

DESIGN DESIGNATION

CURRENT ADT (2024)	IR 270	74,909
DESIGN YEAR ADT (2045)	IR 270	93,950
DESIGN HOURLY VOLUME (2045)	IR 270	9,530
DIRECTIONAL DISTRIBUTION	IR 270	N/A
TRUCKS (24 HOUR B&C)	IR 270	7%
DESIGN SPEED	IR 270	70 MPH
LEGAL SPEED	IR 270	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	IR 270	01 INTERSTATE (URBAN)
NHS PROJECT	IR 270	YES

CURRENT ADT (2024)	CDN (IR 270)	4,719
DESIGN YEAR ADT (2045)	CDN (IR 270)	7,340
DESIGN HOURLY VOLUME (2045)	CDN (IR 270)	760
DIRECTIONAL DISTRIBUTION	CDN (IR 270)	N/A
TRUCKS (24 HOUR B&C)	CDN (IR 270)	7%
DESIGN SPEED	CDN (IR 270)	60 MPH
LEGAL SPEED	CDN (IR 270)	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	CDN (IR 270)	01 INTERSTATE URBAN
NHS PROJECT	CDN (IR 270)	YES

CURRENT ADT (2024)	RAMP A (SR 161)	27,489
DESIGN YEAR ADT (2045)	RAMP A (SR 161)	36,900
DESIGN HOURLY VOLUME (2045)	RAMP A (SR 161)	4,350
DIRECTIONAL DISTRIBUTION	RAMP A (SR 161)	N/A
TRUCKS (24 HOUR B&C)	RAMP A (SR 161)	5%
DESIGN SPEED	RAMP A (SR 161)	50 MPH
LEGAL SPEED	RAMP A (SR 161)	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP A (SR 161)	RAMP
NHS PROJECT	RAMP A (SR 161)	YES

CURRENT ADT (2024)	RAMP K (SR 3)	11,574
DESIGN YEAR ADT (2045)	RAMP K (SR 3)	17,050
DESIGN HOURLY VOLUME (2045)	RAMP K (SR 3)	1,850
DIRECTIONAL DISTRIBUTION	RAMP K (SR 3)	N/A
TRUCKS (24 HOUR B&C)	RAMP K (SR 3)	5%
DESIGN SPEED	RAMP K (SR 3)	PER L&D I FIGURE 503-1
LEGAL SPEED	RAMP K (SR 3)	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP K (SR 3)	RAMP
NHS PROJECT	RAMP K (SR 3)	YES

CURRENT ADT (2024)	RAMP D (SR 161)	1,453
DESIGN YEAR ADT (2045)	RAMP D (SR 161)	1,570
DESIGN HOURLY VOLUME (2045)	RAMP D (SR 161)	210
DIRECTIONAL DISTRIBUTION	RAMP D (SR 161)	N/A
TRUCKS (24 HOUR B&C)	RAMP D (SR 161)	4%
DESIGN SPEED	RAMP D (SR 161)	PER L&D I FIGURE 503-1
LEGAL SPEED	RAMP D (SR 161)	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP D (SR 161)	RAMP
NHS PROJECT	RAMP D (SR 161)	YES

CURRENT ADT (2024)	RAMP H (SR 161)	27,462
DESIGN YEAR ADT (2045)	RAMP H (SR 161)	34,790
DESIGN HOURLY VOLUME (2045)	RAMP H (SR 161)	4,000
DIRECTIONAL DISTRIBUTION	RAMP H (SR 161)	N/A
TRUCKS (24 HOUR B&C)	RAMP H (SR 161)	5%
DESIGN SPEED	RAMP H (SR 161)	PER L&D I FIGURE 503-1
LEGAL SPEED	RAMP H (SR 161)	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP H (SR 161)	RAMP
NHS PROJECT	RAMP H (SR 161)	YES

CURRENT ADT (2024)	RAMP Q (SUNBURY RD.)	7,273
DESIGN YEAR ADT (2045)	RAMP Q (SUNBURY RD.)	8,690
DESIGN HOURLY VOLUME (2045)	RAMP Q (SUNBURY RD.)	1,110
DIRECTIONAL DISTRIBUTION	RAMP Q (SUNBURY RD.)	N/A
TRUCKS (24 HOUR B&C)	RAMP Q (SUNBURY RD.)	3%
DESIGN SPEED	RAMP Q (SUNBURY RD.)	PER L&D I FIGURE 503-1
LEGAL SPEED	RAMP Q (SUNBURY RD.)	60 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP Q (SUNBURY RD.)	RAMP
NHS PROJECT	RAMP Q (SUNBURY RD.)	YES

CURRENT ADT (2024)	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	20,921
DESIGN YEAR ADT (2045)	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	28,890
DESIGN HOURLY VOLUME (2045)	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	3,350
DIRECTIONAL DISTRIBUTION	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	65% (EB)
TRUCKS (24 HOUR B&C)	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	3%
DESIGN SPEED	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	60 MPH
LEGAL SPEED	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	02 OTHER FREEWAY OR EXPRESSWAY (URBAN)
NHS PROJECT	SR 161 BEGIN TO SLM 17.48 (EB) & SLM 17.22 (WB)	YES

CURRENT ADT (2024)	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	91,548
DESIGN YEAR ADT (2045)	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	125,890
DESIGN HOURLY VOLUME (2045)	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	15,150
DIRECTIONAL DISTRIBUTION	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	50% (WB)
TRUCKS (24 HOUR B&C)	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	7%
DESIGN SPEED	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	70 MPH
LEGAL SPEED	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	02 OTHER FREEWAY OR EXPRESSWAY (URBAN)
NHS PROJECT	SR 161 SLM 17.48 (EB) & SLM 17.22 (WB) TO SLM 18.60 (EB&WB)	YES

DESIGN DESIGNATION

CURRENT ADT (2024)	RAMP T (LITTLE TURTLE WAY)	7,739
DESIGN YEAR ADT (2045)	RAMP T (LITTLE TURTLE WAY)	8,520
DESIGN HOURLY VOLUME (2045)	RAMP T (LITTLE TURTLE WAY)	1,030
DIRECTIONAL DISTRIBUTION	RAMP T (LITTLE TURTLE WAY)	N/A
TRUCKS (24 HOUR B&C)	RAMP T (LITTLE TURTLE WAY)	3%
DESIGN SPEED	RAMP T (LITTLE TURTLE WAY)	PER L&D I FIGURE 503-1
LEGAL SPEED	RAMP T (LITTLE TURTLE WAY)	FOR 60 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP T (LITTLE TURTLE WAY)	RAMP
NHS PROJECT	RAMP T (LITTLE TURTLE WAY)	YES

CURRENT ADT (2024)	CDW (SR 161)	54,951
DESIGN YEAR ADT (2045)	CDW (SR 161)	71,690
DESIGN HOURLY VOLUME (2045)	CDW (SR 161)	8,580
DIRECTIONAL DISTRIBUTION	CDW (SR 161)	N/A
TRUCKS (24 HOUR B&C)	CDW (SR 161)	N/A
DESIGN SPEED	CDW (SR 161)	60 MPH
LEGAL SPEED	CDW (SR 161)	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	CDW (SR 161)	01 INTERSTATE (URBAN)
NHS PROJECT	CDW (SR 161)	YES

CURRENT ADT (2024)	CDE (SR 161)	53,296
DESIGN YEAR ADT (2045)	CDE (SR 161)	65,990
DESIGN HOURLY VOLUME (2045)	CDE (SR 161)	7,840
DIRECTIONAL DISTRIBUTION	CDE (SR 161)	N/A
TRUCKS (24 HOUR B&C)	CDE (SR 161)	6%
DESIGN SPEED	CDE (SR 161)	60 MPH
LEGAL SPEED	CDE (SR 161)	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	CDE (SR 161)	01 INTERSTATE (URBAN)
NHS PROJECT	CDE (SR 161)	YES

CURRENT ADT (2024)	RAMP N (SUNBURY RD.)	2,213
DESIGN YEAR ADT (2045)	RAMP N (SUNBURY RD.)	3,020
DESIGN HOURLY VOLUME (2045)	RAMP N (SUNBURY RD.)	430
DIRECTIONAL DISTRIBUTION	RAMP N (SUNBURY RD.)	N/A
TRUCKS (24 HOUR B&C)	RAMP N (SUNBURY RD.)	2%
DESIGN SPEED	RAMP N (SUNBURY RD.)	PER L&D I FIGURE 503-1
LEGAL SPEED	RAMP N (SUNBURY RD.)	FOR 60 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RAMP N (SUNBURY RD.)	RAMP
NHS PROJECT	RAMP N (SUNBURY RD.)	YES

CURRENT ADT (2024)	SR 161 SLM 18.60 (EB&WB) TO END	64,716
DESIGN YEAR ADT (2045)	SR 161 SLM 18.60 (EB&WB) TO END	86,550
DESIGN HOURLY VOLUME (2045)	SR 161 SLM 18.60 (EB&WB) TO END	9,080
DIRECTIONAL DISTRIBUTION	SR 161 SLM 18.60 (EB&WB) TO END	50%
TRUCKS (24 HOUR B&C)	SR 161 SLM 18.60 (EB&WB) TO END	8%
DESIGN SPEED	SR 161 SLM 18.60 (EB&WB) TO END	70 MPH
LEGAL SPEED	SR 161 SLM 18.60 (EB&WB) TO END	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	SR 161 SLM 18.60 (EB&WB) TO END	02 OTHER FREEWAY OR EXPRESSWAY (URBAN)
NHS PROJECT	SR 161 SLM 18.60 (EB&WB) TO END	YES

CURRENT ADT (2024)	US 62	15,270
DESIGN YEAR ADT (2045)	US 62	23,820
DESIGN HOURLY VOLUME (2045)	US 62	2,270
DIRECTIONAL DISTRIBUTION	US 62	28%
TRUCKS (24 HOUR B&C)	US 62	50%
DESIGN SPEED	US 62	50 MPH
LEGAL SPEED	US 62	50 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	US 62	03 PRINCIPAL ARTERIAL (URBAN)
NHS PROJECT	US 62	YES

CURRENT ADT (2024)	HAMILTON RD	NA
DESIGN YEAR ADT (2045)	HAMILTON RD	NA
DESIGN HOURLY VOLUME (2045)	HAMILTON RD	NA
DIRECTIONAL DISTRIBUTION	HAMILTON RD	NA
TRUCKS (24 HOUR B&C)	HAMILTON RD	NA
DESIGN SPEED	HAMILTON RD	35 MPH
LEGAL SPEED	HAMILTON RD	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	HAMILTON RD	03 PRINCIPAL ARTERIAL (URBAN)
NHS PROJECT	HAMILTON RD	NO

FEMA FLOOD ZONE AE
 ALUM CREEK
 FIRM: 39049C0183K 06/17/2008
 BASE FLOOD ELEVATION: ±787
 WORK PERMITTED: NO WORK PERFORMED IN ZONE AE LIMITS.
 NO FILL TO BE PLACED IN FLOODWAY AND FLOOD ZONE AE.

FEMA FLOOD ZONE A
 SPRING RUN
 FIRM: 39049C0183K 06/17/2008
 39049C0184K 06/17/2008
 BASE FLOOD ELEVATION: UNKNOWN
 WORK PERMITTED: NO WORK PERFORMED IN ZONE A LIMITS.
 NO FILL TO BE PLACED IN FLOODWAY AND FLOOD ZONE A.

FEMA FLOOD ZONE AE
 BIG WALNUT CREEK
 FIRM: 39049C0184K 06/17/2008
 BASE FLOOD ELEVATION: ±821
 WORK PERMITTED: NO WORK PERFORMED IN ZONE AE LIMITS.
 NO FILL TO BE PLACED IN FLOODWAY AND FLOOD ZONE AE.

FEMA FLOOD ZONE AE
 ROCKY FORK CREEK
 FIRM: 39049C0203K 06/17/2008
 BASE FLOOD ELEVATION: ±957
 WORK PERMITTED: PROPOSED BRIDGE PIERS FOR STRUCTURE
 WIDENING, CHANNEL PROTECTION AND AND MINOR
 REGRADING TO RE-ESTABLISH SLOPES.
 ADDITIONAL PIERS TO BE PLACED IN FLOODWAY AND FLOOD
 ZONE AE. TEMPORARY ACCESS FILL WILL BE PLACED FOR
 CONSTRUCTION ACTIVITIES.
 SEE PROJECT SITE PLAN SHEET 176


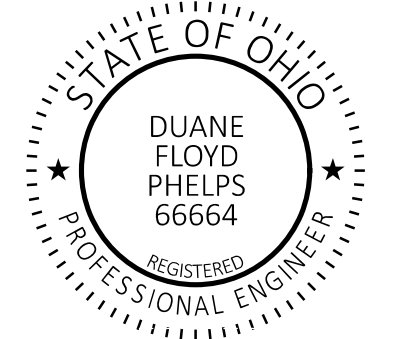


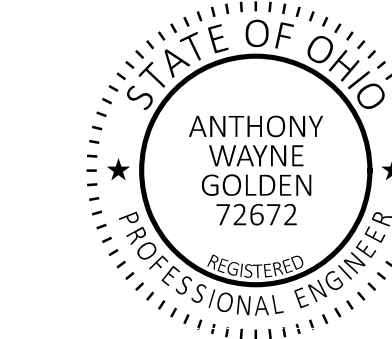
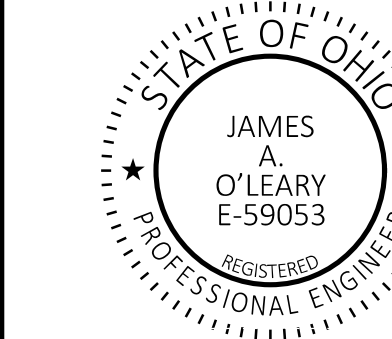

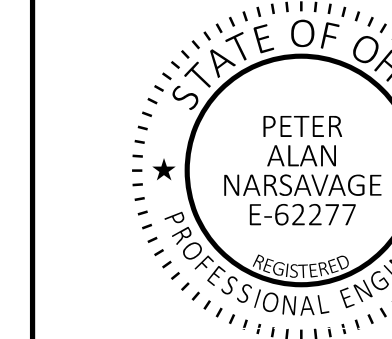
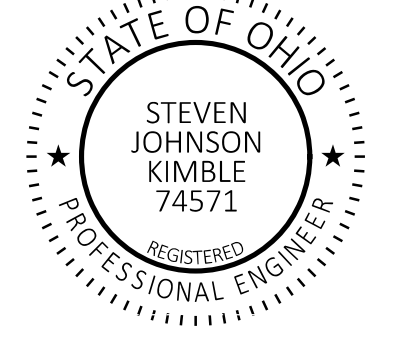


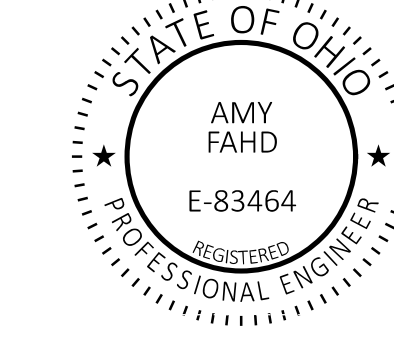

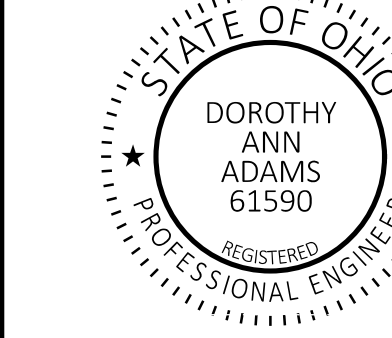
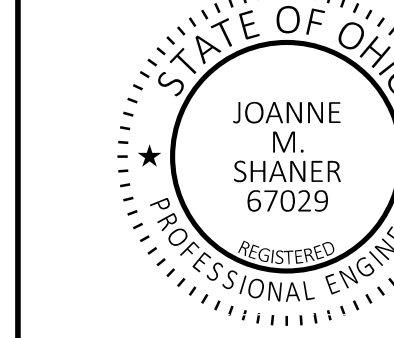
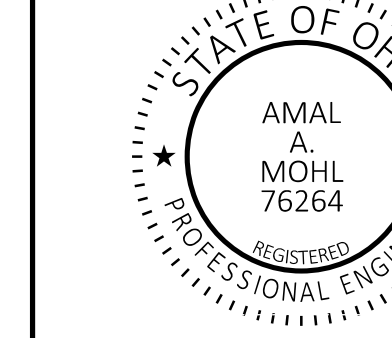
FEMA FLOOD ZONE AE
 SUGAR RUN CREEK
 FIRM: 39049C0204K 06/17/2008
 BASE FLOOD ELEVATION: ±974
 WORK PERMITTED: NO WORK PERFORMED IN ZONE AE LIMITS.
 NO FILL TO BE PLACED IN FLOODWAY AND FLOOD ZONE AE.

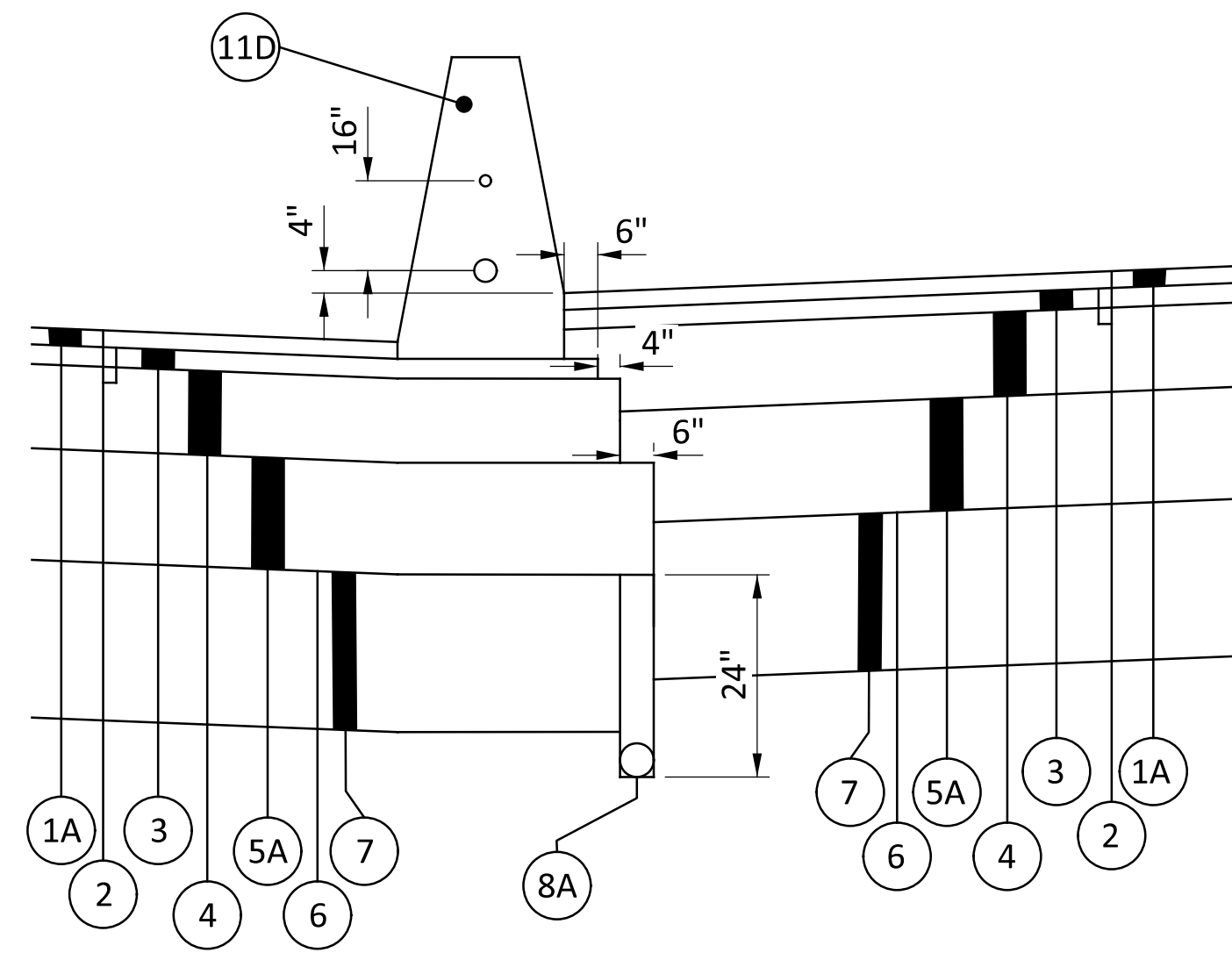
FEMA FLOOD ZONE AE
 BLACKLICK CREEK
 FIRM: 39049C0208K 06/17/2008
 BASE FLOOD ELEVATION: ±1,060
 WORK PERMITTED: NO WORK PERFORMED IN ZONE AE LIMITS.
 NO FILL TO BE PLACED IN FLOODWAY AND FLOOD ZONE AE.

