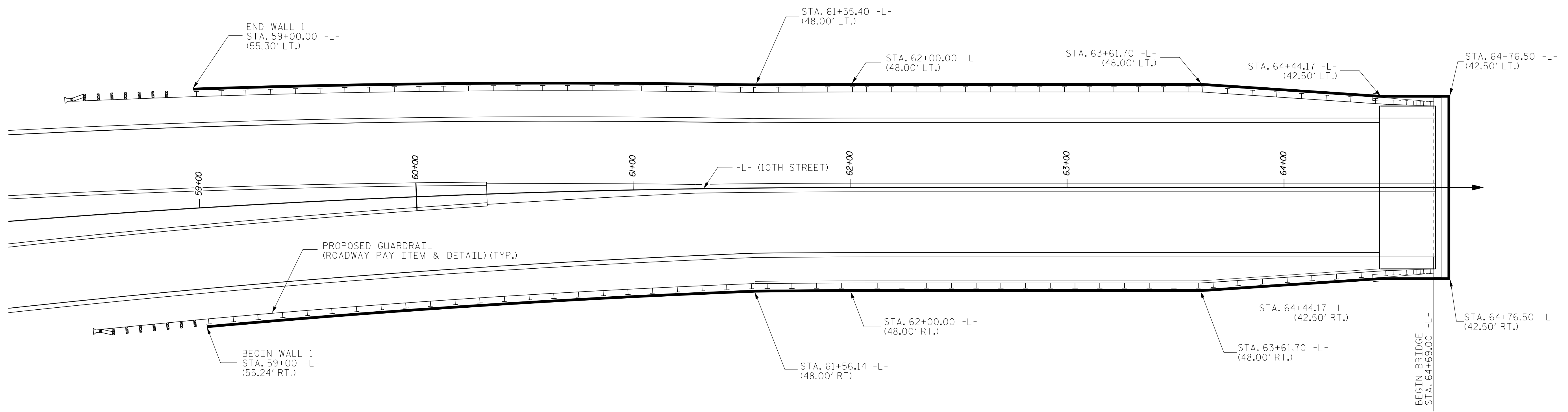


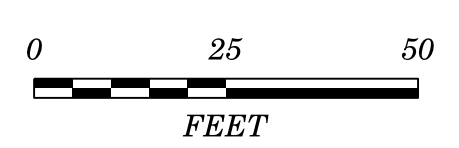
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**MSE RETAINING WALL NO. 1 PLAN**



ESTIMATED MSE WALL QUANTITY (SQUARE FEET)	
MSE RETAINING WALL NO. 1	21,430 SF

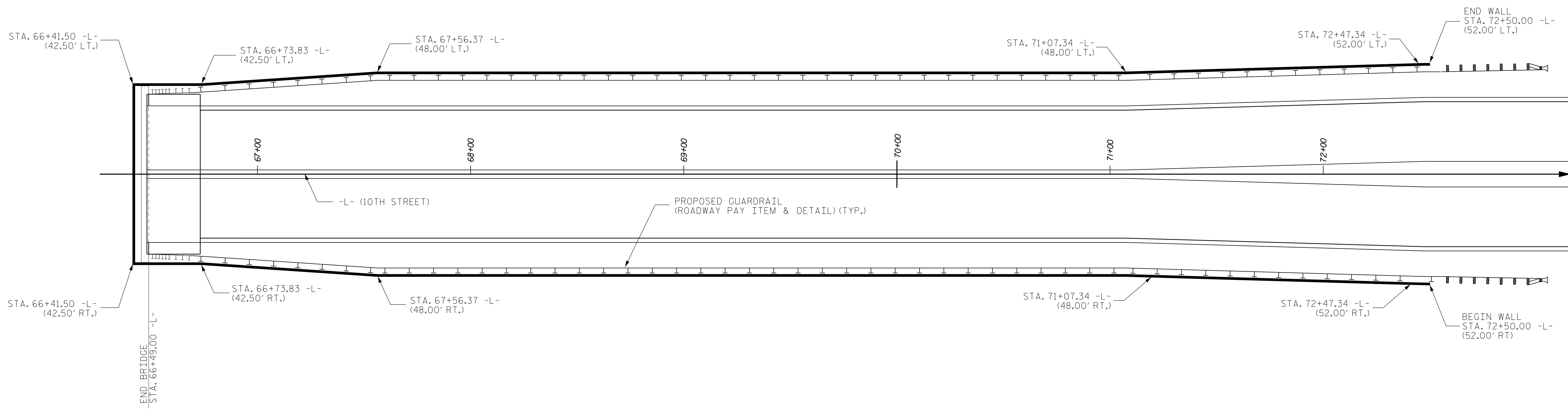
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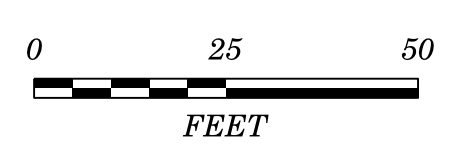
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**10TH STREET BRIDGE OVER  
 DICKINSON AVE (SR 1531)  
 AND CSX RAILROAD**

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1	MJA	8/2014	3		
2	MJA	10/2014	4		



MSE RETAINING WALL NO. 2 PLAN



ESTIMATED MSE WALL QUANTITY (SQUARE FEET)	
MSE RETAINING WALL NO. 2	27,710 SF

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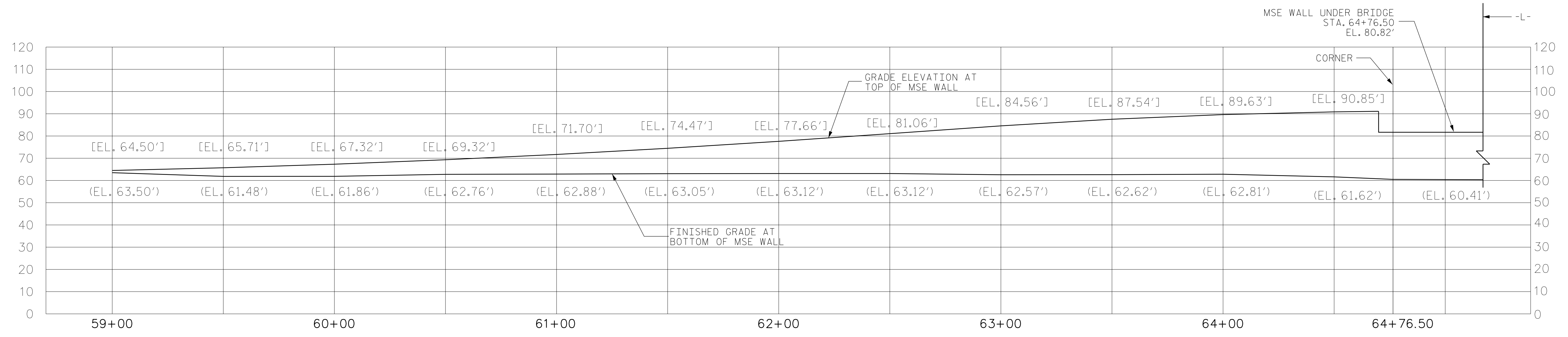
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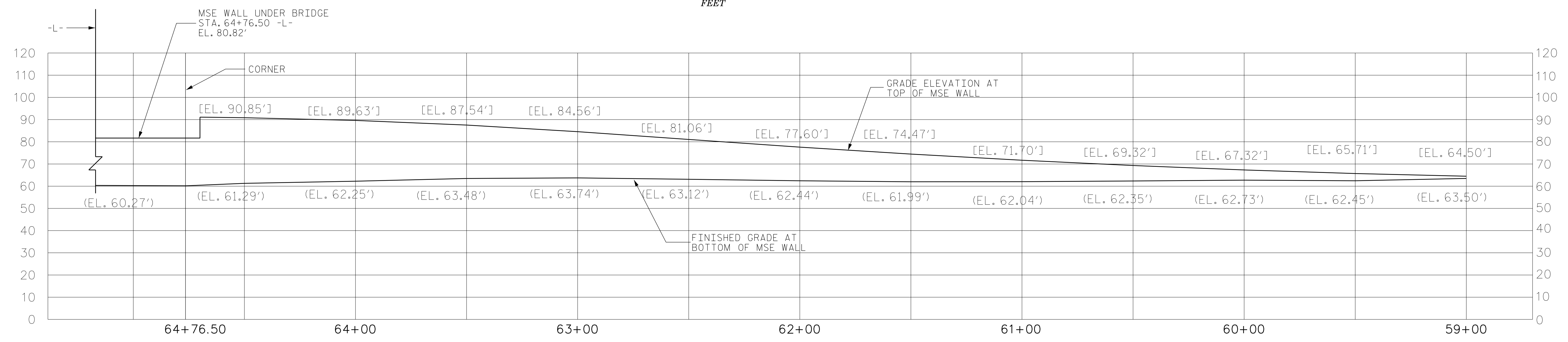
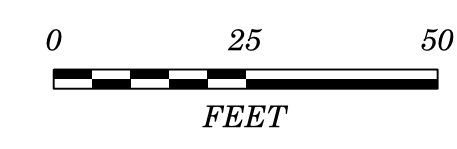
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 AND CSX RAILROAD**

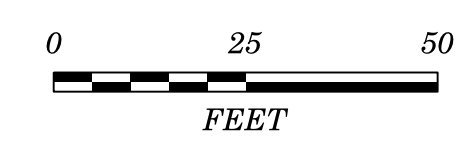
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
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**MSE RETAINING WALL NO. 1 RIGHT OF -L- ELEVATION**



