

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

# HAM-74-5.53

## MIAMI TOWNSHIP COLERAIN TOWNSHIP WHITEWATER TOWNSHIP HAMILTON COUNTY

### PROJECT DESCRIPTION

REMOVAL AND REPLACEMENT OF THE EXISTING ASPHALT OVERLAY FOR THE COMBINED LENGTH OF 3.88 MILES OF IR-74 AND IR-275 IN HAMILTON COUNTY. THE JOINTS IN THE EXISTING CONCRETE PAVEMENT WILL BE REPAIRED. THE DEFICIENT OVERHEAD SIGN SUPPORT TRUSS AT STA. 374+00 WILL BE REPLACED. MINOR REHABILITATION WORK WILL BE DONE FOR THE 0585, 0857, AND 0911 BRIDGES AND THE 0838 BRIDGE WILL RECEIVE A DECK REHABILITATION INVOLVING REMOVAL OF THE EXISTING OVERLAYS AND A PORTION OF THE ORIGINAL DECK AND REPLACEMENT WITH A SUPER-ELASTICED DENSE CONCRETE OVERLAY.

PROJECT EARTH DISTURBED AREA = N/A (MAINTENANCE PROJECT)  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA = N/A (MAINTENANCE PROJECT)  
NOTICE OF INTENT EARTH DISTURBED AREA = N/A (MAINTENANCE PROJECT)

### LIMITED ACCESS

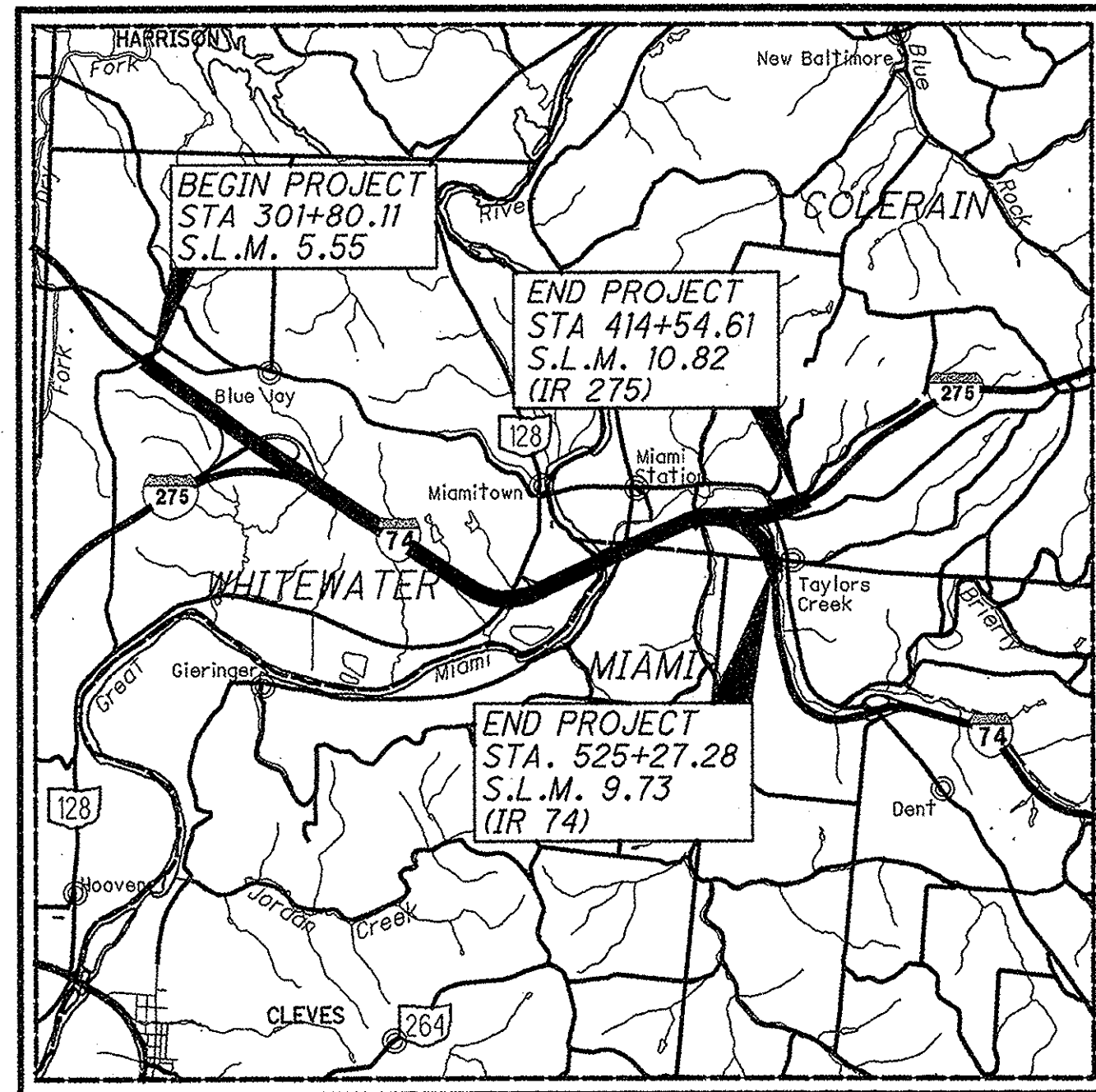
THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

### 2010 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.

### MAINTENANCE OF TRAFFIC NOTE

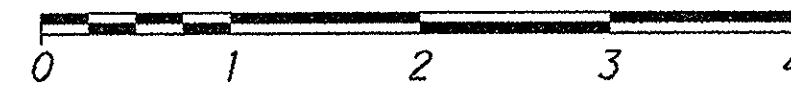
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.



LOCATION MAP

LATITUDE: 39°12'23" LONGITUDE: 84°42'33"

SCALE IN MILES



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

### DESIGN DESIGNATION

	IR 74	IR 275
CURRENT ADT (2013)	89,390	81,110
DESIGN YEAR ADT (2033)	116,000	93,760
DESIGN HOURLY VOLUME (2033)	11,600	12,189
DIRECTIONAL DISTRIBUTION	51%	50%
TRUCKS (24 HOUR B&C)	15%	16%
DESIGN SPEED	65	65
LEGAL SPEED	65	65
DESIGN FUNCTIONAL CLASSIFICATION:		
URBAN INTERSTATE		
NHS PROJECT	-----	YES

### DESIGN EXCEPTIONS

NONE REQUIRED

### 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:



5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5900 PHONE  
(614) 792-5901 FAX

### INDEX OF SHEETS:

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EGGEMAN ENGINEERING  
& CONSULTING

ENGINEERS SEAL:

FOR LIGHTING

SIGNED: *Mark J. Hunter*  
DATE: 06/13/2012

ENGINEERS SEAL:

FOR ROADWAY

SIGNED: *Charles T. West*  
DATE: 06/13/2012

ENGINEERS SEAL:

FOR STRUCTURES

SIGNED: *Kaveripatnam V. Balasubramanyam*  
DATE: 6/13/2012

### STANDARD CONSTRUCTION DRAWINGS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
BP-2.4	7/16/04	TC-7.65	1/21/11		
BP-5.1	7/28/00	TC-21.10	1/19/07		
		TC-21.40	1/19/07		
GR-1.1	7/16/04	TC-22.20	1/21/11		
GR-2.1	1/16/04	TC-65.10	4/20/12		
GR-3.1	10/16/09	TC-65.11	4/20/12		
GR-3.2	10/16/09	TC-72.20	4/20/12		
GR-3.5	4/16/10				
GR-4.2	1/20/12	EXJ-4-87	7/19/02		
GR-5.1	4/16/10	RB-1-55	2/02/59		
GR-5.3	4/16/10				
RM-4.3	10/21/11				
RM-4.4	1/16/09				
RM-4.5	10/16/09				
RM-4.6	4/16/10				

### SUPPLEMENTAL SPECIFICATIONS

NO.	DATE	DESCRIPTION
800	7/20/2012	
832	5/5/2009	
843	4/18/03	
848	10/21/11	
888	10/21/11	
898	10/21/11	

### SPECIAL PROVISIONS

APPROVED *Steve May*  
DATE 7/2/12 DISTRICT DEPUTY DIRECTOR

APPROVED *Steve May*  
DATE 7-13-12 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.  
E080(599)

PID NO.  
83011

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
NONE

HAM-74-5.53

1  
118

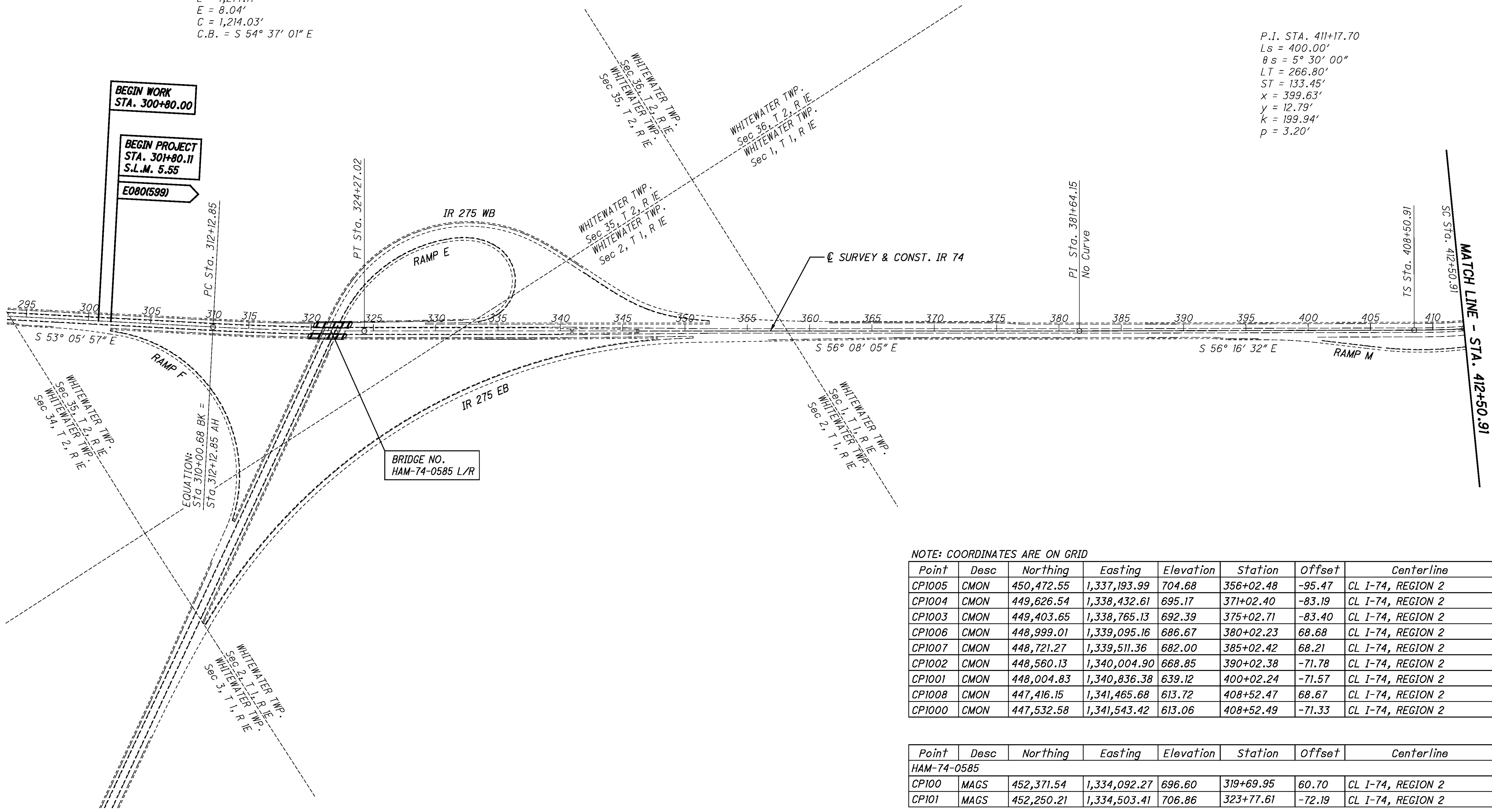
HAM-IR-74-5.53  
120579 PID-83011  
Dist 8 1/18/2012

Contract Proposal Available  
@www.contracts.dot.  
state.oh.us/home

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P.I. = Sta. 318+20.08  
 D = 3° 02' 08" (LT)  
 Dc = 0° 15' 00"  
 R = 22,918.31'  
 T = 607.23'  
 L = 1,214.17'  
 E = 8.04'  
 C = 1,214.03'  
 C.B. = S 54° 37' 01" E

P.I. STA. 411+17.70  
 Ls = 400.00'  
 θs = 5° 30' 00"  
 LT = 266.80'  
 ST = 133.45'  
 x = 399.63'  
 y = 12.79'  
 k = 199.94'  
 p = 3.20'



NOTE: COORDINATES ARE ON GRID

Point	Desc	Northing	Easting	Elevation	Station	Offset	Centerline
CP1005	CMON	450,472.55	1,337,193.99	704.68	356+02.48	-95.47	CL I-74, REGION 2
CP1004	CMON	449,626.54	1,338,432.61	695.17	371+02.40	-83.19	CL I-74, REGION 2
CP1003	CMON	449,403.65	1,338,765.13	692.39	375+02.71	-83.40	CL I-74, REGION 2
CP1006	CMON	448,999.01	1,339,095.16	686.67	380+02.23	68.68	CL I-74, REGION 2
CP1007	CMON	448,721.27	1,339,511.36	682.00	385+02.42	68.21	CL I-74, REGION 2
CP1002	CMON	448,560.13	1,340,004.90	668.85	390+02.38	-71.78	CL I-74, REGION 2
CP1001	CMON	448,004.83	1,340,836.38	639.12	400+02.24	-71.57	CL I-74, REGION 2
CP1008	CMON	447,416.15	1,341,465.68	613.72	408+52.47	68.67	CL I-74, REGION 2
CP1000	CMON	447,532.58	1,341,543.42	613.06	408+52.49	-71.33	CL I-74, REGION 2

Point	Desc	Northing	Easting	Elevation	Station	Offset	Centerline
HAM-74-0585							
CP100	MAGS	452,371.54	1,334,092.27	696.60	319+69.95	60.70	CL I-74, REGION 2
CP101	MAGS	452,250.21	1,334,503.41	706.86	323+77.61	-72.19	CL I-74, REGION 2



CALCULATED  
EGD  
CHECKED  
CTW

**SCHEMATIC PLAN**  
**STA. 412+50.91 TO STA. 531+60.42**

**HAM-74-5.53**

P.I.= Sta. 422+32.10  
D = 59° 01' 40" (LT)  
Dc = 2° 45' 00"  
R = 2,083.48'  
Ls = 400.00'  
LT = 266.80'  
ST = 133.45'  
x = 399.63'  
y = 12.79'  
k = 199.94'  
p = 3.20'  
Dc = 48° 01' 40" (LT)  
Lc = 1,746.46'  
Ts = 1,381.19'  
Es = 314.35'  
C = 1,695.78'  
C1=C2 = 399.84'  
C.B.1 = S 58° 06' 32" E  
C.B.2 = S 85° 47' 22" E  
C.B.2 = S 66° 31' 47" W

P.I. STA. 431+30.82  
Ls = 400.00'  
θs = 5° 30' 00"  
LT = 266.80'  
ST = 133.45'  
x = 399.63'  
y = 12.79'  
k = 199.94'  
p = 3.20'  
Dc = 48° 01' 40" (LT)  
Lc = 1,746.46'  
Ts = 1,381.19'  
Es = 314.35'  
C = 1,695.78'  
C1=C2 = 399.84'  
C.B.1 = S 58° 06' 32" E  
C.B.2 = S 85° 47' 22" E  
C.B.2 = S 66° 31' 47" W

P.I. STA. 490+22.29  
Ls = 200.00'  
θs = 81° 30' 00"  
LT = 133.34'  
ST = 66.67'  
x = 199.99'  
y = 1.75'  
k = 100.00'  
p = 0.44'

**CURVE "A"**

P.I.= Sta. 495+73.80  
D = 14° 28' 05" (RT)  
Dc = 1° 30' 00"  
R = 3,819.72'  
T = 484.85'  
L = 964.54'  
E = 30.65'  
C = 961.98'  
C.B. = N 73° 25' 50" E

P.I. STA. 501+66.88  
Ls = 200.00'  
θs = 5° 00' 00"  
LT = 113.40'  
ST = 86.73'  
x = 199.79'  
y = 7.56'  
k = 99.97'  
p = 0.58'

**CURVE "B"**

P.I.= Sta. 517+40.49  
D = 84° 30' 05" (RT)  
Dc = 3° 30' 00"  
R = 1,637.02'  
T = 1,487.00'  
L = 2,414.33'  
E = 574.54'  
C = 2,201.39'  
C.B. = S 52° 05' 05" E

P.I. STA. 528+01.34  
Ls = 400.00'  
θs = 7° 00' 00"  
LT = 266.88'  
ST = 133.52'  
x = 399.40'  
y = 16.27'  
k = 199.90'  
p = 4.07'

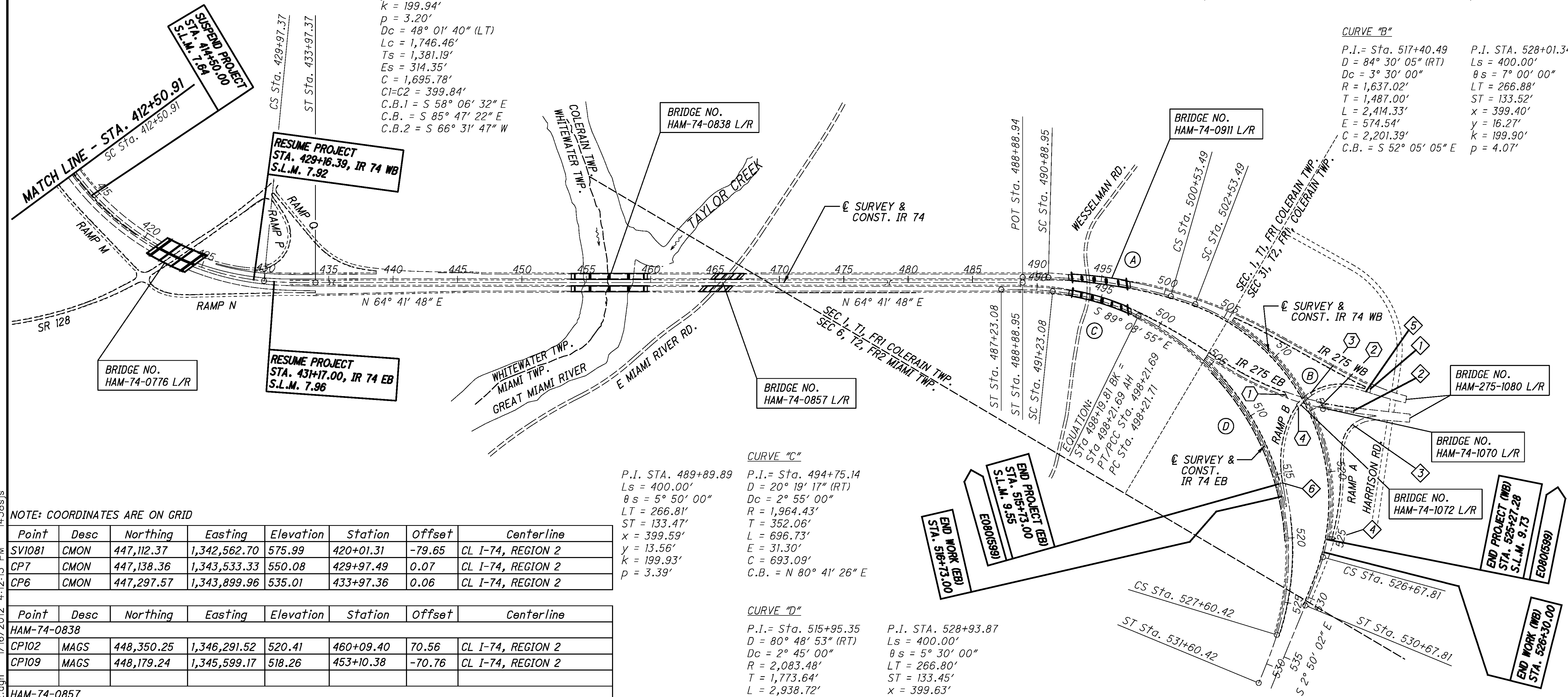
**CURVE "C"**  
P.I. STA. 489+89.89  
Ls = 400.00'  
θs = 5° 50' 00"  
LT = 266.81'  
ST = 133.47'  
x = 399.59'  
y = 13.56'  
k = 199.93'  
p = 3.39'

P.I.= Sta. 494+75.14  
D = 20° 19' 17" (RT)  
Dc = 2° 55' 00"  
R = 1,964.43'  
T = 352.06'  
L = 696.73'  
E = 31.30'  
C = 693.09'  
C.B. = N 80° 41' 26" E

**CURVE "D"**

P.I.= Sta. 515+95.35  
D = 80° 48' 53" (RT)  
Dc = 2° 45' 00"  
R = 2,083.48'  
T = 1,773.64'  
L = 2,938.72'  
E = 652.70'  
C = 2,701.10'  
C.B. = S 48° 44' 29" E

P.I. STA. 528+93.87  
Ls = 400.00'  
θs = 5° 30' 00"  
LT = 266.80'  
ST = 133.45'  
x = 399.63'  
y = 12.79'  
k = 199.94'  
p = 3.20'



NOTE: COORDINATES ARE ON GRID

Point	Desc	Northing	Easting	Elevation	Station	Offset	Centerline
SV1081	CMON	447,112.37	1,342,562.70	575.99	420+01.31	-79.65	CL I-74, REGION 2
CP7	CMON	447,138.36	1,343,533.33	550.08	429+97.49	0.07	CL I-74, REGION 2
CP6	CMON	447,297.57	1,343,899.96	535.01	433+97.36	0.06	CL I-74, REGION 2

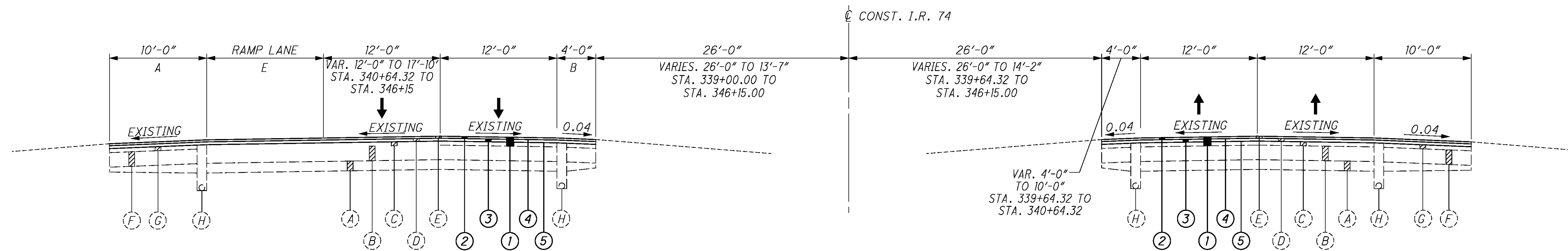
Point	Desc	Northing	Easting	Elevation	Station	Offset	Centerline
<b>HAM-74-0838</b>							
CP102	MAGS	448,350.25	1,346,291.52	520.41	460+09.40	70.56	CL I-74, REGION 2
CP109	MAGS	448,179.24	1,345,599.17	518.26	453+10.38	-70.76	CL I-74, REGION 2

Point	Desc	Northing	Easting	Elevation	Station	Offset	Centerline
<b>HAM-74-0857</b>							
CP103	MAGS	448,634.59	1,346,896.25	529.74	466+77.63	71.97	CL I-74, REGION 2
CP108	MAGS	448,676.18	1,346,648.88	524.52	464+71.78	-71.36	CL I-74, REGION 2

Point	Desc	Northing	Easting	Elevation	Station	Offset	Centerline
<b>HAM-74-0911</b>							
CP4	CMON	449,644.77	1,348,864.64	560.45	488+88.94	0.01	CL I-74, REGION 2
					488+88.94	42.01	CL I-74, WB DIRECTIONAL
					488+87.99	-54.95	CL I-74, EB DIRECTIONAL
CP104	MAGS	449,831.76	1,349,709.84	569.86	497+70.39	157.40	CL I-74, WB DIRECTIONAL
					497+41.78	-36.45	CL I-74, EB DIRECTIONAL
CP105	MAGS	449,954.98	1,349,634.91	564.54	497+26.26	19.78	CL I-74, WB DIRECTIONAL
					496+75.42	-162.70	CL I-74, EB DIRECTIONAL
CP106	MAGS	449,808.54	1,349,199.32	564.32	492+63.67	26.76	CL I-74, WB DIRECTIONAL
					492+48.15	-90.46	CL I-74, EB DIRECTIONAL
CP107	MAGS	449,754.48	1,349,219.46	565.13	492+62.90	84.45	CL I-74, WB DIRECTIONAL
					492+52.71	-32.96	CL I-74, EB DIRECTIONAL

- ① SUSPEND PROJECT IR 275 (EB) STA. 408+08.81, S.L.M. 10.70
- ② RESUME PROJECT IR 275 (EB) STA. 410+95.94, S.L.M. 10.75
- ③ SUSPEND PROJECT RAMP B STA. 4+39.75
- ④ RESUME PROJECT RAMP B STA. 5+84.17

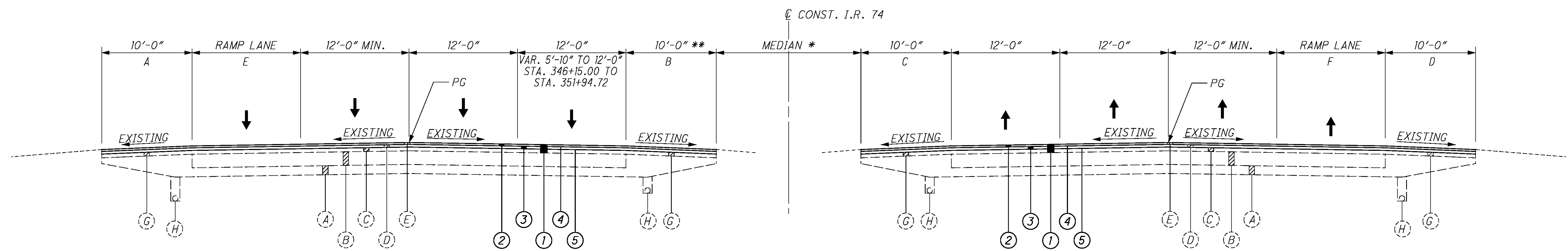
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**NORMAL SECTION**

WESTBOUND LANES  
 STA. 301+80.11 TO STA. 320+46.57  
 STA. 322+99.84 TO STA. 346+15.00

EASTBOUND LANES  
 STA. 301+80.11 TO STA. 320+01.61  
 STA. 322+58.47 TO STA. 346+15.00



**RESURFACING SECTION**

WESTBOUND LANES  
 STA. 346+15.00 TO STA. 414+50.00  
 STA. 429+16.39 TO STA. 454+09.39  
 STA. 459+49.89 TO STA. 465+10.50  
 STA. 466+87.07 TO STA. 492+73.41

EASTBOUND LANES  
 STA. 346+15.00 TO STA. 414+50.00  
 STA. 431+17.00 TO STA. 454+09.39  
 STA. 459+49.89 TO STA. 464+19.39  
 STA. 465+95.97 TO STA. 492+75.23

\*\* SHOULDER "BY OTHERS" FROM  
 STA. 400+75.00 TO STA. 414+50.00

\* FOR THE STATION RANGES LISTED BELOW, THE PROFILE VARIES FROM EXISTING AS SHOWN ON PROFILE SHEET 32. THE PROFILE CHANGE IS TO BE MADE BY VARYING THE THICKNESS OF PAVEMENT LAYER 3 (ITEM 442, ASPHALT INTERMEDIATE COURSE) TO PROVIDE THE REQUIRED FINAL GRADE. SEE ALSO LONGITUDINAL SECTION, NEXT SHEET.

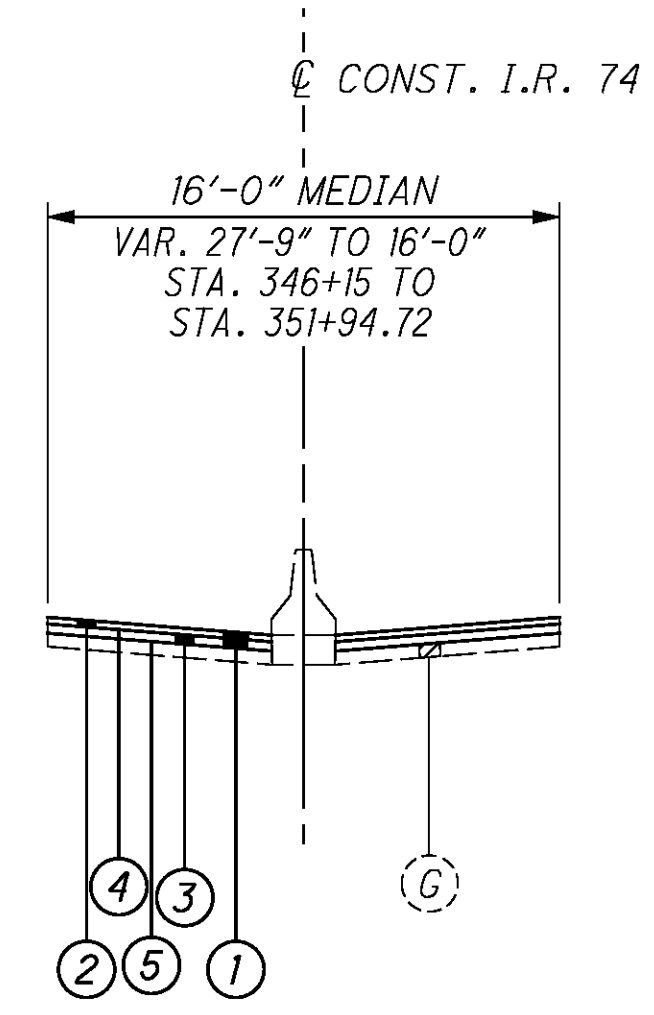
453+50.00 TO 453+84.39 \*  
 459+74.89 TO 460+25.00 \*

**LEGEND**

- ① ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (AVG. DEPTH 5.5)
- ② ITEM 442 - 2 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (446)
- ③ ITEM 442 - 3" ASPHALT INTERMEDIATE COURSE, 19mm, TYPE A (446)
- ④ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑤ ITEM 407 TACK COAT
- (A) EXISTING 6" SUBBASE
- (B) EXISTING 9" REINFORCED PC CONCRETE PAVEMENT
- (C) EXISTING 2 1/2" ASPHALT CONCRETE OVERLAY
- (D) EXISTING 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE
- (E) EXISTING 1 1/4" ASPHALT CONCRETE SURFACE COURSE
- (F) EXISTING 5" STABILIZED CRUSHED AGGREGATE
- (G) EXISTING 3" WATERPROOFED AGGREGATE BASE COURSE
- (H) EXISTING PIPE UNDERDRAIN
- (I) EXISTING APPROACH SLAB

SHOULDER					
STA. TO STA.	A	B	STA. TO STA.	C	D
317+15.31 TO 318+11.30	VARIES 10'-0" TO 8'-0"		392+50.00 TO 393+50.00		VARIES 10'-0" TO 8'-0"
332+18.07 TO 332+43.07	VARIES 8'-0" TO 6'-0"		395+99.98 TO 400+51.65		VARIES 8'-0" TO 3'-0"
339+00.00 TO 345+49.55		VARIES 4'-0" TO 10'-6"	431+18.25 TO 434+00.00		VARIES 3'-0" TO 10'-0"
438+71.80 TO 443+50.00	VARIES 3'-8" TO 8'-0"		452+62.50 TO 453+84.39	VARIES 10'-0" TO 4'-9"	VARIES 10'-0" TO 4'-9"
446+00.00 TO 447+00.00	VARIES 8'-0" TO 10'-0"		459+74.89 TO 461+09.00	VARIES 4'-9" TO 10'-0"	VARIES 4'-9" TO 10'-0"
452+62.50 TO 453+84.39 *	VARIES 10'-0" TO 4'-9"	VARIES 10'-0" TO 4'-9"	462+35.00 TO 463+78+00	VARIES 10'-0" TO 4'-9"	VARIES 10'-0" TO 4'-9"
459+74.89 TO 461+09.00 *	VARIES 4'-9" TO 10'-0"	VARIES 4'-9" TO 10'-0"	462+65.00 TO 464+10.00	VARIES 10'-0" TO 4'-9"	
463+22.00 TO 464+69.11		VARIES 10'-0" TO 4'-9"	466+05.00 TO 467+55.00		VARIES 4'-9" TO 10'-0"
463+50.00 TO 465+03.26	VARIES 10'-0" TO 4'-9"		466+37.37 TO 467+85.00	VARIES 4'-9" TO 10'-0"	
466+94.30 TO 468+45.00		VARIES 4'-9" TO 10'-0"	491+17.00 TO 492+50.00	VARIES 10'-0" TO 4'-9"	VARIES 10'-0" TO 4'-9"
467+28.46 TO 468+75.00	VARIES 4'-9" TO 10'-0"				
491+11.00 TO 492+43.46	VARIES 10'-0" TO 1'-11 1/2"				
491+11.00 TO 492+50.68	VARIES 10'-0" TO 4'-9"				

RAMP LANE			
STA. TO STA.	E	STA. TO STA.	F
317+15.31 TO 325+17.26	VARIES 0'-0" TO 16'-0"	350+64.32 TO 367+44.32	VARIES 26'-4" TO 0'-0"
351+95.74 TO 361+59.20	VARIES 52'-3" TO 12'-0"	392+50.00 TO 400+75.50	VARIES 0'-0" TO 41'-7 1/2"
375+00.00 TO 377+00.00	VARIES 12'-0" TO 0'-0"	431+17.00 TO 446+00.00	VARIES 40'-8" TO 0'-0"
438+69.90 TO 443+50.00	VARIES 40'-11 1/2" TO 11'-0"		
446+00.00 TO 447+00.00	VARIES 11'-0" TO 0'-0"		

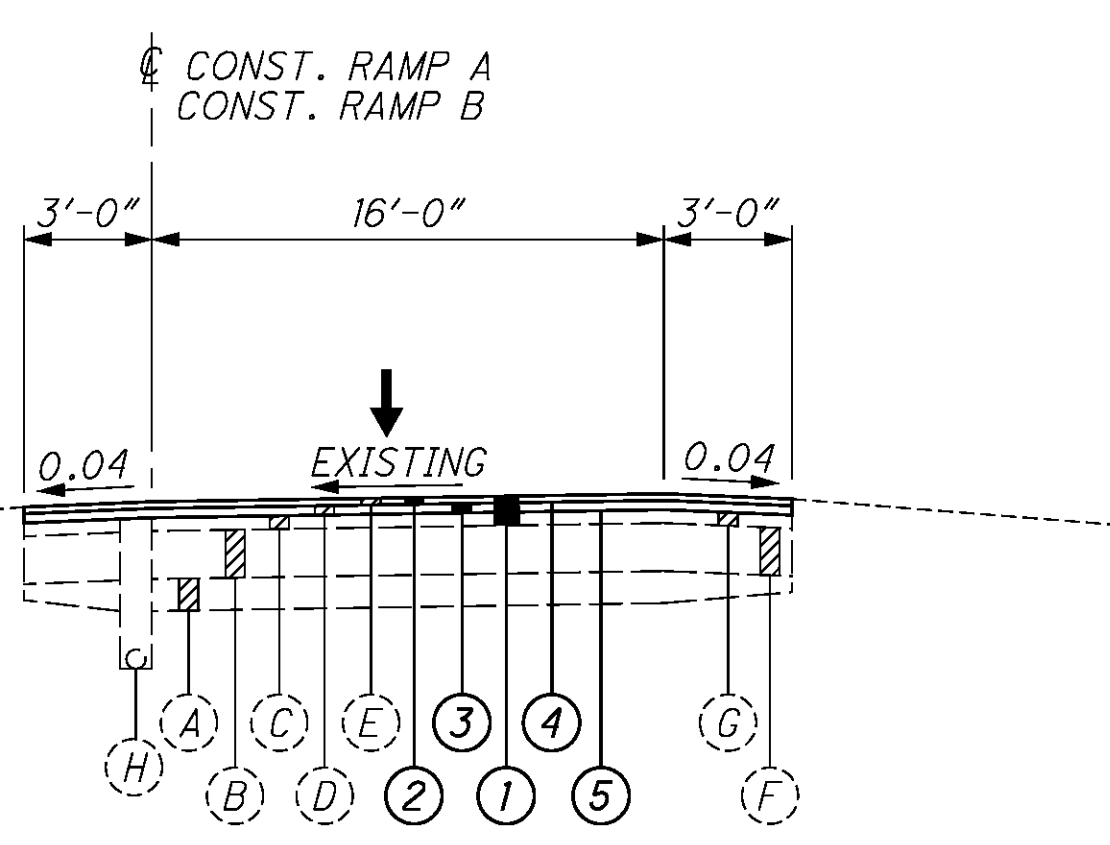


**CONCRETE MEDIAN SECTION \***

WESTBOUND AND EASTBOUND LANES  
 STA. 346+15.00 TO STA. 414+50

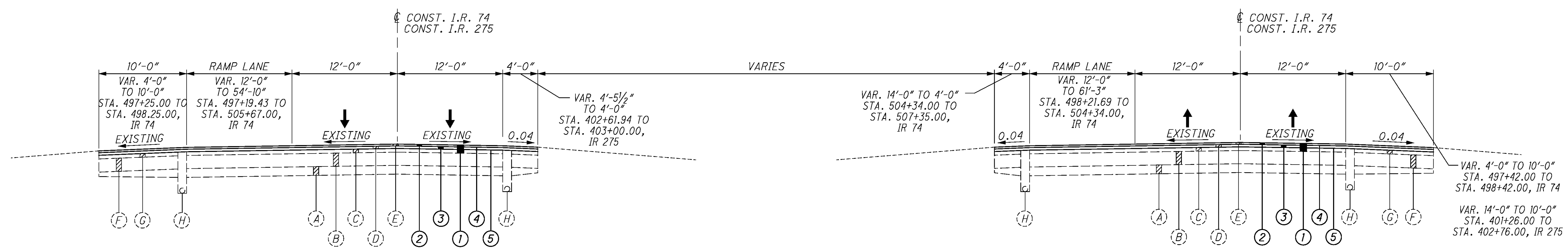
NOTES:  
 FOR STA. 453+50.00 TO STA. 460+25.00 SEE PROFILE AND QUANTITY SHEET FOR ITEMS 254 AND 442 DEPTHS.

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**RAMP SECTION**

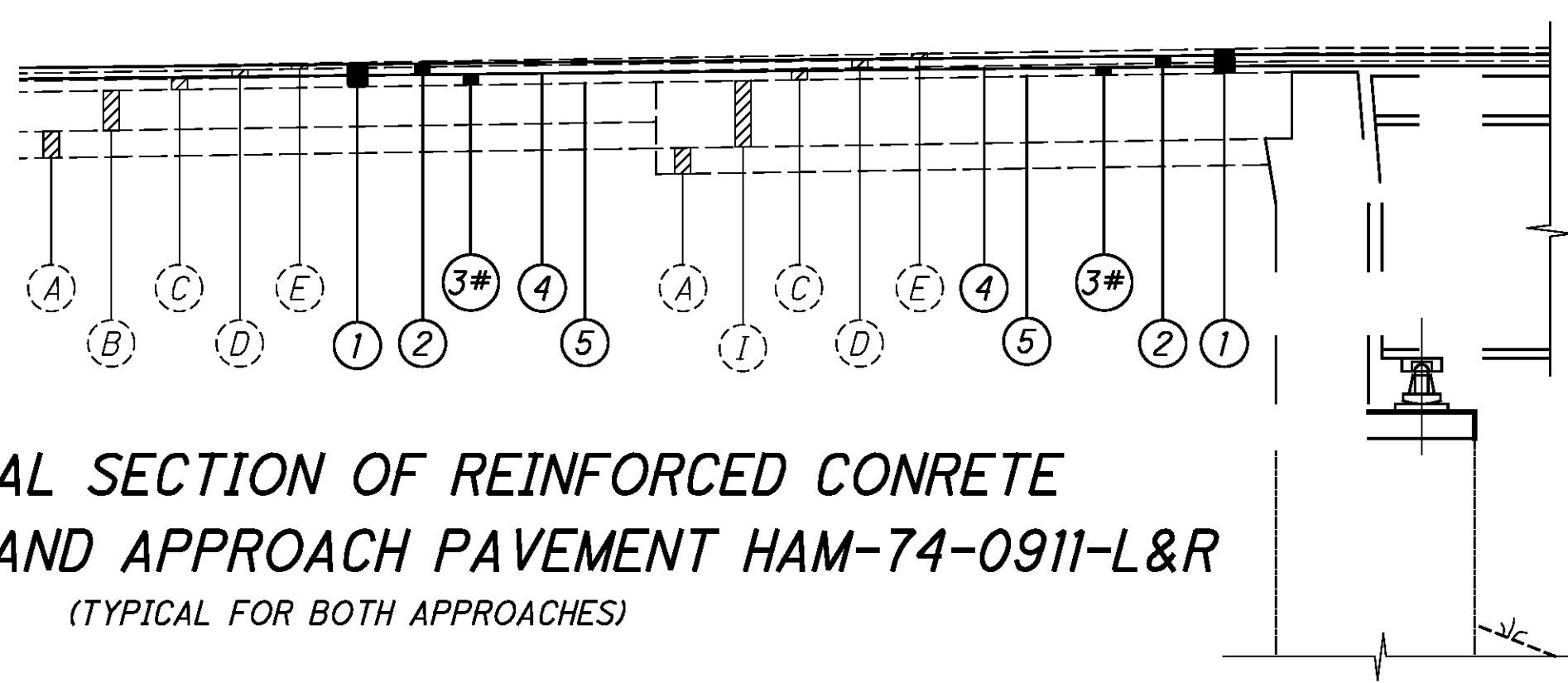
STA. 2+46.32 TO STA. 11+68.59, RAMP A  
 STA. 0+00.00 TO STA. 4+39.75, RAMP B  
 STA. 5+84.17 TO STA. 11+91+22, RAMP B



**NORMAL SECTION**

**WESTBOUND LANES**  
 STA. 497+05.56 TO STA. 525+27.28, IR 74  
 STA. 402+61.94 TO STA. 414+54.61, IR 275

**EASTBOUND LANES**  
 STA. 497+32.53 TO STA. 515+73.00, IR 74  
 STA. 401+26.00 TO STA. 408+08.81, IR 275  
 STA. 410+95.94 TO STA. 413+52.55, IR 275



**LONGITUDINAL SECTION OF REINFORCED CONCRETE  
 APPROACH SLAB AND APPROACH PAVEMENT HAM-74-0911-L&R**  
 (TYPICAL FOR BOTH APPROACHES)

NOTE: THE INTENT IS TO REMOVE THE NOMINAL 5.5" EXISTING ASPHALT OVERLAYS FROM THE ROADWAY AND APPROACH SLABS AND REPLACE WITH A VARIABLE DEPTH OVERLAY WHICH IS 5.5" THICK AT THE BEGIN / END VARIABLE DEPTH SECTIONS TO 4.0" AT THE BEGIN / END BRIDGE. SEE ALSO NOTE #, PREVIOUS SHEET.

FOR LEGEND, SEE SHEET 4.

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**UTILITIES**

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

**WATER:**  
CLEVES WATER WORKS  
3 SOUTH MIAMI AVE.  
P.O. BOX 40  
CLEVES, OH 45002  
ATTN: ERIC WINHUSEN  
513-623-1619

CINCINNATI WATER WORKS  
4747 SPRING GROVE AVE.  
CINCINNATI, OH 45232  
ATTN: RUSSEL WEBER  
513-591-7862

**TELEPHONE:**  
CINCINNATI BELL TELEPHONE  
201 EAST 4TH ST., M L 103-1175  
CINCINNATI, OH 45202  
ATTN: MARK CONNER  
513-565-7043

LEVEL 3 COMMUNICATIONS, LLC  
1025 ELDORADO BLVD.  
SUITE 33A-524  
BRROMFIELD CO 80021  
ATTN: KEITH OSBORN  
720-888-2774

**CABLE:**  
TIME WARNER CABLE  
11252 CORNELL PARK DRIVE  
CINCINNATI, OH 45242  
ATTN: GARY NAPIER  
513-469-5483

**GAS:**  
DUKE ENERGY  
139 E. 4TH ST., ROOM 460A  
CINCINNATI, OH 45202  
ATTN: RALPH PFISTER  
513-287-2730

**SEWER:**  
CINCINNATI METRO. SEWER DIST.  
1600 GEST ST.  
CINCINNATI, OH 45204  
ATTN: SCOTT MEYER  
513-244-1355

**ELECTRIC:**  
DUKE ENERGY  
139 E. 4TH ST., ROOM 467A  
CINCINNATI, OH 45202  
ATTN: AARON WRIGHT  
513-287-3674

**TRAFFIC:**  
ODOT TRAFFIC  
505 SOUTH STATE ROUTE 741  
LEBANON, OH 45036  
ATTN: TAMMY CAMPBELL  
513-933-6694

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES. ALL LABOR, EQUIPMENT, AND MATERIALS NEEDED FOR THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING ANY DISTURBED UTILITY TO ITS EXISITNG CONDITION.

**UTILITY NOTIFICATION**

THE OHIO DEPARTMENT OF TRANSPORTATION HAS UTILITY FACILITIES (HIGHWAY LIGHTING, TRAFFIC SIGNALS, ARTIMIS) WITHIN THE LIMITS OF THIS PROJECT.

IN ADDITION TO THE INFORMATION OUTLINED IN THE 4A NOTES OF THIS CONTRACT, AND EVEN THOUGH ODOT IS LISTED AS A MEMBER OF THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE CONTRACTOR ON THIS PROJECT IS REQUIRED TO CONTACT ODOT, DISTRICT 8, TRAFFIC DEPARTMENT, AND ARTIMIS DIRECTLY SO THAT THE ODOT UTILITIES, LOCATED WITHIN THIS PROJECT, ARE MARKED.

THE CONTRACTOR SHALL NOTIFY DISTRICT 8, TRAFFIC AT 513-933-6689, ARTIMIS AT 513-564-6118, AND THE PROJECT ENGINEER, FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF ANY WORK, FOR THE NEED TO MARK ODOT OWNED UTILITIES.

THE ABOVE REQUIREMENTS ARE IN ADDITION TO SECTION 105.07 & 107.16 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE 4A PROPOSAL NOTE.

**UTILITY NOTIFICATION (CONTINUED)**

THE CONTRACTOR SHALL NOTIFY OTHER UTILITIES THROUGH OUPS OR DIRECTLY A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY WORK.

THE COST FOR THE ABOVE DESCRIBED WORK IS INCIDENTAL TO THE OVERALL BID PRICE OF THE PROJECT.

**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.

**SEEDING AND MULCHING**

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

659, SOIL ANALYSIS TEST	1 EACH
659, TOPSOIL	8 CU. YD.
659, SEEDING AND MULCHING	66 SQ. YD.
659, REPAIR SEEDING AND MULCHING	4 SQ. YD.
659, INTER-SEEDING	4 SQ. YD.
659, COMMERCIAL FERTILIZER	0.01 TON
659, LIME	0.01 ACRES
659, WATER	0.4 M. GAL.

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.

**SURVEYING PARAMETERS**

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD 88  
GEOID: GEOID 09

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD 83 (CORS 96)  
ELLIPSOID: GRS 80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
COMBINED SCALE FACTOR: 0.99991880

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

**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.

**PROFILE AND ALIGNMENT**

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PREVIOUS CONSTRUCTION PLANS, PROJECT NO. HAM-52-6.25, HAM-52-7.85, HAM-74-9.11, HAM-74-(8.87)(9.50), HAM-74-6.17, HAM-74-0.00, HAM-74-14.658R, HAM-74/275-7.13/7.40, D08-BRIDGE MAINTENANCE A-Y2006, HAM-74-3.66, HAM-74-5.87, HAM-74-ARTIMIS, HAM-74-7.76, HAM-74-8.60, HAM-275-3.86, HAM-275-10.66, HAM-275-0.00 (1990 PLANS), HAM-275-10.50 AND HAM-275-0.00 (2009 PLANS), SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 8 OFFICE. PAVEMENT PLANING TO A DEPTH OF 5.5 INCHES SHALL TAKE PLACE PRIOR TO PLACING THE PROPOSED ASPHALT CONCRETE OVERLAY WITH A UNIFORM THICKNESS OF 5.5 INCHES AS SHOWN ON THE TYPICAL SECTIONS.

**CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL**

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

**ITEM 606 - ANCHOR ASSEMBLY, TYPE E**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS 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 27.75 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.

**EXISTING PLANS**

EXISTING PLANS ENTITLED HAM-52-6.25, HAM-52-7.85, HAM-74-9.11, HAM-74-(8.87)(9.50), HAM-74-6.17, HAM-74-0.00, HAM-74-14.658R, HAM-74/275-7.13/7.40, D08-BRIDGE MAINTENANCE A-FY2006, HAM-74-3.66, HAM-74-5.87, HAM-74-ARTIMIS, HAM-74-7.76, HAM-74-8.60, HAM-275-3.86, HAM-275-10.66, HAM-275-0.00 (1990 PLANS), HAM-275-10.50 AND HAM-275-0.00 (2009 PLANS) MAY BE INSPECTED IN THE ODOT DISTRICT 8 OFFICE IN LEBANON, OHIO.

**ITEM 606 - IMPACT ATTENUATOR, TYPE 1, BIDIRECTIONAL**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE TYPE 1 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE 1 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1, BIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**ITEM 606 - IMPACT ATTENUATOR, TYPE 2, BIDIRECTIONAL**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 65 MPH, 26" HAZARD WIDTH, BIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

**ITEM 202 - BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN**

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING THRIE BEAM RAIL AND TRANSITION SECTION FROM THE BRIDGE TERMINALASSEMBLY. REPLACE ANY MISSING OR DAMAGED POSTS, BLOCK OUTS, OR OTHER HARDWARE TO THE STANDARDS SHOWN IN SCD GR-3.1. DISPOSE OF THE RAIL ELEMENTS AND ANY DAMAGED MATERIALS.

THE INTENT OF COMBINED WORK THIS ITEM, ITEM 606 GUARDRAIL, THRIE BEAM AND TRANSITION SECTION, AND ITEM 609, CURB, TYPE 4-C IS TO RECONSTRUCT THE BRIDGE TERMINAL ASSEMBLY, TYPE 1 TO THAT THE STANDARDS SHOWN IN SCD GR-3.1.

PAYMENT FOR THIS ITEM WILL BE AT THE CONTRACT PRICE FOR: ITEM 202, BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN

**ITEM 606 - GUARDRAIL, THRIE BEAM RAIL AND TRANSITION SECTION**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TWO THRIE BEAM RAILS (NESTED) AND ONE THRIE BEAM TYPE 1 TRANSITION SECTION, AS DESCRIBED IN SCD GR-3.1 ON A REFURBISHED BRIDGE TERMINAL ASSEMBLY DESCRIBED IN THE NOTE FOR ITEM 202, BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN.

PAYMENT FOR THIS ITEM WILL BE AT THE CONTRACT PRICE FOR: ITEM 606, THRIE BEAM RAIL AND TRANSITION SECTION

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GENERAL NOTES

HAM-74-5.53

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**CONSTRUCTION NOTIFICATION**

TO ENSURE THAT THE PUBLIC IS NOTIFIED OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (513) 932-7651 OR EMAIL AT D08.PIO.FORM@DOT.STATE.OH.US. THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

**GUARDRAIL REPLACEMENT**

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

**WATER QUALITY PROTECTION**

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINTS, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO ANY STREAMS, DRAINAGE COURSES, OR BODIES OF WATER. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALTIC, OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL NOT BE DISPOSED OF WITHIN A FLOODPLAIN BELOW THE 100-YEAR FLOOD ELEVATION. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT LIQUIDS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE (E.G. PAINT, SEALER, SOLVENT) FROM ENTERING STREAMS, WETLANDS, OR OTHER "WATERS OF THE UNITED STATES" AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

**ITEM 832, EROSION CONTROL**

FROM THE NPDES CONSTRUCTION IMPLEMENTATION PLAN, THIS PROJECT HAS BEEN DETERMINED TO BE A MAINTENANCE PROJECT. A QUANTITY OF 4260 EACH, ITEM 832, EROSION CONTROL HAS BEEN CARRIED TO THE GENERAL SUMMARY PER THIS FLOWCHART.

**SPEEDINFO SENSORS**

ANY EXISTING SPEEDINFO SENSOR EQUIPMENT ATTACHED TO EXISTING SIGN SUPPORTS ARE MAINTAINED BY:

Capital Electric Line Builders  
3150 Encrete Lane  
Moraine, OH 45439-1902  
Attn: Matt Slusher  
Email: mslusher@capitalelectric.com  
Work:: +1 (937) 531-7518  
Mobile: +1 (513) 617-6488

THEREFORE, IF THERE ARE ANY SPEEDINFO SENORS ENCOUNTERED BY THE CONTRACTOR THAT NEED TO BE REMOVED AND RELOCATED TO COMPLETE HIS WORK, THEN THE CONTRACTOR SHALL NOTIFY CAPITAL ELECTRIC LINE BUILDERS 1 WEEK PRIOR TO NEEDING THIS EQUIPMENT REMOVED AND RELOCATED OFF THE EXISTING SUPPORTS.

COORDINATION OF THE REMOVAL, REERECTION, AND POSSIBLE RELOCATION OF THE SPEEDINFO SENSORS, SHALL BE MANAGED BY THE PROJECT ENGINEER.

**ITEM 630 - SPECIFIC SERVICE AND TOURIST-ORIENTED DIRECTIONAL SIGNS REMOVAL AND REINSTALLATION**

IN THE EVENT THAT THIS PROJECT NECESSITATES THE REMOVAL OF ANY SPECIFIC SERVICE (LOGO) SIGNS AND/OR TOURIST-ORIENTED DIRECTIONAL SIGNS (TODS) THAT ARE NOT SPECIFICALLY DESCRIBED IN OTHER ITEMS OF WORK, THE CONTRACTOR SHALL CAREFULLY REMOVE SUCH SIGNS. REMOVED LOGO SIGNS AND TODS SHALL BE IMMEDIATELY RE-ERECTED ON APPROVED TEMPORARY SUPPORTS IN THE SAME GENERAL VICINITY ALONG THE ROADWAY TO BE VIEWED BY THE MOTORING PUBLIC. UNLESS THE ORIGINAL SUPPORTS WILL BE REUSED, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE SUPPORTS AND FOUNDATIONS IN ACCORDANCE WITH ITEM 630.12. THE CONTRACTOR SHALL NOTIFY OHIO LOGOS, INC. AT (800) 860-5646 AT LEAST 60 DAYS PRIOR TO PROJECT COMPLETION TO ALERT THEM THAT ONE OR MORE LOGO SIGNS AND/OR TODS ARE ON TEMPORARY SUPPORTS. OHIO LOGOS, INC. WILL MAKE ARRANGEMENTS TO HAVE THE SIGNS INSTALLED ON PERMANENT SUPPORTS AT THE COMPLETION OF THE PROJECT.

THIS ITEM OF WORK INCLUDES REMOVAL AND TEMPORARY RE-ERECTION OF LOGO SIGNS AND TODS, FURNISHING AND INSTALLATION OF TEMPORARY SUPPORTS, REMOVAL AND DISPOSAL OF THE ORIGINAL SUPPORTS AND FOUNDATIONS, AND PROVIDING NOTIFICATION TO OHIO LOGOS, INC. THIS WORK WILL BE INCLUDED IN THE LUMP SUM PAYMENT FOR ITEM 614, MAINTAINING TRAFFIC.

**SLAB REPLACEMENT LOCATION TABLE**

Table with columns: File #, HAM 005 Start, Milepost 5, Direction, EB, End, Bridge 5.85R. Includes a sub-table for 'Locations with voids under slabs' with columns: Dist. Range, ft (From, To), Milepost range (From, To), Station range.

**SLAB REPLACEMENT LOCATION TABLE (CONT'D)**

Table with columns: File #, HAM 006 Start, Bridge 5.85R, Direction, EB, End, Bridge 7.76R. Includes a sub-table for 'Locations with voids under slabs' with columns: Dist. Range, ft (From, To), Milepost range (From, To), Station range.

FOR SLAB REPLACEMENT QUANTITIES AND NOTES, SEE SHEET 8.

**SLAB REPLACEMENT LOCATION TABLE (CONT'D)**

Table with columns: File #, HAM 016 Start, Bridge 5.85L, Direction, WB, End, Milepost 5. Includes a sub-table for 'Locations with voids under slabs' with columns: Dist. Range, ft (From, To), Milepost range (From, To), Station range.

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GENERAL NOTES

HAM - 74 - 5.53

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EGD  
CHECKED  
CTW

**GENERAL NOTES - PAVEMENT JOINT REPAIR LOCATIONS**

**HAM-74-5.53**

File #	Start: Milepost 5	F=Fair	PD=Partial Depth Repair		
Direction: Eastbound	End: Milepost 11	P=Poor	FD=Full Depth Repair		
Distance (ft)	Station	Condition	Milepost +/-	GPR	Comments
0.00	276+00.36	MP 5.0	5.00	n/a	n/a
4276.72	318+77.08	F	5.81	P	FD-Void under joint
4394.74	319+95.10	Beg. Deck 5.85R	5.83		n/a
0.00	322+54.25	End Deck 5.85R	5.87		n/a
1415.83	336+70.08	P	6.14	P	FD
1480.87	337+35.12	p	6.15	P	FD
1540.96	337+95.21	P	6.16	P	FD-Void under slab
1965.32	342+19.57	P	6.24	F	PD
2049.37	343+03.62	P	6.26	F	PD
2229.70	344+83.95	P	6.29	P	FD-Void under slab
2409.40	346+63.65	P	6.33	P	FD
2467.73	347+21.98	P	6.34	P	FD
3911.40	361+65.65	P	6.61	F	PD
4571.72	368+25.97	P	6.74	P	FD-Void under joint
4770.25	370+24.50	F	6.77	P	FD-Void under joint
5011.30	372+65.55	P	6.82	P	FD
5527.01	377+81.26	P	6.92	P	FD-Void under joint
6042.54	382+96.79	P	7.01	P	FD
6734.41	389+88.66	F	7.15	P	FD-Void under joint
6850.18	391+04.43	F	7.17	P	FD-Void under joint
6988.63	392+42.88	F	7.19	P	FD-Void under joint
7375.86	396+30.11	F	7.27	P	FD-Void under joint
7669.53	399+23.78	P	7.32	P	FD
8002.95	402+57.20	F	7.39	P	FD-Void under joint
8185.81	404+40.06	P	7.42	P	FD-Void under joint
8665.78	409+20.03	P	7.51	P	FD-Void under joint
8750.84	410+05.09	F	7.53	P	FD-Void under joint
8903.82	411+58.07	F	7.56	P	FD-Void under joint
9023.55	412+77.80	F	7.58	P	FD-Void under joint
983.06	433+62.01	P	7.98	P	FD
1092.55	434+71.50	P	8.00	P	FD
1211.39	435+90.34	P	8.02	P	FD-Void under joint
1812.66	441+91.61	P	8.13	P	FD
1873.50	442+52.45	F	8.14	P	FD-Void under joint
1935.28	443+14.23	F	8.16	P	FD
1995.97	443+74.92	F	8.17	P	FD
2056.83	444+35.78	P	8.18	P	FD
2234.12	446+13.07	P	8.21	F	PD
2640.78	450+19.73	P	8.29	P	FD
2973.00	453+51.95	Not recorded	8.35	P	FD-Void under joint
3044.59	454+23.54	Beg. Deck 8.38R	8.37		n/a
0.00	459+49.89	End Deck 8.38R	8.48		n/a
261.39	462+11.28	P	8.53	F	PD
364.56	463+14.45	P	8.55	P	FD-Void under joint
453.50	464+03.39	Beg. Deck 8.57R	8.57		n/a
0.00	465+78.89	End Deck 8.57R	8.60		n/a
67.00	466+45.89	Not recorded	8.61	P	FD-Void under joint
163.50	467+42.39	P	8.63	F	PD
403.58	469+82.47	P	8.68	P	FD
526.02	471+04.91	P	8.70	P	FD-Void under joint
580.87	471+59.76	P	8.71	P	FD
704.99	472+83.88	P	8.73	F	PD
886.56	474+65.45	P	8.77	P	FD-Void under joint
1039.79	476+18.68	P	8.80	F	PD
1426.81	480+05.70	P	8.87	P	FD
1487.08	480+65.97	P	8.88	P	FD
2082.98	486+61.87	P	8.99	F	PD
2327.38	489+06.27	P	9.04	P	FD
2684.98	492+63.87	Beg. Deck 9.11R	9.11		n/a
0.00	497+32.53	End Deck 9.11R	9.20		n/a
131.84	498+64.37	P	9.22	F	PD
225.27	499+57.80	P	9.24	F	PD
345.49	500+78.02	P	9.27	F	PD
405.53	501+38.06	P	9.28	F	PD
589.09	503+21.62	P	9.31	F	PD
702.00	504+34.53	Not recorded	9.33	P	FD-Void under joint
9498.20	592+30.73	MP 11.0	11.00		n/a

File #	Start: Milepost 11.0	F=Fair	PD=Partial Depth Repair		
Direction: Westbound	End: Milepost 5.0	P=Poor	FD=Full Depth Repair		
Distance (ft)	Station	Condition	Milepost +/-	GPR	Comments
0.00	595+91.77	Milepost 11.0	11.00	n/a	n/a
9082.48	505+09.29	P	9.28	P	FD
9175.16	504+16.61	P	9.26	F	PD
9352.99	502+38.78	P	9.23	P	FD
9626.94	499+64.83	P	9.18	F	PD
9683.25	499+08.52	P	9.17	F	PD
9745.33	498+46.44	P	9.15	F	PD
9796.00	497+95.77	P	9.14	F	PD
9898.82	496+92.95	Beg. Deck 9.11L	9.13	n/a	n/a
0.00	492+70.43	End Deck 9.11L	9.11	n/a	n/a
157.91	491+12.52	P	9.08	F	PD
249.97	490+20.46	P	9.06	P	FD
314.74	489+55.69	P	9.05	P	FD
430.80	488+39.63	P	9.03	F	PD
547.38	487+23.05	P	9.01	F	PD
801.92	484+68.51	P	8.96	P	FD
921.93	483+48.50	P	8.94	P	FD
1041.14	482+29.29	P	8.91	F	PD
1462.43	478+08.00	P	8.83	P	FD
1581.09	476+89.34	P	8.81	F	PD
2060.23	472+10.20	P	8.72	P	FD
2301.79	469+68.64	P	8.67	F	PD
2392.83	468+77.60	P	8.66	F	PD
2471.30	467+99.13	P	8.64	F	PD
2567.05	467+03.38	Beg. Deck 8.57L	8.62	n/a	n/a
0.00	465+30.57	End Deck 8.57L	8.60	n/a	n/a
70.35	464+60.22	P	8.59	P	FD
184.82	463+45.75	P	8.56	F	PD
557.29	459+73.28	Beg. Deck 8.38L	8.49	n/a	n/a
0.00	454+09.39	End Deck 8.38L	8.37	n/a	n/a
157.64	452+51.75	P	8.34	F	PD
944.10	444+65.29	P	8.19	P	FD
1064.18	443+45.21	P	8.17	P	FD-Void under joint
1180.00	442+29.39	Not recorded	8.15	P	FD-Void under joint
1227.00	441+82.39	Not recorded	8.14	P	FD-Void under joint
1458.00	439+51.39	Not recorded	8.09	P	FD
1716.31	436+93.08	P	8.04	F	PD
2078.32	433+31.07	F	7.98	P	FD-Void under joint
2136.96	432+72.43	P	7.97	F	PD
747.20	414+18.35	P	7.62	F	PD
1010.33	411+55.22	P	7.57	P	FD
1105.56	410+59.99	P	7.55	P	FD
1285.78	408+79.77	P	7.52	P	FD
1405.70	407+59.85	P	7.49	F	PD
1527.30	406+38.25	P	7.47	F	PD
1649.33	405+16.22	P	7.45	F	PD
1829.08	403+36.47	P	7.41	F	PD
2243.72	399+21.83	P	7.34	P	FD
2850.01	393+15.54	P	7.22	F	PD
2991.00	391+74.55	Not recorded	7.19	P	FD-Void under joint
3869.92	382+95.63	P	7.03	F	PD
5146.00	370+19.55	Not recorded	6.79	P	FD-Void under joint
5431.70	367+33.85	P	6.73	F	PD
5732.47	364+33.08	F	6.67	P	FD
6628.05	355+37.50	P	6.50	P	FD
7173.72	349+91.83	P	6.40	F	PD
7650.60	345+14.95	P	6.31	P	FD
7710.59	344+54.96	P	6.30	P	FD
9839.68	323+25.87	Beg. Deck 5.85L	9.14	n/a	n/a
0.00	320+53.65	End Deck 5.85L	5.84	n/a	n/a
479.00	315+74.65	Not recorded	5.75	P	FD
4441.03	276+12.62	Milepost 5.0	5.00	n/a	n/a

**JOINT AND SLAB REPAIR AND REPLACEMENT**

CONTRACTOR SHALL FIELD MARK ANY JOINTS OR SLABS THAT NEED REPAIR OR REPLACEMENT PER FIELD INSPECTION WITH THE CONSTRUCTION ENGINEER.

THE CONTRACTOR SHALL REPLACE ANY PRESSURE RELIEF JOINTS PER FIELD INSPECTION WITH THE CONSTRUCTION ENGINEER.

THE JOINT REPLACEMENT/REPAIRS AND SLAB REPLACEMENTS WILL MATCH THE EXISTING CONCRETE PAVEMENT THICKNESS.

PRESSURE RELIEF JOINTS WILL BE PER STANDARD DRAWING BP-2.4 PRESSURE RELIEF JOINT TYPE C.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE C 510 FT

THE FOLLOWING ITEMS ARE CARRIED TO THE GENERAL SUMMARY FOR FULL DEPTH PAVEMENT JOINT REPAIRS:

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C 1815 SY  
ITEM 255 - FULL DEPTH PAVEMENT SAWING 6404 FT

THE FOLLOWING ITEM IS CARRIED TO THE GENERAL SUMMARY FOR PARTIAL DEPTH PAVEMENT JOINT REPAIRS:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR 1044 SY

THE FOLLOWING ITEM IS CARRIED TO THE GENERAL SUMMARY FOR FULL DEPTH PAVEMENT SLAB REPLACEMENT:

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C 4645 SY  
ITEM 255 - FULL DEPTH PAVEMENT SAWING 7468 FT



**ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION**

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER SUPPLEMENTAL SPECIFICATIONS 888 AND 898, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN SUPPLEMENTAL SPECIFICATIONS 898 AND 888 RESPECTIVELY.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIANS AND EQUIPMENT AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ACCEPTABLE TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIANS SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTOR'S DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TESTS AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

**ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION (CONT'D)**

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

UPON APPROVAL OF CONSULTANT ..... 20%  
PROGRESSIVE EQUIVALENT PAYMENTS ..... 50%  
UPON SUBMISSION OF FINAL REPORT ..... 30%

PAYMENT FOR TESTING, INSPECTION AND QUALITY CONTROL WILL BE INCLUDED WITH THE APPROPRIATE LUMP-SUM CONCRETE ITEM.

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

**ITEM 631 - REMOVAL OF SIGN WIRING AND DISPOSAL, AS PER PLAN**

**ITEM 631 - REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN**

THE CONTRACTOR SHALL REMOVE ALL SIGN WIRING, AND ELECTRICAL EQUIPMENT, INCLUDING CONDUIT, JUNCTION BOX, AND DISCONNECT SWITCH, INCLUDING BRACKETS, ETC. AND INSTALL PLUGS TO THE BLIND HALFCOUPLING THAT PROVIDED ELECTRICAL SERVICE. THE CONTRACTOR SHALL ALSO CUT OUT EXISTING SPLICE KITS, AND INSTALL NEW SPLICE KITS TO RECONNECT THE MAIN LIGHTING CIRCUIT. DISPOSAL OF ITEMS SHALL BE ACCORDING TO CMS ITEM 105.17.

MEASUREMENT FOR THIS ITEM SHALL BE ONE PER SIGN STRUCTURE ASSEMBLY TRUSS.

PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN:

ITEM 631 - REMOVAL OF SIGN WIRING AND DISPOSAL, AS PER PLAN

ITEM 631 - REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN

**ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN**

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT STANDARD CONSTRUCTION DRAWINGS RM-4.3 AND RM-4.4.

THE SINGLE SLOPE, TYPE B BARRIER SHALL BE TRANSITIONED TO MATCH THE SHAPE AND HEIGHT OF THE EXISTING JERSEY TYPE BARRIER IN 10'.

PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN.

**SPEEDINFO SENSORS**

ANY EXISTING SPEEDINFO SENSOR EQUIPMENT ATTACHED TO EXISTING SIGN SUPPORTS ARE MAINTAINED BY:

CAPITAL ELECTRIC LINE BUILDERS  
3150 ENCRETE LANE  
MORAINE, OH 45439-1902

ATTN: MATT SLUSHER

EMAIL: mslusher@capitalelectric.com  
WORK: +1 (937) 531-7518  
MOBILE: +1 (513) 617-6488

THEREFORE, IF THERE ARE ANY SPEEDINFO SENSORS ENCOUNTERED BY THE CONTRACTOR THAT NEED TO BE REMOVED AND RELOCATED TO COMPLETE HIS WORK, THEN THE CONTRACTOR SHALL NOTIFY CAPITAL ELECTRIC LINE BUILDERS 1 WEEK PRIOR TO NEEDING THIS EQUIPMENT REMOVED AND RELOCATED OFF THE EXISTING SUPPORTS.

COORDINATION OF THE REMOVAL, REERECTION, AND POSSIBLE RELOCATION OF THE SPEEDINFO SENSORS, SHALL BE MANAGED BY THE PROJECT ENGINEER.

**ITEM 630 - SIGNING, MISC.: SIGN BACKING ASSEMBLY, AS PER PLAN**

WHEN REMOVING THE EXISTING OVERHEAD SIGNS FROM THE EXISTING TRUSS, THE CONTRACTOR SHALL TAKE CARE SO AS TO NOT DAMAGE THE EXISTING SIGN BACKING ASSEMBLY THE CONTRACTOR SHALL REUSE THE EXISTING SIGN BACKING ASSEMBLY TO REERECT THE EXISTING OVERHEAD SIGNS ON THE PROPOSED TRUSS.

PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN:

ITEM 630 - SIGNING, MISC.: SIGN BACKING ASSEMBLY, AS PER PLAN

CALCULATED  
SJS  
CHECKED  
CTW

GENERAL NOTES

HAM - 74-5.53

8A  
118

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**ITEM 614 - MAINTAINING TRAFFIC**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND MAINTAINING SAFE AND EFFECTIVE TRAFFIC CONTROL 24 HOURS A DAY FOR THE DURATION OF THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED,

SEE THE LANE VALUE CONTRACT TABLE ON THIS SHEET FOR ALLOWED LANE CLOSURE HOURS. NO LANE CLOSURES WILL BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

TRAFFIC IS TO BE MAINTAINED IN A UNIFORM PATTERN THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT AND NOT TO BE SUBJECTED TO CONSTANT SHIFTS.

THE CONTRACTOR SHALL DEVISE A MAINTENANCE OF TRAFFIC SCHEME WHICH SHALL BE STAMPED BY A PROFESSIONAL ENGINEER, AND PRESENT IT TO THE ENGINEER FOR APPROVAL. THE MAINTENANCE OF TRAFFIC SCHEME SHALL PRESENT, IN GENERAL, THE METHOD FOR CONDUCTING THE REQUIRED WORK IN A SAFE AND EFFICIENT MANNER.

THE PLANS SHALL INCLUDE THE FOLLOWING COMPONENTS:

- THE PLAN VIEW AT AN APPROPRIATE SCALE TO SHOW:
  - WORK AREA
  - BEGIN/END STATIONING OF TAPERS, TEMPORARY MARKINGS, ETC.
  - TEMPORARY PAVEMENT
  - LOCATIONS OF SIGNS (EXISTING OVERHEAD SIGNS AND ALL PROPOSED, COVERED, OR MODIFIED SIGNS)
  - LOCATIONS OF TYPICAL SECTIONS
  - REFERENCES TO APPLICABLE STANDARD DRAWINGS
  - TYPICAL SECTIONS SHOWING:
    - LANE WIDTHS, PAVEMENT MARKINGS, DRUMS, PCB, ETC.
    - LIMITING STATIONS
    - WORK AREA AND DROP-OFFS
    - SIGN DETAILS FOR PROPOSED SIGNS AND OVERLAYS/ MODIFICATIONS

THE MAINTENANCE OF TRAFFIC SCHEME SHALL BE IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST REVISION, THE REFERENCED STANDARD CONSTRUCTION DRAWINGS INCLUDING DESIGNER NOTES, THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), POLICY NO. 516-003(P) TRAFFIC MANAGEMENT IN WORK ZONES INTERSTATE AND OTHER FREEWAYS, ODOT LOCATION AND DESIGN MANUAL, VOLUME 1, THE ODOT TRAFFIC ENGINEERING MANUAL, AND ALL REQUIREMENTS DETAILED IN THESE PLANS.

THIS SUBMITTAL SHALL CONSIST OF THREE (3) COPIES OF THE PLANS FOR REVIEW AND DISTRIBUTION. NO WORK SHALL BEGIN AT THE LOCATION UNTIL THE MAINTENANCE OF TRAFFIC PLANS HAVE BEEN APPROVED BY OHIO DEPARTMENT OF TRANSPORTATION.

THE PROGRESS SCHEDULE WILL BE REQUIRED TO APPROVE THE MAINTENANCE OF TRAFFIC PLANS. THIS SCHEDULE OF OPERATIONS SHALL DETAIL THE CONTRACTOR'S WORK ACTIVITIES AND HIS METHODS OF MAINTAINING TRAFFIC DURING THESE ACTIVITIES. MAINTENANCE OF TRAFFIC PLANS SHALL BE PREPARED AND SUBMITTED TO THE DISTRICT FOR APPROVAL. THESE PLANS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE DISTRICT SHALL HAVE 14 CALENDAR DAYS TO REVIEW AND COMMENT ON THESE PLANS. THE CONTRACTOR SHALL NOT BEGIN ANY WORK REQUIRING TRAFFIC CONTROL UNTIL THE ENGINEER HAS GIVEN APPROVAL OF THE CONTRACTOR'S SEQUENCE OF OPERATIONS AND MAINTENANCE OF TRAFFIC PLANS.

THE MAINTENANCE OF TRAFFIC SCHEME SHALL TAKE INTO CONSIDERATION SNOW AND ICE OPERATIONS FROM DECEMBER 1 THROUGH MARCH 31. LANE SHIFTS, RESTRICTIONS, AND CLOSURES MAY NOT BE APPROVED IF THEY ADVERSELY AFFECT SNOW REMOVAL OPERATIONS.

IF IN THE OPINION OF THE ENGINEER, THE CONTRACTOR FAILS TO COMPLY WITH THESE REQUIREMENTS AND THE PROVISIONS OF THE APPROVED MAINTENANCE OF TRAFFIC PLAN, THE ENGINEER SHALL SUSPEND WORK UNTIL ALL REQUIREMENTS ARE MET. ANY COST OR DELAYS INCURRED AS A RESULT OF THE FAILURE SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.

PAYMENT FOR ALL THE ITEMS REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

**ITEM 614, MAINTAINING TRAFFIC, LANES OPEN DURING HOLIDAYS**

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	6:00 AM FRIDAY THROUGH 7:00 PM MONDAY
MONDAY	6:00 AM FRIDAY THROUGH 7:00 PM TUESDAY
TUESDAY	6:00 AM MONDAY THROUGH 7:00 PM WEDNESDAY
WEDNESDAY	6:00 AM TUESDAY THROUGH 7:00 PM THURSDAY
THURSDAY	6:00 AM WEDNESDAY THROUGH 7:00 PM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 7:00 PM MONDAY
FRIDAY	6:00 AM THURSDAY THROUGH 7:00 PM MONDAY
SATURDAY	6:00 AM FRIDAY THROUGH 7:00 PM MONDAY

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

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$100.00 FOR EACH 1 MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

**GENERAL**

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE SHOWN BELOW FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE DISINCENTIVES WILL BE ASSESSED FOR ALL THE RESTRICTIONS OF THE CRITICAL WORK. CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTION OF WORK OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED. UNRESTRICTED TRAFFIC IF DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH TEMPORARY SAFETY FEATURES IN PLACE.

**LANE VALUE CONTRACT TABLE**

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$/TIME UNIT
ALL LANES OPEN TO TRAFFIC IR 74 / IR 275	6 AM - 9 AM 3 PM - 7 PM MON-FRI	1 MINUTE PERIOD	\$100
ALL LANES OPEN TO TRAFFIC RAMP A, RAMP B, * & RAMP E	6 AM - 10 PM MON-FRI	1 MINUTE PERIOD	\$100
2 LANES OPEN TO TRAFFIC IR 74 / IR 275	6 AM - 9 AM 9 AM - 3 PM 7 PM - 6 AM MON-FRI	1 MINUTE PERIOD	\$100
	6 AM - 4 PM 6 PM - 6 AM SAT-SUN		
1 LANE OPEN TO TRAFFIC IR 74 / IR 275	12 AM - 6 AM 8 PM - 12 AM MON-FRI	1 MINUTE PERIOD	\$100
	12 AM - 6 AM 7 PM - 12 AM SAT-SUN		
BRIDGE NO. HAM-74-0838 L&R	SEE NOTES BELOW	1 MINUTE PERIOD	\$100

\* RAMP A AND RAMP B SHALL NOT BE CLOSED TO TRAFFIC AT THE SAME TIME.

THE CONTRACTOR WILL HAVE A TOTAL OF TWO WEEKENDS (WEEKEND BEING DEFINED AS 7 PM FRIDAY THROUGH 6 AM MONDAY) TO COMPLETE THE DECK OVERLAY ON HAM-74-0838L AND TWO WEEKENDS FOR HAM-74-0838R. THE CONTRACTOR CAN WORK CONCURRENTLY ON BOTH STRUCTURES OR WORK INDEPENDENTLY ON EACH STRUCTURE.

THE CONTRACTOR CAN REDUCE THE INTERSTATE TO ONE LANE PER DIRECTION FOR ONE WEEKEND PER BRIDGE WHEN PLACING THE OVERLAY ON THE HIGH SPEED AND MIDDLE LANE. THE WORK ON THE HIGH SPEED AND MIDDLE LANE SHALL BE COMPLETED IN ONE WEEKEND PER STRUCTURE WITH A DISINCENTIVE IN THE AMOUNT OF \$100/MINUTE FOR EACH MINUTE THE LANE(S) REMAIN CLOSED TO TRAFFIC BEYOND THE TIME SPECIFIED.

THE CONTRACTOR CAN CLOSE THE INTERSTATE TO TWO LANES PER DIRECTION FOR ONE WEEKEND (WEEKEND BEING DEFINED AS 7 PM FRIDAY THROUGH 6 AM MONDAY) FOR PLACEMENT OF THE DECK OVERLAY ON THE OUTSIDE LANE/SHOULDER. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$100/MINUTE FOR EACH MINUTE THE LANE REMAINS CLOSED TO TRAFFIC BEYOND THE TIME SPECIFIED.

THE CONTRACTOR WILL HAVE TO COORDINATE THE MILL/FILL ASPHALT WORK WITH THE WEEKEND DECK OVERLAY WORK SO A MINIMUM OF THREE LANES OF TRAFFIC ARE MAINTAINED AS DEFINED BY THE LANE VALUE CONTRACT TABLE EXCLUDING THE TWO WEEKENDS PER DIRECTION THE CONTRACTOR IS ALLOWED TO HAVE EXTENDED LANE CLOSURE HOURS FOR THE DECK OVERLAYS. THE CONTRACTOR WILL BE PERMITTED TO EXTEND THE LANE CLOSURES FOR THE HAM-74-0838 L/R DECK OVERLAY WORK THE ENTIRE LENGTH OF THE PROJECT SO THE PAVING WORK IS ACCOMPLISHED THE SAME WEEKEND(S) OF THE DECK OVERLAY. OTHERWISE, THE CONTRACTOR WILL HAVE TO MILL/FILL ON A NIGHTLY BASIS SUCH THAT THE DROP-OFF REQUIREMENTS CONTAINED IN STANDARD CONSTRUCTION DRAWING MT-101.90 ARE MET.

**TEMPORARY PAVEMENT WEDGE**

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A PAVEMENT SURFACE OF A DIFFERENT ELEVATION. THE MINIMUM SLOPE OF THE TEMPORARY PAVEMENT WEDGE SHALL BE 3:1 ALONG LONGITUDINAL JOINTS, 120:1 AT TRANSVERSE JOINTS, AND A MINIMUM OF 10:1 AT THE RAMPS. THESE WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSE. PAYMENT FOR ALL WORK, MATERIALS, ETC. ASSOCIATED WITH THIS ITEM SHALL BE PAID FOR UNDER ITEM 614 "MAINTAINING TRAFFIC, LUMP SUM".

**PAVEMENT MARKINGS**

PLACE WORK ZONE PAVEMENT MARKINGS OR PERMANENT PAVEMENT MARKINGS ON ALL WORK ZONES PRIOR TO OPENING TO TRAFFIC DURING WORK ACTIVITIES.

**ASPHALT PAVEMENT**

PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, ANY EXISTING PAVEMENT WITHIN THE TRANSITION AREAS THAT HAS BEEN DAMAGED BY THE MAINTENANCE OF TRAFFIC OPERATIONS, SHALL BE REMOVED TO A DEPTH EQUIVALENT TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PROPOSED PAVEMENT (2 1/2 INCHES), AS DIRECTED BY THE ENGINEER. RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT.

PAYMENT FOR ASPHALT PAVEMENT SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

**TRUCK MOUNTED ATTENUATOR**

WHEN THE CONTRACTOR IS SETTING SHORT TERM WORK ZONES, A TRUCK MOUNTER ATTENUATOR (TMA) MUST TRAIL THE OPERATION OF SETTING THE ADVANCE WARNING SIGNS UP OR TAKING THEM DOWN ALONG WITH INSTALLING OR REMOVING THE TRAFFIC CONTROL. THIS SAME TRUCK MUST HAVE A TYPE B FLASHING ARROW PANEL MOUNTED ON IT FACING THE REAR OF THE TRUCK. THE CONTRACTOR SHALL USE A TMA FOR ANY APPLICATION WHERE THE ODOT OR STANDARD CONSTRUCTION DRAWING USES THE PHRASE "OPTIONAL" OR "WHEN SPECIFIED IN THE PLAN."

THE TMA MUST BRING A VEHICLE WEIGHING 1800 TO 4500 LBS. AND TRAVELING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA. THE MANUFACTURER'S SPECIFICATION MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE TMA.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHALL BE DELINEATED ON A PERMANENT BASIS BY AFFIXING CONSPICUITY TAPE CONFORMING TO CMS 614.03, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS WILL BE SHOWN IN THE MOT PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

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

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.

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

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

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. THE CONTRACTOR SHALL ONLY BE PAID FOR PCMS UNITS WHEN THEY ARE IN OPERATION ON THE PROJECT AS SPECIFIED IN THE PLANS OR BY THE ENGINEER.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN,  
AS PER PLAN 500 DAYS  
(2 SIGNS FOR 250 DAYS DURATION)

**HAM-74-0911 BRIDGE PAINTING**

DURING BRIDGE PAINTING OPERATIONS FOR STRUCTURE HAM-74-0911, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE TWO WAY TRAFFIC USING A FLAGGING OPERATION.

**ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE ODOT INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

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

IN ADDITION TO THE REQUIREMENT OF CMS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/ DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO

MAY BE ASKED TO PATROL THROUGH THE WORK ZONE WITH FLASHING LIGHTS OFF OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 500 HOURS

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

ANY ADDITIONAL COSTS, ADMINISTRATIVE OR OTHERWISE, INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

HAM-74-5.53

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SHEET NUMBER										PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	8A	9	16	20	36										
LUMP												201	11000	LUMP		CLEARING AND GRUBBING	
						185.0						202	30700	185.0	FT	CONCRETE BARRIER REMOVED	
						1175.0						202	38000	1175.0	FT	GUARDRAIL REMOVED	
						2						202	42000	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
						2						202	42040	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
						1						202	42210	1	EACH	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	
						6						202	42810	6	EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E	
						12						202	47000	12	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
						14						202	47001	14	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	6
							3					203	10000	3	CU YD	EXCAVATION	
							1					203	20000	1	CU YD	EMBANKMENT	
						262.5						606	11000	262.5	FT	GUARDRAIL, THRIE BEAM RAIL AND TRANSITION SECTION	6
						1068.75						606	13000	1068.75	FT	GUARDRAIL, TYPE 5	
						600						606	13050	600	FT	GUARDRAIL, TYPE 5A	
						2						606	26100	2	EACH	ANCHOR ASSEMBLY, TYPE E	
						2						606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T	
						6						606	27850	6	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E	
						5						606	35000	5	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
						5						606	35100	5	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
						12						606	35170	12	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE BR-1	37
						1						606	60012	1	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	6
						1						606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), 65MPH, 26" WIDE	6
						125.0						622	10061	125.0	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	8A
						124.8						622	10160	124.8	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
						22.5						622	23402	22.5	FT	CONCRETE BARRIER, TYPE B, REINFORCED	38
						10						622	25000	10	EACH	CONCRETE BARRIER END SECTION, TYPE D	
												<b>EROSION CONTROL</b>					
						1						659	00100	1	EACH	SOIL ANALYSIS TEST	
						8						659	00300	8	CU YD	TOPSOIL	
						66						659	10000	66	SQ YD	SEEDING AND MULCHING	
						4						659	14000	4	SQ YD	REPAIR SEEDING AND MULCHING	
						4						659	15000	4	SQ YD	INTER-SEEDING	
						0.01						659	20000	0.01	TON	COMMERCIAL FERTILIZER	
						0.01						659	31000	0.01	ACRE	LIME	
						0.4						659	35000	0.4	M GAL	WATER	
		4,260										832	30000	4,260	EACH	EROSION CONTROL	
												<b>PAVEMENT</b>					
			1,044									251	01000	1,044	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR	
				1,378		251,295						254	01000	252,673	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
			6,460									255	10000	6,460	SQ YD	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C	
			13,872									255	20000	13,872	FT	FULL DEPTH PAVEMENT SAWING	
						18,847						407	10000	18,847	GALLON	TACK COAT	
						10,052						407	14000	10,052	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
						96						442	10000	17,673	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
						21,075						442	10100	21,075	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
						380						609	24510	380	FT	CURB, TYPE 4-C	
		510										SPECIAL	45132000	510	FT	PRESSURE RELIEF JOINT, TYPE C	
			LUMP									SPECIAL	69098400	LUMP		ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	8A

GENERAL SUMMARY

HAM-74-5.53

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SHEET NUMBER											PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
10	20	45	47	58A														
																<b>LIGHTING</b>		
																FOR LIGHTING QUANTITIES, GENERAL SUMMARY	59	
																<b>TRAFFIC CONTROL</b>		
			15.2									618	40600	15.2	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)		
		787										621	00100	787	EACH	RPM		
		788										621	54000	788	EACH	RAISED PAVEMENT MARKER REMOVED		
												625	32000	2	EACH	GROUND ROD		
	78											626	00100	78	EACH	BARRIER REFLECTOR		
												630	45500	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8		
												630	55000	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-7.65		
												630	84510	1	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION		
												630	87100	4	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION		
												630	89802	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65		
												630	97700	1	EACH	SIGNING, MISC.: SIGN BACKING ASSEMBLY, AS PER PLAN	8A	
												631	94409	1	EACH	REMOVAL OF SIGN WIRING AND DISPOSAL, AS PER PLAN	8A	
												631	94413	1	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN	8A	
												644	00104	15.36	MILE	EDGE LINE, 6"		
												644	00204	11.70	MILE	LANE LINE, 6"		
												644	00404	11,737	FT	CHANNELIZING LINE, 12"		
												644	00700	2791	FT	TRANSVERSE/DIAGONAL LINE		
												644	01510	2102	FT	DOTTED LINE, 6"		
												645	00094	1.17	MILE	EDGE LINE, 6", TYPE A		
												645	00194	1.07	MILE	LANE LINE, 6", TYPE A		
																<b>STRUCTURES</b>		
																FOR BRIDGE HAM-74-0585 L & R	63	
																FOR BRIDGE HAM-74-0838 L & R		
																FOR BRIDGE HAM-74-0857 L & R	88	
																FOR BRIDGE HAM-74-0911 L & R	75-76	
																<b>MAINTENANCE OF TRAFFIC</b>	100-101	
												614	11110	500	HOURLY	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
												614	18401	500	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	10	
												614	11000	LUMP		MAINTAINING TRAFFIC		
												619	16010	9	MONTH	FIELD OFFICE, TYPE B		
												623	10000	LUMP		CONSTRUCTION LAYOUT STAKES		
												624	10000	LUMP		MOBILIZATION		

**GENERAL SUMMARY**

**HAM-74-5.53**

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STATION RANGE	SIDE	LENGTH FT	BEGIN WIDTH FT	END WIDTH FT	AVERAGE WIDTH FT	AREA SQ YD	CADD AREA SQ YD	254	407	407	442	442	442	442							
								PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT	TACK COAT FOR INTERMEDIATE COURSE	2.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446)	VARIABLE ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446)	3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446)	VARIABLE ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446)							
<b>EASTBOUND 74</b>																					
301+80.11 - 310+00.68	RT	820.57	38.00	38.00	38.00	3,464.63		3,464.63	259.85	138.59	240.60		288.72								
312+12.85 - 320+01.61	RT	788.76	38.00	38.00	38.00	3,330.32		3,330.32	249.77	133.21	231.27		277.53								
<b>BRIDGE HAM-74-0585R</b>																					
322+58.47 - 339+64.32	RT	1,705.85	38.00	38.00	38.00	7,202.48		7,202.48	540.19	288.10	500.17		600.21								
339+64.32 - 340+64.32	RT	100.00	38.00	44.00	41.00	455.56		455.56	34.17	18.22	31.64		37.96								
340+64.32 - 346+15.00	RT	550.68	44.00	44.00	44.00	2,692.21		2,692.21	201.92	107.69	186.96		224.35								
346+15.00 - 347+77.00	RT	162.00	57.16	55.43	56.30	1,013.40		1,013.40	76.01	40.54	70.38		84.45								
347+77.00 - 367+44.32	RT	1,967.32	63.00	63.00	63.00	13,771.24		13,771.24	1,032.84	550.85	956.34		1,147.60								
<b>ADDITIONAL FOR GORE AREA</b>																					
347+77.00 - 367+44.32	RT	1,967.32	41.63	0.00	20.82		3,631.34	3,631.34	272.35	145.25	252.18		302.61								
367+44.32 - 392+50.00	RT	2,505.68	63.00	63.00	63.00	17,539.76		17,539.76	1,315.48	701.59	1,218.04		1,461.65								
392+50.00 - 393+50.00	RT	100.00	63.00	72.39	67.70	752.22		752.22	56.42	30.09	52.24		62.69								
393+50.00 - 396+00.00	RT	250.00	72.39	73.00	72.70	2,019.44		2,019.44	151.46	80.78	140.24		168.29								
396+00.00 - 400+75.50	RT	475.50	73.00	73.00	73.00	3,856.83		3,856.83	289.26	154.27	267.84		321.40								
<b>ADDITIONAL FOR GORE AREA</b>																					
396+00.00 - 401+11.94	RT	511.94	0.00	24.00	12.00		464.70	464.70	34.85	18.59	32.27		38.73								
400+75.55 - 406+01.41	RT	525.86	60.00	53.00	56.50	3,301.23		3,301.23	247.59	132.05	229.25		275.10								
406+01.41 - 414+50.00	RT	848.59	53.00	53.00	53.00	4,997.25		4,997.25	374.79	199.89	347.03		416.44								
<b>SUBTRACT FOR MEDIAN BARRIER TAPER</b>																					
408+50.91 - 414+50.00	RT	599.09	0.00	6.50	3.25		-180.67	-180.67	-13.55	-7.23	-12.55		-15.06								
<b>SUSPEND WORK</b>																					
431+17.00 - 432+00.00	RT	83.00	61.12	60.32	60.72	559.97		559.97	42.00	22.40	38.89		46.66								
432+00.00 - 438+00.00	RT	600.00	60.32	56.00	58.16	3,877.33		3,877.33	290.80	155.09	269.26		323.11								
438+00.00 - 446+00.00	RT	800.00	56.00	56.00	56.00	4,977.78		4,977.78	373.33	199.11	345.68		414.82								
<b>ADDITIONAL FOR GORE AREA</b>																					
431+17.00 - 446+00.00	RT	1,483.00	28.46	0.00	14.23		2,481.88	2,481.88	186.14	99.28	172.35		206.82								
446+00.00 - 451+50.00	RT	550.00	56.00	56.00	56.00	3,422.22		3,422.22	256.67	136.89	237.65		285.19								
451+50.00 - 452+62.50	RT	112.50	56.00	56.00	56.00	700.00		700.00	52.50	28.00	48.61		58.33								
452+62.50 - 453+50.00	RT	87.50	56.00	48.41	52.21	507.60		507.60	38.07	20.30	35.25		42.30								
<b>PROFILE ADJUSTMENT</b>																					
453+50.00 - 454+09.39	RT	59.39	48.41	45.50	46.96	309.88		309.88	23.24	12.40		18.29	20.44								
<b>BRIDGE HAM-74-0838R</b>																					
<b>PROFILE ADJUSTMENT</b>																					
459+49.89 - 460+25.00	RT	75.11	45.50	49.42	47.46	396.08		396.08	29.71	15.84		23.38	26.13								
460+25.00 - 461+09.00	RT	84.00	49.42	56.00	52.71	491.96		491.96	36.90	19.68	34.16	29.04	41.00	32.46							
461+09.00 - 462+35.00	RT	126.00	56.00	56.00	56.00	784.00		784.00	58.80	31.36	54.44		65.33								
<b>SUBTOTALS CARRIED TO SHEET 16</b>								86,820.64	6,511.56	3,472.83	5,980.19	70.71	7,176.23	79.03							

CALCULATED  
SJS  
CHECKED  
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**PAVEMENT CALCULATIONS  
EASTBOUND**

**HAM-74-5.53**

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STATION RANGE	SIDE	LENGTH FT	BEGIN WIDTH FT	END WIDTH FT	AVERAGE WIDTH FT	AREA SQ YD	CADD AREA SQ YD	254	407	407	442	442	442	442								
								PAVEMENT PLANING, ASPHALT CONCRETE SQ YD	TACK COAT GAL	TACK COAT FOR INTERMEDIATE COURSE GAL	2.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446) CU YD	VARIABLE ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446) CU YD	3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446) CU YD	VARIABLE ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446) CU YD								
<b>EASTBOUND 74 CONTINUED</b>																						
462+35.00 - 462+65.00	RT	30.00	56.00	54.95	55.48	184.93		184.93	13.87	7.40	12.84			15.41								
462+65.00 - 464+19.39	RT	154.39	54.95	45.50	50.23	861.67		861.67	64.63	34.47	59.84			71.81								
<b>BRIDGE HAM-74-0857R</b>																						
465+95.97 - 467+55.00	RT	159.03	45.50	54.95	50.23	887.56		887.56	66.57	35.50	61.64			73.96								
467+55.00 - 467+85.00	RT	30.00	54.95	56.00	55.48	184.93		184.93	13.87	7.40	12.84			15.41								
467+85.00 - 491+17.00	RT	2332.00	56.00	56.00	56.00	14510.22		14510.22	1088.27	580.41	1007.65			1209.19								
491+17.00 - 492+75.23	RT	158.23	56.00	45.50	50.75	892.24		892.24	66.92	35.69	61.96			74.35								
<b>BRIDGE HAM-74-0911R</b>																						
497+32.53 - 498+21.81	RT	89.28	44.00	48.75	46.38	460.09		460.09	34.51	18.40	31.95			38.34								
498+21.69 - 498+42.00	RT	20.31	48.75	50.00	49.38	111.43		111.43	8.36	4.46	7.74			9.29								
498+42.00 - 504+34.00	RT	592.00	50.00	50.00	50.00	3288.89		3288.89	246.67	131.56	228.40			274.07								
<b>ADDITIONAL FOR GORE AREA</b>																						
498+21.69 - 504+34.00	RT	612.31	0.00	49.87	24.94		1131.15	1131.15	84.84	45.25	78.55			94.26								
504+34.00 - 507+35.00	RT	301.00	48.00	38.00	43.00	1438.11		1438.11	107.86	57.52	99.87			119.84								
507+35.00 - 515+73.00	RT	838.00	38.00	38.00	38.00	3538.22		3538.22	265.37	141.53	245.71			294.85								
<b>EASTBOUND 275</b>																						
401+26.00 - 402+76.00	RT	150.00	42.00	38.00	40.00	666.67		666.67	50.00	26.67	46.30			55.56								
402+76.00 - 408+08.81	RT	532.81	38.00	38.00	38.00	2249.64		2249.64	168.72	89.99	156.23			187.47								
<b>BRIDGE HAM-275-1070</b>																						
410+95.94 - 413+52.55	RT	256.61	38.00	38.00	38.00	1083.46		1083.46	81.26	43.34	75.24			90.29								
<b>RAMP B FROM 275 WB TO 74 EB</b>																						
<b>GORE AREA</b>																						
-0+32.09 - 0+16.91	RT	49.00	28.82	33.90	31.36		163.18	163.18	12.24	6.53	11.33			13.60								
0+16.91 - 4+39.75	RT	422.84	22.00	22.00	22.00	1033.61		1033.61	77.52	41.34	71.78			86.13								
<b>BRIDGE HAM-275-1072</b>																						
5+84.17 - 11+91.22	RT	607.05	22.00	22.00	22.00	1483.90		1483.90	111.29	59.36	103.05			123.66								
<b>SUBTOTALS CARRIED TO SHEET 16</b>								34169.90	2562.77	1366.82	2372.92		2847.49									

**PAVEMENT CALCULATIONS  
EASTBOUND**

**HAM-74-5.53**

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STATION RANGE	SIDE	LENGTH FT	BEGIN WIDTH FT	END WIDTH FT	AVERAGE WIDTH FT	AREA SQ YD	CADD AREA SQ YD	254	407	407	442	442	442	442							
								PAVEMENT PLANING, ASPHALT CONCRETE SQ YD	TACK COAT GAL	TACK COAT FOR INTERMEDIATE COURSE GAL	2.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446) CU YD	VARIABLE ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446) CU YD	3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446) CU YD	VARIABLE ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446) CU YD							
<b>WESTBOUND 74</b>																					
301+80.11 - 310+00.68	LT	820.57	38.00	38.00	38.00	3464.63		3464.63	259.85	138.59	240.60			288.72							
312+12.85 - 317+15.31	LT	502.46	38.00	38.00	38.00	2121.50		2121.50	159.11	84.86	147.33			176.79							
317+15.31 - 320+46.57	LT	331.26	38.00	42.64	40.32	1484.04		1484.04	111.30	59.36	103.06			123.67							
<b>BRIDGE HAM-74-0585L</b>																					
322+99.84 - 333+45.00	LT	1045.16	38.00	38.00	38.00	4412.90		4412.90	330.97	176.52	306.45			367.74							
<b>ADDITIONAL FOR GORE AREA</b>																					
322+96.59 - 333+45.00	LT	1048.41	9.83	35.25	22.54		2364.43	2364.43	177.33	94.58	164.20			197.04							
333+45.00 - 339+00.00	LT	555.00	38.00	38.00	38.00	2343.33		2343.33	175.75	93.73	162.73			195.28							
339+00.00 - 340+69.13	LT	169.13	38.00	46.88	42.44	797.54		797.54	59.82	31.90	55.38			66.46							
340+69.13 - 341+14.32	LT	45.19	46.88	46.98	46.93	235.64		235.64	17.67	9.43	16.36			19.64							
341+14.32 - 341+94.72	LT	80.40	46.98	45.52	46.25	413.17		413.17	30.99	16.53	28.69			34.43							
341+94.72 - 346+15.00	LT	420.28	45.52	50.42	47.97	2240.09		2240.09	168.01	89.60	155.56			186.67							
346+15.00 - 351+95.74	LT	580.74	63.00	63.00	63.00	4065.18		4065.18	304.89	162.61	282.30			338.77							
351+95.74 - 361+59.20	LT	963.46	75.00	75.00	75.00	8028.83		8028.83	602.16	321.15	557.56			669.07							
<b>ADDITIONAL FOR GORE AREA</b>																					
351+95.74 - 361+59.20	LT	963.46	40.16	0.00	20.08		1451.09	1451.09	108.83	58.04	100.77			120.92							
361+59.20 - 375+00.00	LT	1340.80	75.00	75.00	75.00	11173.33		11173.33	838.00	446.93	775.93			931.11							
375+00.00 - 377+00.00	LT	200.00	75.00	63.00	69.00	1533.33		1533.33	115.00	61.33	106.48			127.78							
377+00.00 - 408+50.91	LT	3150.91	63.00	63.00	63.00	22056.37		22056.37	1654.23	882.25	1531.69			1838.03							
408+50.91 - 414+50.00	LT	599.09	63.00	63.00	63.00	4193.63		4193.63	314.52	167.75	291.22			349.47							
<b>ADD FOR MEDIAN BARRIER TAPER</b>																					
408+50.91 - 414+50.00	LT	599.09	0.00	6.50	3.25		180.53	180.53	13.54	7.22	12.54			15.04							
<b>SUSPEND WORK</b>																					
429+16.39 - 432+00.00	LT	283.61	56.00	56.00	56.00	1764.68		1764.68	132.35	70.59	122.55			147.06							
432+00.00 - 438+69.90	LT	669.90	56.00	56.00	56.00	4168.27		4168.27	312.62	166.73	289.46			347.36							
438+69.90 - 442+80.94	LT	411.04	65.00	65.00	65.00	2968.62		2968.62	222.65	118.74	206.15			247.39							
<b>ADDITIONAL FOR GORE AREA</b>																					
438+69.90 - 442+80.94	LT	411.04	25.71	0.00	12.86		420.49	420.49	31.54	16.82	29.20			35.04							
442+80.94 - 446+00.00	LT	319.06	65.00	65.00	65.00	2304.32		2304.32	172.82	92.17	160.02			192.03							
446+00.00 - 447+00.00	LT	100.00	65.00	56.00	60.50	672.22		672.22	50.42	26.89	46.68			56.02							
447+00.00 - 451+50.00	LT	450.00	56.00	56.00	56.00	2800.00		2800.00	210.00	112.00	194.44			233.33							
451+50.00 - 452+62.50	LT	112.50	56.00	56.00	56.00	700.00		700.00	52.50	28.00	48.61			58.33							
452+62.50 - 453+50.00	LT	87.50	56.00	48.41	52.21	507.60		507.60	38.07	20.30	35.25			42.30							
<b>PROFILE ADJUSTMENT</b>																					
453+50.00 - 454+09.39	LT	59.39	48.41	45.50	46.96	309.88		309.88	23.24	12.40			18.29	20.44							
<b>BRIDGE HAM-74-0838L</b>																					
<b>PROFILE ADJUSTMENT</b>																					
459+49.89 - 460+25.00	LT	75.11	45.50	49.42	47.46	396.08		396.08	29.71	15.84			23.38	26.13							
<b>SUBTOTALS CARRIED TO SHEET 16</b>								89571.72	6717.89	3582.86	6171.21	41.67	7405.49	46.57							

CALCULATED SJS CHECKED TME  
**PAVEMENT CALCULATIONS WESTBOUND**  
**HAM-74-5.53**  
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STATION RANGE	SIDE	LENGTH FT	BEGIN WIDTH FT	END WIDTH FT	AVERAGE WIDTH FT	AREA SQ YD	CADD AREA SQ YD	254	407	407	442	442	442	442								
								PAVEMENT PLANING, ASPHALT CONCRETE SQ YD	TACK COAT GAL	TACK COAT FOR INTERMEDIATE COURSE GAL	2.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446) CU YD	VARIABLE ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, Type A (446) CU YD	3" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446) CU YD	VARIABLE ASPHALT CONCRETE INTERMEDIATE COURSE, 19 mm Type A (446) CU YD								
<b>WESTBOUND 74 CONTINUED</b>																						
460+25.00 - 461+09.00	LT	84.00	49.42	56.00	52.71	491.96		491.96	36.90	19.68	34.16			41.00								
461+09.00 - 463+22.00	LT	213.00	56.00	56.00	56.00	1,325.33		1,325.33	99.40	53.01	92.04			110.44								
463+22.00 - 463+50.00	LT	28.00	56.00	55.02	55.51	172.70		172.70	12.95	6.91	11.99			14.39								
463+50.00 - 465+10.50	LT	160.50	55.02	45.50	50.26	896.30		896.30	67.22	35.85	62.24			74.69								
<b>BRIDGE HAM-74-0857L</b>																						
466+87.07 - 468+45.00	LT	157.93	45.50	54.95	50.23	881.42		881.42	66.11	35.26	61.21			73.45								
468+45.00 - 468+75.00	LT	30.00	54.95	56.00	55.48	184.93		184.93	13.87	7.40	12.84			15.41								
468+75.00 - 491+11.00	LT	2,236.00	56.00	56.00	56.00	13,912.89		13,912.89	1,043.47	556.52	966.17			1,159.41								
491+11.00 - 492+73.41	LT	162.41	56.00	45.65	50.83	917.26		917.26	68.79	36.69	63.70			76.44								
<b>BRIDGE HAM-74-0911L</b>																						
497+05.56 - 498+25.00	LT	119.44	54.75	62.00	58.38	774.77		774.77	58.11	30.99	53.80			64.56								
498+25.00 - 500+53.49	LT	228.49	62.00	62.00	62.00	1,574.04		1,574.04	118.05	62.96	109.31			131.17								
500+53.49 - 505+67.00	LT	513.51	62.00	62.00	62.00	3,537.51		3,537.51	265.31	141.50	245.66			294.79								
<b>ADDITIONAL FOR GORE AREA</b>																						
500+53.49 - 505+67.00	LT	513.51	0.00	30.56	15.28		496.55	496.55	37.24	19.86	34.48			41.38								
505+67.00 - 525+27.00	LT	1,960.00	38.00	38.00	38.00	8,275.56		8,275.56	620.67	331.02	574.69			689.63								
<b>WESTBOUND 275</b>																						
402+61.94 - 403+00.00	LT	38.06	38.45	38.00	38.23	161.67		161.67	12.13	6.47	11.23			13.47								
403+00.00 - 414+54.61	LT	1,154.61	38.00	38.00	38.00	4,875.02		4,875.02	365.63	195.00	338.54			406.25								
<b>RAMP A FROM 74 WB TO 275 EB</b>																						
2+46.32 - 11+68.59	LT	922.27	22.00	22.00	22.00	2,254.44		2,254.44	169.08	90.18	156.56			187.87								
<b>SUBTOTALS FROM THIS SHEET</b>								40,732.35	3,054.93	1,629.30	2,828.62		3,394.35									
<b>SUBTOTALS CARRIED FROM SHEET 13</b>								86,820.64	6,511.56	3,472.83	5,980.19	70.71	7,176.23	79.03								
<b>SUBTOTALS CARRIED FROM SHEET 14</b>								34,169.90	2,562.77	1,366.82	2,372.92		2,847.49									
<b>SUBTOTALS CARRIED FROM SHEET 15</b>								89,571.72	6,717.89	3,582.86	6,171.21	41.67	7,405.49	46.57								
<b>GRAND TOTAL</b>								251,294.61	18,847.15	10,051.81	17,352.94	112.38	20,823.56	125.60								
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>								251,295	18,847	10,052	17,577		21,075									

**PAVEMENT CALCULATIONS  
WESTBOUND**

CALCULATED  
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**HAM-74-5.53**

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REF NO.	SHEET NO.	STATION TO STATION		SIDE	202	202	202	202	202	202	202	606	606	606	606	606	606	606	606	606	606	609	622	622	622	622	626	
					CONCRETE BARRIER REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	ANCHOR ASSEMBLY REMOVED, TYPE T	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E	BRIDGE TERMINAL ASSEMBLY REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	GUARDRAIL, THREE BEAM RAIL AND TRANSITION SECTION	GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5A	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY REBUILD, TYPE E	BRIDGE TERMINAL ASSEMBLY, TYPE 1	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 65 MPH, 26" WIDE	BRIDGE TERMINAL ASSEMBLY, TYPE 2	BRIDGE TERMINAL ASSEMBLY, TYPE BR-1	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	CURB, TYPE 4-C	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER, TYPE B, REINFORCED	CONCRETE BARRIER END SECTION TYPE D
					FT	FT	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	EACH	
B1	21	323+12.40	323+60.40	RT																							1	
C1	21	319+57.40	319+77.40	RT																		20.0						
C2	21	319+72.90	319+92.90	RT																		20.0						
C3	21	323+04.85	323+24.85	LT																		20.0						
C4	21	323+03.85	323+23.85	LT																		20.0						
C5	21	322+92.40	323+12.40	RT																		20.0						
G1	21	305+65.00	307+40.00	LT									125.00			1											3	
G2	21	317+03.00	318+53.00	RT								100.00				1											3	
G3	21	319+61.25	319+79.50	RT								18.75															1	
G4	21	319+76.25	319+95.00	RT								18.75															1	
G5	21	323+02.75	323+21.50	LT								18.75															1	
G6	21	323+01.75	323+20.50	LT								18.75															1	
G7	21	322+83.25	323+14.50	RT									31.25				1										1	
G8	21	323+58.40	324+08.40	RT									37.50			1				1							1	
R1	21	305+65.00	306+15.00	LT					1																			
R2	21	318+03.00	318+53.00	RT					1																			
R3	21	319+61.25	319+79.50	RT																								
R4	21	319+76.25	319+95.00	RT																								
R5	21	323+02.75	323+21.50	LT																								
R6	21	323+01.75	323+20.50	LT																								
R7	21	322+83.25	323+95.75	RT		100.0		1																				
B1	22	346+57.50	346+80.00	CL																					22.5		2	
B2	22	355+66.85	356+14.85	LT																				20.0		2	1	
C1	22	332+99.15	333+19.15	RT																		20.0						
C2	22	356+14.85	356+34.85	LT																		20.0						
G1	22	333+02.50	333+21.25	RT								18.75															1	
G2	22	346+30.67	346+57.50	CL													1											
G3	22	354+81.35	355+68.85	LT								75.00			1					1							2	
G4	22	356+12.75	356+44.00	LT								31.25					1										1	
R1	22	333+02.50	333+21.25	RT																								
R2	22	346+30.00	346+80.00	CL	50.0																							
R3	22	354+94.00	356+44.00	LT		137.5		1																				
B1	23	372+80.70	373+28.70	RT																				20.0		2	1	
B2	23	373+45.00	374+80.00	LT																			125.0				8	
C1	23	372+60.70	372+80.70	RT																		20.0						
SUBTOTAL CARRIED TO SHEET 20					50.0	237.5		2		2		5	93.75	400.00			2	2	2	1	2		160.0	125.0	60.0	22.5	6	29