DESIGN DESIGNATION

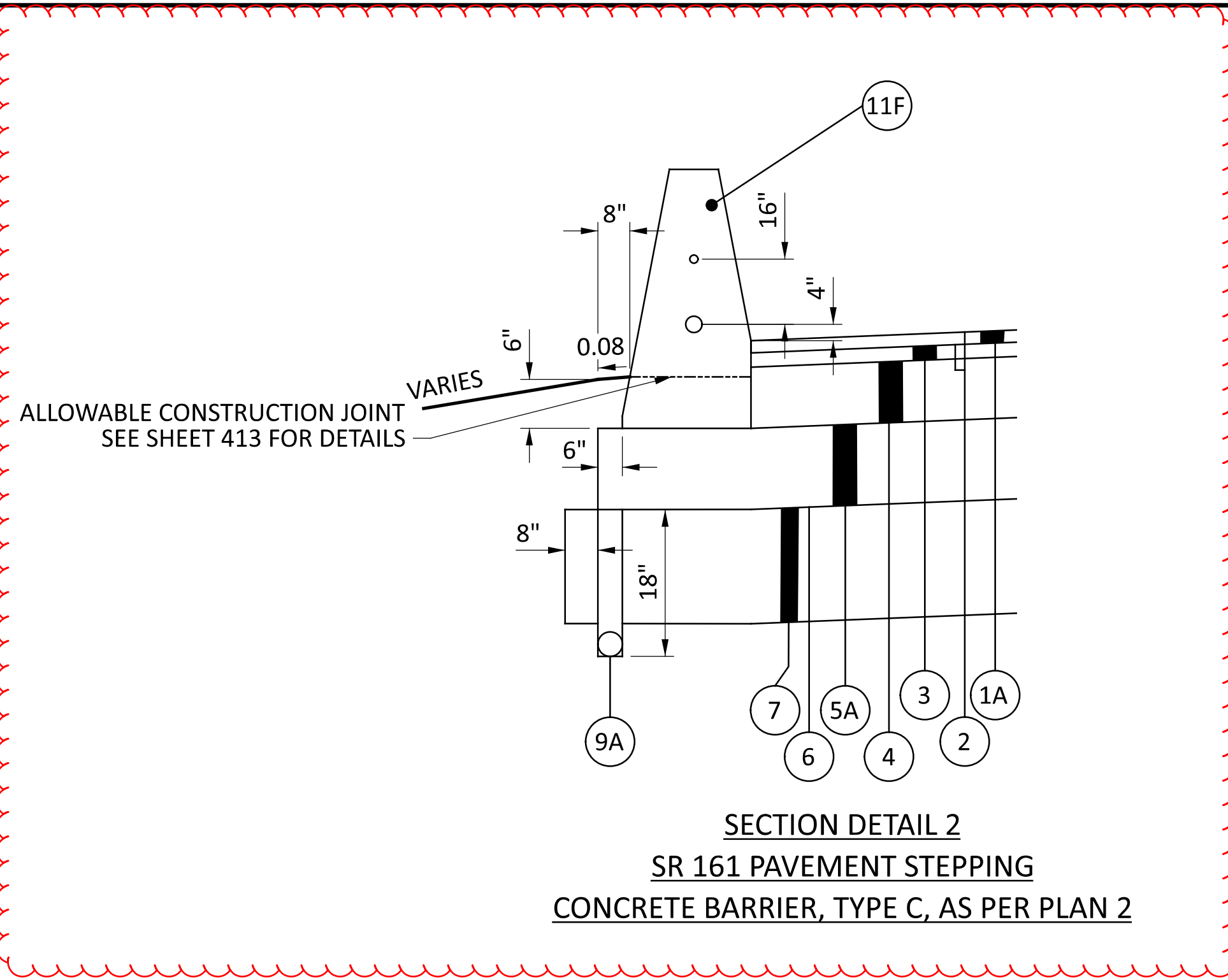
THE FOLLOWING RAMPS ARE LISTED DUE TO PROJECT IMPACTS LIMITED TO PAVEMENT PLANING AND RESURFACING AT THE ENTRANCE/EXIT TERMINALS WITH NO GEOMETRIC ADJUSTMENTS - NO DESIGN DESIGNATION IS REQUIRED FOR THE FOLLOWING:

- RAMP R (SUNBURY RD.)
- RAMP S (LITTLE TURTLE WAY)
- RAMP U (LITTLE TURTLE WAY)
- RAMP V (LITTLE TURTLE WAY)
- RAMP C (HAMILTON RD.)
- RAMP D (HAMILTON RD.)
- RAMP E (HAMILTON RD.)
- RAMP F (HAMILTON RD.)
- RAMP L (NEW ALBANY RD.)
- RAMP M (NEW ALBANY RD.)
- RAMP N (NEW ALBANY RD.)
- RAMP P (NEW ALBANY RD.)
- RAMP G (US 62)
- RAMP H (US 62)
- RAMP J (US 62)
- RAMP K (US 62)

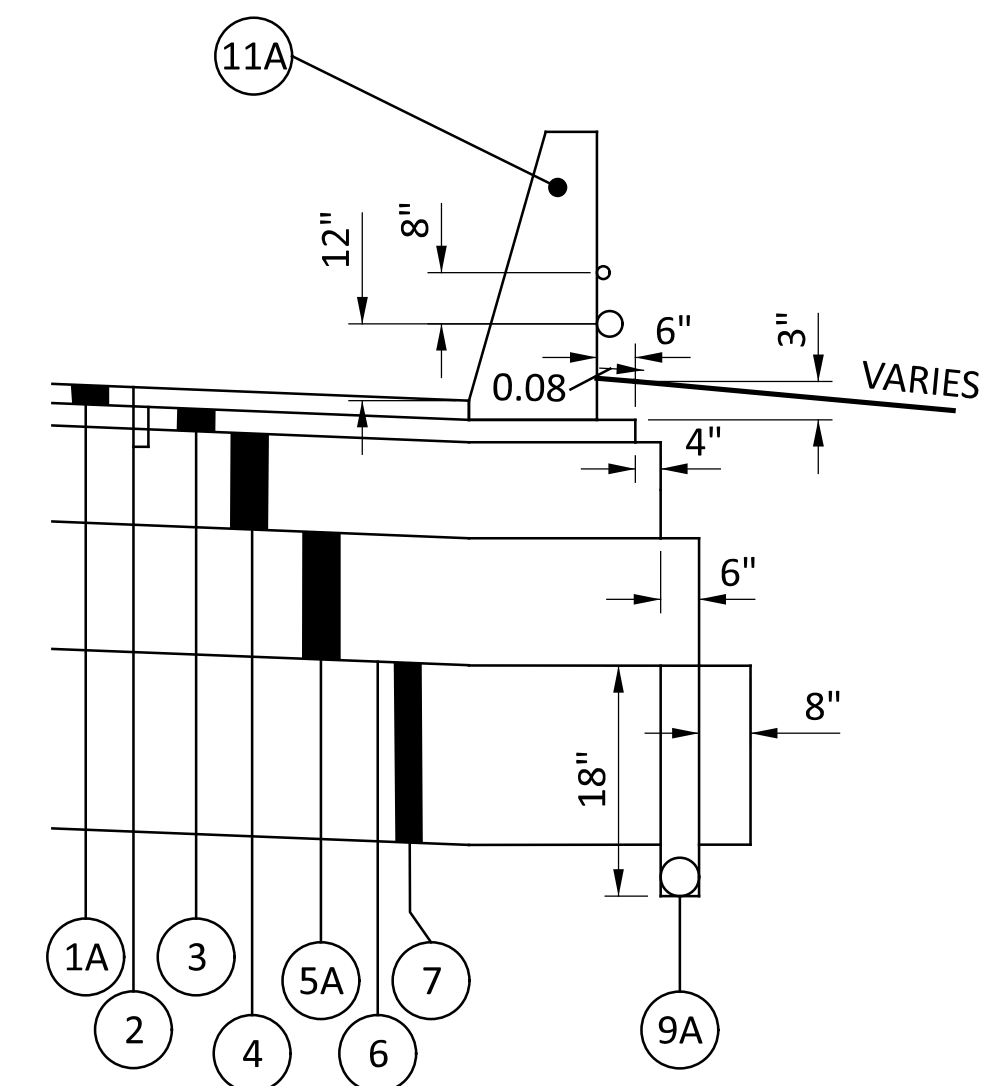
<p>ENGINEER'S SEAL</p> <p>ROADWAY, WATER LINE SHEETS: 1 - 7, 19 - 20, 45 - 52, 54 - 59, 122 - 131, 135 - 136, 139 - 140, 148 - 154, 215 - 233, 310 - 357, 367 - 374, 394 - 398, 414 - 421</p> 	<p>ENGINEER'S SEAL</p> <p>ROADWAY, DRAINAGE SHEETS: 8 - 13, 22 - 27, 132, 137, 141 - 142, 155, 15, 161, 167 - 168, 182 - 196, 234 - 266, 359 - 364, 375 - 376, 378 - 382, 412</p> 	<p>ENGINEER'S SEAL</p> <p>MOT, ROADWAY, DRAINAGE SHEETS: 14 - 21, 28 - 44, 53, 60 - 121, 133 - 134, 138, 143 - 147, 156, 159, 162 - 163, 169 - 171, 197 - 214, 267 - 309, 365 - 366, 377, 383 - 385</p> 	<p>ENGINEER'S SEAL</p> <p>DRAINAGE SHEETS: 157, 160, 164, 166, 172 - 173, 176 - 181, 386 - 389, 392 - 393</p> 	<p>ENGINEER'S SEAL</p> <p>DRAINAGE SHEETS: 165, 174 - 175, 390 - 391</p> 	<p>ENGINEER'S SEAL</p> <p>BARRIER DETAILS REFACE/REPLACE SHEETS: 399 - 410</p> 	<p>ENGINEER'S SEAL</p> <p>TRAFFIC CONTROL SHEETS: 422 - 426, 429 - 480</p> 	<p>ENGINEER'S SEAL</p> <p>TRAFFIC CONTROL SIGN SUPPORT FOUNDATION SHEETS: 427 - 428</p> 
<p>ENGINEER'S SEAL</p> <p>ITS SHEETS: 481 - 505</p> 	<p>ENGINEER'S SEAL</p> <p>CTSS SHEETS: 506 - 534</p> 	<p>ENGINEER'S SEAL</p> <p>LIGHTING SHEETS: 535 - 587</p> 	<p>ENGINEER'S SEAL</p> <p>BRIDGE FRA-00161-16.620 A FRA-00161-16.590 B SHEETS: 588 - 627</p> 	<p>ENGINEER'S SEAL</p> <p>BRIDGE FRA-00161-18.600 L&R SHEETS: 628 - 636, 638 - 666</p> 	<p>ENGINEER'S SEAL</p> <p>BRIDGE FRA-00161-18.600 L TEMP SHORING DESIGN SHEET: 637</p> 	<p>ENGINEER'S SEAL</p> <p>BRIDGE FRA-00161-19.090 L&R FRA-00161-21.730 L&R SHEETS: 667 - 720, 723 - 753</p> 	<p>ENGINEER'S SEAL</p> <p>BRIDGE FRA-00161-21.730 L&R TEMP SHORING DESIGN SHEETS: 721 - 722</p> 



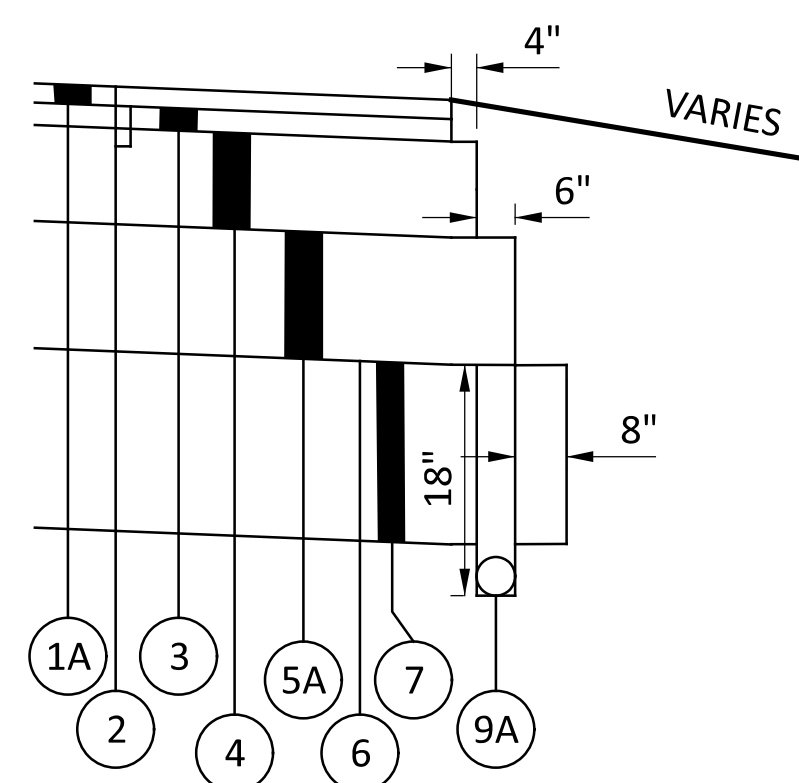
SECTION DETAIL 1
 SR 161 PAVEMENT STEPPING
 CONCRETE BARRIER, TYPE C



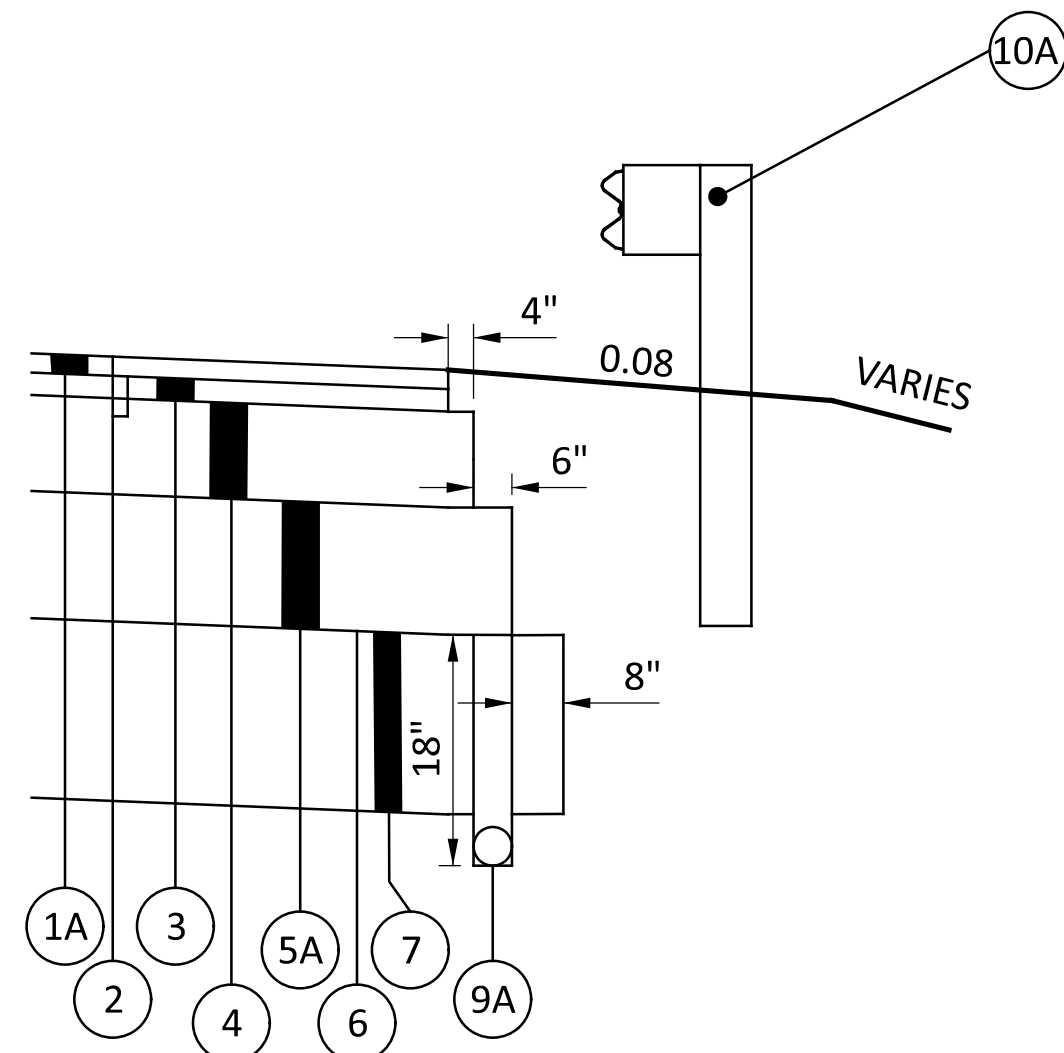
SECTION DETAIL 2
 SR 161 PAVEMENT STEPPING
 CONCRETE BARRIER, TYPE C, AS PER PLAN 2