**MSE RETAINING WALL NO. 1 LEFT OF -L- ELEVATION**



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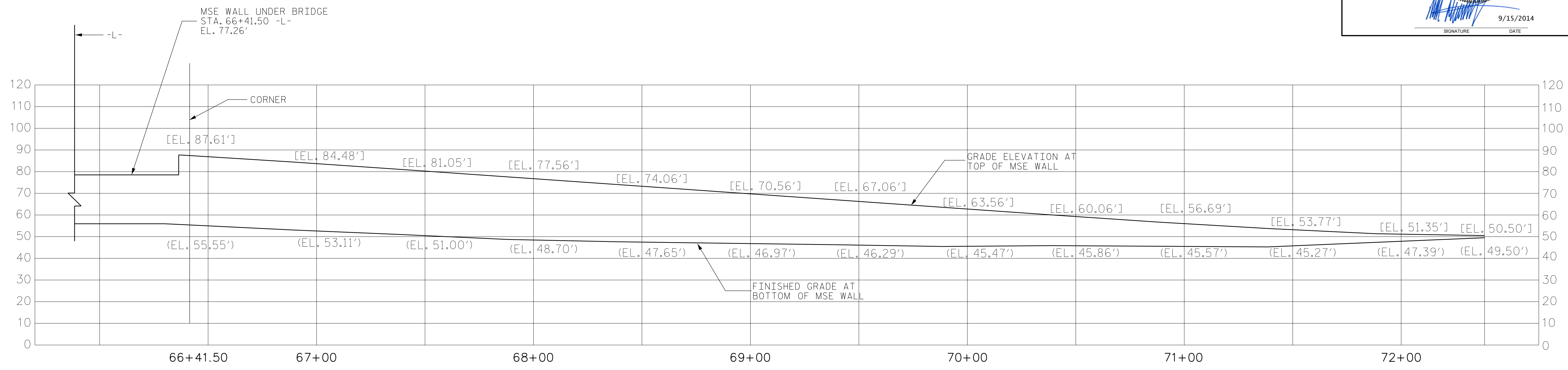
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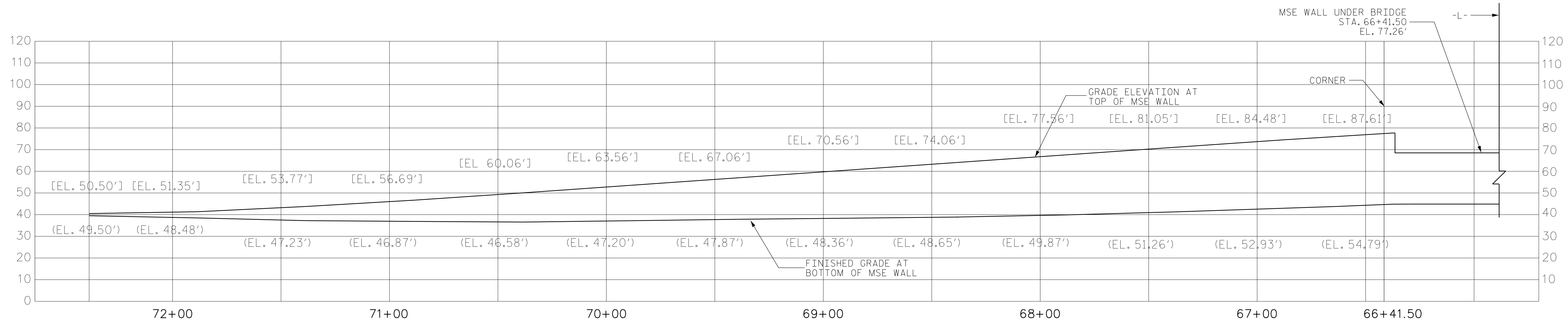
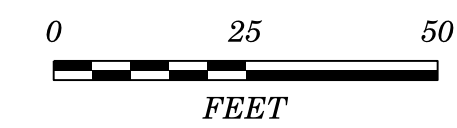
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MSE RETAINING WALL NO. 2 RIGHT OF -L- ELEVATION



MSE RETAINING WALL NO. 2 LEFT OF -L- ELEVATION



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10TH STREET BRIDGE OVER  
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2			4		

**NOTES:**

FOR MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS, SEE MECHANICALLY STABILIZED EARTH RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

A FENCE OR HANDRAIL IS REQUIRED ON TOP OF RETAINING WALLS NO.1 & 2. SEE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS.

USE AN MSE WALL SYSTEM WITH PRECAST CONCRETE PANELS THAT MEET SECTION 1077 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALLS NO.1 & 2.

CAST-IN-PLACE OR PRE-CAST REINFORCED CONCRETE COPING IS REQUIRED FOR RETAINING WALLS NO.1 & 2.

A HAND-LAID BRICK FACADE IS REQUIRED FOR RETAINING WALLS NO.1 & 2. SEE ARCHITECTURAL DETAILS FOR SURFACE FINISH AND PATTERNS. THE PRECAST MSE PANEL WALL SHOULD BE CONSTRUCTED AND ALLOWED TO SETTLE PRIOR TO CONSTRUCTION OF THE BRICK FACADE FOOTING AND THE BRICK FACADE.

A WAITING PERIOD IS REQUIRED PRIOR TO CONSTRUCTION OF THE BRICK FACADE FOOTING AND THE BRICK FACADE. THE WALLS SHOULD BE ALLOWED TO SETTLE FOR A MINIMUM OF 4 MONTHS FROM COMPLETION TO THEIR PROPOSED HEIGHT OR UNTIL OTHERWISE APPROVED BASED ON SETTLEMENT MONITORING OBSERVATIONS.

A DRAIN IS REQUIRED FOR RETAINING WALLS NO.1 & 2.

BEFORE BEGINNING MSE WALL DESIGN FOR RETAINING WALLS NO.1 & 2, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALLS NO.1 & 2 FOR THE FOLLOWING:  
 1) H = DESIGN HEIGHT + EMBEDMENT  
 2) DESIGN LIFE = 100 YEARS  
 3) FACTORED BEARING RESISTANCE OF FOUNDATION SOILS = 10,000 LB/SF  
 4) MINIMUM REINFORCEMENT LENGTH (L) = GREATER OF 0.7H OR 6 FT  
 5) MINIMUM EMBEDMENT = 2 FT  
 6) AGGREGATE PARAMETERS:

AGGREGATE TYPE*	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (φ) DEGREES	COHESION (c) LB/SF
COARSE	110	38	0

\*SEE MSE RETAINING WALLS PROVISION FOR COARSE AGGREGATE MATERIAL REQUIREMENTS.

7) IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (φ) DEGREES	COHESION (c) LB/SF
BACKFILL	120	30	0
FOUNDATION	120	30	0

DESIGN RETAINING WALLS NO.1 & 2 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

FOUNDATIONS FOR SIGNS AND LIGHTING WILL BE LOCATED BEHIND RETAINING WALLS NO.1 & 2 AND WILL INTERFERE WITH REINFORCEMENT. BEFORE BEGINNING MSE WALL CONSTRUCTION, SUBMIT PROPOSED CONSTRUCTION METHODS FOR THESE FOUNDATIONS FOR APPROVAL. REFER TO STREET LIGHTING PLANS SHEET E-8 AND E-9 FOR LIGHT POLE LOCATIONS.

COORDINATE INSTALLTION OF LIGHT POLE FOUNDATION BLOCKOUTS WITH THE CITY OF GREENVILLE.

EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH REINFORCEMENT FOR RETAINING WALLS NO.1 & 2.

PILES FOR END BENT NO.1 LOCATED AT STATION 64+69 -L- ARE TO BE DRIVEN BEFORE CONSTRUCTION OF RETAINING WALL NO.1.

PILES FOR END BENT NO.2 LOCATED AT STATION 66+49 -L- ARE TO BE DRIVEN BEFORE CONSTRUCTION OF RETAINING WALL NO.3.

PILES FOR END BENT NO.1 LOCATED AT STATION 64+69 -L- ARE TO BE SLEEVED IN THE MSE REINFORCED BACKFILL ZONE. SEE DETAILS IN STRUCTURE PLANS.