ROADWAY SUBSUMMARY

HAM-74-5.53

CALCULATED  
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REF NO.	SHEET NO.	STATION TO STATION		SIDE	202	202	202	202	202	202	202	606	606	606	606	606	606	606	606	606	606	609	622	622	622	622	626
					CONCRETE BARRIER REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	ANCHOR ASSEMBLY REMOVED, TYPE T	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E	BRIDGE TERMINAL ASSEMBLY REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	GUARDRAIL, THREE BEAM RAIL AND TRANSITION SECTION	GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5A	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY REBUILD, TYPE E	BRIDGE TERMINAL ASSEMBLY, TYPE 1	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 65 MPH, 26" WIDE	BRIDGE TERMINAL ASSEMBLY, TYPE 2	BRIDGE TERMINAL ASSEMBLY, TYPE BR-1	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	CURB, TYPE 4-C	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER, TYPE B, REINFORCED
					FT	FT	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	EACH
G1	23	371+51.55	372+82.80	RT								81.25				1	1										1
G2	23	373+26.70	373+51.70	RT								25.00						1									1
G3	23	384+79.50	386+29.50	LT								100.00				1											3
R1	23	371+89.20	373+51.70	RT		112.50			1																		
R2	23	384+79.50	385+29.50	LT					1																		
R3	23	373+45.00	374+80.00	LT	135.00																						
G1	24	398+27.80	398+77.80	RT								50.00															1
G2	24	401+86.10	402+36.10	LT								50.00															1
R1	24	398+27.80	398+77.80	RT		50.00																					
R2	24	401+86.10	402+36.10	LT		50.00																					
B1	25	440+41.40	441+01.80	LT																				32.4	2	1	
G1	25	440+18.40	440+43.40	LT								25.00						1									1
R1	25	440+18.40	441+30.95	LT		112.50																					
C1	26	441+01.80	441+21.80	LT																		20.0					
G1	26	440+99.70	441+30.95	LT								31.25					1										1
G2	26	451+83.50	452+33.50	LT								50.00															1
G3	26	453+58.90	453+83.90	RT								25.00						1									1
G4	26	453+58.90	453+83.90	RT								25.00						1									1
G5	26	459+77.30	460+02.30	LT								25.00						1									1
G6	26	459+77.30	460+02.30	LT								25.00						1									1
G7	26	460+69.80	461+19.80	RT								50.00															1
R1	26	451+83.50	452+33.50	LT		50.00																					
R2	26	453+58.90	453+83.90	RT					1																		
R3	26	453+58.90	453+83.90	RT					1																		
R4	26	459+77.30	460+02.30	LT					1																		
R5	26	459+77.30	460+02.30	LT					1																		
R6	26	460+69.80	461+19.80	RT		50.00																					
G1	27	463+59.10	463+84.10	RT								25.00								1							1
G2	27	463+03.20	463+28.20	RT								25.00								1							1
G3	27	466+78.20	467+03.20	LT								25.00								1							1
G4	27	467+22.10	467+47.10	LT								25.00								1							1
G5	27	469+03.70	469+35.40	CL																1							
G6	27	470+86.70	471+61.70	LT								25.00					1										2
G7	27	477+83.90	478+33.90	LT								50.00															1
G8	27	482+66.30	483+16.30	RT								50.00															1
G9	27	482+70.00	483+20.00	RT								50.00															1
SUBTOTAL CARRIED TO SHEET 20					135.00	425.00			2	4		487.50	350.00			3	2			2	8	1	20.0		32.4	2	25

ROADWAY SUBSUMMARY

HAM-74-5.53

CALCULATED  
SJS  
CHECKED  
EGD

P:\2010\HAM\83011\roadway\_sheets\83011GS003.dgn 6/12/2012 1:46:54 PM 1473ctw

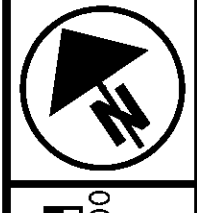
REF NO.	SHEET NO.	STATION TO STATION		SIDE	202	202	202	202	202	202	202	606	606	606	606	606	606	606	606	606	606	609	622	622	622	622	626
					CONCRETE BARRIER REMOVED FT	GUARDRAIL REMOVED FT	ANCHOR ASSEMBLY REMOVED, TYPE A EACH	ANCHOR ASSEMBLY REMOVED, TYPE T EACH	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E EACH	BRIDGE TERMINAL ASSEMBLY REMOVED EACH	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN EACH	GUARDRAIL, THREE BEAM RAIL AND TRANSITION SECTION FT	GUARDRAIL, TYPE 5 FT	GUARDRAIL, TYPE 5A FT	ANCHOR ASSEMBLY, TYPE E EACH	ANCHOR ASSEMBLY, TYPE T EACH	ANCHOR ASSEMBLY REBUILD, TYPE E EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 65 MPH, 26" WIDE EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2 EACH	BRIDGE TERMINAL ASSEMBLY, TYPE BR-1 EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL) EACH	CURB, TYPE 4-C FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D FT	CONCRETE BARRIER, TYPE B, REINFORCED FT
R1	27	463+59.10	463+84.10	RT							1																
R2	27	463+03.20	463+28.20	RT							1																
R3	27	466+78.20	467+03.20	LT							1																
R4	27	467+22.10	467+47.10	LT							1																
R5	27	469+03.70	469+28.70	CL					1																		
R6	27	470+86.70	471+36.70	LT					1																		
R7	27	477+83.90	478+33.90	LT		50.00																					
R8	27	482+66.30	483+16.30	RT		50.00																					
R9	27	482+70.00	483+20.00	RT		50.00																					
G1	28	492+54.60	492+79.60	EB RT									25.00								1						1
G2	28	492+52.70	492+77.70	EB LT									25.00								1						1
G3	28	497+07.40	497+32.40	WB RT									25.00								1						1
G4	28	496+89.20	497+14.20	WB LT									25.00								1						1
G5	28	504+04.10	504+79.10	WB LT									25.00								1						2
R1	28	492+54.60	492+79.60	EB RT							1																
R2	28	492+52.70	492+77.70	EB LT							1																
R3	28	497+07.40	497+32.40	WB RT							1																
R4	28	496+89.20	497+14.20	WB LT							1																
R5	28	504+04.10	504+54.10	WB LT					1																		
C1	29	505+27.70	505+47.70	EB RT																		20.0					
G1	29	515+11.70	515+61.70	WB RT										1													1
G2	29	515+84.20	516+34.20	WB LT									1														1
G3	29	505+31.05	505+49.80	EB RT								18.75															1
R1	29	515+11.70	515+36.70	WB RT			1																				
R2	29	515+84.20	516+09.20	WB LT			1																				
R3	29	505+31.05	505+49.80	EB RT											1												
IR 275																											
C2	29	408+12.86	408+32.86	EB RT																		20.0					
C3	29	407+70.26	407+90.26	EB LT																		20.0					
G4	29	408+16.21	408+34.96	EB RT									18.75														1
G5	29	407+73.61	407+92.36	EB LT									18.75														1
R4	29	408+16.21	408+34.96	EB RT																							
R5	29	407+73.61	407+92.36	EB LT																							
SUBTOTAL CARRIED TO SHEET 20						150.00	2		1	2	8	3	56.25	125.00		2			1			4					11

CALCULATED	19
	118
SJS	
CHECKED	
EGD	
<b>ROADWAY SUBSUMMARY</b>	
<b>HAM-74-5.53</b>	

P:\2010\HAM\83011\roadway\_sheets\83011GS004.dgn 6/12/2012 1:47:38 PM 1473ctw

REF NO.	SHEET NO.	STATION TO STATION		SIDE	202	202	202	202	202	202	202	606	606	606	606	606	606	606	606	606	606	609	622	622	622	622	626		
					CONCRETE BARRIER REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	ANCHOR ASSEMBLY REMOVED, TYPE T	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E	BRIDGE TERMINAL ASSEMBLY REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	GUARDRAIL, THREE BEAM RAIL AND TRANSITION SECTION	GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5A	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY REBUILD, TYPE E	BRIDGE TERMINAL ASSEMBLY, TYPE 1	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 65 MPH, 26" WIDE	BRIDGE TERMINAL ASSEMBLY, TYPE 2	BRIDGE TERMINAL ASSEMBLY, TYPE BR-1	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	CURB, TYPE 4-C	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER, TYPE B, REINFORCED	CONCRETE BARRIER END SECTION TYPE D	BARRIER REFLECTOR
					FT	FT	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	EACH		
RAMP B																													
C4	29	4+19.90	4+39.90																			20.0							
C5	29	4+19.90	4+39.90																			20.0							
G6	29	3+10.70	3+60.70																								1		
G7	29	4+23.25	4+42.00									18.75															1		
G8	29	4+23.25	4+42.00									18.75															1		
G9	29	6+14.40	6+64.40																								1		
R6	29	3+10.70	3+60.70			50.00																							
R7	29	4+23.25	4+42.00																										
R8	29	4+23.25	4+42.00																										
R9	29	6+14.40	6+64.40			50.00																							
RAMP A																													
B1	30	10+00.25	10+60.65	EB LT																									
C1	30	10+60.65	10+80.65	EB LT																		20.0			32.4		2	1	
G1	30	9+77.25	10+02.25	EB LT									25.00								1								
G2	30	10+58.55	10+89.80	EB LT									31.25														1		
G3	30	11+89.80	12+39.80	EB LT									50.00														1		
R1	30	9+77.25	10+89.80	EB LT																									
R2	30	11+89.80	12+39.80	EB LT																									
C1	31	413+31.22	413+51.22	EB LT																			20.0						
C2	31	413+34.17	413+54.17	EB RT																			20.0						
C3	31	2+46.40	2+66.40	A LT																			20.0						
C4	31	2+45.90	2+65.90	A RT																			20.0						
G1	31	413+34.57	413+53.32	EB LT									18.75														1		
G2	31	413+37.52	413+56.27	EB RT									18.75														1		
G3	31	0+84.00	1+34.00	B LT										50.00													1		
G4	31	1+96.50	2+46.50	B LT										50.00													1		
G5	31	2+44.30	2+63.05	A LT									18.75														1		
G6	31	2+43.80	2+62.55	A RT									18.75														1		
R1	31	413+34.57	413+53.32	EB LT																									
R2	31	413+37.52	413+56.27	EB RT																									
R3	31	0+84.00	1+34.00	B LT																									
R4	31	1+96.50	2+46.50	B LT																									
R5	31	2+44.30	2+63.05	A LT																									
R6	31	2+43.80	2+62.55	A RT																									
SUBTOTAL FROM THIS SHEET						362.50						6	112.50	56.25	250.00				1		1		140.0		32.4		2	13	
SUBTOTAL FROM SHEET 17					50.0	237.50			2			5	93.75	400.00				2	2	2	1	2		160.0	125.0	60.0	22.5	6	29
SUBTOTAL FROM SHEET 18					135.0	425.00								487.50	350.00				3	2		2	8	1	20.0	32.4		2	25
SUBTOTAL FROM SHEET 19						150.00	2		1	2	8	3	56.25	125.00			2		1				4		60.0				11
TOTALS CARRIED TO GENERAL SUMMARY					185.0	1175.00	2	2	1	6	12	14	262.50	1068.75	600.00	2	2	6	5	1	5	12	1	380.0	125.0	124.8	22.5	10	78

CALCULATED SJS CHECKED EGD  
**HAM-74-5.53**  
 ROADWAY SUBSUMMARY



0 50 100  
 HORIZONTAL  
 SCALE IN FEET

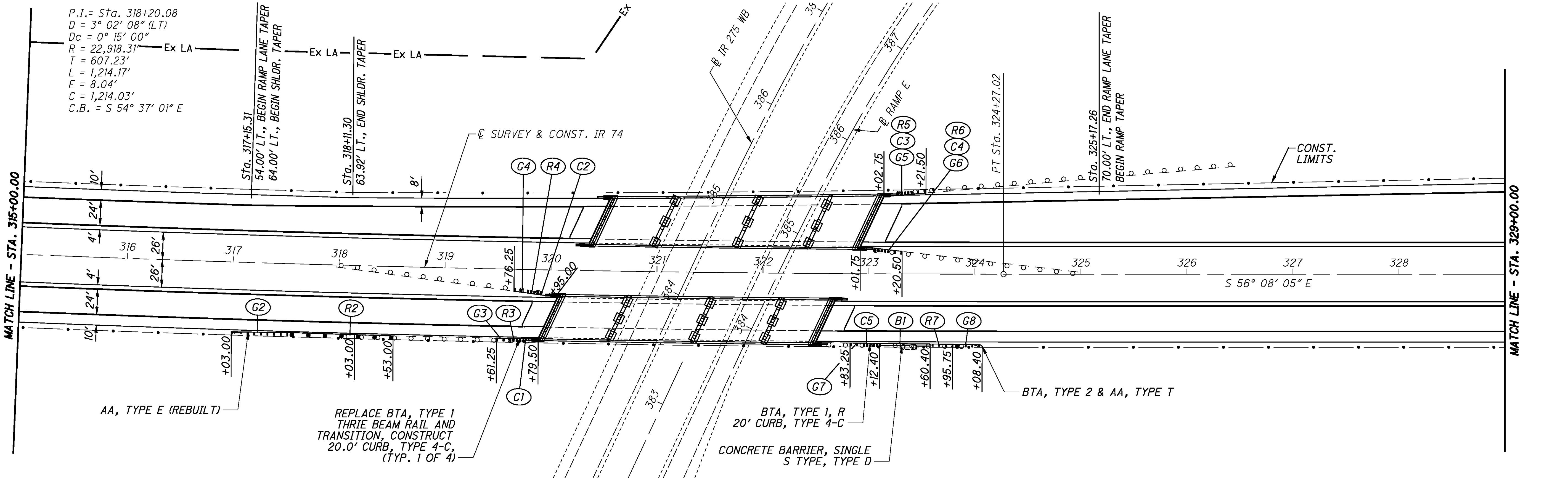
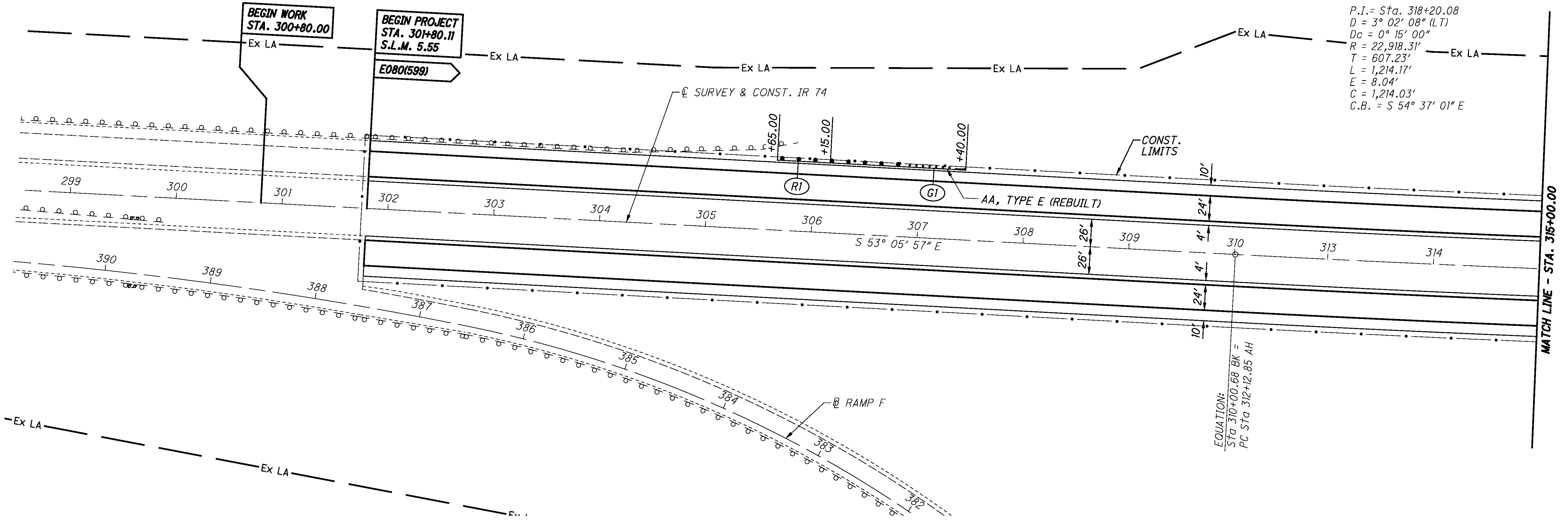
CALCULATED  
 EGD  
 CHECKED  
 CTW

PLAN - IR 74  
 STA. 298+50.00 TO STA. 329+00.00

HAM-74-5.53

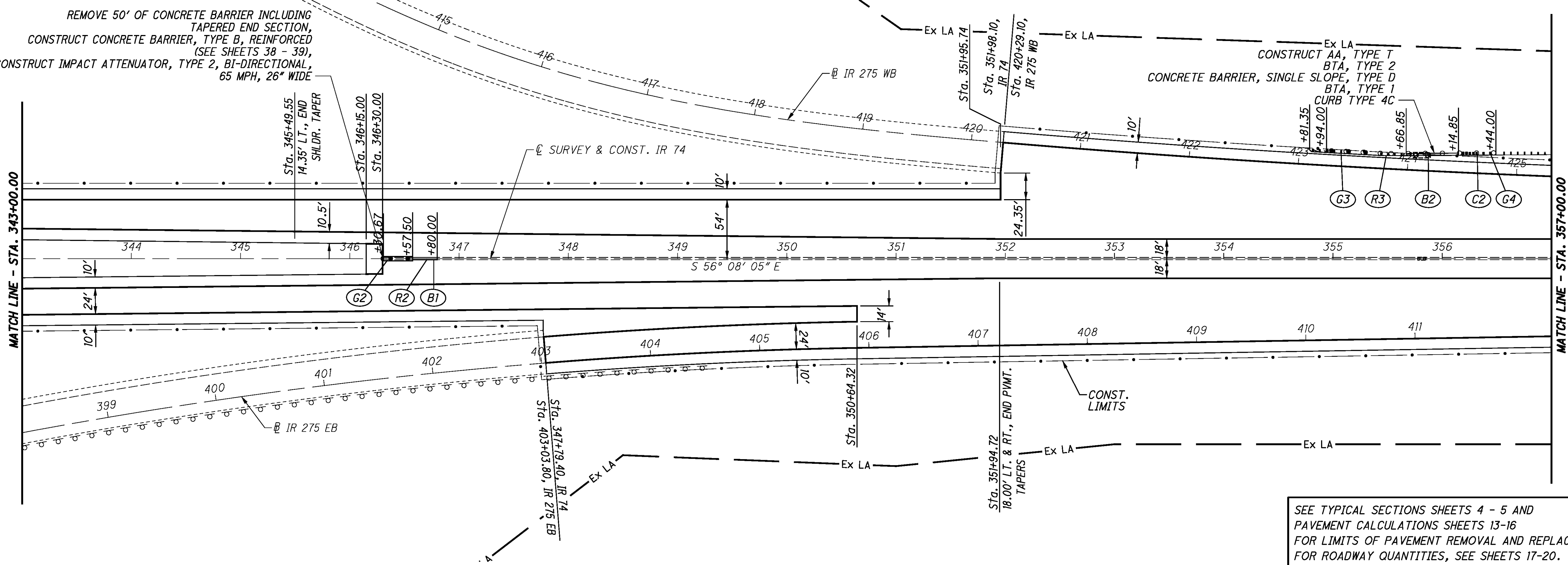
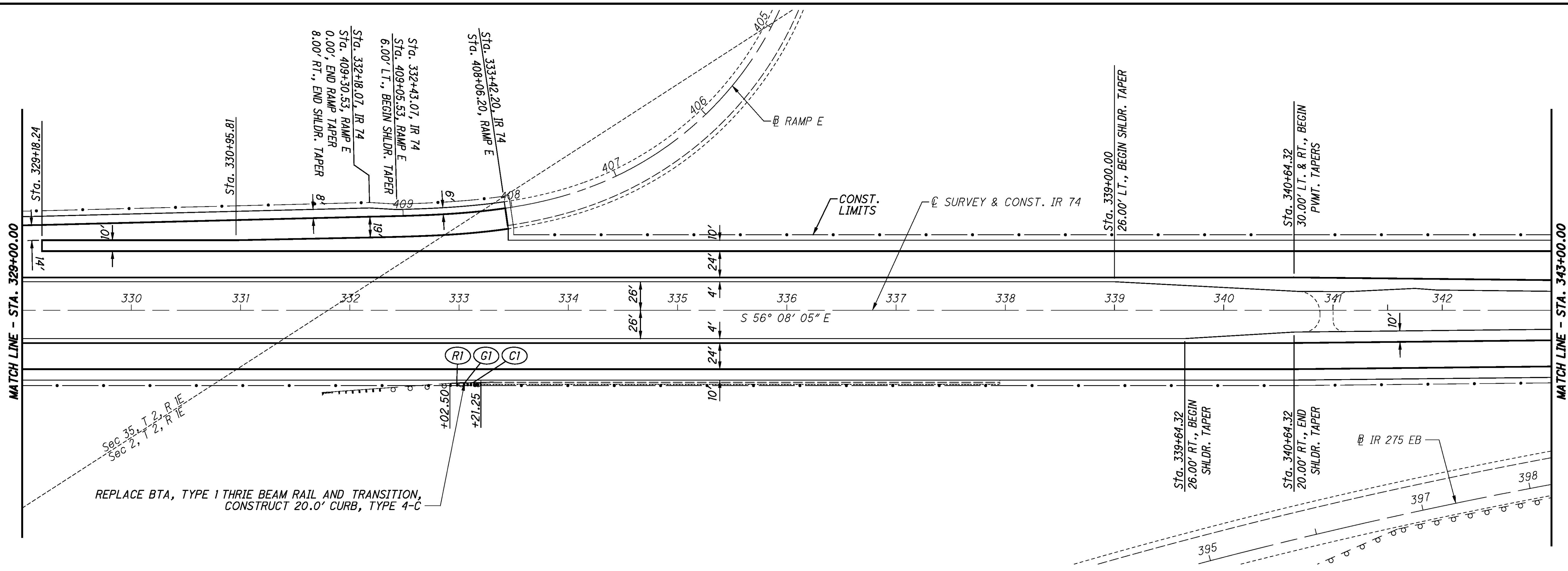
21  
 118

P.I. = Sta. 318+20.08  
 D = 3° 02' 08" (LT)  
 Dc = 0° 15' 00"  
 R = 22,918.31'  
 T = 607.23'  
 L = 1,214.17'  
 E = 8.04'  
 C = 1,214.03'  
 C.B. = S 54° 37' 01" E



SEE TYPICAL SECTIONS SHEETS 4 - 5 AND  
 PAVEMENT CALCULATIONS SHEETS 13-16  
 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT.  
 FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.

P:\2010\HAM\B3011\roadway\_sheets\B3011GP001.dgn 1/16/2012 2:20:13 PM 14:30:time



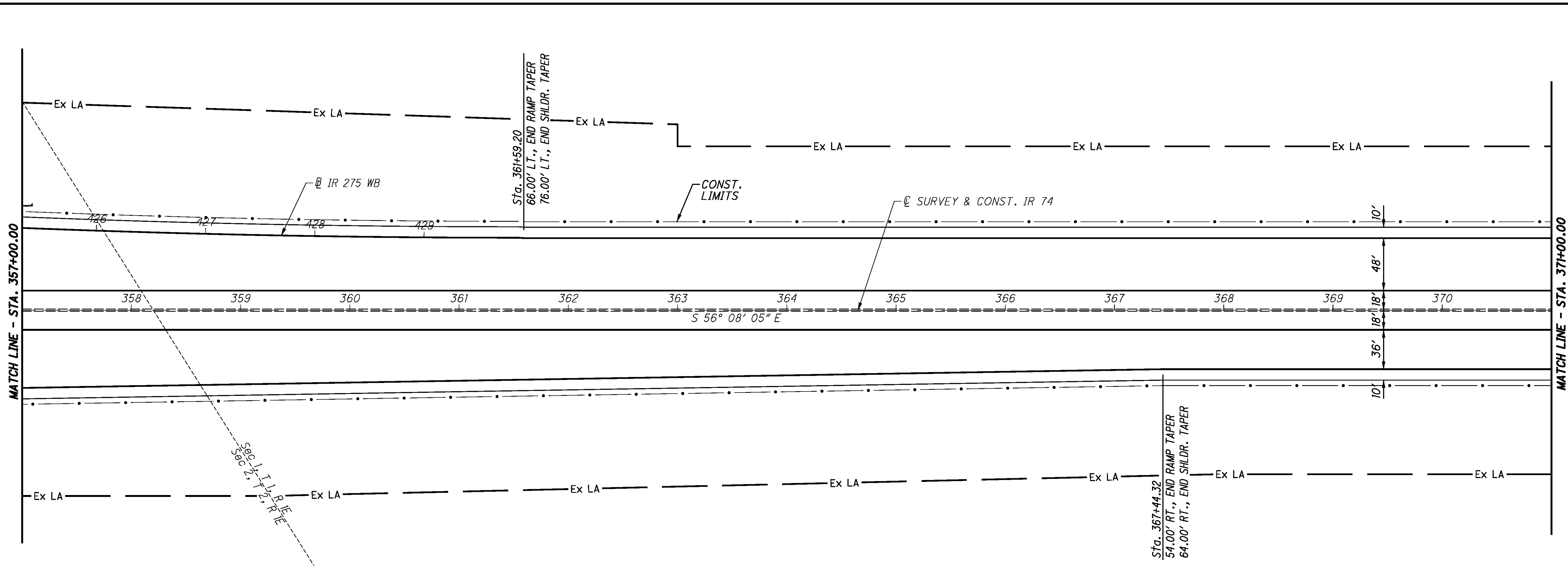
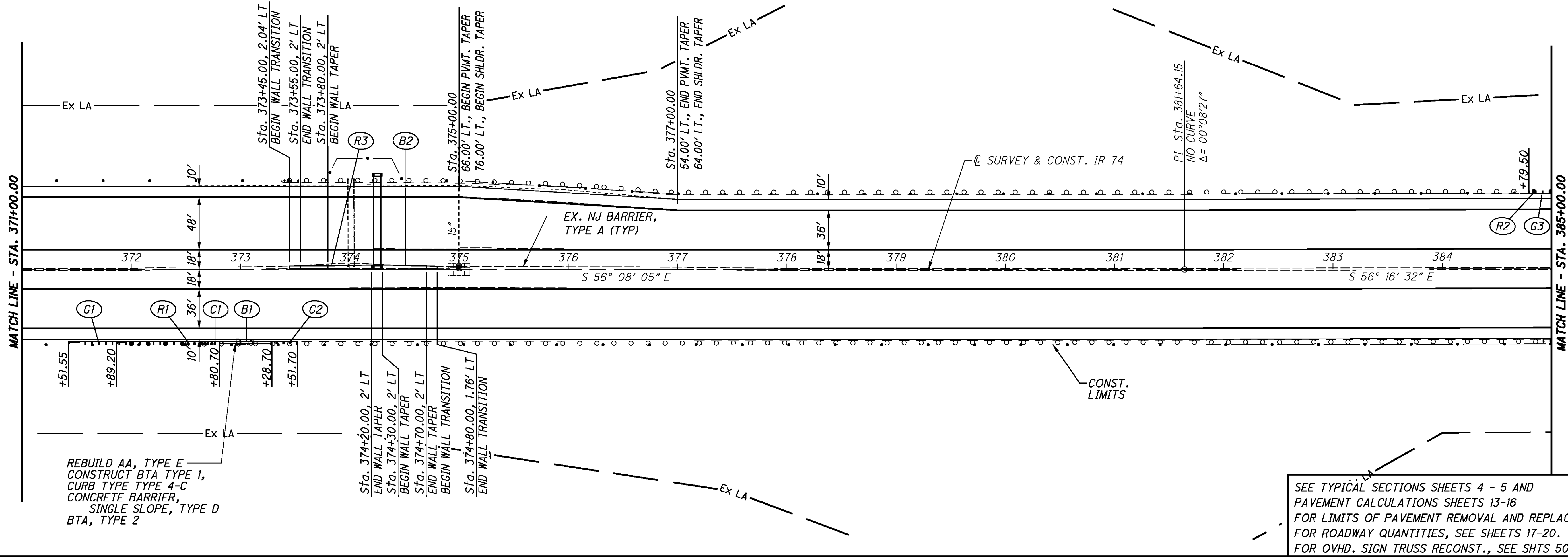
SEE TYPICAL SECTIONS SHEETS 4 - 5 AND PAVEMENT CALCULATIONS SHEETS 13-16 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT. FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.

CALCULATED  
EGD  
CHECKED  
CTW

HORIZONTAL SCALE IN FEET

PLAN - IR 74  
STA. 329+00.00 TO STA. 357+00.00

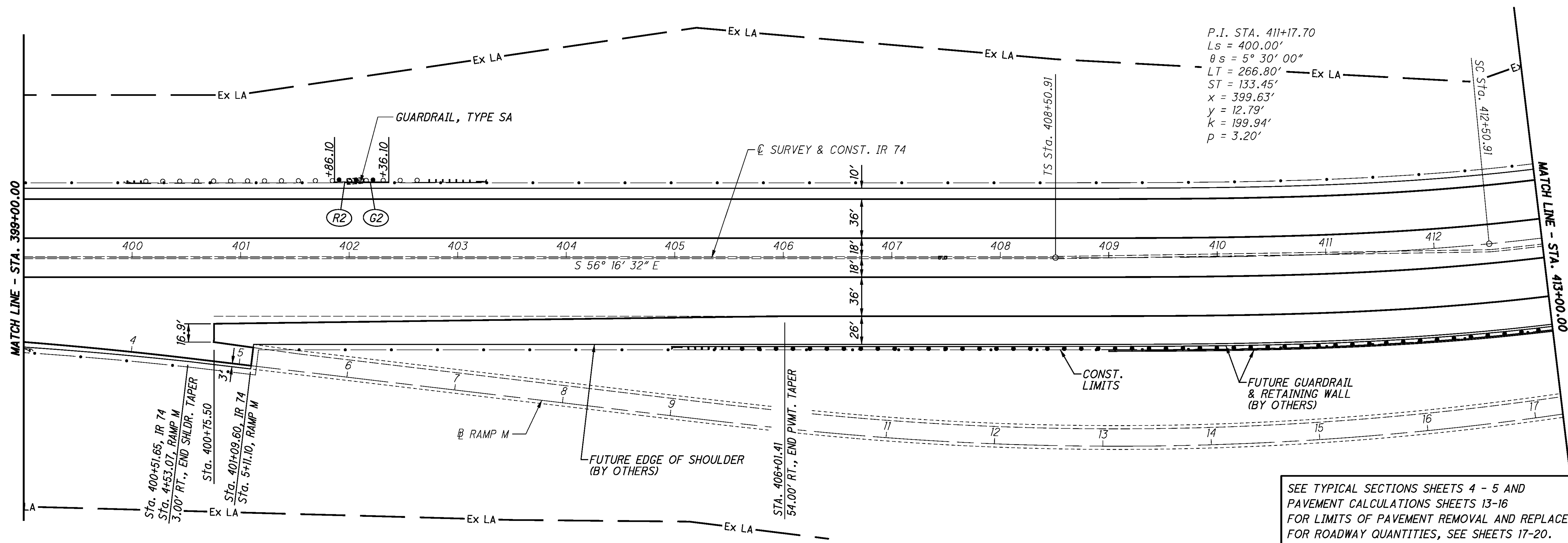
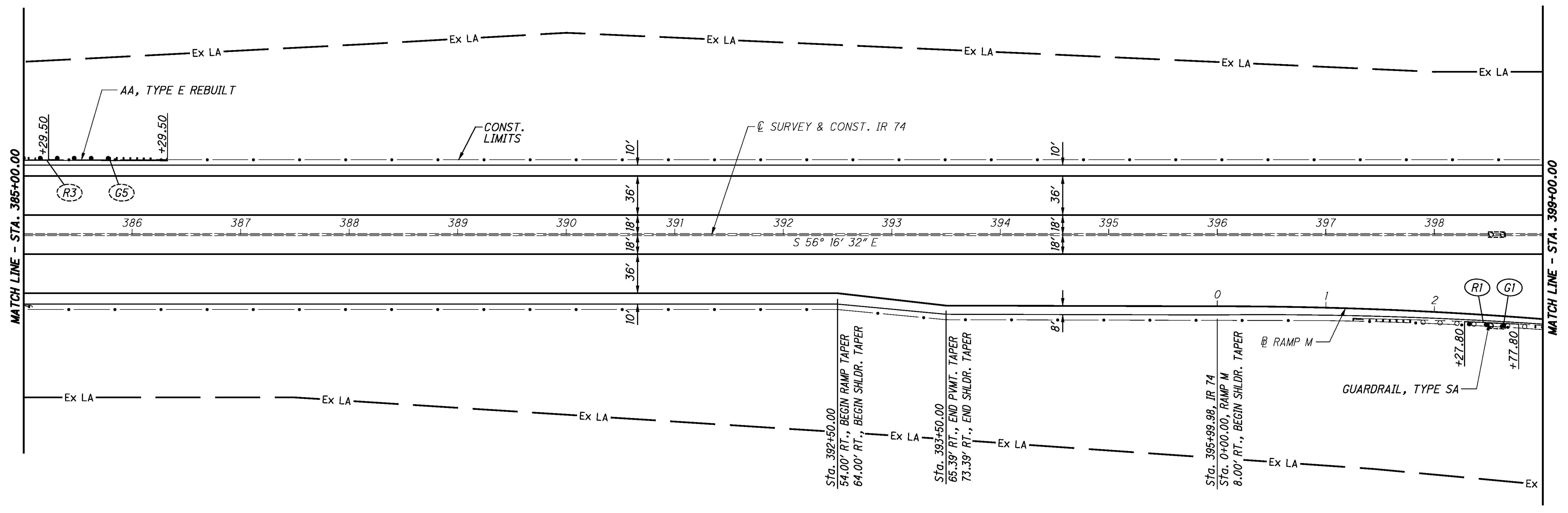
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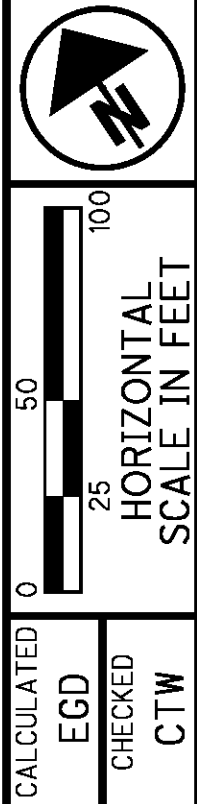
PLAN - IR 74  
STA. 357+00.00 TO STA. 385+00.00

HAM-74-5.53





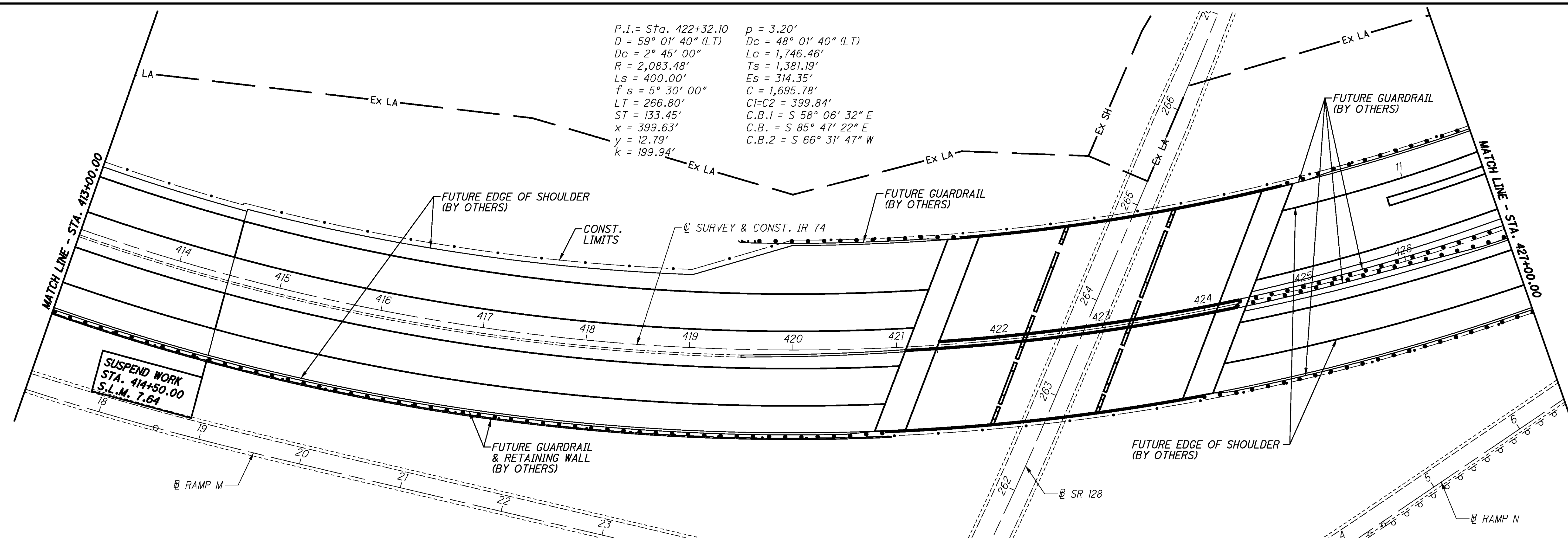
SEE TYPICAL SECTIONS SHEETS 4 - 5 AND  
PAVEMENT CALCULATIONS SHEETS 13-16  
FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT.  
FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.



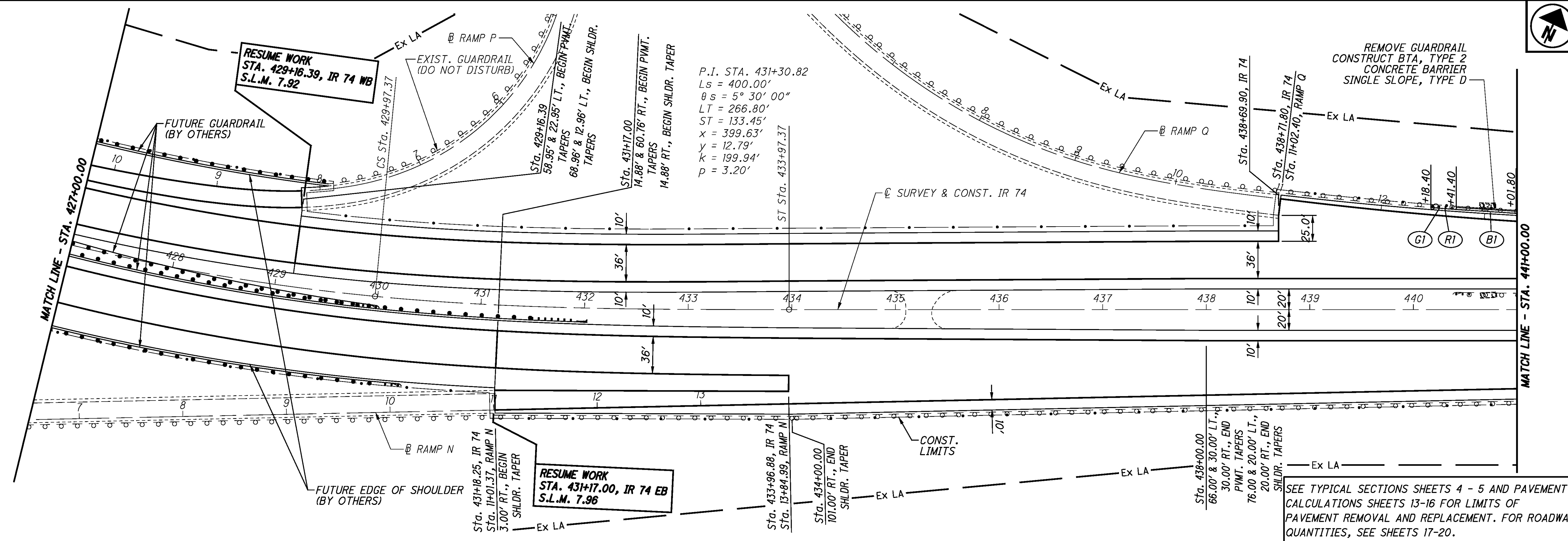
**PLAN - IR 74**  
**STA. 385+00.00 TO STA. 413+00.00**

**HAM-74-5.53**

P.I. = Sta. 422+32.10    p = 3.20'  
 D = 59° 01' 40" (LT)    Dc = 48° 01' 40" (LT)  
 Dc = 2° 45' 00"    Lc = 1,746.46'  
 R = 2,083.48'    Ts = 1,381.19'  
 Ls = 400.00'    Es = 314.35'  
 fs = 5° 30' 00"    C = 1,695.78'  
 LT = 266.80'    C1=C2 = 399.84'  
 ST = 133.45'    C.B.1 = S 58° 06' 32" E  
 x = 399.63'    C.B. = S 85° 47' 22" E  
 y = 12.79'    C.B.2 = S 66° 31' 47" W  
 k = 199.94'



P.I. STA. 431+30.82  
 Ls = 400.00'  
 fs = 5° 30' 00"  
 LT = 266.80'  
 ST = 133.45'  
 x = 399.63'  
 y = 12.79'  
 k = 199.94'  
 p = 3.20'



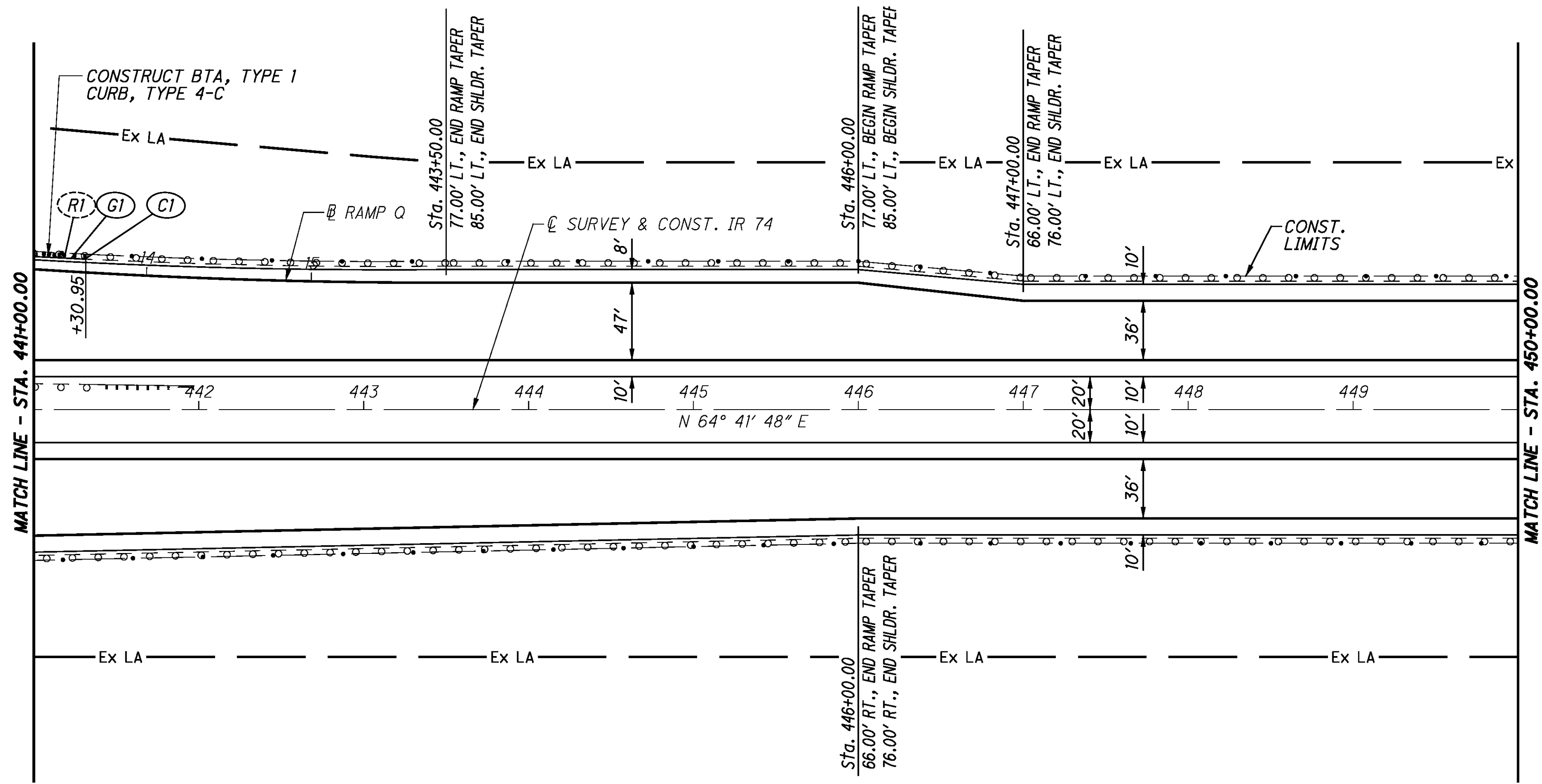
SEE TYPICAL SECTIONS SHEETS 4 - 5 AND PAVEMENT CALCULATIONS SHEETS 13-16 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT. FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.

CALCULATED  
 EGD  
 CHECKED  
 CTW

PLAN - IR 74  
 STA. 413+00.00 TO STA. 441+00.00

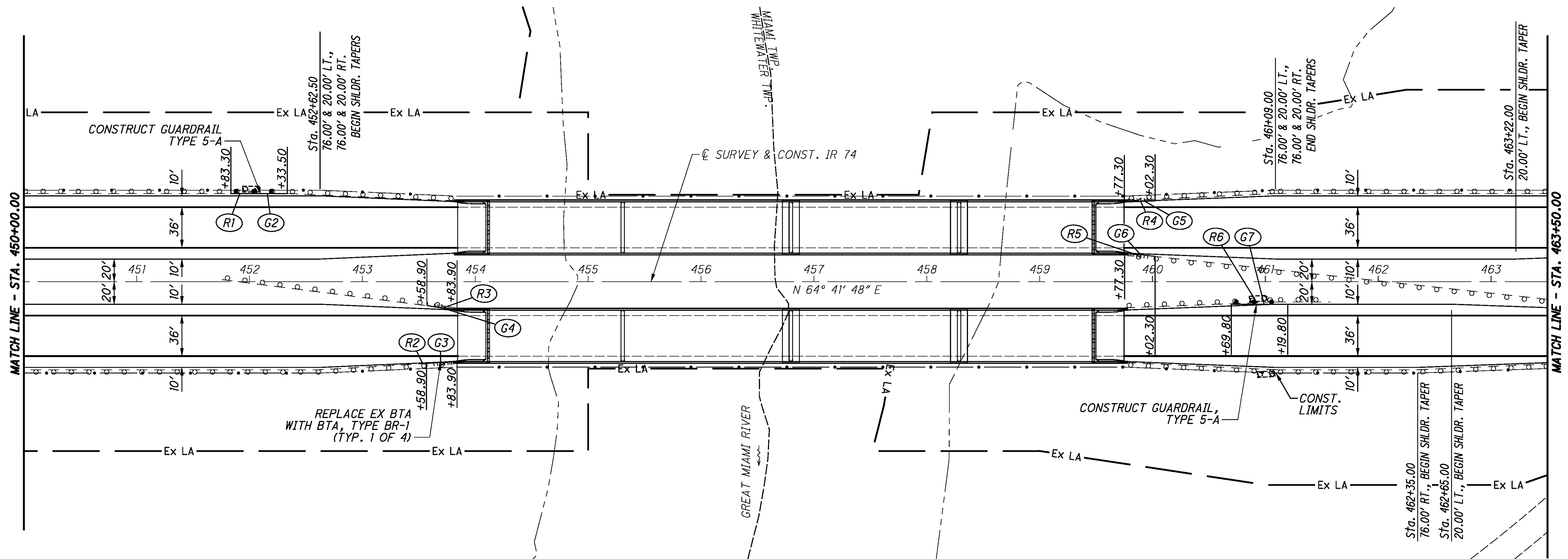
HAM-74-5.53

P:\2010\HAM\B3011\roadway\_sheets\B3011GP005.dgn 1/16/2012 2:35:18 PM 14:30:1me



SEE TYPICAL SECTIONS SHEETS 4 - 5 AND PAVEMENT CALCULATIONS SHEETS 13-16 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT. FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.

SEE SHEET 32 FOR PROFILES.  
SEE SHEETS 33-36 FOR CROSS SECTIONS.



CALCULATED EGD CHECKED CTW

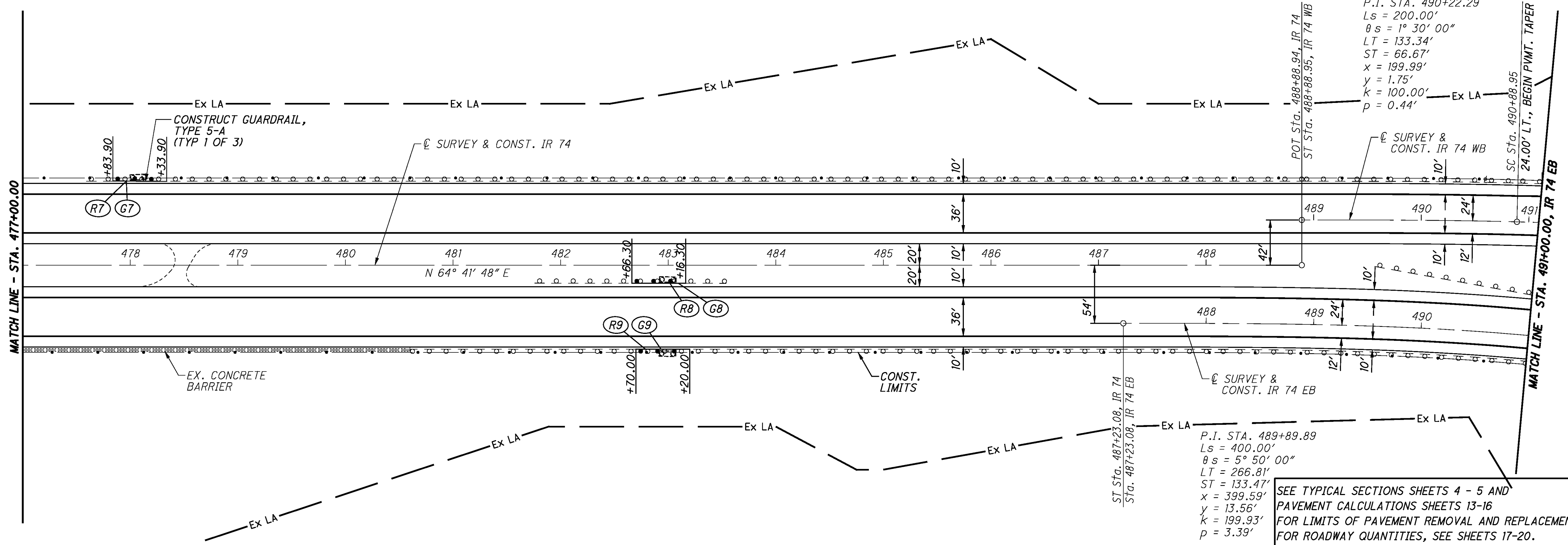
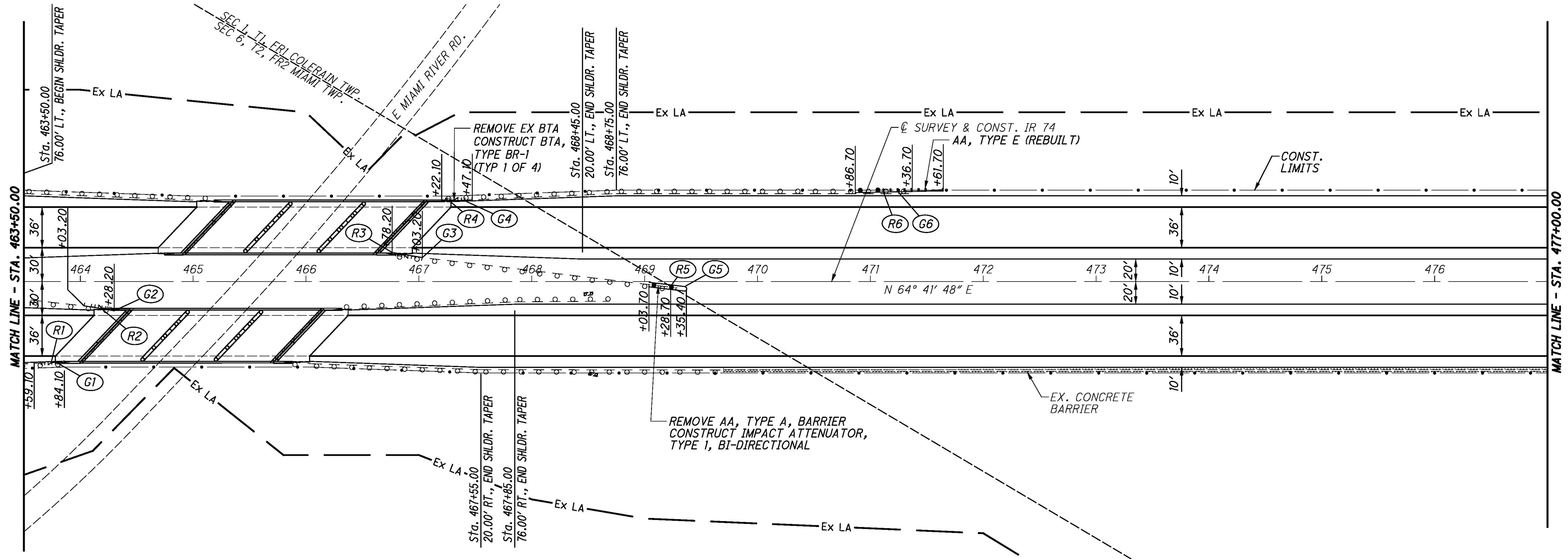
**PLAN - IR 74**  
**STA. 441+00.00 TO STA. 463+50.00**

P:\2010\HAM\B3011\roadway\_sheets\B3011GP007.dgn 1/16/2012 2:41:02 PM 14:30tme

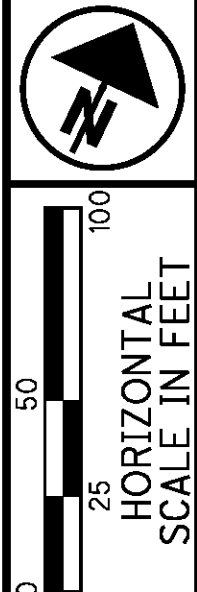


PLAN - IR 74  
STA. 463+50.00 TO STA. 491+00.00, EB

HAM-74-5.53



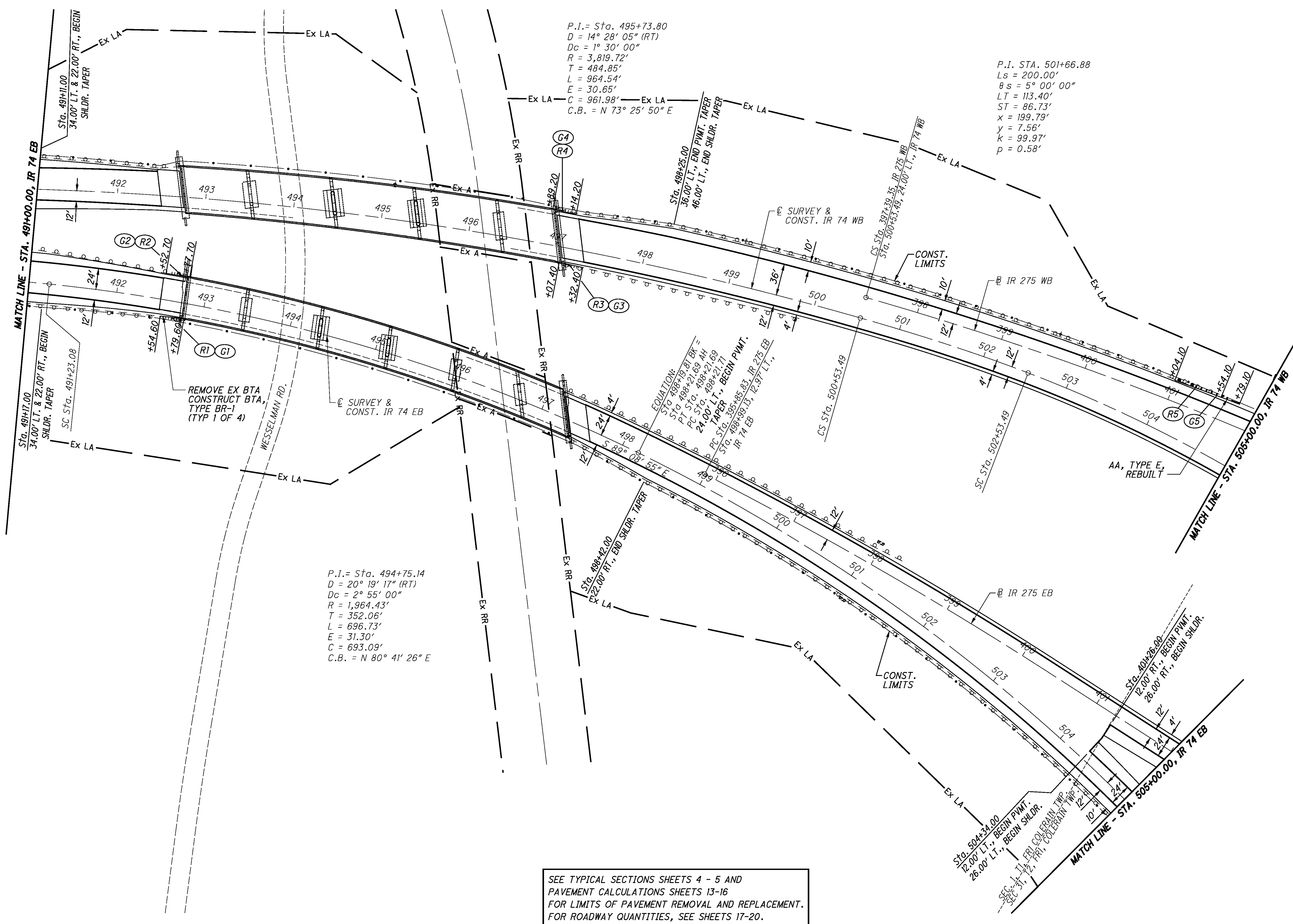
SEE TYPICAL SECTIONS SHEETS 4 - 5 AND PAVEMENT CALCULATIONS SHEETS 13-16 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT. FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.



CALCULATED  
EGD  
CHECKED  
CTW

**PLAN - IR 74**  
**STA. 491+00.00, EB TO STA. 505+00.00, EB AND WB**

**HAM-74-5.53**



P.I. = Sta. 495+73.80  
 D = 14° 28' 05" (RT)  
 Dc = 1° 30' 00"  
 R = 3,819.72'  
 T = 484.85'  
 L = 964.54'  
 E = 30.65'  
 C = 961.98'  
 C.B. = N 73° 25' 50" E

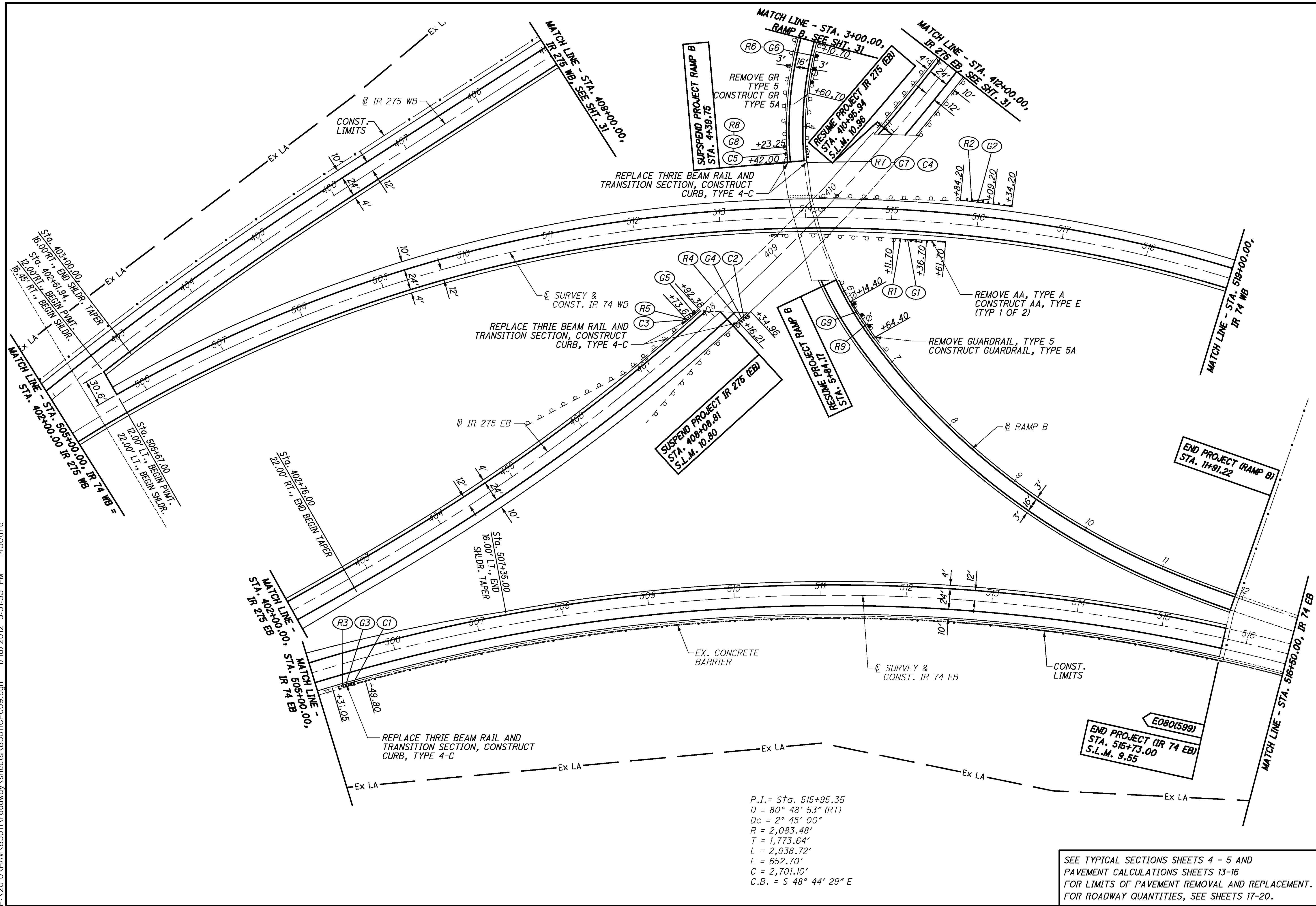
P.I. STA. 501+66.88  
 Ls = 200.00'  
 θs = 5° 00' 00"  
 LT = 113.40'  
 ST = 86.73'  
 x = 199.79'  
 y = 7.56'  
 k = 99.97'  
 p = 0.58'

P.I. = Sta. 494+75.14  
 D = 20° 19' 17" (RT)  
 Dc = 2° 55' 00"  
 R = 1,964.43'  
 T = 352.06'  
 L = 696.73'  
 E = 31.30'  
 C = 693.09'  
 C.B. = N 80° 41' 26" E

EQUATION:  
 STA. 498+19.87 BK =  
 PT STA. 498+21.69 AH =  
 FC STA. 498+21.69  
 TAPER  
 24' 00" LT., BEGIN  
 STA. 498+19.87 IR 74 EB  
 STA. 498+19.87 IR 74 WB  
 STA. 498+19.87 IR 74 WB

SEE TYPICAL SECTIONS SHEETS 4 - 5 AND  
 PAVEMENT CALCULATIONS SHEETS 13-16  
 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT.  
 FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.

P:\2010\HAM\83011\roadway\_sheets\83011GP009.dgn 1/16/2012 3:31:55 PM 14:30tme



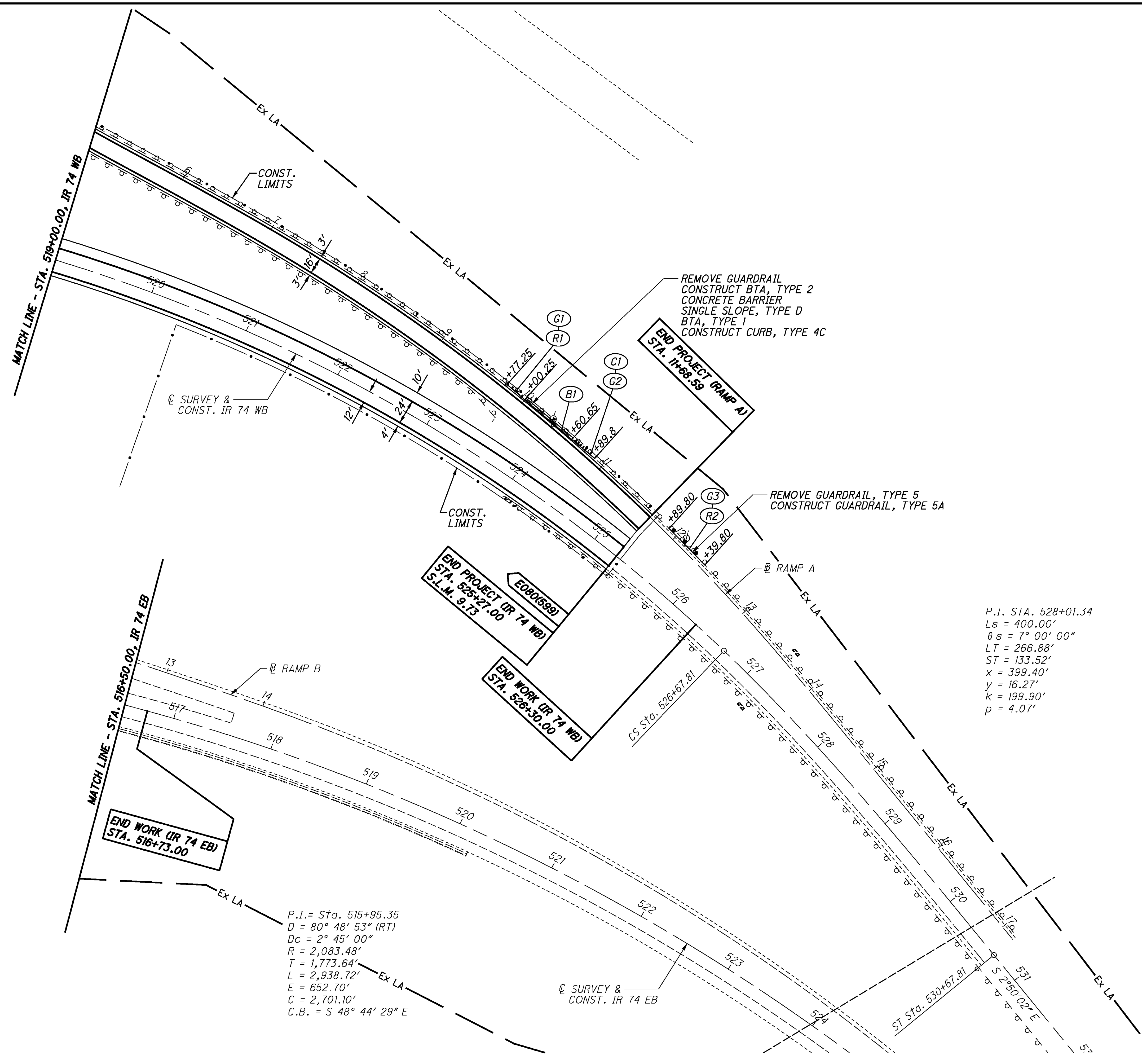
CALCULATED EGD CHECKED CTW  
**PLAN - IR 74**  
**STA. 505+00.00, EB AND WB TO**  
**STA. 516+50.00, EB AND STA. 519+00.00, WB**

**HAM-74-5.53**  
 29  
 118

P.I. = Sta. 515+95.35  
 D = 80° 48' 53" (RT)  
 Dc = 2° 45' 00"  
 R = 2,083.48'  
 T = 1,773.64'  
 L = 2,938.72'  
 E = 652.70'  
 C = 2,701.10'  
 C.B. = S 48° 44' 29" E

SEE TYPICAL SECTIONS SHEETS 4 - 5 AND  
 PAVEMENT CALCULATIONS SHEETS 13-16  
 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT.  
 FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.

P:\2010\HAM\B3011\roadway\_sheets\B3011GP010.dgn 1/16/2012 3:32:41 PM 14:30:time



END WORK (IR 74 EB)  
STA. 516+73.00

END PROJECT (IR 74 WB)  
STA. 525+27.00  
S.I.M. 9.73

END WORK (IR 74 WB)  
STA. 526+30.00

END PROJECT (RAMP A)  
STA. 11+88.59

P.I. = Sta. 515+95.35  
 D = 80° 48' 53" (RT)  
 Dc = 2° 45' 00"  
 R = 2,083.48'  
 T = 1,773.64'  
 L = 2,938.72'  
 E = 652.70'  
 C = 2,701.10'  
 C.B. = S 48° 44' 29" E

P.I. STA. 528+01.34  
 Ls = 400.00'  
 θs = 7° 00' 00"  
 LT = 266.88'  
 ST = 133.52'  
 x = 399.40'  
 y = 16.27'  
 k = 199.90'  
 p = 4.07'

SEE TYPICAL SECTIONS SHEETS 4 - 5 AND  
 PAVEMENT CALCULATIONS SHEETS 13-16  
 FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT.  
 FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.



PLAN - IR 74  
 STA. 516+50.00 TO STA. 524+25.00, EB AND  
 STA. 519+00.00 TO STA. 531+50.00, WB

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MATCH LINE - STA. 409+00.00, IR 275 WB, SEE SHT. 29

REMOVE GUARDRAIL, TYPE 5  
CONSTRUCT GUARDRAIL, TYPE 5A  
TYPICAL 1 OF 2

MATCH RAMP B - STA. 3+00.00,  
IR 275 EB, SEE SHT. 29

MATCH LINE - STA. 412+00.00,  
IR 275 EB, SEE SHT. 29

BEGIN PROJECT (RAMP A)  
STA. 2+46.32

MATCH LINE -  
STA. 5+00.00, RAMP A

END PROJECT (IR 275 WB)  
STA. 414+54.61  
S.L.M. 10.82

END WORK (IR 275 WB)  
STA. 415+55.00

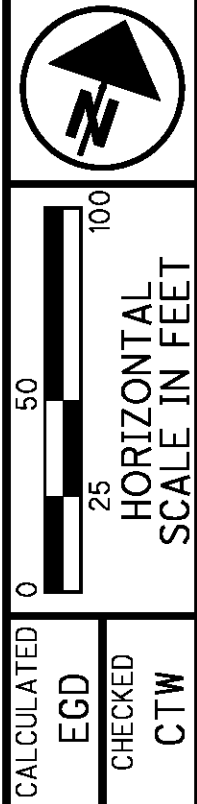
END PROJECT (IR 275 EB)  
STA. 413+52.55  
S.L.M. 10.80

BEGIN PROJECT (RAMP B)  
STA. 0+00.00

END WORK (IR 275 EB)  
STA. 414+55.00

REPLACE THRIE BEAM RAIL AND  
TRANSITION SECTION, CONSTRUCT  
CURB, TYPE 4-C  
TYPICAL 1 OF 4

HARRISON PIKE



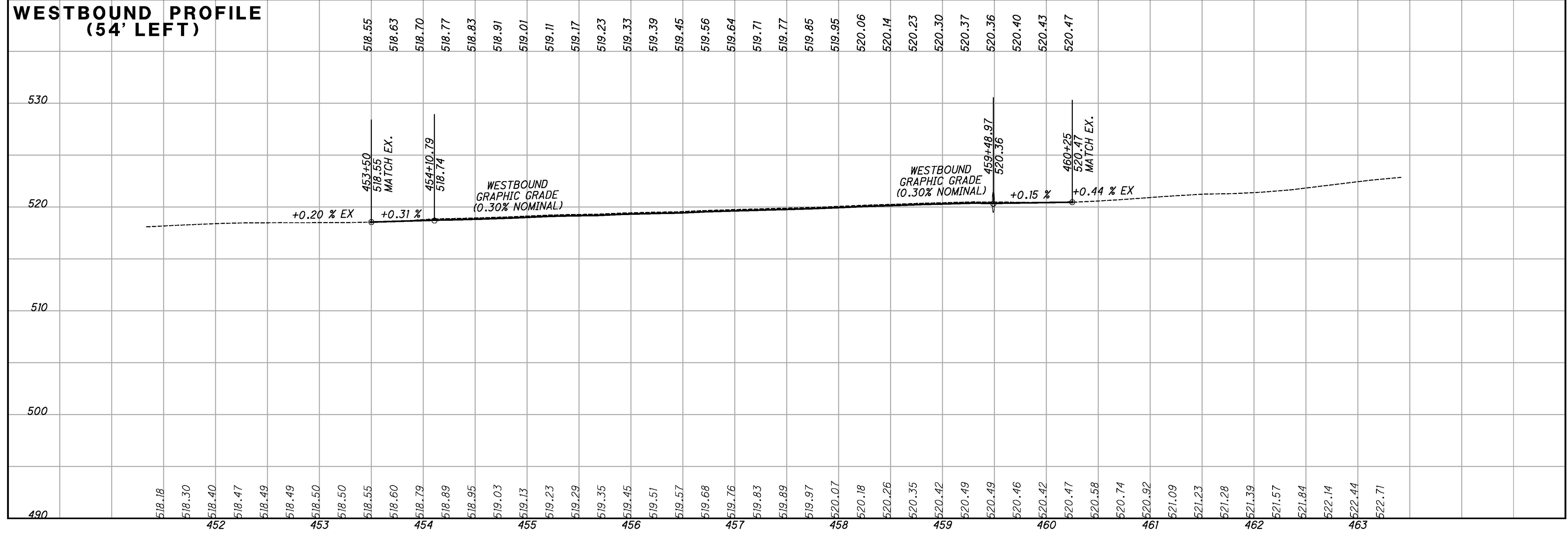
PLAN - IR 74  
STA. 412+00.00 TO STA. 421+00.00, EB AND  
STA. 409+00.00 TO STA. 421+00.00, WB

HAM-74-5.53

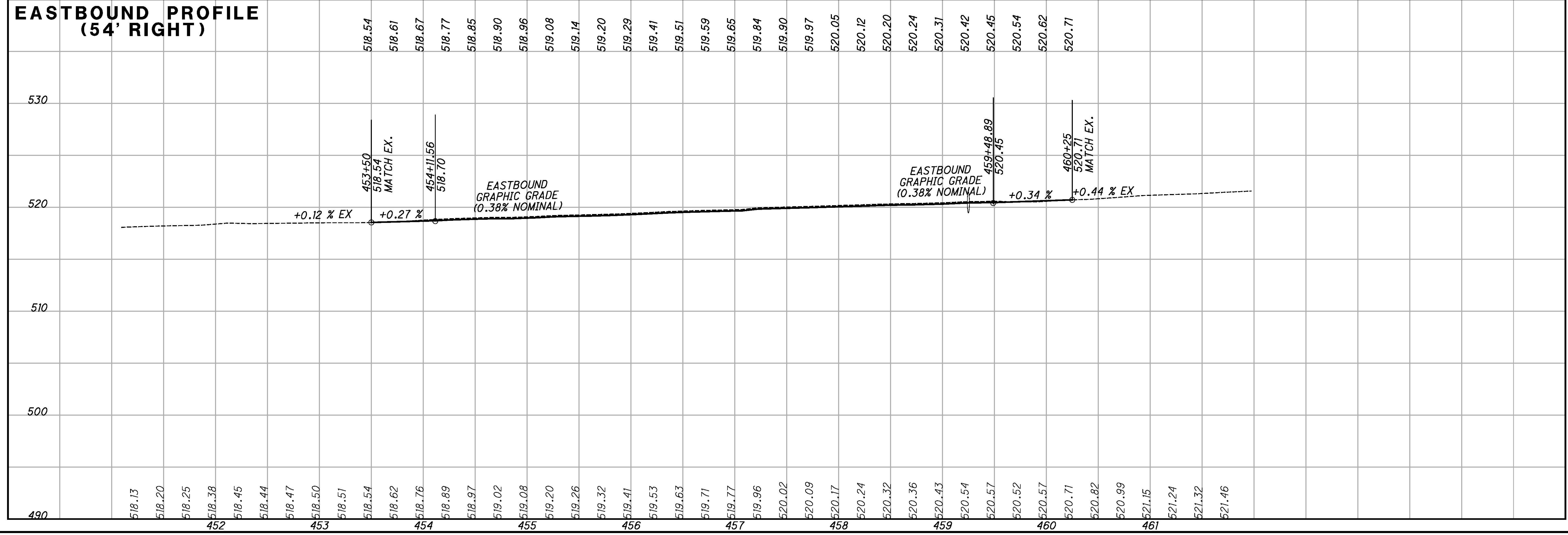
SEE TYPICAL SECTIONS SHEETS 4 - 5 AND  
PAVEMENT CALCULATIONS SHEETS 13-16  
FOR LIMITS OF PAVEMENT REMOVAL AND REPLACEMENT.  
FOR ROADWAY QUANTITIES, SEE SHEETS 17-20.



### WESTBOUND PROFILE (54' LEFT)



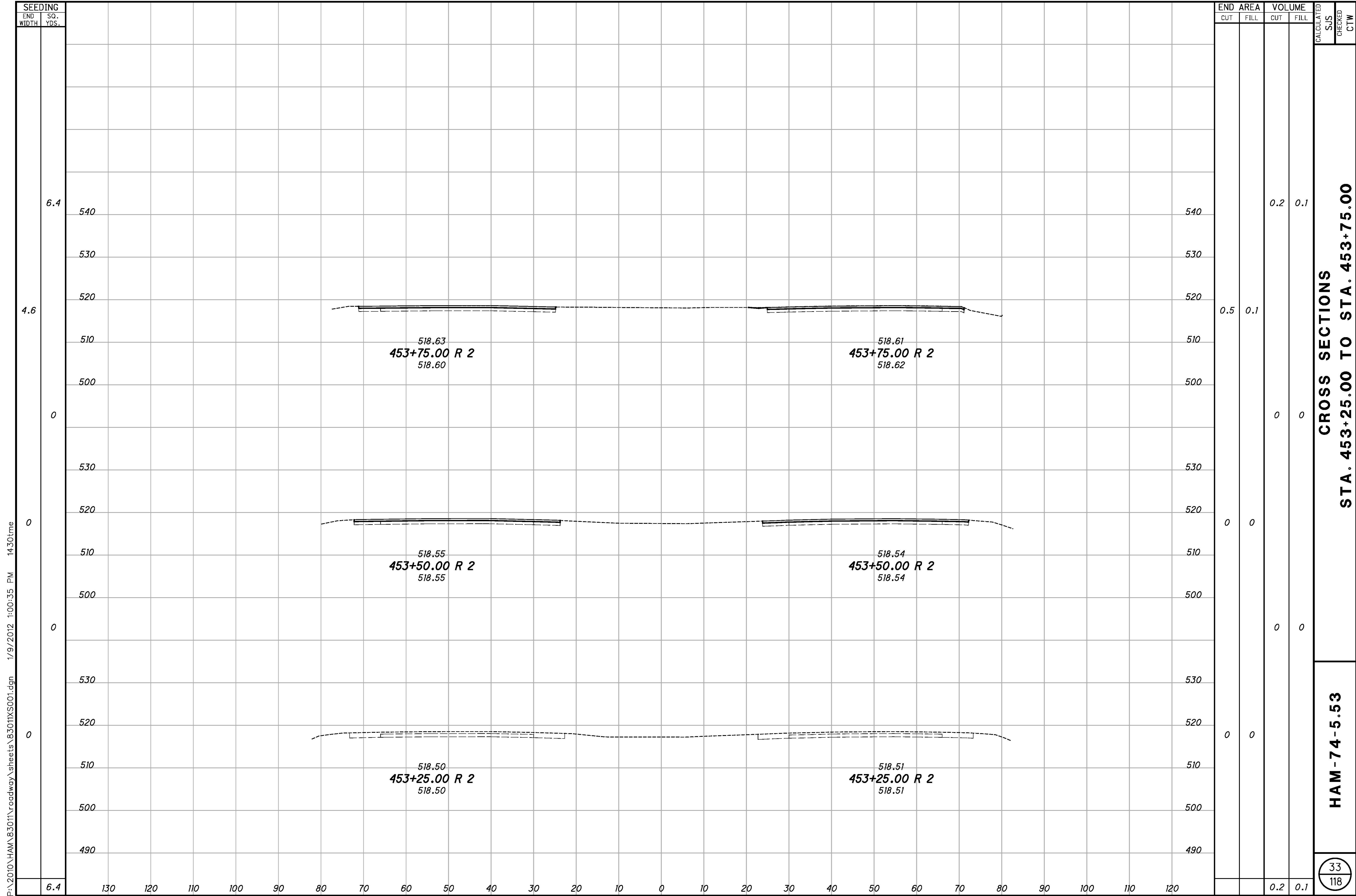
### EASTBOUND PROFILE (54' RIGHT)



CALCULATED  
SJS  
CHECKED  
CTW

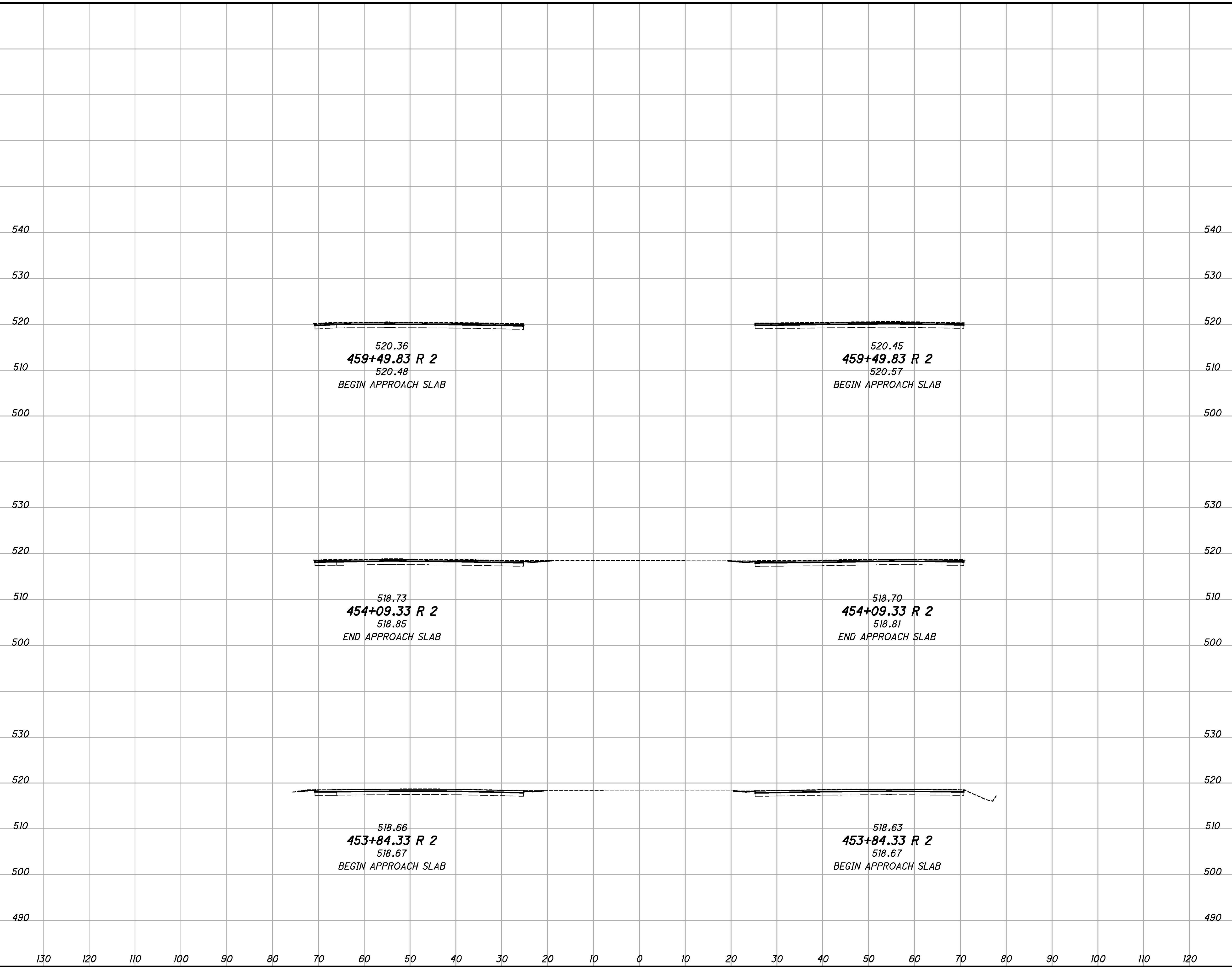
PROFILE  
STA. 451+50.00 TO STA. 463+25.00

HAM-74-5.53



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SEEDING	
END WIDTH	SQ. YDS.
43.7	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
0	0	1.7	0
2.2	0	0.3	0
1.5	0	2.0	0

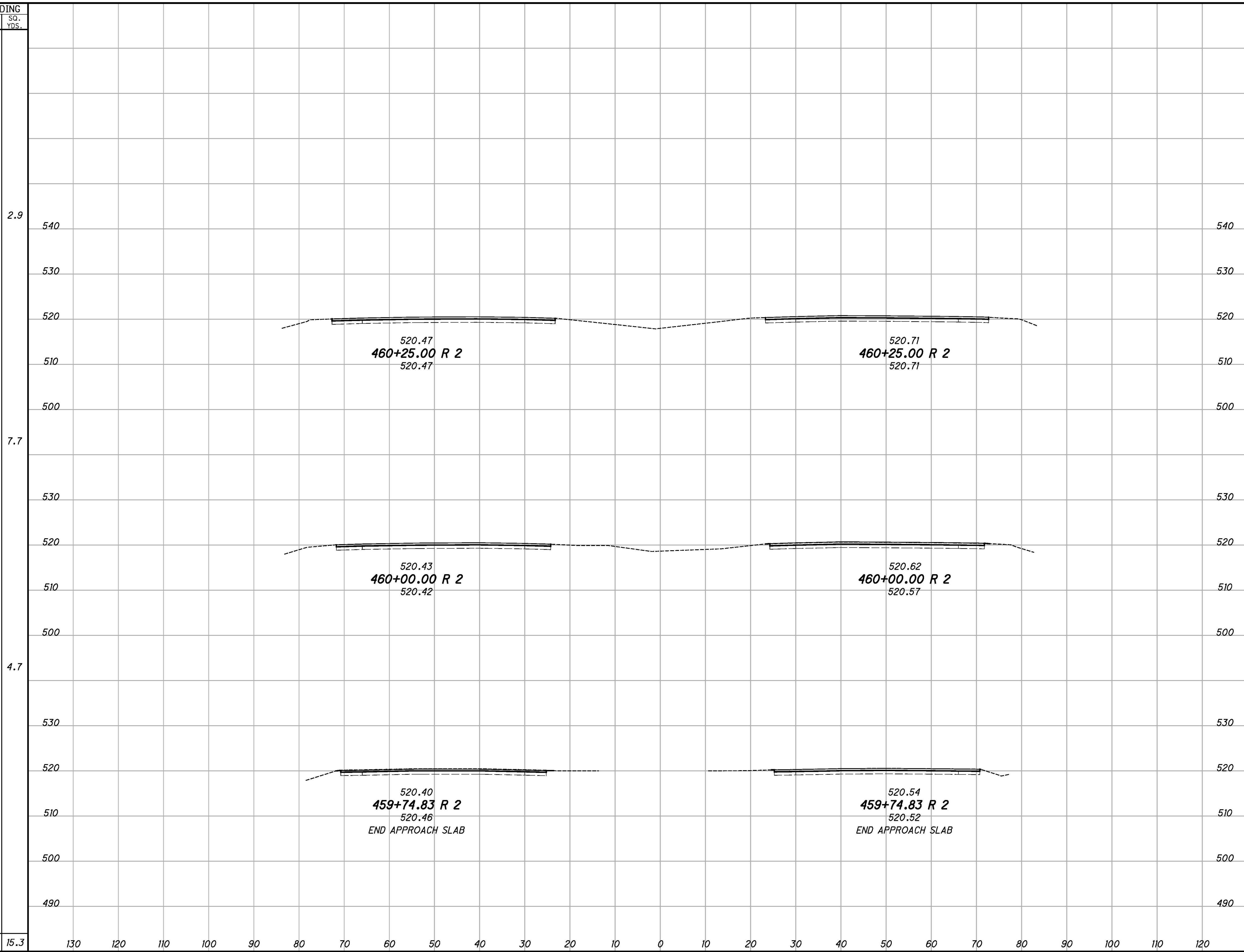
**CROSS SECTIONS**  
**STA. 453+84.33 TO STA. 459+49.83**

**HAM-74-5.53**

34  
118

P:\2010\HAM\83011\roadway\_sheets\83011XS001.dgn 1/9/2012 12:58:05 PM 14:30:me

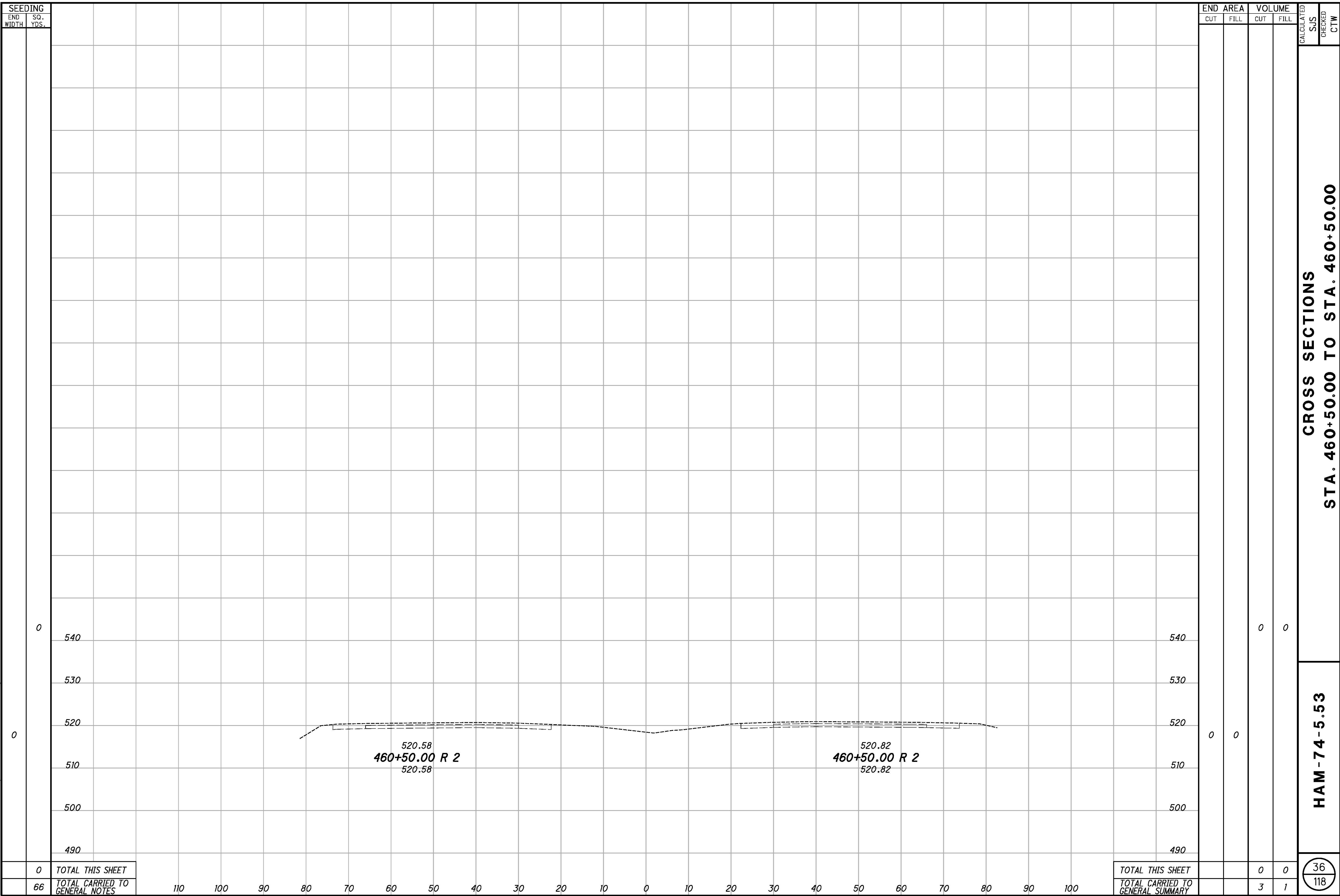
SEEDING	
END WIDTH	SQ. YDS.
15.3	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
0	0.1	0	0.1
0	0.1	0	0.1
0.2	0	0.2	0
0.2	0	0.2	0

CROSS SECTIONS  
 STA. 459+74.83 TO STA. 460+25.00  
 HAM-74-5.53  
 35  
 118

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SEEDING	
END WIDTH	SQ. YDS.
0	

END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	SJS	CTW
0	0	0	0		

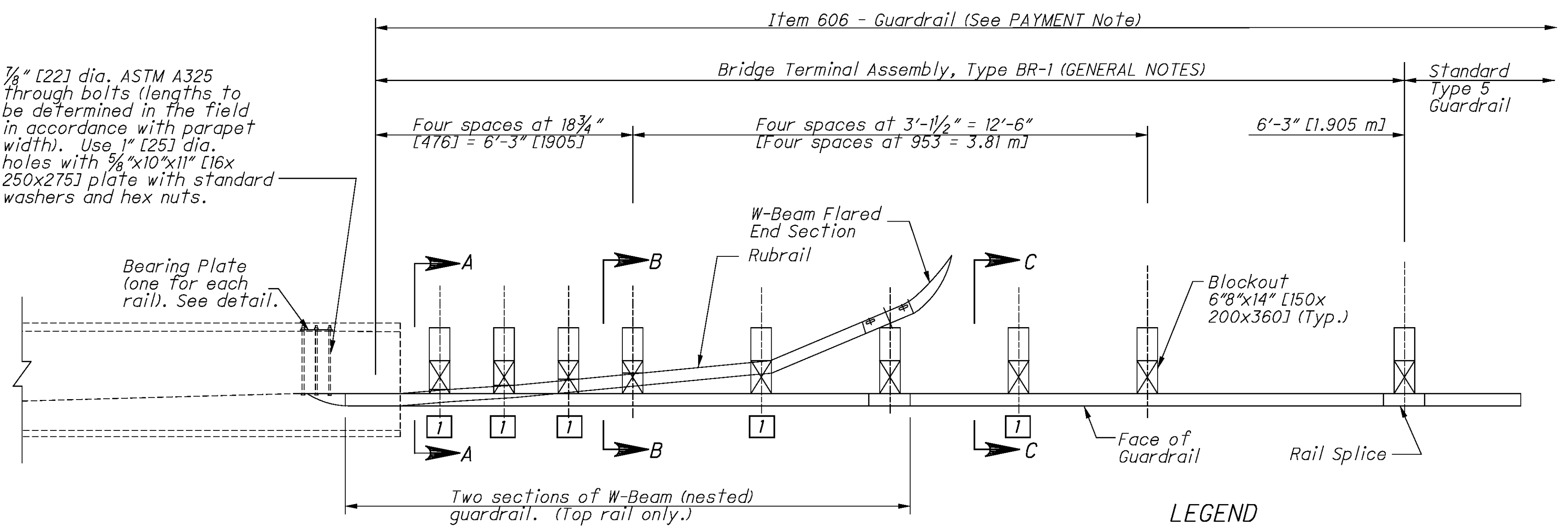
0	TOTAL THIS SHEET
66	TOTAL CARRIED TO GENERAL NOTES

	TOTAL THIS SHEET	0	0
	TOTAL CARRIED TO GENERAL SUMMARY	3	1

**CROSS SECTIONS  
STA. 460+50.00 TO STA. 460+50.00**

**HAM-74-5.53**

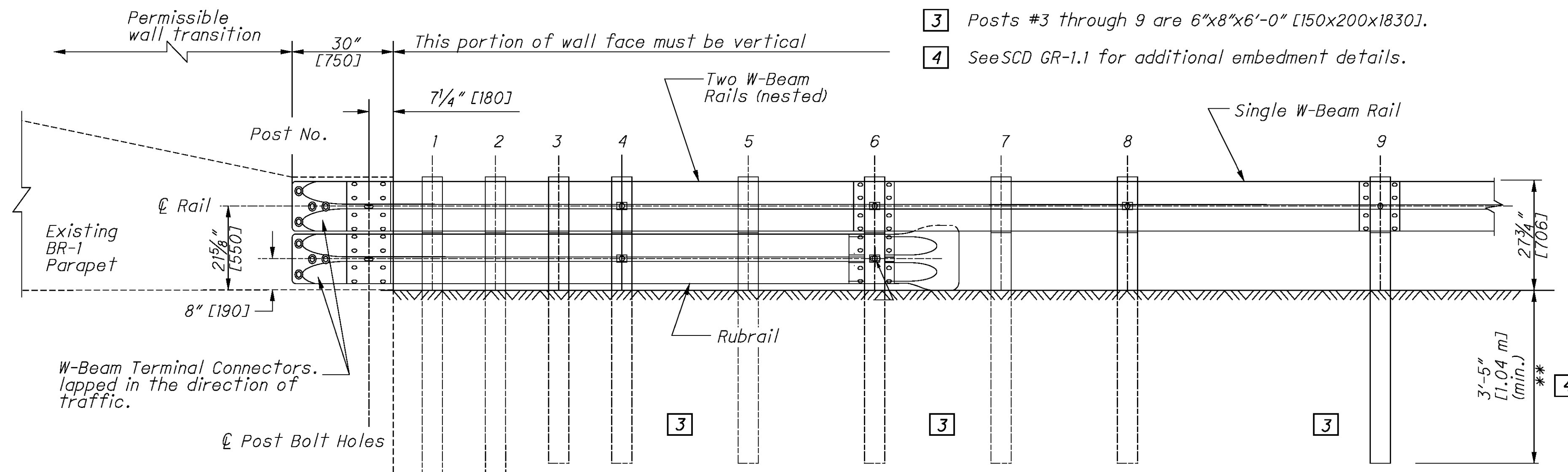
36  
118



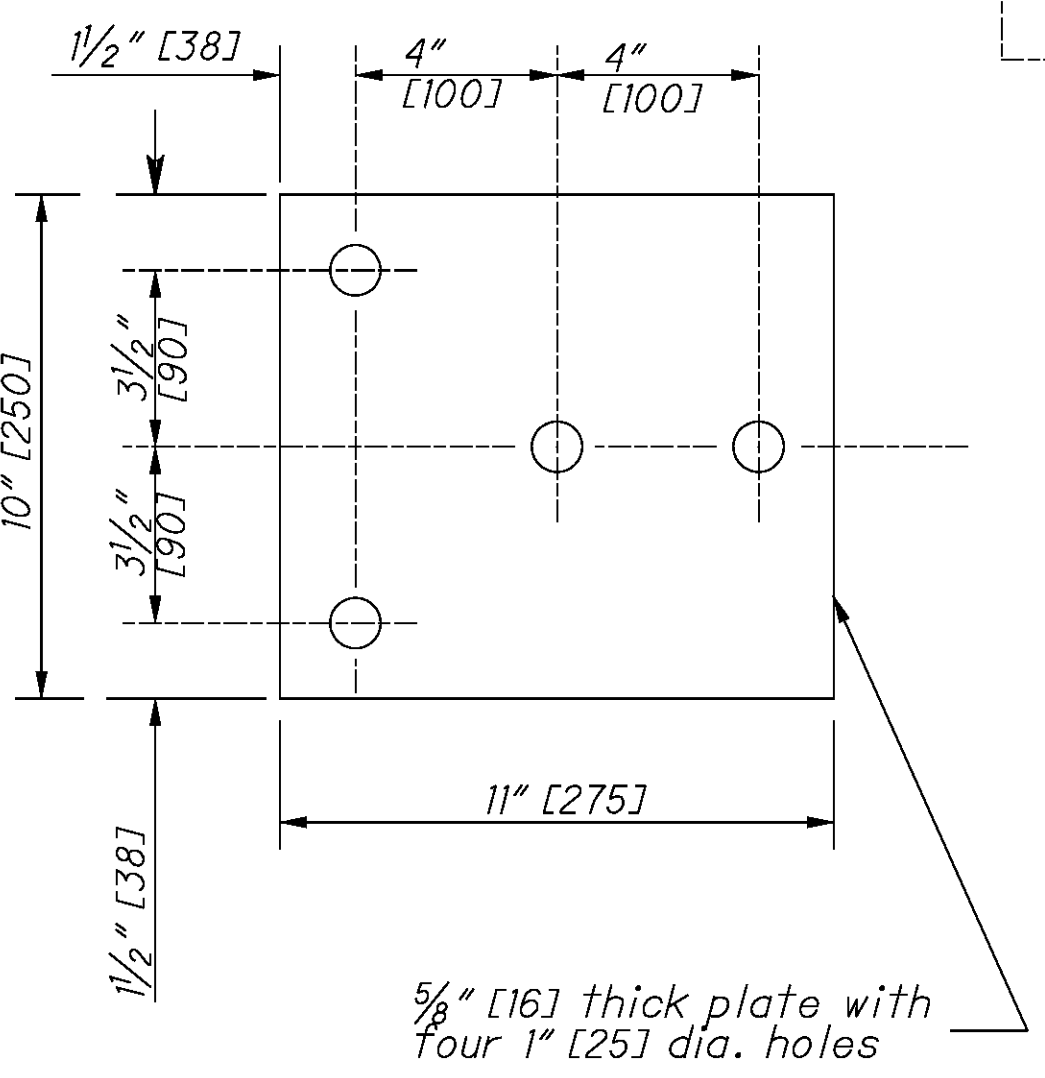
PLAN

LEGEND

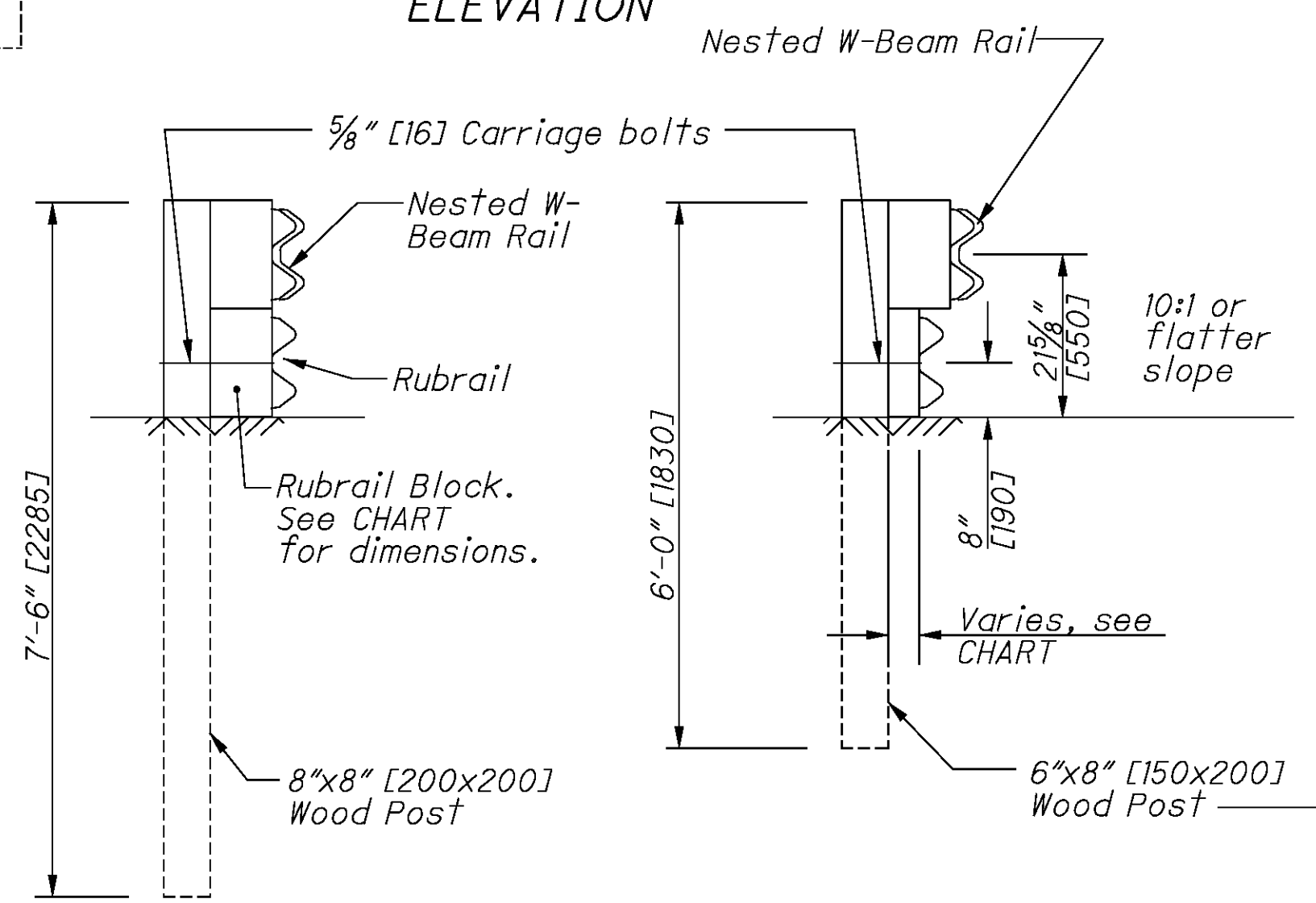
- 1 Guardrail not attached to Posts. Blockout fastened to Post with Standard Post Bolt.
- 2 Posts #1 and 2 are 8"x8"x7'-6" [150x200x2300].
- 3 Posts #3 through 9 are 6"x8"x6'-0" [150x200x1830].
- 4 See SCD GR-1.1 for additional embedment details.



ELEVATION



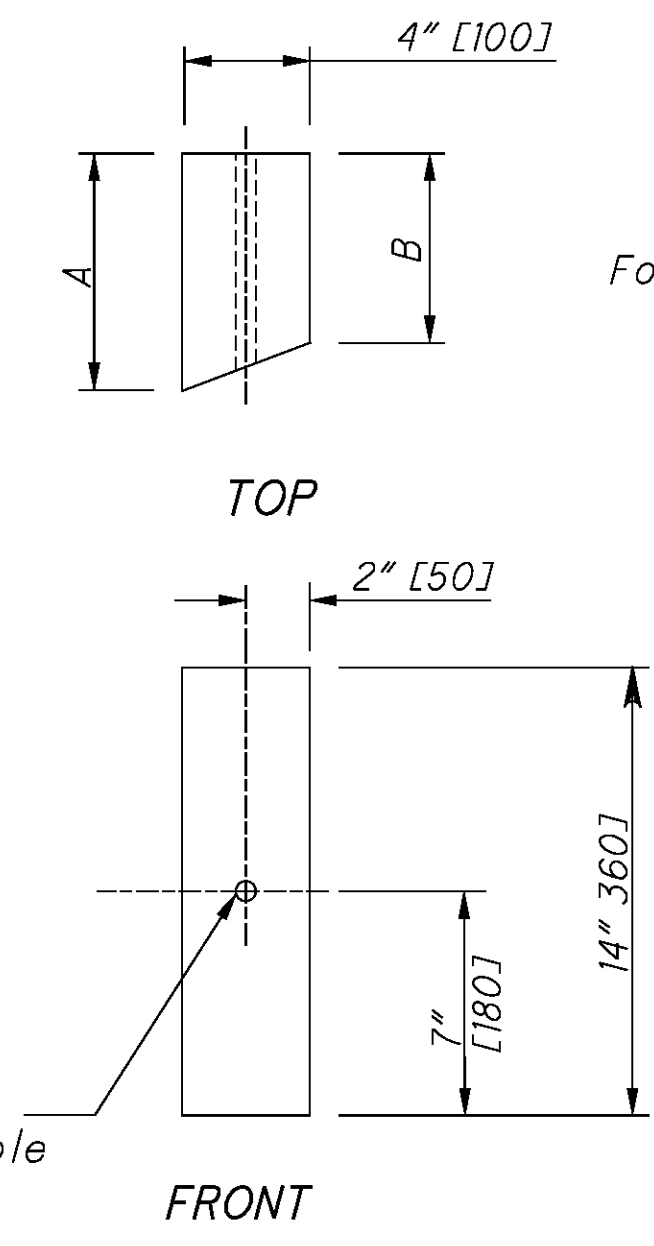
BEARING PLATE  
2 required



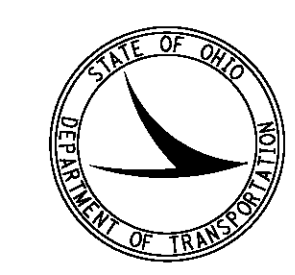
SECTION A-A

SECTION B-B

SECTION C-C



WOOD BLOCK FOR RUBRAIL



All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.

NOTES

GENERAL: This design is intended to be used to upgrade bridge terminal assemblies utilizing 27" [786] BR-1 Bridge parapets in effect from 1979 to 1989. This assembly design is approved to NCHRP Report 350, Test Level 3.

This guardrail transition is only appropriate for connection to a vertical concrete end; it should not be connected directly to a concrete safety shape or single slope shape. If attached to a vertical concrete wall (other than a parapet), the wall must be adequately reinforced to resist the lateral and longitudinal forces transmitted through the terminal connectors. If the height of the vertical connection is 32" [813], use Bridge Terminal Assembly, Type 1 (SCD GR-3.1).

This design utilizes a lower rail (rubrail), and it cannot be used if there is a curb present.

RUBRAIL: The rubrail is a 12'-6" [3.81 m] standard 12 ga. W-Beam rail element. The last 3' [1 m] of the rubrail may be shop bent to facilitate field installation. Field drill rubrail hole at Post 6.

POST ATTACHMENTS: Posts No. 1, 2, 3, 4 and 6 require an additional 1" [25] dia. hole to attach the lower block and/or rubrail.

Do not bolt nested W-Beam or Rubrail to Posts and Blockouts on Posts No. 1, 2, 3, 5 and 7. Bolt blockouts directly to posts at those locations.

Center drill wood block for rubrails to sit squarely on Posts 1 through 4. Secure blocks to Posts No. 1, 2, & 3 with 5/8" [16] carriage bolts. See WOOD BLOCK FOR RUBRAIL Detail.