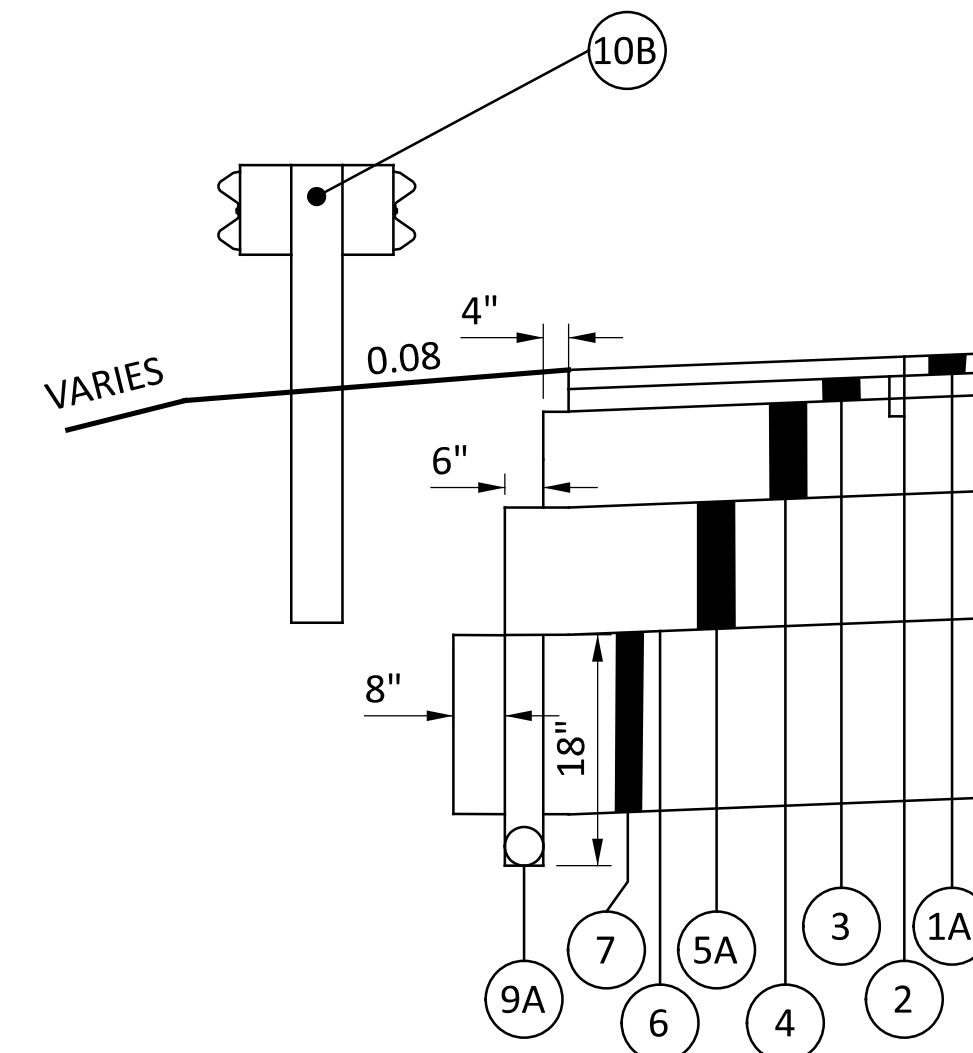
SECTION DETAIL 3
 SR 161 PAVEMENT STEPPING
 CONCRETE BARRIER, TYPE D



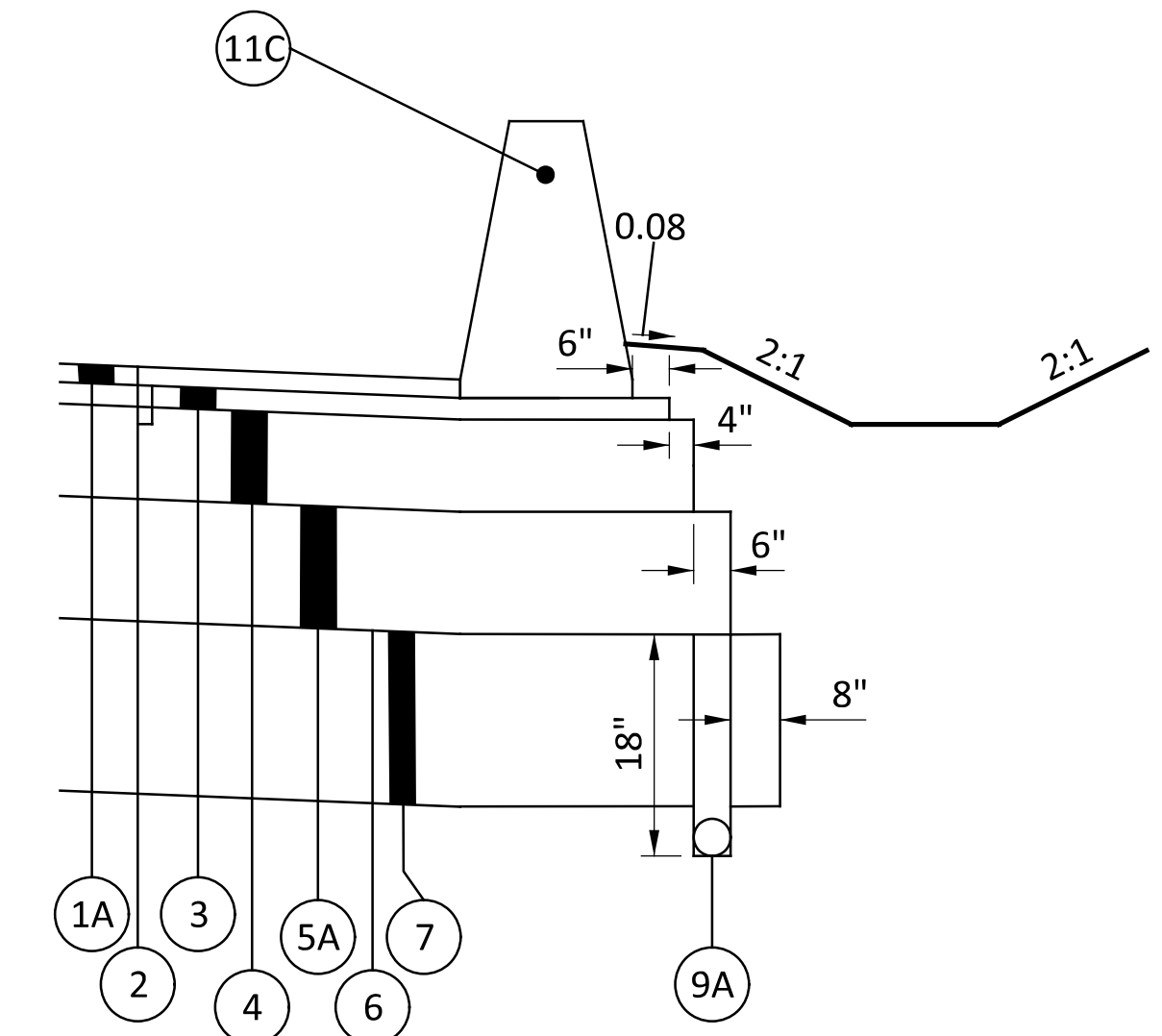
SECTION DETAIL 4
 SR 161 PAVEMENT STEPPING
 GRADED SHOULDER



SECTION DETAIL 5
 SR 161 PAVEMENT STEPPING
 GRADED SHOULDER WITH GUARDRAIL, TYPE MGS



SECTION DETAIL 6
 SR 161 PAVEMENT STEPPING
 GRADED SHOULDER WITH GUARDRAIL,
 TYPE MGS - BARRIER DESIGN



SECTION DETAIL 7
 SR 161 PAVEMENT STEPPING
 CONCRETE BARRIER, TYPE B

PN 129 - WINDOW CONTRACT:

THE CONTRACTOR HAS THE NUMBER OF CALENDAR DAYS DESIGNATED IN THE WINDOW CONTRACT TABLE IN WHICH TO COMPLETE ALL ITEMS OF CRITICAL WORK. THE WINDOW CONTRACT TABLE IS LOCATED IN THE PLAN GENERAL NOTES. THE CONTRACTOR MAY BEGIN ANY TIME AS IDENTIFIED IN THE WINDOW CONTRACT TABLE AND MUST COMPLETE THE CRITICAL WORK WITHIN THE CALENDAR DAYS DESIGNATED IN THE WINDOW CONTRACT TABLE OR BY THE COMPLETION DATE LISTED IN THE PROPOSAL, WHICHEVER COMES FIRST.

CRITICAL WORK IS SHOWN IN THE WINDOW CONTRACT TABLE.

COMPLETION OF 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 IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE AT THEIR FINAL DESIGN WIDTH WITH ALL MARKINGS, RPM'S, AND SAFETY FEATURES INSTALLED, ALONG WITH NO RESTRICTIONS WITHIN 2 FEET OF THE EDGE LINE ON THE SHOULDERS.

THE CONTRACTOR MUST SCHEDULE THE LATEST START DATE OF THE CRITICAL WORK PRIOR TO THE FOLLOWING CALCULATED DATE:

LATE CRITICAL WORK START DATE = [WORK WINDOW END DATE] / [(CALENDAR DAYS TO COMPLETE) X 1.25]

IF THE CRITICAL WORK IS NOT STARTED BY THE LATE CRITICAL WORK START DATE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE AS DEFINED IN THE WINDOW CONTRACT TABLE FOR EVERYDAY THE CONTRACTOR DOES NOT START THE CRITICAL WORK. IF THE WORK IS NOT COMPLETED WITHIN THE CALENDAR DAYS DESIGNATED IN THE WINDOW CONTRACT TABLE, THE CONTRACTOR WILL BE SUBJECT TO DISINCENTIVES AS IDENTIFIED IN THE CONTRACT CRITICAL WORK TABLE. IF THE WINDOW CONTRACT CRITICALWORK TABLE DOES NOT DESIGNATE A DISINCENTIVE VALUE, THE CONTRACTOR WILL BE SUBJECT TO THE LIQUIDATED DAMAGES IN ACCORDANCE WITH THE SCHEDULE SET FORTH IN C&MS 108.07.

108.06 C SHALL BE MODIFIED TO THE FOLLOWING AND SHALL BE APPLICABLE ONLY TO THE CRITICAL WORK (AS DEFINED IN THE WINDOW CONTRACT TABLE):

108.06 C EXTENSION TO THE COMPLETION DATE FOR WEATHER OR SEASONAL CONDITIONS.

A WEATHER DAY FOR CRITICAL WORK IS DEFINED AS A WORKDAY THAT WEATHER REDUCED PRODUCTION BY MORE THAN 50 PERCENT ON ITEMS OF WORK ON THE CRITICAL PATH FOR CRITICAL WORK. SUBMIT A REQUESTED FOR AN EXTENSION OF TIME FOR A LOST WORKDAY DUE TO WEATHER WITH 2 DAYS OF OCCURRENCE. THE ENGINEER WILL EXTEND THE CALENDAR DAYS TO COMPLETE BY CALENDAR DAYS. THE ENGINEER WILL CONVERT WORKDAYS TO CALENDAR DAYS FOR EACH LOST WORKDAY DUE TO WEATHER BY MULTIPLYING THE NUMBER OF LOST WORKDAYS BY 1.4 FOR A 5-DAY WORK WEEK OR LESS; 1.2 FOR A 6-DAY WORK WEEK; AND 1 FOR A 7-DAY WORK WEEK; AND EXTEND THE CALENDAR DAYS TO COMPLETE BY THE RESULTING NUMBER OF CALENDAR DAYS PLUS ANY HOLIDAYS THE CONTRACTOR DOES NOT NORMALLY WORK THAT OCCUR IN THE EXTENSION PERIOD. WHEN THE CONVERSION OF WORKDAYS TO CALENDAR DAYS RESULTS IN A DECIMAL OF 0.5 OR GREATER, THE ENGINEER WILL ROUND THE NUMBER OF CALENDAR DAYS TO THE NEXT HIGHEST WHOLE NUMBER. WHEN THE CONVERSION RESULTS IN A DECIMAL LESS THAN 0.5, THE ENGINEER WILL DELETE THE DECIMAL PORTION OF THE CALENDAR DAYS.

WINDOW CONTRACT TABLE				
DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW	
			START	END
IR 270 PHASE 1A (SUNBURY RD RAMP Q CLOSED)	60 CALENDAR DAYS	\$15,000	CONTRACT EXECUTION DATE	SEE CALENDAR DAYS
US 62	30 CALENDAR DAYS	\$1,000	CONTRACT EXECUTION DATE	SEE CALENDAR DAYS
HAMILTON RD	30 CALENDAR DAYS	\$1,000	CONTRACT EXECUTION DATE	SEE CALENDAR DAYS

SEQUENCE OF CONSTRUCTION

WORK ON THIS PROJECT INCLUDES BOTH IR 270 AND SR 161. PHASING OF THE PROJECT HAS BEEN SPLIT BETWEEN THE TWO ROUTES TO ALLOW SIMULTANEOUS WORK. IT IS ASSUMED THAT THE CONTRACTOR WILL BE WORKING IN MULTIPLE PHASES AT THE SAME TIME IN ORDER TO COMPLETE THE PROJECT ON TIME. REFER TO SHEET 73 FOR A DESCRIPTION OF PHASES AND CRITICAL WORK REQUIRED BEFORE STARTING WORK ON THE INDIVIDUAL PHASES.

SR 161 PHASE 1A:

SHIFT BOTH EASTBOUND AND WESTBOUND SR 161 TRAFFIC OUTSIDE FROM APPROXIMATELY HAMILTON ROAD TO KITZMILLER ROAD AS SHOWN IN THE PLANS. COMPLETE INSIDE MEDIAN WORK ALONG WITH STRUCTURE WIDENING AT HAMILTON ROAD, ROCKY FORK CREEK AND US 62.

TO COMPLETE SUBSTRUCTURE WORK ON HAMILTON RD AND US-62, THE CONTRACTOR MAY REDUCE TURN LANE LENGTHS AND SHIFT/NARROW LANES TO 11' MINIMUM AS SHOWN IN THE PLANS. WORK ON US 62 SHALL BE COORDINATED WITH THE FRA-62-30.34 PROJECT. LANE CLOSURES/RESTRICTIONS ON US 62 AND HAMILTON RD SHALL BE NO LONGER THAN 1 MONTH IN DURATION (SEE WINDOW CONTRACT TABLE ON SHEET 63).

SR 161 PHASE 1B:

PRIOR TO THE START OF SR 161 PHASE 1B, ALL EASTBOUND INSIDE MEDIAN WORK FROM APPROXIMATELY SR 161 STA. 2307+50 TO STA. 2364+00 MUST BE COMPLETE ALONG WITH INSIDE EASTBOUND WIDENING ON THE US 62 STRUCTURE. SHIFT EASTBOUND TRAFFIC INSIDE AS SHOWN IN THE PLANS AND COMPLETE BRIDGE DECK HYDRO-DEMOLITION AND OVERLAY ON THE EASTBOUND US 62 STRUCTURE.

WESTBOUND SR 161 TRAFFIC WILL REMAIN IN SR 161 PHASE 1A CONFIGURATION DURING SR 161 PHASE 1B.

SR 161 PHASE 2:

PRIOR TO THE START OF SR 161 PHASE 2, INSIDE MEDIAN WORK FOR BOTH EASTBOUND AND WESTBOUND SR 161 TRAFFIC MUST BE COMPLETE FROM APPROXIMATELY SR 161 STA. 2153+00 TO THE HAMILTON ROAD STRUCTURE. SHIFT BOTH EASTBOUND AND WESTBOUND SR 161 TRAFFIC TO THE INSIDE FROM APPROXIMATELY SUNBURY ROAD TO HAMILTON ROAD AND COMPLETE ALL OUTSIDE WIDENING AND SHOULDER CROSS SLOPE CORRECTION WORK AS SHOWN IN THE PLANS. CROSS SLOPE CORRECTION WORK MAY BE COMPLETED WITH FINAL OVERLAY AS LONG AS ALL DROP OFF CRITERIA IS MET.

SR 161 PHASE 3:

PRIOR TO THE START OF SR 161 PHASE 3, ALL OUTSIDE PAVEMENT WORK FOR BOTH EASTBOUND AND WESTBOUND SR 161 MUST BE COMPLETE FROM APPROXIMATELY SR 161 STA. 2142+00 TO 2155+00. SHIFT BOTH EASTBOUND AND WESTBOUND SR 161 TRAFFIC INSIDE AND FINISH REMAINING OUTSIDE PAVEMENT WORK AS SHOWN IN THE PLANS.

IR 270 PRE-PHASE 1A:

CLOSE THE ENTRANCE RAMP FROM SUNBURY ROAD TO IR 270 SOUTH (RAMP Q). THE RAMP WILL REMAIN CLOSED FOR THE DURATION OF IR 270 PHASE 1A WORK. PLACE THE TEMPORARY PAVEMENT AND SAFETY FEATURES NECESSARY TO MAINTAIN TWO SOUTHBOUND LANES OF TRAFFIC AS SHOWN IN THE PLANS. IN ORDER TO CONSTRUCT THE TEMPORARY PAVEMENT AND SAFETY FEATURES THE CONTRACTOR WILL BE ALLOWED TO CLOSE ONE (1) LANE OF THE SR 161 WB TO IR 270 SB (RAMP H) AS IS DESCRIBED IN THE APPROVED MAINTENANCE OF TRAFFIC POLICY EXCEPTION(S) NOTE ON SHEET 60 AND SHIFT TRAFFIC AS PER MT-102.20.

IR 270 PHASE 1A:

SHIFT IR 270 TRAFFIC INSIDE AS SHOWN IN THE PLANS AND COMPLETE OUTSIDE RAMP H WORK. RAMP Q SHALL BE CLOSED FOR A MAXIMUM OF 60 DAYS PER THE WINDOW CONTRACT TABLE ON SHEET 63.

IR 270 PHASE 1B:

OPEN THE SUNBURY RD ENTRANCE RAMP TO IR 270 SOUTH (RAMP Q) AND SHIFT THE ONE OPEN LANE OF SR 161 WESTBOUND TO IR 270 SOUTH TRAFFIC OUTSIDE ONTO PROPOSED PAVEMENT COMPLETED IN THE PREVIOUS PHASE AS SHOWN. COMPLETE REMAINING RAMP "H" PAVEMENT WORK ALONG WITH INSIDE GORE WORK BETWEEN RAMP "H" AND RAMP "A". THE TWO LANES OF SR 161 WESTBOUND TO IR 270 NORTHBOUND TRAFFIC SHALL REMAIN IN THE IR 270 PHASE 1A CONFIGURATION.