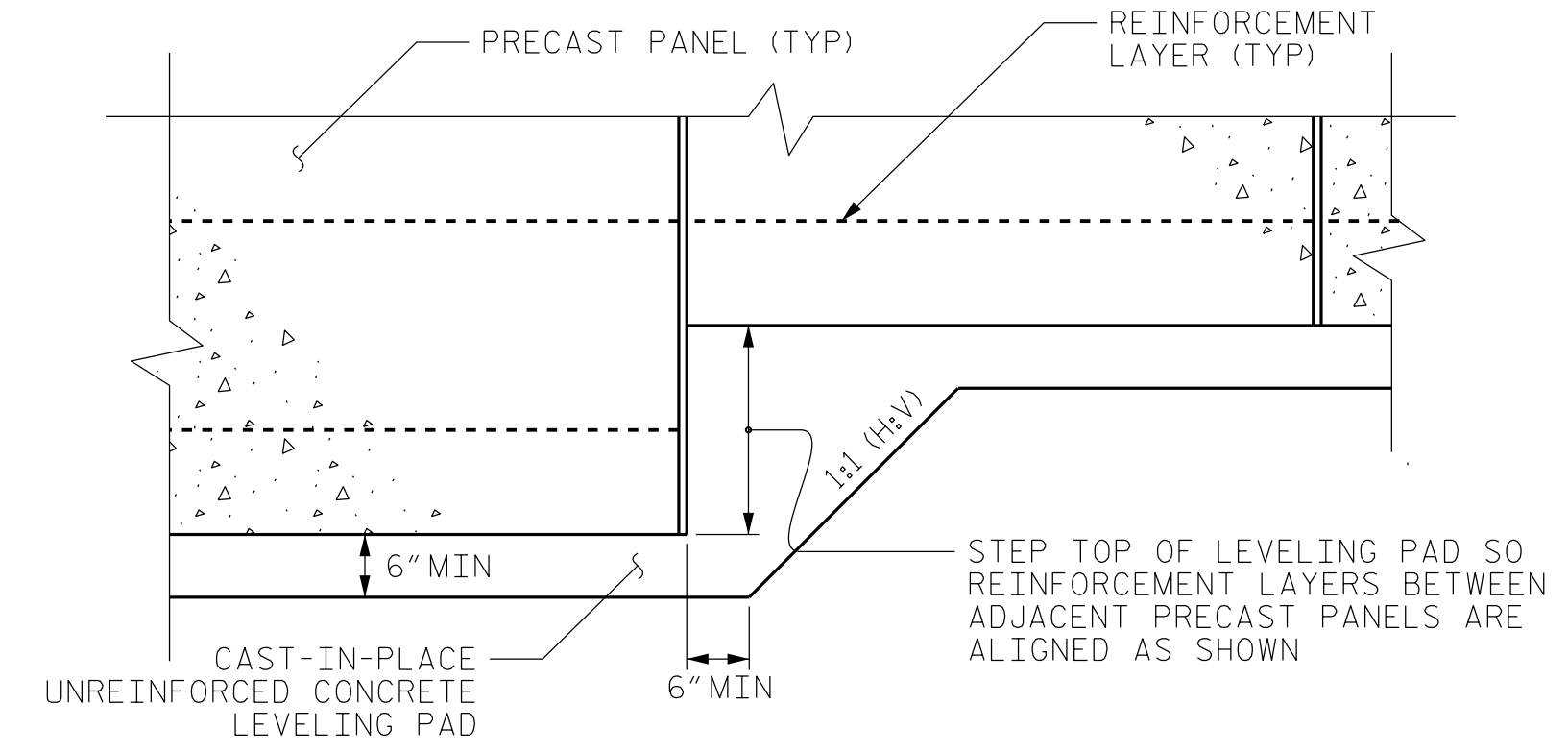
PILES FOR END BENT NO.2 LOCATED AT STATION 66+49 -L- ARE TO BE SLEEVED IN THE MSE REINFORCED BACKFILL ZONE. SEE DETAILS IN STRUCTURE PLANS.

DO NOT PLACE LEVELING PAD CONCRETE, AGGREGATE OR REINFORCEMENT FOR RETAINING WALL NO.1 & 2 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

\*TEMPORARY SHORING\* MAY BE REQUIRED FOR RETAINING WALLS NO.1 & 2 IN ACCORDANCE WITH THE TEMPORARY SHORING PROVISION.

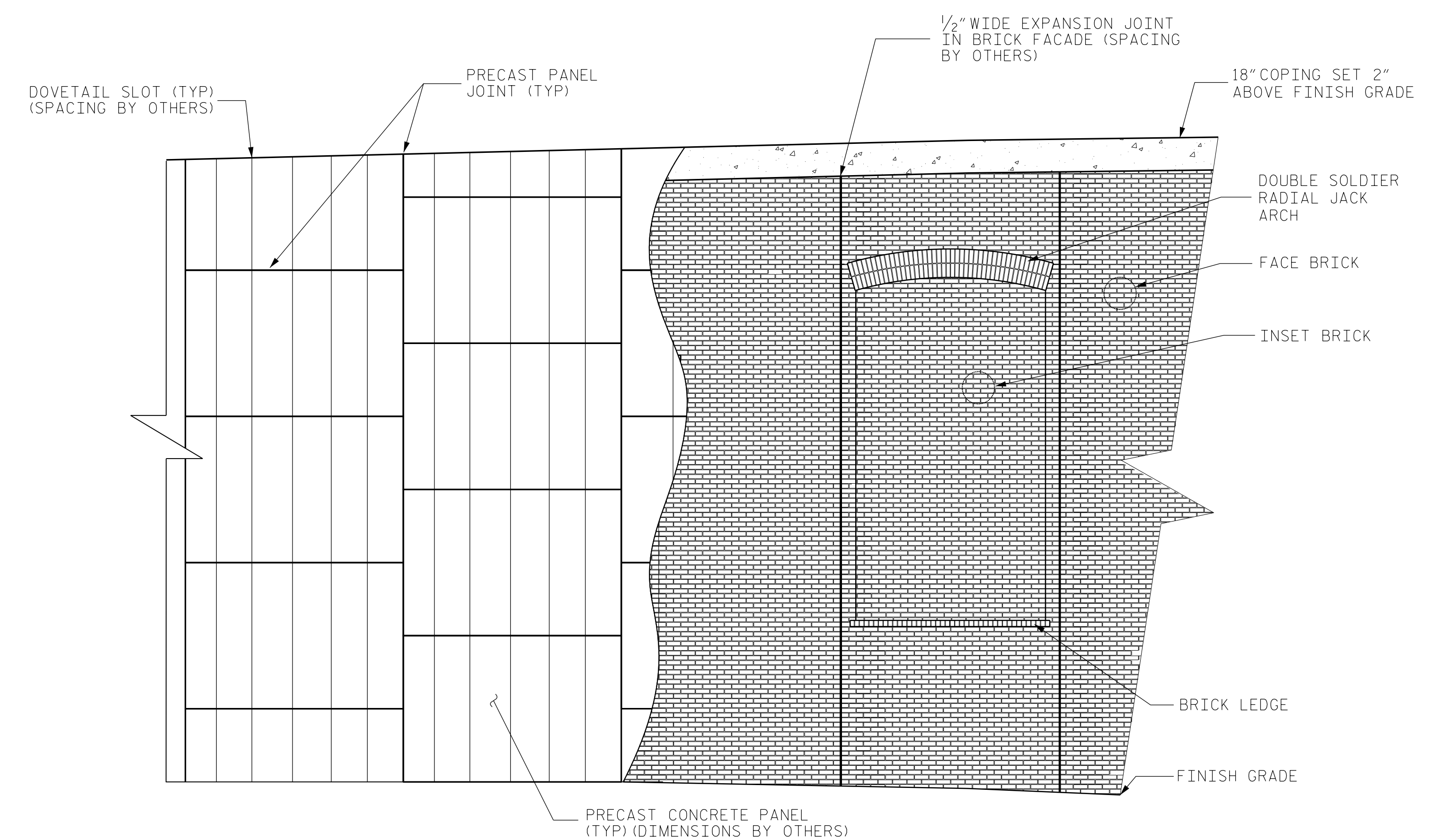
AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT RETAINING WALLS NO.1 & 2. SEE MSE RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.

THE WALL CONTRACTOR SHALL CONSTRUCT A TEST PANEL THAT INCLUDES A WINDOW FOR APPROVAL BY NCDOT AND SHPO PRIOR TO CONSTRUCTION OF THE RETAINING WALLS.



