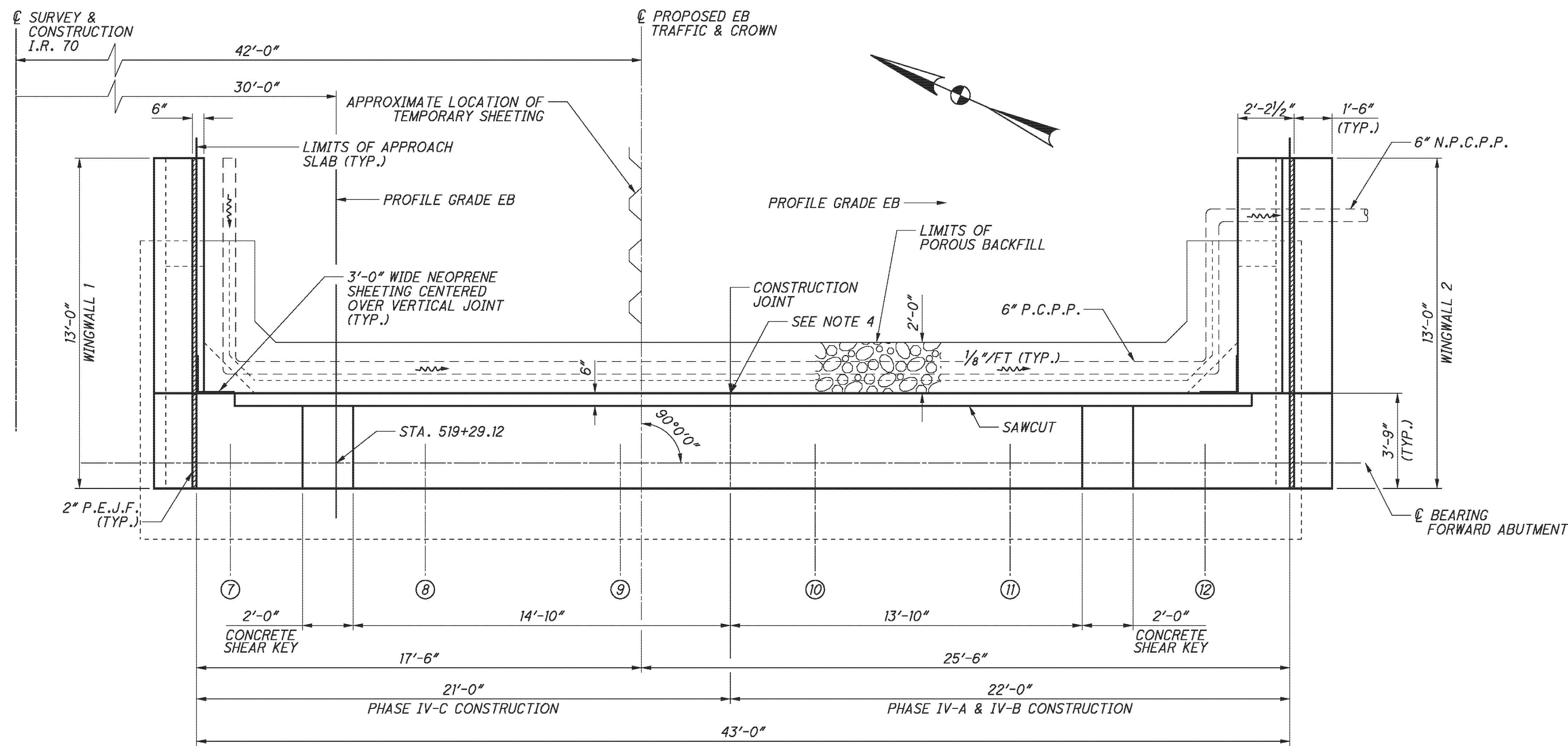
FORWARD ABUTMENT - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

20/45

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LEGEND:

- * - ELEVATION GIVE AT @ BEARINGS
- ** - FIELD CUTE AT SHEAR KEYS

NOTES:

1. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
2. FOR BEARING DETAILS, SEE SHEET 30/45.
3. POROUS BACKFILL, 2'-0" THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND Laterally TO THE END OF THE WINGWALLS TO THE LIMITS SHOWN. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE.
4. VERTICALLY PLACE TYPE 2 WATERPROOFING 3' WIDE CENTERED ON JOINT FROM 1'-6" BELOW EXISTING BRIDGE SEAT TO BOTTOM OF APPROACH SLAB.
5. ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.
6. FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT DETAILS, SEE ODOT STD. DRAWING SICD-1-96.
7. THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ± 1" TO ACCOMMODATE THE A901 BARS IN THE SHEAR KEY.
8. FOR SECTION A-A, SHEAR KEY DETAILS AND WINGWALL DETAILS, SEE SHEET 22/45.

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1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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DATE	2/3/11	STRUCTURE FILE NUMBER	070226L/0702250R

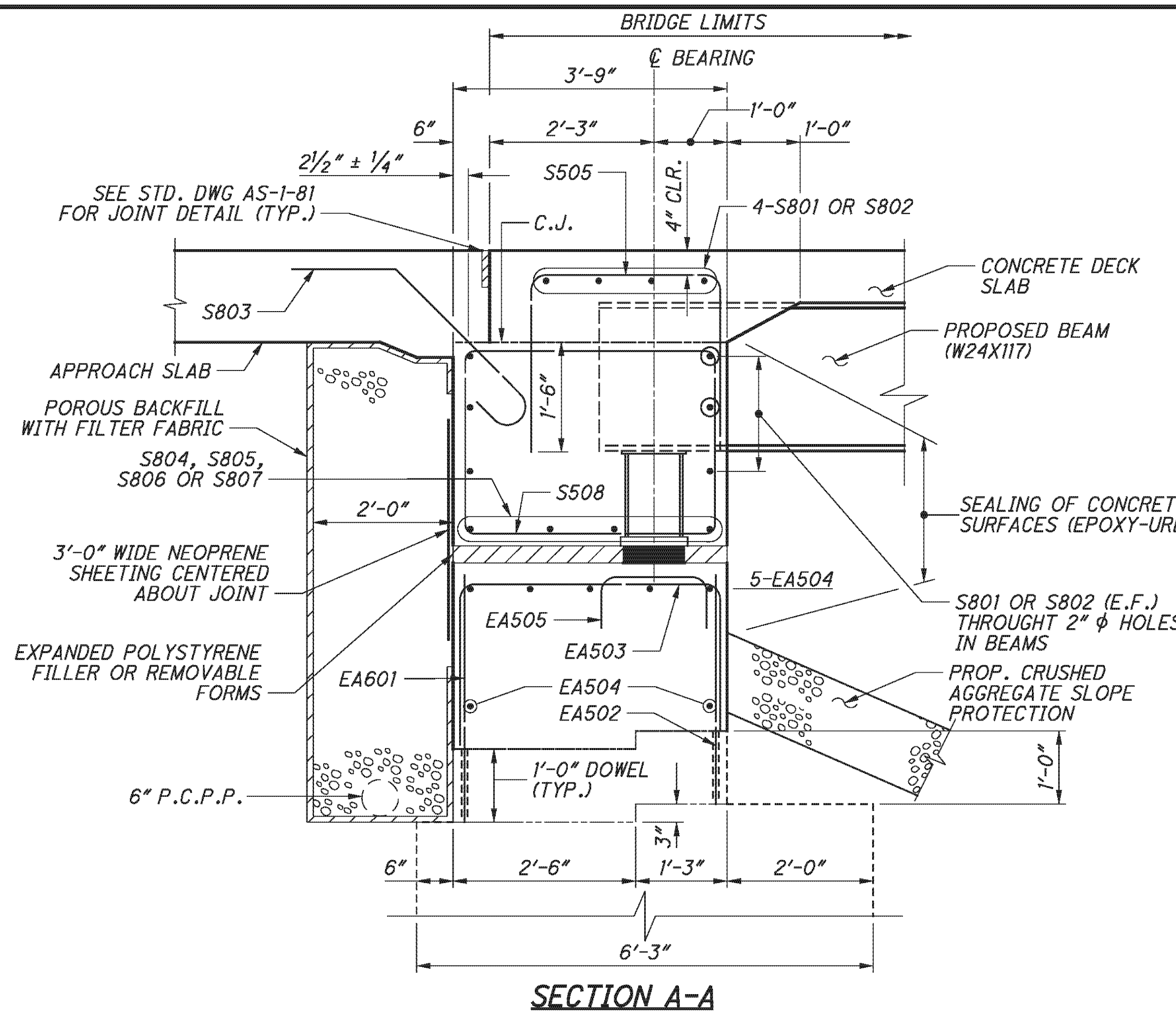
FORWARD ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

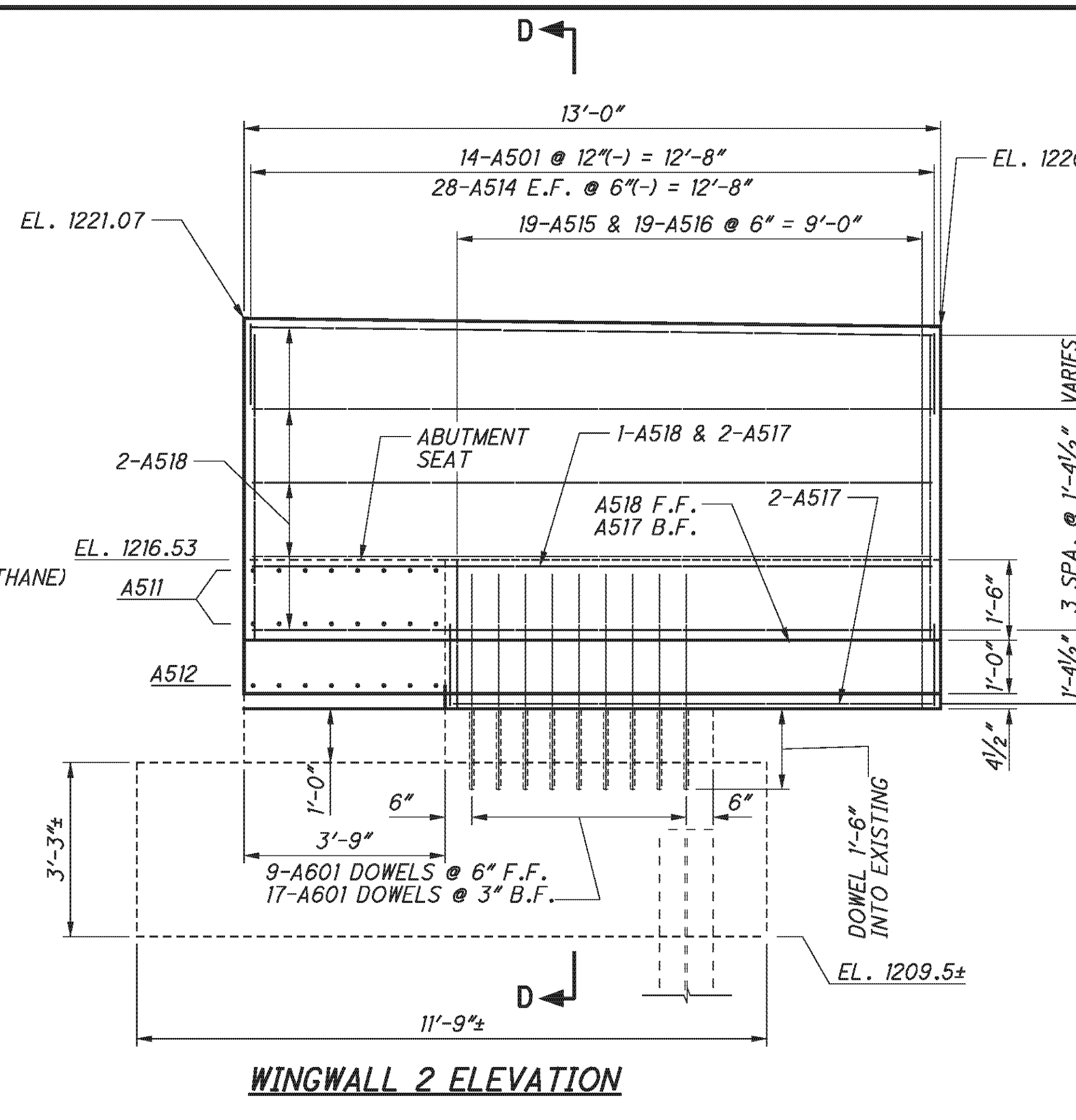
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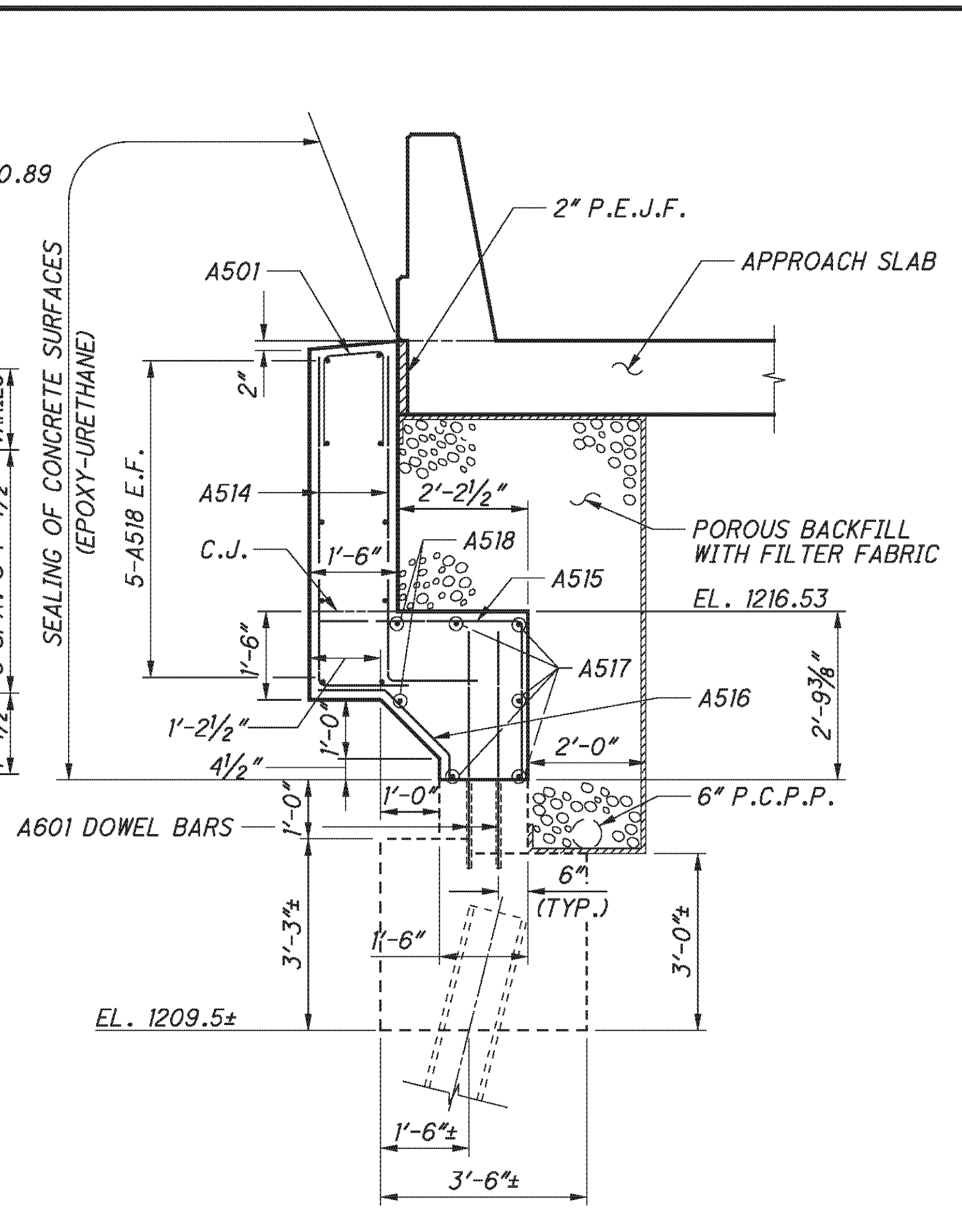
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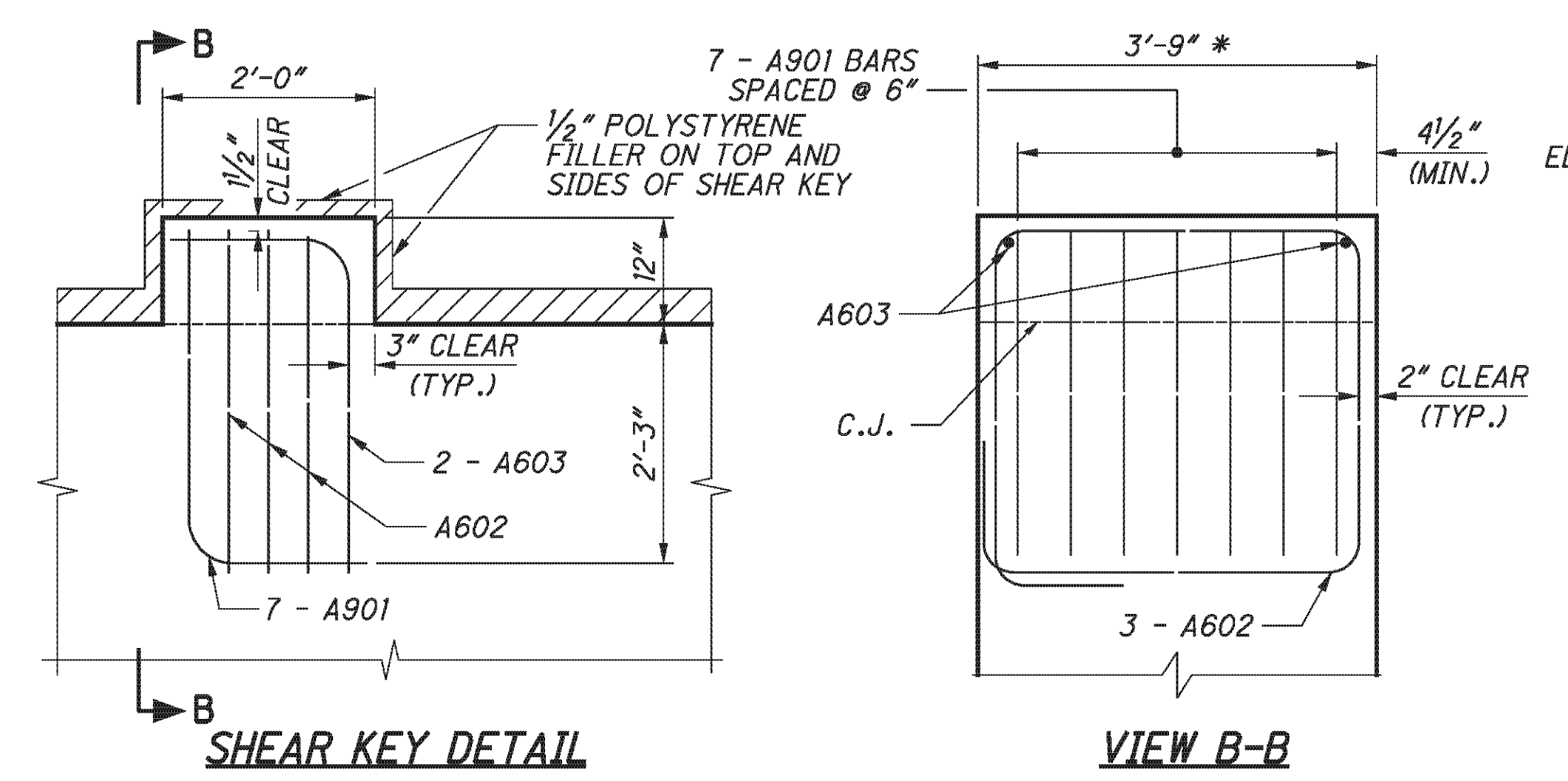
SECTION A-A



WINGWALL 2 ELEVATION



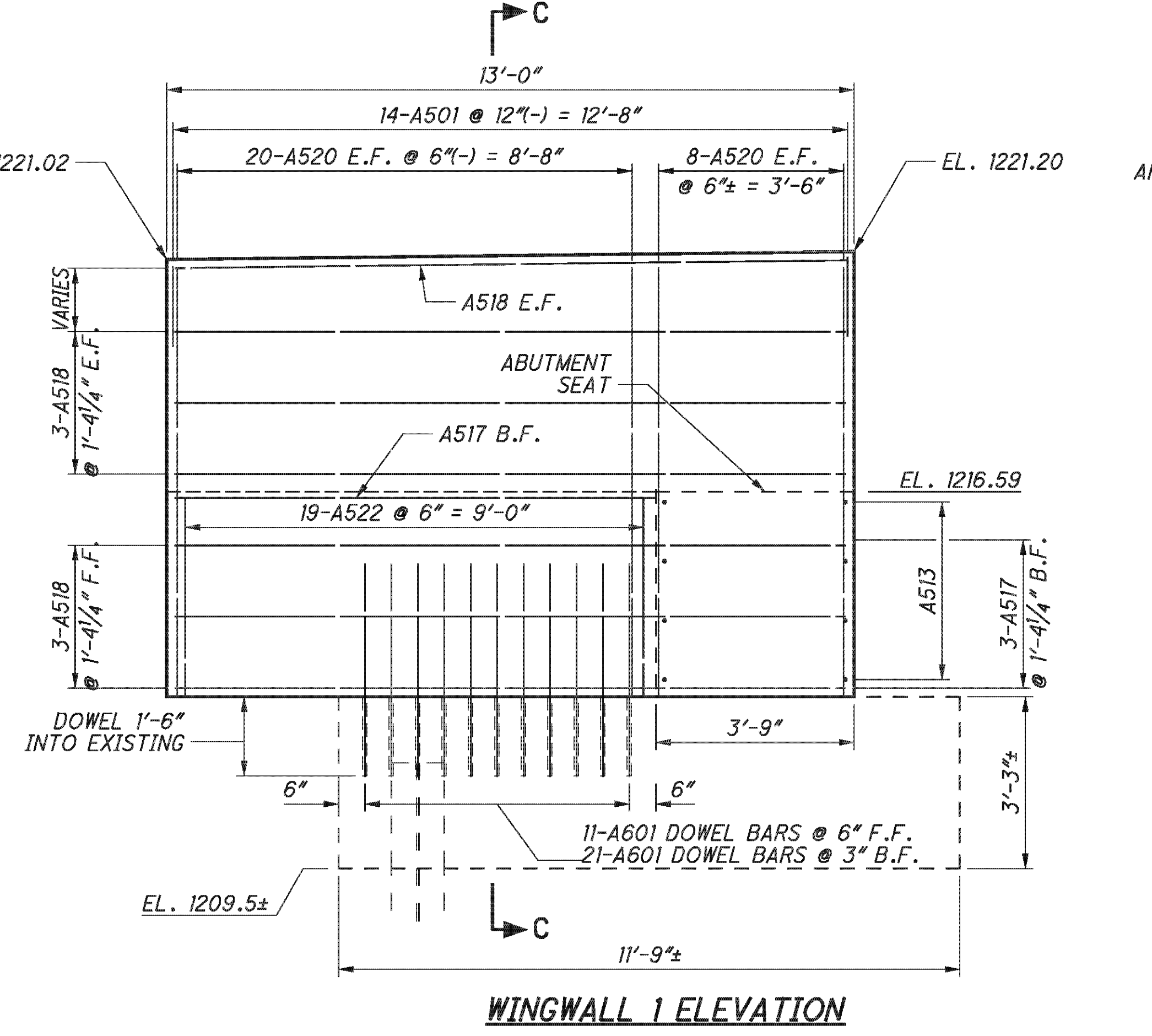
SECTION D-D



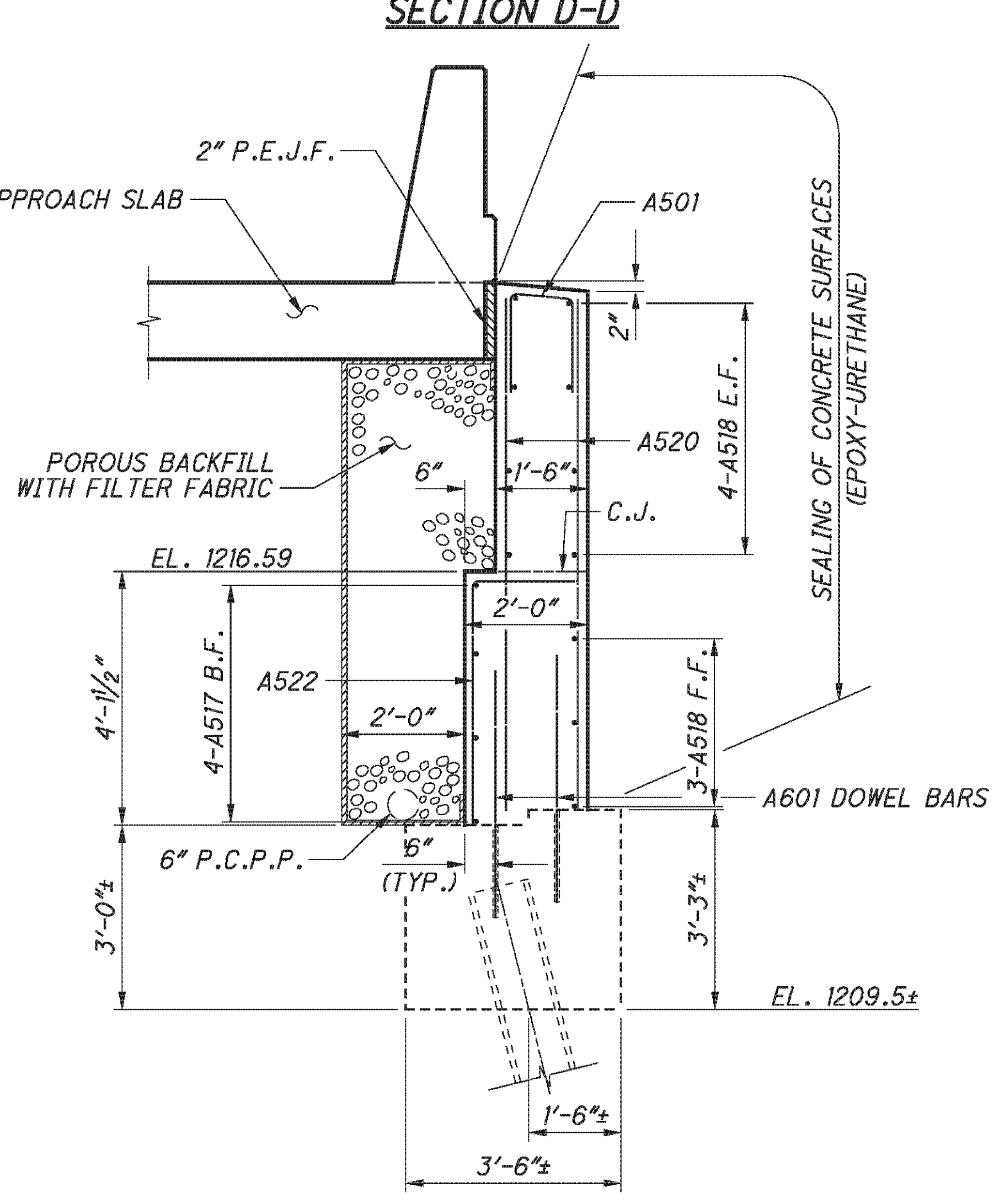
SHEAR KEY DETAIL

VIEW B-B

*-THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



WINGWALL 1 ELEVATION



SECTION C-C

NOTE:

1. FOR SHEAR KEY LOCATIONS, AND LOCATION OF SECTION A-A, SEE SHEET 21/45.
2. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE	2/3/11
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DESIGNED	DTA
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STRUCTURE FILE NUMBER	0702226L/0702250R

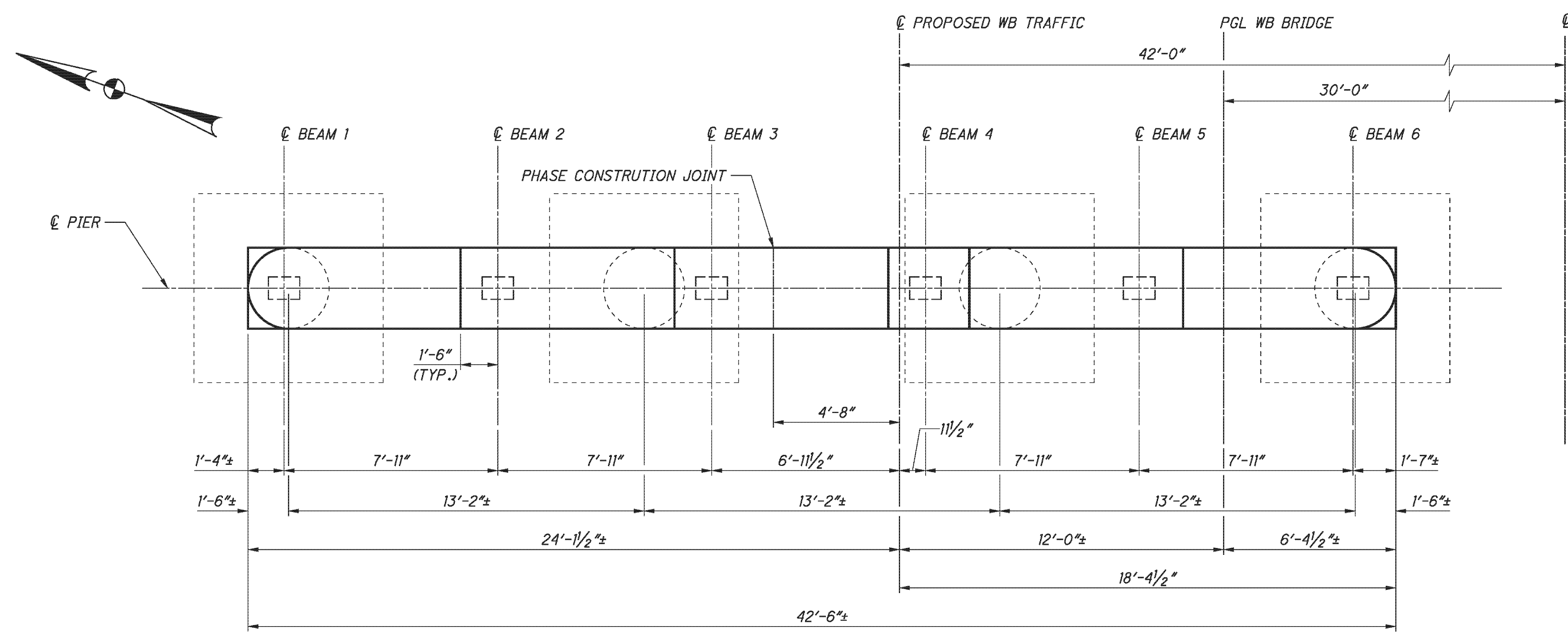
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BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