IR 270 PHASE 2:

SHIFT IR 270 NORTHBOUND TRAFFIC OUTSIDE AND COMPLETE INSIDE MEDIAN PAVEMENT WORK ALONG WITH BARRIER REPLACEMENT AND INSTALLATION OF PROPOSED DRAINAGE ITEMS FROM APPROXIMATELY IR 270 STA. 643+00 TO STA. 702+00 AS SHOWN IN THE PLANS. COMPLETE PAVEMENT REPAIRS AS SHOWN IN THE PLANS AND APPROVED BY THE ENGINEER.

IR 270 PHASE 3:

SHIFT IR 270 NORTHBOUND TRAFFIC INSIDE ONTO PROPOSED PAVEMENT COMPLETED IN THE PREVIOUS PHASE. SHIFT BOTH LANES OF SR 161 WESTBOUND TO IR 270 SOUTHBOUND (RAMP "H") TRAFFIC INSIDE AS SHOWN IN PHASE 1B. SHIFT BOTH LANES OF SR 161 WESTBOUND TO SR 270 NORTHBOUND (RAMP "A") TRAFFIC OUTSIDE AND COMPLETE RAMP "A" WORK ALONG WITH IR 270 OUTSIDE WORK AS SHOWN IN THE PLANS.

IR 270 PHASE 4A:

PRIOR TO THE START OF THIS PHASE COMPLETE TEMPORARY PAVEMENT INSTALLATION NEAR THE GORE OF THE SR 3 EXIT RAMP (RAMP K). SHIFT SR 161 WESTBOUND TO IR 270 NORTHBOUND (RAMP "A") TRAFFIC INSIDE AND COMPLETE REMAINING OUTSIDE PAVEMENT WORK ON RAMP "A". SR 161 WESTBOUND TO IR 270 SOUTHBOUND (RAMP "H") TRAFFIC REMAINS IN THE IR 270 PHASE 3 CONFIGURATION. IR 270 NORTHBOUND TRAFFIC FROM APPROXIMATELY IR 270 STA. 660+00 TO IR 270 STA. 702+00 REMAINS IN THE IR 270 PHASE 3 CONFIGURATION.

SHIFT NORTHBOUND IR 270 TRAFFIC INSIDE TO COMPLETE OUTSIDE SHOULDER WORK AND OUTSIDE RAMP "K" WORK FROM APPROXIMATELY IR 270 STA. 603+00 TO IR 270 STA. 652+00.

IR 270 PHASE 4B:

SHIFT RAMP "K" TRAFFIC OUTSIDE TO COMPLETE REMAINING INSIDE WORK ON RAMP "K" ALONG WITH REMAINING OUTSIDE IR 270 SHOULDER WORK AS SHOWN IN THE PLANS. IR 270 NORTHBOUND TRAFFIC WILL REMAIN IN THE IR 270 PHASE 4A CONFIGURATION.

SR 161/IR 270 FINAL PHASE:

UPON COMPLETION OF ALL FULL DEPTH PAVEMENT WORK, UTILIZE APPLICABLE STANDARD CONSTRUCTION DRAWINGS TO COMPLETE FINAL PAVEMENT RESURACING, LIGHTING WORK AND ANY OTHER REMAINING MISCELLANOUS ITEMS.

PROPOSED INSIDE MEDIAN LIGHTING WORK ON SR 161 SHALL BE COMPLETED UTILIZING INSIDE SHOULDER CLOSURES. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) 56 EACH

ITEM 622, PORTABLE BARRIER, UNANCHORED 4,200 FT

ASSUMING 2 IMPACT ATTENUATORS AND 150 FT OF BARRIER PER LIGHT FOR 28 LIGHTS

PROPOSED OVERHEAD SIGN INSTALLATIONS ON IR 270 AND SR 161 THAT CANNOT BE COMPLETED IN PHASE SHALL BE DONE UTILIZING SHOULDER CLOSURES. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) 12 EACH

ITEM 622, PORTABLE BARRIER, UNANCHORED 900 FT

ASSUMING 2 IMPACT ATTENUATORS AND 150 FT OF BARRIER PER LIGHT FOR 6 SIGNS

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR TEMPORARY STRIPING OF THE FINAL SURFACE COURSE PRIOR TO FINAL PAVEMENT MARKINGS BEING APPLIED:

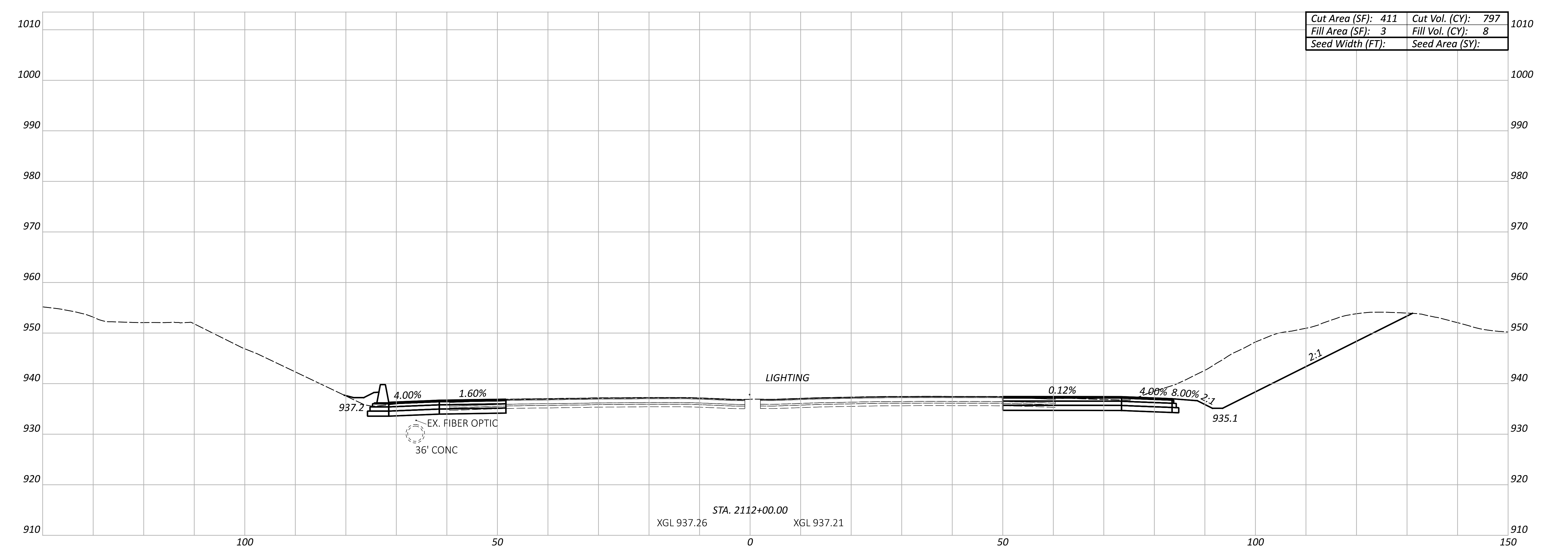
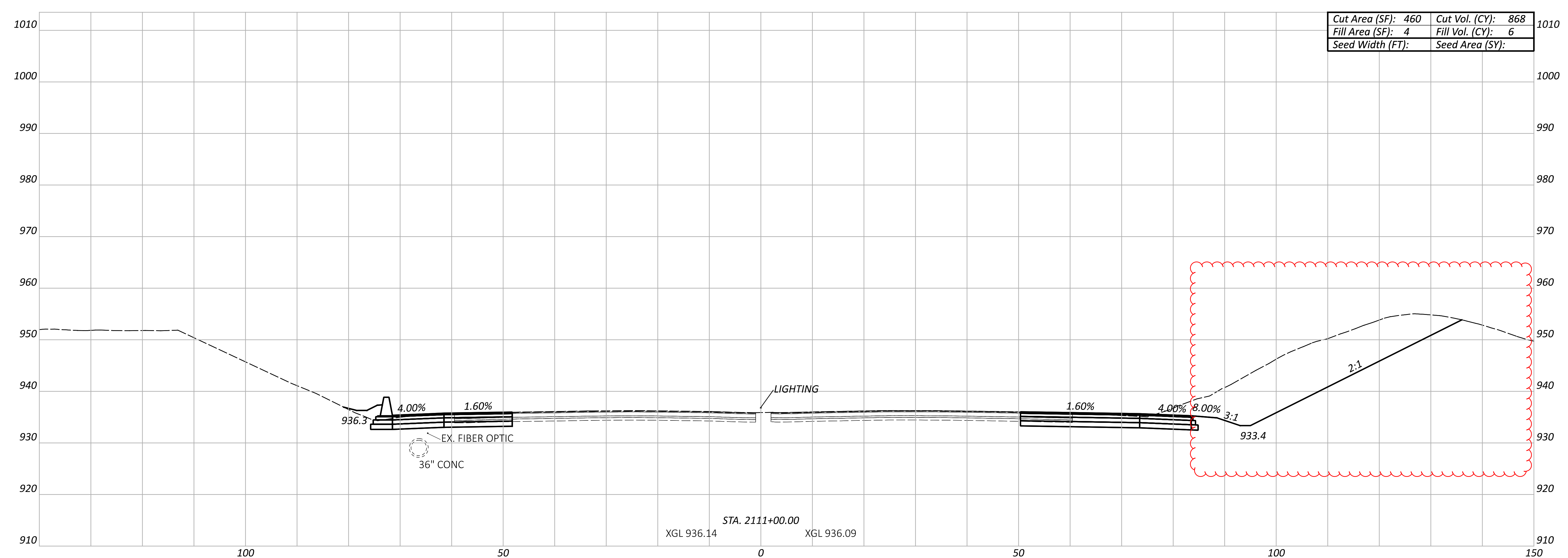
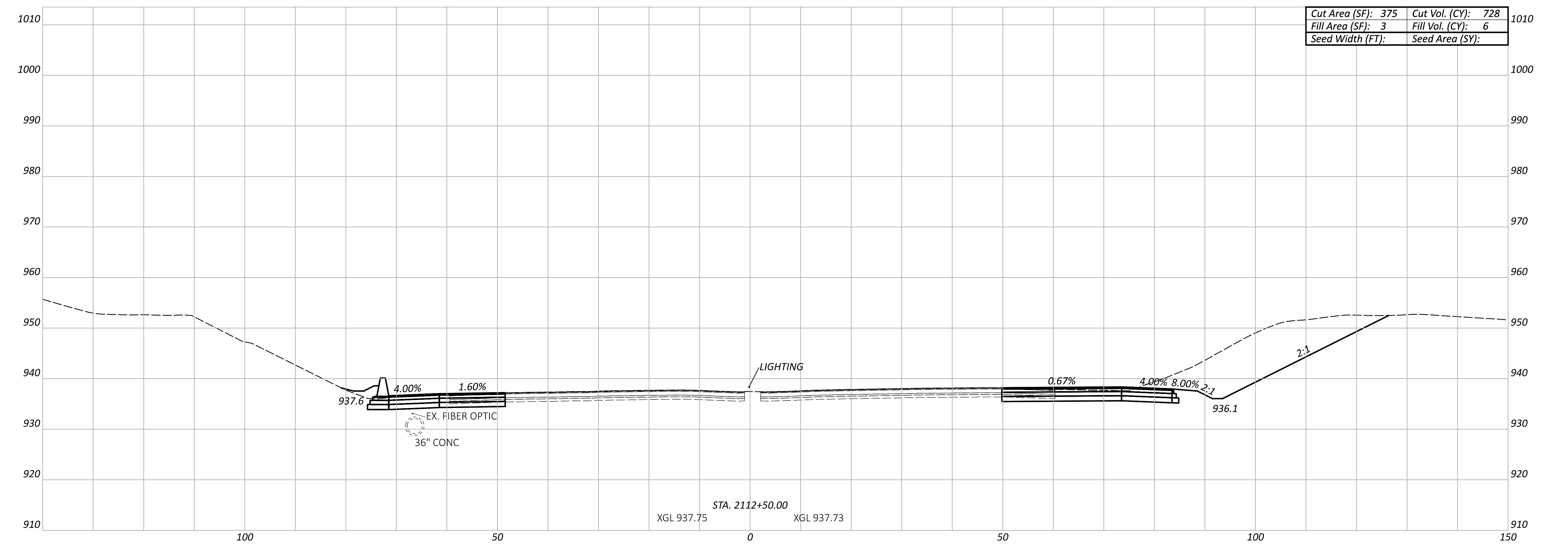
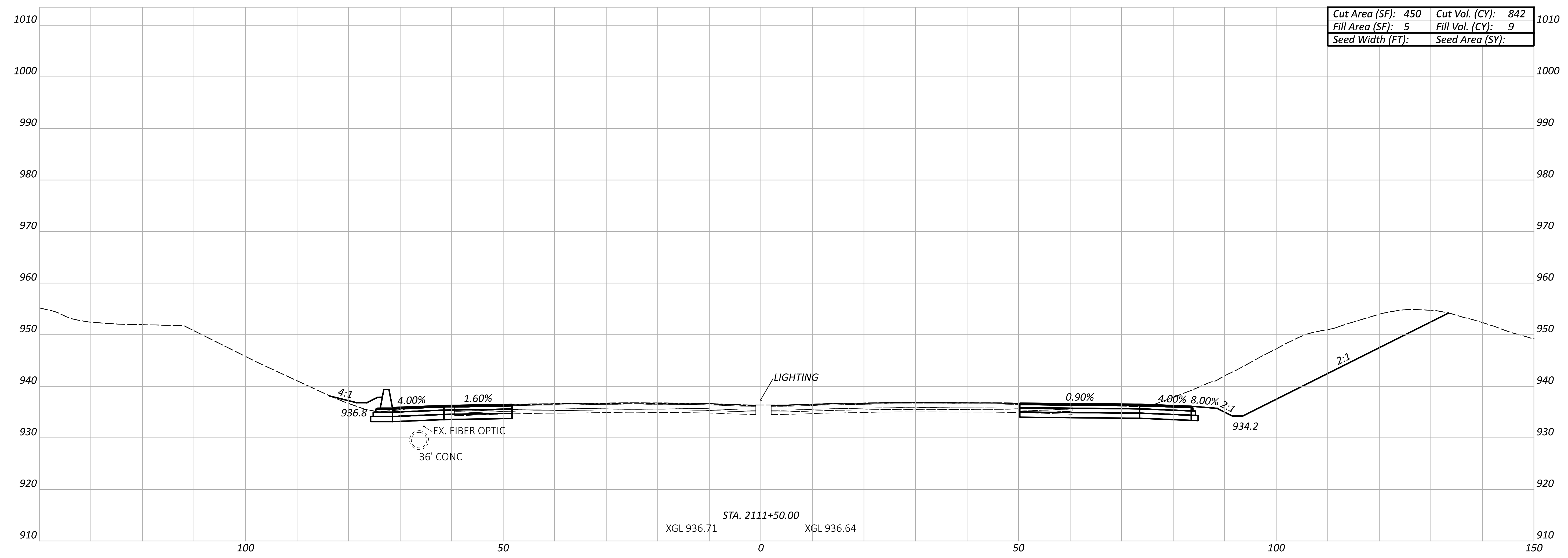
- ITEM 614 - WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT - 40.89 MI
- ITEM 614 - WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT -34.75 MI
- ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT - 12,993 FT
- ITEM 614 - WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT - 14,600 FT
- ITEM 614 - WORK ZONE DOTTED LINE, CLASS III, 12", 642 PAINT - 5,419 FT

DESIGN AGENCY	
DESIGNER	
REVIEWER	MLL
PROJECT ID	116322
SHEET	TOTAL
69	846

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
64	422	435	438	440	443	485				01/NHS/03	EXT	TOTAL				
				1						1	630	72410	1	EACH	TRAFFIC CONTROL (CONT.)	
				8						8	630	72420	8	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
				2						2	630	79611	2	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED, AS PER PLAN	423
				1,290.8						1,290.8	630	80100	1,290.8	SF	SIGN, FLAT SHEET	
				596						596	630	80200	596	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
				8,629						8,629	630	80224	8,629	SF	SIGN, OVERHEAD EXTRUSHEET	
				30						30	630	81021	30	EACH	CONCRETE MEDIAN BARRIER SIGN BRACKET, AS PER PLAN	423
				14						14	630	84010	14	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
				10						10	630	84500	10	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
				26						26	630	84510	26	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
				2						2	630	84511	2	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN	422
			110							110	630	84900	110	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
					2					2	630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
			33							33	630	85400	33	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
			111							111	630	86002	111	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			42							42	630	86102	42	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
				9						9	630	86272	9	EACH	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL	
			50							50	630	87400	50	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
				1						1	630	89100	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30	
				15						15	630	89706	15	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
				11						11	630	89804	11	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	
				4						4	630	97700	4	EACH	SIGNING, MISC.: CONCRETE BARRIER MOUNTED SIGN SUPPORT DETAIL, METHOD A	423
				1						1	630	97700	1	EACH	SIGNING, MISC.: SAFE SIGN BREAKAWAY SYSTEM	422
			271							271	644	00720	271	FT	CHEVRON MARKING	422
			13							13	644	01350	13	EACH	LANE REDUCTION ARROW	
2										2	644	01410	2	EACH	WORD ON PAVEMENT, 96"	
8										8	644	50100	8	EACH	PAVEMENT MARKING, MISC.: LANE ARROW, 72"	64
1,343										1,343	644	50300	1,343	FT	PAVEMENT MARKING, MISC.: EDGE LINE, 5", WHITE	64
1,343										1,343	644	50300	1,343	FT	PAVEMENT MARKING, MISC.: EDGE LINE, 5", YELLOW	64
1,343										1,343	644	50300	1,343	FT	PAVEMENT MARKING, MISC.: LANE LINE, 5"	64
1,219										1,219	644	50300	1,219	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10", WHITE	64
72										72	644	50300	72	FT	PAVEMENT MARKING, MISC.: STOP LINE, 20", WHITE	64
	8									8	647	21012	8	EACH	SPEED MEASUREMENT MARKING, TYPE B125	422
		0.87								0.87	807	12010	0.87	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
		1.06								1.06	807	12110	1.06	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
		33.88								33.88	807	13010	33.88	MILE	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
			39.83							39.83	807	13110	39.83	MILE	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
			12,993							12,993	807	13310	12,993	FT	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
			14,600							14,600	807	13410	14,600	FT	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
			5,419							5,419	807	13430	5,419	FT	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 12"	
			73.71							73.71	850	10010	73.71	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
			cin							14,600	850	10110	14,600	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
			18,412							18,412	850	10130	18,412	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
			1.93							1.93	850	20010	1.93	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
															TRAFFIC SIGNALS	
						2				2	625	00450	2	EACH	CONNECTION, FUSED PULL APART	481
						2				2	625	00460	2	EACH	CONNECTION, UNFUSED PULL APART	481
						2				2	625	00480	2	EACH	CONNECTION, UNFUSED PERMANENT	481
						12,321				12,321	625	22990	12,321	FT	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	
						1,512				1,512	625	23000	1,512	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
						1,641				1,641	625	23100	1,641	FT	NO. 2 AWG 600 VOLT DISTRIBUTION CABLE	
						435				435	625	23308	435	FT	DISTRIBUTION CABLE, MISC.: 1 CONDUCTOR, NO. 12 AWG	481
						1,092				1,092	625	23308	1,092	FT	DISTRIBUTION CABLE, MISC.: 1 CONDUCTOR, NO. 3 AWG	481
						783				783	625	23308	783	FT	DISTRIBUTION CABLE, MISC.: 1 CONDUCTOR, NO. 1/2 AWG	481
						109				109	625	25400	109	FT	CONDUIT, 2", 725.04	
						2,326				2,326	625	25408	2,326	FT	CONDUIT, 2", 725.051	
						175				175	625	25908	175	FT	CONDUIT, JACKED OR DRILLED, 725.052, 2"	
						162				162	625	25909	162	FT	CONDUIT, JACKED OR DRILLED, 725.052, AS PER PLAN, 2"	481
						4,103				4,103	625	29010	4,103	FT	TRENCH, 30" DEEP	

SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
60	64	65	66	67	68	69	79	151					01/NHS/03	EXT	TOTAL				
STRUCTURE OVER 20 FOOT SPAN																			
													LS	202	11201	LS	400		
													LS	202	11201	LS	405		
								106					106	512	33010	106	SY	TYPE 3 WATERPROOFING	
																		BRIDGE NO. FRA-00161-16.620 A	
																		BRIDGE NO. FRA-00161-16.590 B	
																		BRIDGE NO. FRA-18.600 L&R	
																		BRIDGE NO. FRA-19.090 L&R	
																		BRIDGE NO. FRA-21.730 L&R	
MAINTENANCE OF TRAFFIC																			
					1,000								1,000	614	11110	1,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			22,500										22,500	614	11630	22,500	FT	INCREASED BARRIER DELINEATION	
						68	32						100	614	12380	100	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
													LS	614	12420	LS		DETOUR SIGNING	
													25	614	12484	25	EACH	WORK ZONE INCREASED PENALTIES SIGN	
													20	614	12500	20	EACH	REPLACEMENT SIGN	
													200	614	12600	200	EACH	REPLACEMENT DRUM	
													4,353	614	12801	4,353	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	
													1,940	614	13310	1,940	EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY)	
													45	614	13312	45	EACH	BARRIER REFLECTOR, TYPE 2 (ONE WAY)	
													1,985	614	13350	1,985	EACH	OBJECT MARKER, ONE WAY	
													46	614	18601	46	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
													25.75	614	20056	25.75	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
													0.26	614	20100	0.26	MILE	WORK ZONE LANE LINE, CLASS I, 4", 642 PAINT	
													40.89	614	20560	40.89	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
													43.31	614	22056	43.31	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
													0.51	614	22100	0.51	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	
													34.75	614	22360	34.75	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
													60,396	614	23110	60,396	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
													500	614	23200	500	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
													12,993	614	23690	12,993	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
													12,114	614	24102	12,114	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
													14,600	614	24612	14,600	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
													5,419	614	24618	5,419	FT	WORK ZONE DOTTED LINE, CLASS III, 12", 642 PAINT	
													LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
													222	615	20000	222	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
													1,757	615	20001	1,757	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	
													3,000	615	25001	3,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	
													4,000	615	25001	4,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	
460													460	616	10000	460	MGAL	WATER	
PORTABLE BARRIER, UNANCHORED																			
													103,442	622	41100	103,442	FT	PORTABLE BARRIER, "Y" CONNECTOR	
													6	622	41050	6	EACH	LANE REDUCTION ARROW, TYPE 1	
													4	642	01312	4	EACH	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
													265	808	18700	265	SNMT	WORK ZONE EGRESS WARNING SYSTEM	
													77	829	00100	77	SNMT		
																		INCIDENTALS	
																		CPM PROGRESS SCHEDULE	
													4,750	SPECIAL	11110100	4,750	EACH	DEPARTMENTS SHARE FACILITATED PARTNERING COSTS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													24	619	16020	24	MNTH	FIELD OFFICE, TYPE C	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	623	11000	LS		PROVIDING ELECTRONIC INSTRUMENTATION	
													LS	624	10000	LS		MOBILIZATION	

DESIGNER NOTES:
 1. ALL EXISTING UTILITIES SHOWN AT ASSUMED DEPTHS UNLESS OTHERWISE NOTED. SEE GENERAL NOTES SHEET 56 FOR TABLE OF ASSUMED DEPTHS.
 2. CROSS SECTION END AREAS VOLUMES INCLUDE EXISTING PAVEMENT REMOVAL AREAS AS NORMAL CUT AND FILL. A TOTAL PROJECT EARTHWORK VOLUME ADJUSTMENT IS PROVIDED IN THE GENERAL NOTES TO ACCOUNT FOR EXCAVATION VOLUME ADJUSTMENTS FOR ITEM 202 PAVEMENT REMOVAL AREAS.
 3. PAVEMENT OVERLAYS ARE NOT SHOWN IN THE CROSS SECTIONS - REFER TO TYPICAL SECTIONS FOR PAVEMENT MILL AND OVERLAY DETAILS.
 4. SEEDING AND MULCHING AREAS TO BE PROVIDED AS A PROJECT TOTAL NOTE DEVELOPED FROM PLAN AREAS RATHER THAN AVERAGE END AREAS. SEE GENERAL NOTES SHEET 53 FOR SEEDING AND MULCHING QUANTITIES.



CROSS SECTIONS - SR 161
 STA. 2111+00.00 TO STA. 2112+50.00

Sheet Totals	116322
Seeding	292
Cut	
Fill	846

DESIGN AGENCY
E.L. ROBINSON
 ENGINEERS
 1800 WEST 10TH STREET, SUITE 100
 DENVER, COLORADO 80202
 PHONE: 303.733.8800
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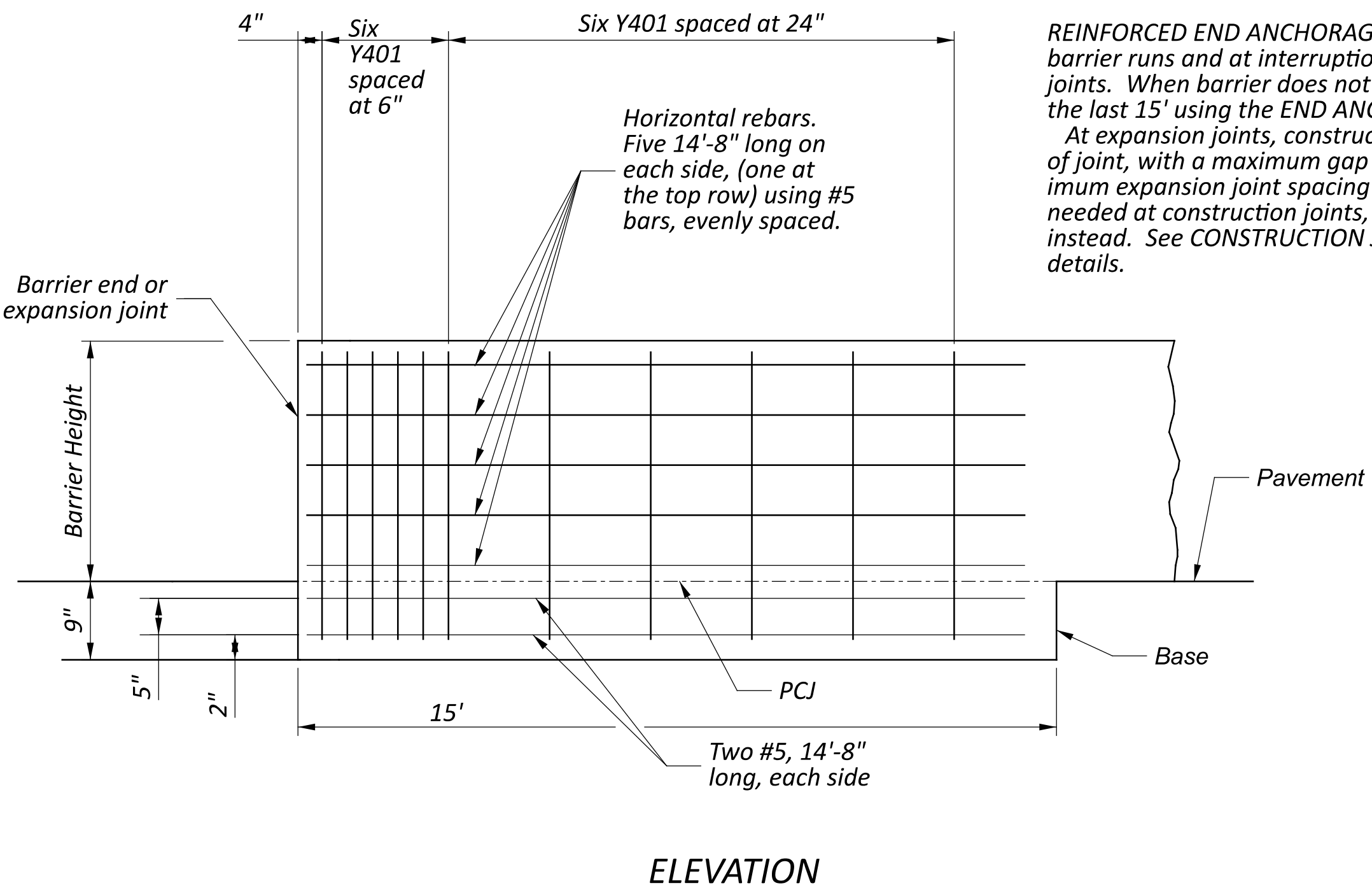
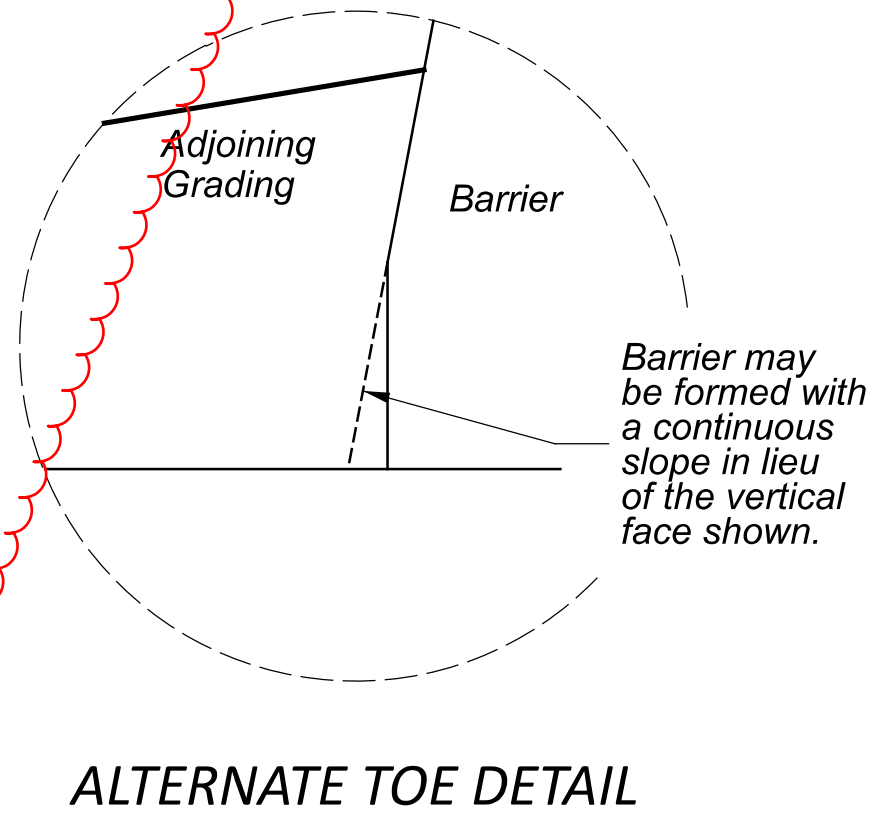
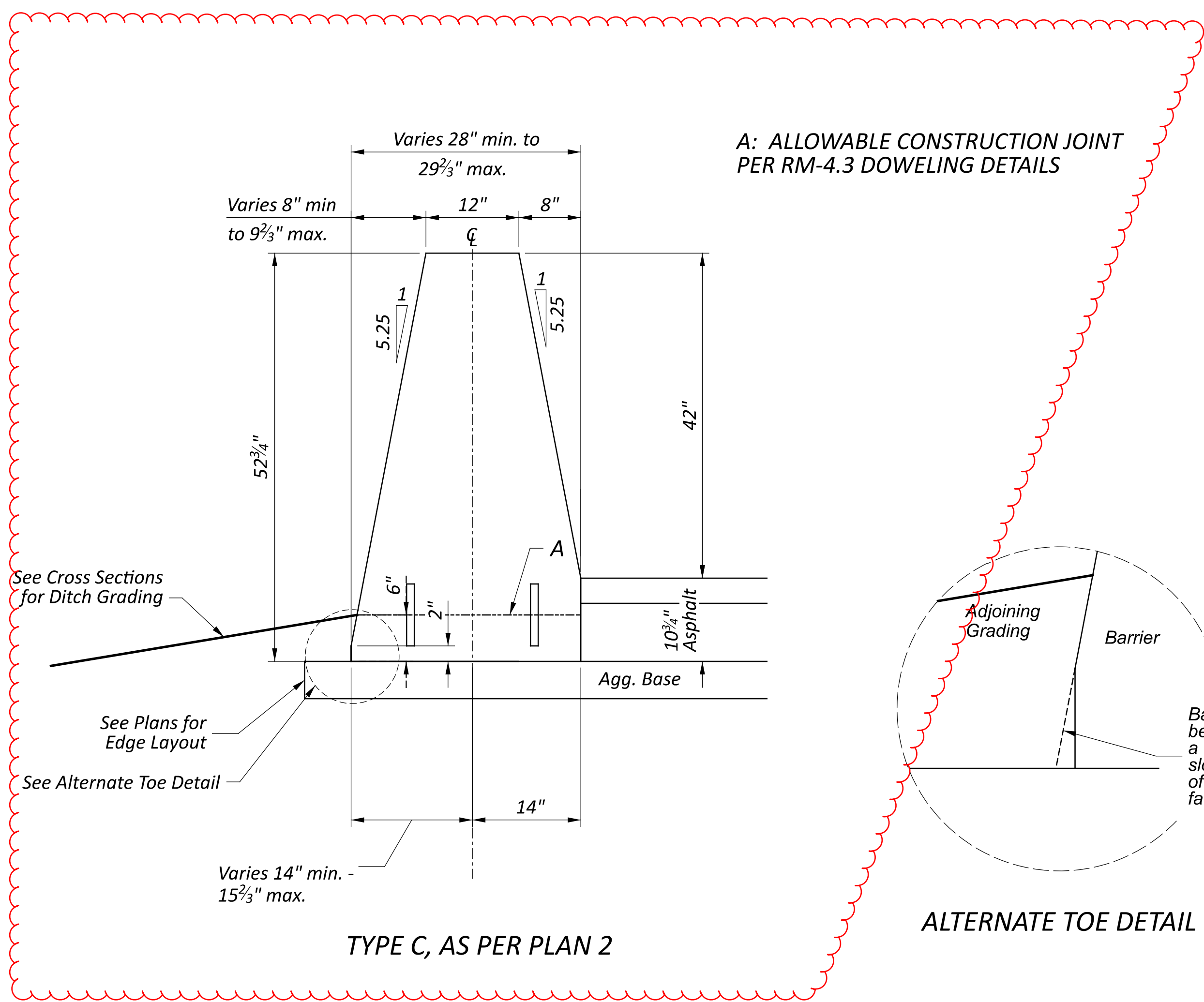
DESIGNER:
 KRIF

REVIEWER:
 MUC 02/10/23

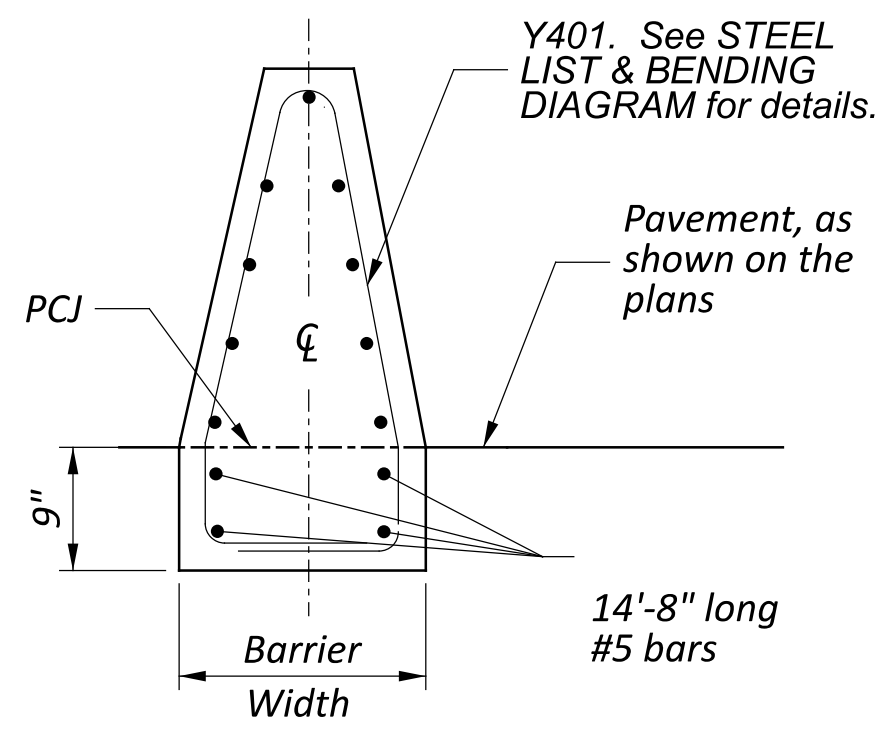
PROJECT ID:
 150

FFRA-161-15-80

MODEL: C:\p\161-15-80\161-15-80.dwg DATE: 5/19/2023 TIME: 3:52:08 PM USER: MCHEN
 PLOT: C:\p\161-15-80\161-15-80.dwg DATE: 5/19/2023 TIME: 3:52:08 PM USER: MCHEN
 PLOT: C:\p\161-15-80\161-15-80.dwg DATE: 5/19/2023 TIME: 3:52:08 PM USER: MCHEN



REINFORCED END ANCHORAGES are required at the ends of concrete barrier runs and at interruptions in barrier caused by expansion joints. When barrier does not abut another barrier run, construct the last 15' using the END ANCHORAGE Detail as shown here. At expansion joints, construct an End Anchorage on both sides of joint, with a maximum gap of 2" for the open joint. The maximum expansion joint spacing shall be 800'. This anchorage is not needed at construction joints, provide dowel bar connections instead. See CONSTRUCTION JOINT NOTE for doweling details.