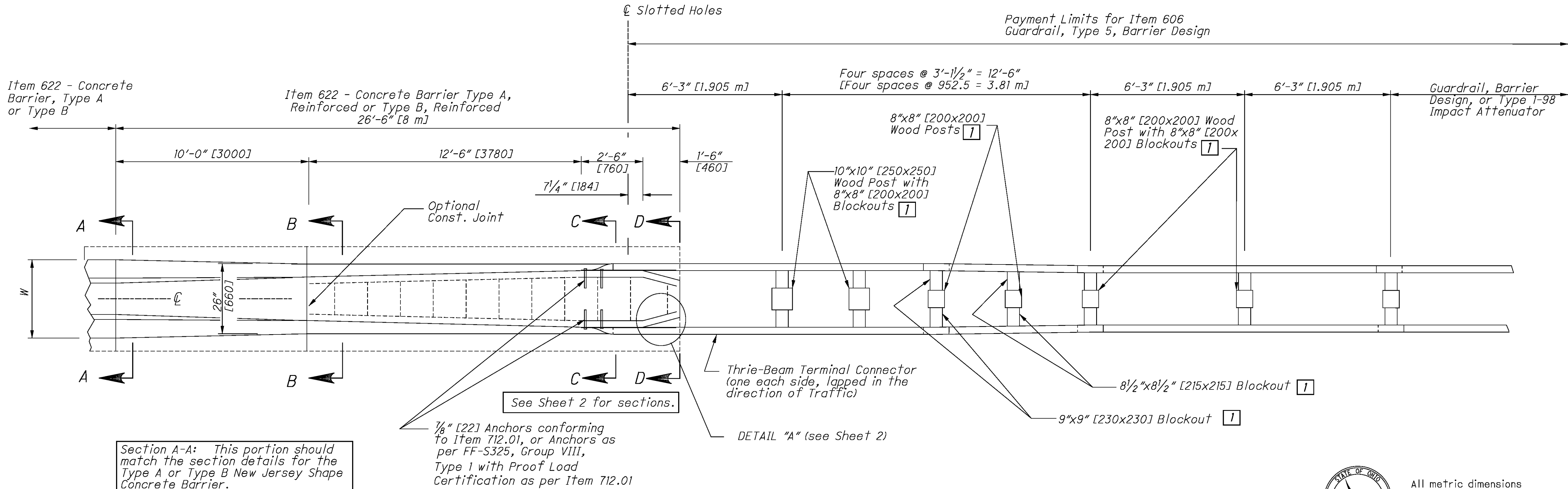
Use Wood posts only. Steel or plastic blockouts are not permitted. Use of rectangular plate washers is optional.

GUARDRAIL CONNECTION: At least one 12'-6" [3.81 m] section of Standard W-Beam Guardrail must be present before attaching any End Anchors. See SCD GR-2.1 for standard guardrail details.

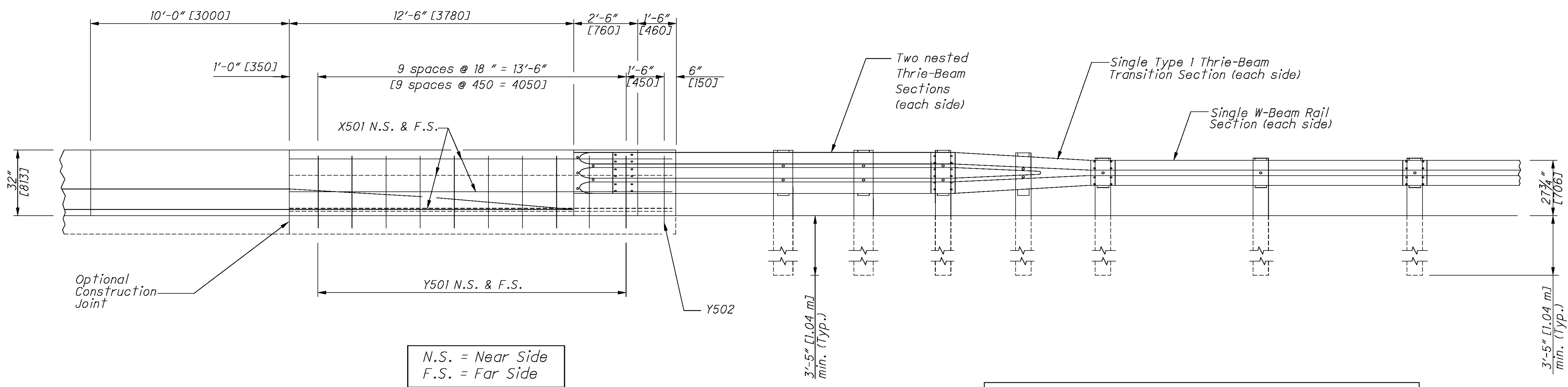
PAYMENT: Item 606 - Bridge Terminal Assembly, Type BR-1, Each, includes the cost of the extra components, in excess of normal guardrail, for additional and different sizes of posts and blockouts, nested rail and rubrail, Bearing Plates, End Section and Connectors, and other hardware.

RUBRAIL BLOCK CHART		
POST	A	B
1	6 1/2" [164]	6 1/4" [158]
2	5 1/8" [131]	4 7/8" [125]
3	3 1/8" [99]	3 3/8" [93]
4	2 5/8" [67]	2 3/8" [61]
5	No Block	No Block

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PLAN



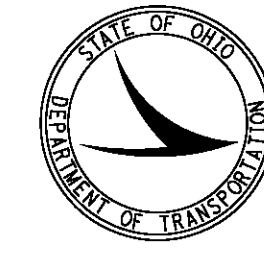
ELEVATION

LEGEND

[1] Plastic Blockouts are not permitted for Bridge Terminal Assembly, Type 1, Barrier Design.

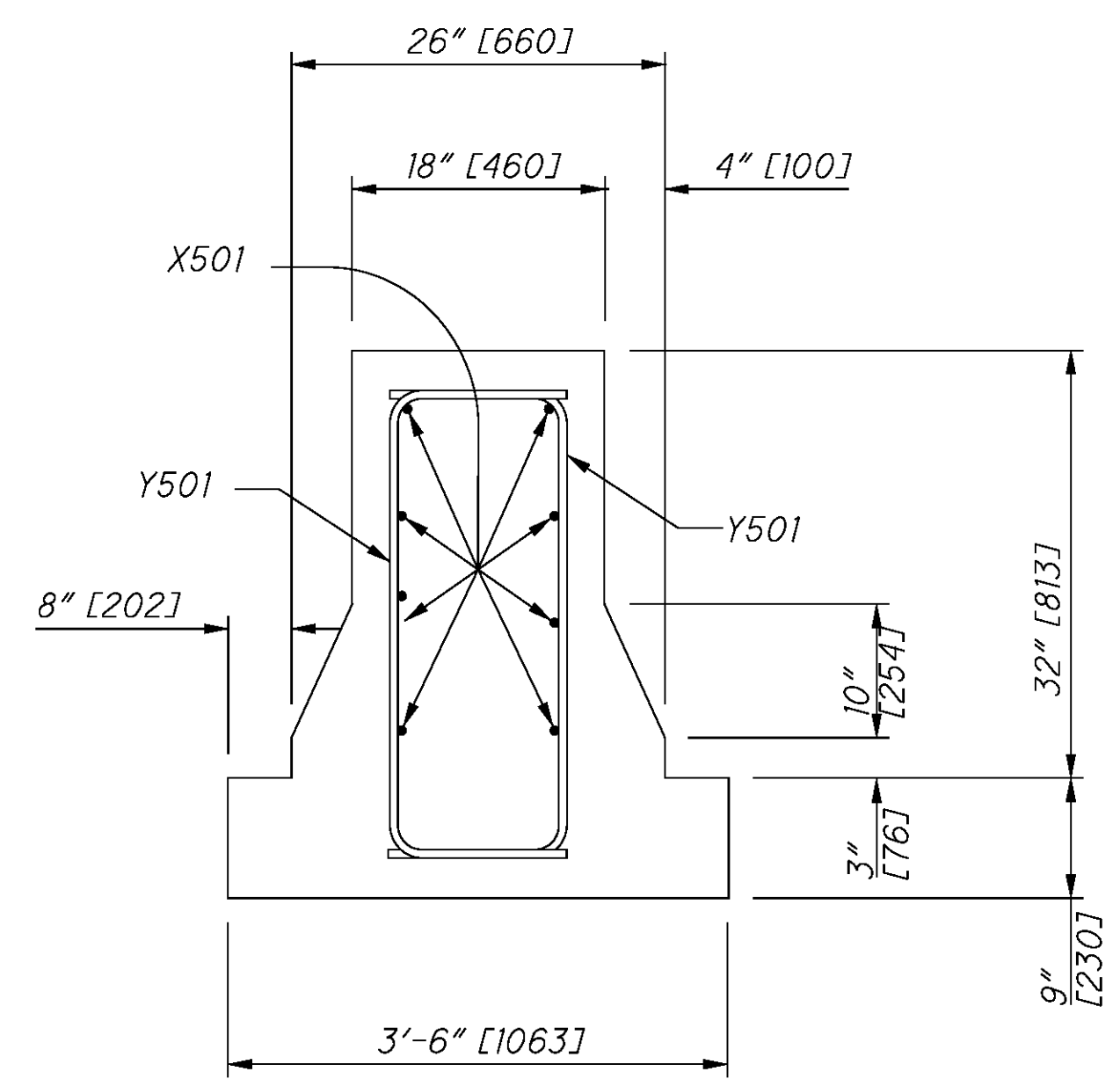
The purpose of this insert is to show details of the reinforced concrete end section.

The Bridge Terminal Assembly shown is no longer a standard. Refer to Standard Drawing GR-3.5 for the appropriate NCHRP 350 system.

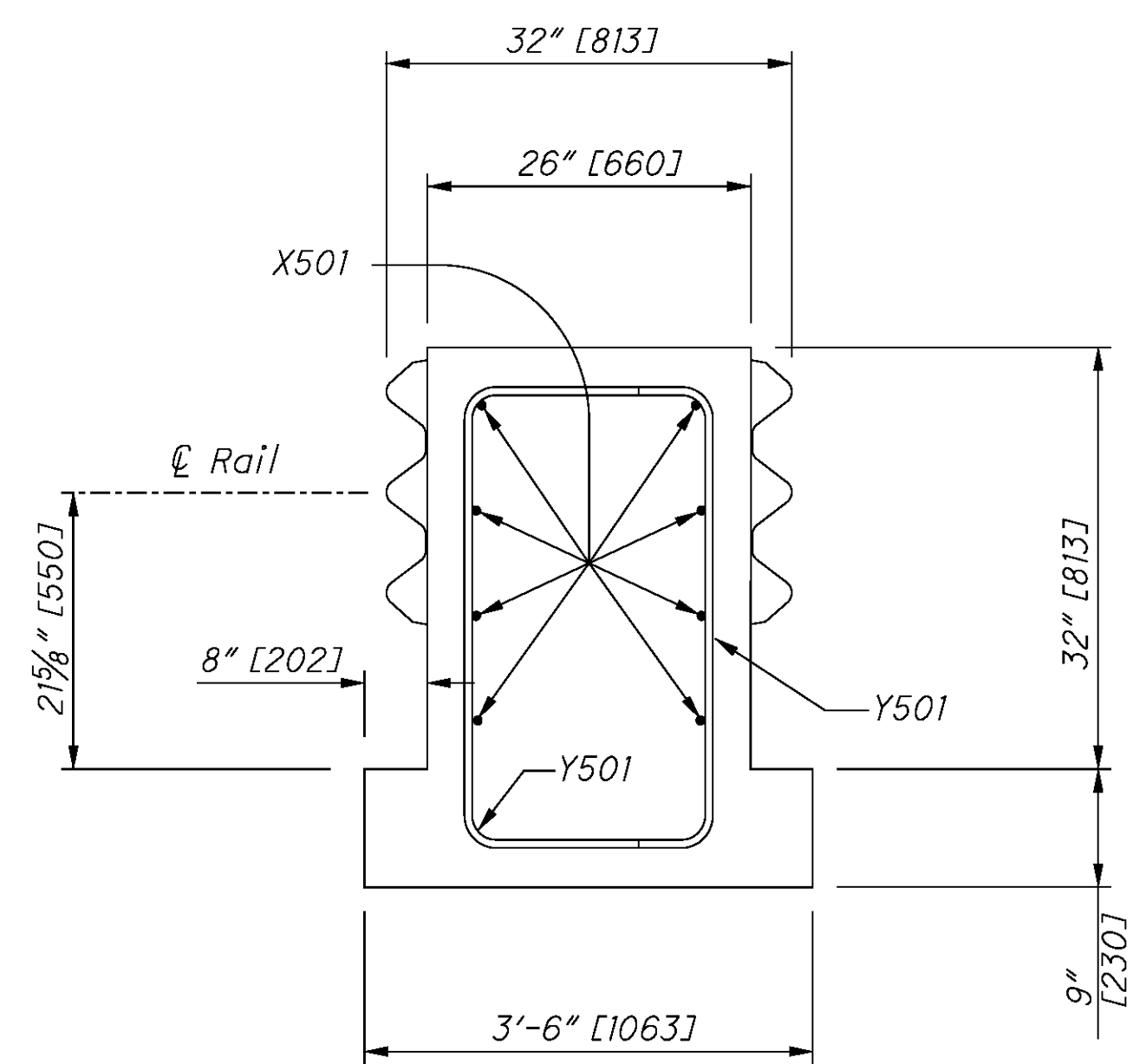


All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.

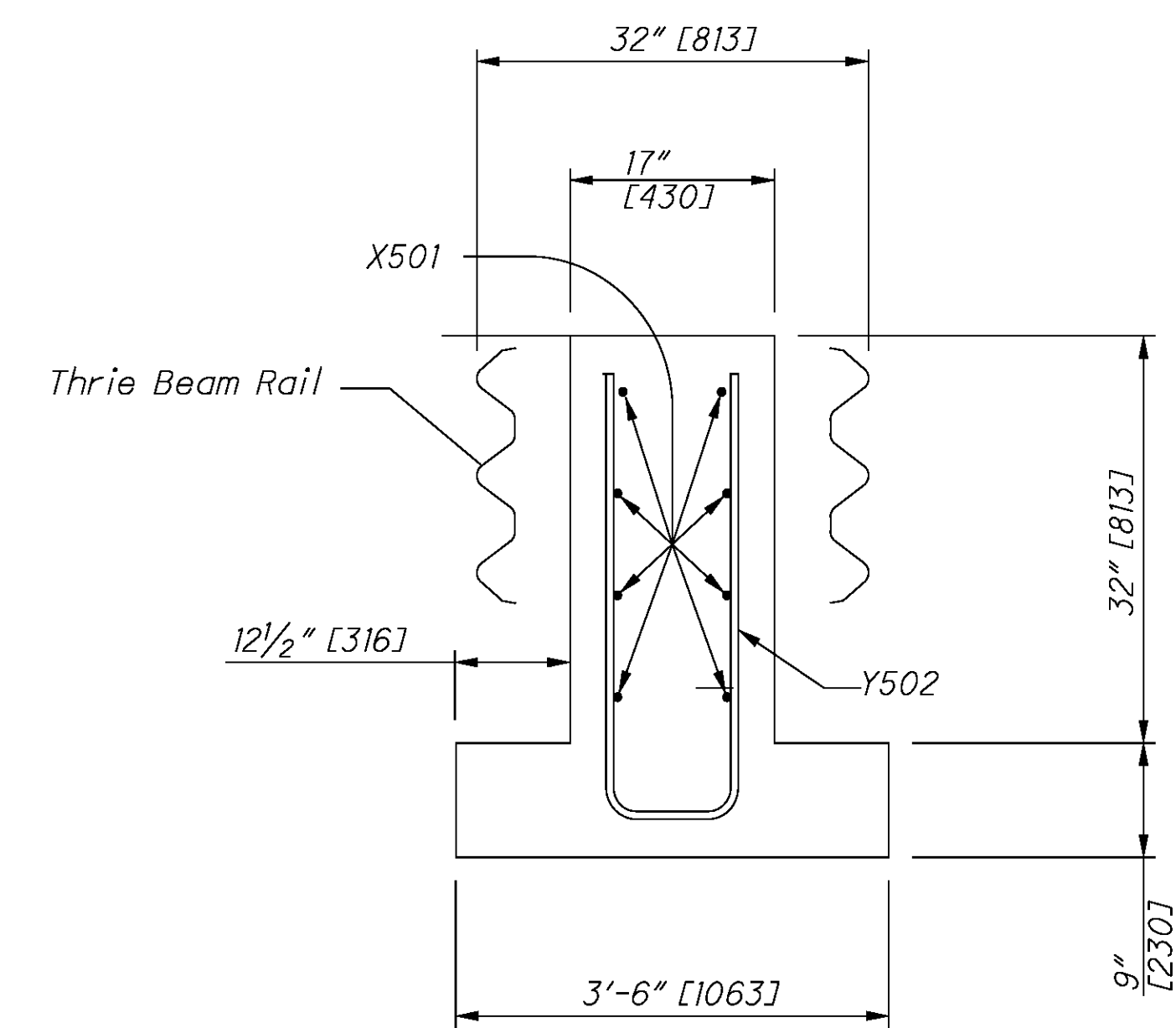
P:\2010\HAM\83011\roadway\_sheets\83011pis\_gr35nj.dgn 1/9/2012 12:54:57 PM 14:30:1me



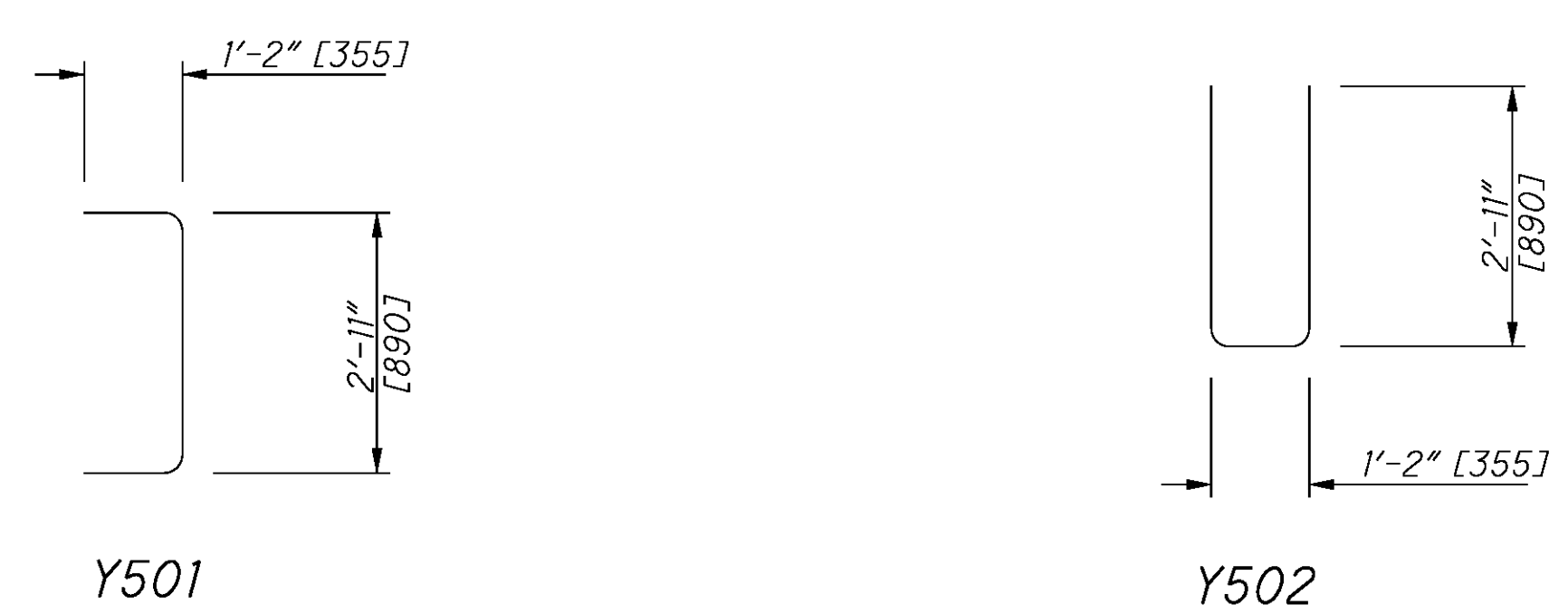
SECTION B-B  
See Sheet 1



For guardrail connection  
see SCD GR-3.5.  
SECTION C-C  
See Sheet 1

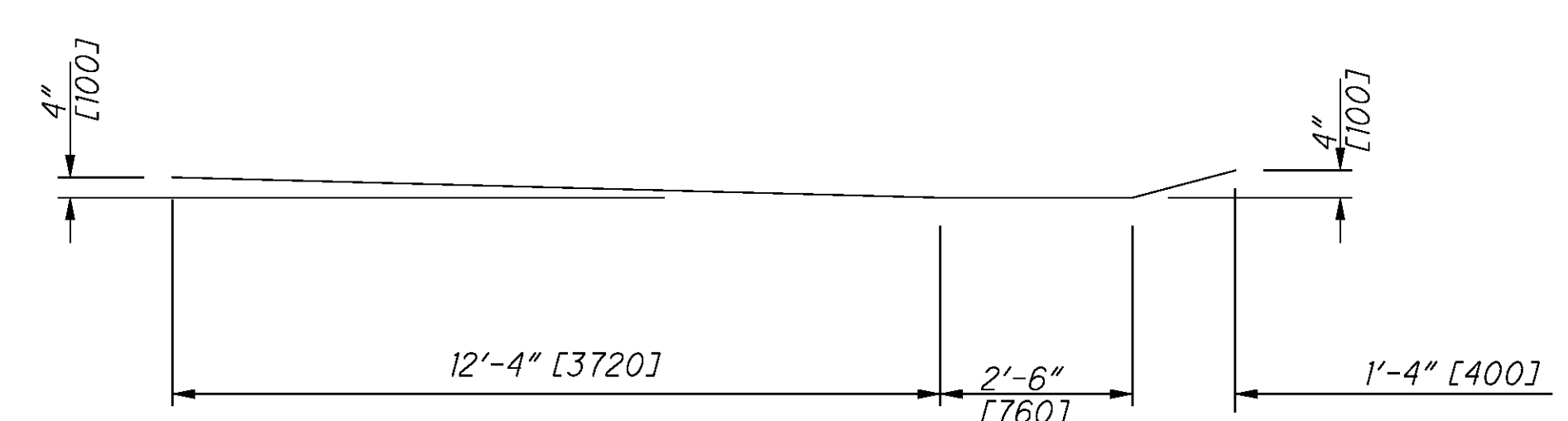


VIEW D-D  
See Sheet 1

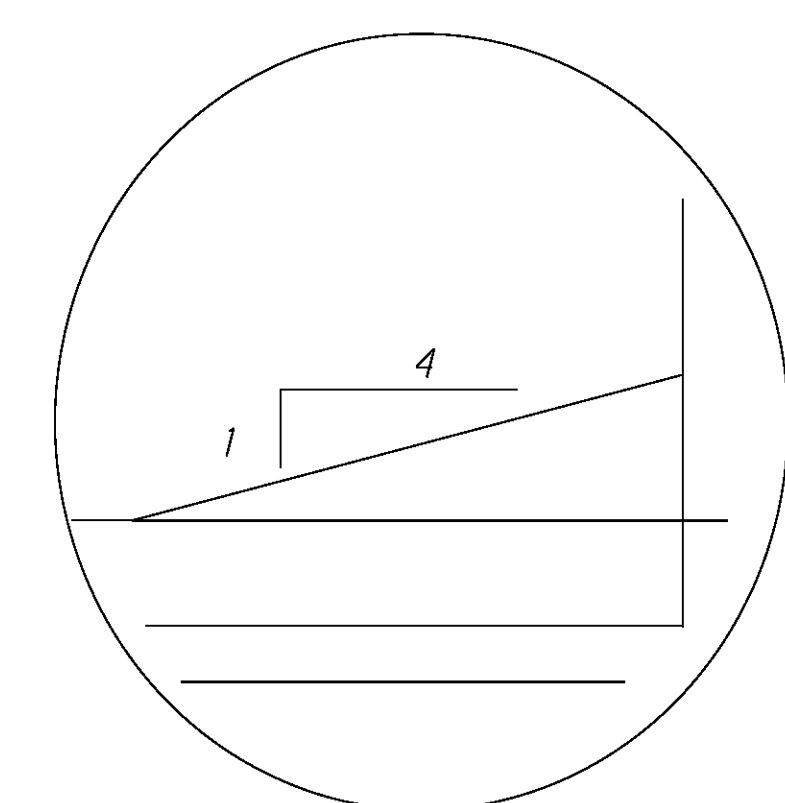


Y501

Y502



X501  
BENDING DIAGRAMS



Concrete End Flare  
DETAIL A  
See Plan View, Sheet 1

NOTES

GENERAL: For additional details, see SCD GR-1., and other Drawings pertaining to design of specific guardrail types.

APPLICATION: The Bridge Terminal Assembly, Type 1, Barrier Design, shall be used to connect Type 5 Barrier Design Guardrail or Type 1 Impact Attenuators to Concrete Median Barriers.

POSTS: General - Posts may be set in drilled holes or driven to grade.

Wood Posts shall be square-sawed pressure treated wood as per Item 710.14 and fabricated with square ends. Bolt holes shall be bored and the tops of posts trimmed, if required, after posts are set.

Steel Posts and Blockouts may be furnished as an alternate. The steel alternates for Wood Posts are listed below.

Wood Posts	10"x10" [250x250]	8"x8" [200x200]
Steel Posts	W8x24 [W200x35.9]	W6x25 [W150x37.1]

REINFORCING: All reinforcing bars shall be epoxy coated and included in the cost of Item 622.

PAYMENT: Payment for the Guardrail Transition Section will be made at the unit price bid per Each for Item 606 - Bridge Terminal Assembly, Type 1, Barrier Design and shall include the extra cost, in excess of normal guardrail costs, for additional and different type Posts and Blockouts, nested Thrie Beam Sections, Terminal Connectors, Thrie Beam Transitions Sections, Bolts, Anchors, Washers, and other hardware.

Payment for the Concrete Transition Section will be made at the unit price bid per Linear Foot [Meter] for Item 622 - Concrete Barrier, Type -- (A, Reinforced or B, Reinforced) and shall include all materials, labor, and reinforcing steel required to construct the barrier as shown within the limits defined. (See Plan View, Sheet 1.)



All metric dimensions  
(in brackets [ ]) are  
in millimeters unless  
otherwise noted.

REINFORCING BAR LIST

MARK	SIZE	LENGTH	SHAPE	QUANTITY	WEIGHT [MASS]	
					(lb)	(kg)
X501	#5 [#16M]	16'-2" [4880]	Bent	8 Each	134.6	[61]
Y501	#5 [#16M]	5'-0" [1530]	Bent	20 Each	104.3	[48]
Y502	#5 [#16M]	6'-9" [2060]	Bent	1 Each	7.0	[4]
Total (for information only):					246	[113]



REF. NO.	SHEET NO.	STATION		SIDE	ITEMS													
		FROM	TO		EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	MILE	MILE	MILE	
		IR 74 WB & EB			621	621	621	621	644	644	644	644	644	644	644	645	645	645
LL1	50	301+80.11	319+99.69	RT	13	13												
LL2	50	301+80.11	320+45.21	LT	14	14												
WE1	50	301+80.11	319+94.38	RT					1,602									
WE2	50	301+80.11	320+53.65	LT					1,662									
YE1	50	301+80.11	320+05.01	RT						1,613								
WE3	50	301+80.11	320+39.81	LT						1,648								
LL3	50	319+94.38	322+65.91	RT	2	2												
YE3	50	319+94.38	322+60.39	RT														
YE4	50	320+05.01	322+54.88	RT														
LL4	50	320+39.81	322+91.45	RT														
WE4	50	320+45.21	322+97.04	RT	2	2												
LL5	50	320+53.65	323+08.16	RT														
WE5	50	322+54.88	329+00.00	RT					645									
LL5	50	322+60.39	329+00.00	RT	4	4												
YE5	50	322+65.91	329+00.00	RT						634								
YE6	50	322+91.46	329+00.00	LT						609								
LL6	50	322+97.04	329+00.00	LT														
WE6	50	323+08.16	329+00.00	LT					592									
CH1	50	325+17.40	329+00.00	LT														
CH2	50	325+17.40	329+00.00	LT	10	10												
WE5	51	329+00.00	347+79.40	RT					1,879									
WE6	51	329+00.00	333+42.20	LT					442									
CH1	51	329+00.00	333+42.20	LT														
CH2	51	329+00.00	333+42.20	LT	11													
LL5	51	329+00.00	357+00.00	RT	23	23												
LL6	51	329+00.00	357+00.00	LT	23	23												
YE5	51	329+00.00	357+00.00	RT						2,800								
YE6	51	329+00.00	357+00.00	LT						2,800								
WE7	51	333+42.20	351+98.10	LT					1,856									
WE8	51	347+79.40	357+00.00	RT					921									
LL7	51	347+79.40	357+00.00	RT	8	8												
CH3	51	347+79.40	356+67.00	RT														
CH4	51	347+79.40	356+67.00	RT	22													
CH5	51	351+98.10	356+36.00	LT	11													
CH6	51	351+98.10	356+36.00	LT	11													
LL8	51	351+98.10	357+00.00	LT	4	4												
CH7	51	351+98.10	357+00.00	LT														
WE9	51	351+98.10	357+00.00	LT					502									
WT1	51	351+98.10	356+36.00	LT														
LL5	52	357+00.00	385+00.00	LT	23	23												
LL6	52	357+00.00	385+00.00	RT	23	23												
LL7	52	357+00.00	385+00.00	RT	23	23												
LL8	52	357+00.00	385+00.00	LT	23	23												
CH7	52	357+00.00	361+59.20	LT														
WE8	52	357+00.00	385+00.00	RT					2,800									
WE9	52	357+00.00	385+00.00	LT														
YE5	52	357+00.00	385+00.00	RT					2,800									
YE6	52	357+00.00	385+00.00	LT					2,800									
DL1	52	361+59.20	375+00.00	LT														
SUBTOTALS CARRIED TO SHEET 45					252	187	65		5.95	15.704	15.704	22.730	5.263	190	1,341	0.19	502	513
SUBTOTALS THIS SHEET					252	187	65		5.95	15.704	15.704	22.730	5.263	190	1,341	0.19	502	513





REF. NO.	SHEET NO.	STATION		SIDE	PAVEMENT MARKING ESTIMATED QUANTITIES													
		FROM	TO		RAISED PAVEMENT MARKERS REMOVED	RPM, 1 WAY (WHITE)	RPM, 2 WAY (RED-WHITE)	RPM, 2 WAY (YELLOW-RED)	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINE	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE	DOTTED LINE	EDGE LINE, TYPE A (WHITE)	EDGE LINE, TYPE A (YELLOW)	LANE LINE, TYPE A	
					EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	MILE	MILE	MILE	
IR 74 EB																		
YE15	57	491+00.00	492+49.57	LT								148						
LL25	57	491+00.00	492+50.24	BL	1	1							148					
LL26	57	491+00.00	492+49.90	LT	1	1							148					
WE19	57	491+00.00	492+50.56	RT					149									
YE17	57	492+49.57	497+43.25	LT											494			
LL29	57	492+50.24	497+57.51	BL	4	4										507		
LL30	57	492+49.90	497+50.33	LT	4	4										500		
WE21	57	492+50.56	497+64.96	RT										514				
LL34	57	497+57.51	505+00.00	BL	6	6						740						
LL35	57	497+50.33	498+99.13	LT	1	1						147						
WE23	57	497+64.79	505+00.00	RT					733									
YE19	57	497+43.25	498+99.13	LT							154							
CH14	57	501+24.20	504+34.00	LT	8		8					310						
WT5	57	501+24.20	504+34.00	LT									173					
YE21	57	504+34.00	505+00.00	LT							66							
IR 74 WB																		
LL27	57	491+00.00	492+31.45	LT	1	1							131					
LL28	57	491+00.00	492+28.32	LT	1	1							128					
WE20	57	491+00.00	492+25.24	LT					125									
YE16	57	491+00.00	492+34.60	LT							135							
WE22	57	492+25.24	496+64.88	LT										440				
LL31	57	492+31.45	496+75.86	BL	4	4										444		
LL32	57	492+28.32	496+70.34	LT	4	4										442		
YE18	57	492+34.60	496+81.44	RT											447			
LL36	57	496+70.34	500+53.49	LT	3	3							383					
LL33	57	496+75.86	497+60.00	BL	1	1						84						
WE24	57	496+64.88	500+53.49	LT					389									
YE20	57	496+81.44	505+00.00	RT							819							
CH16	57	497+60.00	505+00.00	BL	19		19					740						
CH17	57	497+60.00	500+53.49	LT								293						
WT4	57	497+60.00	505+00.00	LT									277					
IR 275 EB																		
YE19	57	395+85.83	402+00.00	LT								614						
LL35	57	395+85.83	402+00.00	BL	5	5							614					
CH15	57	398+12.20	401+26.00	LT	8		8					314						
WE25	57	401+26.00	402+00.00	RT					74									
IR 275 WB																		
LL36	57	397+39.35	402+00.00	BL	4	4							461					
WE24	57	397+39.35	402+00.00	LT					461									
CH17	57	397+39.35	402+00.00	RT								461						
SUBTOTALS CARRIED TO SHEET 43					75	41	34		1,931	1,936	2,984	2,118	450		954	941	1,893	
SUBTOTALS THIS SHEET					75	41	34		0.73		0.57	2,118	450		0.36		0.36	

CALCULATED TIME  
 CHECKED CTW

PAVEMENT MARKING ESTIMATED QUANTITIES

HAM-74-5.53

43  
 118

REF. NO.	SHEET NO.	STATION		SIDE	621	621	621	621	644	644	644	644	644	644	645	645	645							
					RAISED PAVEMENT MARKERS REMOVED	RPM, 1 WAY (WHITE)	RPM, 2 WAY (RED-WHITE)	RPM, 2 WAY (YELLOW-RED)	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINE	CHANNELIZING LINE	TRANSVERSE/DIAGONAL LINE	DOTTED LINE	EDGE LINE, TYPE A (WHITE)	EDGE LINE, TYPE A (YELLOW)	LANE LINE, TYPE A							
		FROM	TO		EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	MILE	MILE	MILE							
<b>IR 74 EB</b>																								
LL34	58	505+00.00	515+73.00	BL	9	9							1,073											
WE23	58	505+00.00	515+73.00	RT				1,073																
YE21	58	505+00.00	515+73.00	LT								1,073												
<b>IR 74 WB</b>																								
CH16	58	505+00.00	505+67.00	BL	2		2		67															
WE26	58	505+67.00	519+00.00	BL					1,333															
WT4	58	505+00.00	519+00.00	LT									485											
YE20	58	505+00.00	519+00.00	RT						1,400														
<b>IR 275 EB</b>																								
YE19	58	402+00.00	407+96.48	LT								596												
LL35	58	402+00.00	408+08.81	BL	5	5							609											
WE25	58	402+00.00	408+20.94	RT					621															
LL37	58	410+95.94	412+00.00	BL	1	1							104											
YE23	58	410+86.21	412+00.00	LT								114												
WE27	58	411+05.53	412+00.00	RT					94															
<b>IR 275 WB</b>																								
CH17	58	402+00.00	402+61.90	RT	2		2					62												
LL36	58	402+00.00	409+00.00	BL	6	6						700												
WE24	58	402+00.00	409+00.00	LT					700															
YE22	58	402+61.90	409+00.00	RT								638												
<b>RAMP B</b>																								
WE28	58	3+00.00	4+38.78	RT					139															
YE24	58	3+00.00	4+39.75	LT	2			2			140													
WE29	58	5+77.70	11+91.22	RT					614															
YE25	58	5+84.16	11+91.22	LT	8			8			607													
<b>IR 74 WB</b>																								
WT4	59	519+00.00	525+27.28	LT									217											
WE26	59	519+00.00	525+27.28	BL					627															
YE20	59	519+00.00	525+27.28	RT							627													
<b>RAMP A</b>																								
WE30	59	5+00.00	11+68.59	BL					669															
YE26	59	5+00.00	11+68.59	RT	8			8			669													
<b>IR 275 WB</b>																								
LL36	60	409+00.00	414+54.81	BL	5	5						555												
WE24	60	409+00.00	414+51.59	LT					552															
YE22	60	409+00.00	414+15.02	RT							515													
CH18	60	414+15.02	414+61.17	RT									46											
CH19	60	414+15.02	414+54.81	RT									40											
WT6	60	414+15.02	414+61.17	RT										73										
<b>SUBTOTALS CARRIED TO SHEET 45</b>					46	25	3	18	6,489	6,379	3,041	148	775											
<b>SUBTOTALS THIS SHEET</b>					46	25	3	18	2.44	0.58	148	775												

PAVEMENT MARKING ESTIMATED QUANTITIES

HAM-74-5-53

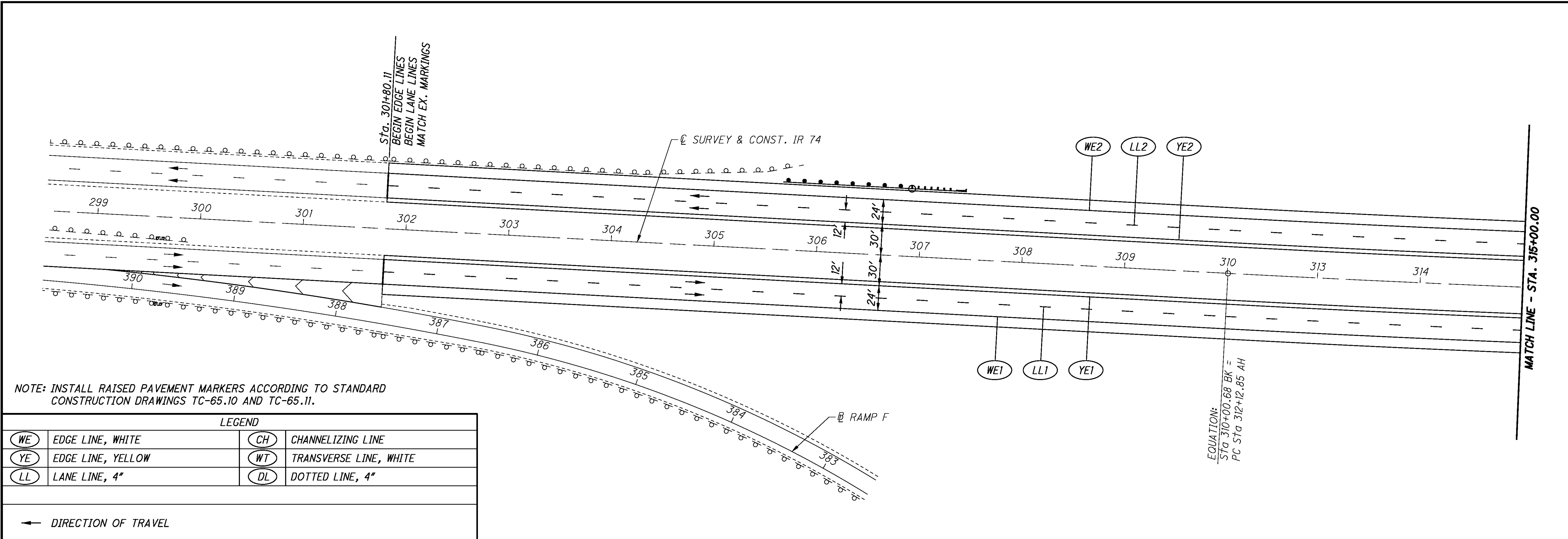
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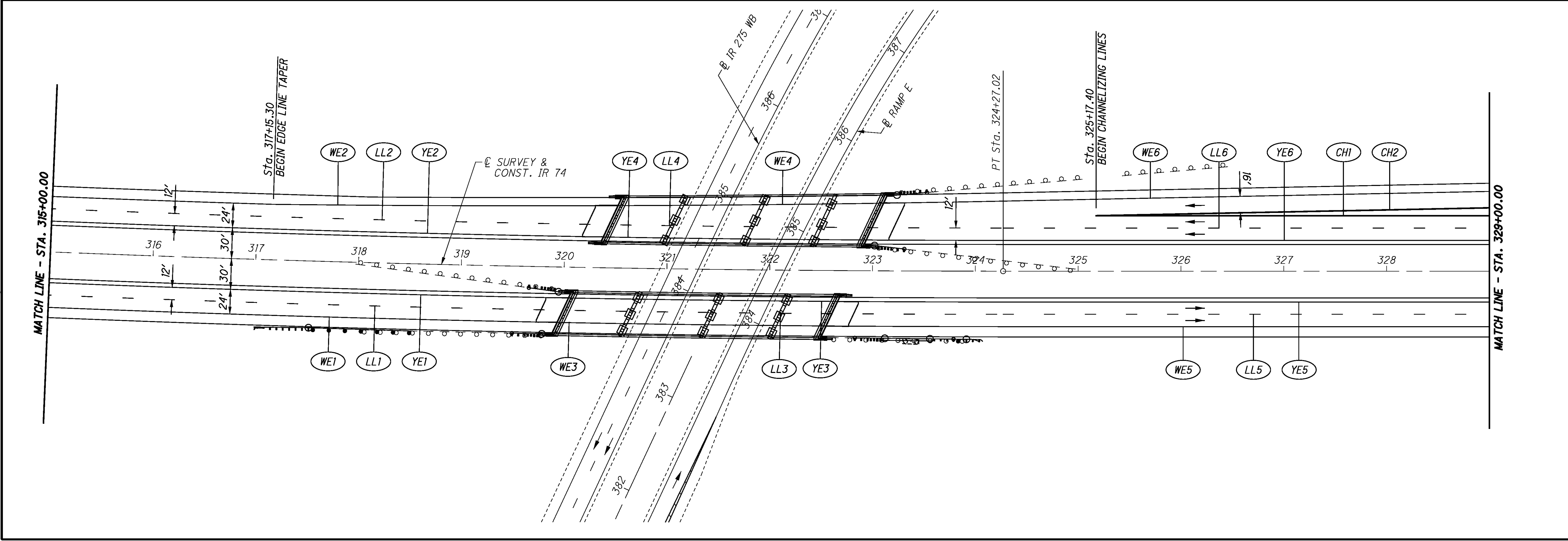




NOTE: INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS TC-65.10 AND TC-65.11.

LEGEND			
(WE)	EDGE LINE, WHITE	(CH)	CHANNELIZING LINE
(YE)	EDGE LINE, YELLOW	(WT)	TRANSVERSE LINE, WHITE
(LL)	LANE LINE, 4"	(DL)	DOTTED LINE, 4"

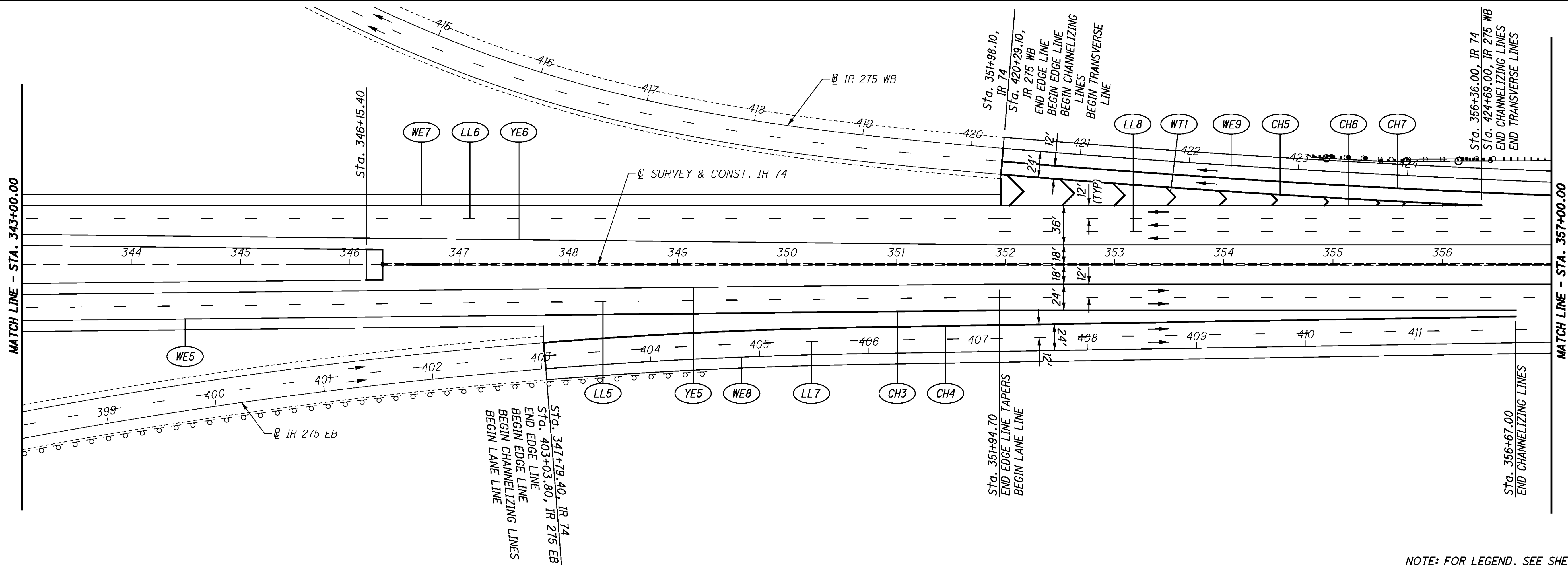
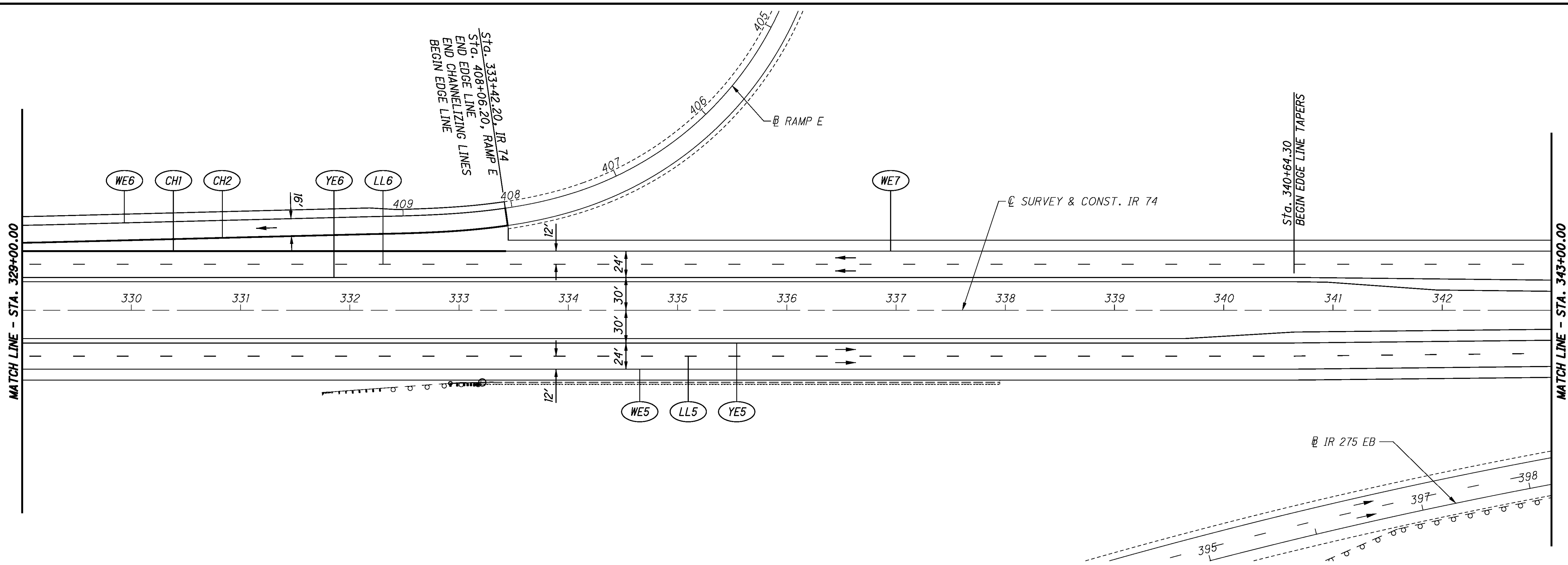
← DIRECTION OF TRAVEL



CALCULATED EGD CHECKED CTW

**PAVEMENT MARKING PLAN - IR 74**  
**STA. 298+50.00 TO STA. 329+00.00**

**HAM-74-5.53**



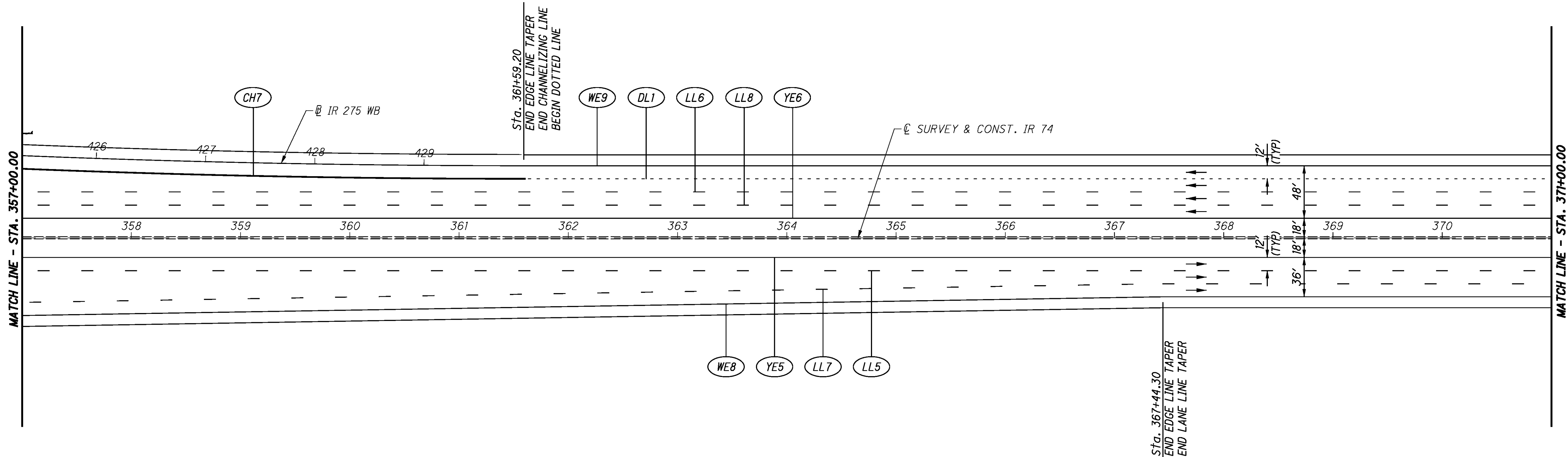
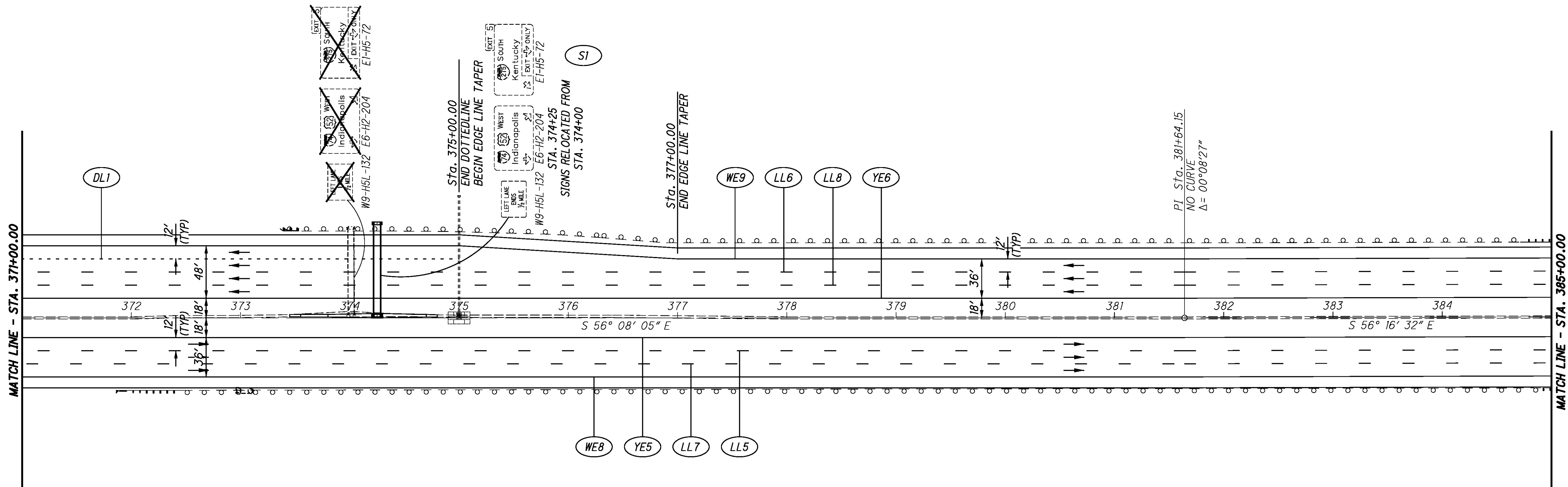
CALCULATED EGD CHECKED CTW

**PAVEMENT MARKING PLAN - IR 74**  
**STA. 329+00.00 TO STA. 357+00.00**

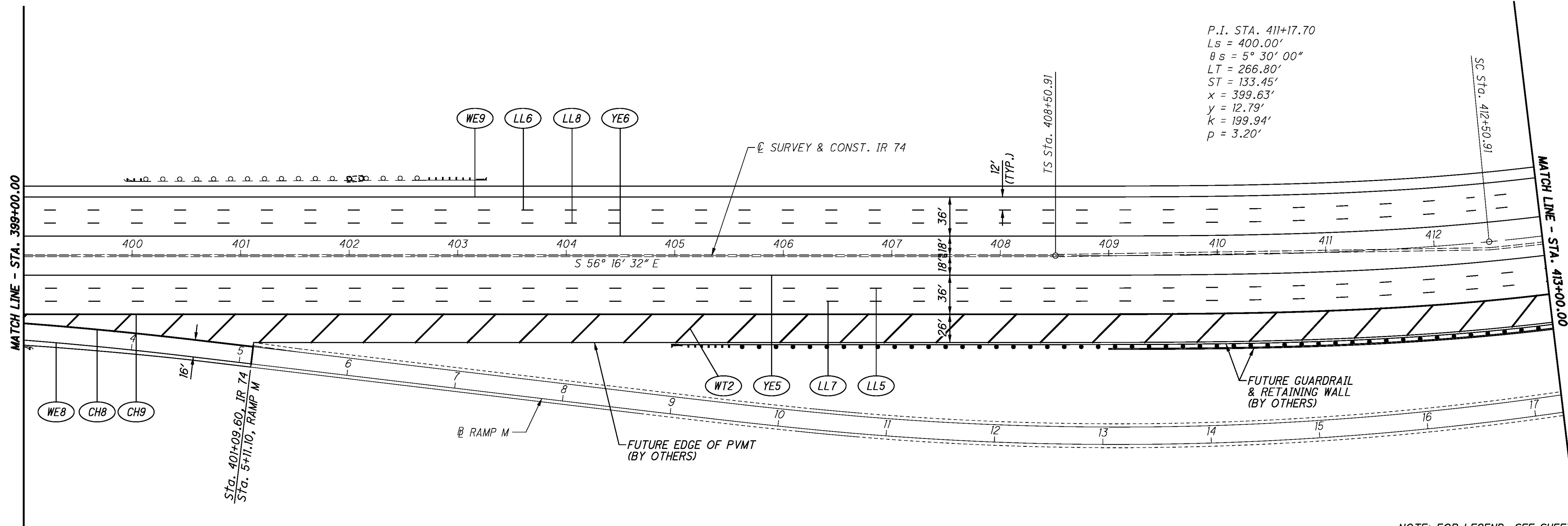
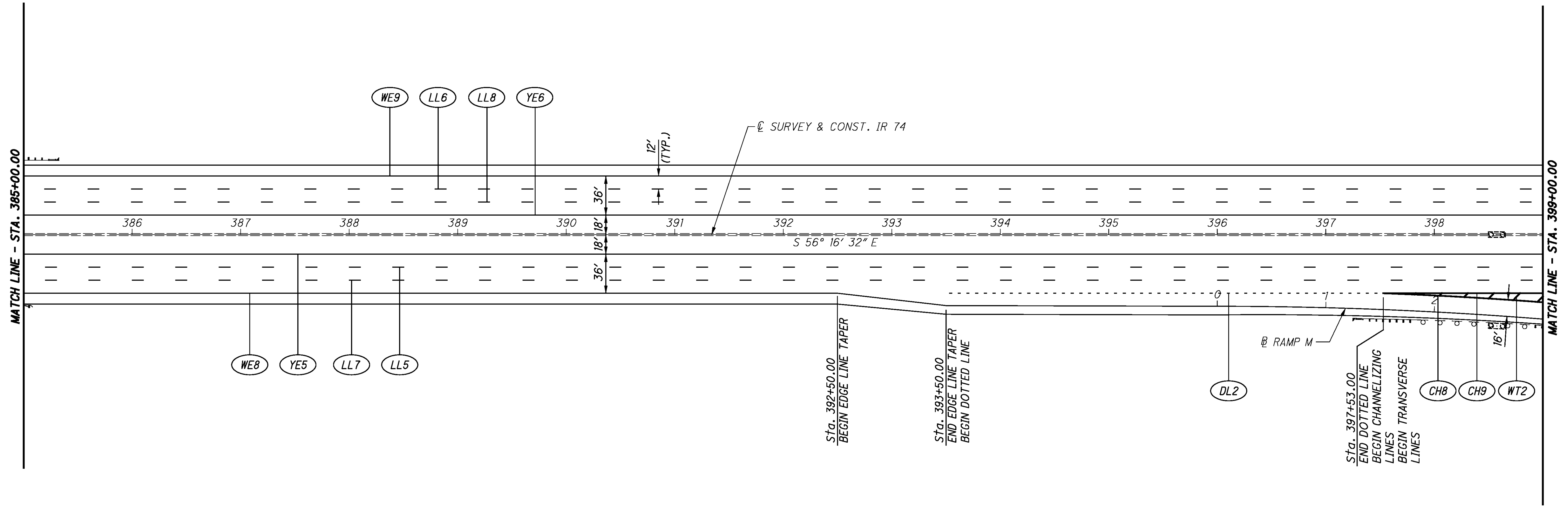
**HAM-74-5.53**

49  
118

NOTE: FOR LEGEND, SEE SHEET 48



P:\2010\HAM\83011\traffic\_sheets\83011TP004.dgn 1/9/2012 1:26:53 PM 14:30:00



P.I. STA. 411+17.70  
 $L_s = 400.00'$   
 $\theta_s = 5^\circ 30' 00''$   
 $LT = 266.80'$   
 $ST = 133.45'$   
 $x = 399.63'$   
 $y = 12.79'$   
 $k = 199.94'$   
 $p = 3.20'$



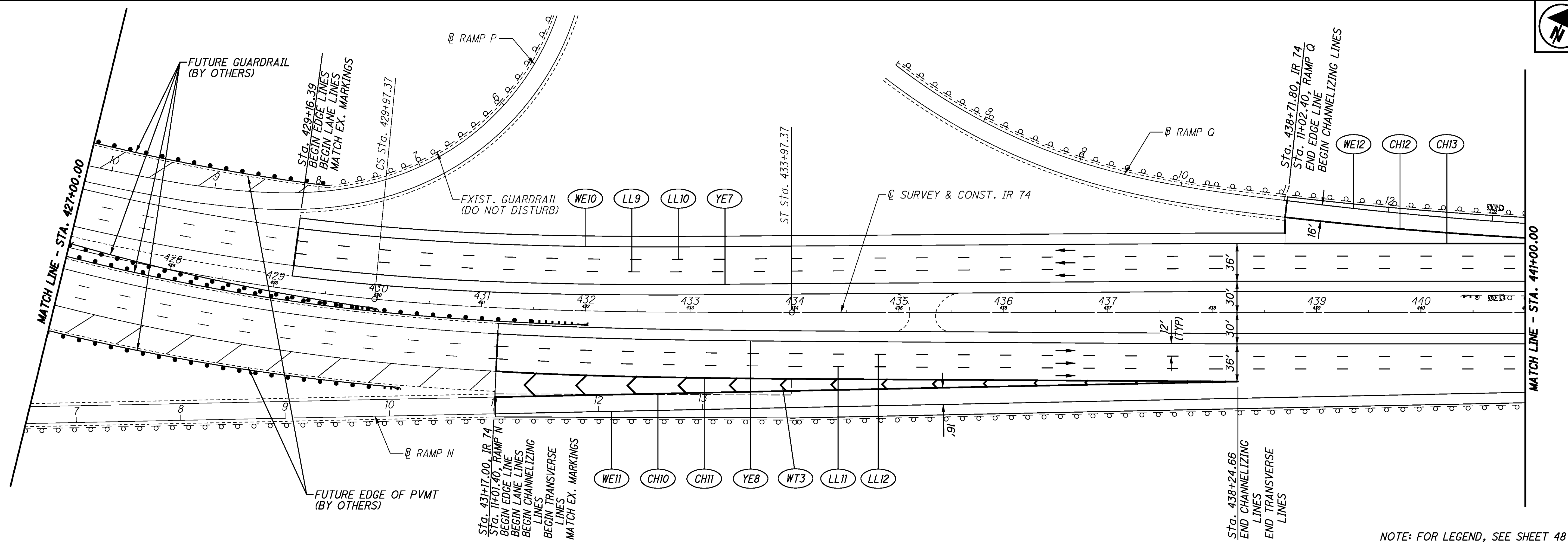
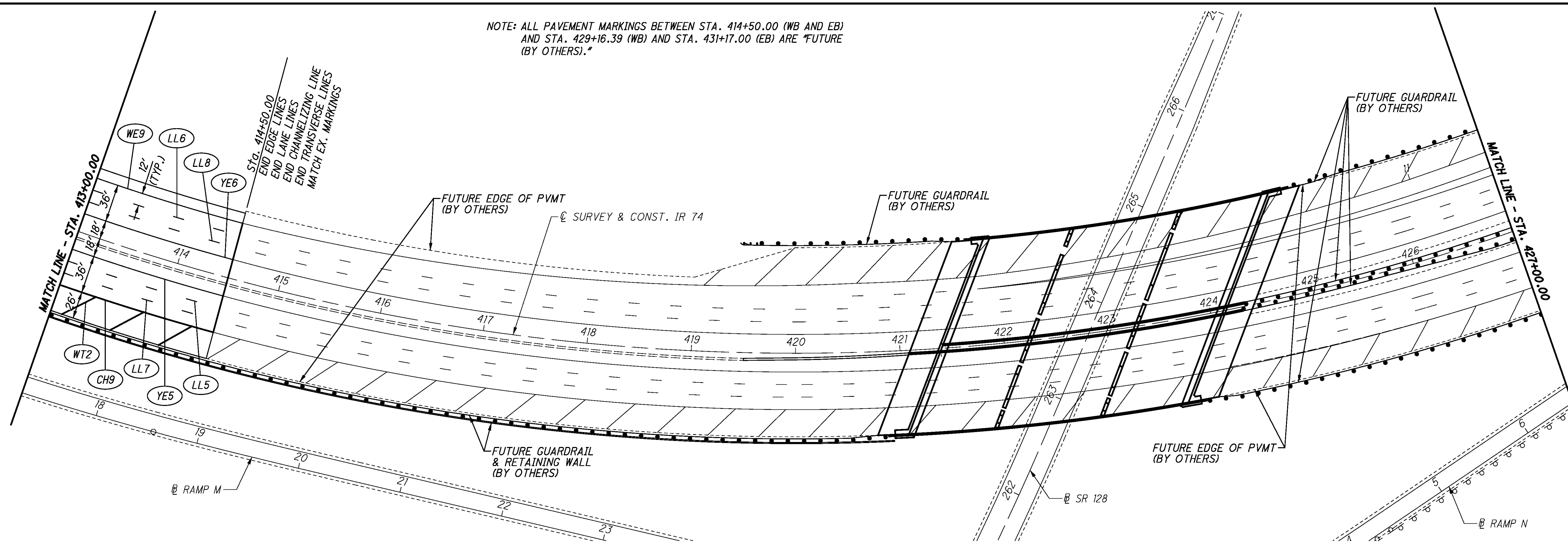
PAVEMENT MARKING PLAN - IR 74  
 STA. 385+00.00 TO STA. 413+00.00

HAM-74-5.53

51  
118

NOTE: FOR LEGEND, SEE SHEET 48

NOTE: ALL PAVEMENT MARKINGS BETWEEN STA. 414+50.00 (WB AND EB) AND STA. 429+16.39 (WB) AND STA. 431+17.00 (EB) ARE "FUTURE (BY OTHERS)."



CALCULATED  
EGD  
CHECKED  
CTW

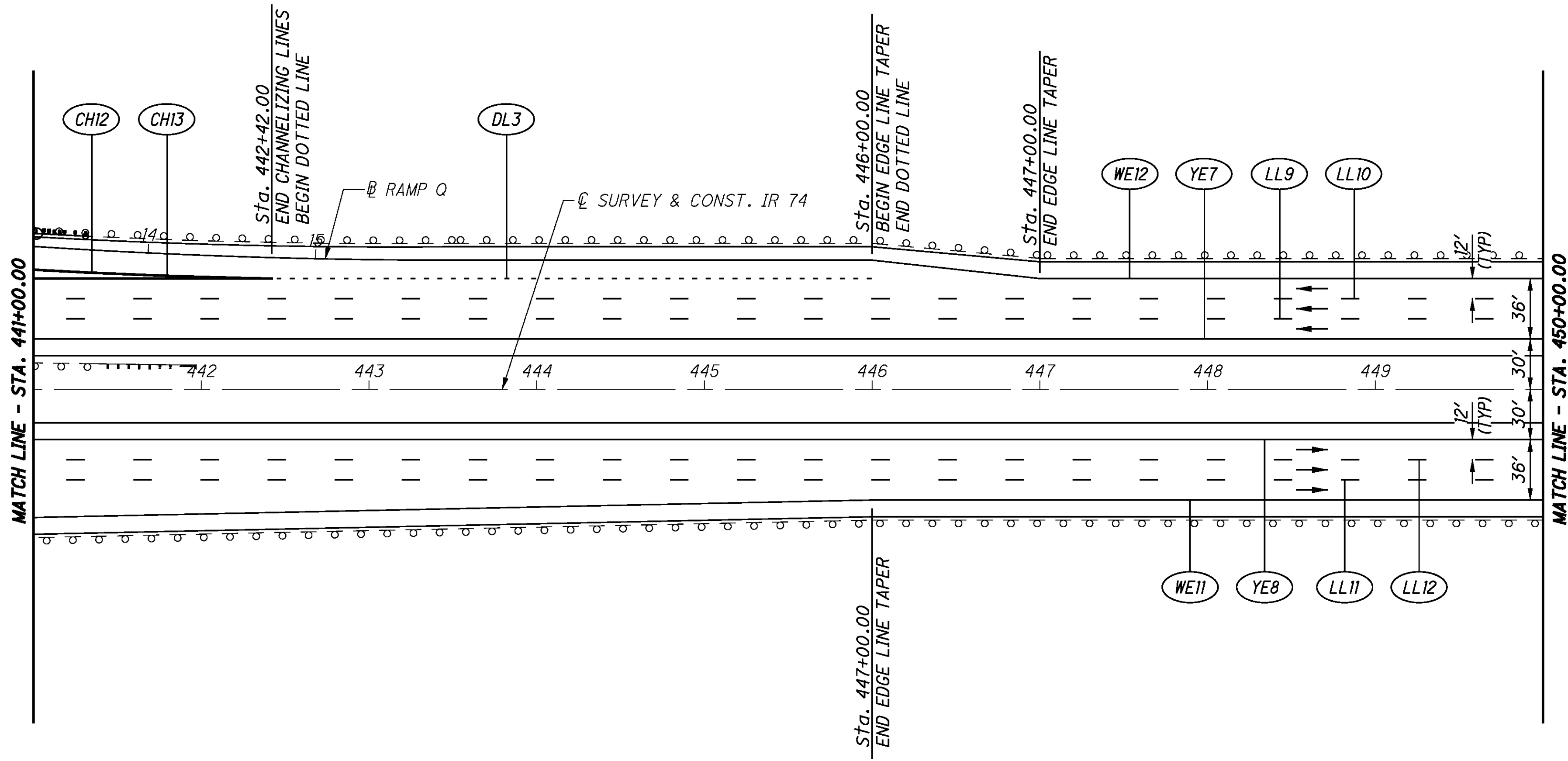
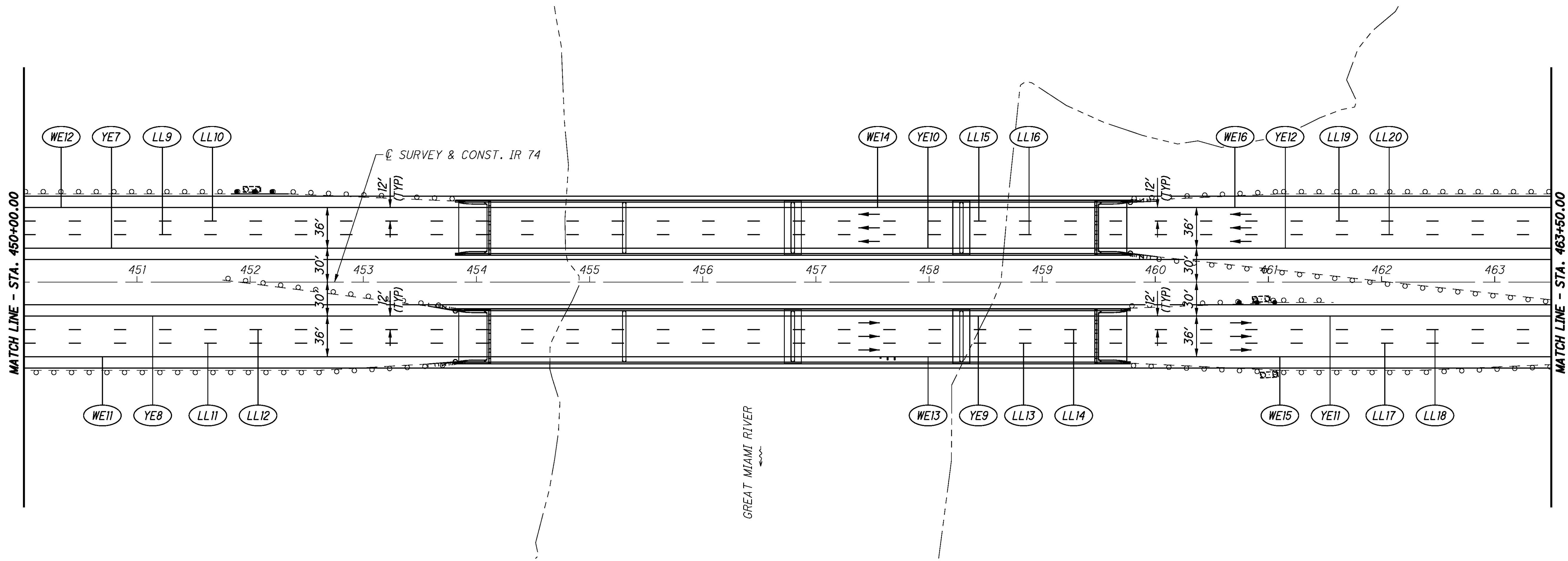
0 50 100  
HORIZONTAL  
SCALE IN FEET

PAVEMENT MARKING PLAN - IR 74  
STA. 413+00.00 TO STA. 441+00.00

HAM-74-5.53

NOTE: FOR LEGEND, SEE SHEET 48

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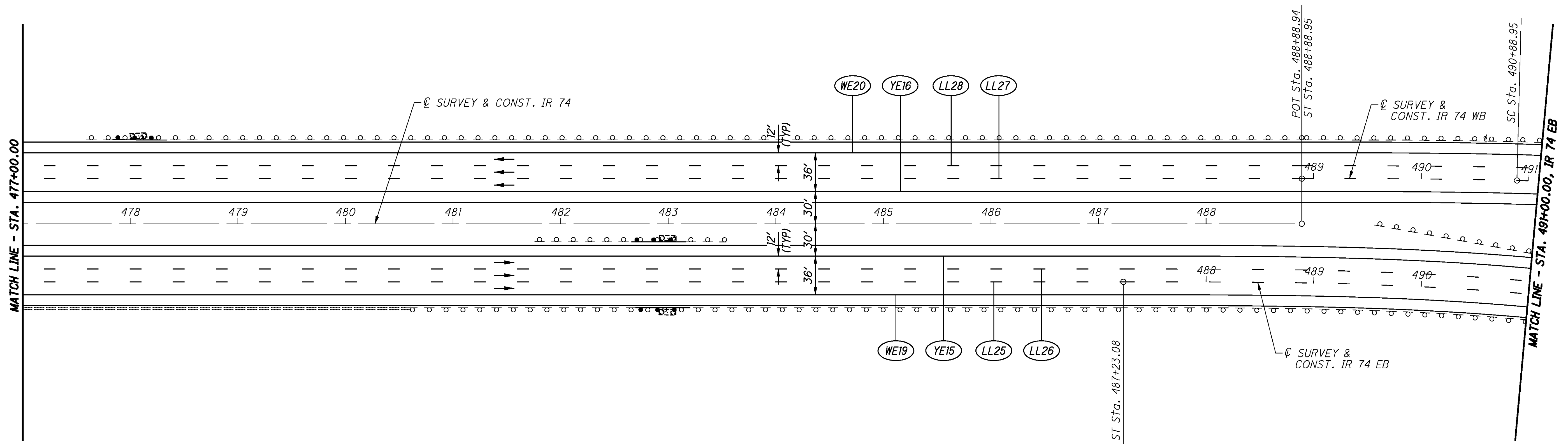
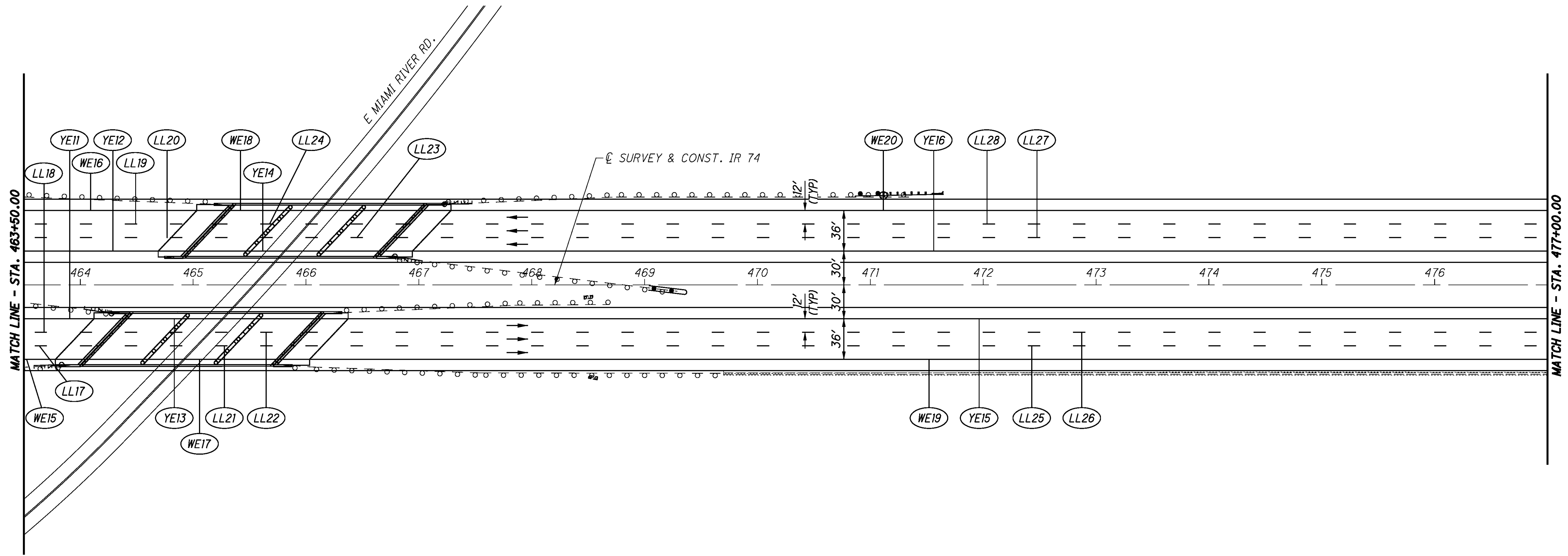
CALCULATED  
EGD  
CHECKED  
CTW

0 50 100  
25  
HORIZONTAL  
SCALE IN FEET

**PAVEMENT MARKING PLAN - IR 74**  
**STA. 441+00.00 TO STA. 463+50.00**

**HAM-74-5.53**

NOTE: FOR LEGEND, SEE SHEET 48

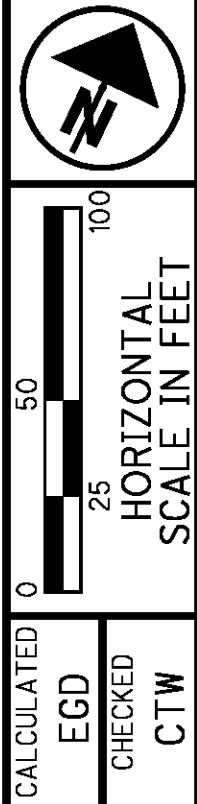
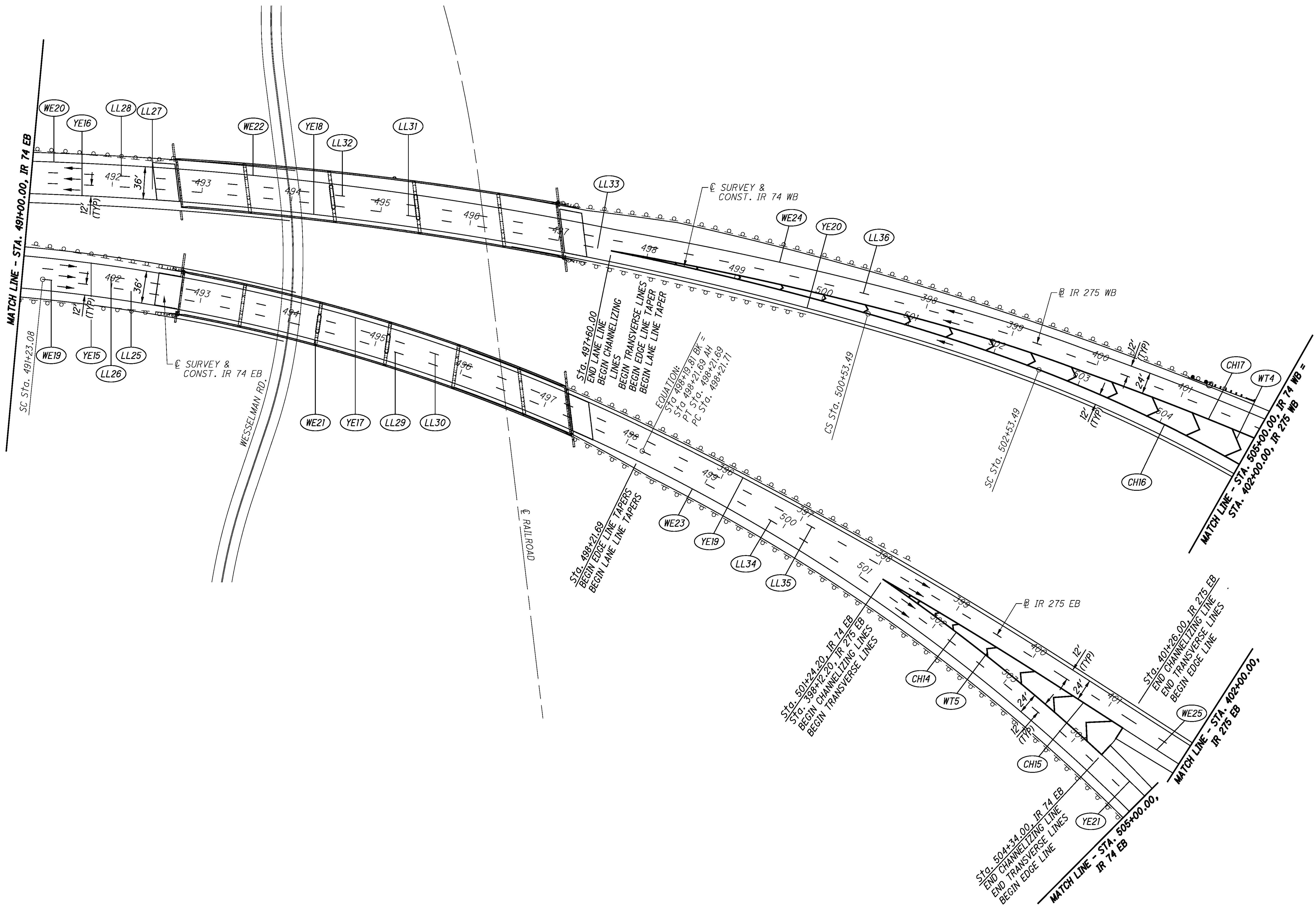


CALCULATED EGD CHECKED CTW

**HAM-74-5.53**  
**PAVEMENT MARKING PLAN - IR 74**  
**STA. 463+50.00 TO STA. 491+00.00, EB**

54  
118

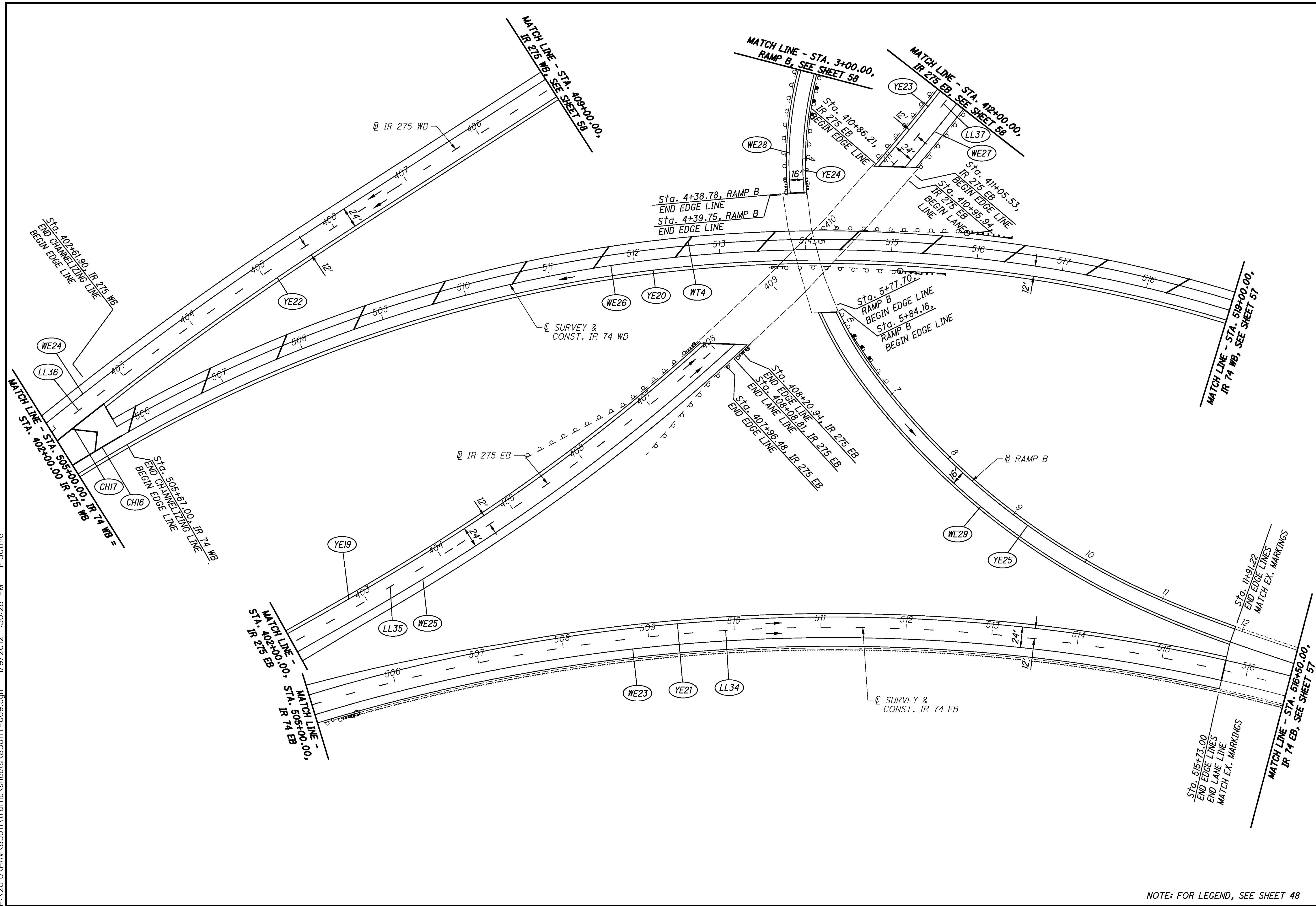
NOTE: FOR LEGEND, SEE SHEET 48



CALCULATED EGD CHECKED CTW  
**HAM - 74 - 5.53**  
**PAVEMENT MARKING PLAN - IR 74**  
**STA. 491+00.00, EB TO STA. 505+00.00, EB AND WB**

NOTE: FOR LEGEND, SEE SHEET 48

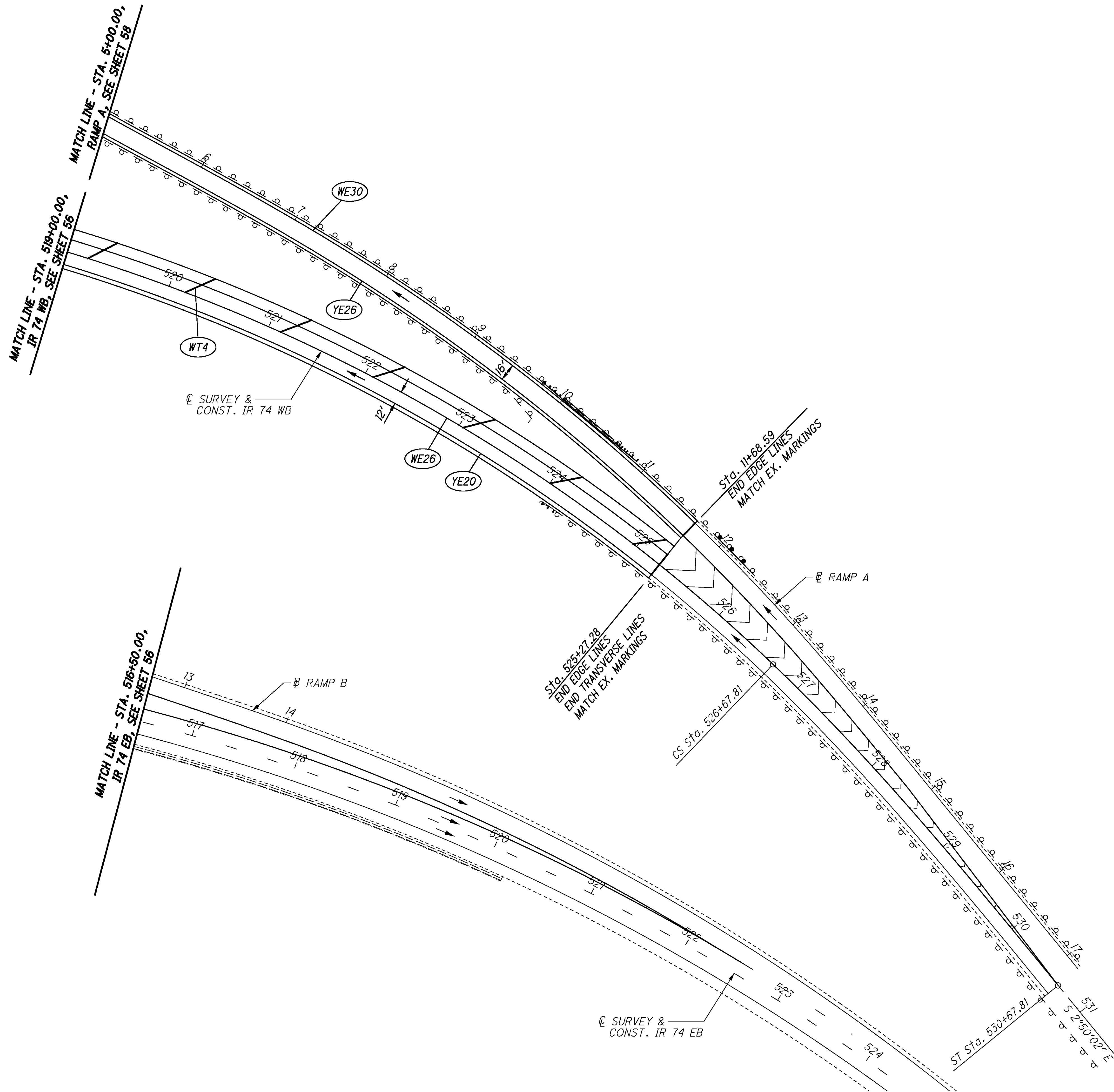




CALCULATED	EGD	CHECKED	CTW
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**HAM-74-5.53**  
**PAVEMENT MARKING PLAN - IR 74**  
**STA. 505+00.00, EB AND WB TO**  
**STA. 516+50.00, EB AND STA. 519+00.00, WB**

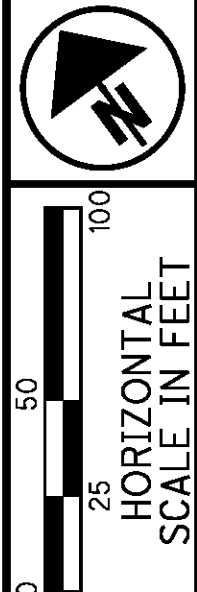
NOTE: FOR LEGEND, SEE SHEET 48



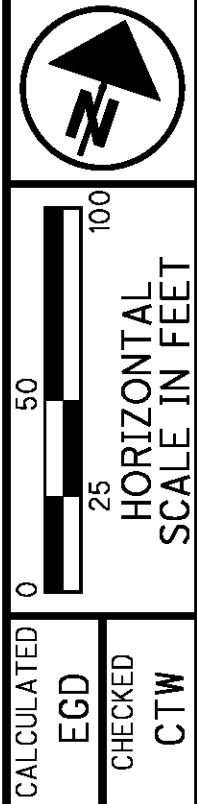
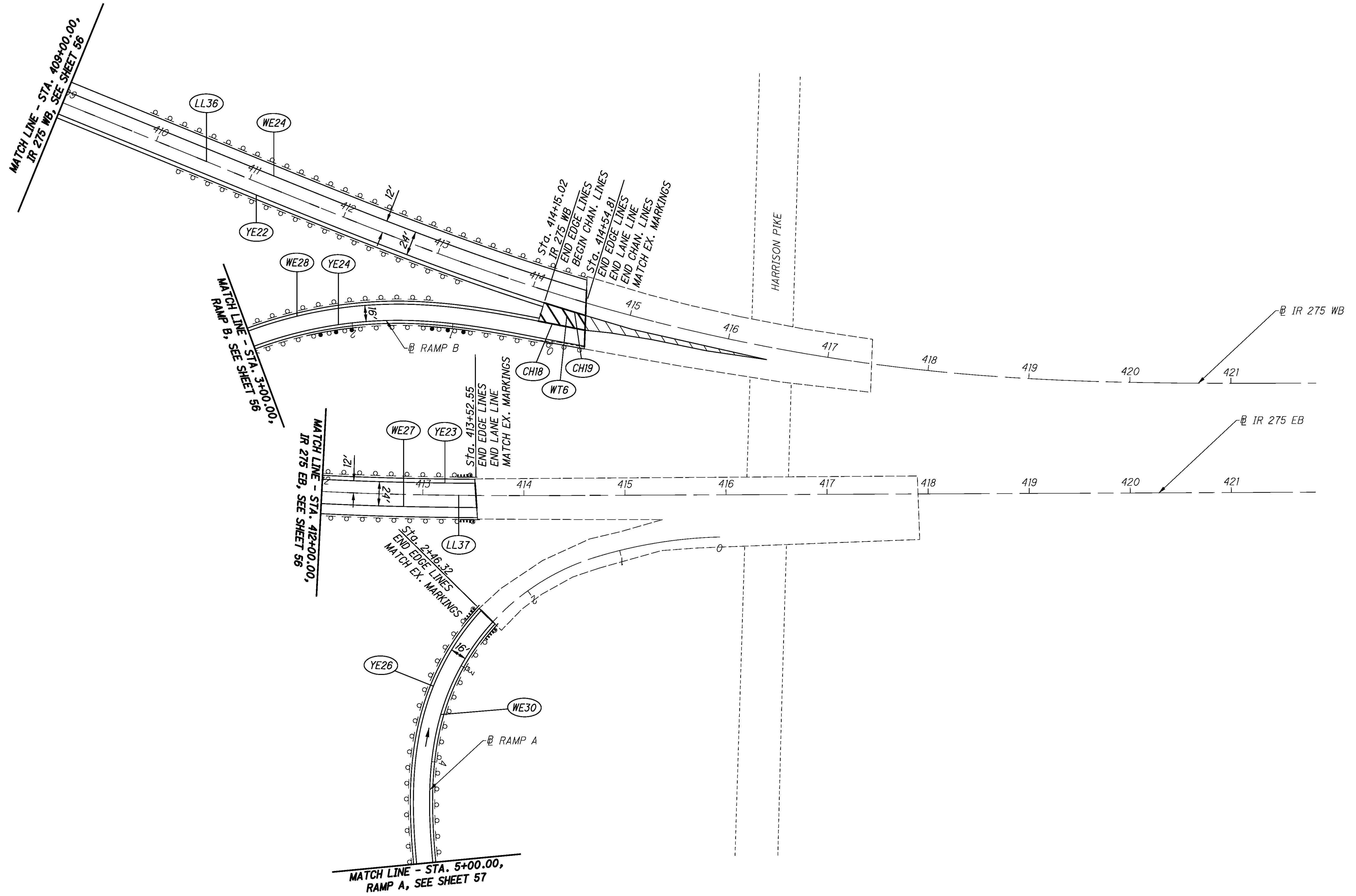
CALCULATED	EGD
CHECKED	CTW

**HAM - 74 - 5.53**  
**PAVEMENT MARKING PLAN - IR 74**  
**STA. 516+50.00 TO STA. 524+25.00, EB AND**  
**STA. 519+00.00 TO STA. 531+50.00, WB**

57  
118



NOTE: FOR LEGEND, SEE SHEET 48



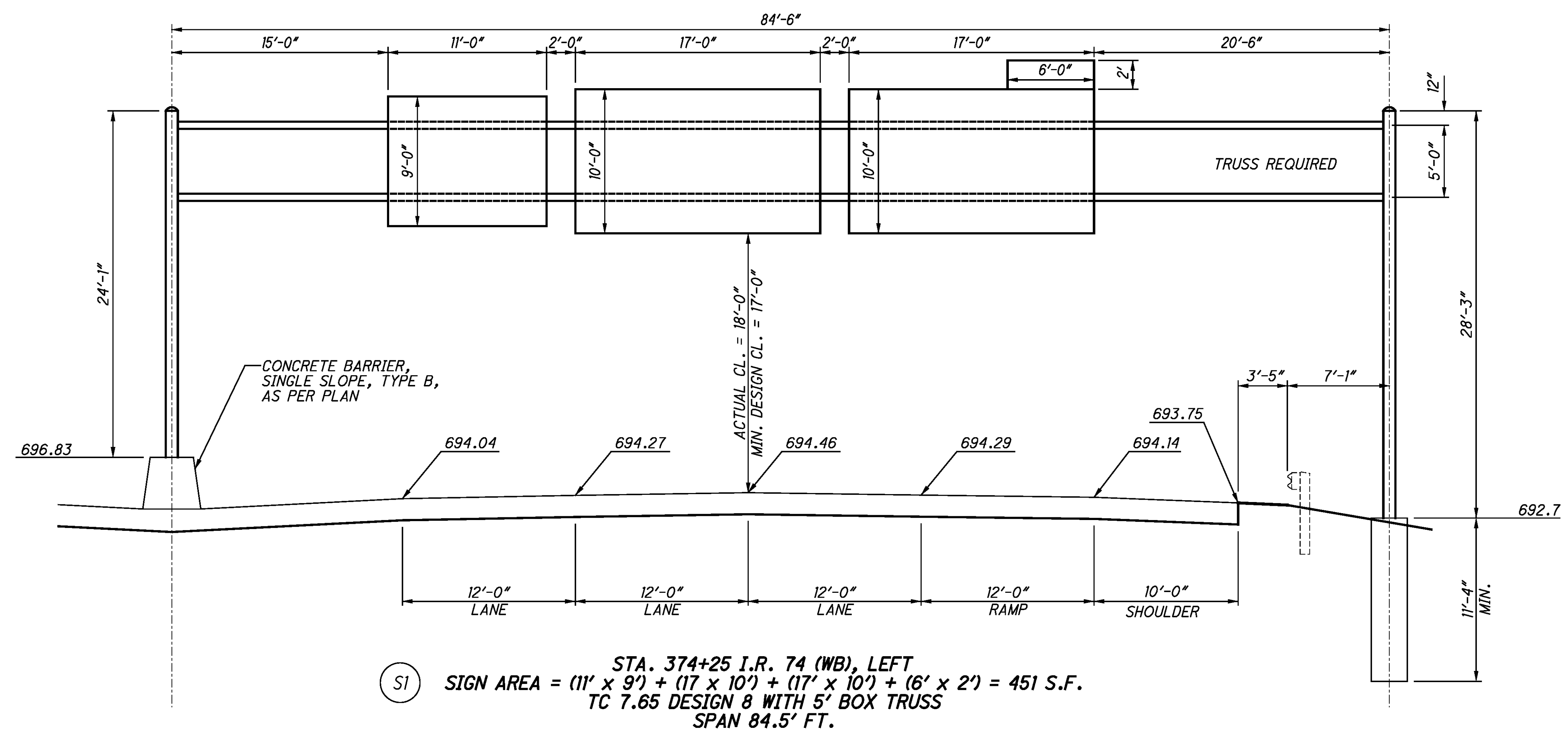
CALCULATED  
 EGD  
 CHECKED  
 CTW

**HAM - 74 - 5.53**  
**PAVEMENT MARKING PLAN - IR 74**  
**STA. 412+00.00 TO STA. 421+00.00, EB AND**  
**STA. 409+00.00 TO STA. 421+00.00, WB**

NOTE: FOR LEGEND, SEE SHEET 48



0 50 100  
 25  
 HORIZONTAL  
 SCALE IN FEET  
 CALCULATED  
 EGD  
 CHECKED  
 SJS



(S1) STA. 374+25 I.R. 74 (WB), LEFT  
 SIGN AREA = (11' x 9') + (17' x 10') + (17' x 10') + (6' x 2') = 451 S.F.  
 TC 7.65 DESIGN 8 WITH 5' BOX TRUSS  
 SPAN 84.5' FT.

NOTE: THE CONTRACTOR SHALL COMPLETE THE INSTALLATION OF THE PROPOSED TRUSS AND REERECT THE EXISTING SIGNS ON THE PROPOSED TRUSS PRIOR TO REMOVAL OF THE EXISTING TRUSS.

THE SIGNS SHALL BE LOCATED ON THE TRUSS AS SHOWN ON THIS DETAIL BUT THE CONTRACTOR SHALL ADJUST THE LOCATIONS AS NECESSARY SO THAT THE DOWN ARROWS ON THE SIGNS LINE UP WITH THE CENTER OF THE LANE. THE FINAL LOCATION SHALL BE APPROVED BY THE PROJECT ENGINEER.

REF NO.	SHEET NO.	STATION	SIDE	625	630	630	630	630	630	630	631	631
				GROUND ROD	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8	CONCRETE BARRIER MEDIUM OVERHEAD SIGN SUPPORT FOUNDATION, TC-7.65	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65	SIGNING MISC.: SIGN BACKING ASSEMBLY, AS PER PLAN	REMOVAL OF SIGN WIRING AND DISPOSAL, AS PER PLAN	REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN
S1	50	374+25	LT	EACH 2	EACH 1	EACH 1	EACH 1	EACH 4	EACH 1	EACH 1	EACH 1	EACH 1
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				2	1	1	1	4	1	1	1	1

SIGN DETAILS AND SUBSUMMARY - IR 74

HAM-74-5.53

58A  
118

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**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.
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 OUT-SIDE 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 A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
    - 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.

8. PAYMENT.
  - A. ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY THIS 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.

**CONDUIT EXPANSION AND DEFLECTION**

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES (100 OR 200 MILLIMETERS) TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

**625 DISCONNECT CIRCUIT, AS PER PLAN**

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR TRANSFORMER BASE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED FROM THE PULL BOX SO THAT NO CABLE IS LEFT IN THE BOX.

DISCONNECTION AT A TRANSFORMER BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ALL DUCT-CABLE NOT TO BE REUSED SHALL BE REMOVED FROM THE TRANSFORMER BASE AND THE EXISTING CONDUIT IN THE FOUNDATION SHALL BE CLEANED OF ALL CABLE AND DEBRIS SO THAT THE NEW DUCT-CABLE CAN BE INSTALLED. ALL EXISTING CABLE TO REMAIN ACTIVE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT CABLE LEFT FOR RE-CONNECTION.

THOSE WIRES THAT ARE TO REMAIN ON ACTIVE CIRCUITS SHALL HAVE A WATER-RESISTANT SEAL AT THE CUT END. THE WATER-RESISTANT SEAL SHALL BE ACCOMPLISHED BY PLUGGING THE DEACTIVATED PORT OF AN EXISTING CONNECTOR KIT OR BY INSTALLING A CABLE SPLICE KIT ON THE CUT END OF THE CABLE.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "DISCONNECT EXISTING CIRCUIT, AS PER PLAN" AT EACH LOCATION WHERE DISCONNECTION IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
625	40000	LUMP	LUMP	SPECIAL - MAINTAIN EXISTING LIGHTING	
625	40010	1	EACH	SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT	
625	75400	2	EACH	LIGHT POLE REMOVED	
625	75500	1	EACH	LIGHT POLE FOUNDATION REMOVED	
625	75801	2	EACH	DISCONNECT CIRCUIT, AS PER PLAN	

**SPECIAL - MAINTAIN EXISTING LIGHTING**

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE HIGHWAY AND SIGN LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS. A QUANTITY OF ONE (1) EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

THE CONTRACTOR SHALL COORDINATE HIS WORK TO MINIMIZE THE AMOUNT OF TIME THE EXISTING LIGHTING SYSTEM IS TAKEN OUT OF SERVICE. ROADWAYS THAT ARE CURRENTLY ILLUMINATED SHALL NOT BE WITHOUT LIGHTING, DUE TO THE CONTRACTOR'S WORK, FOR MORE THAN 7 CONSECUTIVE CALENDAR DAYS. FOR OUTAGES LASTING MORE THAN 7 DAYS, THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING EQUIVALENT TO THE EXISTING AS PART OF THIS PAY ITEM.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL - MAINTAIN EXISTING LIGHTING.

SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT. AN ESTIMATED QUANTITY OF ONE (1) IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.



CALCULATED  
GM  
CHECKED  
M/JH  
**LIGHTING PLAN  
GENERAL NOTES AND GENERAL SUMMARY**

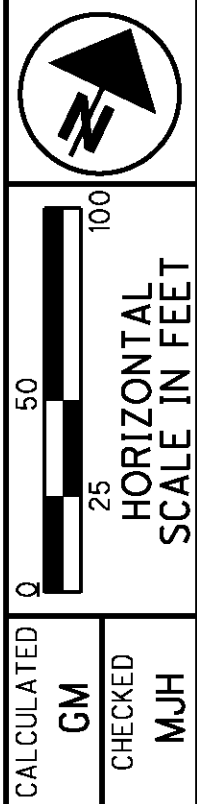
**HAM-74-5.53**

**NOTES**

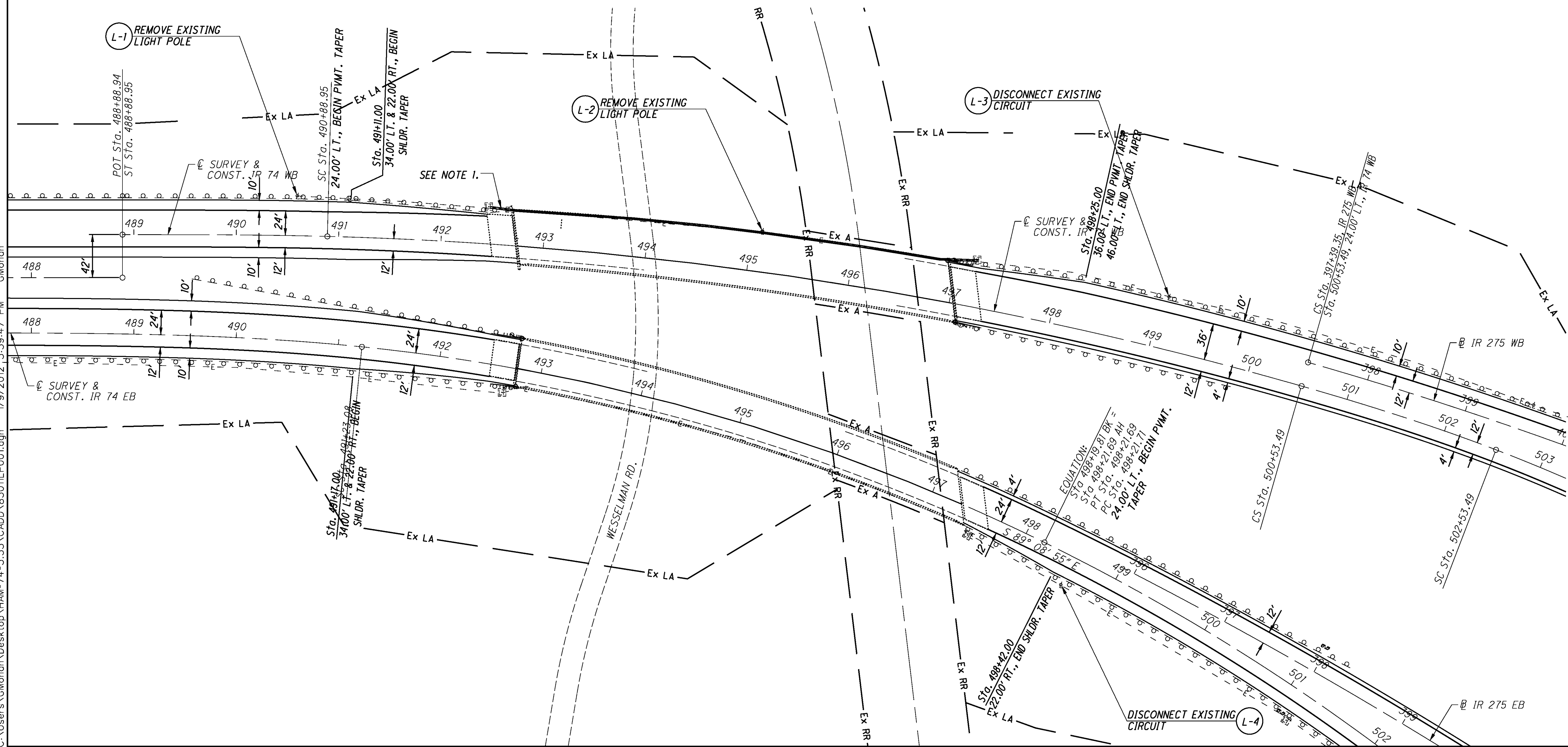
1) PROVIDE 2" (EMPTY) CONDUIT IN BRIDGE PARAPET, AND RECONNECT CONDUIT TO EXISTING PULL BOXES. ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED TO INSTALL THIS SPARE CONDUIT SHALL BE CONSIDERED INCIDENTAL TO THE OTHER VARIOUS BID ITEMS.

2) THE CONTRACTOR SHALL CONSTRUCT WITH CAUTION TO AVOID DISTURBING EXISTING LIGHTING CIRCUITS. ANY CONDUIT OR WIRE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR, AT HIS OWN EXPENSE.

LOCATION	SIDE	CALL-OUT	625			
			LIGHT POLE REMOVED	LIGHT POLE FOUNDATION REMOVED	DISCONNECT CIRCUIT	
FROM - TO			EACH	EACH	EACH	
STA. 490+60	LT	L-1	1	1		
STA. 495+10	LT	L-2	1			
STA. 499+07	LT	L-3			1	
STA. 498+50	RT	L-4			1	
TOTALS			2	1	2	



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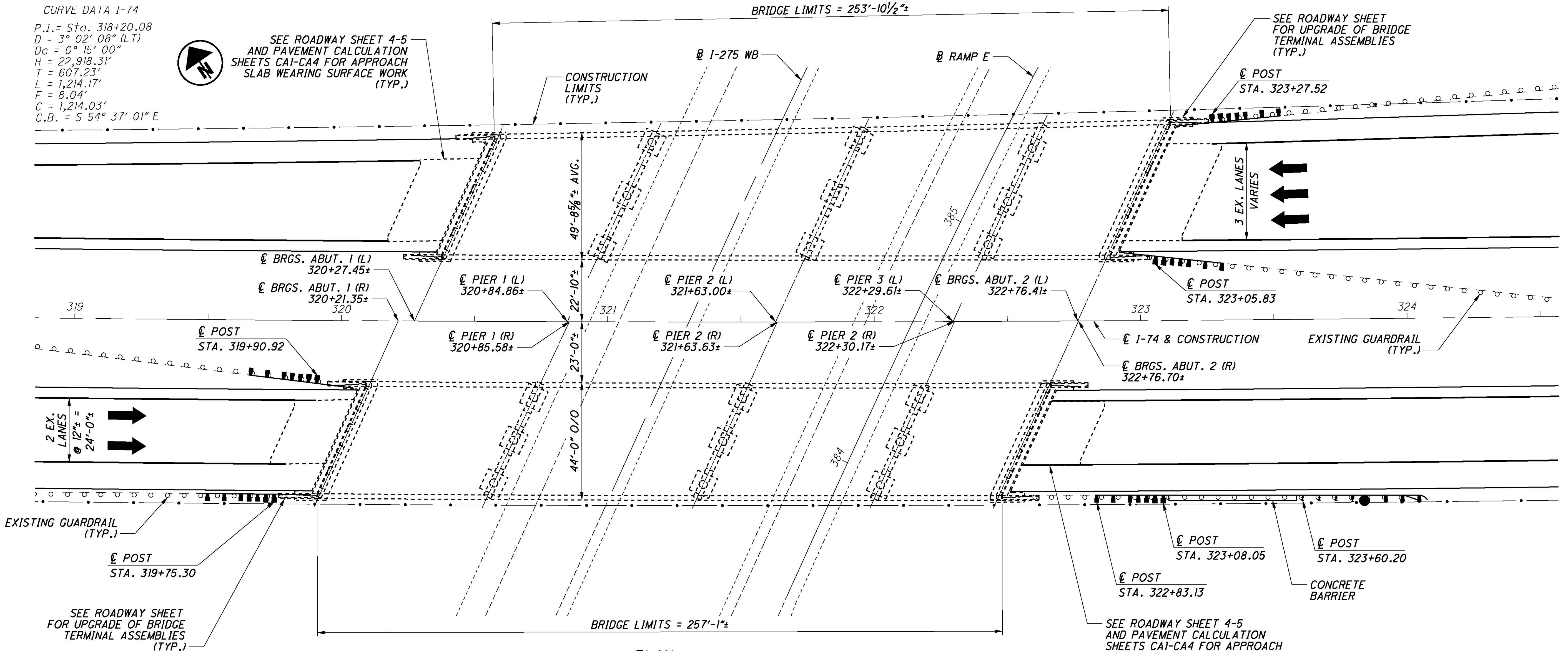


**LIGHTING PLAN**  
**IR 74 - STA. 488+00 - STA. 503+00**

CURVE DATA I-74  
 P.I. = Sta. 318+20.08  
 D = 3° 02' 08" (LT)  
 Dc = 0° 15' 00"  
 R = 22,918.31'  
 T = 607.23'  
 L = 1,214.17'  
 E = 8.04'  
 C = 1,214.03'  
 C.B. = S 54° 37' 01" E



SEE ROADWAY SHEET 4-5  
 AND PAVEMENT CALCULATION  
 SHEETS CA1-CA4 FOR APPROACH  
 SLAB WEARING SURFACE WORK  
 (TYP.)