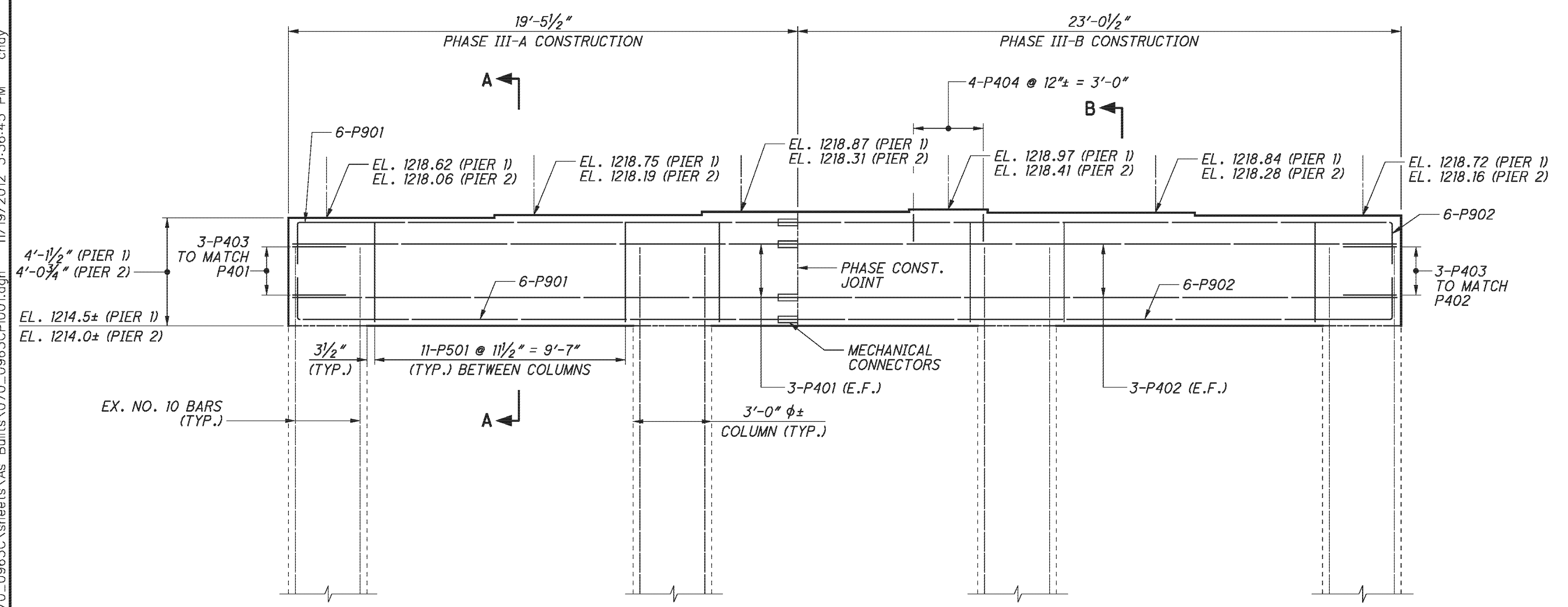
22/45

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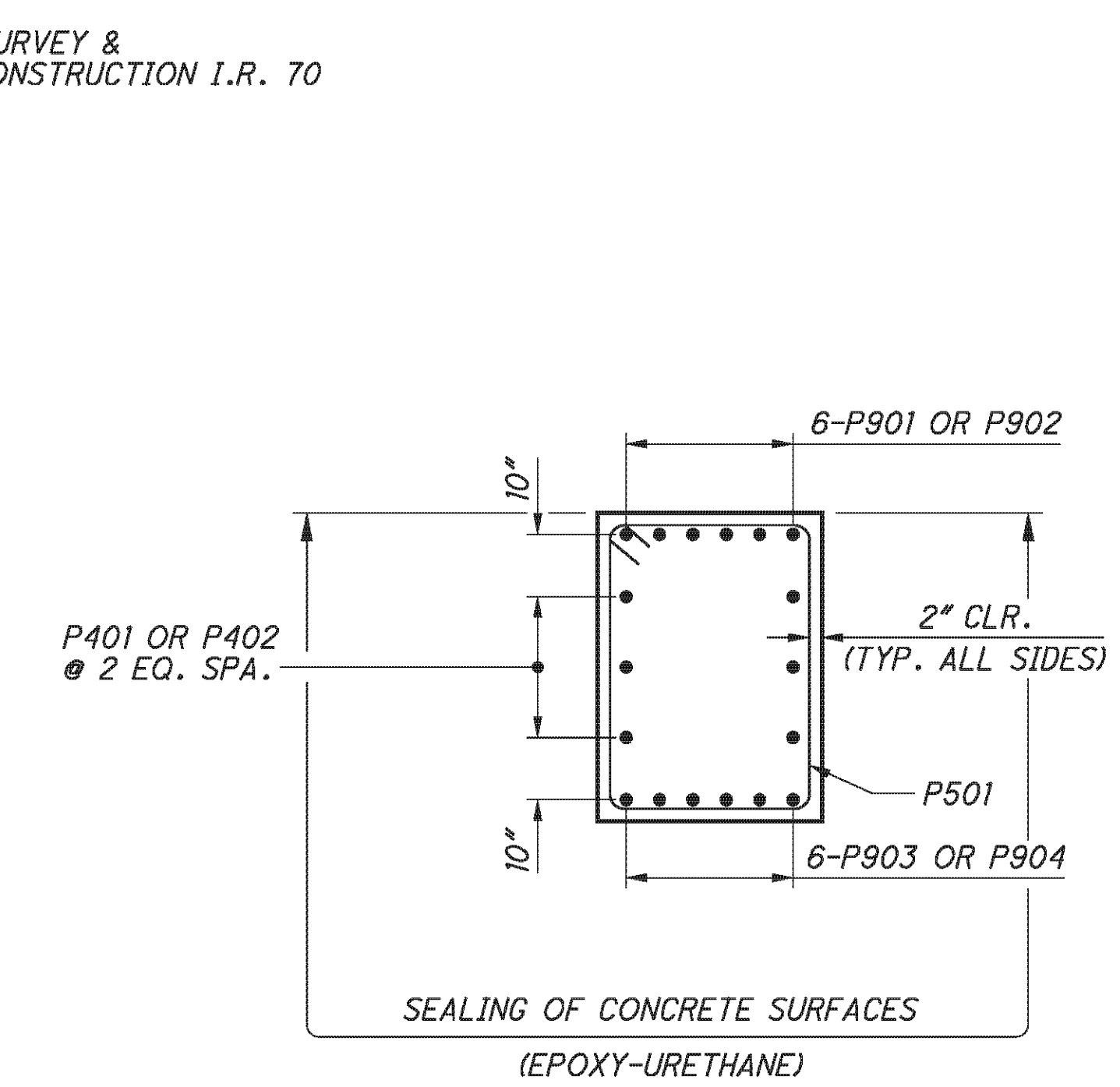
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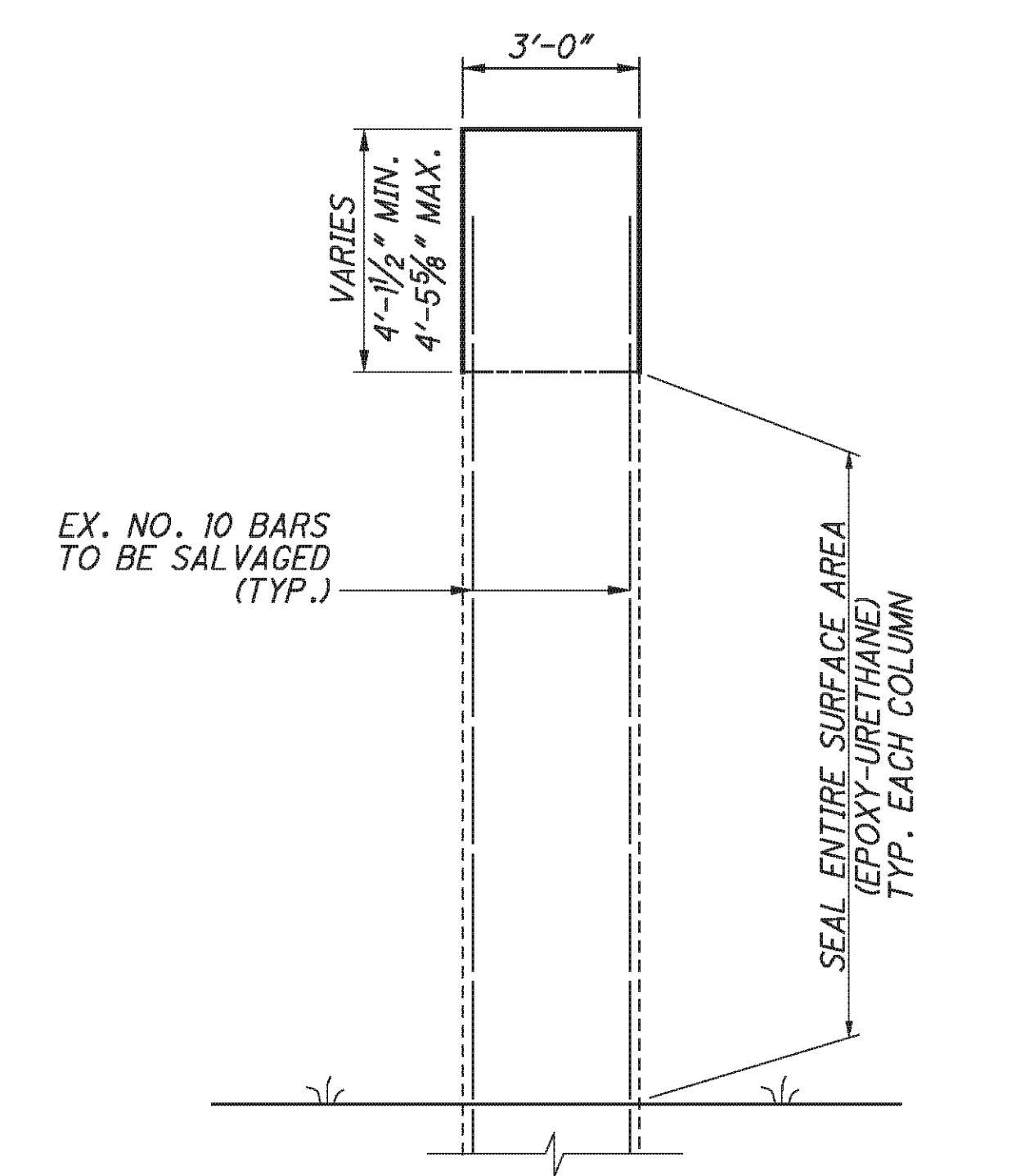
PLAN
(PIER 1 SHOWN, PIER 2 SIMILAR)



ELEVATION
(PIER 1 SHOWN, PIER 2 SIMILAR)



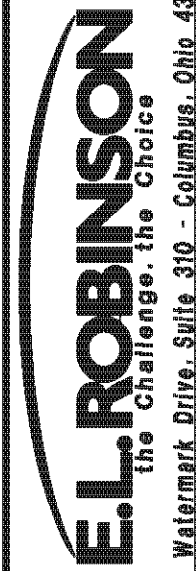
SECTION A-A



SECTION B-B

NOTES:

1. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
2. FOR BEARING DETAILS, SEE SHEET 29/45.
3. FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 7/45 AND 8/45.



1801 Watermark Drive, Split, Ohio 43215

DATE	5/11/10
REVIEWED	DFT
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DESIGNED	BMG
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STRUCTURE FILE NUMBER	0702226L/0702250R

PIER DETAILS - LEFT BRIDGE

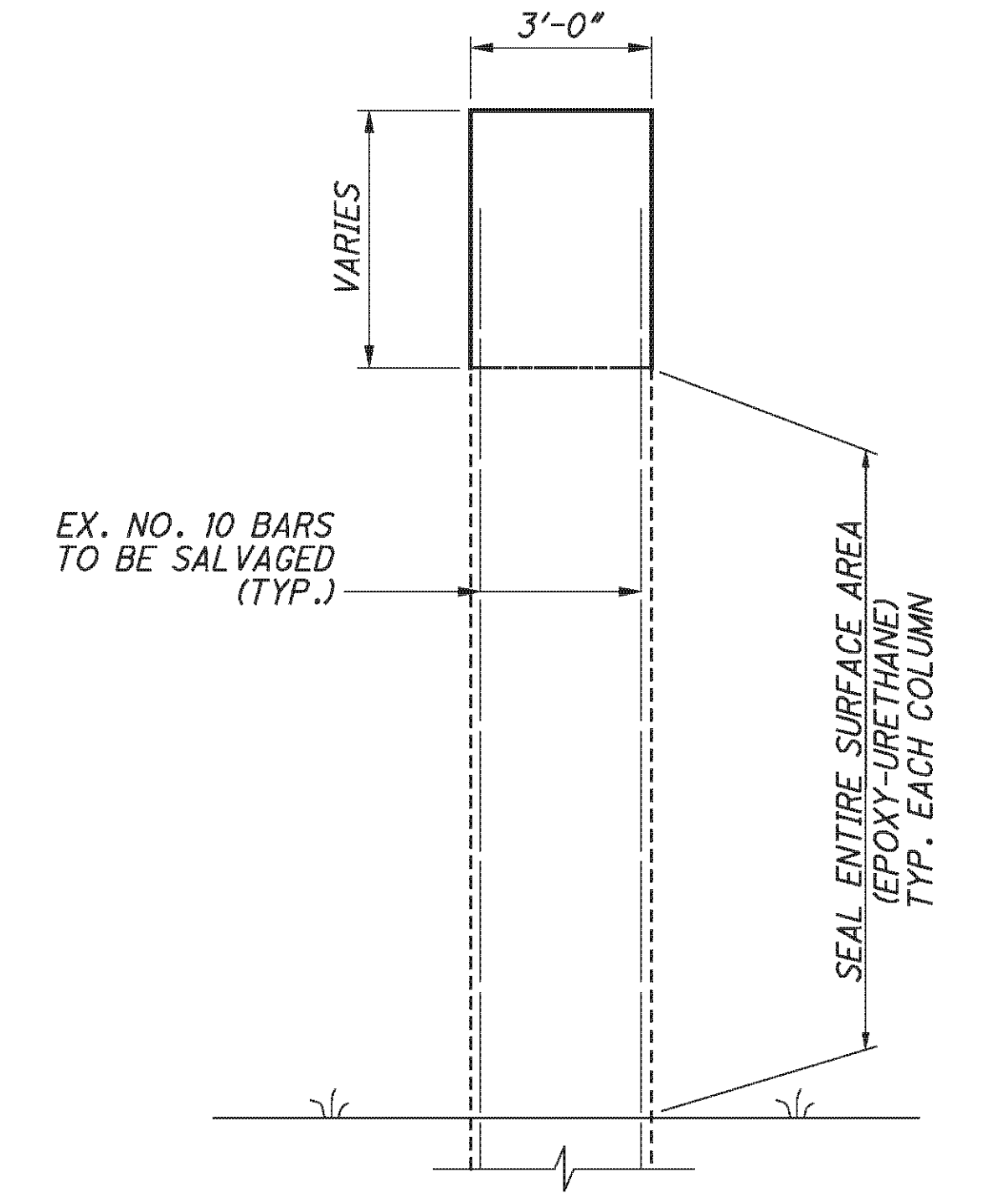
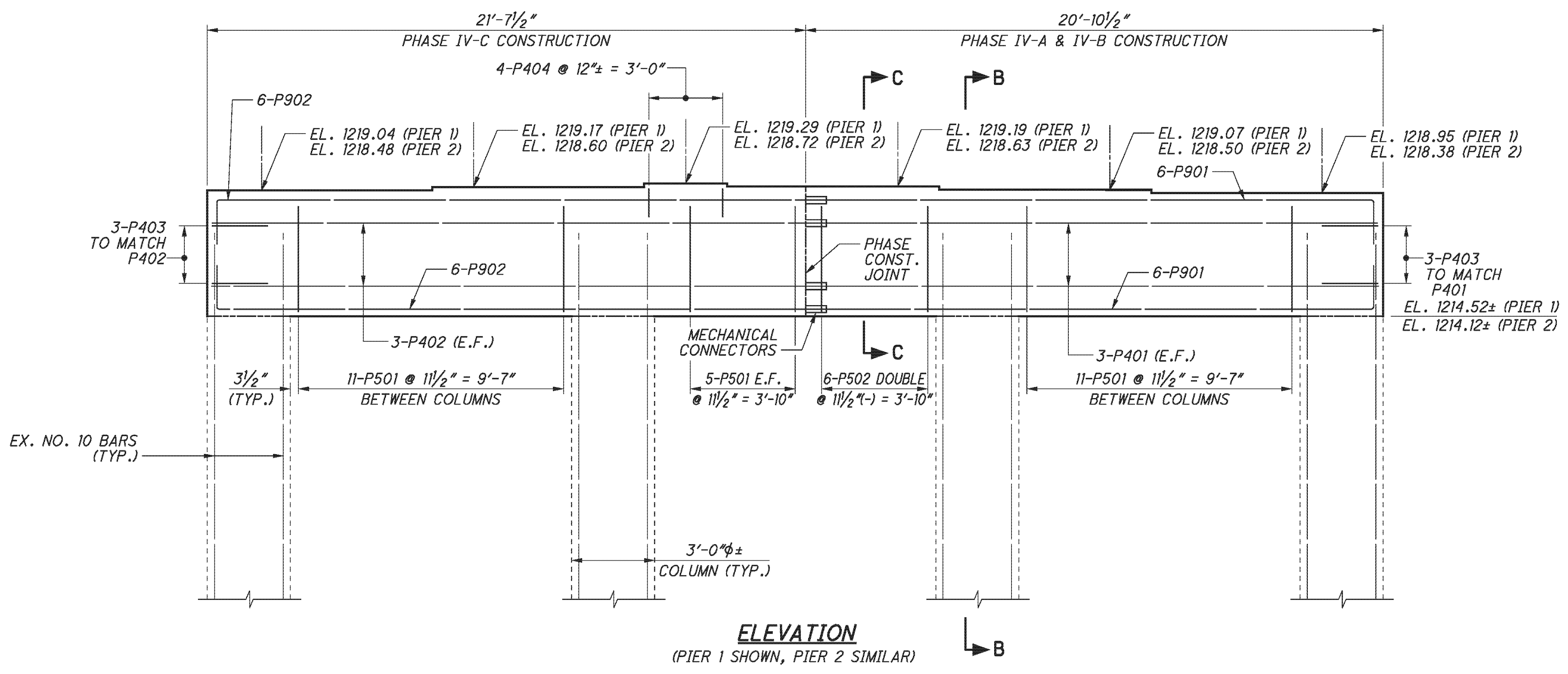
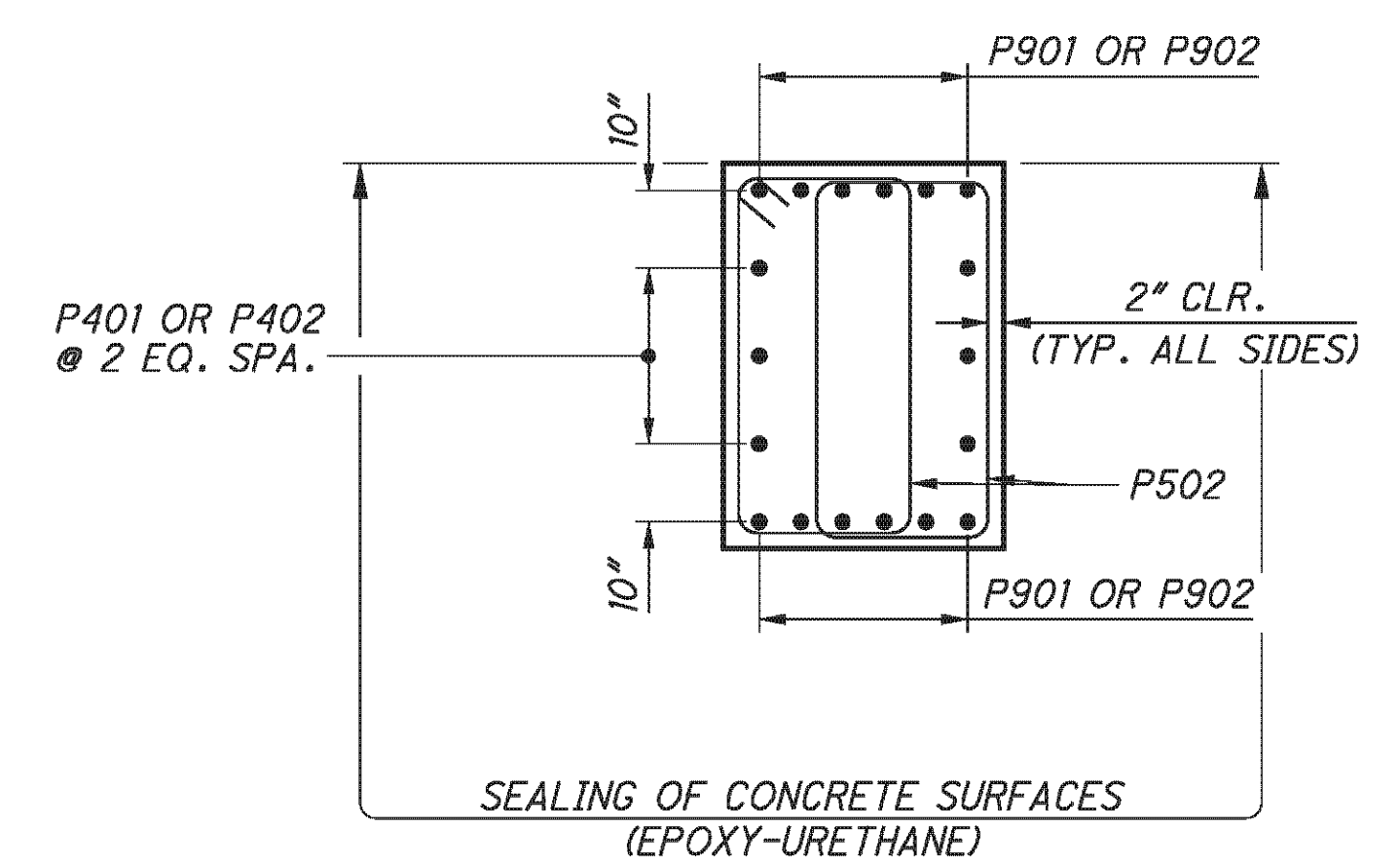
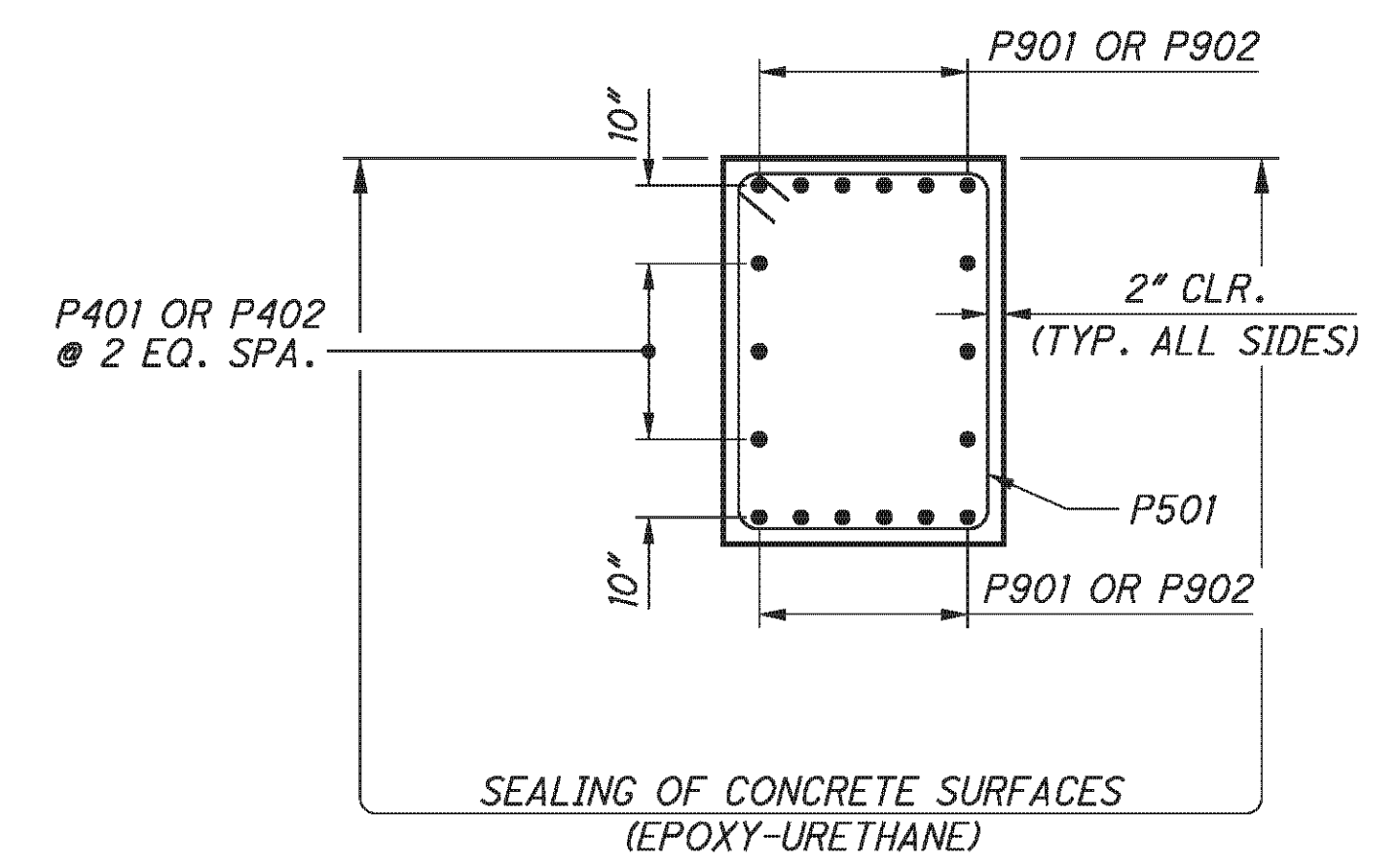
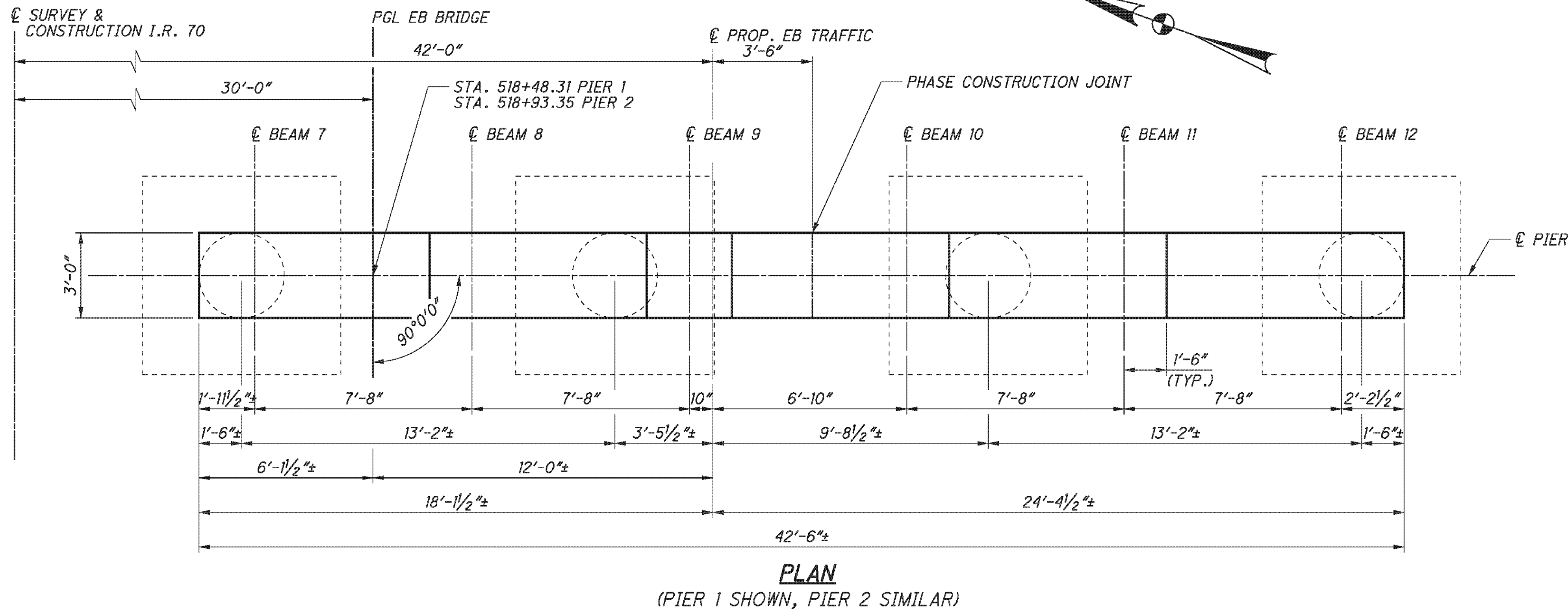
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I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS	2'-6" MIN.

- NOTES:**
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
 - FOR BEARING DETAILS, SEE SHEET 30/45.
 - FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 9/45 AND 10/45.

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DATE: 2/3/11
REVIEWED: RER
STRUCTURE FILE NUMBER: 0702250R

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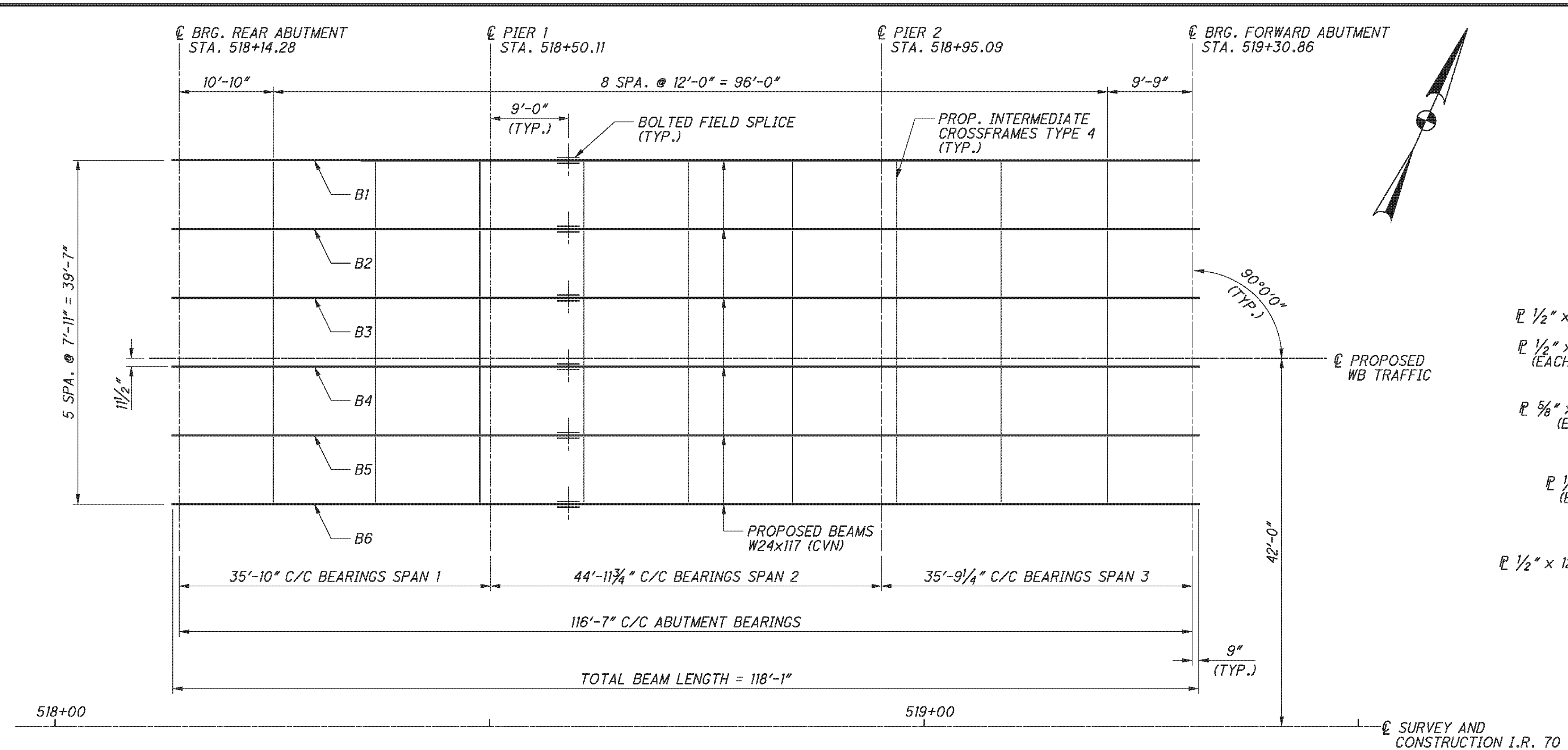
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I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

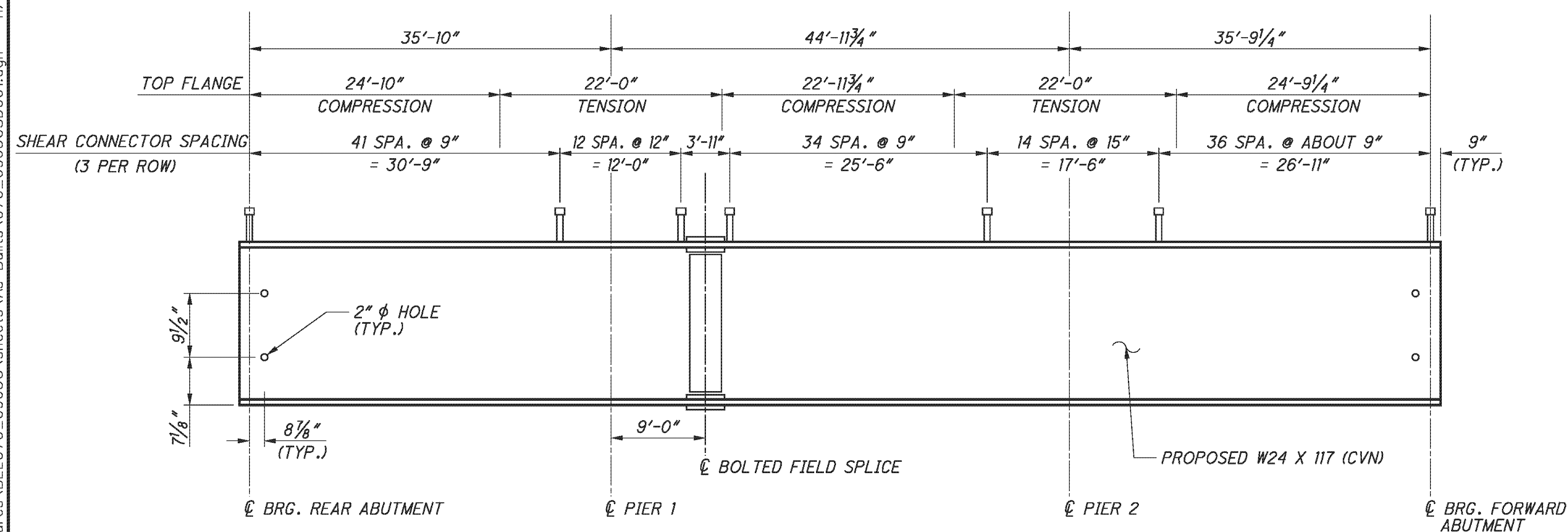
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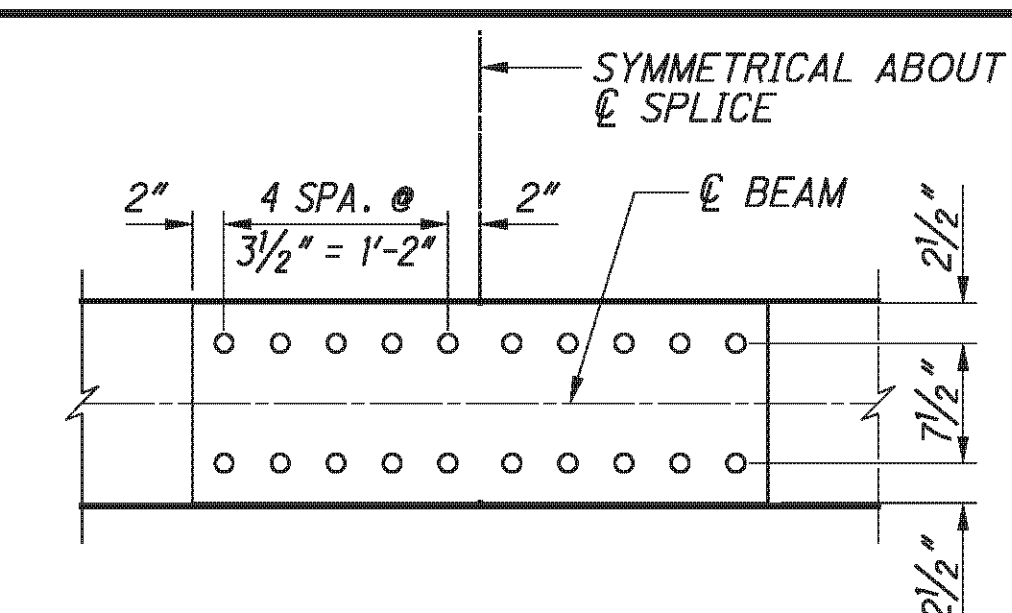
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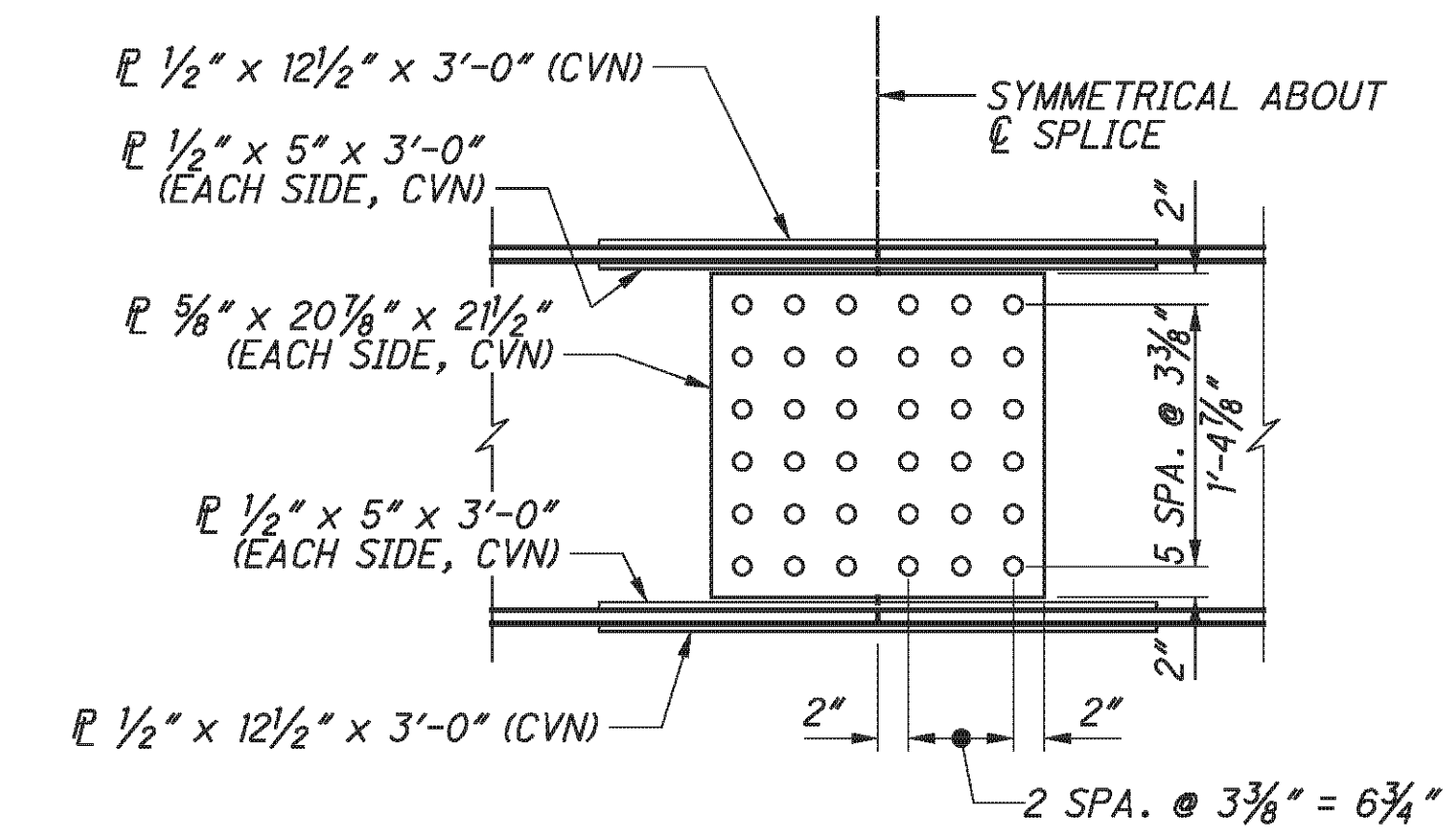
FRAMING PLAN



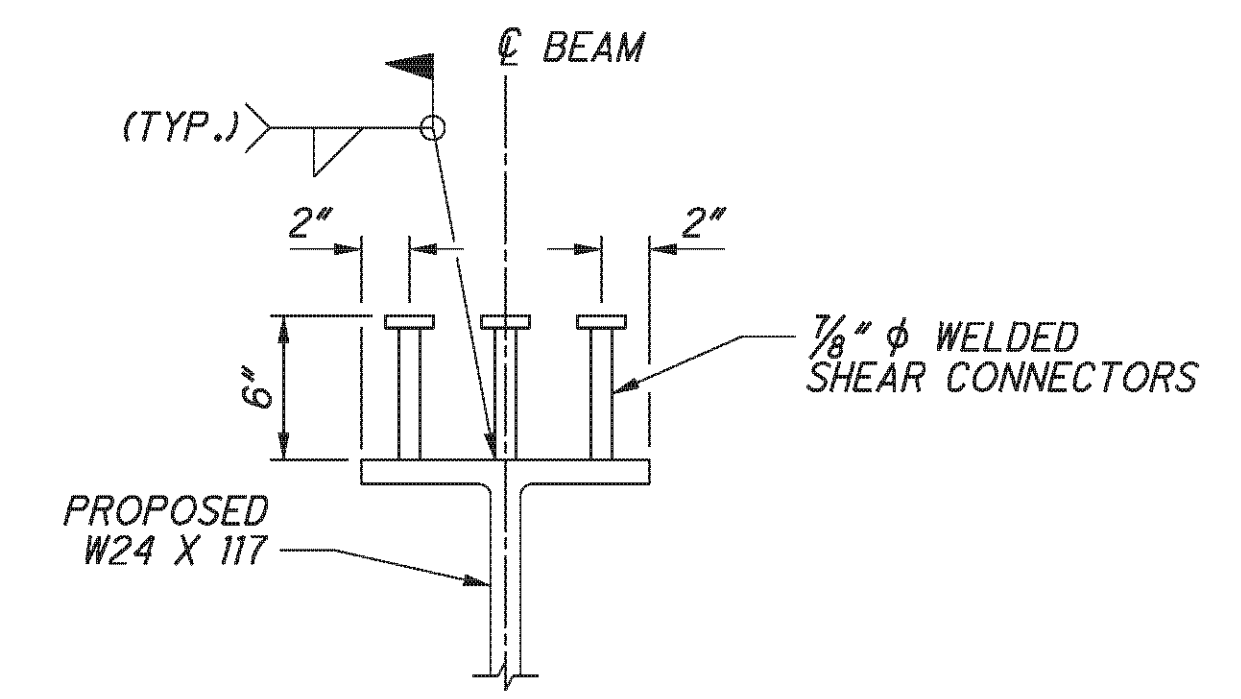
BEAM ELEVATION



TOP & BOTTOM FLANGE SPLICE
(1 OUTSIDE PLATE & 2 INSIDE PLATES REQUIRED)



BEAM WEB SPLICE



SHEAR CONNECTOR DETAIL

NOTE: SHEAR CONNECTOR PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. ADJUST SPACINGS TO AVOID INTERFERENCE WITH SPLICE PLATES AND CONNECTION BOLTS. THE TOTAL NUMBER OF SHEAR CONNECTORS SPECIFIED IN THE BEAM ELEVATION SHALL REMAIN THE SAME WITHIN EACH COMPRESSION OR TENSION ZONE.

