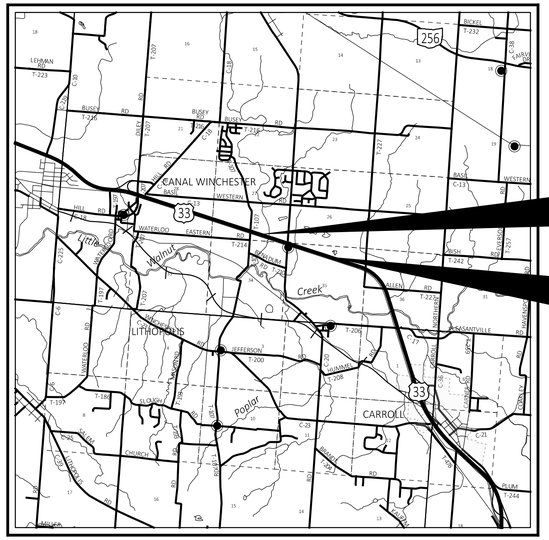
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FAI-33-2.64

VIOLET TOWNSHIP
FAIRFIELD COUNTY
GRADE CROSSING ELIMINATION WITH THE INDIANA & OHIO RAILWAY

INDEX OF SHEETS:

(SEE SHEET P.2)



LOCATION MAP

LATITUDE: 39°50'05" N LONGITUDE: 82°44'40" W

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

DESIGN DESIGNATION: SEE SHEET P.3

NHS PROJECT ..... YES

DESIGN EXCEPTIONS:

NORTH CONNECTOR	*SHEET #*	*APPROVAL DATE*
SUPERELEVATION	*P.6*	*07/22/2024*
HORIZONTAL CURVE RADIUS	*P.6*	*07/22/2024*
SERVICE ROAD 1		
SUPERELEVATION	*P.6*	*07/22/2024*
HORIZONTAL CURVE RADIUS	*P.6*	*07/22/2024*
SERVICE ROAD 2		
SUPERELEVATION	*P.6*	*07/22/2024*
HORIZONTAL CURVE RADIUS	*P.6*	*07/22/2024*
BENADUM ROAD		
SUPERELEVATION	*P.6*	*07/22/2024*

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:

CARPENTER MARTY transportation
6612 SINGLETREE DRIVE COLUMBUS, OH 43229
614.656.2424 • WWW.CMTRAN.COM

FEDERAL PROJECT NUMBER

E220 (031)

RAILROAD INVOLVEMENT

INDIANA & OHIO RAILWAY

PROJECT DESCRIPTION

REPLACE THE EXISTING INTERSECTION OF US 33 AND PICKERINGTON ROAD WITH AN INTERCHANGE AND REMOVE THE ALLEN ROAD INTERSECTIONS. THE PROJECT WILL ELIMINATE FOUR AT GRADE RAILROAD CROSSINGS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*54.7 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*23.0 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*77.7 ACRES*

LIMITED ACCESS

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

2023 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEET P.28 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Jason L. Sturgeon, P.E.
District 05 Deputy Director