PRECAST CONCRETE PANELS

LEVELING PAD STEP DETAILS



PARTIAL ELEVATION WITH BRICK FACADE

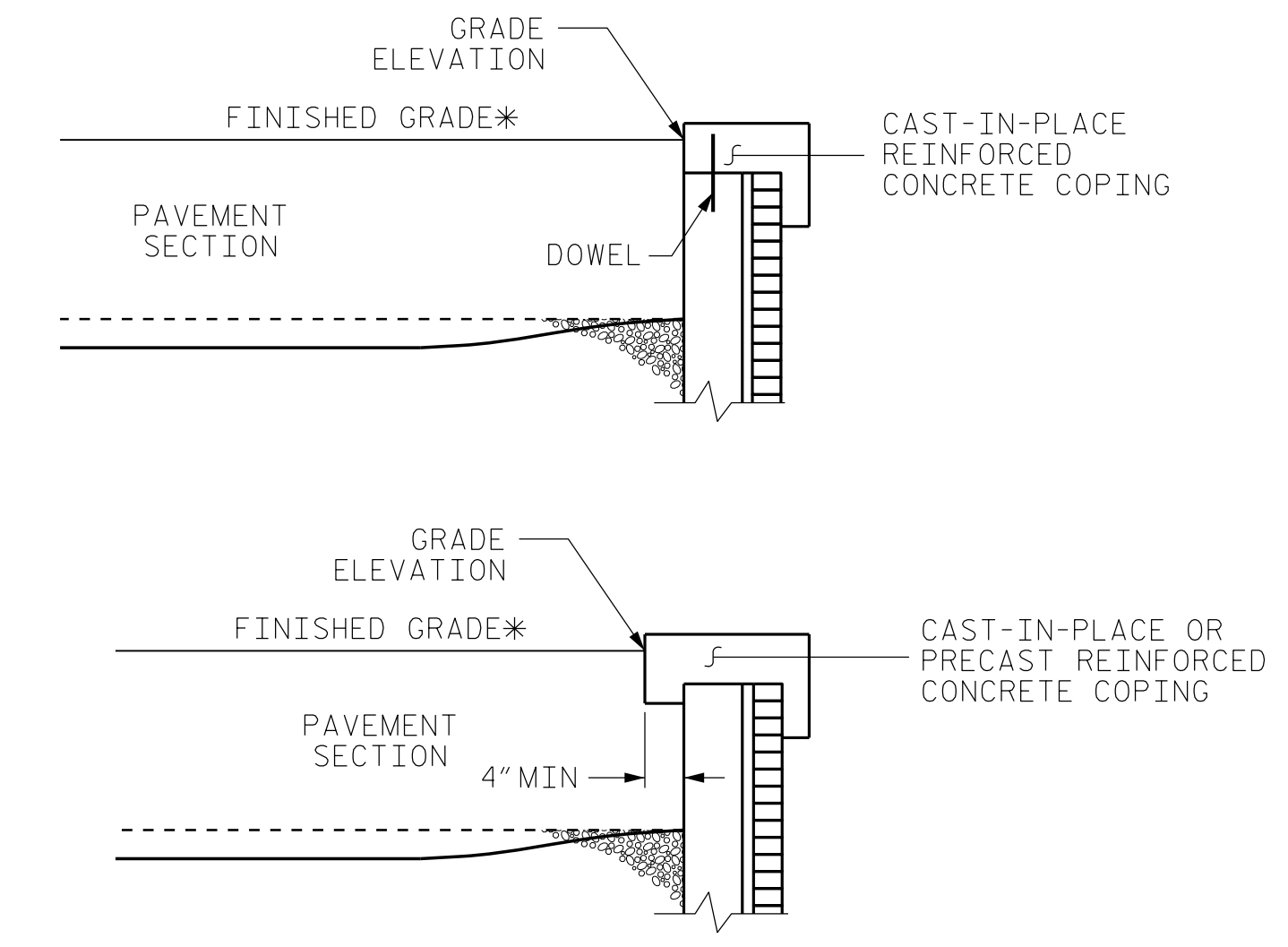
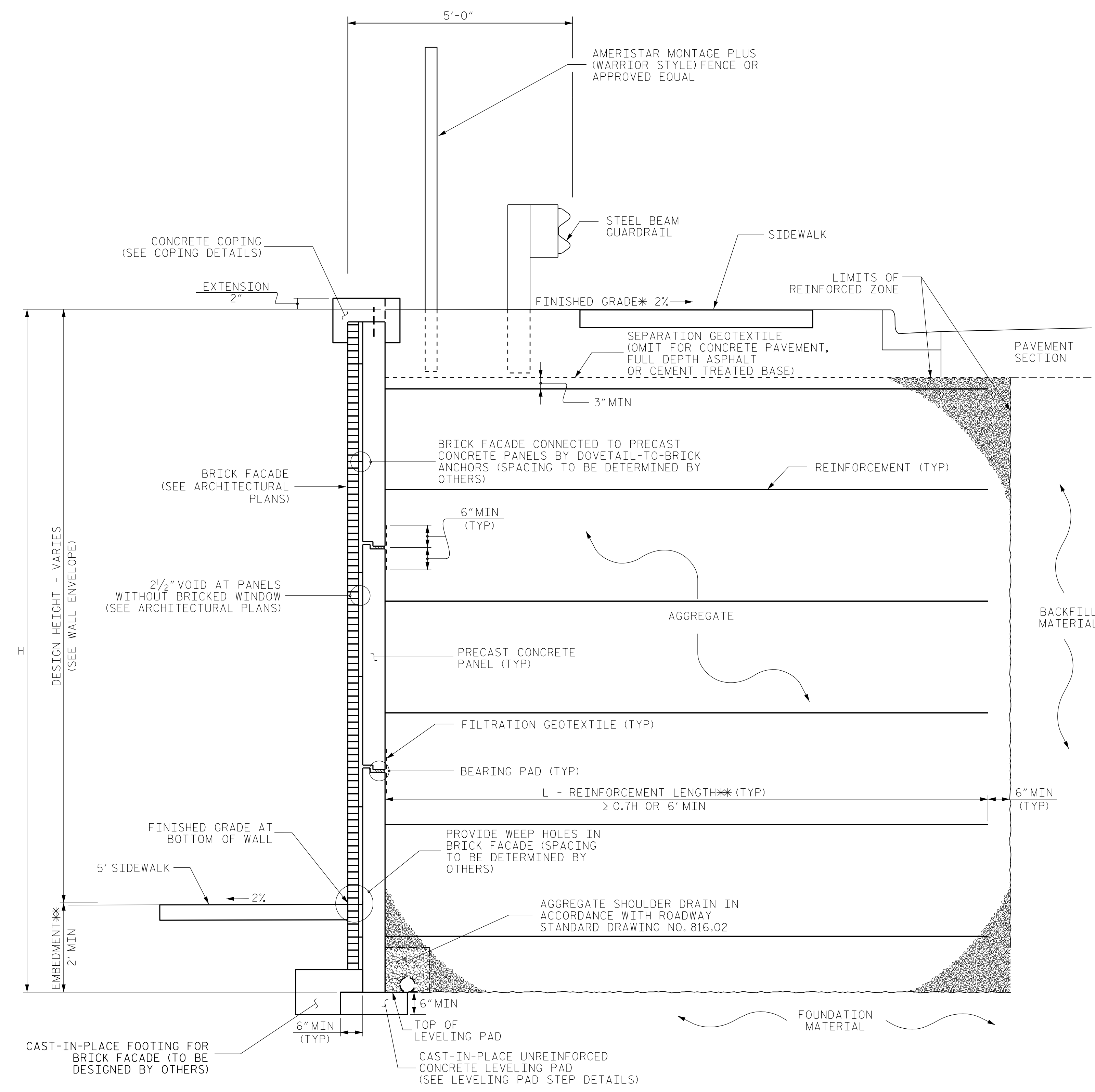
SEE ARCHITECTURAL PLANS FOR BRICK FACADE DIMENSIONS AND DETAILS

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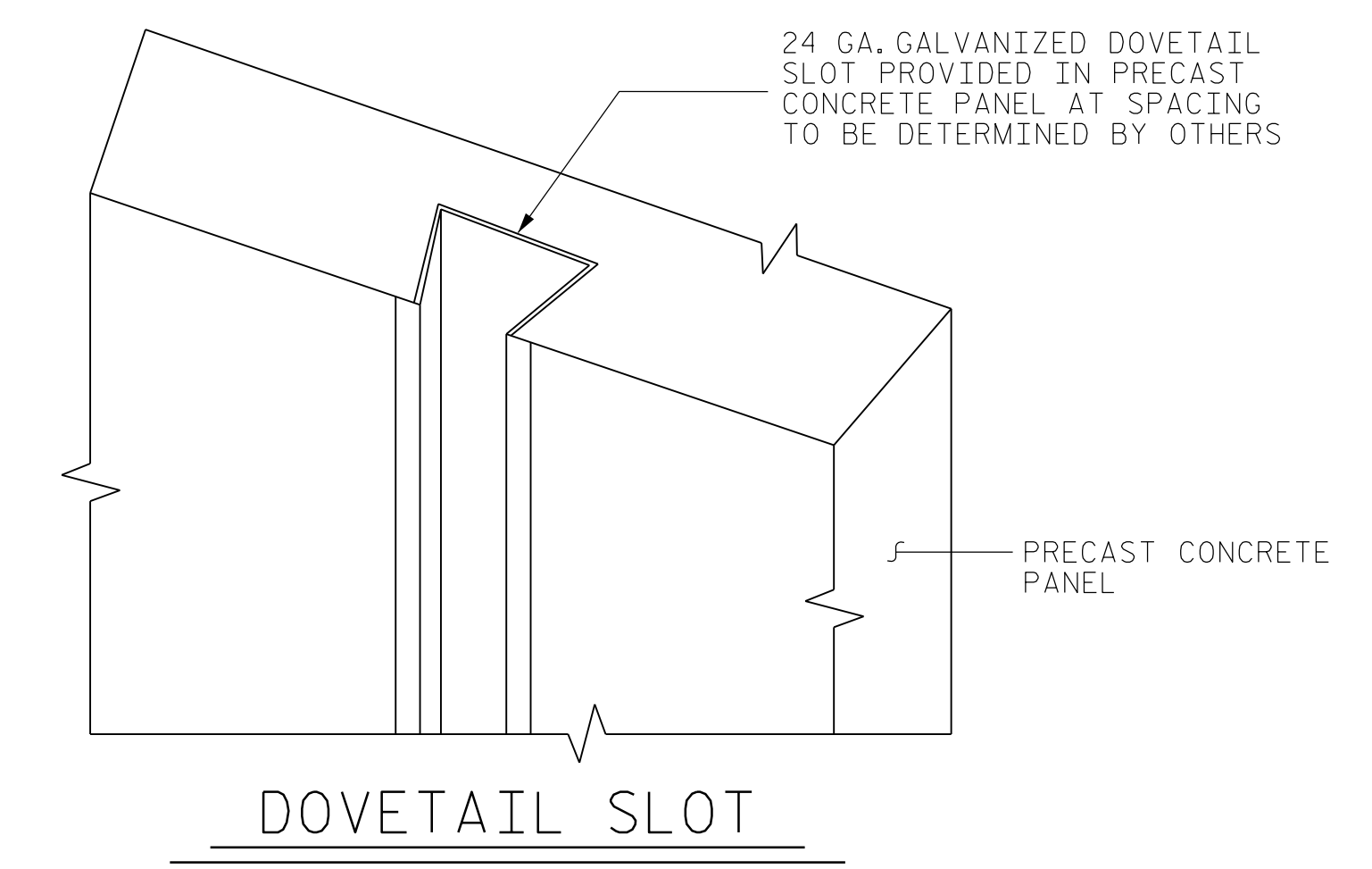
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1	MJA	8/2014	3	MJA	6/2015
2	MJA	12/2014	4		