NOTES:

1. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
2. ALL PROPOSED BEAMS, CROSS FRAMES, AND FIELD SPLICE PLATES SHALL BE ASTM A709 GRADE 50W.
3. HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER A325 TYPE III BOLTS UNLESS OTHERWISE NOTED.
4. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01
5. FOR CROSSFRAME DETAILS, SEE ODOT STANDARD DRAWING GSD-1-96, TYPE 4 INTERMEDIATE WELDED CROSSFRAME DETAILS, SHEET 1 OF 3.
6. FOR DEFLECTION AND CAMBER INFORMATION, SEE SHEET 27/45.
7. FOR BEARING DETAILS, SEE SHEET 29/45.

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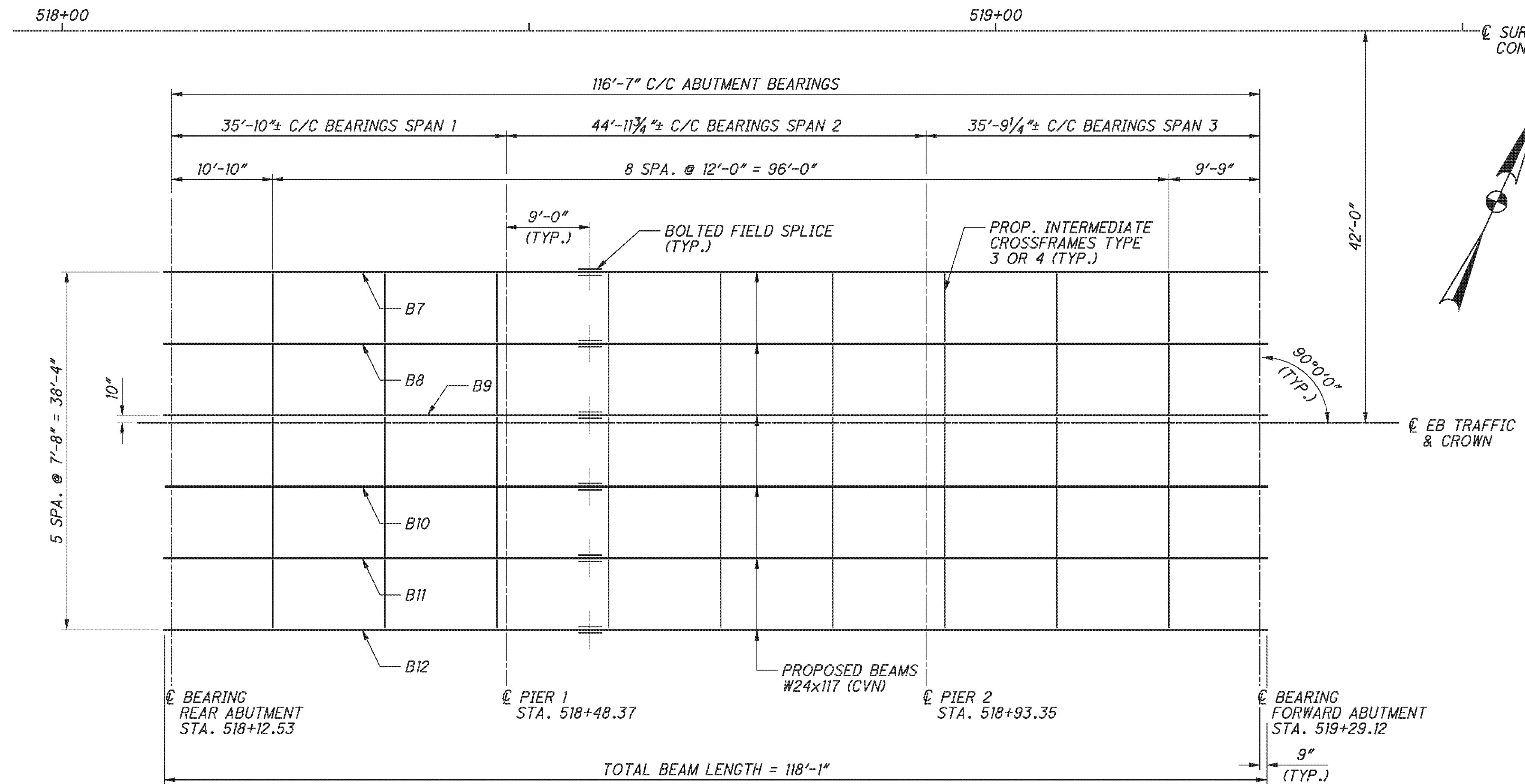
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BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

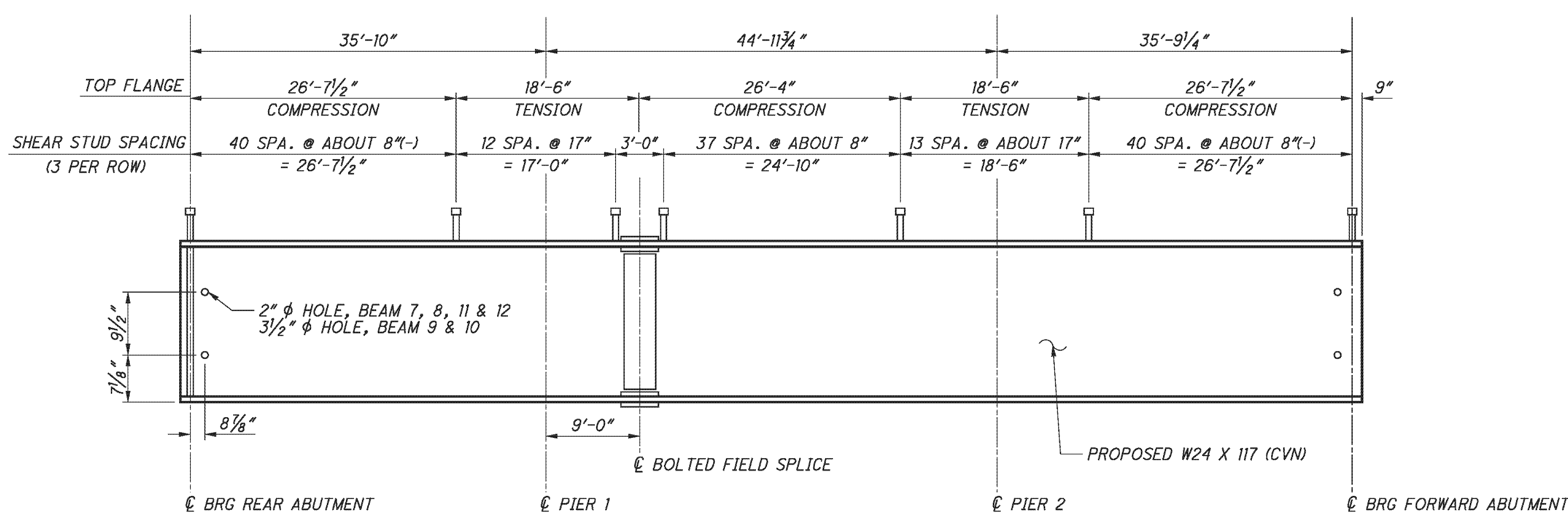
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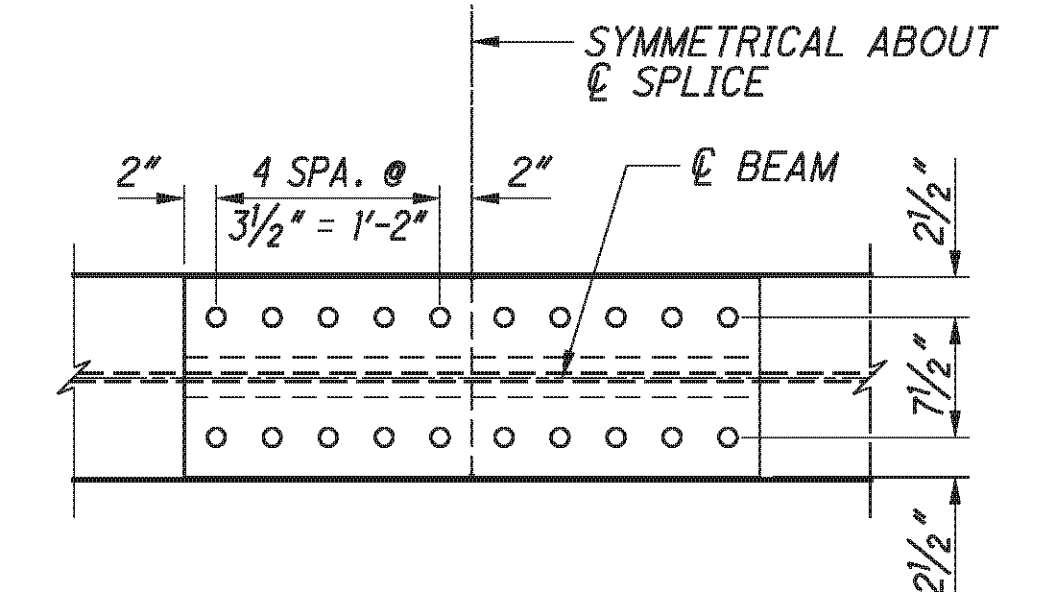
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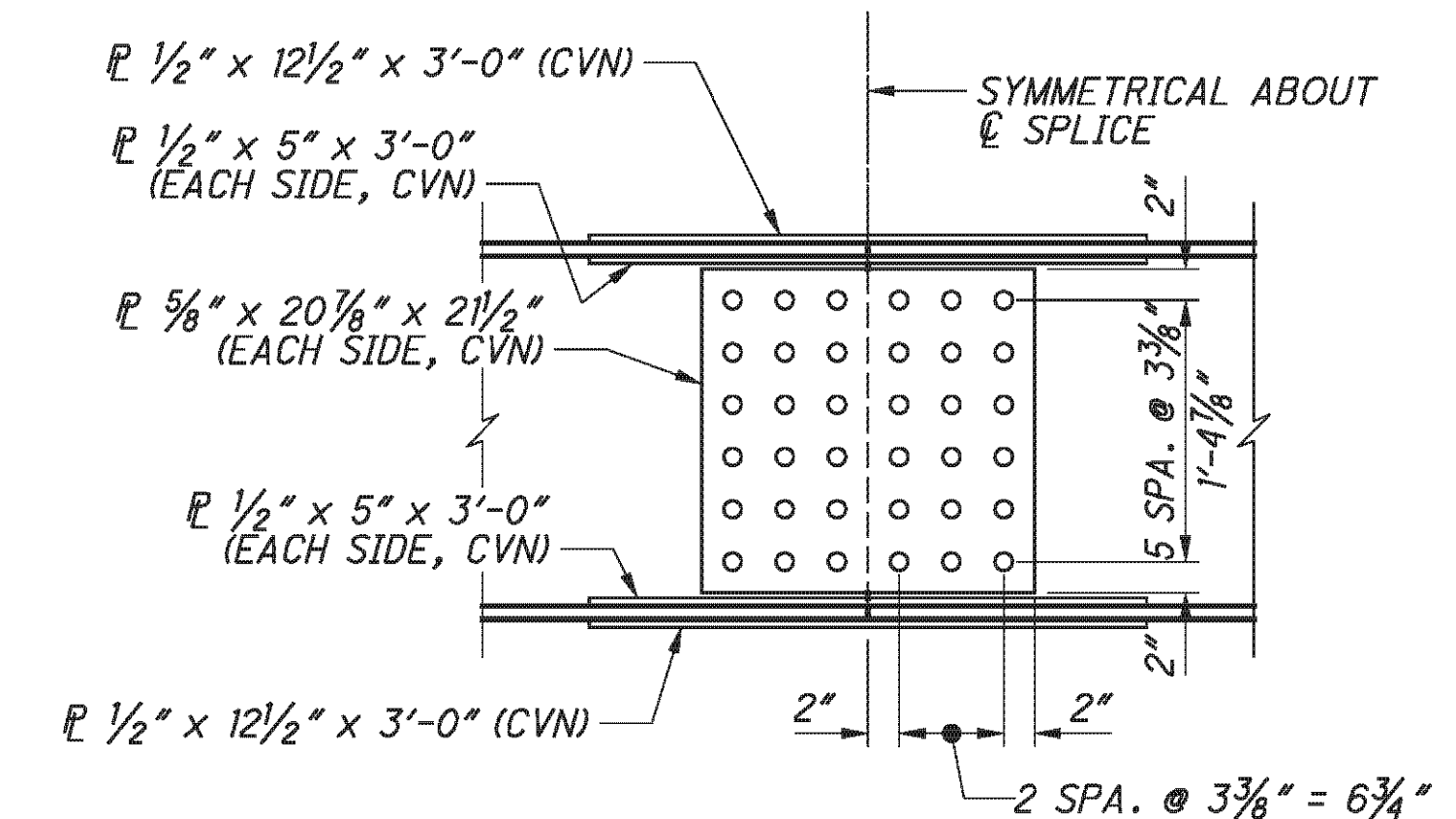
FRAMING PLAN



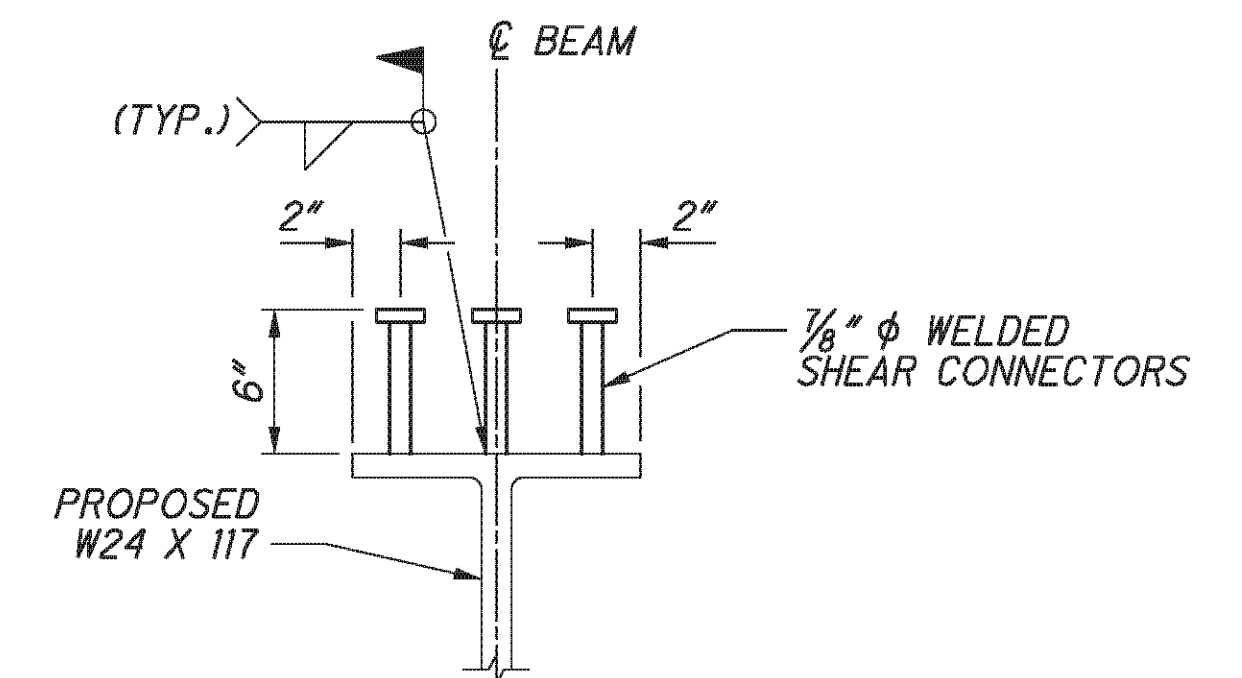
BEAM ELEVATION



TOP & BOTTOM FLANGE SPLICE
(1 OUTSIDE PLATE & 2 INSIDE PLATES REQUIRED)



BEAM WEB SPLICE



SHEAR CONNECTOR DETAIL

NOTE: SHEAR CONNECTOR PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. ADJUST SPACINGS TO AVOID INTERFERENCE WITH SPLICE PLATES AND CONNECTION BOLTS. THE TOTAL NUMBER OF SHEAR CONNECTORS SPECIFIED IN THE BEAM ELEVATION SHALL REMAIN THE SAME WITHIN EACH COMPRESSION OR TENSION ZONE.

NOTES:

1. PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE A709W, 50 KSI, WEATHERING STEEL.
2. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1#4" FOR THICKNESSES UP TO 3#4" OR 5#16" FOR GREATER THAN 3#4" THICK.
3. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
4. SPACING OF WELDED SHEAR CONNECTORS MAY BE ALTERED AT FIELD SPLICE LOCATIONS TO AVOID INTERFERENCE WITH FLANGE SPLICE BOLTS. THE TOTAL NUMBER OF SHEAR CONNECTORS SPECIFIED IN THE BEAM ELEVATION SHALL REMAIN THE SAME WITHIN EACH TENSION OR COMPRESSION ZONE.
5. FOR ADDITIONAL DETAILS, SEE STD. DWG. GSD-1-96.
6. 1 FIELD SPLICE WAS ASSUMED IN THE ESTIMATED QUANTITIES FOR ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL 3. A SPLICE MAY BE ADDED AT THE CONTRACTOR'S OPTION AT NO ADDITIONAL COST TO THE STATE.

E.L. ROBINSON
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1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE	2/3/11
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DRAWN	FIB
DESIGNED	AME
CHECKED	RLC
STRUCTURE FILE NUMBER	0702250R

FRAMING PLAN - RIGHT BRIDGE

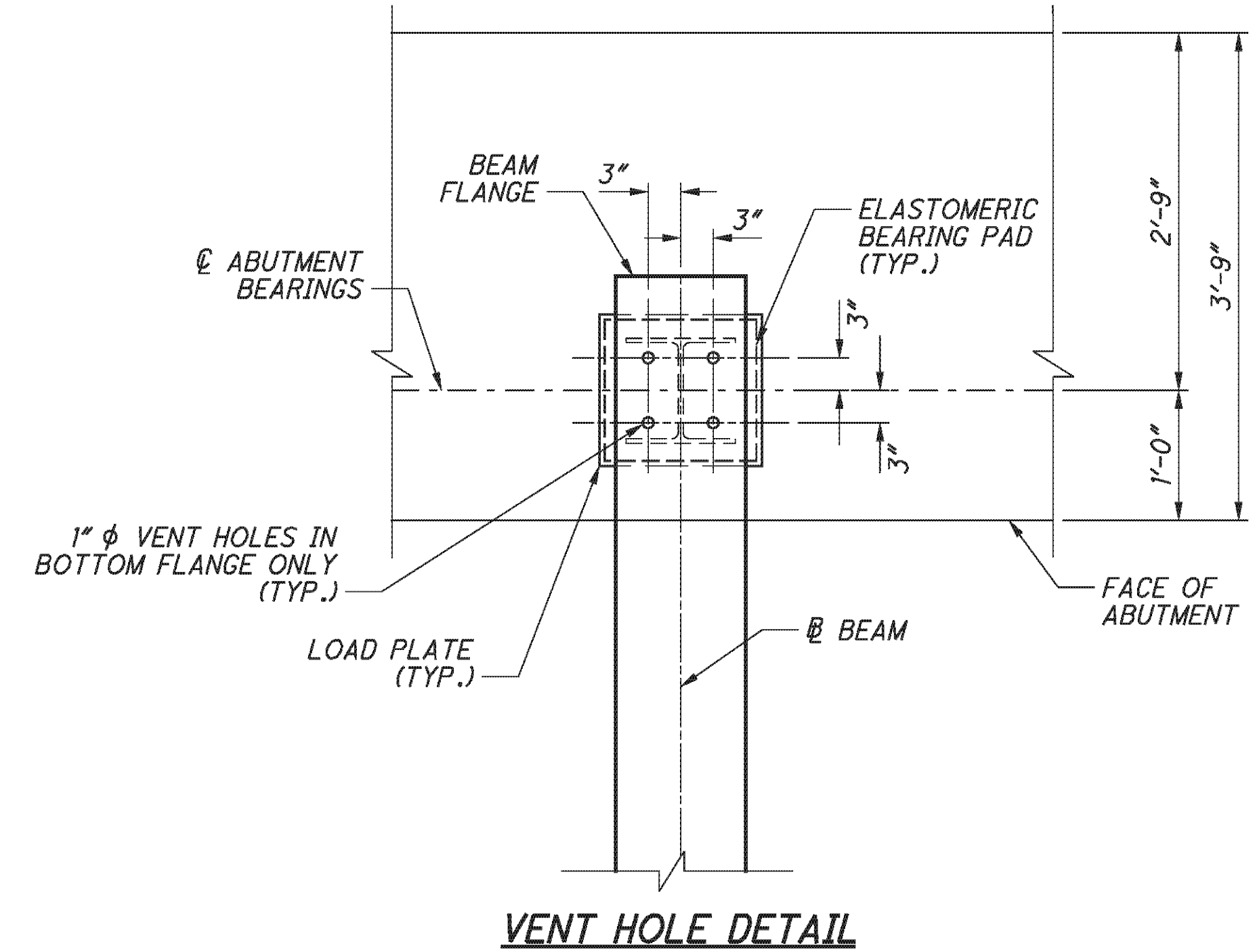
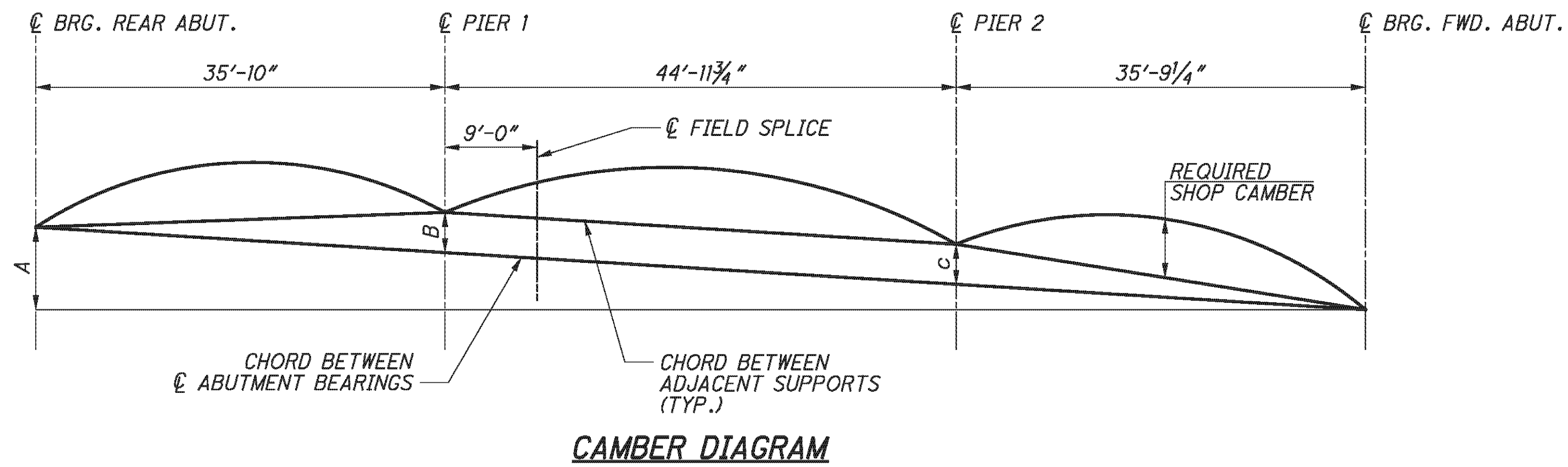
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

26 / 45

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373

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CAMBER DIAGRAM DIMENSIONS						
	B1	B2	B3	B4	B5	B6
DIM A	1'-4 3/16"	1'-4 3/16"	1'-4 9/16"	1'-4 9/16"	1'-4 3/16"	1'-4 3/16"
DIM B	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"
DIM C	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"

DEFLECTION AND CAMBER TABLE										
	SPAN 1			SPAN 2				SPAN 3		
	1/4	1/2	3/4	SPLICE	1/4	1/2	3/4	1/4	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/8"	1/8"	1/16"	1/16"	1/8"	3/16"	1/8"	1/16"	1/8"	1/8"
ADJUSTMENT FOR VERTICAL CURVE	0"	1/16"	0"	1/16"	1/16"	1/16"	0"	1/16"	1/16"	0"
REQUIRED SHOP CAMBER	1/8"	3/16"	1/16"	1/8"	3/16"	1/4"	1/16"	1/8"	3/16"	1/8"

NOTES:

1. FOR ADDITIONAL NOTES AND BEAM DETAILS, SEE SHEET 25/45.
2. DEFLECTIONS AND CAMBER GIVEN TO THE NEAREST 1/16".
3. NEGATIVE VALUES FOR DEFLECTIONS INDICATE DEFLECTIONS UPWARD.
4. FOR BEARING DETAILS, SEE SHEET 29/45.

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DESIGNED	BMG	CHECKED	TJE
DRAWN	BMG	REVISY	
REVIEWED	DFT	STRUCTURE FILE NUMBER	0702226L/0702250R
DATE	5/11/10		

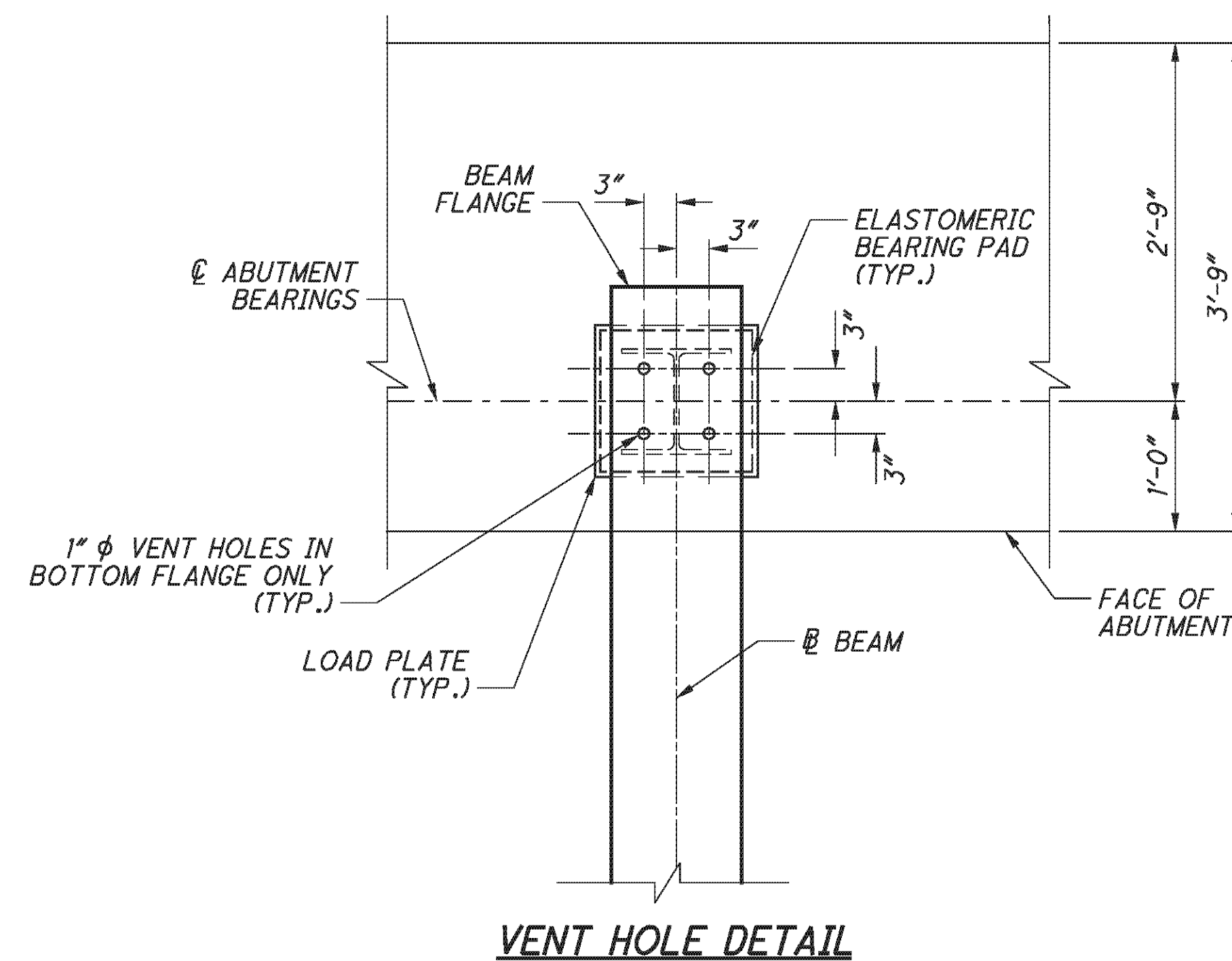
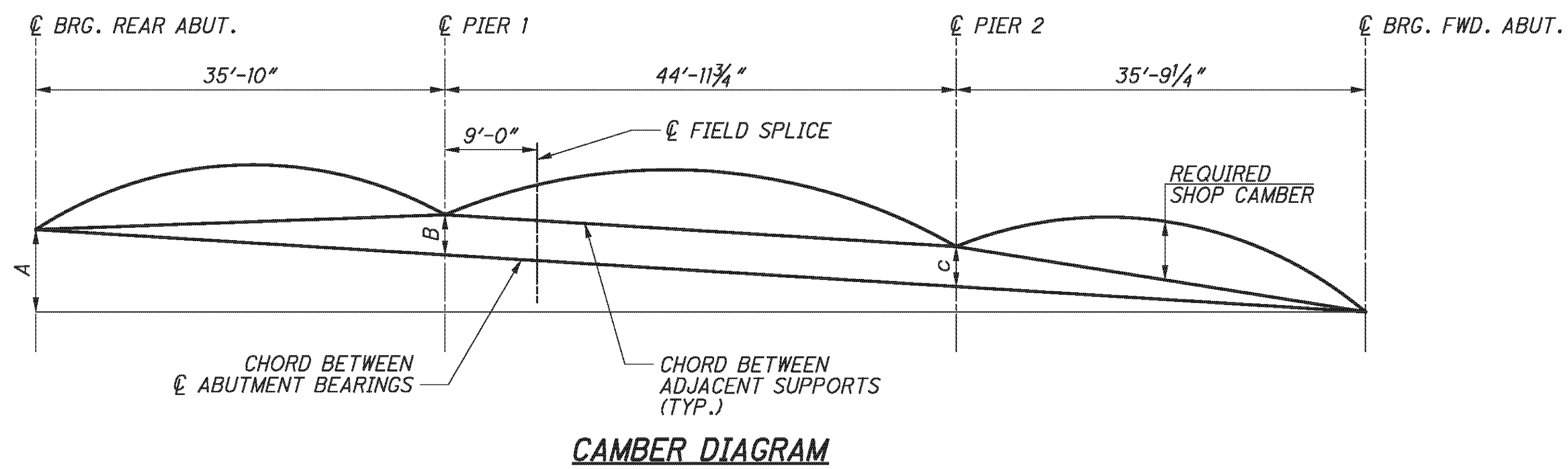
DEFLECTION AND CAMBER
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

27 / 45

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CAMBER DIAGRAM DIMENSIONS						
	B7	B8	B9	B10	B11	B12
DIM A	1'-5 5/16"	1'-5 5/16"	1'-5 5/16"	1'-5 5/16"	1'-5 5/16"	1'-5 5/16"
DIM B	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"
DIM C	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"

	SPAN 1			SPAN 2				SPAN 3		
	1/4	1/2	3/4	SPLICE	1/4	1/2	3/4	1/4	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/8"	1/8"	1/16"	1/16"	1/8"	3/16"	1/8"	1/16"	1/8"	1/8"
ADJUSTMENT FOR VERTICAL CURVE	0"	1/16"	0"	1/16"	1/16"	1/16"	1/16"	0"	1/16"	0"
REQUIRED SHOP CAMBER	1/8"	3/16"	1/16"	1/8"	3/16"	1/4"	3/16"	1/16"	3/16"	1/8"

NOTES:

1. FOR ADDITIONAL NOTES AND BEAM DETAILS, SEE SHEET [26/45].
2. DEFLECTIONS AND CAMBER GIVEN TO THE NEAREST 1/16".
3. NEGATIVE VALUES FOR DEFLECTIONS INDICATE DEFLECTIONS UPWARD.
4. FOR BEARING DETAILS, SEE SHEET [30/45].