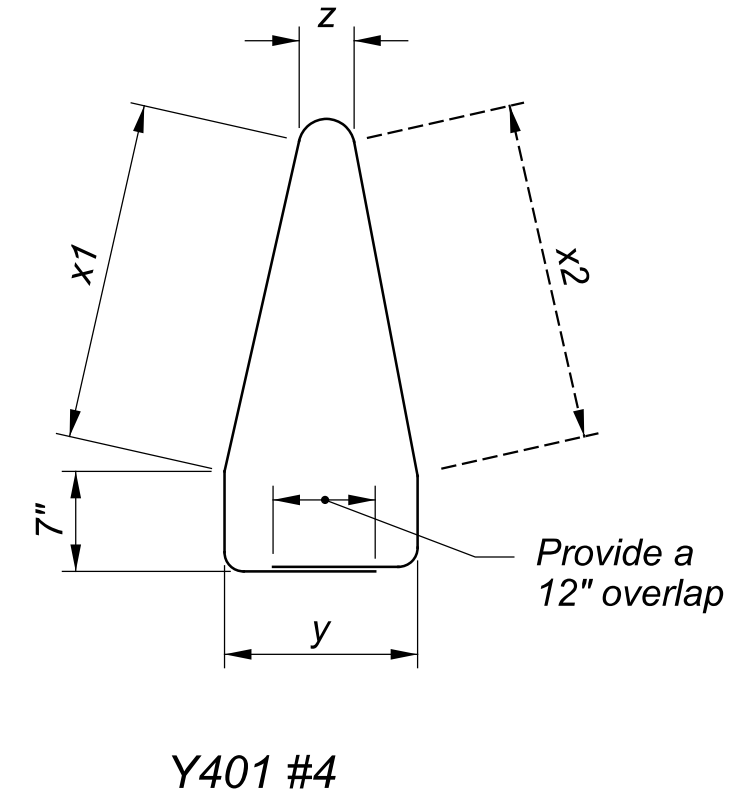
ELEVATION SECTION
 END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN 2

NOTES

- SINGLE SLOPE CONCRETE BARRIER may be cast-in-place or slip formed. See SCD RM-4.6 for End Sections.
- MATERIALS: Construct using concrete with a minimum design strength of 4000 psi conforming to the requirements of CMS 499. Construct top and end edges with either a 1" radius or 3/8" chamfer, except at light pole foundations.
- CONTRACTION JOINTS: Maximum allowable spacing of unsealed joints is 20' throughout the run of the barrier. Construct joints by using metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled, or sawed joints will have a 3" depth. Construct all joints for the full height of the barrier. Saw as soon as curing will allow to prevent spalling. When used in conjunction with concrete pavement, match joints to those in the concrete pavement but not exceeding the maximum allowable spacing.
- ADJOINING PAVEMENT: When the barrier is constructed in conjunction with new asphalt pavement, place it directly on the aggregate base. Construct the asphalt pavement directly against the barrier.
- SEALING JOINTS: Use a butt longitudinal joint between the barrier and adjoining concrete pavement sealed with CMS 705.04 joint sealer.
- TRANSITIONS: Make linear transitions between different types of barrier within a 20' length.
- CONSTRUCTION JOINTS: Barrier runs with abutting vertical surfaces at either required or permissible construction joints are to be doweled to each other by use of 3/4" dia. by 18" long epoxy coated deformed dowel bars as per CMS 622.02. Bars are to be placed as shown on the RACEWAY and DOWEL BAR PLACEMENT detail on this sheet. Provide a 4" clearance to barrier surfaces and to any raceways.
- STATION MARKINGS: Impress markings in the "green" concrete on both sides at the top of the barrier. The cost is incidental to the unit cost bid for this barrier.
- RACEWAY: Locate as shown on in RACEWAY PLACEMENT Detail, unless otherwise directed by the Engineer. Ensure that the electrical raceway is clear of obstructions. Cost of the 4" polyvinyl chloride raceway is included where shown on the plans. The cost for additional raceways and No. 10 AWG copperclad or aluminum-clad wire is also included where shown on the plans for future installation of circuits.
- PAYMENT: will be made at the unit price bid per Foot for ITEM 622 - Concrete Barrier, Single Slope, Type C, As Per Plan 2. Include all materials, labor, raceways, dowel holes, markings and other incidentals necessary to construct the barrier, except as follows:

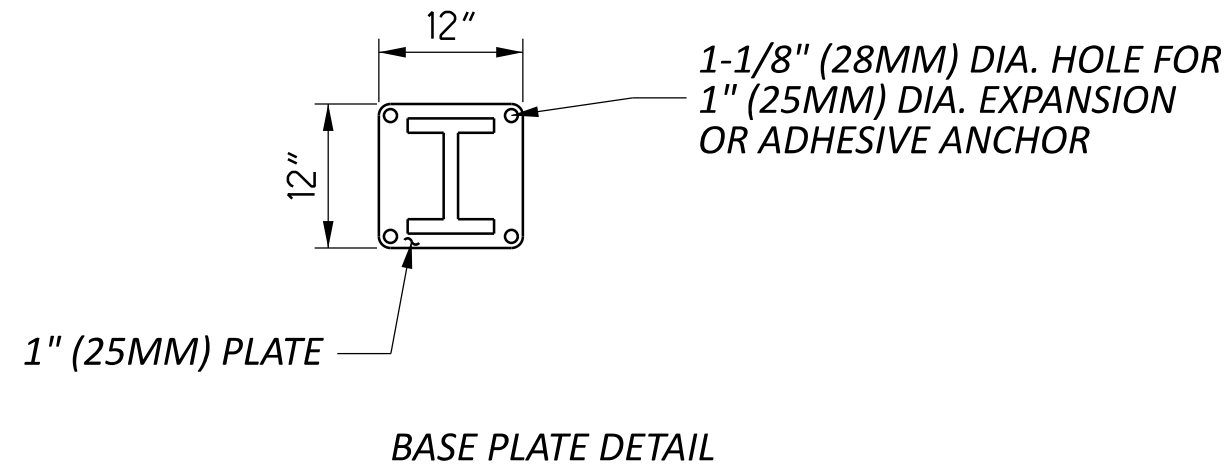
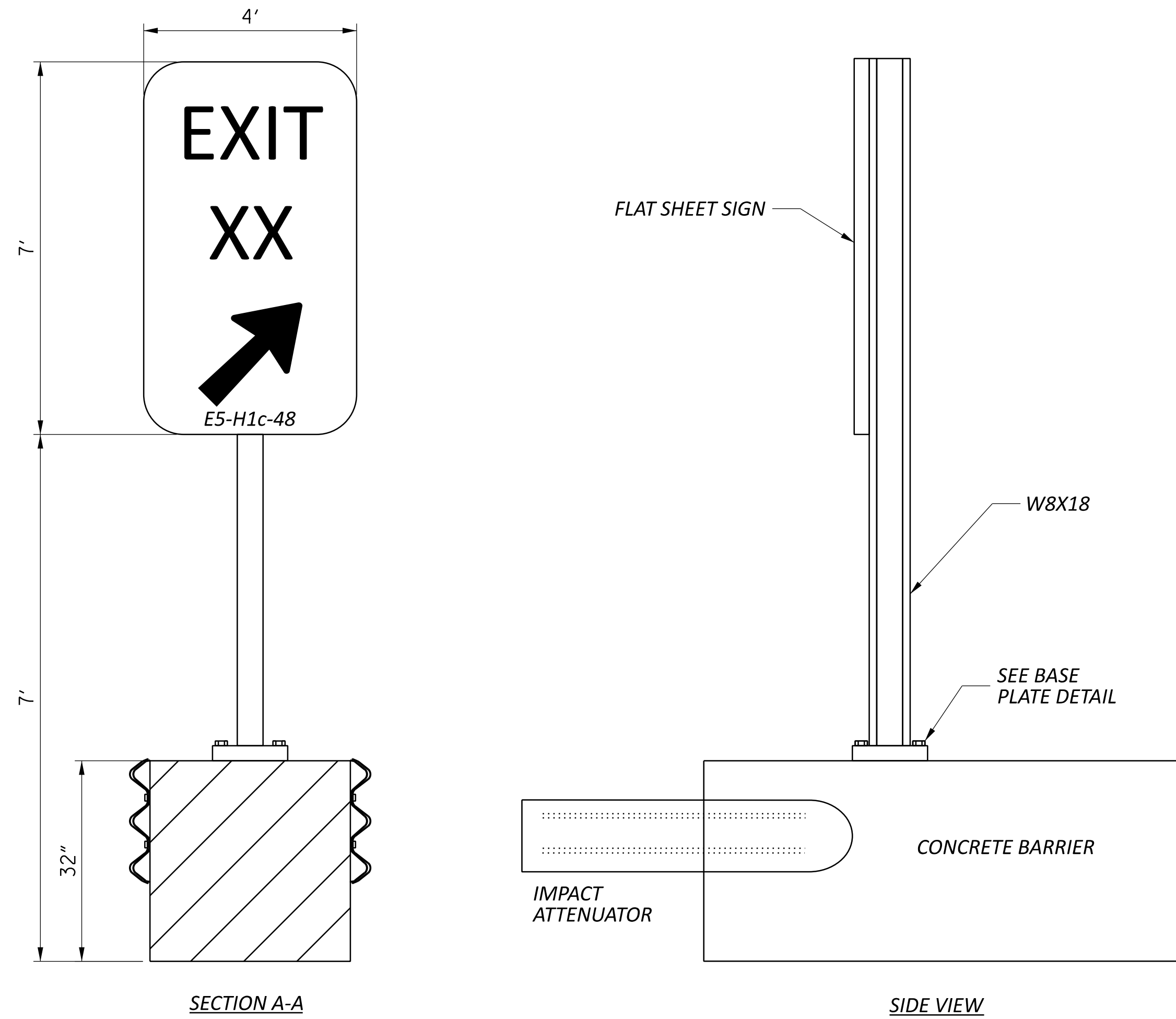
Item 611 Barrier Median Inlet	20 ft.
Item 625 Light Pole Foundation or Pullbox	8 ft.
Item 630 Rigid Overhead Sign Support Foundation	Each

Dimensions for Y401 (English)				
Barrier Type	x1	x2	y	z
C, APP 2	Varies	37"	24"	8"

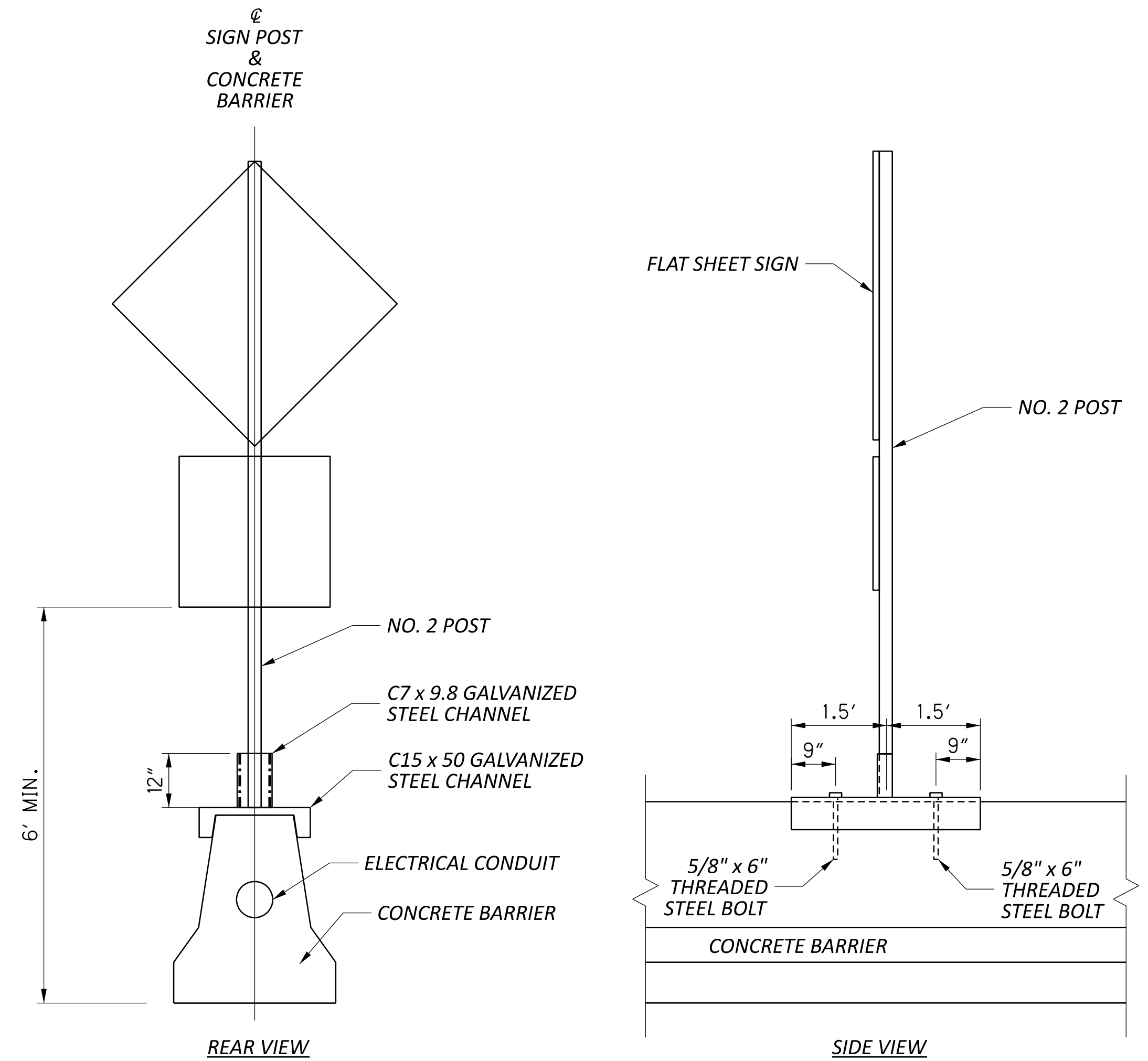


Y401 STEEL LIST & BENDING DIAGRAM

ITEM 630: SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED, AS PER PLAN



ITEM 630: SIGNING, MISC.: CONCRETE BARRIER MOUNTED SIGN SUPPORT DETAIL, METHOD A

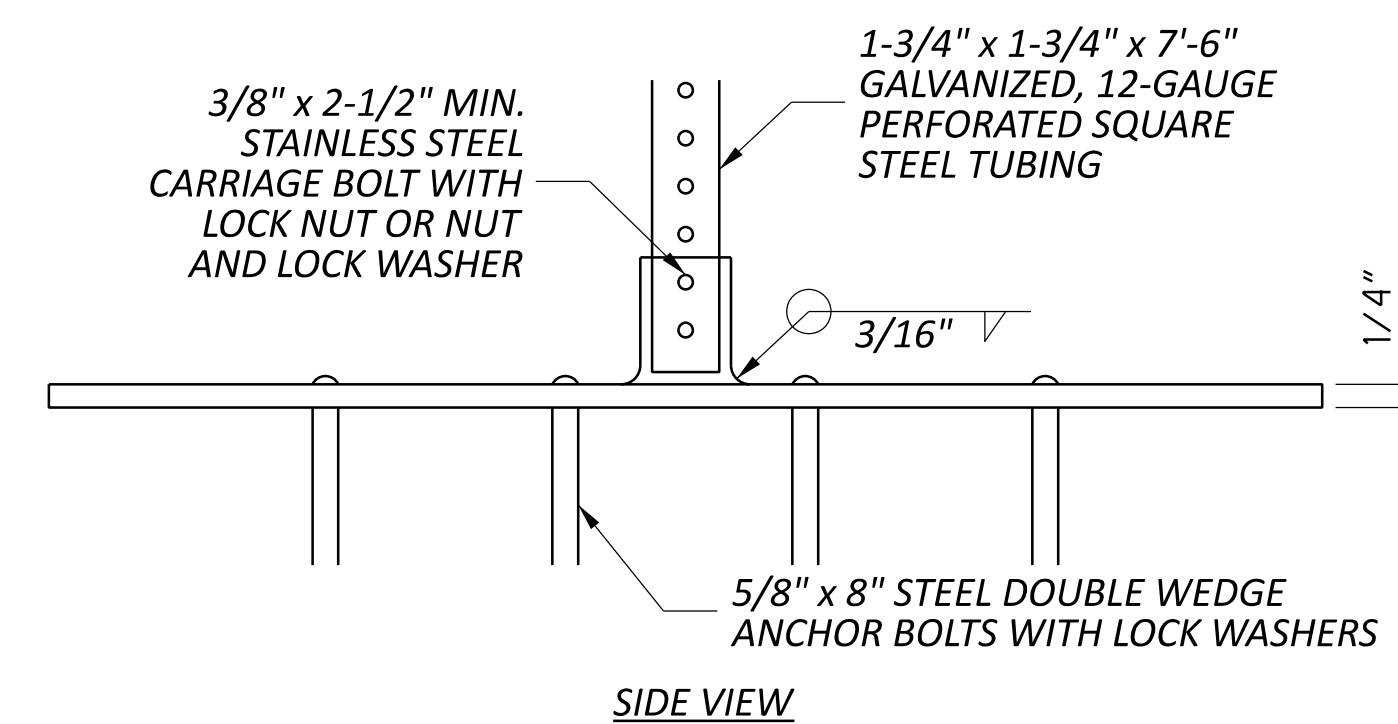
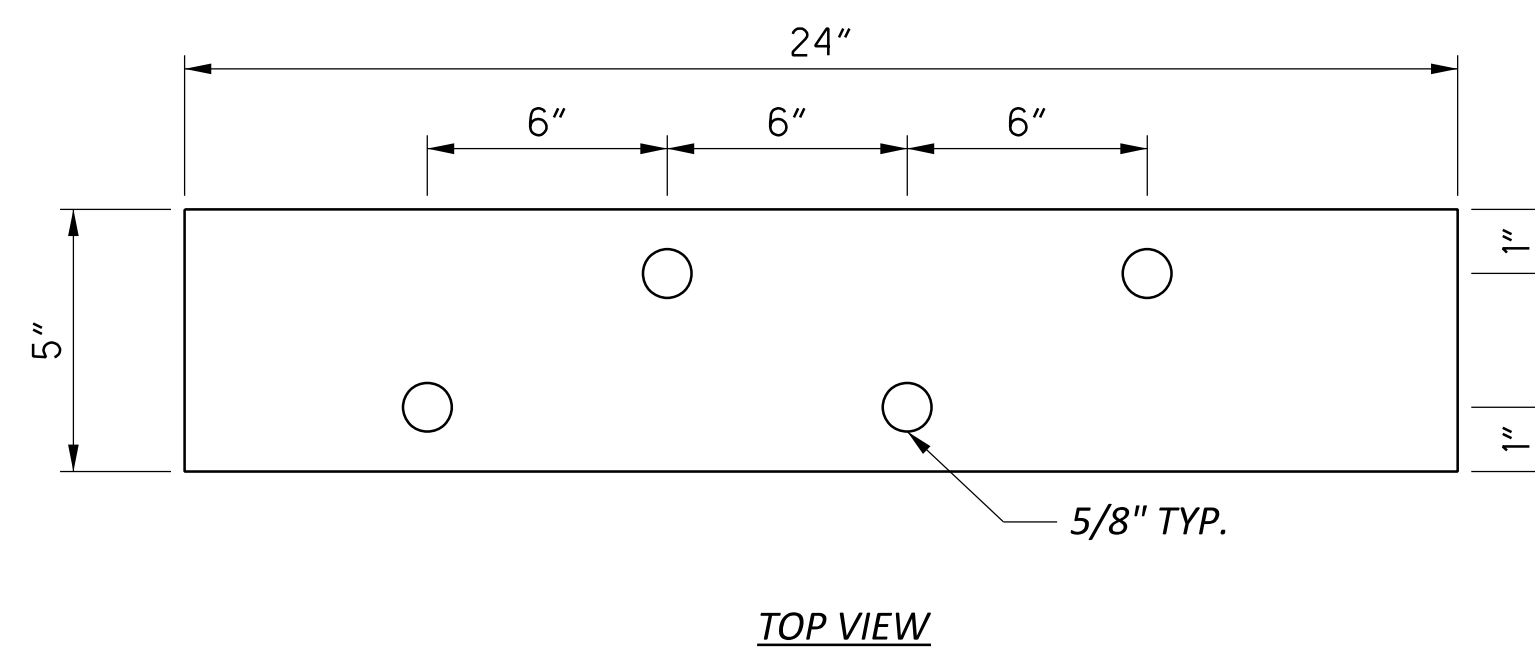


ITEM 630: CONCRETE MEDIAN BARRIER SIGN BRACKET, AS PER PLAN

EACH SIGN SUPPORT ASSEMBLY AND BRACKET SHALL MEET THE REQUIREMENTS OF 630 AND CONFORM TO THE DIMENSIONS IN THE DETAILS BELOW.