**COPING DETAILS**

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO PANELS WITH DOWELS OR EXTEND COPING DOWN BACK OF PANELS.  
 \*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



**MSE WALL WITH PRECAST PANELS AND BRICK FACADE - TYPICAL SECTION**

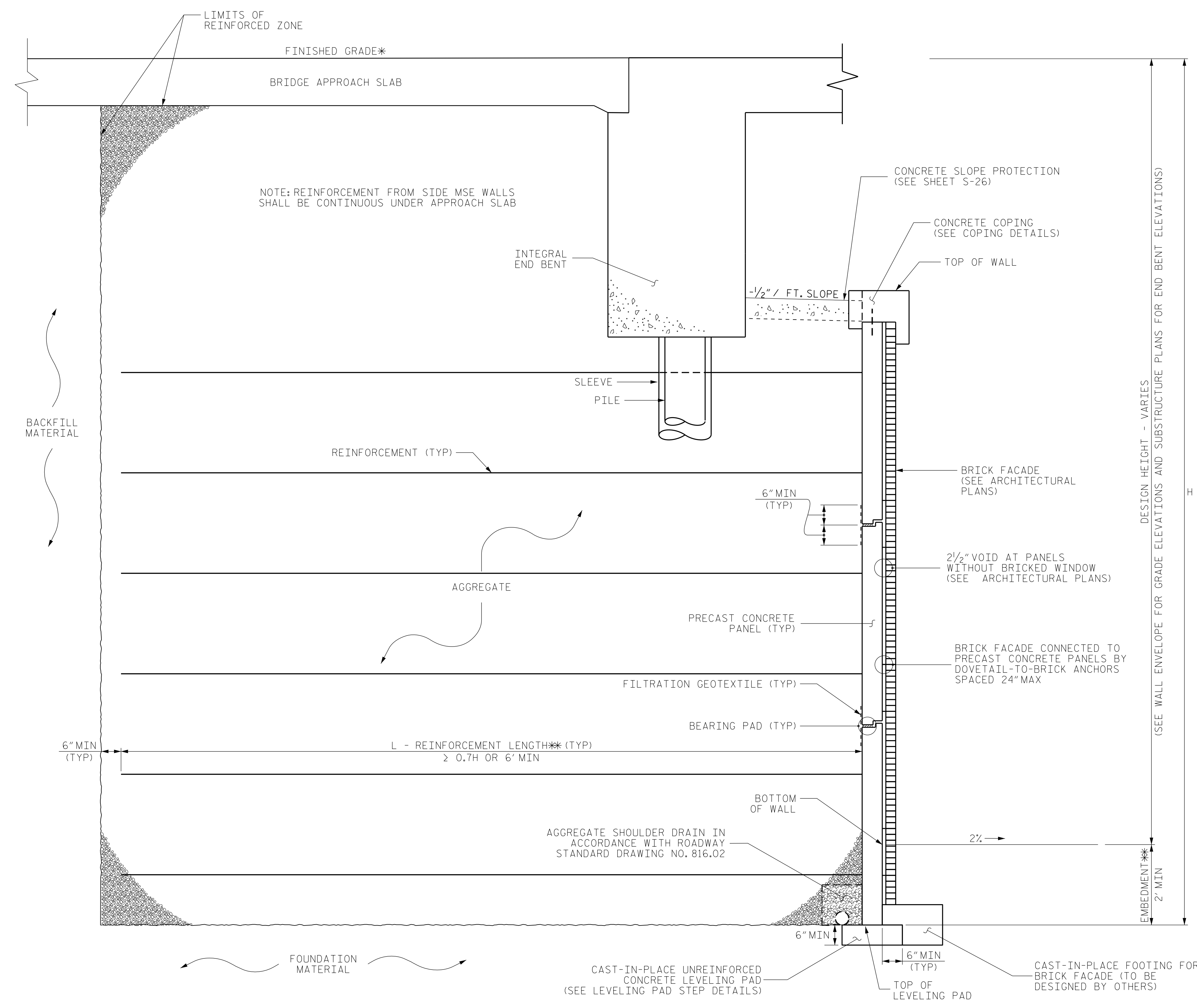
\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.  
 \*\*SEE MSE RETAINING WALLS PROVISION FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.

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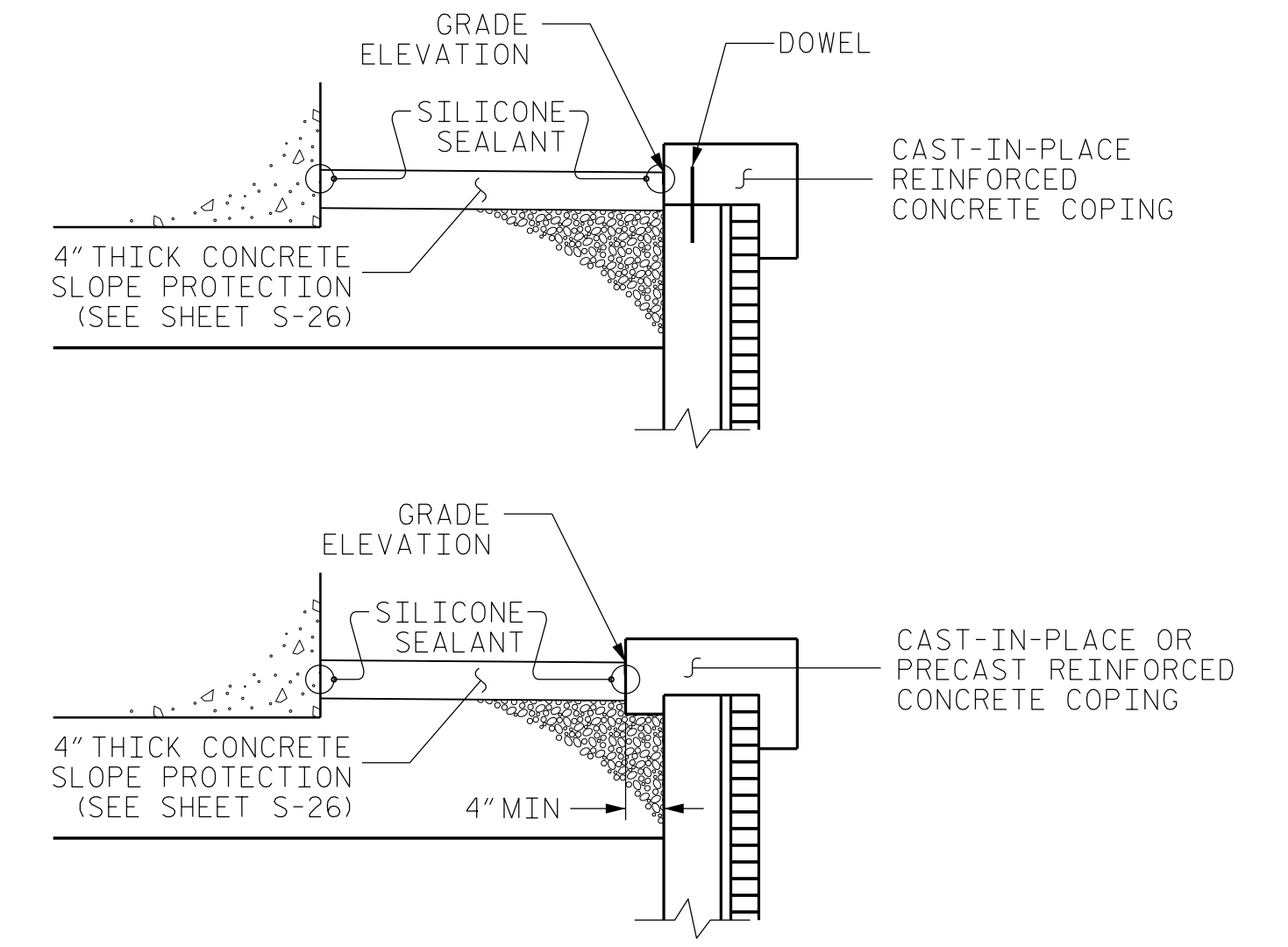
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REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1	MJA	8/2014	3		
2			4		