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DRAWN	DTA	REVISED	
REVIEWED	RER	STRUCTURE FILE NUMBER	0702226L/0702250R
DATE	2/3/11		

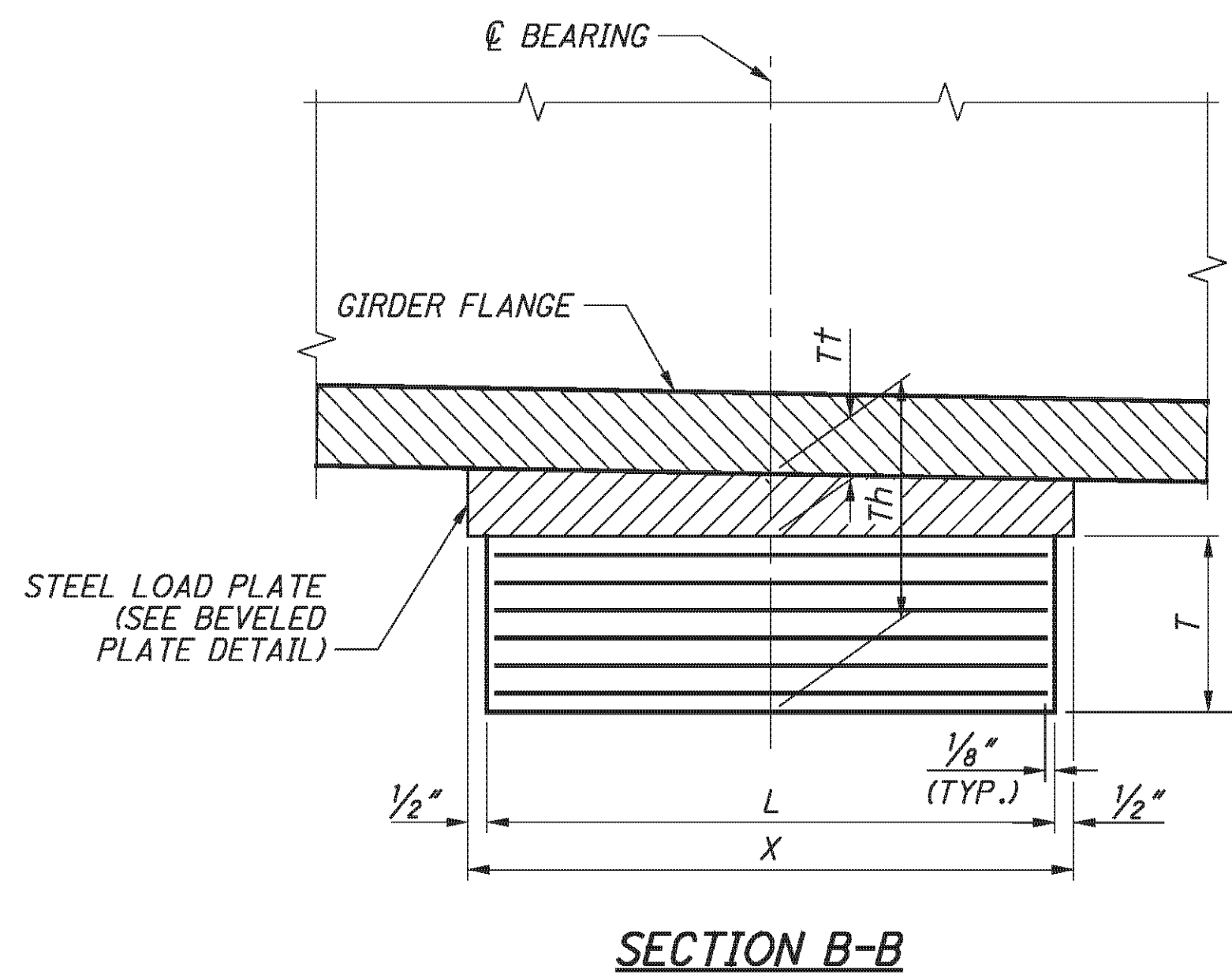
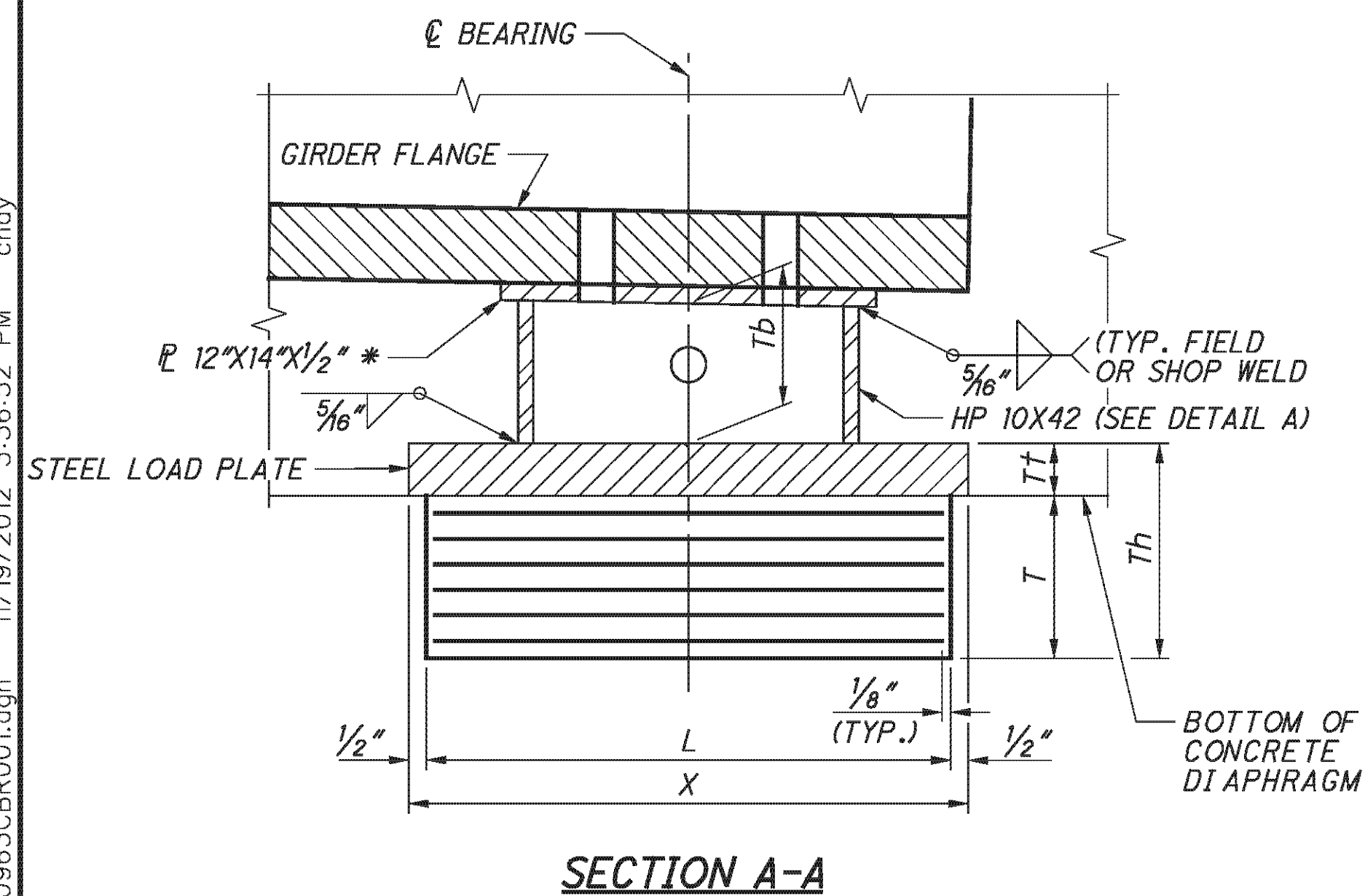
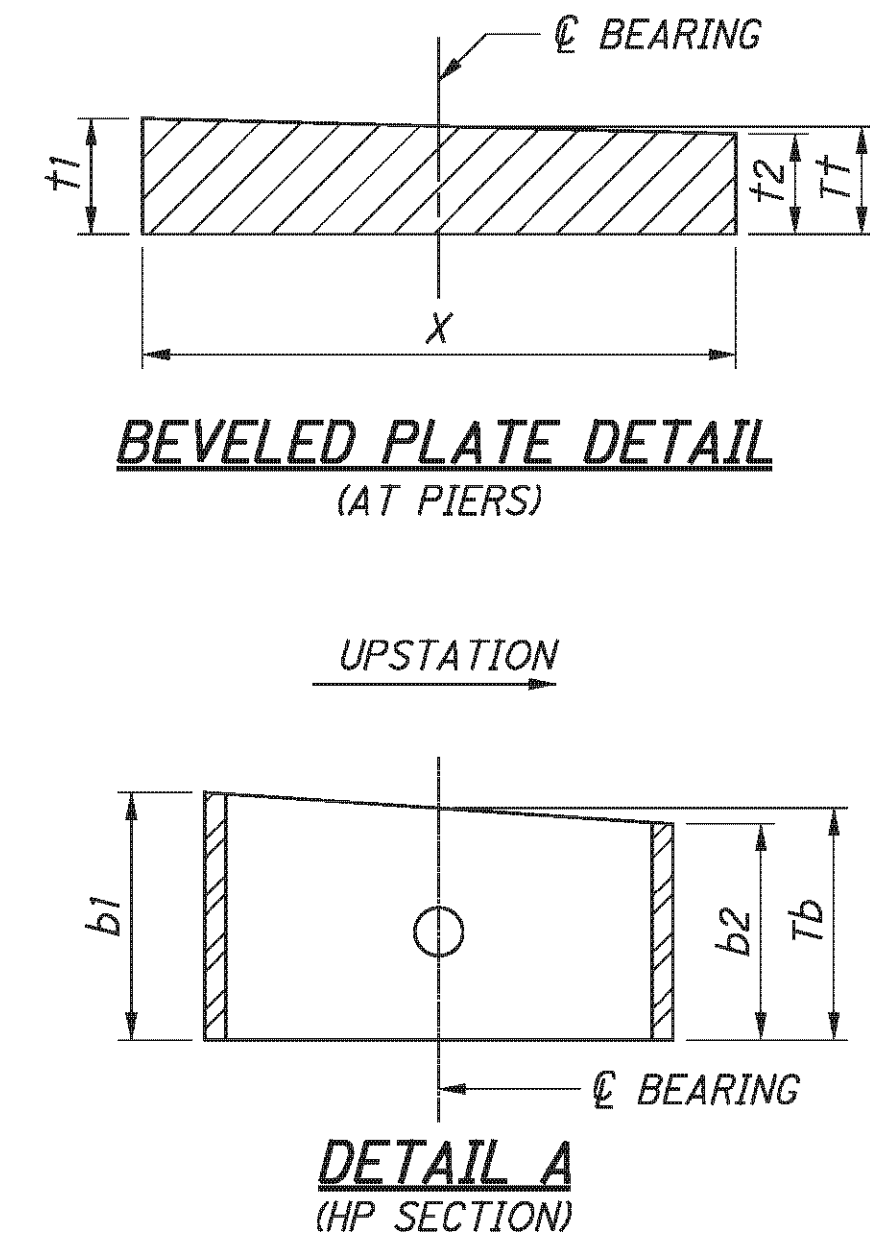
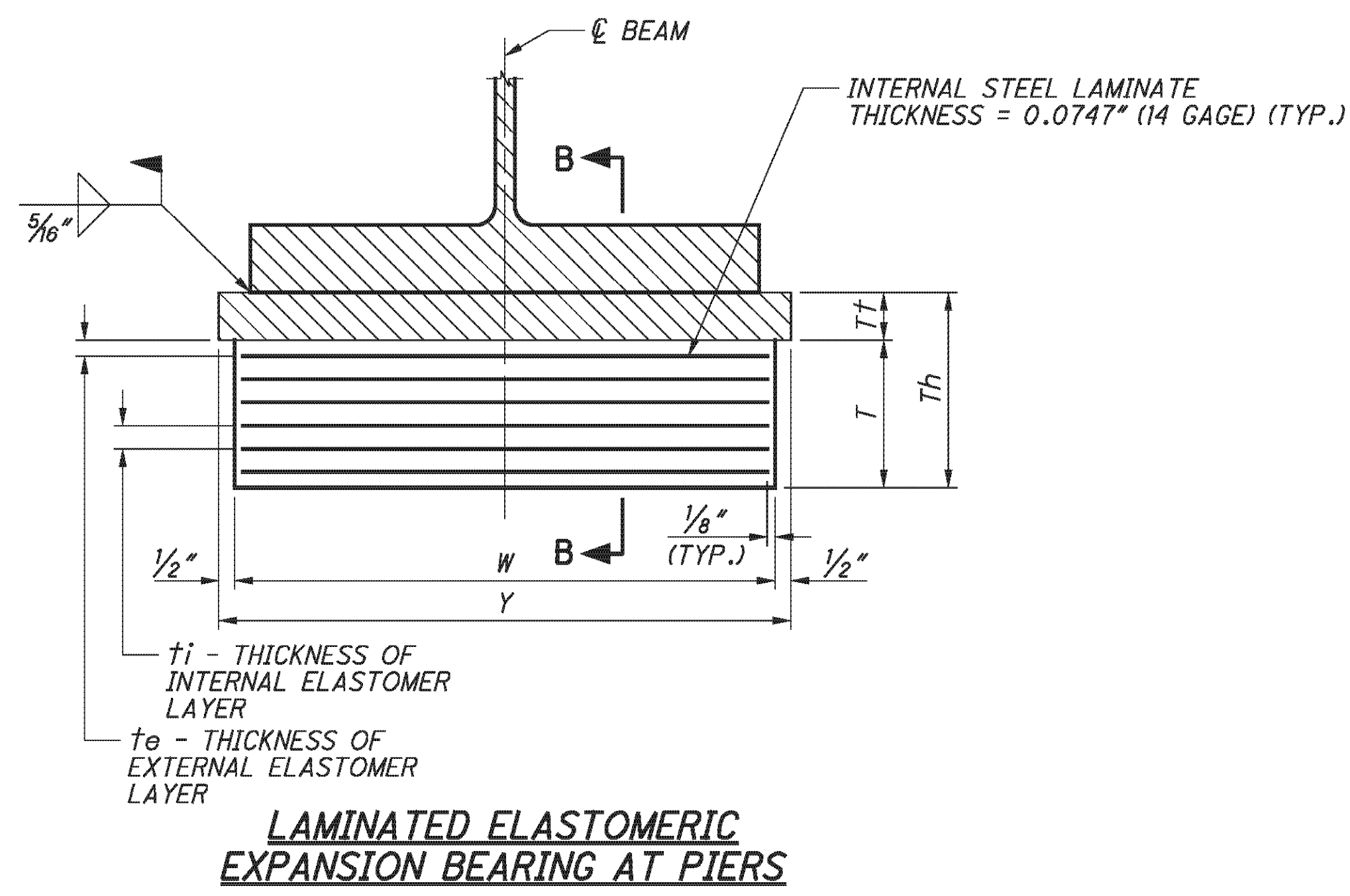
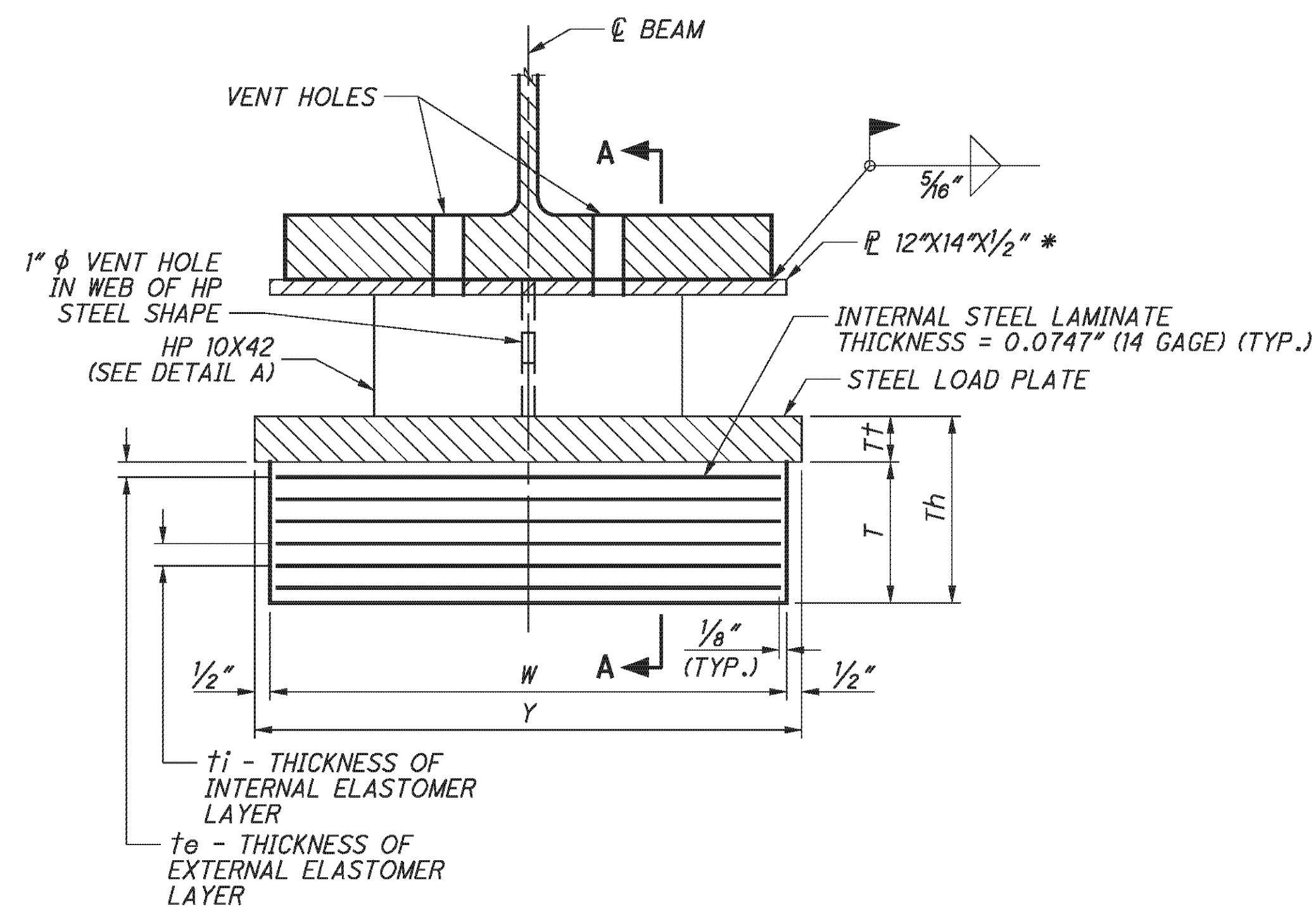
DEFLECTION AND CAMBER - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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HP 10X42 HEIGHTS				
	BEAM	b1 (IN.)	b2 (IN.)	Tb (IN.)
REAR ABUTMENT	1	13.750	13.625	13.688
	2	13.875	13.750	13.813
	3	14.375	14.250	14.313
	4	14.500	14.375	14.438
	5	14.500	14.375	14.438
	6	14.500	14.375	14.438

HP 10X42 HEIGHTS				
	BEAM	b1 (IN.)	b2 (IN.)	Tb (IN.)
FORWARD ABUTMENT	1	12.813	12.688	12.750
	2	12.813	12.688	12.750
	3	13.063	12.938	13.000
	4	12.938	12.813	12.875
	5	12.938	12.813	12.875
	6	12.938	12.813	12.875

LEGEND:

* - FIELD DRILL VENT HOLES IN THE 1/2" TOP PLATE.

NOTES:

- THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- THE STEEL LOAD PLATE, TOP PLATE AND HP SECTION SHALL BE GALVANIZED ASTM A709 GRADE 50 STEEL.
- THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE THE LOAD PLATE, HP POST, AND ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
- FOR VENT HOLE DETAIL, SEE SHEET 27/45.

BEARING DATA																		
LOCATION	TYPE	NO. REQ'D.	DL (KIP)	LL (KIP) W/O IMPACT	MAX DESIGN LOAD (DL+LL)	L (IN.)	W (IN.)	t_i (IN.)	t_e (IN.)	n NO. OF t_i 's	N NO. INTERNAL LAMINATES	T (IN.)	STEEL LOAD PLATE					Th (IN.)
													X (IN.)	Y (IN.)	T† (IN.)	t1 (IN.)	t2 (IN.)	
REAR ABUT.	EXP	6	51	42	93	10	14	0.375	0.25	5	6	2.823	11	15	1.5	N/A	N/A	4.323
FWD. ABUT.	EXP	6	51	42	93	10	14	0.375	0.25	5	6	2.823	11	15	1.5	N/A	N/A	4.323
PIER 1	EXP	6	75	50	125	11	15	0.375	0.25	5	6	2.823	12	16	1.5	1.563	1.438	4.323
PIER 2	EXP	6	75	50	125	11	15	0.375	0.25	5	6	2.823	12	16	1.5	1.563	1.438	4.323

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DATE: 5/11/10
 REVISION: DFT
 STRUCTURE FILE NUMBER: 0702226L/0702250R

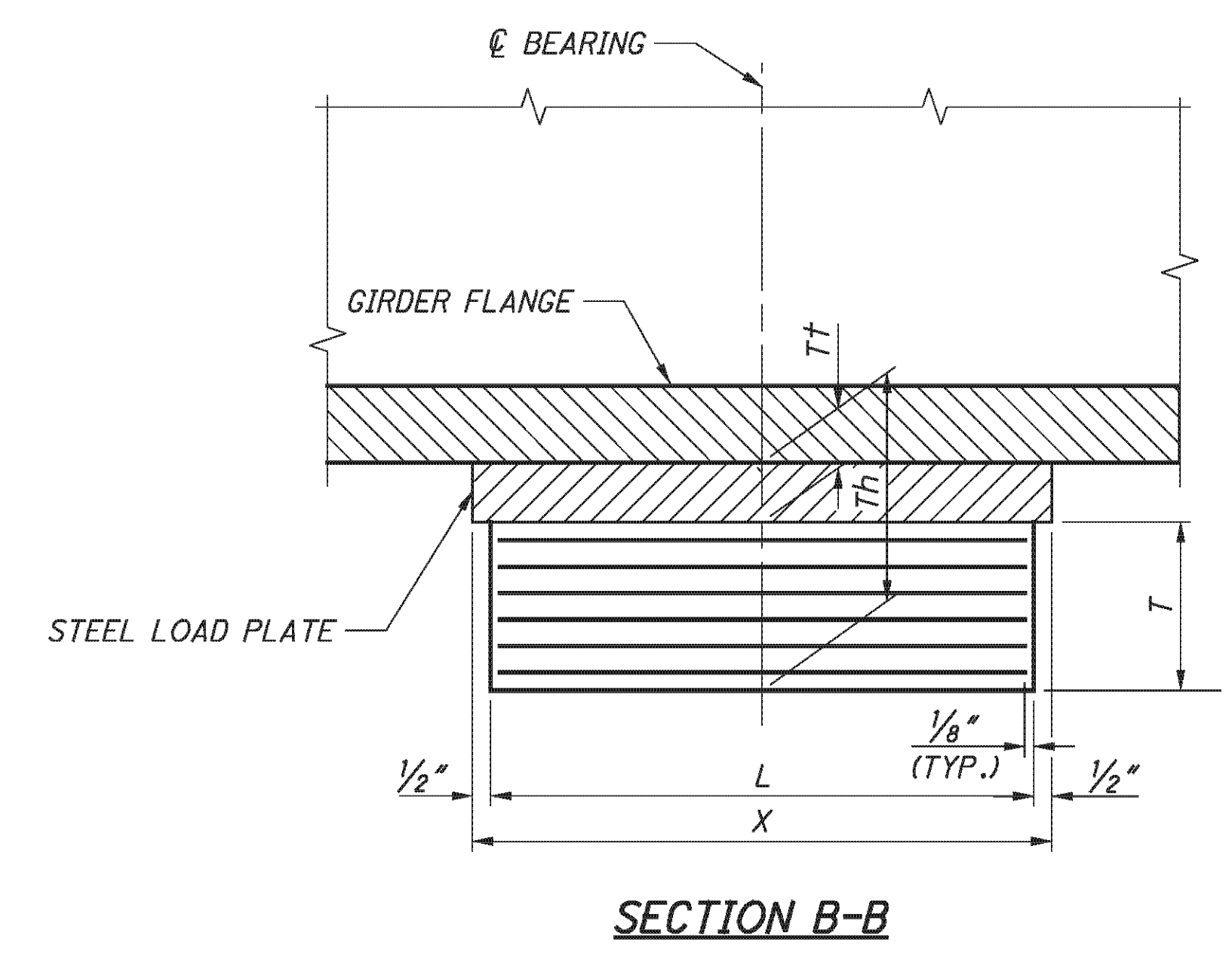
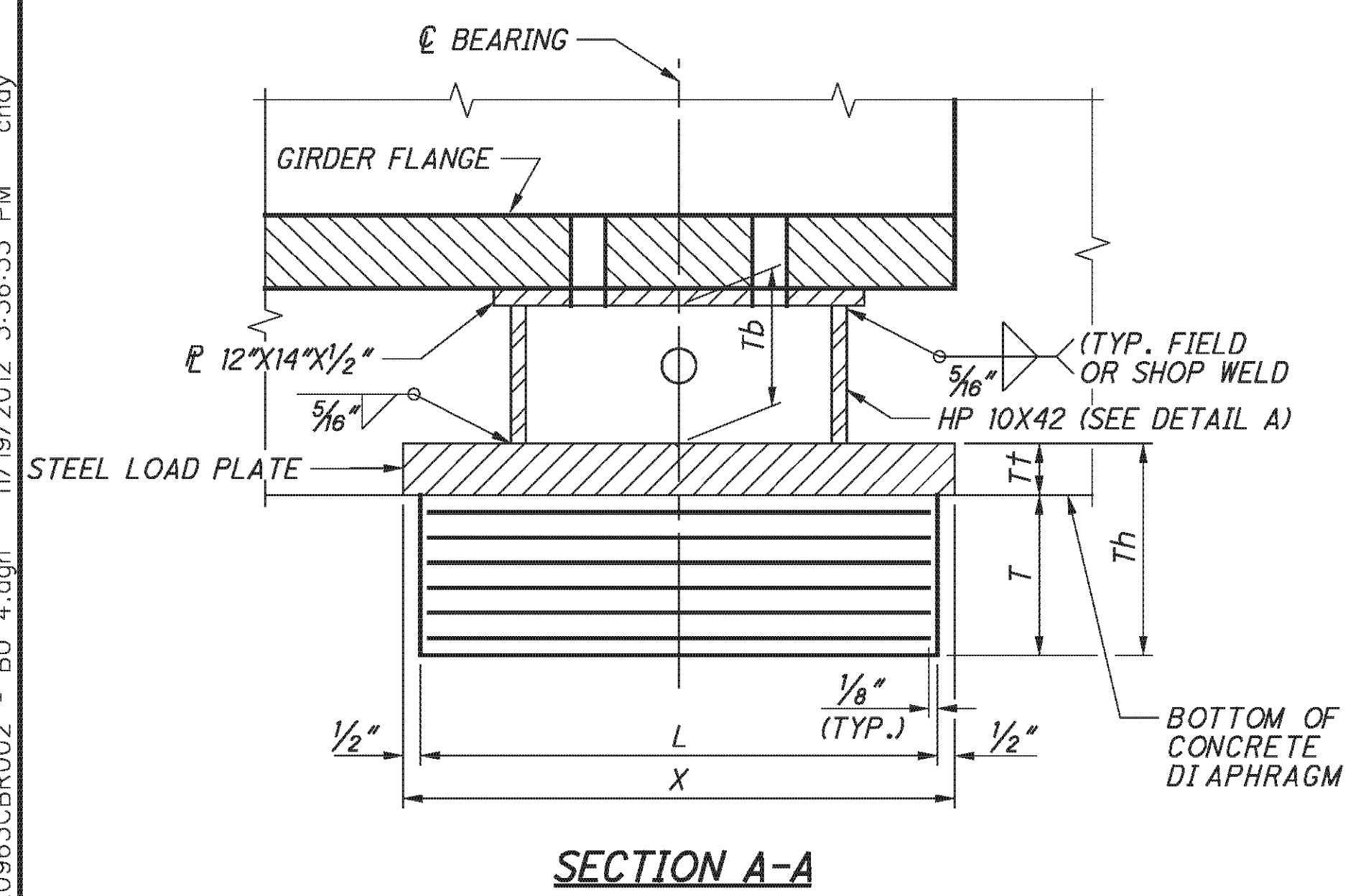
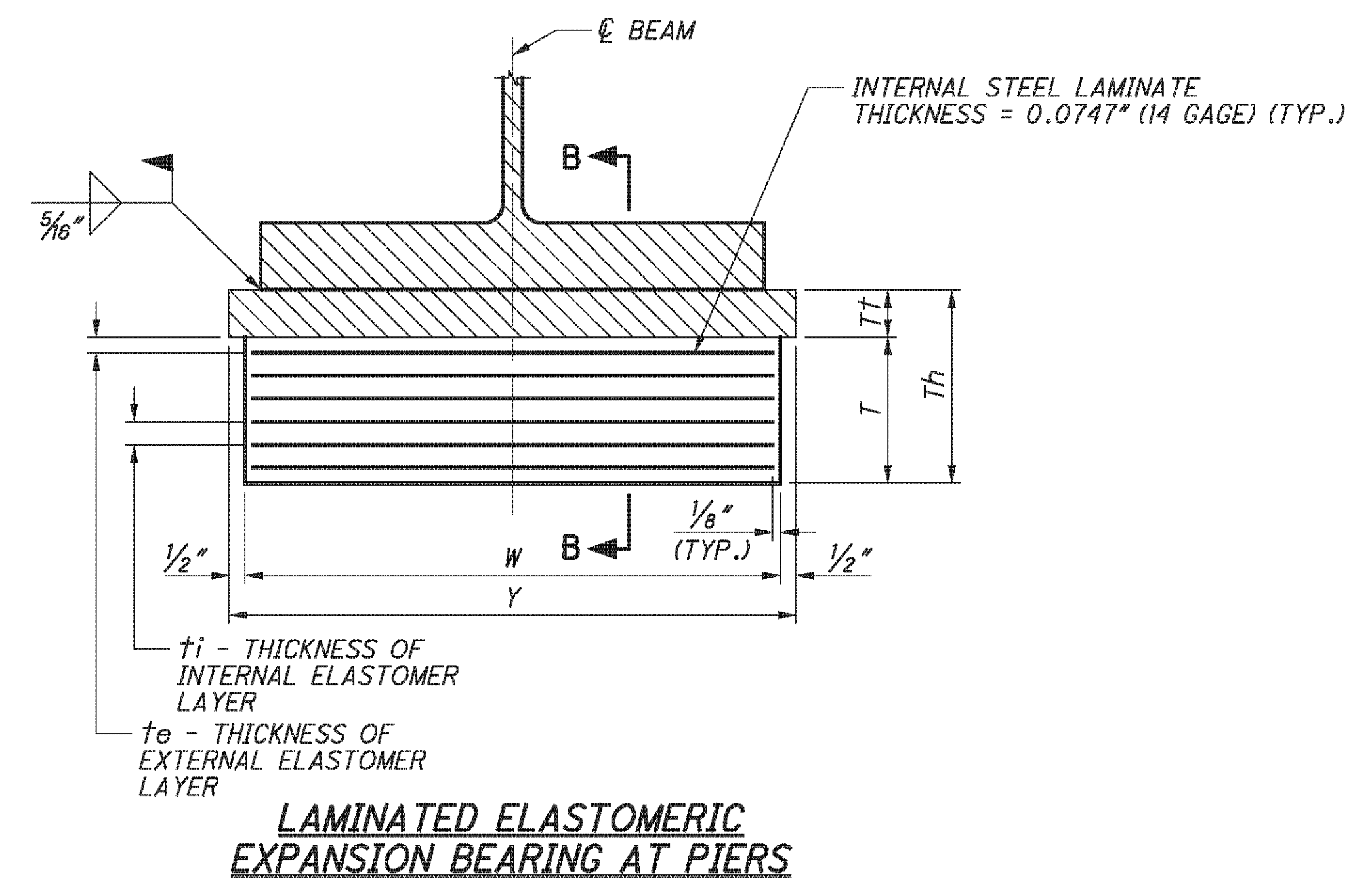
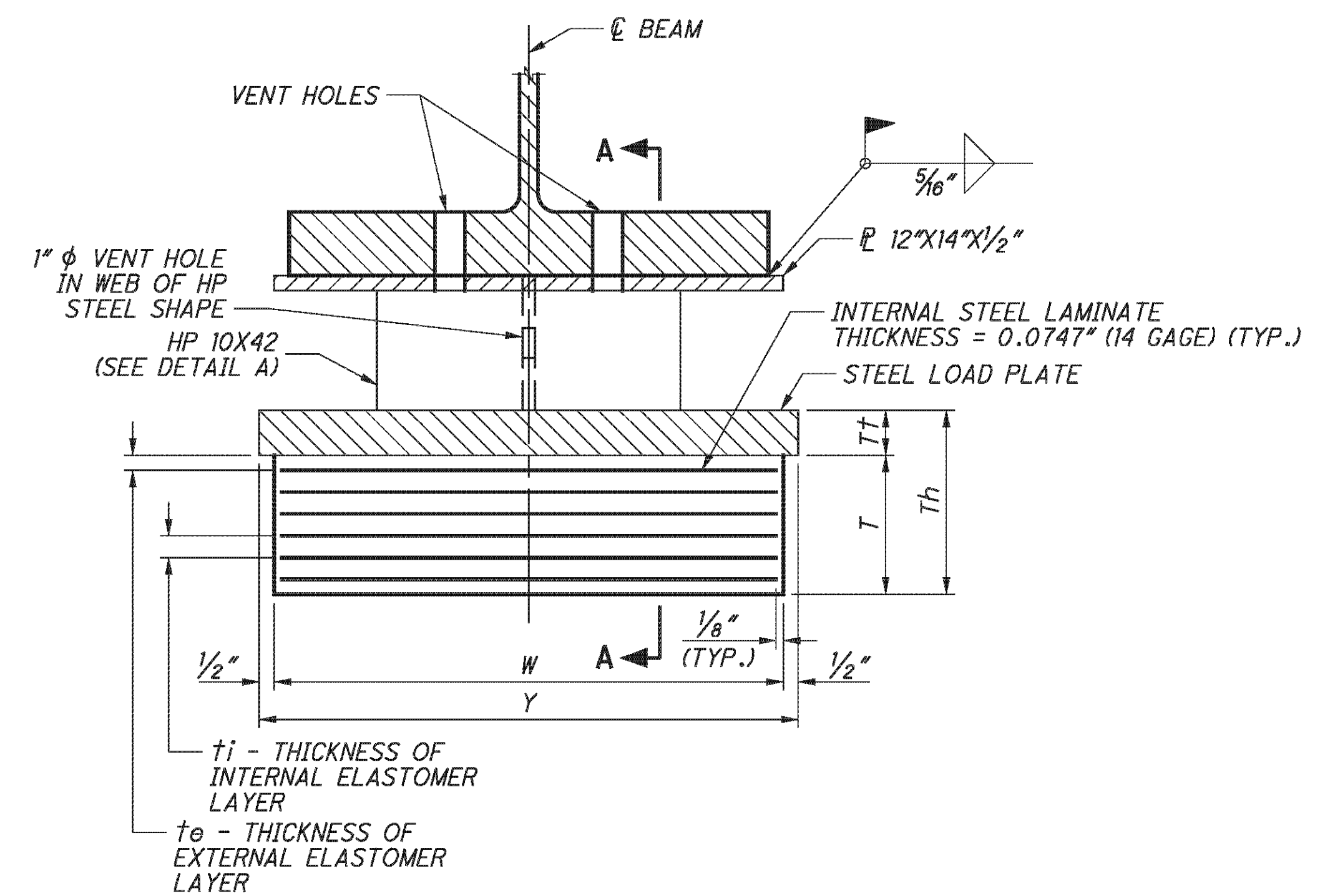
DRAWN: BMG
 CHECKED: TJE

DESIGNED: BMG

BEARING DETAILS
 BRIDGE NO. BEL-70-0963 L/R
 I.R. TO OVER S.R. 149

BEL-70-7.61
 PID No. 76825

29/45
 357
 373



HP 10X42 HEIGHTS		
	BEAM	T_b (IN.)
REAR ABUTMENT	7	17.964
	8	17.808
	9	17.564
	10	17.300
	11	17.676
12	16.828	

HP 10X42 HEIGHTS		
	BEAM	T_b (IN.)
FORWARD ABUTMENT	7	16.488
	8	16.284
	9	16.292
	10	16.292
	11	16.296
12	16.072	

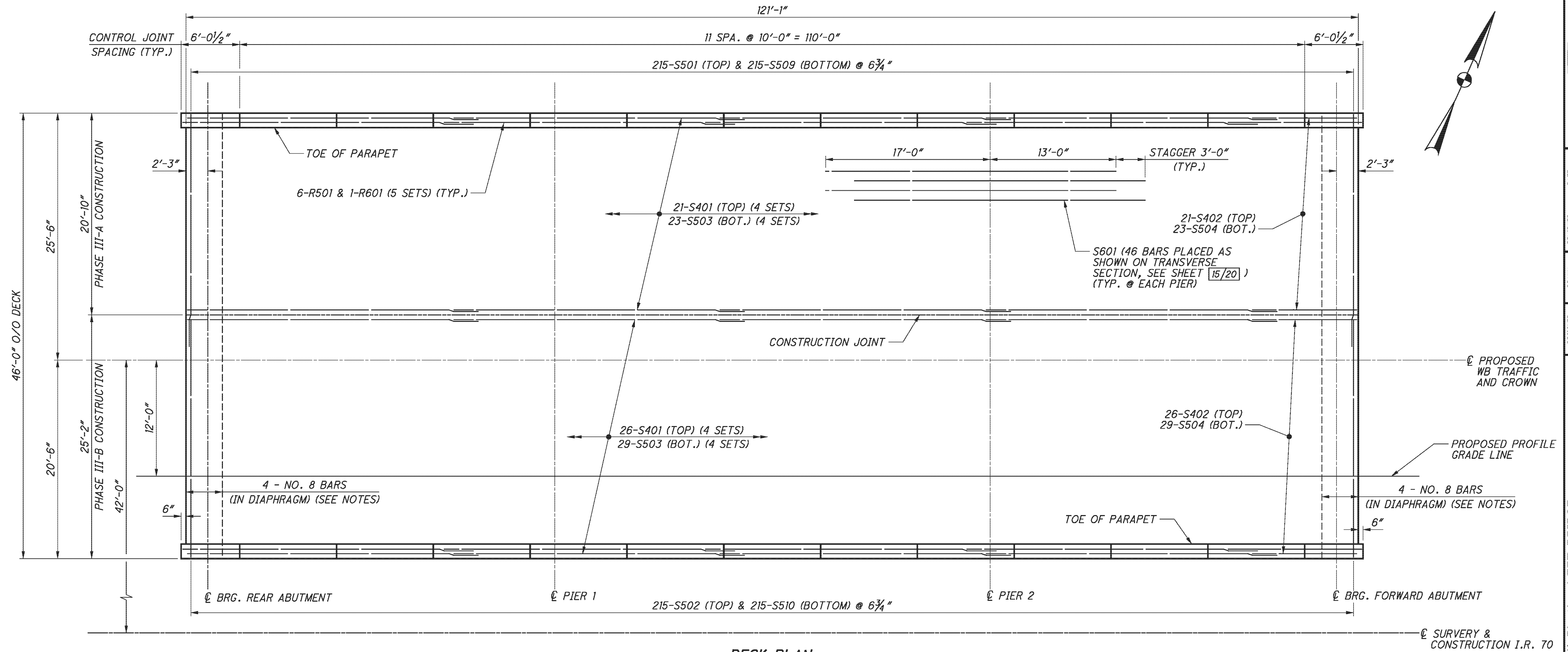
NOTES:

1. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. THE STEEL LOAD PLATE, TOP PLATE AND HP SECTION SHALL BE GALVANIZED ASTM A709 GRADE 50 STEEL.
3. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
4. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.
5. TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE.
6. FOR VENT HOLE DETAIL, SEE SHEET 28/45.