Pamela Boratyn
Director, Department of Transportation

Tony J. Vogel, P.E.
Fairfield County Utilities Director

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	*1/21/22*	*MGS-2.1*	*1/19/18*	*PSID-1-13*	*7/19/24*	*MT-95.30*	*7/19/19*	*TC-61.30*	*7/19/24*	*800*	*7/19/24*	*WATERWAY*
BP-2.2	*1/15/21*	*MGS-3.1*	*1/19/18*	*SBR-1-20*	*7/19/24*	*MT-95.45*	*7/21/23*	*TC-65.10*	*1/17/14*	*804*	*7/19/24*	*PERMIT*
BP-3.1	*1/19/24*	*MGS-3.2*	*1/18/13*	*VPF-1-24*	*7/19/24*	*MT-97.10*	*4/19/19*	*TC-65.11*	*1/19/24*	*807*	*1/21/22*	*CONDITIONS*
BP-3.2	*1/18/19*	*MGS-4.2*	*7/19/13*			*MT-97.12*	*1/20/17*	*TC-71.10*	*4/21/23*	*808*	*7/19/24*	*04/04/2025*
BP-4.1	*7/19/13*	*MGS-5.2*	*7/15/16*	*HL-10.11*	*7/21/23*	*MT-99.20*	*4/19/19*	*TC-72.20*	*7/21/23*	*809*	*7/19/24*	
BP-5.1	*7/15/22*	*MGS-5.3*	*7/15/16*	*HL-10.12*	*7/21/23*	*MT-99.60*	*7/19/24*	*TC-81.11*	*1/19/24*	*813*	*7/21/23*	*ASBESTOS*
		MGS-6.1	*1/19/18*	*HL-10.13*	*1/20/23*	*MT-101.60*	*4/21/23*	*TC-81.22*	*7/21/23*	*815*	*4/16/21*	*REPORTS*
CB-2-2A, 2B, 2C	*7/19/24*			*HL-10.31*	*7/15/22*	*MT-101.70*	*7/19/24*	*TC-83.10*	*1/17/20*	*819*	*1/17/20*	*12/17/2024*
CB-2-3, 2-4	*7/19/24*	*MH-1*	*7/15/22*	*HL-20.11*	*7/21/23*	*MT-101.75*	*7/21/23*	*TC-83.20*	*7/19/24*	*821*	*4/20/12*	
CB-3A	*7/19/24*	*MH-3*	*7/19/24*	*HL-20.21*	*1/15/21*	*MT-101.90*	*7/17/20*	*TC-84.20*	*1/19/24*	*825*	*7/19/24*	*LOW DENSITY*
CB-6	*7/19/24*			*HL-30.11*	*7/21/23*	*MT-102.10*	*7/21/23*	*TC-84.21*	*10/18/13*	*828*	*1/19/18*	*CELLULAR*
CB-8	*7/19/24*	*RM-1.1*	*1/20/23*	*HL-30.21*	*4/17/20*	*MT-105.10*	*1/17/20*	*TC-85.10*	*1/19/24*	*832*	*7/19/24*	*CONCRETE FILL*
		RM-3.1	*7/20/18*	*HL-30.22*	*1/15/21*			*TC-85.20*	*4/21/23*	*836*	*1/19/24*	*12/27/2024*
DM-1.1	*7/17/20*	*RM-4.2*	*7/19/24*	*HL-30.31*	*7/19/24*	*TC-12.31*	*4/15/22*	*TC-85.21*	*1/19/24*	*840*	*7/19/24*	
DM-1.2	*7/16/21*	*RM-4.3*	*1/21/22*	*HL-40.20*	*7/19/24*	*TC-16.22*	*7/21/23*	*TC-85.22*	*4/21/23*	*844*	*1/17/25*	
DM-1.3	*7/18/14*	*RM-4.4*	*7/21/23*	*HL-50.21*	*7/15/22*	*TC-17.11*	*1/19/24*	*TC-86.10*	*7/21/23*	*902*	*7/19/19*	
DM-4.1	*7/17/20*	*RM-4.5*	*7/19/24*	*HL-60.11*	*7/21/17*	*TC-21.11*	*7/16/21*			*904*	*7/15/22*	
DM-4.3	*1/15/16*	*RM-4.6*	*7/19/24*	*HL-60.21*	*7/20/18*	*TC-21.21*	*1/20/23*			*906*	*10/15/10*	
DM-4.4	*1/15/16*	*RM-4.8*	*7/19/24*	*HL-60.31*	*7/19/24*	*TC-22.20*	*1/17/14*			*909*	*7/19/24*	
		RM-7.1	*7/18/14*			*TC-41.10*	*7/19/13*			*913*	*4/16/21*	
F-1.1	*7/19/13*			*ITS-10.10*	*7/19/24*	*TC-41.20*	*10/18/13*			*916*	*7/19/24*	
F-2.1	*7/20/18*	*AS-1-15*	*1/20/23*	*ITS-10.11*	*7/19/24*	*TC-41.30*	*4/21/23*			*919*	*1/17/20*	
F-3.1	*7/19/13*	*AS-2-15*	*7/21/23*	*ITS-12.10*	*7/15/22*	*TC-41.40*	*10/18/13*			*921*	*7/19/24*	
F-3.3	*7/19/13*	*CPA-1-08*	*1/19/24*	*ITS-14.11*	*7/19/24*	*TC-41.41*	*7/19/19*			*928*	*1/19/18*	
F-3.4	*7/19/13*	*CS-1-08*	*1/15/08*	*ITS-14.50*	*7/19/24*	*TC-42.10*	*10/18/13*					
		HW-2.1	*7/15/22*	*ITS-14.60*	*1/19/24*	*TC-42.20*	*10/18/13*					
I-3D	*7/19/24*	*HW-2.2*	*7/20/18*	*ITS-15.10*	*7/19/24*	*TC-51.11*	*1/15/16*					
		PCB-91	*7/17/20*	*ITS-18.10*	*7/16/21*	*TC-52.10*	*10/18/13*					
MGS-1.1	*7/16/21*	*PSBD-2-07*	*7/20/18*	*ITS-50.10*	*7/15/22*	*TC-52.20*	*1/15/21*					