ALL HARDWARE SHALL BE GALVANIZED STEEL OR STAINLESS STEEL AS SPECIFIED IN THE DETAILS BELOW.

ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION. PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER EACH CONCRETE MEDIAN BARRIER SIGN BRACKET, AS PER PLAN.



SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE IN INCHES	630		630		630		630		630		630		630		630		630		630		630				
							GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, 54X7.7	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30	GROUND MOUNTED SUPPORT, PIPE	SIGN POST REFLECTOR	BREAKAWAY STRUCTURAL BEAM CONNECTION	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED, AS PER PLAN	CONCRETE MEDIAN BARRIER SIGN BRACKET, AS PER PLAN	SIGNING, MISC.: CONCRETE BARRIER MOUNTED SIGN SUPPORT DETAIL, METHOD A	SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	REMOVAL OF GROUND MOUNTED SIGN AND REECTION	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	SIGNING, MISC.: SAFESIGN BREAKAWAY SYSTEM								
454	S80	SR 161	2129+33	CL	D10-5-18	18 x 60																									
454	S81	SR 161	2133+00	LT	D10-H8-12	12 x 12	12.0															1									
454	S82	SR 161	2132+37	LT	W9-2L-48	48 x 48	15.0	15.0																							
454	S83	SR 161	2134+50	LT	M3-4-36	36 x 18	16.0	17.0																							
454					M1-5-36	45 x 36																									
454	S84	SR 161	2139+50	CL	D10-5-18	18 x 60																1									
454	S85	SR 161	2149+60	CL	D10-5-18	18 x 60																1									
454	S86	SR 161	2151+00	LT	W4-2R-48	48 x 48	15.0	15.0																							
454	S87	SR 161	2154+50	LT	W4-3R-48	48 x 48	15.0	15.0																							
454	S88	SR 161	2129+33	CL	D10-5-18	18 x 60																									
454	S89	SR 161	2133+00	RT	D10-H8-12	12 x 12	12.0																								
454	S90	SR 161	2139+50	CL	D10-5-18	18 x 60																									
454	S91	SR 161	2146+00	RT	D14-H14-48	48 x 30	14.0	16.0																							
454	S93	SR 161	2149+60	CL	D10-5-18	18 x 60																									
454	S94	SR 161	2151+75	RT	E5-H1c-48	48 x 84								1	1										28		1				
454					R5-1-48	48 x 48																									
455	S95	SR 161	2160+16	CL	D10-5-18	18 x 60																1									
455	S96	SR 161	2170+72	LT	D10-5-18	18 x 60																1									
455	S97	SR 161	2174+50	LT	E5-H1c-48	48 x 84								1	1										28		1				
455					R5-1-48	48" x 48"																									
455	S101	SR 161	2181+28	LT	D10-5-18	18 x 60																1									
455	S102	SR 161	2183+50	LT	D10-H8-12	12 x 12	12.0																								
455	S103	SR 161	2160+16	CL	D10-5-18	18 x 60																									
455	S104	SR 161	2170+72	LT	D10-5-18	18 x 60																									
455	S105	SR 161	2172+50	RT	W4-1R-48	48 x 48	15.0	15.0																							
455	S107	SR 161	2183+50	RT	D10-H8-12	12 x 12	12.0																								
455	S108	SR 161	2181+28	LT	D10-5-18	18 x 60																									
455	S109	SR 161	2185+25	RT	M3-2-36	36 x 18	16.0	17.0																							
455					M4-5-36	45 x 36																									
456	S110	SR 161	2188+00	LT	I-3-36	36 x 18	13.0																								
456	S111	SR 161	2191+84	LT	D10-5-18	18 x 60																1									
456	S112	SR 161	2195+00	LT	E1-H59-96	96 x 30				23.0	21.8														20						
456						16' x 5'																			80						
456	S113	SR 161	2202+40	LT	D10-5-18	18 x 60																1									
456	S115	SR 161	2212+96	CL	D10-5-18	18 x 60																1									
456	S116	SR 161	2186+25	RT	I-3-36	36 x 18	13.0																								
456	S117	SR 161	2191+84	LT	D10-5-18	18 x 60																									
456	S119	SR 161	2194+75	LT	W4-2L-48	48 x 48																									
456	S120	SR 161	2202+40	LT	D10-5-18	18 x 60																									
456	S121	SR 161	2212+96	CL	D10-5-18	18 x 60																									
457	S123	SR 161	2223+52	RT	D10-5-18	18 x 60																									
457	S124	SR 161	2223+50	LT	D14-H14-48	48 x 30	15.0	16.0																							
457	S126	SR 161	2232+50	LT	D10-H8-12	12 x 12	13.0																								
457	S127	SR 161	2234+50	RT	D10-5-18	18 x 60																1									
457	S128	SR 161	2214+50	RT	R2-1-48	48 x 60	15.5	18.5																							
457	S130	SR 161	2223+52	RT	D10-5-18	18 x 60																									
457	S131	SR 161	2232+50	RT	D10-H8-12	12 x 12	13.0																								
457	S132	SR 161	2234+50	RT	D10-5-18	18 x 60																									
458	S134	SR 161	2245+82	RT	D10-5-18	18 x 60																									
458	S135	SR 161	2246+50	LT	W4-1R-48	48 x 48	15.5	14.5																							
458	S136	SR 161	2256+54	RT	D10-5-18	18 x 60																1									
458	S137	SR 161	2266+35	LT	E5-H1c-48	48 x 84								1	1										28		1				
458					R5-1-48	48 x 48																									
458	S138	SR 161	2267+13	CL	D10-5-18	18 x 60																1									
458	S140	SR 161	2244+60	RT	E5-H1c-48	48 x 84								1	1										28		1				
458	S141	SR 161	2245+82	RT	D10-5-18	18 x 60																									
TOTALS CARRIED TO SUB-SUMMARY SHEET 443							411.0	0.0	0.0	0.0	44.8	0.0	4	4	2	0	14	1	425.5	212.0	0	4	0								

TRAFFIC CONTROL SUBSUMMARY

DESIGN AGENCY

WSP USA, Inc.
2 Miranova Pl,
Suite 450
Columbus, OH 43215

DESIGNER
EAT


REVIEWER
JRL 02/10/23

PROJECT ID
116322

SHEET TOTAL
442 846

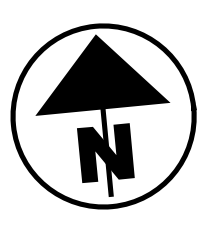
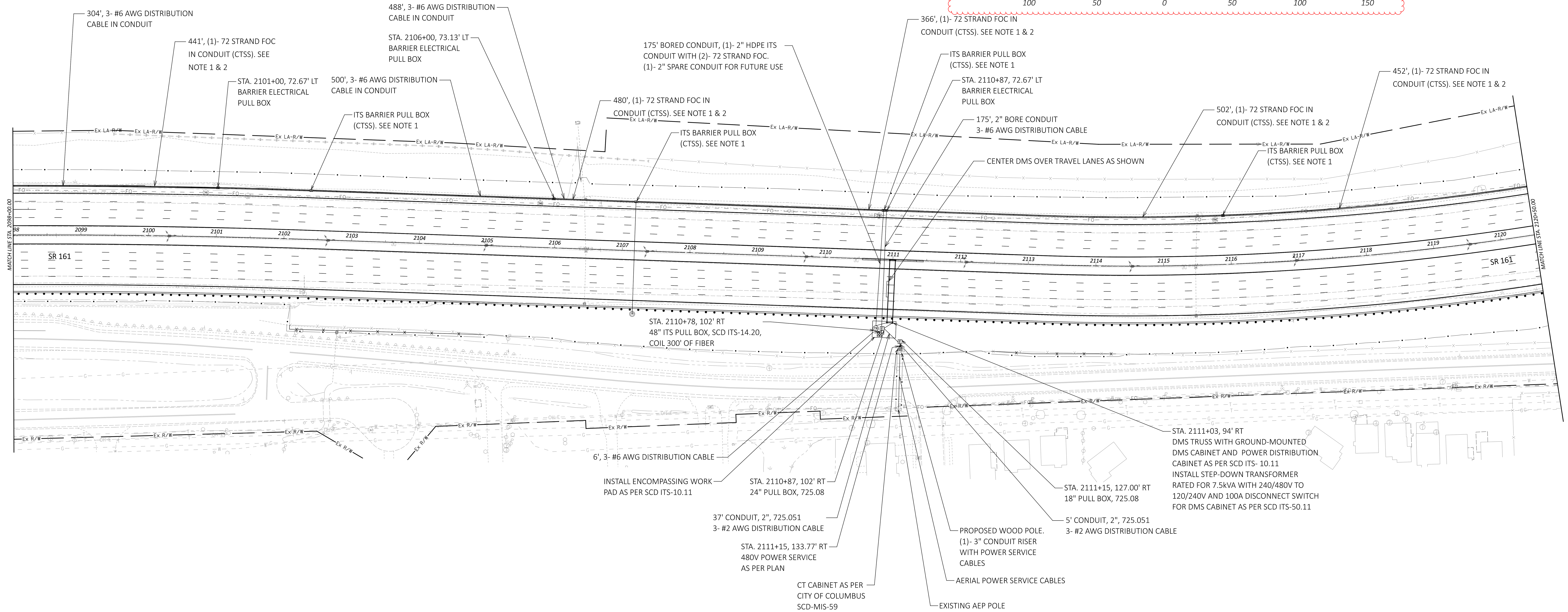
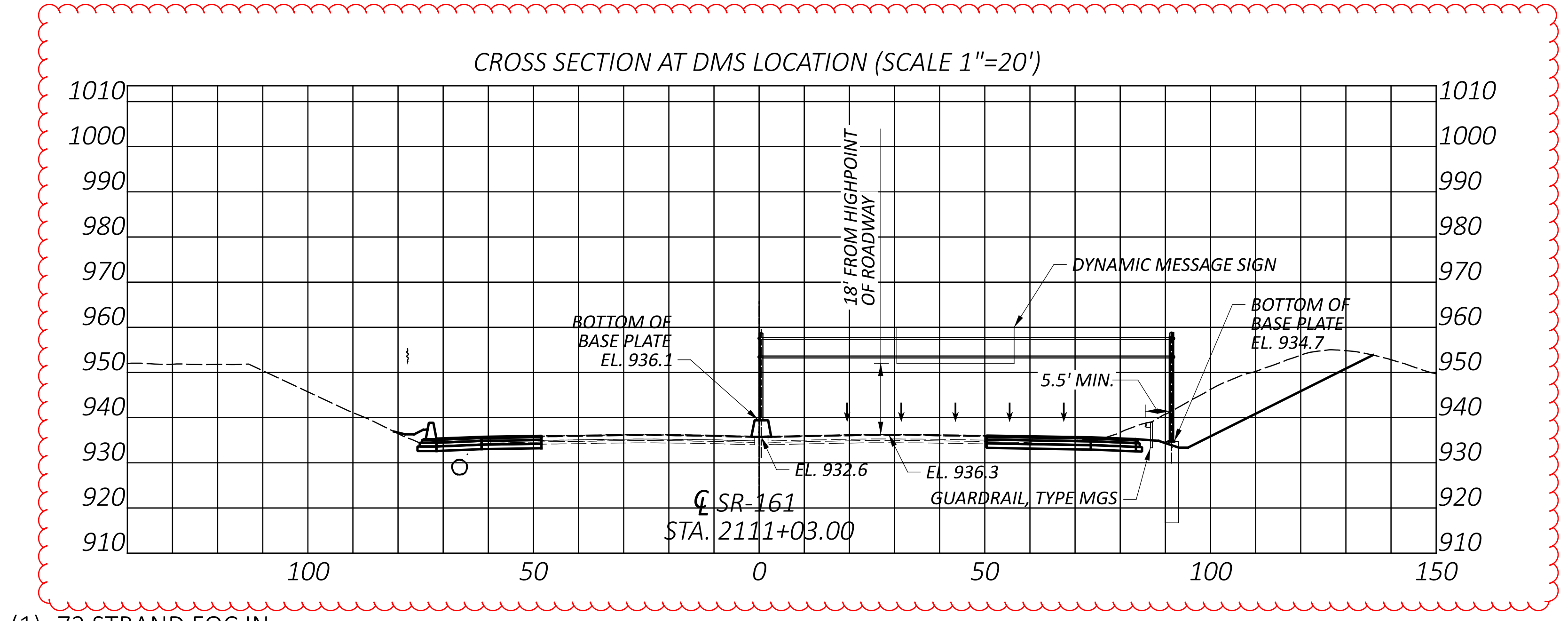
SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE IN INCHES	630		630		630		630		630		630		630		630		630		630		630		
							GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, 54X7.7	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30	GROUND MOUNTED SUPPORT, PIPE	SIGN POST REFLECTOR	BREAKAWAY STRUCTURAL BEAM CONNECTION	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED, AS PER PLAN	CONCRETE MEDIAN BARRIER SIGN BRACKET, AS PER PLAN	SIGNING, MISC.: CONCRETE BARRIER MOUNTED SIGN SUPPORT DETAIL, METHOD A	SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	SIGNING, MISC.: SAFESIGN BREAKAWAY SYSTEM						
458	S143	SR 161	2256+54	RT	D10-5-18	18 x 60																							
458	S144	SR 161	2264+50	RT	W4-1R-48	48 x 48	15.5	14.5																					
458	S145	SR 161	2267+13	CL	D10-5-18	18 x 60																							
459	S146	SR 161	2277+69	RT	D10-5-18	18 x 60																							
459	S147	SR 161	2287+50	LT	D10-H8-12	12 x 12	13.0																						
459	S148	SR 161	2288+50	RT	D10-5-18	18 x 60																							
459	S149	SR 161	2290+50	LT	R2-1-48	48 x 60	15.5	18.5																					
459	S151	SR 161	2277+69	RT	D10-5-18	18 x 60																							
459	S152	SR 161	2279+00	RT	D14-H14-48	48 x 30	14.0	15.0																					
459	S153	SR 161	2288+50	RT	D10-5-18	18 x 60																							
459	S155	SR 161	2287+50	RT	D10-H8-12	12 x 12	13.0																						
459	S156	SR 161	2292+50	RT	R2-1-48	48 x 60	15.5	18.5																					
460	S157	SR 161	2300+50	LT	M3-4-36	36 x 18	15.5	16.0																					
460					M1-5-36-3	45 x 36																							
460	S158	SR 161	2301+00	RT	D10-5-18	18 x 60																							
460	S159	SR 161	2311+00	RT	D10-5-18	18 x 60																							
460	S160	SR 161	2319+00	LT	W4-1R-48	48 x 48	15.0	15.5																					
460	S161	SR 161	2321+00	RT	D10-5-18	18 x 60																							
460	S162	SR 161	2301+00	RT	D10-5-18	18 x 60																							
460	S163	SR 161	2311+00	RT	D10-5-18	18 x 60																							
460	S165	SR 161	2315+90	RT	E5-H1c-48	48 x 84								1	1											28		1	
460					R5-1-48	48 x 48																							
460	S166	SR 161	2319+00	RT	W8-13-48	48 x 48	14.5	15.5																					
460	S167	SR 161	2321+00	RT	D10-5-18	18 x 60																							
461	S170	SR 161	2331+00	CL	D10-5-18	18 x 60																							
461	S171	SR 161	2336+35	LT	E5-H1c-48	48 x 84								1	1														
461					R5-1-48	48 x 48																							
461	S173	SR 161	2341+00	LT	D10-H8-12	12 x 12	13.0																						
461	S174	SR 161	2341+60	RT	D10-5-18	18 x 60																							
461	S175	SR 161	2352+28	RT	D10-5-18	18 x 60																							
461	S176	SR 161	2331+00	CL	D10-5-18	18 x 60																							
461	S177	SR 161	2334+40	RT	W4-1R-48	48 x 48	15.0	17.0																					
461	S178	SR 161	2341+00	RT	D10-H8-12	12 x 12	13.0																						
461	S179	SR 161	2341+60	RT	D10-5-18	18 x 60																							
461	S180	SR 161	2352+28	RT	D10-5-18	18 x 60																							
461	S182	SR 161	2355+00	RT	W4-2L-48	48 x 48	15.0	17.0																					
462	S184	SR 161	2363+70	CL	D10-5-18	18 x 60																							
462	S185	SR 161	2374+20	CL	D10-5-18	18 x 60																							
462	S186	SR 161	2384+75	LT	D10-5-18	18 x 60																							
462	S187	SR 161	2363+70	CL	D10-5-18	18 x 60																							
462	S189	SR 161	2374+20	CL	D10-5-18	18 x 60																							
462	S190	SR 161	2384+75	LT	D10-5-18	18 x 60																							
TOTAL THIS SHEET							335.0	0.0	0.0	0.0	0.0	0.0	2	2	0	0	11	0	362	56	0	2	0						
GROUND MOUNTED SIGN SUBSUMMARY - SHEET 441							678.5	64.0	38.8	21.0	0.0	51.8	2	8	2	2	5	3	503.5	328.0	2	4	1						
GROUND MOUNTED SIGN SUBSUMMARY - SHEET 442							411.0	0.0	0.0	0.0	44.8	0.0	4	4	2	0	14	1	425.5	212.0	0	4	0						
TOTALS CARRIED TO GENERAL SUMMARY							1424.5	64.0	38.8	21.0	44.8	51.8	8	14	4	2	30	4	1,290.8	596.0	2	10	1						

TRAFFIC CONTROL SUBSUMMARY

DESIGN AGENCY	
WSP USA, Inc. 2 Miranova Pl, Suite 450 Columbus, OH 43215	
DESIGNER	EAT
REVIEWER	JRL 02/10/23
PROJECT ID	116322
SHEET TOTAL	443 846

NOTES:

1. FOR PULL BOX SIZE AND QUANTITY SEE SHEETS 521 TO 529 FOR CTSS PLANS
2. ODOT FOC SHALL BE INSTALLED IN SEPARATE CONDUIT FROM CTSS FOC
3. SEE BARRIER CONDUIT TABLE ON SHEET 489 FOR BARRIER CONDUIT SIZE, LOCATION, TYPE, AND USE. FOR ADDITIONAL INFORMATION SEE TYPICAL SECTIONS ON SHEETS 7 TO 53 AND STRUCTURES OVER 20' DETAILS ON SHEETS 588 TO 753.