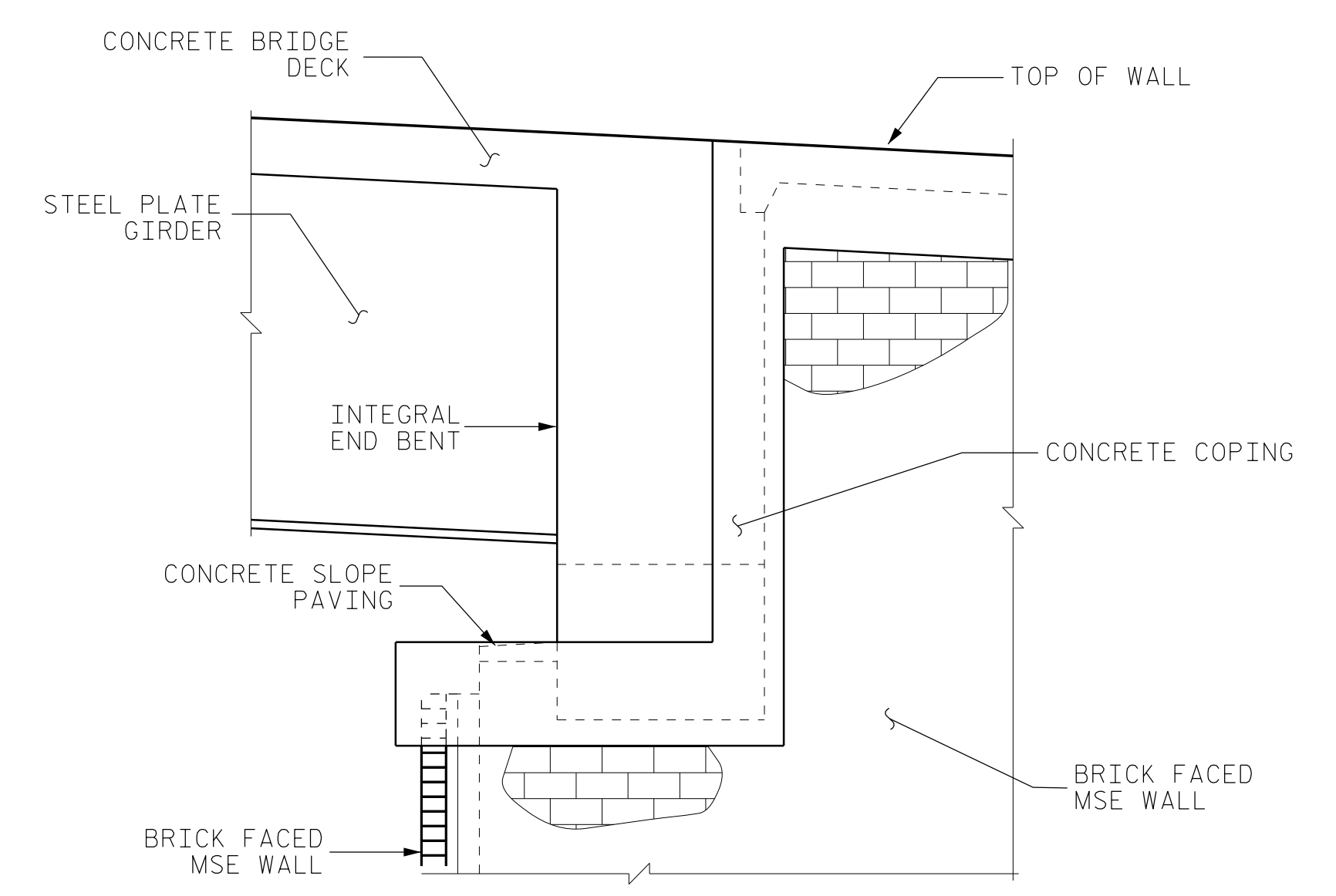
MSE ABUTMENT WALL WITH PRECAST PANELS AND BRICK FACADE - TYPICAL SECTION

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.  
 \*\*SEE MSE RETAINING WALLS PROVISION FOR EMBEDMENT AND REINFORCEMENT LENGTH REQUIREMENTS.



COPING DETAILS

AT THE CONTRACTOR'S OPTION, CONNECT COPING TO PANELS WITH DOWELS OR EXTEND COPING DOWN BACK OF PANELS.



MSE WALL AT SUBSTRUCTURE

BARRIER RAIL, GUARDRAIL, AND PEDESTRIAN RAIL NOT SHOWN FOR CLARITY.

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NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		



8.17/99

### ESTIMATED WALL QUANTITIES

RETAINING WALL NO.	CAST-IN-PLACE CANTILEVER RETAINING WALLS (SQUARE FEET)
3	565
4	1,005
TOTAL QUANTITY = 1,570 SF	

# Terracon

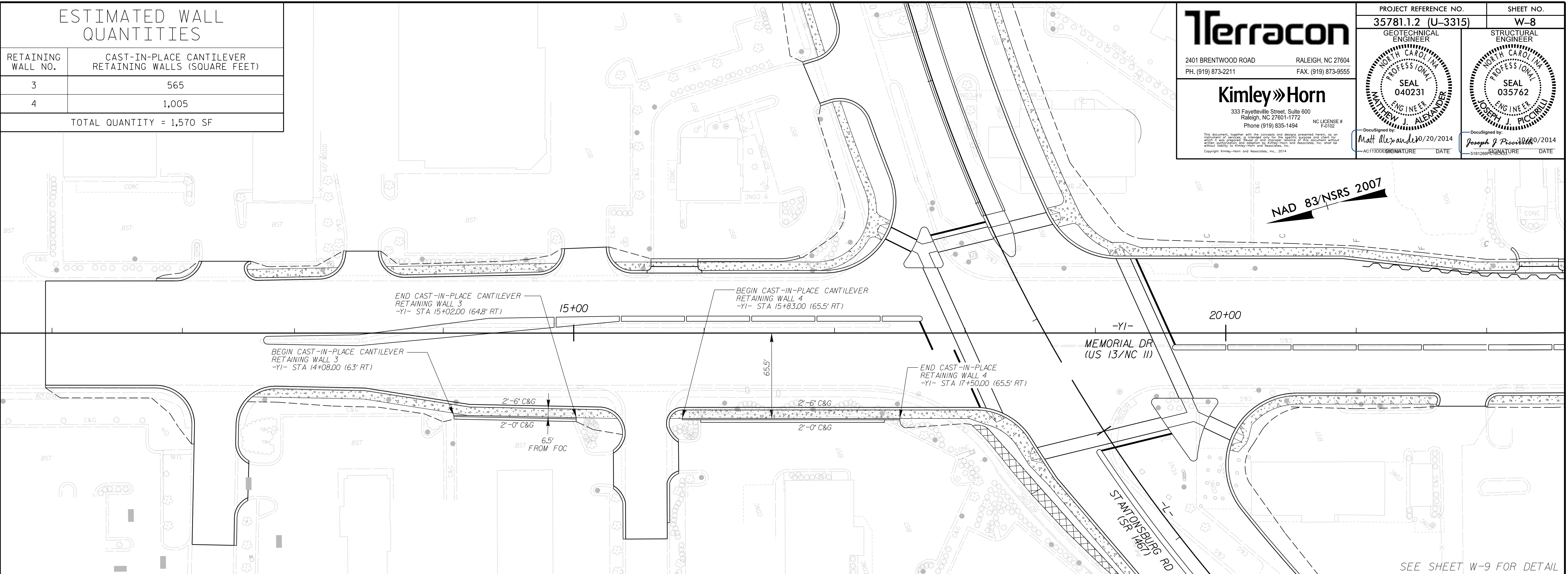
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PROJECT REFERENCE NO. <b>35781.1.2 (U-3315)</b>	SHEET NO. <b>W-8</b>
GEOTECHNICAL ENGINEER <b>SEAL 040231</b> MATTHEW J. ALEXANDER	STRUCTURAL ENGINEER <b>SEAL 035762</b> JOSEPH J. PICCOLI
DocuSigned by: <b>Matt Alexander</b> 10/20/2014	DocuSigned by: <b>Joseph J. Piccoli</b> 10/20/2014
ACT133006 SIGNATURE DATE	51812868 SIGNATURE DATE