SUPPLEMENTAL SPECIFICATIONS

800	*7/19/24*
804	*7/19/24*
807	*1/21/22*
808	*7/19/24*
809	*7/19/24*
813	*7/21/23*
815	*4/16/21*
819	*1/17/20*
821	*4/20/12*
825	*7/19/24*
828	*1/19/18*
832	*7/19/24*
836	*1/19/24*
840	*7/19/24*
844	*1/17/25*
902	*7/19/19*
904	*7/15/22*
906	*10/15/10*
909	*7/19/24*
913	*4/16/21*
916	*7/19/24*
919	*1/17/20*
921	*7/19/24*
928	*1/19/18*

SPECIAL PROVISIONS

WATERWAY
PERMIT
CONDITIONS
04/04/2025
ASBESTOS
REPORTS
12/17/2024
LOW DENSITY
CELLULAR
CONCRETE FILL
12/27/2024

ENGINEER'S SEAL	*ENGINEER'S SEAL*	*ENGINEER'S SEAL*
ROADWAY, MOT, TRAFFIC CONTROL, WATER & SANITARY	*STRUCTURES*	*SIGNALS AND LIGHTING*
STATE OF OHIO · TONY W. GRIESHOP · E-70196 · REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO · GREGORY D. JOHNSON · E-66952 · REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO · NEAL A. UNDERWOOD · E-75225 · REGISTERED PROFESSIONAL ENGINEER

TITLE SHEET

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM
REVIEWER TWG 12/09/24
PROJECT ID 77555
SHEET P.1 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 1:32:03 PM USER: cmt008
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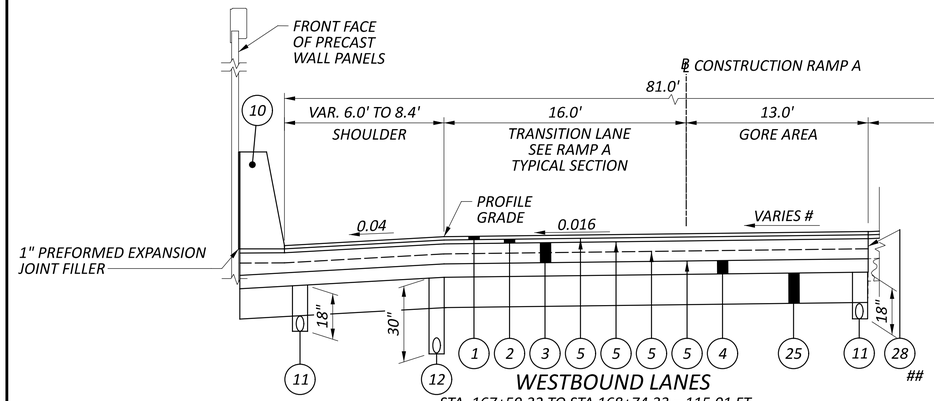
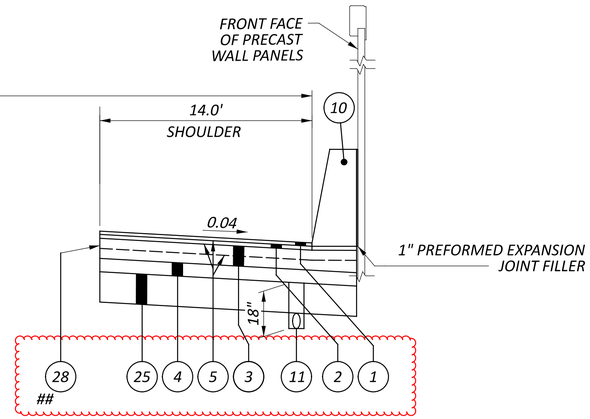