PLAN

**NOTES**

DESIGN TRAFFIC:  
 2013 ADT = 89,390    2013 ADTT = 13,409  
 2033 ADT = 116,000    2033 ADTT = 17,400  
 DIRECTIONAL DISTRIBUTION = 51%

- PROPOSED WORK**
1. PATCH UNSOUND OR DELAMINATED AREAS OF EXISTING BRIDGE DECKS WITH TYPE B PATCHING.
  2. SEAL EXISTING DECKS WITH GRAVITY FED RESIN.
  3. REFURBISHED ABUTMENT BEARINGS AND PROVIDE A CONTINUOUS WELD AROUND EACH EX. BEARING STEEL SHIM PLATE.
  4. SEAL EXISTING EXPANSION JOINTS WITH DOW CORNING PRODUCT 902 RCS OR APPROVED EQUAL.
  5. PATCH DETERIORATED SUBSTRUCTURE CONCRETE WITH 519 PATCHING.
  6. REPAIR CRACKS WITH EPOXY INJECTION.
  7. PAINT THE EXISTING STRUCTURAL STEEL USING OZEU SPECIFICATIONS, FEDERAL COLOR NUMBER 14277.
  8. SEAL SUPERSTRUCTURE AND SUBSTRUCTURE WITH EPOXY URETHANE, FEDERAL COLOR NUMBER 17778.
  9. CLEARING AND GRUBBING WHITEN 10 FEET OF THE EXISTING STRUCTURE.
  10. UPGRADE PARAPET TERMINAL ASSEMBLIES AS SHOWN ON PLANS.
  11. MILL AND REPLACE APPROACH SLAB ASPHALT WEARING SURFACES AS SHOWN ON THE PLAN.

<p><b>EXISTING STRUCTURE</b></p> <p>TYPE: FOUR SPAN CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE</p> <p>SPANS: 58'-0"±, 78'-0"±, 66'-6"±, 46'-6"± LT. C/C BRGS.          64'-0"±, 78'-0"±, 66'-6"±, 46'-6"± RT. C/C BRGS.</p> <p>ROADWAY: 46'-2 5/8"± AVERAGE (L), 40'-6"± (R) FACE/FACE PARAPET</p> <p>LOADING: HS-20-44 AND INTERSTATE ALTERNATIVE LOADING</p> <p>WEARING SURFACE: 2" CONCRETE OVERLAY</p> <p>SKEW: 24°21'32" WITH REFERENCE CHORD</p> <p>APPROACH SLABS: AS-1-67 (20'-0" LONG)</p> <p>ALIGNMENT: 00°15'00" LEFT CURVE</p> <p>CROWN: 3/16" / FT±</p> <p>STRUCTURAL FILE NUMBER: 3108147(L) 3108155(R)</p> <p>DATE BUILT: 1975</p> <p>COORDINATES: LATITUDE 39° 13' 13" W          LONGITUDE 84° 44' 20" N</p>
<p><b>PROPOSED STRUCTURE</b></p> <p>SAME AS EXISTING</p>

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DESIGN AGENCY: Mead & Hunt  
 5800 WILCOX PLACE, DUBLIN, OH 43016  
 (614) 792-9900 PHONE, (614) 792-9901 FAX

DATE: 11/11  
 REVIEWED: KVB  
 DRAWN: JMD  
 DESIGNED: SK  
 CHECKED: LYH

STRUCTURE FILE NUMBER: 3108147(L) 3108155(R)

GENERAL PLAN  
 BRIDGE NO. - HAM-74-0585 L&R  
 I-74 OVER RAMPS TO I-275

HAM-74-5.53  
 PID No. 83011

1 / 10  
 61  
 118

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION - 2002 AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

**DESIGN LOADING (BOTH STRUCTURES):**

HS-20-44 & INTERSTATE ALTERNATE LOADING

**DECK PROTECTION METHOD:**

GRAVITY FED RESIN

**EXISTING STRUCTURE VERIFICATION:**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING STRUCTURE PLANS:**

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH SR 741 LEBANON, OHIO 45036 (PHONE: 800-831-2142)

**PROTECTION OF TRAFFIC:**

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO INSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

**ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):**

THE FINISH COAT COLOR FOR THE ABUTMENT, PIERS, AND PARAPETS SHALL BE FEDERAL COLOR NO. 17778, LIGHT NEUTRAL.

**ITEM 514. FIELD PAINTING OF EXISTING STRUCTURAL STEEL:**

PAINT THE EXISTING STRUCTURAL STEEL USING OZEU SPECIFICATIONS. THE COLOR SHALL BE FEDERAL COLOR NO. 14277.

**ITEM 516. JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE. AS PER PLAN:**

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

**ITEM 516. REFURBISH BEARING DEVICES. AS PER PLAN:**

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60° F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING", AND PROVIDE A CONTINUOUS WELD AROUND STEEL SHIM. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISHED BEARING DEVICES, AS PER PLAN.

**ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER. MISC.: USING DOW CORNING 902:**

THE SILICONE SEALANT MATERIALS SHALL BE INSTALLED AS PER MANUFACTURER'S.

THIS WORK SHALL CONSIST OF PROVIDING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO THOROUGHLY CLEAN WHICH INCLUDES THE REMOVAL OF ANY EXISTING SEAL AND APPLYING A NEW SEAL TO THE EXISTING SLIDING DECK JOINTS.

THE SEALANT SHALL BE DOW CORNING # 902 SEALANT (ONE PART/ NON SAG/MED. MODULUS) AS MANUFACTURED BY DOW CORNING. THE SEALANT CAN BE BOUGHT AT:

DOW CORNING 902 RCS  
C M A SUPPLY COMPANY, INC. TOM BROWN INCORPORATED  
9984 COMMERCE PARK DR. 578 NORTHLAND BOULEVARD  
CINCINNATI, OH 45246 CINCINNATI, OH 45240  
PHONE: 513-942-6663 PHONE: 513-851-6100

JOINT SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING AND/OR POWER TOOLS AND WITH A SUFFICIENT AMOUNT OF COMPRESSED AIR TO REMOVE ANY DIRT OR DELETERIOUS MATTER. WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY, AND JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 P.S.I. SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST.

THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. ONCE CLEANED AND DRIED, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE JOINT.

THE SILICONE SEALANT MATERIALS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, EXCEPT AS MODIFIED BY THESE NOTES. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR AN HOUR AFTER APPLICATION OF THE SEALANT.

**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.

THE PATCHING QUANTITIES SHOWN IN ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

**ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK. TYPE B**

THIS ITEM IS TO BE USED TO PATCH AREAS OF DETERIORATED BRIDGE DECK CONCRETE. THE FOLLOWING CONTINGENCY QUANTITIES ARE PROVIDED AND SHALL BE DIRECTED BY THE ENGINEER:

BRIDGE NO. 3108147 (L) 13 S.Y.  
BRIDGE NO. 3108155 (R) 12 S.Y.

AREAS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE MARKED BY THE PROJECT ENGINEER. MATERIALS SHOULD NOT BE ORDERED UNTIL THE AREAS FOR REPAIR HAVE BEEN MARKED.

THIS WORK WILL BE PAID FOR AT THE CONTRACT BID PRICE, WHICH PRICE AND PAYMENTS SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF THE PROPOSAL NOTE AND TO THE SATISFACTION OF THE ENGINEER.

**ABBREVIATIONS:**

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

- ABUT. - ABUTMENT
- ADT - AVERAGE DAILY TRAFFIC
- ADTT - AVERAGE DAILY TRUCK TRAFFIC
- APPROX. - APPROXIMATE
- ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS
- AVG. - AVERAGE
- B.F. - BACK FACE
- BOT. - BOTTOM
- BRGS. - BEARINGS
- CL. - CENTERLINE
- C/C - CENTER TO CENTER
- CIP - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- CLR. - CLEARANCE
- CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
- CONST. - CONSTRUCTION
- DIA./φ - DIAMETER
- DWG. - DRAWING
- E.F. - EACH FACE
- E/P - EDGE OF PAVEMENT
- E/S - EDGE OF SHOULDER
- EL. - ELEVATION
- EQ. - EQUAL
- EX. - EXISTING
- F.A. - FORWARD ABUTMENT
- F.F. - FRONT FACE
- F/F - FACE TO FACE
- FTG. - FOOTING
- FT/FT - FOOT PER FOOT
- FWD. - FORWARD
- IR - INTERSTATE ROUTE
- JT. - JOINT
- LT. - LEFT
- MAX. - MAXIMUM
- MIN. - MINIMUM
- MOT - MAINTENANCE OF TRAFFIC
- NB - NORTHBOUND
- N.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
- O/O - OUT TO OUT
- P.C.P.P - PERFORATED CORRUGATED PLASTIC PIPE
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
- R.A. - REAR ABUTMENT
- RT. - RIGHT
- SB - SOUTHBOUND
- S.O. - SERIES OF
- SPA. - SPACES OR SPACING
- STA. - STATION
- STD. - STANDARD
- STR. - STRAIGHT
- TEMP. - TEMPORARY
- T/T - TOE TO TOE
- TYP. - TYPICAL
- VERT. - VERTICAL

DESIGN AGENCY  
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5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5600 PHONE  
(614) 792-5601 FAX

DATE 11/11  
REVIEWED KVB  
DRAWN JMD  
DESIGNED SK  
CHECKED L Y H  
STRUCTURE FILE NUMBER 3108147(L) 3108155(R)

GENERAL NOTES  
BRIDGE NO. HAM-74-0585 L&R  
1-74 OVER RAMPS TO I-275

HAM-74-5.53  
PID No. 83011

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CALCULATED BY: SK					ESTIMATED QUANTITIES - WESTBOUND - HAM-74-0585L					CHECKED BY: AJS				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.					
512	10100	1,097	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	184	336	577							
512	10600	34	FT	CONCRETE REPAIR BY EPOXY INJECTION	34									
512	73500	1,290	SQ YD	TREATING CONCRETE BRIDGE DECK WITH GRAVITY FED RESIN			1,290							
514	00050	18,652	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			18,652							
514	00056	18,652	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			18,652							
514	00060	18,652	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			18,652							
514	00066	18,652	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			18,652							
514	00504	29	MAN HR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			29							
514	10000	12	EACH	FINAL INSPECTION REPAIR			12							
516	14600	102	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: USING DOW CORNING 902			102							
516	45305	14	EACH	REFURBISH BEARING DEVICE, AS PER PLAN			14		2					
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					2					
519	11101	21	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	21				2					
SPECIAL	51912300	13	SQ YD	PATCHING CONCRETE BRIDGE DECK-TYPE B (SEE PROPOSAL NOTE)			13		2					

CALCULATED BY: SK					ESTIMATED QUANTITIES - EASTBOUND - HAM-74-0585R					CHECKED BY: AJS				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.					
512	10100	1,070	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	171	312	587							
512	10600	23	FT	CONCRETE REPAIR BY EPOXY INJECTION	23									
512	73500	1,155	SQ YD	TREATING CONCRETE BRIDGE DECK WITH GRAVITY FED RESIN			1,155							
514	00050	16,353	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			16,353							
514	00056	16,353	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			16,353							
514	00060	16,353	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			16,353							
514	00066	16,353	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			16,353							
514	00504	26	MAN HR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			26							
514	10000	11	EACH	FINAL INSPECTION REPAIR			11							
516	14600	89	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: USING DOW CORNING 902			89							
516	45305	12	EACH	REFURBISH BEARING DEVICE, AS PER PLAN			12		2					
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					2					
519	11101	87	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	87				2					
SPECIAL	51912300	12	SQ YD	PATCHING CONCRETE BRIDGE DECK-TYPE B (SEE PROPOSAL NOTE)			12		2					

DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43016  
 (614) 792-5900 PHONE  
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DATE  
 1/12

REVIEWED  
 KVB

STRUCTURE FILE NUMBER  
 310814(TL) 3108165(R)

DRAWN  
 JMD

REVISER

DESIGNED  
 SK

CHECKED  
 AJS

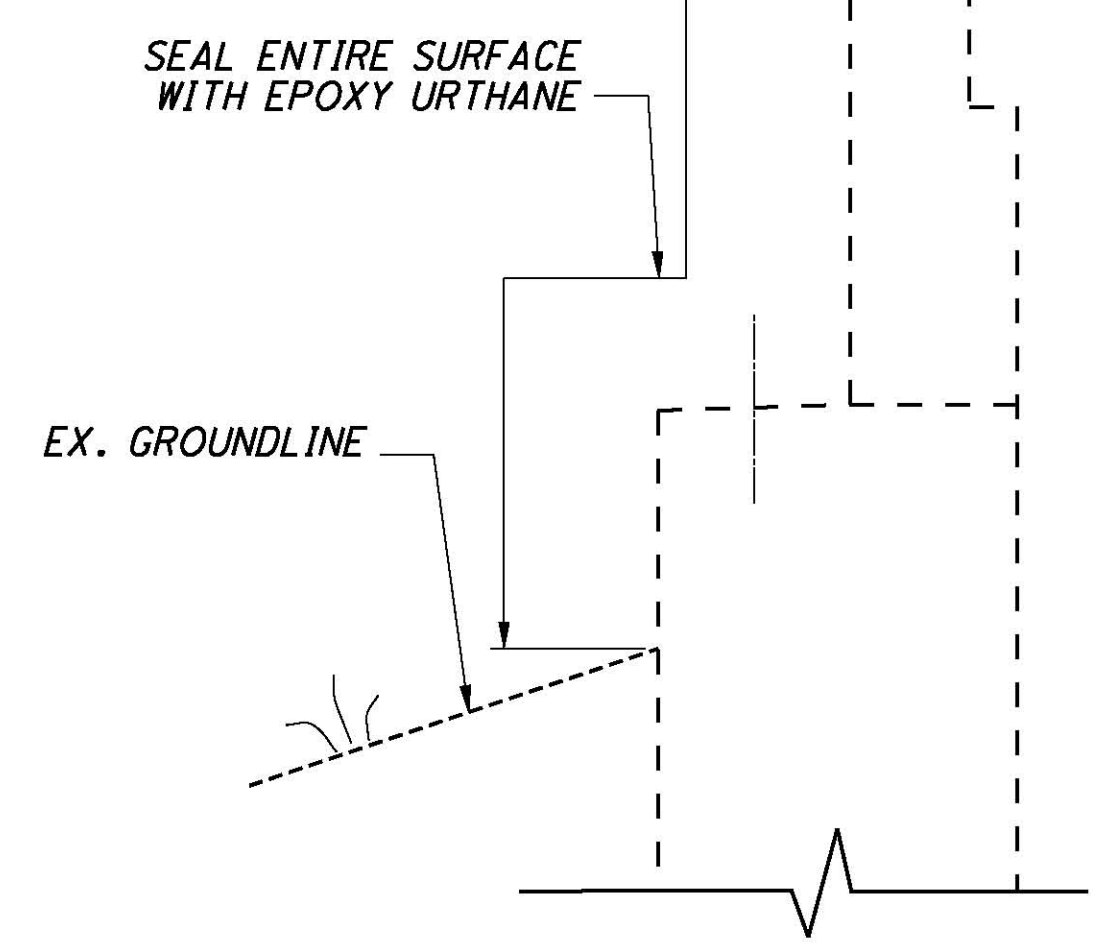
**ESTIMATED QUANTITIES**  
 BRIDGE NO. HAM-74-0585 L&R  
 I-74 OVER RAMPS TO I-275

**HAM-74-5.53**  
 PID No. 83011

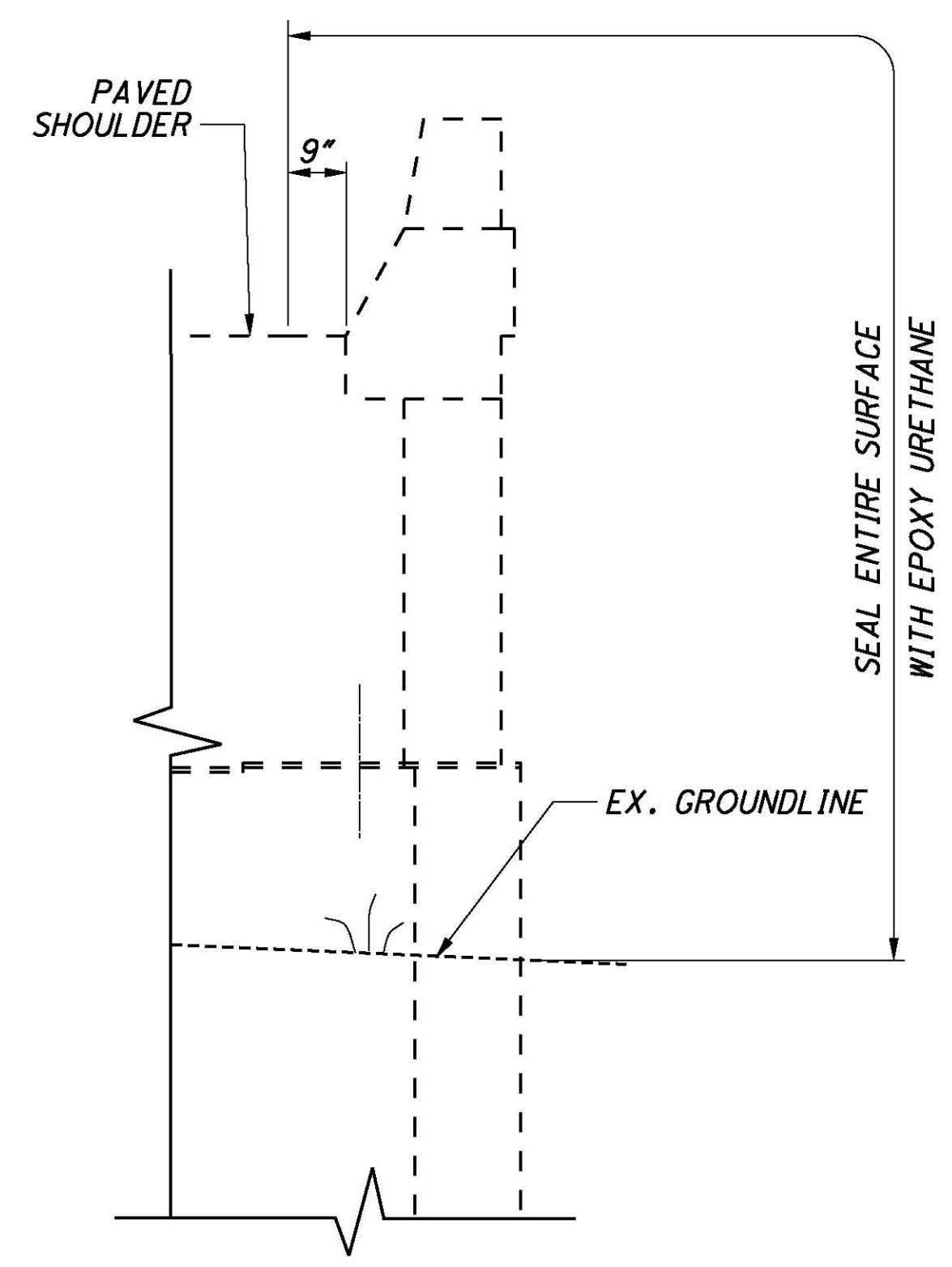
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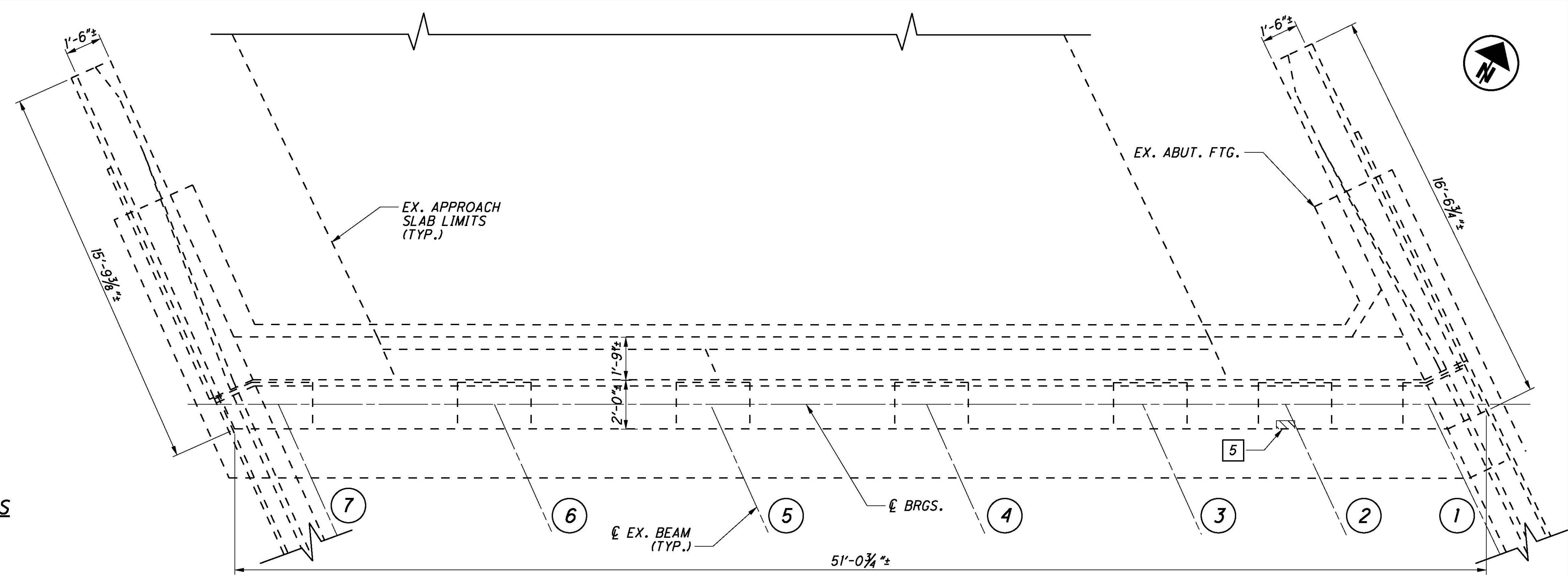
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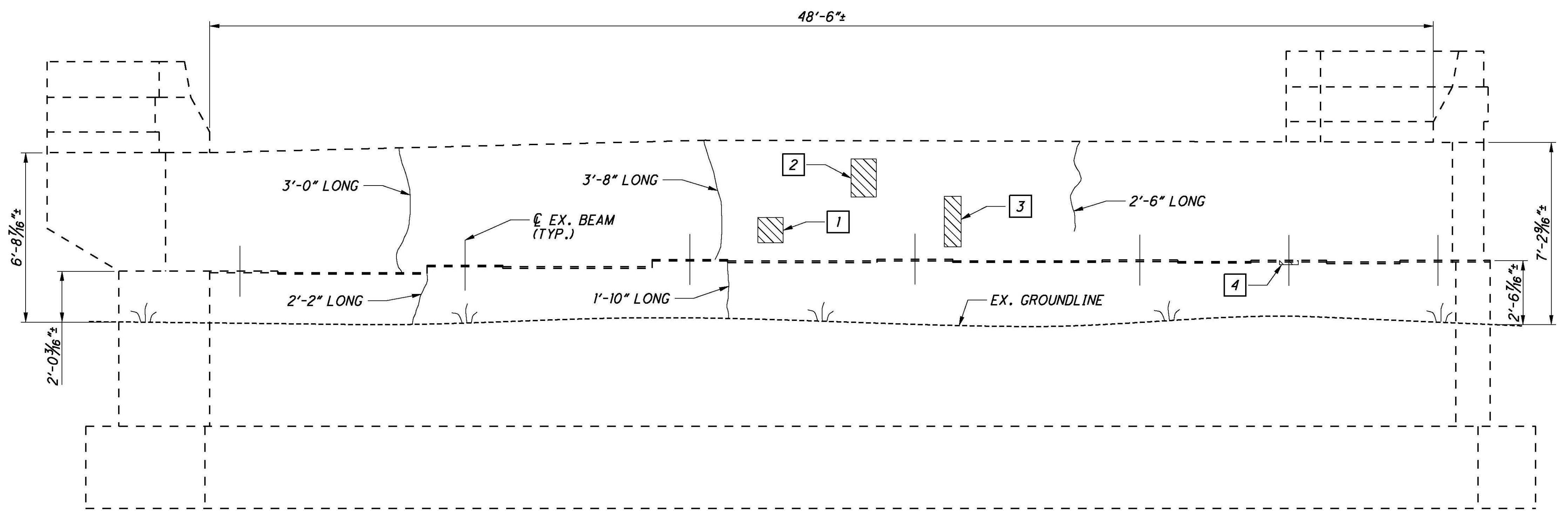
**ABUTMENT SEALING LIMITS**



**WINGWALL SEALING LIMITS**



**PLAN**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	12"x12"	1.0
2	12"x18"	1.5
3	8"x24"	1.33
4	9"x2"	0.13
5	9"x4"	0.25
TOTAL		4.21

REPAIR QUANTITIES BY EPOXY INJECTION	
LENGTH	FT
TOTAL	13.2

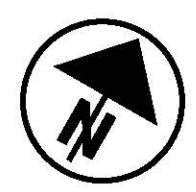
**NOTES:**

- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

**LEGEND:**

- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.



DESIGN AGENCY  
**Mead & Hunt**  
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DATE 11/11  
 REVIEWED KVB  
 DRAWN DJC  
 CHECKED LYH  
 STRUCTURE FILE NUMBER 3108147 (L) 3108155 (R)  
 DESIGNED SK

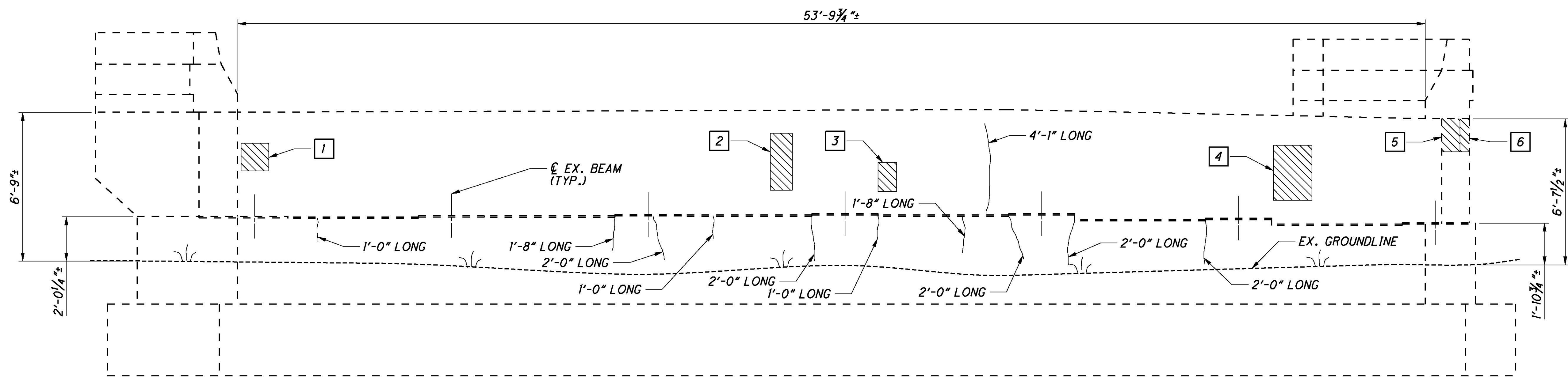
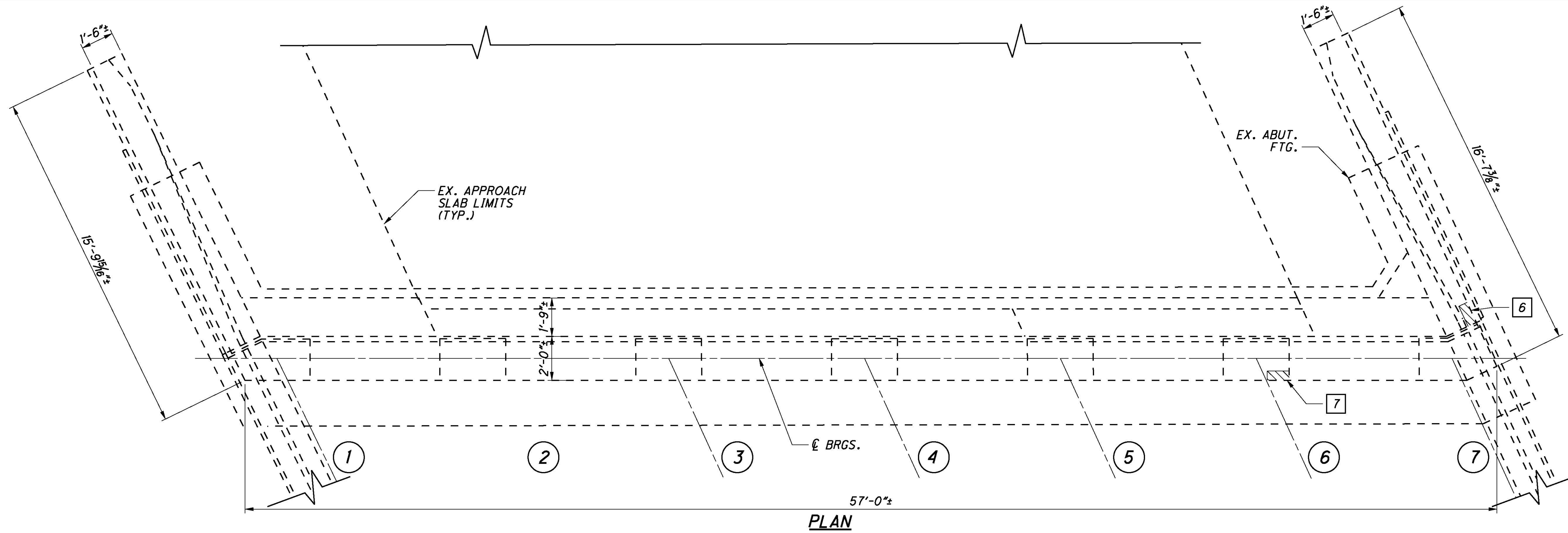
**WESTBOUND REAR ABUTMENT PATCHING DETAILS**  
 BRIDGE NO. HAM-74-0585 L&R  
 I-74 OVER RAMP TO I-275

**HAM-74-5.53**  
 PID No. 83011

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CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	15"x15"	1.56
2	12"x31"	2.58
3	10"x16"	1.11
4	21"x30"	4.38
5	10"x18"	1.25
6	12"x18"	1.50
7	12"x5"	0.42
TOTAL		12.80

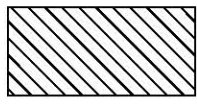
REPAIR QUANTITIES TO BE EPOXY INJECTION	
LENGTH	FT
TOTAL	20.42

**ELEVATION**

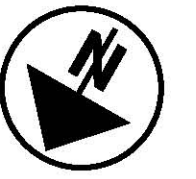
**NOTES:**

- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 4 FOR SEALING LIMITS.

**LEGEND:**

 - PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.



WESTBOUND FORWARD ABUTMENT PATCHING DETAILS

BRIDGE NO. HAM-74-0585 L&R  
I-74 OVER RAMPS TO I-275

HAM-74-5.53  
PID No. 83011

5 / 10

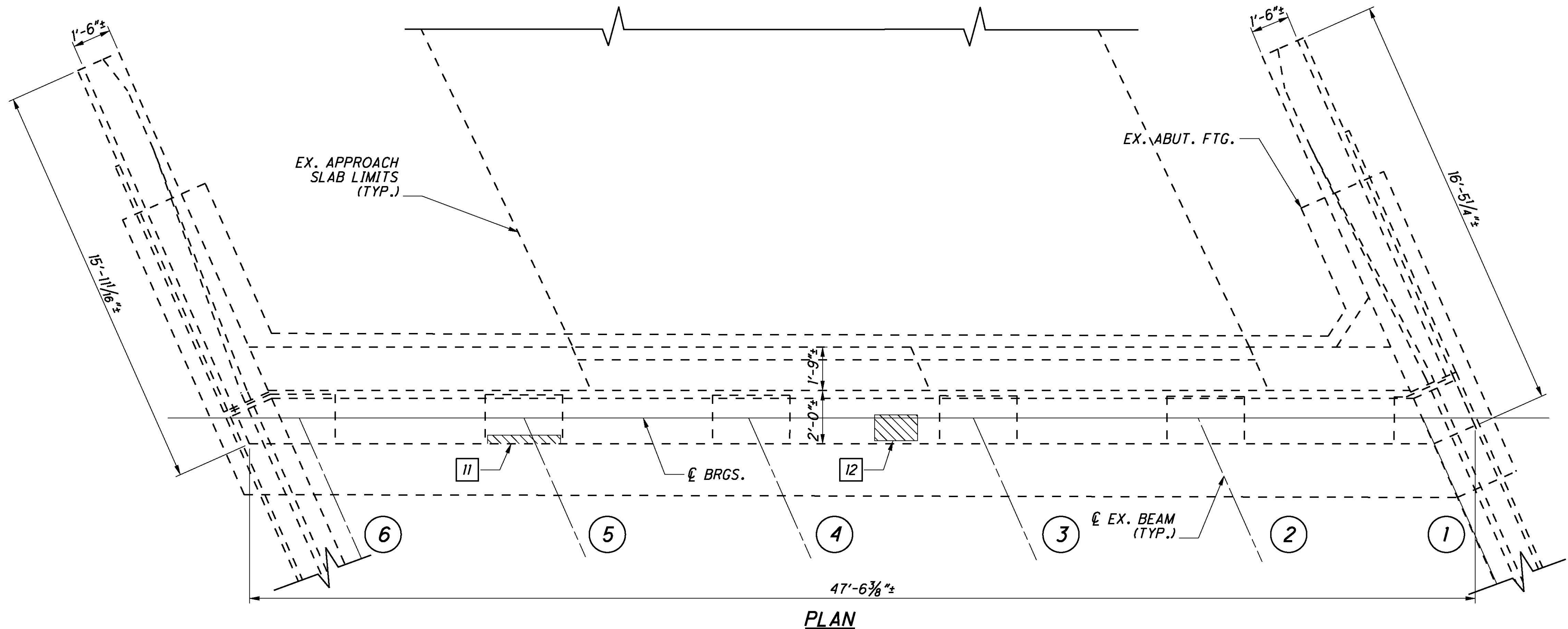
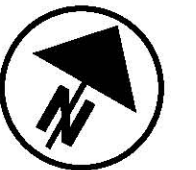
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DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5500 PHONE  
(614) 792-5501 FAX

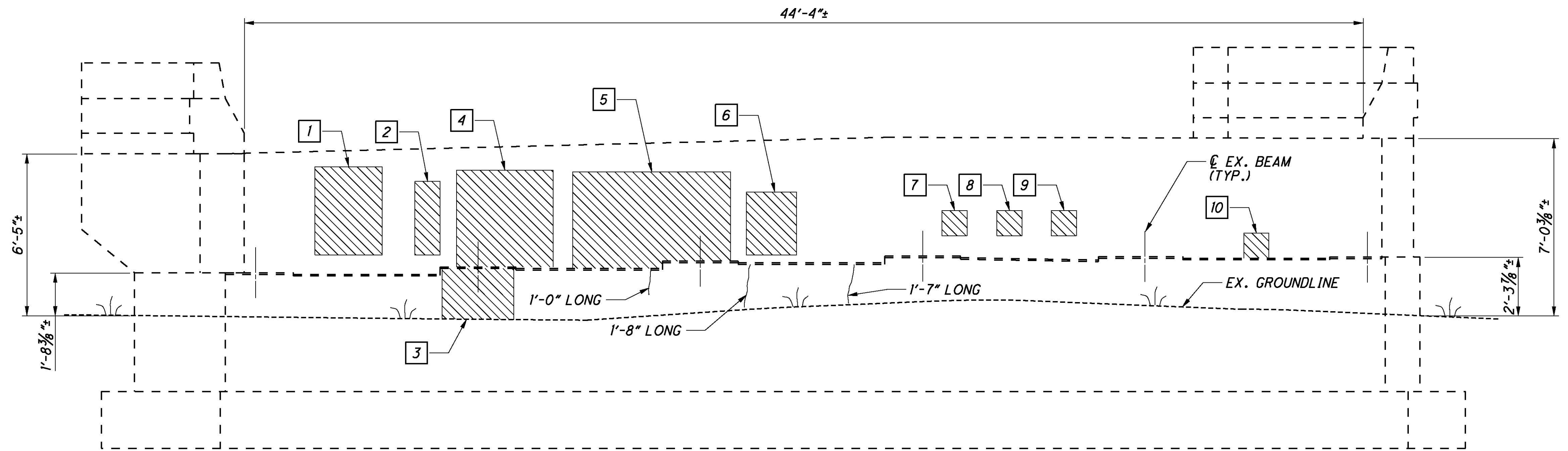
DATE 11/11  
REVIEWED KVB  
STRUCTURE FILE NUMBER 3108147 (L) 3108155 (R)

DRAWN DJC  
REVISED

DESIGNED LYH  
CHECKED SK



**PLAN**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	32"x42"	9.33
2	12"x35"	2.92
3	34"x24"	5.67
4	30"x46"	9.58
5	75"x46"	23.96
6	24"x30"	5.0
7	12"x12"	1.0
8	12"x12"	1.0
9	12"x12"	1.0
10	12"x12"	1.0
11	34"x4"	0.94
12	20"x12"	1.67
TOTAL		63.07

REPAIR QUANTITIES TO BE EPOXY INJECTION	
LENGTH	FT
TOTAL	4.25

**NOTES:**

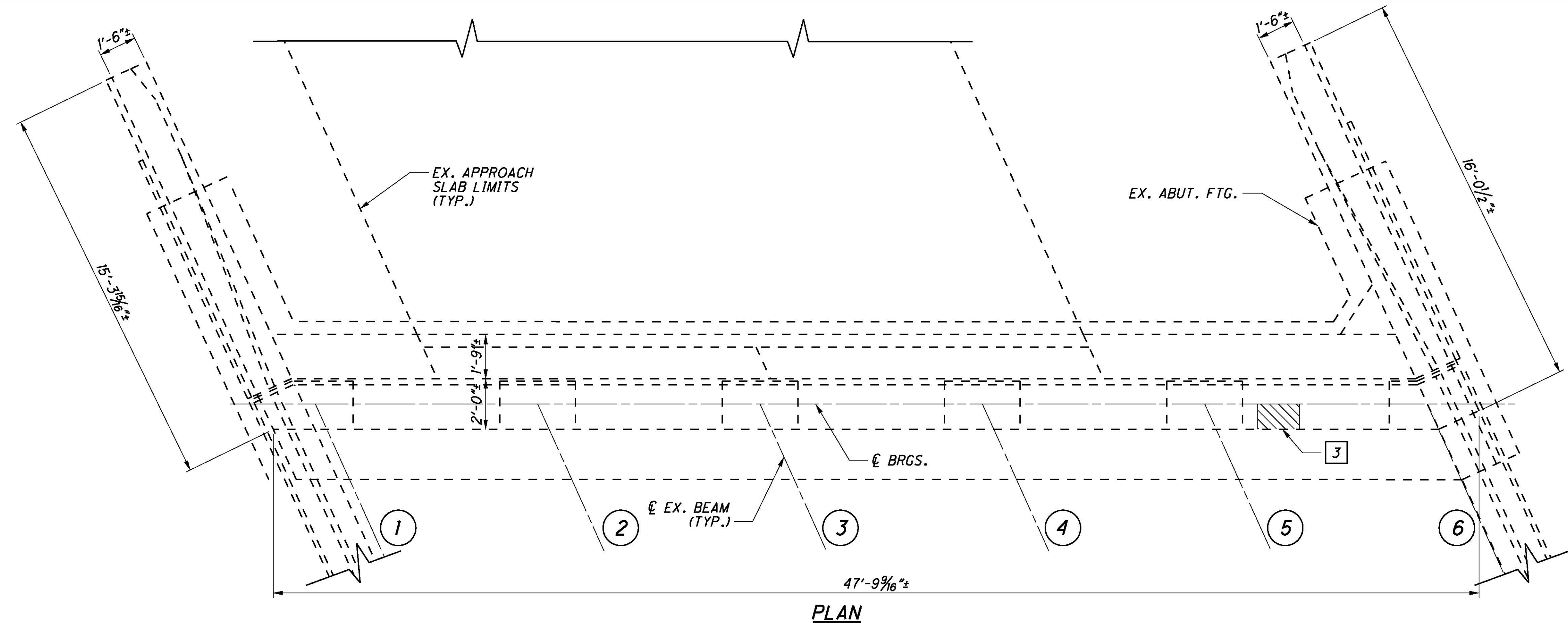
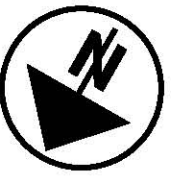
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 4 FOR SEALING LIMITS.

**LEGEND:**

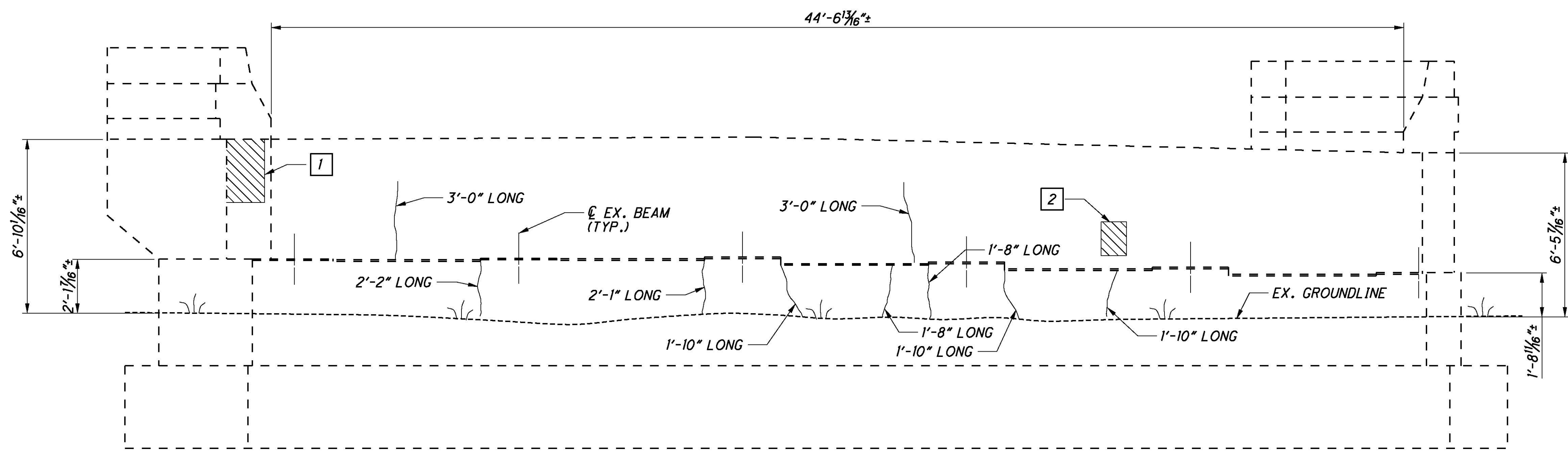
- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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**PLAN**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	18"x30"	3.75
2	12"x16"	1.33
3	20"x12"	1.67
TOTAL		6.75

REPAIR QUANTITIES BY EPOXY INJECTION	
LENGTH	FT
TOTAL	19.1

**NOTES:**

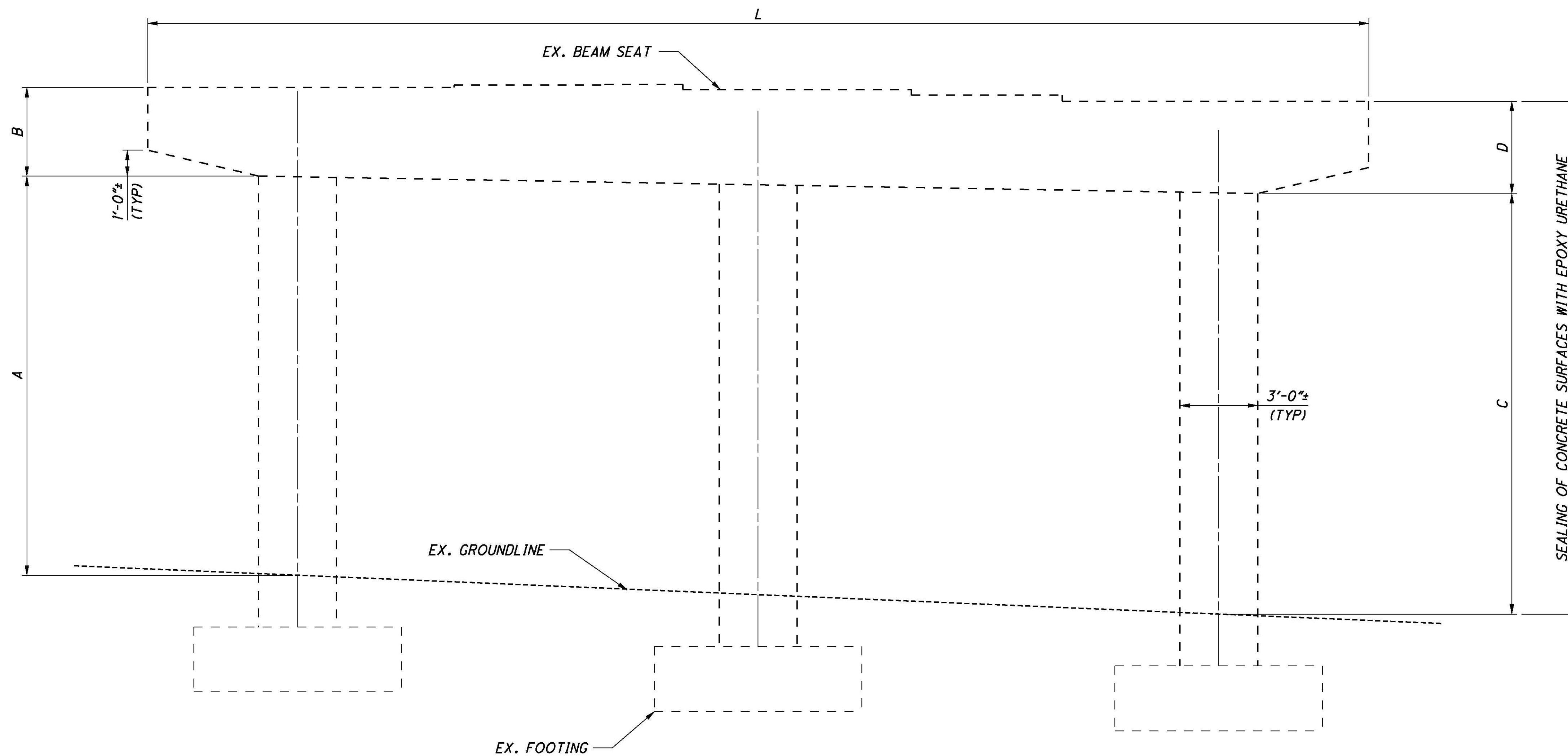
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 4 FOR SEALING LIMITS.

**LEGEND:**

- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

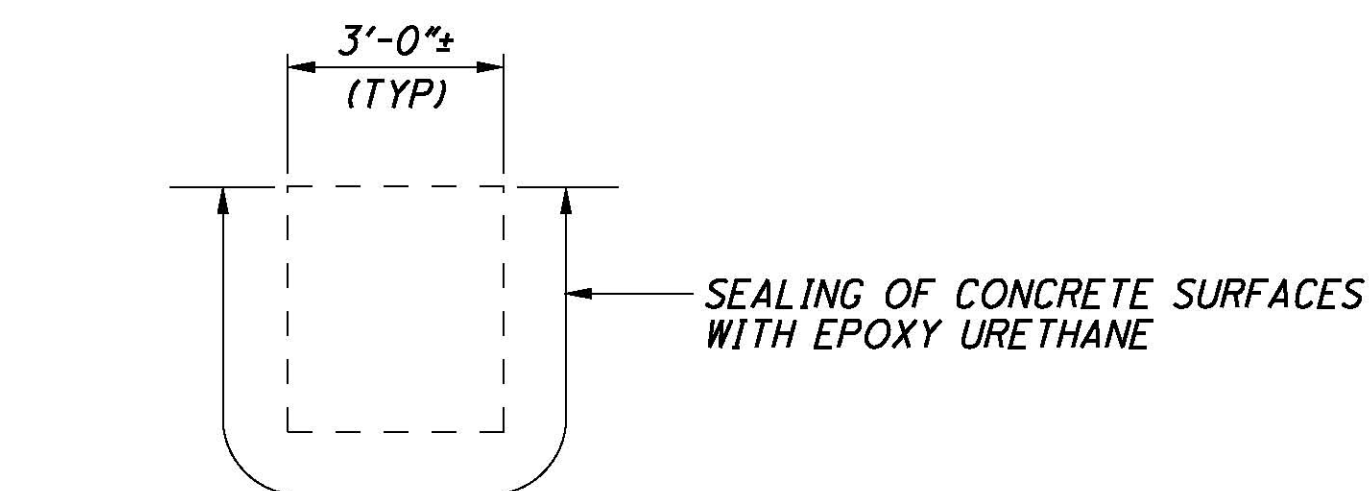
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**TYPICAL PIER ELEVATION**

NOTE: PILES NOT SHOWN

TABLE OF PIER DIMENSIONS						
DIM.	WESTBOUND (LEFT) BRIDGE			EASTBOUND (RIGHT) BRIDGE		
	PIER 1	PIER 2	PIER 3	PIER 1	PIER 2	PIER 3
A	12'-0 1/2" ±	13'-1 1/2" ±	13'-10 1/2" ±	15'-4 1/2" ±	16'-5 1/2" ±	17'-2 1/2" ±
B	4'-3 3/4" ±	4'-3 1/4" ±	4'-3" ±	3'-5 3/4" ±	3'-6" ±	3'-6 3/4" ±
C	13'-2 1/2" ±	14'-3 1/2" ±	15'-0 1/2" ±	16'-2 1/2" ±	17'-4 1/2" ±	18'-2 1/2" ±
D	4'-3 1/4" ±	4'-3 1/4" ±	4'-3 1/4" ±	3'-6 3/4" ±	3'-6 1/4" ±	3'-6" ±
L	51'-10 3/4" ±	53'-9 1/4" ±	55'-4 1/2" ±	47'-0 3/4" ±	47'-0 3/4" ±	47'-0 3/4" ±

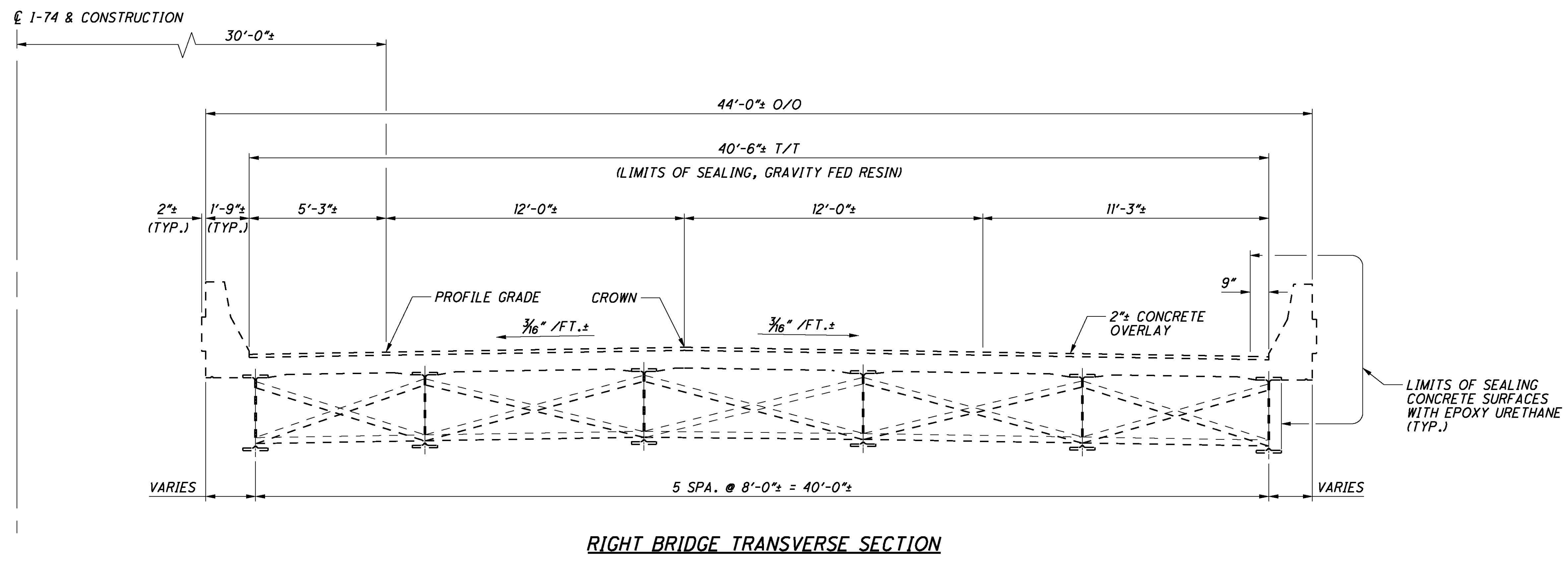
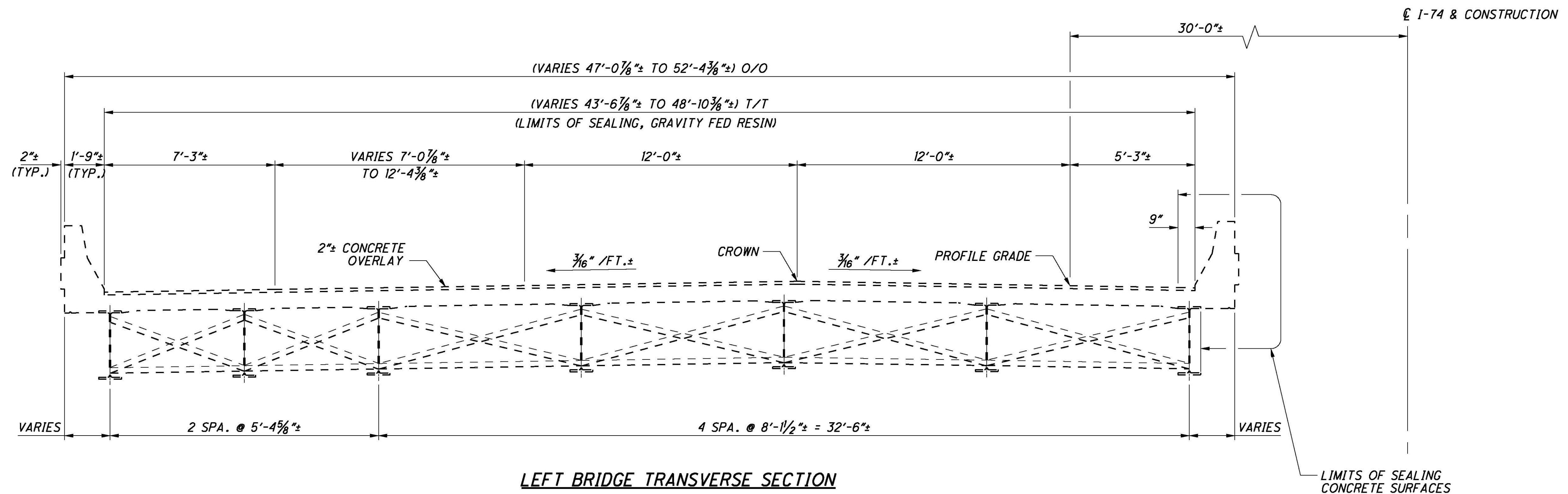


**PIER CAP SEALING LIMITS**

**NOTES:**

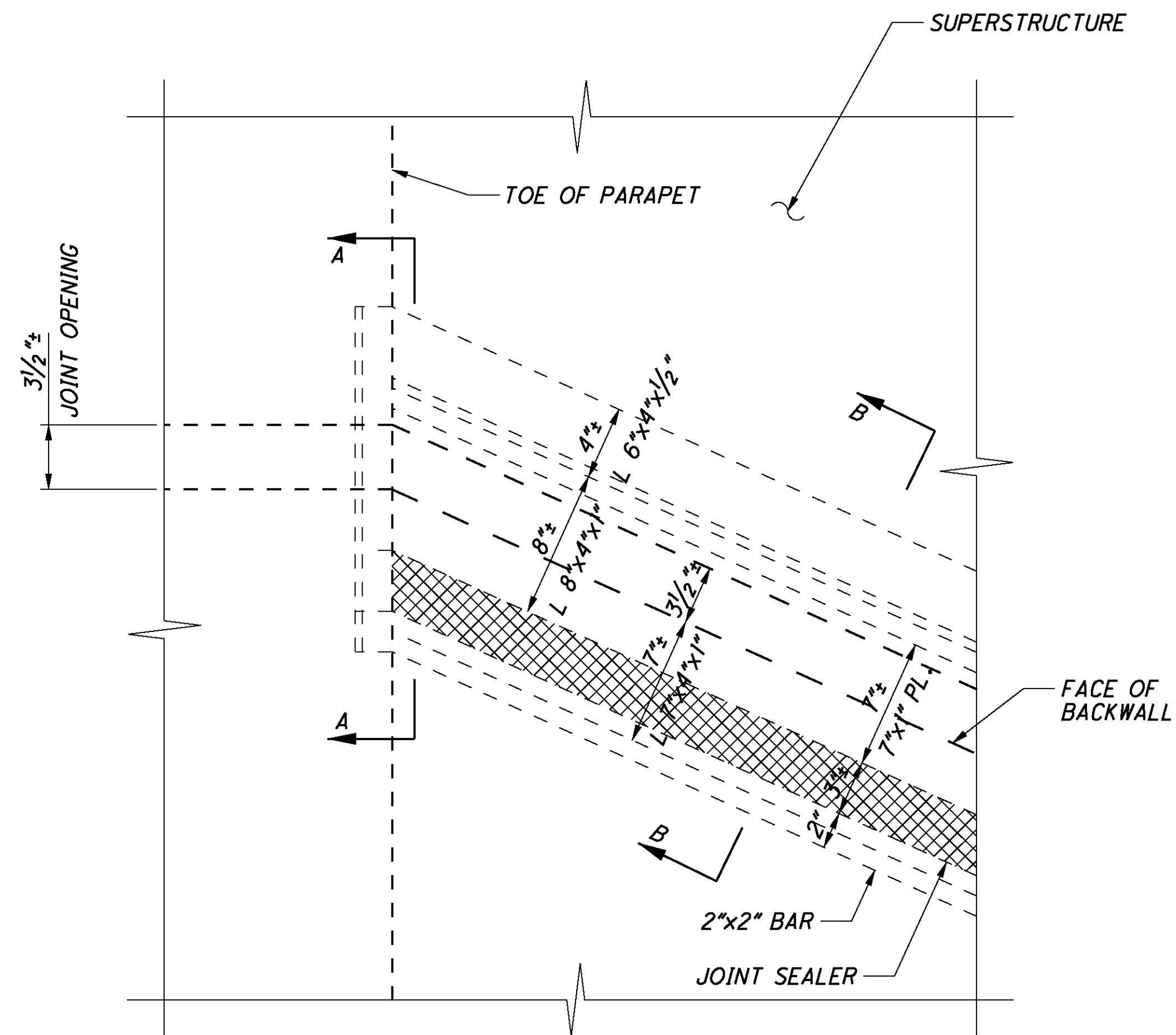
DIMENSIONS SHOWN ARE FROM EXISTING PLANS.

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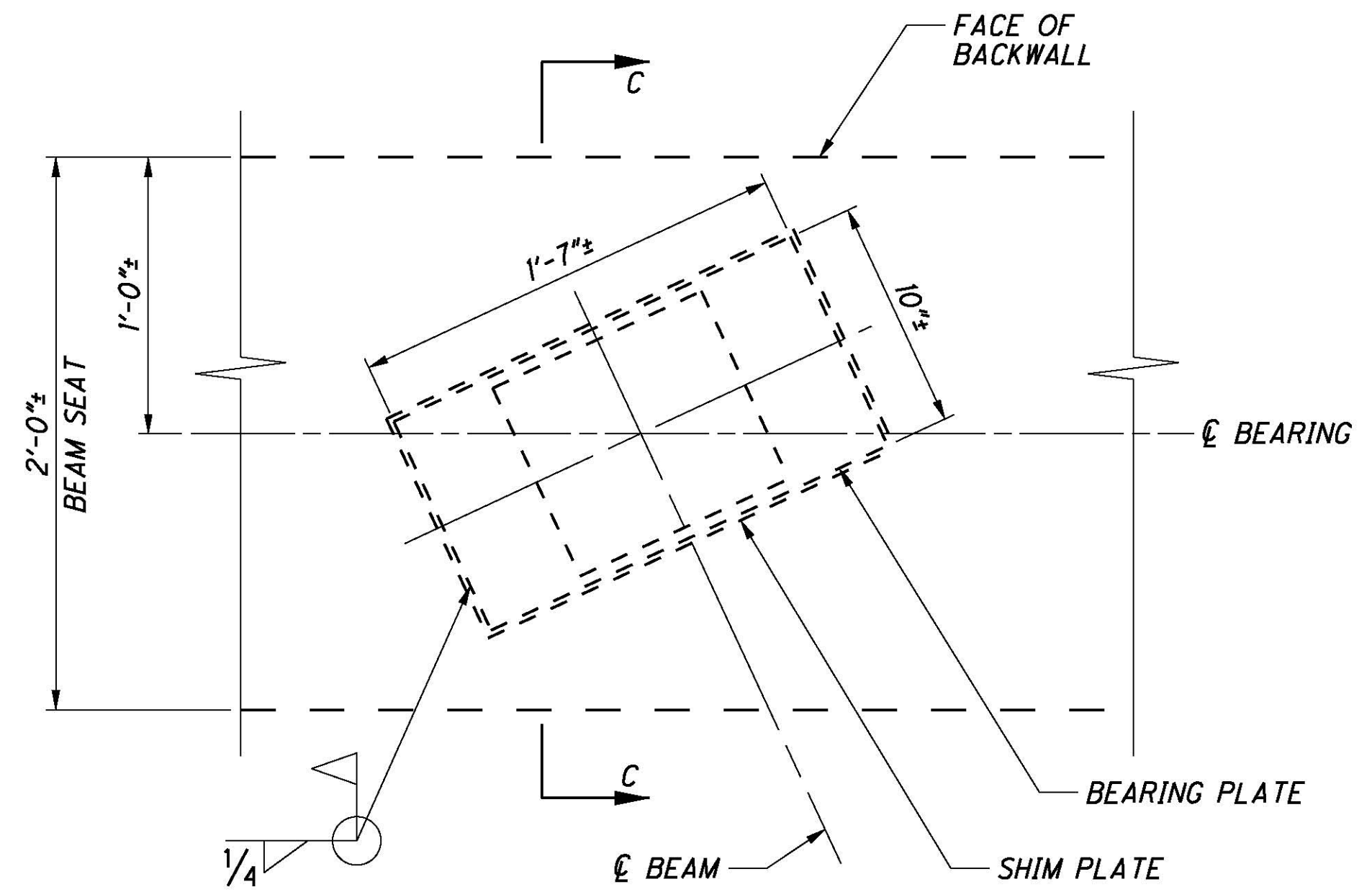
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DESIGN AGENCY <b>Mead &amp; Hunt</b> 5900 WILCOX PLACE DUBLIN, OH 43016 (614) 792-5900 PHONE (614) 792-5901 FAX	
DESIGNED SK L YH/KVB	DATE 1/12
DRAWN D J C REVISED	REVIEWED MAB STRUCTURE FILE NUMBER 3108147(L) 3108165(R)
TRANSVERSE SECTION BRIDGE NO. HAM-74-0585 L&R I-74 OVER RAMPS TO I-275	
HAM-74-5.53 PID No. 83011	
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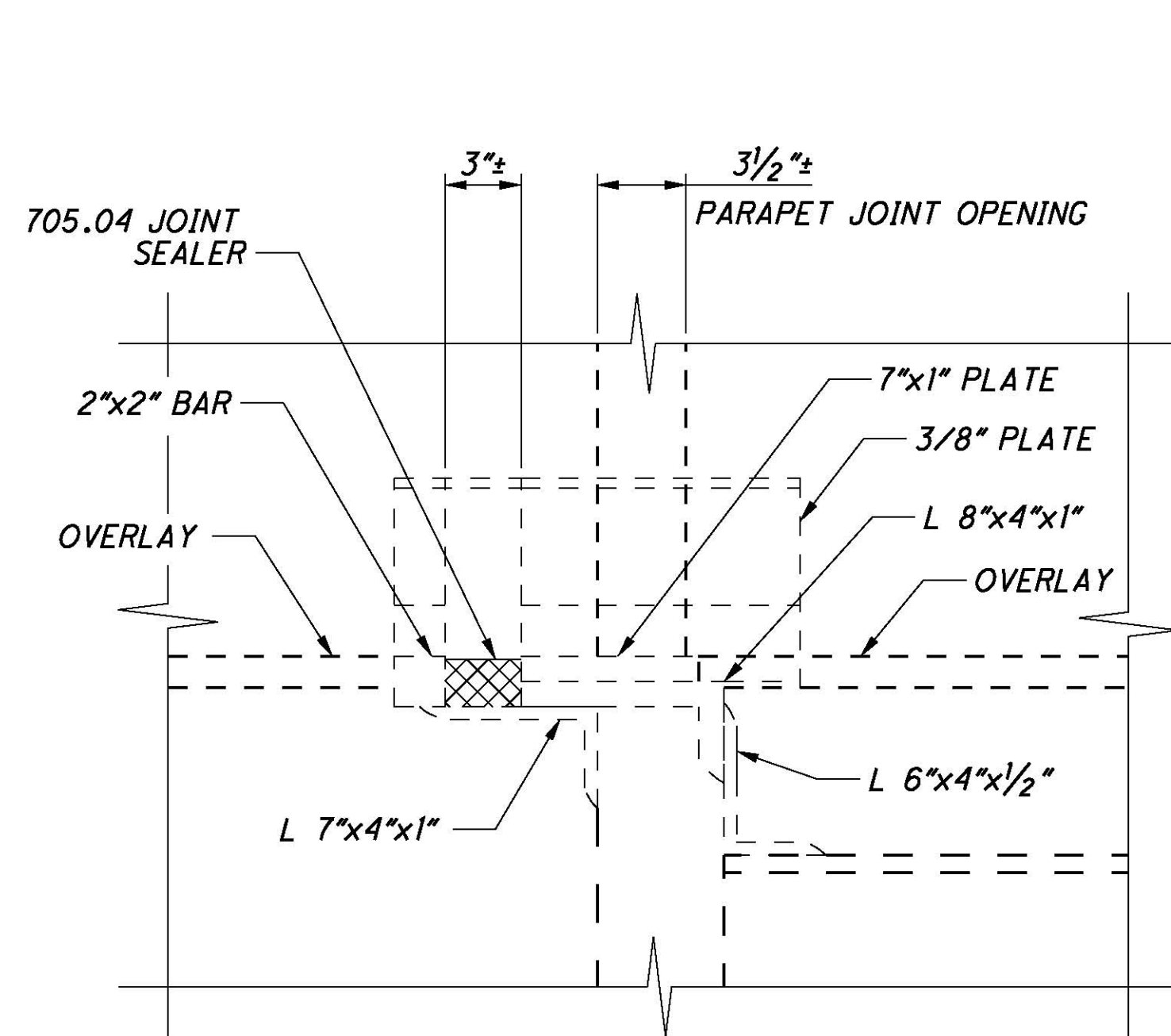
**PART PLAN JOINT SEALER**

**LEGEND:**  
 - JOINT SEALER

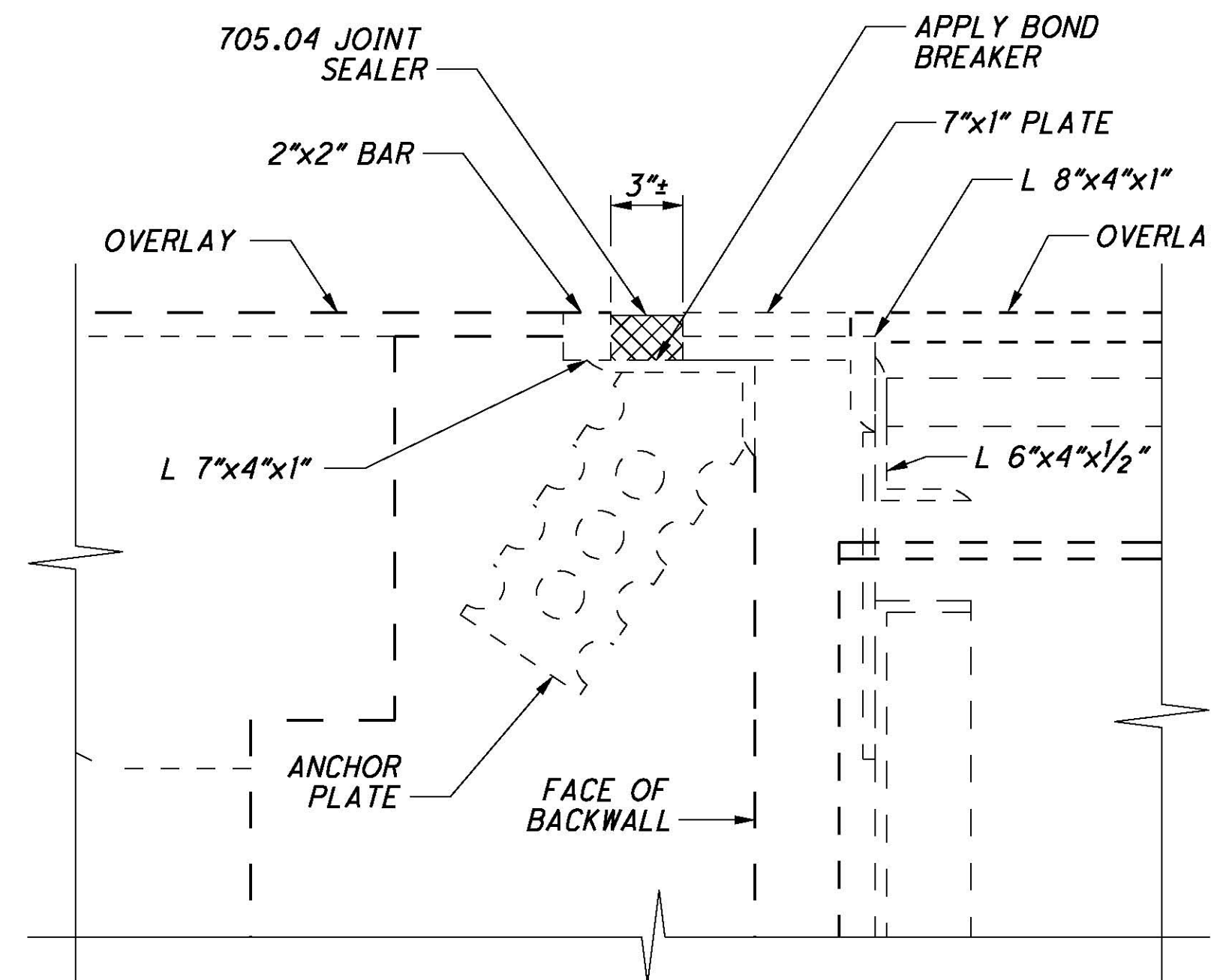


**ABUTMENT BEARING PLAN**

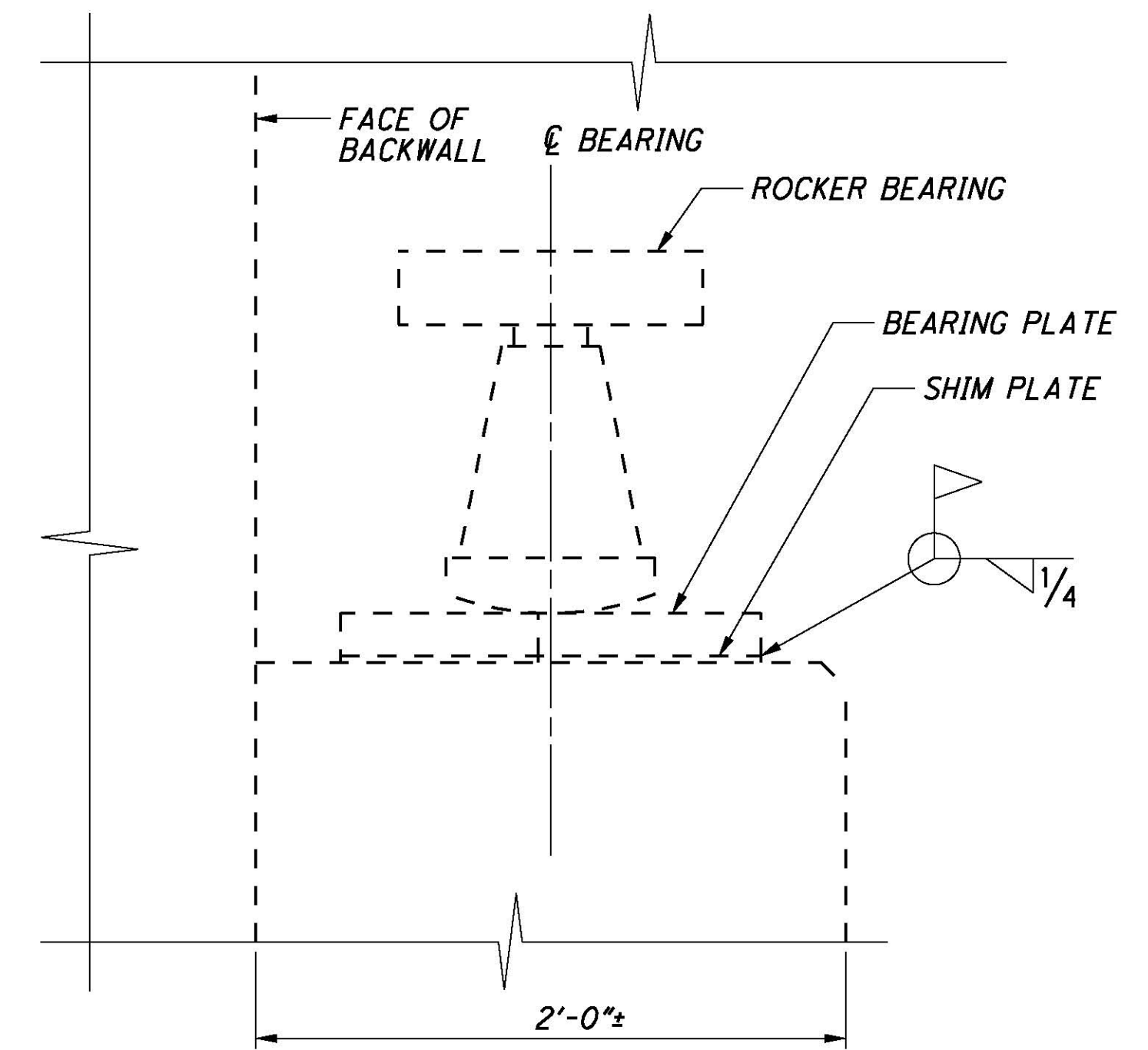
**NOTES:**  
 - BEAM NOT SHOWN FOR CLARITY



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

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**EXPANSION JOINT & ROCKER SHIM WELD DETAILS**

BRIDGE NO. HAM-74-0585 L&R  
 I-74 OVER RAMPS TO I-275

**HAM-74-5.53**  
 PID No. 83011

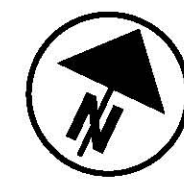
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DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43016  
 (614) 792-5900 PHONE  
 (614) 792-5901 FAX

DESIGNED	SK	CHECKED	L Y H
DRAWN	JMD	REVISED	
REVIEWED	KVB	STRUCTURE FILE NUMBER	310814(TL) 31081651(R)
DATE	11/11		





SEE SHEETS 14 & 15 FOR JOINT MODIFICATION (TYP.)

SEE ROADWAY SHEET 4-5 AND PAVEMENT CALCULATION SHEETS CA1-CA4 FOR APPROACH SLAB WEARING SURFACE WORK (TYP.)

EXISTING GUARDRAIL (TYP.)

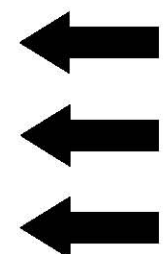
BRIDGE LIMITS = 540'-6"±

CL BRGS. ABUT. 3

CONSTRUCTION LIMITS (TYP.)

CL PIER 4

3 EX. LANES @ 12'± = 36'-0"±



SEE SHEET 12 FOR BRIDGE PARAPET REPAIR

48'-6" O/O

CL I-74 (WESTBOUND)

SEE ROADWAY SHEET FOR UPGRADE OF BRIDGE TERMINAL ASSEMBLIES (TYP.)

453

454

455

CL POST STA. 453+80.79

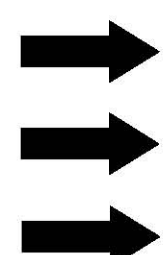
CL BRGS. ABUT. 1 & 3 STA. 454+11.64

GREAT MIAMI RIVER

CL I-74 & CONSTRUCTION

CL BRGS. PIERS 1 & 4 STA. 455+30.64

3 EX. LANES @ 12'± = 36'-0"±



23'-9"±

48'-6" O/O

CL I-74 (EASTBOUND)

EXISTING GUARDRAIL (TYP.)

SEE ROADWAY SHEET 4-5 AND PAVEMENT CALCULATION SHEETS CA1-CA4 FOR APPROACH SLAB WEARING SURFACE WORK (TYP.)

CL BRGS. ABUT. 1

CL PIER 1

CL POST STA. 453+80.59

BRIDGE LIMITS = 540'-6"±

PLAN

MATCHLINE SEE SHEET 2 456+00

### NOTES

DESIGN TRAFFIC:  
2013 ADT = 89,390    2013 ADTT = 13,409  
2033 ADT = 116,000    2033 ADTT = 17,400  
DIRECTIONAL DISTRIBUTION = 51%

### EXISTING STRUCTURE

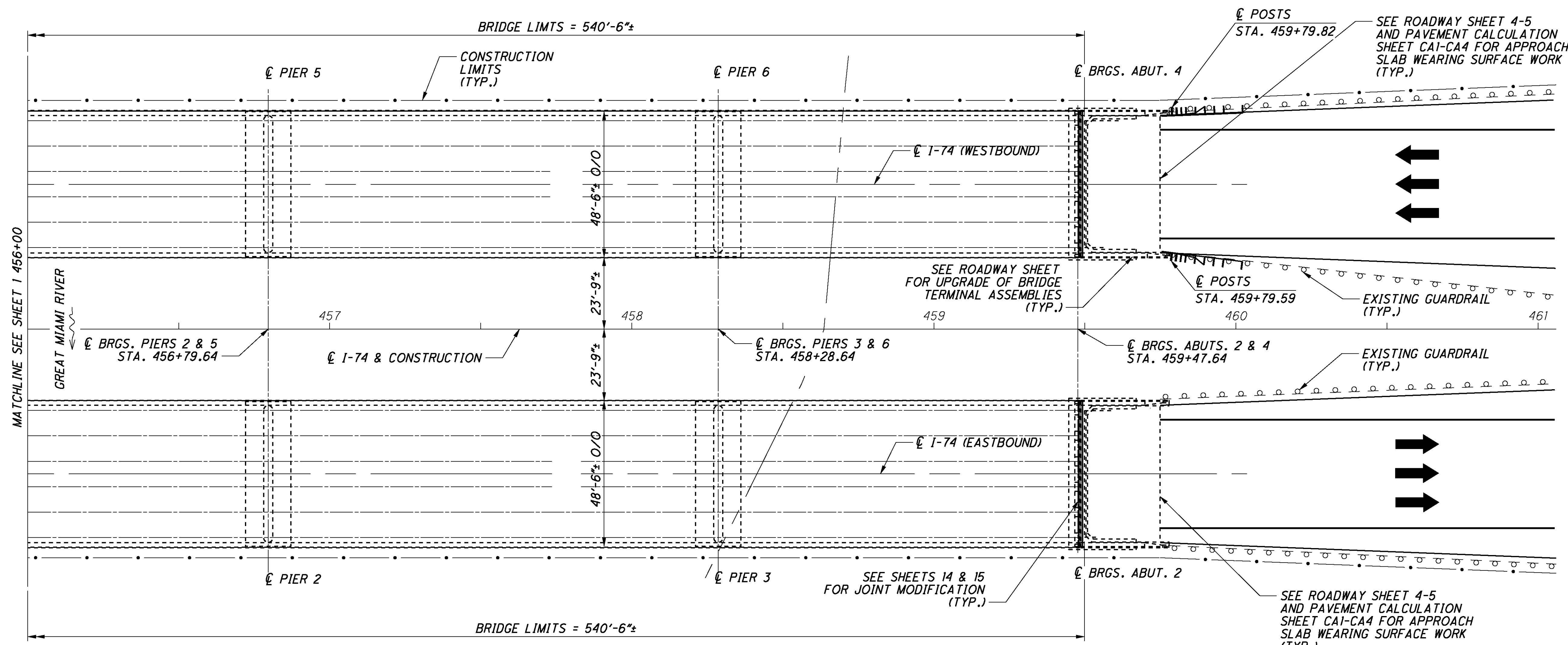
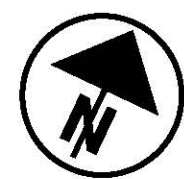
TYPE: CONTINUOUS WELDED STEEL PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE  
SPANS: 119'-0"±, 149'-0"±, 149'-0"±, 119'-0"±, C/C BRGS.  
ROADWAY: 45'-6"± TOE/TOE PARAPET  
LOADING: CF-2000-(157) ADEQUATE FOR AASHO ALTERNATIVE LOADING  
SKEW: NONE  
APPROACH SLABS: AS-1-54 (25'-0" LONG)  
ALIGNMENT: TANGENT  
CROWN: 0.016" FT.±  
STRUCTURAL FILE NUMBER: 3108252 (L) 3108287 (R)  
DATE BUILT: 1964  
COORDINATES: LATITUDE 39° 12' 36" N  
LONGITUDE 84° 41' 54" N  
DISPOSITION: TO BE REHABILITATED

### PROPOSED STRUCTURE

SAME AS EXISTING

### PROPOSED WORK

1. REMOVE EXISTING 2" ASPHALT OVERLAY
2. REMOVE EXISTING 1 1/2" RIGID OVERLAY AND 1" OF EXISTING DECK USING HYDRODEMOLITION PER SUPPLEMENTAL SPECIFICATION 848.
3. PLACE NEW 3" SUPERPLASTICIZED DENSE CONCRETE OVERLAY.
4. REPLACE THE EXISTING VERTICAL EXTENSION OF THE EXPANSION JOINTS WITH A NEW VERTICAL EXTENSION BARS AND A STRIP SEAL EXPANSION JOINT SYSTEM, AS PER PLAN.
5. REPLACE EXISTING ABUTMENT BEARINGS WITH NEW ROCKER BEARINGS.
6. PATCH DETERIORATED SUBSTRUCTURE CONCRETE WITH 519 PATCHING, AS PER PLAN.
7. REPAIR CRACKS WITH EPOXY INJECTION.
8. PAINT STRUCTURAL STEEL 10 FEET OUT FROM THE EXISTING EXPANSION JOINTS USING OZEU SPECIFICATIONS, COLOR SHALL MATCH EXISTING.
9. REPLACE DETERIORATED END CROSSFRAME, AS PER PLAN.
10. SEAL SUPERSTRUCTURE AND ABUTMENTS WITH EPOXY URETHANE, FEDERAL COLOR NUMBER 17778.
11. CLEARING AND GRUBBING WITHIN 10 FEET OF THE EXISTING STRUCTURE.
12. UPGRADE PARAPET TERMINAL ASSEMBLIES AS SHOWN ON PLANS.
13. REPAIR DAMAGED SECTION OF PARAPET.
14. MILL AND REPLACE APPROACH SLAB ASPHALT WEARING SURFACE AS SHOWN ON THE PLANS.



**PLAN**

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<b>HAM-74-5.53</b> PID No. 83011	<b>GENERAL PLAN</b> HAM-74-0838 L&R I-74 OVER THE GREAT MIAMI RIVER	HAMILTON COUNTY STA. 454+09.39 TO STA. 459+49.89 (L&R)	DESIGNED SK CHECKED LYH	DRAWN JD REVISED	REVIEWED KVB STRUCTURE FILE NUMBER 3108282 (L) 3108287 (R)	DATE 11/11	DESIGN AGENCY <b>Mead &amp; Hunt</b> 5900 WILCOX PLACE DUBLIN, OH 43016 (614) 792-5500 PHONE (614) 792-5501 FAX
		2 / 15	72 / 118				

**REFER TO THE FOLLOWING STANDARD DRAWINGS:**

EXJ-4-87 REVISED 07-19-02  
RB-1-55 REVISED 02-02-59

**REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:**

848 DATED 10-21-11

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION - 2002 AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

**DESIGN LOADING (BOTH STRUCTURES):**

CF-2000-(57) ADEQUATE FOR AASHTO ALTERNATIVE LOADING

**DECK PROTECTION METHOD:**

3" SDC OVERLAY  
SEALING OF CONCRETE SURFACES

**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 AND 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING STRUCTURE PLANS:**

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH SR 741 LEBANON, OHIO 45036 (PHONE: 800-831-2142)

**PROTECTION OF TRAFFIC:**

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO INSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

**ITEM 202. PORTIONS OF STRUCTURE REMOVED. OVER 20 FOOT SPAN. AS PER PLAN:**

**DESCRIPTION:**

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 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.

**CONTI. ITEM 202. PORTIONS OF STRUCTURE REMOVED. OVER 20 FOOT SPAN. AS PER PLAN:**

**CUT LINE CONSTRUCTION JOINT PREPARATION:**

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

**SUBSTRUCTURE CONCRETE REMOVAL:**

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18" 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.

**MEASUREMENT & PAYMENT:**

THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF ITEM 202, AND TO THE SATISFACTION OF THE ENGINEER.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN-UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN-UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

**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 WITH EPOXY COATED REINFORCING STEEL. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

AN ESTIMATE OF 100 LBS HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR THE ABOVE ITEM.

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 THE NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

**ITEM 512 -SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):**

THE FINISH COAT COLOR FOR THE ABUTMENT, PIERS, AND PARAPETS SHALL BE FEDERAL COLOR NO. 17778, LIGHT NEUTRAL.

**ITEM 513. STRUCTURAL STEEL MEMBERS. LEVEL UP. AS PER PLAN:**

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD-FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.04 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.04 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM:  
END CROSSFRAMES

**ITEM 516. JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE. AS PER PLAN:**

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, 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.

THE PATCHING QUANTITIES SHOWN IN ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

**SCUPPER REQUIREMENTS**

THIS NOTE IS REGARDING ALL SCUPPERS LOCATED ON THE STRUCTURES TO RECEIVE AN OVERLAY. KEEP ALL SCUPPER OPENINGS CLEAR AND OPEN DURING WORK. DO NOT ALLOW ANY OVERLAY MATERIAL TO FALL THROUGH OR FILL IN A SCUPPER OPENING.

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DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
DUBLIN, OH 43006  
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(614) 792-9501 FAX

DATE 11/11  
REVIEWED KVB  
DRAWN JMD  
DESIGNED SK  
CHECKED L Y H  
STRUCTURE FILE NUMBER 3108282 (L) 3108287 (R)

GENERAL NOTES  
BRIDGE NO. HAM-74-0838 L & R  
I-74 OVER THE GREAT MIAMI RIVER

HAM-74-5.53  
PID No. 83011

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73  
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**ITEM 848-10200 - CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T=3"):**

THIS ITEM SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 848 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

REVISIONS TO 848.15: AT THE OPTION OF THE ENGINEER, THE CONTRACTOR SHALL MAKE ONE OR MORE, ONE CUBIC YARD, TRIAL BATCHES OF OVERLAY MATERIAL AT LEAST 30 DAYS BEFORE THE OVERLAY IS TO BE PLACED. DEMONSTRATE THE ABILITY TO MEET 848.26 AND 848.31. DEVELOP BEAM BREAK MATURITY CURVES.

REVISIONS TO 848.20: MECHANICAL MEANS MAY BE USED TO REMOVE THE EXISTING RIGID OVERLAY AND TOP 0.5 INCH OF THE ORIGINAL DECK. THE REMAINING 0.5 INCH OF ORIGINAL DECK SHALL BE REMOVED BY HYDRODEMOLITION.

AT LEAST THIRTY DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A SCHEDULE OF OVERLAY WORK ITEMS TO BE COMPLETED. THE SCHEDULE SHALL INCLUDE A BREAKDOWN OF ALL MAJOR WORK ACTIVITIES ON AN HOURLY BASIS. OVERLAY WORK SHALL NOT BEGIN UNTIL THE SCHEDULE IS APPROVED BY THE ENGINEER.

CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN THE WHEEL LINE.

REVISIONS TO 848.21: THE FINAL SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY. HAND CHIPPING IS FOR THE PURPOSE OF CHIPPING AREAS WHERE THE HYDRODEMOLITION MACHINE DOES NOT HAVE ACCESS. IF THE DESIRED DEPTH IS ACHIEVED BY HYDRODEMOLITION, NO FURTHER REMOVAL IS NECESSARY.

REVISIONS TO 848.23: FULL DEPTH REPAIR WILL NOT BE REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

REVISIONS TO 848.26: LONGITUDINAL GROOVES SHALL BE SAWED IN THE CONCRETE SURFACE OF THE TRAVELLED LANES PER 511.20, AFTER THE WET CURE IS COMPLETE. AFTER THE TEXTURING THE CONCRETE SURFACE, CLEAN THE SURFACE AND SPRAY AN UNIFORM APPLICATION OF CURING MATERIAL 705.07, TYPE 1 OR ID, AS PER CMS 511.17 METHOD B OF MEMBRANE CURING. THE DECK SURFACE MUST BE DRY PRIOR TO PLACEMENT OF THE CURING MATERIAL. IF THE SAWING OF THE LONGITUDINAL GROOVES CANNOT BE DONE WITHIN THE SAME SHORT-TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL HAVE 24 HOURS FROM REMOVAL OF THE WET CURE TO SAW THE LONGITUDINAL GROOVES AND REAPPLY THE MEMBRANE-CURING COMPOUND.

4) REVISE 848.27, 848.28 AND 848.29. THE CONTRACTOR SHALL CONTINUE THE WET CURE FOR THE MAXIMUM NUMBER OF HOURS POSSIBLE DURING THE PERMITTED LANE CLOSURE. THE CLOCK STARTS FOR THE WET CURE WHEN THE OVERLAY PLACEMENT IS COMPLETE.

TABLE 848.27 SCHEDULE OF DEDUCTIONS FOR WET CURE PERIOD LESS THAN 24 HOURS

HOURS OF WET CURE	AMOUNT OF DEDUCTION FOR EACH HOUR LESS THAN 24 HOURS OF WET CURE PER BID PRICE OF SQUARE YARD OF CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (BY PERCENTAGE)
24-22	0%
21	2%
20	4%
19	6%
18	10%
17	14%
16	18%
15	22%
14	26%
13	30%
12	34%

IF THE CONTRACTOR FAILS TO OPEN LANES TO TRAFFIC AT THE TIMES REQUIRED IN THE MAINTENANCE OF TRAFFIC NOTES, THE CONTRACTOR WILL BE ASSESSED THE HIGHER OF THE TWO DISINCENTIVES FOR THE WET CURE PERIOD AND FOR THE MAINTENANCE OF TRAFFIC REQUIREMENT.

TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER COMPLETION OF THE WET CURE, WHICH IS A MINIMUM OF 12 HOURS, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI.

FOR EACH POUR, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS AND THE MODULUS OF RUPTURE OF EACH BEAM UNTIL THE MODULUS OF RUPTURE OF TWO TESTS IS NOT LESS THAN 650 PSI.

REVISIONS TO 848.30: THE REMOVAL OPERATIONS SHALL NOT BEGIN IF SUSTAINED RAINS (5 HOURS OR MORE WITH BREAKS BETWEEN SHOWERS LESS THAN 1 1/2 HOURS) ARE PREDICTED WITHIN 48 HOURS OF COMMENCEMENT.

THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 9:30 AM.

PAYMENT FOR ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN ITEM 848- CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN, ON A SQUARE YARD BASIS.

**ABBREVIATIONS:**

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

- |  |   |
|--|---|
| ABUT. - ABUTMENT                                 | IR - INTERSTATE ROUTE                             |
| ADT - AVERAGE DAILY TRAFFIC                      | JT. - JOINT                                       |
| ADTT - AVERAGE DAILY TRUCK TRAFFIC               | LT. - LEFT  |
| APPROX. - APPROXIMATE                            | MAX. - MAXIMUM                                    |
| ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS | MIN. - MINIMUM                                    |
| B.F. - BACK FACE                                 | MOT - MAINTENANCE OF TRAFFIC                      |
| BOT. - BOTTOM                                    | NB - NORTHBOUND                                   |
| BRS. - BEARINGS                                  | N.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE |
| CL - CENTERLINE                                  | O/O - OUT TO OUT                                  |
| C/C - CENTER TO CENTER                           | P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE     |
| CIP - CAST-IN-PLACE                              | P.E.J.F. - PREFORMED EXPANSION JOINT FILLER       |
| C.J. - CONSTRUCTION JOINT                        | R.A. - REAR ABUTMENT                              |
| CLR. - CLEARANCE                                 | RT. - RIGHT                                       |
| CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS   | SB - SOUTHBOUND                                   |
| CONST. - CONSTRUCTION                            | S.O. - SERIES OF                                  |
| DIA./φ - DIAMETER                                | SPA. - SPACES OR SPACING                          |
| DWG. - DRAWING                                   | STA. - STATION                                    |
| E.F. - EACH FACE                                 | STD. - STANDARD                                   |
| E/P - EDGE OF PAVEMENT                           | STR. - STRAIGHT                                   |
| E/S - EDGE OF SHOULDER                           | TEMP. - TEMPORARY                                 |
| EL. - ELEVATION                                  | T/T - TOE TO TOE                                  |
| EQ. - EQUAL                                      | TYP. - TYPICAL                                    |
| EX. - EXISTING                                   | VERT. - VERTICAL                                  |
| F.A. - FORWARD ABUTMENT                          |   |
| F.F. - FRONT FACE                                |   |
| F/F - FACE TO FACE                               |   |
| FTG. - FOOTING                                   |   |
| FT/FT - FOOT PER FOOT                            |   |
| FWD. - FORWARD                                   |   |

DESIGN AGENCY  
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 (614) 792-5601 FAX

DATE: 11/11  
 REVIEWED: KVB  
 DRAWN: JMD  
 DESIGNED: SK  
 CHECKED: L Y H  
 STRUCTURE FILE NUMBER: 3108252 (L) 3108287 (R)

**GENERAL NOTES**  
 BRIDGE NO. HAM-74-0838 L & R  
 I-74 OVER THE GREAT MIAMI RIVER

**HAM-74-5.53**  
 PID No. 83011

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CALCULATED BY: SK		ESTIMATED QUANTITIES - WESTBOUND - HAM-74-0838L								CHECKED BY: AJS	
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.		
202	11203		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					3		
509	10000	21	POUND	EPOXY COATED REINFORCING STEEL			21				
509	20001	100	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN			100		3		
510	10000	5	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			5				
511	34436	1	CU YD	CLASS S CONCRETE, BRIDGE DECK (PARAPET)			1				
512	10100	1,364	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	333		1,031				
513	10201	1,266	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			1,266		3,13		
514	00051	2,791	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			2,791		13		
514	00057	2,791	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN			2,791		13		
514	00061	2,791	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			2,791		13		
514	00067	2,791	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			2,791		13		
514	00505	2	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL, AS PER PLAN			2		13		
514	10001	1	EACH	FINAL INSPECTION REPAIR, AS PER PLAN			1		13		
516	11211	91	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN				91	14/15		
516	46201	12	EACH	BEARING DEVICE, ROCKER, AS PER PLAN			12		13		
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					3		
519	11101	275	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	275						
848	10200	2,717	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (3" THICK)			2,717				
848	20000	2,717	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION			2,717				
848	30200	190	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			190				
848	50000	27	SQ YD	HAND CHIPPING			27				
848	50100		LUMP	TEST SLAB							
848	50200	66	CU YD	FULL DEPTH REPAIR			66				
848	50300	2,717	SQ YD	WEARING COURSE REMOVED, ASPHALT			2,717				
848	50320	2,717	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (T=1 1/2") NOMINAL THICKNESS			2,717				
848	50340	1,000	SQ YD	REMOVAL DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY			1,000				

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DATE 1/12  
 REVIEWED KVB  
 STRUCTURE FILE NUMBER 3108252 (L) 3108281 (R)  
 DRAWN JMD  
 REVISIONS  
 DESIGNED SK  
 CHECKED AJS

**ESTIMATED QUANTITIES**  
 BRIDGE NO. HAM-74-0838 L&R  
 I-74 OVER THE GREAT MIAMI RIVER

**HAM-74-5.53**  
 PID No. 83011

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CALCULATED BY: SK					ESTIMATED QUANTITIES - EASTBOUND - HAM-74-0838R					CHECKED BY: AJS				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.					
202	11203		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					3					
509	20001	100	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN			100		3					
511	34436	1	CU YD	CLASS S CONCRETE, BRIDGE DECK (PARAPET)			1							
512	10100	1,366	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	335		1,031							
513	10201	1,266	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			1,266		3,13					
514	00051	2,791	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			2,791		13					
514	00057	2,791	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN			2,791		13					
514	00061	2,791	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			2,791		13					
514	00067	2,791	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			2,791		13					
514	00505	2	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL, AS PER PLAN			2		13					
514	10001	1	EACH	FINAL INSPECTION REPAIR, AS PER PLAN			1		13					
516	11211	91	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN				91	14/15					
516	46201	12	EACH	BEARING DEVICE, ROCKER, AS PER PLAN			12		13					
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					3					
519	11101	141	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	141									
848	10200	2,717	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (3" THICK)			2,717							
848	20000	2,717	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION			2,717							
848	30200	190	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			190							
848	50000	27	SQ YD	HAND CHIPPING			27							
848	50100		LUMP	TEST SLAB										
848	50200	66	CU YD	FULL DEPTH REPAIR			66							
848	50300	2,717	SQ YD	WEARING COURSE REMOVED, ASPHALT			2,717							
848	50320	2,717	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (T=1/2") NOMINAL THICKNESS			2,717							
848	50340	1,000	SQ YD	REMOVAL DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY			1,000							

DESIGN AGENCY  
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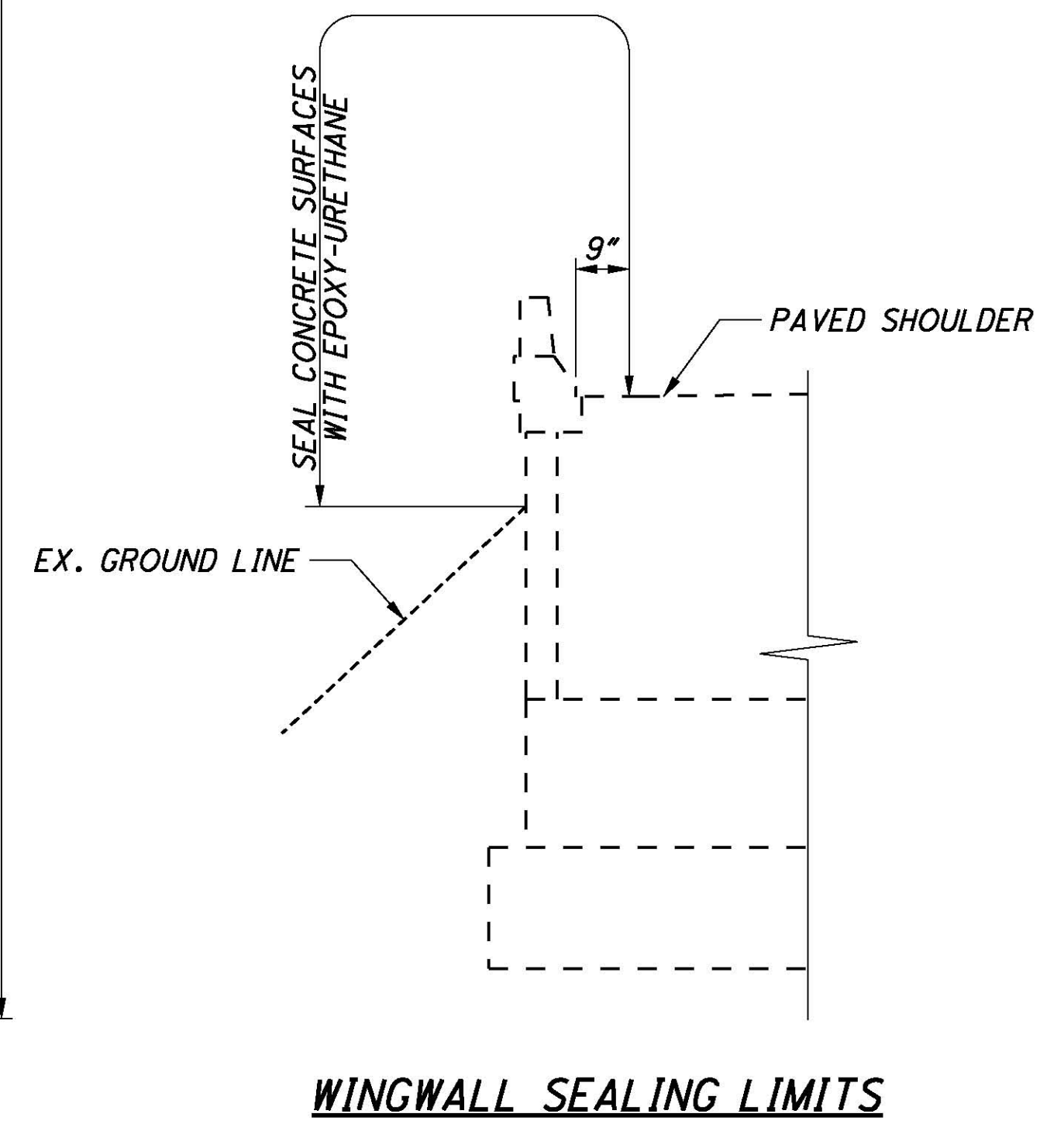
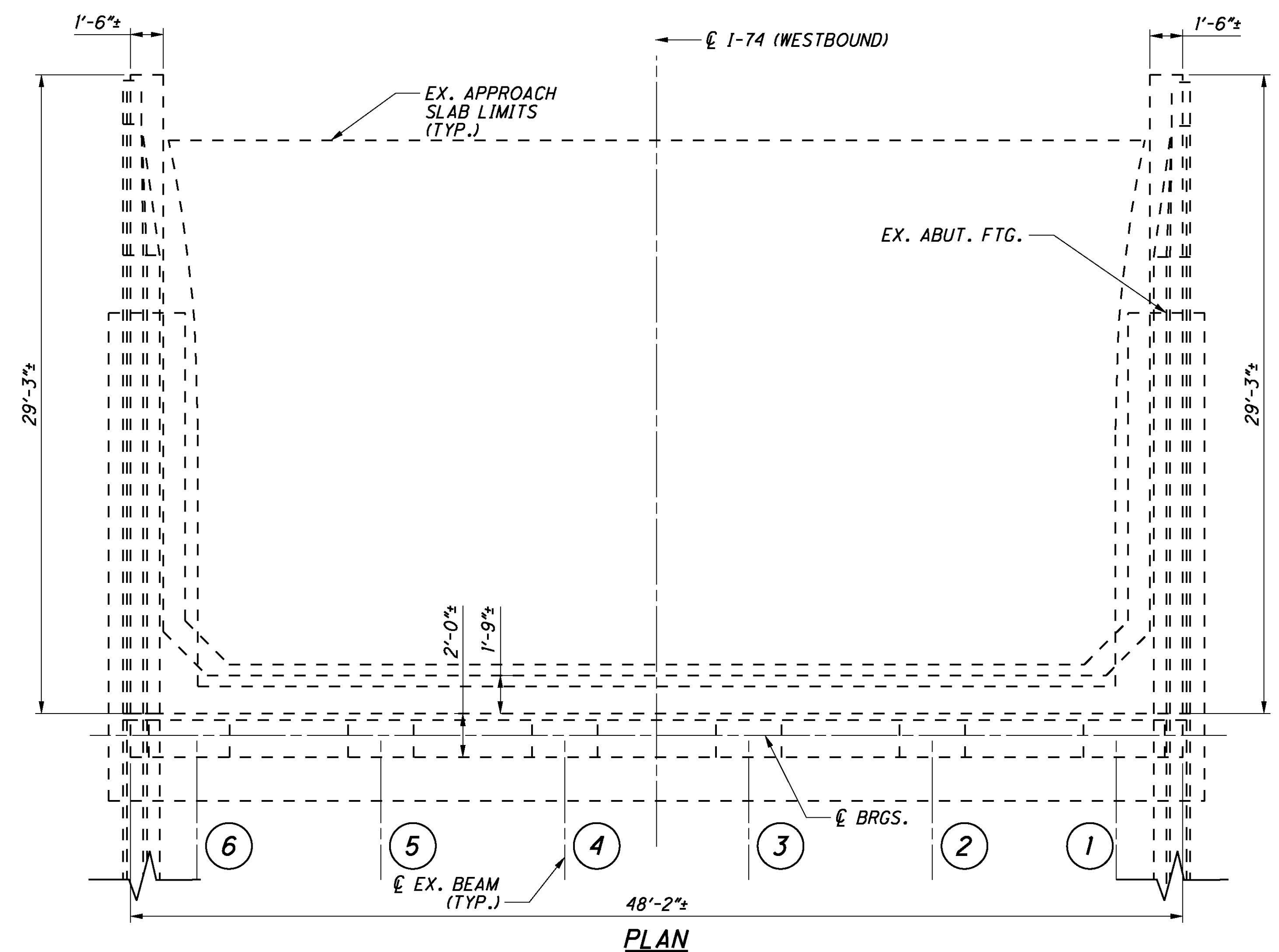
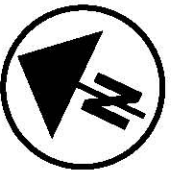
DATE 1/12  
 REVIEWED KVB  
 STRUCTURE FILE NUMBER 3108252 (L) 3108281 (R)  
 DRAWN JMD  
 REVISIONS  
 DESIGNED SK  
 CHECKED AJS

