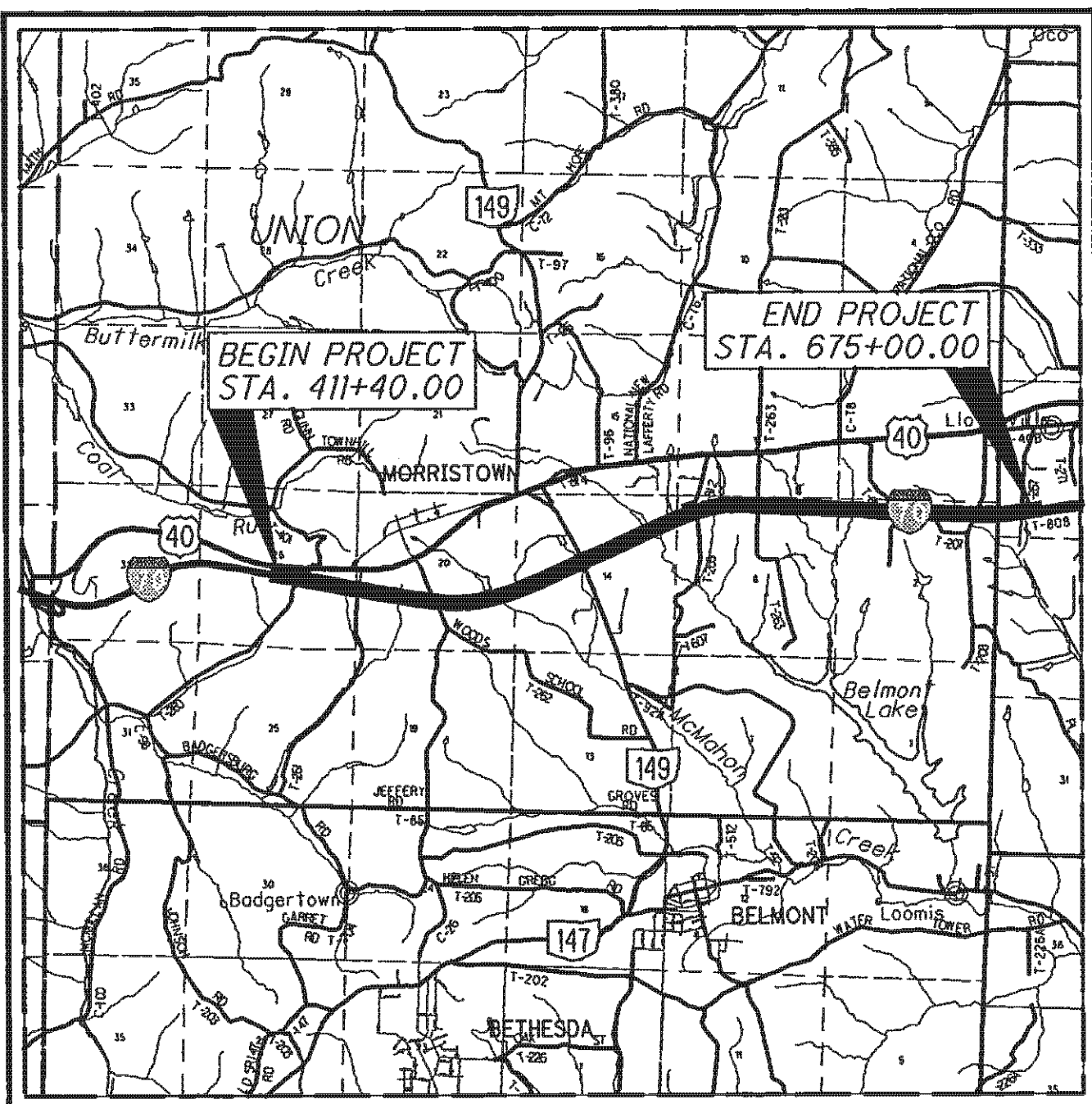


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

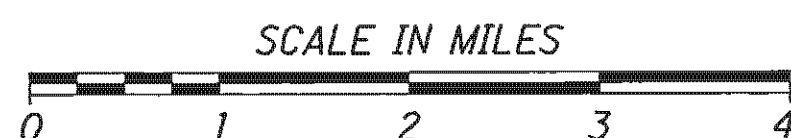
BEL-70-7.61

**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

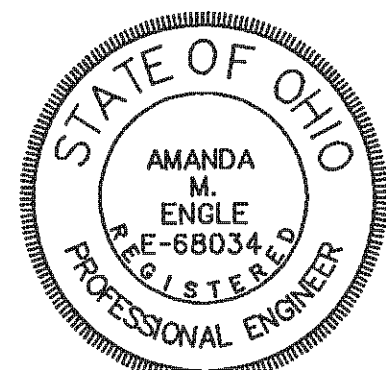
OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:



ENGINEERS SEAL:

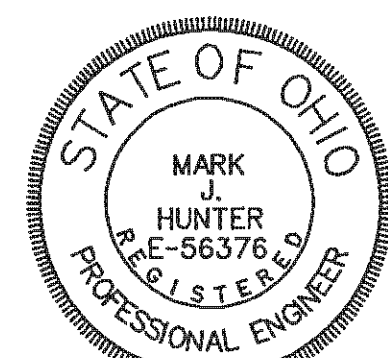
FOR STRUCTURES
20' & OVER



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

ENGINEERS SEAL:

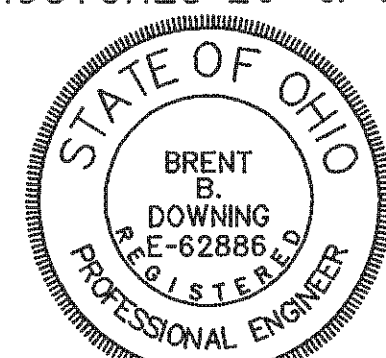
FOR LIGHTING



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

ENGINEERS SEAL:

FOR ENTIRE PLAN EXCEPT
LIGHTING &
STRUCTURES 20' & OVER



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

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STANDARD CONSTRUCTION DRAWINGS

| 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 | | | | |

SPECIAL PROVISIONS

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

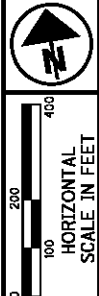
FEDERAL PROJECT NO.
E040(135)

PID NO.
76825

CONSTRUCTION PROJECT NO.
093005

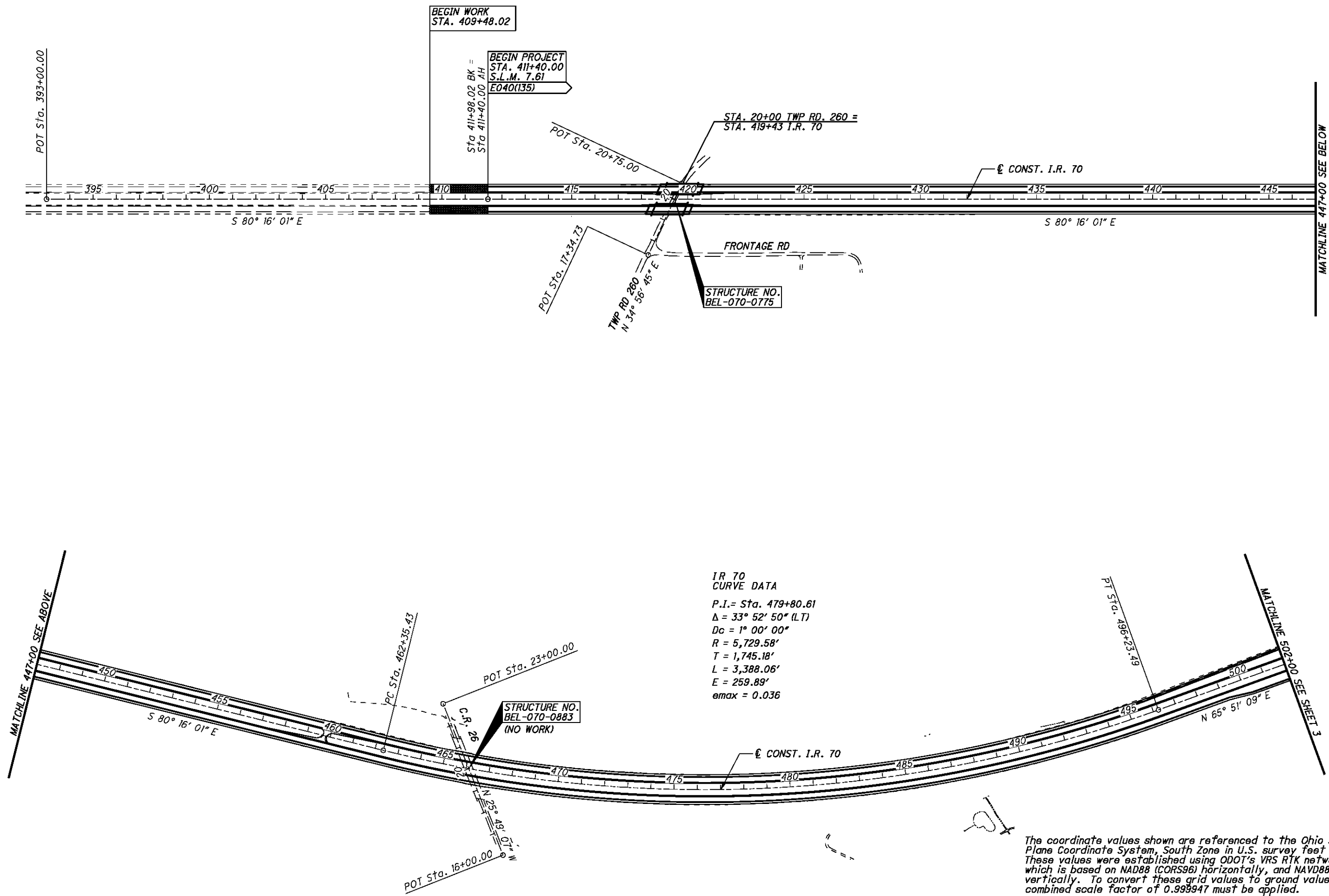
RAILROAD INVOLVEMENT
NONE

BEL-70-7.61



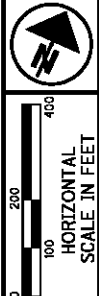
SCHEMATIC PLAN

BEL-70-7.61



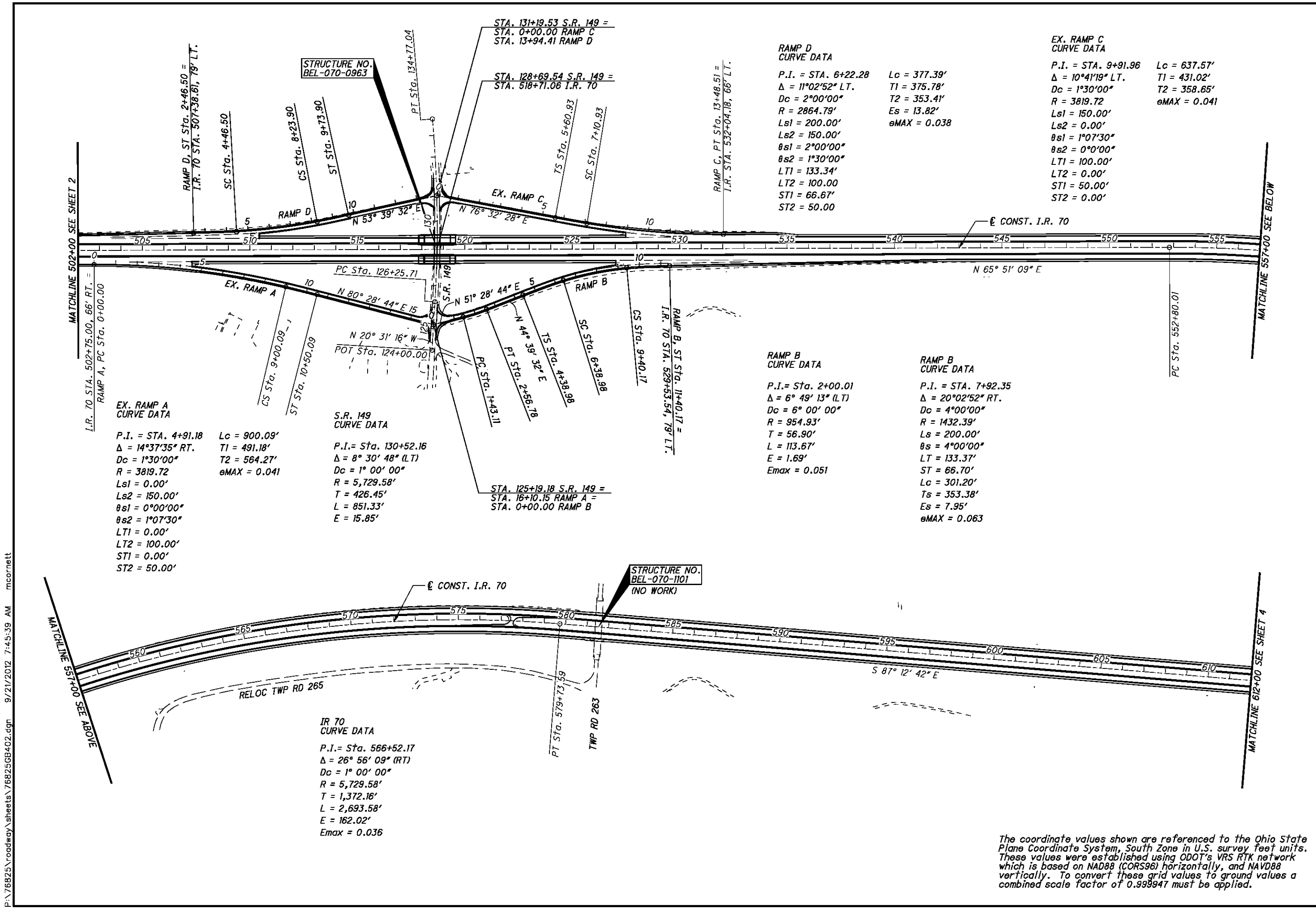
The coordinate values shown are referenced to the Ohio State Plane Coordinate System, South Zone in U.S. survey feet units. These values were established using ODOT's VRS RTK network which is based on NAD88 (CORS96) horizontally, and NAVD88 vertically. To convert these grid values to ground values a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

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SCHEMATIC PLAN

BEL-70-7.61



MATCHLINE 502+00 SEE SHEET 2

MATCHLINE 557+00 SEE BELOW

MATCHLINE 551+00 SEE ABOVE

MATCHLINE 612+00 SEE SHEET 4

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.
 $Dc = 4^{\circ}00'00''$
 $R = 1432.39'$
 $Ls = 200.00'$
 $\theta s = 4^{\circ}00'00''$
 $LT = 133.37'$
 $ST = 66.70'$
 $Lc = 301.20'$
 $Ts = 353.38'$
 $Es = 7.95'$
 $e_{MAX} = 0.063$

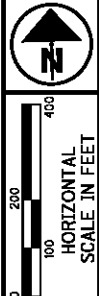
RAMP D CURVE DATA
 P.I. = STA. 6+22.28
 $\Delta = 11^{\circ}02'52''$ LT.
 $Dc = 2^{\circ}00'00''$
 $R = 2864.79'$
 $Ls1 = 200.00'$
 $Ls2 = 150.00'$
 $\theta s1 = 2^{\circ}00'00''$
 $\theta s2 = 1^{\circ}30'00''$
 $LT1 = 133.34'$
 $LT2 = 100.00'$
 $ST1 = 66.67'$
 $ST2 = 50.00'$

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)

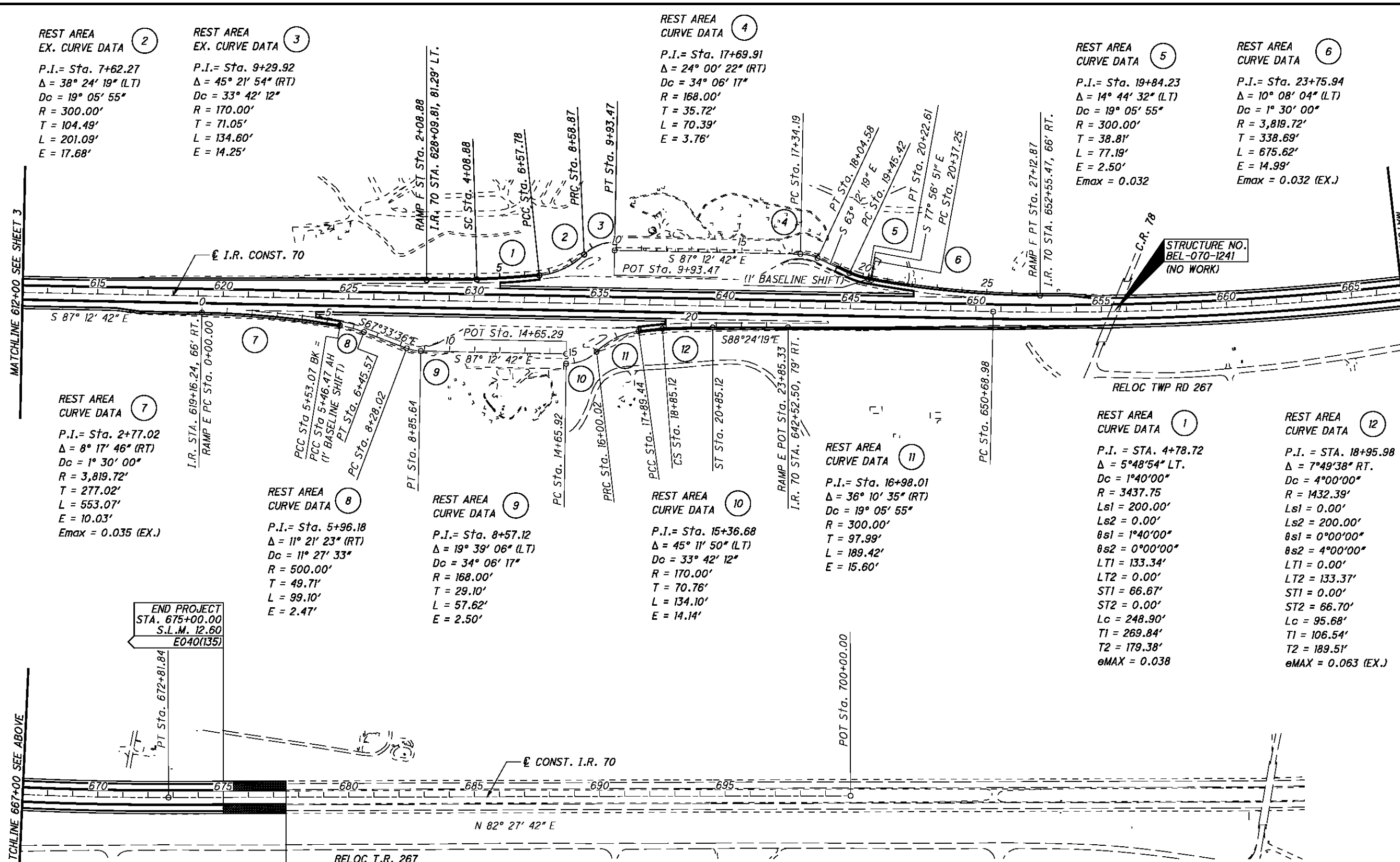
P.I. = Sta. 16+98.01
 $\Delta = 36^\circ 10' 35''$ (RT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 97.99'$
 $L = 189.42'$
 $E = 15.60'$

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.)



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

END WORK
STA. 677+50.00

IR 70
CURVE DATA

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

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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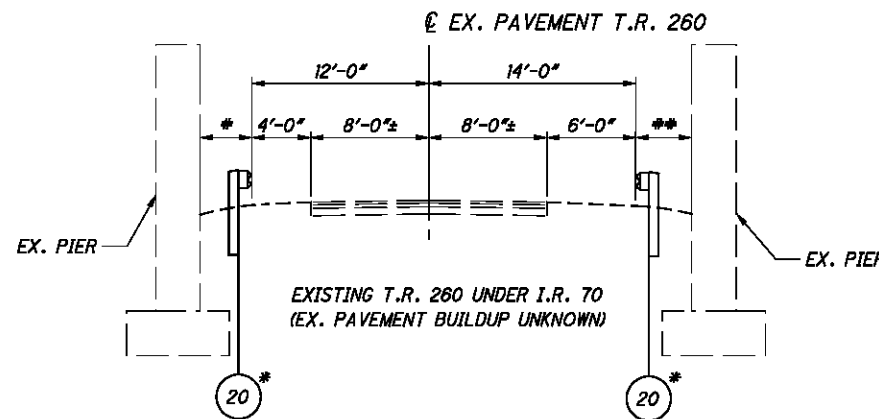
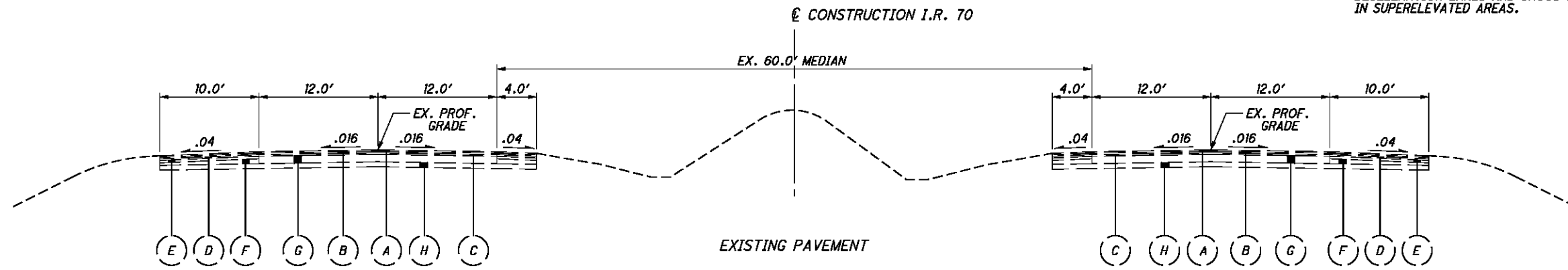
| BENCHMARK | ALIGNMENT | STATION | OFFSET | NORTHING | EASTING | ELEVATION | FEATURE |
|-----------|-----------|-----------|---------|--------------|----------------|-----------|---------------------------|
| 13 | I.R. 70 | 415+99.86 | 0.02 | 753,010.0100 | 2,363,636.2800 | 1255.63 | CENTERLINE MONUMENT 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.

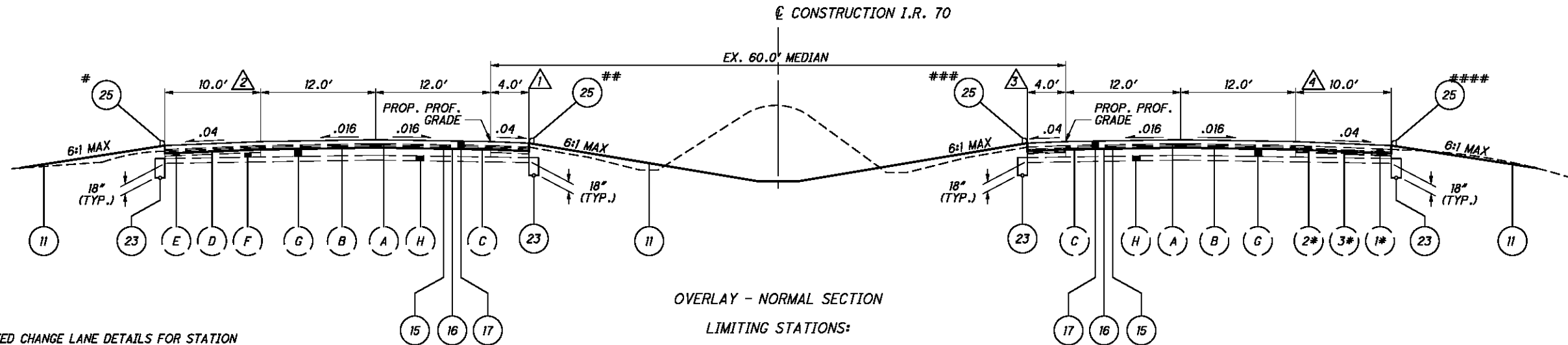
WESTBOUND PIER MIN = 3.5'
 WESTBOUND PIER MAX = 9.8'
 EASTBOUND PIER MIN = 6.0'
 EASTBOUND PIER MAX = 8.5'

** 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:

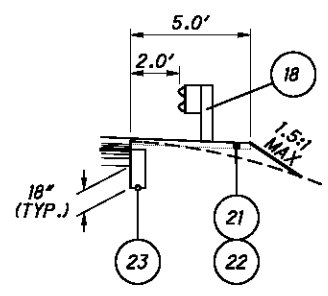
NOTES:

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' |

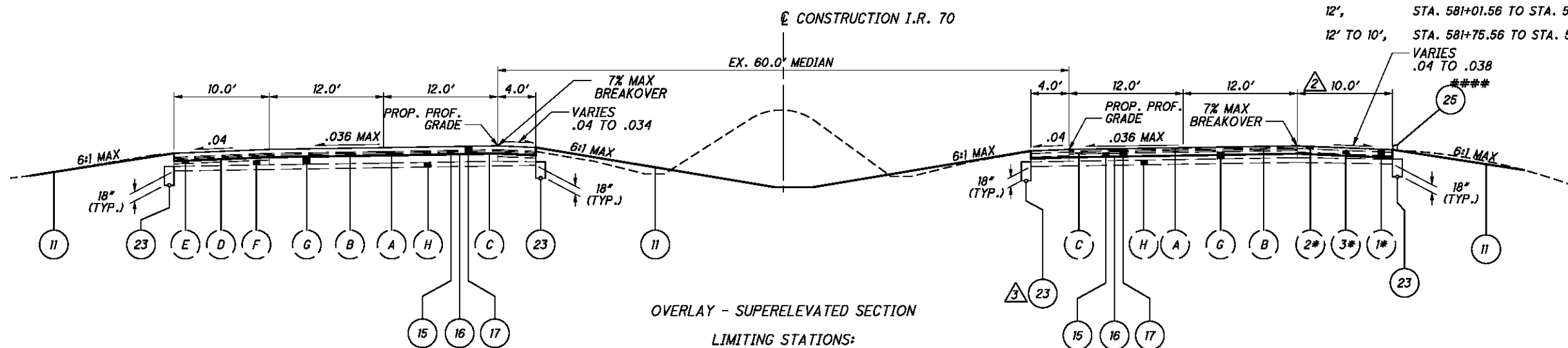
| | |
|----------------------------------|------------|
| STA. 411+40.00 TO STA. 418+34.19 | = 694.19' |
| STA. 420+19.08 TO STA. 460+69.83 | = 4050.75' |
| STA. 497+89.09 TO STA. 517+85.28 | = 1996.19' |
| STA. 519+56.37 TO STA. 551+14.41 | = 3158.04' |
| STA. 581+39.19 TO STA. 649+79.81 | = 6840.62'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



GUARDRAIL DETAIL

- * STA. 420+68.34 TO STA. 420+69.84
STA. 519+58.11 TO STA. 519+73.61
- ** STA. 517+77.53 TO STA. 517+87.03
STA. 519+58.11 TO STA. 519+67.61
- *** STA. 517+75.78 TO STA. 517+85.28
- **** STA. 420+04.64 TO STA. 420+06.19
STA. 466+04.20 TO STA. 466+23.97
STA. 517+69.78 TO STA. 517+85.28
STA. 519+56.37 TO STA. 519+71.87
STA. 581+01.56 TO STA. 581+21.56

- 1 4' TO 9', STA. 417+40.20 TO STA. 418+65.20
- 9' TO 4', STA. 420+50.09 TO STA. 421+75.09
- 4' TO 7', STA. 517+02.53 TO STA. 517+77.53
- 7', STA. 517+77.53 TO STA. 517+87.03
- 7', STA. 519+58.11 TO STA. 519+67.61
- 7' TO 4', STA. 519+67.61 TO STA. 520+42.61
- 2 10' TO 12', STA. 516+77.03 TO STA. 517+87.03
- 12', STA. 519+58.11 TO STA. 519+82.61
- 12' TO 10', STA. 519+82.61 TO STA. 520+92.61
- 3 4' TO 6.16', STA. 417+82.64 TO STA. 418+36.81
- 6.16' TO 4', STA. 420+21.69 TO STA. 420+75.86
- 4 10' TO 12', STA. 465+94.20 TO STA. 466+04.20
- 12', STA. 466+04.20 TO STA. 466+87.24
- 12' TO 10', STA. 466+87.24 TO STA. 467+37.24
- 10' TO 12', STA. 517+59.78 TO STA. 517+69.78
- 12', STA. 517+69.78 TO STA. 517+85.28
STA. 519+56.37 TO STA. 519+71.87
- 12' TO 10', 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' |

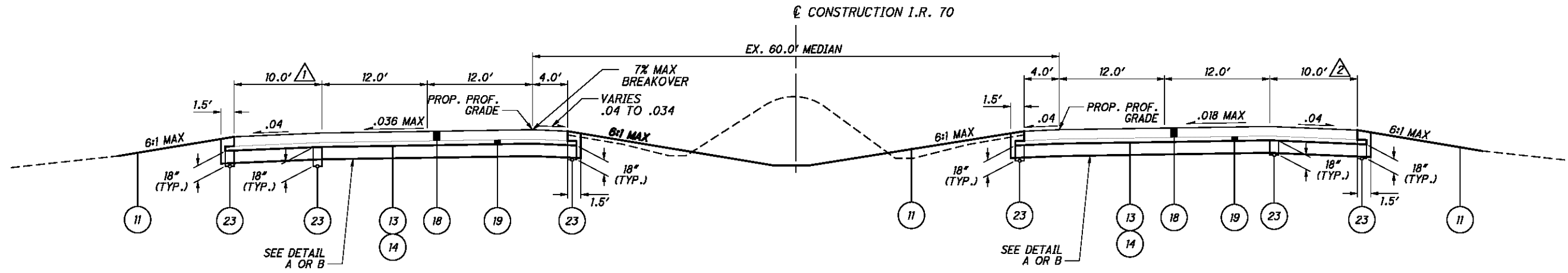
FOR LEGEND, SEE SHEET 7

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TYPICAL SECTIONS
I.R. 70

BEL-70-7.61

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

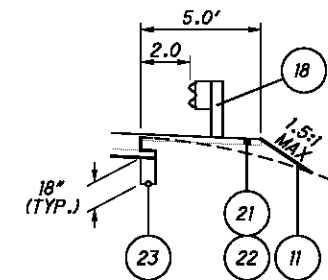


FULL-DEPTH - SUPERELEVATED SECTION
LIMITING STATIONS:

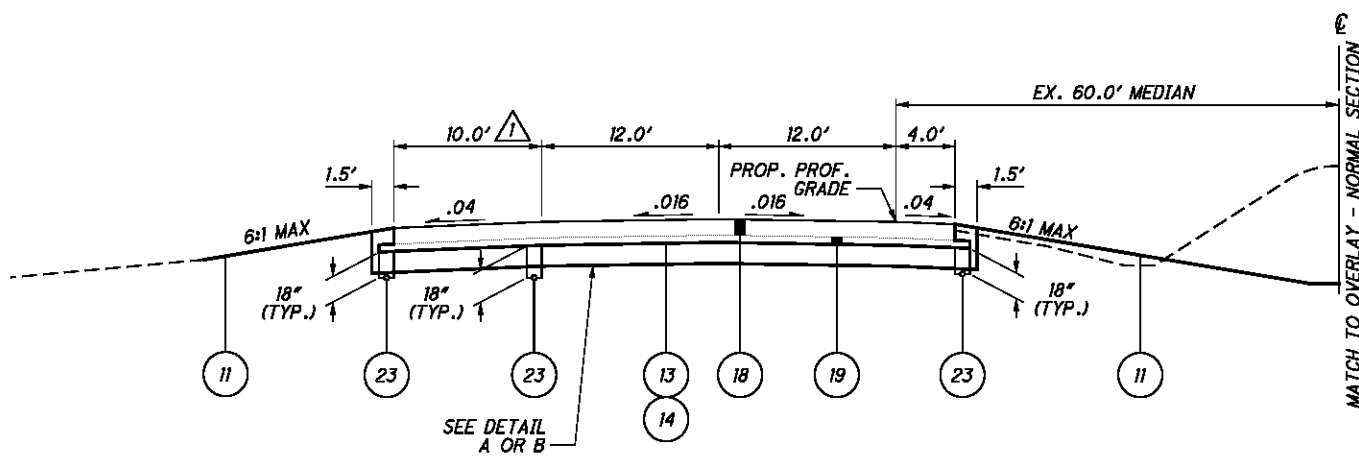
STA. 460+69.83 TO STA. 470+40.00 = 970.17'
 STA. 573+70.00 TO STA. 581+39.19 = 769.19' (SUPERELEVATION DIRECTION REVERSED)
 STA. 652+80.00 TO STA. 658+95.00 = 615.00'

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 | | | |

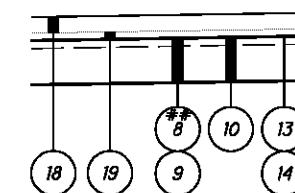


GUARDRAIL DETAIL (RIGHT)



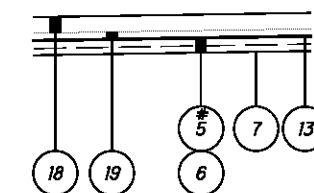
FULL-DEPTH - NORMAL SECTION
LIMITING STATIONS:

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:



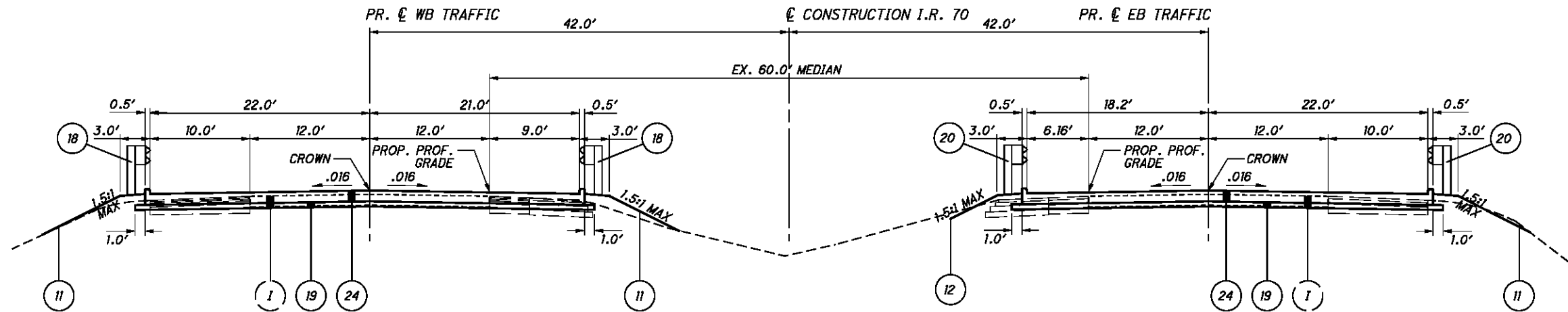
DETAIL B - CEMENT STABILIZATION OPTION
NOT TO SCALE

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



APPROACH SLABS

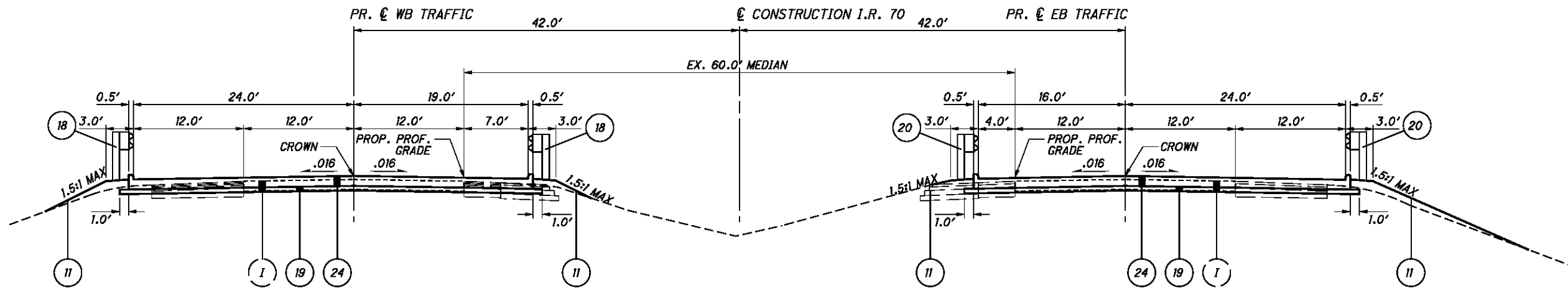
LIMITING STATIONS:

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

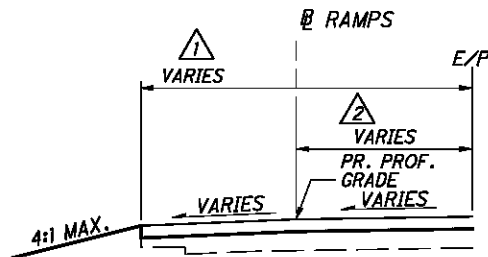
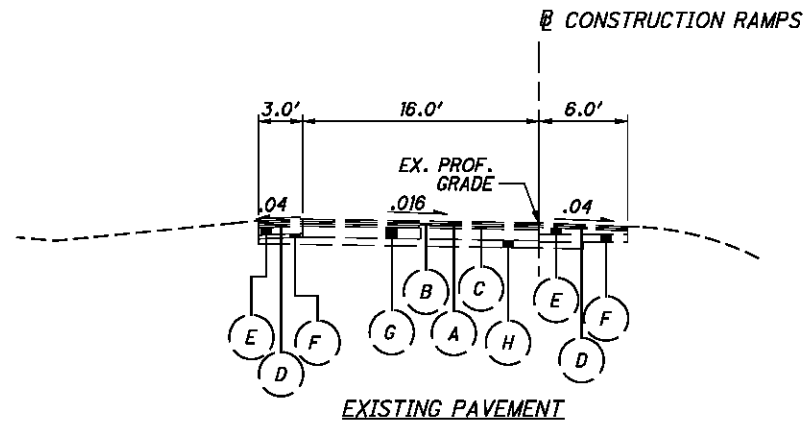
STA. 517+87.03 TO STA. 518+12.03 = 25.00'
 STA. 519+33.11 TO STA. 519+58.11 = 25.00'

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

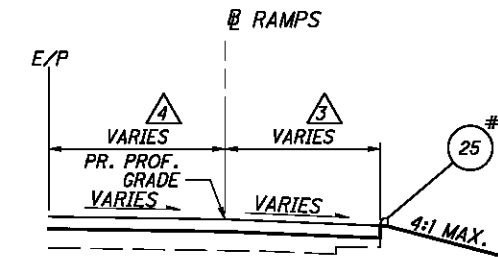
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SPEED CHANGE LANE

| | | |
|---|------------|----------------------------------|
| 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 |

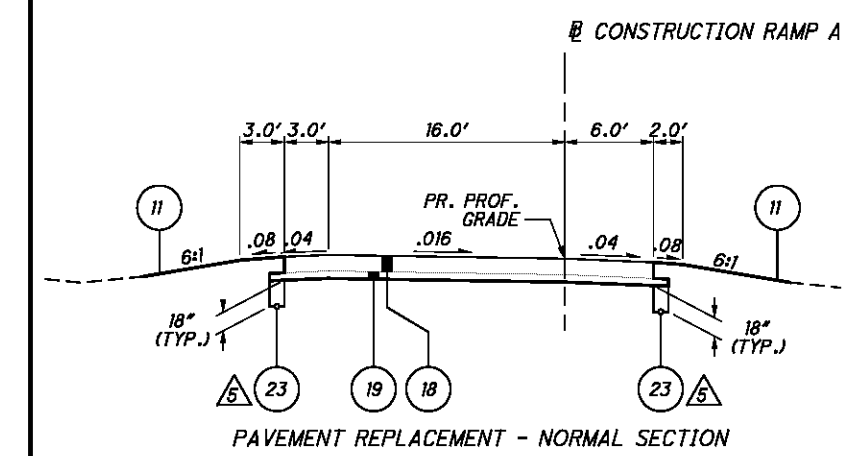
STA. 654+67.65 TO STA. 654+87.54

FOR LEGEND, SEE SHEET 7

TYPICAL SECTIONS
RAMPS

BEL-70-7.61

11
373



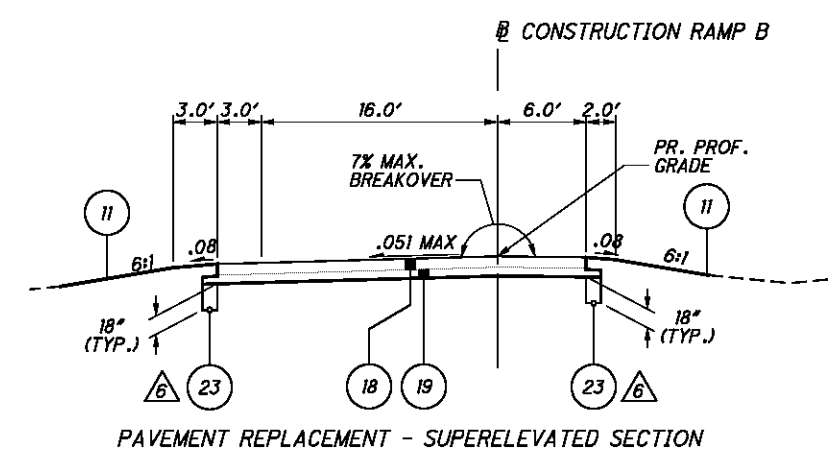
PAVEMENT REPLACEMENT - NORMAL SECTION

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

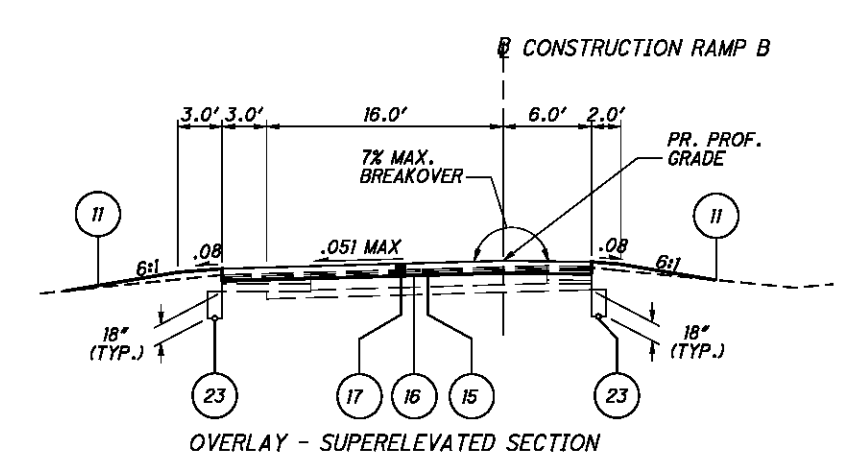


PAVEMENT REPLACEMENT - SUPERELEVATED SECTION

LIMITING STATIONS:

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

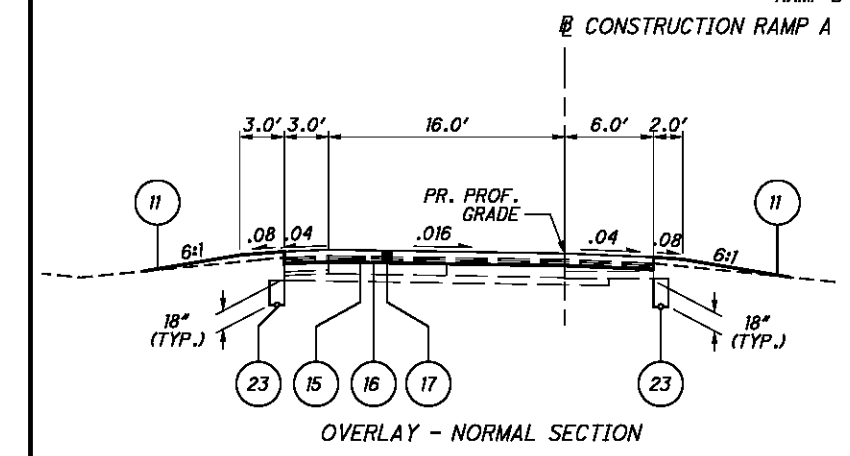
△ RAMP B STA. 0+70.00 TO STA. 1+75.00



OVERLAY - SUPERELEVATED SECTION

LIMITING STATIONS:

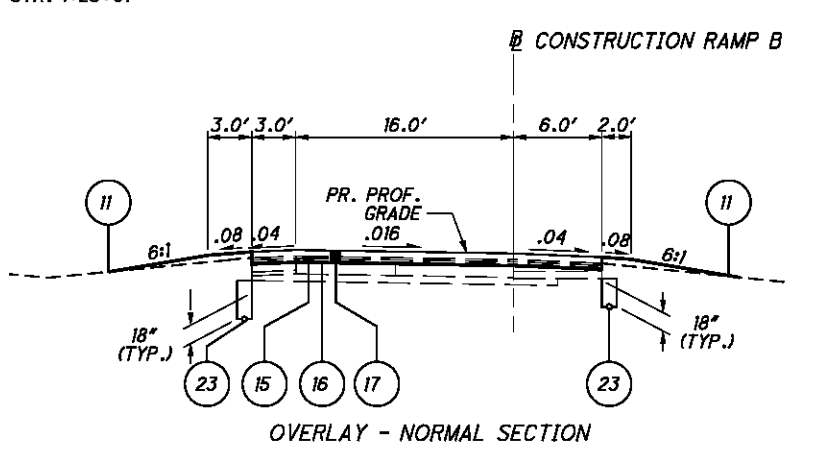
RAMP B STA. 1+75.00 TO STA. 3+89.96 = 214.96'



OVERLAY - NORMAL SECTION

LIMITING STATIONS:

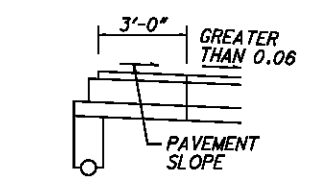
RAMP A STA. 10+50.09 TO STA. 13+65.00 = 314.91'



OVERLAY - NORMAL SECTION

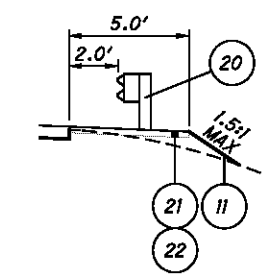
LIMITING STATIONS:

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

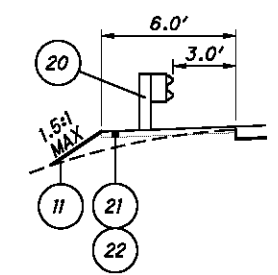


SHOULDER BREAKOVER DETAIL

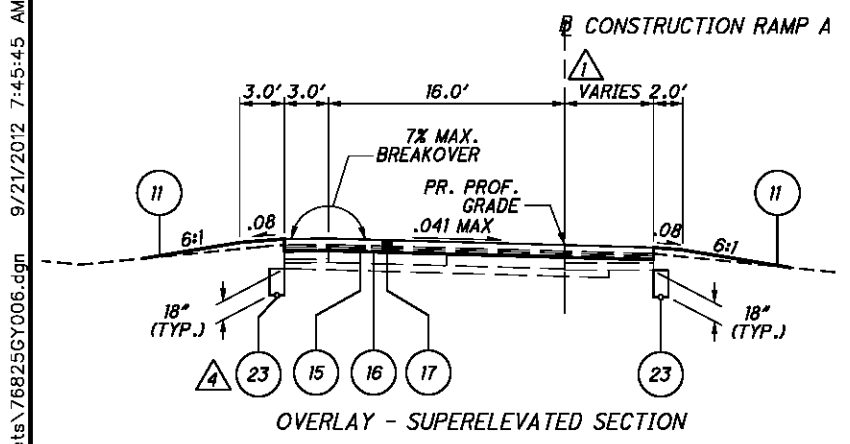
** VARIES .04 MAX TO .01 MIN AND SHOULDER BREAKOVER IS 7% MAX WHEN PAVEMENT SLOPE IS .06 OR LESS.
 SEE SHOULDER BREAKOVER DETAILS WHEN PAVEMENT SLOPE IS GREATER THAN .06.



GUARDRAIL DETAIL (RIGHT) (OUTSIDE)



GUARDRAIL DETAIL (LEFT) (INSIDE)



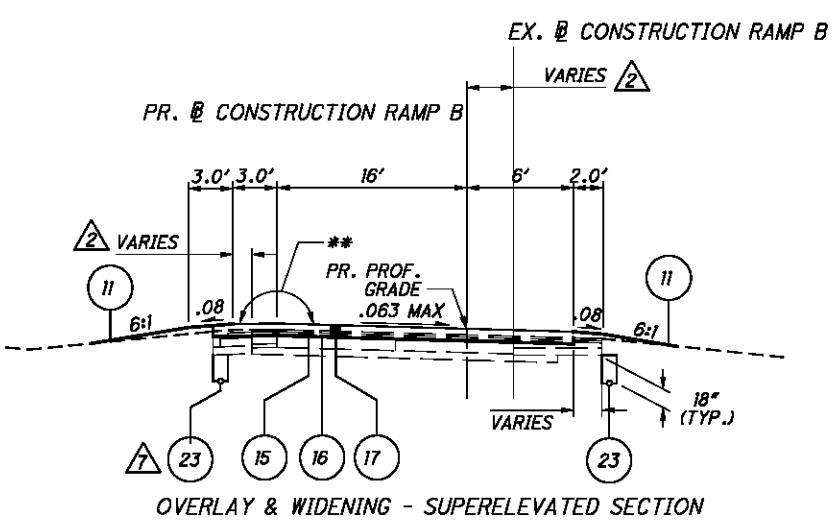
OVERLAY - SUPERELEVATED SECTION

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



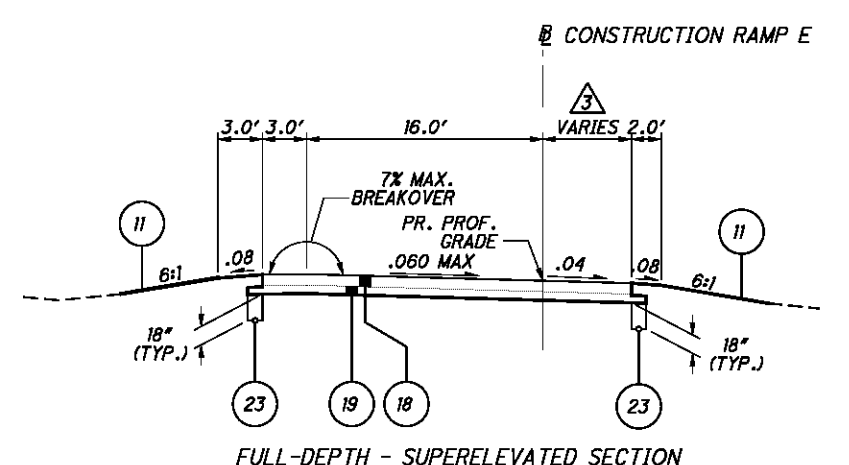
OVERLAY & WIDENING - SUPERELEVATED SECTION

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'

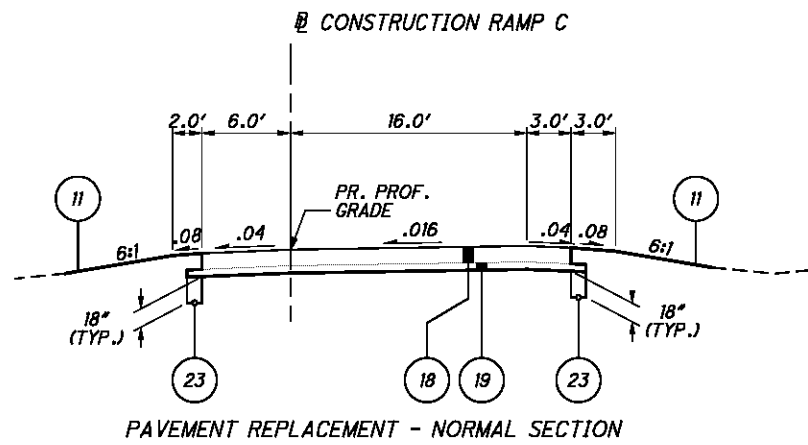
△ 8' TO 6', RAMP E STA. 4+53.69 TO STA. 5+53.69
 6', RAMP E STA. 5+53.69 TO STA. 5+53.07
 6', RAMP E STA. 17+89.44 TO STA. 18+98.17

FOR LEGEND, SEE SHEET 7

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TYPICAL SECTIONS
 RAMPS A, B & E

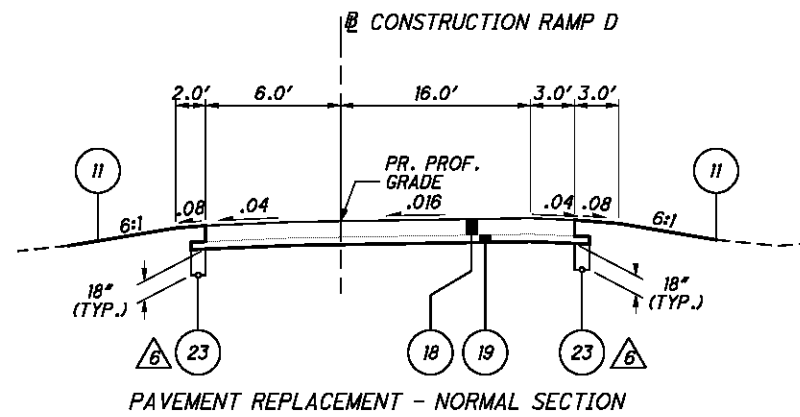
BEL-70-7.61



PAVEMENT REPLACEMENT - NORMAL SECTION

LIMITING STATIONS:

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



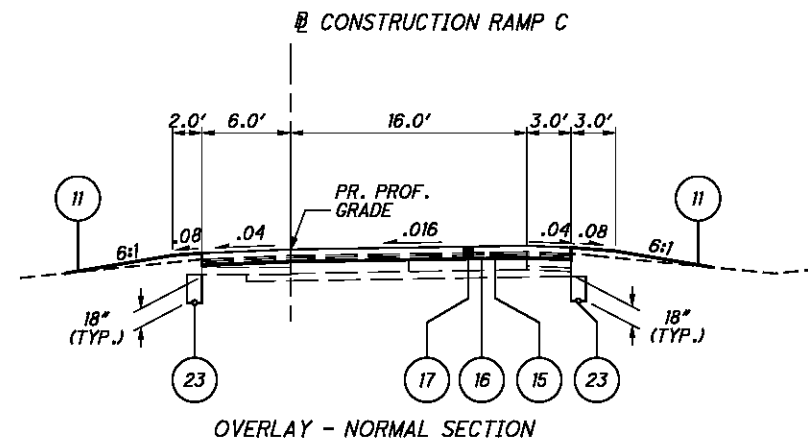
PAVEMENT REPLACEMENT - NORMAL SECTION

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

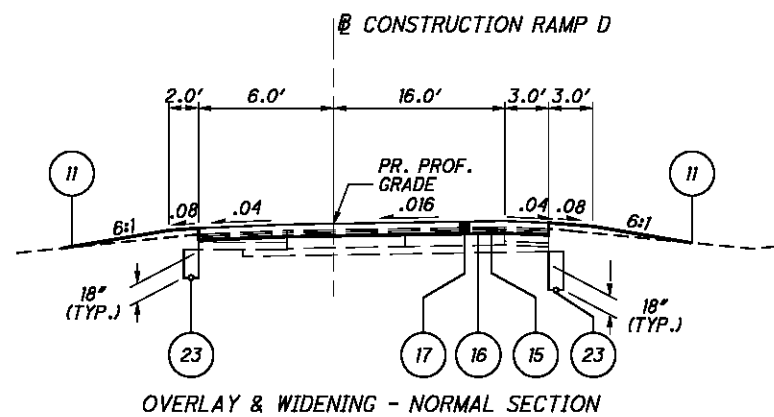
SEE INTERSECTION DETAIL:
RAMP C STA. 0+12.27 TO STA. 0+84.93
RAMP D STA. 12+83.19 TO STA. 13+82.19



OVERLAY - NORMAL SECTION

LIMITING STATIONS:

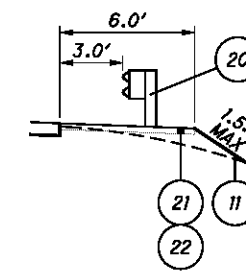
RAMP C STA. 3+00.00 TO STA. 5+60.93 = 260.93'



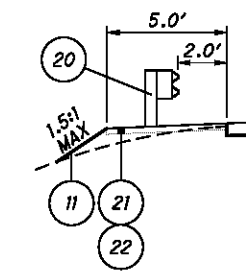
OVERLAY & WIDENING - NORMAL SECTION

LIMITING STATIONS:

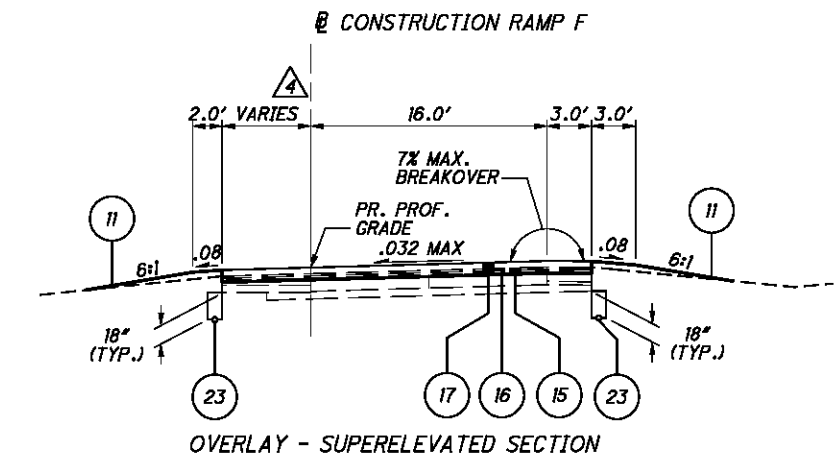
RAMP D STA. 9+73.90 TO STA. 10+00.00 = 26.10'



GUARDRAIL DETAIL (RIGHT) (INSIDE)



GUARDRAIL DETAIL (LEFT) (OUTSIDE)

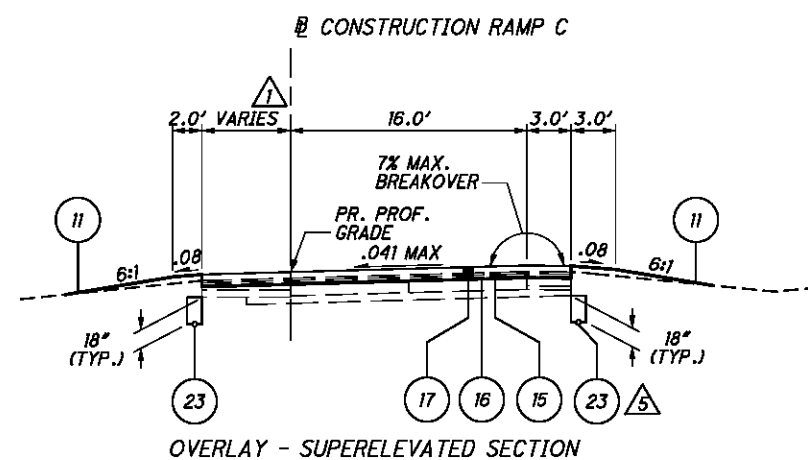


OVERLAY - SUPERELEVATED SECTION

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



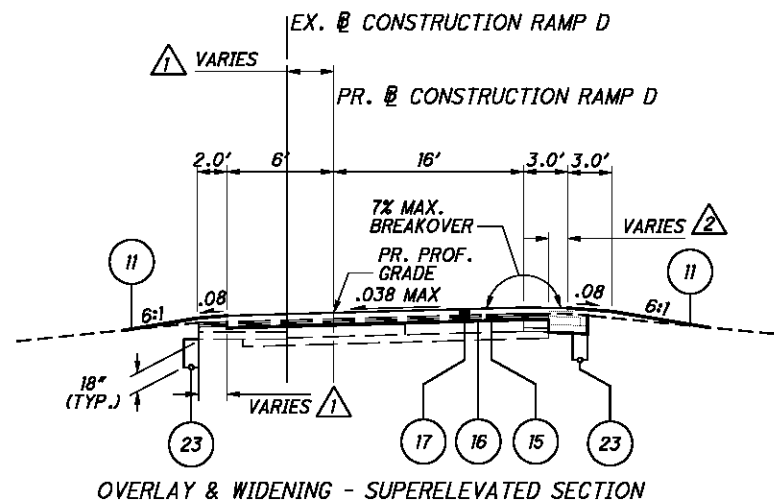
OVERLAY - SUPERELEVATED SECTION

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

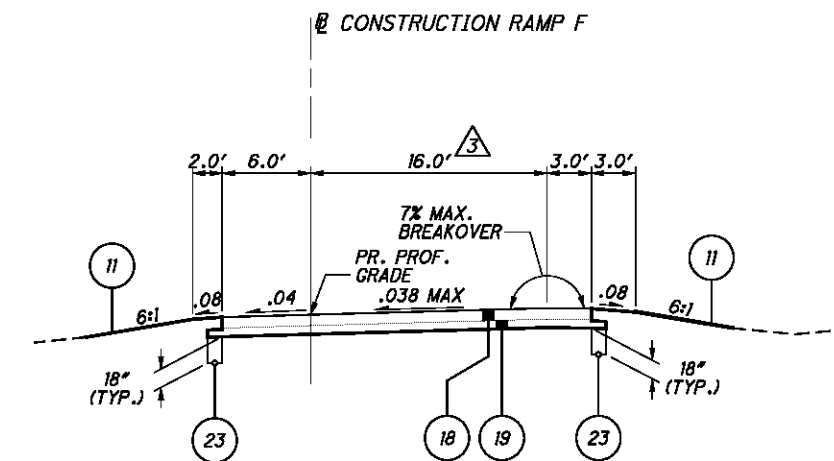


OVERLAY & WIDENING - SUPERELEVATED SECTION

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

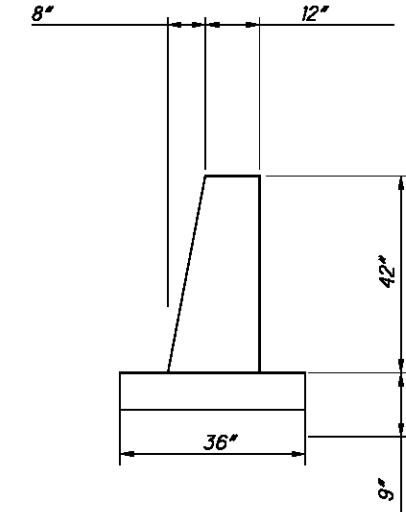
STORM SEWERS THAT ARE ITEMIZED FOR REMOVAL SHALL BE REMOVED TO THE EDGE OF THE EXISTING SHOULDER, OR TO THE NEAREST PIPE JOINT, IF THE JOINT IS WITHIN FOUR (4) FEET OF THE EXISTING SHOULDER. THE ACTUAL LIMITS OF THE PIPE REMOVAL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

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.

CALCULATED
MJC
CHECKED
BBD

GENERAL NOTES

BEL-70-7.61

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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 | | | | | | | | | 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 |

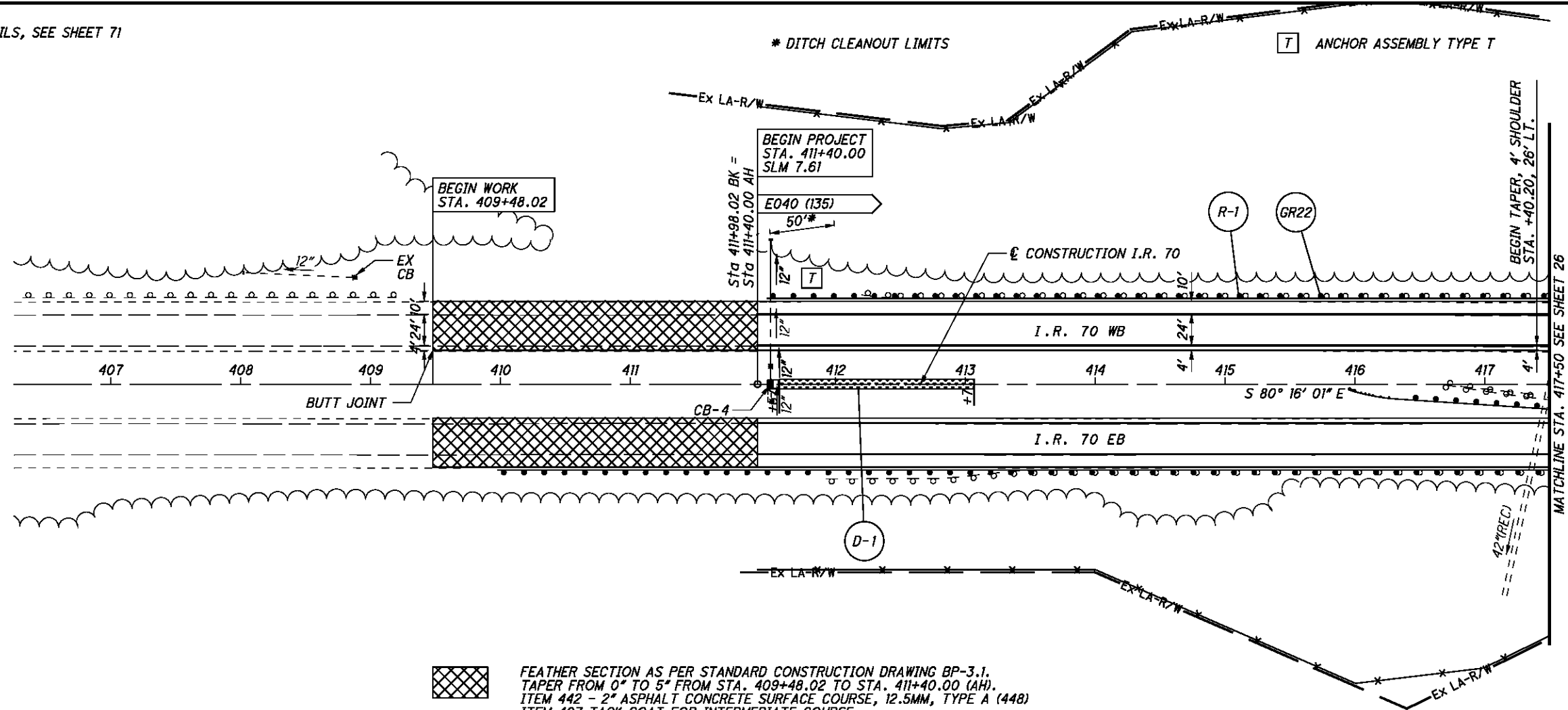
CALCULATED MJC CHECKED BBD
ROADWAY SUBSUMMARY
BEL-70-7.61
 19
 373

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| 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 | | 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 |

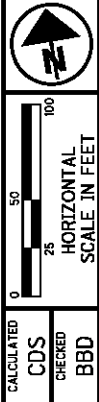
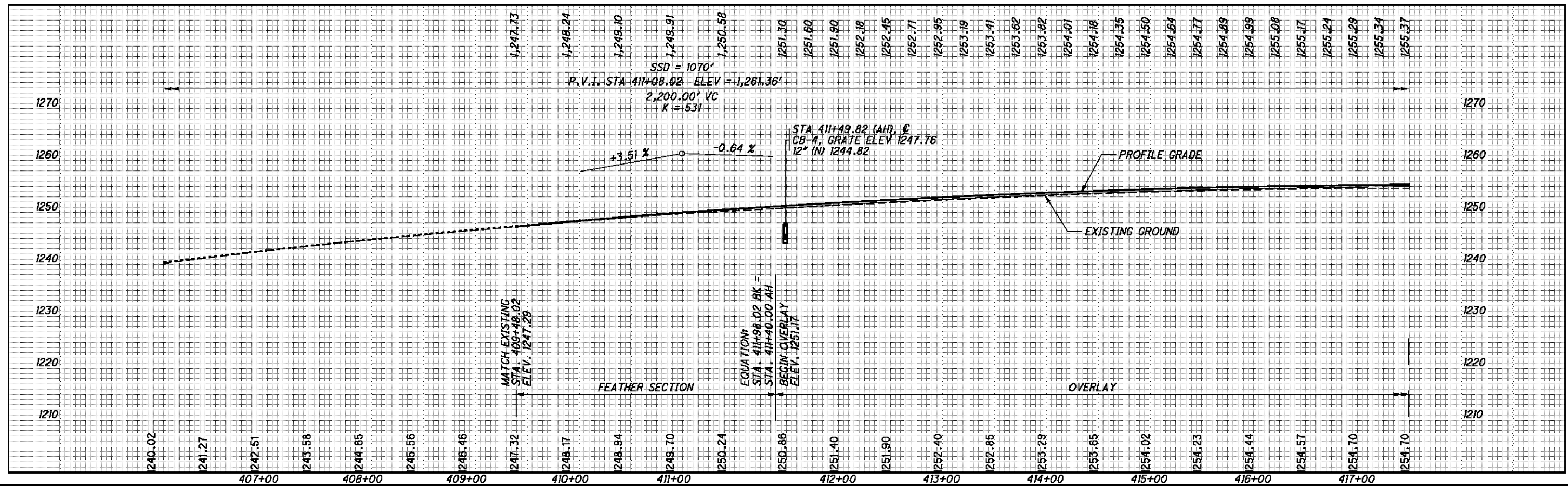
| | | | |
|-------------------------------------|------------------------|-----------------|-----------|
| CALCULATED CDS CHECKED BBD | STORM SEWER SUBSUMMARY | BEL - 70 - 7.61 | 23 373 |
|-------------------------------------|------------------------|-----------------|-----------|

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

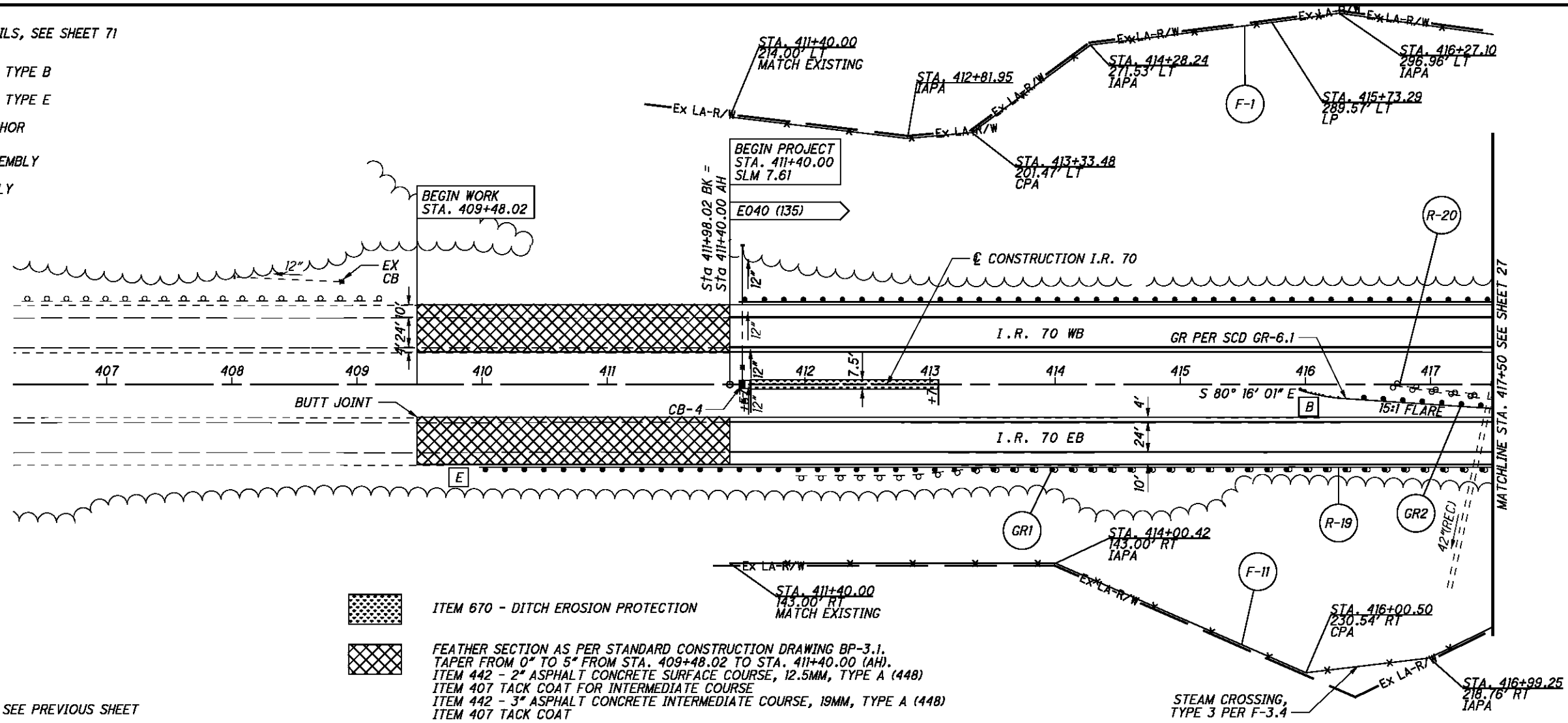
BEL-70-7.61

24
373

P:\76825\roadway\sheet\76825GP301.dgn 9/21/2012 7:45:56 AM mcorbett

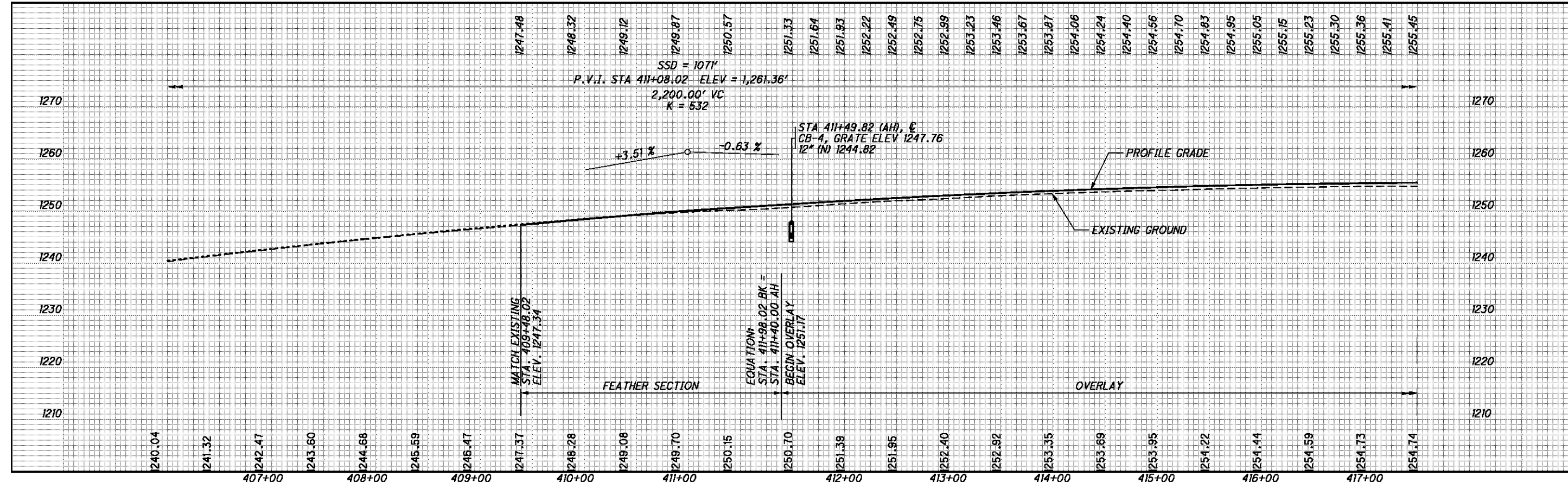
FOR STORM SEWER DETAILS, SEE SHEET 71

- 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 50 100

 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

P:\76825\roadway\sheet\76825GP401.dgn 9/21/2012 7:45:57 AM mcornett

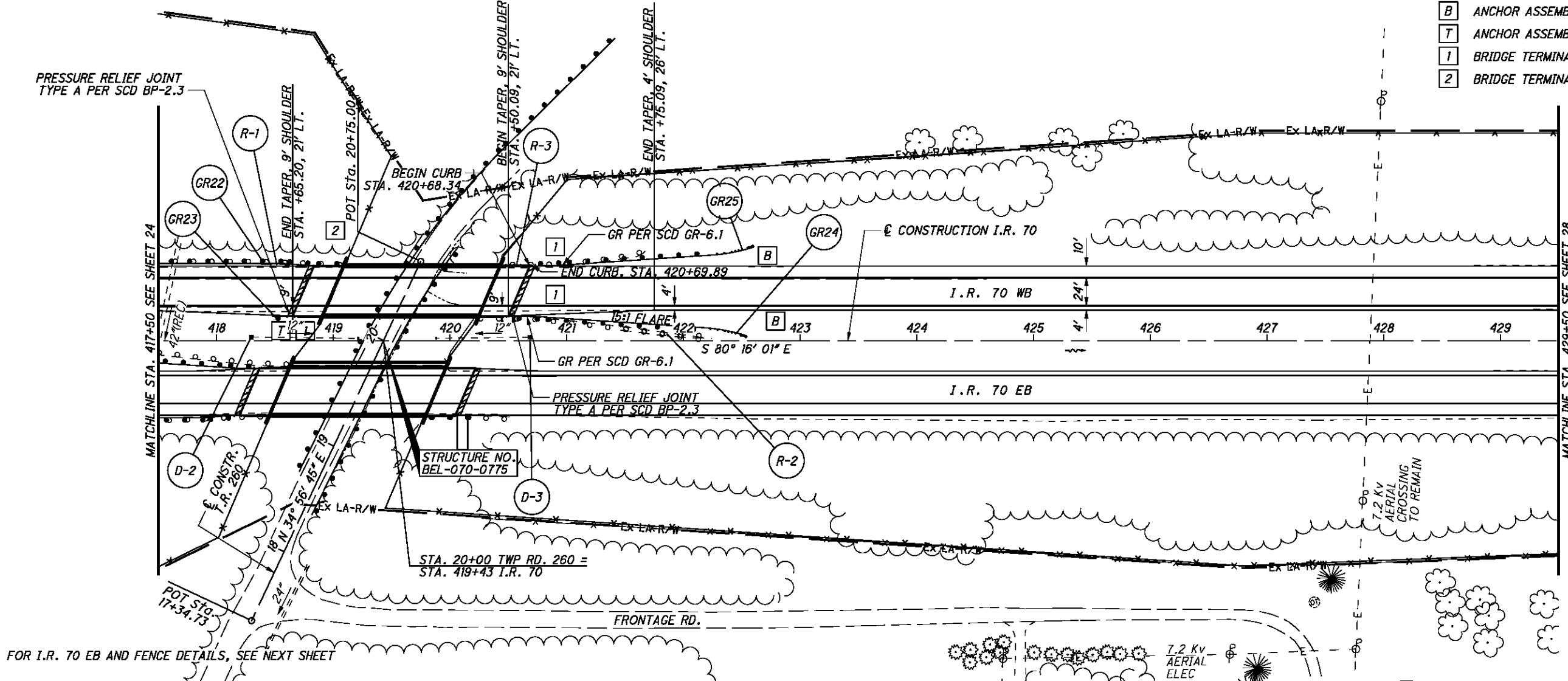


CALCULATED
CDS
CHECKED
BBD

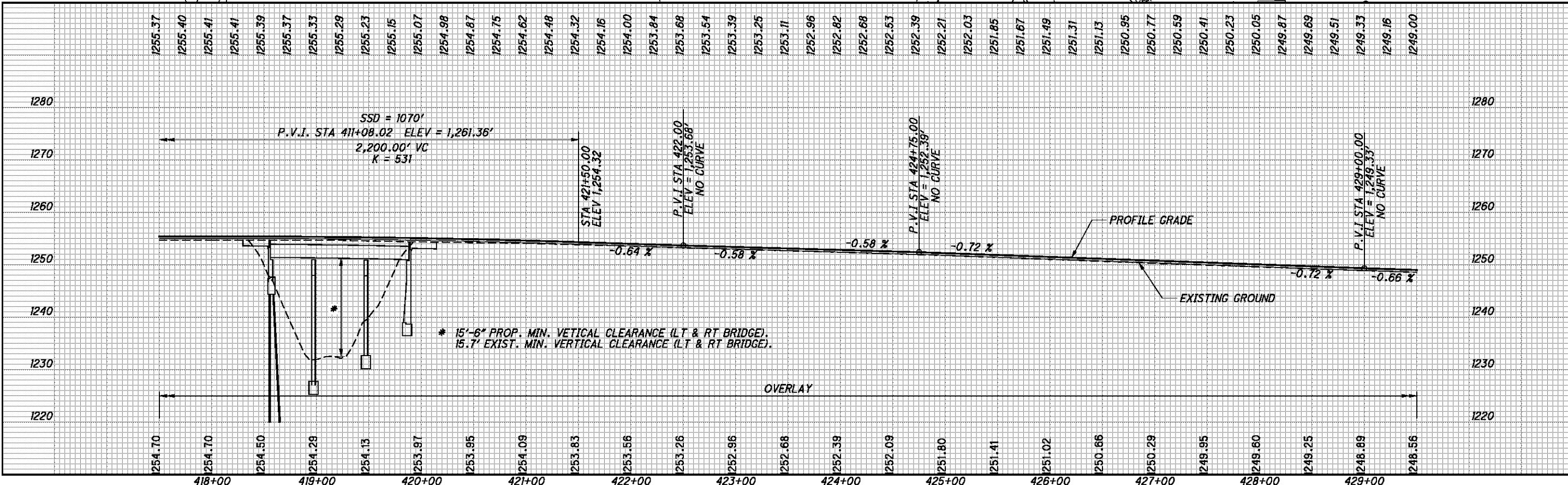
**I.R. 70 WB - PLAN AND PROFILE
STA. 417+50 TO STA. 429+50**

BEL-70-7.61

- 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



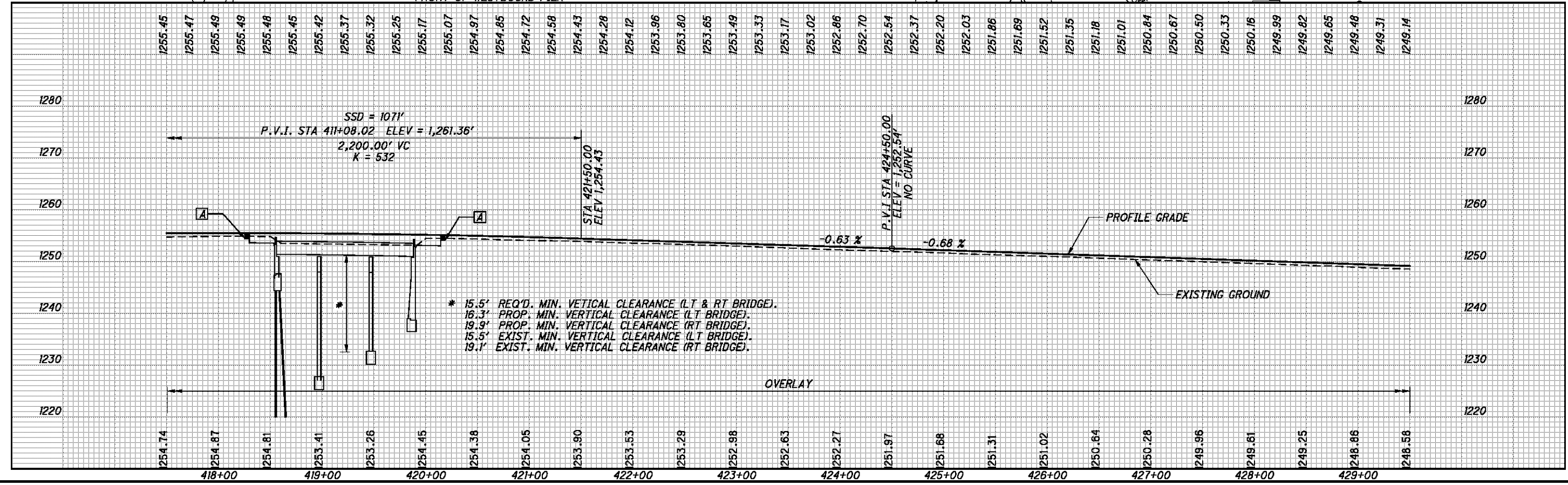
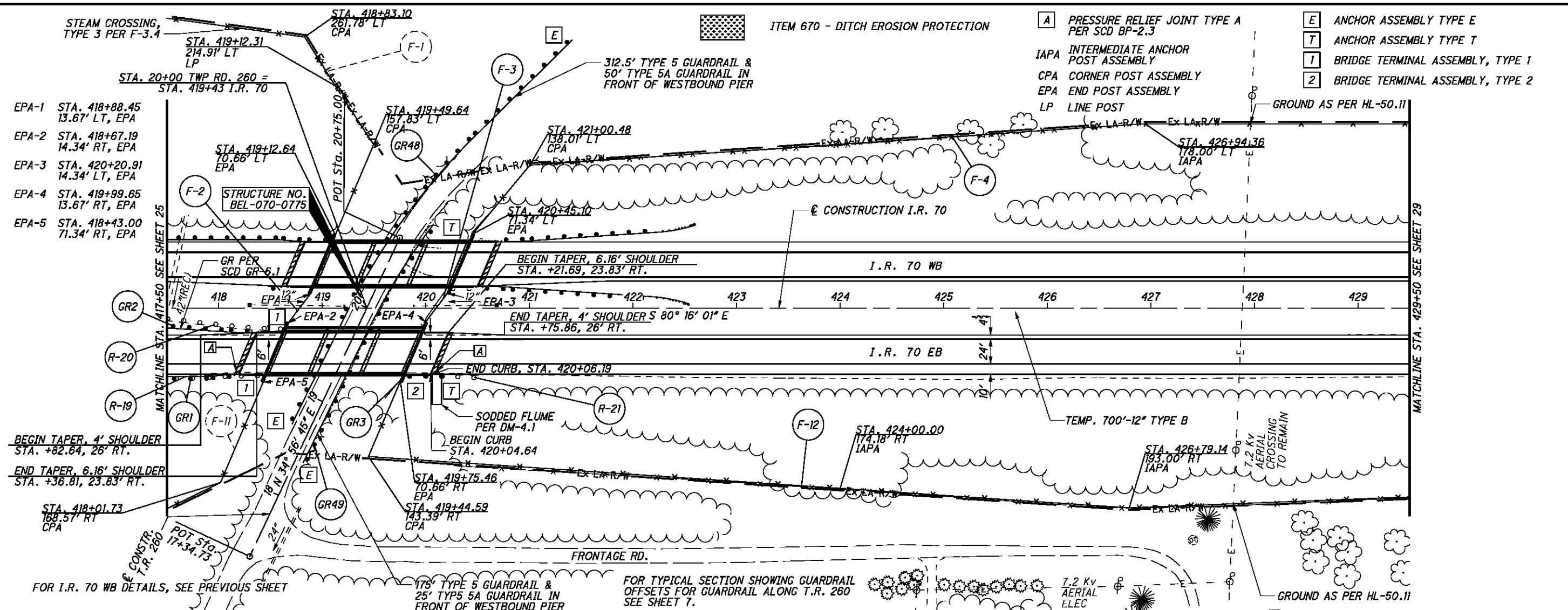
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CALCULATED
CDS
CHECKED
BBD

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

BEL-70-7.61

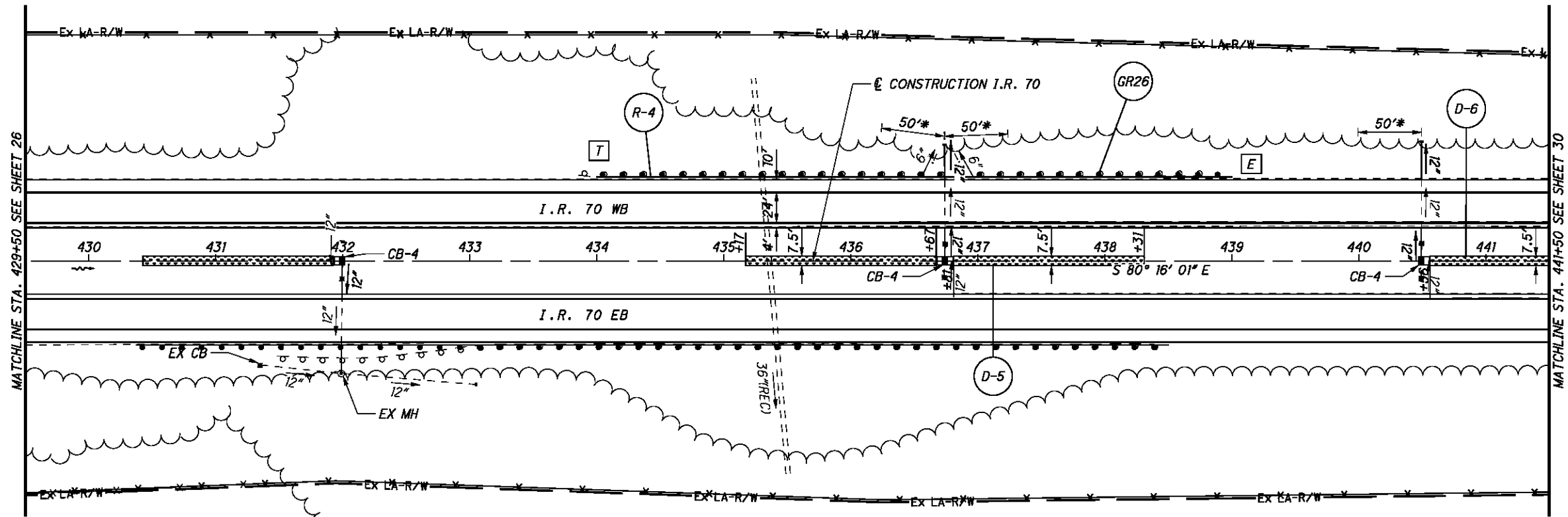


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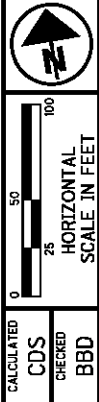
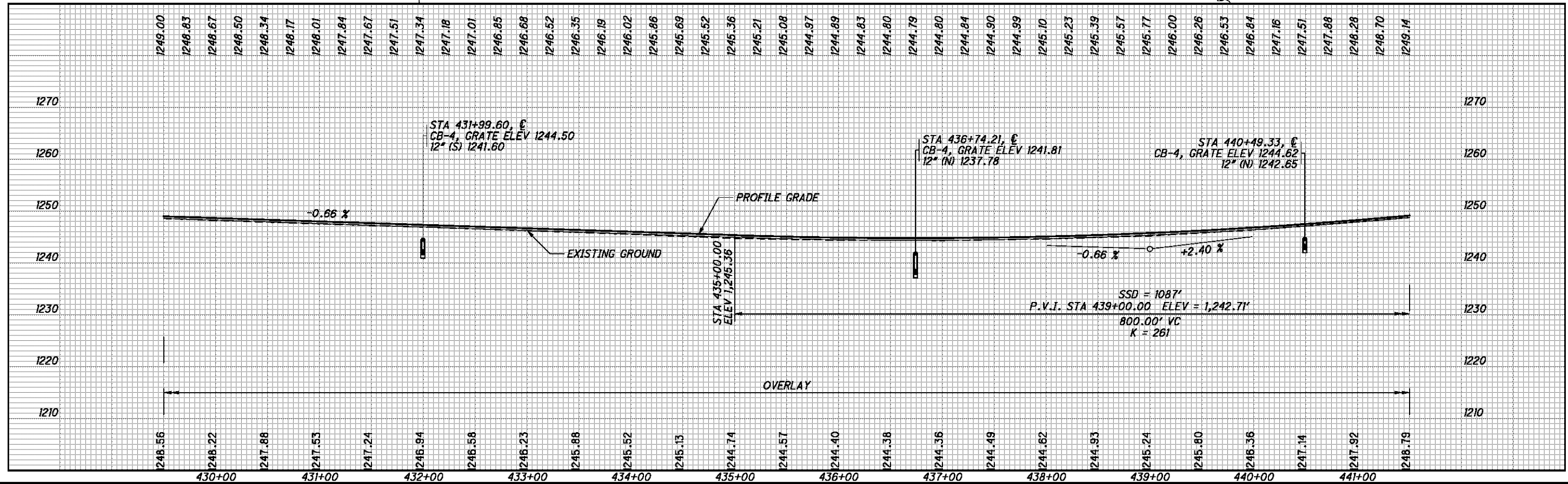
FOR STORM SEWER DETAILS, SEE SHEETS 78, 80, & 81

* 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

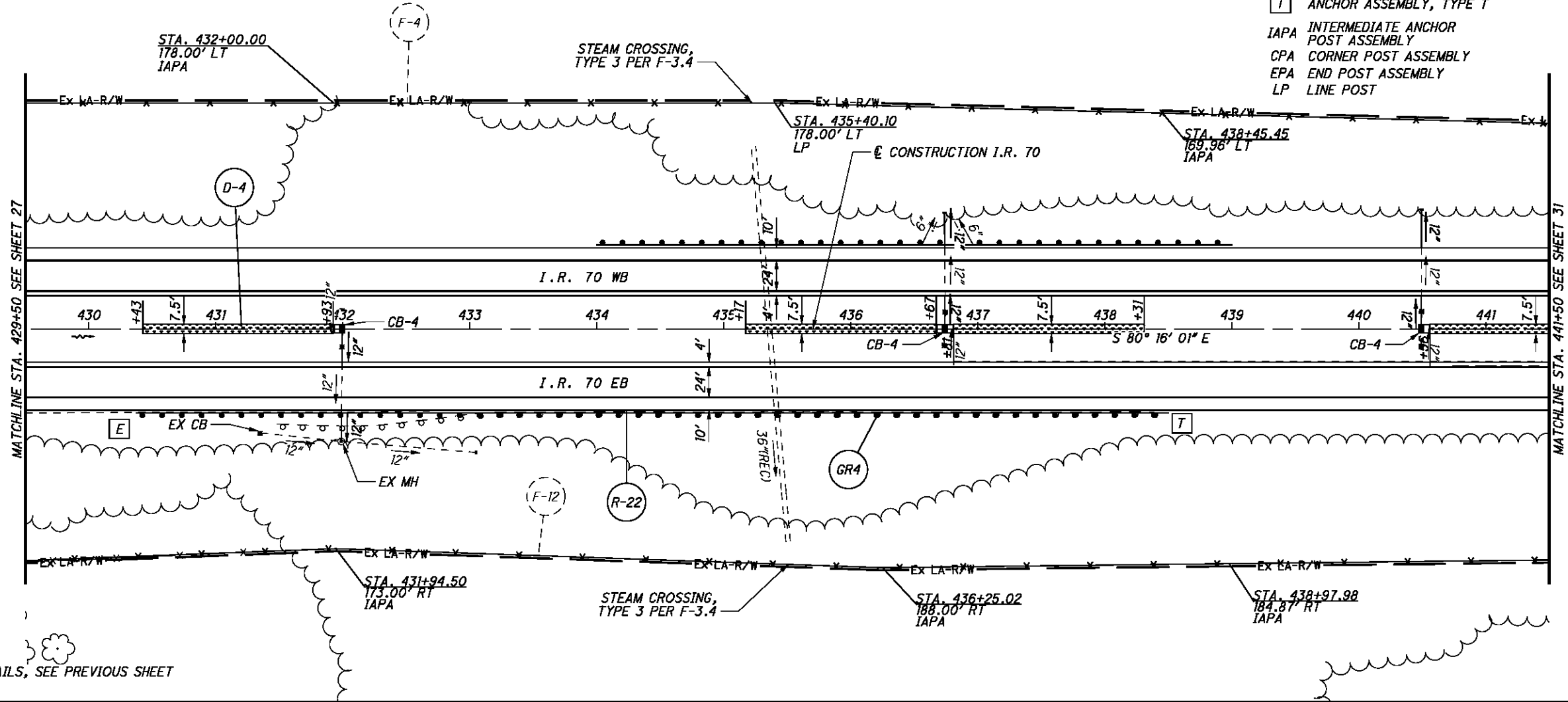
28
373

P:\76825\roadway\sheet\76825GP303.dgn 9/21/2012 7:45:59 AM mcornett

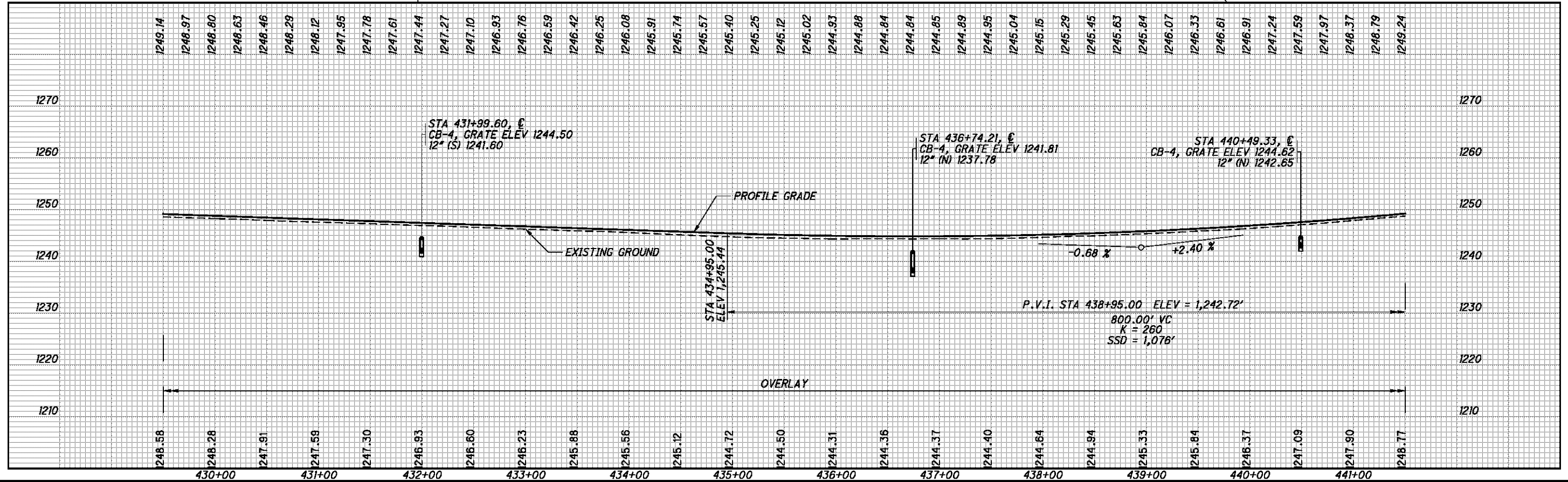
FOR STORM SEWER DETAILS, SEE SHEETS 78, 80, & 81

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

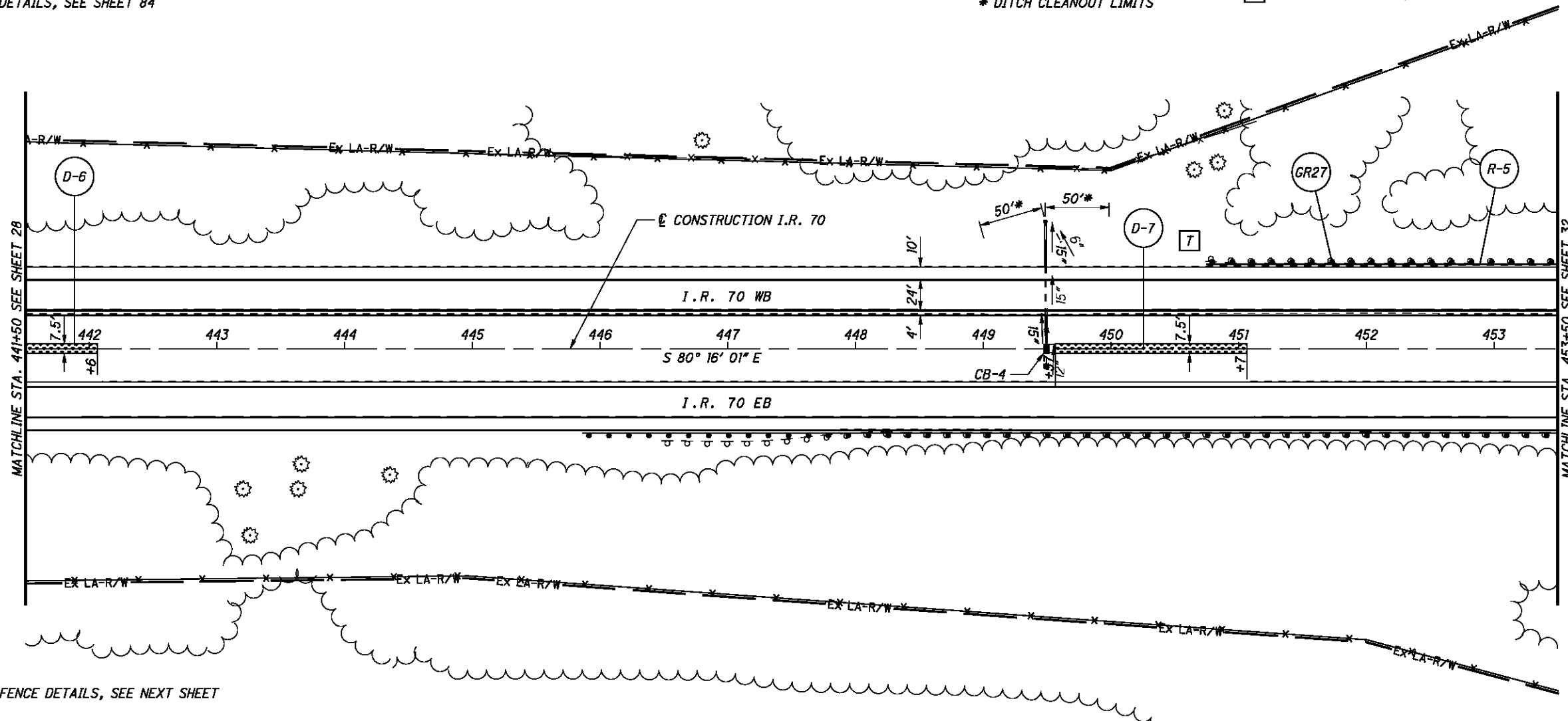
BEL-70-7.61

P:\76825\roadway\sheet\76825GP403.dgn 9/21/2012 7:46:00 AM mcorbett

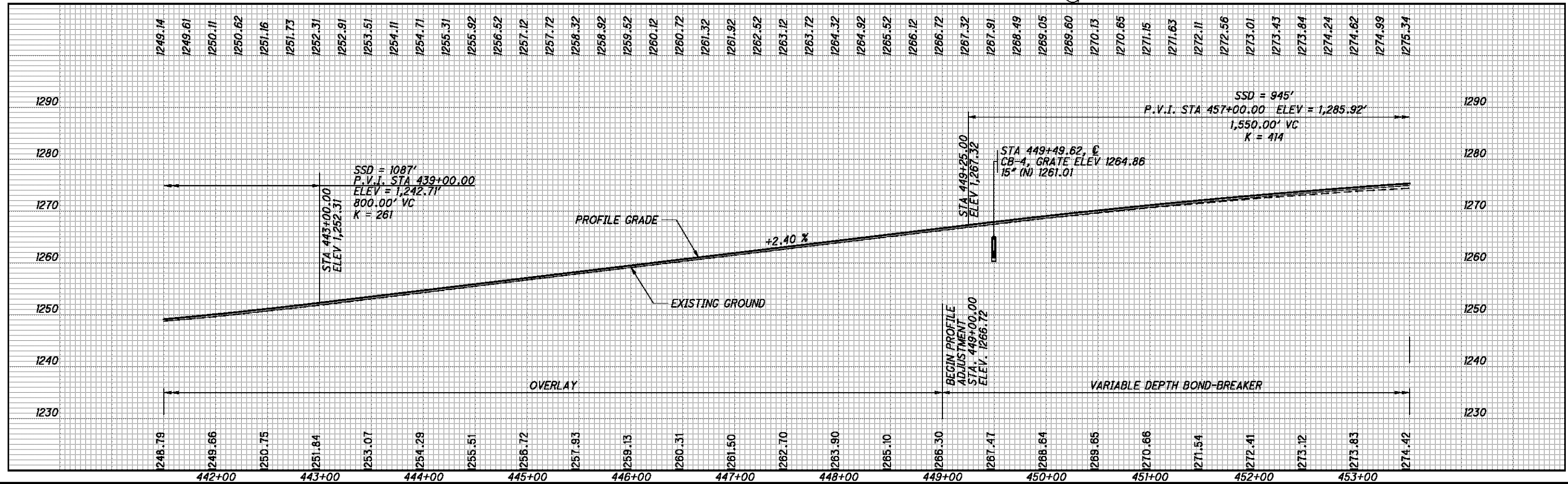
FOR STORM SEWER DETAILS, SEE SHEET 84

* 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

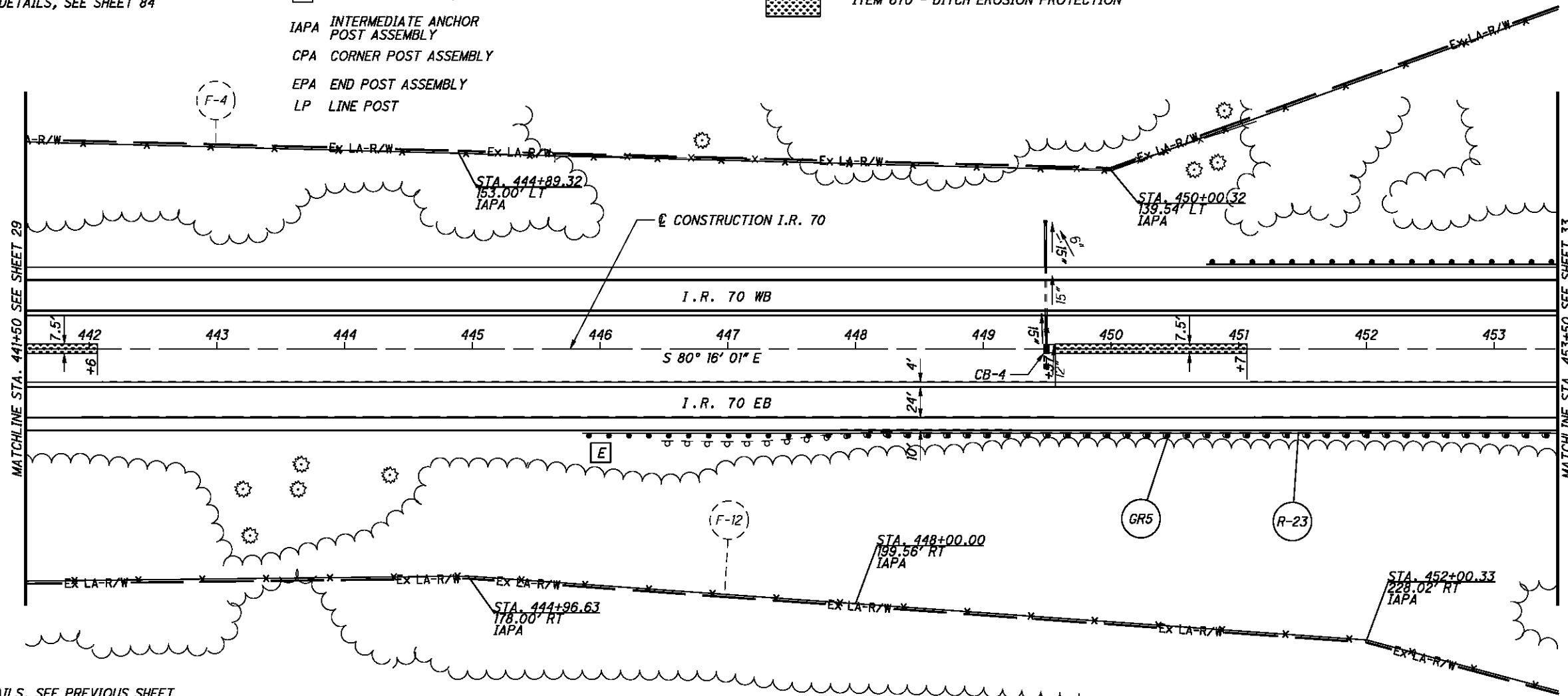
30
373

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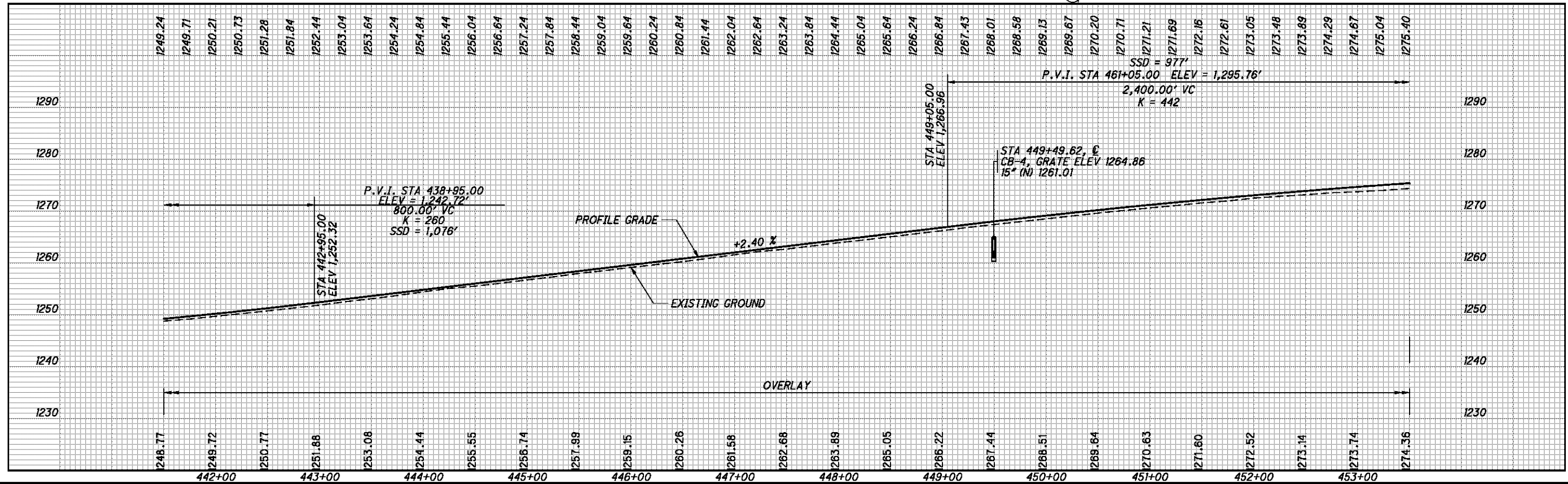
FOR STORM SEWER DETAILS, SEE SHEET 84

- 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

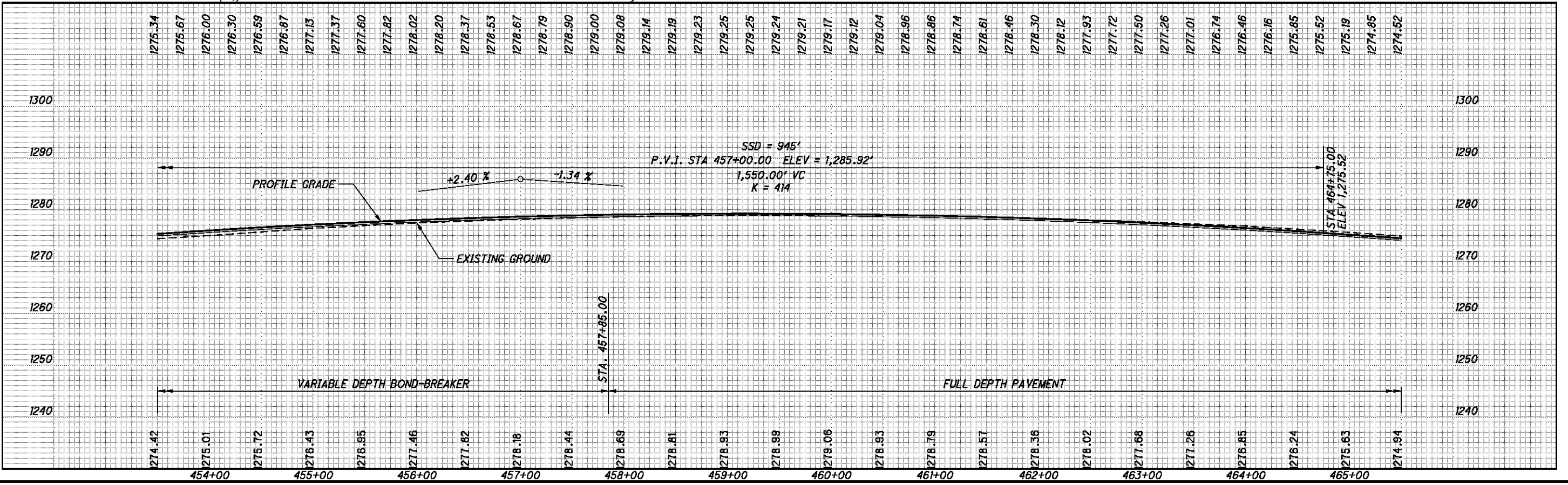
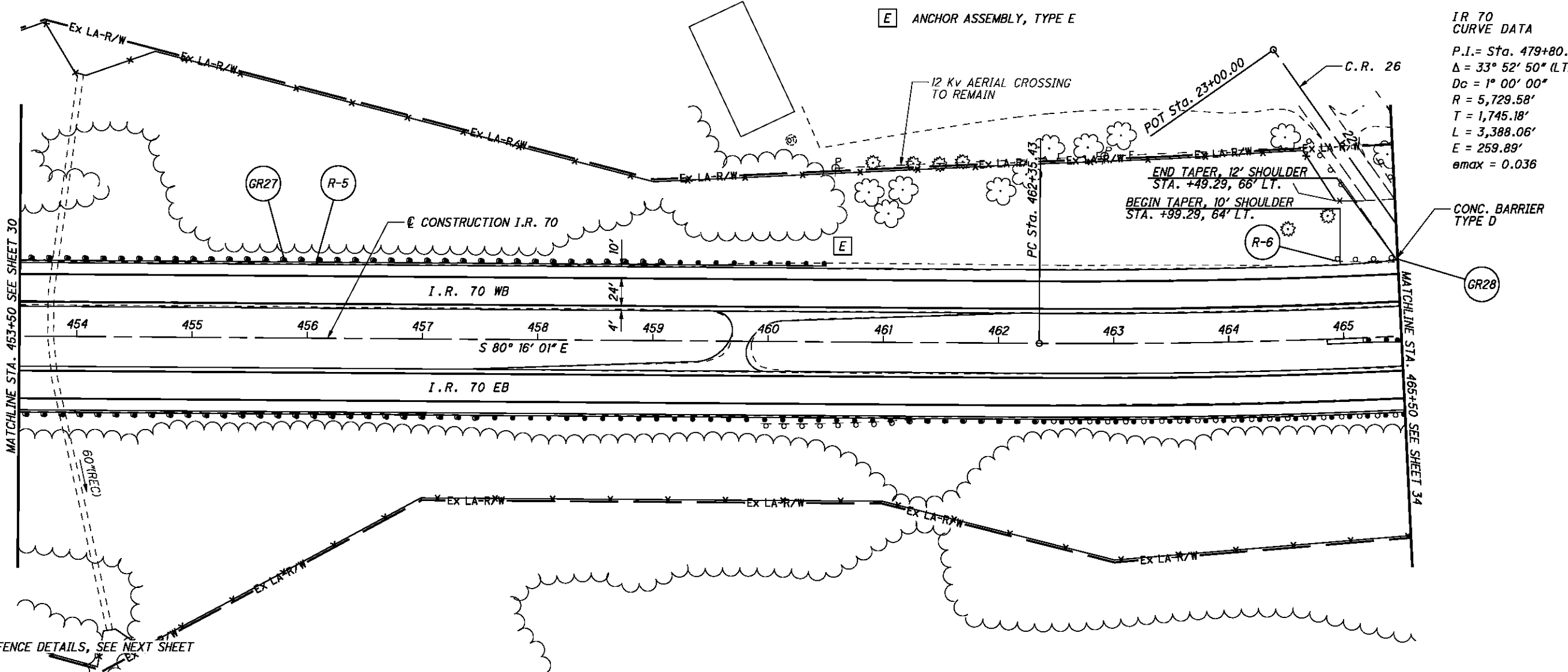
31
373

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

CALCULATED CDS CHECKED BDD

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

50
25
0
HORIZONTAL SCALE IN FEET



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

BEL-70-7.61

32
373

P:\76825\roadway\sheets\76825GP305.dgn 9/21/2012 7:46:01 AM mcornett

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

STA. 453+96.52
 226.78' LT
 EPA

STA. 454+66.33
 248.06' LT
 CPA

STA. 454+06.26
 226.78' LT
 EPA

STA. 458+99.80
 137.99' LT
 IAPA

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

12 Kv AERIAL CROSSING TO REMAIN

STA. 462+35.53
 155.00' LT
 LP

POT STA. 23+00.00
 STA. 464+46.55
 164.00' LT
 LP

STA. 464+69.98
 164.29' LT
 CPA

STA. 464+97.07
 119.88' LT
 CPA

PC STA. 462+35.43
 STA. 463+50.08
 160.00' LT
 LP

STA. 465+14.35
 119.08' LT
 EPA

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

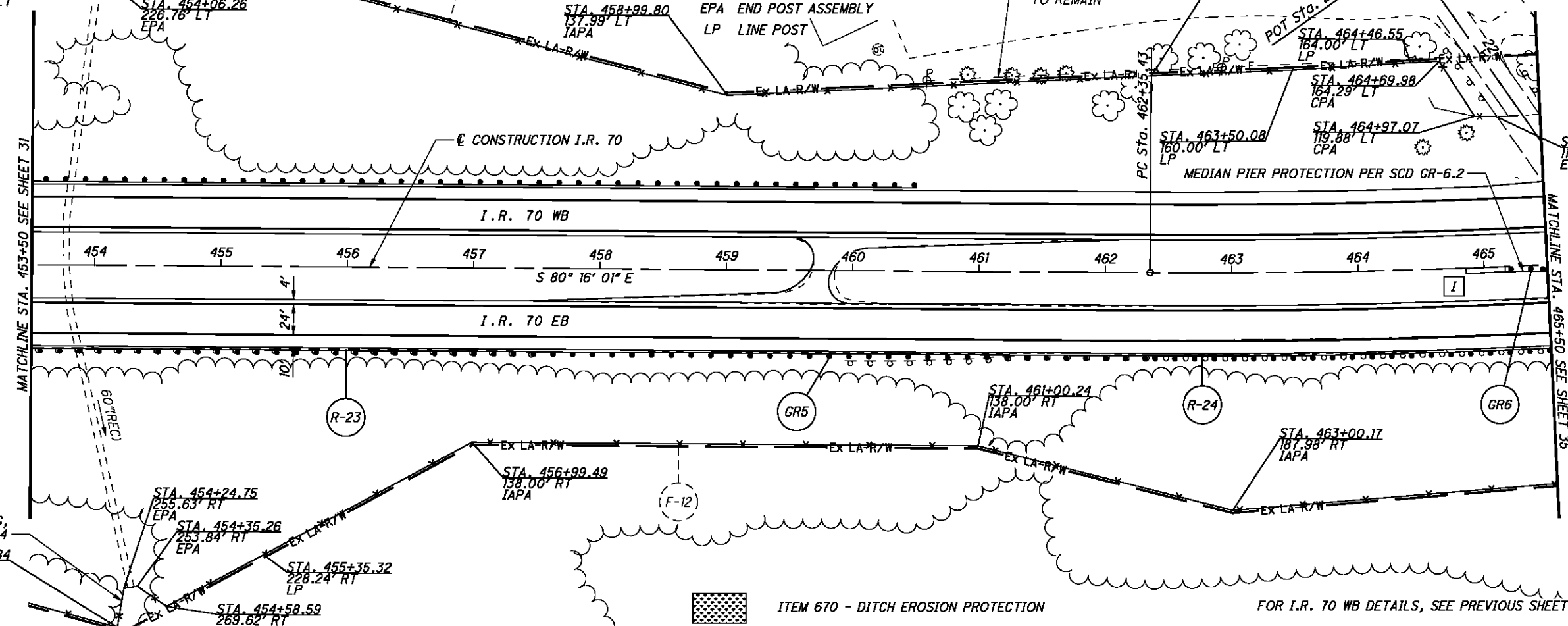
CALCULATED CDS CHECKED BDD

HORIZONTAL SCALE IN FEET

30
25
20
15
10
5
0

MATCHLINE STA. 453+50 SEE SHEET 31

MATCHLINE STA. 465+50 SEE SHEET 35



STEAM CROSSING, TYPE 3 PER F-3.4
 STA. 454+19.84
 286.55' RT
 CPA

STA. 454+24.75
 255.63' RT
 EPA

STA. 454+35.26
 293.84' RT
 EPA

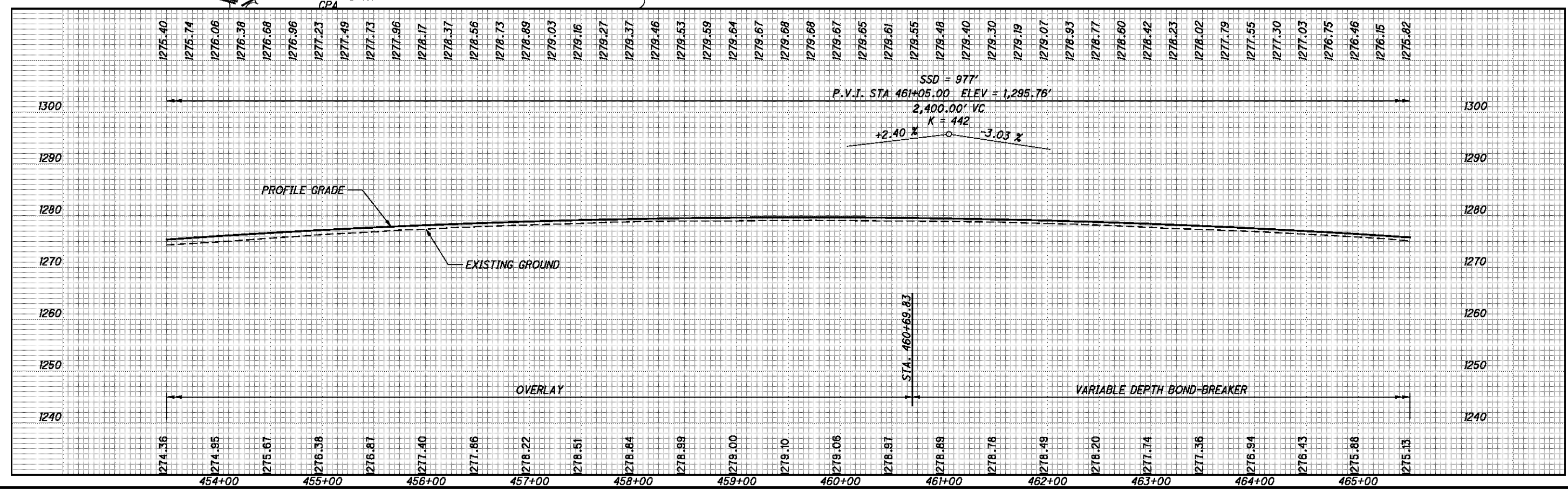
STA. 455+35.32
 228.24' RT
 LP

STA. 454+58.59
 269.62' RT
 CPA

STA. 456+99.49
 138.00' RT
 IAPA

STA. 461+00.24
 138.00' RT
 IAPA

STA. 463+00.17
 187.98' RT
 IAPA



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

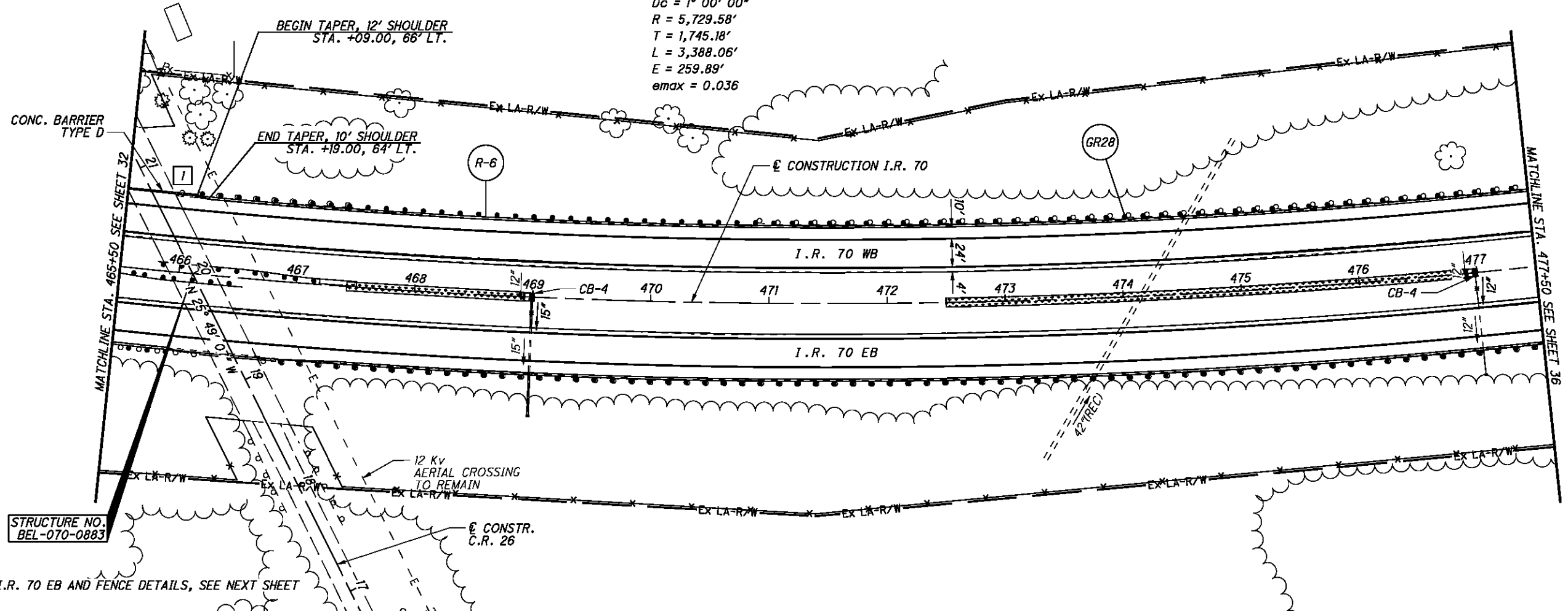
BEL-70-7.61

33
373

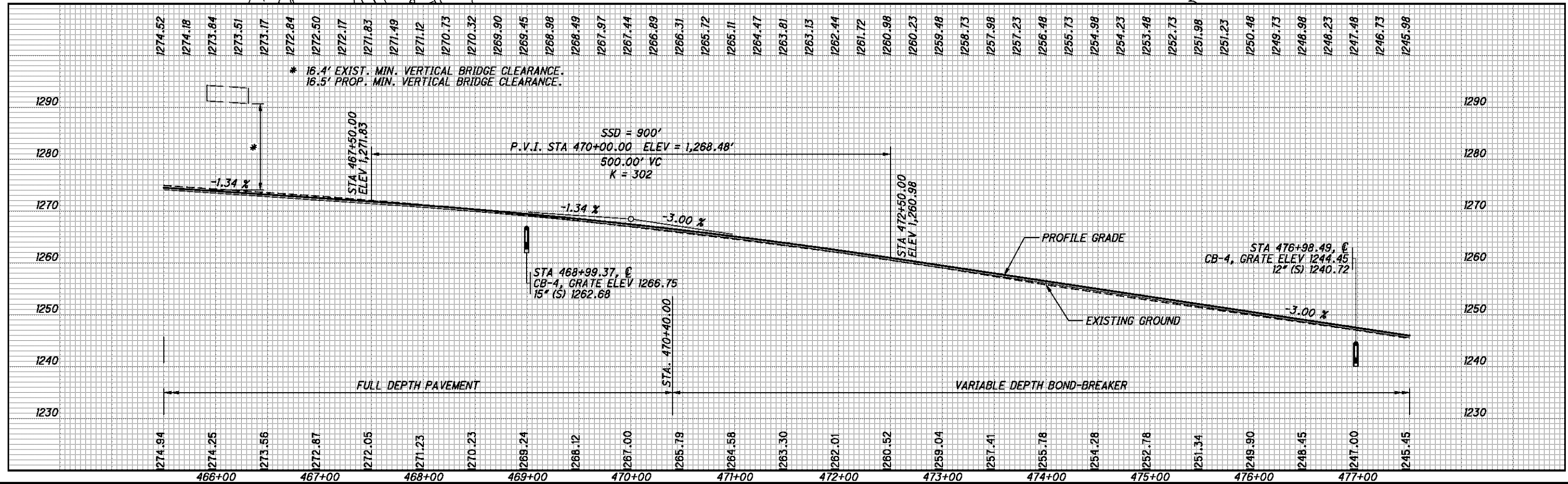
FOR STORM SEWER DETAILS, SEE SHEETS 92 & 95

- 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)
Dc = $1^\circ 00' 00''$
R = 5,729.58'
T = 1,745.18'
L = 3,388.06'
E = 259.89'
emax = 0.036



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



CALCULATED CDS CHECKED BDD

0 25 50
HORIZONTAL SCALE IN FEET

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

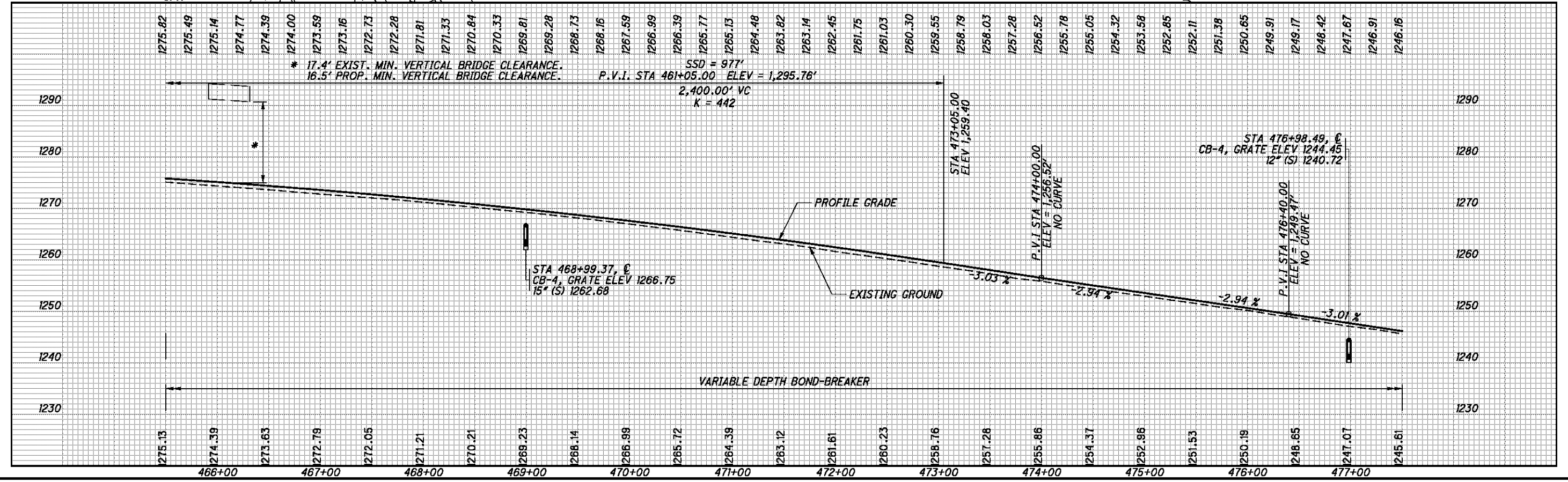
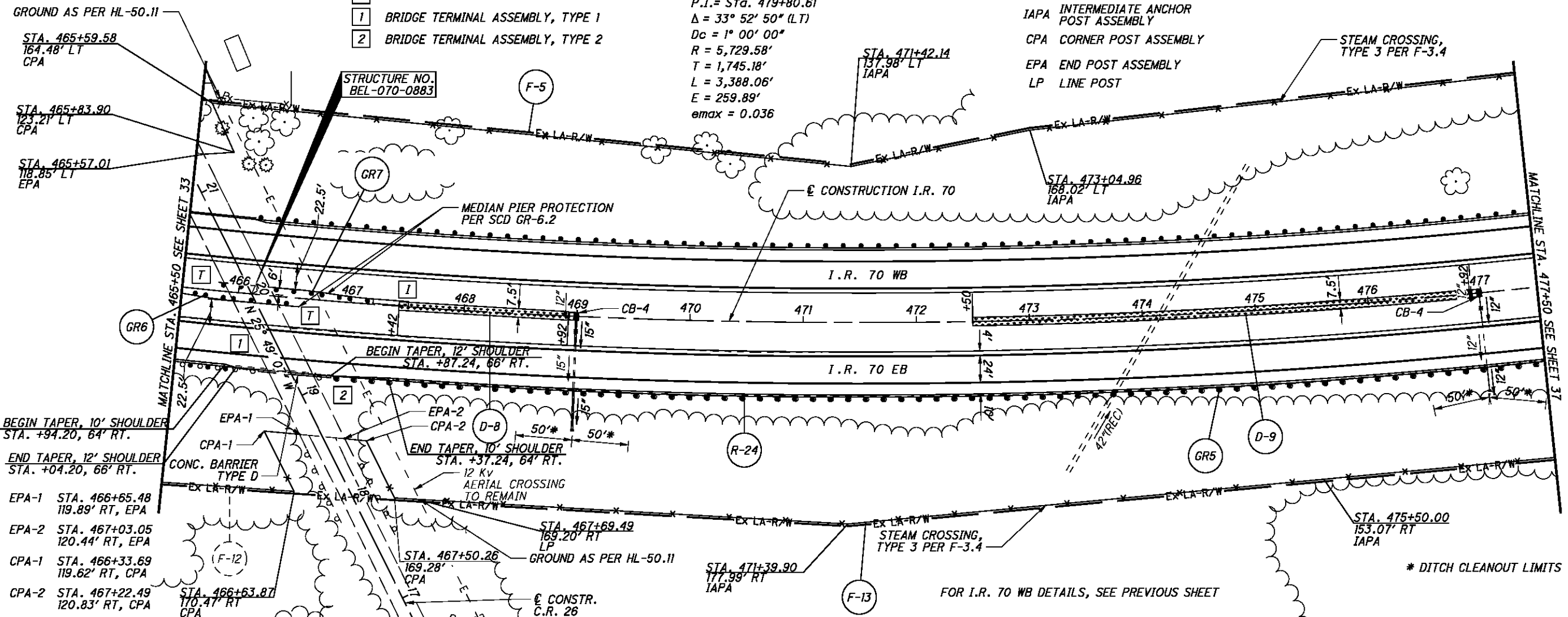
- I** IMPACT ATTENUATOR TYPE I
- T** ANCHOR ASSEMBLY TYPE T
- 1** BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2** BRIDGE TERMINAL ASSEMBLY, TYPE 2

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



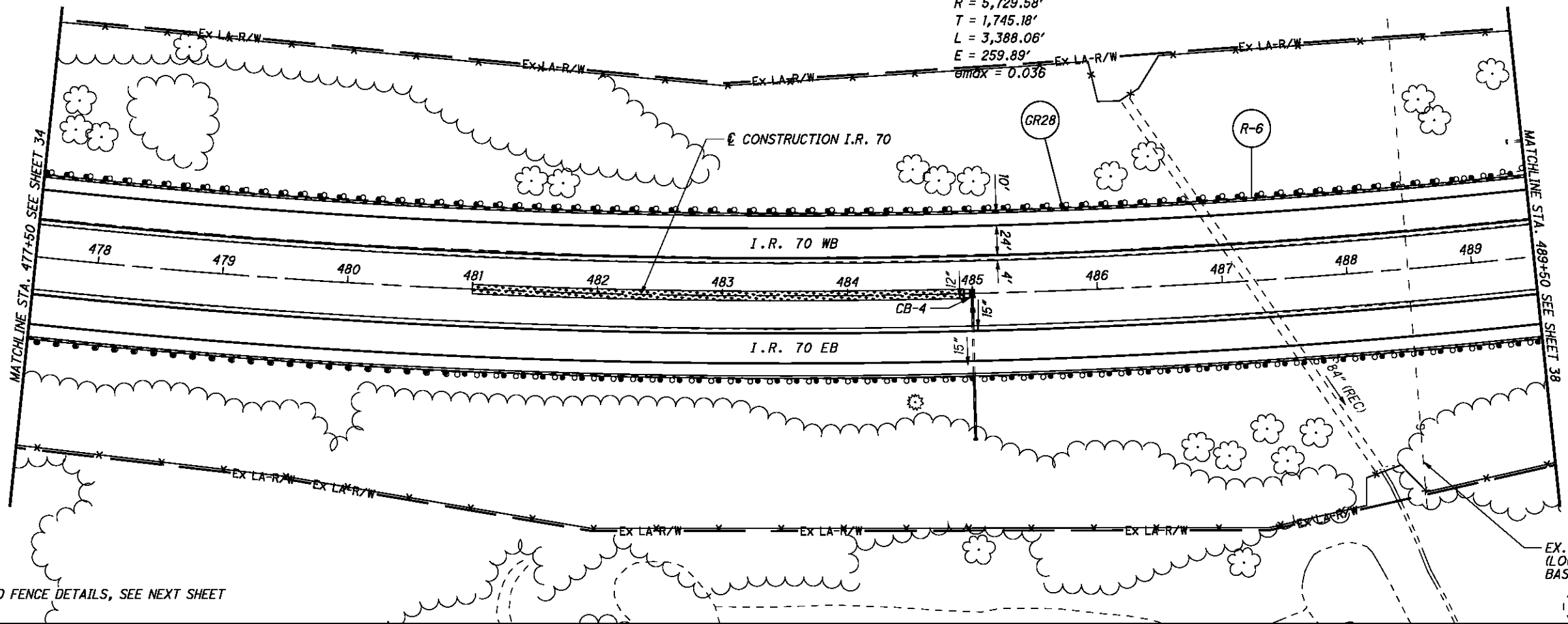
I.R. 70 EB - PLAN AND PROFILE
STA. 465+50 TO STA. 477+50

BEL-70-7.61

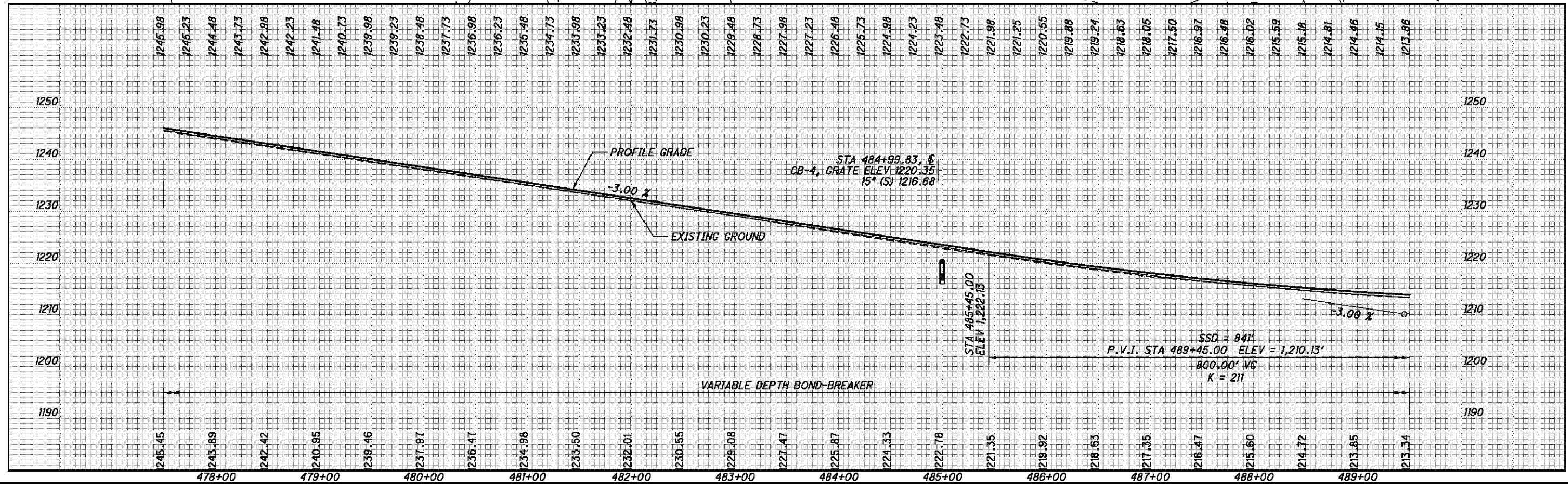
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FOR STORM SEWER DETAILS, SEE SHEET 98

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

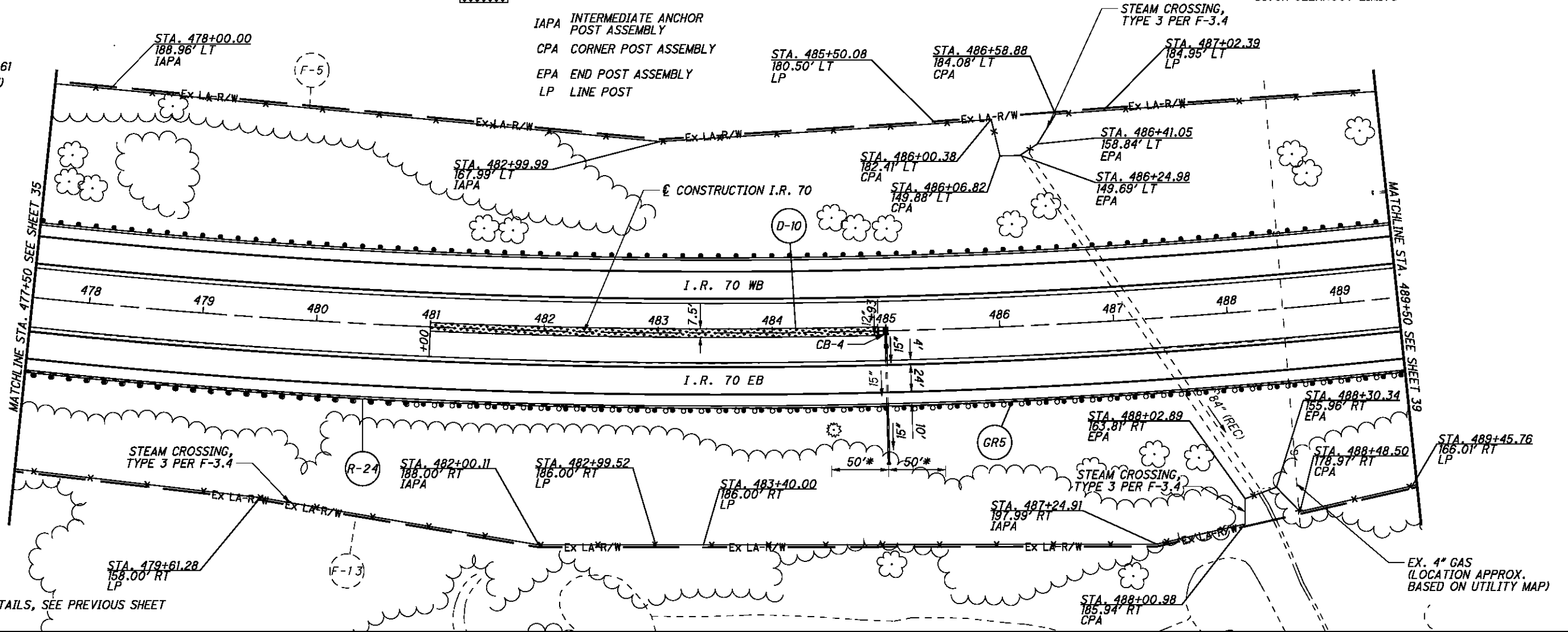
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FOR STORM SEWER DETAILS, SEE SHEET 98

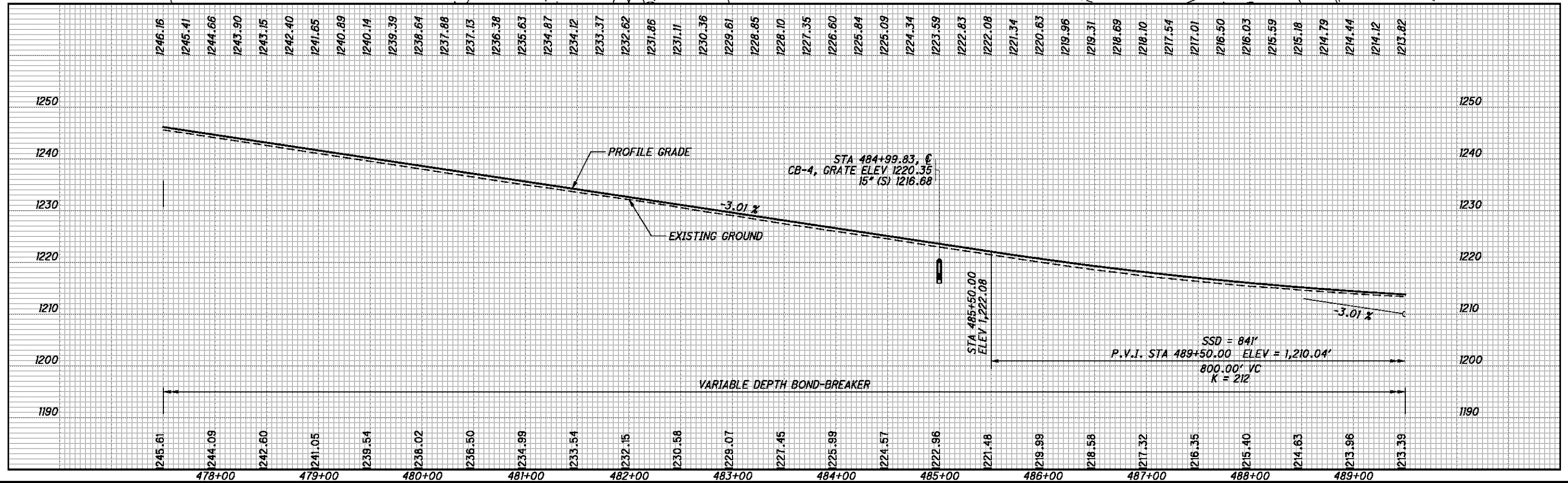
IR 70
CURVE DATA
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.06'$
 $E = 259.89'$
 $e_{max} = 0.036$

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

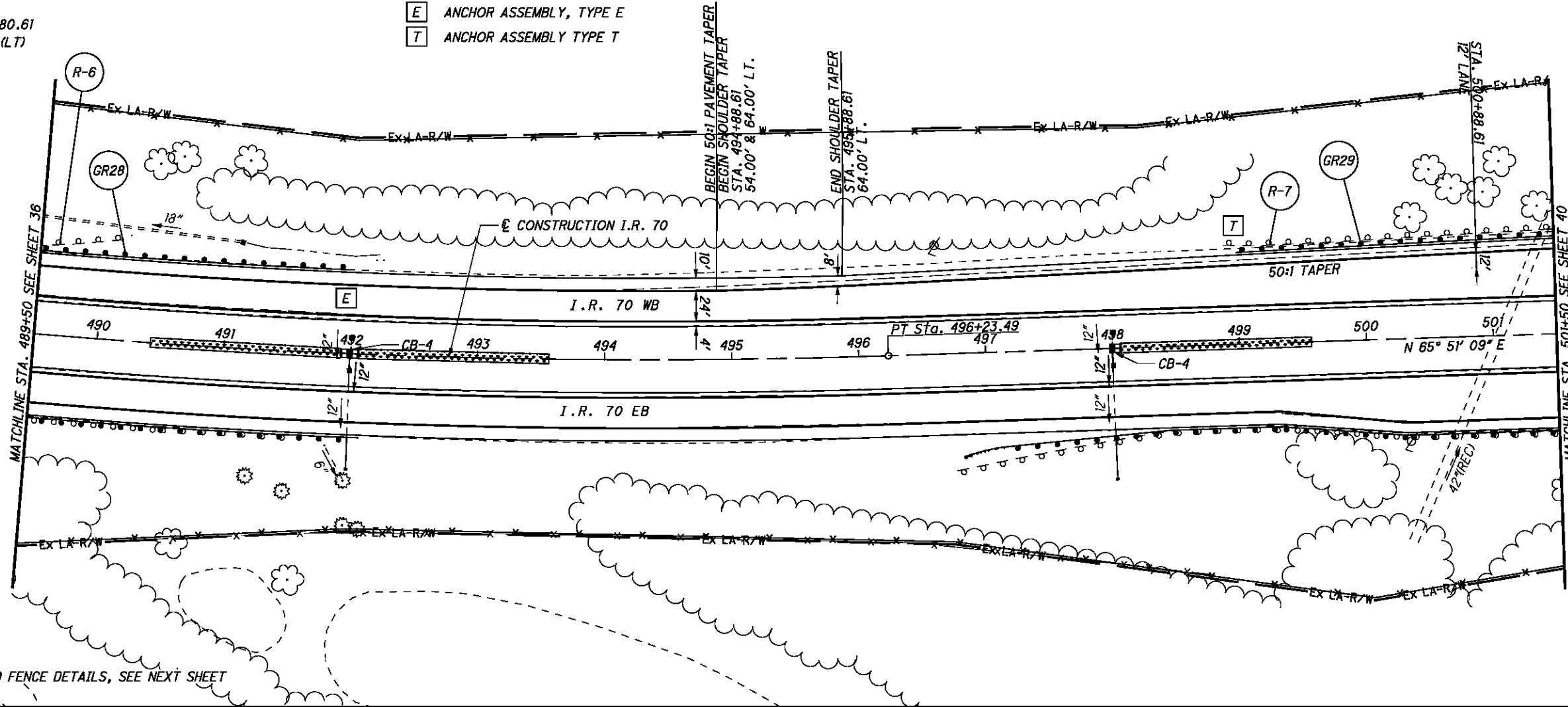
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IR 70
CURVE DATA

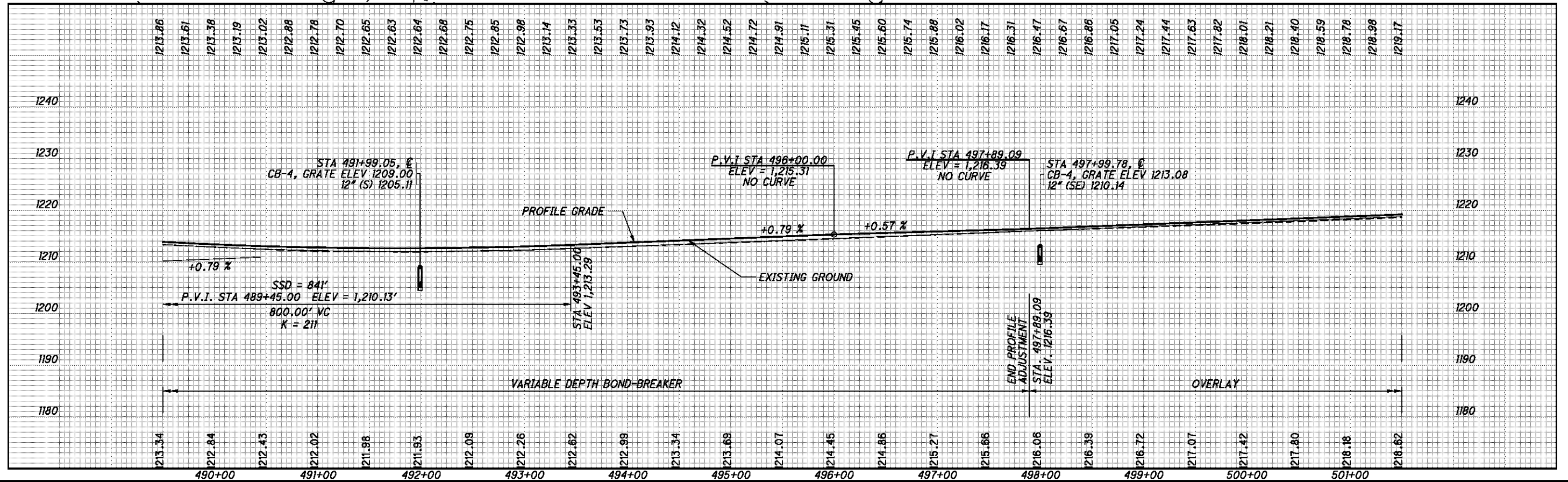
P.I. = Sta. 479+80.61
 $\Delta = 33^\circ 52' 50''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,745.18'$
 $L = 3,388.08'$
 $E = 259.89'$
 $e_{max} = 0.036$

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



CALCULATED CDS CHECKED BDD

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

BEL-70-7.61

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**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

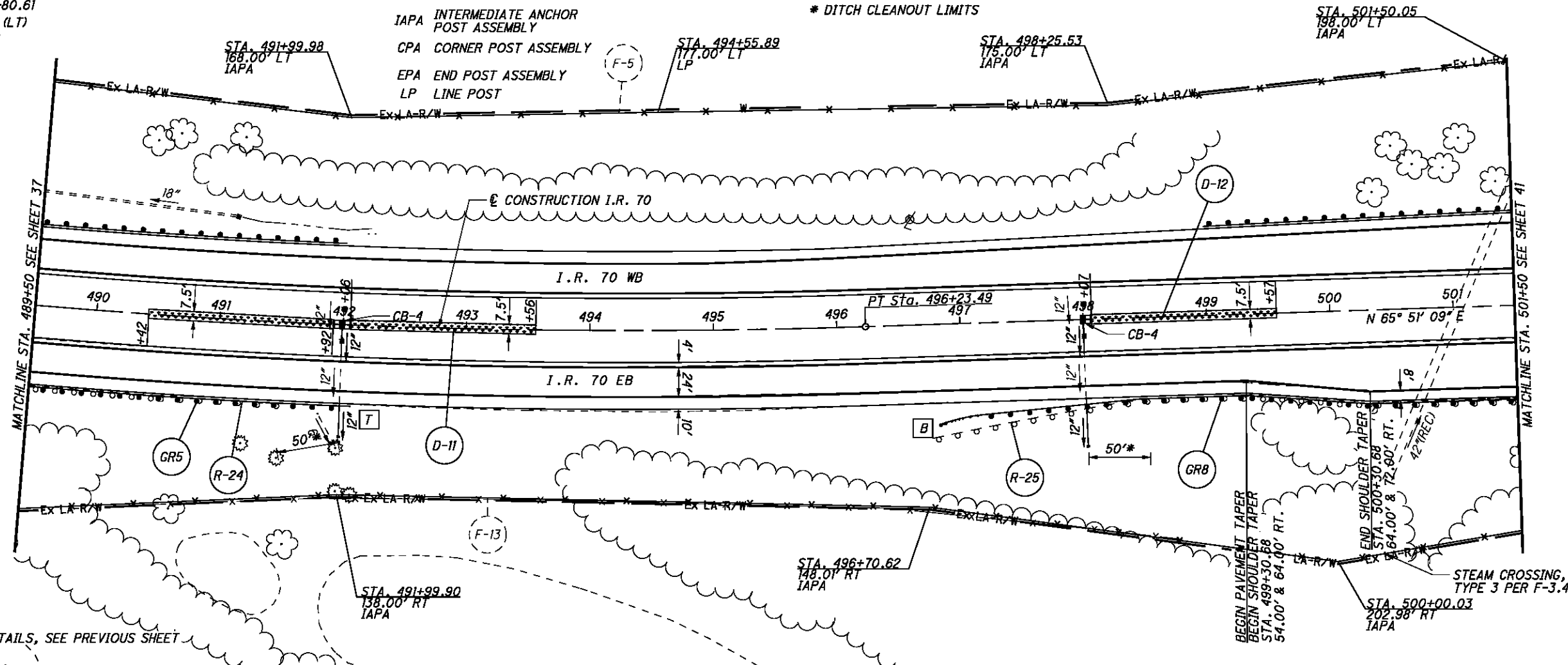
* DITCH CLEANOUT LIMITS

FOR STORM SEWER DETAILS, SEE SHEETS 100 & 102

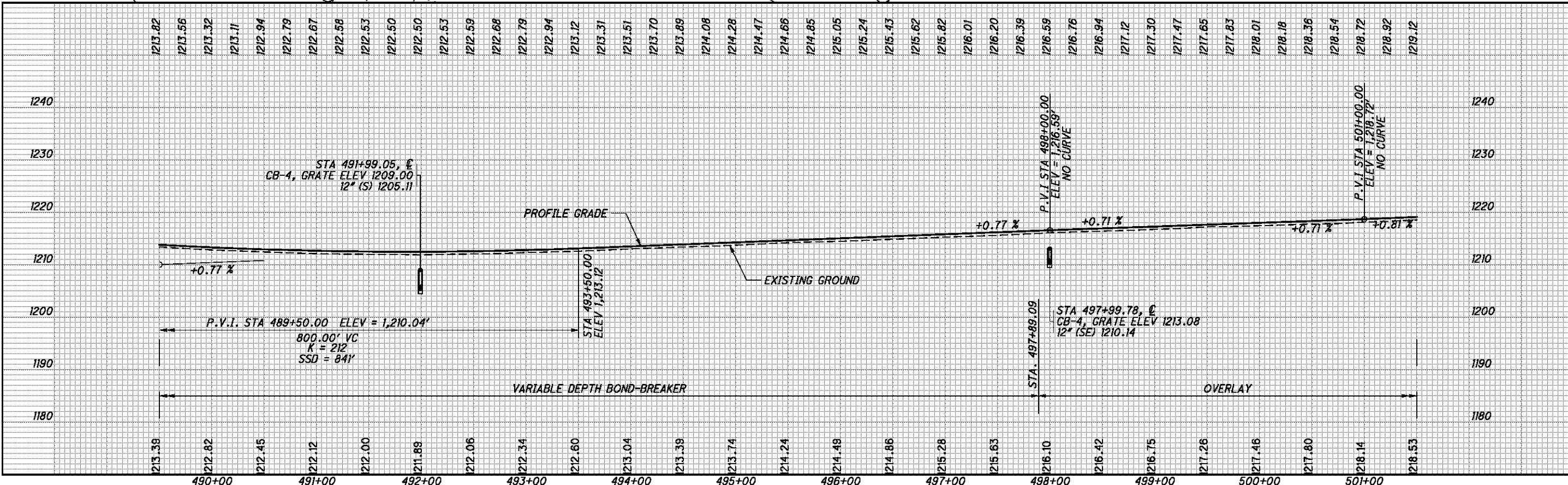


0 25 50
 HORIZONTAL SCALE IN FEET

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**

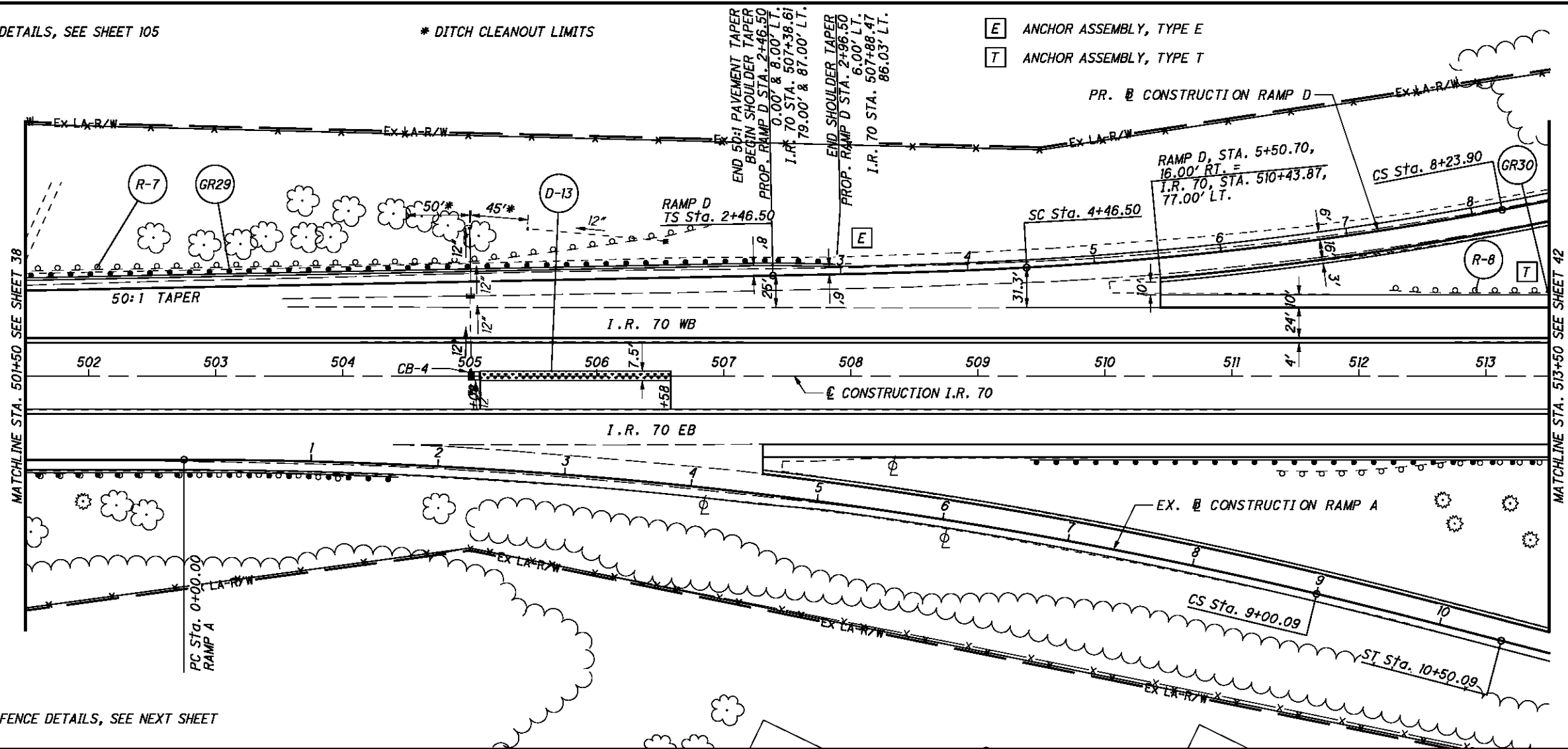
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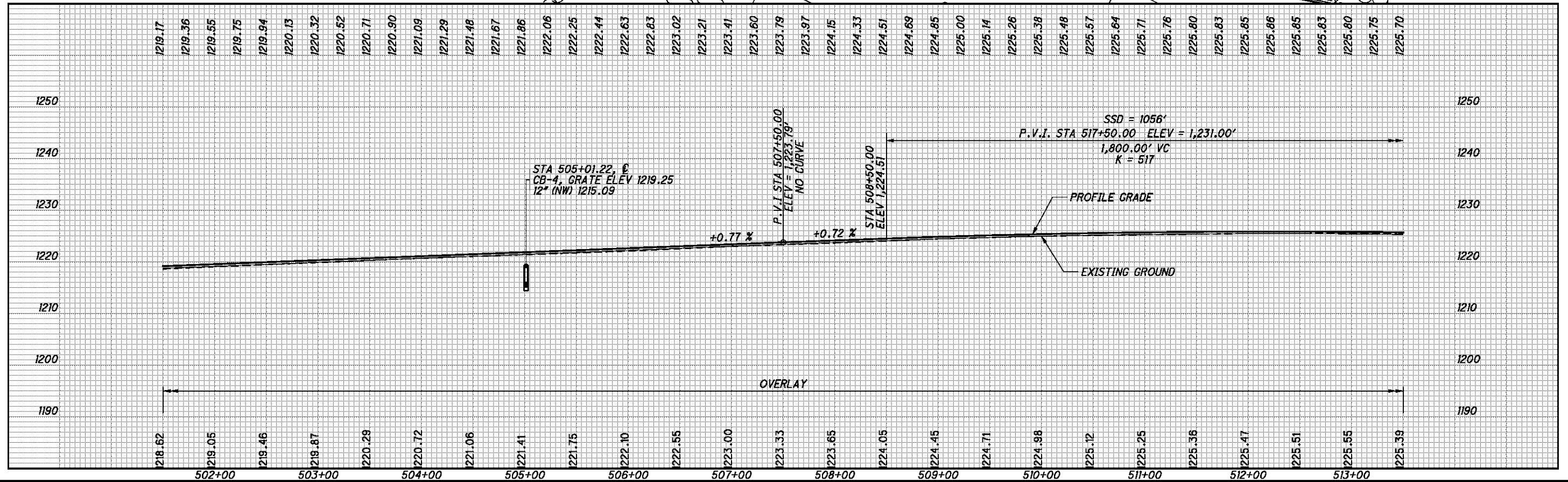
FOR STORM SEWER DETAILS, SEE SHEET 105

* 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

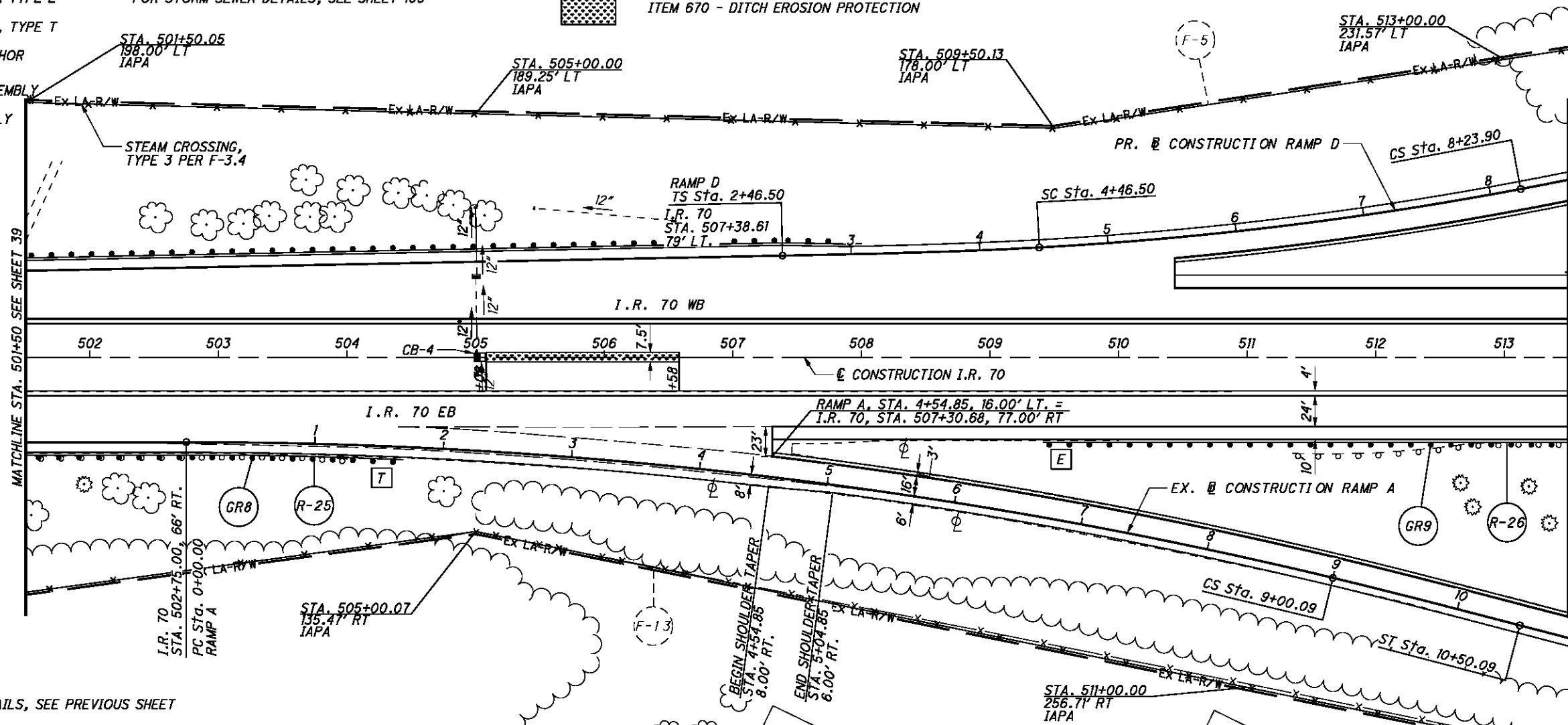
40
373

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

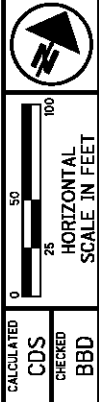
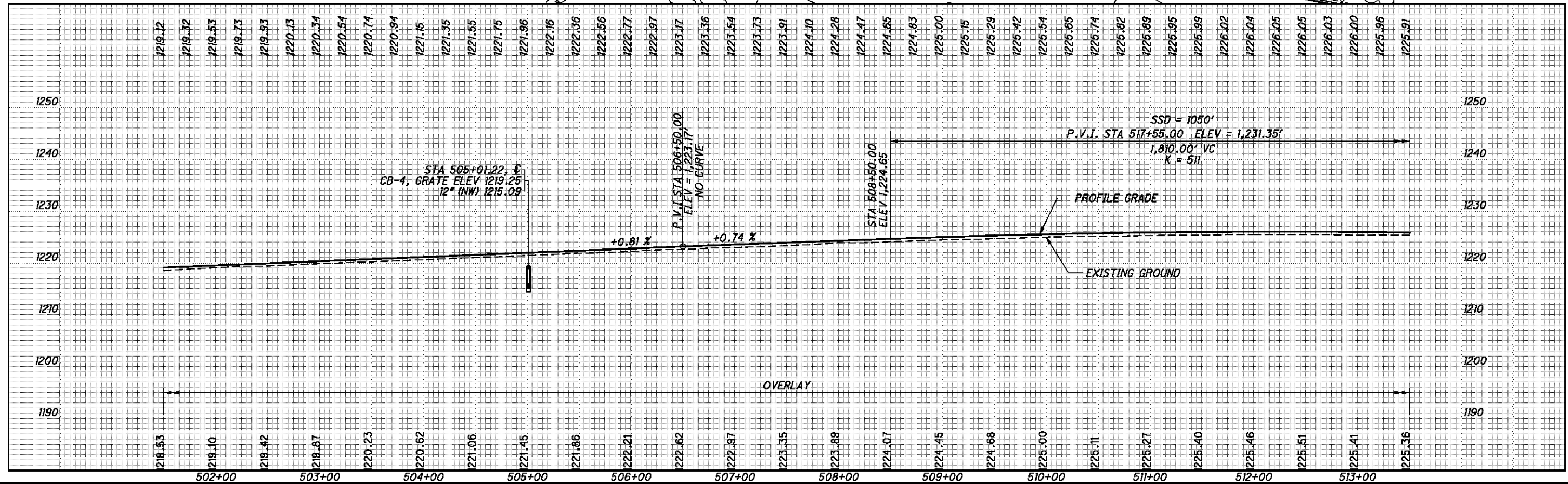
- E ANCHOR ASSEMBLY, TYPE E
- T ANCHOR ASSEMBLY, TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

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

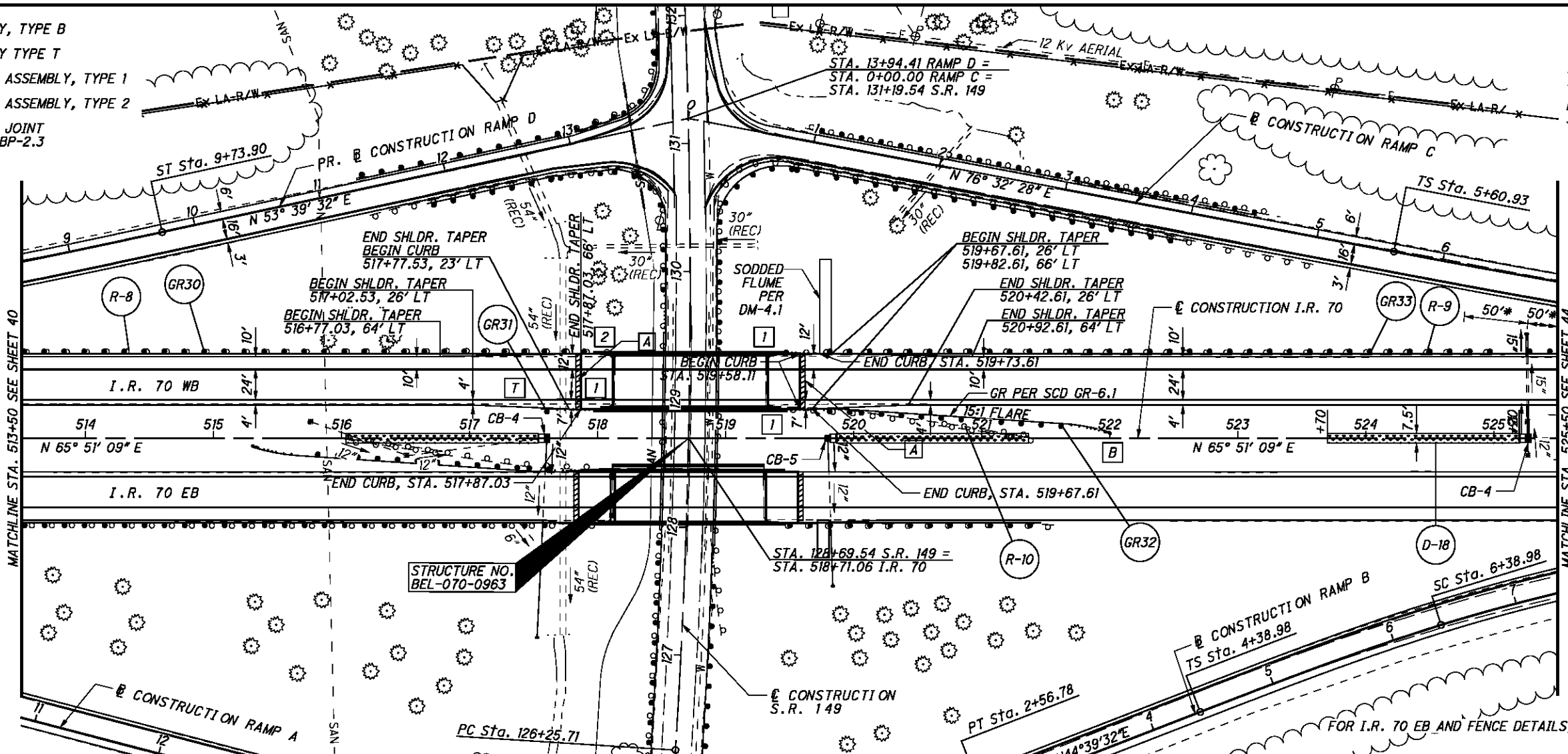
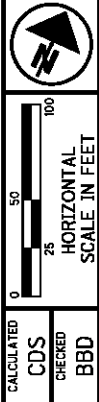
I.R. 70 EB - PLAN AND PROFILE
STA. 501+50 TO STA. 513+50

BEL-70-7.61

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- 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

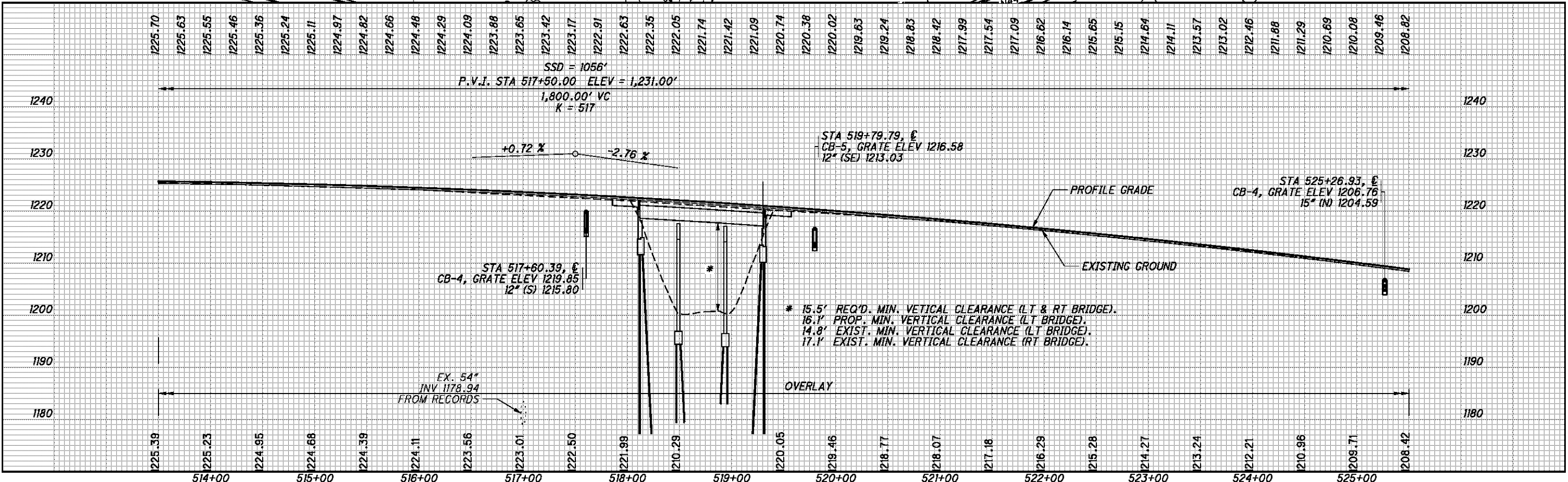
P.I. = Sta. 130+52.16
 $\Delta = 8^\circ 30' 48''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 426.45'$
 $L = 851.33'$
 $E = 15.85'$

MATCHLINE STA. 513+50 SEE SHEET 40

MATCHLINE STA. 525+50 SEE SHEET 44

* DITCH
CLEANOUT
LIMITS

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



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

BEL-70-7.61

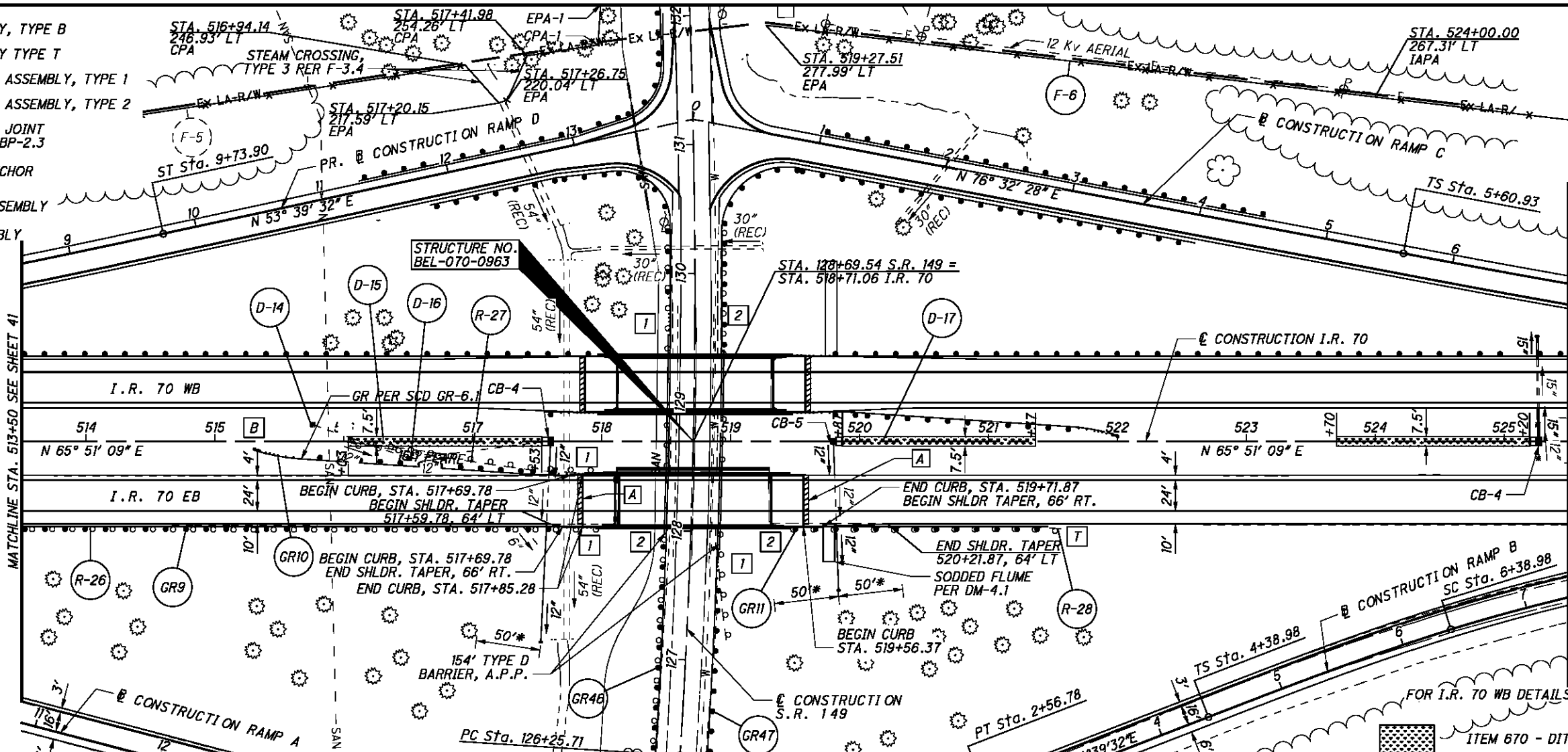
- B** ANCHOR ASSEMBLY, TYPE B
- T** ANCHOR ASSEMBLY TYPE T
- 1** BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2** BRIDGE TERMINAL ASSEMBLY, TYPE 2
- A** PRESSURE RELIEF JOINT TYPE A PER SCD BP-2.3
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

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

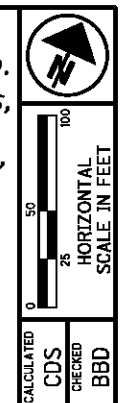
P.I. = Sta. 130+52.16
 $\Delta = 8^\circ 30' 48''$ (LT)
 $D_c = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 426.45'$
 $L = 851.33'$
 $E = 15.85'$



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

FOR INTERSECTION DETAILS,
SEE SHEETS 219 & 220.

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



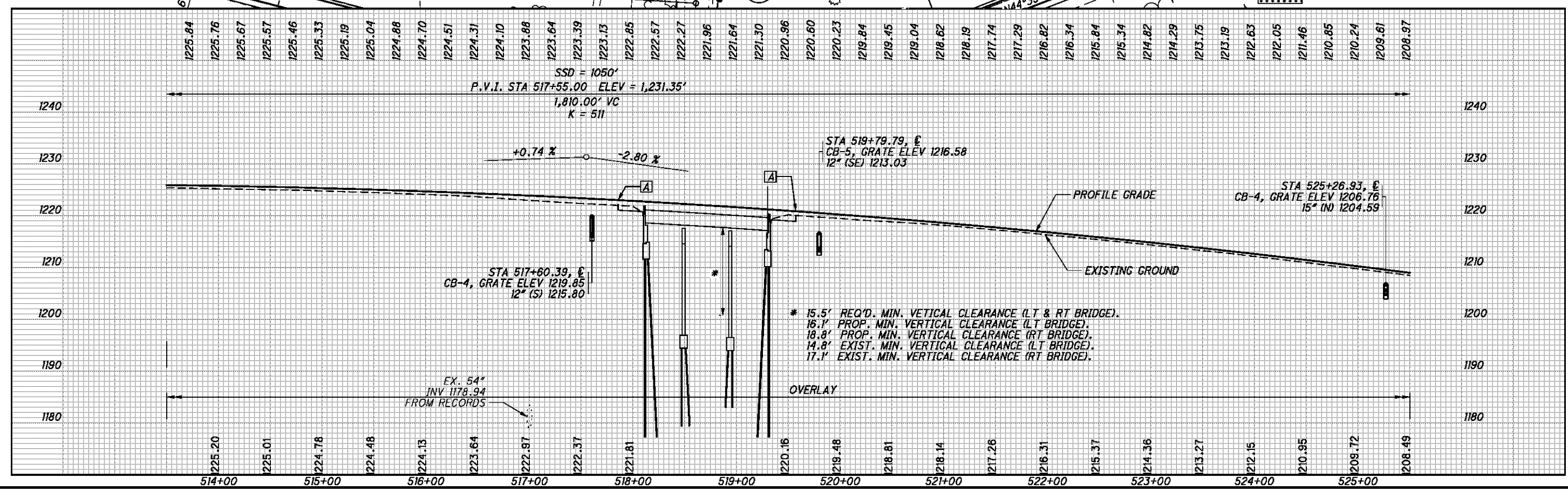
* DITCH CLEANOUT LIMITS

MATCHLINE STA. 513+50 SEE SHEET 41

MATCHLINE STA. 525+50 SEE SHEET 45

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

ITEM 670 - DITCH EROSION PROTECTION



* 15.5' REQ'D. MIN. VERTICAL CLEARANCE (LT & RT BRIDGE).
 16.1' PROP. MIN. VERTICAL CLEARANCE (LT BRIDGE).
 18.8' PROP. MIN. VERTICAL CLEARANCE (RT BRIDGE).
 14.8' EXIST. MIN. VERTICAL CLEARANCE (LT BRIDGE).
 17.1' EXIST. MIN. VERTICAL CLEARANCE (RT BRIDGE).

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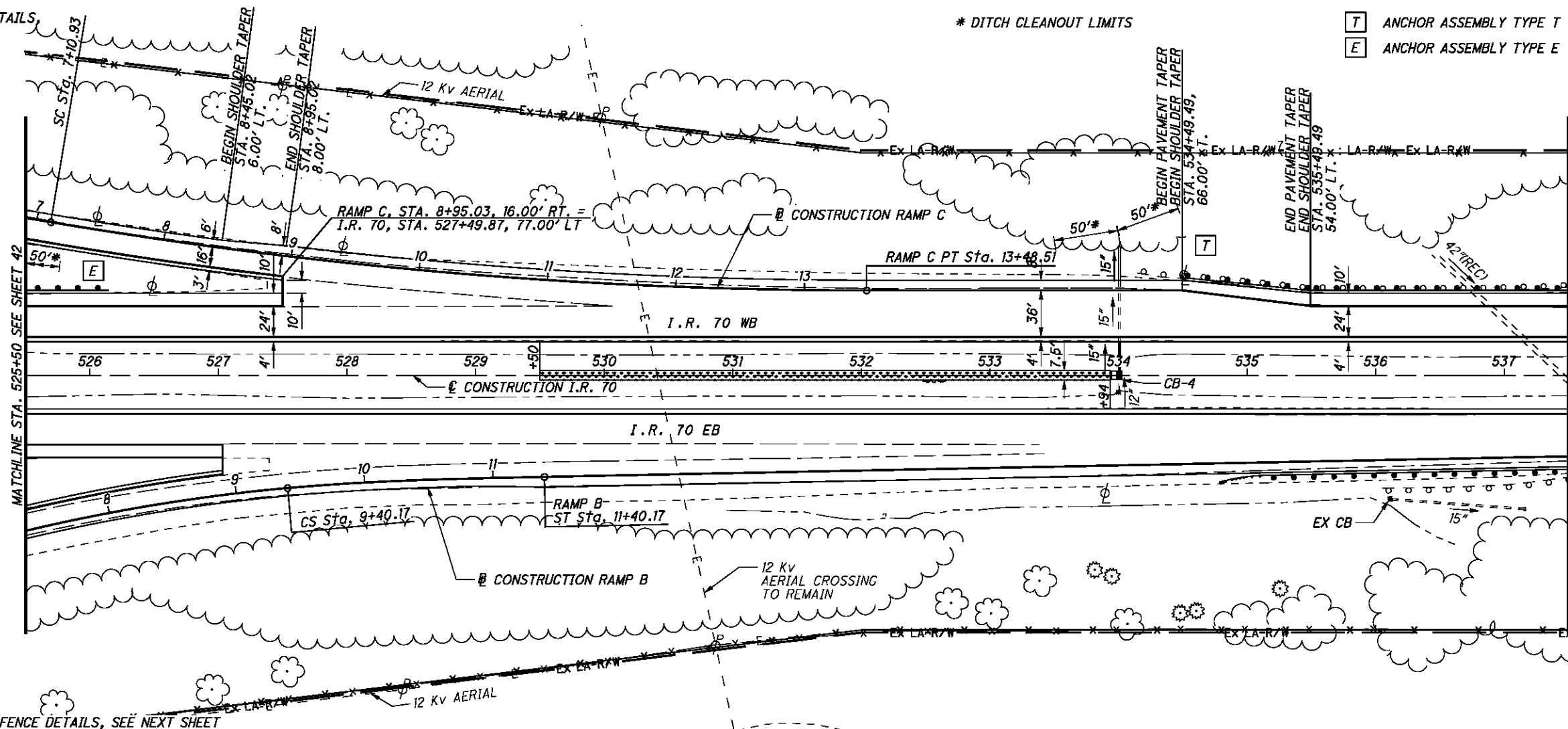
I.R. 70 EB - PLAN AND PROFILE
STA. 513+50 TO STA. 525+50

BEL-70-7.61

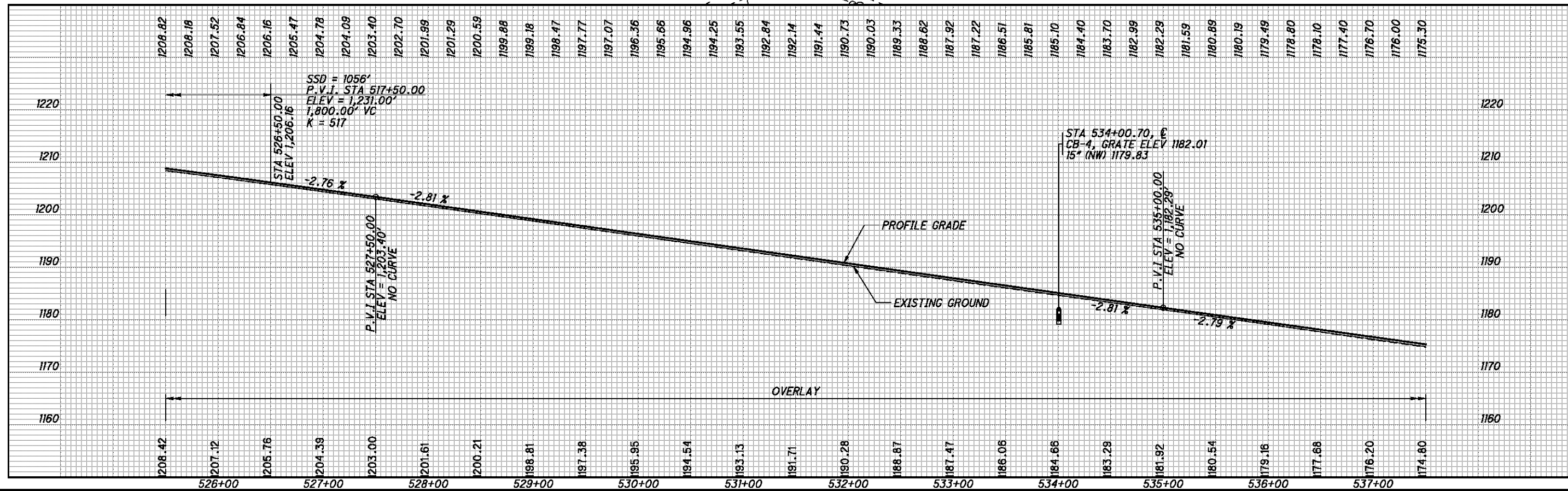
FOR STORM SEWER DETAILS, SEE SHEET 117

* DITCH CLEANOUT LIMITS

T ANCHOR ASSEMBLY TYPE T
E ANCHOR ASSEMBLY TYPE E



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



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

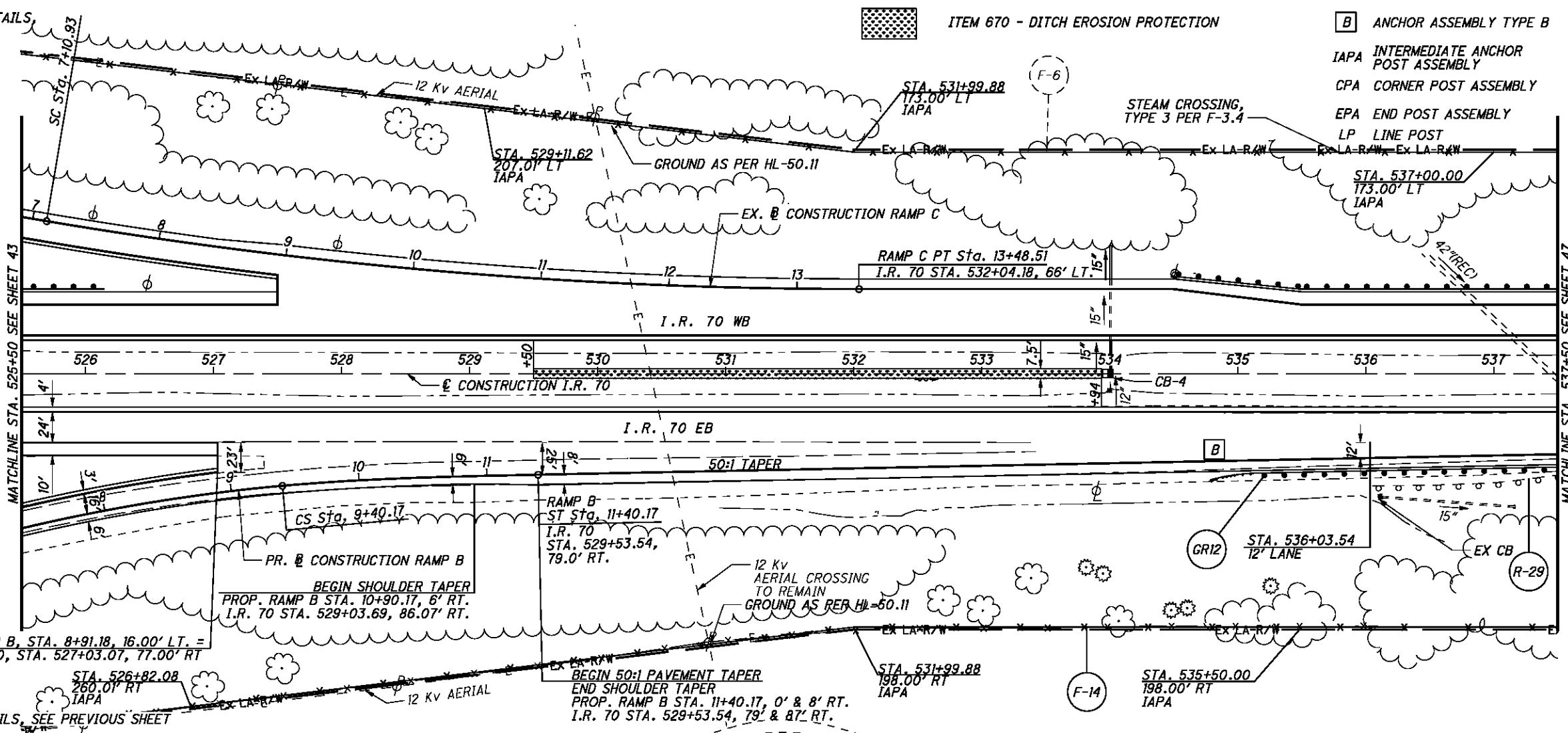
BEL-70-7.61

44
373

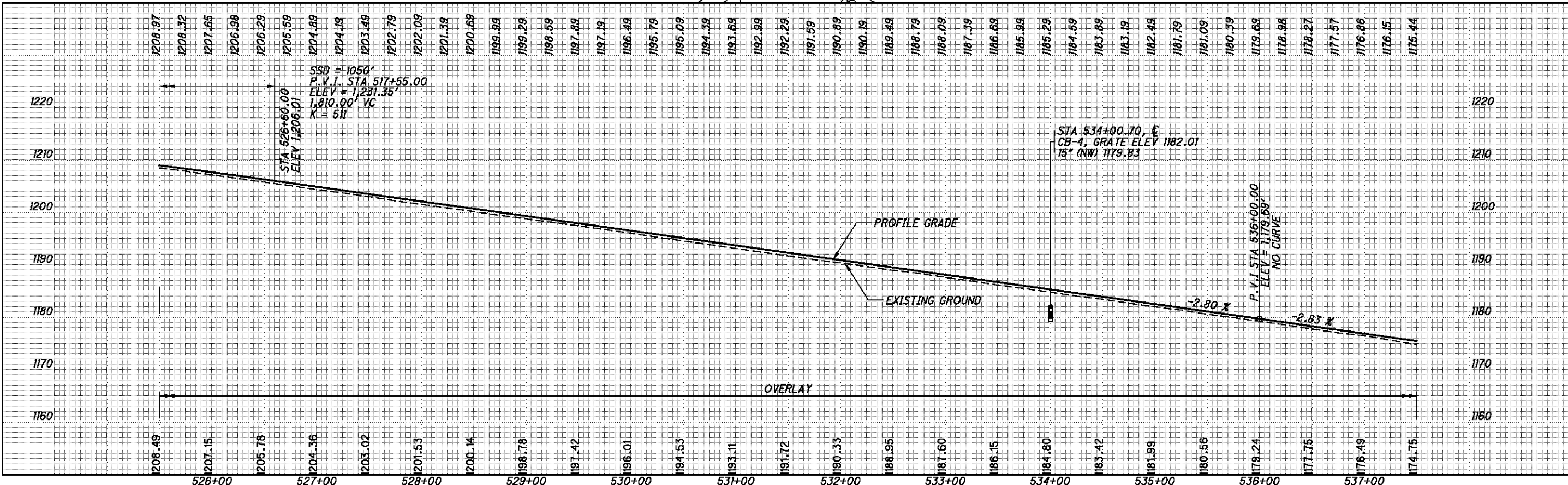
FOR STORM SEWER DETAILS, SEE SHEET 117

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



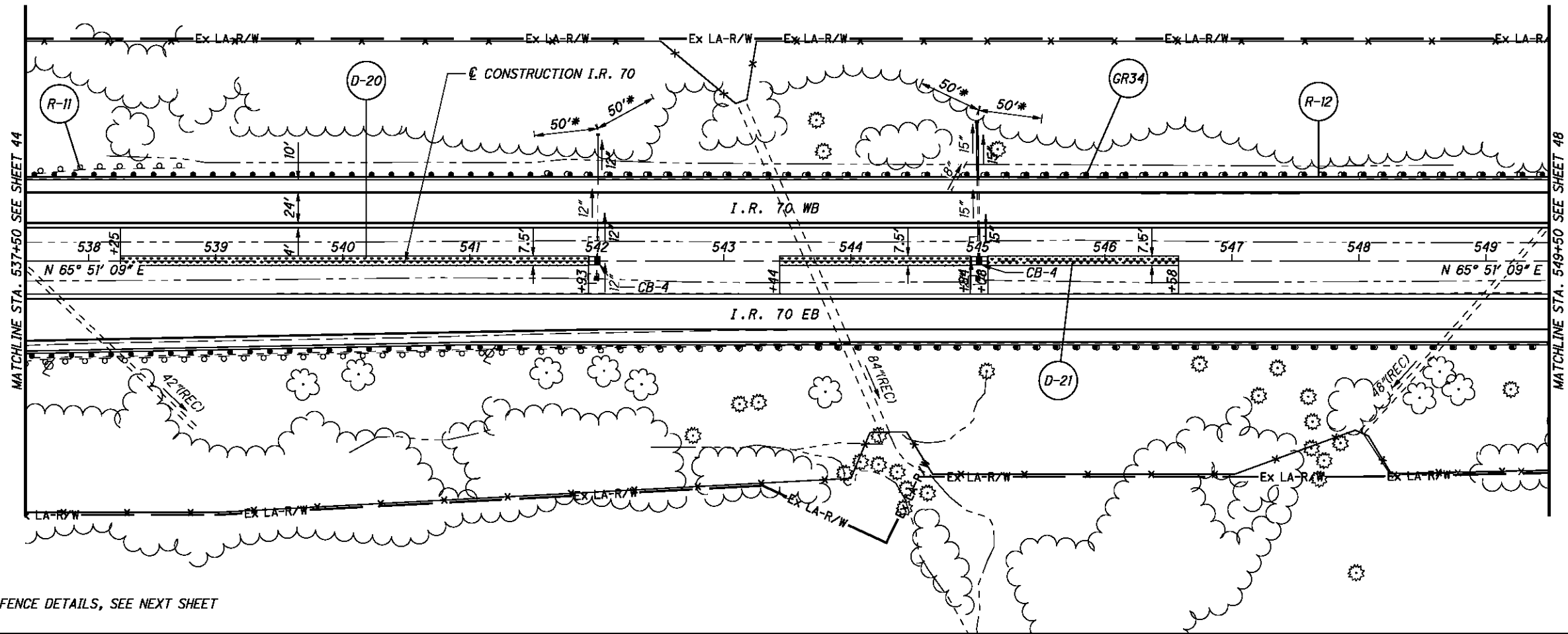
FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



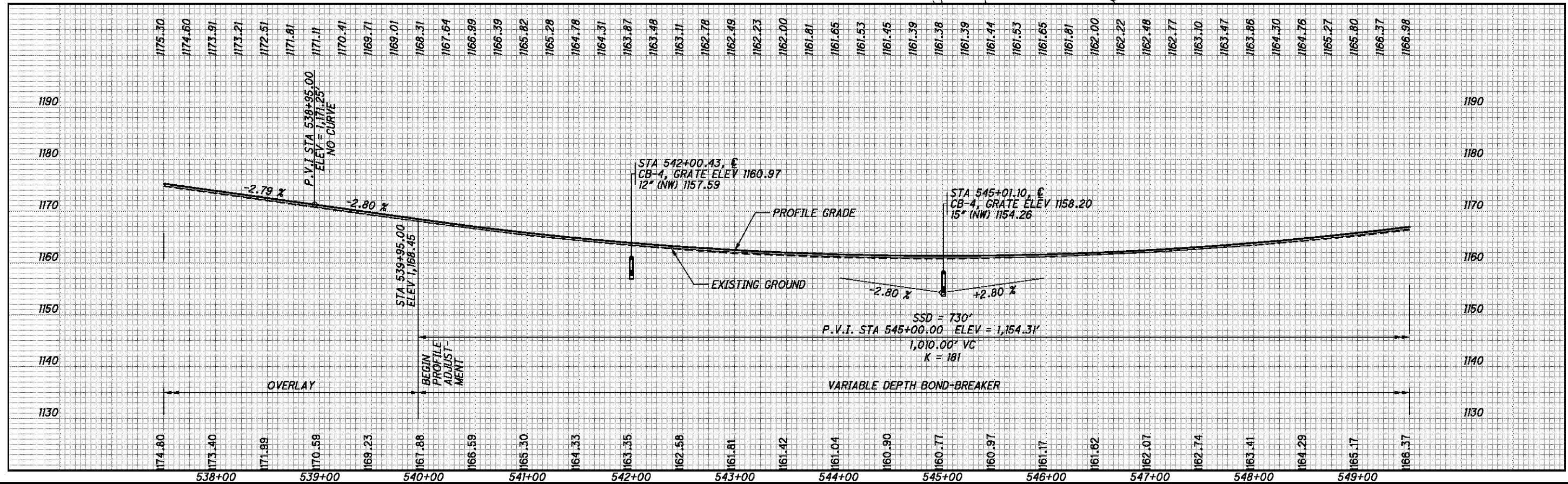
I.R. 70 EB - PLAN AND PROFILE
STA. 525+50 TO STA. 537+50

BEL-70-7.61

45
373



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



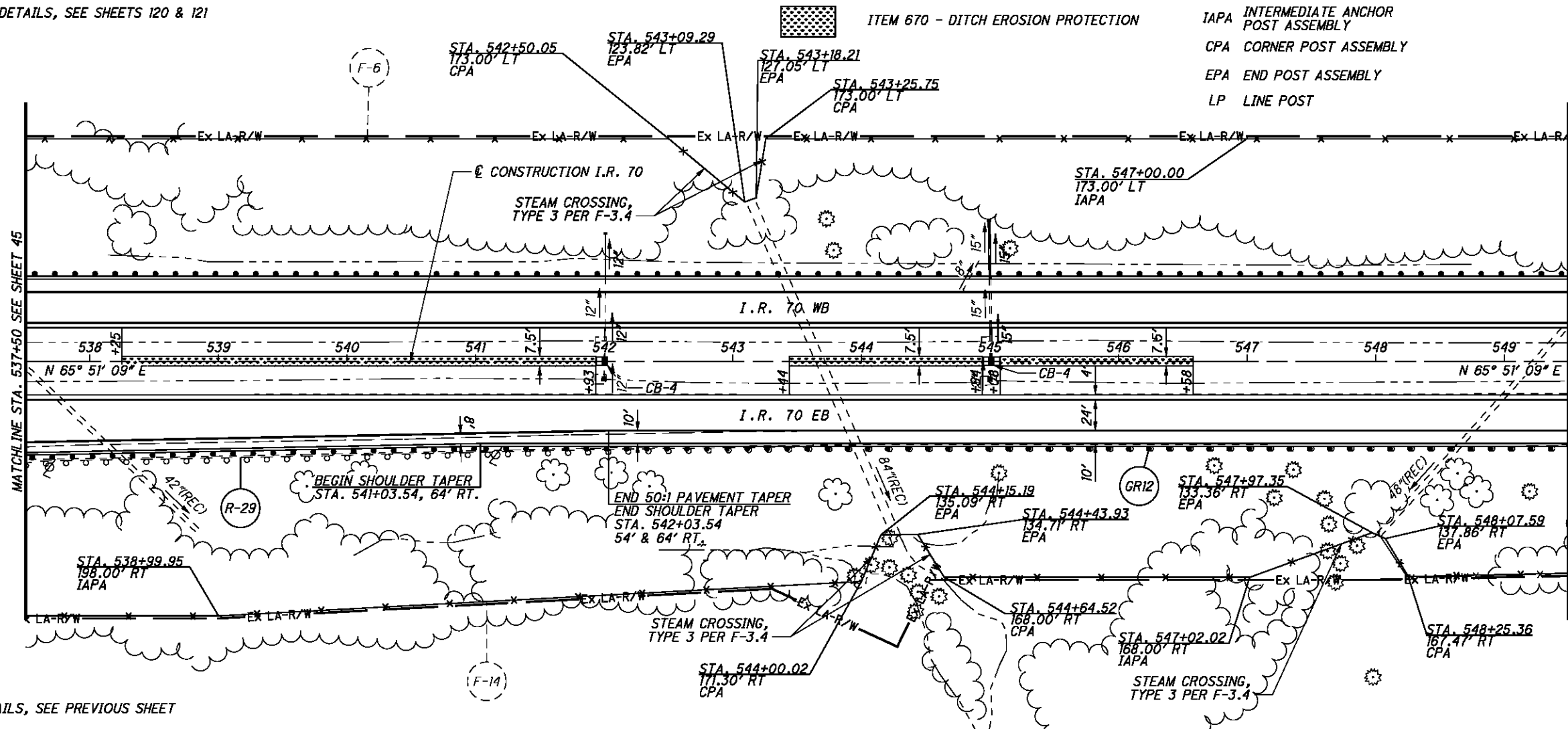
CALCULATED CDS CHECKED BDD

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

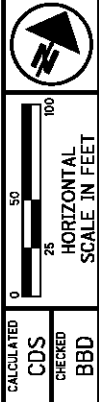
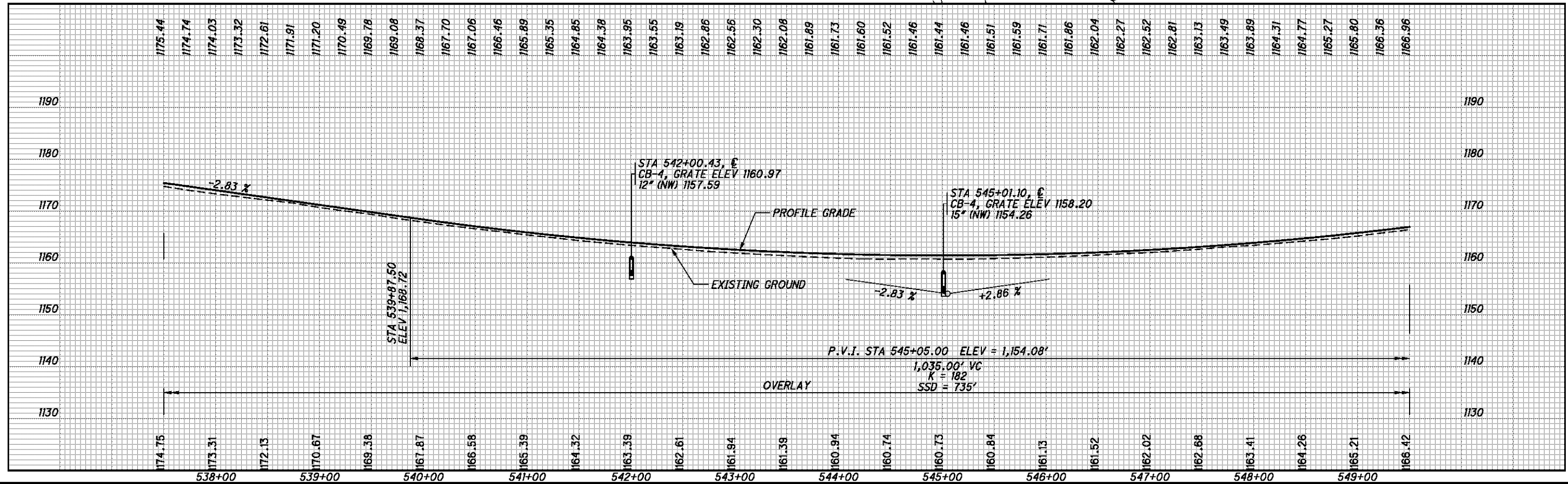
BEL-70-7.61

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FOR STORM SEWER DETAILS, SEE SHEETS 120 & 121



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



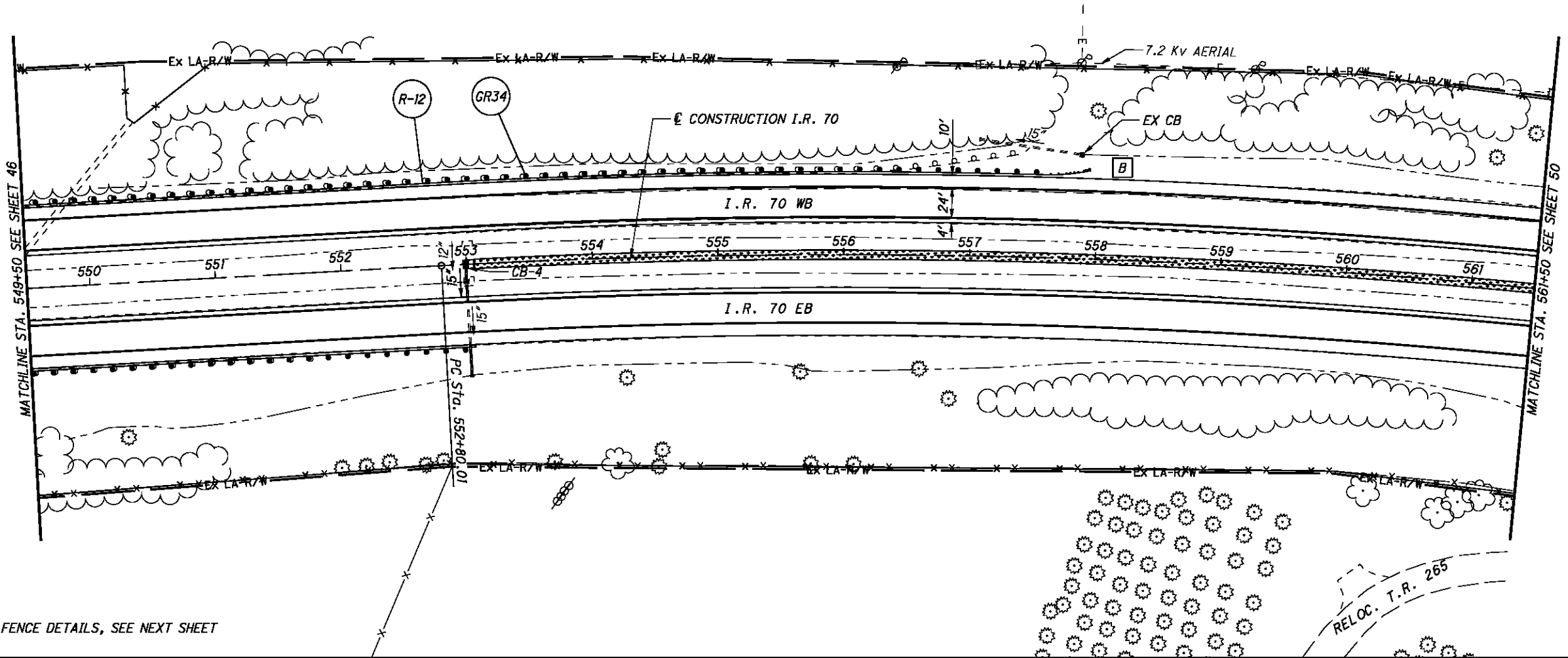
CALCULATED CDS CHECKED BDD

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

BEL-70-7.61

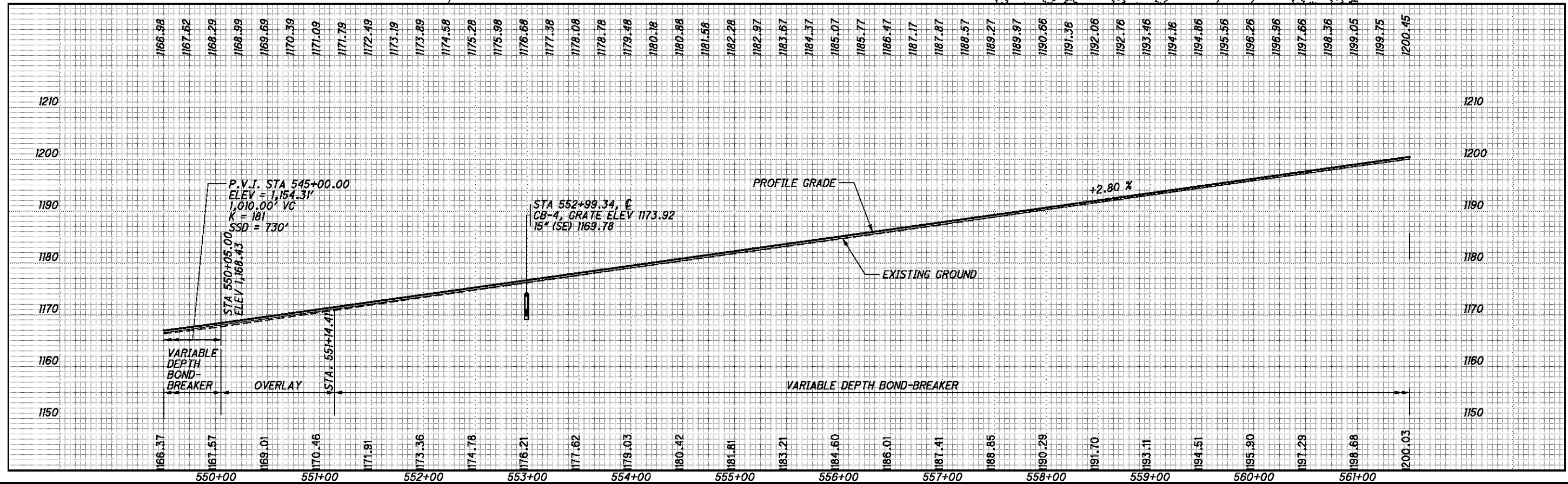
47
373

P:\76825\roadway\sheet\76825GP4:12.dgn 9/21/2012 7:46:12 AM mcornett



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

48
373

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FOR STORM SEWER DETAILS, SEE SHEET 124

* DITCH CLEANOUT LIMITS



ITEM 670 - DITCH EROSION PROTECTION

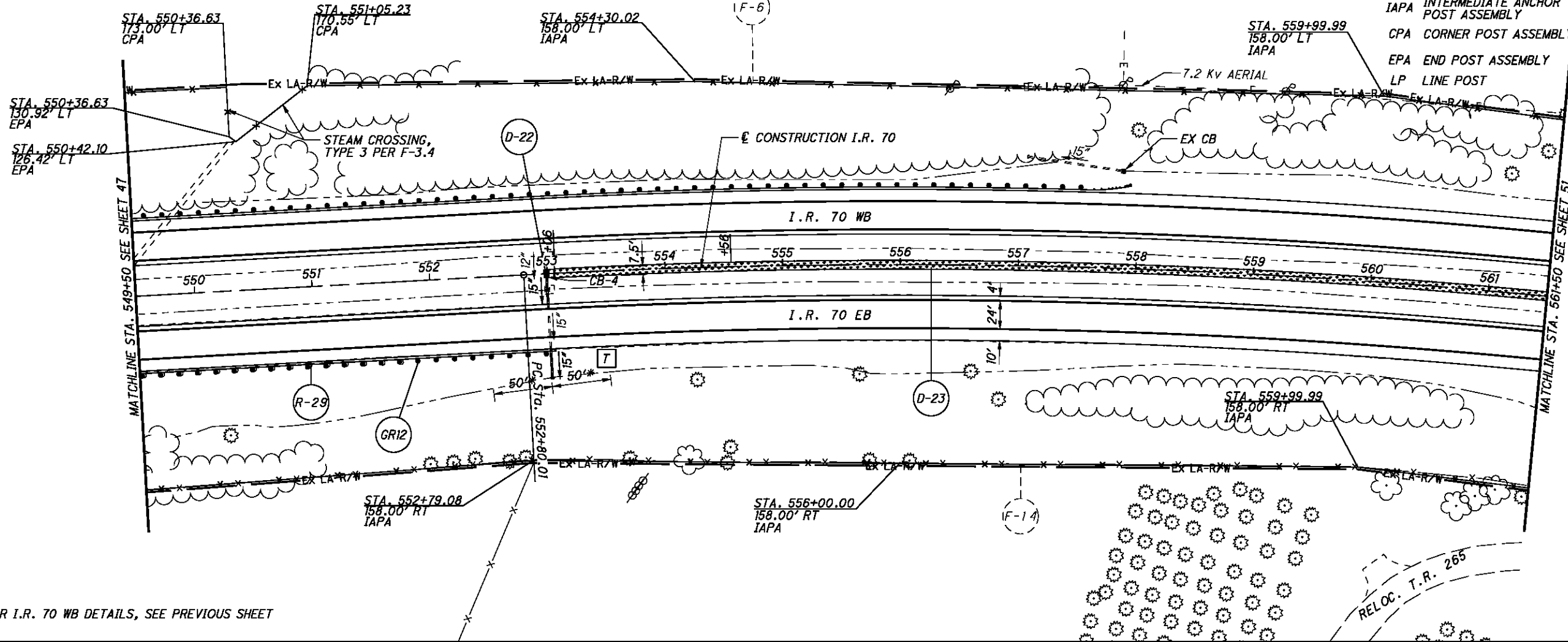
T ANCHOR ASSEMBLY, TYPE T

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY

CPA CORNER POST ASSEMBLY

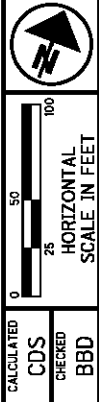
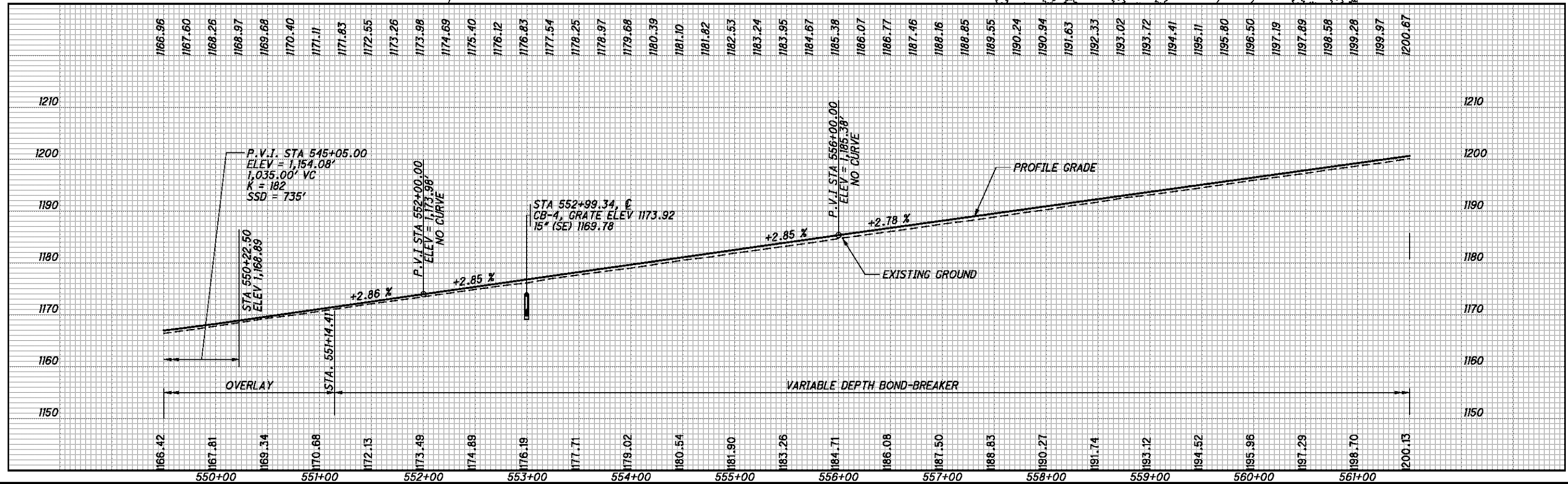
EPA END POST ASSEMBLY

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

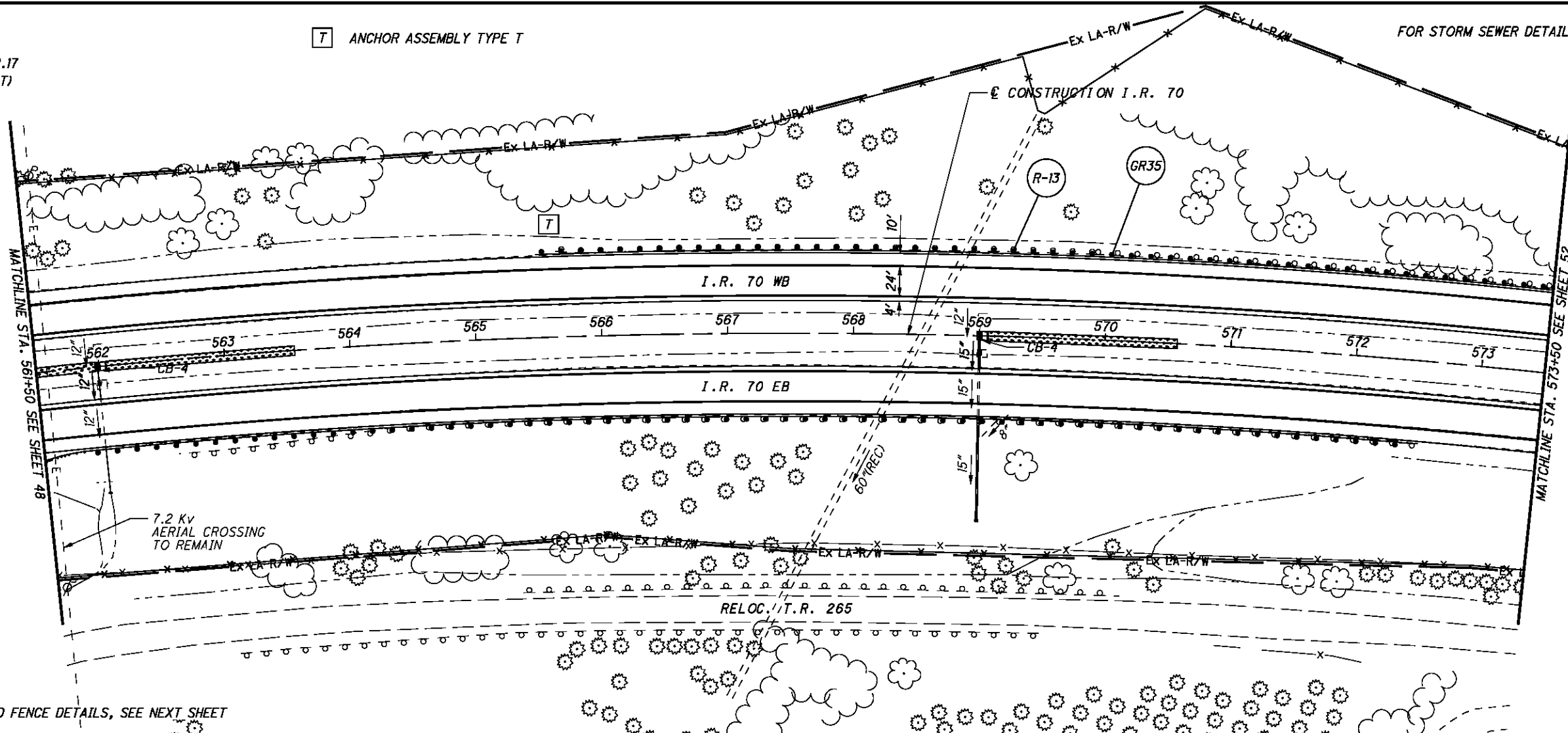
49
373

P:\7625\roadway\sheet\76825GP4.13.dgn 9/21/2012 7:46:13 AM mcornett

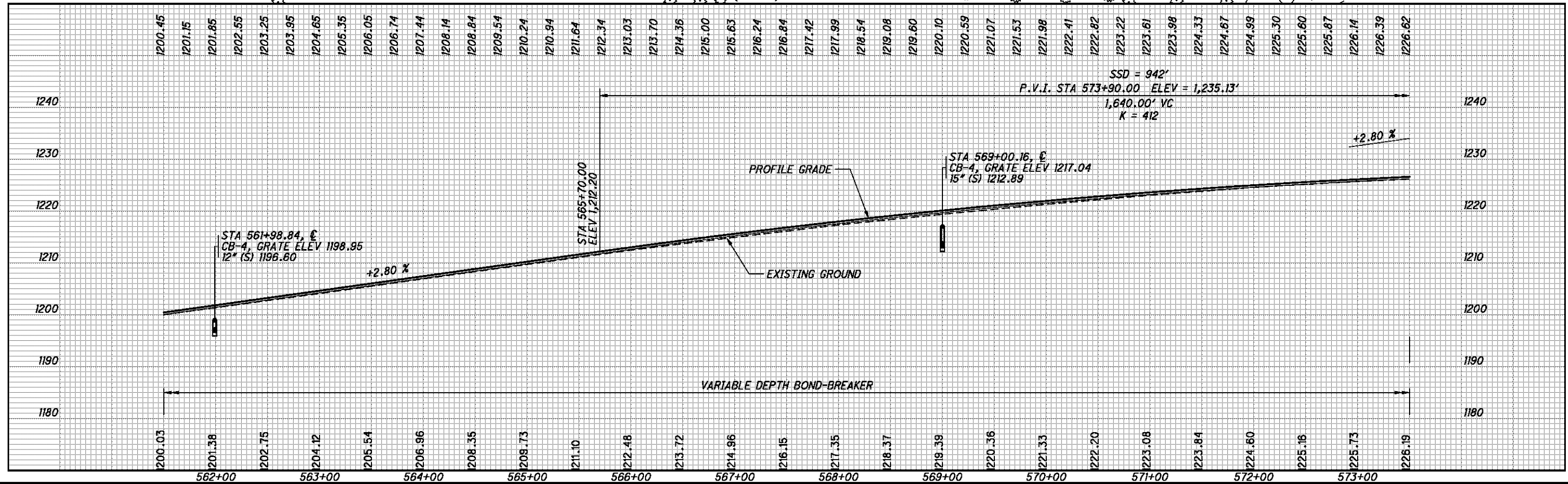
IR 70
 CURVE DATA
 P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 1,372.16'$
 $L = 2,693.58'$
 $E = 162.02'$
 $E_{max} = 0.036$

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

P:\76825\roadway\sheet\76825GP314.dgn 9/21/2012 7:46:14 AM mcorbett

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

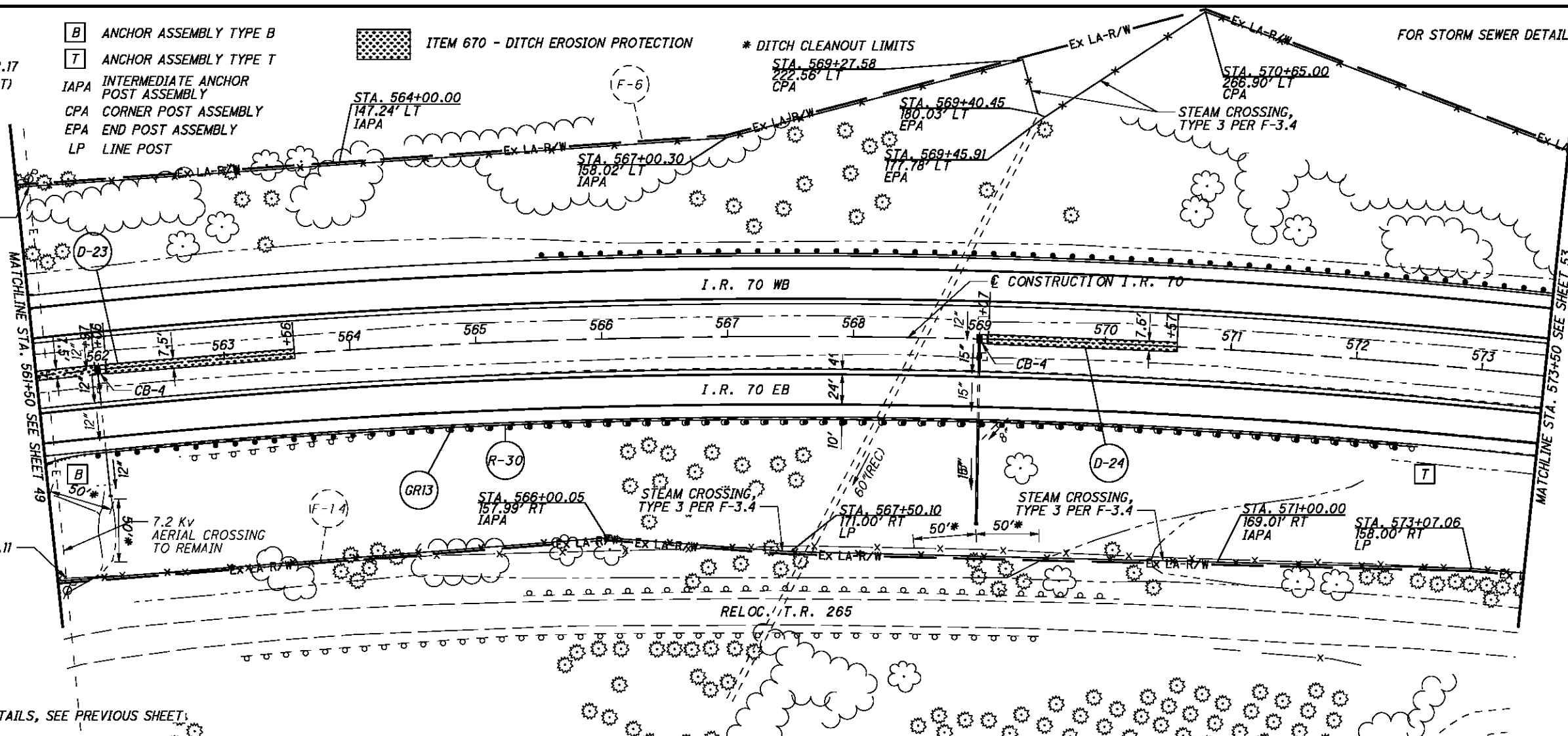
- B** ANCHOR ASSEMBLY TYPE B
- T** ANCHOR ASSEMBLY TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

 ITEM 670 - DITCH EROSION PROTECTION

* DITCH CLEANOUT LIMITS

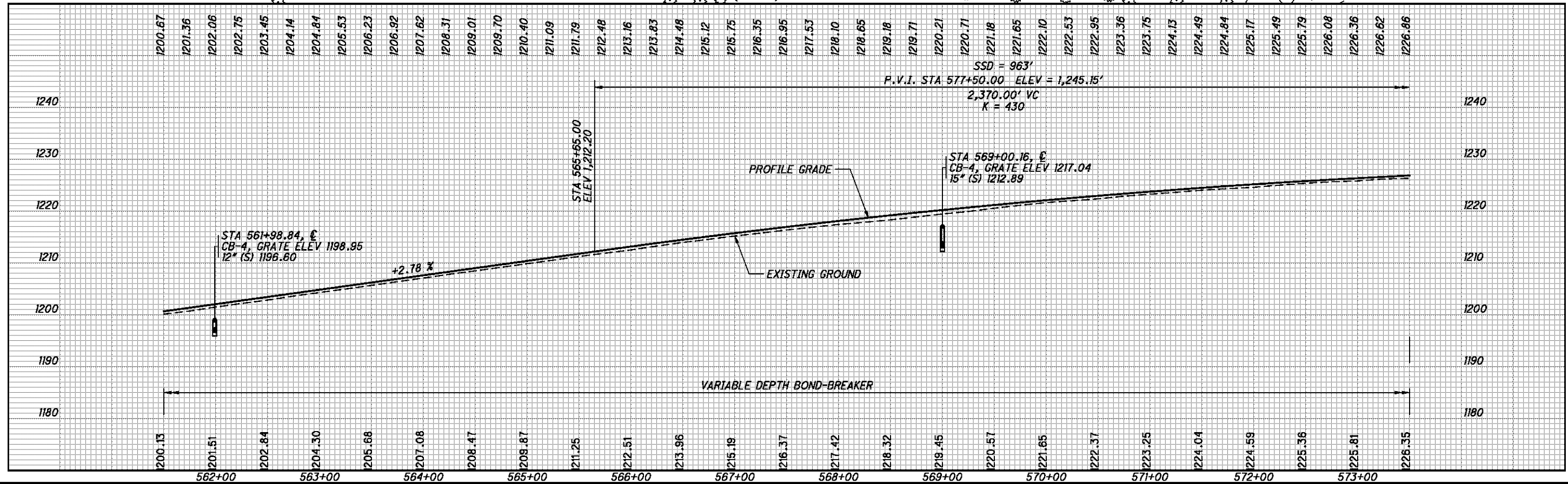
FOR STORM SEWER DETAILS, SEE SHEETS 127 & 130

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

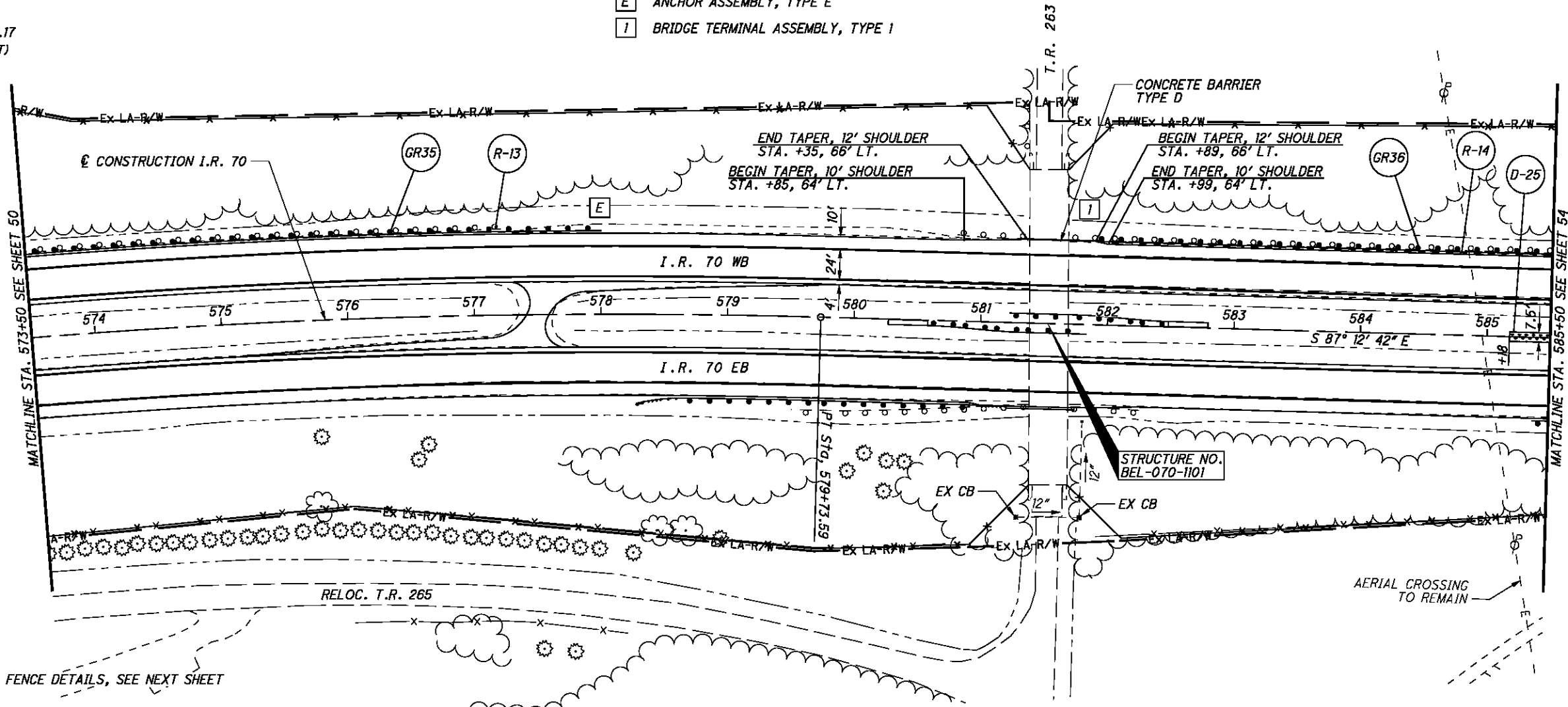
0 25 50 100
 HORIZONTAL SCALE IN FEET

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

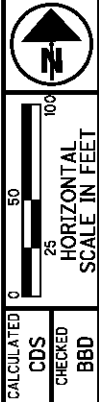
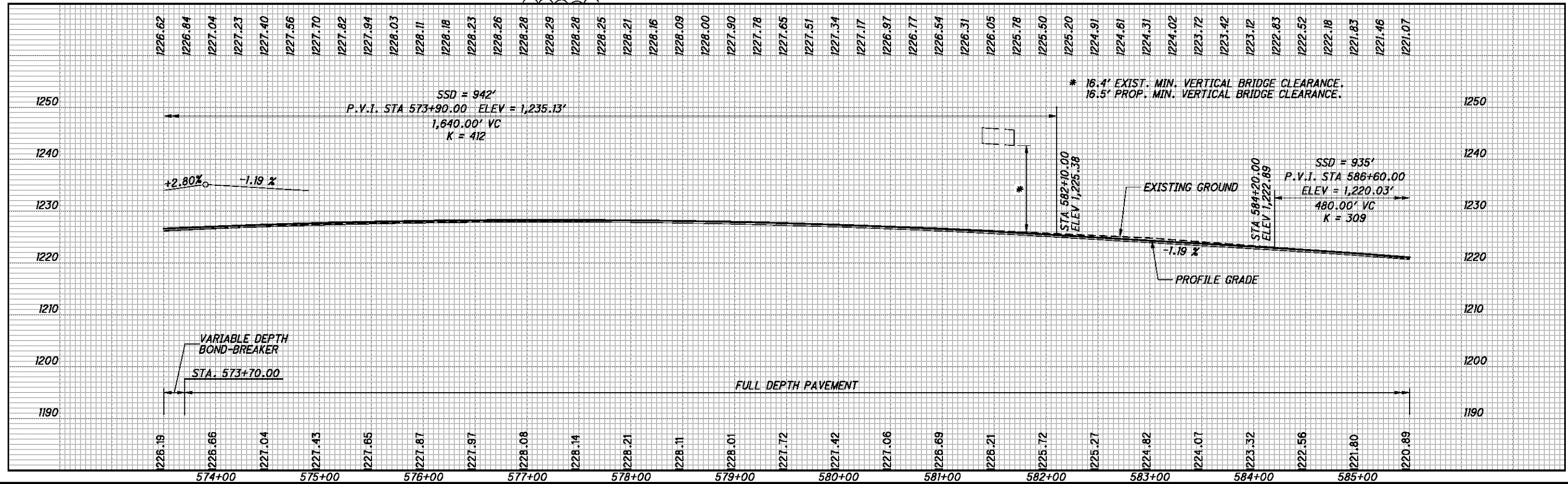
BEL-70-7.61

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

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



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



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

BEL-70-7.61

52
 373

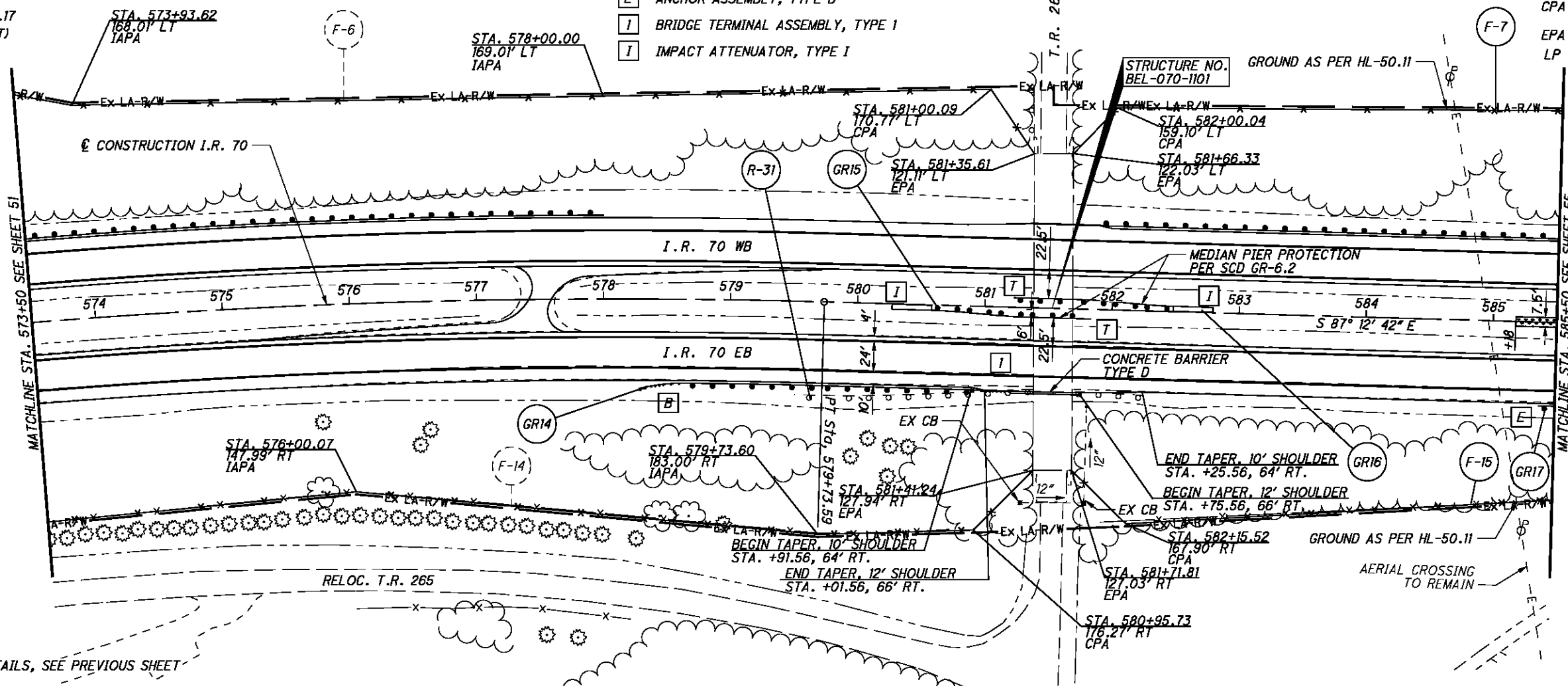
IR 70
CURVE DATA
P.I. = Sta. 566+52.17
 $\Delta = 26^\circ 56' 09''$ (RT)
Dc = $1^\circ 00' 00''$
R = 5,729.58'
T = 1,372.16'
L = 2,693.58'
E = 162.02'
Emax = 0.036

FOR MEDIAN U-TURN DETAILS, SEE SHEET 240.

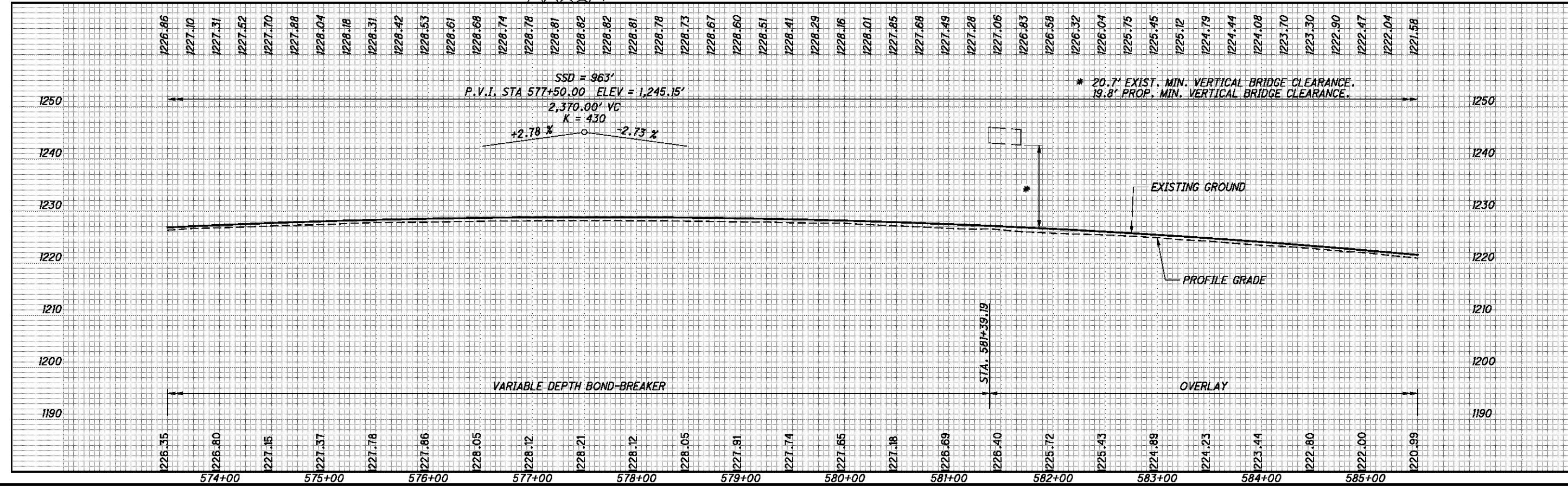
- T ANCHOR ASSEMBLY, TYPE T
- E ANCHOR ASSEMBLY, TYPE B
- I BRIDGE TERMINAL ASSEMBLY, TYPE I
- I IMPACT ATTENUATOR, TYPE I

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



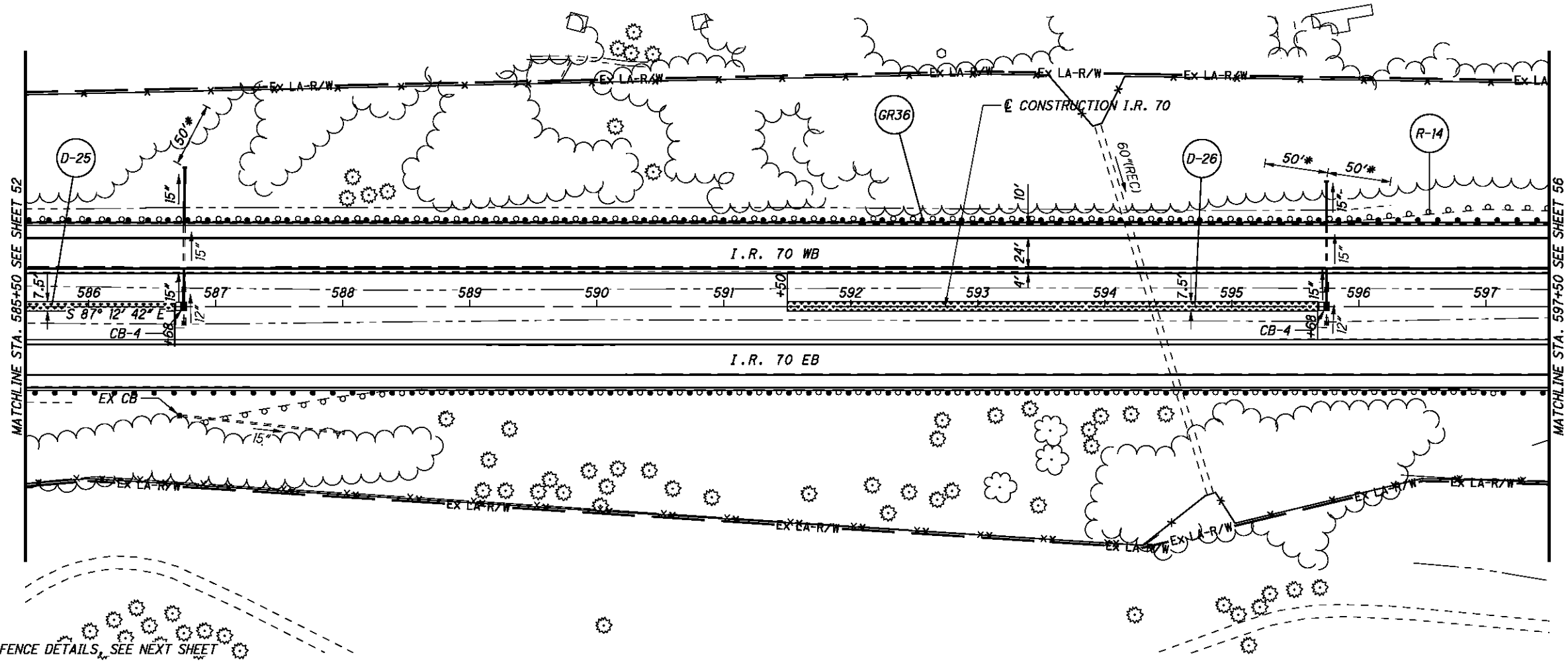
CALCULATED CDS CHECKED BBD

50
25
0
HORIZONTAL SCALE IN FEET

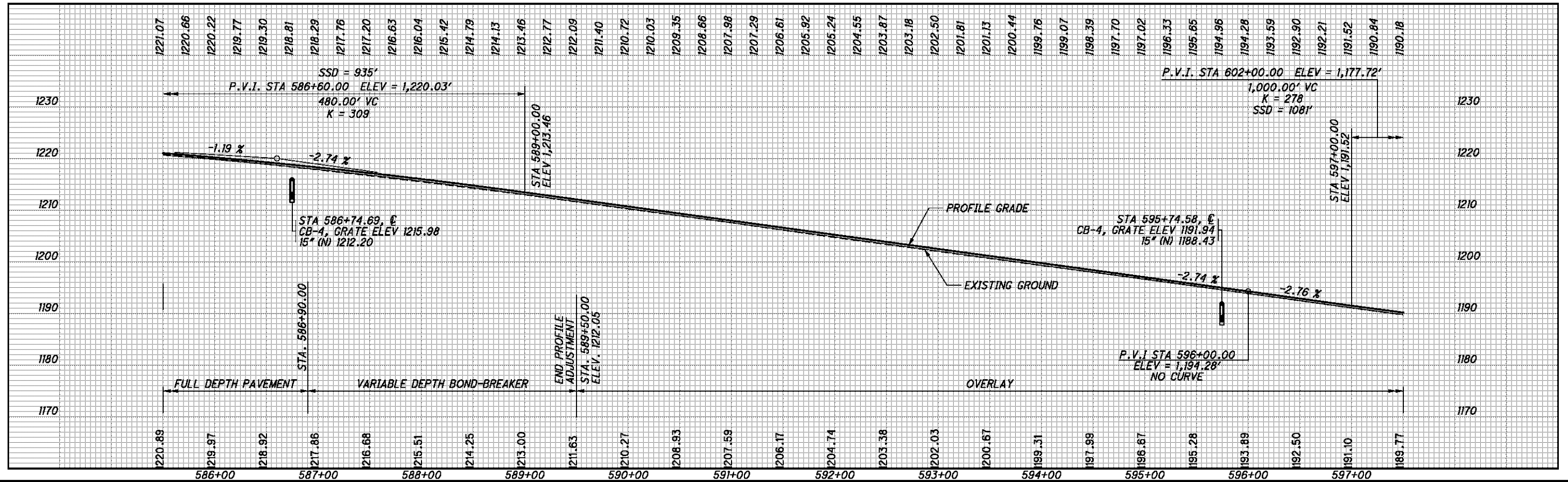
I.R. 70 EB - PLAN AND PROF
STA. 573+50 TO STA. 585+50

BEL-70-7.61

53
373



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



CALCULATED CDS CHECKED BDD

HORIZONTAL SCALE IN FEET

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

BEL-70-7.61

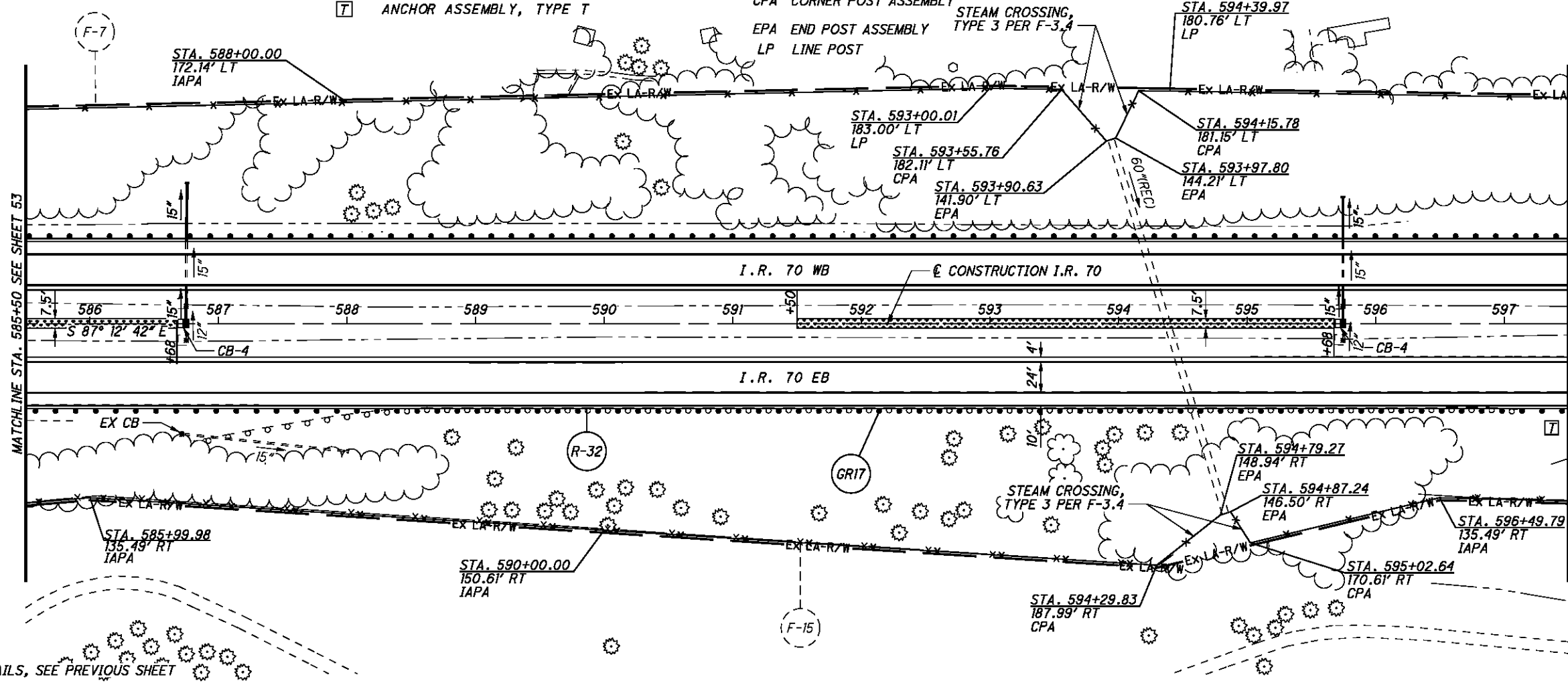
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FOR STORM SEWER DETAILS, SEE SHEETS 137 & 141

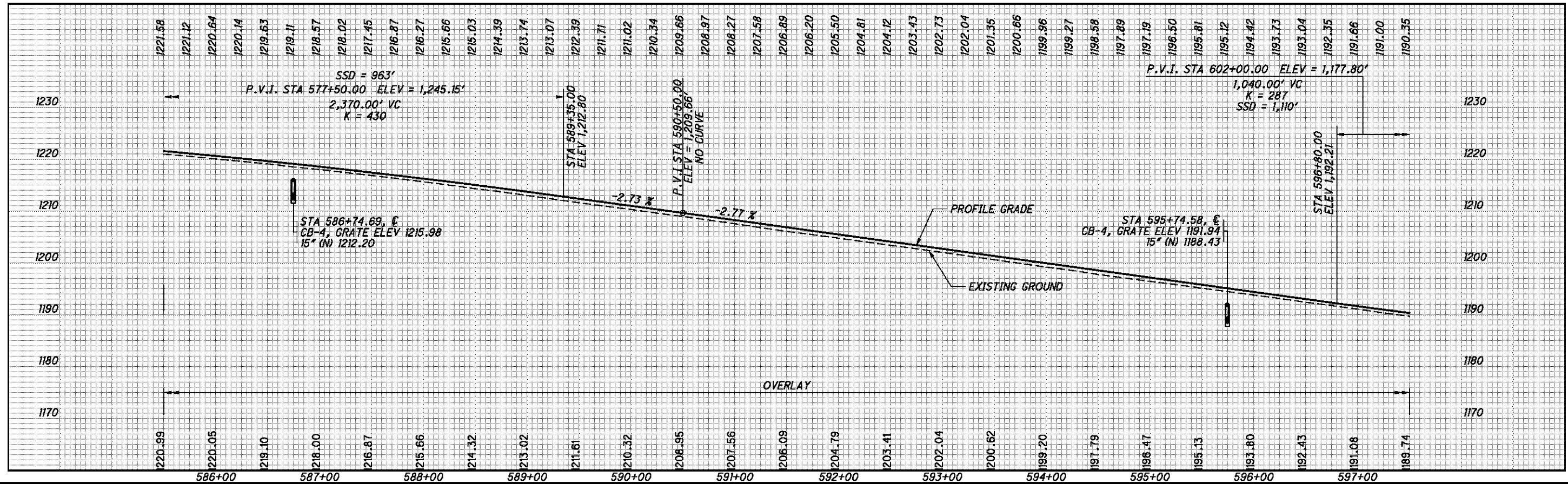
ITEM 670 - DITCH EROSION PROTECTION
 ANCHOR ASSEMBLY, TYPE T

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



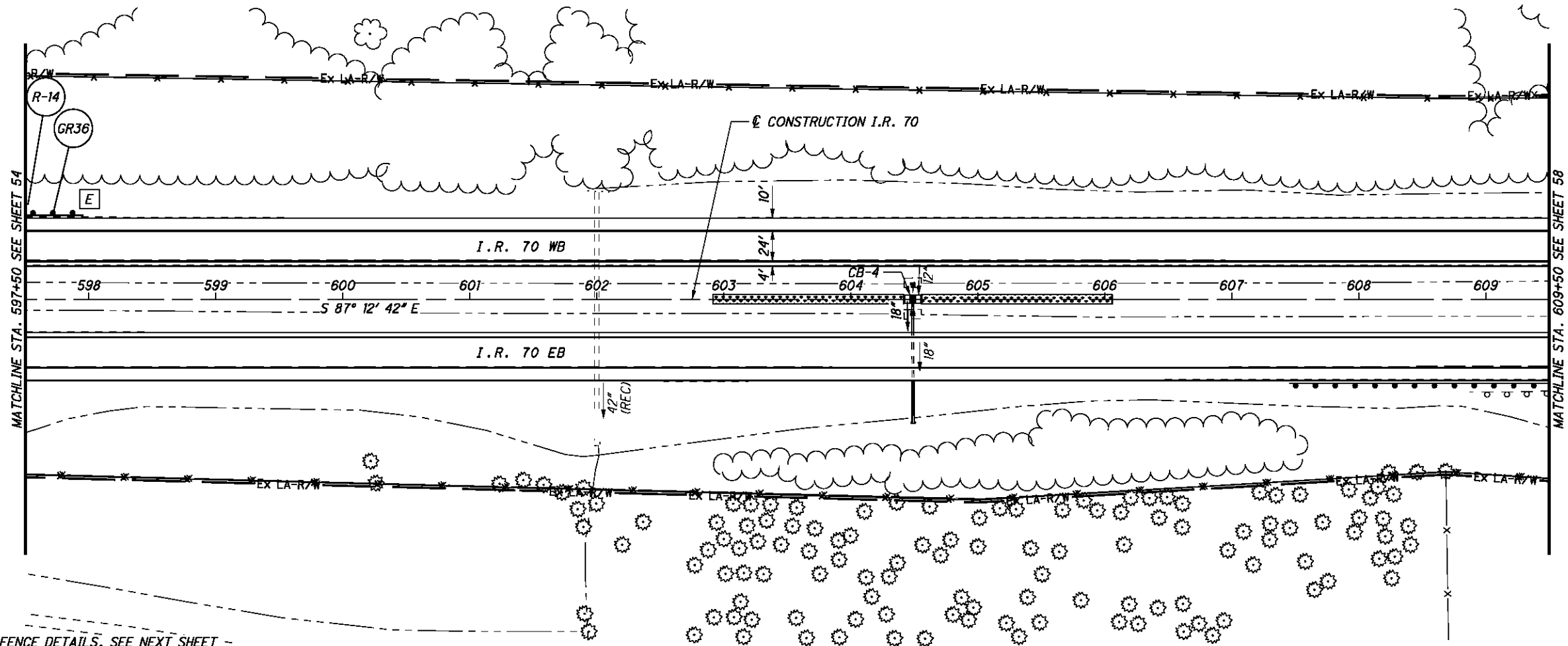
CALCULATED CDS CHECKED BDD

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

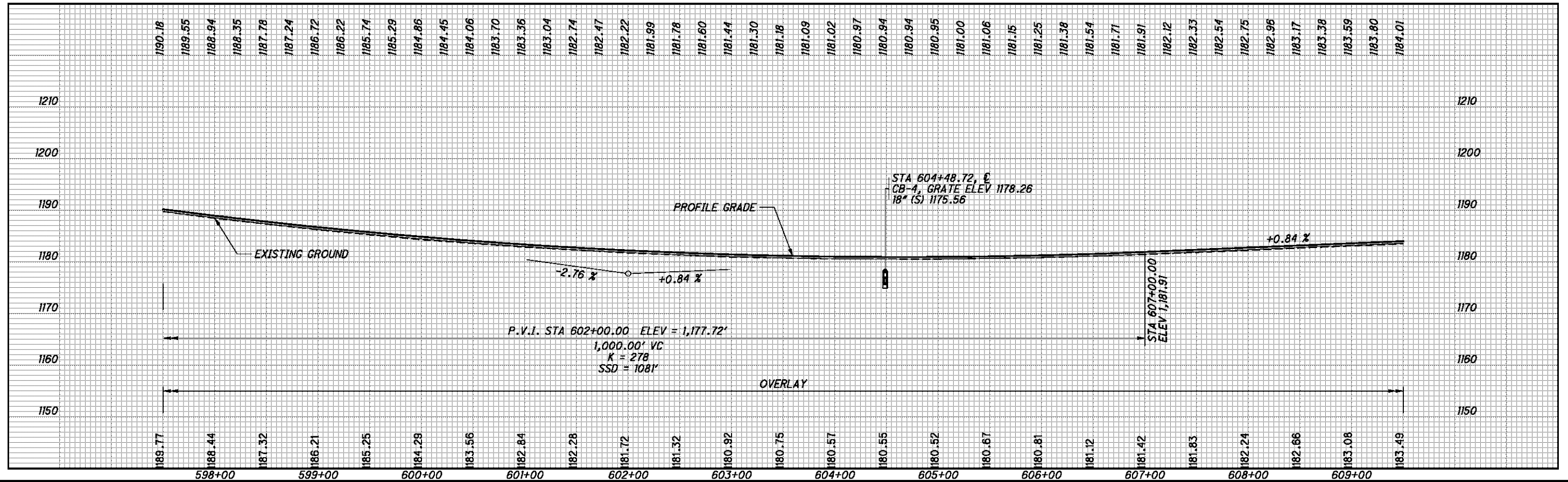
BEL-70-7.61

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 -



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



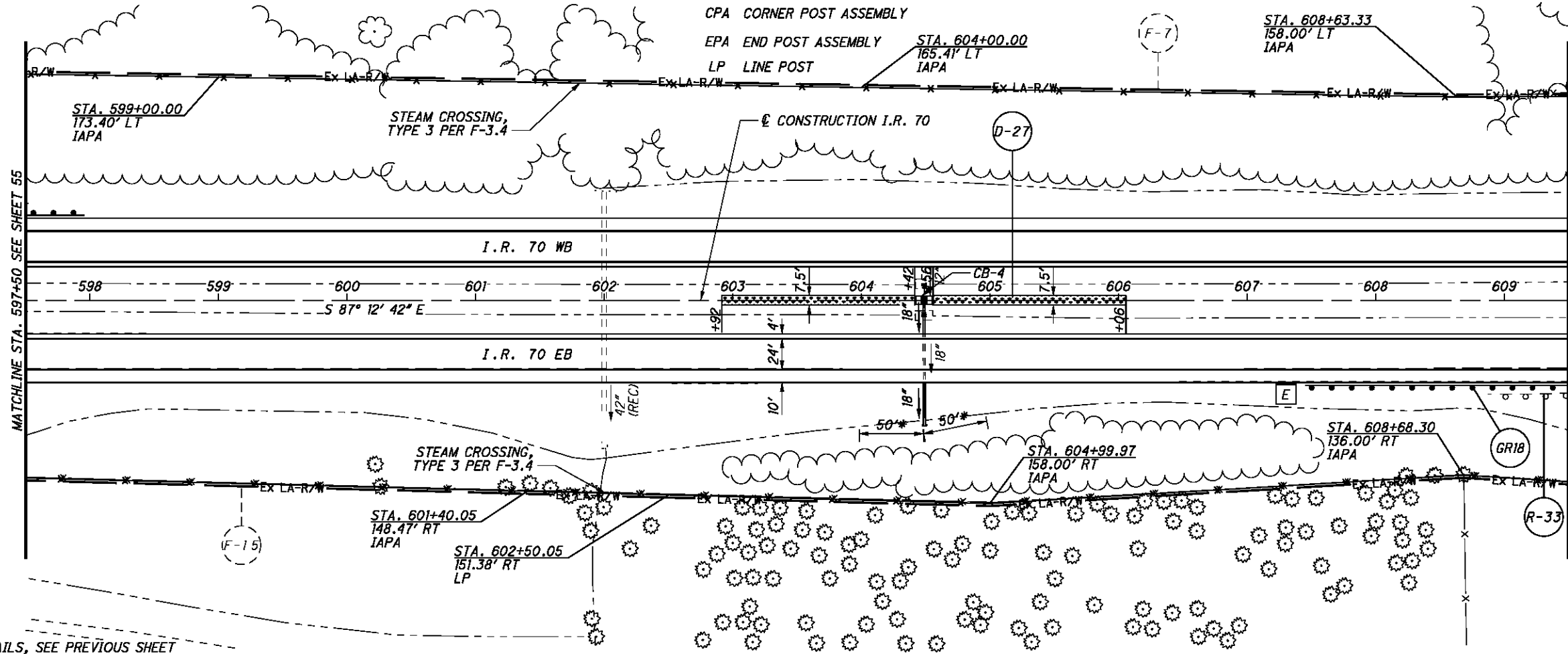
ITEM 670 - DITCH EROSION PROTECTION

IAPA INTERMEDIATE ANCHOR POST ASSEMBLY

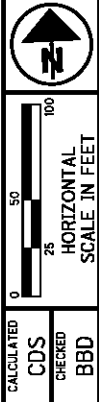
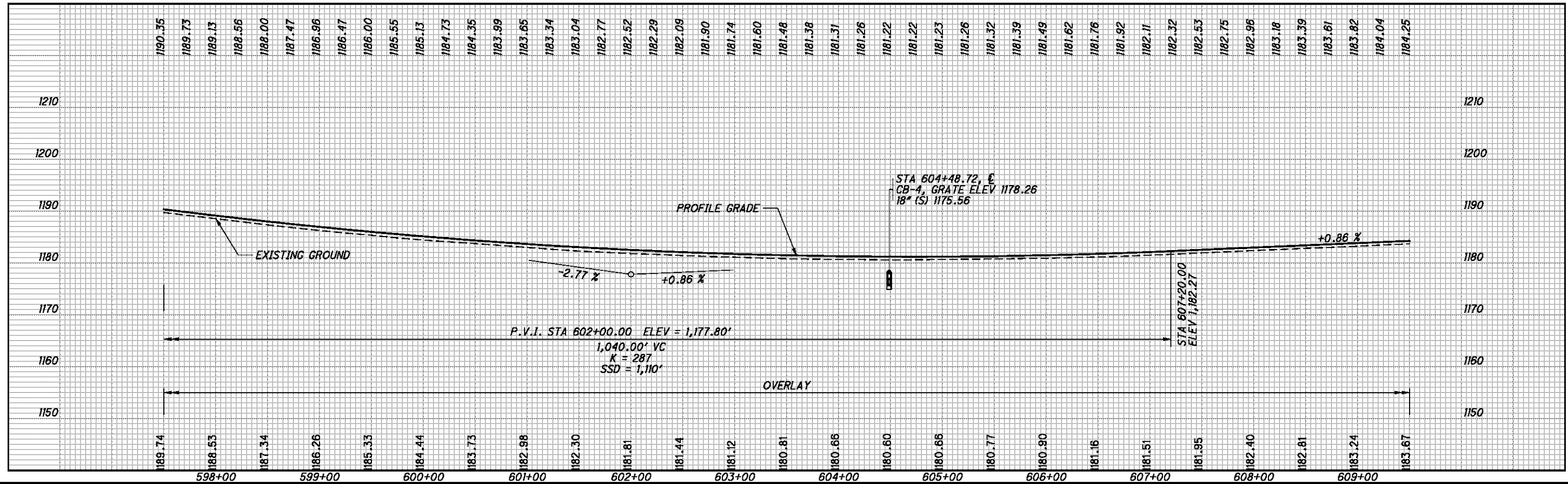
CPA CORNER POST ASSEMBLY

EPA END POST ASSEMBLY

LP LINE POST



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



CALCULATED
CDS
CHECKED
BDD

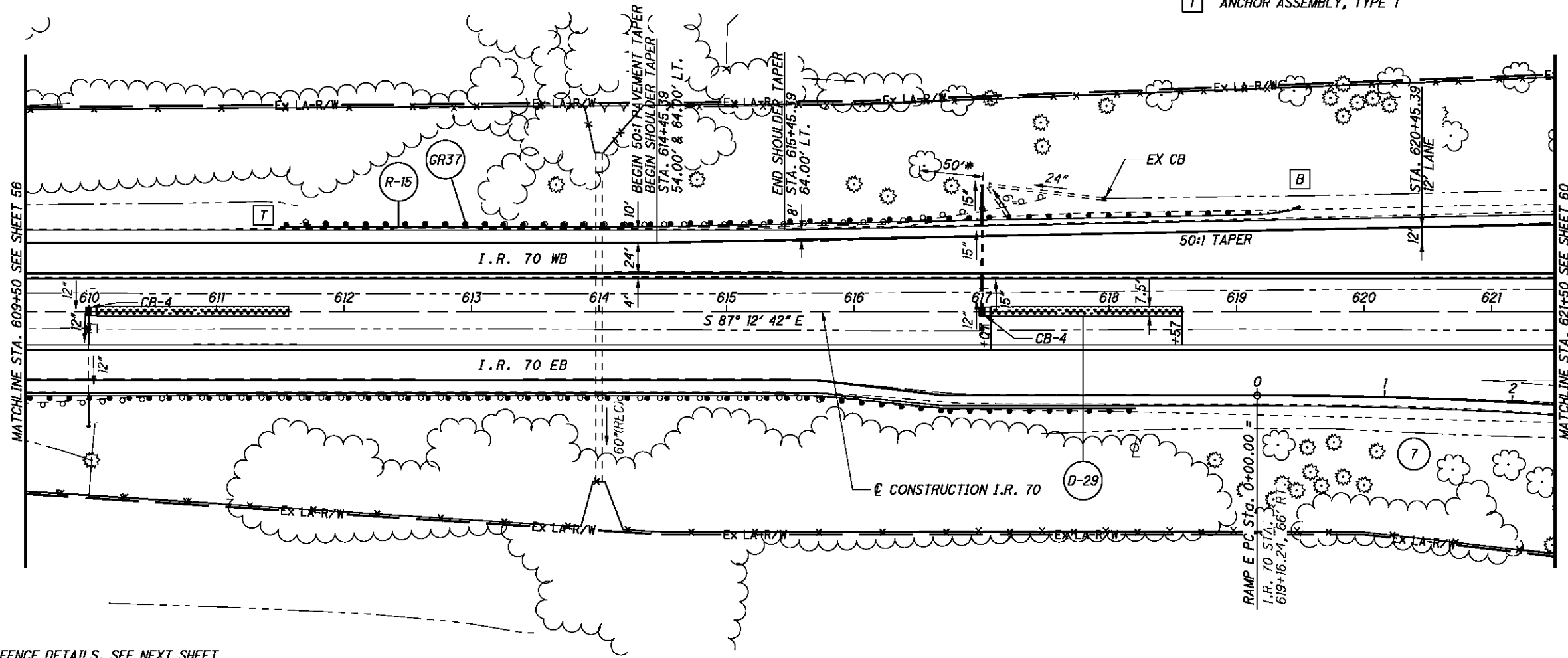
I.R. 70 EB - PLAN AND PROFILE
STA. 597+50 TO STA. 609+50

BEL-70-7.61

57
373

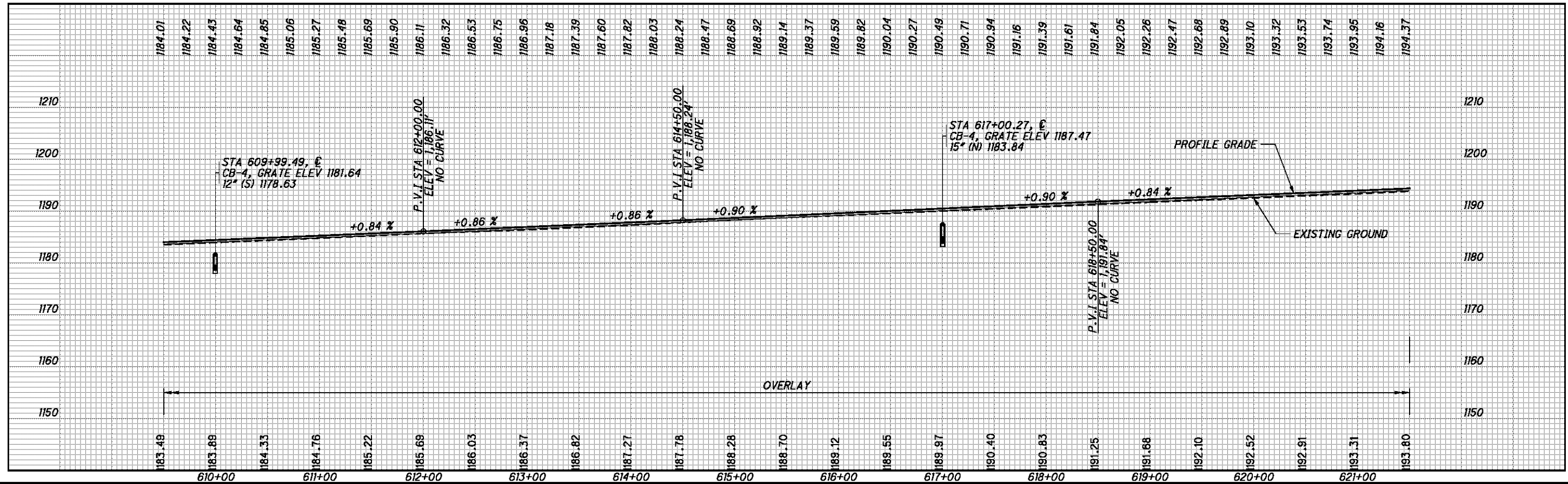
P:\76825\roadway\sheets\76825GP4.17.dgn 9/21/2012 7:46:19 AM mcorbett

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)
 $R = 3,819.72'$
 $L = 553.07'$
 $E = 10.03'$
 $E_{max} = 0.046$ (EX.)