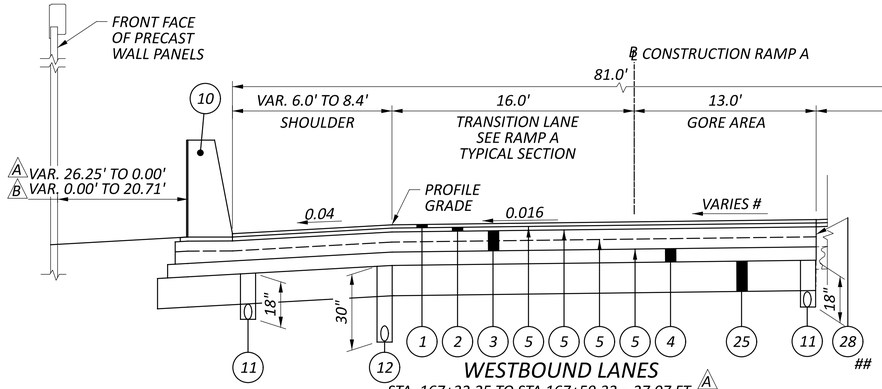
WESTBOUND LANES
STA. 167+59.32 TO STA 168+74.33 = 115.01 FT.

58.0'

U.S. 33
CONCRETE BARRIER, SINGLE SLOPE, TYPE D
SECTION APPLIES:



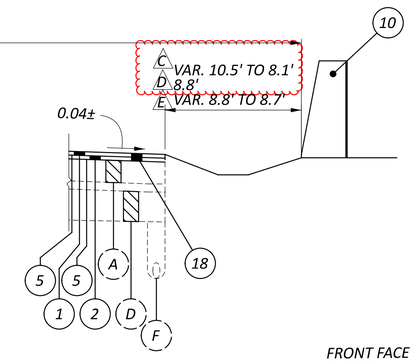
EASTBOUND LANES
STA. 167+87.86 TO STA. 169+15.47 = 127.61 FT.



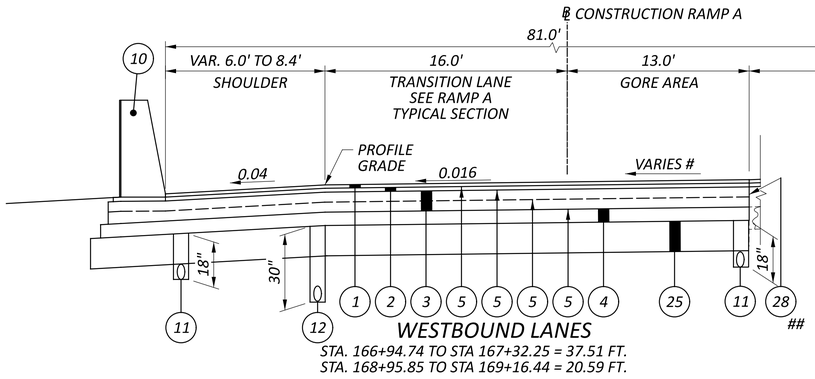
WESTBOUND LANES
STA. 167+32.25 TO STA 167+59.32 = 27.07 FT. A
STA. 168+74.33 TO STA 168+95.85 = 21.52 FT. A B

70.21' MAX / 58.0' MIN.