**ESTIMATED QUANTITIES**  
 BRIDGE NO. HAM-74-0838 L&R  
 I-74 OVER THE GREAT MIAMI RIVER

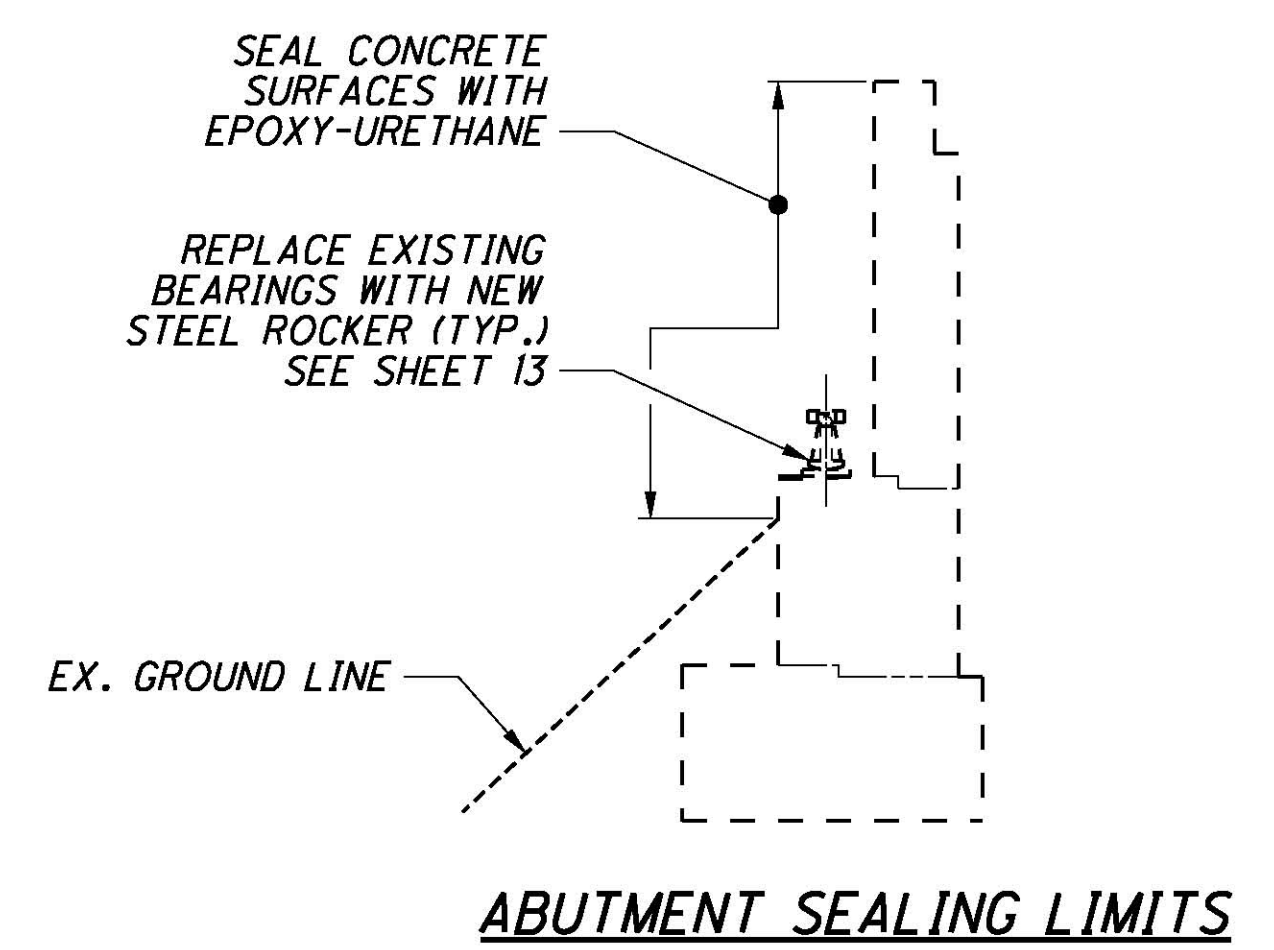
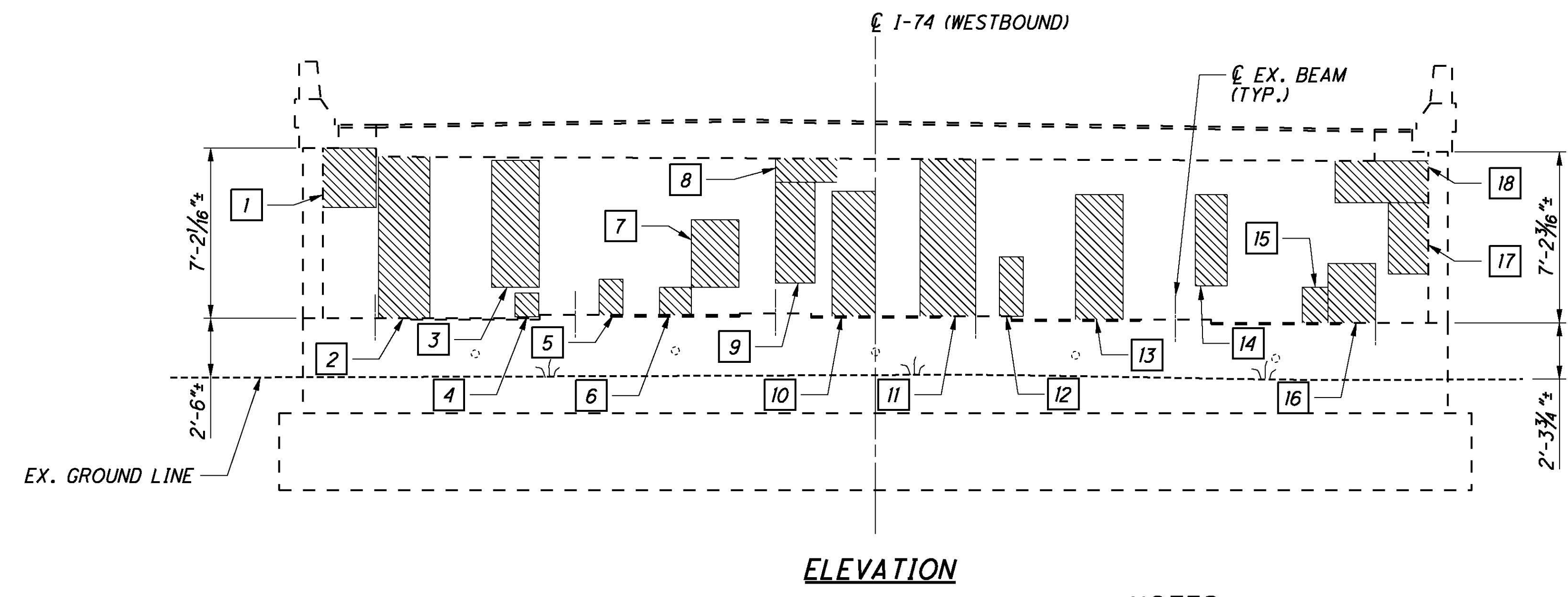
**HAM-74-5.53**  
 PID No. 83011

6 / 15

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118



CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	27"x30"	5.63
2	26"x82"	14.81
3	24"x64"	10.67
4	12"x12"	1.0
5	12"x18"	1.5
6	16"x14"	1.56
7	24"x34"	5.67
8	32"x12"	2.67
9	20"x51"	7.08
10	22"x63"	9.63
11	28"x80"	15.56
12	12"x30"	2.5
13	24"x63"	10.5
14	16"x46"	5.11
15	13"x18"	1.63
16	24"x30"	5.0
17	27"x21"	3.94
18	20"x36"	5.0
TOTAL		109.46



**NOTES:**

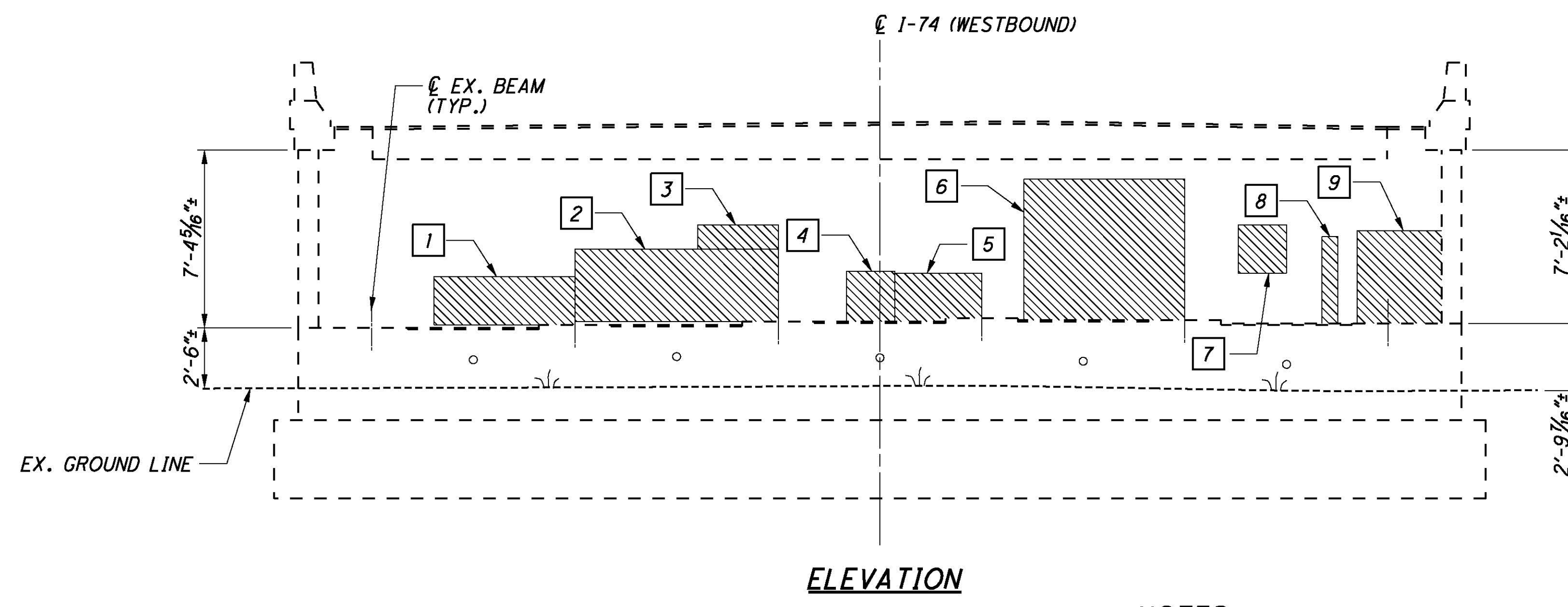
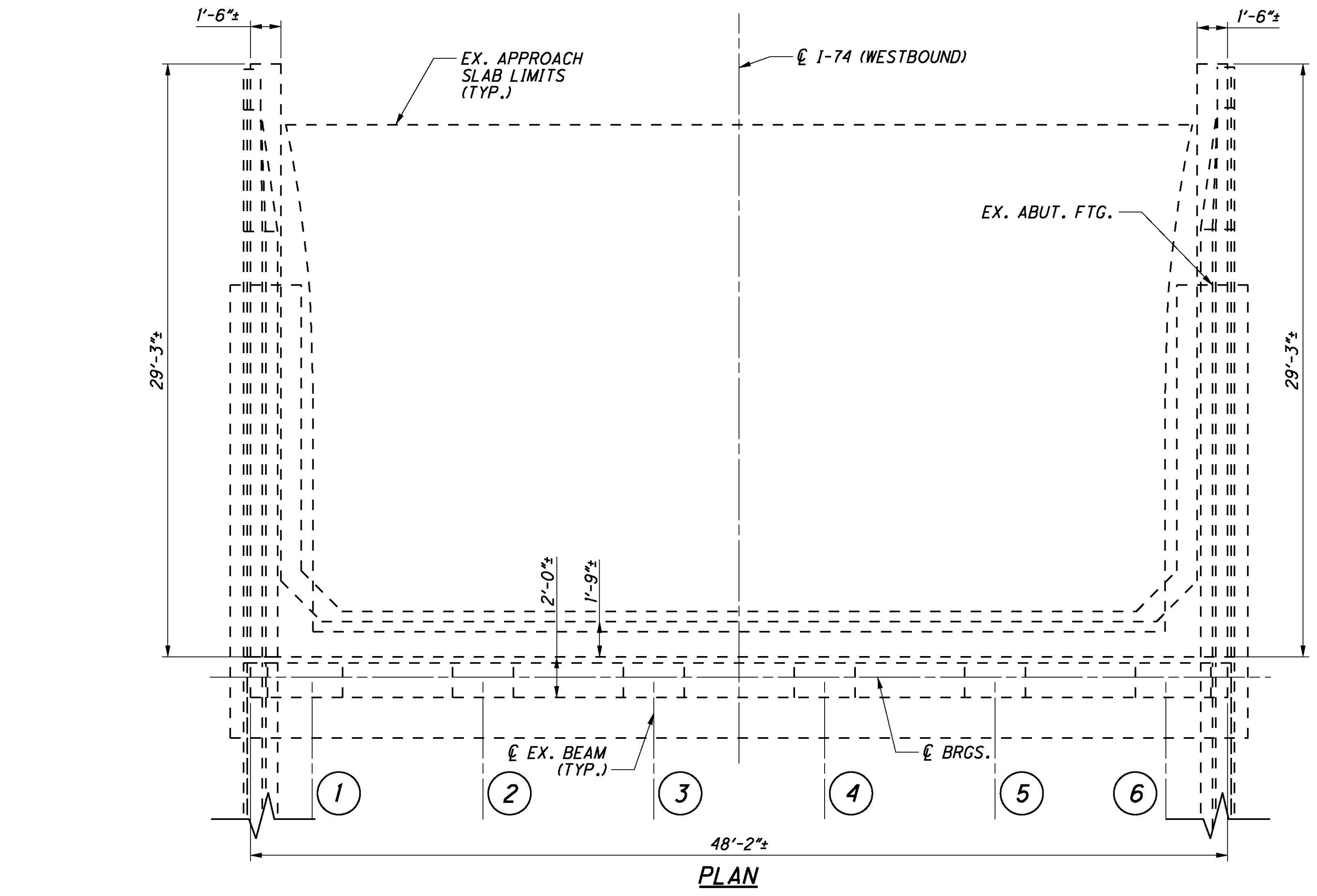
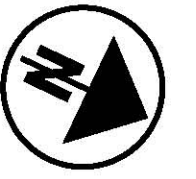
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 5 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

**LEGEND:**

- 1 - BEAM NUMBER
- PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	70"x24"	11.67
2	101"x36"	25.25
3	40"x12"	3.33
4	24"x25"	4.17
5	43"x24"	7.17
6	80"x70"	38.89
7	24"x24"	4.0
8	8"x43"	2.39
9	42"x46"	13.42
TOTAL		110.29

**NOTES:**

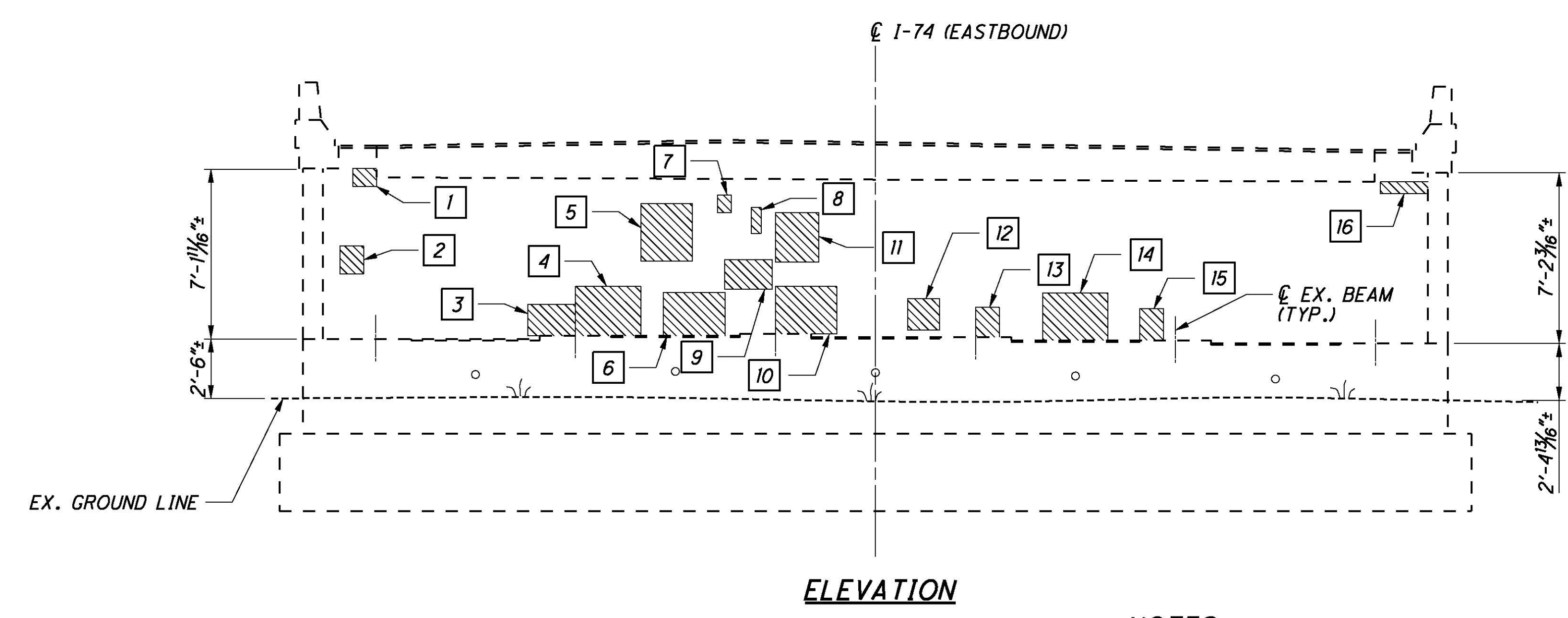
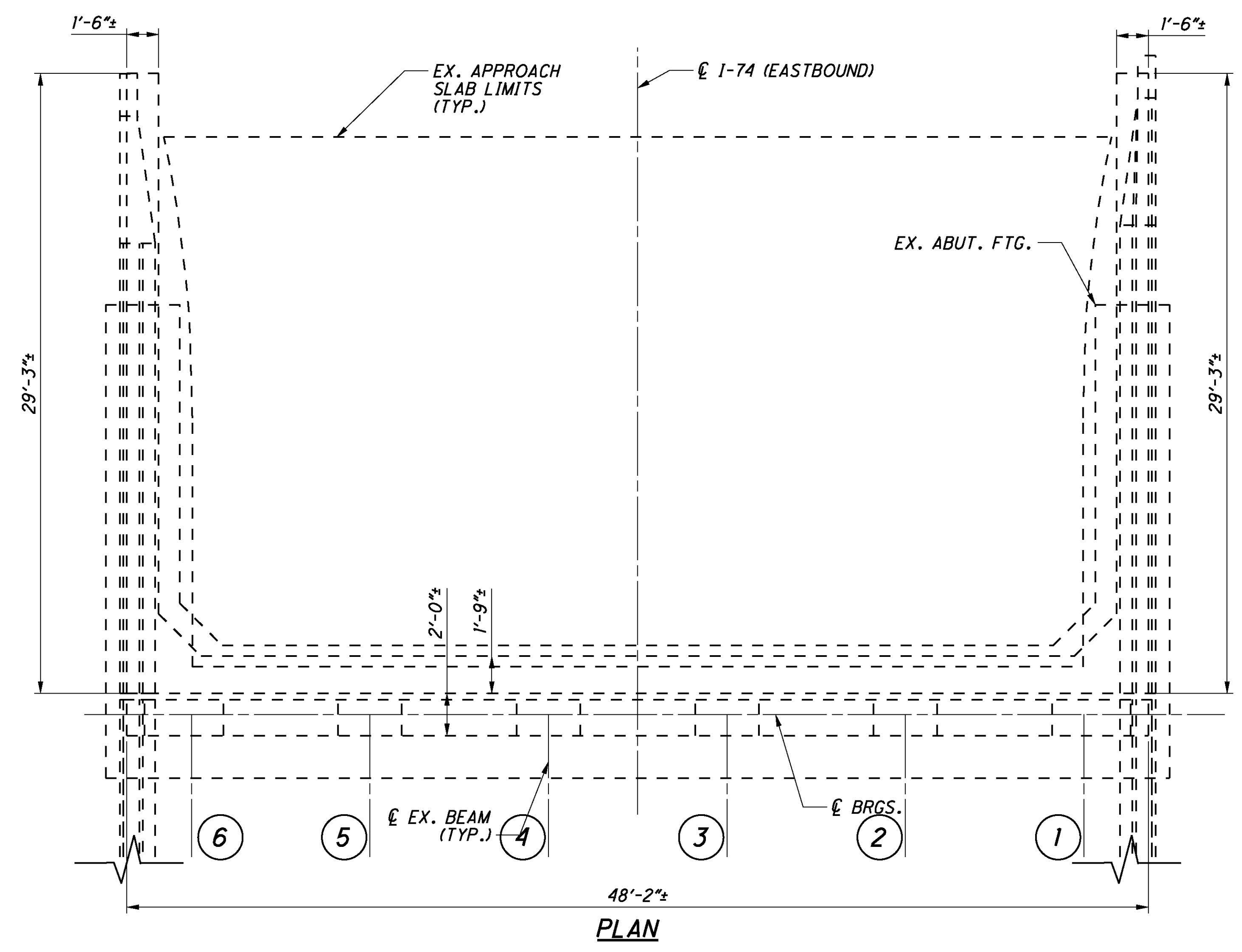
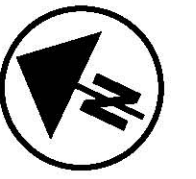
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 5 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 7 FOR SEALING DETAILS.

**LEGEND:**

- 1 - BEAM NUMBER
- PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.





CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	12"x9"	0.75
2	12"x14"	1.17
3	24"x16"	2.67
4	33"x25"	5.73
5	26"x29"	5.24
6	31"x22"	4.74
7	7"x9"	0.44
8	6"x13"	0.54
9	24"x15"	2.5
10	31"x24"	5.17
11	22"x25"	3.82
12	16"x16"	1.78
13	12"x15"	1.25
14	33"x24"	5.5
15	12"x16"	1.33
16	24"x6"	1.0
TOTAL		43.63

**NOTES:**

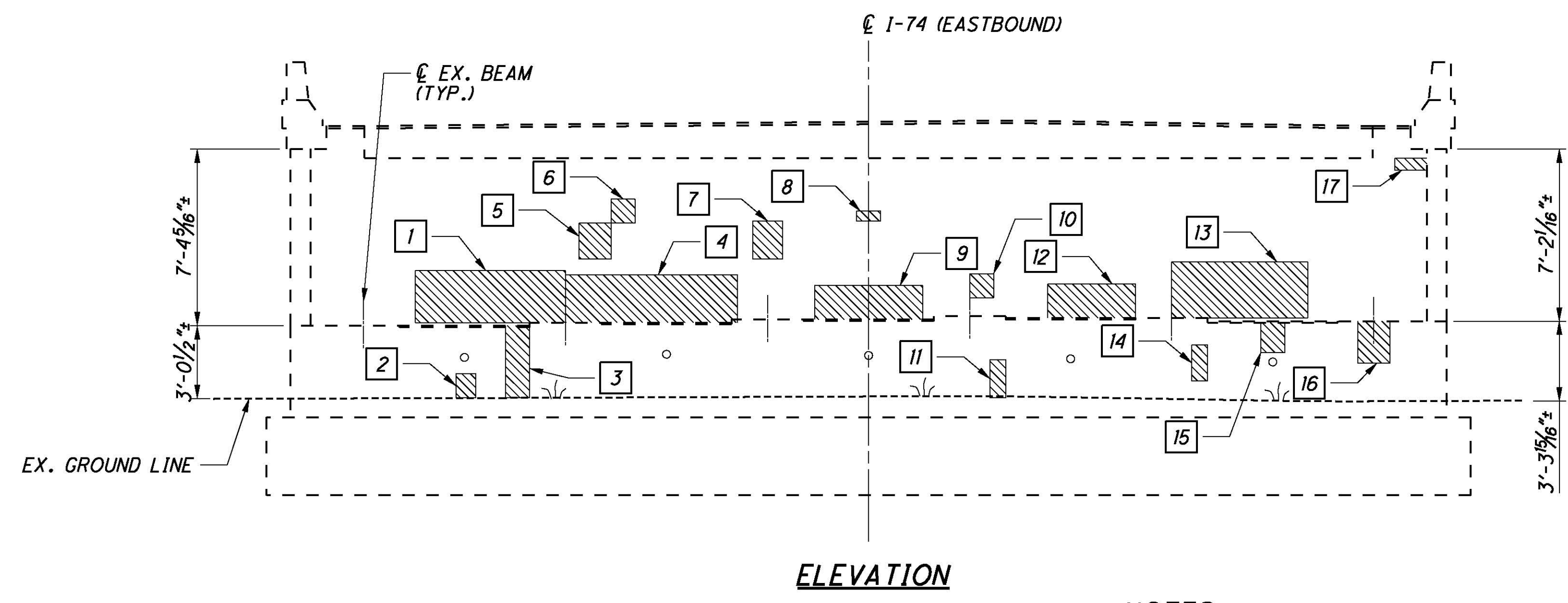
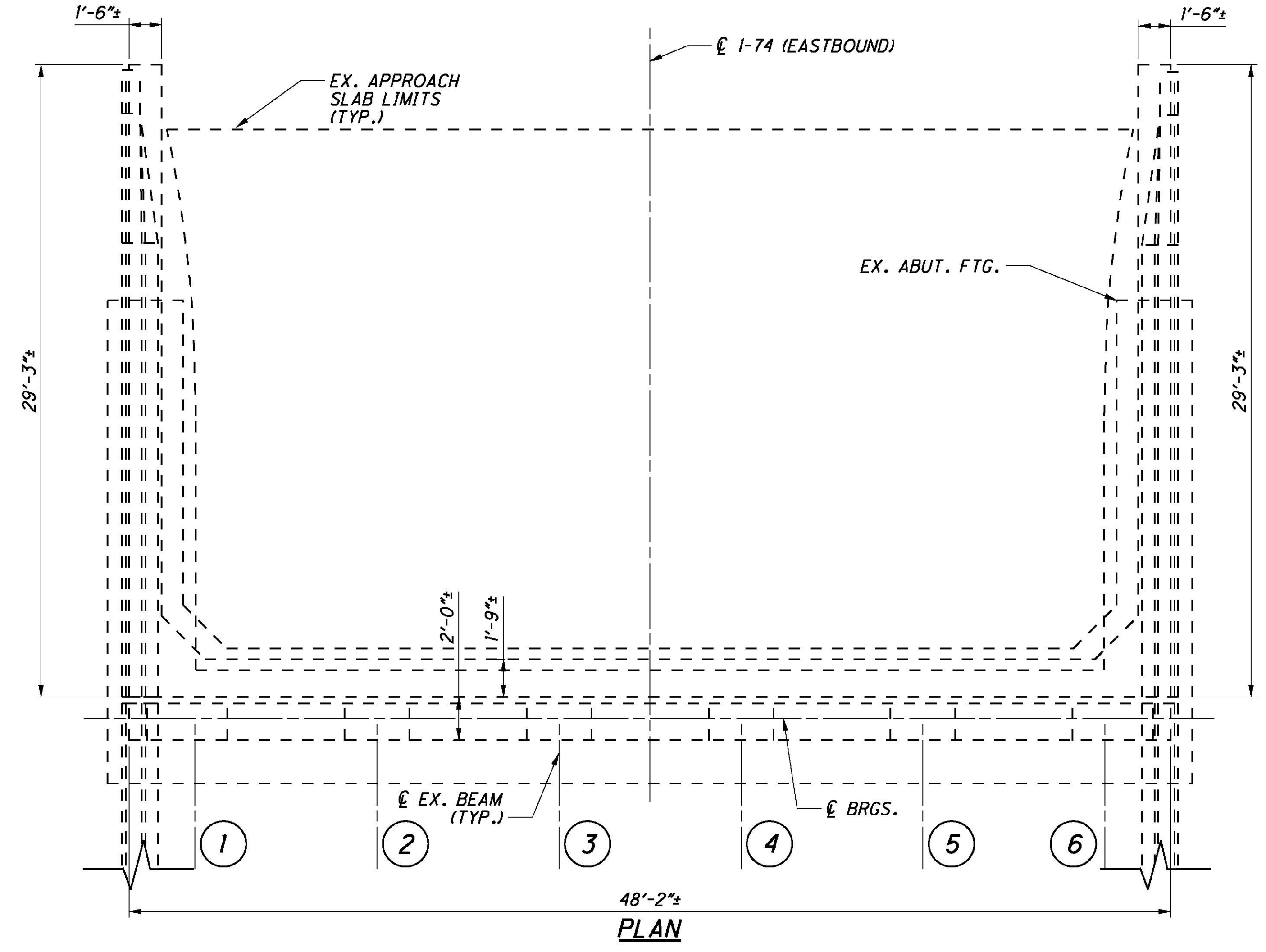
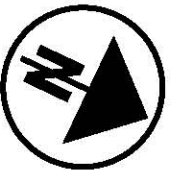
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 6 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 7 FOR SEALING DETAILS.

**LEGEND:**

- 1 - BEAM NUMBER
- PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	75"x26"	13.54
2	10"x12"	0.83
3	12"x36"	3.0
4	86"x24"	14.33
5	16"x18"	2.0
6	12"x12"	1.0
7	15"x19"	1.98
8	12"x5"	0.42
9	54"x17"	6.38
10	12"x12"	1.0
11	8"x19"	1.06
12	44"x17"	5.19
13	68"x28"	13.22
14	8"x18"	1.0
15	12"x15"	1.25
16	16"x21"	2.33
17	16"x6"	0.67
TOTAL		69.20

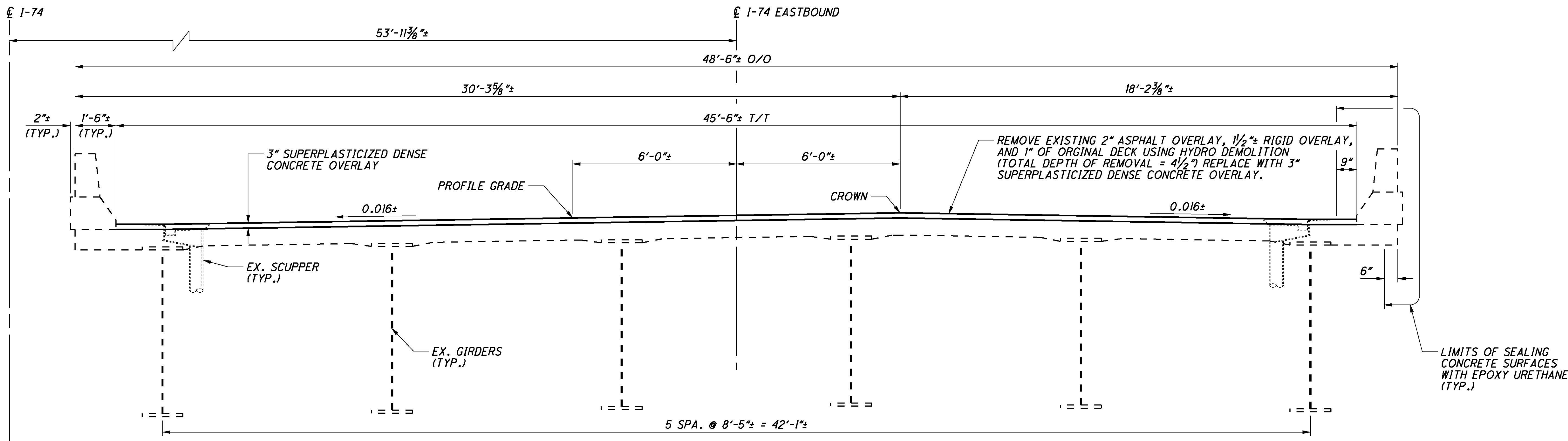
**NOTES:**

- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 6 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 7 FOR SEALING DETAILS.

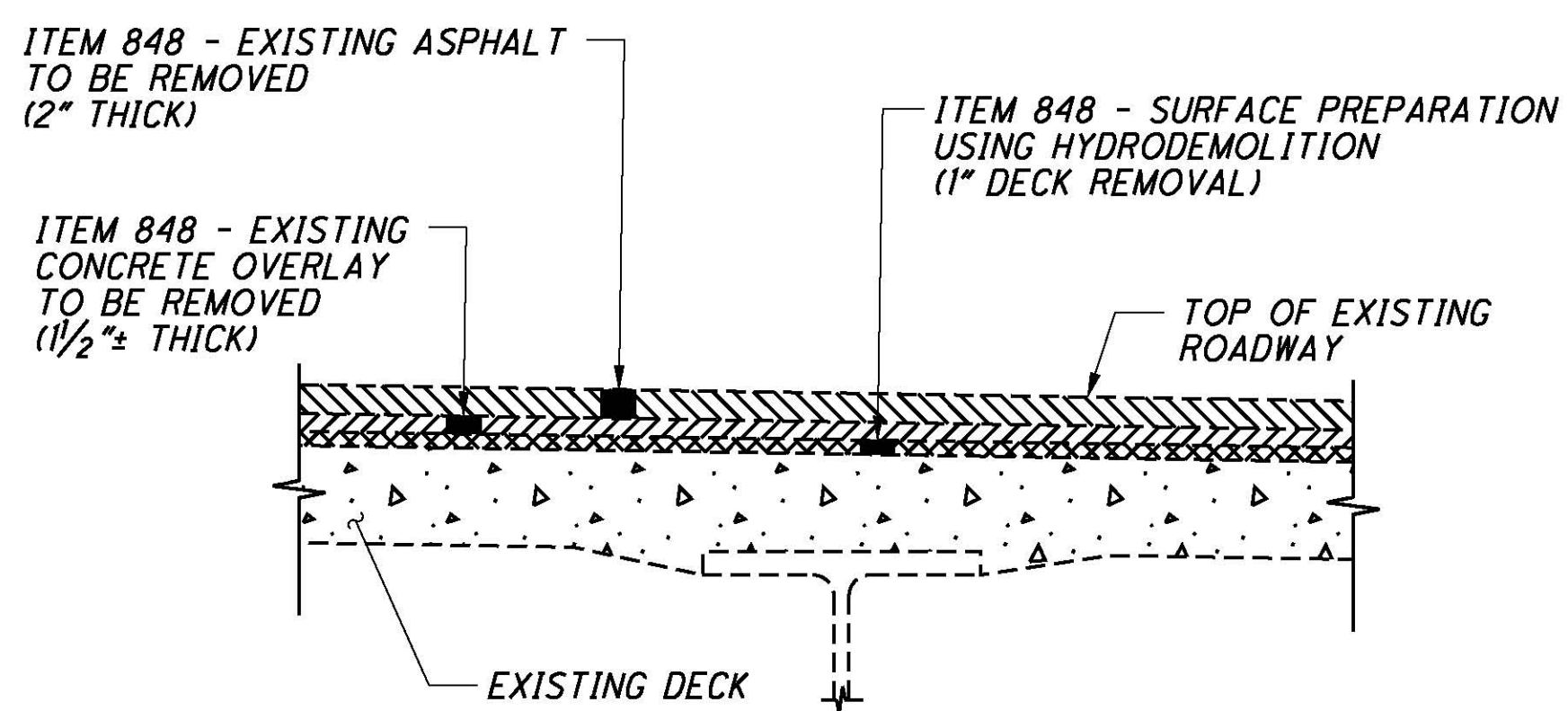
**LEGEND:**

- 1 - BEAM NUMBER
- PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

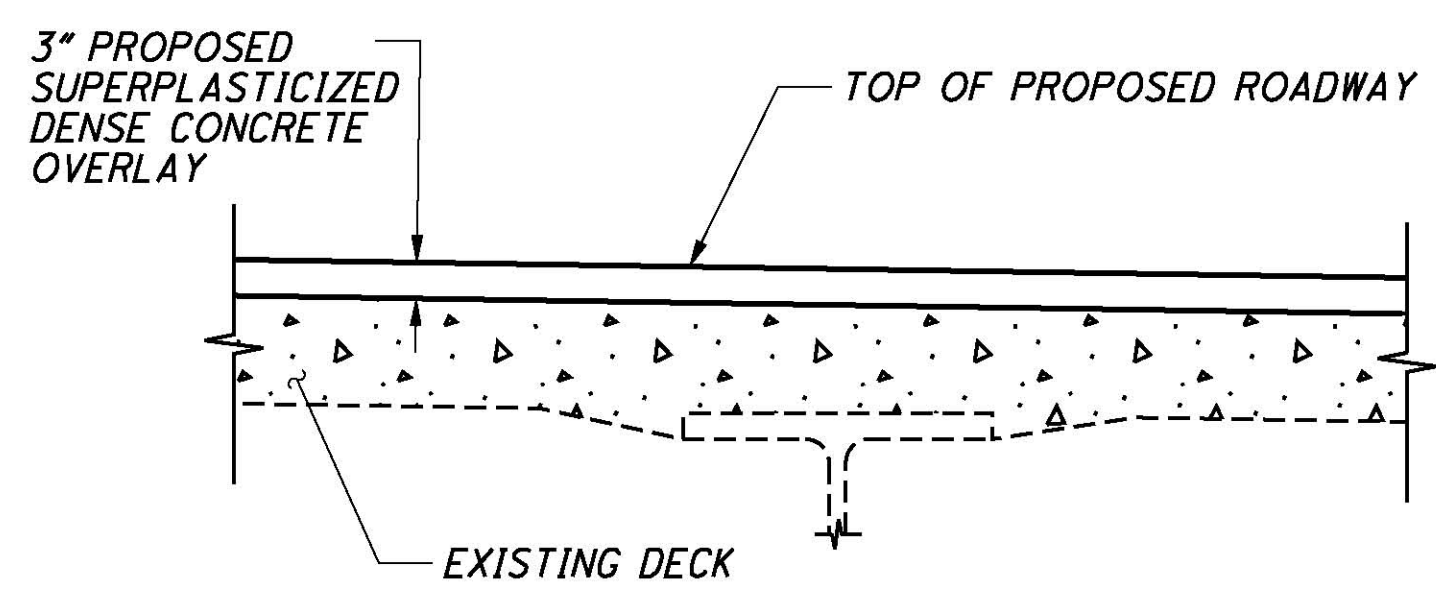
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.







**EASTBOUND BRIDGE TRANSVERSE SECTION  
(WESTBOUND BRIDGE SIMILAR)**

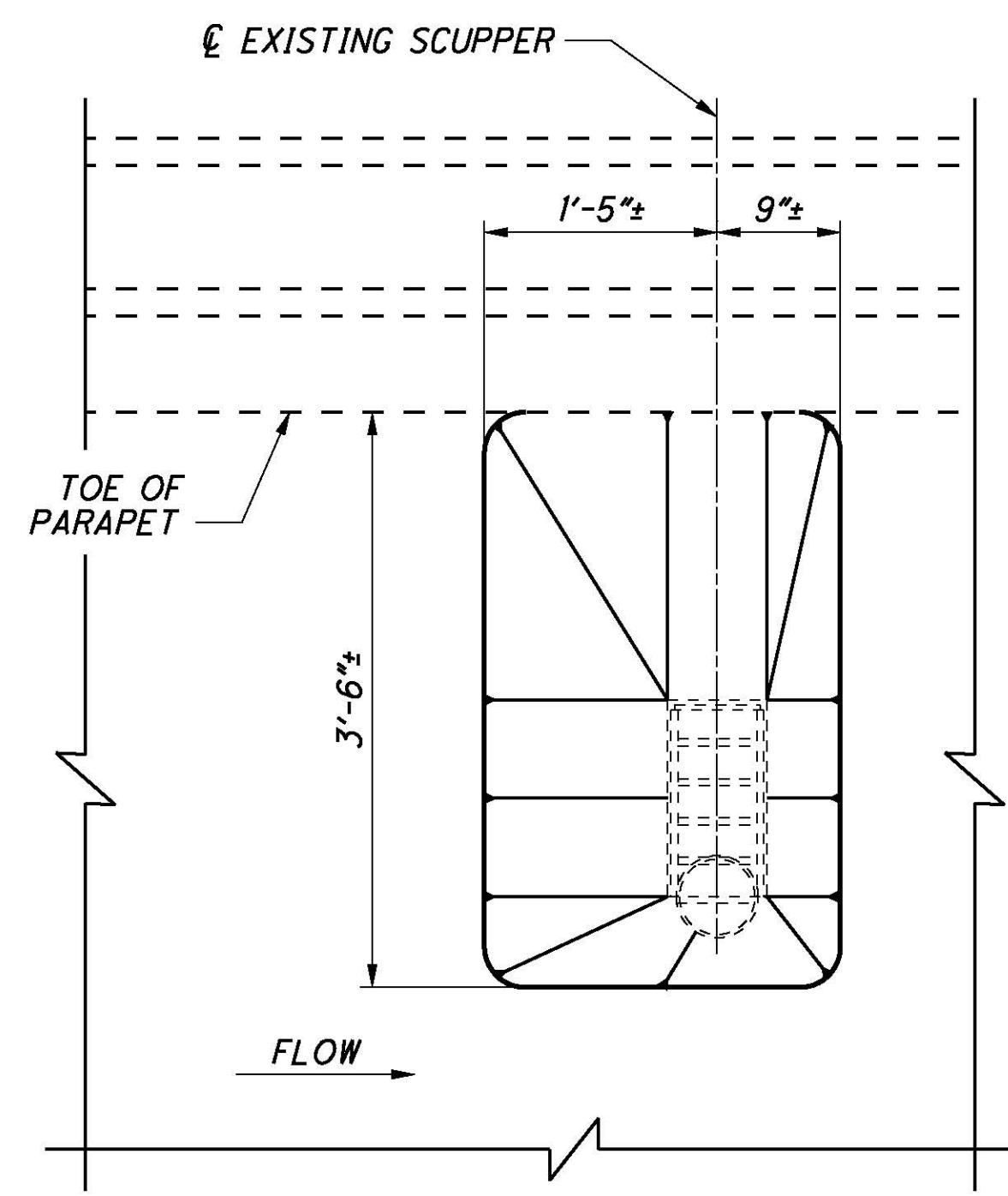


**OVERLAY REMOVAL DETAIL**



**OVERLAY REPLACEMENT DETAIL**

- LEGEND**
-  ITEM 848 - EXISTING ASPHALT TO BE REMOVED (2" THICK)
  -  ITEM 848 - CONCRETE OVERLAY TO BE REMOVED (1/2"± THICK)
  -  ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION (1" DECK REMOVAL)
  -  3" SUPERPLASTICIZED CONCRETE OVERLAY



**SCUPPER OVERLAY DETAIL**

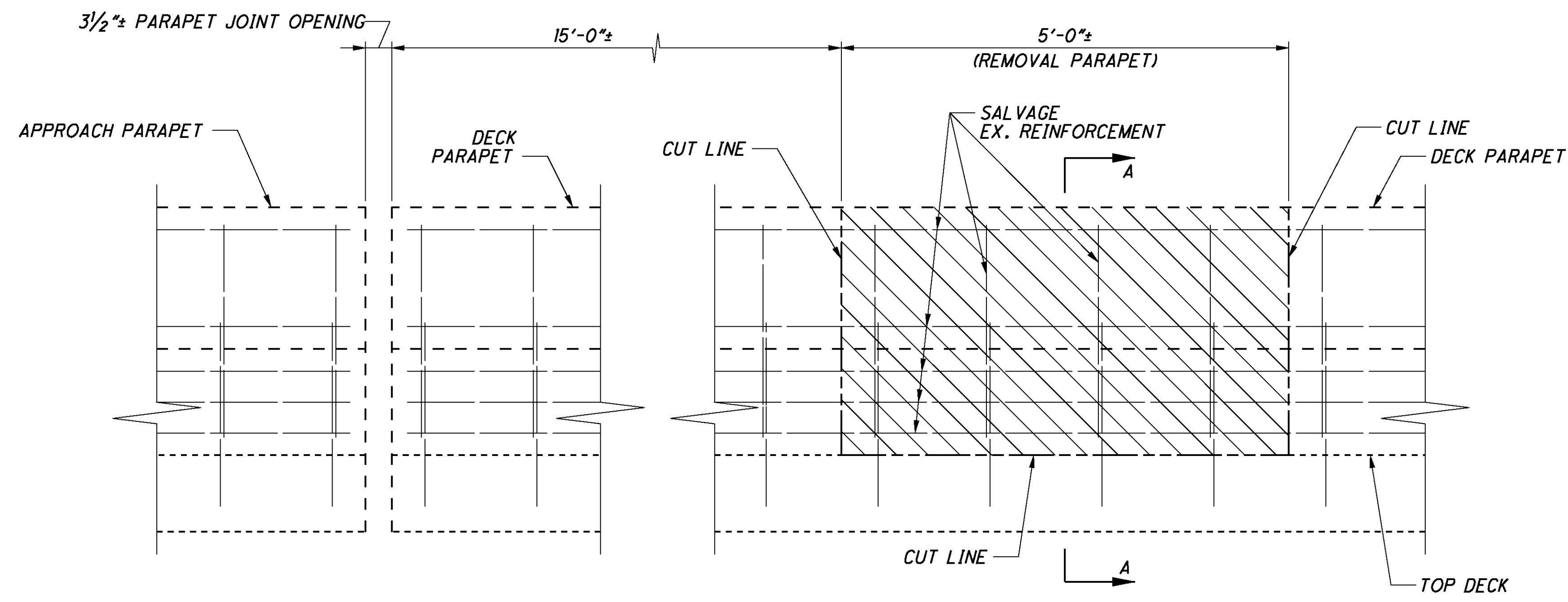
DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5500 PHONE  
(614) 792-5501 FAX

DATE	11/11
REVIEWED	KVB
STRUCTURE FILE NUMBER	3108252 (L) 3108287 (R)
DRAWN	DJC
CHECKED	L YH

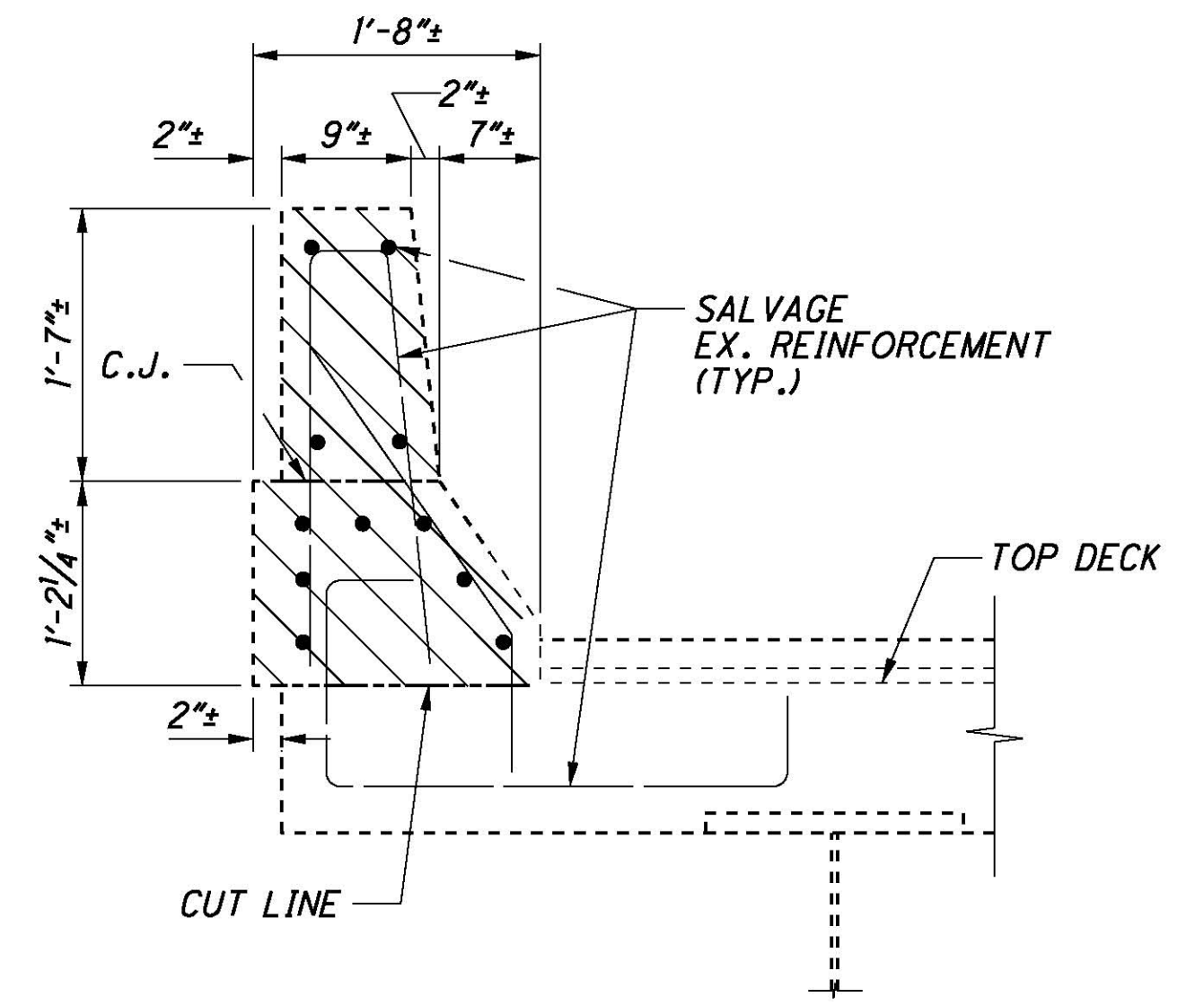
TRANSVERSE SECTION  
BRIDGE NO. - HAM-74-0838 L&R  
I-74 OVER THE GREAT MIAMI RIVER

HAM-74-5.53  
PID No. 83011

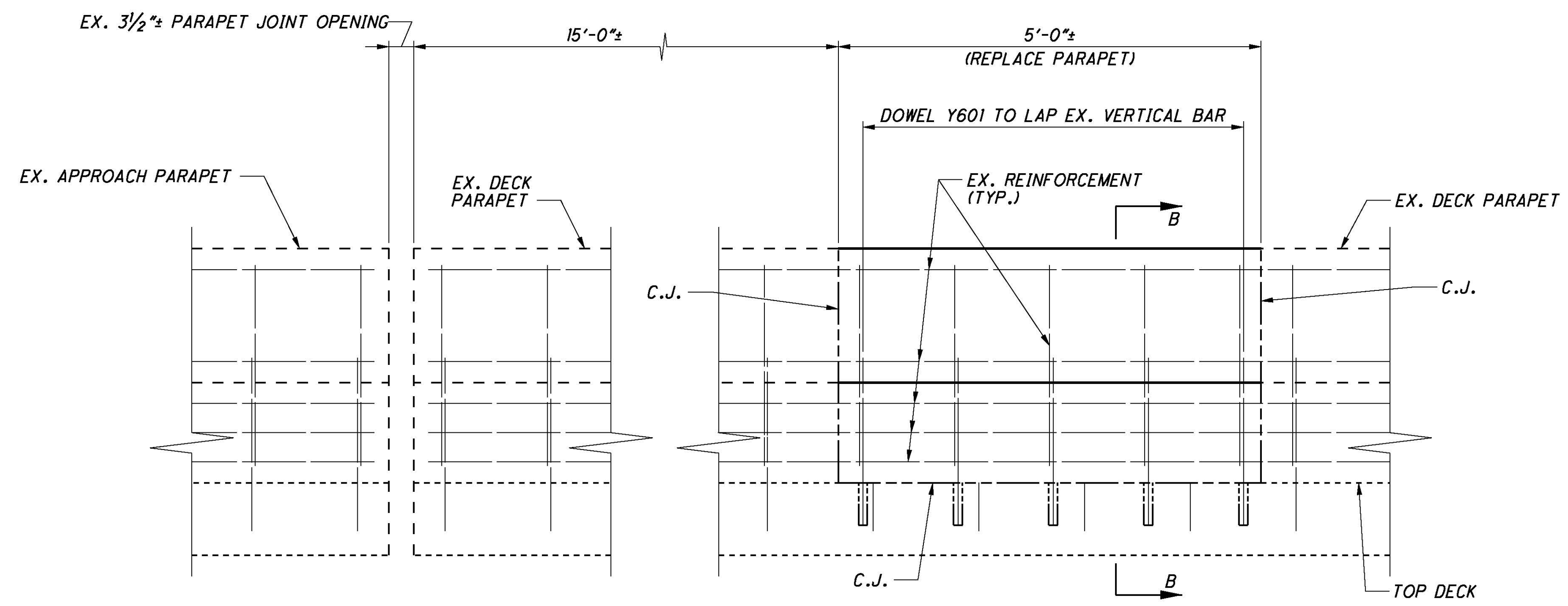
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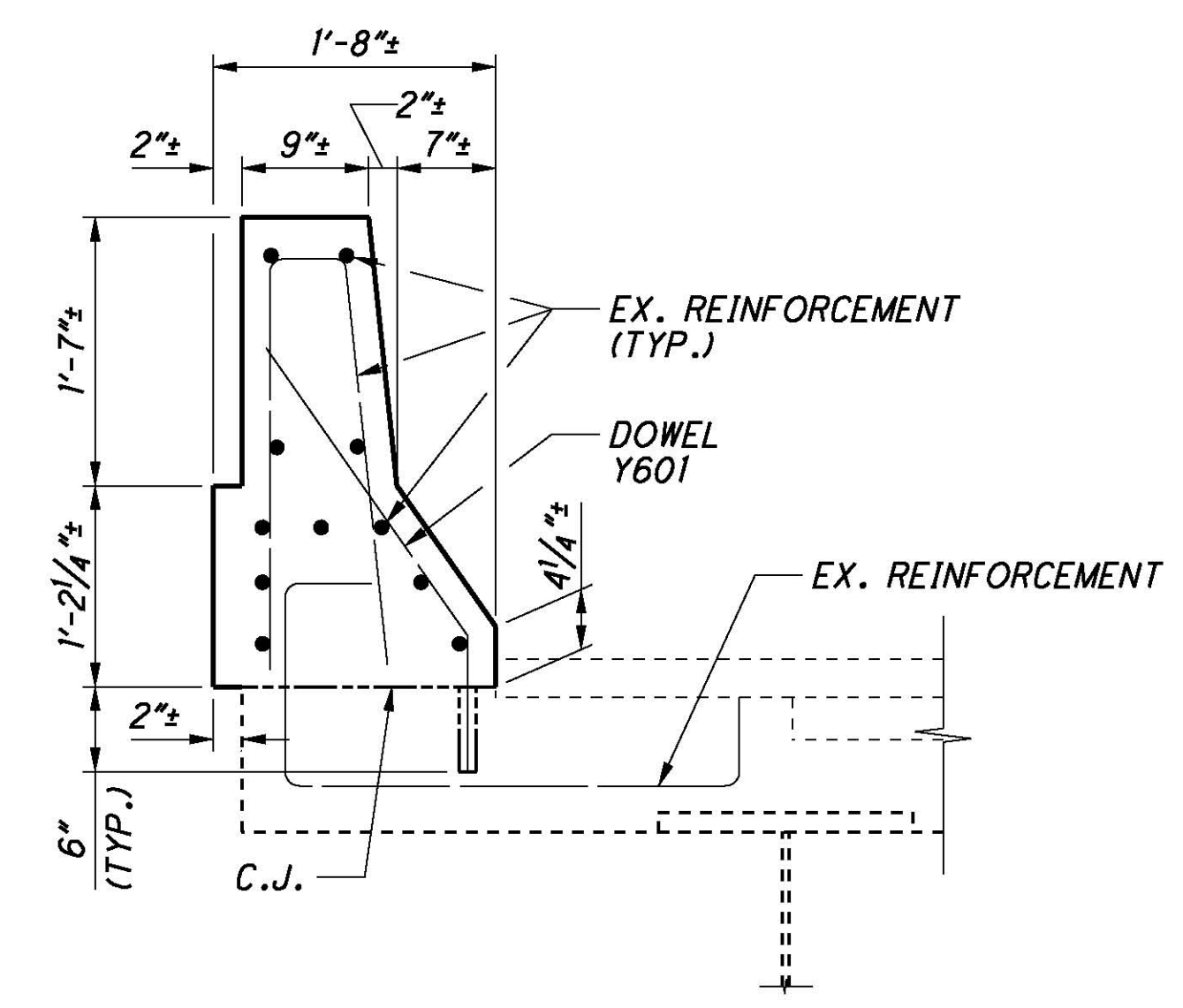
**PARAPET REMOVAL, PART ELEVATION**



**SECTION A-A**

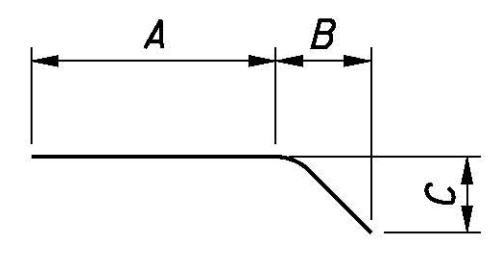


**PARAPET REPLACEMENT, PART ELEVATION**



**SECTION B-B**

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	R	INC
<b>PARAPET</b>									
Y601	5	2'-9"	21	19	0'-10"	1'-7"	1'-2"		



**TYPE-19**

**LEGEND:**

- PARAPET REMOVAL

**NOTES:**

1. SEE SHEET 1 FOR LOCATION OF BRIDGE PARAPET REPAIR.

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DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43016  
 (614) 792-5900 PHONE  
 (614) 792-5901 FAX

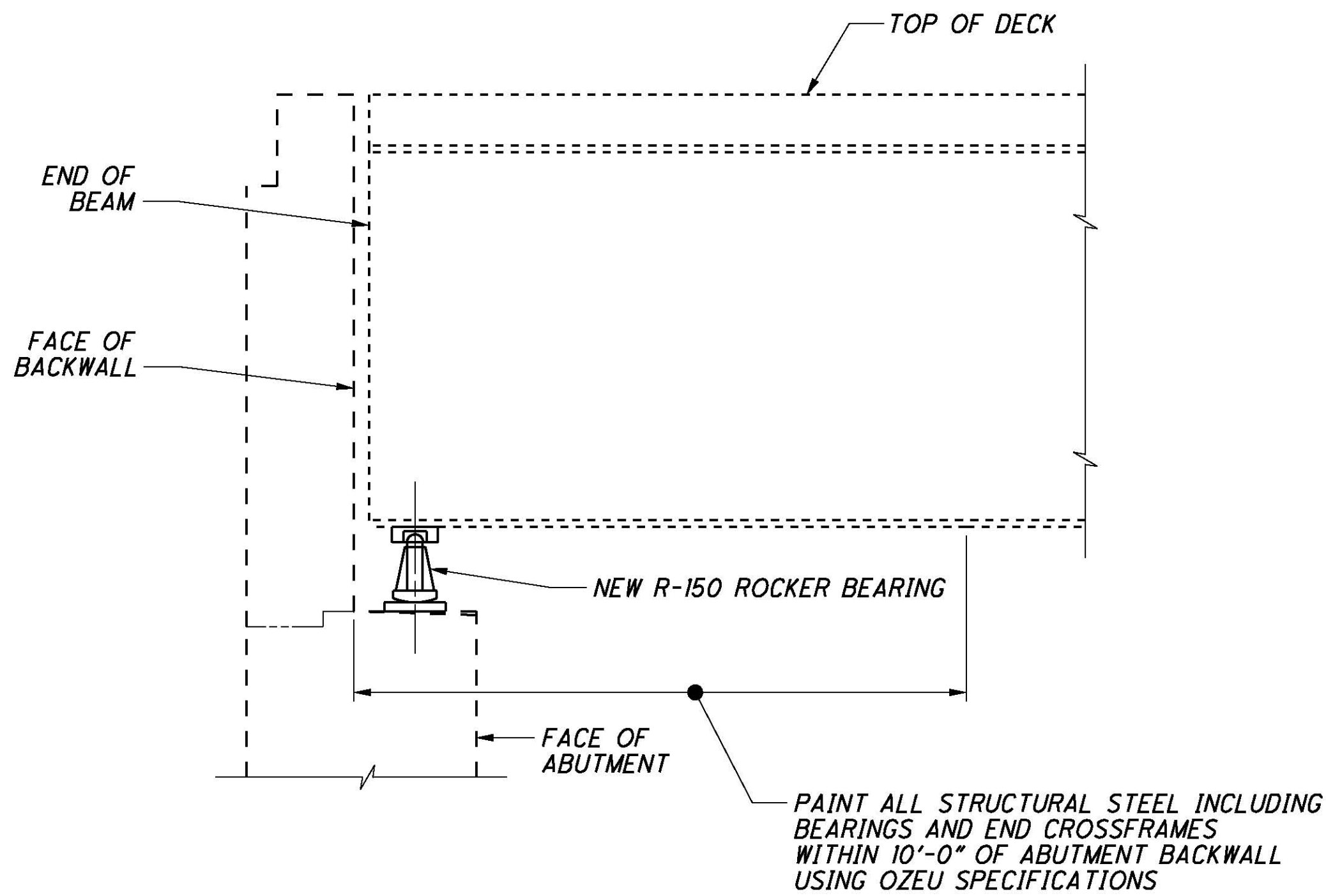
DATE 11/11  
 REVIEWED KVB  
 STRUCTURE FILE NUMBER 3108252 (L) 3108287 (R)  
 DRAWN DJC  
 CHECKED L YH  
 DESIGNED SK

**WESTBOUND BRIDGE PARAPET REPAIR DETAILS**  
 BRIDGE NO. HAM-74-0838 L&R  
 I-74 OVER THE GREAT MIAMI RIVER

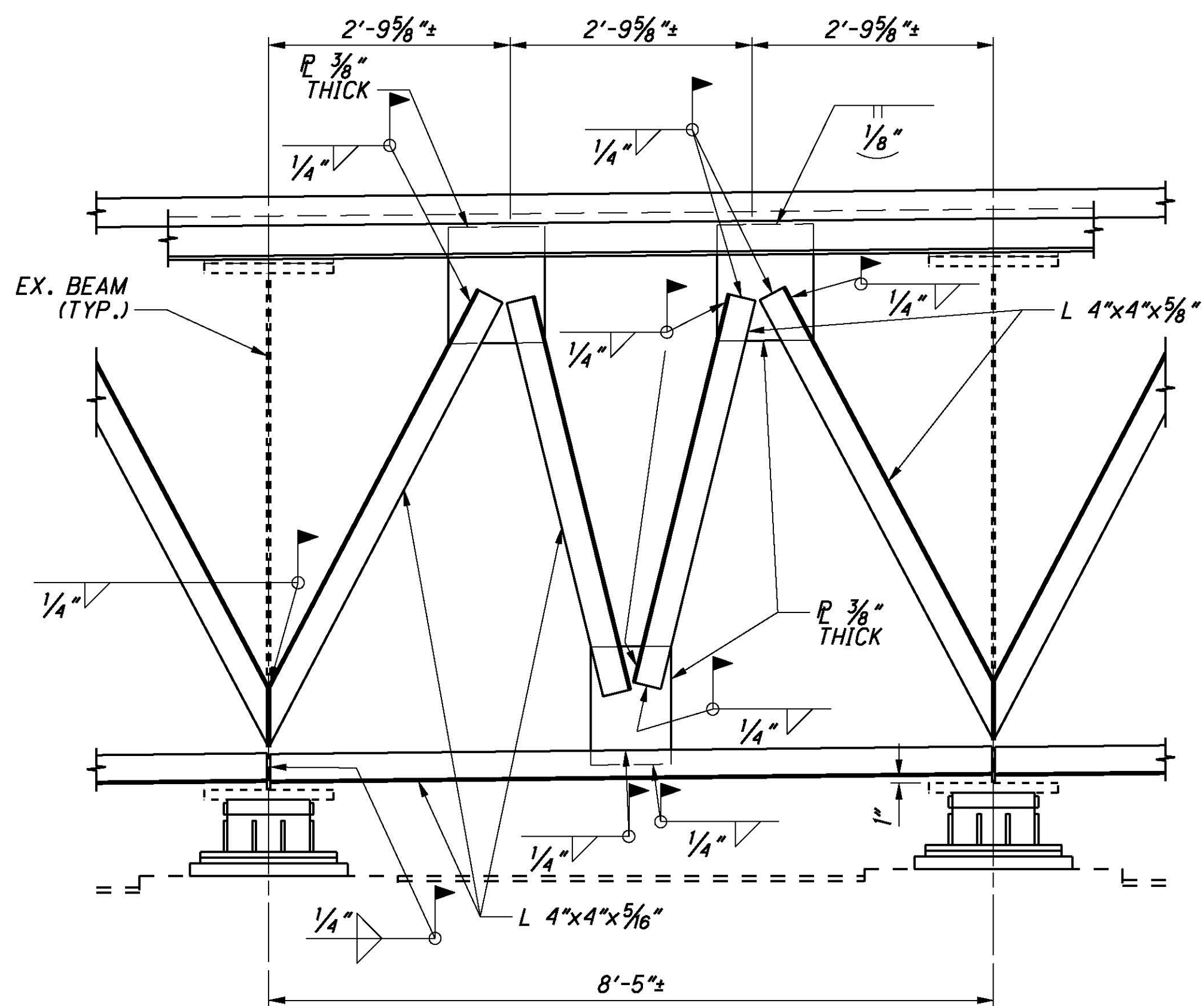
**HAM-74-5.53**  
 PID No. 83011

12 / 15

82  
118



**STRUCTURAL STEEL PAINTING DETAIL**



**CROSSFRAME REPLACEMENT DETAIL**

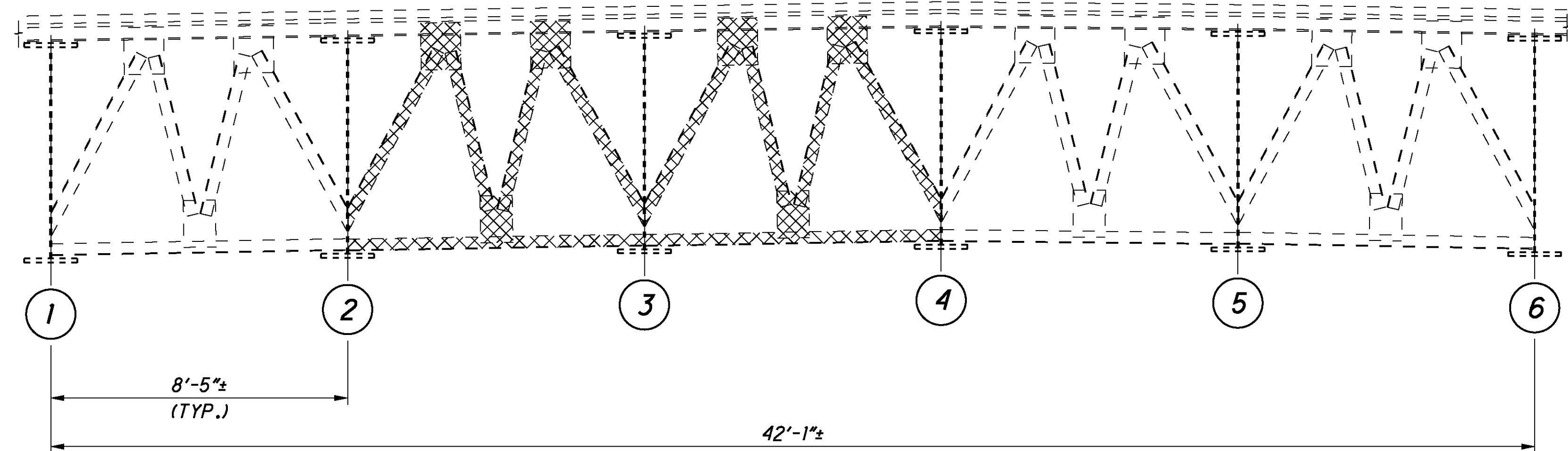
EXISTING ROCKER BEARING THICKNESS				
BEAM	LEFT BRIDGE ABUTMENT		RIGHT BRIDGE ABUTMENT	
	REAR (INCH)	FORWARD (INCH)	REAR (INCH)	FORWARD (INCH)
1	13 7/8 ±	13 1/2 ±	14 ±	13 1/2 ±
2	14 1/2 ±	13 3/4 ±	14 1/8 ±	14 ±
3	14 1/4 ±	13 3/4 ±	14 ±	14 ±
4	14 1/8 ±	13 3/4 ±	13 3/4 ±	14 ±
5	14 ±	14 ±	14 ±	13 3/4 ±
6	13 1/2 ±	14 ±	13 5/8 ±	13 1/2 ±

**NOTES:**

1. **ITEM 516 - BEARING DEVICE, ROCKER, AS PER PLAN:** THIS ITEM SHALL INCLUDE COMPLETE REPLACEMENT OF AN ABUTMENT ROCKER BEARING AS DIRECTED BY THE ENGINEER. THE ROCKERS SHALL BE CONSTRUCTED PER STANDARD DRAWING RB-1-55 AND OF THE SAME CAPACITY OF THE EXISTING ROCKERS. INCLUDED IN THIS ITEM SHALL BE THE DISASSEMBLY AND REMOVAL OF THE EXISTING BEARING, REPLACEMENT OF THE UPPER PLATE, ROCKER, LOWER PLATE, STEEL SHIM, AND PREFORMED BEARING PADS (711.21). ONLY ONE STEEL SHIM PLATE AND ONE PREFORMED BEARING PAD WILL BE ALLOWED TO OBTAIN THE PROPER FIT-UP. BOTH SHALL BE OF THE SAME PLAN AREAS AS THE MASONRY PLATE AND THE SHIM PLATE SHALL BE FULLY WELDED AROUND THE PERIMETER TO THE LOWER PLATE. THE BEARINGS SHALL BE VERTICALLY ALIGNED AT 60 DEGREES FAHRENHEIT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THOROUGH FIELD MEASUREMENTS AND ADJUSTING AS REQUIRED TO ENSURE ALL BEARING SURFACES ARE IN FULL CONTACT. ADJUSTMENTS REQUIRED TO ACHIEVE FULL BEARINGS SHALL NOT CAUSE OTHER BEARINGS TO "FLOAT". THE LOCATIONS ARE AS FOLLOWS:

- BRIDGE# HAM-74-0838 L
  - REPLACE R-150 ABUTMENT ROCKERS AT REAR ABUTMENT
  - REPLACE R-150 ABUTMENT ROCKERS AT FORWARD ABUTMENT.
- BRIDGE# HAM-74-0838 R
  - REPLACE R-150 ABUTMENT ROCKERS AT REAR ABUTMENT
  - REPLACE R-150 ABUTMENT ROCKERS AT FORWARD ABUTMENT.

- 2. SURFACE PAINT COURSE FOR STRUCTURAL STEEL SHALL MATCH EXISTING PAINT COLOR.
- 3. CROSSFRAME REPLACEMENT:  
EXISTING ADJACENT CROSSFRAME MEMBERS SHOULD NOT BE REMOVED AT THE SAME TIME TO ENSURE BEAM STABILITY.



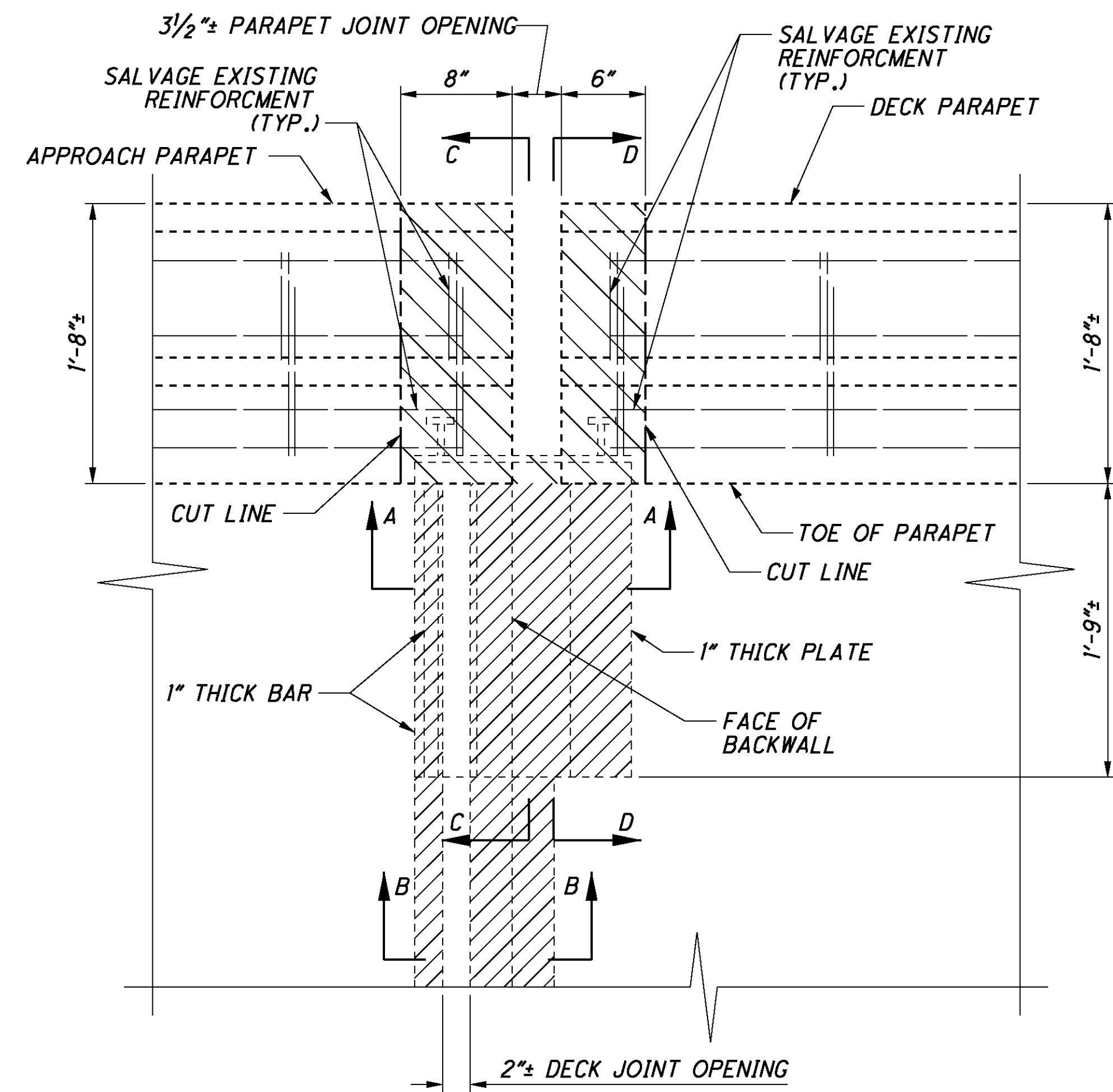
**EXISTING END CROSSFRAMES**

**LEGEND:**

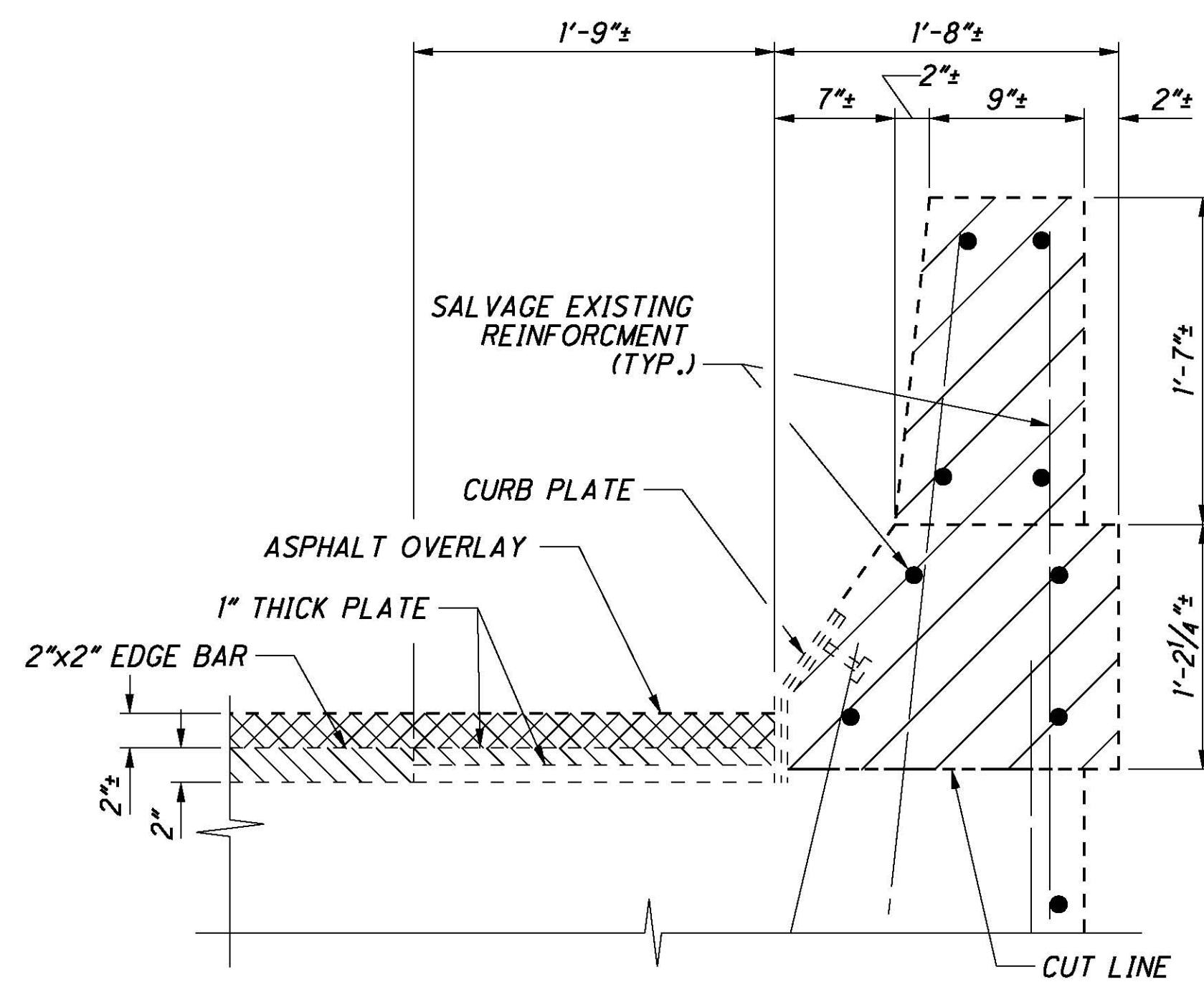
- ① - BEAM NUMBER
- [Hatched Box] - REPLACE EXISTING CROSSFRAME

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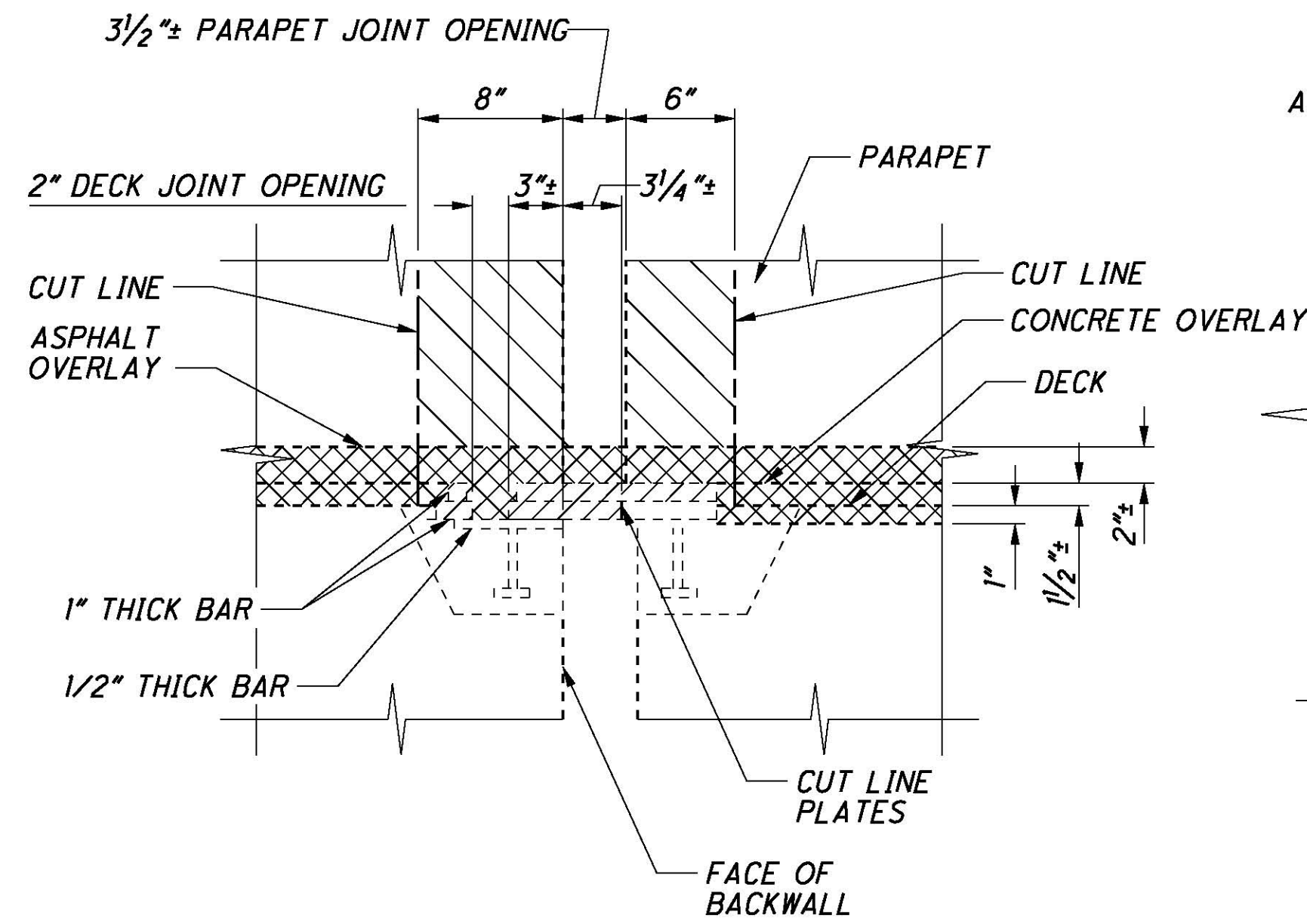
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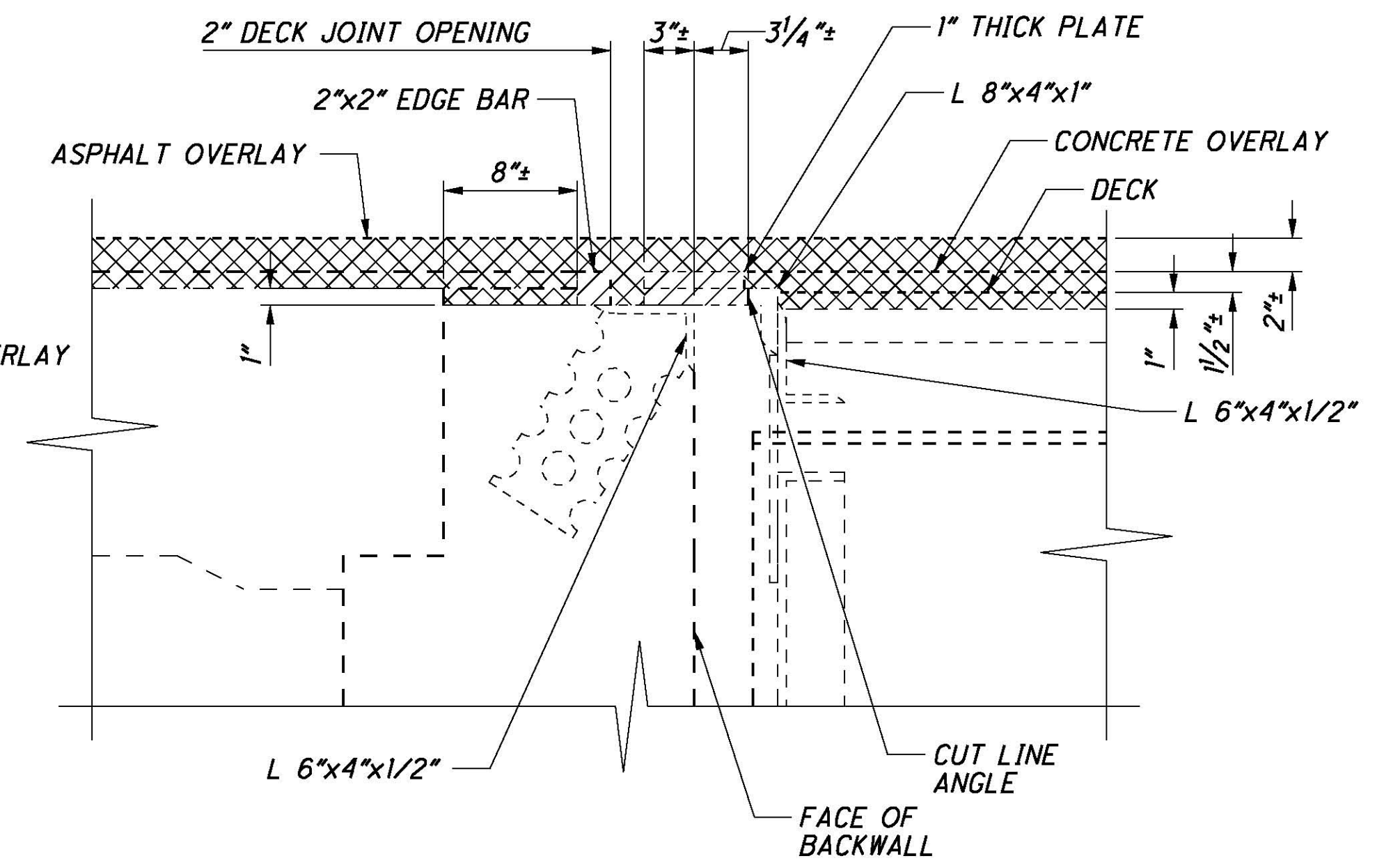
**REMOVAL PART PLAN AT ABUTMENT**



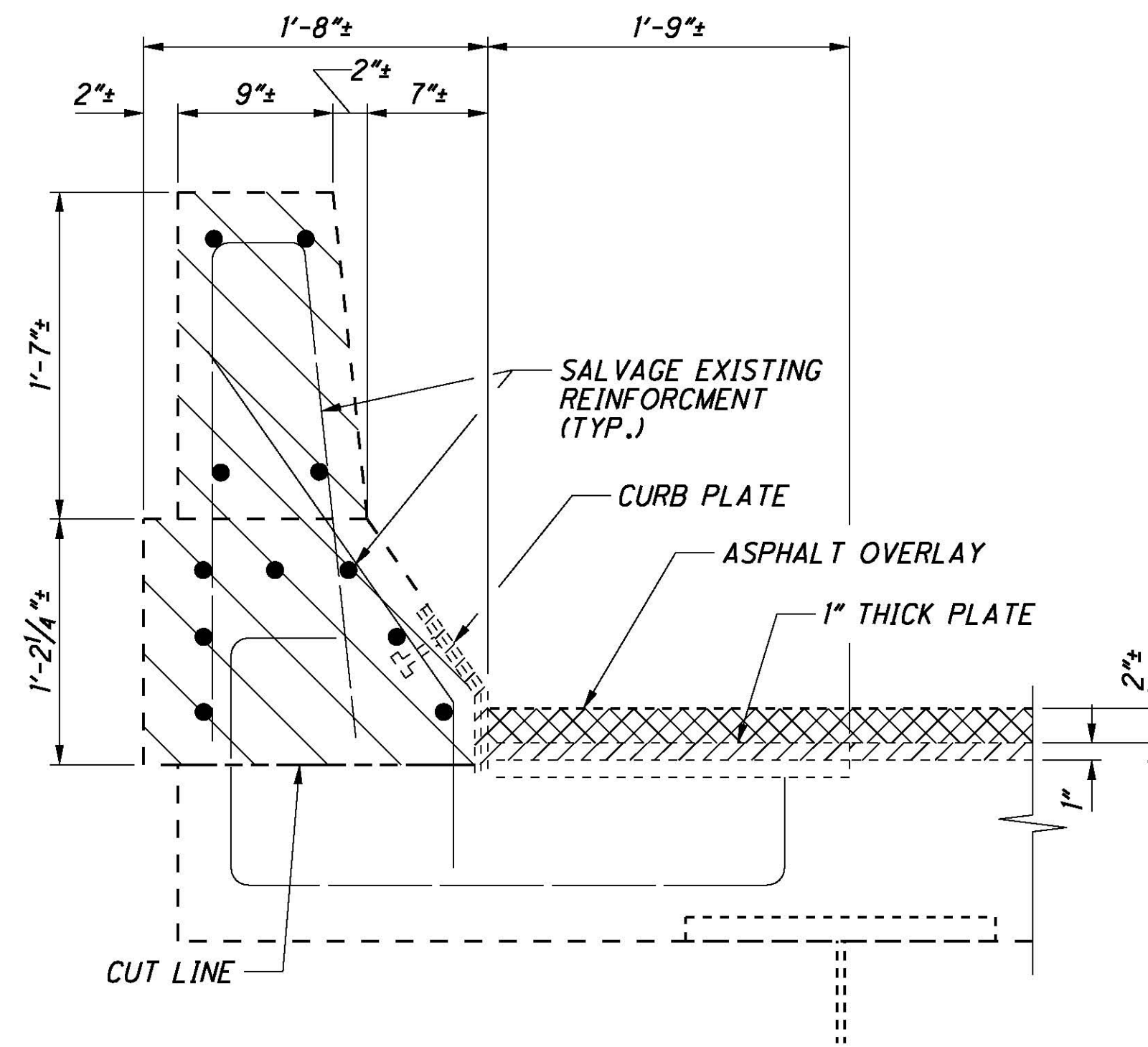
**SECTION C-C**



**SECTION A-A**






**SECTION B-B**



**SECTION D-D**

**LEGEND:**

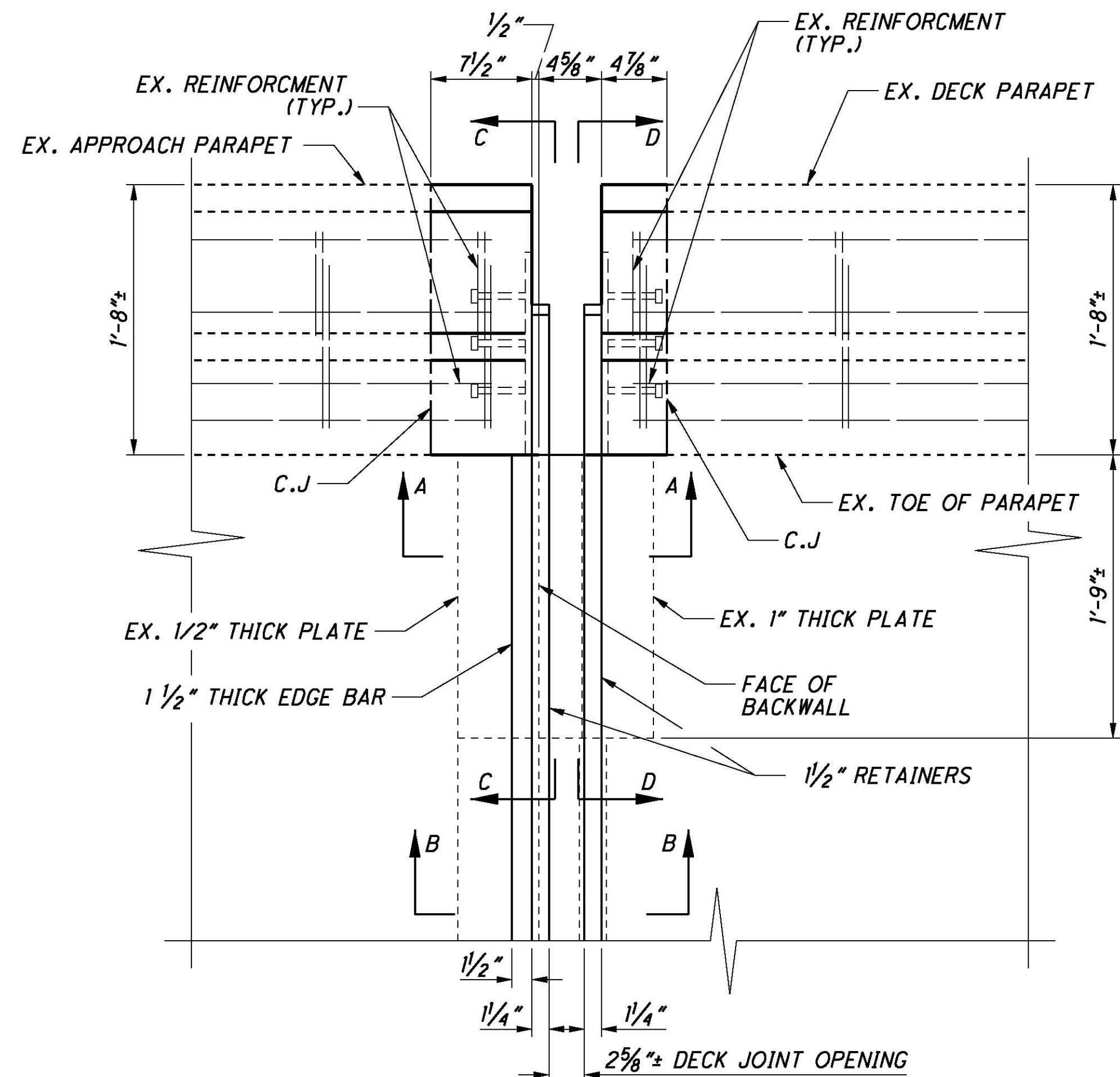
-  - REMOVAL PARAPET
-  - REMOVAL VERTICAL EXTENSION PLATES
-  - REMOVAL ASPHALT, CONCRETE & OVERLAY

DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43016  
 (614) 792-5600 PHONE  
 (614) 792-5601 FAX

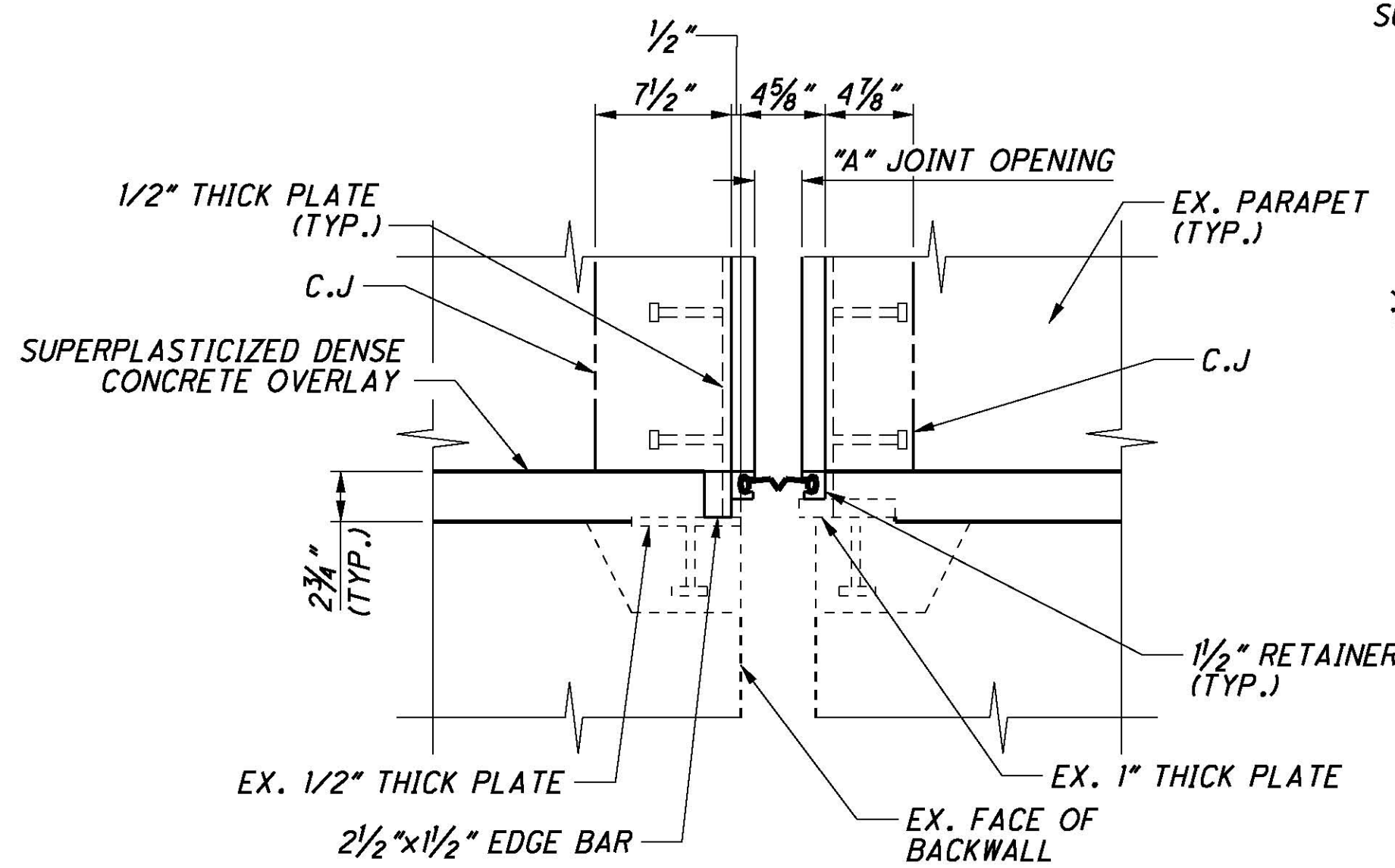
DESIGNED	SK	CHECKED	KVB
DRAWN	DJC	REVISED	
REVIEWED	CMS	STRUCTURE FILE NUMBER	3108252 (L) 3108287 (R)
DATE	11/11		

**JOINT MODIFICATION REMOVAL DETAILS**  
 BRIDGE NO. - HAM-74-0838 L&R  
 I-74 OVER THE GREAT MIAMI RIVER

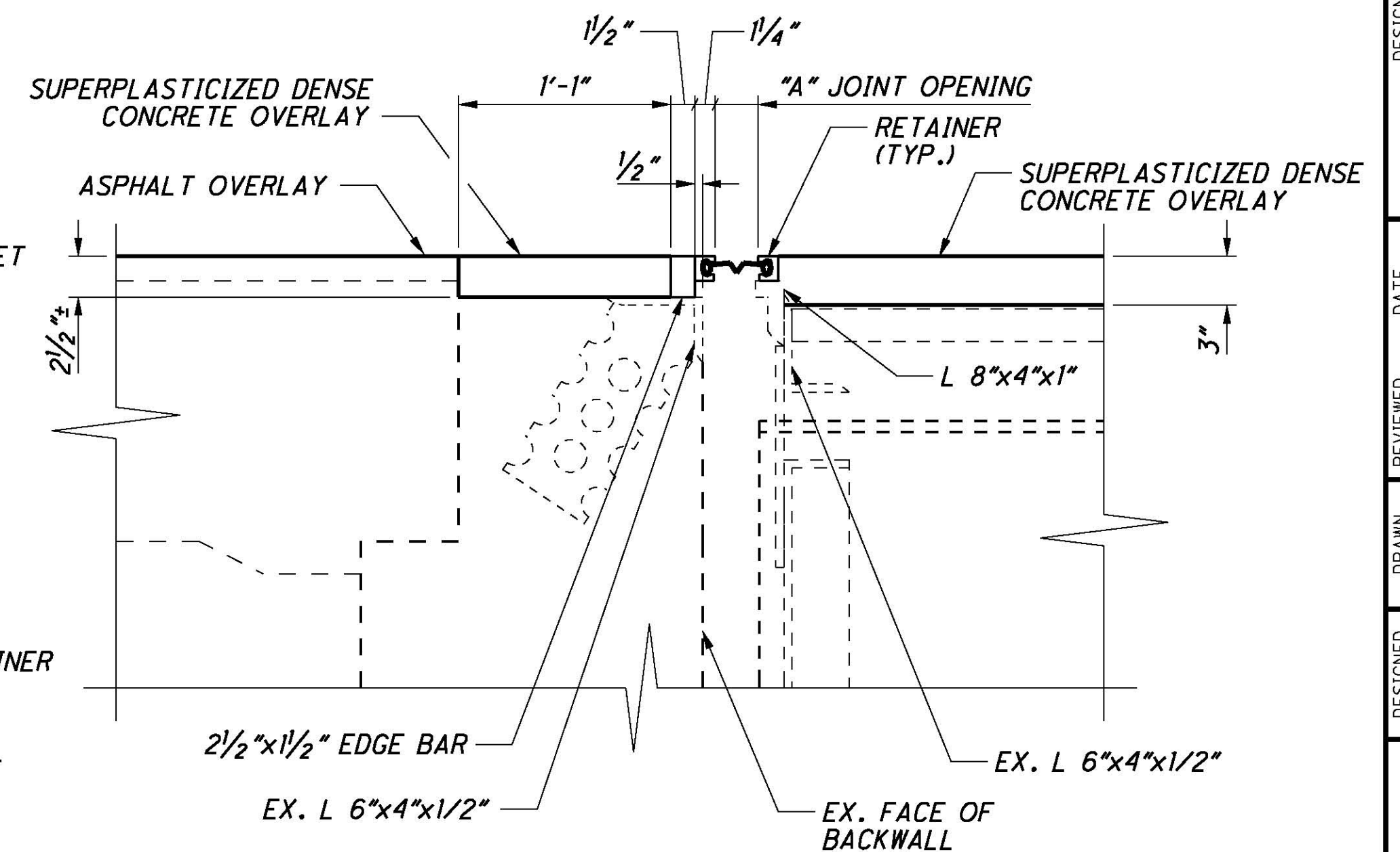
**HAM-74-5.53**  
 PID No. 83011



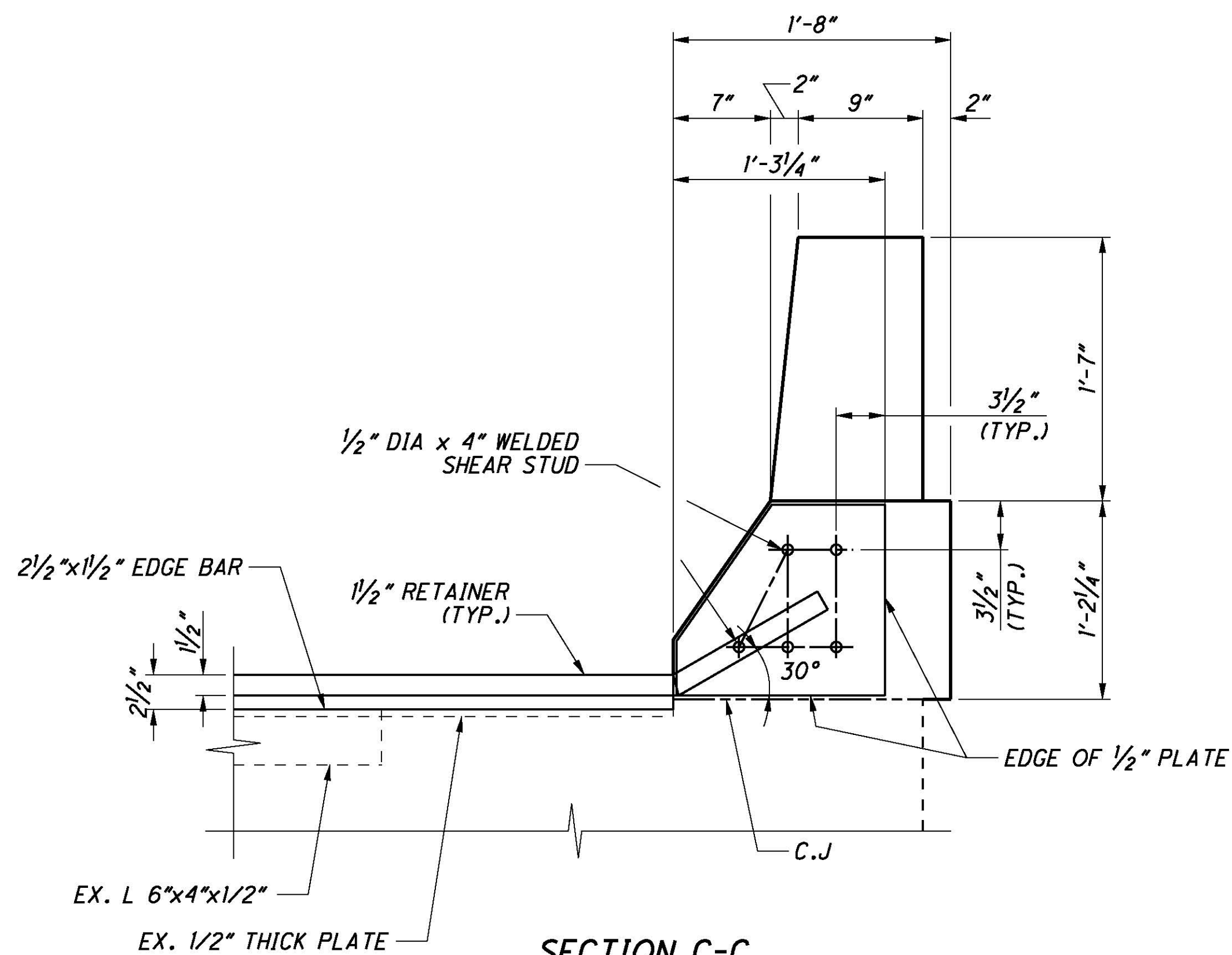
**PART PLAN AT ABUTMENT**



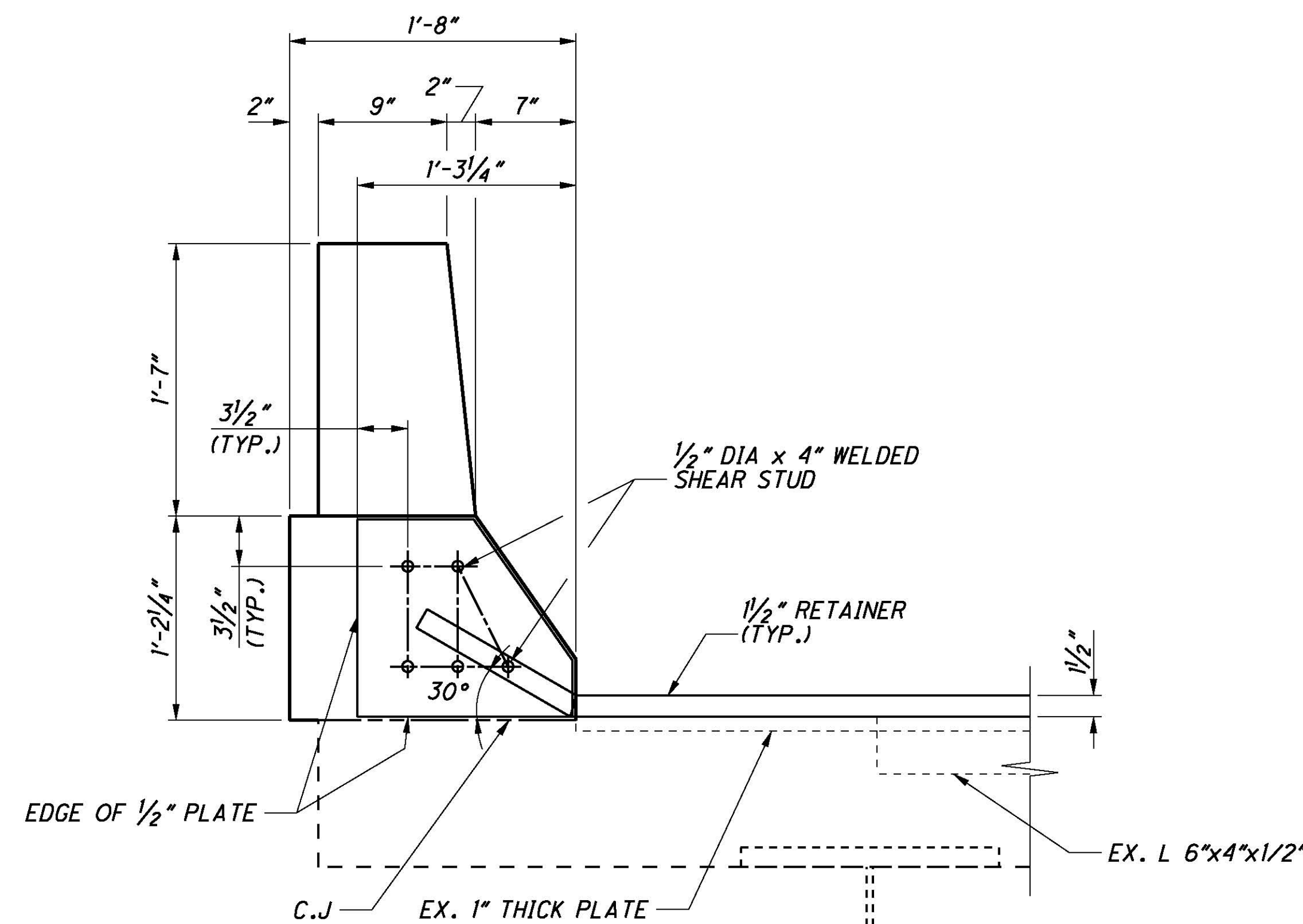
**SECTION A-A**



**SECTION B-B**



**SECTION C-C**



**SECTION D-D**

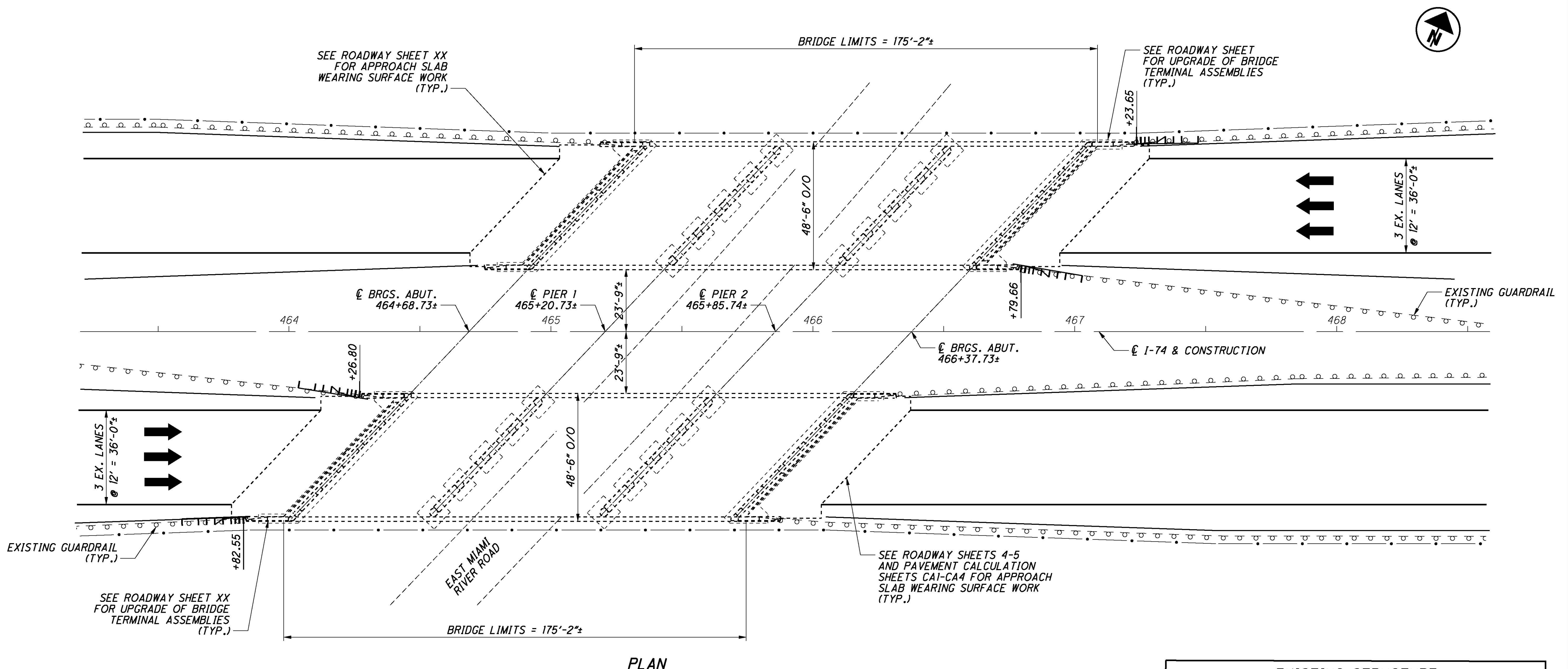
STRIP SEAL GLAND	
AMBEINT TEMPERATURE °F	DIMENSION "A" (INCH)
30	2 5/8"
40	2 3/8"
50	2 1/8"
60	1 7/8"
70	1 3/4"
80	1 1/2"

**NOTES:**

1. DIMENSIONS SHOWN ARE FROM EXISTING PLANS.
2. STRIP SEAL GLAND SHALL BE 3".
3. REFER TO STANDARD DRAWING EXJ-4-87 FOR ADDITIONAL DETAILS AND NOTES. REFER TO D.S. BROWN AND WATSON BOWMAN ACME, FOR 1/2" RETAINER.
4. INSTALL THE STRIP SEAL GLAND CONTINUOUS AND IN ONE PIECE.