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



CALCULATED CDS CHECKED BDD

FOR STORM SEWER DETAILS, SEE SHEETS 147 & 149

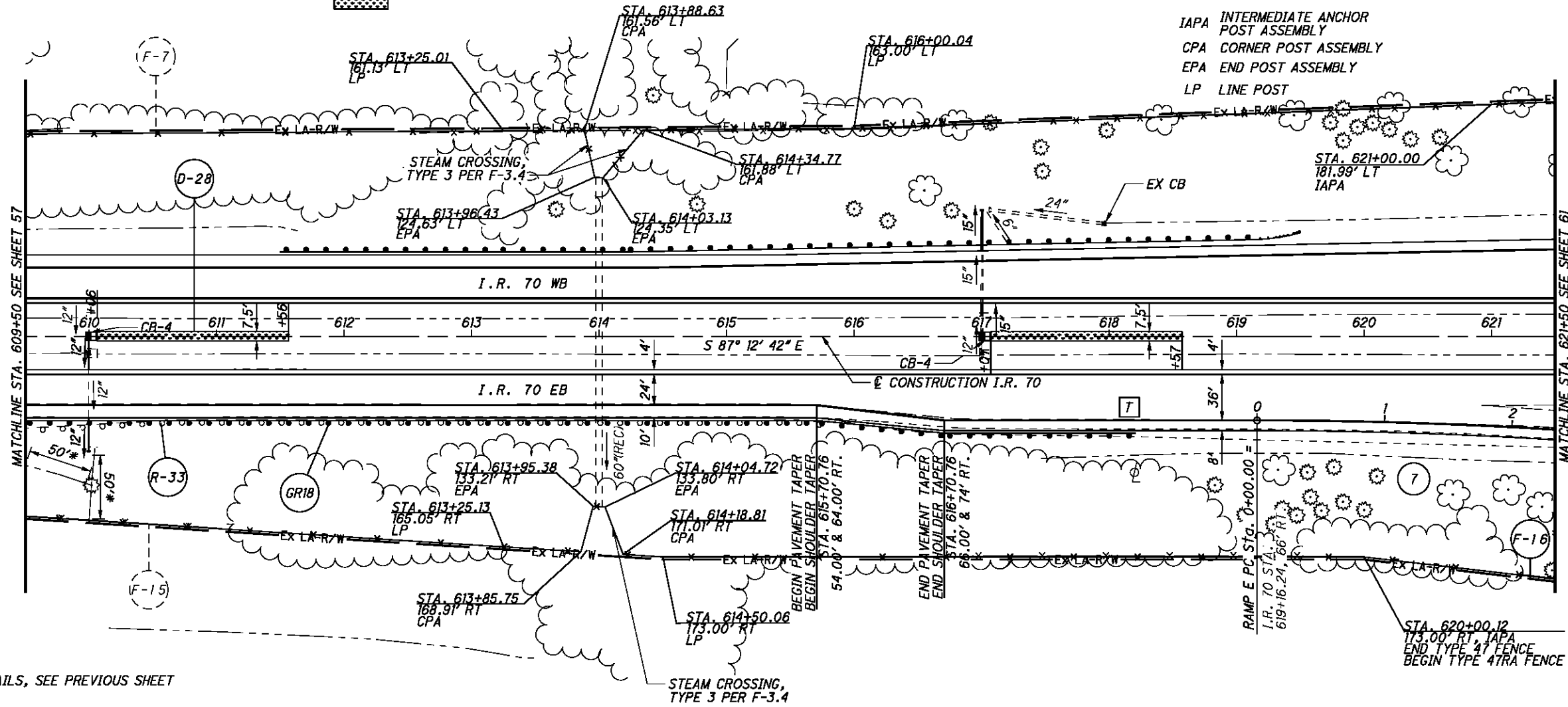


ITEM 670 - DITCH EROSION PROTECTION

* DITCH CLEANOUT LIMITS

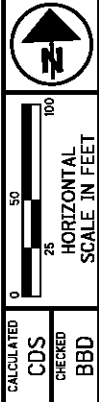
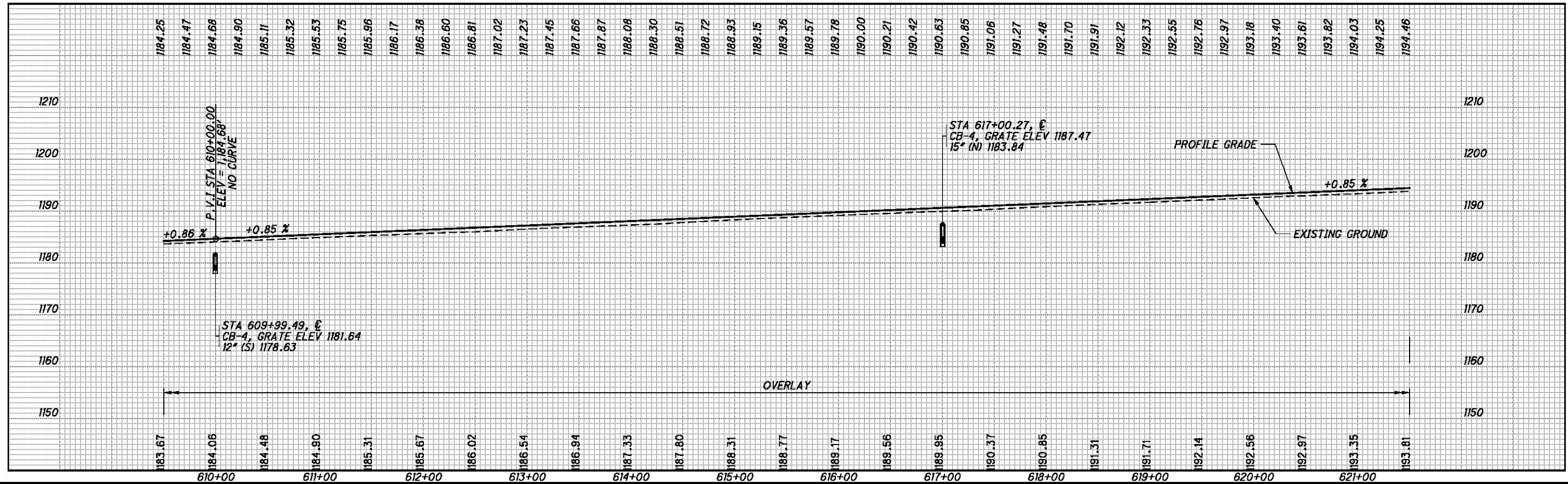
T ANCHOR ASSEMBLY, TYPE T

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



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

BEL-70-7.61

59
 373

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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 F PROFILES, SEE SHEET 194

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.)

REST AREA CURVE DATA 8

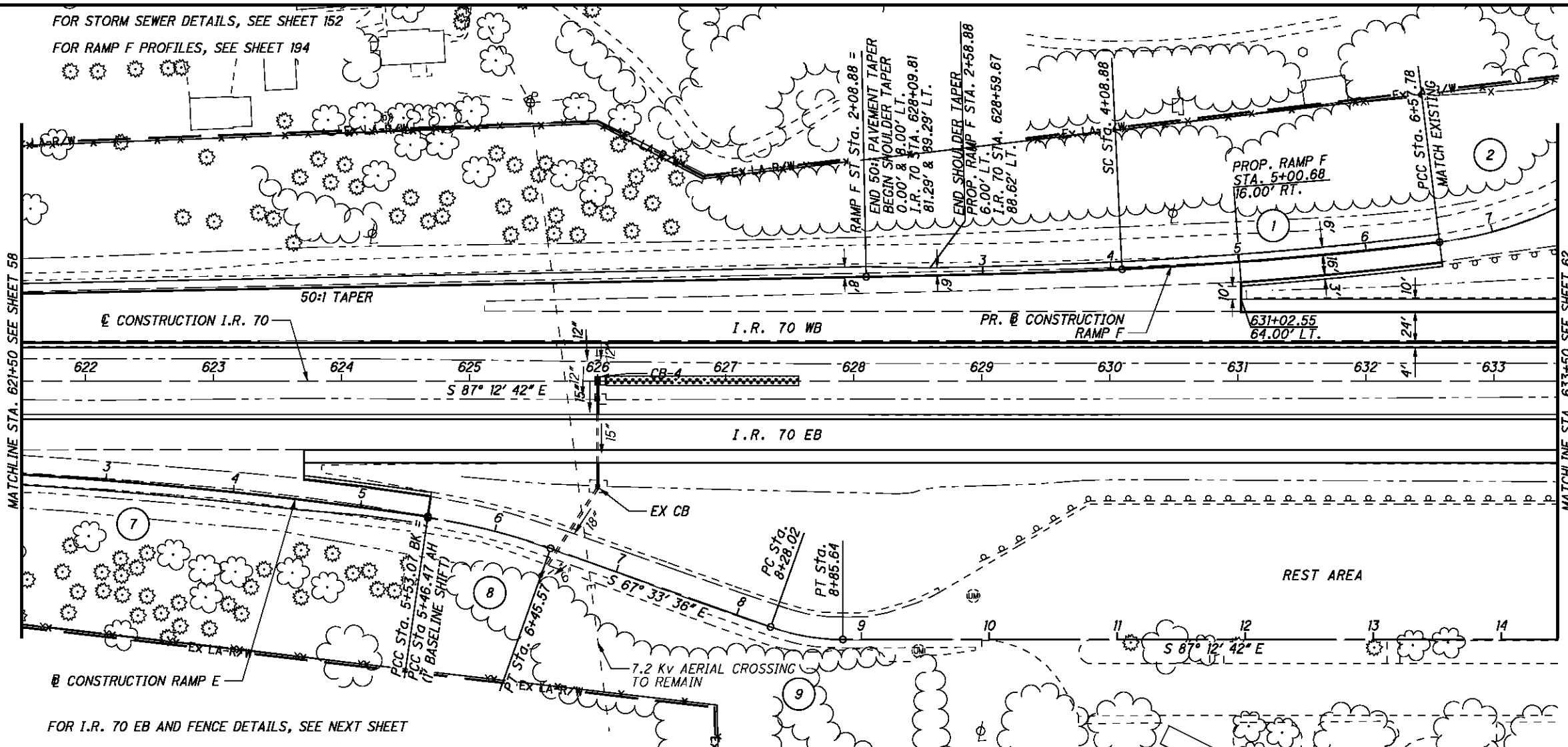
P.I. = Sta. 6+02.79
 $\Delta = 11^{\circ}21'23''$ (RT)
 $D_c = 11^{\circ}27'33''$
 $R = 500.00'$
 $T = 49.71'$
 $L = 99.10'$
 $E = 2.47'$

REST AREA CURVE DATA 9

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

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

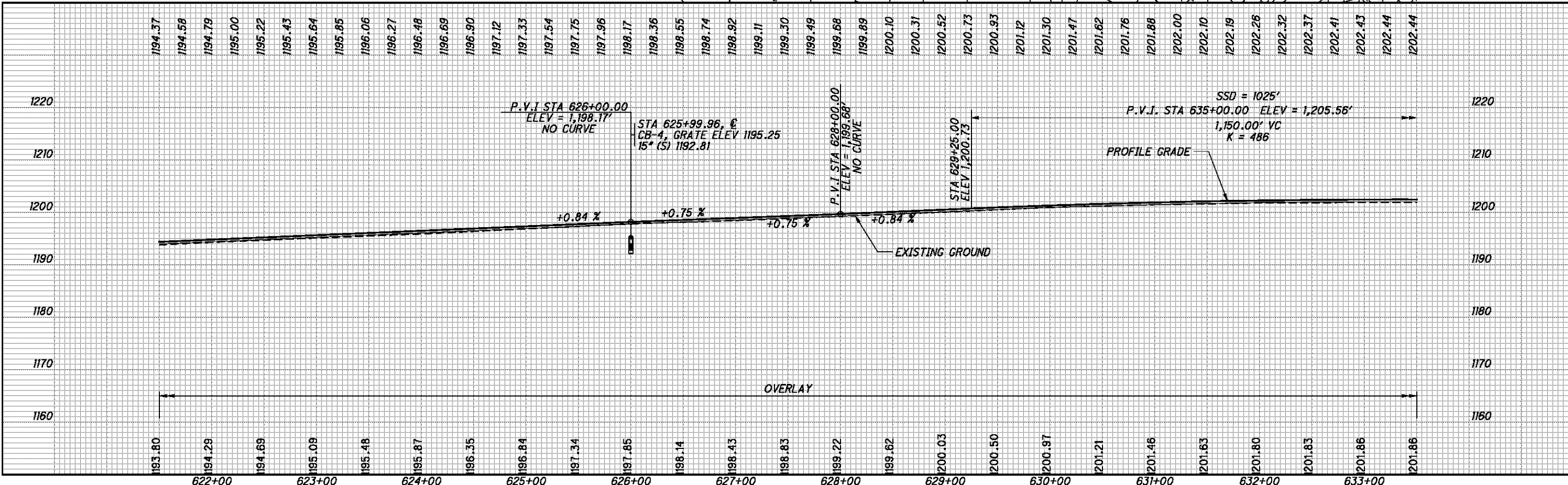


CALCULATED CDS CHECKED BDD

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

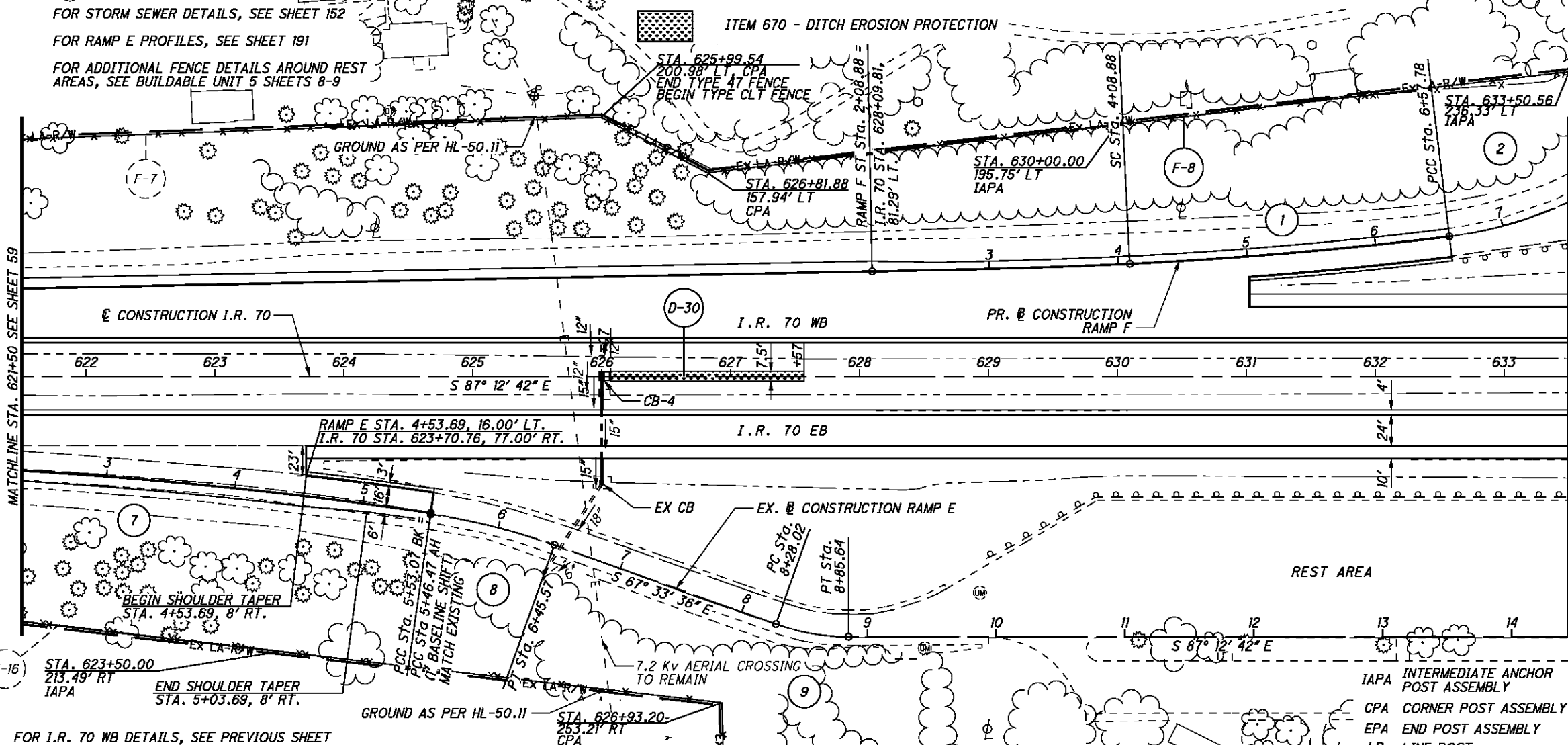
P.I. = STA. 4+78.72
 $\Delta = 5^{\circ}48'54''$ LT.
 $D_c = 1^{\circ}40'00''$
 $R = 3437.75$
 $Ls1 = 200.00'$
 $Ls2 = 0.00'$
 $\theta s1 = 1^{\circ}40'00''$
 $\theta s2 = 0^{\circ}00'00''$
 $LT1 = 133.34'$
 $LT2 = 0.00'$
 $ST1 = 66.67'$
 $ST2 = 0.00'$
 $L_c = 248.90'$
 $T1 = 269.84'$
 $T2 = 179.38'$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

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 8

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

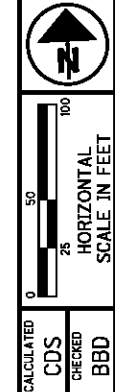
REST AREA CURVE DATA 9

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

REST AREA CURVE DATA 7

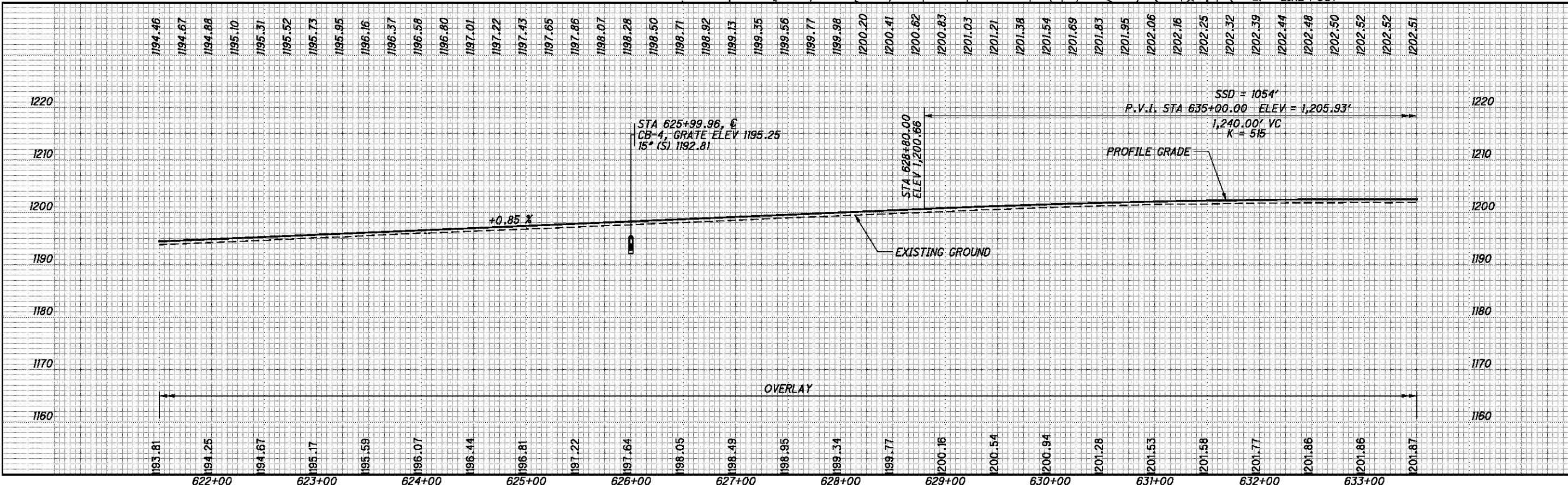
P.I. = Sta. 2+77.02
 $\Delta = 8^{\circ}17'46''$ (RT)
 $D_c = 1^{\circ}30'00''$
 $R = 3,819.72'$
 $T = 277.02'$
 $L = 553.07'$
 $E = 10.03'$
 $e_{max} = 0.035$ (EX.)

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



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)

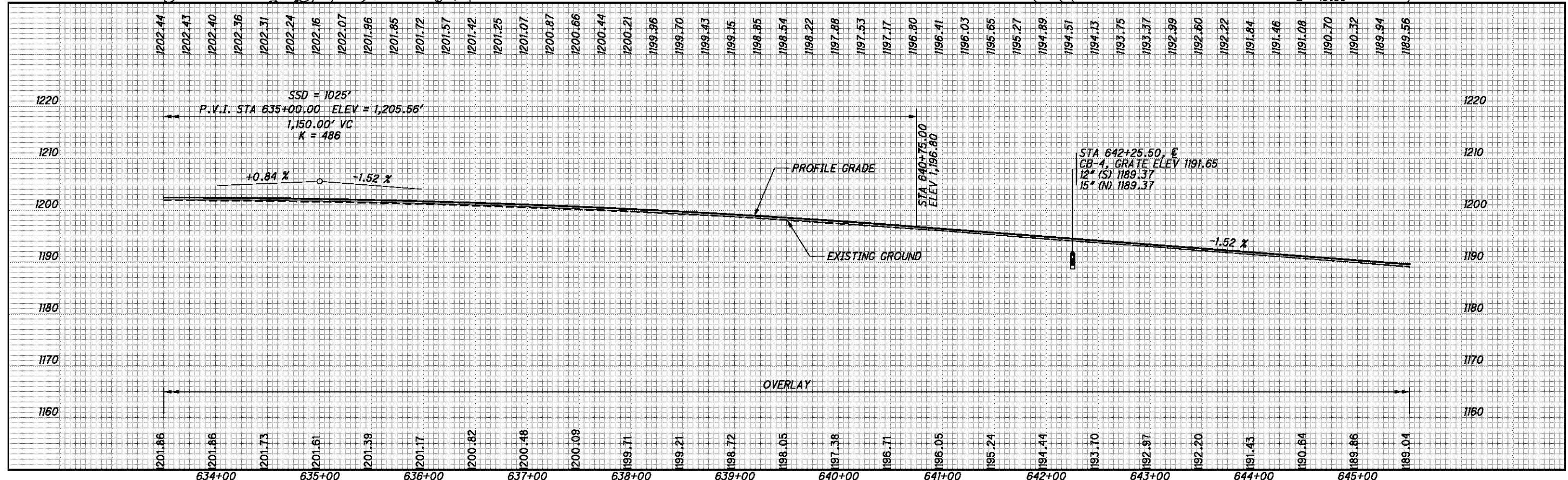
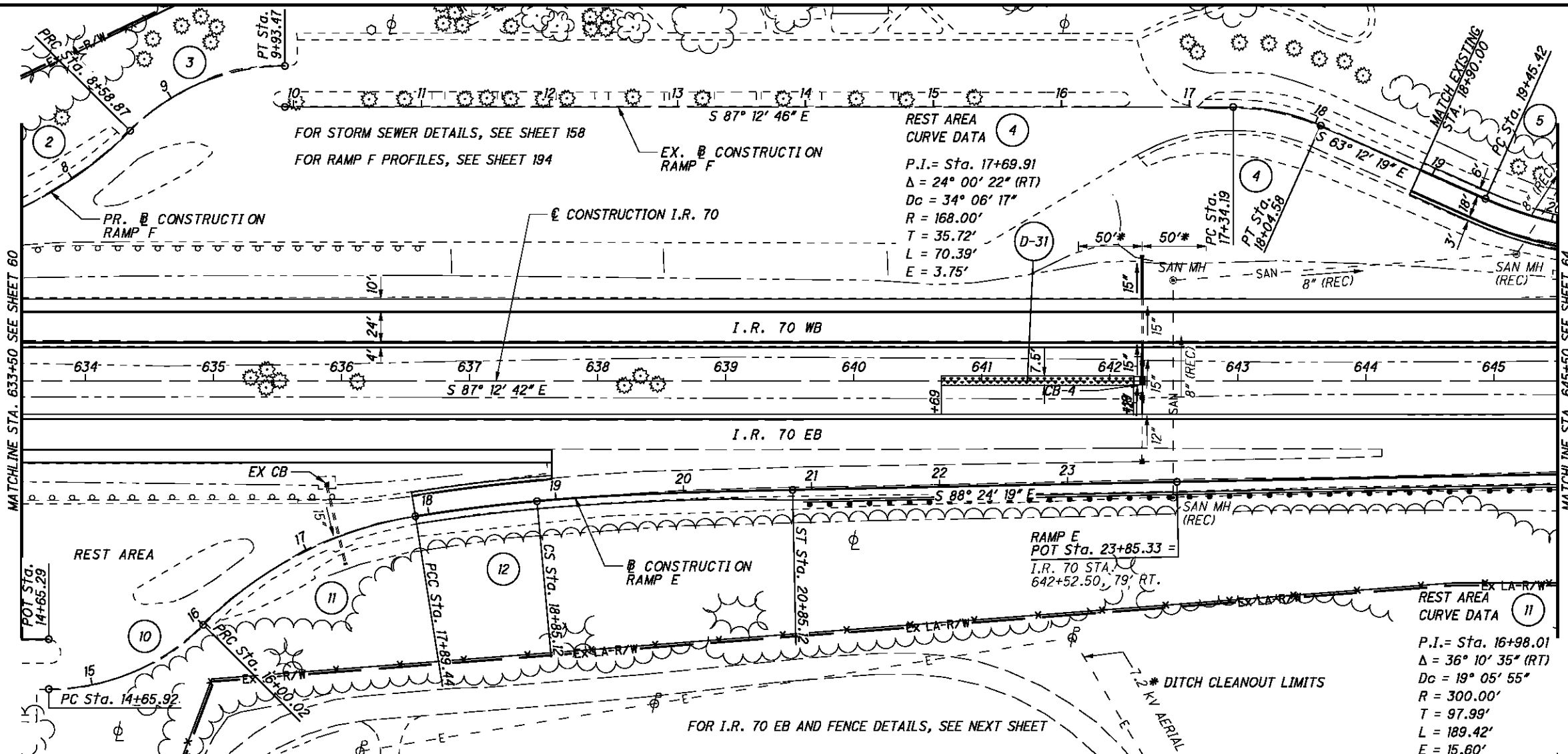
P.I. = Sta. 15+36.68
 $\Delta = 45^\circ 11' 50''$ (LT)
 $D_c = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 70.76'$
 $L = 134.10'$
 $E = 14.14'$

REST AREA CURVE DATA (5)

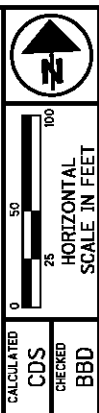
P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32''$ (LT)
 $D_c = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$

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

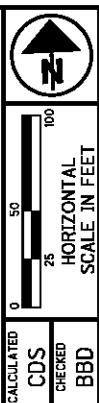
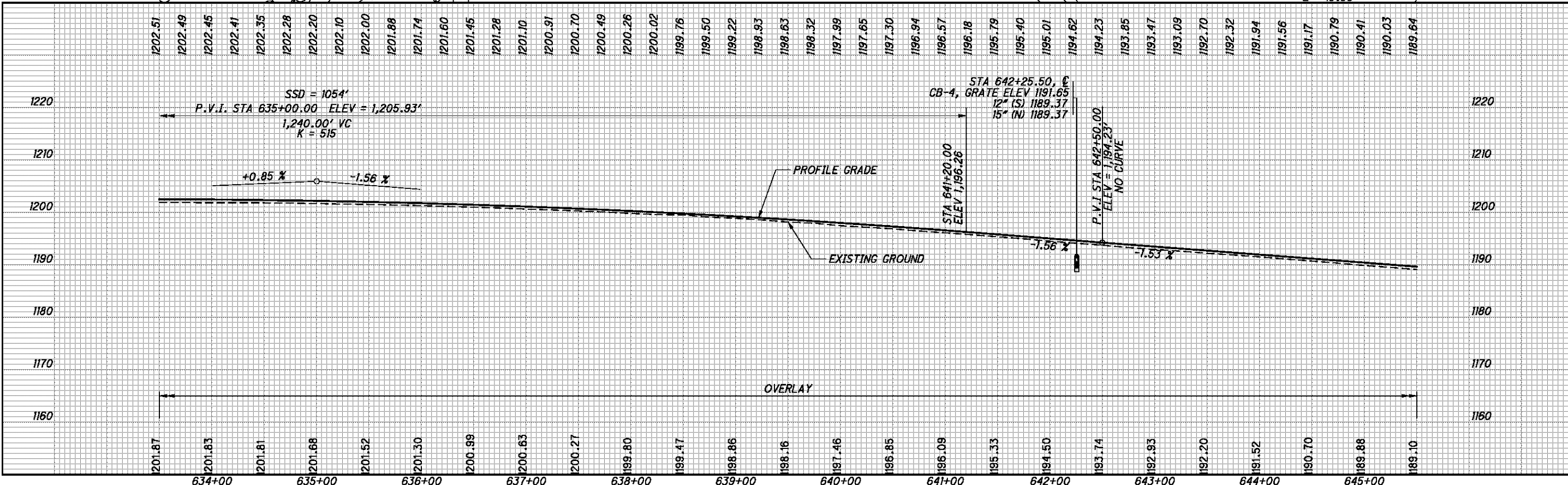
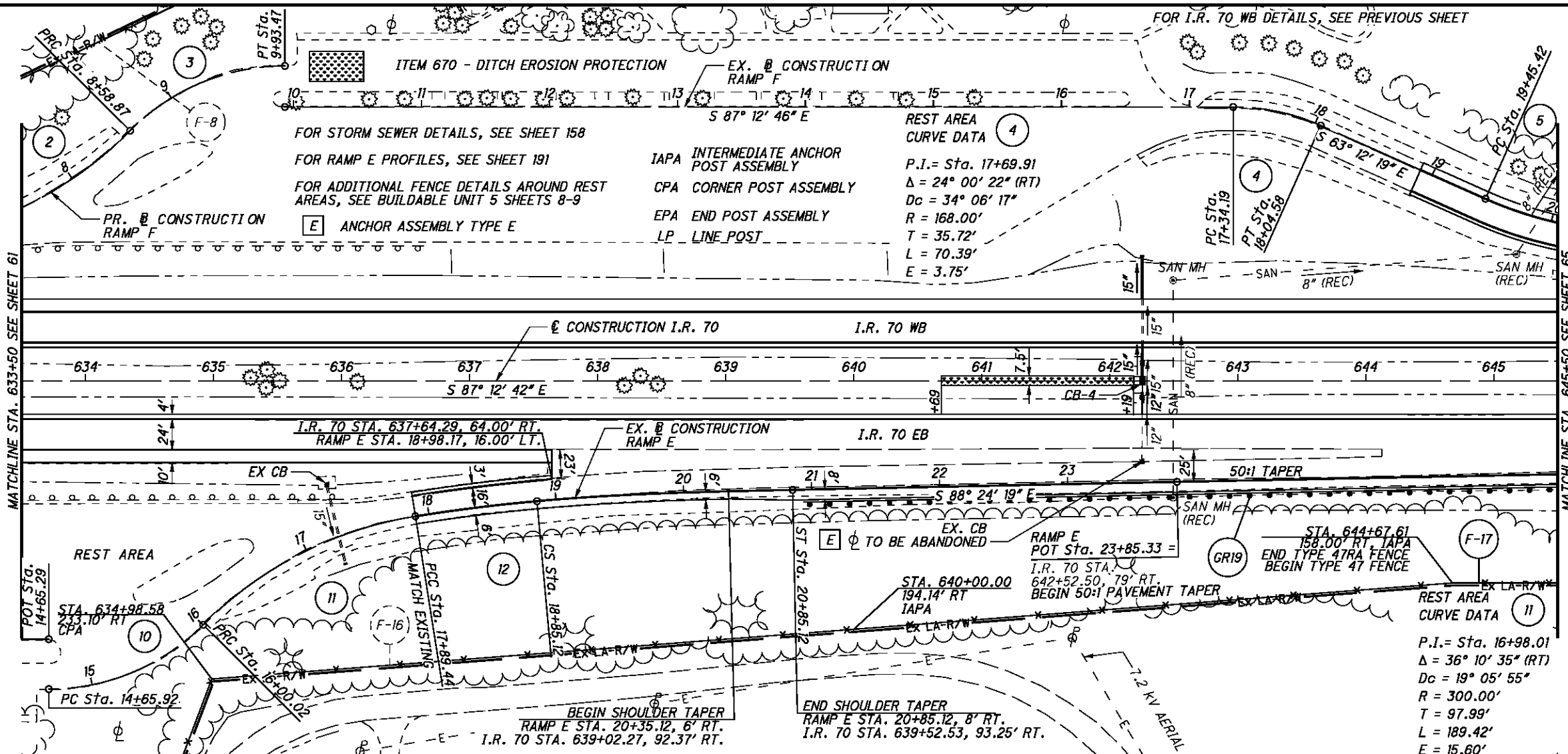
REST AREA CURVE DATA (2)
 P.I. = Sta. 7+62.27
 $\Delta = 38^\circ 24' 19''$ (LT)
 $Dc = 19^\circ 05' 55''$
 $R = 300.00'$
 $T = 104.49'$
 $L = 201.09'$
 $E = 17.68'$

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.
 $Dc = 4^\circ 00' 00''$
 $R = 1432.39'$
 $Ls1 = 0.00'$
 $Ls2 = 200.00'$
 $\theta s1 = 0^\circ 00' 00''$
 $\theta s2 = 4^\circ 00' 00''$
 $LT1 = 0.00'$
 $LT2 = 133.37'$
 $ST1 = 0.00'$
 $ST2 = 66.70'$
 $Lc = 95.68'$
 $T1 = 106.54'$
 $T2 = 189.51'$
 $\theta_{MAX} = 0.063$ (EX.)



CALCULATED CDS CHECKED BDD

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

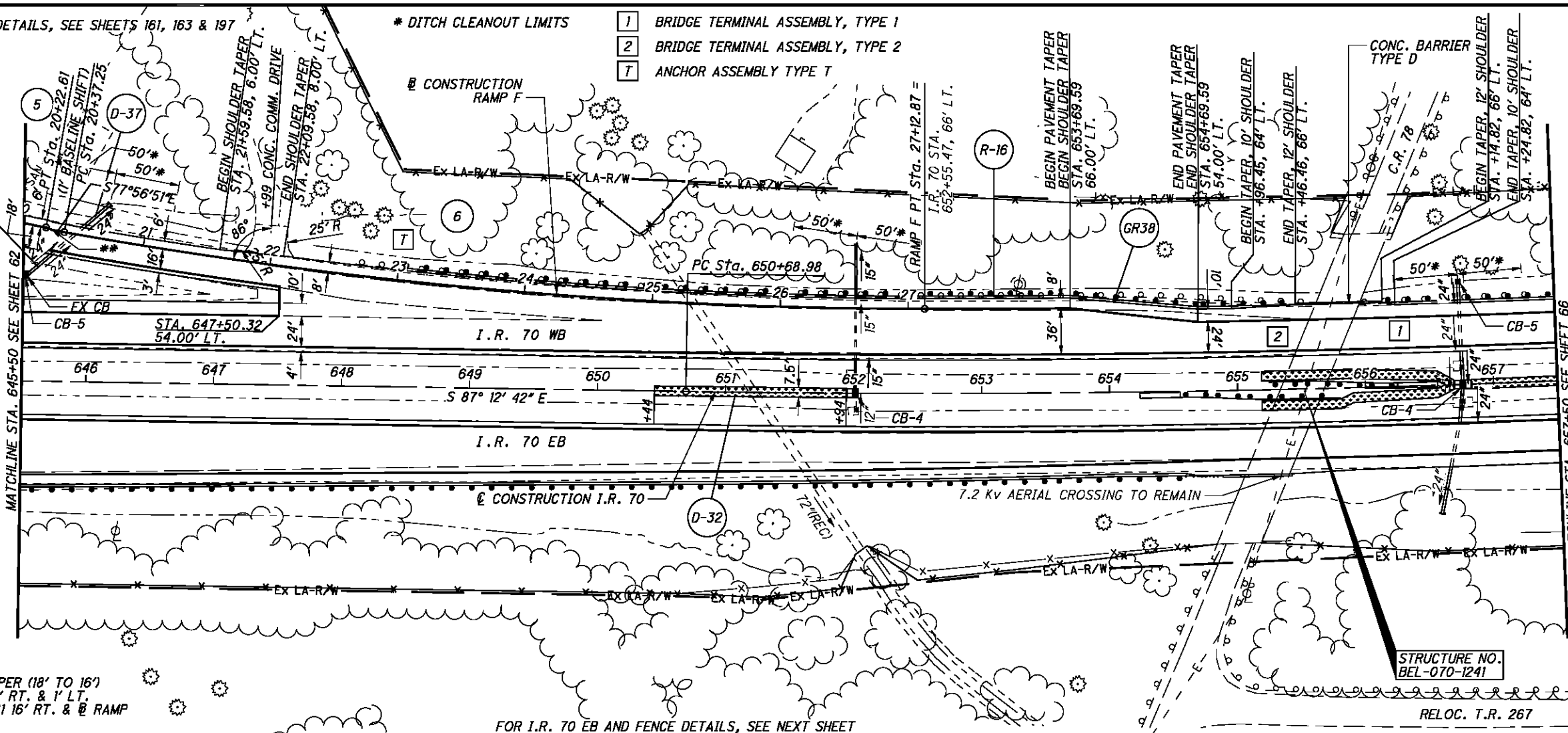
- 1 BRIDGE TERMINAL ASSEMBLY, TYPE 1
- 2 BRIDGE TERMINAL ASSEMBLY, TYPE 2
- T ANCHOR ASSEMBLY TYPE T

REST AREA CURVE DATA (6)

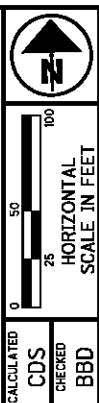
P.I. = Sta. 23+75.94
 $\Delta = 10^\circ 08' 04" (LT)$
 $Dc = 1^\circ 30' 00"$
 $R = 3,819.72'$
 $T = 338.69'$
 $L = 675.62'$
 $E = 14.99'$
 $E_{max} = 0.032 (EX.)$

REST AREA CURVE DATA (5)

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

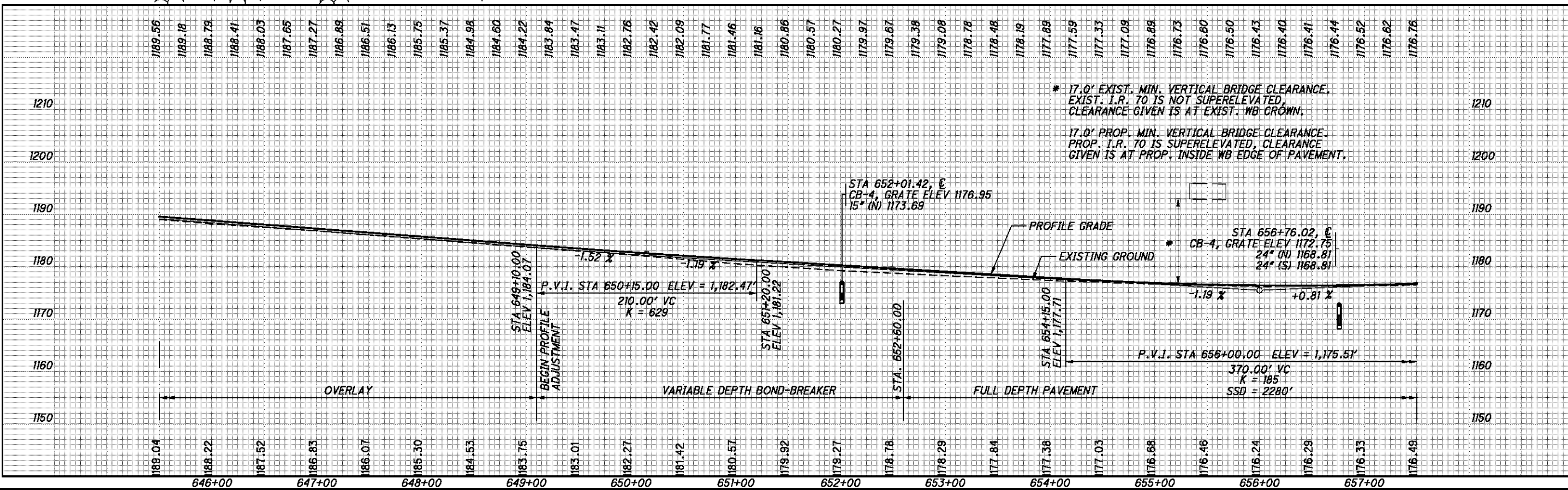


IR 70 CURVE DATA
 P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36" (LT)$
 $Dc = 0^\circ 28' 00"$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$



** 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

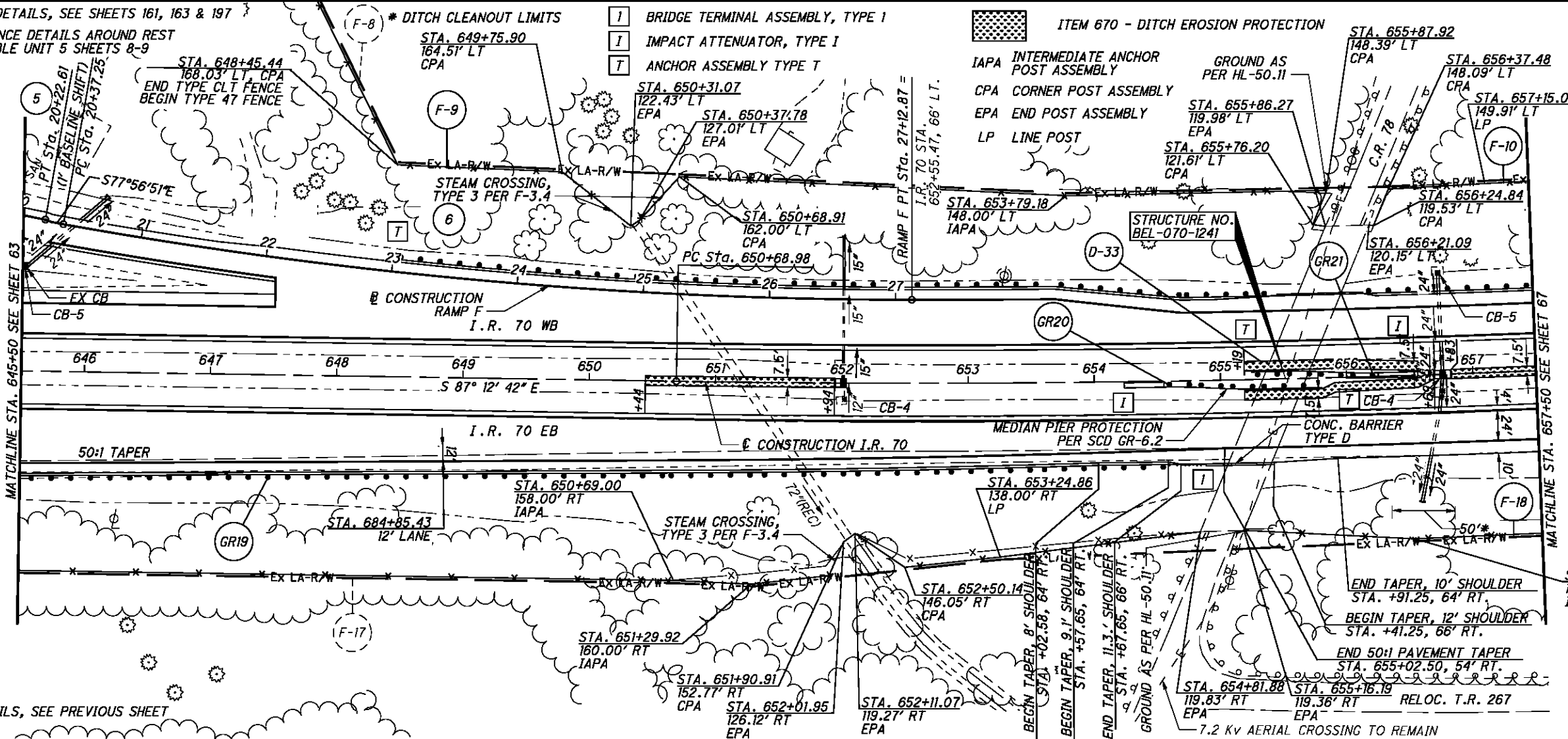
BEL-70-7.61

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373

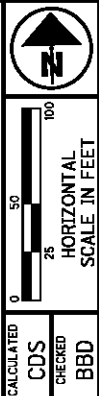
FOR STORM SEWER DETAILS, SEE SHEETS 161, 163 & 197
 FOR ADDITIONAL FENCE DETAILS AROUND REST AREAS, SEE BUILDABLE UNIT 5 SHEETS 8-9

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

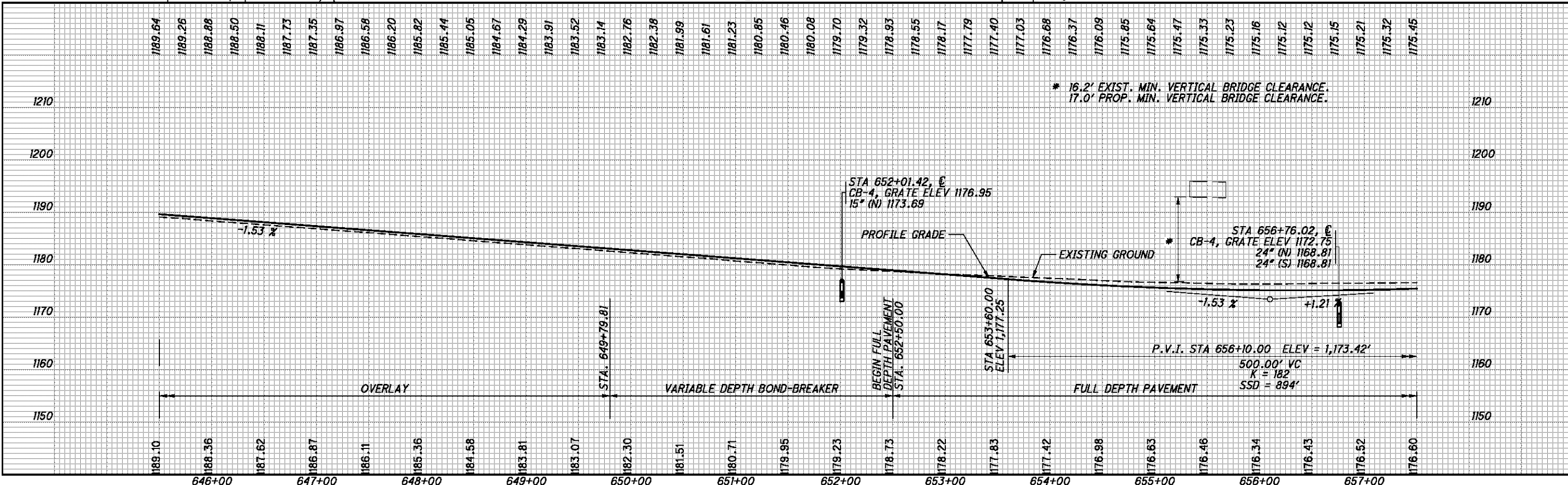
REST AREA CURVE DATA (5)
 P.I. = Sta. 19+84.23
 $\Delta = 14^\circ 44' 32" (LT)$
 $D_c = 19^\circ 05' 55"$
 $R = 300.00'$
 $T = 38.81'$
 $L = 77.19'$
 $E = 2.50'$
 $E_{max} = 0.032$



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

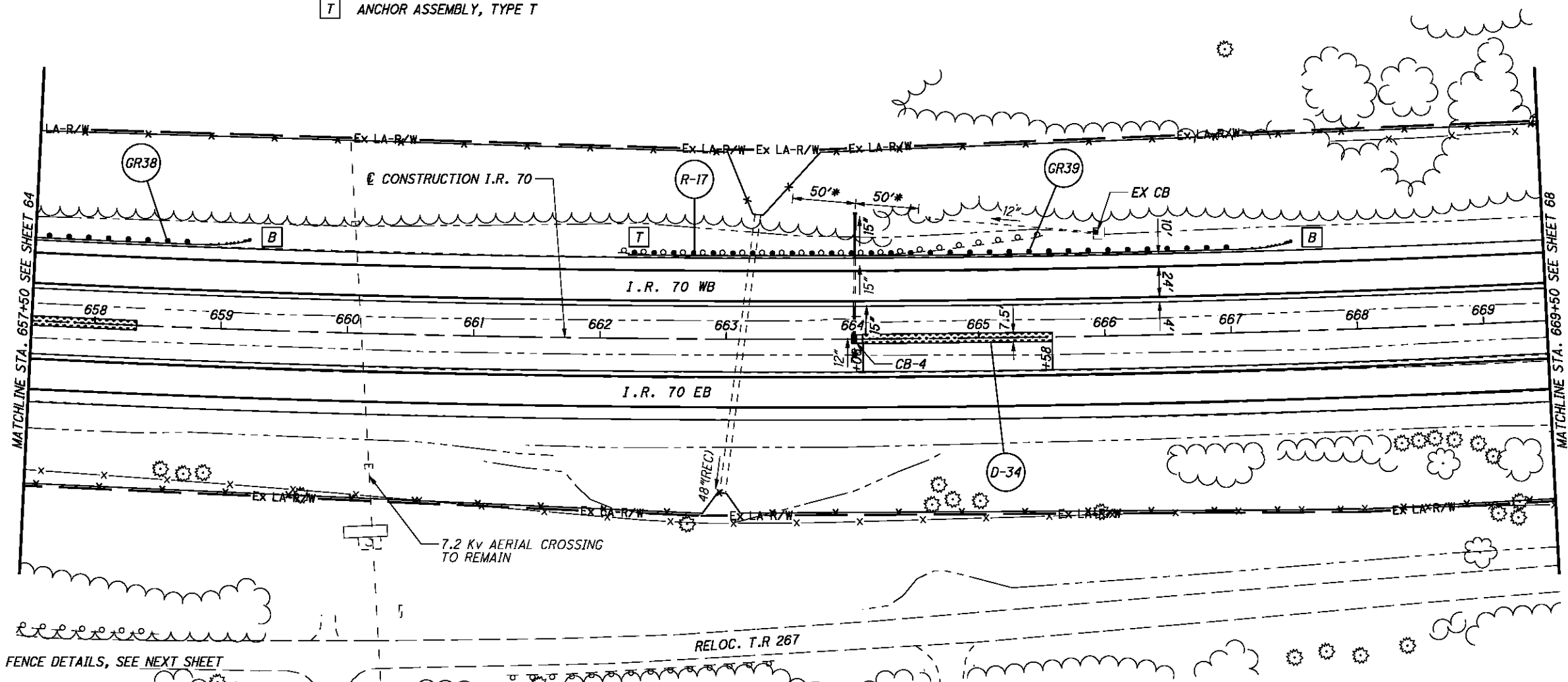
P:\76825\roadway\sheet\76825GP421.dgn 9/21/2012 7:46:25 AM mcorneil

FOR STORM SEWER DETAILS, SEE SHEET 166

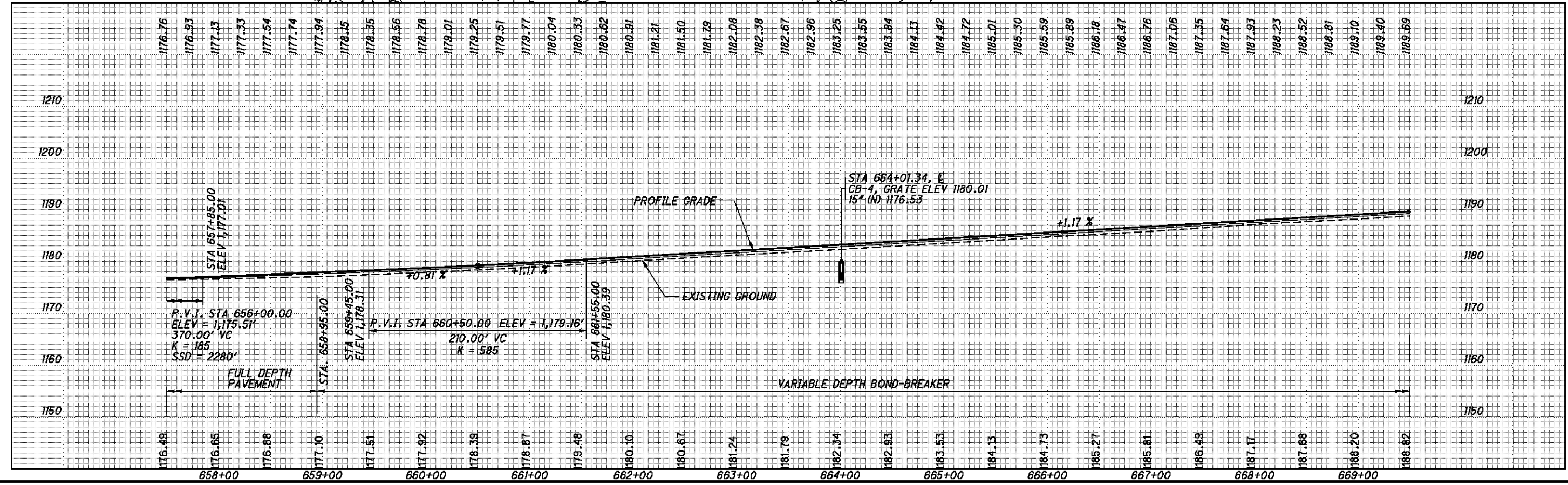
B ANCHOR ASSEMBLY, TYPE B
T ANCHOR ASSEMBLY, TYPE T

* 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

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FOR STORM SEWER DETAILS, SEE SHEET 166

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

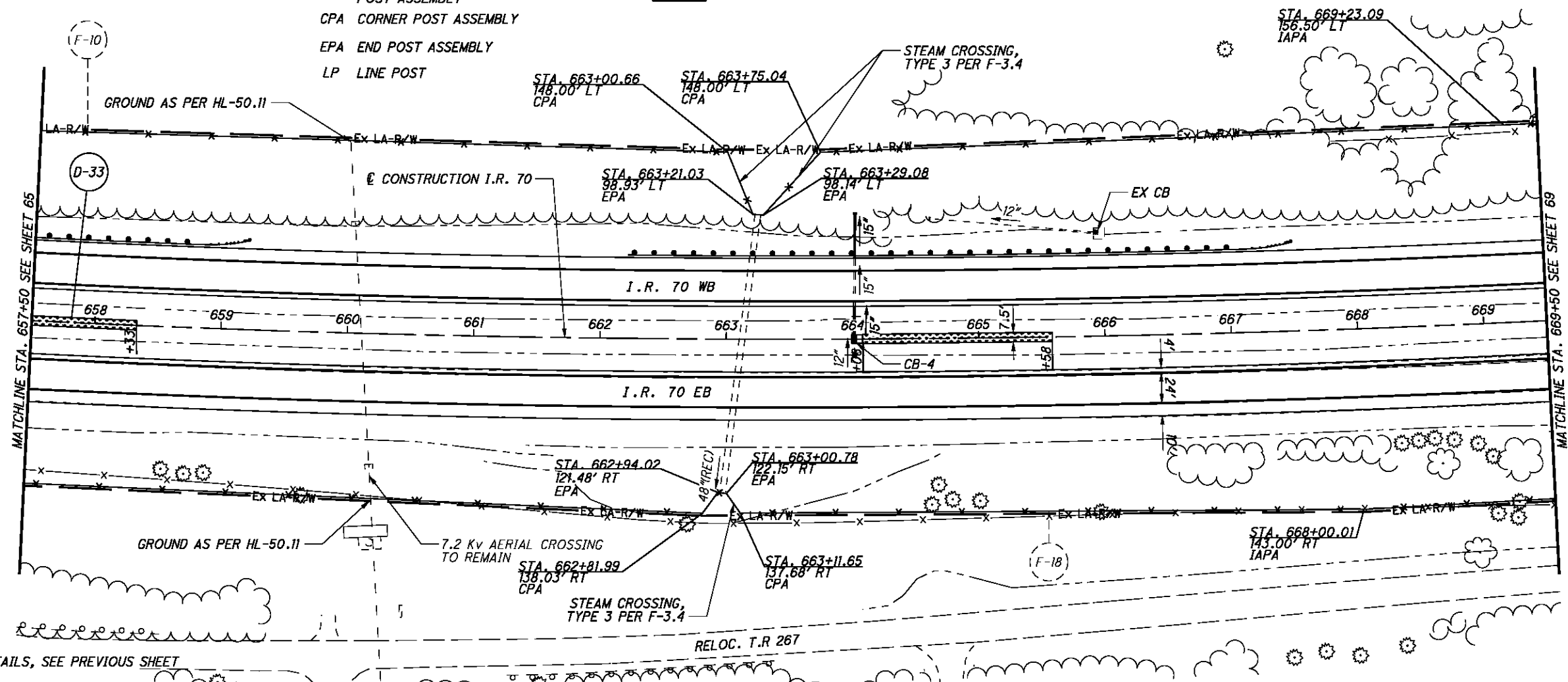


ITEM 670 - DITCH EROSION PROTECTION

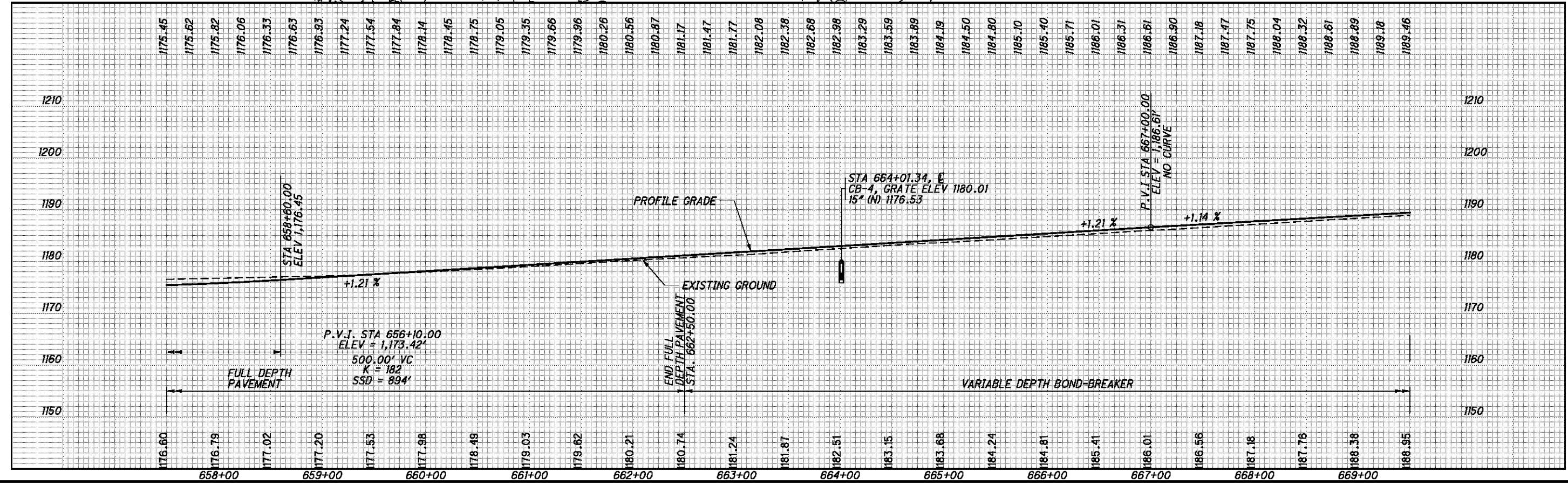
IR 70
CURVE DATA
P.I. = Sta. 661+78.41
 $\Delta = 10^\circ 19' 36''$ (LT)
 $D_c = 0^\circ 28' 00''$
 $R = 12,277.67'$
 $T = 1,109.43'$
 $L = 2,212.86'$
 $E = 50.02'$
 $E_{max} = 0.018$

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

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FOR STORM SEWER DETAILS, SEE SHEET 169

ANCHOR ASSEMBLY TYPE T

END PROJECT
STA. 675+00.00
SLM 12.60

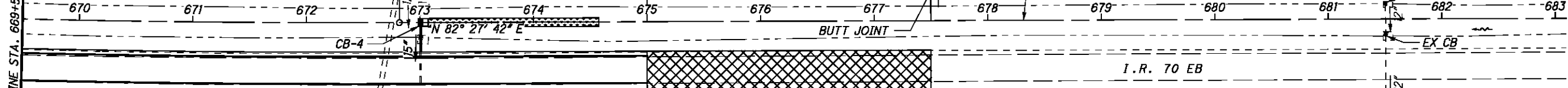
E040 (135)

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



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

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 $\epsilon 42'' = 1156.85$

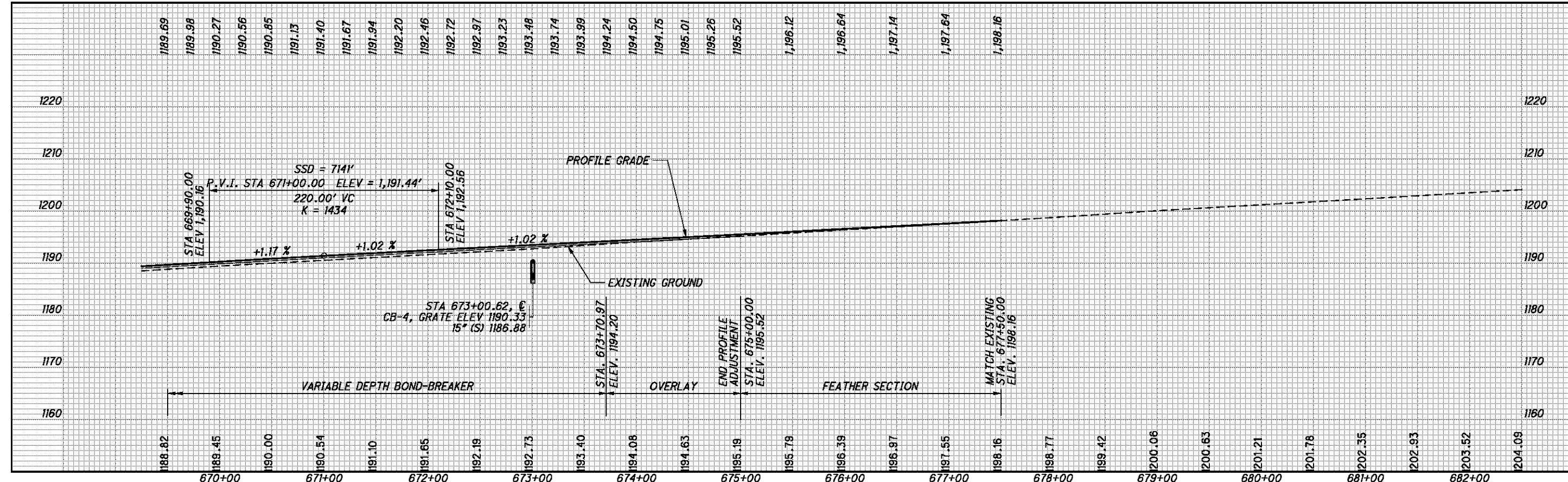


CALCULATED CDS CHECKED BDD

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

BEL-70-7.61

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373

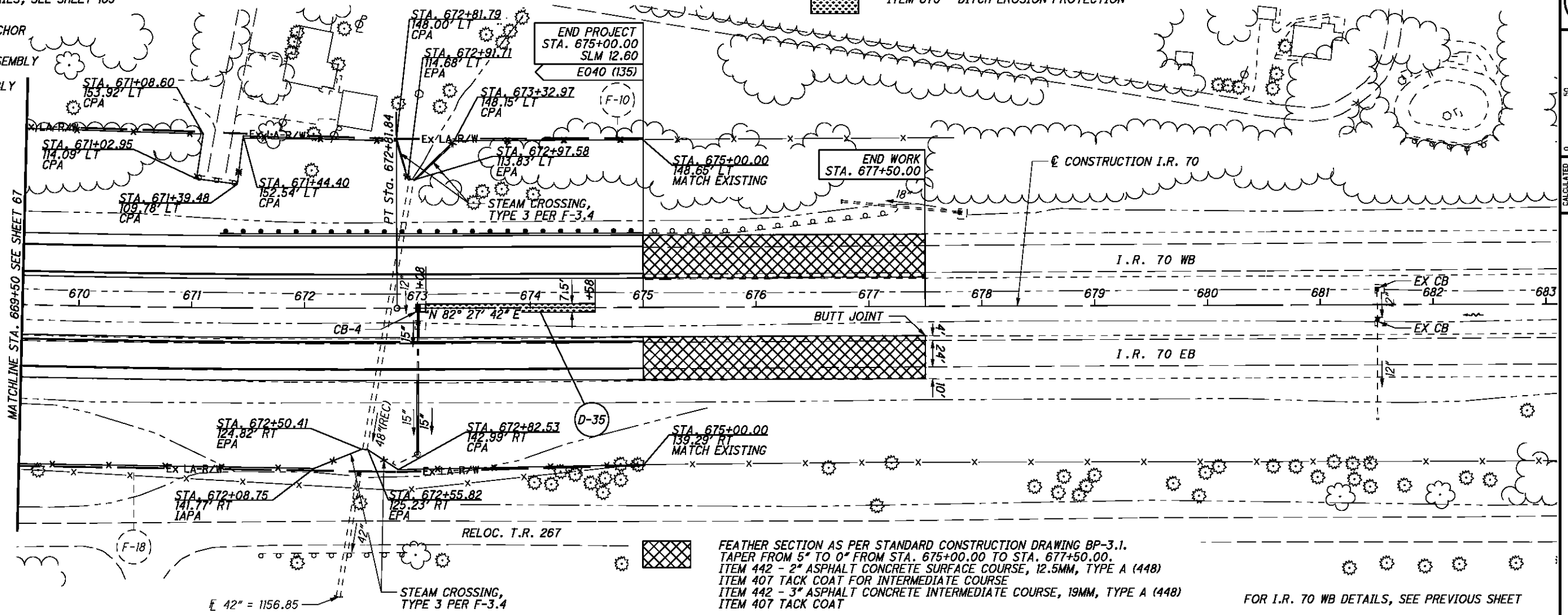


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FOR STORM SEWER DETAILS, SEE SHEET 169

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

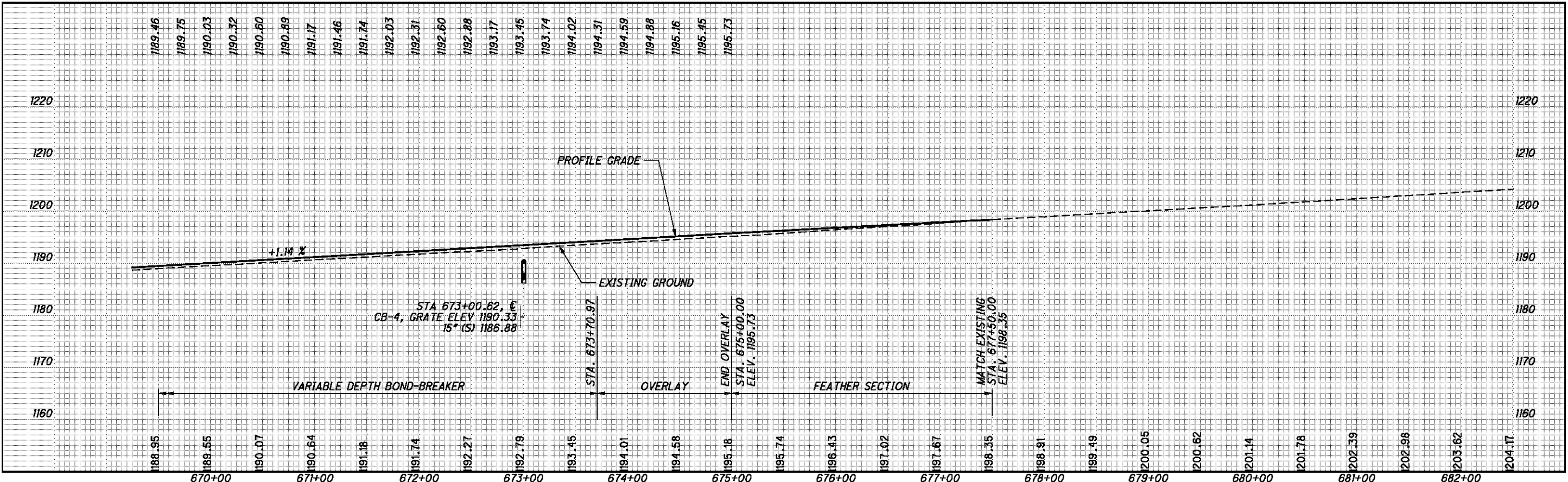
ITEM 670 - DITCH EROSION PROTECTION



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

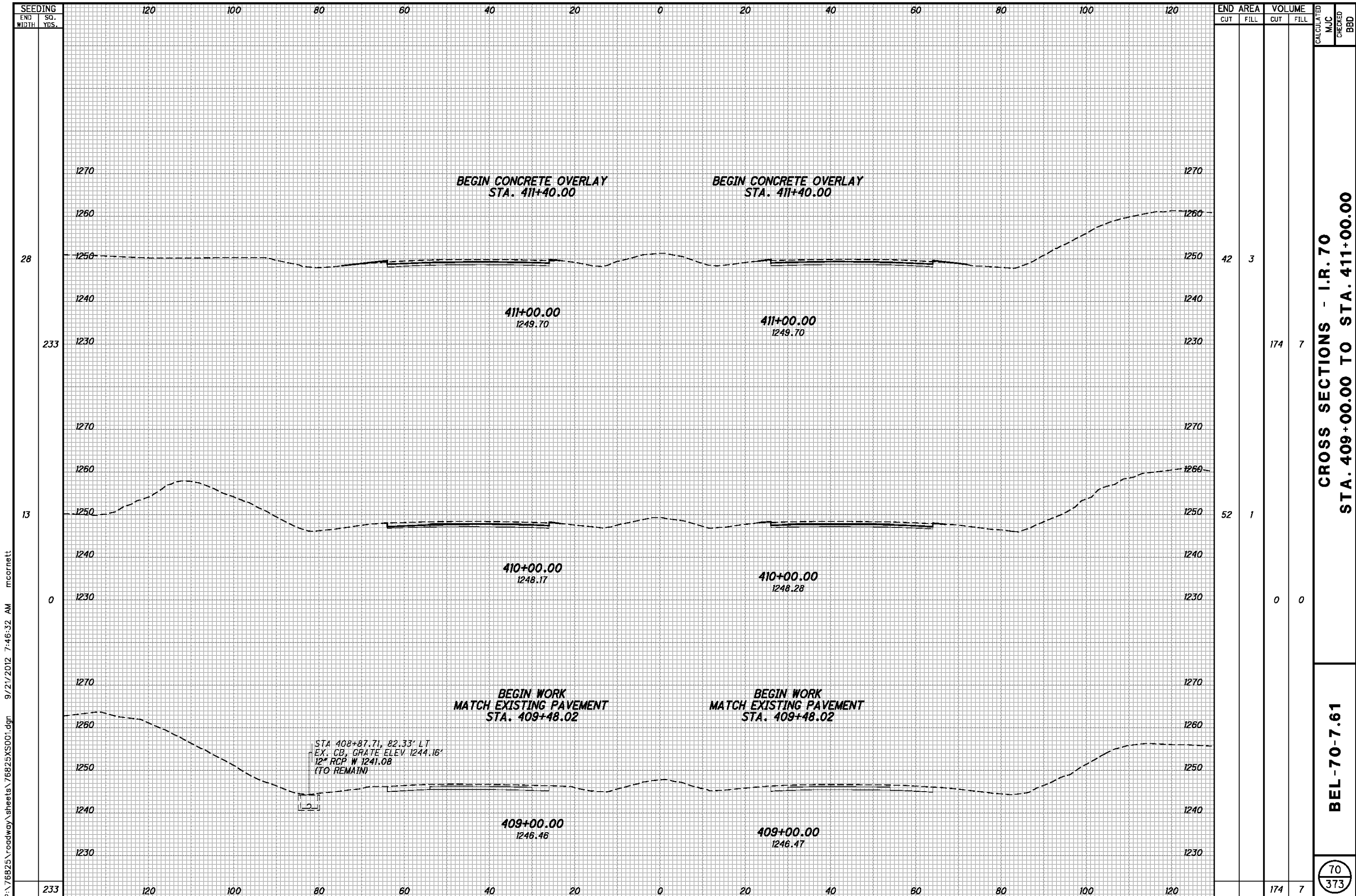
FOR I.R. 70 WB DETAILS, SEE PREVIOUS SHEET



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

BEL-70-7.61

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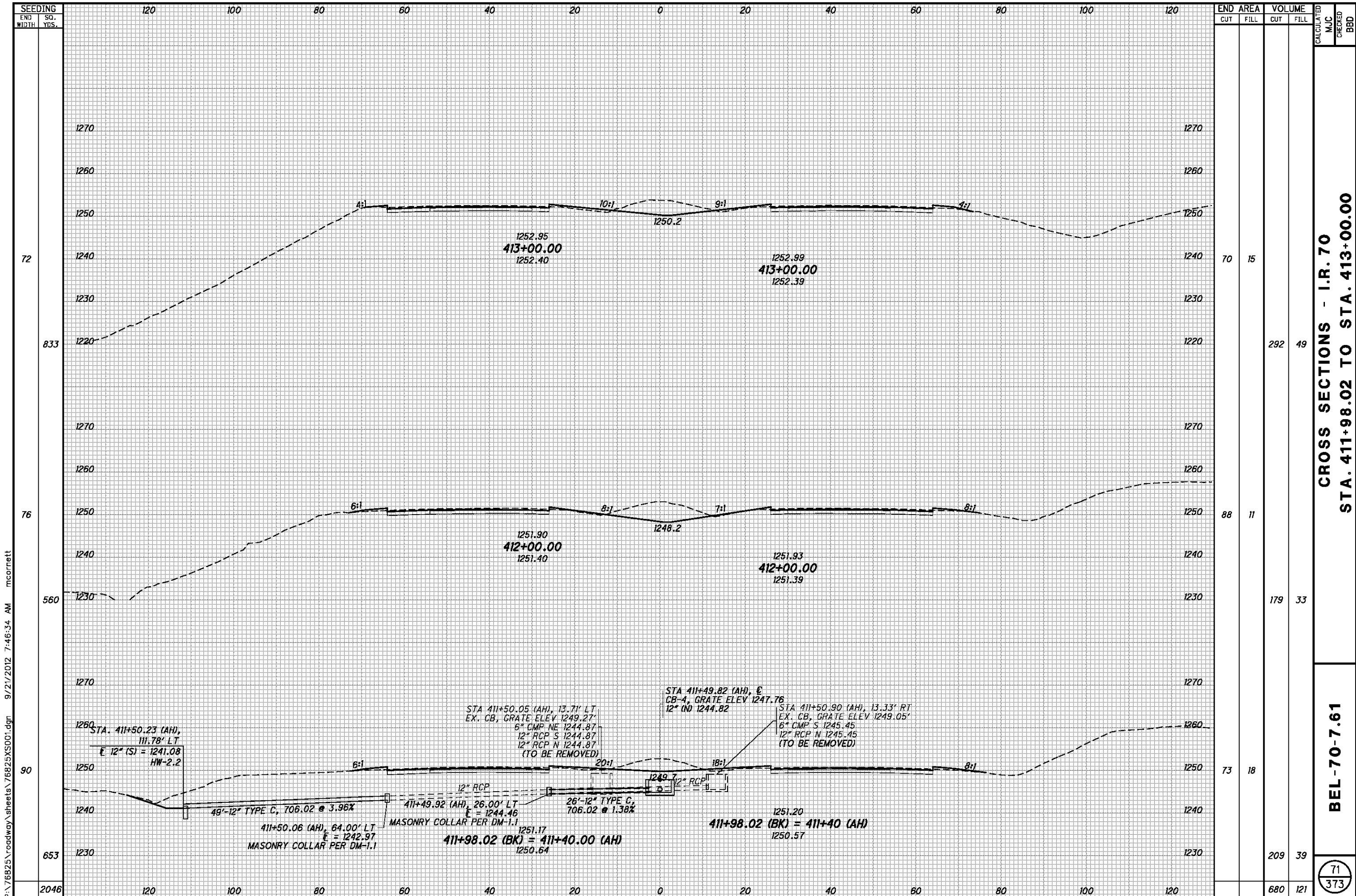


CROSS SECTIONS - I.R. 70
STA. 409+00.00 TO STA. 411+00.00

BEL-70-7.61

70
 373

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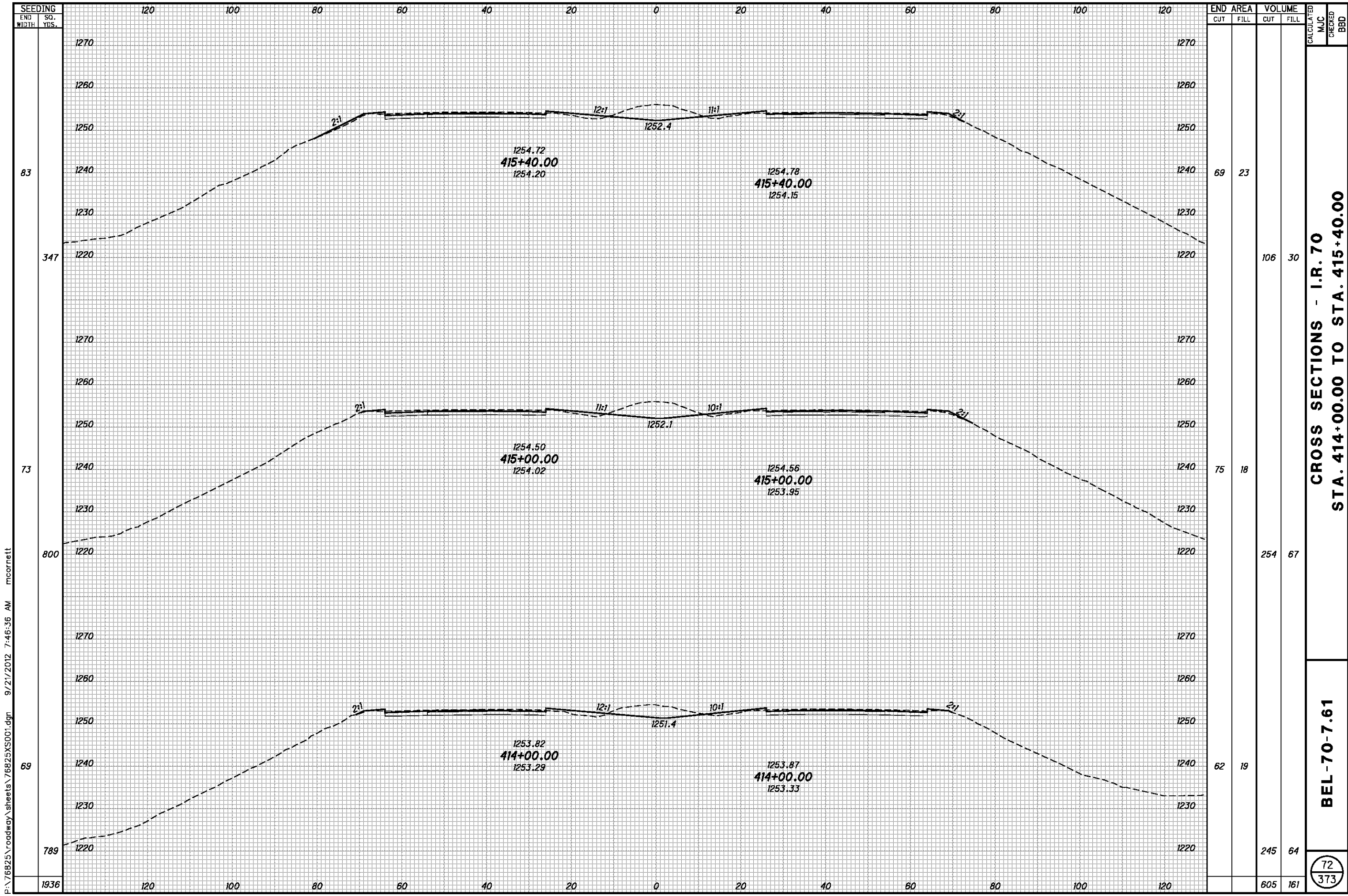
| END AREA | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | | | | |
| 70 | | 15 | | | | |
| 88 | | 11 | | | | |
| 73 | | 18 | | | | |
| 209 | | 39 | | | | |
| 680 | | 121 | | | | |

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

BEL-70-7.61

71
 373

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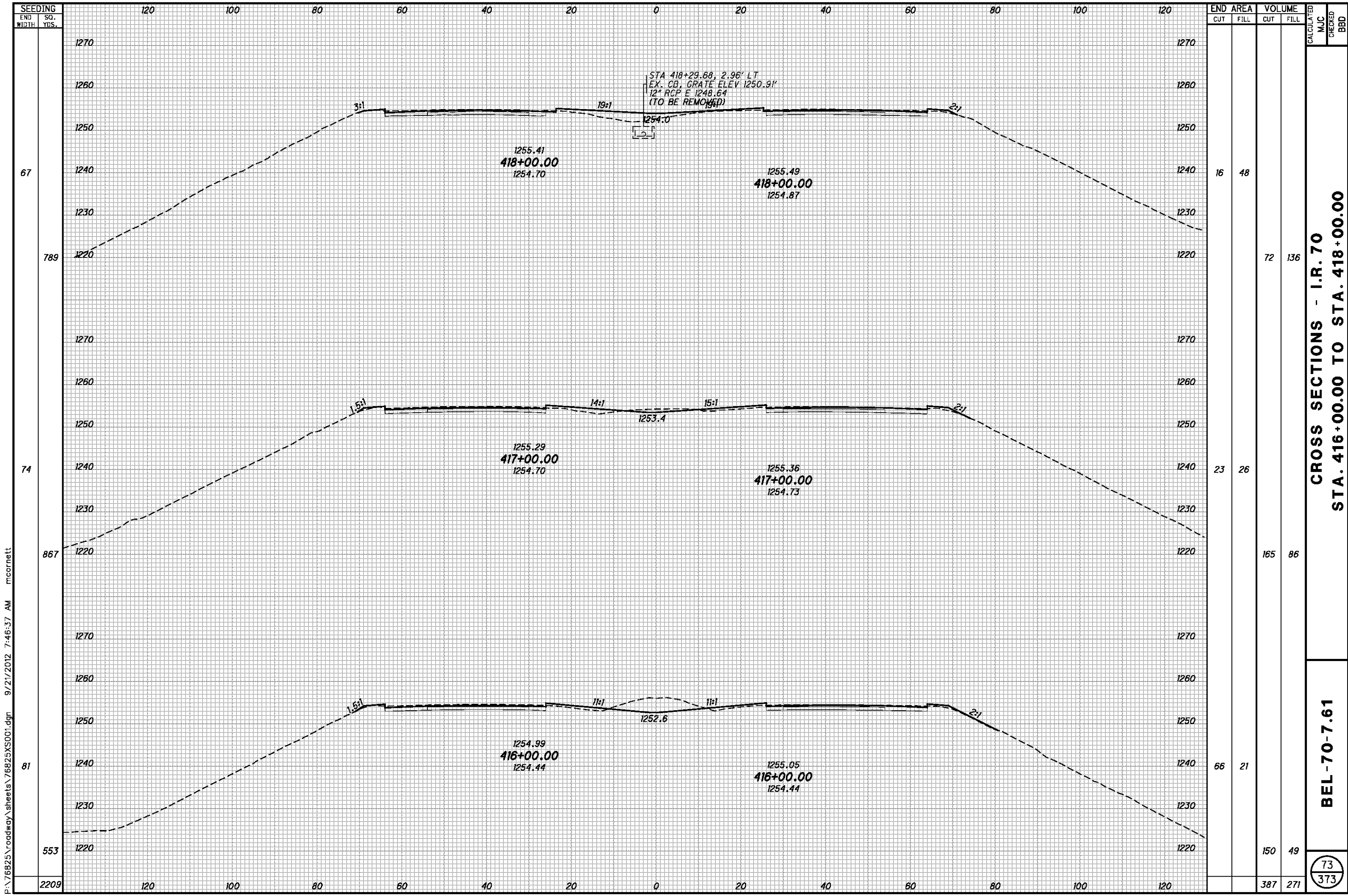
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| END AREA | VOLUME | CALCULATED | | CHECKED | |
|----------|--------|------------|------|---------|-----|
| | | CUT | FILL | MJC | BBD |
| 69 | 23 | | | | |
| | 106 | | | | |
| 75 | 18 | | | | |
| | 254 | | | | |
| 62 | 19 | | | | |
| | 245 | | | | |
| | 605 | | | | |
| | 161 | | | | |

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

BEL-70-7.61

72
 373



SEEDING
END SO.
WIDTH YDS.

67
789
74
867
81
553
2209

| END AREA | VOLUME | CALCULATED | CHECKED | | |
|----------|--------|------------|---------|-----|------|
| | | | | CUT | FILL |
| 16 | 48 | | | | |
| 72 | 136 | | | | |
| 23 | 26 | | | | |
| 165 | 86 | | | | |
| 66 | 21 | | | | |
| 150 | 49 | | | | |
| 387 | 271 | | | | |

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

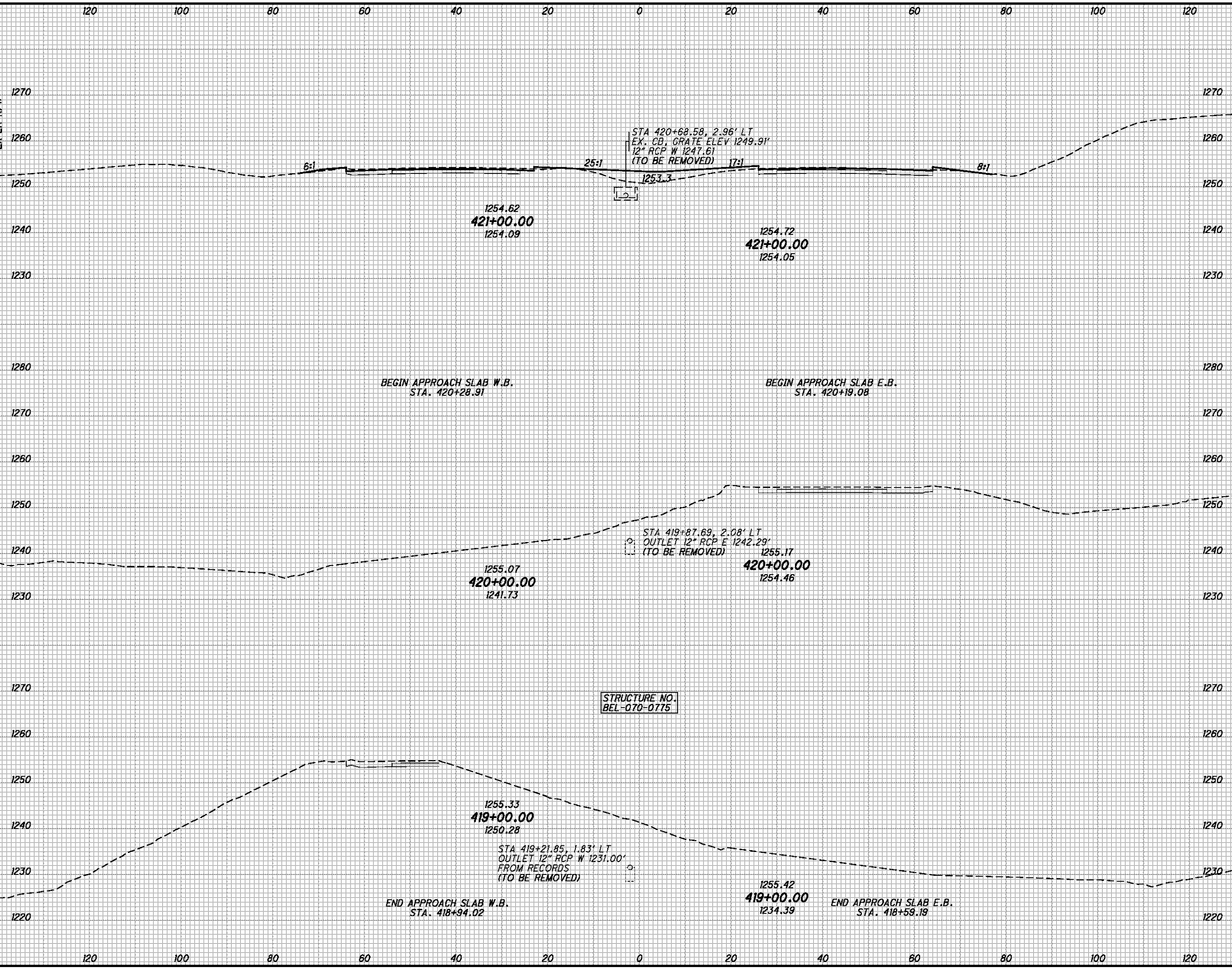
BEL-70-7.61

73
373

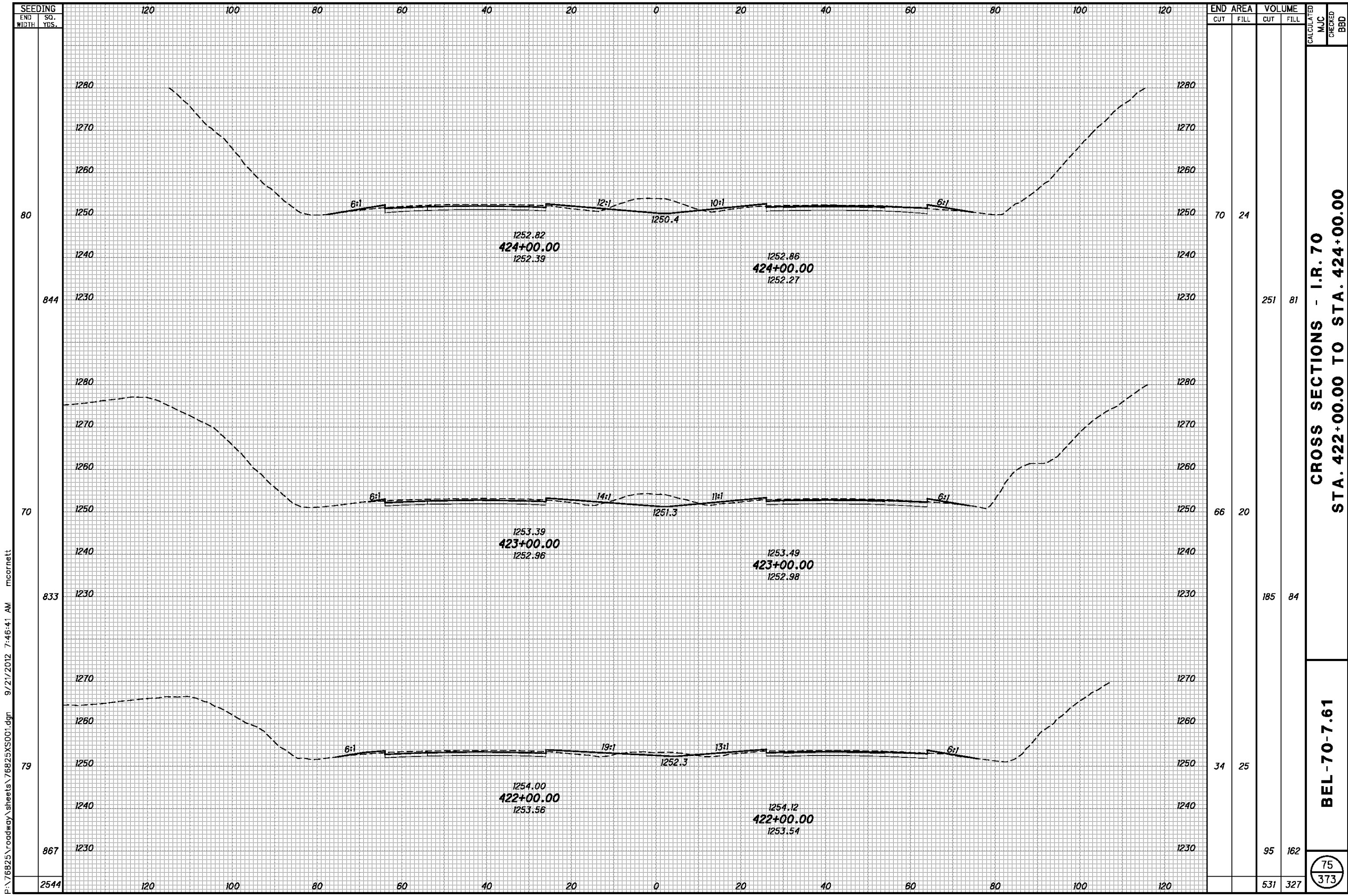
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| SEEDING | END SO. | |
|---------|---------|------|
| | WIDTH | YDS. |
| 76 | | |
| 2400 | | |
| 2400 | | |



| 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 | | | | | |



| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 80 | 844 |
| 70 | 833 |
| 79 | 867 |
| 2544 | |

| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 70 | 24 | 251 | 81 | | |
| 66 | 20 | 185 | 84 | | |
| 34 | 25 | 95 | 162 | | |
| | | 531 | 327 | | |

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

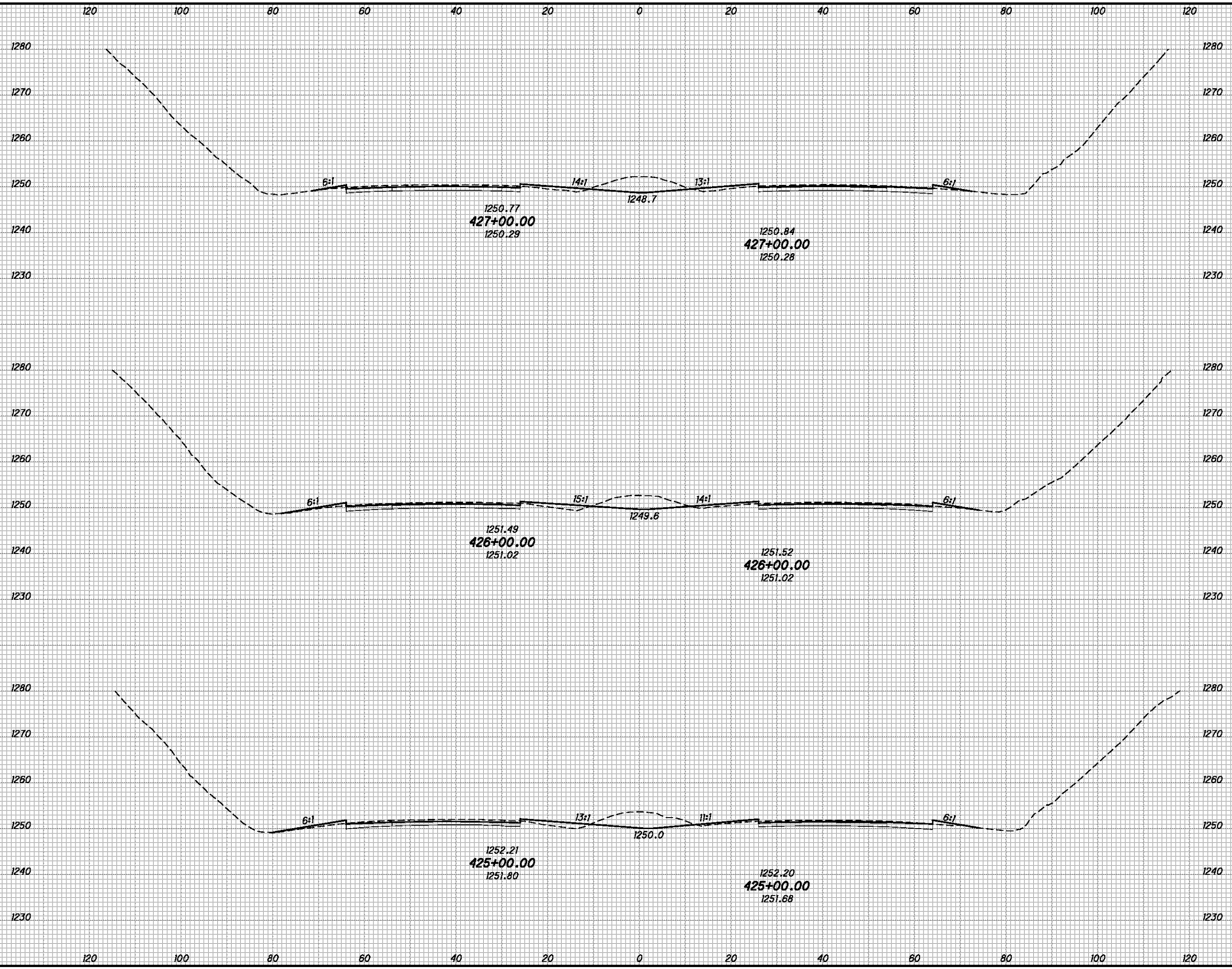
BEL-70-7.61

75
 373

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| 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 | | |

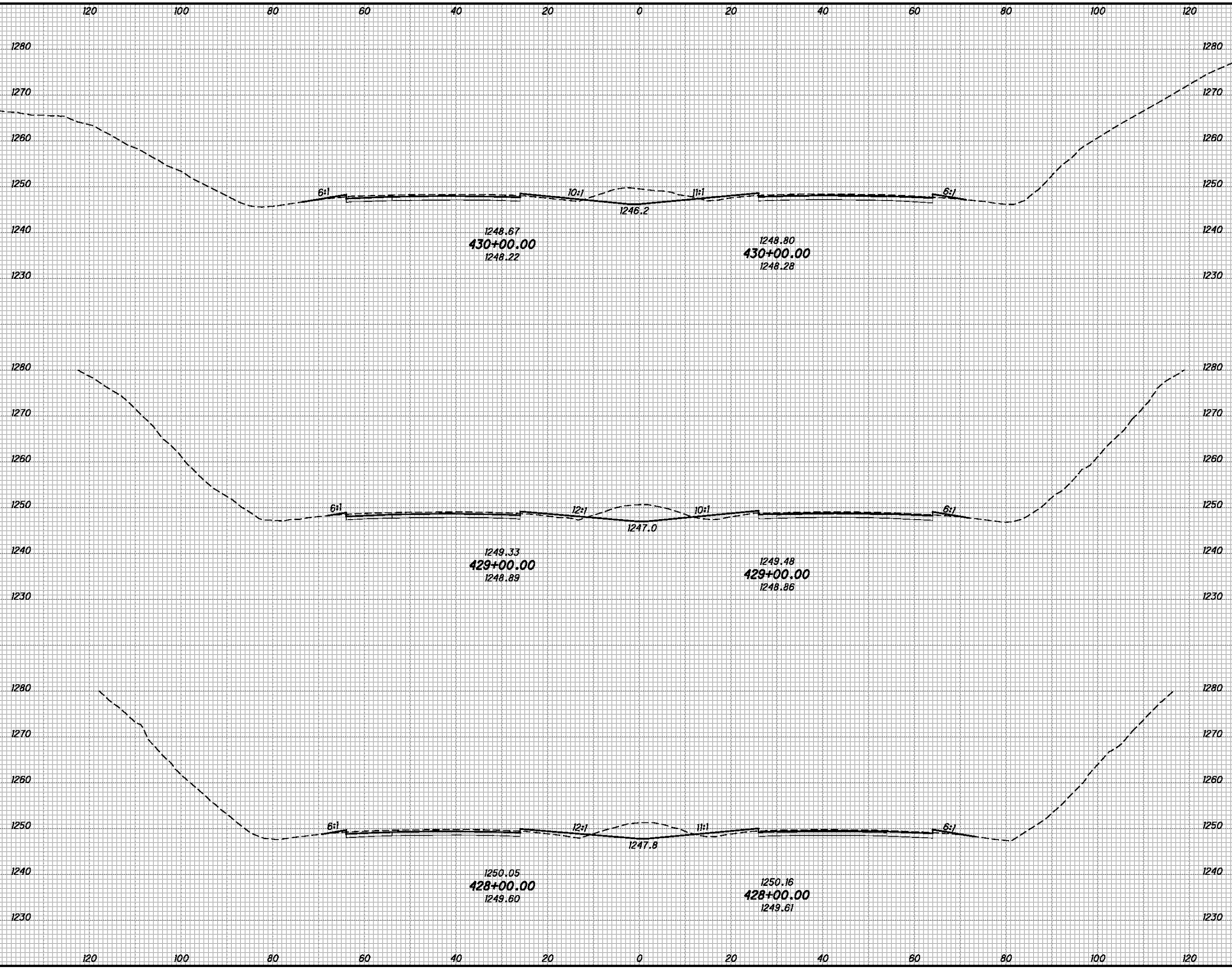
**CROSS SECTIONS - I.R. 70
STA. 425+00.00 TO STA. 427+00.00**

BEL-70-7.61

76
373

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| SEEDING | END SO. | |
|---------|---------|------|
| | WIDTH | YDS. |
| 73 | | |
| 789 | | |
| 68 | | |
| 778 | | |
| 70 | | |
| 800 | | |
| 2367 | | |

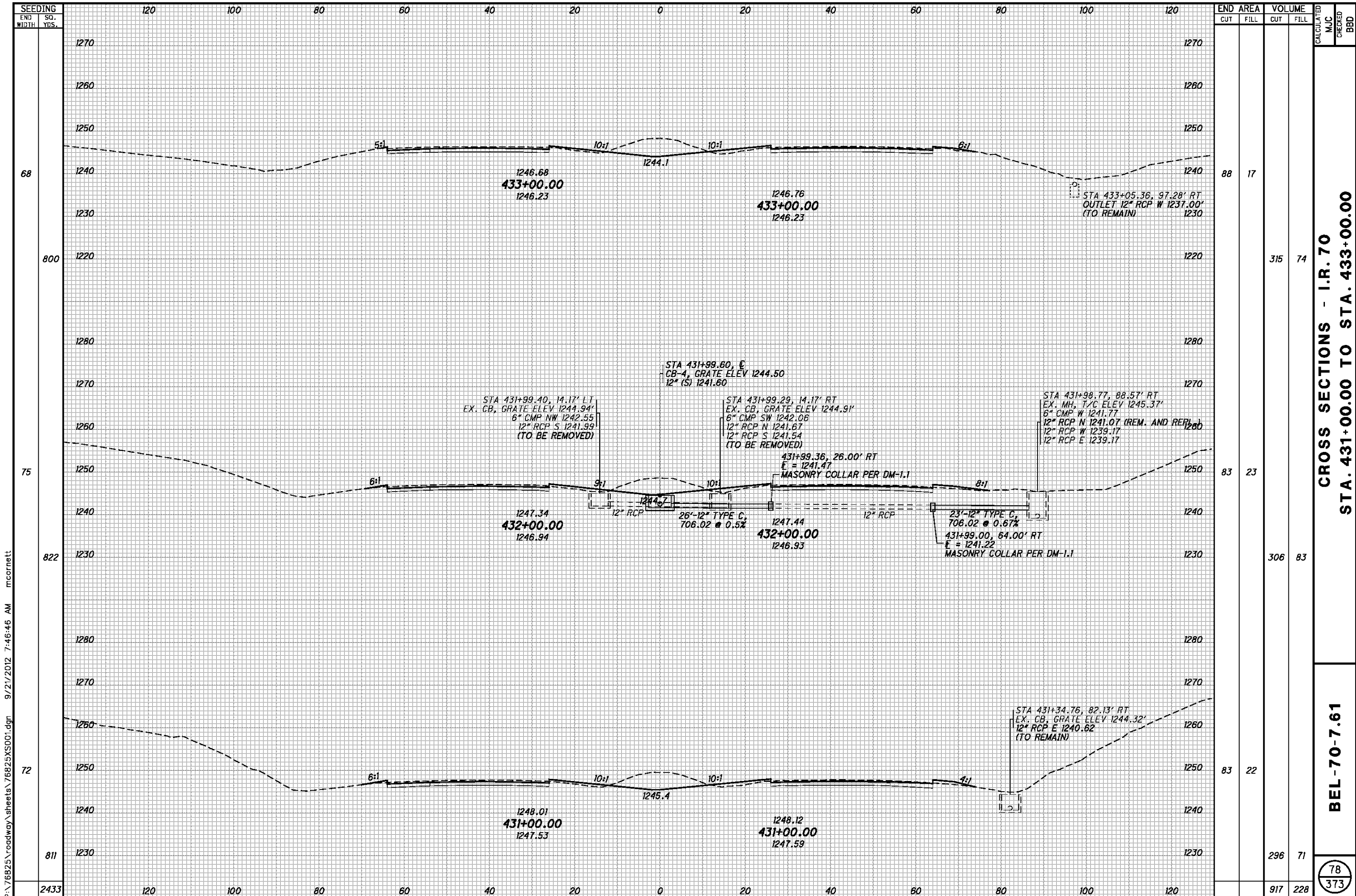


| END AREA | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|--------|------|----------------|-------------|
| | CUT | FILL | | |
| 77 | | 17 | | |
| 77 | | 20 | 285 | 68 |
| 77 | | 21 | 276 | 76 |
| 72 | | 21 | 265 | 80 |
| | | | 826 | 224 |

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

BEL-70-7.61

77
373



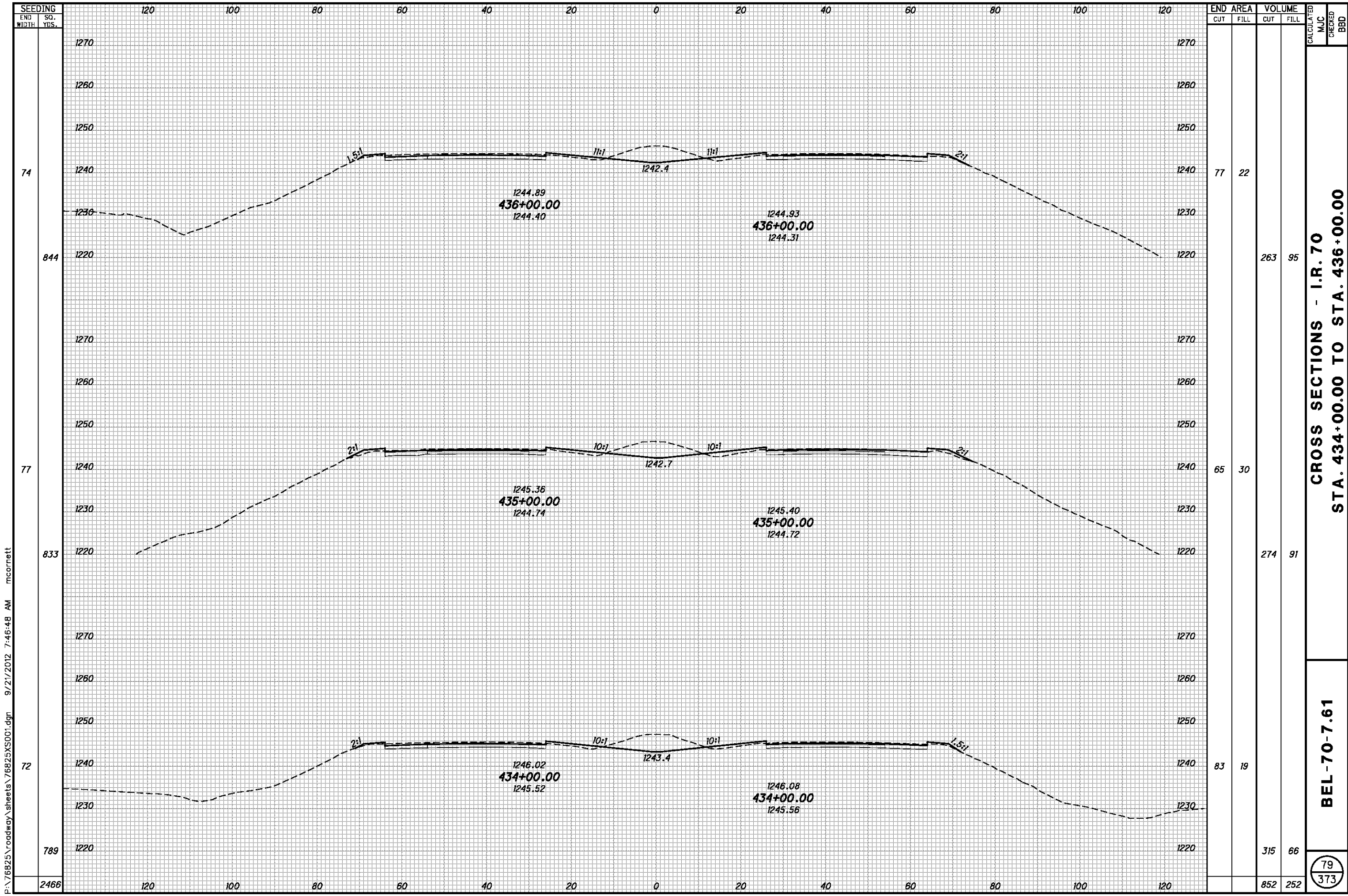
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| END AREA | VOLUME | | CALCULATED | CHECKED | MJC | BBD |
|----------|--------|------|------------|---------|-----|-----|
| | CUT | FILL | | | | |
| 88 | | 17 | | | | |
| 800 | | 315 | 74 | | | |
| 75 | | 23 | | | | |
| 822 | | 306 | 83 | | | |
| 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



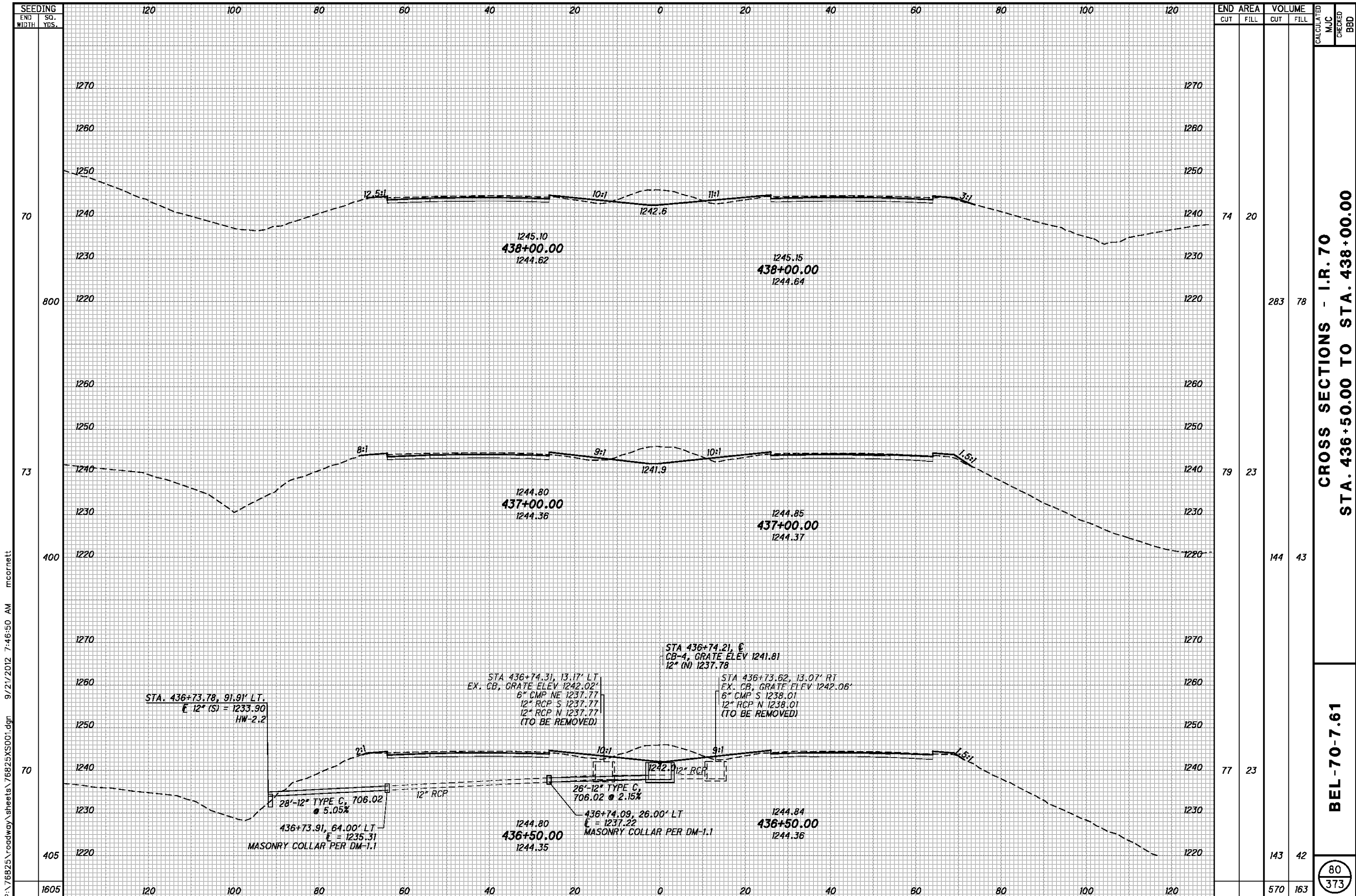
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| END AREA | VOLUME | CALCULATED | | MJC | CHECKED | BBD |
|----------|--------|------------|------|-----|---------|-----|
| | | CUT | FILL | | | |
| 77 | 22 | | | | | |
| 65 | 30 | | | | | |
| 83 | 19 | | | | | |
| 2466 | 852 | 263 | 95 | | | |
| | 852 | 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



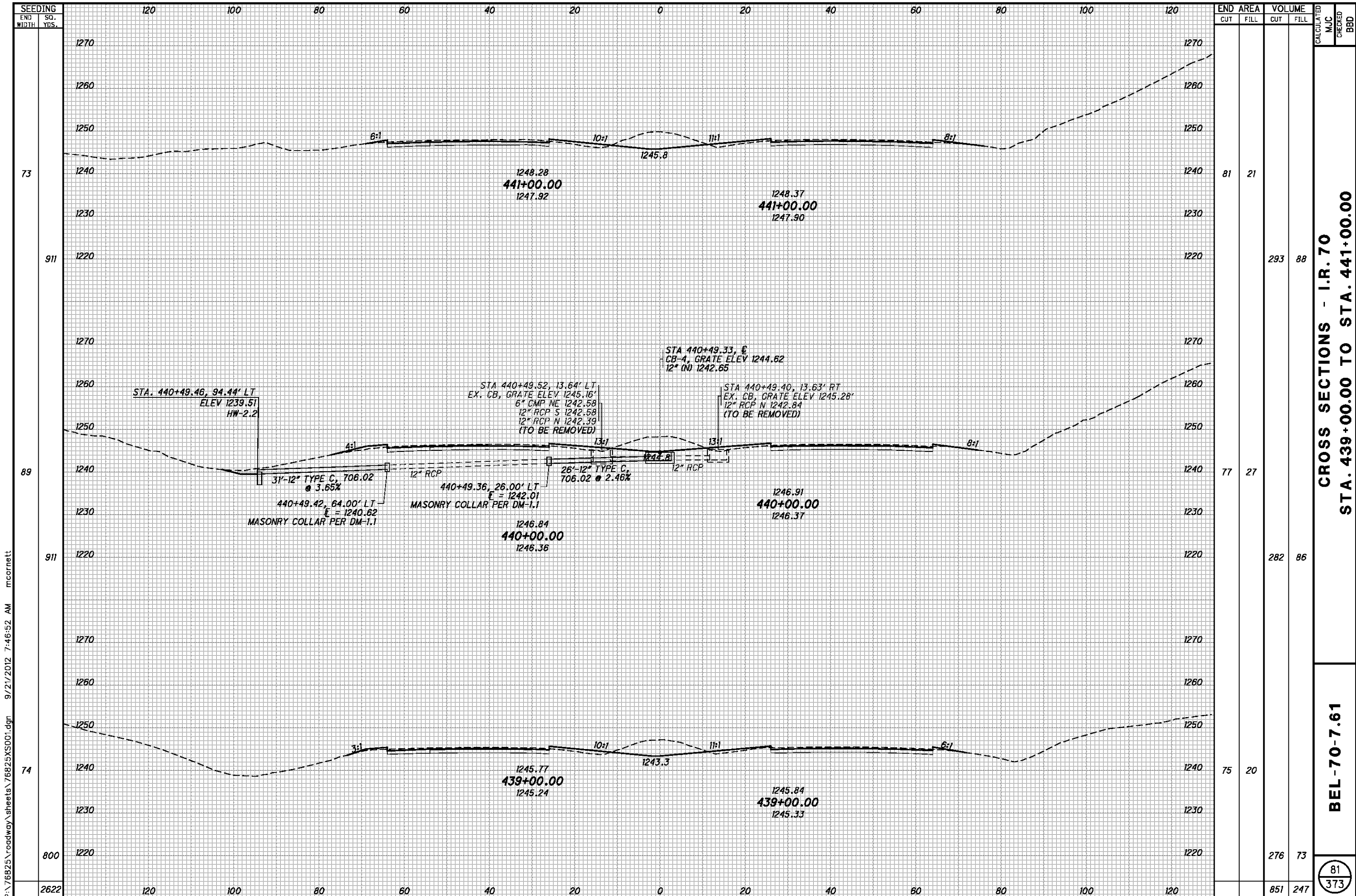
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CROSS SECTIONS - I.R. 70
STA. 436+50.00 TO STA. 438+00.00

BEL-70-7.61

80
373

CALCULATED
MJC
CHECKED
BBD



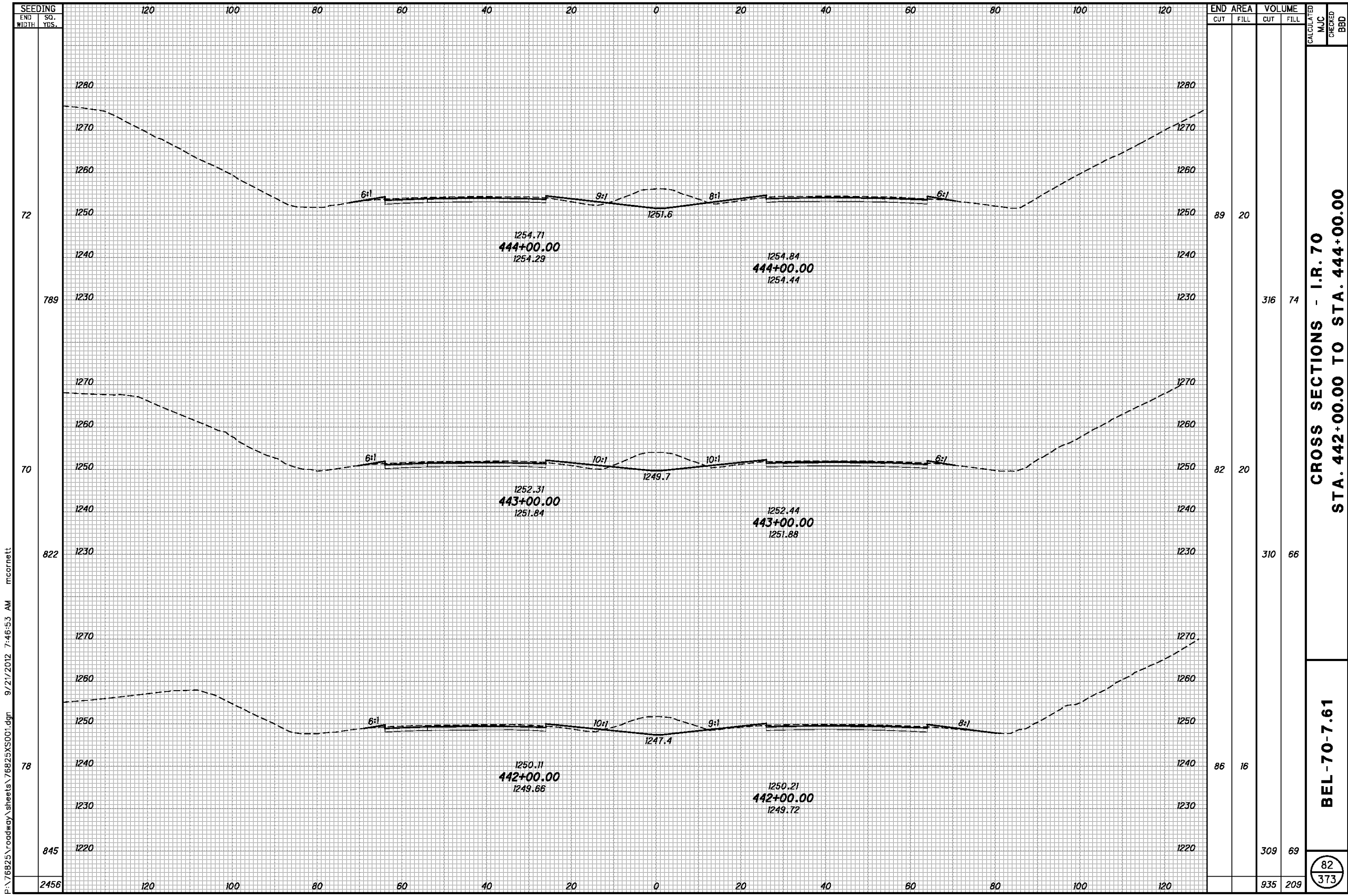
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 73 | | 81 | 21 | | | | |
| 911 | | | | 293 | 88 | | |
| 89 | | 77 | 27 | | | | |
| 911 | | | | 282 | 86 | | |
| 74 | | 75 | 20 | | | | |
| 800 | | | | 276 | 73 | | |
| 2622 | | | | 851 | 247 | | |

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

BEL-70-7.61

81
373



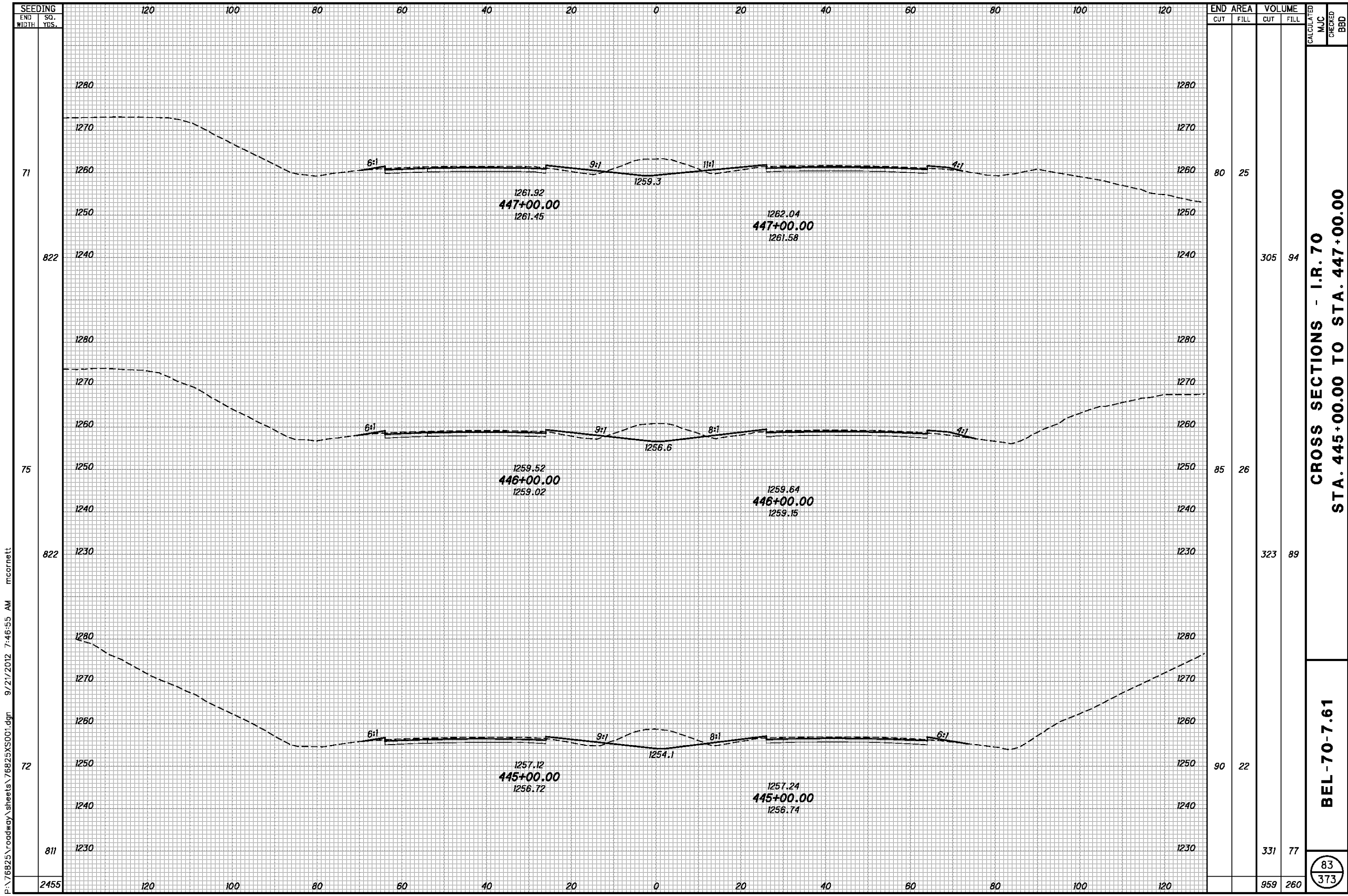
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:46:53 AM mcornett

| END AREA | VOLUME | CALCULATED | | CHECKED | BBD |
|----------|--------|------------|------|---------|-----|
| | | CUT | FILL | | |
| 89 | 20 | | | | |
| 82 | 20 | 316 | 74 | | |
| 822 | 310 | 66 | | | |
| 78 | 86 | 16 | | | |
| 845 | 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



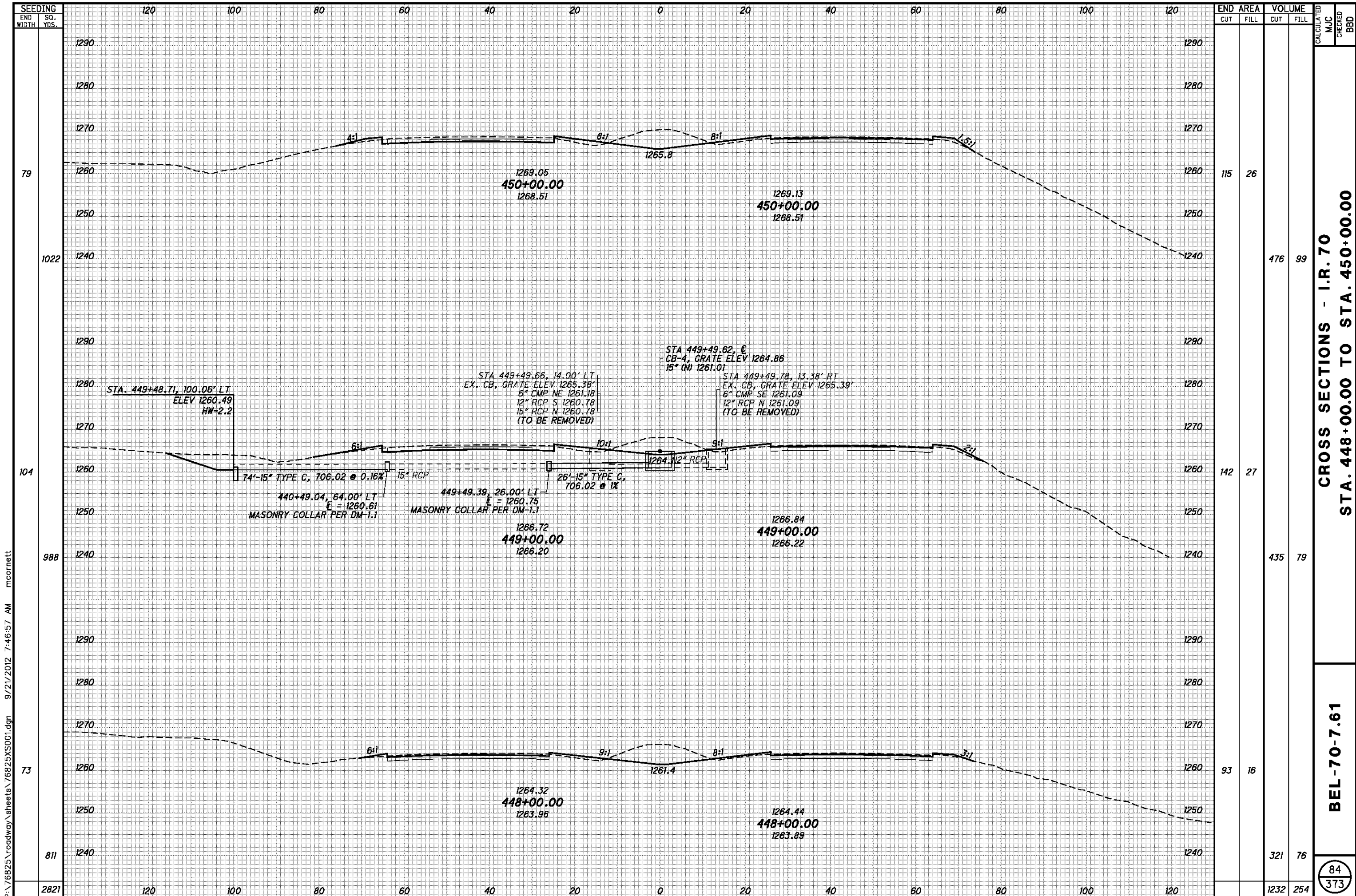
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| END AREA | VOLUME | CALCULATED | | MJC | CHECKED | BBD |
|----------|--------|------------|------|-----|---------|-----|
| | | CUT | FILL | | | |
| 80 | 25 | | | | | |
| 822 | 305 | 94 | | | | |
| 75 | 26 | | | | | |
| 822 | 323 | 89 | | | | |
| 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



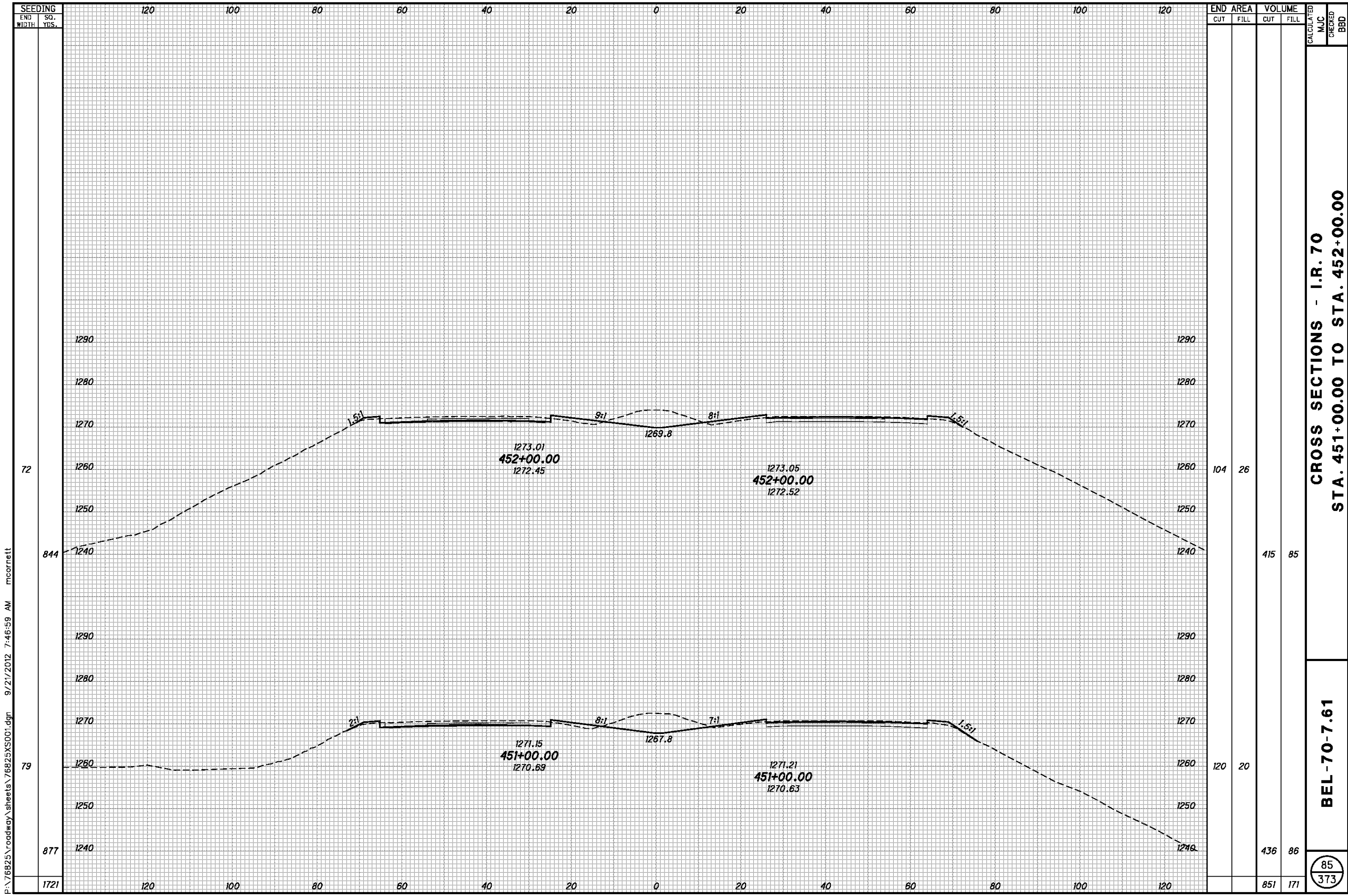
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| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|----------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 79 | 115 | 26 | | | | | | |
| 1022 | | | 476 | 99 | | | | |
| 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



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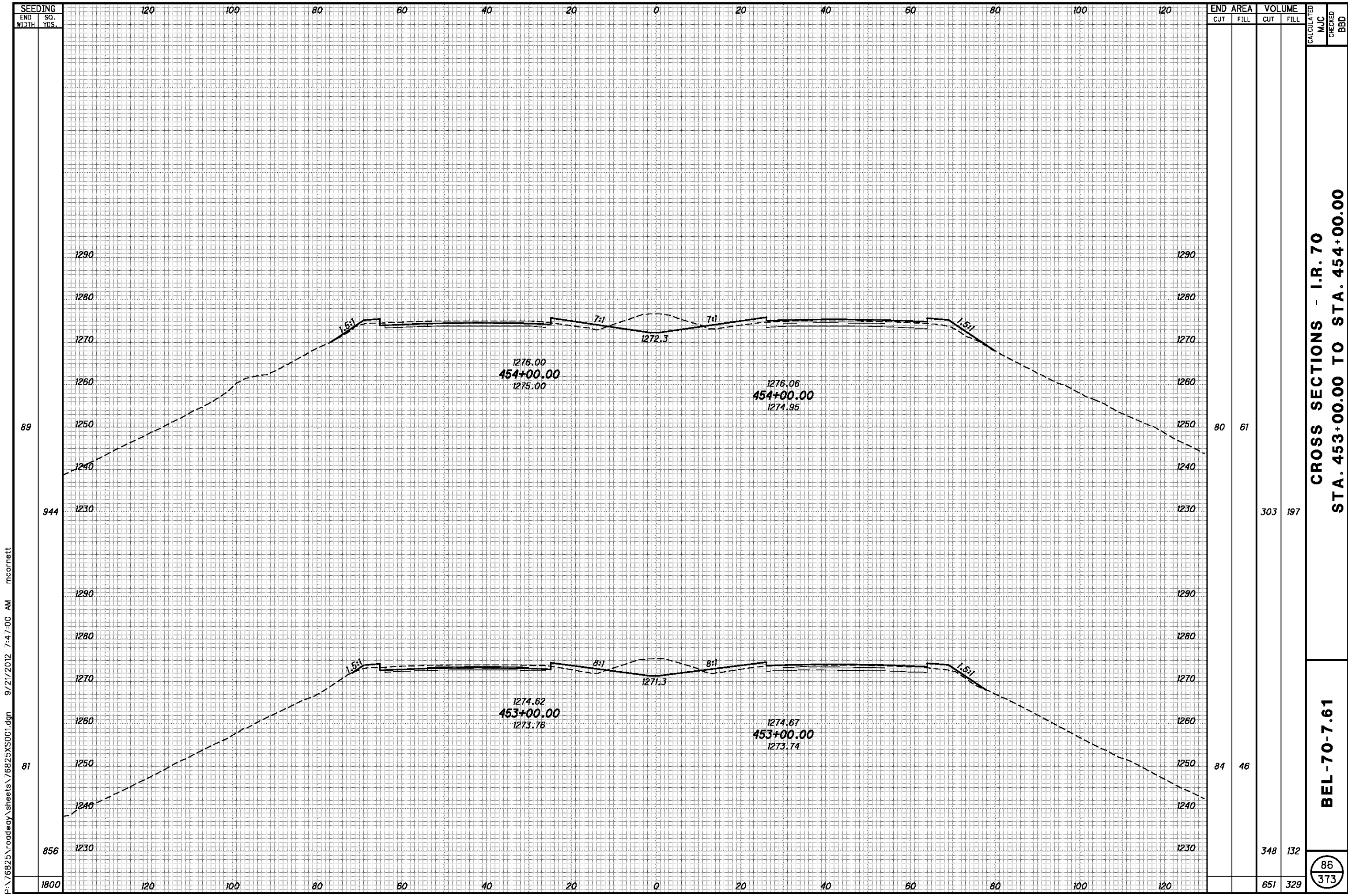
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 72 | |
| 79 | |
| 877 | |
| 1721 | |

| END AREA | | VOLUME | | CALCULATED | |
|----------|------|--------|------|------------|-----|
| CUT | FILL | CUT | FILL | MJC | BBD |
| 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

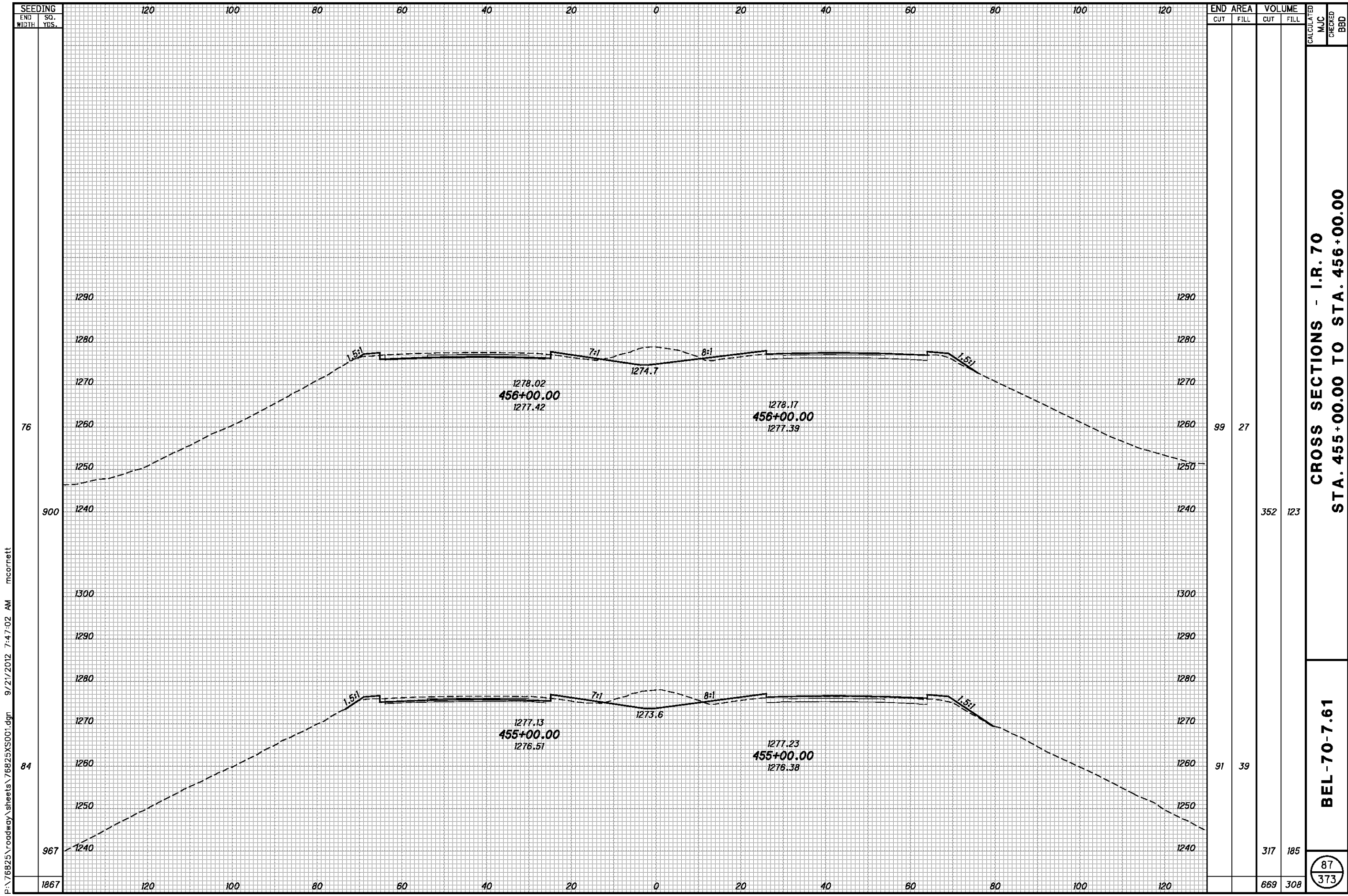


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| END AREA | VOLUME | CALCULATED | | CHECKED | |
|----------|--------|------------|------|---------|-----|
| | | CUT | FILL | MJC | BBD |
| 80 | 61 | 303 | 197 | | |
| 84 | 46 | 348 | 132 | | |
| 1800 | 651 | 651 | 329 | 86 | 373 |

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

BEL-70-7.61



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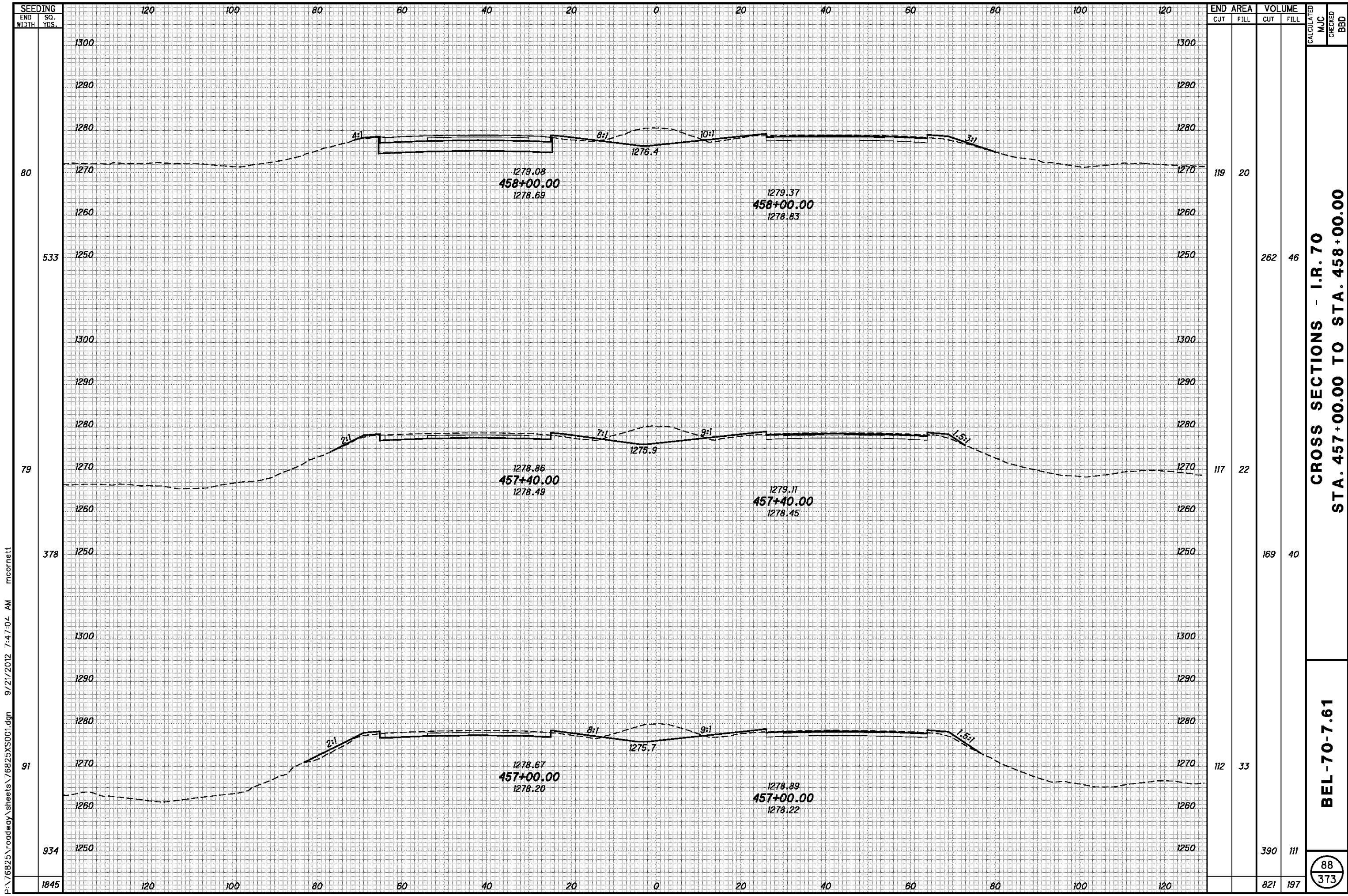
| SEEDING | END | |
|---------|-------|----------|
| | WIDTH | SO. YDS. |
| | 1867 | |

| END AREA | VOLUME | CALCULATED | | CHECKED | MJC | BBD |
|----------|--------|------------|------|---------|-----|-----|
| | | 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



SEEDING
END WIDTH SO. YDS.
80
533
79
378
91
934
1845

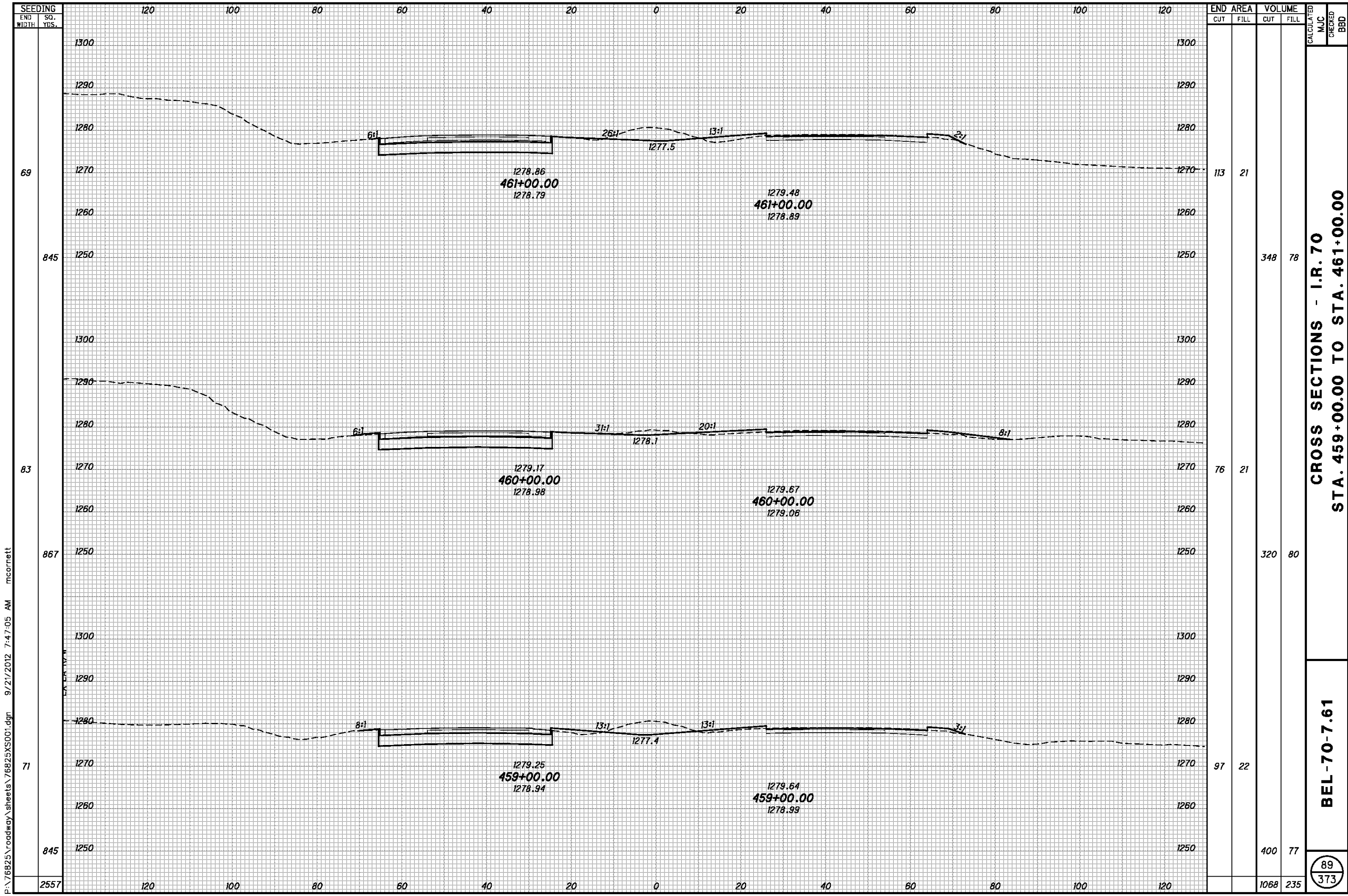
| END AREA | VOLUME | CALCULATED | CHECKED |
|----------|--------|------------|---------|
| | | | |
| 119 | 20 | | |
| | 262 | 46 | |
| 117 | 22 | | |
| | 169 | 40 | |
| 112 | 33 | | |
| | 390 | 111 | |
| | 821 | 197 | |

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

BEL-70-7.61

88
373

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

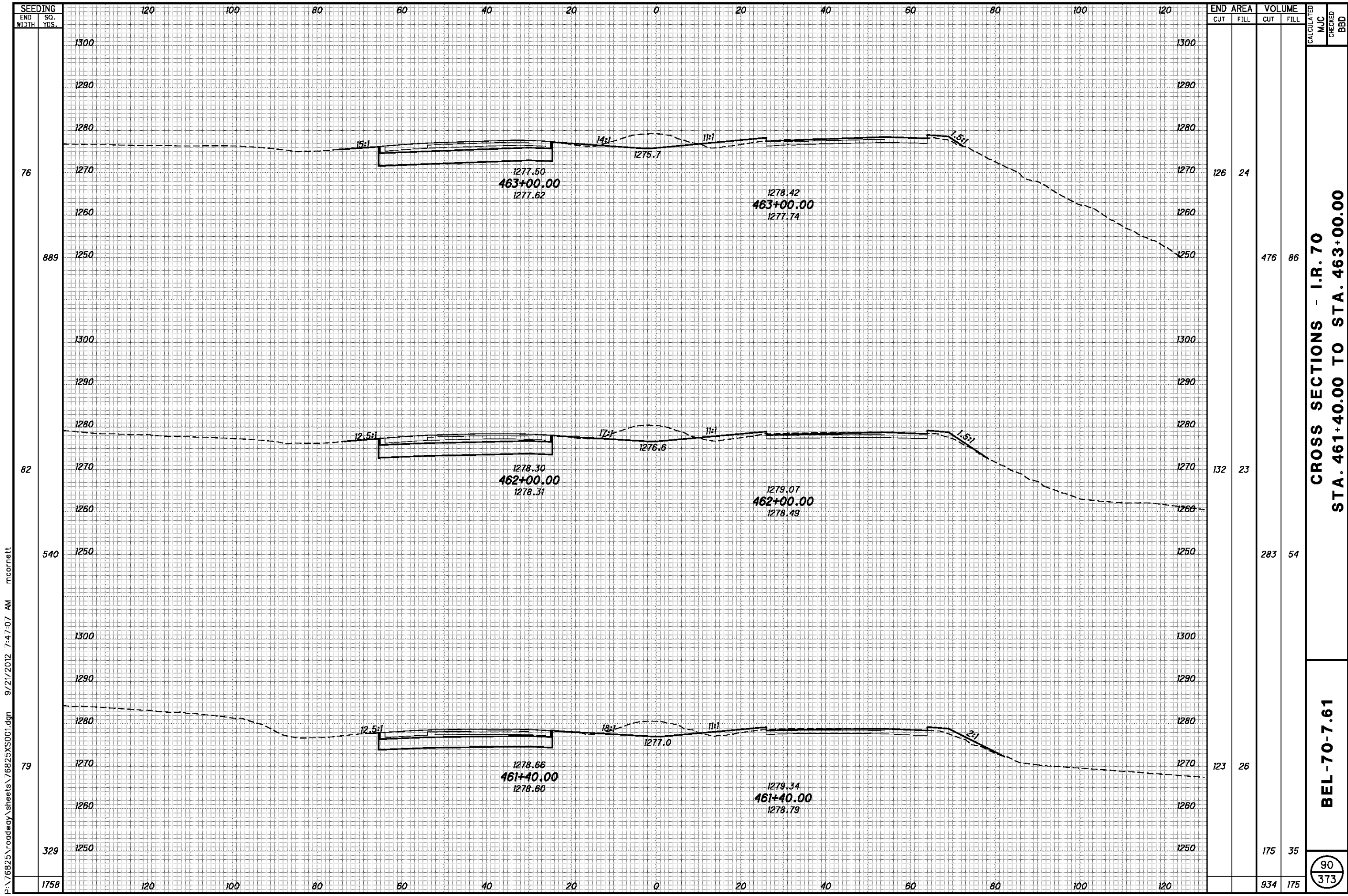
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|-------------------|----------------|
| CUT | FILL | CUT | FILL | | |
| 113 | 21 | 348 | 78 | | |
| 76 | 21 | 320 | 80 | | |
| 97 | 22 | 400 | 77 | | |
| | | 1068 | 235 | | |

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 | |

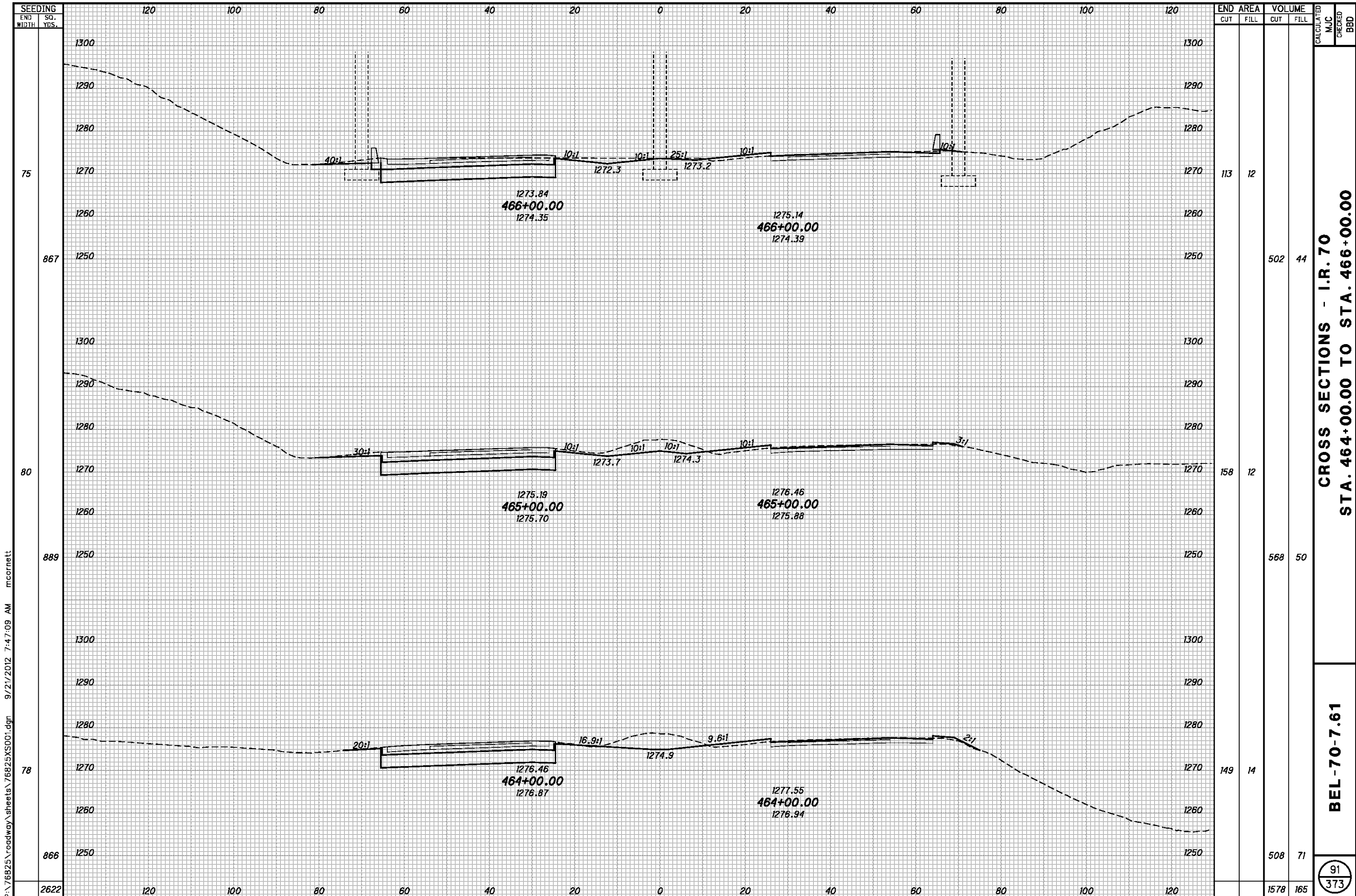
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 126 | 24 | 476 | 86 | | |
| 132 | 23 | 283 | 54 | | |
| 123 | 26 | 175 | 35 | | |
| | | 934 | 175 | | |

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

BEL-70-7.61

90
 373

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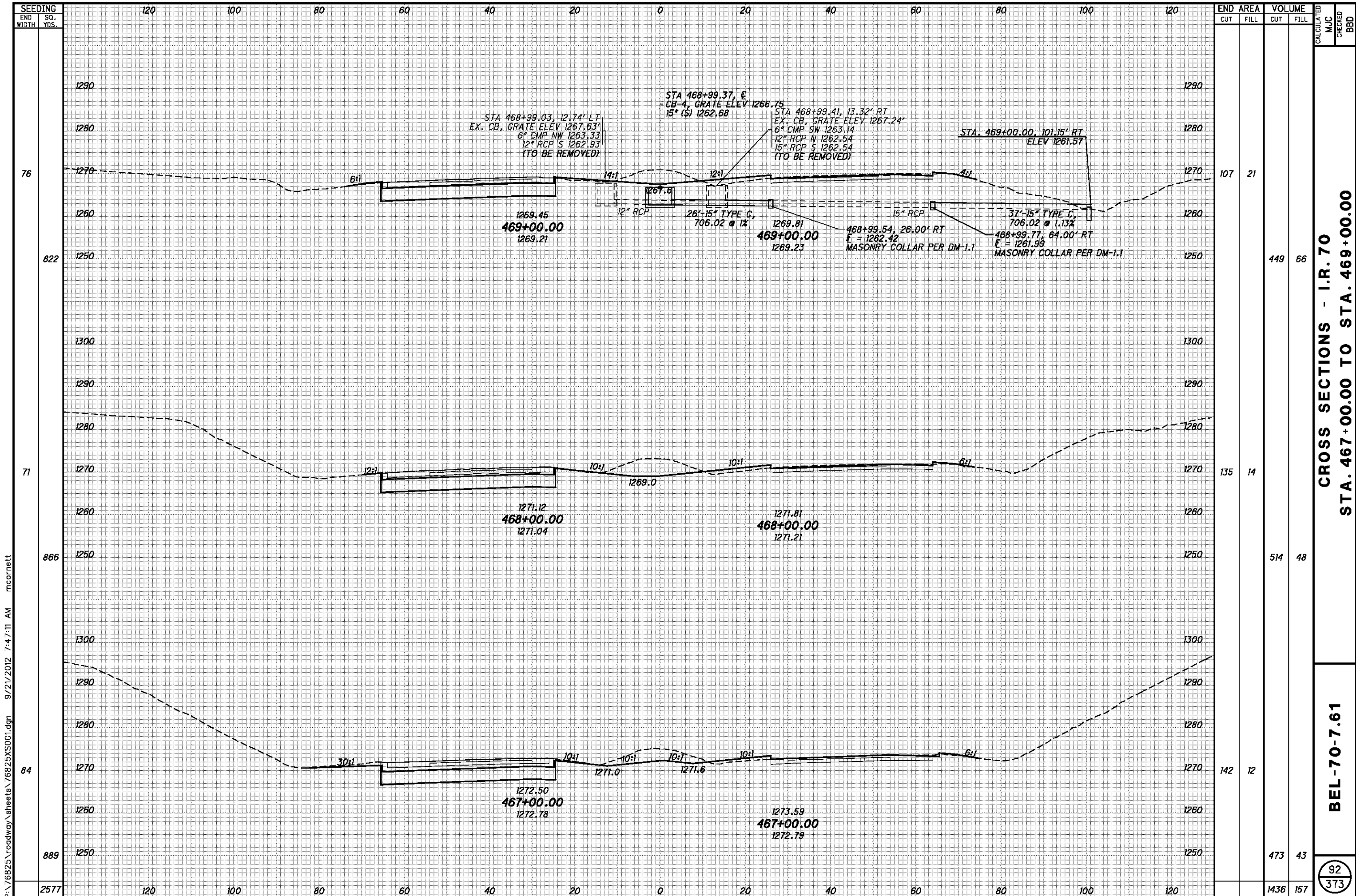
| SEEDING | END | |
|---------|-------|----------|
| | WIDTH | SO. YDS. |
| | 75 | |
| | 867 | |
| | 80 | |
| | 889 | |
| | 78 | |
| | 866 | |
| | 2622 | |

| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 113 | 12 | | | |
| | 502 | 44 | | |
| 158 | 12 | | | |
| | 568 | 50 | | |
| 149 | 14 | | | |
| | 508 | 71 | | |
| | 1578 | 165 | | |

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

BEL-70-7.61

91
373



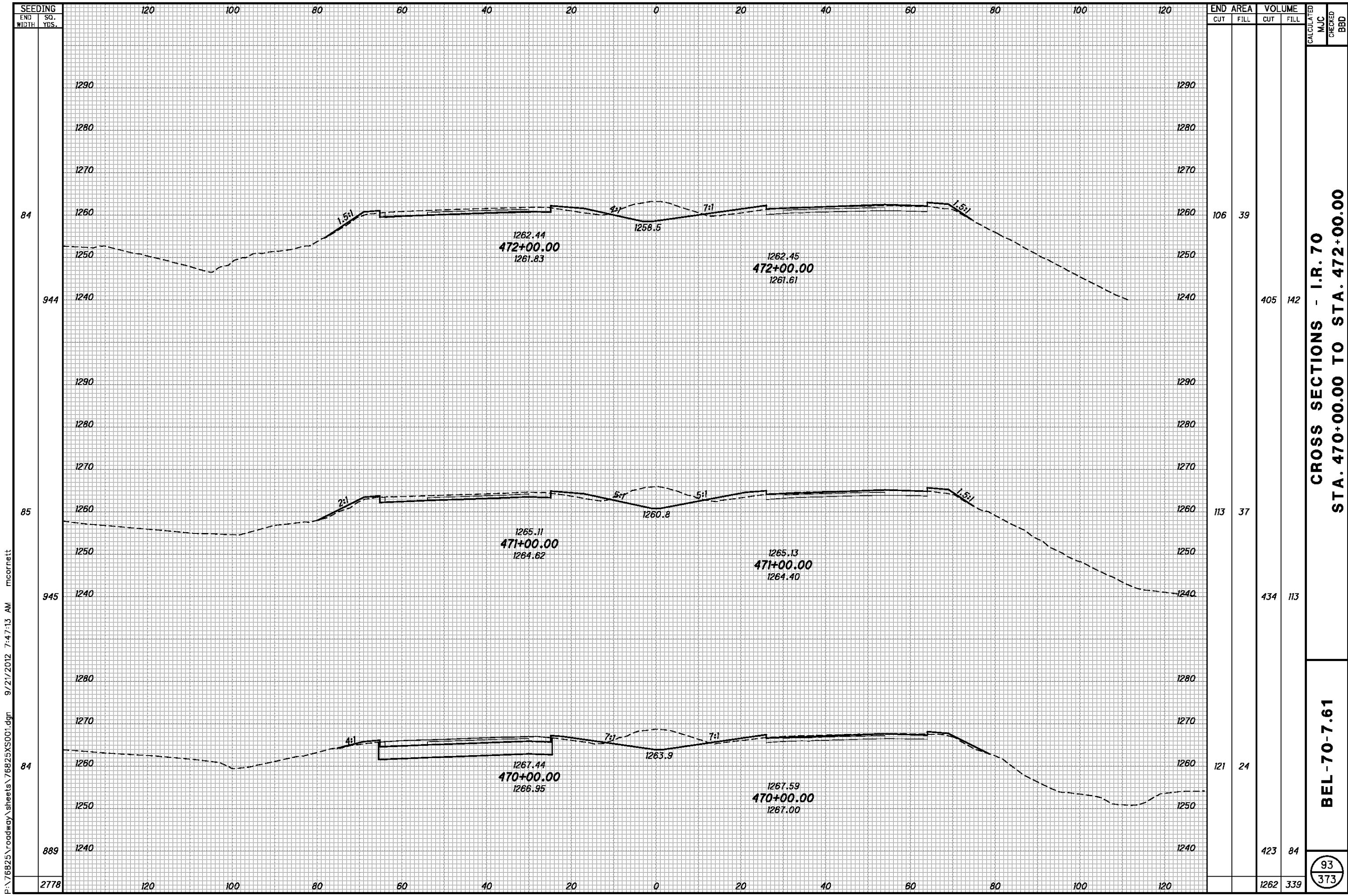
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 76 | | 107 | 21 | | | | |
| 822 | | | | 449 | 66 | | |
| 71 | | 135 | 14 | | | | |
| 866 | | | | 514 | 48 | | |
| 84 | | 142 | 12 | | | | |
| 889 | | | | 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



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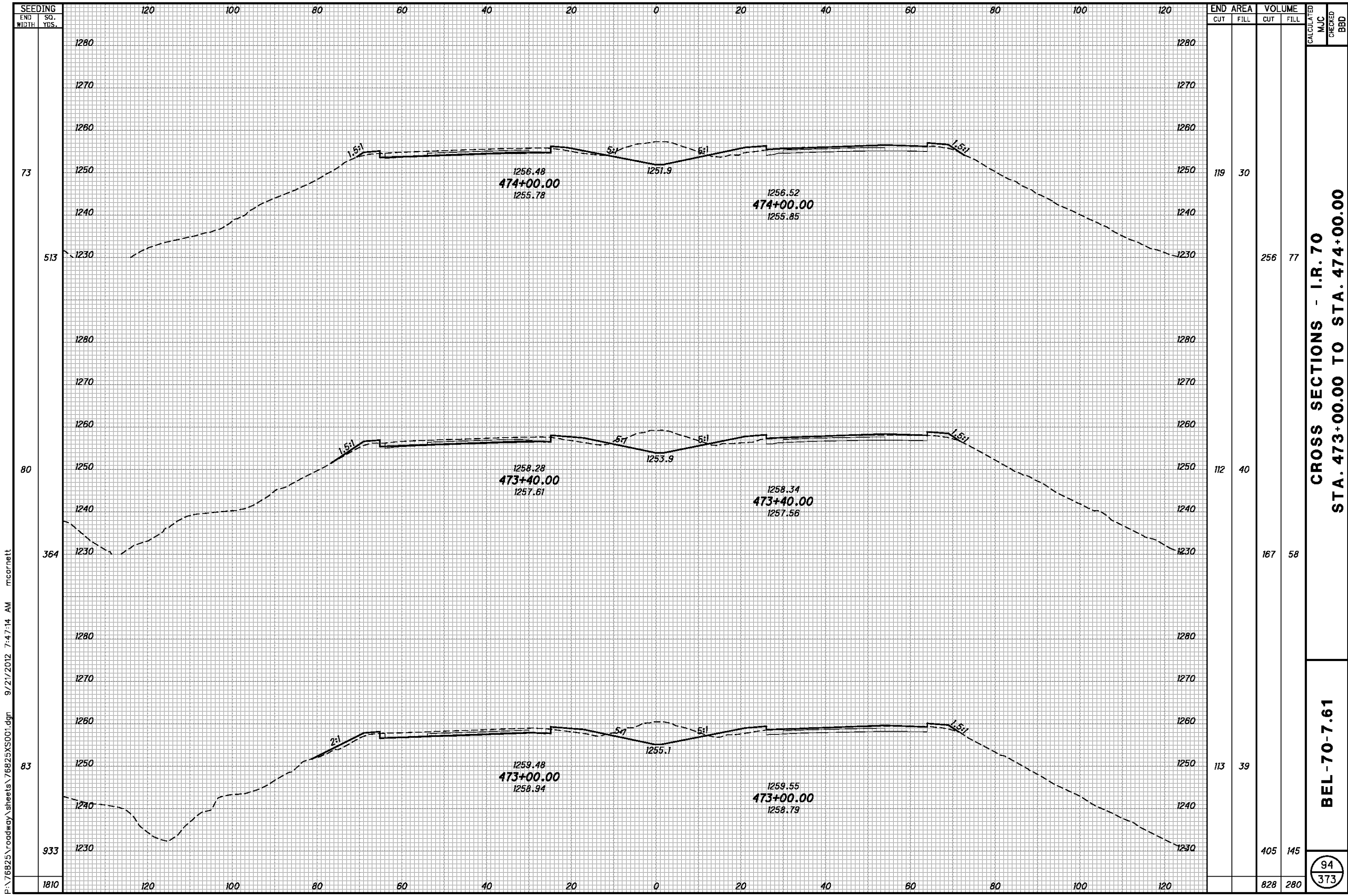
| SEEDING | END | |
|---------|-------|----------|
| | WIDTH | SO. YDS. |
| 84 | | |
| 944 | | |
| 85 | | |
| 945 | | |
| 84 | | |
| 889 | | |
| 2778 | | |

| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | 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



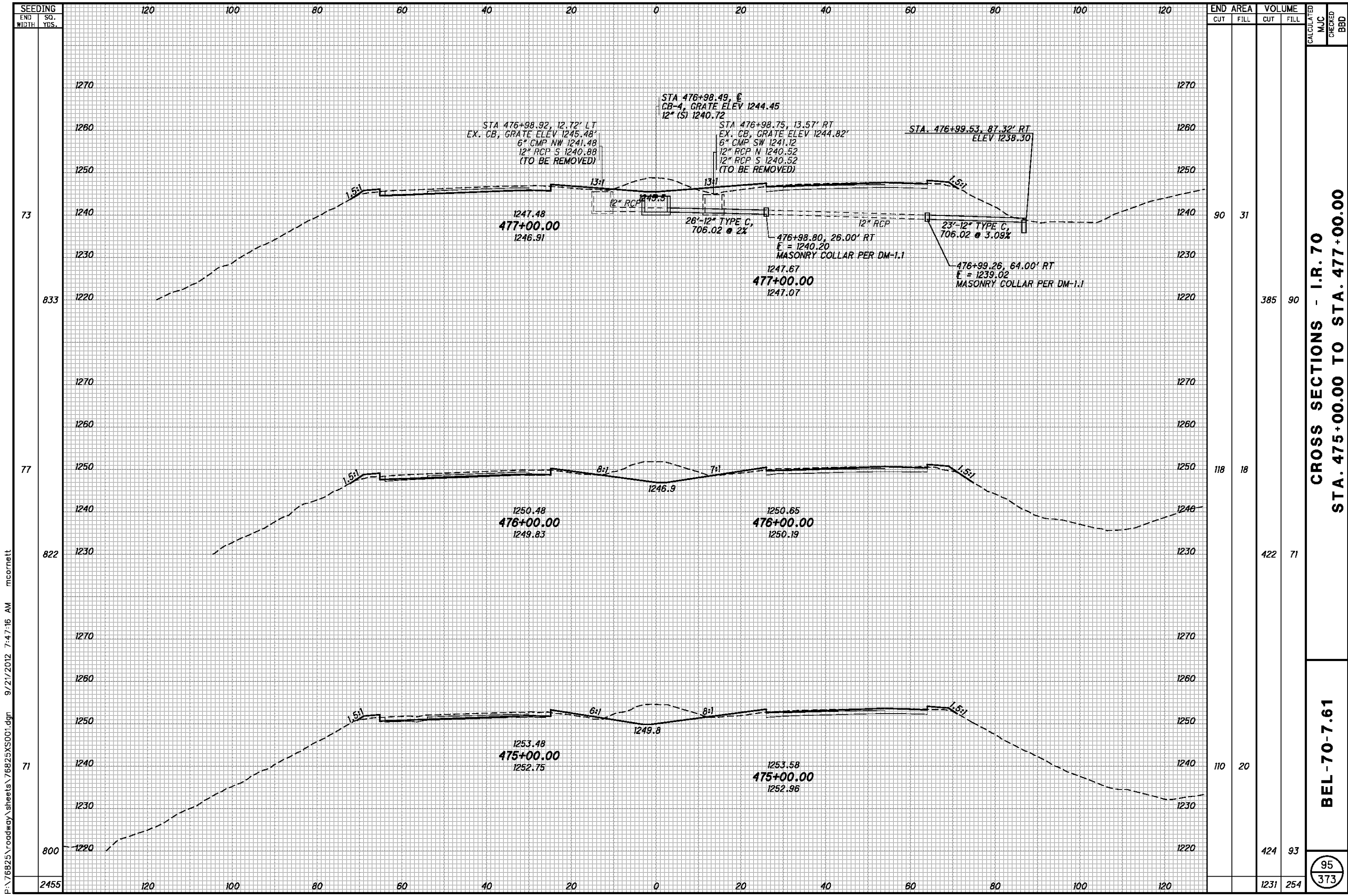
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| SEEDING | | END AREA | | VOLUME | | CALCULATED | |
|-----------|----------|----------|------|--------|------|------------|-----|
| END WIDTH | SO. YDS. | CUT | FILL | CUT | FILL | MJC | BBD |
| 73 | | 119 | 30 | 256 | 77 | | |
| 80 | | 112 | 40 | 167 | 58 | | |
| 83 | | 113 | 39 | 405 | 145 | | |
| 1810 | | 344 | 109 | 828 | 280 | | |

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

BEL-70-7.61

94
373



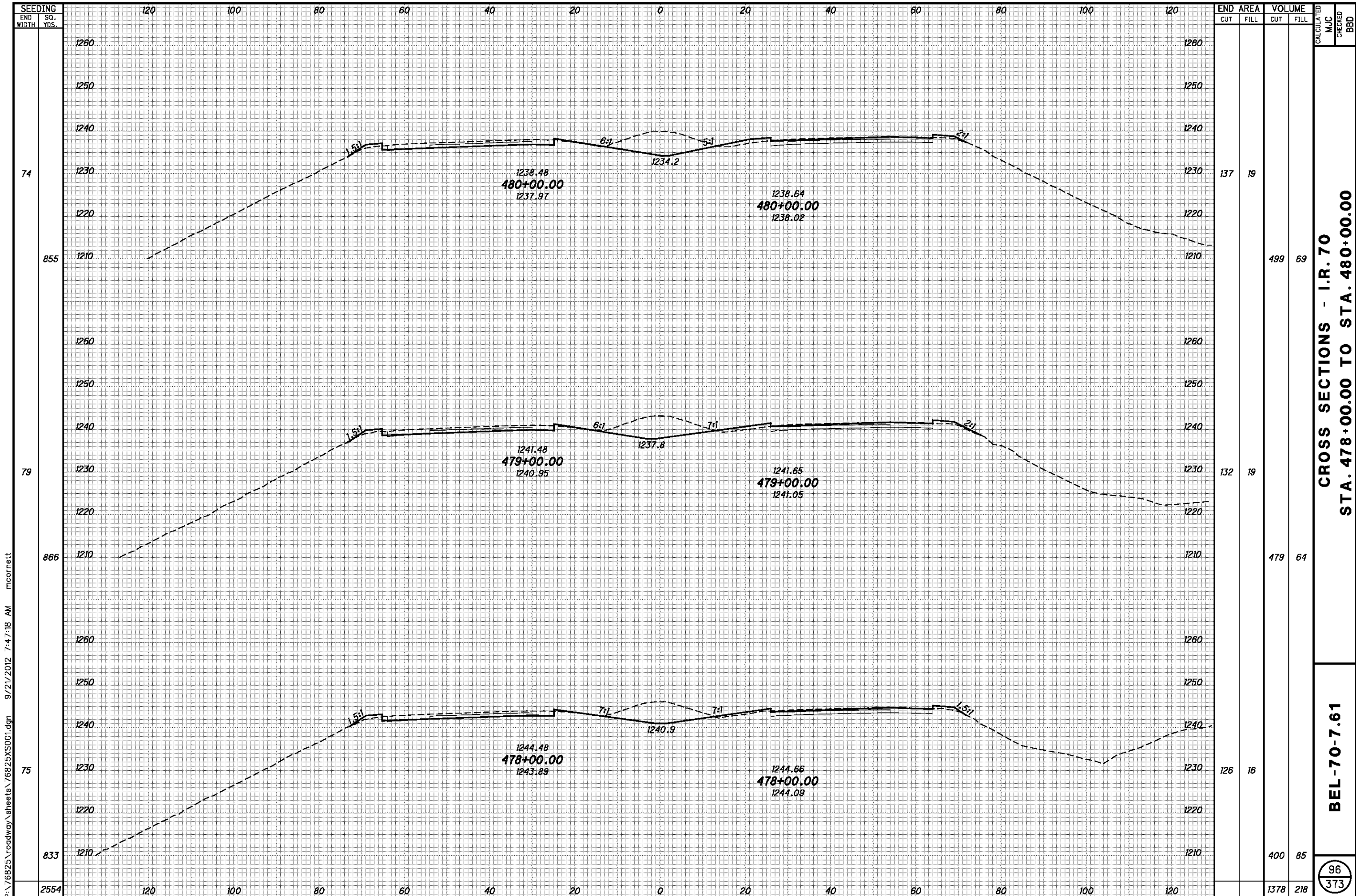
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| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|----------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 73 | | 90 | | 31 | | | | |
| 833 | | | 385 | 90 | | | | |
| 77 | | 118 | | 18 | | | | |
| 822 | | | 422 | 71 | | | | |
| 71 | | 110 | | 20 | | | | |
| 800 | | | 424 | 93 | | | | |
| 2455 | | | 1231 | 254 | | | | |

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

BEL-70-7.61

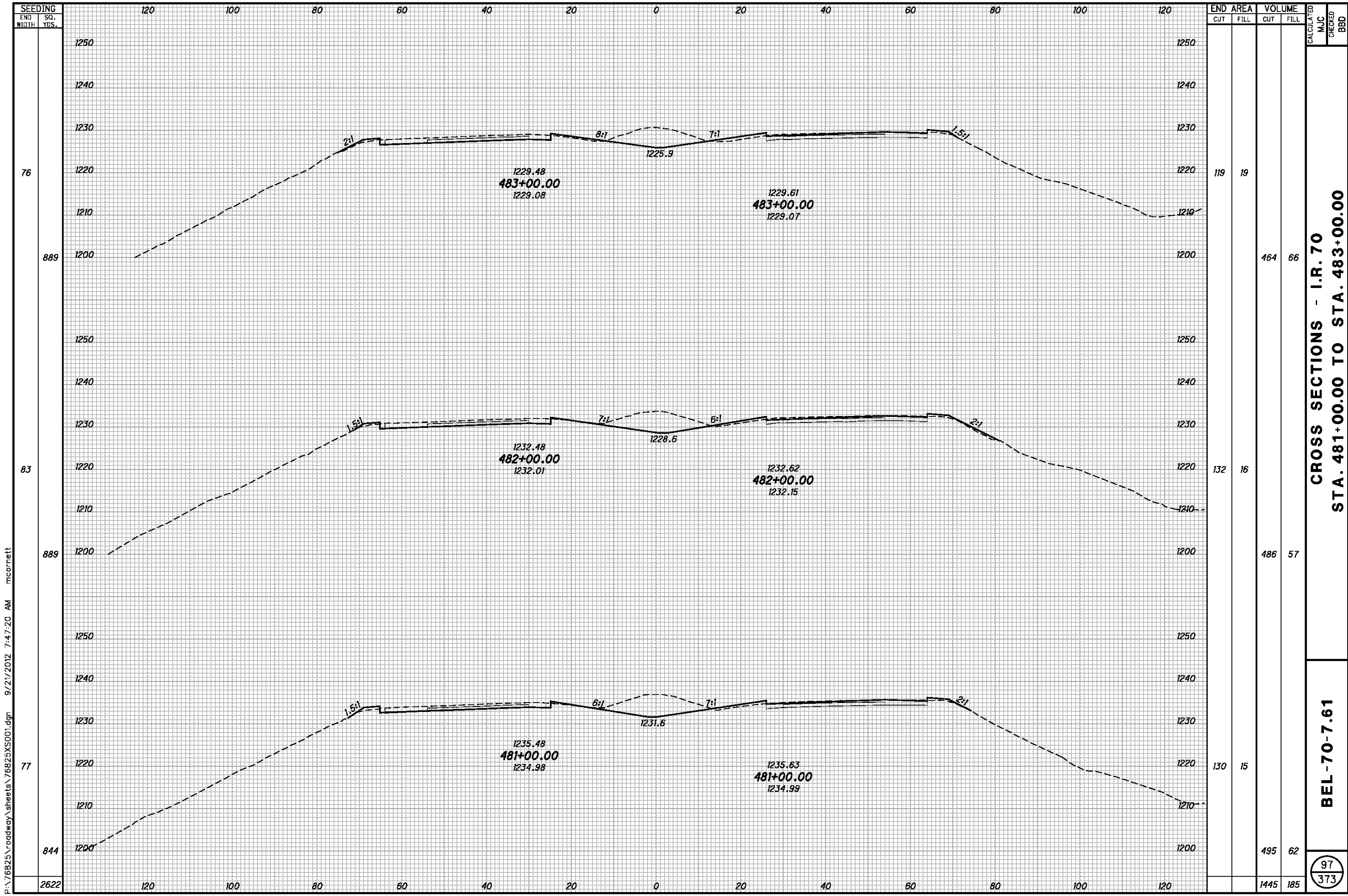
95
 373



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| SEEDING | END WIDTH | SO. YDS. |
|---------|-----------|----------|
| 74 | 855 | 1260 |
| 79 | 866 | 1260 |
| 75 | 833 | 1260 |
| 2554 | | |

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



SEEDING
END SO.
WIDTH YDS.
76
889
83
889
77
844
2622

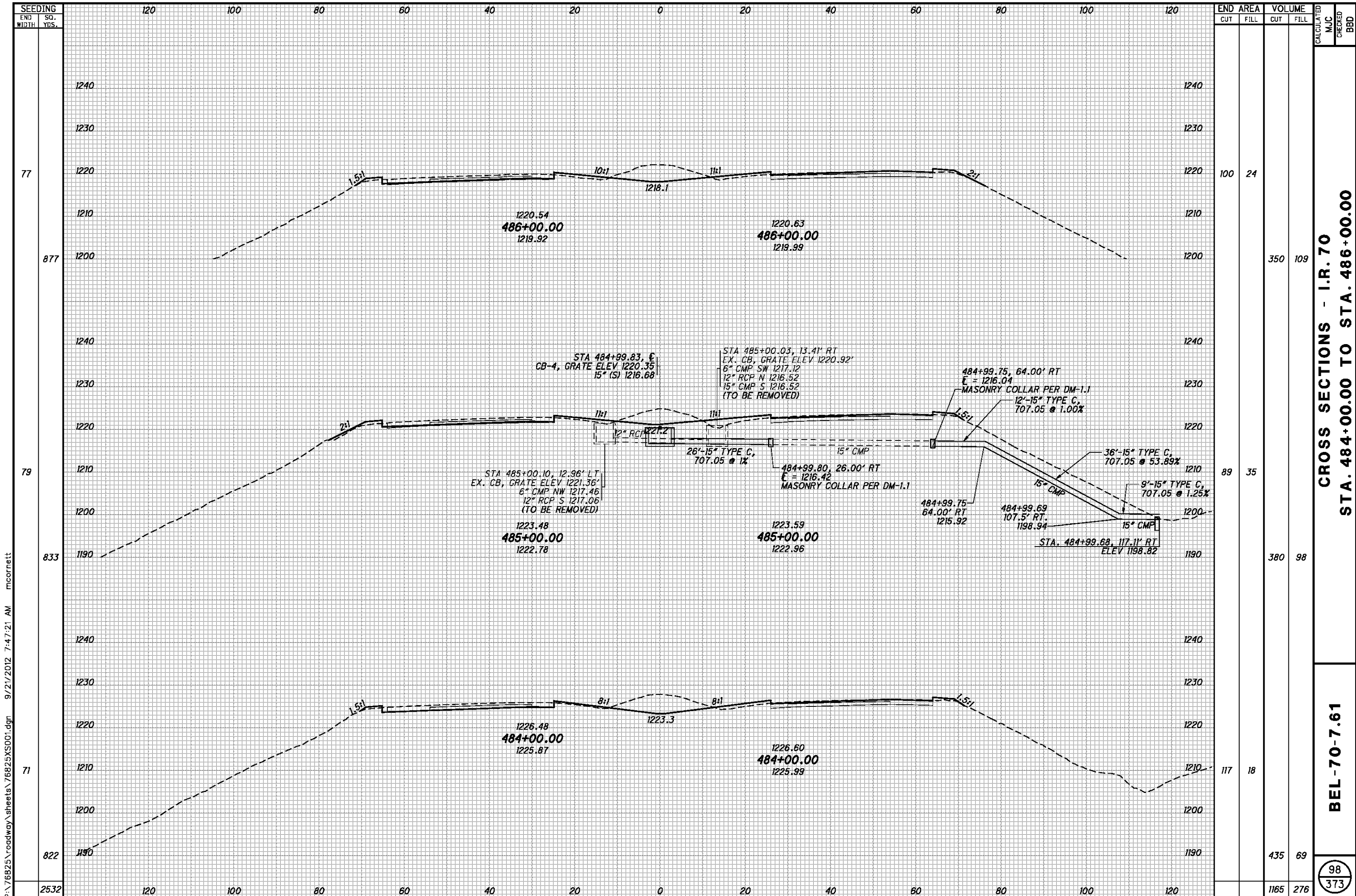
| END AREA | VOLUME | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------------|-----|---------|-----|
| | | | | | |
| 119 | 19 | | | | |
| | | 464 | 66 | | |
| 132 | 16 | | | | |
| | | 486 | 57 | | |
| 130 | 15 | | | | |
| | | 495 | 62 | | |
| | | 1445 | 185 | | |

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

BEL-70-7.61

97
373

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



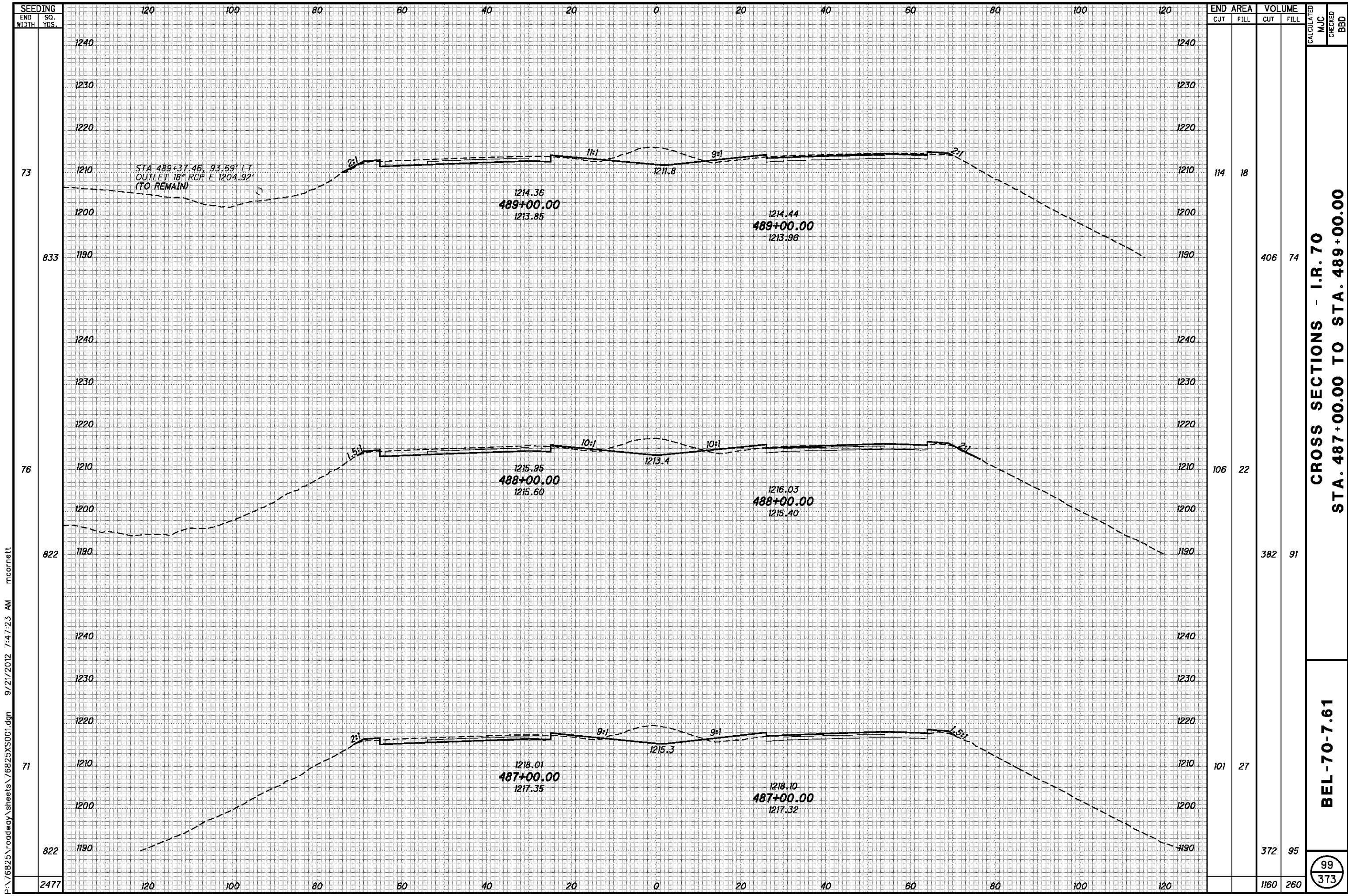
| END AREA | VOLUME | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------------|-----|---------|-----|
| | | | | | |
| 100 | 24 | | | | |
| 350 | 109 | | | | |
| 89 | 35 | | | | |
| 380 | 98 | | | | |
| 117 | 18 | | | | |
| 435 | 69 | | | | |
| 1165 | 276 | | | | |

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

BEL-70-7.61

98
 373

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



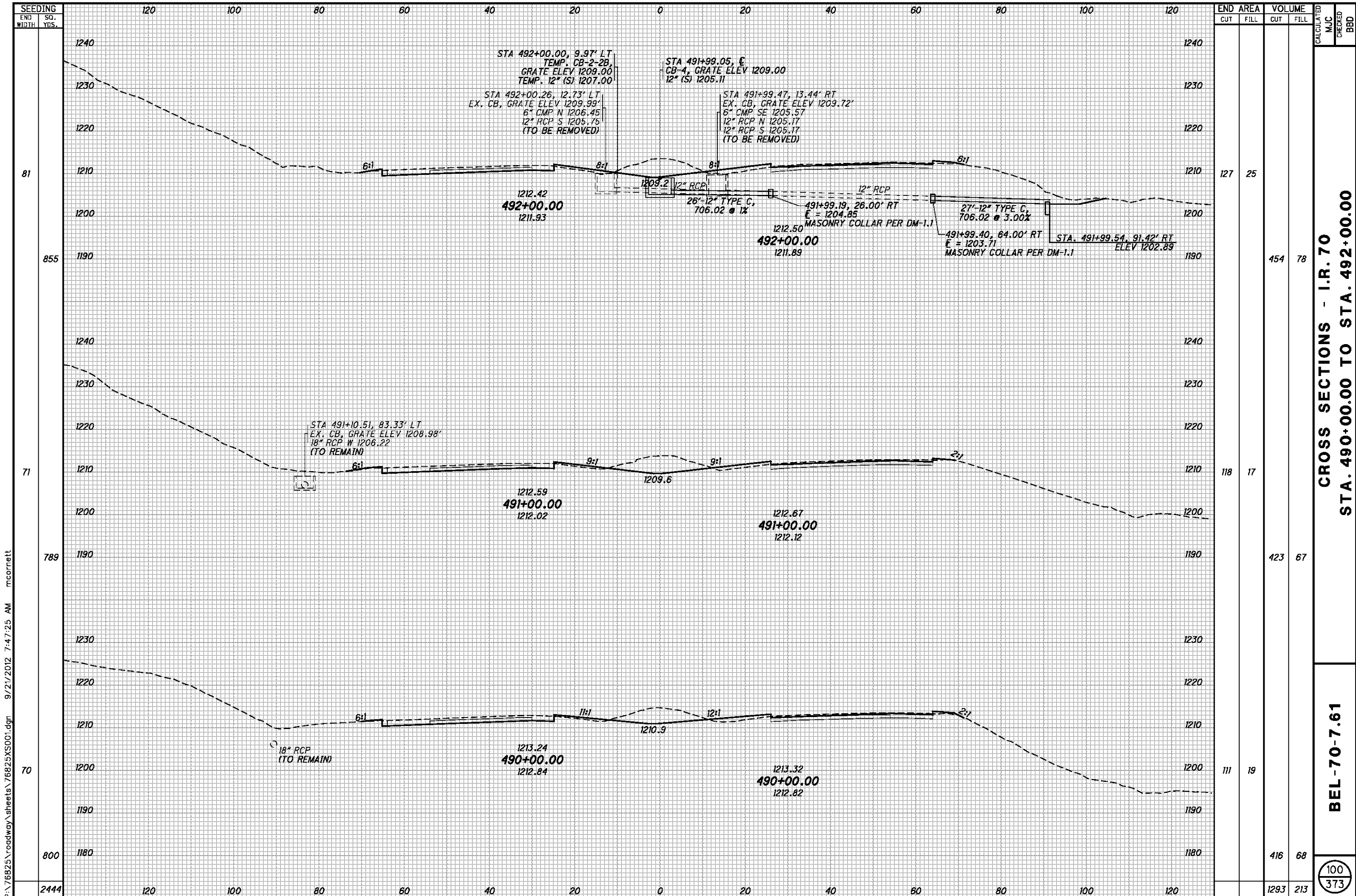
| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 114 | 18 | 406 | 74 | |
| 106 | 22 | 382 | 91 | |
| 101 | 27 | 372 | 95 | |
| | 1160 | 260 | | |

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

BEL-70-7.61

99
373

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



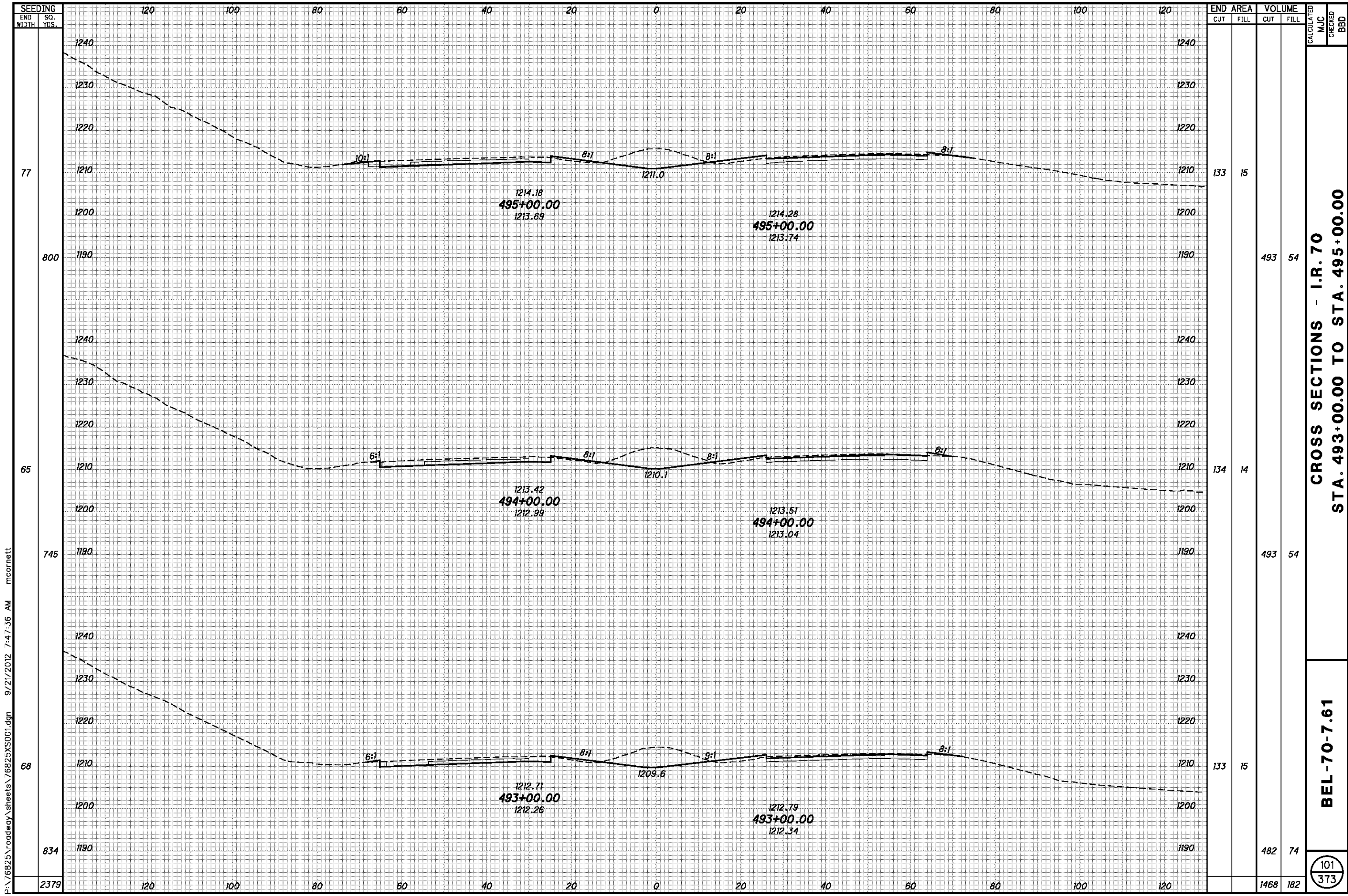
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:47:25 AM mcorbett

| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|----------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 81 | 127 | 25 | | | | | | |
| 855 | | | 454 | 78 | | | | |
| 71 | 118 | 17 | | | | | | |
| 789 | | | 423 | 67 | | | | |
| 70 | 111 | 19 | | | | | | |
| 800 | | | 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



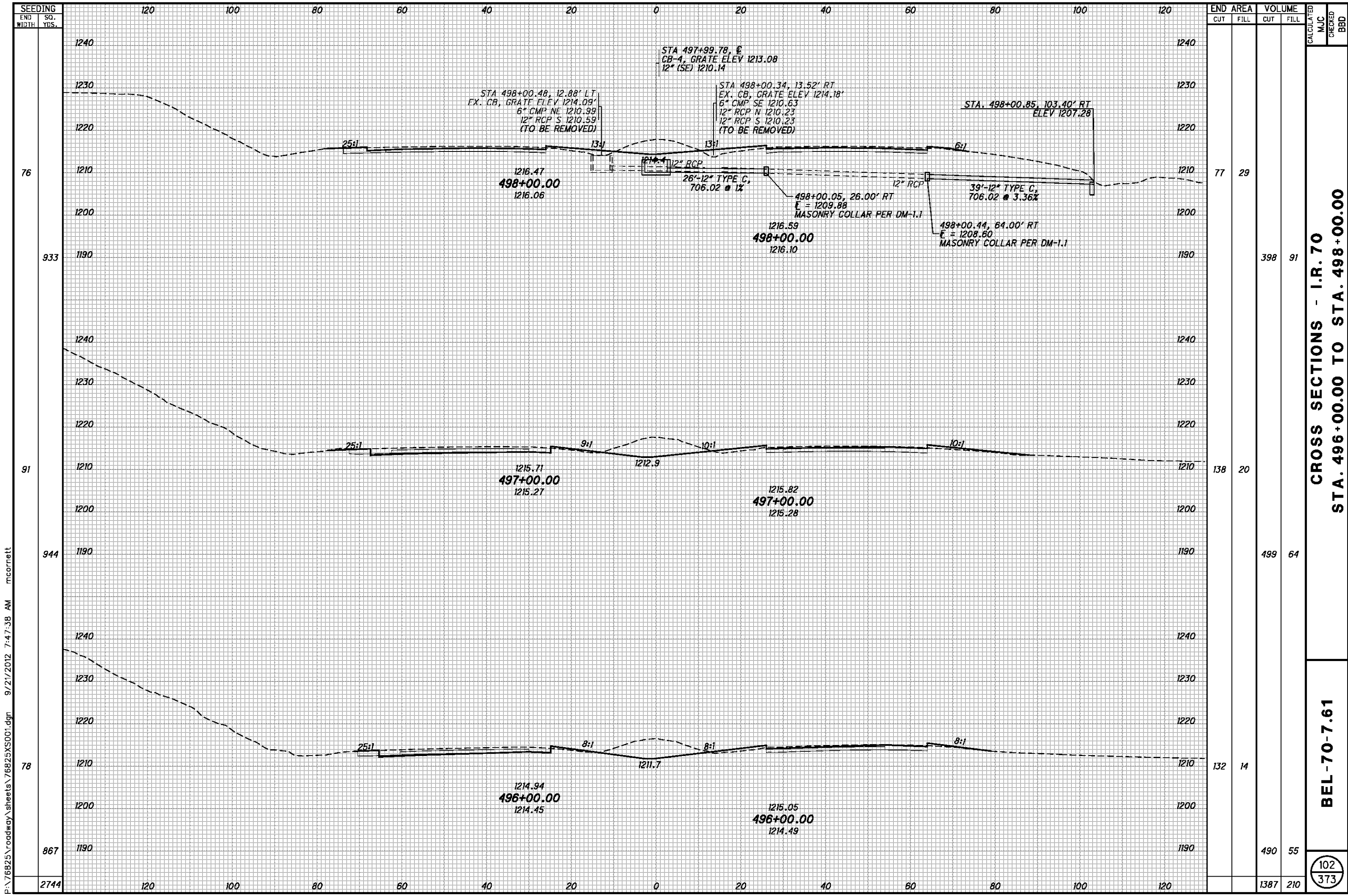
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:36 AM mcornett

| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|-----------|----------|--------|------|------------|-----|---------|-----|
| | END WIDTH | SO. YDS. | CUT | FILL | | | | |
| 77 | | | 133 | 15 | | | | |
| 800 | | | | | 493 | 54 | | |
| 65 | | | 134 | 14 | | | | |
| 745 | | | | | 493 | 54 | | |
| 68 | | | 133 | 15 | | | | |
| 834 | | | | | 482 | 74 | | |
| 2379 | | | | | 1468 | 182 | | |

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

BEL-70-7.61

101
373

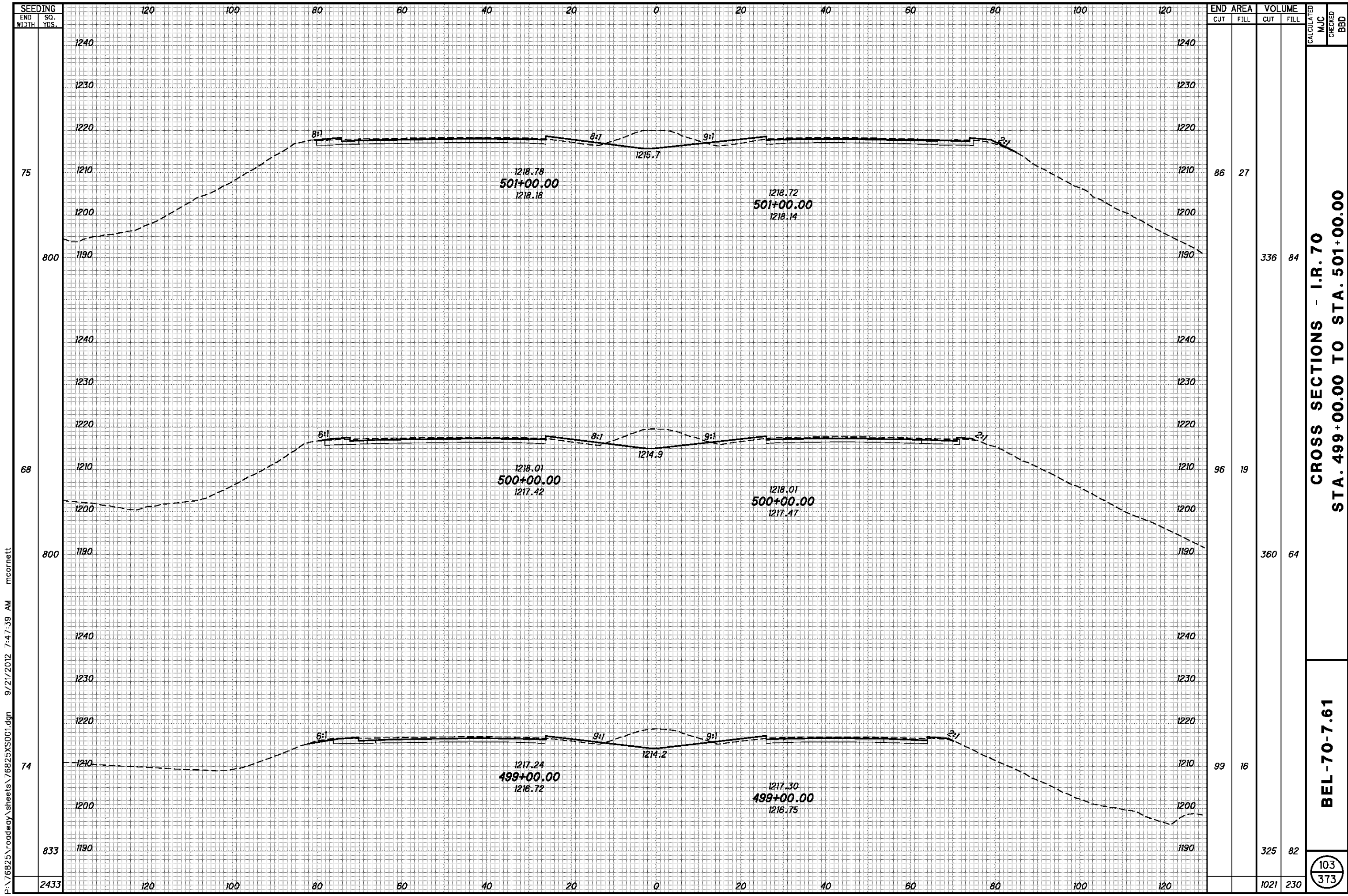


CROSS SECTIONS - I.R. 70
STA. 496+00.00 TO STA. 498+00.00

BEL-70-7.61

102
 373

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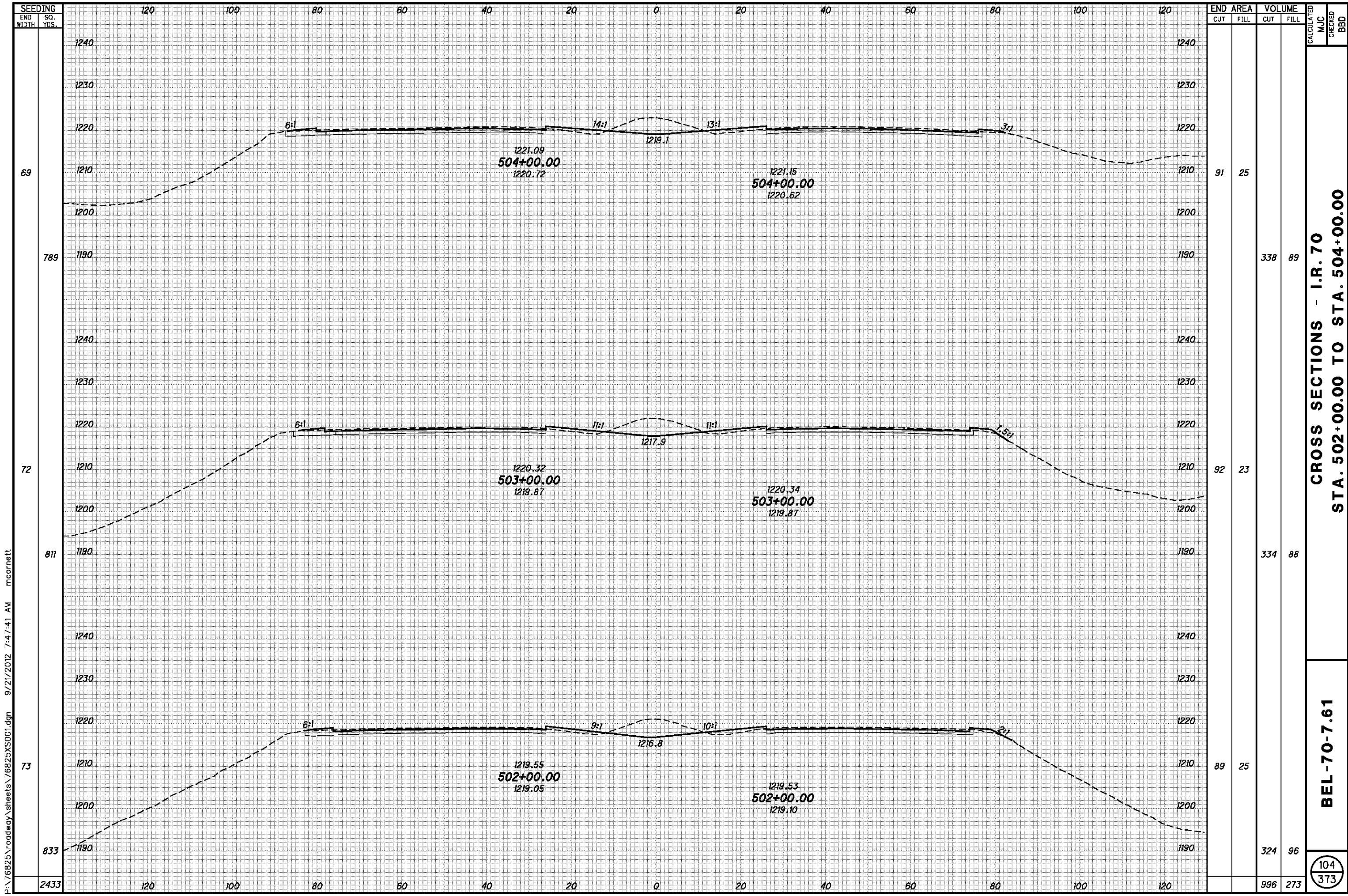
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 75 | |
| 800 | |
| 68 | |
| 800 | |
| 74 | |
| 833 | |
| 2433 | |

| END AREA | | VOLUME | | CALCULATED | |
|----------|------|--------|------|------------|-----|
| CUT | FILL | CUT | FILL | MJC | BBD |
| 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



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

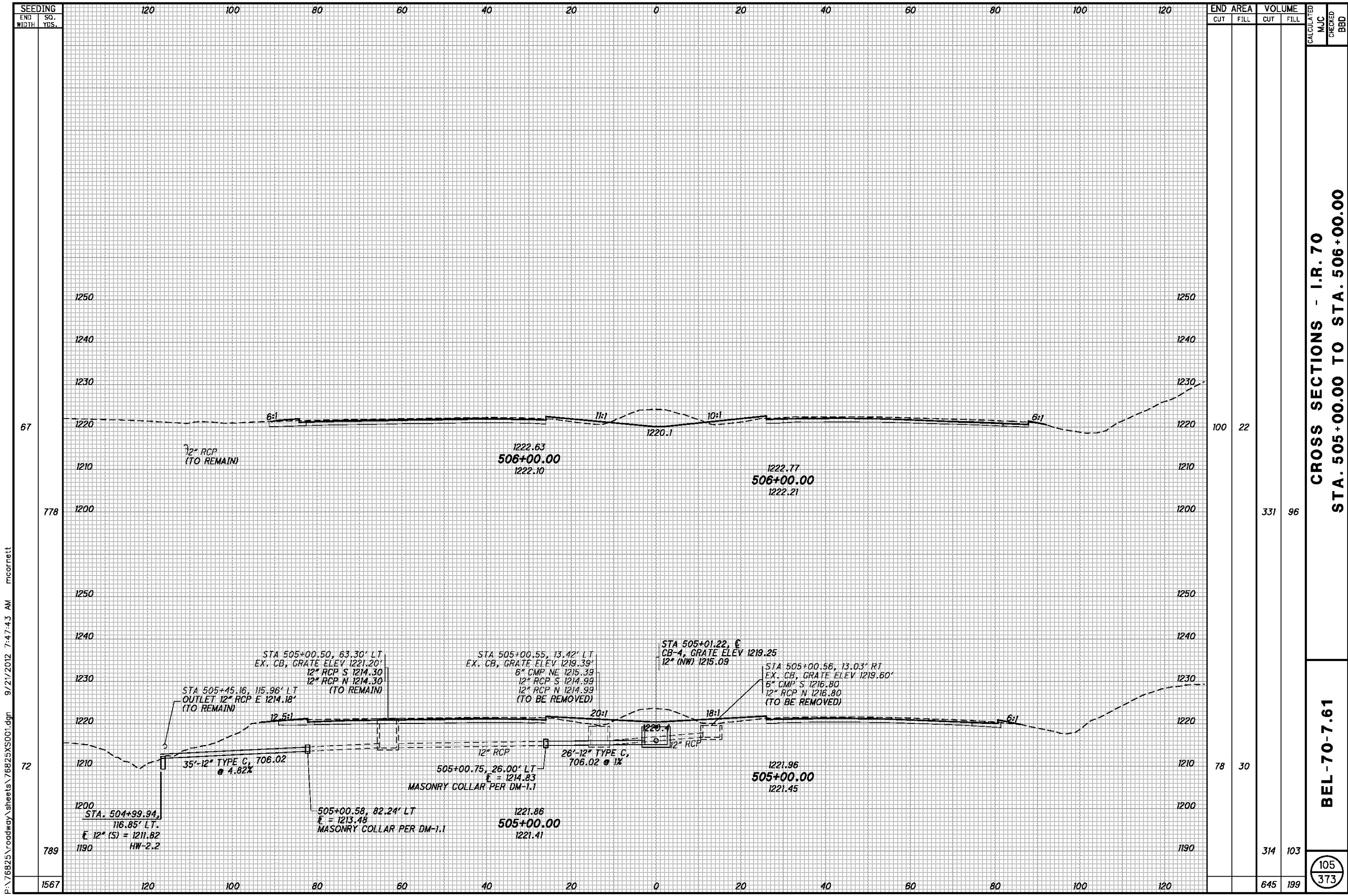
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 91 | 25 | | | | |
| | | 338 | 89 | | |
| 92 | 23 | | | | |
| | | 334 | 88 | | |
| 89 | 25 | | | | |
| | | 324 | 96 | | |
| | | 996 | 273 | | |

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

BEL-70-7.61

104
 373

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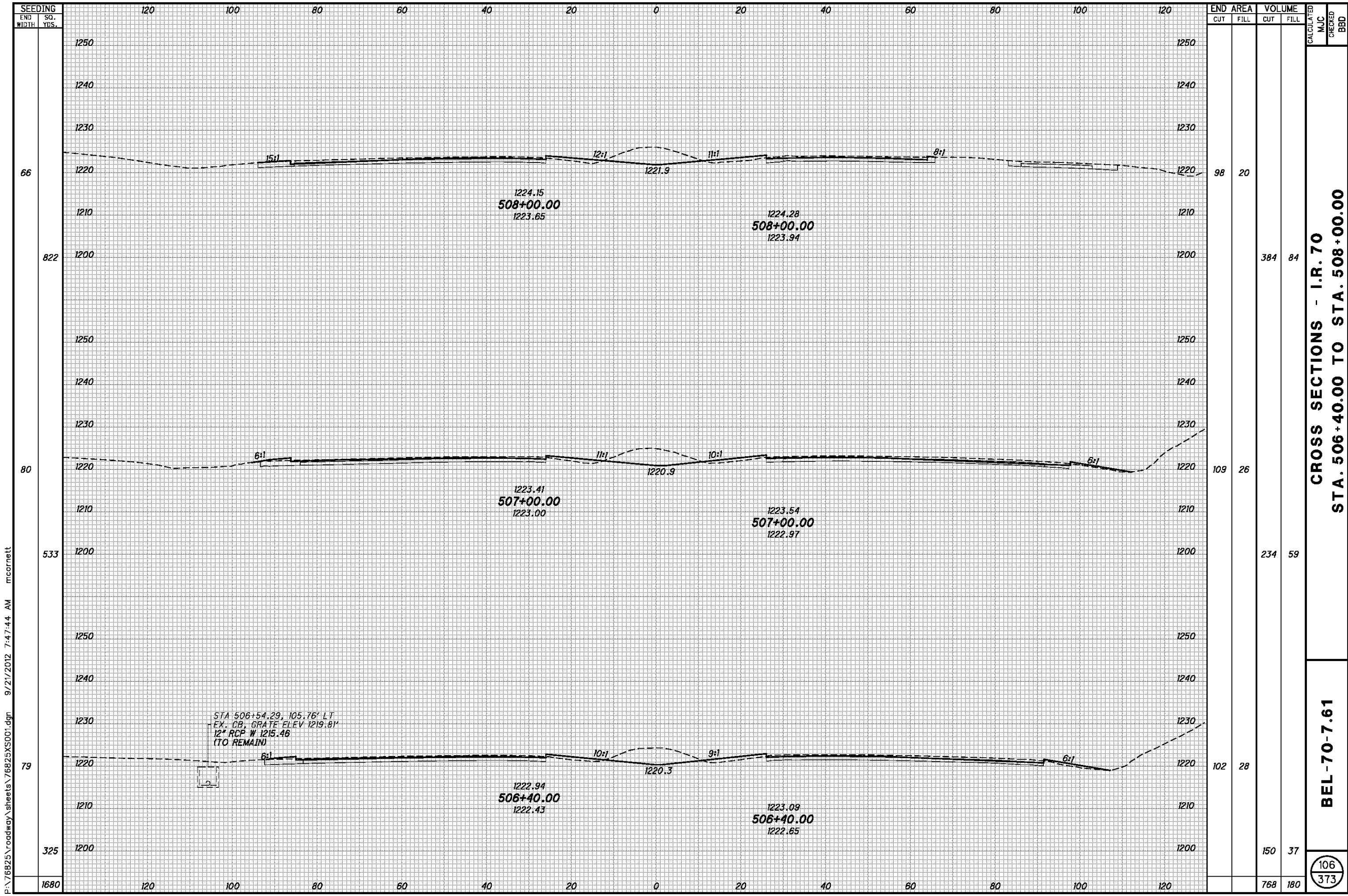
| SEEDING | END WIDTH | | SO. YDS. |
|---------|-----------|------|----------|
| | CUT | FILL | |
| 67 | 100 | 22 | |
| 778 | 331 | 96 | |
| 72 | 78 | 30 | |
| 789 | 314 | 103 | |
| 1567 | 645 | 199 | |

| END AREA | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | | | | |
| 100 | 22 | | | | | |
| 331 | 96 | | | | | |
| 78 | 30 | | | | | |
| 314 | 103 | | | | | |
| 645 | 199 | | | | | |

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

BEL-70-7.61

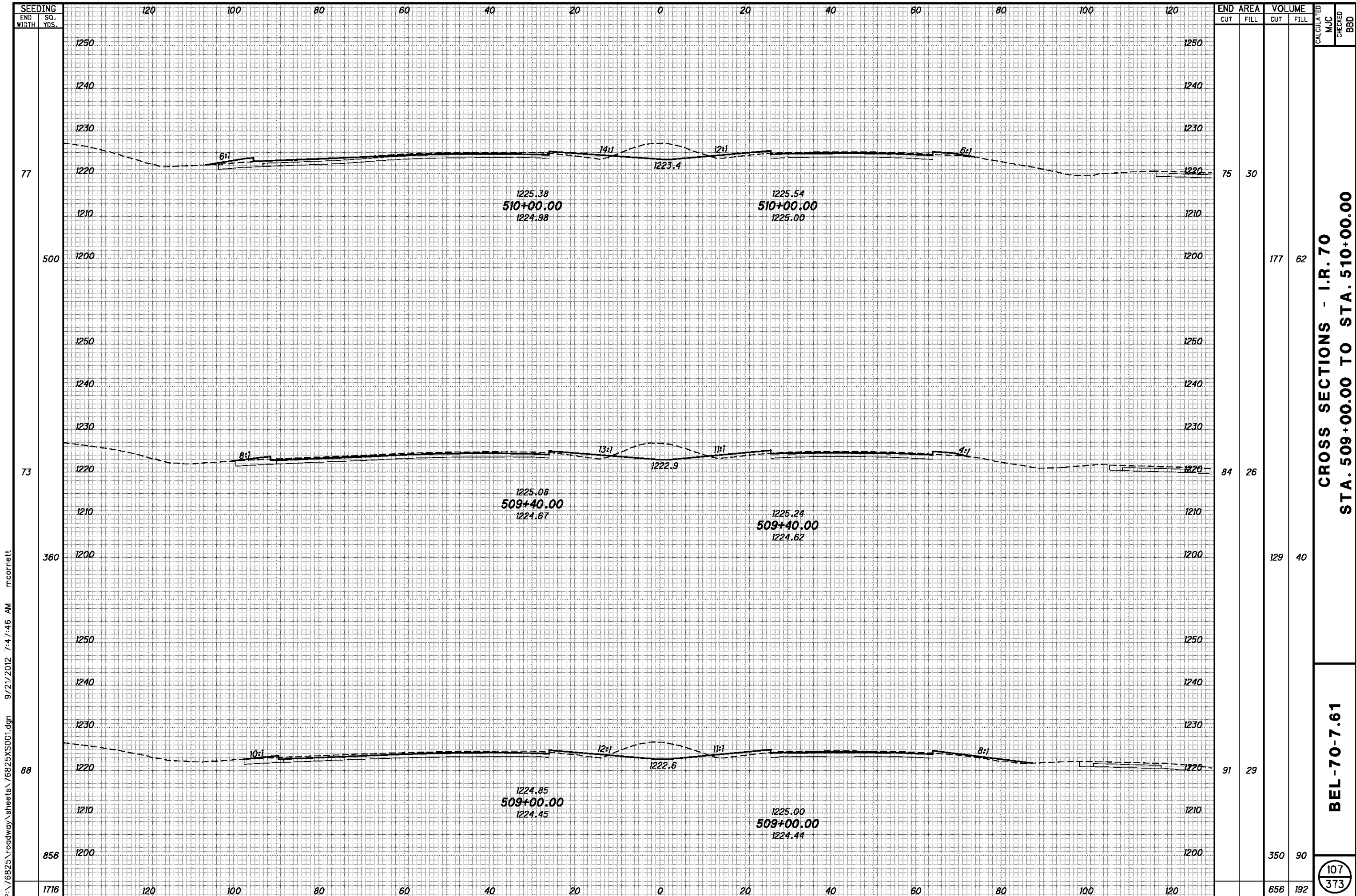
105
373



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

BEL - 70 - 7.61

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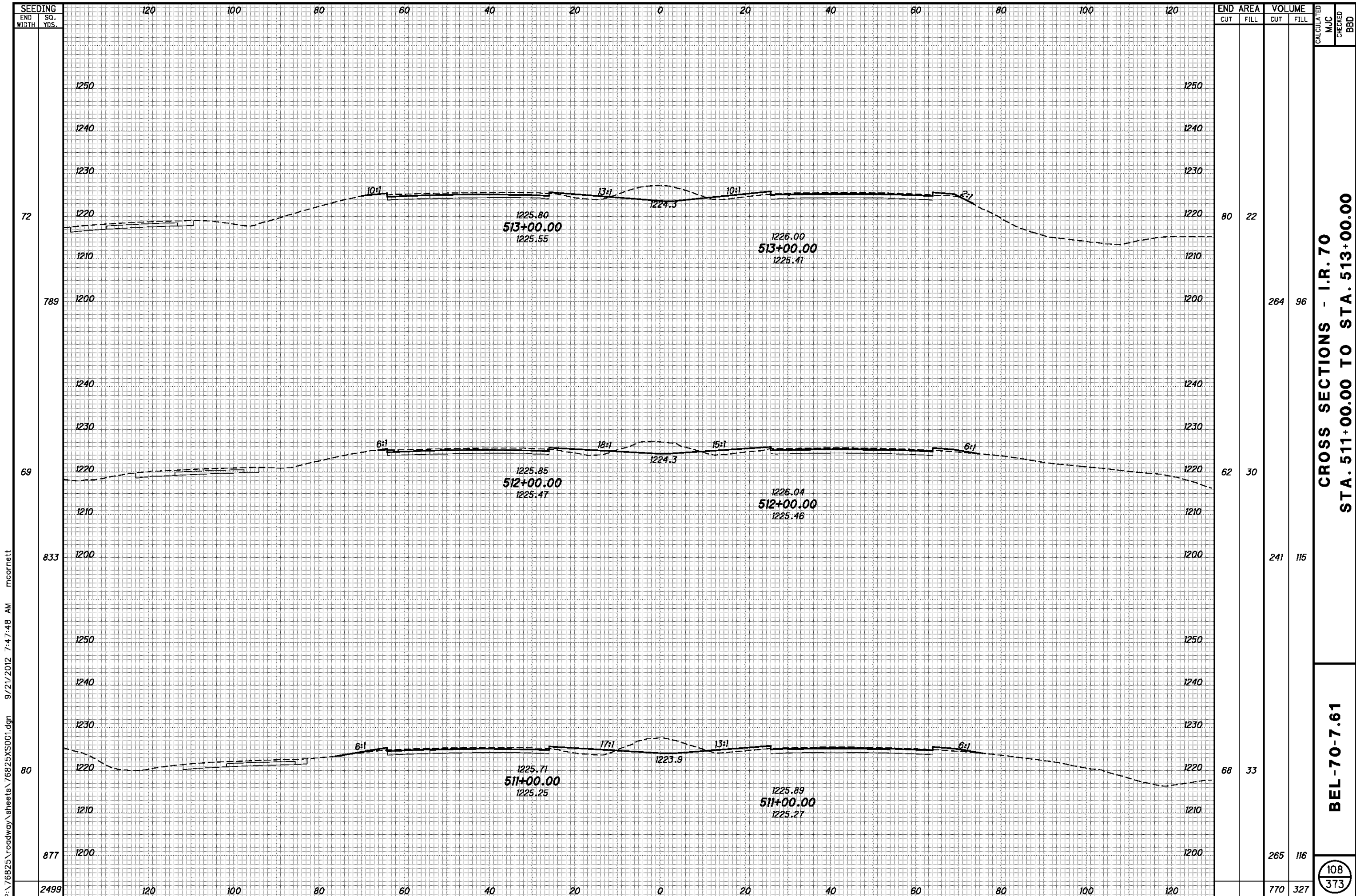
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:46 AM mcorbett

| END AREA | VOLUME | CALCULATED | | MJC | CHECKED | BBD |
|----------|--------|------------|------|-----|---------|-----|
| | | CUT | FILL | | | |
| 75 | 30 | | | | | |
| 84 | 26 | | | | | |
| 91 | 29 | | | | | |
| 177 | 62 | 177 | 62 | | | |
| 350 | 90 | 350 | 90 | | | |
| 656 | 192 | 656 | 192 | | | |

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

BEL-70-7.61

107
373



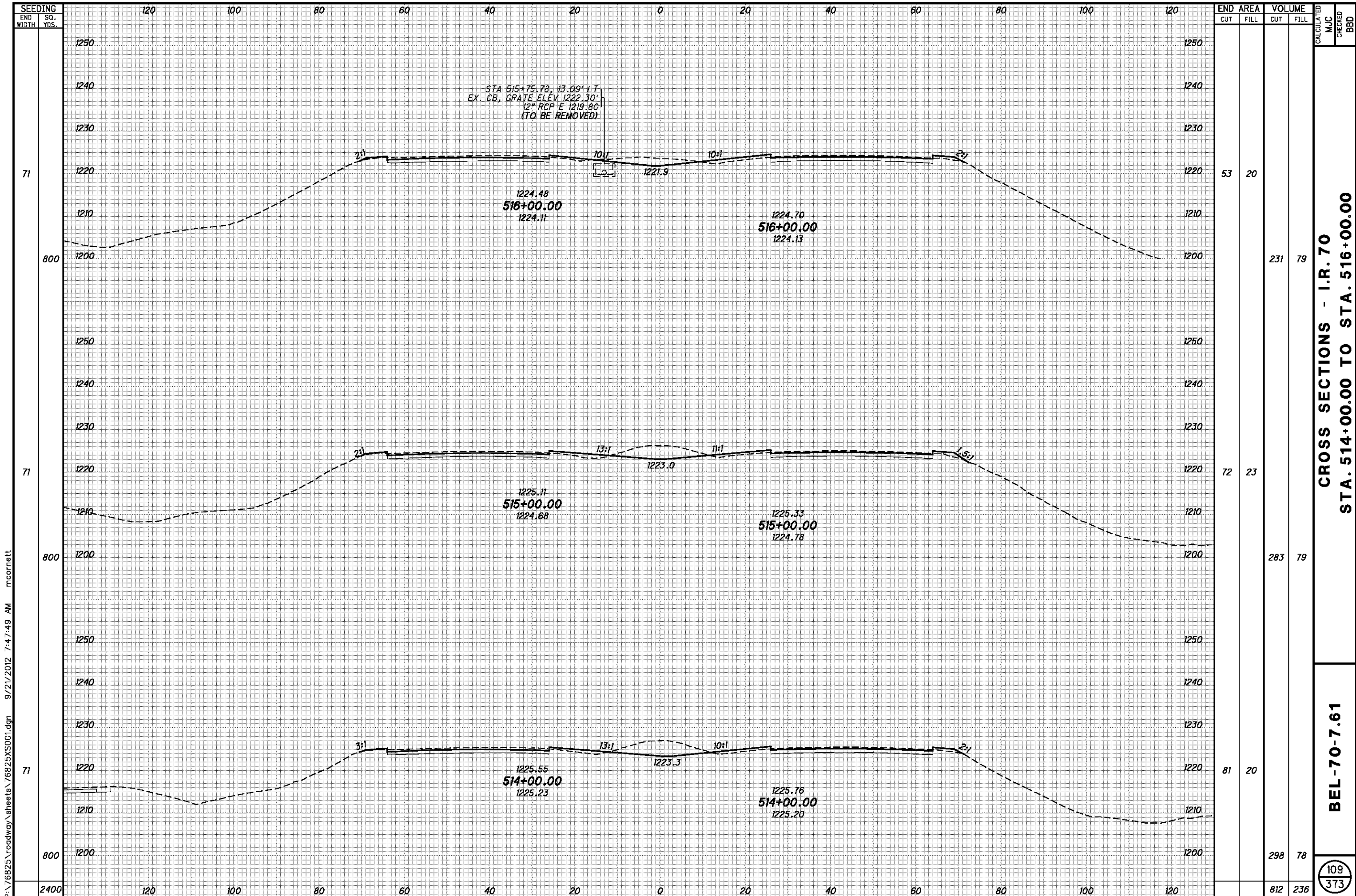
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:48 AM mcorneit

| END AREA | VOLUME | CALCULATED | | MJC | CHECKED | BBD |
|----------|--------|------------|------|-----|---------|-----|
| | | CUT | FILL | | | |
| 80 | 22 | | | | | |
| 62 | 30 | 264 | 96 | | | |
| 833 | 115 | 241 | 115 | | | |
| 80 | 33 | | | | | |
| 877 | 116 | 265 | 116 | | | |
| 2499 | 327 | 770 | 327 | | | |

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

BEL-70-7.61

108
373



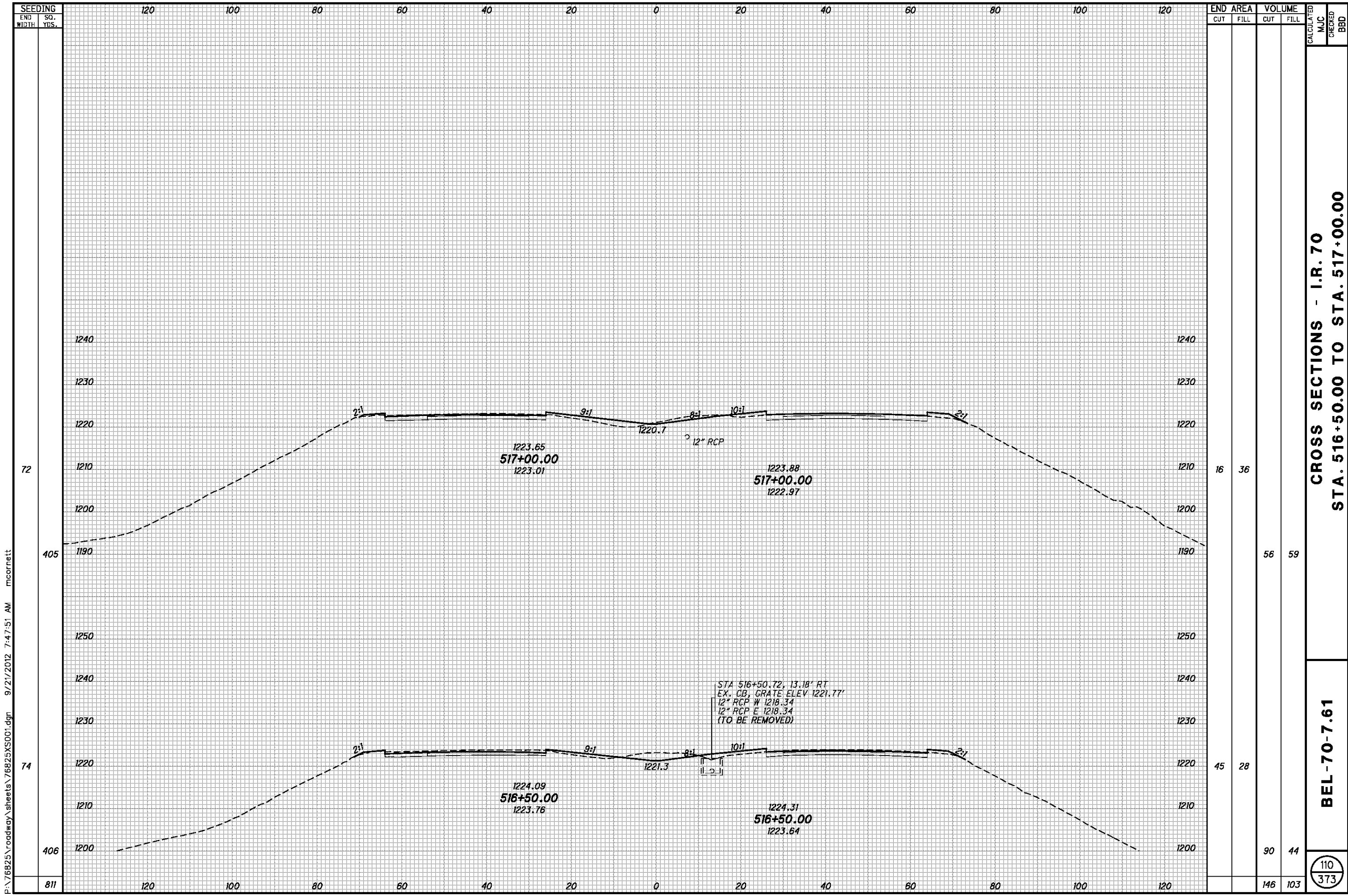
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| END AREA | VOLUME | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------------|-----|---------|-----|
| | | | | | |
| 53 | 20 | | | | |
| 72 | 23 | | | | |
| 81 | 20 | | | | |
| 812 | 236 | | | | |

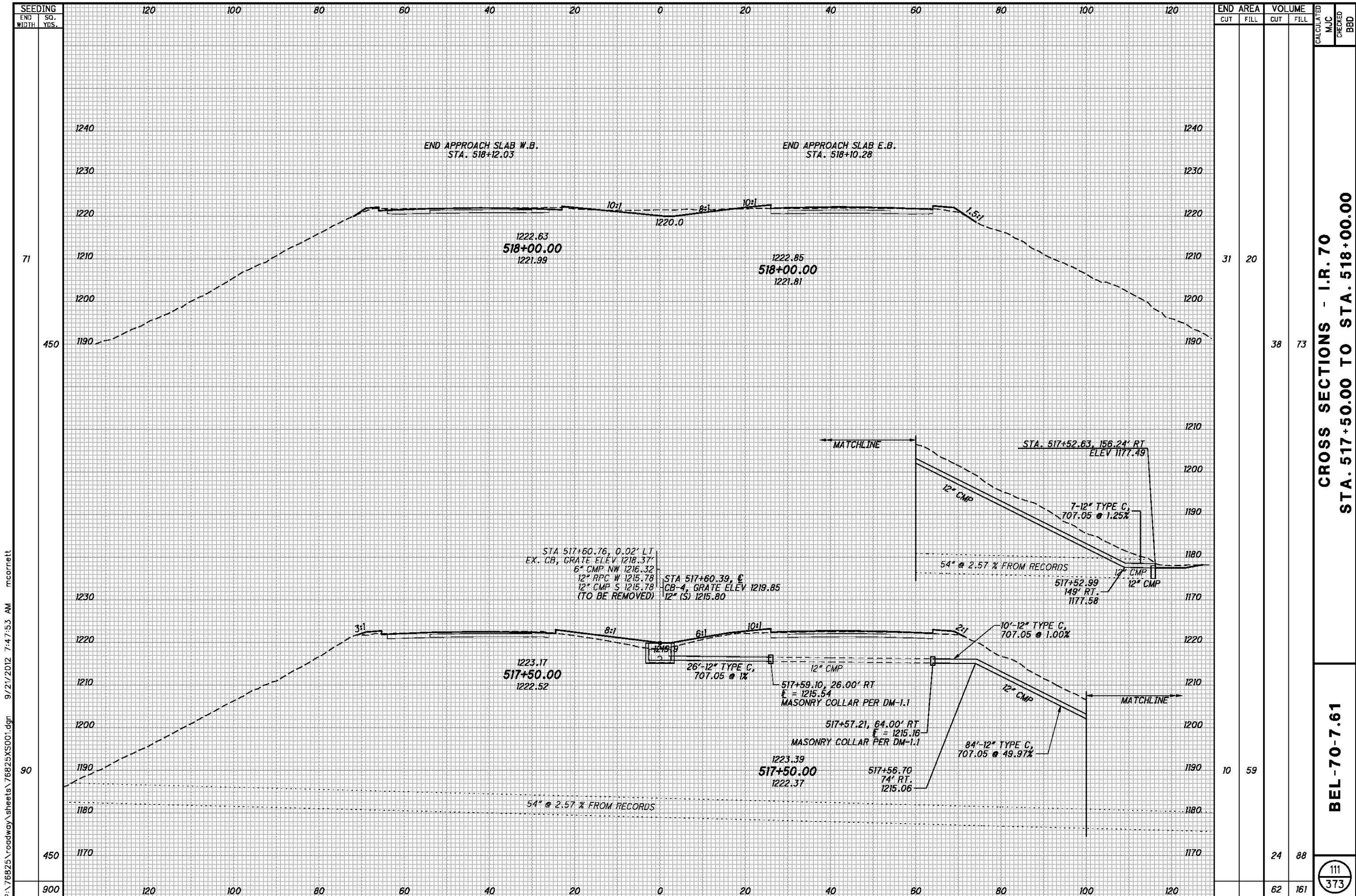
CROSS SECTIONS - I.R. 70
STA. 514+00.00 TO STA. 516+00.00

BEL-70-7.61

109
373



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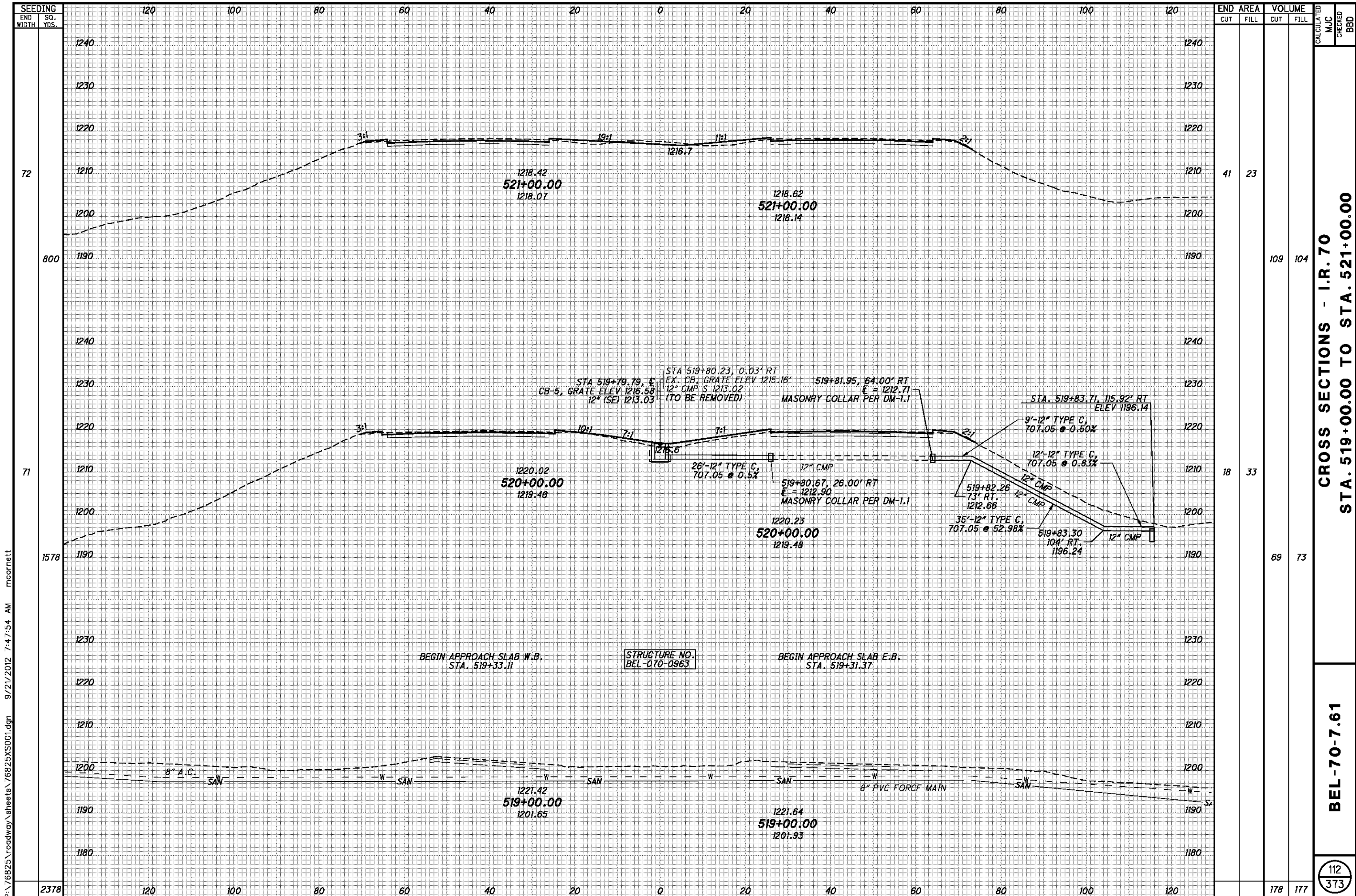
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:53 AM mcornett

| 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



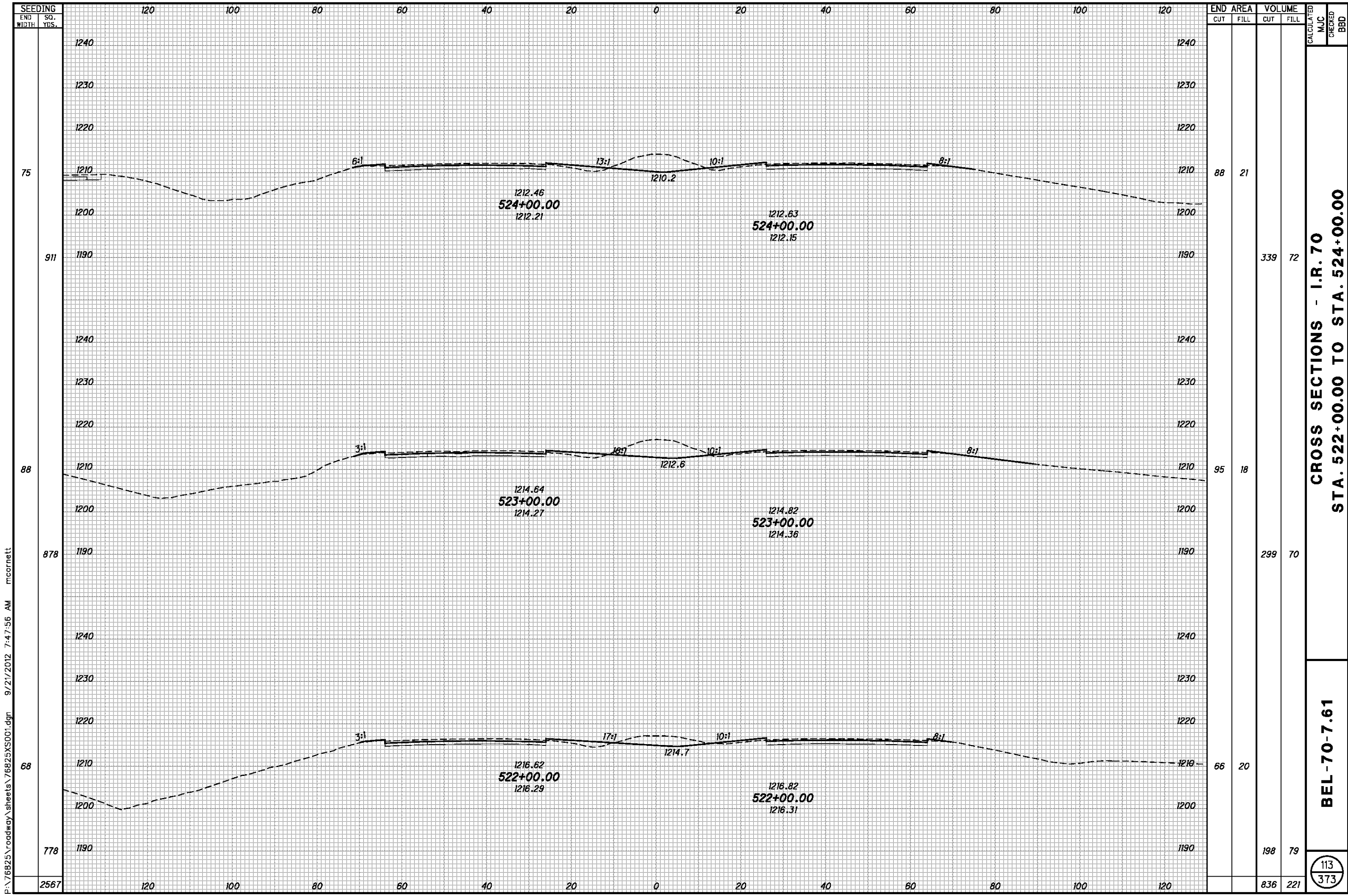
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:47:54 AM mcornett

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

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

BEL-70-7.61

112
373



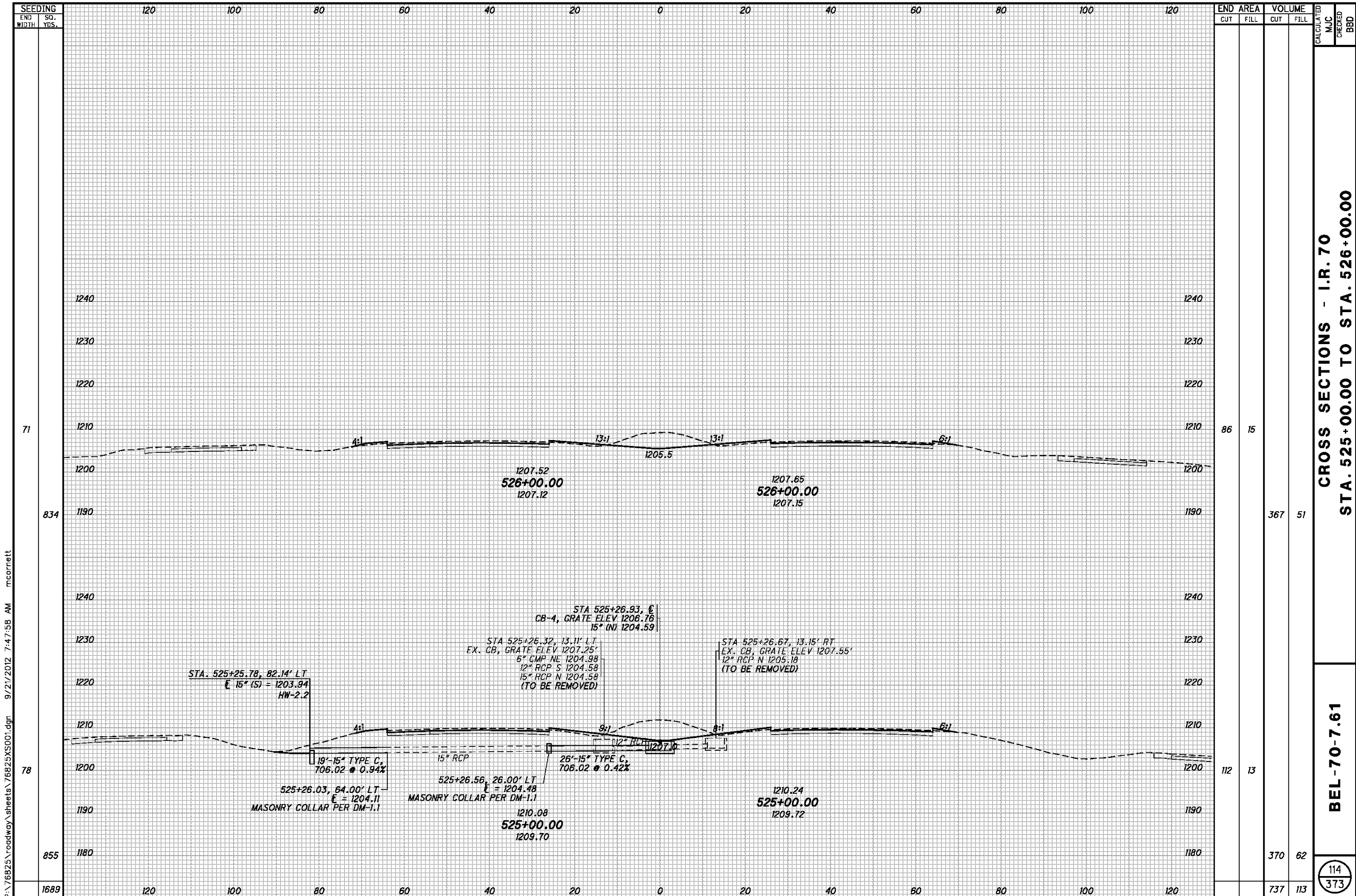
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:47:56 AM mcornett

| SEEDING | END AREA | | VOLUME | | CALCULATED | CHECKED |
|---------|----------|------|--------|------|------------|---------|
| | CUT | FILL | CUT | FILL | | |
| 75 | 88 | 21 | | | | |
| 911 | | | 339 | 72 | | |
| 88 | 95 | 18 | | | | |
| 878 | | | 299 | 70 | | |
| 68 | 66 | 20 | | | | |
| 778 | | | 198 | 79 | | |
| 2567 | | | 836 | 221 | | |

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

BEL-70-7.61

113
373



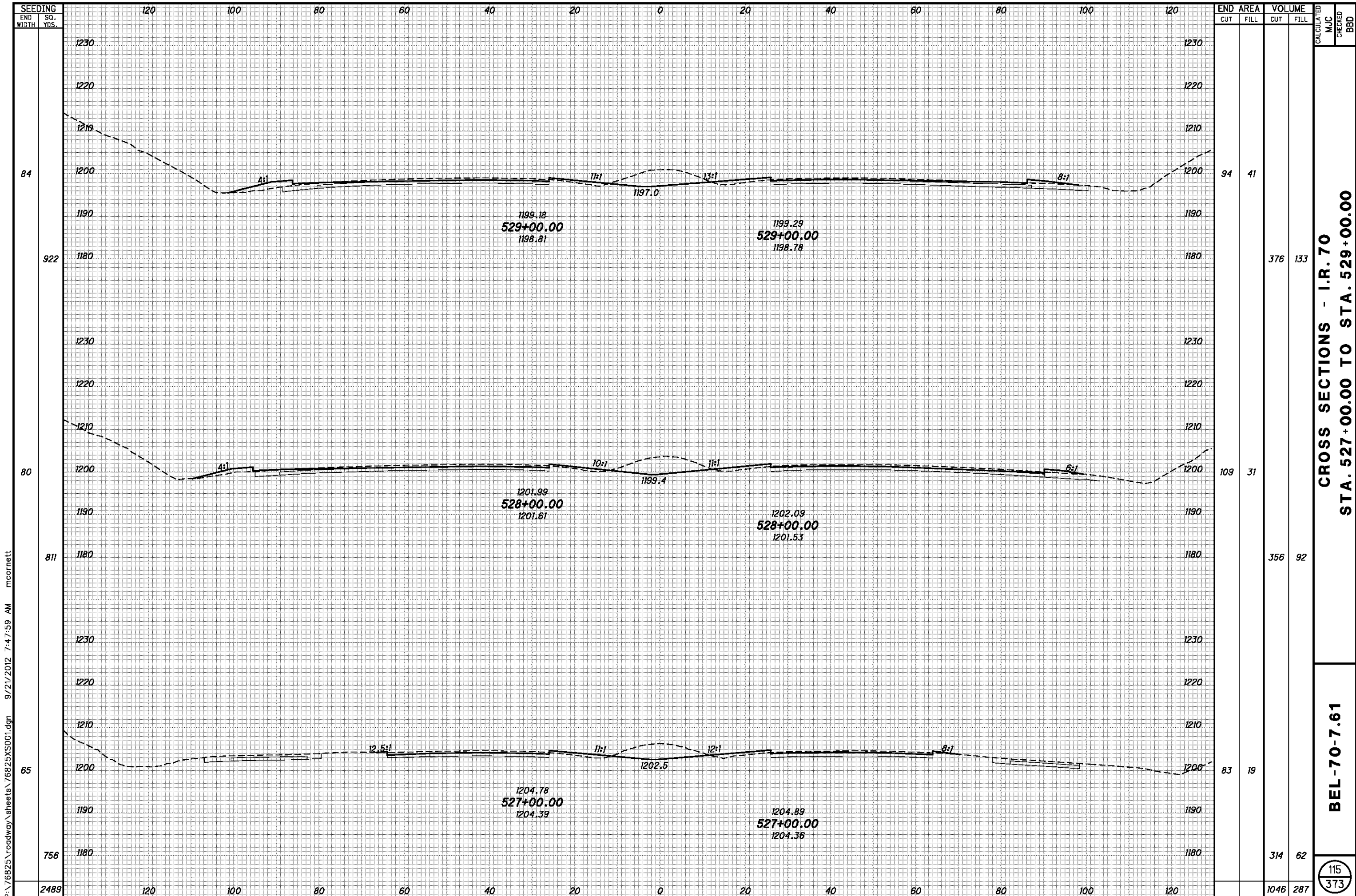
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| END AREA | VOLUME | CALCULATED | | CHECKED | |
|----------|--------|------------|------|---------|-----|
| | | CUT | FILL | MJC | BBD |
| 86 | 15 | | | | |
| 834 | 367 | 51 | | | |
| 78 | 112 | 13 | | | |
| 855 | 370 | 62 | | | |
| 1689 | 737 | 113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