U.S. 33
CONCRETE BARRIER, SINGLE SLOPE, TYPE D
SECTION APPLIES:



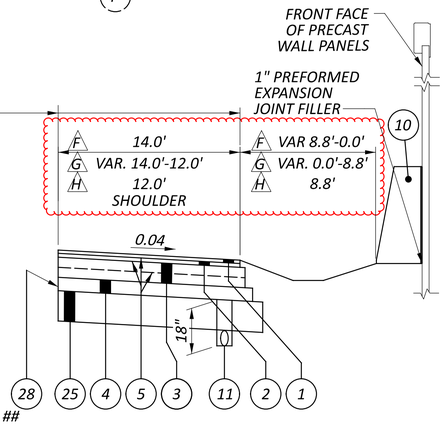
EASTBOUND LANES
STA. 161+83.00 TO STA. 166+50.00 = 467.00 FT. C
STA. 169+65.00 TO STA. 172+85.00 = 320.00 FT. D
STA. 175+25.00 TO STA. 175+94.00 = 69.00 FT. E



WESTBOUND LANES
STA. 166+94.74 TO STA 167+32.25 = 37.51 FT.
STA. 168+95.85 TO STA 169+16.44 = 20.59 FT.

44.0'

U.S. 33
CONCRETE BARRIER, SINGLE SLOPE, TYPE D
SECTION APPLIES:



EASTBOUND LANES
STA. 166+25.00 TO STA. 167+87.86 = 162.86 FT. F G H
STA. 169+15.47 TO STA. 169+65.00 = 49.53 FT. F G H
STA. 172+85.00 TO STA. 175+25.00 = 240.00 FT. F G H

LEGEND:

1. ITEM 442 1 ½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
2. ITEM 442 1 ¾" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5MM, TYPE A (446)
3. ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22, (449) (PLACED IN 2 LIFTS)
4. ITEM 304 6" AGGREGATE BASE
5. ITEM 407 NON-TRACKING TACK COAT (RATE AS PER C&MS TABLE 407.06-1)
6. ITEM 204 SUBGRADE COMPACTION
7. ITEM 659 SEEDING AND MULCHING, CLASS 2
8. ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA
9. ITEM 606 GUARDRAIL, TYPE MGS
10. ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D
11. ITEM 605 6" BASE PIPE UNDERDRAIN (18" DEPTH)
12. ITEM 605 6" SHALLOW PIPE UNDERDRAIN (30" DEPTH)
13. ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22, (449)
14. ITEM 609 6" CONCRETE TRAFFIC ISLAND
15. ITEM 606 GUARDRAIL, TYPE MGS WITH LONG POSTS
16. ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1
17. STANDARD LONGITUDINAL JOINT
18. ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE (3¼" DEPTH)
19. ITEM 441 1 ¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
20. ITEM 441 1 ¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
21. ITEM 301 5" ASPHALT CONCRETE BASE, PG64-22, (449)
22. NOT USED
23. NOT USED
24. ITEM 526 REINFORCED CONCRETE APPROACH SLAB (T=17"), AS PER PLAN
25. ITEM 206 CEMENT STABILIZED SUBGRADE, 12 OR 14 INCHES DEEP
26. ITEM 411 8" STABILIZED CRUSHED AGGREGATE
27. ITEM 605 AGGREGATE DRAINS
28. ITEM 252 FULL DEPTH PAVEMENT SAWING
29. ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, 81"

A. EXISTING 8 1/2"± BITUMINOUS AGGREGATE BASE
B. EXISTING 9"± RUBBLIZED CONCRETE PAVEMENT
C. EXISTING 6"± AGGREGATE BASE
D. EXISTING VARIABLE AGGREGATE BASE
E. EXISTING 15"± AGGREGATE BASE
F. EXISTING UNDERDRAIN TO REMAIN
G. EXISTING 3.25"± ASPHALT PAVEMENT
H. EXISTING 11"± AGGREGATE BASE
I. EXISTING 4"± AGGREGATE BASE
J. EXISTING 2"± AGGREGATE BASE
K. EXISTING 8"± ASPHALT PAVEMENT
L. EXISTING 1.25' ± ASPHALT PAVEMENT
M. EXISTING 4"± ASPHALT TREATED FREE DRAINING BASE