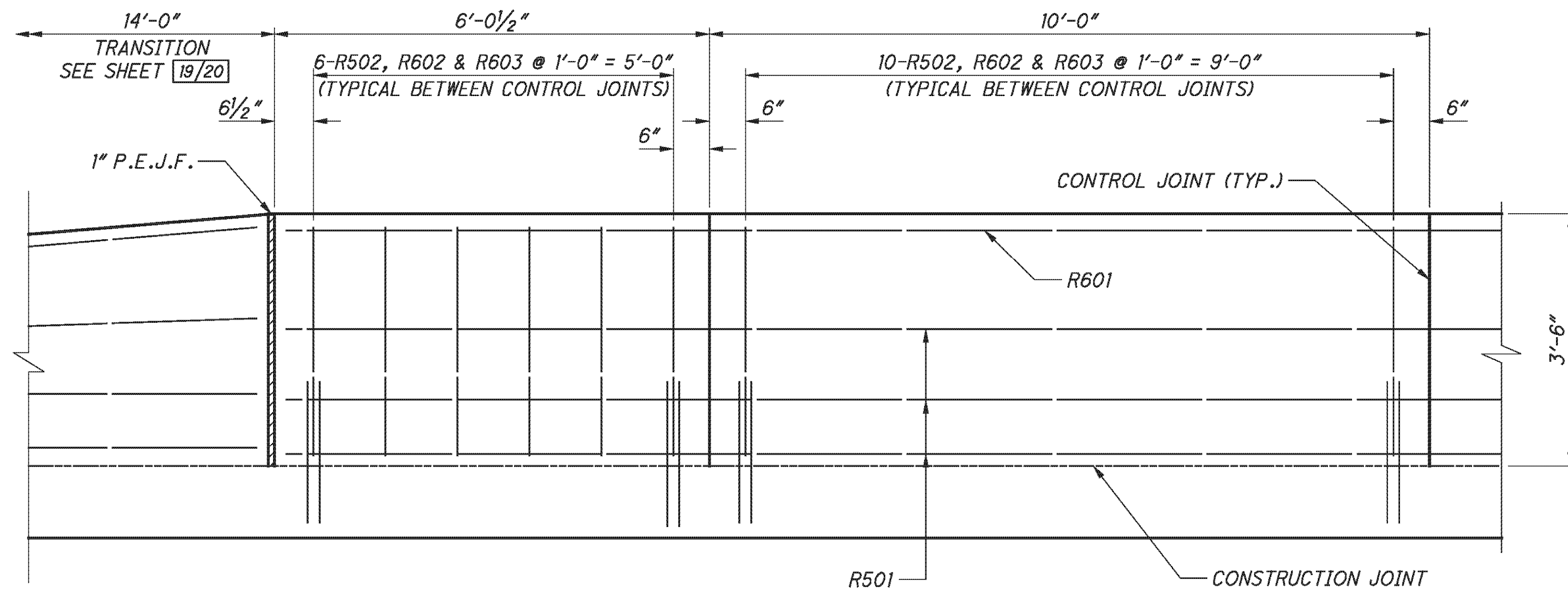
BEARING DATA																
LOCATION	TYPE	NO. REQ'D.	DL (KIP)	LL (KIP) W/O IMPACT	MAX DESIGN LOAD (DL+LL)	L (IN.)	W (IN.)	t_i (IN.)	t_e (IN.)	n NO. OF t_i 's	N NO. INTERNAL LAMINATES	T (IN.)	STEEL LOAD PLATE			
													X (IN.)	Y (IN.)	T_t (IN.)	Th (IN.)
REAR ABUT.	EXP	6	55	41	96	10	14	0.375	0.25	3	4	1.924	11	15	1.5	3.424
FWD. ABUT.	EXP	6	55	41	96	10	14	0.375	0.25	3	4	1.924	11	15	1.5	3.424
PIER 1	EXP	6	72	48	120	11	14	0.375	0.25	3	4	1.924	12	15	1.5	3.424
PIER 2	EXP	6	72	48	120	11	14	0.375	0.25	3	4	1.924	12	15	1.5	3.424

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DECK PLAN

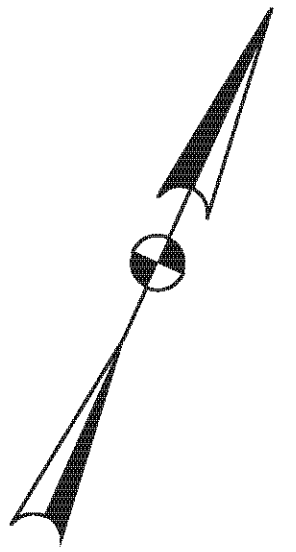


PART PARAPET ELEVATION

LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.

NOTES:

- FOR TRANSVERSE SECTION AND ADDITIONAL NOTES, SEE SHEET 33/45.
- FOR ABUTMENT DETAILS, INCLUDING NO. 8 BARS IN DIAPHRAGM, SEE SHEETS 15/45 AND 19/45.
- FOR PARAPET DETAIL, SEE SHEET 33/45.
- FOR SCREED ELEVATIONS, TOP OF HAUNCH, AND FINAL DECK SURFACE ELEVATIONS, SEE SHEETS 35/45 AND 37/45.
- FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 7/45 AND 8/45.
- FOR PARAPET CONTROL JOINT DETAILS, SEE ODOT STD. DRAWING SBR-1-99.
- DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF ABUTMENT DIAPHRAGM.



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DATE	5/11/10
REVIEWED	DFT
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CHECKED	TUE
REVISOR	
STRUCTURE FILE NUMBER	0702226L/0702250R

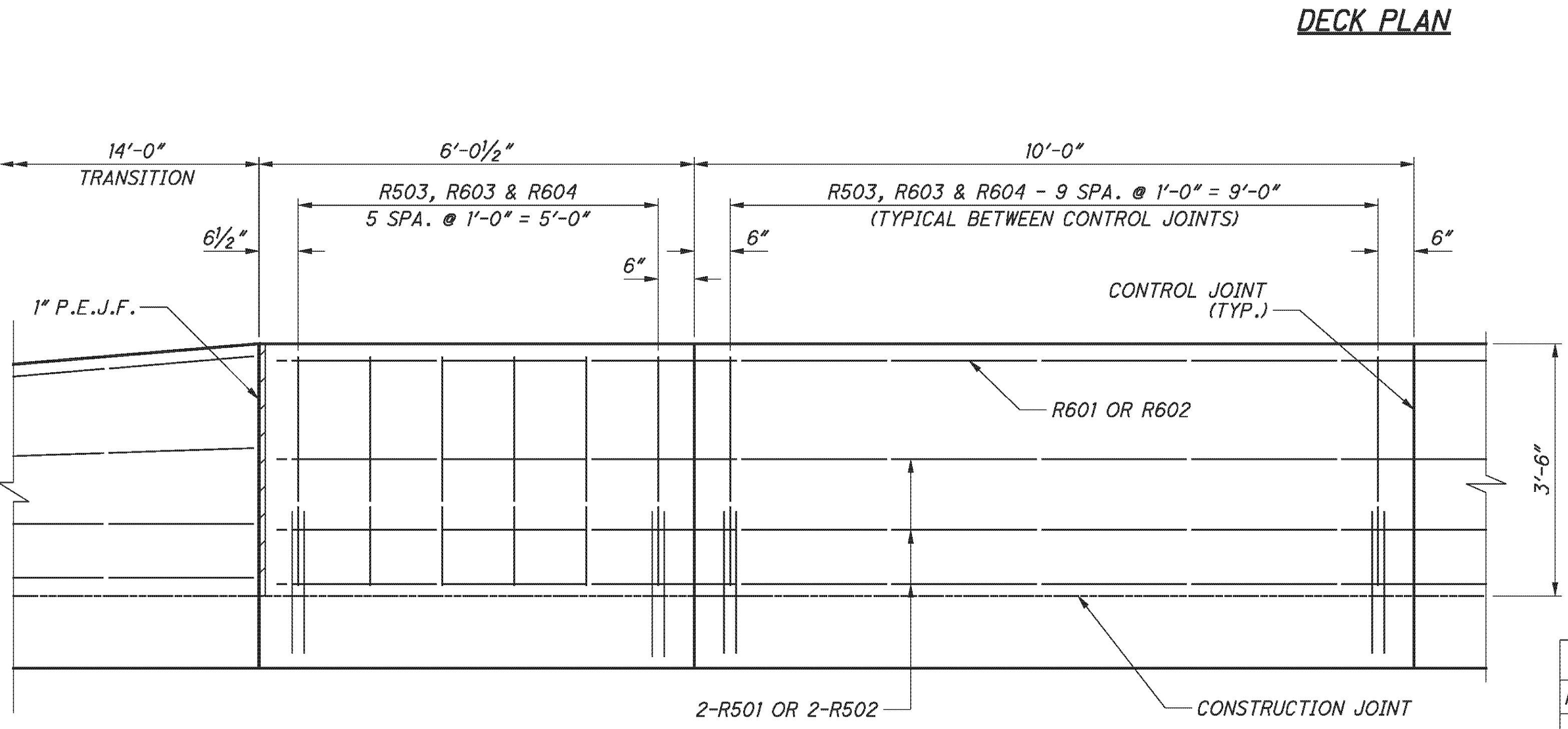
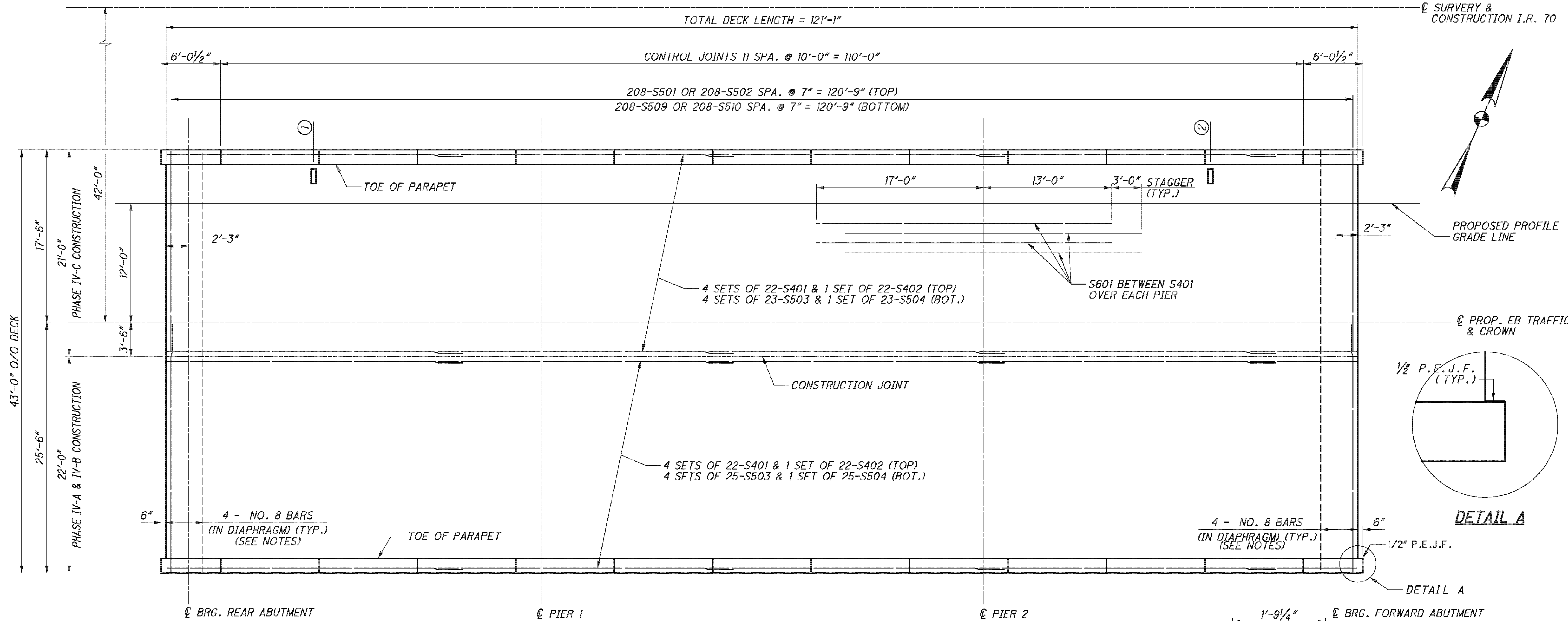
DECK PLAN - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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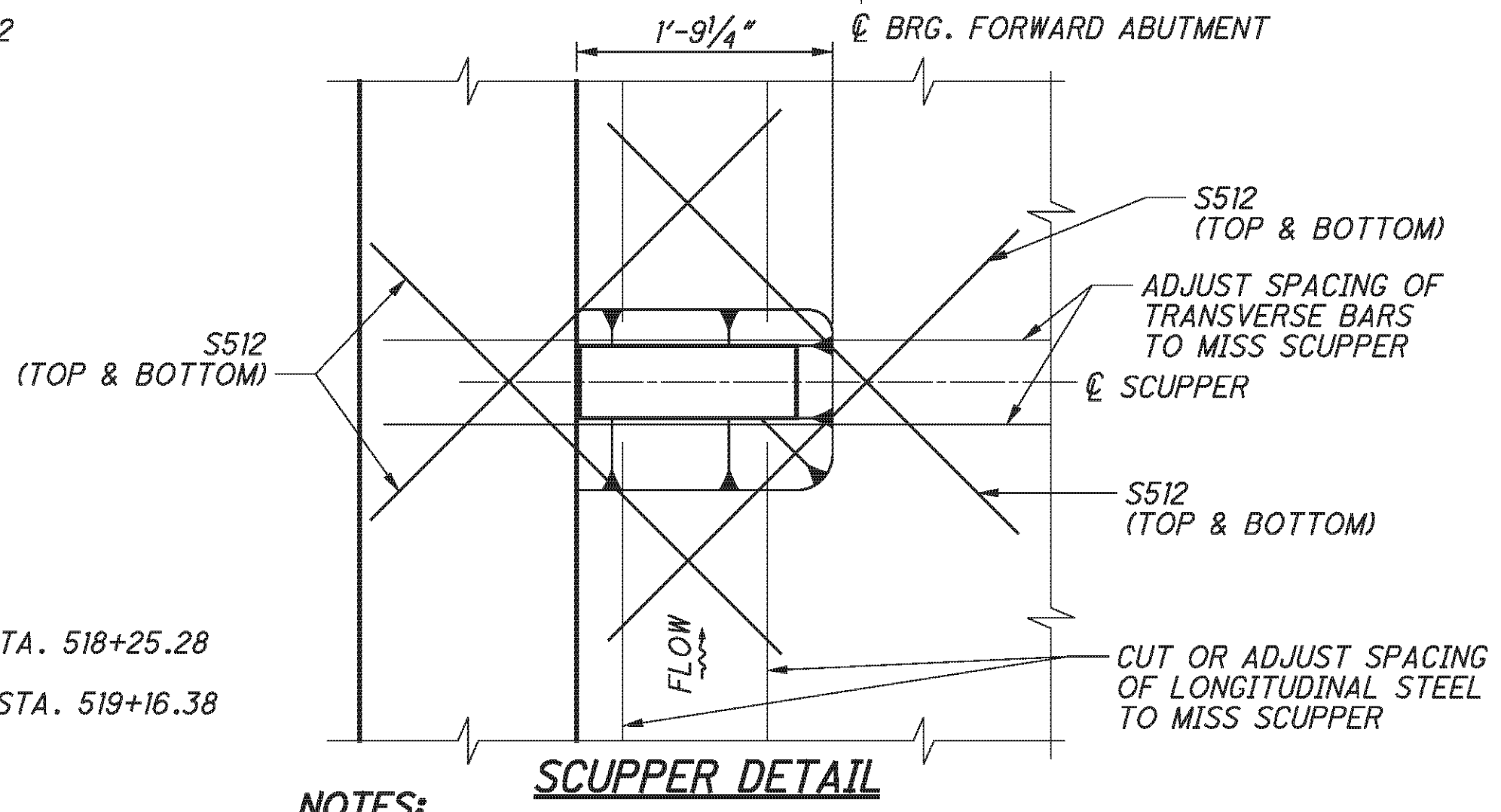
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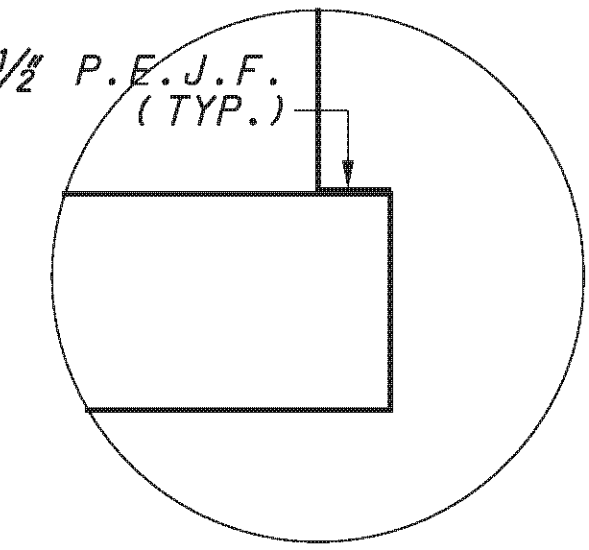
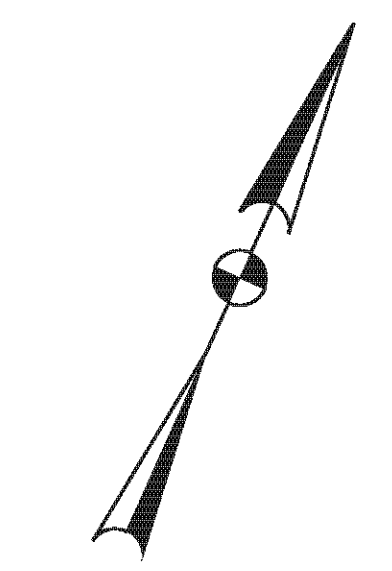
- LEGEND:**
- ① SCUPPER NO. 1, STA. 518+25.28
 - ② SCUPPER NO. 2, STA. 519+16.38

LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.



- NOTES:**
1. FOR TRANSVERSE SECTION AND ADDITIONAL NOTES, SEE SHEET 34/45.
 2. FOR ABUTMENT DETAILS, INCLUDING NO. 8 BARS IN DIAPHRAGM, SEE SHEETS 17/45 AND 22/45.
 3. FOR PARAPET DETAIL, SEE SHEET 34/45.
 4. FOR SCREED ELEVATIONS, TOP OF HAUNCH, AND FINAL DECK SURFACE ELEVATIONS, SEE SHEET 38/45.
 5. FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 9/45 AND 10/45.
 6. FOR PARAPET CONTROL JOINT DETAILS, SEE ODOT STD. DRAWING SBR-1-99.
 7. DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF ABUTMENT DIAPHRAGM.

℄ SURVEY & CONSTRUCTION I.R. 70



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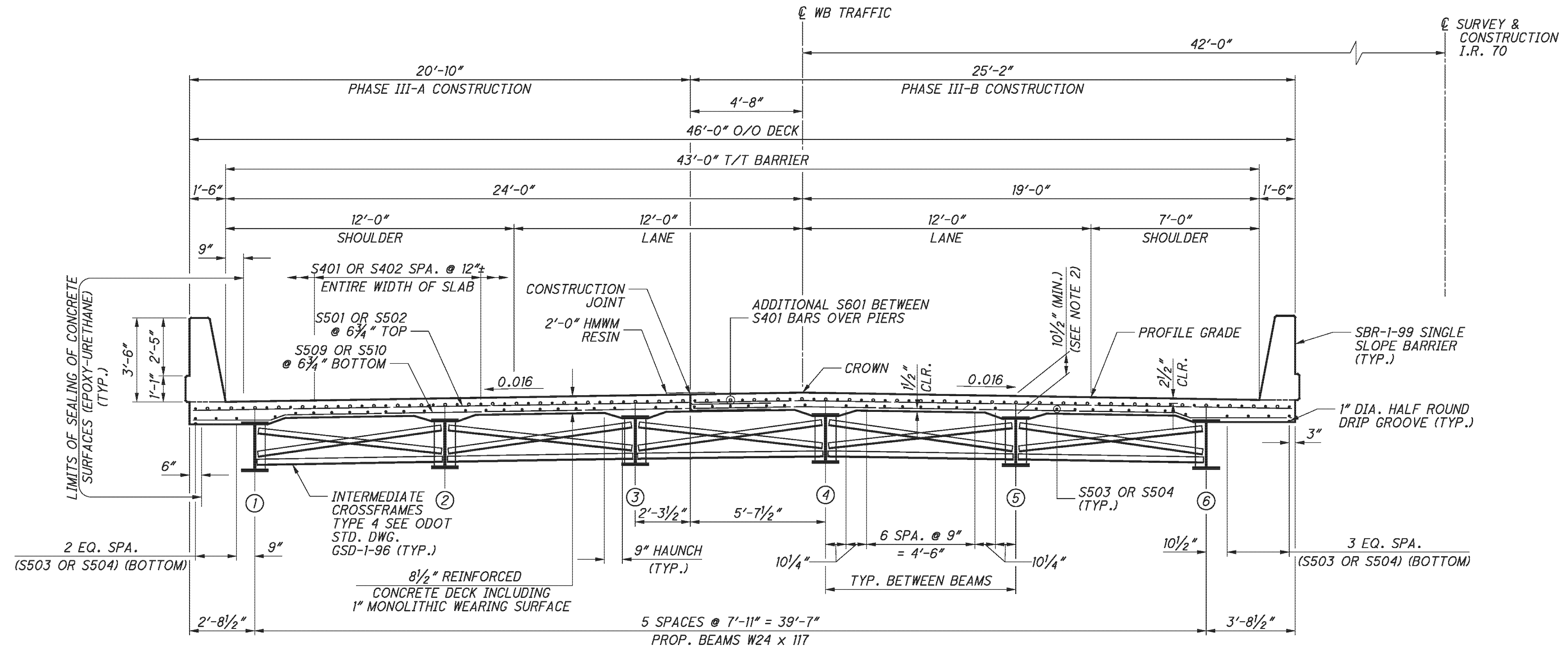
DATE	2/3/11
REVIEWED	RER
STRUCTURE FILE NUMBER	0702250R
DRAWN	BMG
DESIGNED	BMG
CHECKED	RLE
REVISY	

DECK PLAN - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

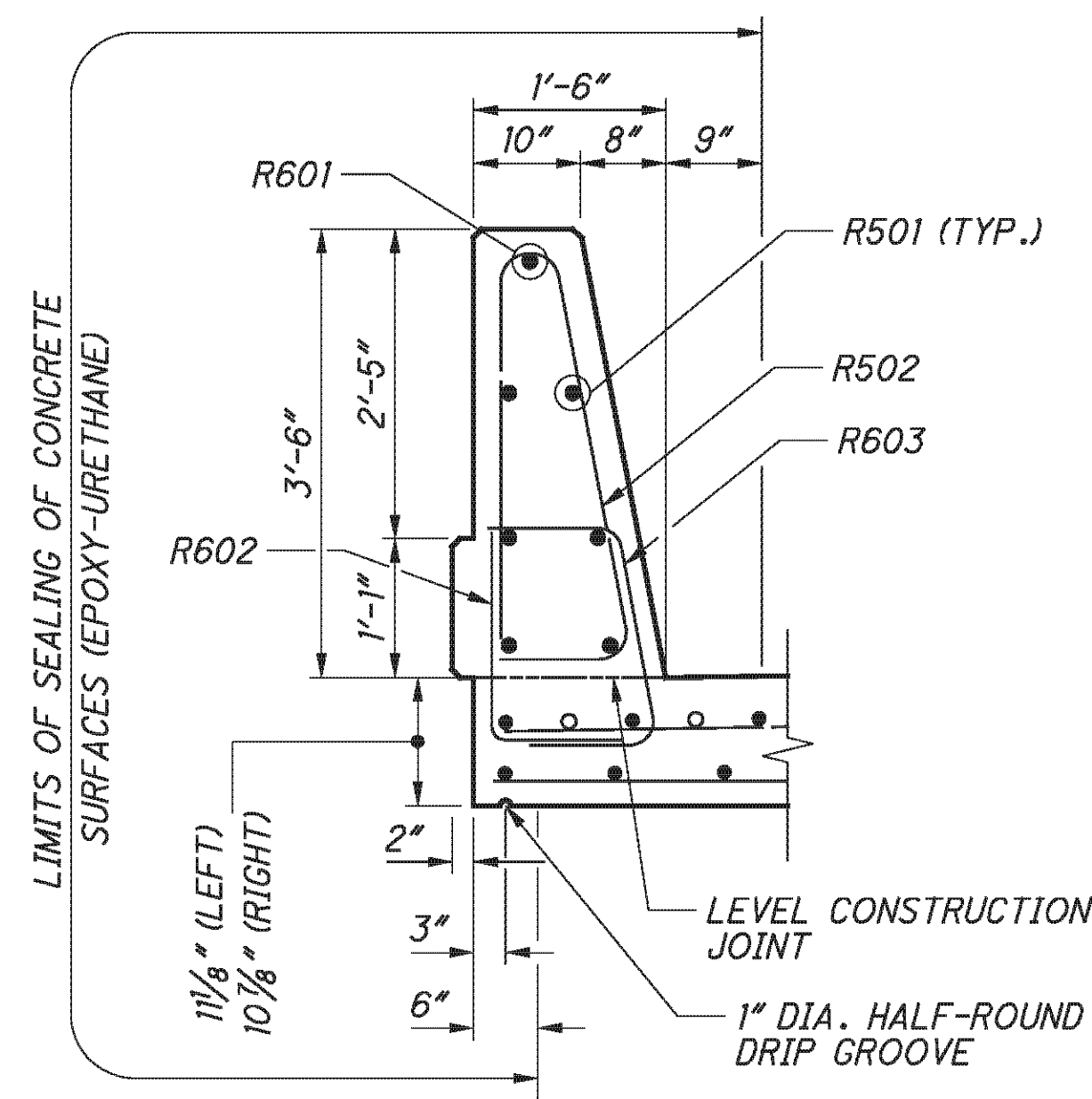
BEL-70-7.61
PID No. 76825

32 / 45

360
373



TRANSVERSE SECTION



PARAPET DETAIL

(LEFT PARAPET SHOWN, RIGHT PARAPET SIMILAR)

LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.

NOTES:

- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS.
- FOR PARAPET JOINT SPACING AND REINFORCING DETAILS SEE SHEET [31/45].
- FOR SLAB PLAN, SEE SHEET [31/45].
- FOR SCREED ELEVATIONS, TOP OF HAUNCH AND FINAL DECK SURFACE ELEVATIONS SEE SHEETS [35/45] AND [37/45].
- THE HMWM SEAL AT THE CONSTRUCTION JOINT SHALL BE PAID FOR WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN.

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1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE: 5/11/10
REVIEWED: DFT
DRAWN: BMG
DESIGNED: BMG
CHECKED: TUE

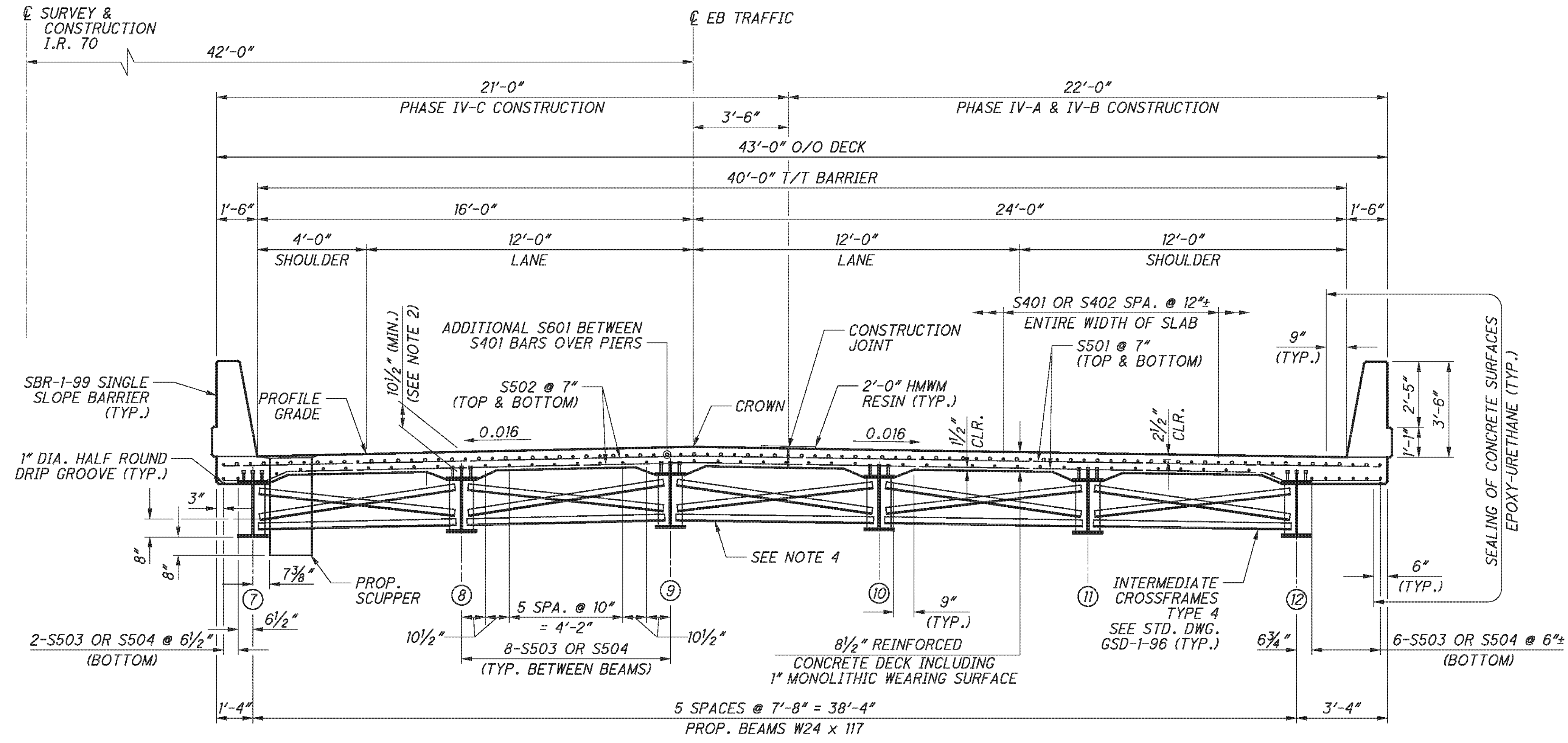
STRUCTURE FILE NUMBER: 0702226L/0702250R

TRANSVERSE SECTION - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

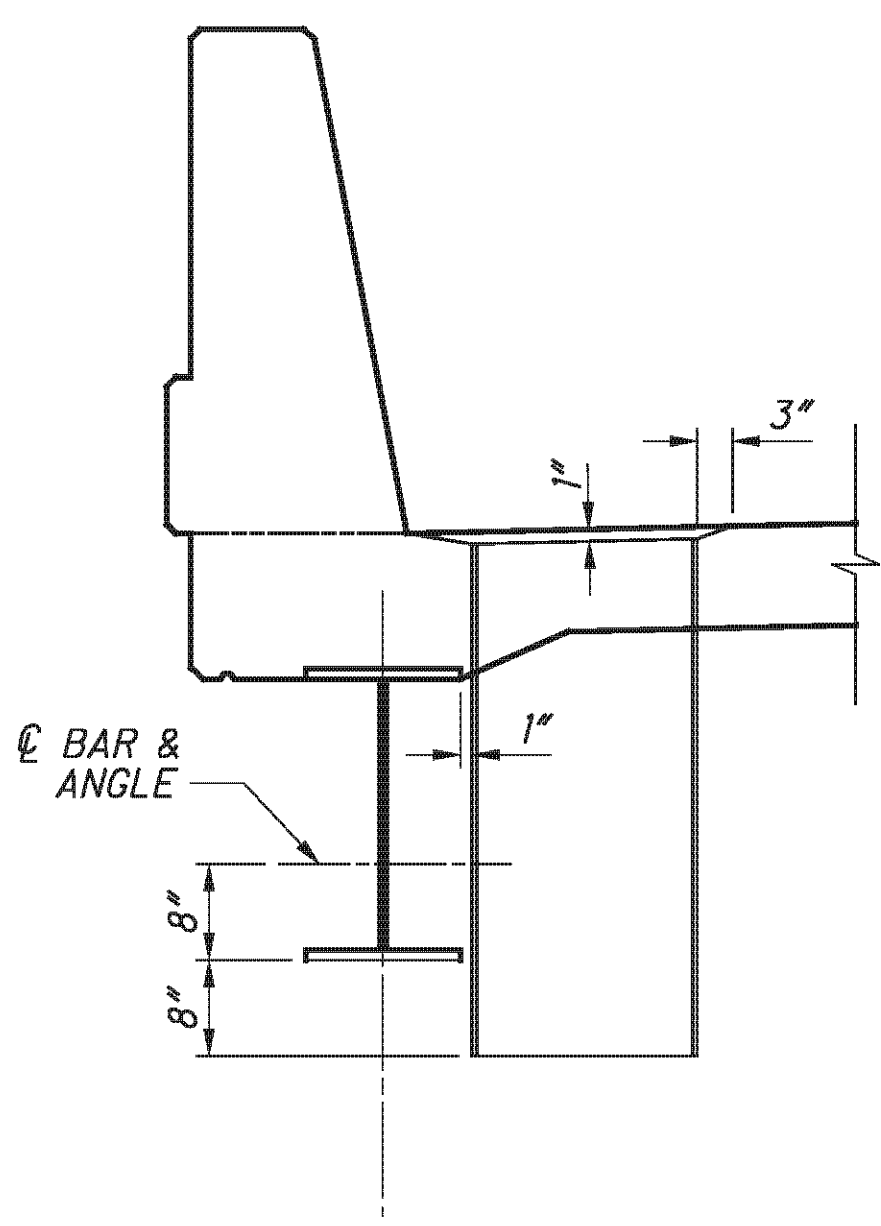
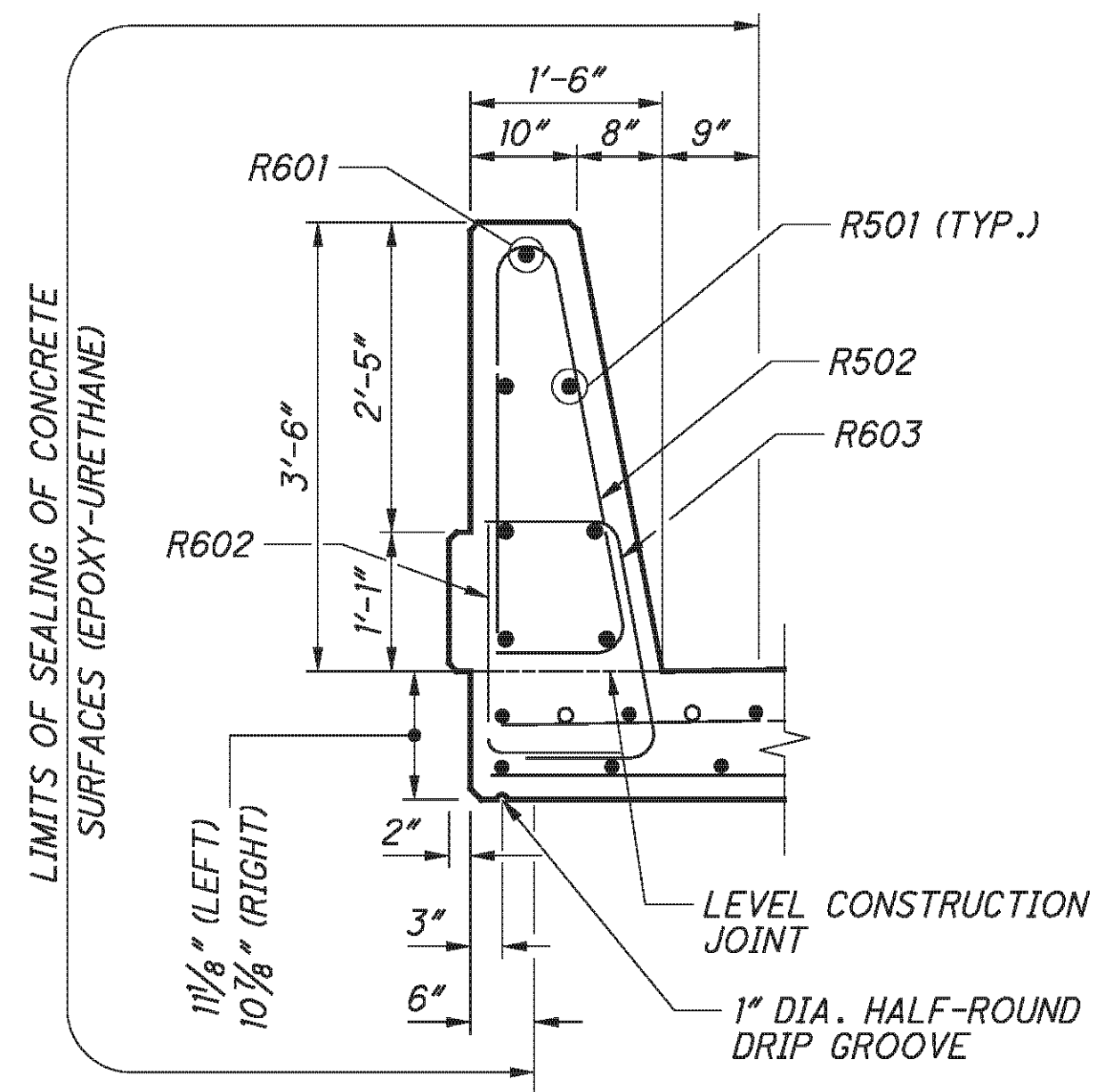
BEL-70-7.61
PID No. 76825

33/45

361
373



REQUIRED LAP LENGTHS	
NO. 4 BARS	2'-0" MIN.
NO. 5 BARS (IN DECK)	3'-3" MIN.
NO. 5 BARS (IN PARAPET)	3'-6" MIN.
NO. 6 BARS	4'-2" MIN.