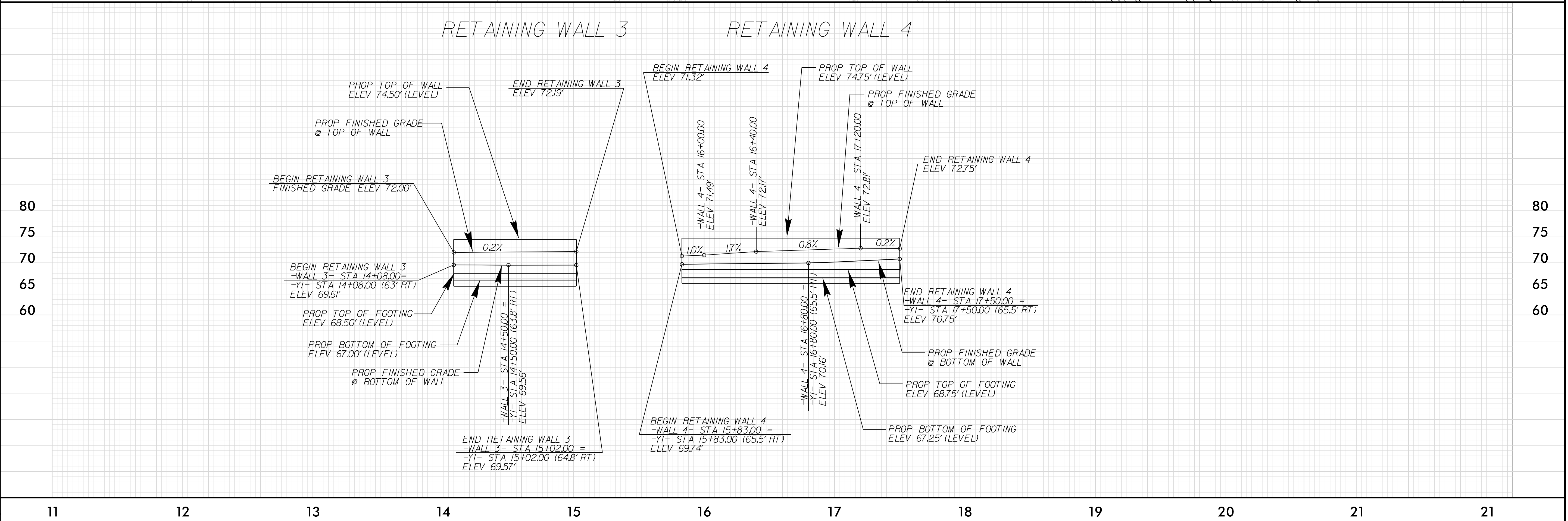


NAD 83/NSRS 2007

SEE SHEET W-9 FOR DETAIL

### RETAINING WALL 3

### RETAINING WALL 4



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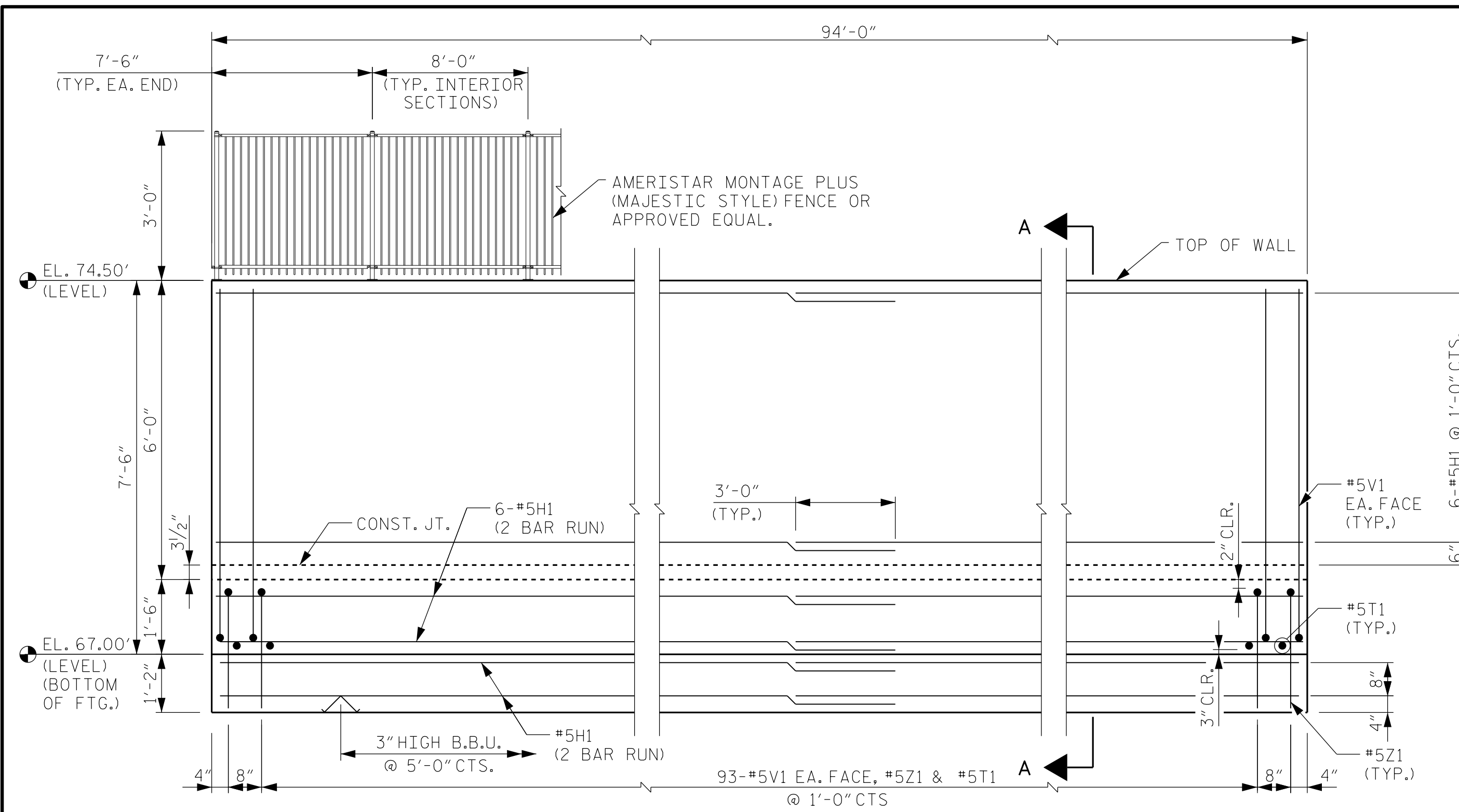
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*Matthew J. Alexander*  
 PROFESSIONAL ENGINEER  
 SEAL 040231  
 DATE

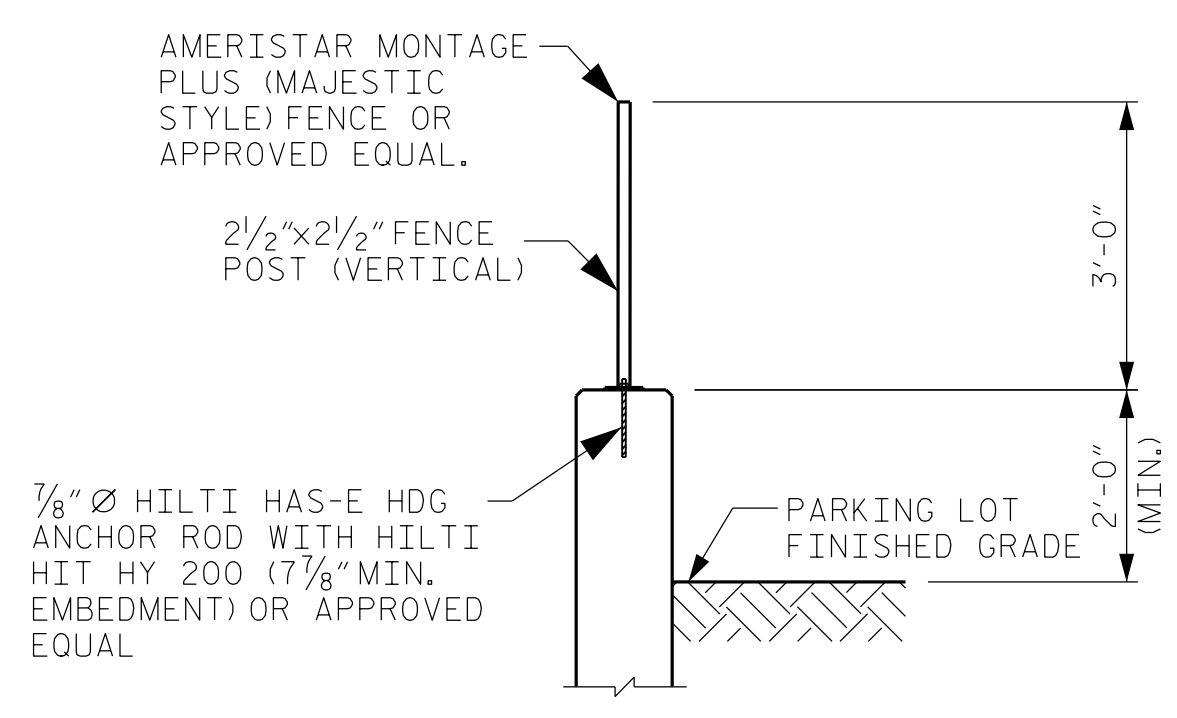
*Joseph J. Piccirilli*  
 PROFESSIONAL ENGINEER  
 SEAL 035762  
 DATE

PROJECT REFERENCE NO. <b>35781.12 (U-3315)</b>	SHEET NO. <b>W-9</b>
GEOTECHNICAL ENGINEER	STRUCTURAL ENGINEER
SEAL 040231	SEAL 035762
DATE	DATE



RETAINING WALL 3 - ELEVATION

NOTE: FINISHED GRADE NOT SHOWN FOR CLARITY.