PROPOSED TYPICAL SECTIONS - U.S. 33

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
MGM

REVIEWER
TWG 12/09/24

PROJECT ID
77555

SHEET P.12 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 3:07:23 PM USER: cmt012
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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

WATER AND SANITARY:
FAIRFIELD COUNTY UTILITIES
6670 LOCKVILLE ROAD
CARROLL, OHIO 43112
ATTN: TONY J. VOGEL
614-322-5200
Tony.Vogel@fairfieldcountyohio.gov

ELECTRIC:
SOUTH CENTRAL POWER CO.
2780 COONPATH ROAD, NE
P.O. OFFICE BOX 250
LANCASTER, OHIO 43130
ATTN: ZACK REED
740-689-6150
zreed@southcentralpower.com

GAS:
COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OHIO 43231
ATTN: BO REDMAN
740-739-2311
BREDMAN@NISOURCE.COM
ATTN: TARA NEMICK
614-813-1402
TNEMICK@NISOURCE.COM

GAS:
TC ENERGY
1440 MCNAUGHTEN ROAD
COLUMBUS, OHIO 43232
ATTN: RANDALL MUSIC
614-653-2972
randall.music@tcenergy.com
us.crossings@tcenergy.com

TELECOM:
AT&T OHIO
111 NORTH FOURTH ST.
COLUMBUS, OH 43215
ATTN: KEVIN GLASSER
614-208-9312
KG1963@att.com

TELECOM:
SPECTRUM CABLE TV
3770 EAST LIVINGSTON AVE.
COLUMBUS, OHIO 43227-2280
ATTN: ANTHONY ADAMS
614-827-7971
ANTHONY.ADAMS@charter.com

TELECOM:
ZAYO
251 NEILSTON ST.
COLUMBUS, OHIO 43215
ATTN: HENRY MORRIS
HENRY.MORRIS@ ZAYO.COM

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

EXISTING PLANS

EXISTING PLANS ENTITLED FAI-33-0.00 (1993) MAY BE INSPECTED IN THE ODOT DISTRICT 5 OFFICE IN JACKSONTOWN.

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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET P.7 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE
COMBINED SCALE FACTOR: 0.99993383
ORIGIN OF COORDINATE
SYSTEM: (0,0)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH C&MS 623.

UNITS ARE IN U.S. SURVEY FEET.

FENCE LENGTHS

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

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.

ALL TREES AND STUMPS SHOULD BE REMOVED FROM THIS PROJECT THAT WERE PREVIOUSLY CUT DOWN BY A PRIOR CONTRACT IF NOT OTHERWISE COMPLETED DUE TO THE BAT TREE CUTTING RESTRICTION DATES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMAINNG TREES, STUMP REMOVALS AND CLEARING AND GRUBBING WITHIN THE RIGHT-OF-WAY LMITS OF THIS PROJECT AS PER ITEM 201.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING	44 HOUR

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL 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.

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 31 INCHES FROM THE EDGE OF THE SHOULDER.

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

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

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

ITEM 407 - NON-TRACKING TACK COAT

THE RATE OF APPLICATION OF THE ITEM 407, NON-TRACKING TACK COAT SHALL BE PER CMS TABLE 407.06-1 AND SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.08 GAL/SY FOR TACK COAT UNDER THE INTERMEDIATE COURSE AND AN AVERAGE APPLICATION RATE OF 0.05 GAL/SY FOR TACK COAT UNDER THE SURFACE COURSE, (FOR ESTIMATING PURPOSES ONLY).

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL 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 REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

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 31 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, MGS 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.

ITEM 606 - IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL OR 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.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL OR 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.