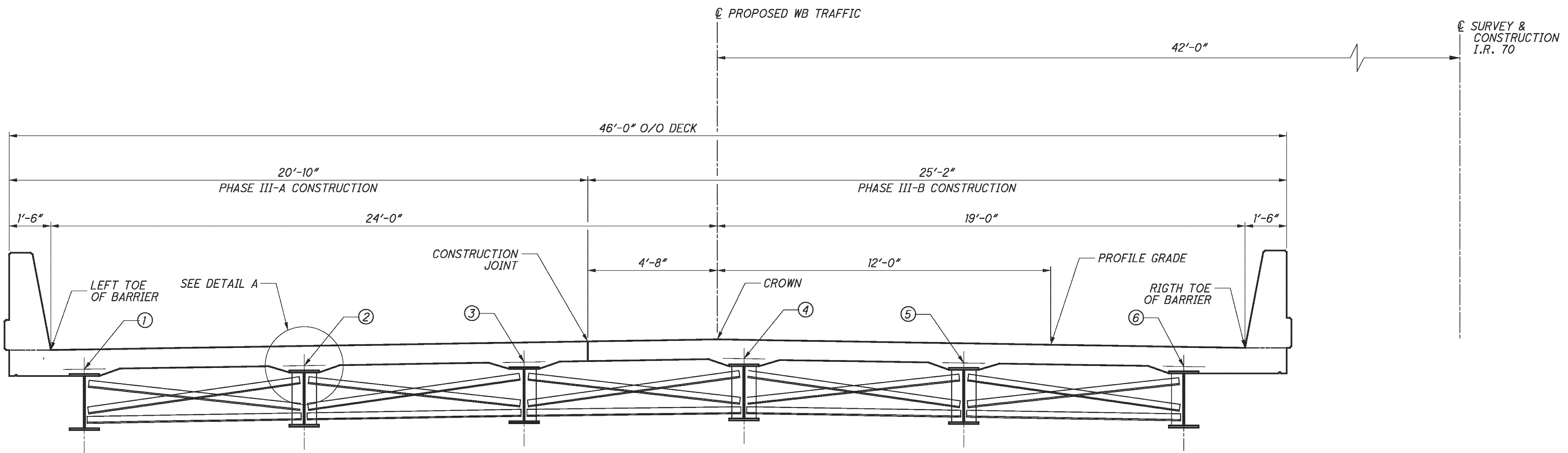


NOTES:

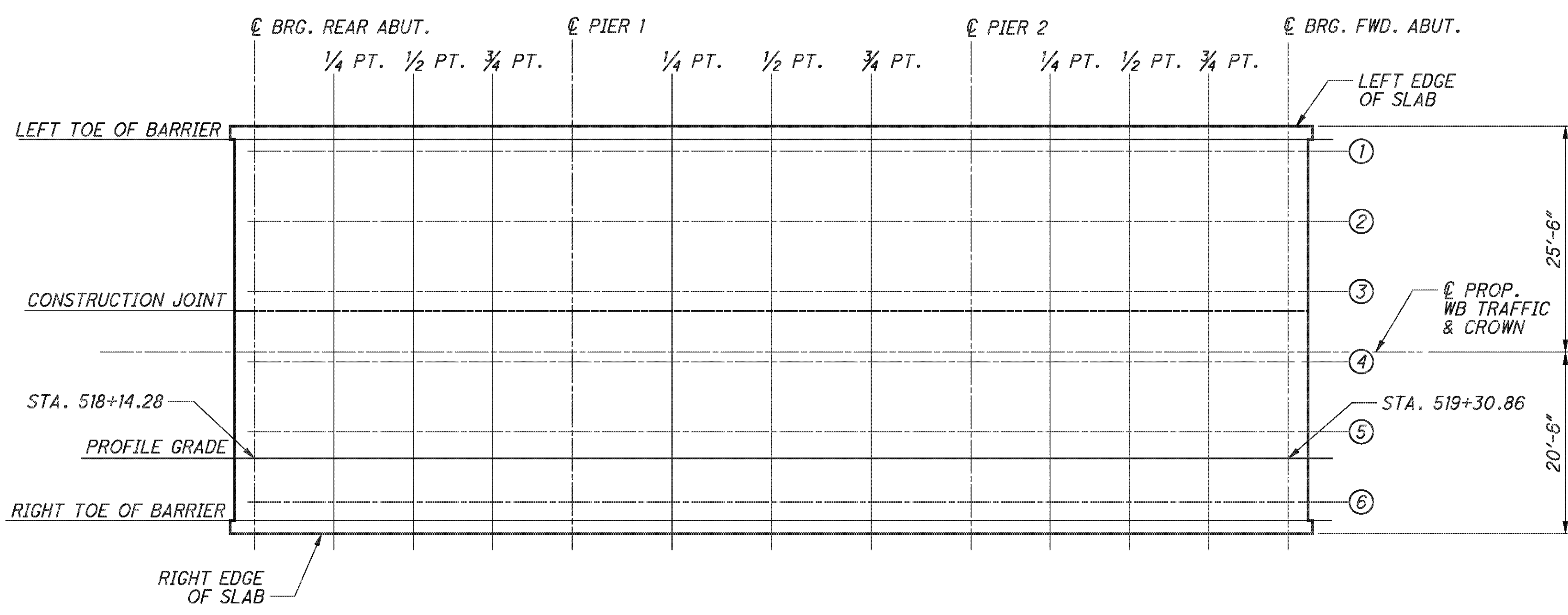
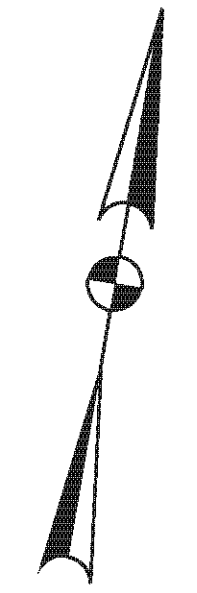
- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY:
THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
- FOR PARAPET REINFORCING DETAILS SEE SHEET 32/45.
- CROSS FRAMES IN THIS BAY SHOULD NOT BE PERMANENTLY ATTACHED UNTIL THE DECK AND PARAPETS LOCATED IN THE ADJACENT PHASES HAVE BEEN PLACED.
- FOR SLAB PLAN, SEE SHEET 32/45.
- FOR SCREED ELEVATIONS, TOP OF HAUNCH & FINAL DECK SURFACE ELEVATIONS SEE SHEET 38/45.
- FOR REINFORCEMENT SCHEDULE, SEE SHEET 45/45.
- THE HMWM SEAL AT THE CLOSURE POUR JOINTS SHALL BE PAID FOR WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN.
- FOR ADDITIONAL SCUPPER DETAILS SEE STD. DWG. GSD-1-96 SHEET 3/3.

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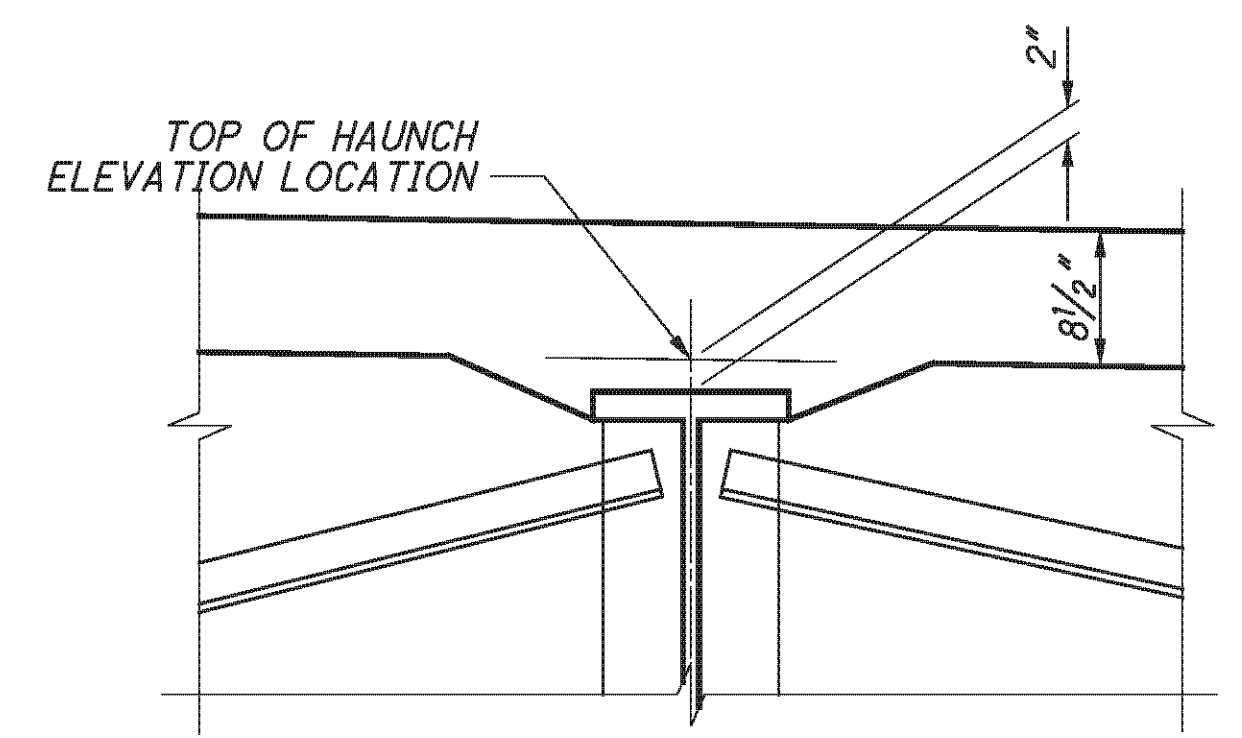
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SCREED LINE & TOP OF HAUNCH LOCATIONS



DECK ELEVATION PLAN - LEFT BRIDGE



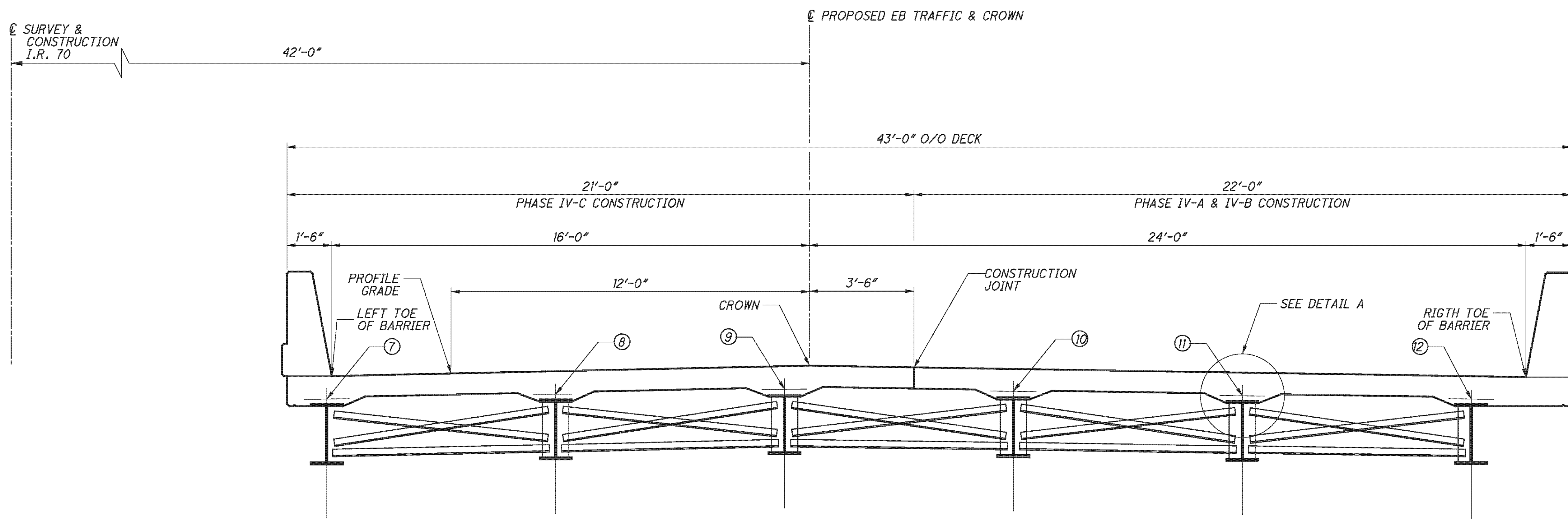
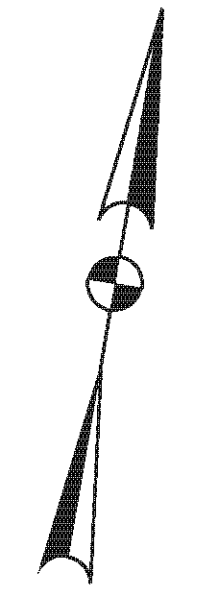
DETAIL A

NOTES:

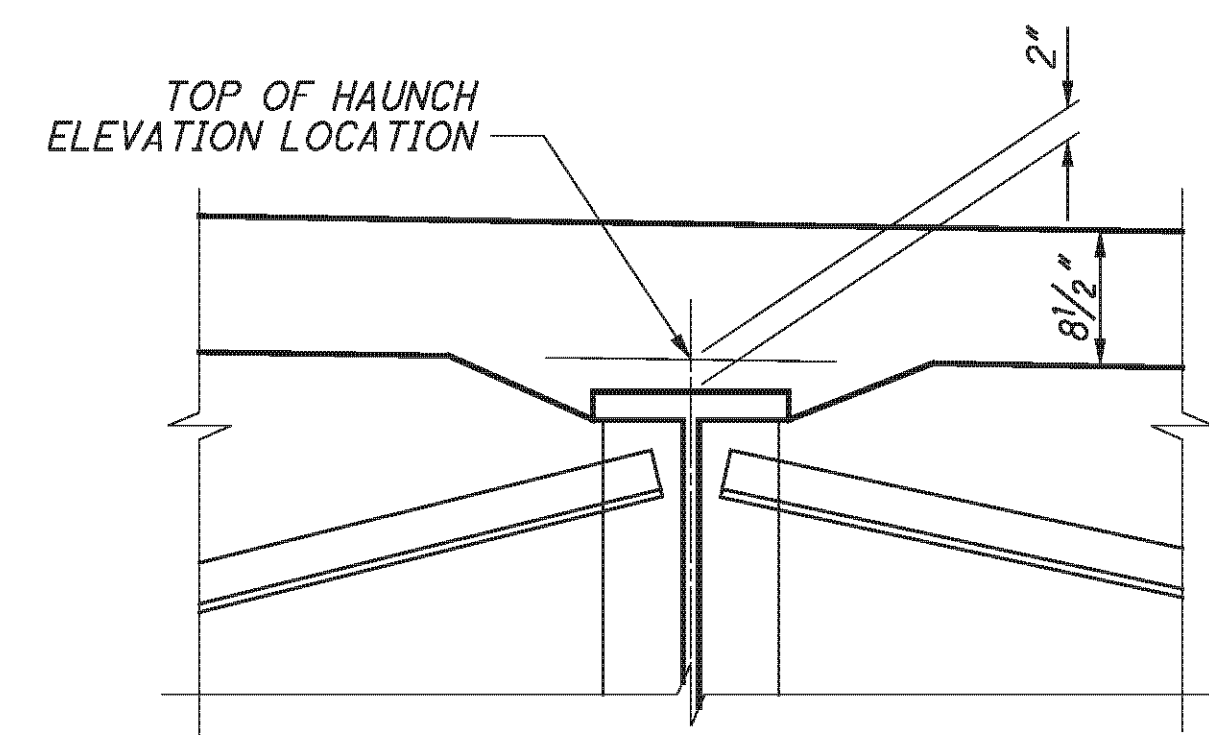
1. FOR SCREED, TOP OF HAUNCH AND FINAL DECK ELEVATIONS, SEE SHEET **37/45**.
2. FOR ADDITIONAL NOTES, SEE SHEET **37/45**.

DATE	5/11/10
REVIEWED	DFT
STRUCTURE FILE NUMBER	0702226L/0702250R
DRAWN	BMG
DESIGNED	BMG
CHECKED	TJE
REVISED	

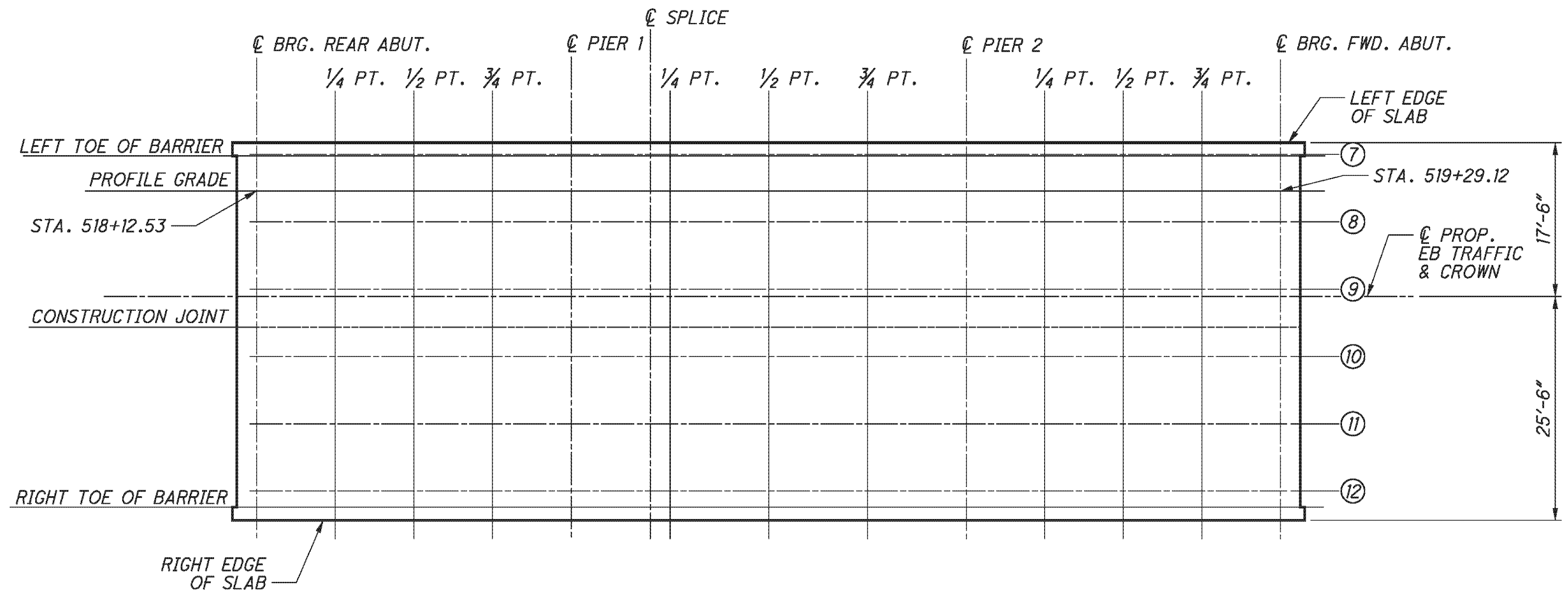
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SCREED LINE & TOP OF HAUNCH LOCATIONS



DETAIL A



DECK ELEVATION PLAN - RIGHT BRIDGE

NOTES:

1. FOR SCREED, TOP OF HAUNCH AND FINAL DECK ELEVATIONS, SEE SHEET 38/45.
2. FOR ADDITIONAL NOTES, SEE SHEET 38/45.

		DATE	2/3/11
		REVIEWED	RER
DESIGNED	DTA	CHECKED	RLE
DRAWN	DTA	REVISYD	
STRUCTURE FILE NUMBER	0702226L/0702250R		
SUPERSTRUCTURE ELEVATION DETAILS - RIGHT BRIDGE BRIDGE NO. BEL-70-0963 L/R I.R. TO OVER S.R. 149			
BEL-70-7.61 PID No. 76825			
		36/45	
		<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;"> 364 373 </div>	

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TOP OF HAUNCH ELEVATION TABLE (LEFT BRIDGE)

LOCATION	BEAM 1		BEAM 2		BEAM 3		BEAM 4		BEAM 5		BEAM 6		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	518+14.28	1221.59	518+14.28	1221.72	518+14.28	1221.85	518+14.28	1221.94	518+14.28	1221.82	518+14.28	1221.69
	0.25L	518+23.24	1221.50	518+23.24	1221.63	518+23.24	1221.75	518+23.24	1221.85	518+23.24	1221.72	518+23.24	1221.60
	0.50L	518+32.20	1221.40	518+32.20	1221.52	518+32.20	1221.65	518+32.20	1221.75	518+32.20	1221.62	518+32.20	1221.49
	0.75L	518+41.15	1221.28	518+41.15	1221.41	518+41.15	1221.54	518+41.15	1221.63	518+41.15	1221.51	518+41.15	1221.38
SPAN 2	0.00L	518+50.11	1221.17	518+50.11	1221.30	518+50.11	1221.42	518+50.11	1221.52	518+50.11	1221.39	518+50.11	1221.27
	SPLICE	518+59.11	1221.07	518+59.11	1221.19	518+59.11	1221.32	518+59.11	1221.42	518+59.11	1221.29	518+59.11	1221.16
	0.25L	518+61.36	1221.04	518+61.36	1221.17	518+61.36	1221.30	518+61.36	1221.39	518+61.36	1221.27	518+61.36	1221.14
	0.50L	518+72.60	1220.91	518+72.60	1221.04	518+72.60	1221.16	518+72.60	1221.26	518+72.60	1221.13	518+72.60	1221.00
	0.75L	518+83.85	1220.76	518+83.85	1220.89	518+83.85	1221.01	518+83.85	1221.11	518+83.85	1220.98	518+83.85	1220.86
SPAN 3	0.00L	518+95.09	1220.61	518+95.09	1220.73	518+95.09	1220.86	518+95.09	1220.95	518+95.09	1220.83	518+95.09	1220.70
	0.25L	519+04.03	1220.49	519+04.03	1220.62	519+04.03	1220.75	519+04.03	1220.84	519+04.03	1220.72	519+04.03	1220.59
	0.50L	519+12.98	1220.38	519+12.98	1220.51	519+12.98	1220.63	519+12.98	1220.73	519+12.98	1220.60	519+12.98	1220.48
	0.75L	519+21.92	1220.26	519+21.92	1220.39	519+21.92	1220.51	519+21.92	1220.61	519+21.92	1220.48	519+21.92	1220.36
	0.00L	519+30.86	1220.13	519+30.86	1220.25	519+30.86	1220.38	519+30.86	1220.48	519+30.86	1220.35	519+30.86	1220.22

SCREED ELEVATION TABLE (LEFT BRIDGE)

LOCATION	TOE OF LEFT BARRIER		CONSTRUCTION JOINT		CROWN		PROFILE GRADE		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	518+14.28	1222.28	518+14.28	1222.59	518+14.28	1222.67	518+14.28	1222.47	518+14.28	1222.36
	0.25L	518+23.24	1222.19	518+23.24	1222.50	518+23.24	1222.57	518+23.24	1222.38	518+23.24	1222.27
	0.50L	518+32.20	1222.09	518+32.20	1222.40	518+32.20	1222.47	518+32.20	1222.28	518+32.20	1222.17
	0.75L	518+41.15	1221.97	518+41.15	1222.28	518+41.15	1222.36	518+41.15	1222.17	518+41.15	1222.05
SPAN 2	0.00L	518+50.11	1221.86	518+50.11	1222.17	518+50.11	1222.24	518+50.11	1222.05	518+50.11	1221.94
	SPLICE	518+59.11	1221.76	518+59.11	1222.07	518+59.11	1222.14	518+59.11	1221.95	518+59.11	1221.84
	0.25L	518+61.36	1221.73	518+61.36	1222.04	518+61.36	1222.12	518+61.36	1221.92	518+61.36	1221.81
	0.50L	518+72.60	1221.60	518+72.60	1221.91	518+72.60	1221.98	518+72.60	1221.79	518+72.60	1221.68
	0.75L	518+83.85	1221.45	518+83.85	1221.76	518+83.85	1221.83	518+83.85	1221.64	518+83.85	1221.53
SPAN 3	0.00L	518+95.09	1221.29	518+95.09	1221.60	518+95.09	1221.68	518+95.09	1221.49	518+95.09	1221.37
	0.25L	519+04.03	1221.18	519+04.03	1221.49	519+04.03	1221.57	519+04.03	1221.37	519+04.03	1221.26
	0.50L	519+12.98	1221.07	519+12.98	1221.38	519+12.98	1221.45	519+12.98	1221.26	519+12.98	1221.15
	0.75L	519+21.92	1220.95	519+21.92	1221.26	519+21.92	1221.33	519+21.92	1221.14	519+21.92	1221.03
	0.00L	519+30.86	1220.82	519+30.86	1221.13	519+30.86	1221.20	519+30.86	1221.01	519+30.86	1220.90

FINAL DECK SURFACE ELEVATION TABLE (LEFT BRIDGE)

LOCATION	TOE OF LEFT BARRIER		BEAM 1		BEAM 2		BEAM 3		CONSTRUCTION JOINT		CROWN		BEAM 4		BEAM 5		PROFILE GRADE		BEAM 6		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	518+14.28	1222.28	518+14.28	1222.30	518+14.28	1222.43	518+14.28	1222.56	518+14.28	1222.59	518+14.28	1222.67	518+14.28	1222.65	518+14.28	1222.52	518+14.28	1222.47	518+14.28	1222.40	518+14.28	1222.36
	0.25L	518+23.24	1222.18	518+23.24	1222.20	518+23.24	1222.33	518+23.24	1222.45	518+23.24	1222.49	518+23.24	1222.56	518+23.24	1222.55	518+23.24	1222.42	518+23.24	1222.37	518+23.24	1222.29	518+23.24	1222.26
	0.50L	518+32.20	1222.07	518+32.20	1222.09	518+32.20	1222.22	518+32.20	1222.35	518+32.20	1222.38	518+32.20	1222.46	518+32.20	1222.44	518+32.20	1222.32	518+32.20	1222.27	518+32.20	1222.19	518+32.20	1222.15
	0.75L	518+41.15	1221.97	518+41.15	1221.99	518+41.15	1222.11	518+41.15	1222.24	518+41.15	1222.28	518+41.15	1222.35	518+41.15	1222.34	518+41.15	1222.21	518+41.15	1222.16	518+41.15	1222.08	518+41.15	1222.05
SPAN 2	0.00L	518+50.11	1221.86	518+50.11	1221.88	518+50.11	1222.01	518+50.11	1222.13	518+50.11	1222.17	518+50.11	1222.24	518+50.11	1222.23	518+50.11	1222.10	518+50.11	1222.05	518+50.11	1221.98	518+50.11	1221.94
	SPLICE	518+59.11	1221.75	518+59.11	1221.77	518+59.11	1221.90	518+59.11	1222.02	518+59.11	1222.06	518+59.11	1222.13	518+59.11	1222.12	518+59.11	1221.99	518+59.11	1221.94	518+59.11	1221.87	518+59.11	1221.83
	0.25L	518+61.36	1221.72	518+61.36	1221.74	518+61.36	1221.87	518+61.36	1221.99	518+61.36	1222.03	518+61.36	1222.11	518+61.36	1222.09	518+61.36	1221.96	518+61.36	1221.91	518+61.36	1221.84	518+61.36	1221.80
	0.50L	518+72.60	1221.58	518+72.60	1221.60	518+72.60	1221.73	518+72.60	1221.85	518+72.60	1221.89	518+72.60	1221.97	518+72.60	1221.95	518+72.60	1221.82	518+72.60	1221.77	518+72.60	1221.70	518+72.60	1221.66
	0.75L	518+83.85	1221.44	518+83.85	1221.46	518+83.85	1221.59	518+83.85	1221.71	518+83.85	1221.75	518+83.85	1221.82	518+83.85	1221.81	518+83.85	1221.68	518+83.85	1221.63	518+83.85	1221.55	518+83.85	1221.52
SPAN 3	0.00L	518+95.09	1221.29	518+95.09	1221.31	518+95.09	1221.44	518+95.09	1221.57	518+95.09	1221.60	518+95.09	1221.68	518+95.09	1221.66	518+95.09	1221.54	518+95.09	1221.49	518+95.09	1221.41	518+95.09	1221.37
	0.25L	519+04.03	1221.18	519+04.03	1221.20	519+04.03	1221.32	519+04.03	1221.45	519+04.03	1221.49	519+04.03	1221.56	519+04.03	1221.55	519+04.03	1221.42	519+04.03	1221.37	519+04.03	1221.29	519+04.03	1221.26
	0.50L	519+12.98	1221.06	519+12.98	1221.08	519+12.98	1221.20	519+12.98	1221.33	519+12.98	1221.37	519+12.98	1221.44	519+12.98	1221.43	519+12.98	1221.30	519+12.98	1221.25	519+12.98	1221.17	519+12.98	1221.14
	0.75L	519+21.92	1220.94	519+21.92	1220.96	519+21.92	1221.08	519+21.92	1221.21	519+21.92	1221.25	519+21.92	1221.32	519+21.92	1221.31	519+21.92	1221.18	519+21.92	1221.13	519+21.92	1221.05	519+21.92	1221.02
	0.00L	519+30.86	1220.82	519+30.86	1220.84	519+30.86	1220.96	519+30.86	1221.09	519+30.86	1221.13	519+30.86	1221.20	519+30.86	1221.19	519+30.86	1221.06	519+30.86	1221.01	519+30.86	1220.93	519+30.86	1220.90

NOTES:

- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
- TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
- FOR LOCATIONS OF SCREED ELEVATIONS, TOP OF HAUNCH ELEVATIONS AND FINAL DECK SURFACE ELEVATIONS, SEE SHEET 35/45.