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PLAN

**NOTES**

DESIGN TRAFFIC:  
 2013 ADT = 89,390    2013 ADTT = 13,409  
 2033 ADT = 116,000    2033 ADTT = 17,400  
 DIRECTIONAL DISTRIBUTION = 51%

**PROPOSED WORK**

1. PATCH UNSOUND OR DELAMINATED AREAS OF EXISTING BRIDGE DECKS WITH TYPE B PATCHING.
2. SEAL EXISTING DECKS WITH GRAVITY FED RESIN.
3. REPLACE EXISTING SLIDING PLATE BEARINGS WITH ELASTOMERIC BEARINGS.
4. PATCH DETERIORATED SUBSTRUCTURE CONCRETE WITH 519 PATCHING.
5. REPAIR CRACKS WITH EPOXY INJECTION.
6. PAINT STRUCTURAL STEEL 4 FEET OUT FROM END OF BEAM USING OZEU SPECIFICATIONS. THE COLOR SHALL MATCH EXISTING.
7. SEAL SUPERSTRUCTURE AND SUBSTRUCTURE WITH EPOXY URETHANE, FEDERAL COLOR NUMBER 17778.
8. CLEARING AND GRUBBING WITHIN 10 FEET OF EXISTING STRUCTURE.
9. UPGRADE PARAPET TERMINAL ASSEMBLIES AS SHOWN ON PLANS.
10. MILL AND REPLACE APPROACH SLAB ASPHALT WEARING SURFACES AS SHOWN ON THE PLANS.

**EXISTING STRUCTURE**

TYPE: THREE SPAN CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE  
 SPANS: 52'-0"±, 65'-0"±, 52'-0"±, C/C BRGS.  
 ROADWAY: 45'-6" T/T  
 LOADING: CF-2000 (57) ADEQUATE FOR AASHO ALTERNATIVE LOADING  
 WEARING SURFACE: 2" CONCRETE OVERLAY  
 SKEW: 43°30' LEFT  
 APPROACH SLABS: AS-1-54 (25'-0" LONG)  
 ALIGNMENT: TANGENT  
 CROWN: 3/16" / FT.±  
 STRUCTURAL FILE NUMBER: 3108317(L) 3108341(R)  
 DATE BUILT: 1964  
 COORDINATES: LATITUDE 39° 12' 42" W  
 LONGITUDE 84° 41' 42" N  
 DISPOSITION: TO BE REHABILITATED

**PROPOSED STRUCTURE**

SAME AS EXISTING



**REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:**

843 DATED 4-18-03

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION - 2002 AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

**DESIGN LOADING (BOTH STRUCTURES):**

CF-2000-(57) ADEQUATE FOR AASHTO ALTERNATIVE LOADING

**DECK PROTECTION METHOD:**

GRAVITY FED RESIN

**EXISTING STRUCTURE VERIFICATION:**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING STRUCTURE PLANS:**

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH SR 741 LEBANON, OHIO 45036 (PHONE: 800-831-2142)

**PROTECTION OF TRAFFIC:**

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO INSURE SUCH PROTECTION. MAINTAIN THE TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

**ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):**

THE FINISH COAT COLOR FOR THE ABUTMENT, PIERS, AND PARAPETS SHALL BE FEDERAL COLOR NO. 17778, LIGHT NEUTRAL.

**ITEM 516. JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:**

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, 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.

THE PATCHING QUANTITIES SHOWN IN ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

**ITEM SPECIAL PATCHING CONCRETE BRIDGE DECK, TYPE B**

THIS ITEM IS TO BE USED TO PATCH AREAS OF DETERIORATED BRIDGE DECK CONCRETE. THE FOLLOWING CONTINGENCY QUANTITIES ARE PROVIDED AND SHALL BE DIRECTED BY THE ENGINEER:

BRIDGE NO. 3108317 (L) 9 S.Y.  
BRIDGE NO. 3108341 (R) 9 S.Y.

AREAS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE MARKED BY THE PROJECT ENGINEER. MATERIALS SHOULD NOT BE ORDERED UNTIL THE AREAS FOR REPAIR HAVE BEEN MARKED.

THIS WORK WILL BE PAID FOR AT THE CONTRACT BID PRICE, WHICH PRICE AND PAYMENTS SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF THE PROPOSAL NOTE AND TO THE SATISFACTION OF THE ENGINEER.

**ABBREVIATIONS:**

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

- ABUT. - ABUTMENT
- ADT - AVERAGE DAILY TRAFFIC
- ADTT - AVERAGE DAILY TRUCK TRAFFIC
- APPROX. - APPROXIMATE
- ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS
- B.F. - BACK FACE
- BOT. - BOTTOM
- BRGS. - BEARINGS
- CL - CENTERLINE
- C/C - CENTER TO CENTER
- CIP - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- CLR. - CLEARANCE
- CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
- CONST. - CONSTRUCTION
- DIA./φ - DIAMETER
- DWG. - DRAWING
- E.F. - EACH FACE
- E/P - EDGE OF PAVEMENT
- E/S - EDGE OF SHOULDER
- EL. - ELEVATION
- EQ. - EQUAL
- EX. - EXISTING
- F.A. - FORWARD ABUTMENT
- F.F. - FRONT FACE
- F/F - FACE TO FACE
- FTG. - FOOTING
- FT/FT - FOOT PER FOOT
- FWD. - FORWARD
- IR - INTERSTATE ROUTE
- JT. - JOINT
- LT. - LEFT
- MAX. - MAXIMUM
- MIN. - MINIMUM
- MOT - MAINTENANCE OF TRAFFIC
- NB - NORTHBOUND
- N.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
- O/O - OUT TO OUT
- P.C.P.P - PERFORATED CORRUGATED PLASTIC PIPE
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
- R.A. - REAR ABUTMENT
- RT. - RIGHT
- SB - SOUTHBOUND
- S.O. - SERIES OF
- SPA. - SPACES OR SPACING
- STA. - STATION
- STD. - STANDARD
- STR. - STRAIGHT
- TEMP. - TEMPORARY
- T/T - TOE TO TOE
- TYP. - TYPICAL
- VERT. - VERTICAL

DESIGN AGENCY  
Mead & Hunt  
5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5600 PHONE  
(614) 792-5601 FAX

DATE 11/11  
REVIEWED KVB  
DRAWN JMD  
DESIGNED SK  
CHECKED L Y H  
STRUCTURE FILE NUMBER 3108317(L) 3108341(R)

GENERAL NOTES  
BRIDGE NO. HAM-74-0857 L&R  
I-74 OVER EAST MIAMI RIVER ROAD

HAM-74-5.53  
PID No. 83011

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CALCULATED BY: SK					ESTIMATED QUANTITIES - WESTBOUND - HAM-74-0857L					CHECKED BY: AJS				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.					
512	10100	949	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	219	319	411							
512	73500	866	SQ YD	TREATING CONCRETE BRIDGE DECK WITH GRAVITY FED RESIN			866							
513	90000	795	POUNDS	STRUCTURAL STEEL, MISC., 5/8" x 5 1/2" BEARING STIFFENER PLATE			795							
514	00051	843	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			843		9					
514	00057	843	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN			843		9					
514	00061	843	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			843		9					
514	00067	843	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			843		9					
514	00505	1	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL, AS PER PLAN			1		9					
514	10001	1	EACH	FINAL INSPECTION REPAIR, AS PER PLAN			1		9					
516	44000	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES 9 1/2"x12"x1 3/4" AND LOAD PLATE 10 1/2"x13"xVAR. THICK			12		10					
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					2					
519	11101	9	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	9				2					
SPECIAL	51912300	9	SQ YD	PATCHING CONCRETE BRIDGE DECK-TYPE B (SEE PROPOSAL NOTE)			9							
843	50000	2	SQ FT	PATCHING CONCRETE STRUCTURE WITH TROWELABLE MORTAR	2									

CALCULATED BY: SK					ESTIMATED QUANTITIES - EASTBOUND - HAM-74-0857R					CHECKED BY: AJS				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.					
512	10100	929	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	221	297	411							
512	10600	3	FT	CONCRETE REPAIR BY EPOXY INJECTION	3									
512	73500	866	SQ YD	TREATING CONCRETE BRIDGE DECK WITH GRAVITY FED RESIN			866							
513	90000	795	POUNDS	STRUCTURAL STEEL, MISC., 5/8" x 5 1/2" BEARING STIFFENER PLATE			795							
514	00051	843	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			843		9					
514	00057	843	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN			843		9					
514	00061	843	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			843		9					
514	00067	843	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			843		9					
514	00505	1	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL, AS PER PLAN			1		9					
514	10001	1	EACH	FINAL INSPECTION REPAIR, AS PER PLAN			1		9					
516	44000	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES 9 1/2"x12"x1 3/4" AND LOAD PLATE 10 1/2"x13"xVAR. THICK			12		10					
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					2					
519	11101	22	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	22				2					
SPECIAL	51912300	9	SQ YD	PATCHING CONCRETE BRIDGE DECK-TYPE B (SEE PROPOSAL NOTE)			9							

DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43016  
 (614) 792-5500 PHONE  
 (614) 792-5501 FAX

DESIGNED  
 SK  
 CHECKED  
 AJS

DRAWN  
 JMD  
 REVISED

REVIEWED  
 KVB  
 STRUCTURE FILE NUMBER  
 310837(L) 310834(R)

DATE  
 1/12

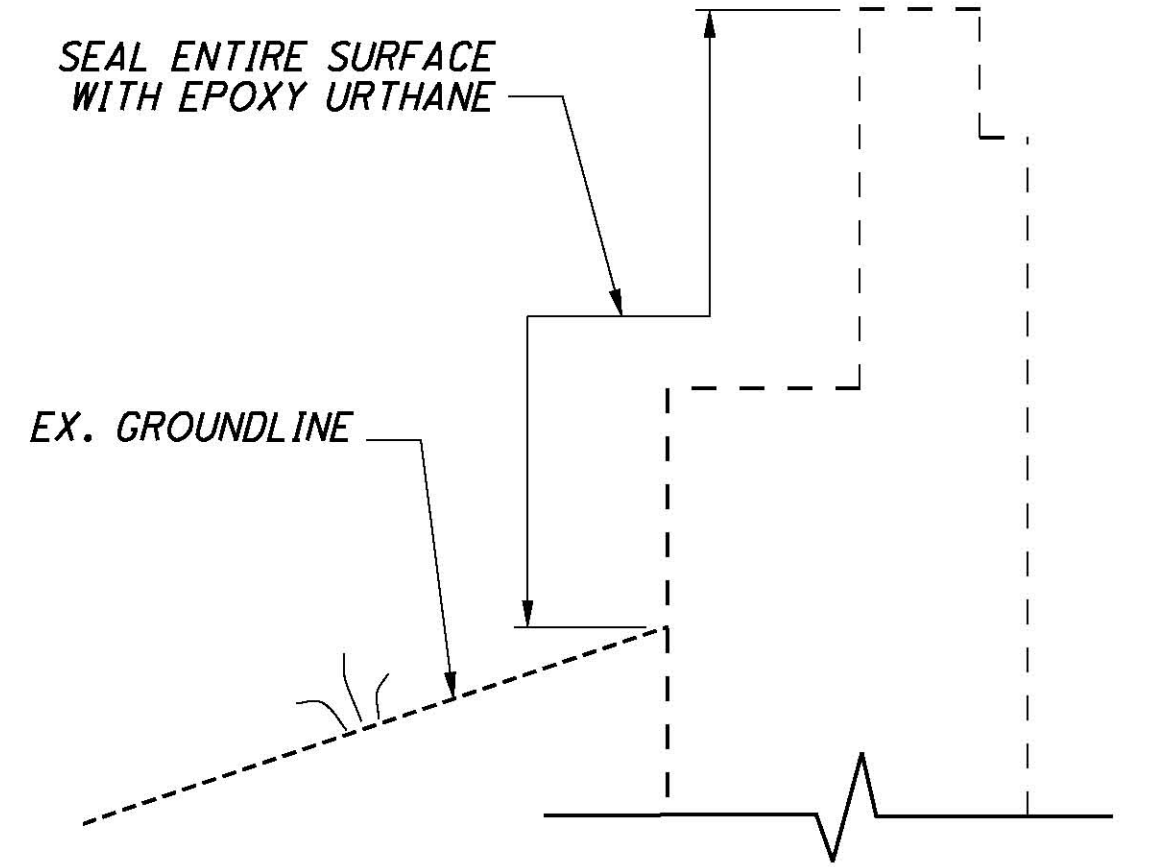
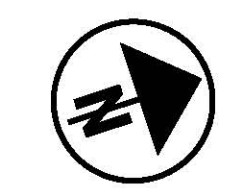
ESTIMATED QUANTITIES  
 BRIDGE NO. HAM-74-0857 L&R  
 I-74 OVER EAST MIAMI RIVER ROAD

HAM-74-5.53  
 PID No. 83011

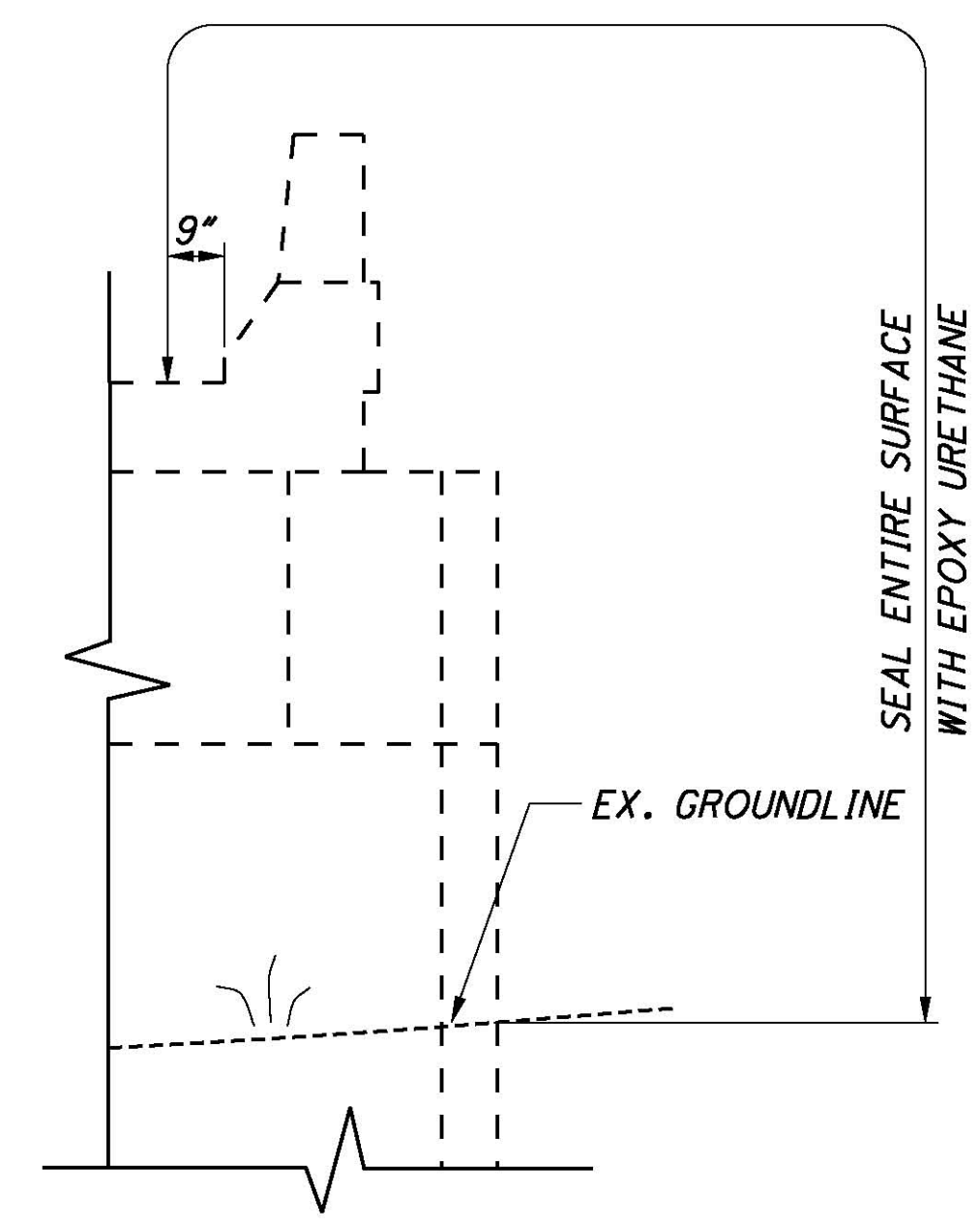
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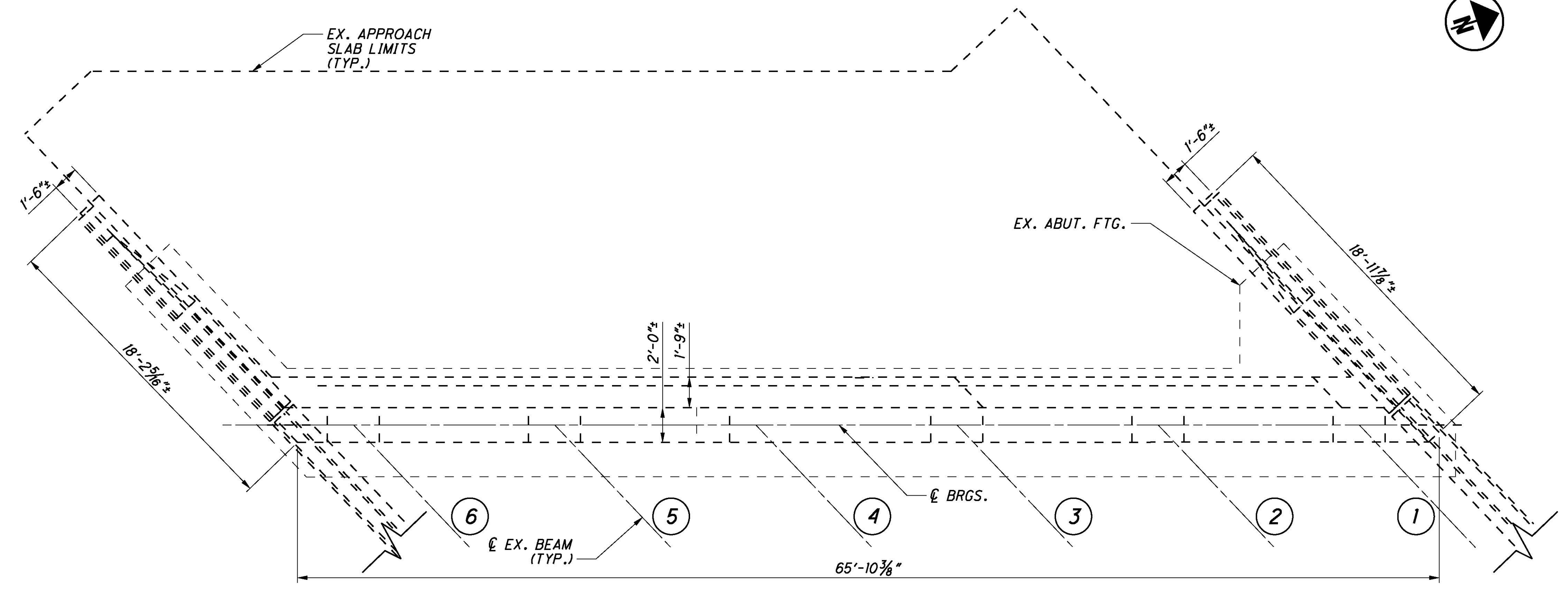
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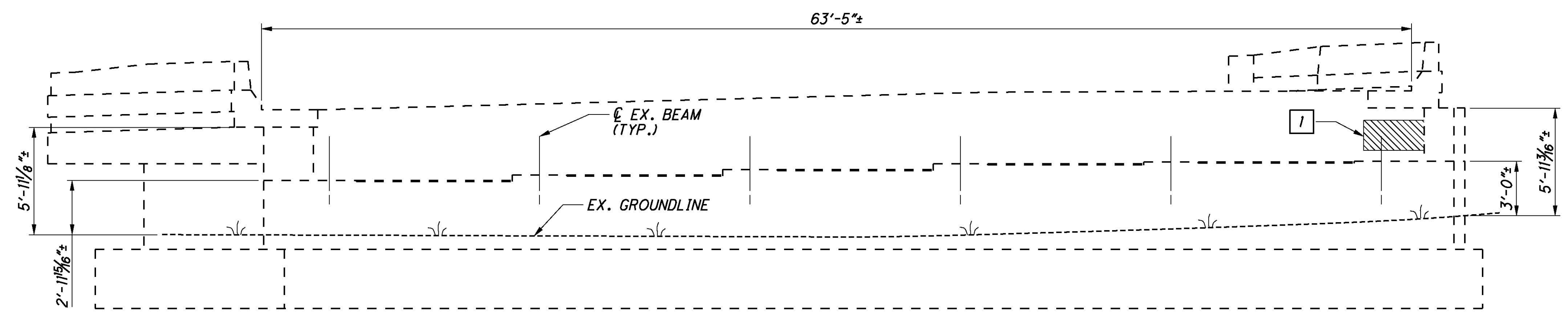
**ABUTMENT SEALING LIMITS**



**WINGWALL SEALING LIMITS**



**PLAN**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	40"x20"	5.56
TOTAL		5.56

- NOTES:**
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
  - QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

- LEGEND:**
- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN
  - BEAM NUMBER

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

DESIGN AGENCY  
**Mead & Hunt**  
 6900 WILCOX PLACE  
 DUBLIN, OH 43066  
 (614) 792-5600 PHONE  
 (614) 792-5601 FAX

DATE: 11/11  
 REVIEWED: KVB  
 STRUCTURE FILE NUMBER: 310831T (L) 3108341 (R)

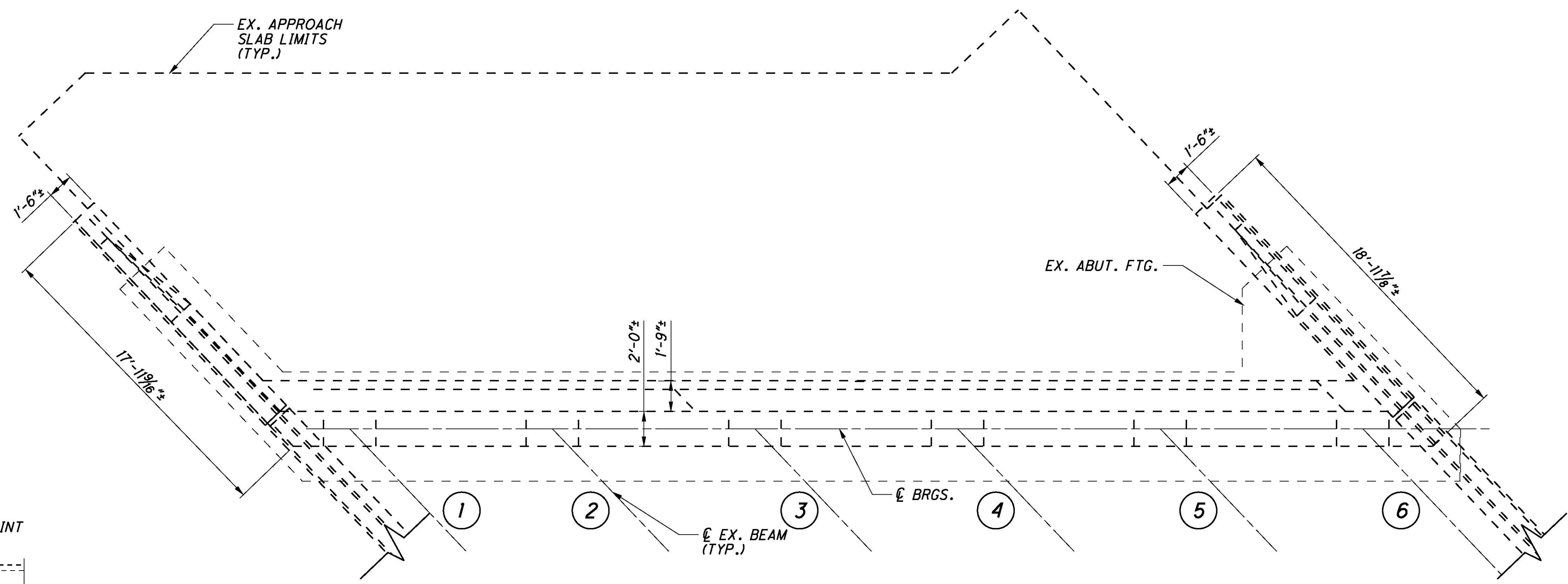
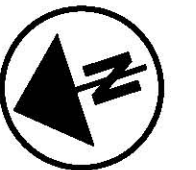
DRAWN: DJC  
 CHECKED: L Y H  
 DESIGNED: SK

**WESTBOUND REAR ABUTMENT PATCHING DETAILS**  
 BRIDGE NO. - HAM-74-0857 L&R  
 1-74 OVER 1-275

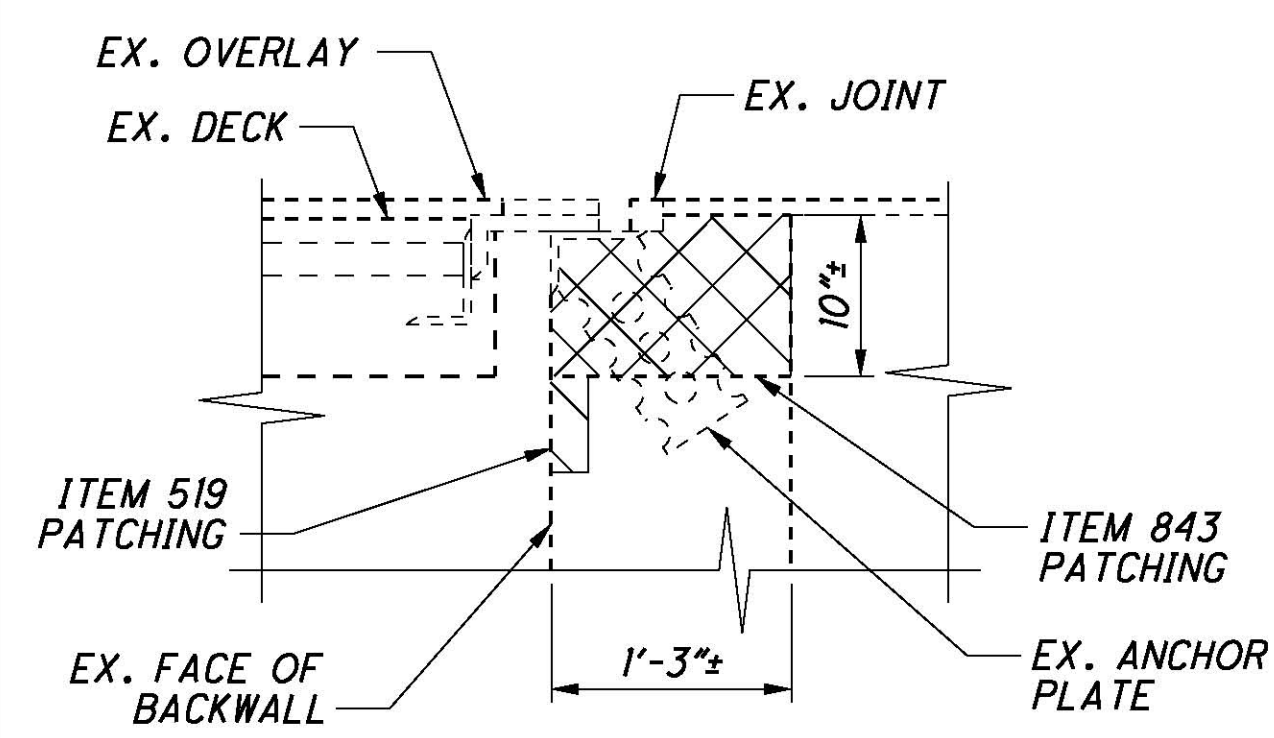
**HAM-74-5.53**  
 PID No. 83011

4 / 10

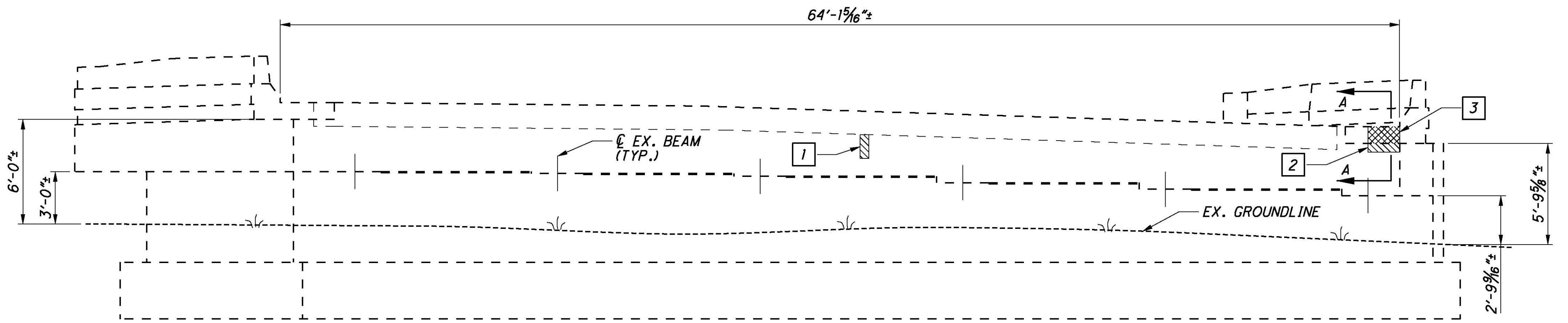
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**PLAN**



**SECTION A-A**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED ITEM 519		
NO.	DIMENSION	SQ FT
1	6"x16"	0.67
2	22"x6"	0.92
TOTAL		1.59

CONCRETE SURFACES TO BE PATCHED ITEM 843		
NO.	DIMENSION	SQ FT
3	22"x10"	1.53
TOTAL		1.53

**NOTES:**

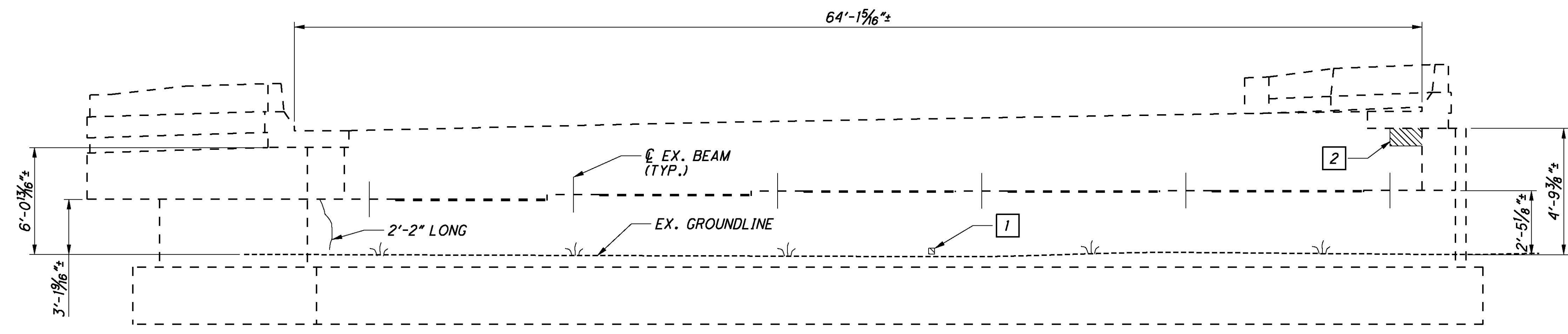
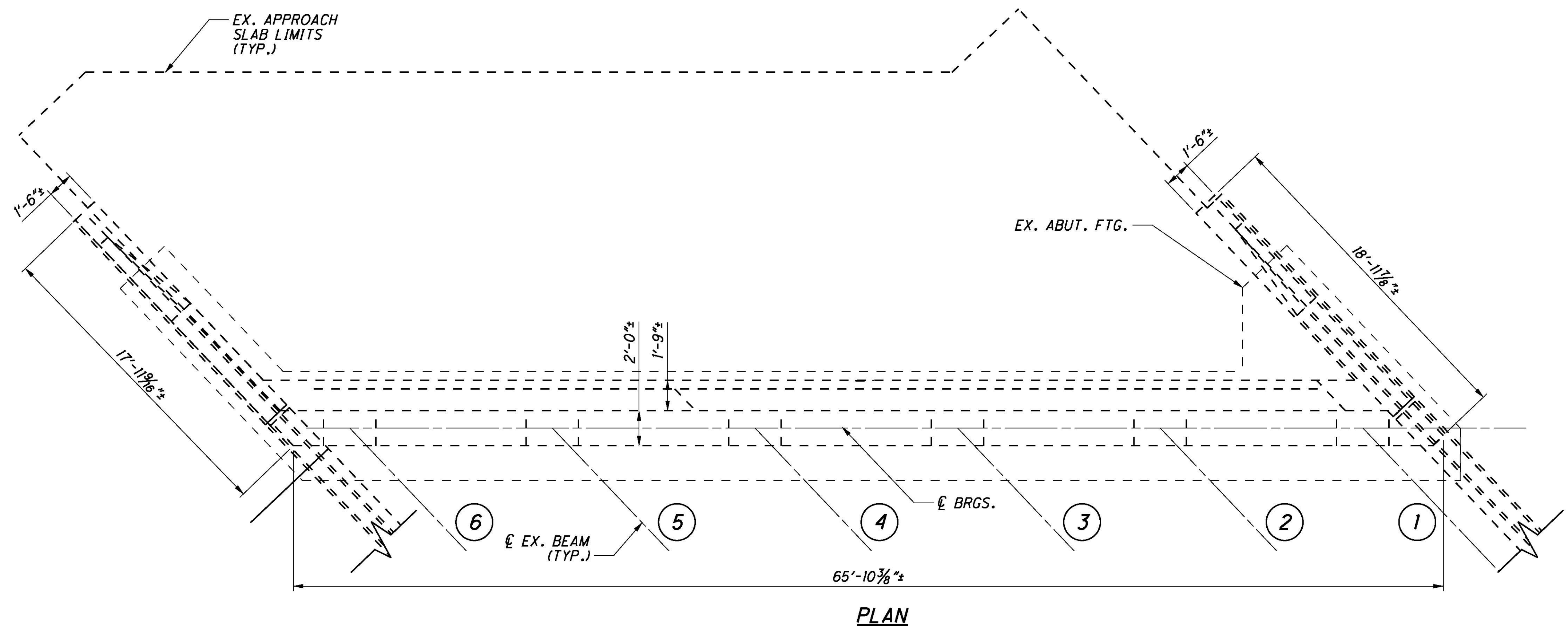
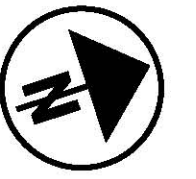
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- CONTRACTOR TO FIELD VERIFY EACH BEARING THICKNESS MEASUREMENT AND PROVIDE THESE MEASUREMENTS TO THE DISTRICT PRODUCTION DEPARTMENT PRIOR TO ORDERING MATERIALS.
- SEE SHEET 4 FOR SEALING LIMITS.

**LEGEND:**

- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN
- PATCHING CONCRETE STRUCTURE PER ITEM 843 - PATCHING OF CONCRETE STRUCTURE WITH TROWEABLE MORTAR, AS PER PLAN
- BEAM NUMBER

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	4"x4"	0.11
2	22"x12"	1.83
TOTAL		1.94

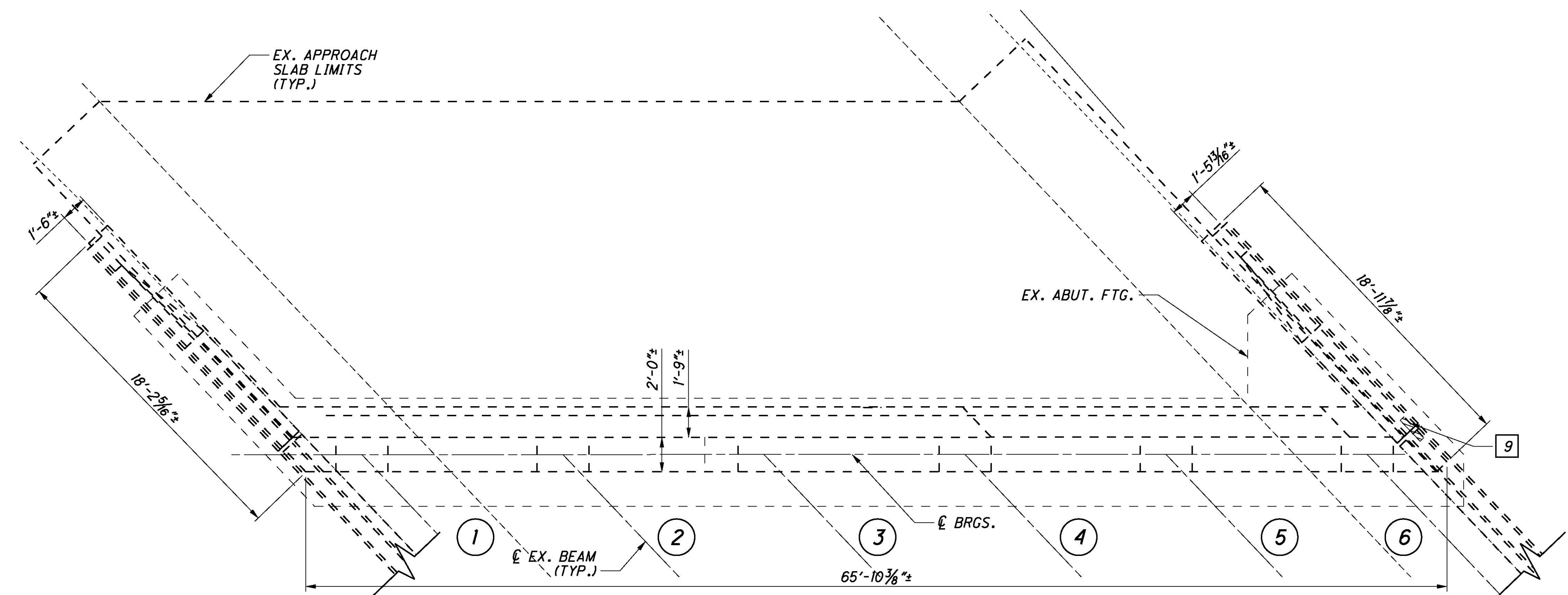
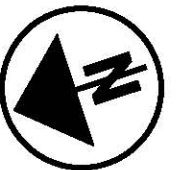
REPAIR QUANTITIES BY EPOXY INJECTION	
LENGTH	FT
TOTAL	2.17

- NOTES:**
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
  - QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
  - SEE SHEET 4 FOR SEALING LIMITS.

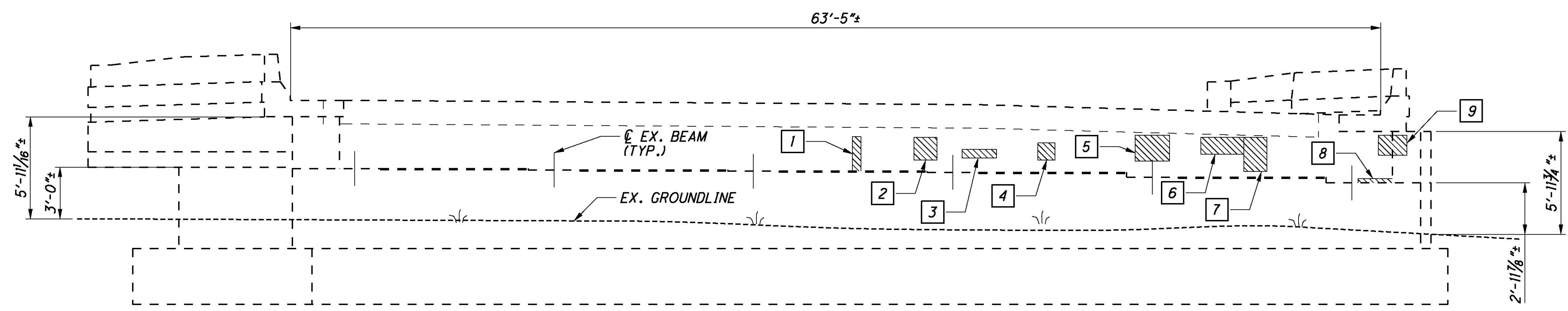
- LEGEND:**
- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN
  - BEAM NUMBER

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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**PLAN**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED		
NO.	DIMENSION	SQ FT
1	6"x24"	1.0
2	16"x16"	1.78
3	24"x6"	1.0
4	12"x12"	1.0
5	24"x18"	3.0
6	30"x12"	2.5
7	16"x24"	2.67
8	24"x3"	0.50
9	20"x14"	1.94
TOTAL		15.39

**NOTES:**

- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 3 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- SEE SHEET 4 FOR SEALING LIMITS.

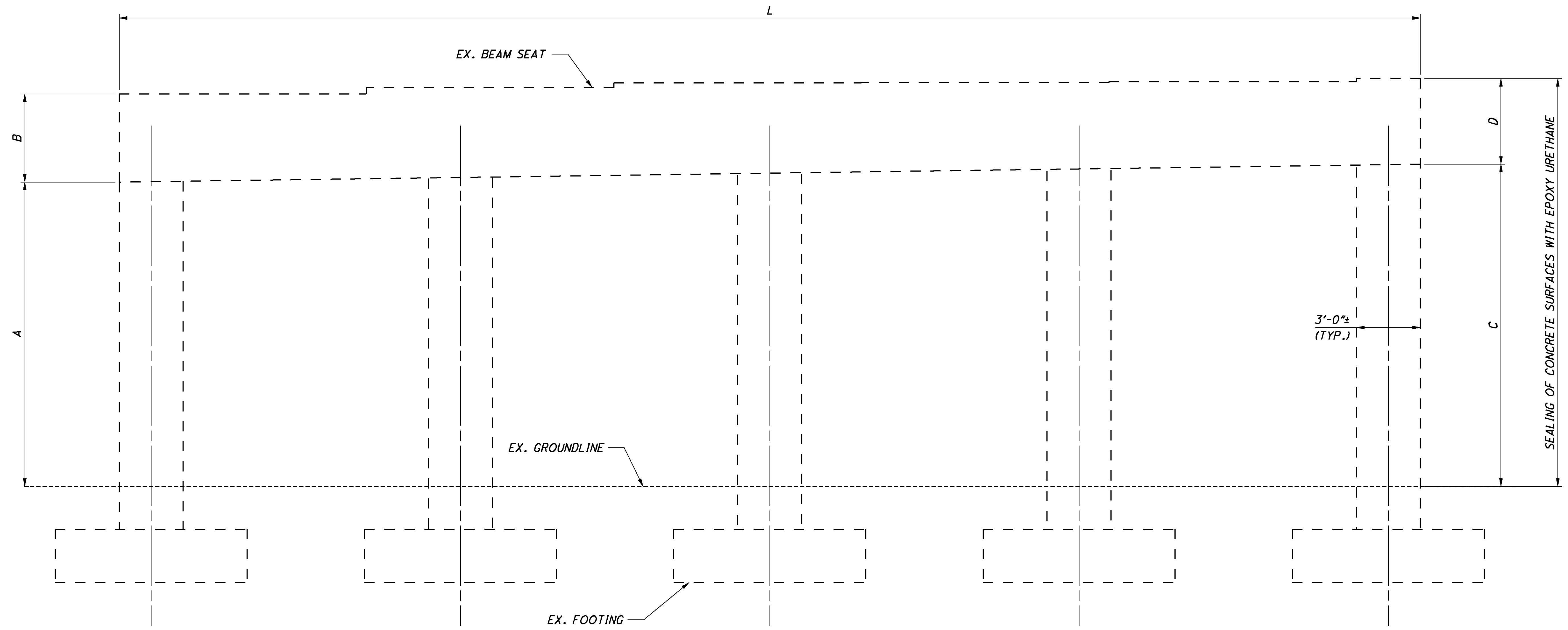
**LEGEND:**

- PATCHING CONCRETE STRUCTURE PER ITEM 519 - PATCHING OF CONCRETE STRUCTURE, AS PER PLAN
- BEAM NUMBER

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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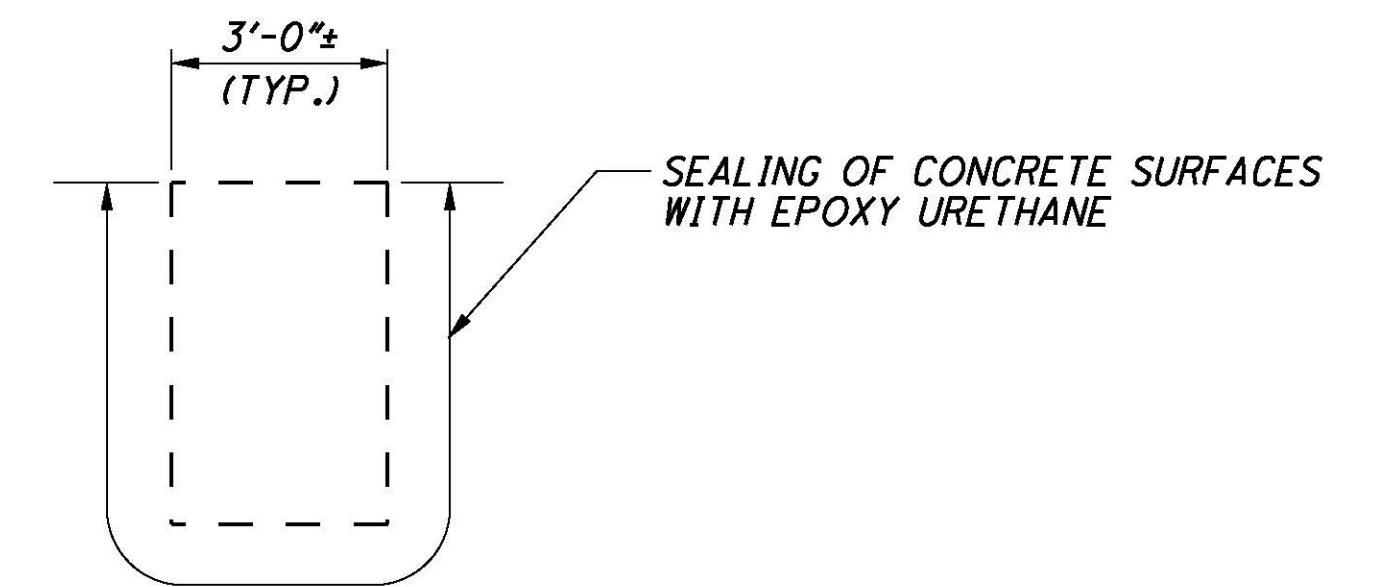
**TYPICAL PIER ELEVATION**

NOTE: PILES NOT SHOWN

TABLE OF PIER DIMENSIONS				
DIM.	WESTBOUND (LEFT) BRIDGE		EASTBOUND (RIGHT) BRIDGE	
	PIER 1	PIER 2	PIER 1	PIER 2
A	15'-10 <sup>3</sup> / <sub>4</sub> "±	15'-4 <sup>3</sup> / <sub>4</sub> "±	14'-3 <sup>1</sup> / <sub>4</sub> "±	13'-6"±
B	4'-3"±	4'-3 <sup>1</sup> / <sub>4</sub> "±	4'-1 <sup>3</sup> / <sub>4</sub> "±	4'-1 <sup>3</sup> / <sub>4</sub> "±
C	17'-3"±	16'-10 <sup>1</sup> / <sub>2</sub> "±	15'-0"±	14'-4"±
D	4'-0 <sup>1</sup> / <sub>2</sub> "±	4'-0 <sup>3</sup> / <sub>4</sub> "±	4'-0 <sup>1</sup> / <sub>4</sub> "±	4'-0 <sup>1</sup> / <sub>2</sub> "±
L	61'-0"±	61'-0"±	61'-0"±	61'-0"±

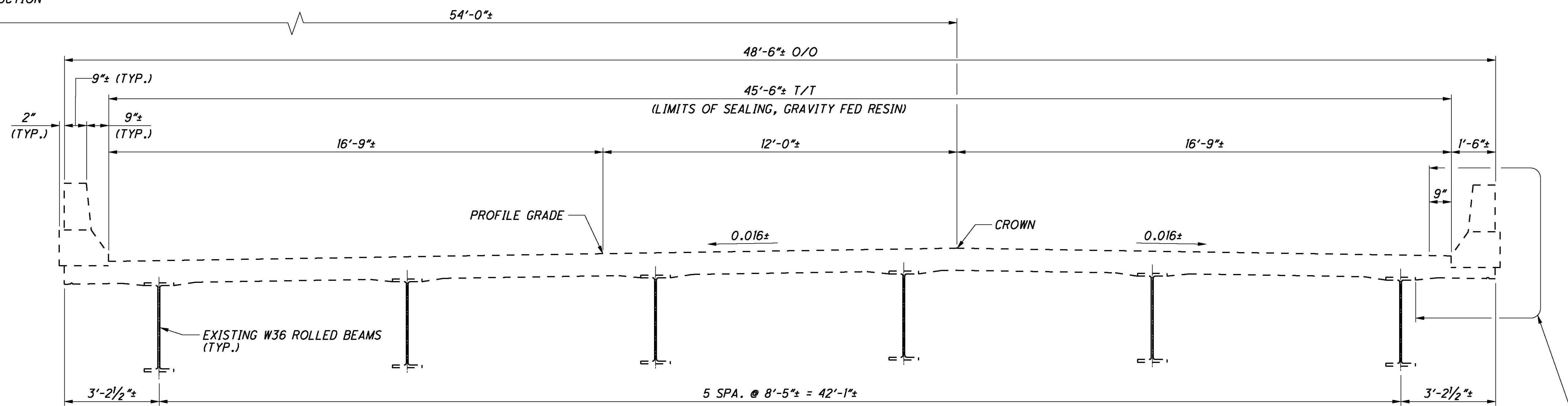
**NOTE:**

DIMENSIONS SHOWN ARE FROM EXISTING PLANS.



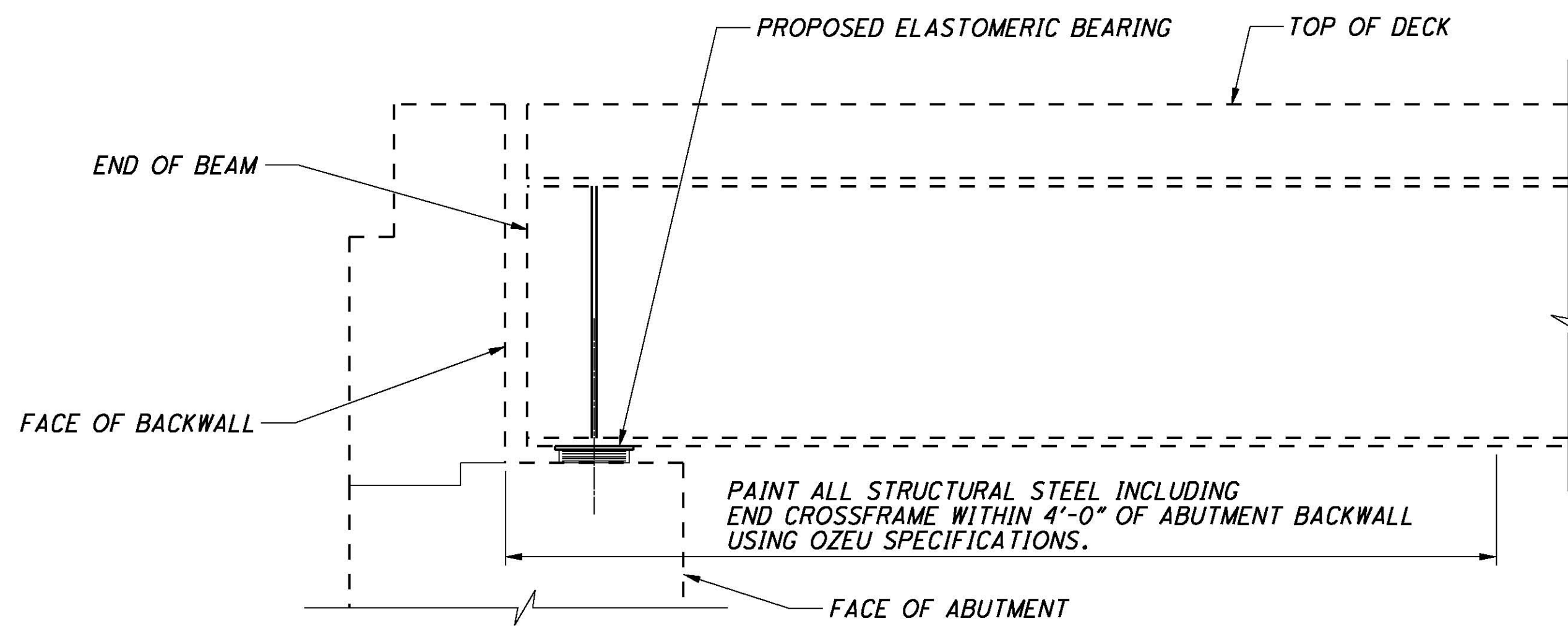
**PIER CAP SEALING LIMITS**

℄ I-74 & CONSTRUCTION



**RIGHT BRIDGE TRANSVERSE SECTION**  
(LEFT BRIDGE SIMILAR)

LIMITS OF SEALING  
CONCRETE SURFACES  
WITH EPOXY URETHANE  
(TYP.)



**STEEL PAINTING DETAIL**

NOTE: SURFACE PAINT COURSE FOR STRUCTURAL STEEL  
SHALL MATCH EXISTING COLOR.

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**TRANSVERSE SECTION AND PAINTING DETAIL**

BRIDGE NO. HAM-74-0857 L&R  
I-74 OVER EAST MIAMI RIVER ROAD

**HAM-74-5.53**  
PID No. 83011

9 / 10

94  
118

DESIGN AGENCY

**Mead & Hunt**

5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5900 PHONE  
(614) 792-5901 FAX

DATE

1/12

REVIEWED

MAB

DRAWN

DJC

DESIGNED

SK

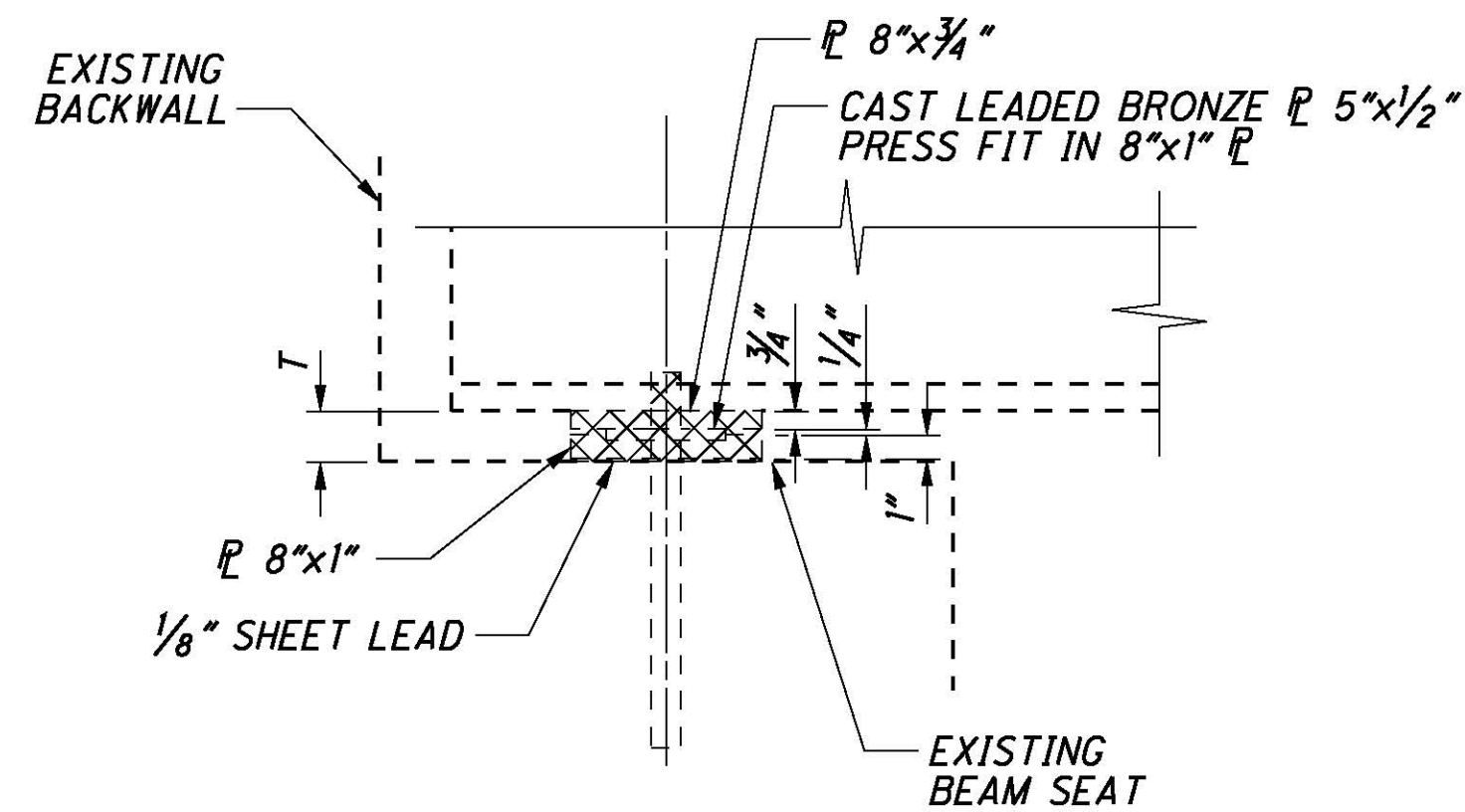
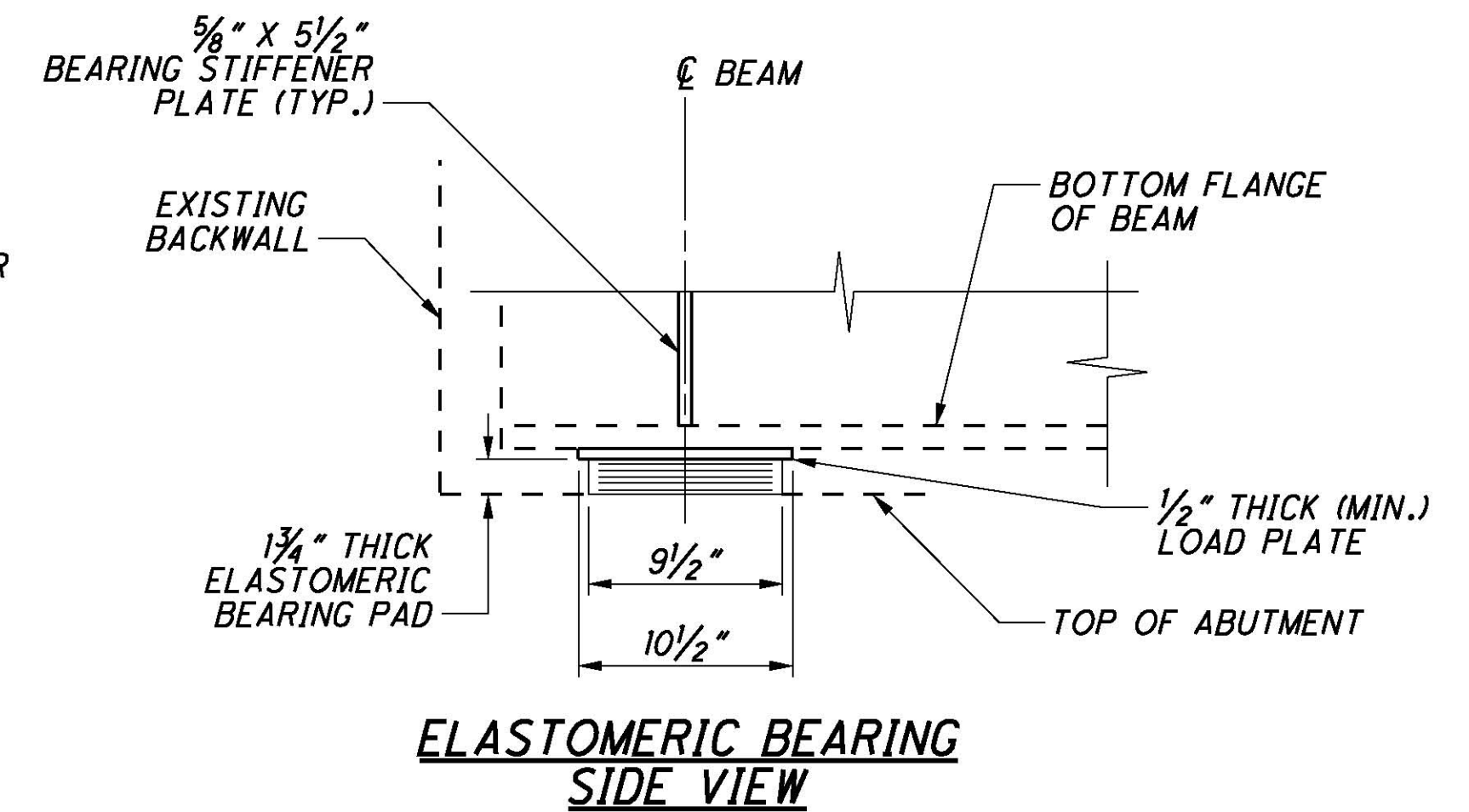
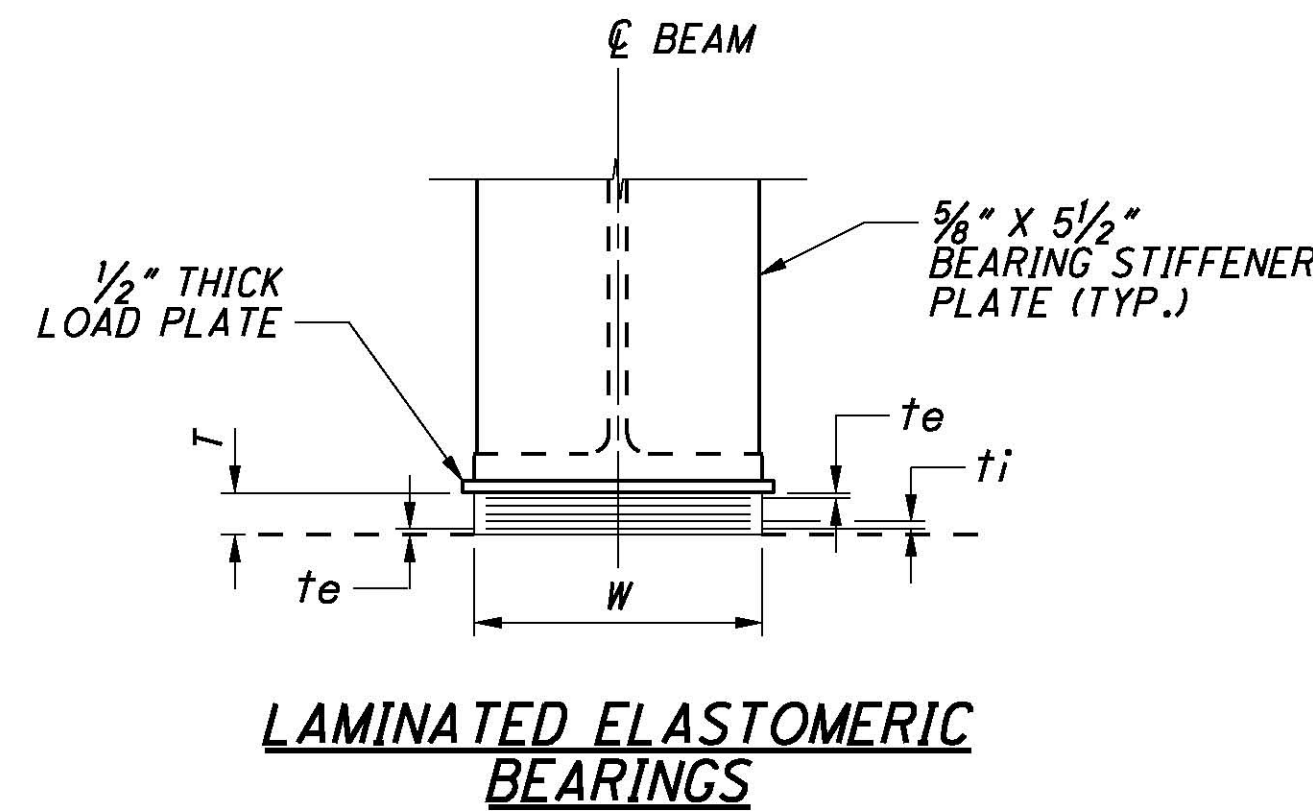
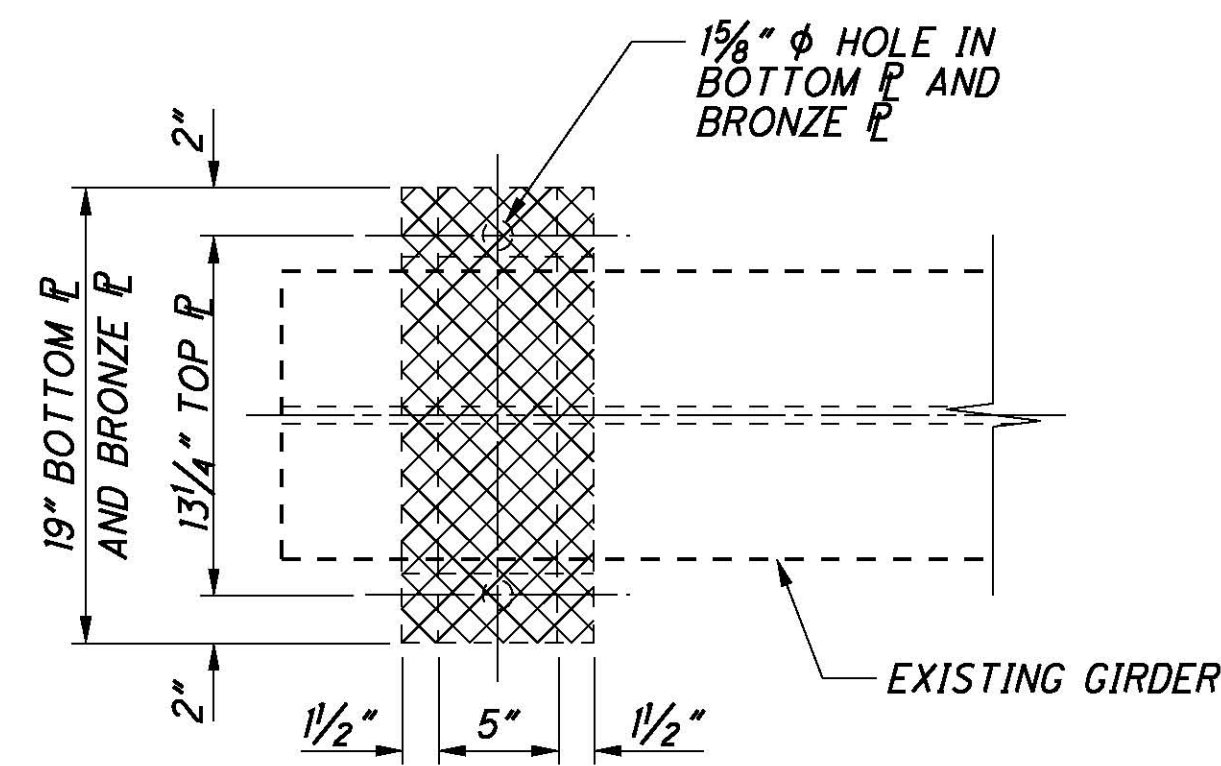
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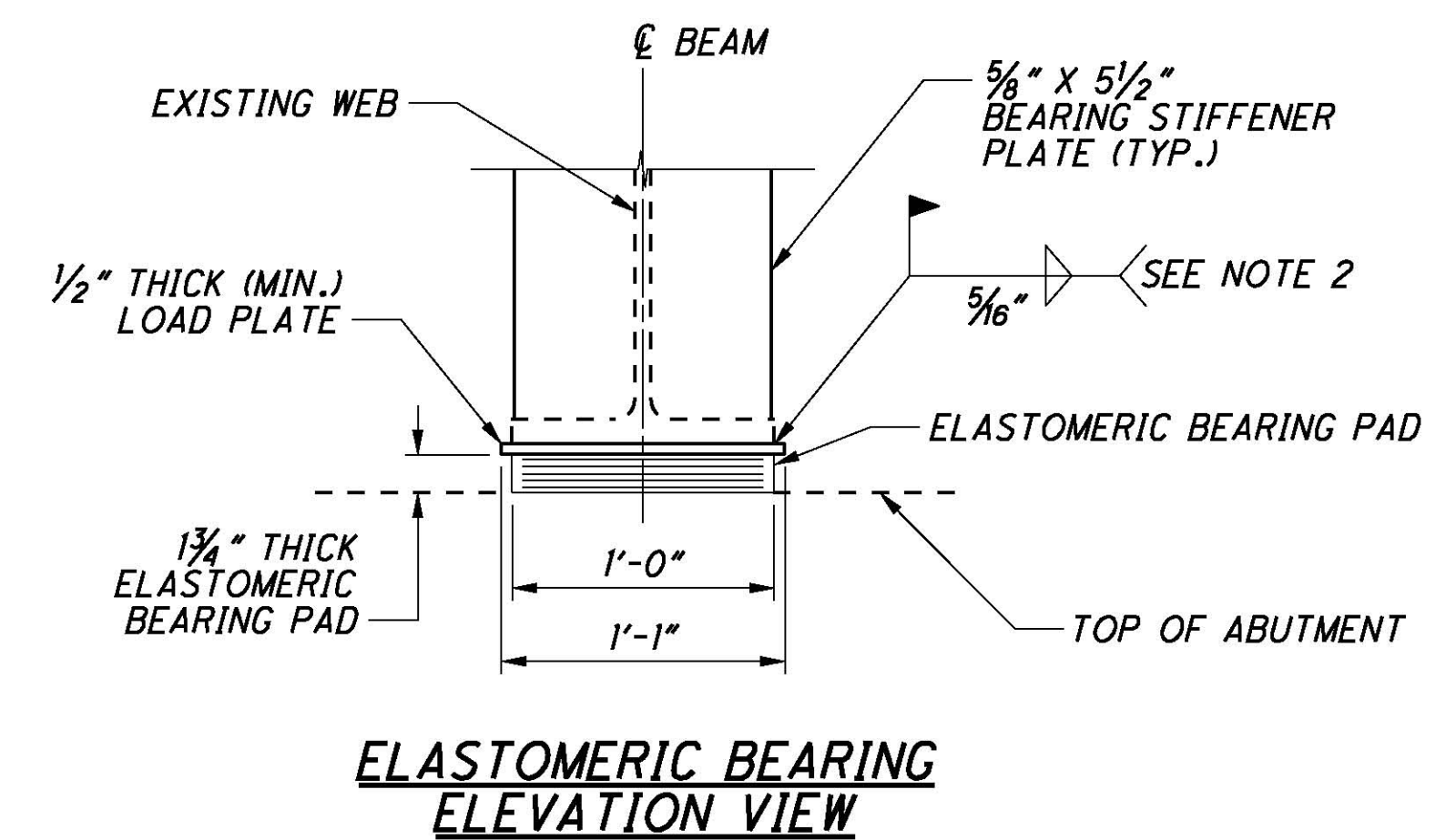
STRUCTURE FILE NUMBER

3108317(L) 310834(R)





**EXISTING SLIDING PLATE BEARING**



**EXISTING SLIDING PLATE BEARING THICKNESS**

BEAM	LEFT BRIDGE ABUTMENT		RIGHT BRIDGE ABUTMENT	
	REAR (INCH)	FORWARD (INCH)	REAR (INCH)	FORWARD (INCH)
1	2 5/8 ±	2 ±	2 1/2 ±	2 1/4 ±
2	2 1/2 ±	2 1/4 ±	2 1/2 ±	2 3/8 ±
3	2 1/2 ±	2 1/4 ±	2 1/4 ±	2 3/8 ±
4	2 5/8 ±	2 3/8 ±	2 1/4 ±	2 1/2 ±
5	2 5/8 ±	2 1/4 ±	2 1/2 ±	2 3/8 ±
6	2 1/2 ±	2 3/8 ±	2 3/8 ±	2 3/8 ±

**LEGEND:**

- EXISTING BEARING REMOVAL

**LAMINATED ELASTOMERIC BEARINGS**

LOCATION	BEARING DIMENSIONS						STEEL LOAD PLATE LENGTH X WIDTH X THICKNESS	REACTIONS		MAXIMUM DESIGN LOAD
	L	W	ti	te	T	N		DL	LL	
ABUTMENTS	9 1/2"	12"	0.330"	0.231"	1.75"	4	10 1/2" x 1'-1" x VAR.	37 k	48 k	85 k

ti = THICKNESS OF INTERNAL LAYER  
te = THICKNESS OF EXTERNAL LAYER  
T = TOTAL THICKNESS OF ELASTOMERIC BEARING

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

**NOTES:**

1. BEARING REPLACEMENT:  
THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS PRIOR TO THE JACKING OPERATIONS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO SCOTT KRAMER, DISTRICT 8 BRIDGE DESIGN ENGINEER PRIOR TO THE JACKING OPERATIONS. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED. THE CONTRACTOR IS TO DETERMINE THE FINAL BEAM SEAT ELEVATIONS BY SUBTRACTING THE EXISTING BRONZE SLIDING PLATE WITH THE BEARING PAD (LOAD PLATE AND ELASTOMERIC BEARING HEIGHT) FROM THE CONTRACTOR MEASURED BOTTOM OF EXISTING BEAM ELEVATION AT EACH BEARING LOCATION. THE LOAD PLATE THICKNESS CAN BE VARIED, HOWEVER A MINIMUM LOAD PLATE THICKNESS REQUIRED IS 1/2". CONTRACTOR IS RESPONSIBLE FOR THE FINAL LOAD PLATE THICKNESS IF EQUAL OR GREATER THAN 1/2" OR THE FINAL BEAM SEAT ELEVATION IF MORE SPACE IS NEEDED THAN PROVIDED. FINAL BEAM SEAT ELEVATIONS IS A CONTRACTOR'S EXPENSE AND WILL NEED TO BE APPROVED BY THE DISTRICT 8 BRIDGE DESIGN ENGINEER

2. LOAD PLATE:  
THE STEEL LOAD PLATE SHALL BE GRADE 50 A572. STRUCTURAL STEEL. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

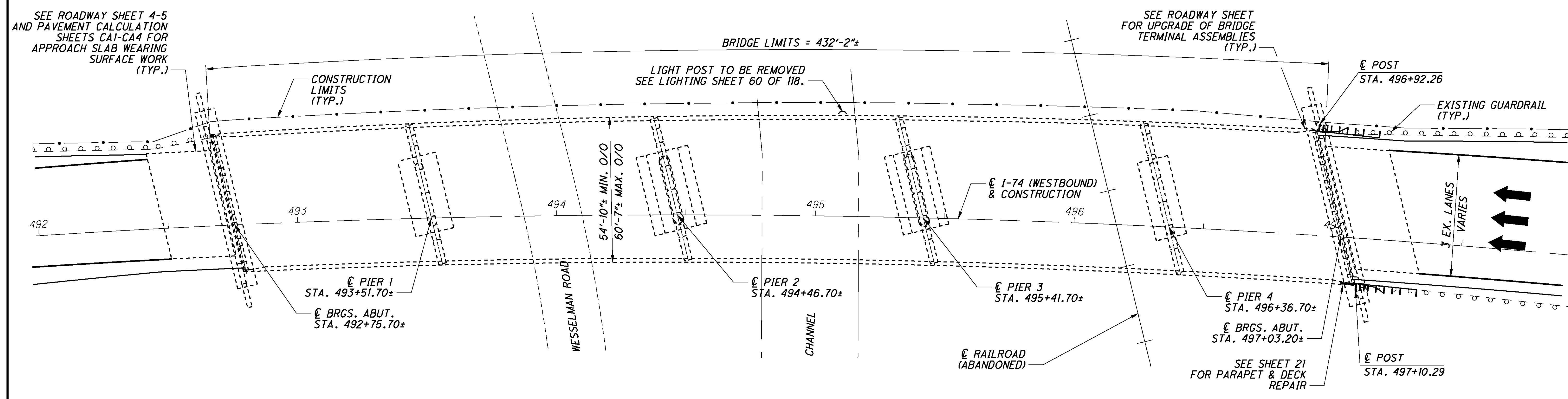
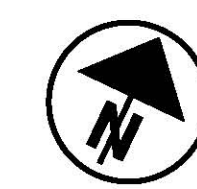
THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300° F AS DETERMINED BY THE 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 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

BASIS OF PAYMENT:  
THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, SHOP COATING TESTING AND INCIDENTALS NECESSARY TO REMOVE EXISTING BEARINGS AND FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.

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**PLAN**

**EXISTING STRUCTURE**

TYPE: CONTINUOUS WELDED STEEL PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE  
 SPANS: 76'-0"±, 95'-0"±, 95'-0"±, 95'-0"±, 66'-6"±, C/C BRGS.  
 ROADWAY: VARIES T/T PARAPET  
 LOADING: CF-2000-(57) ADEQUATE FOR AASHO ALTERNATIVE LOADING  
 WEARING SURFACE: 1.2" LATEX MODIFIED CONCRETE OVERLAY  
 SKEW: VARIES  
 APPROACH SLABS: AS-1-B1 (25'-0" LONG)  
 ALIGNMENT: 1°30' CURVE RIGHT  
 SUPERELEVATION: 0.036 FT./FT.  
 STRUCTURAL FILE NUMBER: 3108376 (L)  
 DATE BUILT: 1964  
 COORDINATES: LATITUDE 39° 12' 54" W  
 LONGITUDE 84° 41' 12" N

**PROPOSED STRUCTURE**

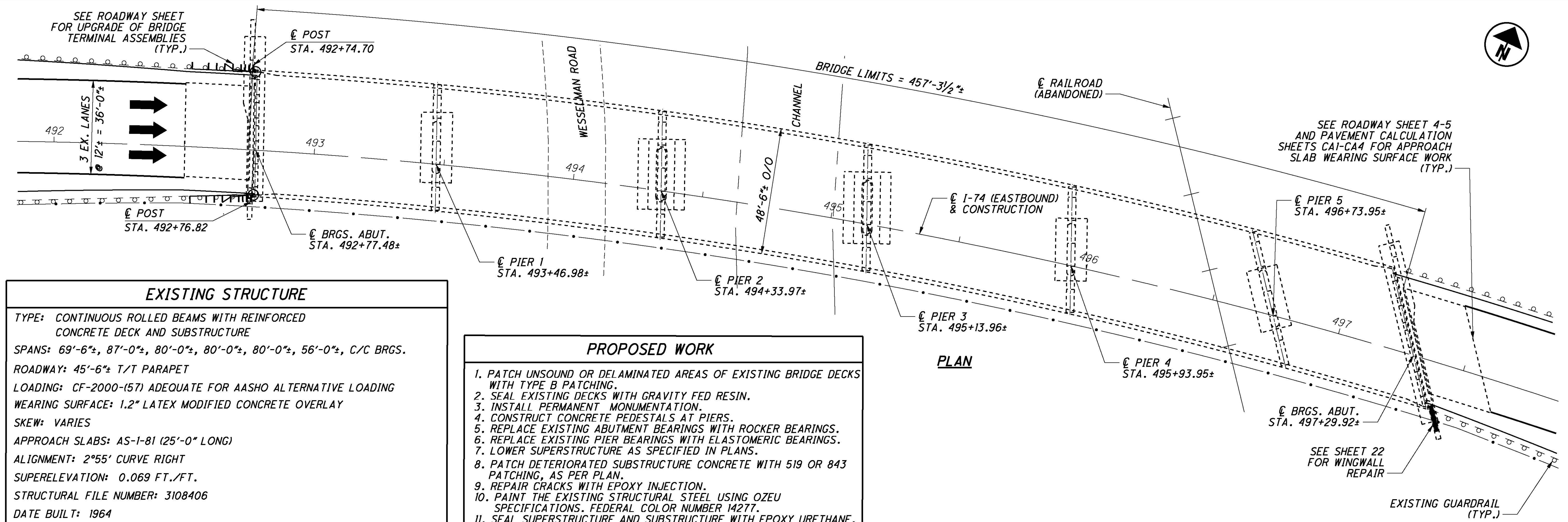
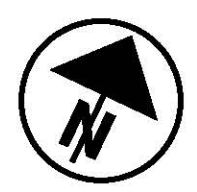
TYPE: SAME AS EXISTING

**PROPOSED WORK**

1. PATCH UNSOUND OR DELAMINATED AREAS OF EXISTING BRIDGE DECKS WITH TYPE B PATCHING.
2. SEAL EXISTING DECKS WITH GRAVITY FED RESIN.
3. INSTALL PERMANENT MONUMENTATION.
4. REPLACE EXISTING ABUTMENT BEARINGS WITH ROCKER BEARINGS.
5. PATCH DETERIORATED SUBSTRUCTURE CONCRETE WITH 519 OR 843 PATCHING, AS PER PLAN.
6. REPAIR CRACKS WITH EPOXY INJECTION.
7. PAINT THE EXISTING STRUCTURAL STEEL USING OZEU SPECIFICATIONS, FEDERAL COLOR NUMBER 14277.
8. DRILL OUT-OF-PLANE BENDING CRACKS.
9. SEAL SUPERSTRUCTURE AND SUBSTRUCTURE WITH EPOXY URETHANE, FEDERAL COLOR NUMBER 17778.
10. CLEARING AND GRUBBING WITHIN 10 FEET OF THE EXISTING STRUCTURE.
11. UPGRADE PARAPET TERMINAL ASSEMBLIES AS SHOWN ON PLANS.
12. MILL AND REPLACE APPROACH SLAB ASPHALT WEARING SURFACE AS SHOWN ON PLANS.
13. REPAIR RIGHT SIDE DECK AND PARAPET WESTBOUND FORWARD ABUTMENT.

DESIGN TRAFFIC:  
 2013 ADT = 89,390    2013 ADTT = 13,409  
 2033 ADT = 116,000    2033 ADTT = 17,400  
 DIRECTIONAL DISTRIBUTION = 51%

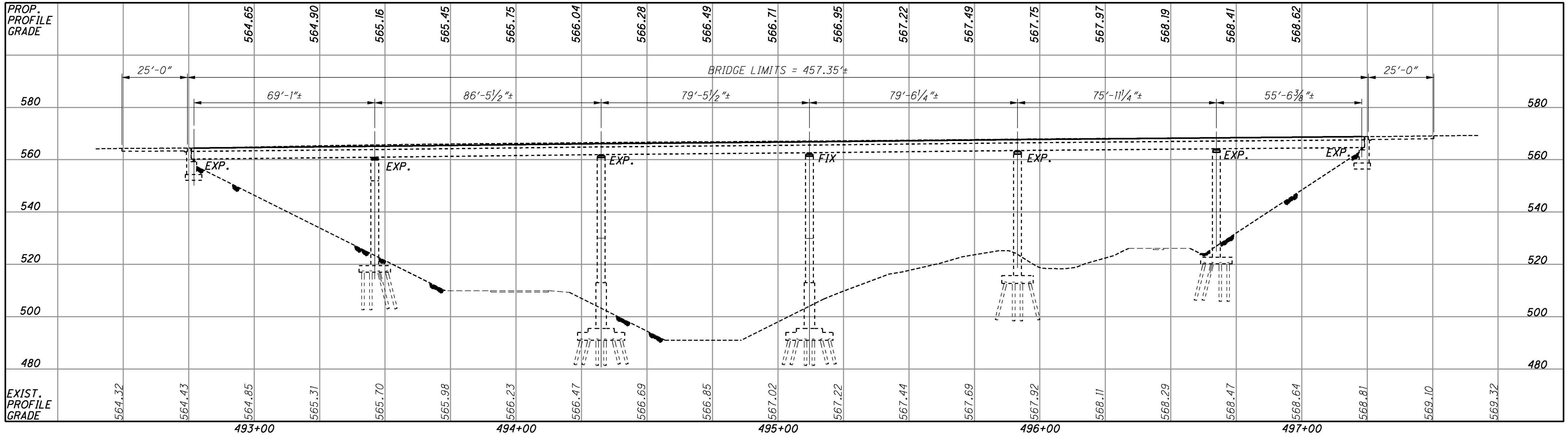
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EXISTING STRUCTURE	
TYPE: CONTINUOUS ROLLED BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE	
SPANS: 69'-6"±, 87'-0"±, 80'-0"±, 80'-0"±, 80'-0"±, 56'-0"±, C/C BRGS.	
ROADWAY: 45'-6"± T/T PARAPET	
LOADING: CF-2000-(57) ADEQUATE FOR AASHO ALTERNATIVE LOADING	
WEARING SURFACE: 1.2" LATEX MODIFIED CONCRETE OVERLAY	
SKEW: VARIES	
APPROACH SLABS: AS-1-81 (25'-0" LONG)	
ALIGNMENT: 2°55' CURVE RIGHT	
SUPERELEVATION: 0.069 FT./FT.	
STRUCTURAL FILE NUMBER: 3108406	
DATE BUILT: 1964	
COORDINATES: LATITUDE 39° 12' 54" W LONGITUDE 84° 41' 12" N	
PROPOSED STRUCTURE	
TYPE: SAME AS EXISTING	

- PROPOSED WORK**
1. PATCH UNSOUND OR DELAMINATED AREAS OF EXISTING BRIDGE DECKS WITH TYPE B PATCHING.
  2. SEAL EXISTING DECKS WITH GRAVITY FED RESIN.
  3. INSTALL PERMANENT MONUMENTATION.
  4. CONSTRUCT CONCRETE PEDESTALS AT PIERS.
  5. REPLACE EXISTING ABUTMENT BEARINGS WITH ROCKER BEARINGS.
  6. REPLACE EXISTING PIER BEARINGS WITH ELASTOMERIC BEARINGS.
  7. LOWER SUPERSTRUCTURE AS SPECIFIED IN PLANS.
  8. PATCH DETERIORATED SUBSTRUCTURE CONCRETE WITH 519 OR 843 PATCHING, AS PER PLAN.
  9. REPAIR CRACKS WITH EPOXY INJECTION.
  10. PAINT THE EXISTING STRUCTURAL STEEL USING OZEU SPECIFICATIONS, FEDERAL COLOR NUMBER 14277.
  11. SEAL SUPERSTRUCTURE AND SUBSTRUCTURE WITH EPOXY URETHANE, FEDERAL COLOR NUMBER 17778.
  12. CLEARING AND GRUBBING WITHIN 10 FEET OF EXISTING STRUCTURE.
  13. UPGRADE PARAPET TERMINAL ASSEMBLIES AS SHOWN OF PLANS.
  14. MILL AND REPLACE APPROACH SLAB ASPHALT WEARING SURFACE AS SHOWN ON PLANS.
  15. REPAIR RIGHT WINGWALL FORWARD ABUTMENT.
  16. REPLACE CROSSFRAME REAR ABUTMENT.

DESIGN TRAFFIC:  
 2013 ADT = 89,390    2013 ADTT = 13,409  
 2033 ADT = 116,000    2033 ADTT = 17,400  
 DIRECTIONAL DISTRIBUTION = 51%



PROFILE ALONG PG (12' LEFT OF C CONSTRUCTION I-74)

DESIGN AGENCY: Mead & Hunt  
 5900 WILCOX PLACE DUBLIN, OH 43016  
 (614) 792-5600 PHONE (614) 792-5601 FAX

DATE: 11/11  
 REVIEWED: KVB  
 DRAWN: DJC  
 DESIGNED: SK  
 CHECKED: LYH

STRUCTURE FILE NUMBER: 3108406

SITE PLAN  
 BRIDGE NO. HAM-74-0911 R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-5.53  
 PID No. 83011

2 / 23  
 97 / 118

P:\2010\HAM\83011\structures\HAM074\_0911C\sheets\074\_0911CSP002.dgn

**REFER TO THE FOLLOWING STANDARD DRAWINGS:**

RB-1-55 REVISED 02-02-59

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION - 2002 AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

**DESIGN LOADING (BOTH STRUCTURES):**

CF-2000-(57) ADEQUATE FOR AASHO ALTERNATIVE LOADING

**DESIGN STRESSES:**

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I. (SUBSTRUCTURE)  
 CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 P.S.I. (SUPERSTRUCTURE)  
 REINFORCING STEEL - ASTM A615 OR A996  
 GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

**DECK PROTECTION METHOD:**

GRAVITY FED RESIN

**EXISTING STRUCTURE VERIFICATION:**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING STRUCTURE PLANS:**

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH SR 741 LEBANON, OHIO 45036 (PHONE: 800-831-2142)

**ITEM 202. PORTIONS OF STRUCTURE REMOVED. OVER 20 FOOT SPAN. AS PER PLAN:**

**DESCRIPTION:**

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 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" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

**SUBSTRUCTURE CONCRETE REMOVAL:**

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18" 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.

**CONTI. ITEM 202. PORTIONS OF STRUCTURE REMOVED. OVER 20 FOOT SPAN. AS PER PLAN:**

**MEASUREMENT & PAYMENT:**

THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF ITEM 202, AND TO THE SATISFACTION OF THE ENGINEER.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN-UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN-UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

**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. A CONTINGENCY QUANTITY OF 100 POUNDS HAS BEEN CARRIED TO THE ESTIMATED BRIDGE QUANTITIES FOR THE WESTBOUND BRIDGE.

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 511 - CLASS C CONCRETE. ABUTMENT. AS PER PLAN:**

IN ADDITION TO THE REQUIREMENTS OF ITEM 511, INSTALL A REFERENCE MONUMENT AT EACH END OF REAR ABUTMENT SEAT. THE REFERENCE MONUMENT SHALL CONSIST OF A #8, OR LARGER, EPOXY COATED REBAR EMBEDDED AT LEAST 6" INTO THE ABUTMENT SEAT AND EXTENDED VERTICALLY 4 TO 6 INCHES ABOVE THE TOP OF THE ABUTMENT SEAT.

ESTABLISH A BENCHMARK TO DETERMINE THE ELEVATIONS OF THE REFERENCE MONUMENTS AT VARIOUS MONITORING PERIODS THROUGHOUT THE LIFE OF THE BRIDGE. THE BENCHMARK SHALL BE THE SAME THROUGHOUT THE PROJECT AND SHALL BE INDEPENDENT OF ALL STRUCTURES.

RECORD THE PRECISE COORDINATES AND ELEVATION OF EACH REFERENCE MONUMENT AT EACH MONITORING PERIOD SHOWN IN THE TABLE BELOW.

THE ORIGINAL COMPLETED TABLES WILL BECOME PART OF THE DISTRICT'S PROJECT PLAN RECORDS. SEND A COPY OF THE COMPLETED TABLES TO THE OFFICE OF STRUCTURAL ENGINEERING.

PROJECT NUMBER: 83011		
BRIDGE NUMBER: HAM-74-0911&R STRUCTURE FILE NUMBER: 3108406(R)/3108376(L)		
BENCHMARK LOCATION:		
ABUTMENT LOCATION: REAR		
MONITORING PERIOD	LEFT SEAT MONUMENT	RIGHT SEAT MONUMENT
PLACEMENT OF REFERENCE/ MONUMENT & BENCHMARKS		
PROJECT COMPLETION		

**ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):**

THE FINISH COAT COLOR FOR THE ABUTMENT, PIERS, AND PARAPETS SHALL BE FEDERAL COLOR NO. 17778, LIGHT NEUTRAL.

**ITEM 513. STRUCTURAL STEEL MEMBERS. LEVEL UF. AS PER PLAN:**

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD-FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.04 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.04 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM:  
 END CROSSFRAMES

**ITEM 513. STRUCTURAL STEEL. MISC.: STEEL PREPARATION. INSPECTION. AND NDT:**

THIS ITEM CONSISTS OF INSPECTING THE EXISTING WELDS. (FOR LOCATIONS, SEE SHEET 15 OF 17.)

1. GRINDING MAY BE DIRECTED BY THE ENGINEER TO ENHANCE INVESTIGATION FOR CRACK PRESENCE. ALL GRINDING MUST BE DONE CAUTIOUSLY ESPECIALLY IN TENSION ZONES.

2. THE CONTRACTOR SHALL PERFORM NON-DESTRUCTIVE TESTING (NDT) IN THE AREA USING MAGNETIC PARTICLE EXAMINATION AND/OR DYE PENETRANT SO THAT THE ENGINEER MAY FURTHER INSPECT FOR CRACKS. CONTRACTOR'S PERSONNEL PERFORMING NDT SHALL BE QUALIFIED AS PER 513.25 OF THE CMS.

3. ALL CRACKS, CRACK TIPS AND CRACKED TACK WELDS SHALL BE REMOVED ACCORDING TO AND PAID FOR UNDER ITEM 513-STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, AND ANY CRACKS INACCESSIBLE TO DRILLING SHALL BE REMOVED BY CAREFULLY ENLARGING THE DRILLED HOLES BY GRINDING.

4. PERFORM STEPS 1 THROUGH 3 FOR EACH LOCATION.

THE ACCEPTED NUMBER OF NDT LOCATIONS AS DESCRIBED IN THIS NOTE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LOCATION. PER LOCATION INCLUDES BOTH SIDES OF WEB AND BOTH SIDES OF THE STIFFNER. THE PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO CLEAN, GRIND, AND PERFORM NDT ON BOTH SIDES OF THE SUSPECTED CRACK LOCATION. THE CONTRACTOR SHALL DEMONSTRATED TO THE ENGINEER PRIOR TO THE START OF THE WORK THAT HE CAN SATISFACTORILY CLEAN THE METAL IN ACCORDANCE WITH SSPC-SP11. THIS ITEM CONSISTS OF INSPECTING THE EXISTING WELDS. (FOR LOCATIONS, SEE SHEET 14 OF 16.)

1. GRINDING MAY BE DIRECTED BY THE ENGINEER TO ENHANCE INVESTIGATION FOR CRACK PRESENCE. ALL GRINDING MUST BE DONE CAUTIOUSLY ESPECIALLY IN TENSION ZONES.

2. THE CONTRACTOR SHALL PERFORM NON-DESTRUCTIVE TESTING (NDT) IN THE AREA USING MAGNETIC PARTICLE EXAMINATION AND/OR DYE PENETRANT SO THAT THE ENGINEER MAY FURTHER INSPECT FOR CRACKS. CONTRACTOR'S PERSONNEL PERFORMING NDT SHALL BE QUALIFIED AS PER 513.25 OF THE CMS.

3. ALL CRACKS, CRACK TIPS AND CRACKED TACK WELDS SHALL BE REMOVED ACCORDING TO AND PAID FOR UNDER ITEM 513-STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, AND ANY CRACKS INACCESSIBLE TO DRILLING SHALL BE REMOVED BY CAREFULLY ENLARGING THE DRILLED HOLES BY GRINDING.

4. PERFORM STEPS 1 THROUGH 3 FOR EACH LOCATION.

THE ACCEPTED NUMBER OF NDT LOCATIONS AS DESCRIBED IN THIS NOTE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LOCATION. PER LOCATION INCLUDES BOTH SIDES OF WEB AND BOTH SIDES OF THE STIFFNER. THE PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO CLEAN, GRIND, AND PERFORM NDT ON BOTH SIDES OF THE SUSPECTED CRACK LOCATION. THE CONTRACTOR SHALL DEMONSTRATED TO THE ENGINEER PRIOR TO THE START OF THE WORK THAT HE CAN SATISFACTORILY CLEAN THE METAL IN ACCORDANCE WITH SSPC-SP11.

NOTE: THE PROJECT ENGINEER SHALL INSPECT EACH LOCATION DESIGNATED ON THE PLANS VISUALLY FOR CRACKS BEFORE ANY WORK AT THAT LOCATION BEGINS. THE CONTRACTOR SHALL PROVIDE A SAFE AND SUITABLE MEANS OF ACCESS TO ALL AREAS FOR INSPECTION PURPOSES IN ACCORDANCE WITH 105.11 OF THE CMS.

PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID UNDER ITEM 513-STRUCTURAL STEEL, MISC.: STEEL PREPARATION, INSPECTION, AND NDT.

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DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43006  
 (614) 792-5600 PHONE  
 (614) 792-5601 FAX

DATE  
 11/11  
 REVIEWED  
 KVB  
 STRUCTURE FILE NUMBER  
 3108376 (L) 3108406 (R)

DRAWN  
 D.J.C.  
 REVISIONS  
 SK  
 CHECKED  
 L.Y.H.

GENERAL NOTES  
 BRIDGE NO. HAM-74-0911 L&R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-09.11  
 PID No. 83011

3 / 23

98  
 118

**ITEM 513. STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL**

THIS WORK SHALL CONSIST OF DRILLING AT THE END OF CRACKS, GRINDING, AND NON-DESTRUCTIVE TESTING AS DIRECTED BY THE ENGINEER. NO HOLES SHALL BE DRILLED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

HOLES SHALL BE DRILLED TO REMOVE ENTIRE CRACKS OR THE APPARENT ENDS OF THE CRACKS REVEALED BY THE NDT OF SUSPECTED CRACKS DETAILED IN THESE PLANS UNDER ITEM 513-STRUCTURAL STEEL, MISC. STEEL PREPARATION, INSPECTION, AND NDT. THE EXPOSED CIRCUMFERENCE OF EACH DRILLED HOLE SHALL BE GROUND SMOOTH PER 513.12 TO MEET THE REQUIREMENTS FOR PIN HOLES AND CAREFULLY INSPECTED FOR CRACKS USING MAGNETIC PARTICLE EXAMINATION AND DYE PENETRANT, DRILLING, GRINDING, AND TESTING SHALL CONTINUE UNTIL ALL CRACK ENDS ARE REMOVED. WHEN NO CRACKS ARE DETECTED AT A LOCATION. NO HOLES SHALL BE DRILLED UNDER THIS ITEM.

THE CENTER OF THE HOLE SHALL BE POSITIONED BEYOND THE VISIBLE END OF THE CRACK SO THAT THE EDGE OF THE HOLE COINCIDES WITH THE END OF THE CRACK. IF THE CRACK ON ONE SIDE OF THE MEMBER IS LONGER THAN THE OTHER SIDE, THE HOLE SHALL BE POSITIONED RELATIVE TO THE LONGEST CRACK. FLAME CUTTING OF HOLES IS NOT PERMITTED UNDER ANY CIRCUMSTANCES. SINCE ANY OF THESE CRACKS COULD PROPAGATE INTO THE TENSION ZONES, REMOVING THEIR END IS IMPERATIVE. CRACKS LESS THAN 2" LONG, CRACKED AREAS, OR DEFECTS LESS THAN 2" IN DIAMETER SHALL BE REMOVED BY A SINGLE 2" HOLE WHEN PRACTICAL. ENDS OF CRACKS LONGER THAN 2" SHALL BE END DRILLED WITH 2" DIAMETER HOLES. HOLES SHALL BE CAREFULLY EXAMINED FOR CRACKS IN THE PLANE OF THE PLATE. 2 1/2" DIAMETER HOLES MAY BE DRILLED WHERE THE PROXIMITY OF THE CRACK AND THE ADJACENT STEEL PRECLUDES DRILLING A 2" DIAMETER HOLE.

THE LOCATION OF ALL HOLES SHALL BE DETERMINED BY THE ENGINEER AND DRILLED UNDER HIS DIRECTION. CARE SHALL BE TAKEN NOT TO GRIND INTO THE BEAM FLANGE. BEFORE ANY DRILLING TAKES PLACE, THE DISTRICT BRIDGE MAINTENANCE ENGINEER SHALL BE NOTIFIED AND HIS CONSENT GIVEN.

THE ACCEPTED NUMBER OF HOLES DRILLED IN THE STRUCTURAL STEEL AS DETAILED ABOVE WILL BE PAID FOR AT THE CONTRACT BID PRICE PER EACH HOLE, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY FOR DRILLING HOLES, GRINDING, AND NONDESTRUCTIVE TESTING ON BOTH SIDES OF EACH HOLE. PAYMENTS WILL BE MADE UNDER: ITEM 513-STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL.

ESTIMATING THAT 100% OF LOCATIONS (SEE SHEET 15 OF 17) WILL REQUIRE THE DRILLING OF HOLES AT THE END OF CRACKS, THE FOLLOWING QUANTITY IS OBTAINED:

22 LOCATIONS (L.T. BRIDGE) \* 3 HOLES PER LOCATION \* 1.00 = 66 HOLES

TOTAL = 66 HOLES

**ITEM 514. FIELD PAINTING OF EXISTING STRUCTURAL STEEL:**

PAINT THE EXISTING STRUCTURAL STEEL USING OZEU SPECIFICATIONS. THE COLOR SHALL BE FEDERAL COLOR NO. 14277.

**ITEM 516. JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:**

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SEE SHEET 20/23 FOR REQUIREMENT ON INCREMENTAL LOWERING OF RIGHT BRIDGE SUPERSTRUCTURE.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, 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.

THE PATCHING QUANTITIES SHOWN IN ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

**ITEM SPECIAL PATCHING CONCRETE BRIDGE DECK, TYPE B**

THIS ITEM IS TO BE USED TO PATCH AREAS OF DETERIORATED BRIDGE DECK CONCRETE. THE FOLLOWING CONTINGENCY QUANTITIES ARE PROVIDED AND SHALL BE DIRECTED BY THE ENGINEER:

BRIDGE NO. 3108376 (L) 26 S.Y.  
BRIDGE NO. 3108406 (R) 23 S.Y.

AREAS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE MARKED BY THE PROJECT ENGINEER. MATERIALS SHOULD NOT BE ORDERED UNTIL THE AREAS FOR REPAIR HAVE BEEN MARKED.

THIS WORK WILL BE PAID FOR AT THE CONTRACT BID PRICE, WHICH PRICE AND PAYMENTS SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF THE PROPOSAL NOTE AND TO THE SATISFACTION OF THE ENGINEER.

**ABBREVIATIONS:**

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

- ABUT. - ABUTMENT
- ADT - AVERAGE DAILY TRAFFIC
- ADTT - AVERAGE DAILY TRUCK TRAFFIC
- APPROX. - APPROXIMATE
- ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS
- B.F. - BACK FACE
- BOT. - BOTTOM
- BRGS. - BEARINGS
- © - CENTERLINE
- C/C - CENTER TO CENTER
- CIP - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- CLR. - CLEARANCE
- CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
- CONST. - CONSTRUCTION
- DIA./φ - DIAMETER
- DWG. - DRAWING
- E.F. - EACH FACE
- E/P - EDGE OF PAVEMENT
- E/S - EDGE OF SHOULDER
- EL. - ELEVATION
- EQ. - EQUAL
- EX. - EXISTING
- F.A. - FORWARD ABUTMENT
- F.F. - FRONT FACE
- F/F - FACE TO FACE
- FTG. - FOOTING
- FT/FT - FOOT PER FOOT
- FWD. - FORWARD
- IR - INTERSTATE ROUTE
- JT. - JOINT
- L.T. - LEFT
- MAX. - MAXIMUM
- MIN. - MINIMUM
- MOT - MAINTENANCE OF TRAFFIC
- NB - NORTHBOUND
- N.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
- O/O - OUT TO OUT
- P.C.P.P - PERFORATED CORRUGATED PLASTIC PIPE
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
- R.A. - REAR ABUTMENT
- RT. - RIGHT
- SB - SOUTHBOUND
- S.O. - SERIES OF
- SPA. - SPACES OR SPACING
- STA. - STATION
- STD. - STANDARD
- STR. - STRAIGHT
- TEMP. - TEMPORARY
- T/T - TOE TO TOE
- TYP. - TYPICAL
- VERT. - VERTICAL

DESIGN AGENCY  
Mead & Hunt  
5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5600 PHONE  
(614) 792-5601 FAX

DATE 11/11  
REVIEWED KVB  
DRAWN D.J.C.  
DESIGNED SK  
CHECKED L.Y.H.