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

BEL-70-7.61

114
373



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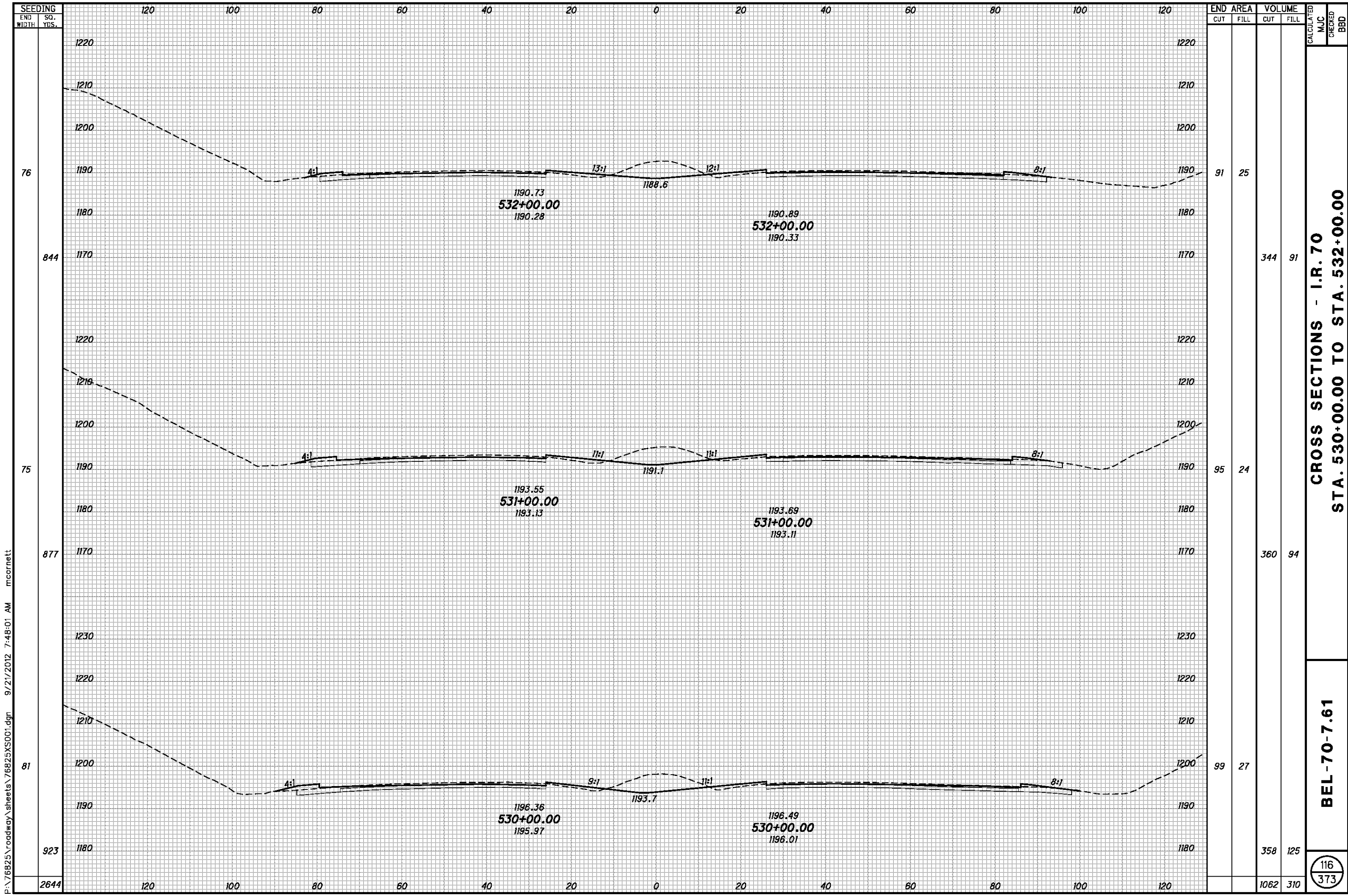
| SEEDING | END WIDTH | | SO. YDS. |
|---------|-----------|------|----------|
| | CUT | FILL | |
| 84 | 94 | 41 | 1230 |
| 922 | 376 | 133 | 1180 |
| 80 | 109 | 31 | 1230 |
| 811 | 356 | 92 | 1180 |
| 65 | 83 | 19 | 1230 |
| 756 | 314 | 62 | 1180 |
| 2489 | 1046 | 287 | 1180 |

| 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



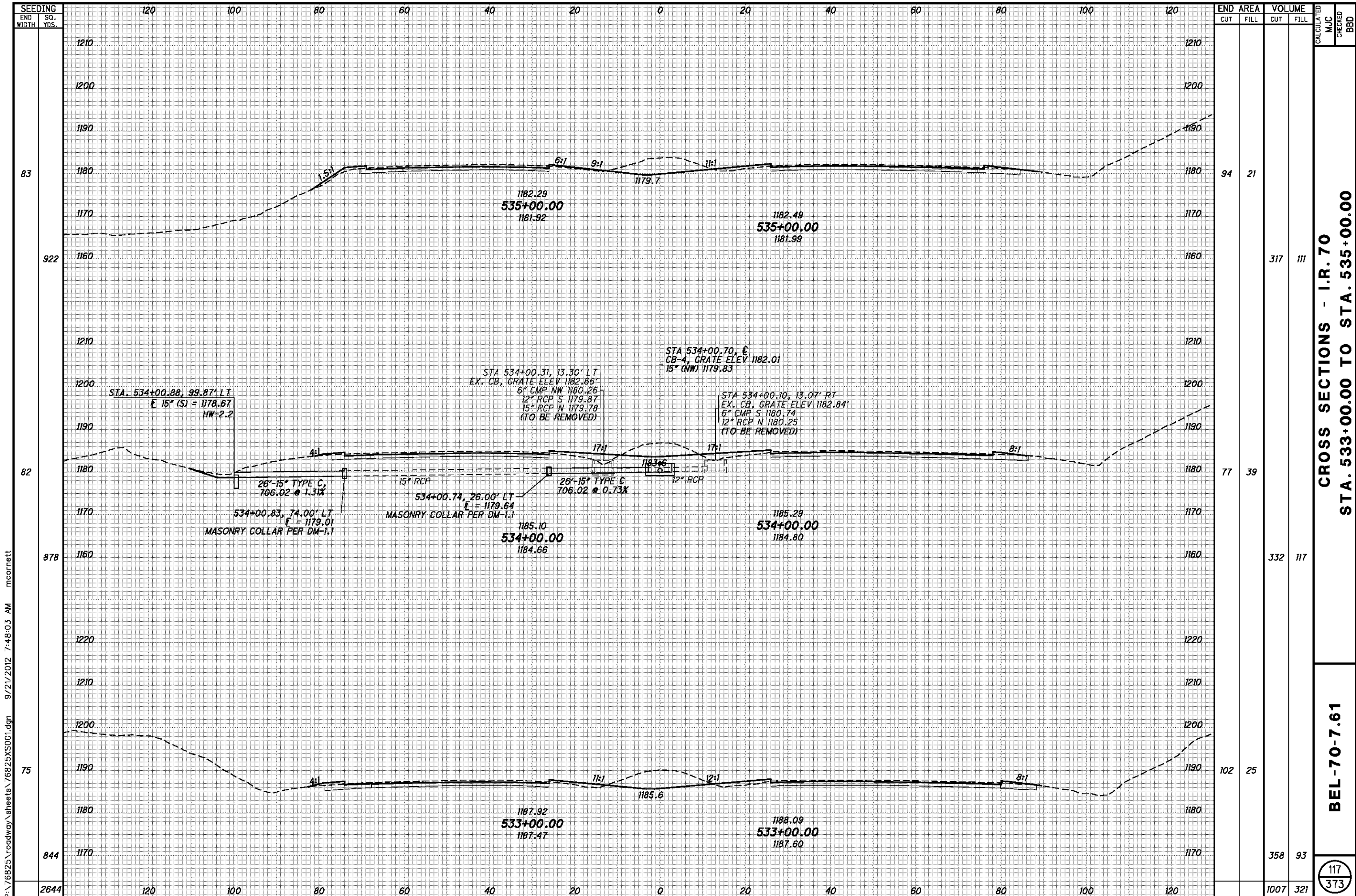
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:01 AM mcornett

| SEEDING | END AREA | | VOLUME | | CALCULATED | CHECKED |
|---------|----------|------|--------|------|------------|---------|
| | CUT | FILL | CUT | FILL | | |
| 76 | 91 | 25 | 91 | 25 | | |
| 844 | 344 | 91 | 344 | 91 | | |
| 75 | 95 | 24 | 95 | 24 | | |
| 877 | 360 | 94 | 360 | 94 | | |
| 81 | 99 | 27 | 99 | 27 | | |
| 923 | 358 | 125 | 358 | 125 | | |
| 2644 | 1062 | 310 | 1062 | 310 | | |

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

BEL-70-7.61

116
373



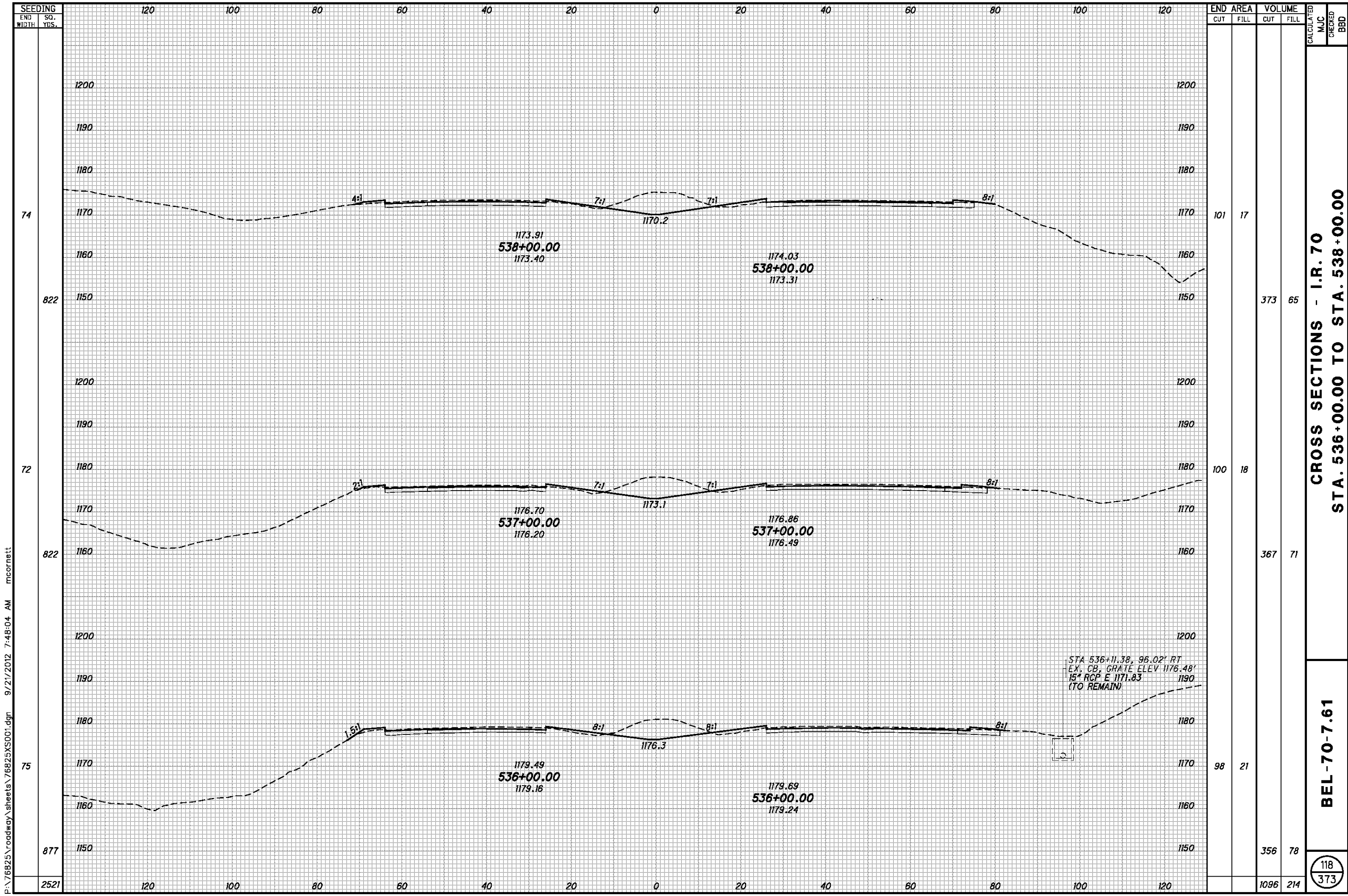
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:48:03 AM mcorbett

| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 83 | 922 | 94 | 21 | 317 | 111 | | |
| 82 | 878 | 77 | 39 | 332 | 117 | | |
| 75 | 844 | 102 | 25 | 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



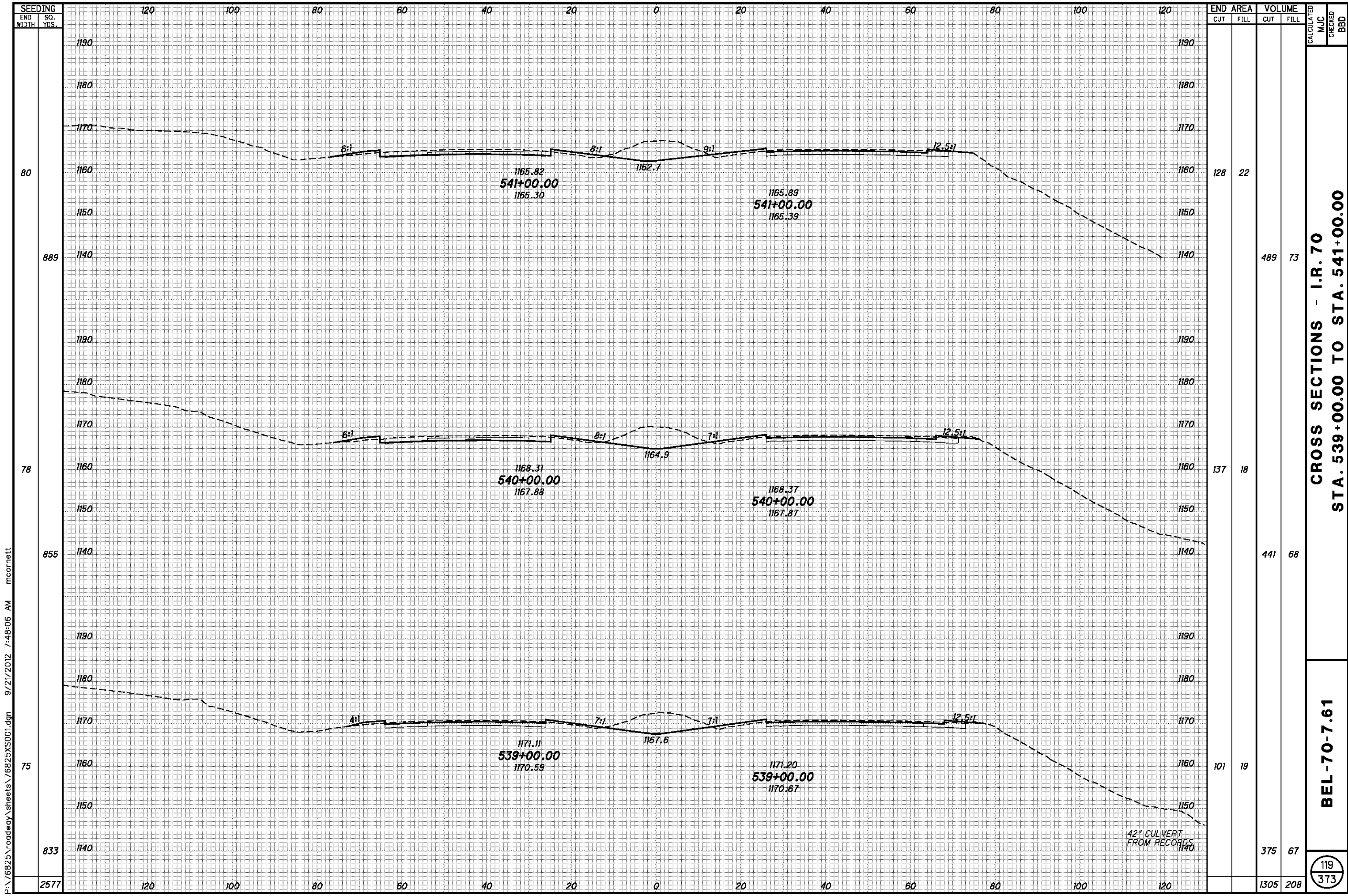
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CROSS SECTIONS - I.R. 70
STA. 536+00.00 TO STA. 538+00.00

BEL-70-7.61

118
373

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



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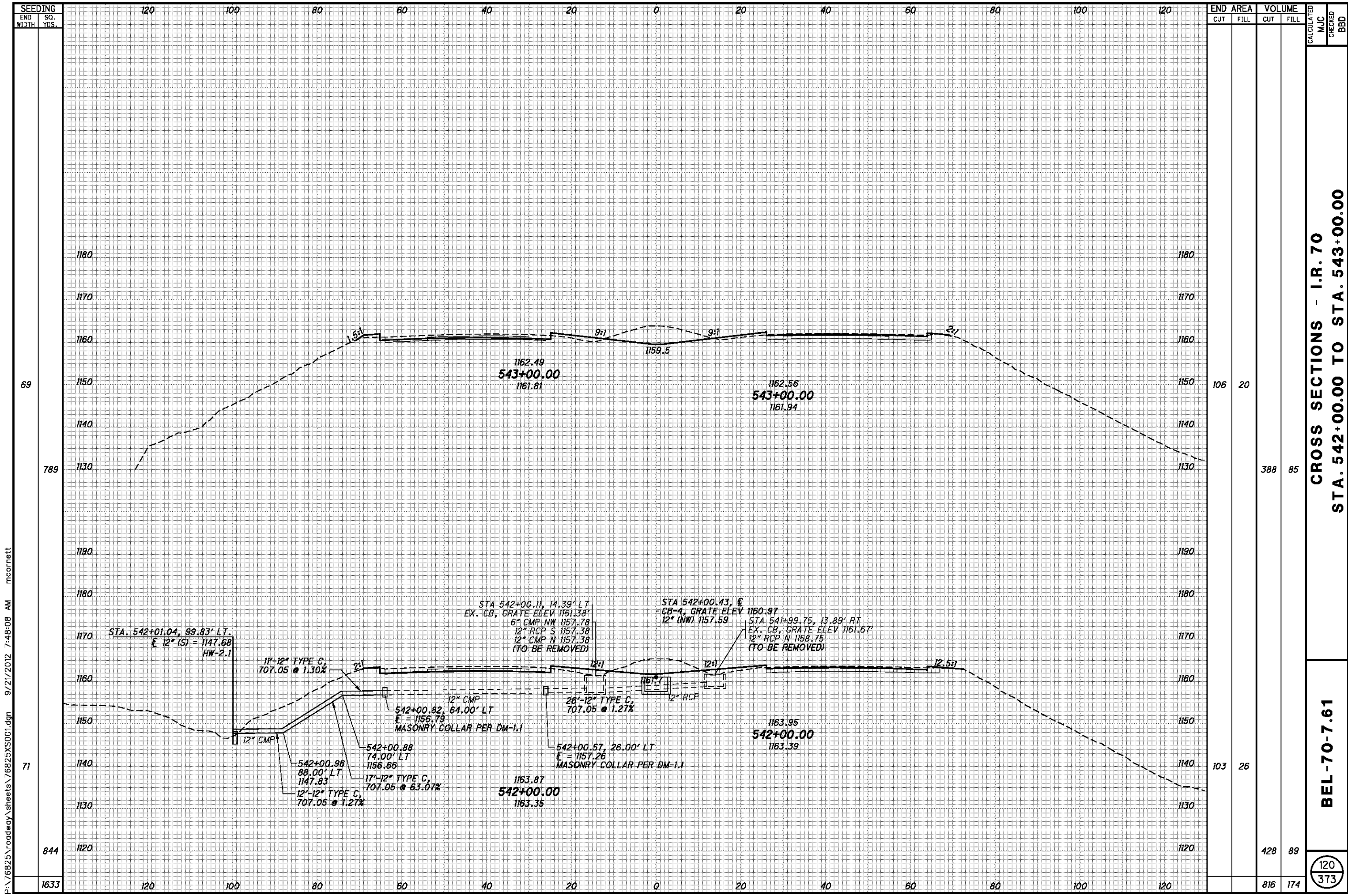
| SEEDING | END AREA | | VOLUME | | CALCULATED | CHECKED |
|---------|-----------|----------|--------|------|------------|---------|
| | END WIDTH | SO. YDS. | CUT | FILL | | |
| 80 | 128 | 22 | | | | |
| 889 | | | 489 | 73 | | |
| 78 | 137 | 18 | | | | |
| 855 | | | 441 | 68 | | |
| 75 | 101 | 19 | | | | |
| 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

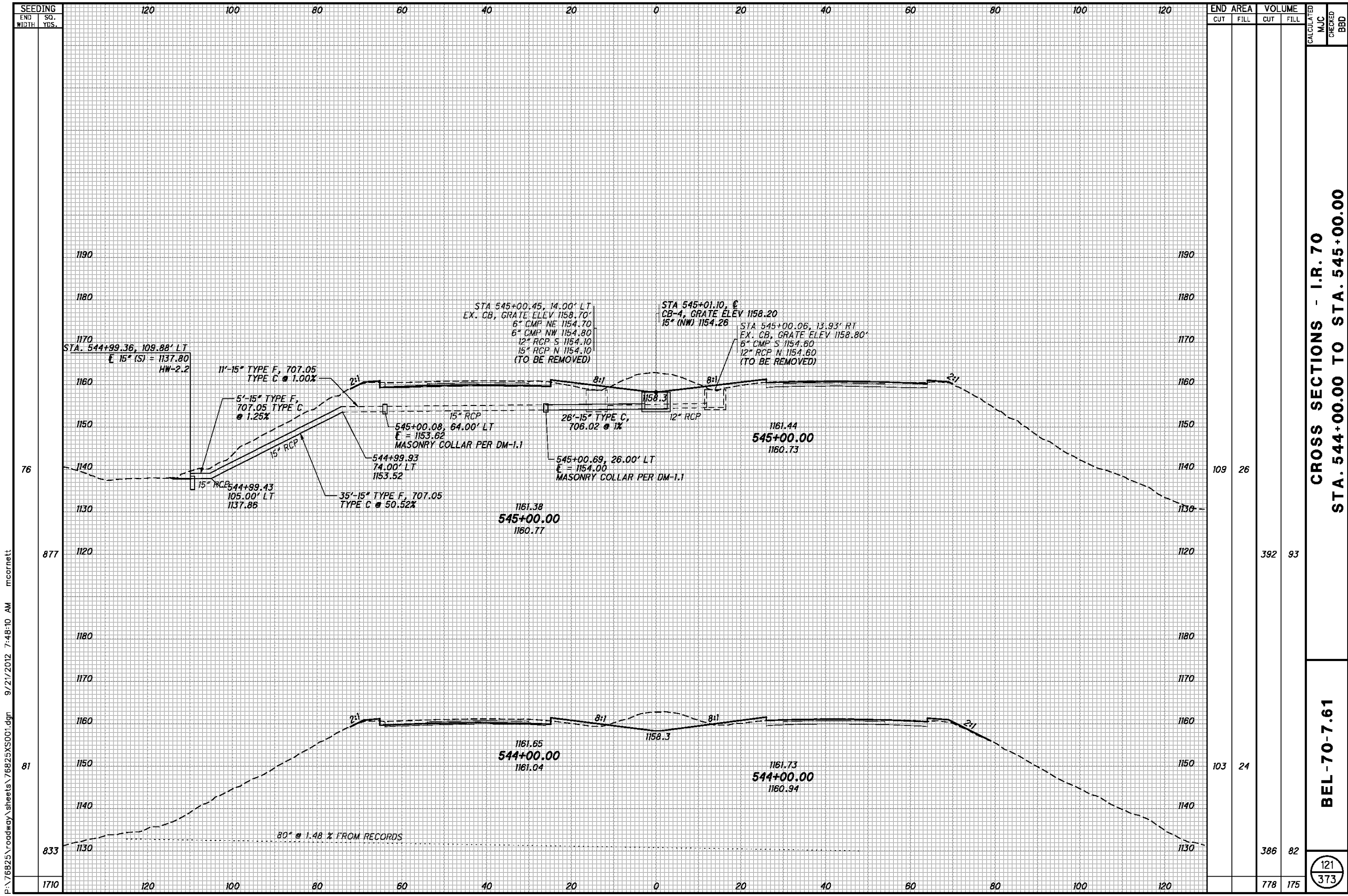
42" CULVERT FROM RECORDS



| SEEDING | END AREA | | VOLUME | | CALCULATED | CHECKED | BBD |
|-----------|----------|------|--------|------|------------|---------|-----|
| | CUT | FILL | CUT | FILL | | | |
| END WIDTH | | | | | | | |
| SO. YDS. | | | | | | | |
| 69 | | 106 | | 20 | | | |
| 789 | | | 388 | 85 | | | |
| 71 | | 103 | | 26 | | | |
| 844 | | | 428 | 89 | | | |
| 1633 | | | 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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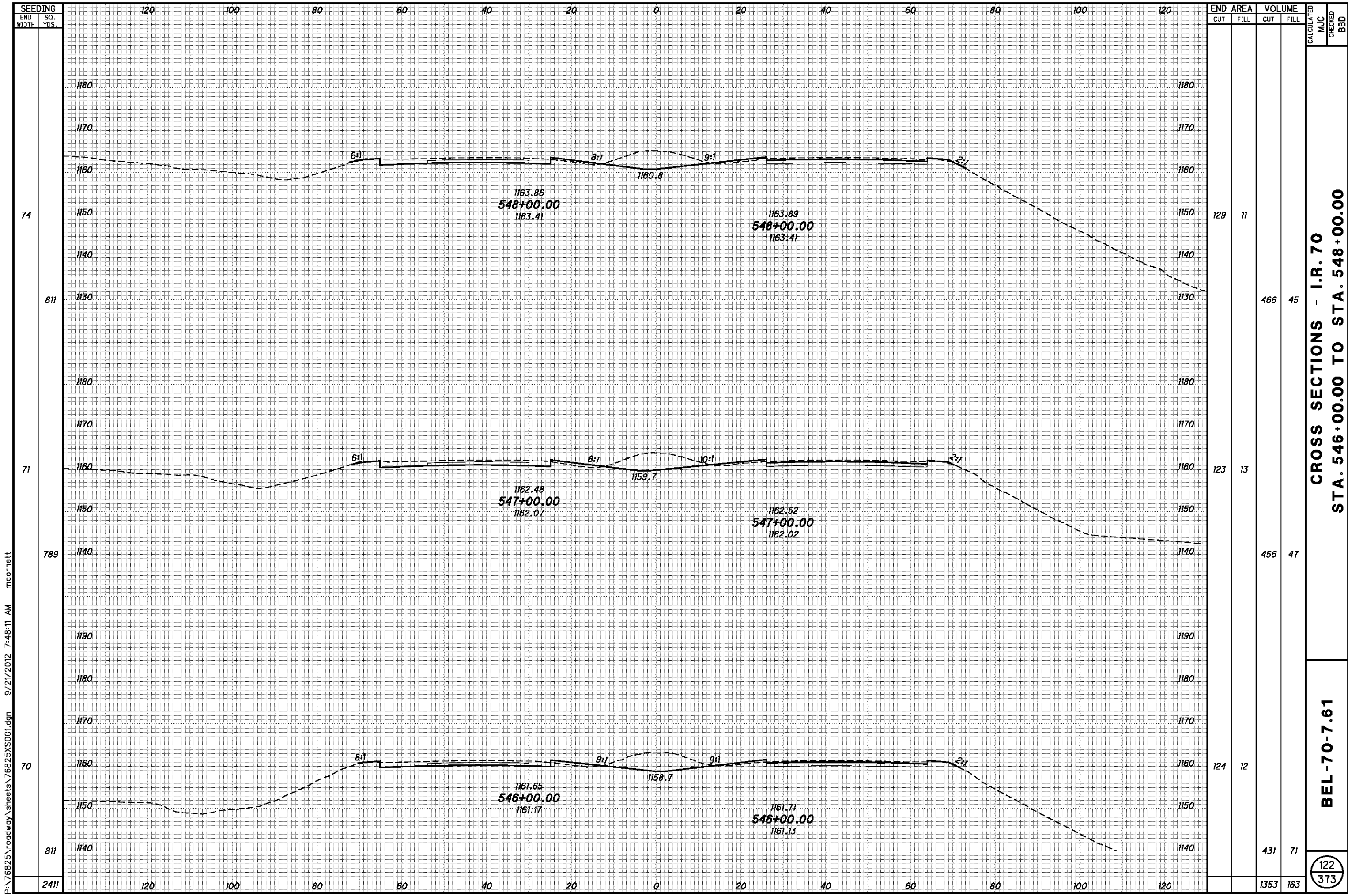
P:\76825\roadway\sheet\76825XS001.dgn 9/21/2012 7:48:10 AM mcornett

| END STA | AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|-----------|------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 544+99.36 | 109 | 26 | | | | | | |
| 545+00.00 | 877 | 93 | 392 | 93 | | | | |
| 544+00.00 | 81 | 24 | 103 | 24 | | | | |
| 545+01.10 | 833 | 82 | 386 | 82 | | | | |
| TOTAL | 1710 | 175 | 778 | 175 | | | | |

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

BEL-70-7.61

121
373

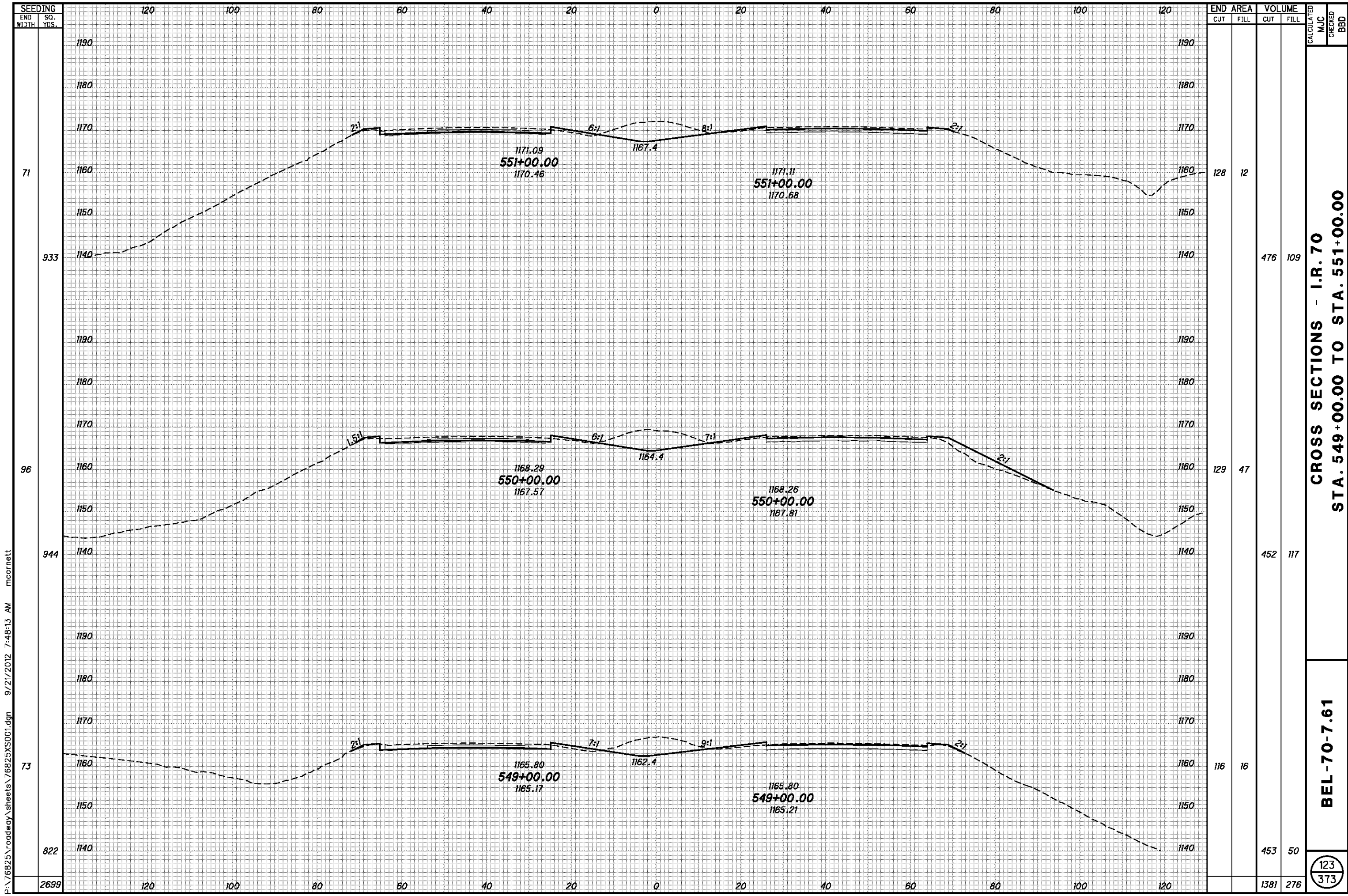


**CROSS SECTIONS - I.R. 70
STA. 546+00.00 TO STA. 548+00.00**

BEL-70-7.61

122
373

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SEEDING
END WIDTH SO. YDS.
71
933
96
944
73
822
2699

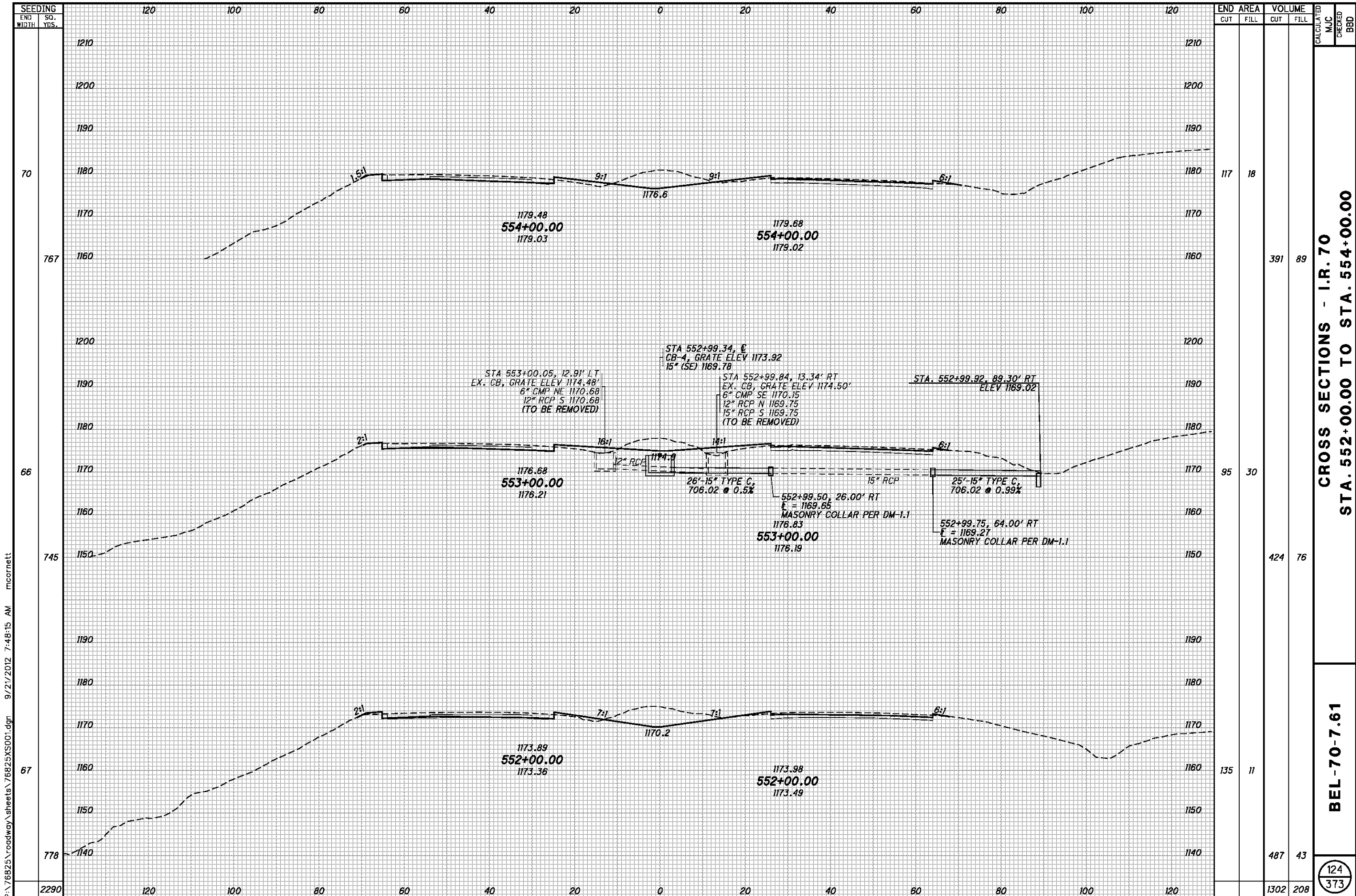
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 128 | 12 | 476 | 109 | | |
| 129 | 47 | 452 | 117 | | |
| 116 | 16 | 453 | 50 | | |
| | | 1381 | 276 | | |

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 7:48:13 AM mcornett



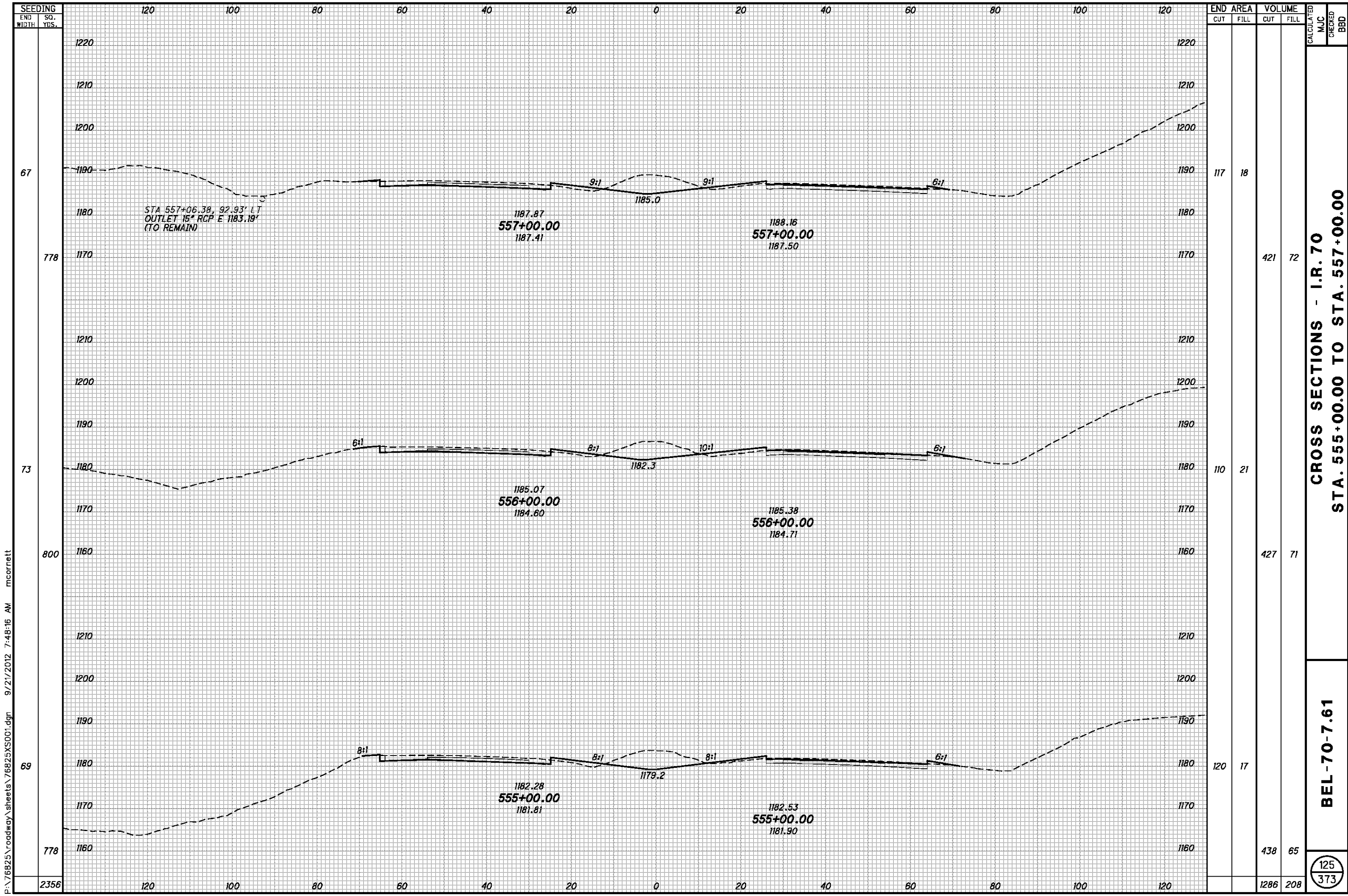
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 70 | 70 | 117 | 18 | 391 | 89 | | |
| 66 | 66 | 95 | 30 | 424 | 76 | | |
| 745 | 745 | 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



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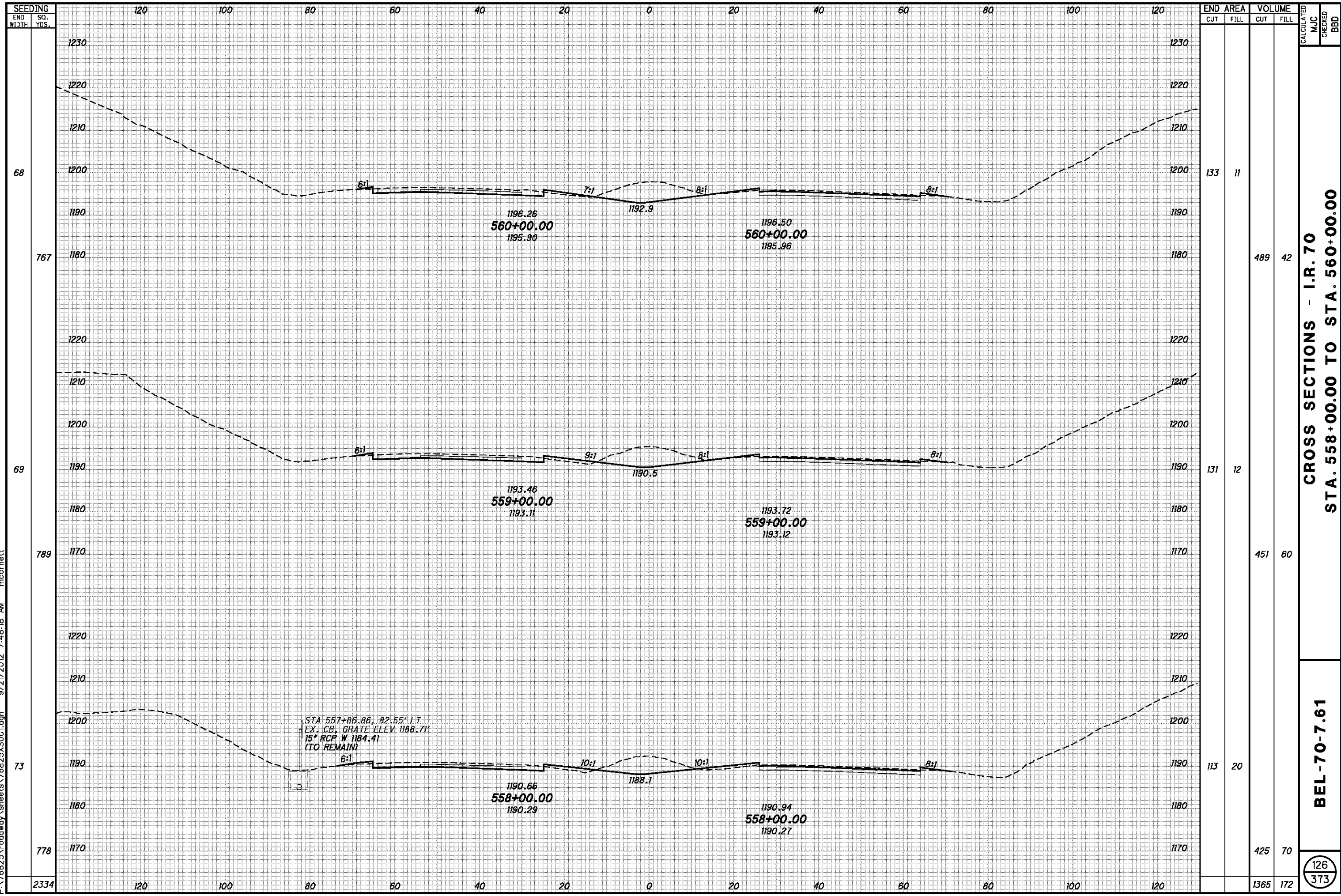
| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 67 | 778 | 117 | 18 | 421 | 72 | | |
| 73 | 800 | 110 | 21 | 427 | 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

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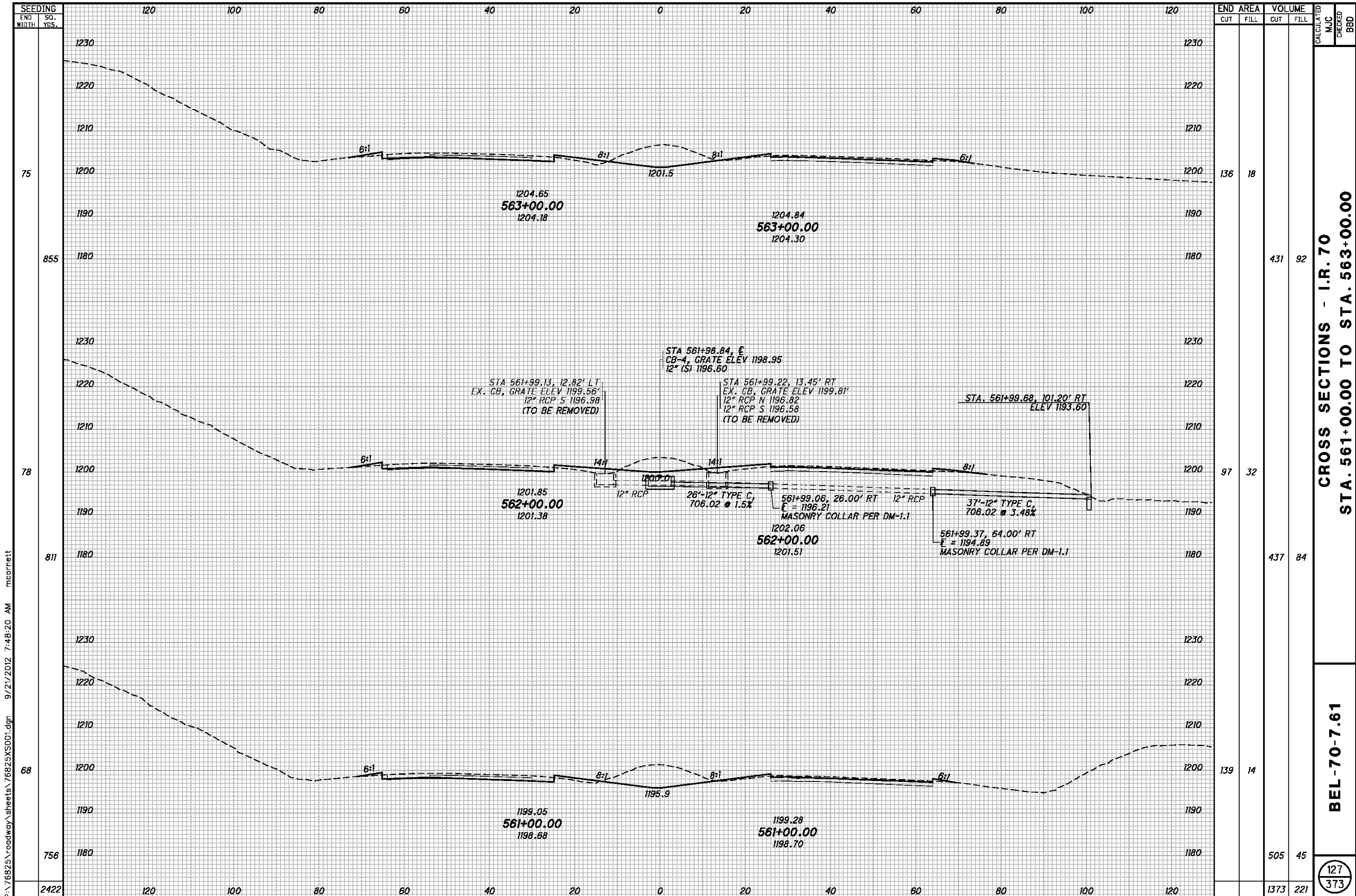


| END AREA | VOLUME | CALCULATED | | MJC | CHECKED | BBD |
|----------|--------|------------|------|-----|---------|-----|
| | | CUT | FILL | | | |
| 133 | 11 | | | | | |
| | 489 | 42 | | | | |
| 131 | 12 | | | | | |
| | 451 | 60 | | | | |
| 113 | 20 | | | | | |
| | 425 | 70 | | | | |
| | 1365 | 172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

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

BEL-70-7.61

126
373



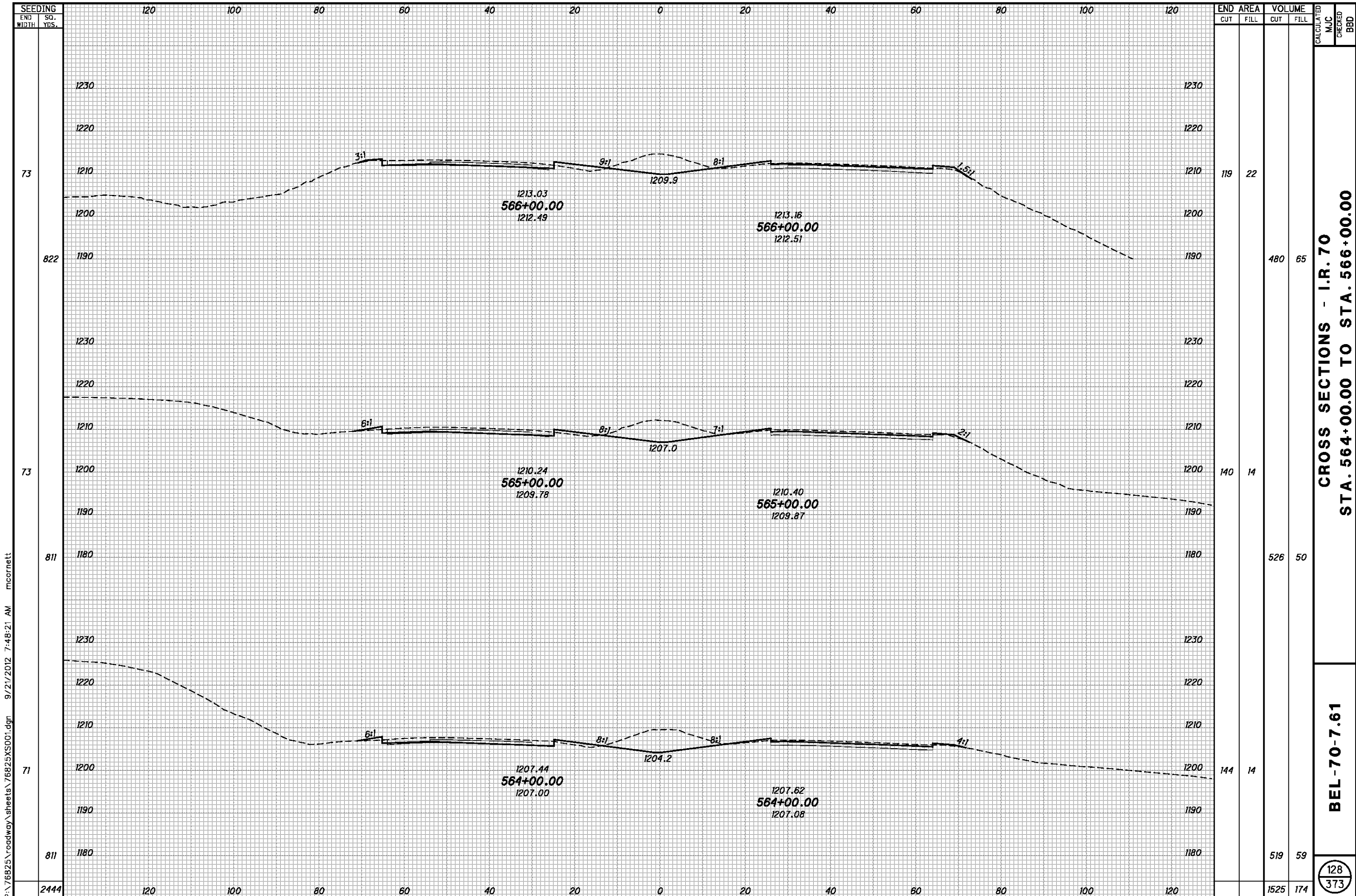
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| END STA | AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|--------------|------------|-----------|-------------|------------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 563+00.00 | 136 | 18 | 431 | 92 | | | | |
| 562+00.00 | 97 | 32 | 437 | 84 | | | | |
| 561+00.00 | 139 | 14 | 505 | 45 | | | | |
| TOTAL | 372 | 64 | 1373 | 221 | | | | |

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

BEL-70-7.61

127
373



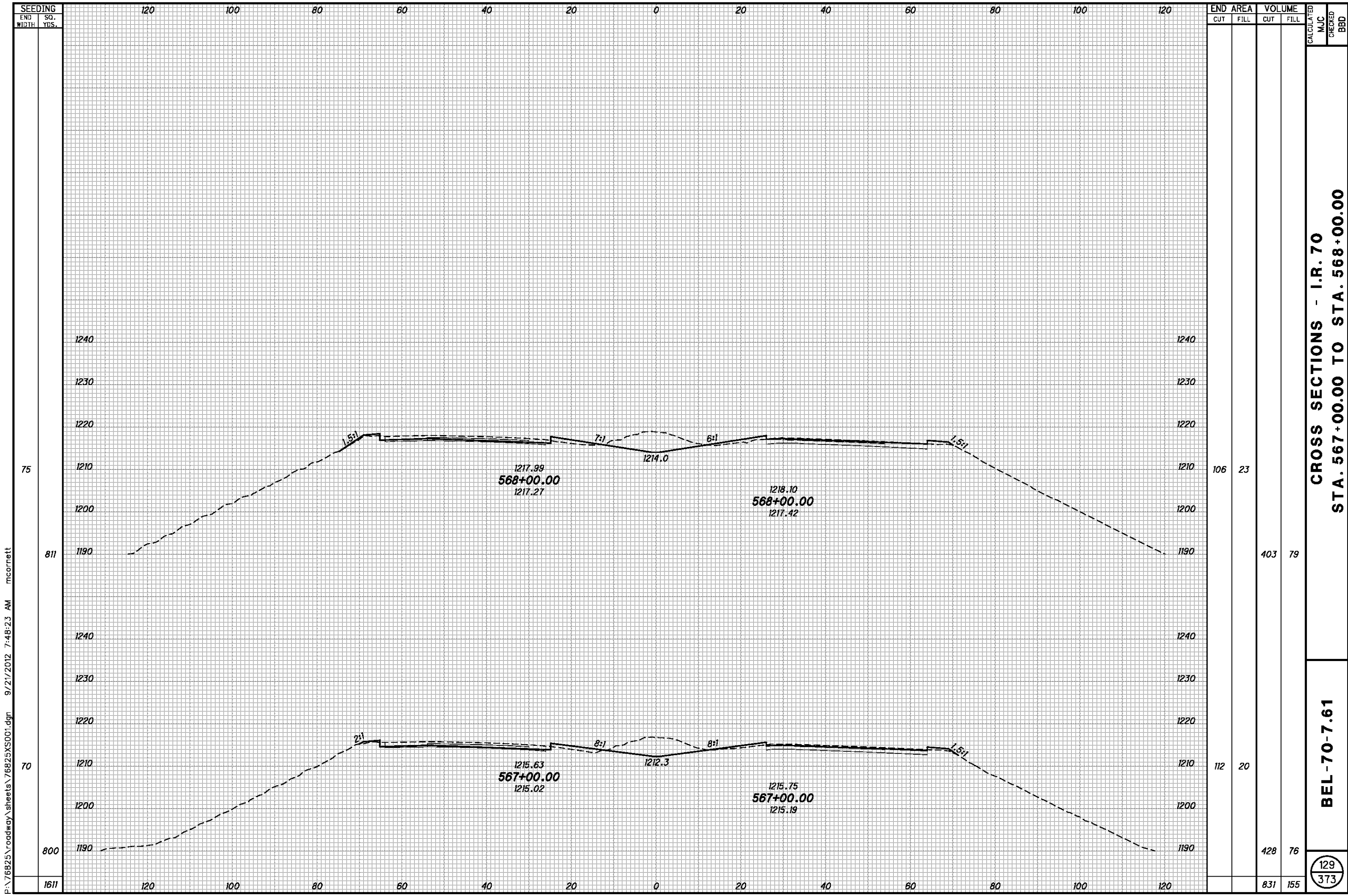
| END AREA | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|-------------|-------------|------------|------------|-----|---------|-----|
| | CUT | FILL | | | | |
| 119 | 22 | 480 | 65 | | | |
| 140 | 14 | 526 | 50 | | | |
| 144 | 14 | 519 | 59 | | | |
| 2444 | 1525 | 174 | 174 | | | |

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

BEL-70-7.61

128
373

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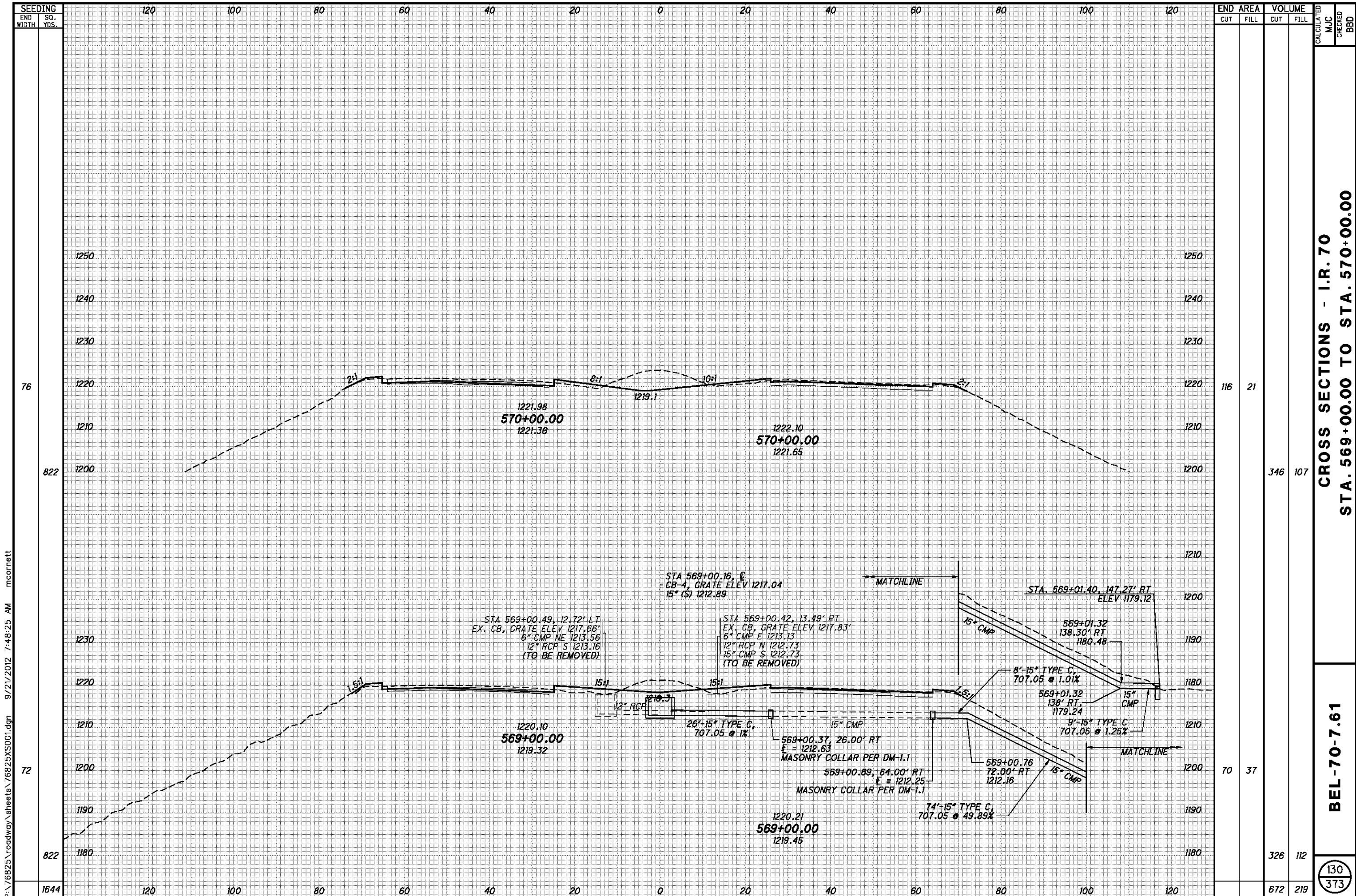
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 1611 | |

| 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



| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 76 | |
| 822 | |
| 72 | |
| 822 | |
| 1644 | |

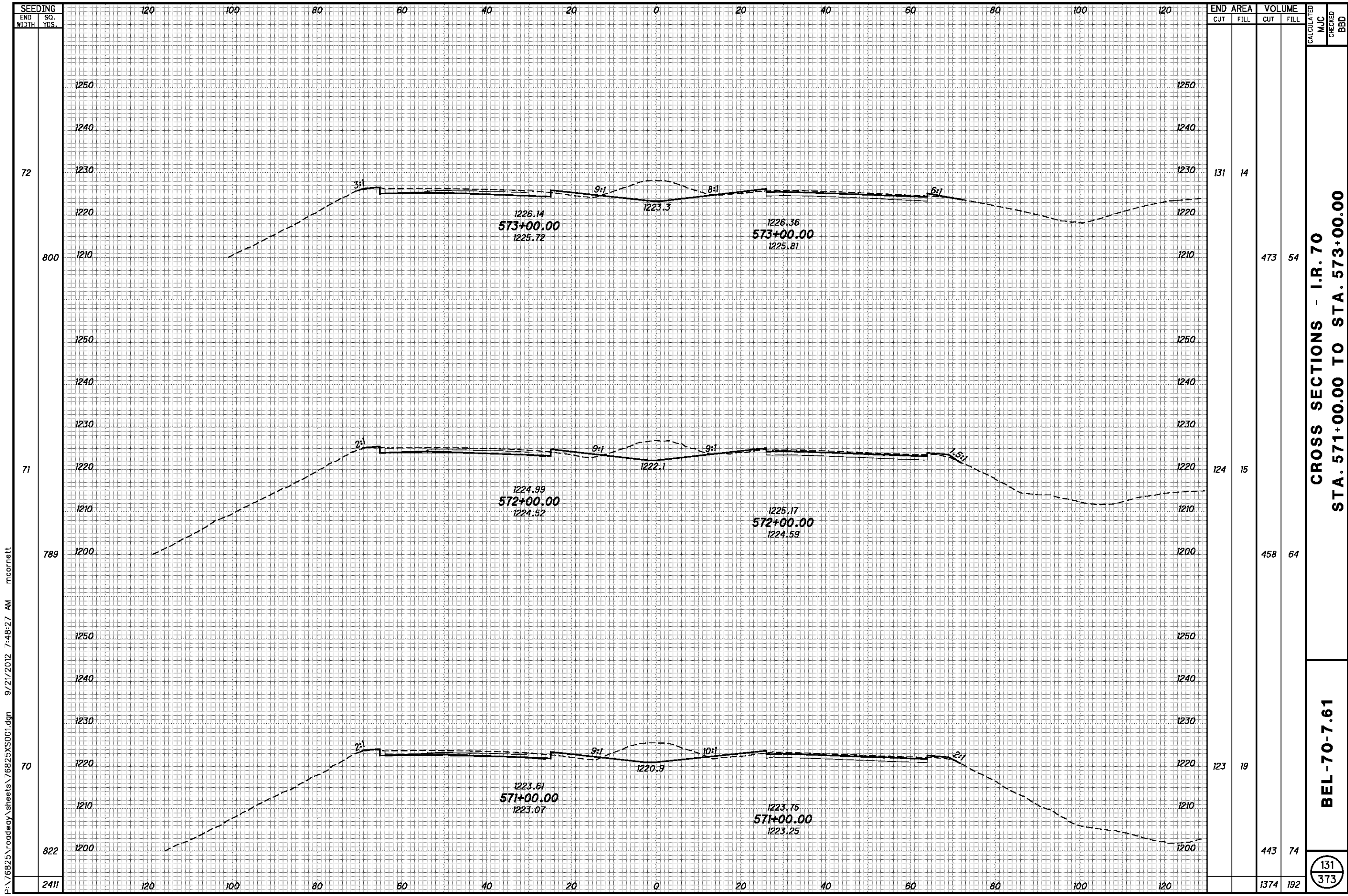
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 116 | 21 | 346 | 107 | | |
| 70 | 37 | 326 | 112 | | |
| | | 672 | 219 | | |

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

BEL-70-7.61

130
 373

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

120 100 80 60 40 20 0 20 40 60 80 100 120

1250 1240 1230 1220 1210 1200

1250 1240 1230 1220 1210 1200

1250 1240 1230 1220 1210 1200

1250 1240 1230 1220 1210 1200

120 100 80 60 40 20 0 20 40 60 80 100 120

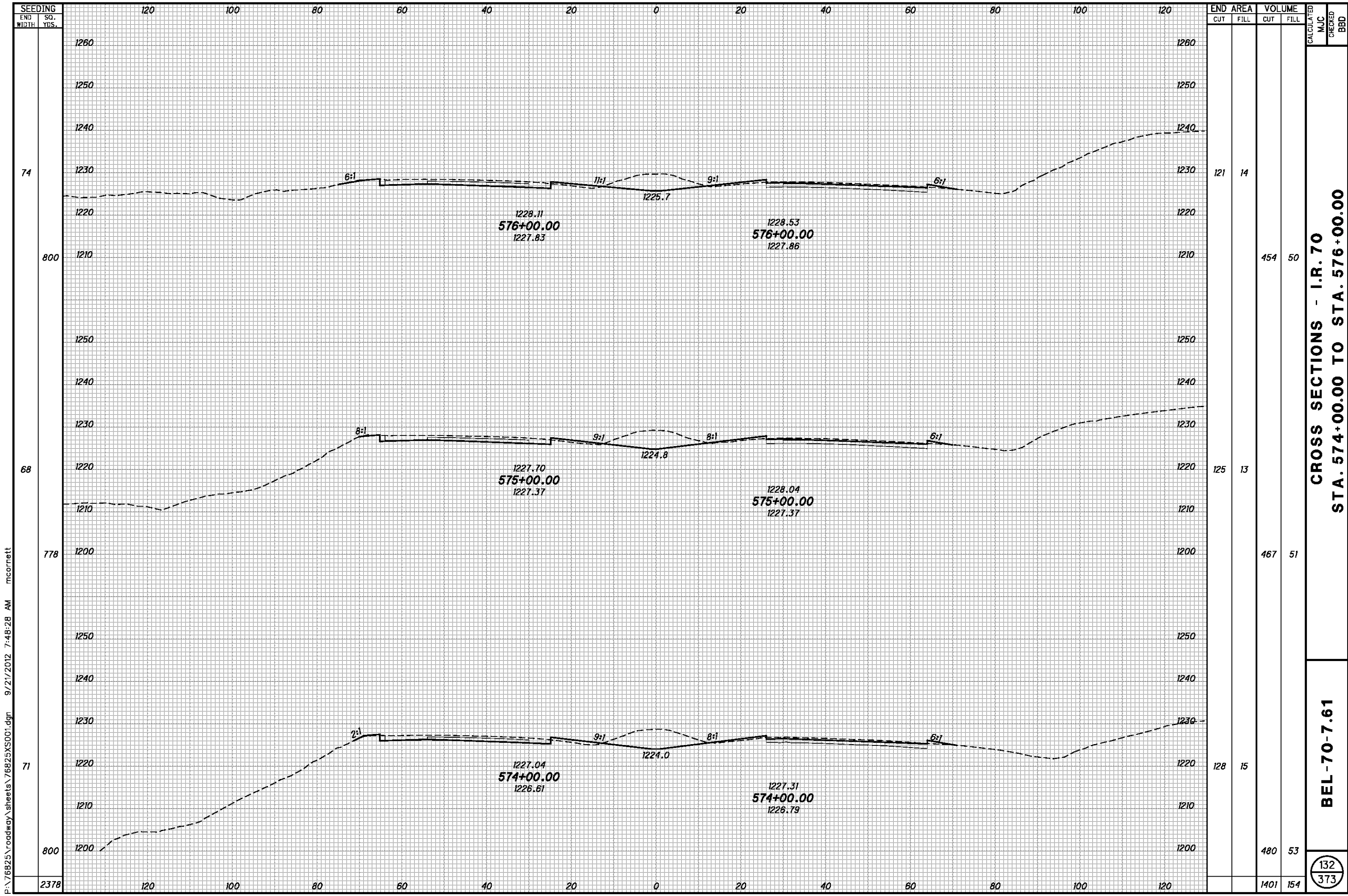
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 131 | 14 | 473 | 54 | | |
| 124 | 15 | 458 | 64 | | |
| 123 | 19 | 443 | 74 | | |
| | | 1374 | 192 | | |

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

BEL-70-7.61

131
373

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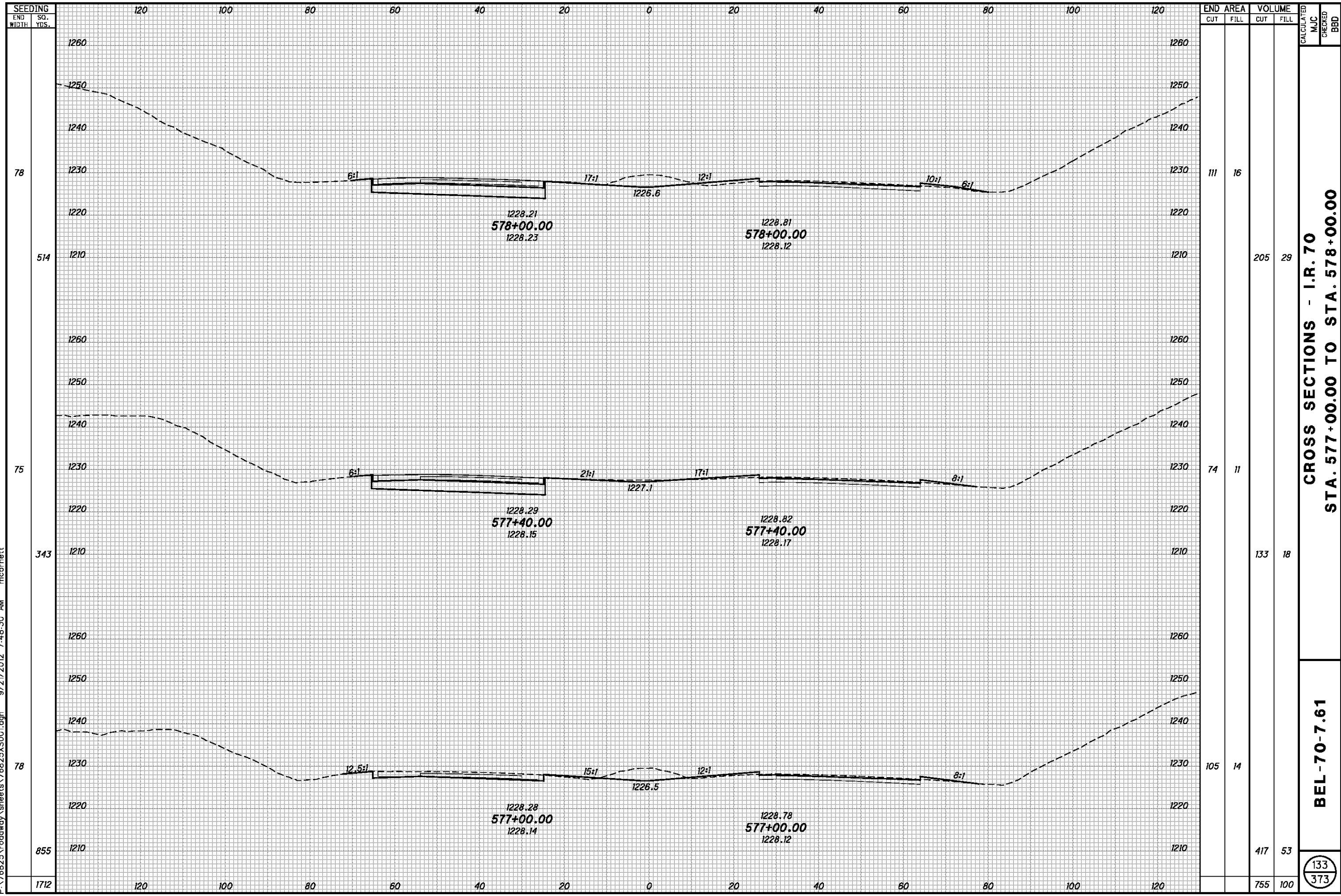
| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 74 | 800 | 121 | 14 | 454 | 50 | | |
| 68 | 778 | 125 | 13 | 467 | 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

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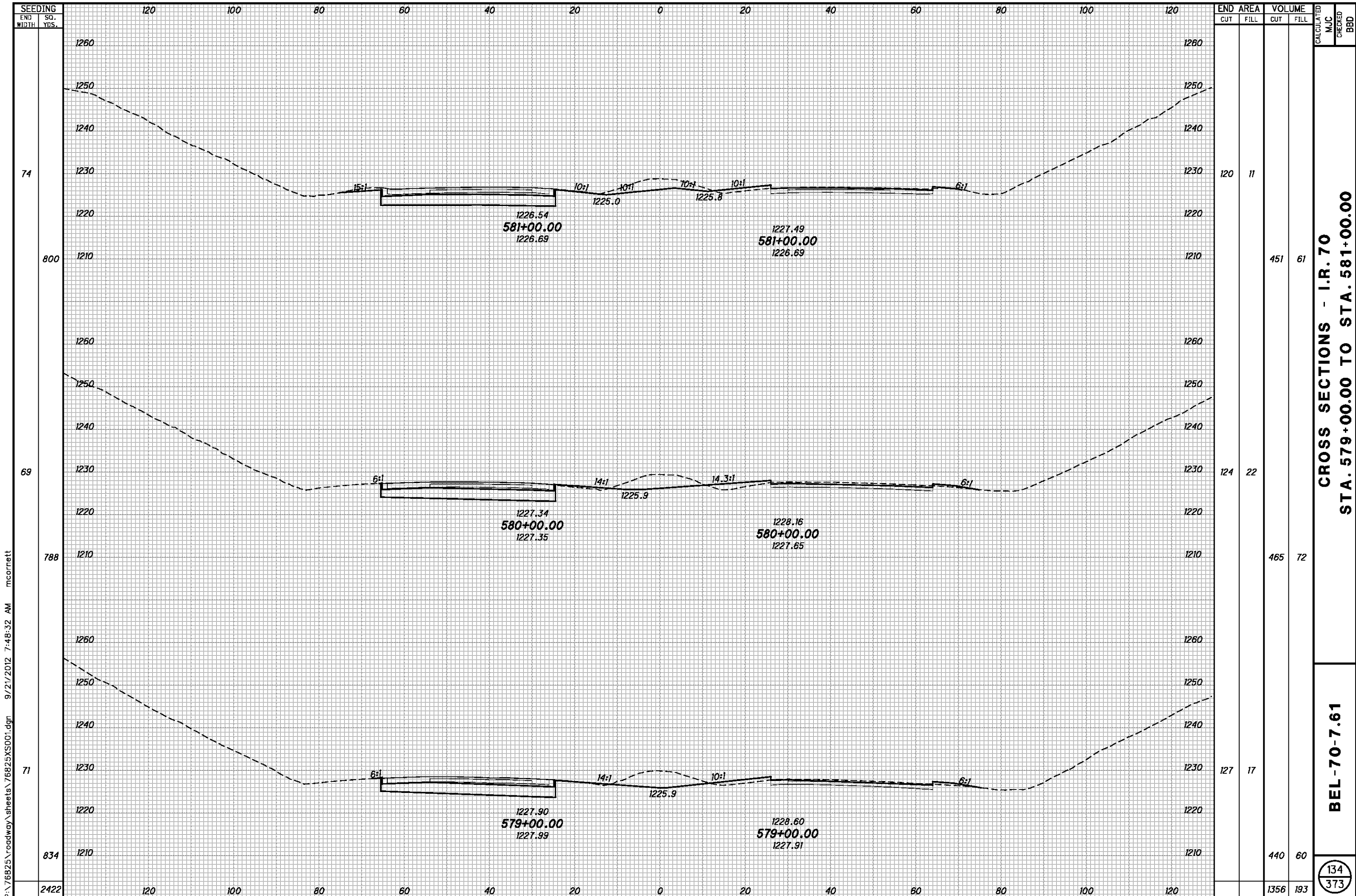
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 78 | 514 |
| 75 | 343 |
| 78 | 855 |
| 1712 | |

| END AREA | | VOLUME | | CALCULATED | |
|----------|------|--------|------|------------|-----|
| CUT | FILL | CUT | FILL | MJC | BBD |
| 111 | 16 | 205 | 29 | | |
| 74 | 11 | 133 | 18 | | |
| 105 | 14 | 417 | 53 | | |
| | | 755 | 100 | | |

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

BEL-70-7.61

133
373



| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 74 | 800 |
| 69 | 788 |
| 71 | 834 |
| 2422 | |

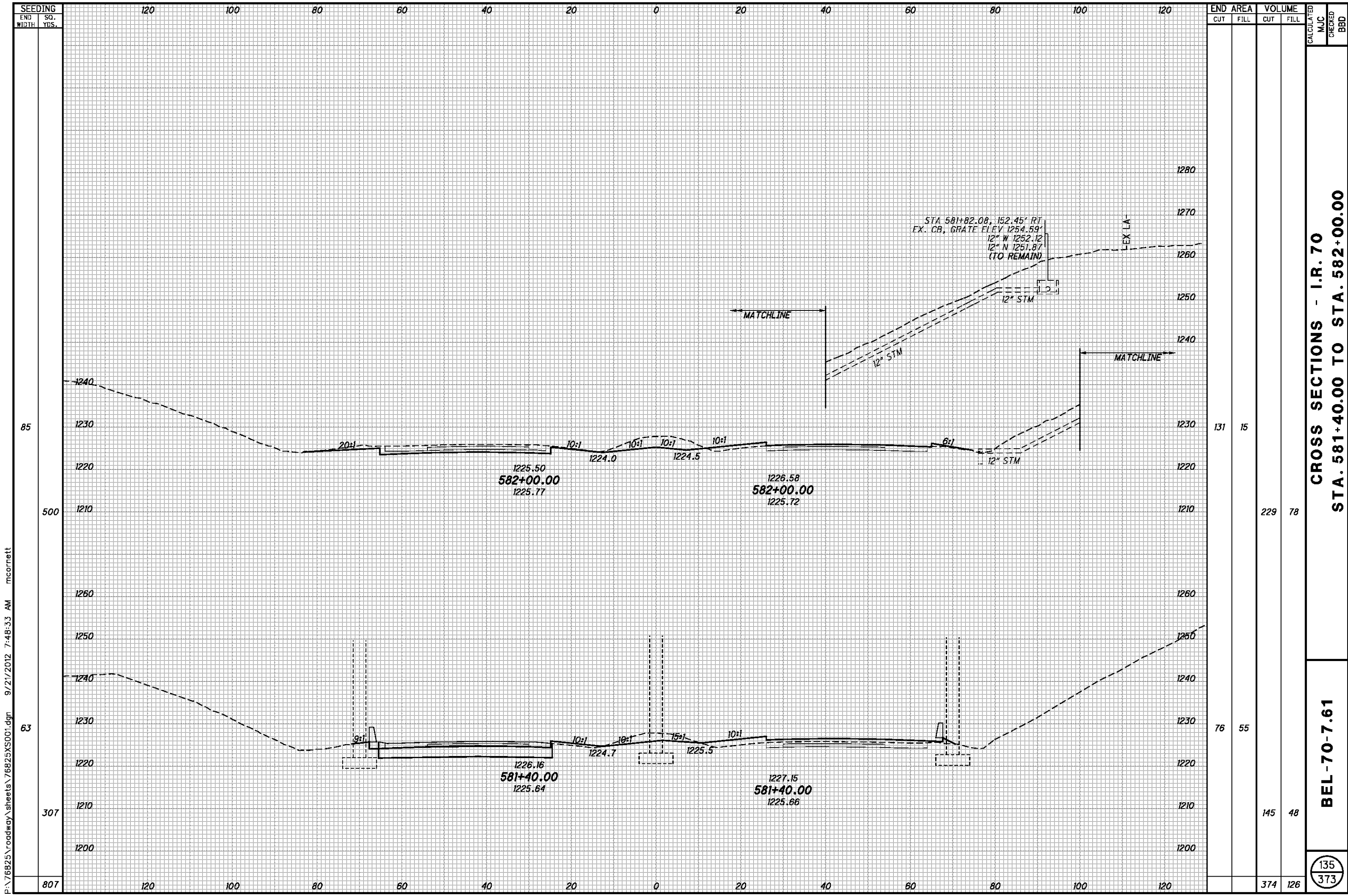
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 120 | 11 | 451 | 61 | | |
| 124 | 22 | 465 | 72 | | |
| 127 | 17 | 440 | 60 | | |
| | | 1356 | 193 | | |

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

BEL-70-7.61

134
373

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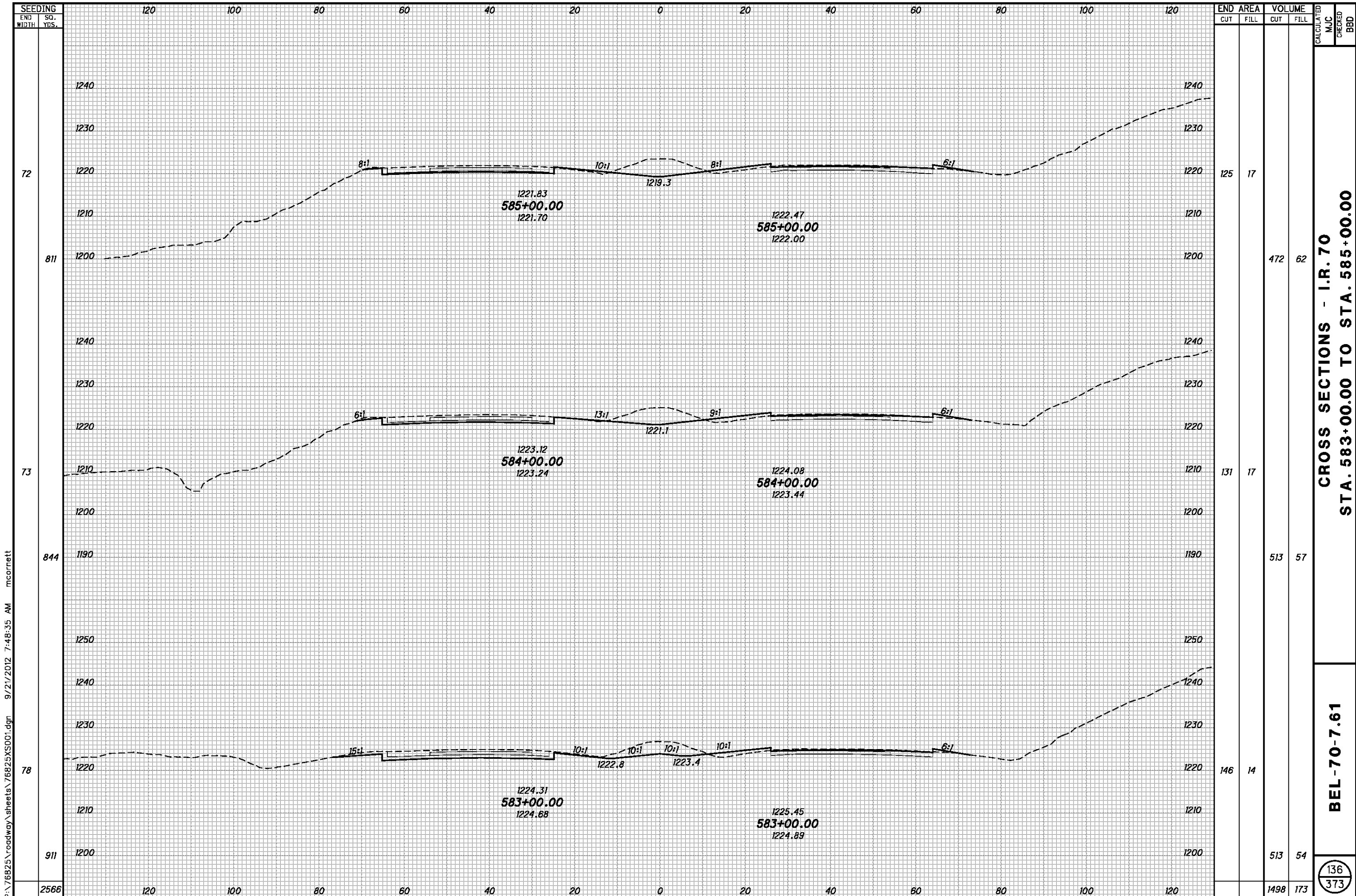
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 85 | |
| 500 | |
| 63 | |
| 307 | |
| 807 | |

| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 131 | 15 | 229 | 78 | | |
| 76 | 55 | 145 | 48 | | |
| | | 374 | 126 | | |

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

BEL-70-7.61

135
373



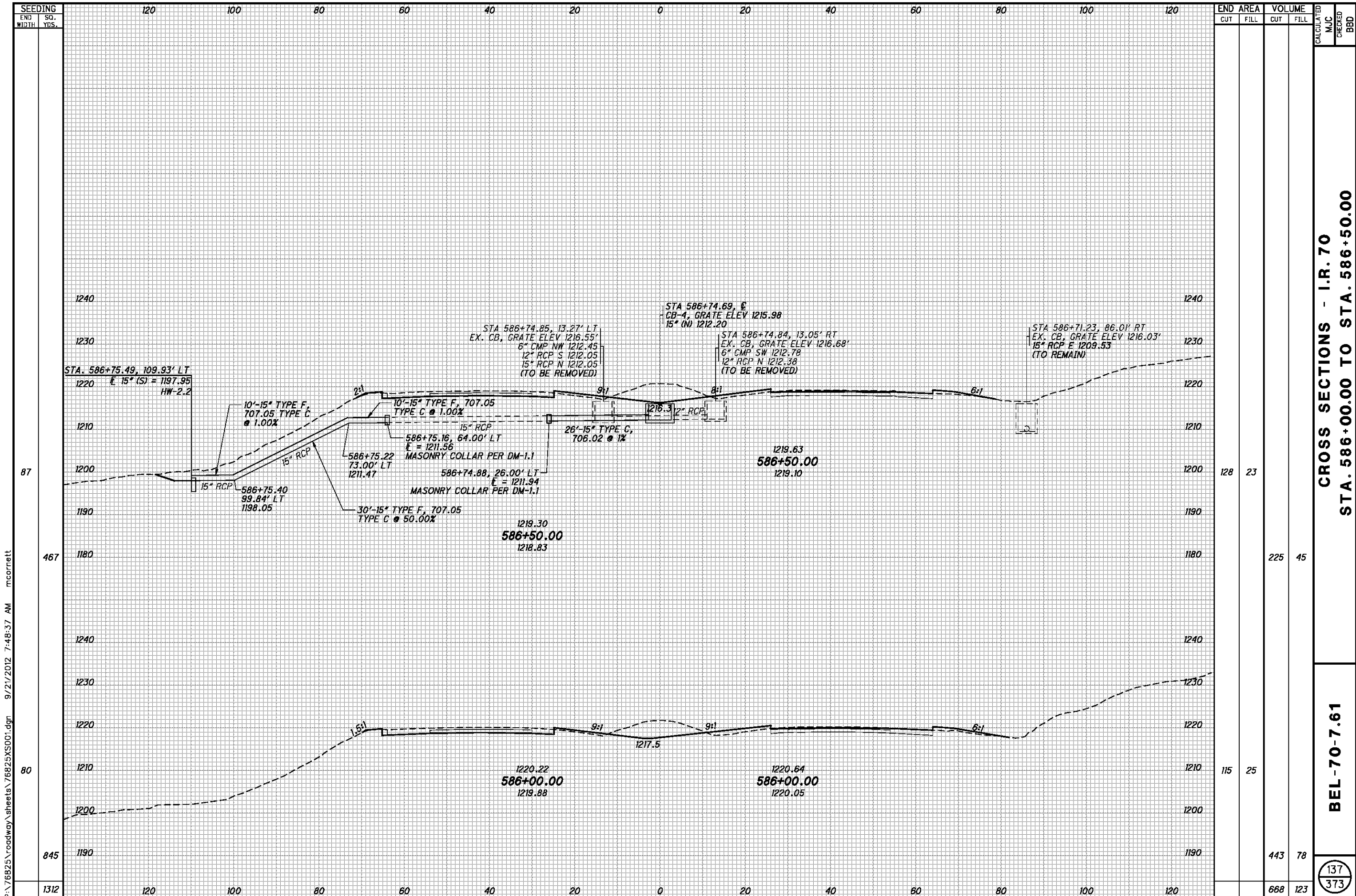
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| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|-----------|----------|--------|------|------------|-----|---------|-----|
| | END WIDTH | SO. YDS. | CUT | FILL | | | | |
| 72 | 120 | 120 | 125 | 17 | | | | |
| 811 | 120 | 120 | 472 | 62 | | | | |
| 73 | 120 | 120 | 131 | 17 | | | | |
| 844 | 1190 | 1190 | 513 | 57 | | | | |
| 78 | 120 | 120 | 146 | 14 | | | | |
| 911 | 120 | 120 | 513 | 54 | | | | |
| 2566 | 120 | 120 | 1498 | 173 | | | | |

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

BEL-70-7.61

136
373



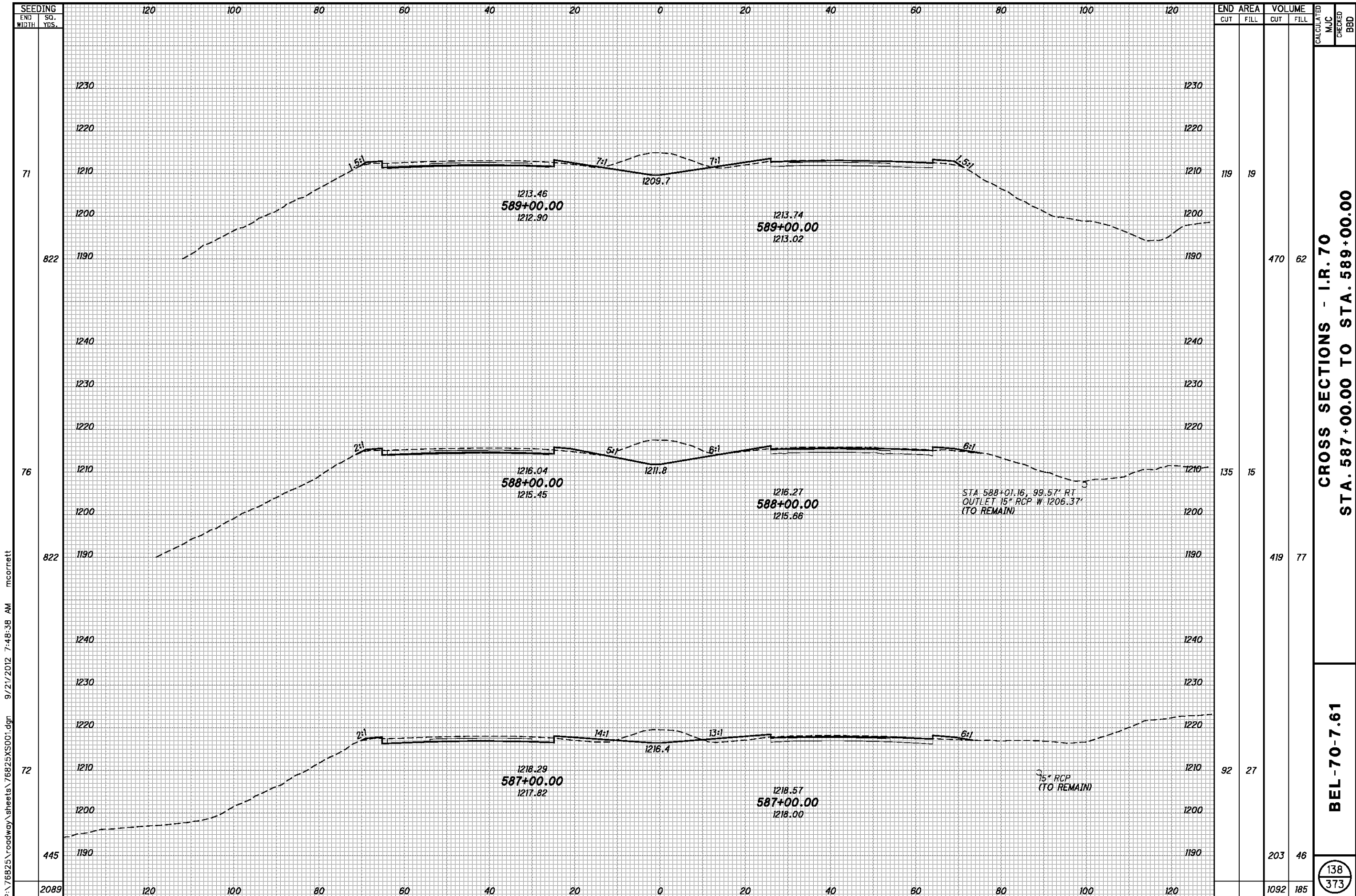
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 87 | | 128 | 23 | | | | |
| 467 | | | | 225 | 45 | | |
| 80 | | 115 | 25 | | | | |
| 845 | | | | 443 | 78 | | |
| 1312 | | | | 668 | 123 | | |

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

BEL-70-7.61

137
373



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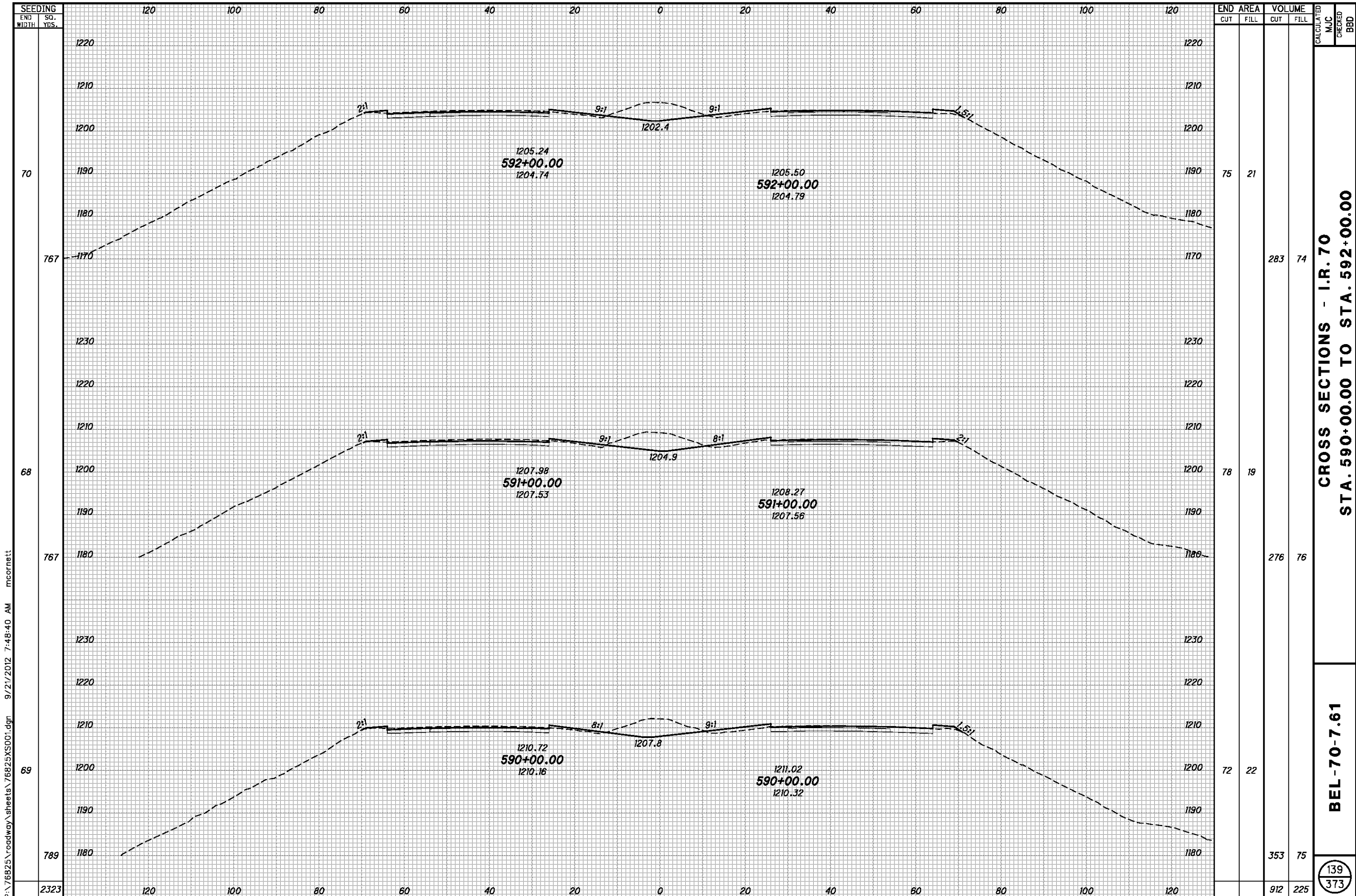
| SEEDING | END SO. | |
|---------|---------|------|
| | WIDTH | YDS. |
| 71 | | |
| 822 | | |
| 76 | | |
| 822 | | |
| 72 | | |
| 445 | | |
| 2089 | | |

| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 119 | 19 | 470 | | |
| 135 | 15 | 419 | | |
| 92 | 27 | 203 | | |
| | | 1092 | | |

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

BEL-70-7.61

138
373

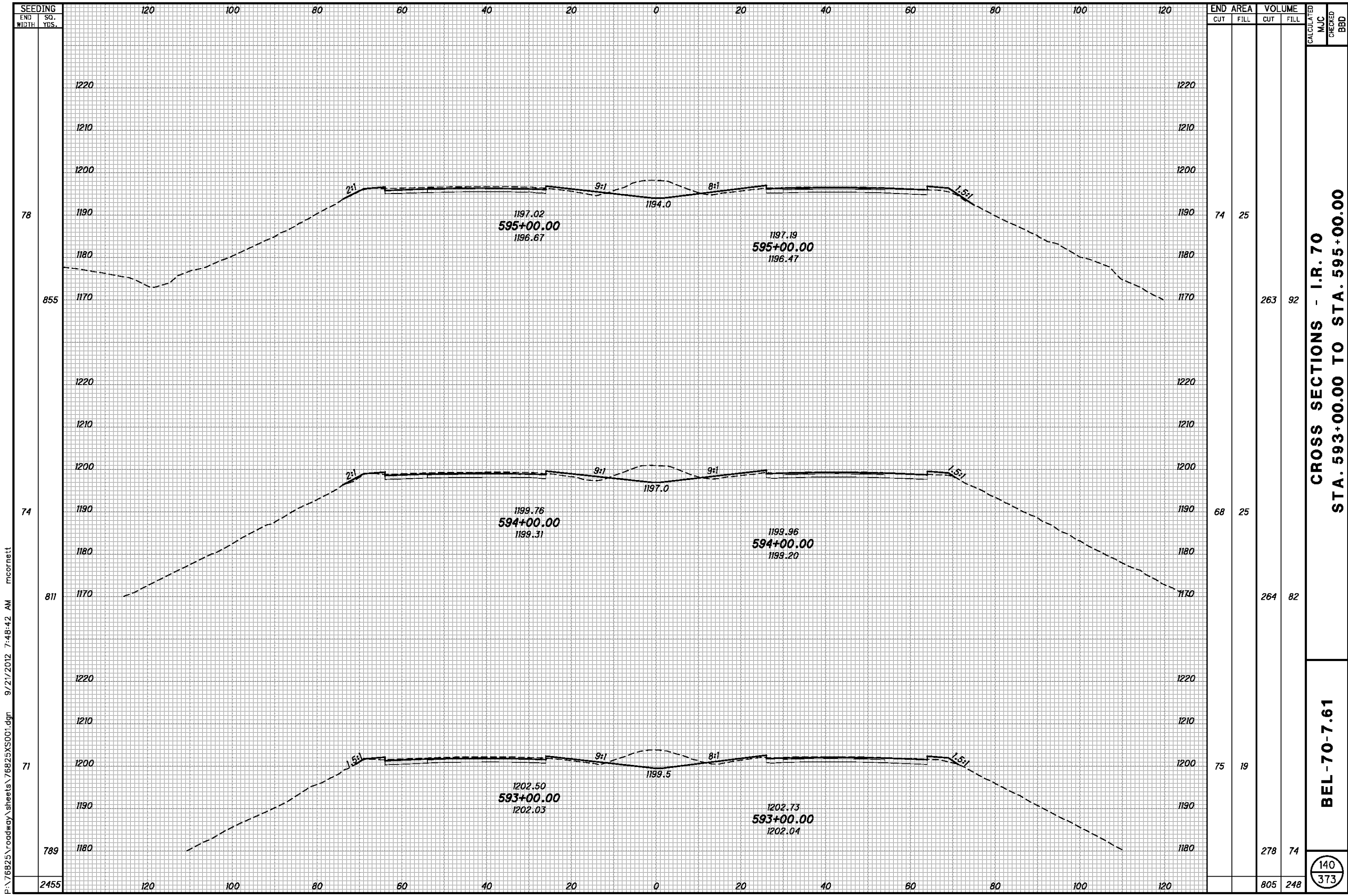


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**CROSS SECTIONS - I.R. 70
STA. 590+00.00 TO STA. 592+00.00**

BEL-70-7.61

139
373



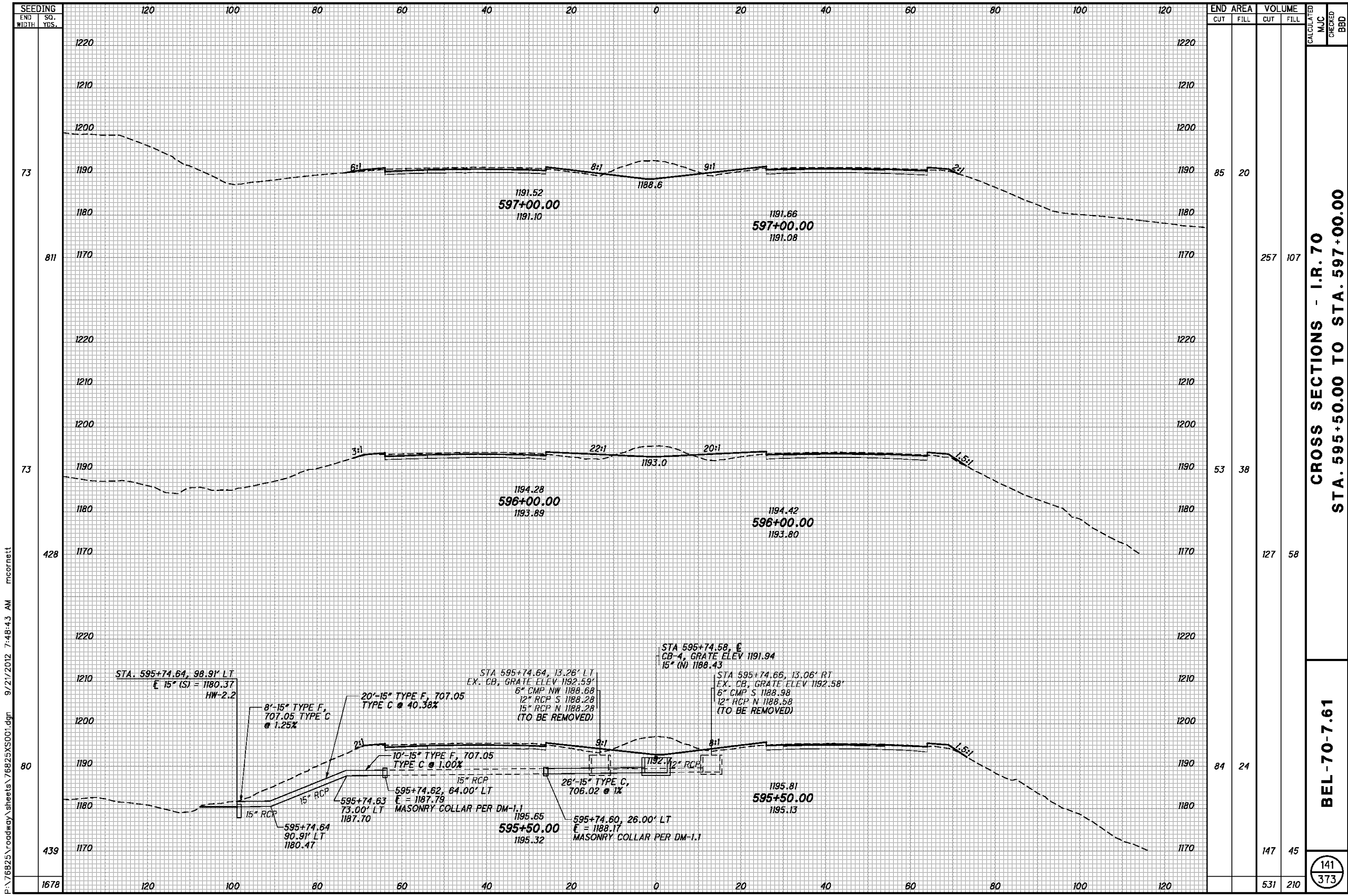
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| END STA | AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|---------|------|------|--------|------|----------------|-------------|
| | CUT | FILL | CUT | FILL | | |
| 78 | 74 | 25 | 263 | 92 | | |
| 74 | 68 | 25 | 264 | 82 | | |
| 71 | 75 | 19 | 278 | 74 | | |
| 2455 | | | 805 | 248 | | |

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

BEL-70-7.61

140
373

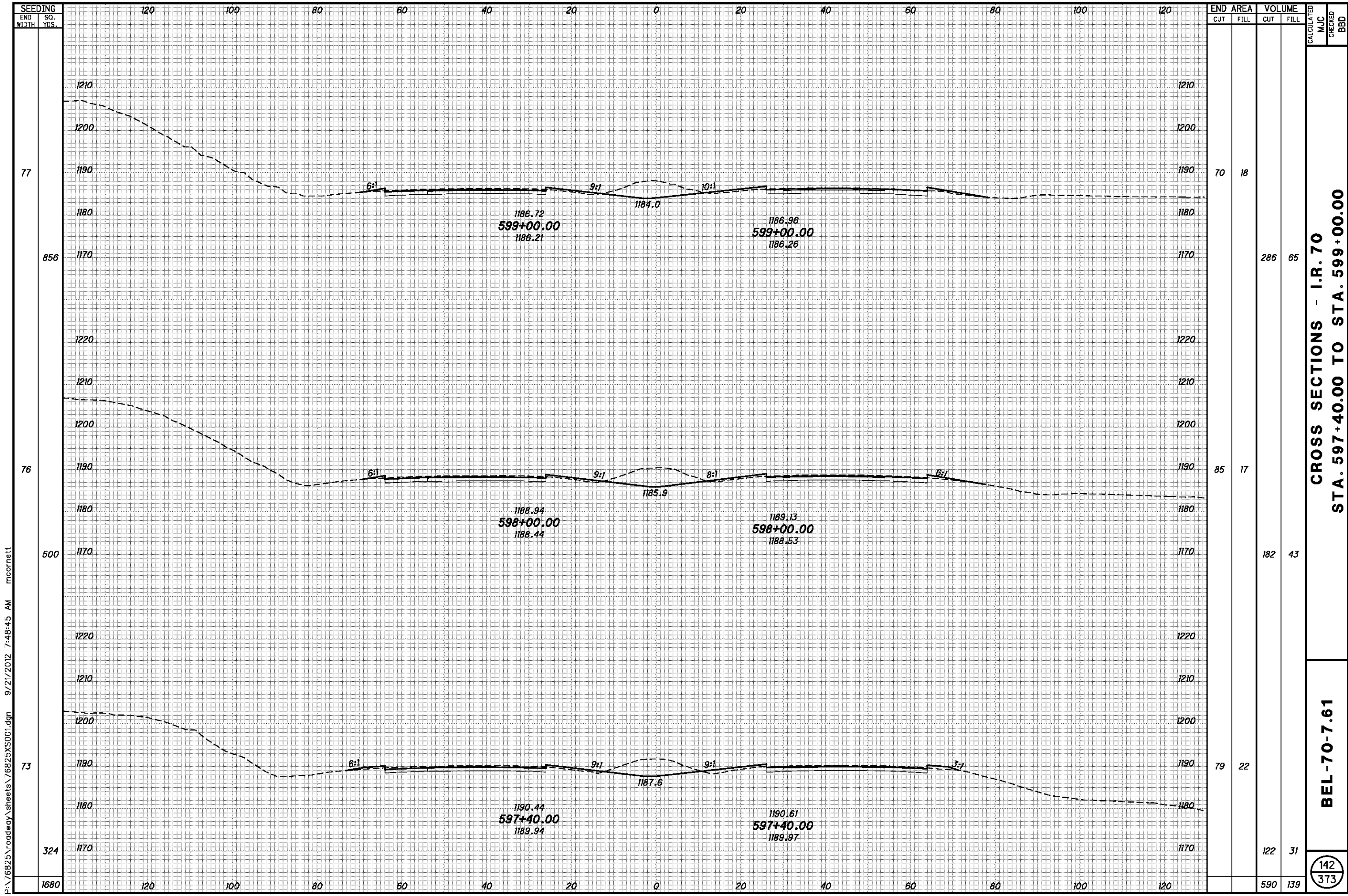


CROSS SECTIONS - I.R. 70
STA. 595+50.00 TO STA. 597+00.00

BEL-70-7.61

141
373

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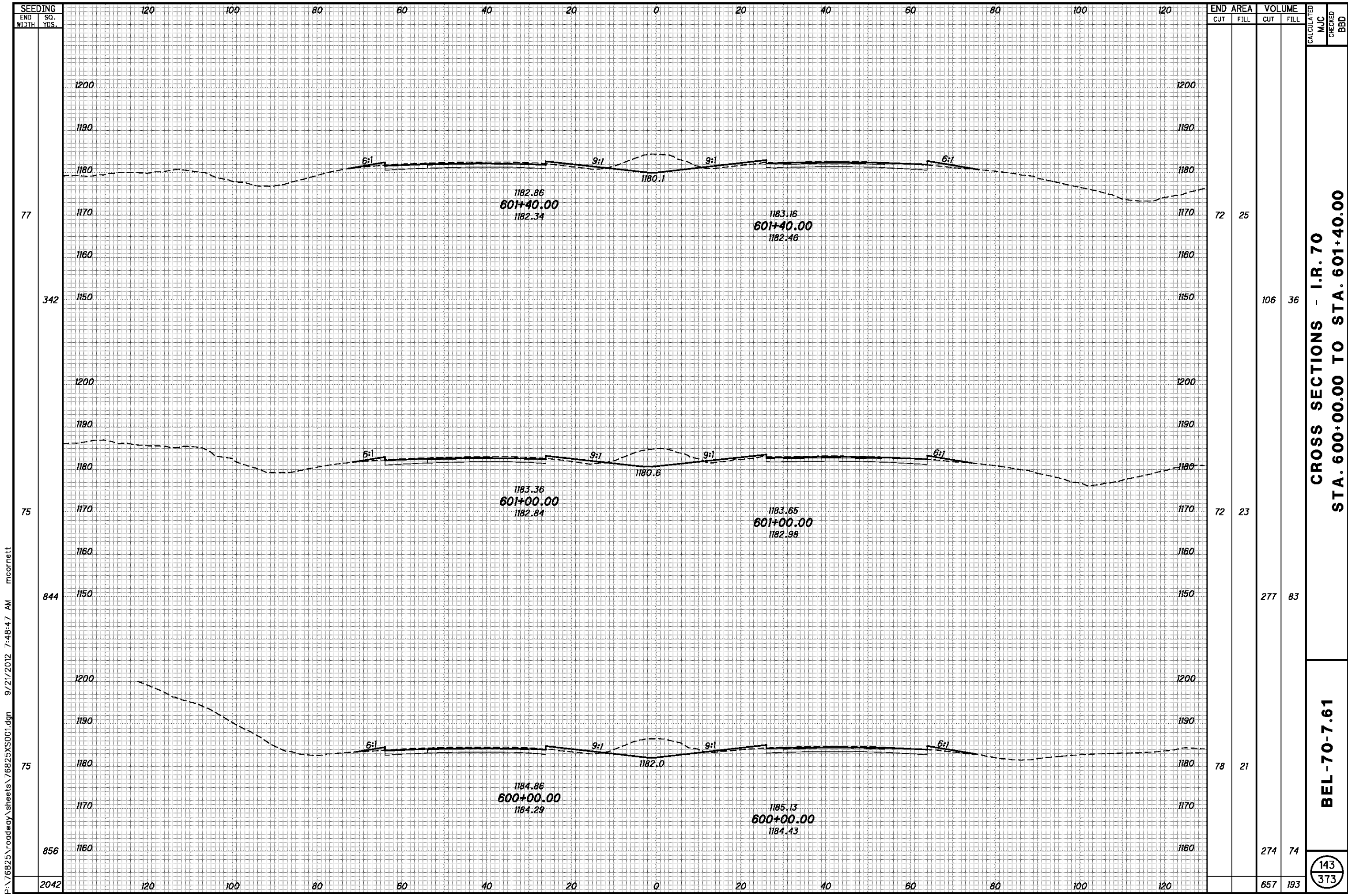
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:48:45 AM mcornett

| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 77 | 856 | 70 | 18 | 286 | 65 | | |
| 76 | 500 | 85 | 17 | 182 | 43 | | |
| 73 | 324 | 79 | 22 | 122 | 31 | | |
| 1680 | | | | 590 | 139 | | |

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

BEL-70-7.61

142
373



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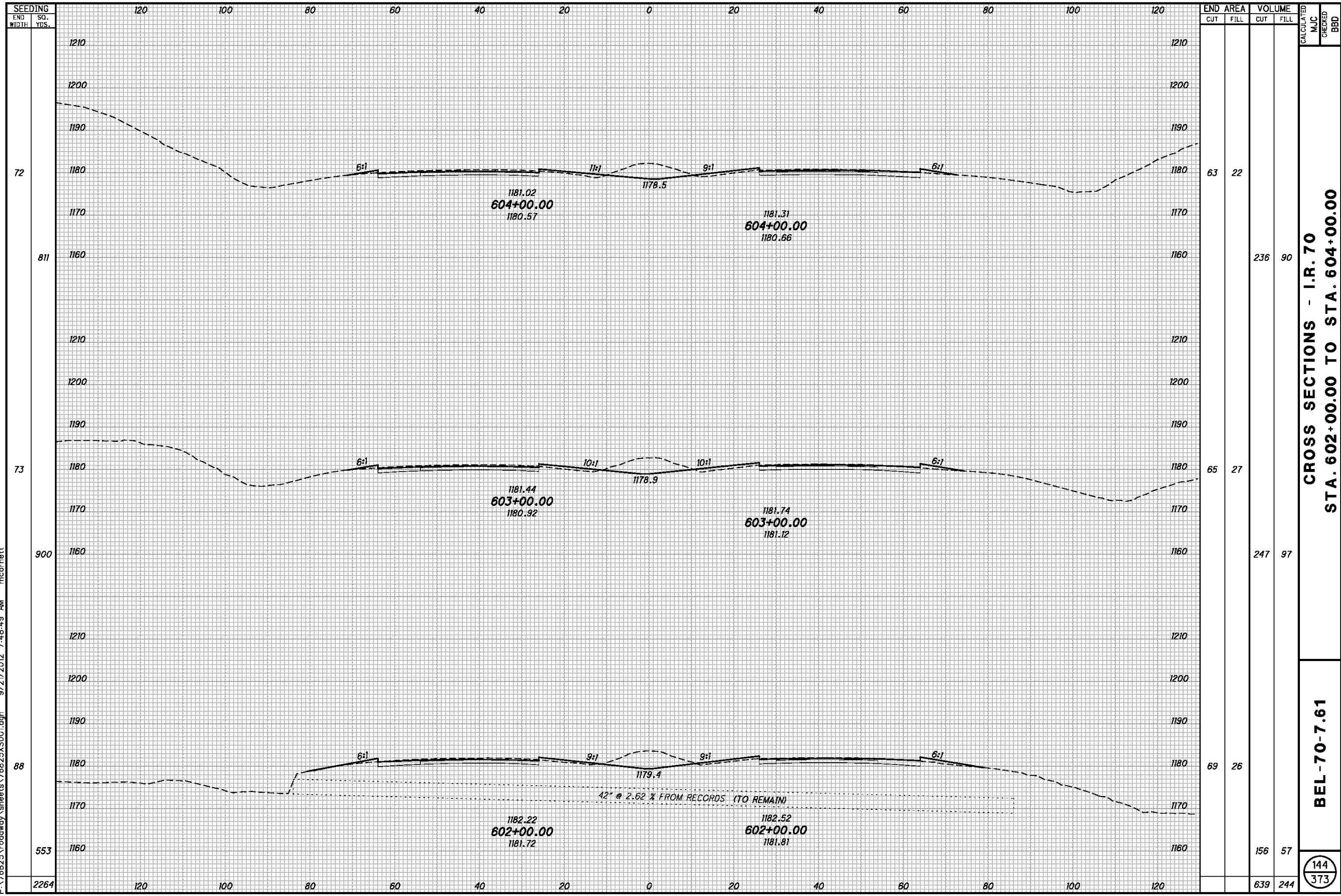
| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|----------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 77 | 72 | 25 | | | | | | |
| 342 | | | 106 | 36 | | | | |
| 75 | 72 | 23 | | | | | | |
| 844 | | | 277 | 83 | | | | |
| 75 | 78 | 21 | | | | | | |
| 856 | | | 274 | 74 | | | | |
| 2042 | | | 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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| SEEDING | END SO. | |
|---------|---------|------|
| | WIDTH | YDS. |
| | 72 | |
| | 811 | |
| | 73 | |
| | 900 | |
| | 88 | |
| | 553 | |
| | 2264 | |

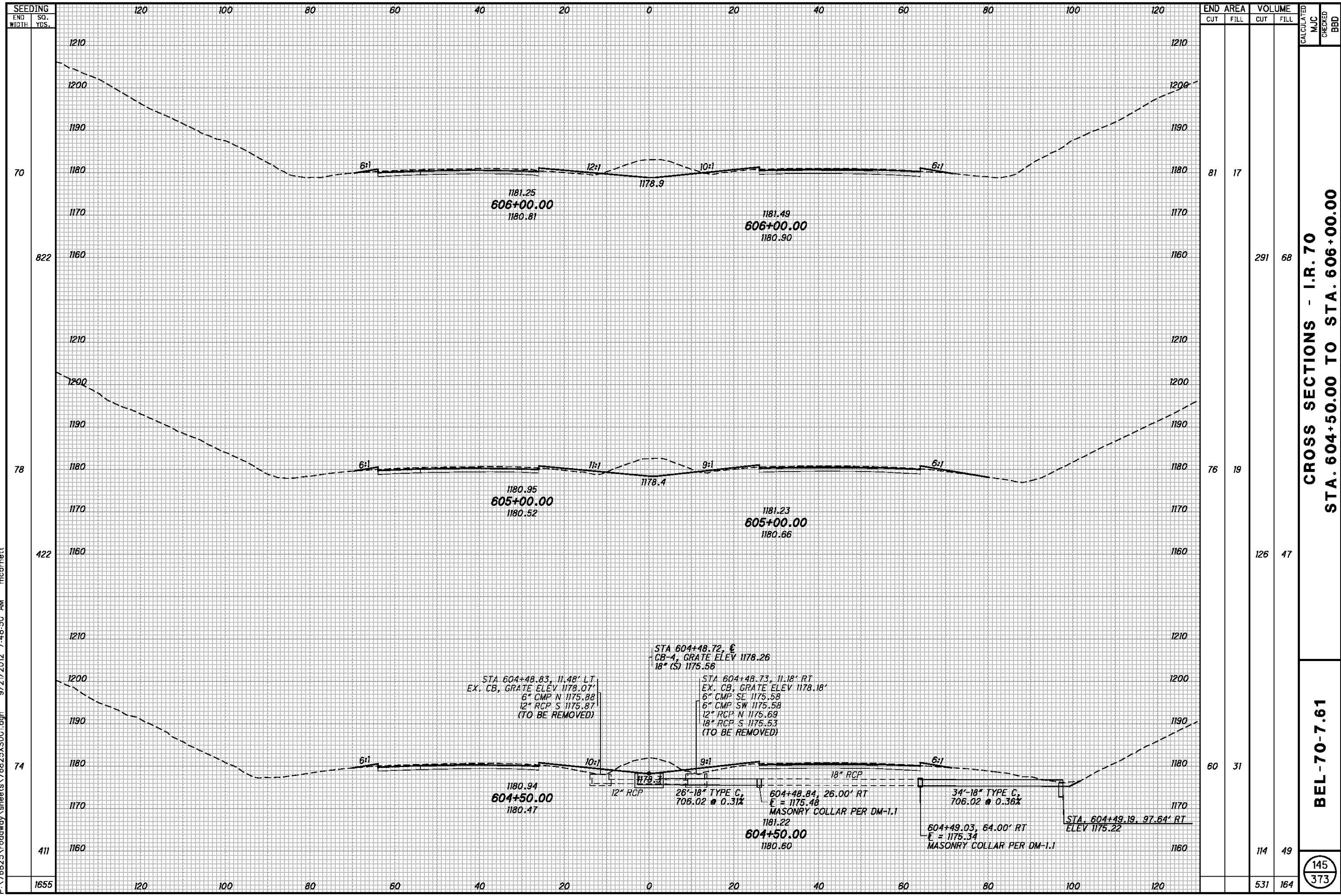
| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 63 | 22 | | | |
| | 236 | 90 | | |
| 65 | 27 | | | |
| | 247 | 97 | | |
| 69 | 26 | | | |
| | 156 | 57 | | |
| | 639 | 244 | | |

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

BEL-70-7.61

144
373

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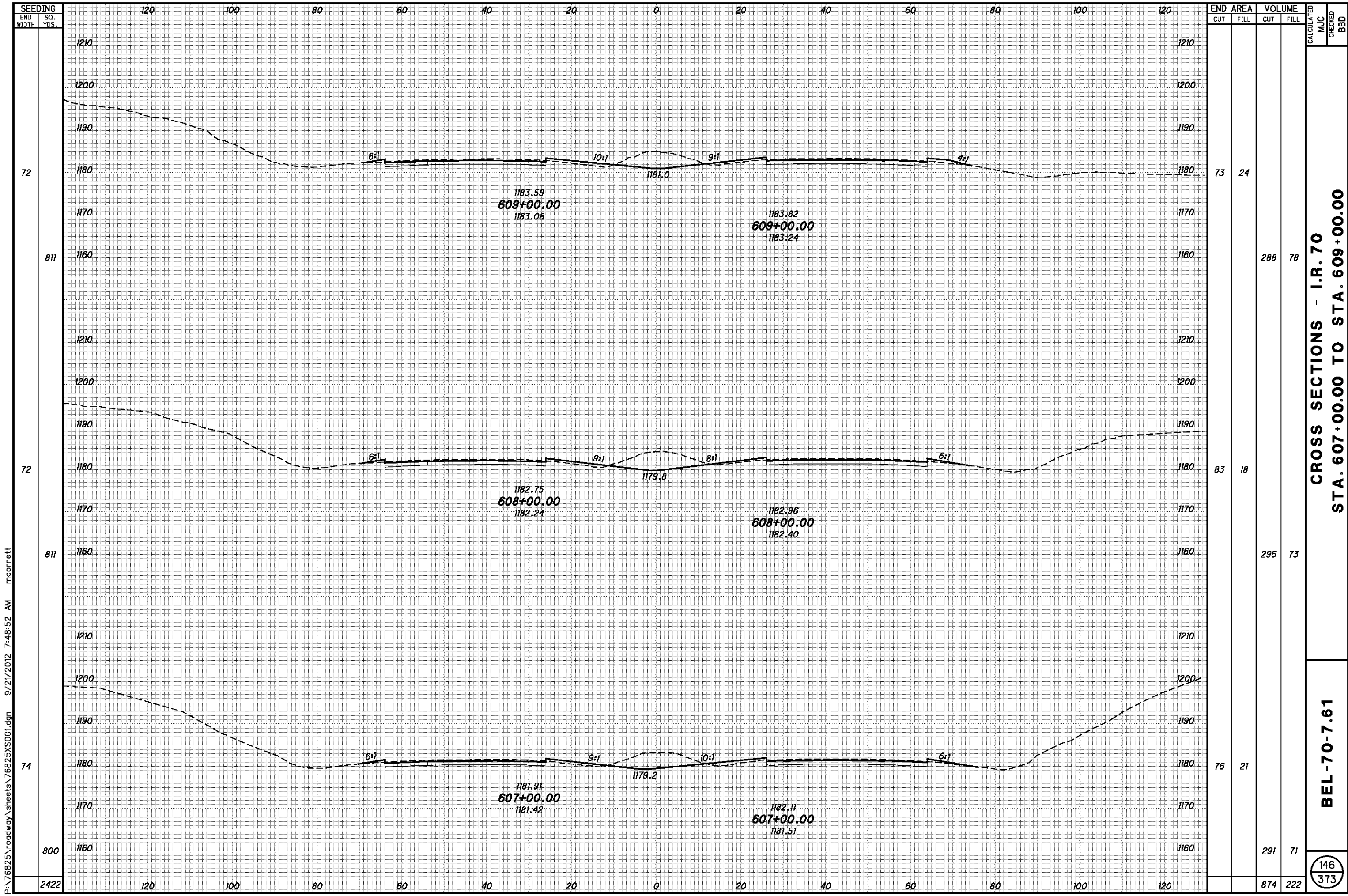


| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 81 | | 17 | | |
| 822 | 291 | 68 | | |
| 78 | | 19 | | |
| 422 | 126 | 47 | | |
| 74 | | 31 | | |
| 411 | 114 | 49 | | |
| 1655 | 531 | 164 | | |

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

BEL-70-7.61

145
373



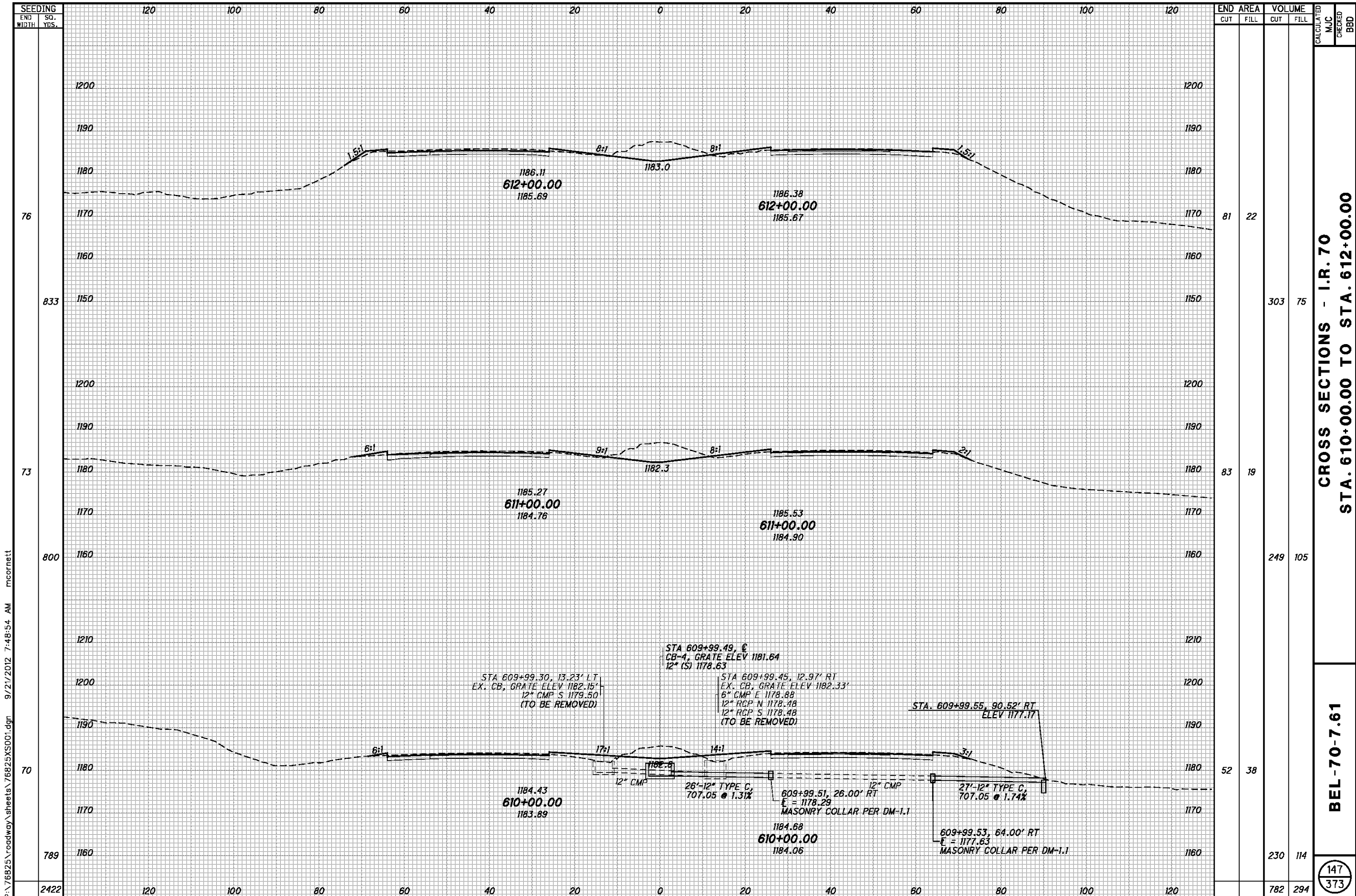
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**CROSS SECTIONS - I.R. 70
STA. 607+00.00 TO STA. 609+00.00**

BEL-70-7.61

146
373

CALCULATED
MJC
CHECKED
BBD

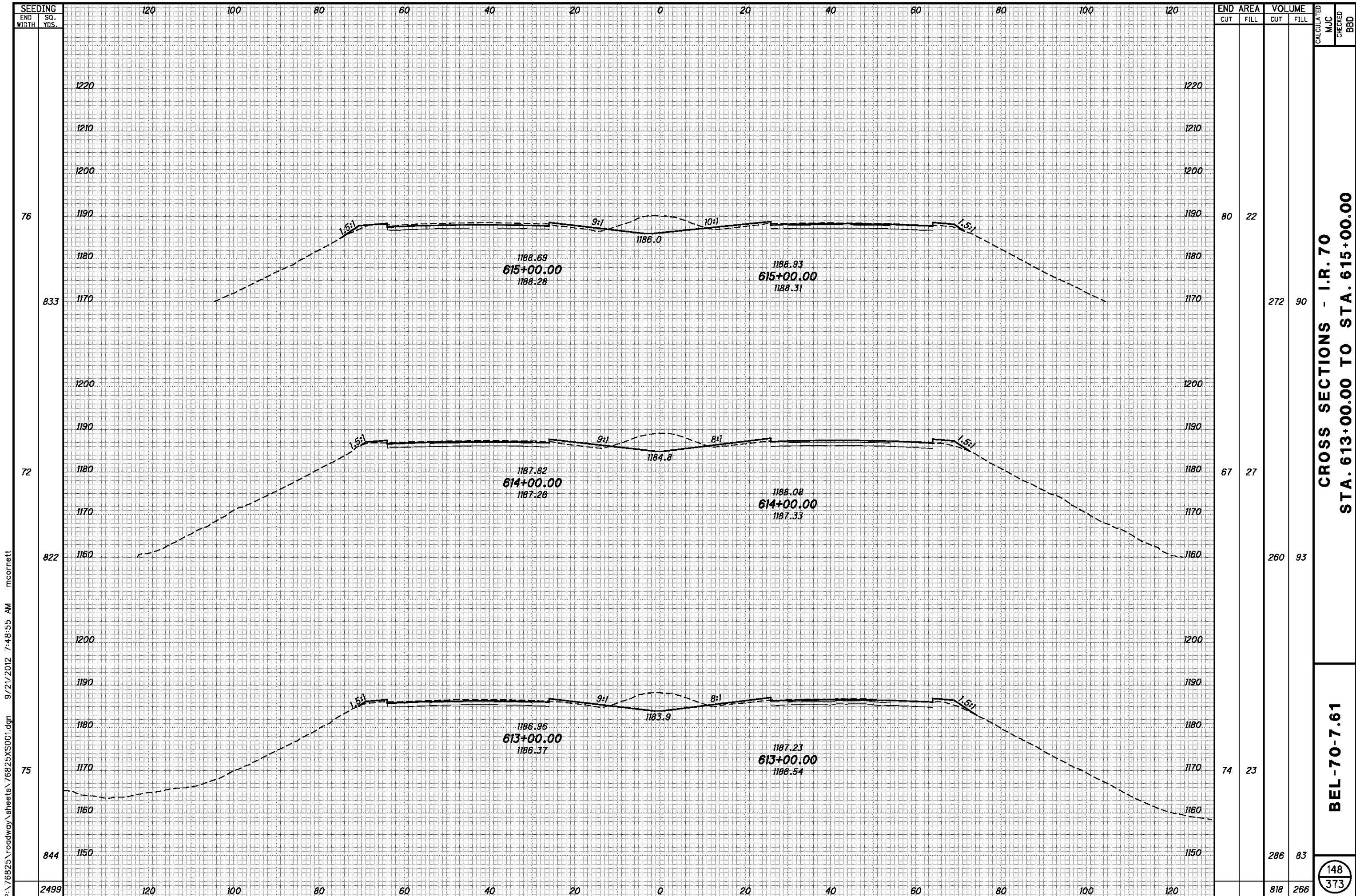


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CROSS SECTIONS - I.R. 70
STA. 610+00.00 TO STA. 612+00.00

BEL-70-7.61

147
373



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

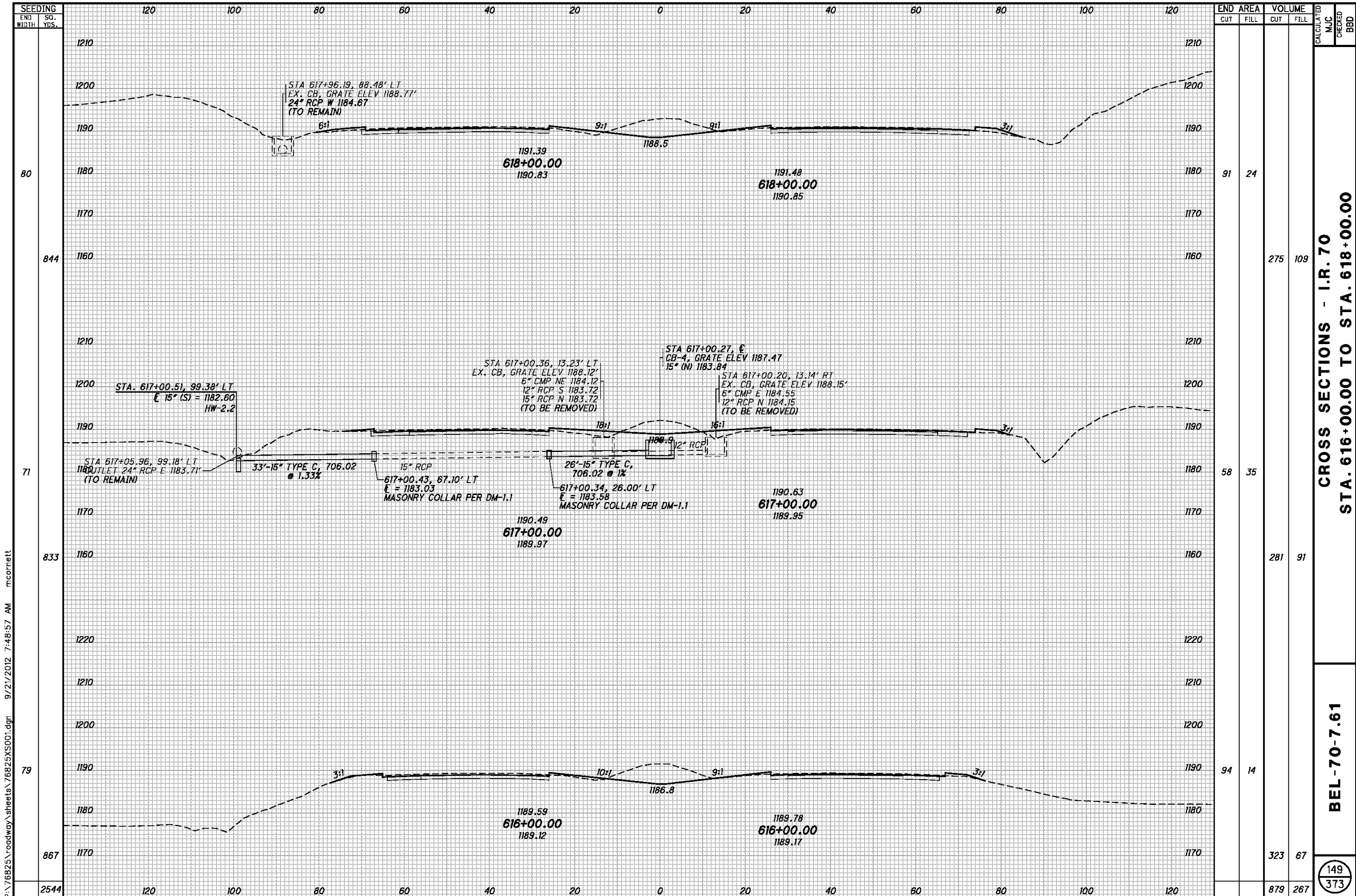
| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 80 | 22 | 272 | 90 | |
| 67 | 27 | 260 | 93 | |
| 74 | 23 | 286 | 83 | |
| | | 818 | 266 | |

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

BEL-70-7.61

148
 373

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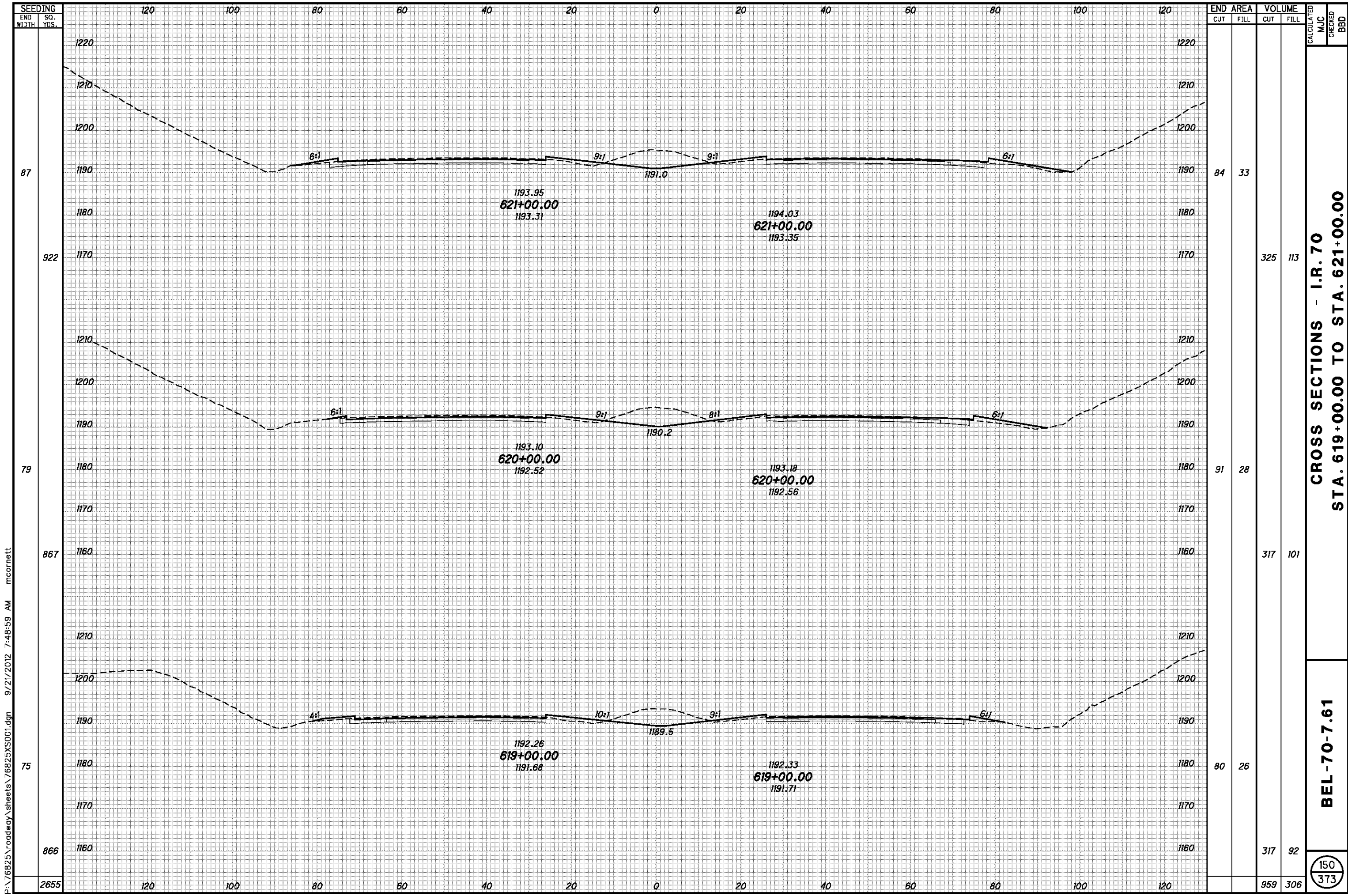
| END | AREA | | VOLUME | | CALCULATED | CHECKED |
|------|------|------|--------|------|------------|---------|
| | CUT | FILL | CUT | FILL | | |
| 80 | 91 | 24 | | | | |
| 844 | | | 275 | 109 | | |
| 71 | 58 | 35 | | | | |
| 833 | | | 281 | 91 | | |
| 79 | 94 | 14 | | | | |
| 867 | | | 323 | 67 | | |
| 2544 | | | 879 | 267 | | |

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

BEL-70-7.61

149
 373

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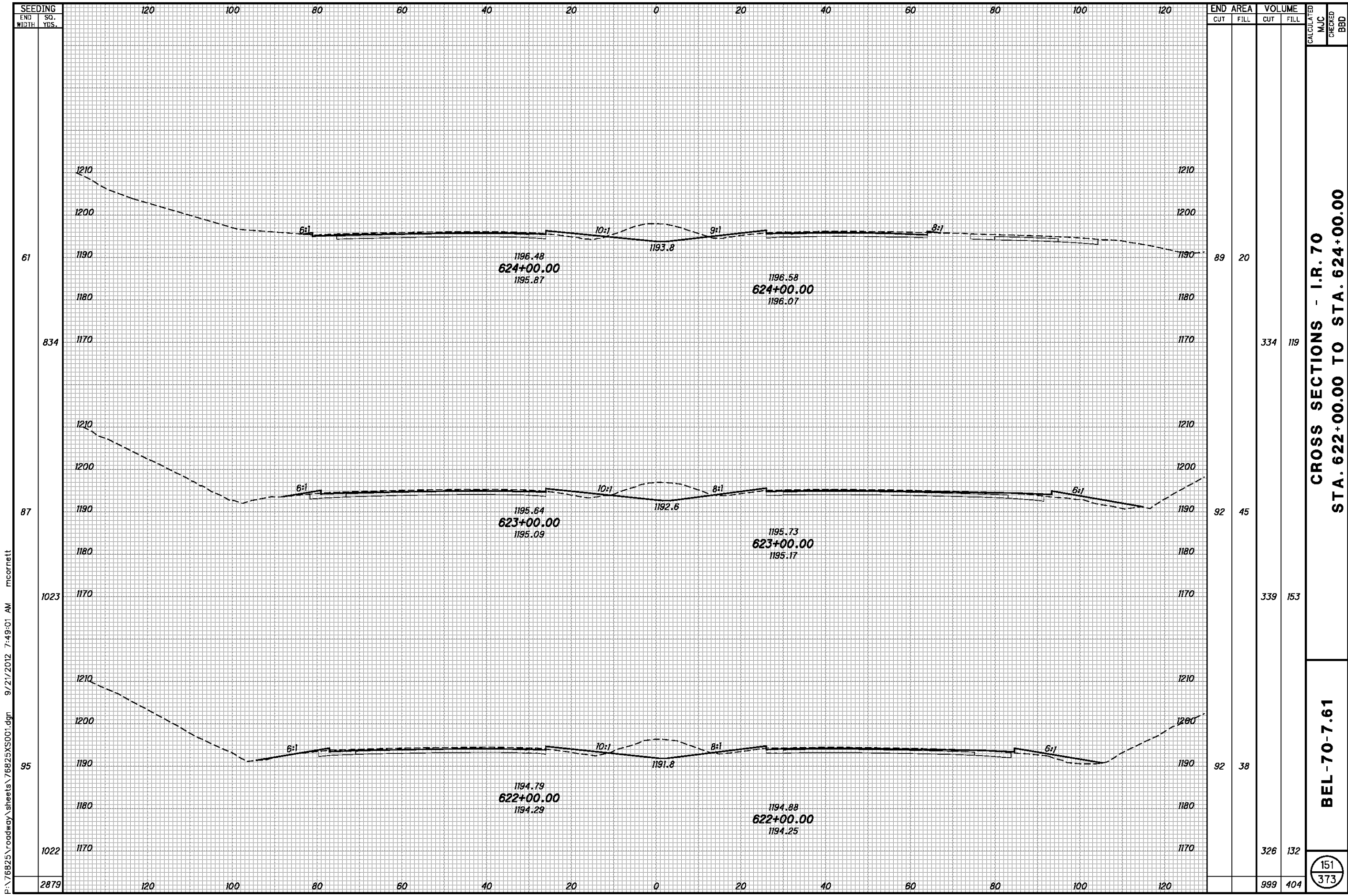
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| END AREA | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | | | | |
| 84 | 33 | | | | | |
| 922 | 325 | 113 | | | | |
| 79 | 91 | 28 | | | | |
| 867 | 317 | 101 | | | | |
| 75 | 80 | 26 | | | | |
| 866 | 317 | 92 | | | | |
| 2655 | 959 | 306 | | | | |

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

BEL-70-7.61

150
373

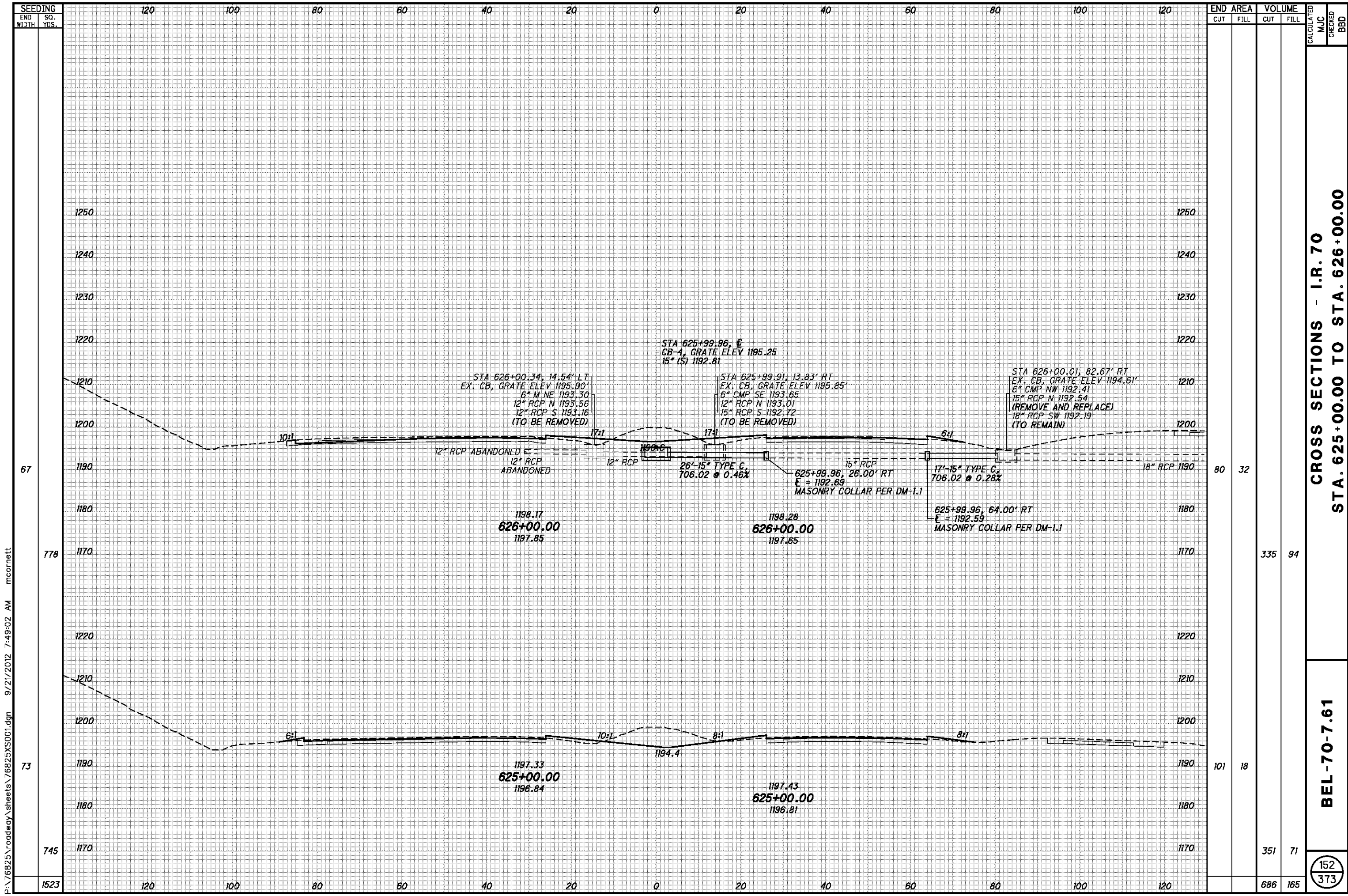


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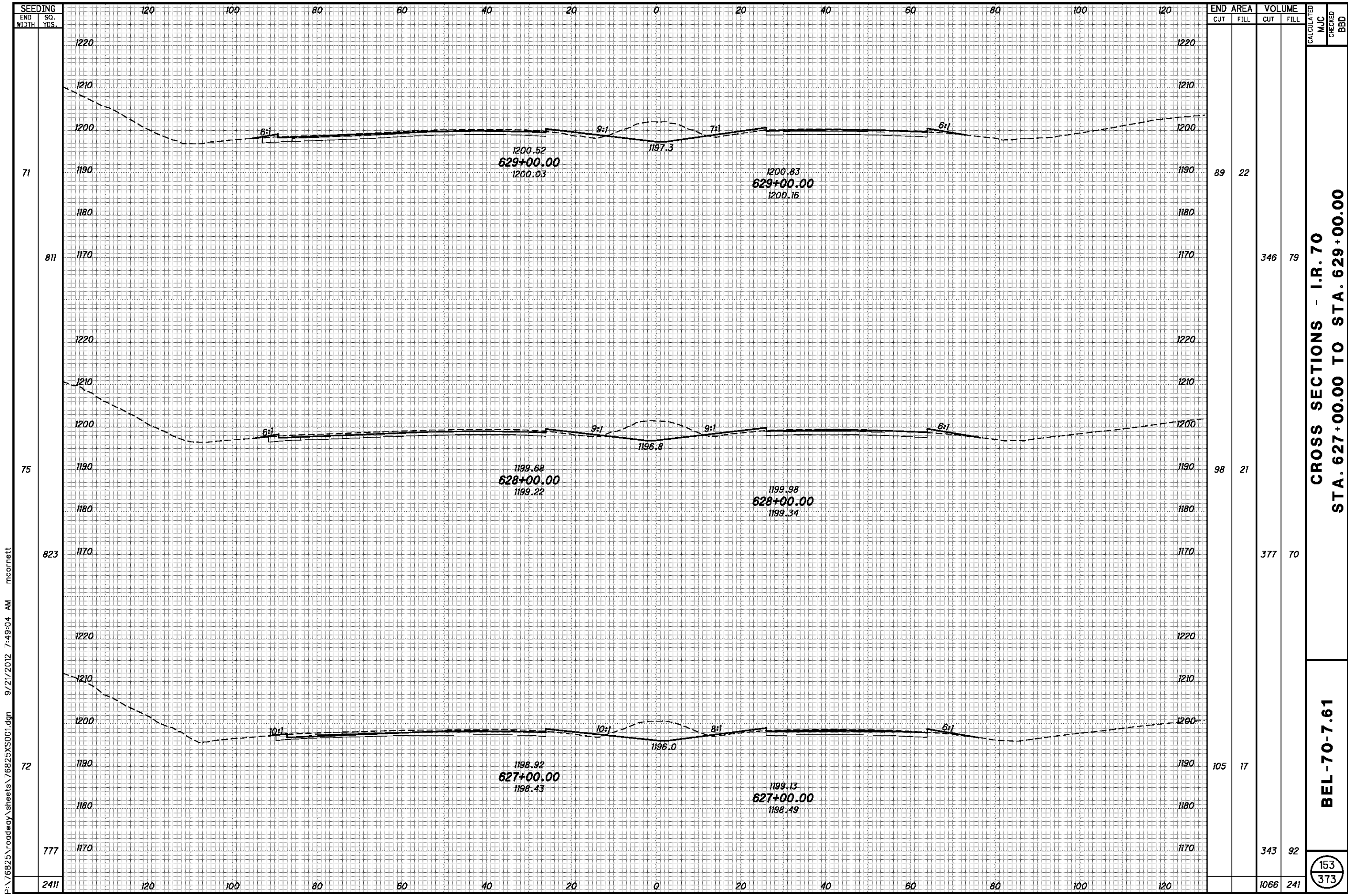
CROSS SECTIONS - I.R. 70
STA. 622+00.00 TO STA. 624+00.00

BEL-70-7.61

151
373



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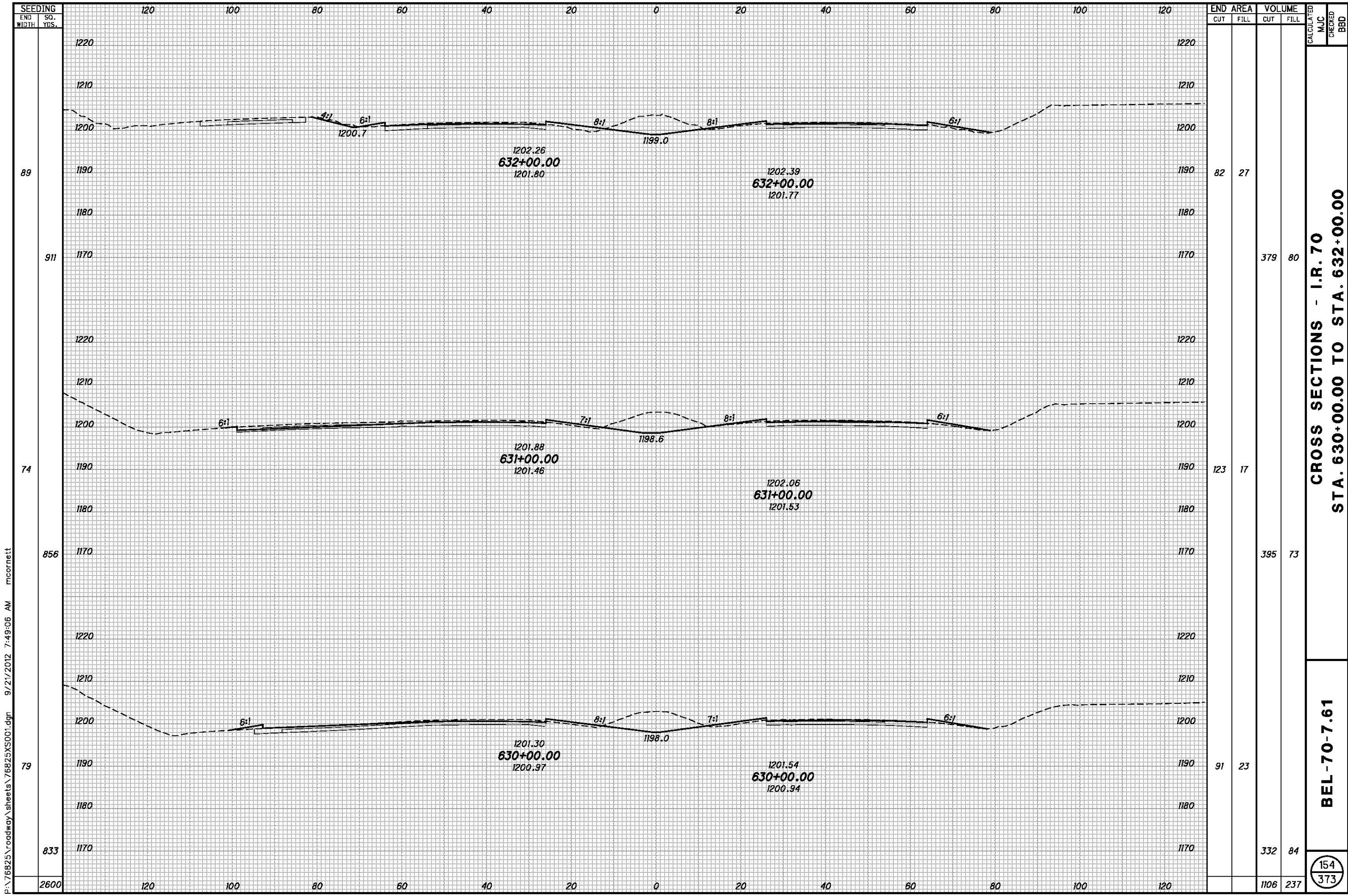
P:\76825\roadway\sheets\76825XS001.dgn 9/21/2012 7:49:04 AM mcorbett

| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 71 | 811 | 89 | 22 | 346 | 79 | | |
| 75 | 823 | 98 | 21 | 377 | 70 | | |
| 72 | 777 | 105 | 17 | 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



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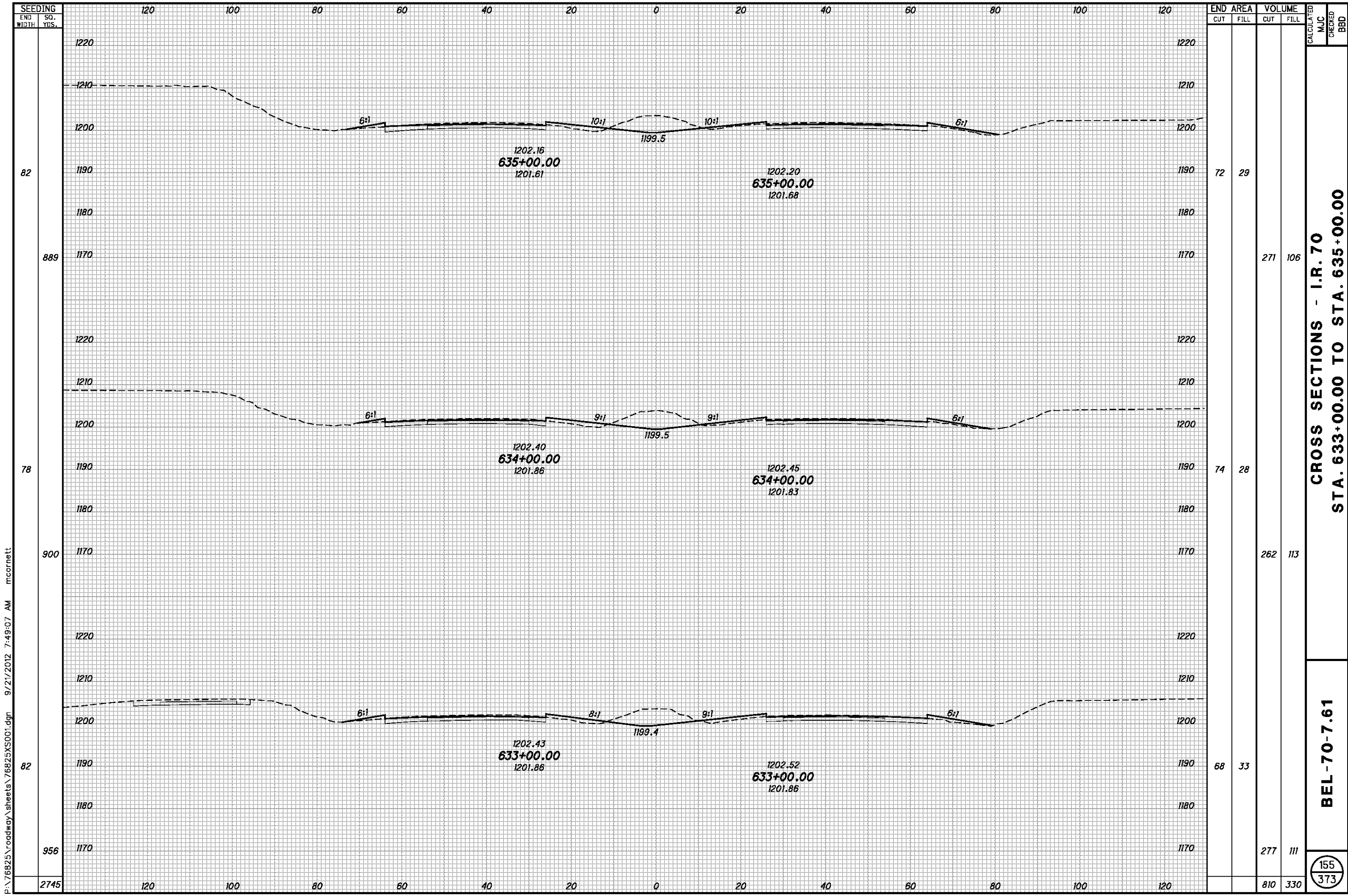
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 89 | |
| 911 | |
| 74 | |
| 856 | |
| 79 | |
| 833 | |
| 2600 | |

| END AREA | VOLUME | CALCULATED | | CHECKED | |
|----------|--------|------------|------|---------|-----|
| | | CUT | FILL | MJC | BBD |
| 82 | 27 | | | | |
| | 379 | 80 | | | |
| 123 | 17 | | | | |
| | 395 | 73 | | | |
| 91 | 23 | | | | |
| | 332 | 84 | | | |
| | 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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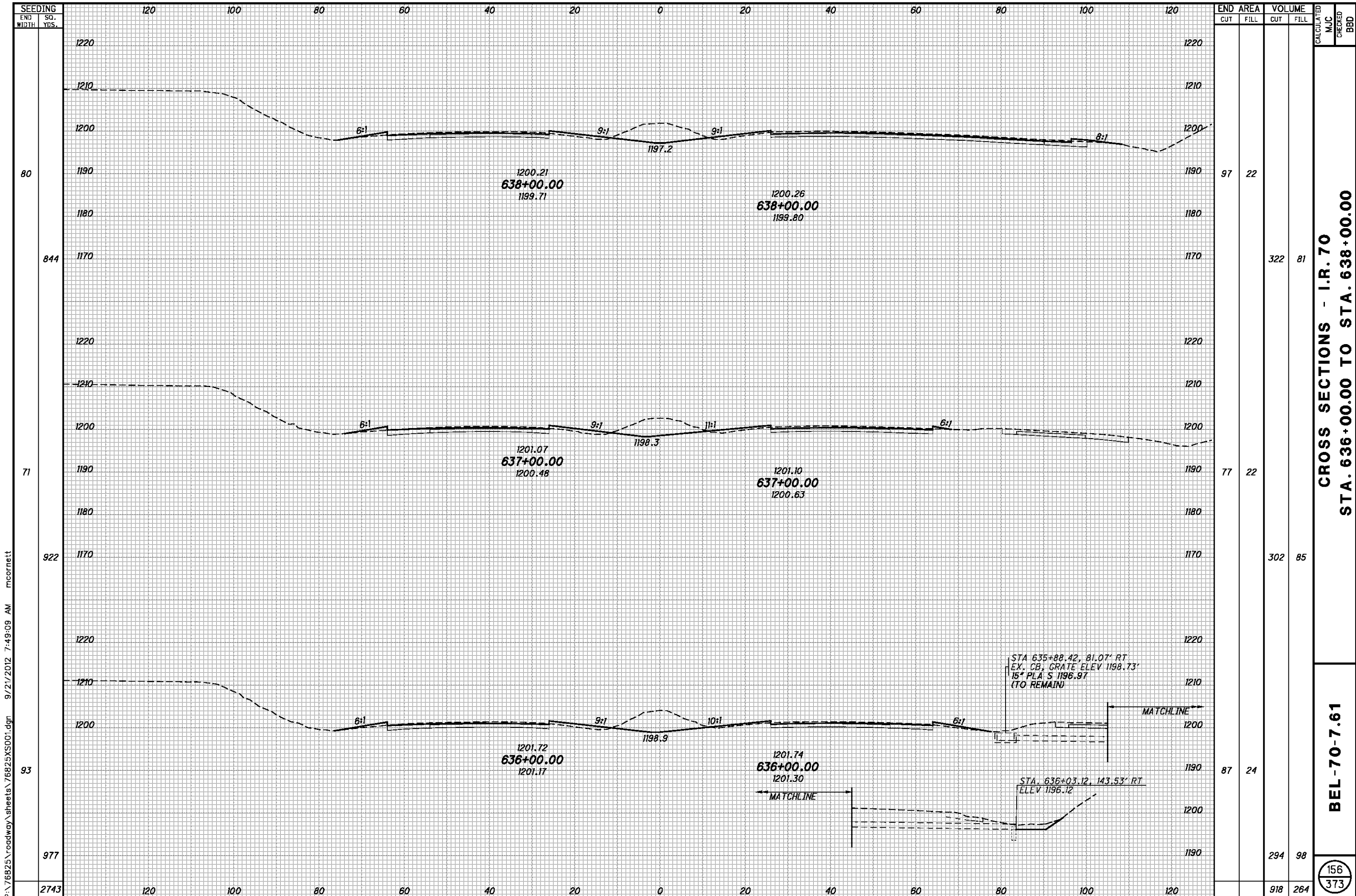
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 82 | |
| 889 | |
| 78 | |
| 900 | |
| 82 | |
| 956 | |
| 2745 | |

| END AREA | | VOLUME | | CALCULATED | |
|----------|------|--------|------|------------|-----|
| CUT | FILL | CUT | FILL | MJC | BBD |
| 72 | 29 | 271 | 106 | | |
| 74 | 28 | 262 | 113 | | |
| 68 | 33 | 277 | 111 | | |
| | | 810 | 330 | | |

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

BEL-70-7.61

155
373



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

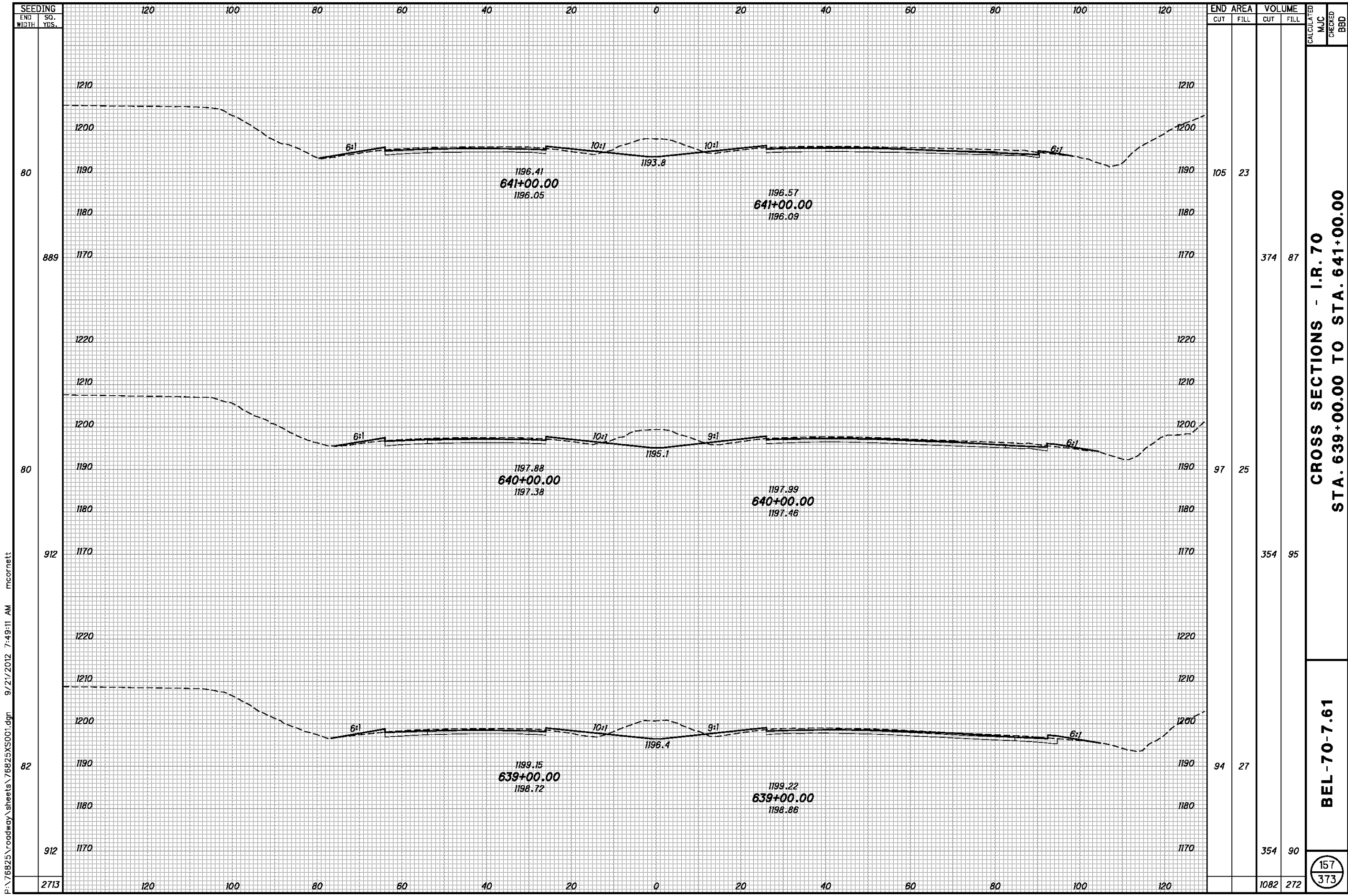
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 97 | 22 | | | | |
| | | 322 | 81 | | |
| 77 | 22 | | | | |
| | | 302 | 85 | | |
| 87 | 24 | | | | |
| | | 294 | 98 | | |
| | | 918 | 264 | | |

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

BEL-70-7.61

156
 373

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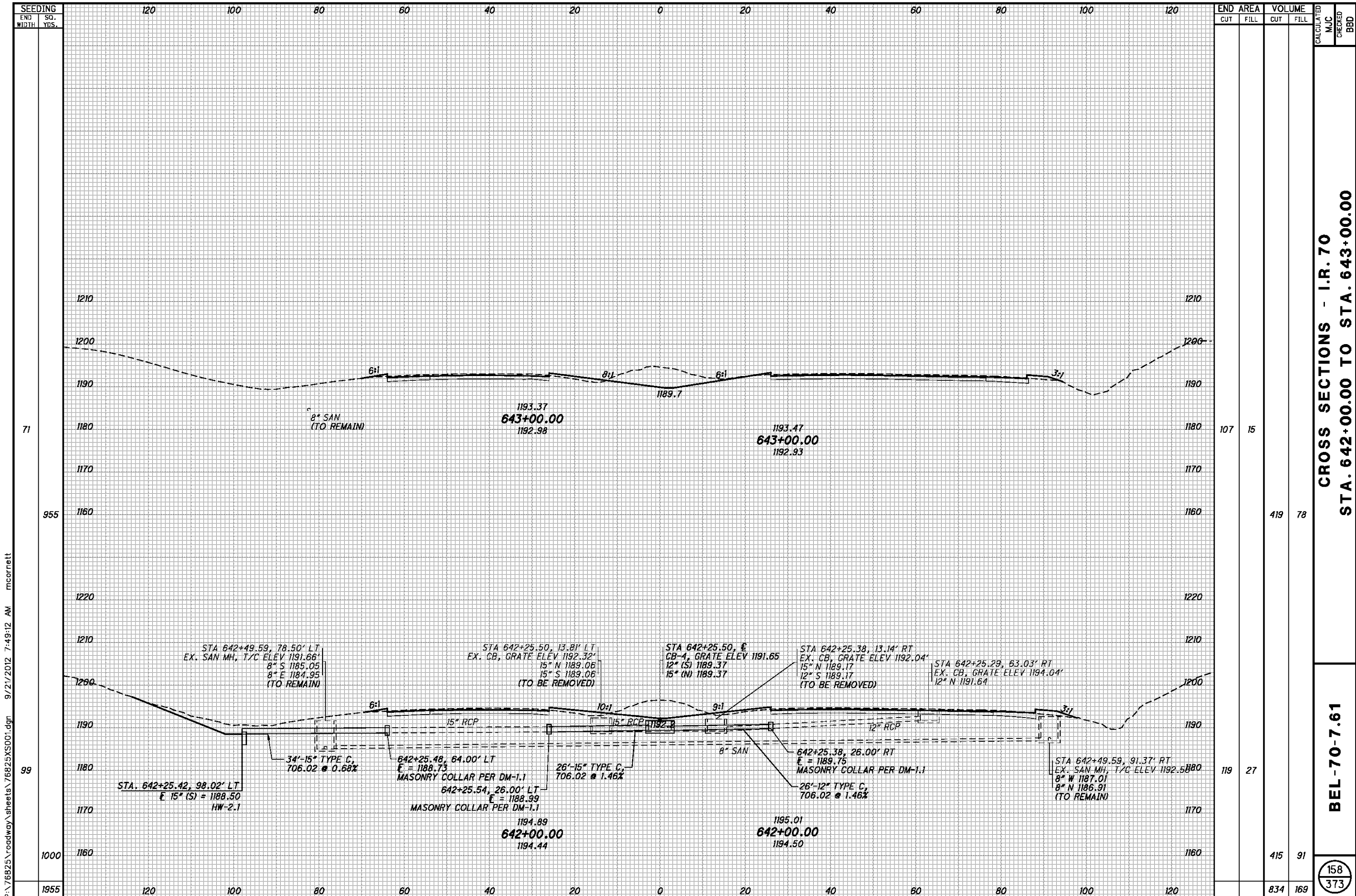
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 80 | 889 | 105 | 23 | 374 | 87 | | |
| 80 | 912 | 97 | 25 | 354 | 95 | | |
| 82 | 912 | 94 | 27 | 354 | 90 | | |
| 2713 | | | | 1082 | 272 | | |

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

BEL-70-7.61

157
373



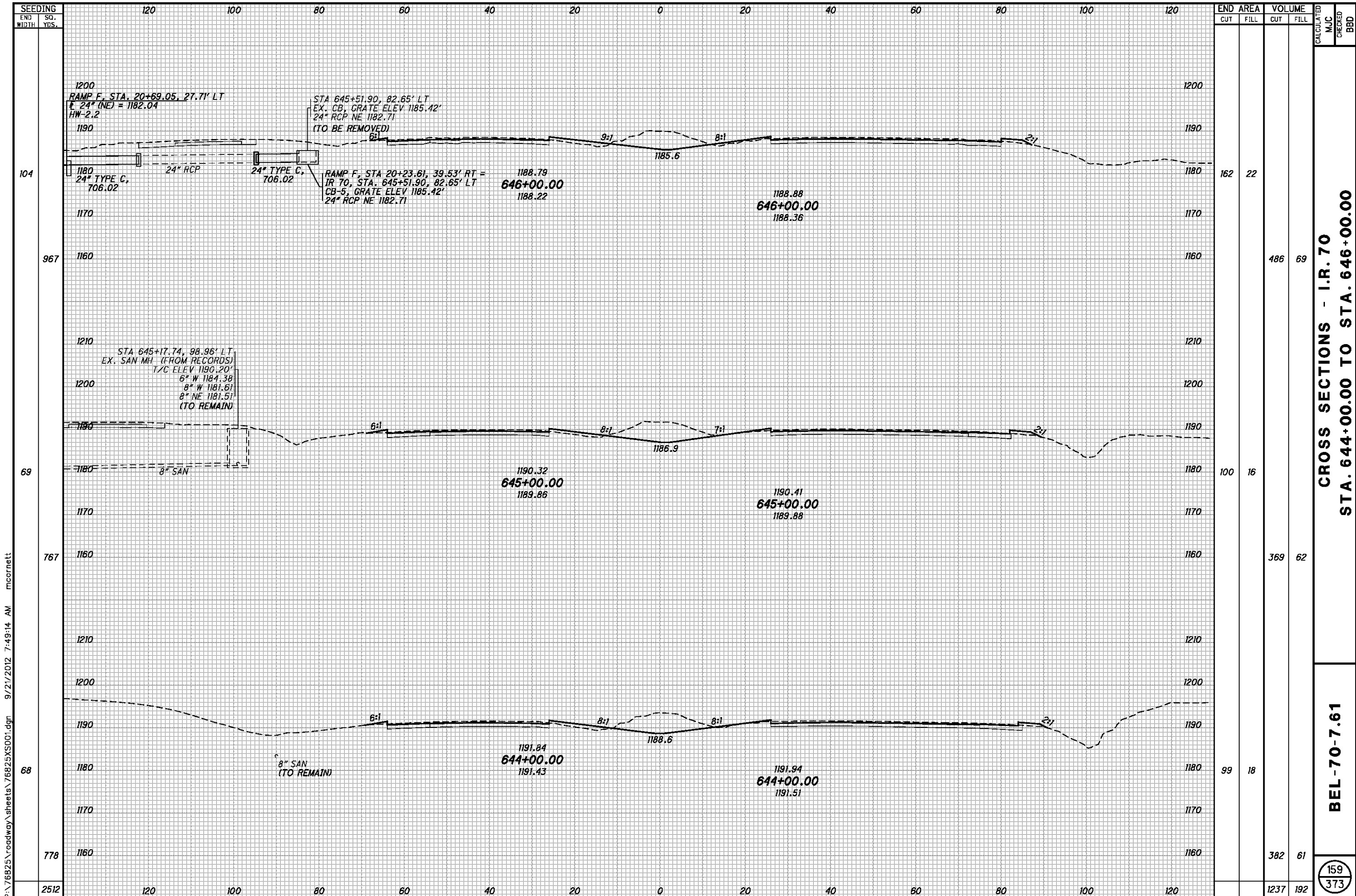
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| END AREA | VOLUME | CALCULATED | | MJC | CHECKED | BBD |
|----------|--------|------------|------|-----|---------|-----|
| | | CUT | FILL | | | |
| 107 | 15 | | | | | |
| 419 | 78 | | | | | |
| 119 | 27 | | | | | |
| 415 | 91 | | | | | |
| 834 |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

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

BEL-70-7.61

158
 373



| SEEDING | END SO. | |
|---------|---------|------|
| | WIDTH | YDS. |
| | 120 | 100 |
| | 80 | 60 |
| | 40 | 20 |
| | 0 | 0 |
| | 20 | 40 |
| | 60 | 80 |
| | 100 | 120 |
| 104 | | |
| 967 | | |
| 69 | | |
| 767 | | |
| 68 | | |
| 778 | | |
| 2512 | | |

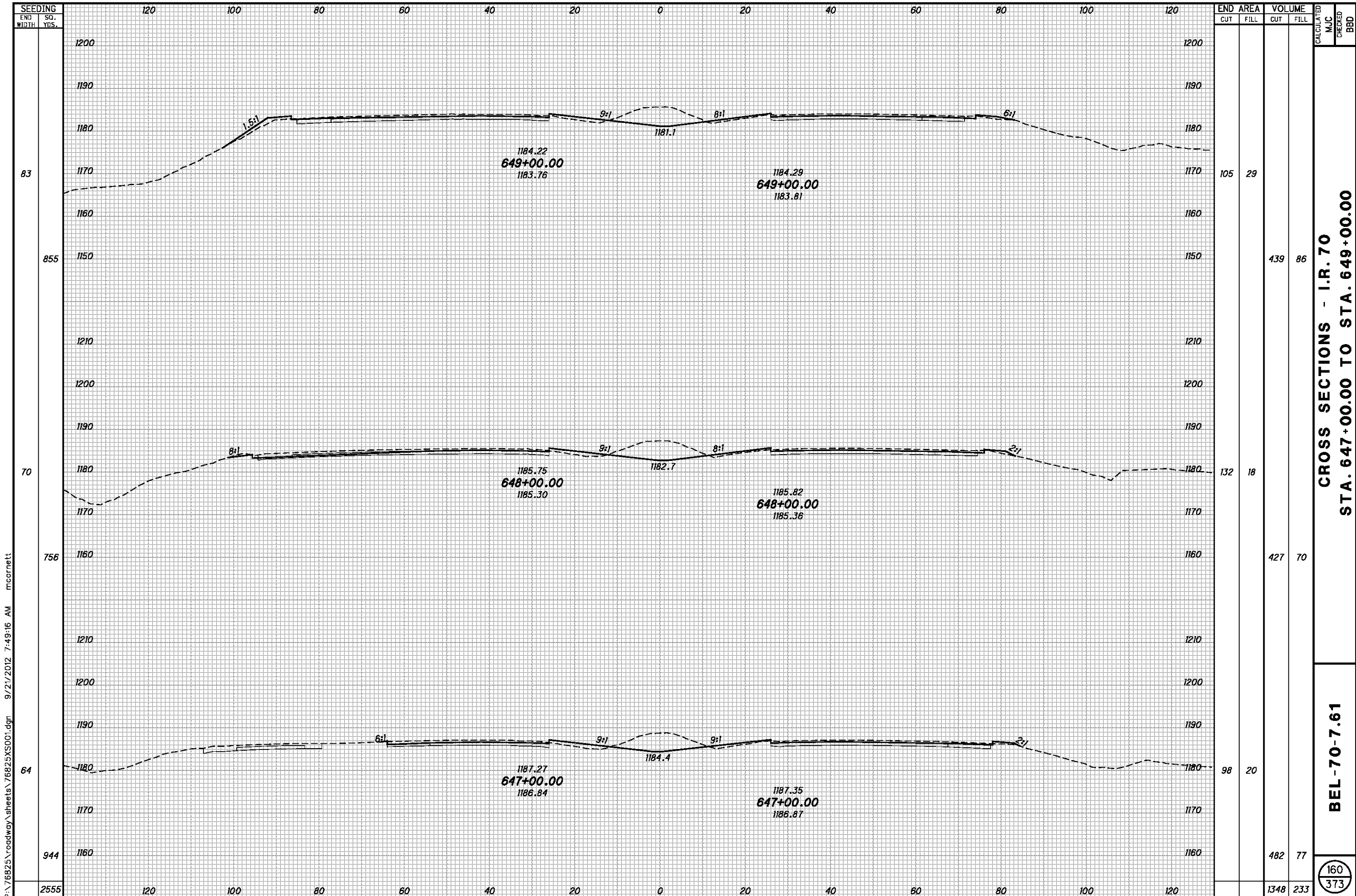
| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 162 | | 22 | | |
| 486 | | 69 | | |
| 100 | | 16 | | |
| 369 | | 62 | | |
| 99 | | 18 | | |
| 382 | | 61 | | |
| | 1237 | 192 | | |

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

BEL-70-7.61

159
 373

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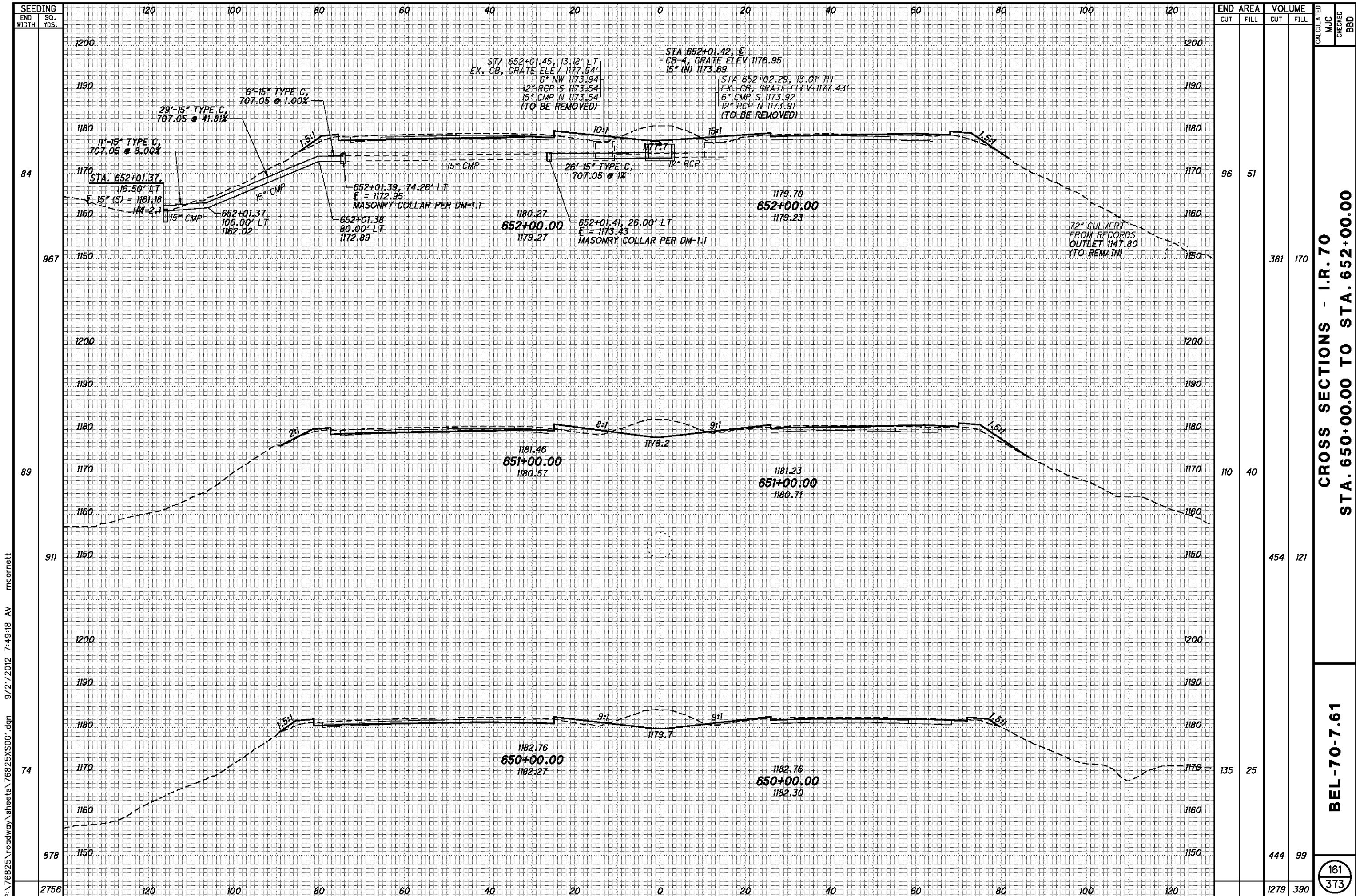
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| END AREA | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|----------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | | | | |
| 105 | 29 | | | | | |
| 132 | 18 | | | | | |
| 756 | 427 | 70 | 439 | 86 | | |
| 64 | 98 | 20 | | | | |
| 944 | 482 | 77 | 1348 | 233 | | |

**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

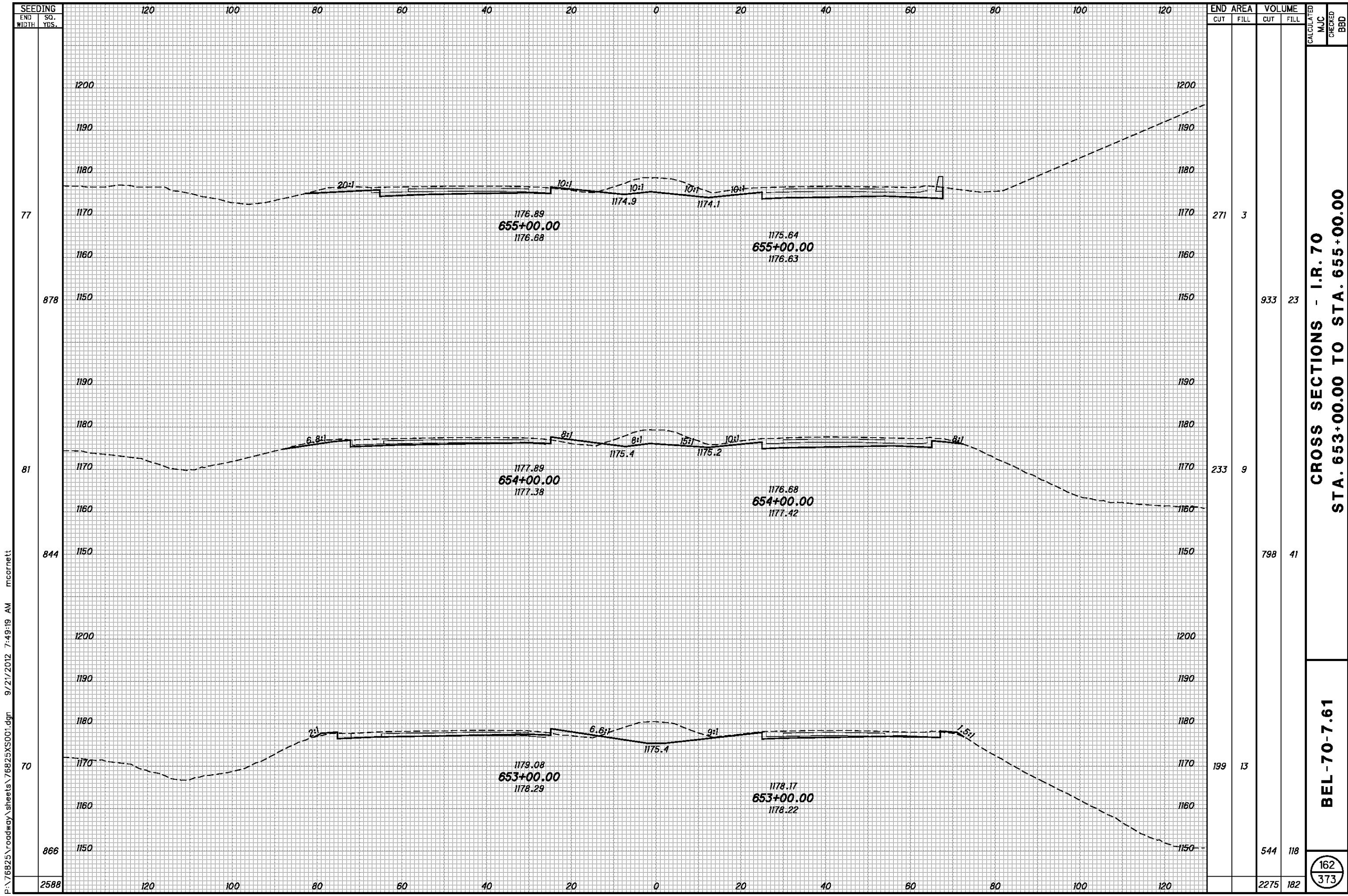
| END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|----------|------|--------|------|----------------|-------------|
| CUT | FILL | CUT | FILL | | |
| 96 | 51 | 381 | 170 | | |
| 110 | 40 | 454 | 121 | | |
| 135 | 25 | 444 | 99 | | |
| | | 1279 | 390 | | |

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 SO.
WIDTH YDS.

77
878
81
844
70
866

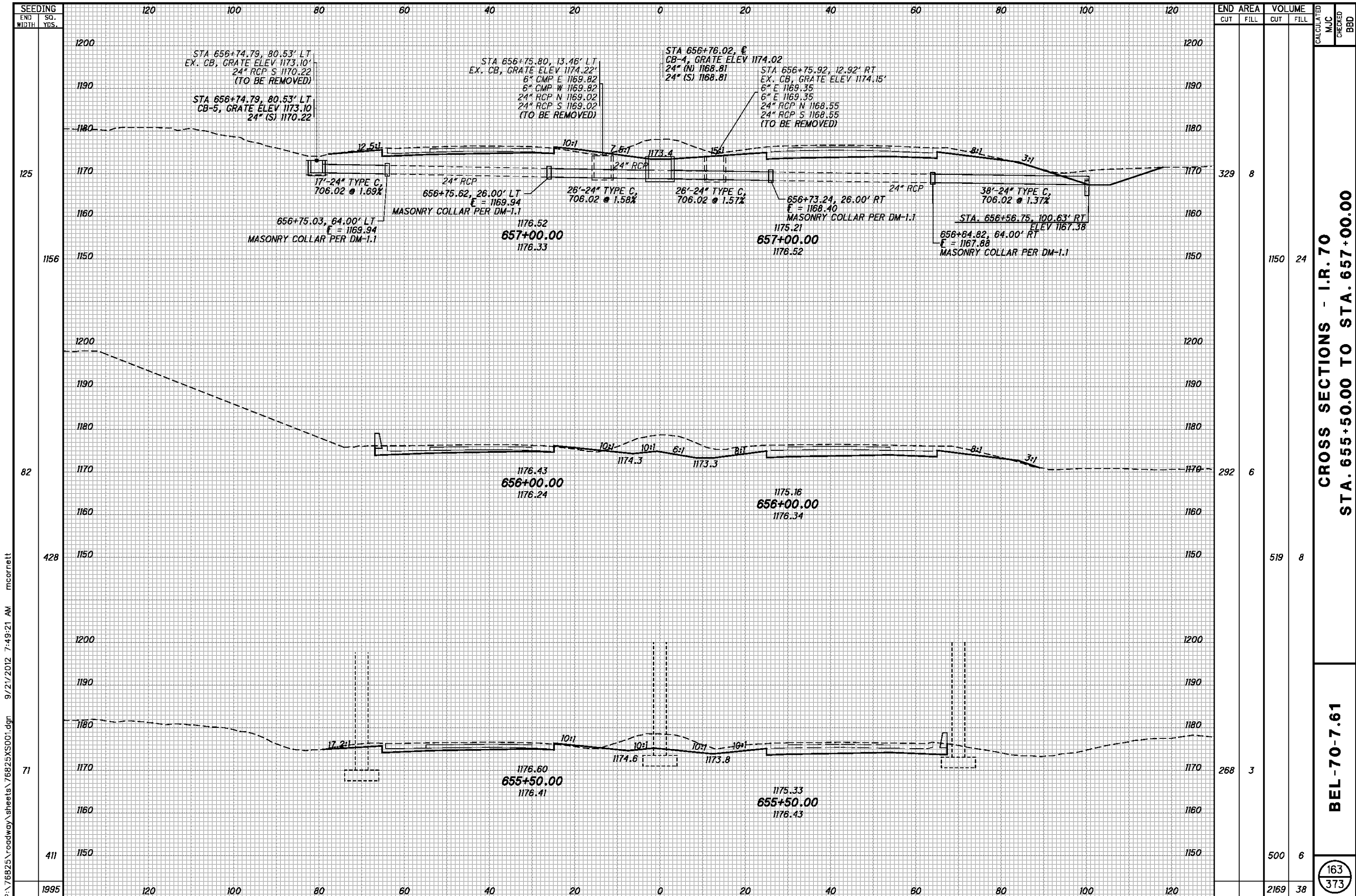
2588

| END AREA | VOLUME | CALCULATED | CHECKED |
|----------|--------|------------|---------|
| | | | |
| 271 | 3 | | |
| 233 | 9 | | |
| 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



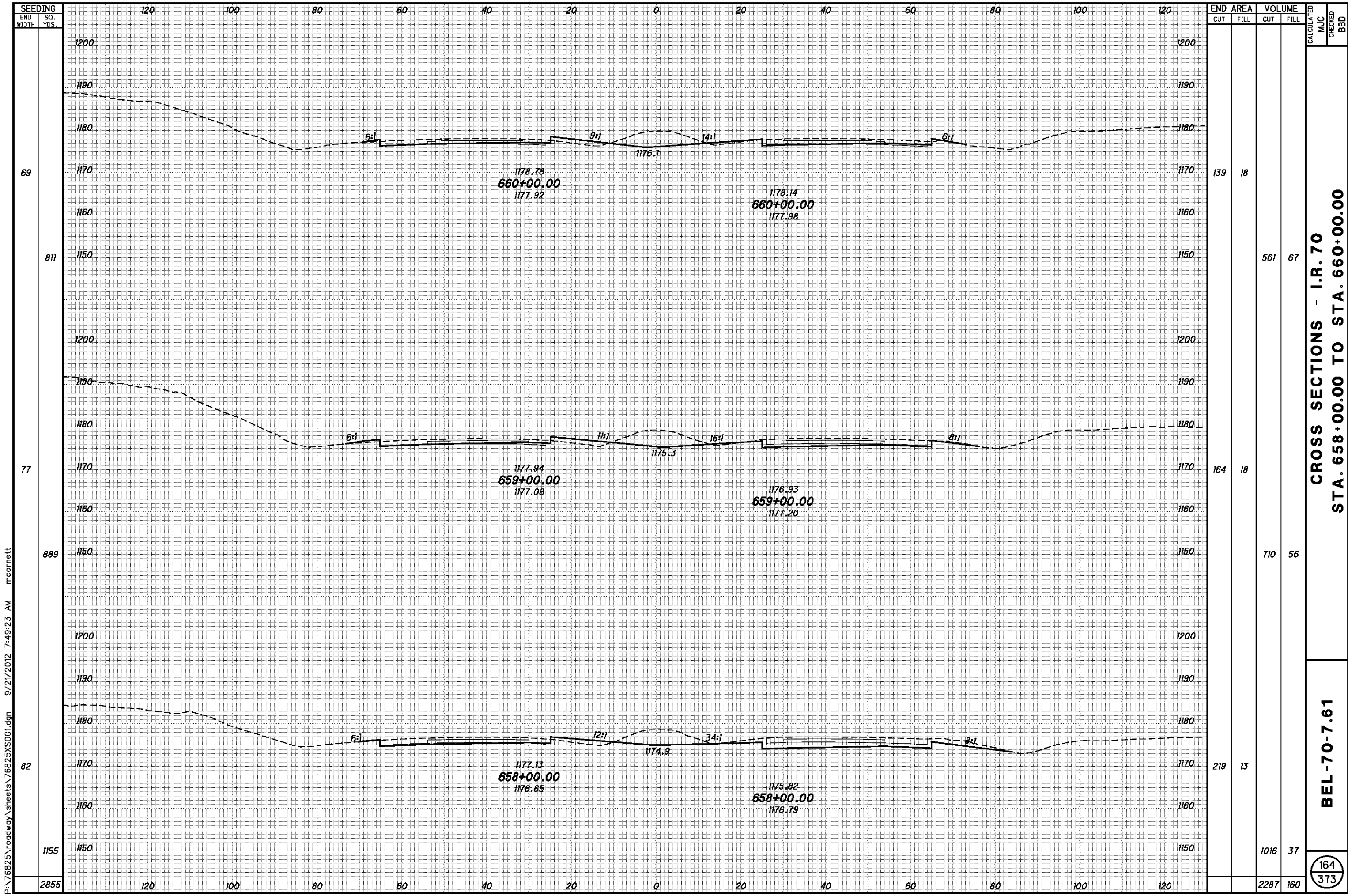
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 125 | | 329 | 8 | | | | |
| 1156 | | | | 1150 | 24 | | |
| 82 | | 292 | 6 | | | | |
| 428 | | | | 519 | 8 | | |
| 71 | | 268 | 3 | | | | |
| 411 | | | | 500 | 6 | | |
| 1995 | | | | 2169 | 38 | | |

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

BEL-70-7.61

163
 373

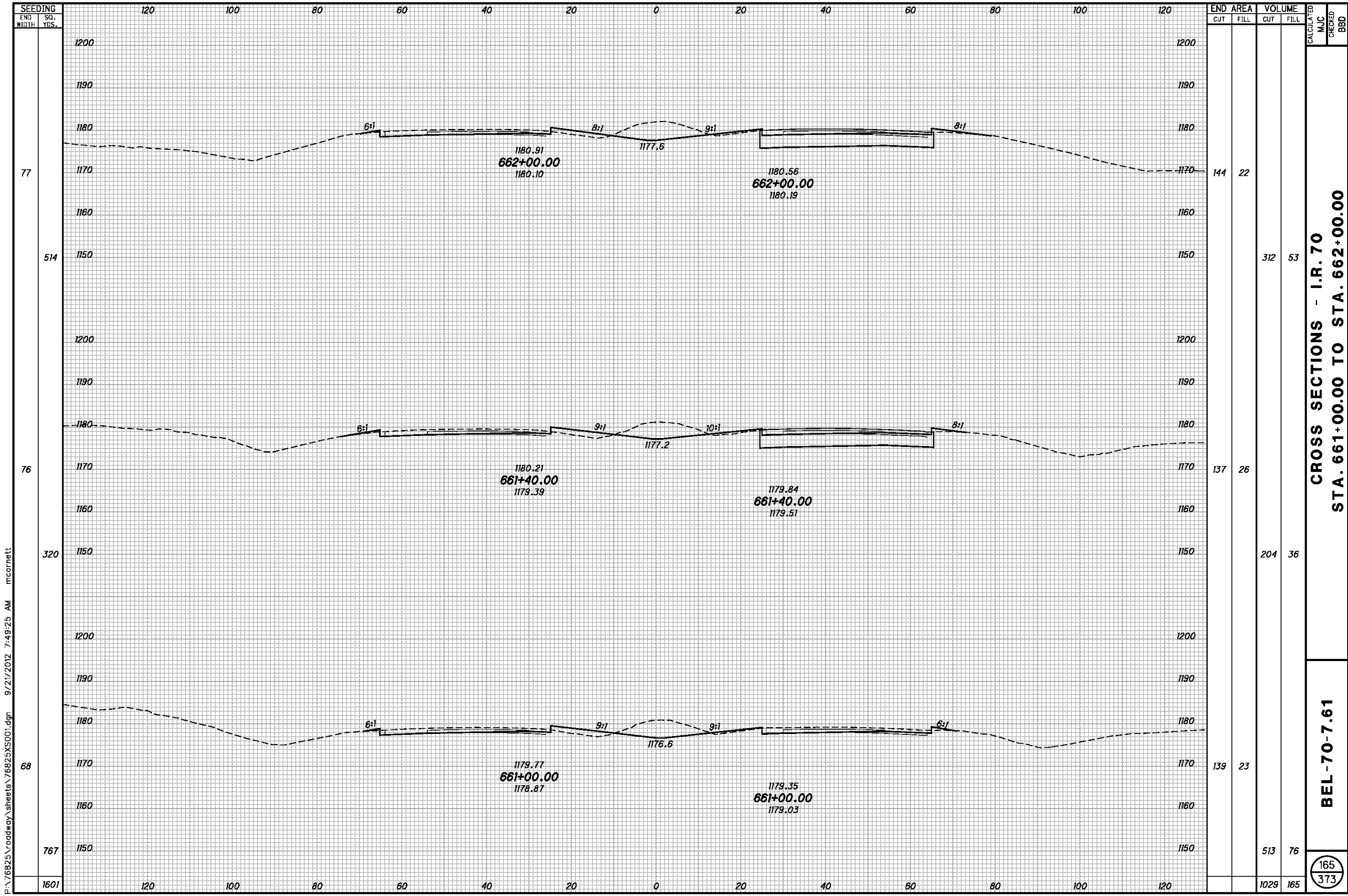


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**CROSS SECTIONS - I.R. 70
STA. 658+00.00 TO STA. 660+00.00**

BEL-70-7.61

164
373

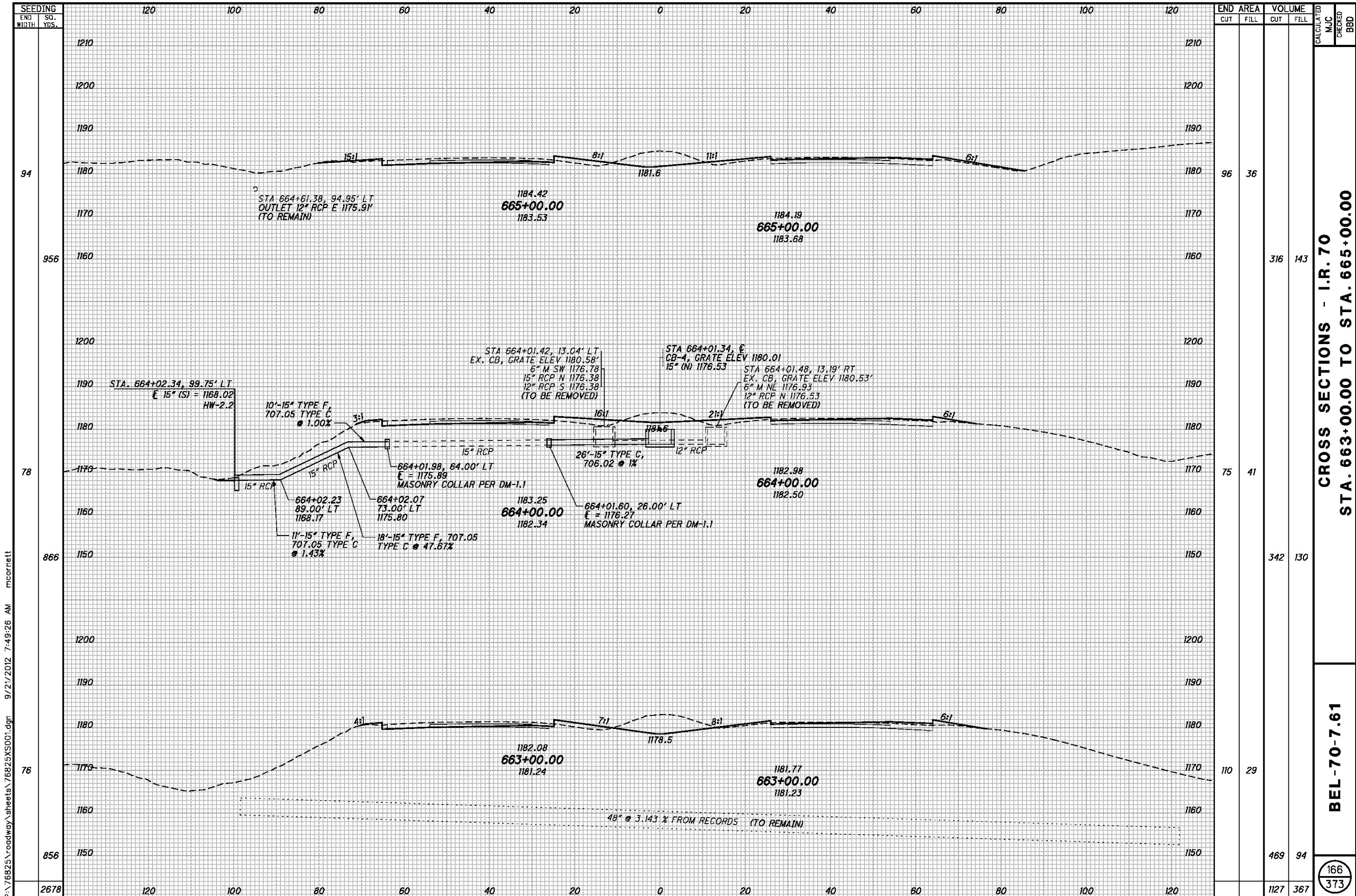


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CROSS SECTIONS - I.R. 70
STA. 661+00.00 TO STA. 662+00.00

BEL-70-7.61

165
373



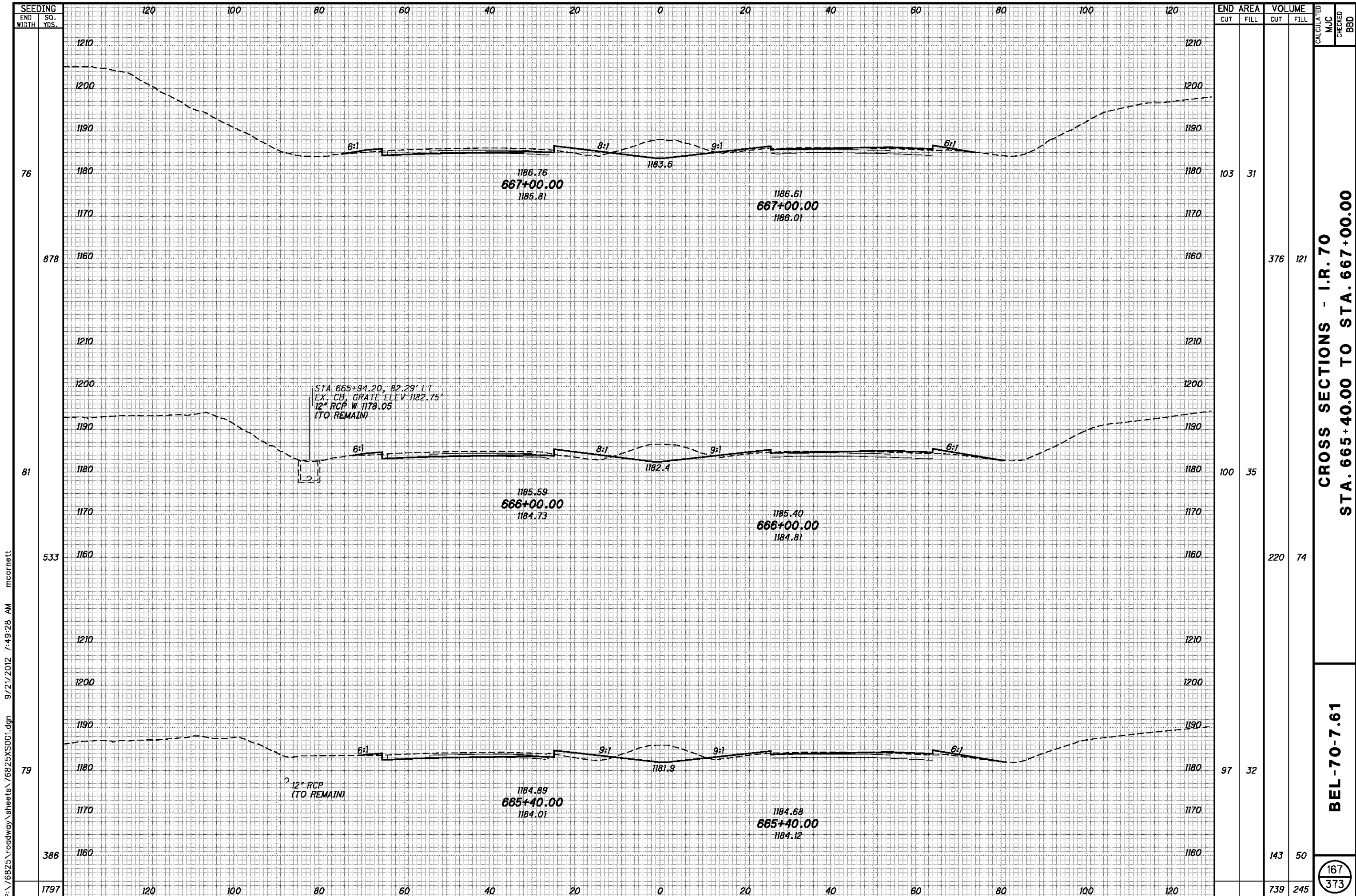
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 94 | | | | 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)

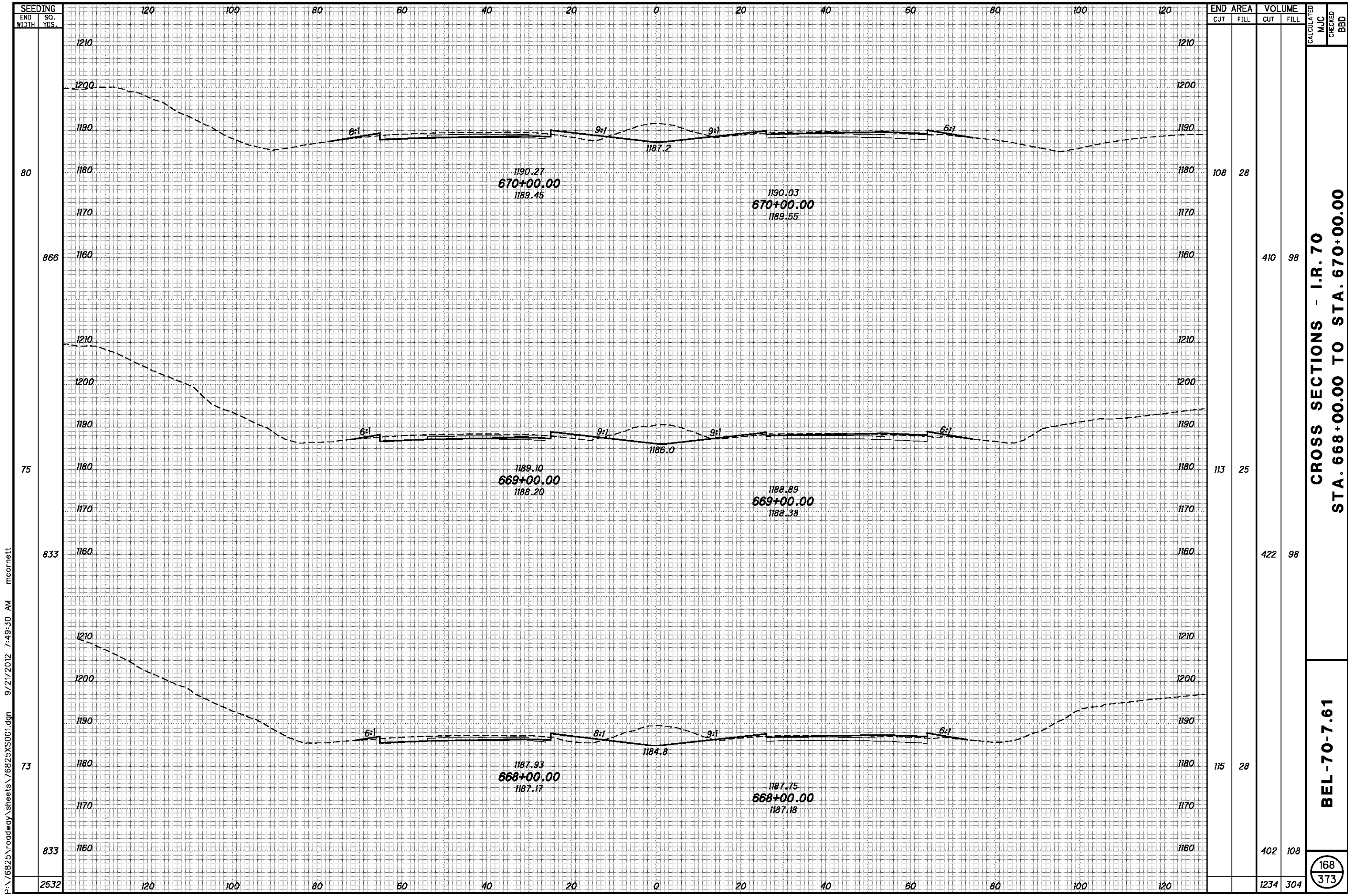
| END | AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|------|------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 76 | 103 | 31 | | | | | | |
| 878 | | | 376 | 121 | | | | |
| 81 | 100 | 35 | | | | | | |
| 533 | | | 220 | 74 | | | | |
| 79 | 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

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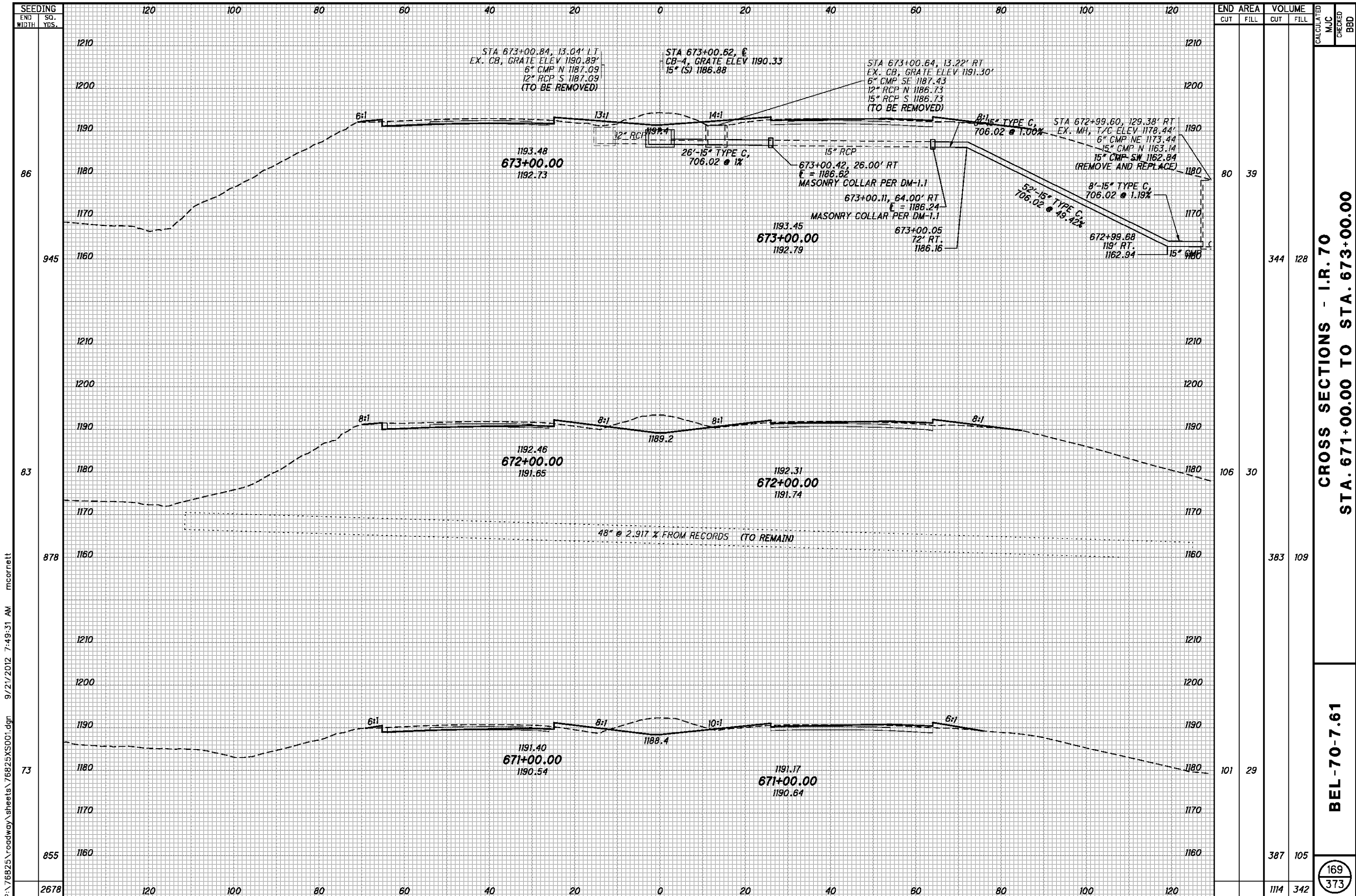
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| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 108 | 28 | | | |
| | 410 | 98 | | |
| 113 | 25 | | | |
| | 422 | 98 | | |
| 115 | 28 | | | |
| | 402 | 108 | | |
| | 1234 | 304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

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

BEL-70-7.61

168
373



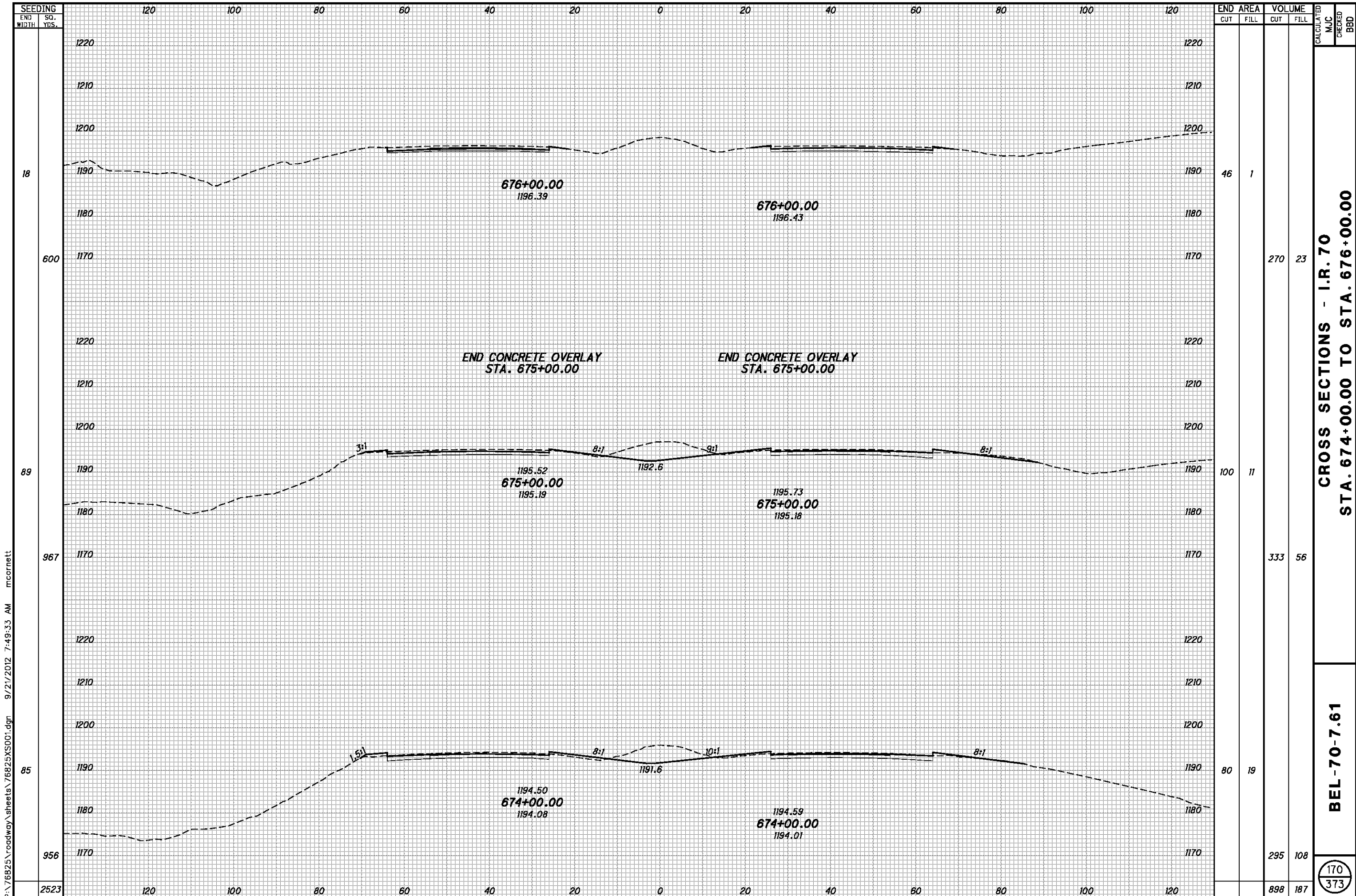
| END AREA | VOLUME | CALCULATED | CHECKED | MJC | BBD |
|----------|--------|------------|---------|-----|-----|
| | | | | | |
| 80 | 39 | | | | |
| 945 | 344 | 128 | | | |
| 83 | 106 | 30 | | | |
| 878 | 383 | 109 | | | |
| 73 | 101 | 29 | | | |
| 855 | 387 | 105 | | | |
| 2678 | 1114 | 342 | | | |

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

BEL-70-7.61

169
 373

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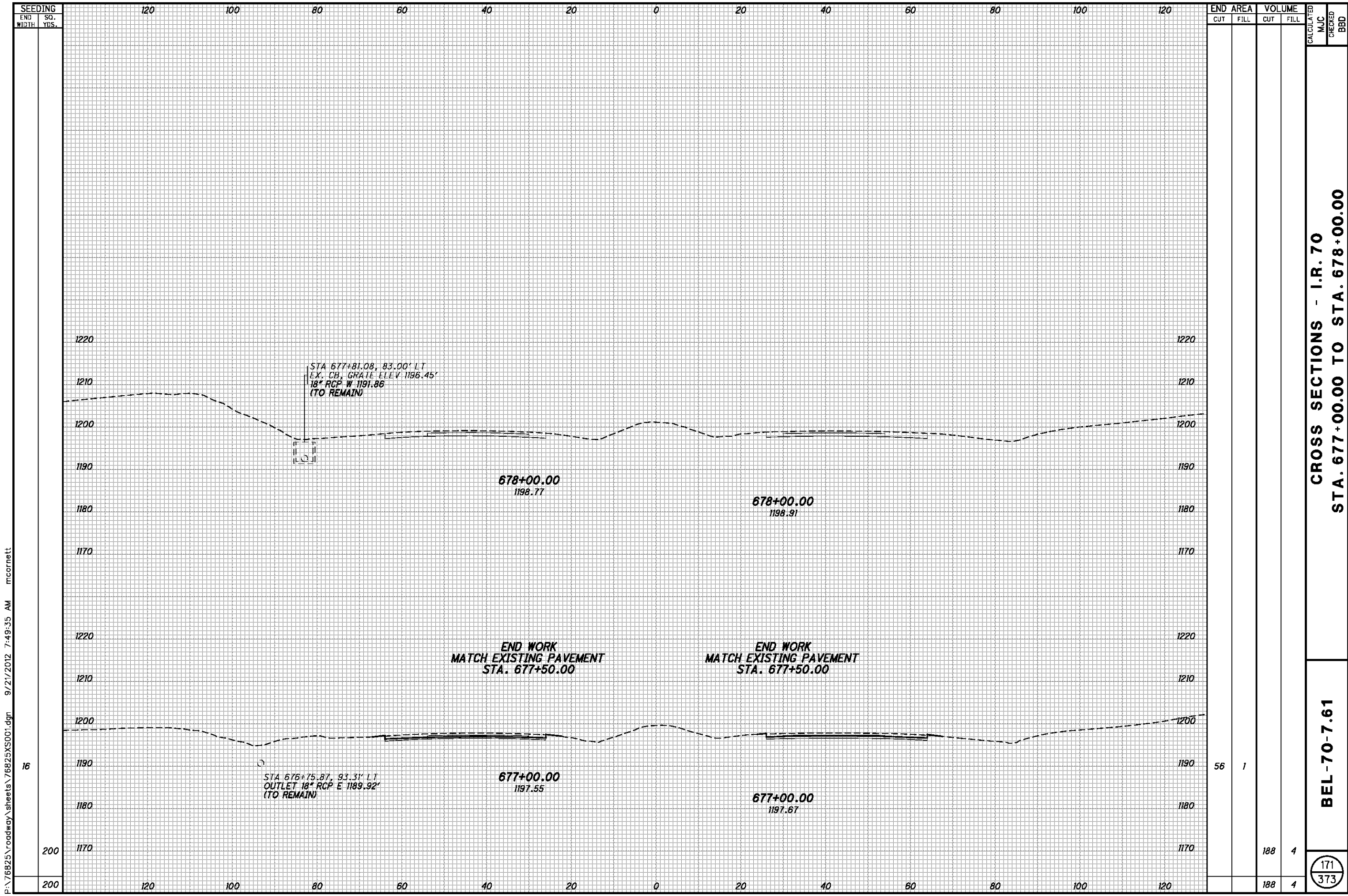
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| SEEDING | END AREA | | VOLUME | | CALCULATED | MJC | CHECKED | BBD |
|---------|----------|------|--------|------|------------|-----|---------|-----|
| | CUT | FILL | CUT | FILL | | | | |
| 18 | 46 | 1 | | | | | | |
| 600 | | | 270 | 23 | | | | |
| 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



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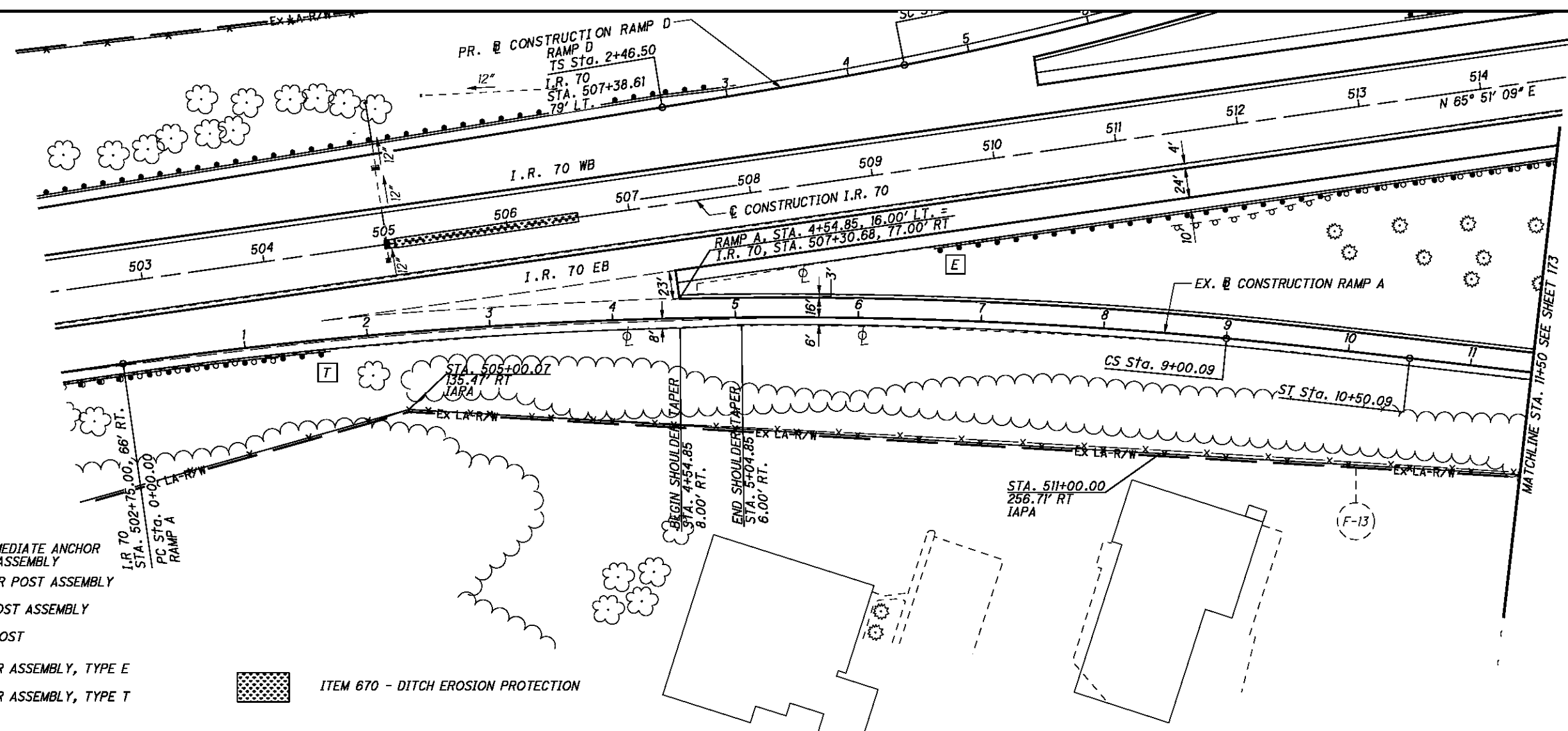
| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| 200 | |
| 200 | |

| END AREA | | VOLUME | | CALCULATED | |
|----------|------|--------|------|------------|-----|
| CUT | FILL | CUT | FILL | MJC | BBD |
| 56 | 1 | 188 | 4 | | |
| 188 | 4 | 188 | 4 | | |

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

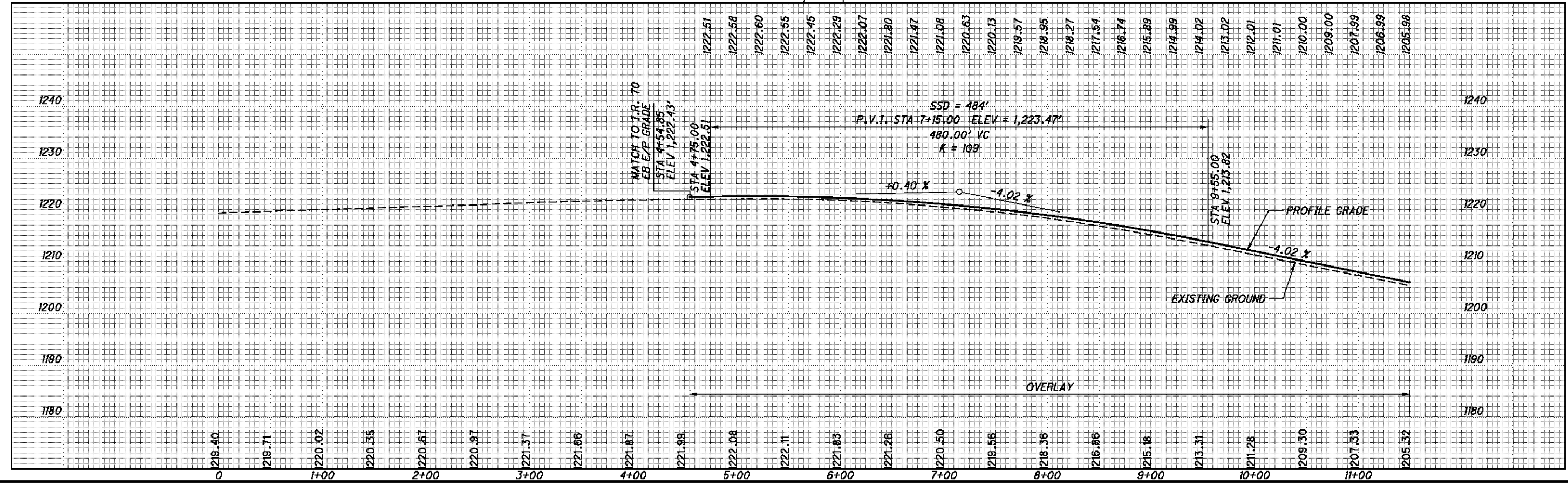
BEL-70-7.61

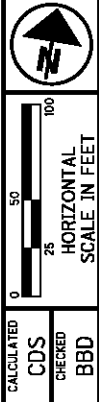
171
373



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

ITEM 670 - DITCH EROSION PROTECTION

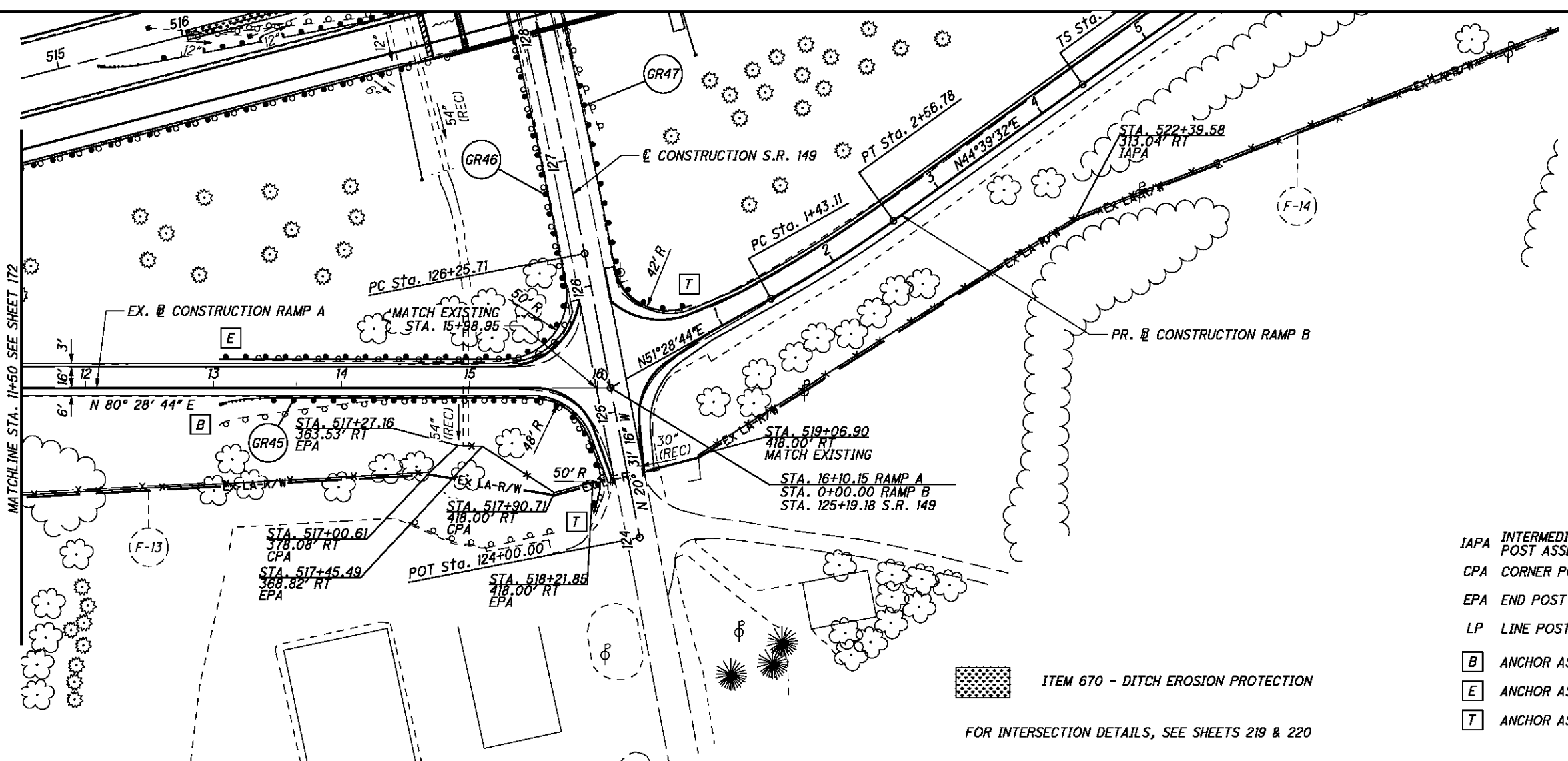




CALCULATED CDS CHECKED BDD

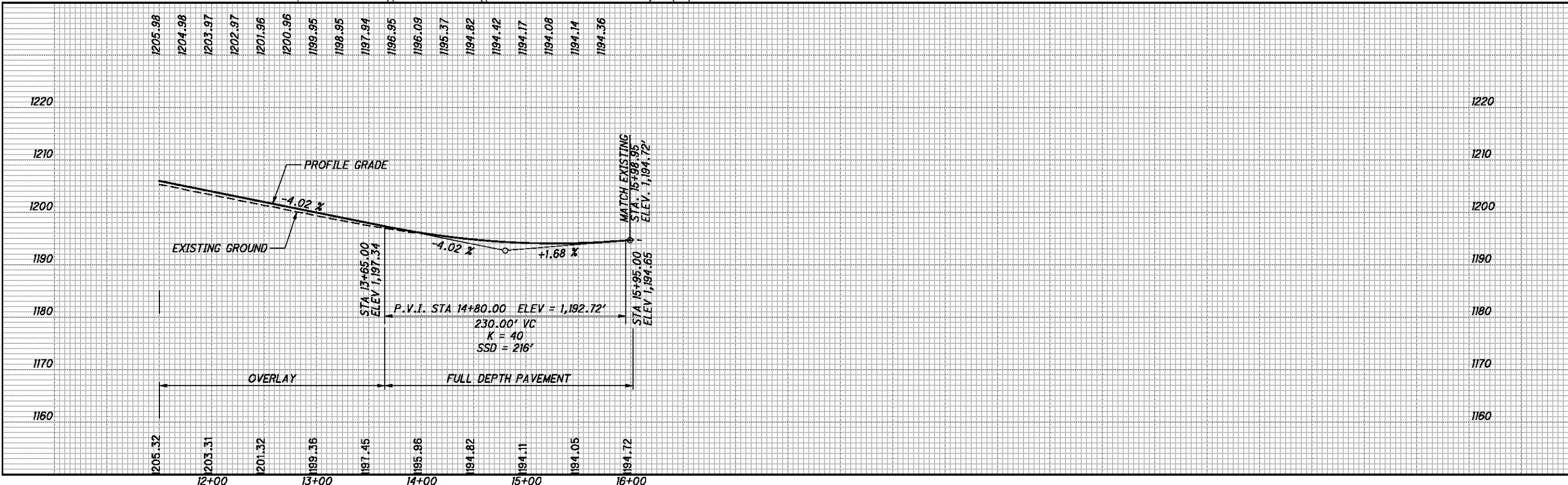
**RAMP A - PLAN AND PROFILE
STA. 11+50 TO STA. 16+10.15**

BEL-70-7.61

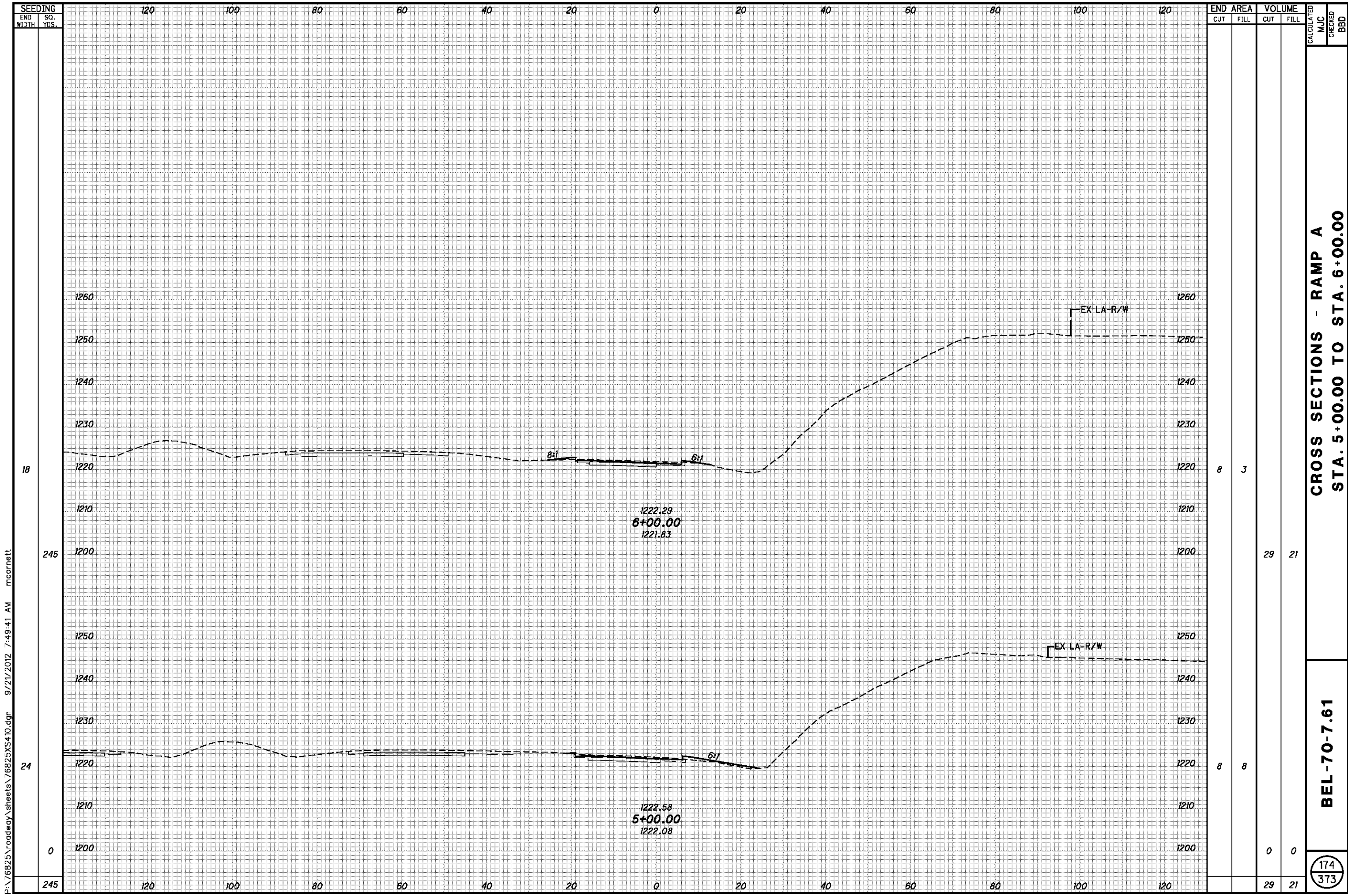


- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST
- B** ANCHOR ASSEMBLY, TYPE B
- E** ANCHOR ASSEMBLY, TYPE E
- T** ANCHOR ASSEMBLY, TYPE T

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



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| 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 | | |

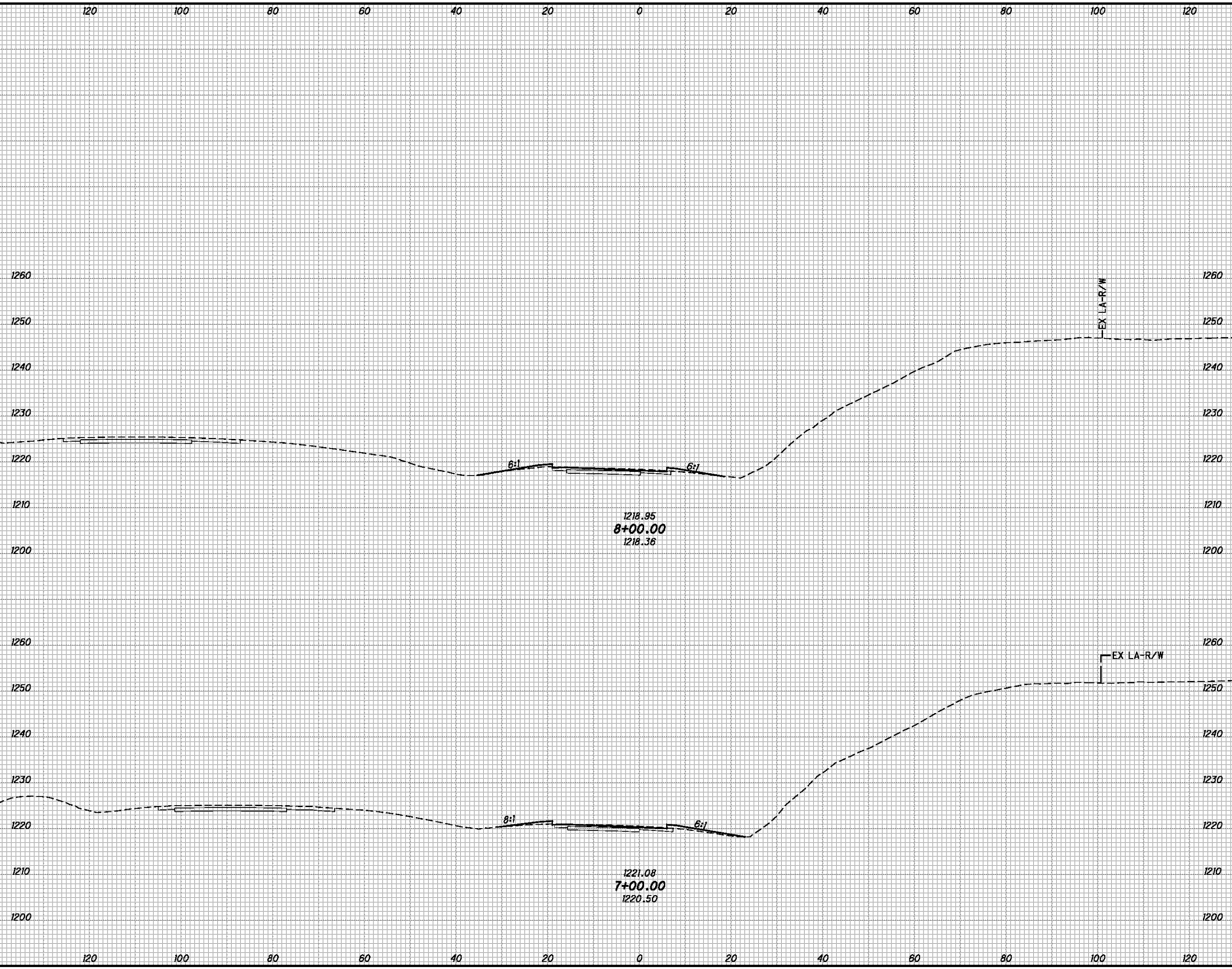
CROSS SECTIONS - RAMP A
STA. 5+00.00 TO STA. 6+00.00

BEL-70-7.61

174
373

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| 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 |
| | |

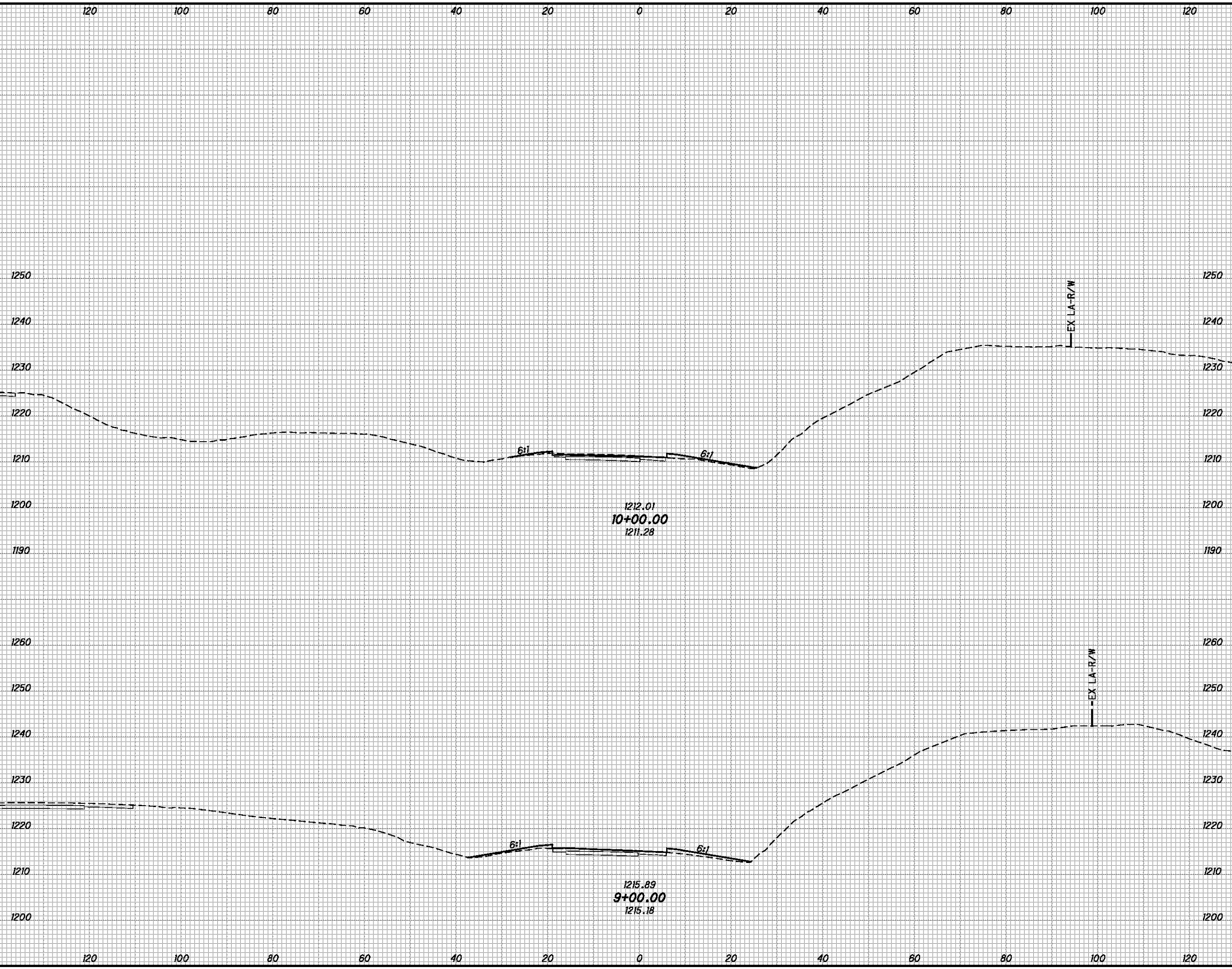
CROSS SECTIONS - RAMP A
STA. 7+00.00 TO STA. 8+00.00

BEL-70-7.61

175
373

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

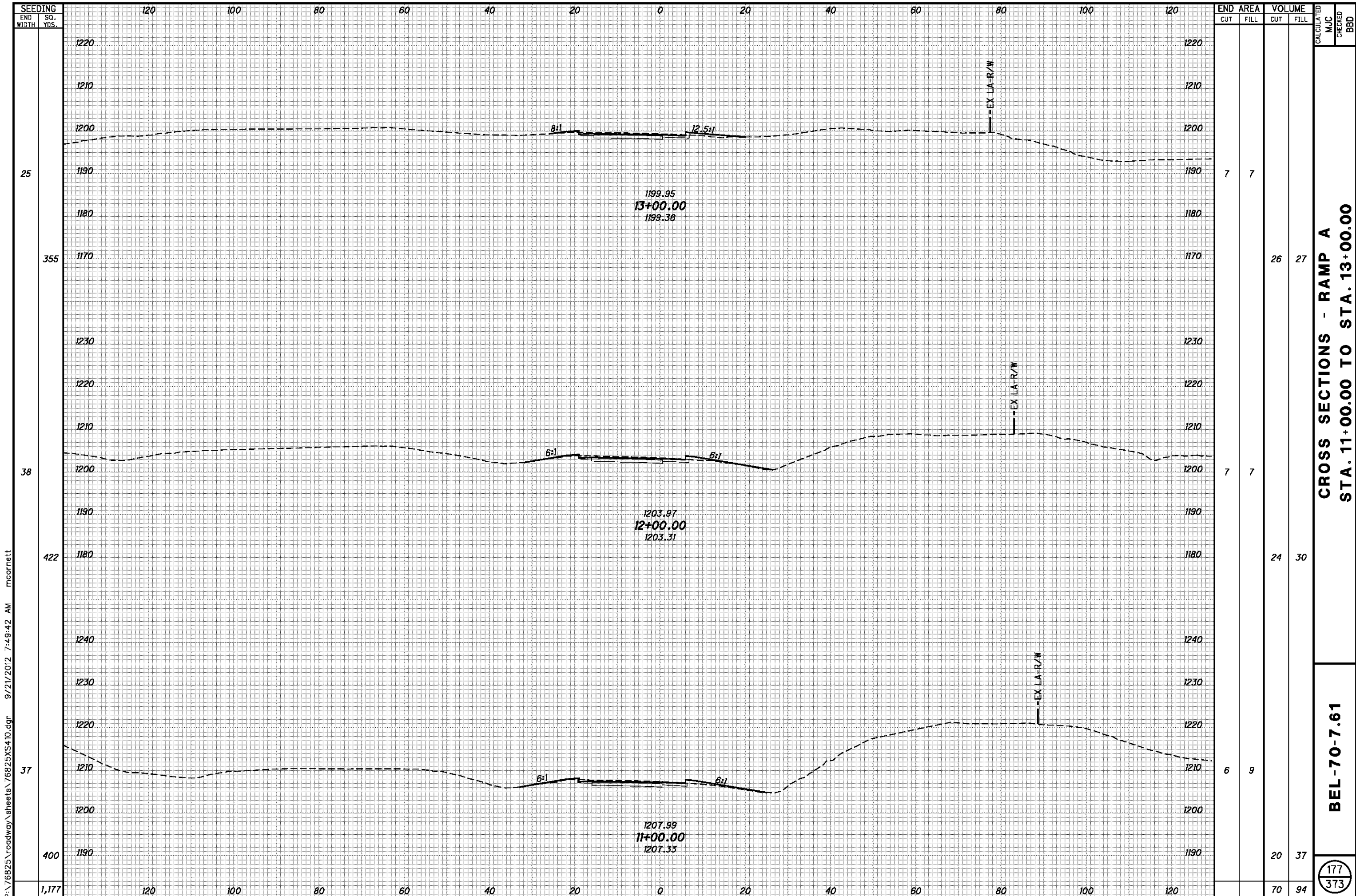


| END AREA | | VOLUME | |
|----------|------|--------|------|
| CUT | FILL | CUT | FILL |
| 4 | 11 | 10 | 56 |
| 1 | 19 | 10 | 51 |
| | | 20 | 107 |

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

BEL-70-7.61

176
373



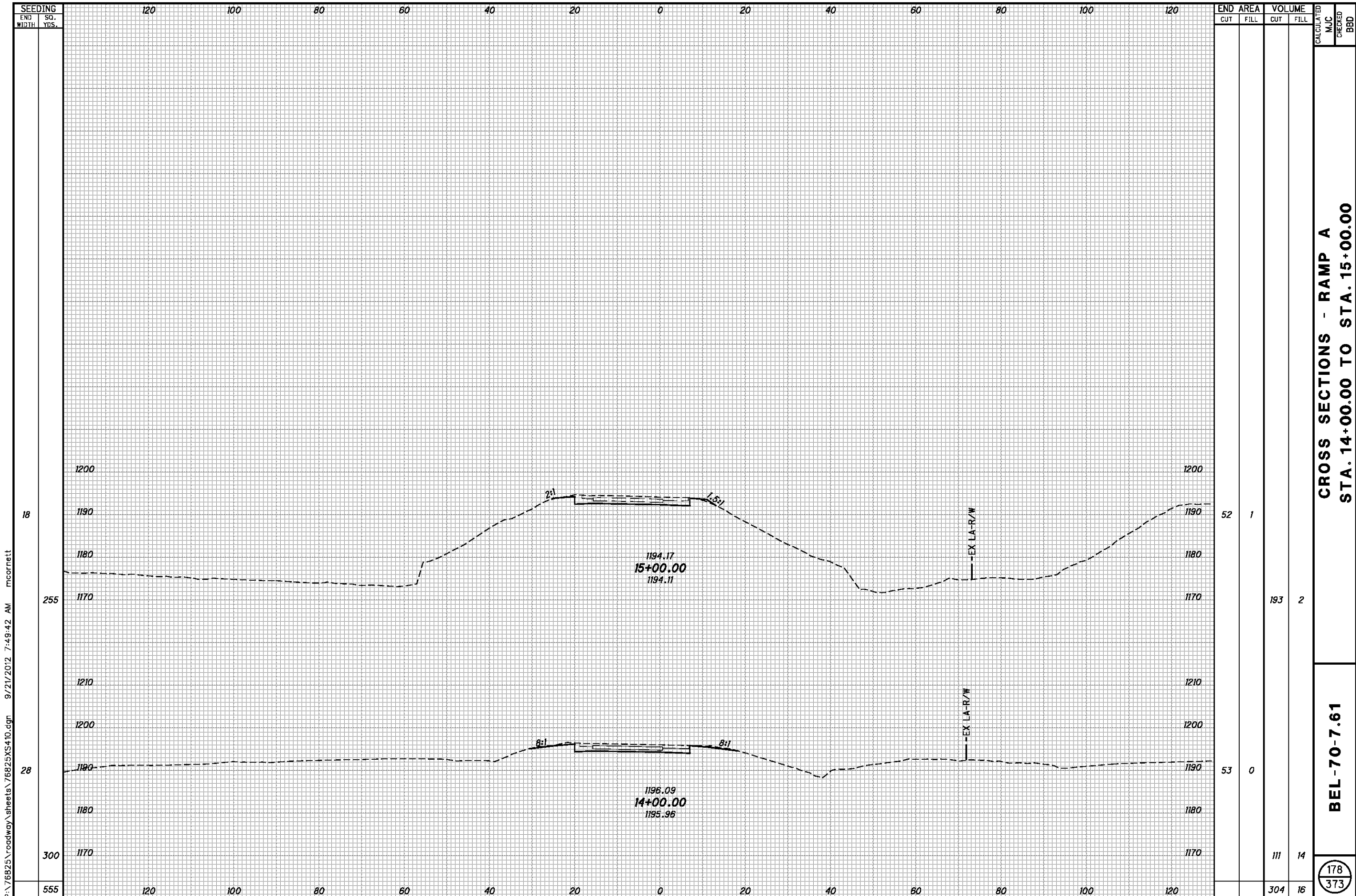
| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 25 | | 7 | 7 | | | | |
| 355 | | | | 26 | 27 | | |
| 38 | | 7 | 7 | | | | |
| 422 | | | | 24 | 30 | | |
| 37 | | 6 | 9 | | | | |
| 400 | | | | 20 | 37 | | |
| 1,177 | | | | 70 | 94 | | |

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

BEL-70-7.61

177
373

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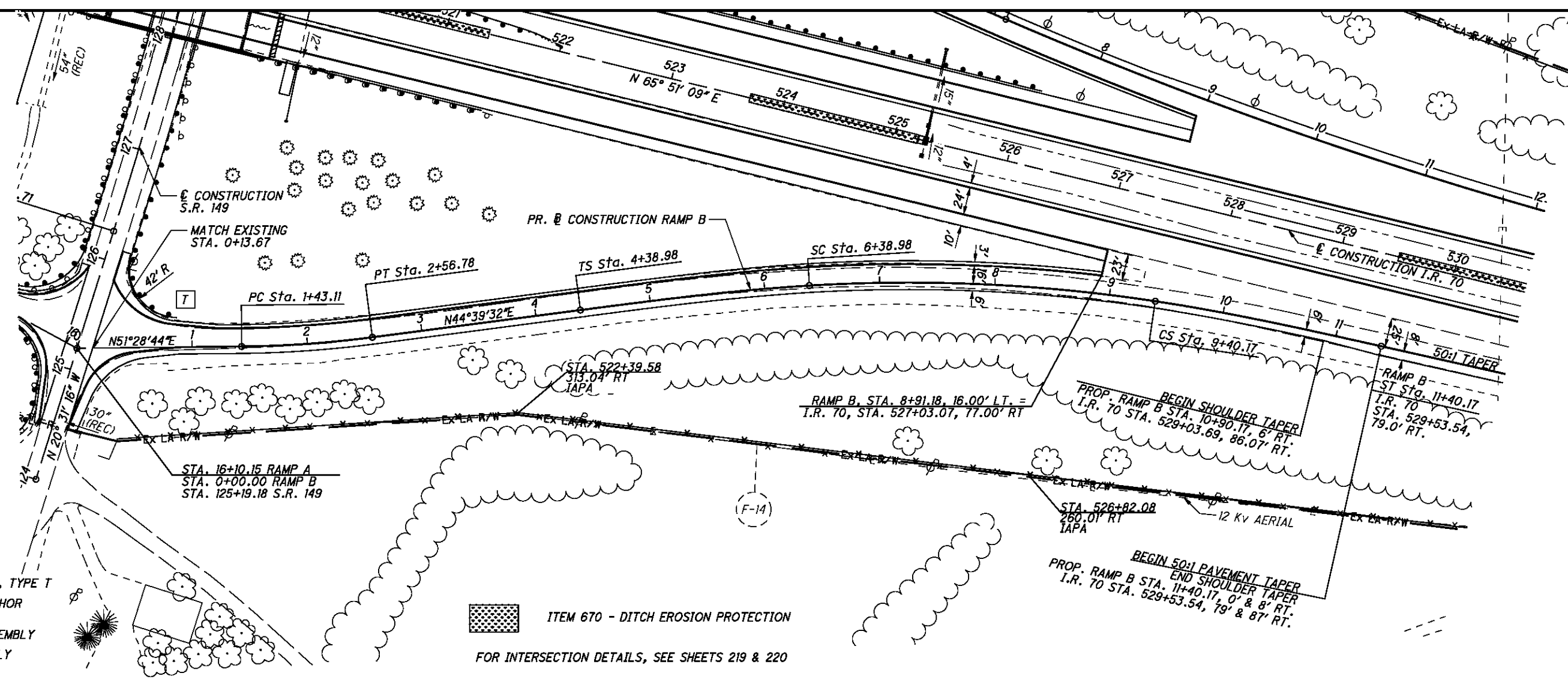


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**CROSS SECTIONS - RAMP A
STA. 14+00.00 TO STA. 15+00.00**