E.L. ROBINSON
 the Challenge, the Choice
 1800 Watermark Drive, Suite 310 - Columbus, Ohio 43215
 DATE: 5/11/10
 STRUCTURE FILE NUMBER: 0702226L/OT02250R
 REVISIONS: 0
 DRAWN: BMG
 CHECKED: TUE
 SUPERSTRUCTURE ELEVATIONS - LEFT BRIDGE
 BRIDGE NO. BEL-70-0963 L/R
 I.R. TO OVER S.R. 149
 BEL-70-7.61
 PID No. 76825
 365
 373

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TOP OF HAUNCH ELEVATION TABLE (LEFT BRIDGE)

LOCATION	BEAM 7		BEAM 8		BEAM 9		BEAM 10		BEAM 11		BEAM 12		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	518+12.53	1221.94	518+12.53	1222.06	518+12.53	1222.18	518+12.53	1222.09	518+12.53	1221.96	518+12.53	1221.84
	0.25L	518+21.49	1221.84	518+21.49	1221.97	518+21.49	1222.09	518+21.49	1221.99	518+21.49	1221.87	518+21.49	1221.75
	0.50L	518+30.45	1221.74	518+30.45	1221.86	518+30.45	1221.99	518+30.45	1221.89	518+30.45	1221.77	518+30.45	1221.65
	0.75L	518+39.41	1221.63	518+39.41	1221.75	518+39.41	1221.87	518+39.41	1221.78	518+39.41	1221.66	518+39.41	1221.53
SPAN 2	0.00L	518+48.37	1221.52	518+48.37	1221.64	518+48.37	1221.76	518+48.37	1221.67	518+48.37	1221.54	518+48.37	1221.42
	SPLICE	518+57.37	1221.41	518+57.37	1221.54	518+57.37	1221.66	518+57.37	1221.56	518+57.37	1221.44	518+57.37	1221.32
	0.25L	518+59.62	1221.39	518+59.62	1221.51	518+59.62	1221.63	518+59.62	1221.54	518+59.62	1221.41	518+59.62	1221.29
	0.50L	518+70.86	1221.25	518+70.86	1221.38	518+70.86	1221.50	518+70.86	1221.40	518+70.86	1221.28	518+70.86	1221.16
	0.75L	518+82.11	1221.10	518+82.11	1221.23	518+82.11	1221.35	518+82.11	1221.25	518+82.11	1221.13	518+82.11	1221.01
SPAN 3	0.00L	518+93.35	1220.95	518+93.35	1221.07	518+93.35	1221.20	518+93.35	1221.10	518+93.35	1220.98	518+93.35	1220.86
	0.25L	519+02.29	1220.84	519+02.29	1220.96	519+02.29	1221.08	519+02.29	1220.99	519+02.29	1220.87	519+02.29	1220.74
	0.50L	519+11.24	1220.73	519+11.24	1220.85	519+11.24	1220.97	519+11.24	1220.88	519+11.24	1220.75	519+11.24	1220.63
	0.75L	519+20.18	1220.60	519+20.18	1220.73	519+20.18	1220.85	519+20.18	1220.75	519+20.18	1220.63	519+20.18	1220.51
	0.00L	519+29.12	1220.47	519+29.12	1220.60	519+29.12	1220.72	519+29.12	1220.62	519+29.12	1220.50	519+29.12	1220.38

SCREED ELEVATION TABLE (LEFT BRIDGE)


LOCATION	TOE OF LEFT BARRIER		PROFILE GRADE		CROWN		CONSTRUCTION JOINT		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	518+12.53	1222.65	518+12.53	1222.71	518+12.53	1222.91	518+12.53	1222.85	518+12.53	1222.52
	0.25L	518+21.49	1222.56	518+21.49	1222.62	518+21.49	1222.81	518+21.49	1222.76	518+21.49	1222.43
	0.50L	518+30.45	1222.45	518+30.45	1222.52	518+30.45	1222.71	518+30.45	1222.65	518+30.45	1222.32
	0.75L	518+39.41	1222.34	518+39.41	1222.40	518+39.41	1222.60	518+39.41	1222.54	518+39.41	1222.21
SPAN 2	0.00L	518+48.37	1222.23	518+48.37	1222.29	518+48.37	1222.48	518+48.37	1222.43	518+48.37	1222.10
	SPLICE	518+57.37	1222.12	518+57.37	1222.19	518+57.37	1222.38	518+57.37	1222.32	518+57.37	1222.00
	0.25L	518+59.62	1222.10	518+59.62	1222.16	518+59.62	1222.35	518+59.62	1222.30	518+59.62	1221.97
	0.50L	518+70.86	1221.96	518+70.86	1222.03	518+70.86	1222.22	518+70.86	1222.16	518+70.86	1221.84
	0.75L	518+82.11	1221.82	518+82.11	1221.88	518+82.11	1222.07	518+82.11	1222.02	518+82.11	1221.69
SPAN 3	0.00L	518+93.35	1221.66	518+93.35	1221.73	518+93.35	1221.92	518+93.35	1221.86	518+93.35	1221.53
	0.25L	519+02.29	1221.55	519+02.29	1221.61	519+02.29	1221.81	519+02.29	1221.75	519+02.29	1221.42
	0.50L	519+11.24	1221.44	519+11.24	1221.50	519+11.24	1221.69	519+11.24	1221.64	519+11.24	1221.31
	0.75L	519+20.18	1221.32	519+20.18	1221.38	519+20.18	1221.57	519+20.18	1221.52	519+20.18	1221.19
	0.00L	519+29.12	1221.18	519+29.12	1221.25	519+29.12	1221.44	519+29.12	1221.38	519+29.12	1221.06

FINAL DECK SURFACE ELEVATION TABLE (LEFT BRIDGE)

LOCATION	BEAM 7		TOE OF LEFT BARRIER		PROFILE GRADE		BEAM 8		BEAM 9		CROWN		CONSTRUCTION JOINT		BEAM 10		BEAM 11		BEAM 12		TOE OF RIGHT BARRIER		
	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	STATION	EL.	
SPAN 1	0.00L	518+12.53	1222.65	518+12.53	1222.65	518+12.53	1222.71	518+12.53	1222.77	518+12.53	1222.89	518+12.53	1222.91	518+12.53	1222.85	518+12.53	1222.80	518+12.53	1222.67	518+12.53	1222.55	518+12.53	1222.52
	0.25L	518+21.49	1222.54	518+21.49	1222.55	518+21.49	1222.61	518+21.49	1222.67	518+21.49	1222.79	518+21.49	1222.80	518+21.49	1222.75	518+21.49	1222.69	518+21.49	1222.57	518+21.49	1222.45	518+21.49	1222.42
	0.50L	518+30.45	1222.44	518+30.45	1222.44	518+30.45	1222.51	518+30.45	1222.56	518+30.45	1222.68	518+30.45	1222.70	518+30.45	1222.64	518+30.45	1222.59	518+30.45	1222.47	518+30.45	1222.34	518+30.45	1222.31
	0.75L	518+39.41	1222.33	518+39.41	1222.34	518+39.41	1222.40	518+39.41	1222.46	518+39.41	1222.58	518+39.41	1222.59	518+39.41	1222.54	518+39.41	1222.48	518+39.41	1222.36	518+39.41	1222.24	518+39.41	1222.21
SPAN 2	0.00L	518+48.37	1222.22	518+48.37	1222.23	518+48.37	1222.29	518+48.37	1222.35	518+48.37	1222.47	518+48.37	1222.48	518+48.37	1222.43	518+48.37	1222.37	518+48.37	1222.25	518+48.37	1222.13	518+48.37	1222.10
	SPLICE	518+57.37	1222.11	518+57.37	1222.12	518+57.37	1222.18	518+57.37	1222.24	518+57.37	1222.36	518+57.37	1222.37	518+57.37	1222.32	518+57.37	1222.26	518+57.37	1222.14	518+57.37	1222.02	518+57.37	1221.99
	0.25L	518+59.62	1222.09	518+59.62	1222.09	518+59.62	1222.15	518+59.62	1222.21	518+59.62	1222.33	518+59.62	1222.35	518+59.62	1222.29	518+59.62	1222.24	518+59.62	1222.11	518+59.62	1221.99	518+59.62	1221.96
	0.50L	518+70.86	1221.95	518+70.86	1221.95	518+70.86	1222.01	518+70.86	1222.07	518+70.86	1222.19	518+70.86	1222.21	518+70.86	1222.15	518+70.86	1222.10	518+70.86	1221.97	518+70.86	1221.85	518+70.86	1221.82
	0.75L	518+82.11	1221.80	518+82.11	1221.81	518+82.11	1221.87	518+82.11	1221.93	518+82.11	1222.05	518+82.11	1222.06	518+82.11	1222.01	518+82.11	1221.95	518+82.11	1221.83	518+82.11	1221.71	518+82.11	1221.68
SPAN 3	0.00L	518+93.35	1221.66	518+93.35	1221.66	518+93.35	1221.73	518+93.35	1221.78	518+93.35	1221.90	518+93.35	1221.92	518+93.35	1221.86	518+93.35	1221.81	518+93.35	1221.69	518+93.35	1221.56	518+93.35	1221.53
	0.25L	519+02.29	1221.54	519+02.29	1221.54	519+02.29	1221.61	519+02.29	1221.66	519+02.29	1221.79	519+02.29	1221.80	519+02.29	1221.74	519+02.29	1221.69	519+02.29	1221.57	519+02.29	1221.45	519+02.29	1221.42
	0.50L	519+11.24	1221.42	519+11.24	1221.43	519+11.24	1221.49	519+11.24	1221.55	519+11.24	1221.67	519+11.24	1221.68	519+11.24	1221.63	519+11.24	1221.57	519+11.24	1221.45	519+11.24	1221.33	519+11.24	1221.30
	0.75L	519+20.18	1221.30	519+20.18	1221.31	519+20.18	1221.37	519+20.18	1221.43	519+20.18	1221.55	519+20.18	1221.56	519+20.18	1221.51	519+20.18	1221.45	519+20.18	1221.33	519+20.18	1221.21	519+20.18	1221.18
	0.00L	519+29.12	1221.18	519+29.12	1221.18	519+29.12	1221.25	519+29.12	1221.30	519+29.12	1221.43	519+29.12	1221.44	519+29.12	1221.38	519+29.12	1221.33	519+29.12	1221.21	519+29.12	1221.09	519+29.12	1221.06

NOTES:

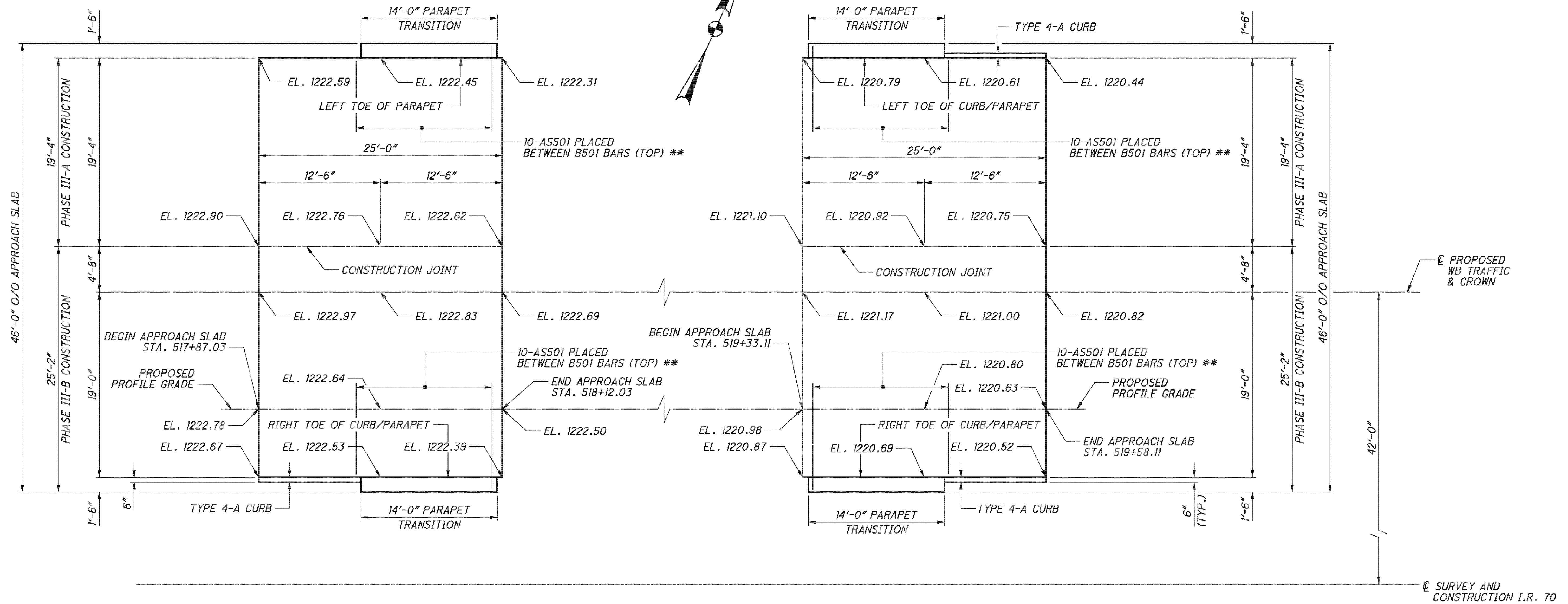
- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
- TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
- FOR LOCATIONS OF SCREED ELEVATIONS, TOP OF HAUNCH ELEVATIONS AND FINAL DECK SURFACE ELEVATIONS, SEE SHEET 36/45.



E.L. ROBINSON
The Challenge, The Choice

DATE: 2/3/11 REVISION: RER STRUCTURE FILE NUMBER: 0702226L/0702250R	DRAWN: DTA CHECKED: RLE DESIGNED: DTA SUPERSTRUCTURE ELEVATIONS - RIGHT BRIDGE BRIDGE NO. BEL-70-0963 L/R I.R. TO OVER S.R. 149
BEL-70-7.61 PID No. 76825	
38 / 45 366 373	

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APPROACH SLAB PLAN

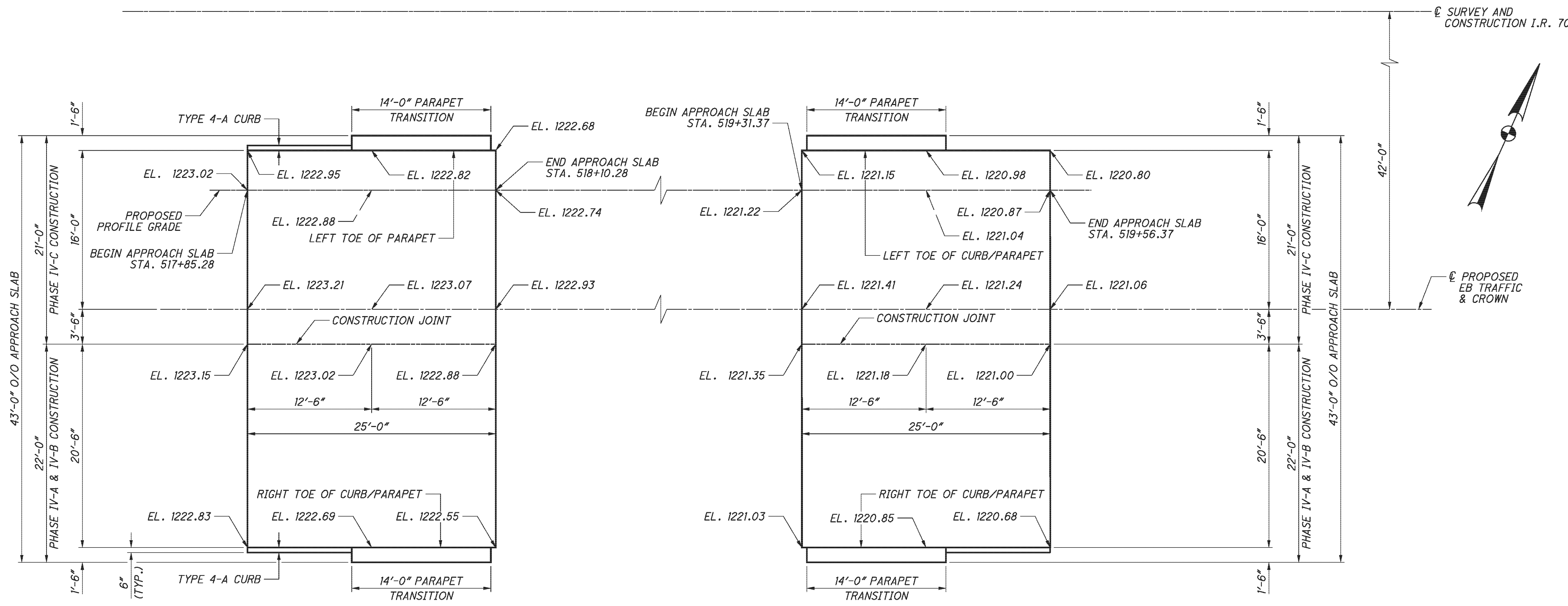
** INDICATED REINFORCING IS IN ADDITION TO STANDARD REINFORCEMENT PROVIDED IN ODOT STANDARD DRAWING AS-1-81. SEE AS-1-81 FOR B501 BARS.

NOTES:

1. FOR ADDITIONAL APPROACH SLAB DETAILS, SEE ODOT STANDARD DRAWING AS-1-81.
2. FOR ADDITIONAL CURB DETAILS, SEE ODOT STANDARD CONSTRUCTION DRAWING BP-5.1
3. PARAPET, REINFORCING, TYPE 4-A CURB AND SEALING CONCRETE APPROACH SLAB CONSTRUCTION JOINT WITH HMWM RESIN IS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15'), AS PER PLAN.
4. FOR PARAPET TRANSITION DETAILS, SEE SHEET 41/45.

E.L. ROBINSON <i>The Challenge, the Choice</i>	
DESIGNED B/MG CHECKED T/JE	DATE 5/11/10 STRUCTURE FILE NUMBER 0702226L/0702250R
APPROACH SLAB DETAILS - LEFT BRIDGE BRIDGE NO. BEL-70-0963 L/R I.R. TO OVER S.R. 149	
BEL-70-7.61 PID No. 76825	
39 / 45 367 373	

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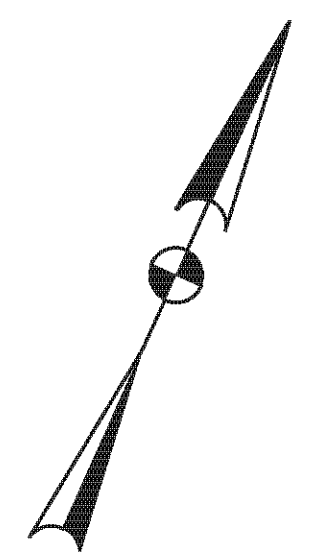


APPROACH SLAB PLAN

NOTES:

1. FOR ADDITIONAL APPROACH SLAB DETAILS, SEE ODOT STANDARD DRAWING AS-1-81.
2. FOR ADDITIONAL CURB DETAILS, SEE ODOT STANDARD CONSTRUCTION DRAWING BP-5.1
3. PARAPET, REINFORCING, TYPE 4-A CURB AND SEALING CONCRETE APPROACH SLAB CONSTRUCTION JOINT WITH HMWM RESIN IS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15'), AS PER PLAN.
4. FOR PARAPET TRANSITION DETAILS, SEE SHEET 41/45.

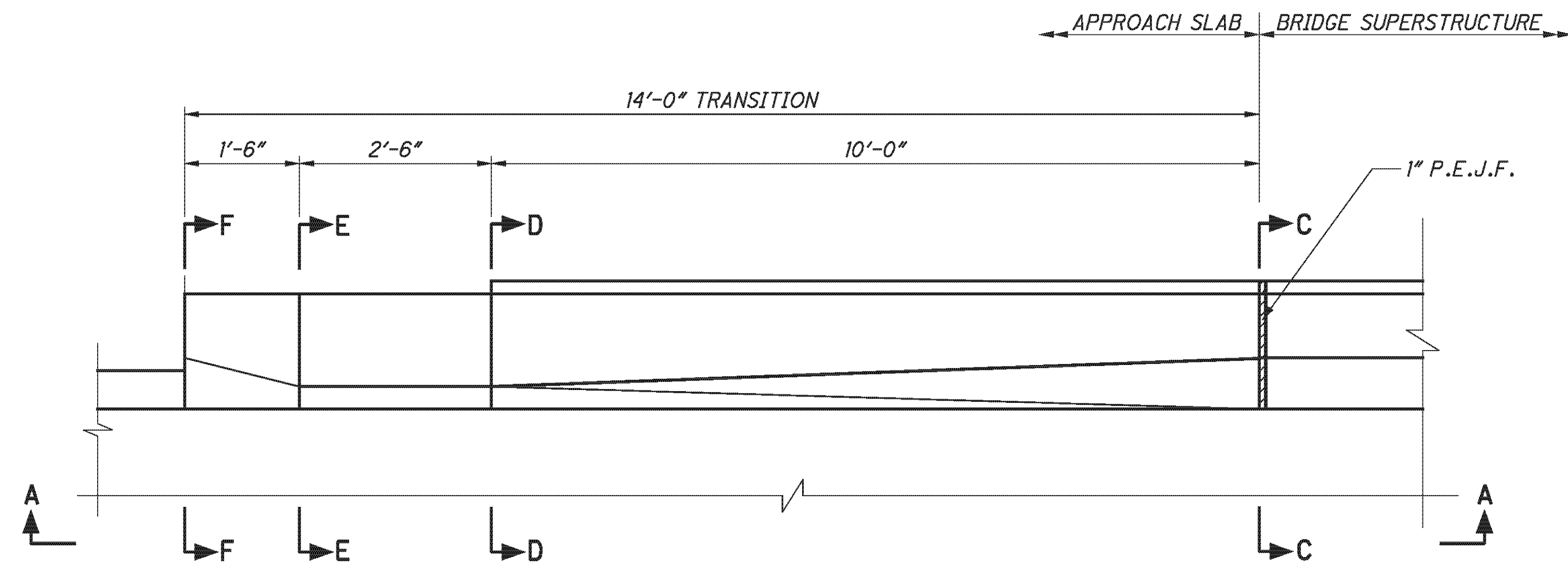
☒ SURVEY AND CONSTRUCTION I.R. 70



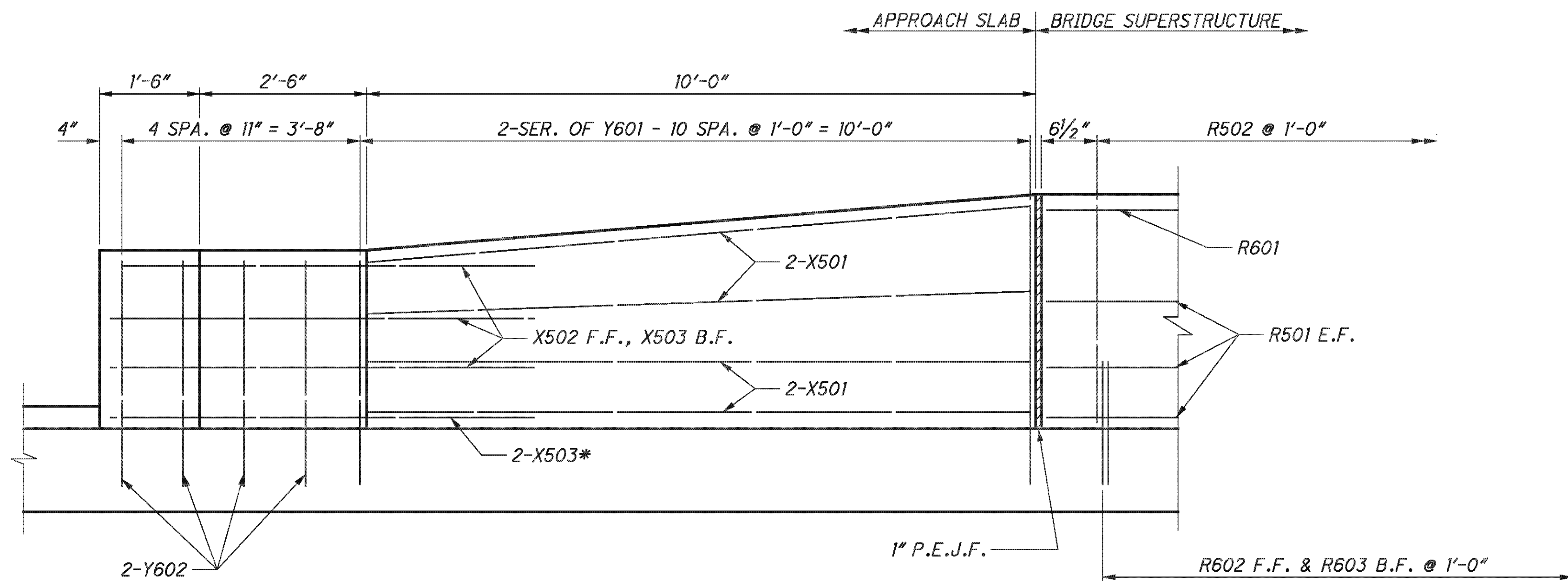
☒ PROPOSED EB TRAFFIC & CROWN

E.L. ROBINSON <small>the Challenge, the Choice</small>	
DESIGNED DTA CHECKED RLE	DATE 2/3/11 REVIEWED RER STRUCTURE FILE NUMBER 0702226L/0702250R
APPROACH SLAB DETAILS - RIGHT BRIDGE	
BRIDGE NO. BEL-70-0963 L/R I.R. TO OVER S.R. 149	
BEL-70-7.61	PID No. 76825
40/45	368 373

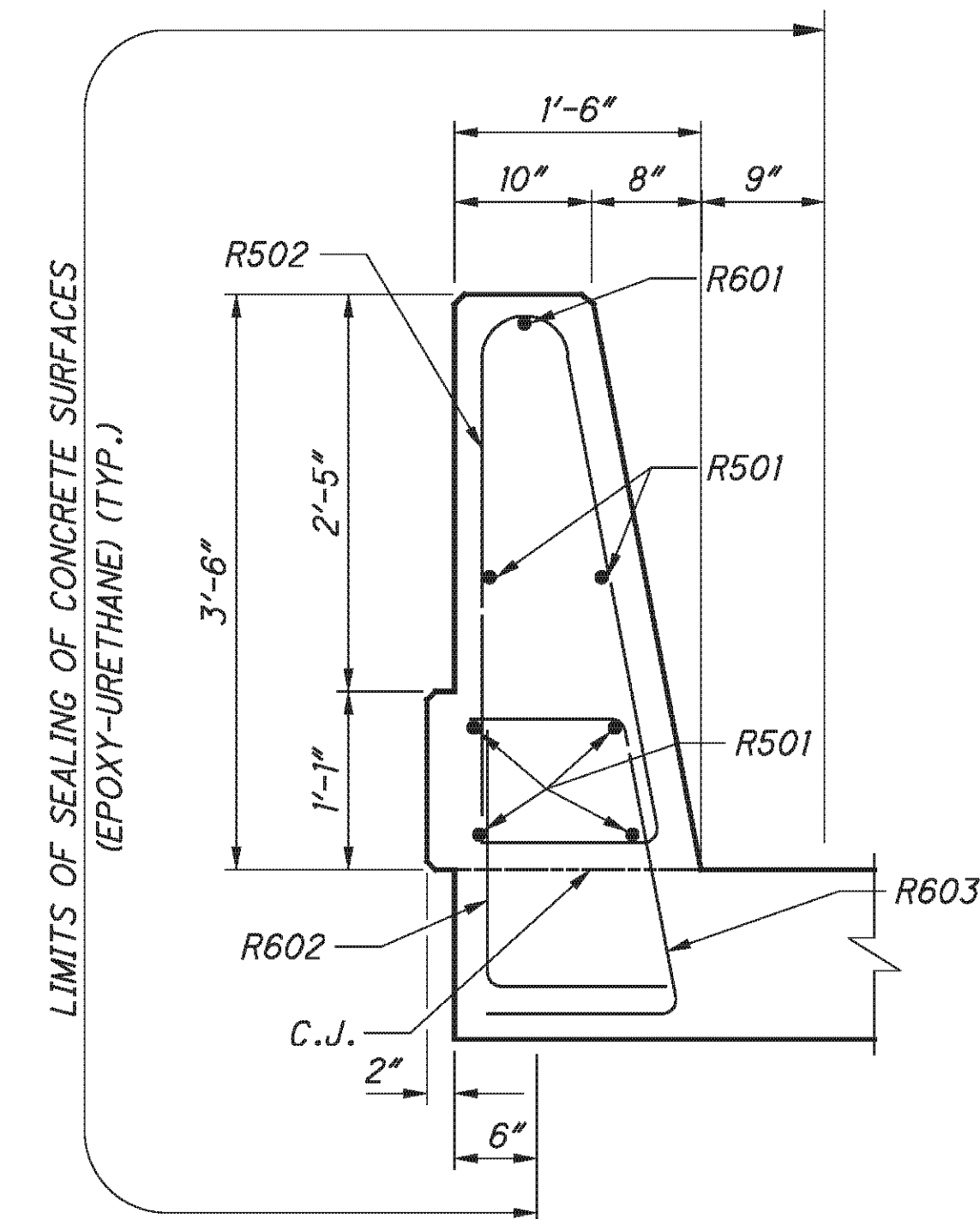
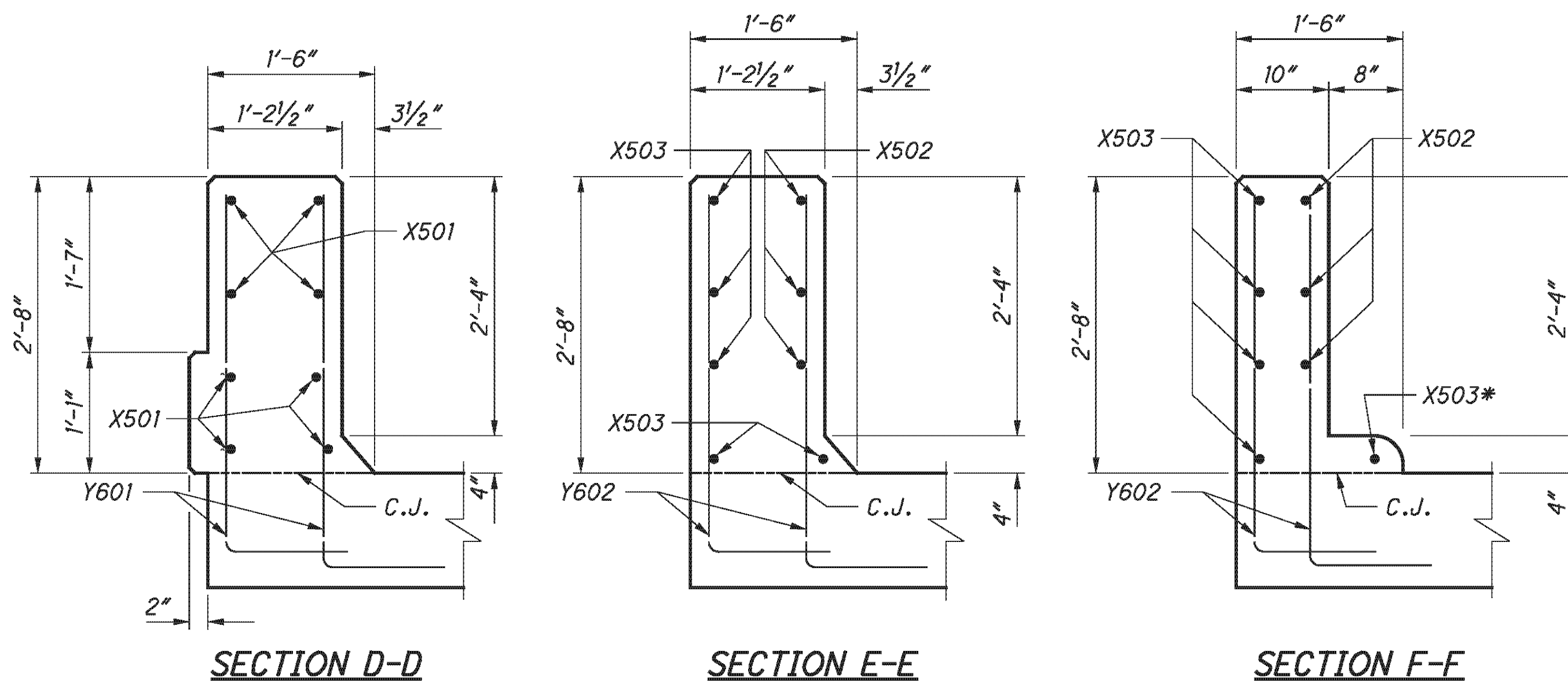
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TYPICAL PARAPET TRANSITION DETAIL
LEFT REAR PARAPET SHOWN, OTHERS SIMILAR



VIEW A-A
* FIELD BEND IF NECESSARY



SECTION C-C

NOTES:

1. FOR NOTES AND DETAILS ON CONTROL JOINTS AND OTHER DETAILS NOT SHOWN, SEE ODOT STD. DRAWING SBR-1-99.
2. FOR BRIDGE TERMINAL ASSEMBLIES, SEE STANDARD CONSTRUCTION DRAWINGS GR-3.1 AND GR-3.2.