GENERAL NOTES  
BRIDGE NO. HAM-74-0911 L&R  
I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-09.11  
PID No. 83011

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CALCULATED BY: SK		ESTIMATED QUANTITIES - WESTBOUND - HAM-74-0911L							CHECKED BY: AJS	
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.	
202	11203		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					3	
509	10000	351	POUND	EPOXY COATED REINFORCING STEEL	238		113			
509	20001	100	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				100	3	
510	10000	40	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	40					
511	34434	1	CU YD	CLASS S CONCRETE, BRIDGE DECK			1			
511	34436	1	CU YD	CLASS S CONCRETE, BRIDGE DECK (PARAPET)			1			
511	45701	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	2				3	
512	10100	2,779	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	240	1,549	990			
512	10600	33	FT	CONCRETE REPAIR BY EPOXY INJECTION	33					
512	73500	2,551	SQ YD	TREATING CONCRETE BRIDGE DECK WITH GRAVITY FED RESIN			2,551			
513	10201	566	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UP, AS PER PLAN			566		3 & 16	
513	21000	14	EACH	TRIMMING OF BEAM END			14			
513	90000	2,125	POUNDS	STRUCTURAL STEEL, MISC., 3/4" x 7" BEARING STIFFENER PLATE			2,125			
513	95030	22	EACH	STRUCTURAL STEEL, MISC.; STEEL PREPARATION, INSPECTION AND NDT			22		3	
513	95030	66	EACH	STRUCTURAL STEEL, MISC.; DRILLING STRUCTURAL STEEL			66		4	
514	00050	49,733	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			49,733			
514	00056	49,733	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			49,733			
514	00060	49,733	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			49,733			
514	00066	49,733	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			49,733			
514	00504	50	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			50			
514	10000	20	EACH	FINAL INSPECTION REPAIR			20			
516	46201	14	EACH	BEARING DEVICE, ROCKER, AS PER PLAN	14				16	
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					4	
519	11101	27	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	27				4	
SPECIAL	51912300	26	SQ YD	PATCHING CONCRETE BRIDGE DECK-TYPE B (SEE PROPOSAL NOTE)			26		4	

DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43016  
 (614) 792-5500 PHONE  
 (614) 792-5501 FAX

DATE 1/12  
 REVIEWED KVB  
 STRUCTURE FILE NUMBER 3108376(L) 3108408(R)  
 DRAWN JMD  
 DESIGNED SK  
 CHECKED AJS

**ESTIMATED QUANTITIES**  
 BRIDGE NO. HAM-74-0911 L&R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

**HAM-74-5.53**  
 PID No. 83011

5 / 23

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CALCULATED BY: SK		ESTIMATED QUANTITIES - EASTBOUND - HAM-74-0911R							CHECKED BY: AJS	
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER.	GENERAL	SEE SHEET NO.	
202	11203		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					3	
503	21100	3	CU YD	UNCLASSIFIED EXCAVATION	3					
509	10000	1,633	POUND	EPOXY COATED REINFORCING STEEL	104	1,529				
510	10000	198	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	18	180				
511	42500	6	CU YD	CLASS C CONCRETE, PIER CAP		6				
511	45701	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	2				3	
512	10100	2,625	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	203	1,380	1,042			
512	10600	36	FT	CONCRETE REPAIR BY EPOXY INJECTION	36					
512	73500	2,284	SQ YD	TREATING CONCRETE BRIDGE DECK WITH GRAVITY FED RESIN			2,284			
513	10201	468	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			468		3 & 16	
513	21000	12	EACH	TRIMMING OF BEAM END			12			
514	00050	31,824	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			31,824			
514	00056	31,824	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			31,824			
514	00060	31,824	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			31,824			
514	00066	31,824	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			31,824			
514	00504	45	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			45			
514	10000	19	EACH	FINAL INSPECTION REPAIR			19			
516	44100	6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES 12"x18"x2 <sup>5</sup> / <sub>8</sub> " AND LOAD PLATE 13"x26"x2" THICK		6				
516	44200	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES 12"x21"x3 <sup>1</sup> / <sub>8</sub> " AND LOAD PLATE 13"x22"x2" THICK		24				
516	46201	12	EACH	BEARING DEVICE, ROCKER, AS PER PLAN	12				16	
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					4	
519	11101	102	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	102				4	
SPECIAL	51912300	23	SQ YD	PATCHING CONCRETE BRIDGE DECK-TYPE B (SEE PROPOSAL NOTE)			23		4	
843	50000	6	SQ FT	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	6					

DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
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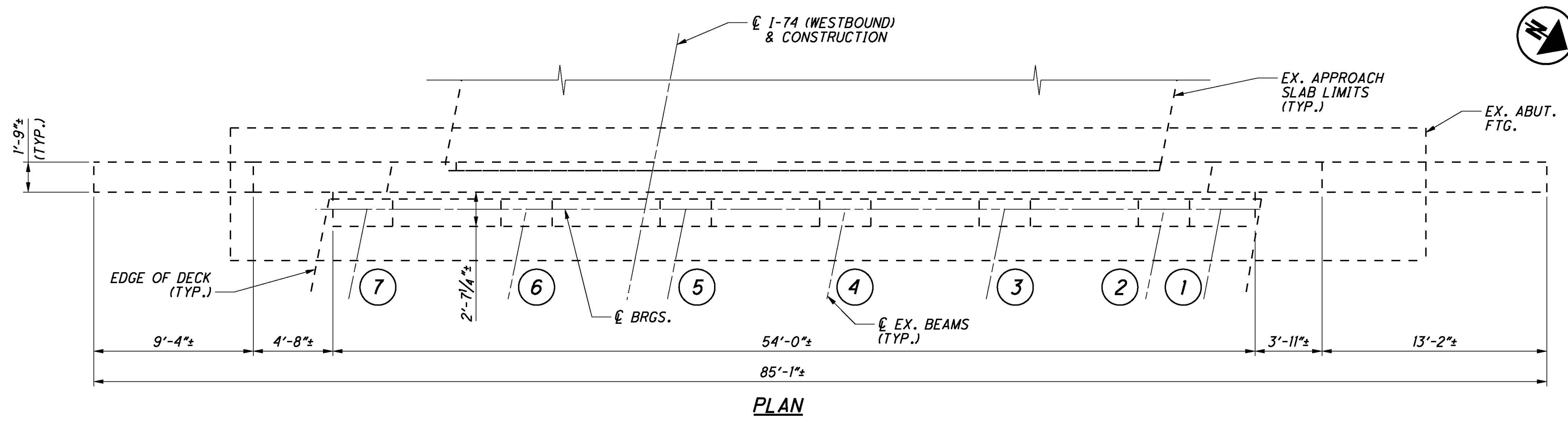
DESIGNED BY: SK  
 CHECKED BY: AJS  
 DRAWN BY: JMD  
 REVISIONS:  
 REVIEWED BY: KVB  
 DATE: 1/12  
 STRUCTURE FILE NUMBER: 3108376(L) 3108408(R)

**ESTIMATED QUANTITIES**  
 BRIDGE NO. HAM-74-0911 L & R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

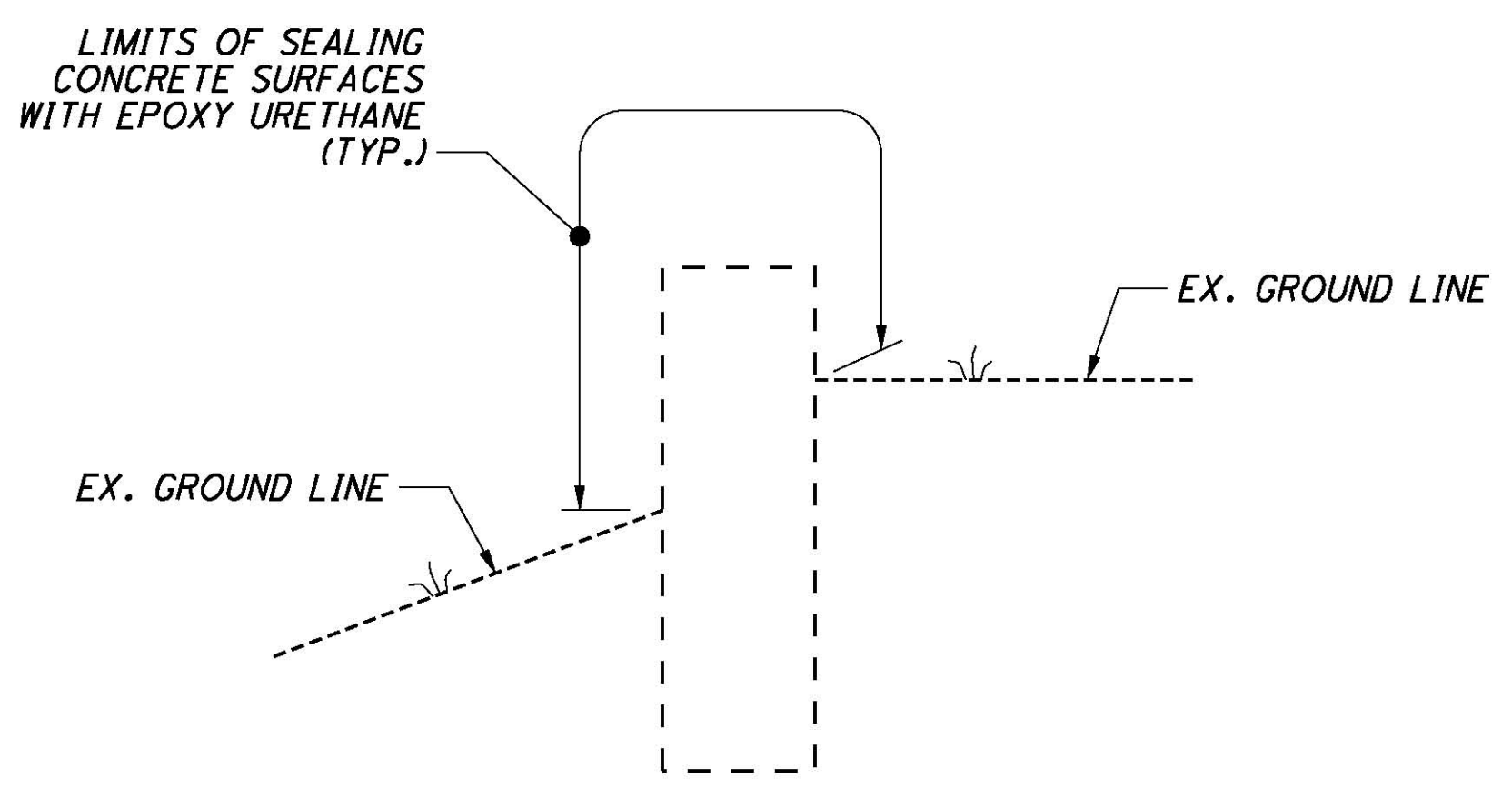
**HAM-74-5.53**  
 PID No. 83011

6 / 23

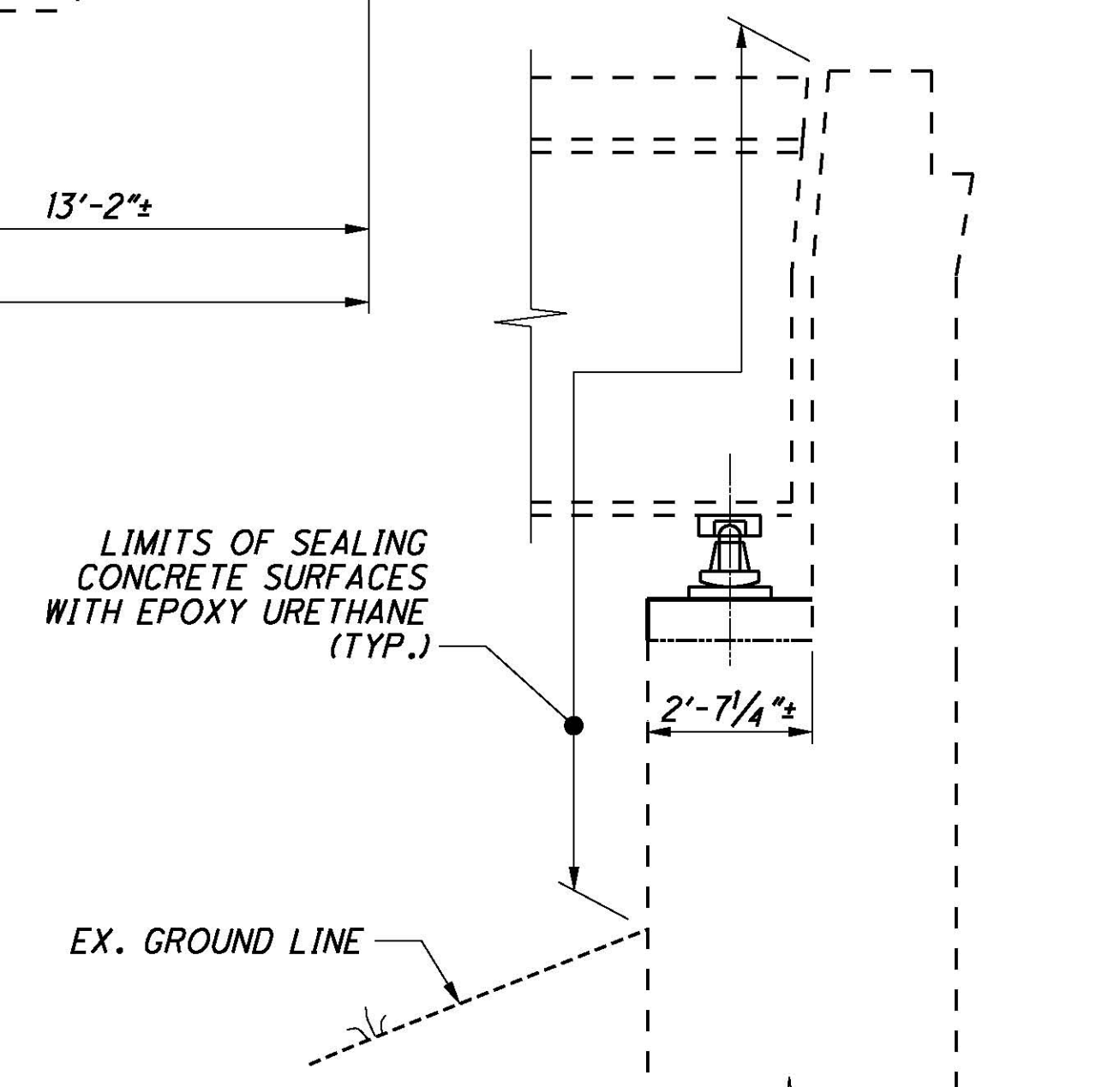
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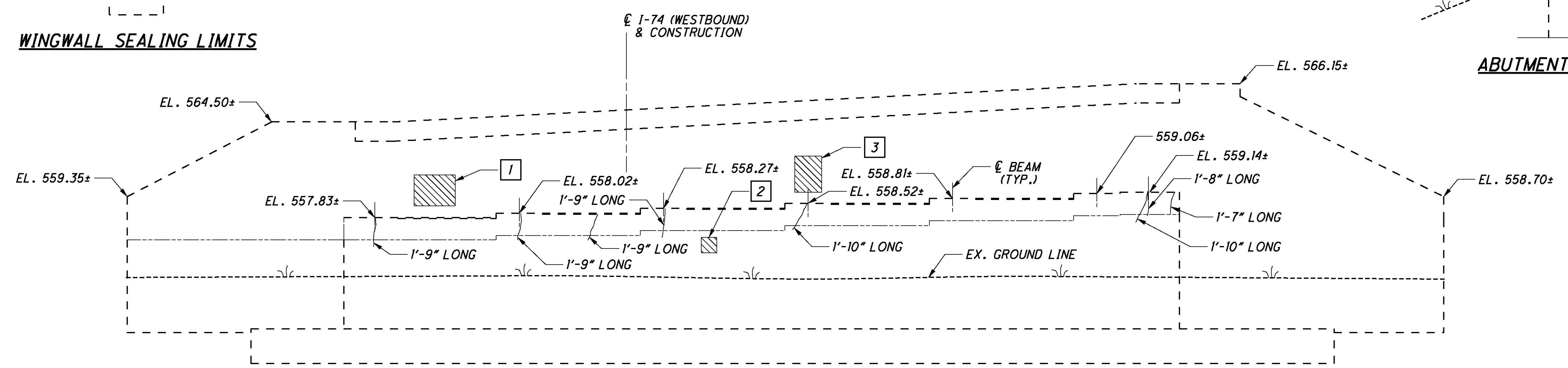
**PLAN**



**WINGWALL SEALING LIMITS**



**ABUTMENT SEALING LIMITS**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED ITEM 519		
NO.	DIMENSION	SQ FT
1	32"x24"	5.33
2	12"x12"	1.0
3	21"x28"	4.08
TOTAL		10.41

REPAIR QUANTITIES BY EPOXY INJECTION	
LENGTH	FT
TOTAL	13.91

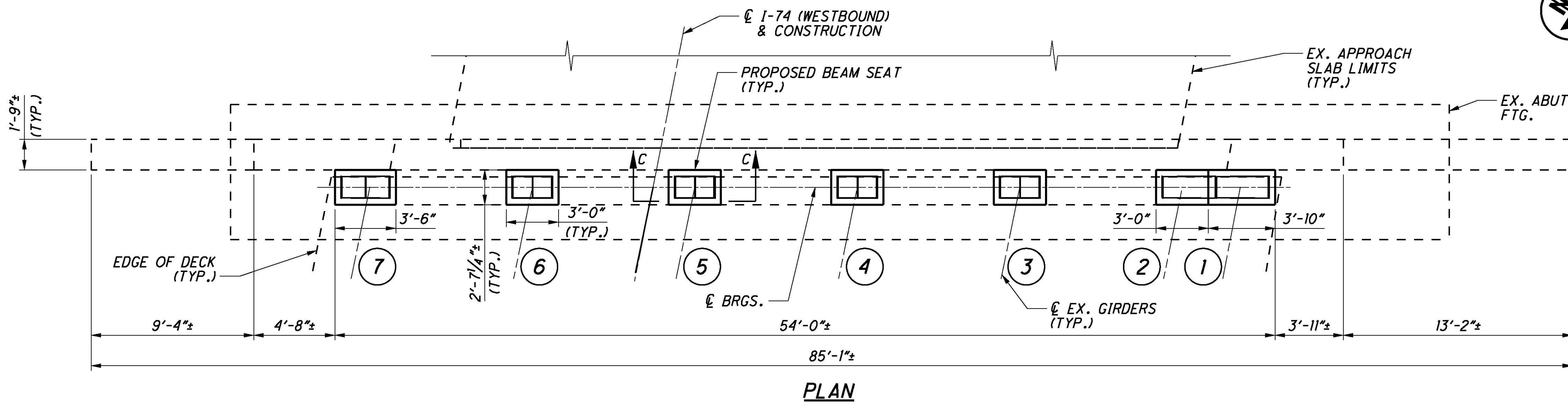
- NOTES:**
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
  - QUANTITIES CARRIED TO SHEET 5 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.

- LEGEND:**
- (1) - GIRDER NUMBER
  - [Hatched Box] - PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

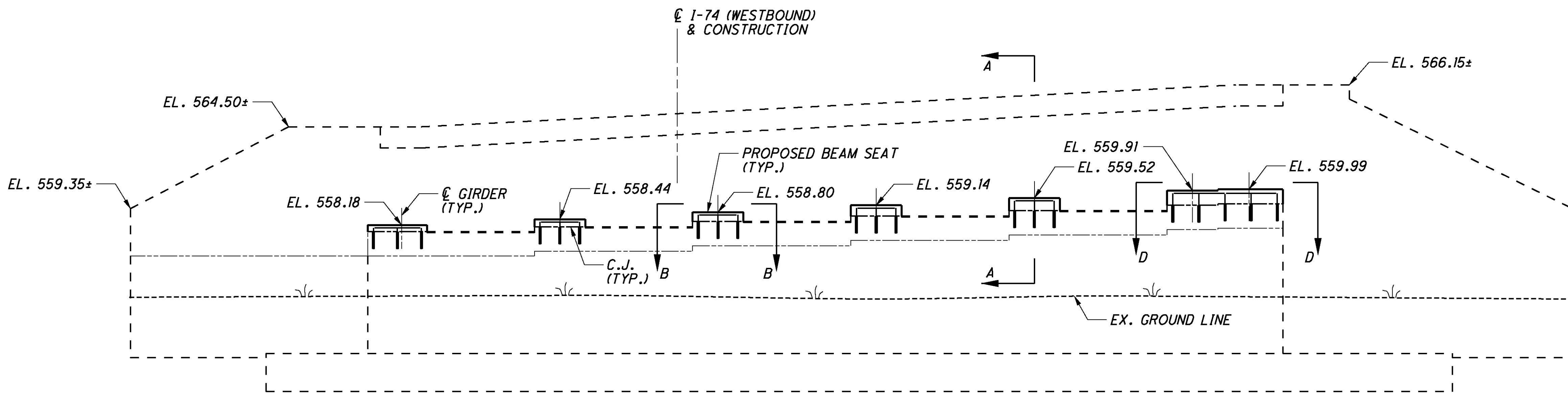
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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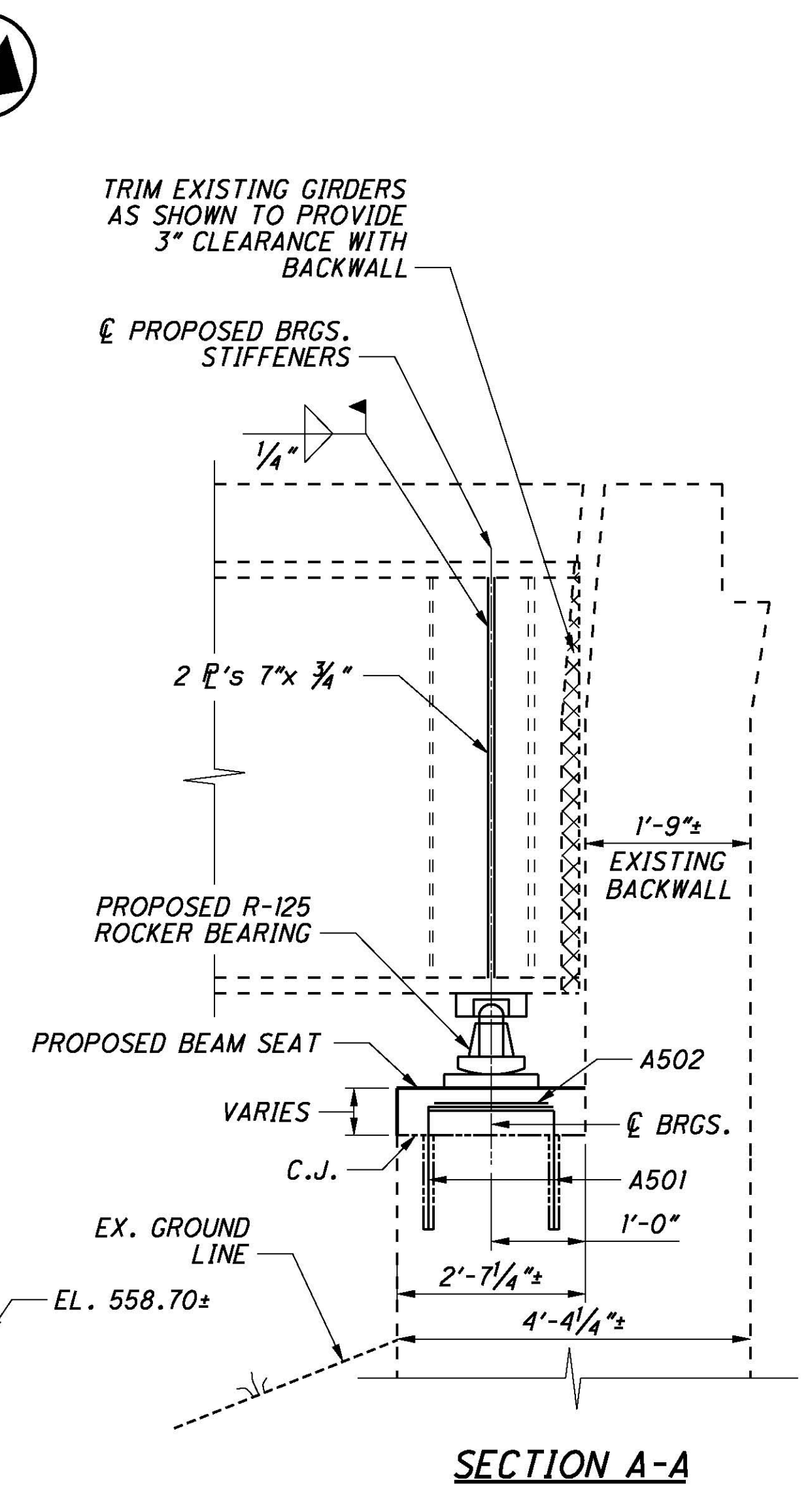




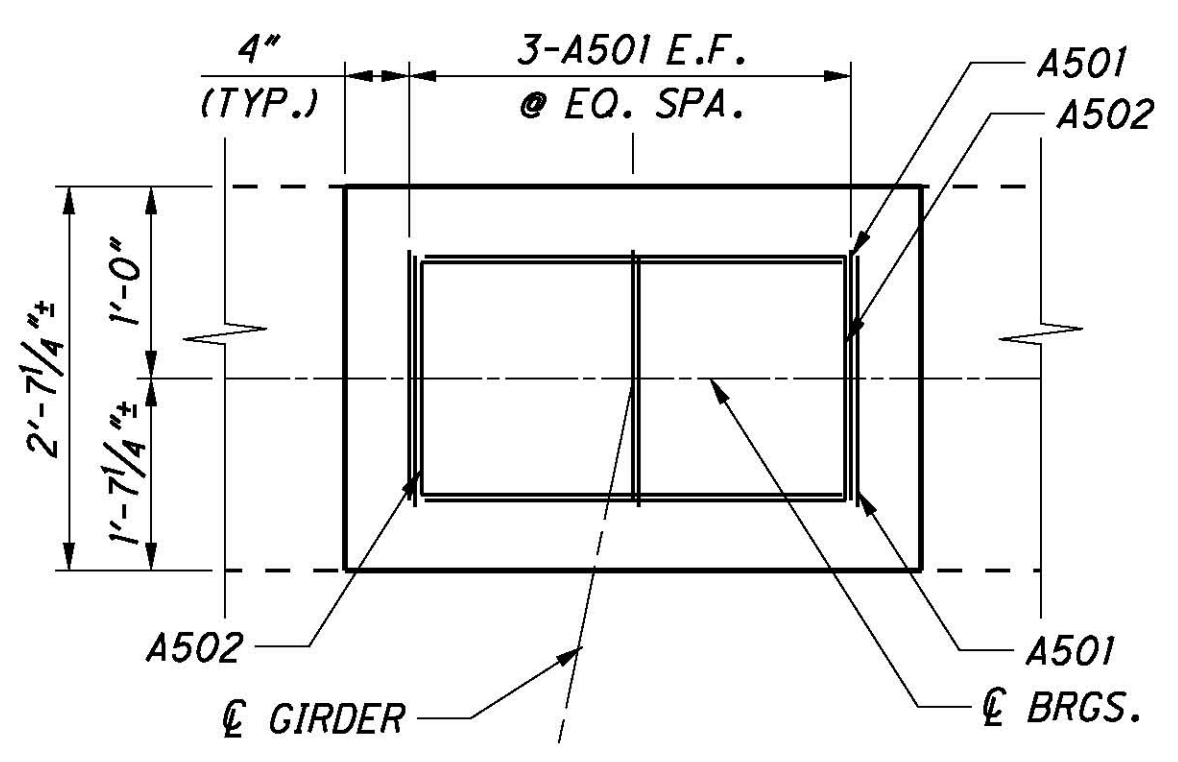
PLAN



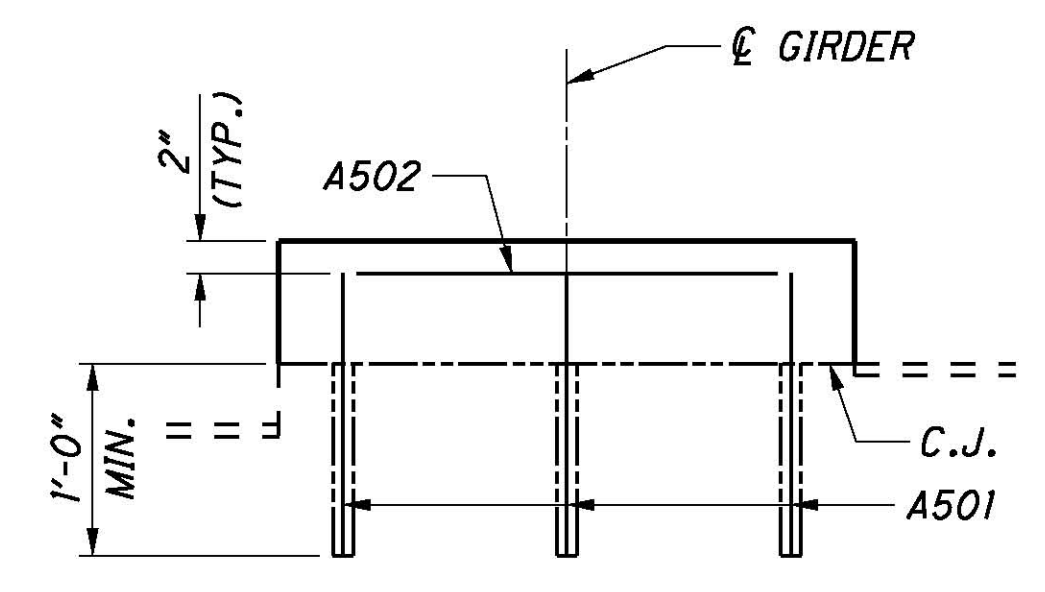
ELEVATION



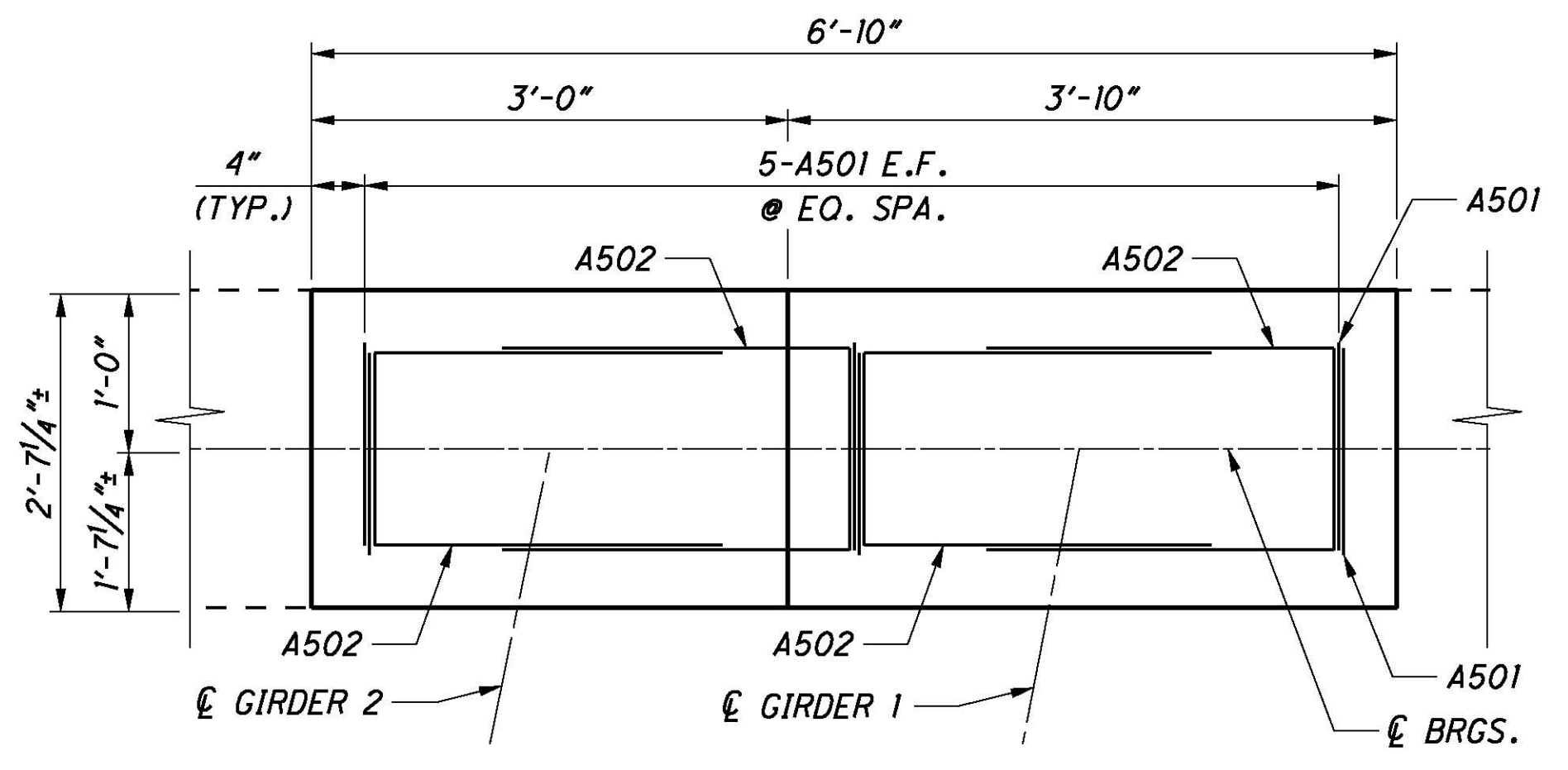
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

- NOTES:**
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
  - SEE SHEET 7 FOR SEALING LIMITS.

- LEGEND:**
- ① - GIRDER NUMBER
  - [Cross-hatched box] - TRIM END GIRDER

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DESIGN AGENCY: Mead & Hunt  
 5900 WILCOX PLACE, DUBLIN, OH 43016  
 (614) 792-5900 PHONE, (614) 792-5901 FAX

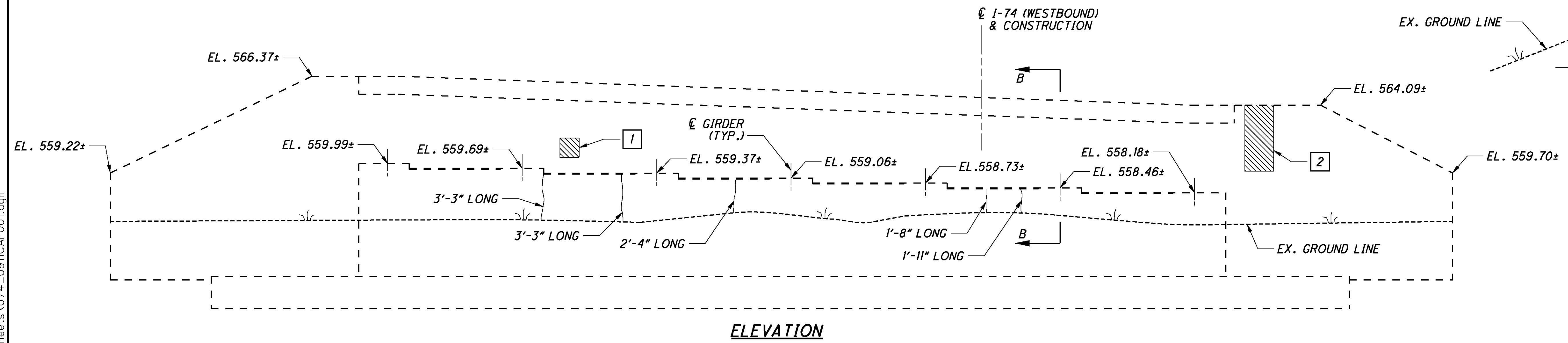
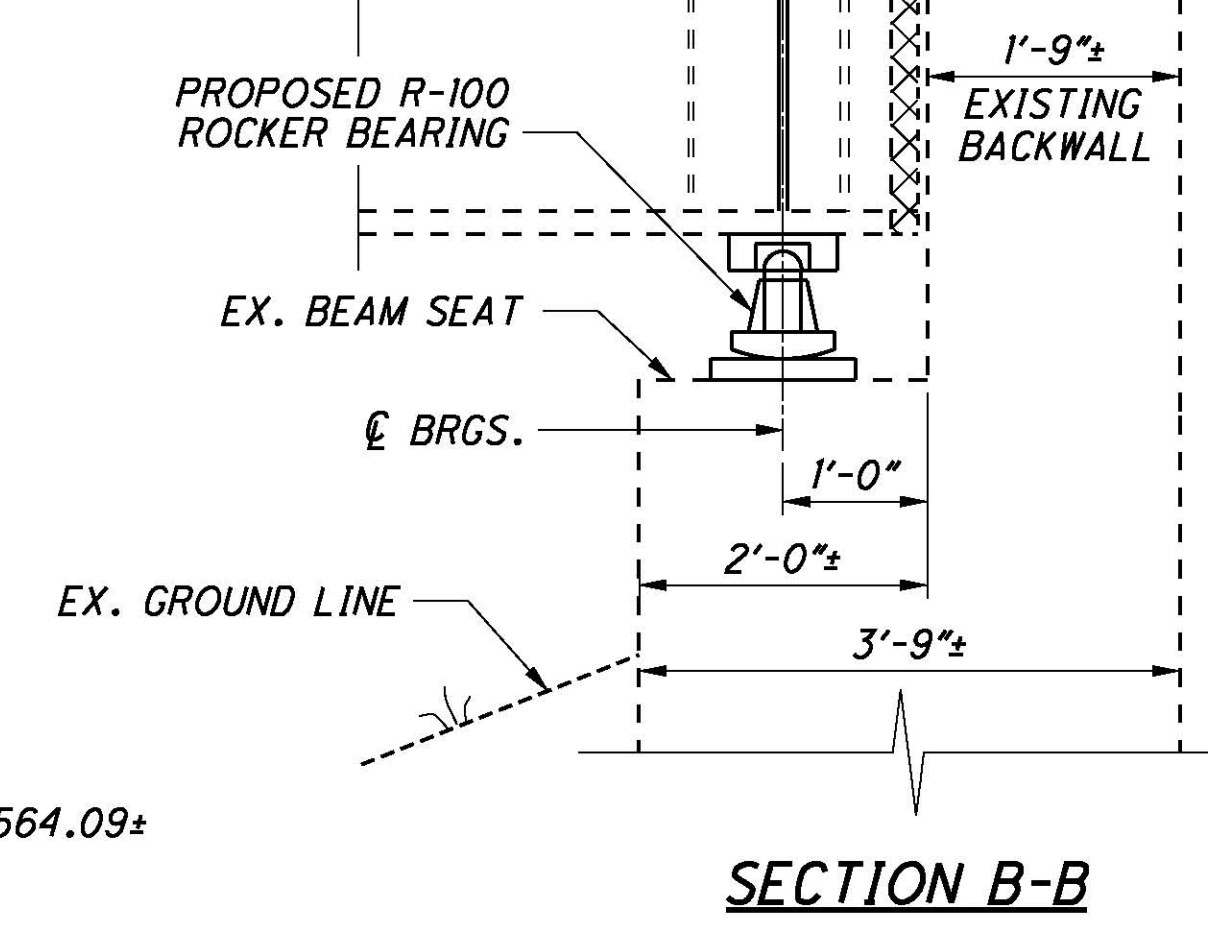
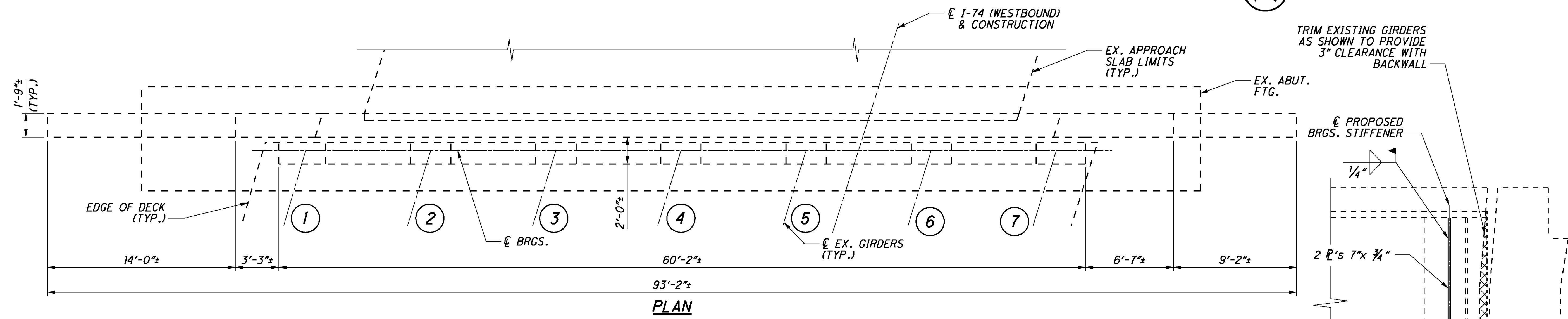
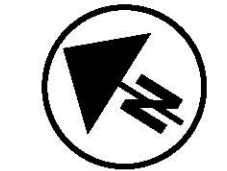
DATE: 11/11  
 REVIEWED: KVB  
 DRAWN: DJC  
 SK: LKH  
 CHECKED: LYH

STRUCTURE FILE NUMBER: 3108376(L) 3108406(R)

WESTBOUND REAR ABUTMENT DETAILS  
 BRIDGE NO. HAM-74-0911 L&R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-5.53  
 PID No. 83011

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CONCRETE SURFACES TO BE PATCHED ITEM 519		
NO.	DIMENSION	SO FT
1	16"x16"	1.78
2	24"x55"	9.17
TOTAL		10.95

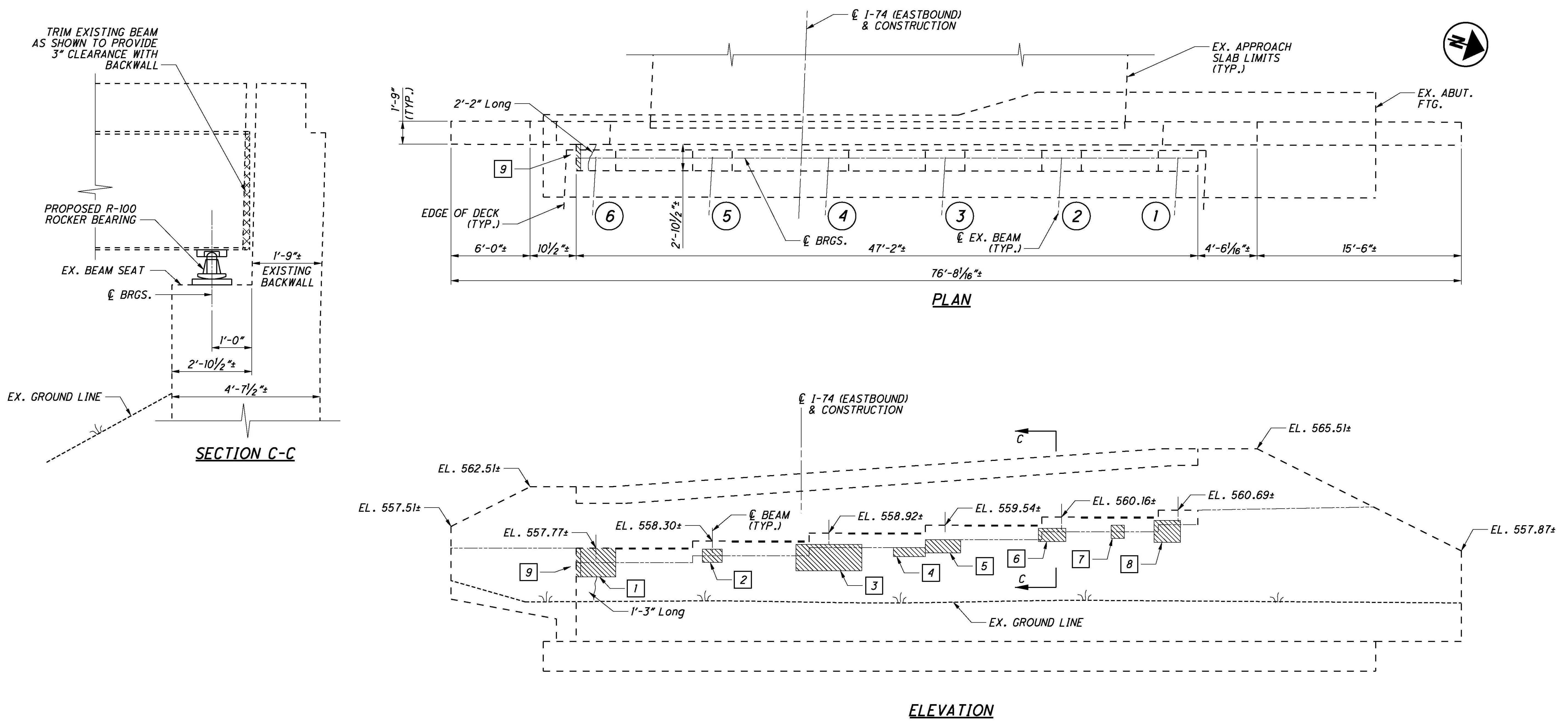
REPAIR QUANTITIES BY EPOXY INJECTION	
LENGTH	FT
TOTAL	12.42

- NOTES:**
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
  - QUANTITIES CARRIED TO SHEET 5 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
  - SEE SHEET 7 FOR SEALING LIMITS.

- LEGEND:**
- ① - GIRDER NUMBER
  - [Hatched Box] - PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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CONCRETE SURFACES TO BE PATCHED ITEM 519

NO.	DIMENSION	SQ FT
1	36"x26"	6.5
2	18"x12"	1.5
3	60"x24"	10.0
4	29"x8"	1.61
5	32"x12"	2.66
6	25"x12"	2.08
7	12"x12"	1.0
8	24"x20"	3.33
9	4"x26"	0.72
TOTAL		29.40

REPAIR QUANTITIES BY EPOXY INJECTION

LENGTH	FT
TOTAL	3.42

**NOTES:**

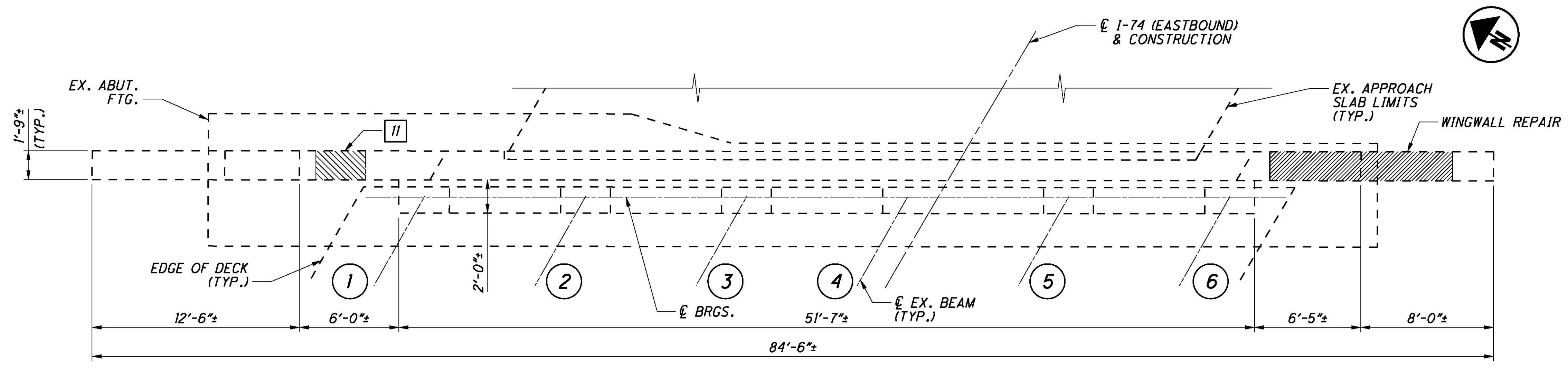
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
- QUANTITIES CARRIED TO SHEET 6 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
- PATCH AREA 9 IS LOCATED ON SIDE OF SEAT.
- SEE SHEET 7 FOR SEALING LIMITS.

**LEGEND:**

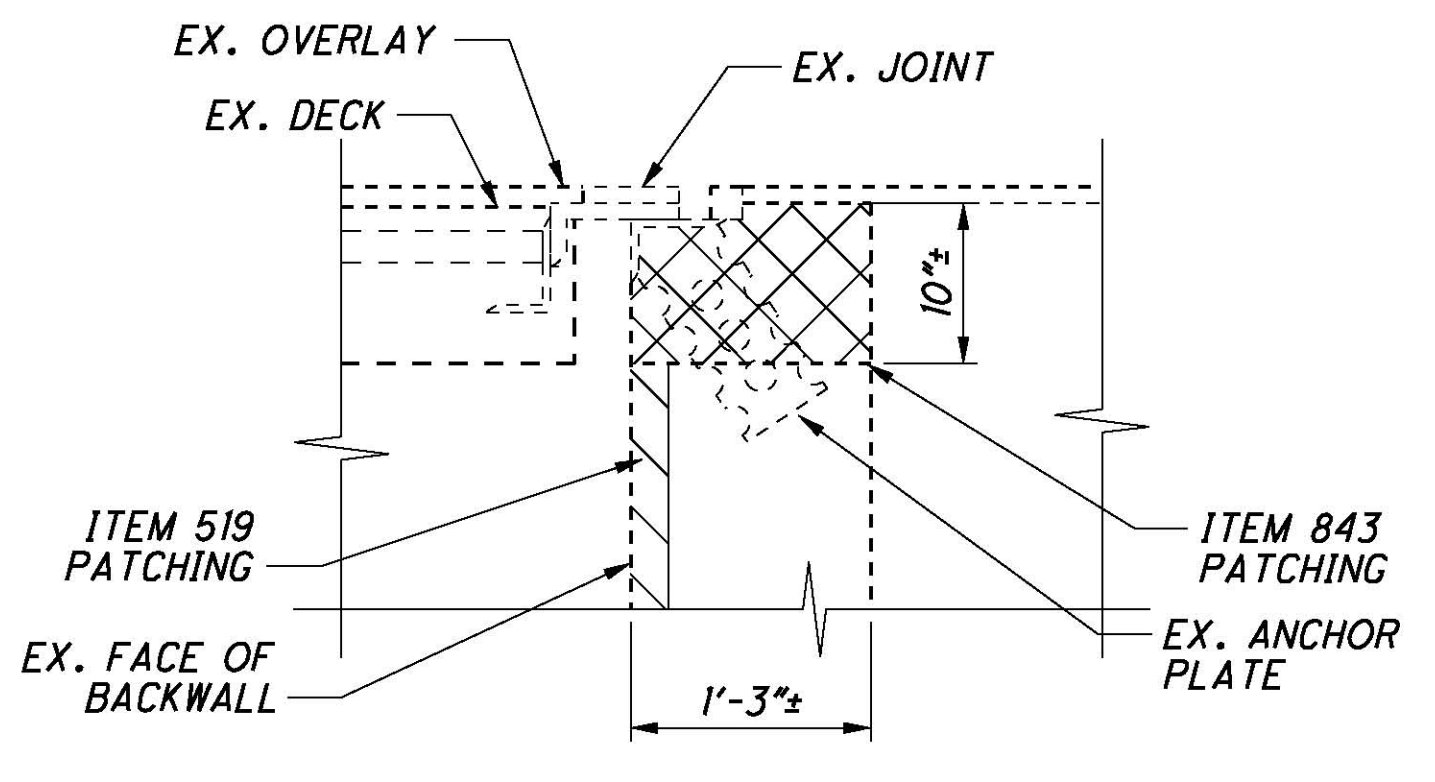
- 1 - BEAM NUMBER
- TRIM END BEAM
- PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

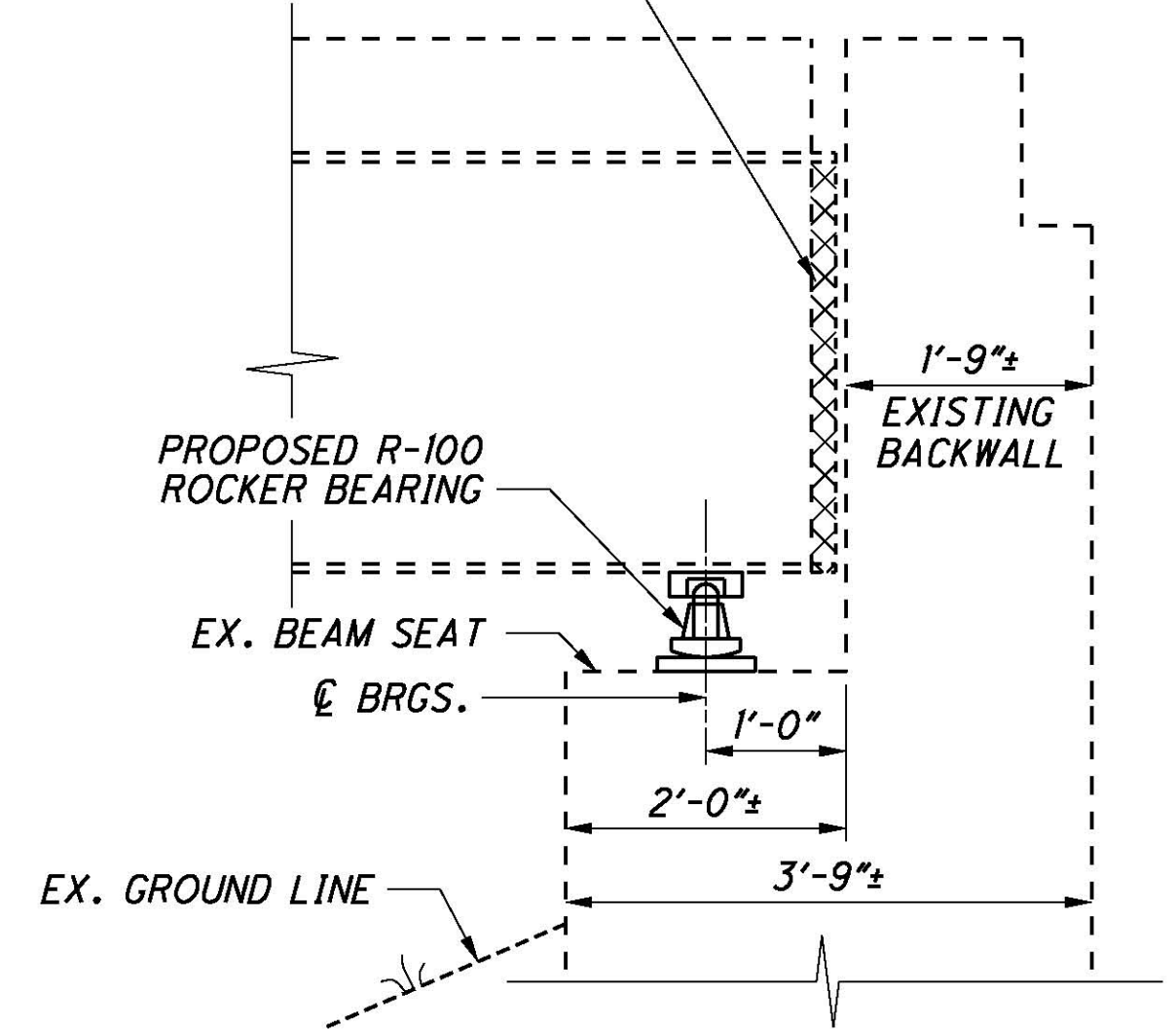
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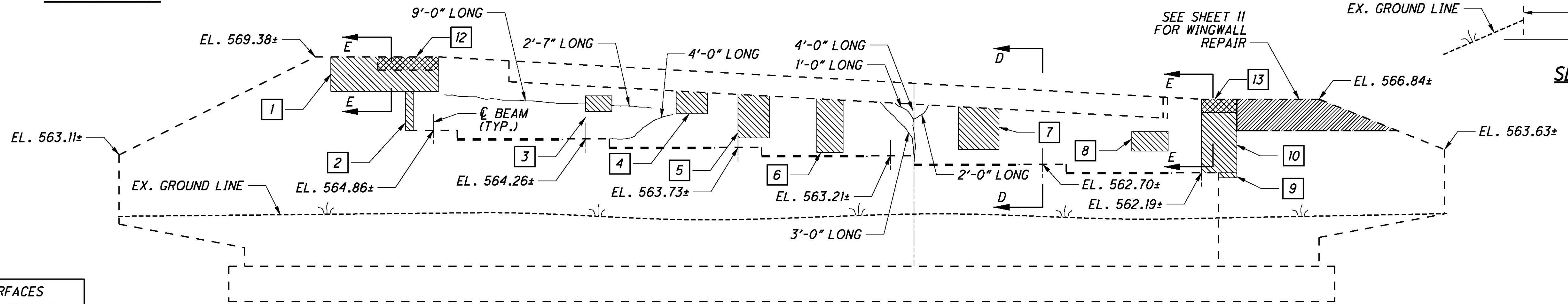
**PLAN**



**SECTION E-E**



**SECTION D-D**



**ELEVATION**

CONCRETE SURFACES TO BE PATCHED ITEM 519		
NO.	DIMENSION	SQ FT
1	82"x26"	11.62
2	6"x30"	1.25
3	12"x20"	1.67
4	24"x16"	2.66
5	24"x32"	5.33
6	20"x40"	5.55
7	31"x31"	6.67
8	28"x15"	2.92
9	14"x4"	0.39
10	27"x46"	8.63
11	36"x21"	5.25
TOTAL		51.94

CONCRETE SURFACES TO BE PATCHED ITEM 843		
NO.	DIMENSION	SQ FT
12	46"x10"	3.19
13	27"x10"	1.88
TOTAL		5.07

REPAIR QUANTITIES BY EPOXY INJECTION	
LENGTH	FT
TOTAL	25.58

**LEGEND:**

- ① - BEAM NUMBER
- PATCHING CONCRETE STRUCTURE ITEM 519- PATCHING OF CONCRETE STRUCTURE, AS PER PLAN.
- PATCHING CONCRETE STRUCTURE ITEM 843- PATCHING OF CONCRETE STRUCTURE WITH TROWEABLE MORTAR.
- WINGWALL REMOVAL

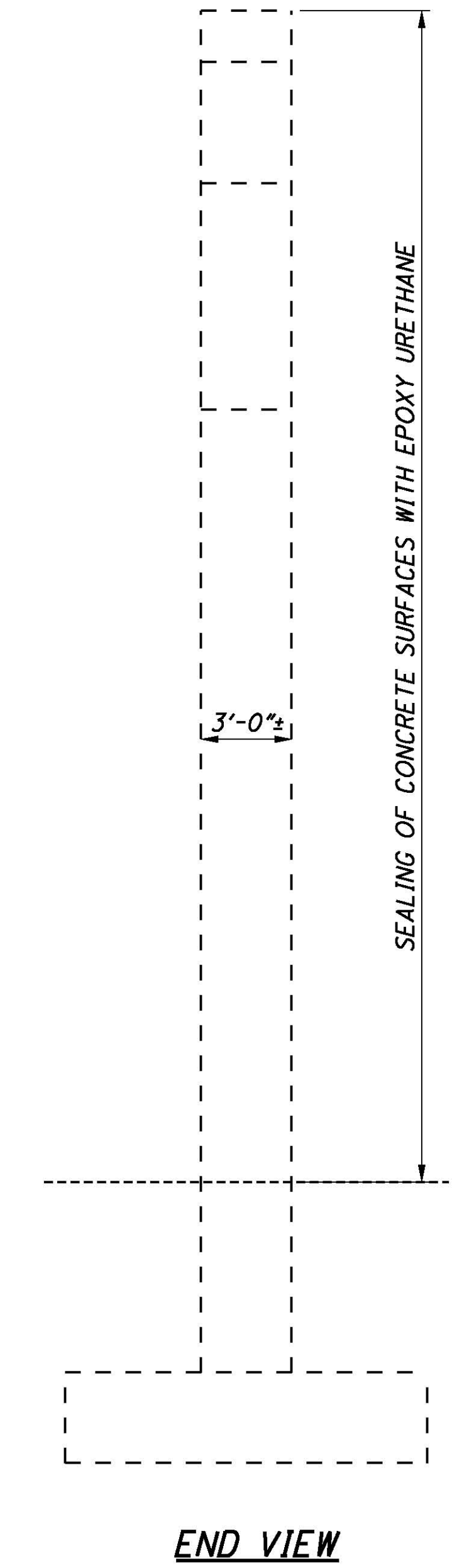
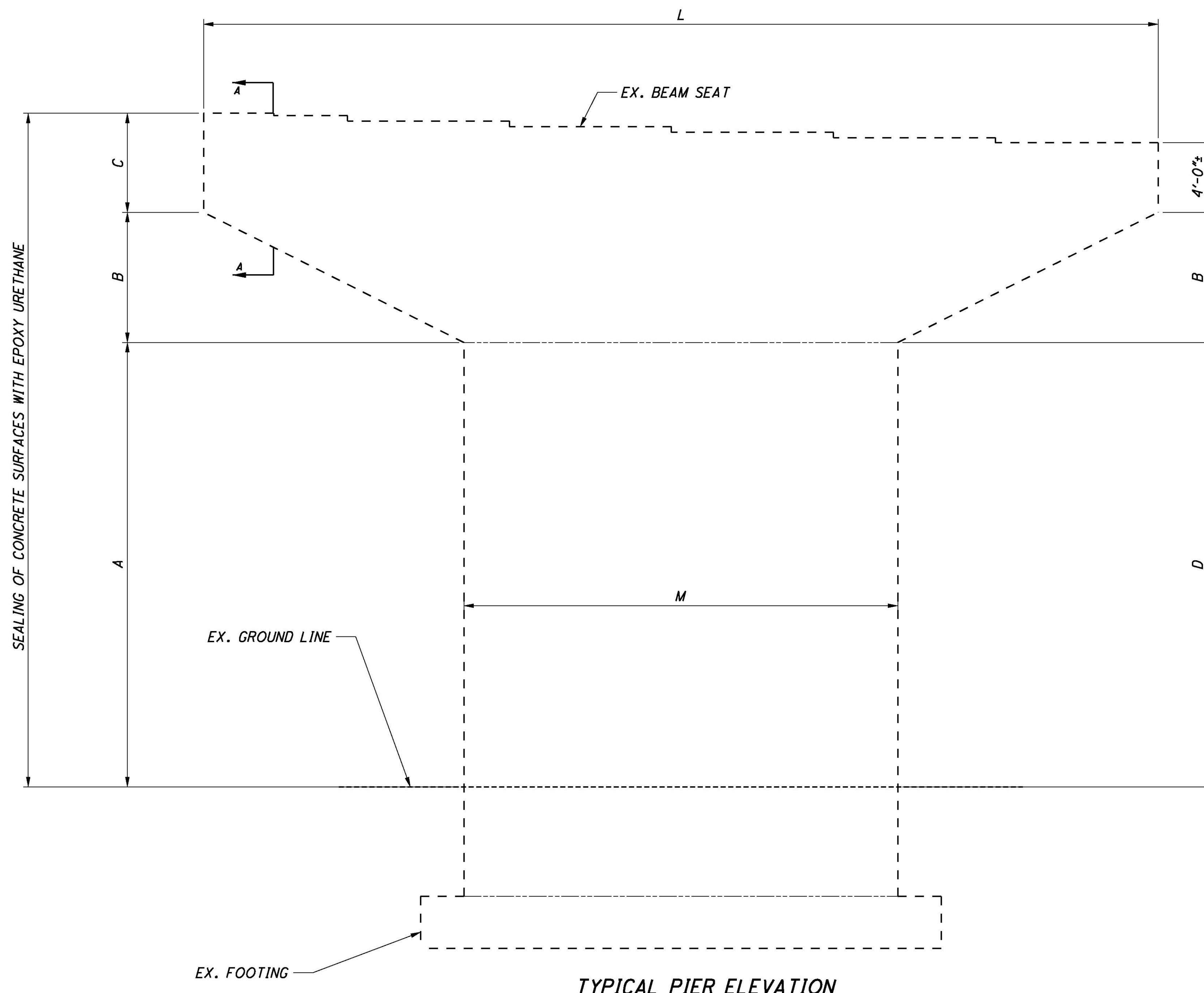
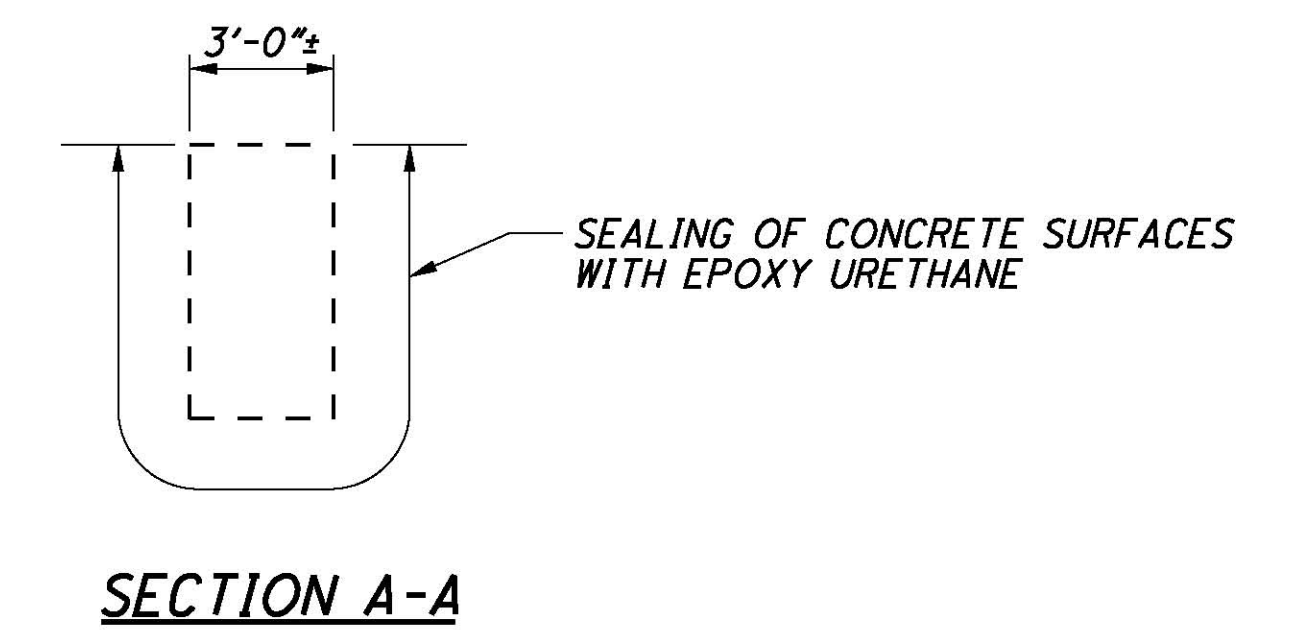
**NOTES:**

1. DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND FIELD MEASUREMENTS.
2. QUANTITIES CARRIED TO SHEET 6 HAVE BEEN INCREASED BY 25% TO ACCOUNT FOR FUTURE DETERIORATION.
3. SEE SHEET 7 FOR SEALING LIMITS.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN OCTOBER 2010.

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TABLE OF PIER DIMENSIONS					
	WESTBOUND (LEFT) BRIDGE		EASTBOUND (RIGHT) BRIDGE		
DIM.	PIER 1	PIER 4	PIER 1	PIER 4	PIER 5
A	25'-8 <sup>1</sup> / <sub>4</sub> "±	36'-6 <sup>1</sup> / <sub>4</sub> "±	24'-0 <sup>1</sup> / <sub>4</sub> "±	23'-11 <sup>3</sup> / <sub>4</sub> "±	11'-3"±
B	7'-6"±	7'-6"±	8'-0"±	8'-0"±	7'-6"±
C	5'-8 <sup>1</sup> / <sub>2</sub> "±	5'-11 <sup>1</sup> / <sub>2</sub> "±	5'-2"±	5'-2"±	5'-6"±
D	25'-8 <sup>1</sup> / <sub>4</sub> "±	36'-6 <sup>1</sup> / <sub>4</sub> "±	22'-4"±	22'-3 <sup>3</sup> / <sub>4</sub> "±	10'-0"±
L	55'-0"±	59'-0"±	48'-2"±	48'-2"±	52'-6"±
M	25'-0"±	29'-0"±	20'-2"±	20'-2"±	22'-6"±



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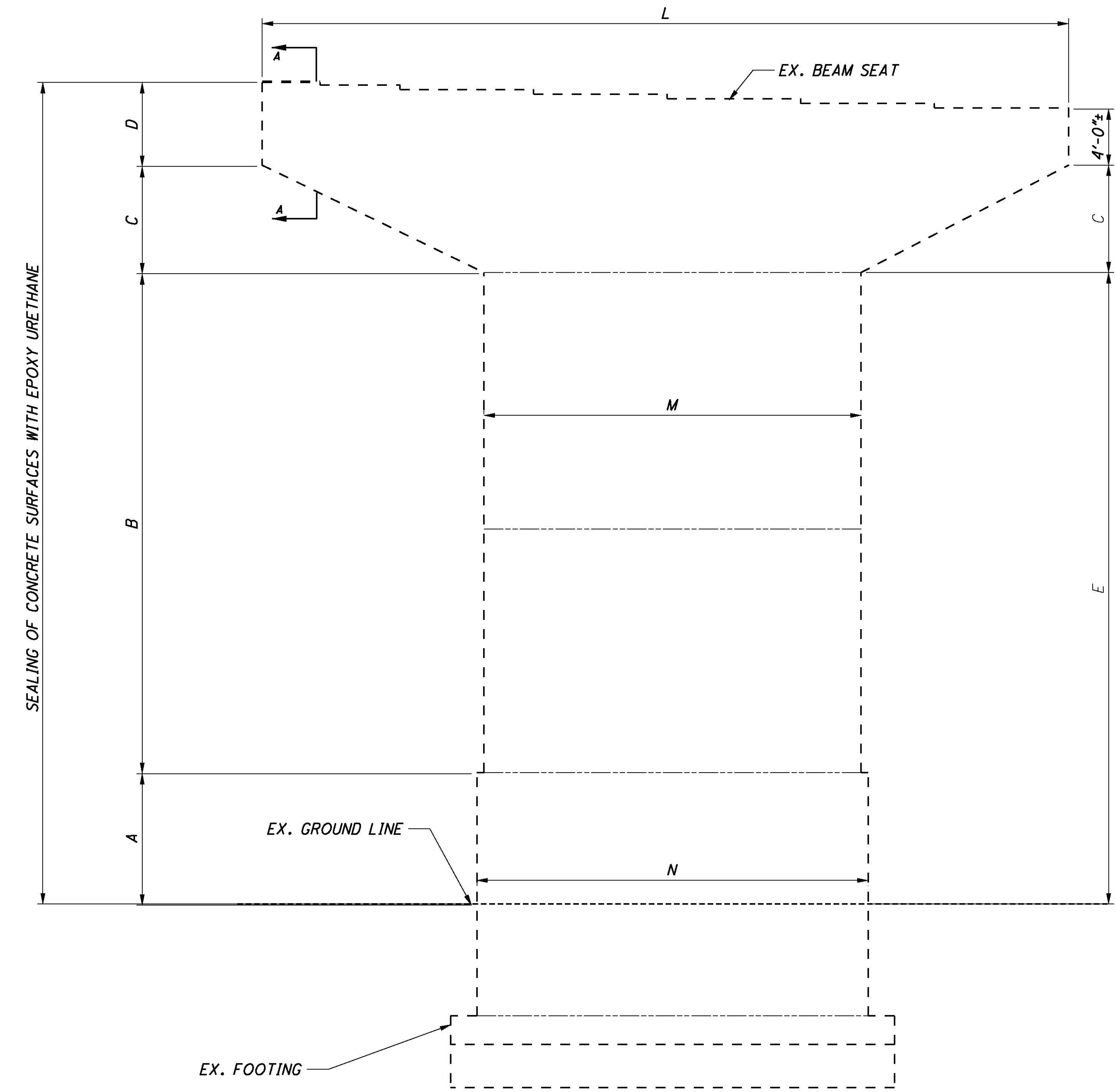
**NOTE:**  
DIMENSIONS SHOWN ARE FROM EXISTING PLANS

**TYPICAL PIER ELEVATION**  
NOTE: PILES NOT SHOWN

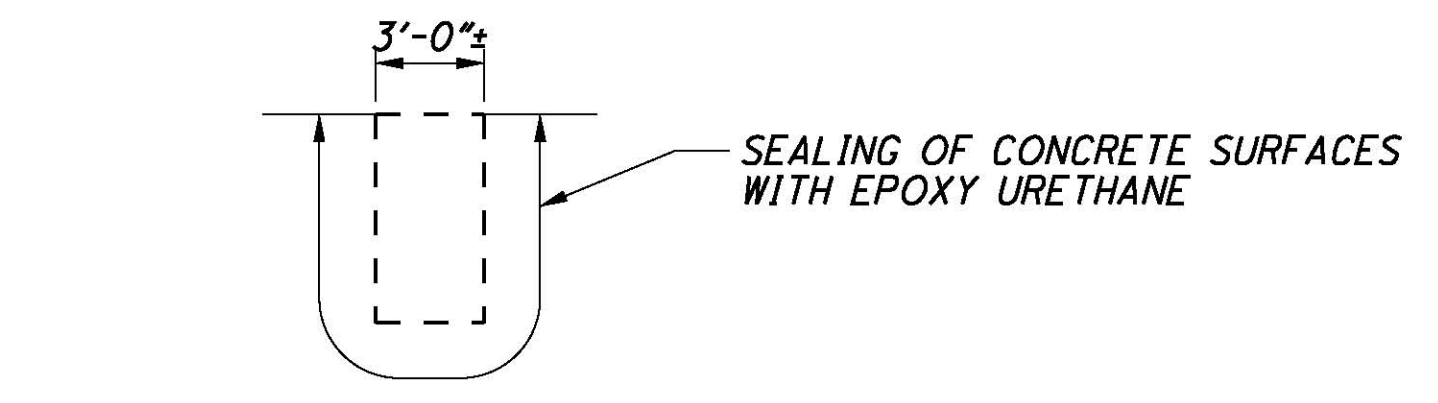
**END VIEW**

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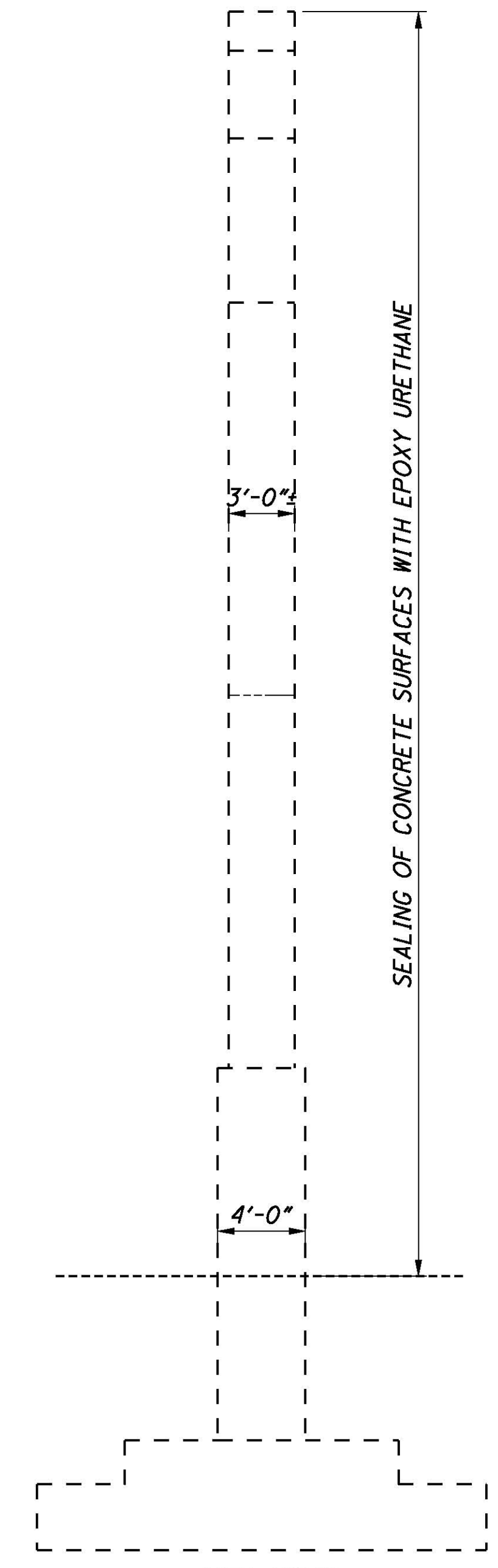
TABLE OF PIER DIMENSIONS				
	WESTBOUND (LEFT) BRIDGE		EASTBOUND (RIGHT) BRIDGE	
DIM.	PIER 2	PIER 3	PIER 2	PIER 3
A	8'-11 <sup>3</sup> / <sub>4</sub> "±	1'-10 <sup>3</sup> / <sub>4</sub> "±	6'-6"±	8'-9"±
B	34'-11"±	34'-11"±	36'-2 <sup>1</sup> / <sub>2</sub> "±	36'-8 <sup>1</sup> / <sub>4</sub> "±
C	7'-6"±	7'-6"±	8'-0"±	8'-0"±
D	5'-9 <sup>1</sup> / <sub>2</sub> "±	5'-10 <sup>1</sup> / <sub>4</sub> "±	5'-2"±	5'-2"±
E	43'-10 <sup>3</sup> / <sub>4</sub> "±	36'-9 <sup>3</sup> / <sub>4</sub> "±	41'-0 <sup>1</sup> / <sub>4</sub> "±	43'-0 <sup>1</sup> / <sub>4</sub> "±
L	56'-4"±	57'-8"±	48'-2"±	48'-2"±
M	26'-4"±	27'-8"±	20'-2"±	20'-2"±
N	27'-4"±	28'-8"±	21'-2"±	21'-2"±



**TYPICAL PIER ELEVATION**  
NOTE: PILES NOT SHOWN



**SECTION A-A**



**END VIEW**

**NOTE:**  
DIMENSIONS SHOWN ARE FROM EXISTING PLANS

DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
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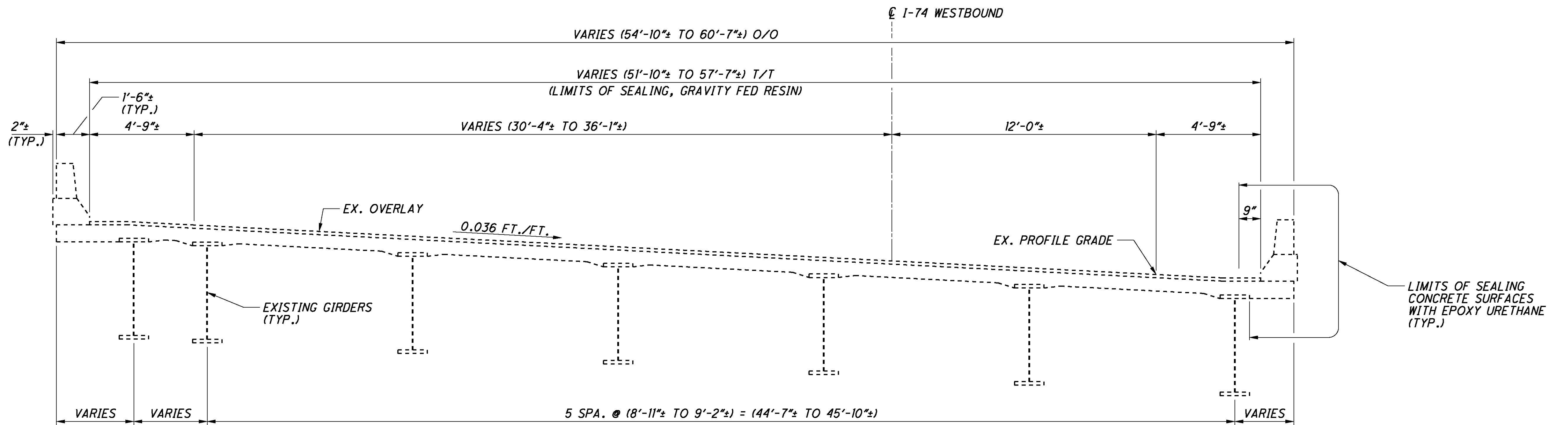
DATE 11/11  
REVIEWED KVB  
DRAWN DJC  
DESIGNED SK  
CHECKED LYH  
STRUCTURE FILE NUMBER 3108376(L) 3108406(R)

**PIERS 2 & 3 DETAILS**  
BRIDGE NO. HAM-74-0911 L&R  
I-74 OVER C.R. 148 AND TAYLOR CREEK

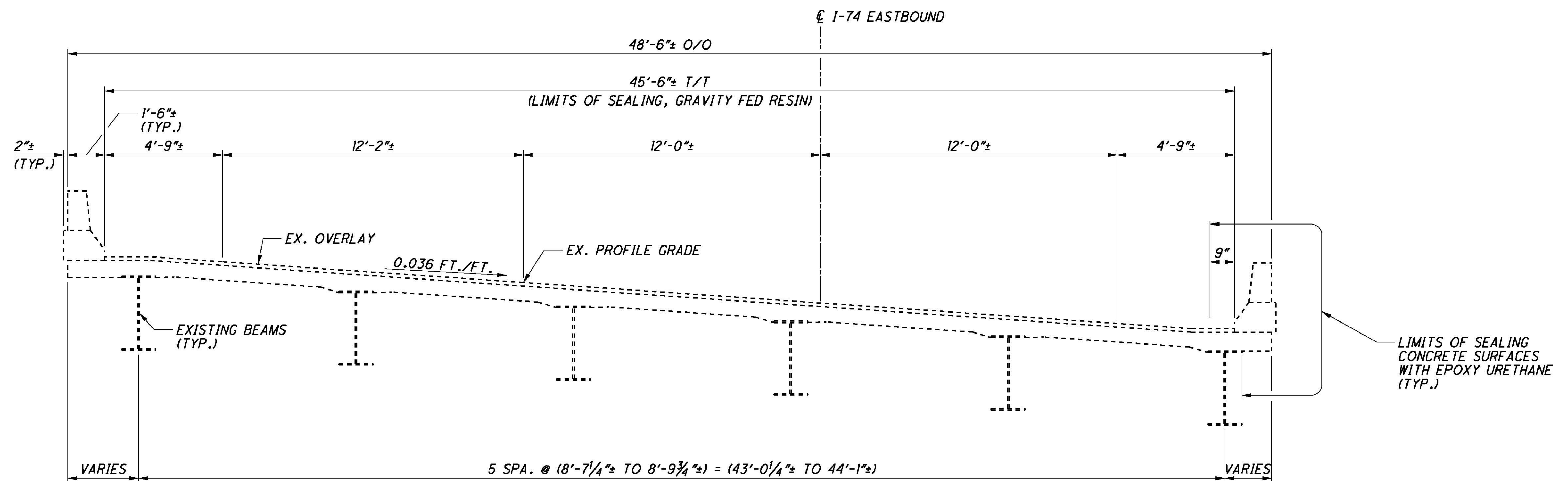
**HAM-74-5.53**  
PID No. 83011

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**WESTBOUND BRIDGE TRANSVERSE SECTION**



**EASTBOUND BRIDGE TRANSVERSE SECTION**

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DESIGN AGENCY  
**Mead & Hunt**  
 5900 WILCOX PLACE  
 DUBLIN, OH 43066  
 (614) 792-5600 PHONE  
 (614) 792-5601 FAX

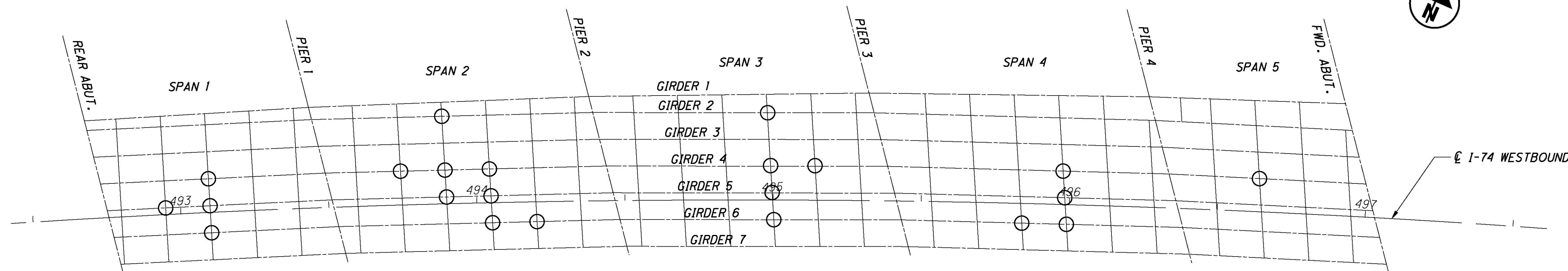
DESIGNED	SK	CHECKED	L Y H
DRAWN	D J C	REVISED	
REVIEWED	K V B	STRUCTURE FILE NUMBER	3108376(L) 3108406(R)
DATE	11/11		

TRANSVERSE SECTION  
 BRIDGE NO. HAM-74-0911 L&R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-5.53  
 PID No. 83011

14 / 23

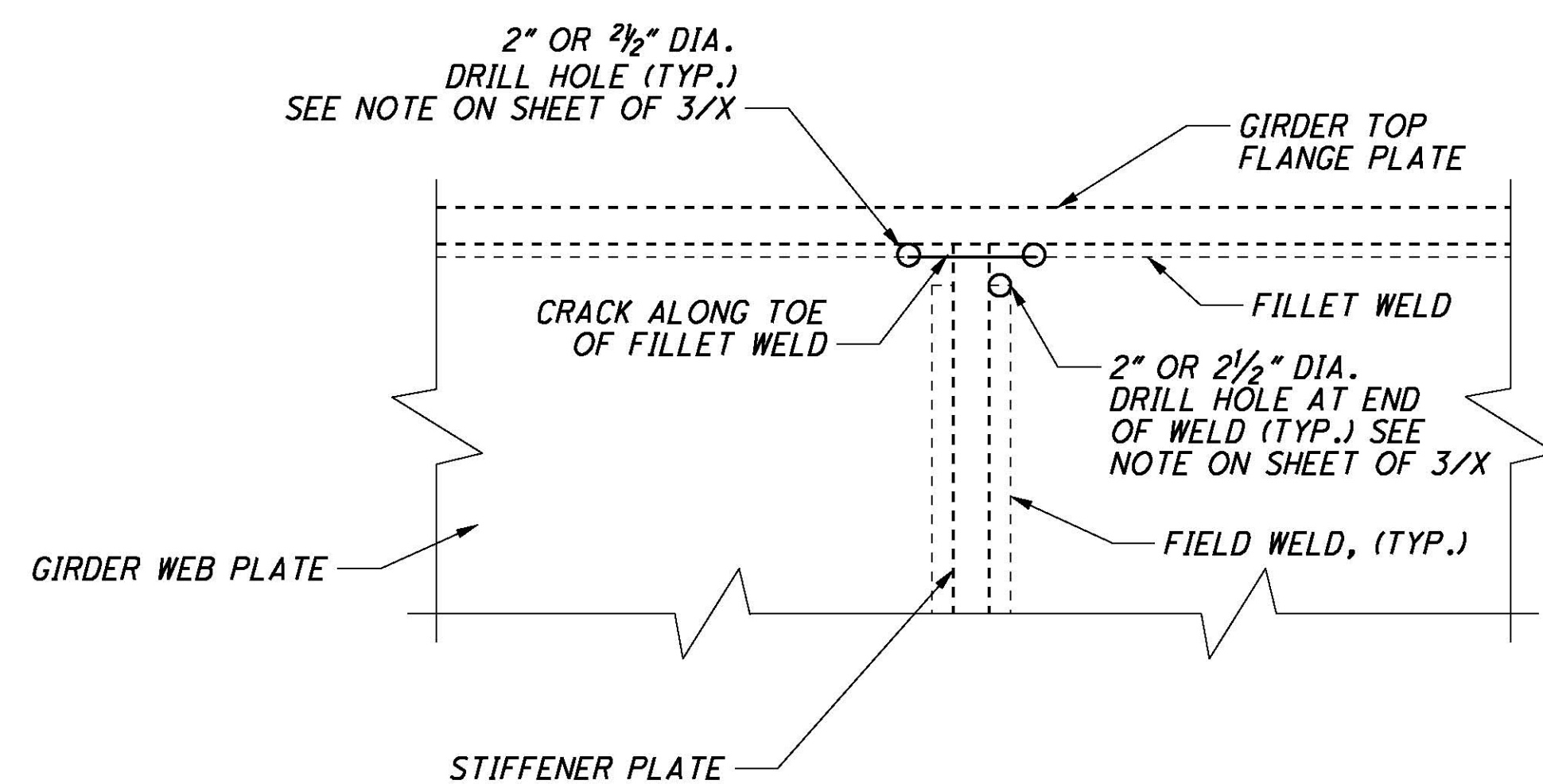
109  
118



**FRAMING PLAN**  
BRIDGE NO. HAM-74-0911L

GIRDER DETAILS		
	WEB PLATE	FLANGE PLATE
GIRDERS 1-7	51" x 5/16"	VARIABLES, 16" x 1/8" MIN. TO 16" x 2" MAX.

REPAIR LOCATIONS			
	SPAN/GIRDER	ABUT./PIER	CROSSFRAME
LOCATION 1	SPAN 1/GIRDER 5	REAR ABUT.	SECOND
LOCATION 2	SPAN 1/GIRDER 4	REAR ABUT.	THIRD
LOCATION 3	SPAN 1/GIRDER 5	REAR ABUT.	THIRD
LOCATION 4	SPAN 1/GIRDER 6	REAR ABUT.	THIRD
LOCATION 5	SPAN 2/GIRDER 4	PIER 1	SECOND
LOCATION 6	SPAN 2/GIRDER 2	PIER 1	THIRD
LOCATION 7	SPAN 2/GIRDER 4	PIER 1	THIRD
LOCATION 8	SPAN 2/GIRDER 5	PIER 1	THIRD
LOCATION 9	SPAN 2/GIRDER 4	PIER 1	FOURTH
LOCATION 10	SPAN 2/GIRDER 5	PIER 1	FOURTH
LOCATION 11	SPAN 2/GIRDER 6	PIER 1	FOURTH
LOCATION 12	SPAN 2/GIRDER 6	PIER 1	FIFTH
LOCATION 13	SPAN 3/GIRDER 2	PIER 2	FOURTH
LOCATION 14	SPAN 3/GIRDER 4	PIER 2	FOURTH
LOCATION 15	SPAN 3/GIRDER 5	PIER 2	FOURTH
LOCATION 16	SPAN 3/GIRDER 6	PIER 2	FOURTH
LOCATION 17	SPAN 3/GIRDER 4	PIER 2	FIFTH
LOCATION 18	SPAN 4/GIRDER 6	PIER 3	THIRD
LOCATION 19	SPAN 4/GIRDER 4	PIER 3	FOURTH
LOCATION 20	SPAN 4/GIRDER 5	PIER 3	FOURTH
LOCATION 21	SPAN 4/GIRDER 6	PIER 3	FOURTH
LOCATION 22	SPAN 5/GIRDER 4	PIER 4	THIRD



**TYPICAL CRACK REPAIR**  
(CROSSFRAMES NOT SHOWN)

**LEGEND:**

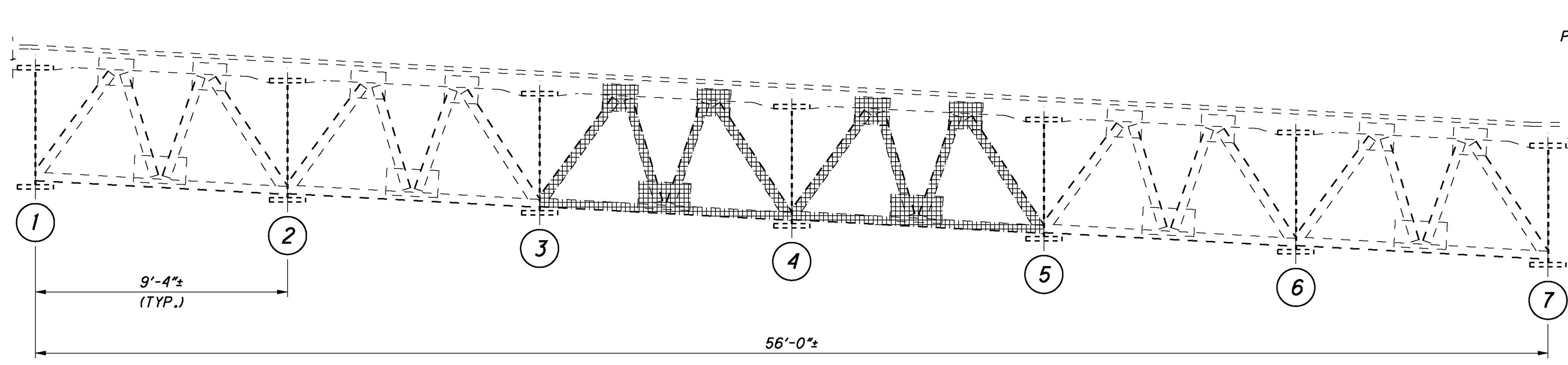
○ - DENOTES REPAIR LOCATION

**WORK REQUIRED:**

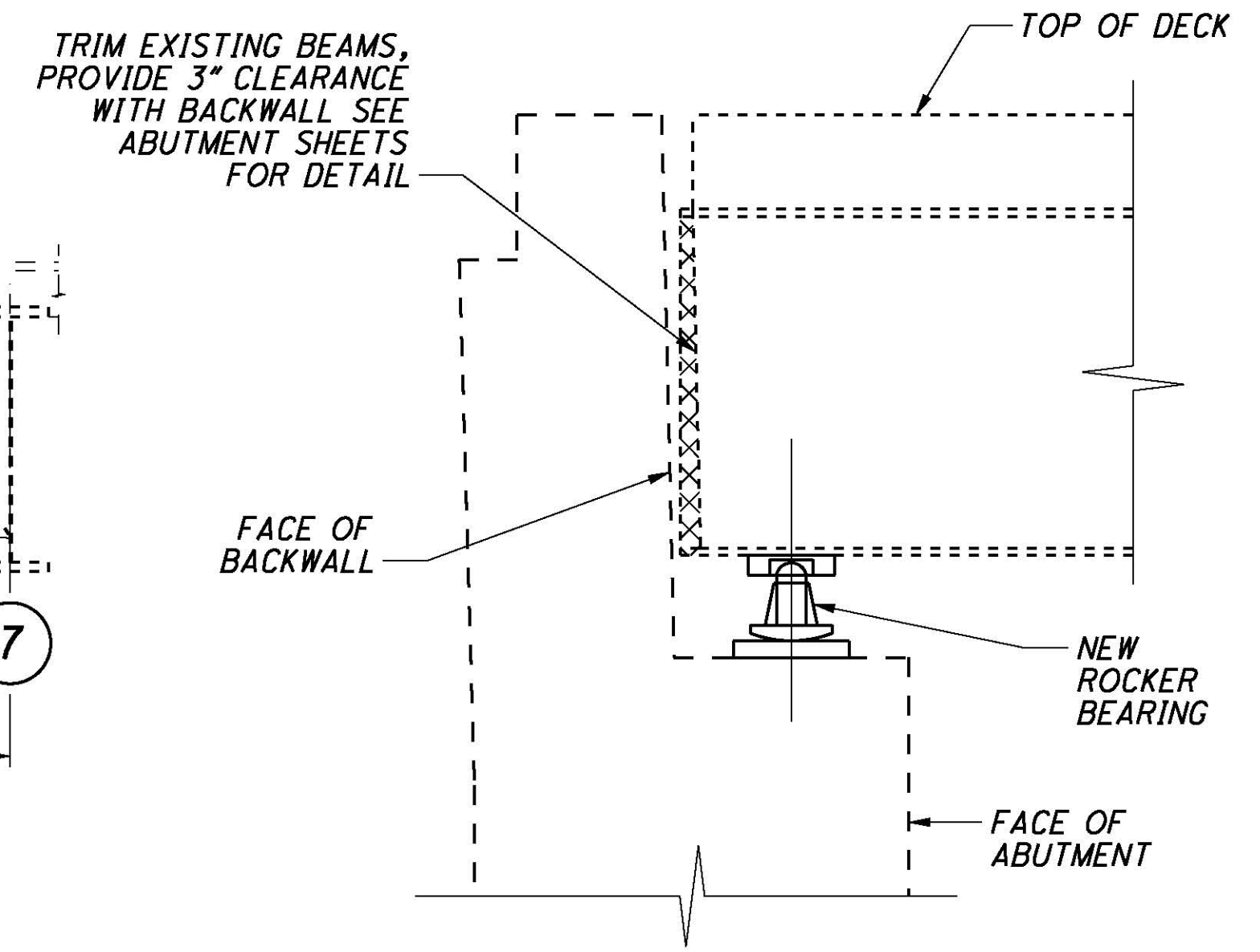
1. AT LOCATIONS SHOWN ON THE PLAN AND APPROVED BY THE ENGINEER, LOCATE THE ENDS OF THE CRACK BY PERFORMING PENCIL ABRASIVE BLASTING, GRINDING AND NDT AS PER PLAN NOTE.
2. USING THE PROCEDURE DESCRIBED IN THE PLAN NOTE, DETERMINE THE APPROPRIATE DIAMETER HOLE AND LOCATE THE HOLE TO COMPLETELY REMOVE THE DEFECT OR ARREST THE CRACK PROPAGATION.
3. DRILL REPAIR HOLE. GRIND AND PERFORM NDT TO ASSURE THE CRACK END HAS BEEN REMOVED. DO NOT, IN ANY CASE, DRILL OR GRIND THE TOP FLANGE PLATE.
4. REPAIR THE AREA OF DAMAGED COATING IN ACCORDANCE WITH THE PLAN NOTE.

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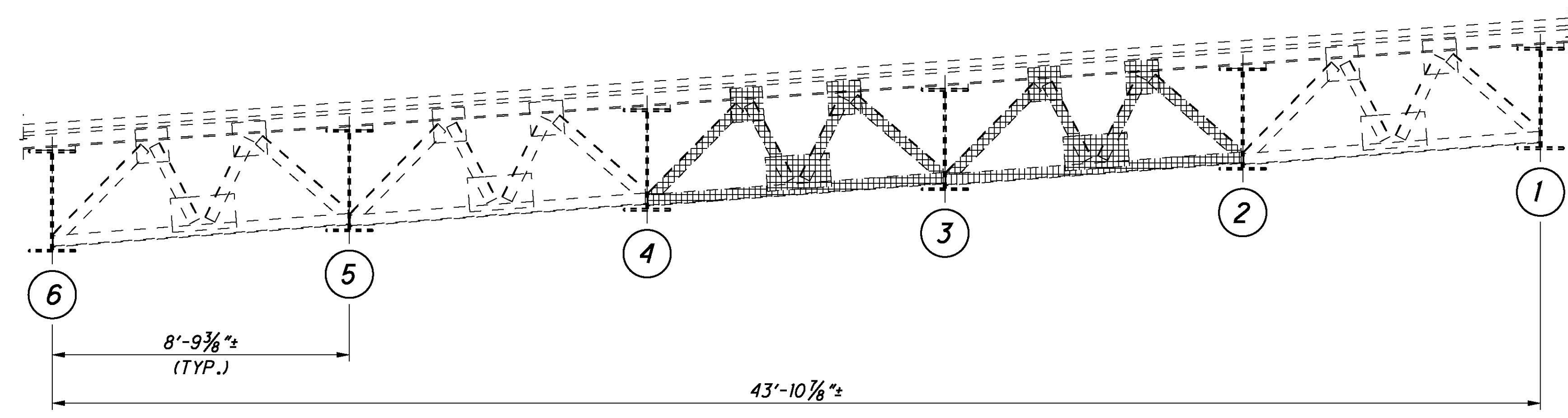




**EXISTING END CROSSFRAMES**  
(WESTBOUND FORWARD ABUTMENT)

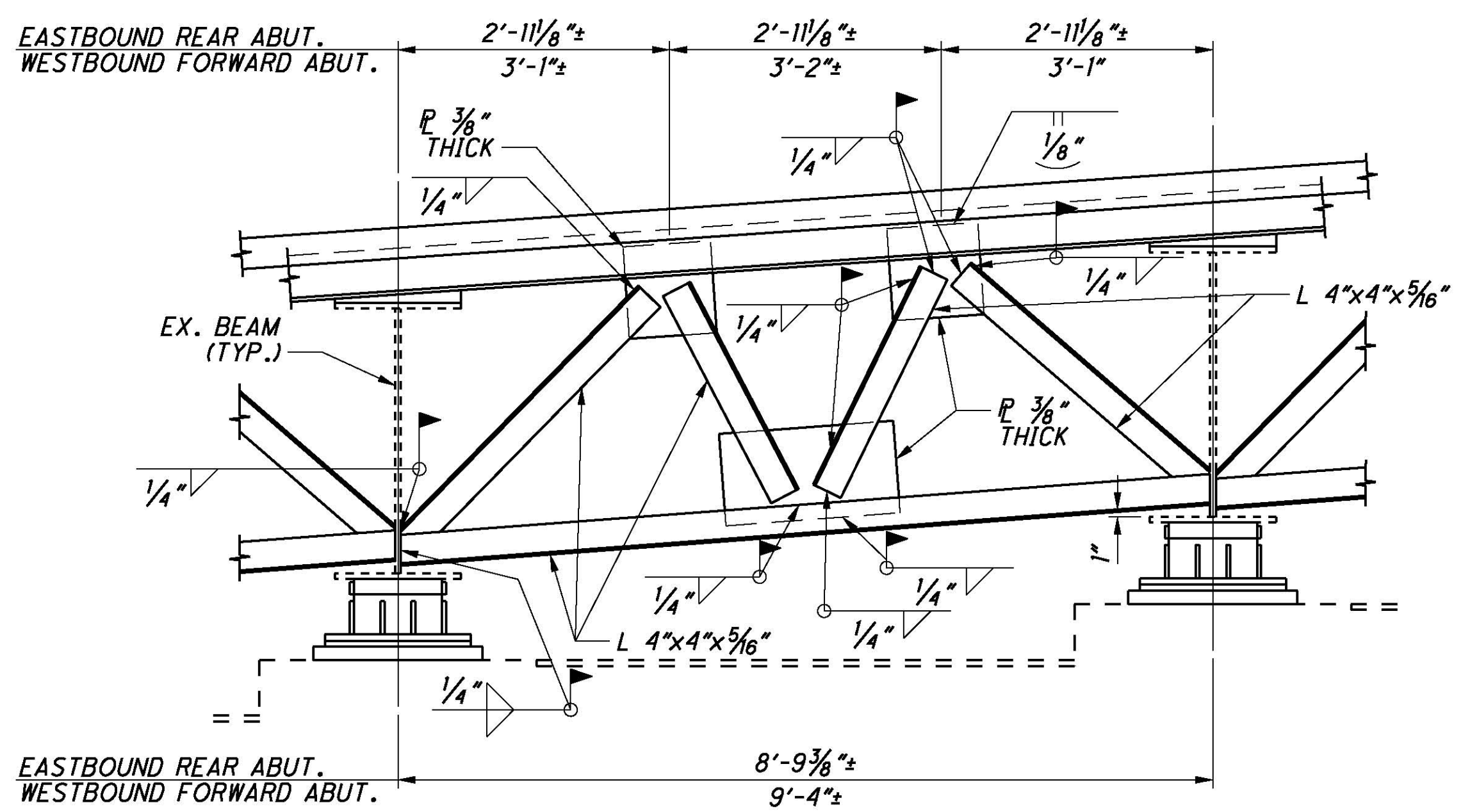


**BEARING REPLACEMENT DETAIL**



**EXISTING END CROSSFRAMES**  
(EASTBOUND REAR ABUTMENT)

EXISTING ROCKER BEARING THICKNESS				
BEAM	LEFT BRIDGE ABUTMENT		RIGHT BRIDGE ABUTMENT	
	REAR (INCH)	FORWARD (INCH)	REAR (INCH)	FORWARD (INCH)
1	22 1/2"±	13 1/2"±	12 1/4"±	13 3/4"±
2	22 1/2"±	13 1/2"±	12"±	14"±
3	21"±	13 1/2"±	11 3/4"±	13 3/4"±
4	19 3/4"±	13 1/2"±	11 1/2"±	13 1/2"±
5	18 3/4"±	13 3/4"±	11 1/2"±	13 1/2"±
6	17 1/2"±	13 1/2"±	10 3/4"±	13 1/4"±
7	16 3/4"±	13 1/2"±	-	-



**TYPICAL CROSSFRAME REPLACEMENT DETAIL**  
(EASTBOUND REAR ABUTMENT SHOWN,  
WESTBOUND FORWARD ABUTMENT SIMILAR)

**NOTES:**

1. ITEM 516 - BEARING DEVICE, ROCKER, AS PER PLAN: THIS ITEM SHALL INCLUDE COMPLETE REPLACEMENT OF AN ABUTMENT ROCKER BEARING AS DIRECTED BY THE ENGINEER. THE ROCKERS SHALL BE CONSTRUCTED PER STANDARD DRAWING RB-1-55 AND OF THE SAME CAPACITY OF THE EXISTING ROCKERS. INCLUDED IN THIS ITEM SHALL BE THE DISASSEMBLY AND REMOVAL OF THE EXISTING BEARING, REPLACEMENT OF THE UPPER PLATE, ROCKER, LOWER PLATE, STEEL SHIM, AND PREFORMED BEARING PADS (711.21). ONLY ONE STEEL SHIM PLATE AND ONE PREFORMED BEARING PAD WILL BE ALLOWED TO OBTAIN THE PROPER FIT-UP. BOTH SHALL BE OF THE SAME PLAN AREAS AS THE MASONRY PLATE AND THE SHIM PLATE SHALL BE FULLY WELDED AROUND THE PERIMETER TO THE LOWER PLATE. THE BEARINGS SHALL BE VERTICALLY ALIGNED AT 60 DEGREES FAHRENHEIT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THOROUGH FIELD MEASUREMENTS AND ADJUSTING AS REQUIRED TO ENSURE ALL BEARING SURFACES ARE IN FULL CONTACT. ADJUSTMENTS REQUIRED TO ACHIEVE FULL BEARINGS SHALL NOT CAUSE OTHER BEARINGS TO "FLOAT". THE LOCATIONS ARE AS FOLLOWS:

- BRIDGE# HAM-74-0911 L
  - REPLACE R-125 ABUTMENT ROCKERS AT REAR ABUTMENT
  - REPLACE R-100 ABUTMENT ROCKERS AT FORWARD ABUTMENT.
- BRIDGE# HAM-74-0911 R
  - REPLACE R-100 ABUTMENT ROCKERS AT REAR ABUTMENT
  - REPLACE R-100 ABUTMENT ROCKERS AT FORWARD ABUTMENT.

- 2. SURFACE PAINT COURSE FOR STRUCTURAL STEEL SHALL MATCH EXISTING PAINT COLOR.
- 3. CROSSFRAME REPLACEMENT:  
EXISTING ADJACENT CROSSFRAME MEMBERS SHOULD NOT BE REMOVED AT THE SAME TIME TO ENSURE BEAM STABILITY.