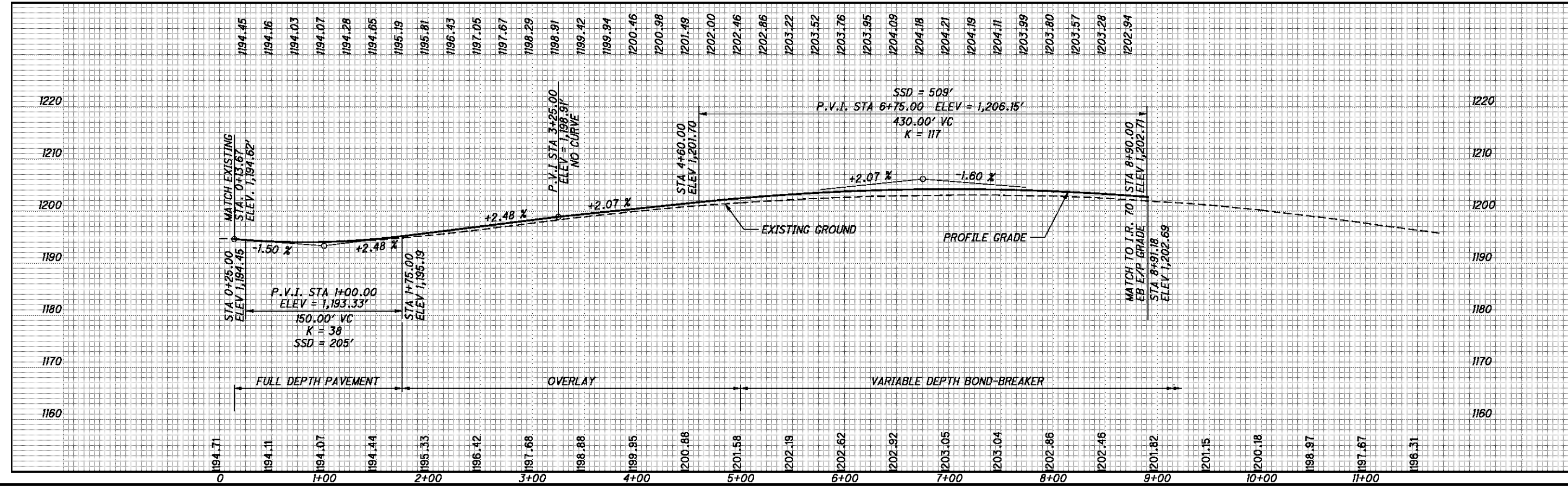
BEL-70-7.61

178
373

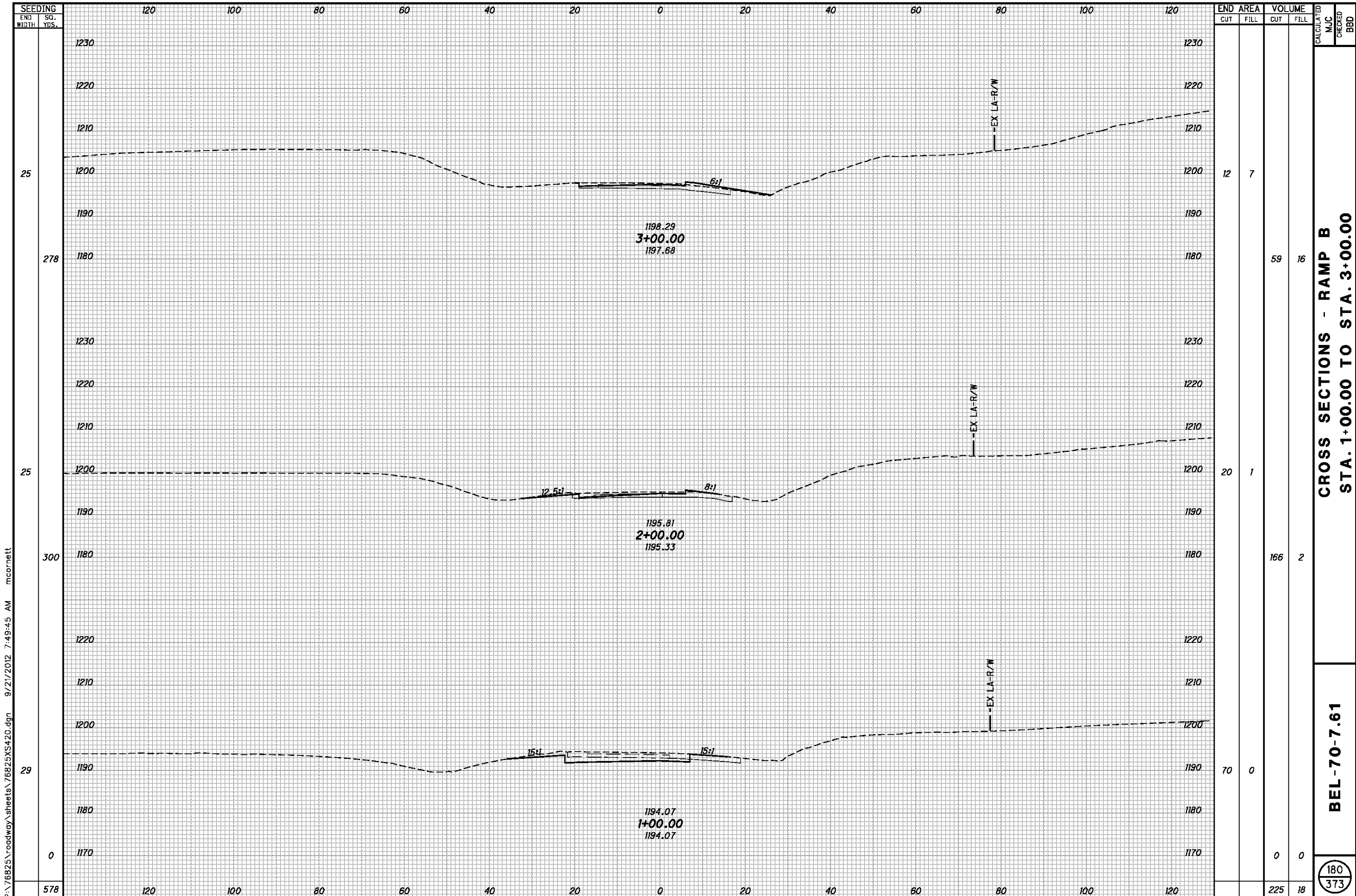


- T ANCHOR ASSEMBLY, TYPE T
- IAPA INTERMEDIATE ANCHOR POST ASSEMBLY
- CPA CORNER POST ASSEMBLY
- EPA END POST ASSEMBLY
- LP LINE POST

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



P:\76825\roadway\sheet\76825GP4.40.dgn 9/21/2012 7:49:44 AM mcorbett



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

| SEEDING | END AREA | | VOLUME | | CALCULATED | CHECKED |
|---------|----------|------|--------|------|------------|---------|
| | CUT | FILL | CUT | FILL | | |
| 25 | 12 | 7 | | | | |
| 278 | | | 59 | 16 | | |
| 25 | 20 | 1 | | | | |
| 300 | | | 166 | 2 | | |
| 29 | 70 | 0 | | | | |
| 0 | | | 0 | 0 | | |
| 578 | | | 225 | 18 | | |

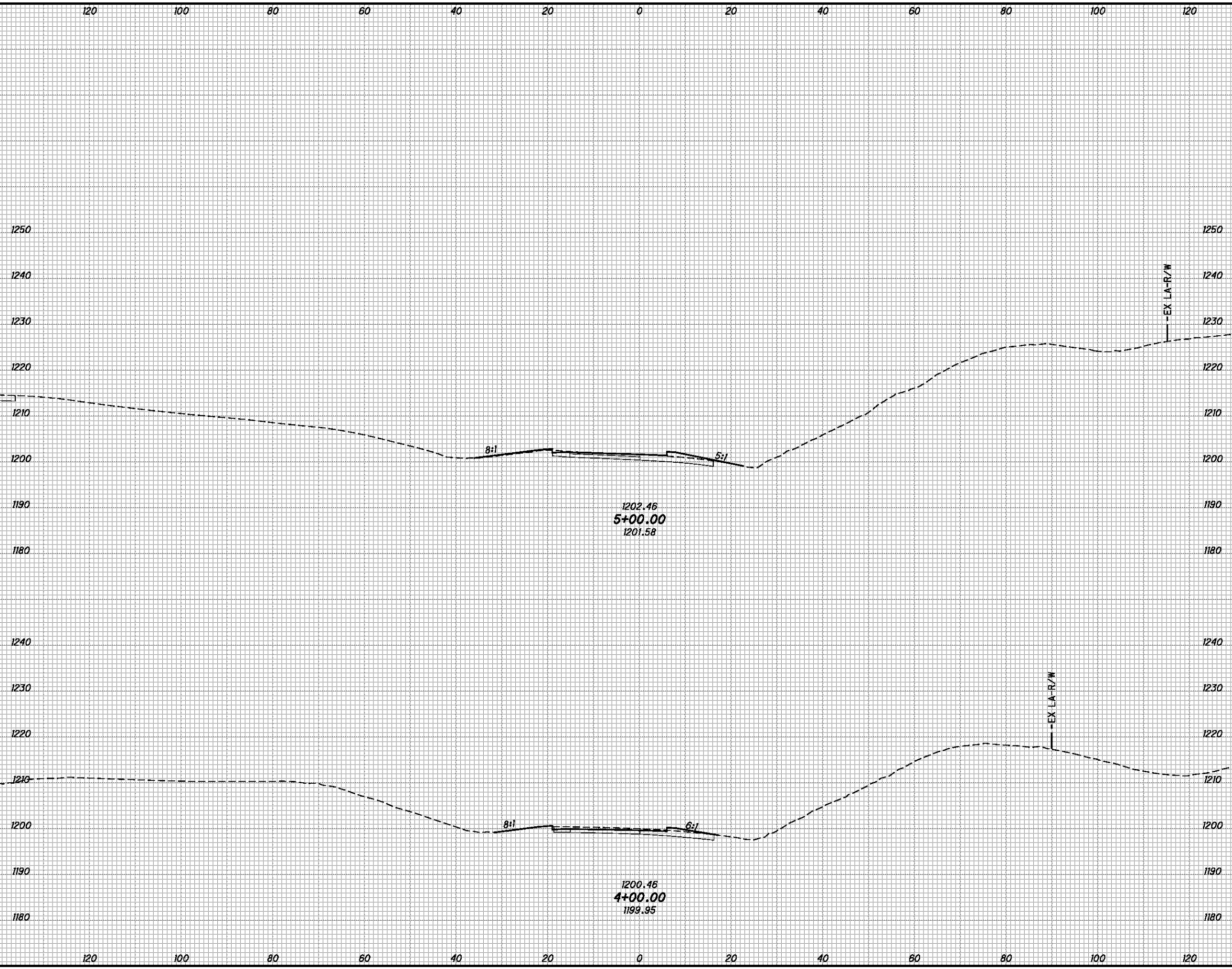
CROSS SECTIONS - RAMP B
STA. 1+00.00 TO STA. 3+00.00

BEL-70-7.61

180
373

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

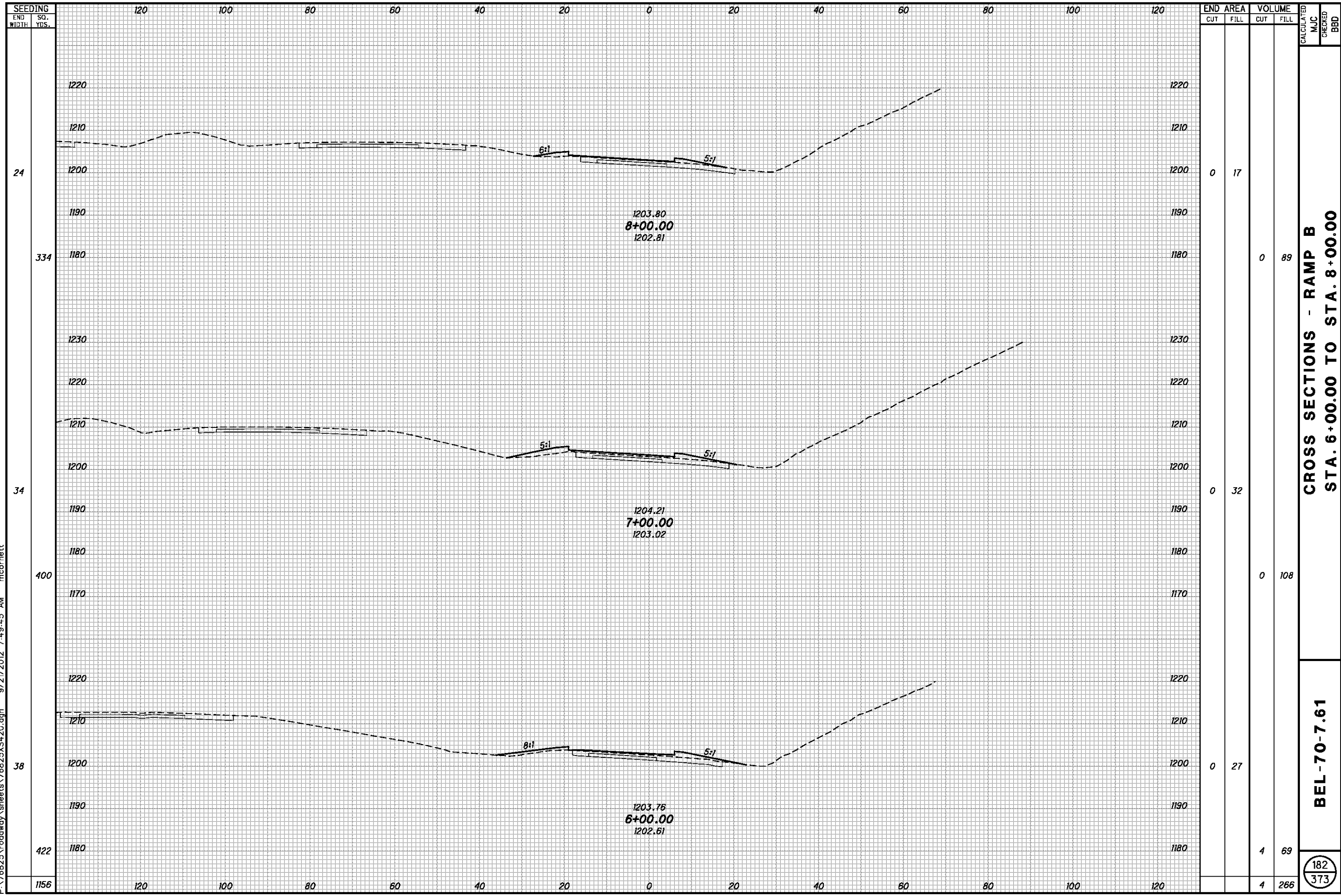
| CALCULATED | CHECKED |
|------------|---------|
| MJC | BBD |
| | |

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

BEL-70-7.61

181
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 | CHECKED | 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

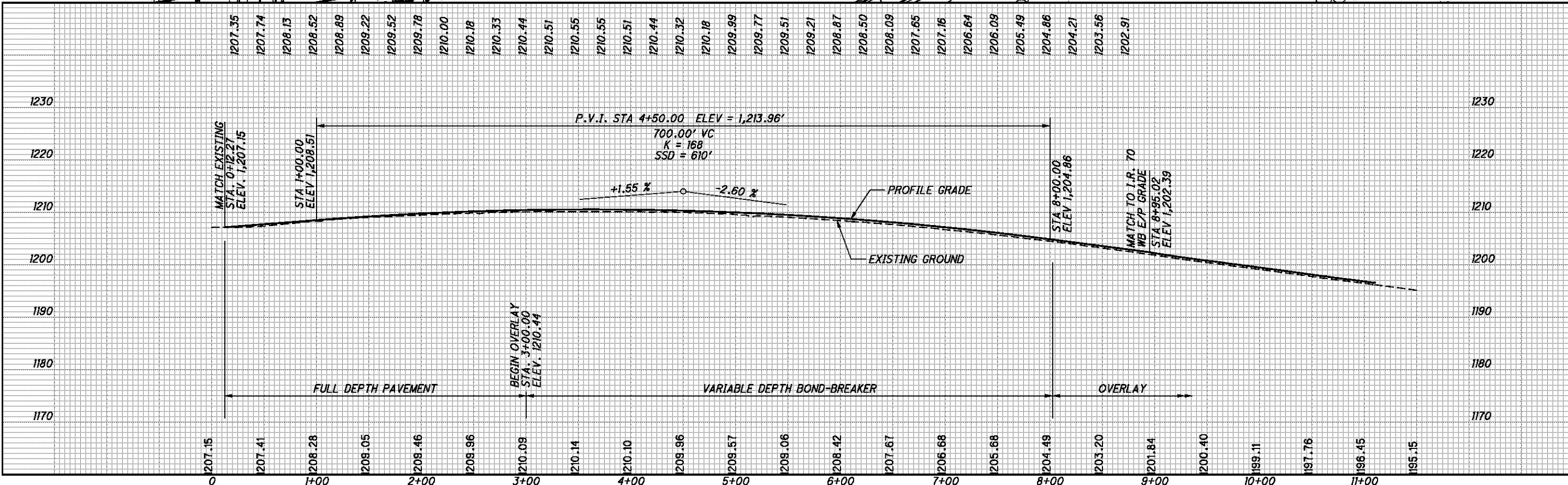
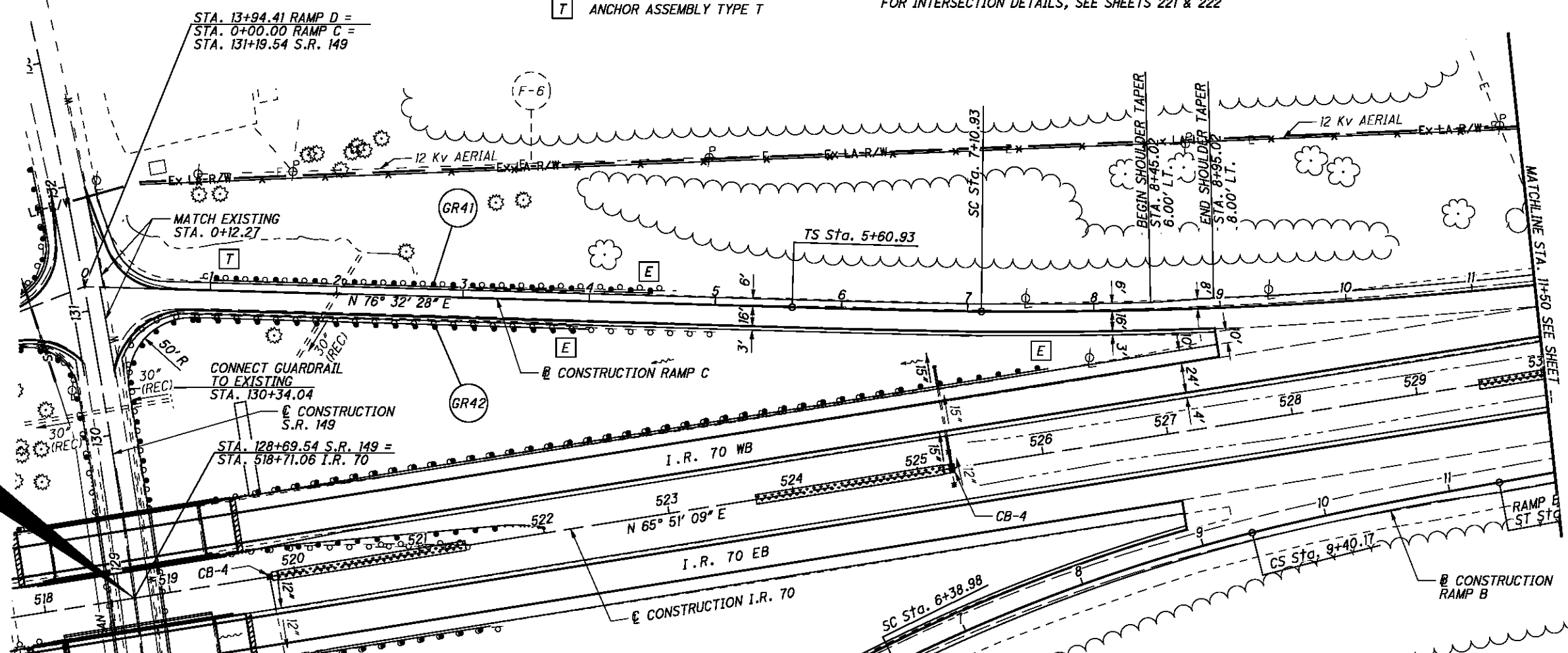


CALCULATED CDS CHECKED BDD

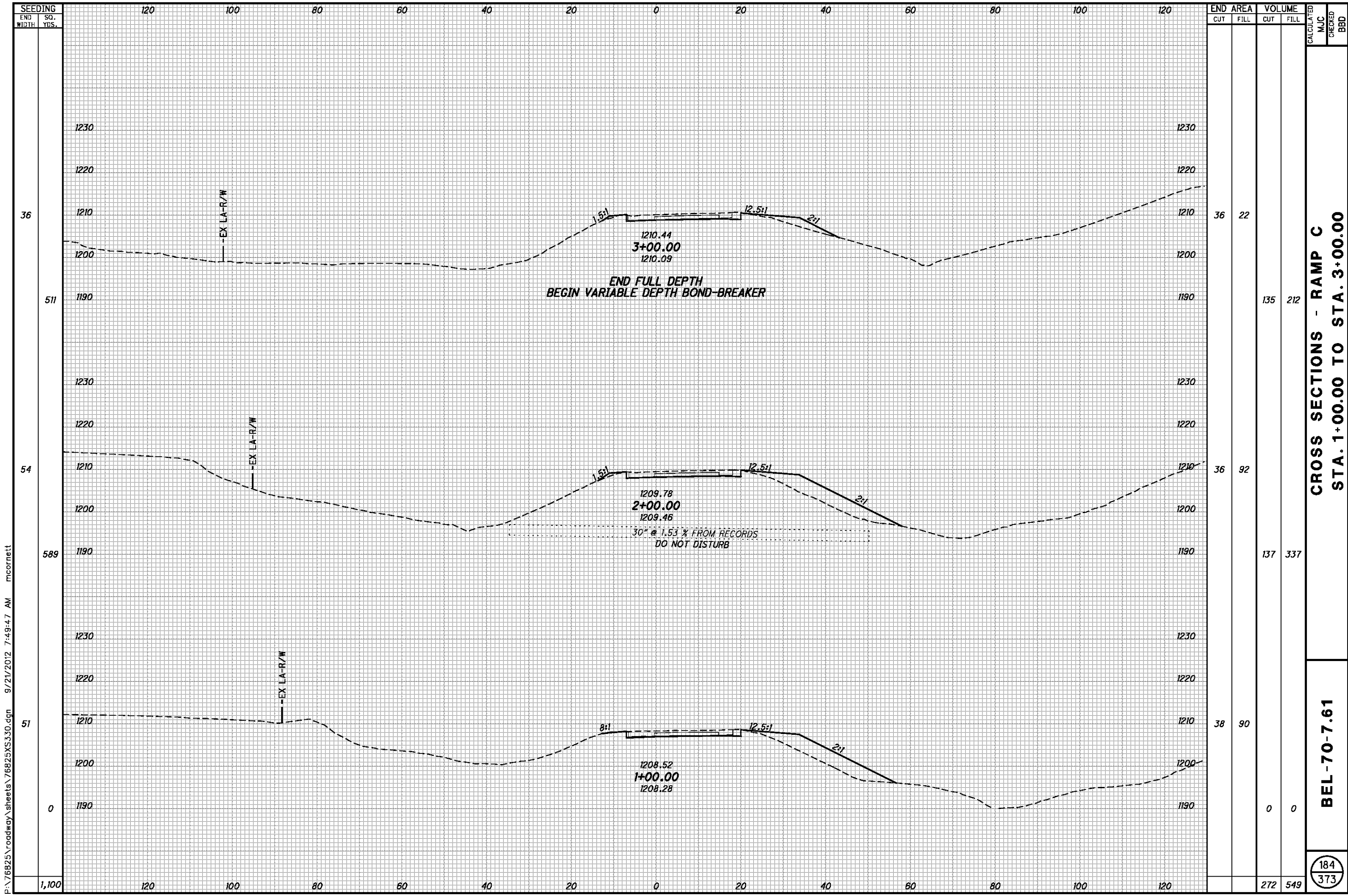
**RAMP C - PLAN AND PROFILE
 STA. 0+00 TO STA. 11+50**

BEL-70-7.61

183
 373



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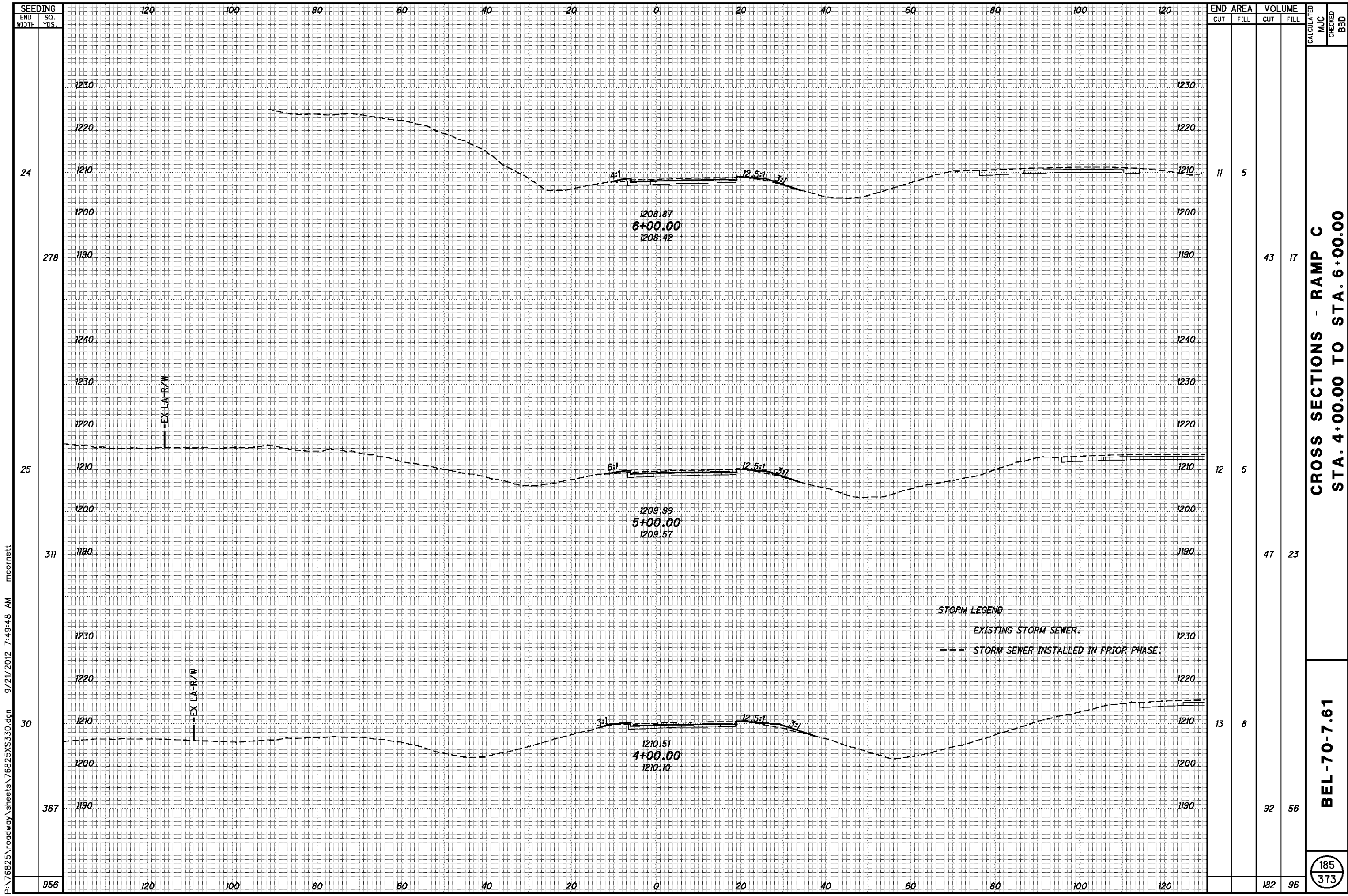
P:\76825\roadway\sheets\76825XS330.dgn 9/21/2012 7:49:47 AM mcorneit

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

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

BEL-70-7.61

184
373



| SEEDING | END SO. | |
|---------|---------|------|
| | WIDTH | YDS. |
| | 24 | |
| | 278 | |
| | 311 | |
| | 367 | |
| | 956 | |

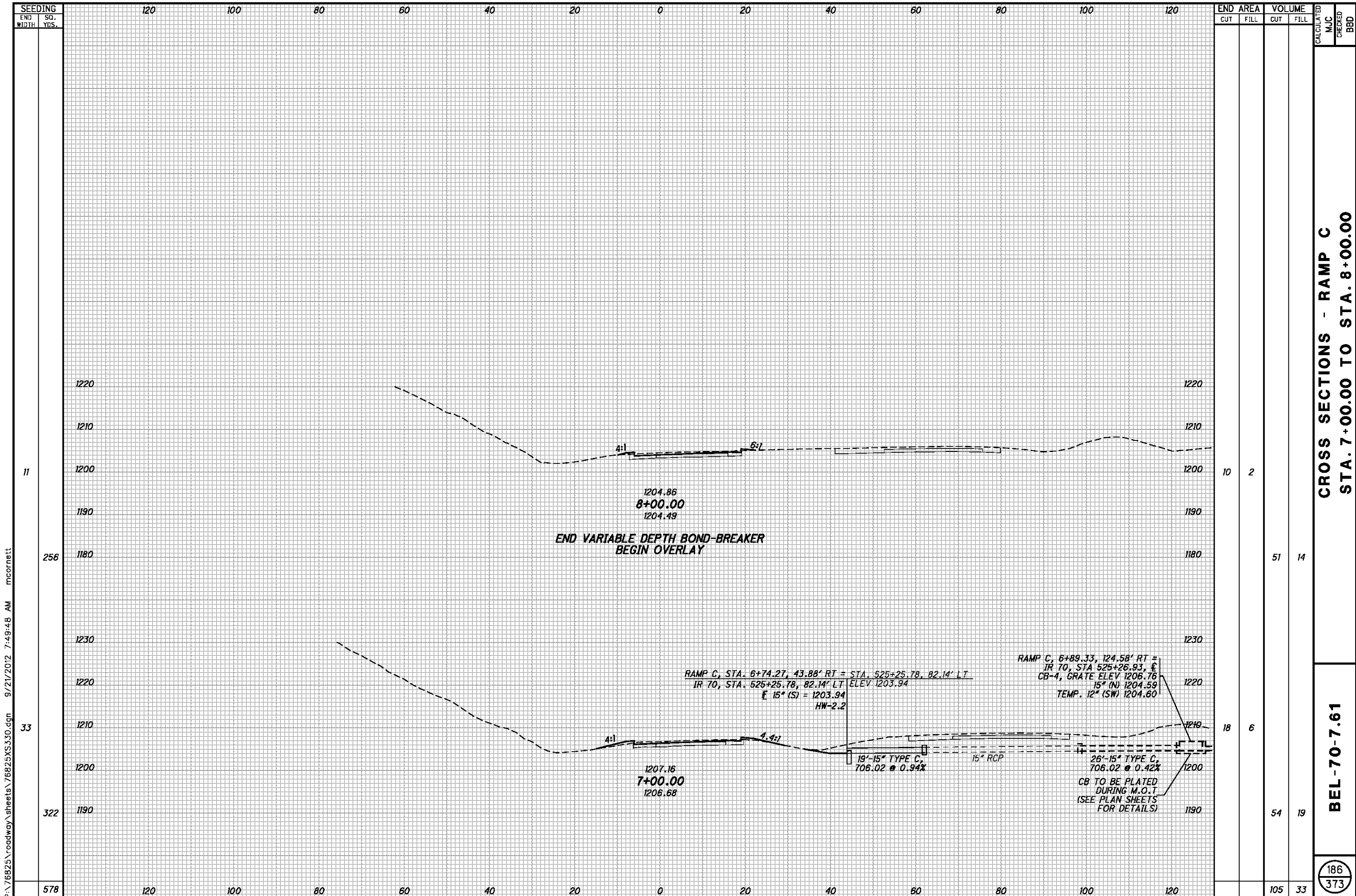
| END AREA | VOLUME | | CALCULATED | CHECKED |
|----------|--------|------|------------|---------|
| | CUT | FILL | | |
| 11 | 5 | | | |
| 12 | 5 | | | |
| 13 | 8 | | | |
| | 182 | 96 | | |

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

BEL-70-7.61

185
373

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

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ITEM 670 - DITCH EROSION PROTECTION

FOR INTERSECTION DETAILS, SEE SHEETS 221 & 222

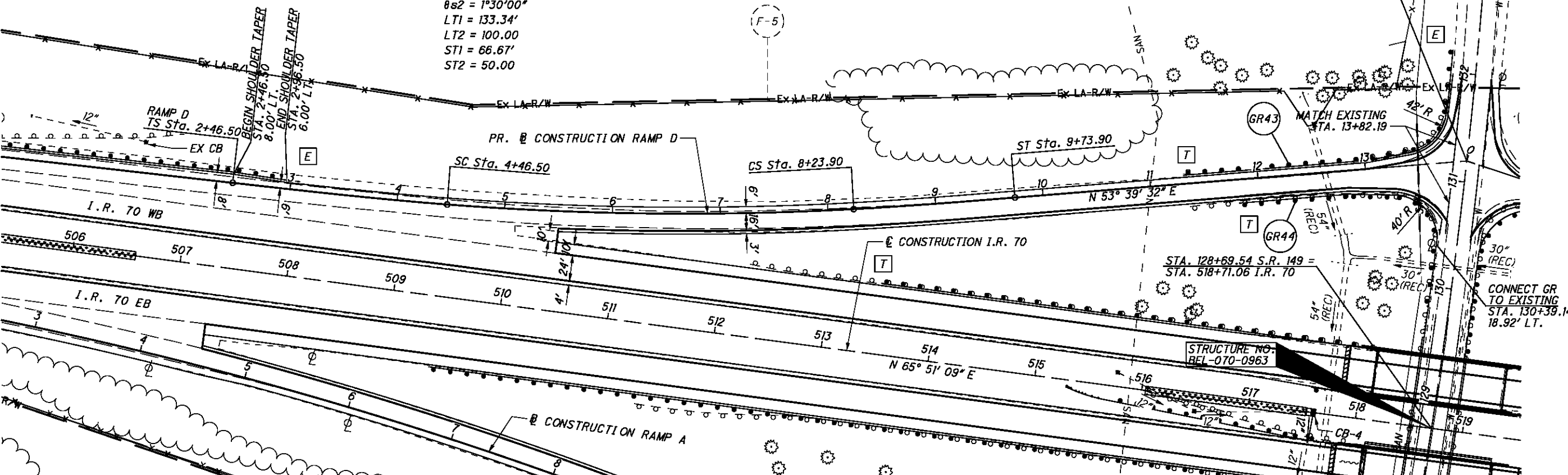
RAMP D
CURVE DATA

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



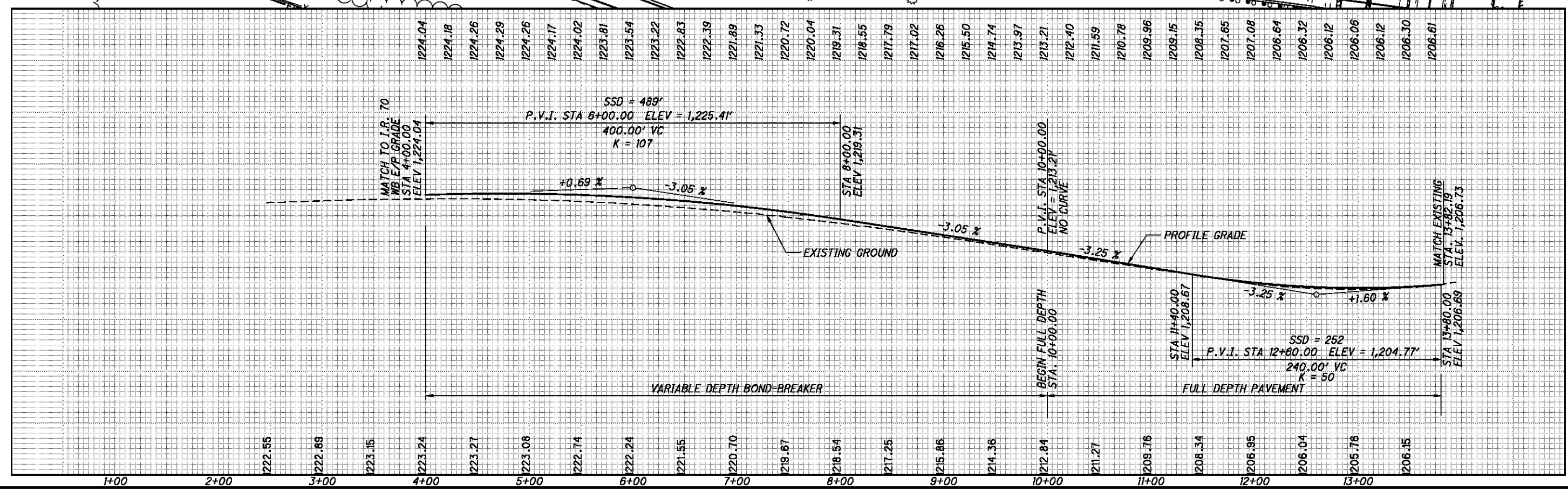
CALCULATED CDS CHECKED BDD

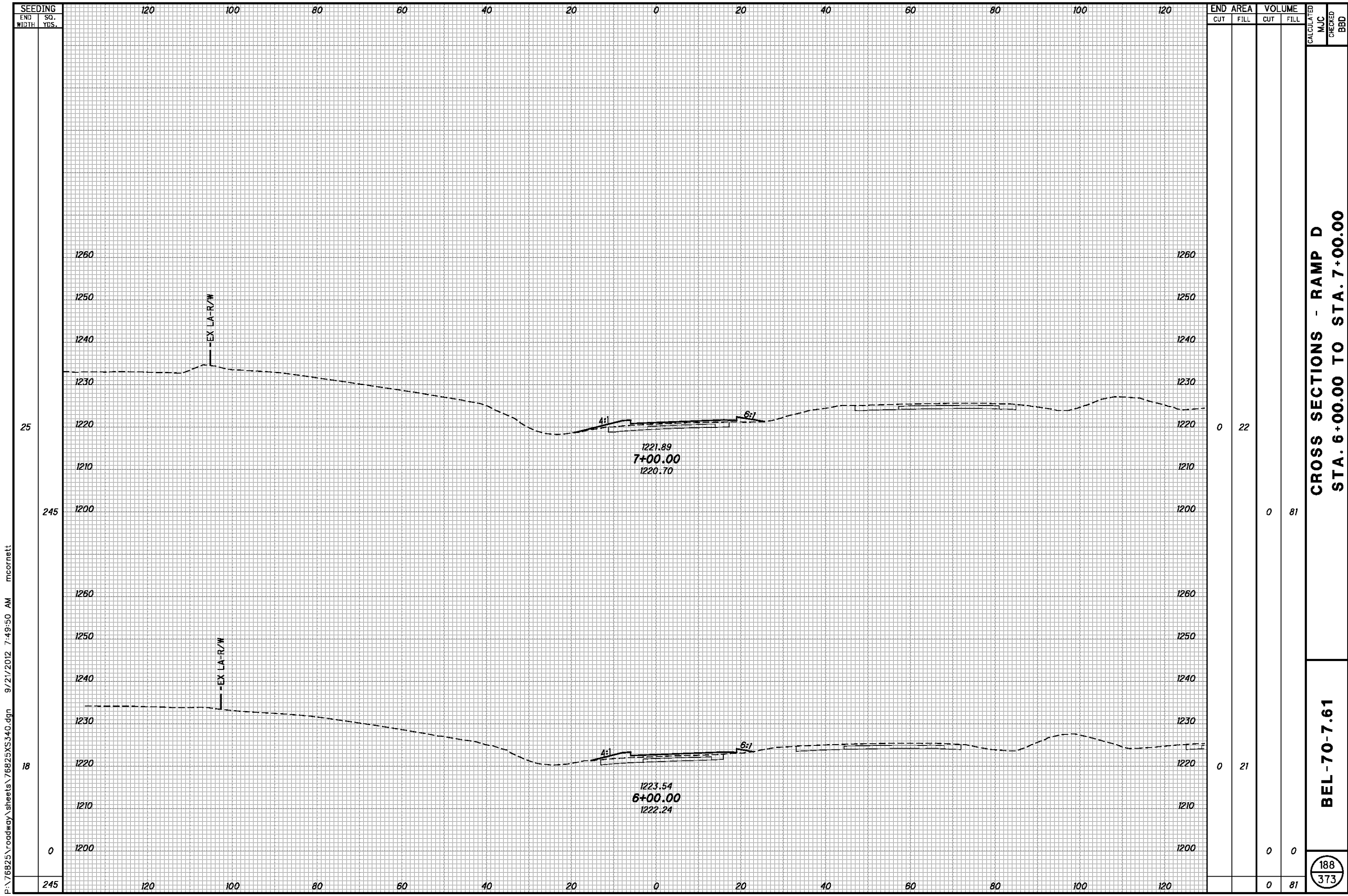
RAMP D - PLAN AND PROFILE
STA. 4+46.50 TO STA. 13+94.41

BEL-70-7.61

187
373

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

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

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

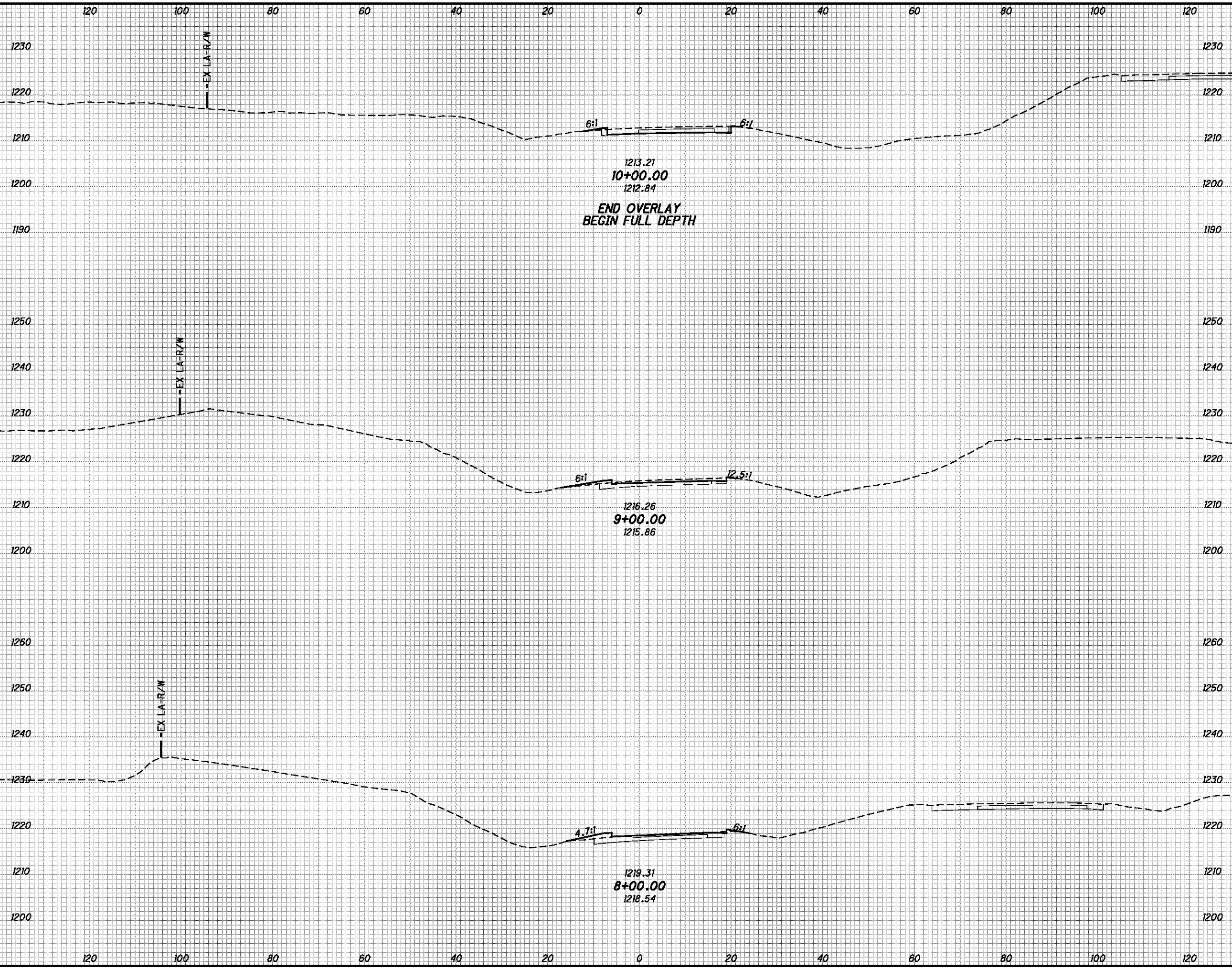
BEL-70-7.61

188
373

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

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

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



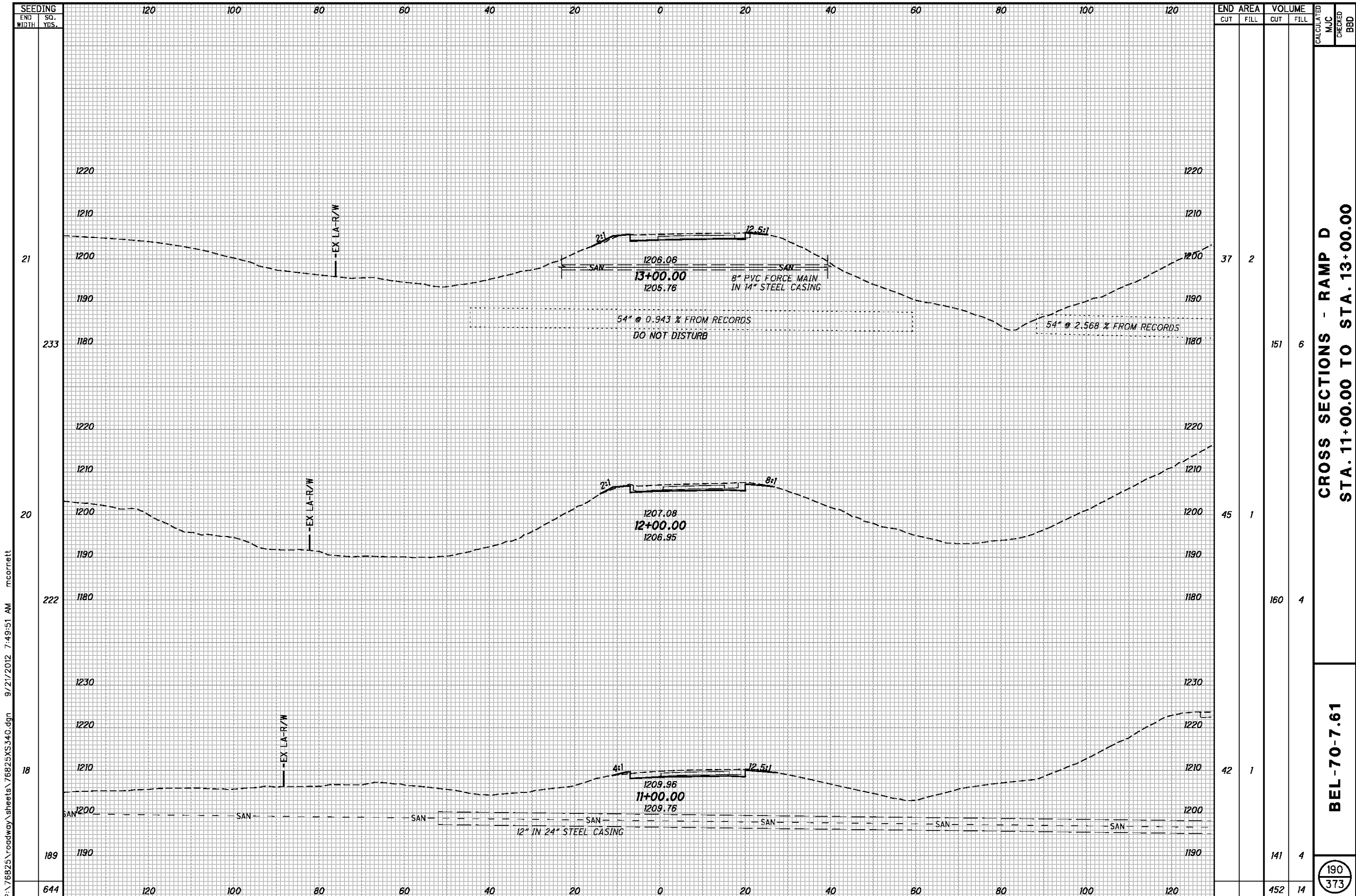
| END AREA | VOLUME | |
|----------|--------|------|
| | CUT | FILL |
| 35 | 1 | |
| 86 | 10 | |
| 12 | 4 | |
| 27 | 20 | |
| 3 | 7 | |
| 5 | 54 | |
| 118 | 84 | |

| CALCULATED | MJC | CHECKED | BBD |
|------------|-----|---------|-----|
| | | | |

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

BEL-70-7.61

189
373



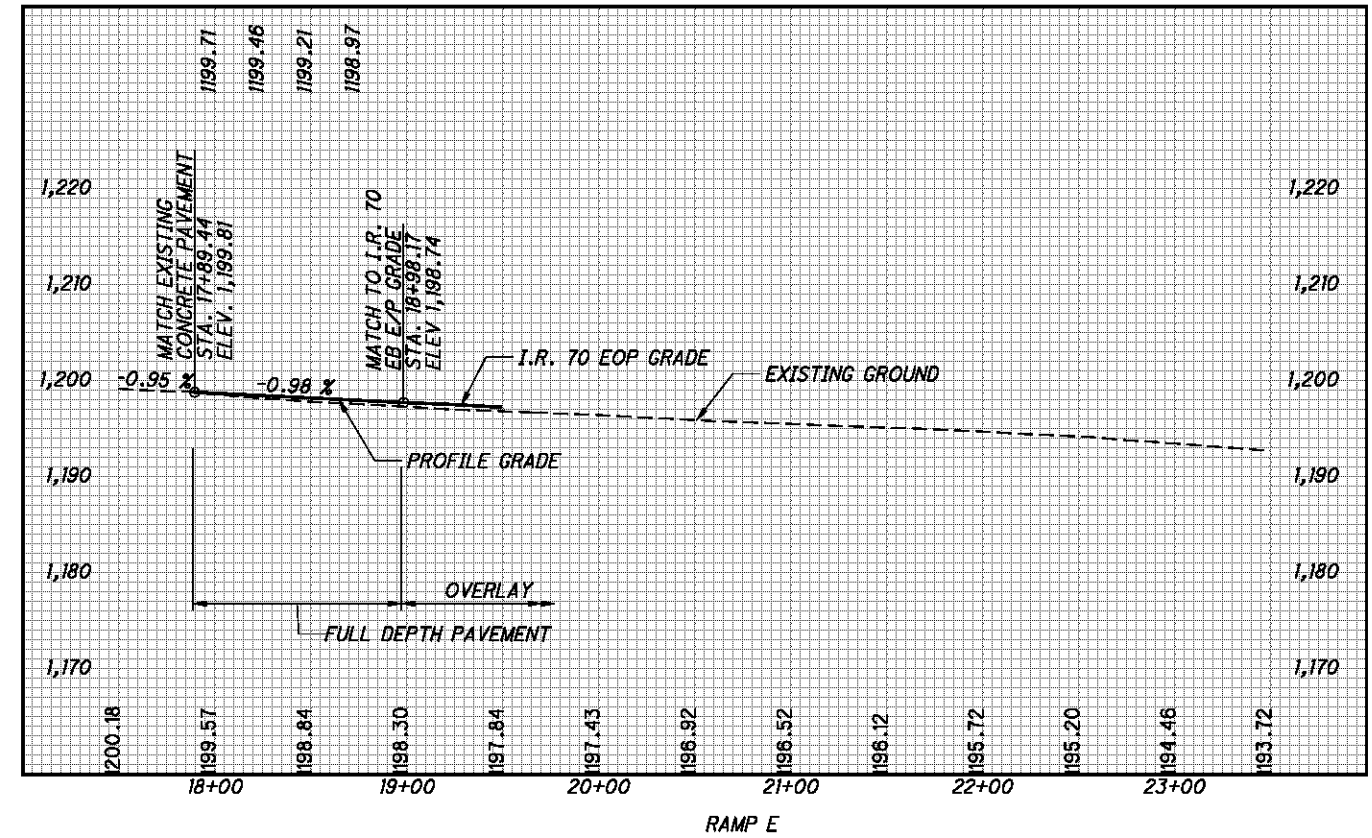
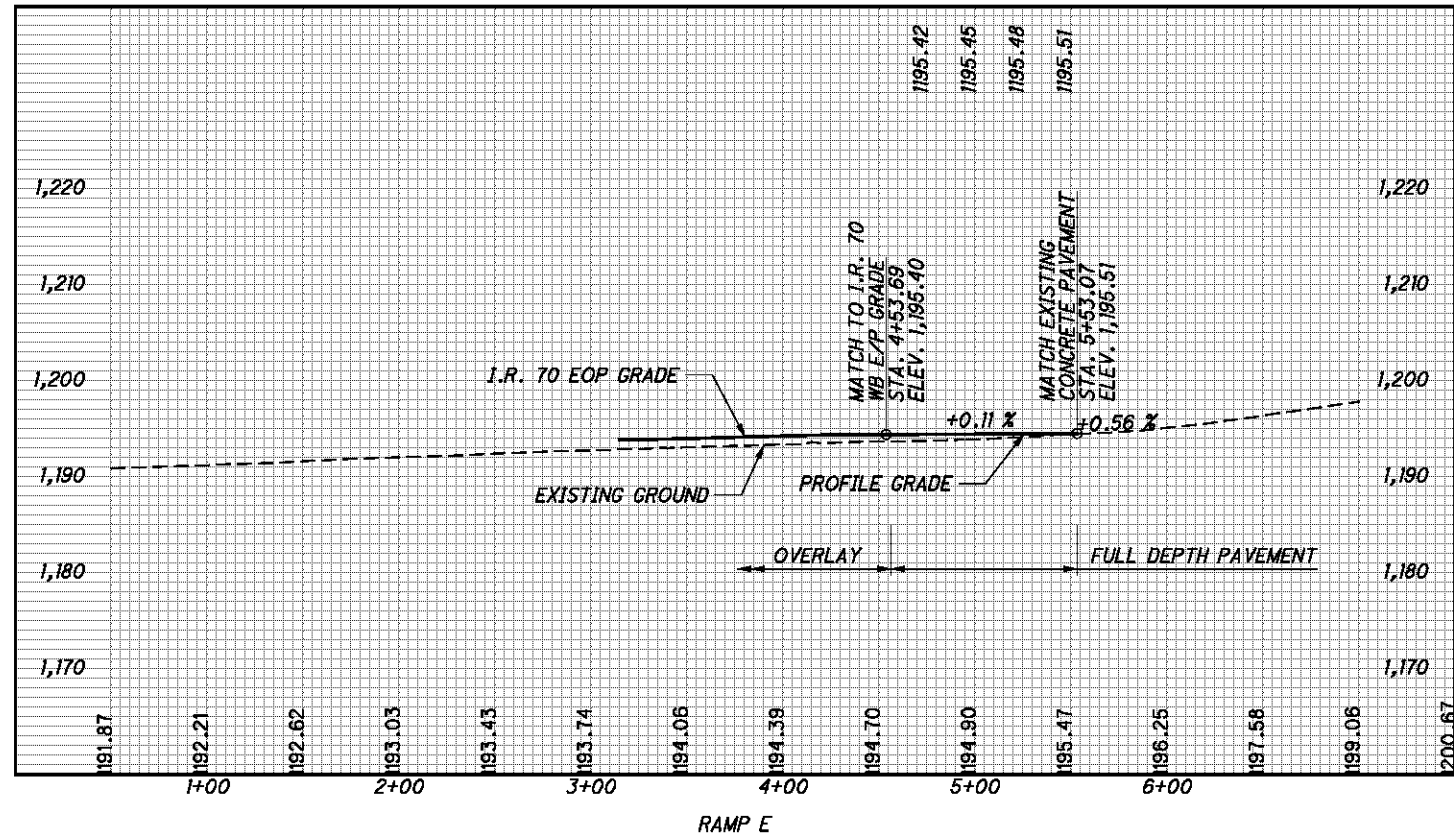
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| SEEDING END WIDTH | SO. YDS. | END AREA | | VOLUME | | CALCULATED MJC | CHECKED BBD |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
| | | CUT | FILL | CUT | FILL | | |
| 21 | | 37 | 2 | | | | |
| 233 | | | | 151 | 6 | | |
| 20 | | 45 | 1 | | | | |
| 222 | | | | 160 | 4 | | |
| 18 | | 42 | 1 | | | | |
| 189 | | | | 141 | 4 | | |
| 644 | | | | 452 | 14 | | |

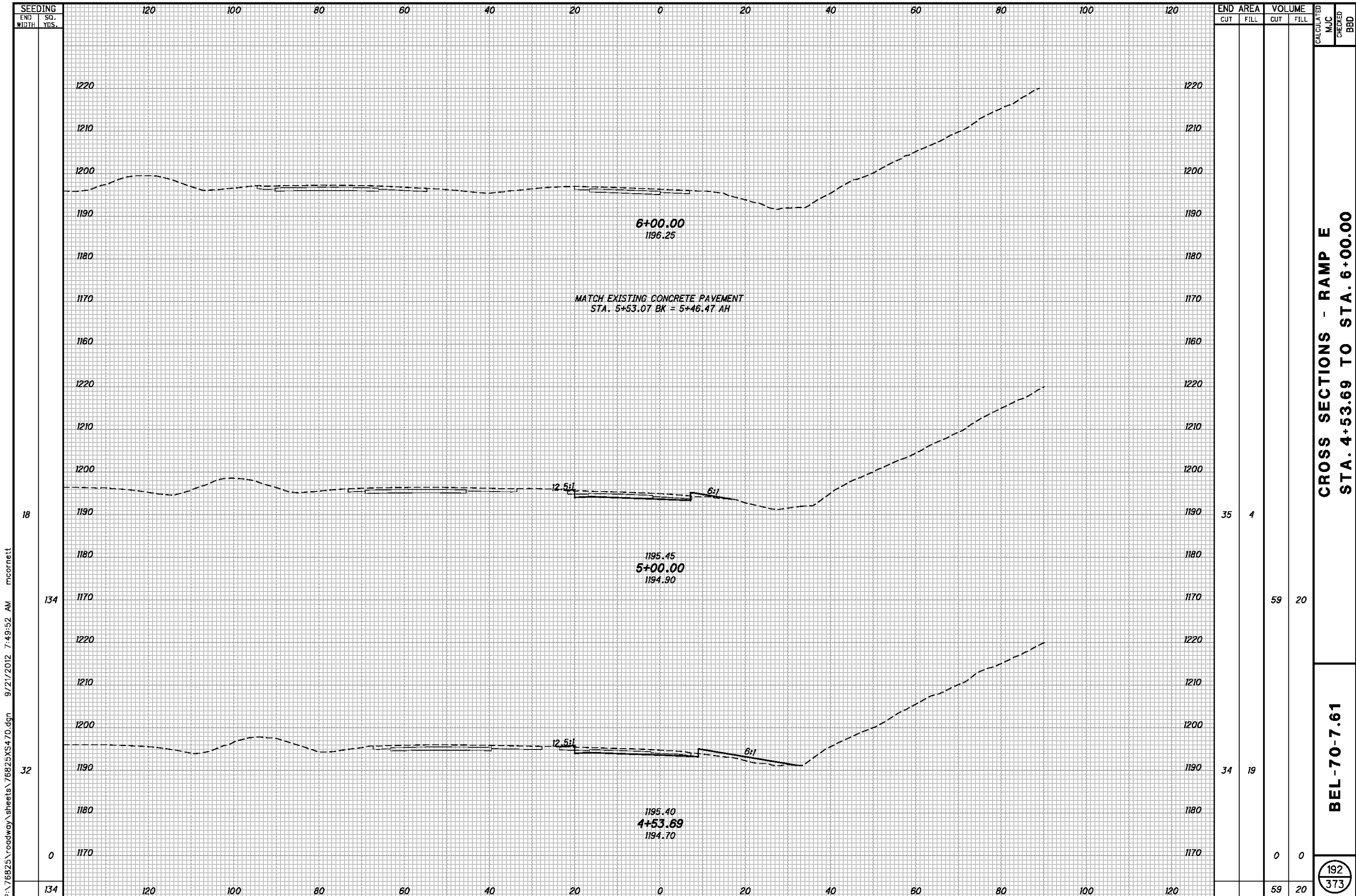
**CROSS SECTIONS - RAMP D
STA. 11+00.00 TO STA. 13+00.00**

BEL-70-7.61

190
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

18

134

32

134

6+00.00
1196.25

MATCH EXISTING CONCRETE PAVEMENT
STA. 5+53.07 BK = 5+46.47 AH

5+00.00
1194.90

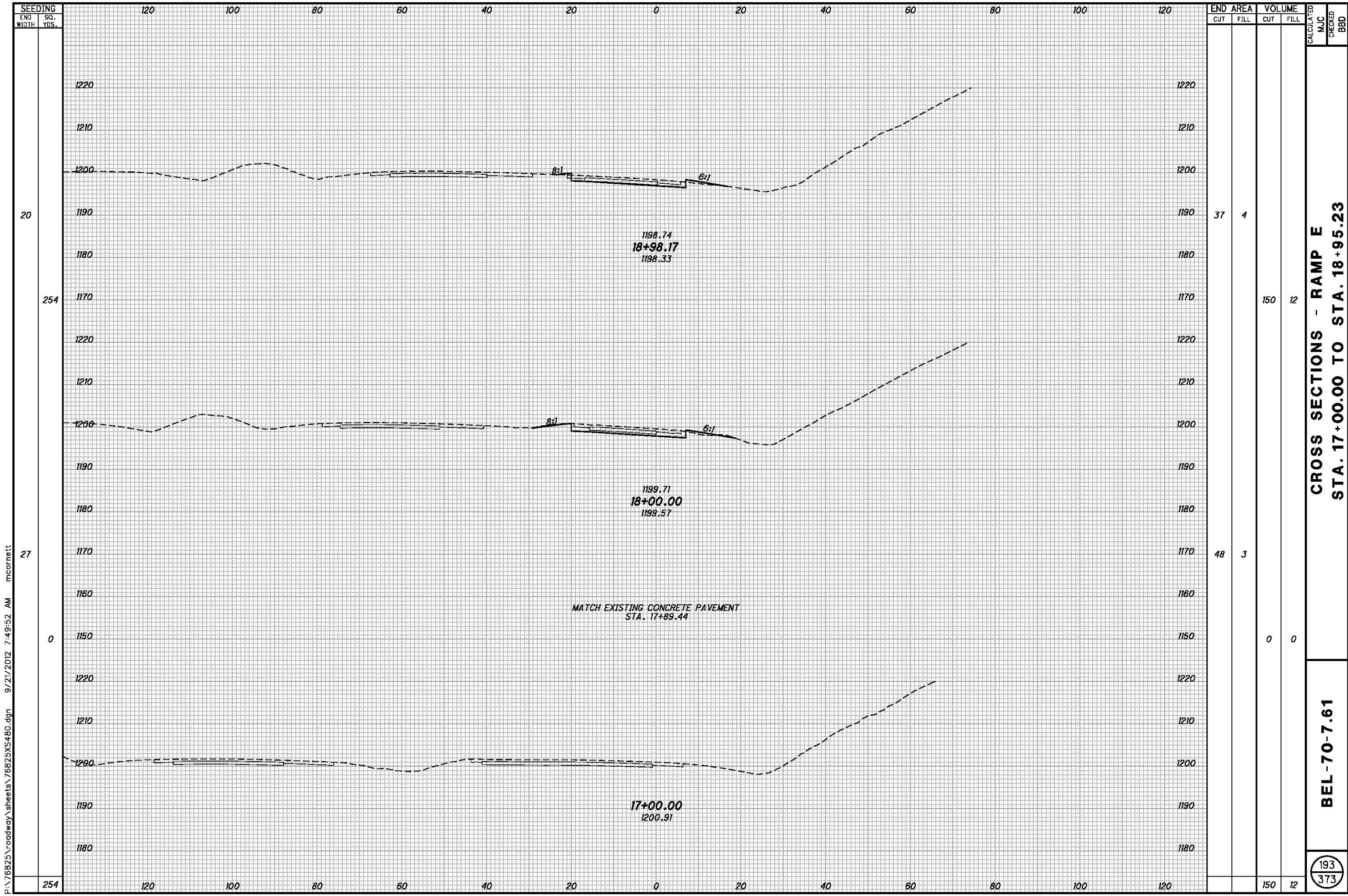
4+53.69
1194.70

12.5:1

6:1

12.5:1

6:1

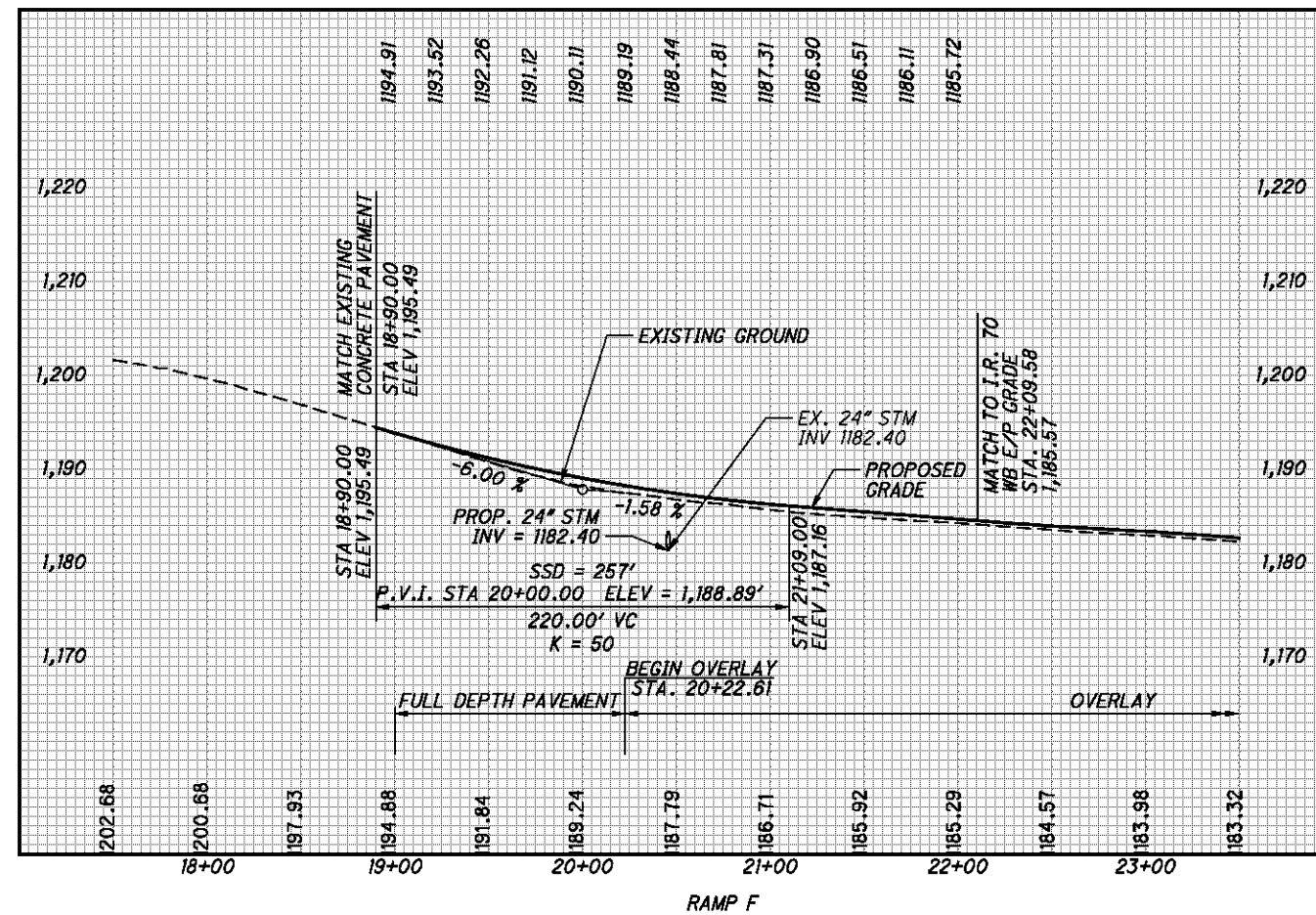
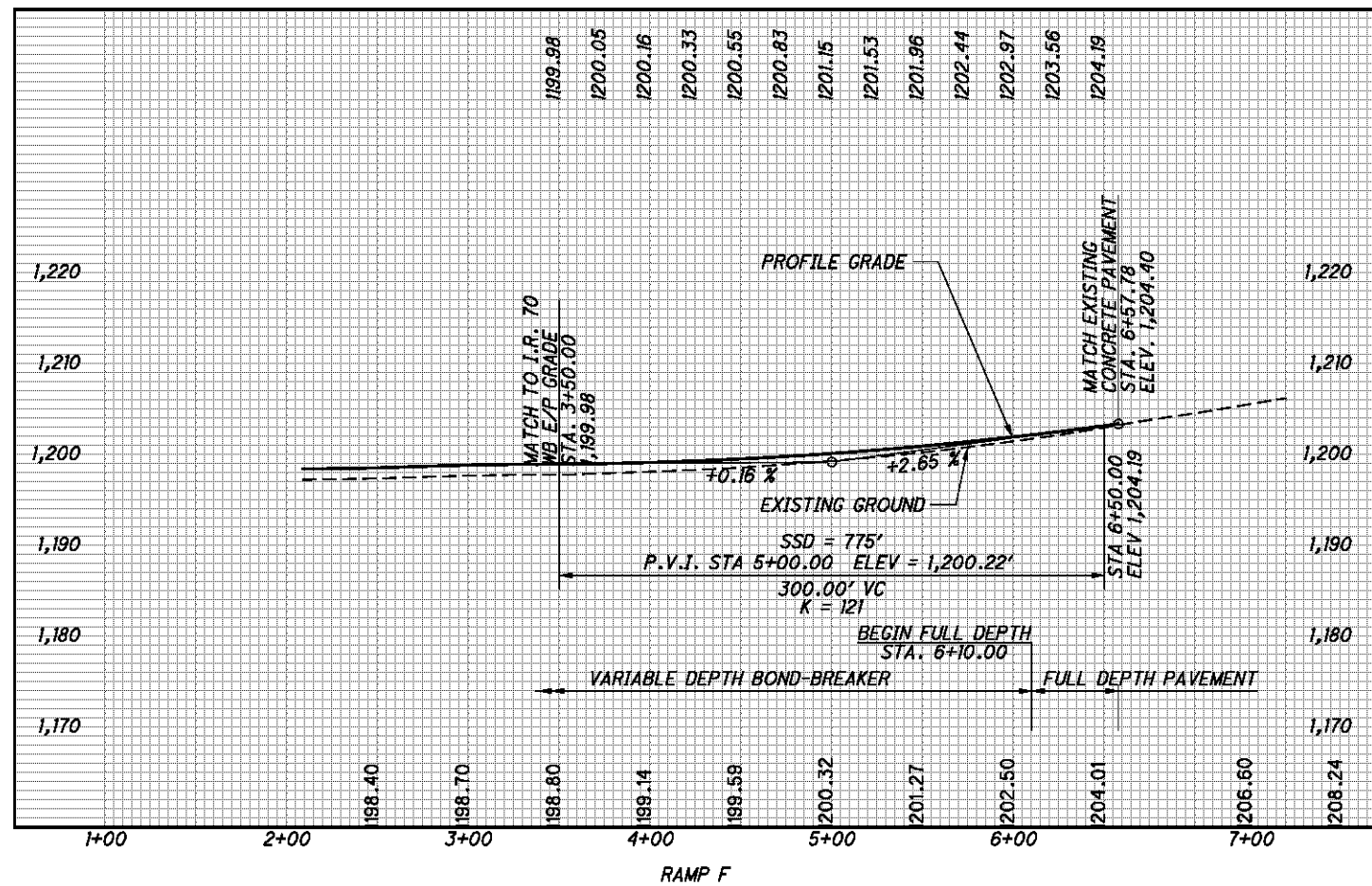


**CROSS SECTIONS - RAMP E
STA. 17+00.00 TO STA. 18+95.23**

BEL-70-7.61

193
373

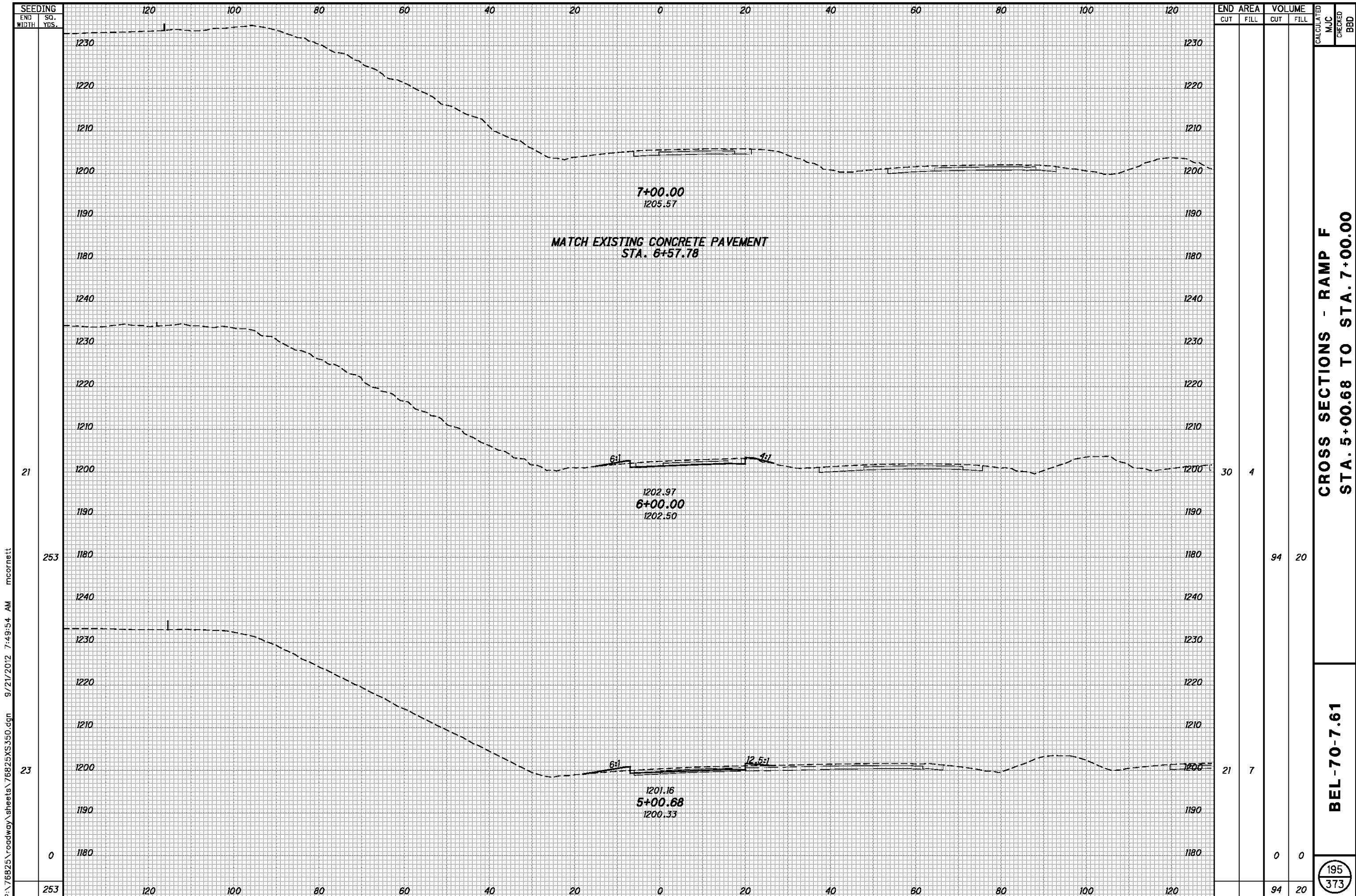
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RAMP F PROFILES

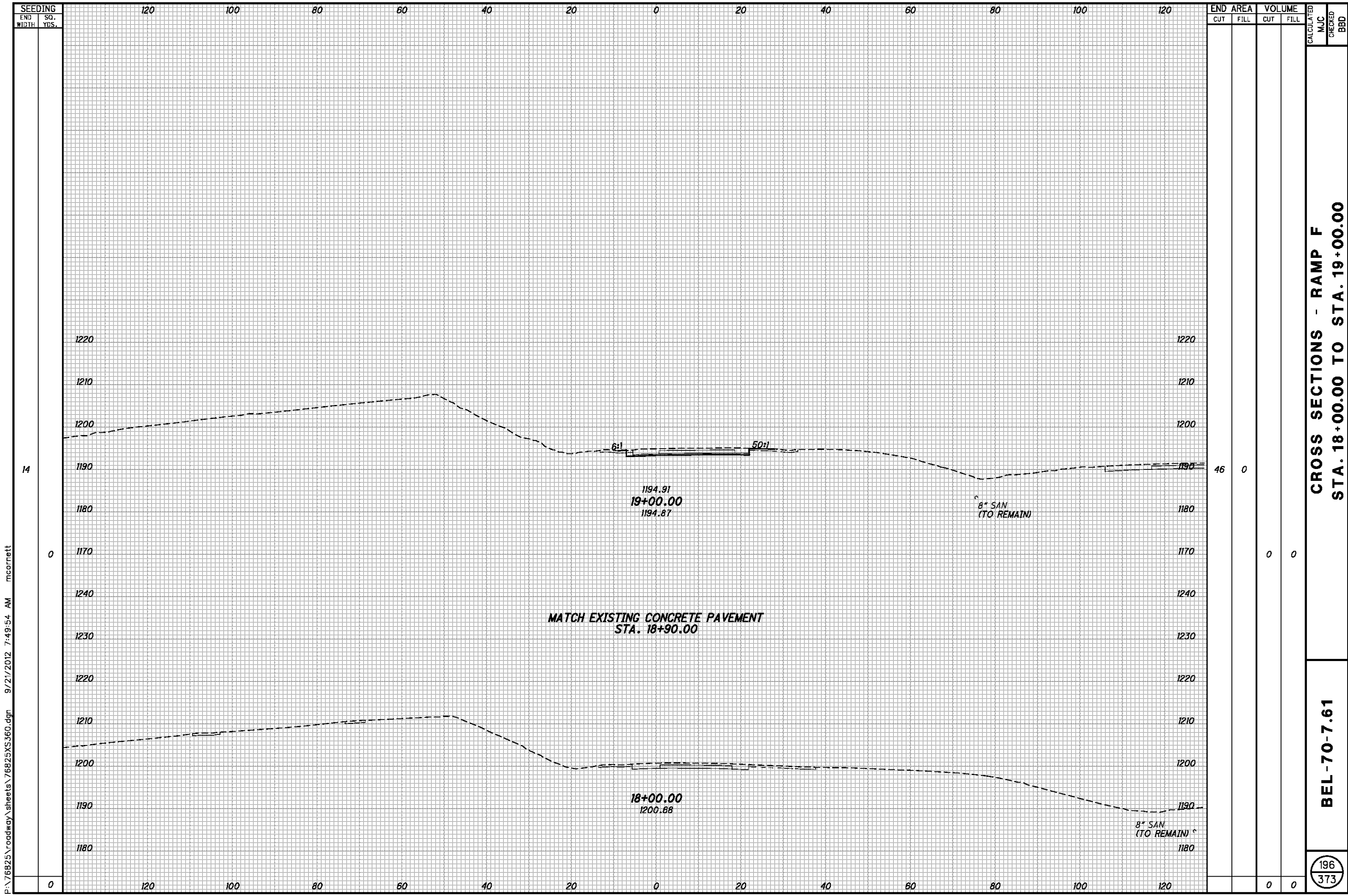
BEL-70-7.61

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

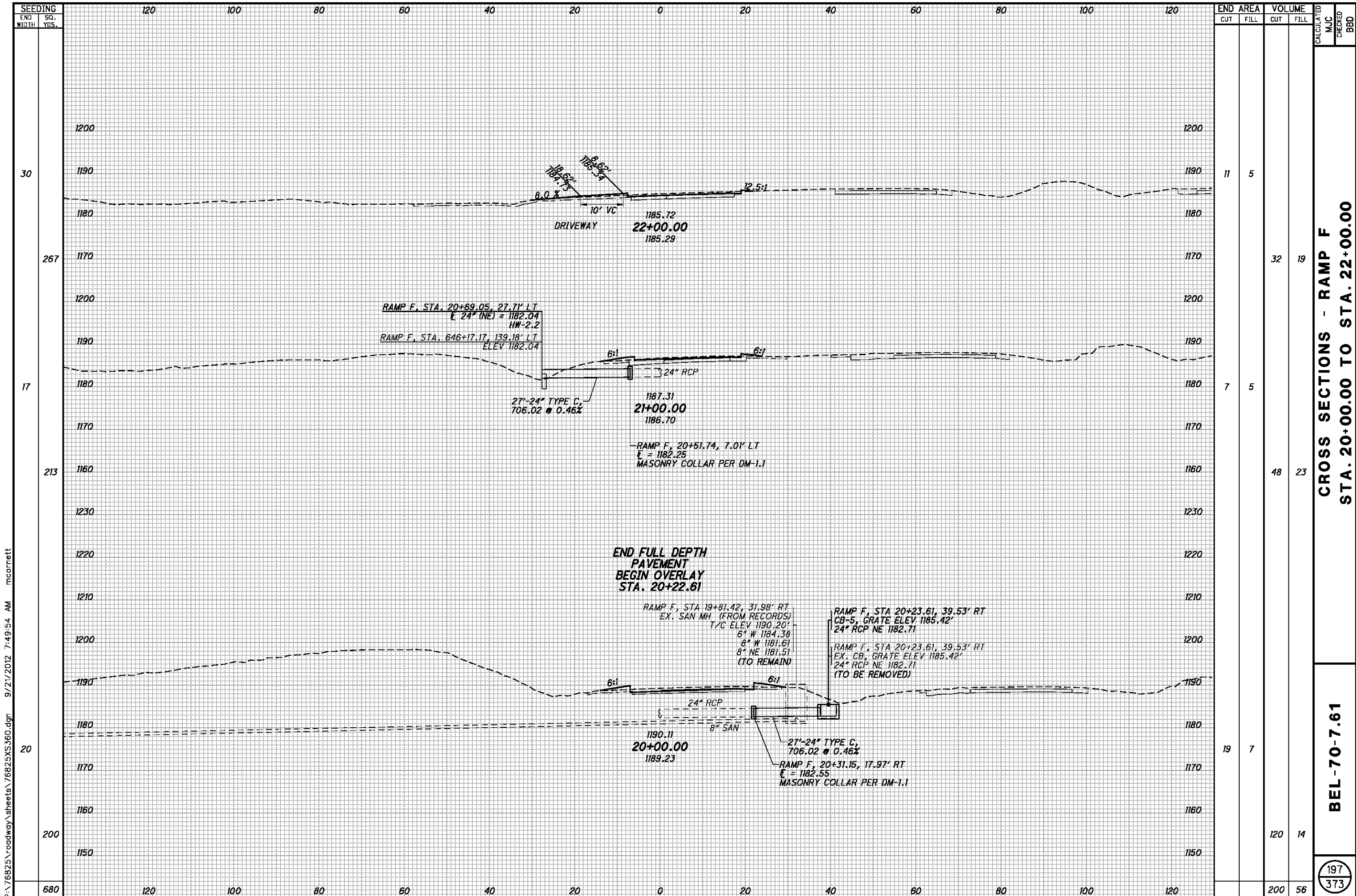


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195
373



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



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| 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 26 columns: REMARKS, ELEVATION, ELEVATION CORRECTION, CROSS SLOPE, TRANSITION RATE, WIDTH, ELEVATION, ELEVATION CORRECTION, CROSS SLOPE, TRANSITION RATE, WIDTH, INSIDE EDGE (PROFILE GRADE) ELEVATION, OFFSET, STATION, INSIDE EDGE (PROFILE GRADE) OFFSET, ELEVATION, WIDTH, TRANSITION RATE, CROSS SLOPE, ELEVATION CORRECTION, ELEVATION, WIDTH, TRANSITION RATE, CROSS SLOPE, ELEVATION CORRECTION, ELEVATION, REMARKS.

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CALCULATED MJC CHECKED BBD SUPERELEVATION TABLE - I.R. 70 BEL - 70 - 7.61 200 373

I.R. 70 CURVE 2 SUPERELEVATION TABLE

P.I. STA. 566+52.17

Dc = 1° 00' 00"

CALCULATED
MJC
CHECKED
BBD

Table with columns: REMARKS, OUTSIDE EDGE - (ELEVATION, ELEVATION CORRECTION, CROSS SLOPE, TRANSITION RATE, WIDTH), CENTERLINE OF LANES (ELEVATION, ELEVATION CORRECTION, CROSS SLOPE, TRANSITION RATE, WIDTH), INSIDE EDGE (PROFILE GRADE) (ELEVATION, OFFSET), STATION, INSIDE EDGE (PROFILE GRADE) (OFFSET, ELEVATION, WIDTH), CENTERLINE OF LANES (TRANSITION RATE, CROSS SLOPE, ELEVATION CORRECTION, ELEVATION, WIDTH), TRANSITION RATE, CROSS SLOPE, ELEVATION CORRECTION, ELEVATION, REMARKS.

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SUPERELEVATION TABLE - I.R. 70

BEL - 70-7.61

I.R. 70 CURVE 2 SUPERELEVATION TABLE

P.I. STA. 566+52.17

Dc = 1° 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

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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 | | | | |

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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 | | -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 | ELEVATION CORRECTION | CROSS SLOPE | WIDTH | PROFILE GRADE | STATION | | | | |
|---------|----------------|-----------------|----------------------|-------------|-------|---------------|---------|--|--|--|--|
| | | | | | | | | | | | |
| T.S. | 1201.52 | | 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 | | | | |

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 375' | 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

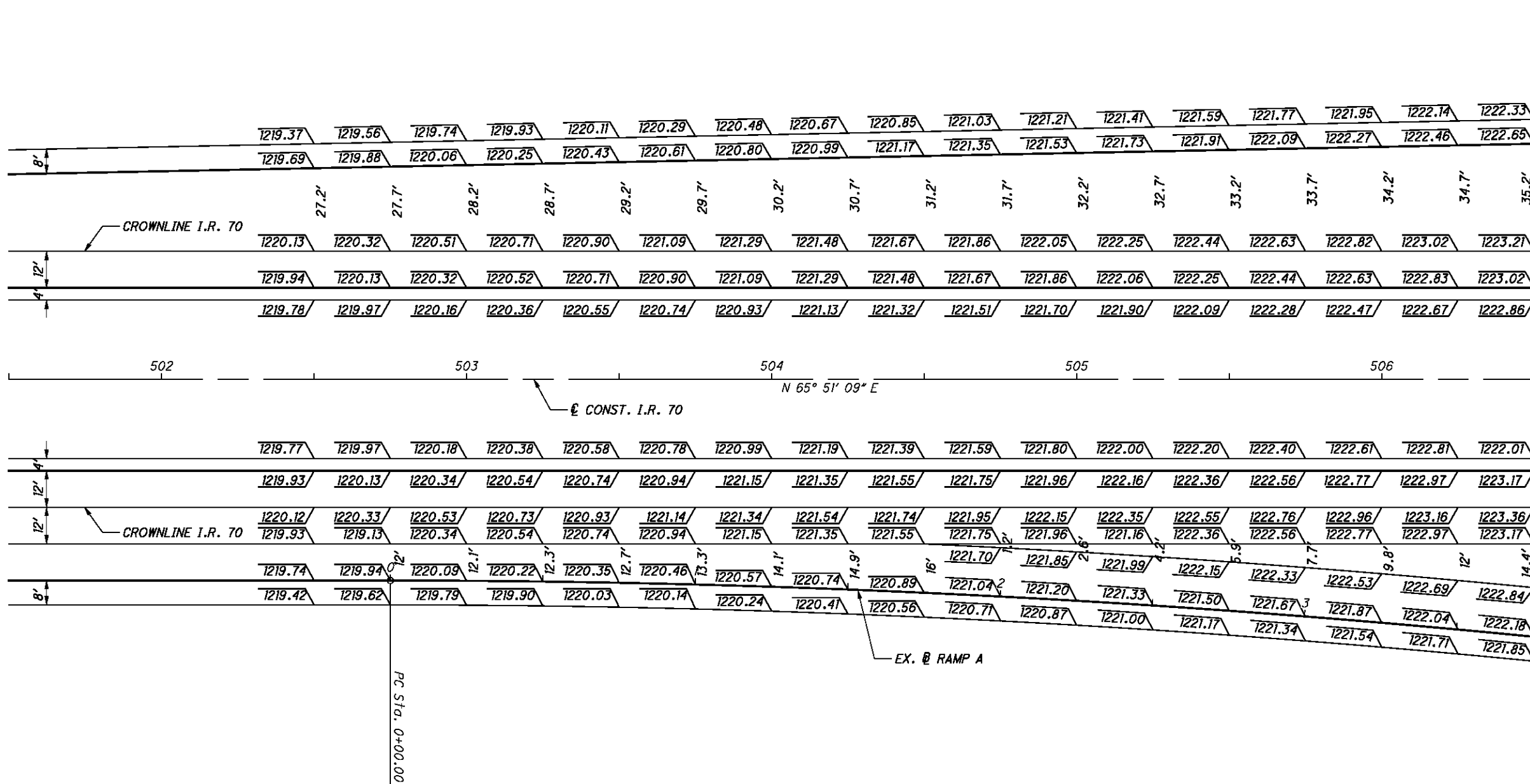
P.I. STA. 6+22.28 RAMP D

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

| | | | | | 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
 426'

CALCULATED MJC CHECKED BBD
 SUPERELEVATION TABLE - RAMPS C & D



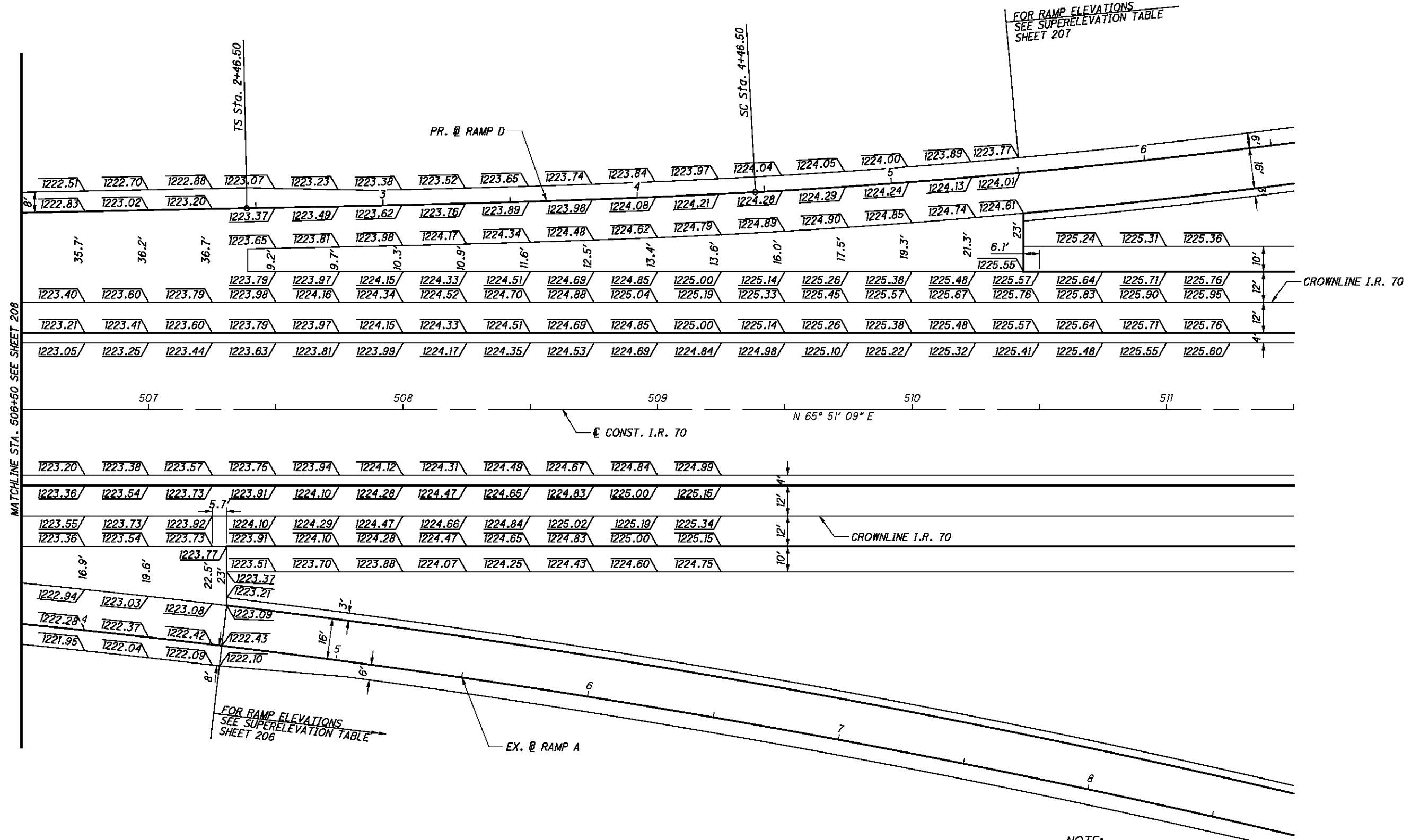
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
 STA. 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.

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 30 40
 HORIZONTAL
 SCALE IN FEET

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

BEL-70-7.61



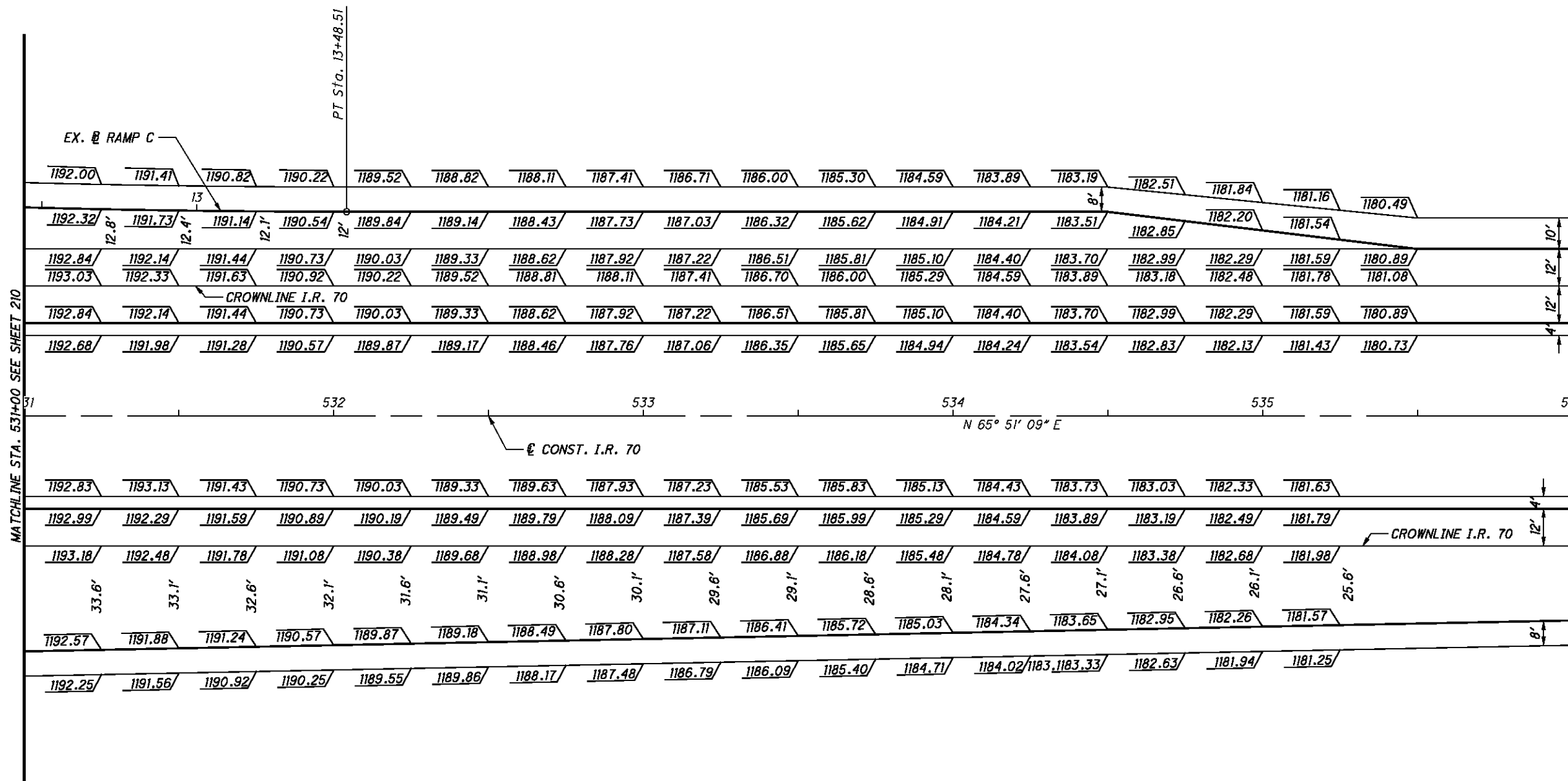
NOTE:
FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
MJC
CHECKED
BBD

0 10 20 40
HORIZONTAL
SCALE IN FEET

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

BEL-70-7.61



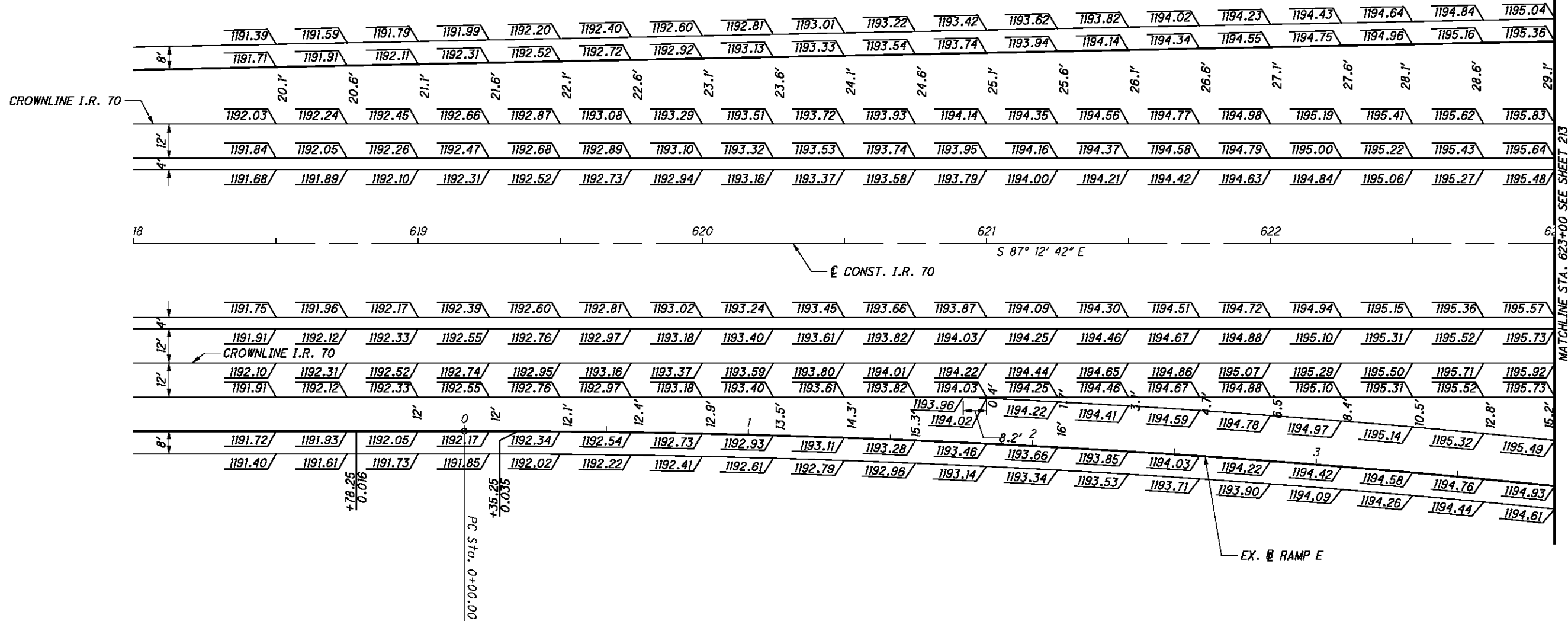
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

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:

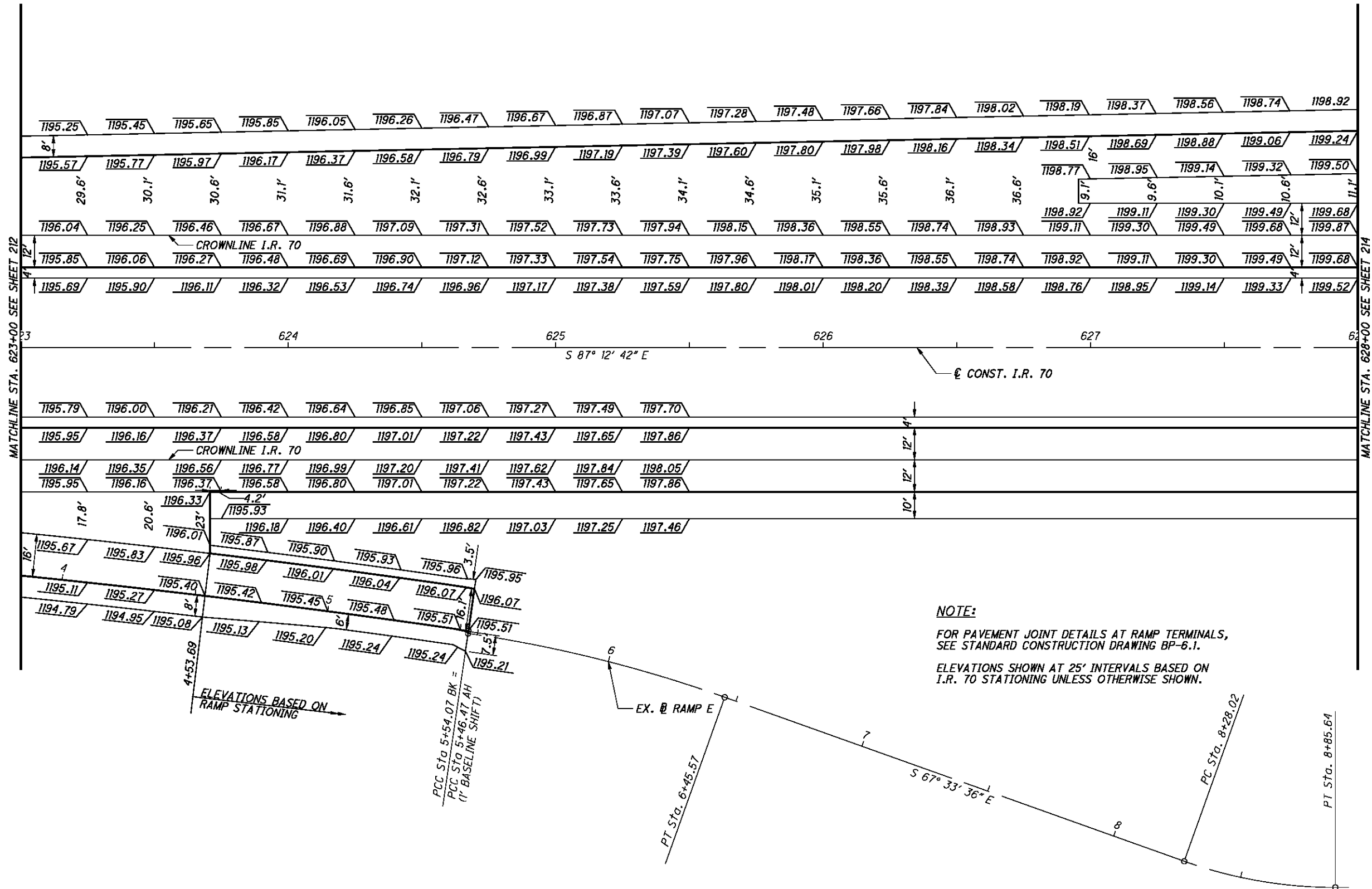
FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS, SEE STANDARD CONSTRUCTION DRAWING BP-6.1.

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

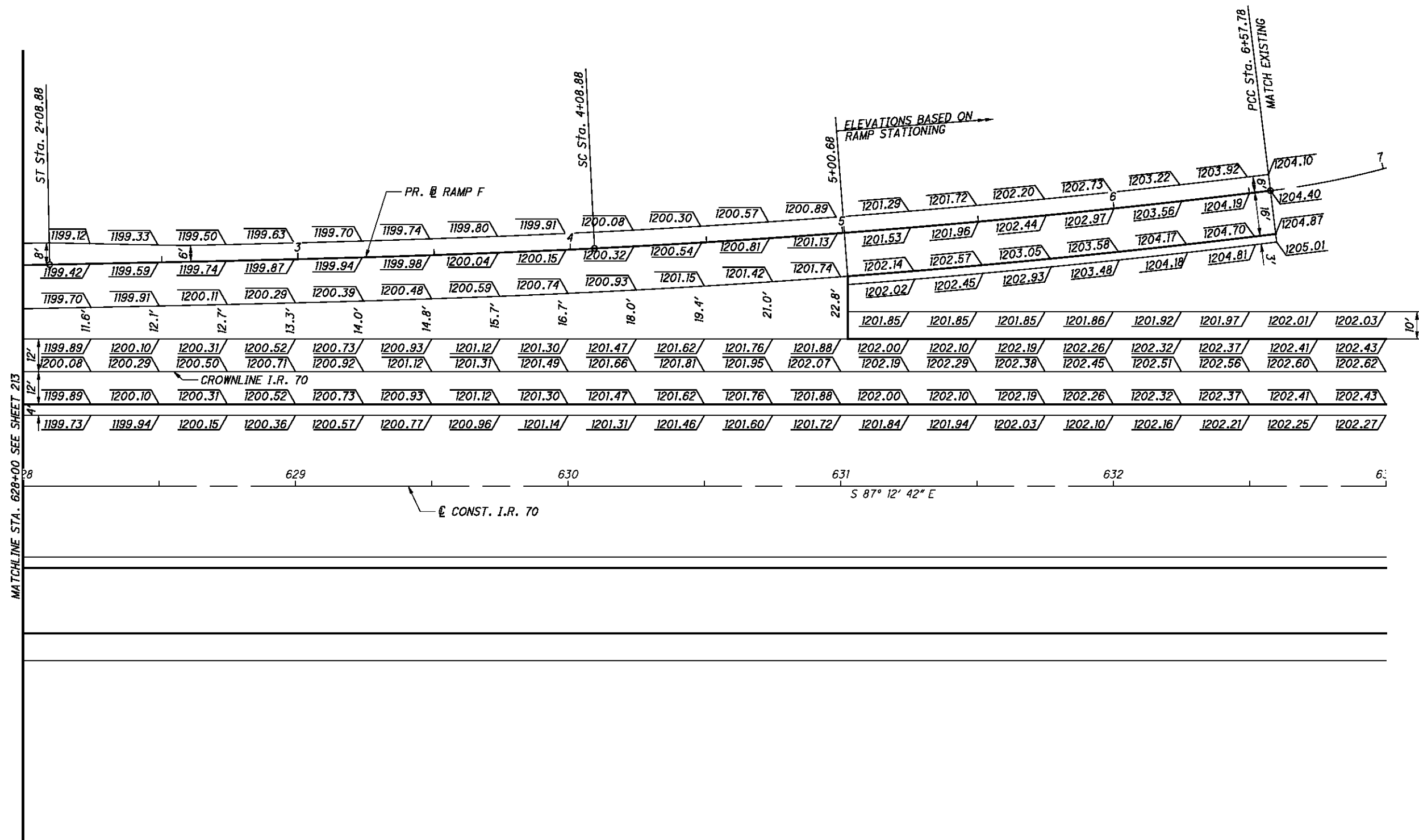


CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

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

BEL-70-7.61



CALCULATED
MJC
CHECKED
BBD

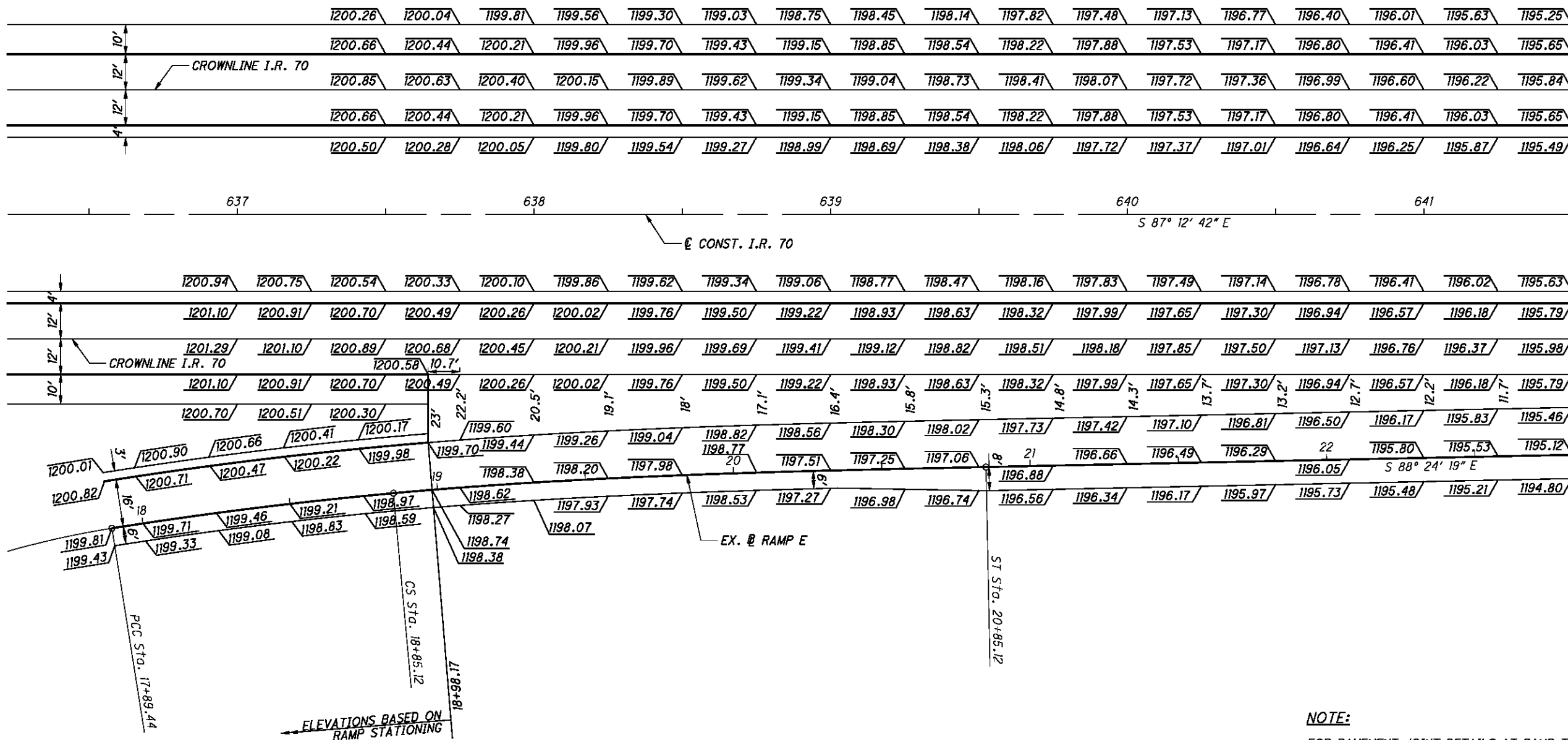
0 10 20 40
HORIZONTAL SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
STA. 628+00 TO STA. 633+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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MATCHLINE STA. 641+50 SEE SHEET 216

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.

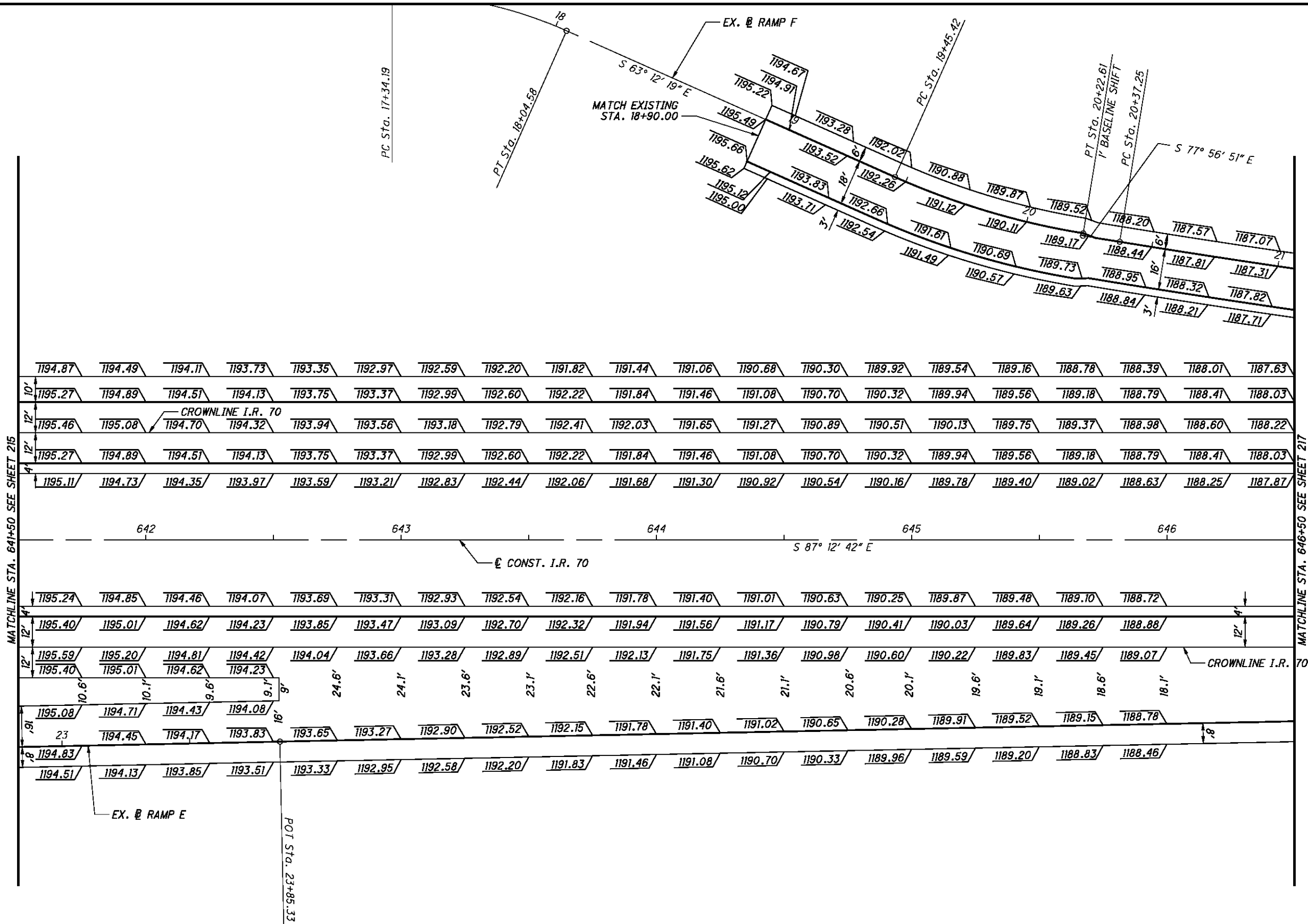
CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL SCALE IN FEET

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

BEL-70-7.61

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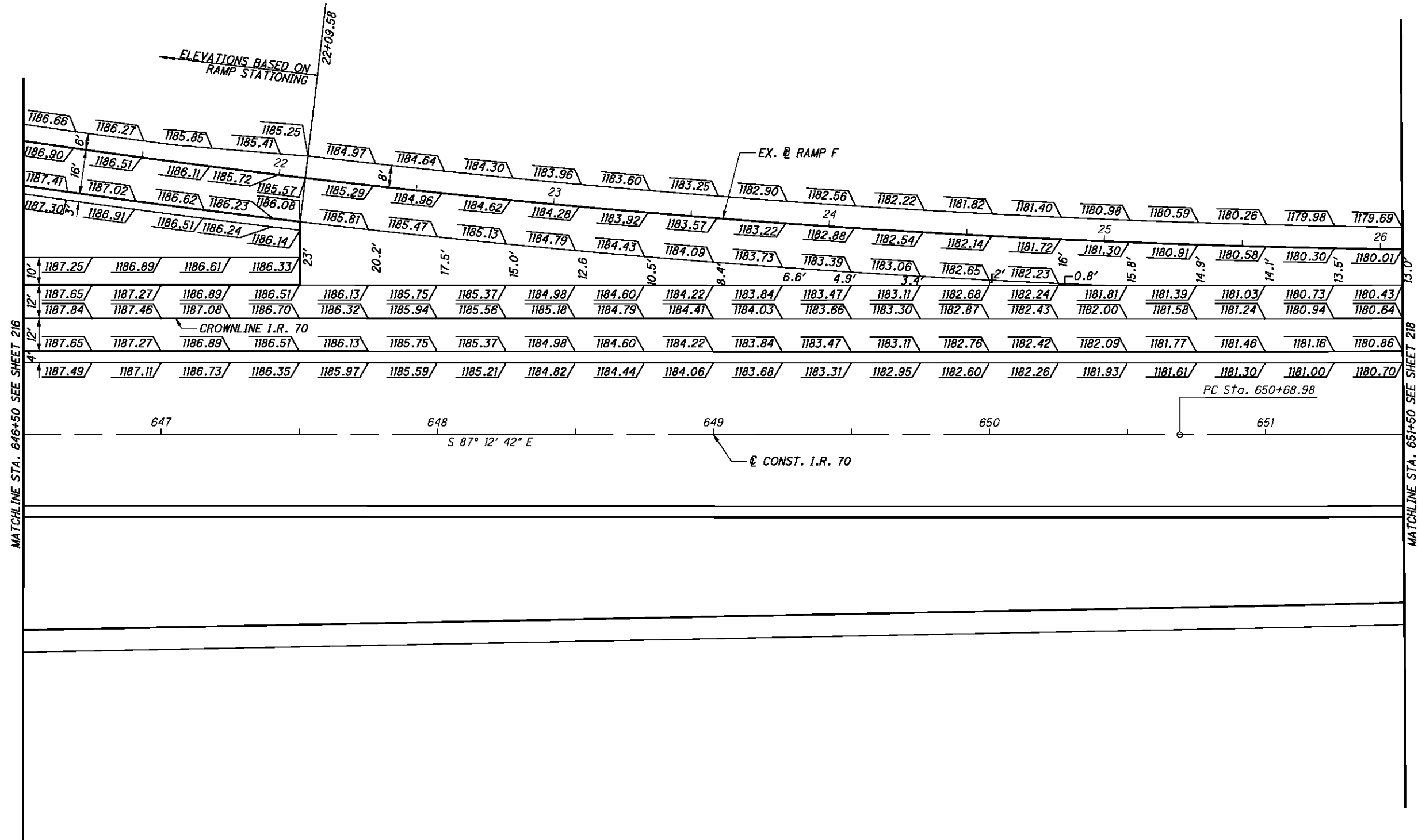
CALCULATED
MJC
CHECKED
BBD

0 10 20 40
HORIZONTAL
SCALE IN FEET

**I.R. 70 PAVEMENT DETAILS
STA. 641+50 TO STA. 646+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.



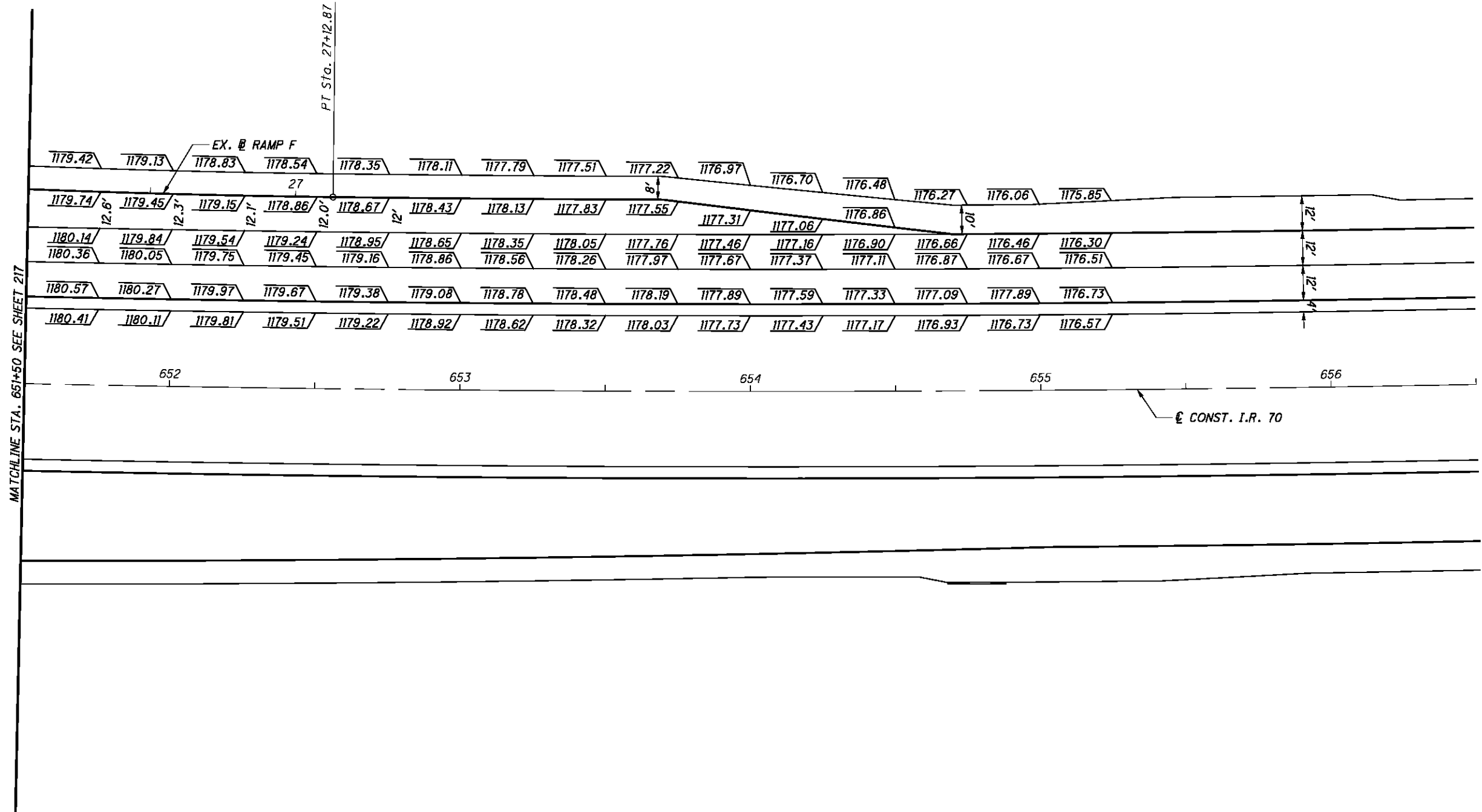
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

CALCULATED
 MJC
 CHECKED
 BBD

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

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

BEL-70-7.61



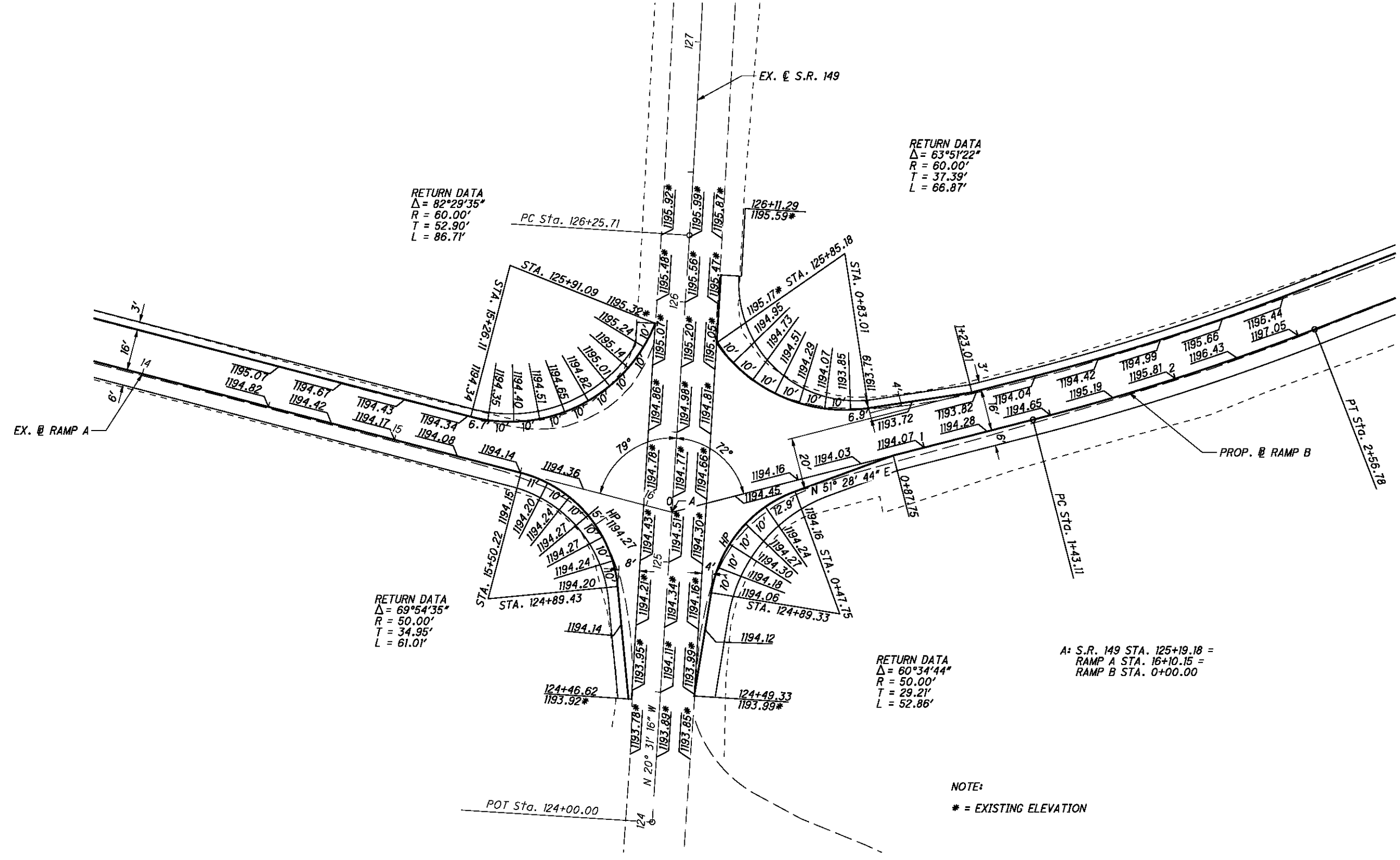
NOTE:
 FOR PAVEMENT JOINT DETAILS AT RAMP TERMINALS,
 SEE STANDARD CONSTRUCTION DRAWING BP-6.1.
 ELEVATIONS SHOWN AT 25' INTERVALS BASED ON
 I.R. 70 STATIONING UNLESS OTHERWISE SHOWN.

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



RETURN DATA
 $\Delta = 82^{\circ}29'35''$
 $R = 60.00'$
 $T = 52.90'$
 $L = 86.71'$

RETURN DATA
 $\Delta = 63^{\circ}51'22''$
 $R = 60.00'$
 $T = 37.39'$
 $L = 66.87'$

RETURN DATA
 $\Delta = 69^{\circ}54'35''$
 $R = 50.00'$
 $T = 34.95'$
 $L = 61.01'$

RETURN DATA
 $\Delta = 60^{\circ}34'44''$
 $R = 50.00'$
 $T = 29.21'$
 $L = 52.86'$

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

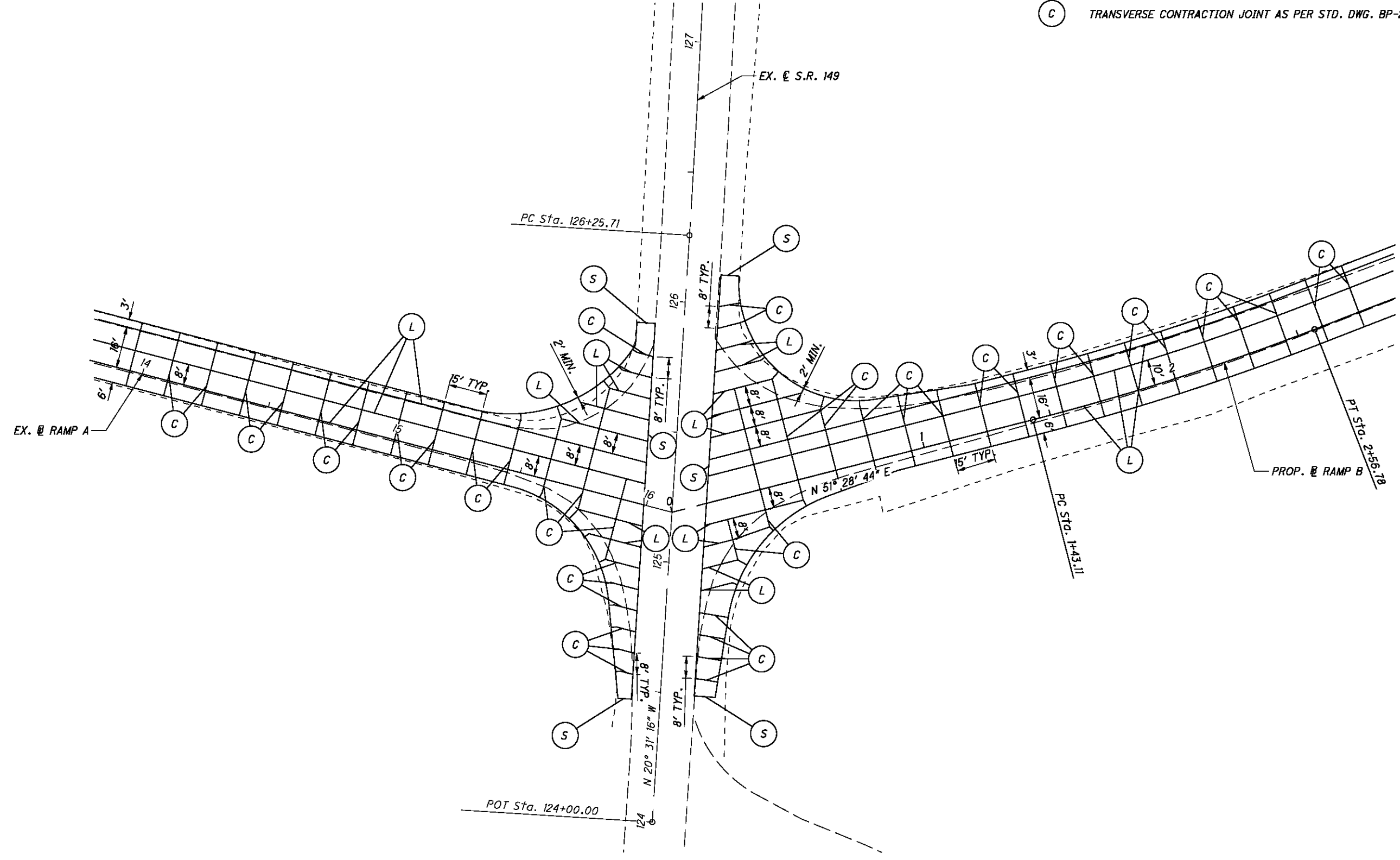
NOTE:
 * = EXISTING ELEVATION

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

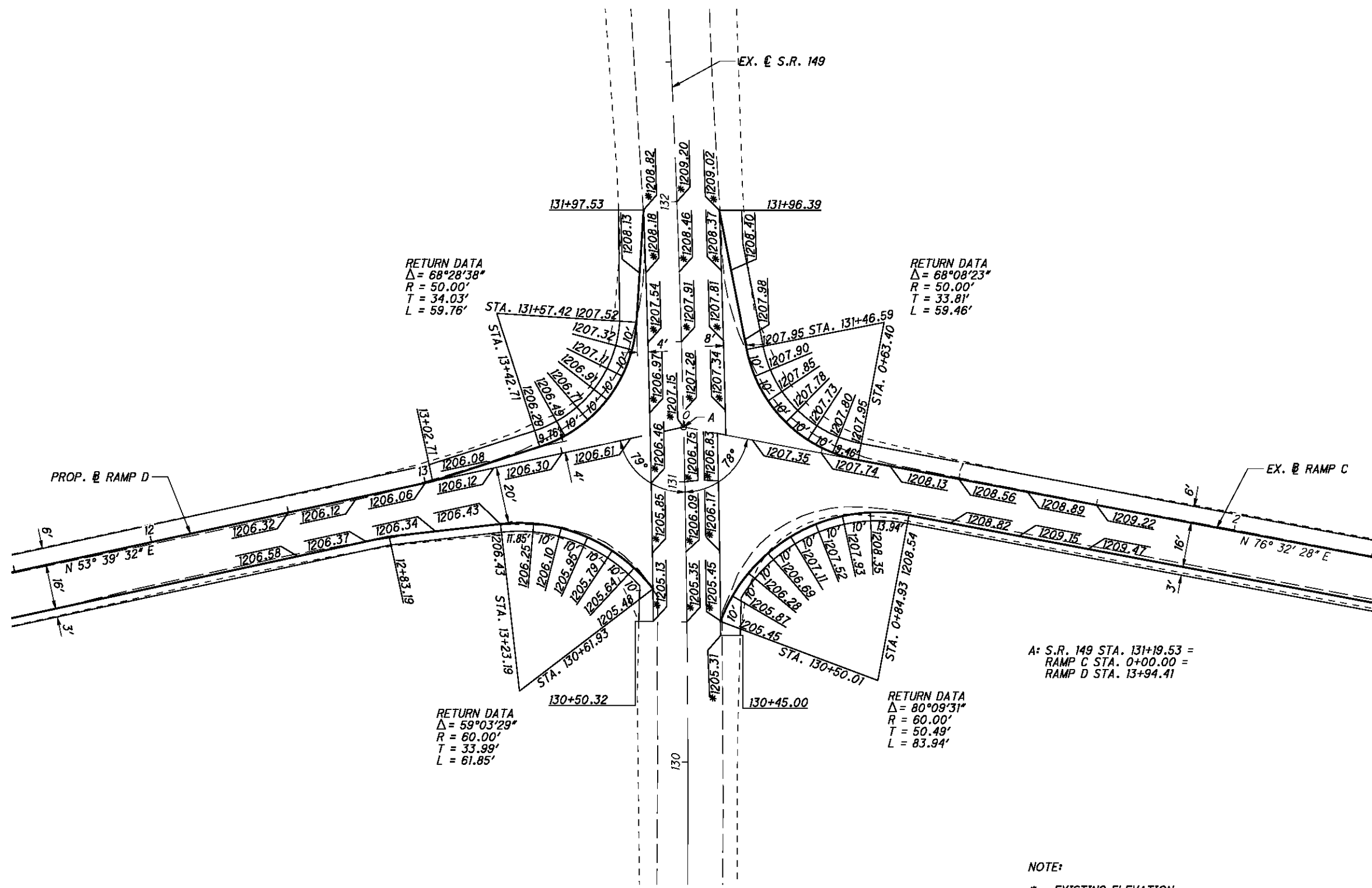
- (L) STANDARD LONGITUDINAL JOINT AS PER STD. DWG. BP-2.1
- (S) LONGITUDINAL JOINT WITHOUT TIE BARS AS PER STD. DWG. BP-2.1
- (C) TRANSVERSE CONTRACTION JOINT AS PER STD. DWG. BP-2.2

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



RETURN DATA
 $\Delta = 68^\circ 28' 38''$
 $R = 50.00'$
 $T = 34.03'$
 $L = 59.76'$

RETURN DATA
 $\Delta = 68^\circ 08' 23''$
 $R = 50.00'$
 $T = 33.81'$
 $L = 59.46'$

RETURN DATA
 $\Delta = 59^\circ 03' 29''$
 $R = 60.00'$
 $T = 33.99'$
 $L = 61.85'$

RETURN DATA
 $\Delta = 80^\circ 09' 31''$
 $R = 60.00'$
 $T = 50.49'$
 $L = 83.94'$

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

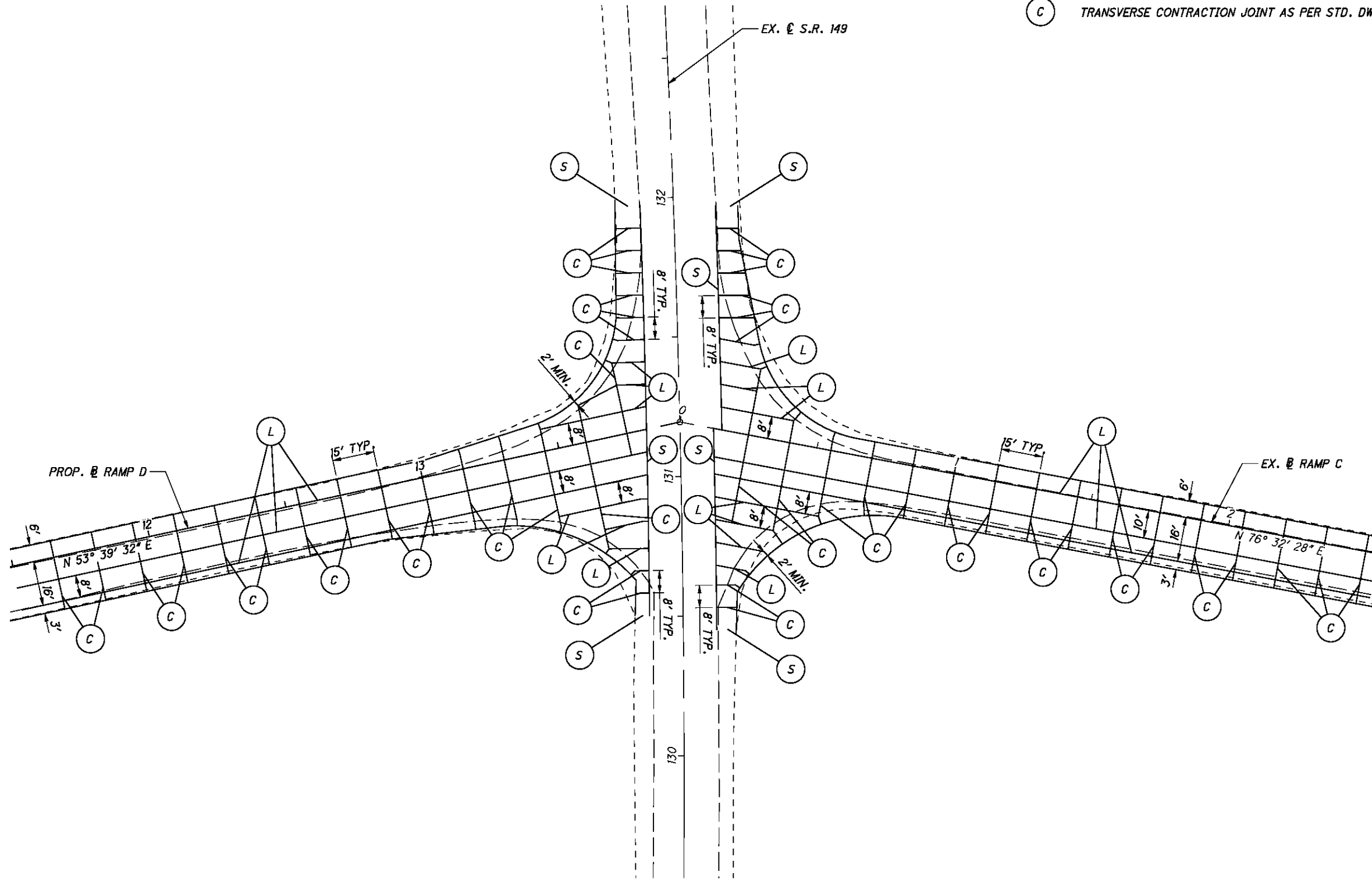
NOTE:
 * = EXISTING ELEVATION

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

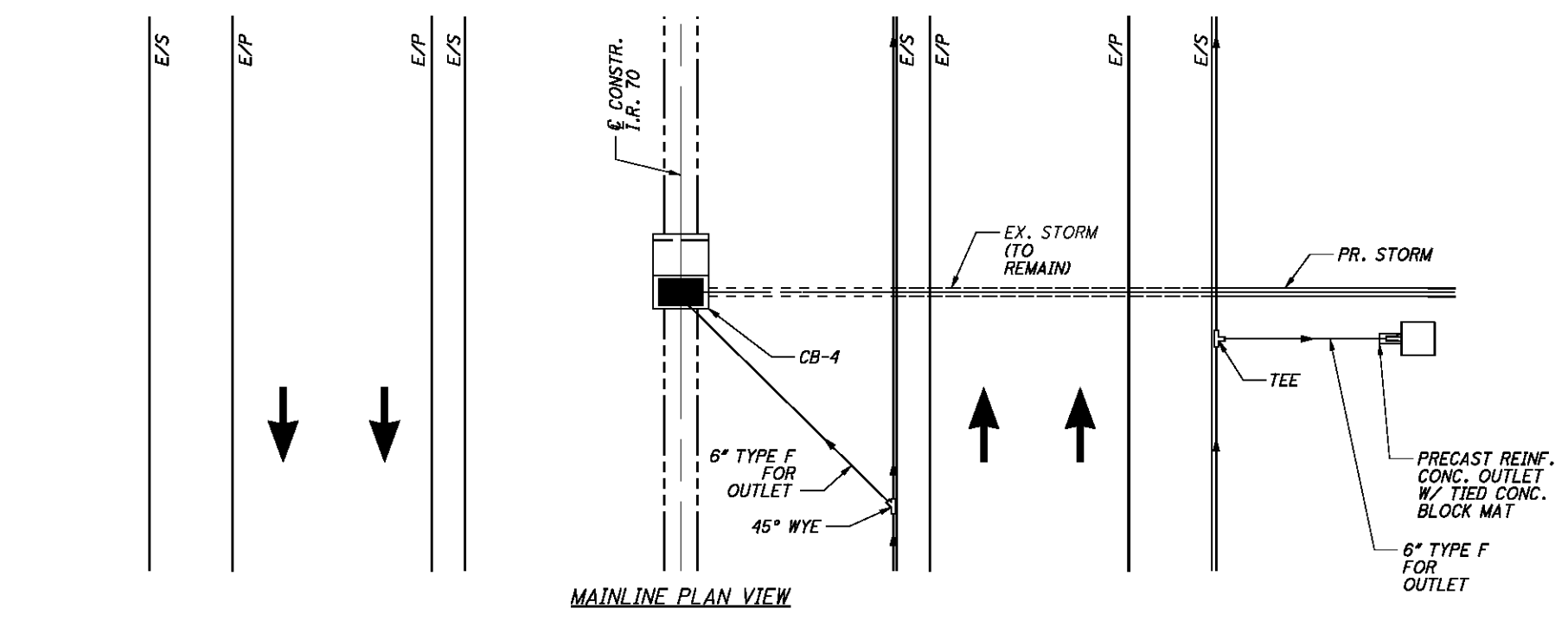
- (L) STANDARD LONGITUDINAL JOINT AS PER STD. DWG. BP-2.1
- (S) LONGITUDINAL JOINT WITHOUT TIE BARS AS PER STD. DWG. BP-2.1
- (C) TRANSVERSE CONTRACTION JOINT AS PER STD. DWG. BP-2.2

CALCULATED
MJC
CHECKED
BBD

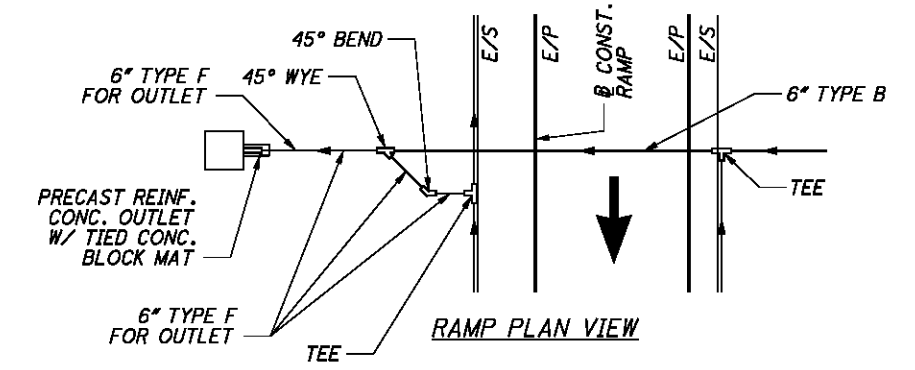
0 20 40
HORIZONTAL
SCALE IN FEET

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

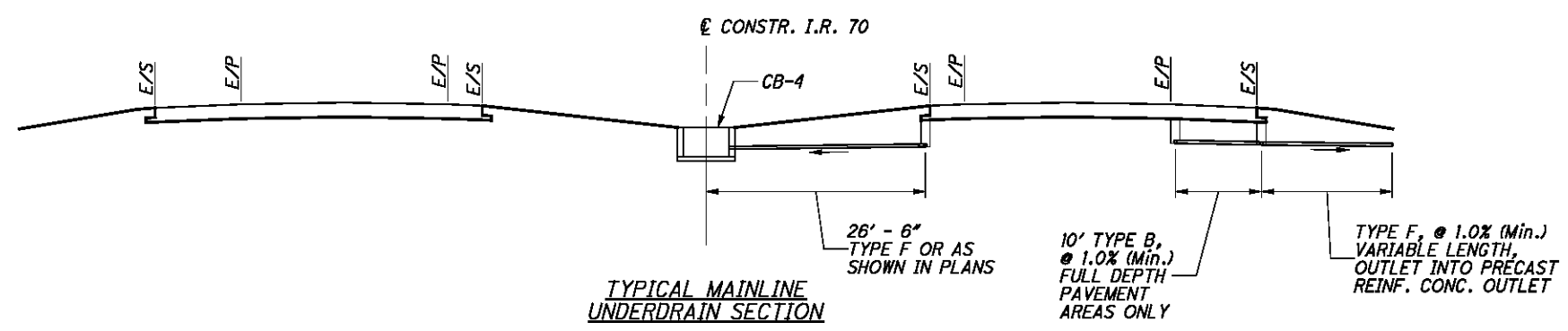
BEL-70-7.61



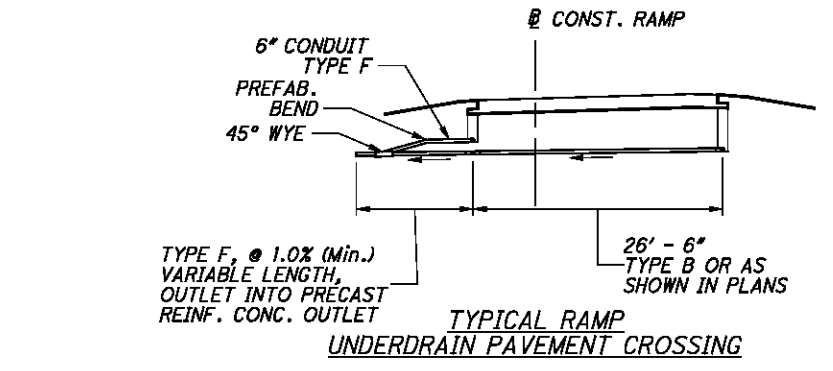
MAINLINE PLAN VIEW



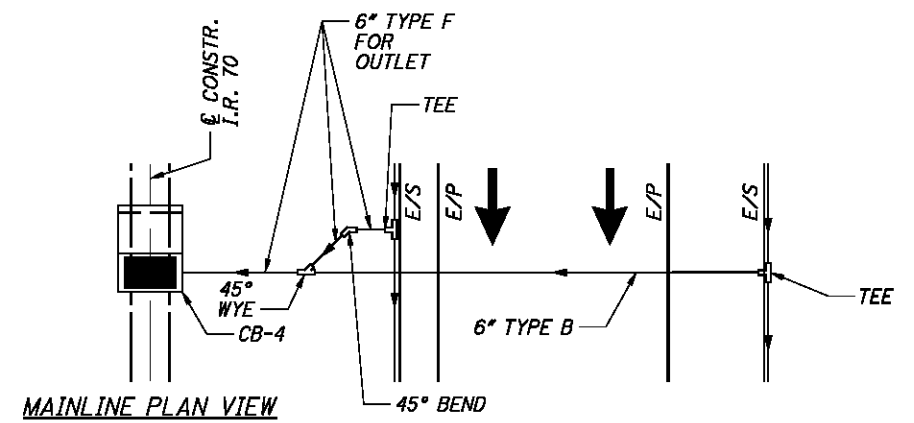
RAMP PLAN VIEW



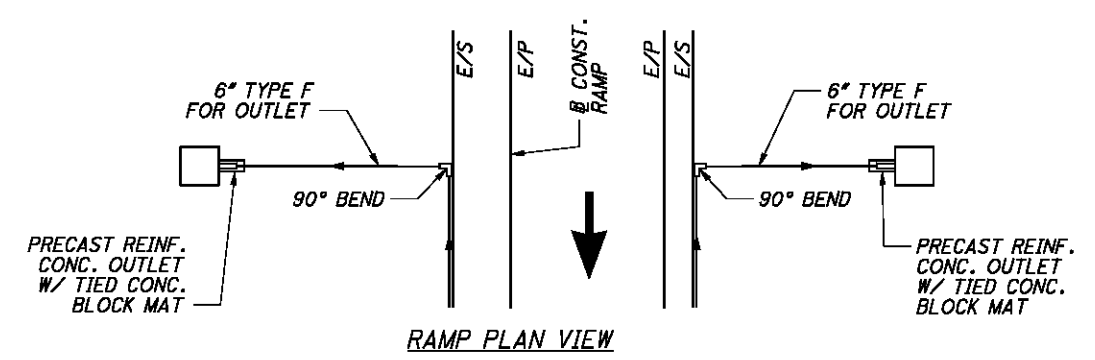
TYPICAL MAINLINE UNDERDRAIN SECTION



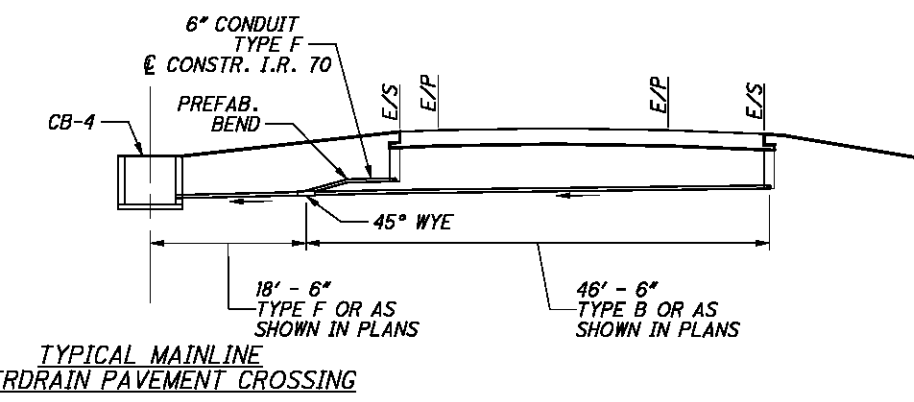
TYPICAL RAMP UNDERDRAIN PAVEMENT CROSSING



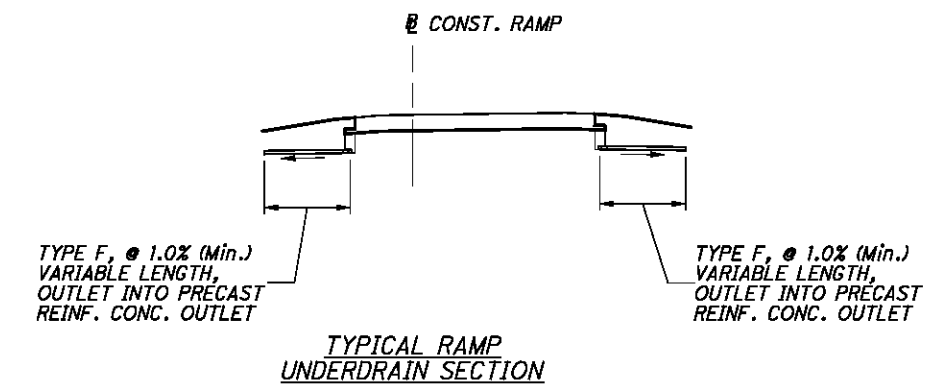
MAINLINE PLAN VIEW



RAMP PLAN VIEW



TYPICAL MAINLINE UNDERDRAIN PAVEMENT CROSSING



TYPICAL RAMP UNDERDRAIN SECTION

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

P:\76825\drainage\sheets\76825DS002.dgn 9/21/2012 7:50:21 AM mcornett

Main table with columns: BUILDABLE UNIT NO., SHEET NO., REFERENCE NO., ROADWAY, STATION, OFFSET, SIDE, INVERT, OUTLET TYPE, and various pipe types (601-605). Includes a 'BENDS AND BRANCHES' section with columns for PLUG, TEE, 45° WYE, CROSS, 90° BEND, and 45° BEND.

TOTALS THIS SHEET
SUBTOTALS CARRIED TO SHEET 227

24.92 1160 66 14 33135 239
25 1160 66 14 33135 239

CALCULATED
CDS
CHECKED
BBD

P:\76825\drainage\sheets\76825DS003.dgn 9/21/2012 7:50:21 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 I | 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 | EACH | | | | | | | | | | | | | | | | | |
| | | | | SY | FT | FT | EACH | FT | FT | EACH | EACH | | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD50 | I.R. 70 | 499+25.00 | 87.00 | LT | 1212.25 | 505+03.00 | 82.54 | LT | 1217.75 | OUTLET | 1.78 | 16 | | 1 | 578 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD51 | I.R. 70 | 498+00.59 | | C/L | 1211.91 | 505+25.00 | 25.75 | LT | 1218.43 | PR CB | | 36 | | | 700 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 232 | UD52 | I.R. 70 | 498+00.59 | | C/L | 1213.17 | 505+25.00 | 25.75 | RT | 1218.52 | PR CB | | 35 | | | 700 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 232 | UD53 | I.R. 70 | 498+04.00 | 64.25 | RT | 1209.35 | 504+00.00 | 76.30 | RT | 1216.90 | OUTLET | 1.78 | 39 | | 1 | 596 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD54 | I.R. 70 | 505+03.00 | 103.00 | LT | 1216.73 | 509+06.28 | 89.98 | LT | 1219.81 | OUTLET | 1.78 | 21 | | 1 | 404 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 232 | UD55 | I.R. 70 | 505+00.59 | | C/L | 1218.08 | 512+22.84 | 25.75 | LT | 1222.35 | PR CB | | 36 | | | 698 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 232 | UD56 | I.R. 70 | 505+00.59 | | C/L | 1218.08 | 512+22.84 | 25.75 | RT | 1222.47 | PR CB | | 35 | | | 698 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 232 | UD57 | I.R. 70 | 504+00.00 | 76.30 | RT | 1216.05 | 507+76.28 | 105.40 | RT | 1218.91 | OUTLET | 1.78 | 20 | | 1 | 377 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD58 | RAMP D | 4+14.52 | 6.25 | LT | 1219.81 | 13+00.71 | 20.00 | LT | 1201.32 | OUTLET | 1.78 | 14 | | 1 | 887 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD59 | RAMP D | 5+50.65 | 19.25 | RT | 1220.29 | 13+00.71 | 28.00 | RT | 1205.10 | OUTLET | 1.78 | 7 | | 1 | 753 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD60 | I.R. 70 | 510+44.12 | 73.76 | LT | 1220.29 | 512+22.84 | 64.25 | LT | 1222.03 | UD59 | | | | | 179 | 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 232-233 | UD61 | RAMP A | 5+03.57 | 6.25 | RT | 1218.91 | 14+95.00 | 16.50 | RT | 1190.38 | OUTLET | 1.78 | 11 | | 1 | 992 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 232-233 | UD62 | RAMP A | 510+00.00 | 64.25 | RT | 1219.63 | 14+95.00 | 31.50 | RT | 1190.84 | OUTLET | 1.78 | 13 | | 1 | 1320 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 232 | UD63 | I.R. 70 | 510+00.00 | 88.25 | RT | 1221.37 | 512+22.84 | 64.25 | RT | 1222.14 | OUTLET | 1.78 | 24 | | 1 | 223 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 232 | UD64 | I.R. 70 | 512+22.84 | 64.25 | LT | 1222.03 | 517+36.00 | 79.00 | LT | 1217.89 | OUTLET | 1.78 | 15 | | 1 | 514 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 232 | UD65 | I.R. 70 | 512+22.84 | 25.75 | LT | 1222.35 | 517+60.59 | | C/L | 1218.47 | PR CB | | 36 | | | 513 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 232 | UD66 | I.R. 70 | 512+22.84 | 25.75 | RT | 1222.47 | 517+60.59 | | C/L | 1218.47 | PR CB | | 37 | | | 513 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 232 | UD67 | I.R. 70 | 512+22.84 | 64.25 | RT | 1222.14 | 517+52.00 | 78.00 | RT | 1217.85 | OUTLET | 1.78 | 14 | | 1 | 530 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD68 | I.R. 70 | 519+63.71 | 86.00 | LT | 1217.16 | 525+22.00 | 81.00 | LT | 1205.54 | OUTLET | 1.78 | 17 | | 1 | 559 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 233 | UD69 | I.R. 70 | 519+63.71 | 23.00 | LT | 1216.21 | 525+25.59 | | C/L | 1205.27 | PR CB | | 37 | | | 537 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 233 | UD70 | I.R. 70 | 519+63.71 | 25.75 | RT | 1216.88 | 525+25.59 | | C/L | 1205.27 | PR CB | | 37 | | | 537 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 233 | UD71 | I.R. 70 | 519+63.71 | 64.25 | RT | 1216.86 | 525+22.00 | 84.00 | RT | 1205.42 | OUTLET | 1.78 | 20 | | 1 | 559 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD72 | RAMP C | 0+63.40 | 25.00 | LT | 1203.79 | 3+61.97 | 6.25 | LT | 1206.96 | OUTLET | 1.78 | 19 | | 1 | 299 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD73 | RAMP C | 0+84.93 | 32.00 | RT | 1204.88 | 3+61.97 | 19.25 | RT | 1207.63 | OUTLET | 1.78 | 13 | | 1 | 277 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD74 | RAMP C | 3+61.97 | 6.25 | LT | 1206.96 | 6+50.00 | 19.25 | RT | 1204.63 | UD75 | | | 26 | | 289 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD75 | RAMP C | 3+61.97 | 19.25 | RT | 1207.63 | 6+50.00 | 38.00 | RT | 1204.57 | OUTLET | 1.78 | 19 | | 1 | 289 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 233 | UD76 | RAMP B | 0+70.00 | 60.00 | LT | 1189.75 | 525+22.00 | 64.25 | RT | 1205.82 | OUTLET | 1.78 | 33 | | 1 | 621 | 391 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 233 | UD77 | RAMP B | 0+70.00 | 27.62 | LT | 1190.42 | 8+00.00 | 6.25 | RT | 1199.61 | UD76 | | | 36 | | 300 | 430 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 233 | UD78 | I.R. 70 | 525+00.00 | 25.75 | LT | 1206.59 | 534+00.70 | | C/L | 1180.74 | PR CB | | 37 | | | 875 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 233 | UD79 | I.R. 70 | 525+00.00 | 25.75 | RT | 1206.80 | 534+00.70 | | C/L | 1180.74 | PR CB | | 37 | | | 875 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 233 | UD80 | RAMP B | 8+00.00 | 6.25 | RT | 1199.61 | 536+11.38 | 96.02 | RT | 1175.20 | OUTLET | 1.78 | 22 | | 1 | 997 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD81 | I.R. 70 | 533+97.00 | 74.25 | LT | 1181.30 | 541+98.00 | 78.00 | LT | 1159.35 | OUTLET | 1.78 | 14 | | 1 | 801 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD82 | I.R. 70 | 533+75.00 | 25.75 | LT | 1182.19 | 542+00.59 | | C/L | 1159.80 | PR CB | | 37 | | | 800 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 233 | UD83 | I.R. 70 | 533+75.00 | 25.75 | RT | 1182.37 | 542+00.59 | | C/L | 1159.80 | PR CB | | 36 | | | 800 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 233 | UD84 | I.R. 70 | 536+11.38 | 74.09 | RT | 1175.42 | 542+00.00 | 79.00 | RT | 1159.34 | OUTLET | 1.78 | 15 | | 1 | 589 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233-234 | UD85 | I.R. 70 | 541+98.00 | 64.25 | LT | 1160.12 | 545+03.00 | 75.00 | LT | 1157.39 | OUTLET | 1.78 | 11 | | 1 | 305 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233-234 | UD86 | I.R. 70 | 541+75.00 | 25.75 | LT | 1160.58 | 545+00.59 | | C/L | 1157.03 | PR CB | | 37 | | | 300 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 233-234 | UD87 | I.R. 70 | 541+75.00 | 25.75 | RT | 1160.67 | 545+00.59 | | C/L | 1157.03 | PR CB | | 36 | | | 300 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 233-234 | UD88 | I.R. 70 | 542+00.00 | 64.25 | RT | 1160.22 | 545+00.00 | 76.00 | RT | 1157.00 | OUTLET | 1.78 | 12 | | 1 | 300 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 234 | UD89 | I.R. 70 | 545+03.00 | 64.25 | LT | 1157.58 | 553+00.00 | 64.25 | LT | 1173.72 | UD85 | | | | | 797 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 234 | UD90 | I.R. 70 | 545+00.59 | | C/L | 1157.03 | 553+25.00 | 25.75 | LT | 1173.60 | PR CB | | 36 | | | 800 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 234 | UD91 | I.R. 70 | 545+00.59 | | C/L | 1157.03 | 553+25.00 | 25.75 | RT | 1174.08 | PR CB | | 35 | | | 800 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 234 | UD92 | I.R. 70 | 545+00.00 | 64.25 | RT | 1157.55 | 553+05.00 | 64.25 | RT | 1172.40 | UD88 | | | | | 805 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 234 | UD93 | I.R. 70 | 553+00.00 | 75.00 | LT | 1173.58 | 557+86.86 | 64.25 | LT | 1187.29 | OUTLET | 1.78 | 11 | | 1 | 493 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 234 | UD94 | I.R. 70 | 553+00.60 | | C/L | 1172.75 | 562+25.00 | 25.75 | LT | 1198.82 | PR CB | | 36 | | | 904 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 234 | UD95 | I.R. 70 | 553+00.60 | | C/L | 1172.75 | 562+25.00 | 25.75 | RT | 1199.02 | PR CB | | 37 | | | 896 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 234 | UD96 | I.R. 70 | 553+05.00 | 84.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| BUILDABLE UNIT NO. | SHEET NO. | REFERENCE NO. | ROADWAY | STATION | | | | STATION | | | | OUTLET TYPE | BENDS AND BRANCHES (FOR INFORMATION ONLY) | | | | | | | | | | | | | | |
|--------------------------------|-----------|---------------|---------|-----------|-------|--------|---------|-------------|--------|------|---------|-------------|---|-------|------|------|-------|---------|-------|----------|----------|----|---|---|----|--|--|
| | | | | OFFSET | SIDE | INVERT | FROM | | | TO | | | | | | | | | | | | | | | | | |
| | | | | | | | FROM | FT | LT/RT | FT | TO | | FT | LT/RT | FT | PLUG | TEE | 45° WYE | CROSS | 90° BEND | 45° BEND | | | | | | |
| | | | | | | | SY | FT | FT | EACH | FT | | FT | EACH | EACH | EACH | EACH | EACH | EACH | | | | | | | | |
| 3 | 235 | UD101 | I.R. 70 | 569+00.00 | 75.00 | LT | 1216.44 | 573+70.00 | 64.25 | LT | 1223.90 | OUTLET | 1.78 | 11 | | 1 | 475 | | | | | | | | | | |
| 3 | 235 | UD102 | I.R. 70 | 569+00.75 | | C/L | 1215.87 | 577+20.87 | 25.75 | LT | 1225.05 | PR CB | | | | | 800 | | | | | | | | | | |
| 2 | 235 | UD103 | I.R. 70 | 569+00.75 | | C/L | 1215.87 | 577+20.87 | 25.75 | RT | 1225.11 | PR CB | | | | | 793 | | | | | | | | | | |
| 4 | 235 | UD104 | I.R. 70 | 569+05.00 | 75.00 | RT | 1215.24 | 577+20.87 | 64.25 | RT | 1225.97 | OUTLET | 1.78 | 11 | | | 816 | | | | | | | | | | |
| 3 | 235 | UD105 | I.R. 70 | 573+70.00 | 77.00 | LT | 1223.11 | 577+20.87 | 64.25 | LT | 1225.67 | OUTLET | 1.78 | 13 | | | 345 | 10 | | | | | | | | | |
| 3 | 235 | UD106 | I.R. 70 | 573+80.00 | 64.25 | LT | 1226.07 | 577+20.87 | 54.25 | LT | 1226.07 | UD105 | | | | | 344 | | | | | | | | | | |
| 3 | 235 | UD107 | I.R. 70 | 577+20.87 | 64.25 | LT | 1225.67 | 586+70.00 | 75.00 | LT | 1215.19 | OUTLET | 1.78 | 11 | | | 952 | | | | | | | | | | |
| 3 | 235 | UD108 | I.R. 70 | 577+20.87 | 54.25 | LT | 1226.07 | 586+70.00 | 64.25 | LT | 1215.42 | UD107 | | | | | 952 | | | | | | | | | | |
| 3 | 235 | UD109 | I.R. 70 | 577+20.87 | 25.75 | LT | 1225.05 | 586+74.69 | | C/L | 1214.81 | PR CB | | | | | 930 | | | | | | | | | | |
| 2 | 235 | UD110 | I.R. 70 | 577+20.87 | 25.75 | RT | 1225.11 | 586+74.69 | | C/L | 1214.81 | PR CB | | | | | 930 | | | | | | | | | | |
| 4 | 235 | UD111 | I.R. 70 | 577+20.87 | 64.25 | RT | 1225.97 | 586+71.23 | 86.01 | RT | 1214.79 | EX CB | | | | | 951 | | | | | | | | | | |
| 3 | 235-236 | UD112 | I.R. 70 | 586+70.00 | 64.25 | LT | 1215.42 | 595+72.00 | 79.00 | LT | 1190.15 | OUTLET | 1.78 | 15 | | | 892 | 10 | | | | | | | | | |
| 3 | 235-236 | UD113 | I.R. 70 | 586+50.00 | 25.75 | LT | 1216.05 | 595+74.58 | | C/L | 1190.77 | PR CB | | | | | 900 | | | | | | | | | | |
| 2 | 235-236 | UD114 | I.R. 70 | 586+50.00 | 25.75 | RT | 1215.85 | 595+74.58 | | C/L | 1190.77 | PR CB | | | | | 900 | | | | | | | | | | |
| 4 | 235-236 | UD115 | I.R. 70 | 586+71.23 | 64.25 | RT | 1215.01 | 595+75.00 | 75.00 | RT | 1190.54 | OUTLET | 1.78 | 11 | | | 904 | | | | | | | | | | |
| 3 | 236 | UD116 | I.R. 70 | 595+72.00 | 64.25 | LT | 1191.28 | 601+40.00 | 83.00 | LT | 1178.55 | OUTLET | 1.78 | 19 | | | 568 | | | | | | | | | | |
| 3 | 236 | UD117 | I.R. 70 | 595+50.00 | 25.75 | LT | 1192.04 | 604+48.72 | 20.77 | LT | 1176.59 | UD120 | | | | | 894 | | | | | | | | | | |
| 2 | 236 | UD118 | I.R. 70 | 595+50.00 | 25.75 | RT | 1191.99 | 604+48.72 | 20.77 | RT | 1177.09 | PR CB | | | | | 874 | | | | | | | | | | |
| 4 | 236 | UD119 | I.R. 70 | 595+75.00 | 64.25 | RT | 1191.04 | 604+66.92 | 95.00 | RT | 1176.23 | OUTLET | 1.78 | 31 | | | 892 | | | | | | | | | | |
| 3 | 236 | UD120 | I.R. 70 | 601+40.00 | 64.25 | LT | 1178.83 | 604+48.72 | | C/L | 1176.56 | PR CB | | | | | 309 | | | | | | | | | | |
| 3 | 236 | UD121 | I.R. 70 | 604+48.72 | 64.25 | LT | 1177.03 | 612+00.00 | 64.25 | LT | 1182.74 | UD120 | | | | | 752 | | | | | | | | | | |
| 3 | 236 | UD122 | I.R. 70 | 604+48.72 | 20.77 | LT | 1176.59 | 610+25.00 | 25.75 | LT | 1180.91 | UD120 | | | | | 572 | | | | | | | | | | |
| 2 | 236 | UD123 | I.R. 70 | 604+48.72 | | C/L | 1177.09 | 610+25.00 | 25.75 | RT | 1181.24 | PR CB | | | | | 551 | | | | | | | | | | |
| 4 | 236 | UD124 | I.R. 70 | 604+66.92 | 95.00 | RT | 1176.23 | 610+05.00 | 64.25 | RT | 1180.71 | UD119 | | | | | 539 | | | | | | | | | | |
| 3 | 236 | UD125 | I.R. 70 | 609+99.49 | | C/L | 1180.47 | 617+25.00 | 25.75 | LT | 1186.73 | PR CB | | | | | 700 | | | | | | | | | | |
| 2 | 236 | UD126 | I.R. 70 | 609+99.49 | | C/L | 1180.47 | 617+25.00 | 25.75 | RT | 1187.09 | PR CB | | | | | 700 | | | | | | | | | | |
| 4 | 236 | UD127 | I.R. 70 | 610+05.00 | 84.00 | RT | 1179.79 | 617+00.00 | 87.30 | RT | 1186.21 | OUTLET | 1.78 | 20 | | | 695 | | | | | | | | | | |
| 3 | 236-237 | UD128 | I.R. 70 | 617+05.00 | 94.00 | LT | 1185.77 | 625+99.96 | 85.34 | LT | 1193.93 | OUTLET | 1.78 | 27 | | | 895 | | | | | | | | | | |
| 3 | 236-237 | UD129 | I.R. 70 | 617+00.27 | | C/L | 1186.30 | 626+05.00 | 25.75 | LT | 1194.45 | PR CB | | | | | 880 | | | | | | | | | | |
| 2 | 236-237 | UD130 | I.R. 70 | 617+00.27 | | C/L | 1186.30 | 626+25.00 | 25.75 | RT | 1194.75 | PR CB | | | | | 900 | | | | | | | | | | |
| 4 | 236-237 | UD131 | I.R. 70 | 617+00.00 | 87.30 | RT | 1186.21 | 623+68.00 | 101.09 | RT | 1191.03 | OUTLET | 1.78 | 15 | | | 668 | | | | | | | | | | |
| 3 | 236 | UD132 | RAMP F | 625+99.96 | | C/L | 1193.81 | 5+00.68 | 6.25 | C/L | 1197.04 | UD133 | | | | | 502 | | | | | | | | | | |
| 3 | 236 | UD133 | I.R. 70 | 625+99.96 | 18.75 | LT | 1193.93 | 633+33.63 | 25.75 | LT | 1198.60 | PR CB | | | | | 729 | | | | | | | | | | |
| 2 | 236 | UD134 | I.R. 70 | 625+99.96 | | C/L | 1194.08 | 633+33.63 | 25.75 | RT | 1198.75 | PR CB | | | | | 709 | | | | | | | | | | |
| 4 | 236 | UD135 | I.R. 70 | 626+00.01 | 82.87 | RT | 1193.99 | 633+33.63 | 64.25 | RT | 1198.29 | EX CB | | | | | 716 | | | | | | | | | | |
| 3 | 236 | UD136 | RAMP F | 5+00.68 | 6.25 | LT | 1197.04 | 6+57.78 | 6.25 | LT | 1201.14 | UD132 | | | | | 158 | | | | | | | | | | |
| 3 | 236 | UD137 | RAMP F | 5+00.68 | 6.25 | LT | 1197.04 | 6+57.78 | 19.25 | LT | 1202.05 | UD132 | | | | | 158 | | | | | | | | | | |
| 3 | 236 | UD138 | I.R. 70 | 631+02.80 | 73.76 | LT | 1198.19 | 633+33.63 | 64.25 | LT | 1198.36 | UD137 | | | | | 231 | | | | | | | | | | |
| 4 | 236 | UD139 | I.R. 70 | 623+71.00 | 64.25 | RT | 1192.66 | 626+18.43 | 64.25 | RT | 1194.25 | UD140 | | | | | 248 | | | | | | | | | | |
| 4 | 236 | UD140 | RAMP E | 4+53.80 | 19.25 | LT | 1192.44 | 5+53.07(BK) | 19.25 | LT | 1193.20 | UD141 | | | | | 100 | | | | | | | | | | |
| 4 | 236 | UD141 | RAMP E | 4+53.80 | 8.25 | RT | 1191.03 | 5+53.07(BK) | 5.25 | RT | 1192.30 | UD131 | | | | | 100 | | | | | | | | | | |
| 4 | 236 | UD142 | I.R. 70 | 633+33.63 | 64.25 | RT | 1198.29 | 635+88.42 | 81.07 | RT | 1197.54 | EX CB | | | | | 238 | | | | | | | | | | |
| 3 | 236 | UD143 | I.R. 70 | 633+33.63 | 64.25 | LT | 1198.36 | 642+20.00 | 89.00 | LT | 1190.15 | OUTLET | 1.78 | 25 | | | 887 | | | | | | | | | | |
| 3 | 236 | UD144 | I.R. 70 | 633+33.63 | 25.75 | LT | 1198.60 | 642+25.50 | | C/L | 1190.48 | PR CB | | | | | 867 | | | | | | | | | | |
| 4 | 236 | UD145 | RAMP E | 17+89.44 | 19.25 | LT | 1197.83 | 18+98.41 | 19.25 | LT | 1196.41 | UD148 | | | | | 109 | | | | | | | | | | |
| 4 | 236 | UD146 | RAMP E | 17+89.44 | 6.25 | RT | 1196.46 | 18+98.18 | 6.25 | RT | 1194.87 | UD148 | | | | | 109 | | | | | | | | | | |
| 2 | 236 | UD147 | I.R. 70 | 633+33.63 | 25.75 | RT | 1198.75 | 642+25.50 | | C/L | 1190.48 | PR CB | | | | | 867 | | | | | | | | | | |
| 4 | 236 | UD148 | RAMP E | 18+98.18 | 6.25 | RT | 1194.97 | 23+58.33 | 23.44 | RT | 1189.75 | OUTLET | 1.78 | 16 | | | 461 | | | | | | | | | | |
| TOTALS THIS SHEET | | | | | | | | | | | | | 23.14 | 903 | 211 | 13 | 30462 | 20 | | 15 | 15 | 16 | 1 | 5 | 11 | | |
| SUBTOTALS CARRIED TO SHEET 227 | | | | | | | | | | | | | 24 | 903 | 211 | 13 | 30462 | 20 | | 15 | 15 | 16 | 1 | 5 | 11 | | |

CALCULATED
CDS

CHECKED
BBD

SUBSUMMARY
BEL - 70 - 7.61

TOTALS
226

373

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| BUILDABLE UNIT NO. | SHEET NO. | REFERENCE NO. | ROADWAY | STATION | | | | STATION | | | | OUTLET TYPE | BENDS AND BRANCHES (FOR INFORMATION ONLY) | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|---------------|---------|-----------|-------|--------|---------|-----------|-------|-----|---|-------------|---|---------------------------------|--|---------------------------------------|--|------|-----|---------|-------|----------|----------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|
| | | | | OFFSET | SIDE | INVERT | FROM | | TO | | 601 TIED CONCRETE BLOCK MAT, TYPE 1 SY | | 603 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS FT | 603 6" CONDUIT, TYPE B FT | 604 PRECAST REINFORCED CONCRETE OUTLET EACH | 605 6" BASE PIPE UNDERDRAINS FT | 605 6" UNCLASSIFIED PIPE UNDERDRAINS FT | PLUG | TEE | 45° WYE | CROSS | 90° BEND | 45° BEND | | | | | | | | | | | | | | |
| | | | | | | | FROM | FT | LT/RT | FT | | | | | | | | TO | FT | LT/RT | 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 237 | UD153 | RAMP F | 18+90.00 | 6.25 | LT | 1192.24 | 22+25.05 | 8.25 | LT | 1181.61 | UD155 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 237 | UD154 | RAMP F | 18+90.00 | 21.25 | RT | 1192.65 | 22+25.05 | 8.25 | LT | 1181.61 | UD155 | | | 32 | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 237 | UD157 | I.R. 70 | 651+75.00 | 25.75 | LT | 1176.33 | 656+76.02 | | C/L | 1172.85 | PR CB | | 36 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 237 | UD158 | I.R. 70 | 651+75.00 | 25.75 | RT | 1175.78 | 656+76.02 | | C/L | 1172.85 | PR CB | | 36 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 237 | UD160 | I.R. 70 | 656+74.79 | 64.25 | LT | 1172.91 | 664+05.00 | 64.25 | LT | 1179.10 | UD156 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 237 | UD161 | I.R. 70 | 656+76.02 | | C/L | 1172.85 | 664+26.00 | 25.75 | LT | 1179.49 | PR CB | | 36 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 237 | UD162 | I.R. 70 | 656+76.02 | | C/L | 1172.85 | 664+26.00 | 25.75 | RT | 1179.86 | PR CB | | 36 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 237 | UD163 | I.R. 70 | 656+75.67 | 64.25 | RT | 1173.89 | 664+05.00 | 64.25 | RT | 1173.89 | UD159 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 237 | UD164 | I.R. 70 | 652+50.00 | 59.30 | RT | 1176.37 | 656+75.67 | 80.00 | RT | 1173.12 | UD159 | | 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 237 | UD165 | I.R. 70 | 656+75.67 | 54.25 | RT | 1174.17 | 662+50.00 | 54.25 | RT | 1178.52 | UD164 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 236 | UD166 | I.R. 70 | 635+71.60 | 64.25 | RT | 1197.78 | 637+64.04 | 73.76 | RT | 1199.37 | UD145 | | 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 238 | UD172 | I.R. 70 | 673+00.62 | | C/L | 1189.16 | 675+00.00 | 25.75 | LT | 1192.09 | PR CB | | 36 | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 238 | UD173 | I.R. 70 | 673+00.62 | | C/L | 1189.16 | 675+00.00 | 25.75 | RT | 1192.13 | PR CB | | 36 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 236 | UD175 | I.R. 70 | 652+80.00 | 66.25 | LT | 1175.60 | 656+74.79 | 64.25 | LT | 1172.91 | UD156 | | 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 236 | UD176 | I.R. 70 | 656+74.79 | 54.25 | LT | 1172.94 | 658+95.00 | 54.25 | LT | 1177.40 | UD175 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 229 | UD181 | I.R. 70 | 446+76.00 | 64.25 | RT | 1257.98 | 449+52.00 | 64.25 | RT | 1255.22 | UD24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 233 | UD183 | RAMP C | 6+50.00 | 6.25 | LT | 1204.88 | 533+97.00 | 99.00 | LT | 1180.55 | OUTLET | 1.78 | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 228 | UD185 | I.R. 70 | 411+40.00 | 64.25 | RT | 1247.22 | 413+00.00 | 64.25 | RT | 1247.06 | UD5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTALS THIS SHEET | | | | | | | | | | | | | 25 | 740 | 32 | 14 | 15509 | 3354 | | | | | | | | | | | | | | | | | | | |
| TOTALS CARRIED FROM SHEET 224 | | | | | | | | | | | | | 25 | 1160 | 66 | 14 | 33135 | 239 | | | | | | | | | | | | | | | | | | | |
| TOTALS CARRIED FROM SHEET 225 | | | | | | | | | | | | | 45 | 1200 | 62 | 25 | 31701 | 831 | | | | | | | | | | | | | | | | | | | |
| TOTALS CARRIED FROM SHEET 226 | | | | | | | | | | | | | 24 | 903 | 211 | 13 | 30462 | 20 | | | | | | | | | | | | | | | | | | | |
| TOTALS CARRIED TO GENERAL SUMMARY | | | | | | | | | | | | | 119 | 4003 | 371 | 66 | 110807 | 4444 | | | | | | | | | | | | | | | | | | | |

UNDERDRAIN SUBSUMMARY

BEL - 70 - 7.61

CALCULATED
CDS
CHECKED
BBD

227
373

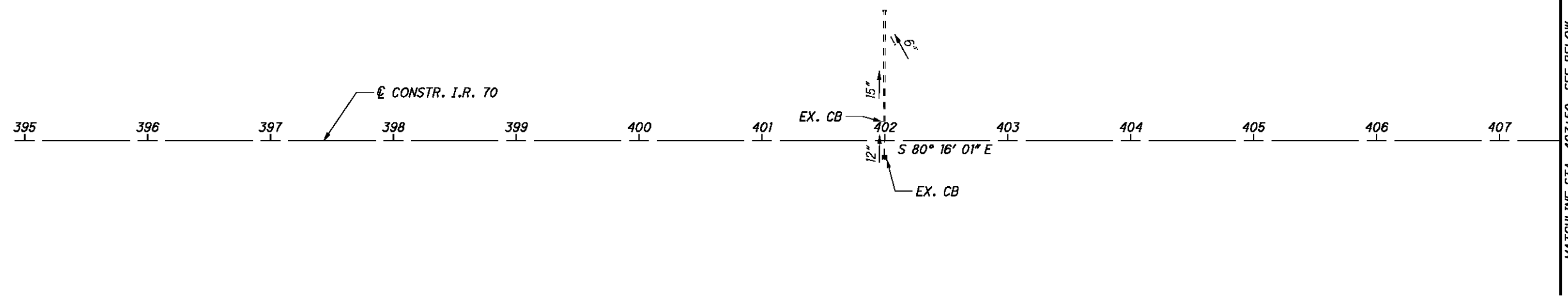


CALCULATED
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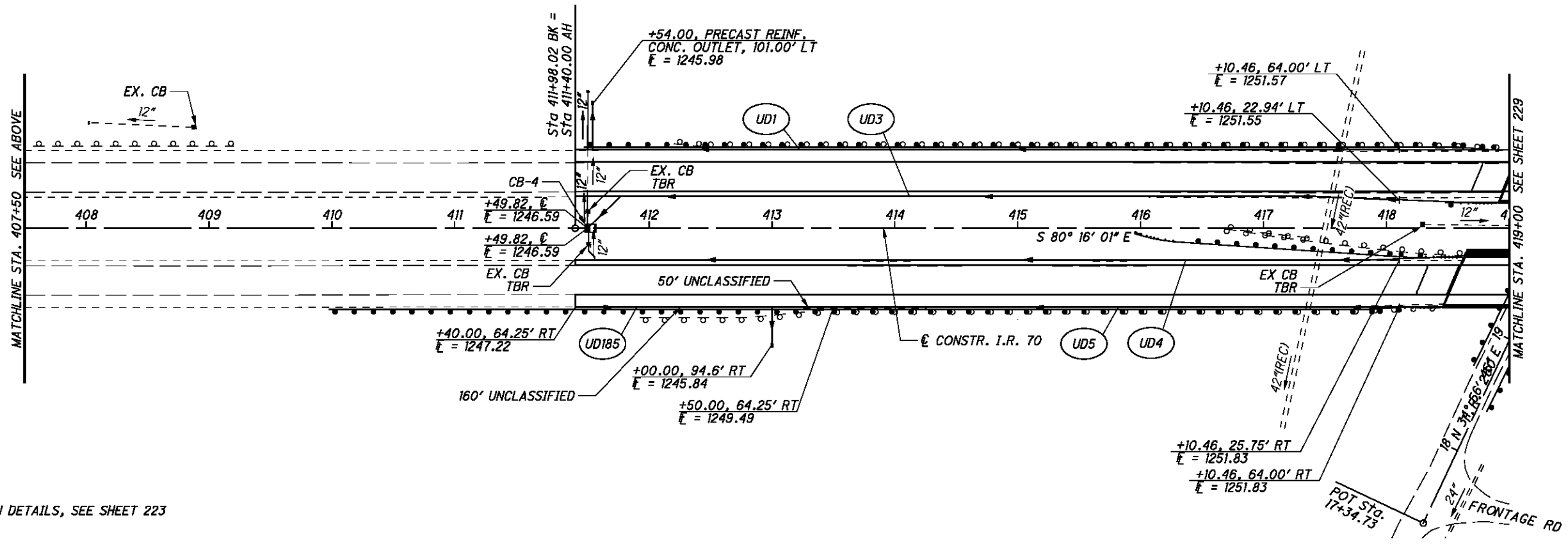
UNDERDRAIN DETAILS
STA. 395+00 TO STA. 419+00

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.



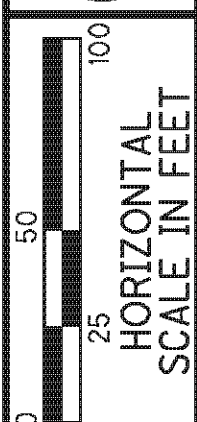
FOR UNDERDRAIN DETAILS, SEE SHEET 223

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MATCHLINE STA. 407+50 SEE ABOVE

MATCHLINE STA. 419+00 SEE SHEET 229

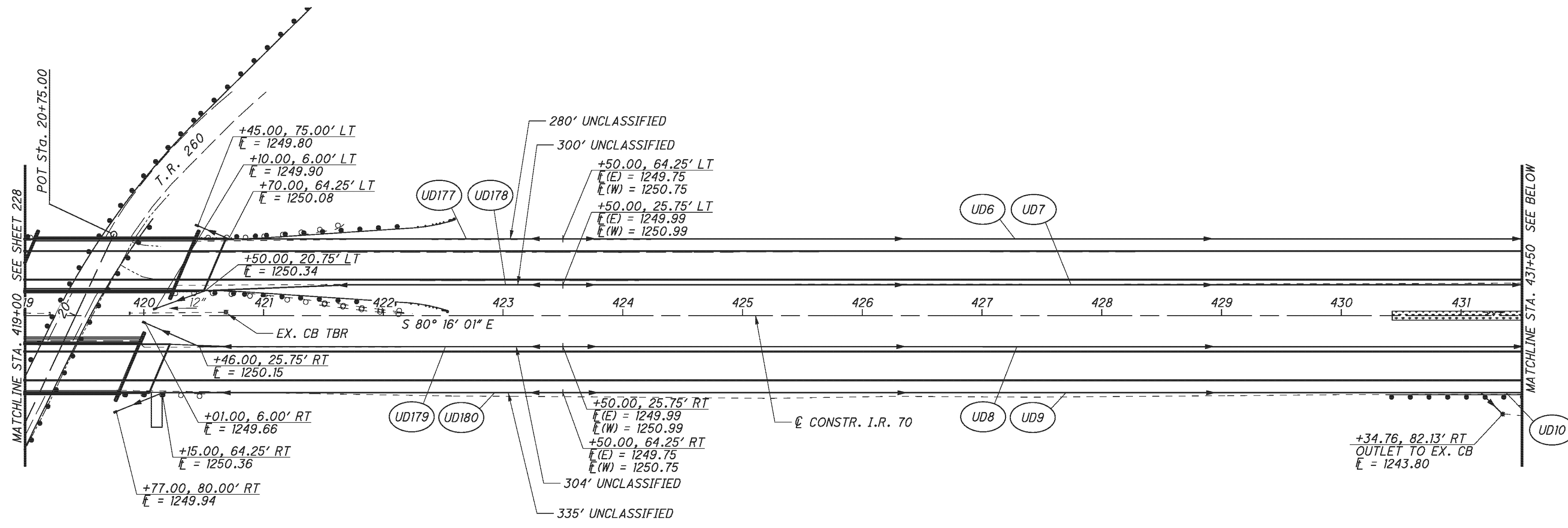
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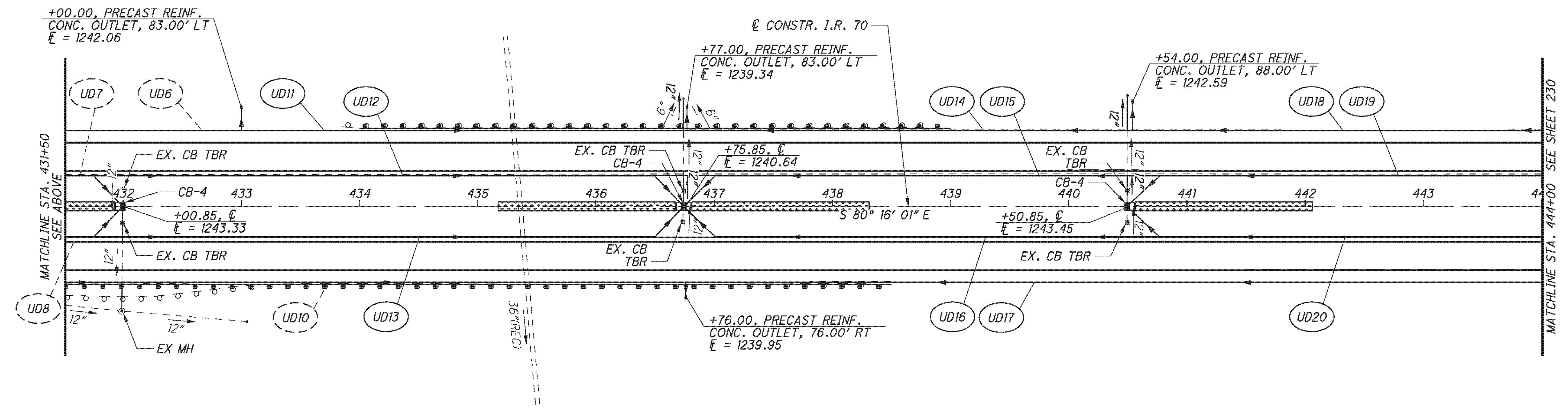
CALCULATED
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UNDERDRAIN DETAILS
STA. 419+00 TO STA. 444+00

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

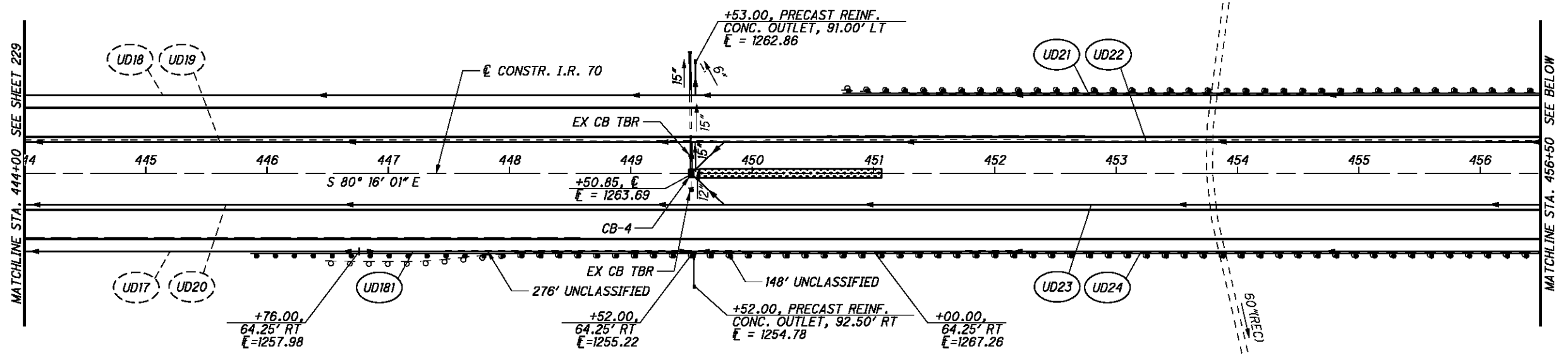
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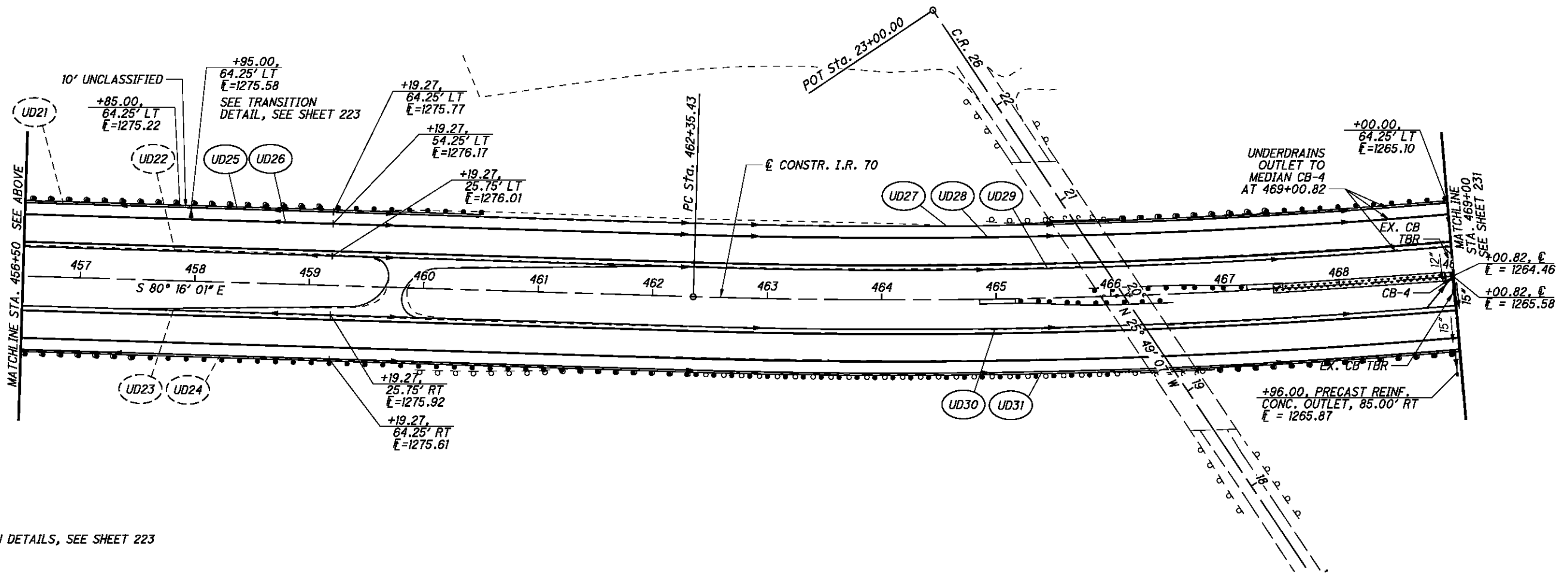
CALCULATED
CDS
CHECKED
BDD

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

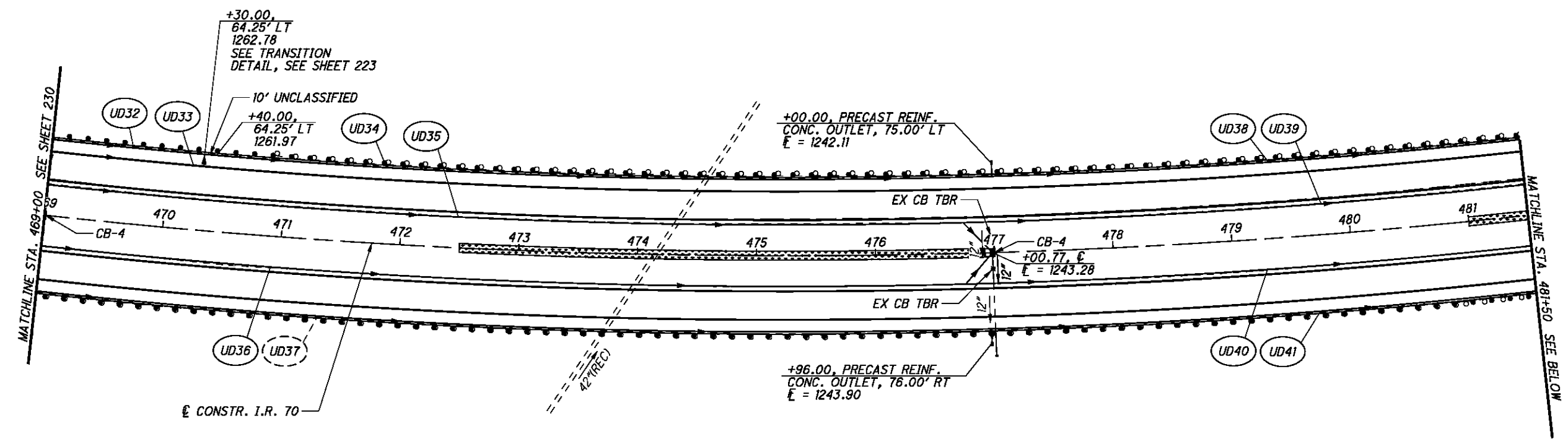
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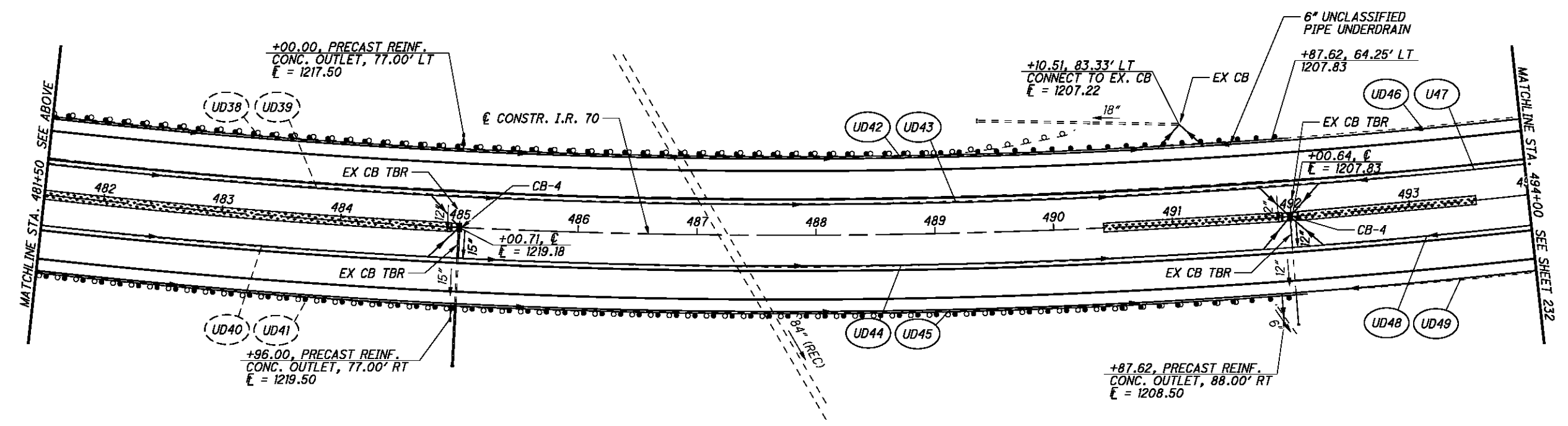
CALCULATED
CDS
CHECKED
BBD

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

BEL-70-7.61

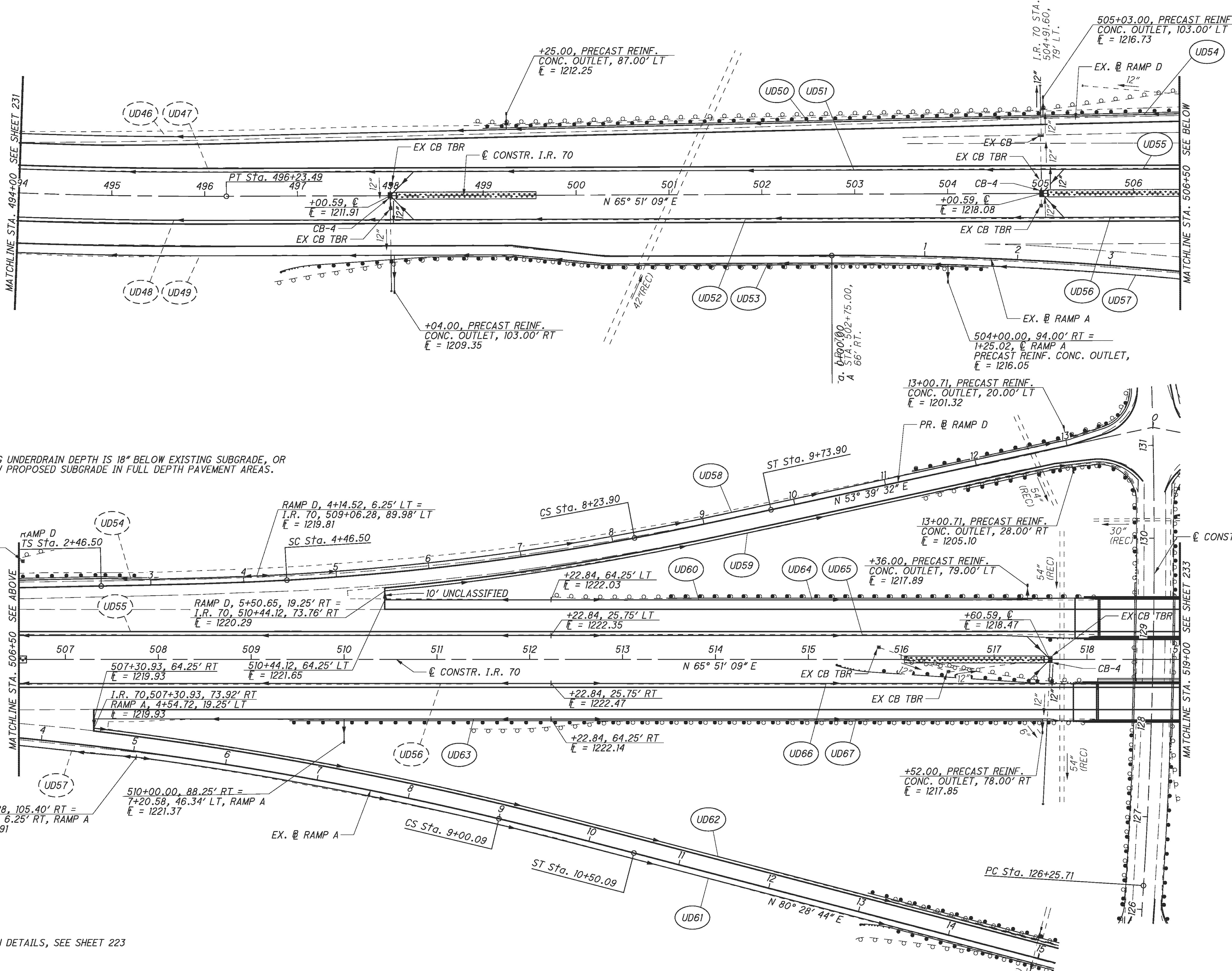


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

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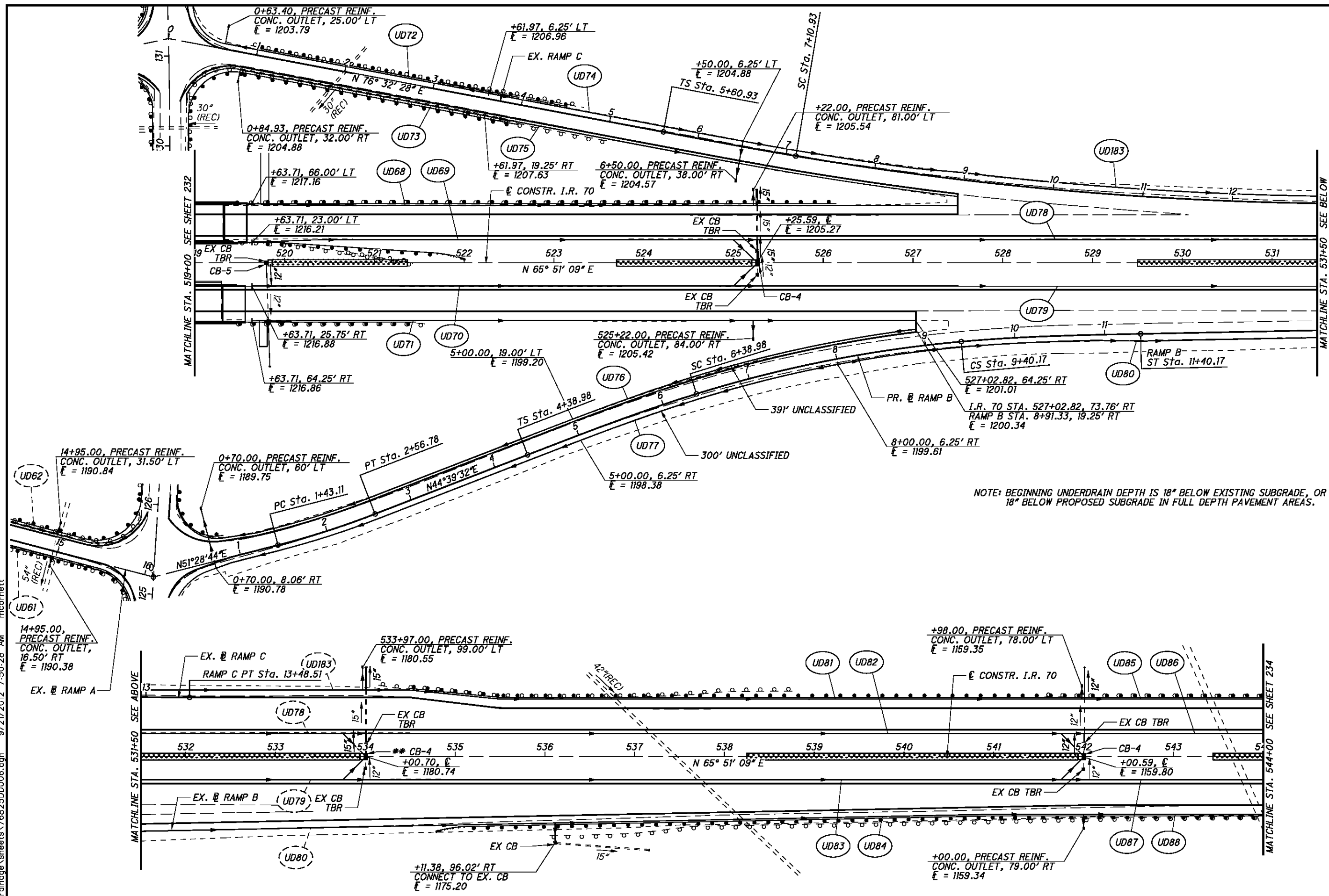


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.

FOR UNDERDRAIN DETAILS, SEE SHEET 223

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

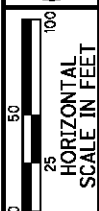
CALCULATED CDS CHECKED BDD

HORIZONTAL SCALE IN FEET

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

BEL-70-7.61

FOR UNDERDRAIN DETAILS, SEE SHEET 223

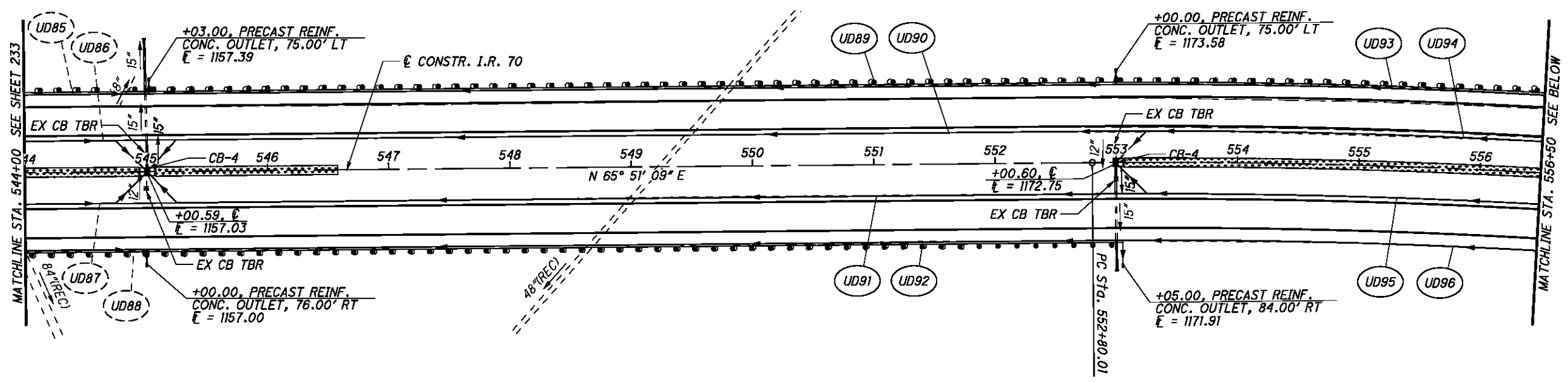


CALCULATED
CDS
CHECKED
BDD

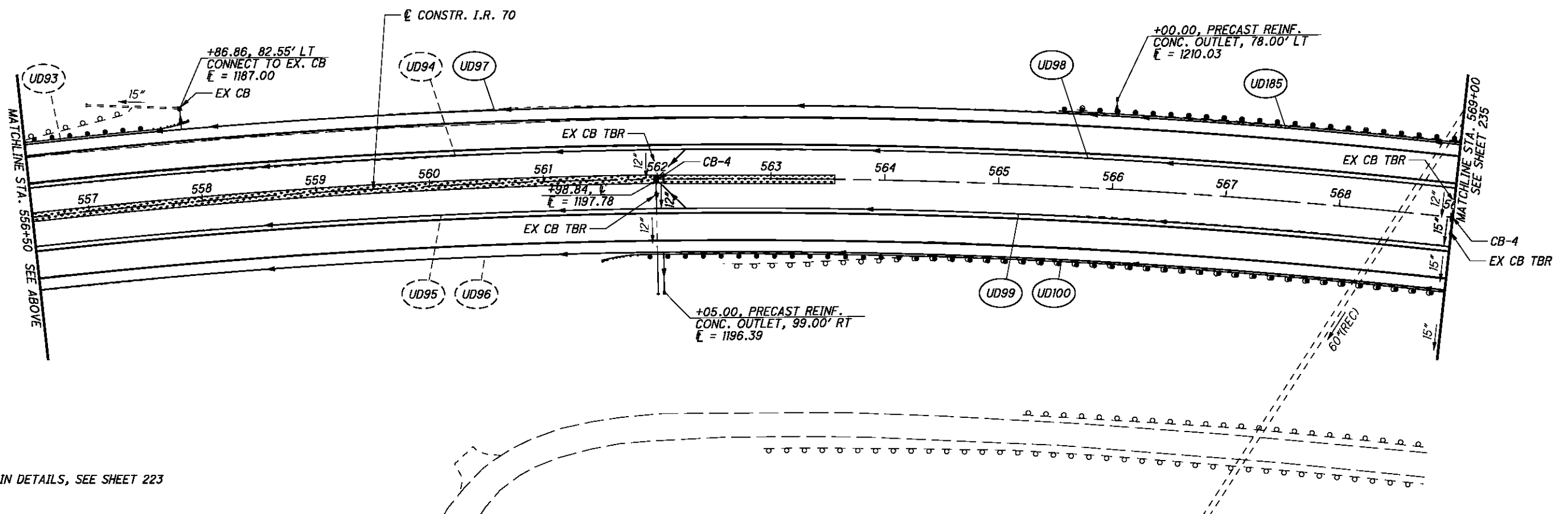
UNDERDRAIN DETAILS
STA. 544+00 TO STA. 569+00

BEL-70-7.61

234
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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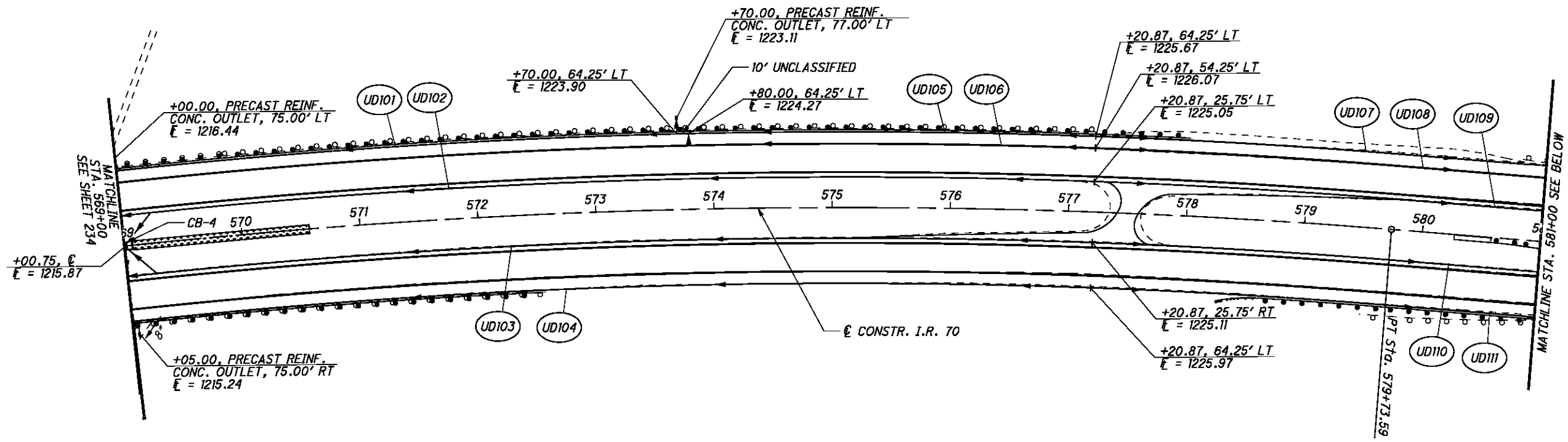


CALCULATED
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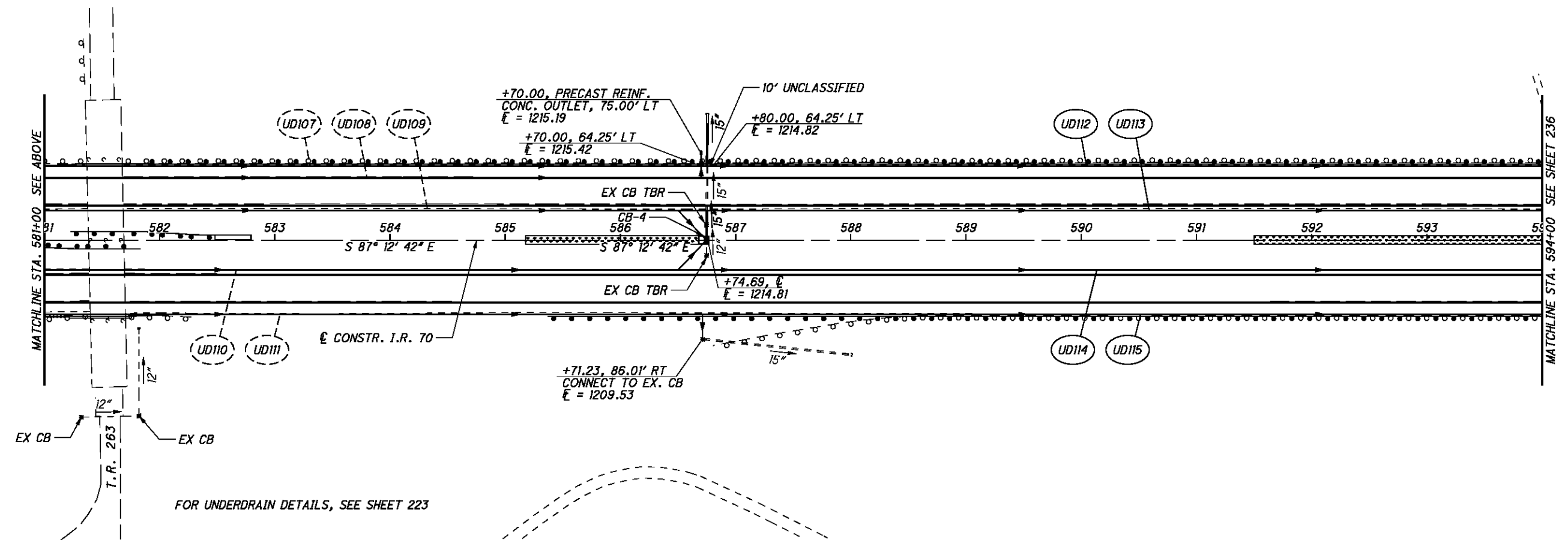
UNDERDRAIN DETAILS
STA. 569+00 TO STA. 594+00

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.



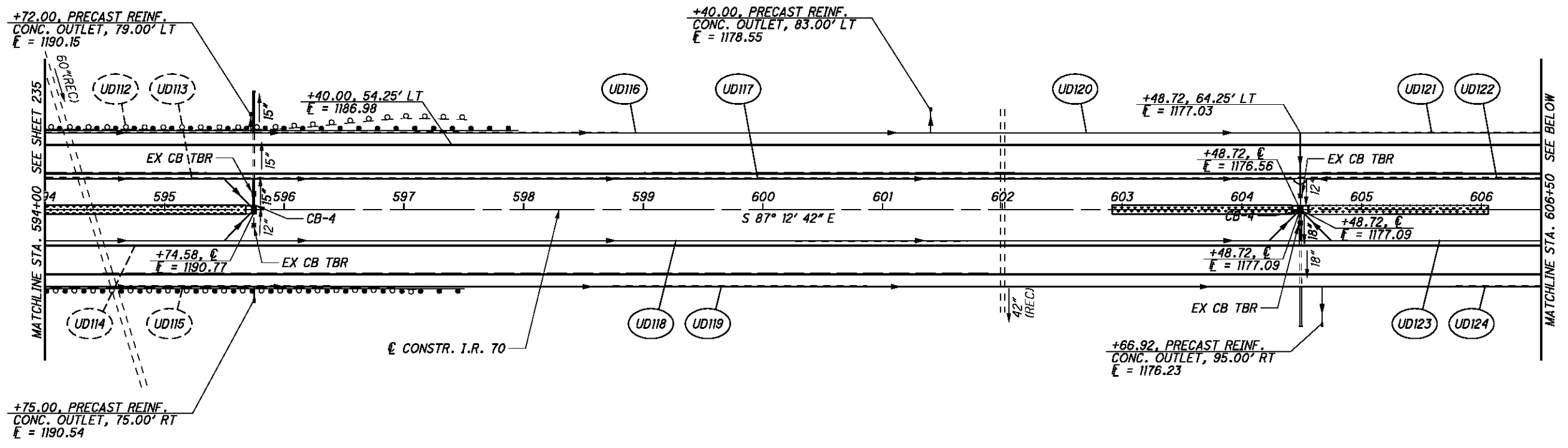
P:\76825\drainage\sheets\76825DD00B.dgn 9/21/2012 7:50:29 AM mcornett



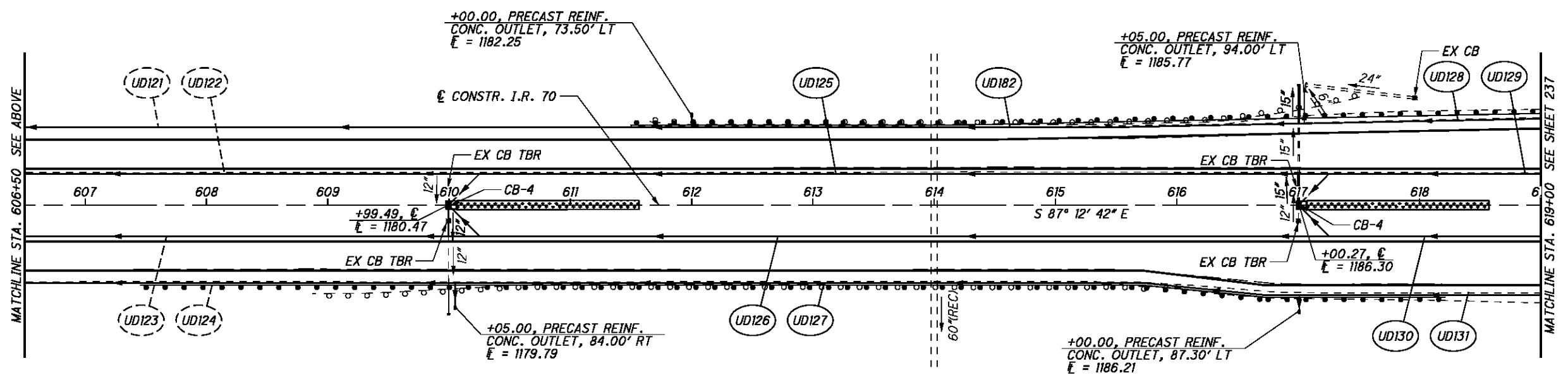
CALCULATED
CDS
CHECKED
BDD

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

BEL-70-7.61



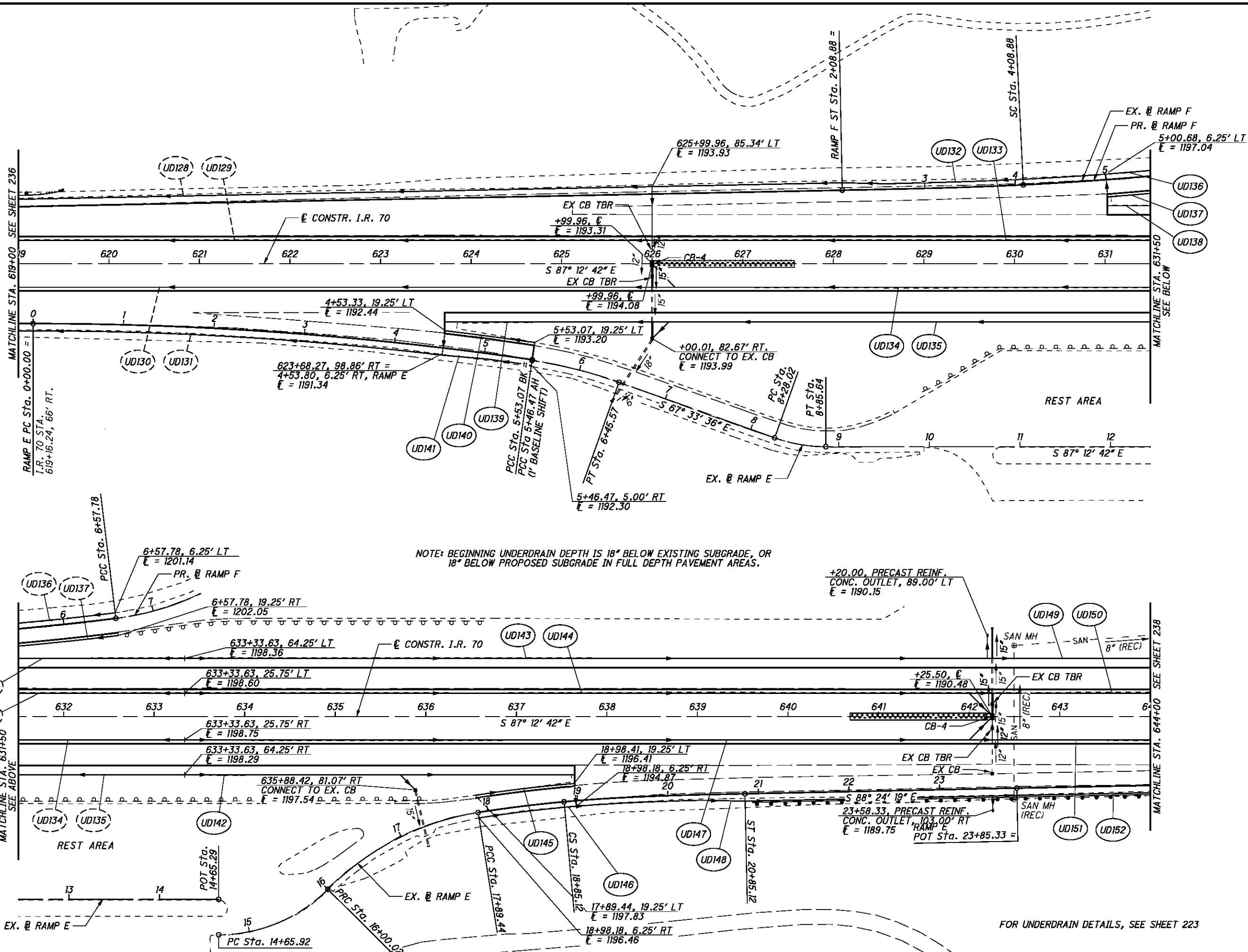
NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.



FOR UNDERDRAIN DETAILS, SEE SHEET 223

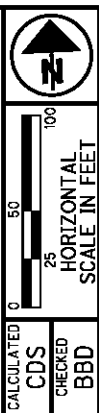
P:\76825\drainage\sheets\76825DD009.dgn 9/21/2012 7:50:30 AM mcornett

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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



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

BEL-70-7.61

237
373



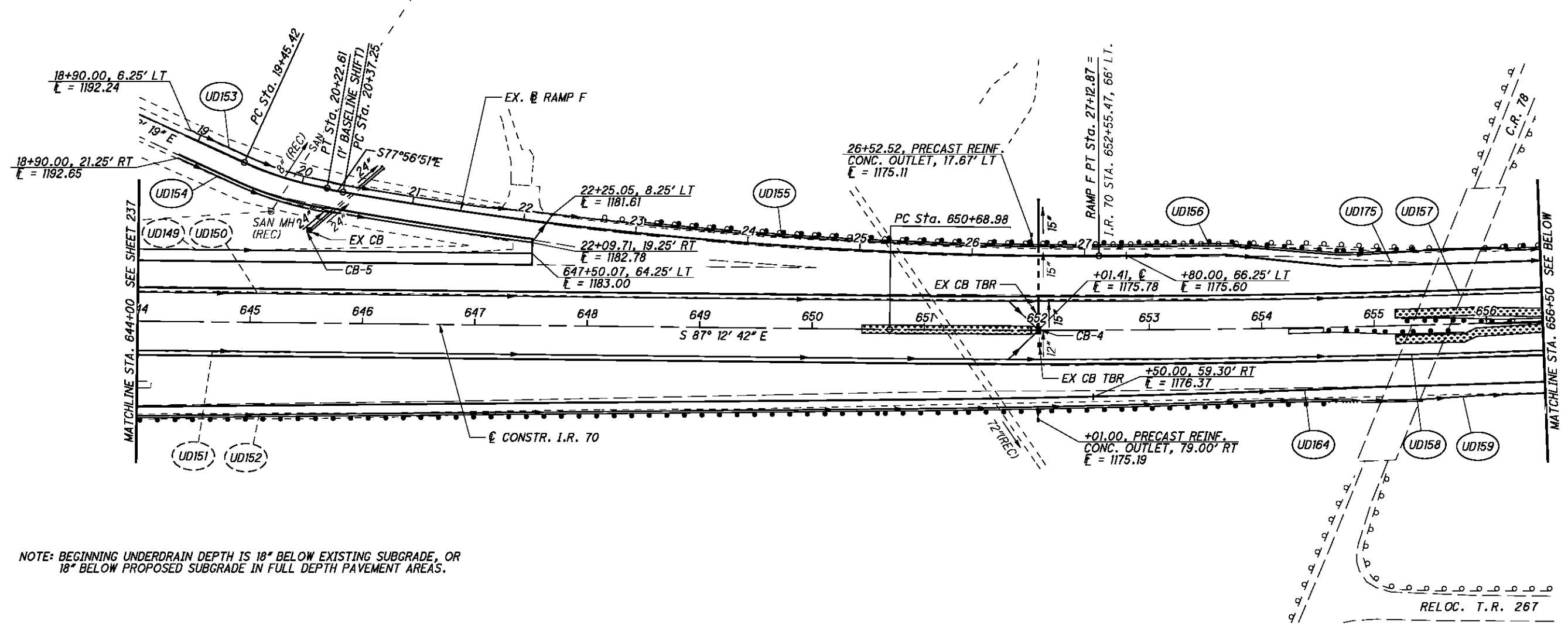
0 50 100
 HORIZONTAL
 SCALE IN FEET

CALCULATED
 CDS
 CHECKED
 BDD

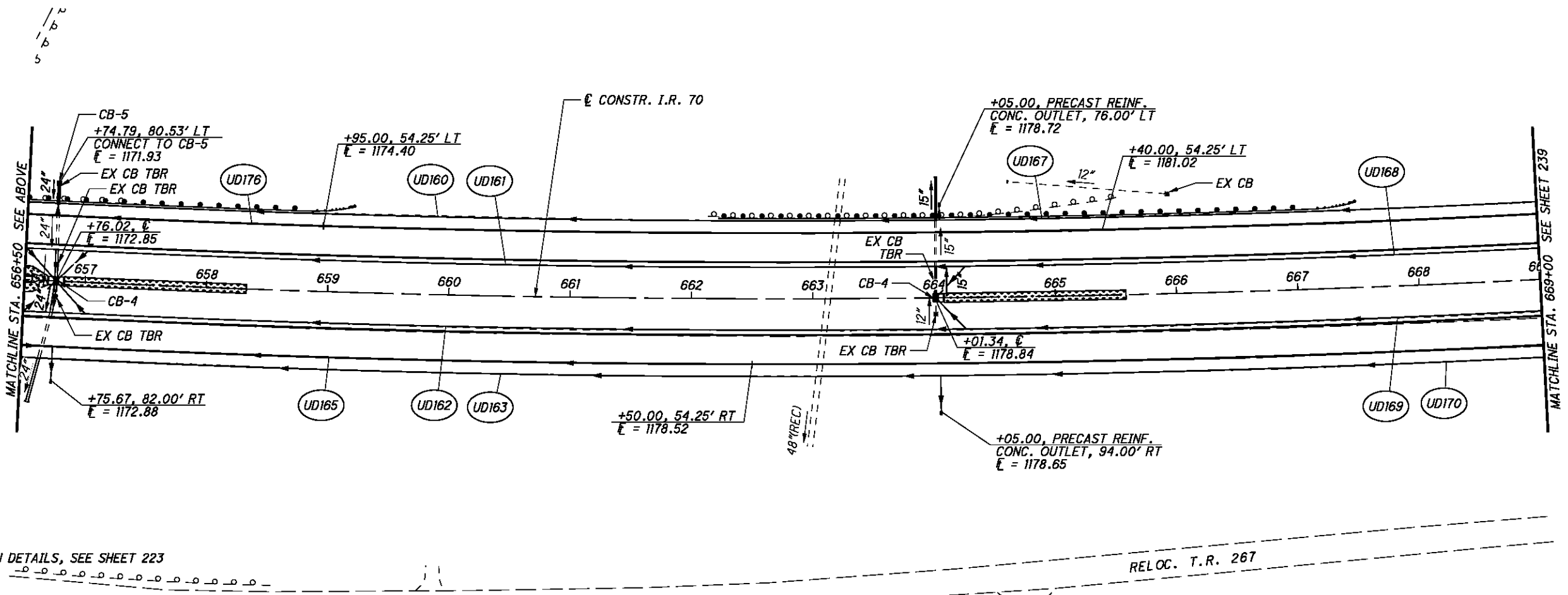
UNDERDRAIN DETAILS
STA. 644+00 TO STA. 669+00

BEL-70-7.61

238
 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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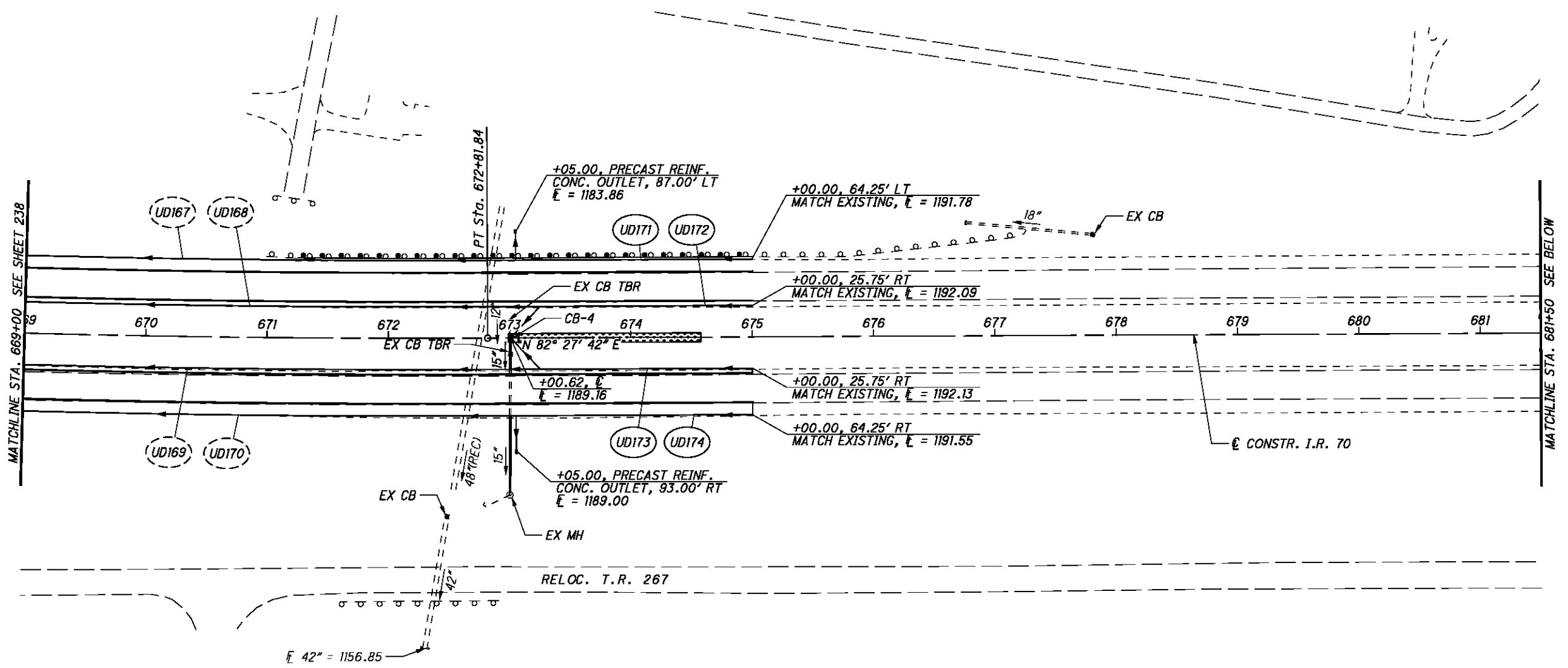


CALCULATED
CDS
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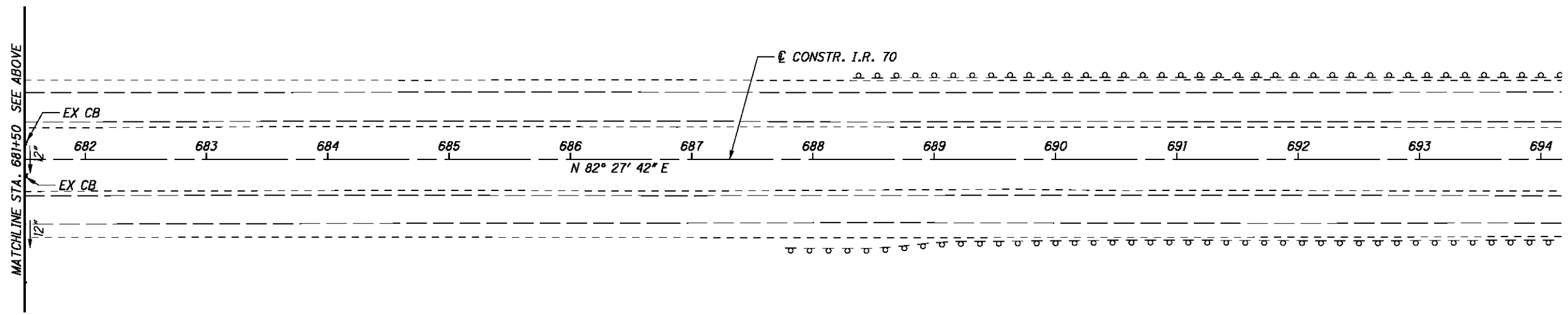
UNDERDRAIN DETAILS
STA. 669+00 TO STA. 694+00

BEL-70-7.61

239
373

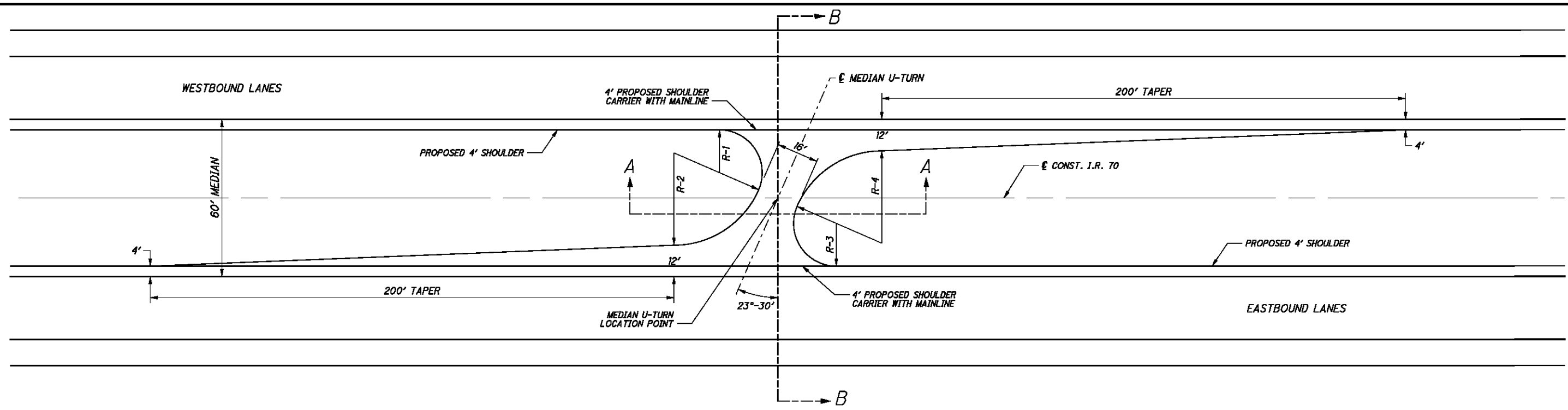


NOTE: BEGINNING UNDERDRAIN DEPTH IS 18" BELOW EXISTING SUBGRADE, OR 18" BELOW PROPOSED SUBGRADE IN FULL DEPTH PAVEMENT AREAS.