E.L. ROBINSON
The Challenge, the Choice
1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DESIGNED	BMG	CHECKED	TJE
DRAWN	BMG	REVISOR	
REVIEWED	DFT	STRUCTURE FILE NUMBER	0702226L/0702250R
DATE	5/11/10		

PARAPET TRANSITION DETAILS
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

41 / 45

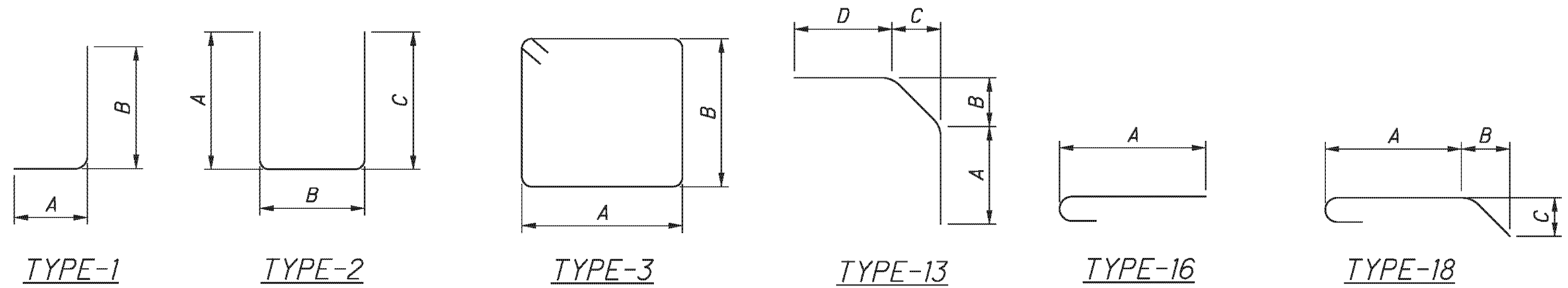
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373

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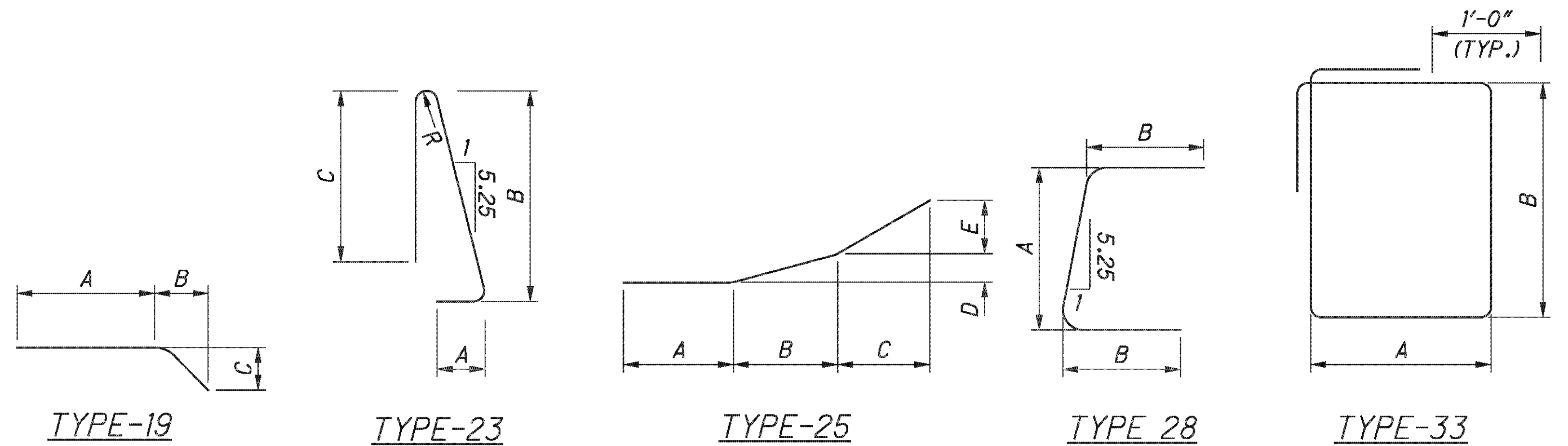
MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
REAR ABUTMENT - LEFT BRIDGE											
A501	28		4'-1"	119	35	1'-2"	1'-7"				
A502	108		6'-11"	779	1	1'-6"	5'-7"				
A503	19		6'-11"	137	1	2'-9"	4'-4"				
A504	19		4'-1"	81	13	6"	1'-1"	1'-1"	2'-1"		
A505	19		6'-1"	121	1	2'-8"	3'-7"				
A506	19		3'-4"	66	13	6"	1'-1"	1'-1"	1'-4"		
A508	25		12'-8"	330	STR						
A509	10		8'-11"	93	STR						
A510	4		3'-7"	15	19	2'-1"	1'-1"	1'-1"			
A511	4		2'-10"	12	19	1'-4"	1'-1"	1'-1"			
A527	16		4'-10"	81	STR						
A528	8		5'-2"	43	34	2'-6"	1'-0"	1'-0"	1'-4"		
A529	16		5'-7"	93	STR						
A530	8		5'-11"	49	34	2'-6"	1'-0"	1'-0"	2'-1"		
A601	52		3'-6"	273	STR						
A608	6		14'-4"	129	33	3'-5"	3'-2"				
A609	4		4'-7"	28	1	1'-7"	3'-1 1/2"				
A901	14		4'-5"	210	1	1'-7"	3'-1 1/2"				
			SUB-TOTAL	2,659							

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
FORWARD ABUTMENT - LEFT BRIDGE											
A512	28		4'-1"	119	35	1'-2"	1'-7"				
A513	108		6'-8"	779	1	1'-6"	5'-4"				
A514	19		6'-3"	124	1	2'-10"	3'-7"				
A515	19		3'-5"	68	13	7"	1'-1"	1'-1"	1'-4"		
A516	19		7'-1"	140	1	2'-11"	4'-4"				
A517	19		4'-3"	84	13	8"	1'-1"	1'-1"	2'-1"		
A519	25		12'-8"	330	STR						
A520	10		8'-11"	93	STR						
A521	4		3'-7"	15	19	2'-1"	1'-1"	1'-1"			
A522	4		2'-10"	12	19	1'-4"	1'-1"	1'-1"			
A523	16		5'-7"	93	STR						
A524	8		5'-11"	49	34	2'-6"	1'-0"	1'-0"	2'-1"		
A525	16		4'-10"	81	STR						
A526	8		5'-2"	43	34	2'-6"	1'-0"	1'-0"	1'-4"		
A602	52		3'-6"	273	STR						
A608	6		14'-4"	129	33	3'-5"	3'-2"				
A609	4		4'-7"	28	1	1'-7"	3'-1 1/2"				
A901	14		4'-5"	210	1	1'-7"	3'-1 1/2"				
			SUB-TOTAL	2,670							

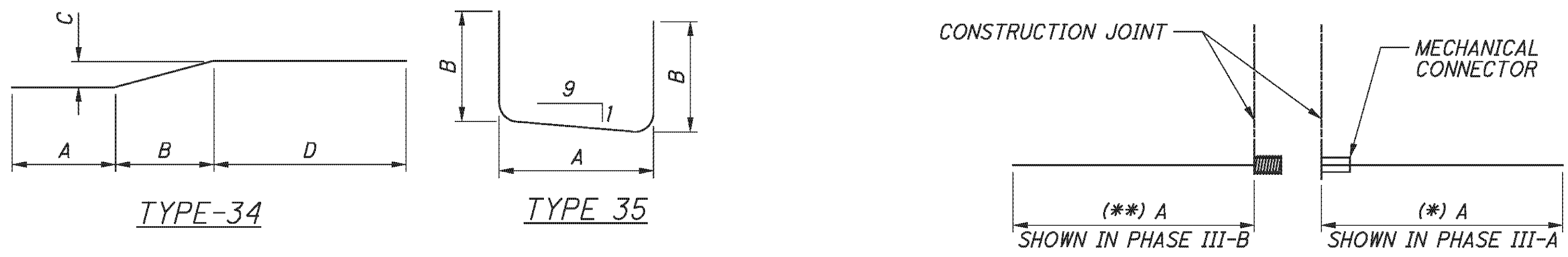
MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
PIERS - LEFT BRIDGE											
*P401	12		19'-2"	154	STR						
P402	12		22'-10"	183	STR						
P403	12		6'-6"	52	2	2'-0"	2'-8"	2'-0"			
P404	8		4'-6"	24	2	1'-0"	2'-8"	1'-0"			
P501	66		13'-3"	912	3	2'-8"	3'-8"				
*P901	24		20'-7"	1,680	1	1'-7"	19'-3"				
**P902	24		24'-2"	1,972	1	1'-7"	22'-10"				
			SUB-TOTAL	4,997							



TYPE-1 TYPE-2 TYPE-3 TYPE-13 TYPE-16 TYPE-18



TYPE-19 TYPE-23 TYPE-25 TYPE 28 TYPE-33



MECHANICAL CONNECTOR DETAIL

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
2. ALL REINFORCING STEEL TO BE EPOXY COATED.

LEGEND:

** RETINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
SUPERSTRUCTURE - LEFT BRIDGE											
S401	188	30'-0"	3,768	STR							
S402	47	9'-0"	283	STR							
S501	215	24'-1"	5,401	STR							
S502	215	24'-11"	5,587	STR							
S503	208	30'-0"	6,508	STR							
S504	52	14'-0"	759	STR							
S505	72	7'-2"	538	2	2'-5"	2'-7"	2'-5"				
S506	34	12'-7"	446	3	3'-5"	2'-7"					
S507	32	12'-5"	414	3	3'-5"	2'-6"					
S508	8	10'-11"	91	3	3'-5"	1'-9"					
S509	215	24'-1"	5,401	34	3'-0"	0'-9"	0'-3 1/2"	20'-3"			
S510	215	24'-11"	5,587	34	4'-0"	0'-9"	0'-3 1/2"	20'-1"			
S601	92	30'-0"	4,146	STR							
*S801	28	19'-10"	1,483	STR							
**S802	28	23'-5"	1,751	STR							
S803	60	4'-11"	788	18	2'-7"	1'-0"	1'-0"				
		SUB-TOTAL	42,951								

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
APPROACH SLAB - LEFT BRIDGE											
AS501	40	4'-0"	167	STR							
X501	32	10'-0"	334	STR							
X502	12	5'-6"	69	25	1'-8"	2'-5"	1'-5"	1 1/2"	5"		
X503	20	5'-6"	115	STR							
	8 SR	4'-3"				3'-4"					
Y601	OF	TO	617	1	1'-1"	TO					1"
	11	5'-1"				4'-2"					
Y602	32	4'-3"	204	1	1'-1"	3'-4"					
		SUB-TOTAL	1,506		(FOR INFORMATION ONLY)						

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

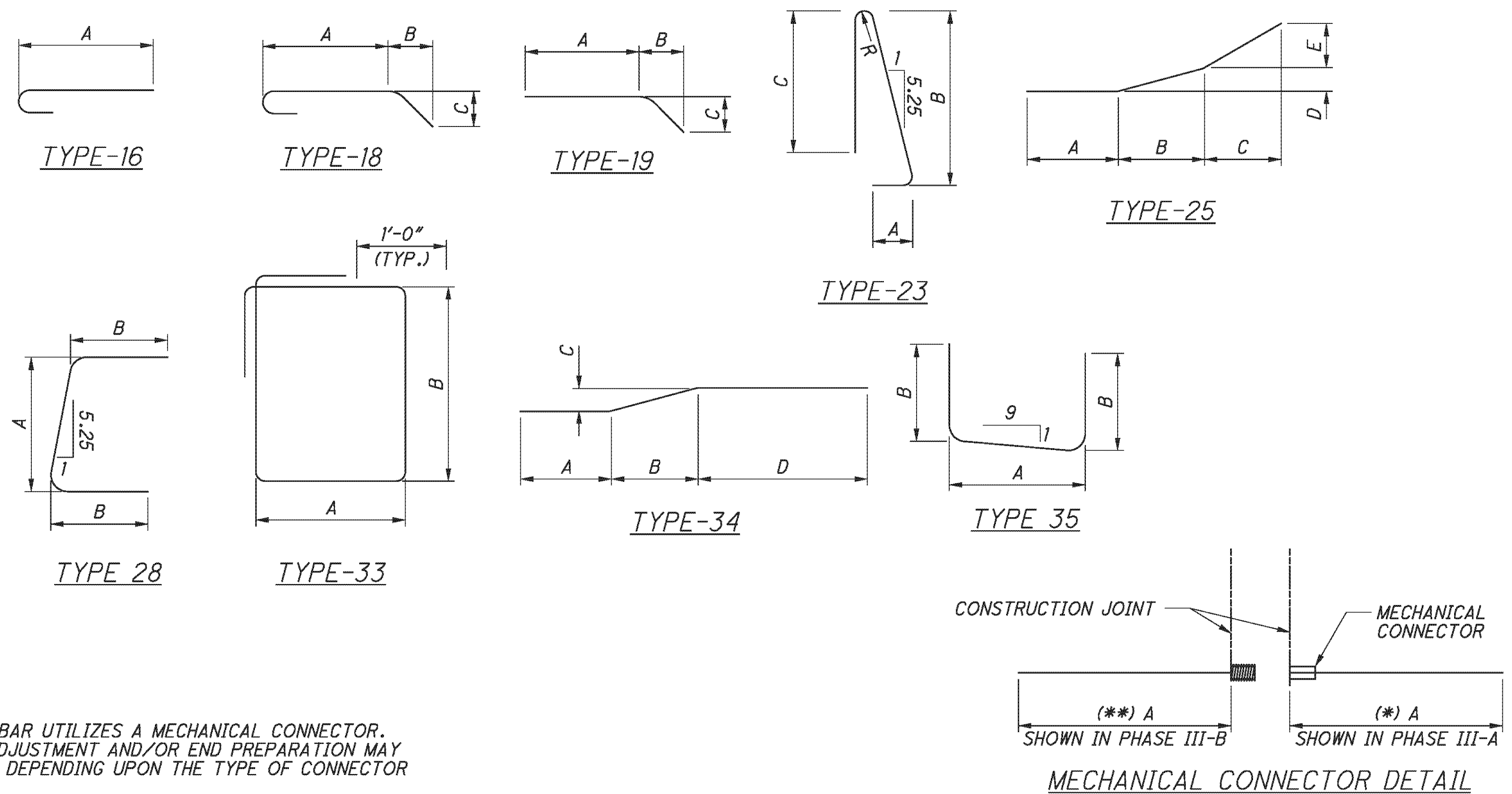
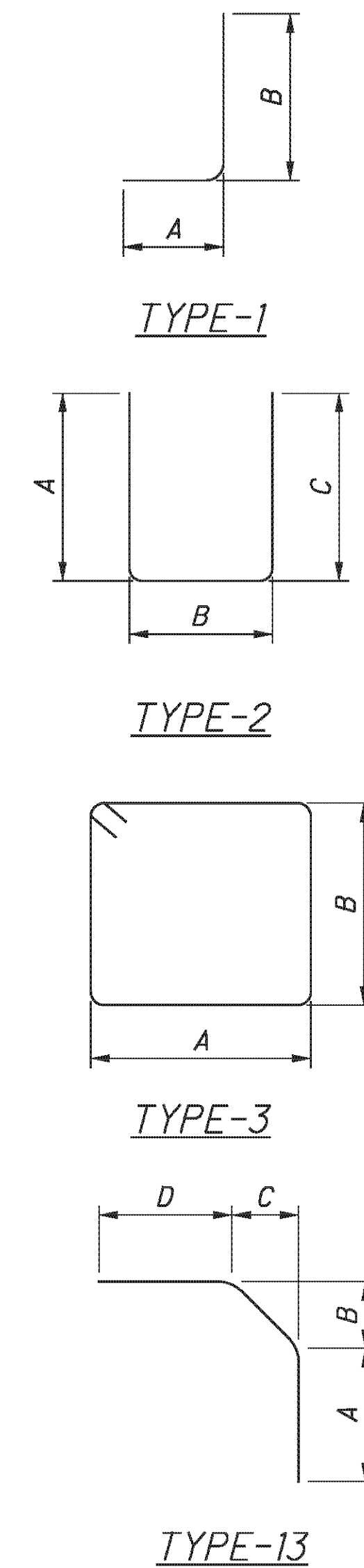
2. ALL REINFORCING STEEL TO BE EPOXY COATED.

LEGEND:

*** REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PARAPET - LEFT BRIDGE											
R501	60	30'-0"	1,877	STR							
R502	244	7'-5"	1,887	23	1'-1"	3'-2"	3'-0"			2 3/4"	
R601	10	30'-0"	451	STR							
R602	244	2'-4"	855	1	1'-1"	1'-5"					
R603	244	3'-5"	1,252	28	1'-5"	1'-1"					
		SUB-TOTAL	6,322								

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
EXISTING - LEFT BRIDGE											
EA502	60	3'-9"	235	STR							
EA503	60	7'-2"	449	2	2'-0"	3'-5"	2'-0"				
EA504	28	21'-9"	635	STR							
EA505	72	3'-5"	513	2	0'-9"	2'-2"	0'-9"				
EA601	60	4'-0"	361	STR							
		SUB-TOTAL	2,193								



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The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DESIGNED	BMG	CHECKED	TJE
DRAWN	BMG	REVIEWED	
REVIEWED	DFT	DATE	5/11/10
STRUCTURE FILE NUMBER	0702226L/0702250R		

REINFORCING STEEL LIST
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

43 / 45

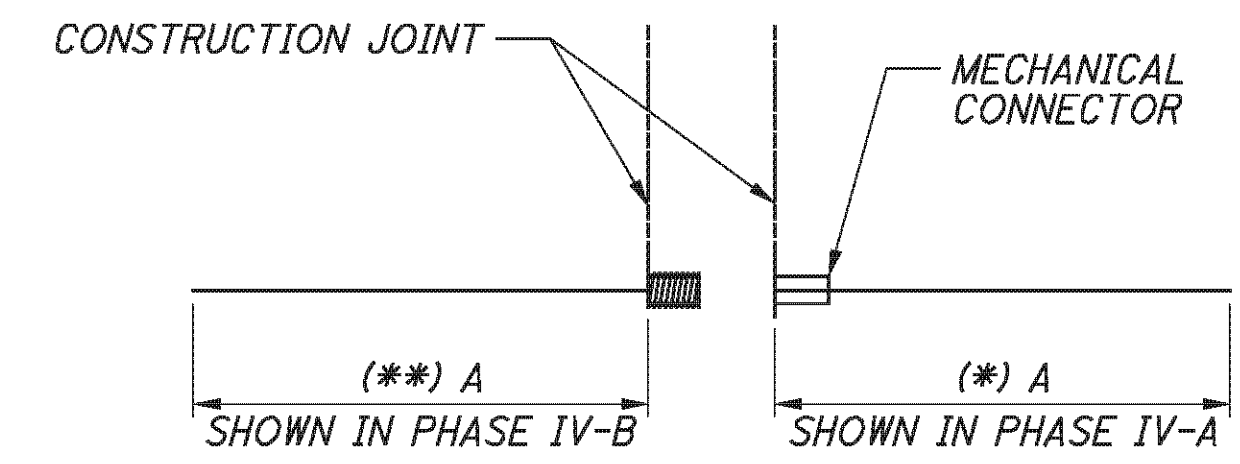
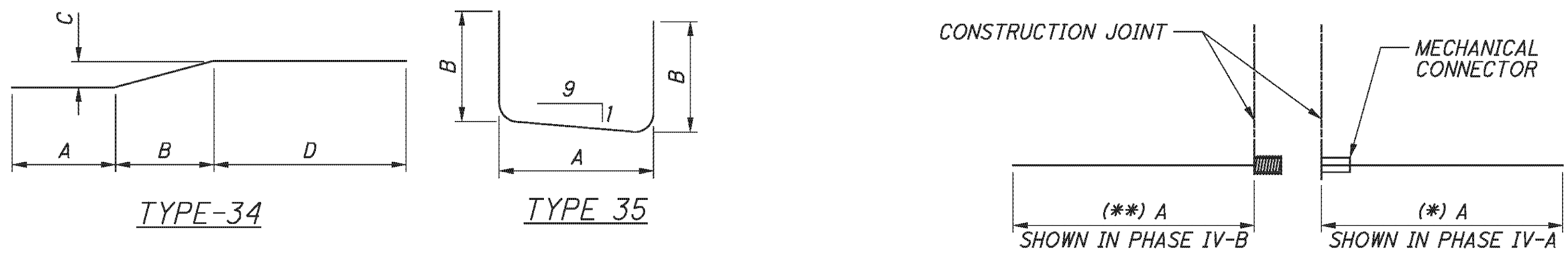
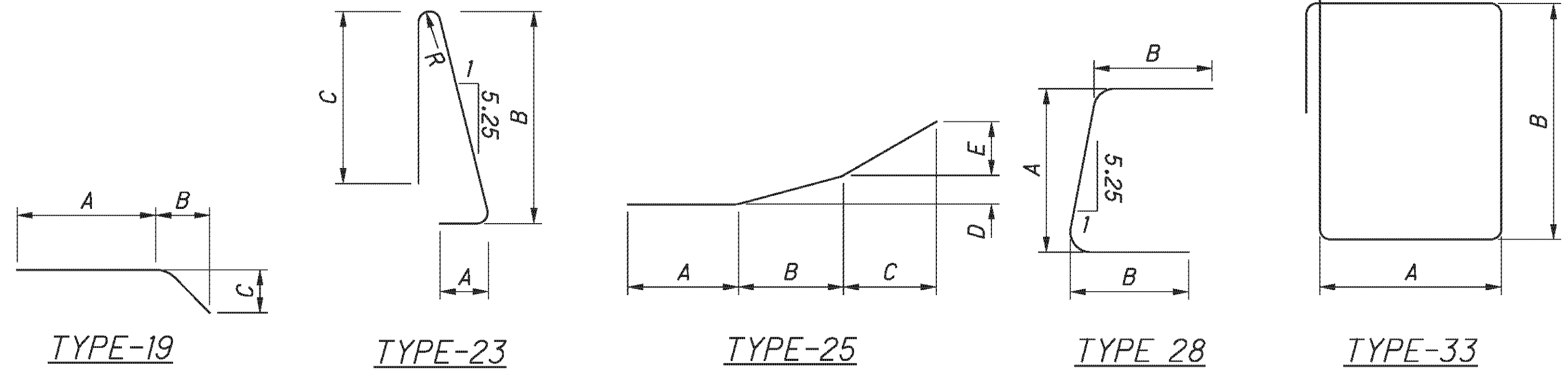
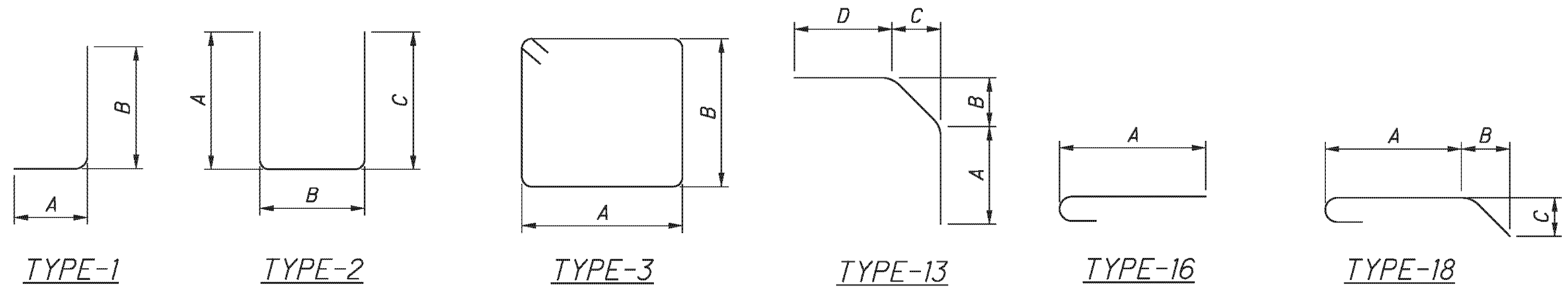
371
373

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MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
REAR ABUTMENT - RIGHT BRIDGE											
A501	28	4'-1"	119	35	1'-2"	1'-7"					
A502	56	7'-1"	414	1	1'-6"	5'-9"					
A503	19	5'-8"	112	1	2'-6"	3'-4"					
A504	19	3'-0"	59	13	0'-5"	1'-1"	1'-1"	1'-1"			
A505	9	8'-11"	84	STR							
A506	23	12'-8"	304	STR							
A508	56	8'-5"	492	STR							
A510	19	5'-4"	106	1	1'-8"	3'-10"					
A511	16	5'-4"	89	STR							
A512	8	6'-0"	50	34	2'-6"	1'-0"	1'-0"	3'-3"			
A513	8	4'-10"	40	1	1'-6"	3'-6"					
A601	58	3'-6"	305	STR							
A602	6	14'-4"	129	33	3'-5"	3'-2"					
A603	4	4'-7"	28	1	1'-7"	3'-2"					
A901	14	4'-6"	214	1	1'-7"	3'-2"					
		SUB-TOTAL	2,545								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
FORWARD ABUTMENT - RIGHT BRIDGE											
A501	28	4'-1"	119	35	1'-2"	1'-7"					
A511	16	5'-4"	89	STR							
A512	8	6'-9"	56	34	2'-6"	1'-0"	1'-0"	3'-3"			
A513	8	4'-10"	40	1	1'-6"	3'-6"					
A514	56	6'-9"	394	1	1'-6"	5'-5"					
A515	19	5'-7"	111	1	2'-5"	3'-4"					
A516	19	3'-0"	59	13	0'-5"	1'-1"	1'-1"	1'-1"			
A517	9	8'-11"	84	STR							
A518	23	12'-8"	304	STR							
A520	56	8'-1"	472	STR							
A522	19	5'-5"	107	1	1'-8"	3'-11"					
A601	58	3'-6"	305	STR							
A602	6	14'-4"	129	33	3'-5"	3'-2"					
A603	4	4'-7"	28	1	1'-7"	3'-2"					
A901	14	4'-6"	214	1	1'-7"	3'-2"					
		SUB-TOTAL	2,511								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
PIERS - RIGHT BRIDGE											
P401	12	20'-8"	166	STR							
P402	12	21'-4"	171	STR							
P403	12	6'-6"	52	2	2'-0"	2'-8"	2'-0"				
P404	8	4'-6"	24	2	1'-0"	2'-8"	1'-0"				
P501	54	13'-10"	779	3	2'-8"	3'-11"					
P502	24	12'-2"	305	3	1'-10"	3'-11"					
*P901	24	22'-0"	1795	1	1'-7"	20'-8"					
**P902	24	22'-8"	1850	1	1'-7"	21'-4"					
		SUB-TOTAL	5,142								



NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

2. ALL REINFORCING STEEL TO BE EPOXY COATED.

LEGEND:

*** REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

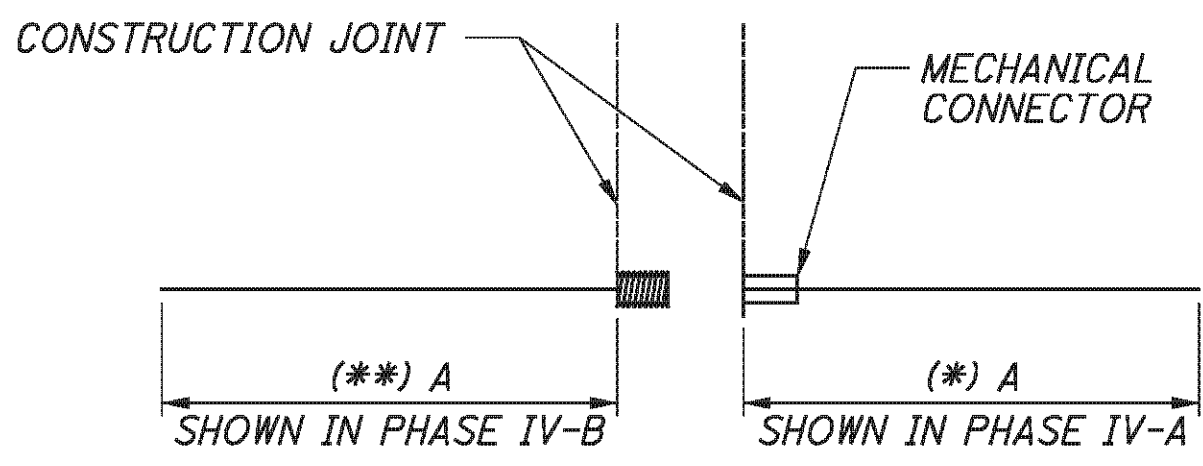
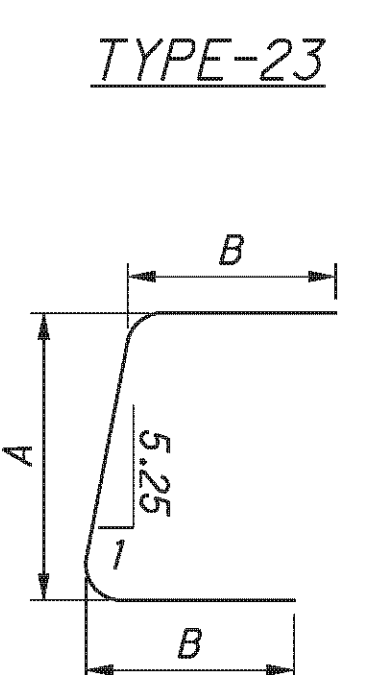
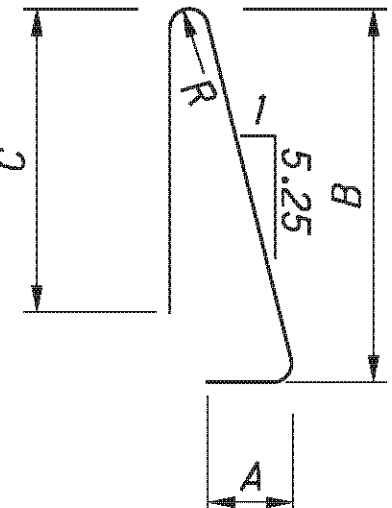
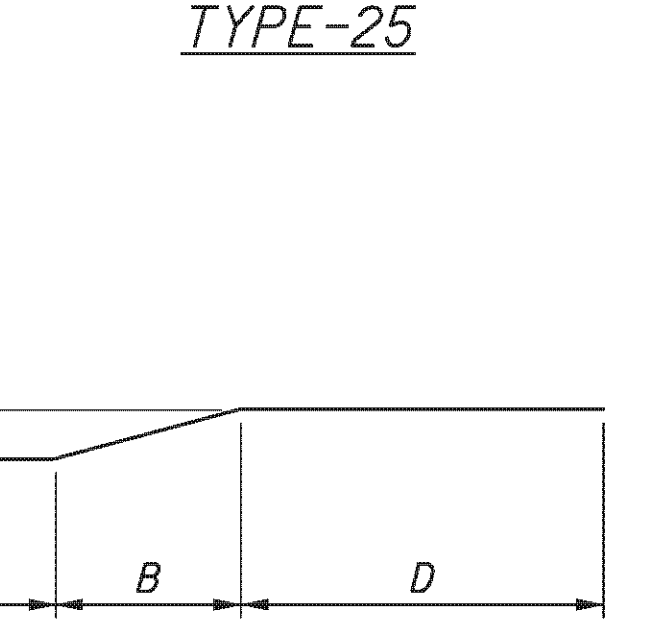
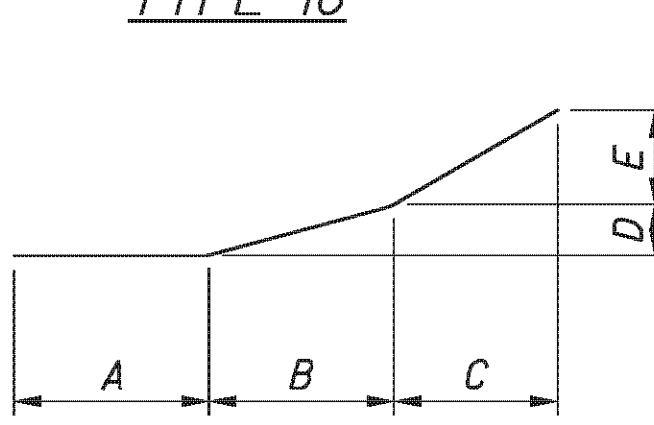
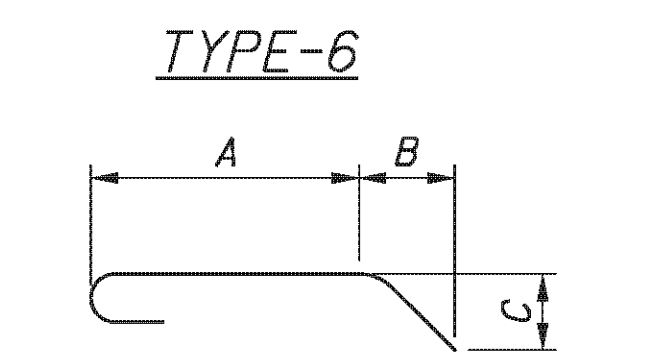
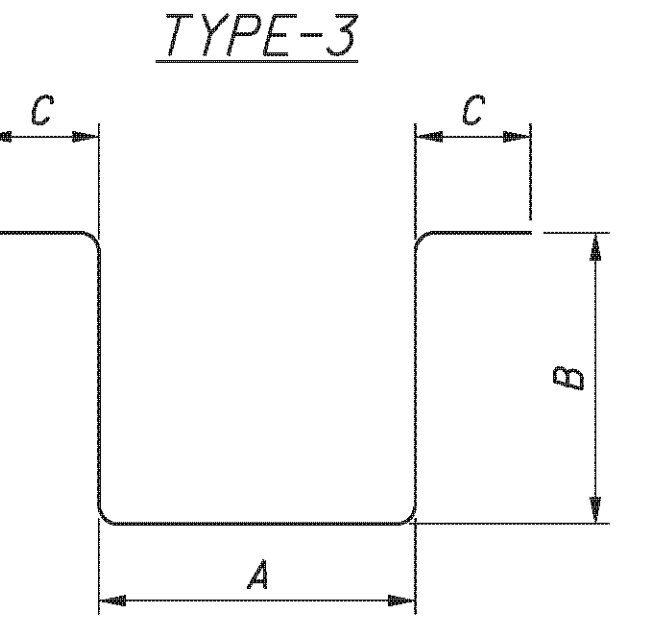
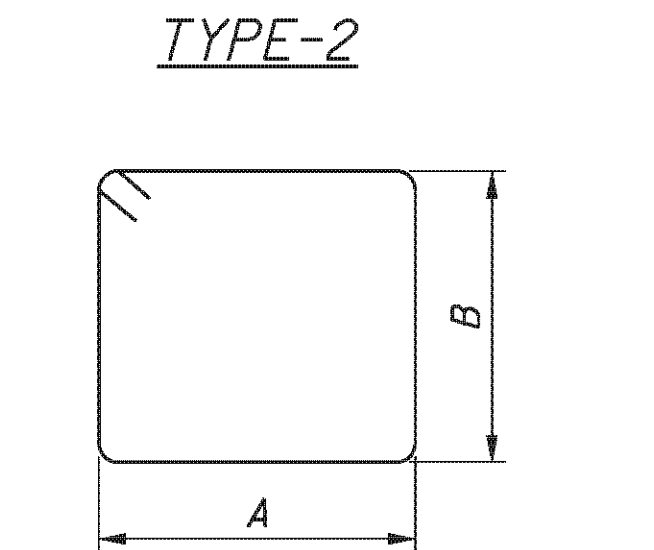
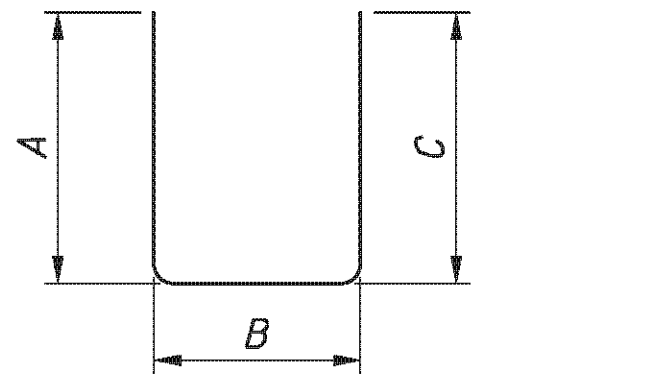
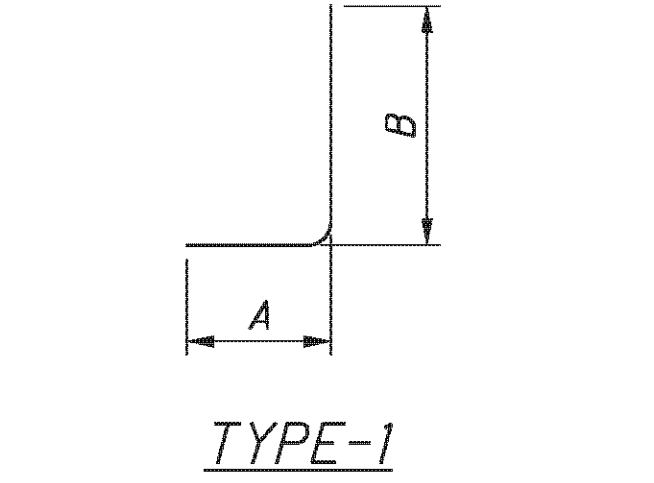
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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
SUPERSTRUCTURE - RIGHT BRIDGE											
S401	176	30'-0"	3527	STR							
S402	44	9'-9"	287	STR							
S501	208	25'-1"	5442	STR							
S502	208	20'-10"	4520	STR							
S503	192	30'-0"	6008	STR							
S504	48	13'-9"	688	STR							
S505	68	7'-2"	508	2	2'-5"	2'-7"	2'-5"				
S506	30	13'-2"	412	3	3'-5"	2'-10"					
S507	8	11'-6"	96	3	3'-5"	2'-0"					
S508	30	13'-0"	407	3	3'-5"	2'-9"					
S509	208	25'-1"	5442	34	3'-8"	0'-9"	0'-3"	20'-8"			
S510	208	20'-10"	4520	34	1'-8"	0'-9"	0'-3"	18'-5"			
S511	16	7'-2"	120	6	2'-4"	0'-8"	2'-0"				
S512	16	4'-0"	67	STR							
S601	86	30'-0"	3875	STR							
S801	28	21'-10"	1632	STR							
S802	28	20'-10"	1558	STR							
S803	54	4'-9"	685	18	2'-7"	1'-0"	1'-0"				
SUB-TOTAL			39,794								

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
EXISTING - RIGHT BRIDGE											
EA502	60	3'-9"	235	STR							
EA503	60	7'-2"	448	2	2'-0"	3'-5"	2'-0"				
EA504	28	22'-8"	662	STR							
EA505	72	3'-5"	257	2	0'-9"	2'-2"	0'-9"				
EA601	60	4'-0"	360	STR							
SUB-TOTAL			1,962								

LEGEND:
 ** REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR.
 BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY
 BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR
 USED.

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PARAPET - RIGHT BRIDGE											
R501	48	30'-0"	1502	STR							
R502	16	14'-9"	246	STR							
R503	244	7'-5"	1887	23	1'-1"	3'-2"	3'-0"			0'-2 3/4"	
R601	8	30'-0"	360	STR							
R602	2	18'-5"	55	STR							
R603	244	2'-7"	947	1	1'-1"	1'-8"					
R604	244	3'-6"	1283	28	1'-8"	1'-1"					
X501	32	10'-0"	334	STR							
X502	12	5'-7"	70	25	1'-8"	2'-5"	1'-5"	1 1/2"	5"		
X503	20	5'-6"	115	STR							
8 SR		4'-2"					3'-3"				
Y601	OF	TO	606	1	1'-1"	TO					0'-1"
11		5'-0"				4'-1"					
Y602	32	4'-2"	200	1	1'-1"	3'-3"					
SUB-TOTAL			7,605								



MECHANICAL CONNECTOR DETAIL

E.L. ROBINSON
 the Challenge, the Choice
 1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DESIGNED	DATE	REVIEWED	DATE
DTA	2/3/11	RER	2/3/11
CHECKED	FILE NUMBER	STRUCTURE FILE NUMBER	FILE NUMBER
RLE		0702226L/0702250R	

REINFORCING STEEL LIST
 BRIDGE NO. BEL-70-0963 L/R
 I.R. 70 OVER S.R. 149

BEL-70-7.61
 PID No. 76825

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