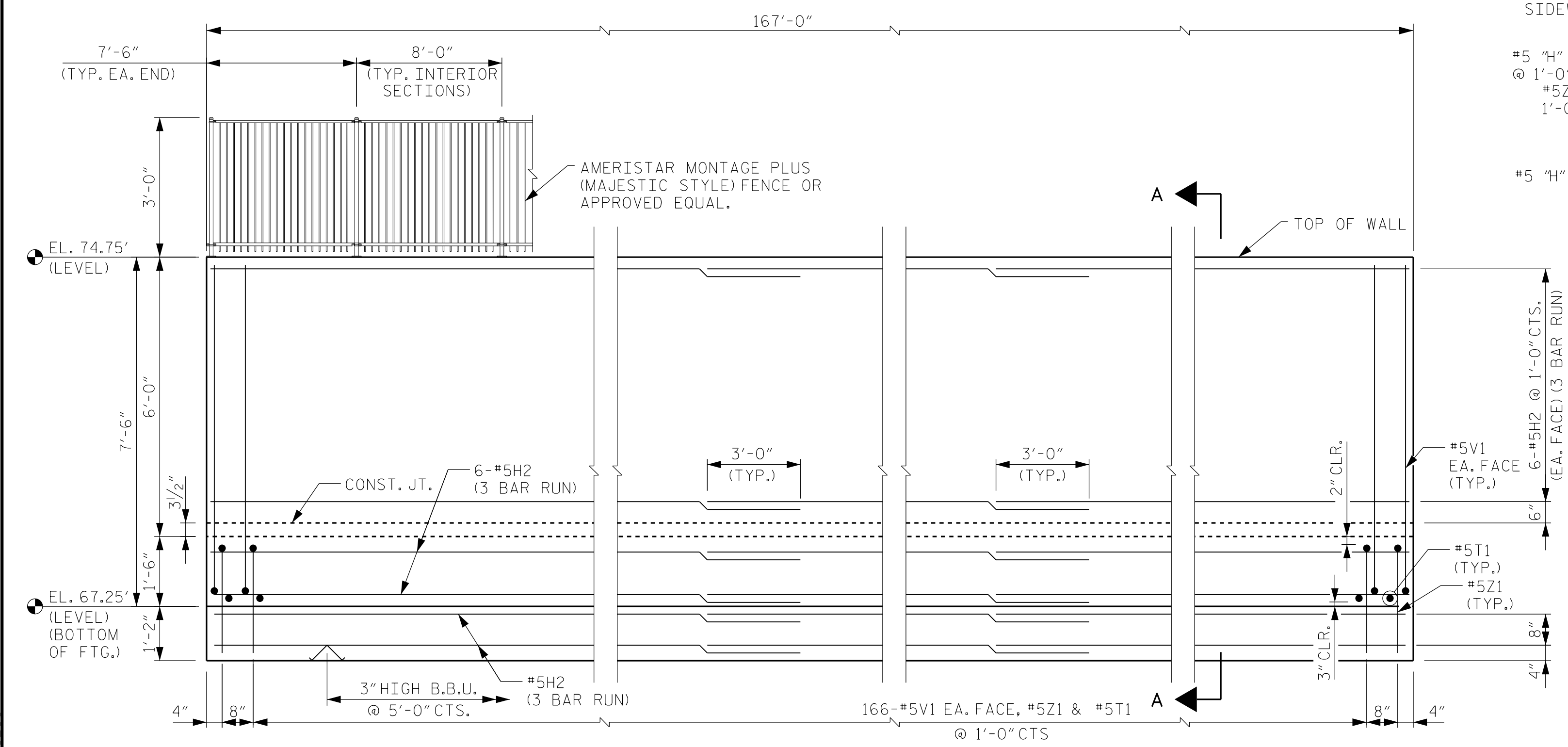
ORNAMENTAL FENCE DETAIL

ORNAMENTAL FENCE PAY LENGTH: 261.00 LIN. FT.

BAR TYPES	
5'-0"	Z1
7'-1"	V1
11"	V1
6"	Z1

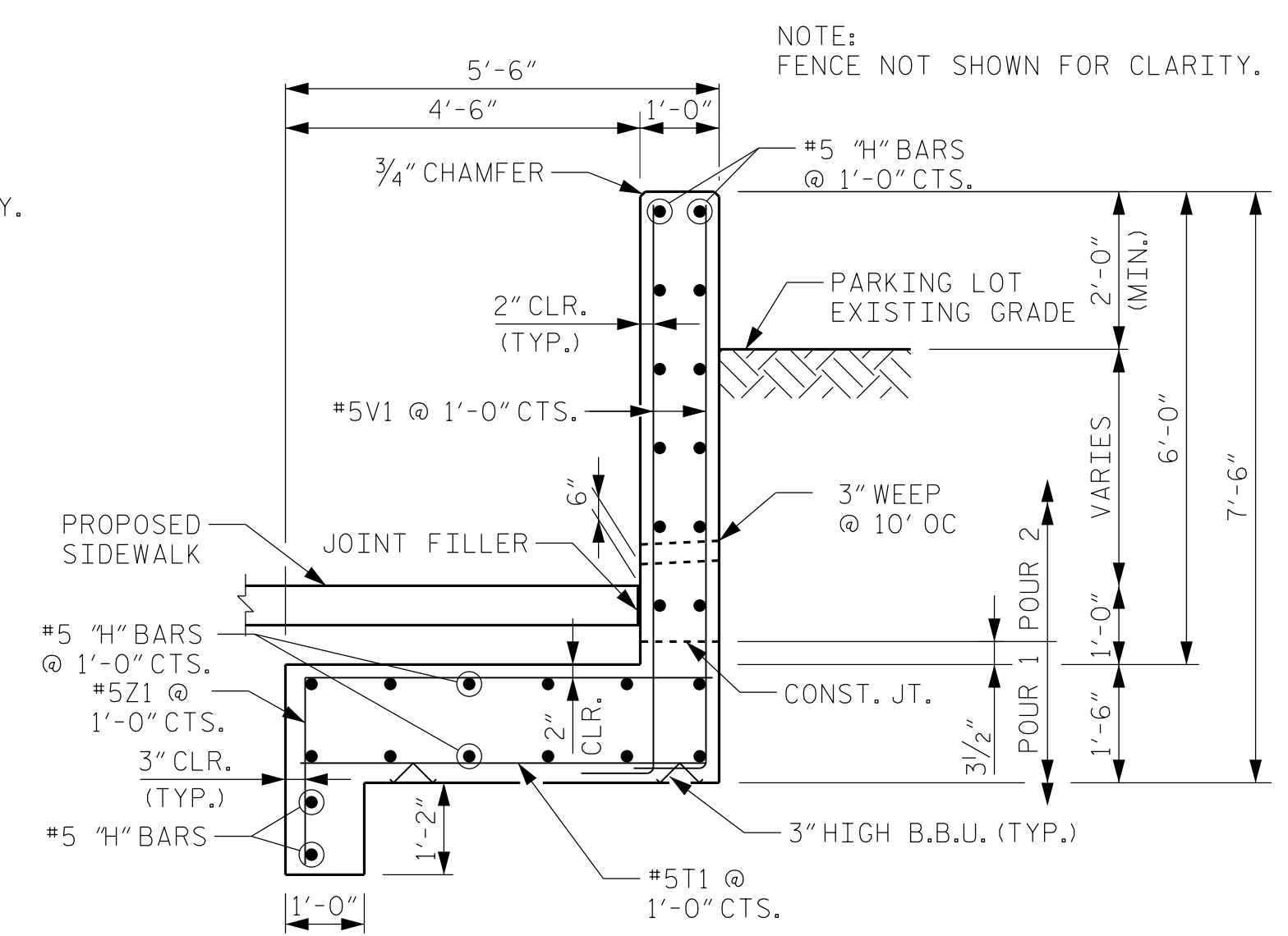
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL					
RETAINING WALL #3					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	52	5	STR	48'-3"	2,617
T1	95	5	STR	5'-0"	495
V1	190	5	1	8'-0"	1,585
Z1	95	5	1	7'-6"	743
REINFORCING STEEL					5,440 LBS.
CLASS A CONCRETE BREAKDOWN					
POUR #1 (KEY, FTG. & LOWER STEM)				33.8 C. Y.	
POUR #2 (UPPER STEM)				19.9 C. Y.	
TOTAL CLASS A CONCRETE				53.7 C. Y.	



RETAINING WALL 4 - ELEVATION

NOTE: FINISHED GRADE NOT SHOWN FOR CLARITY.



SECTION A-A

**NOTES:**

- FOR CAST-IN-PLACE CANTILEVER RETAINING WALLS, SEE CAST-IN-PLACE CANTILEVER RETAINING WALLS PROVISION.
- THE RETAINING WALL HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. A TRAFFIC SURCHARGE AND VEHICULAR IMPACT HAVE BEEN ACCOUNTED FOR IN THE DESIGN.
- CONSTRUCT RETAINING WALLS NO. 3 AND 4 TO THE DIMENSIONS SHOWN TO INCLUDE WALL EXTENSION, EMBEDDED FOOTING, AND KEY. VERIFY THE REQUIRED BEARING CAPACITY OF 2.5 KSF DURING CONSTRUCTION.
- CONCRETE SHALL BE CLASS A.
- VERTICAL CONTRACTION JOINTS IN WALL SHALL BE SPACED NO GREATER THAN 15'-0" ON CENTER ALONG THE LENGTH OF THE WALL. CUT EVERY OTHER HORIZONTAL BAR AT CONTRACTION JOINT LOCATIONS, EXCEPT TOP AND BOTTOM BARS. PROVIDE 3/4" TOOLED JOINT ON BOTH SIDES OF THE WALL AT ALL CONTRACTION JOINTS.
- CHAMFER ALL CORNERS OF THE EXPOSED CAST-IN-PLACE CONCRETE RETAINING WALL.
- A FENCE IS REQUIRED ON TOP OF RETAINING WALLS NO. 3 AND 4. FENCE SHALL BE AMERISTAR MONTAGE PLUS (MAJESTIC STYLE), OR APPROVED EQUAL.
- THE ORNAMENTAL FENCE SHALL BE BLACK.
- ALL BOLTS SHALL BE HILTI 7/8" DIAMETER HAS-E HDG ANCHOR ROD WITH HILTI HY 200 ADHESIVE EMBEDDED A MINIMUM OF 7-7/8", OR APPROVED EQUAL.
- CONSTRUCT WEEP HOLES AS DETAILED. A DRAIN PIPE IS NOT REQUIRED FOR RETAINING WALLS NO. 3 AND 4.
- RETAINING WALLS NO. 3 AND 4 ARE DESIGNED FOR A TRAFFIC SURCHARGE AND VEHICULAR IMPACT.
- BACKFILL FOR THE CIP CANTILEVER RETAINING WALLS SHOULD BE CLASS II SELECT MATERIAL. SEE SECTION 1016 OF THE STANDARDS AND SPECIFICATIONS.
- AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT RETAINING WALLS NO. 3 AND 4. SEE CAST-IN-PLACE CANTILEVER WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

8/17/99  
 15-OCT-2014 17:51  
 N:\P\Projects\2011\70115058\U3315\U3315\_GEO\_RWAL\_PITT\_CIP\ACADD\_GEO\TECH\Engineer.rng\U3315\_GEO\_CIP\_De-tails.dgn  
 m.alexander - 11/7/11 5:05 PM

## STANDARD NOTES

### DESIGN DATA:

SPECIFICATIONS	-----	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF		
STRUCTURAL STEEL - AASHTO M270 GRADE 36	-	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	-	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	-	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION		
	GRADE 60	-- 24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR		
UNTREATED - EXTREME FIBER STRESS	-----	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT.
		(MINIMUM)

### MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

### CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

### CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

### DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

### ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.  
ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

### REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

### STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

### HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

### SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

# ENGLISH

JANUARY, 1990