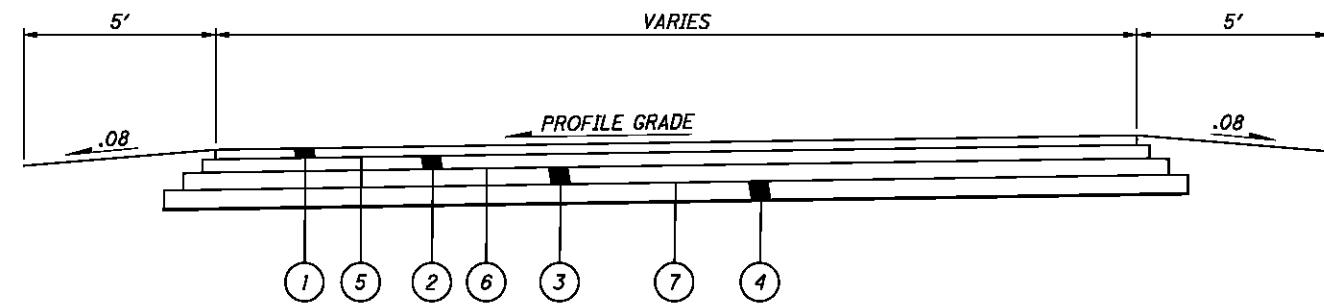


FOR UNDERDRAIN DETAILS, SEE SHEET 223

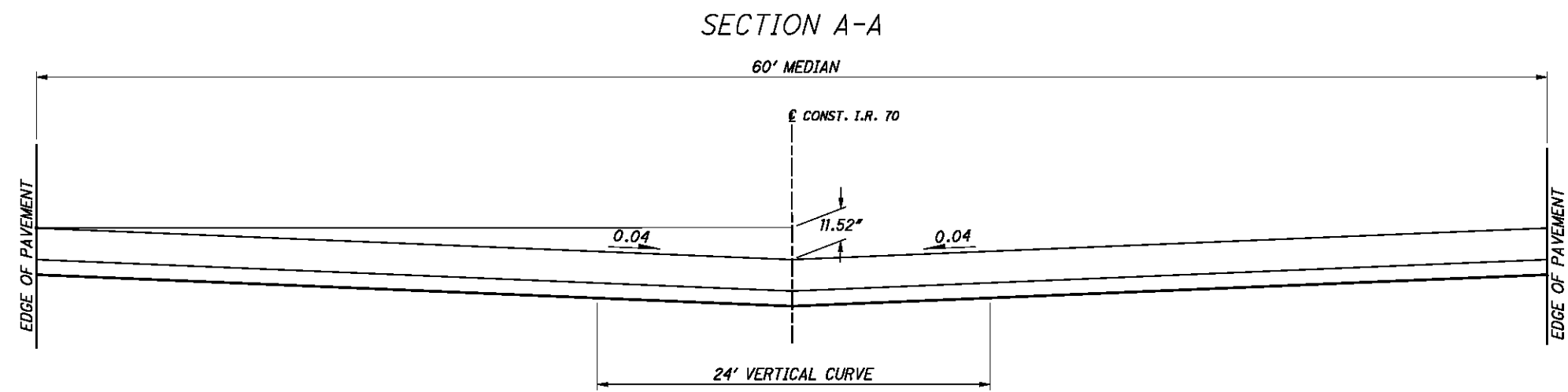
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| U-TURN STA. | R-1 | | R-2 | | R-3 | | R-4 | |
|-------------|-------|---------------------|-------|----------------------|-------|---------------------|-------|----------------------|
| | R | CENTER | R | CENTER | R | CENTER | R | CENTER |
| 459+75 | 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 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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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 | | |
|-----------|-----------|------|-----------|---------------|---|---|---|-----------------------------------|--|--|---|--|--|--|----------------------------|---|-----------------------------------|-------------------------------|--|---|---|---|---|---|
| | | | | | 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 | |
| I.R. 70 | | | | | | | | | | | | | | | | | | | | | | | | |
| 420+31.00 | WB | LT | OM-H3L-12 | 12 X 36 | 14.5 | | | | | | | | | | 3.00 | | | | | 1 | | 1 | | |
| 420+36.00 | WB | LT | OM-H3R-12 | 12 X 36 | 14.5 | | | | | | | | | | 3.00 | | | | | 1 | | 1 | | |
| 451+03.30 | WB | LT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | 1 | | | 1 | | 1 | | |
| 459+55.00 | EB | C/L | R3-H4A-24 | 24 X 30 | 13.0 | | | | | | | | | | 5.00 | | | | | 1 | | 1 | | |
| | | | R3-4-36 | 36 X 36 | | | | | | | | | | | 9.00 | | | | | 1 | | 1 | | |
| 466+48.00 | WB | LT | D2-H2-180 | 180 X 60 | | | | | | | | | | 38.9 | | 75.00 | | | | | 2 | 1 | 2 | |
| 478+20.00 | WB | LT | R2-1-48 | 48 X 60 | | | | 34.8 | | | | | | | 20.00 | | | | | | 2 | 1 | 2 | |
| 487+91.00 | WB | LT | M3-4-36 | 36 X 18 | | 15.0 | | | | | | | | | 4.50 | | | | | 1 | | 1 | | |
| | | | M1-1-36-2 | 36 X 36 | | | | | | | | | | | 9.00 | | | | | 1 | | 1 | | |
| 489+90.00 | WB | LT | R8-7-48 | 48 X 36 | 30.0 | | | | | | | | | | 12.00 | | | | | 1 | | 2 | | |
| 503+39.20 | WB | LT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | 1 | | | 1 | | 1 | | |
| 510+73.00 | WB | LT | W4-1R-48 | 48 X 48 | 15.5 | | | | | | | | | | 16.00 | | | | | 1 | | 1 | | |
| 519+57.00 | WB | LT | OM-H3L-12 | 12 X 36 | 14.5 | | | | | | | | | | 3.00 | | | | | 1 | | 1 | | |
| 519+57.00 | WB | LT | OM-H3R-12 | 12 X 36 | 14.5 | | | | | | | | | | 3.00 | | | | | 1 | | 1 | | |
| 526+57.00 | WB | LT | E5-H1A-96 | 96 X 60 | | | | 2 | | 33.9 | | | | | | 40.00 | | | | | 2 | 1 | 2 | |
| | | | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | | 2 | 2 | 2 | |
| | | | E1-H1-180 | 180 X 156 | | | | | | | | | | | 67.5 | | | | | | 2 | 2 | 2 | |
| 540+00.00 | WB | LT | E1-H5-96 | 96 X 24 | | | | 2 | | | | | | | | 16.00 | | | | | 2 | 2 | | |
| | | | E3-H2-180 | 180 X 108 | | | | | | | | | | | 54.6 | | | | | | 2 | 2 | | |
| | | | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | | | | | |
| 544+43.00 | WB | LT | E3-H2-144 | 144 X 60 | | | | | | | 50.8 | | | | | | | | | | 2 | | 2 | |
| | | | E3-H2-144 | 144 X 60 | | | | | | | | | | | | 60.00 | | | | | | | | |
| | | | D7-H4-144 | 144 X 12 | | | | | | | | | | | | 12.00 | | | | | | | | |
| 553+88.00 | WB | LT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | | 2 | 2 | 2 | |
| | | | E1-H1-180 | 180 X 144 | | | | | | | | | | | 61.3 | | | | | | 2 | 2 | 2 | |
| 556+75.40 | WB | LT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | 1 | | | 1 | | 1 | 1 | |
| 565+97.00 | WB | LT | SPECIAL | 144 X 84 | | | | | | | | | 46.0 | | | 84.00 | | | | | 2 | 2 | 1 | 2 |
| 573+98.00 | WB | LT | E1-H5-96 | 96 X 24 | | | | | | | | | | 43.4 | | 16.00 | | | | | 2 | 2 | 2 | 2 |
| | | | D3-H6-96 | 96 X 60 | | | | | | | | | | | | 40.00 | | | | | | | | |
| 577+18.00 | EB | C/L | R3-H4A-24 | 24 X 30 | 13.0 | | | | | | | | | | 5.00 | | | | | 1 | | 1 | | |
| | | | R3-4-36 | 36 X 36 | | | | | | | | | | | 9.00 | | | | | 1 | | 1 | | |
| 581+89.00 | WB | LT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | | 2 | 2 | 2 | |
| | | | E1-H1-180 | 180 X 144 | | | | | | | | | | | 56.6 | | | | | | 2 | 2 | 2 | |
| 609+62.15 | WB | LT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | 1 | | | 1 | | 1 | | |
| 632+06.00 | WB | LT | W4-1R-48 | 48 X 48 | 15.5 | | | | | | | | | | 16.00 | | | | | | | | | |
| 646+51.00 | WB | LT | D5-H2B-72 | 72 X 66 | | | | 2 | | 36.0 | | | | | | 33.00 | | | | | 2 | 1 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | |
| 656+15.00 | WB | LT | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| | | | D5-H8-144 | 144 X 96 | | | | | | | | | 43.2 | | | 96.00 | | | | | 2 | 1 | 1 | |
| 662+32.20 | WB | LT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | 1 | | | | | | | |
| 675+50.00 | WB | LT | D5-H6-156 | 156 X 60 | | | | | | | | | | 42.4 | | 65.00 | | | | | 2 | 1 | 2 | |

| | |
|---------------------------|---------|
| CALCULATED | CDS |
| | CHECKED |
| BBD | |
| SIGNING SUBSUMMARY | |
| BEL-70-7.61 | |
| (244) | |
| (373) | |

SUBTOTALS THIS SHEET

218 15 0 6 35 70 51 0 214 240 118 1291 5 10 26 17 19 14 24

| 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, 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 | | | | | | | | | | | | 9.00 | | | | | | | | |
| | | | R5-1A-36 | 36 X 24 | | | | | | | | | | | | | 6.00 | | | | | | | |
| | | | M1-5-30-3 | 30 X 24 | | | | | | | | | | | | | 5.00 | | | | | | | |
| | | | M6-4-21 | 21 X 15 | | | | | | | | | | | | | 2.19 | | | | | | | |
| | | | M4-5-24 | 24 X 12 | | | | | | | | | | | | | 2.00 | | | | | | | |
| | | | M1-4-24 | 24 X 24 | | | | | | | | | | | | | 4.00 | | | | | | | |
| | | | M6-1R-21 | 21 X 15 | | | | | | | | | | | | | 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 | | | | | | | | | | | | 2.25 | | | | | | | | |
| | | | 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 | | | | | | | | | | | | 2.25 | | | | | | | | |
| | | | D9-8-18 | 18 X 18 | 14.0 | | | | | | | | | | | | 2.25 | | | | | | | |
| | | | 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 | | | | | | | | |
| | | | M1-1-24-2 | 24 X 24 | | | | | | | | | | | | | 4.00 | | | | | | | |
| SR 149, 118+00 | NB | RT | M2-H4-108 | 108 X 30 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 122+07.50 | NB | RT | D1-H6A-132 | 132 X 48 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 124+86 | NB | RT | R7-1-12 | 12 X 18 | 12.0 | | | | | | | | | | | 1.50 | | | | | | | | |
| SR 149, 125+02 | NB | LT | R7-1-12 | 12 X 18 | 12.0 | | | | | | | | | | | 1.50 | | | | | | | | |
| SR 149, 125+02 | NB | LT | E6-2A-72 | 72 X 66 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 126+00 | NB | RT | M2-H4-108 | 108 X 30 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 130+51 | SB | LT | M2-H4-108 | 108 X 30 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 131+59 | SB | RT | E6-2A-72 | 72 X 66 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 134+10 | SB | LT | D1-H6A-132 | 132 X 48 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 139+15 | SB | LT | M2-H4-108 | 108 X 30 | | | | | | | | | | | | | | | | | | | | |
| SR 149, 140+70 | SB | LT | M2-1-21 | 21 X 15 | | | | | | | | | | | | 2.19 | | | | | | | | |
| | | | M1-1-24-2 | 24 X 24 | | | | | | | | | | | | | 4.00 | | | | | | | |
| SUBTOTALS THIS SHEET | | | | | 181 | 28 | 34 | 18 | 130 | 152 | 0 | 56 | 0 | 0 | 118 | 332 | 0 | 3 | 18 | 28 | 10 | 17 | 18 | |

| | | | |
|---------------------------|-----|---------|-----|
| CALCULATED | CDS | CHECKED | BBD |
| SIGNING SUBSUMMARY | | | |
| BEL-70-7.61 | | | |
| (245 / 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, 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 |
| I.R. 70 | | | | | | | | | | | | | | | | | | | | | | |
| 418+31.00 | EB | RT | OM-H3R-12 | 12 X 36 | 14.5 | | | | | | | | | | 3.00 | | | | | 1 | | 1 |
| 418+51.00 | EB | RT | OM-H3L-12 | 12 X 36 | 14.5 | | | | | | | | | | 3.00 | | | | | 1 | | 1 |
| 451+04.15 | EB | RT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | 1 | | | 1 | | 1 |
| 454+46.00 | EB | RT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | | | | | | | |
| | | | E1-H1-180 | 180 X 144 | | | | | | | | | | 66.4 | | 16.00 | | | | 2 | | 2 |
| 463+32.00 | EB | RT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | 2 | | 2 |
| | | | D3-H6-96 | 96 X 60 | | | | | | | | | | | | 40.00 | | | | 2 | | 2 |
| 472+38.00 | EB | RT | SPECIAL | 144 X 84 | | | | | | | | | | 44.2 | | 84.00 | | | | 2 | | 2 |
| 480+95.00 | EB | RT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | 2 | | 2 |
| | | | E1-H1-180 | 180 X 144 | | | | | | | | | | | | 180.00 | | | | 2 | | 2 |
| | | | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | | | |
| 490+52.00 | EB | RT | E3-H2-144 | 144 X 60 | | | | | | | | | | 45.2 | | | | | | | | |
| | | | E3-H2-144 | 144 X 60 | | | | | | | | | | | | 60.00 | | | | 2 | | 4 |
| | | | D7-H4-144 | 144 X 12 | | | | | | | | | | | | 12.00 | | | | | | |
| 494+00.00 | EB | RT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | 2 | | 2 |
| | | | E3-H2-180 | 180 X 108 | | | | 2 | | | | | | 46.1 | | 135.00 | | | | | | |
| 499+34.00 | EB | RT | E1-H5-96 | 96 X 24 | | | | | | | | | | | | 16.00 | | | | | | |
| | | | E1-H1-180 | 180 X 156 | | | | | | | | | | | | 195.00 | | | | 2 | | 2 |
| 503+39.79 | EB | RT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | | | | 1 | | 1 |
| 508+20.00 | EB | RT | E5-H1A-96 | 96 X 60 | | | | | | | | | | | | 40.00 | | | | | 2 | 2 |
| 518+21.00 | EB | RT | OM-H3L-12 | 12 X 36 | 14.5 | | | | | | | | | | | 3.00 | | | | | 1 | 1 |
| 518+21.00 | EB | RT | OM-H3R-12 | 12 X 36 | 14.5 | | | | | | | | | | | 3.00 | | | | | 1 | 1 |
| 526+90.00 | EB | RT | W4-1R-48 | 48 X 48 | 15.5 | | | | | | | | | | | 16.00 | | | | | 1 | 1 |
| 549+36.00 | EB | RT | M3-4-36 | 36 X 18 | | | | | | | | | | | | 4.50 | | | | | 1 | 1 |
| | | | M1-1-36-2 | 36 X 36 | | | | | | | | | | | | 9.00 | | | | | 1 | 1 |
| 556+75.40 | EB | RT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | | | | | 1 | 1 |
| 559+25.00 | EB | RT | R2-1-48 | 48 X 60 | | | | | | | | | | | | 20.00 | | | | | 2 | 2 |
| 570+84.00 | EB | RT | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| 593+18.00 | EB | RT | D5-H1-120 | 120 X 60 | | | | | | | | | | | | 44.2 | | | | | 2 | |
| | | | D5-H6-156 | 156 X 48 | | | | | | | | | | | | 45.5 | | | | | 2 | |
| 609+62.92 | EB | RT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | | | | | 1 | 1 |
| 615+67.00 | EB | RT | D5-H2a-120 | 120 X 60 | | | | | | | | | | | | | | | | | 1 | 1 |
| 624+86.00 | EB | RT | D5-H2B-72 | 72 X 66 | | | | | | | | | | | | | | | | | 2 | 2 |
| 632+06.00 | EB | LT | W4-1R-48 | 48 X 48 | 15.5 | | | | | | | | | | | 16.00 | | | | | 1 | 1 |
| 636+67.00 | EB | RT | W4-1R-48 | 48 X 48 | 15.5 | | | | | | | | | | | 16.00 | | | | | 1 | 1 |
| 662+32.97 | EB | RT | D10-3-12 | 12 X 48 | 14.5 | | | | | | | | | | | | | | | | 1 | 1 |

| | |
|---------------------------|---------|
| CALCULATED | CDS |
| | CHECKED |
| BBD | |
| SIGNING SUBSUMMARY | |
| BEL-70-7.61 | |
| (246) | |
| (373) | |

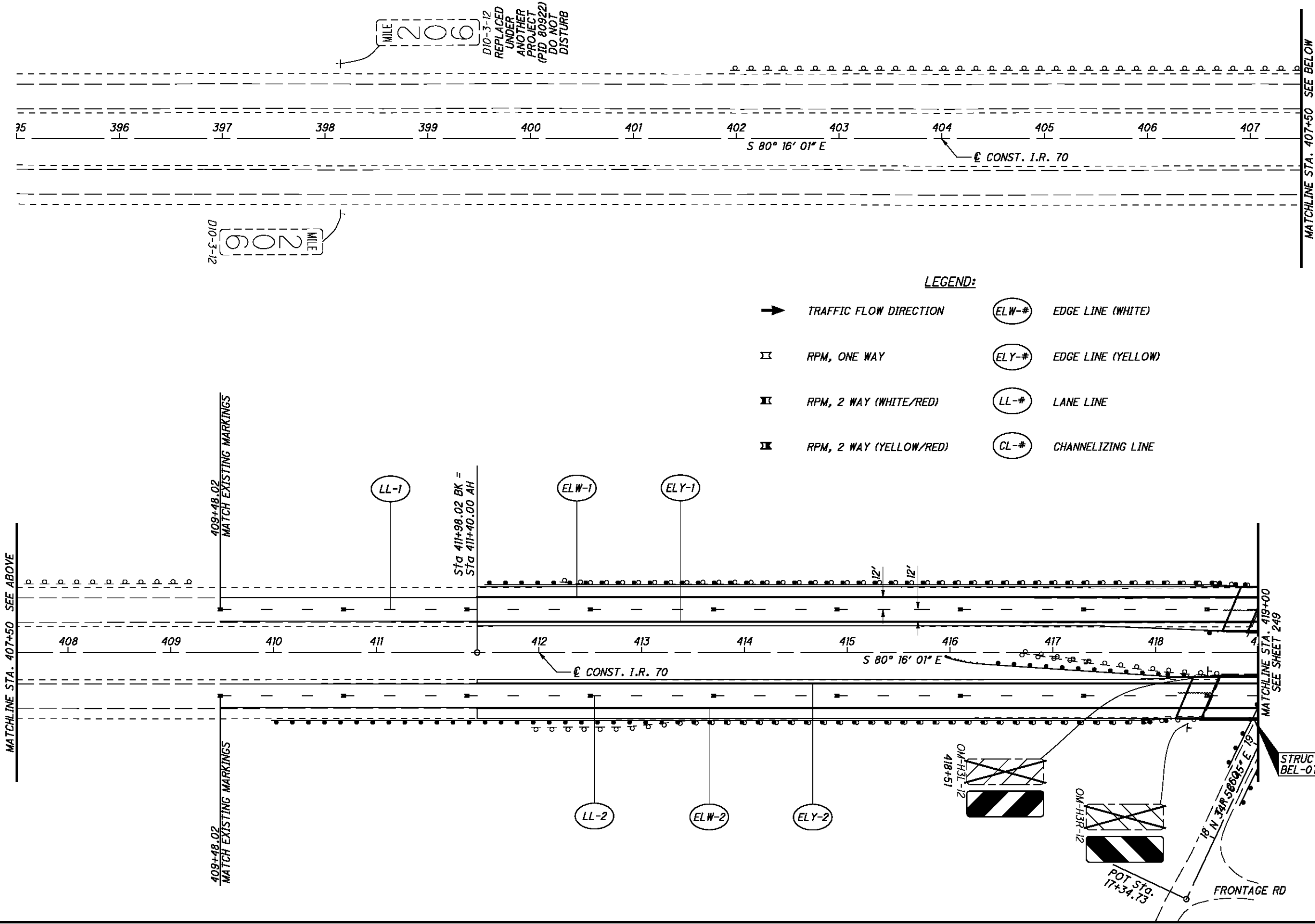
SUBTOTALS THIS SHEET

177 15 0 8 36 75 46 47 224 199 94 1207 5 10 26 15 20 13 23

P:\76825\traffic\sheets\76825\S005.dgn 9/21/2012 7:50:36 AM mscornett

| STATION | DIRECTION | SIDE | CODE | SIZE (INCHES) | 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 A | | | | | | | | | | | | | | | | | | | | | | | |
| 13+50.00 | EB | RT | M4-5-24 M1-4-24 M6-IL-21 M1-5-30-3 M6-4-21 D1-H6A-132 D1-H6A-132 | 24 X 12 24 X 24 21 X 15 30 X 24 21 X 15 132 X 48 132 X 48 | | | 2 | | 46.2 | | | | | | | | | | | | | | |
| 12+85.00 | EB | LT&RT | R5-1A-36 | 36 X 24 | 27 | | | | | | | | | | | | | | | | | | |
| 15+43.00 | EB | LT | R6-IL-36 R6-IR-36 R5-1-36 | 36 X 12 36 X 12 36 X 36 | 15.5 | | | | | | | | | | | | | | | | | | |
| 15+49.00 | EB | RT | R5-1-36 R1-1-36 | 36 X 36 36 X 36 | 29 | | | | | | | | | | | | | | | | | | |
| RAMP B | | | | | | | | | | | | | | | | | | | | | | | |
| 0+47.00 | EB | RT | D7-H2-72 D9-9-18 I-H12-24 D9-3A-18 I-H12-24 D7-H4-72 D7-H4-72 | 72 X 24 18 X 18 24 X 6 18 X 18 24 X 6 72 X 12 72 X 24 | | | 37.9 | | | | | | | | | | | | | | | | |
| 0+46.00 | EB | RT | D9-11-18 D9-8-18 I-H12A-24 | 18 X 18 18 X 18 24 X 6 | 13 | | | | | | | | | | | | | | | | | | |
| 1+29.00 | EB | RT | R5-H10D-36 | 36 X 36 | 29 | | | | | | | | | | | | | | | | | | |
| RAMP C | | | | | | | | | | | | | | | | | | | | | | | |
| 0+52.00 | WB | LT | R6-IL-36 R6-IR-36 R5-1-36 | 36 X 12 36 X 12 36 X 36 | 29 | | | | | | | | | | | | | | | | | | |
| RAMP E | | | | | | | | | | | | | | | | | | | | | | | |
| 6+00.00 | EB | LT | R7-1-12 | 12 X 18 | 13 | | | | | | | | | | | | | | | | | | |
| 6+07.00 | EB | RT | R5-1A-36 D5-H22-48 | 36 X 24 36 X 24 | 27 | | | | | | | | | | | | | | | | | | |
| 6+11.00 | EB | LT | R5-1A-36 | 36 X 24 | 27 | | | | | | | | | | | | | | | | | | |
| 8+00.00 | EB | LT | R7-1-12 | 12 X 18 | 13 | | | | | | | | | | | | | | | | | | |
| 8+86.00 | EB | LT | R5-1-36 | 36 X 36 | 29 | | | | | | | | | | | | | | | | | | |
| 8+86.00 | EB | RT | R5-1-36 | 36 X 36 | 29 | | | | | | | | | | | | | | | | | | |
| 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 | | | |



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

MILE 206
D10-3-12
REPLACED
UNDER
ANOTHER
PROJECT
(PID: 80922)
DO NOT
DISTURB

MILE 206
D10-3-12

MATCHLINE STA. 407+50 SEE BELOW

MATCHLINE STA. 407+50 SEE ABOVE

409+48.02
MATCH EXISTING MARKINGS

409+48.02
MATCH EXISTING MARKINGS

Sta 411+98.02 BK =
Sta 411+40.00 AH

MATCHLINE STA. 419+00
SEE SHEET 249

STRUCTURE NO.
BEL-070-0775

POT Sta.
17+34.73

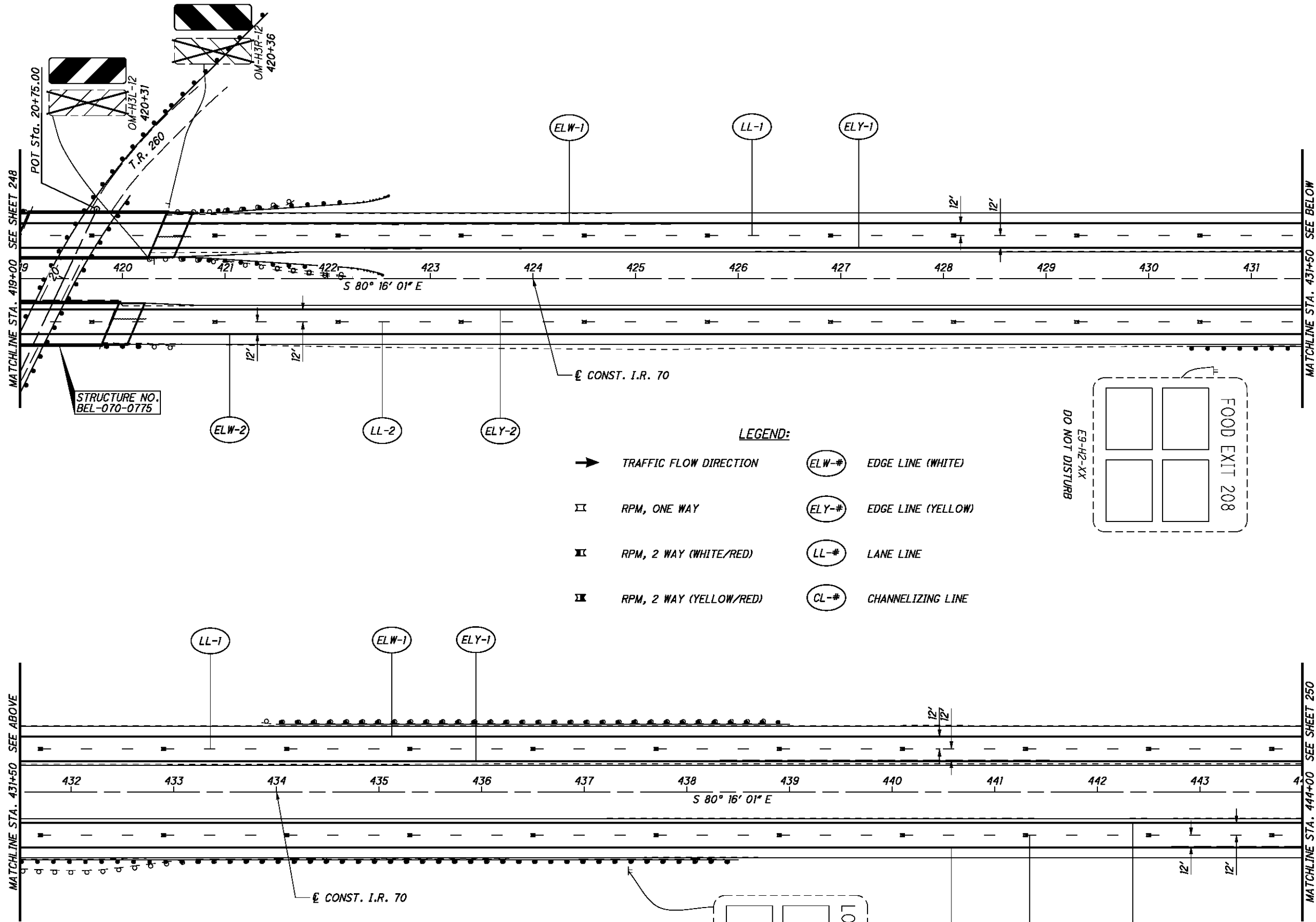
FRONTAGE RD

CALCULATED MJC CHECKED BBD

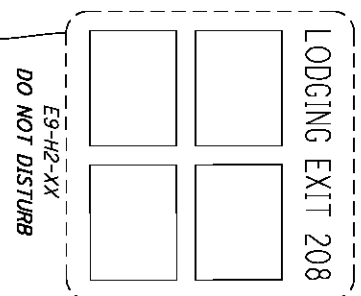
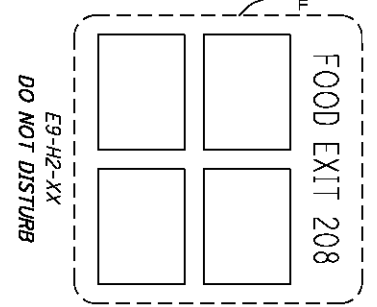
0 25 50 100
HORIZONTAL SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 395+00 TO STA. 419+00

BEL-70-7.61



- LEGEND:**
- ➔ TRAFFIC FLOW DIRECTION
 - ▤ 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

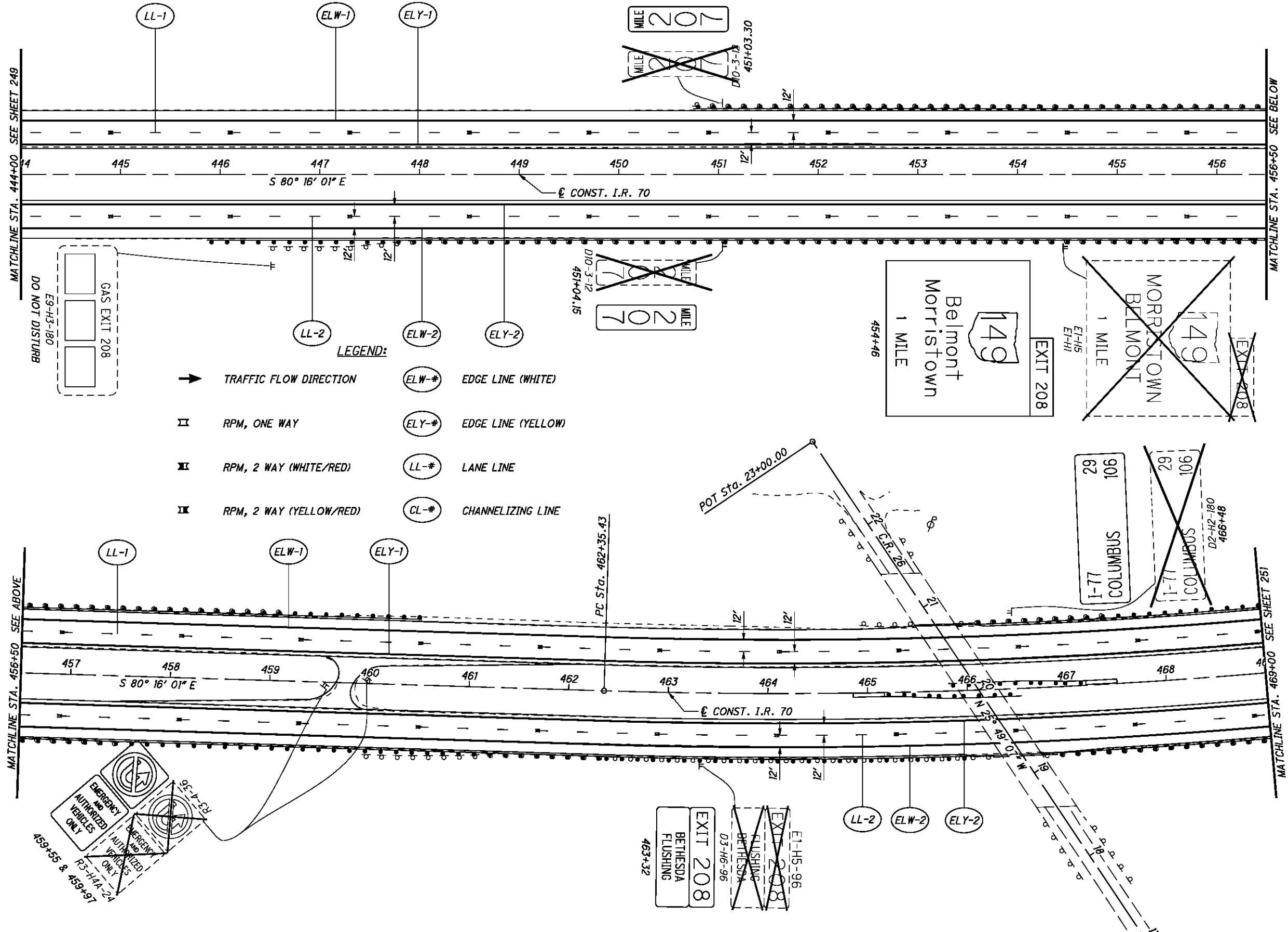


CALCULATED
MJC
CHECKED
BBD

0 50 100
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 419+00 TO STA. 444+00

BEL-70-7.61

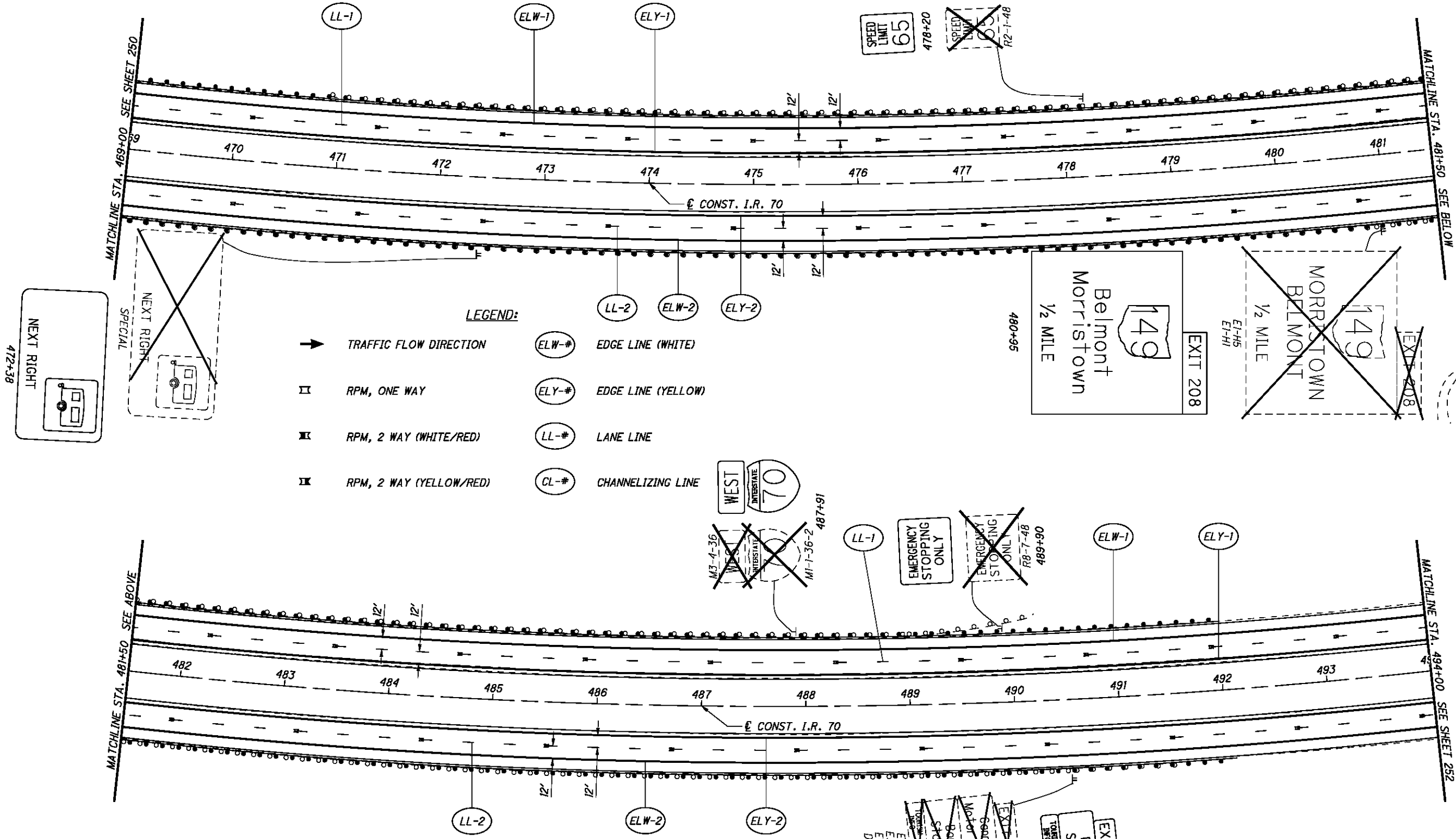


CALCULATED
MJC
CHECKED
BBD

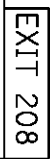
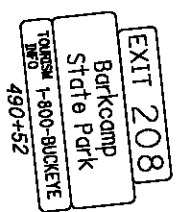
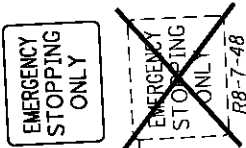
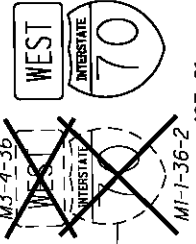
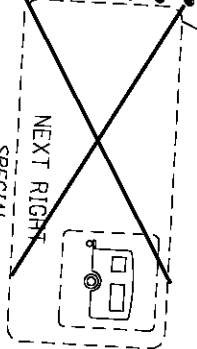
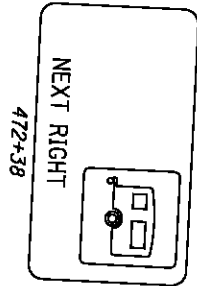
0 50 100
HORIZONTAL SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 444+00 TO STA. 469+00

BEL-70-7.61



- LEGEND:**
- TRAFFIC FLOW DIRECTION
 - ▣ RPM, ONE WAY
 - ▣ RPM, 2 WAY (WHITE/RED)
 - ▣ RPM, 2 WAY (YELLOW/RED)
 - LL-# LANE LINE
 - ELW-# EDGE LINE (WHITE)
 - ELY-# EDGE LINE (YELLOW)
 - CL-# CHANNELIZING LINE



FOR RAMP SIGNING AND MARKING DETAILS, SEE SHEET 260

LEGEND:

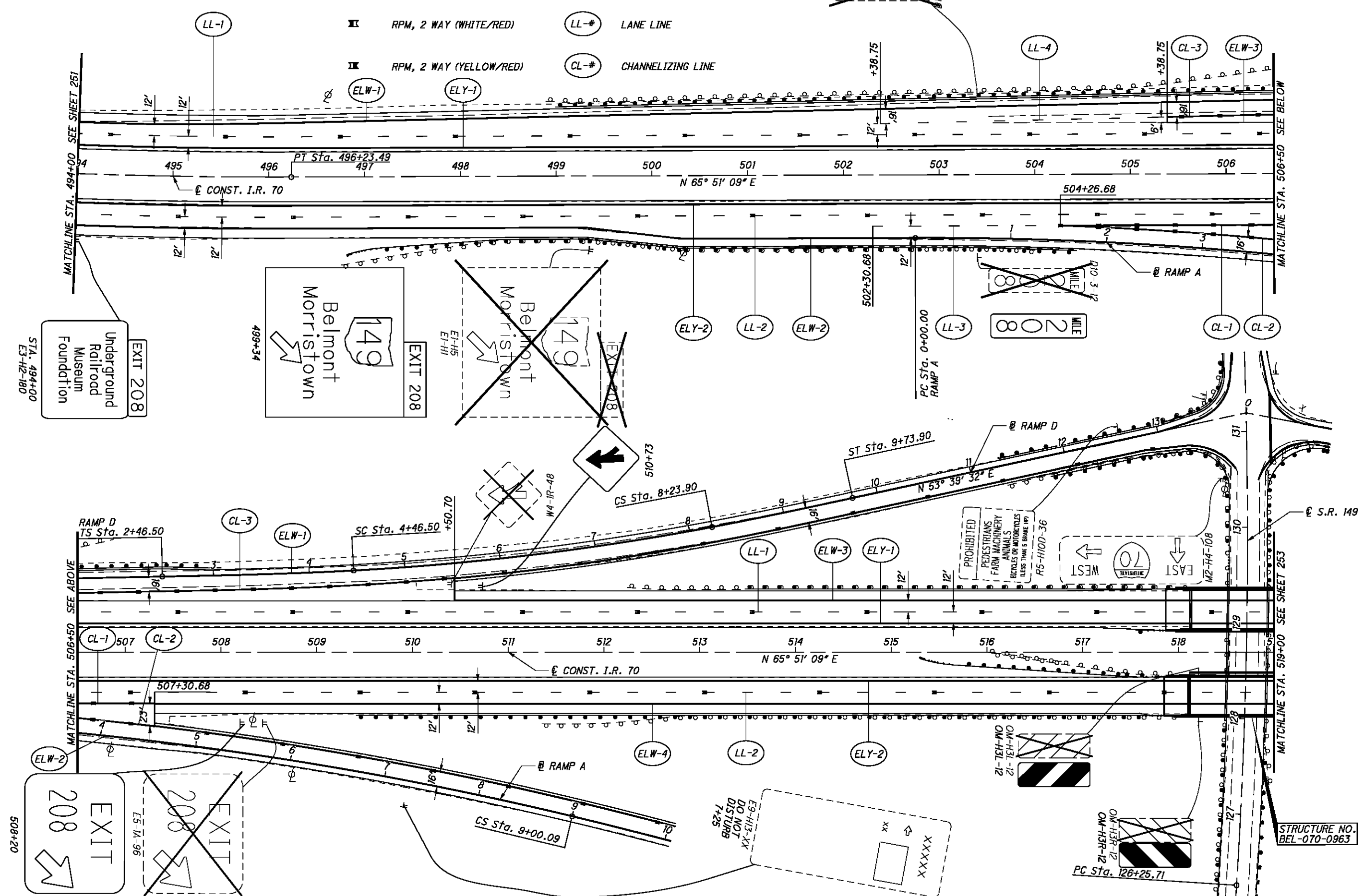
- ➔ TRAFFIC FLOW DIRECTION
- ▬ RPM, ONE WAY
- ▬▬ RPM, 2 WAY (WHITE/RED)
- ▬▬ RPM, 2 WAY (YELLOW/RED)
- ELW-# EDGE LINE (WHITE)
- ELY-# EDGE LINE (YELLOW)
- LL-# LANE LINE
- CL-# CHANNELIZING LINE

CALCULATED
MJC
CHECKED
BBD

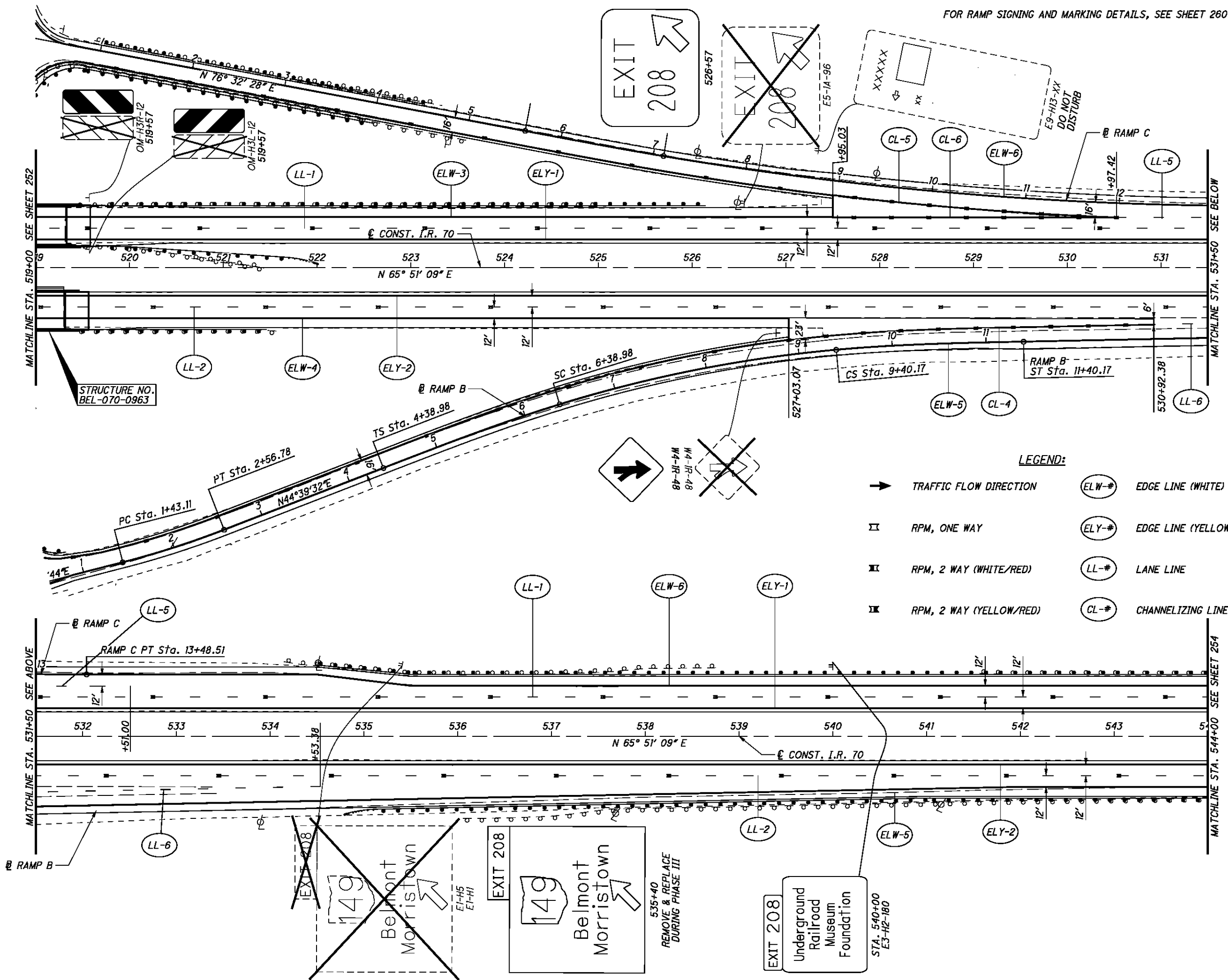
0 50 100
HORIZONTAL
SCALE IN FEET

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

CALCULATED MJC CHECKED BBD

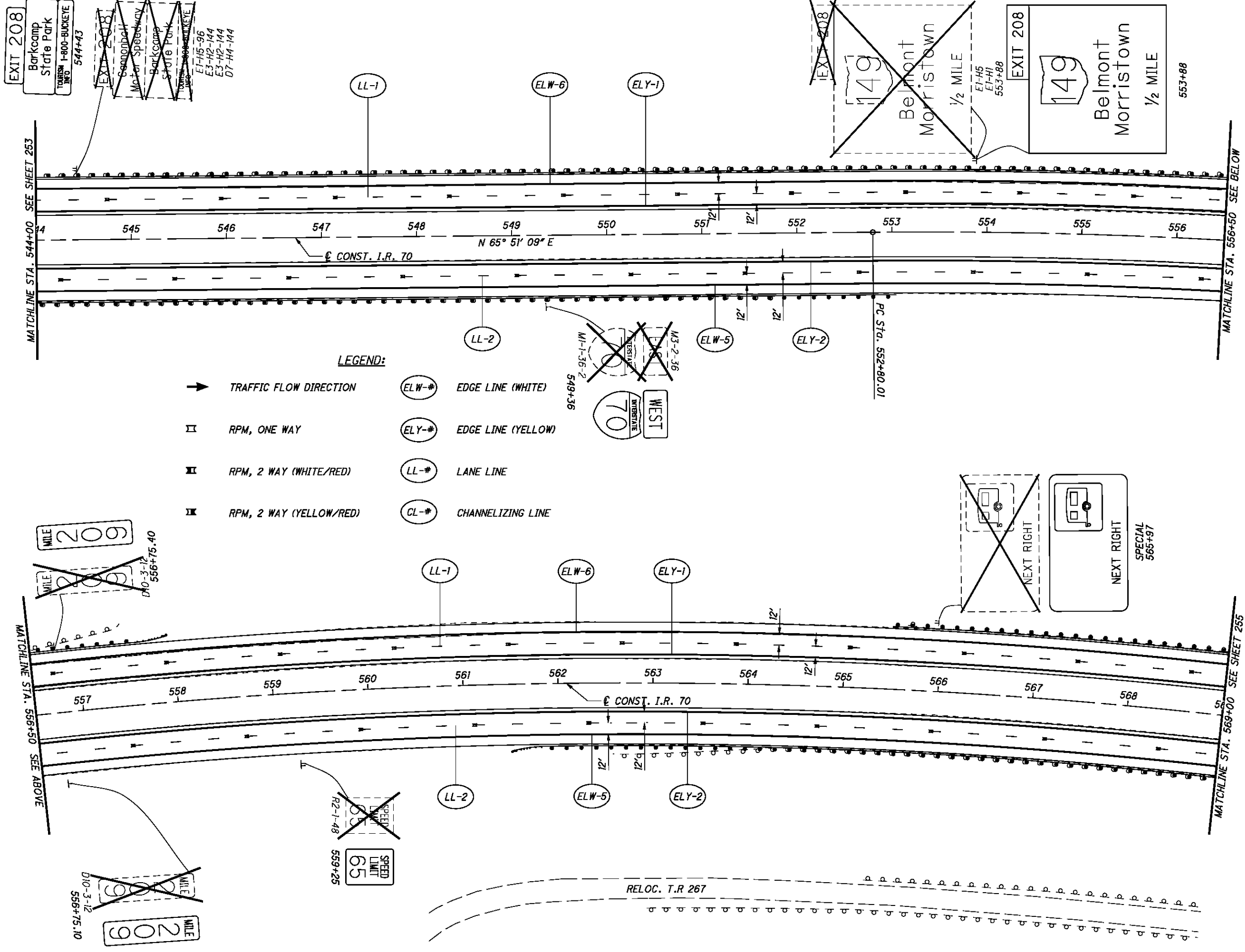
0 50 100
25
HORIZONTAL SCALE IN FEET

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



- 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

EXIT 208
 Barkcamp
 State Park
 TOURISM T-800-BUCKEYE
 INFO 544+43

EXIT 208
 Barkcamp
 State Park
 TOURISM T-800-BUCKEYE
 INFO 544+43

EXIT 208
 Belmont
 Morristown
 1/2 MILE

EXIT 208
 Belmont
 Morristown
 1/2 MILE

209 MILE

209 MILE

209 MILE

209 MILE

65 SPEED LIMIT

65 SPEED LIMIT

NEXT RIGHT

NEXT RIGHT

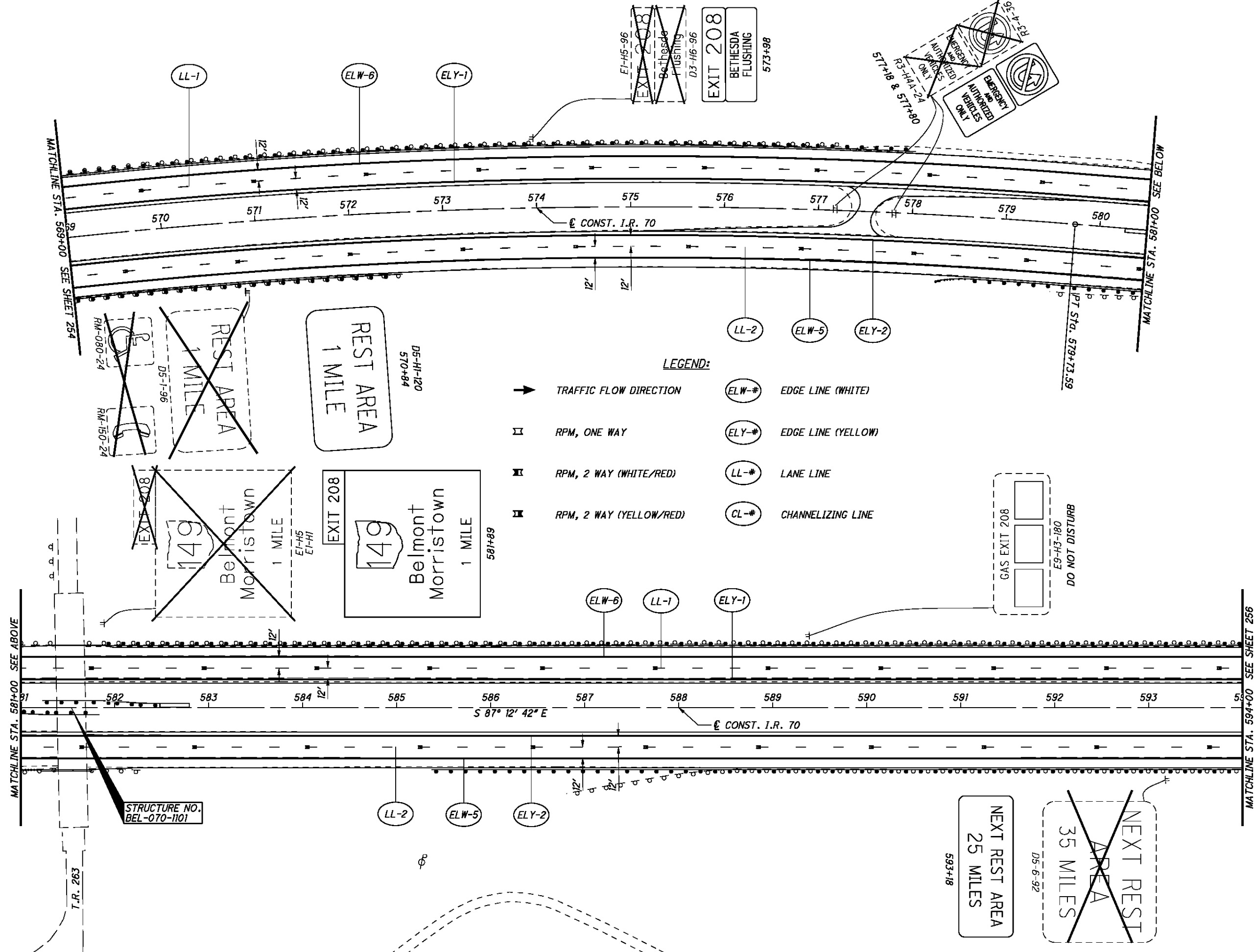
SPECIAL 565+97

CALCULATED MJC CHECKED BBD

0 25 50 100
 HORIZONTAL SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 544+00 TO STA. 569+00

BEL-70-7.61

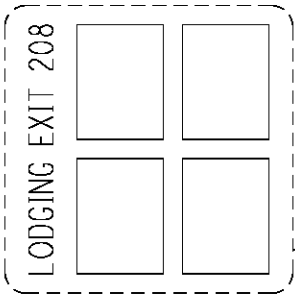
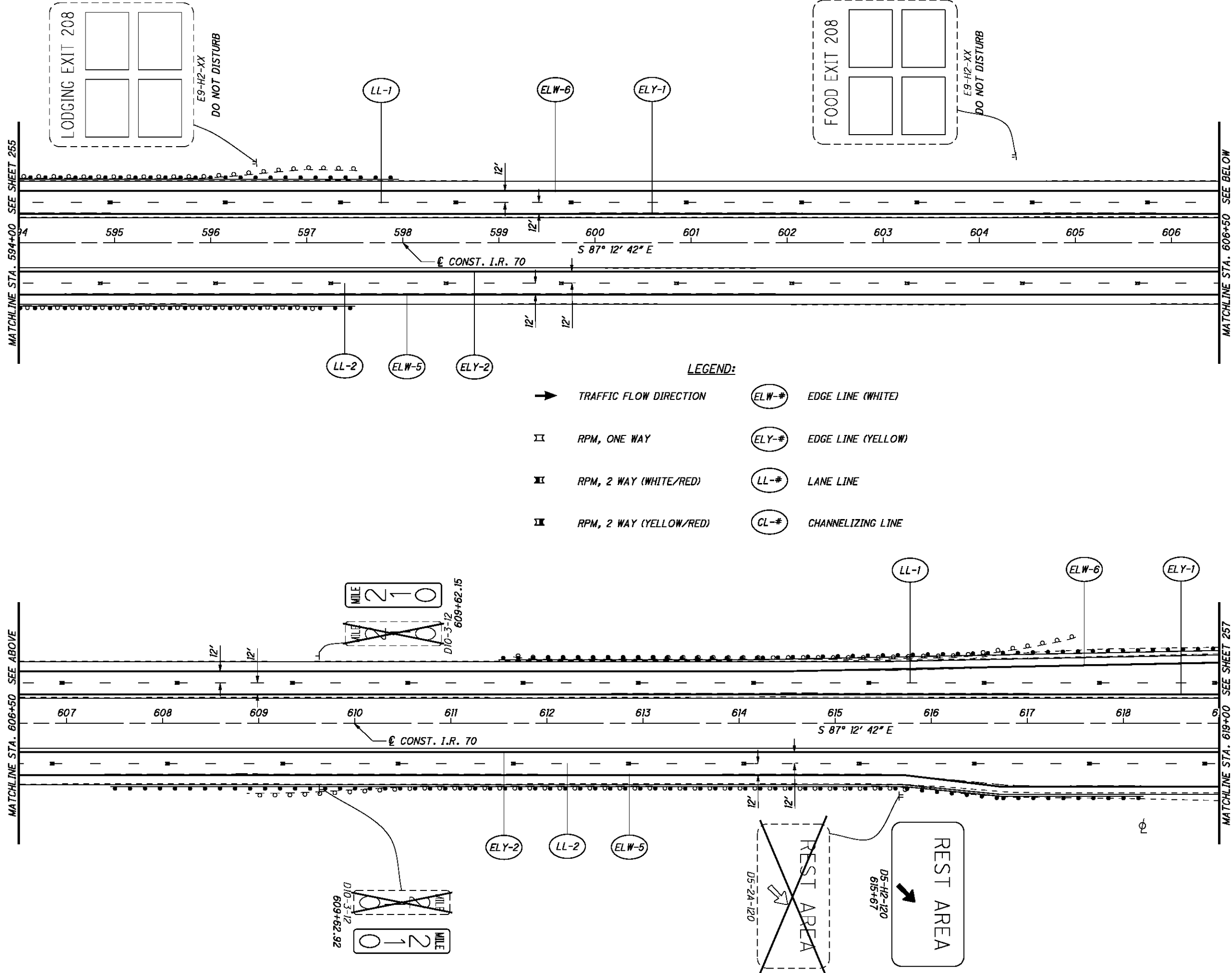


CALCULATED MJC
CHECKED BBD

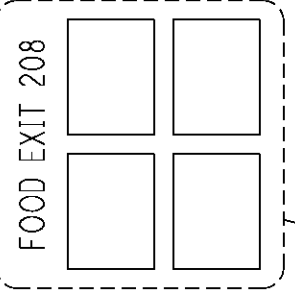
0 25 50 100
HORIZONTAL SCALE IN FEET

2

SIGNING AND PAVEMENT MARKING PLAN
STA. 569+00 TO STA. 594+00



E9-H2-XX
DO NOT DISTURB



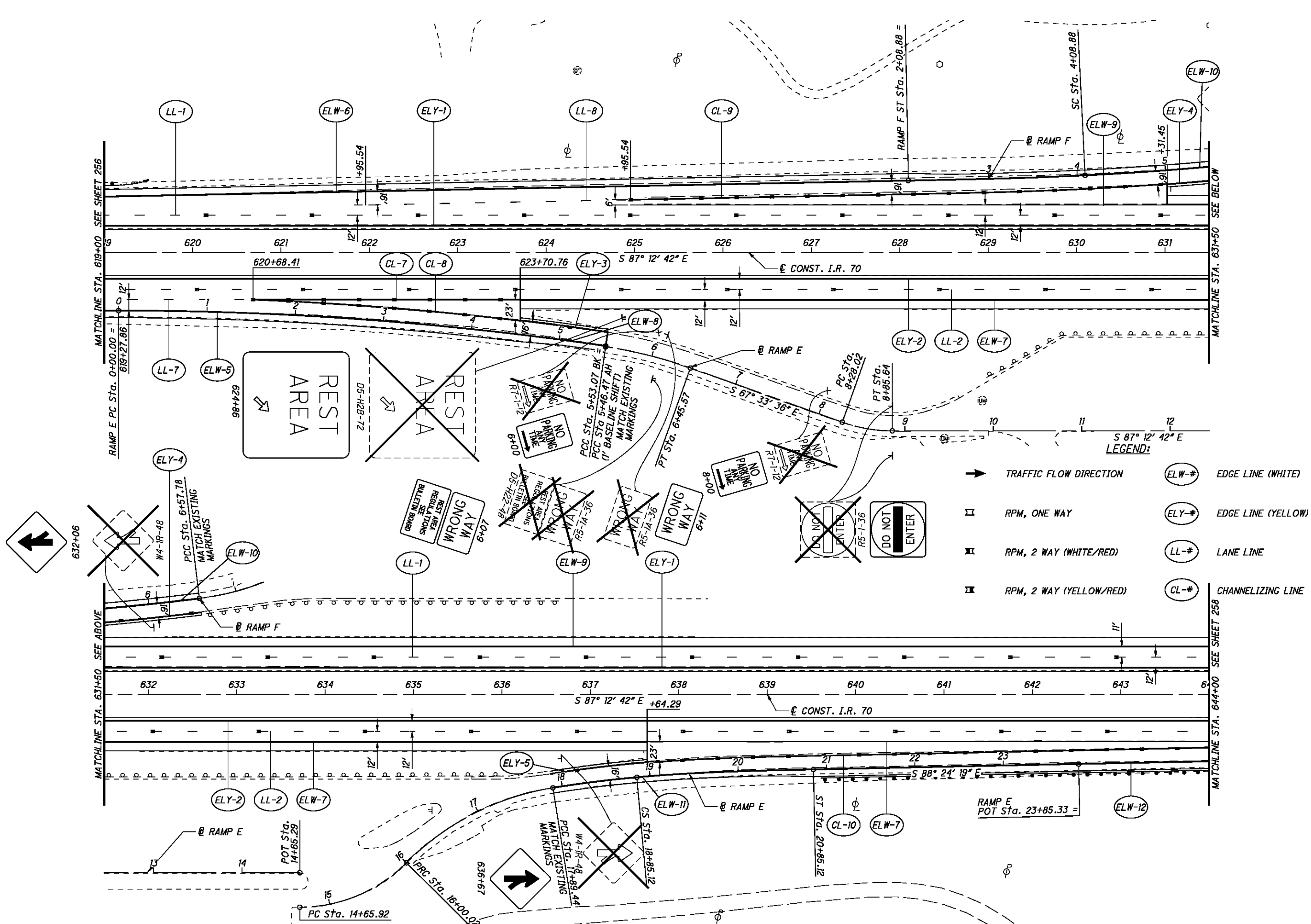
E9-H2-XX
DO NOT DISTURB

- 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 50 100
25
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 594+00 TO STA. 619+00



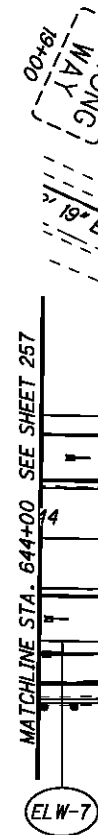
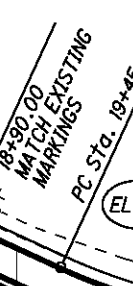
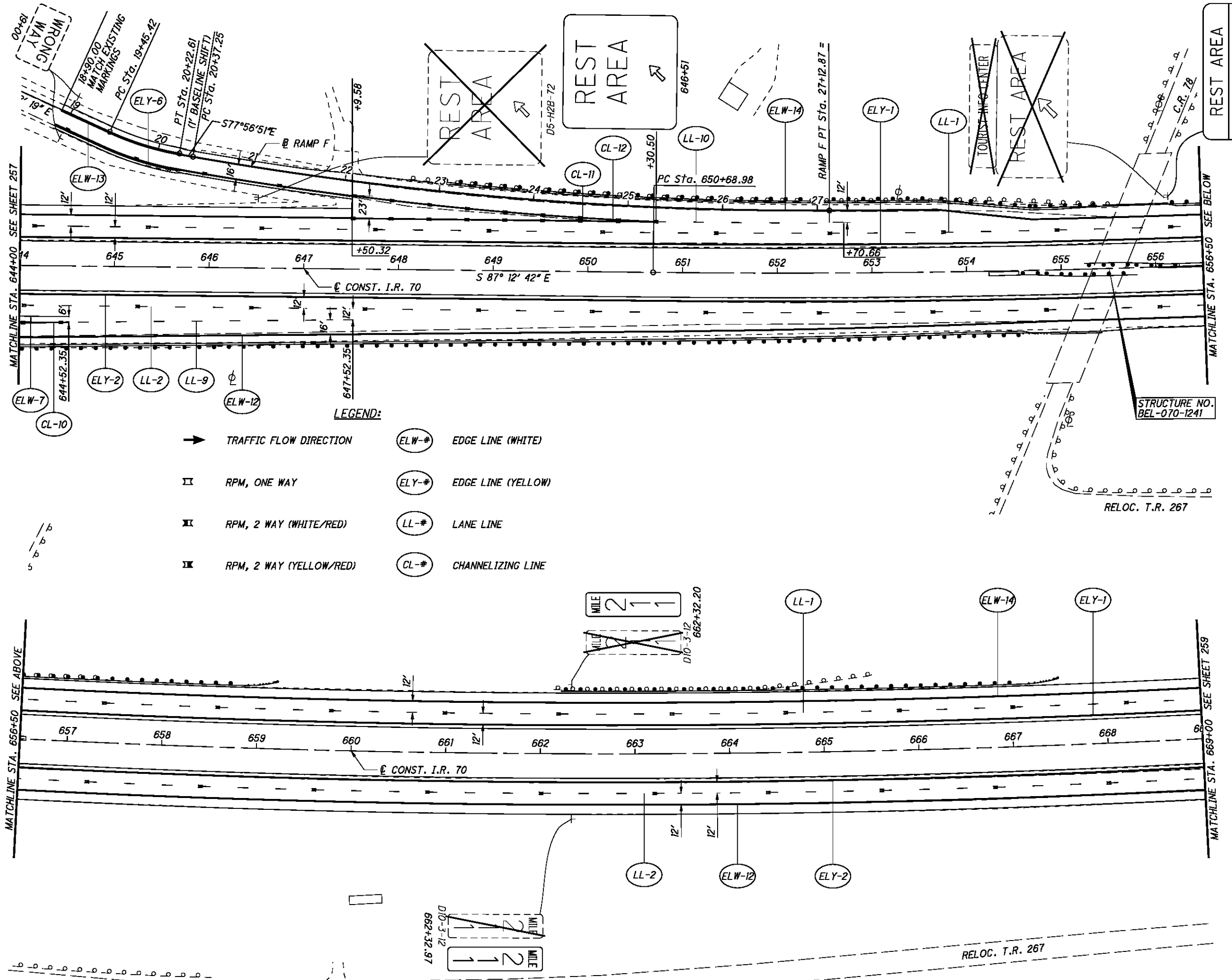
LEGEND:

| | | | |
|--|-------------------------|--|--------------------|
| | TRAFFIC FLOW DIRECTION | | EDGE LINE (WHITE) |
| | RPM, ONE WAY | | EDGE LINE (YELLOW) |
| | RPM, 2 WAY (WHITE/RED) | | LANE LINE |
| | RPM, 2 WAY (YELLOW/RED) | | CHANNELIZING LINE |

CALCULATED
MJC
CHECKED
BBD

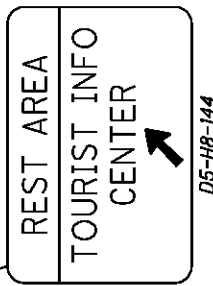
0 50 100
25
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 619+00 TO STA. 644+00



LEGEND:

| | | | |
|---------------|-------------------------|---------------|--------------------|
| \rightarrow | TRAFFIC FLOW DIRECTION | \odot ELW-# | EDGE LINE (WHITE) |
| \square | RPM, ONE WAY | \odot ELY-# | EDGE LINE (YELLOW) |
| \square | RPM, 2 WAY (WHITE/RED) | \odot LL-# | LANE LINE |
| \square | RPM, 2 WAY (YELLOW/RED) | \odot CL-# | CHANNELIZING LINE |



CALCULATED: MJC
 CHECKED: BDD

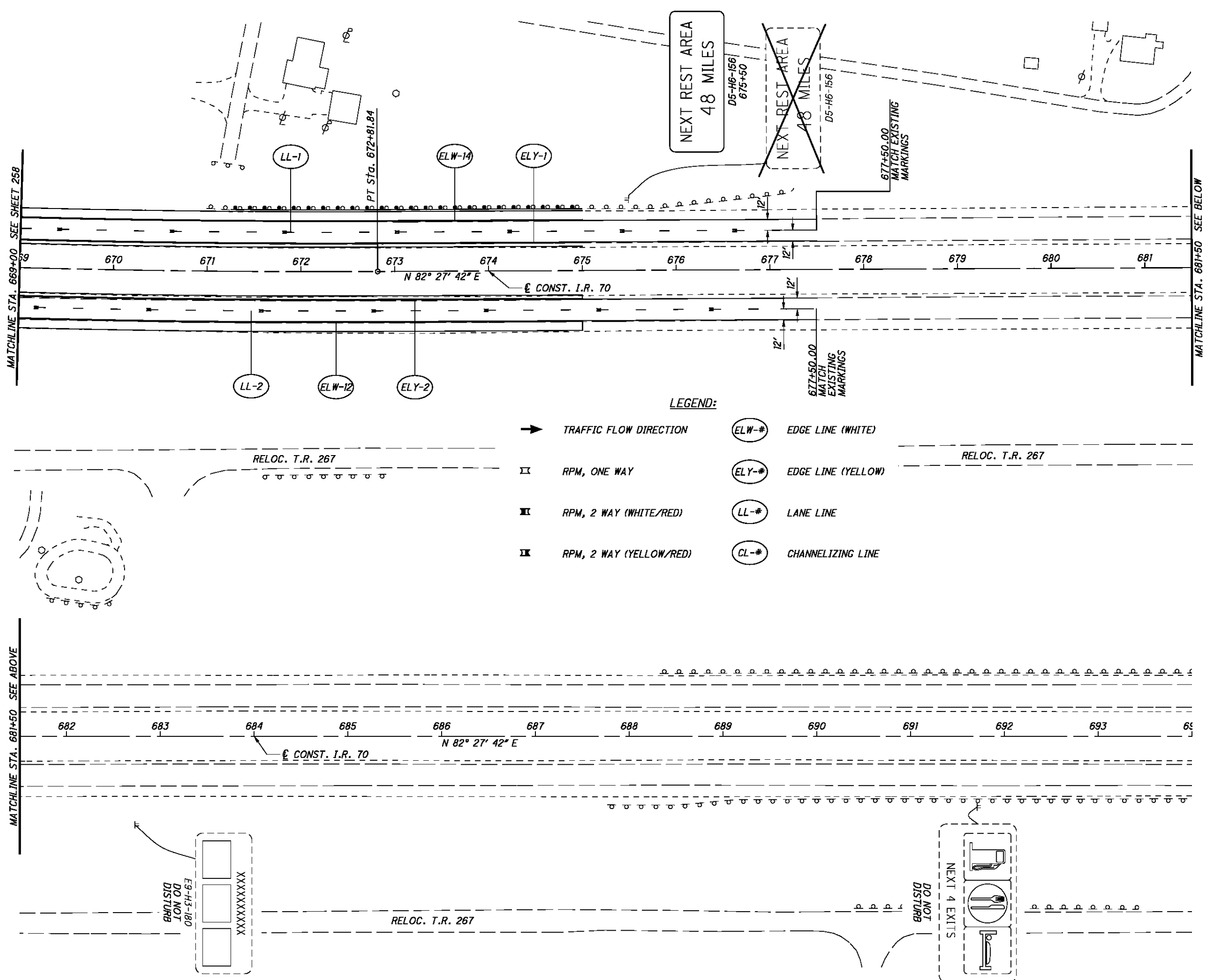
0 50 100
 HORIZONTAL SCALE IN FEET

25 50 100
 HORIZONTAL SCALE IN FEET

D5-HB-144
 656+15

SIGNING AND PAVEMENT MARKING PLAN
STA. 644+00 TO STA. 669+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

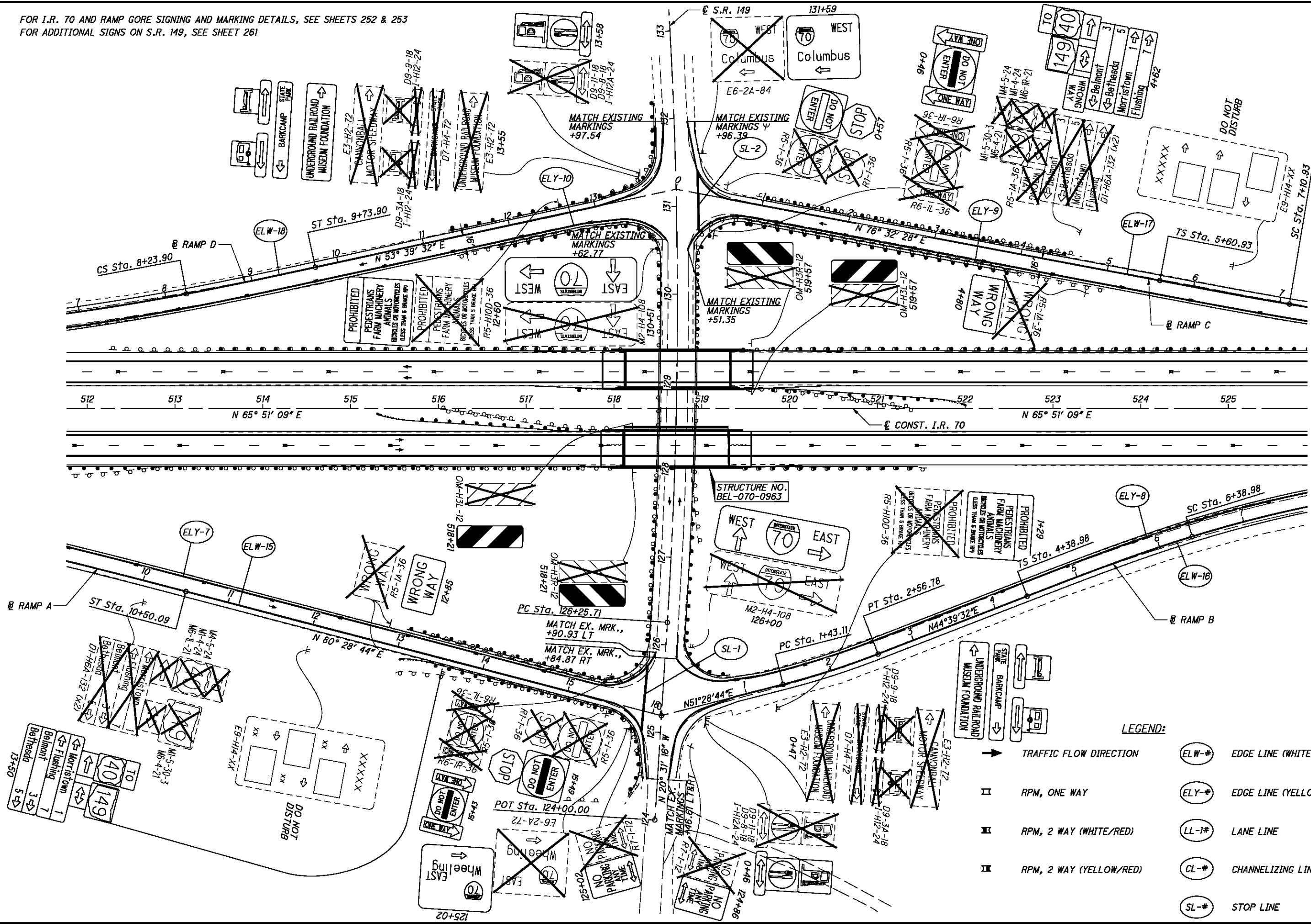
CALCULATED
MJC
CHECKED
BBD

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

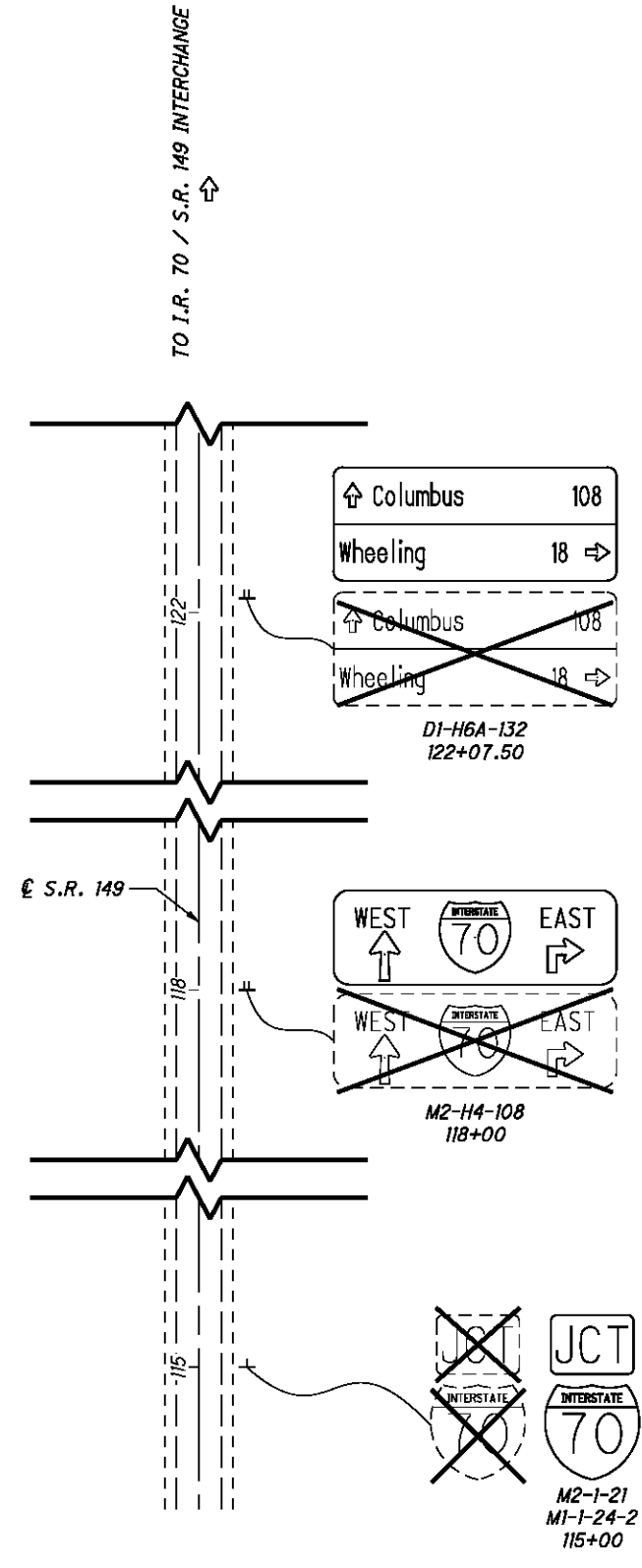
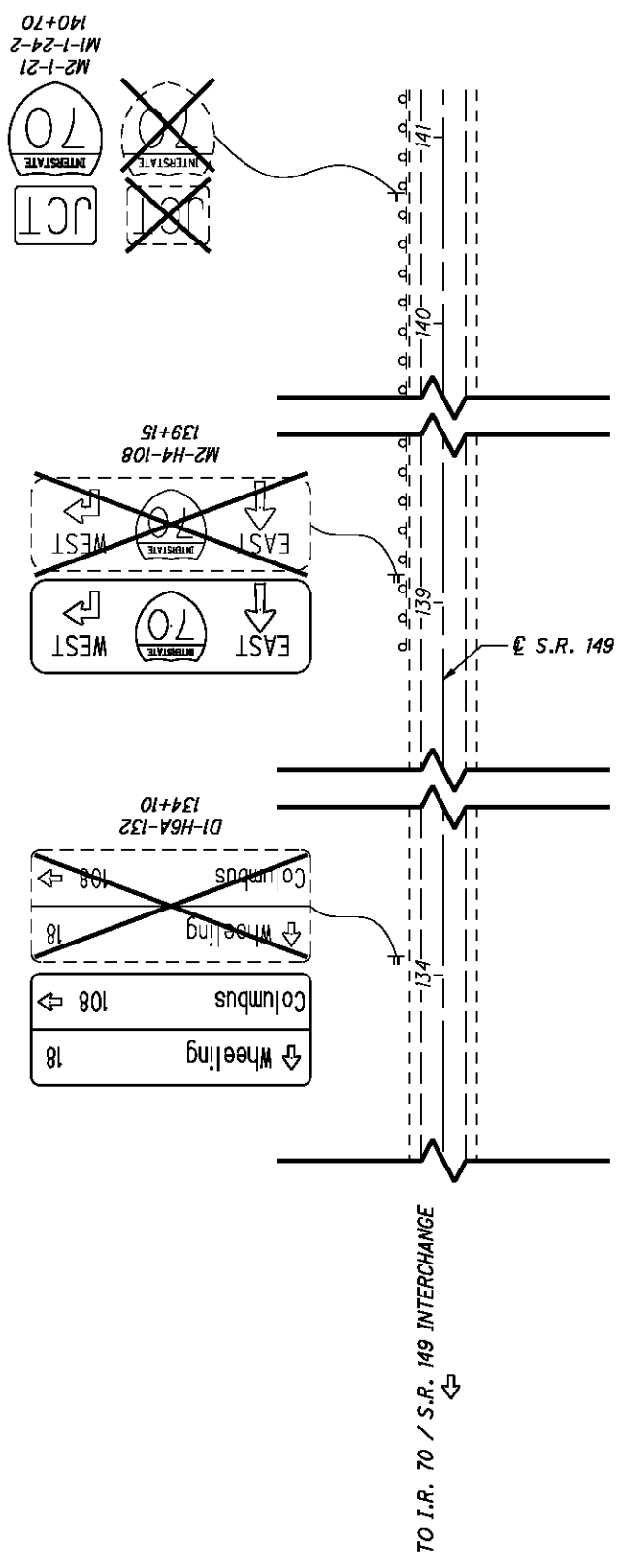
BEL-70-7.61

260
373

LEGEND:

| | | | |
|--|-------------------------|--|--------------------|
| | TRAFFIC FLOW DIRECTION | | EDGE LINE (WHITE) |
| | RPM, ONE WAY | | EDGE LINE (YELLOW) |
| | RPM, 2 WAY (WHITE/RED) | | LANE LINE |
| | RPM, 2 WAY (YELLOW/RED) | | CHANNELIZING LINE |
| | STOP LINE | | |

P:\76825\traffic\sheets\76825TP320.dgn 9/21/2012 7:50:45 AM mcorneett

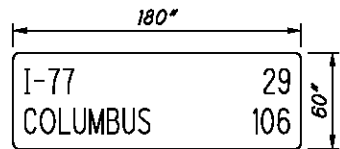


CALCULATED
MJC
CHECKED
BBD

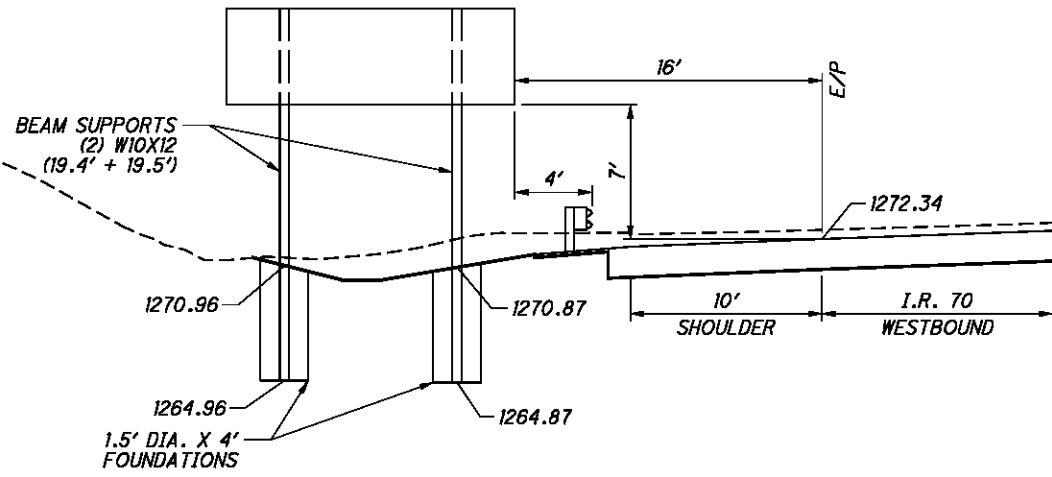
0 50 100
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
S.R. 149

BEL - 70-7.61



D2-H2-180
SIGN DETAIL
N.T.S.

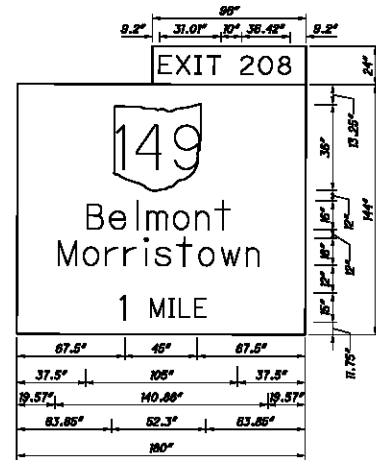


BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 466+48, LT (FACING WEST)

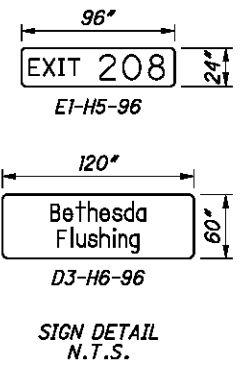
| SIGN INFORMATION | |
|-----------------------------|-----------|
| DESIGN LEVEL | 1 |
| EXIT PANEL TEXT FONT | E |
| EXIT PANEL TEXT SIZE (INCH) | 10 |
| EXIT PANEL BACKGROUND | GREEN |
| EXIT PANEL FILL COLOR | WHITE |
| EXIT PANEL SIZE | 8' X 2' |
| SIGN DESIGNATION | EI-H5-96 |
| TEXT FONT | E (M) |
| TEXT SIZE (INCH) | 16 |
| BACKGROUND | GREEN |
| FILL COLOR | WHITE |
| PANEL SIZE | 15' X 12' |
| ARROW | A-1 |
| SIGN DESIGNATION | EI-H1-180 |

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)

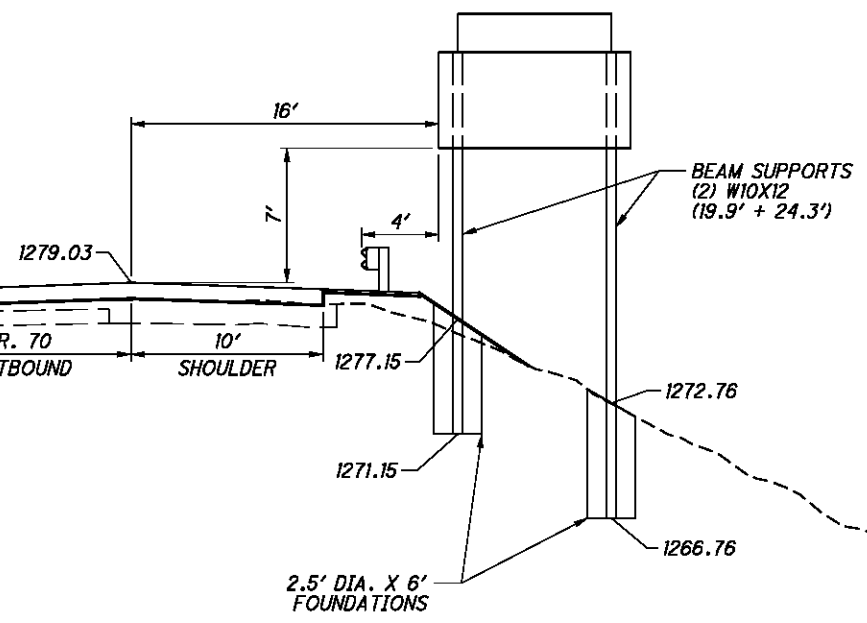
| | | 8' | | | | | | | | | | | | | | |
|----|-------|-------|--------|--------|-------|-------|-------|-------|------|-------|-------|-------|--------------|-------|-------|------|
| | | 96.00 | | | | | | | | | | | | | | |
| | | 9.20 | 31.18 | 10.00 | 36.42 | 9.20 | | | | | | 4.50 | 24.00 | | | |
| 2' | 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 | | | | | | | | | | | |
| | 12.00 | 16.00 | 37.50 | B | 6 | I | m | o | n | f | 37.50 | | | | | |
| | 12.00 | 16.00 | 3.57 | 16.00 | M | o | r | r | o | s | t | o | w | n | | |
| | 12.00 | 16.00 | 3.57 | 16.00 | 17.13 | 14.41 | 11.84 | 11.84 | 9.60 | 13.77 | 11.68 | 14.41 | 19.21 | 16.97 | 16.00 | 3.57 |
| | 12.00 | 15.00 | | | I | M | I | L | E | | | | | | | |
| | 7.50 | 83.85 | 52.30 | | | | | | | | | | 63.85 | | | |
| | 4.25 | 3.57 | 16.00 | 140.86 | | | | | | | | | | 16.00 | 3.57 | |
| | | | 180.00 | | | | | | | | | | Longest line | | | |
| | | | 15' | | | | | | | | | | | | | |



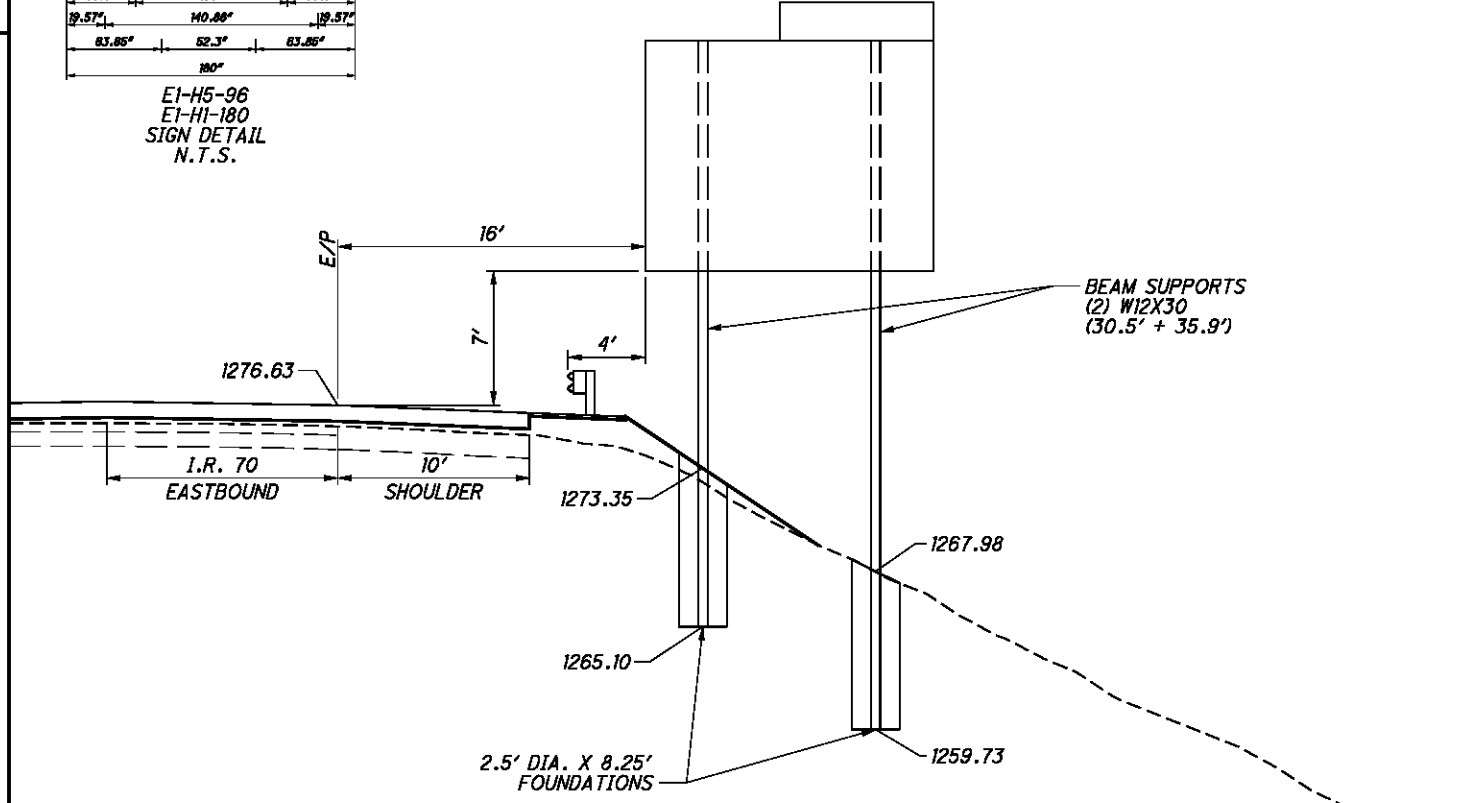
EI-H5-96
EI-H1-180
SIGN DETAIL
N.T.S.



D3-H6-96
SIGN DETAIL
N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 463+32, RT (FACING EAST)

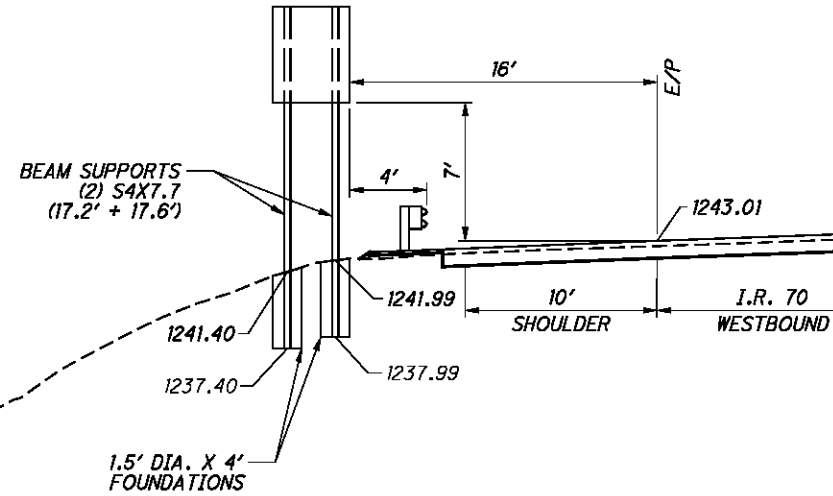
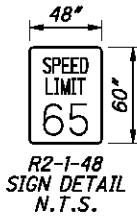


BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 454+46, RT (FACING EAST)

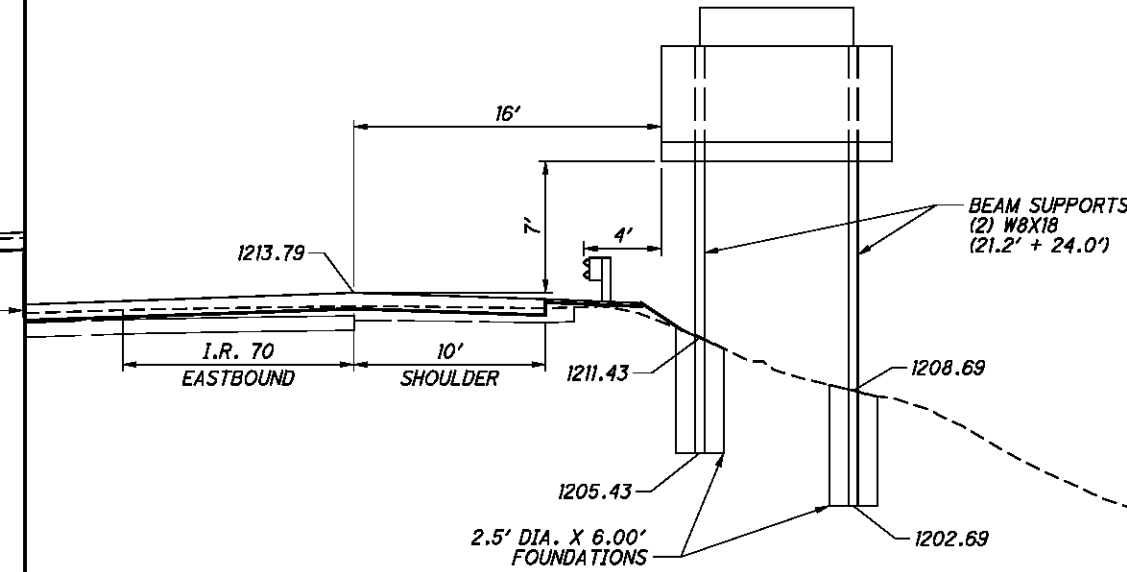
SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

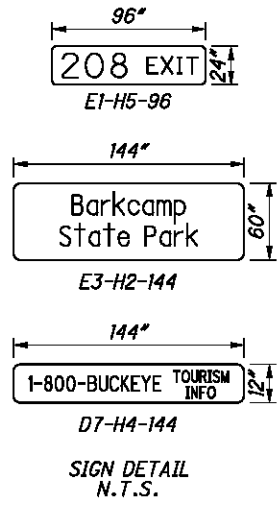
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BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 478+20, LT (FACING WEST)

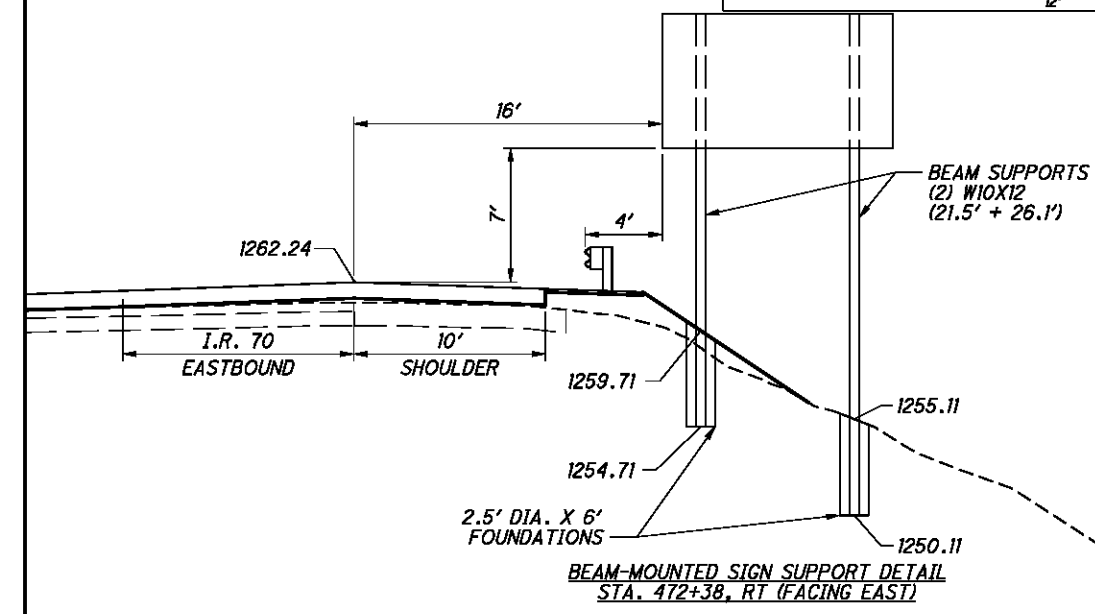
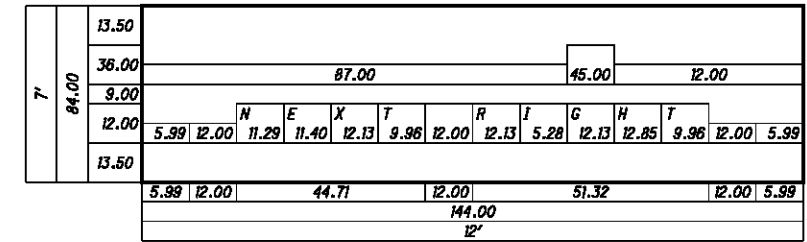


BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 490+52, RT (FACING EAST)

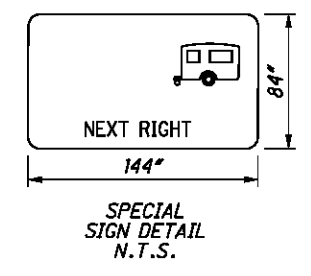


| SIGN INFORMATION | |
|------------------|----------|
| DESIGN LEVEL | I |
| TEXT FONT | E |
| TEXT SIZE (INCH) | 12 |
| BACKGROUND | BLUE |
| FILL COLOR | WHITE |
| SIZE | 12' X 7' |
| SIGN DESIGNATION | SPECIAL |

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)



CALCULATED
CDS
CHECKED
BBD

SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

263
373

| 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-I |
| SIGN DESIGNATION | EI-HI-180 |

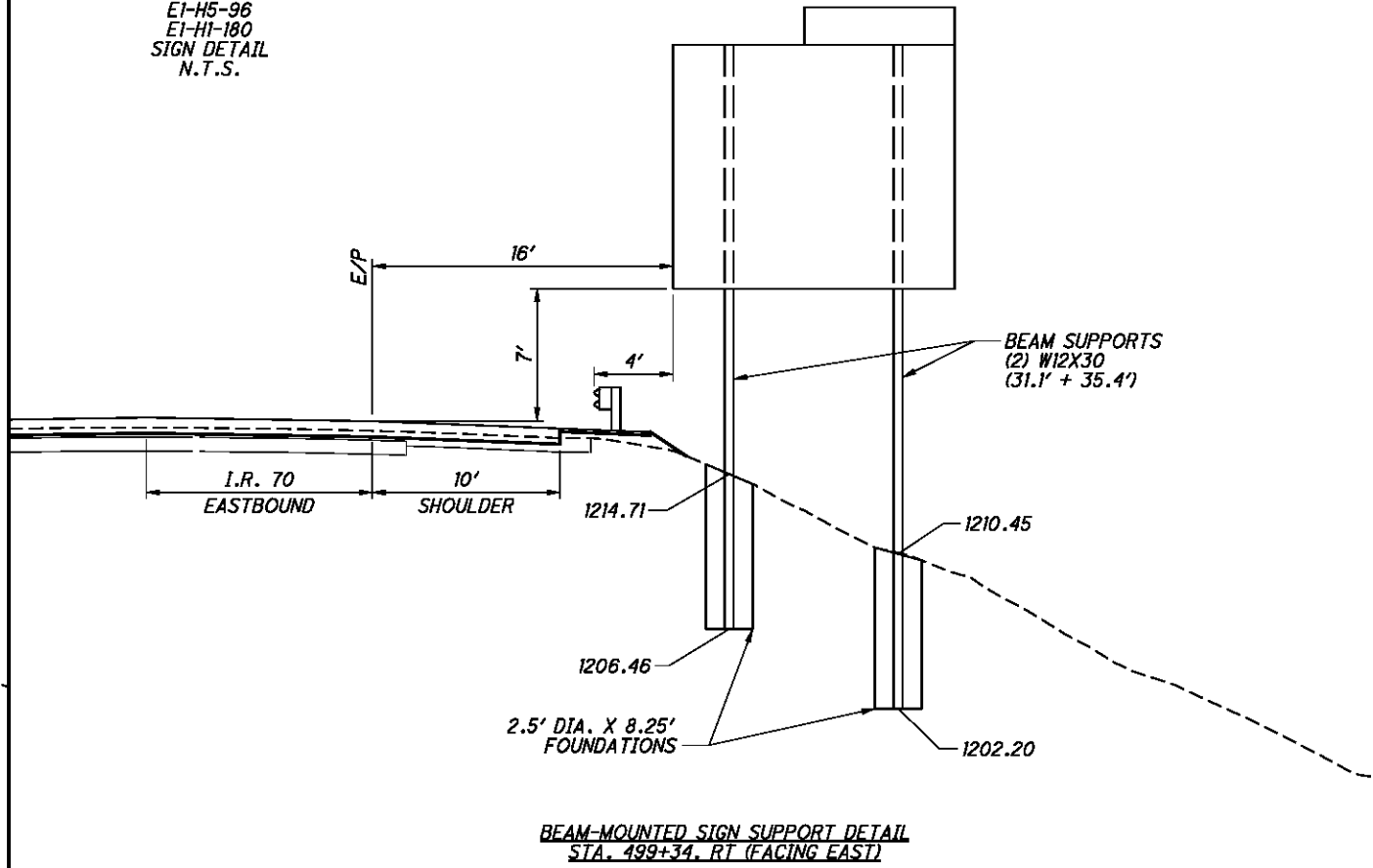
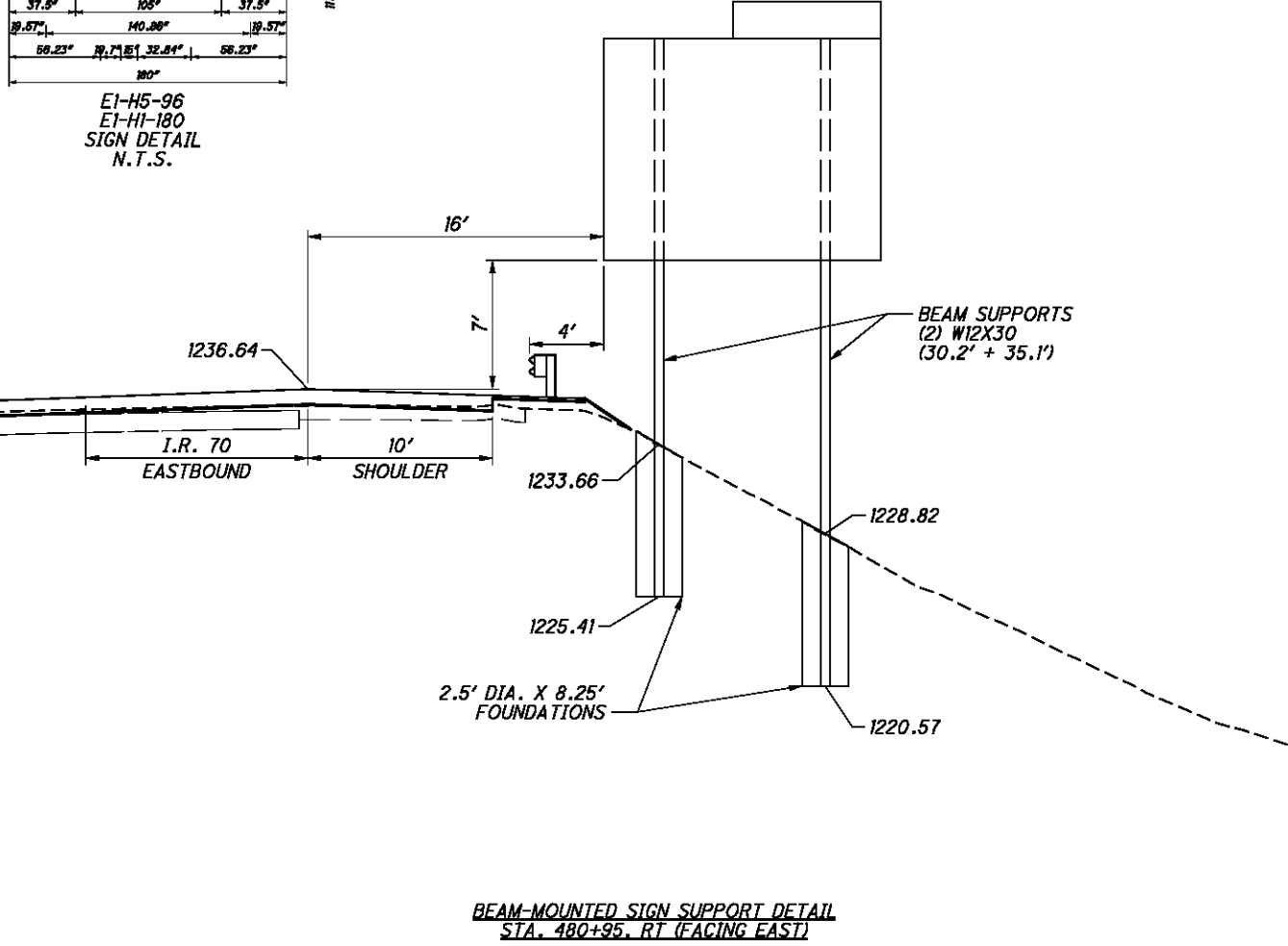
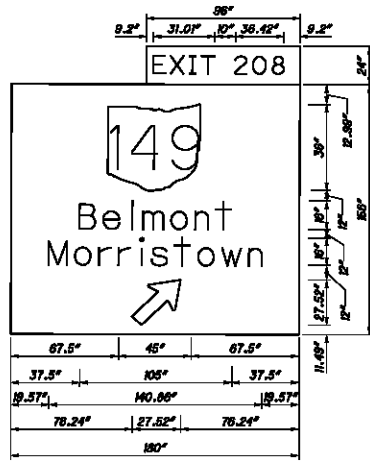
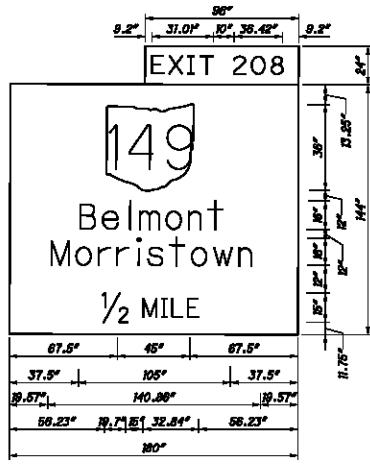
3.00" Radius, 2.00" Border, White on Green
 EXIT 208 E
 12.00" Radius, 2.00" Border, White on Green
 State Highway 149, MI-H5-45-2; [Belmont] E (M); [Morristown] E (M)
 [EXIT 1/2 MILE] E (M)

| | | 8' | | | | | | | | | | | | |
|----|-------|--------|--------|-------|-------|------|---|-------|---|-------|------|-------|-------|-------|
| | | 96.00 | | | | | | | | | | | | |
| | | 9.20 | 31.18 | 10.00 | 36.42 | 9.20 | | | | | 4.50 | 24.00 | | |
| 2' | 7.00 | | | | | | | | | | | 15.00 | 24.00 | |
| | 10.00 | | | | | | | | | | | 15.00 | | |
| | 7.00 | | | | | | | | | | | 4.50 | | |
| | 9.00 | | | | | | | | | | | 3.99 | | |
| | 36.00 | 67.50 | 45.00 | 67.50 | | | | | | | | | | |
| | 12.00 | | | | | | | | | | | 15.00 | | |
| | 16.00 | 37.50 | B | e | I | m | o | n | f | 37.50 | | | | |
| | 12.00 | | | | | | | | | | | 15.00 | | |
| | 18.00 | 3.57 | 16.00 | M | o | r | r | i | s | t | o | w | | n |
| | 12.00 | | | | | | | | | | | 15.00 | | |
| | 15.00 | 56.23 | 19.70 | 15.00 | 32.84 | | | 56.23 | | | | | | |
| | 7.50 | | | | | | | | | | | 15.00 | | |
| | 4.25 | | | | | | | | | | | 3.57 | | |
| | | | 140.86 | | | | | | | | | | | 16.00 |
| | | 180.00 | | | | | | | | | | | | |
| | | 15' | | | | | | | | | | | | |

| 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-I |
| 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-I 35.00° 45°

| | | 8' | | | | | | | | | | | | |
|----|-------|--------|--------|-------|-------|------|---|---|---|-------|------|-------|-------|-------|
| | | 96.00 | | | | | | | | | | | | |
| | | 9.20 | 31.18 | 10.00 | 36.42 | 9.20 | | | | | 4.50 | 24.00 | | |
| 2' | 7.00 | | | | | | | | | | | 15.00 | 24.00 | |
| | 10.00 | | | | | | | | | | | 15.00 | | |
| | 7.00 | | | | | | | | | | | 4.50 | | |
| | 9.00 | | | | | | | | | | | 3.99 | | |
| | 36.00 | 67.50 | 45.00 | 67.50 | | | | | | | | | | |
| | 12.00 | | | | | | | | | | | 15.00 | | |
| | 16.00 | 37.50 | B | e | I | m | o | n | f | 37.50 | | | | |
| | 12.00 | | | | | | | | | | | 15.00 | | |
| | 18.00 | 3.57 | 16.00 | M | o | r | r | i | s | t | o | w | | n |
| | 12.00 | | | | | | | | | | | 15.00 | | |
| | 27.52 | 76.24 | 27.52 | 76.24 | | | | | | | | | | |
| | 7.50 | | | | | | | | | | | 15.00 | | |
| | 3.99 | | | | | | | | | | | 3.57 | | |
| | | | 140.86 | | | | | | | | | | | 16.00 |
| | | 180.00 | | | | | | | | | | | | |
| | | 15' | | | | | | | | | | | | |



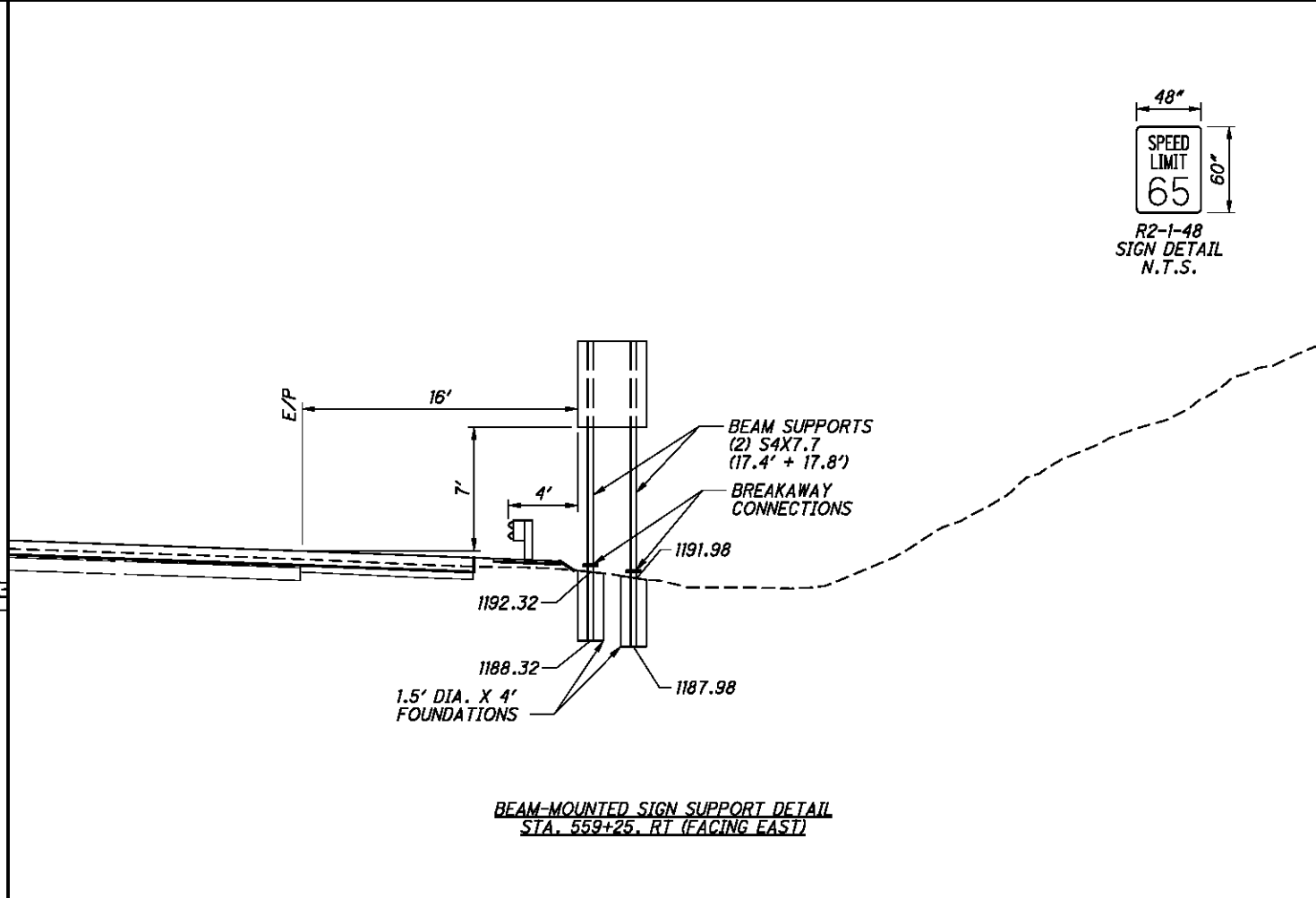
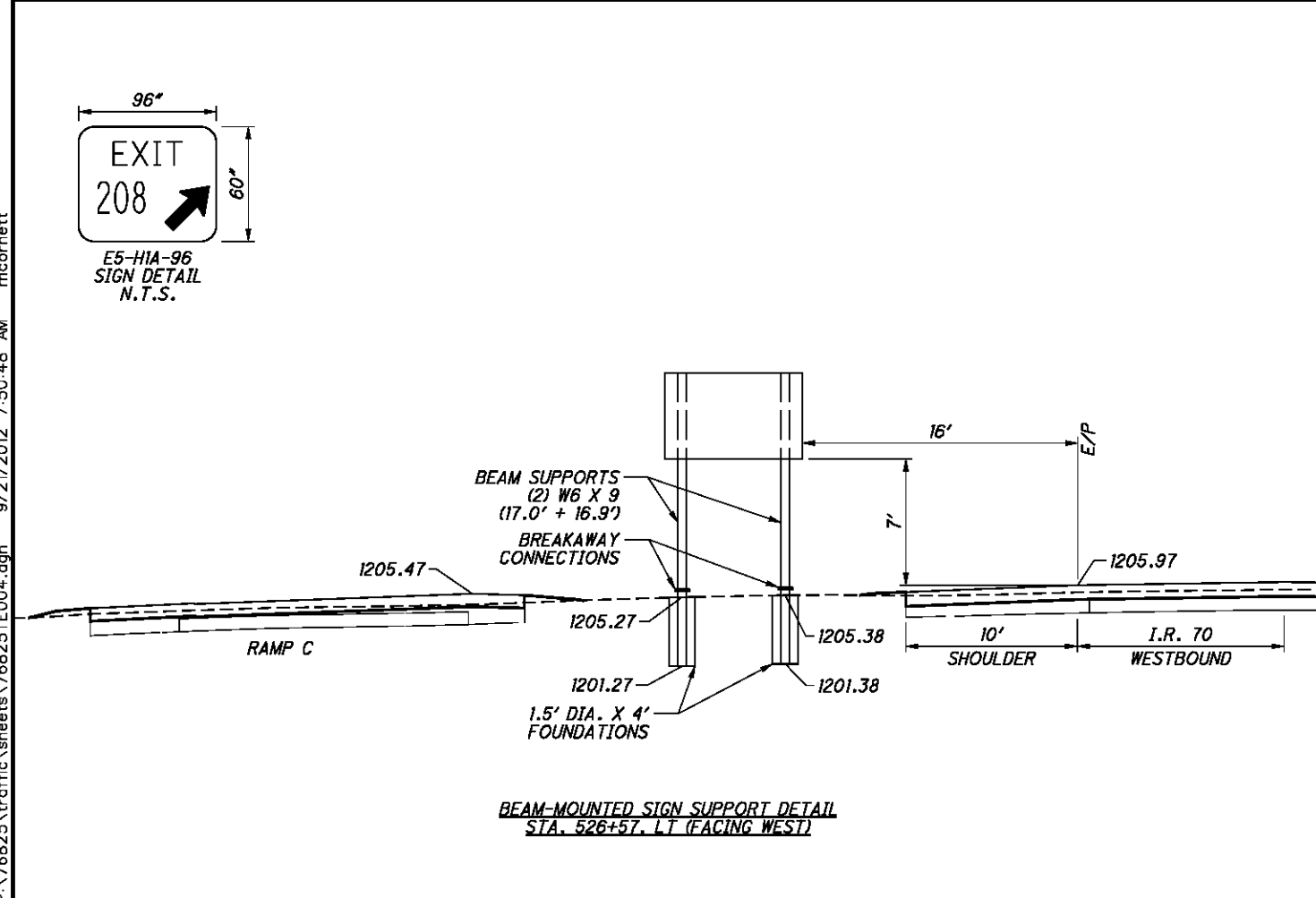
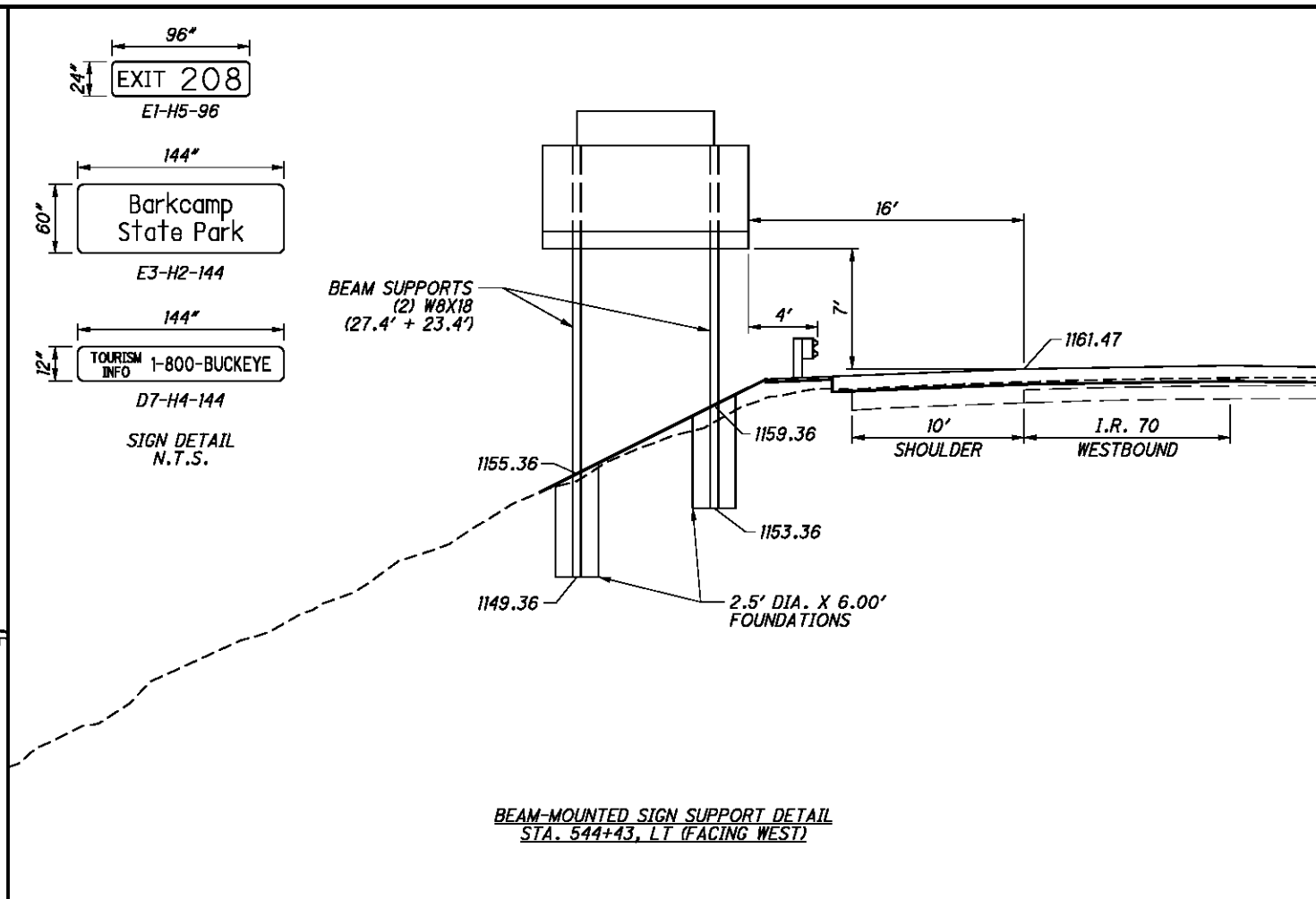
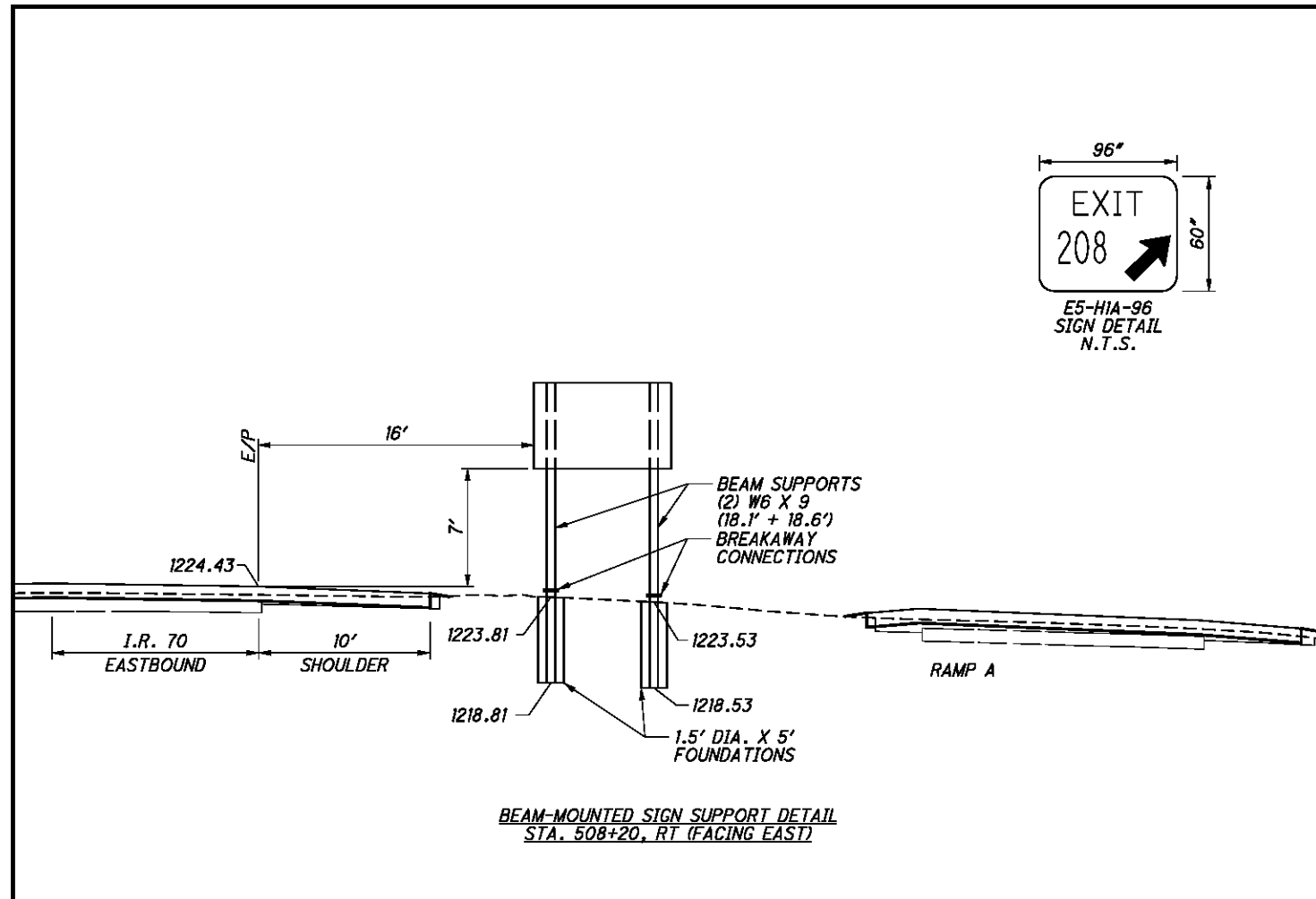
SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

264
373

P:\76825\traffic\sheets\76825\T003.dgn 9/21/2012 7:50:47 AM mcornett

P:\76825\traffic\sheets\76825\T004.dgn 9/21/2012 7:50:48 AM mcornett



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 |

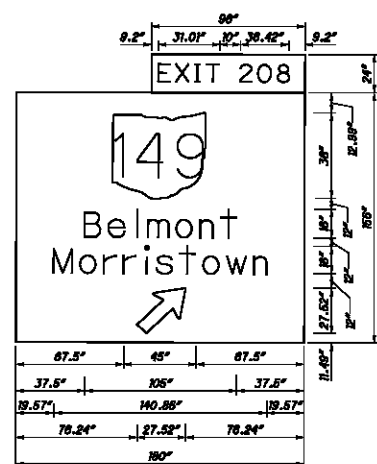
3.00" Radius, 2.00" Border, White on Green
 EXIT 208 E
 12.00" Radius, 2.00" Border, White on Green
 State Highway 149, MI-H5-45-2; [Belmont] E Mod; [Morristown] E Mod
 Arrow A-1 35.00° 45°

| | | 8' | | | | | | | | | | | | | |
|-----|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------------|-------|-------|
| | | 96.00 | | | | | | | | | | | | | |
| | | 9.20 | 31.18 | 10.00 | 36.42 | 9.20 | | | | | 4.50 | 24.00 | | | |
| 13' | 24.00 | 7.00 | | | | | | | | | | | 4.50 | 24.00 | |
| | 10.00 | 3.99 | | | | | | | | | | | 15.00 | | |
| | 7.00 | 9.00 | | | | | | | | | | | 4.50 | 24.00 | |
| | 36.00 | 67.50 | 45.00 | 67.50 | | | | | | | | 4.50 | 24.00 | | |
| | 12.00 | | | | | | | | | | | | | | |
| | 16.00 | 37.50 | 14.25 | 14.09 | 9.60 | 24.01 | 14.41 | 16.97 | 11.68 | 37.50 | | | | | |
| | 12.00 | | | | | | | | | | | | | | |
| | 16.00 | 3.57 | 16.00 | 17.13 | 14.41 | 11.84 | 11.84 | 9.60 | 13.77 | 11.68 | 14.41 | 19.21 | 16.97 | 16.00 | 3.57 |
| | 12.00 | | | | | | | | | | | | | | |
| | 27.52 | 76.24 | 27.52 | 76.24 | | | | | | | | | | 4.50 | 24.00 |
| | 7.50 | | | | | | | | | | | | | | |
| | 3.99 | | | | | | | | | | | | | | |
| | | | 3.57 | 16.00 | 140.86 | | | | | | 16.00 | 3.57 | Longest line | | |
| | | | 180.00 | | | | | | | | | | | | |
| | | 15' | | | | | | | | | | | | | |

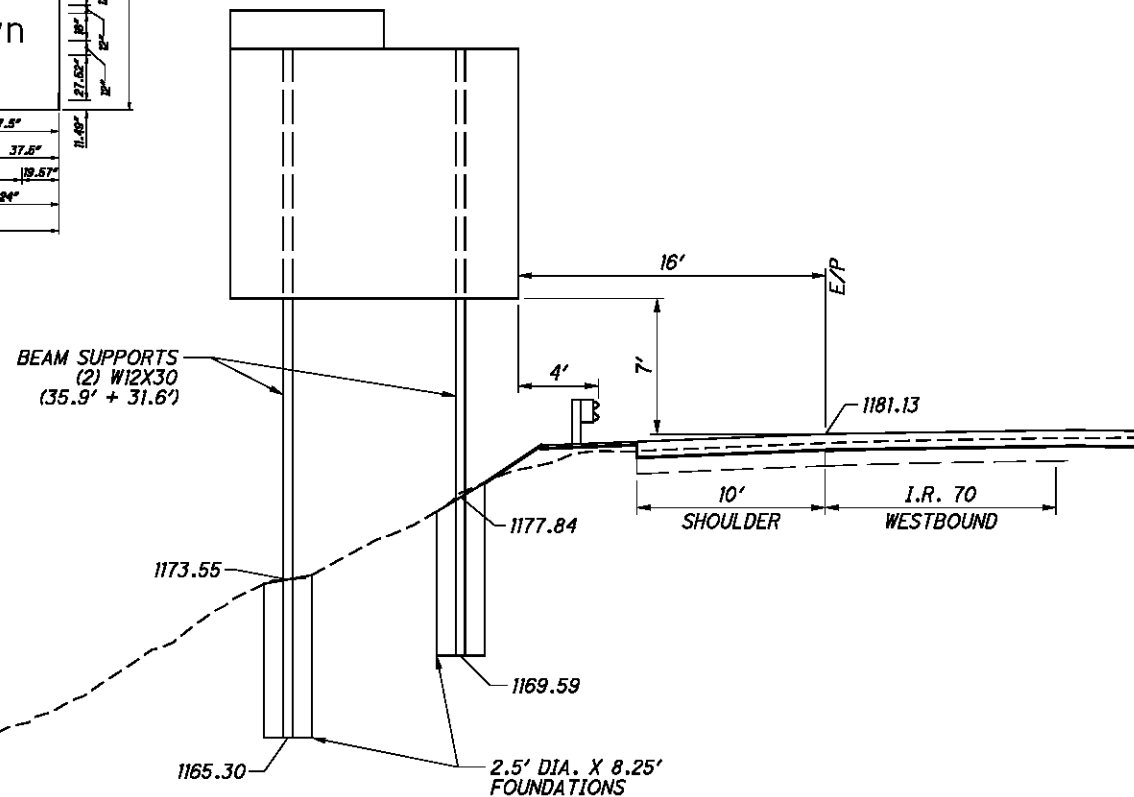
| SIGN INFORMATION | |
|-----------------------------|-----------|
| DESIGN LEVEL | 1 |
| EXIT PANEL TEXT FONT | E |
| EXIT PANEL TEXT SIZE (INCH) | 10 |
| EXIT PANEL BACKGROUND | GREEN |
| EXIT PANEL FILL COLOR | WHITE |
| EXIT PANEL SIZE | 8' X 2' |
| SIGN DESIGNATION | EI-H5-96 |
| TEXT FONT | E (M) |
| 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 Mod; [Morristown] E Mod
 EXIT 1/2 MILE E (M)

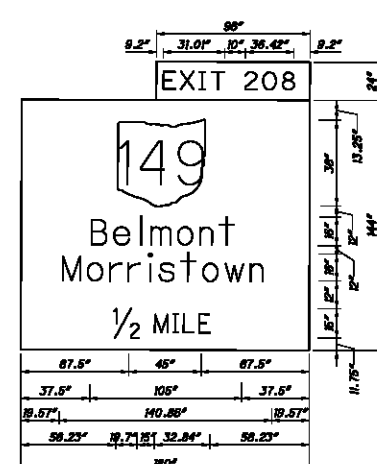
| | | 8' | | | | | | | | | | | | | |
|-----|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------------|-------|------|
| | | 96.00 | | | | | | | | | | | | | |
| | | 9.20 | 31.18 | 10.00 | 36.42 | 9.20 | | | | | 4.50 | 24.00 | | | |
| 12' | 24.00 | 7.00 | | | | | | | | | | | 4.50 | 24.00 | |
| | 10.00 | 4.25 | | | | | | | | | | | 15.00 | | |
| | 7.00 | 9.00 | | | | | | | | | | | 4.50 | 24.00 | |
| | 36.00 | 67.50 | 45.00 | 67.50 | | | | | | | | 4.50 | 24.00 | | |
| | 12.00 | | | | | | | | | | | | | | |
| | 16.00 | 37.50 | 14.25 | 14.09 | 9.60 | 24.01 | 14.41 | 16.97 | 11.68 | 37.50 | | | | | |
| | 12.00 | | | | | | | | | | | | | | |
| | 16.00 | 3.57 | 16.00 | 17.13 | 14.41 | 11.84 | 11.84 | 9.60 | 13.77 | 11.68 | 14.41 | 19.21 | 16.97 | 16.00 | 3.57 |
| | 12.00 | | | | | | | | | | | | | | |
| | 15.00 | 56.23 | 19.70 | 15.00 | 32.84 | | | | 56.23 | | | | 4.50 | 24.00 | |
| | 7.50 | | | | | | | | | | | | | | |
| | 4.25 | | | | | | | | | | | | | | |
| | | | 3.57 | 16.00 | 140.86 | | | | | | 16.00 | 3.57 | Longest line | | |
| | | | 180.00 | | | | | | | | | | | | |
| | | 15' | | | | | | | | | | | | | |



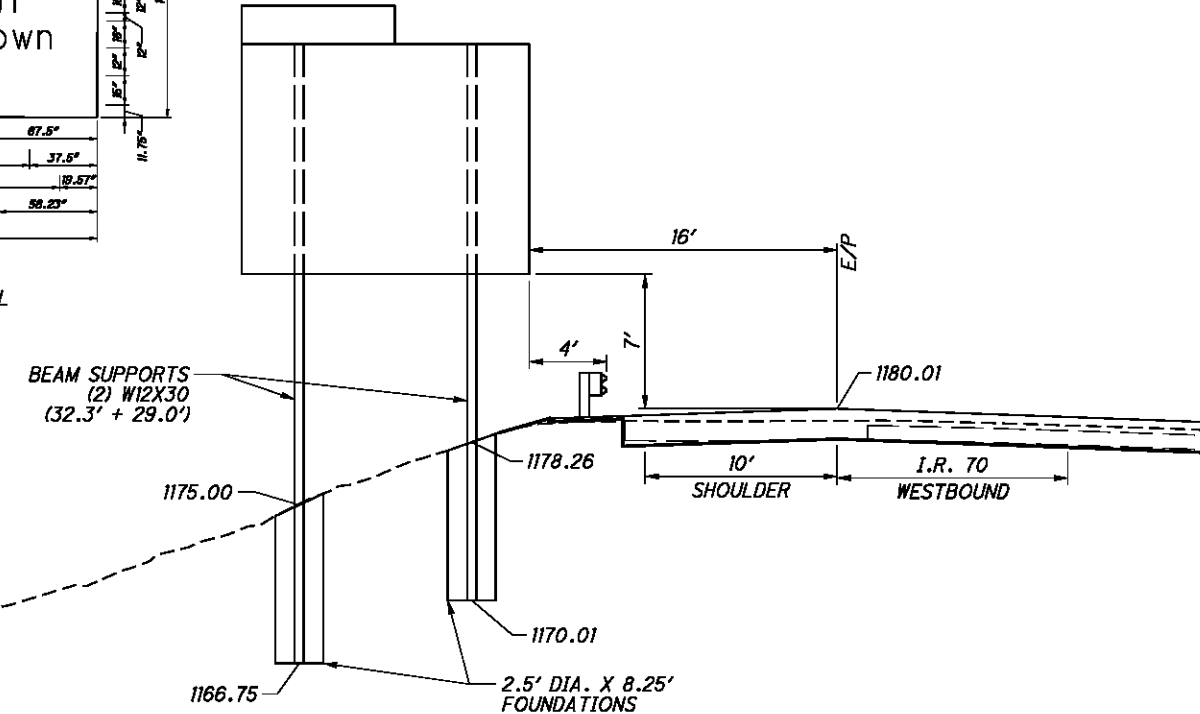
EI-H5-96
 EI-HI-180
 SIGN DETAIL
 N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 535+40, LT (FACING WEST)



EI-H5-96
 EI-HI-180
 SIGN DETAIL
 N.T.S.



BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 553+88, LT (FACING WEST)



SIGN ELEVATIONS
 I.R. 70

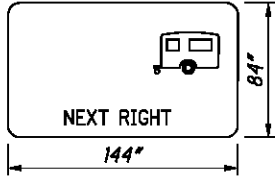
BEL-70-7.61

P:\76825\traffic\sheets\76825\1E005.dgn 9/21/2012 7:50:48 AM mcorbett

| SIGN INFORMATION | |
|------------------|----------|
| DESIGN LEVEL | 1 |
| TEXT FONT | E |
| TEXT SIZE (INCH) | 12 |
| BACKGROUND | BLUE |
| FILL COLOR | WHITE |
| SIZE | 12' X 7' |
| SIGN DESIGNATION | SPECIAL |

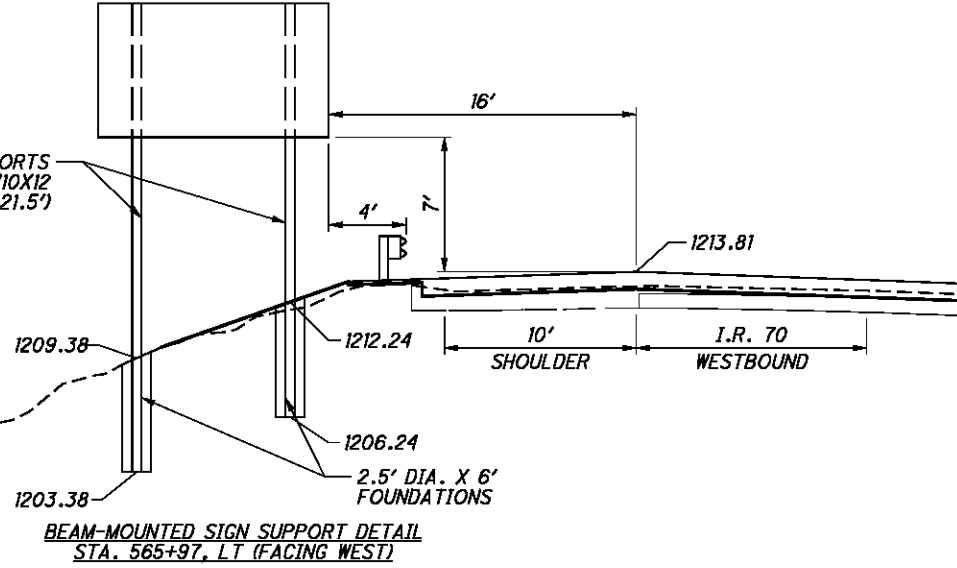
6.00° Radius, 2.00° Border, White on Blue
 Symbol RM020
 (NEXT RIGHT) E

| | | | | | | | | | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|
| 7' | 13.50 | 87.00 | | | | | | | | | | | | | | 45.00 | 12.00 |
| | 36.00 | | | | | | | | | | | | | | | | |
| | 9.00 | | | | | | | | | | | | | | | | |
| | 12.00 | 5.99 | 12.00 | 11.29 | 11.40 | 12.13 | 9.96 | 12.00 | 12.13 | 5.28 | 12.13 | 12.85 | 9.96 | 12.00 | 5.99 | | |
| | 13.50 | 5.99 | 12.00 | 44.71 | | | | 12.00 | 51.32 | | | | 12.00 | 5.99 | | | |
| | | M4.00 | | | | | | | | | | | | | | 12' | |

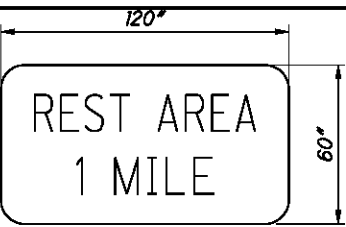


SPECIAL SIGN DETAIL
N.T.S.

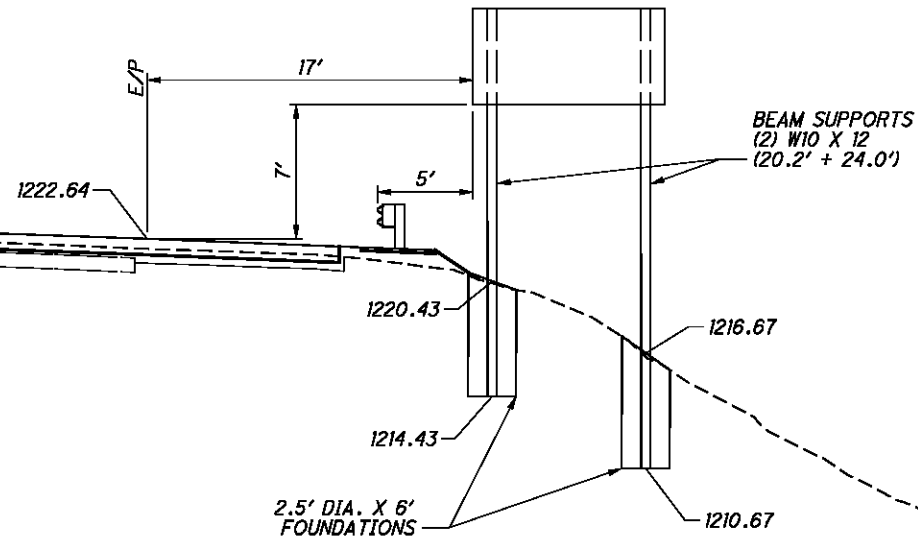
BEAM SUPPORTS
(2) W10X12
(24.5' + 21.5')



BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 565+97, LT (FACING WEST)



D5-HI-120
SIGN DETAIL
N.T.S.

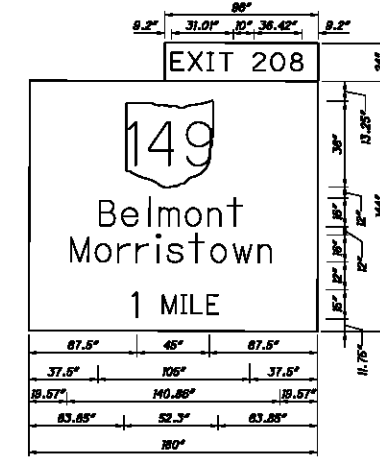


BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 570+84, RT (FACING EAST)

| 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 | EI-H5-96 |

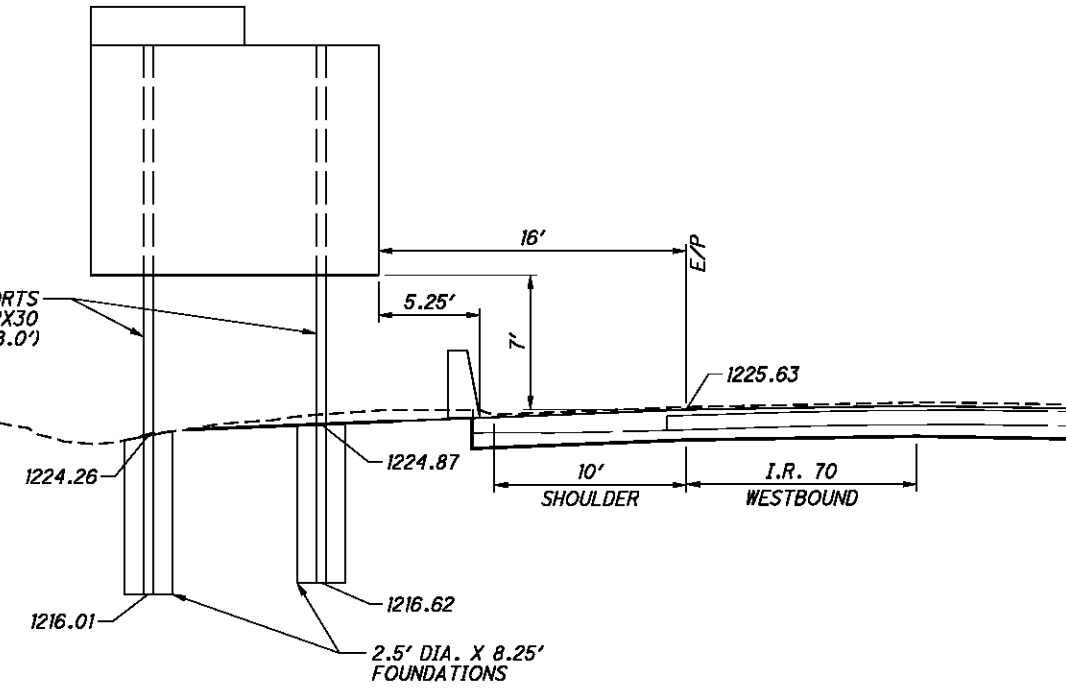
3.00° Radius, 2.00° Border, White on Green
 (EXIT 208) E
 12.00° Radius, 2.00° Border, White on Green
 State Highway 149, MI-H5-45-2; (Belmont) E (M); (Morristown) E (M)
 (EXIT 1 MILE) E (M)

| | | | | | | | | | | | | | | | | | |
|----|-------|-------|------|-------|------|------|-------|-------|-------|------|------|-------|------|--|--|------|-------|
| 2' | 7.00 | 96.00 | | | | | | | | | | | | | | 4.50 | 24.00 |
| | 10.00 | | | | | | | | | | | | | | | | |
| | 7.00 | | | | | | | | | | | | | | | | |
| | 4.25 | 9.20 | 8.20 | 10.11 | 4.40 | 8.30 | 10.00 | 15.05 | 16.92 | 4.45 | 9.20 | 15.00 | 4.50 | | | | |
| | 9.00 | 9.20 | 8.20 | 10.11 | 4.40 | 8.30 | 10.00 | 15.05 | 16.92 | 4.45 | 9.20 | 15.00 | 4.50 | | | | |
| | | M4.00 | | | | | | | | | | | | | | 15' | |



EI-H5-96
EI-HI-180
SIGN DETAIL
N.T.S.

BEAM SUPPORTS
(2) W12X30
(28.6' + 28.0')



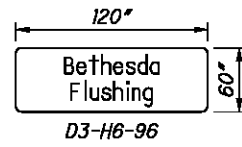
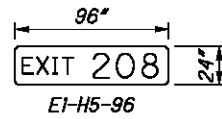
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 581+89, LT (FACING WEST)

CALCULATED
CDS
CHECKED
BDD

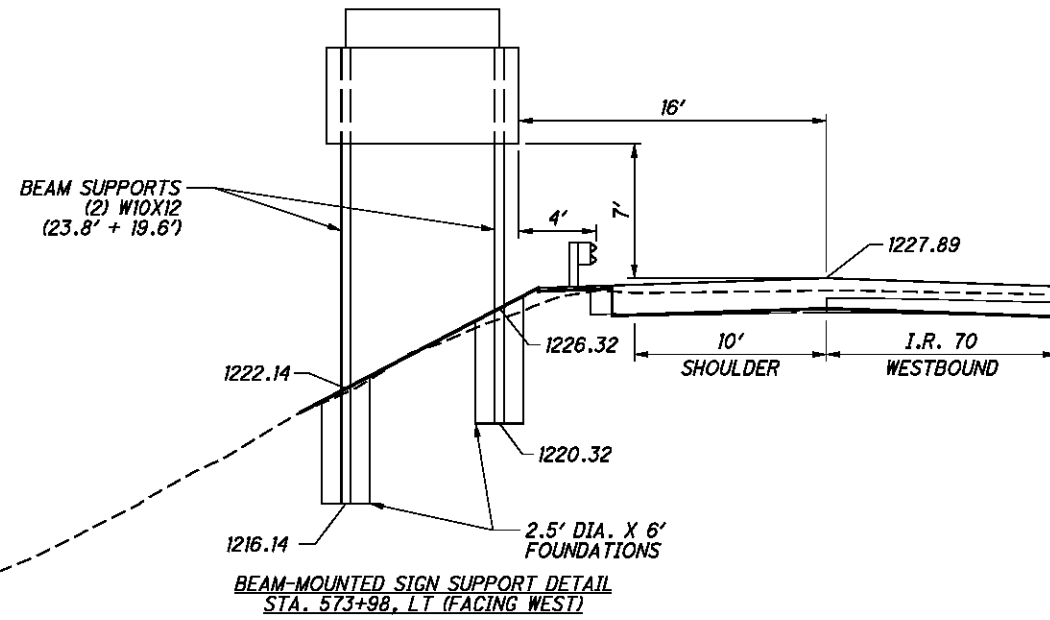
SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

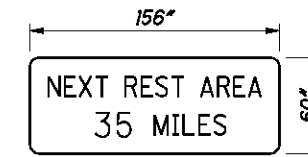
267
373



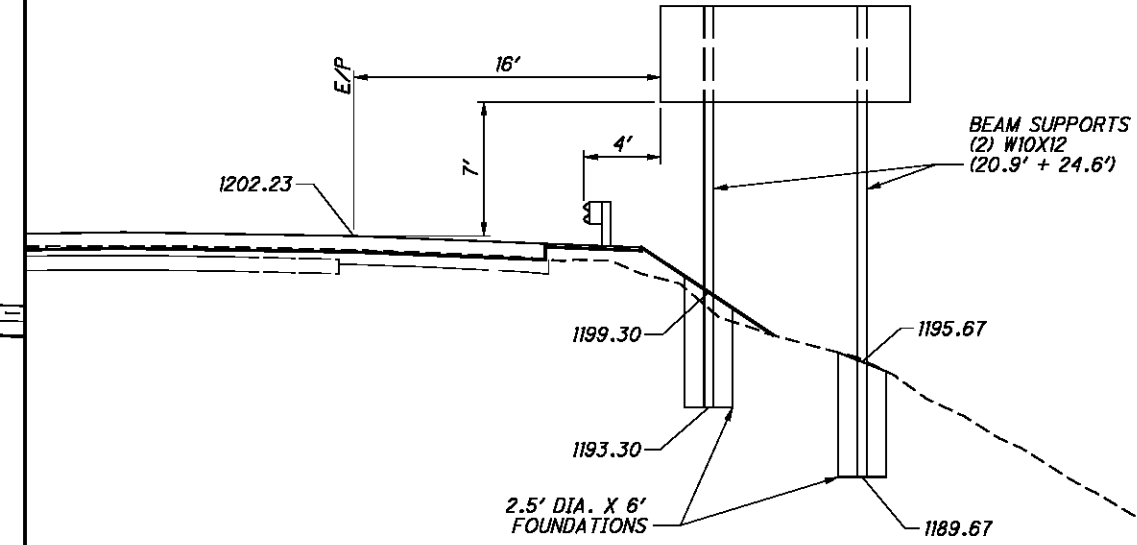
SIGN DETAIL
N.T.S.



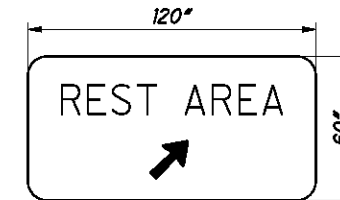
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 573+98, LT (FACING WEST)



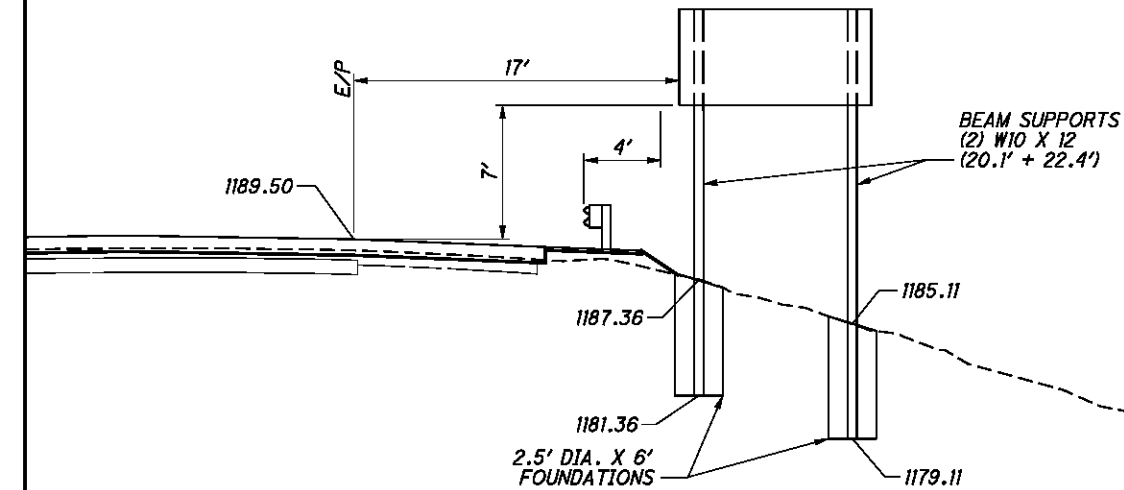
D5-H6-156
SIGN DETAIL
N.T.S.



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)

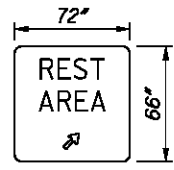


CALCULATED CDS CHECKED BDD

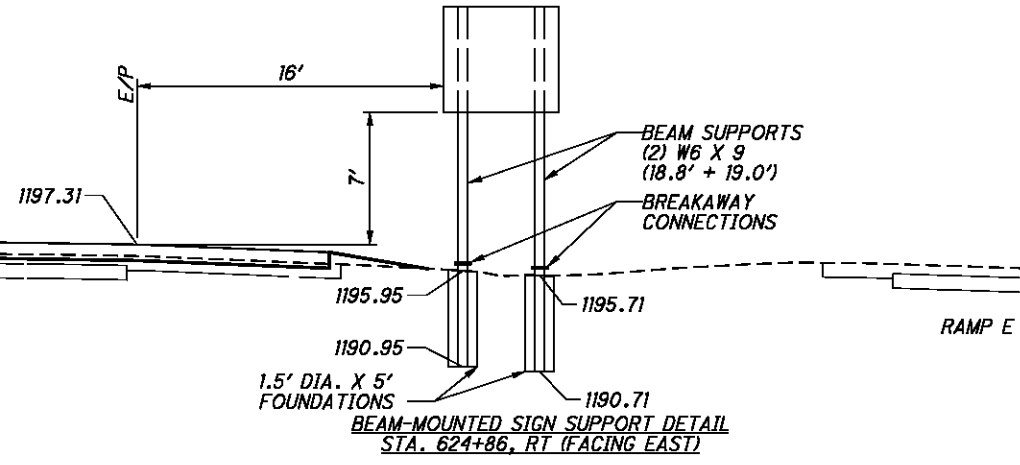
SIGN ELEVATIONS
I.R. 70

BEL-70-7.61

268
373



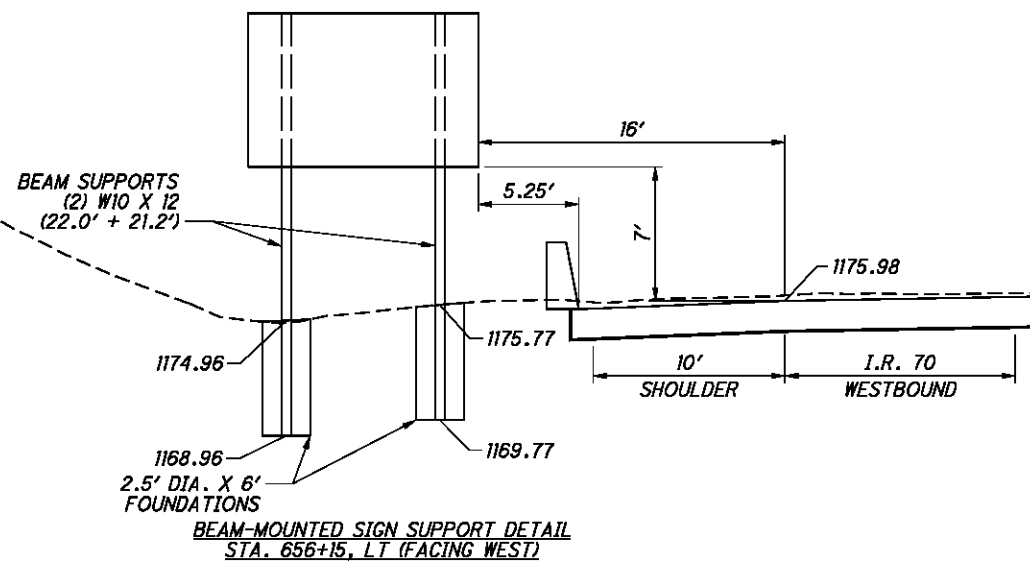
D5-H2B-72
SIGN DETAIL
N.T.S.



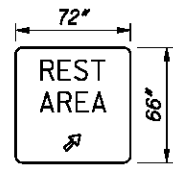
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 624+86, RT (FACING EAST)



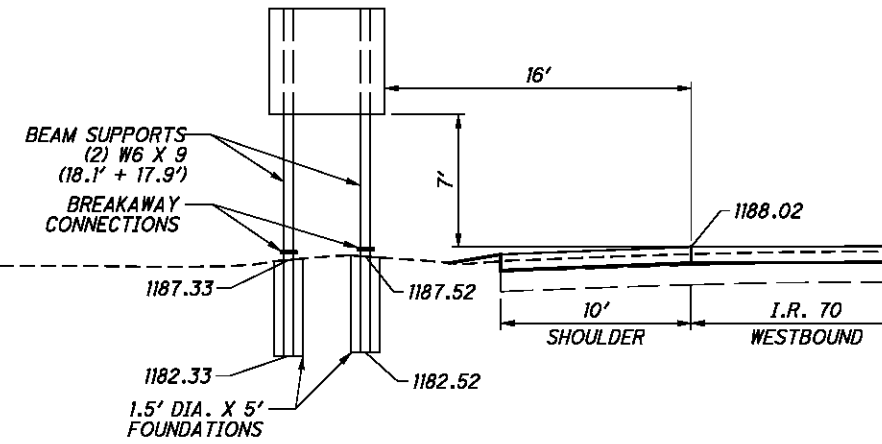
D5-H8-144
SIGN DETAIL
N.T.S.



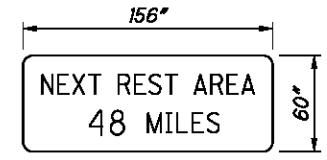
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 656+15, LT (FACING WEST)



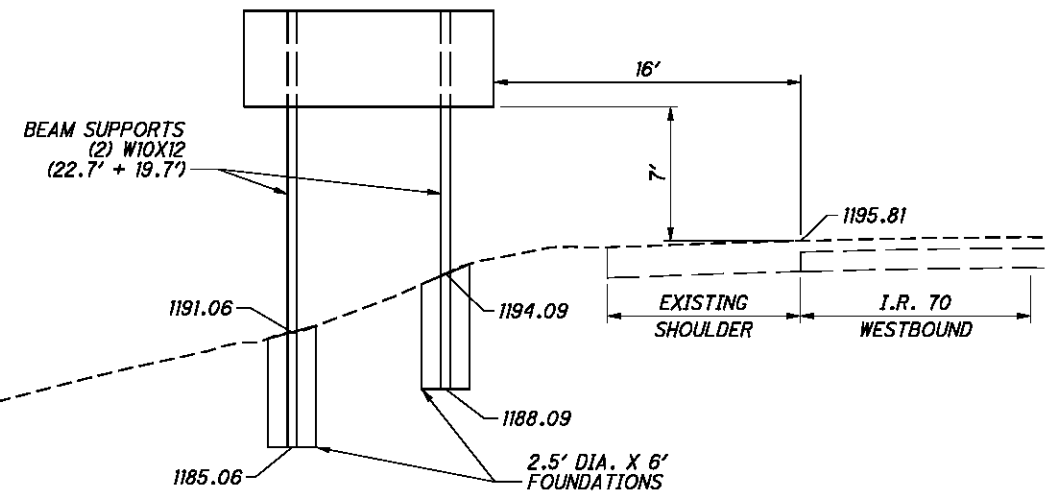
D5-H2B-72
SIGN DETAIL
N.T.S.



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

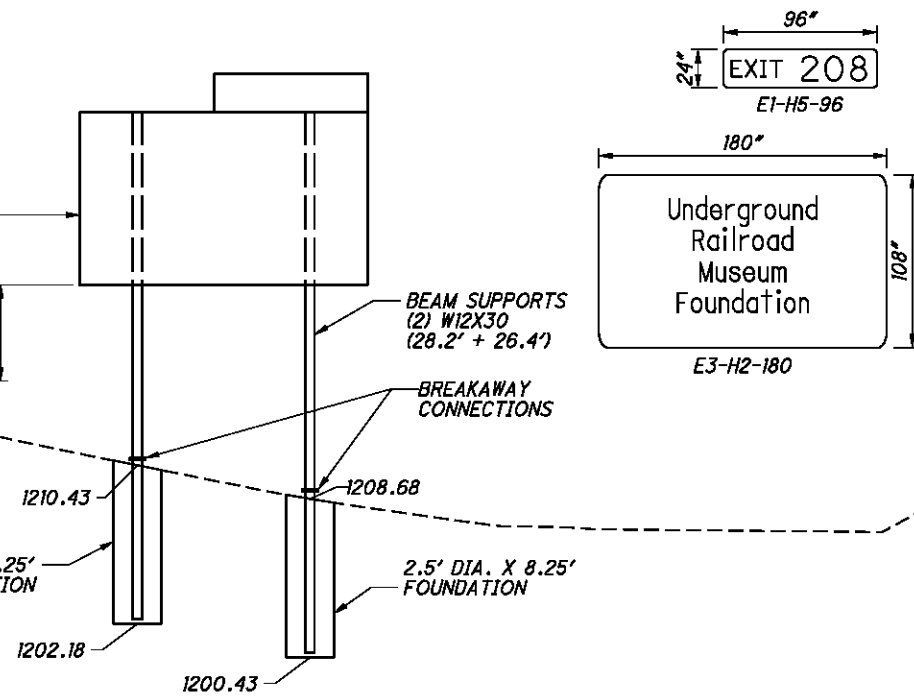
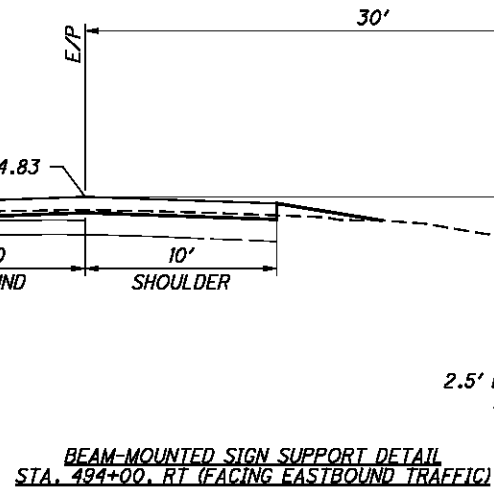
269
373

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 | | | | |
| | | 6.68 | 8.20 | 10.11 | 4.40 | 7.90 | 10.00 | 13.21 | 15.61 | 13.21 | 6.68 | | | |
| 2' | 7.00 | | | | | | | | | | | | | |
| | 10.00 | | | | | | | | | | | | | |
| 8' | 7.00 | | | | | | | | | | | | | |
| | 2.35 | | | | | | | | | | | | | |
| | | 8' | | | | | | | | | | | | |
| | | 96.00 | | | | | | | | | | | | |
| | | 17.96 | U | R | d | e | r | g | r | o | u | n | d | 17.96 |
| | | 13.33 | 13.07 | 14.26 | 14.26 | 13.87 | 9.99 | 14.26 | 9.99 | 14.27 | 14.13 | 14.26 | 11.73 | 17.96 |
| | | 10.00 | | | | | | | | | | | | |
| | | 13.33 | R | a | i | i | r | o | a | d | | | | |
| | | 13.33 | 44.74 | 12.00 | 13.33 | 7.61 | 8.27 | 9.99 | 14.27 | 13.33 | 11.73 | 44.74 | | |
| | | 10.00 | | | | | | | | | | | | |
| | | 13.33 | M | u | e | e | u | m | | | | | | |
| | | 13.33 | 46.80 | 14.94 | 14.13 | 11.73 | 13.87 | 14.13 | 17.60 | 46.80 | | | | |
| | | 10.00 | | | | | | | | | | | | |
| | | 13.33 | F | o | u | r | d | a | t | i | o | r | 28.54 | |
| | | 13.33 | 28.54 | 9.86 | 14.27 | 14.13 | 14.26 | 14.26 | 13.33 | 9.20 | 7.61 | 14.27 | 11.73 | 28.54 |
| | | 10.00 | | | | | | | | | | | | |
| | | 2.35 | 4.63 | 13.33 | 144.09 | | | | | | | | 13.33 | 4.63 |
| | | 180.00 | | | | | | | | | | | | |
| | | 15' | | | | | | | | | | | | |

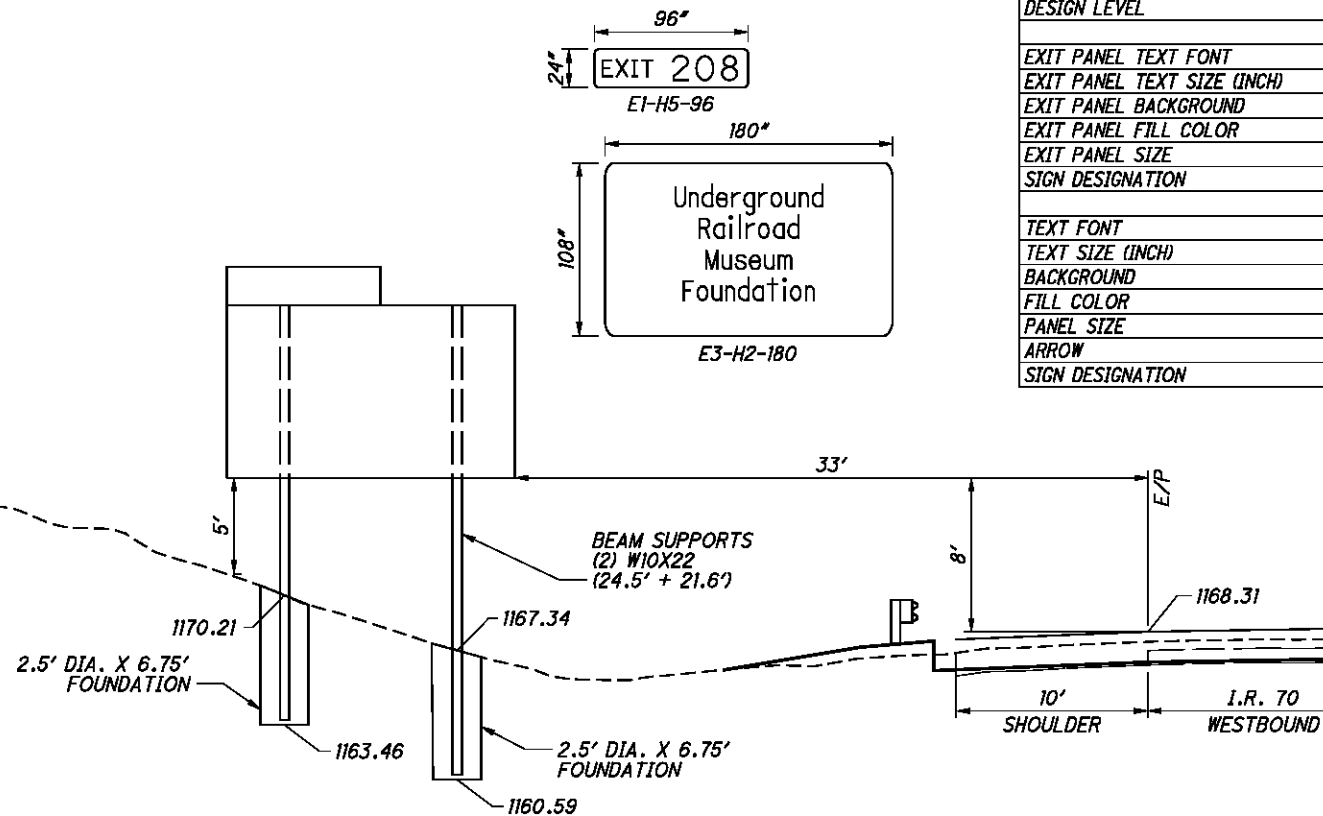
| SIGN INFORMATION | |
|-----------------------------|-----------|
| DESIGN LEVEL | 2 |
| EXIT PANEL TEXT FONT | E |
| EXIT PANEL TEXT SIZE (INCH) | 10 |
| EXIT PANEL BACKGROUND | BROWN |
| EXIT PANEL FILL COLOR | WHITE |
| EXIT PANEL SIZE | 8' X 2' |
| SIGN DESIGNATION | E1-H5-96 |
| TEXT FONT | 5-W |
| TEXT SIZE (INCH) | 13.33 |
| BACKGROUND | BROWN |
| FILL COLOR | WHITE |
| PANEL SIZE | 9' X 15' |
| ARROW | |
| SIGN DESIGNATION | E3-H2-180 |



| 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 |

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 | | | | |
| | | 6.68 | 8.20 | 10.11 | 4.40 | 7.90 | 10.00 | 13.21 | 15.61 | 13.21 | 6.68 | | | |
| 2' | 7.00 | | | | | | | | | | | | | |
| | 10.00 | | | | | | | | | | | | | |
| 8' | 7.00 | | | | | | | | | | | | | |
| | 2.35 | | | | | | | | | | | | | |
| | | 8' | | | | | | | | | | | | |
| | | 96.00 | | | | | | | | | | | | |
| | | 17.96 | U | R | d | e | r | g | r | o | u | n | d | 17.96 |
| | | 13.33 | 13.07 | 14.26 | 14.26 | 13.87 | 9.99 | 14.26 | 9.99 | 14.27 | 14.13 | 14.26 | 11.73 | 17.96 |
| | | 10.00 | | | | | | | | | | | | |
| | | 13.33 | R | a | i | i | r | o | a | d | | | | |
| | | 13.33 | 44.74 | 12.00 | 13.33 | 7.61 | 8.27 | 9.99 | 14.27 | 13.33 | 11.73 | 44.74 | | |
| | | 10.00 | | | | | | | | | | | | |
| | | 13.33 | M | u | e | e | u | m | | | | | | |
| | | 13.33 | 46.80 | 14.94 | 14.13 | 11.73 | 13.87 | 14.13 | 17.60 | 46.80 | | | | |
| | | 10.00 | | | | | | | | | | | | |
| | | 13.33 | F | o | u | r | d | a | t | i | o | r | 28.54 | |
| | | 13.33 | 28.54 | 9.86 | 14.27 | 14.13 | 14.26 | 14.26 | 13.33 | 9.20 | 7.61 | 14.27 | 11.73 | 28.54 |
| | | 10.00 | | | | | | | | | | | | |
| | | 2.35 | 4.63 | 13.33 | 144.09 | | | | | | | | 13.33 | 4.63 |
| | | 180.00 | | | | | | | | | | | | |
| | | 15' | | | | | | | | | | | | |



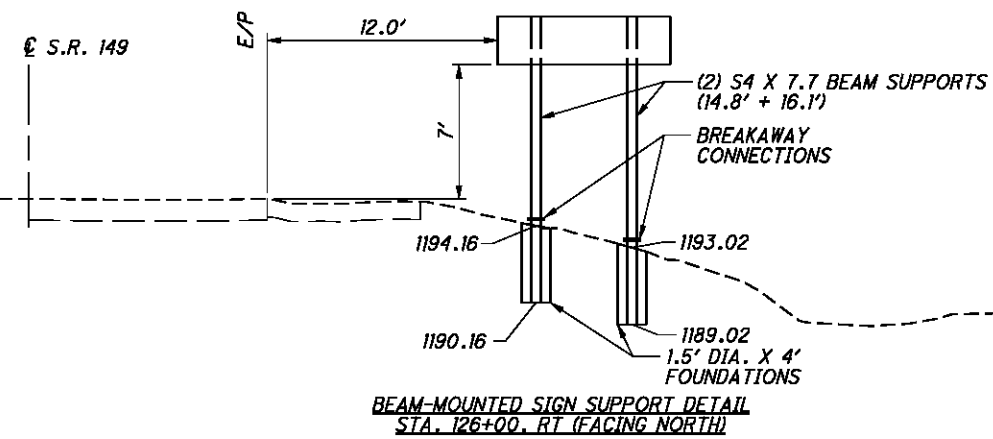
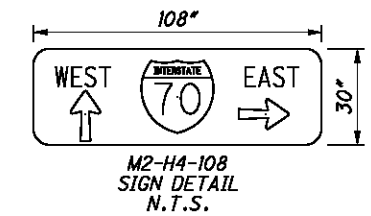
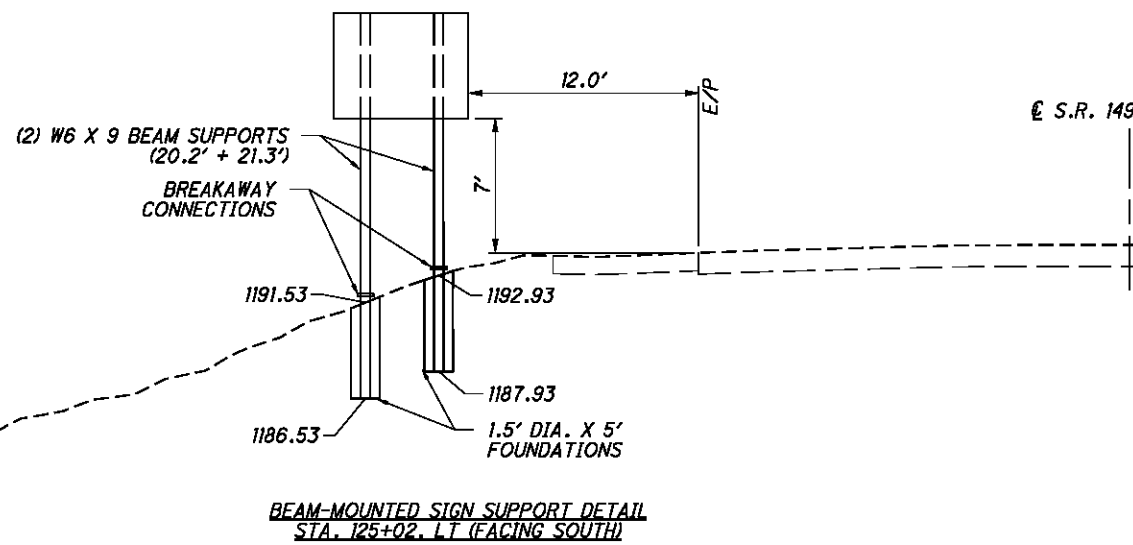
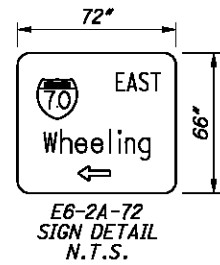
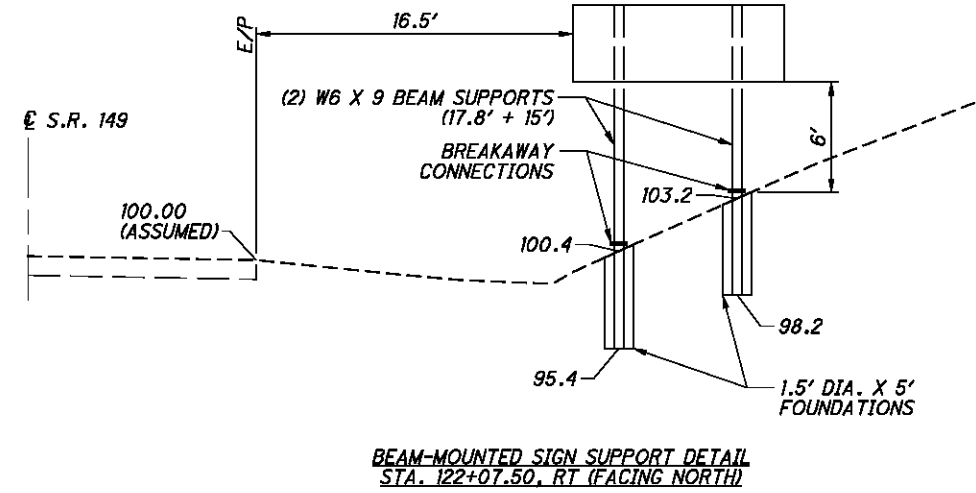
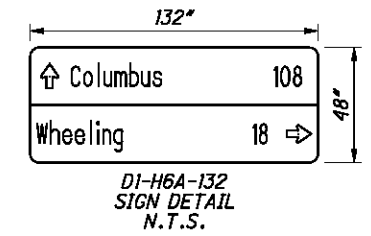
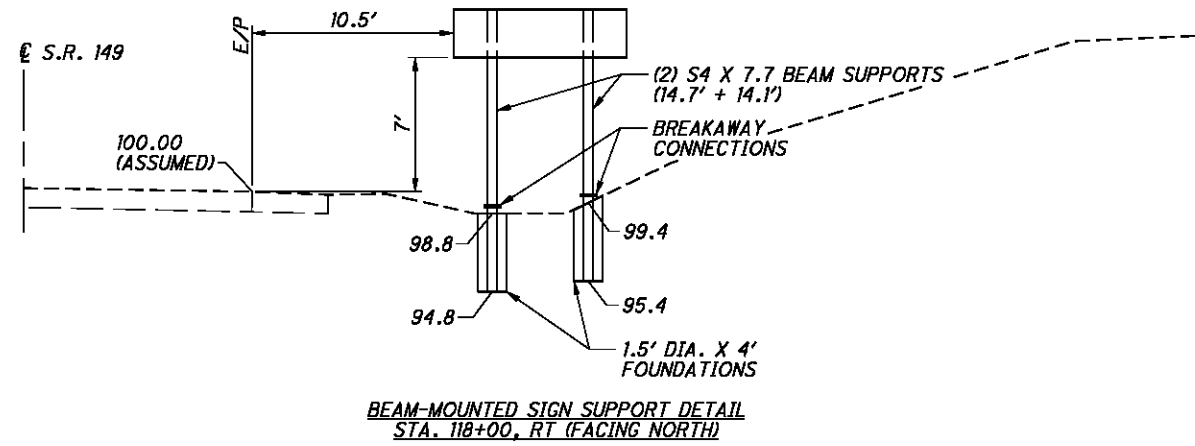
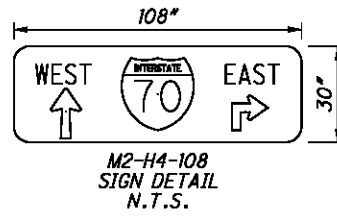
BEAM-MOUNTED SIGN SUPPORT DETAIL
 STA. 540+00, LT (FACING WESTBOUND TRAFFIC)



SIGN ELEVATIONS
 I.R. 70

BEL-70-7.61

270
 373



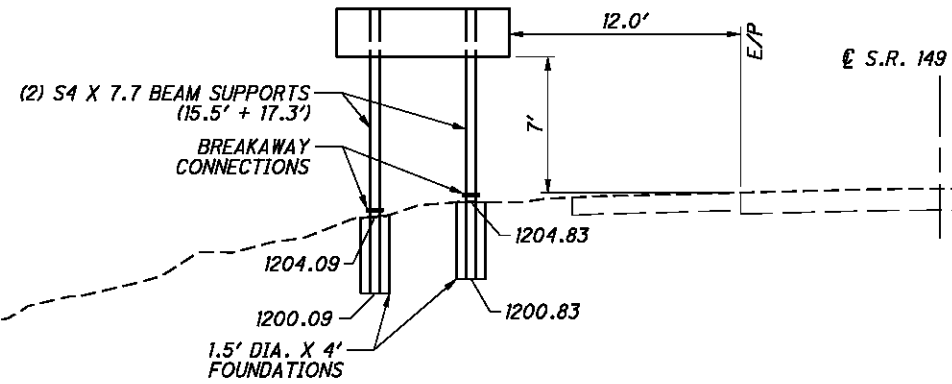
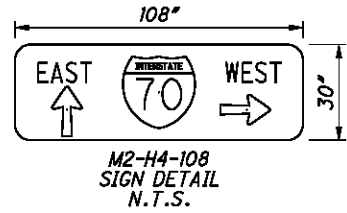
CALCULATED
CDS
CHECKED
BDD

SIGN ELEVATIONS
S.R. 149

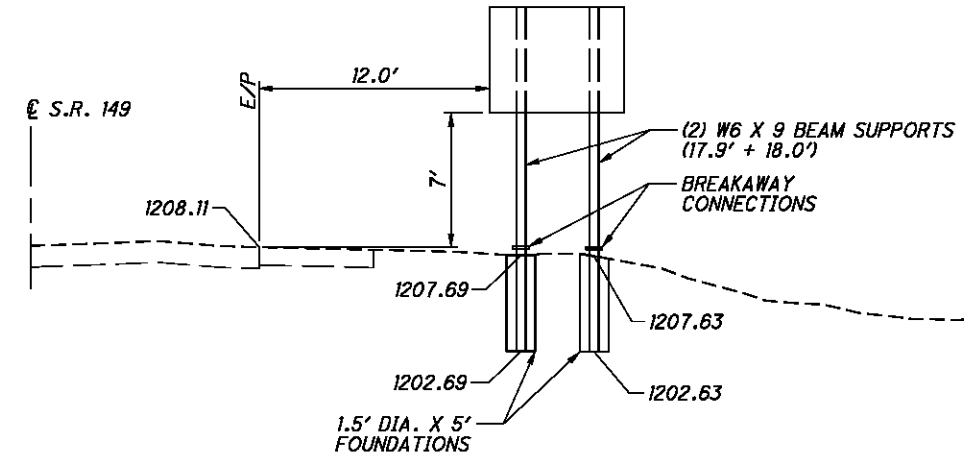
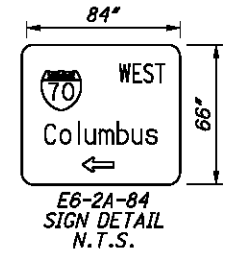
BEL-70-7.61

271
373

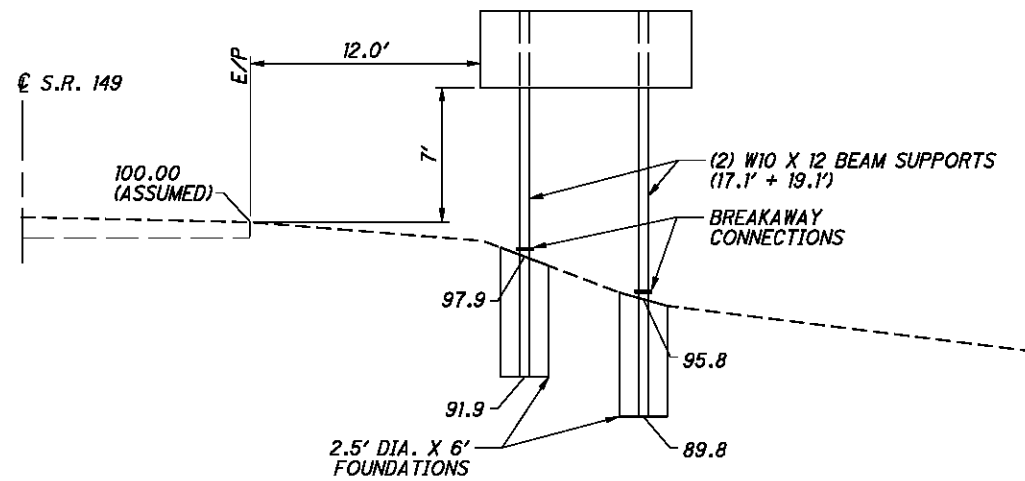
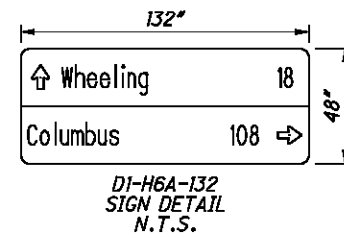
P:\76825\traffic\sheets\76825\T020.dgn 9/21/2012 7:50:51 AM mcornett



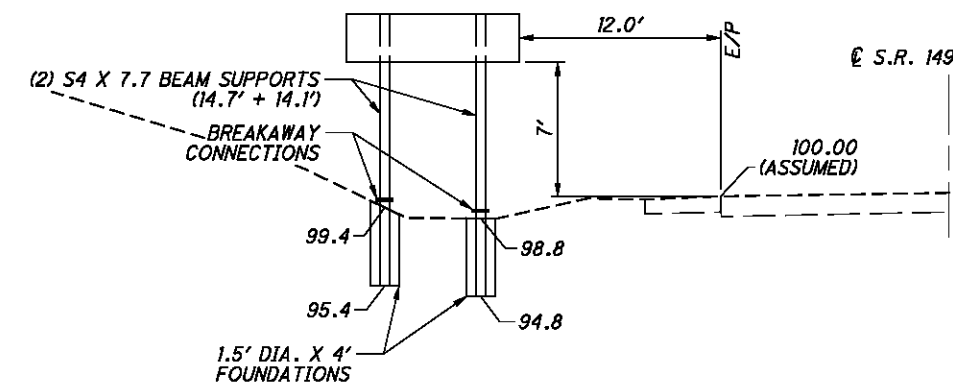
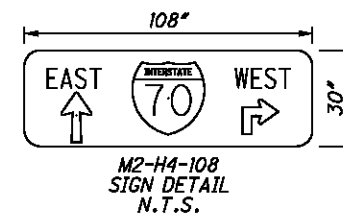
BEAM-MOUNTED SIGN SUPPORT DETAIL
STA. 130+51, LT (FACING SOUTH)



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)

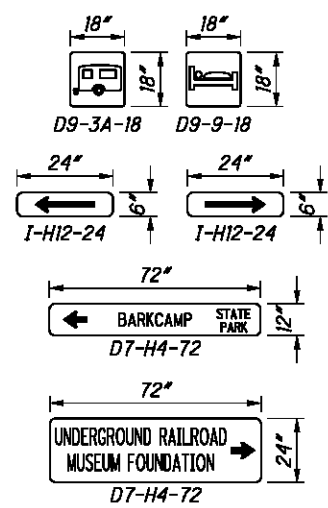
CALCULATED
CDS
CHECKED
BDD

SIGN ELEVATIONS
S.R. 149

BEL-70-7.61

272
373

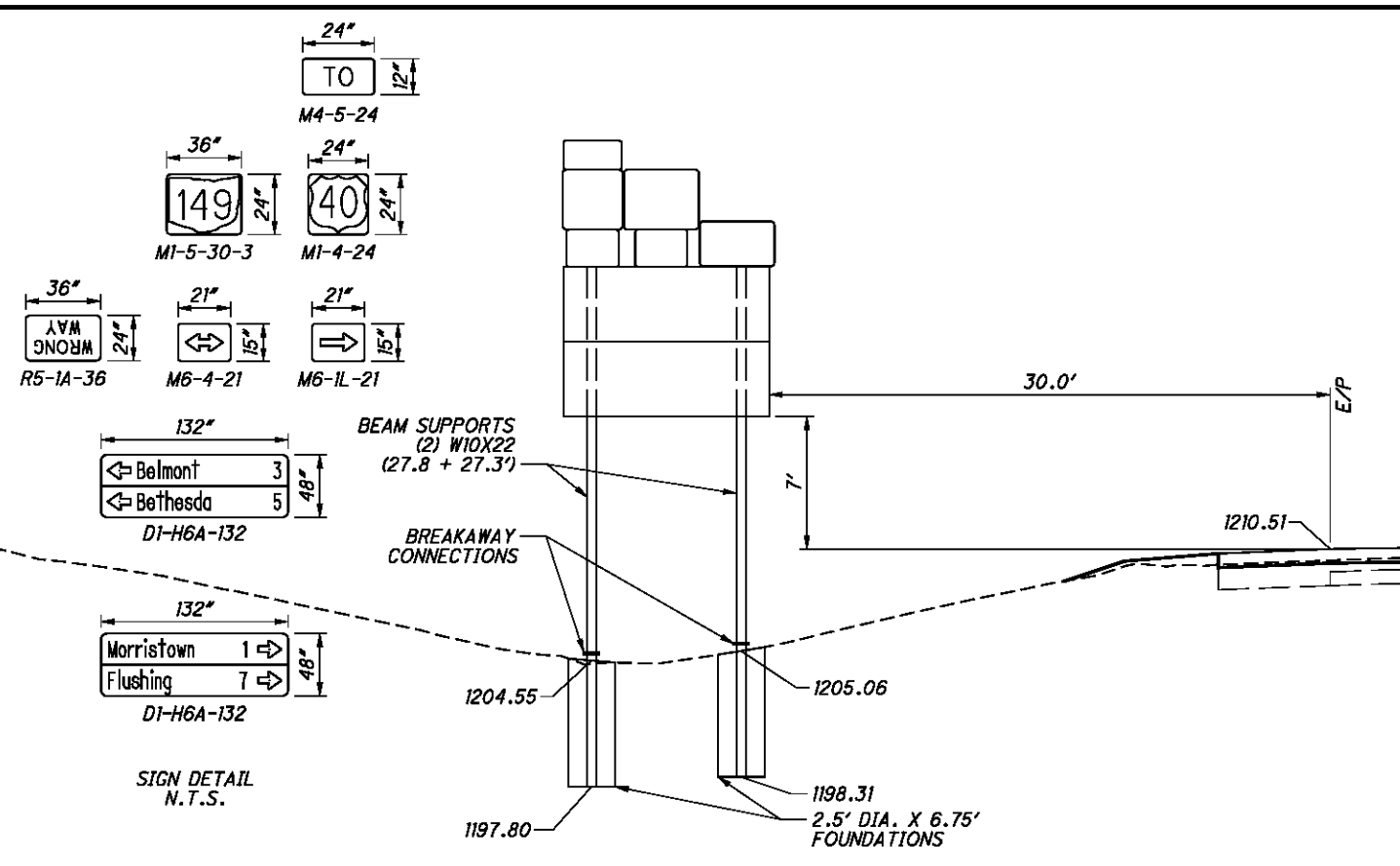
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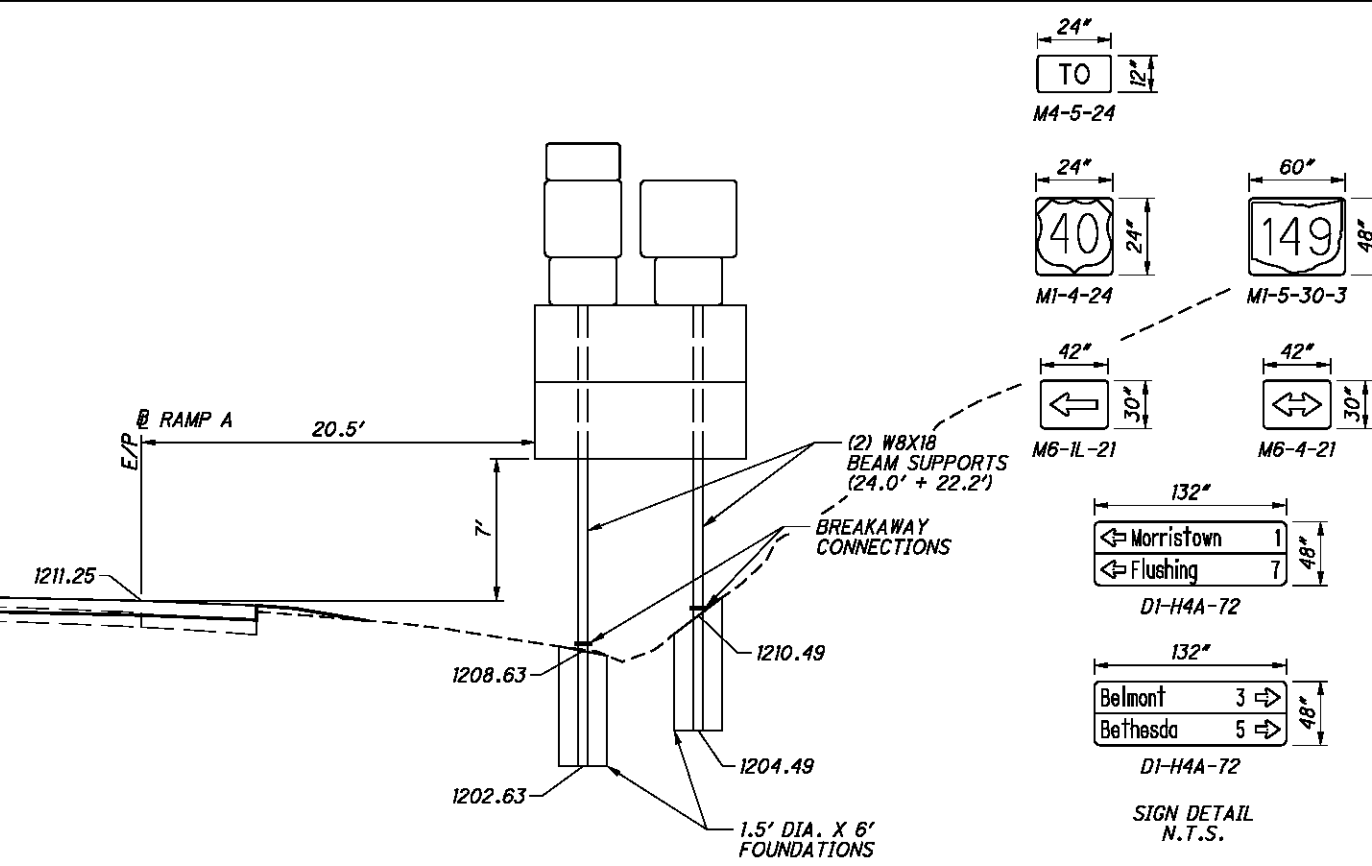
(2) #6 POST SUPPORTS
(xx.x' + xx.x')

SIGN DETAIL
N.T.S.

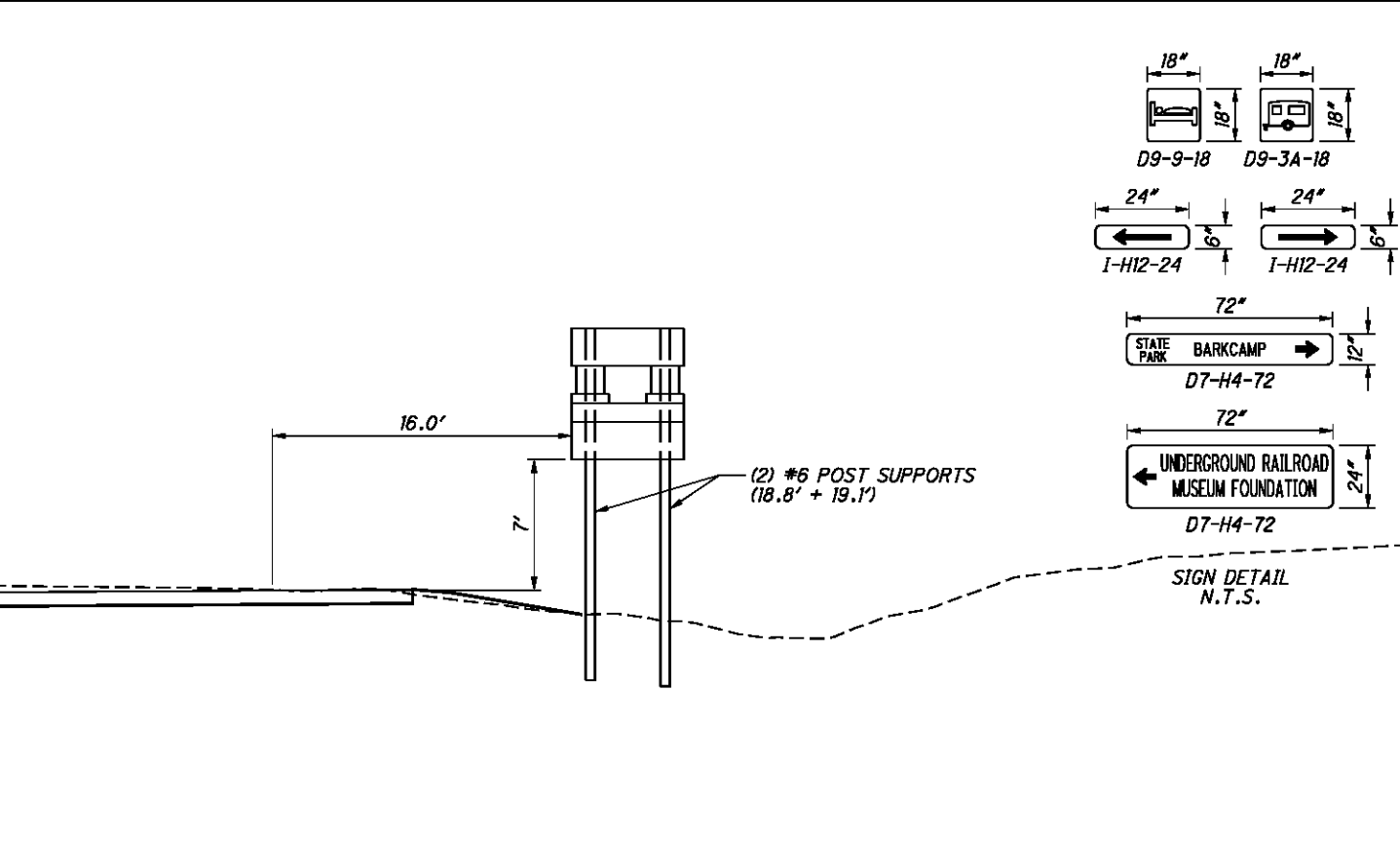
BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP D, STA. 13+55, LT (FACING WESTBOUND)



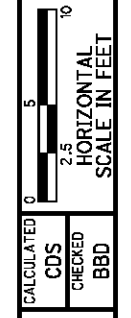
BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP C, STA. 4+62, LT (FACING WESTBOUND)



BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP A, STA. 10+06, RT (FACING EASTBOUND)



BEAM-MOUNTED SIGN SUPPORT DETAIL
RAMP B, STA. 0+47, RT (FACING EASTBOUND)



SIGN ELEVATIONS
RAMPS

BEL-70-7.61

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.

| SHEET NO. | LOCATION FROM - TO | SIDE | CIRCUIT NODES | 625 | | | | | | | | | | | | | | | | |
|-----------|----------------------------|-------|----------------|--|---|---|--|--------------------------------|--------------------|---|---------------------------|--|------------------------|-------------------------------|-------------------------------|---|---------------------------------------|--|--|-----|
| | | | | LUMINAIRE, TYPE II, 200W HPS, AS PER PLAN EACH | LIGHT POLE, CONVENTIONAL, 32.5' EACH | LIGHT POLE FOUNDATION, 24" X 6" DEEP EACH | NO. 10 AWG POLE AND BRACKET CABLE FT | CONNECTOR KIT, TYPE II EACH | GROUND ROD EACH | 1 1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES FT | CONDUIT, 3", 725.04 FT | CONDUIT JACKED OR DRILLED UNDER PAVEMENT, 3", 725.04 FT | TRENCH, 24" DEEP FT | PULL BOX, 725.08, 18" EACH | PULL BOX, 725.08, 24" EACH | NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE FT | POWER SERVICE, AS PER PLAN 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 | | | | | | | | | | | | | | | | | |
| 281 | STA. 132+30 TO STA. 132+41 | LT | PB-5 TO CC | | | | | | | | 30 | | | | | 30 | | | | 1 |
| 281 | STA. 132+41 | LT | CC | | | | | | | | | | | | | | | | | 120 |
| 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 | | | | | | | | | | | 1 |
| 281 | STA. 131+90 TO 131+29 | RT | LI-17 TO PB-4 | | | | | | | | | | | | | | | | | |
| 281 | STA. 131+29 | RT | PB-4 | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| 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

LIGHTING SUBSUMMARY

BEL-70-7.61

CALCULATED
GAM
CHECKED
MJH

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) | |



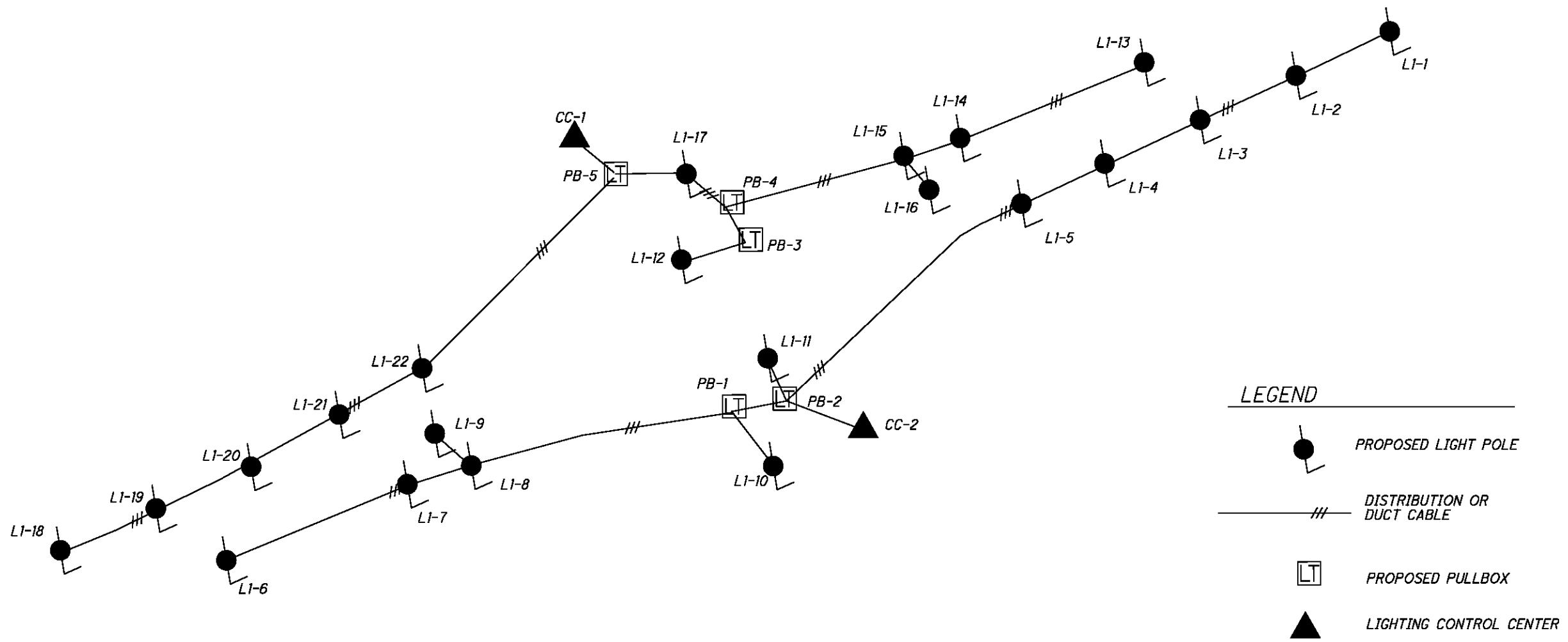
SCHEMATIC
NOT TO SCALE

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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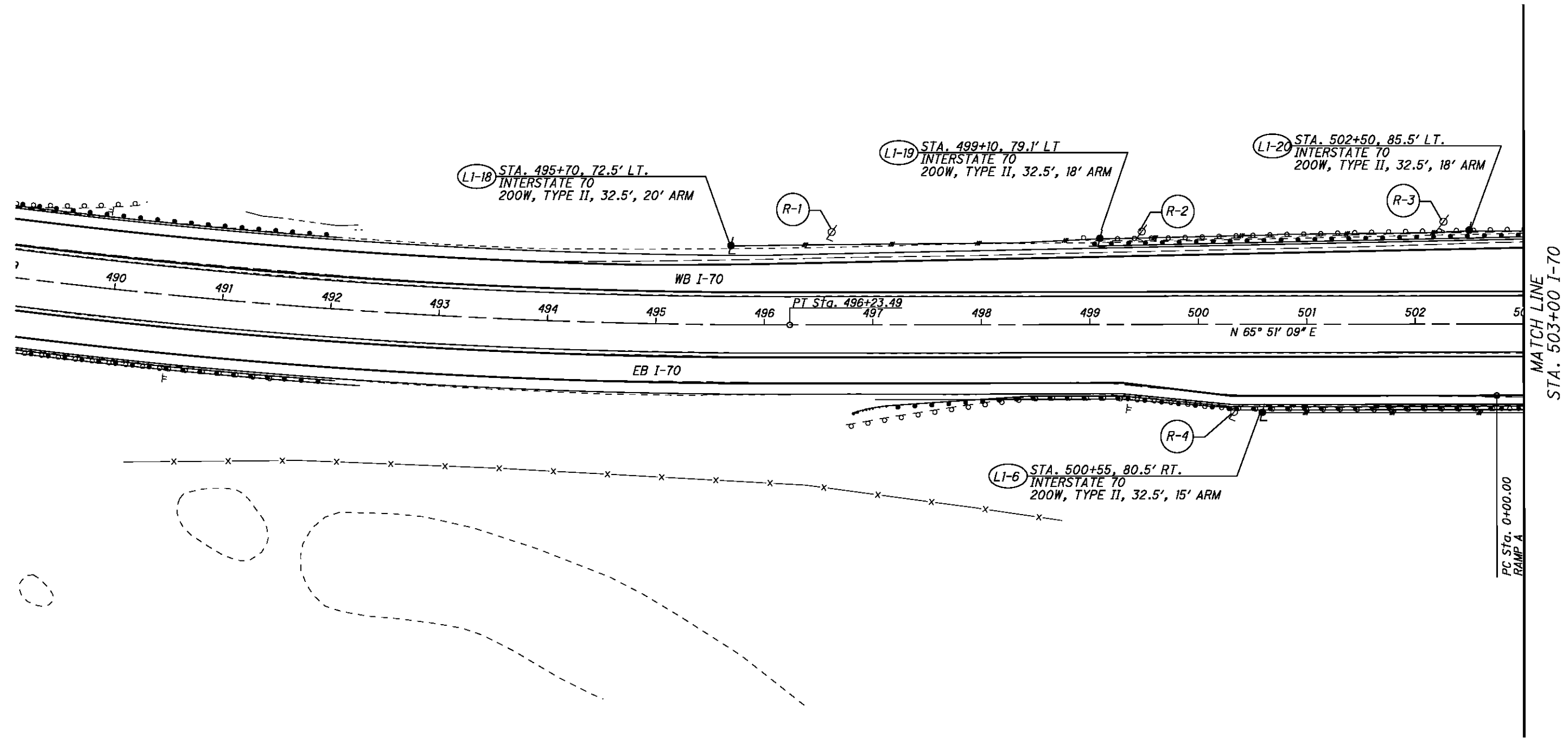


 HORIZONTAL SCALE IN FEET

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



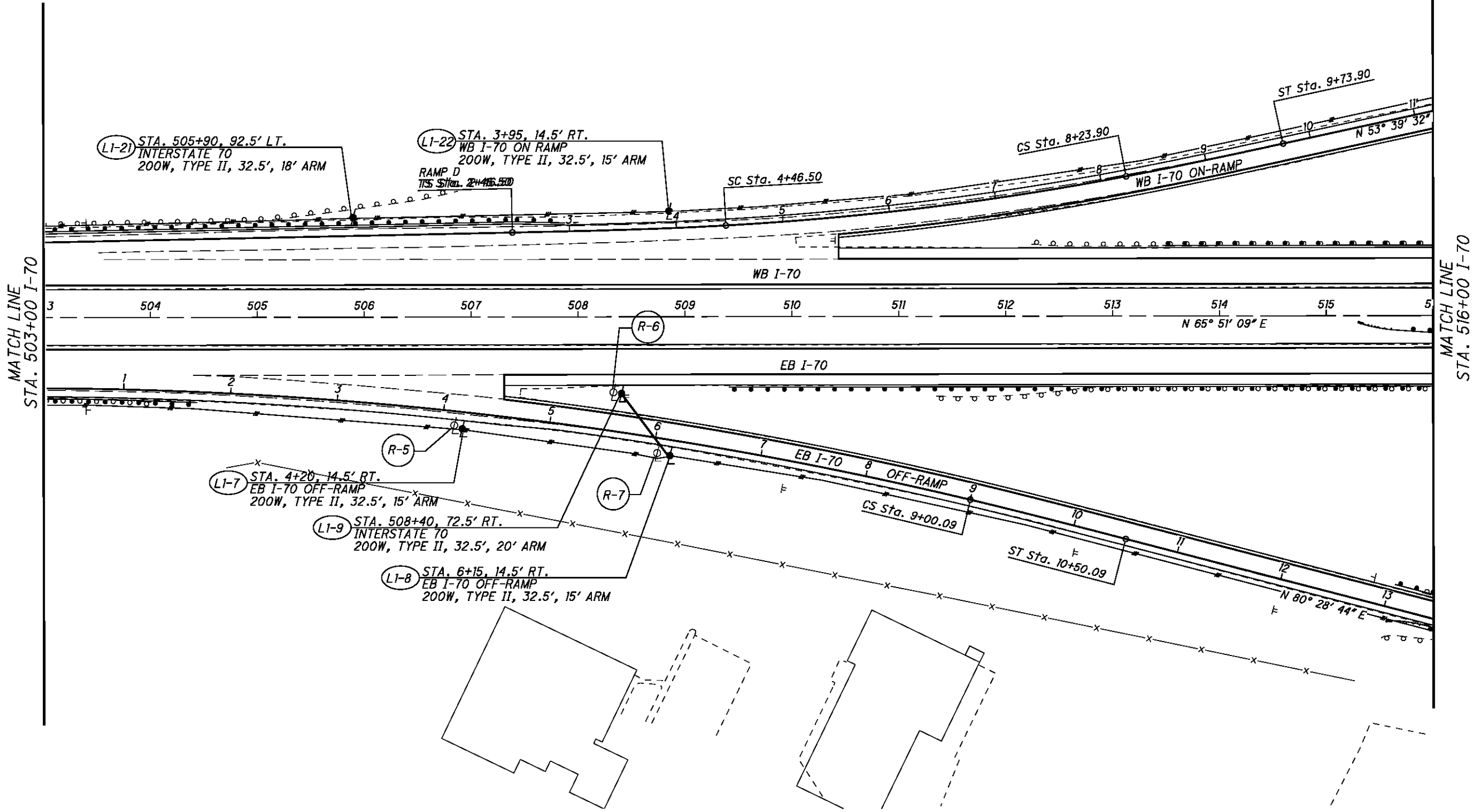
LIGHTING PLAN
STA. 489+00 TO STA. 503+00

BEL-70-7.61

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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 50 100 200
 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

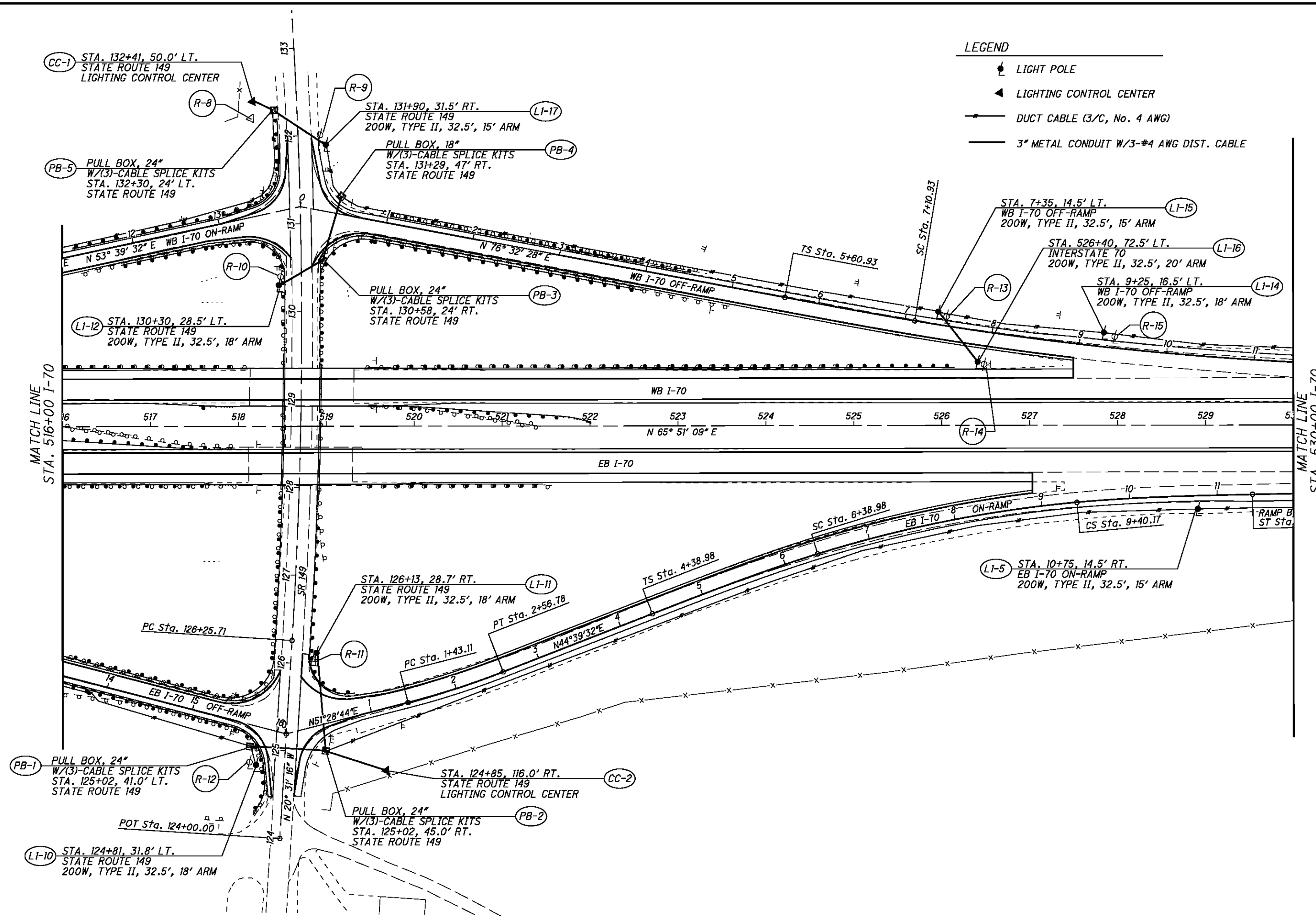
LIGHTING PLAN
STA. 516+00 TO STA. 530+00

BEL-70-7.61

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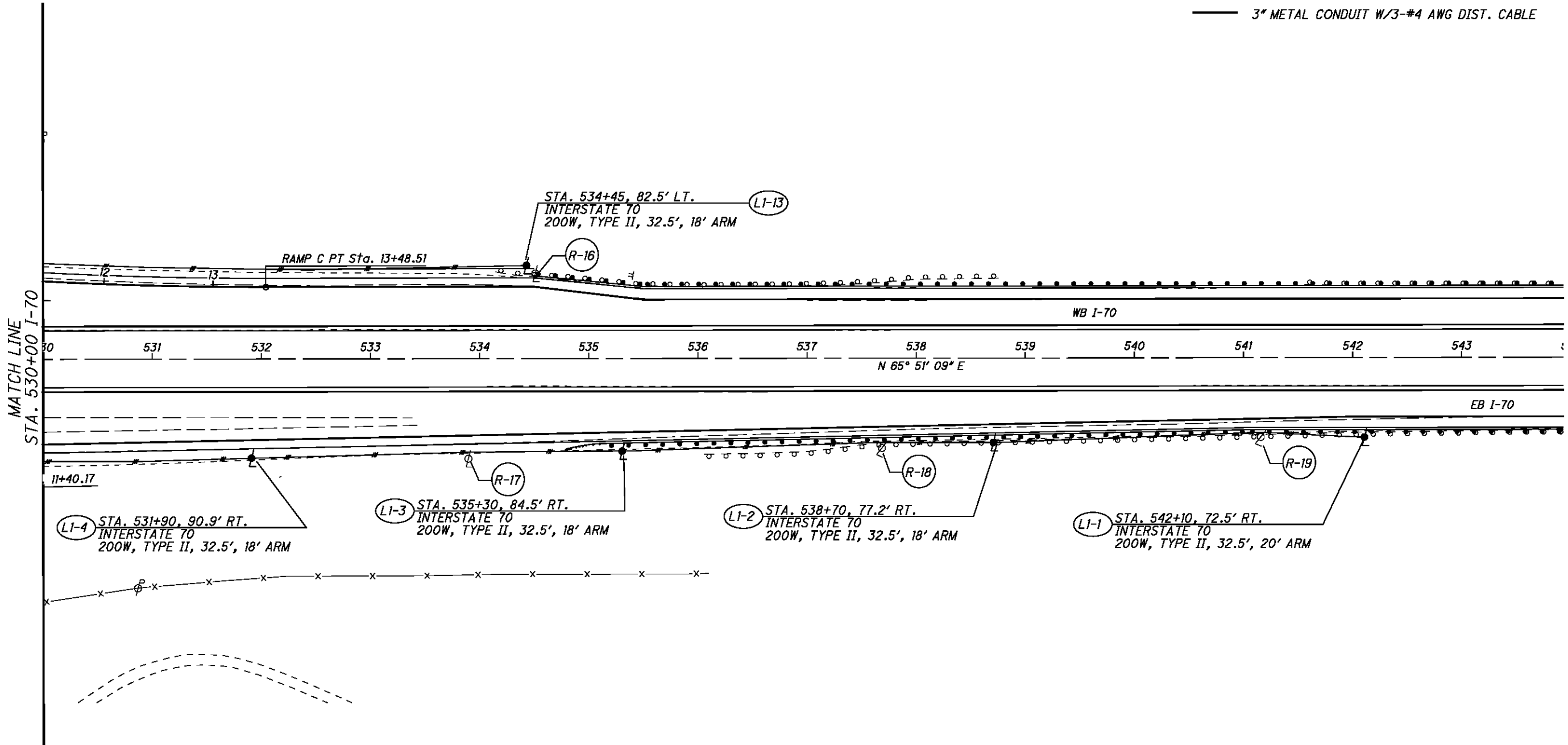
LEGEND

- LIGHT POLE
- LIGHTING CONTROL CENTER
- DUCT CABLE (3/C, No. 4 AWG)
- 3" METAL CONDUIT W/3-#4 AWG DIST. CABLE



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LEGEND

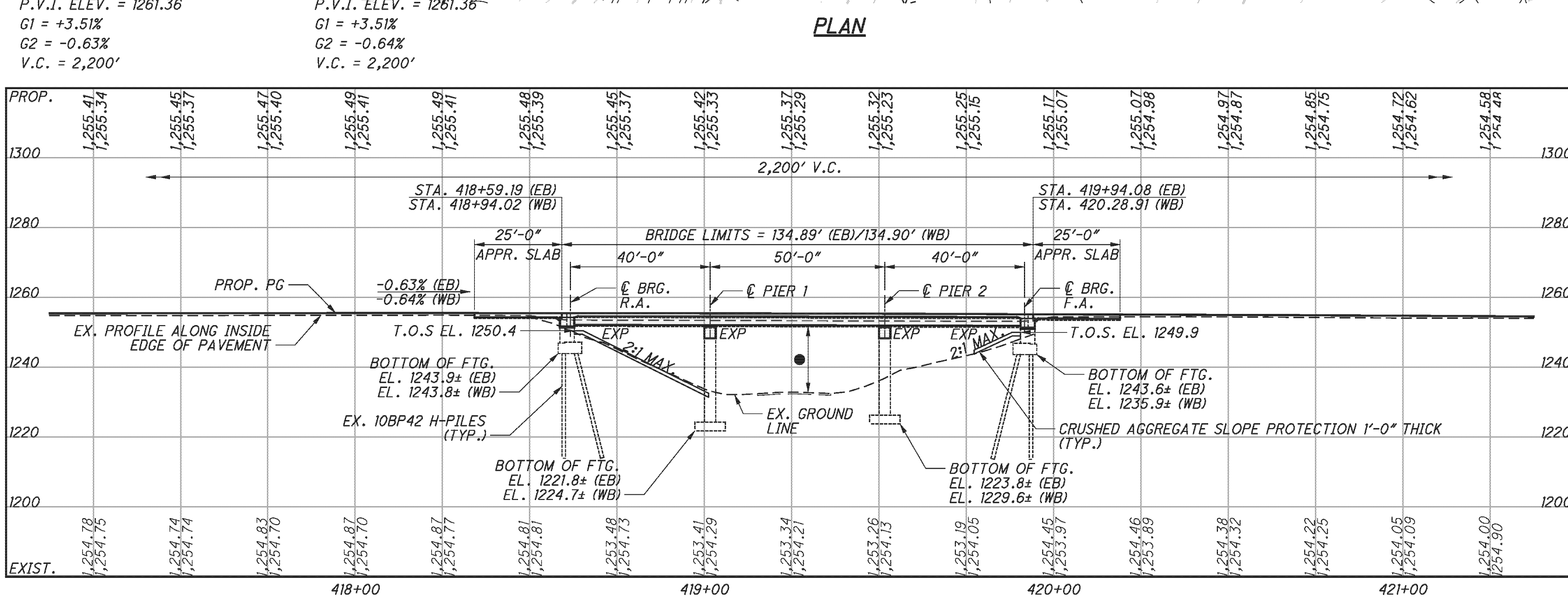
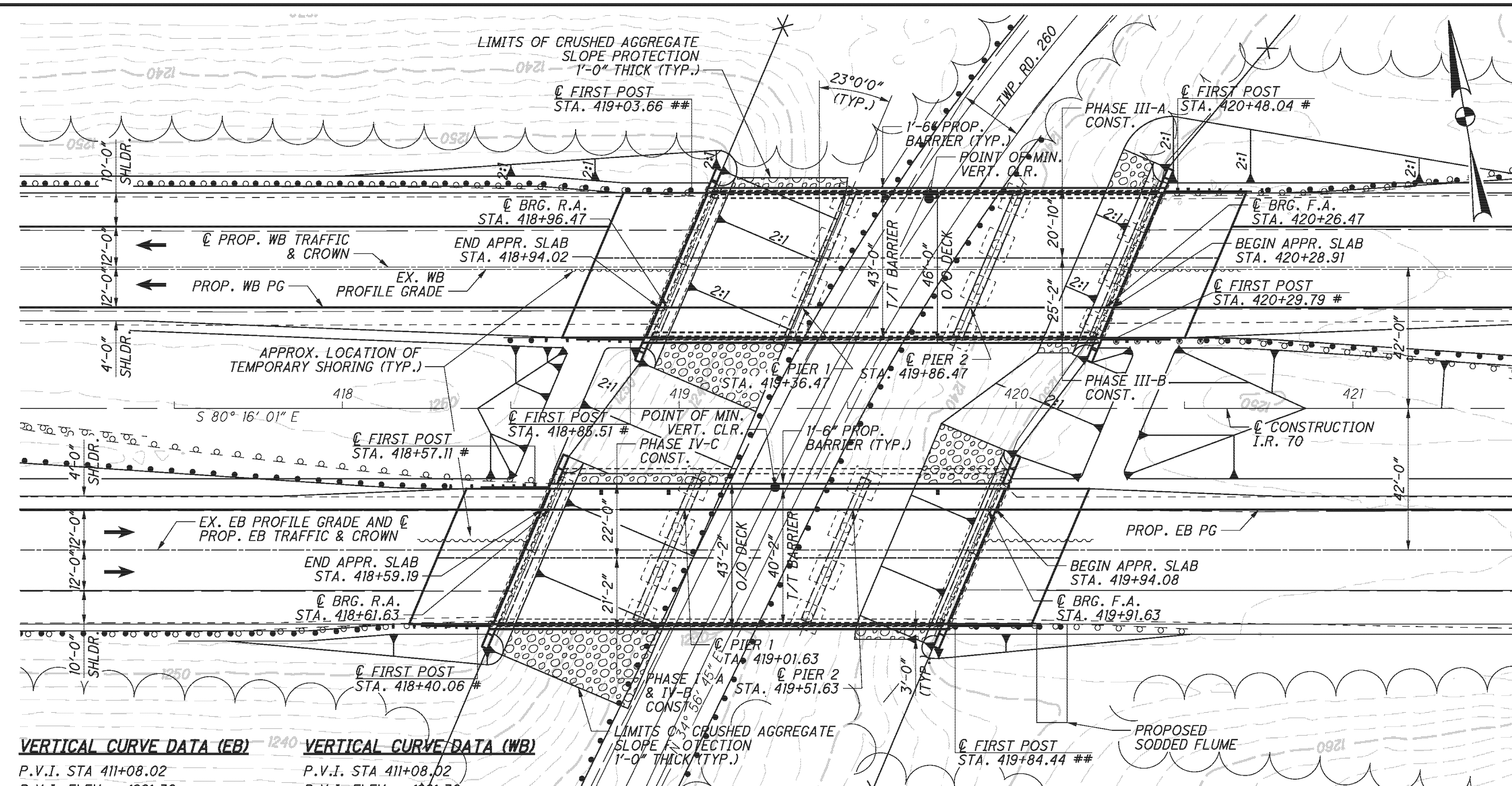
- LIGHT POLE
- ▲ LIGHTING CONTROL CENTER
- #— DUCT CABLE (3/C, No. 4 AWG)
- 3" METAL CONDUIT W/3-#4 AWG DIST. CABLE

CALCULATED MJH
CHECKED KAE

0 50 100
HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 530+00 TO STA 544+00

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| 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

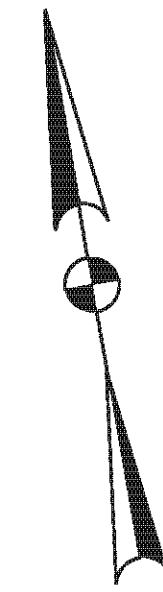
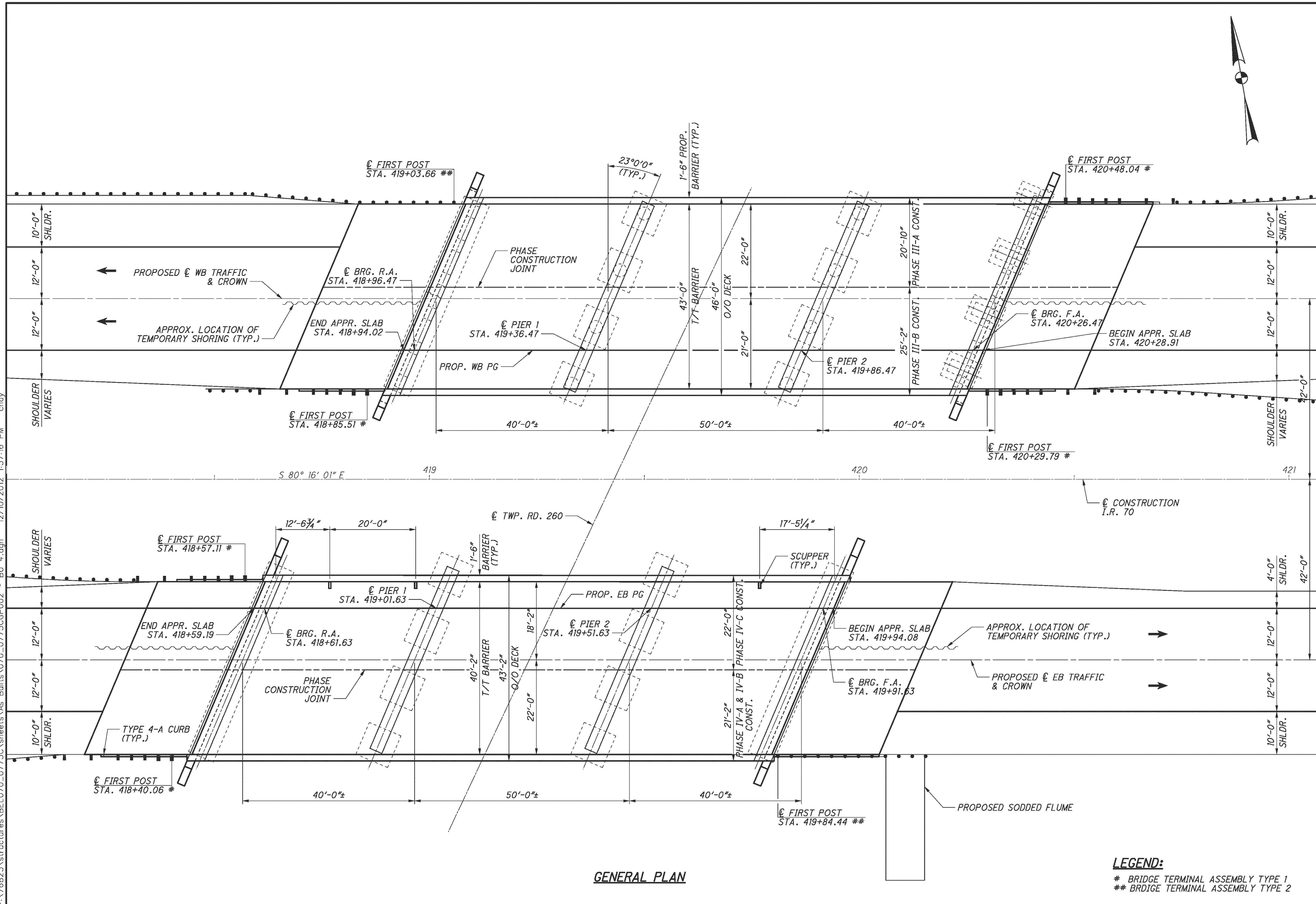
E.L. ROBINSON
 The Challenge, the Choice
 1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| DATE | REVISION | DRAWN | DESIGNED | BELMONT COUNTY (WEST BOUND) | BELMONT COUNTY (EAST BOUND) | SITE PLAN | BEL-70-7.61 |
|--------|----------|---------|-------------|-----------------------------|-----------------------------|----------------------------|---------------|
| 2/3/11 | RER | DTA | DTA | STA. 418+94.02 | STA. 418+59.19 | BRIDGE NO. BEL-70-0775 L/R | PID No. 76825 |
| | | REVISED | CHECKED | STA. 420+28.91 | STA. 419+94.08 | I.R. 70 OVER TWP. RD. 260 | |
| | | | FILE NUMBER | | | | |
| | | | | | | | |

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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 | | BELMONT COUNTY (WEST BOUND) STA. 418+94.02 | |
| BEL-70-7.61 PID No. 76825 | | BELMONT COUNTY (EAST BOUND) STA. 419+94.08 | |
| 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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E.L. ROBINSON
the Challenge, the Choice
1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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| DESIGNED | DTA | CHECKED | AME |
| DRAWN | DTA | REVIEWED | AME |
| REVISED | RER | DATE | 2/3/11 |
| STRUCTURE FILE NUMBER | 070213TL/070216IR | | |

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:

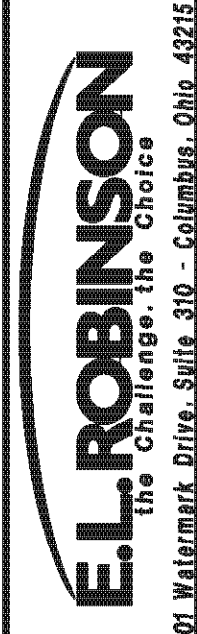
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE 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".



| | | | |
|----------|--------|-----------------------|-------------------|
| DESIGNED | DTA | CHECKED | AME |
| DRAWN | DTA | REVISED | |
| REVIEWED | RER | STRUCTURE FILE NUMBER | 0702137L/0702161R |
| DATE | 2/3/11 | | |

GENERAL NOTES
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD 260

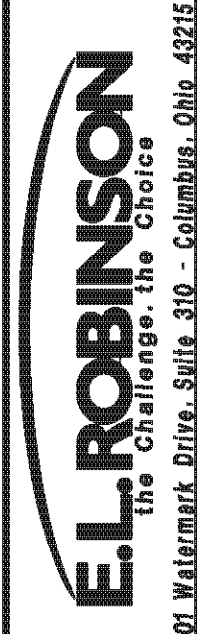
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| ESTIMATED QUANTITIES | | | | | | | | | | |
|----------------------|-----------|--------|-------|---|-------|-------|--------|------|---------|--|
| ITEM | EXTENSION | TOTAL | UNIT | DESCRIPTION | ABUT. | PIERS | SUPER. | GEN. | SHEET # | |
| 201 | 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 | 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 | | | | | |



DATE
REVIEWED
DRAWN
DESIGNED

BMG
BMG
DTA
DTA

STRUCTURE FILE NUMBER
0702137L/0702161R

ESTIMATED QUANTITIES - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

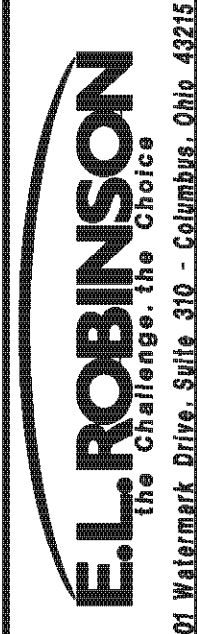
BEL-70-7.61
PID No. 76825

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| 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 | | | | | |



DATE
REVIEWED
DRAWN
DESIGNED

BMG
CMH

REVISOR
CHECKED
BMG

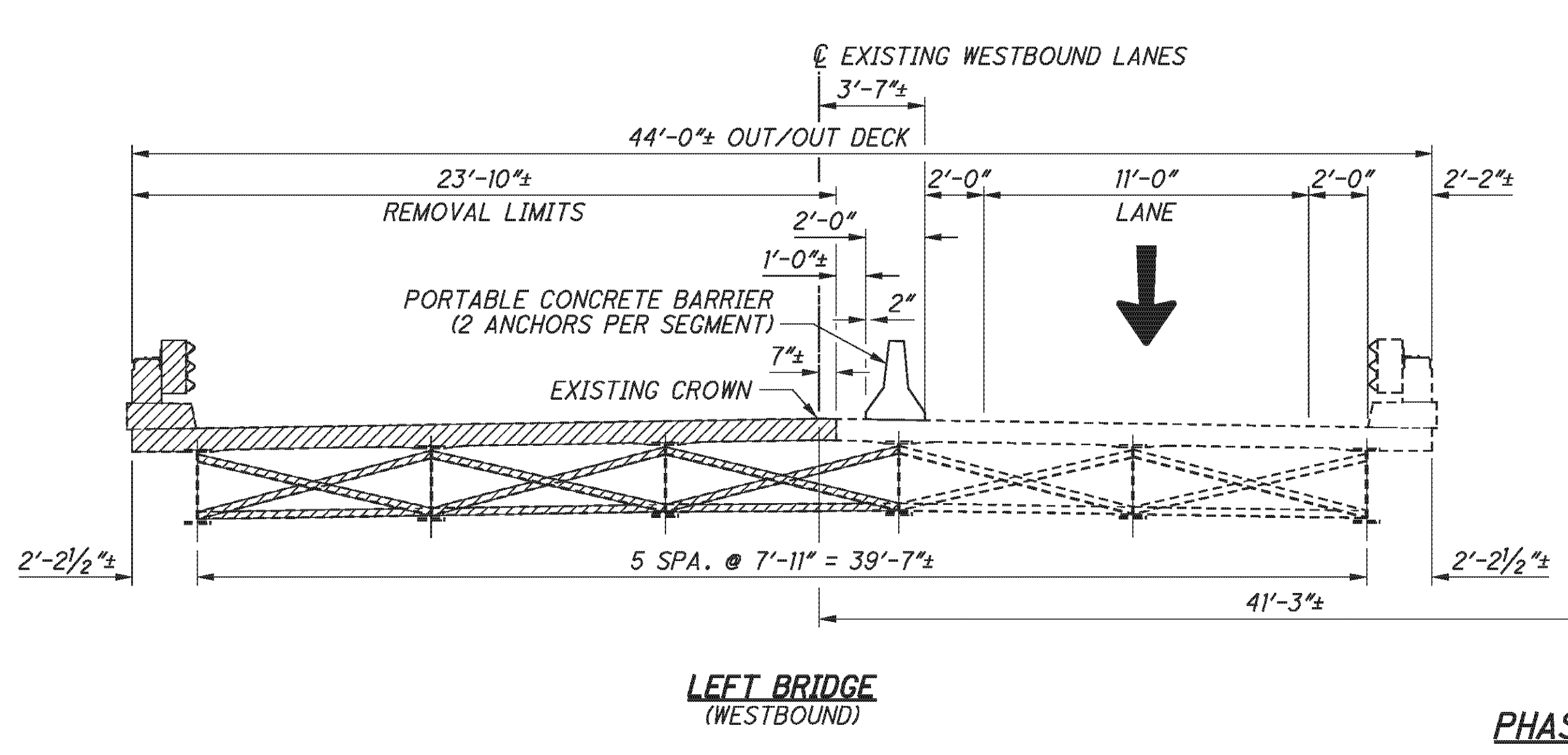
STRUCTURE FILE NUMBER
0702137L/0702161R

ESTIMATED QUANTITIES - RIGHT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

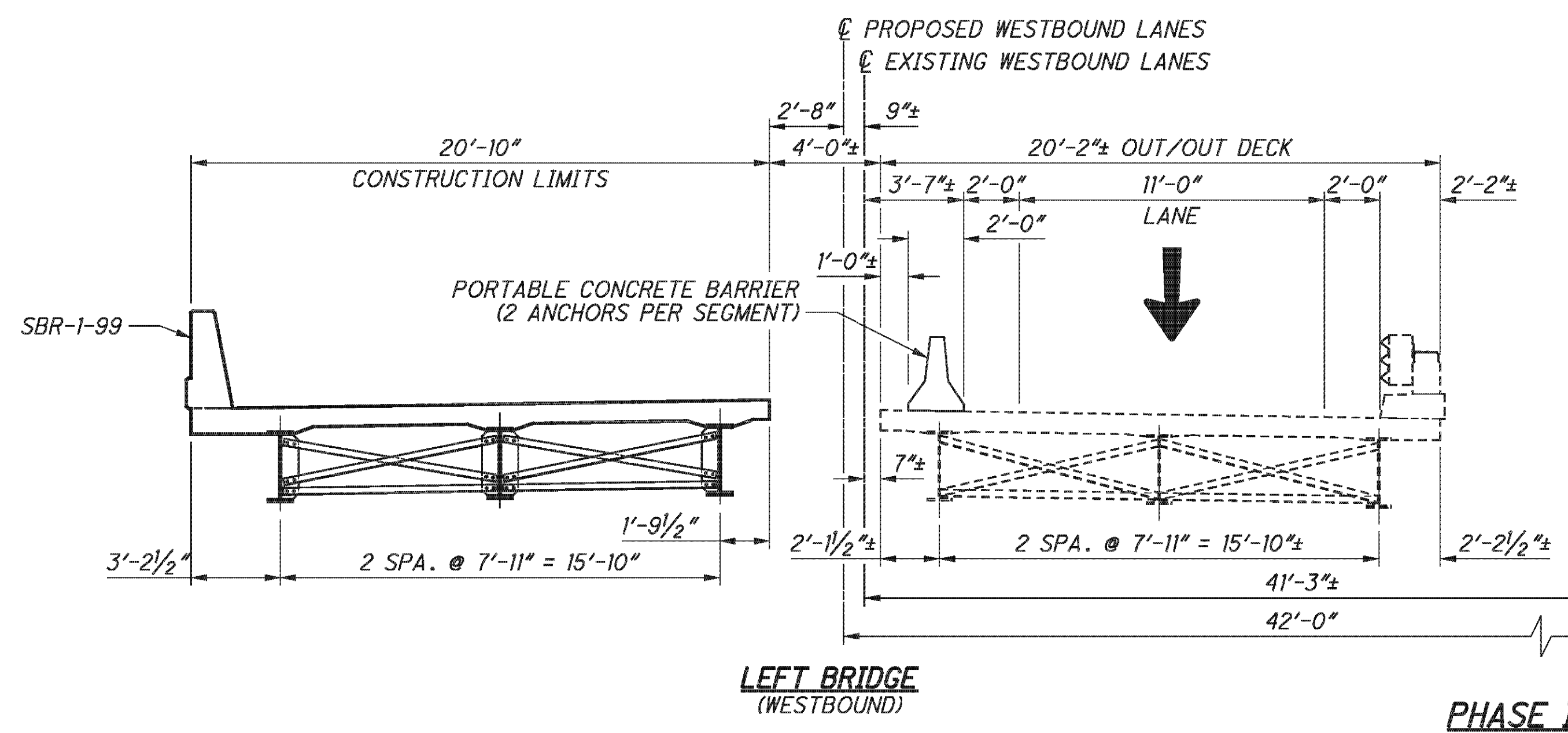
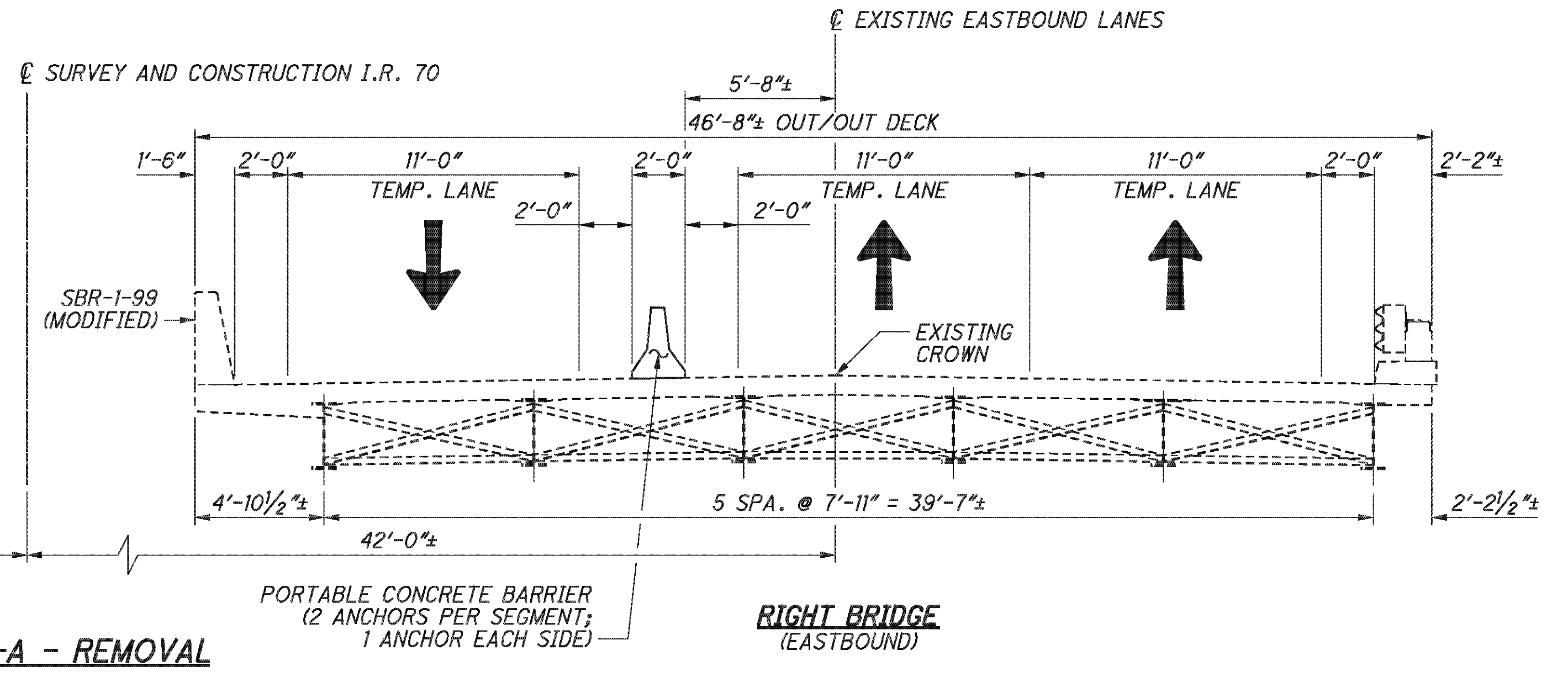
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PID No. 76825

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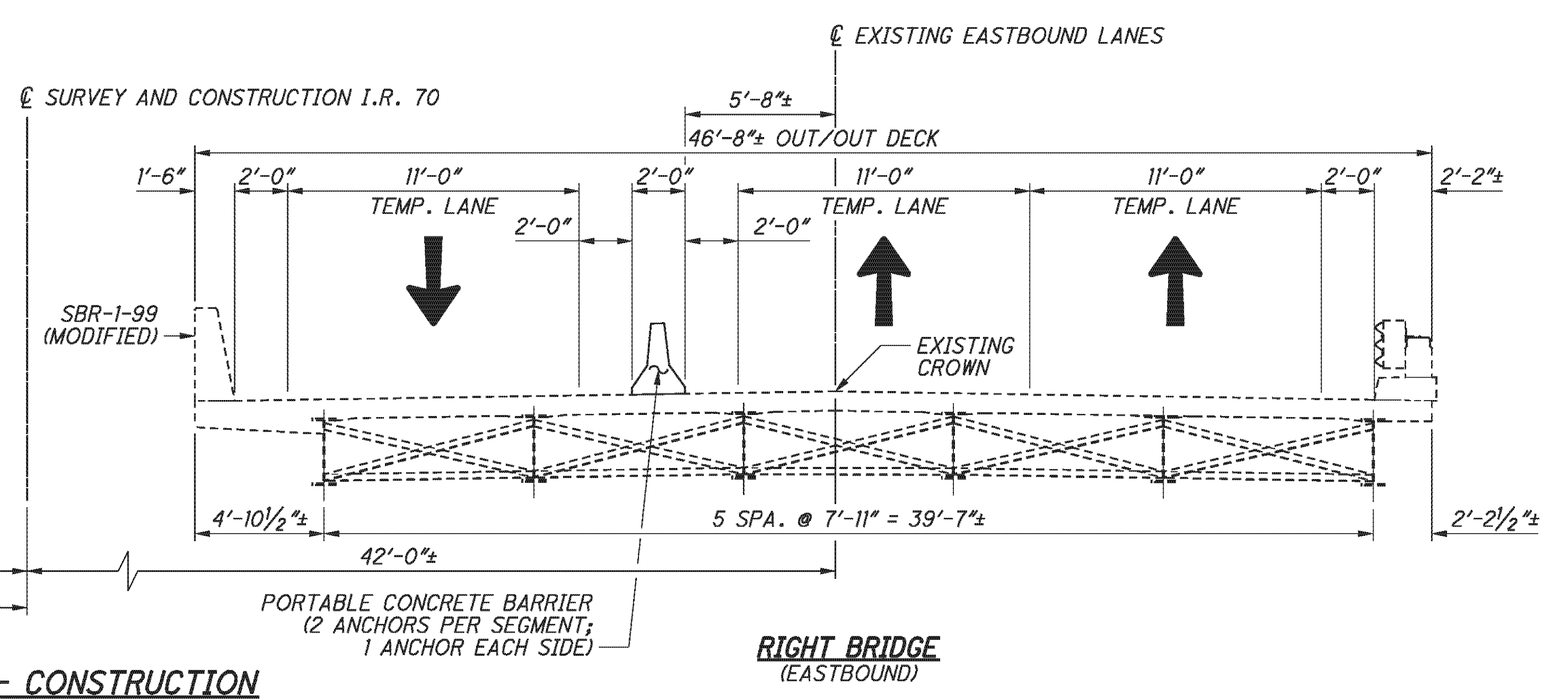
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373



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.

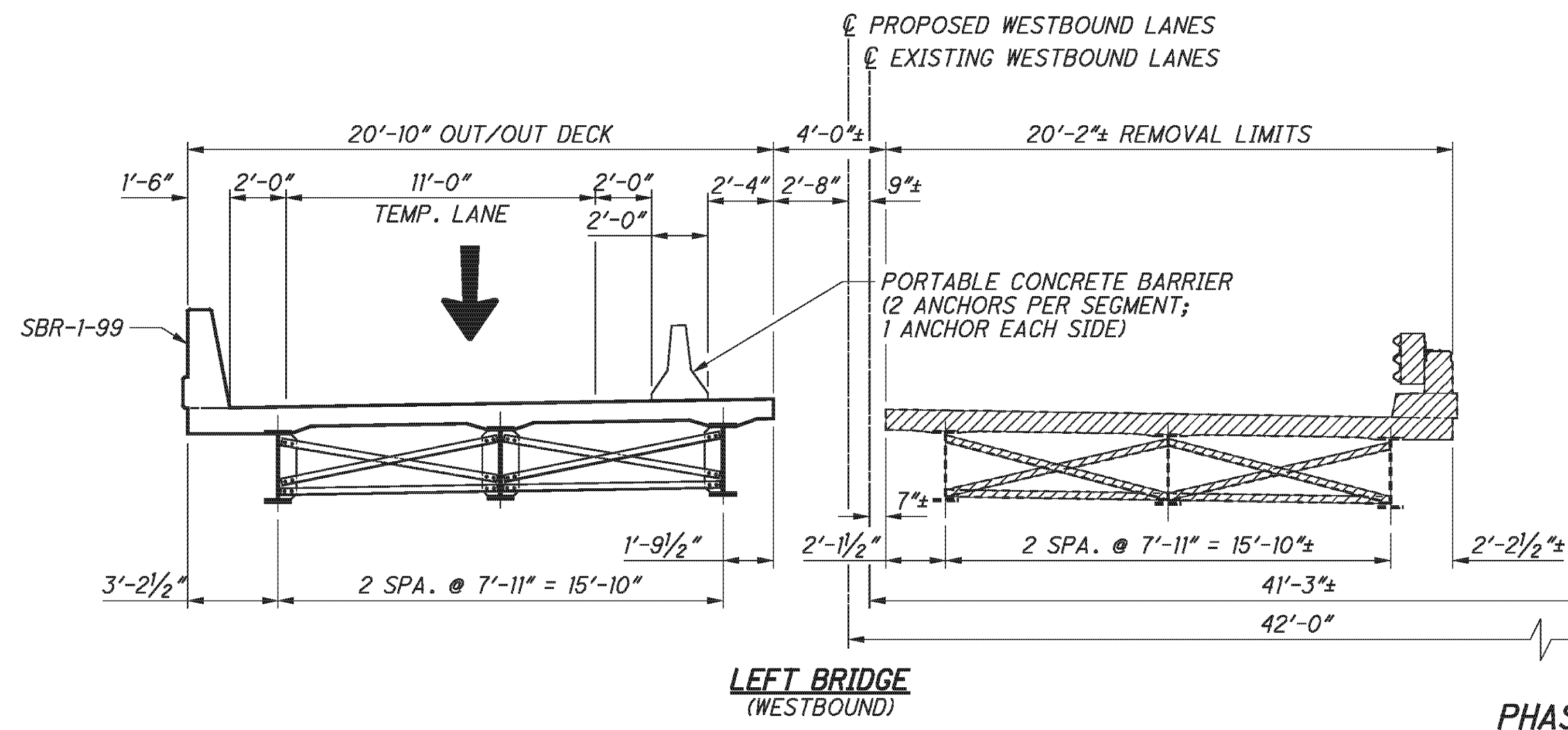
PHASE III-A CONSTRUCTION

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:
 LIMITS OF REMOVAL

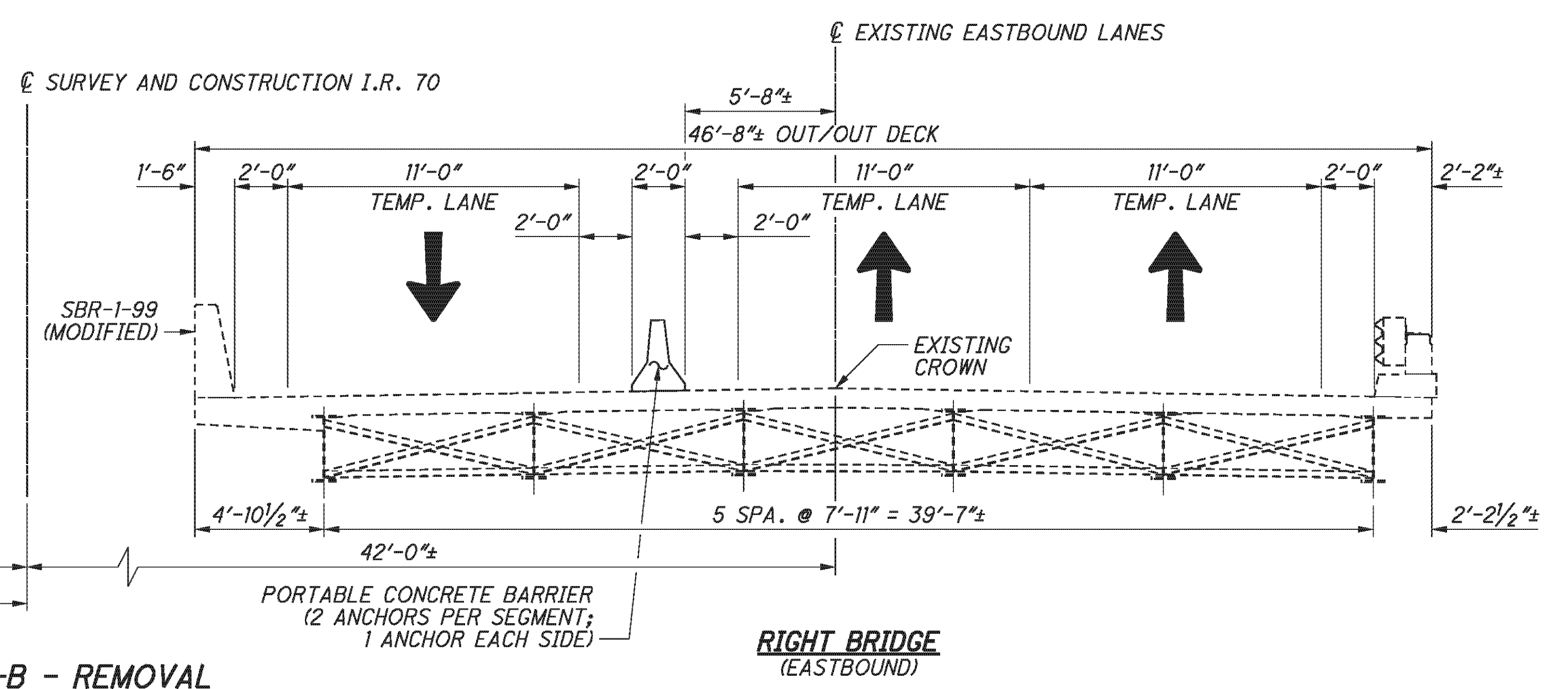
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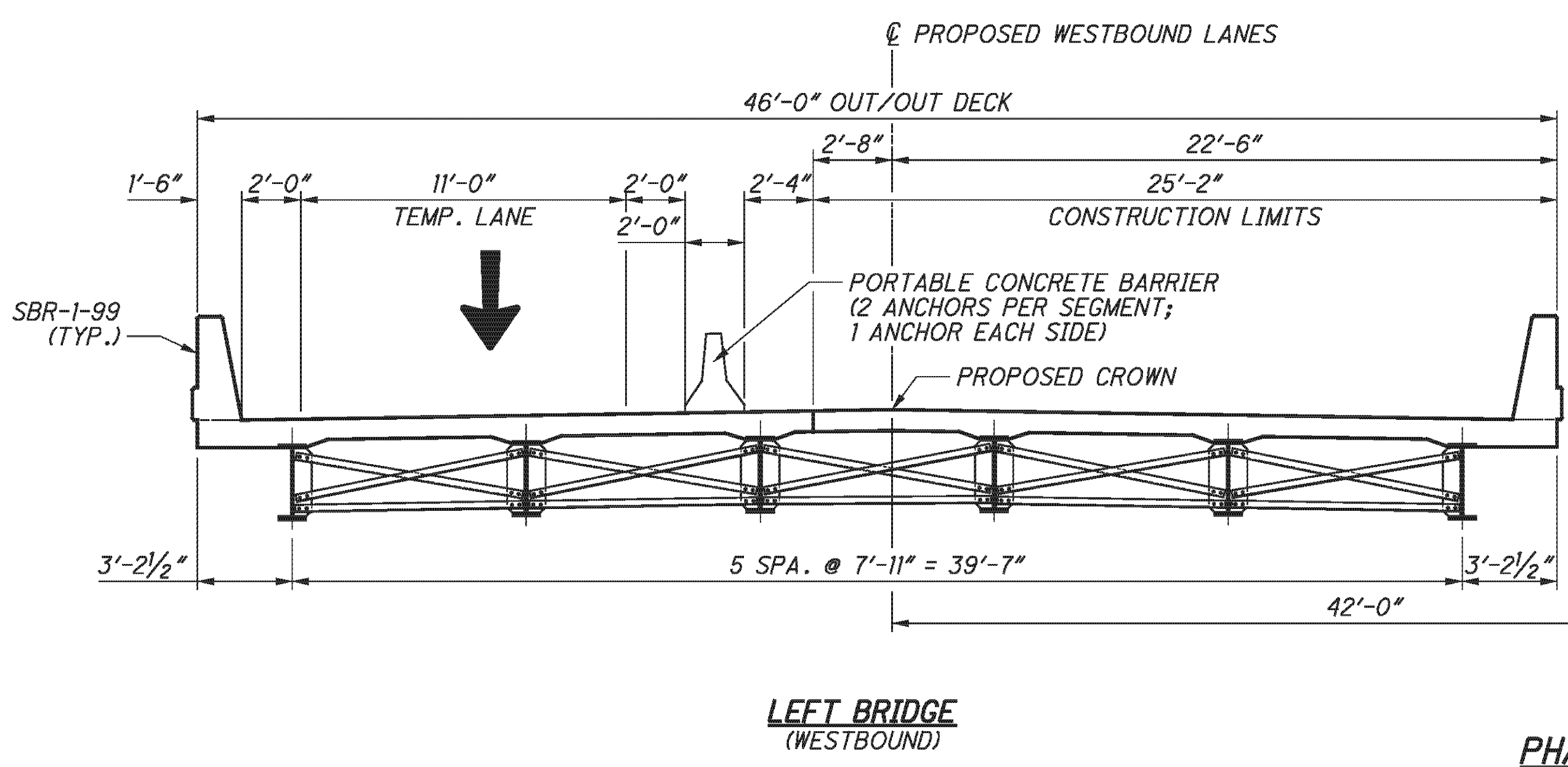


LEFT BRIDGE
(WESTBOUND)

PHASE III-B - REMOVAL

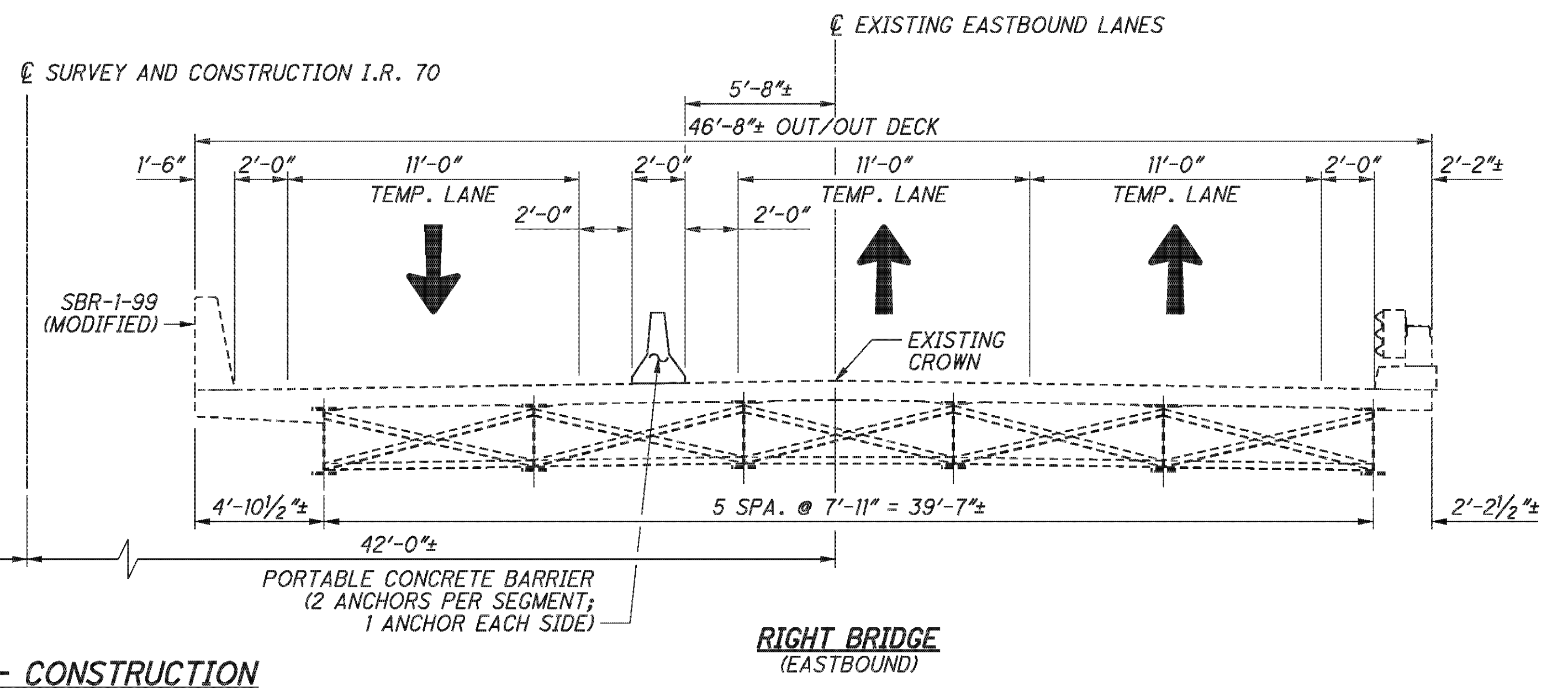


RIGHT BRIDGE
(EASTBOUND)



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

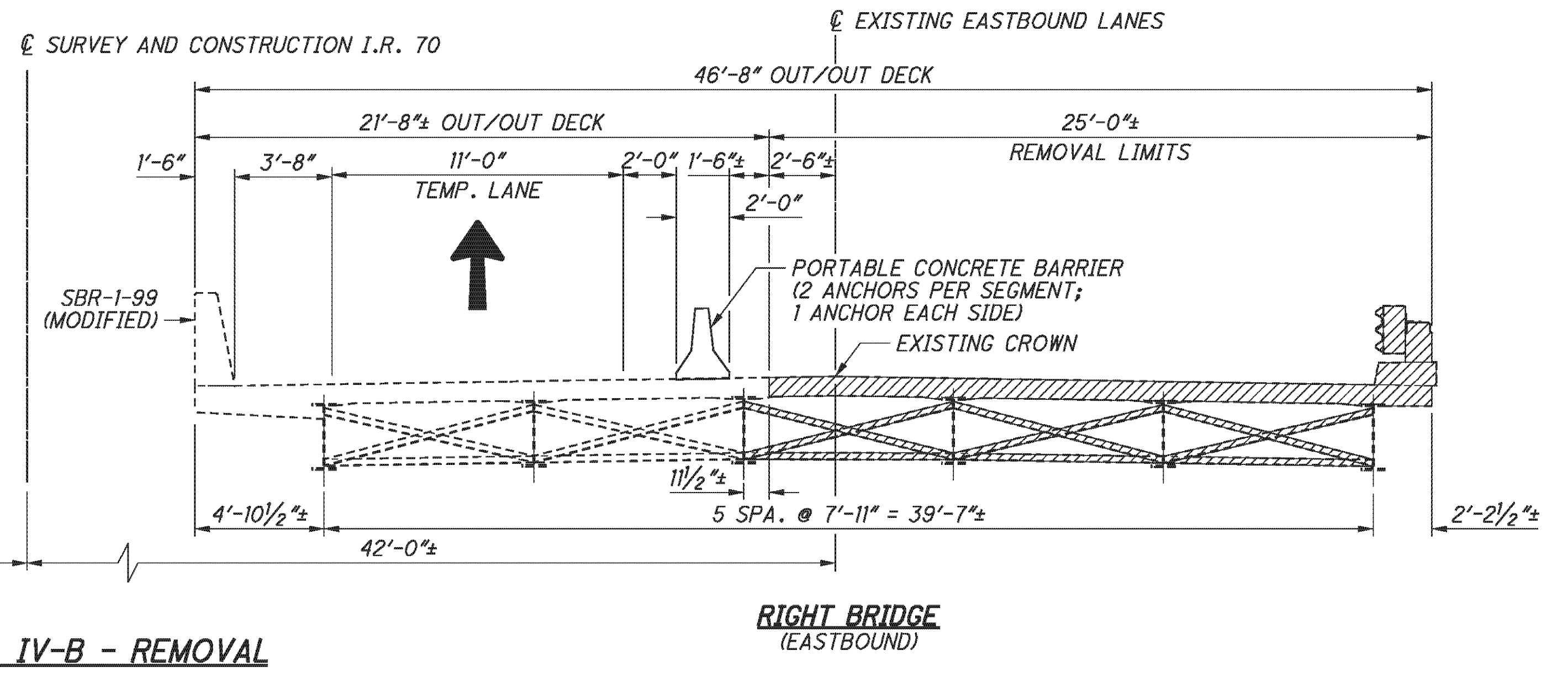
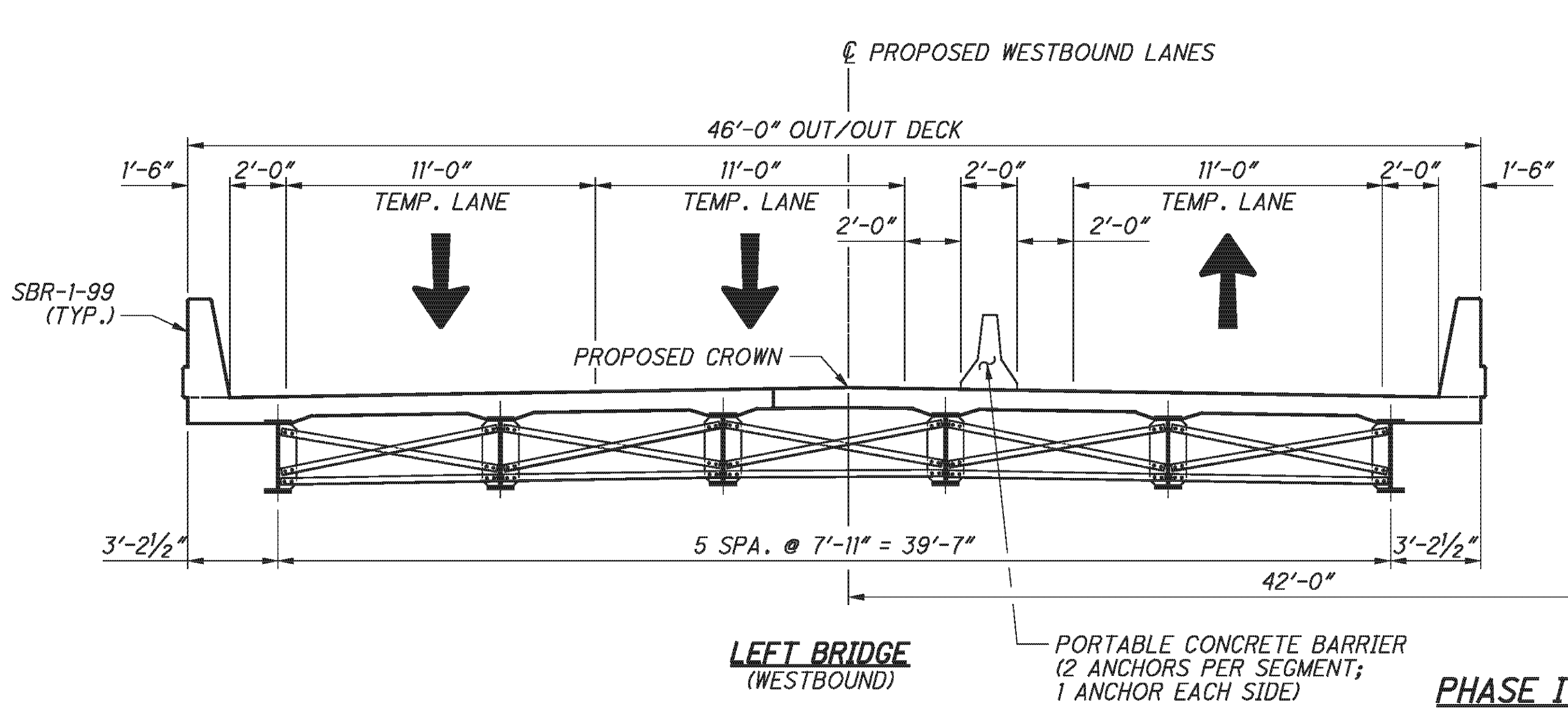
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| DRAWN | TJE |
| CHECKED | AME |
| DESIGNED | TJE |
| REVISED | AME |

PHASE CONSTRUCTION DETAILS
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

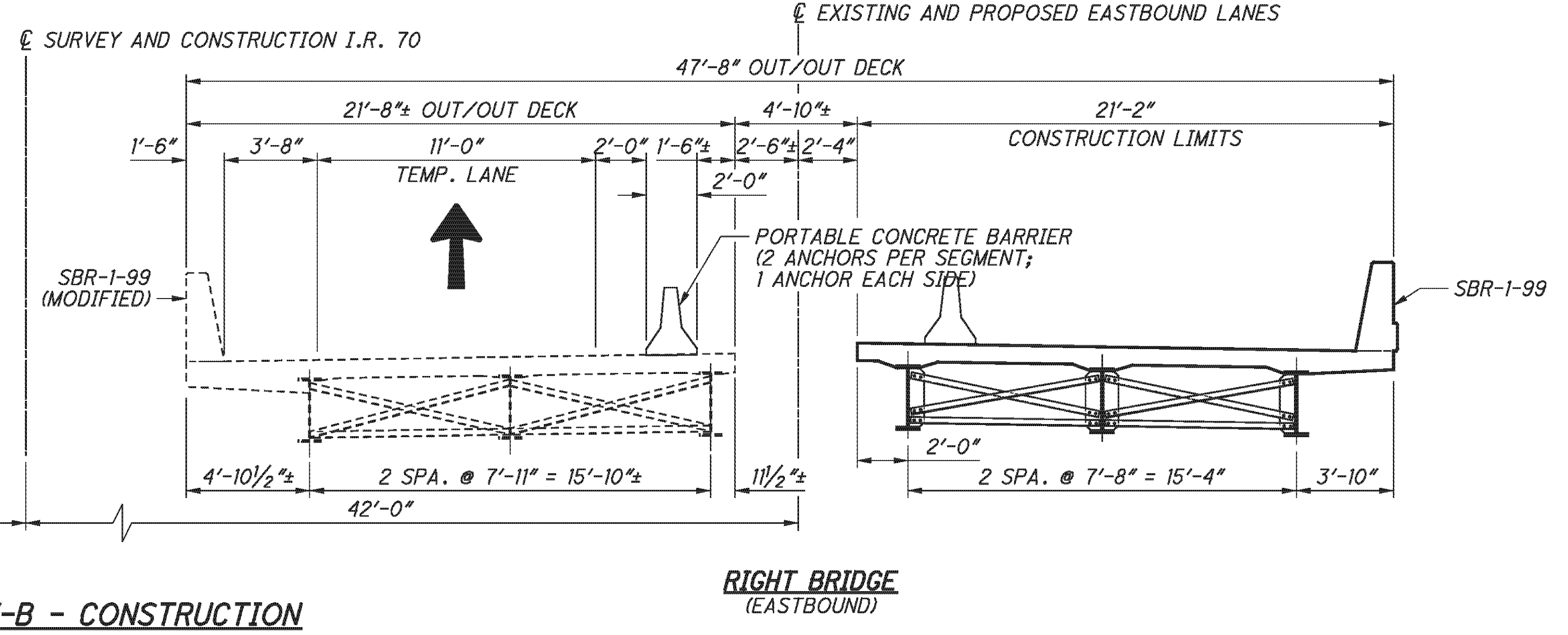
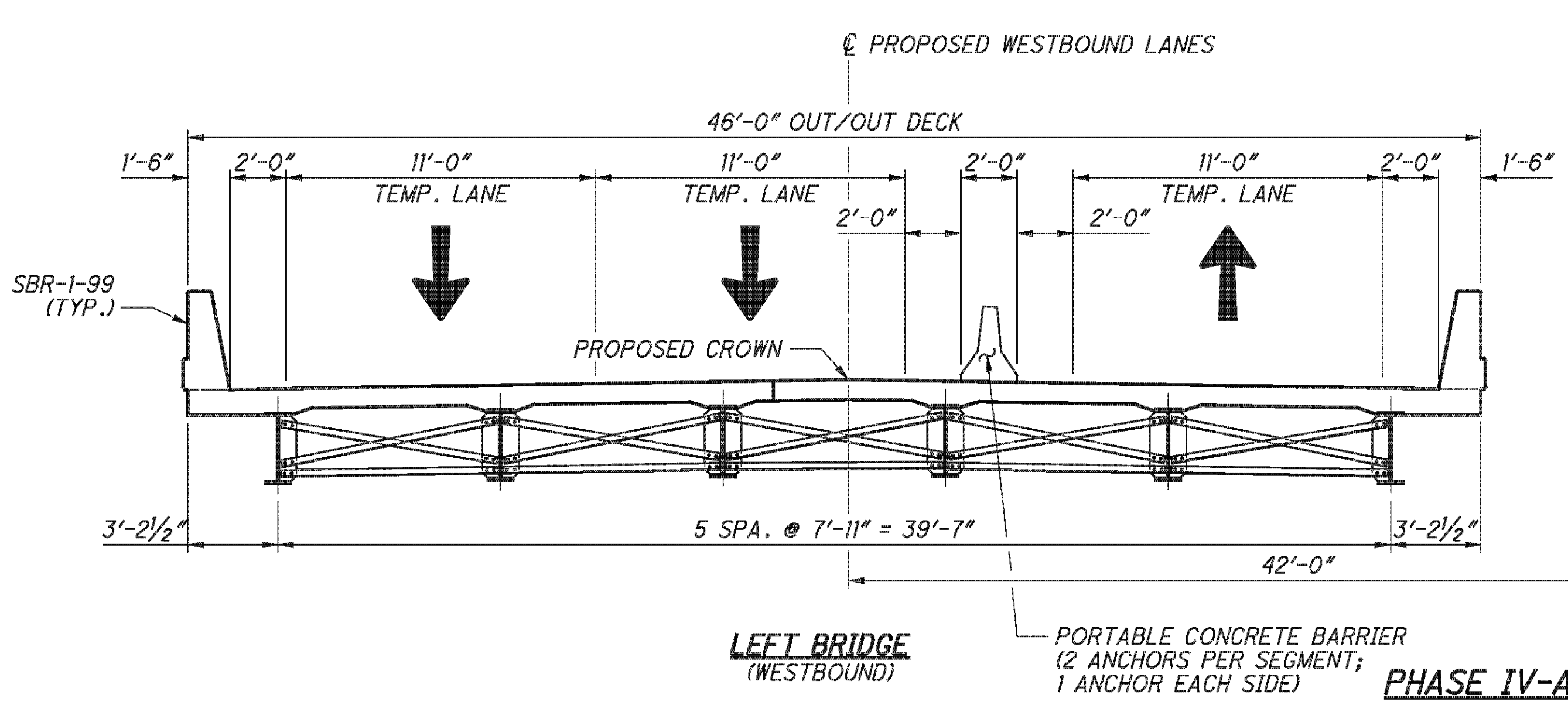
BEL-70-7.61
PID No. 76825

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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.

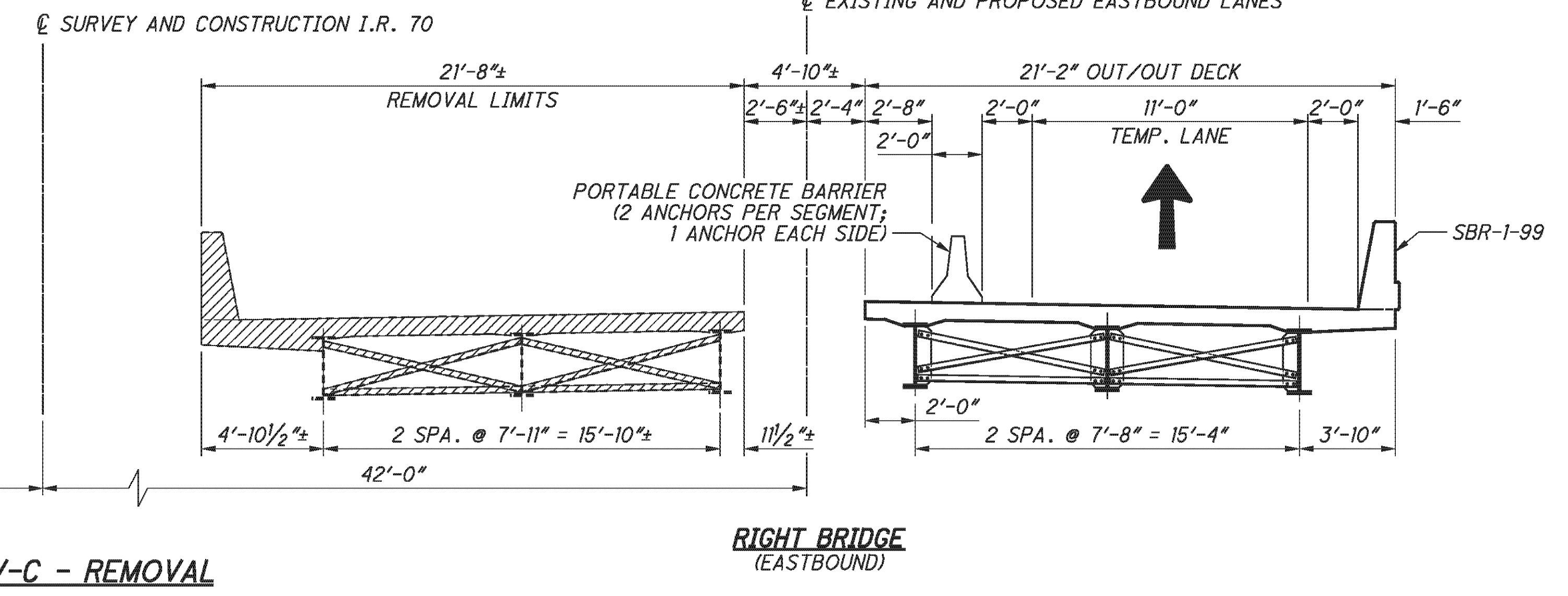
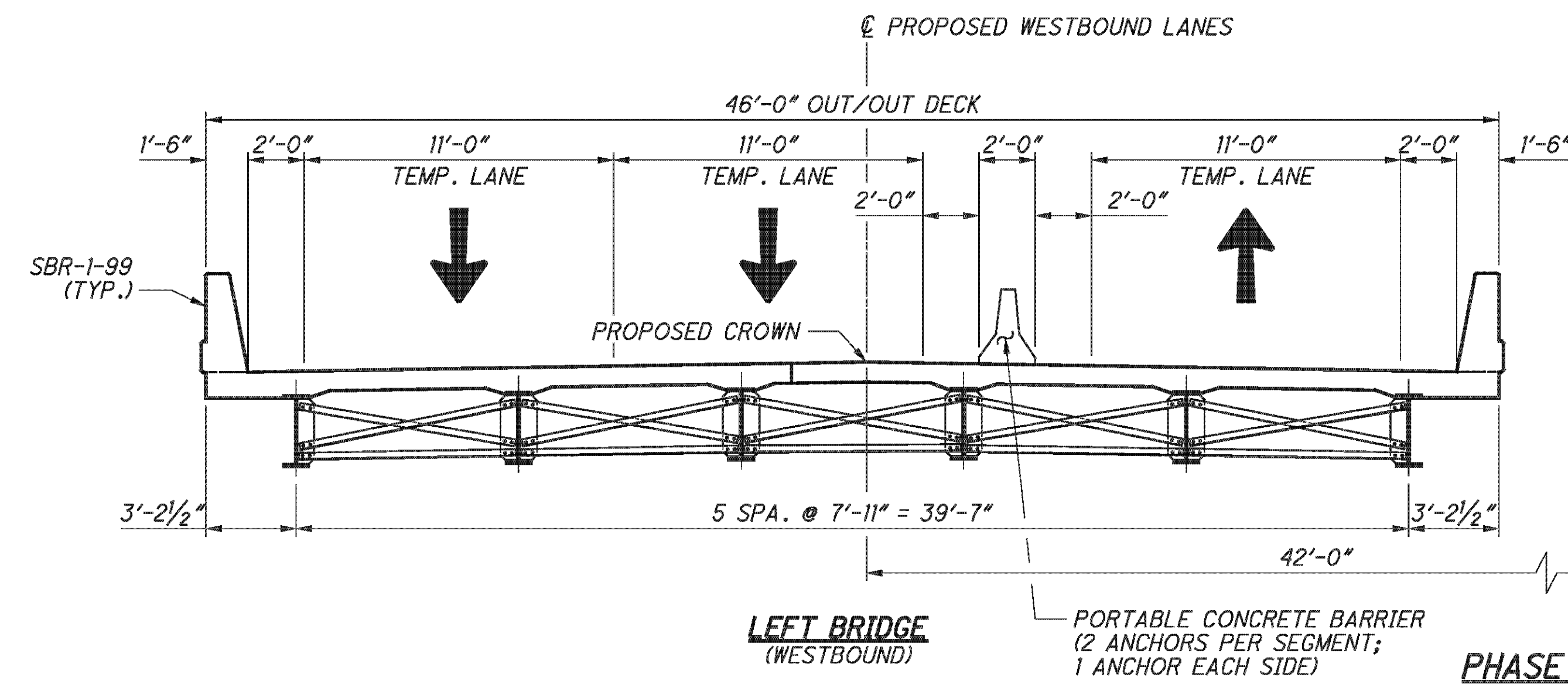
PHASE IV-A CONSTRUCTION

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.

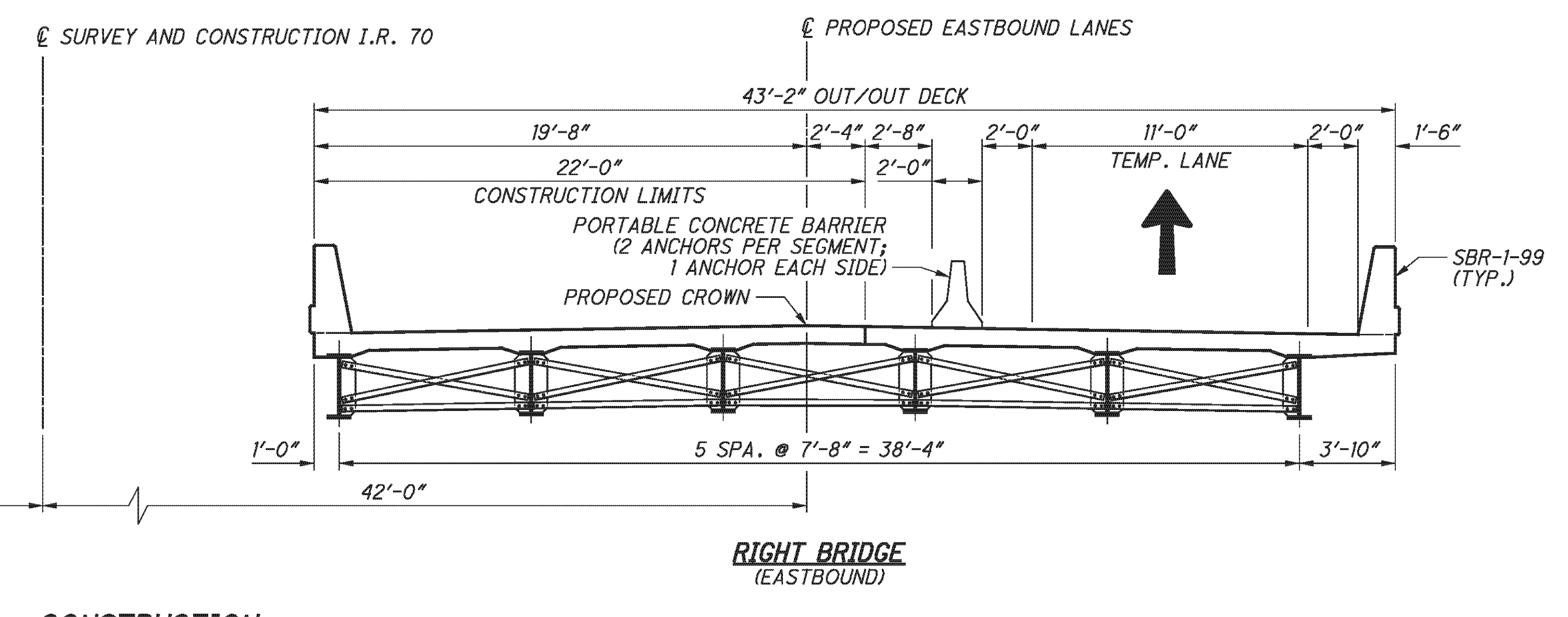
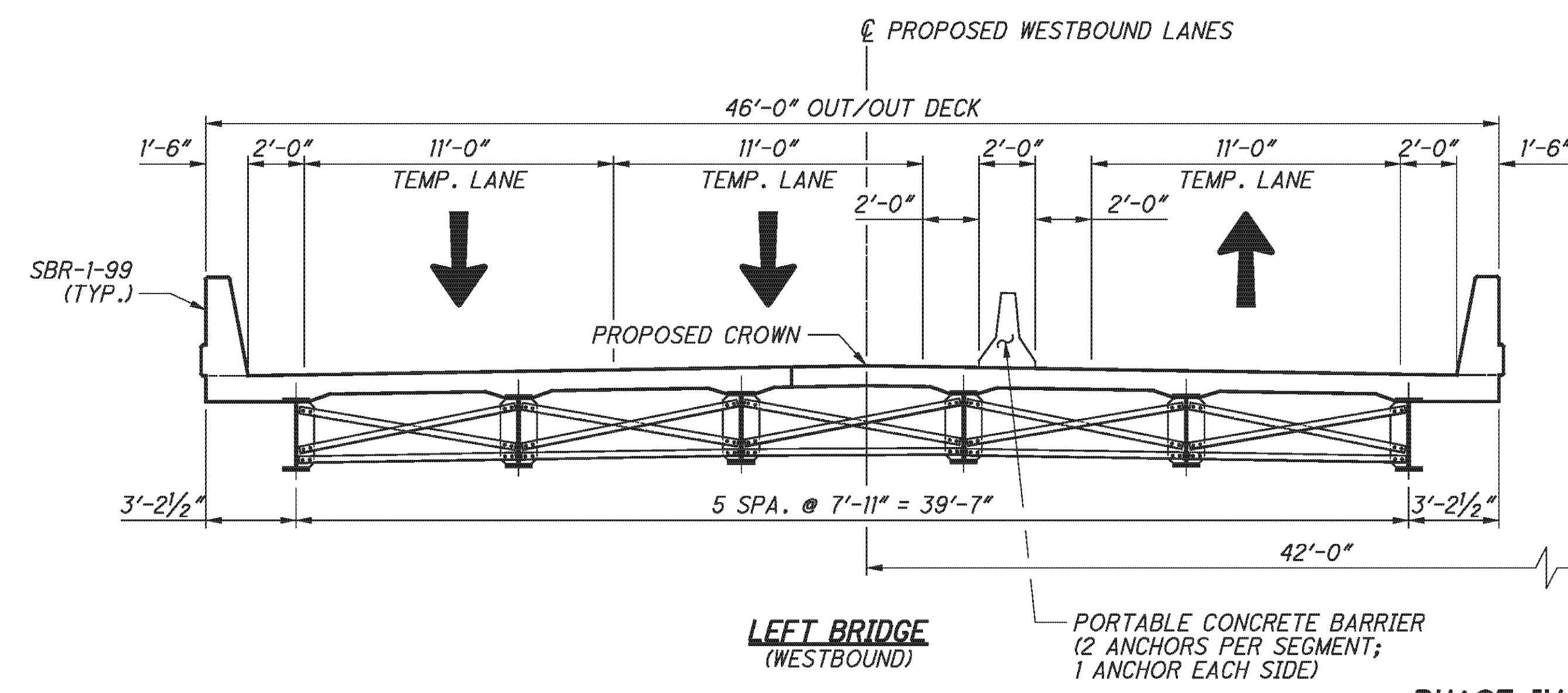
LEGEND:
LIMITS OF REMOVAL

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PHASE IV-C - REMOVAL



PHASE IV-C - CONSTRUCTION

PHASE IV-B REMOVAL

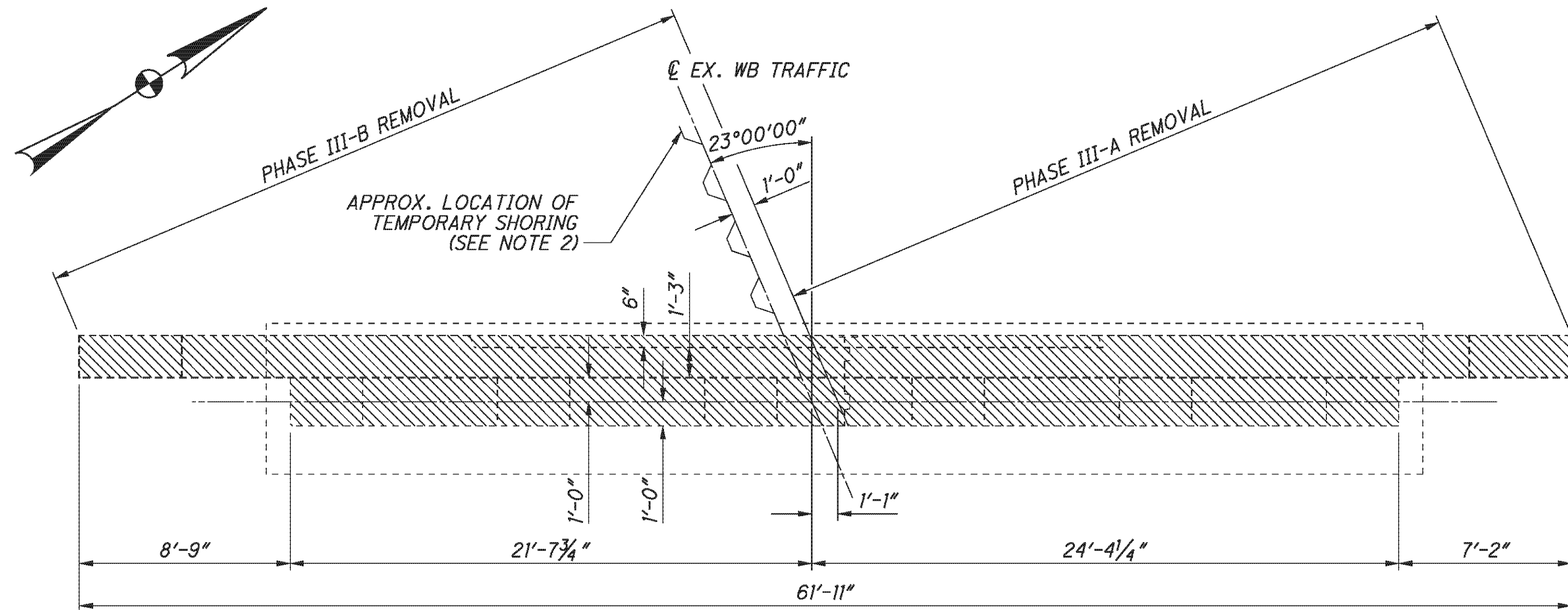
1. RELOCATE PORTABLE CONCRETE BARRIERS. DIRECT EASTBOUND AND WESTBOUND TRAFFIC AS REQUIRED.
2. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE EXISTING PORTIONS OF ABUTMENTS AND PIERS TO THE LIMITS SHOWN IN THE PLANS.

PHASE IV-B CONSTRUCTION

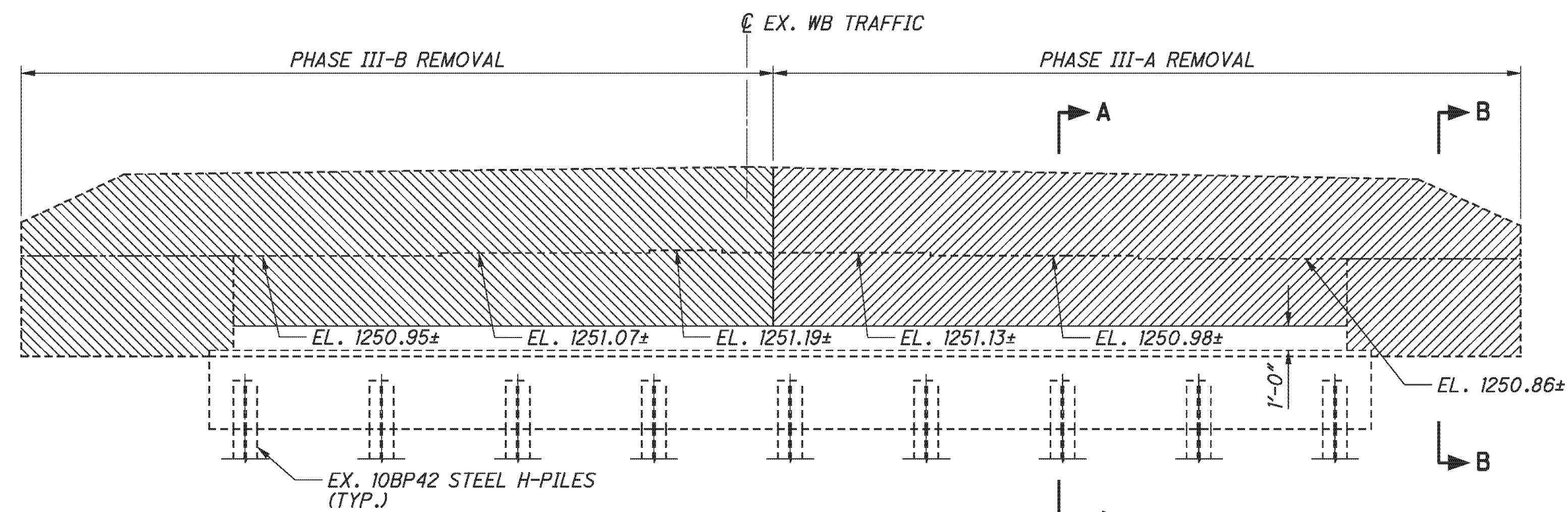
1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. INSTALL NEW CROSSFRAMES UNDER THE CLOSURE POUR. CAST THE CLOSURE POUR.
5. SEAL CONCRETE SURFACES.
6. REMOVE THE PORTABLE CONCRETE BARRIERS.