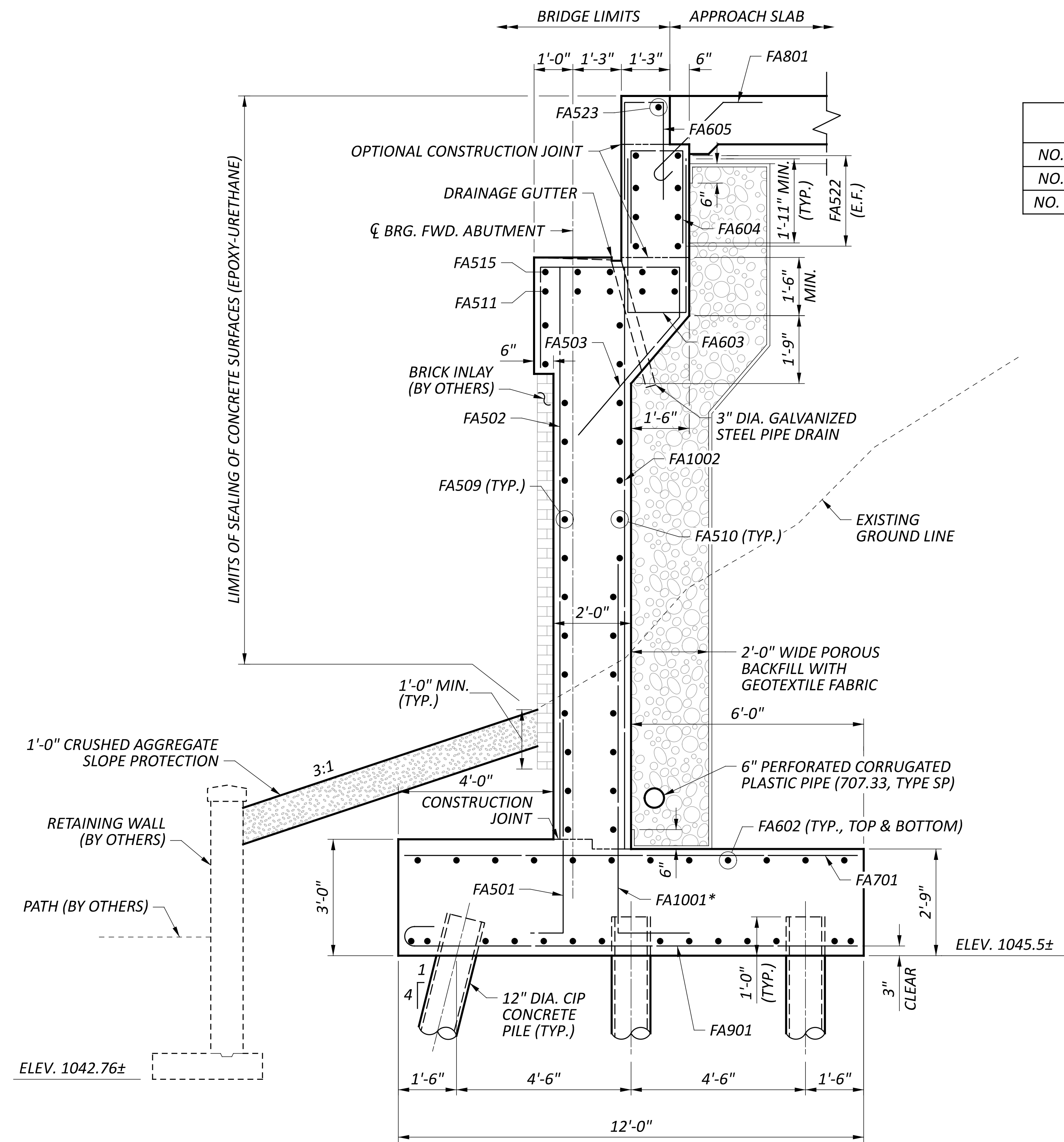


FFRA-161-15-80

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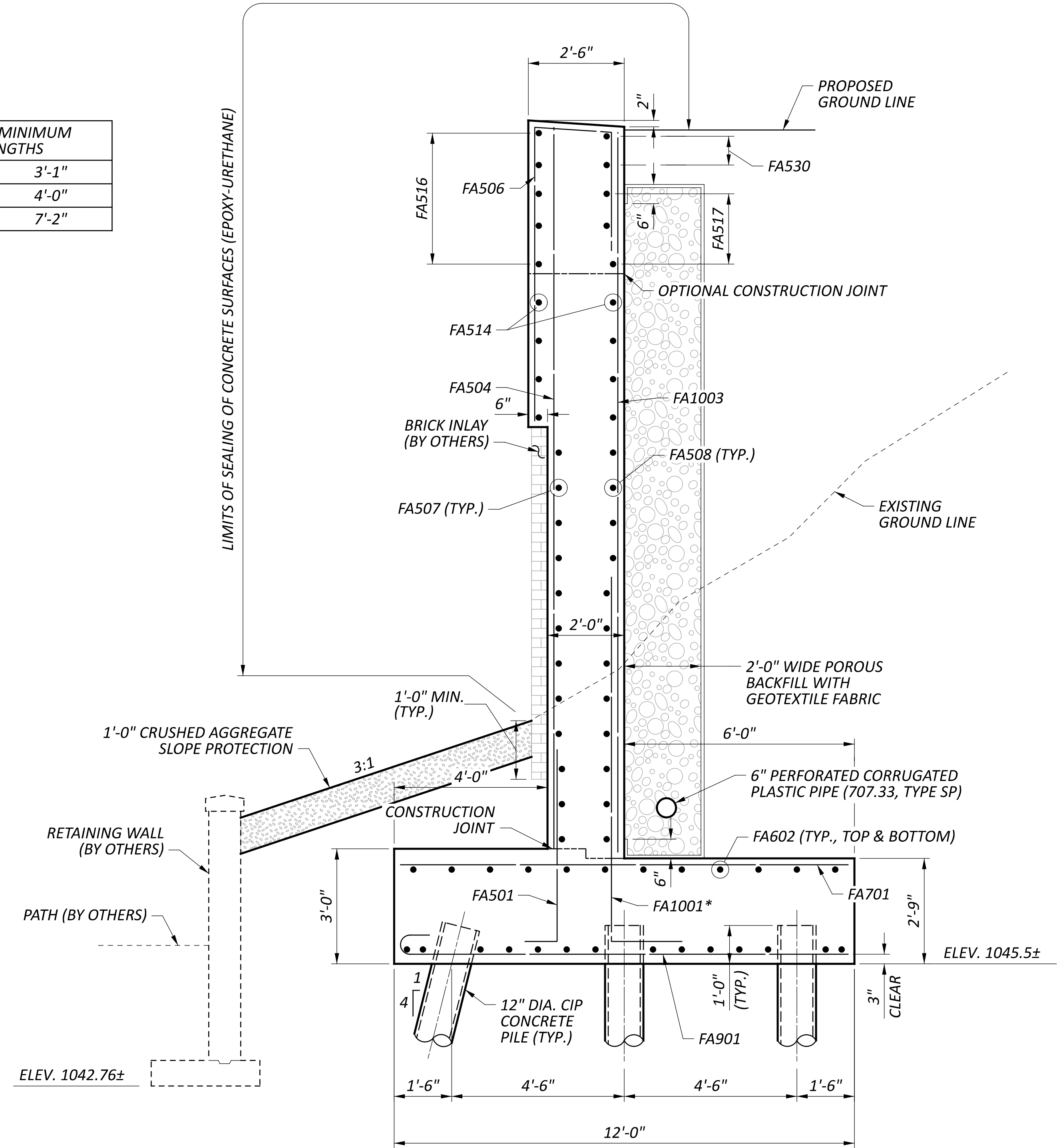
ODOT ITS PLAN
 STA. 2098+00 TO STA. 2120+50

DESIGNER:
 REVIEWER:
 AMR 02/10/23
 PROJECT ID:
 116332
 SHEET TOTAL:
 494 | 846

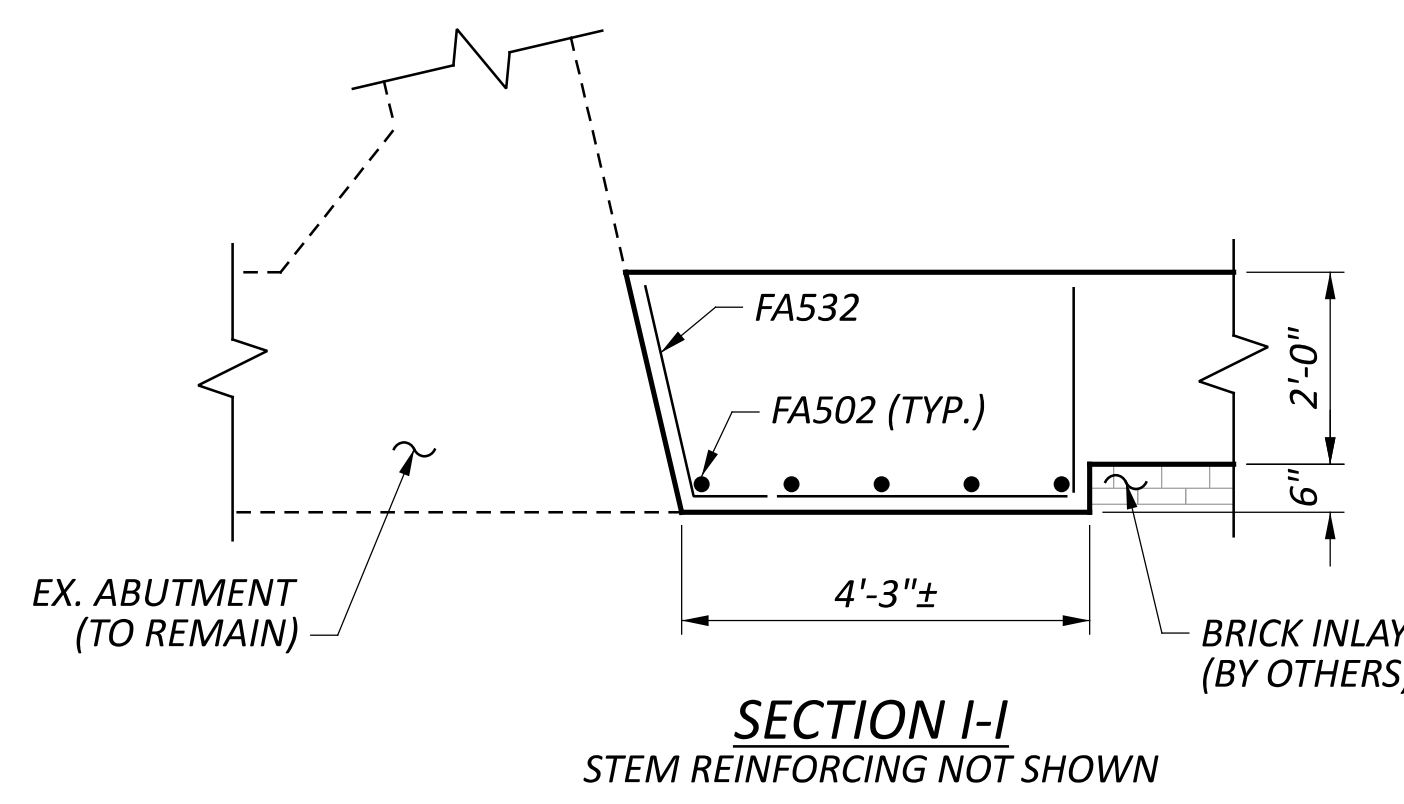


SECTION F-F

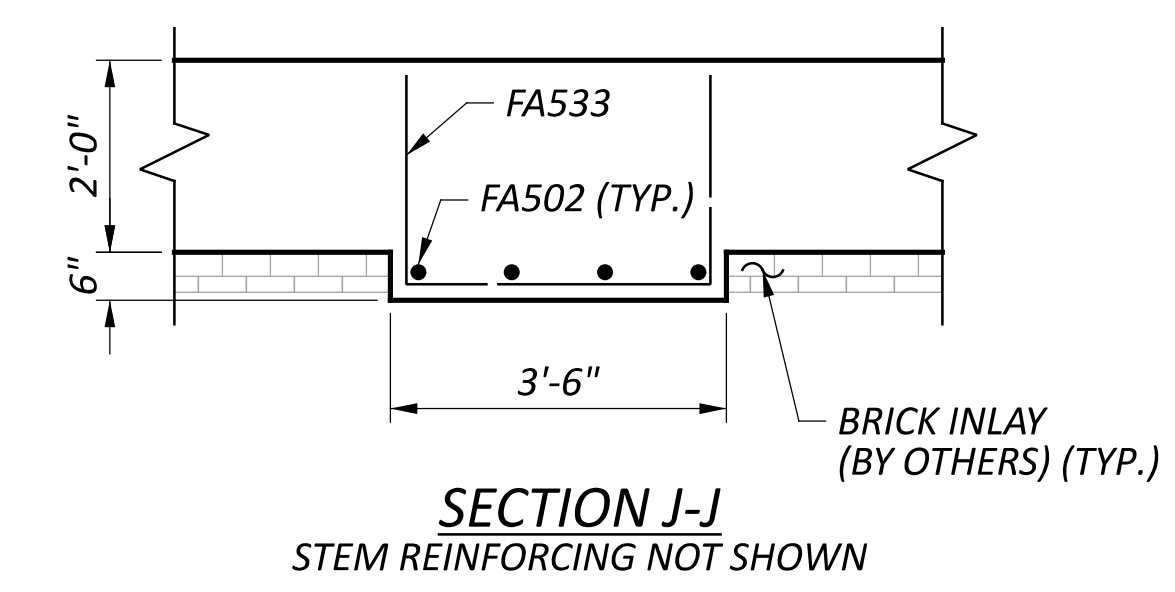
REQUIRED MINIMUM LAP LENGTHS	
NO. 5 BARS	3'-1"
NO. 6 BARS	4'-0"
NO. 10 BARS	7'-2"



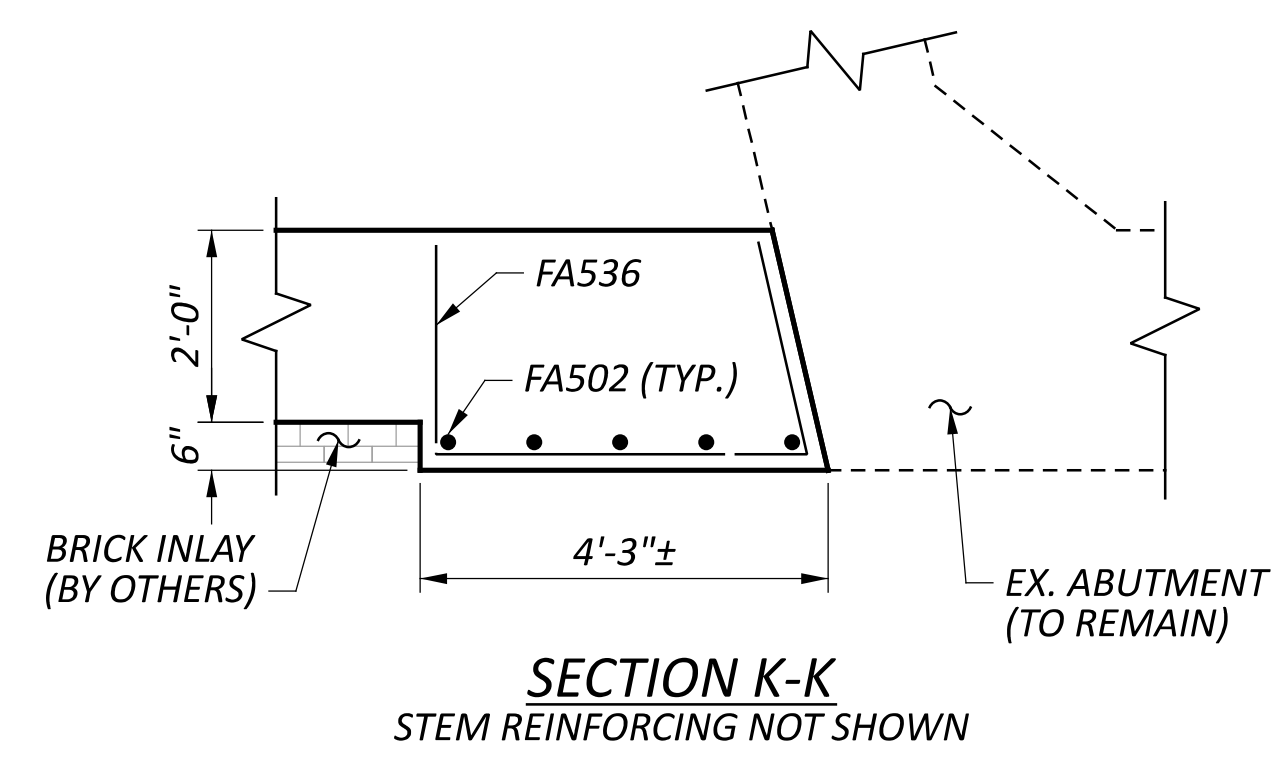
SECTION G-G



SECTION I-I
STEM REINFORCING NOT SHOWN



SECTION J-J
STEM REINFORCING NOT SHOWN



SECTION K-K
STEM REINFORCING NOT SHOWN

LEGEND
 * RAISE BAR WHEN IT COINCIDES WITH PILE LOCATION

NOTES:
 1. FOR ADDITIONAL FORWARD ABUTMENT NOTES, SEE SHEET 29 OF 54.

FORWARD ABUTMENT DETAILS (2 OF 2)
 BRIDGE NO. FRA-00161-21.730 L&R
 SR 161 OVER US 62 (JOHNSTOWN RD.)

SFN	2503530 (R)
SFN	2503565 (L)
DESIGN AGENCY	HDR
DESIGNER	RBK
CHECKER	JTW
REVIEWER	JMS 5/17/23
PROJECT NO.	116322
SUBSET	29A
TOTAL	54
SHEET	728A
TOTAL	846