**LEGEND:**

- ① - BEAM NUMBER
- REPLACE EXISTING CROSSFRAME

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DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5600 PHONE  
(614) 792-5601 FAX

DATE  
01/12

REVIEWED  
MAB

DRAWN  
DJC

DESIGNED  
SK

CHECKED  
LYH/KVB

STRUCTURE FILE NUMBER  
3108376 (L) 3108406 (R)

**BEARING & CROSSFRAME DETAILS**

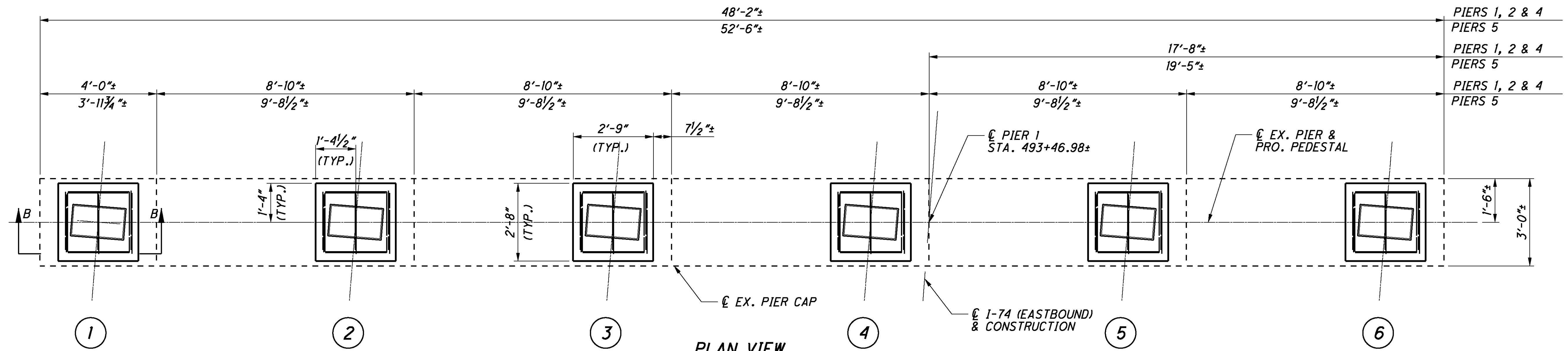
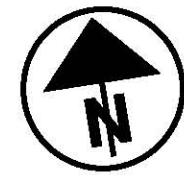
BRIDGE NO. HAM-74-0911 L&R  
I-74 OVER C.R. 148 AND TAYLOR CREEK

**HAM-74-5.53**

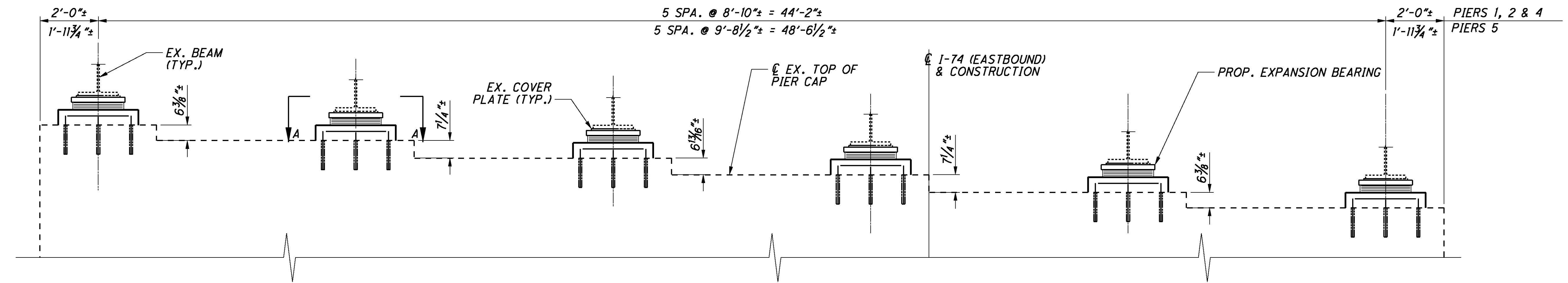
PID No. 83011

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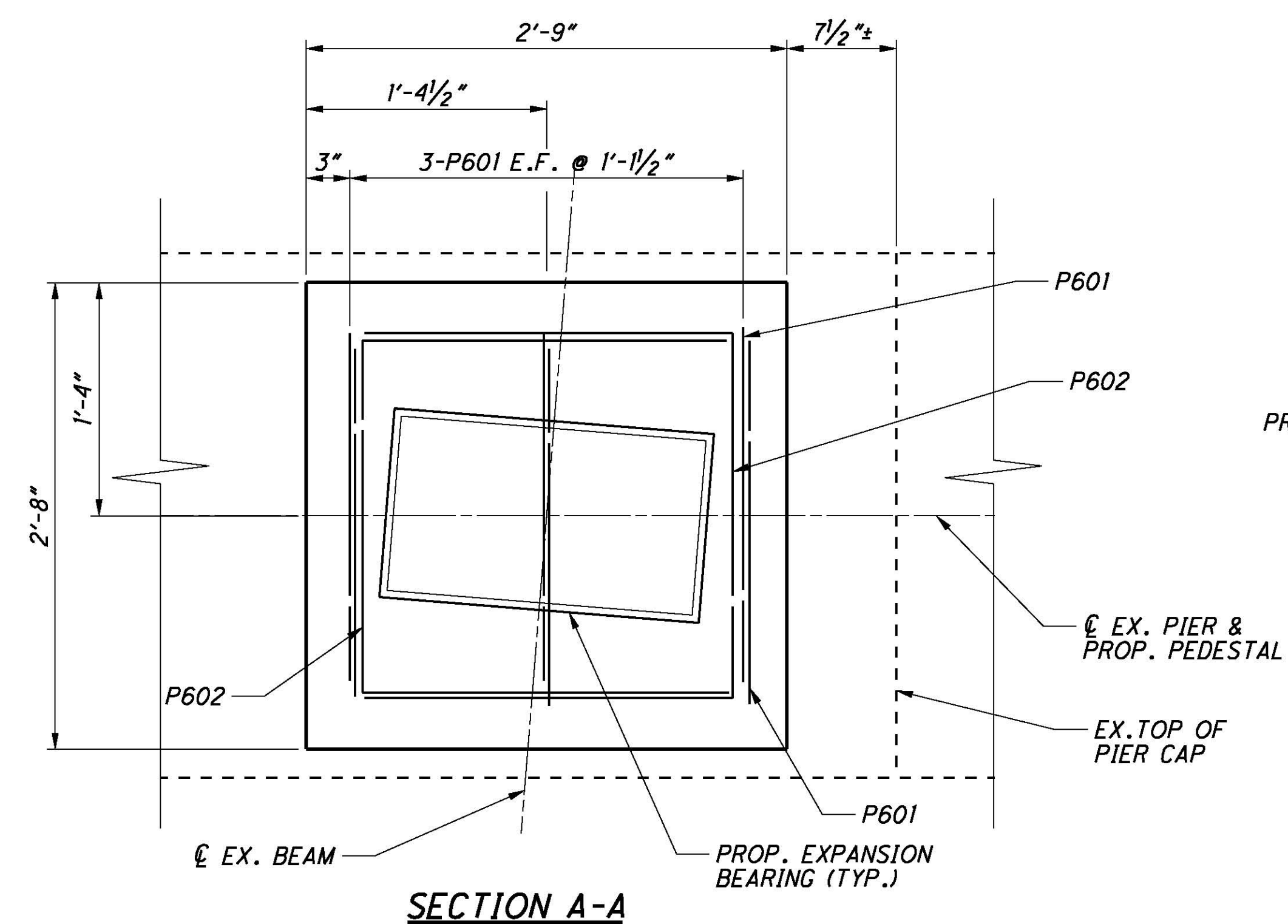
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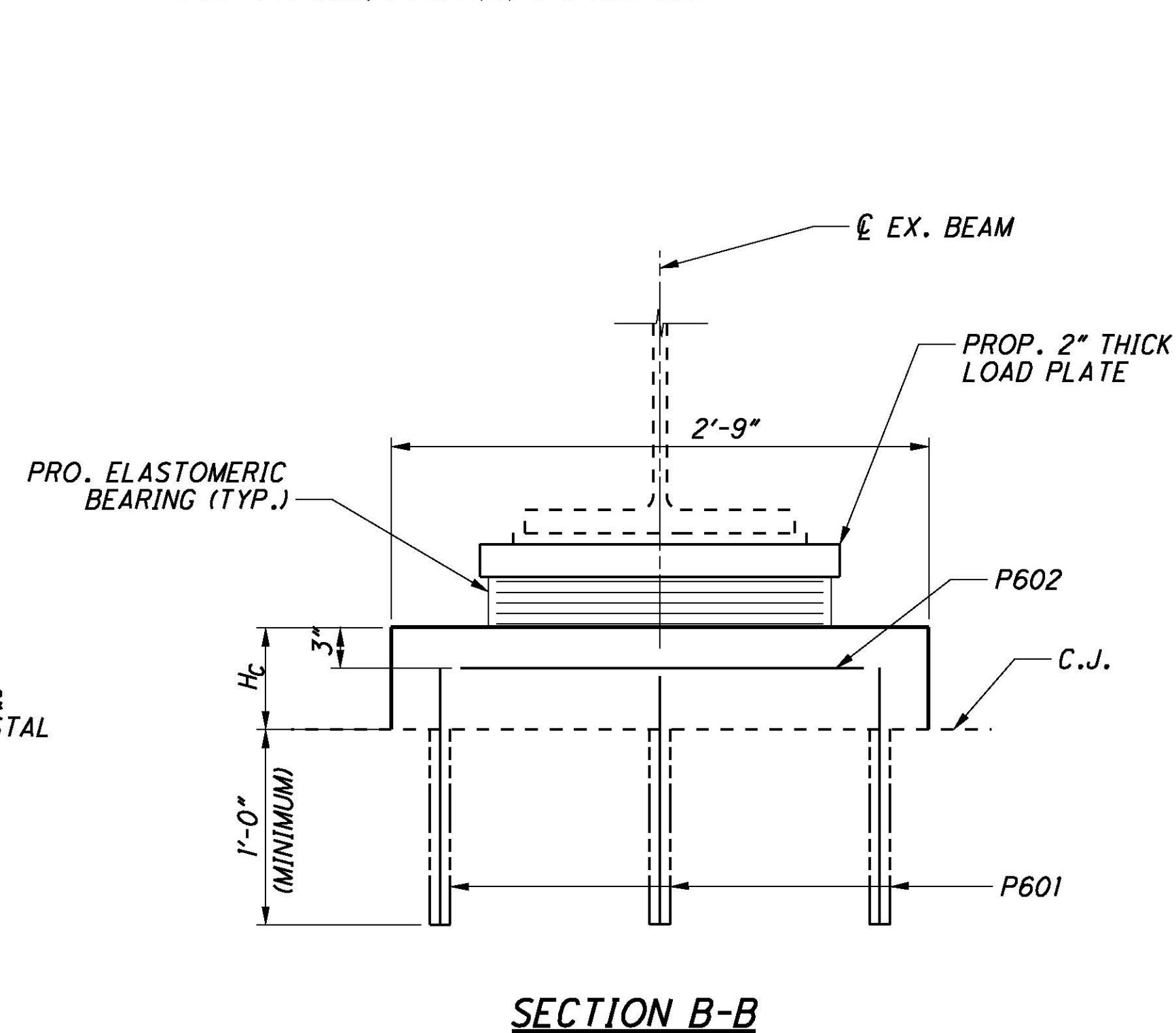
**PLAN VIEW**  
(PIER 1 SHOWN, PIER 2,4, & 5 SIMILAR)



**ELEVATION VIEW**  
(PIER 1 SHOWN, PIER 2,4, & 5 SIMILAR)



**SECTION A-A**



**SECTION B-B**

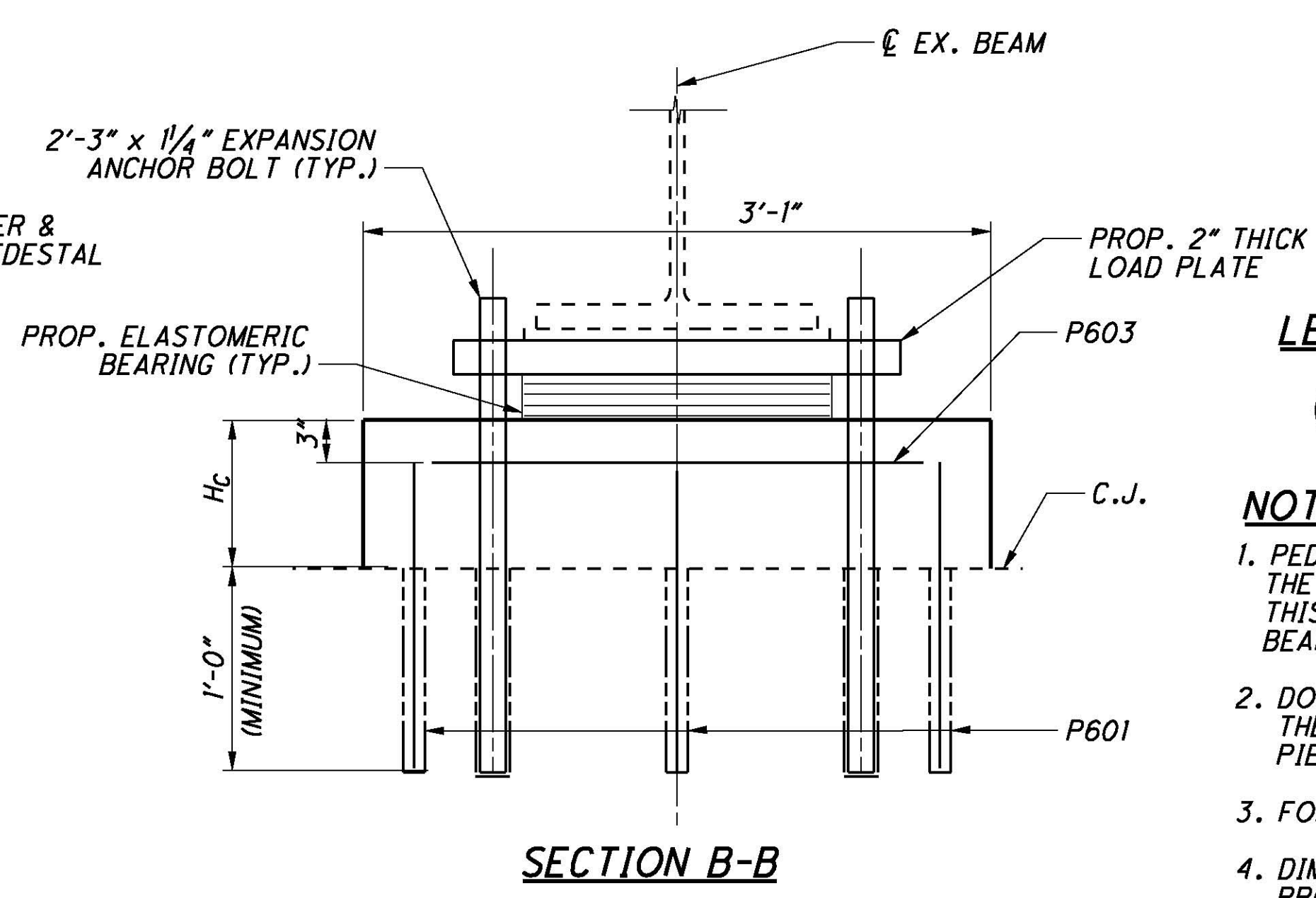
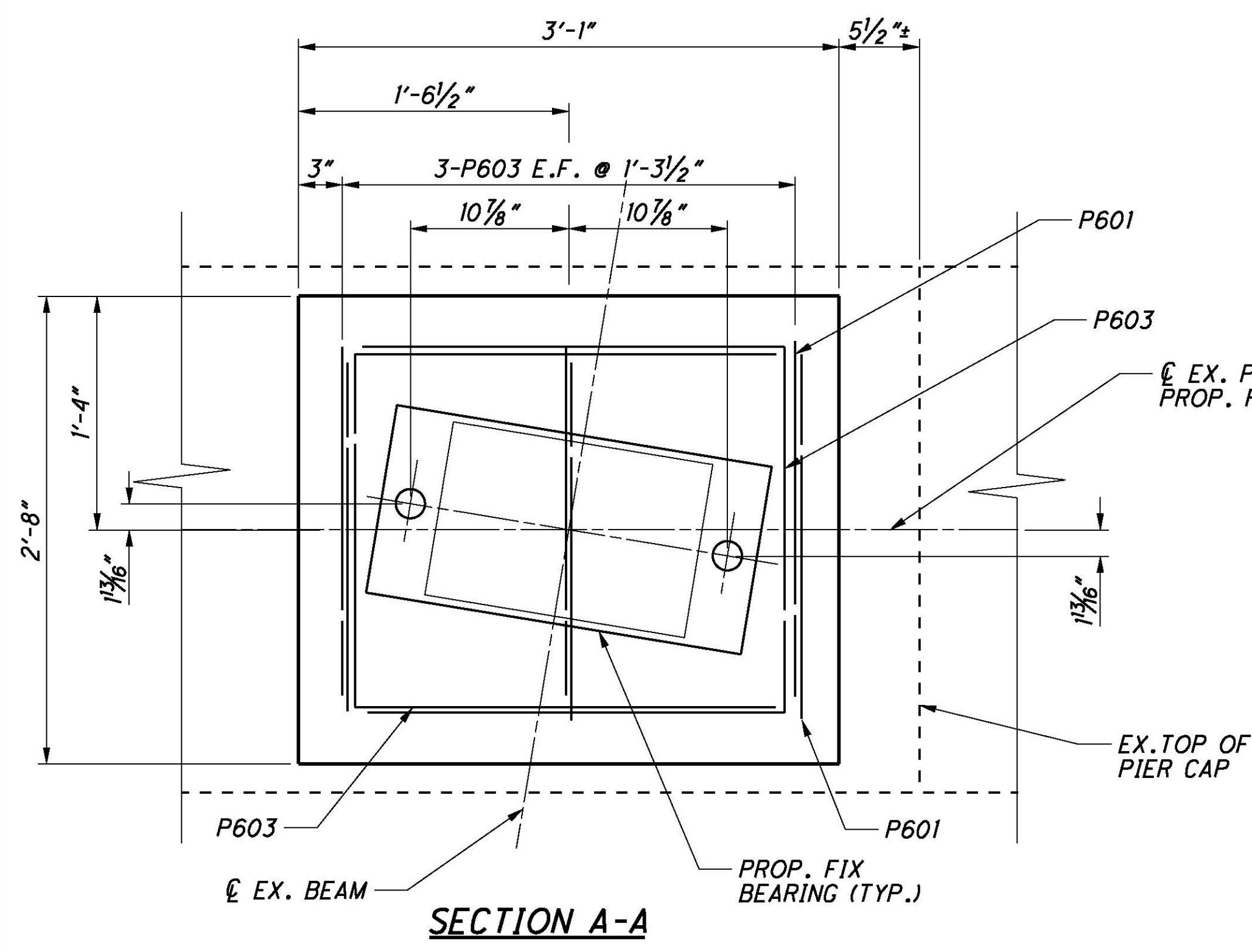
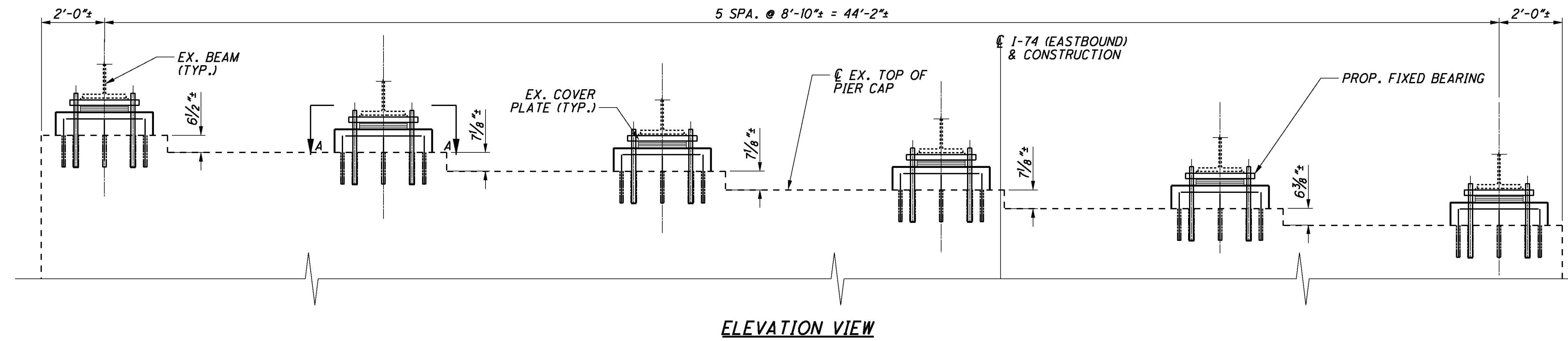
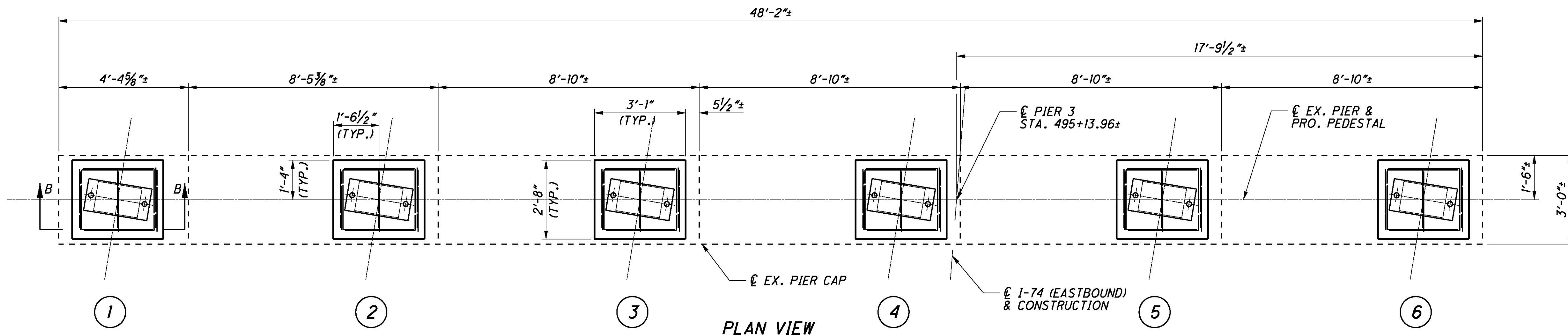
CONCRETE PEDESTAL THICKNESS				
	PIER 1	PIER 2	PIER 4	PIER 5
BEAM	H <sub>c</sub>	H <sub>c</sub>	H <sub>c</sub>	H <sub>c</sub>
①-⑥	6 1/4"	7 3/4"	10 3/8"	11"

**LEGEND:**  
① - BEAM NUMBER

**NOTES:**

- PEDESTAL THICKNESS (H<sub>c</sub>): THE CONTRACTOR IS TO DETERMINE THE PEDESTAL THICKNESS AT EACH BEARING LOCATIONS. THIS THICKNESS (H<sub>c</sub>) IS THE FIELD VERIFIED EXISTING BEARING HEIGHT MINUS THE PROPOSED BEAM LOWERING AND PROPOSED BEARING THICKNESS FOR EACH LOCATIONS.
- DOWEL BARS: THE CONTRACTOR IS REQUIRED TO FIELD LOCATE THE EXISTING REINFORCING STEEL IN THE PIER CAP PRIOR TO DRILLING AND GROUTING THE DOWEL BARS.
- FOR ELASTOMERIC BEARING DETAILS SEE SHEET 19 OF 23.
- DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND SUPERSTRUCTURE LOWERING INFORMATION PROVIDED BY DISTRICT 8 OFFICE.

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BEARING PEDESTAL THICKNESS	
	PIER 3
BEAM	$H_c$
①-⑥	$8\frac{3}{4}$ "

**LEGEND:**  
 ① - BEAM NUMBER

- NOTES:**
1. PEDESTAL THICKNESS ( $H_c$ ): THE CONTRACTOR IS TO DETERMINE THE PEDESTAL THICKNESS AT EACH BEARING LOCATIONS. THIS THICKNESS ( $H_c$ ) IS THE FIELD VERIFIED EXISTING BEARING HEIGHT MINUS THE PROPOSED BEAM LOWERING AND PROPOSED BEARING THICKNESS FOR EACH LOCATIONS.
  2. DOWEL BARS: THE CONTRACTOR IS REQUIRED TO FIELD LOCATE THE EXISTING REINFORCING STEEL IN THE PIER CAP PRIOR TO DRILLING AND GROUTING THE DOWEL BARS.
  3. FOR ELASTOMERIC BEARING DETAILS SEE SHEET 20 OF 23.
  4. DIMENSIONS SHOWN ARE FROM EXISTING PLANS AND SUPERSTRUCTURE LOWERING INFORMATION PROVIDED BY DISTRICT 8 OFFICE.

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DESIGN AGENCY: Mead & Hunt  
 5900 WILCOX PLACE, DUBLIN, OH 43006  
 (614) 792-5600 PHONE, (614) 792-5601 FAX

DATE: 11/11  
 REVIEWED: CMS  
 DRAWN: DJC  
 DESIGNED: SK  
 CHECKED: KYB

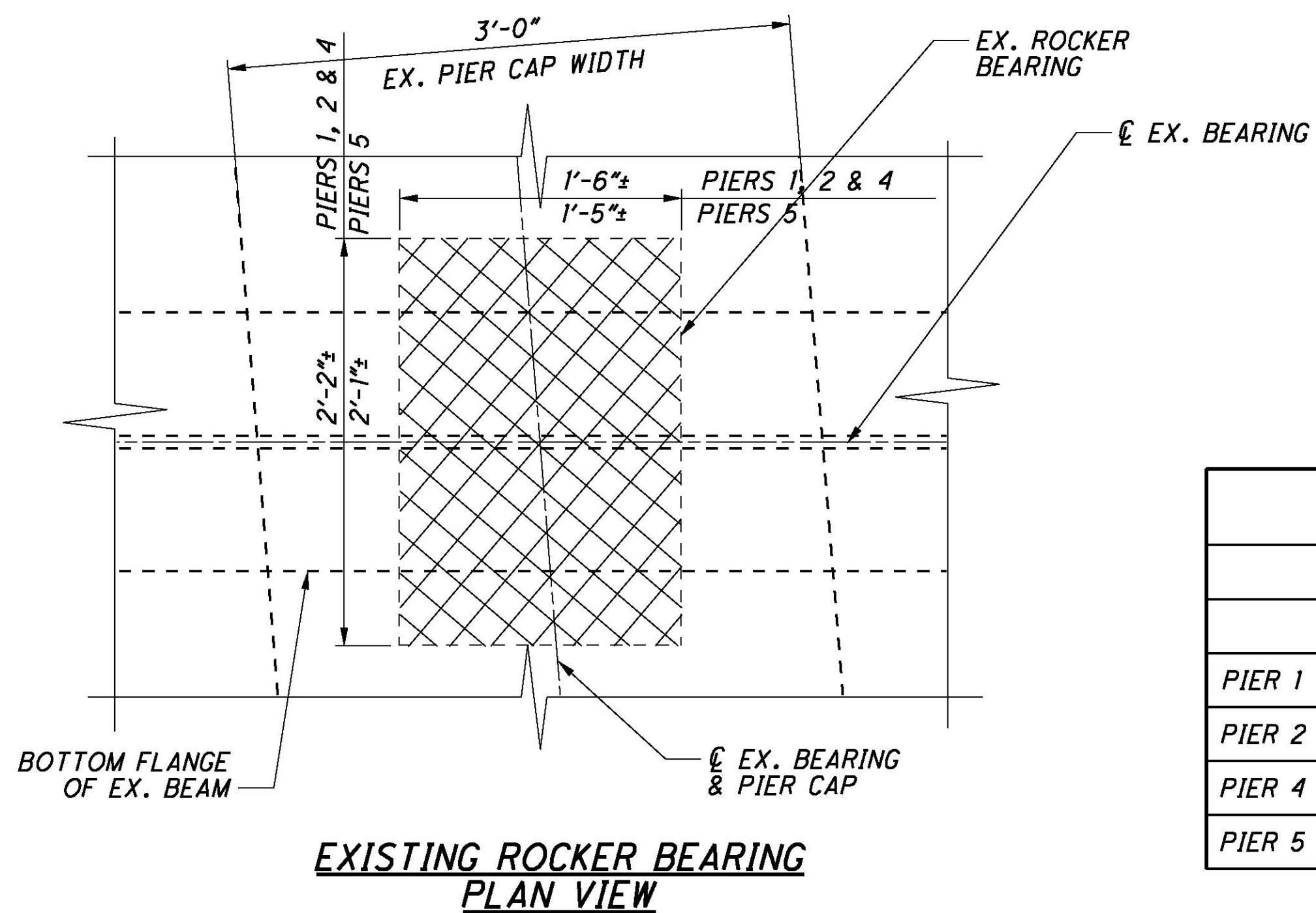
STRUCTURE FILE NUMBER: 3108406

PIERS 3 PEDESTAL DETAILS  
 BRIDGE NO. HAM-74-0911 R  
 I-74 OVER C.R. 148 AND TAYLOR CREEK

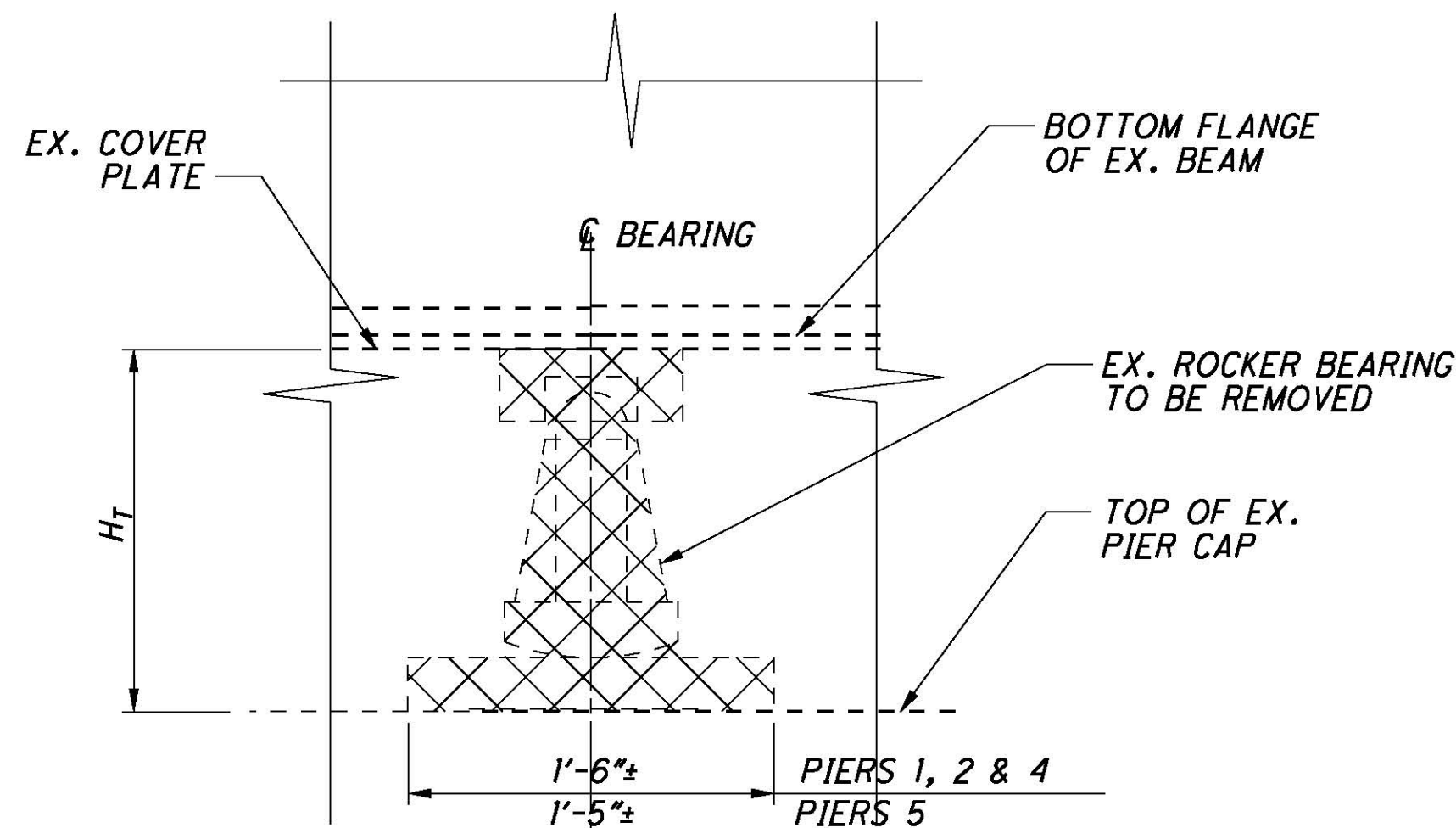
HAM-74-5.53  
 PID No. 83011

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**EXISTING ROCKER BEARING  
PLAN VIEW**

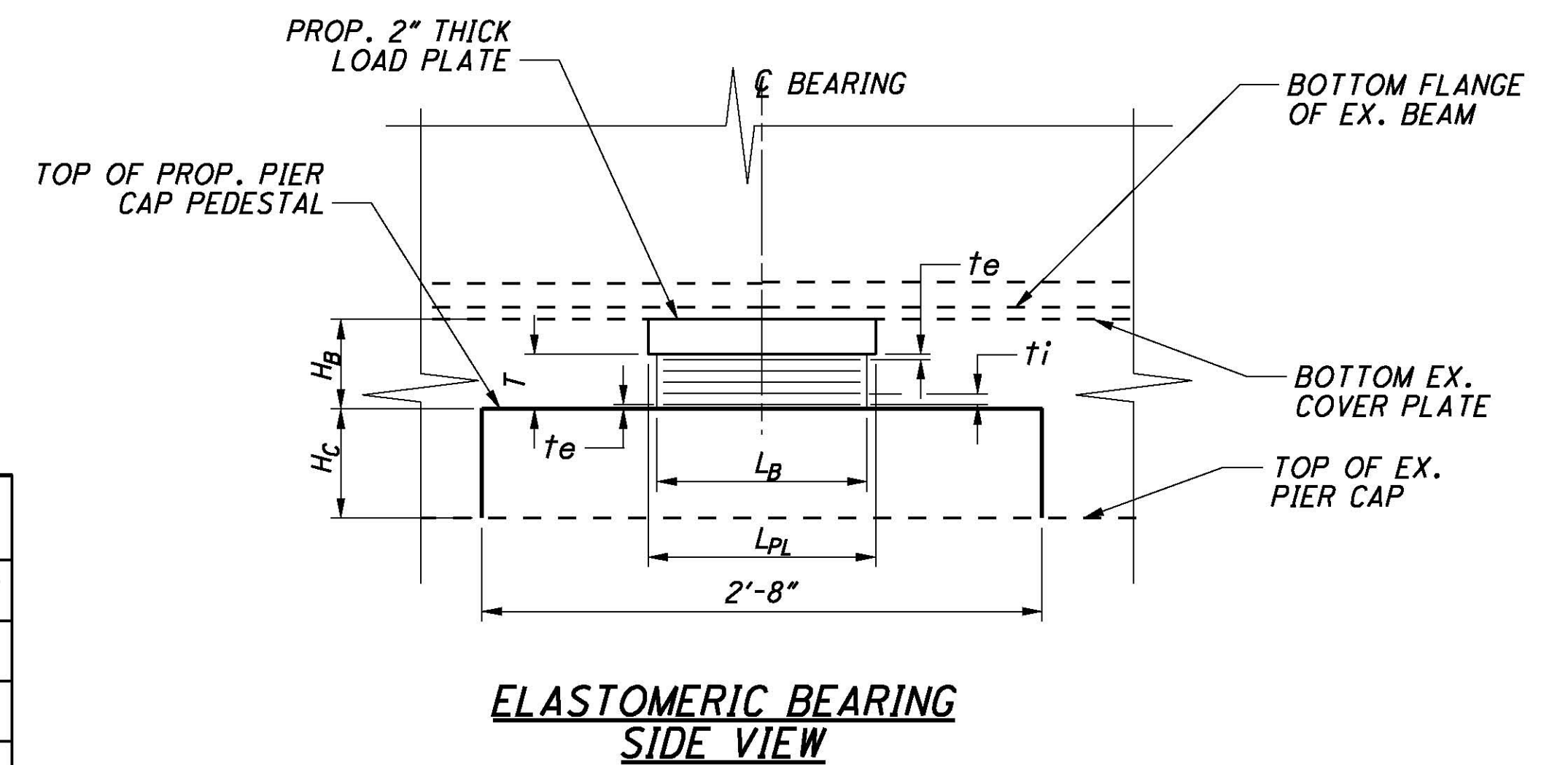


**EXISTING ROCKER BEARING  
ELEVATION VIEW**

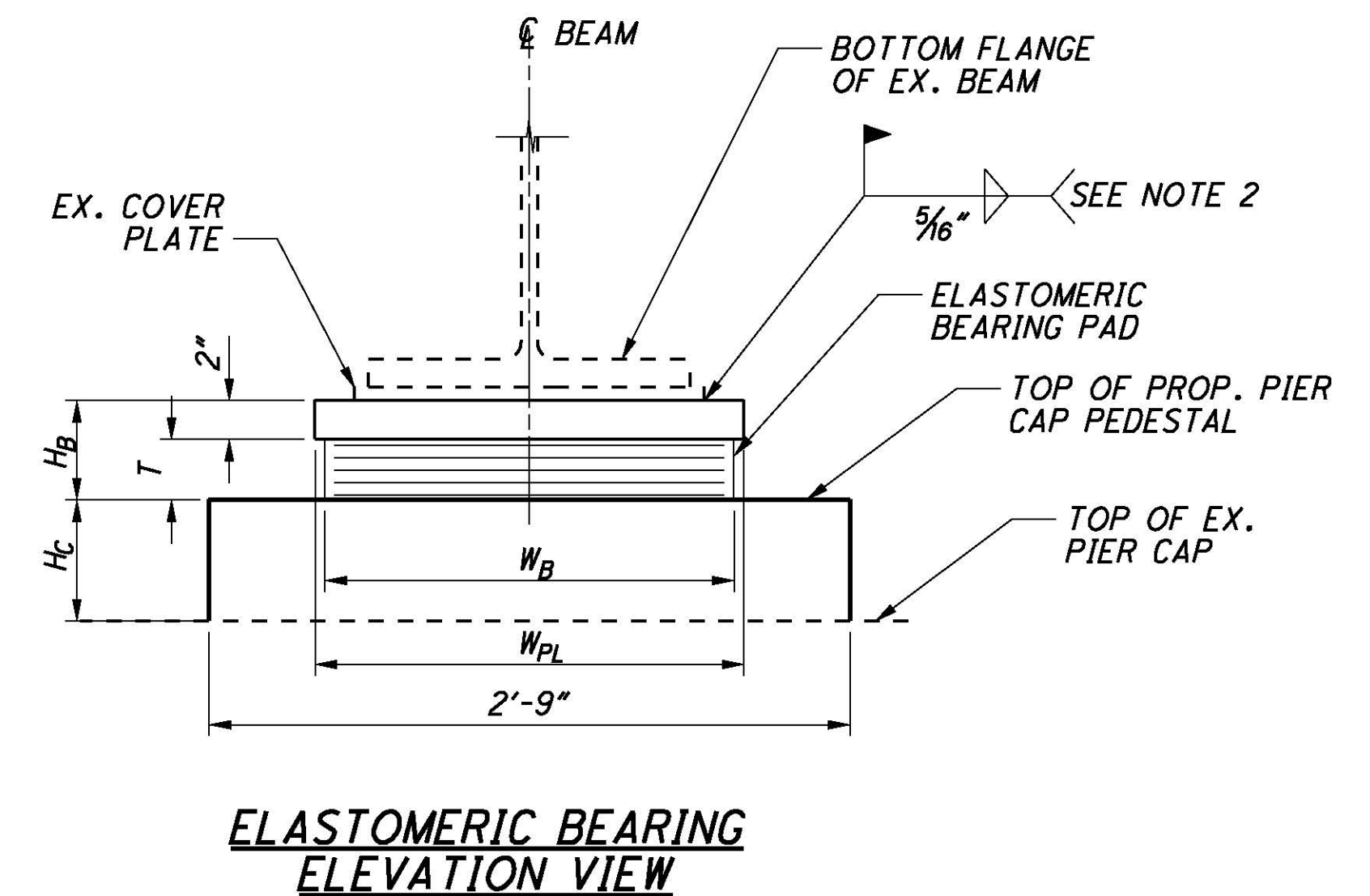
BEARING THICKNESS				
	EX. BEARING	PROP. LOWERING	PROP. BEARING	PROP. PEDESTAL CAP
	HEIGHT (H <sub>T</sub> )	HEIGHT (H <sub>L</sub> )	HEIGHT (H <sub>B</sub> )	HEIGHT (H <sub>C</sub> )
PIER 1	17 3/4"±	6 3/8"	5 1/8"	6 1/4"
PIER 2	17 3/4"±	4 7/8"	5 1/8"	7 3/4"
PIER 4	17 3/4"±	2 1/4"	5 1/8"	10 3/8"
PIER 5	17"±	7/8"	5 1/8"	11"

**LEGEND:**

- EXISTING BEARING REMOVAL



**ELASTOMERIC BEARING  
SIDE VIEW**



**ELASTOMERIC BEARING  
ELEVATION VIEW**

LAMINATED ELASTOMERIC EXPANSION BEARINGS											
LOCATION	BEARING DIMENSIONS						STEEL LOAD PLATE	TOTAL	REACTIONS		MAXIMUM DESIGN LOAD
	L <sub>B</sub>	W <sub>B</sub>	t <sub>i</sub>	t <sub>e</sub>	T	N			L <sub>PL</sub> X W <sub>PL</sub> X T <sub>PL</sub>	H <sub>B</sub>	
PIER 1	12"	21"	0.350"	0.245"	3.11"	7	1'-1" X 1'-10" X 2"	5.11"	179 k	70 k	249 k
PIER 2	12"	21"	0.350"	0.245"	3.11"	7	1'-1" X 1'-10" X 2"	5.11"	170 k	71 k	241 k
PIER 4	12"	21"	0.350"	0.245"	3.11"	7	1'-1" X 1'-10" X 2"	5.11"	171 k	70 k	241 k
PIER 5	12"	21"	0.350"	0.245"	3.11"	7	1'-1" X 1'-10" X 2"	5.11"	159 k	66 k	225 k

t<sub>i</sub> = THICKNESS OF INTERNAL LAYER  
t<sub>e</sub> = THICKNESS OF EXTERNAL LAYER  
T = TOTAL THICKNESS OF ELASTOMERIC BEARING  
H<sub>B</sub> = TOTAL HEIGHT OF BEARING

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

**NOTES:**

- BEARING REPLACEMENT:**  
THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS PRIOR TO THE LOWERING OPERATIONS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO SCOTT KRAMER, DISTRICT 8 BRIDGE DESIGN ENGINEER PRIOR TO THE LOWERING OPERATIONS. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED. THE CONTRACTOR IS TO DETERMINE THE FINAL BEAM SEAT ELEVATIONS AT EACH BEARING LOCATIONS. THIS FINAL BEAM SEAT ELEVATION IS A CONTRACTOR'S EXPENSE AND WILL NEED TO BE APPROVED BY THE DISTRICT 8 BRIDGE DESIGN ENGINEER.
- LOAD PLATE:**  
THE STEEL LOAD PLATE SHALL BE GRADE 50 A572. STRUCTURAL STEEL. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.  
WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300° F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- ELASTOMERIC BEARINGS:**  
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DURAMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.  
BASIS OF PAYMENT:  
THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, SHOP COATING TESTING AND INCIDENTALS NECESSARY TO REMOVE EXISTING BEARINGS AND FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.
- BRIDGE LOWERING:**  
IN ADDITIONAL TO ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN, CONTRACTOR WILL BE REQUIRED TO LOWER THE BRIDGE IN INCREMENTAL STAGES STARTING FROM PIER 1 AND PROCEED FORWARD TOWARDS PIER 5 AT A MAXIMUM LOWERING OF 2.5 INCHES AT ANYONE SUBSTRUCTURE RELATIVE TO ADJACENT SUBSTRUCTURE. ALL COST FOR LOWERING OF SUPERSTRUCTURE SHALL BE INCLUDED WITH ITEM 516 JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
- FOR NEW CONCRETE CAP PEDESTAL DETAILS SEE SHEET 17 OF 23.

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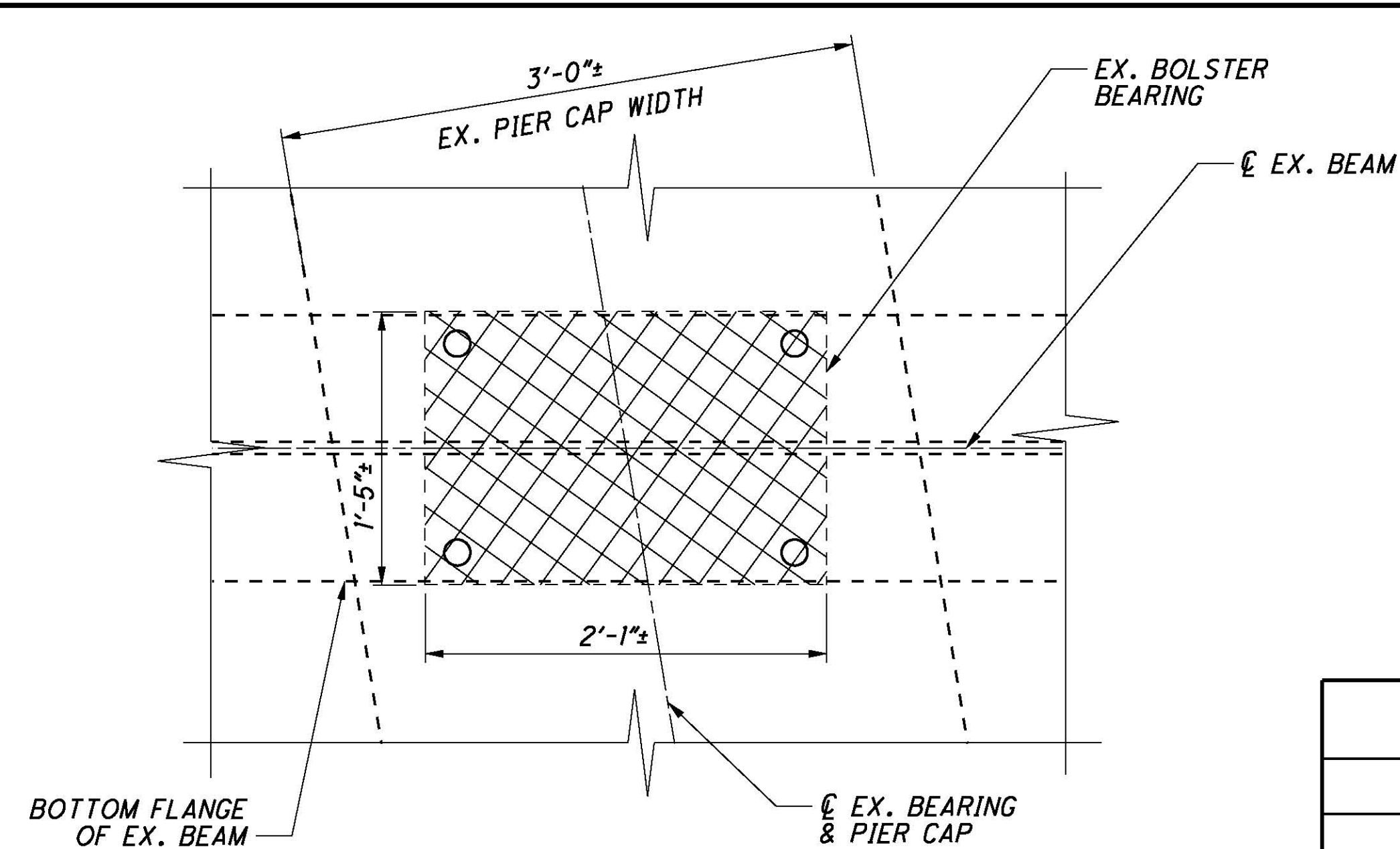
DESIGN AGENCY: Mead & Hunt  
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(614) 792-5600 PHONE (614) 792-5601 FAX

DATE: 11/11  
REVIEWED: CMS  
DRAWN: DJC  
DESIGNED: SK  
CHECKED: KYB  
STRUCTURE FILE NUMBER: 3108406  
REVISION: REVISED

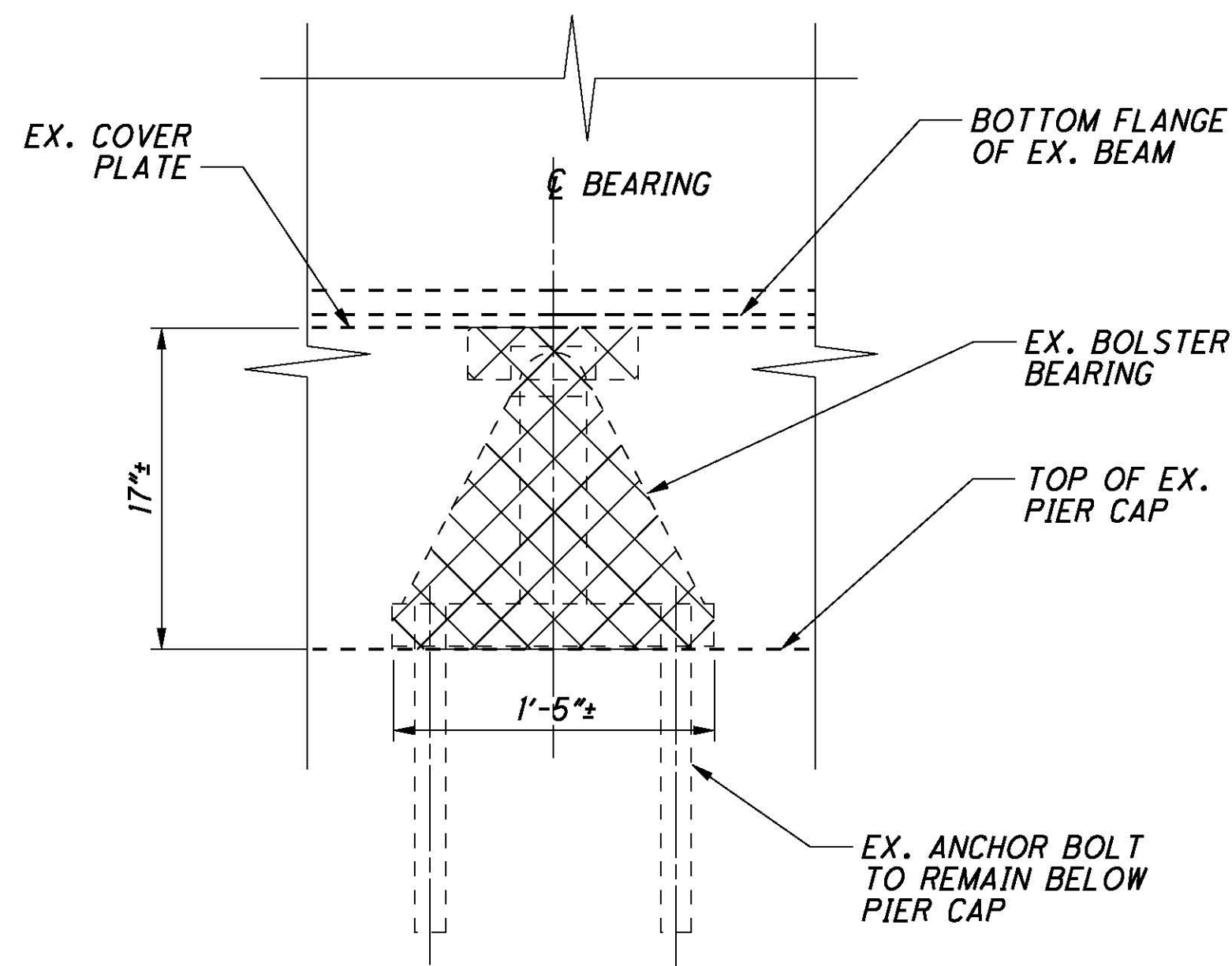
PIERS 1, 2, 4 & 5 EXPANSION BEARING DETAILS  
BRIDGE NO. HAM-74-0911 R  
I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-5.53  
PID No. 83011

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**EXISTING BOLSTER BEARING  
PLAN VIEW**



**EXISTING BOLSTER BEARING  
ELEVATION VIEW**

BEARING THICKNESS				
	EX. BEARING	PROP. LOWERING	PROP. BEARING	PROP. PEDESTAL CAP
	HEIGHT (H <sub>T</sub> )	HEIGHT (H <sub>L</sub> )	HEIGHT (H <sub>B</sub> )	HEIGHT (H <sub>C</sub> )
PIER 3	17"±	3 5/8"	4 5/8"	8 3/4"

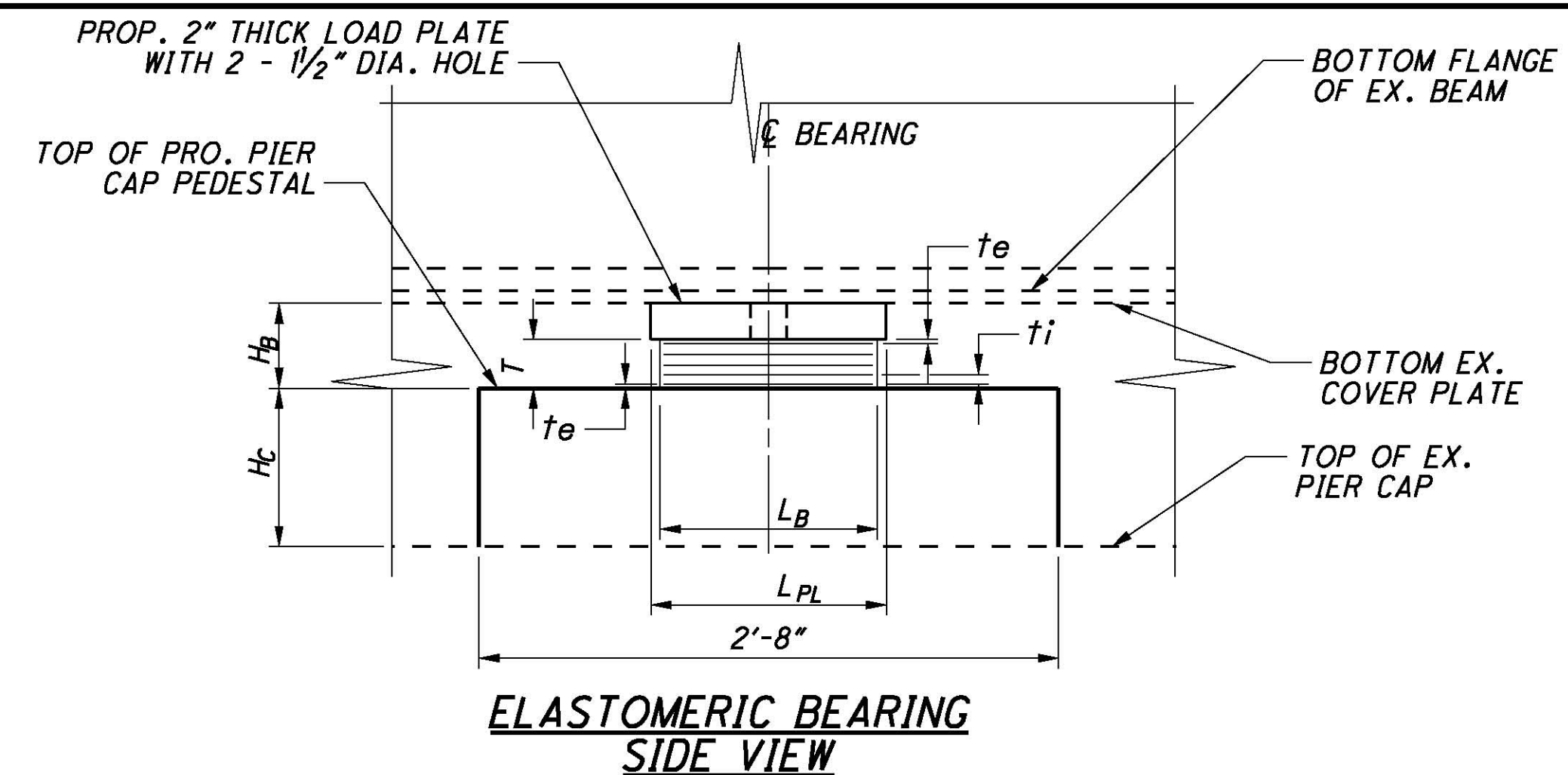
**LEGEND:**

- EXISTING BEARING PORTION OF ANCHOR BOLT REMOVAL

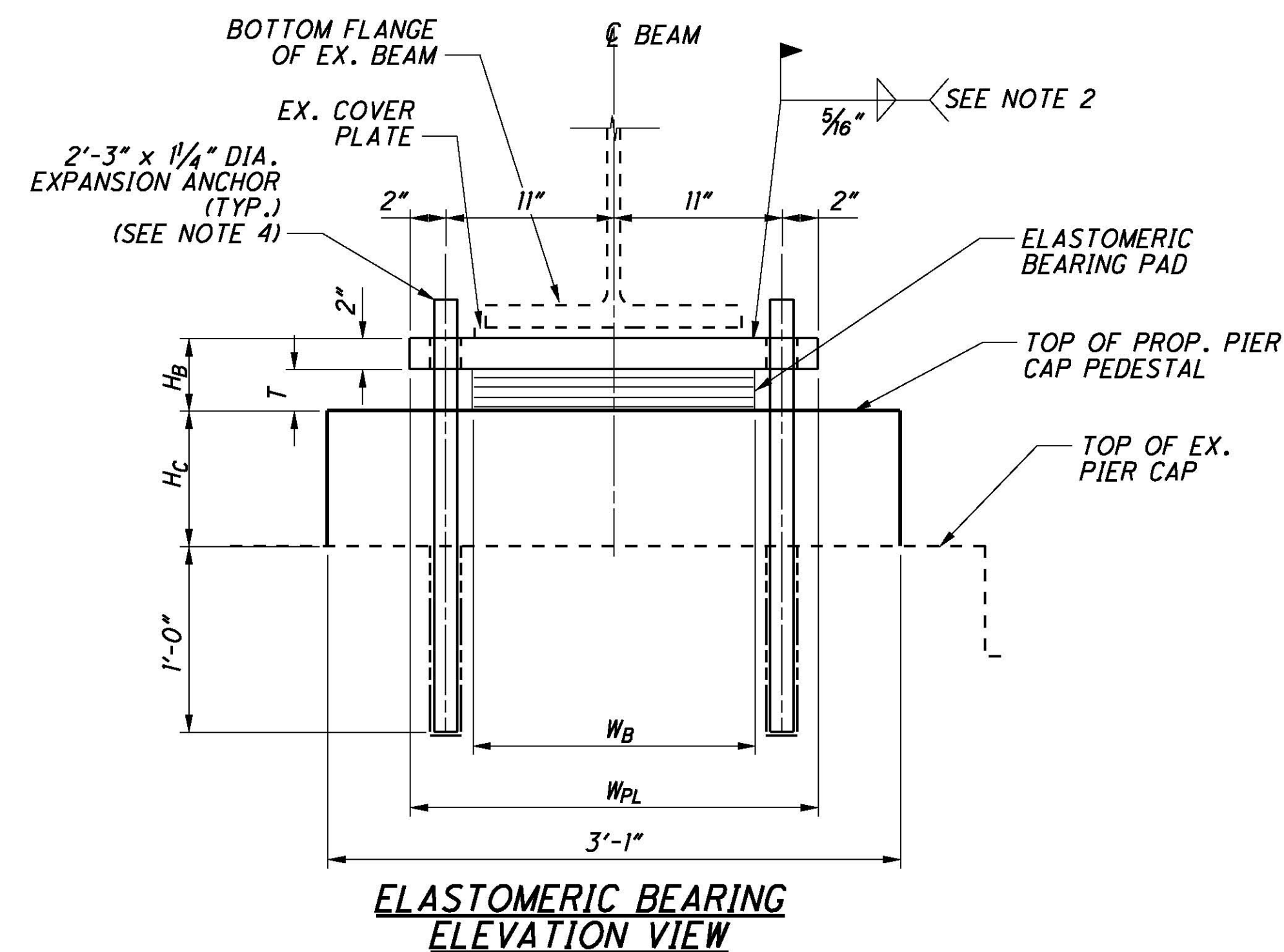
FIX LAMINATED ELASTOMERIC BEARINGS											
LOCATION	BEARING DIMENSIONS						STEEL LOAD PLATE	TOTAL	REACTIONS		MAXIMUM DESIGN LOAD
	L <sub>B</sub>	W <sub>B</sub>	t <sub>i</sub>	t <sub>e</sub>	T	N	L <sub>PL</sub> X W <sub>PL</sub> X T <sub>PL</sub>	H <sub>B</sub>	DL	LL	
PIER 3	12"	18"	0.350"	0.220"	2.64"	6	1'-1" X 2'-2" X 2"	4.64"	156 k	70 k	226 k

t<sub>i</sub> = THICKNESS OF INTERNAL LAYER  
t<sub>e</sub> = THICKNESS OF EXTERNAL LAYER  
T = TOTAL THICKNESS OF ELASTOMERIC BEARING  
H<sub>B</sub> = TOTAL HEIGHT OF BEARING

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



**ELASTOMERIC BEARING  
SIDE VIEW**



**ELASTOMERIC BEARING  
ELEVATION VIEW**

**NOTES:**

1. BEARING REPLACEMENT:  
THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS PRIOR TO THE LOWERING OPERATIONS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO SCOTT KRAMER, DISTRICT 8 BRIDGE DESIGN ENGINEER PRIOR TO THE LOWERING OPERATIONS. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED. THE CONTRACTOR IS TO DETERMINE THE FINAL BEAM SEAT ELEVATIONS AT EACH BEARING LOCATIONS. THIS FINAL BEAM SEAT ELEVATION IS A CONTRACTOR'S EXPENSE AND WILL NEED TO BE APPROVED BY THE DISTRICT 8 BRIDGE DESIGN ENGINEER.

2. LOAD PLATE:  
THE STEEL LOAD PLATE SHALL BE GRADE 50 A572. STRUCTURAL STEEL. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300° F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

3. ELASTOMERIC BEARINGS:  
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DURAMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

BASIS OF PAYMENT:  
THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, SHOP COATING TESTING AND INCIDENTALS NECESSARY TO REMOVE EXISTING BEARINGS AND FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL LOAD PLATES. PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.

4. EXPANSION SHIELD ANCHORS CONFORMING TO CMS 712.01 SHALL BE USED. HOLES & GROUTING SHALL COMPLY WITH CMS 510. EITHER CEMENT OR NON-SHRINK, NONMETALLIC GROUT SHALL BE USED. INCLUDE DOWEL HOLES, ANCHORS AND LOAD PLATE WITH ITEM 516 FOR PAYMENT. EXPANSION ANCHORS SHALL BE INSTALLED AFTER THE INSTALLATION OF THE BEARING ASSEMBLY.

5. BRIDGE LOWERING:  
IN ADDITIONAL TO ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN, CONTRACTOR WILL BE REQUIRED TO LOWER THE BRIDGE IN INCREMENTAL STAGES STARTING FROM PIER 1 AND PROCEED FORWARD TOWARDS PIER 5 AT A MAXIMUM LOWERING OF 2.5 INCHES AT ANYONE SUBSTRUCTURE RELATIVE TO ADJACENT SUBSTRUCTURE. ALL COST FOR LOWERING OF SUPERSTRUCTURE SHALL BE INCLUDED WITH ITEM 516 JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

6. FOR NEW CONCRETE CAP PEDESTAL DETAILS SEE SHEET 18 OF 23.

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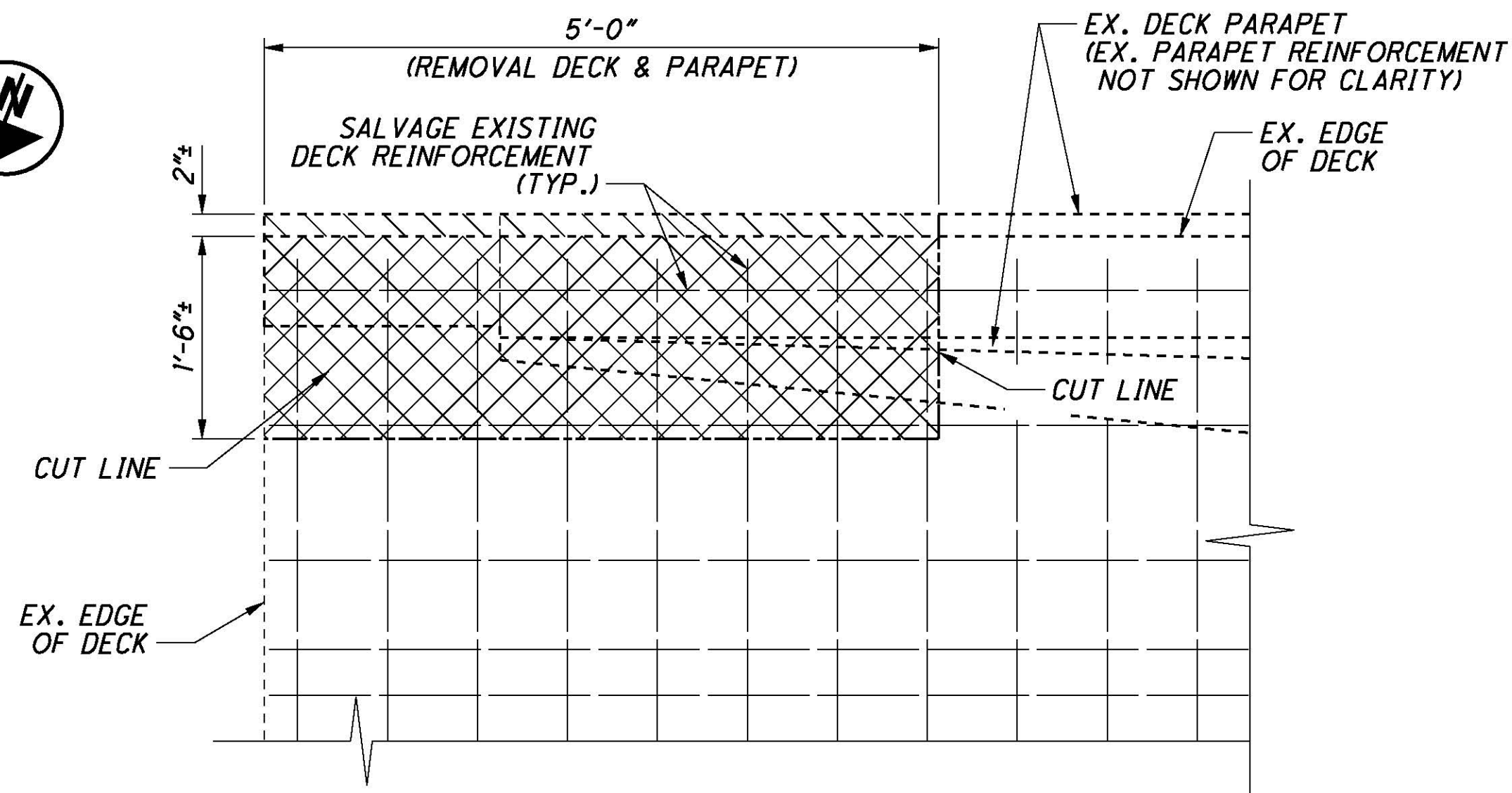
DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
DUBLIN, OH 43068  
(614) 792-5600 PHONE  
(614) 792-5601 FAX

DATE 11/11  
REVIEWED CMS  
DRAWN DJC  
DESIGNED SK  
CHECKED KYB  
STRUCTURE FILE NUMBER 3108406  
REVISID

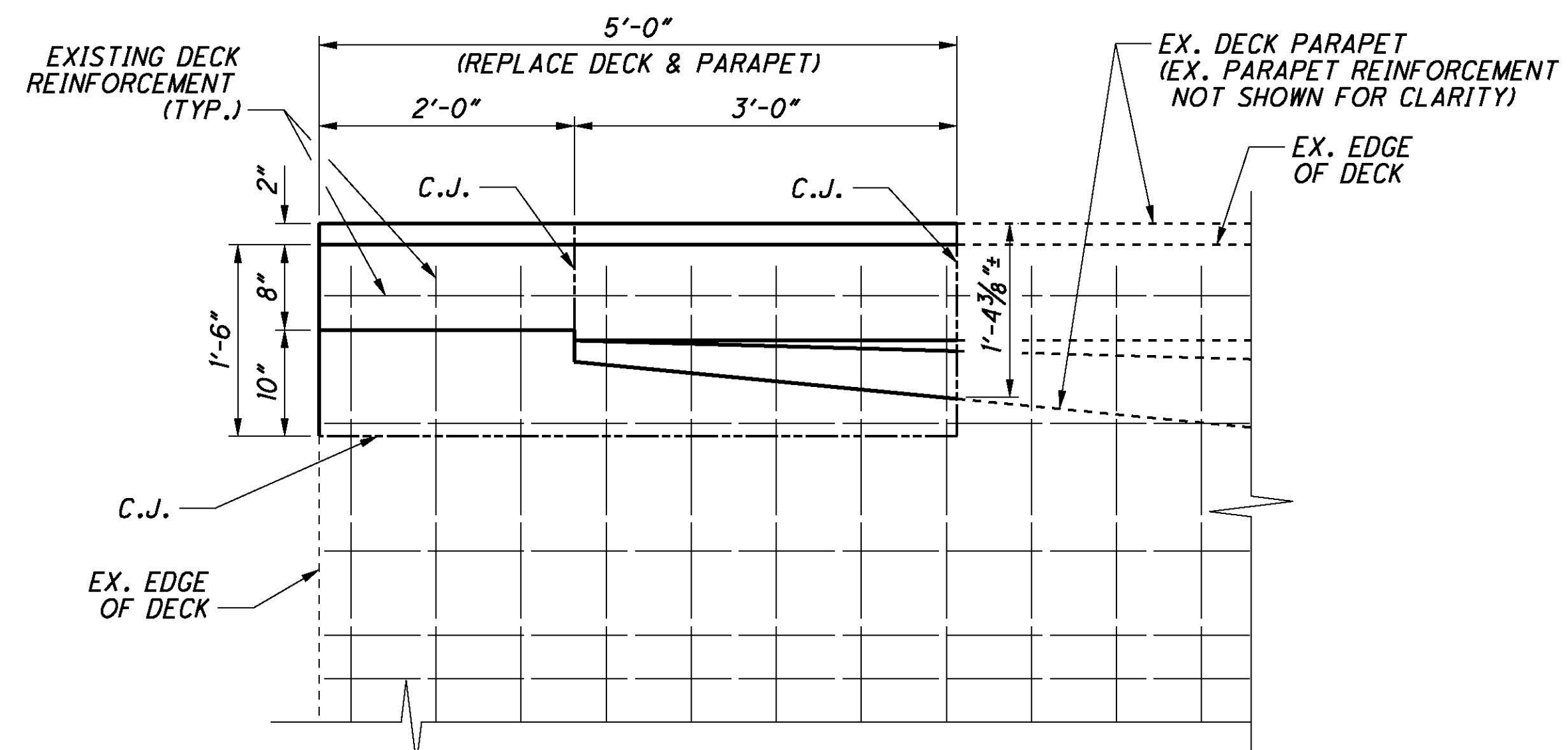
PIER 3 FIXED BEARING DETAILS  
BRIDGE NO. HAM-74-0911 R  
I-74 OVER C.R. 148 AND TAYLOR CREEK

HAM-74-5.53  
PID No. 83011

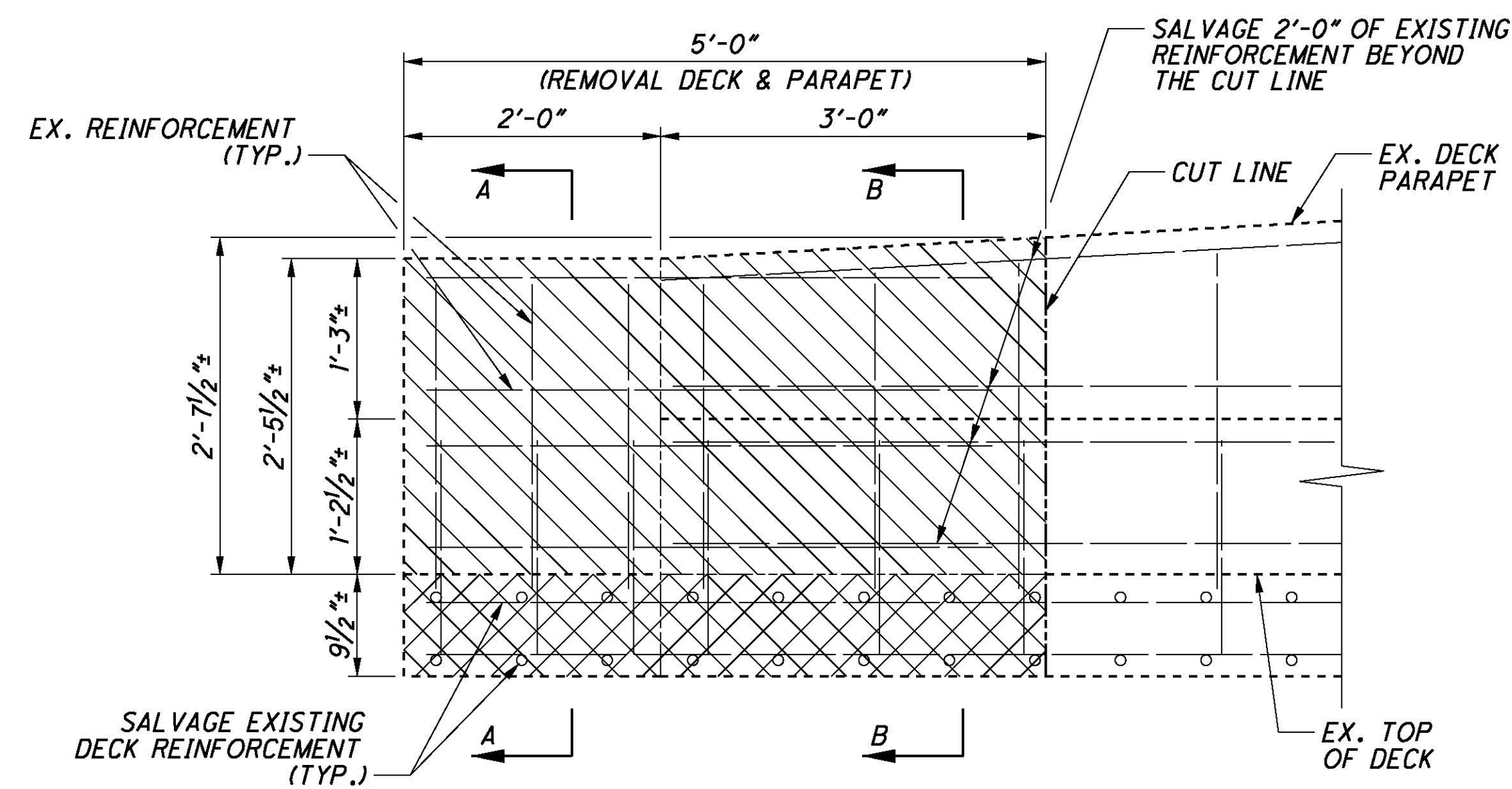
20/23  
115  
118



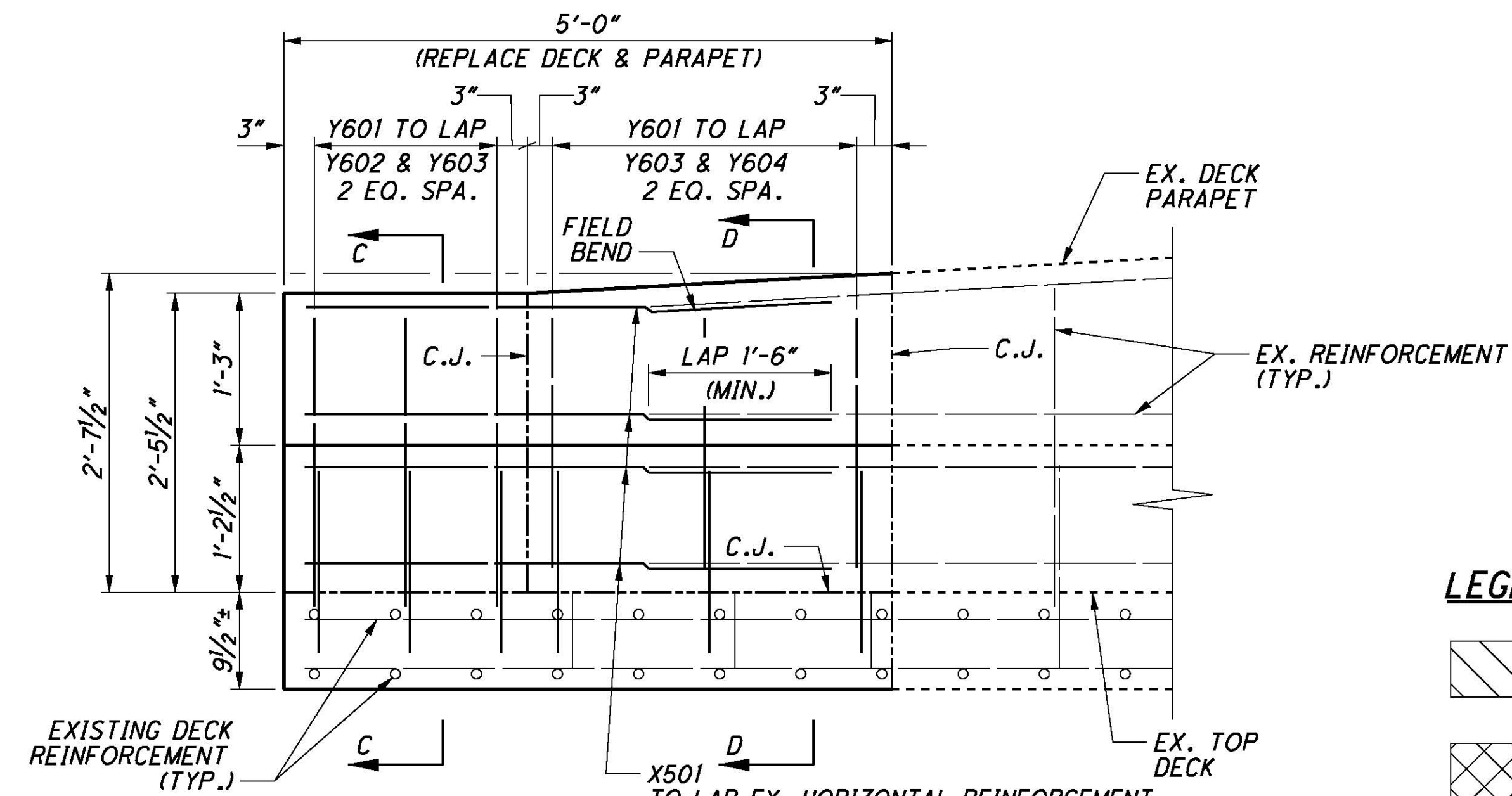
**REMOVAL PART PLAN DECK & PARAPET**  
(RIGHT SIDE)



**REPLACE PART PLAN DECK & PARAPET**  
(RIGHT SIDE)

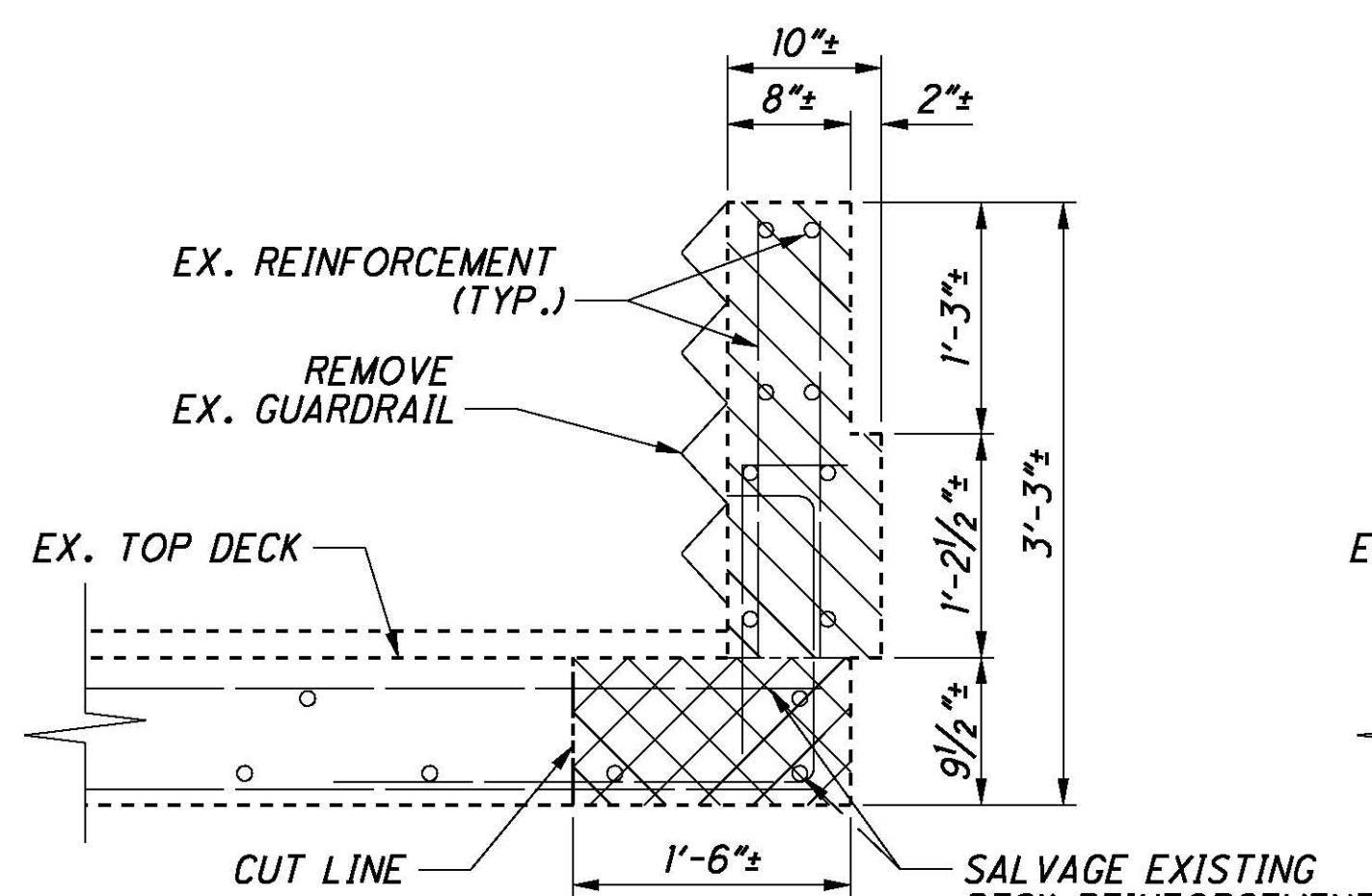


**REMOVAL PART ELEVATION DECK & PARAPET**  
(RIGHT SIDE)

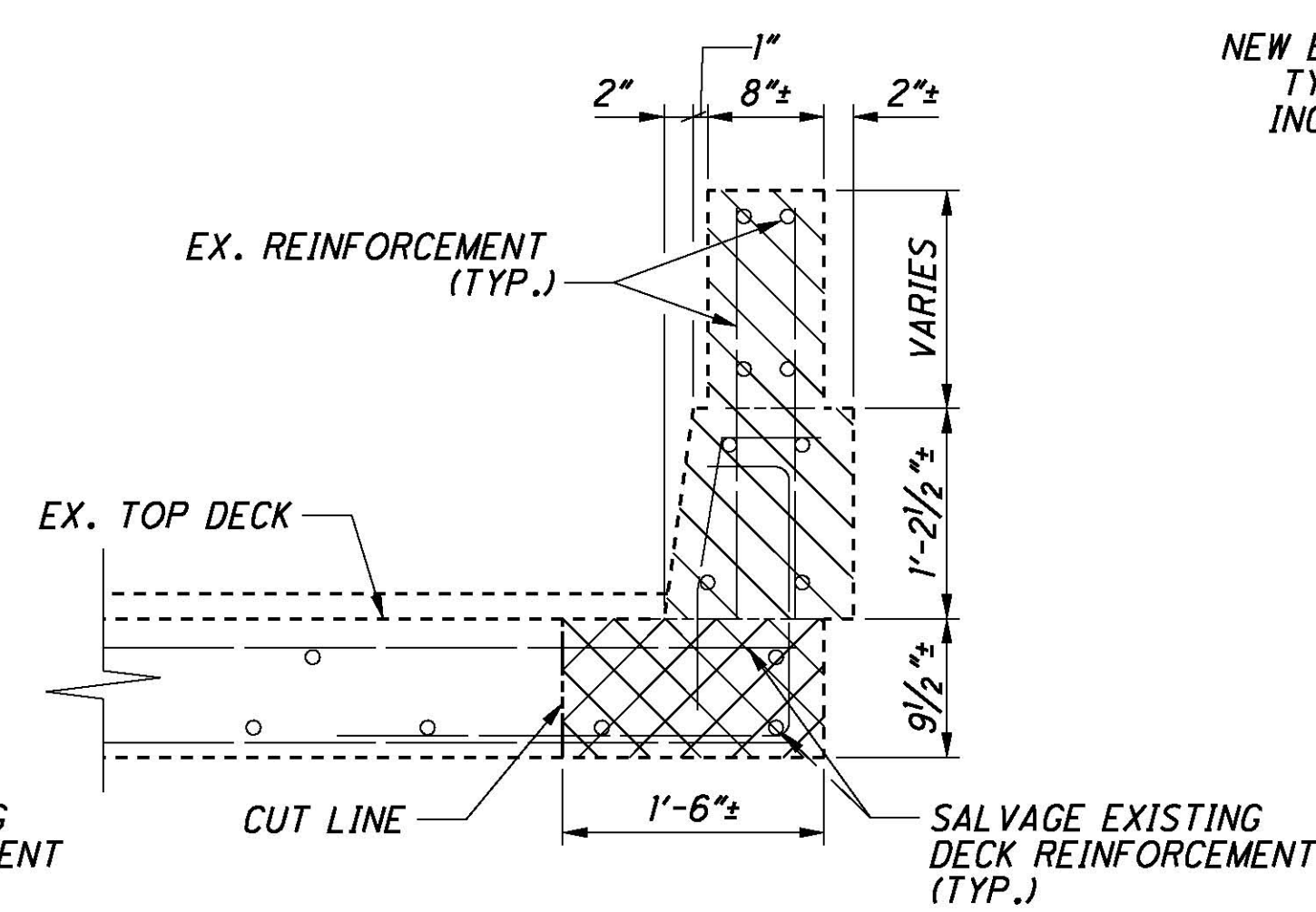


**REPLACE PART ELEVATION DECK & PARAPET**  
(RIGHT SIDE)

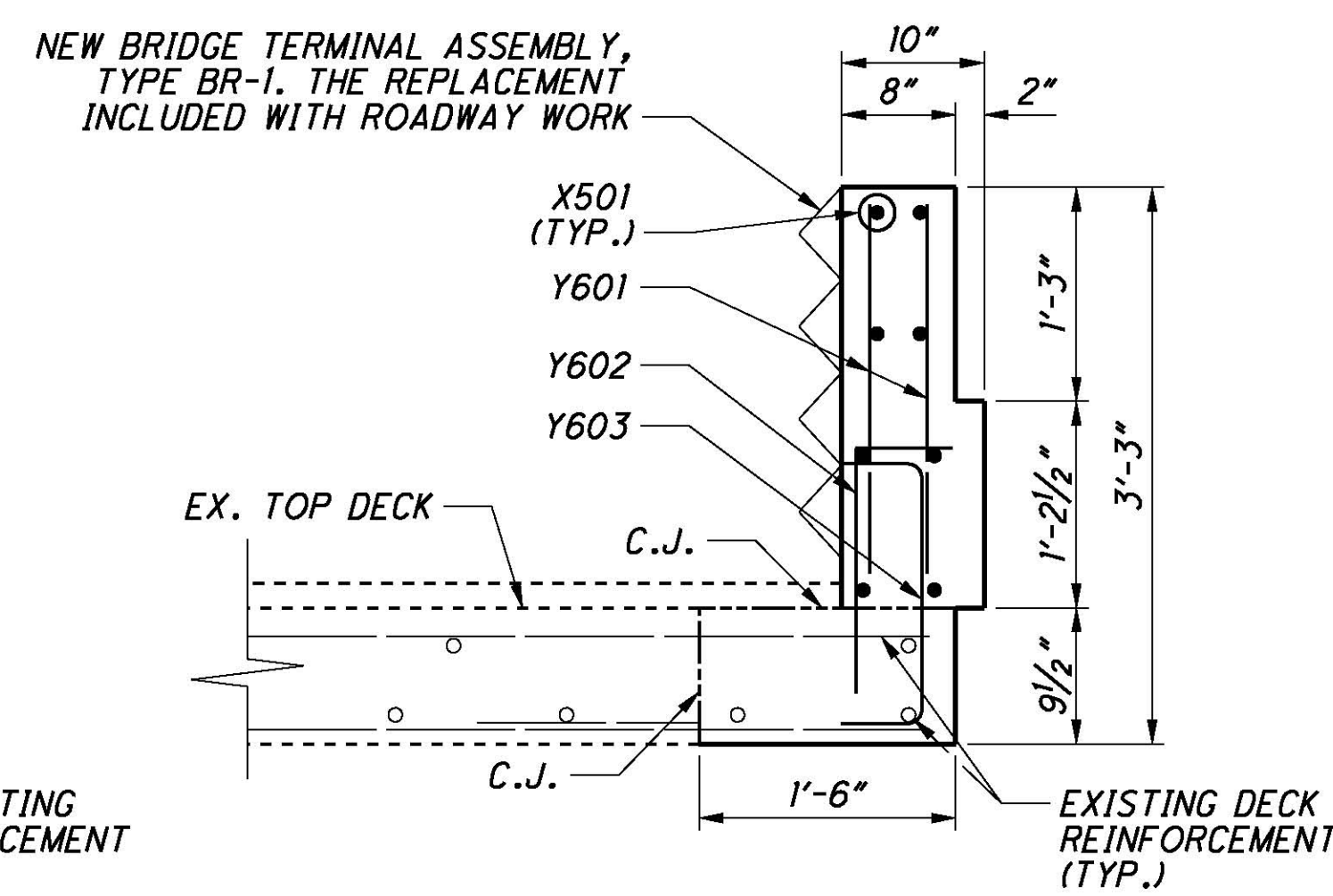
- LEGEND:**
- REMOVAL PARAPET
  - REMOVAL DECK



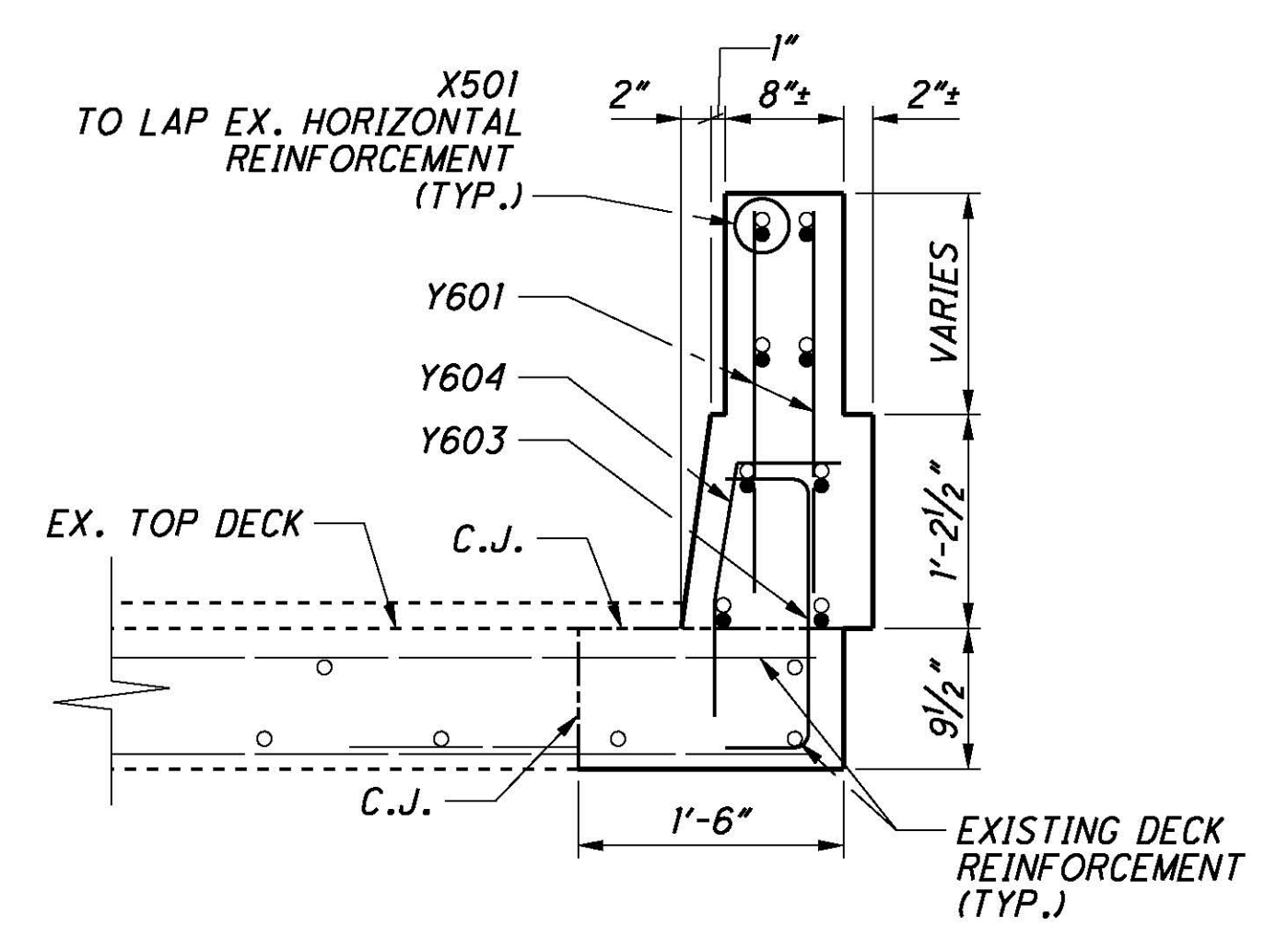
**SECTION A-A**



**SECTION B-B**



**SECTION C-C**



**SECTION D-D**

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**WESTBOUND FORWARD ABUTMENT DECK & PARAPET REPAIR DETAILS**  
BRIDGE NO. HAM-74-0911 L&R  
I-74 OVER C.R. 148 AND TAYLOR CREEK

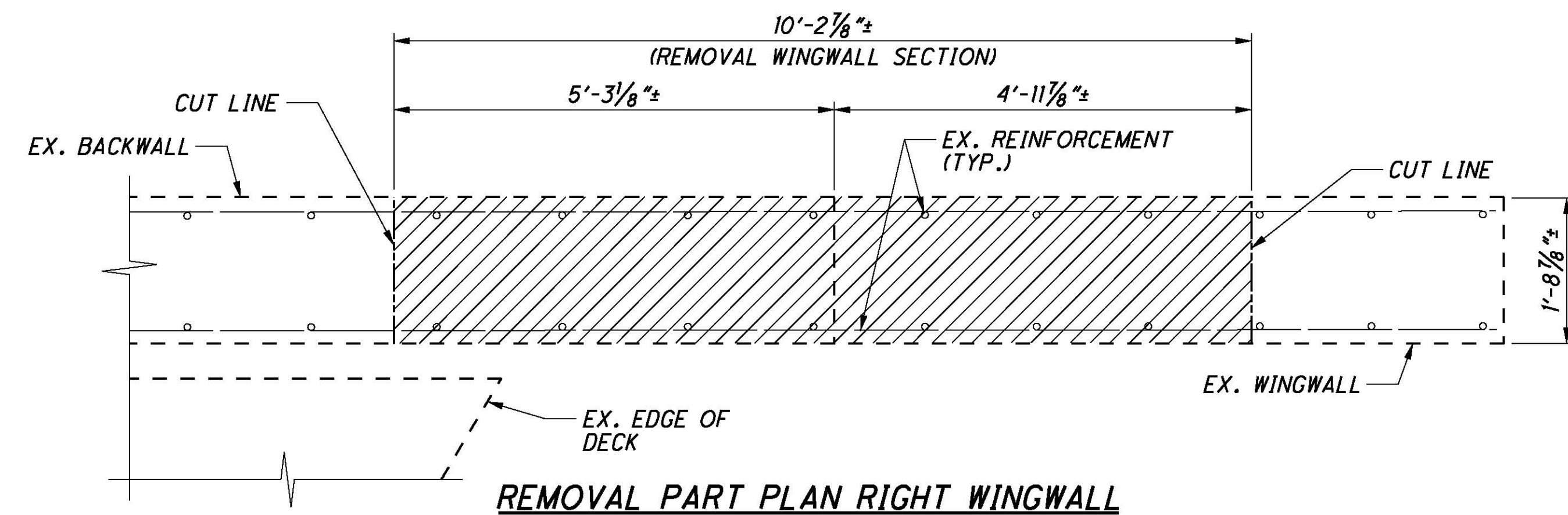
**HAM-74-5.53**  
PID No. 83011

21/23

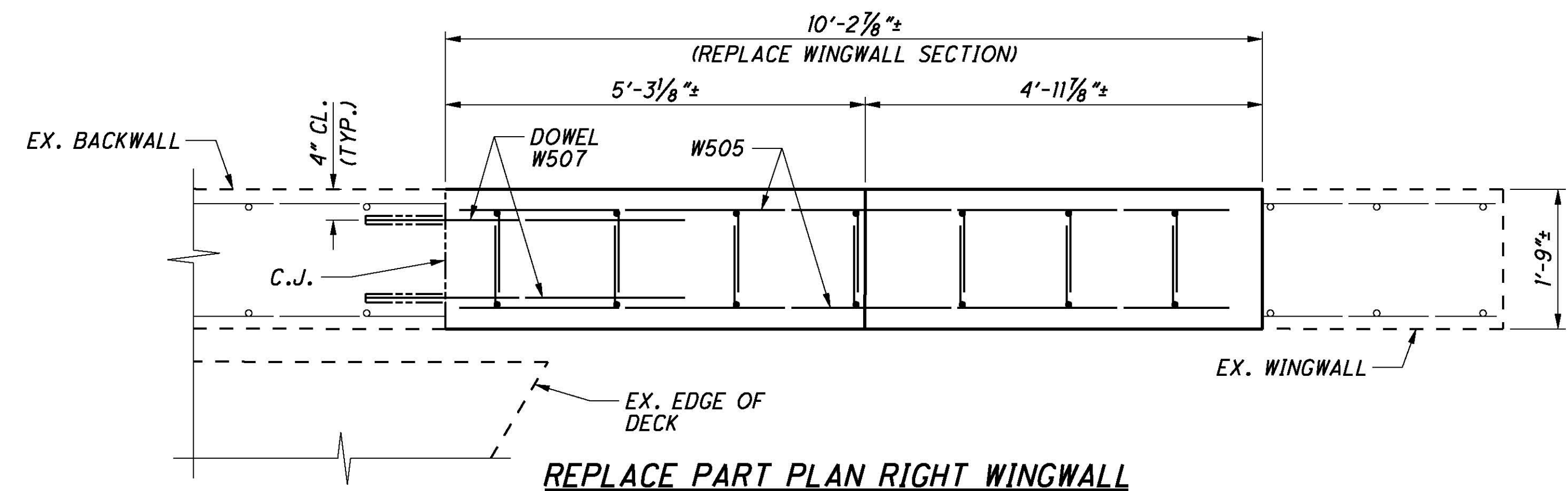
116  
118

DESIGN AGENCY  
**Mead & Hunt**  
5900 WILCOX PLACE  
DUBLIN, OH 43016  
(614) 792-5500 PHONE  
(614) 792-5501 FAX

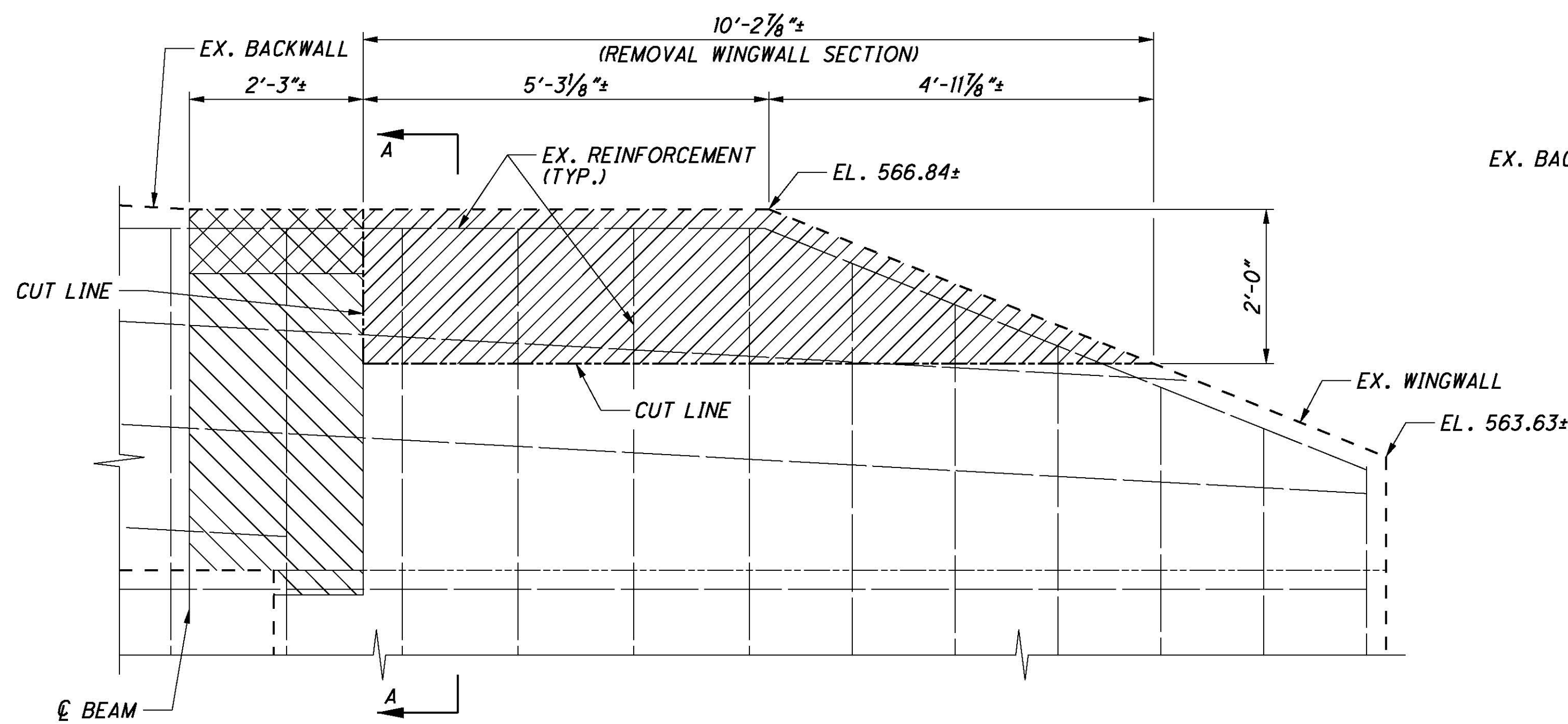
DATE 11/11  
REVIEWED KVB  
STRUCTURE FILE NUMBER 3108376(L) 3108408(R)  
DRAWN DJC  
CHECKED L YH  
DESIGNED SK



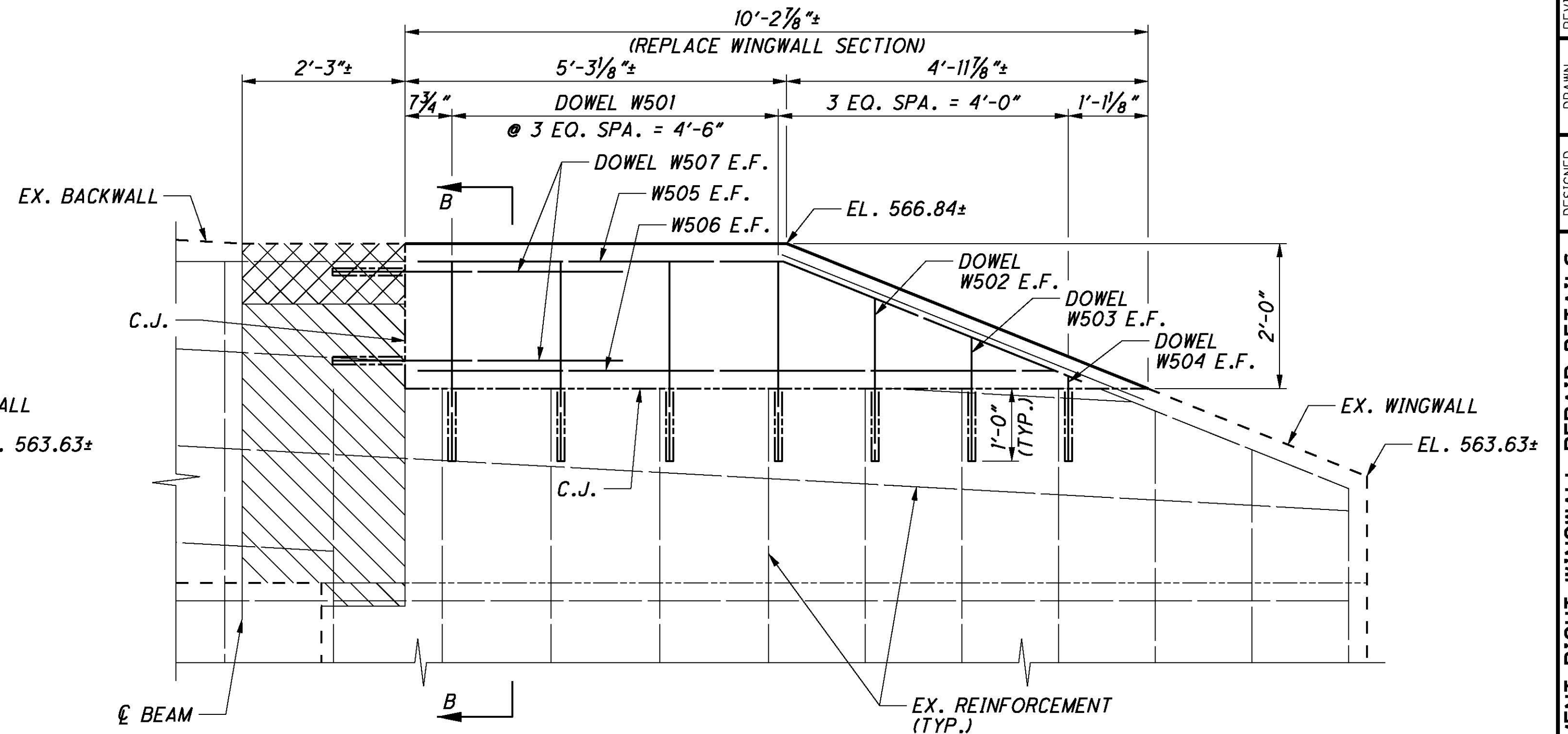
**REMOVAL PART PLAN RIGHT WINGWALL**



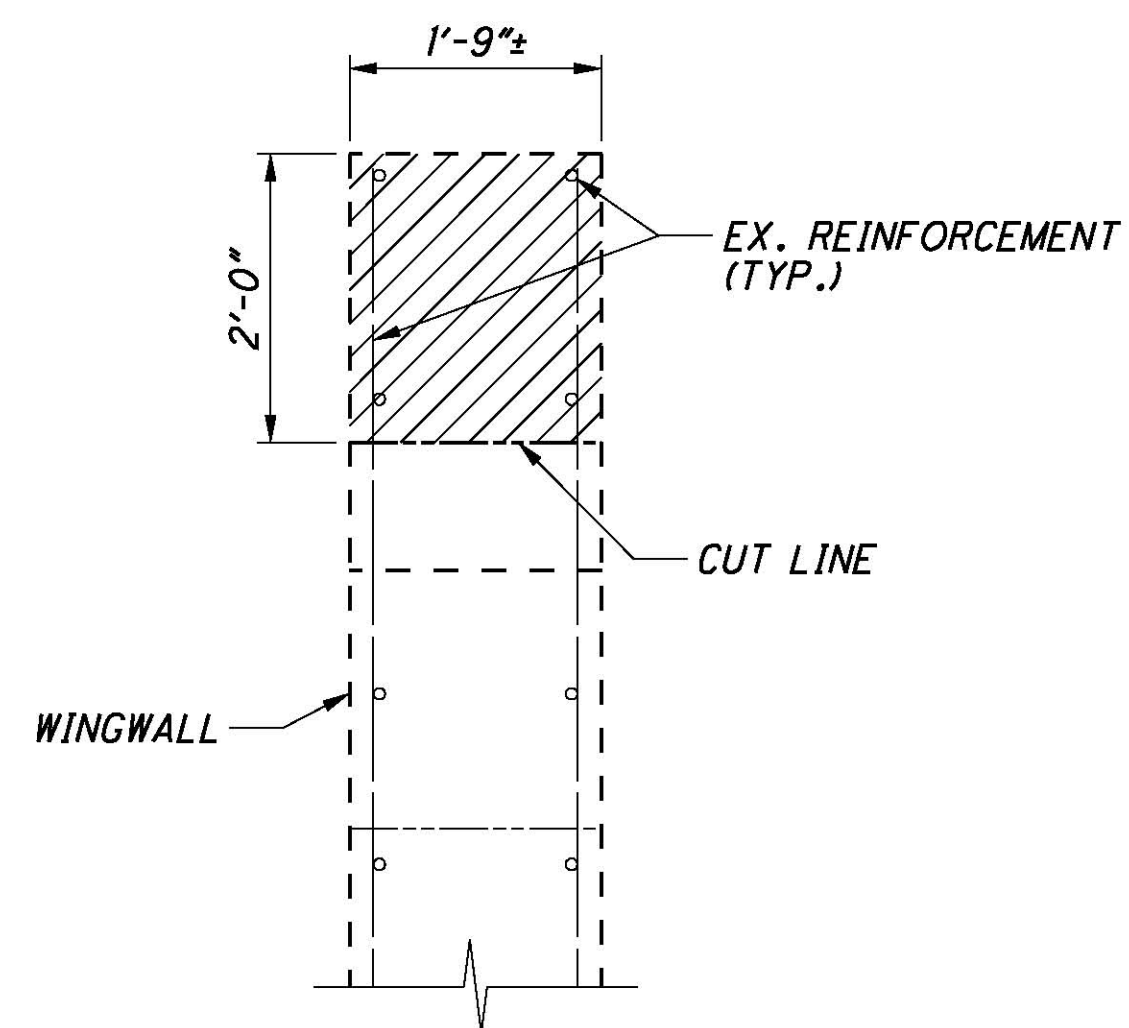
**REPLACE PART PLAN RIGHT WINGWALL**



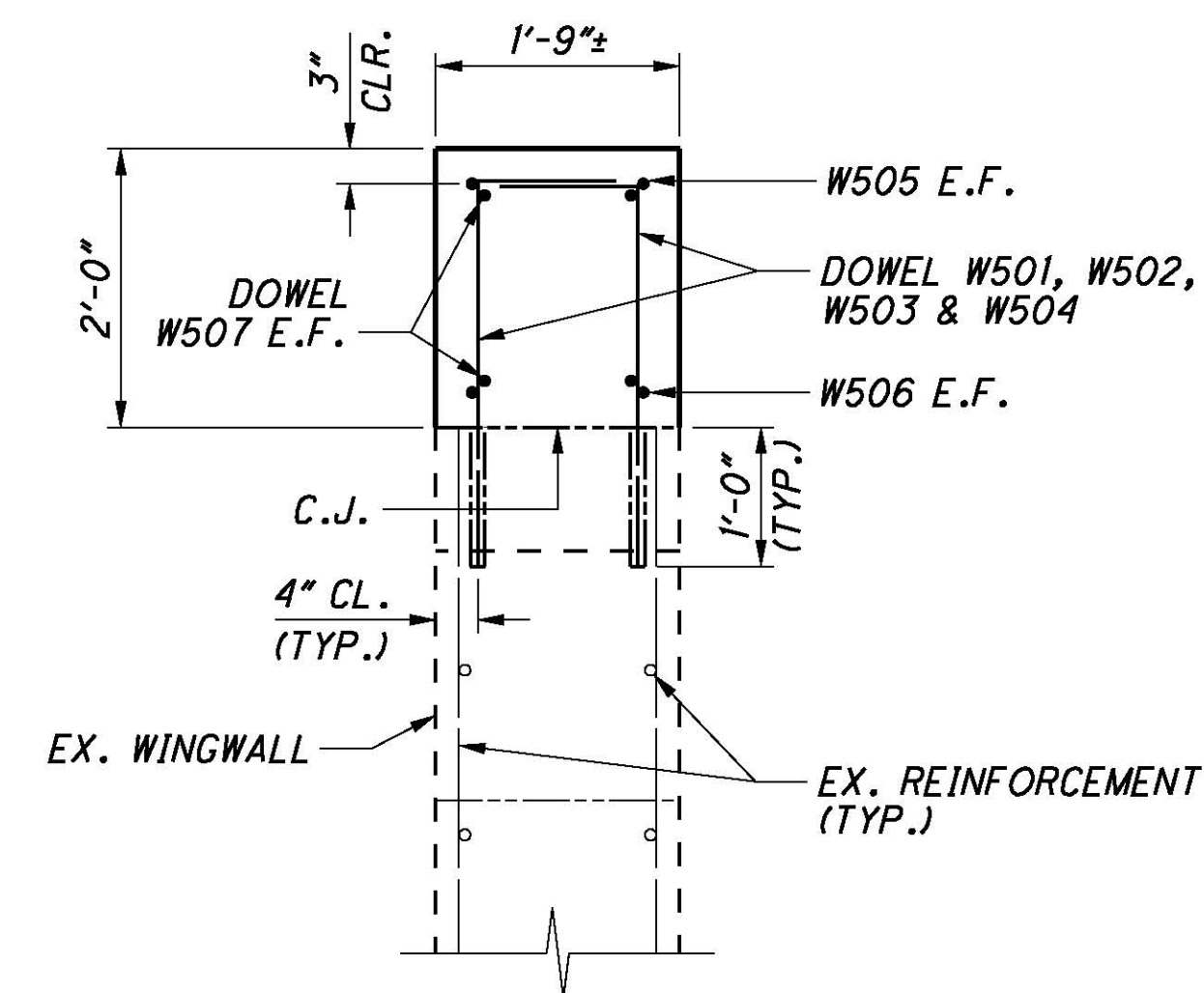
**REMOVAL PART ELEVATION RIGHT WINGWALL**



**REPLACE PART ELEVATION RIGHT WINGWALL**



**SECTION A-A**



**SECTION B-B**

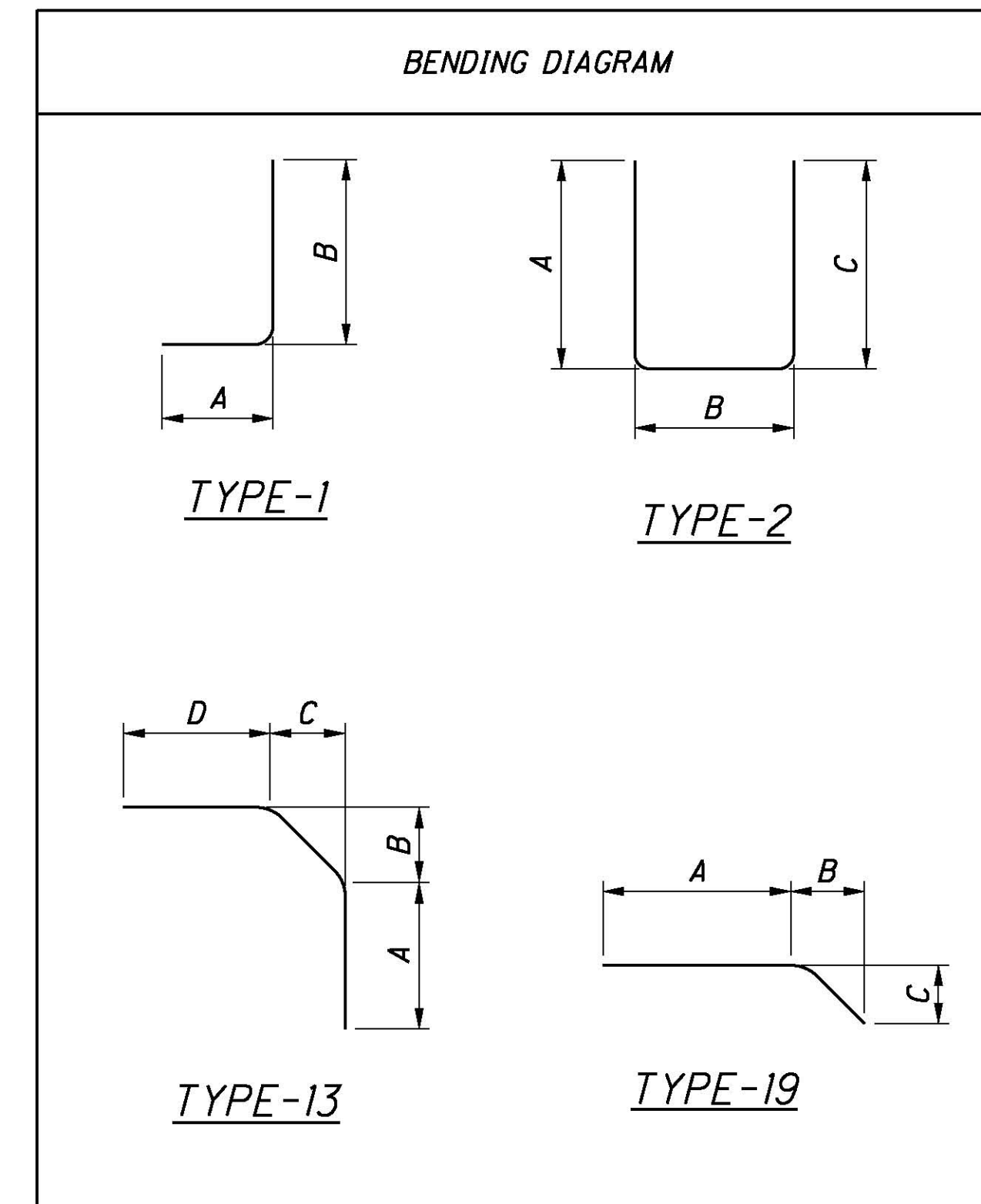
**LEGEND:**

- WINGWALL REMOVAL
- PATCHING CONCRETE STRUCTURE ITEM 843-  
PATCHING OF CONCRETE STRUCTURE WITH  
TROWABLE MORTAR.
- PATCHING CONCRETE STRUCTURE ITEM 519-  
PATCHING OF CONCRETE STRUCTURE, AS PER  
PLAN.

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P:\2010\HAM\83011\structures\HAM074\_0911C\sheets\074\_0911CRL001.dgn

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	R	INC
<b>WESTBOUND REAR ABUTMENT</b>										
A501	40	3'-6"	146	1	1'-11"	1'-9"				
A502	14	6'-4"	92	2	2'-4"	1'-11"	2'-4"			
SUB-TOTAL =			238	LBS.						
<b>EASTBOUND FORWARD ABUTMENT RIGHT WINGWALL</b>										
W501	8	3'-7"	30	1	1'-0"	2'-9"				
W502	2	3'-2"	10	1	1'-0"	2'-3"				
W503	2	2'-7"	5	1	1'-0"	1'-9"				
W504	2	2'-0"	4	1	1'-0"	1'-2"				
W505	2	9'-6"	20	19	5'-0 1/2"	4'-1 1/2"	1'-8"			
W506	2	8'-9"	18	STR						
W507	4	4'-0"	17	STR						
SUB-TOTAL =			104	LBS.						
<b>EASTBOUND PIERS</b>										
P601	144	3'-6"	946	1	2'-0"	1'-8"				
P602	48	6'-4"	457	2	2'-3"	2'-2"	2'-3"			
P603	12	7'-0"	126	2	2'-7"	2'-2"	2'-7"			
SUB-TOTAL =			1,529	LBS.						
<b>WESTBOUND DECK &amp; PARAPET</b>										
X501	8	4'-8"	39	STR						
Y601	12	2'-1"	38	STR						
Y602	3	1'-9"	8	1	6"	1'-5"				
Y603	6	2'-2"	20	2	6"	1'-6"	6"			
Y604	3	1'-9"	8	13	8"	8"	2"	6"		
SUB-TOTAL =			113	LBS.						
WESTBOUND GRAND TOTAL =			351	LBS.						
EASTBOUND GRAND TOTAL =			1,633	LBS.						
GRAND TOTAL =			1,984	LBS.						



**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, S601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
2. ALL REINFORCING BARS ARE GRADE 60, EPOXY COATED.
3. "STR" IN THE TYPE COLUMN INDICATES STRAIGHT BARS.
4. REFER TO C.M.S. SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
5. ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.