LEGEND:
 LIMITS OF REMOVAL

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EXISTING ABUTMENT REMOVAL PLAN
LEFT BRIDGE REAR ABUTMENT



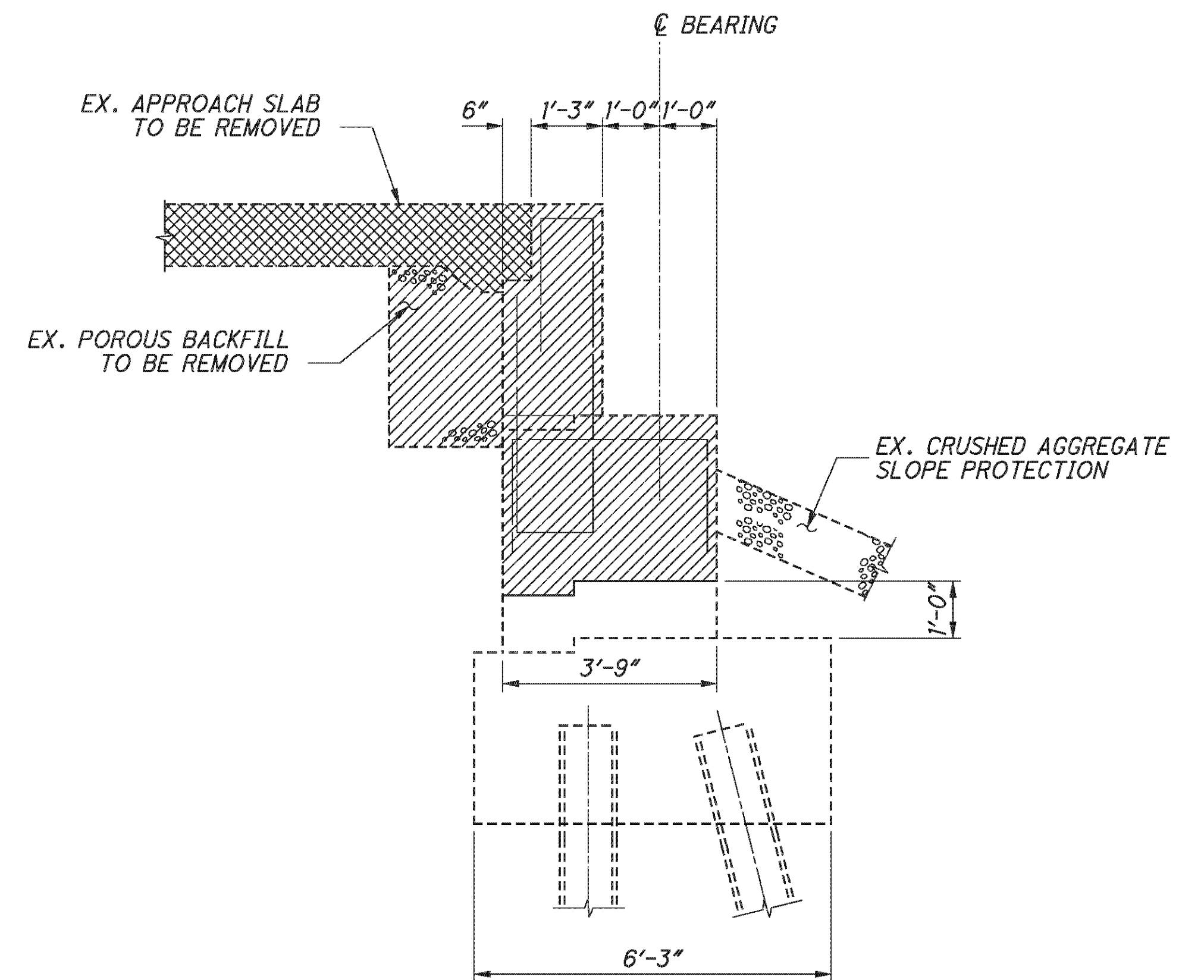
EXISTING ABUTMENT REMOVAL ELEVATION
LEFT BRIDGE REAR ABUTMENT

LEGEND:

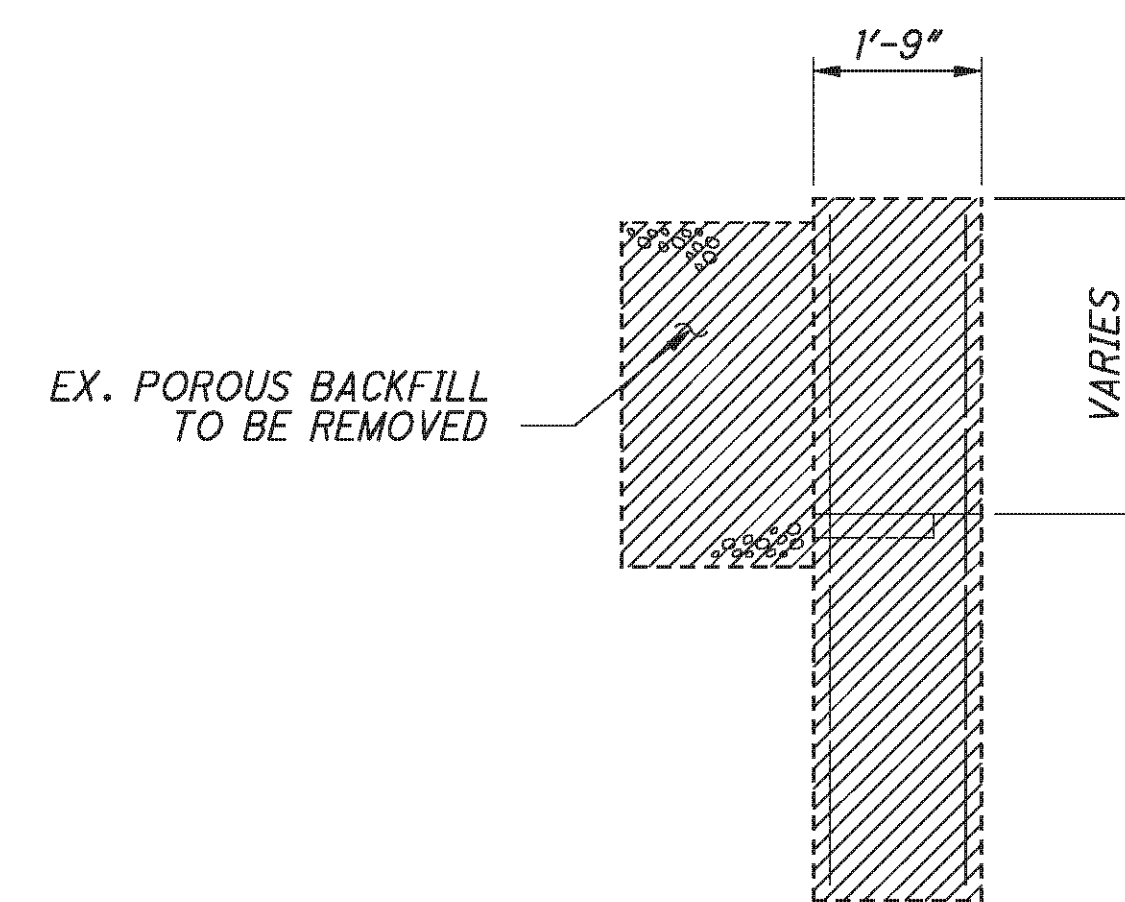
- PHASE III-A REMOVAL
- PHASE III-B REMOVAL
- APPROACH SLAB REMOVED

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.



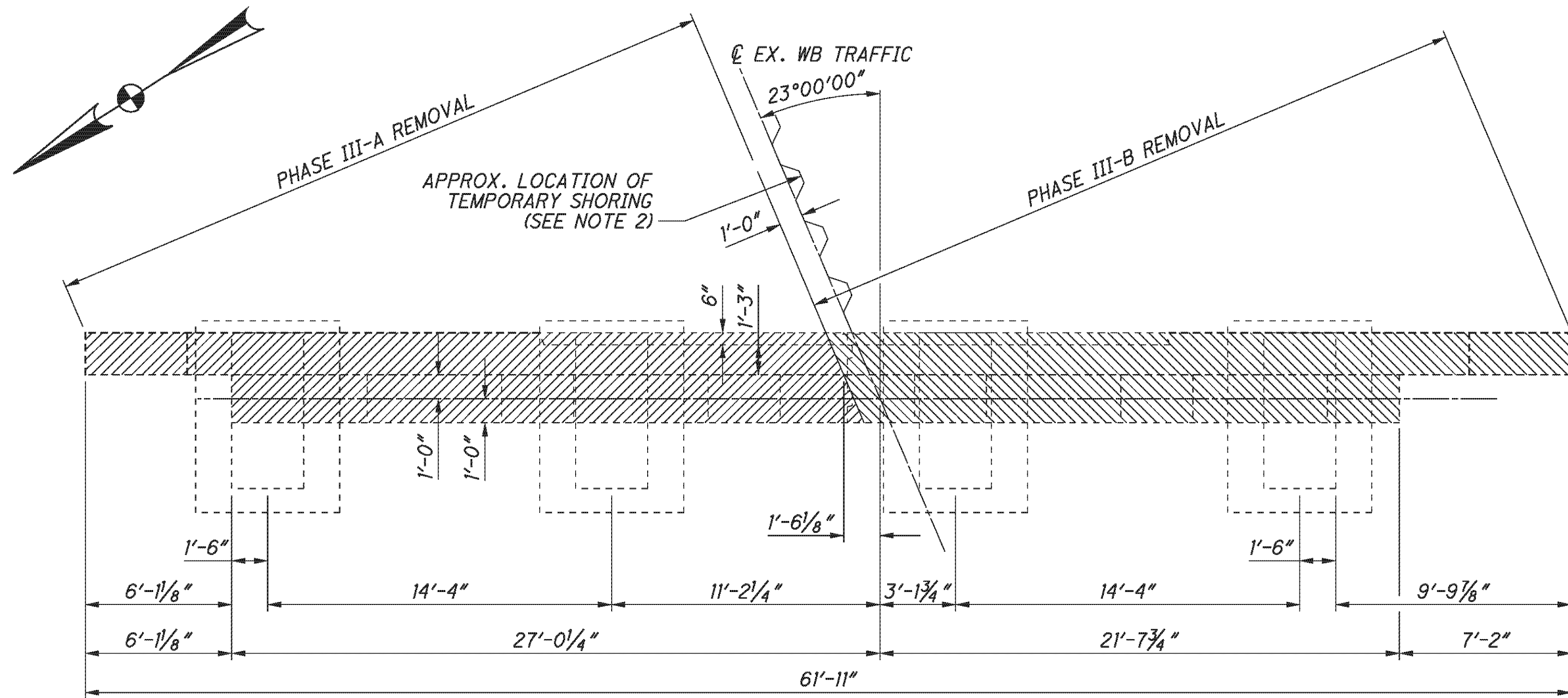
SECTION A-A



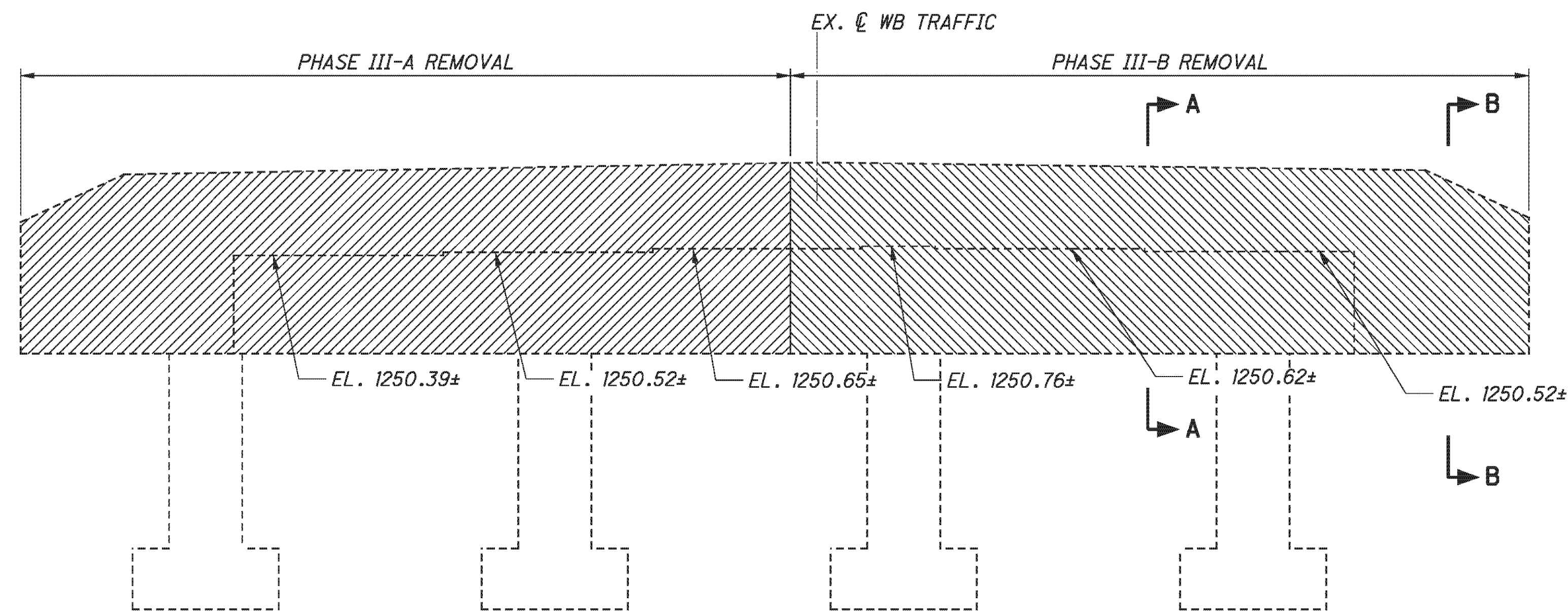
SECTION B-B

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| | DATE 5/11/10 |
| | REVIEWED DFT |
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| DESIGNED DTA | CHECKED AME |
| 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 | |
| 11 / 46 | <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;"> 293 373 </div> |

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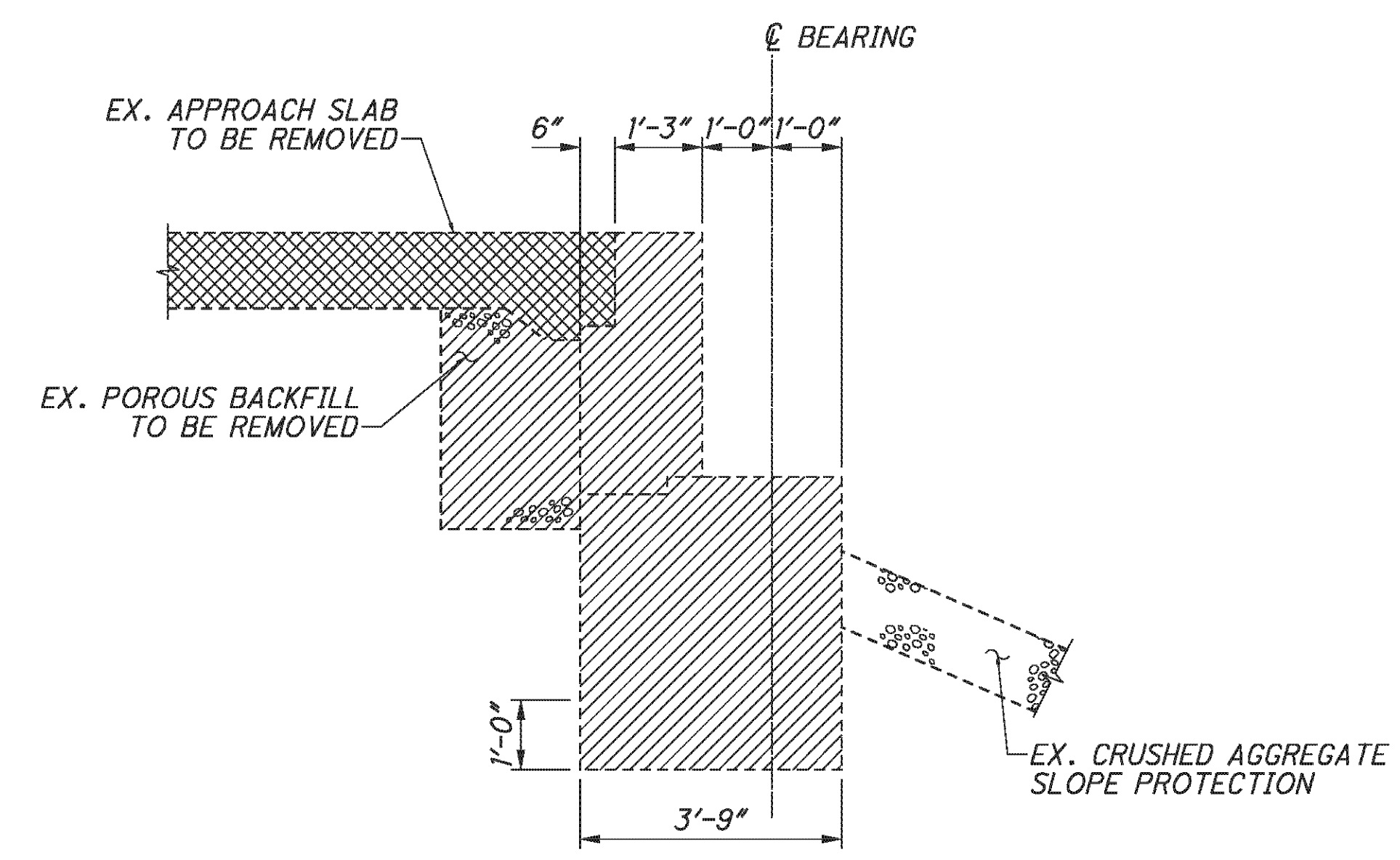
EXISTING ABUTMENT REMOVAL PLAN
LEFT BRIDGE FORWARD ABUTMENT



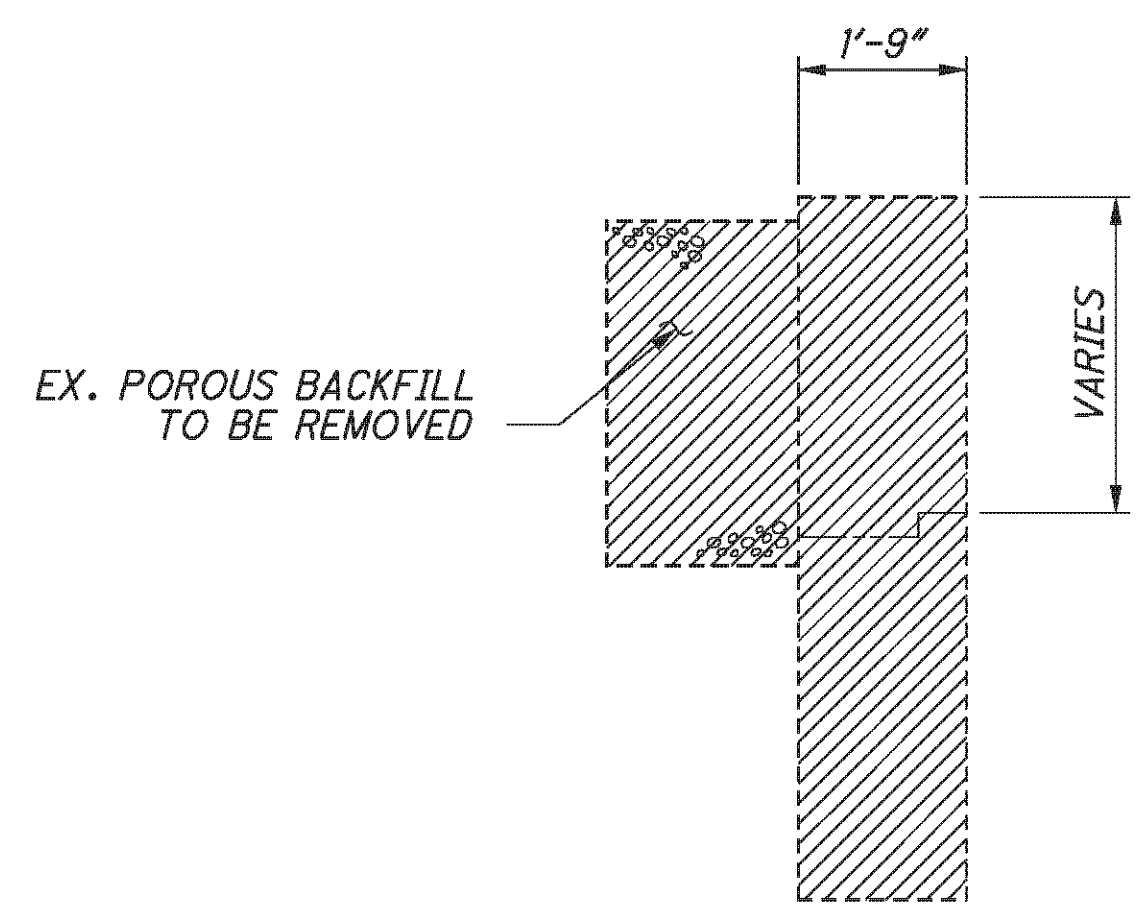
EXISTING ABUTMENT REMOVAL ELEVATION
LEFT BRIDGE FORWARD ABUTMENT

- 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

| | | | |
|-----------------|--------------|---|-----------------|
| DESIGNED DTA | DRAWN BMG | REVIEWED DFT | DATE 5/11/10 |
| CHECKED AME | REVISED | STRUCTURE FILE NUMBER 0702137L/070216R | |

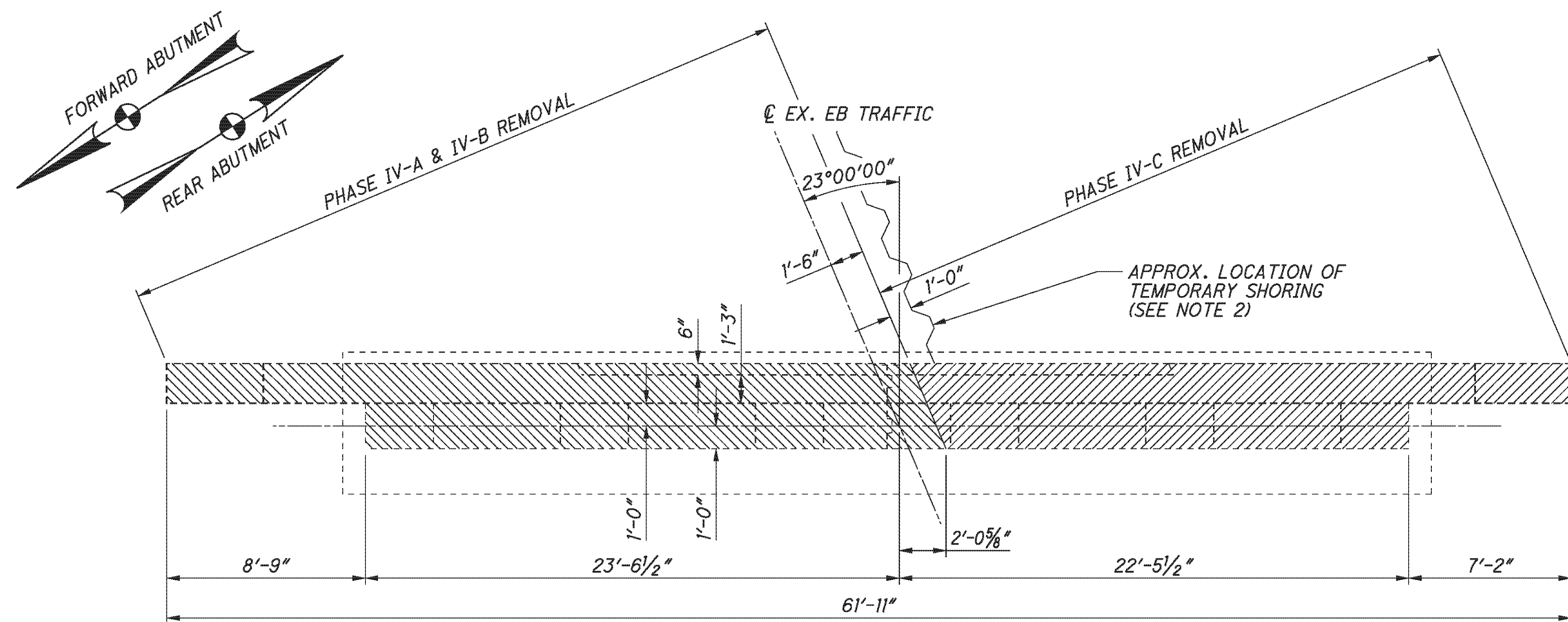
ABUTMENT REMOVAL DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

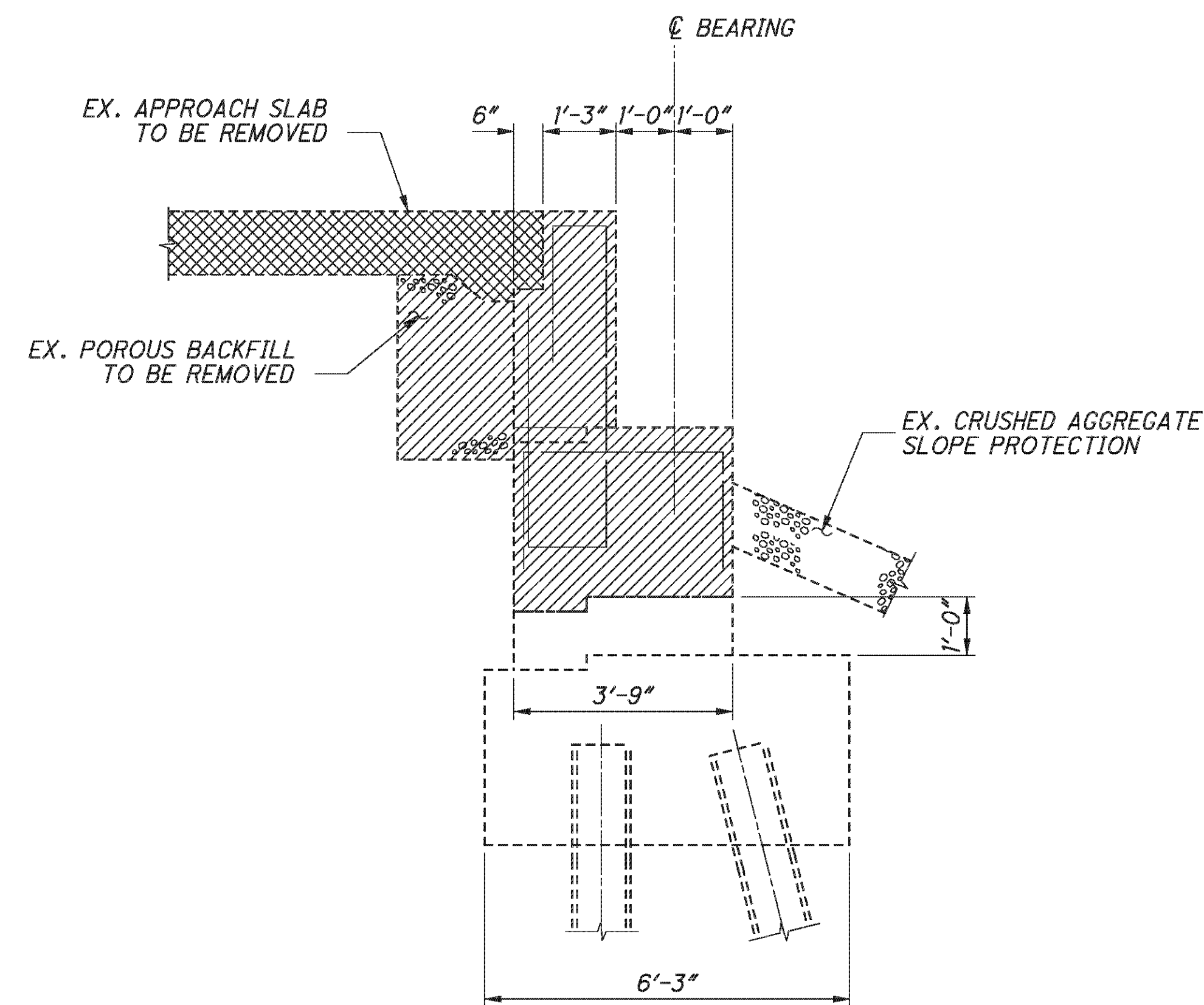
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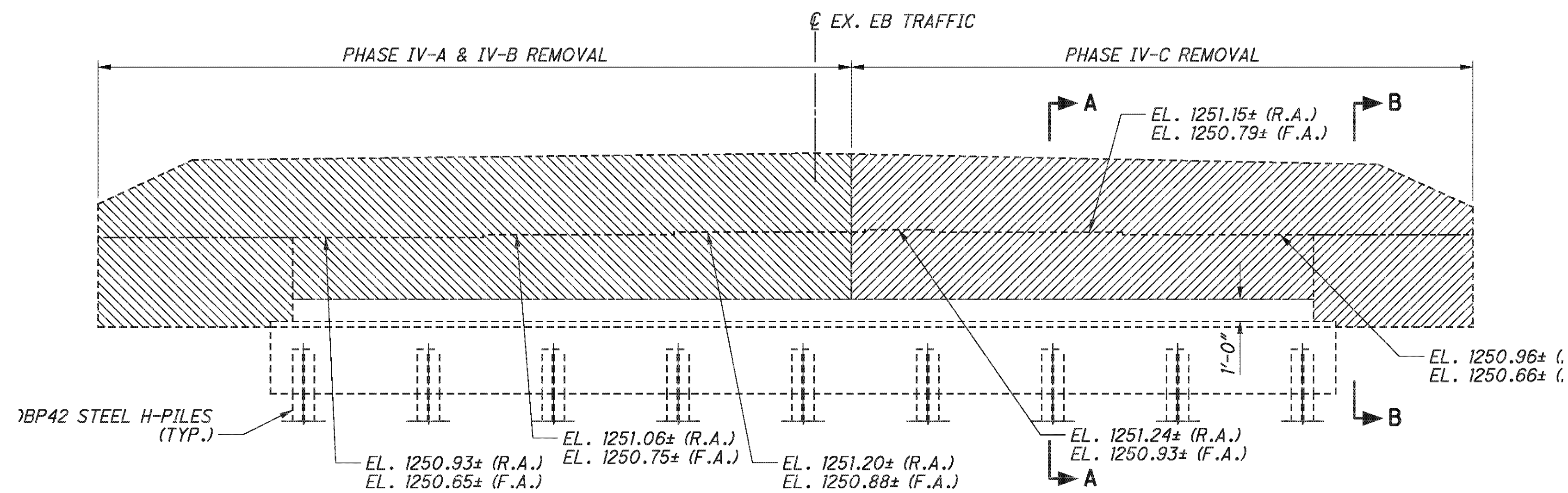
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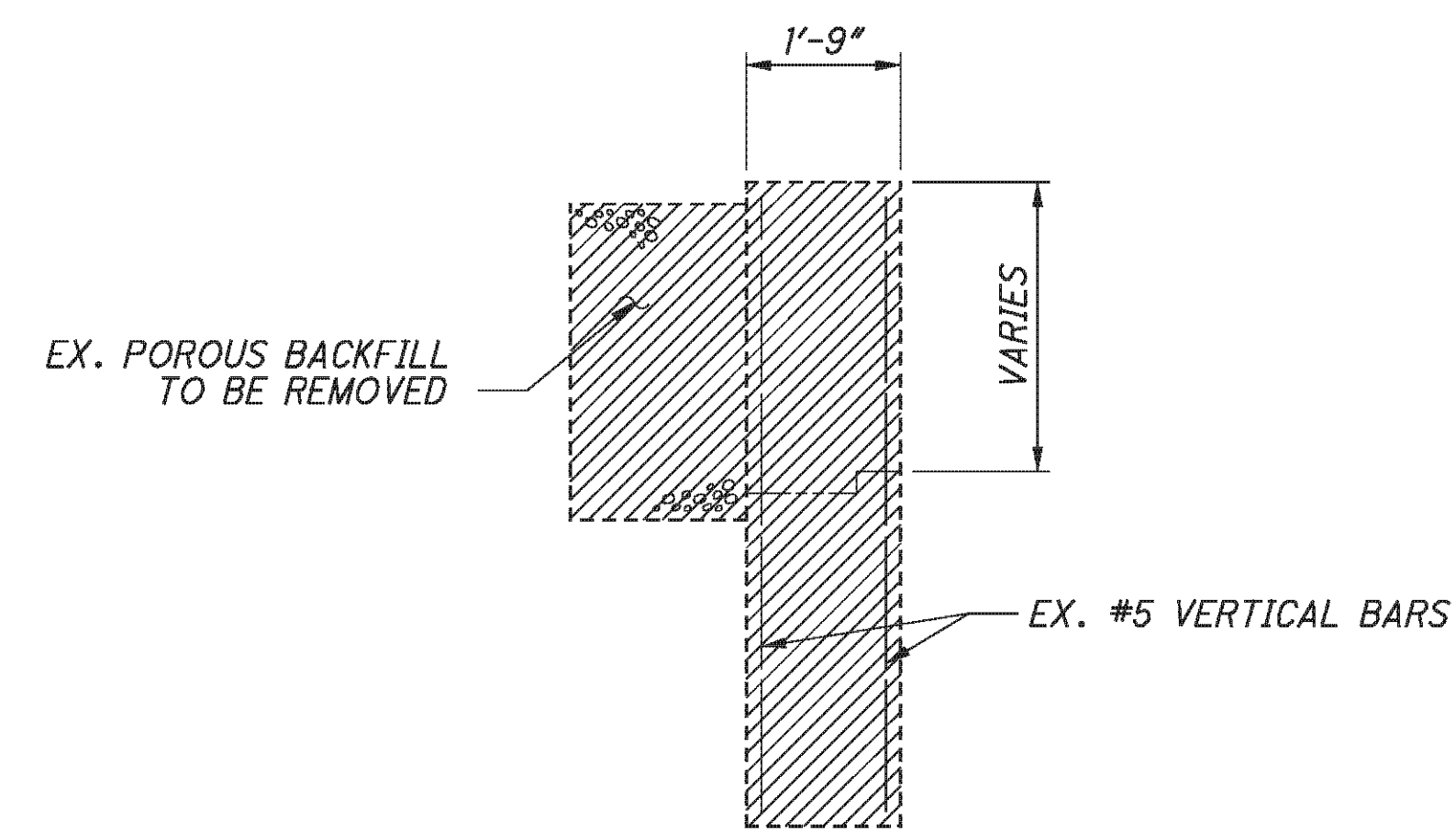
EXISTING ABUTMENT REMOVAL PLAN
RIGHT BRIDGE REAR ABUTMENT SHOWN
(RIGHT BRIDGE FORWARD ABUTMENT OPPOSITE HAND)



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
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| | |
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| DATE | 2/3/11 |
| REVIEWED | RER |
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| REVISED | |

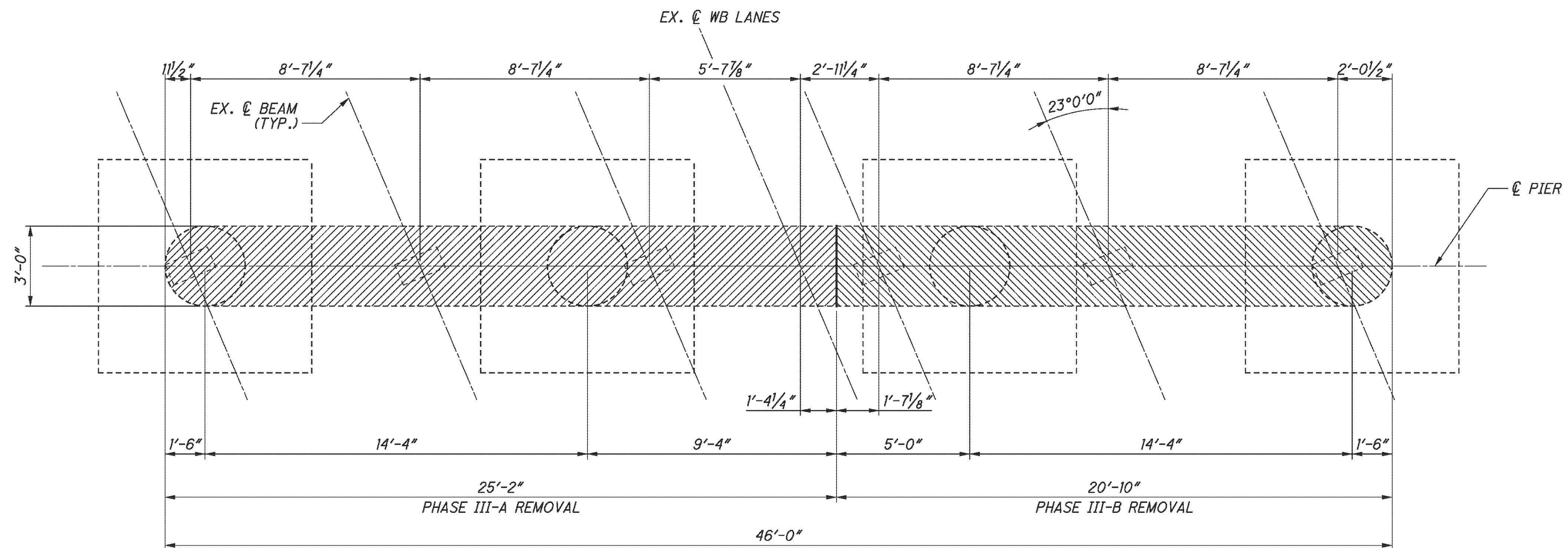
ABUTMENT REMOVAL DETAILS - RIGHT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

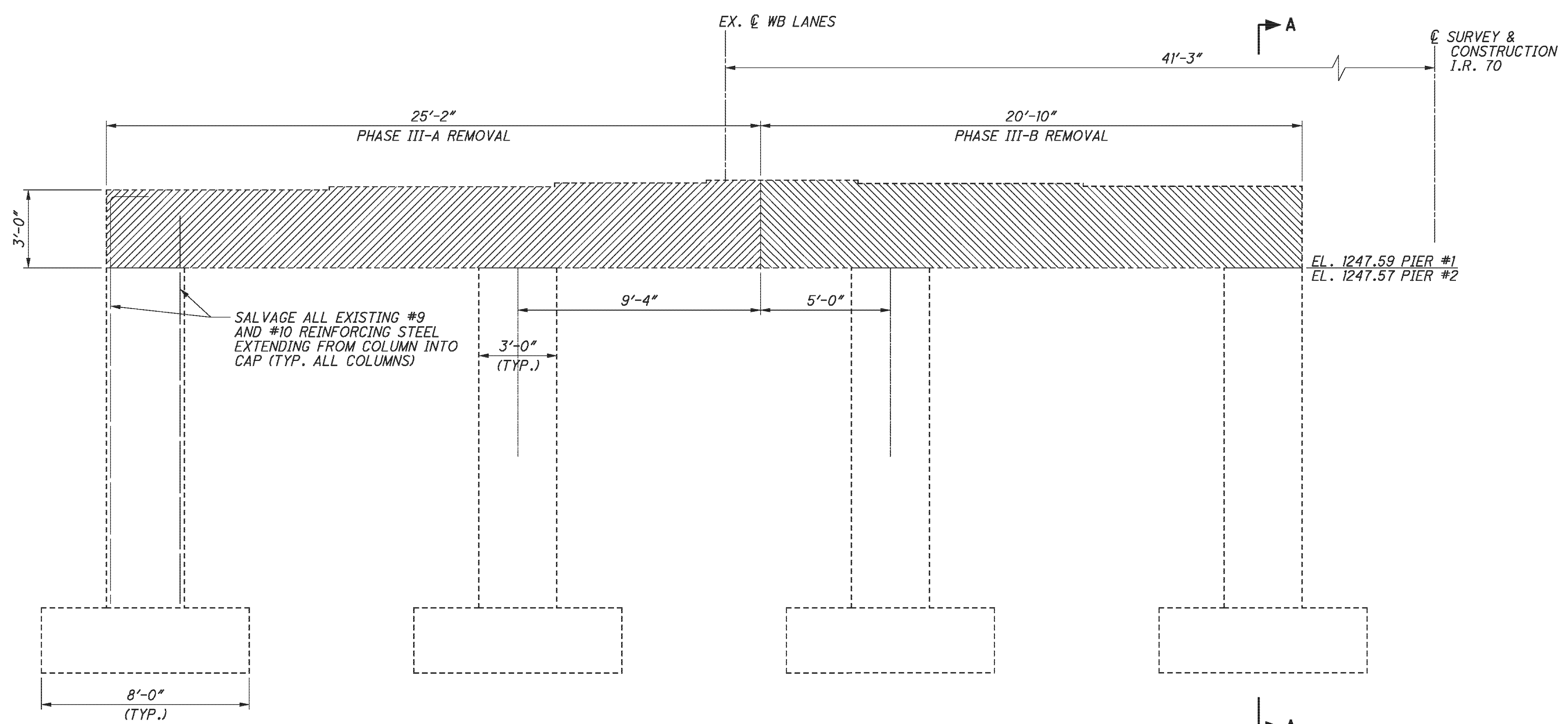
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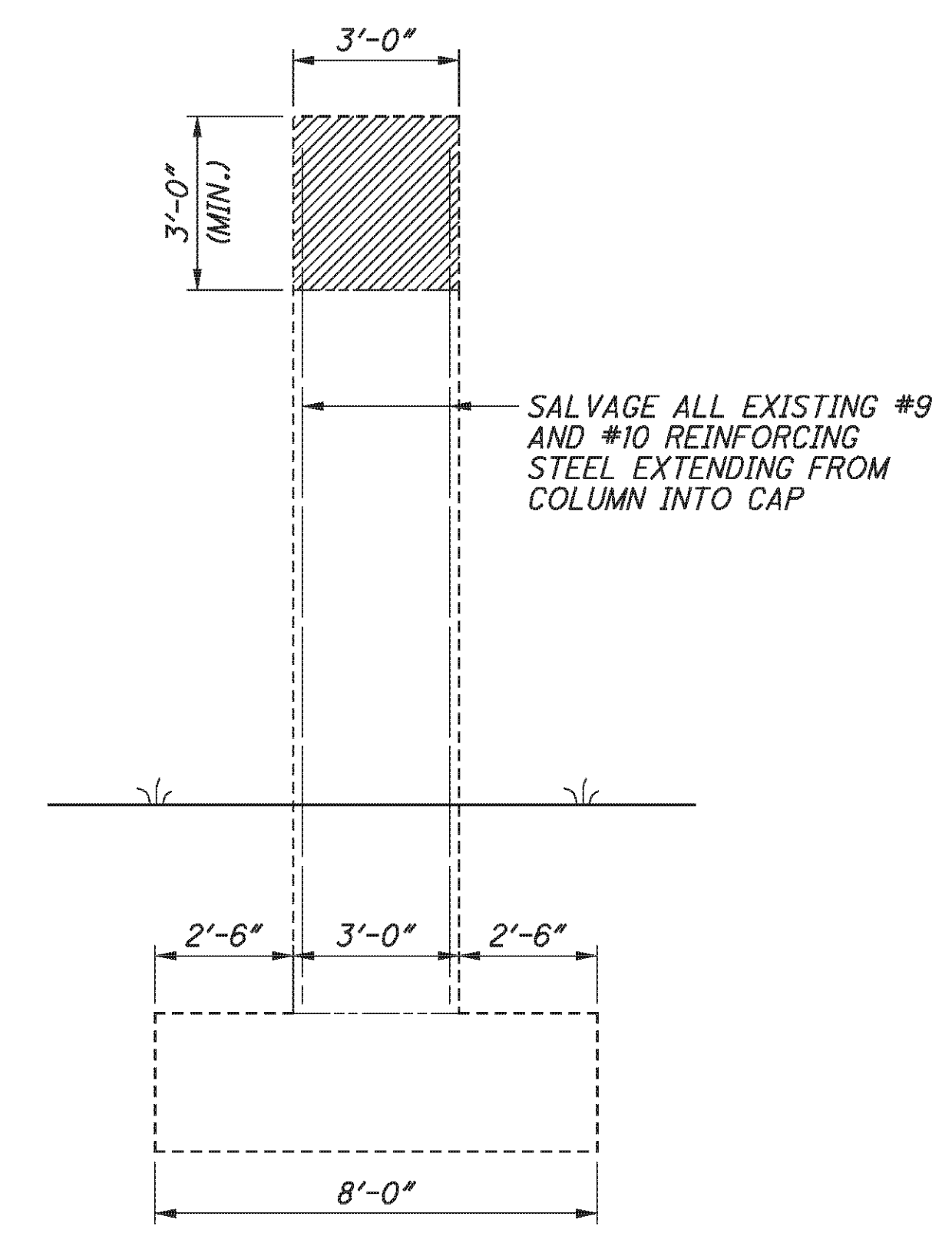
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EXISTING TYPICAL PIER PLAN
LEFT BRIDGE



EXISTING TYPICAL PIER ELEVATION
LEFT BRIDGE



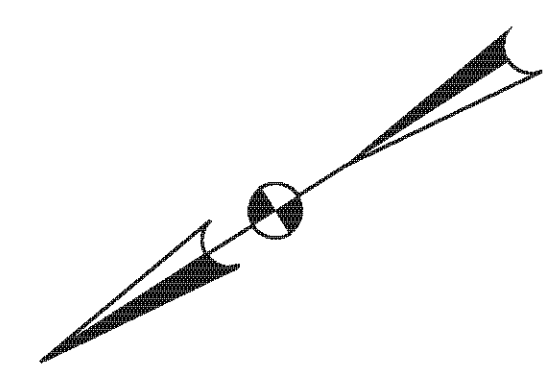
EXISTING PIER SECTION
LEFT BRIDGE

LEGEND:

- PHASE III-A REMOVAL
- PHASE III-B REMOVAL

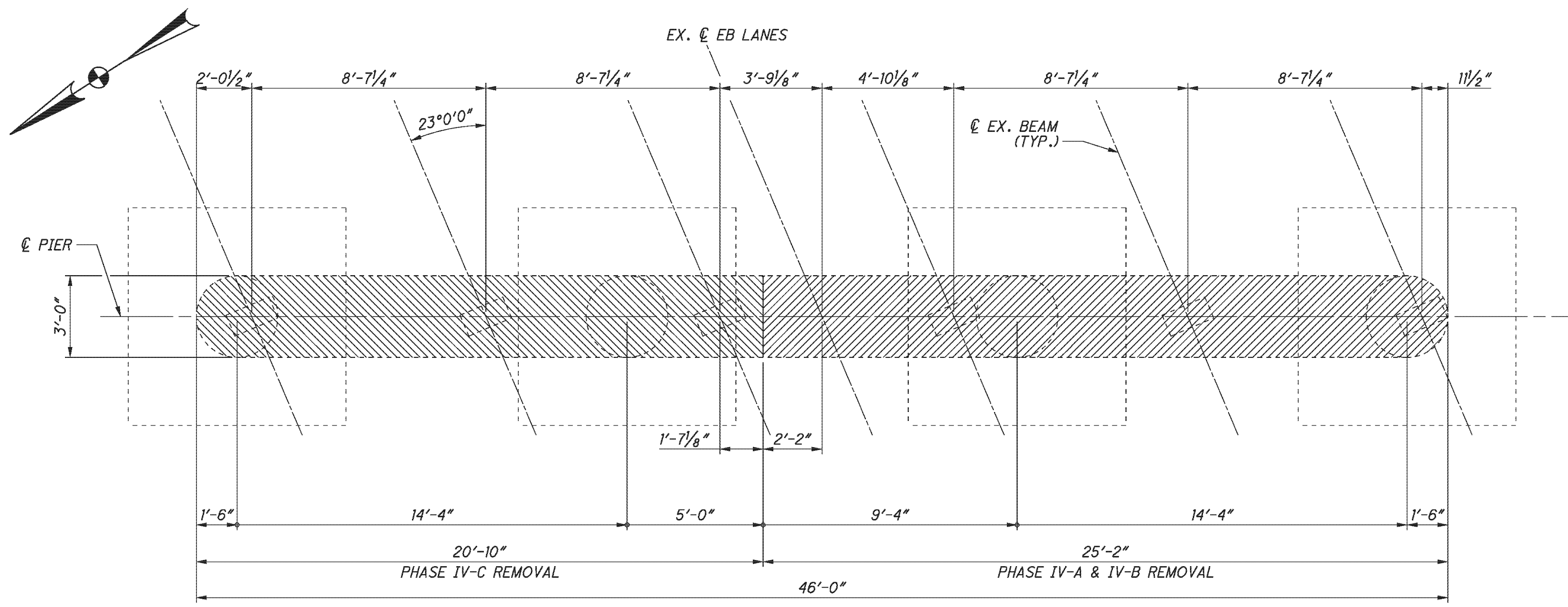
NOTE:

ALL EXISTING DIMENSIONS ARE ±

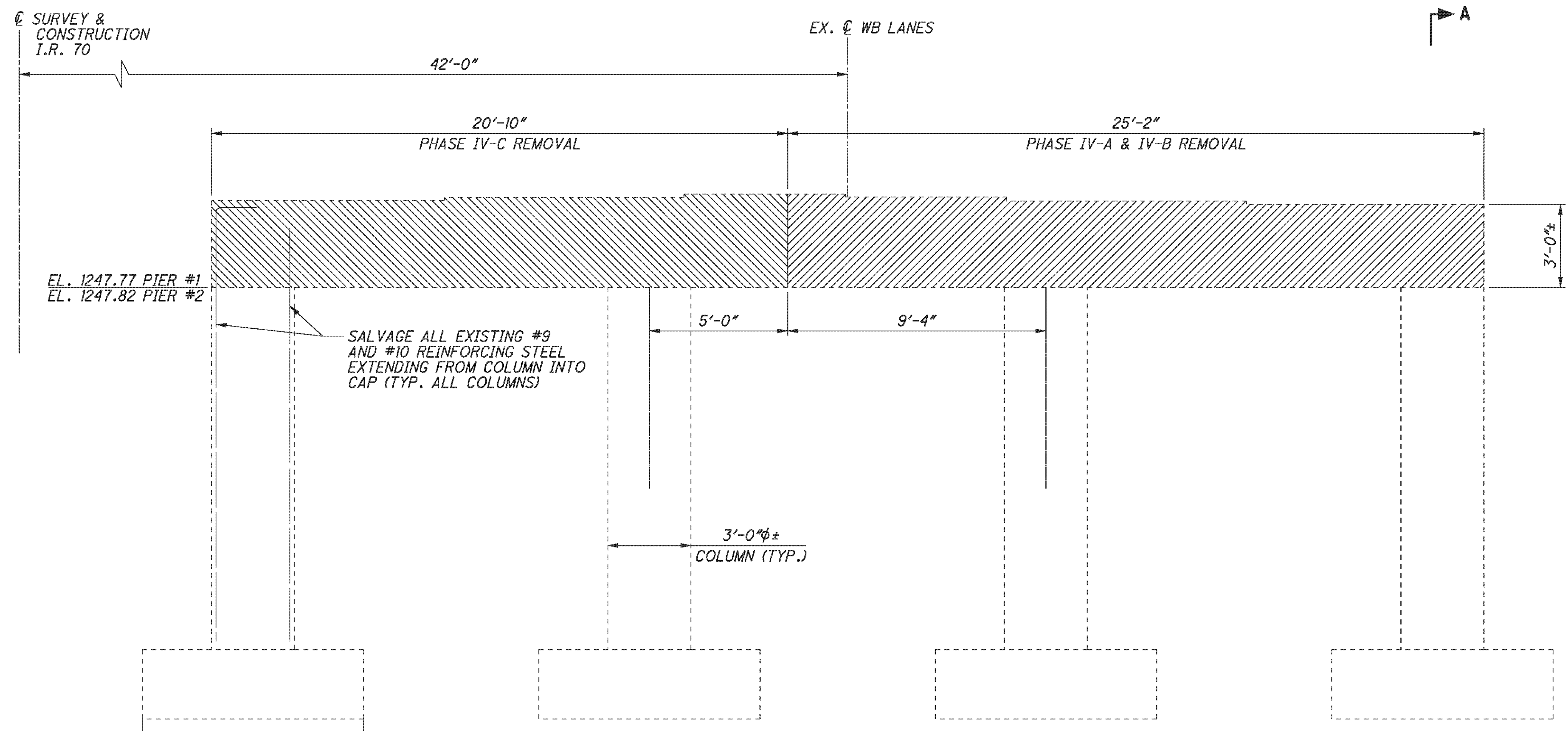


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| REVIEWED | DFT | STRUCTURE FILE NUMBER | 0702137L/070216R |
| DATE | 5/11/10 | | |

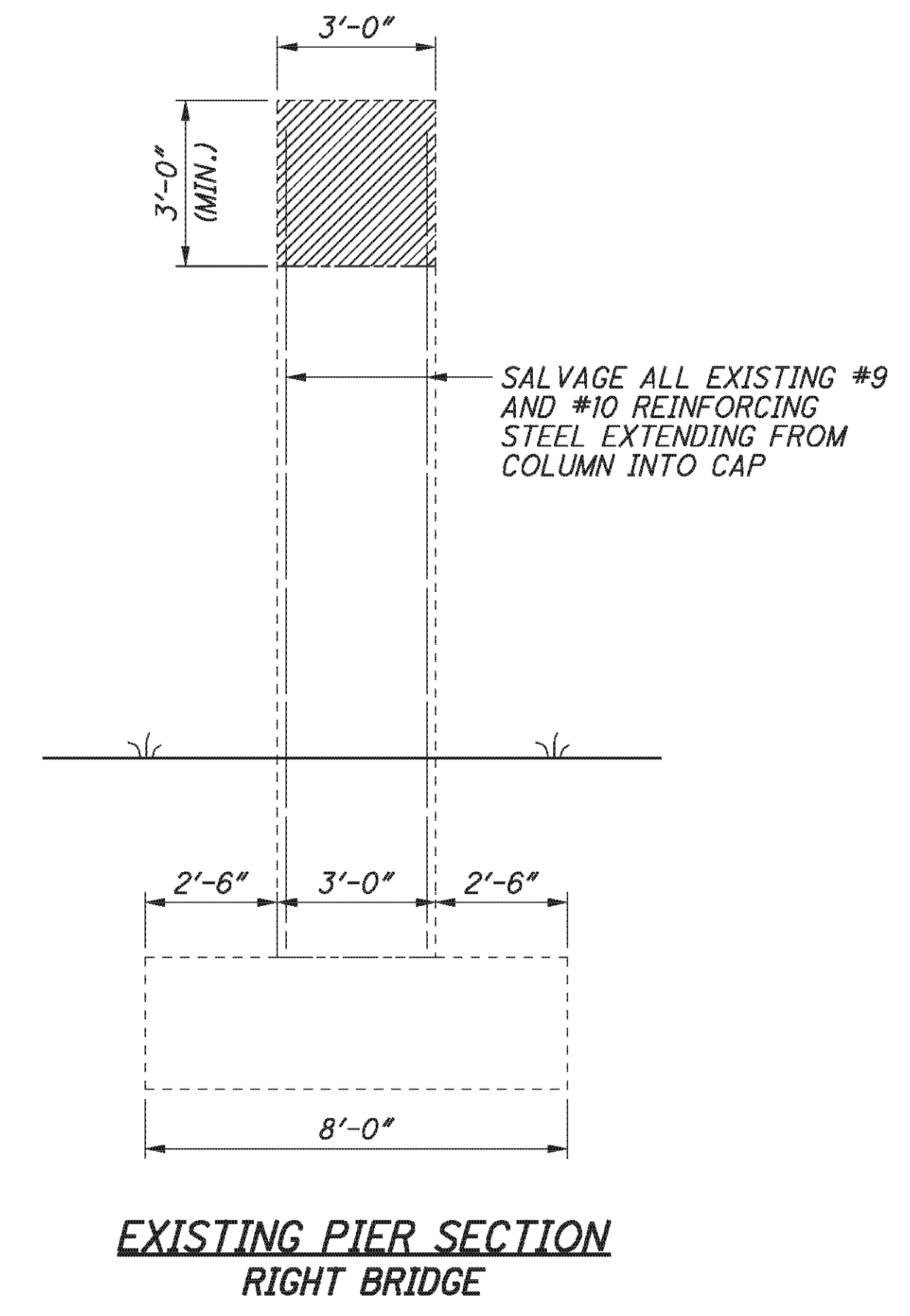
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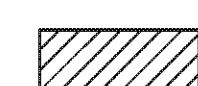

EXISTING TYPICAL PIER PLAN
RIGHT BRIDGE (PIERS 1 & 2)



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 ±

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The Challenge, the Choice
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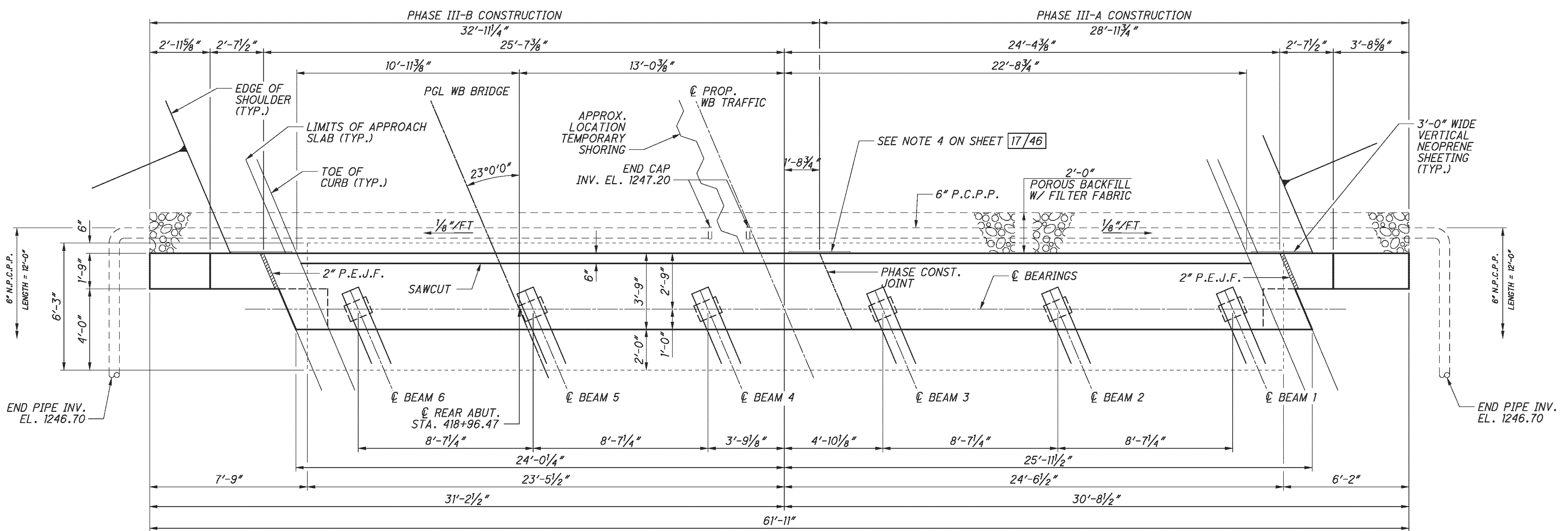
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| DRAWN | BMG | REVIEWED | RER |
| DATE | 2/3/11 | STRUCTURE FILE NUMBER | 0702137L/0702161R |

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

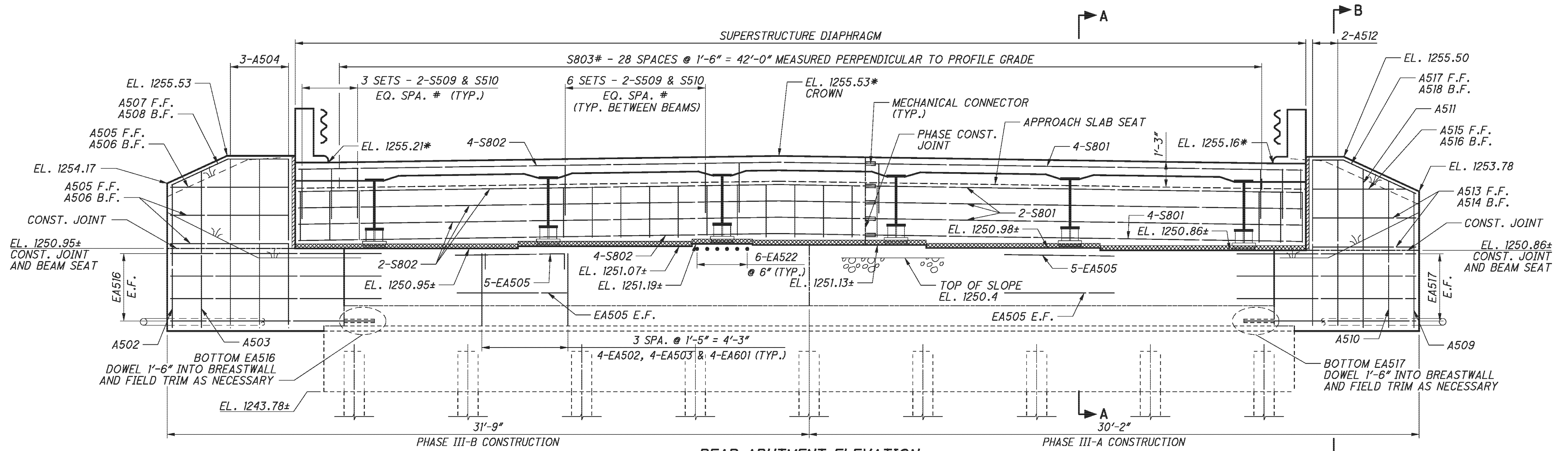
NOTES:

- FOR SECTIONS A-A AND B-B SEE SHEET 17/46
- 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN PIPE TERMINATION DETAIL ON SHEET 17/46
- FOR ADDITIONAL PLAN NOTES SEE SHEET 17/46

| LAP LENGTHS | |
|-------------|------------|
| NO. 5 BARS | 2'-6" MIN. |

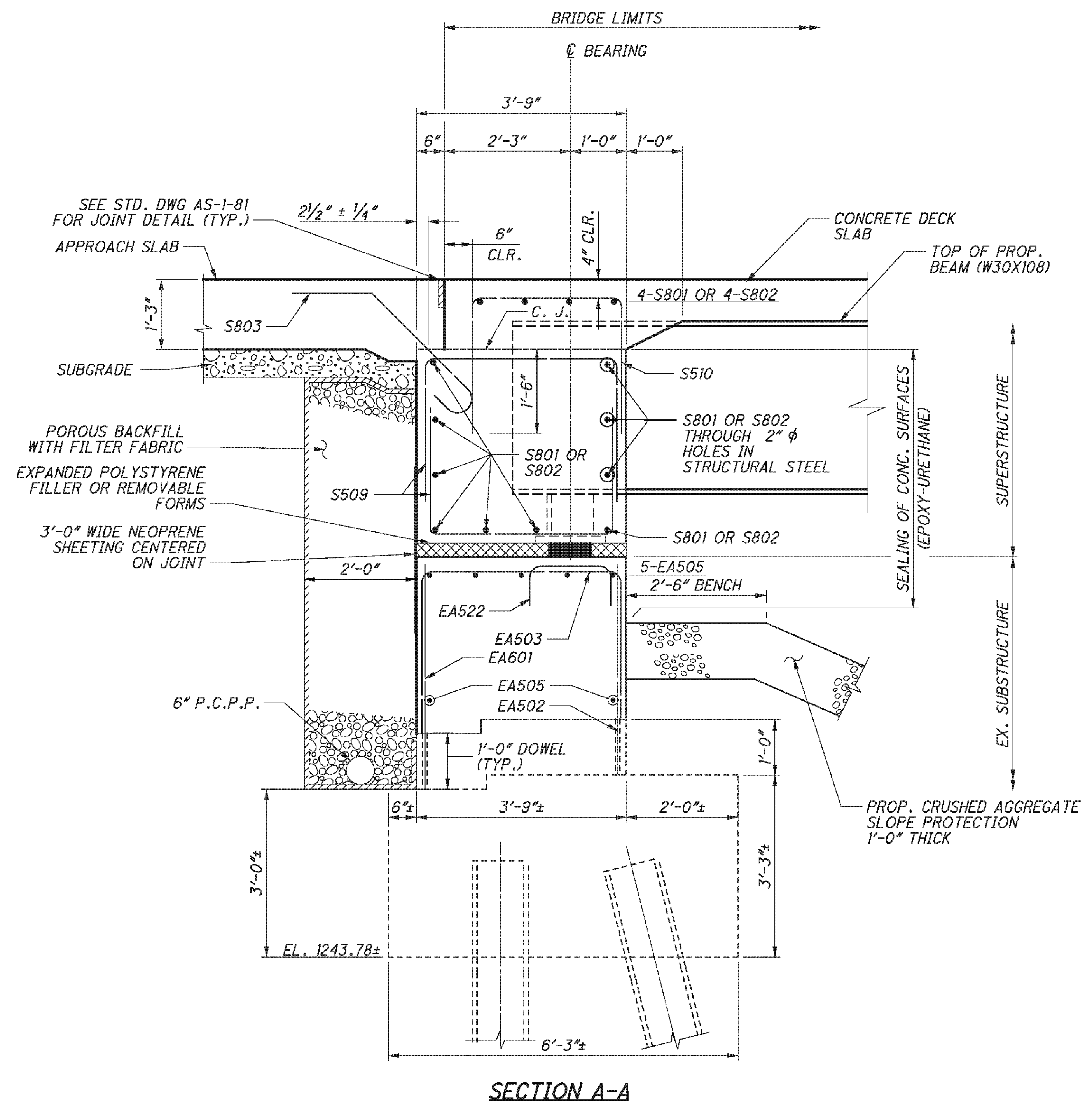
LEGEND:

- * - ELEVATION GIVEN AT BRIDGE LIMIT
- # - PLACED PARALLEL TO PROFILE GRADE

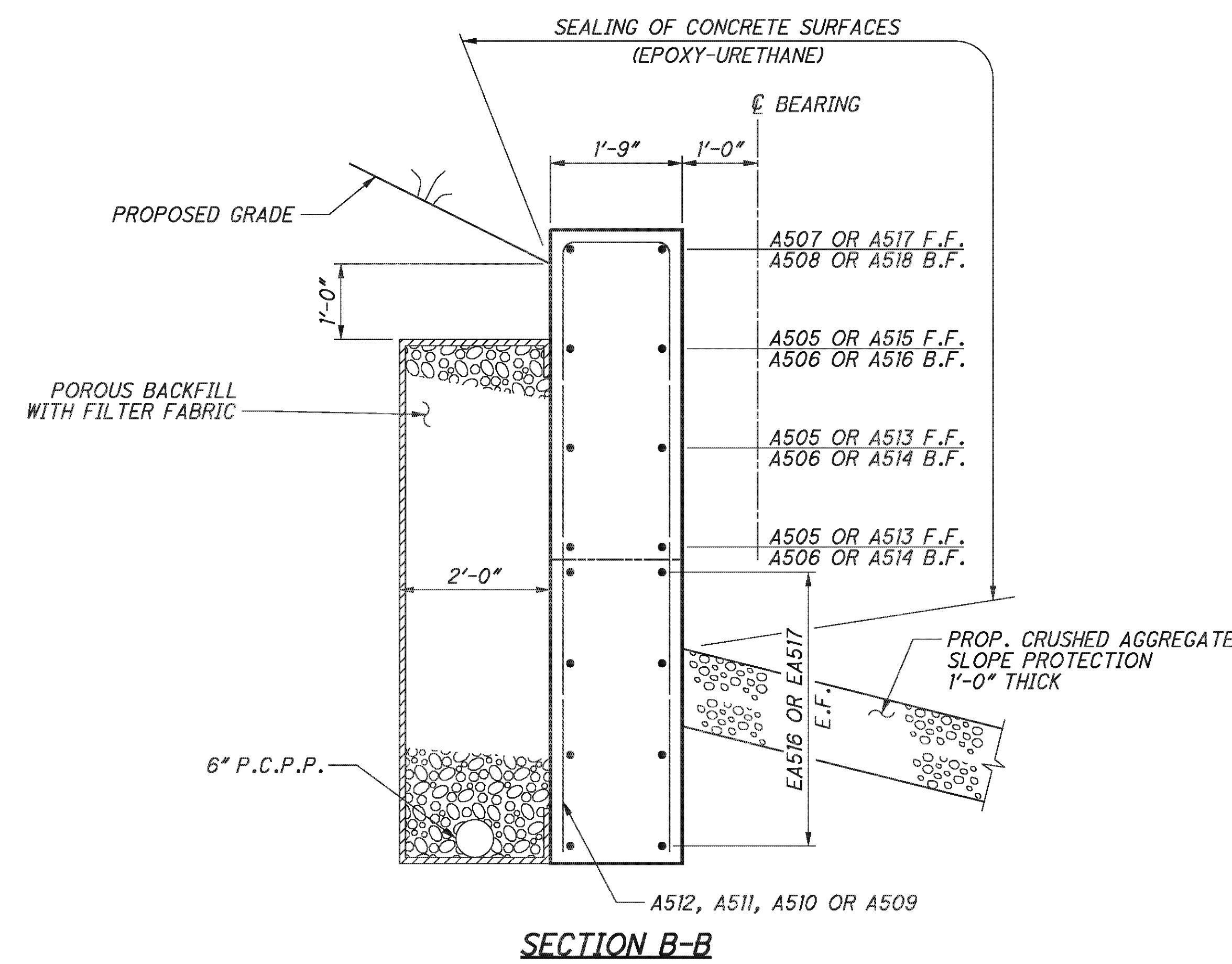


REAR ABUTMENT ELEVATION
LEFT BRIDGE

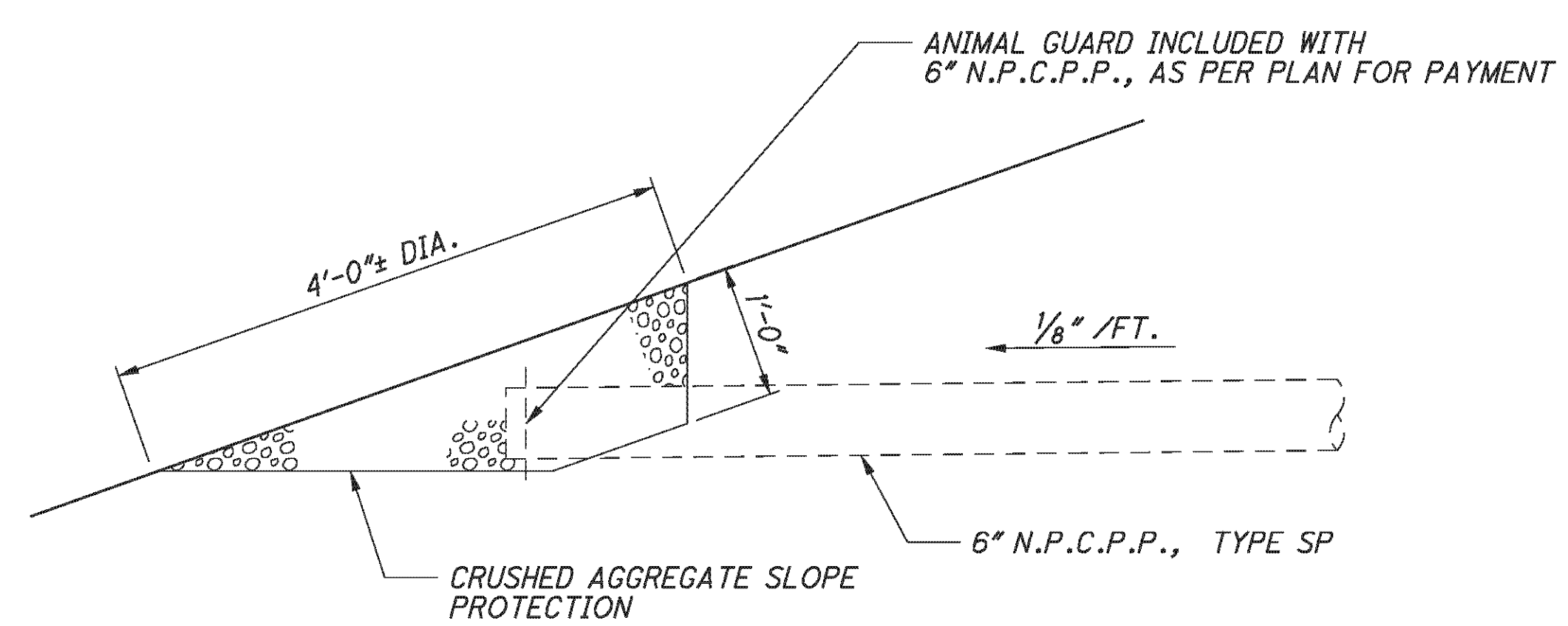
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SECTION A-A



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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The Challenge, the Choice
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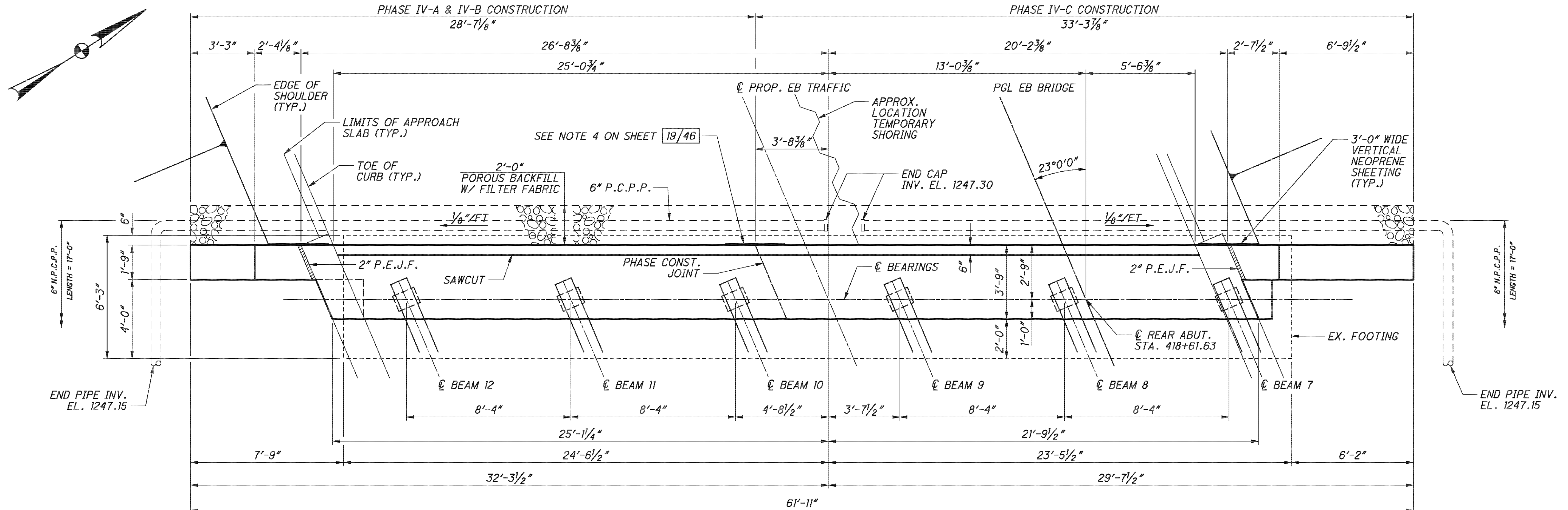
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| DESIGNED | DTA | CHECKED | AME |
| DRAWN | DTA | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 070213TL/070216IR |
| DATE | 5/11/10 | | |

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

17/46

299
373



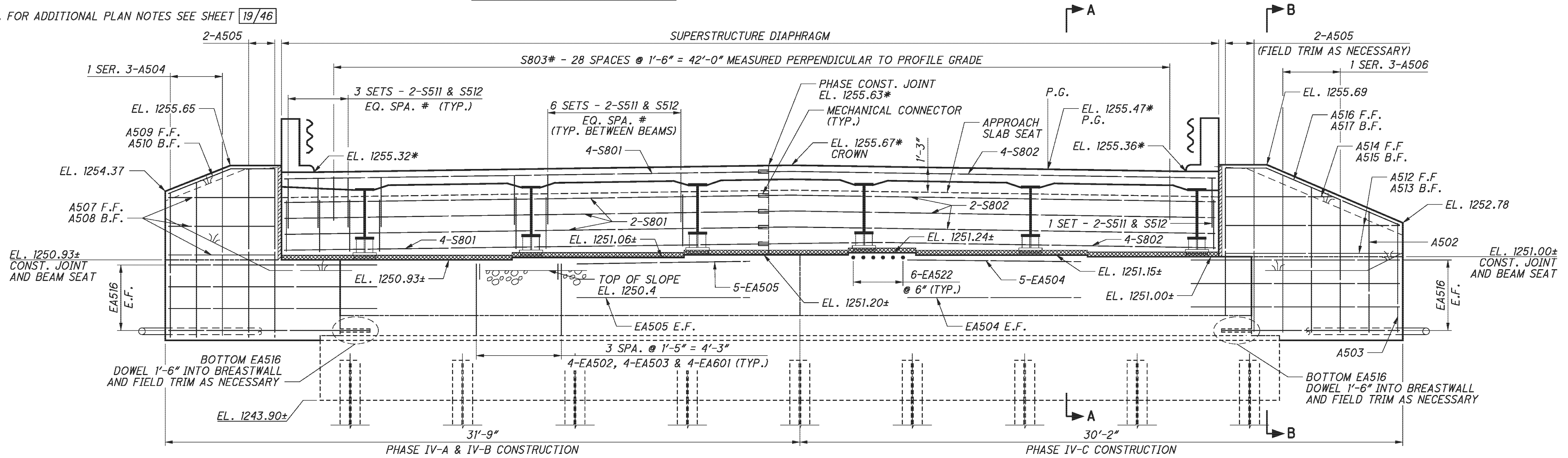
NOTES:

- 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. |

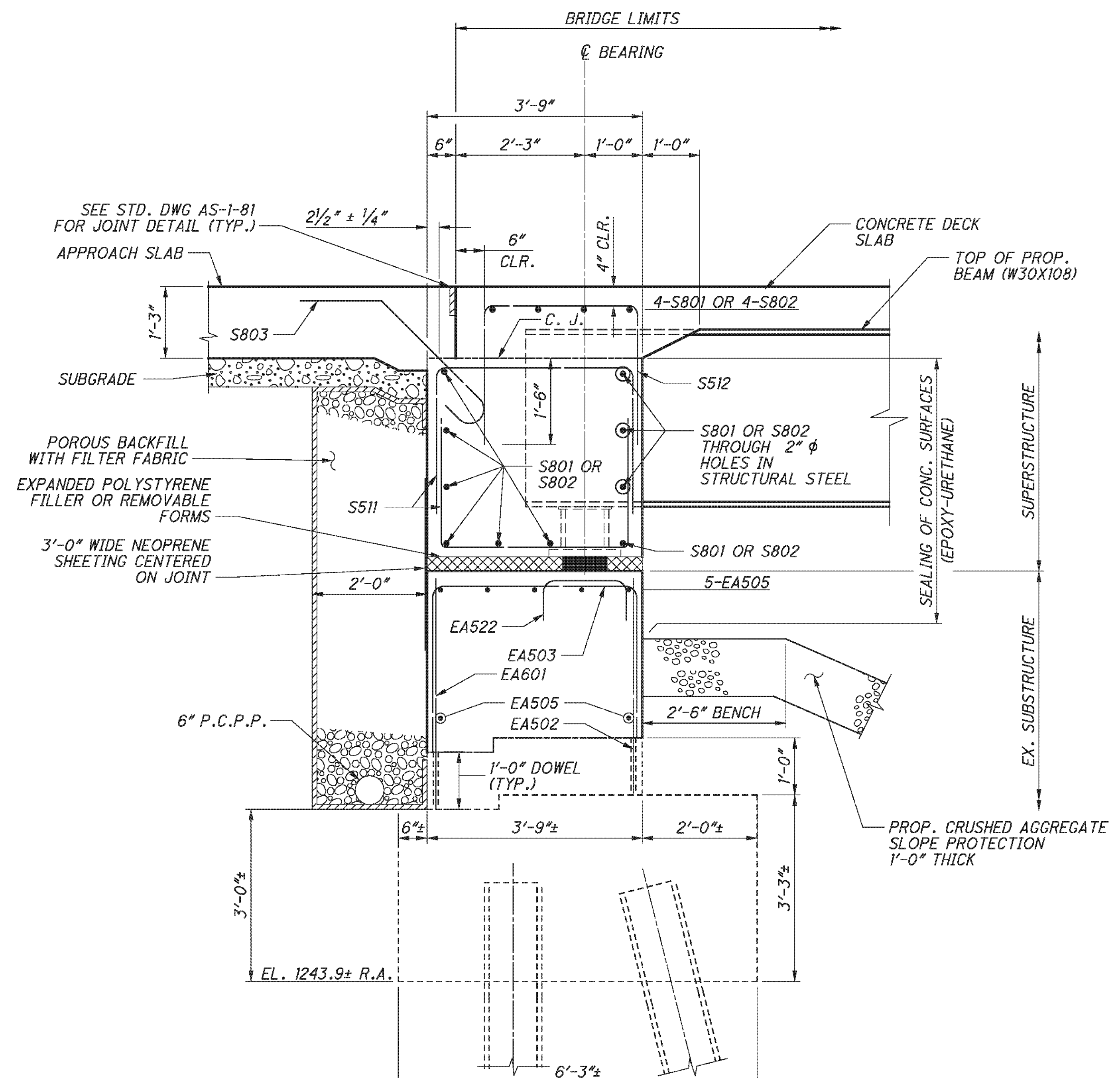
LEGEND:

- * - ELEVATION GIVEN AT BRIDGE LIMIT
- # - PLACED PARALLEL TO PROFILE GRADE

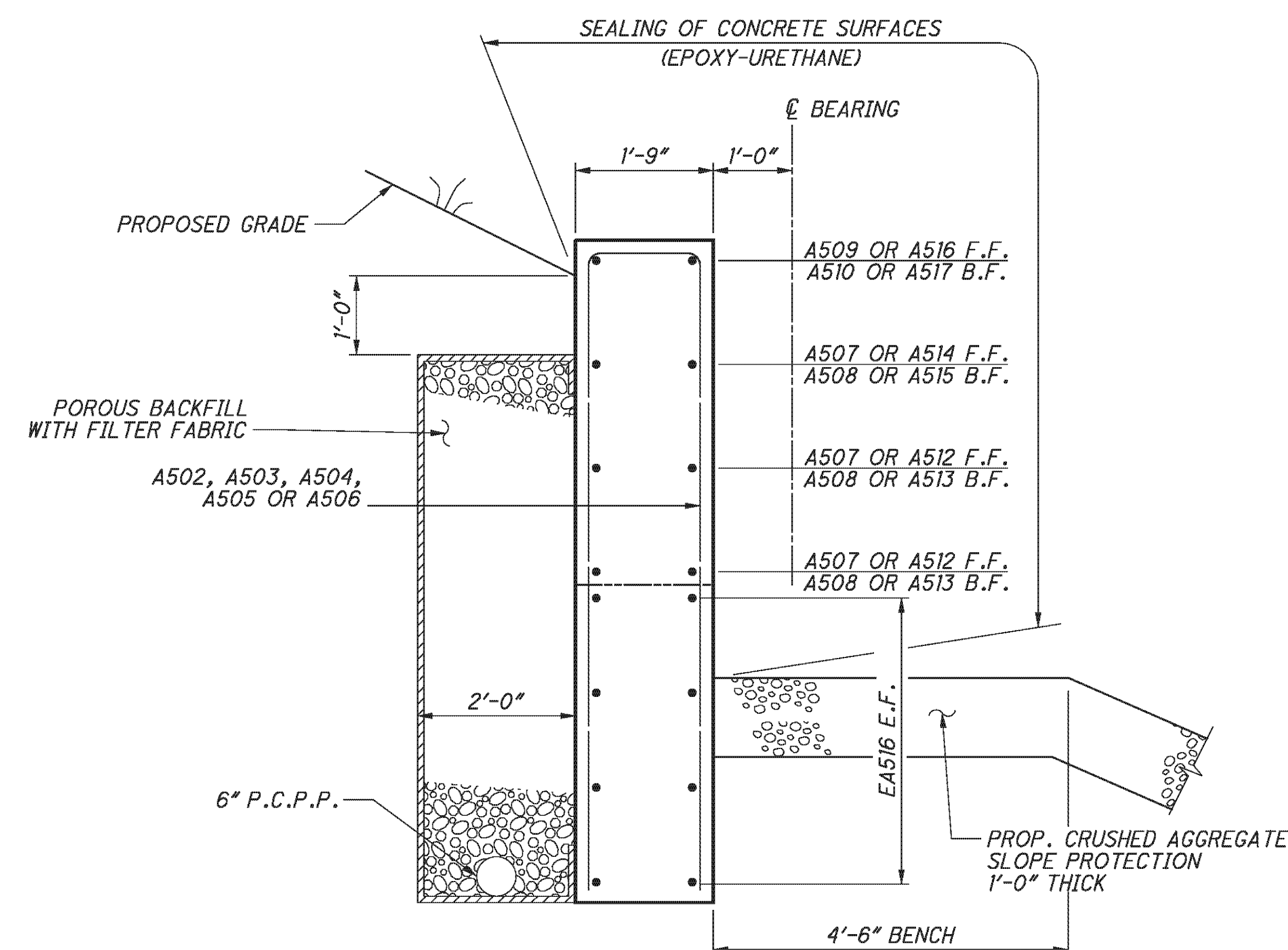


REAR ABUTMENT ELEVATION
RIGHT BRIDGE

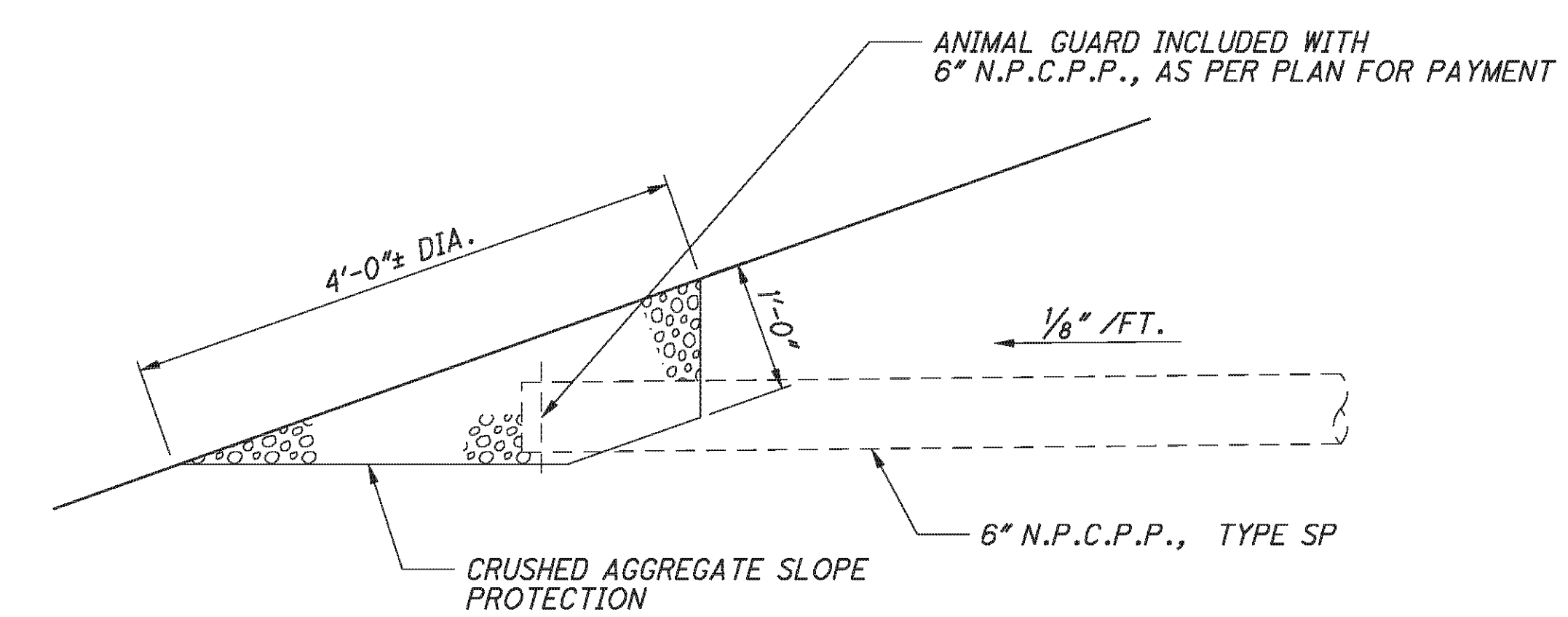
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SECTION A-A
(THROUGH BEAM SEAT)



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
The Challenge, the Choice
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DATE: 2/3/11
REVIEWED: RER
DRAWN: DTA
DESIGNED: DTA
CHECKED: AME

STRUCTURE FILE NUMBER: 0702137L/070216R

REAR ABUTMENT DETAILS - RIGHT BRIDGE

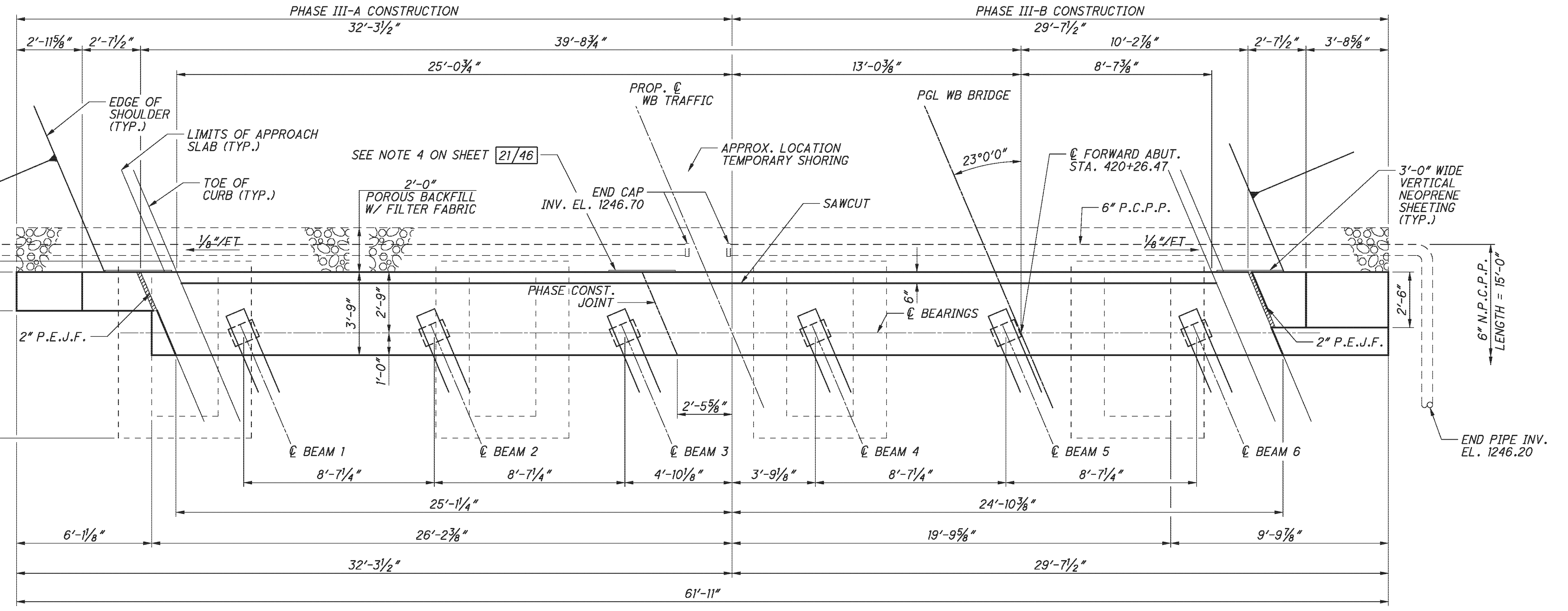
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61

PID No. 76825

19 / 46

301
373

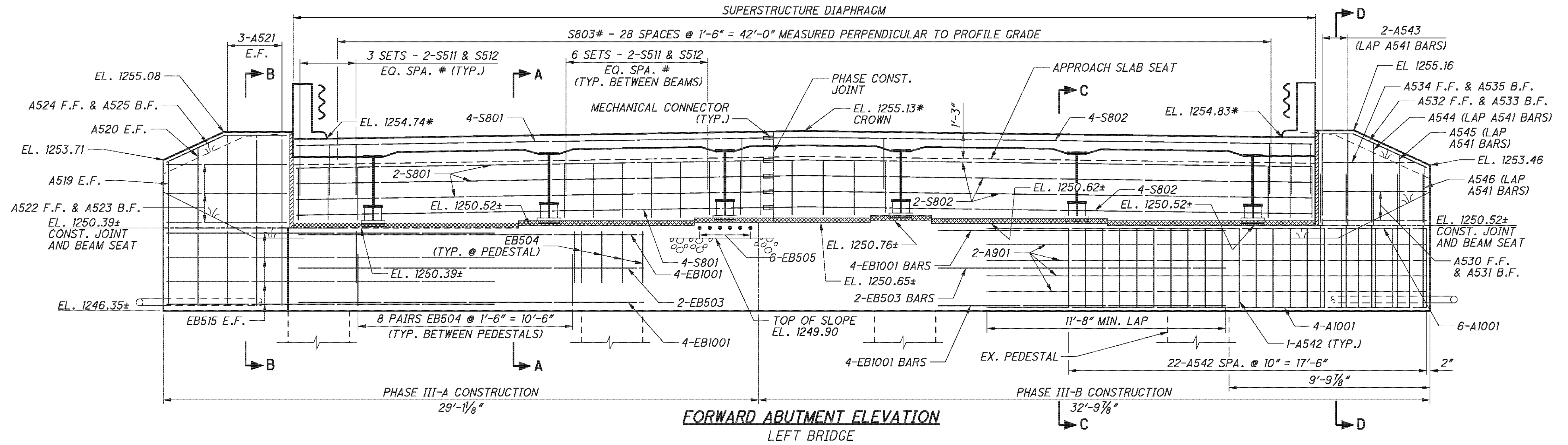


FORWARD ABUTMENT PLAN
LEFT BRIDGE

- NOTES:**
- FOR SECTIONS A-A AND B-B SEE SHEET 21/46
 - 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN TERMINATION DETAIL ON SHEET 21/46
 - FOR ADDITIONAL PLAN NOTES SEE SHEET 21/46

| LAP LENGTHS | |
|-------------|------------|
| NO. 5 BARS | 2'-6" MIN. |

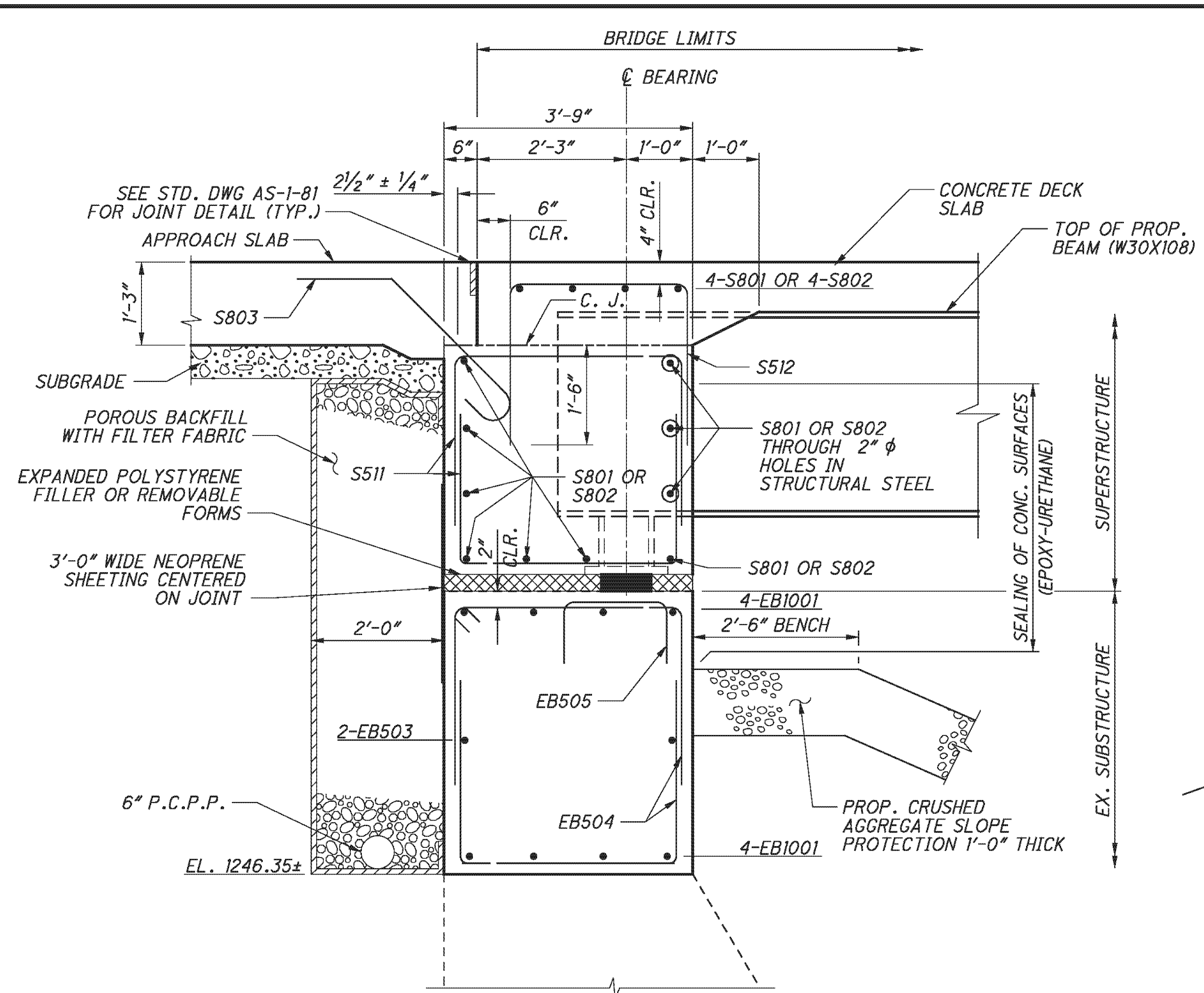
- LEGEND:**
- * - ELEVATION GIVEN AT BRIDGE LIMIT
 - # - PLACED PARALLEL TO PROFILE GRADE



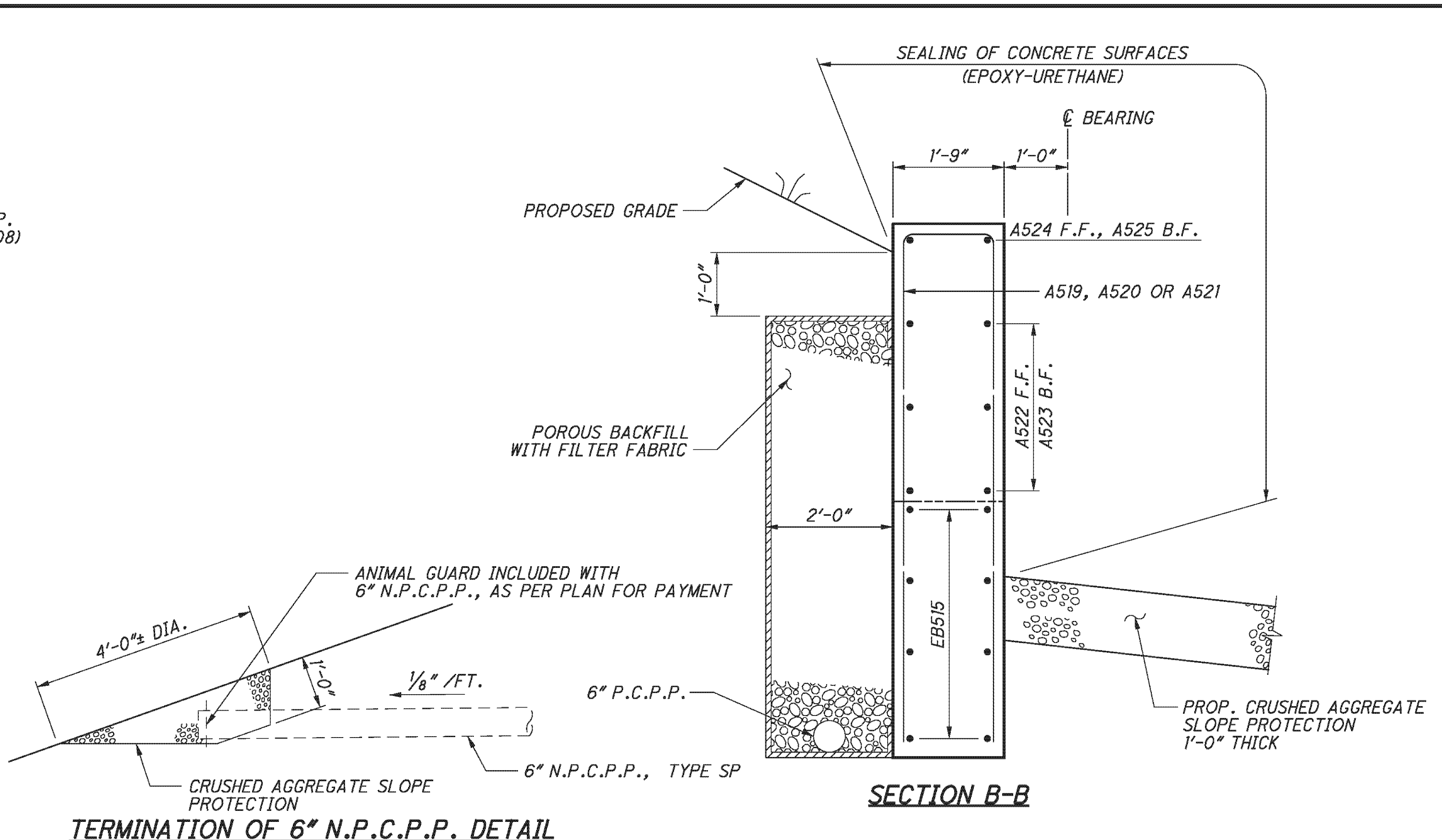
FORWARD ABUTMENT ELEVATION
LEFT BRIDGE

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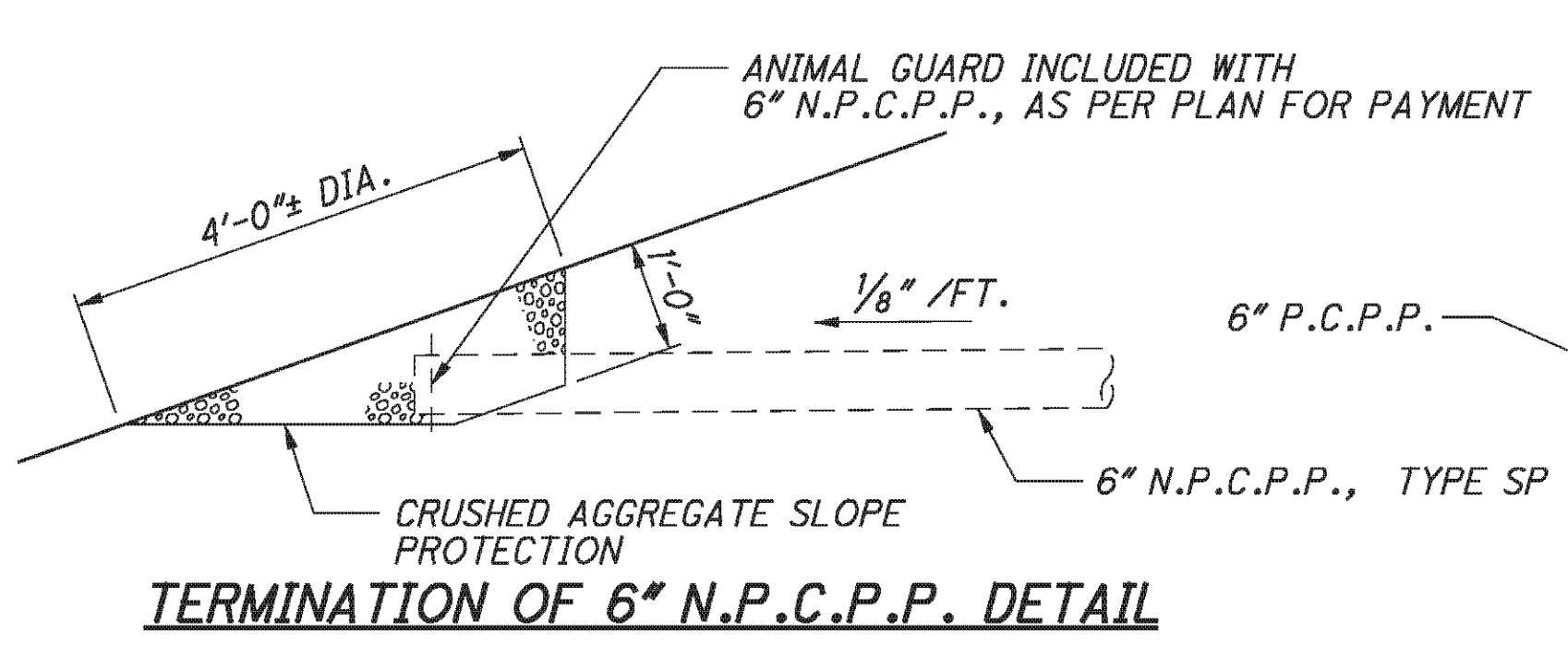
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SECTION A-A



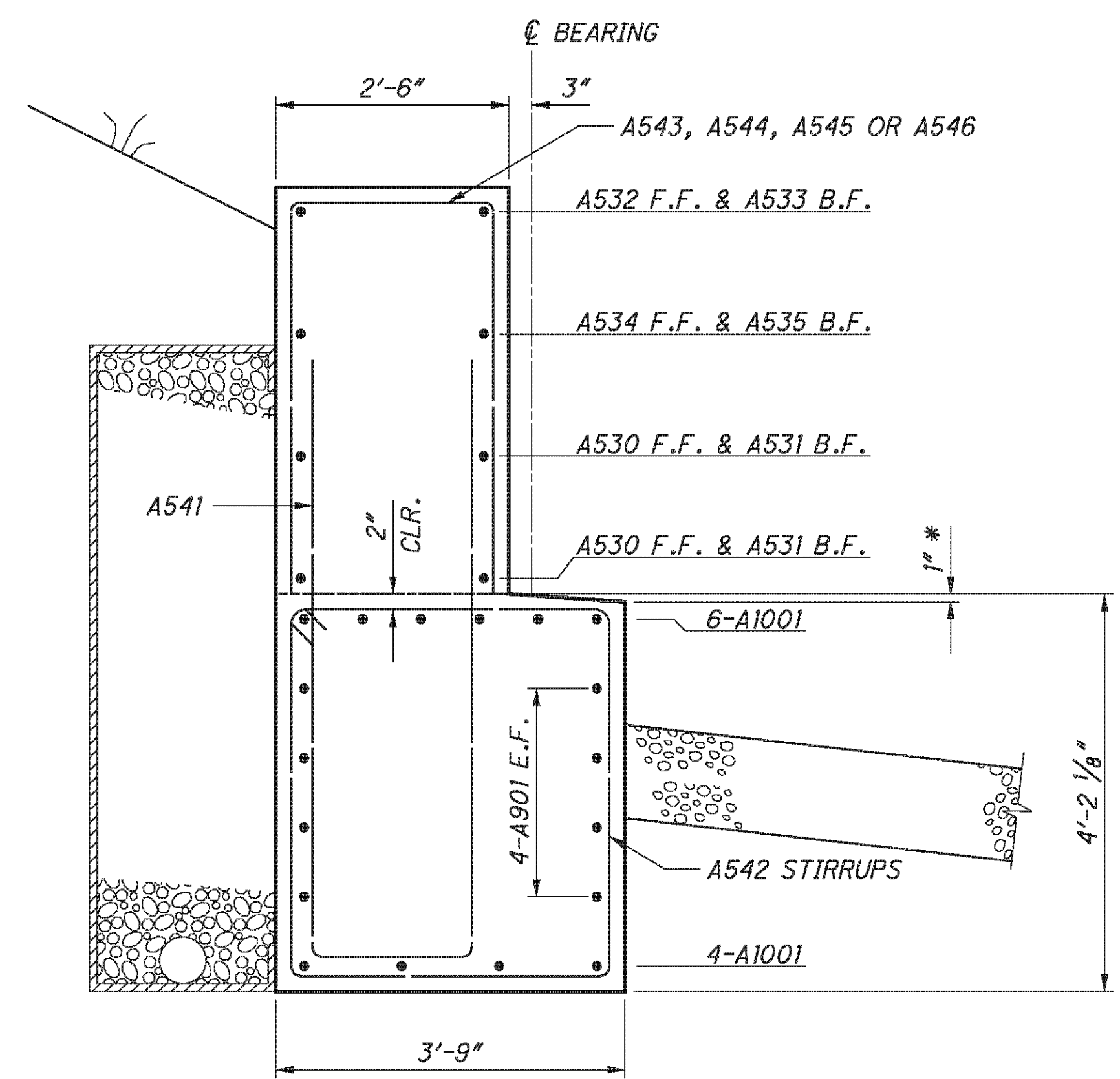
SECTION B-B



TERMINATION OF 6" N.P.C.P.P. DETAIL

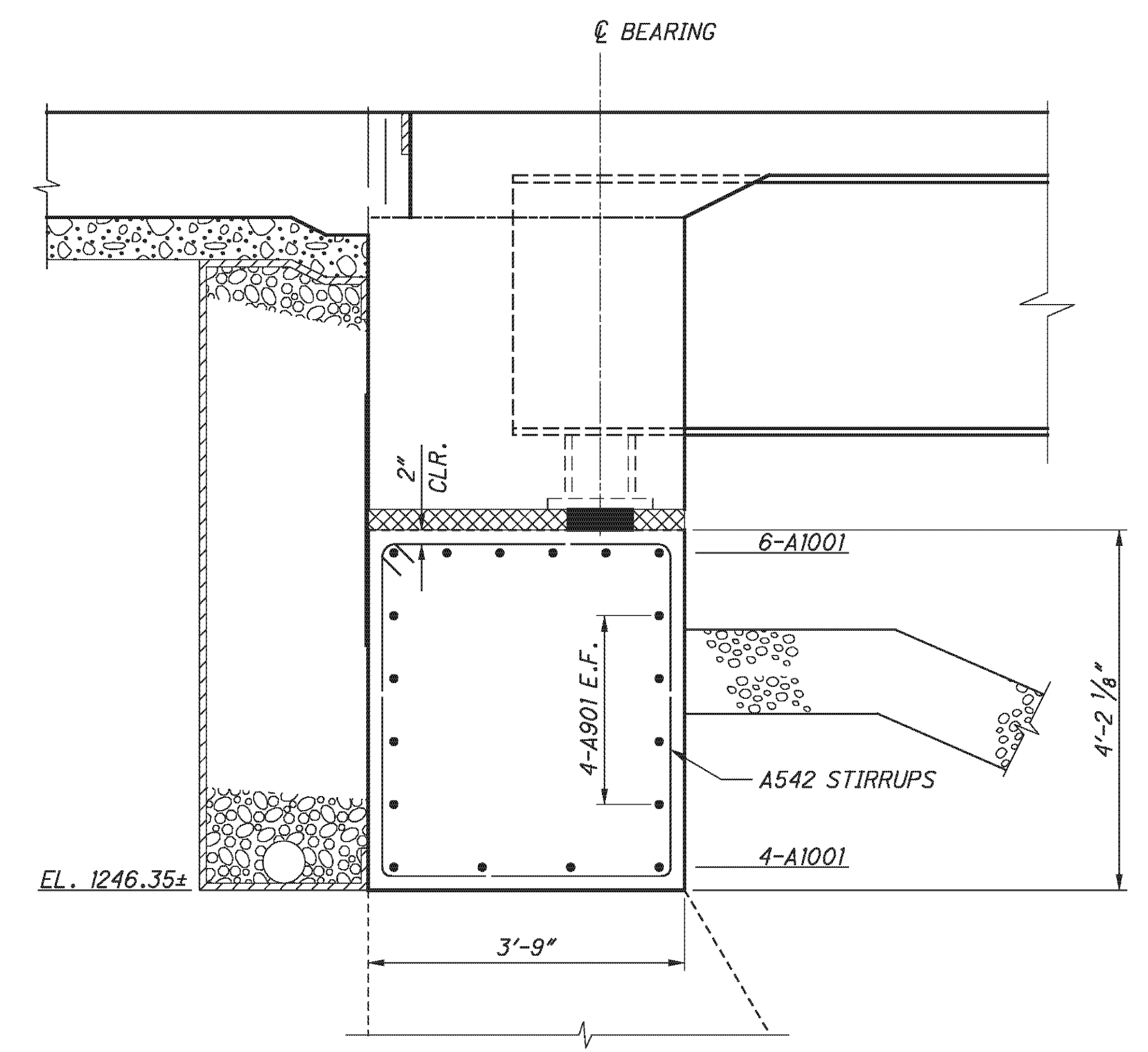
NOTES:

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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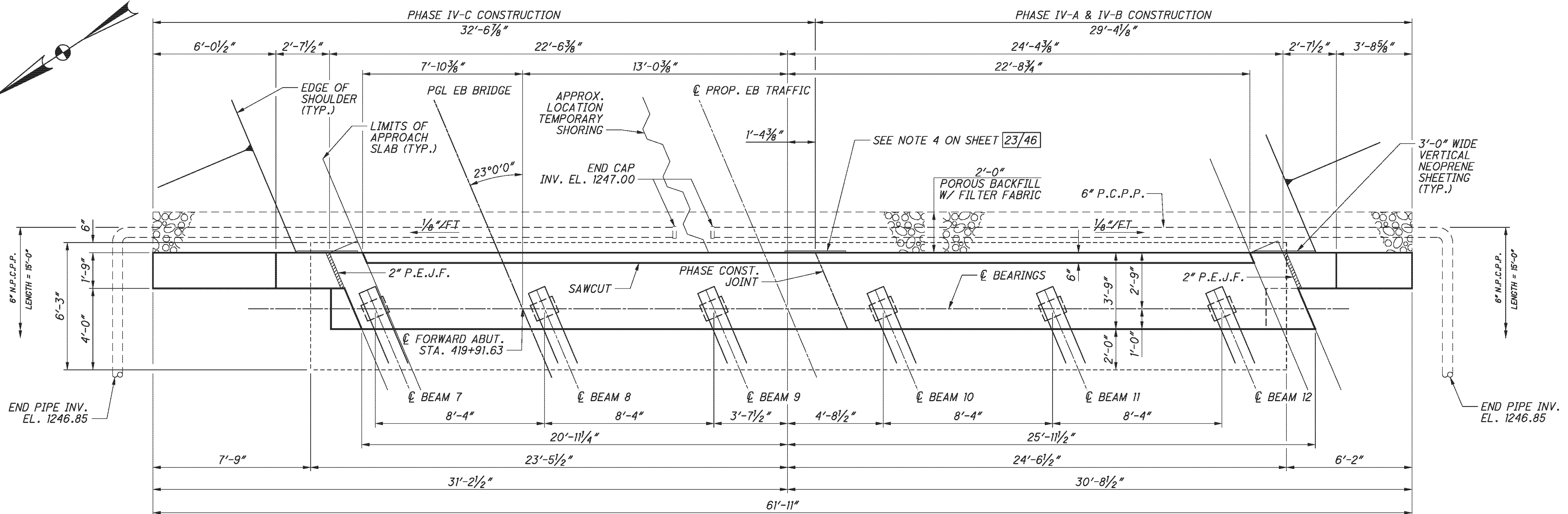
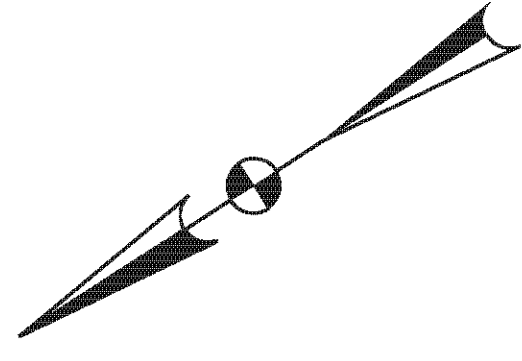
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| DRAWN | DTA | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 070213TL/070216R |
| DATE | 5/11/10 | | |

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

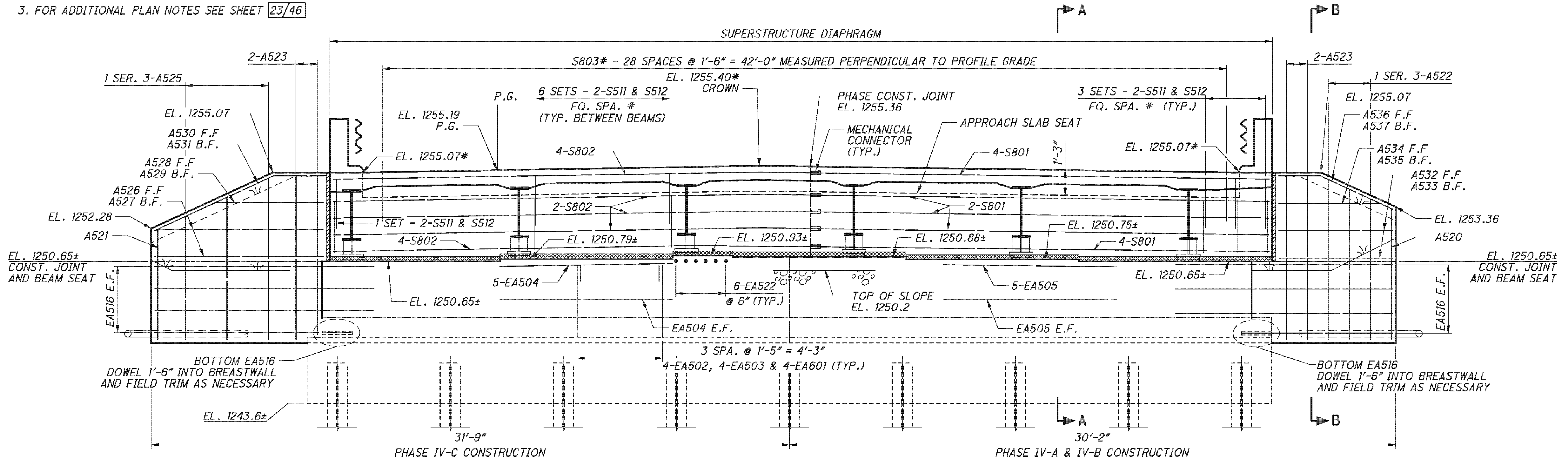
NOTES:

1. FOR SECTIONS A-A AND B-B SEE SHEET 23/46
2. 6" N.P.C.P.P. AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN PIPE TERMINATION DETAIL ON SHEET 23/46
3. 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 | REVISED | |
| REVIEWED | RER | STRUCTURE FILE NUMBER | 0702137L/0702161R |
| DATE | 2/3/11 | | |

FORWARD ABUTMENT DETAILS - RIGHT BRIDGE

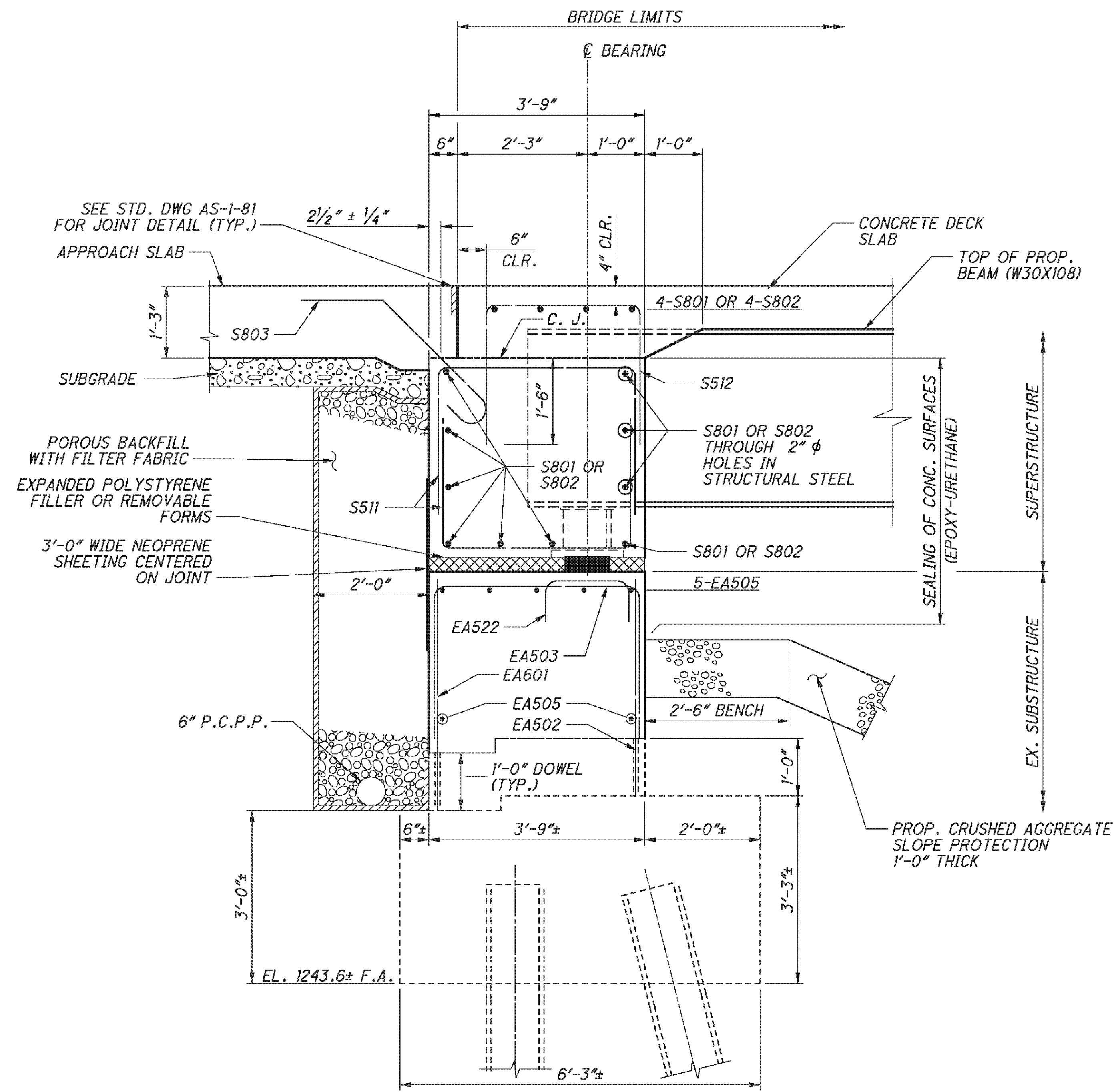
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

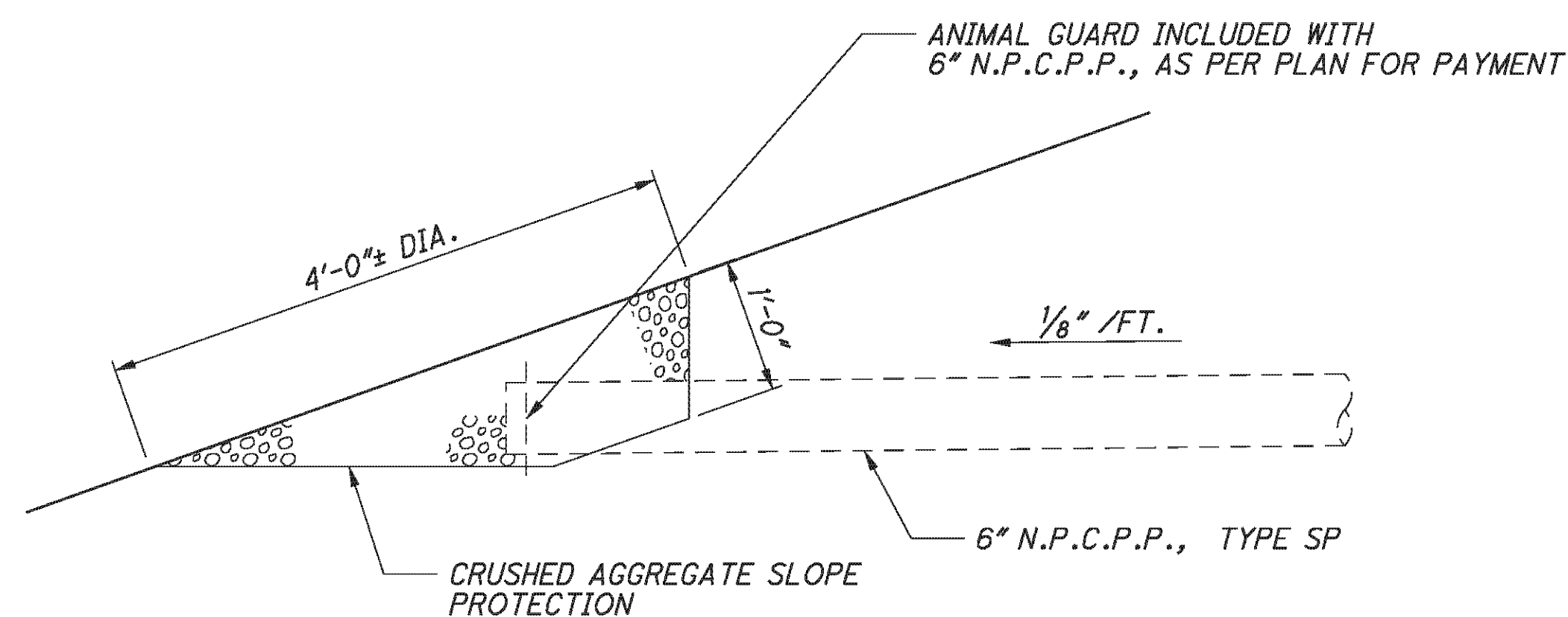
22/46

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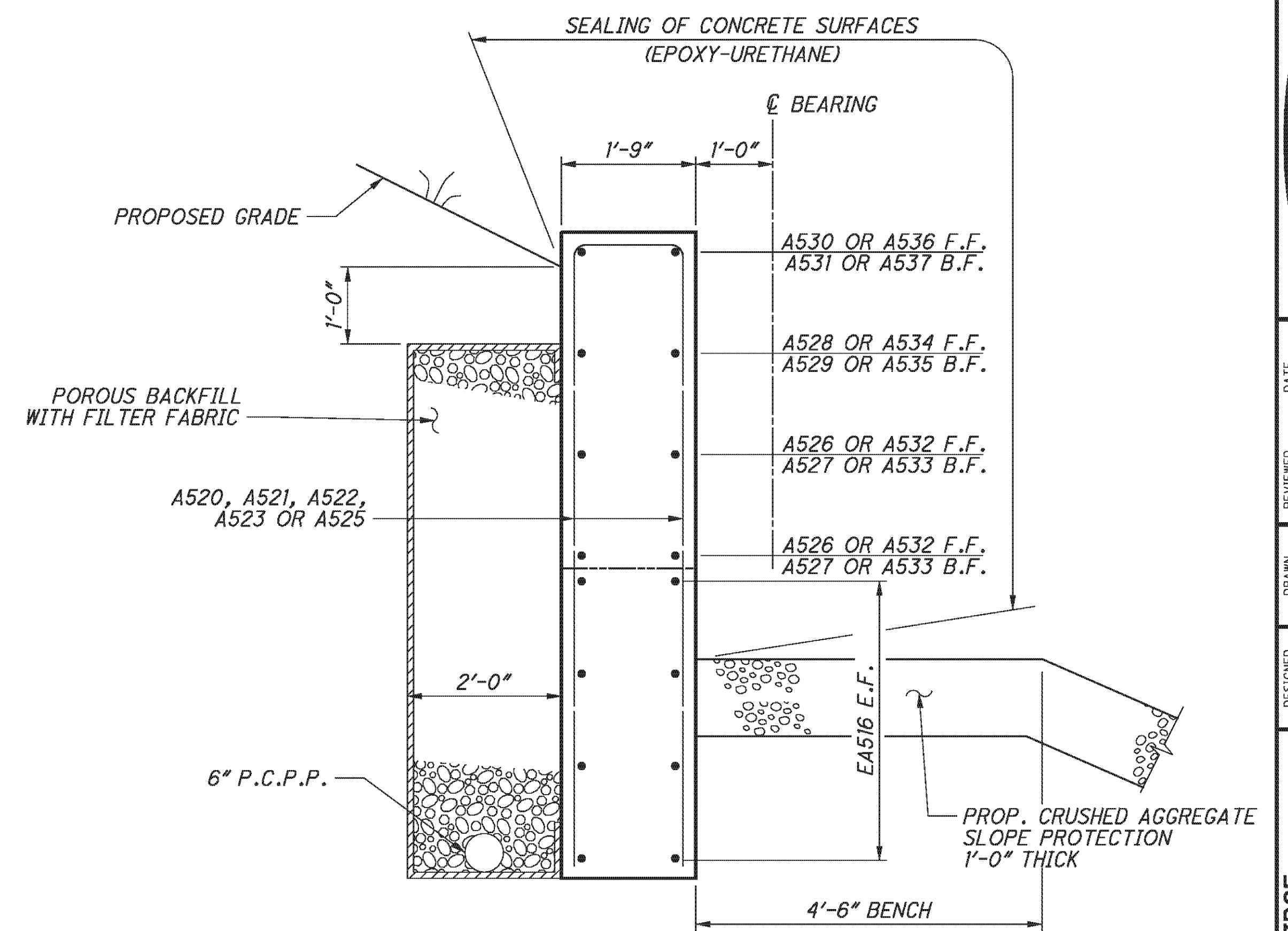
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SECTION A-A
(THROUGH BEAM SEAT)



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**.

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The Challenge, the Choice
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| DATE | 2/3/11 |
| REVIEWED | RER |
| DESIGNED | DTA |
| DRAWN | DTA |
| CHECKED | DTA |
| FILE NUMBER | 0702137L/0702161R |
| STRUCTURE | REVISED |
| ROLE | ROLE |

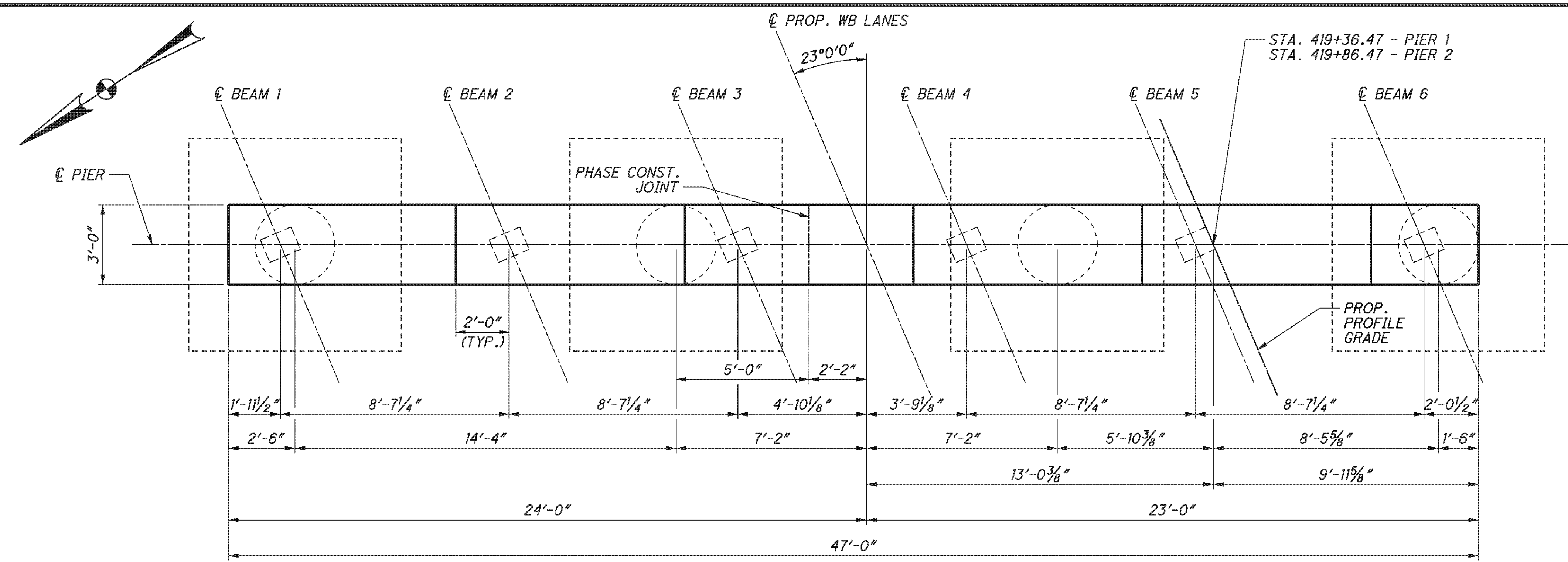
FORWARD ABUTMENT DETAILS - RIGHT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

23/46

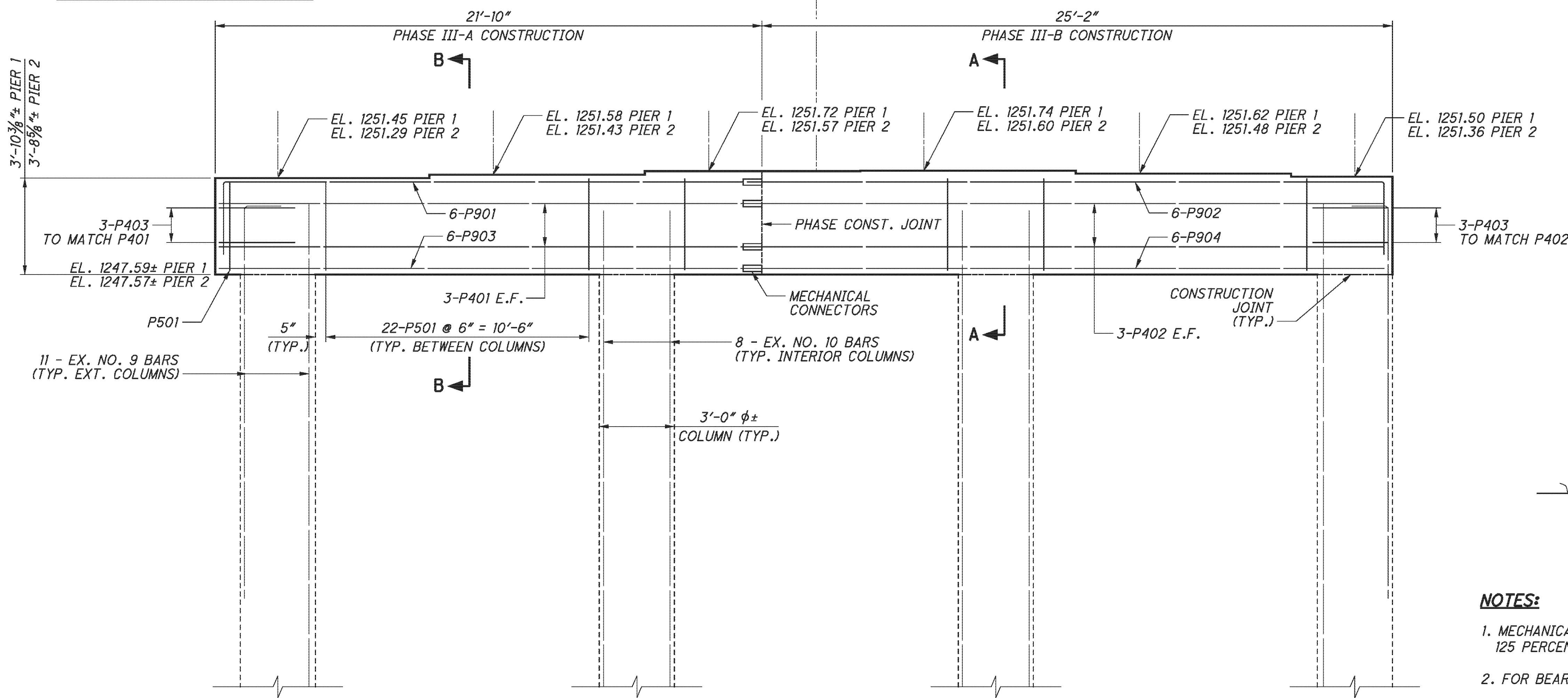
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373

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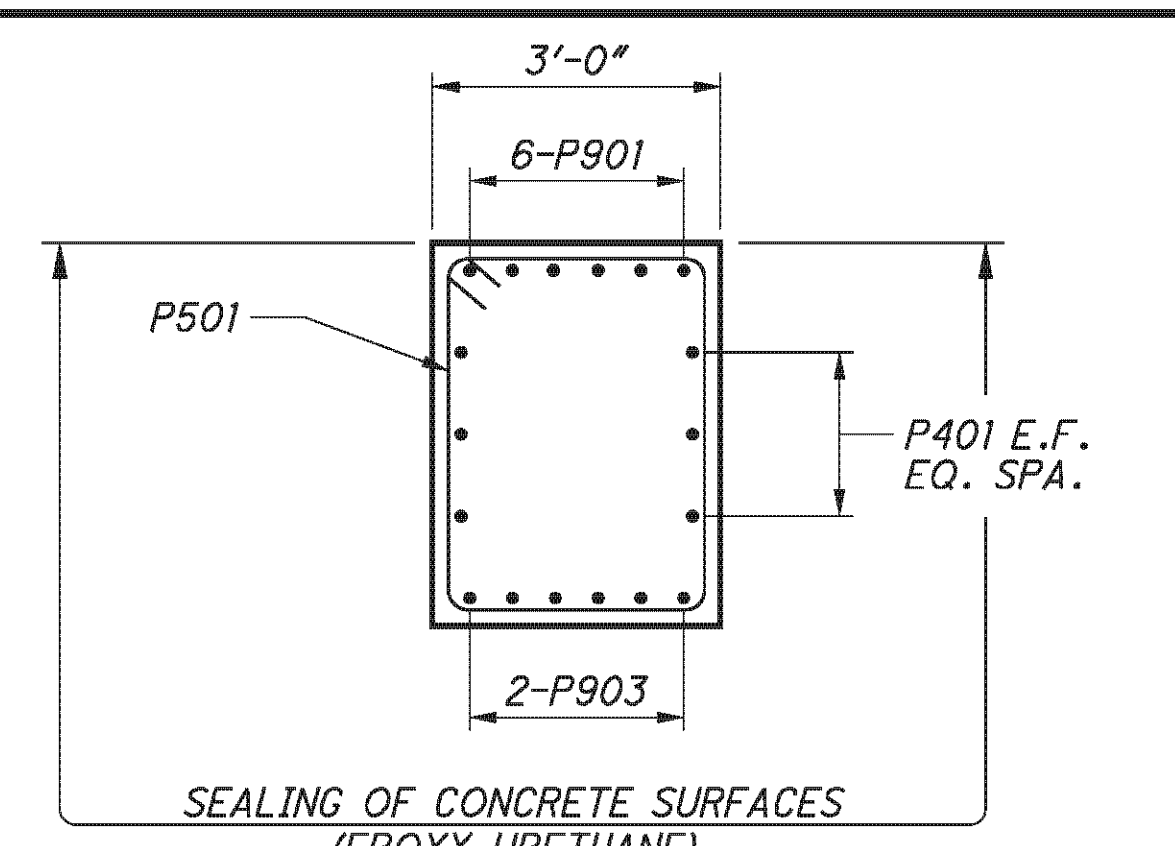


PLAN - LEFT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)

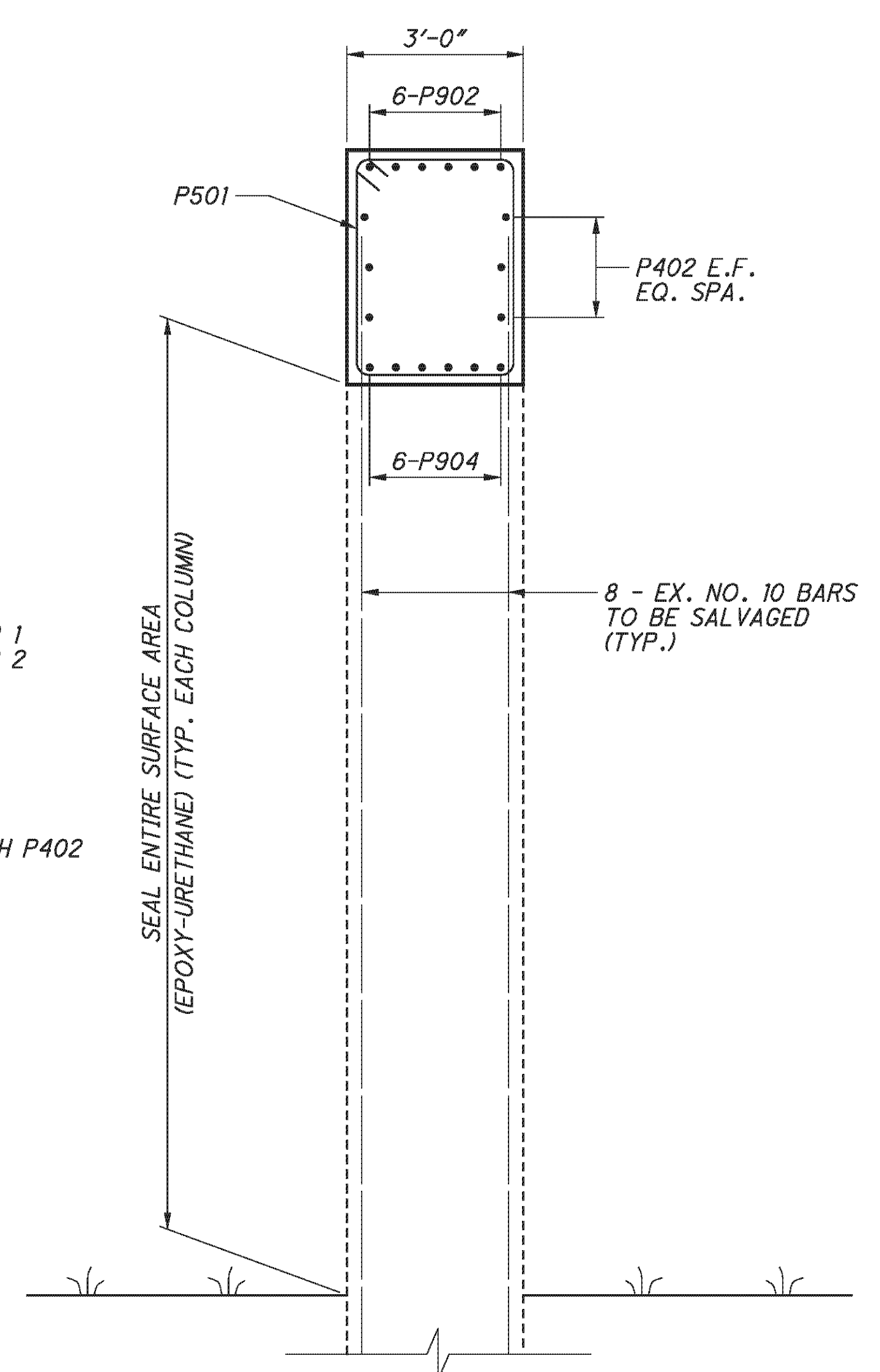
| LAP LENGTHS | |
|-------------|------------|
| NO. 4 BARS | 2'-0" MIN. |
| NO. 5 BARS | 2'-6" MIN. |



ELEVATION - LEFT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)



SECTION B-B



SECTION A-A

- NOTES:**
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
 - FOR BEARING DETAILS, SEE SHEET **30/46**.
 - FOR PHASE CONSTRUCTION DETAILS, SEE SHEET **7/46** THROUGH **8/46**.
 - FOR REINFORCING SCHEDULE, SEE SHEET **43/46**.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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|---|--------------------|--------------|------------------------|-----------------|
| DESIGNED DTA/CH | CHECKED AME/DFT | DRAWN DTA | REVIEWED DFT | DATE 5/11/10 |
| STRUCTURE FILE NUMBER 0702137L/070216R | | | PROJECT BEL-70-7.61 | |

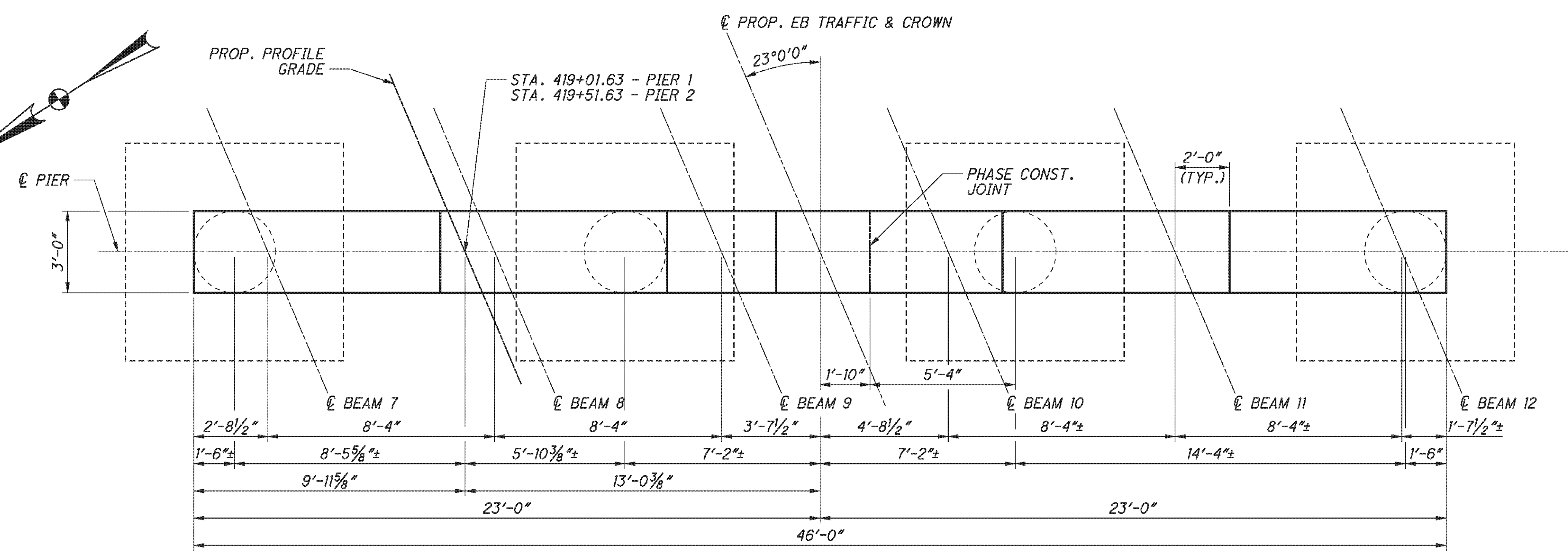
Pier Details - Left Bridge
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

24/46

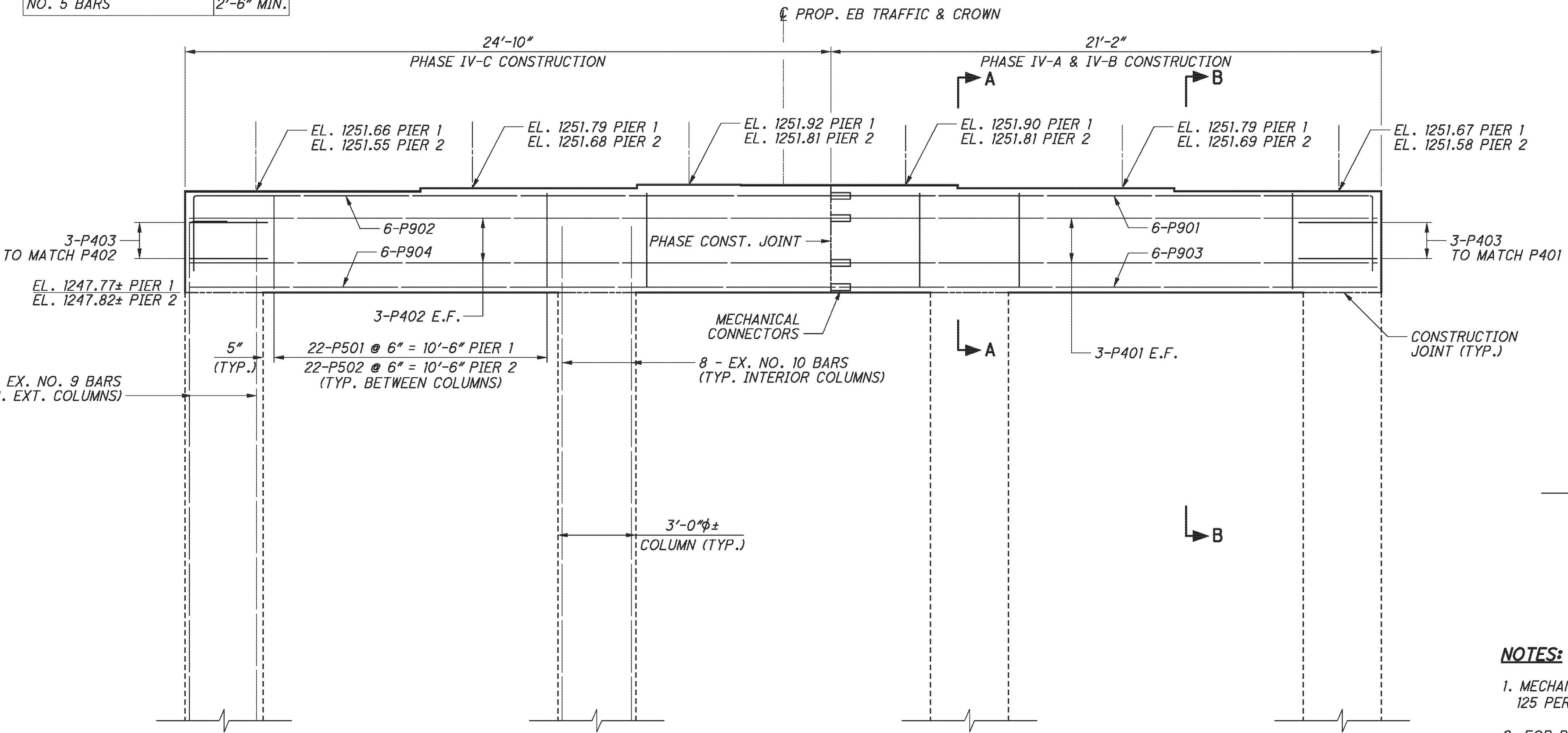
306
373

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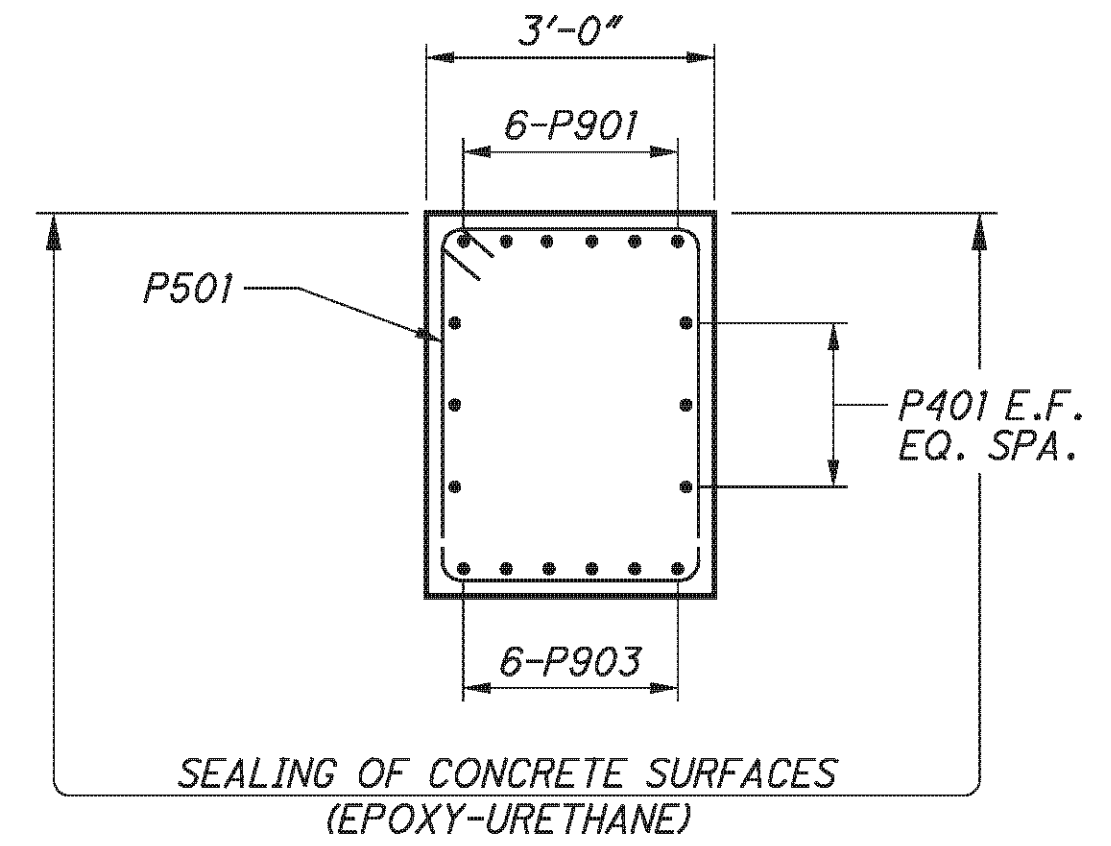


PLAN - RIGHT BRIDGE
(PIER 1 SHOWN - PIER 2 SIMILAR)

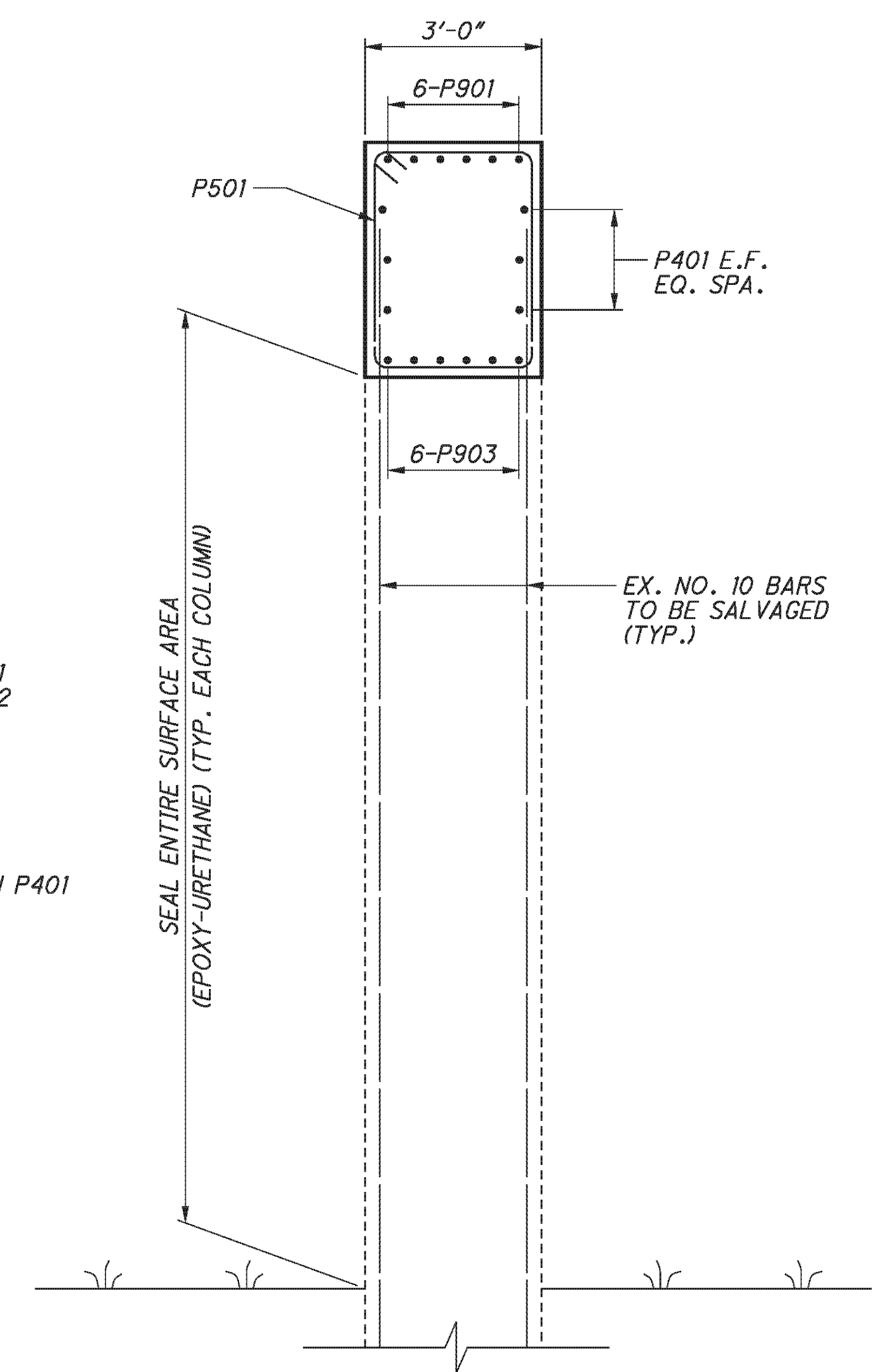
| LAP LENGTHS | |
|-------------|------------|
| NO. 4 BARS | 2'-0" MIN. |
| NO. 5 BARS | 2'-6" MIN. |



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.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

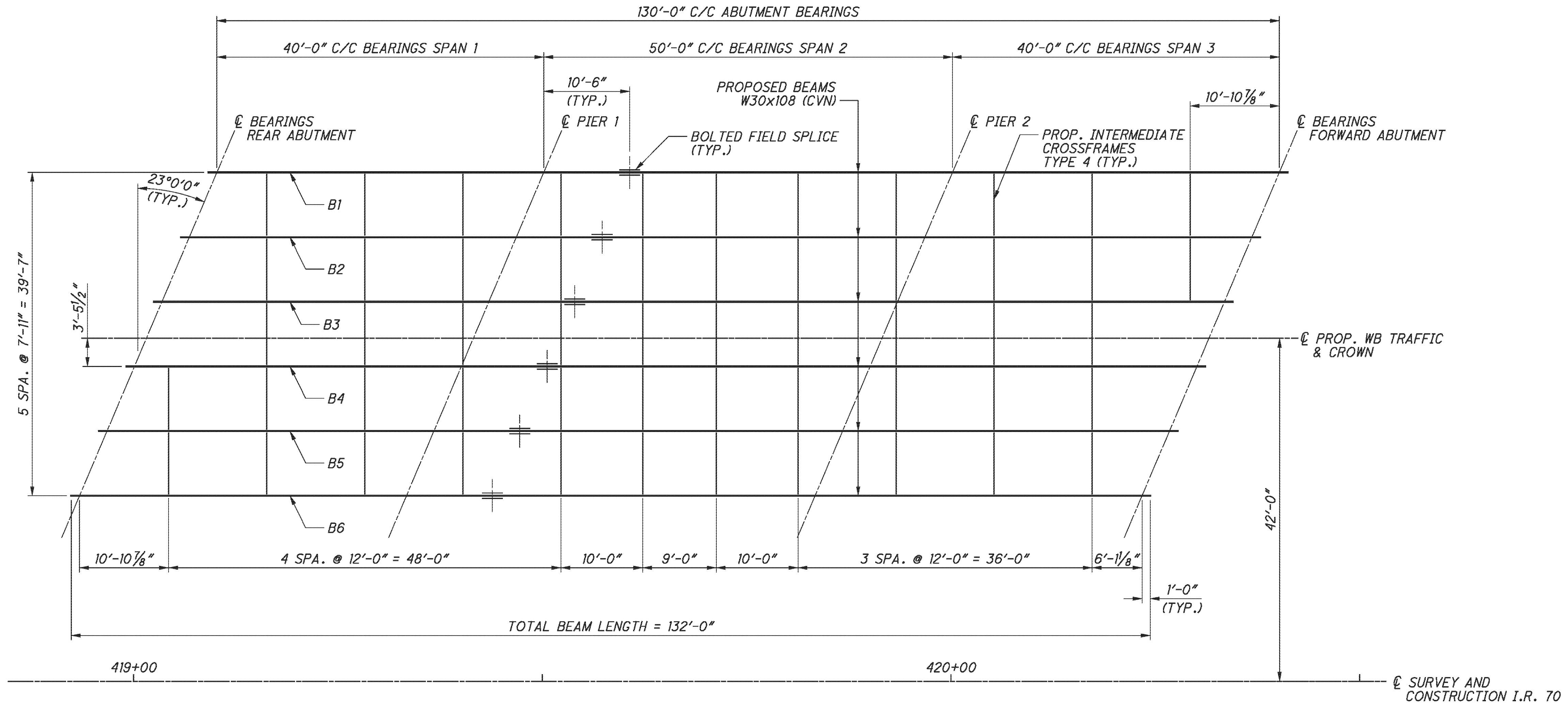
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|-----------------------|-------------------|
| DATE | 2/3/11 |
| REVIEWED | RER |
| STRUCTURE FILE NUMBER | 0702137L/0702161R |
| DRAWN | BMG |
| DESIGNED | DTA |
| CHECKED | RLE |
| REVISION | |

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

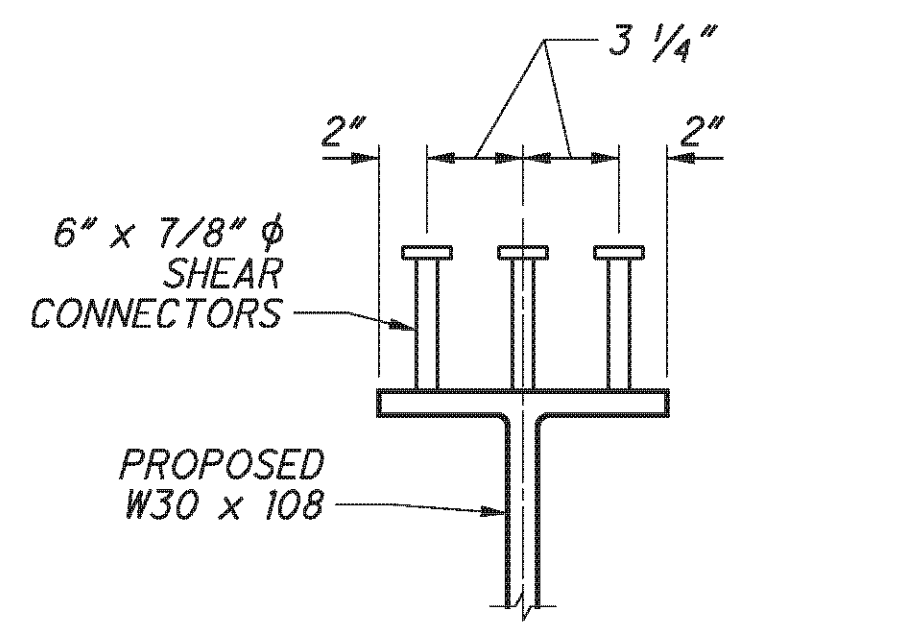
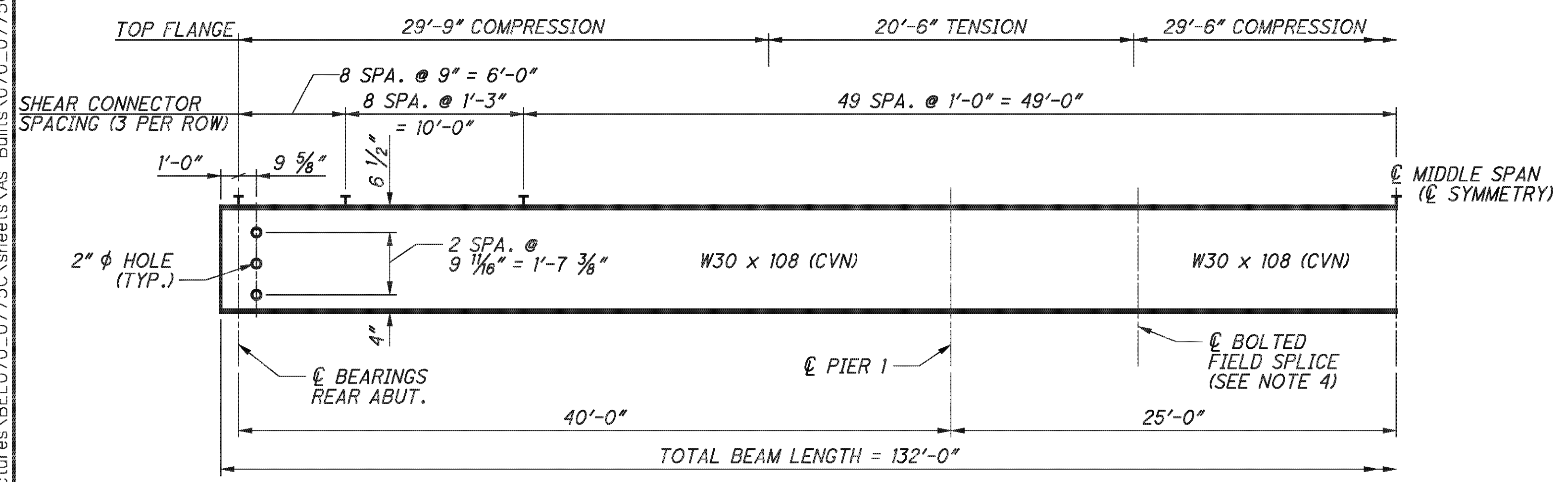
307
373



FRAMING PLAN

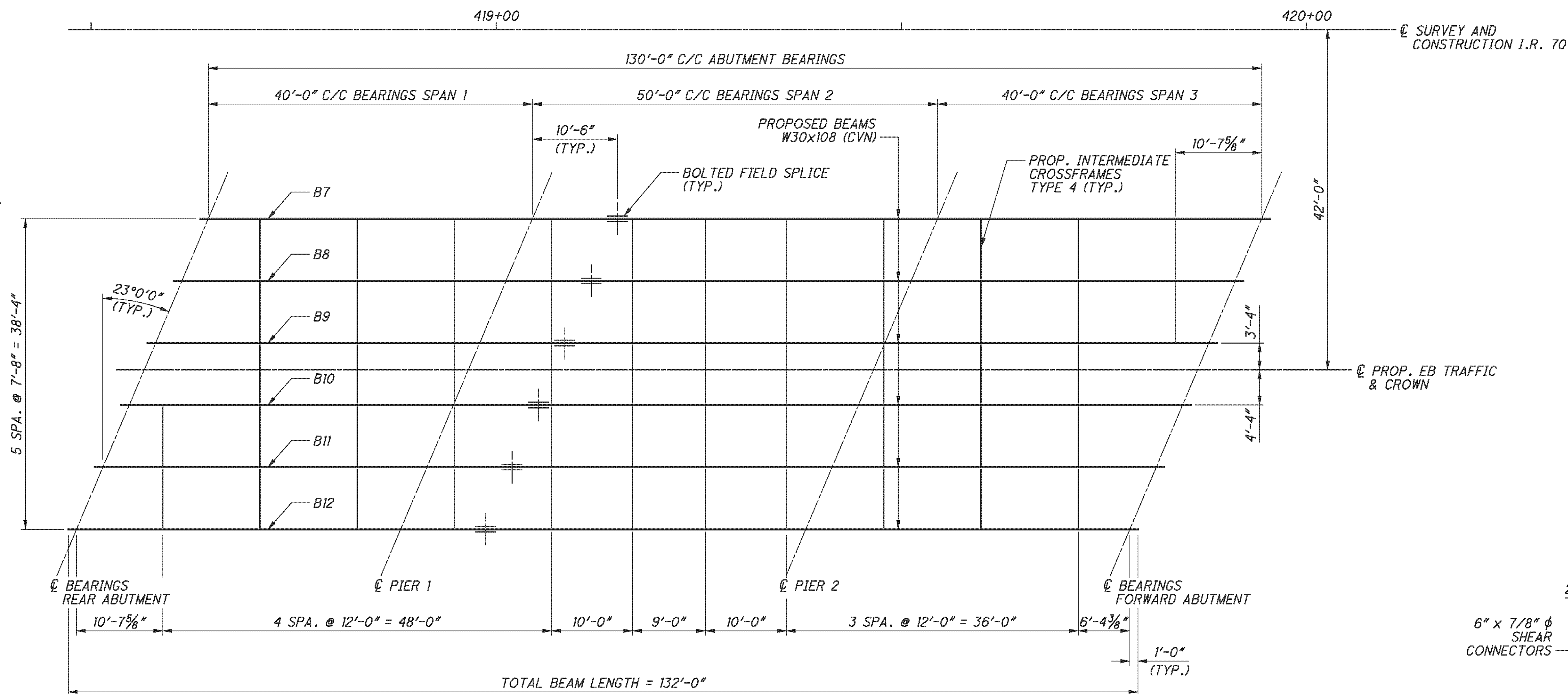
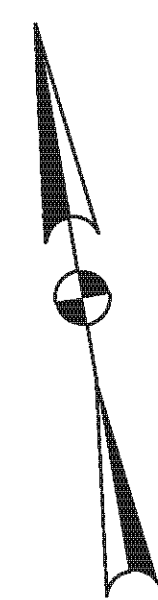
NOTES:

- 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 5/8" 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.

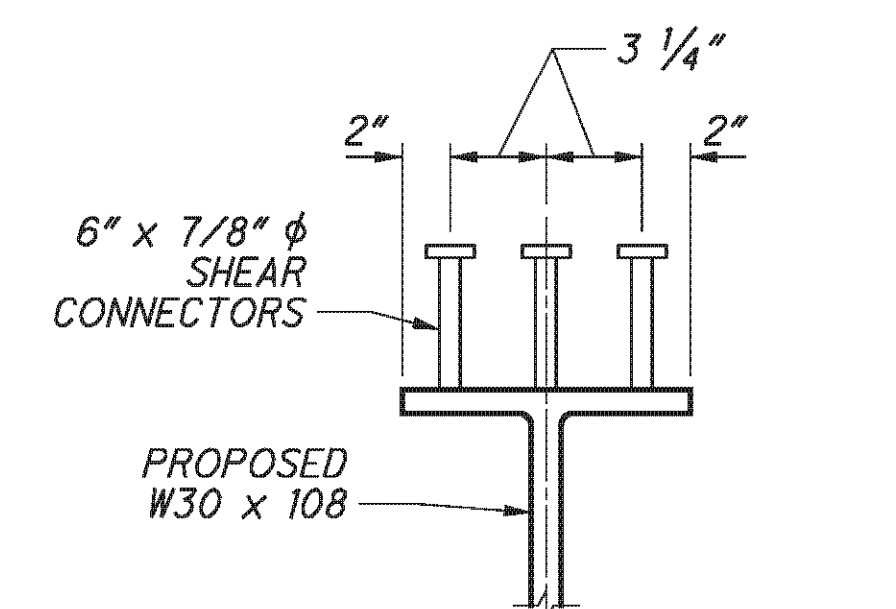


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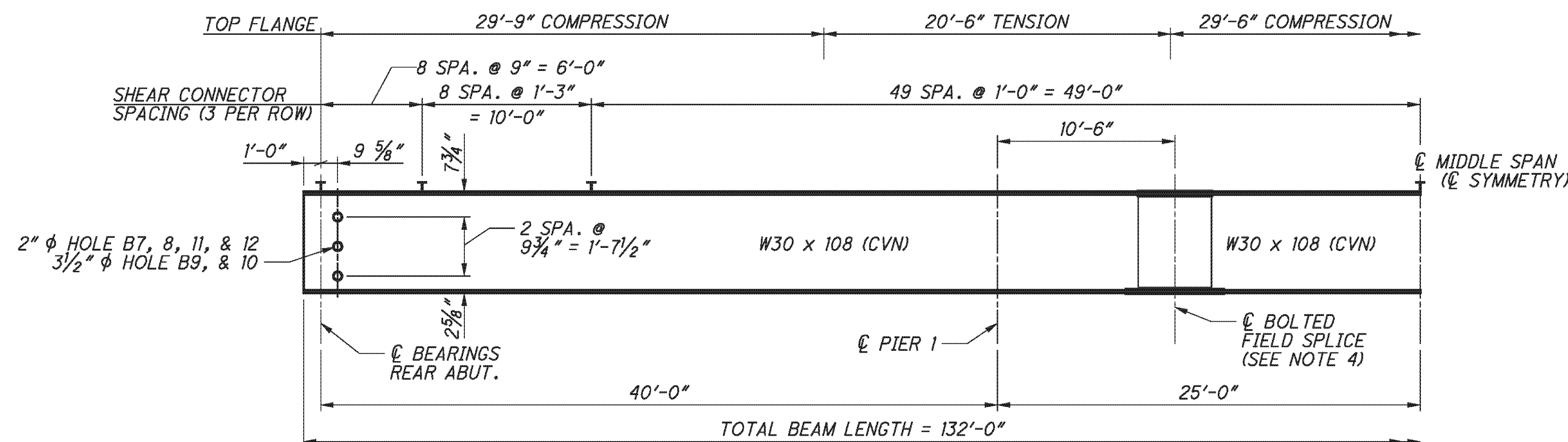
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FRAMING PLAN



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
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

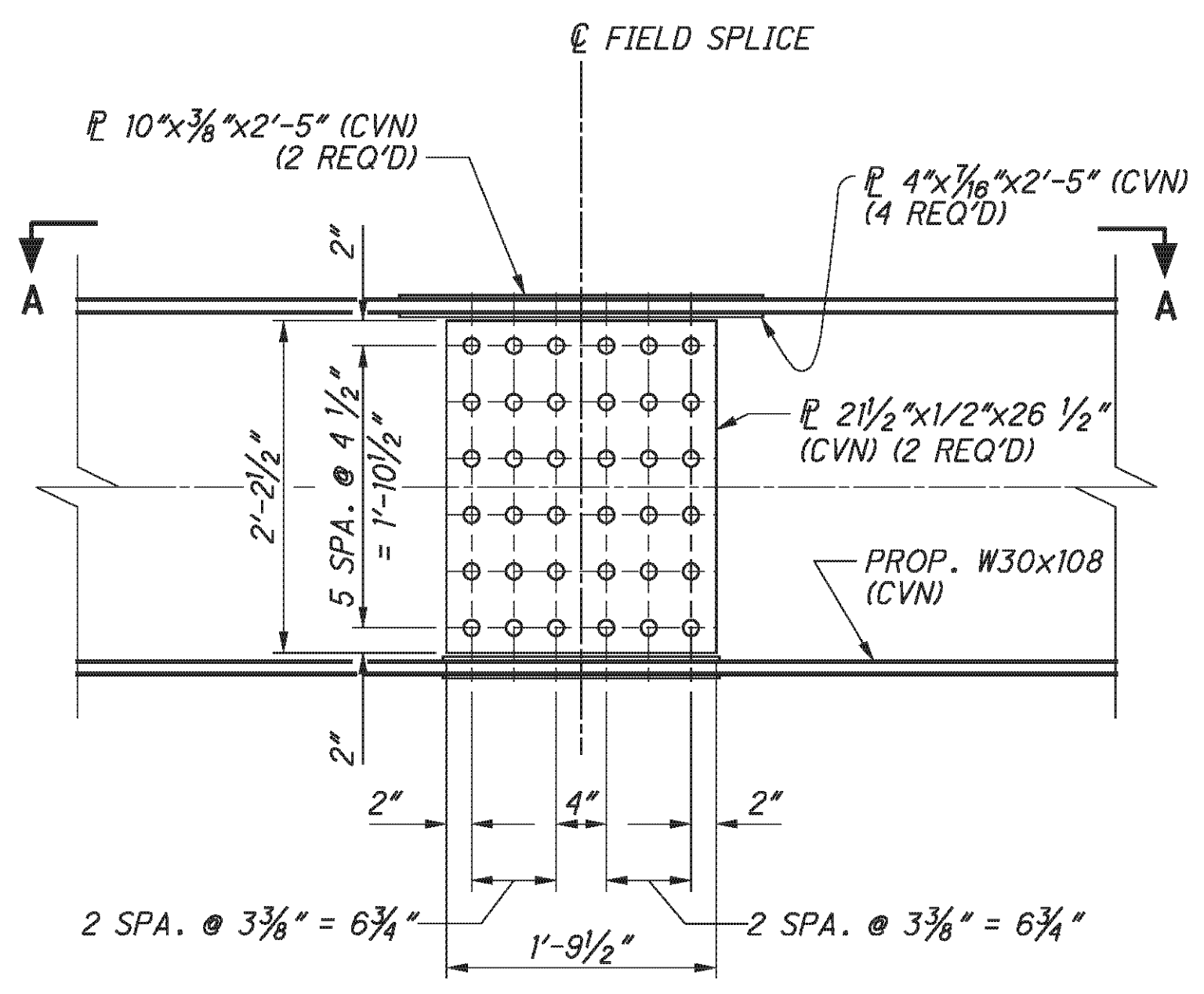
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| DESIGNED | AME | CHECKED | RLE | |
| DRAWN | DTA | REVISED | | |
| REVIEWED | RER | STRUCTURE FILE NUMBER | 0702137L/0702161R | |
| DATE | 2/3/11 | | | |

FRAMING PLAN - RIGHT BRIDGE
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

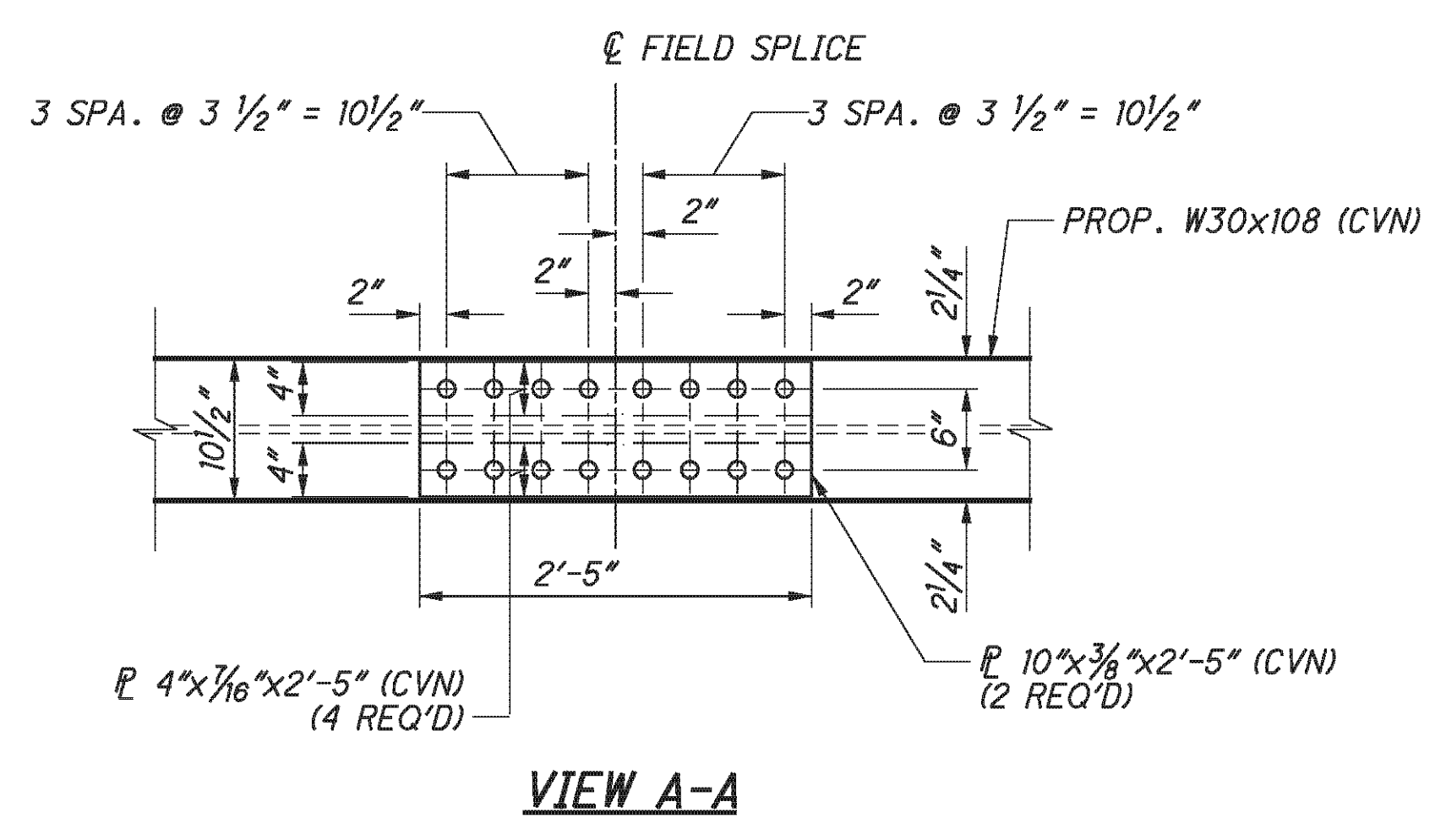
BEL-70-7.61
PID No. 76825

27/46

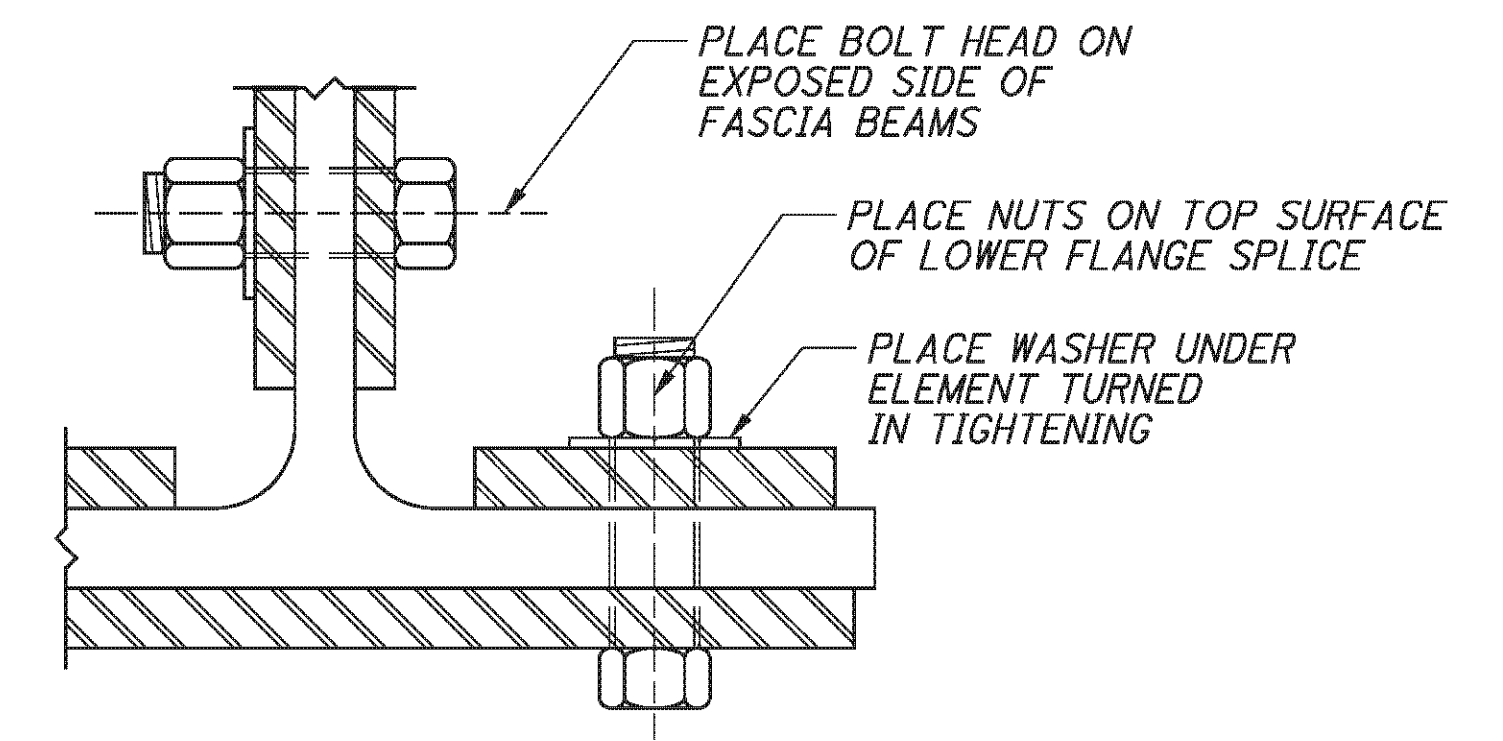
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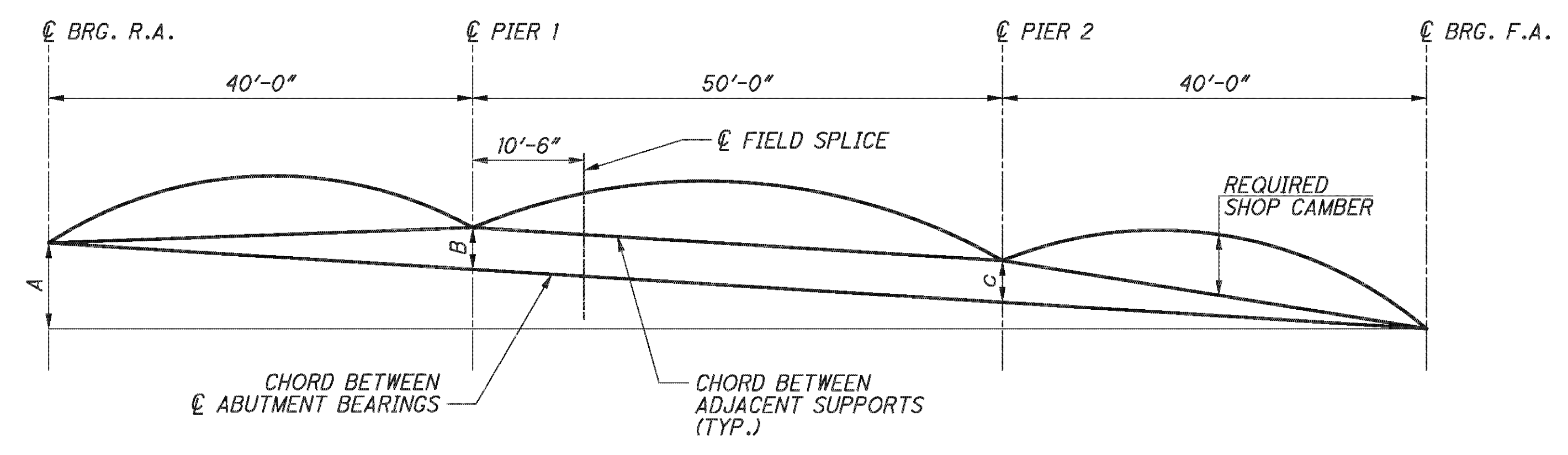
BOLTED FIELD SPLICE ELEVATION



VIEW A-A



**PARTIAL SECTION
(AT C OF BEAM SPLICE)**



CAMBER DIAGRAM

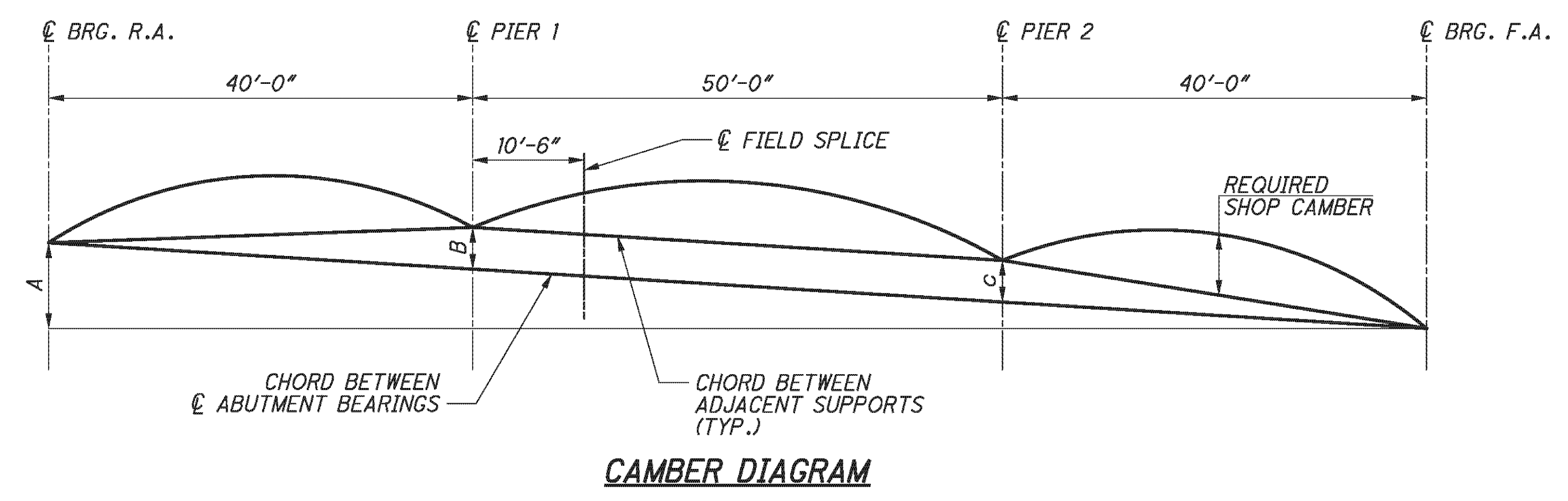
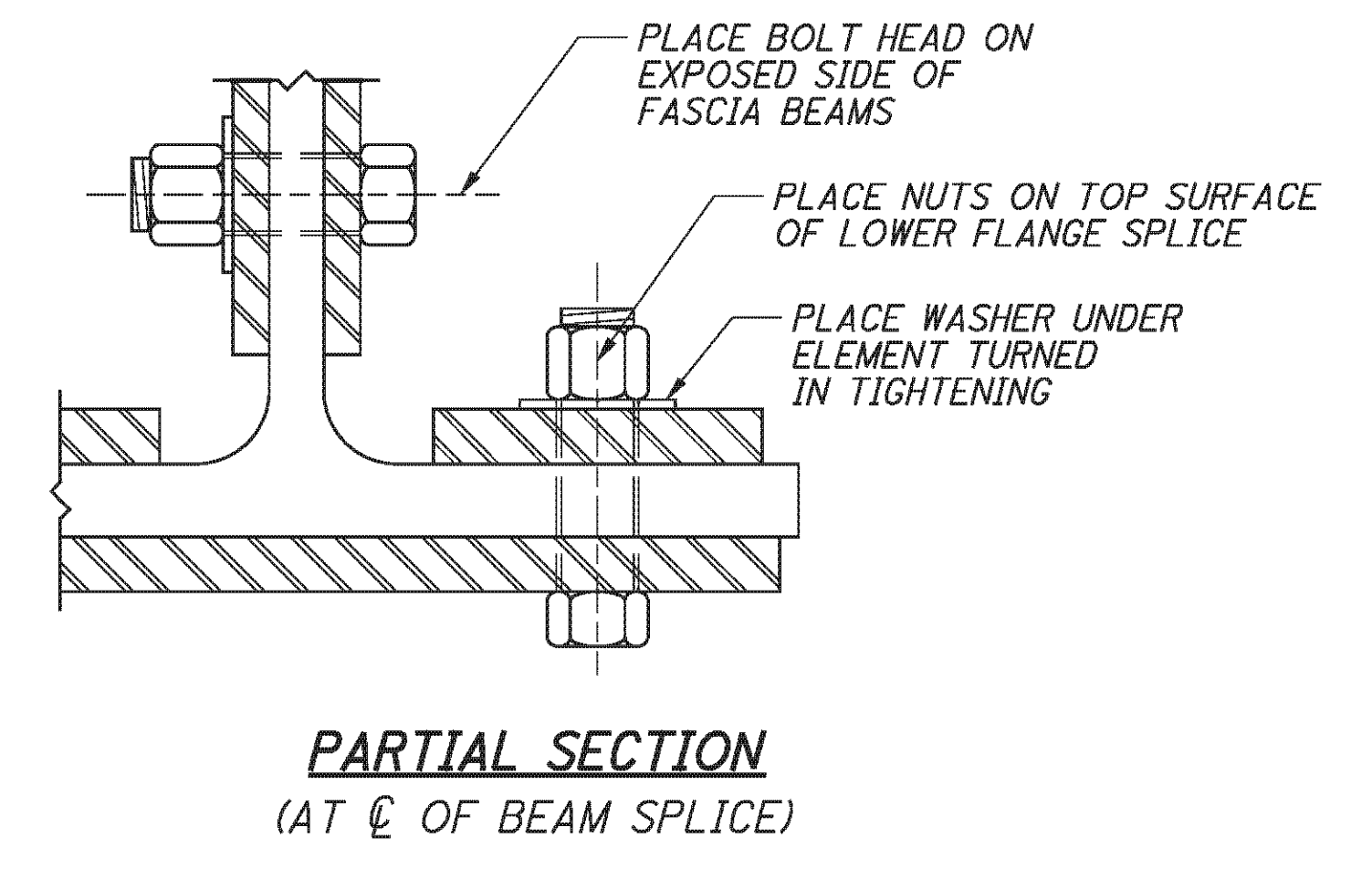
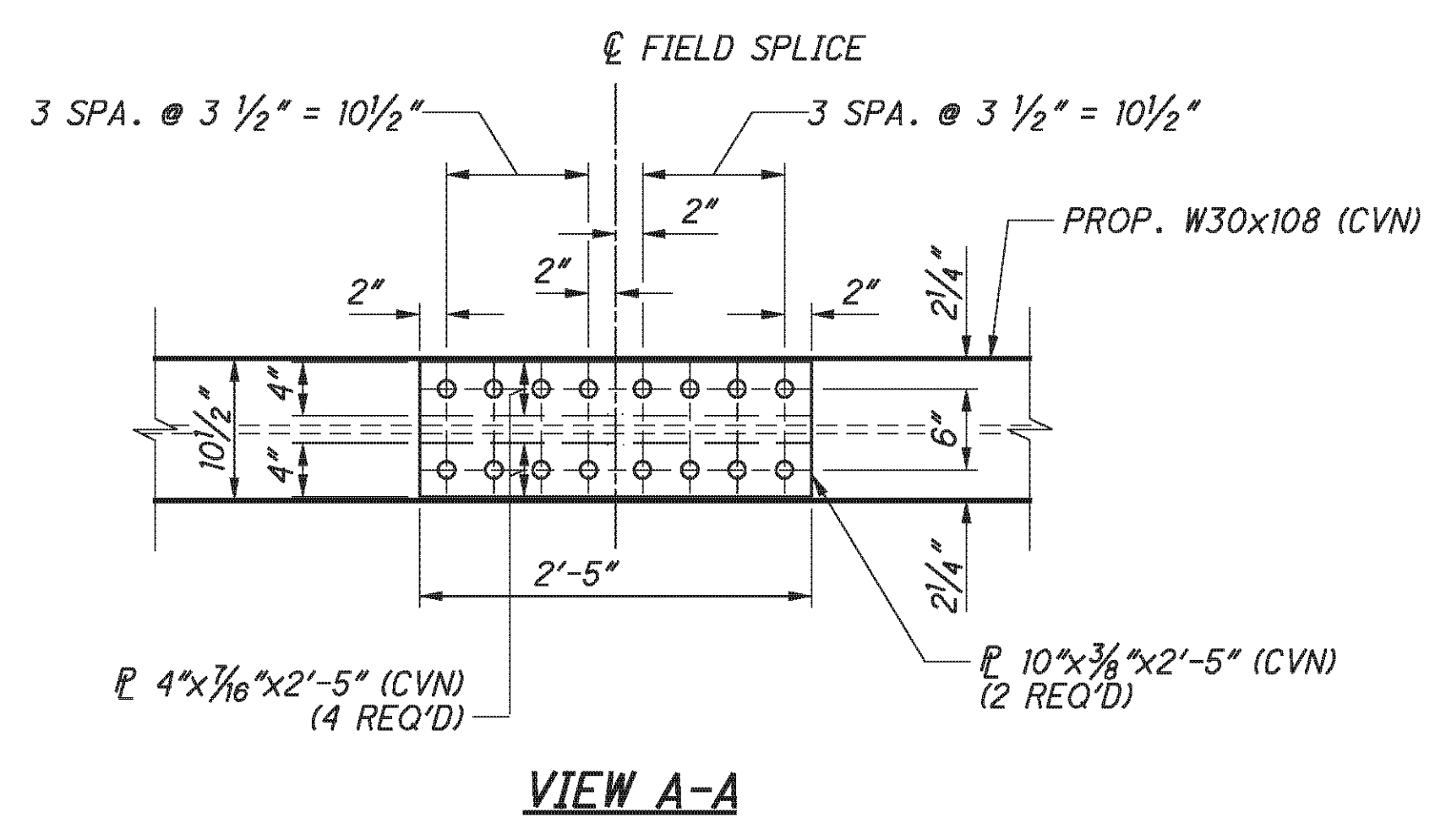
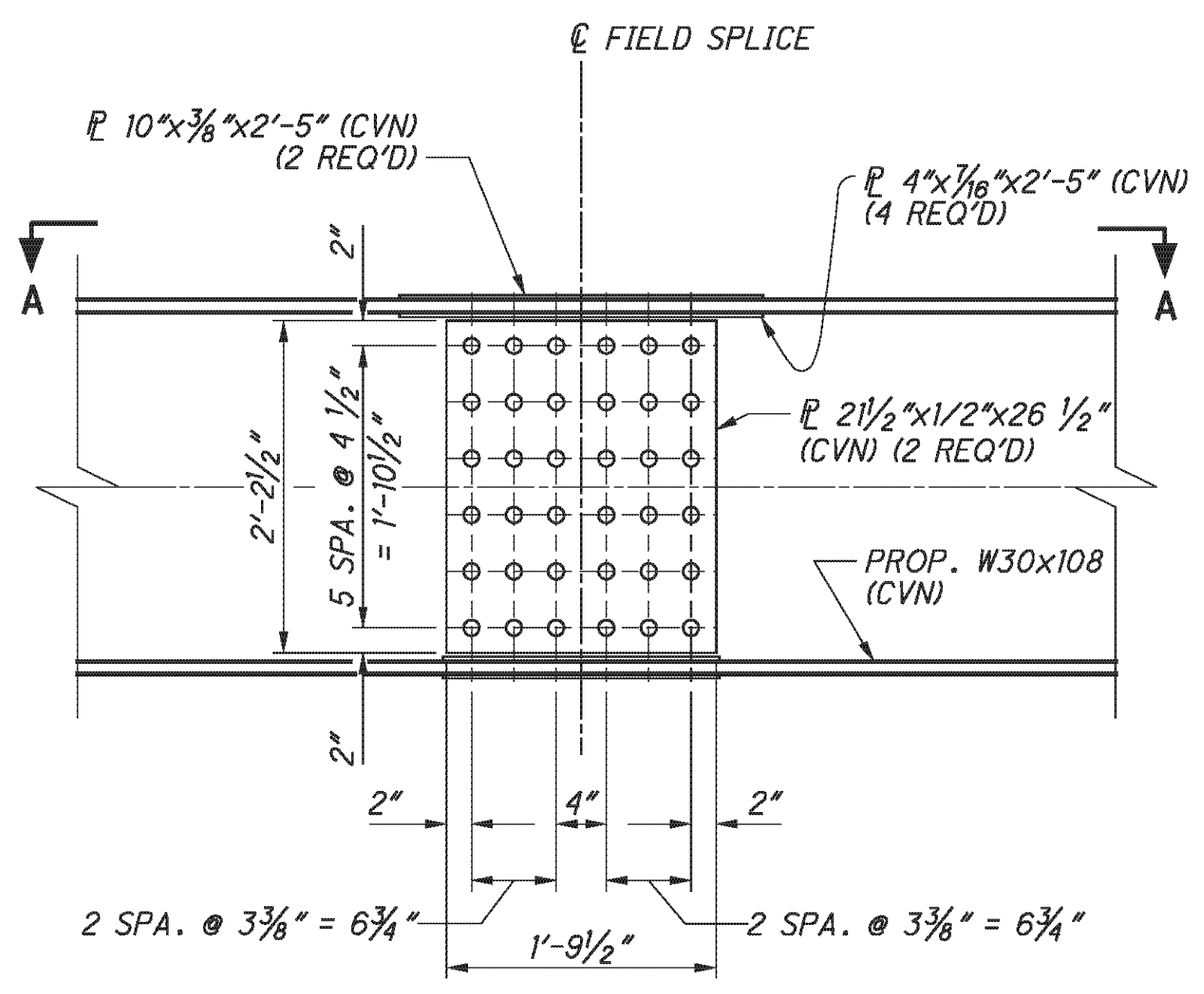
| CAMBER DIAGRAM DIMENSIONS | | | | | | |
|---------------------------|---------|--------|--------|---------|---------|--------|
| | B1 | B2 | B3 | B4 | B5 | B6 |
| DIM A | 4 3/16" | 4 3/4" | 4 5/8" | 4 9/16" | 4 7/16" | 4 3/8" |
| DIM B | 1/16" | 1/16" | 1/16" | 1/16" | 1/16" | 1/16" |
| DIM C | 1/16" | 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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| 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" | 1/16" | 3/8" | 1/16" | 3/8" | 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" | 1/16" | 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" |

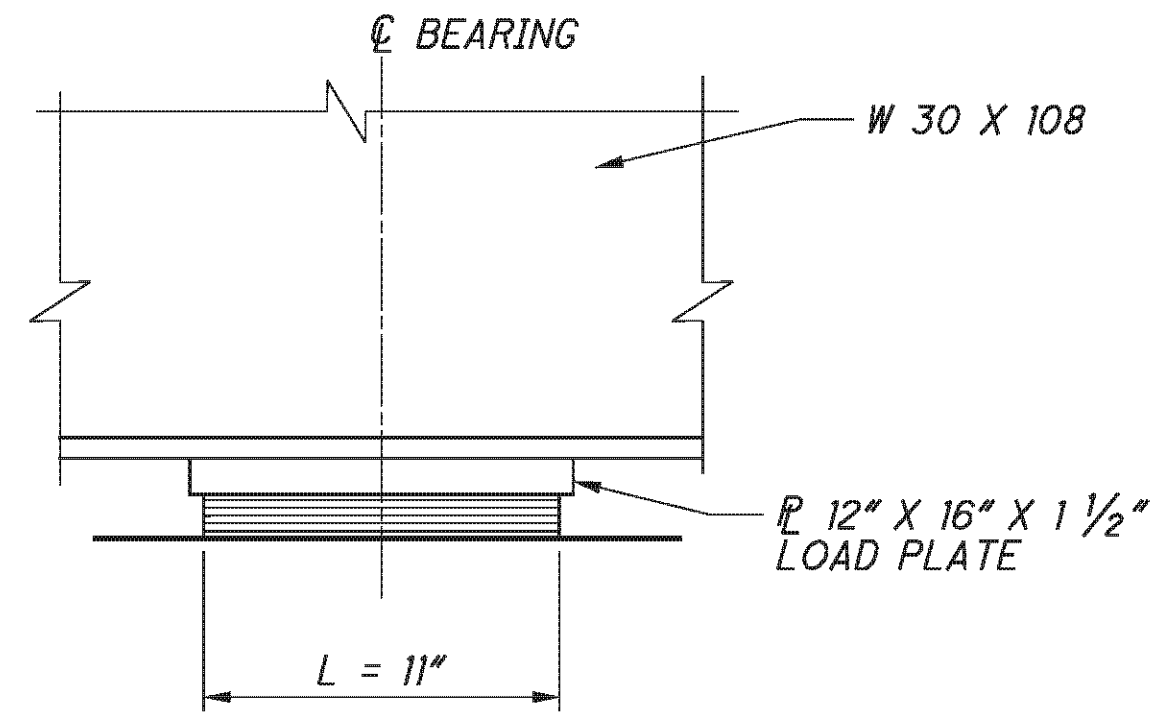
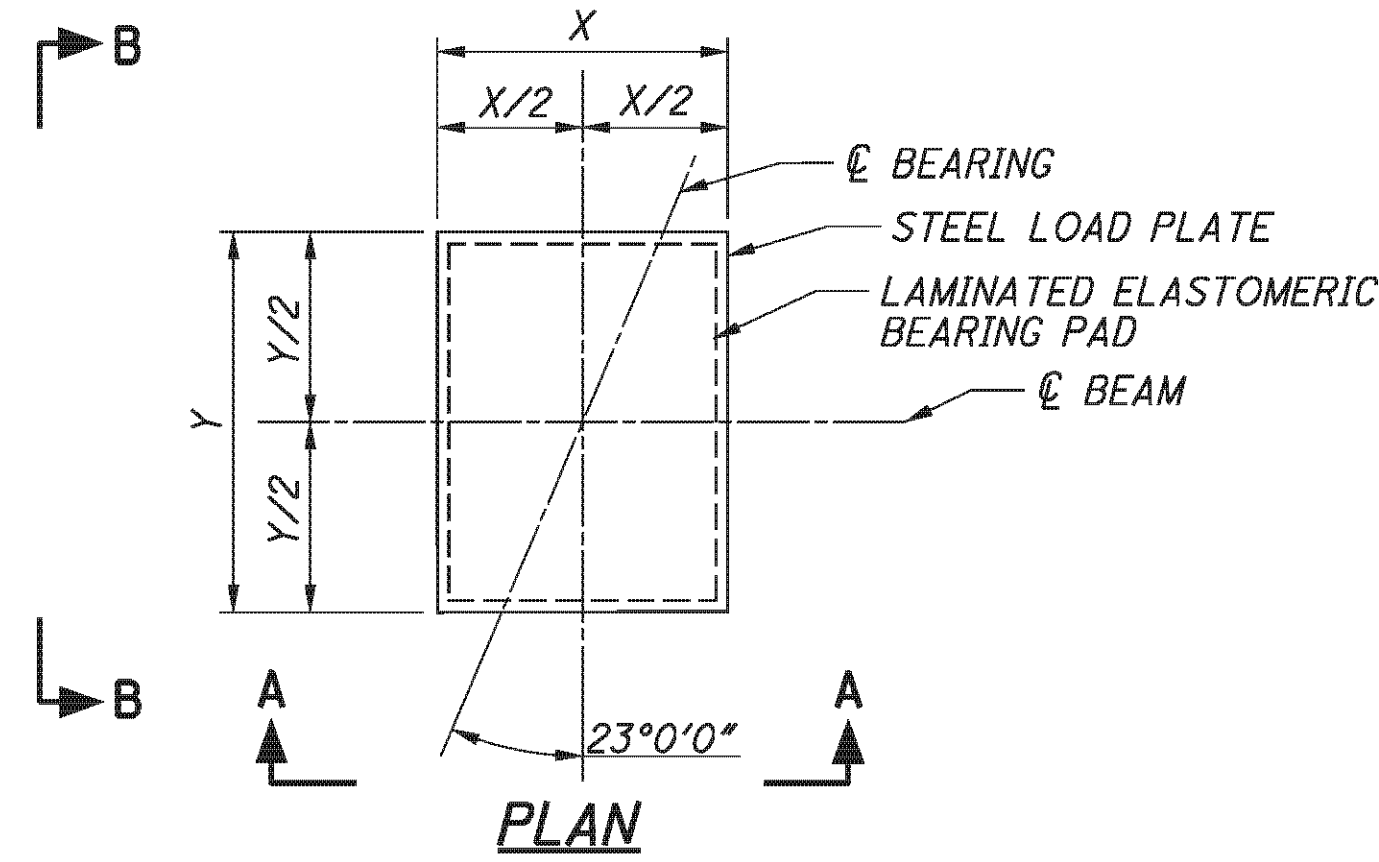
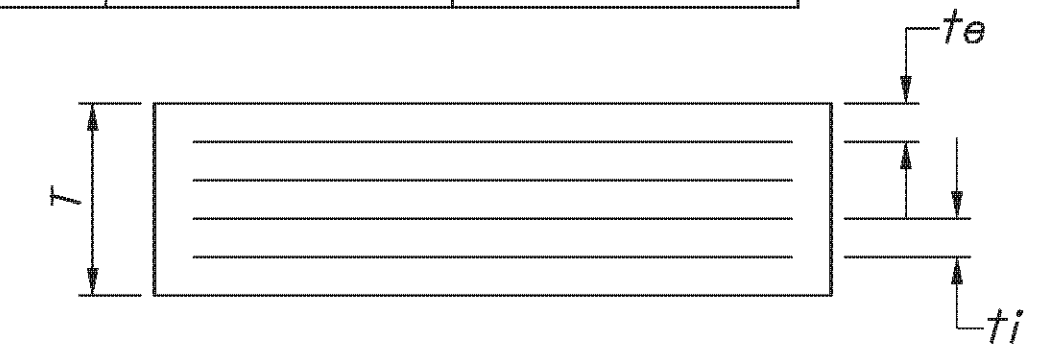
- NOTES:**
- ALL FIELD SPLICE PLATES SHALL BE ASTM A709W, 50 KSI, WEATHERING STEEL.
 - HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER A325, TYPE III UNLESS OTHERWISE NOTED.
 - CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
 - FOR FIELD SPLICE LOCATIONS, SEE SHEETS 27/46.

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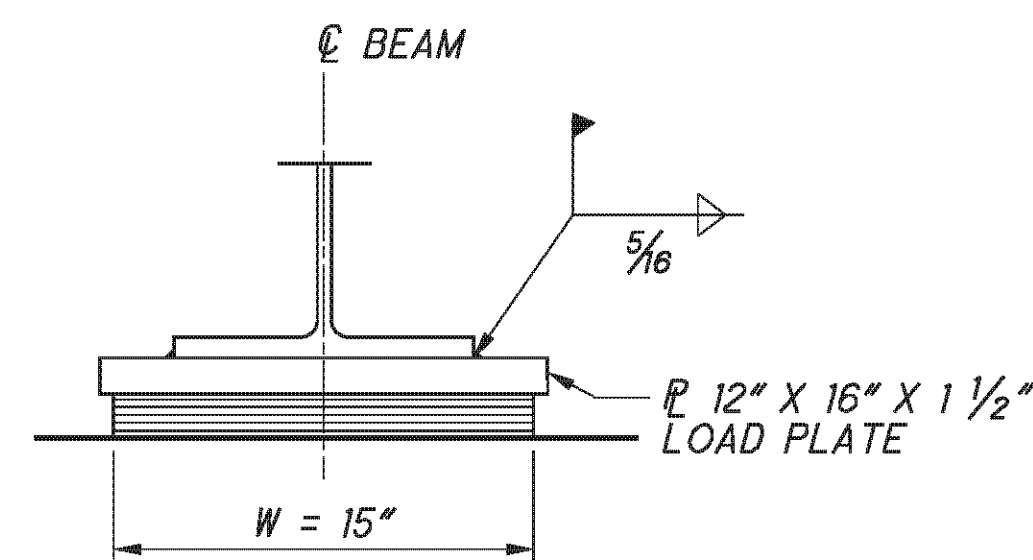
| LAMINATED ELASTOMERIC BEARINGS | | | | | | | | | | | | | |
|--------------------------------|--------------------|-----|----------------|----------------|--------|---|---|------------------|-----|--------|-----------|---------------|---------------------|
| LOCATION | BEARING DIMENSIONS | | | | | | | 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

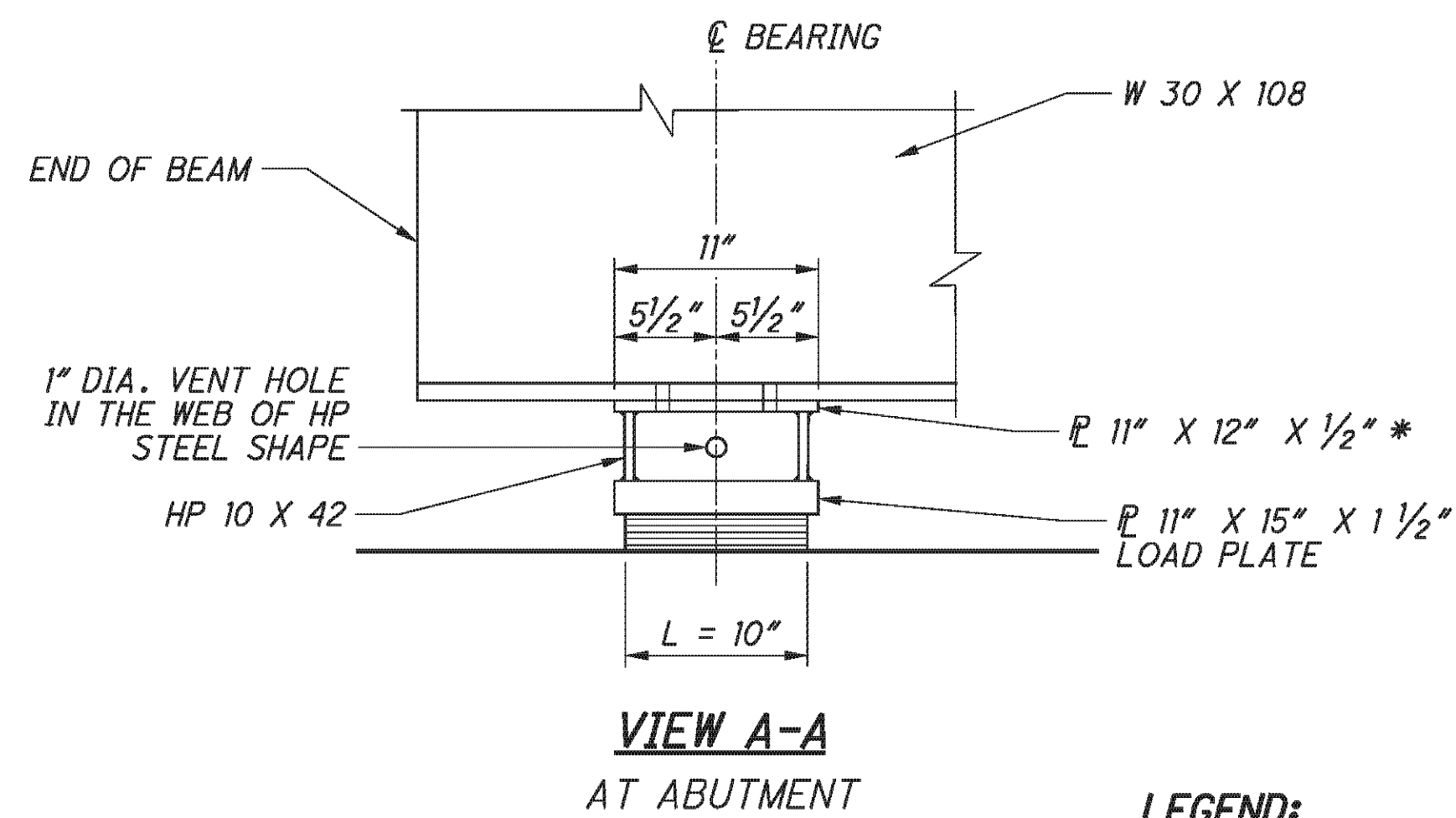
N = NO. OF STEEL LAMINATES
INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
DUROMETER OF ELASTOMER = 50 DUROMETER



VIEW A-A
AT PIER

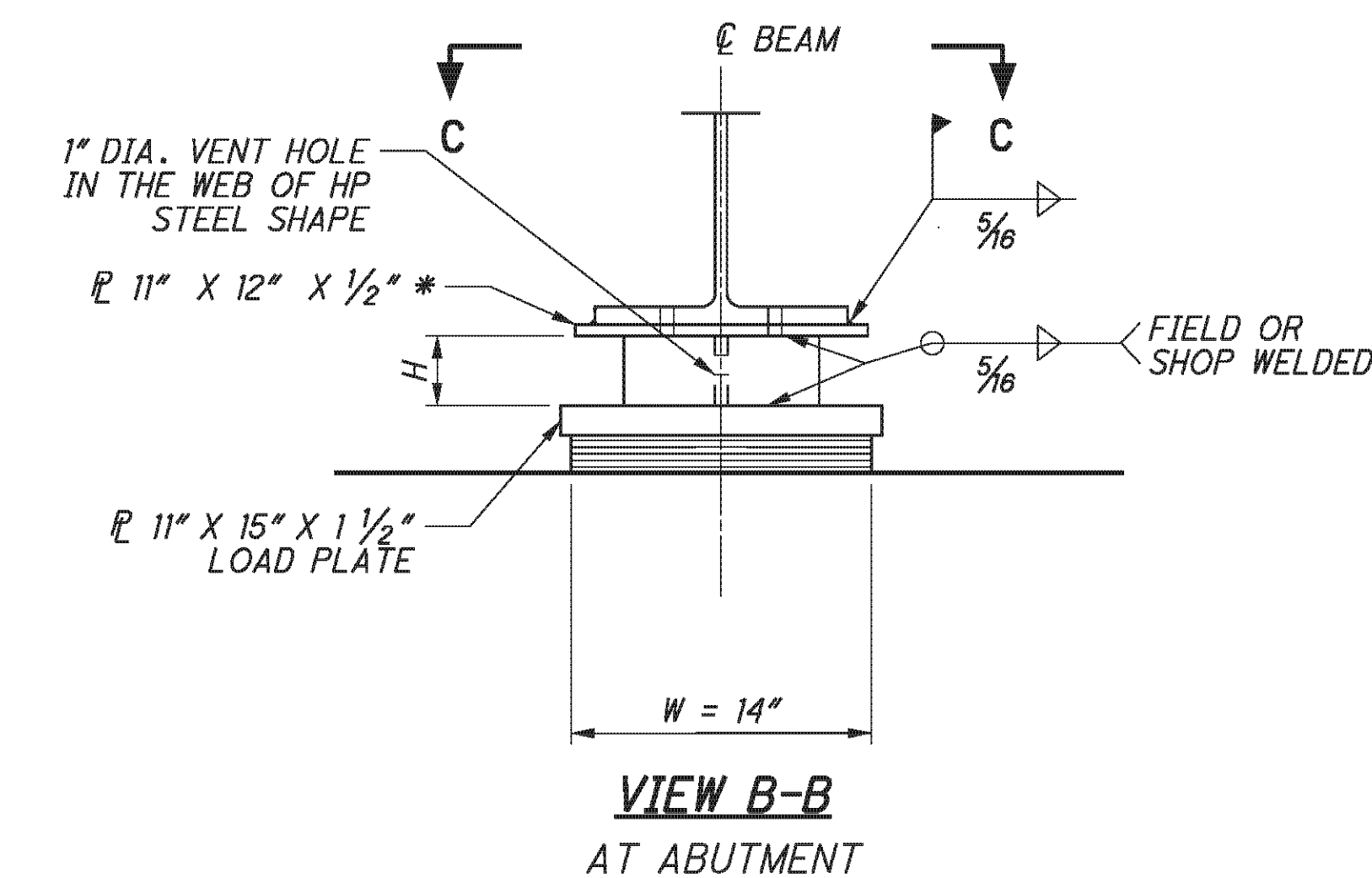


VIEW B-B
AT PIER



VIEW A-A
AT ABUTMENT

LEGEND:
* - FIELD DRILL VENT HOLES IN THE 1/2" TOP PLATE.

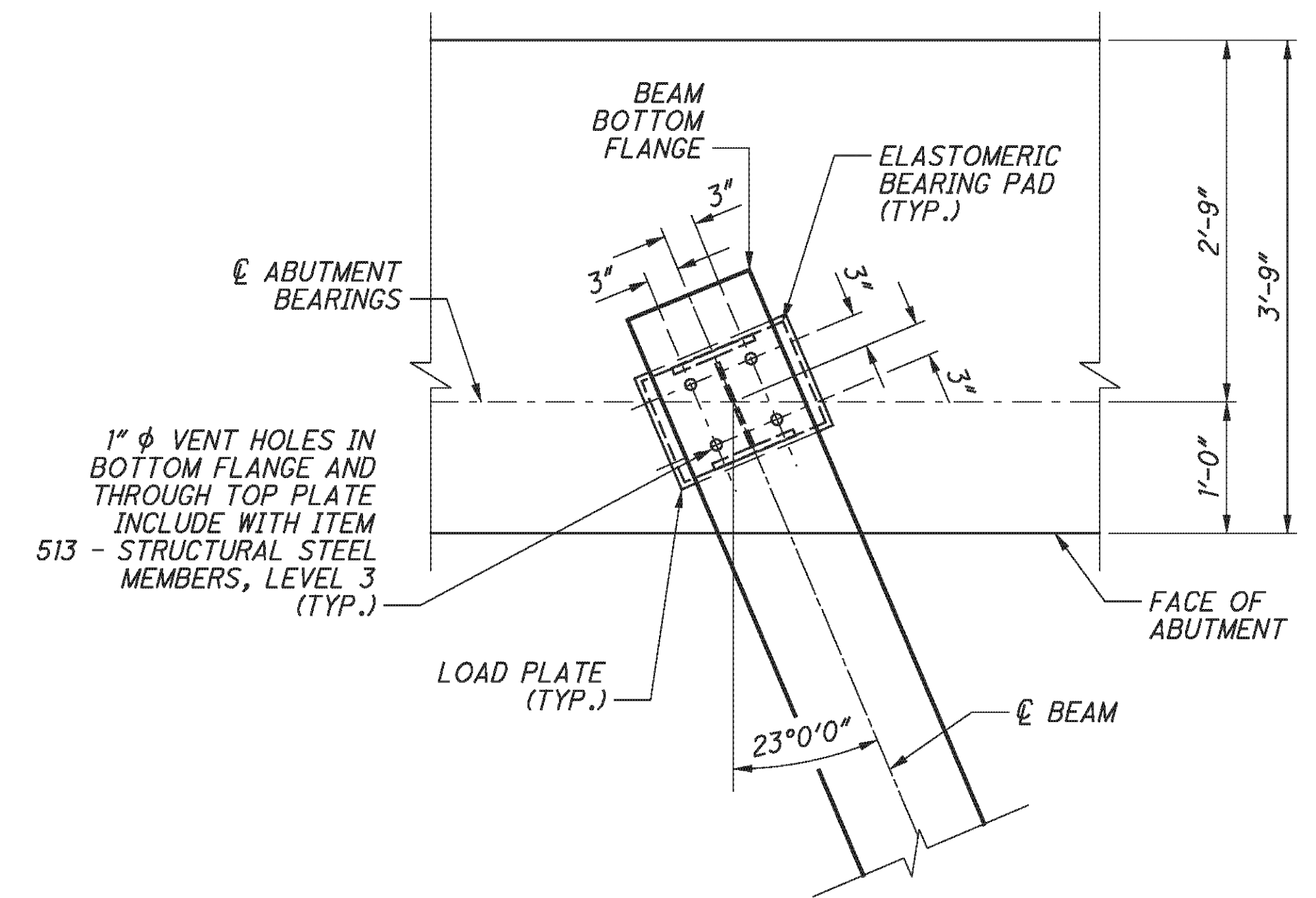


VIEW B-B
AT ABUTMENT

| 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.



SECTION C-C

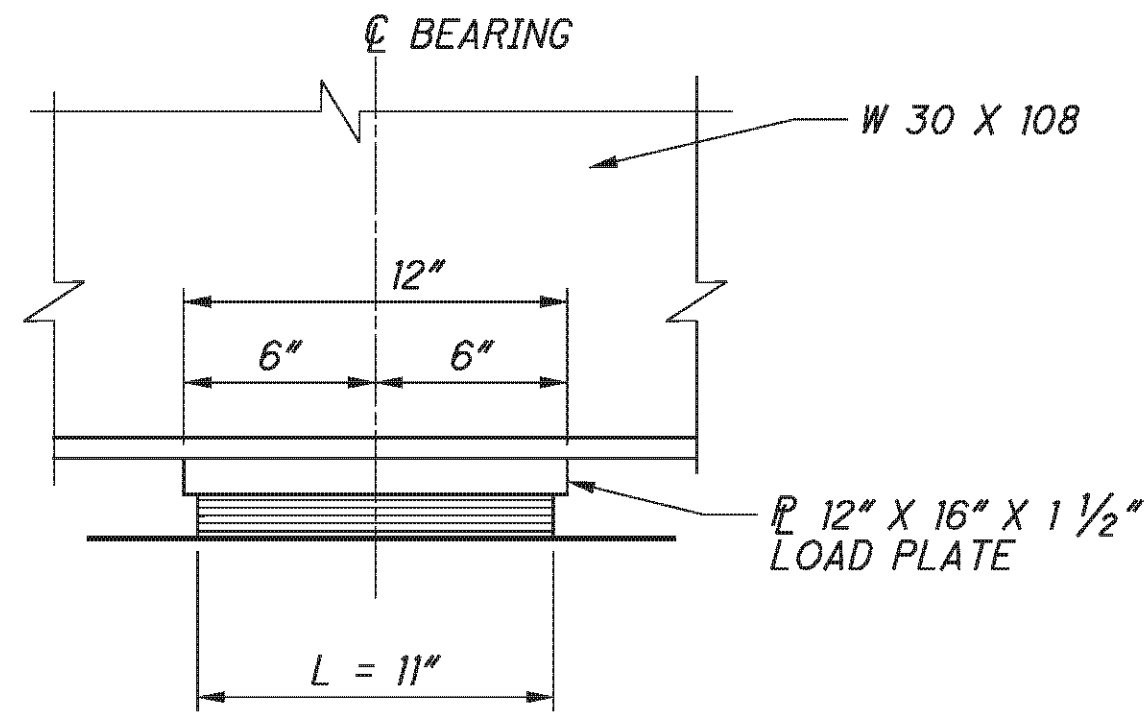
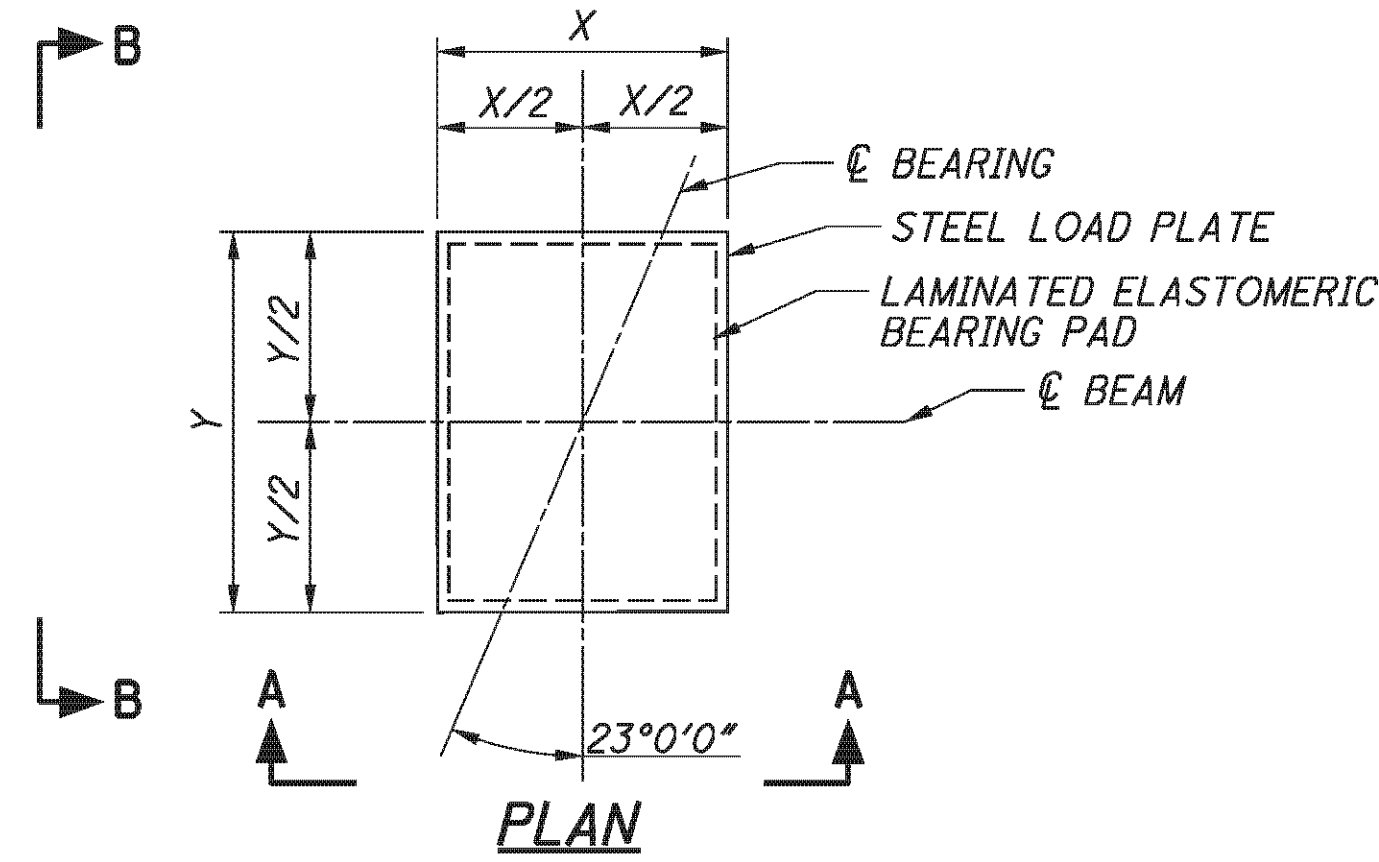
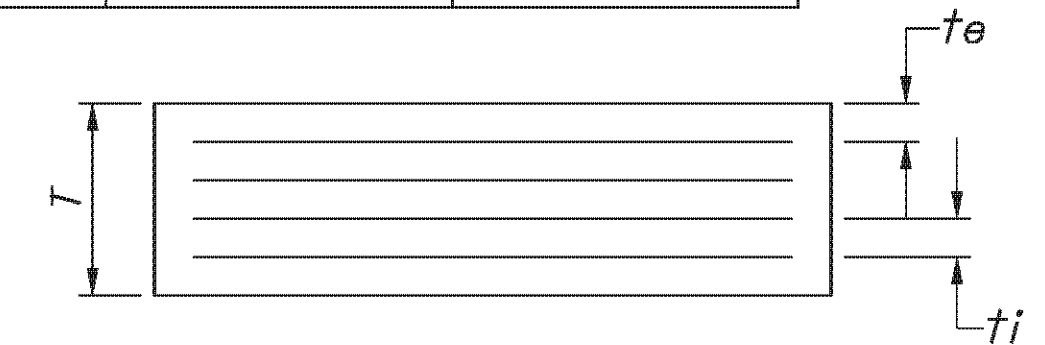
4. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80 °F OR LOWER THAN 40 °F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60 °F ±10 °F RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60 °F ±10 °F.
5. 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.

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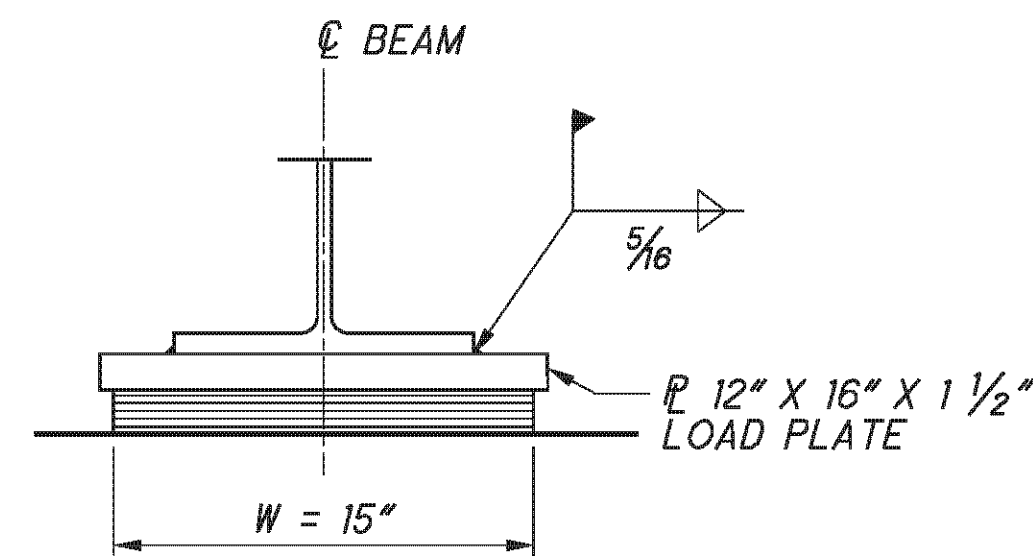
| LAMINATED ELASTOMERIC BEARINGS | | | | | | | | | | | | | |
|--------------------------------|--------------------|-----|----------------|----------------|--------|---|---|------------------|-----|--------|-----------|---------------|---------------------|
| LOCATION | BEARING DIMENSIONS | | | | | | | 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

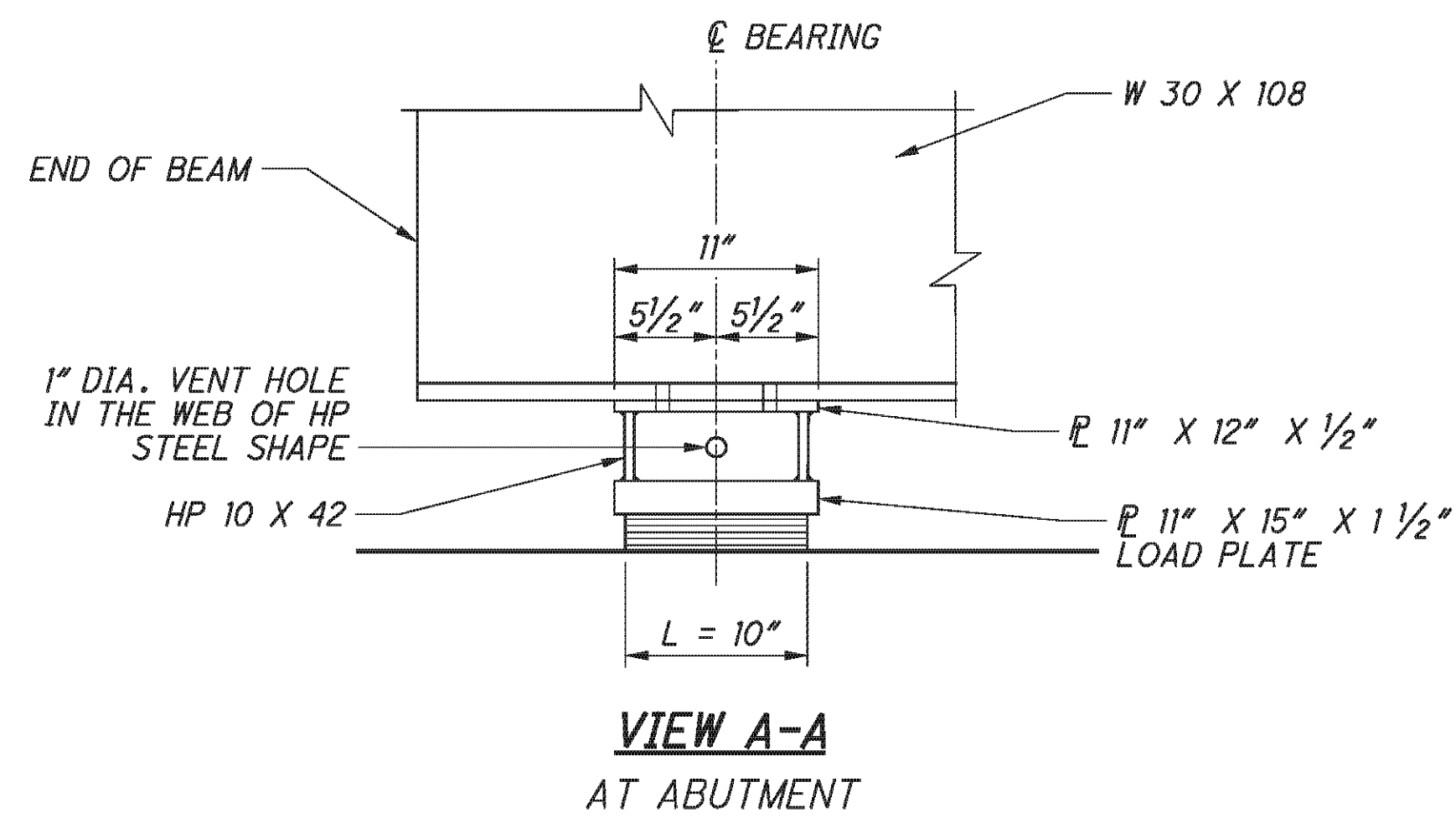
N = NO. OF STEEL LAMINATES
INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
DUROMETER OF ELASTOMER = 50 DUROMETER



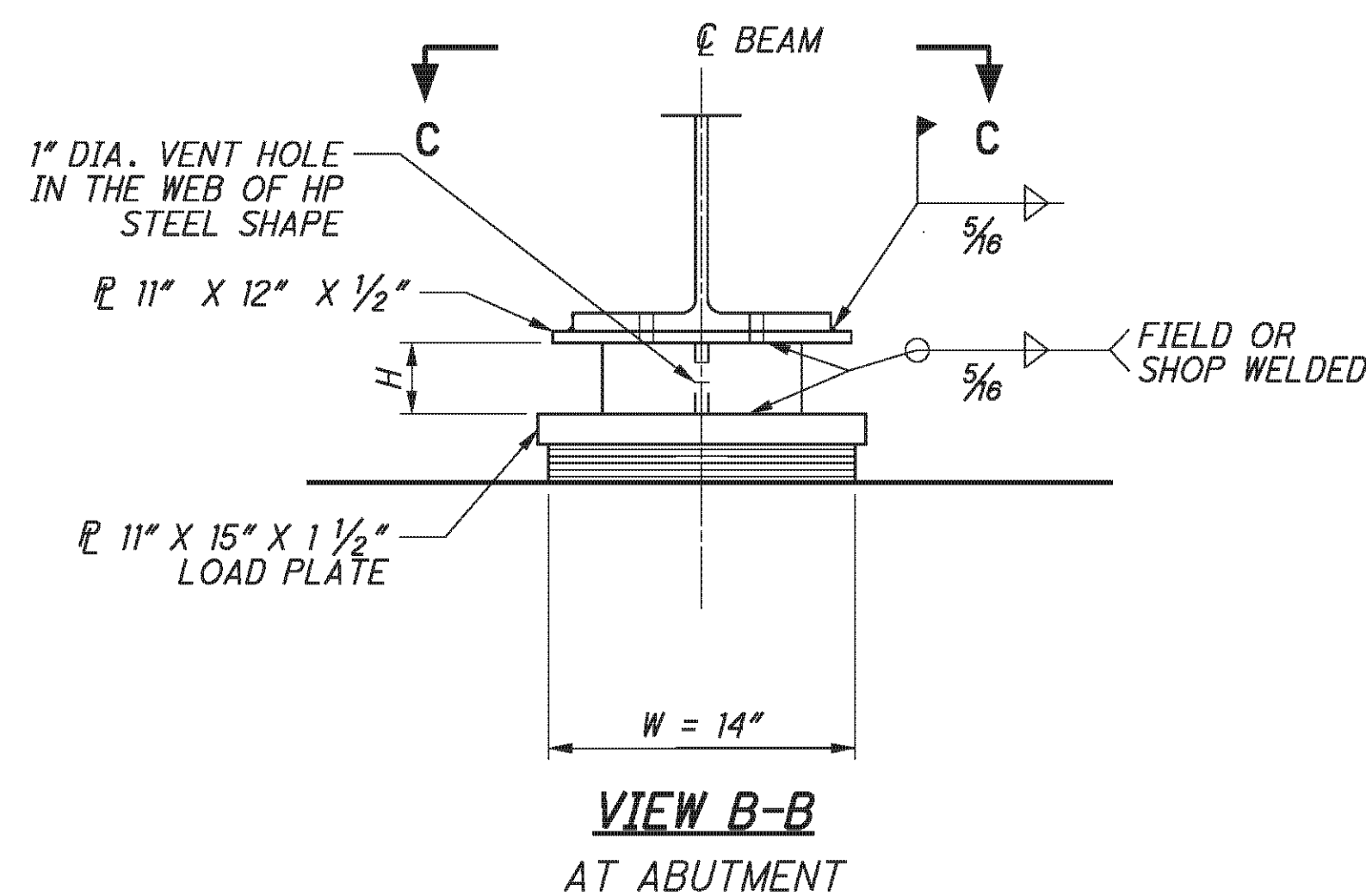
VIEW A-A
AT PIER



VIEW B-B
AT PIER



VIEW A-A
AT ABUTMENT



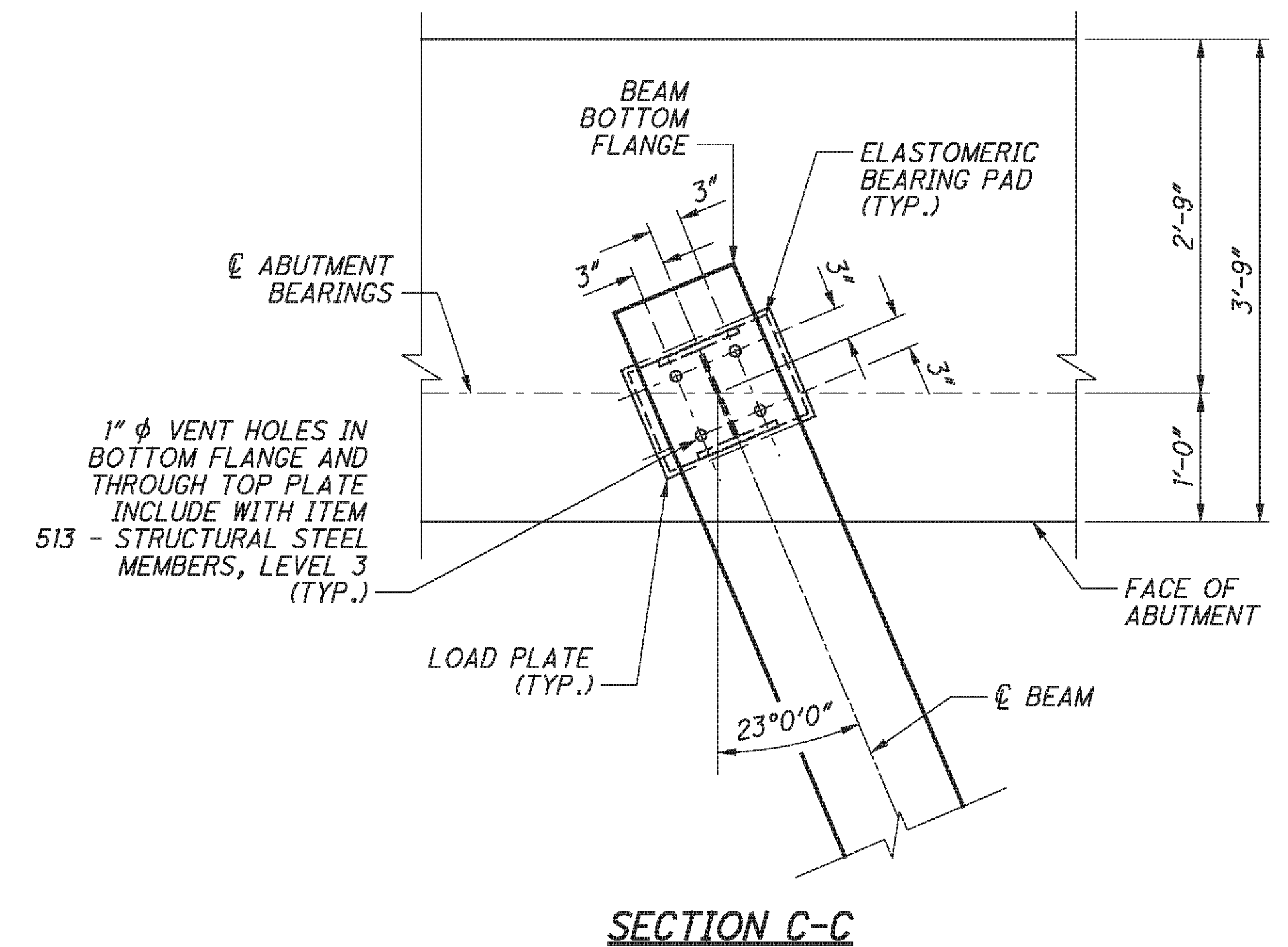
VIEW B-B
AT ABUTMENT

| 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.

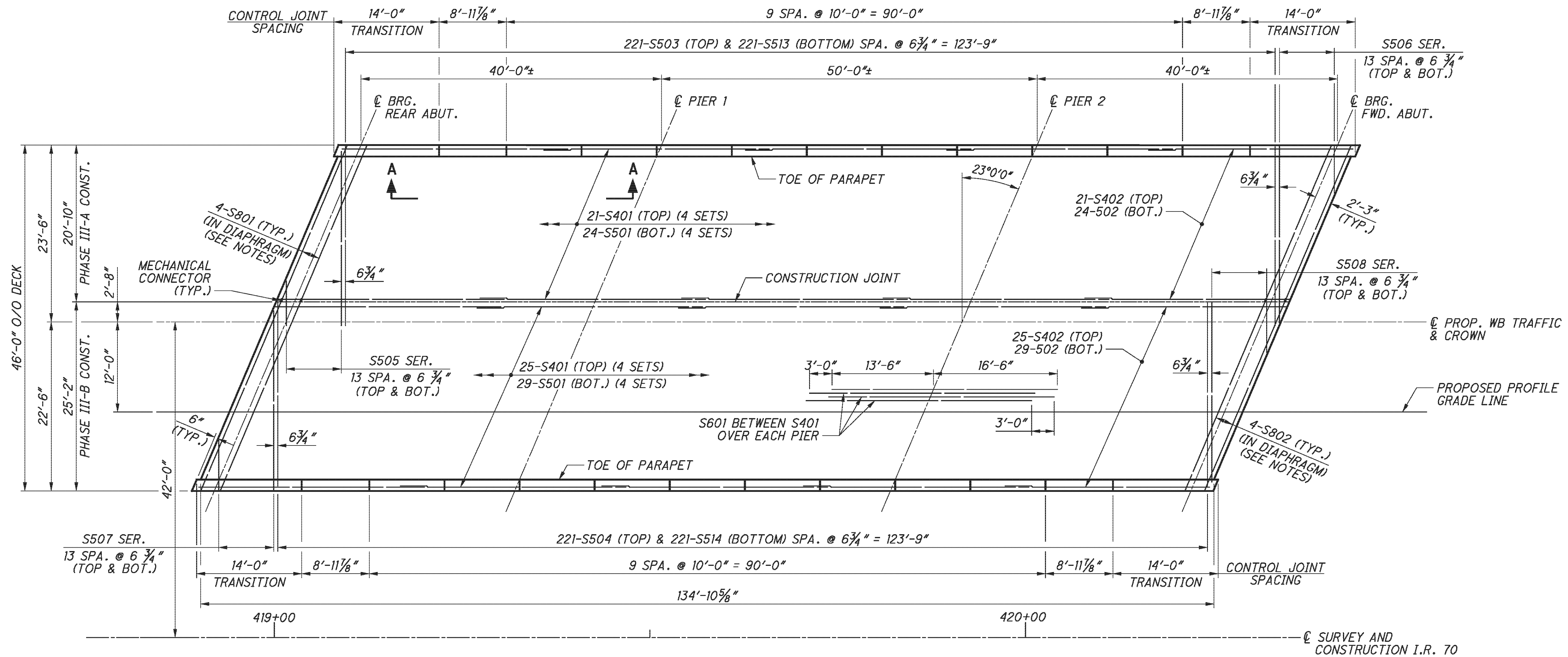
4. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80 °F OR LOWER THAN 40 °F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60 °F ±10 °F RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60 °F ±10 °F.



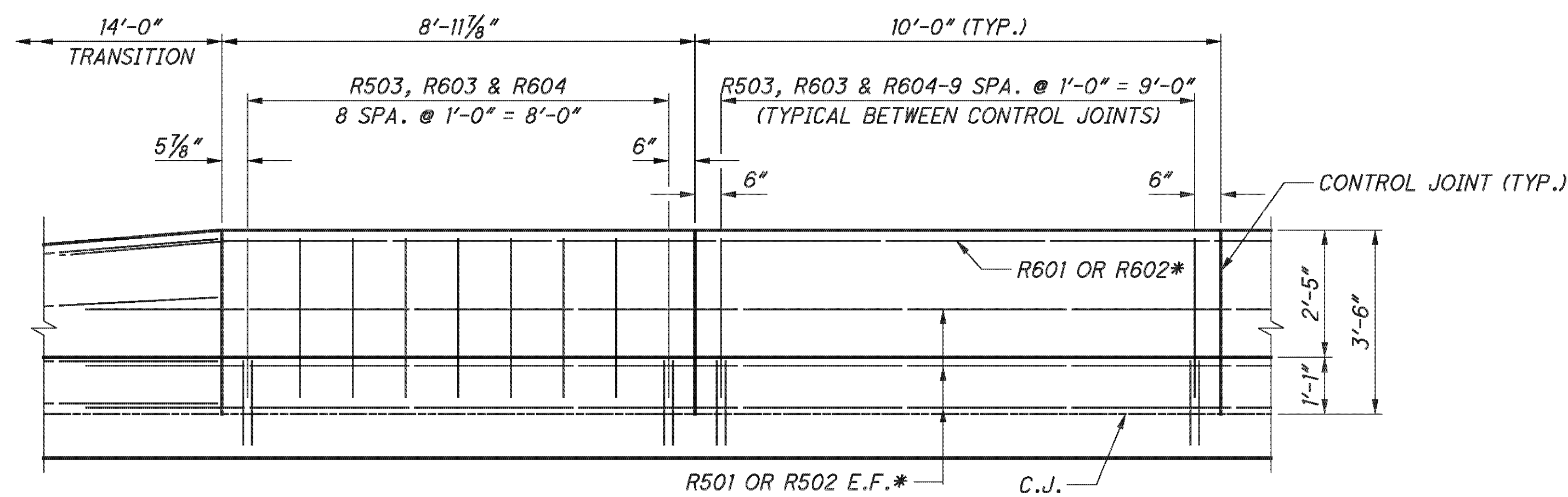
SECTION C-C

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DECK PLAN



VIEW A-A

LEGEND:

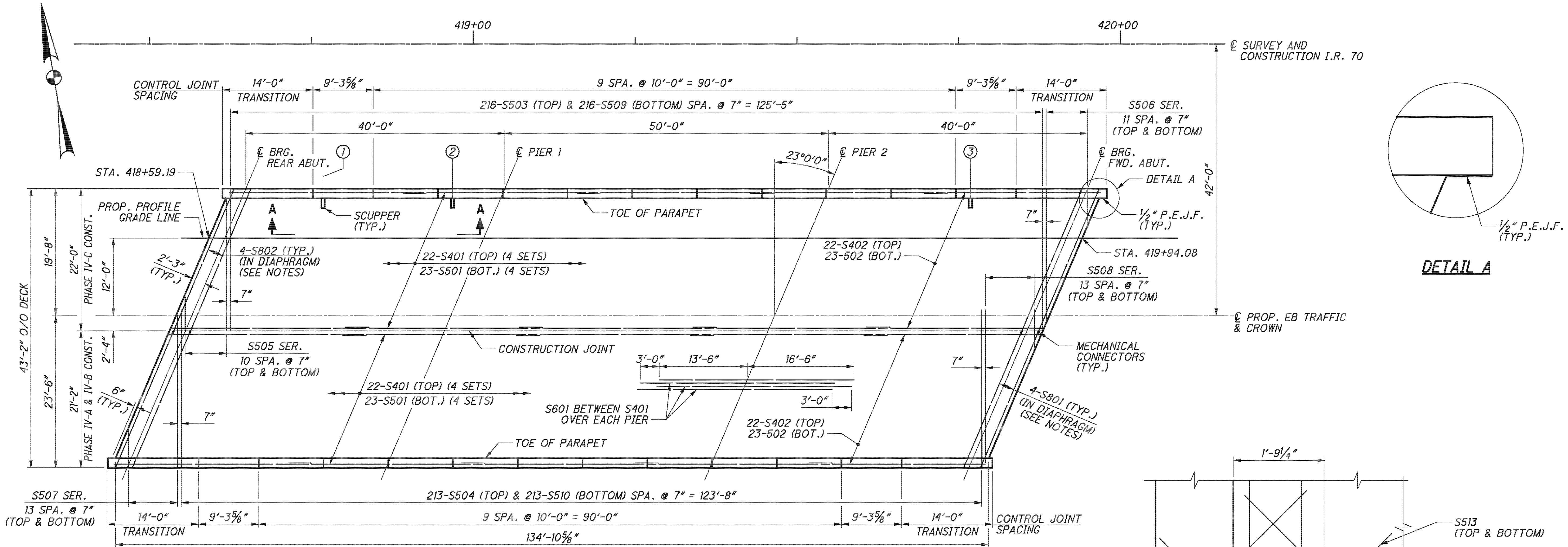
* - 6-R501 & 1-R601 (4 SETS) AND 6-R502 & 1-R602 (1 SET) ALONG PARAPET

| 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. |

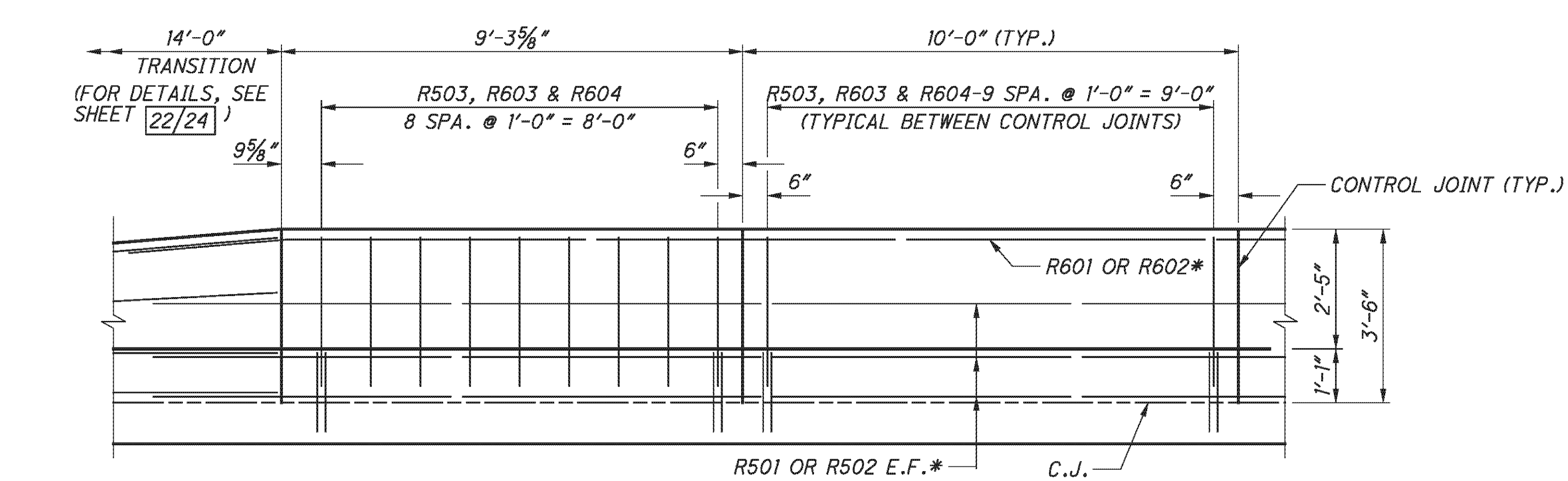
NOTES:

- 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

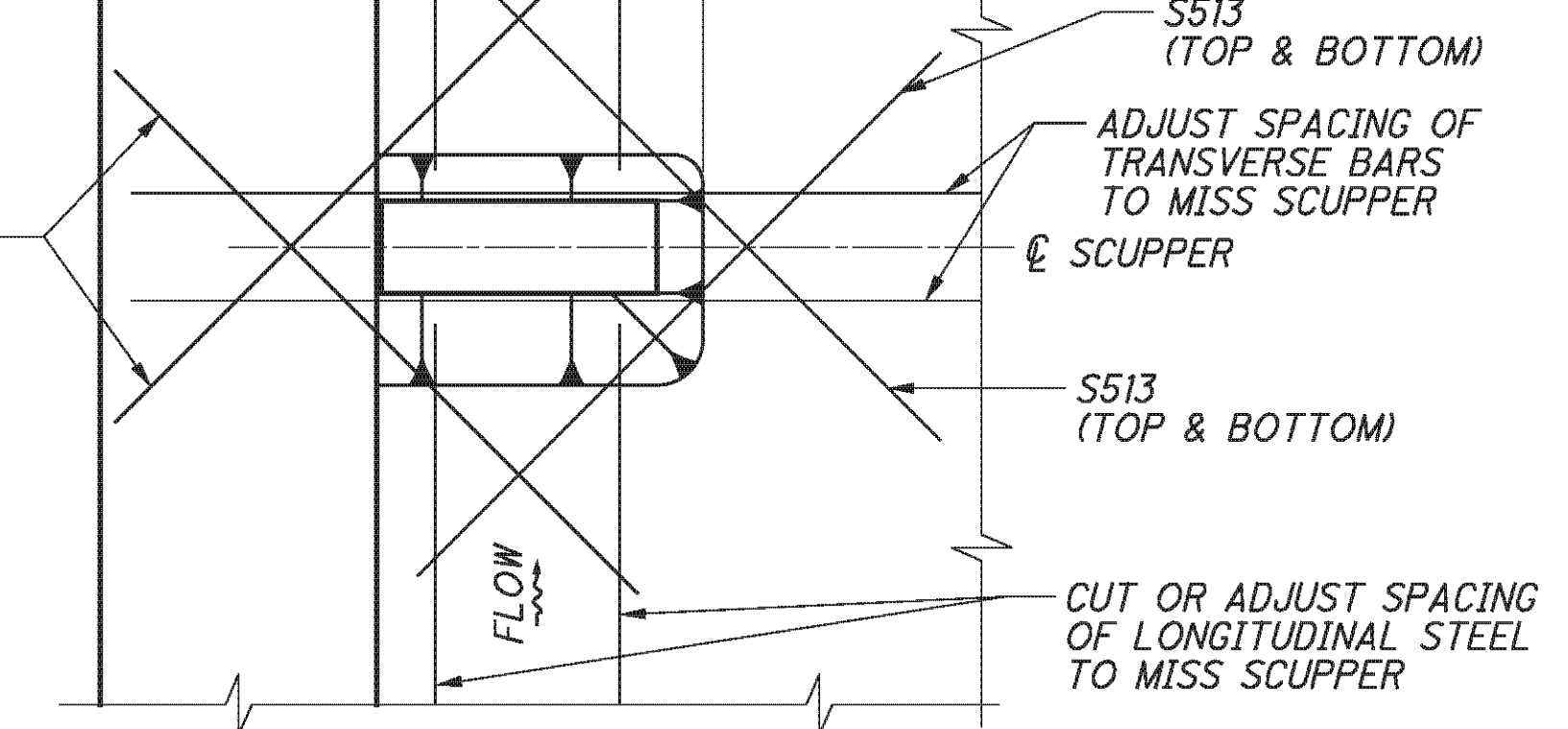


VIEW A-A

| 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

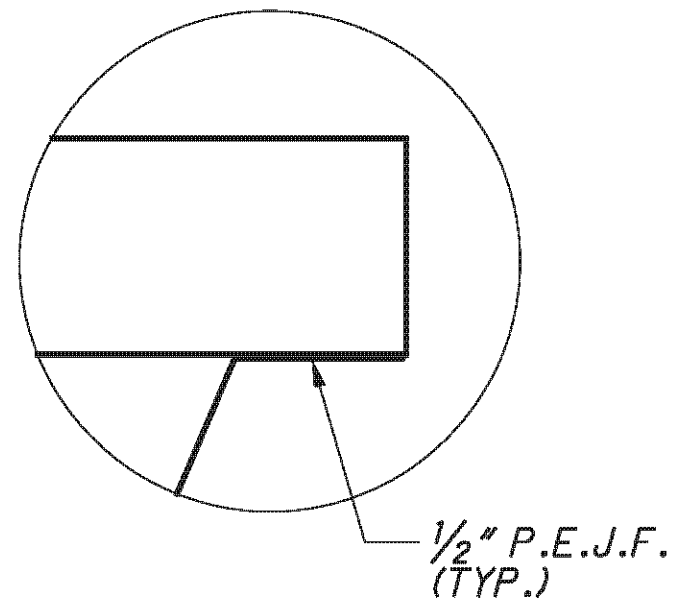


SCUPPER DETAIL

FOR ADDITIONAL SCUPPER DETAILS SEE STD. DWG. GSD-1-96 SHEET 3/3

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.



DETAIL A

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

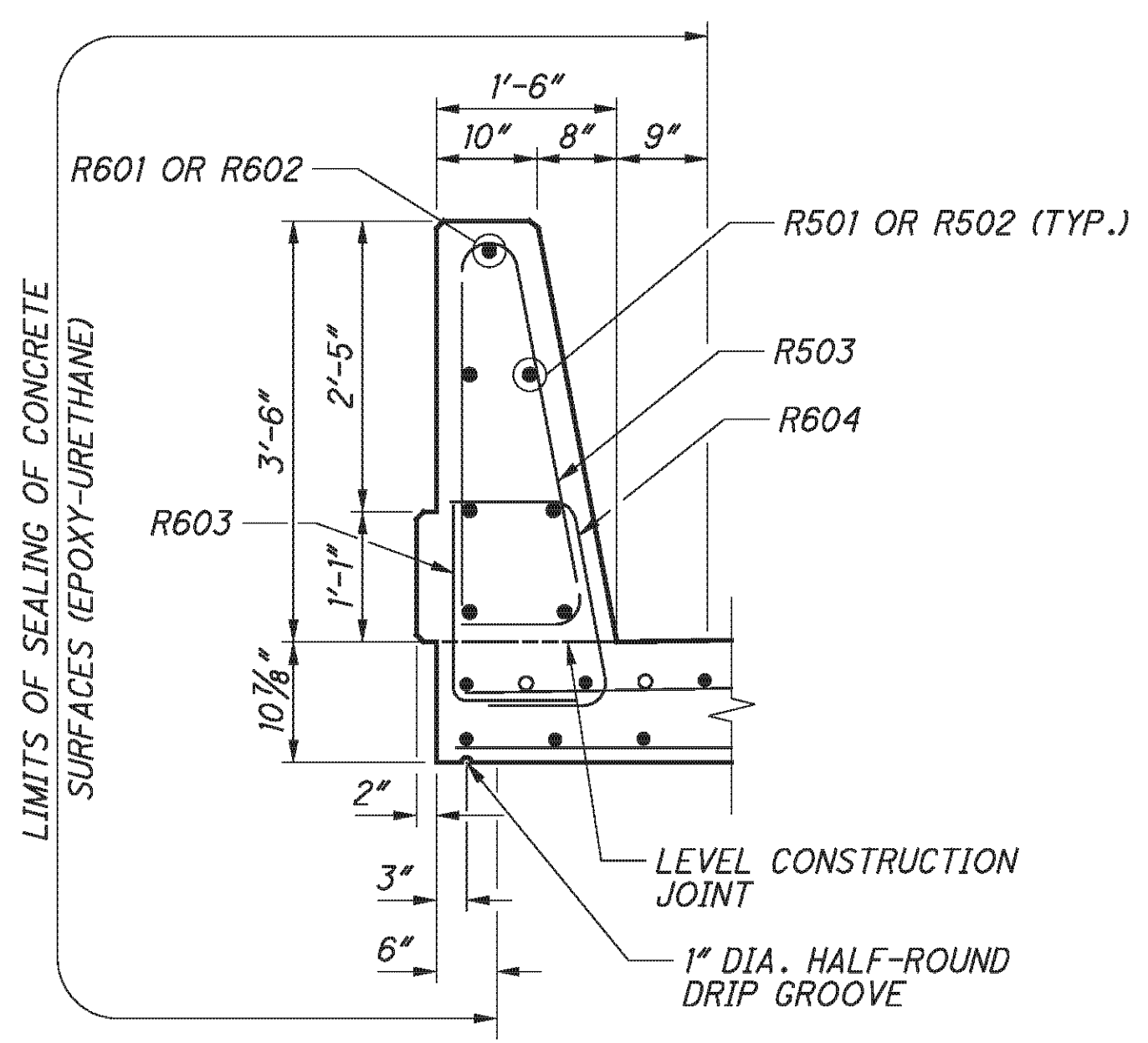
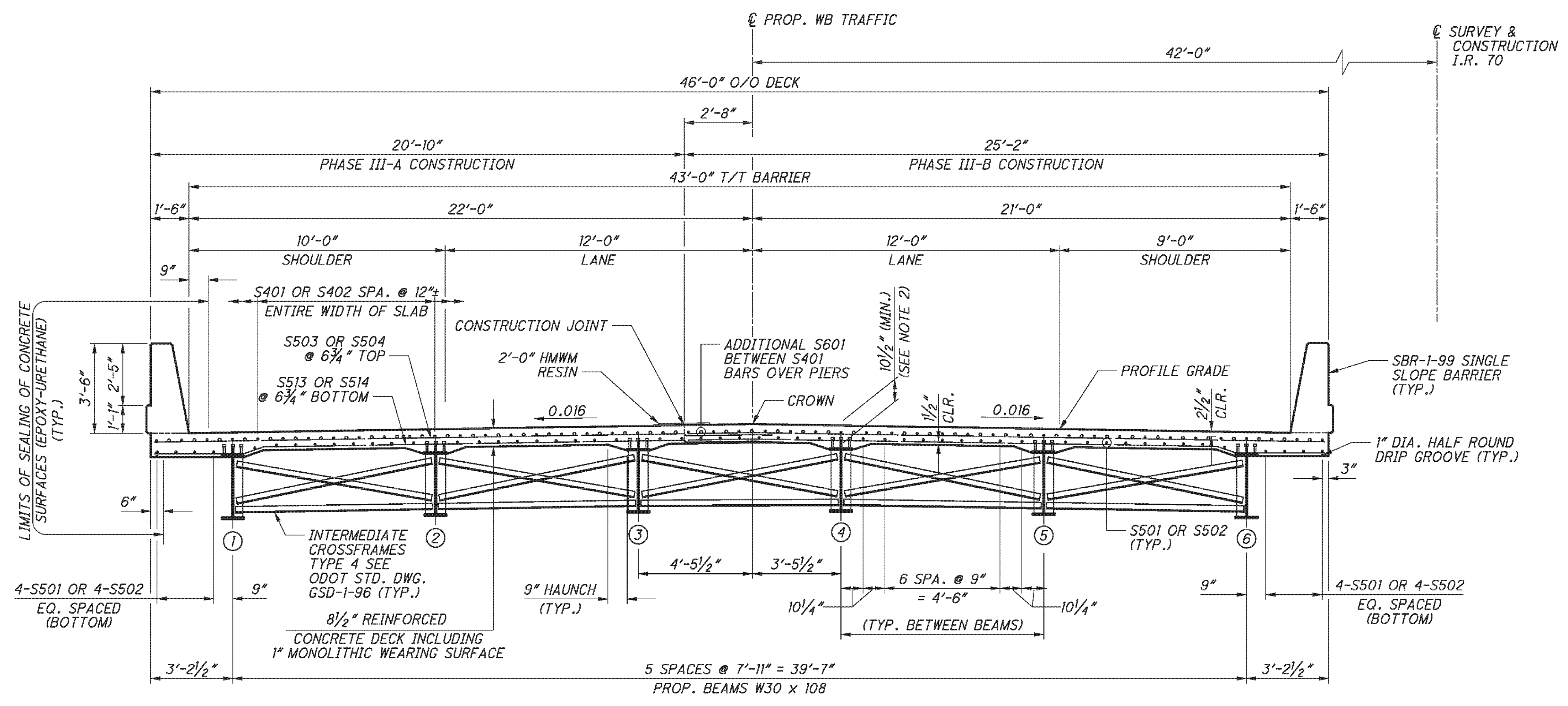
| | | | |
|----------|--------|-----------------------|-------------------|
| DESIGNED | DTA | CHECKED | RLE |
| DRAWN | DTA | REVIEWED | |
| DATE | 2/3/11 | STRUCTURE FILE NUMBER | 0702137L/0702161R |

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



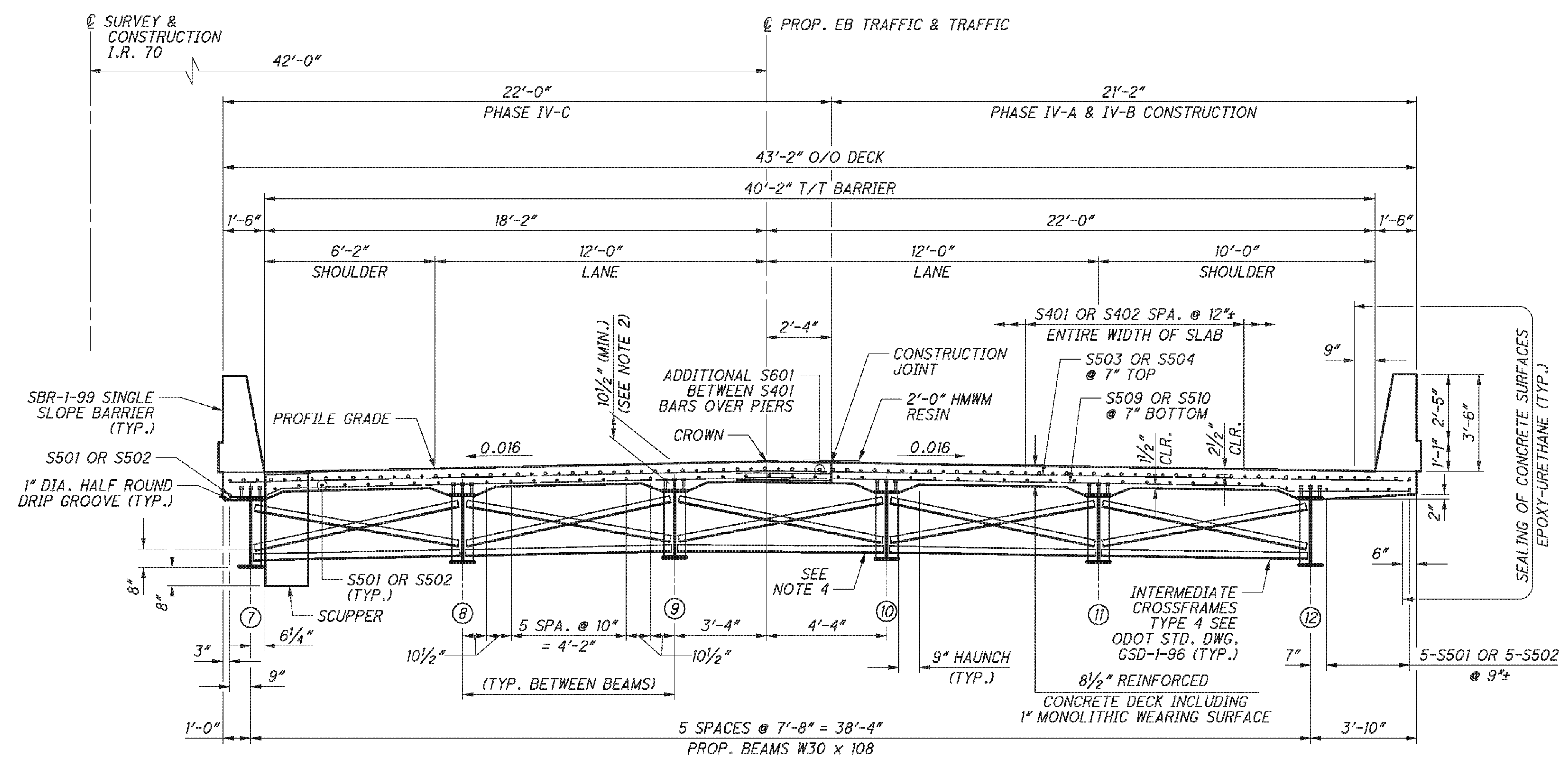
| LAP LENGTHS | |
|-------------------------|------------|
| NO. 4 BARS | 2'-0" MIN. |
| NO. 5 BARS (IN DECK) | 3'-3" MIN. |
| NO. 5 BARS (IN PARAPET) | 3'-6" MIN. |
| NO. 6 BARS | 4'-2" MIN. |

NOTES:

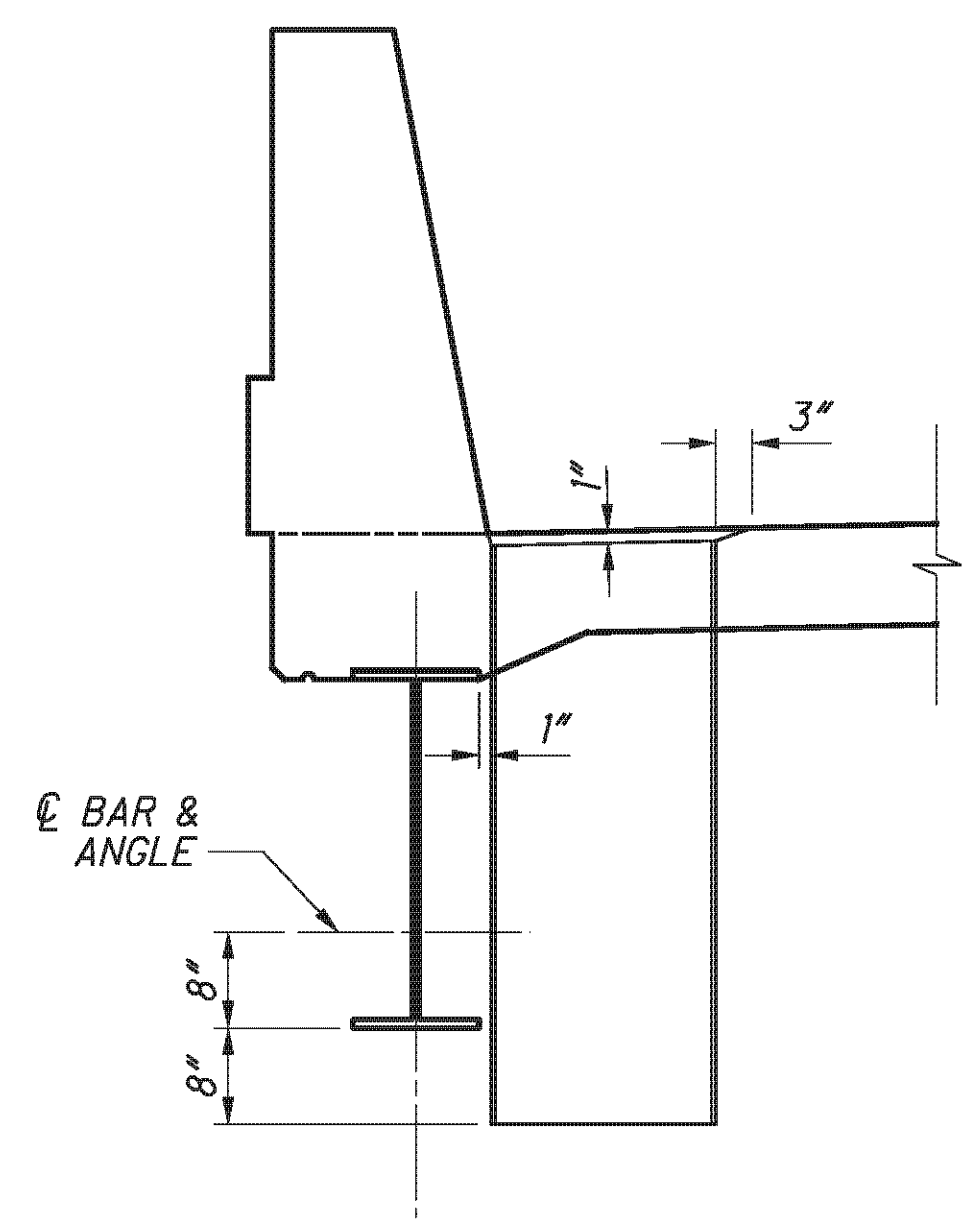
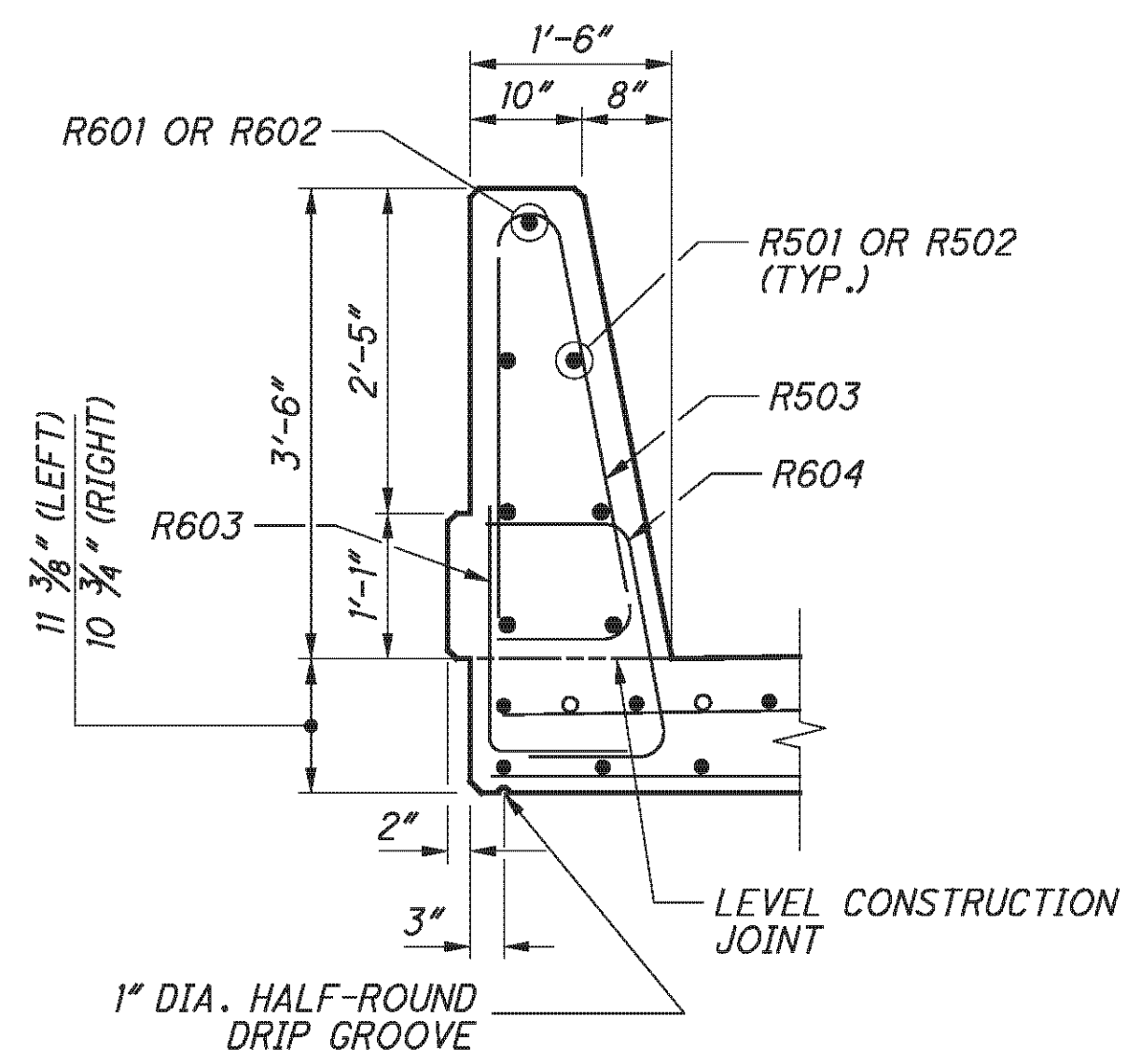
- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES 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. |



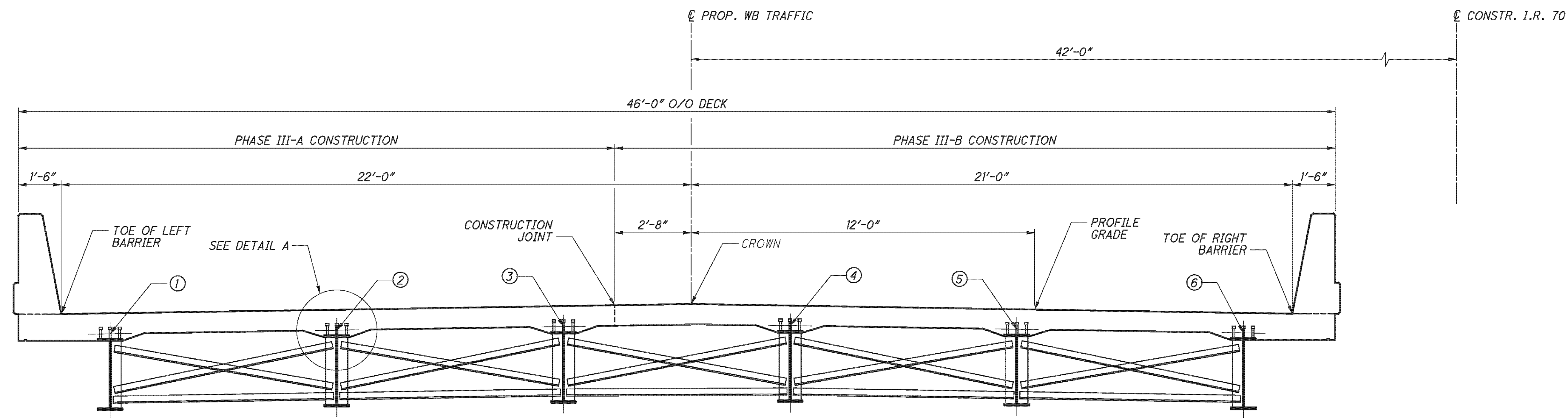
NOTES:

- 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.

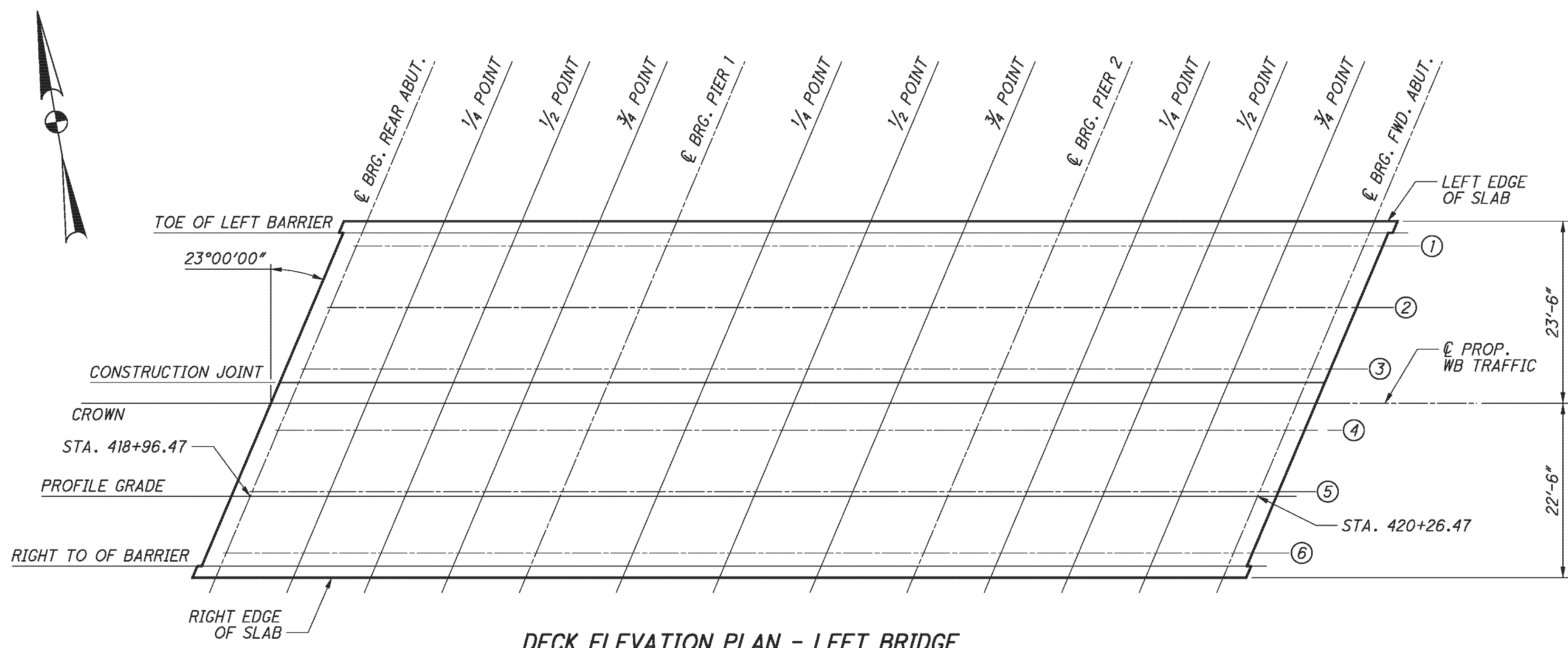
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS.
- FOR PARAPET JOINT SPACING AND REINFORCING DETAILS SEE SHEET [33/46].
- CROSS FRAMES IN THE BAY BETWEEN BEAMS 9 & 10 SHOULD NOT BE PERMANENTLY ATTACHED 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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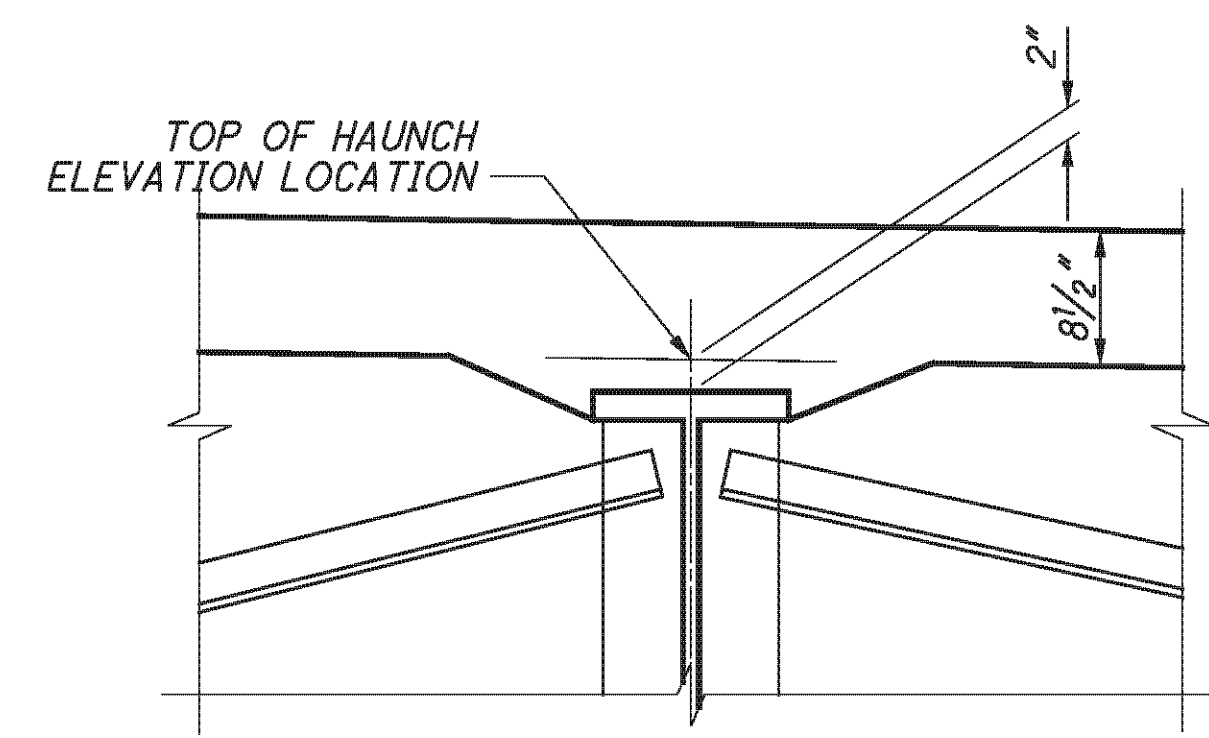
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SCREED LINE & TOP OF HAUNCH LOCATIONS



DECK ELEVATION PLAN - LEFT BRIDGE



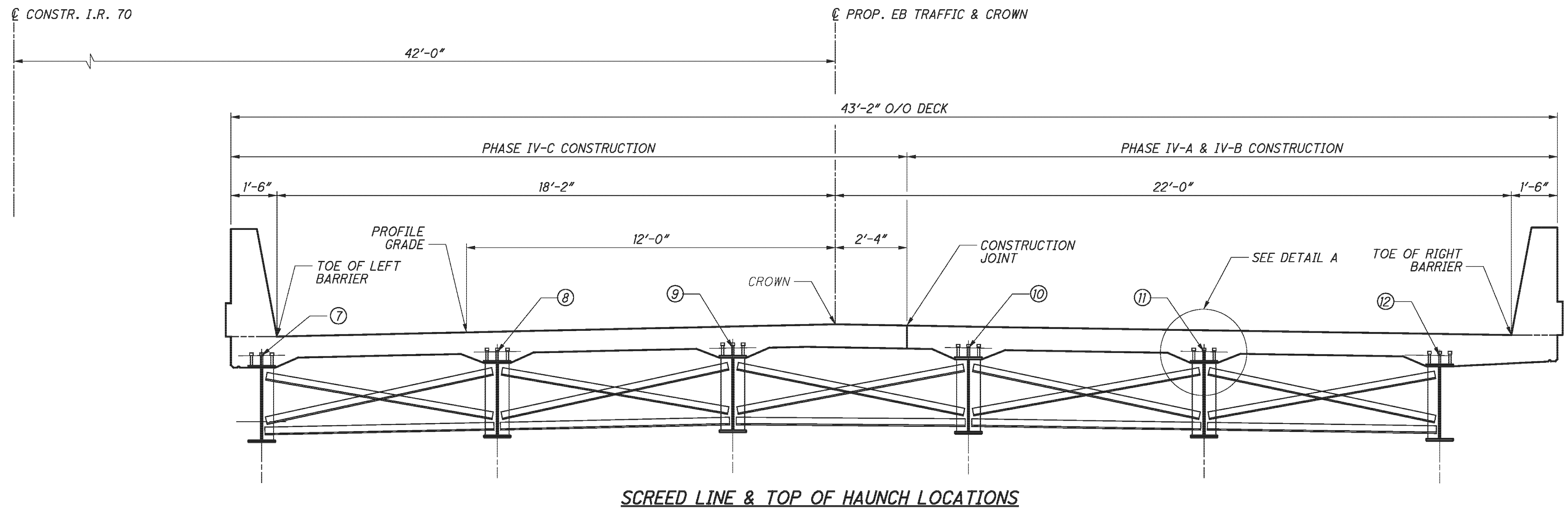
DETAIL A

NOTES:

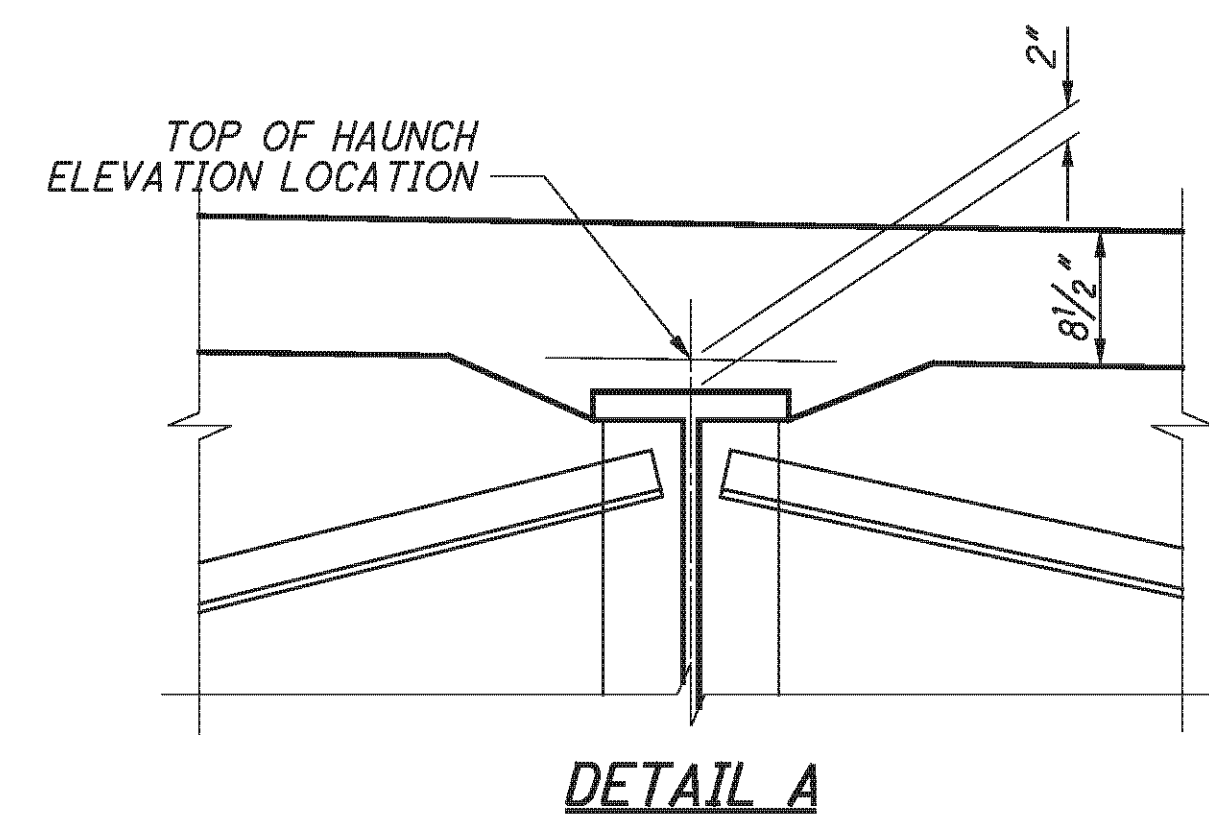
1. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. FOR SCREED ELEVATIONS, TOP OF HAUNCH AND FINAL DECK ELEVATION TABLES SEE SHEET 38/46

| | | | |
|--|----------|---------|-------------------|
| | DATE | 5/11/10 | |
| | REVIEWED | DFT | 070213TL/070216IR |
| DESIGNED | DTA | CHECKED | AME |
| 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 | | | |

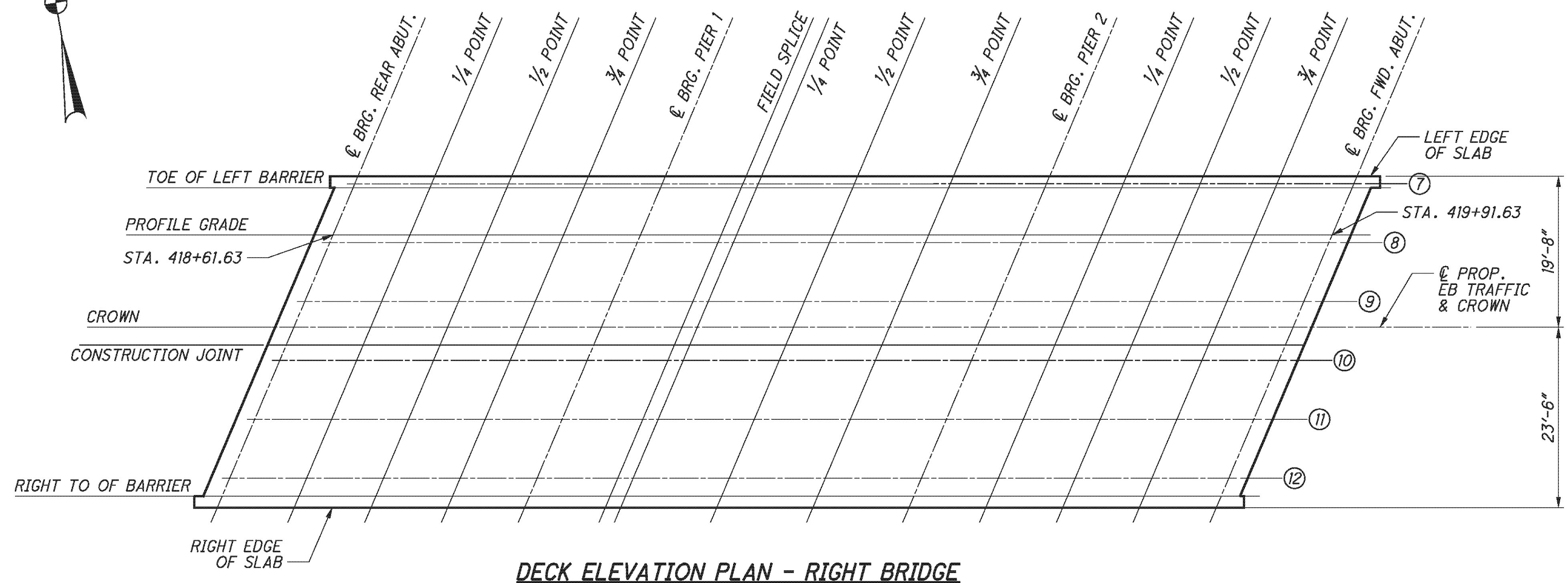
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SCREED LINE & TOP OF HAUNCH LOCATIONS



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 | |

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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 | 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.



 E.L. ROBINSON
 the Challenge, the Choice
 1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| | | | |
|----------|---------|-----------------------|---------|
| DESIGNED | DRAWN | REVIEWED | DATE |
| DTA | DTA | DFT | 5/11/10 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| AME | | 0702137L/070216R | |

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

38 / 46

320
373

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E.L. ROBINSON
the Challenge, the Choice
 1890 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE: 2/3/11
 REVISIONS: RER
 STRUCTURE FILE NUMBER: 070213TL/070216R

DESIGNED: DTA
 CHECKED: RLE

DRAWN: DTA
 REVISED:

FINAL DECK ELEVATION TABLE - RIGHT BRIDGE
 BRIDGE NO. BEL-70-0775 L/R
 I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

39/46

321
373

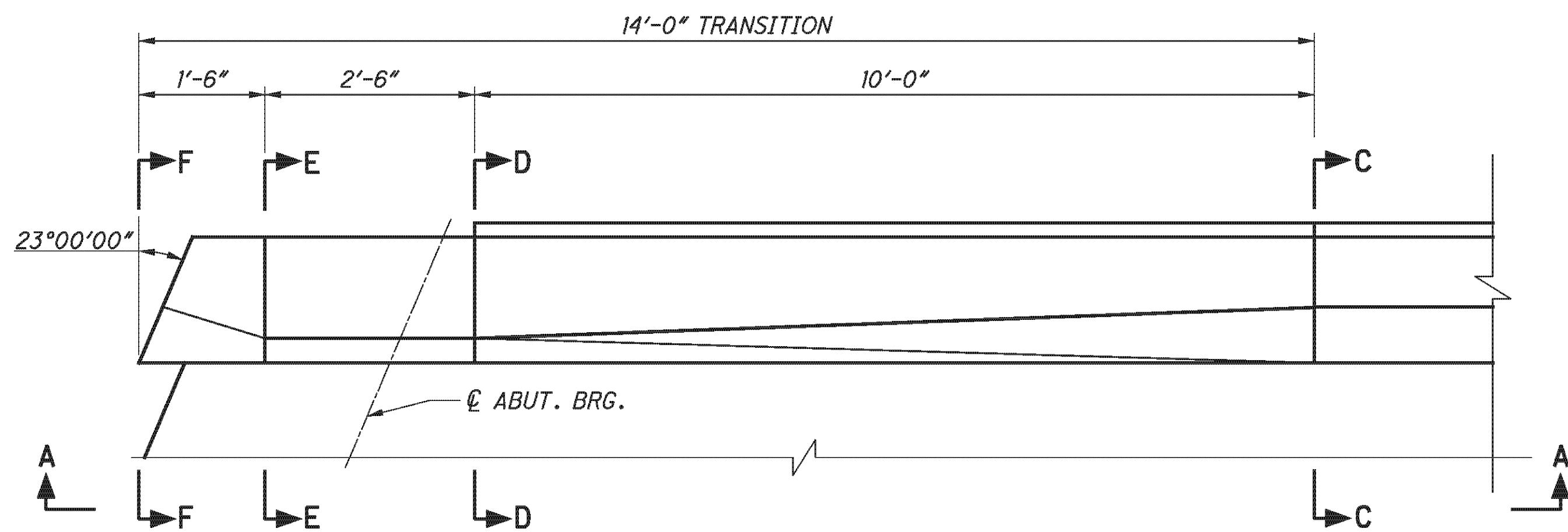
| TOP OF HAUNCH ELEVATION TABLE (RIGHT BRIDGE) | | | | | | | | | | | | | |
|---|---------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
| LOCATION | BEAM 7 | | BEAM 8 | | BEAM 9 | | BEAM 10 | | BEAM 11 | | BEAM 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 | |

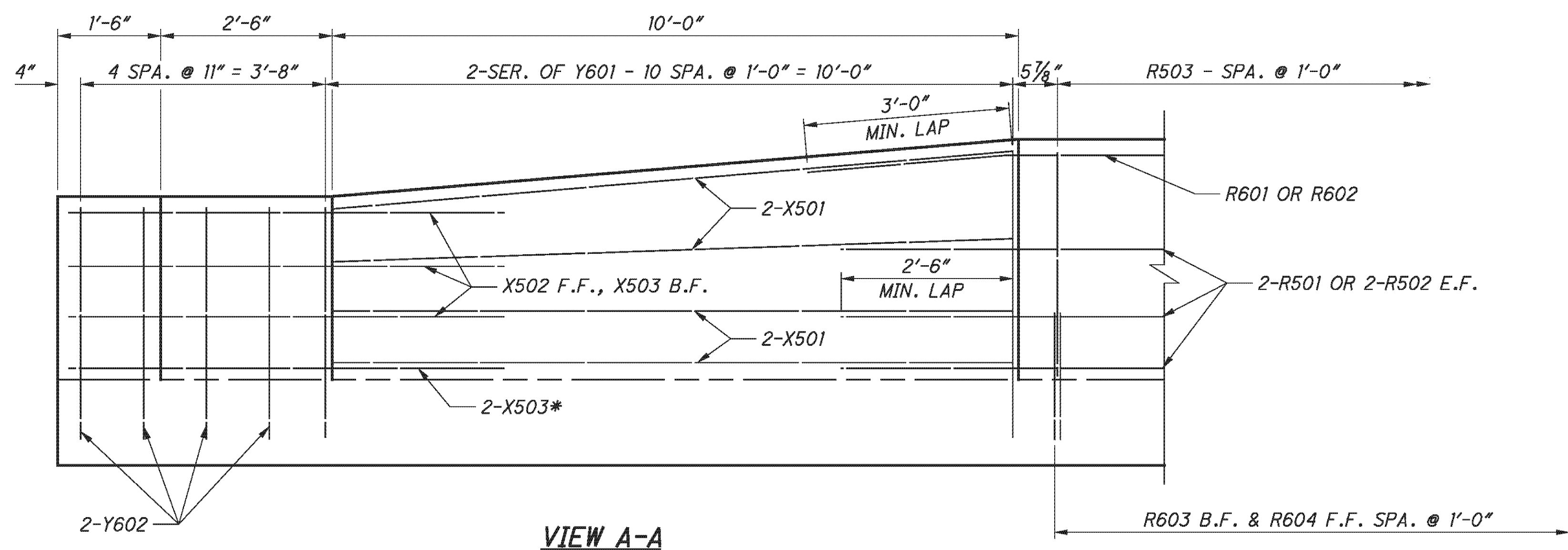
| FINAL DECK SURFACE ELEVATION TABLE (RIGHT BRIDGE) | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------|-----------|---------------------|-----------|---------------|-----------|---------|-----------|---------|-----------|---------|-----------|--------------------|-----------|---------|-----------|---------|-----------|---------|-----------|----------------------|-----------|---------|
| 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:

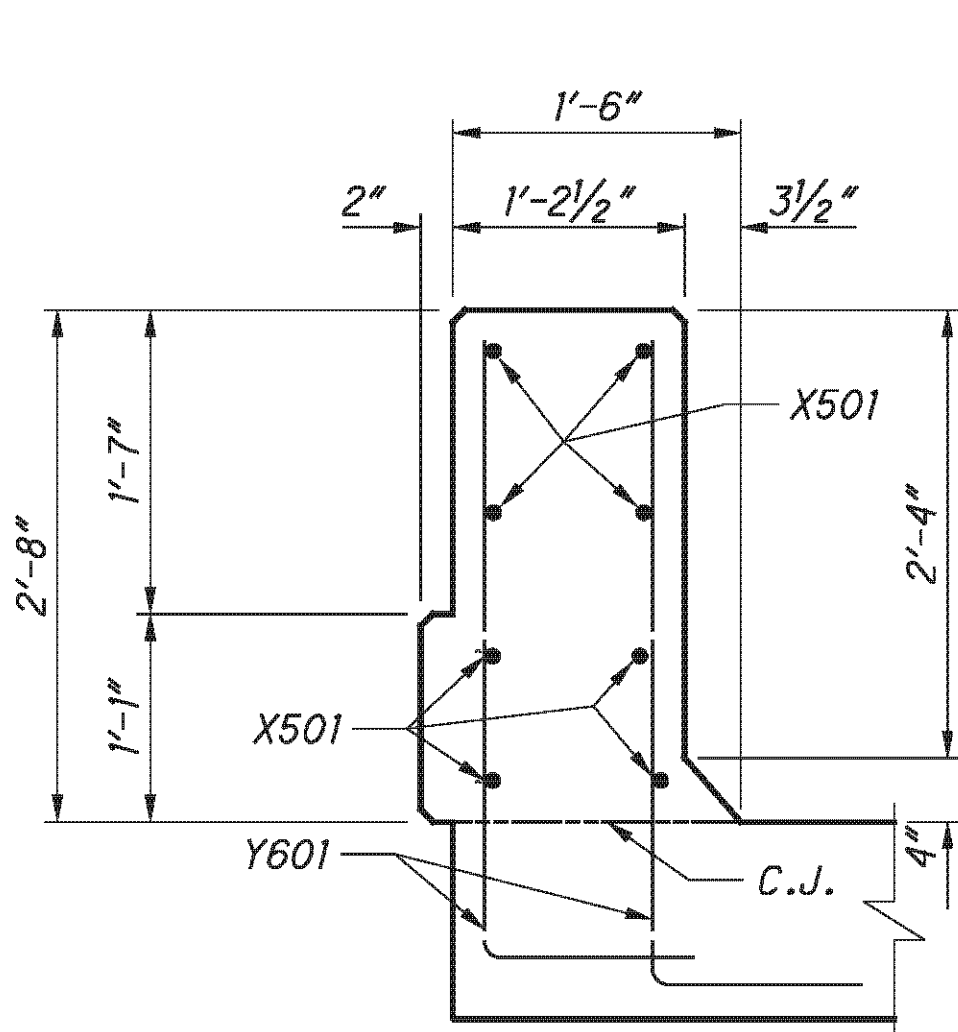
1. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY 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.



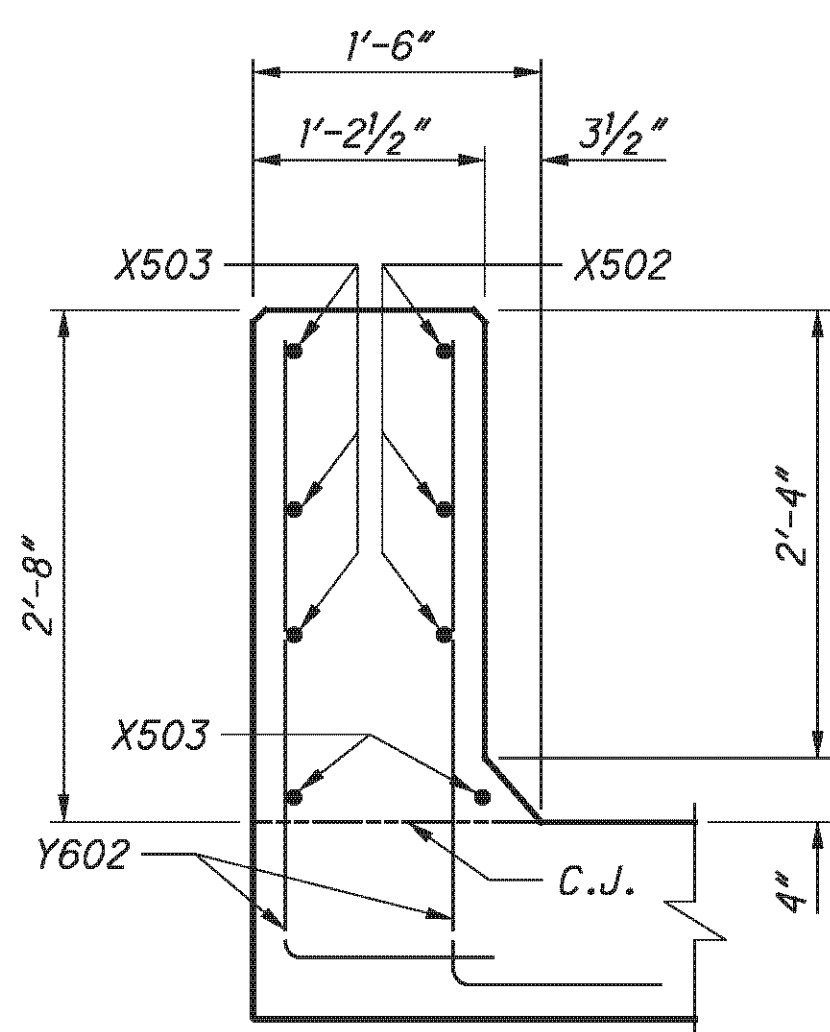
TYPICAL PARAPET TRANSITION DETAIL
LEFT REAR PARAPET SHOWN, OTHER SIMILAR



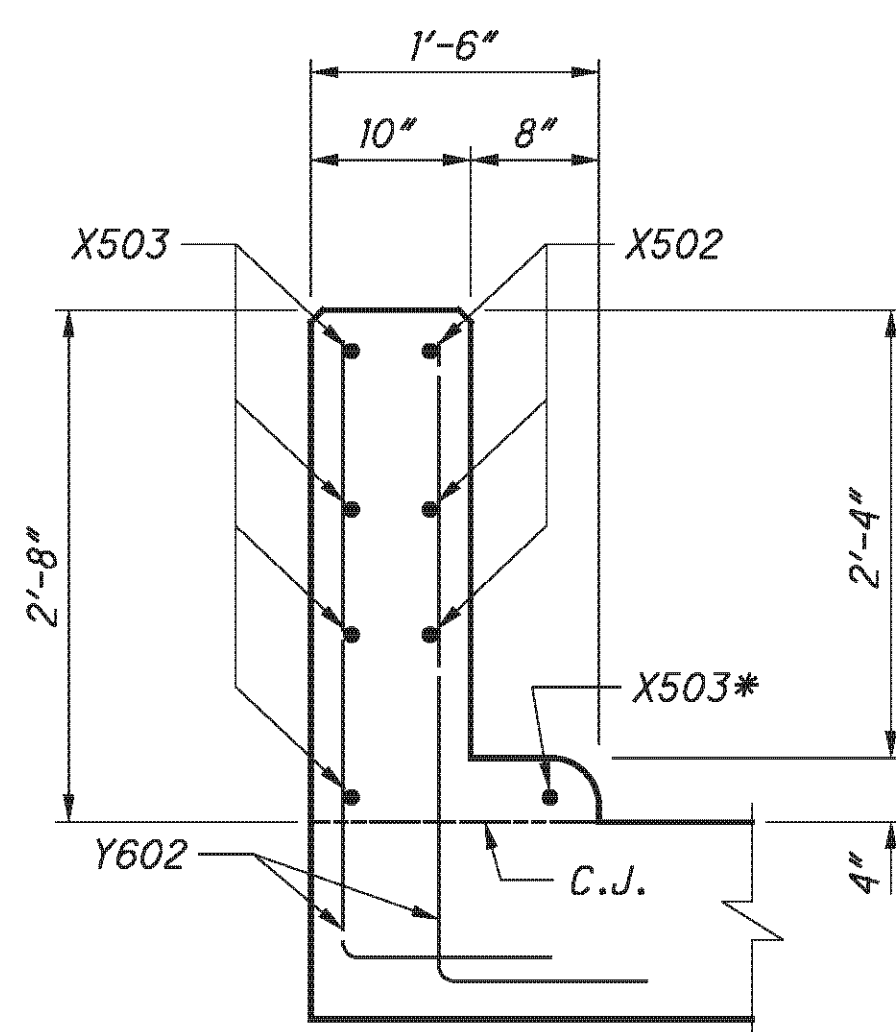
VIEW A-A



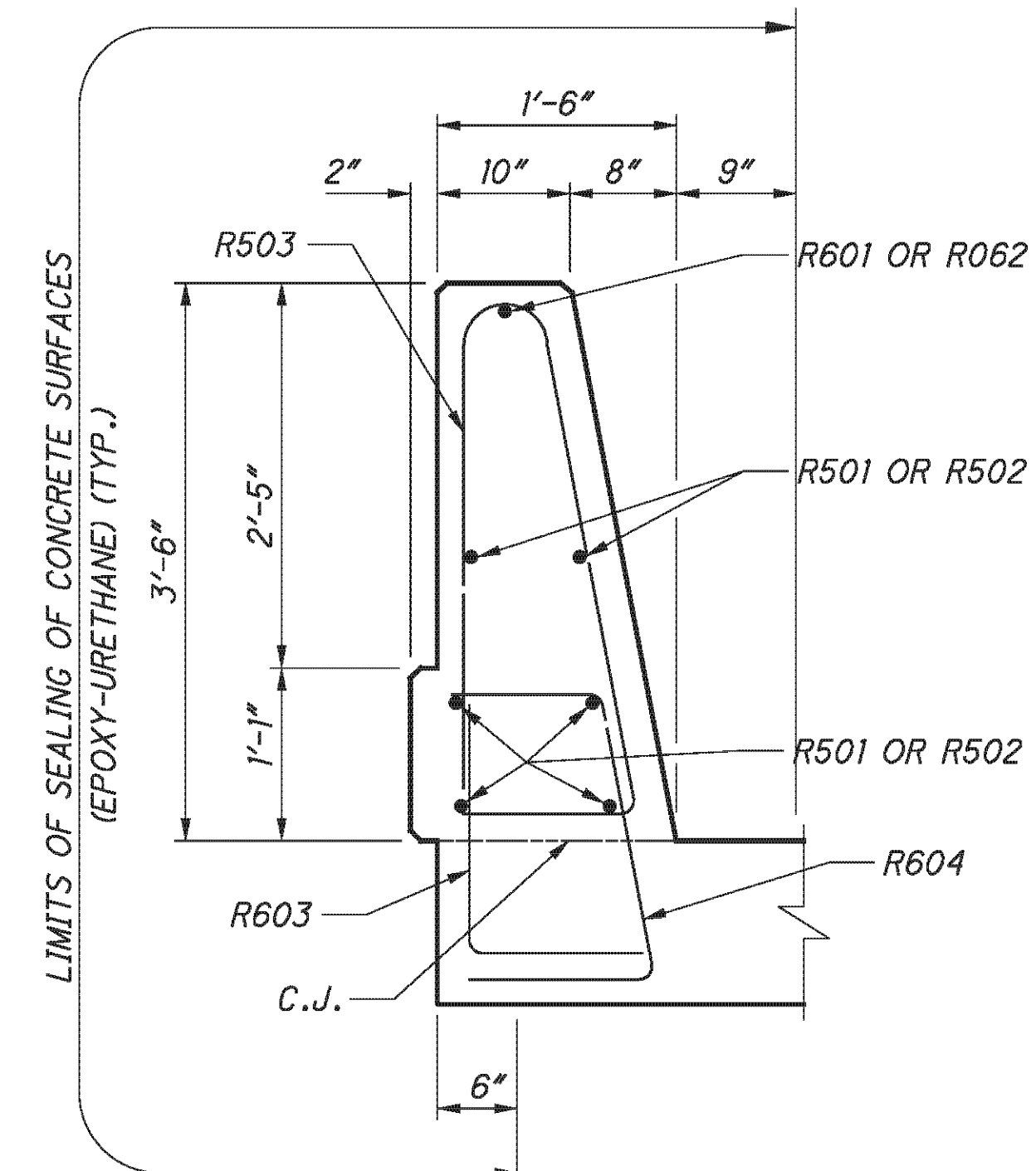
SECTION D-D



SECTION E-E



SECTION F-F



SECTION C-C

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.

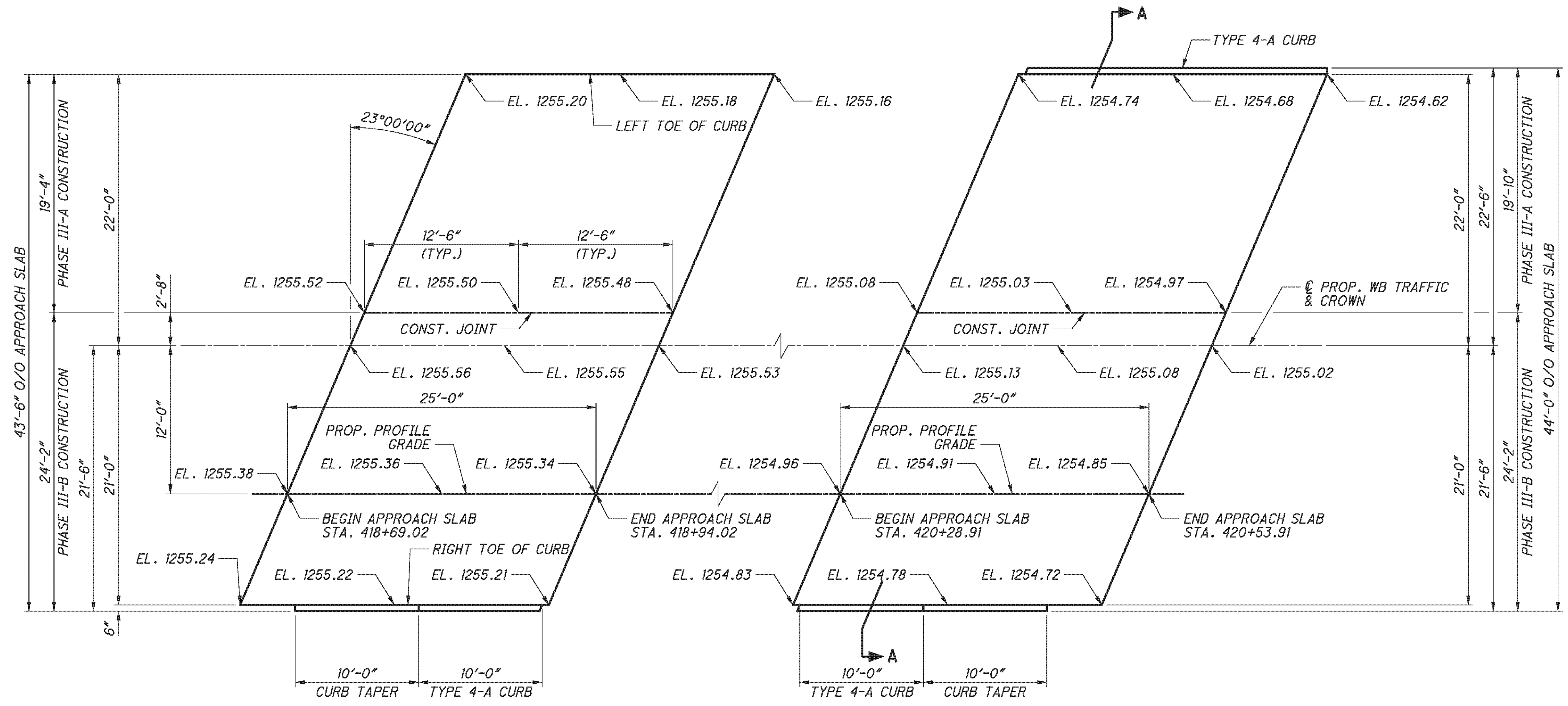
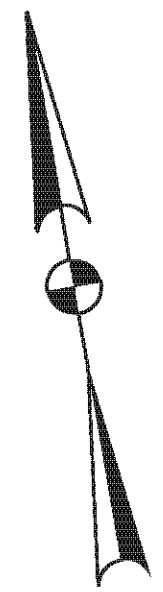
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| STRUCTURE FILE NUMBER | 0702137L/070216R |

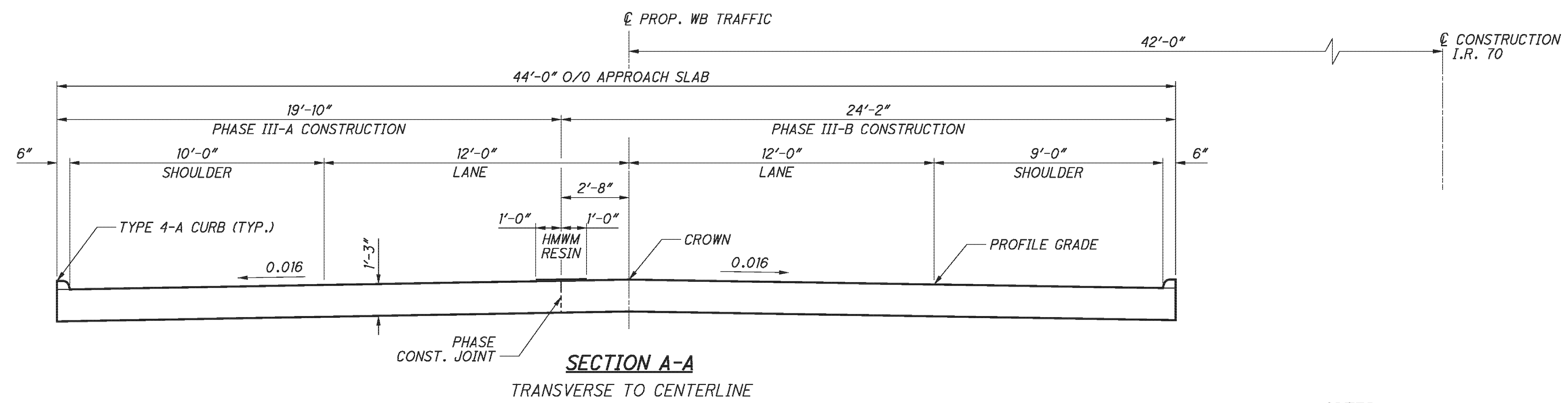
PARAPET TRANSITION DETAILS
BRIDGE NO. BEL-70-0775 L/R
I.R. 70 OVER TWP. RD. 260

BEL-70-7.61
PID No. 76825

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APPROACH SLAB PLAN - LEFT BRIDGE



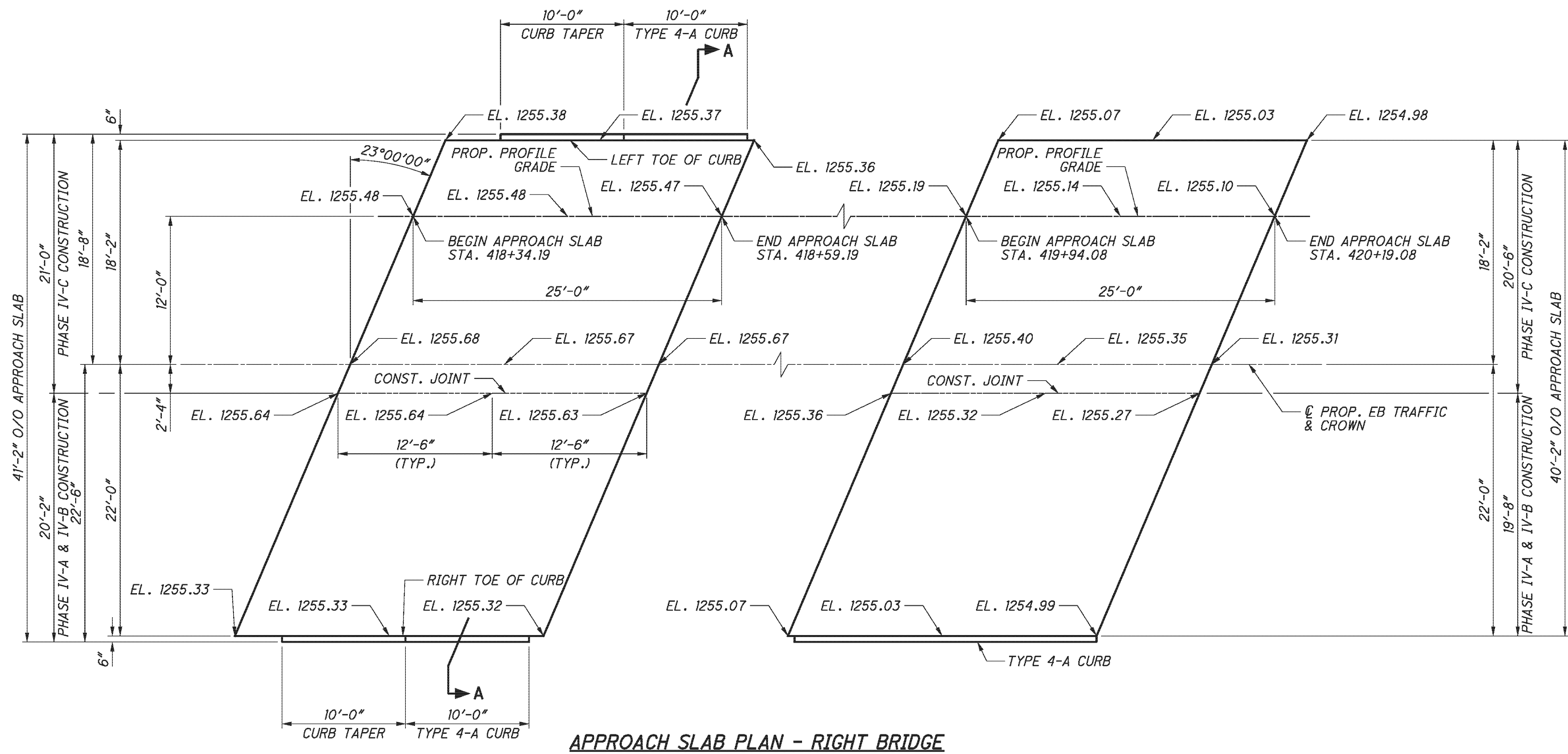
SECTION A-A
TRANSVERSE TO CENTERLINE

NOTES

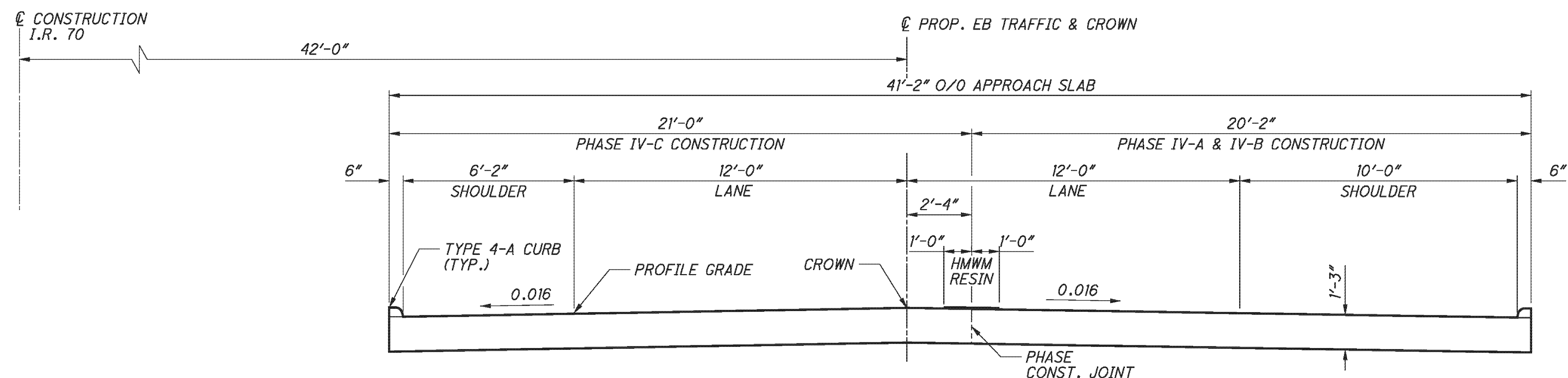
1. SEE ODOT STD. DWG. AS-1-81 FOR ADDITIONAL APPROACH SLAB DETAILS.
2. FOR ADDITIONAL CURB DETAILS SEE ODOT STD. CONSTRUCTION DWG. BP-5.1.
3. TYPE 4-A CURB AND SEALING CONCRETE APPROACH SLAB CONSTRUCTION JOINT WITH HMWM RESIN IS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15"), AS PER PLAN.

| | | |
|---|------------------|---------|
| | DATE | 5/11/10 |
| | REVIEWED | DFT |
| DESIGNED | DTA | CHECKED |
| DRAWN | DTA | REVISED |
| STRUCTURE FILE NUMBER | 070213TL/070216R | |
| 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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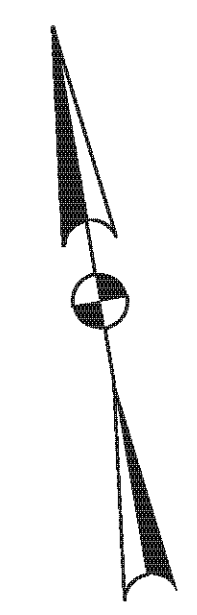
APPROACH SLAB PLAN - RIGHT BRIDGE



**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.



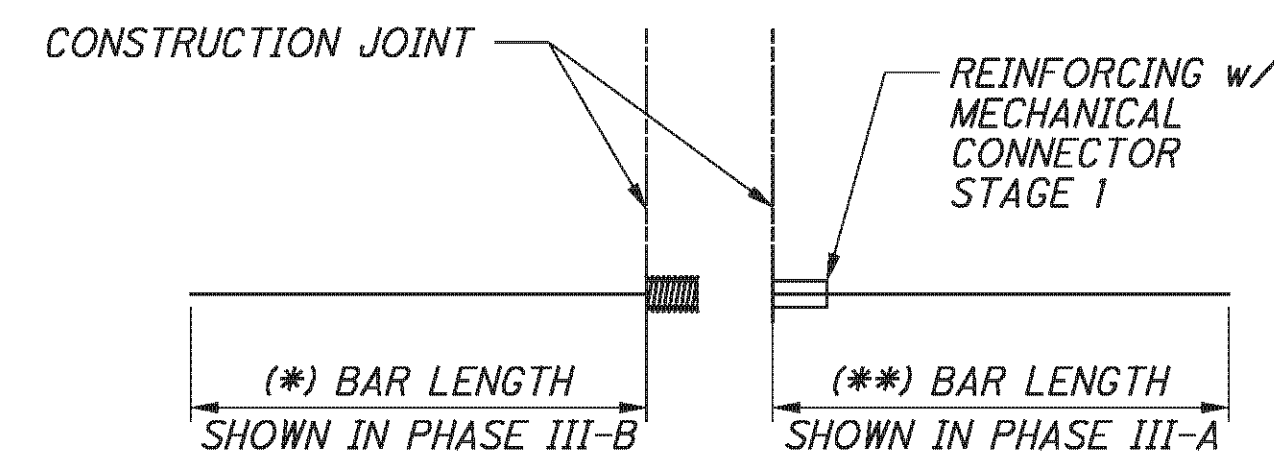
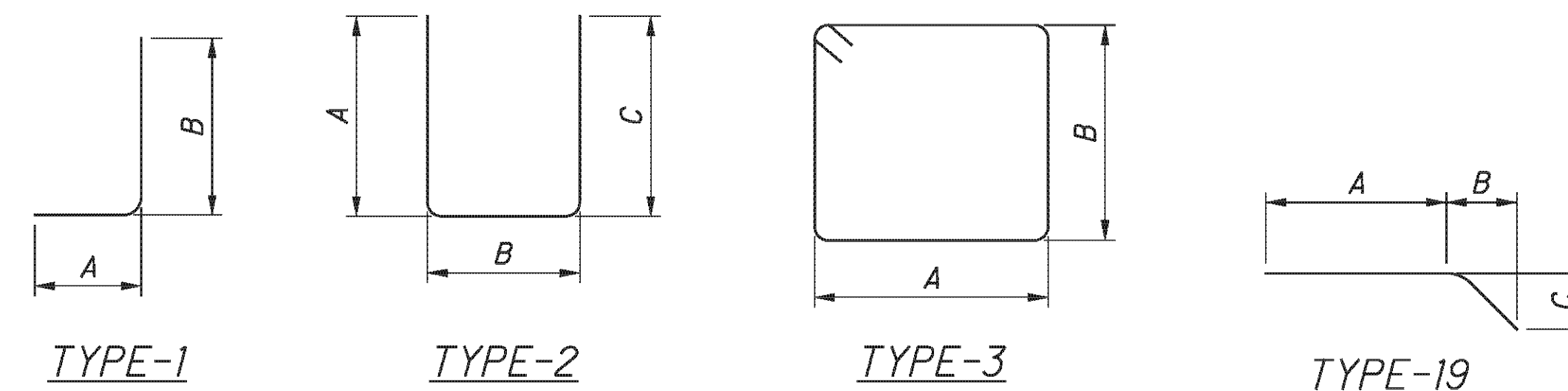
| | |
|---|---|
| E.L. ROBINSON The Challenge, the Choice 1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215 | |
| DESIGNED DTA | DATE 2/3/11 |
| DRAWN DTA | REVIEWED RER |
| CHECKED RLE | STRUCTURE FILE NUMBER 0702137L/070216R |
| APPROACH SLAB DETAILS - RIGHT BRIDGE | |
| BRIDGE NO. BEL-70-0775 L/R I.R. 70 OVER TWP. RD. 260 | |
| BEL-70-7.61 | PID No. 76825 |
| 42 / 46 | |
| 324 373 | |

| 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 | | | | | | | |

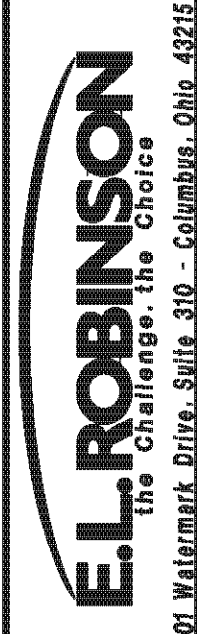


LEGEND:

- * - 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.



DESIGNED: DTA
CHECKED: AME

DRAWN: DTA
REVISED:

REVIEWED: DFT
DATE: 5/11/10
STRUCTURE FILE NUMBER: 0702137L/070216R

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

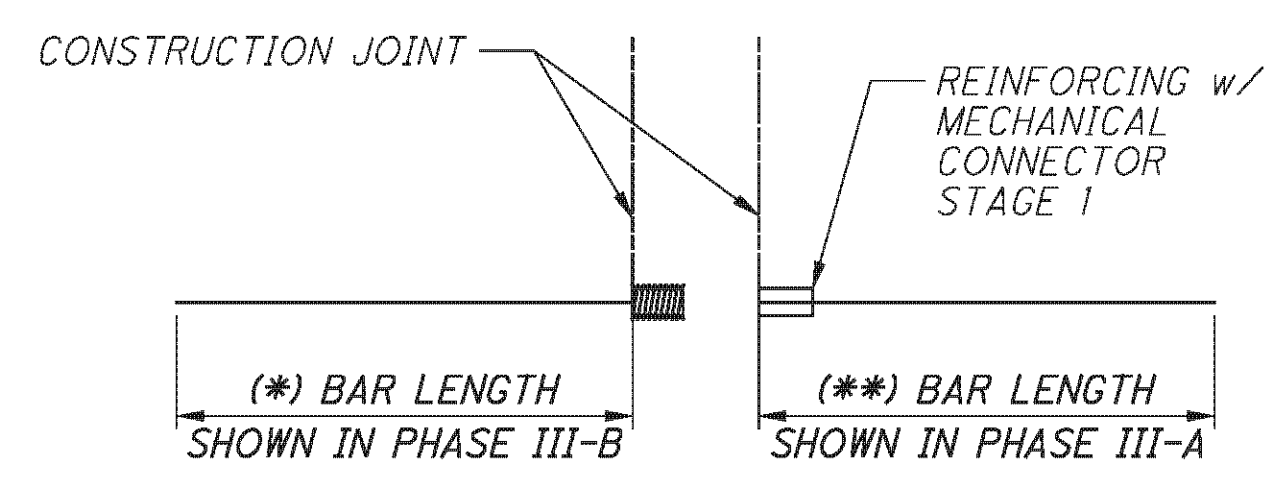
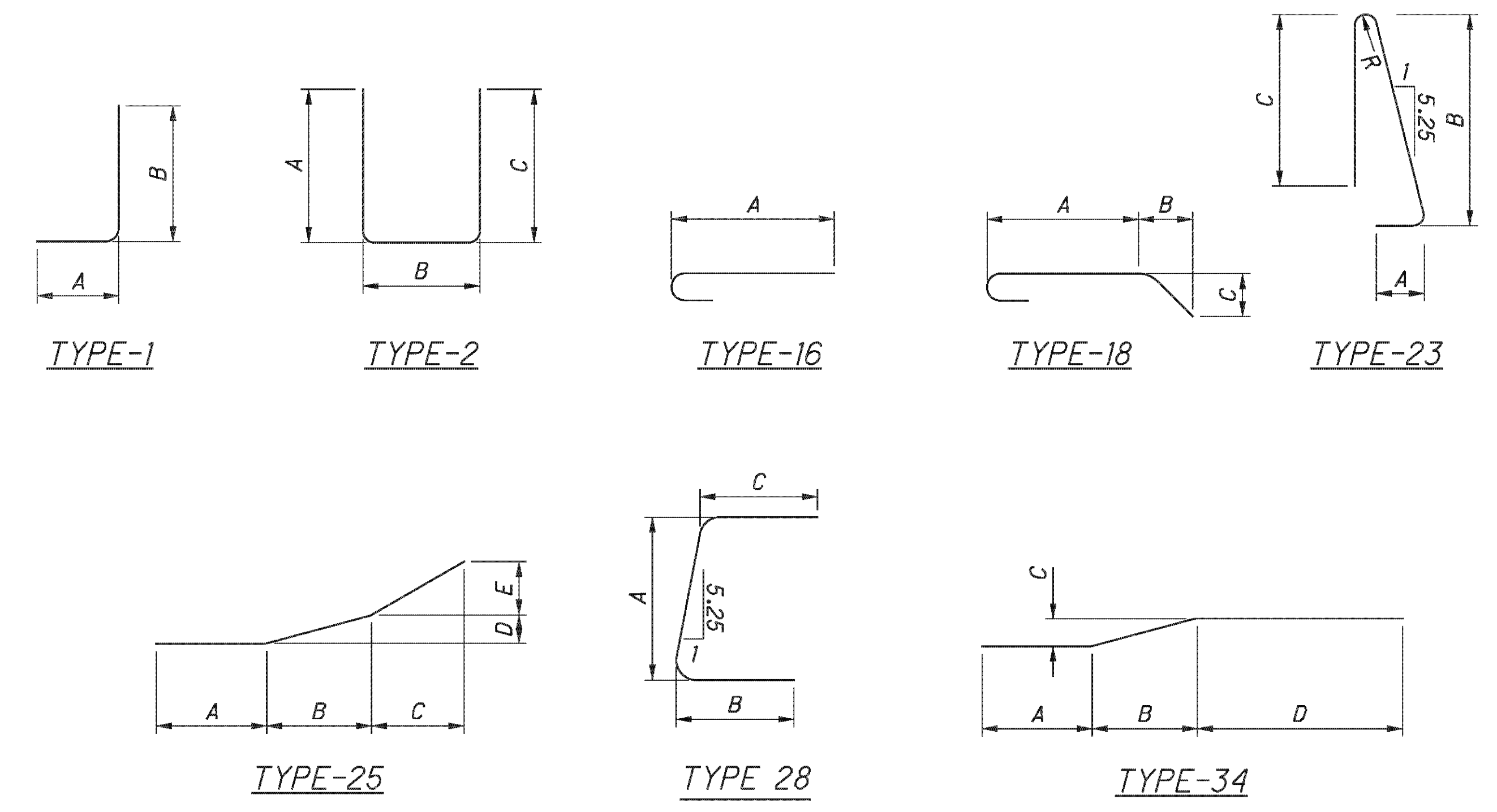
325

373

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| 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 | | | | | | | |



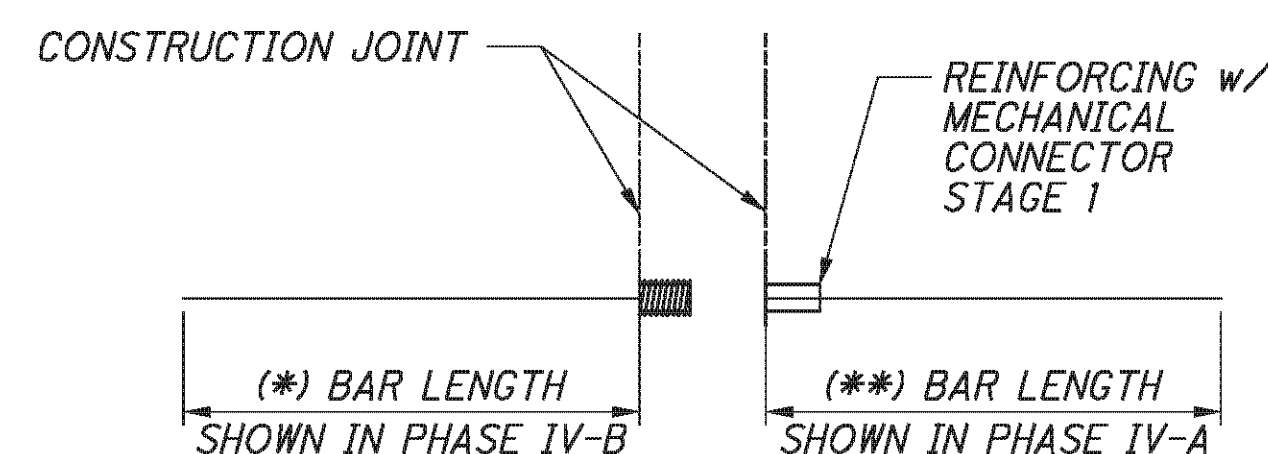
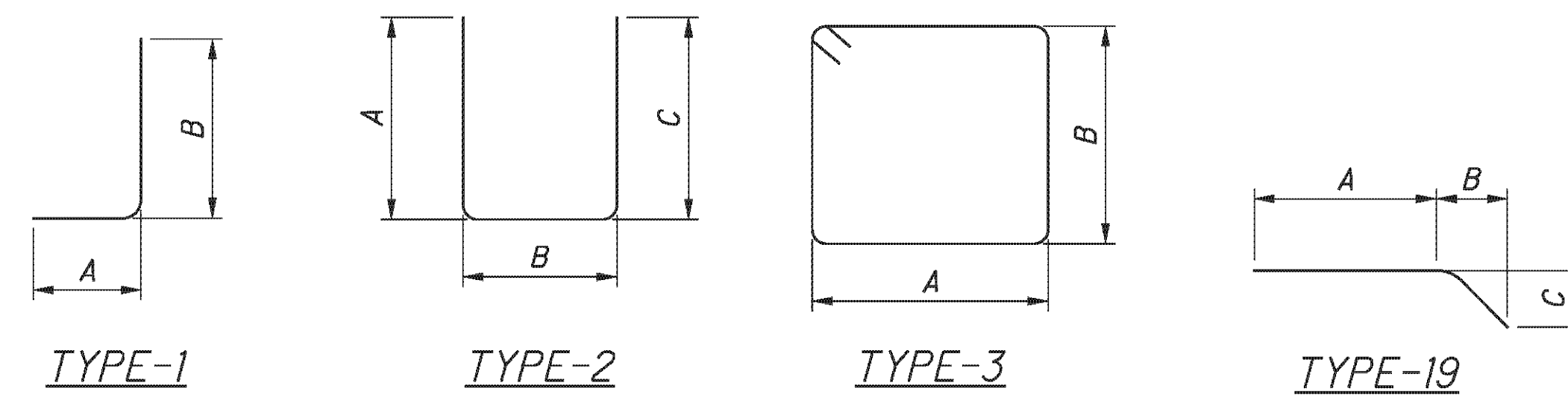
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| MARK | NUMBER | | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | |
|-------------------------------------|--------|--|-----------|--------|------|------------|--------|--------|---|---|-----------|
| | TOTAL | | | | | A | B | C | D | E | R |
| REAR 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 | | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | |
|--|--------|--|-----------|--------|------|------------|-------|--------|---|---|-----------|
| | TOTAL | | | | | A | B | C | D | E | R |
| 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 | | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | |
|-----------------------------|--------|--|-----------|--------|------|------------|---------|-------|---|---|---|
| | TOTAL | | | | | A | B | C | D | E | R |
| 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:

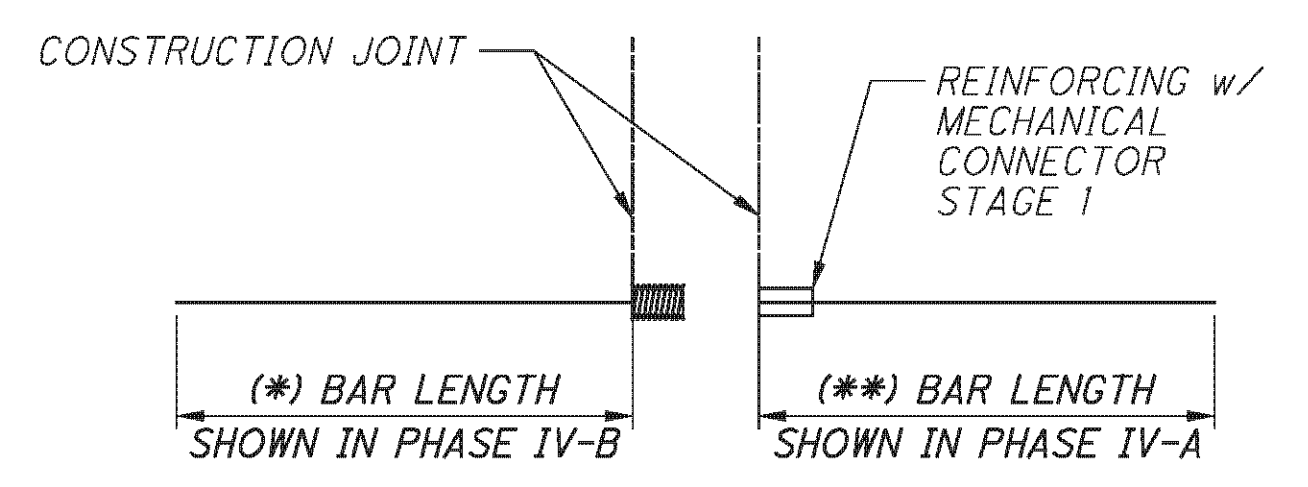
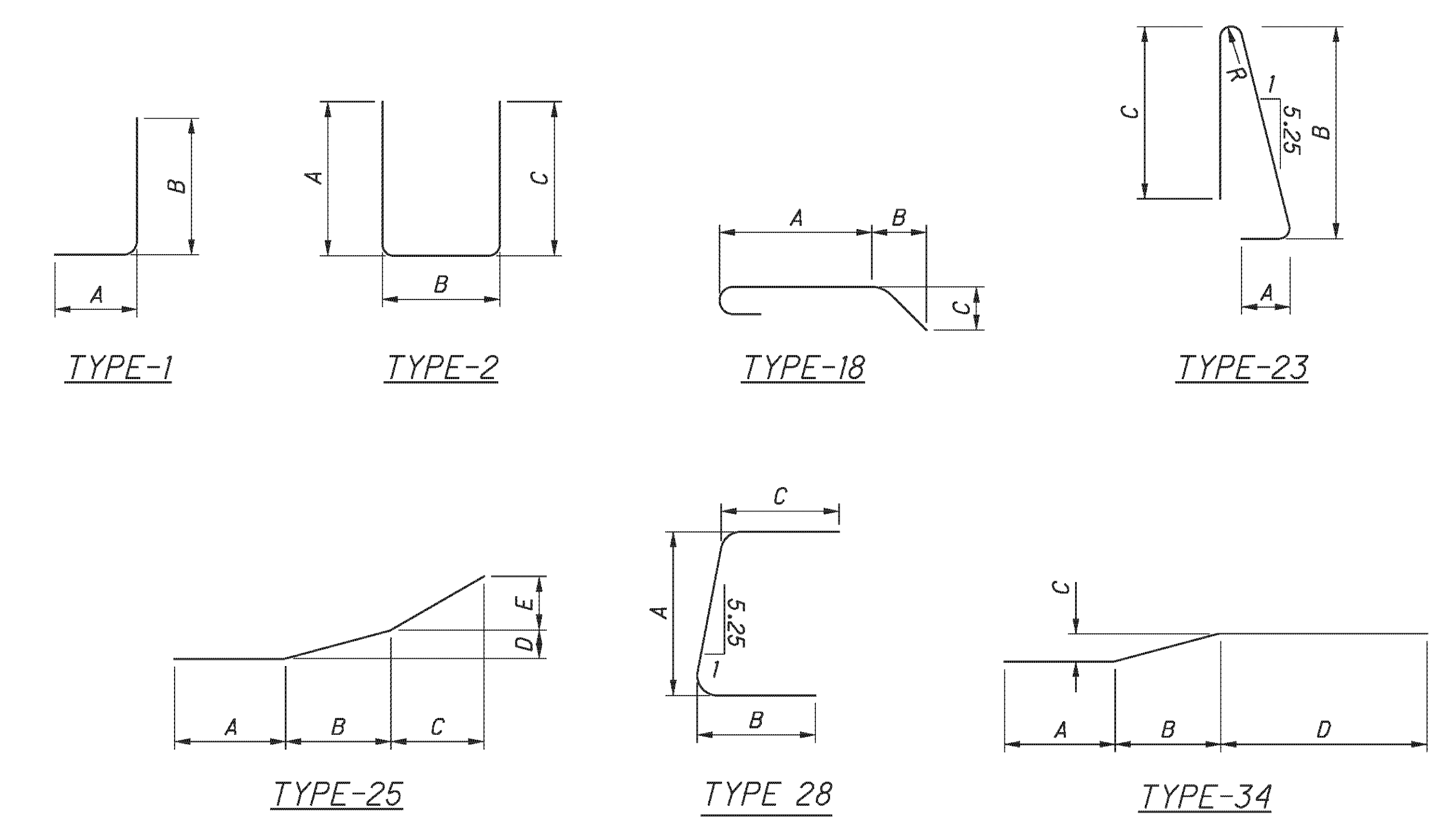
- THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

2. ALL REINFORCING STEEL TO BE EPOXY COATED.

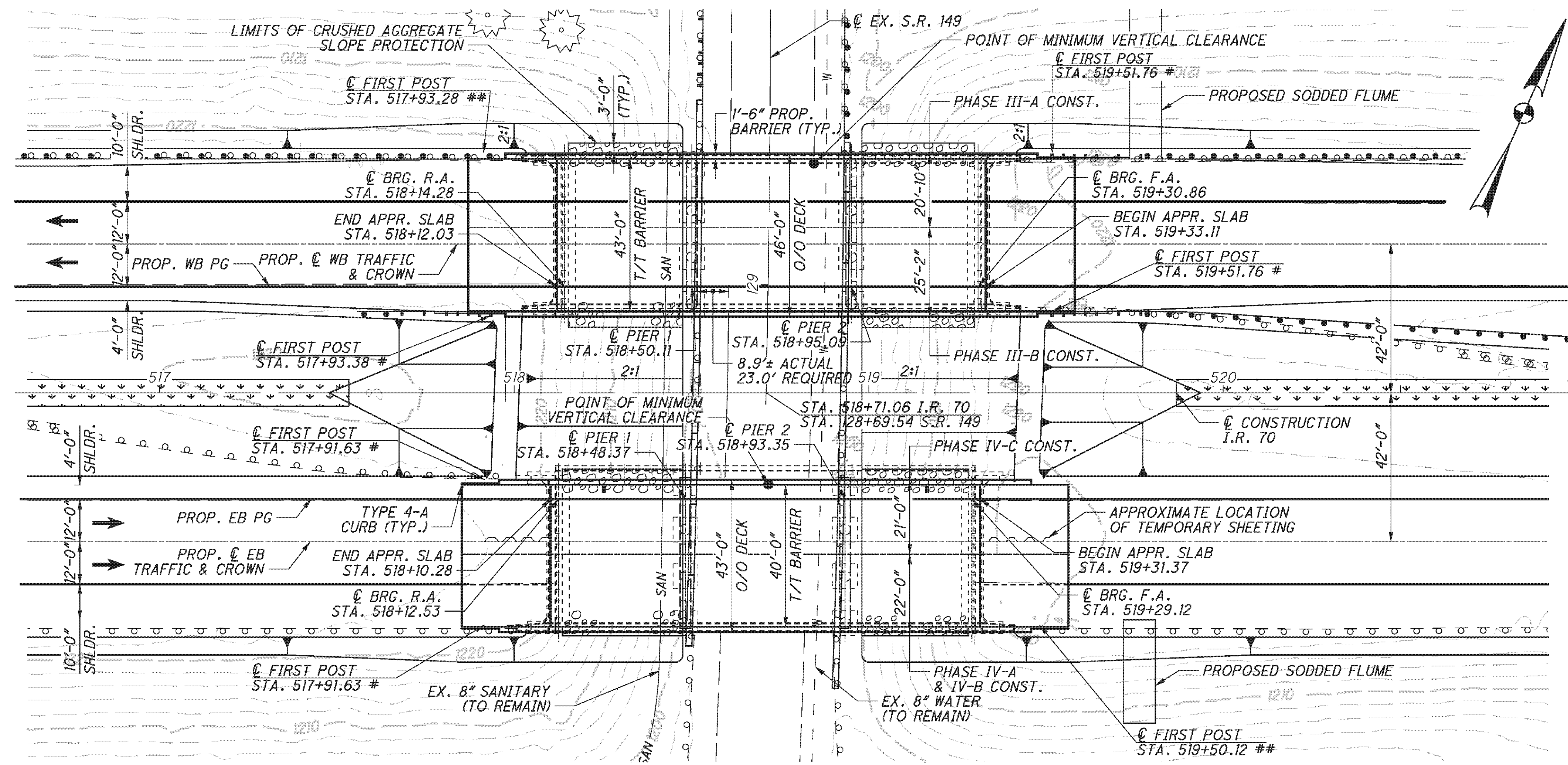
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| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|--------------------------------------|-----------------|---------|--------|------|------------|-------|-------|--------|---|---|-----------|
| | | | | | A | B | C | D | E | R | INC |
| 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 | | | | | | | | |

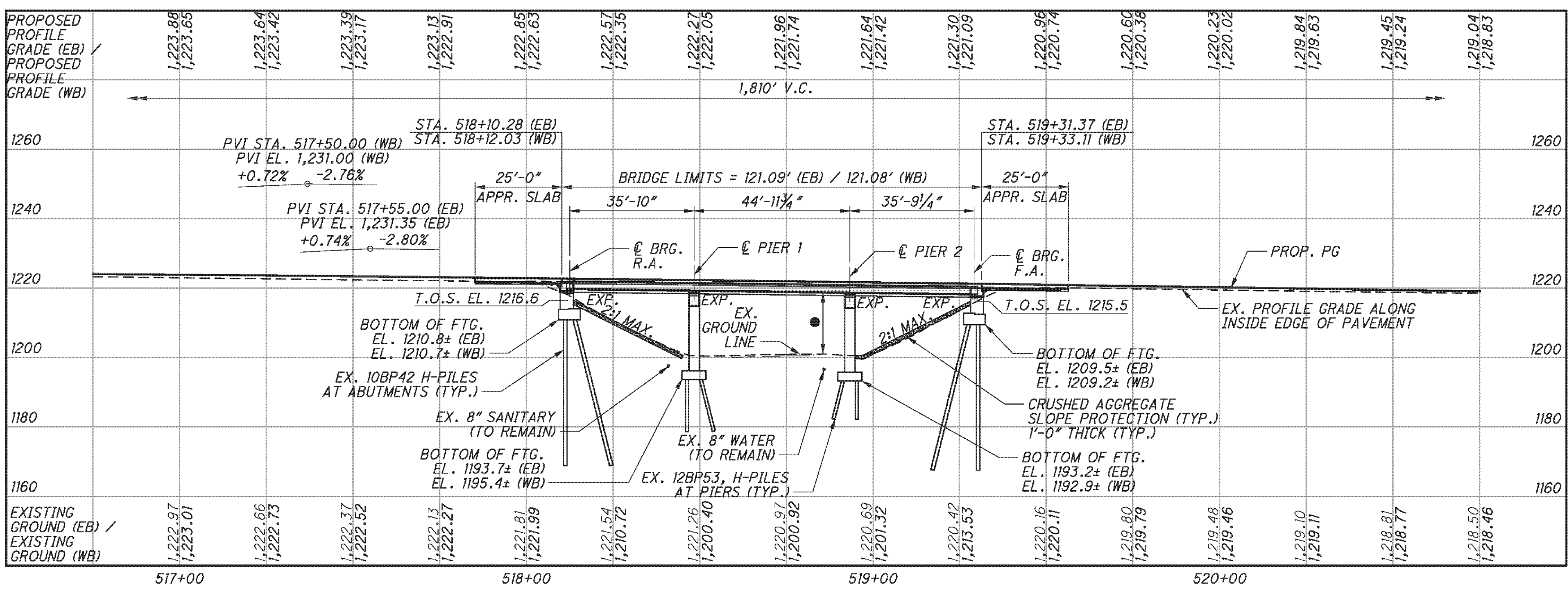
| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|-------------------------------|-----------------|--------|--------|------|------------|-------|--------|-----------|-------|---|-----------|
| | | | | | A | B | C | D | E | R | INC |
| PARAPET - RIGHT BRIDGE | | | | | | | | | | | |
| 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 | | | | | | | | |



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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

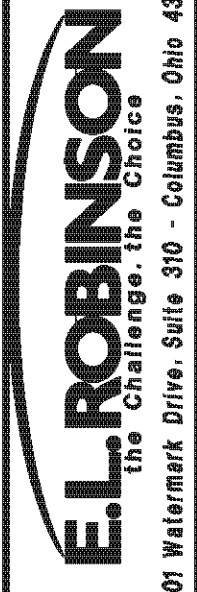
- REMOVE AND REPLACE CONCRETE DECK, STEEL BEAMS, CONCRETE PIER CAPS AND APPROACH SLABS IN PHASES.
- CONVERT ABUTMENTS TO SEMI-INTEGRAL.
- PATCH PIER COLUMNS.
- INSTALL CRUSHED AGGREGATE SLOPE PROTECTION.
- REMOVE BRUSH UNDER STRUCTURE AND FROM 20 FT. EACH SIDE OF STRUCTURE.
- SEAL CONCRETE SURFACES ON 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
 REVIEWED: RER
 STRUCTURE FILE NUMBER: 0702226L/0702250R

DRAWN: DTA
 CHECKED: AME

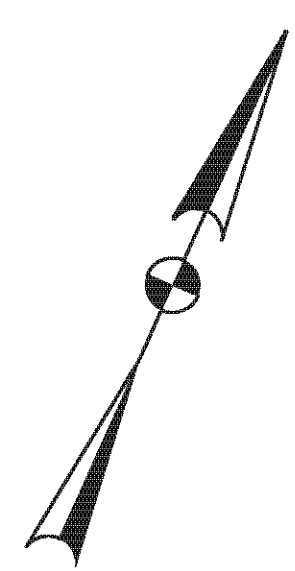
BELMONT COUNTY (WESTBOUND)
 STA. 518+12.03
 STA. 519+33.11

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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☉ FIRST POST
STA. 517+93.28 ##

SHLDR.
VARIES

12'-0"



PROP. ☉ WB TRAFFIC
& CROWN

12'-0"



SHLDR.
VARIES

☉ FIRST POST
STA. 517+93.38 #

☉ BRG. R.A.
STA. 518+14.28
END APPR. SLAB
STA. 518+12.03

☉ PIER 1
STA. 518+50.11

☉ PIER 2
STA. 518+95.09

☉ BRG. F.A.
STA. 519+30.86

BEGIN APPR. SLAB
STA. 519+33.11

☉ FIRST POST
STA. 519+51.76 #

SHLDR.
VARIES

12'-0"

12'-0"

SHLDR.
VARIES

42'-0"

518

519

STA. 518+71.06 I.R. 70
STA. 128+69.54 S.R. 149

☉ CONSTRUCTION
I.R. 70

☉ FIRST POST
STA. 517+91.63 #

4'-0"
SHLDR.



PROP. ☉ EB TRAFFIC
& CROWN

12'-0"



10'-0"
SHLDR.

☉ FIRST POST
STA. 517+91.63 #

END APPR. SLAB
STA. 518+10.28
☉ BRG. R.A.
STA. 518+12.53

☉ PIER 1
STA. 518+48.37

☉ PIER 2
STA. 518+93.35

BEGIN APPR. SLAB
STA. 519+31.37
☉ BRG. F.A.
STA. 519+29.12

☉ FIRST POST
STA. 519+50.12 ##

4'-0"
SHLDR.

12'-0"

12'-0"

SHLDR.
VARIES

42'-0"

12'-9"

SCUPPER
(TYP.)

1'-6" PROP.
BARRIER (TYP.)

40'-0"
T/T BARRIER

12'-8 1/8"

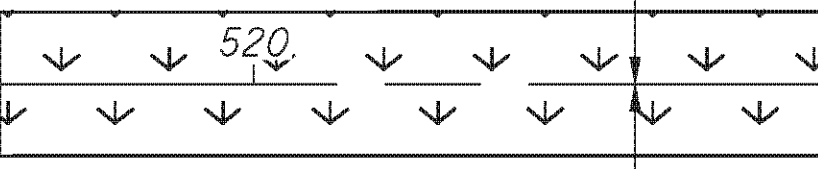
21'-0"
PHASE IV-A & IV-B
PHASE IV-C CONST.

16'-0"

24'-0"

43'-0"
O/O DECK

APPROXIMATE LOCATION
OF TEMPORARY SHORING



PROPOSED SODDED
FLUME

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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|-----------------------|-------------------|
| 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

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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:

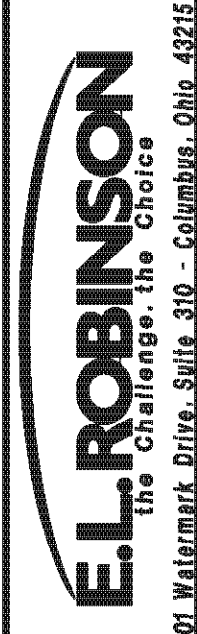
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE 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

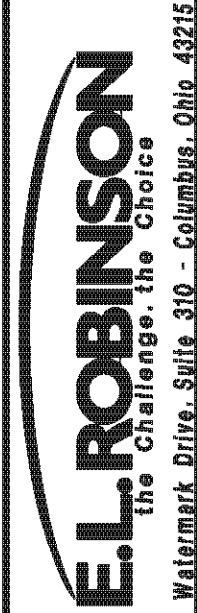
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PID No. 76825

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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 | | | | 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

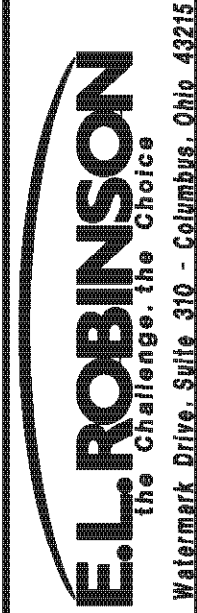
BEL-70-7.61
PID No. 76825

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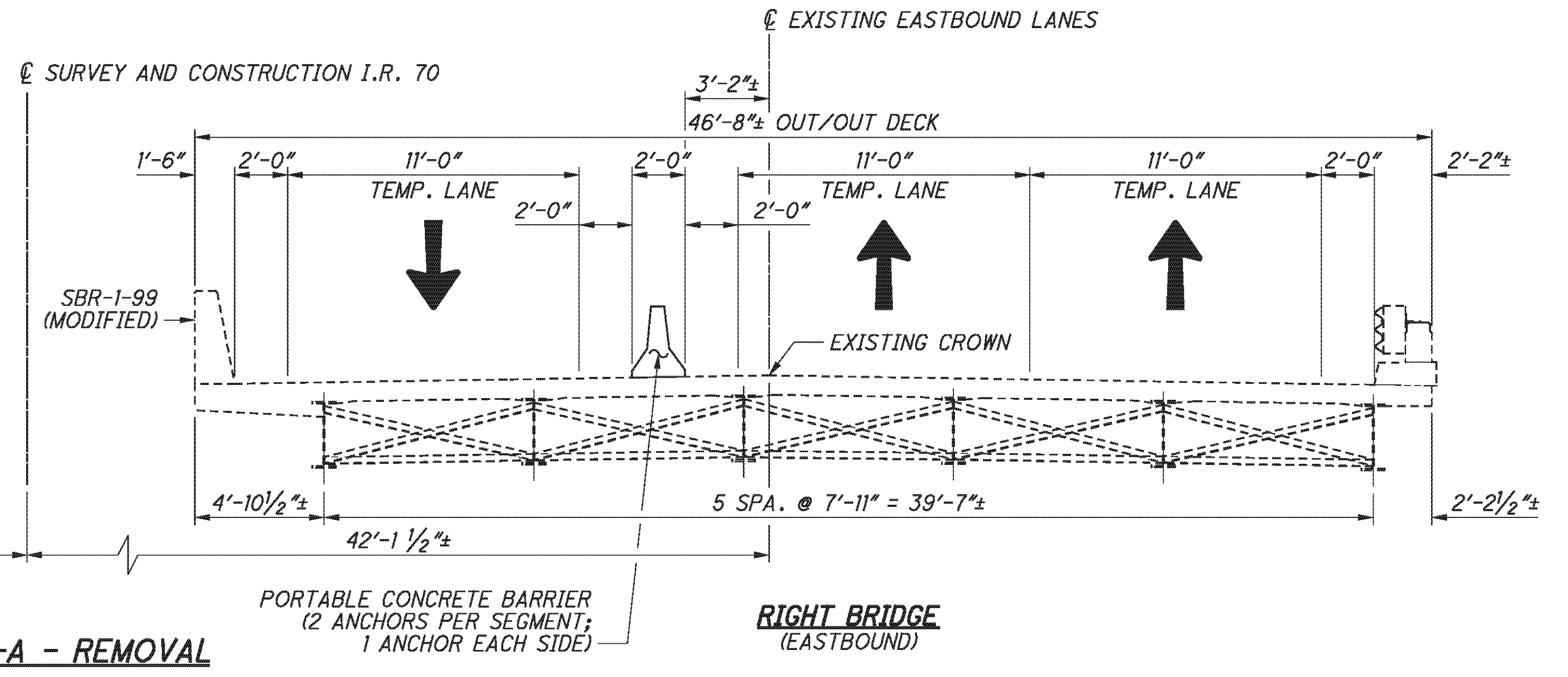
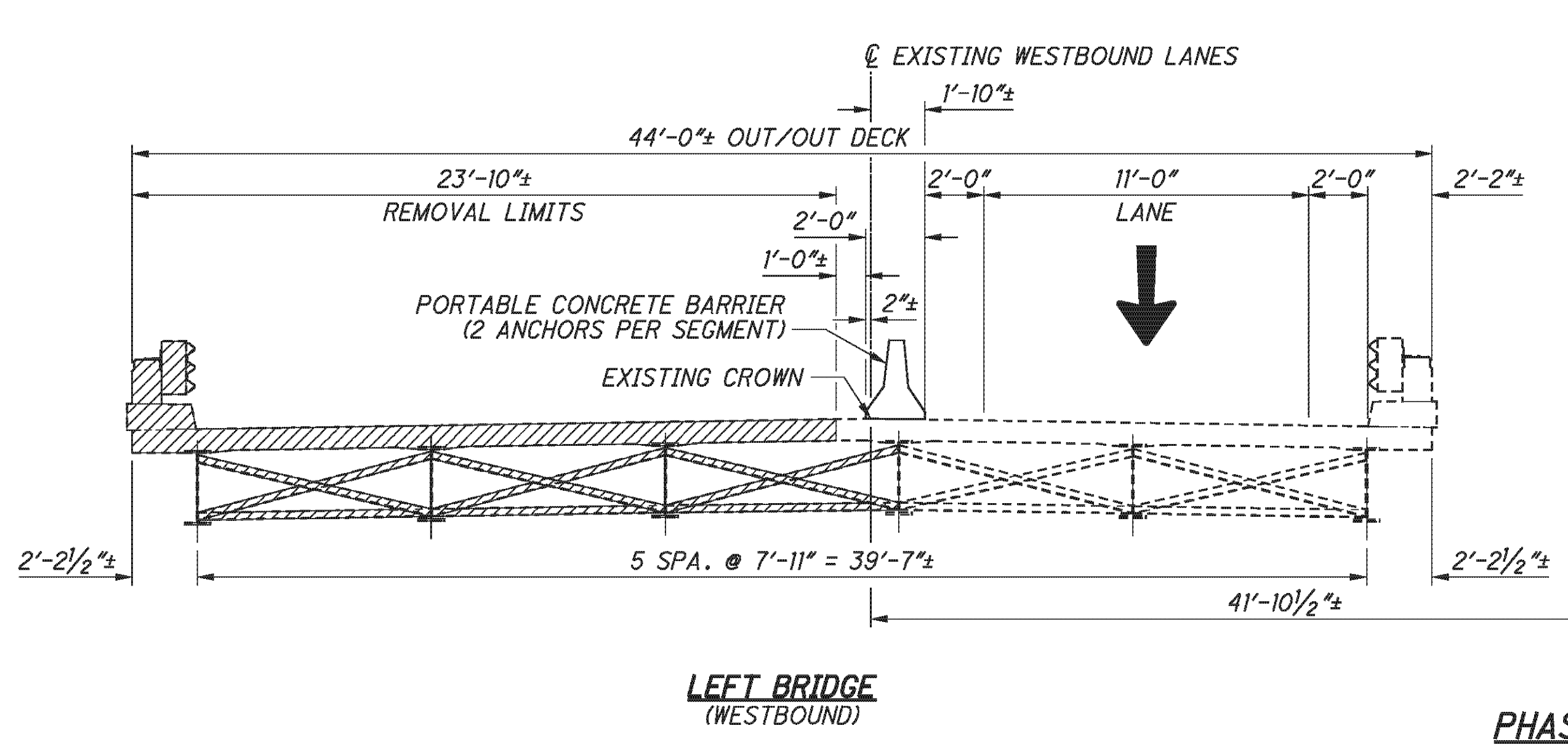
| ESTIMATED QUANTITIES | | | | | | | | | | |
|----------------------|-----------|--------|-------|---|-------|-------|--------|------|---------|--|
| ITEM | EXTENSION | TOTAL | UNIT | DESCRIPTION | ABUT. | PIERS | SUPER. | GEN. | SHEET # | |
| 201 | 11000 | LUMP | | CLEARING AND GRUBBING | | | | LUMP | | |
| 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 | | | | 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 | | | | | |



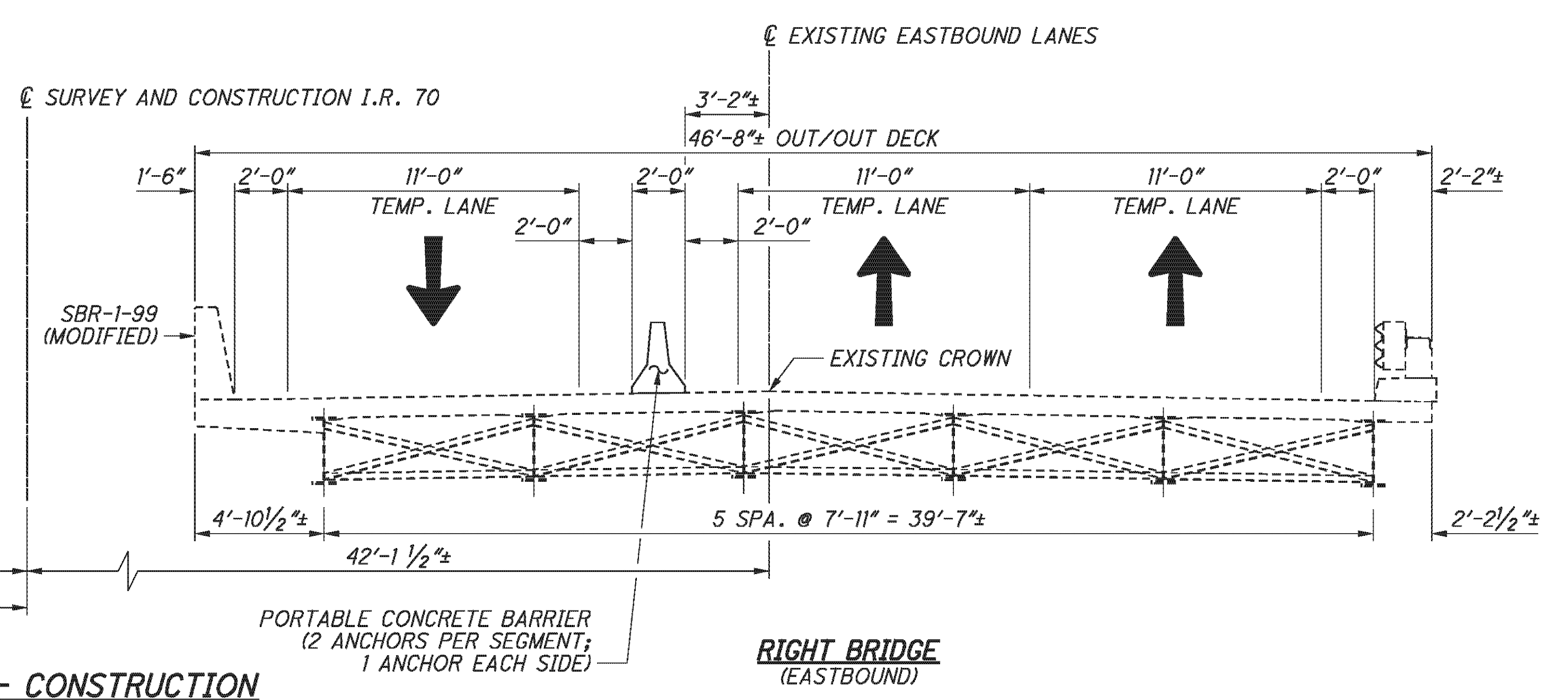
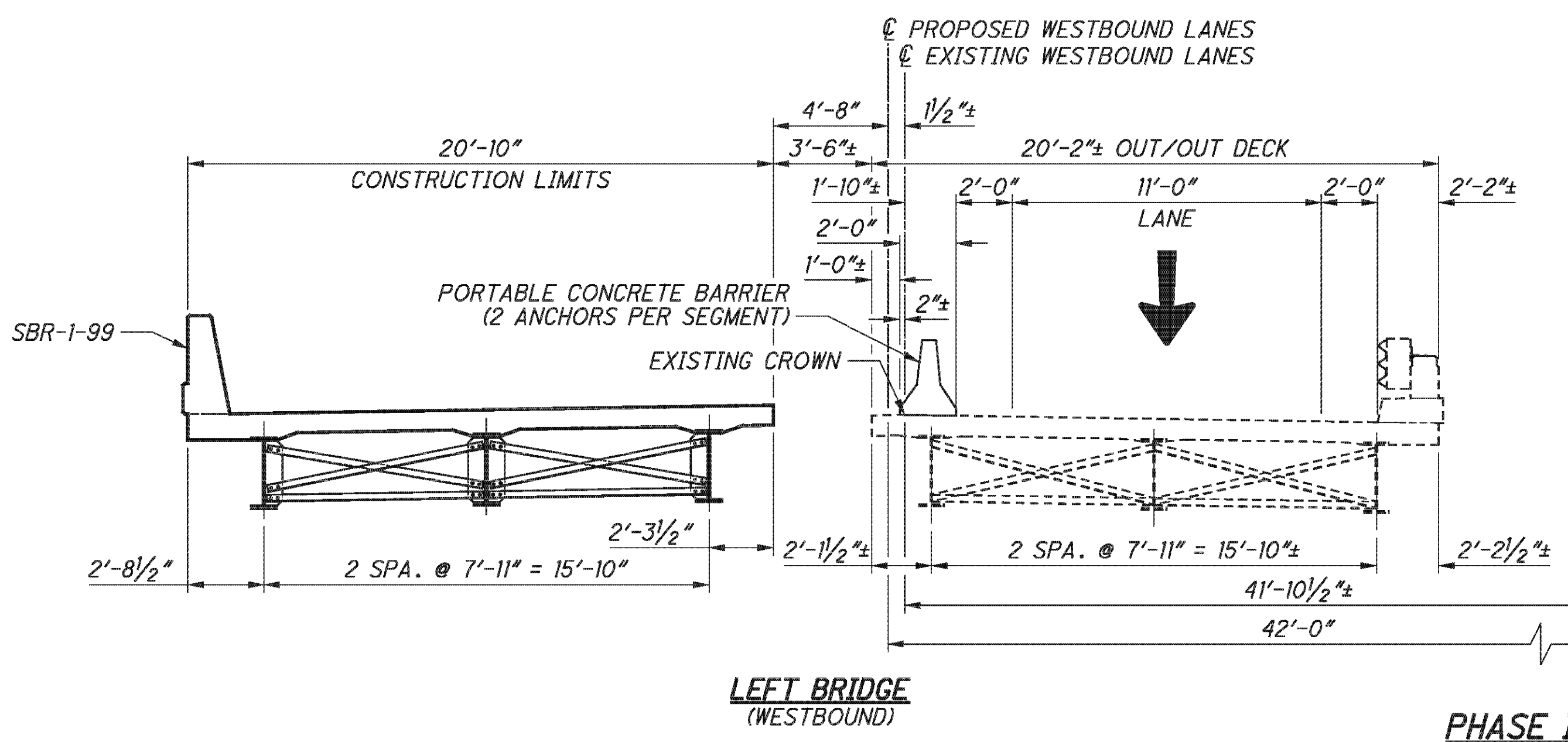
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|-----------------------|-----|-------------------|-----|
| DESIGNED | CMH | CHECKED | DTA |
| DRAWN | DTA | REVISED | |
| REVIEWED | | DATE | |
| STRUCTURE FILE NUMBER | | 0702226L/0702250R | |

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



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

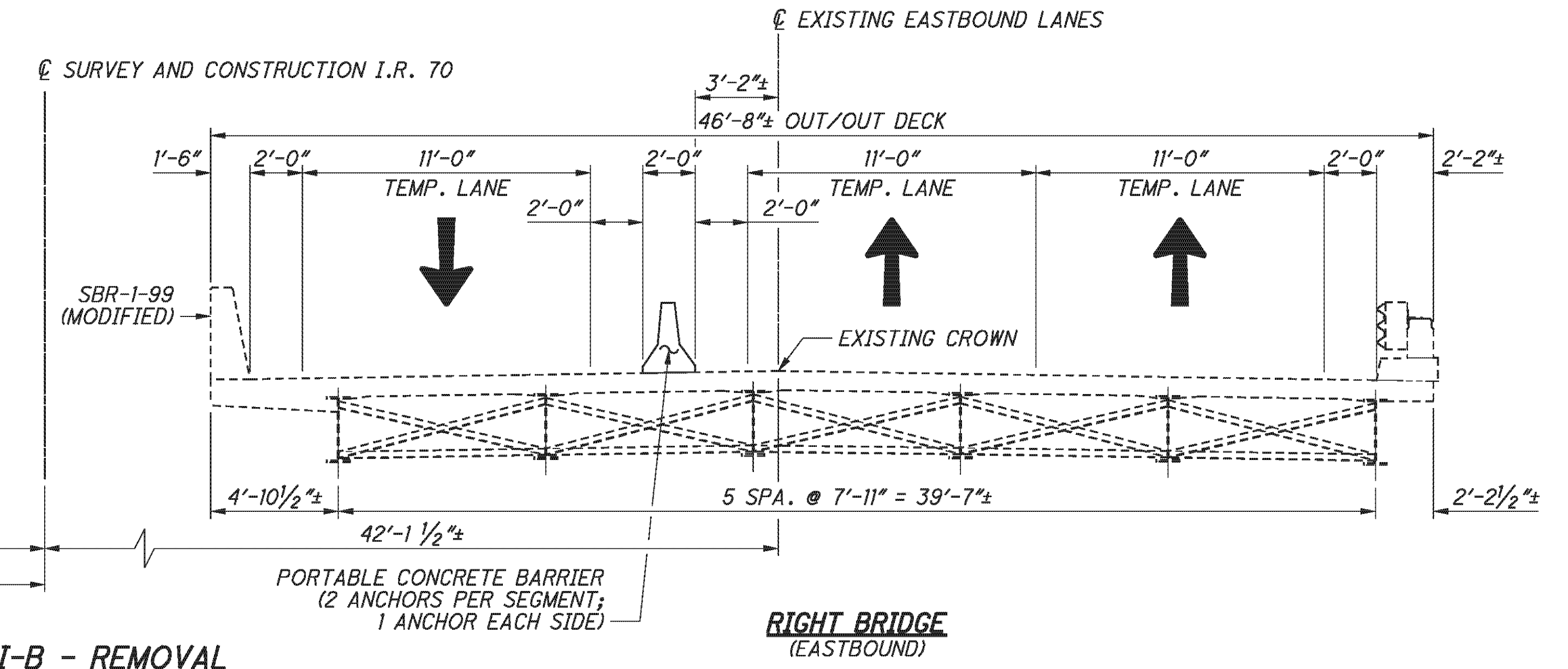
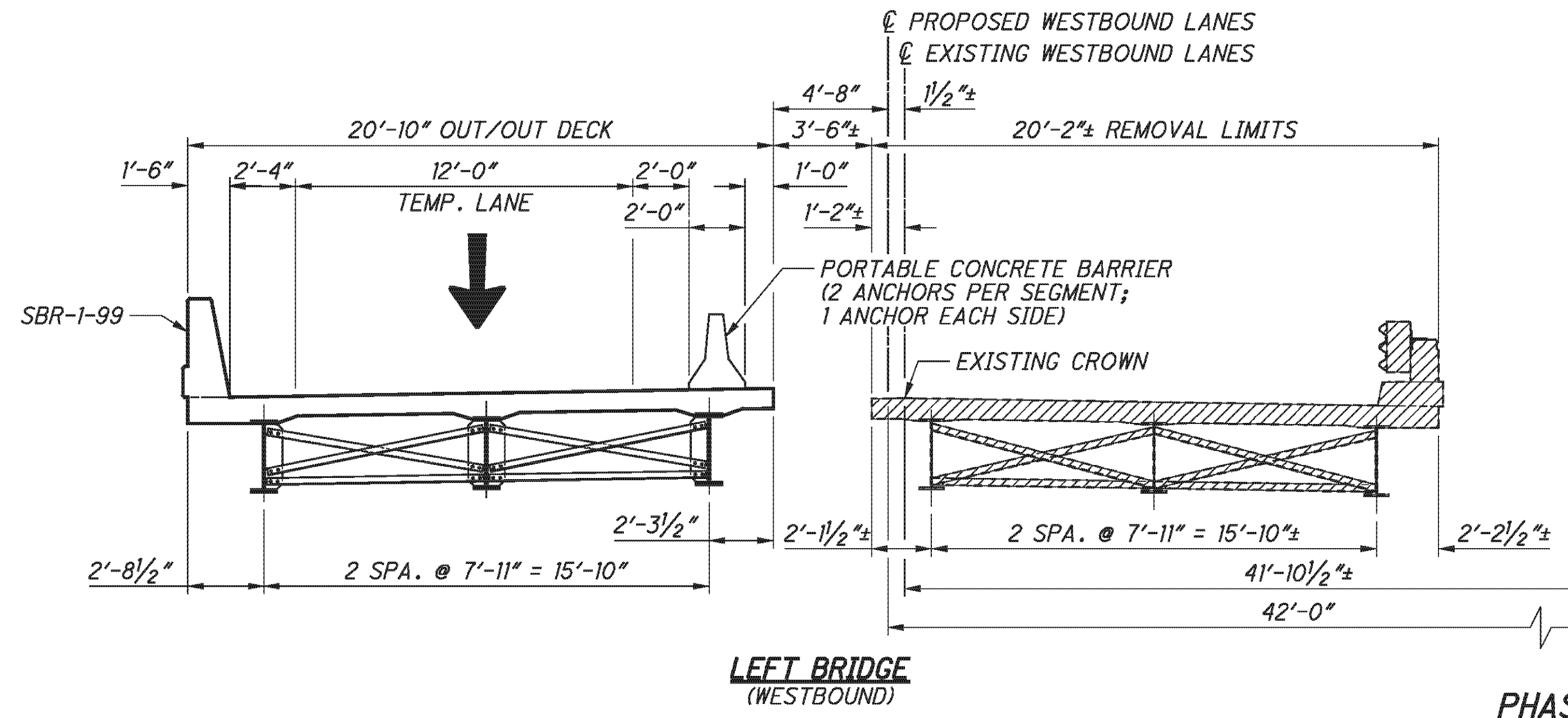
1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. SEAL CONCRETE SURFACES.

LEGEND:

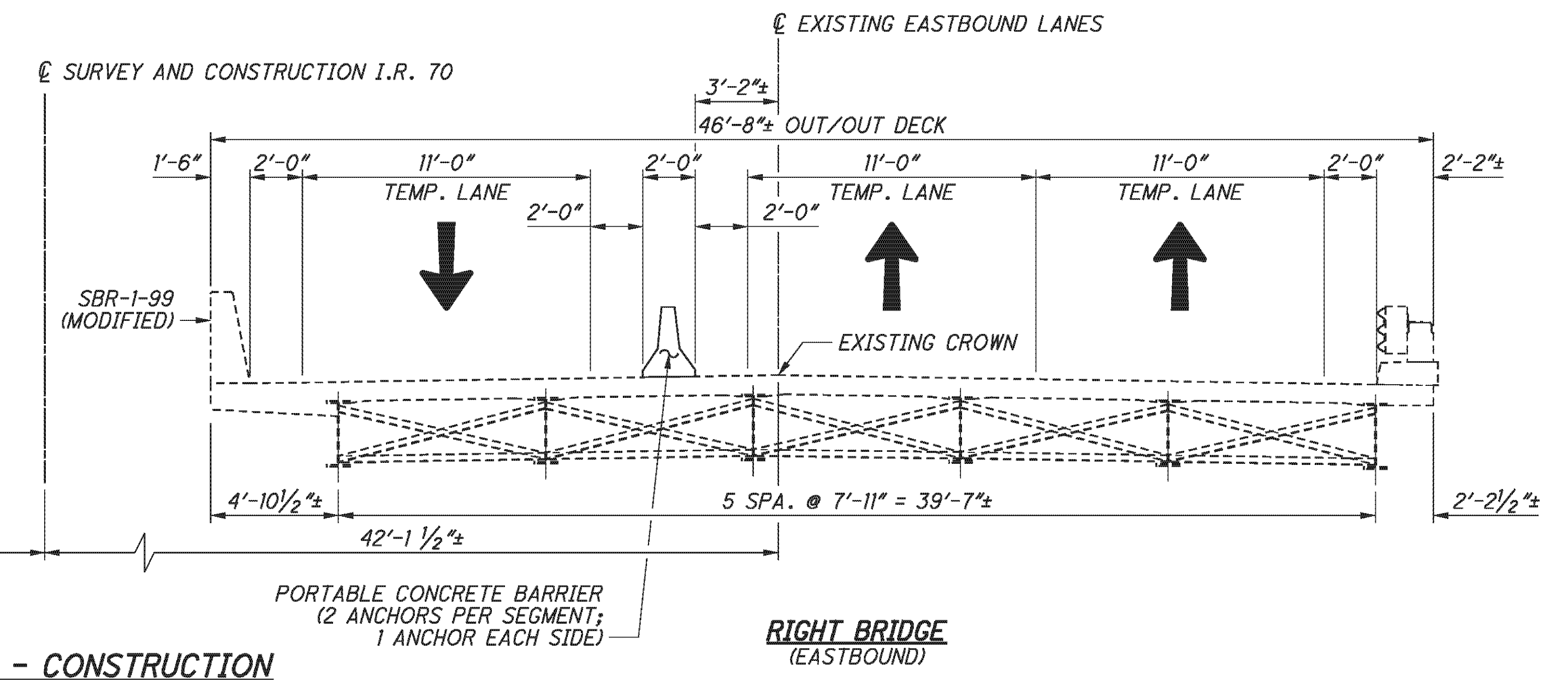
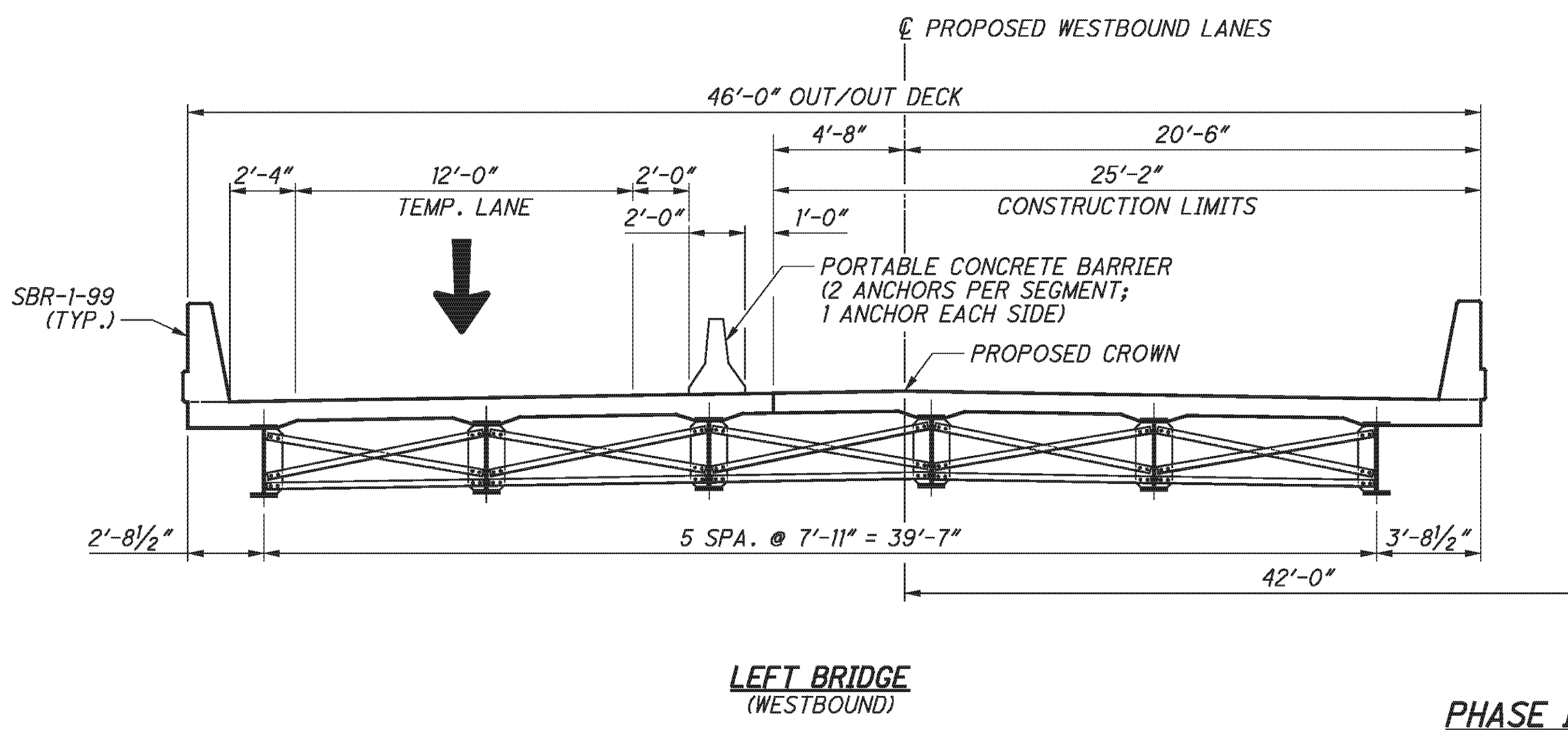


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PHASE III-B - REMOVAL



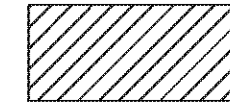
PHASE III-B - CONSTRUCTION

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

E.L. ROBINSON
 The Challenge, the Choice
 1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| | |
|-----------------------|-------------------|
| DATE | 5/11/10 |
| REVIEWED | DFT |
| DRAWN | TJE |
| DESIGNED | TJE |
| CHECKED | AME |
| 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

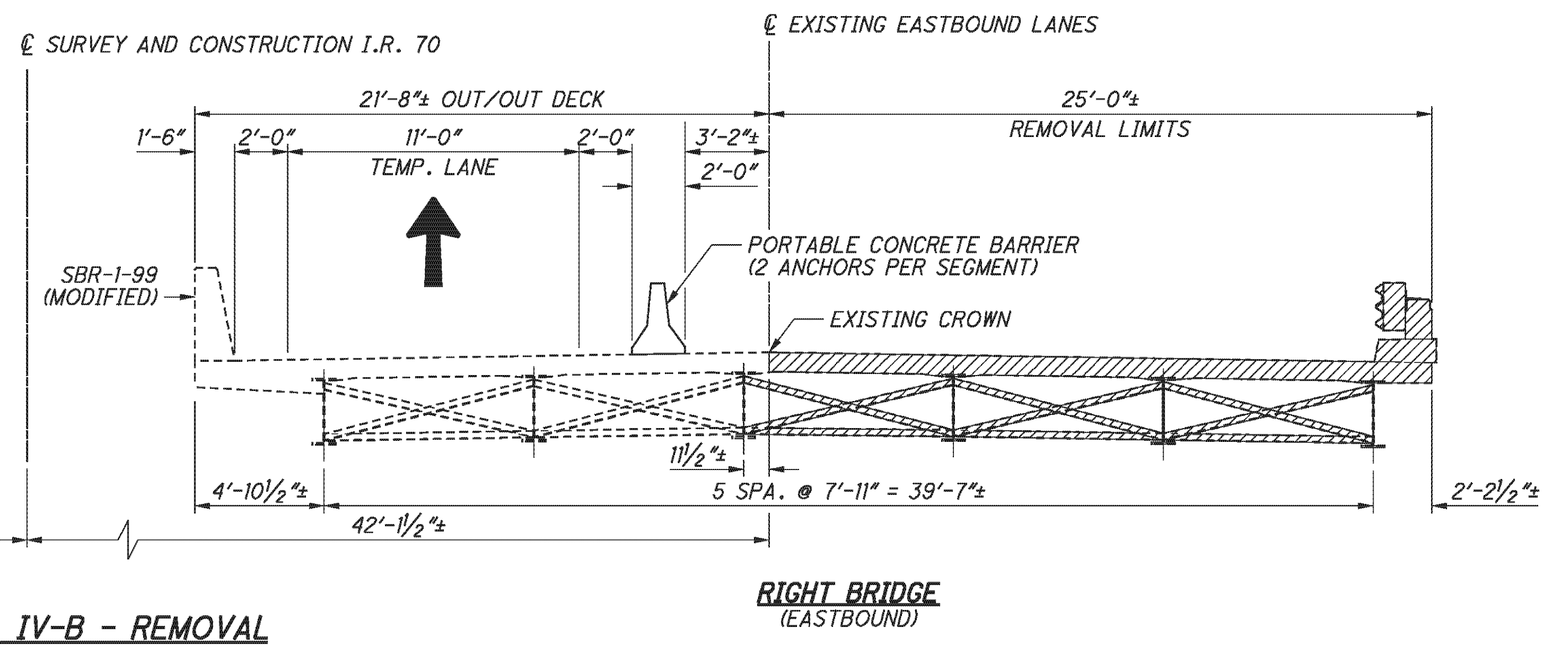
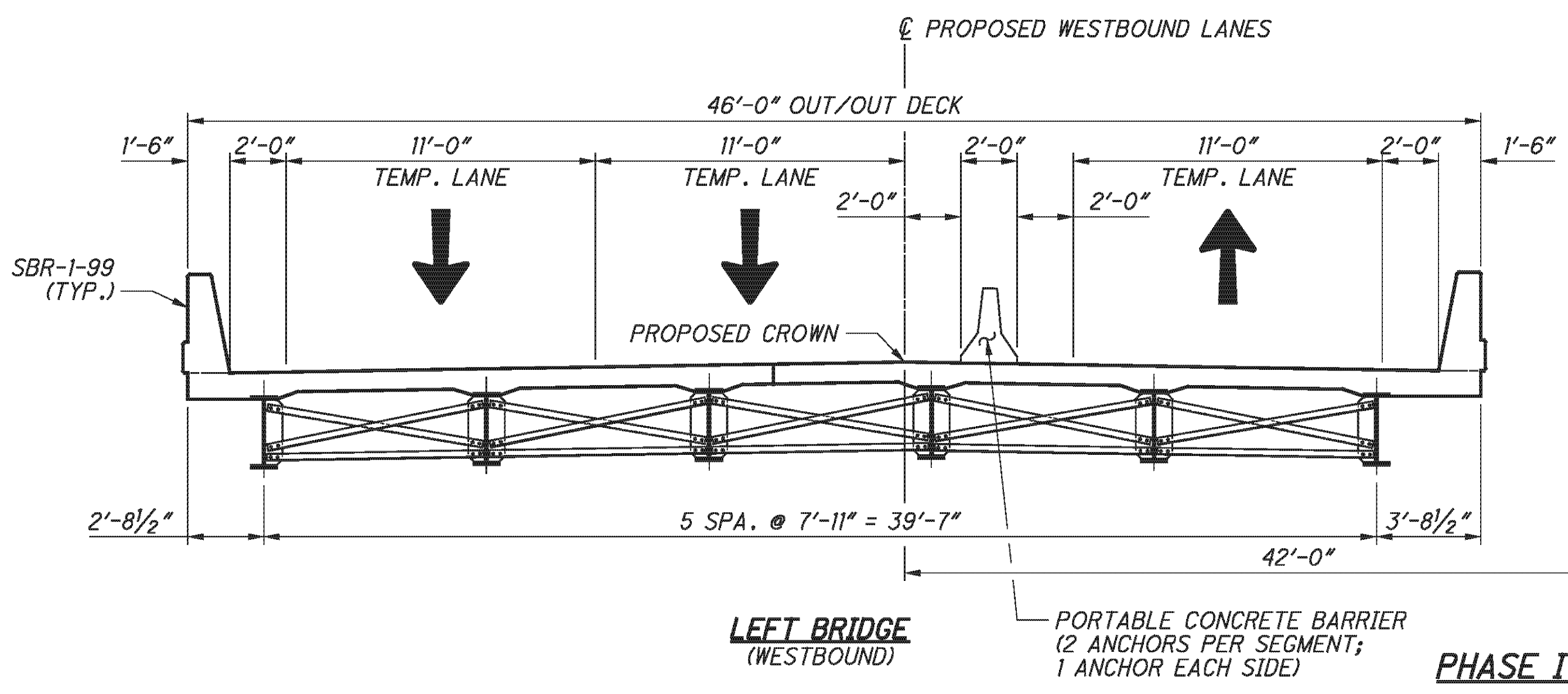
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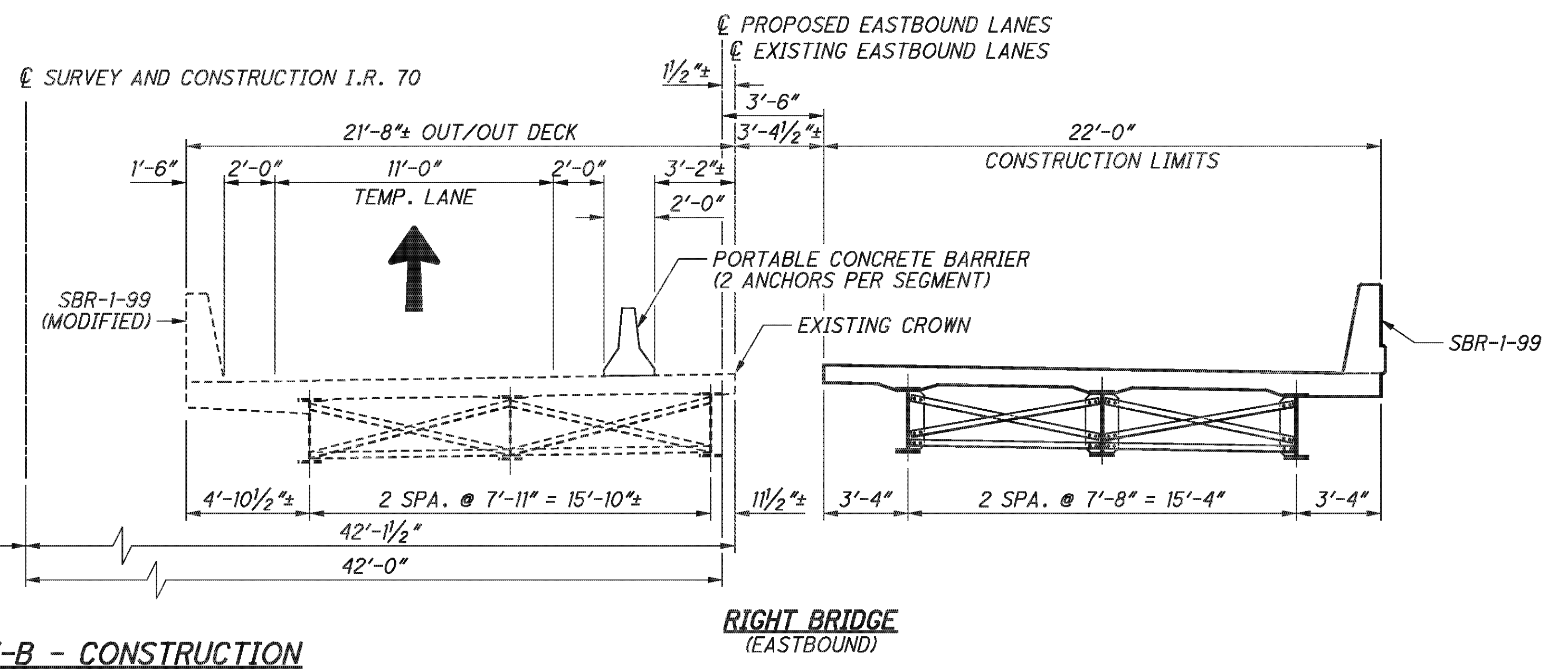
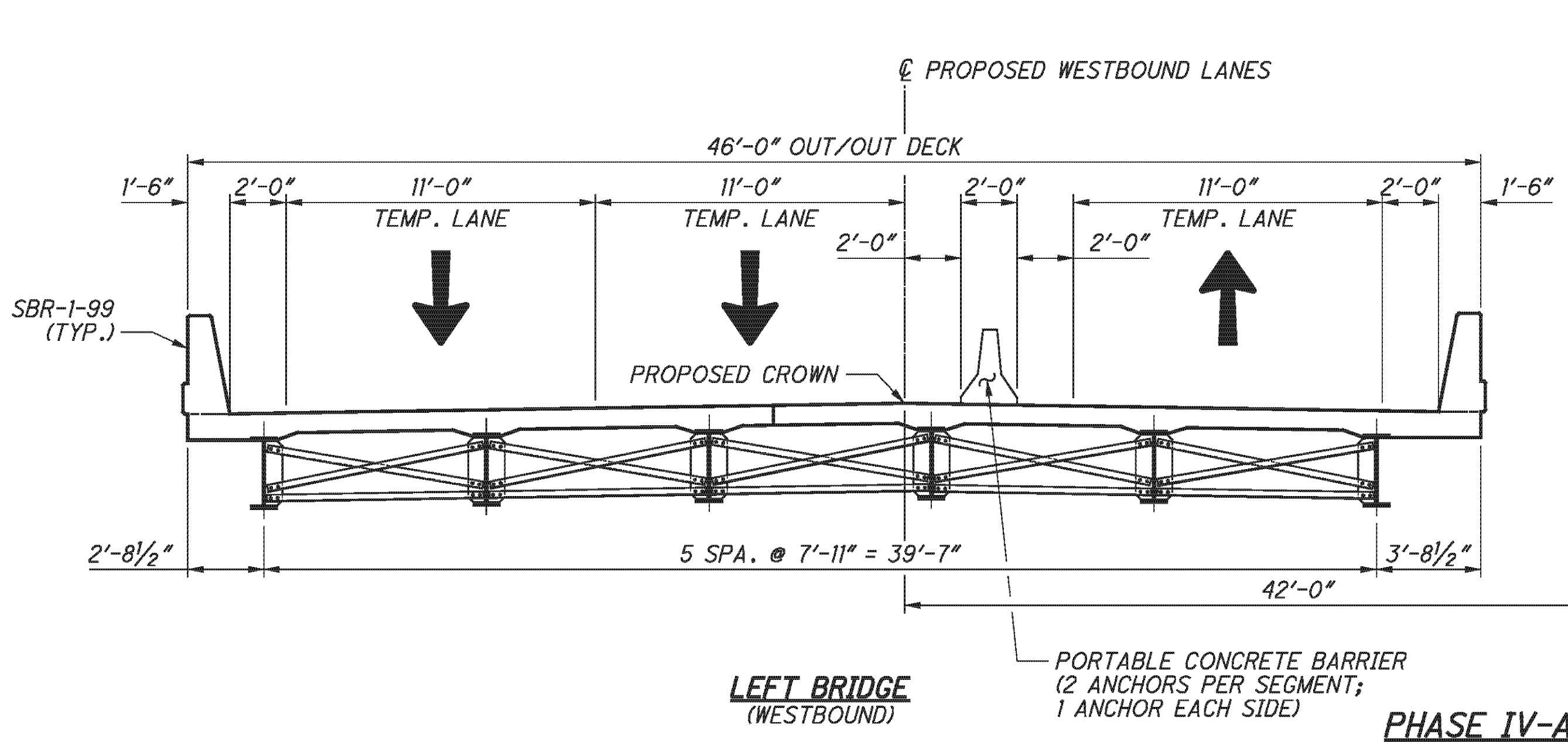
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| DATE | 2/3/11 |
| REVIEWED | RER |
| STRUCTURE FILE NUMBER | 0702226L/0702250R |
| DRAWN | TJE |
| CHECKED | AME |

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 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.

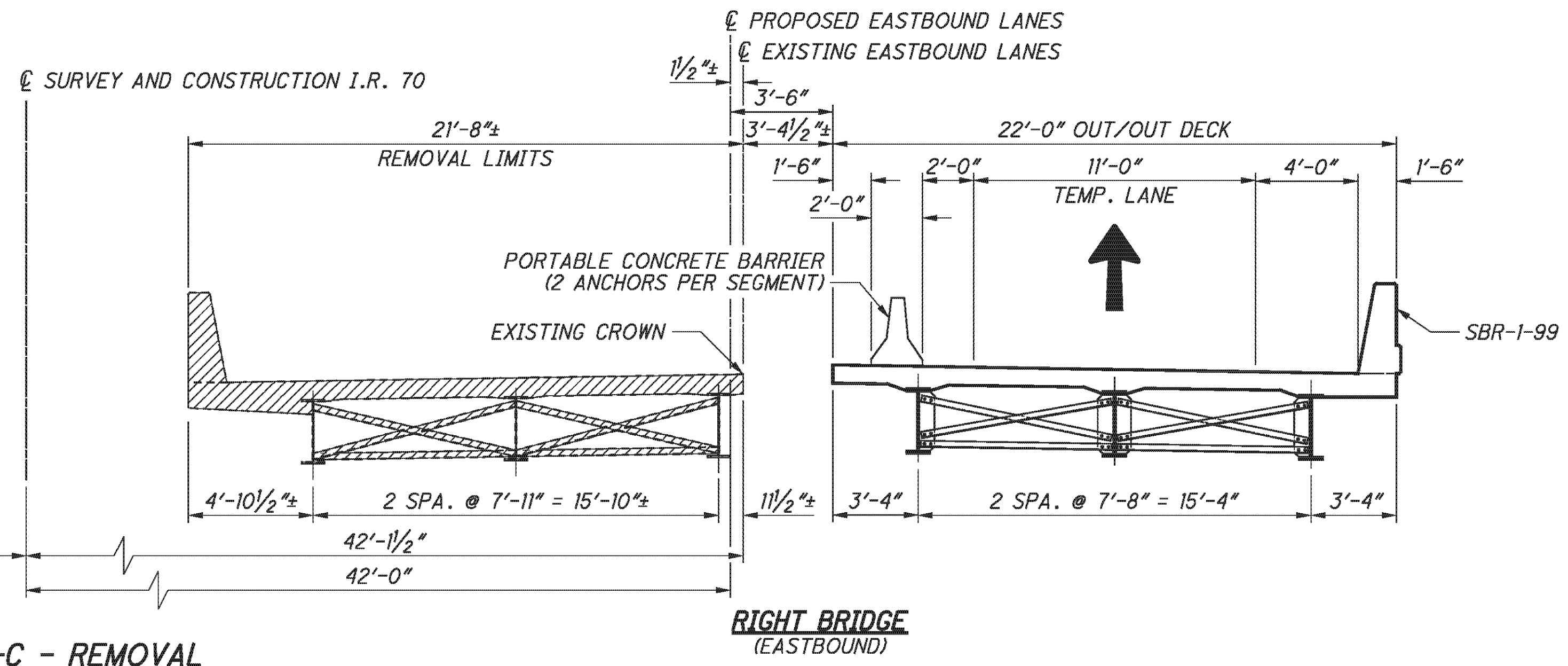
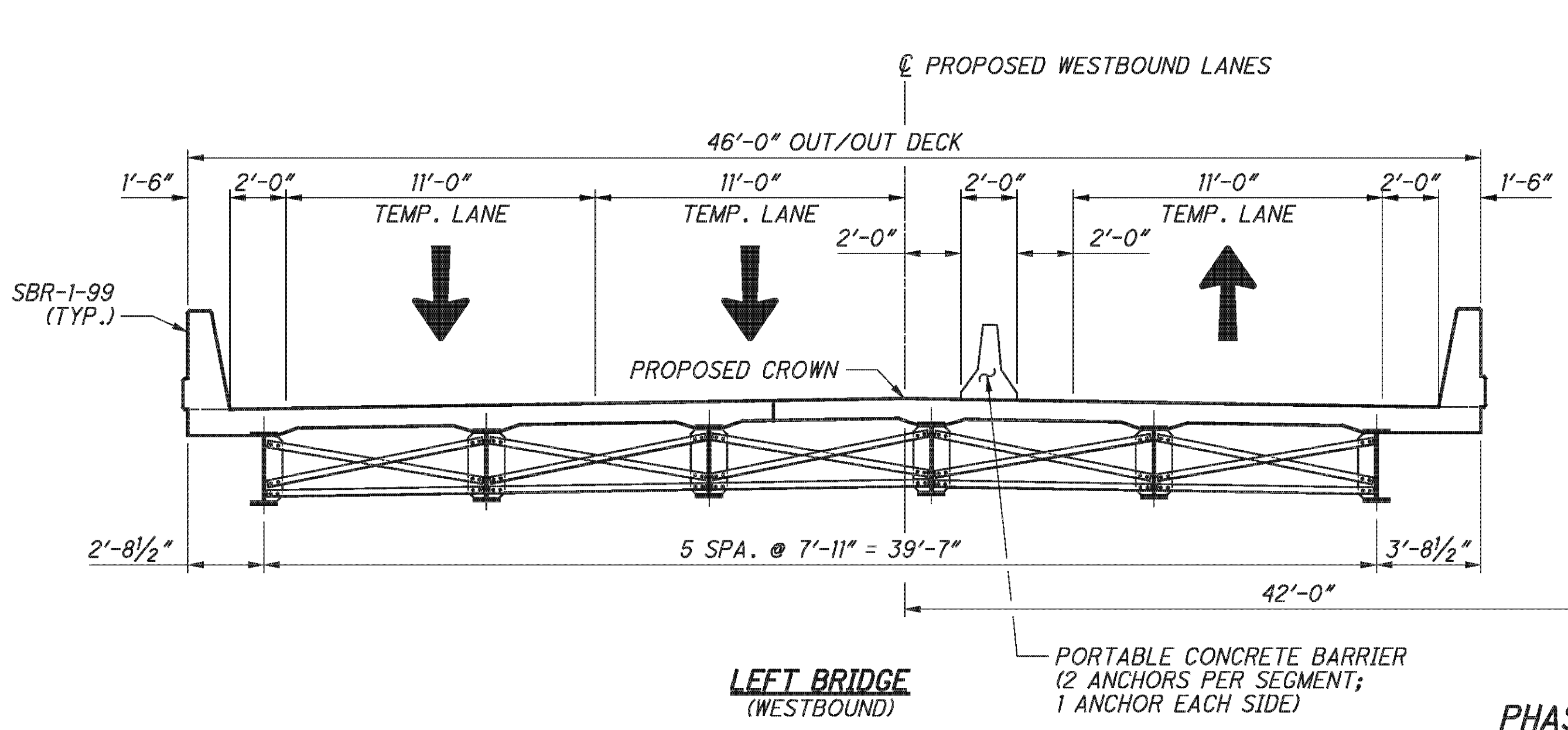
PHASE IV-A CONSTRUCTION

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.

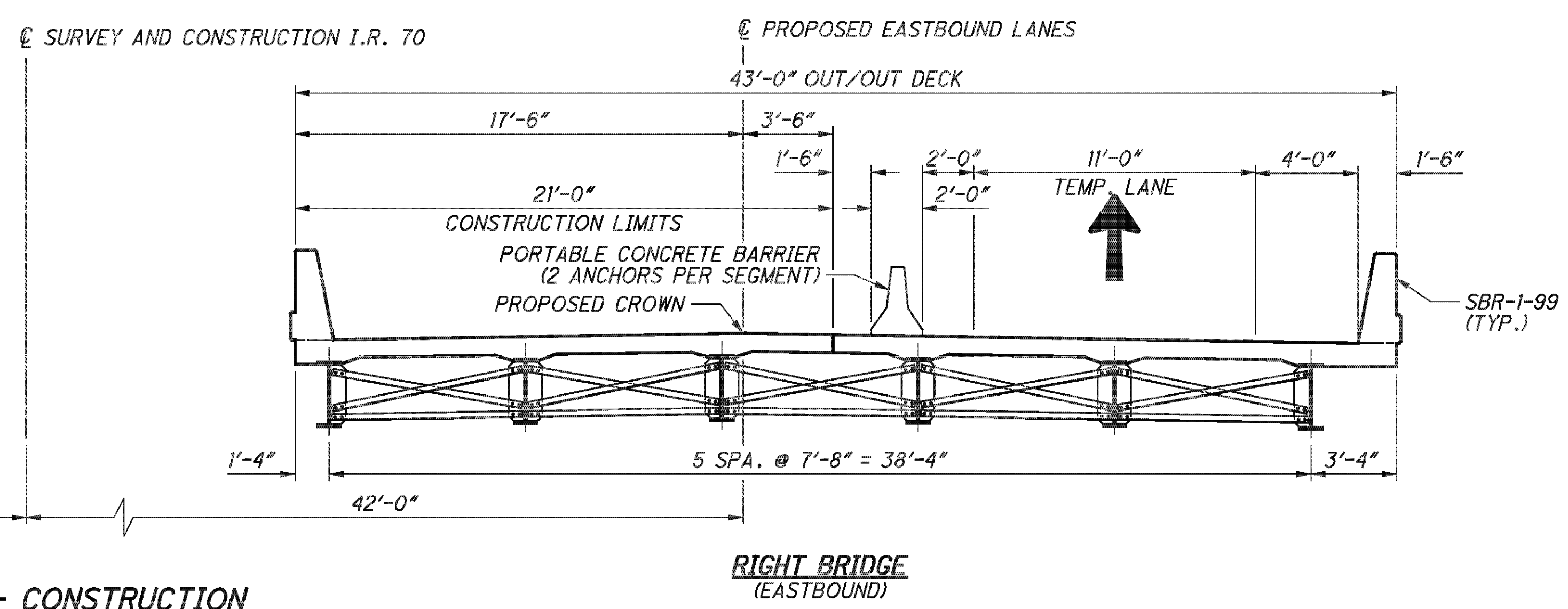
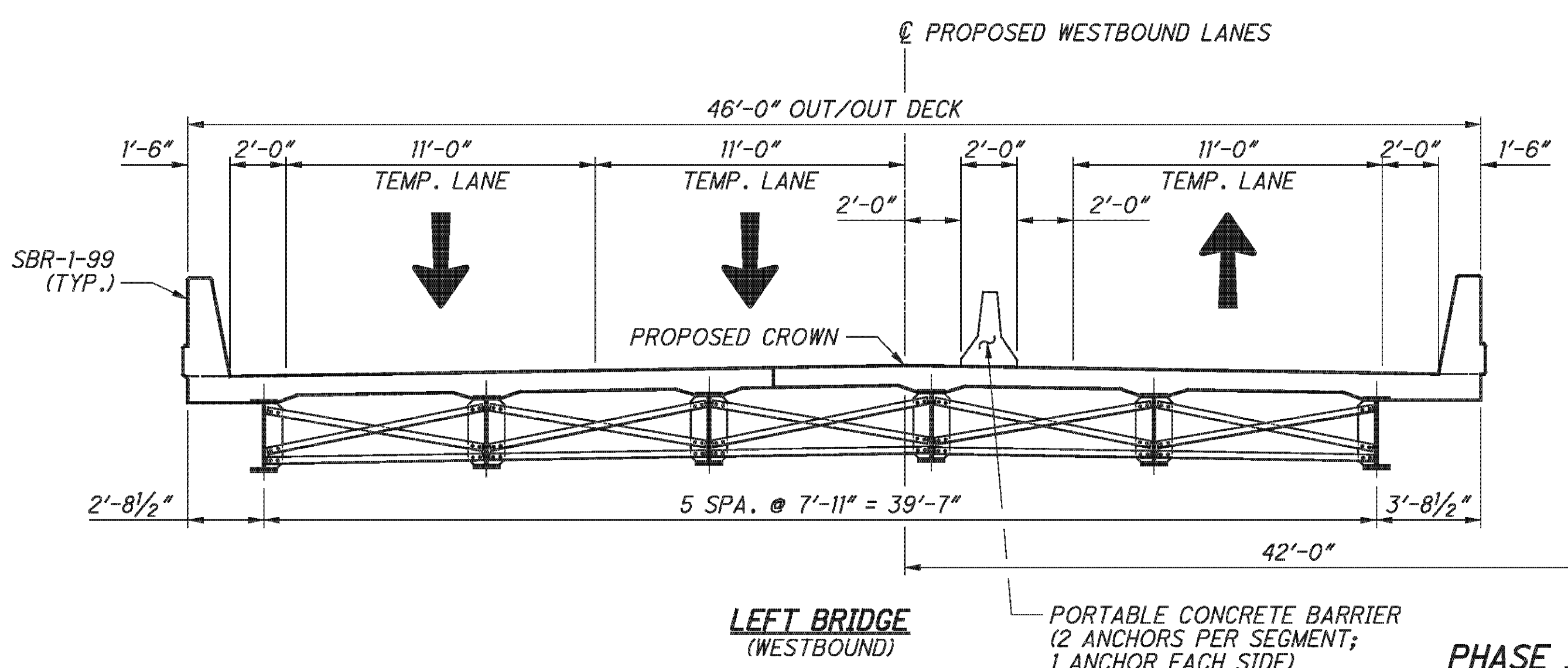
LEGEND:



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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

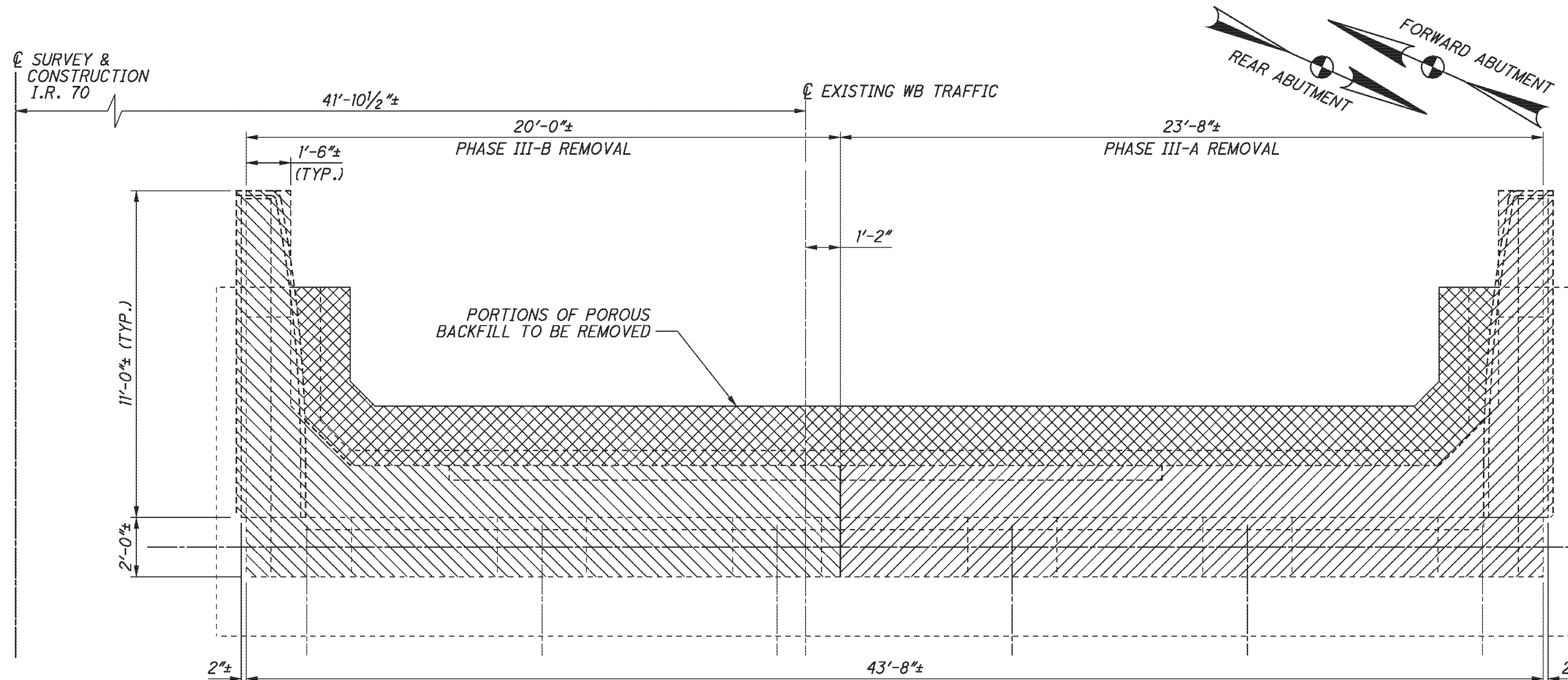
1. CONSTRUCT THE NEW ABUTMENTS AND PIER CAPS TO THE LIMITS SHOWN IN THE PLANS.
2. INSTALL NEW BEARINGS, STEEL BEAMS, AND CROSS FRAMES.
3. CONSTRUCT NEW DECK AND PARAPETS TO THE LIMITS SHOWN IN THE PLANS.
4. INSTALL NEW CROSSFRAMES UNDER THE CLOSURE POUR. CAST THE CLOSURE POUR.
5. SEAL CONCRETE SURFACES.
6. REMOVE THE PORTABLE CONCRETE BARRIERS.

LEGEND:



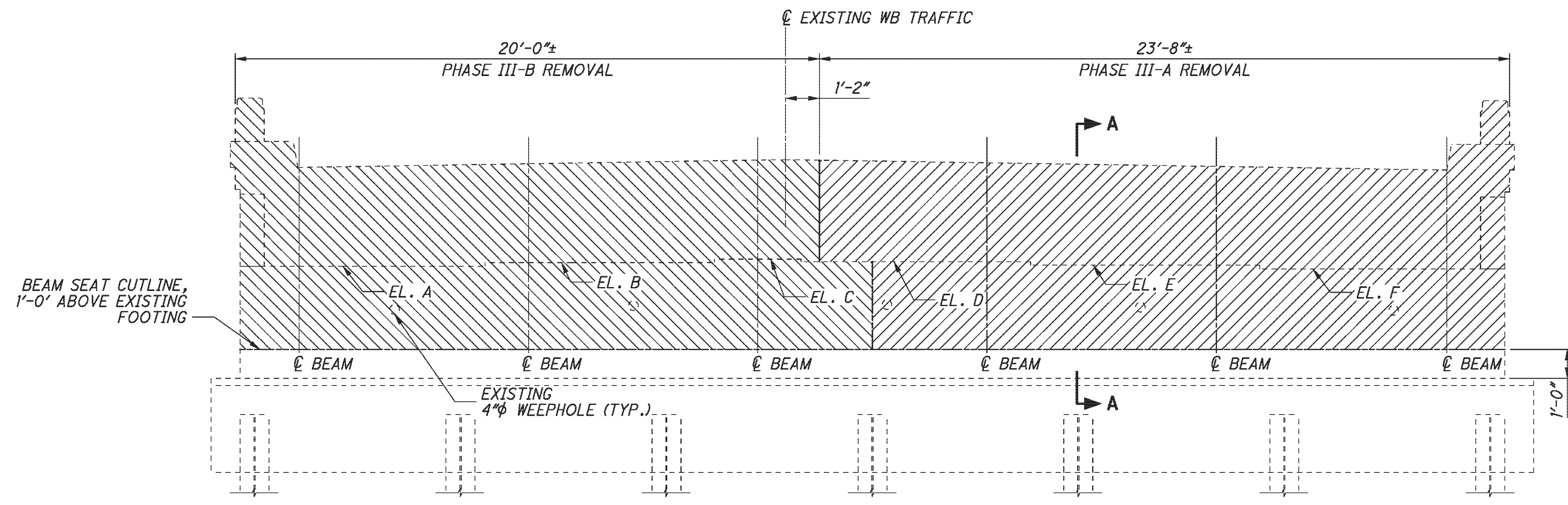
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ABUTMENT PLAN VIEW
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)

| 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± |

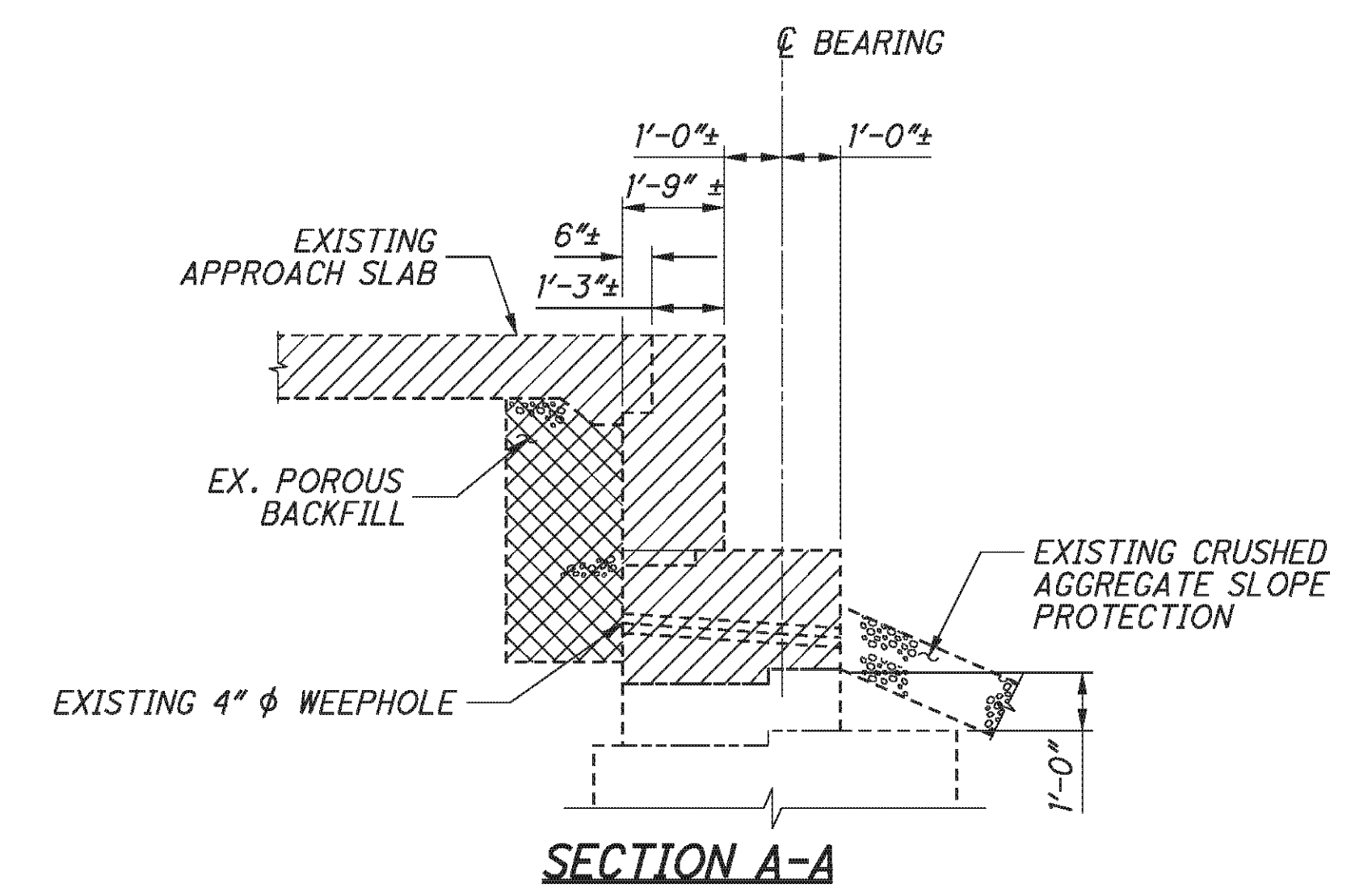


ABUTMENT ELEVATION VIEW
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)

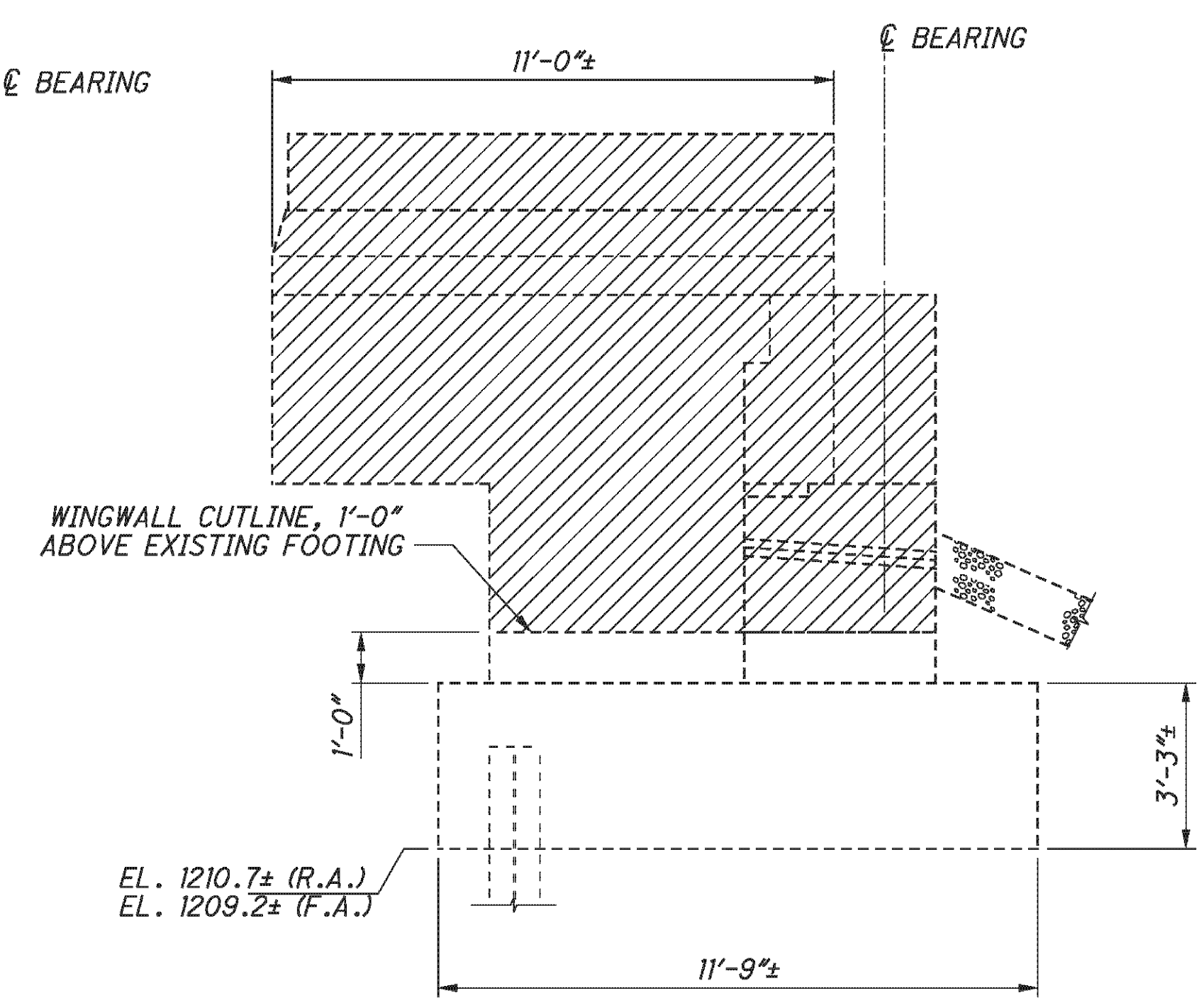
- LEGEND:**
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE III-A
 - ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE III-B
 - ITEM 202 - PORTIONS OF POROUS BACKFILL TO BE REMOVED

NOTES:

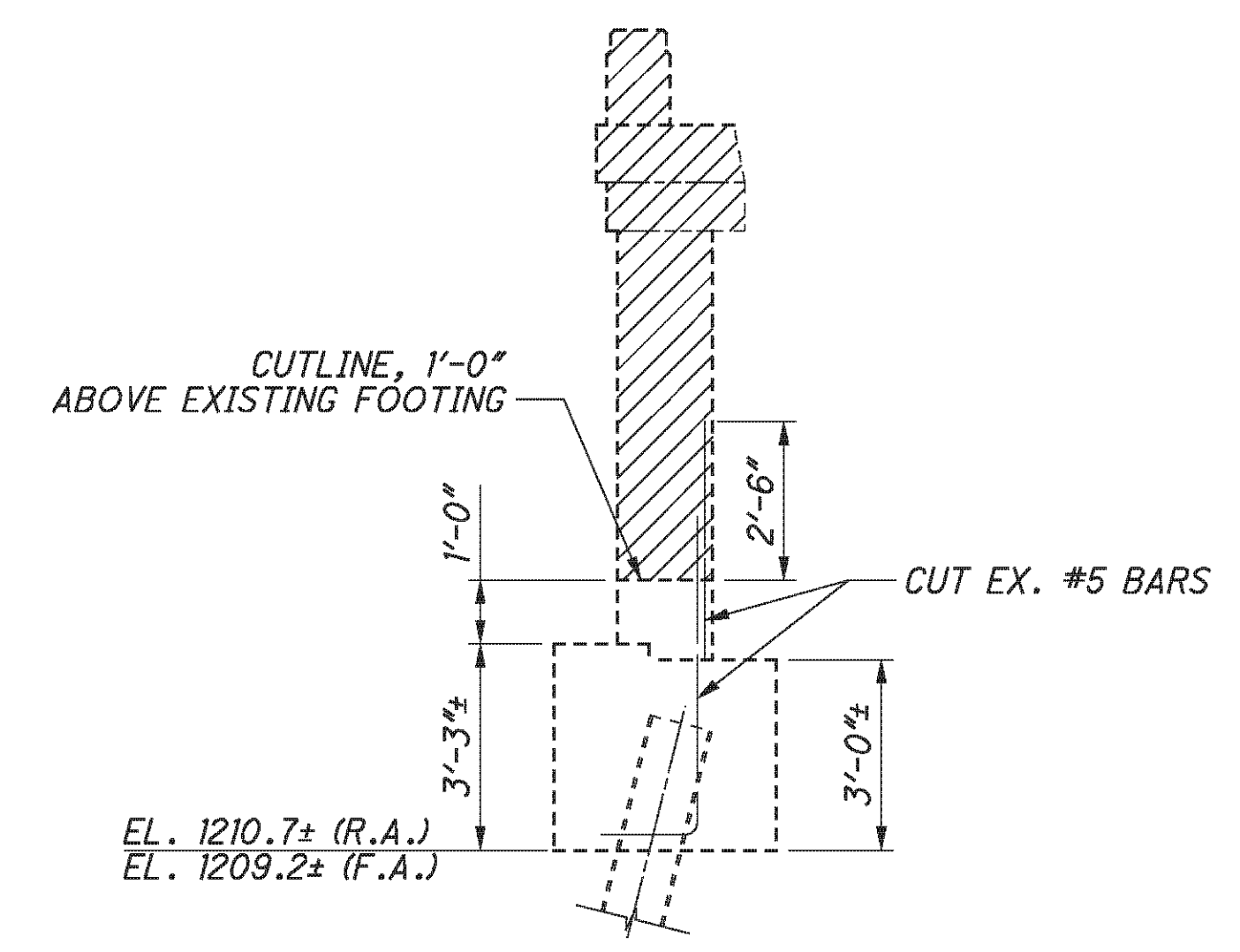
- PAYMENT FOR ABUTMENT REMOVAL TO BE INCLUDED IN ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.



SECTION A-A



WINGWALL ELEVATION VIEW
(FOR DIMENSIONS NOT SHOWN, SEE SECTION A-A)



EXISTING WINGWALL SECTION

E.L. ROBINSON
The Challenge, the Choice
1890 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| | |
|-----------------------|-------------------|
| DATE | 5/11/10 |
| REVIEWED | DFT |
| STRUCTURE FILE NUMBER | 0702226L/0702250R |
| DRAWN | BMG |
| DESIGNED | BMG |
| CHECKED | TUE |
| REVISED | |

ABUTMENT REMOVAL DETAILS - LEFT BRIDGE

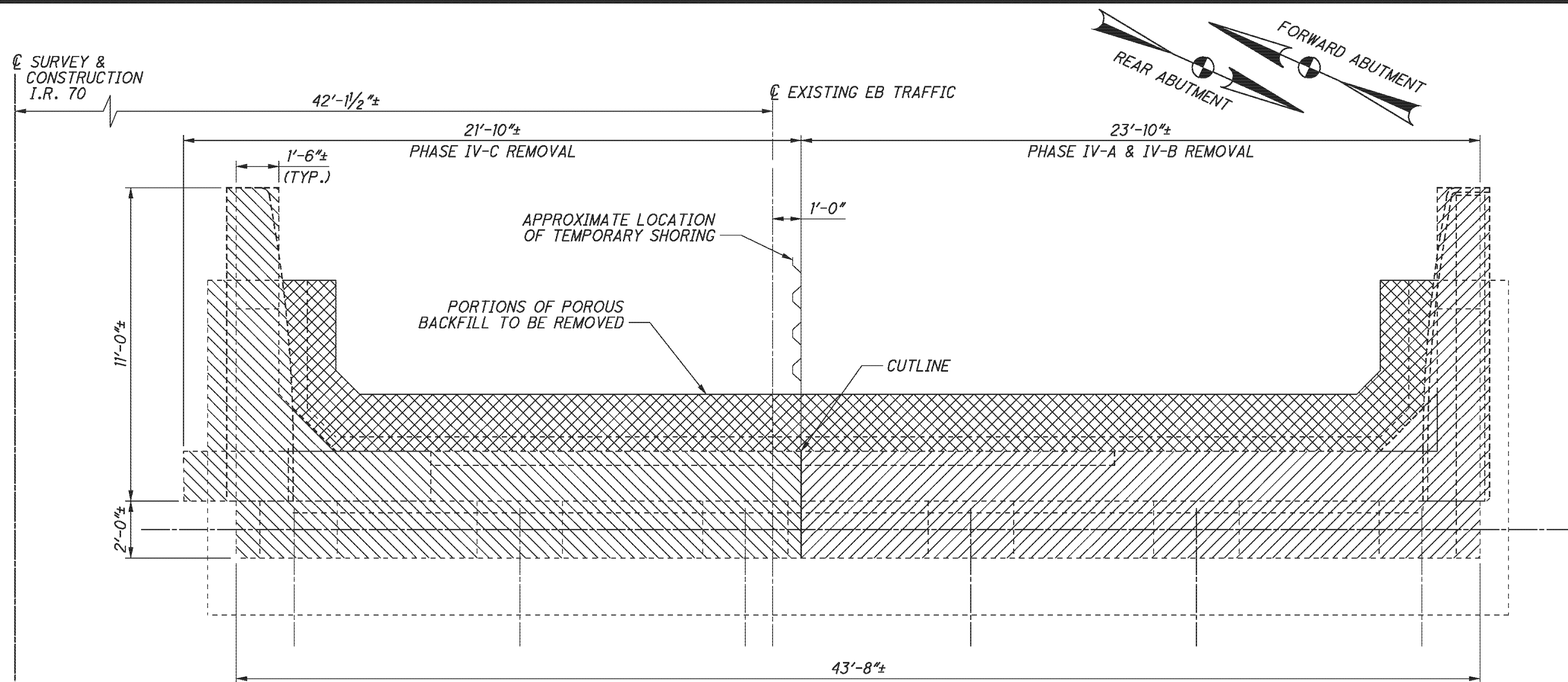
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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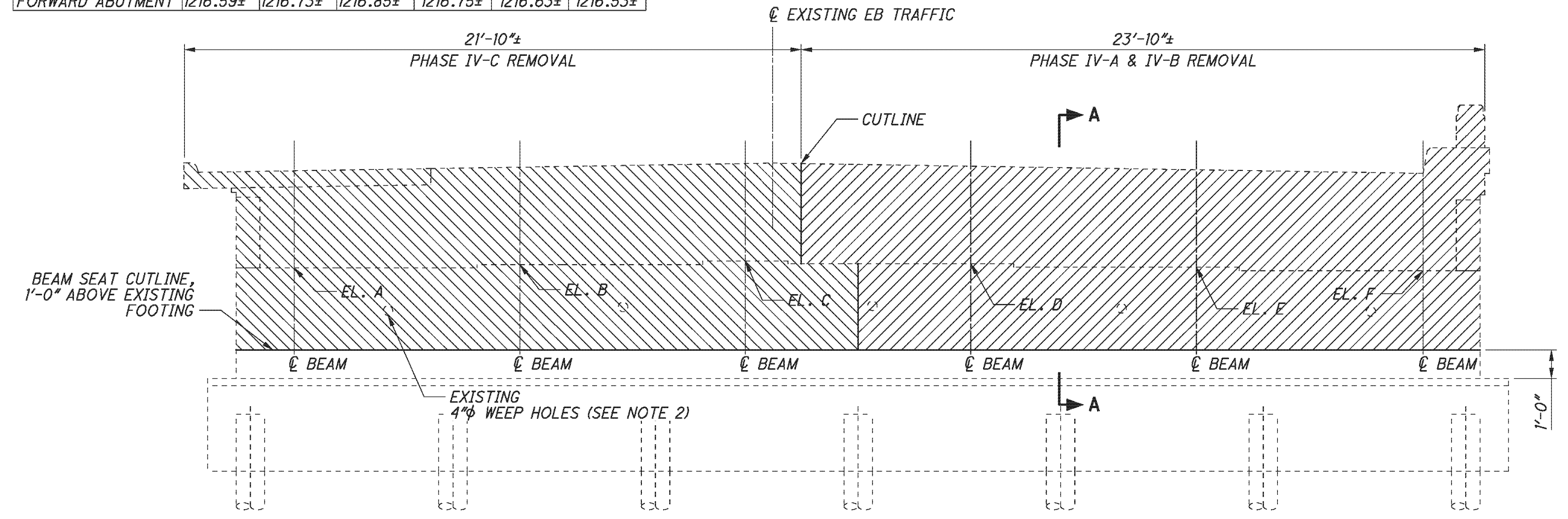
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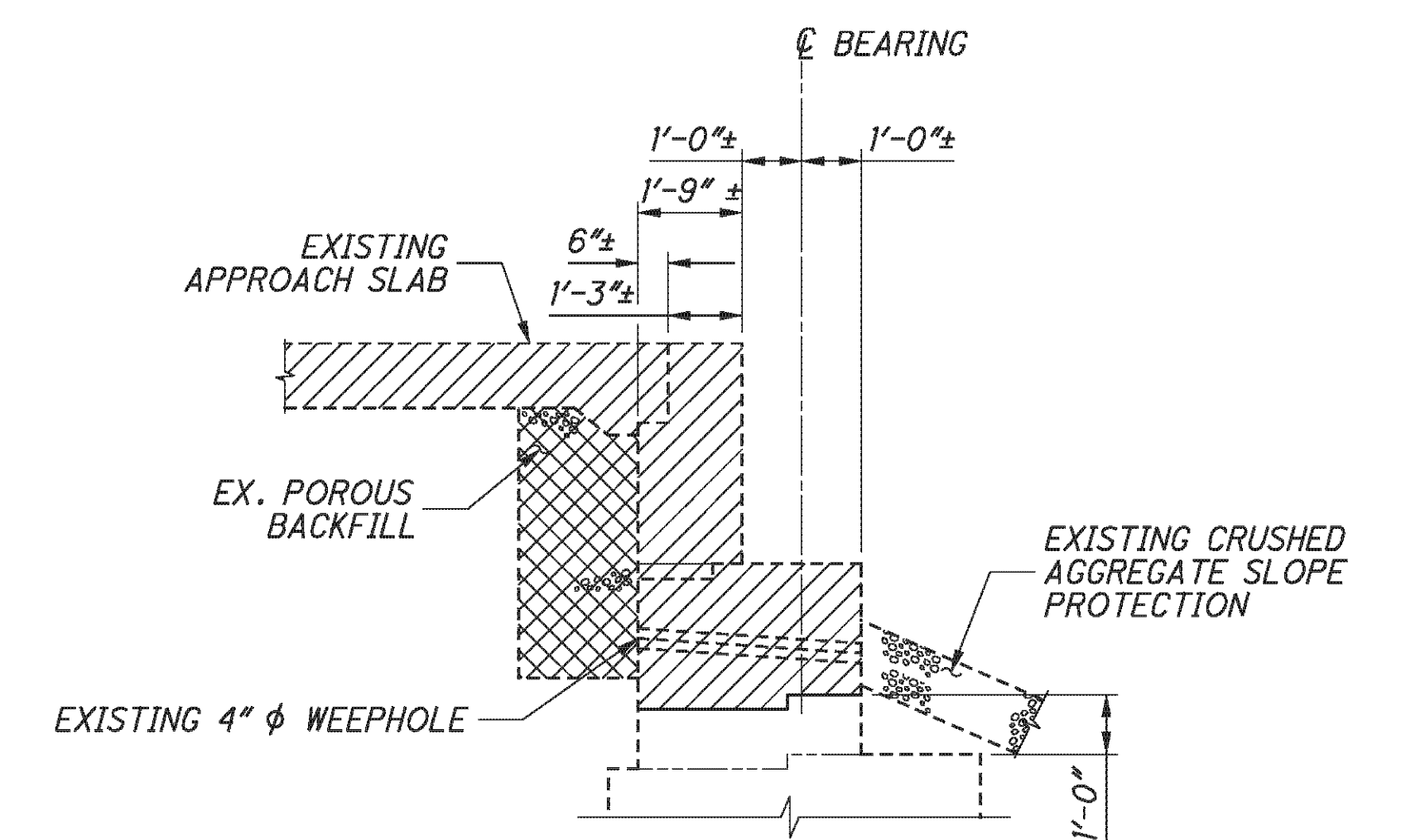
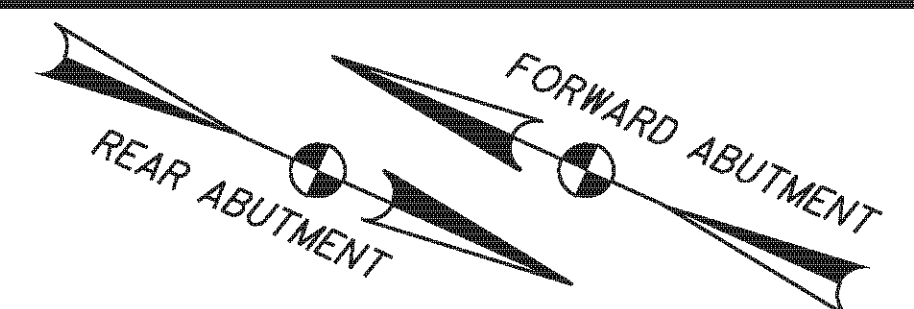
ABUTMENT PLAN VIEW
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT OPPOSITE HAND)

| 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± |

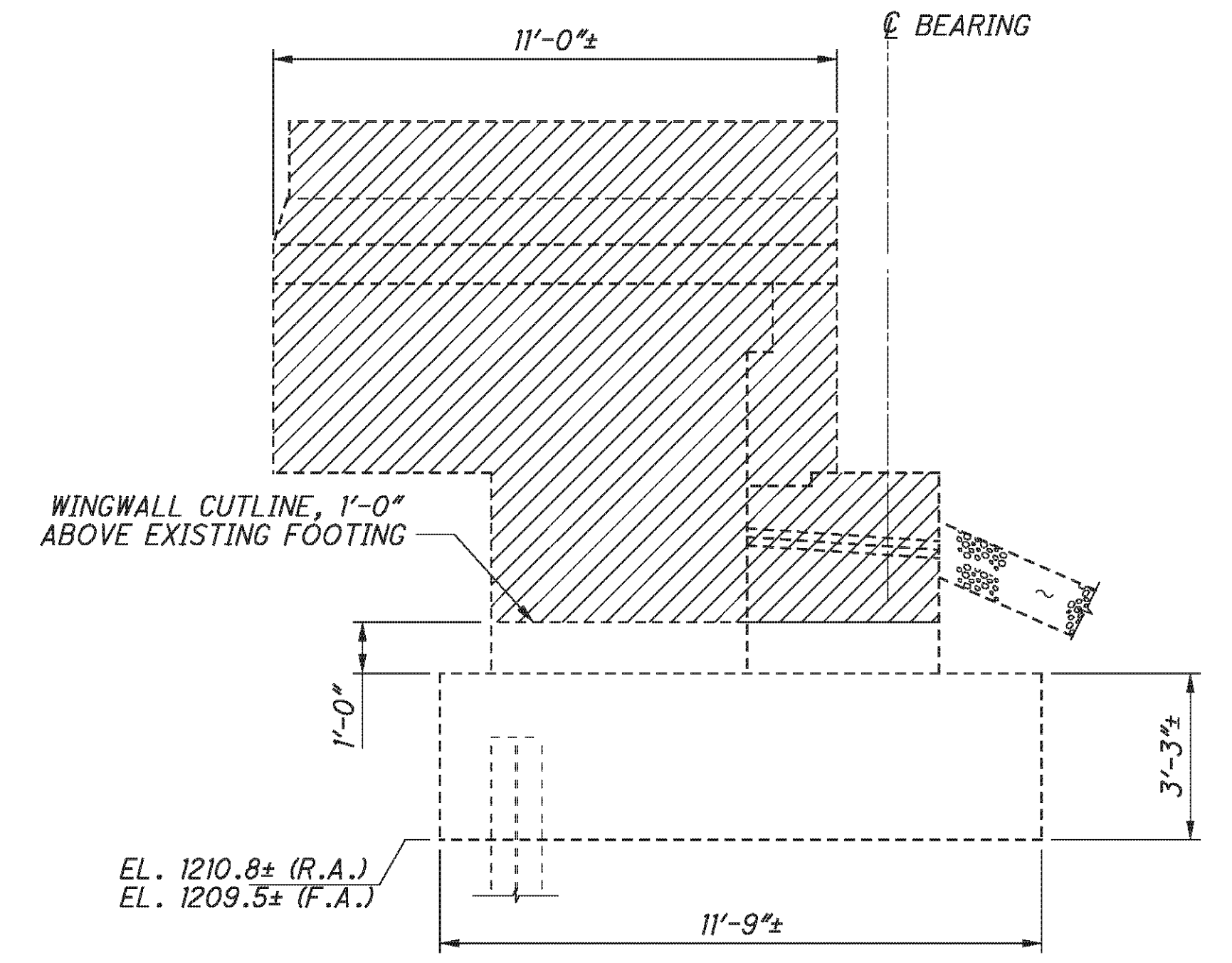


ABUTMENT ELEVATION VIEW
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT OPPOSITE HAND)

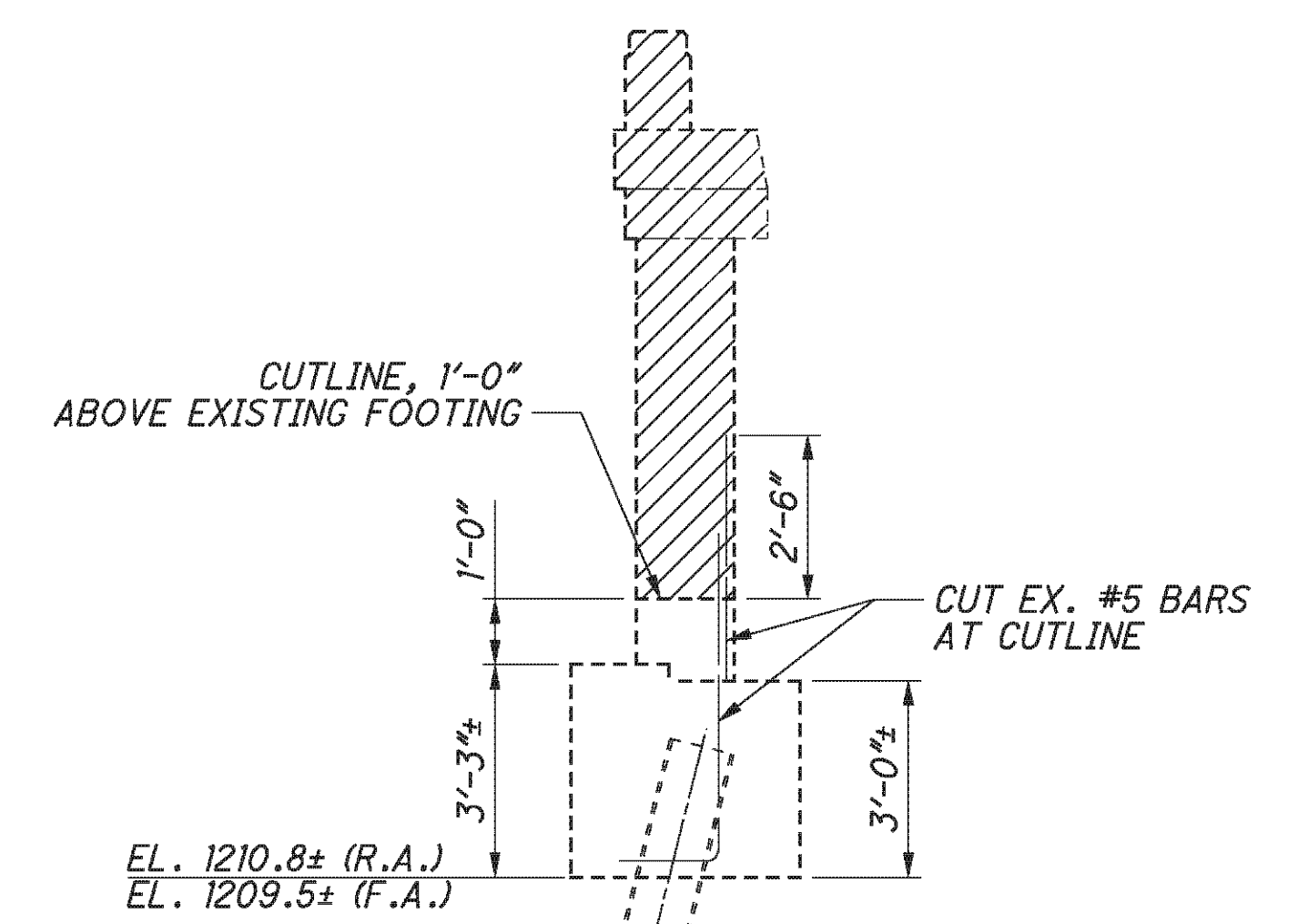
- LEGEND:**
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE IV-A
 - ITEM 202 - PORTIONS OF STRUCTURE REMOVED - PHASE IV-B
 - ITEM 202 - PORTIONS OF POROUS BACKFILL TO BE REMOVED



SECTION A-A



WINGWALL ELEVATION VIEW
(FOR DIMENSIONS NOT SHOWN, SEE SECTION A-A)



EXISTING WINGWALL SECTION

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| | |
|-----------------------|-------------------|
| DATE | 2/3/11 |
| REVIEWED | RER |
| STRUCTURE FILE NUMBER | 0702226L/0702250R |
| DRAWN | BMG |
| DESIGNED | BMG |
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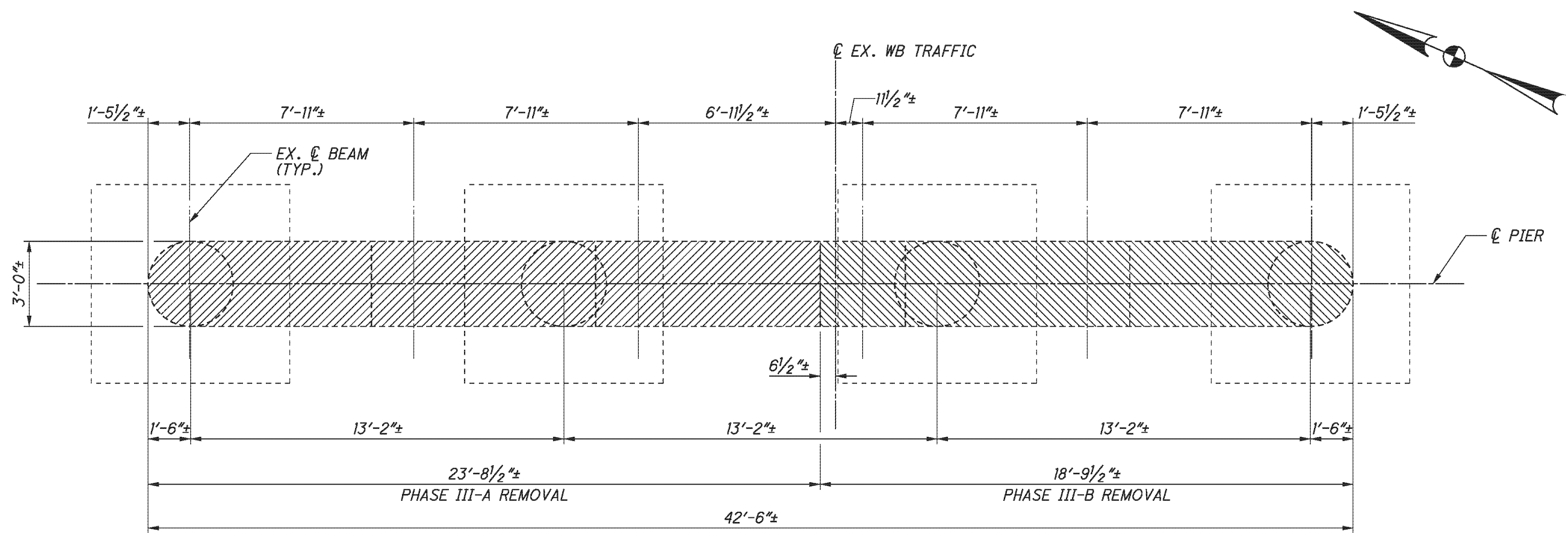
ABUTMENT REMOVAL DETAILS - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

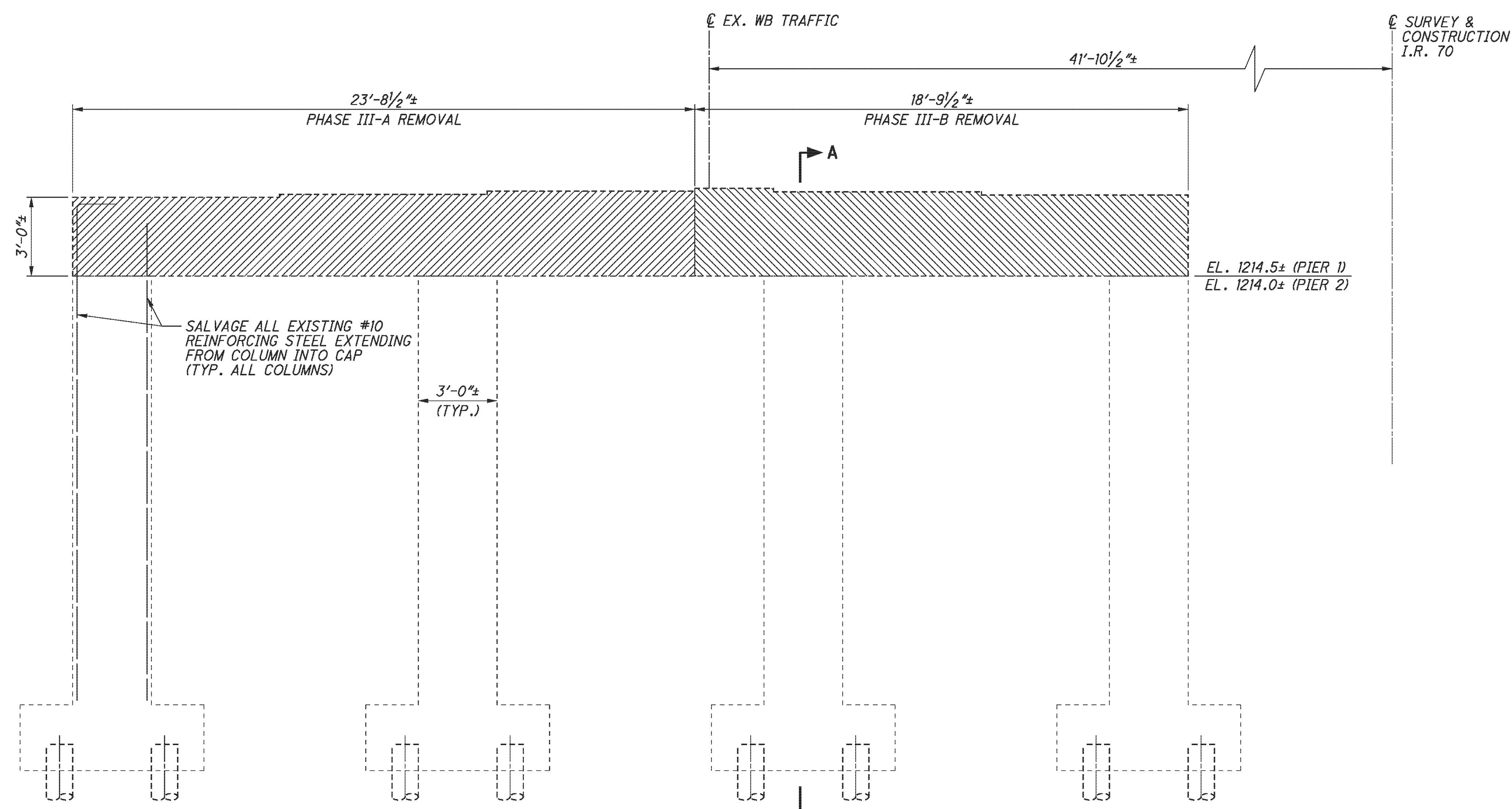
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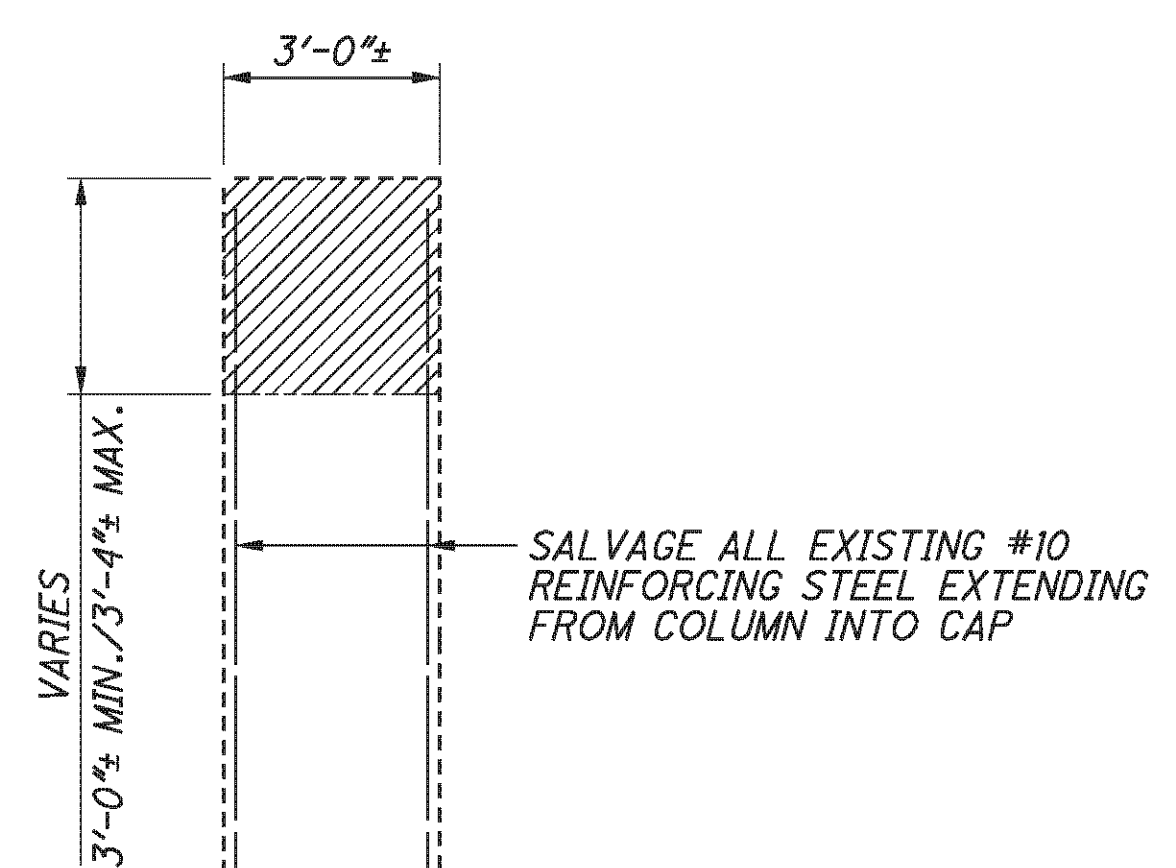
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PLAN
(TYP. BOTH PIERS)



ELEVATION
(TYP. BOTH PIERS)



SECTION A-A

- LEGEND:**
- PHASE III-A REMOVAL
 - PHASE III-B REMOVAL

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

| | | | | | | | |
|----------|-----|---------|-----|-----------------------|-------------------|------|---------|
| DESIGNED | AME | DRAWN | BMG | REVIEWED | DFT | DATE | 5/11/10 |
| CHECKED | TUE | REVISED | | STRUCTURE FILE NUMBER | 0702226L/0702250R | | |

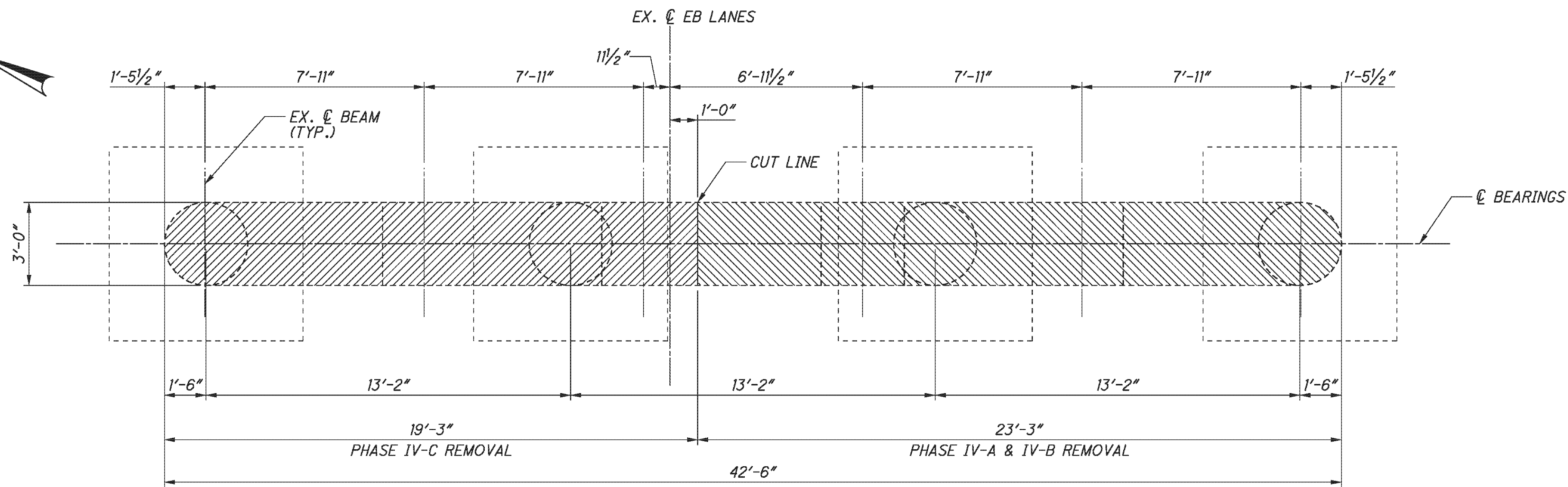
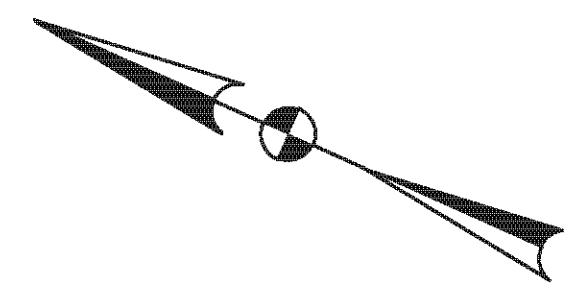
PIER REMOVAL - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

13 / 45

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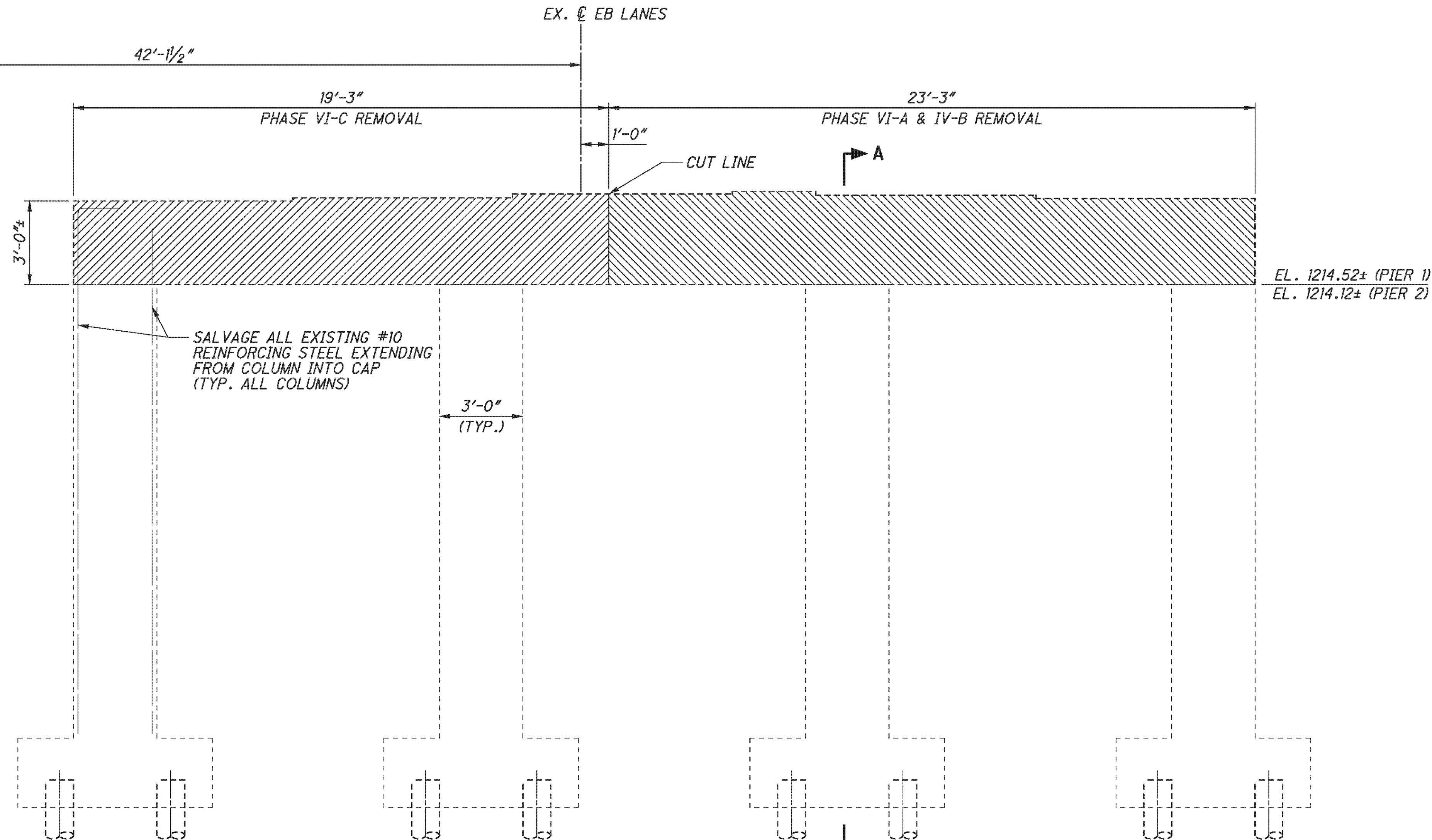
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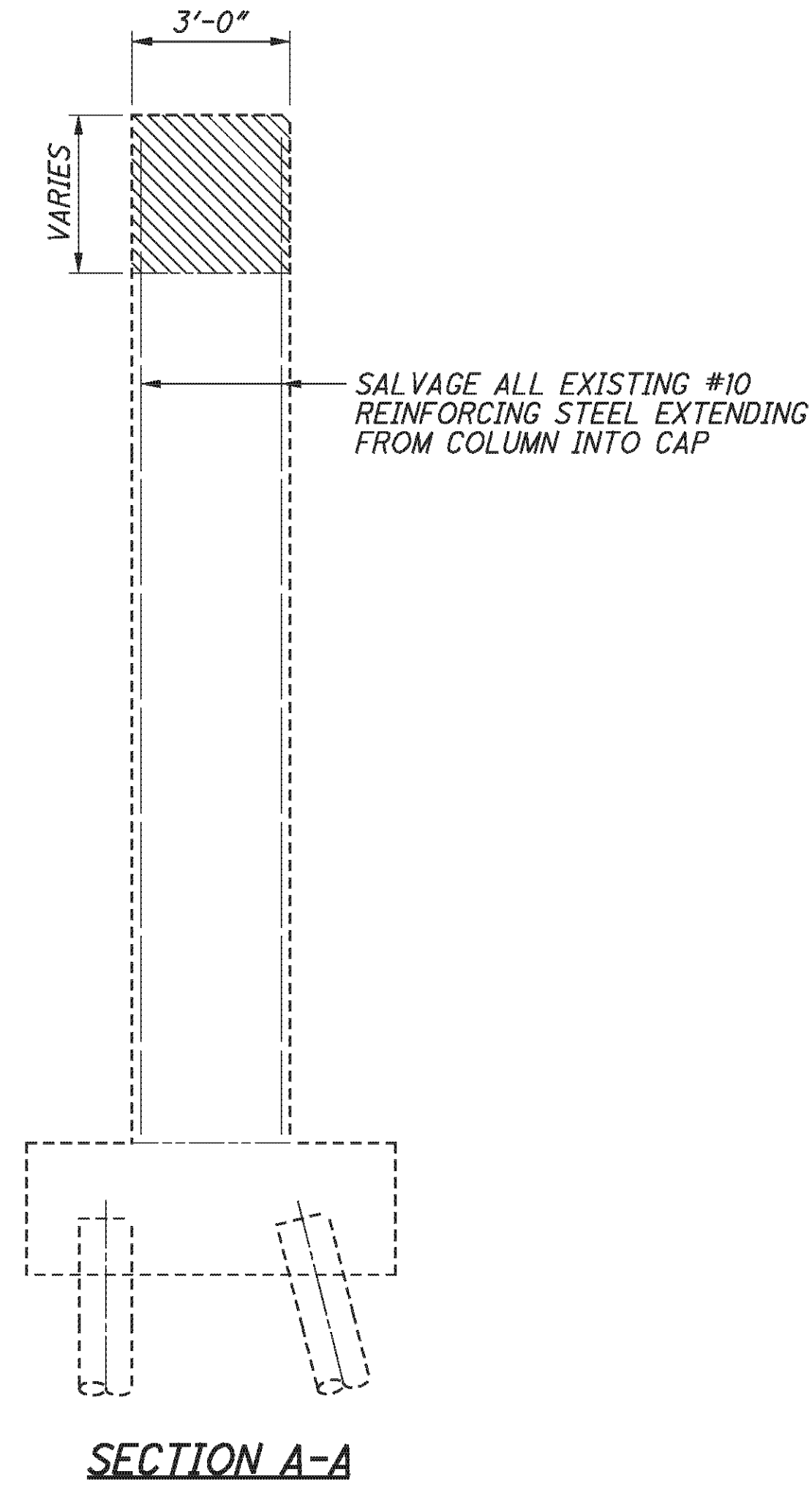
PLAN

RIGHT BRIDGE

CL SURVEY & CONSTRUCTION I.R. 70



EXISTING TYPICAL PIER ELEVATION
RIGHT BRIDGE (TYP. BOTH PIERS)



SECTION A-A

NOTES:

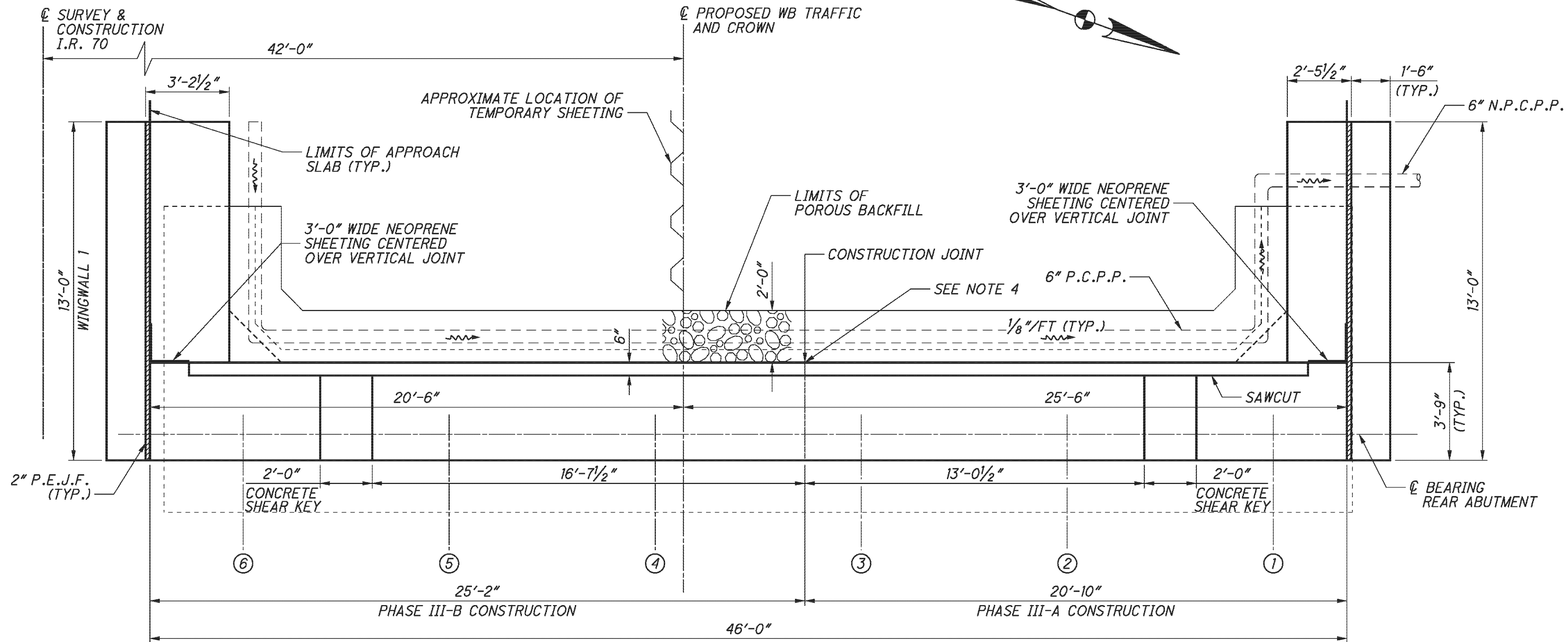
ALL EXISTING DIMENSIONS ARE ±

LEGEND:

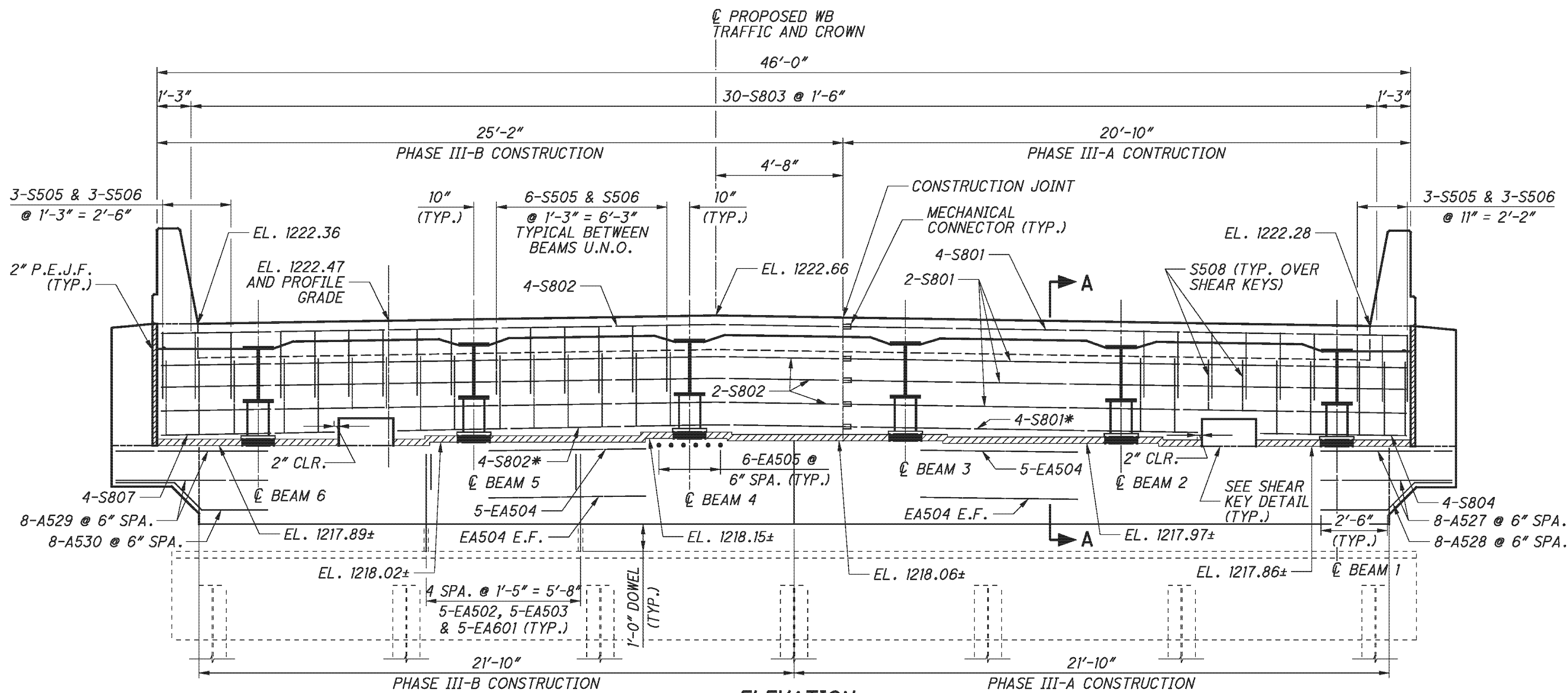
- PHASE IV-A REMOVAL
- PHASE IV-B REMOVAL

| | |
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| E.L. ROBINSON <small>the Challenge, the Choice</small> | |
| 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 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.
- 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].

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

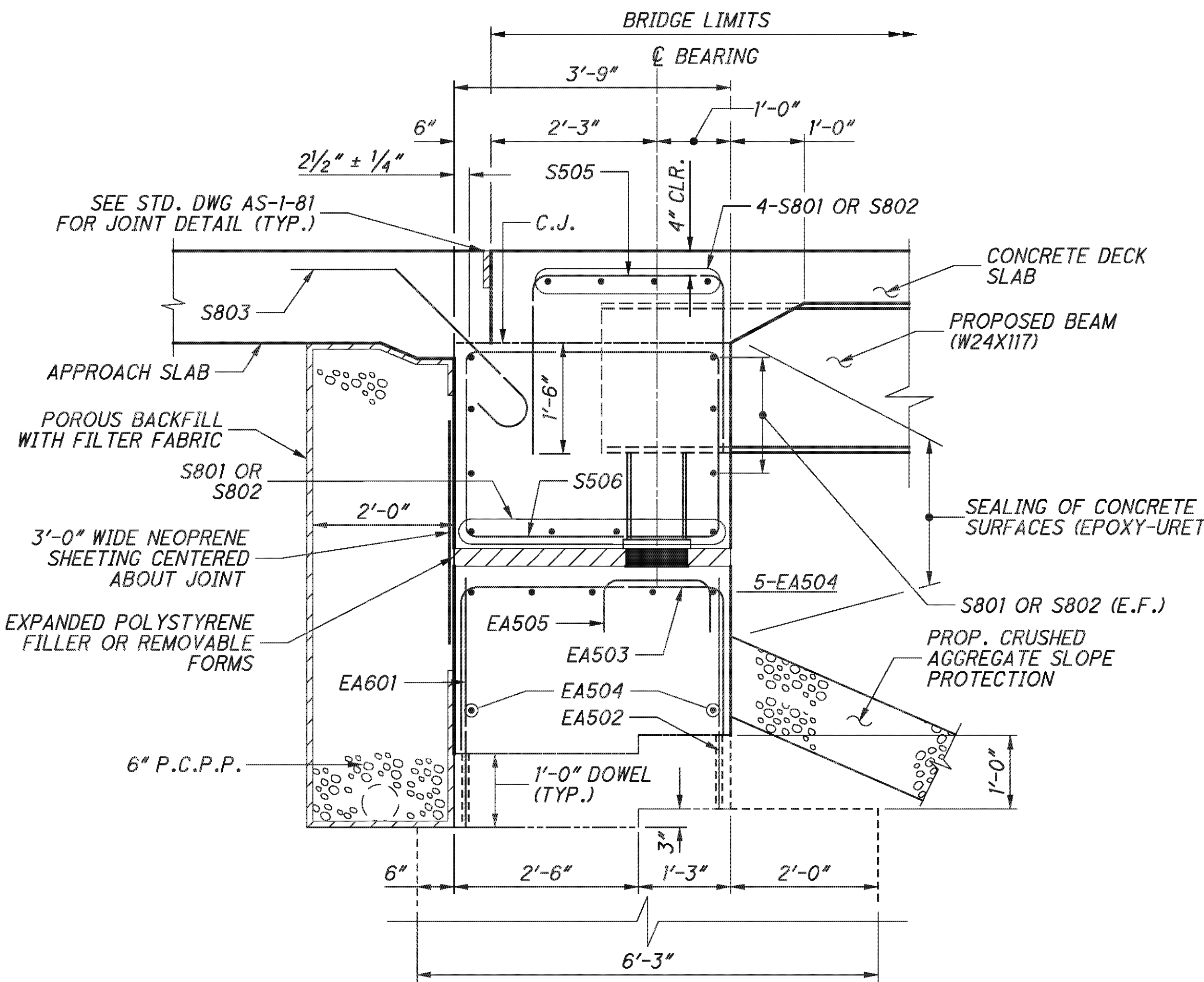
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| DESIGNED | BMG | CHECKED | TUE |
| DRAWN | BMG | REVIEWED | |
| REVIEWED | DFT | DATE | 5/11/10 |
| STRUCTURE FILE NUMBER | 0702226L/0702250R | | |

REAR ABUTMENT - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

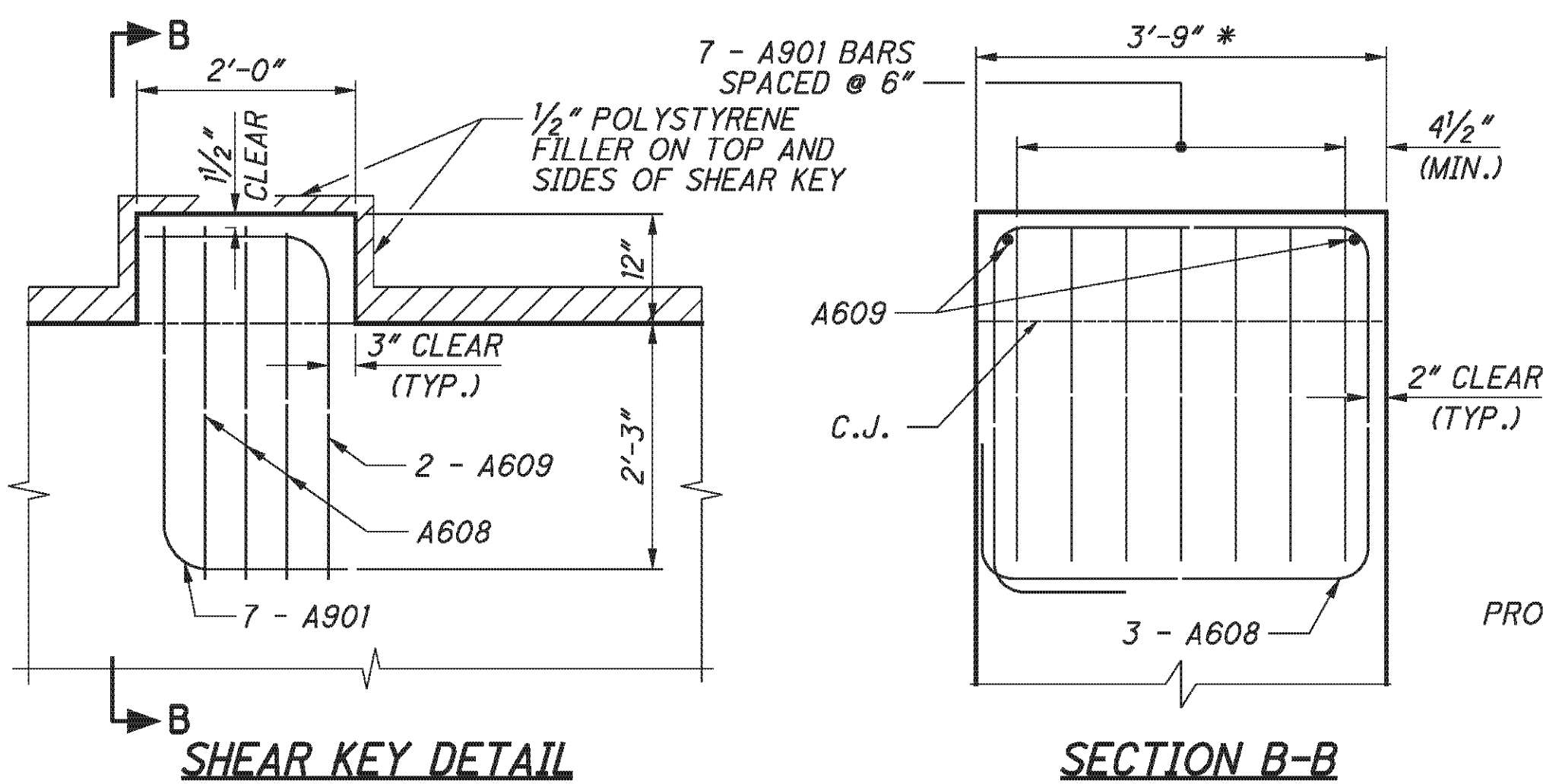
BEL-70-7.61
PID No. 76825

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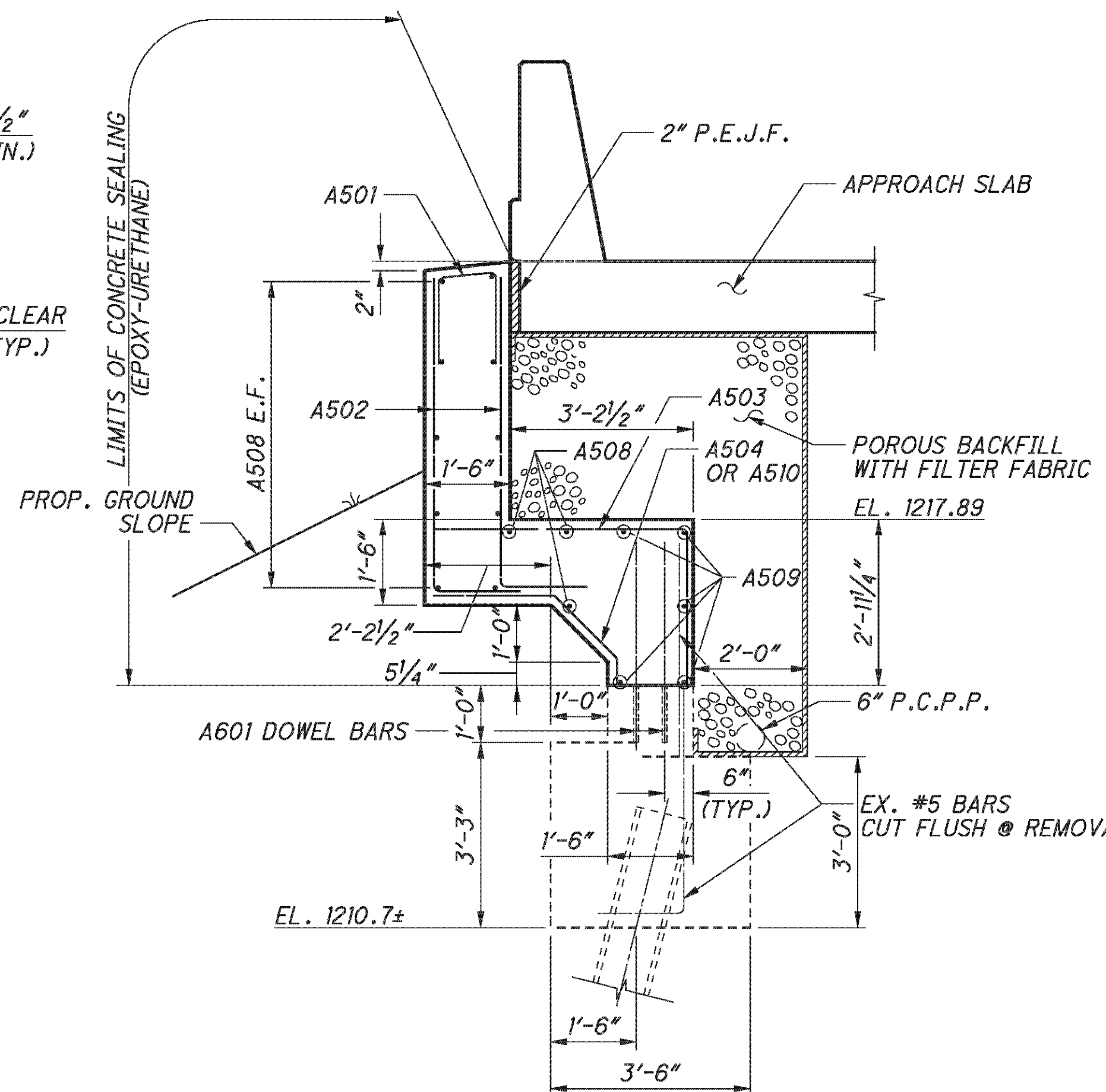
SECTION A-A



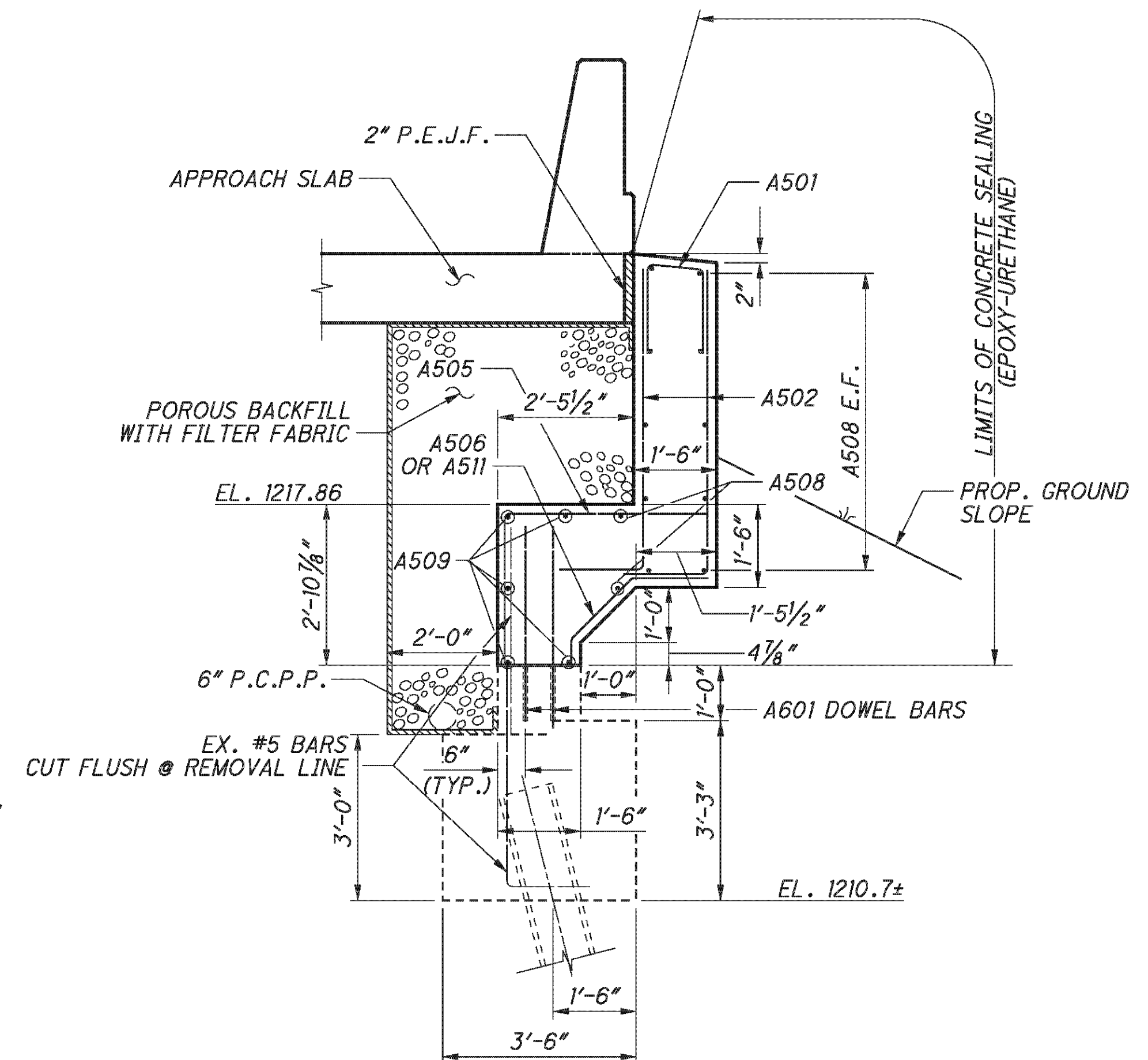
SHEAR KEY DETAIL

SECTION B-B

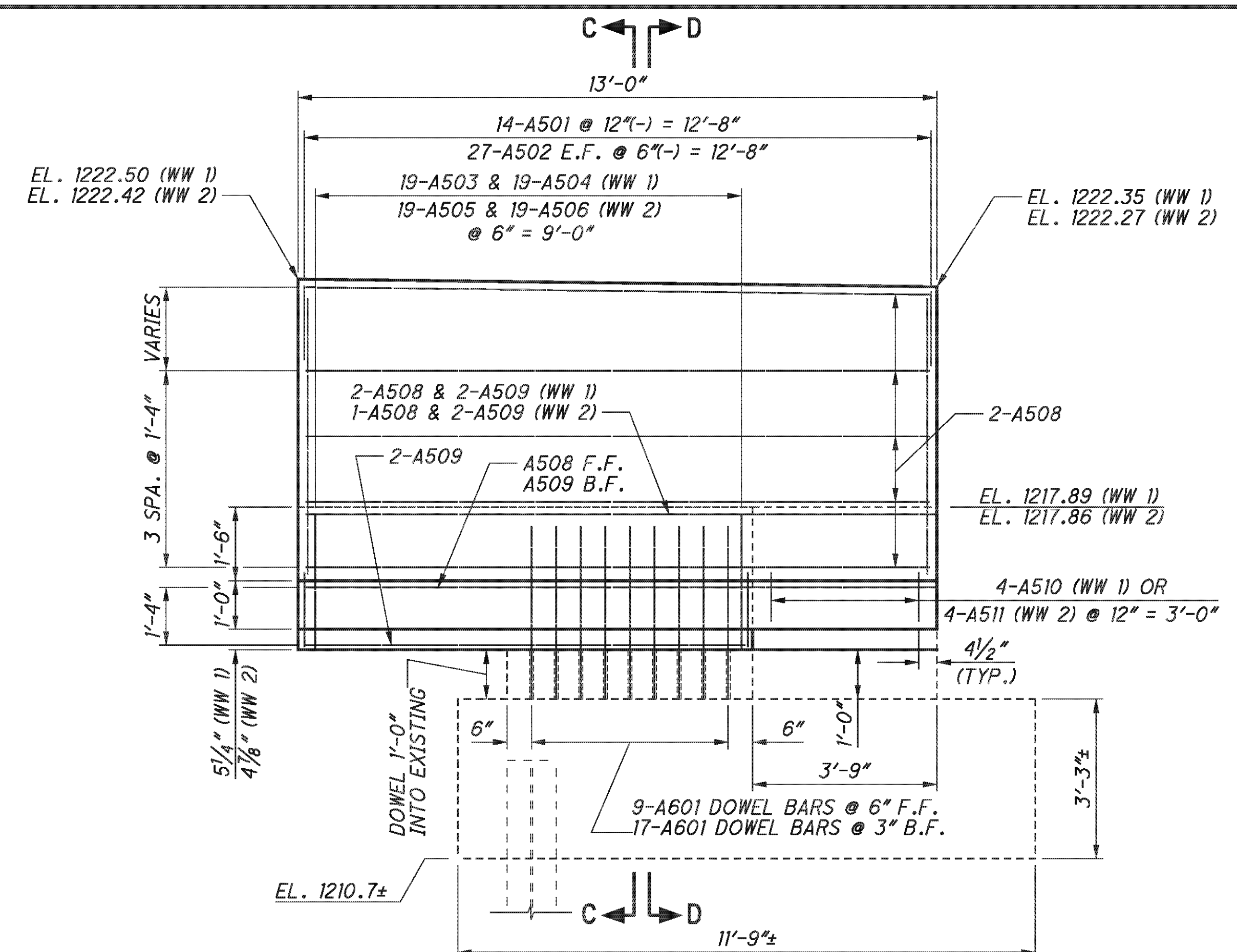
*-THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



SECTION C-C (WINGWALL 1)



SECTION D-D (WINGWALL 2)



REAR ABUTMENT WINGWALL ELEVATION

(WINGWALL 1 SHOWN, WINGWALL 2 SIMILAR)

NOTE:

FOR SHEAR KEY LOCATIONS, AND LOCATION OF SECTION A-A, SEE SHEET 15/45.

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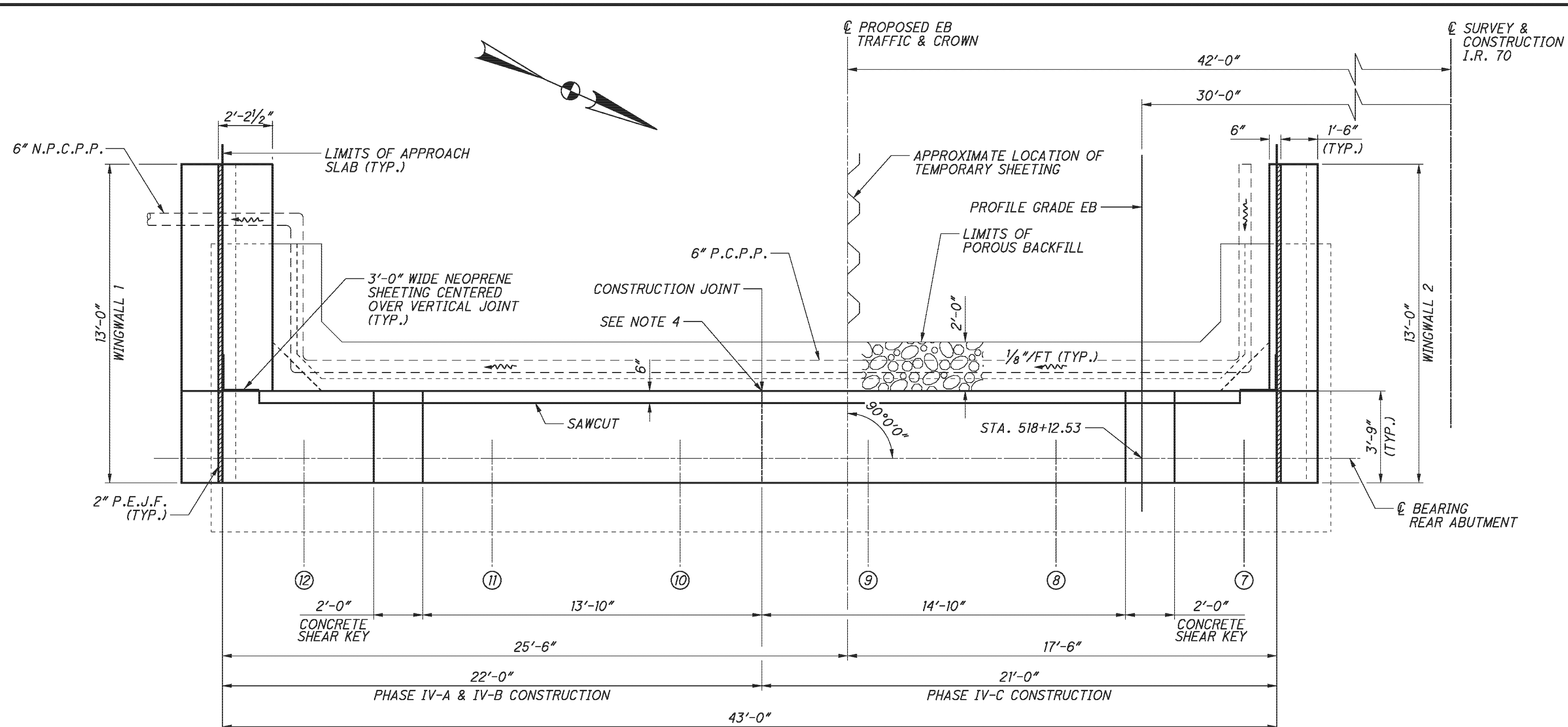
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| STRUCTURE FILE NUMBER | 0702226L/0702250R |

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BRIDGE NO. BEL-70-0963 L/R
PID No. 76825
I.R. TO OVER S.R. 149

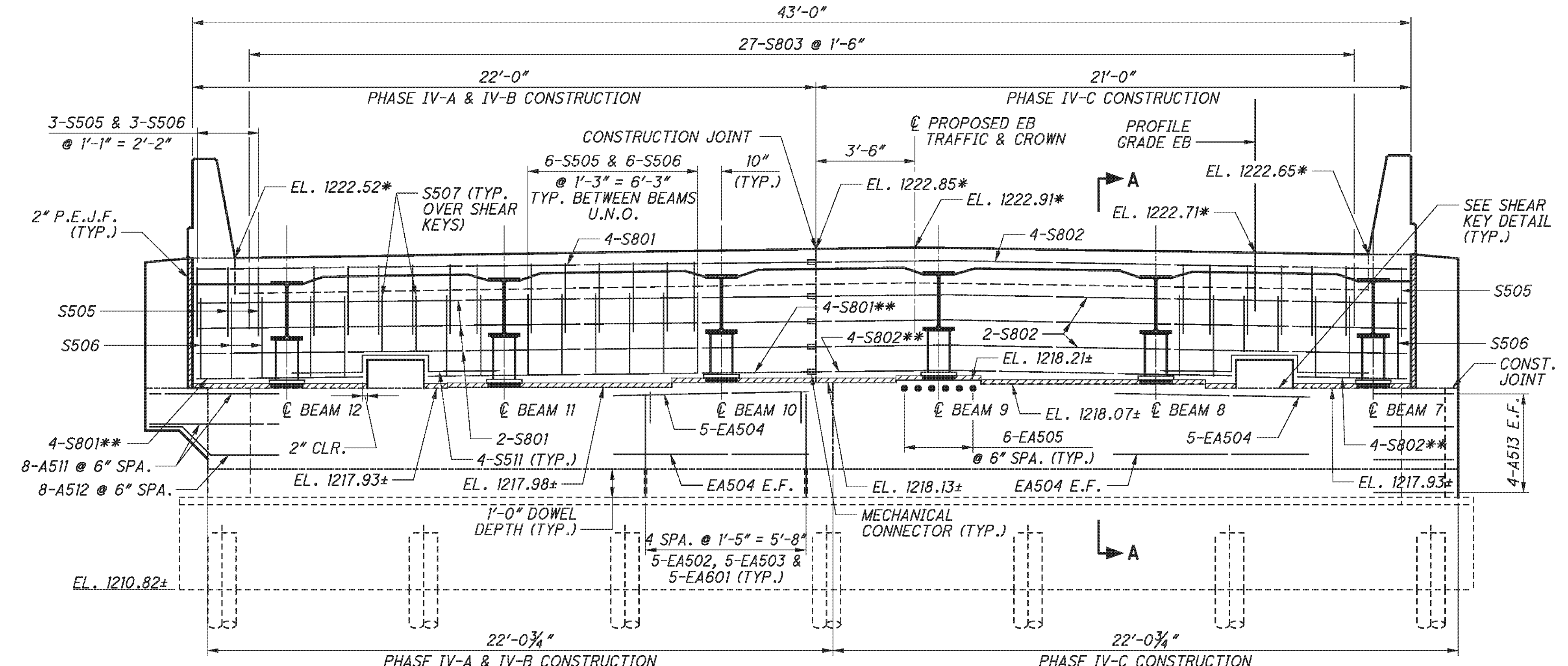
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PLAN



ELEVATION

LEGEND:

- * - ELEVATION GIVE AT @ 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 ± 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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The Challenge, the Choice
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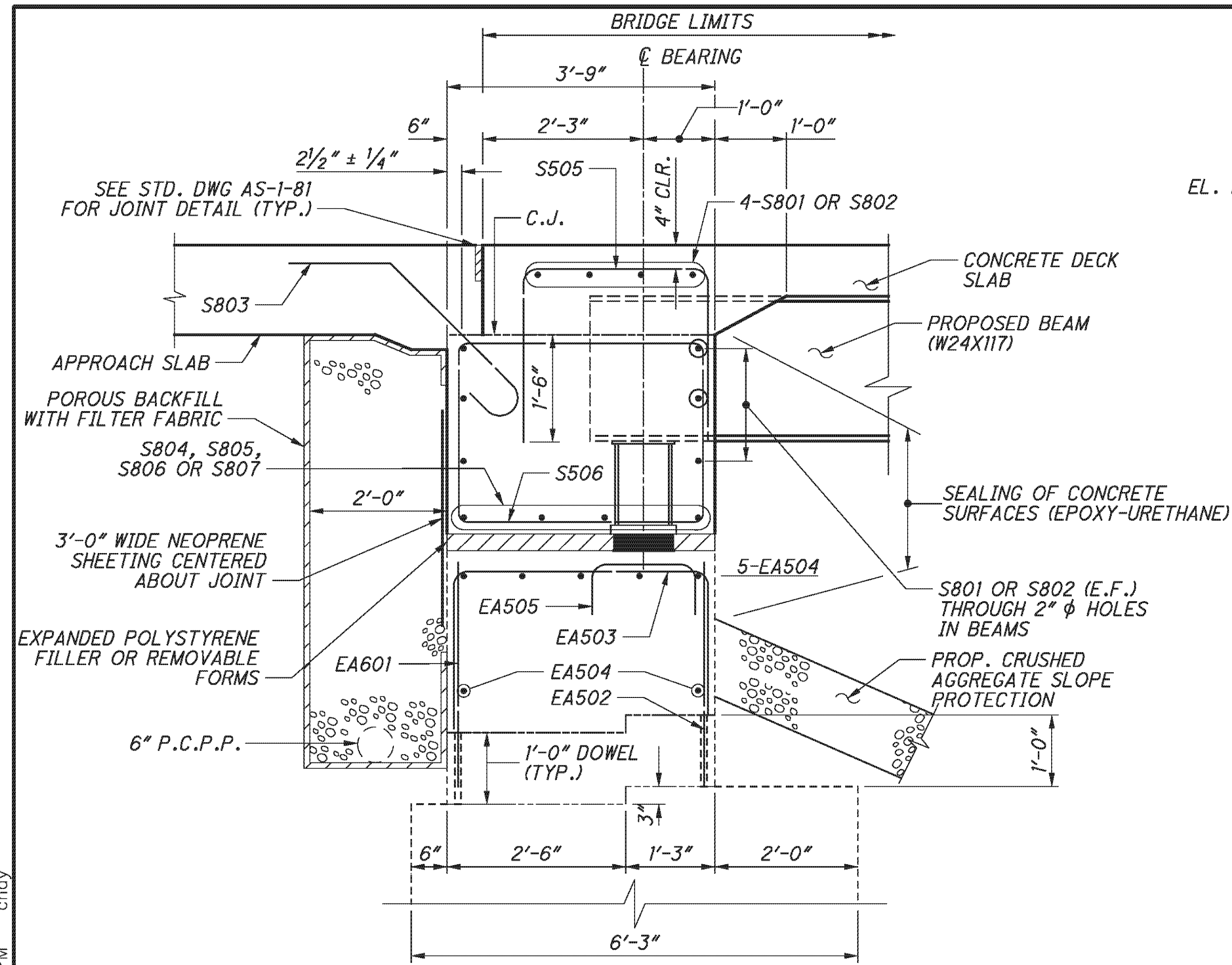
REAR ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

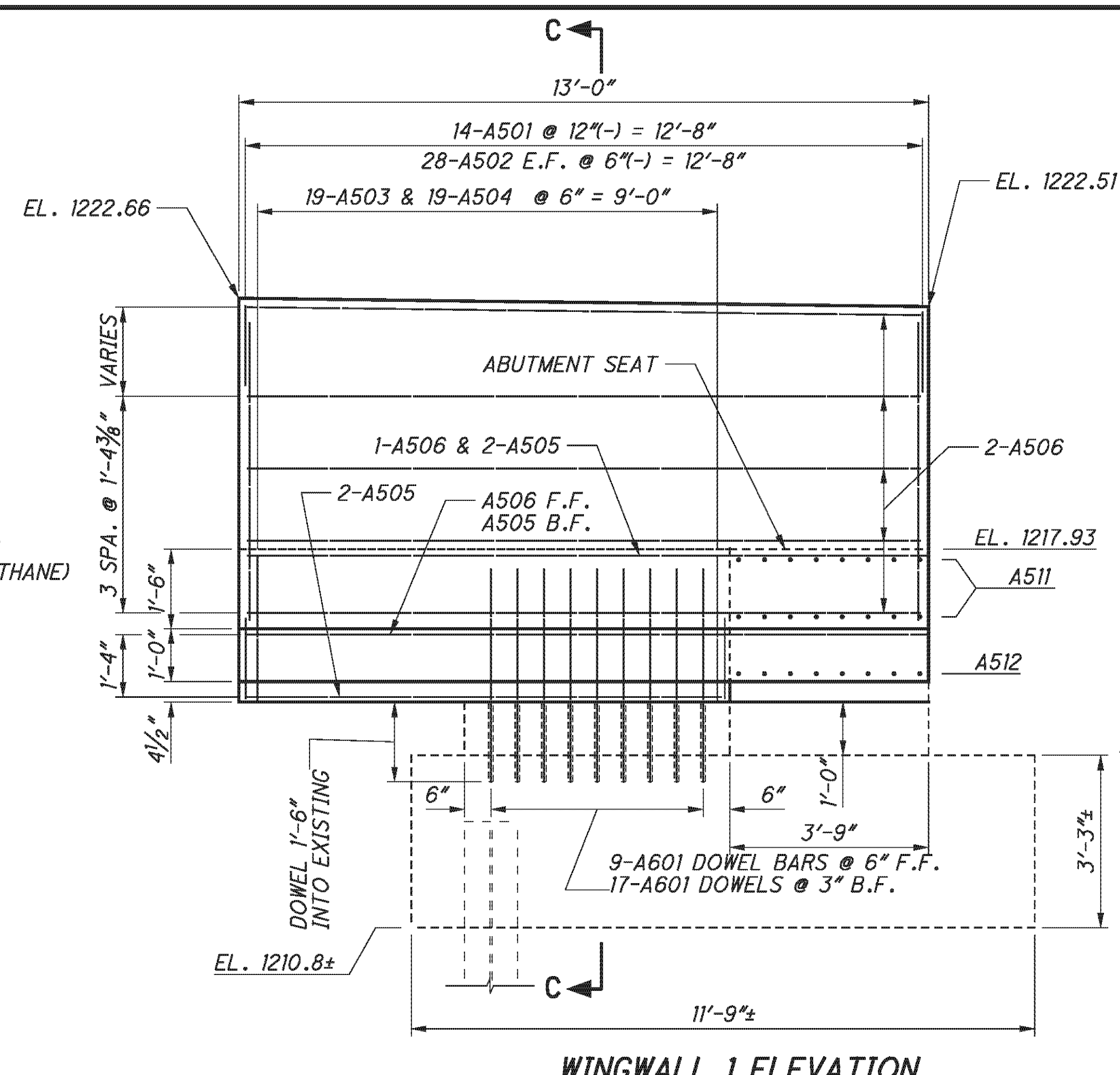
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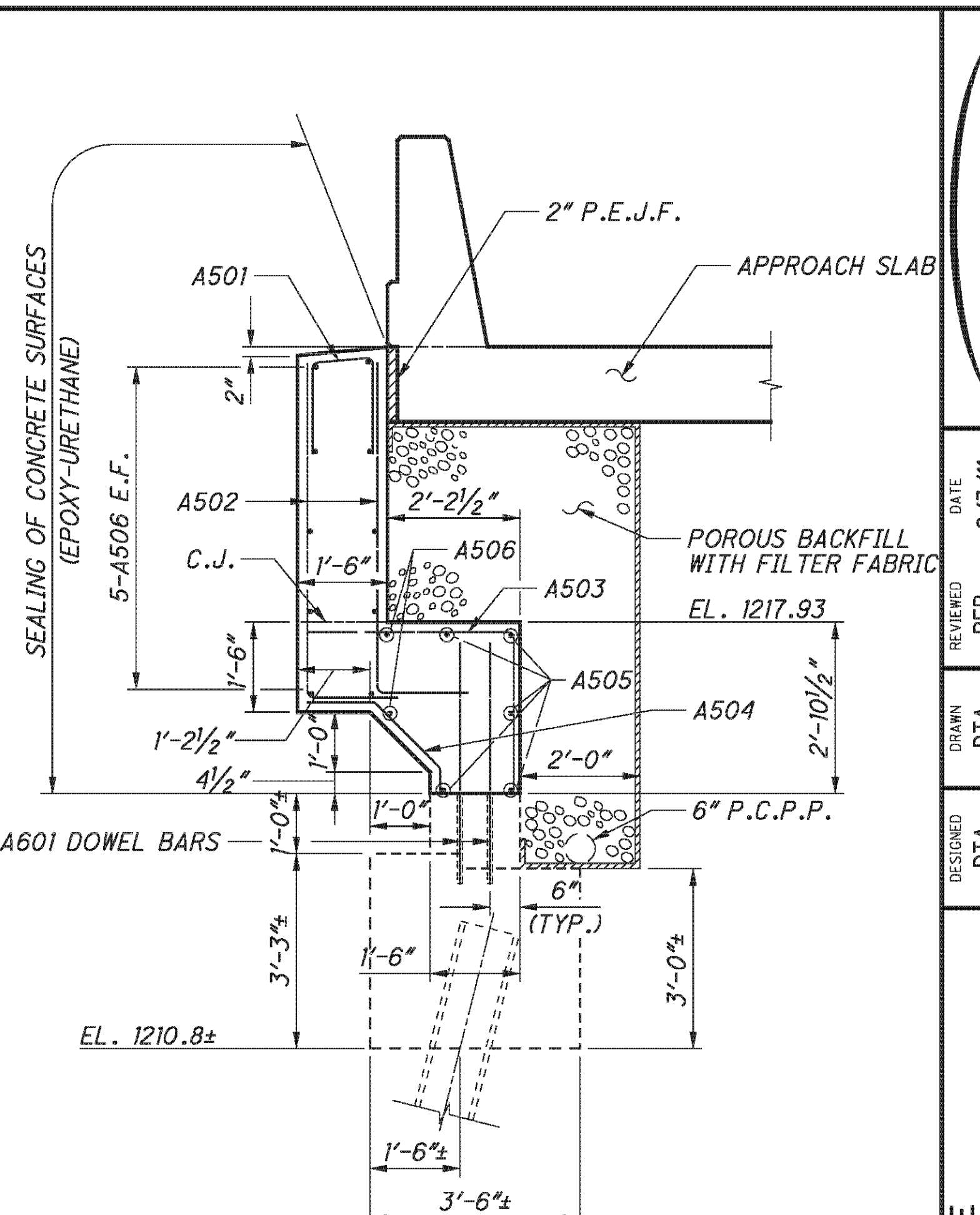
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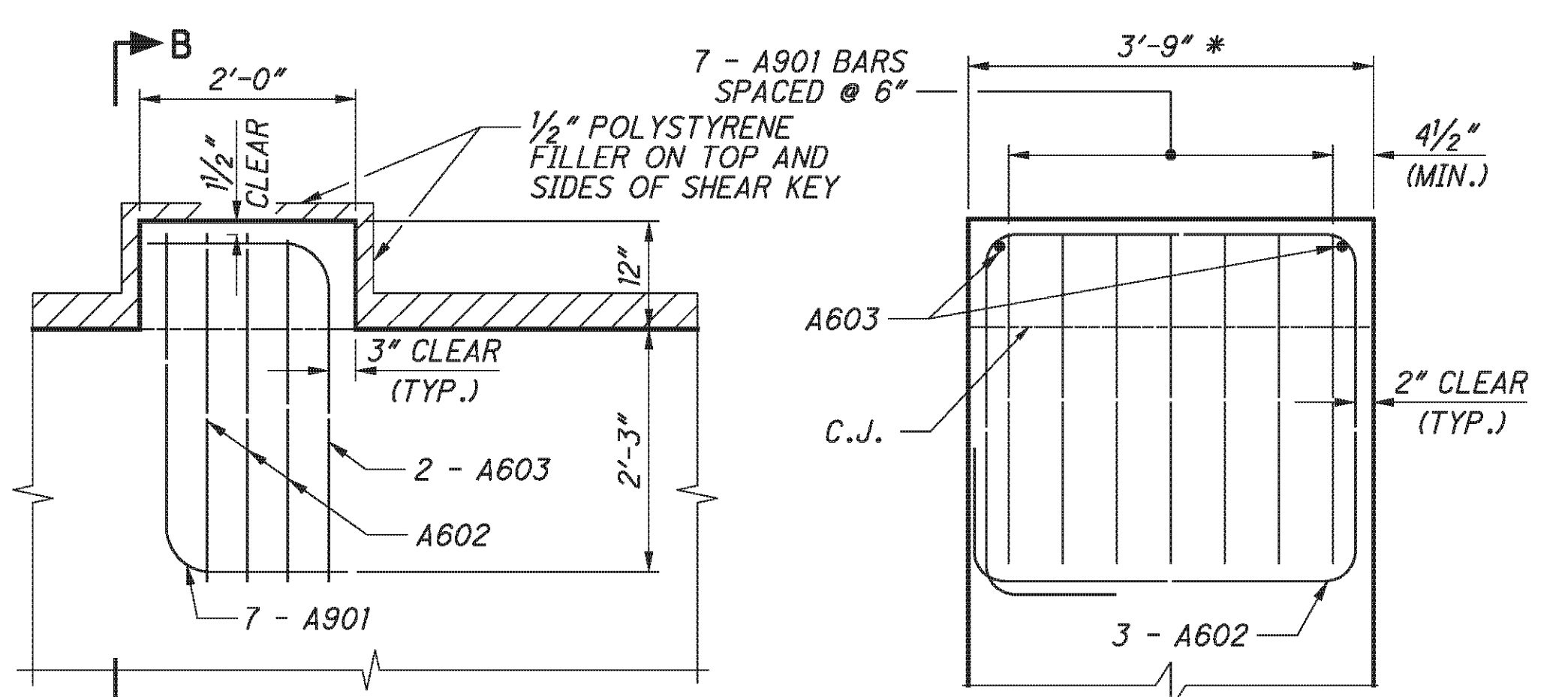
SECTION A-A



WINGWALL 1 ELEVATION



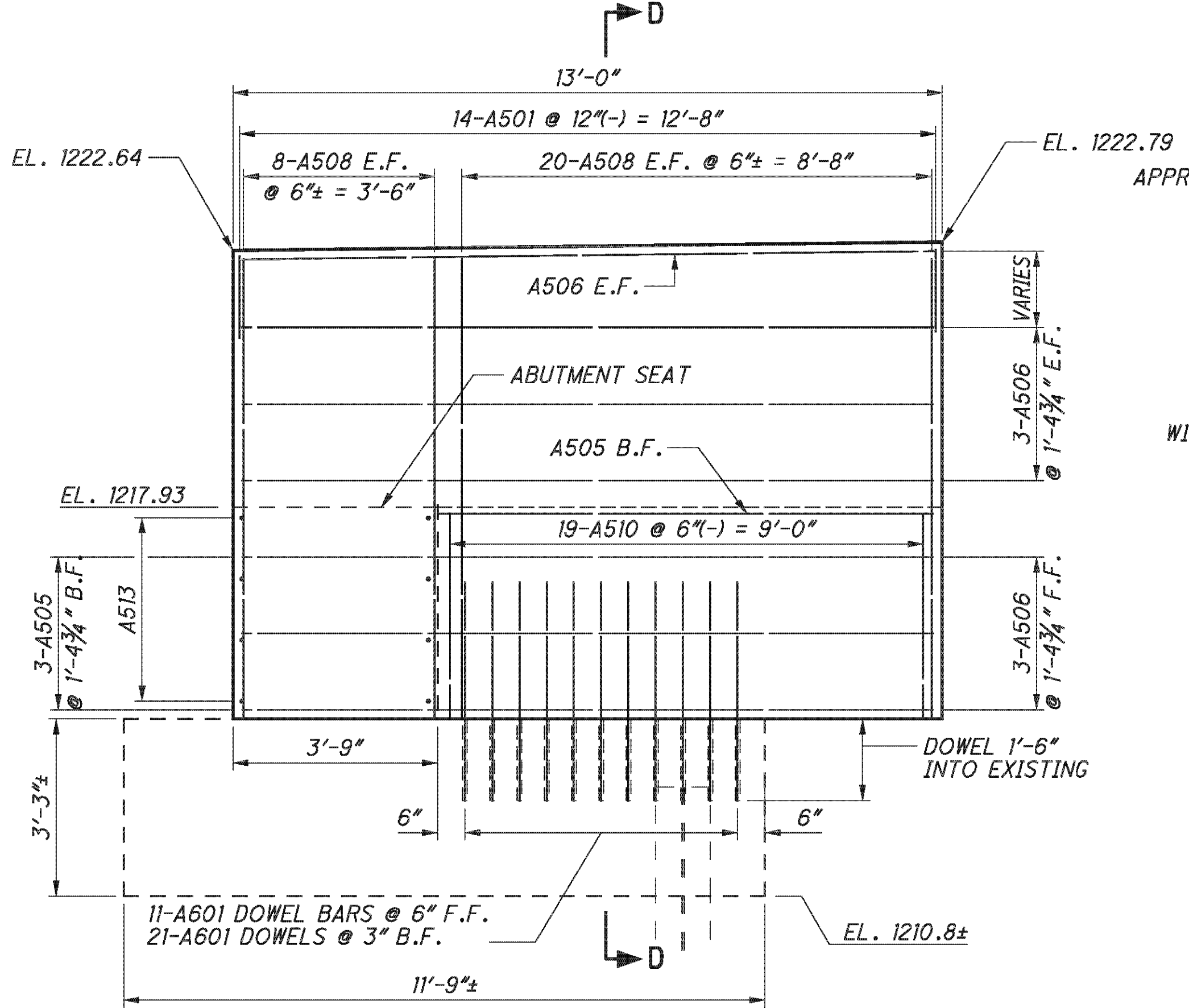
SECTION C-C



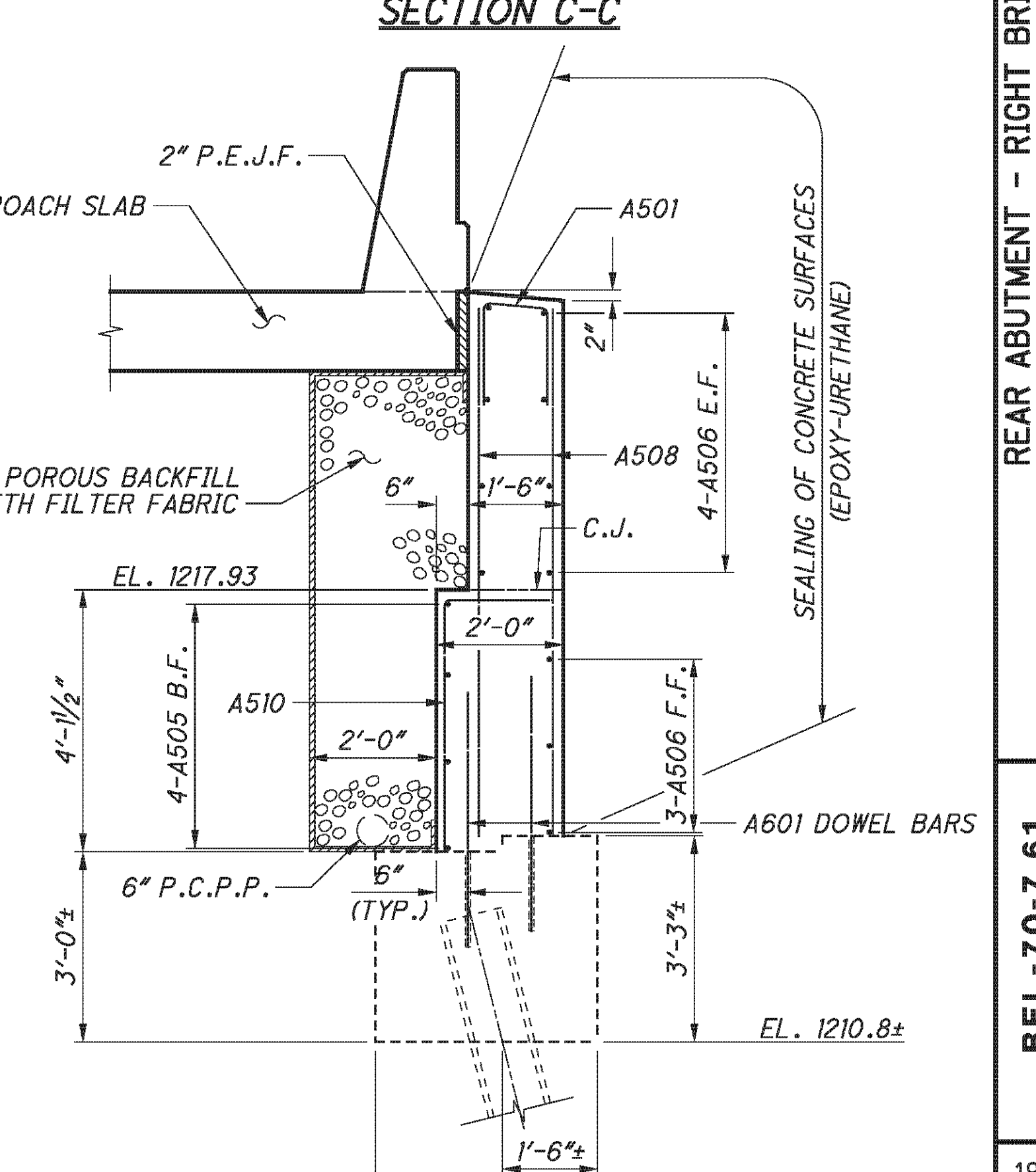
SHEAR KEY DETAIL

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.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

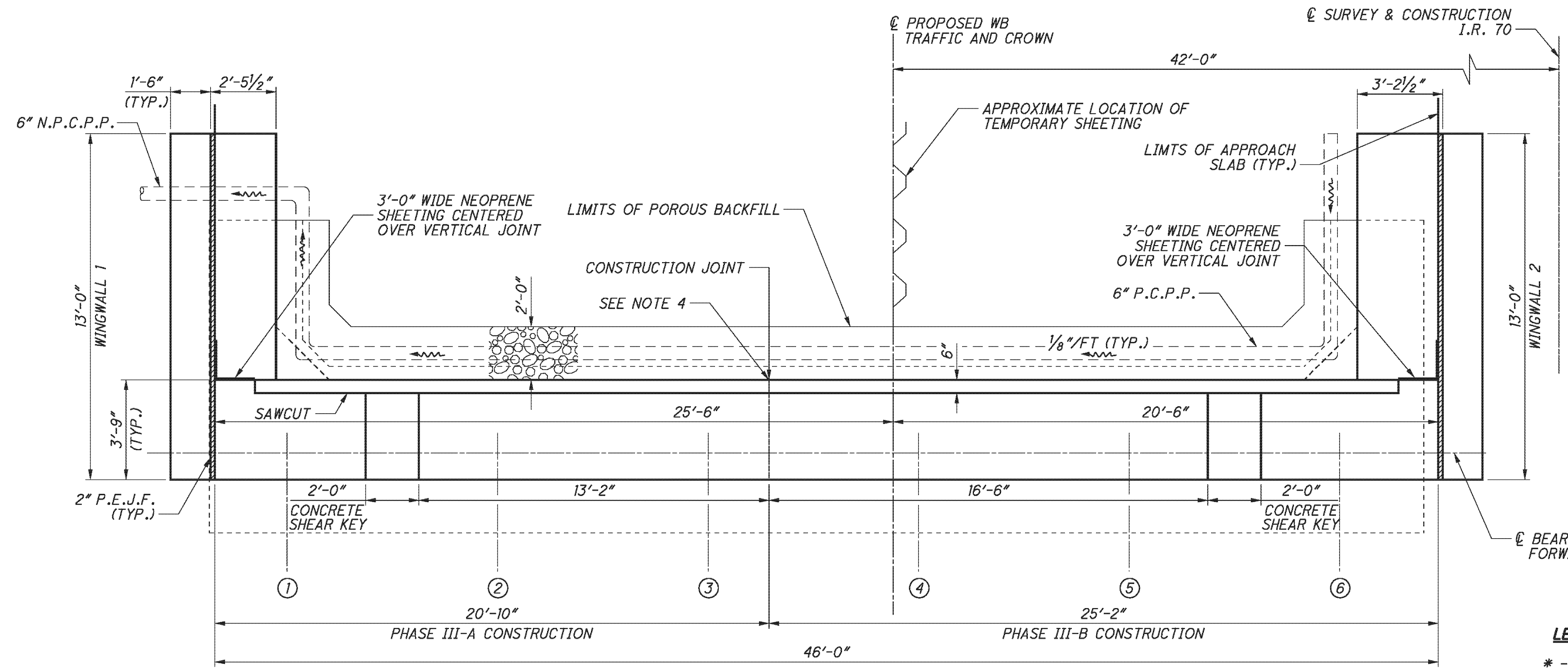
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REAR ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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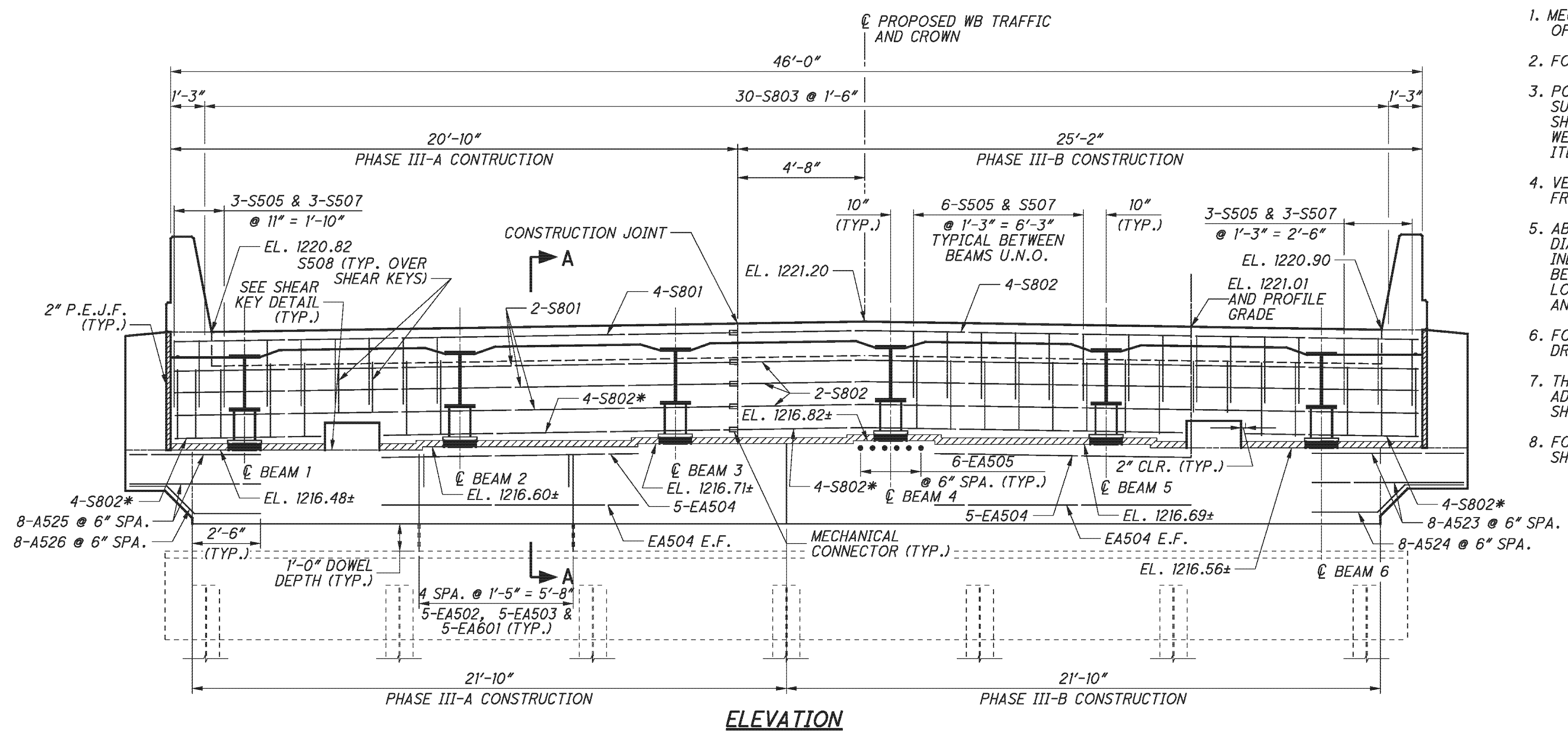


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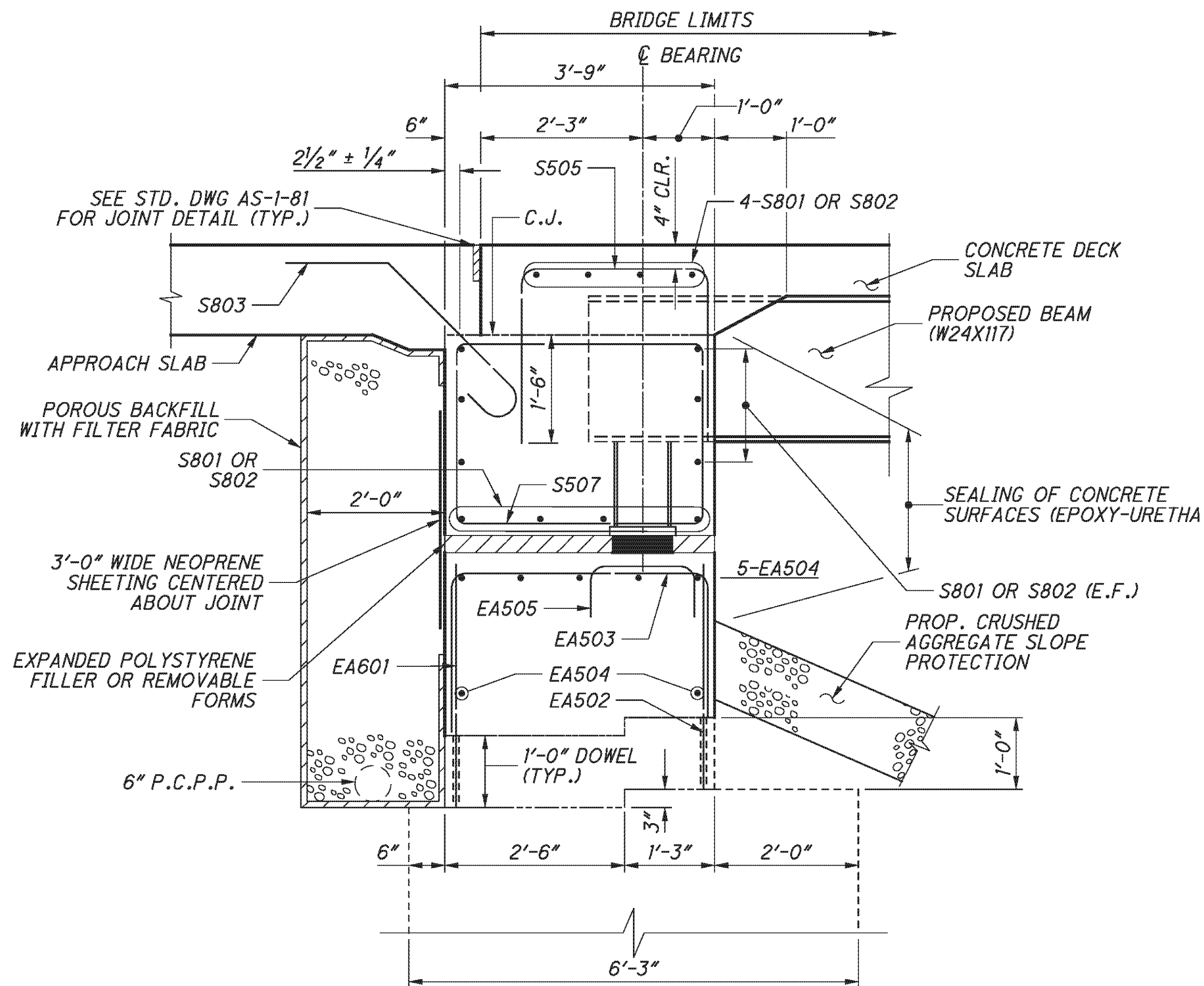
* - FIELD BEND AT SHEAR KEYS

NOTES:

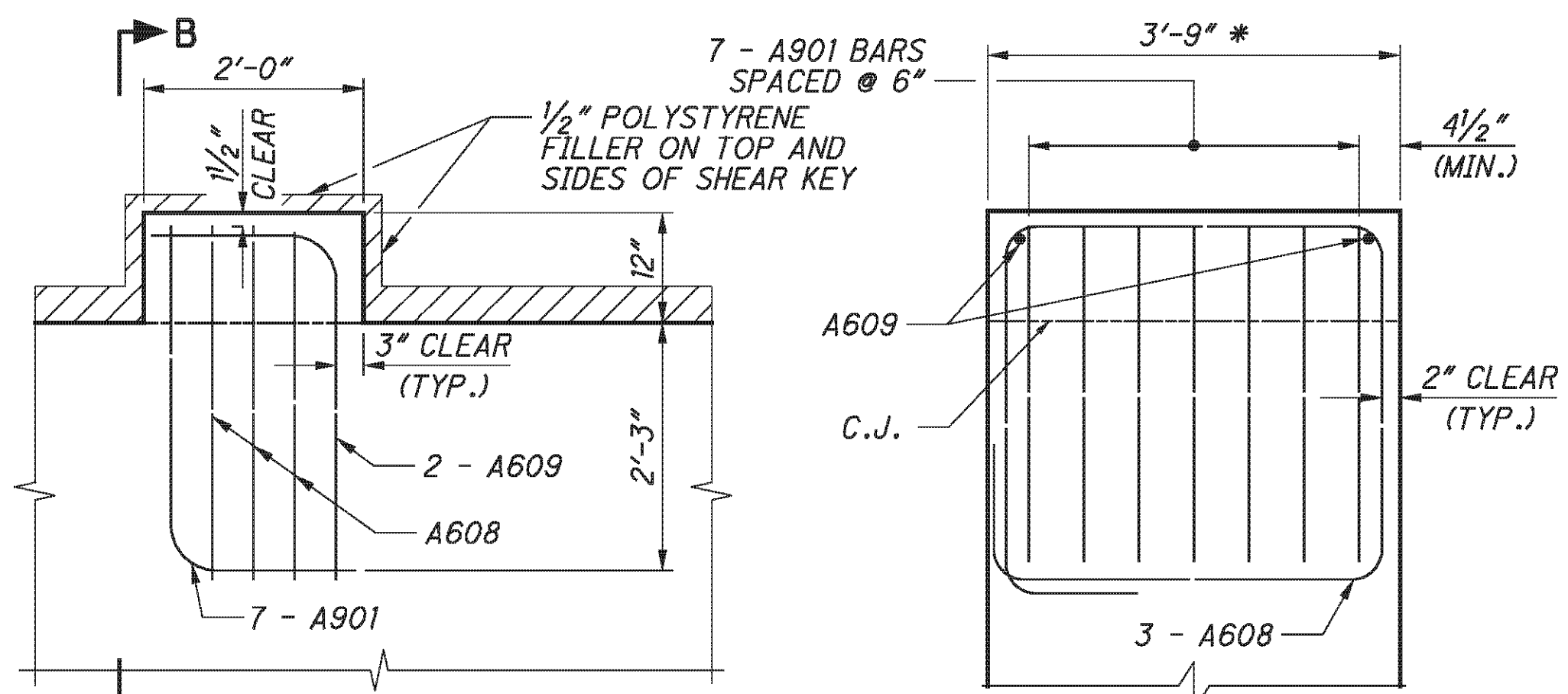
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.
- FOR BEARING DETAILS, SEE SHEET [29/45].
- POROUS BACKFILL, 2'-0" THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND LATERALLY TO THE END OF THE WINGWALLS TO THE LIMITS SHOWN. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH 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 [20/45].



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SECTION A-A



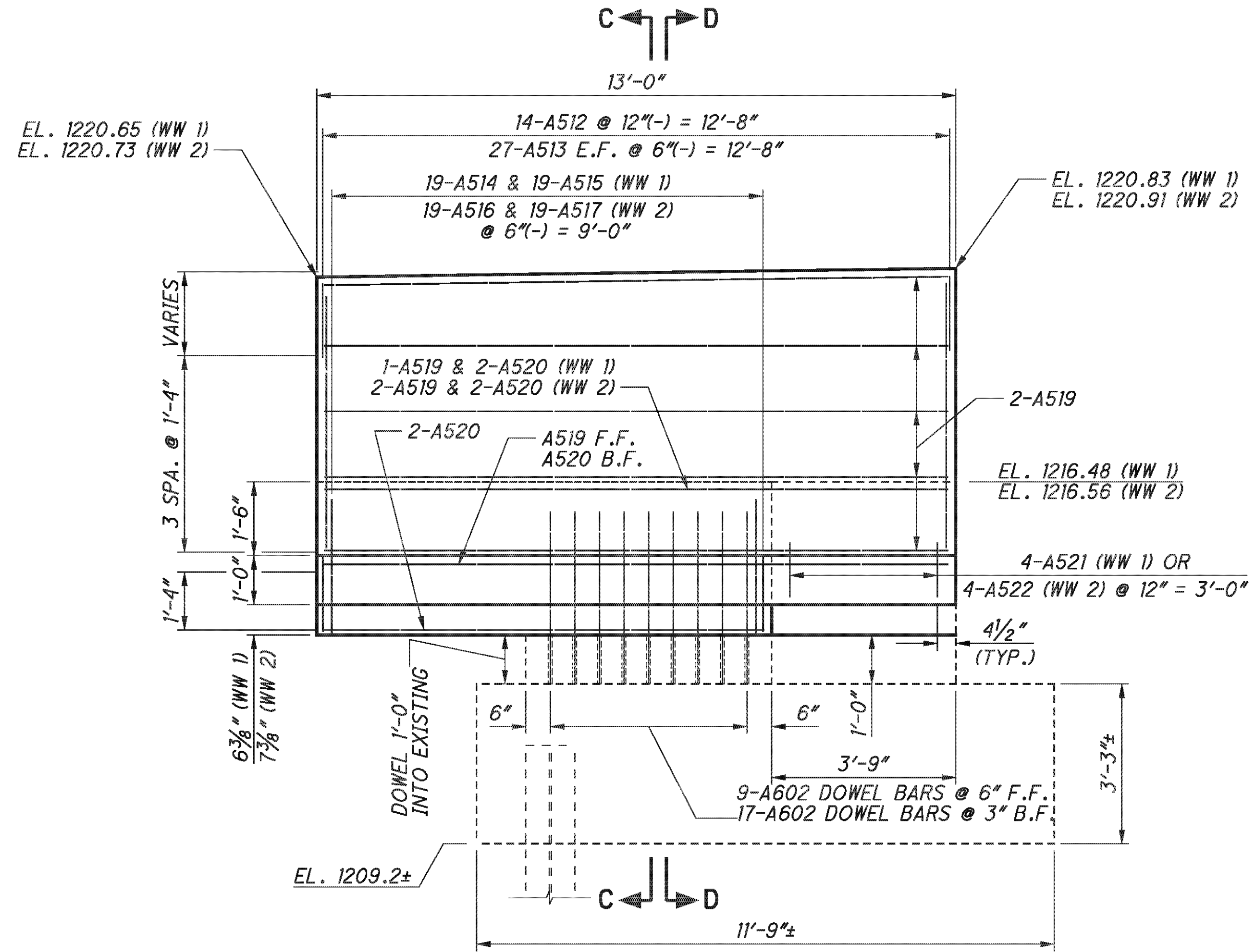
SHEAR KEY DETAIL

SECTION B-B

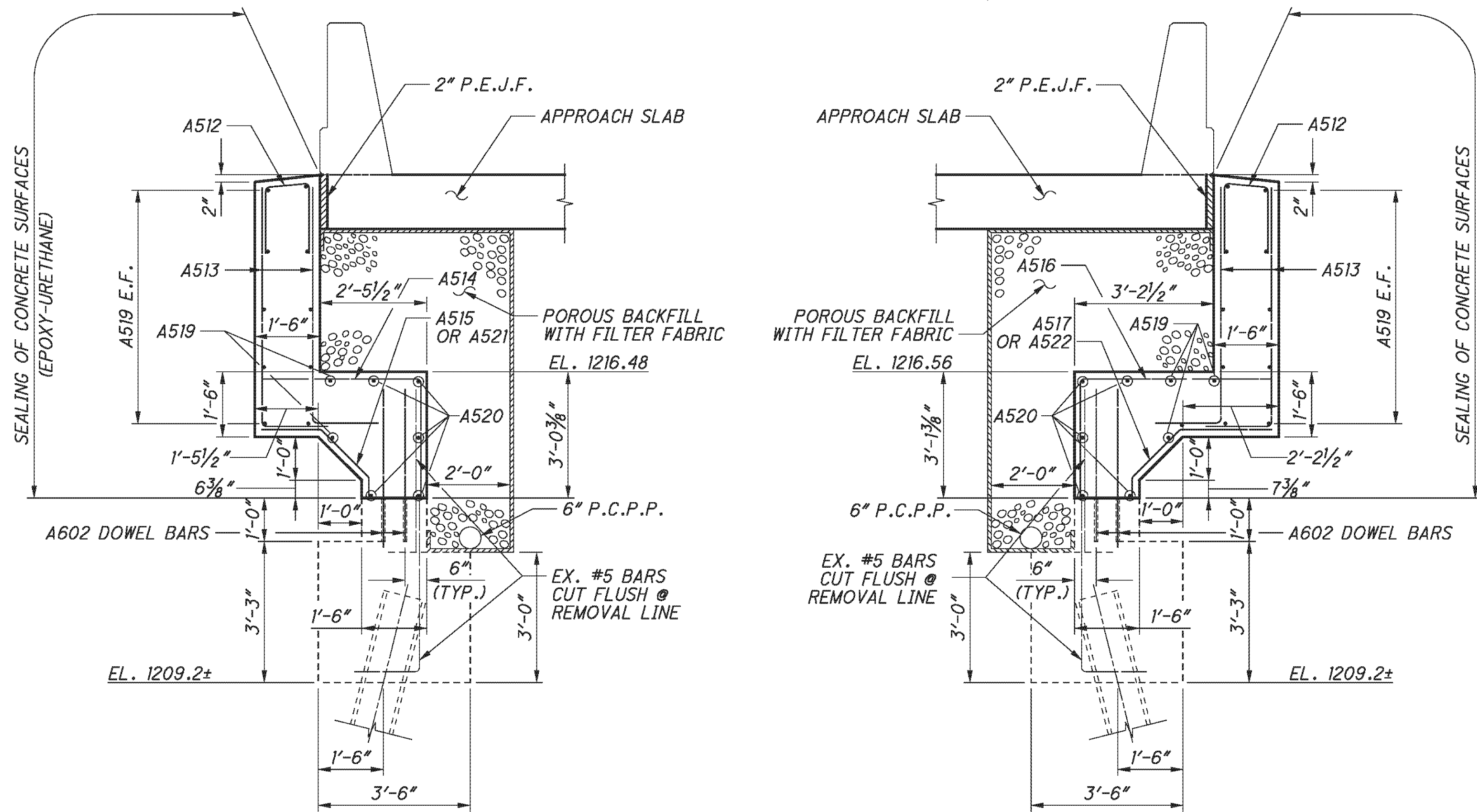
*-THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE 1/4" DEEP MINIMUM.

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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 the Challenge, the Choice
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| DRAWN | BMG | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 0702226L/0702250R |
| DATE | 5/11/10 | | |

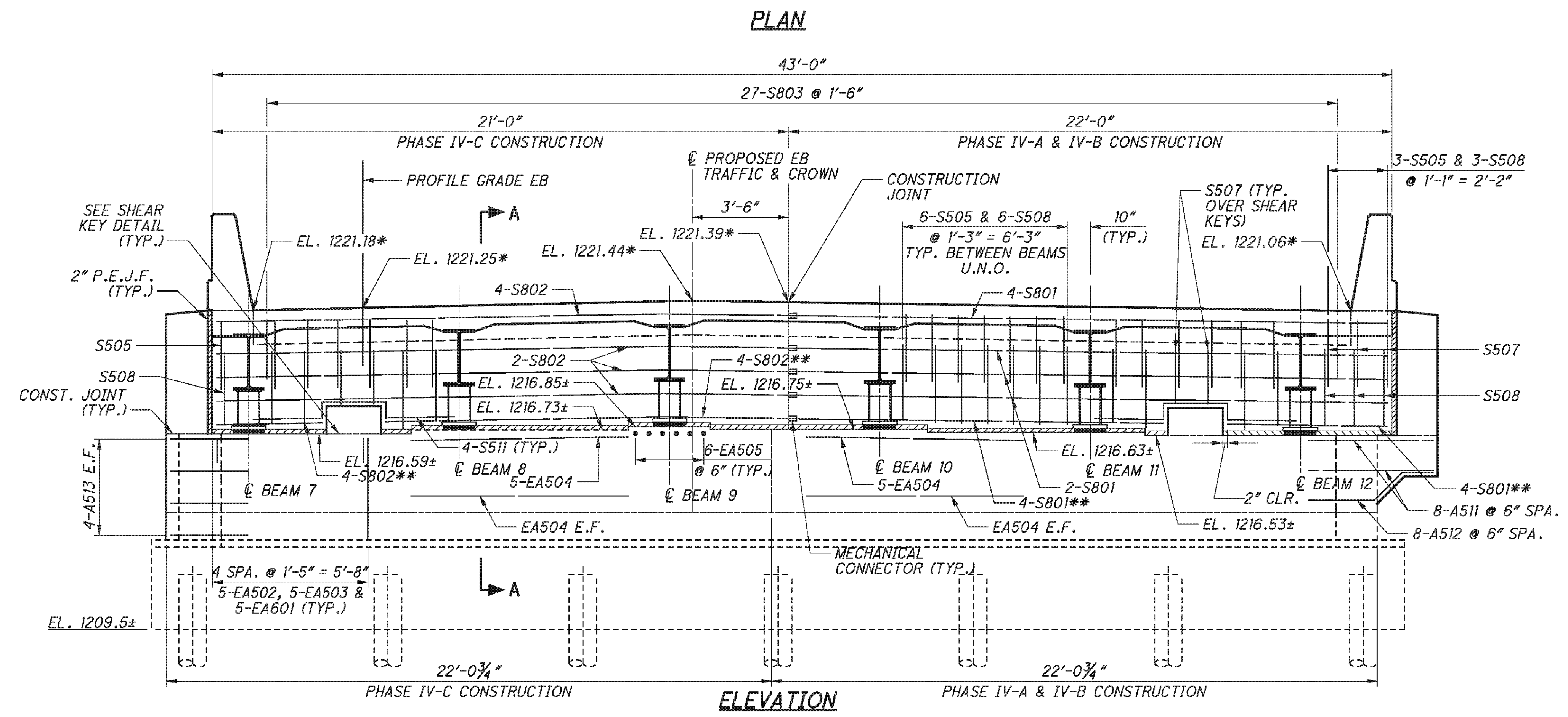
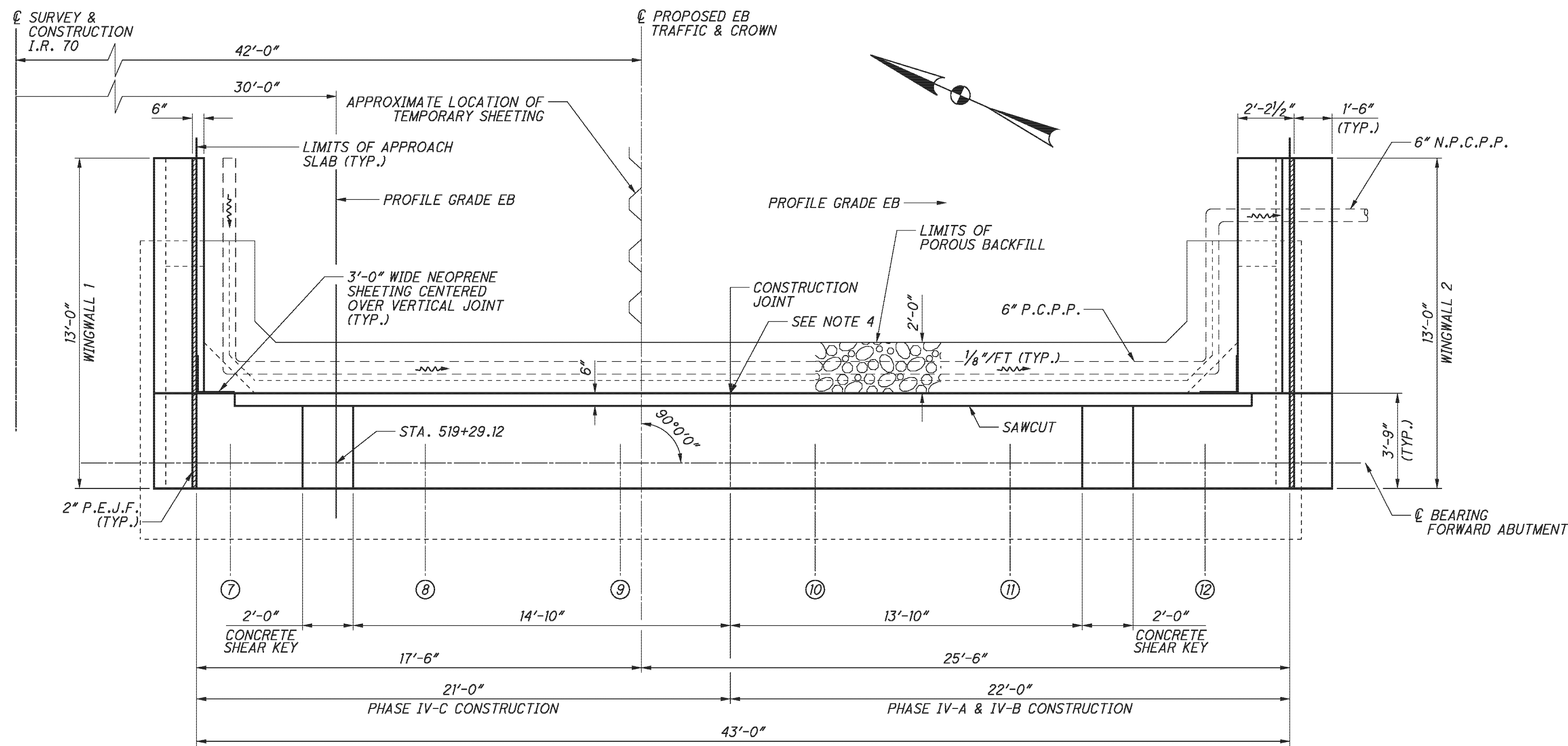
FORWARD ABUTMENT - LEFT BRIDGE
 BRIDGE NO. BEL-70-0963 L/R
 I.R. TO OVER S.R. 149

BEL-70-7.61
 PID No. 76825

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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.

E.L. ROBINSON
The Challenge, the Choice
1891 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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| DESIGNED | DTA | CHECKED | RLE |
| DRAWN | DTA | REVISOR | |
| REVIEWED | RER | STRUCTURE FILE NUMBER | 0702226L/0702250R |
| DATE | 2/3/11 | | |

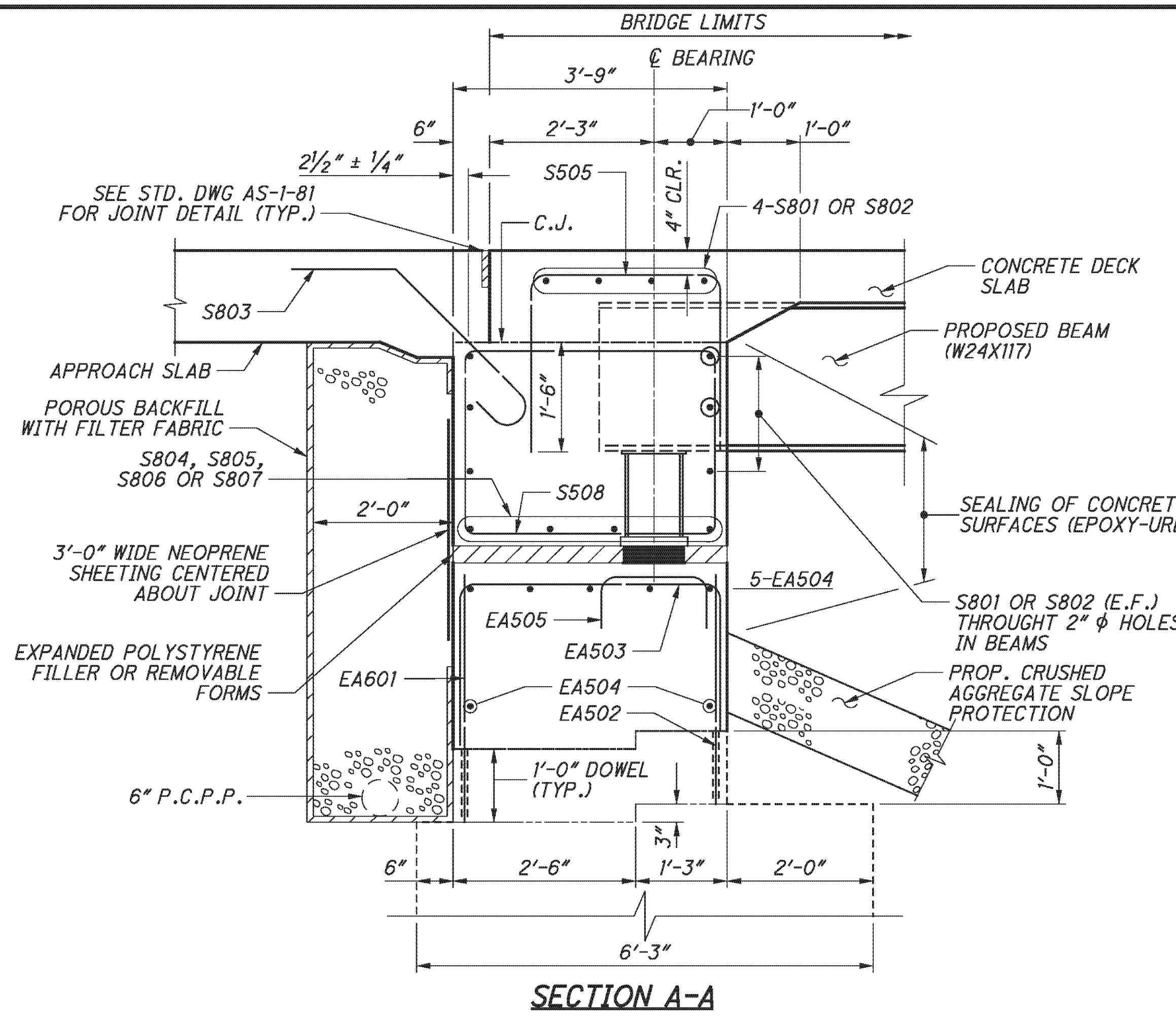
FORWARD ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

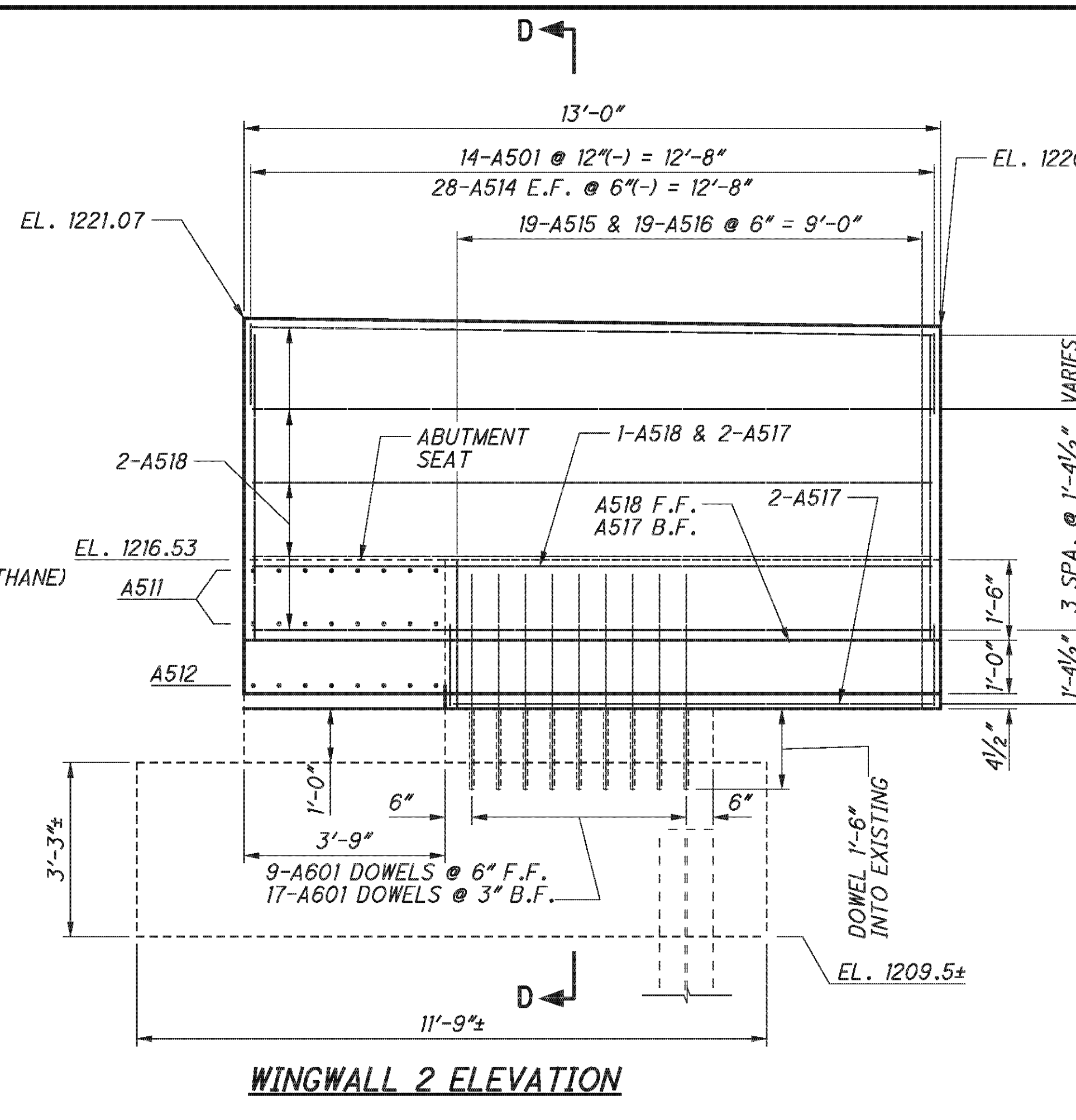
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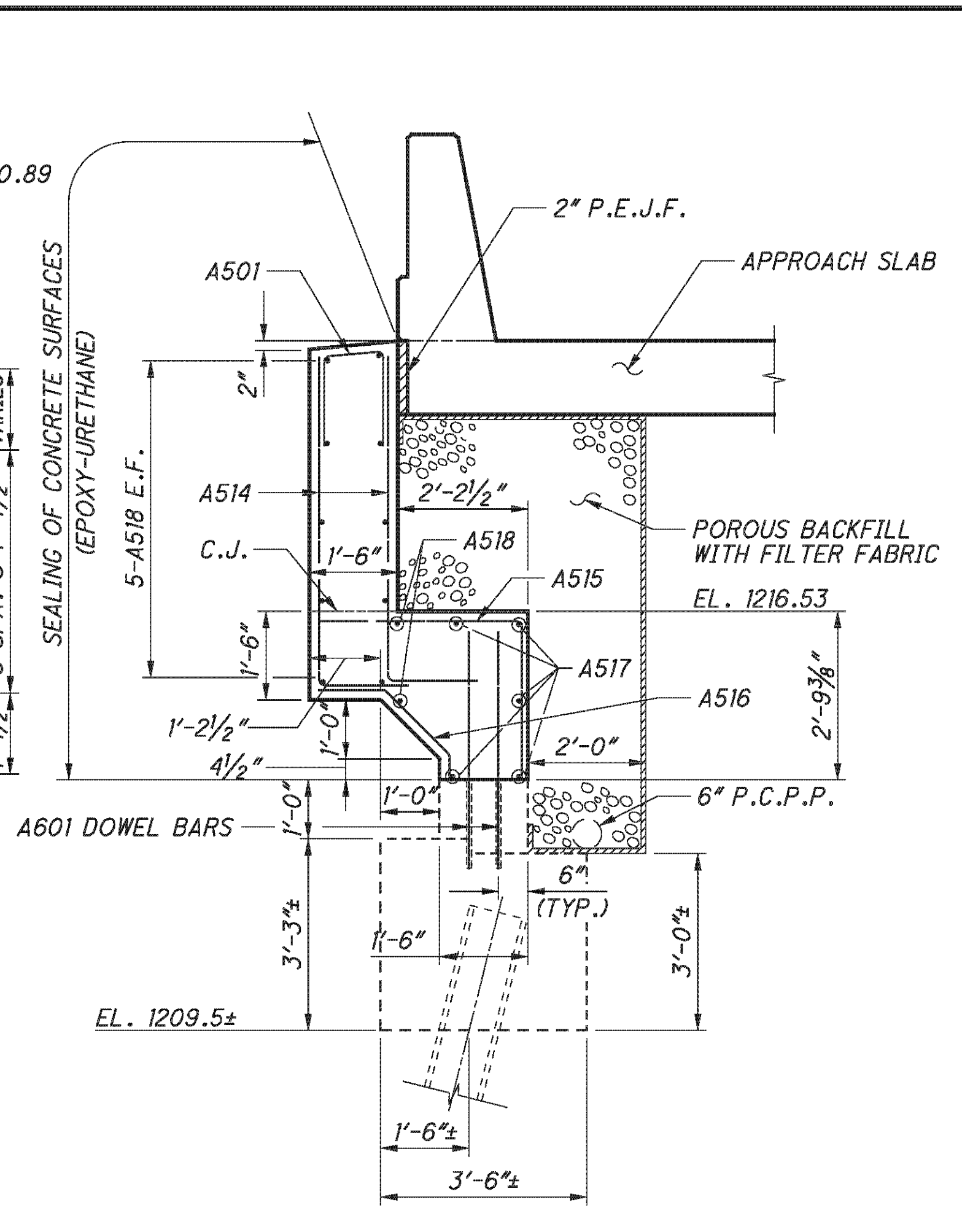
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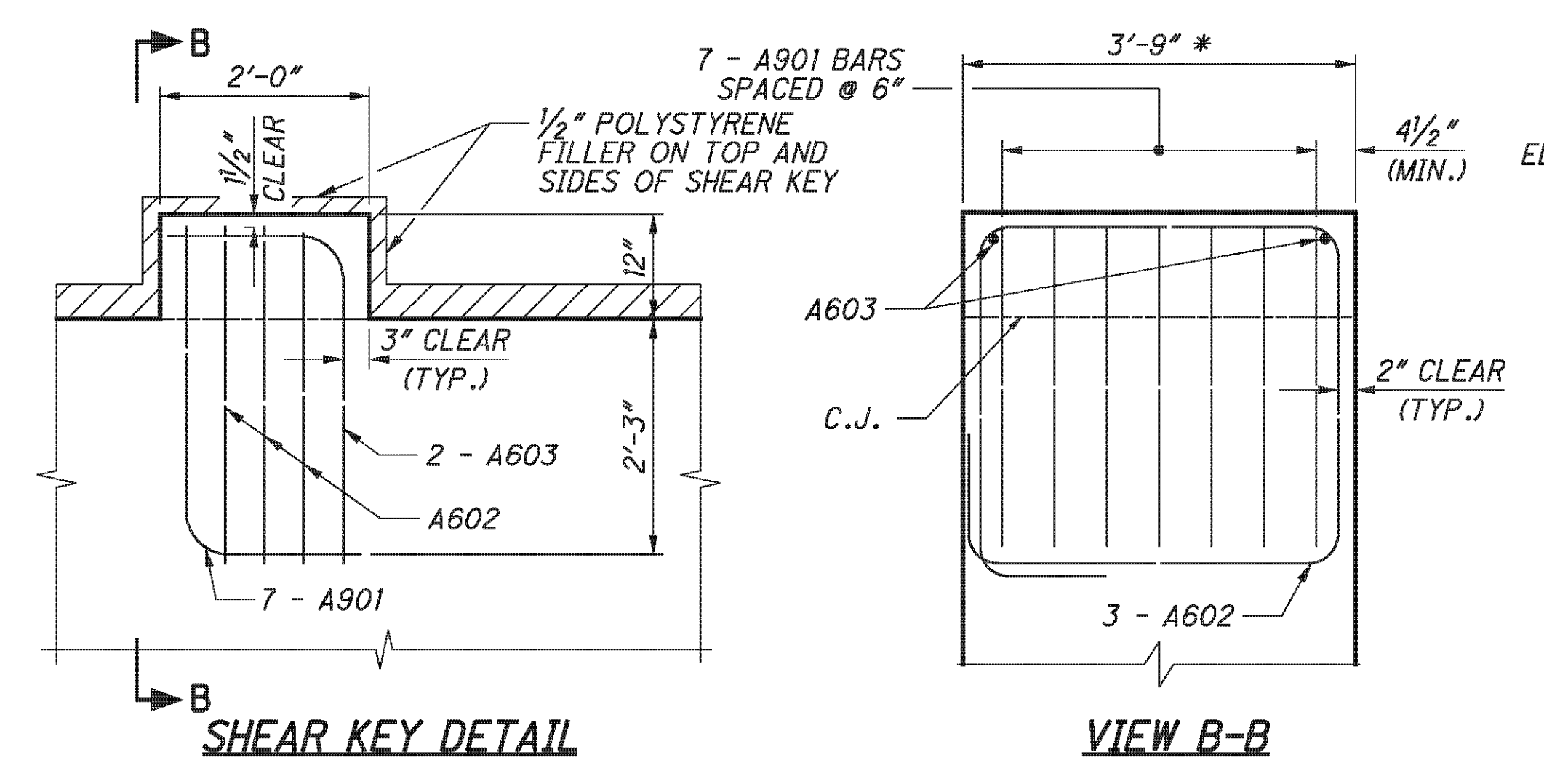
SECTION A-A



WINGWALL 2 ELEVATION



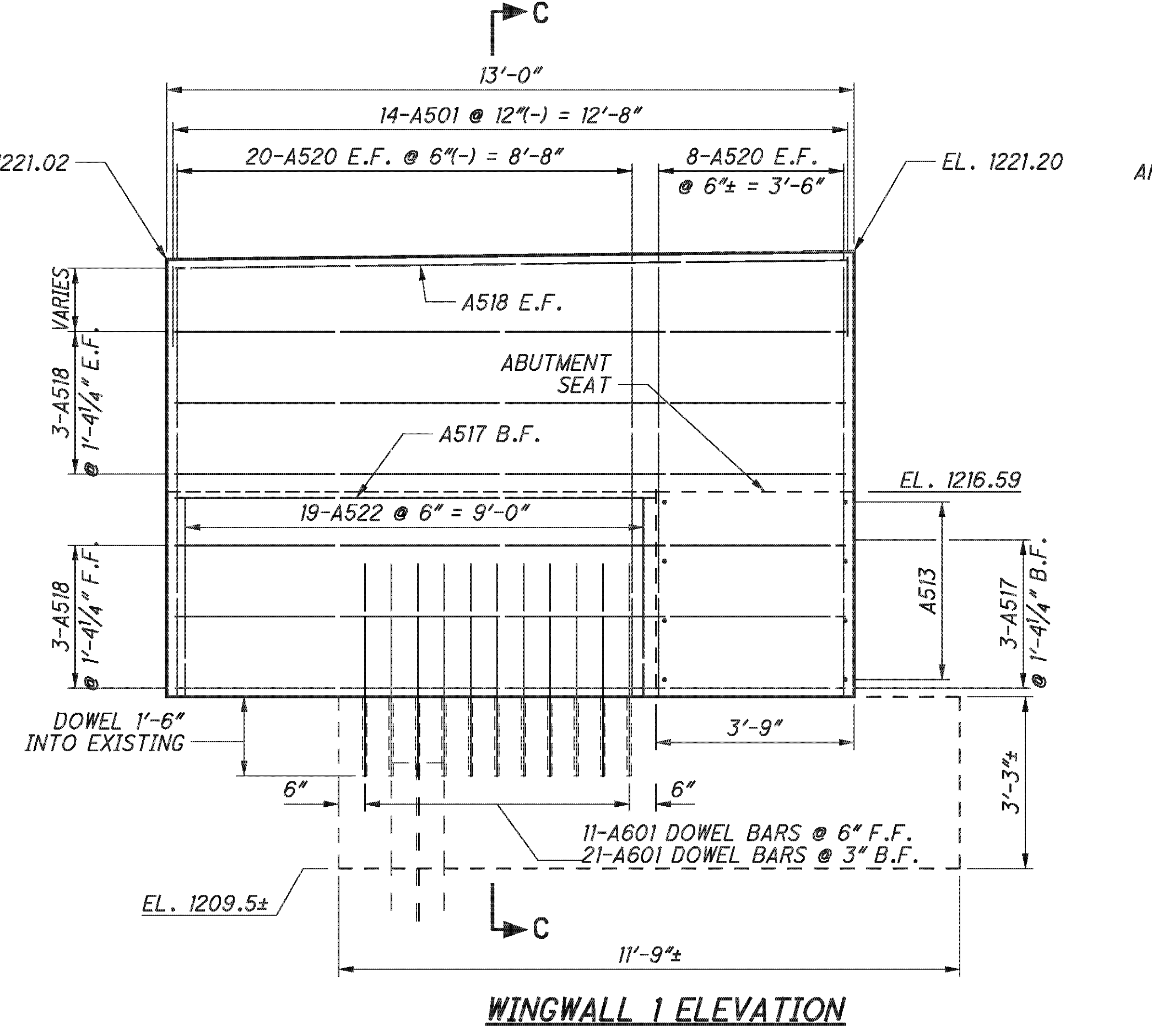
SECTION D-D



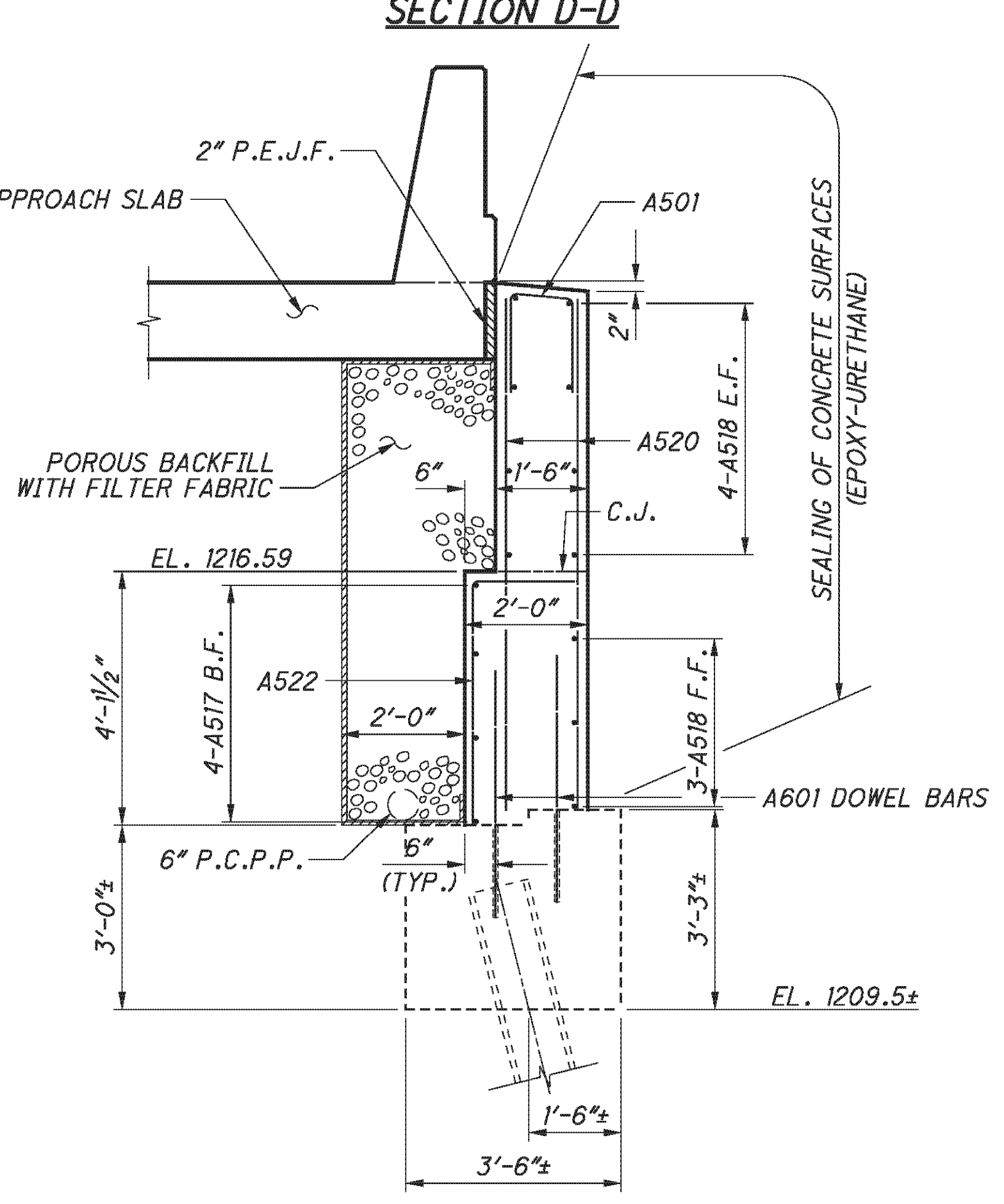
SHEAR KEY DETAIL

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

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| DATE | 2/3/11 |
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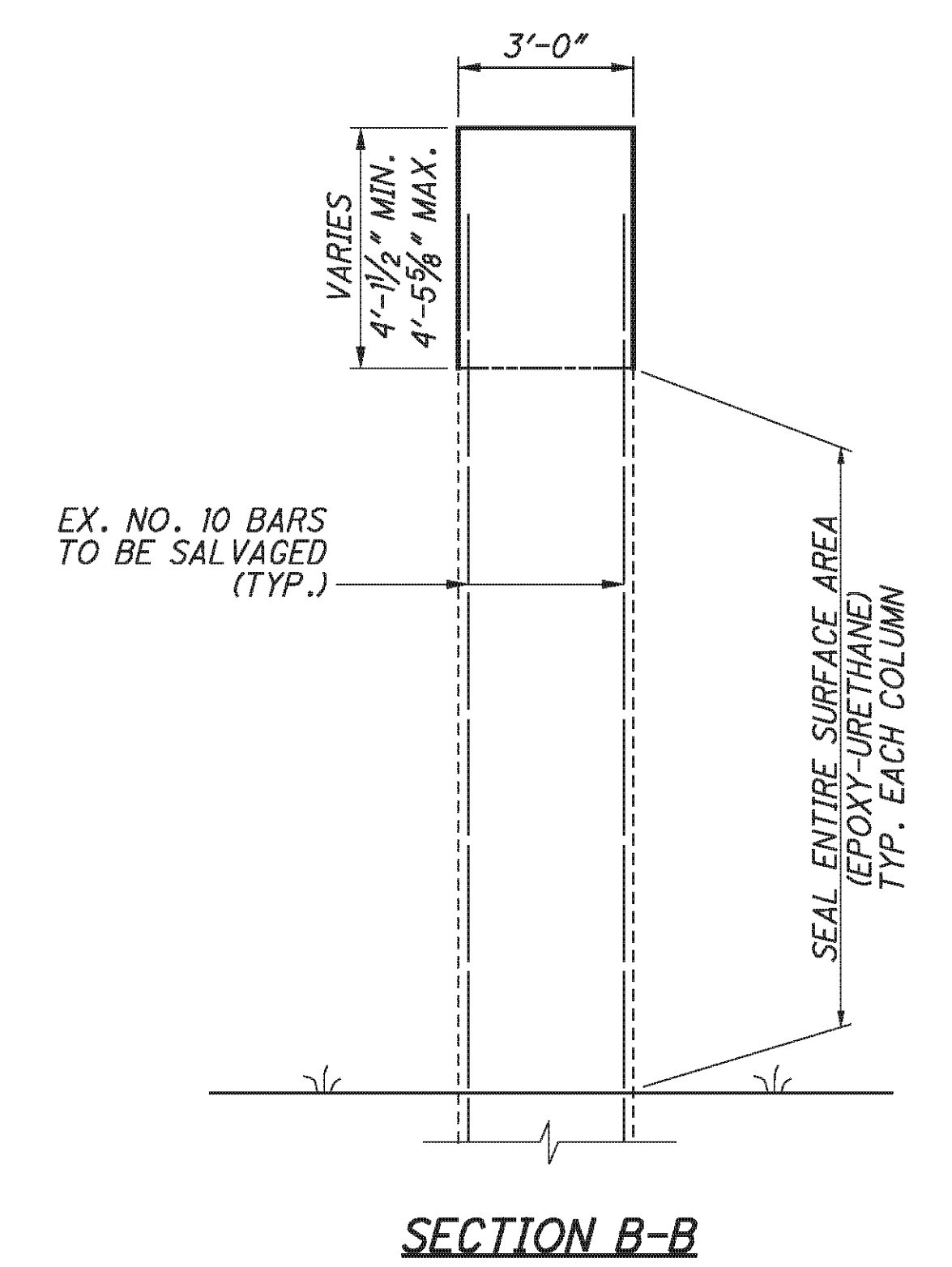
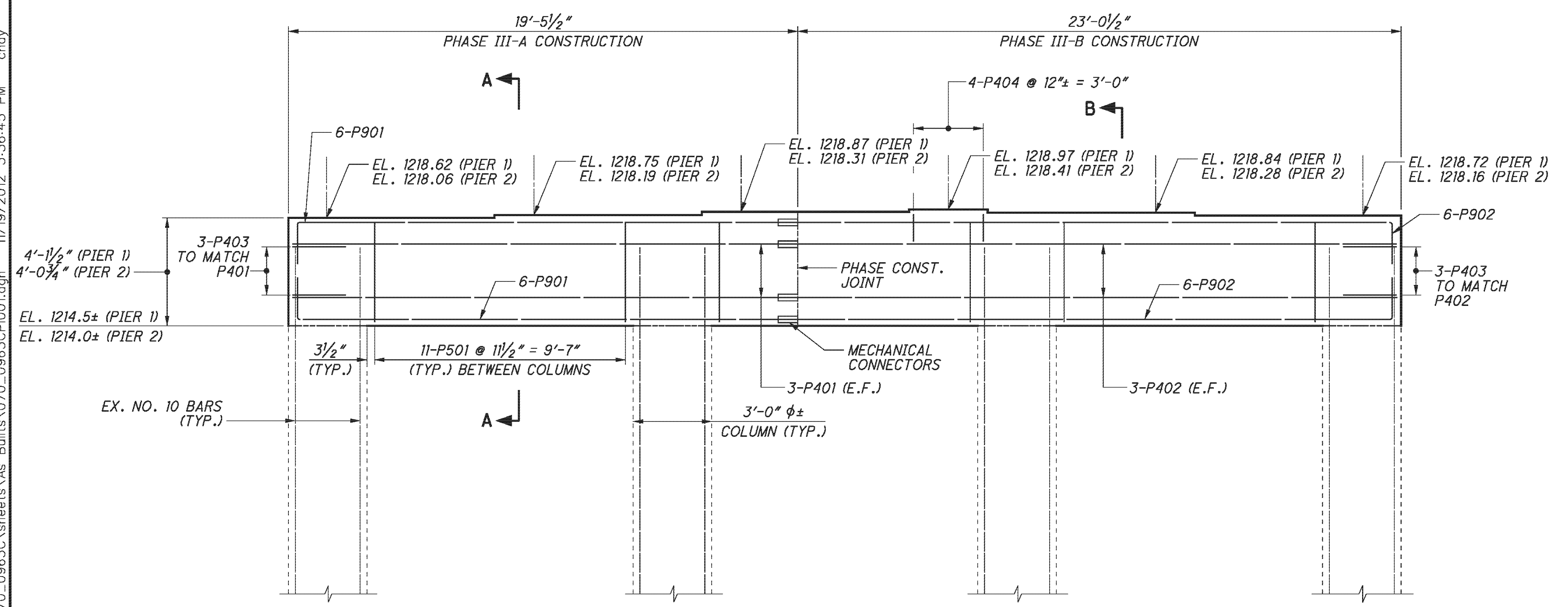
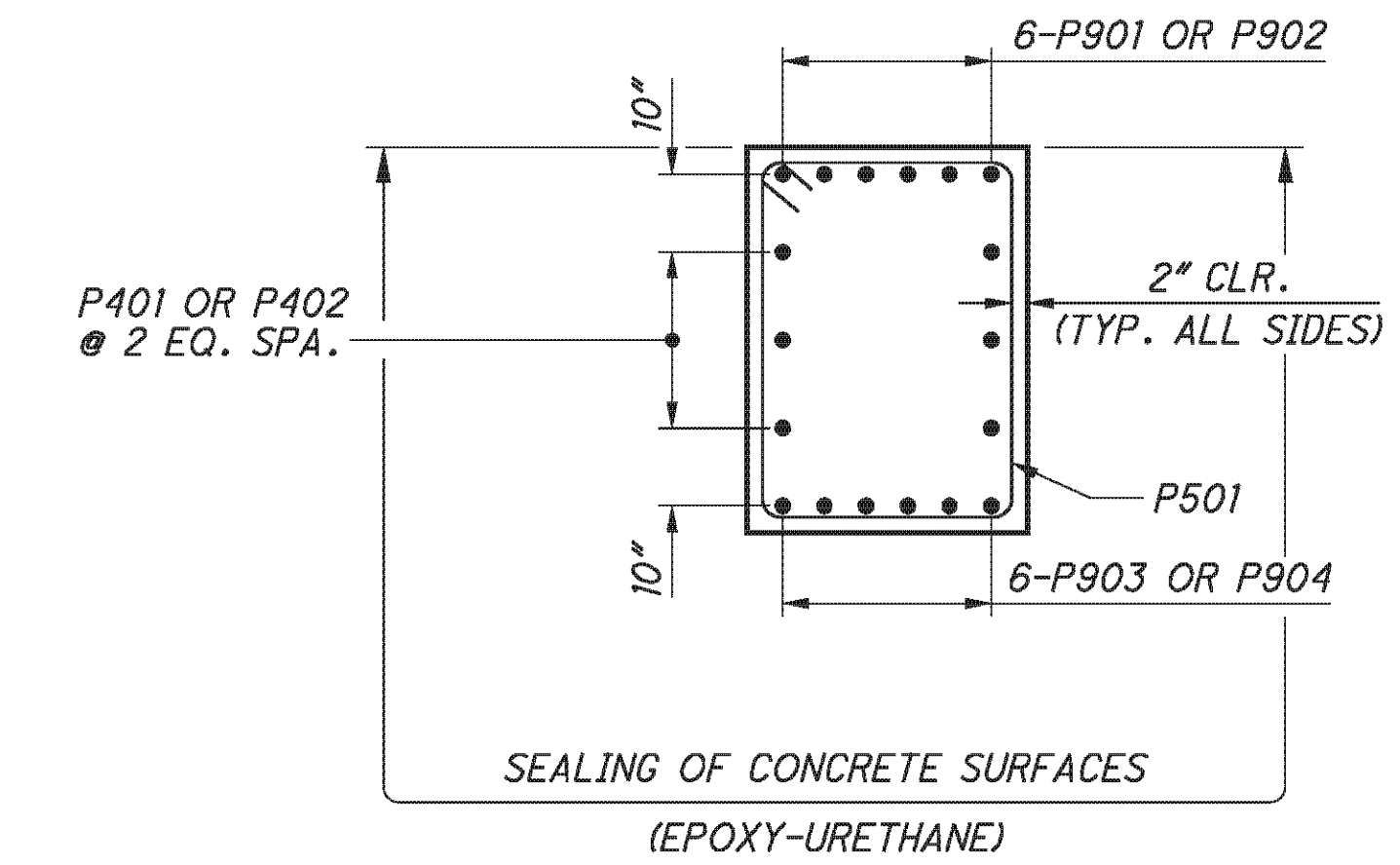
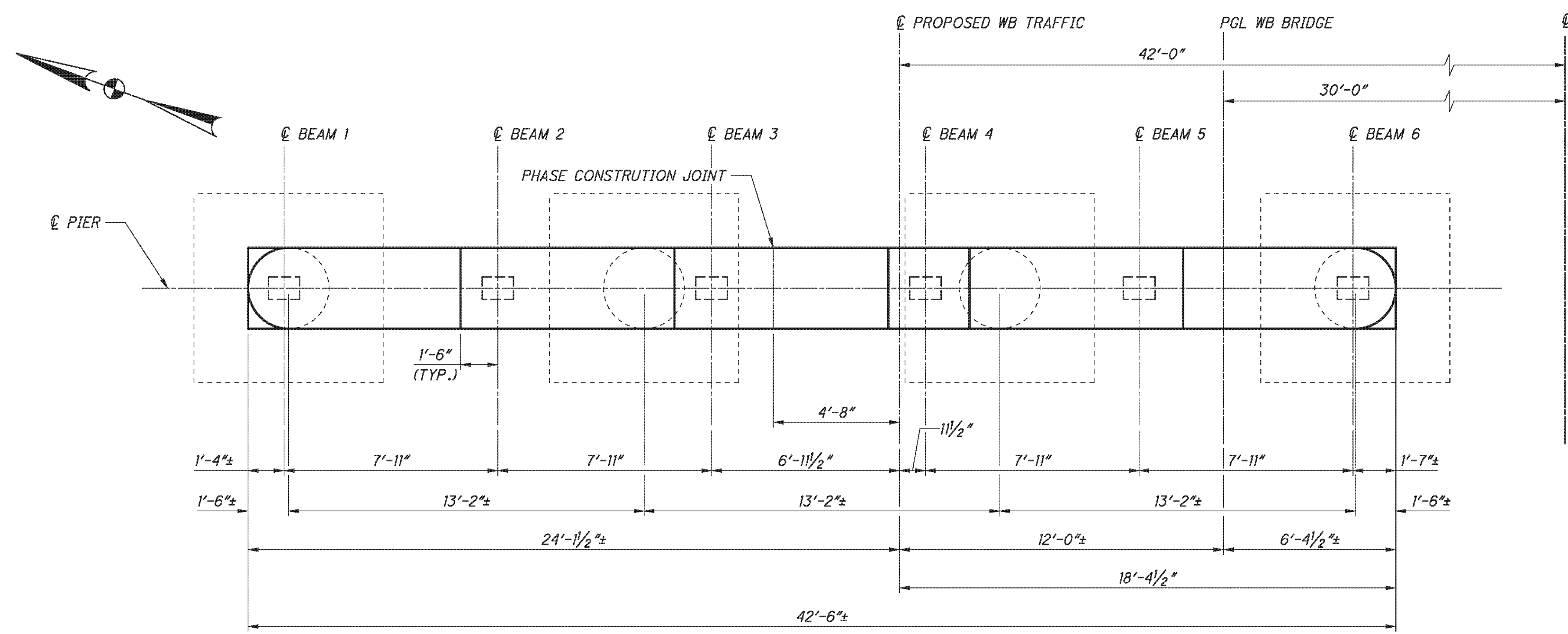
FORWARD ABUTMENT - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

22/45

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- 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.
 - FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 7/45 AND 8/45.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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| DATE | 5/11/10 |
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| DESIGNED | BMG |
| CHECKED | TUE |
| STRUCTURE FILE NUMBER | 0702226L/0702250R |

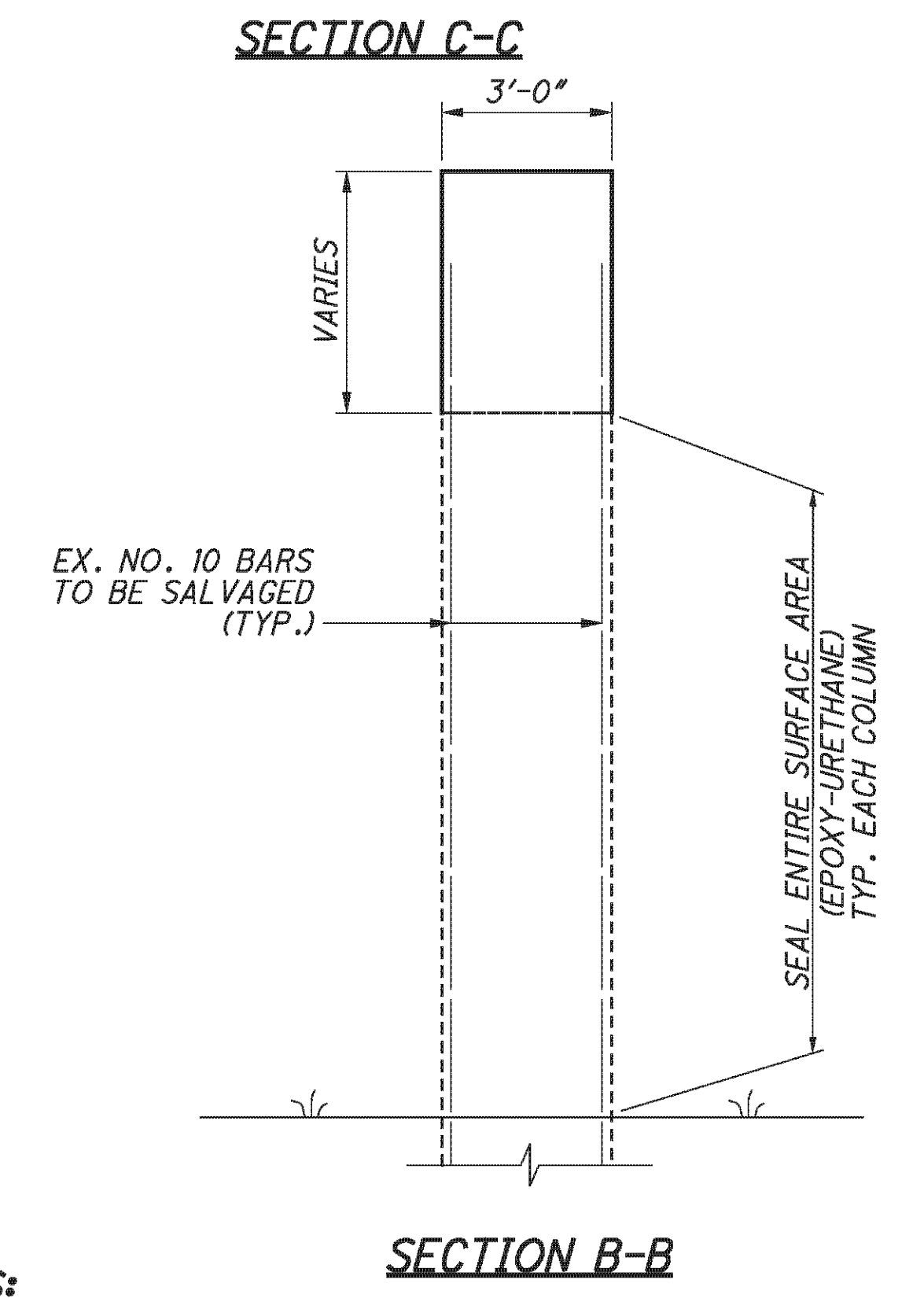
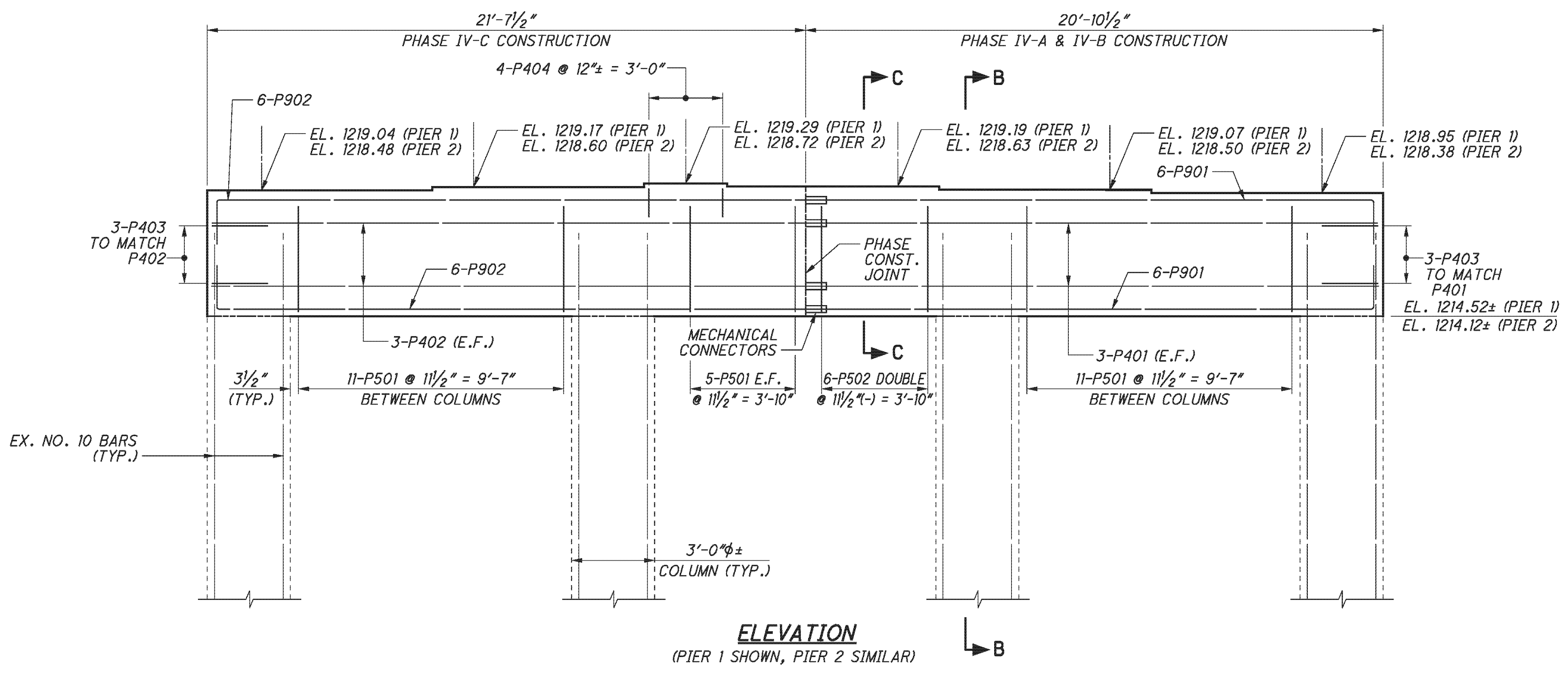
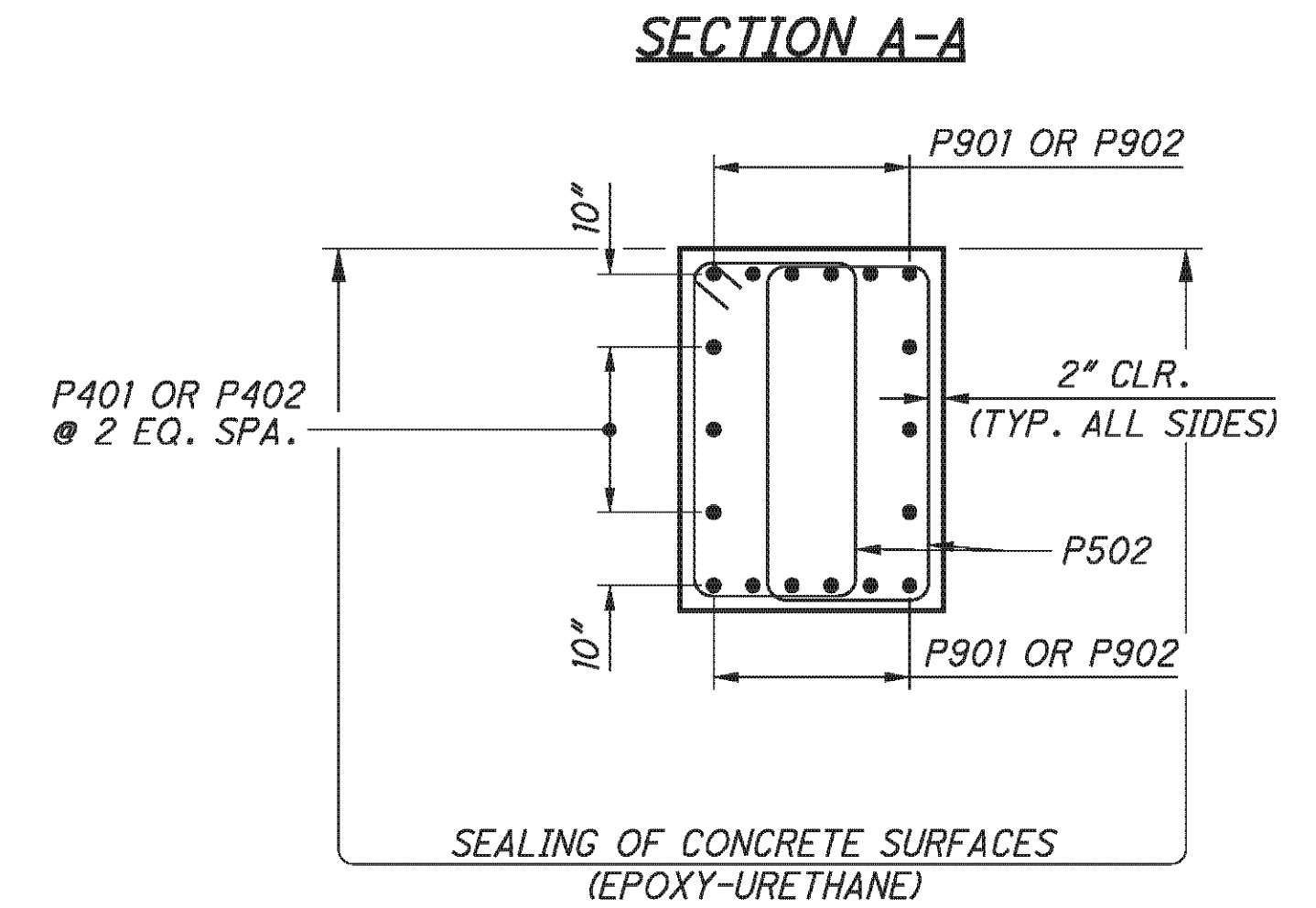
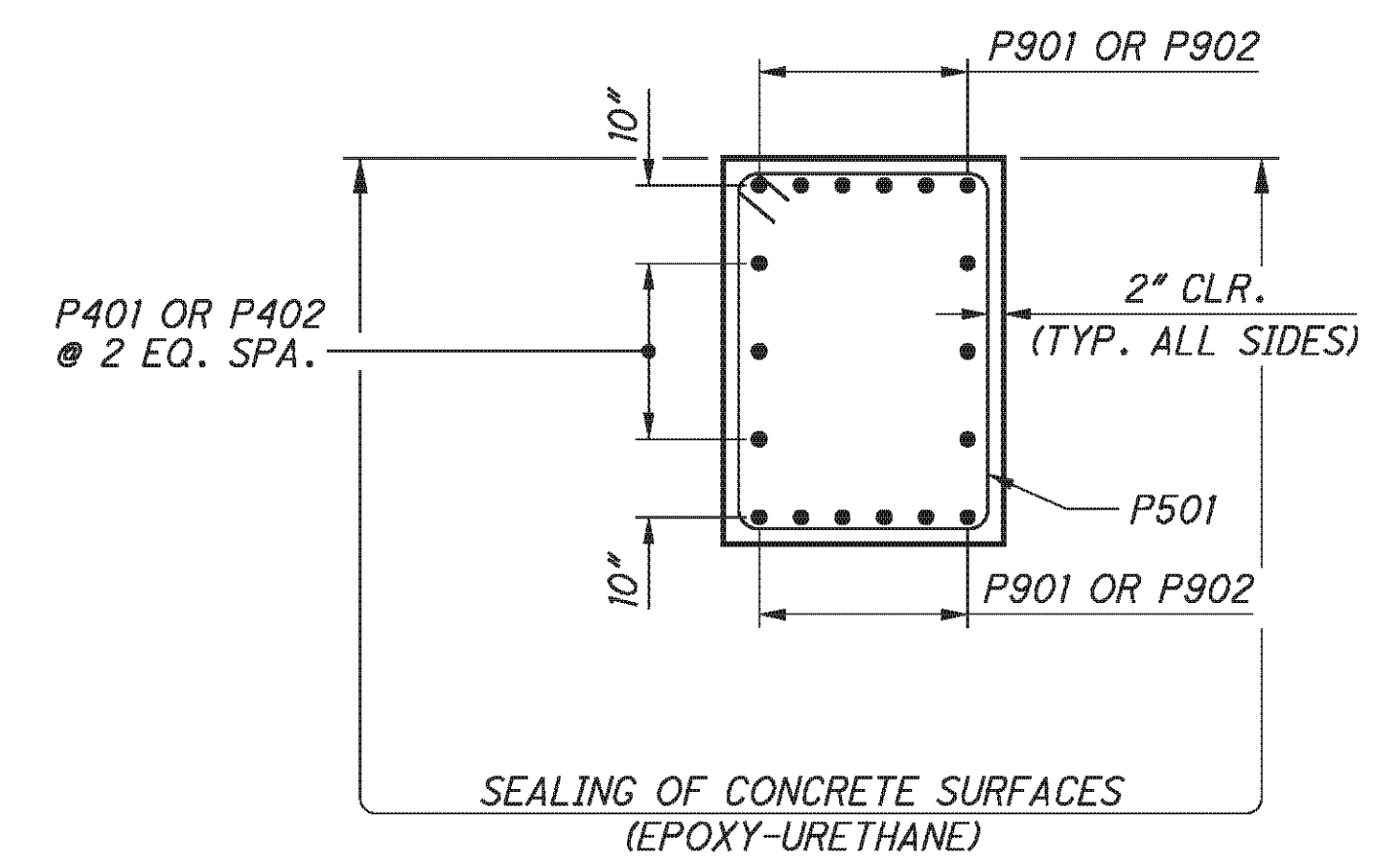
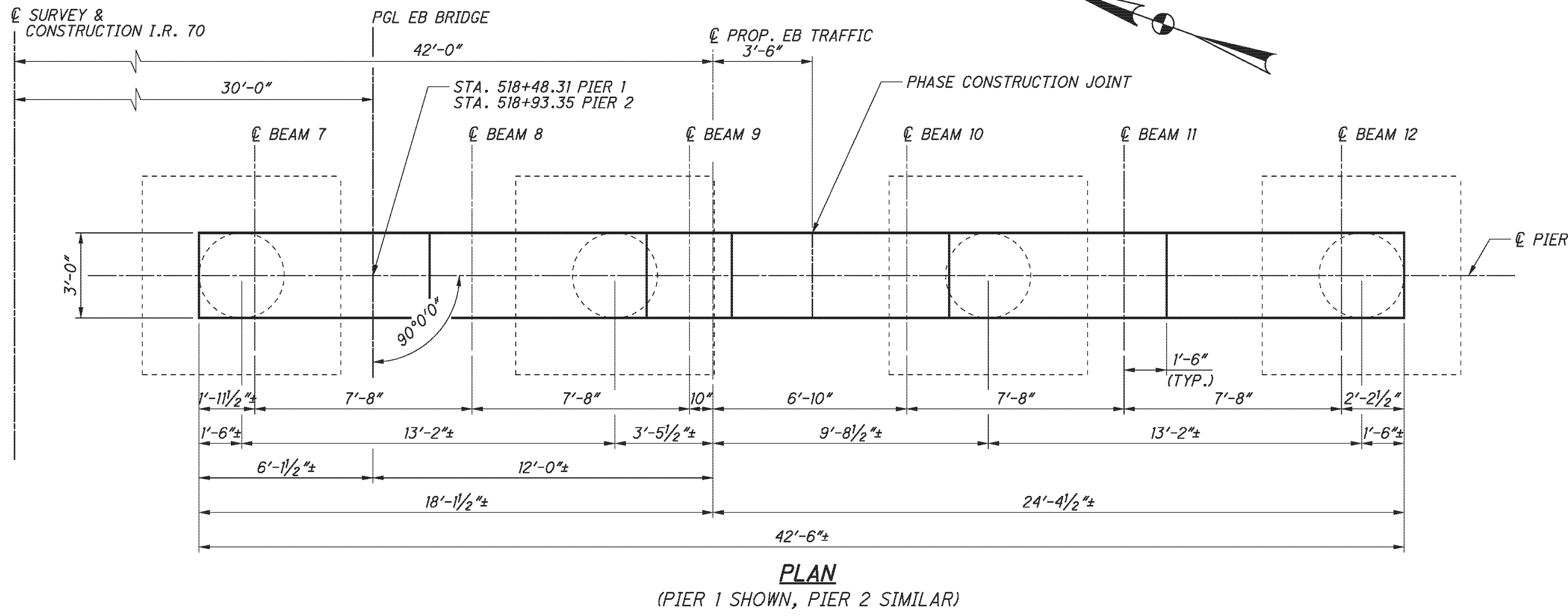
PIER DETAILS - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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| 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](#).

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

DATE: 2/3/11
REVIEWED: RER
STRUCTURE FILE NUMBER: 0702250R

DESIGNED: DTA
CHECKED: RLE

DRAWN: DTA
REVISED:

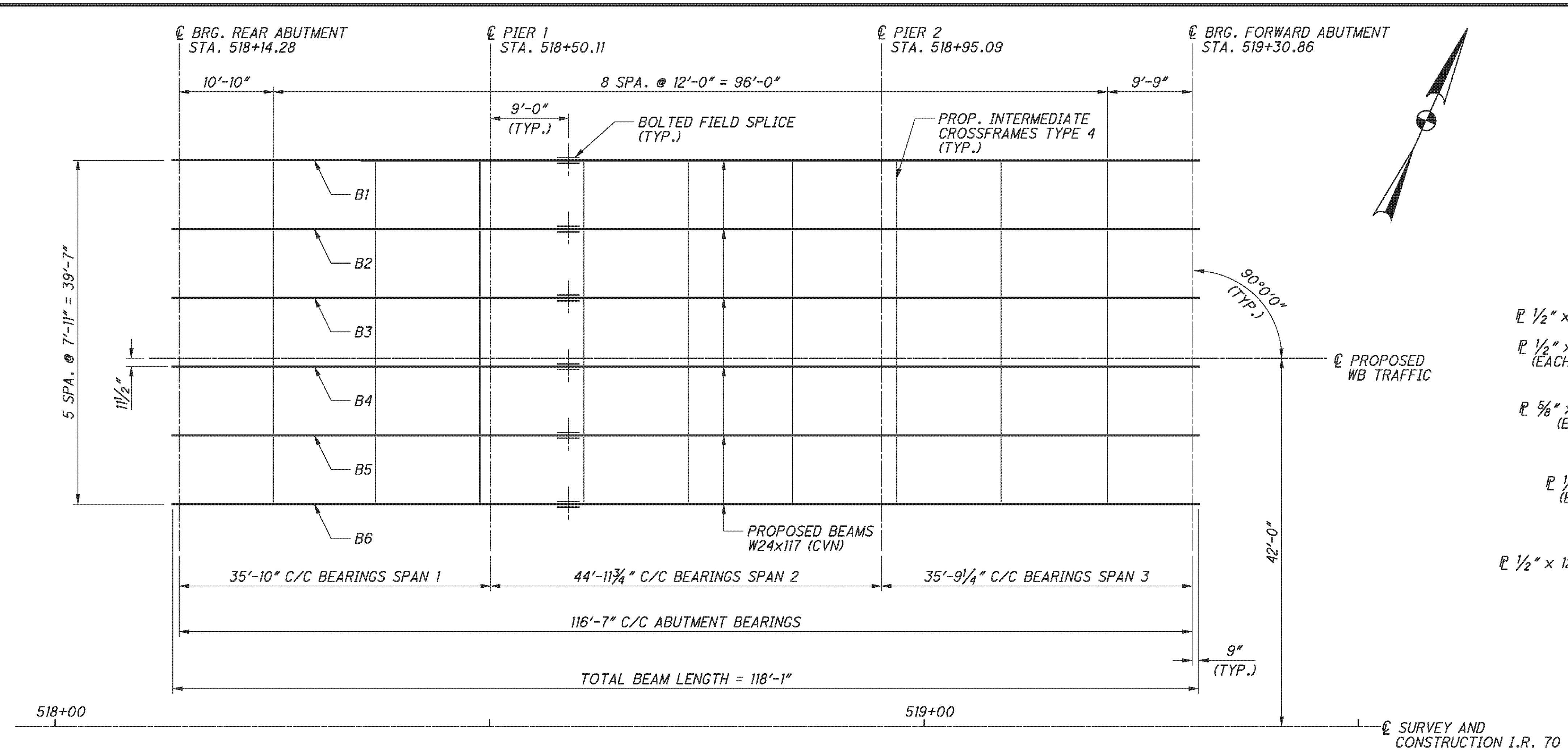
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BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

BEL-70-7.61
PID No. 76825

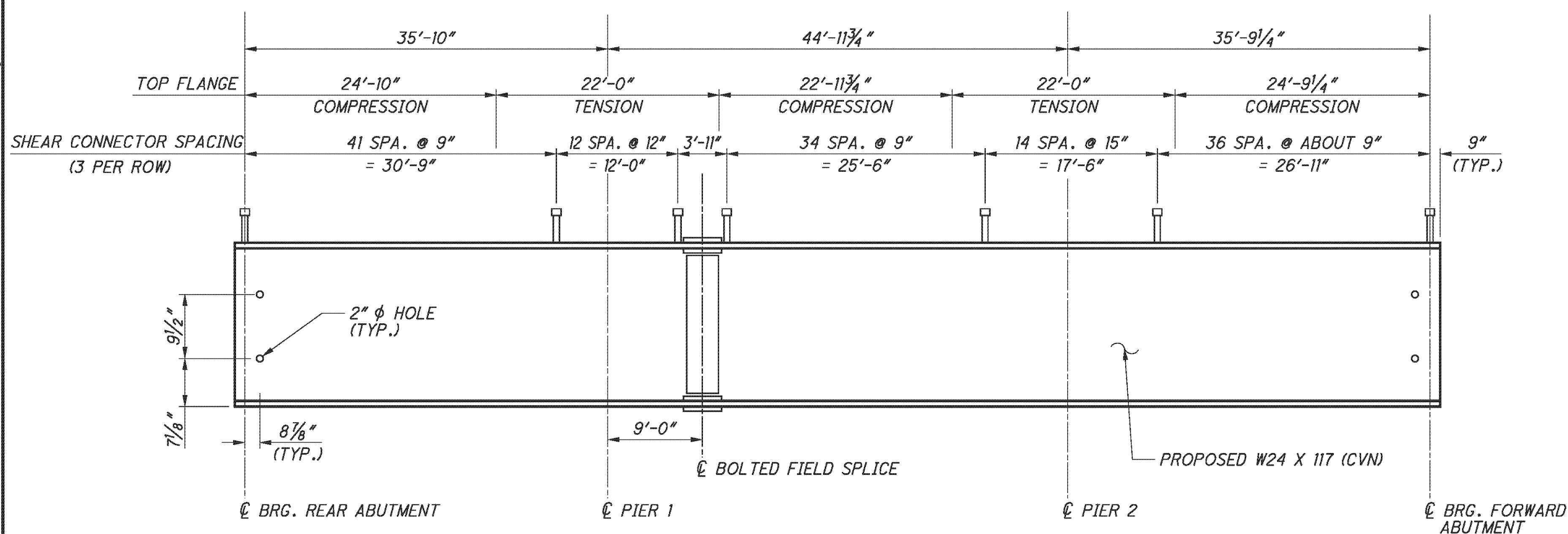
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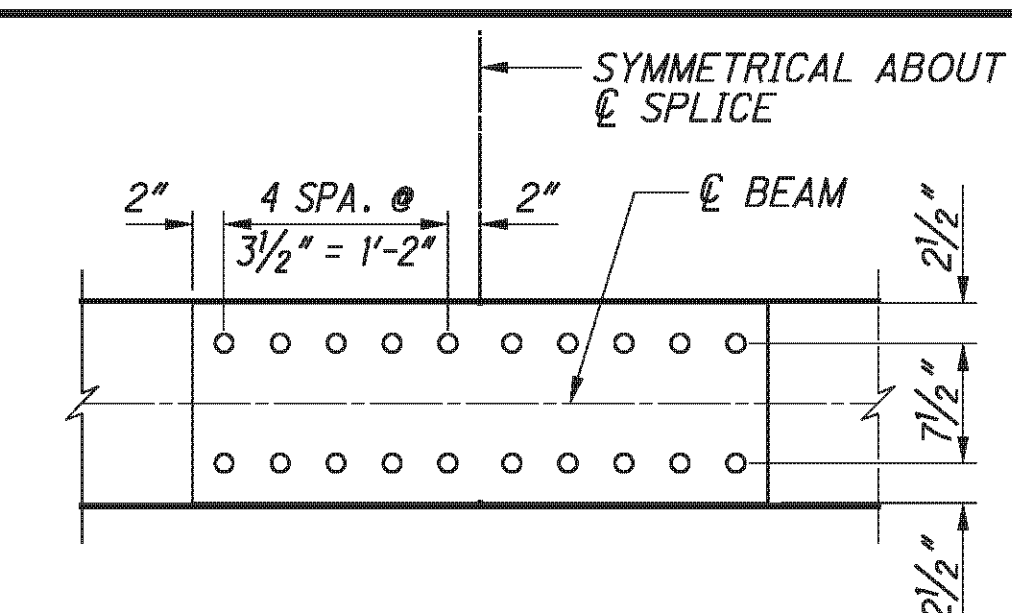
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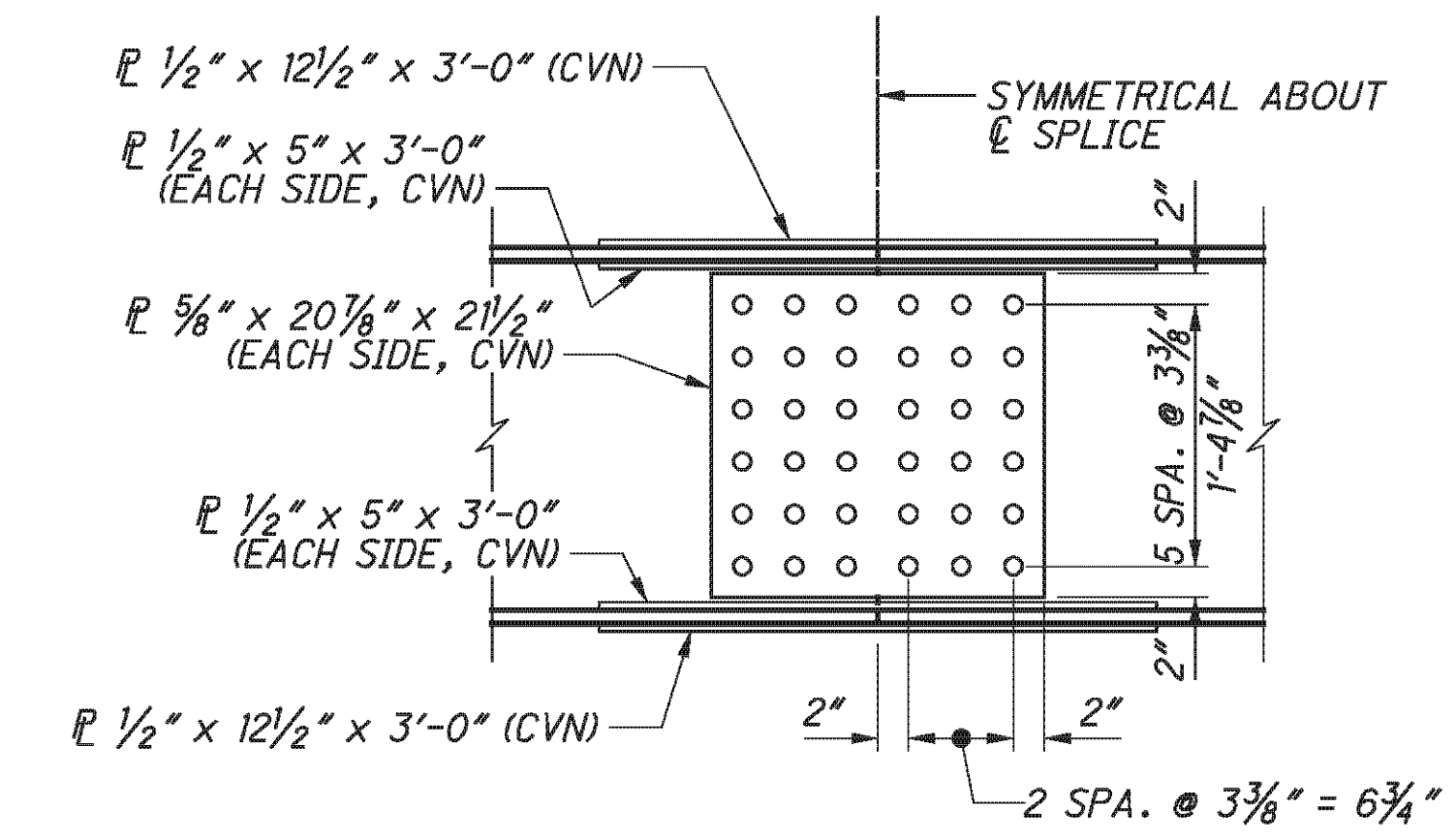
FRAMING PLAN



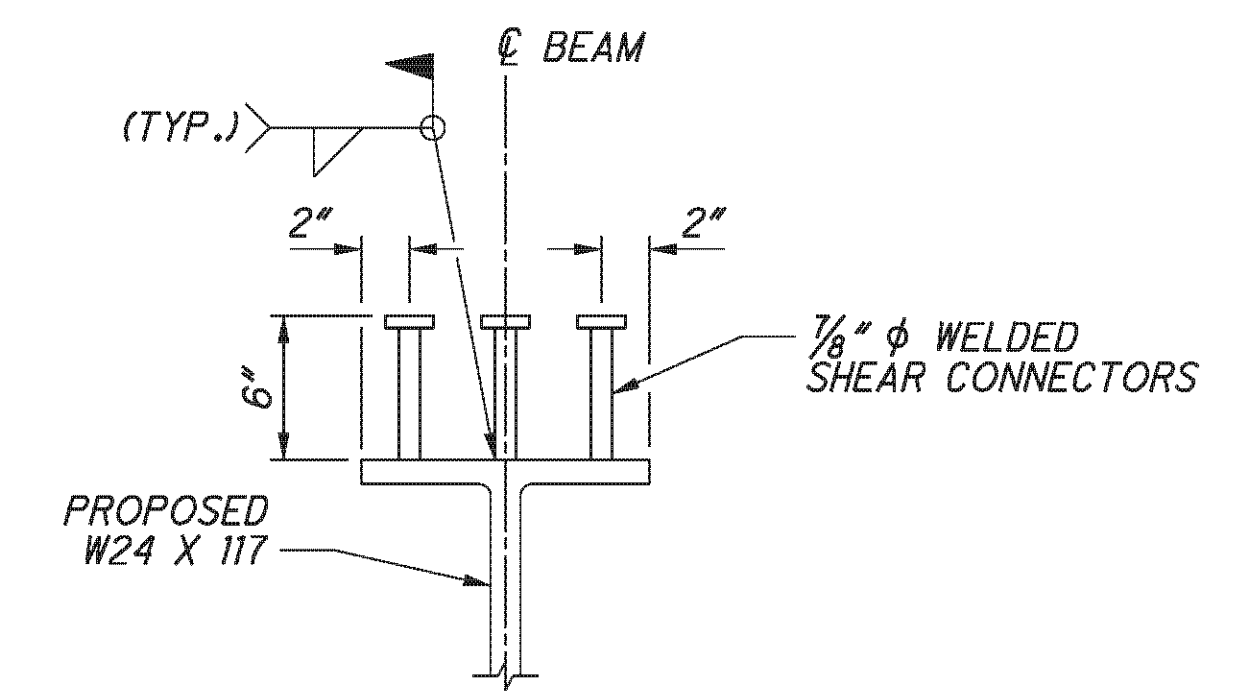
BEAM ELEVATION



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.

E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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| DRAWN | FJB | REVISED | |
| REVIEWED | DFT | DATE | 5/11/10 |
| STRUCTURE FILE NUMBER | 0702226L/0702250R | | |

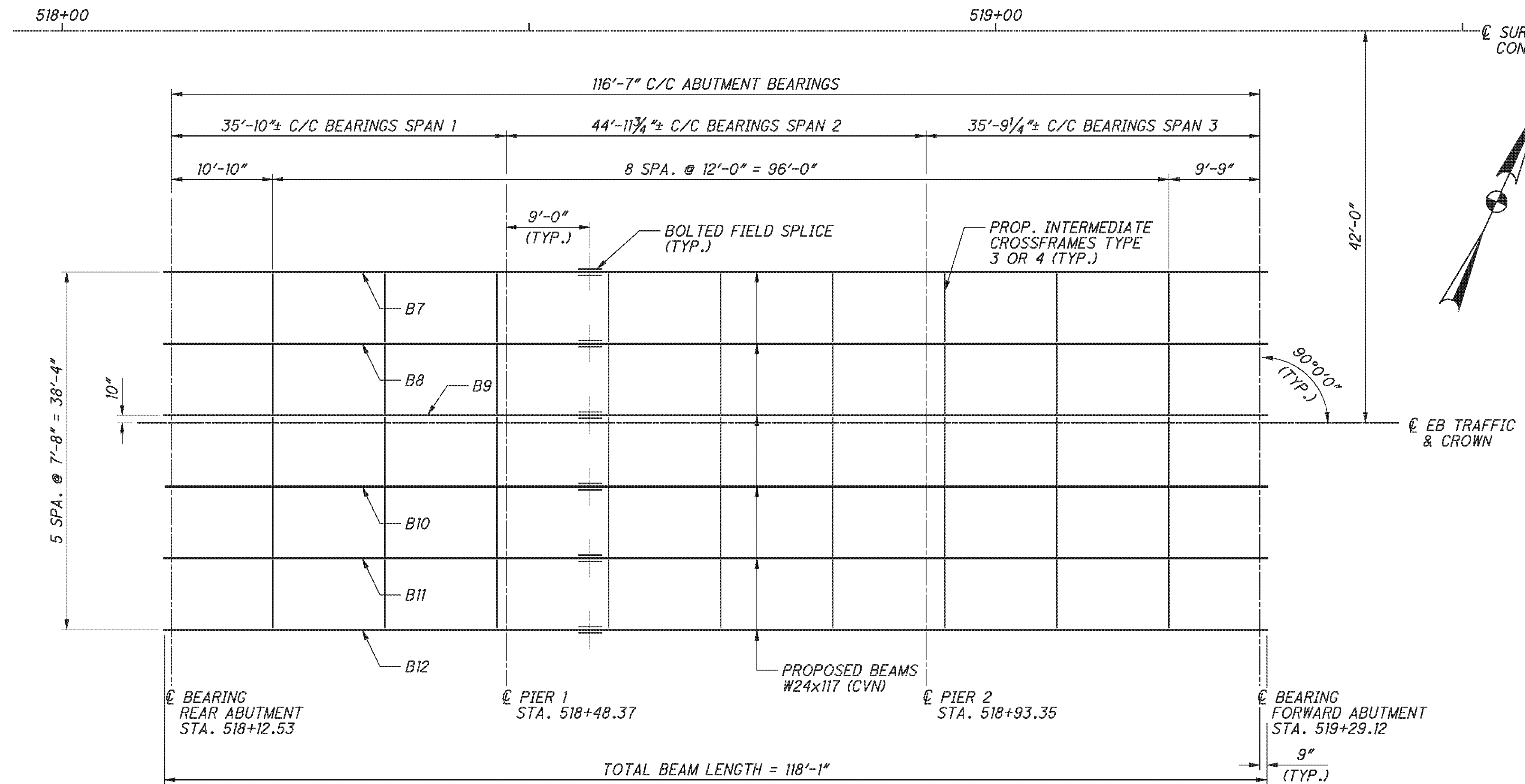
FRAMING PLAN - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

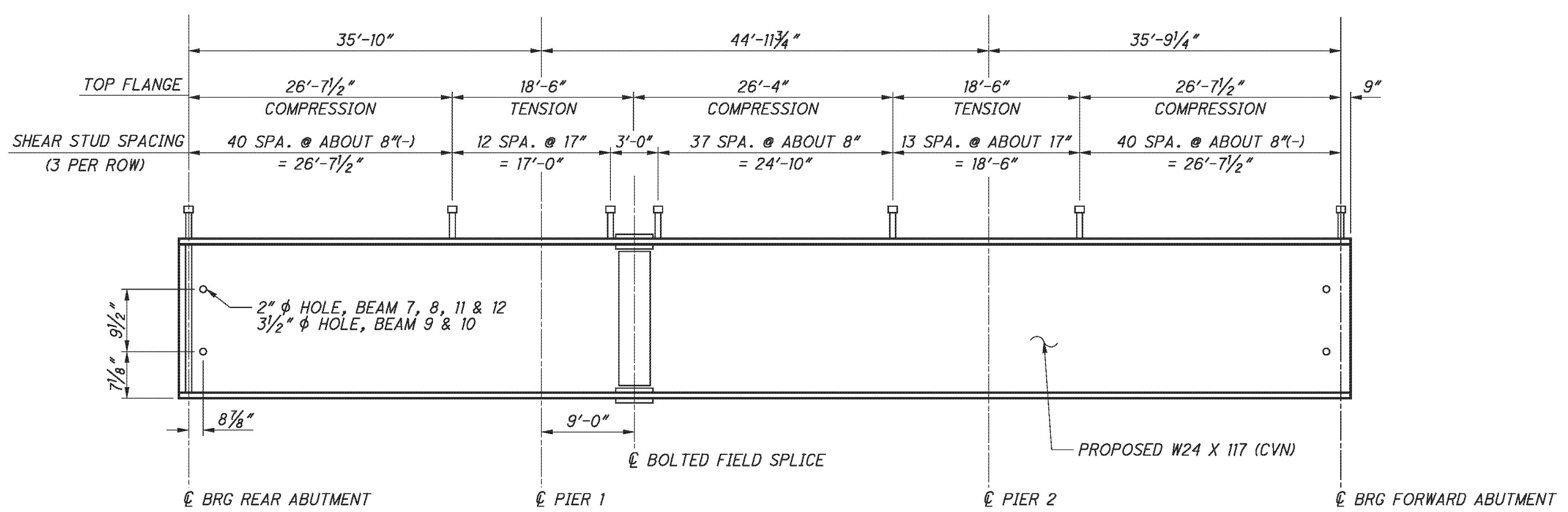
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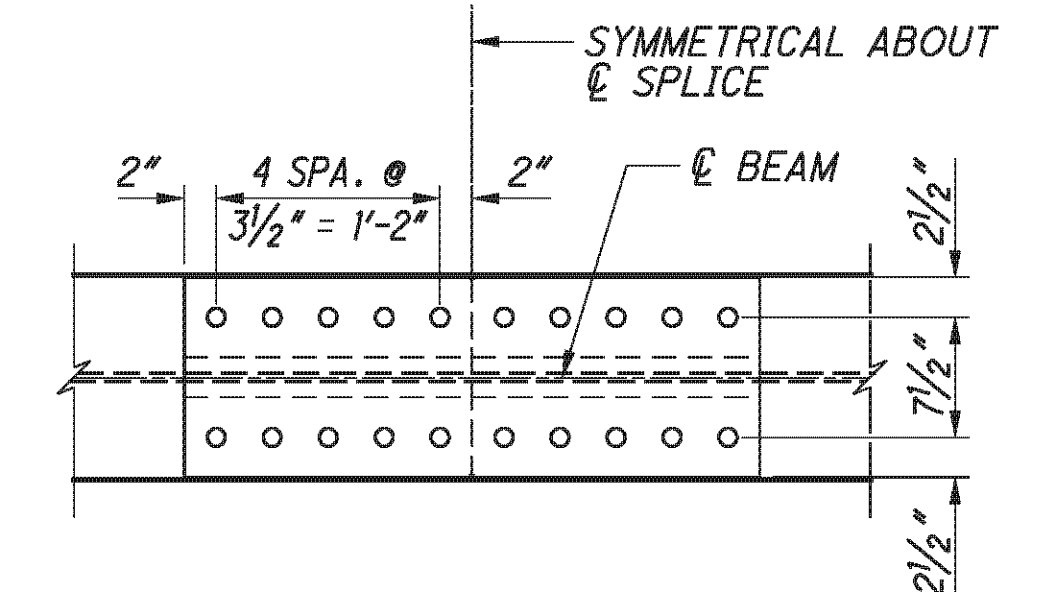
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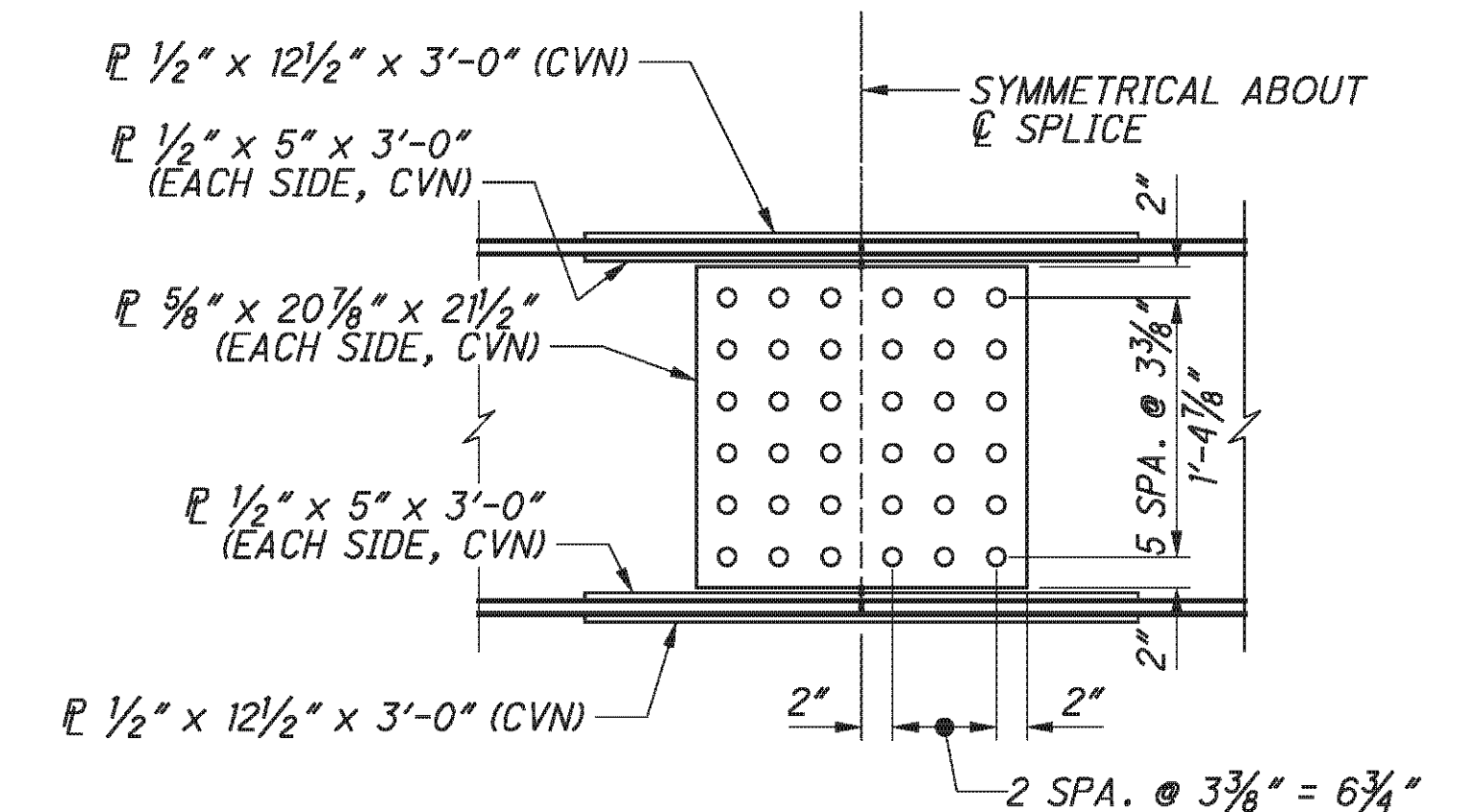
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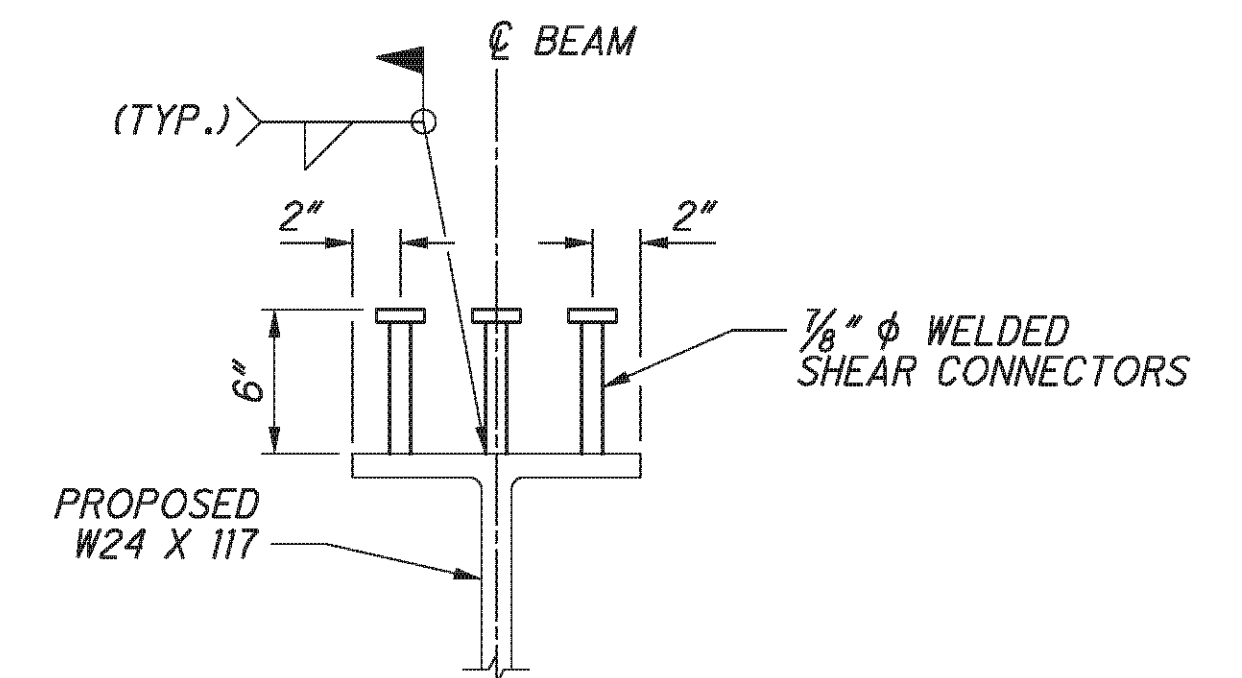
BEAM ELEVATION



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
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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| DATE | 2/3/11 |
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| DESIGNED | AME |
| CHECKED | RLC |
| STRUCTURE FILE NUMBER | 0702250R |

FRAMING PLAN - RIGHT BRIDGE

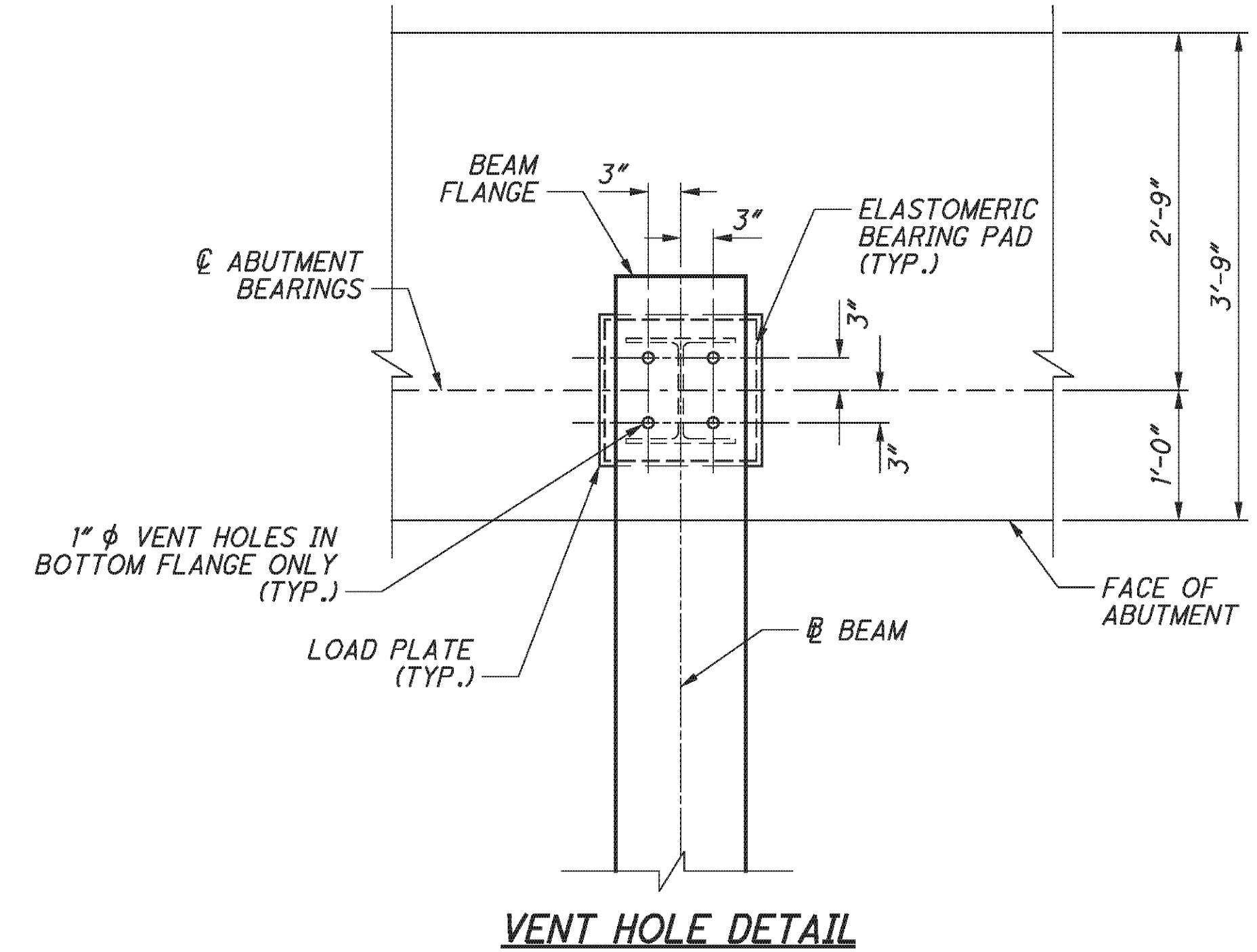
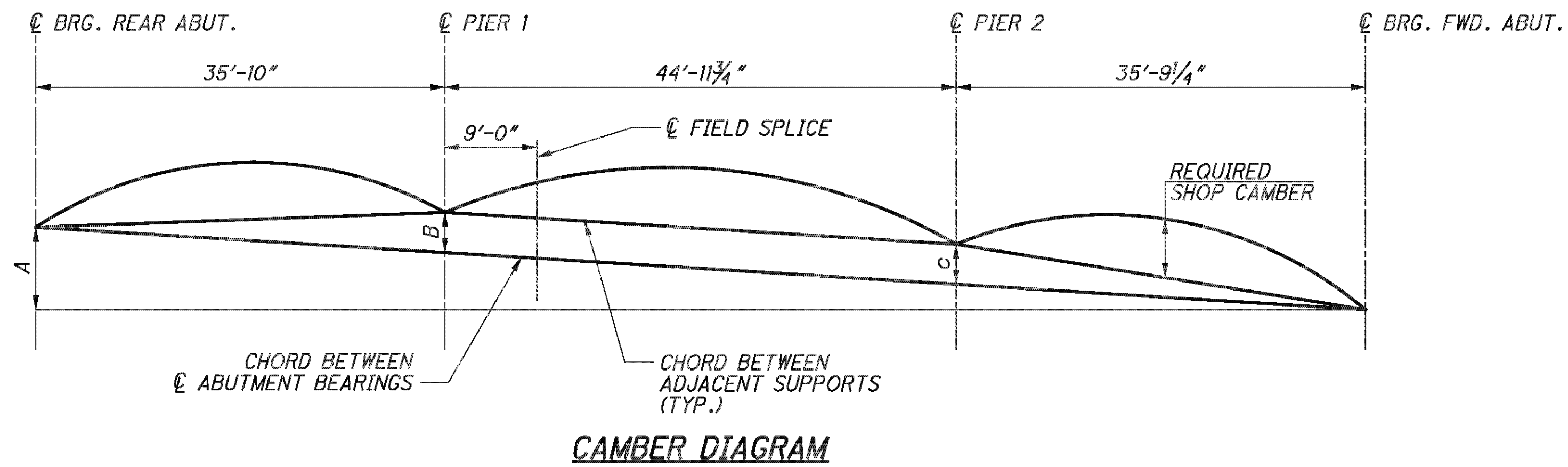
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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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 3/16" | 1'-4 3/16" | 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" |

| | 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.

E.L. ROBINSON
The Challenge, the Choice
1890 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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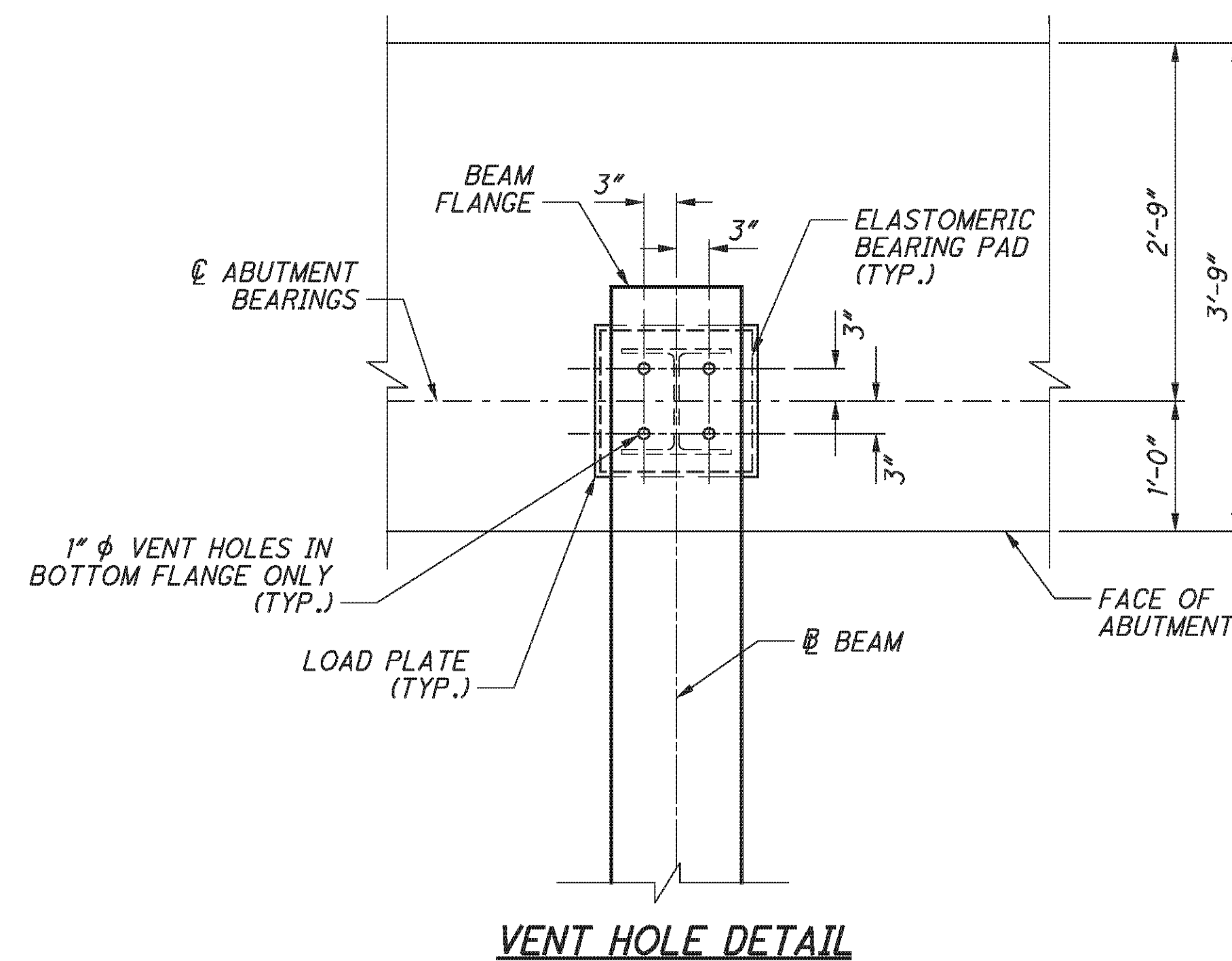
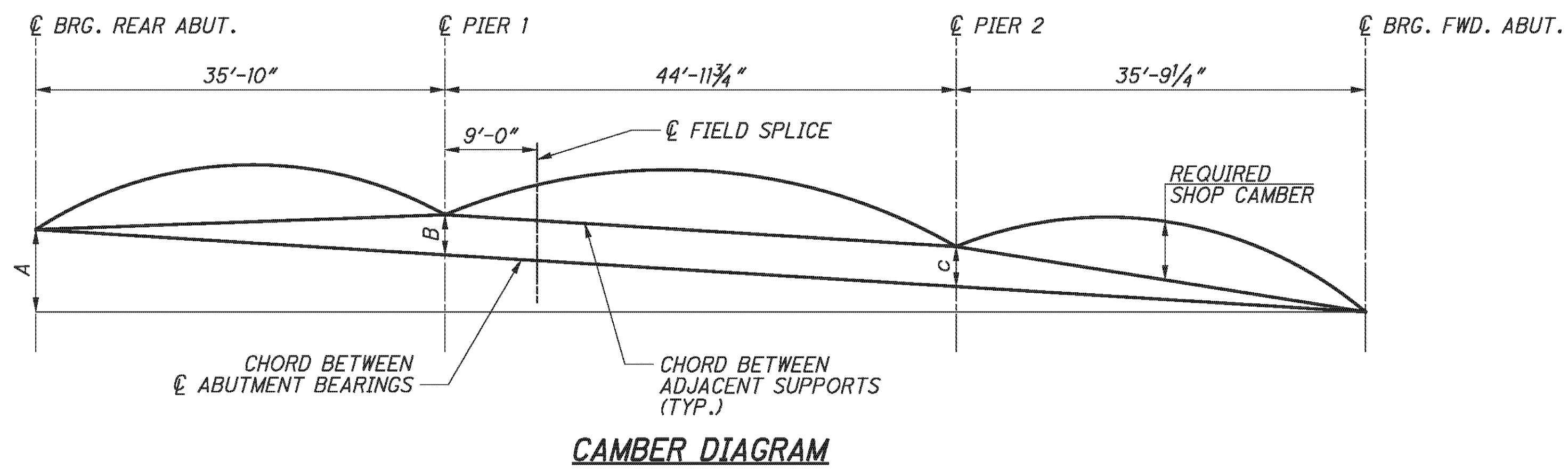
DEFLECTION AND CAMBER
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

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| 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:

- FOR ADDITIONAL NOTES AND BEAM DETAILS, SEE SHEET [26/45].
- DEFLECTIONS AND CAMBER GIVEN TO THE NEAREST 1/16".
- NEGATIVE VALUES FOR DEFLECTIONS INDICATE DEFLECTIONS UPWARD.
- FOR BEARING DETAILS, SEE SHEET [30/45].

E.L. ROBINSON
The Challenge, the Choice
1890 Watermark Drive, Suite 310 - Columbus, Ohio 43215

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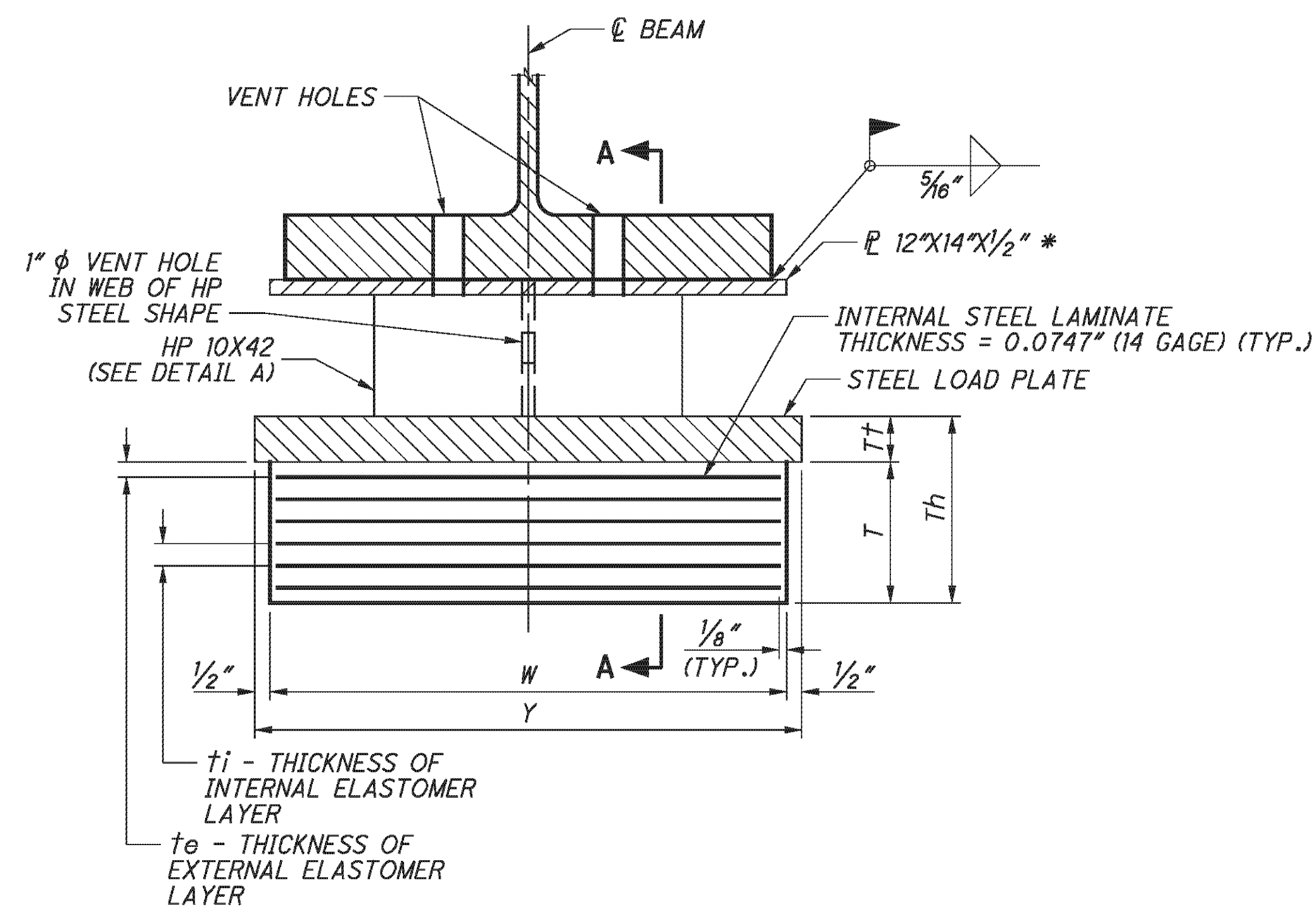
DEFLECTION AND CAMBER - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

BEL-70-7.61
PID No. 76825

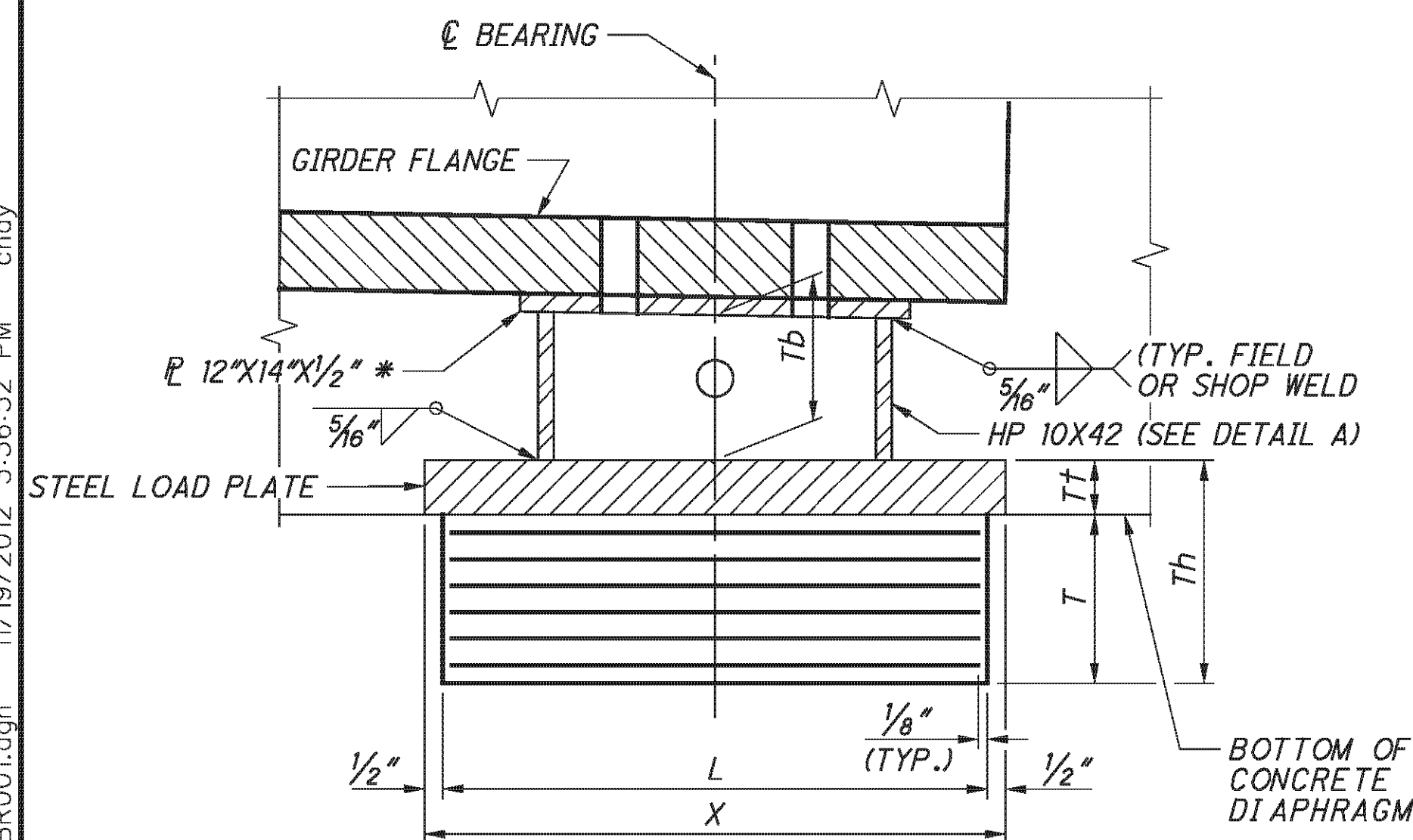
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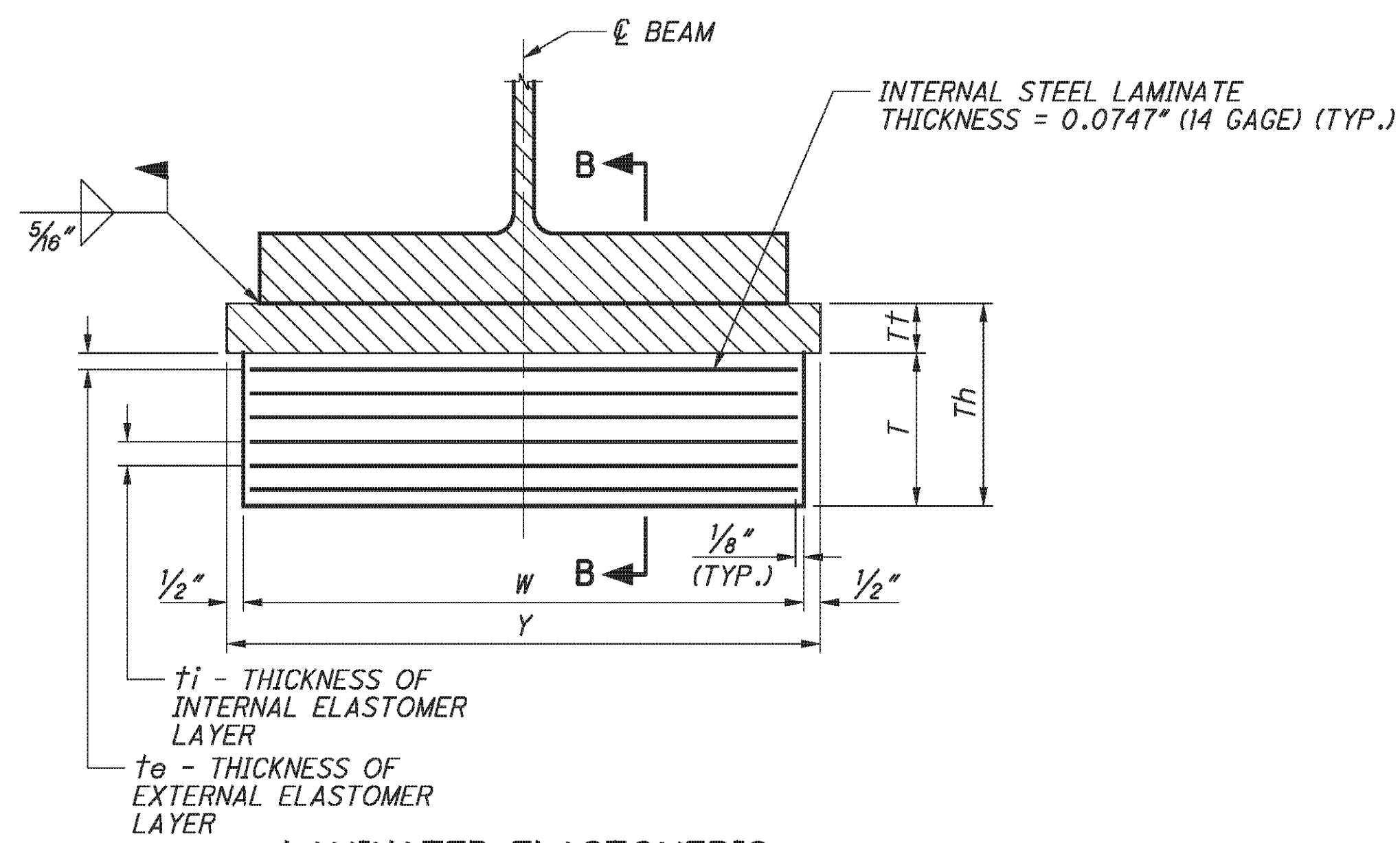
LAMINATED ELASTOMERIC EXPANSION BEARING AT ABUTMENTS



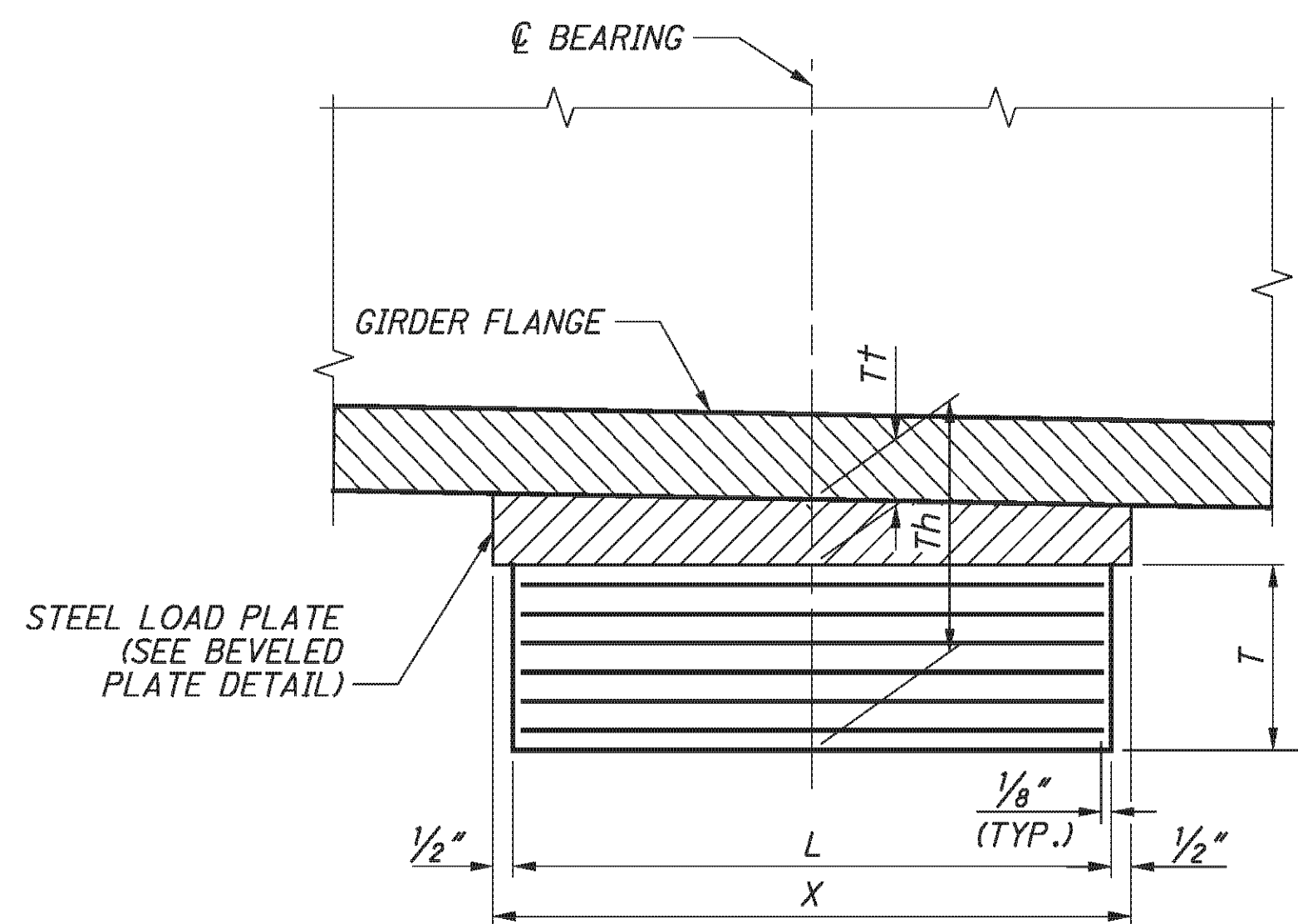
SECTION A-A

LEGEND:

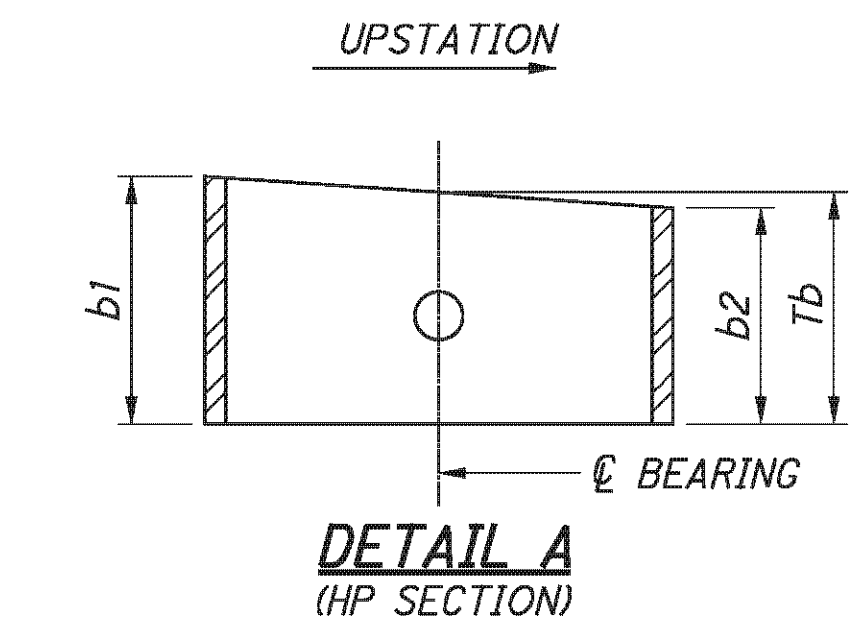
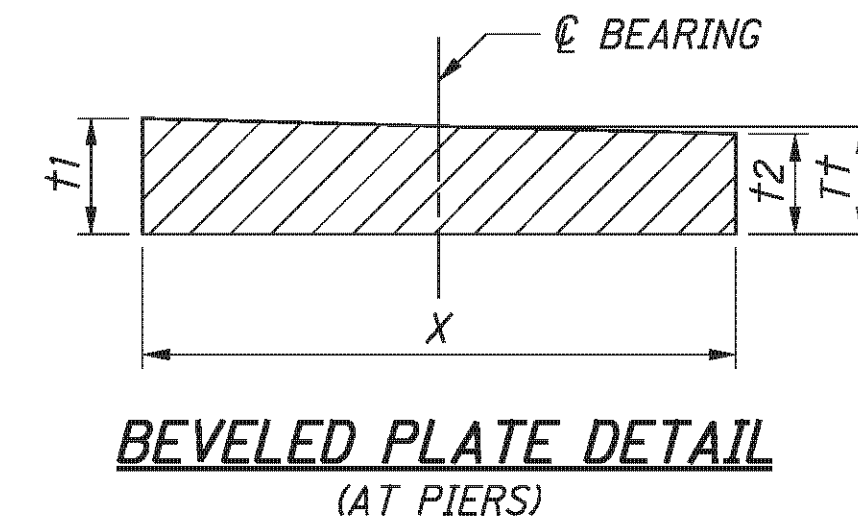
* - FIELD DRILL VENT HOLES IN THE 1/2" TOP PLATE.



LAMINATED ELASTOMERIC EXPANSION BEARING AT PIERS



SECTION B-B



| 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 |

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. 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.
7. 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.) | ti (IN.) | te (IN.) | n NO. OF ti's | N NO. INTERNAL LAMINATES | T (IN.) | STEEL LOAD PLATE | | | | | |
|------------|------|------------|----------|---------------------|-------------------------|---------|---------|----------|----------|---------------|--------------------------|---------|------------------|---------|----------|----------|----------|----------|
| | | | | | | | | | | | | | X (IN.) | Y (IN.) | T† (IN.) | t1 (IN.) | t2 (IN.) | Th (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 |

E.L. ROBINSON
The Challenge, the Choice

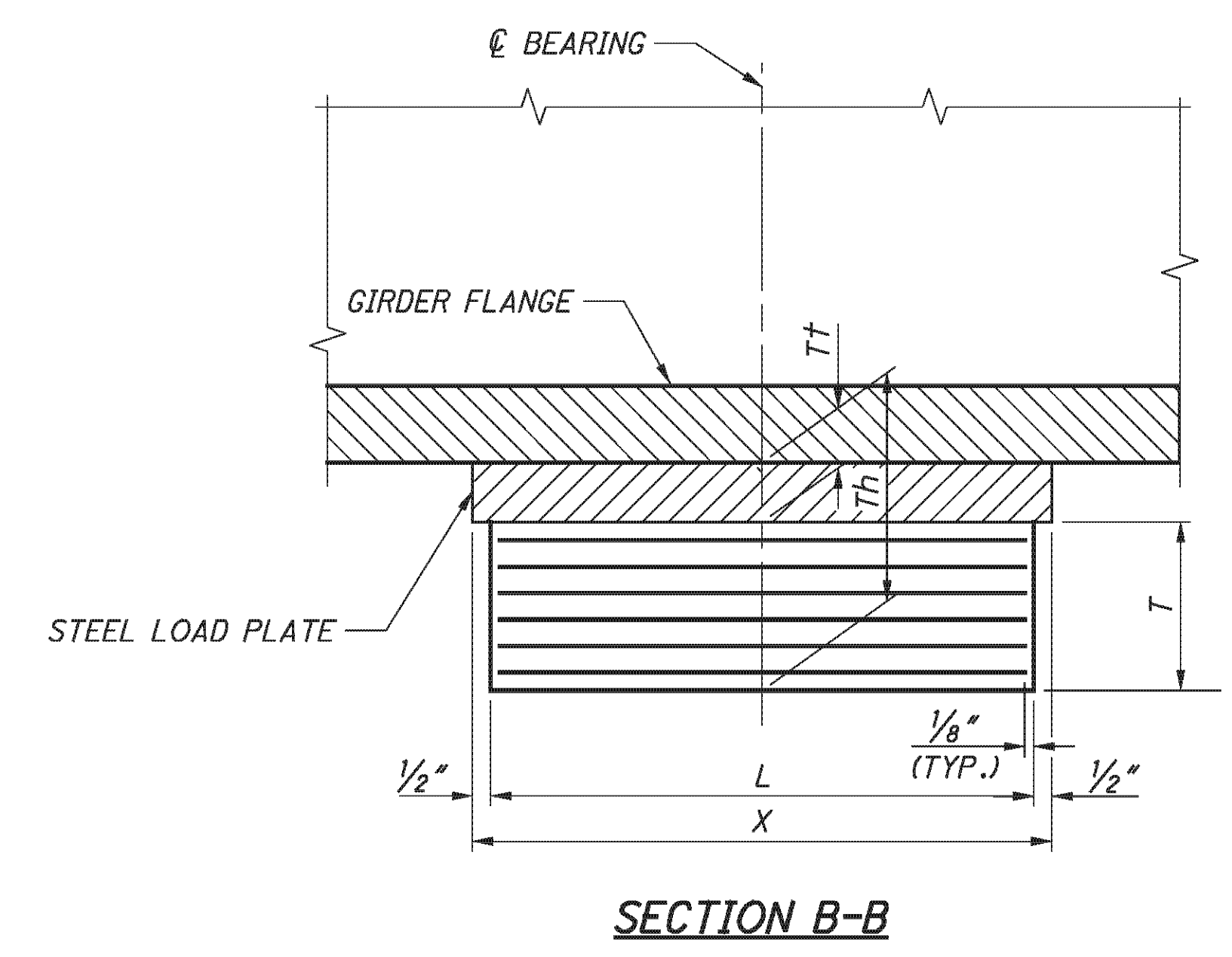
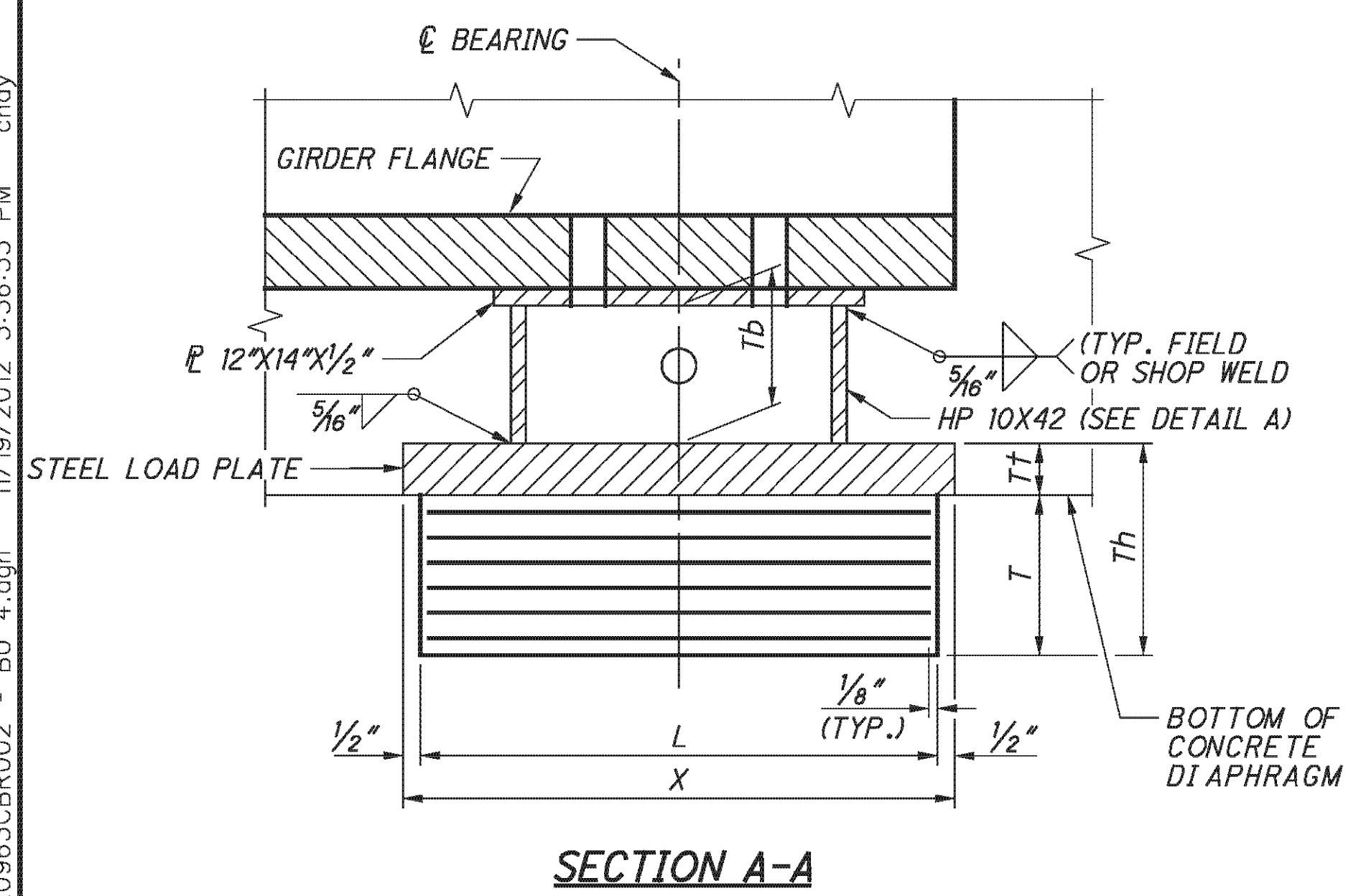
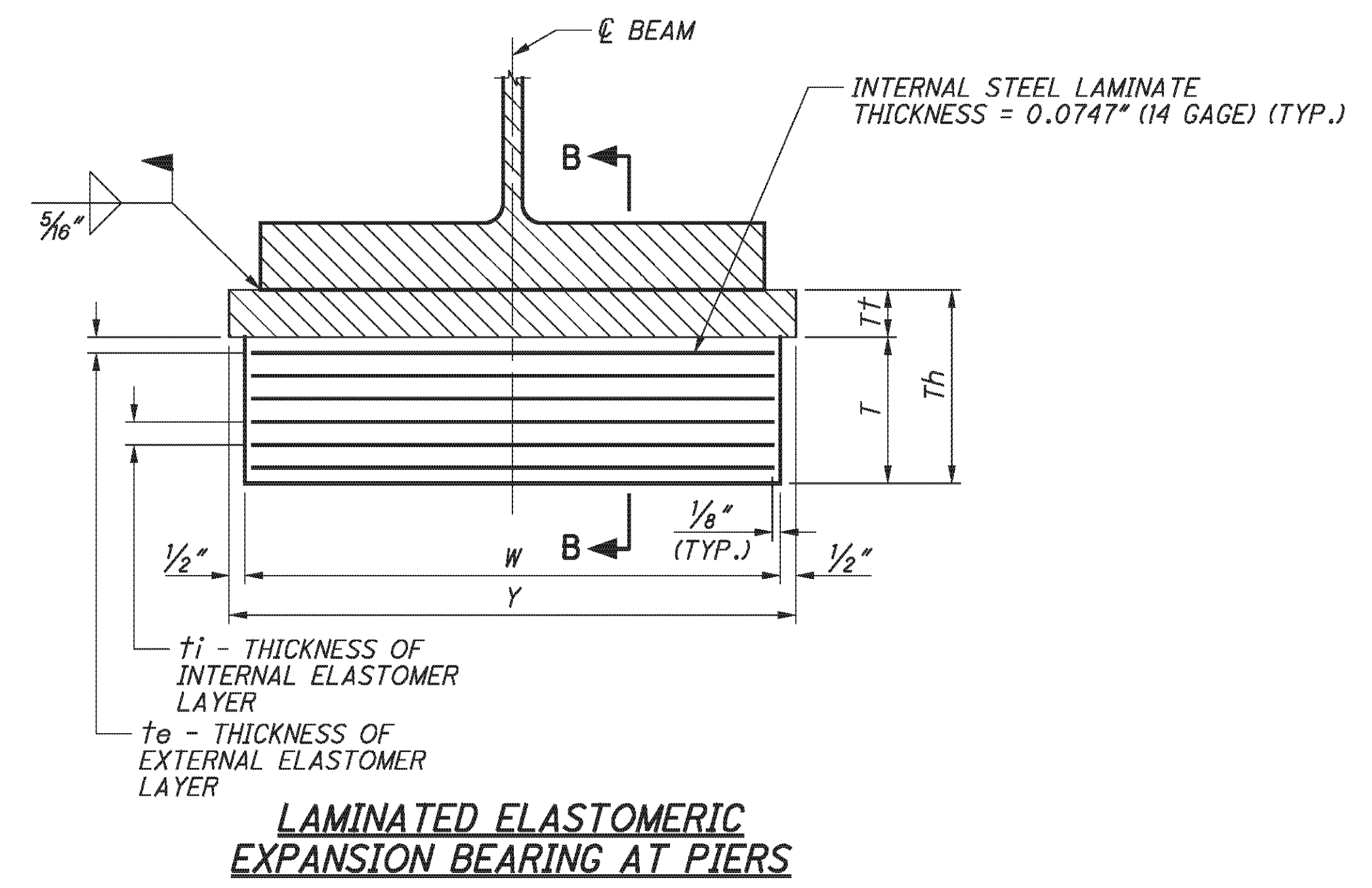
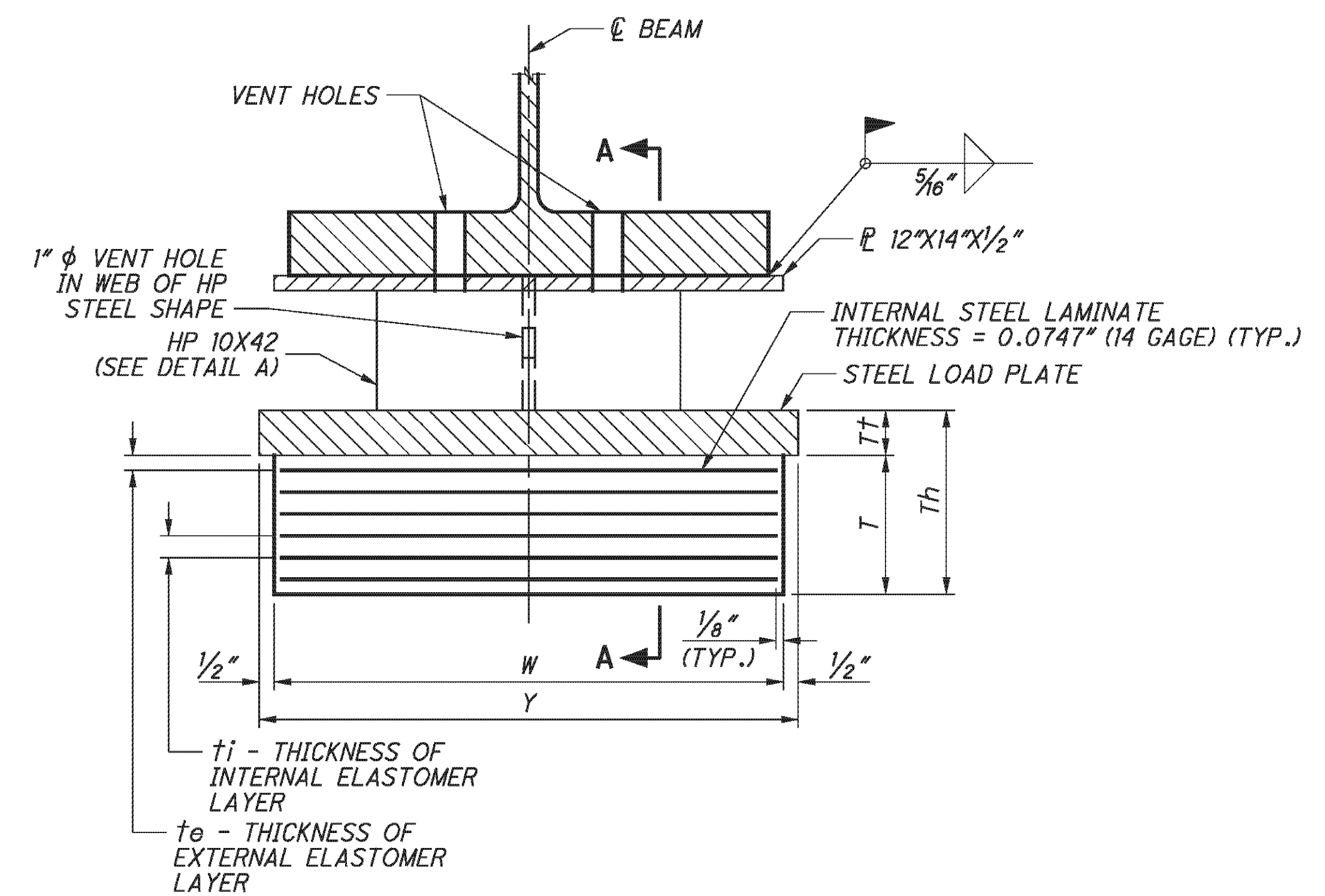
DATE: 5/11/10
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DRAWN: BMG
DESIGNED: BMG
CHECKED: TJE

STRUCTURE FILE NUMBER: 0702226L/0702250R

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 | Tb (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 | Tb (IN.) |
| FORWARD ABUTMENT | 7 | 16.488 |
| | 8 | 16.284 |
| | 9 | 16.292 |
| | 10 | 16.292 |
| | 11 | 16.296 |
| 12 | 16.072 | |

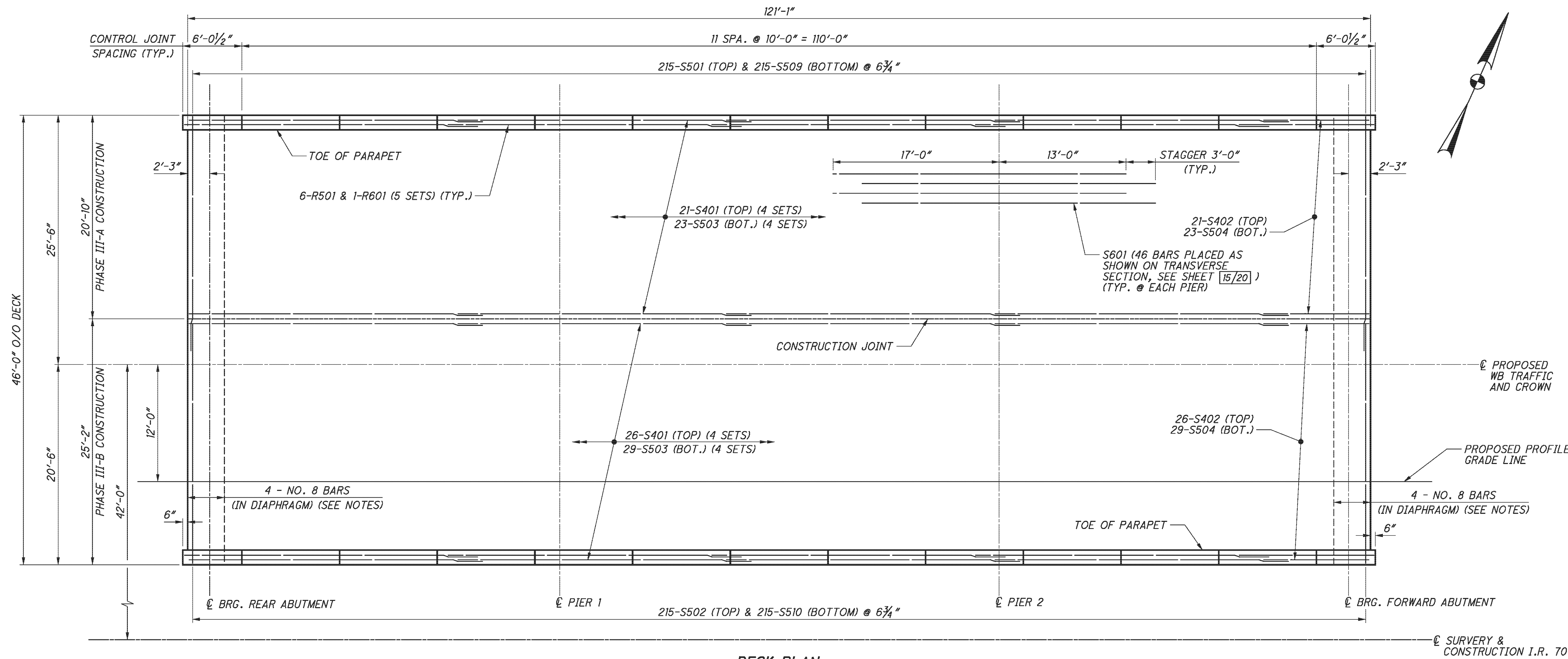
NOTES:

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.

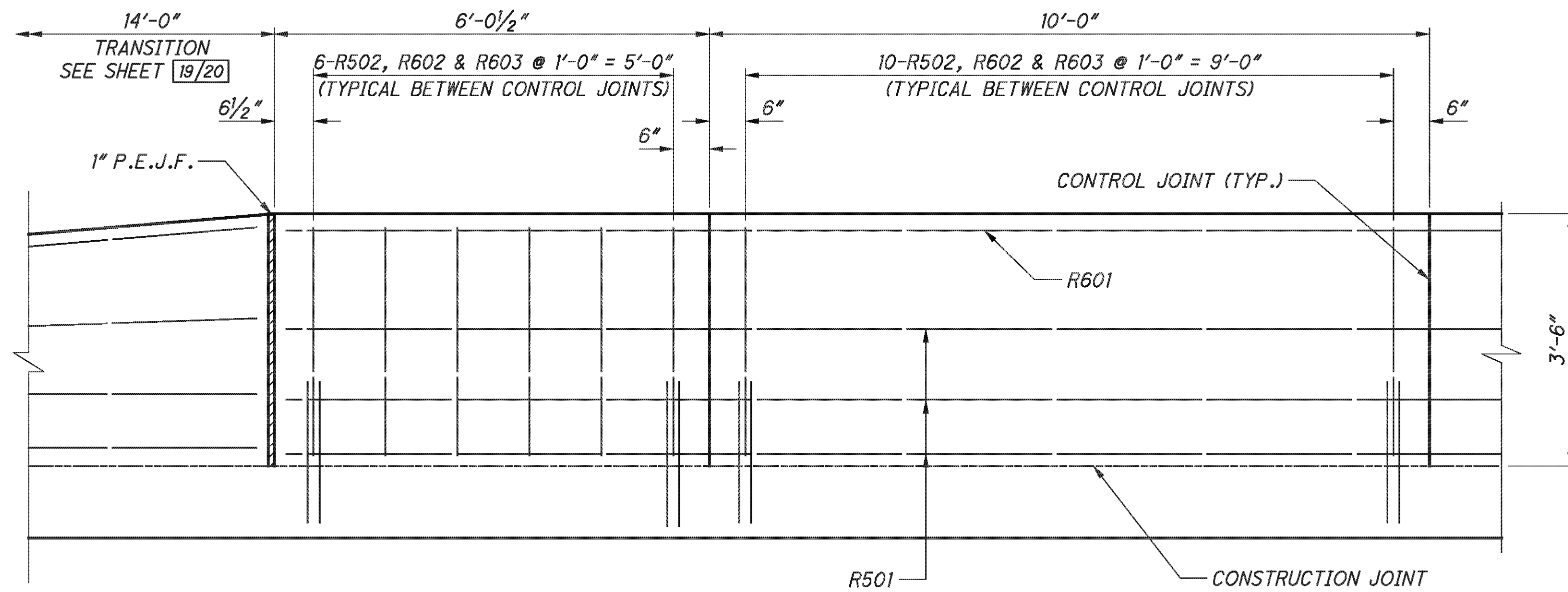
| BEARING DATA | | | | | | | | | | | | | | | | |
|--------------|------|------------|----------|---------------------|-------------------------|---------|---------|----------|----------|---------------|--------------------------|---------|------------------|---------|----------|----------|
| LOCATION | TYPE | NO. REQ'D. | DL (KIP) | LL (KIP) W/O IMPACT | MAX DESIGN LOAD (DL+LL) | L (IN.) | W (IN.) | ti (IN.) | te (IN.) | n NO. OF ti's | N NO. INTERNAL LAMINATES | T (IN.) | STEEL LOAD PLATE | | | |
| | | | | | | | | | | | | | X (IN.) | Y (IN.) | Tt (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

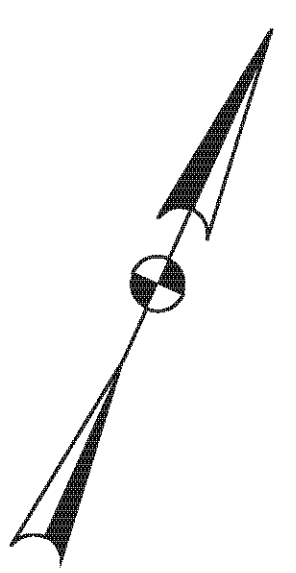


PART PARAPET ELEVATION

| 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.

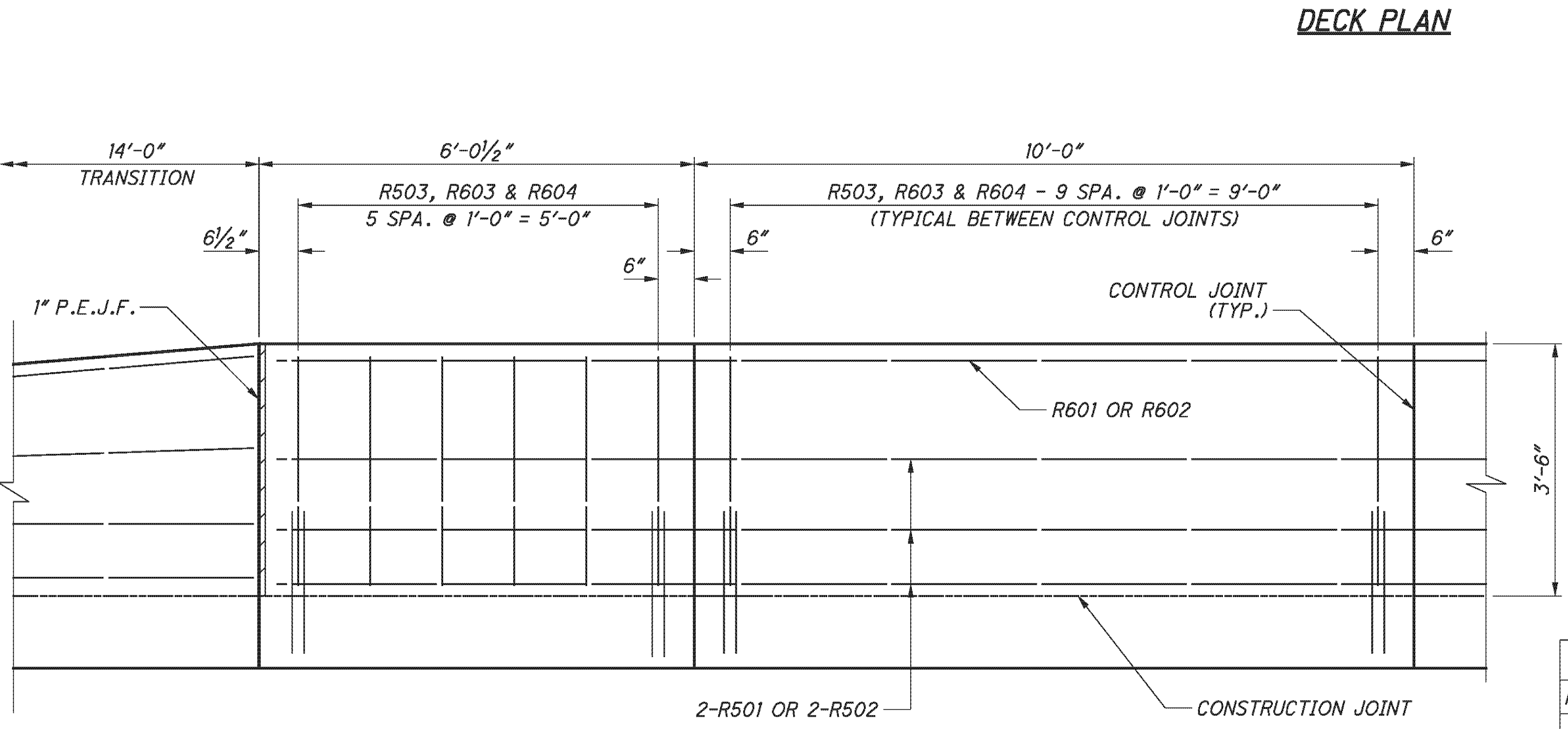
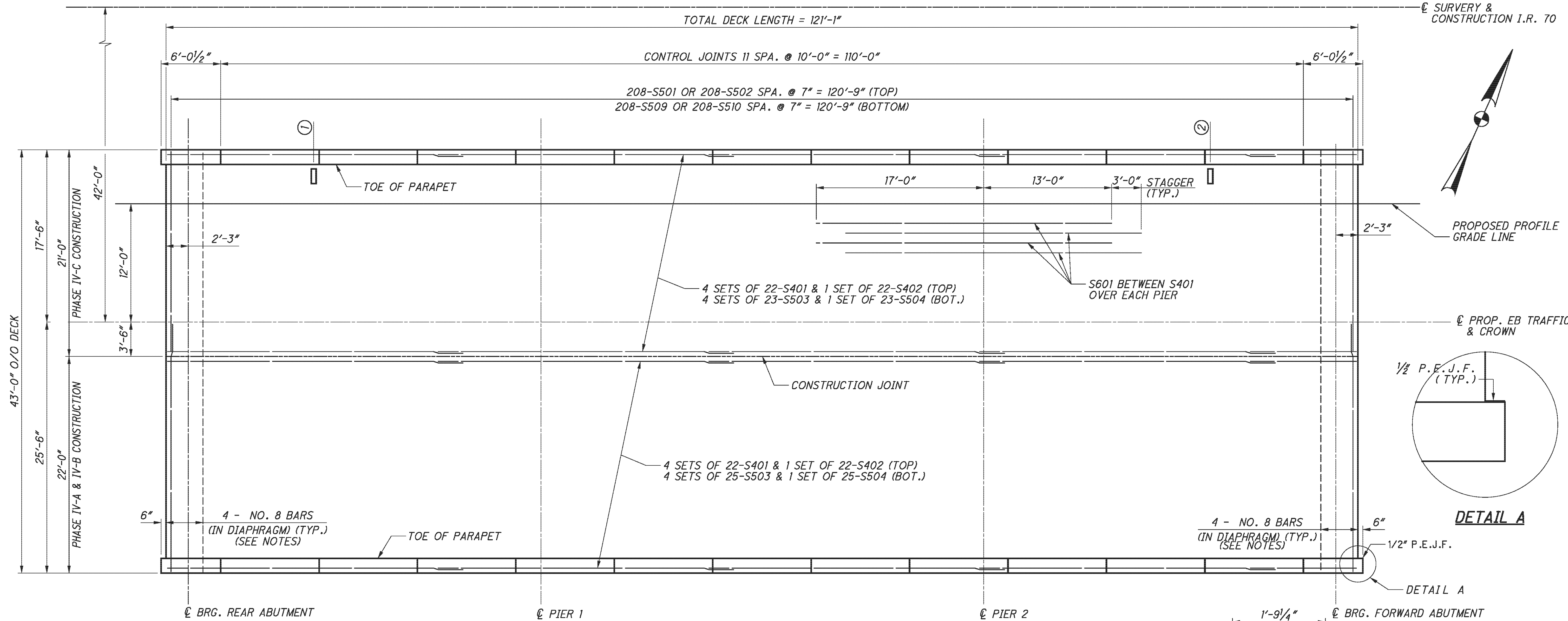


| | |
|-----------------------|-------------------|
| DATE | 5/11/10 |
| REVIEWED | DFT |
| DRAWN | BMG |
| DESIGNED | BMG |
| CHECKED | TUE |
| STRUCTURE FILE NUMBER | 0702226L/0702250R |

DECK PLAN - LEFT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. TO OVER S.R. 149

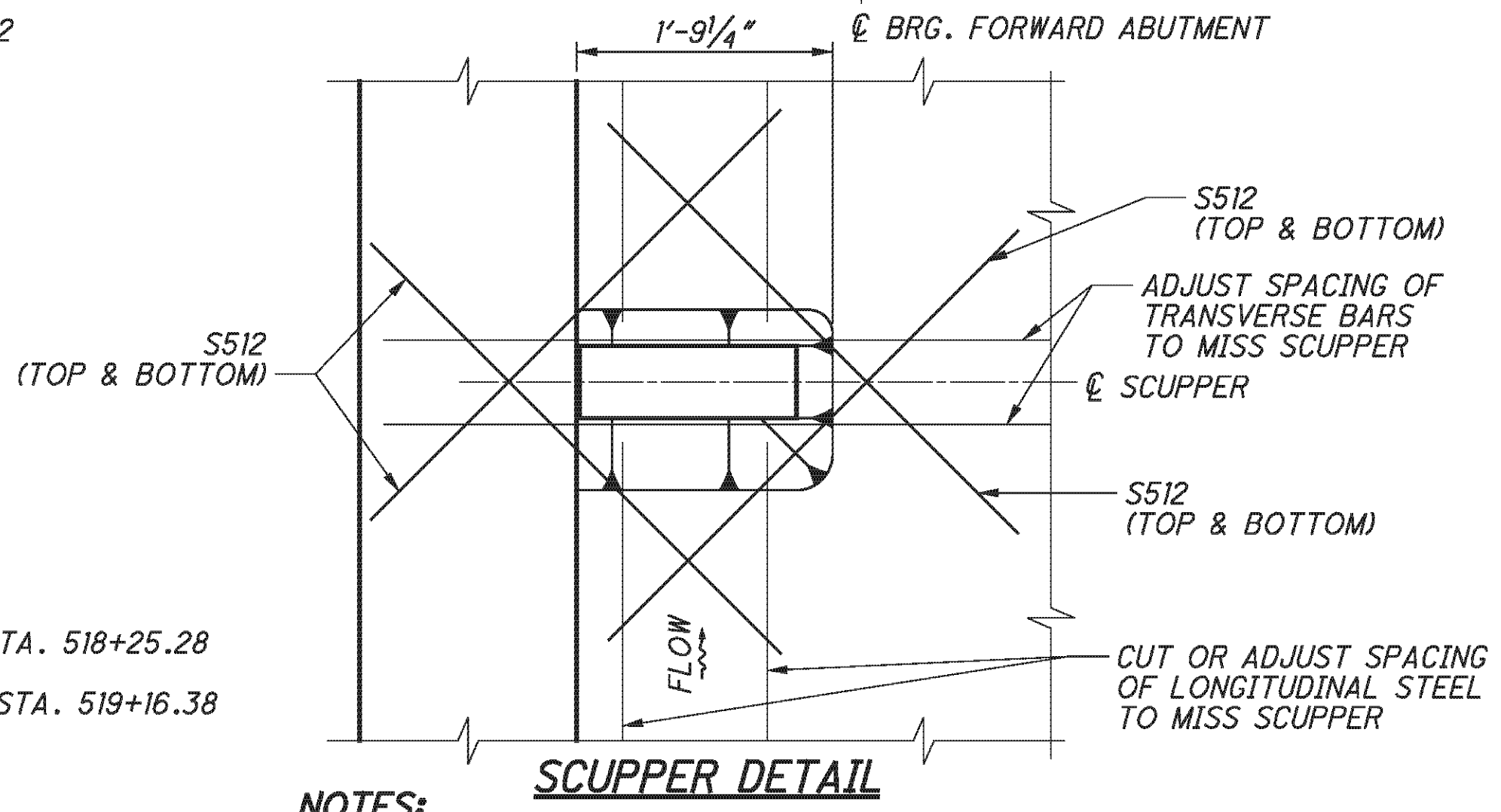
BEL-70-7.61
PID No. 76825

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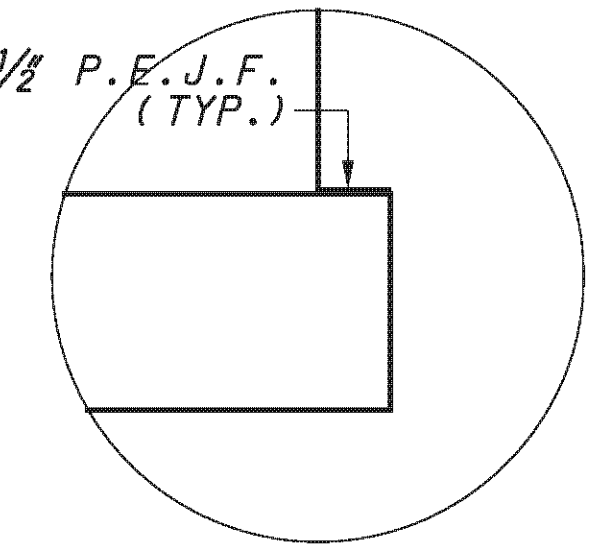
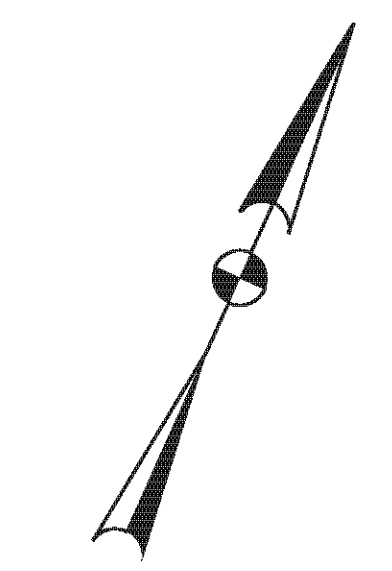
- LEGEND:**
- ① SCUPPER NO. 1, STA. 518+25.28
 - ② SCUPPER NO. 2, STA. 519+16.38

| 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



E.L. ROBINSON
The Challenge, the Choice
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215

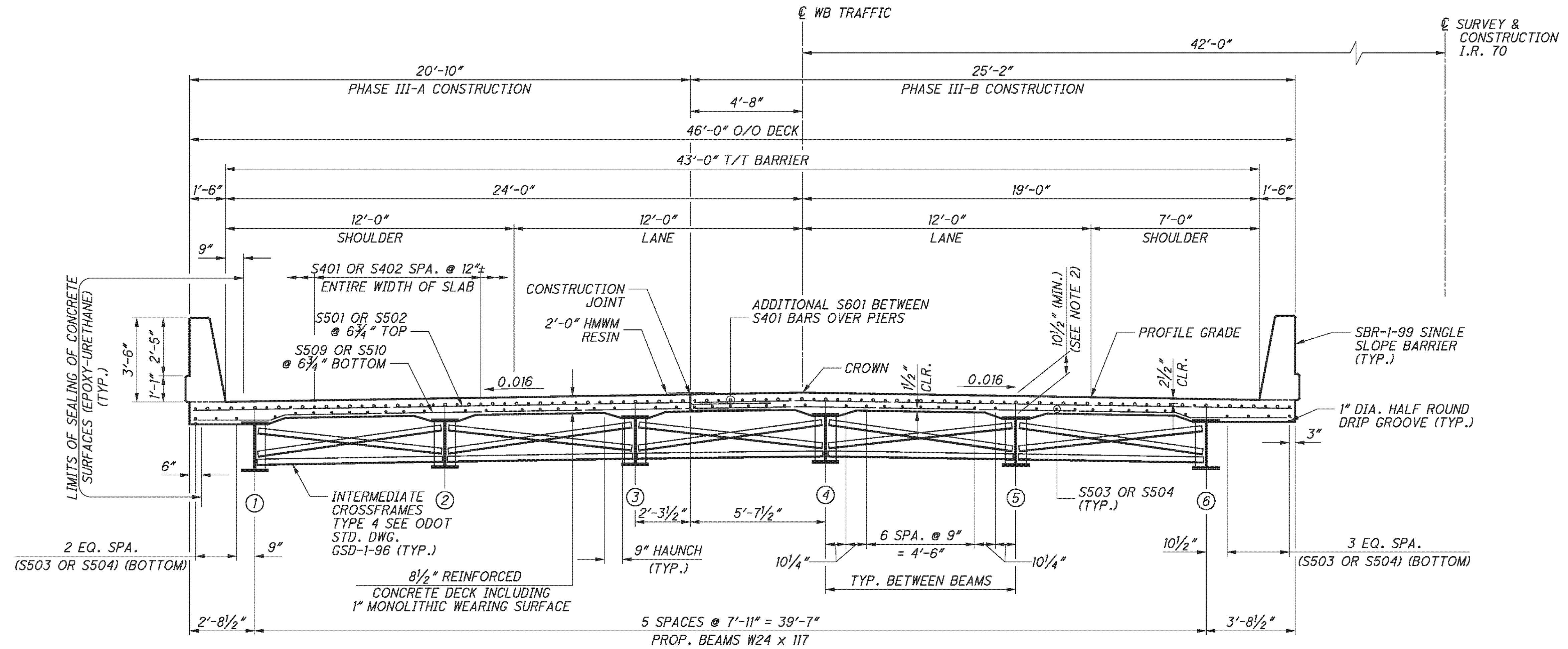
| | |
|-----------------------|----------|
| DATE | 2/3/11 |
| REVIEWED | RER |
| STRUCTURE FILE NUMBER | 0702250R |
| DRAWN | BMG |
| DESIGNED | BMG |
| CHECKED | RLE |
| REVISION | REVISED |

DECK PLAN - RIGHT BRIDGE
BRIDGE NO. BEL-70-0963 L/R
I.R. 70 OVER S.R. 149

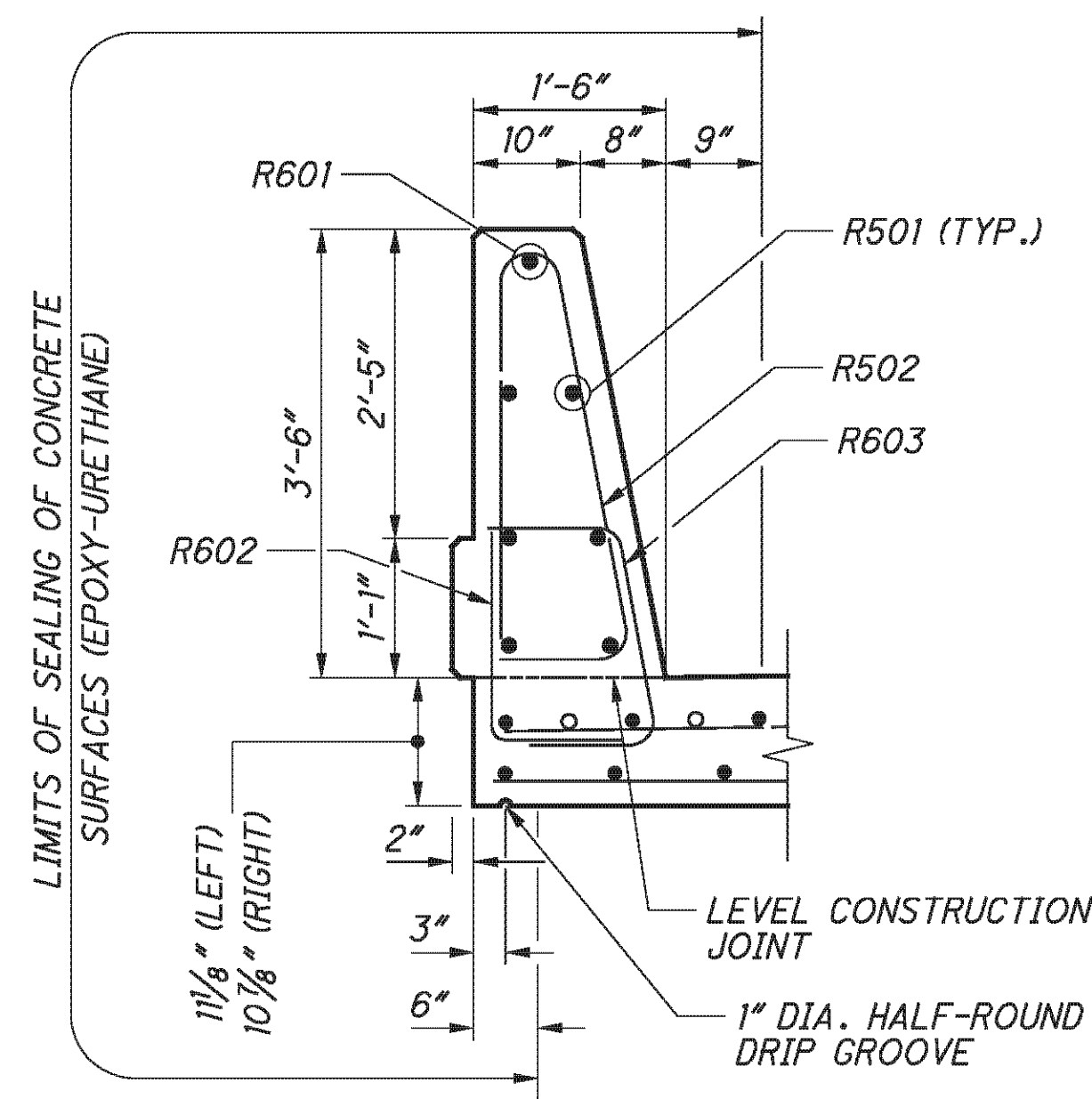
BEL-70-7.61
PID No. 76825

32 / 45

360
373



TRANSVERSE SECTION



PARAPET DETAIL

(LEFT PARAPET SHOWN, RIGHT PARAPET SIMILAR)

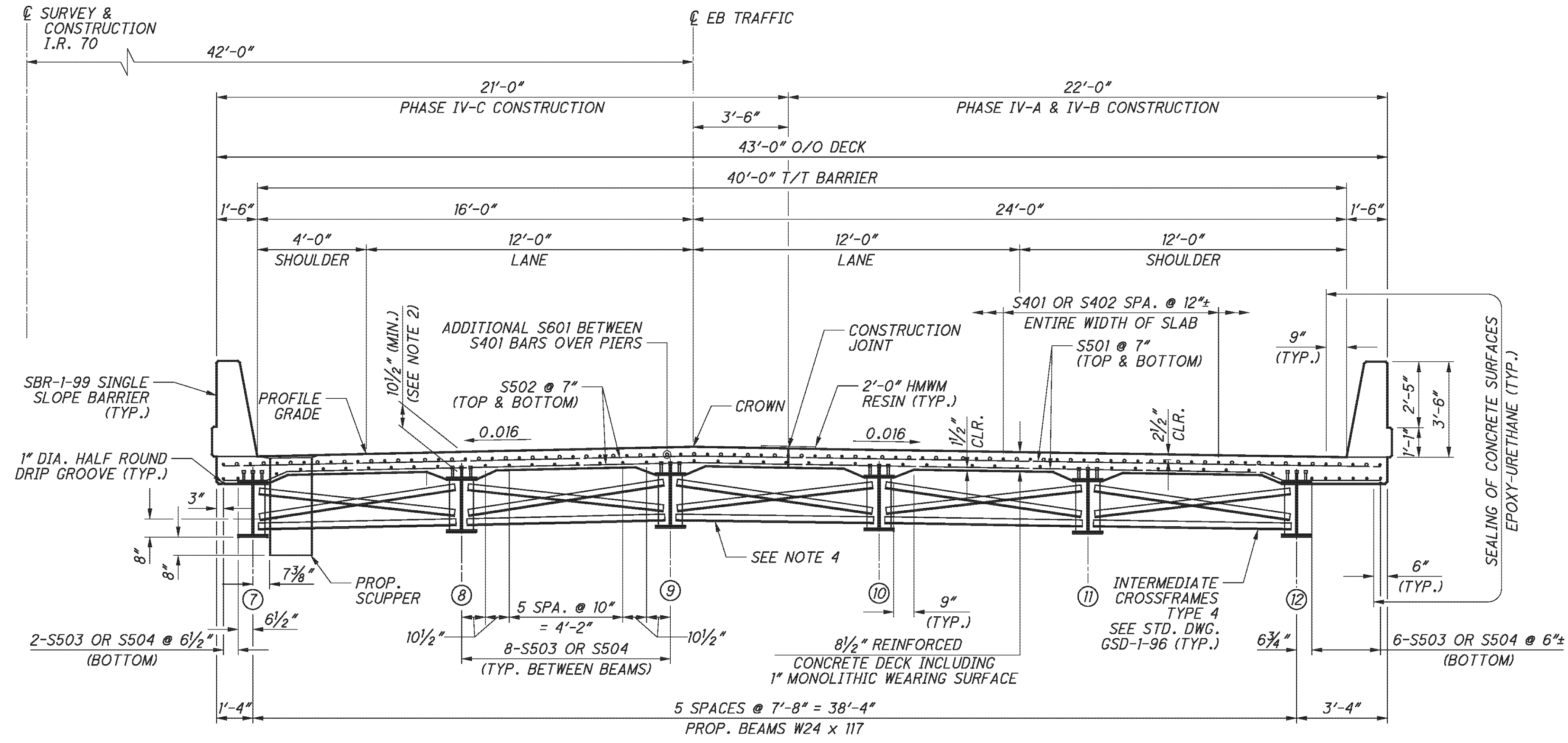
| LAP LENGTHS | |
|-------------------------|------------|
| NO. 4 BARS | 2'-0" MIN. |
| NO. 5 BARS (IN DECK) | 3'-3" MIN. |
| NO. 5 BARS (IN PARAPET) | 3'-6" MIN. |
| NO. 6 BARS | 4'-2" MIN. |

NOTES:

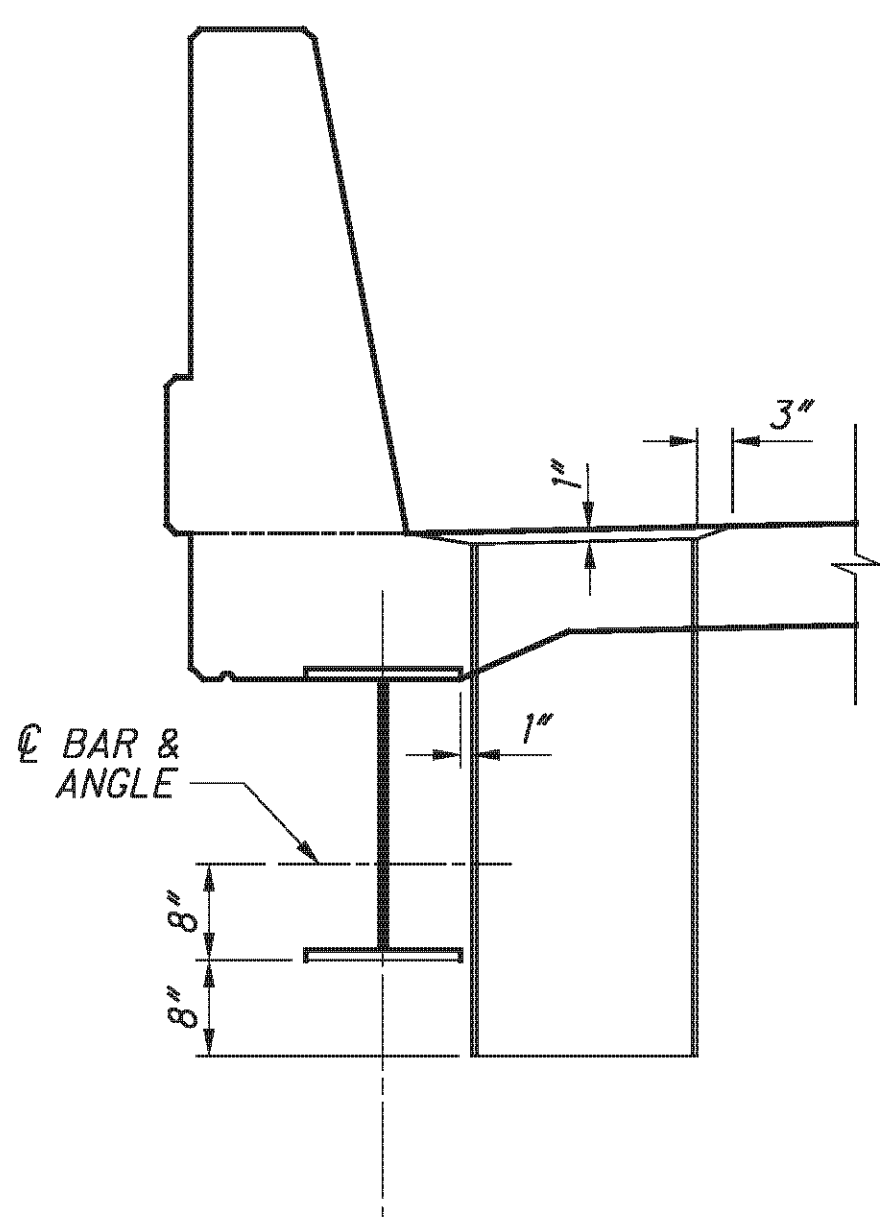
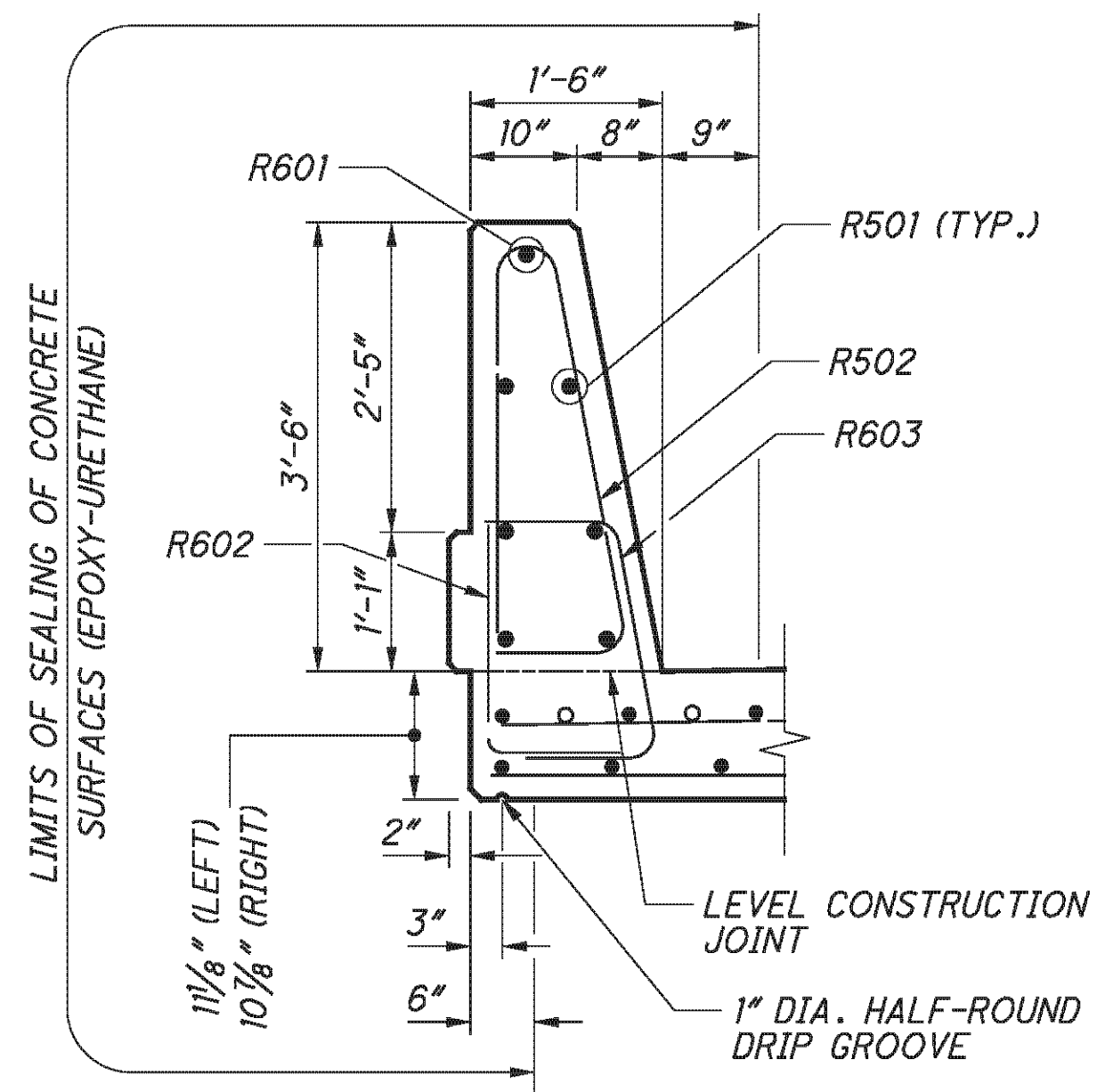
- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES 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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| 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. |

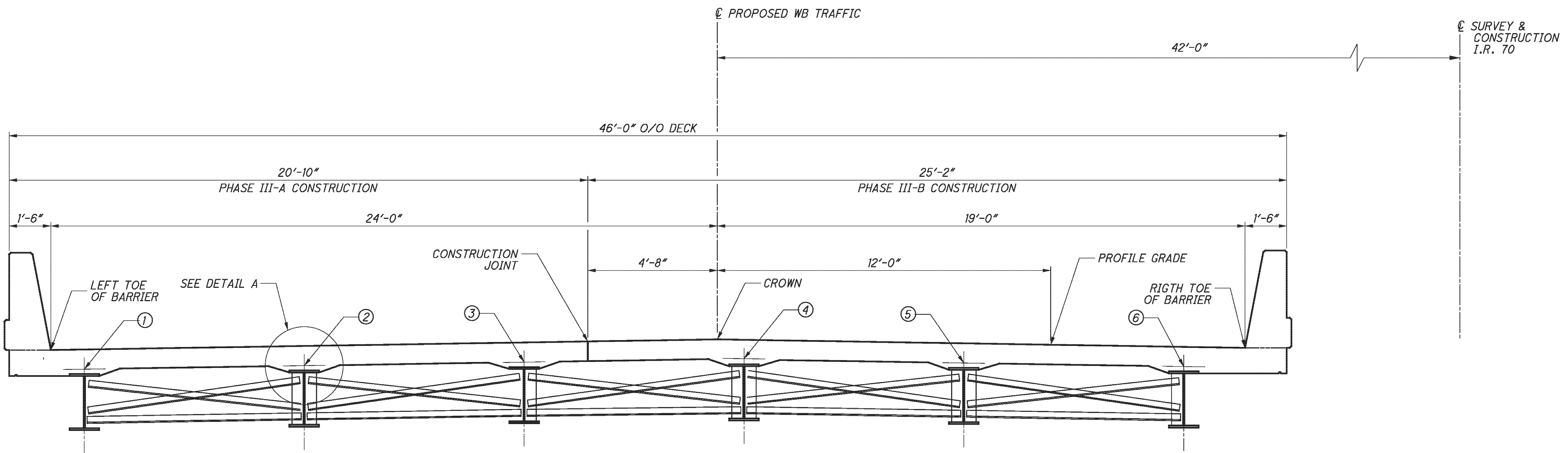


NOTES:

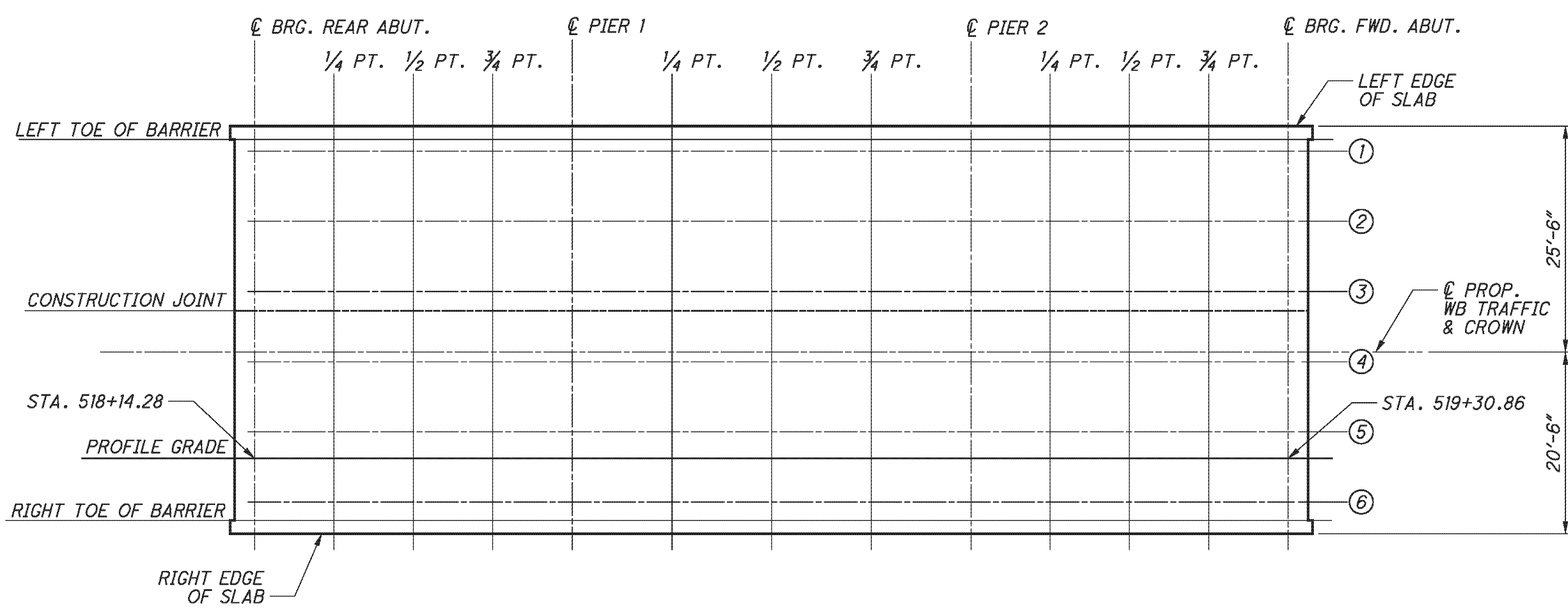
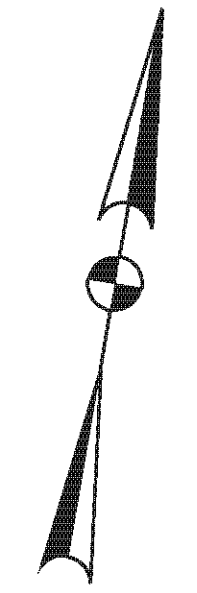
- PROPOSED STEEL BEAMS AND CROSS-FRAMES ARE ASTM A709 GRADE 50W, YIELD STRENGTH 50,000 PSI.
- DECK SLAB CONCRETE QUANTITY:
THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES 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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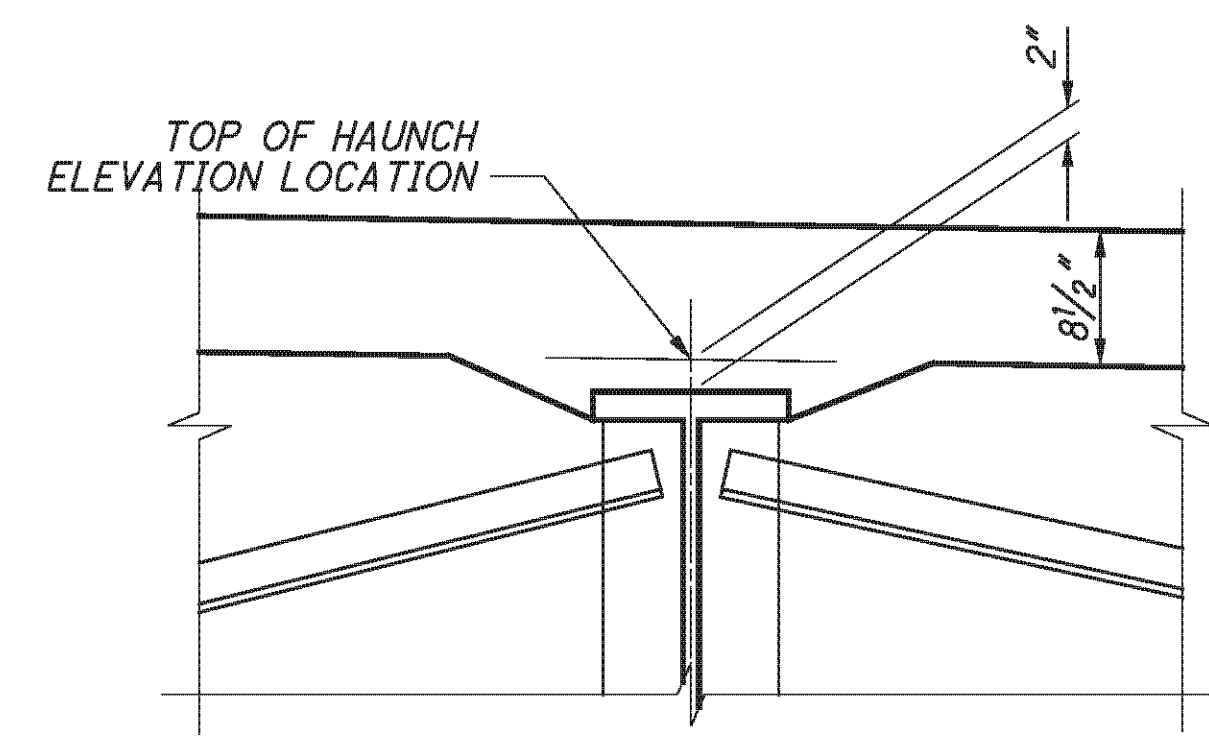
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SCREED LINE & TOP OF HAUNCH LOCATIONS



DECK ELEVATION PLAN - LEFT BRIDGE



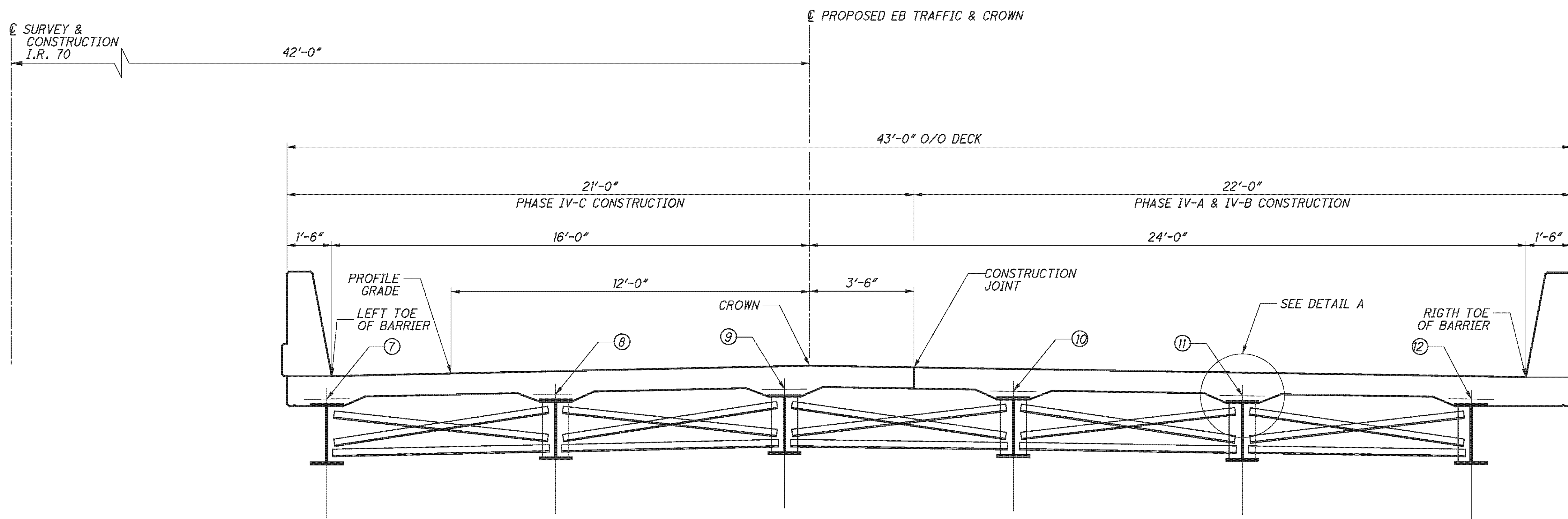
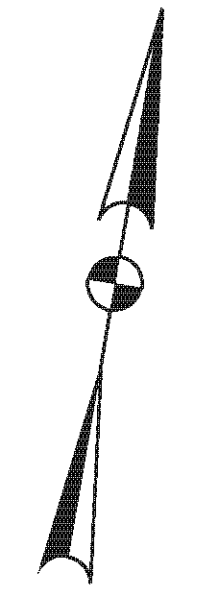
DETAIL A

NOTES:

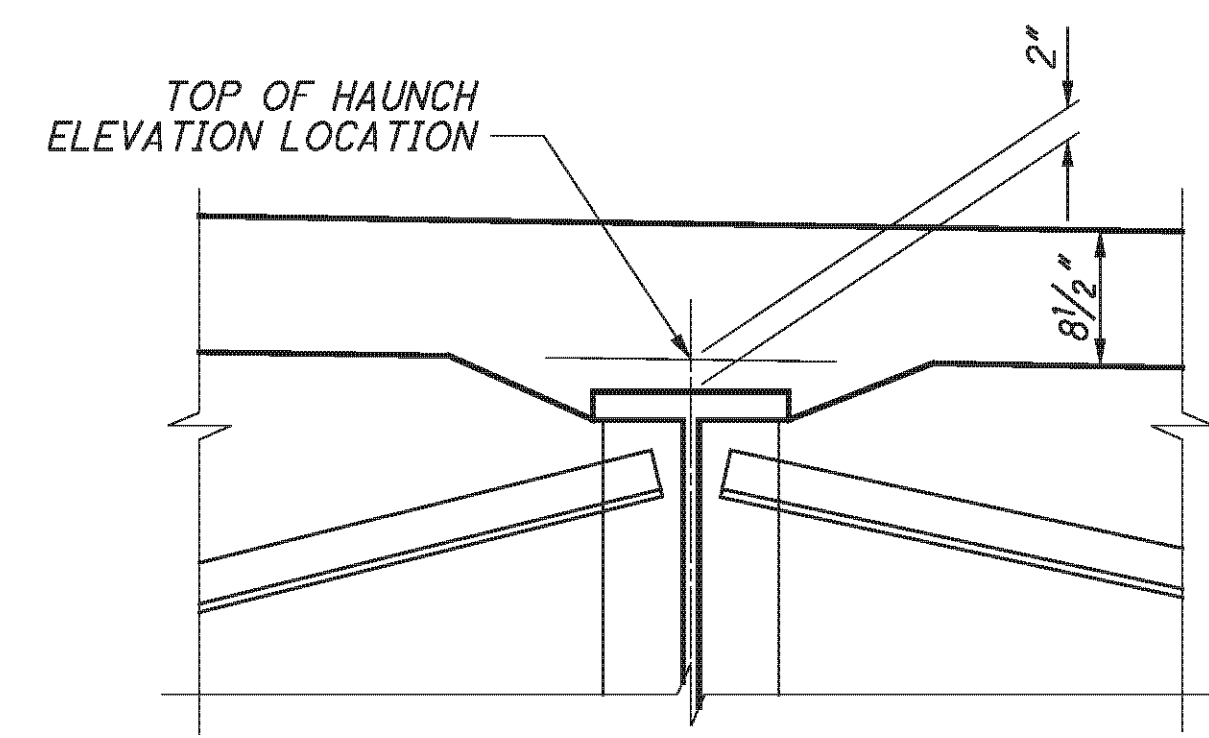
1. FOR SCREED, TOP OF HAUNCH AND FINAL DECK ELEVATIONS, SEE SHEET **37/45**.
2. FOR ADDITIONAL NOTES, SEE SHEET **37/45**.

| | | | |
|--|-------------------|----------|---------|
| | | DATE | 5/11/10 |
| | | REVIEWED | DFT |
| DESIGNED | BMG | CHECKED | TUE |
| DRAWN | BMG | REVISED | |
| STRUCTURE FILE NUMBER | 0702226L/0702250R | | |
| SUPERSTRUCTURE ELEVATION DETAILS - LEFT BRIDGE BRIDGE NO. BEL-70-0963 L/R I.R. TO OVER S.R. 149 | | | |
| BEL-70-7.61 PID No. 76825 | | 35 / 45 | |
| | | | |

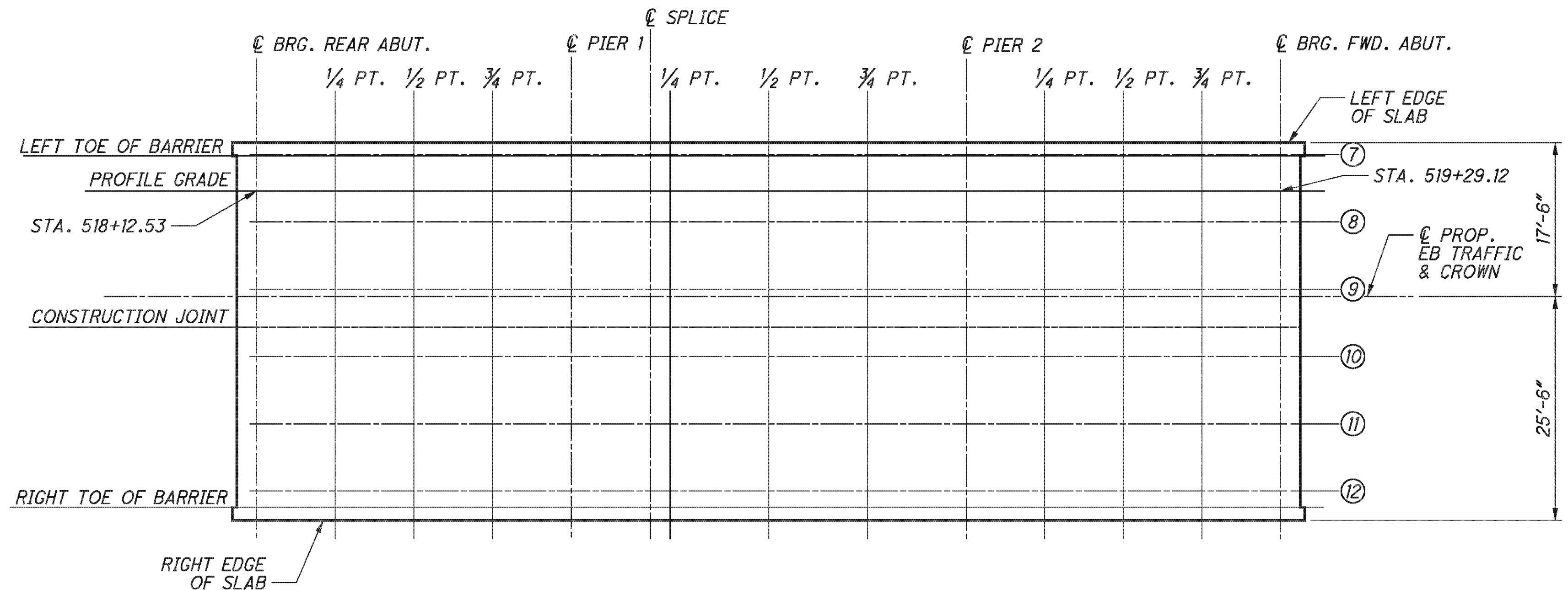
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SCREED LINE & TOP OF HAUNCH LOCATIONS



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 |
| DRAWN | DTA |
| DESIGNED | DTA |
| CHECKED | RLE |
| 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 | |
| 364 373 | |

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TOP OF HAUNCH ELEVATION TABLE (LEFT BRIDGE)

Table with columns for LOCATION, BEAM 1, BEAM 2, BEAM 3, BEAM 4, BEAM 5, BEAM 6. Rows include SPAN 1, SPAN 2, and SPAN 3 with various stationing and elevation data.

SCREED ELEVATION TABLE (LEFT BRIDGE)

Table with columns for LOCATION, TOE OF LEFT BARRIER, CONSTRUCTION JOINT, CROWN, PROFILE GRADE, TOE OF RIGHT BARRIER. Rows include SPAN 1, SPAN 2, and SPAN 3 with various stationing and elevation data.

FINAL DECK SURFACE ELEVATION TABLE (LEFT BRIDGE)

Table with columns for 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. Rows include SPAN 1, SPAN 2, and SPAN 3 with various stationing and elevation data.

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 [35/45].

Project information including E.L. ROBINSON logo, BEL-70-7.61, PID No. 76825, SUPERSTRUCTURE ELEVATIONS - LEFT BRIDGE, BRIDGE NO. BEL-70-0963 L/R, I.R. TO OVER S.R. 149, DATE 5/11/10, STRUCTURE FILE NUMBER 0702226L/0702250R, and a circular stamp with 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].



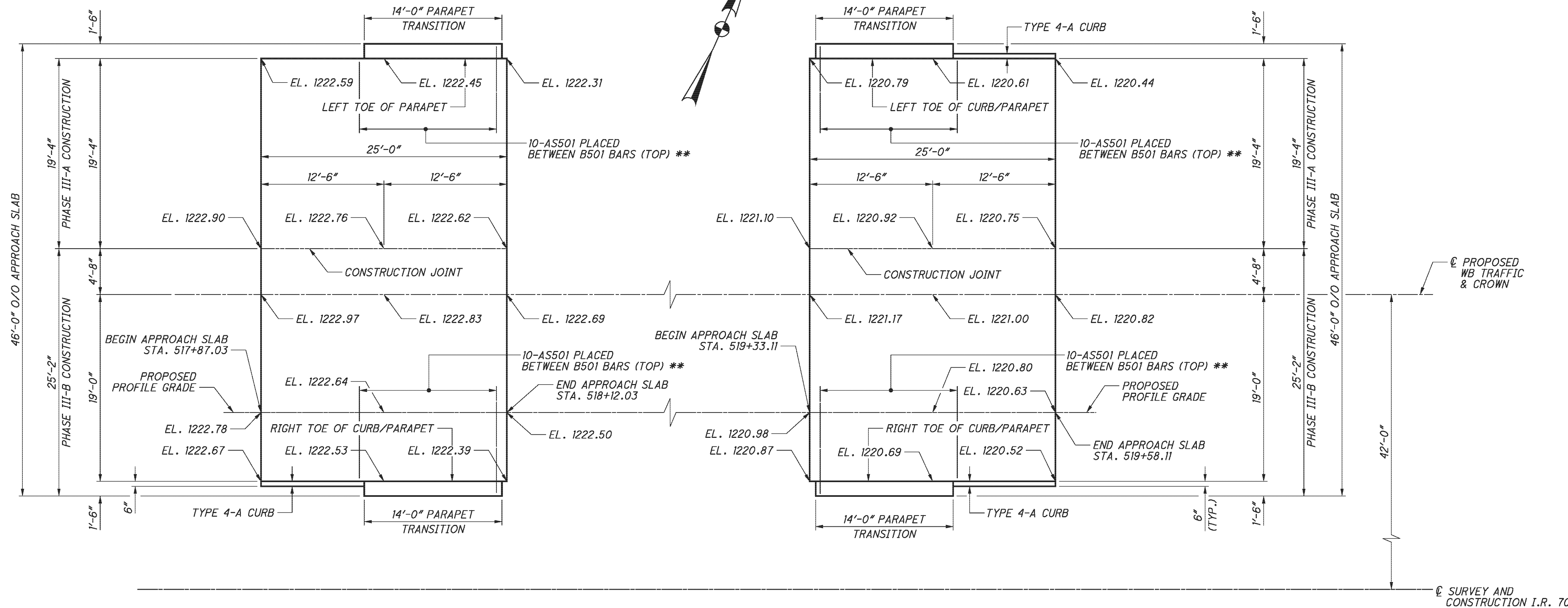
DATE: 2/3/11
 REVIEWED: RER
 STRUCTURE FILE NUMBER: 0702226L/OT0225OR

DRAWN: DTA
 CHECKED: RLE

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

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APPROACH SLAB PLAN

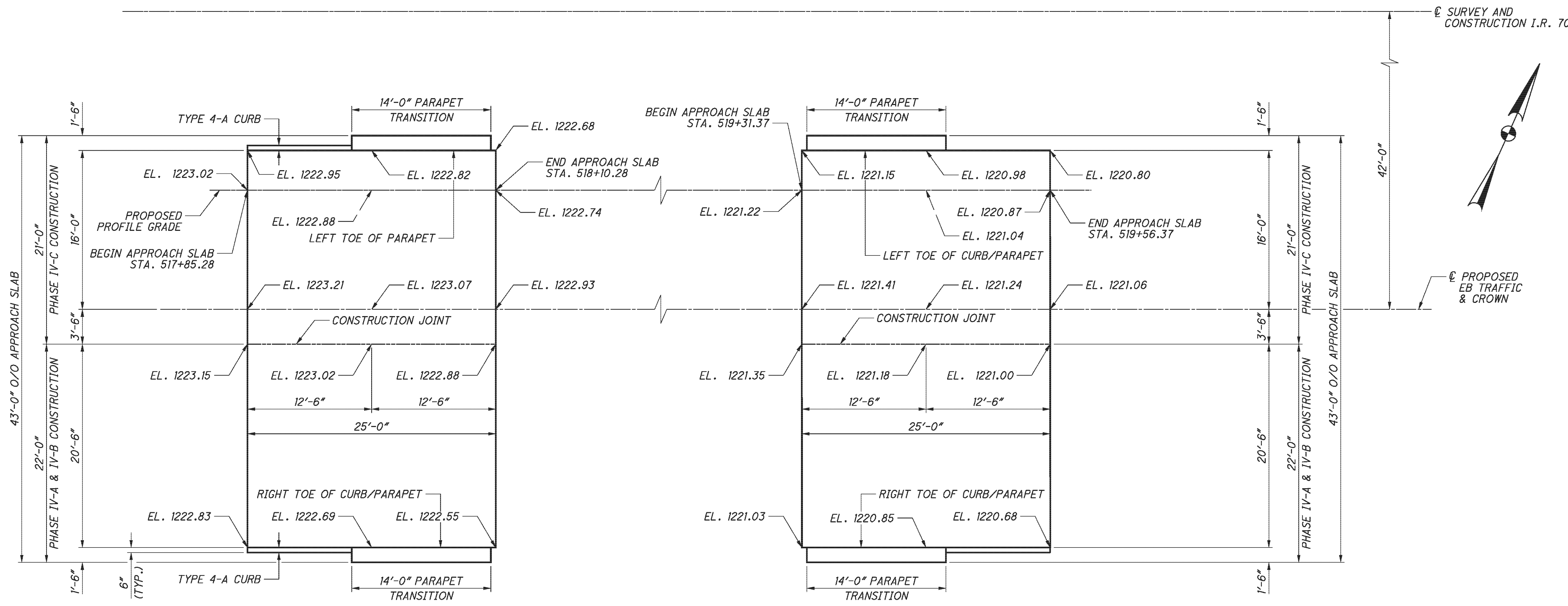
** INDICATED REINFORCING IS IN ADDITION TO STANDARD REINFORCEMENT PROVIDED IN ODOT STANDARD DRAWING AS-1-81. SEE AS-1-81 FOR B501 BARS.

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 <small>the Challenge, the Choice</small> 1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215 | DATE | 5/11/10 |
| | REVIEWED | DFT |
| DRAWN | BMG | REVISY |
| DESIGNED | BMG | CHECKED |
| | TUE | |
| 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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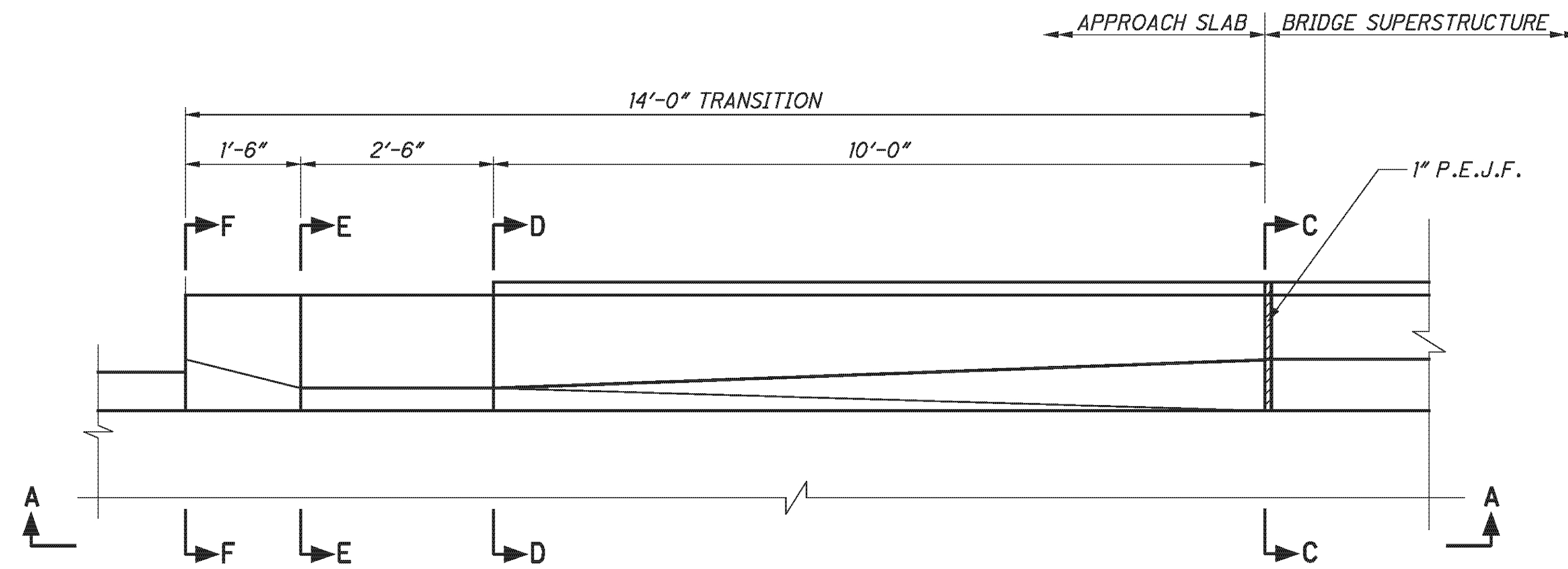
APPROACH SLAB PLAN

NOTES:

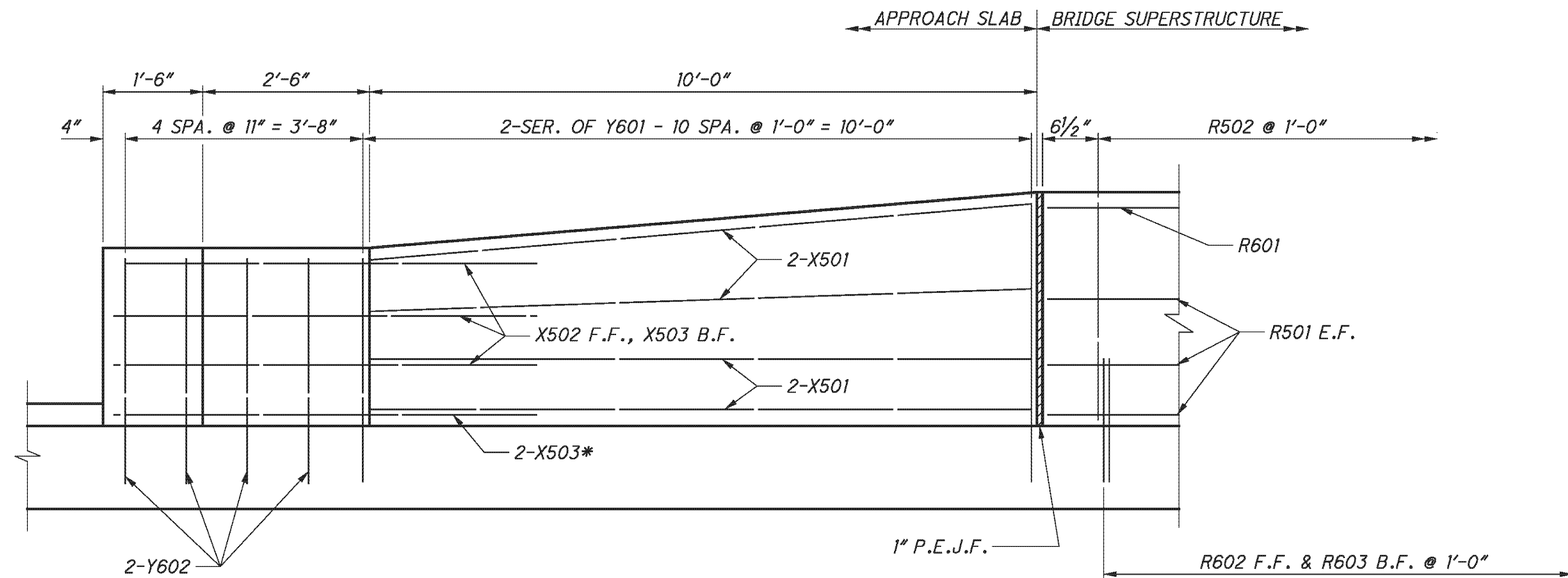
1. FOR ADDITIONAL APPROACH SLAB DETAILS, SEE ODOT STANDARD DRAWING AS-1-81.
2. FOR ADDITIONAL CURB DETAILS, SEE ODOT STANDARD CONSTRUCTION DRAWING BP-5.1
3. PARAPET, REINFORCING, TYPE 4-A CURB AND SEALING CONCRETE APPROACH SLAB CONSTRUCTION JOINT WITH HMWM RESIN IS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=15'), AS PER PLAN.
4. FOR PARAPET TRANSITION DETAILS, SEE SHEET 41/45.

| | |
|--|---|
| E.L. ROBINSON <i>the Challenge, the Choice</i> 1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215 | |
| 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. 70 OVER S.R. 149 | |
| BEL-70-7.61 | PID No. 76825 |
| 40/45 | 368 373 |

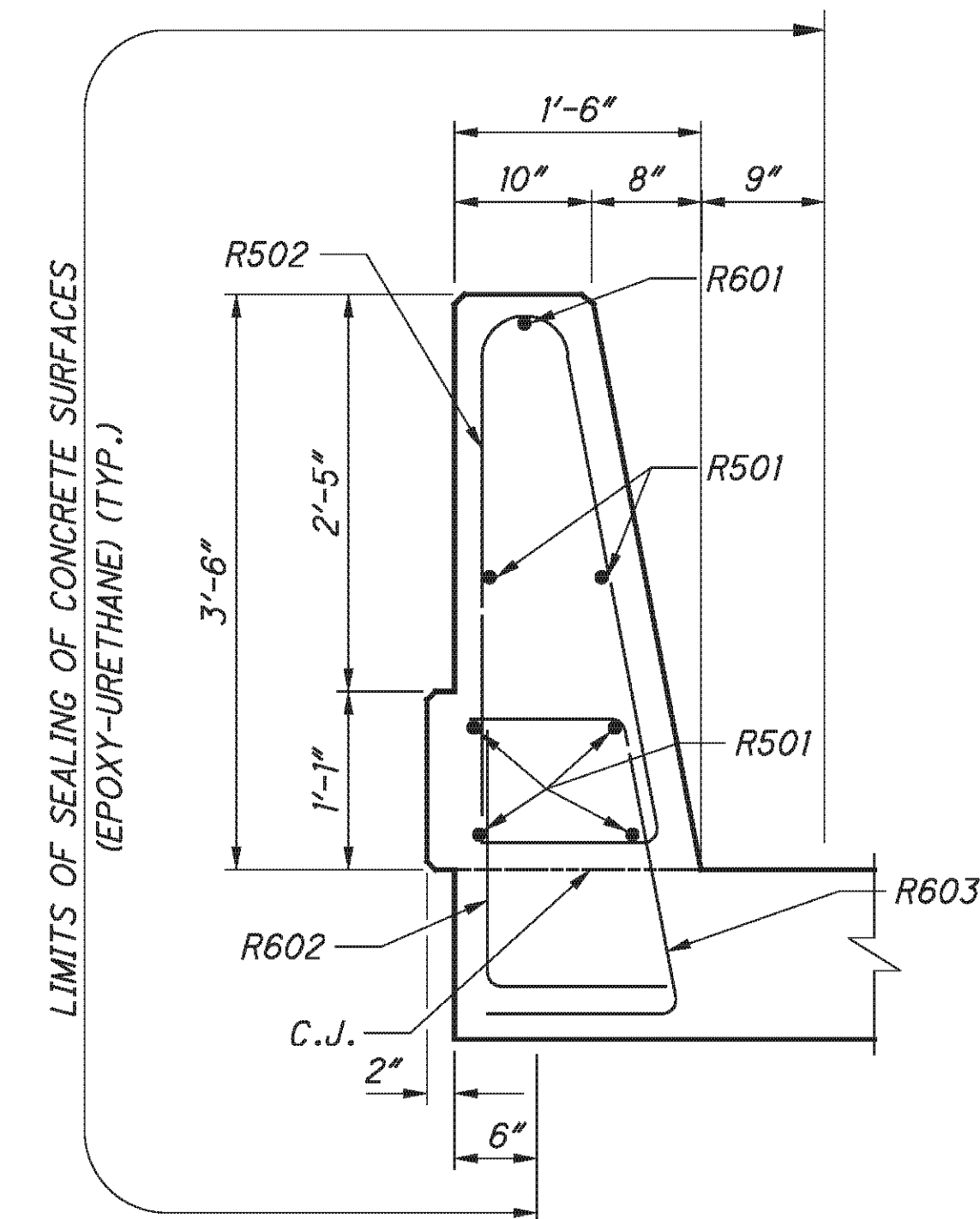
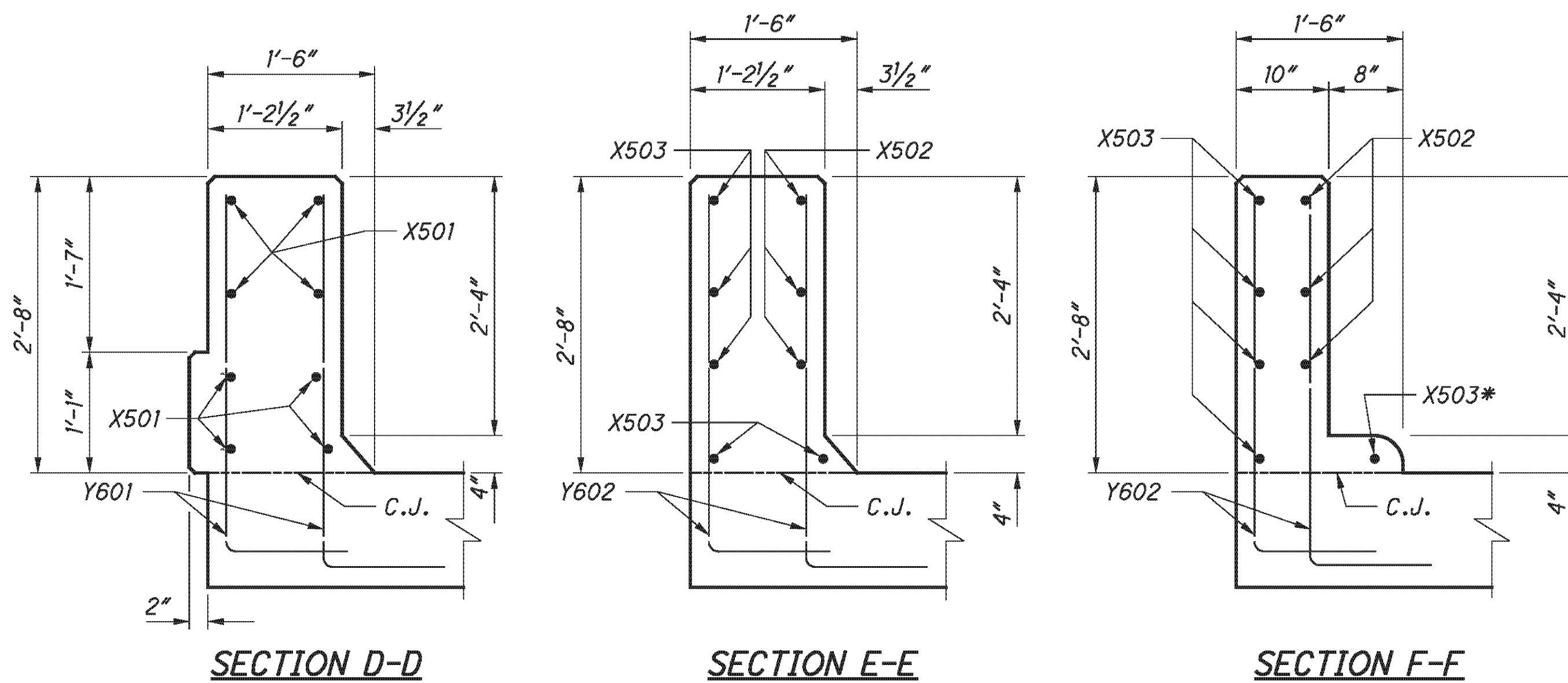
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TYPICAL PARAPET TRANSITION DETAIL
LEFT REAR PARAPET SHOWN, OTHERS SIMILAR



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 | REVISY | |
| 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

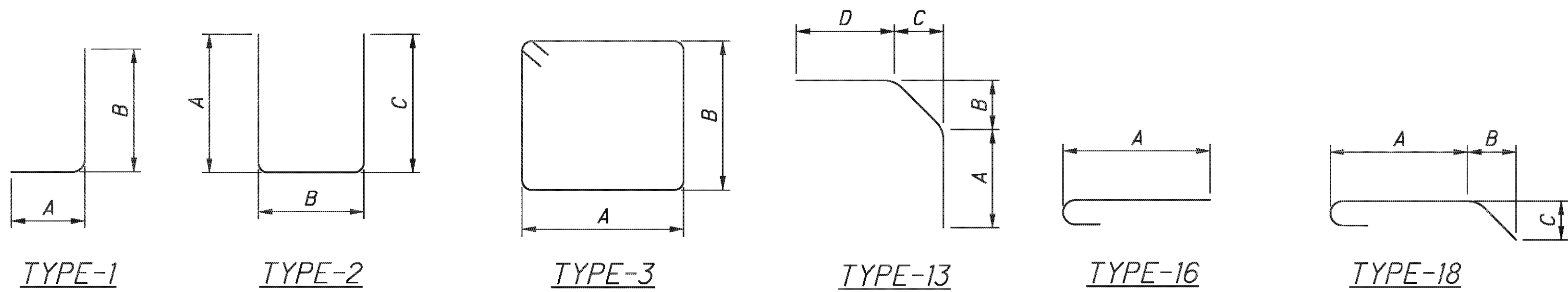
41 / 45

369
373

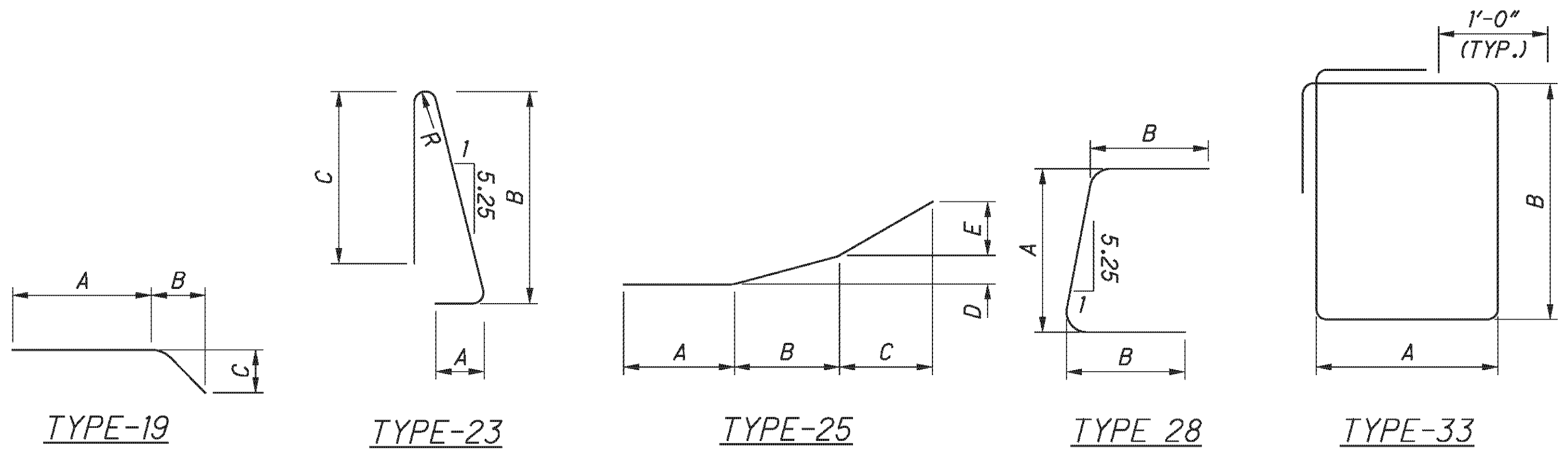
| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|------------------------------------|-----------------|--------|--------|------|------------|-----------|-------|-------|---|---|-----|
| | | | | | A | B | C | D | E | R | INC |
| REAR ABUTMENT - LEFT BRIDGE | | | | | | | | | | | |
| 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 TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|---------------------------------------|-----------------|--------|--------|------|------------|-----------|-------|-------|---|---|-----|
| | | | | | A | B | C | D | E | R | INC |
| 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 | | | | | | | | |

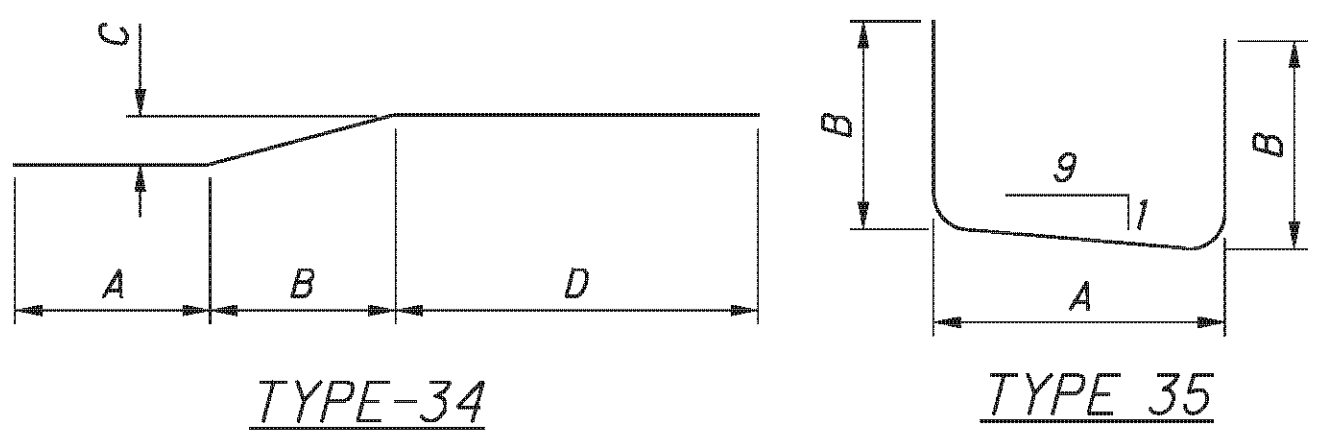
| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|----------------------------|-----------------|---------|--------|------|------------|---------|-------|---|---|---|-----|
| | | | | | A | B | C | D | E | R | INC |
| PIERS - LEFT BRIDGE | | | | | | | | | | | |
| *P401 | 12 | 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 | | | | | | | | |



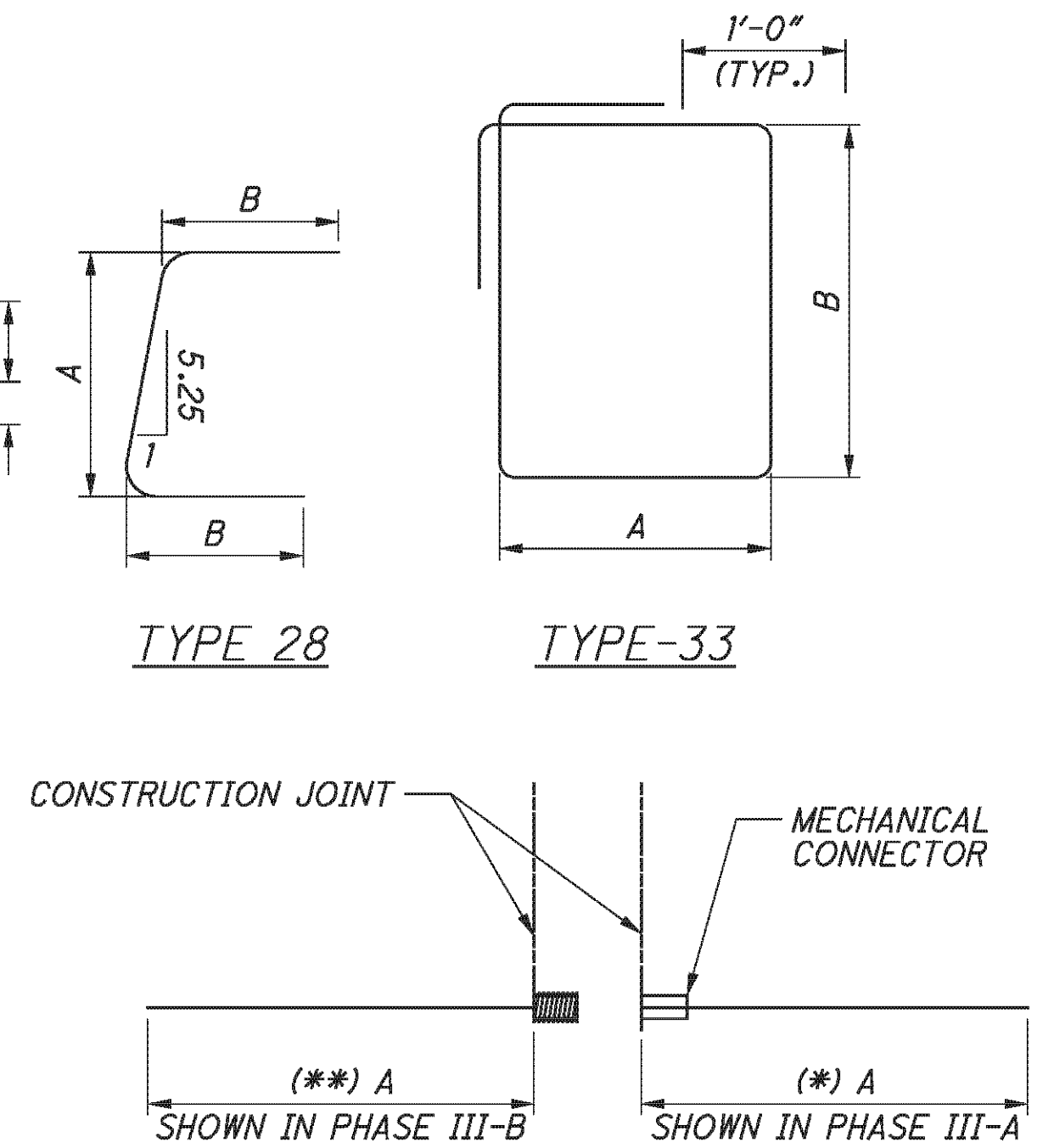
TYPE-1 TYPE-2 TYPE-3 TYPE-13 TYPE-16 TYPE-18



TYPE-19 TYPE-23 TYPE-25 TYPE 28 TYPE-33



TYPE-34 TYPE 35



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 TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|-------------------------------------|-----------------|---------|--------|------|------------|-------|-----------|--------|---|---|-----|
| | | | | | 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 TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|------------------------------------|-----------------|--------|--------|------|------------------------|-------|-------|--------|----|----|-----|
| | | | | | 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.

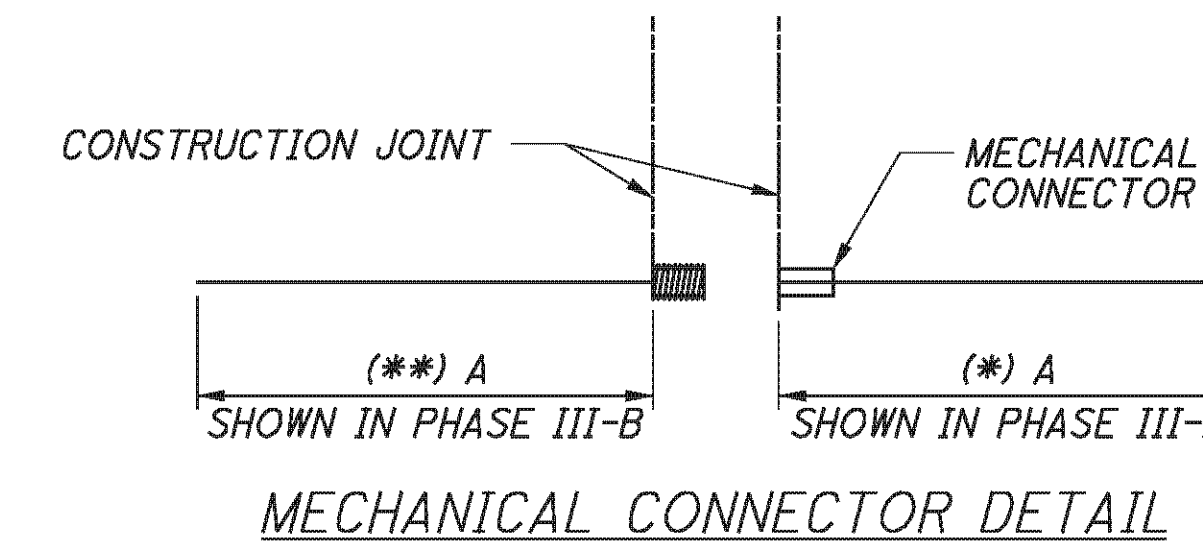
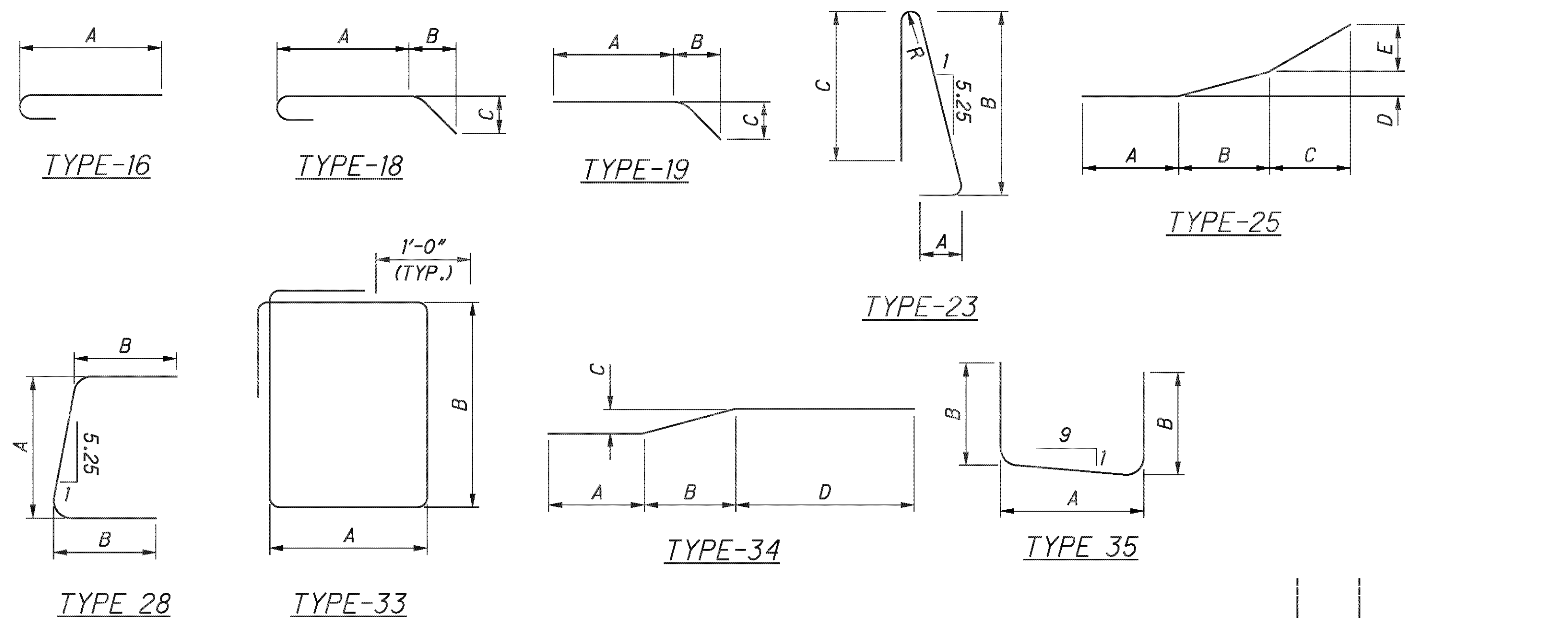
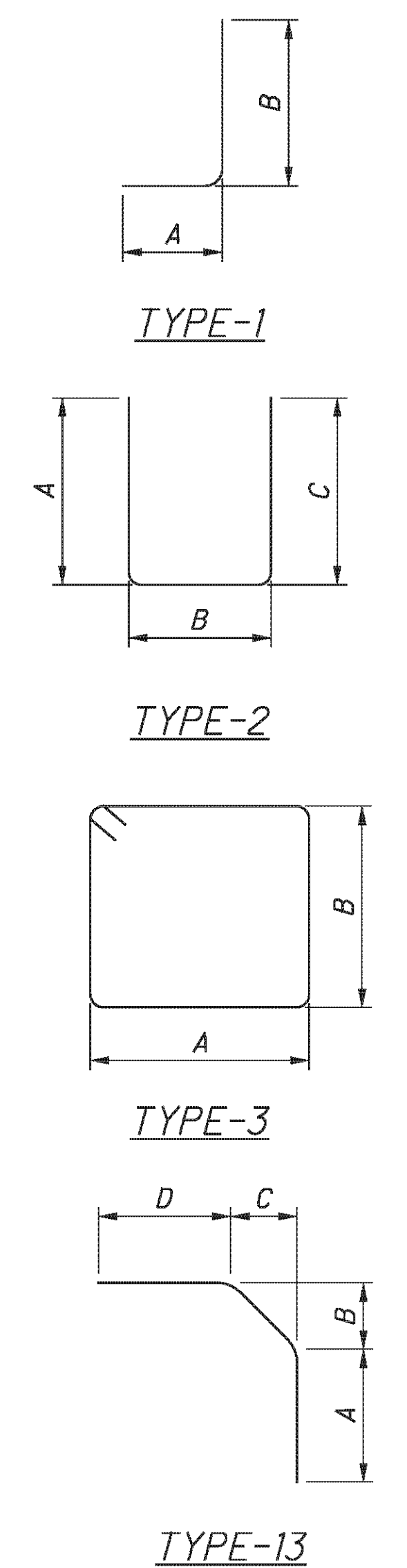
2. ALL REINFORCING STEEL TO BE EPOXY COATED.

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 TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|------------------------------|-----------------|--------|--------|------|------------|-------|-------|---|---|--------|-----|
| | | | | | 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 TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|-------------------------------|-----------------|--------|--------|------|------------|-------|-------|---|---|---|-----|
| | | | | | 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 | | | | | | | | |



E.L. ROBINSON
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

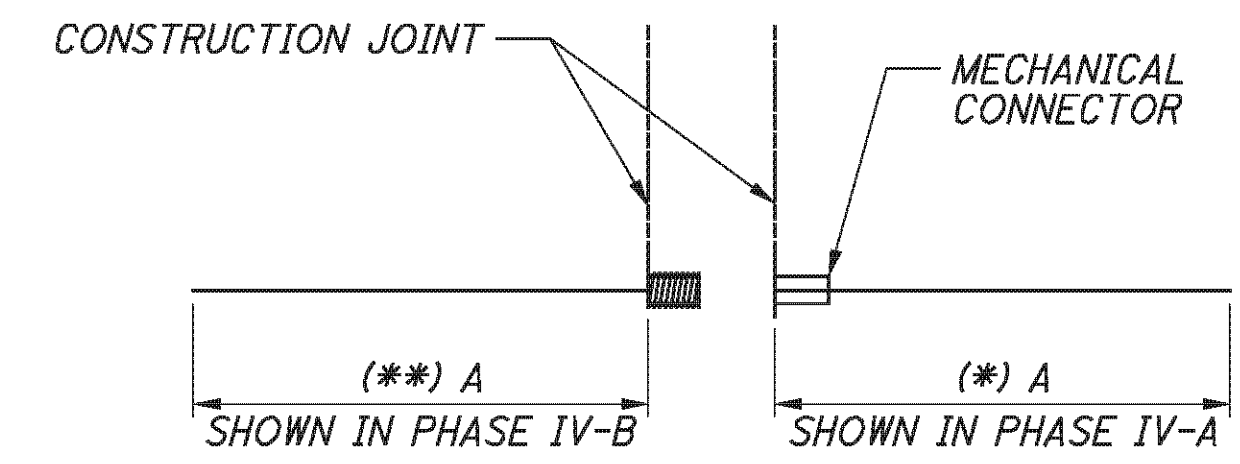
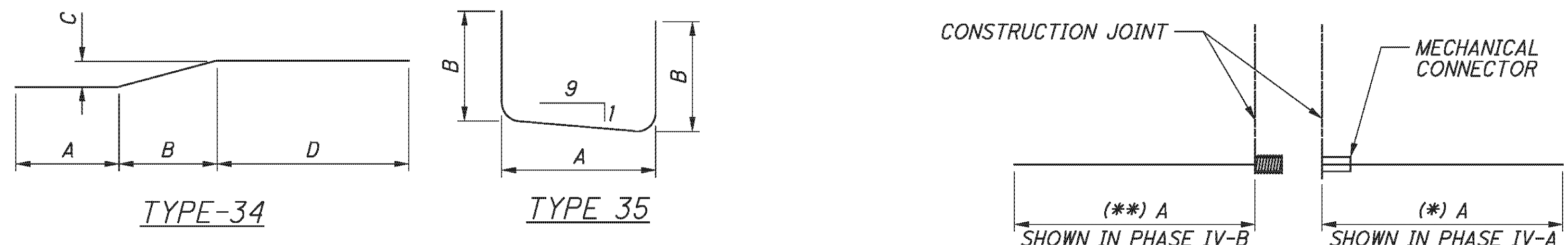
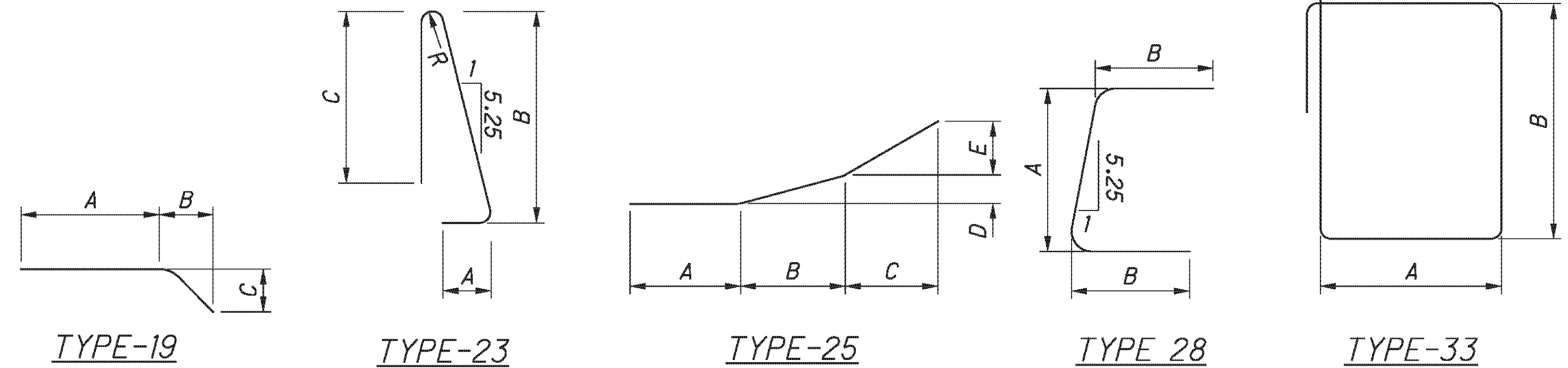
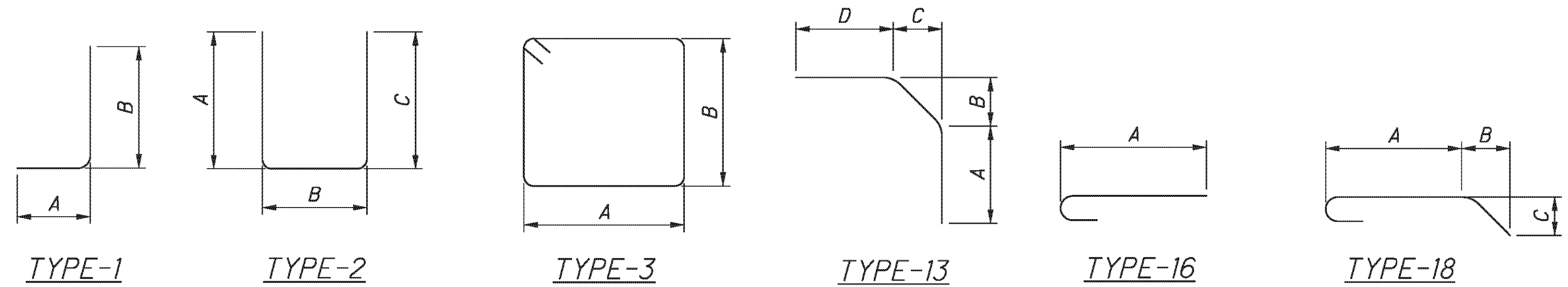
371
373

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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.

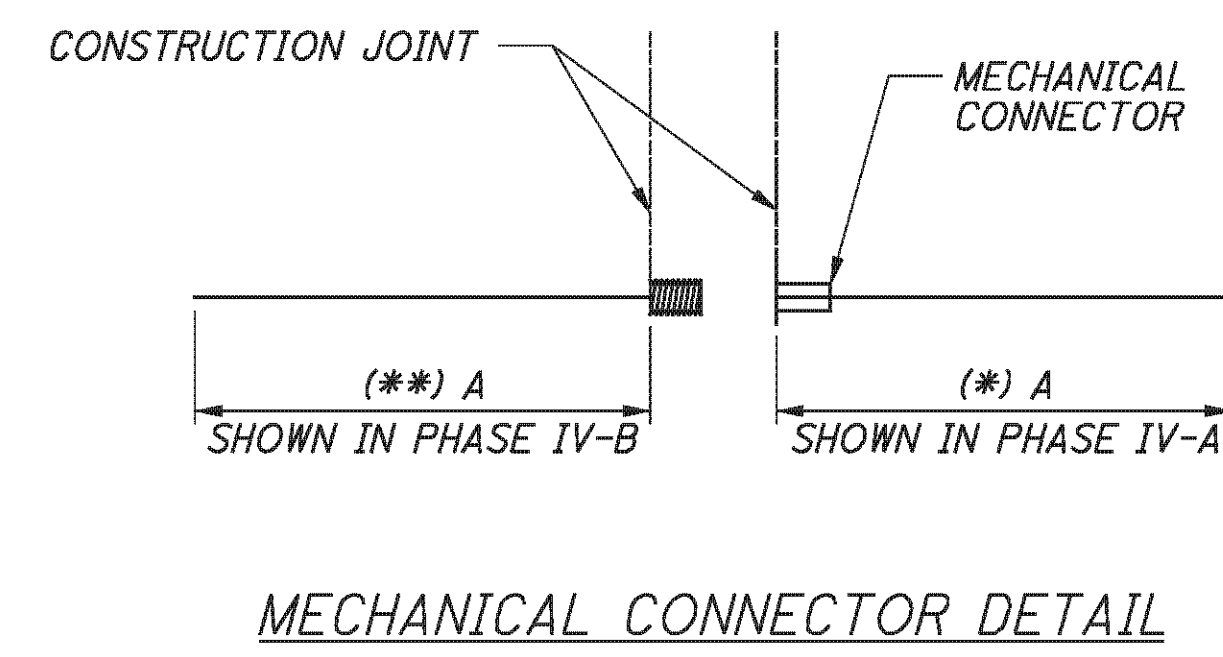
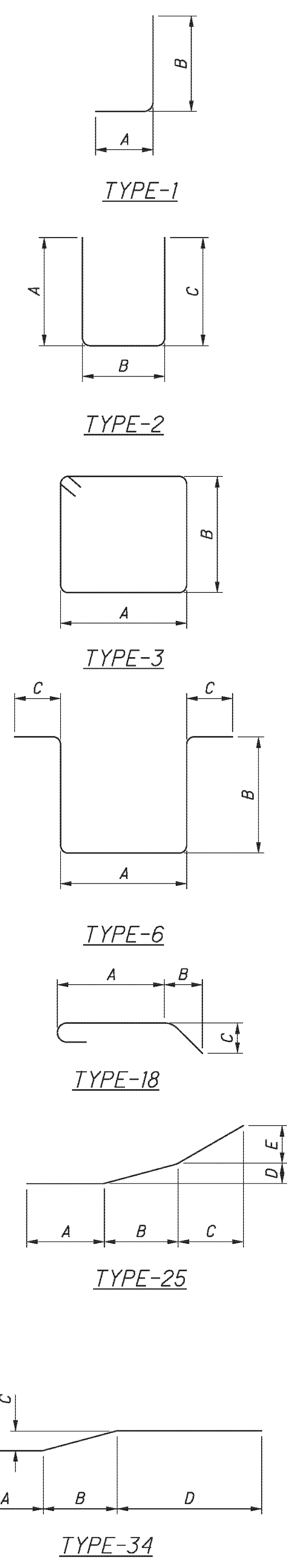
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| MARK | NUMBER | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|--------------------------------------|--------|---------|--------|------|------------|--------|-------|--------|---|---|-----|
| | TOTAL | | | | A | B | C | D | E | R | INC |
| SUPERSTRUCTURE - 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 | | | | | | | | |



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

45 / 45

373
373