CONTRACTION AND/OR EXPANSION JOINTS

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

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
MDW

REVIEWER
TWG 12/09/24

PROJECT ID
77555

SHEET P.23 TOTAL 846

FAI-33-2.64

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ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. A CD CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO THE PROJECT ENGINEER AFTER ALL INFORMATION HAS BEEN COLLECTED. THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING NAME OF SURVEYOR, DATE(S) OF COLLECTION, HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO STATE PLANE COORDINATE SYSTEM NORTH OR SOUTH), VERTICAL DATUM (I.E. NAVD 88, GEOID12A) AND METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.) AND BE IN A TABLE FORM AS FOLLOWS:

POINT NUMBER, NORTHING, EASTING, ELEVATION, FEATURE CODE, DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR IS REQUIRED TO PROVIDE FOR THE PROJECT:

- RIGHT-OF-WAY FENCE (POINTS AT ALL CHANGES IN DIRECTION)
- LIGHT POLES AND LIGHTING PULLBOXES
- BARRIER (GUARDRAIL, CONCRETE OR CABLE)
- BMP'S (SEE PROJECT SITE PLAN FOR INFO)
- CULVERTS (INLET INVERT, OUTLET INVERT, TYPE, AND SIZE)
- STORM SEWER OUTLETS (OUTLET INVERT, TYPE, AND SIZE)
- CATCH BASINS, MANHOLES, AND INLETS
- UNDERDRAIN OUTLETS
- SIGNS (WITH DESCRIPTIONS)
- TRAFFIC SIGNAL POLES, CONTROLLER LOCATION, AND SIGNAL PULLBOXES

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE OHIO DEPARTMENT OF TRANSPORTATION SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COST ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

ALL MATERIALS, LABOR, AND EQUIPMENT RELATED TO MAINTAINING USABLE CONTROL POINTS AND ASSOCIATED REPORTS SHALL BE INCLUDED IN ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN. (SEE NOTE ON SHEET P.23 FOR SURVEY PARAMETERS)

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 11:00PM AND 7:00AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIPS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTERS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

PROVIDE CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. FURNISH A STUB MEETING THE REQUIREMENTS OF 707 WITH A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THOROUGHLY CLEAN AND REGALVANIZE OR OTHERWISE SUITABLY REPAIR THE FIELD WELDED JOINT, IF USED. MEET WELDING REQUIREMENTS OF 513.21.

PROVIDE A MASONRY COLLAR PER STANDARD CONSTRUCTION DRAWING DM-1.1, TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS USED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, IS INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

CONDUIT UNDER RAILROAD

THE DEPARTMENT WILL PAY TO THE RAIL COMPANY ALL COSTS FOR WATCHMEN OR FLAGGERS DEEMED NECESSARY BY THE RAIL COMPANY DURING THE INSTALLATION OF CONDUIT UNDER THE RAILROAD. ANY COSTS FOR WATCHMEN OR FLAGGERS REQUIRED BY AN ALTERNATE METHOD OF INSTALLATION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE COSTS FOR WATCHMEN OR FLAGGERS DUE TO THE NEGLIGENCE OF THE CONTRACTOR, OR ANY SUB-CONTRACTOR, IN CONNECTION WITH THE INSTALLATION OF THE CONDUIT MUST BE PAID BY THE CONTRACTOR.

TRACK SUPPORTS REQUIRED BY THE RAIL COMPANY IN CONNECTION WITH THE INSTALLATION OF THE CONDUIT ARE INCLUDED IN THE COMPANY FORCE ACCOUNT WORK AND PAID BY THE DEPARTMENT. THE COST OF ANY TRACK SUPPORTS REQUIRED BY AN ALTERNATE METHOD OF INSTALLATION OF CONDUIT ARE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR IS RESPONSIBLE TO SECURE APPROVAL OF OPERATIONS FROM THE DEPARTMENT AND THE RAIL COMPANY. THE RAIL COMPANY WILL PERFORM AN ENGINEERING REVIEW OF METHODS OF OPERATIONS AND ENGINEERING SUPERVISION OF CONSTRUCTION WITHOUT COST TO THE CONTRACTOR.

EXECUTE A BOND IN FAVOR OF BOTH THE STATE AND THE COMPANY AS REQUIRED BY SPECIAL CLAUSES, SECTION 6.

COORDINATE WITH THE RAIL COMPANY CONCERNING WORK ADJACENT TO RAILROAD TRACKS, IN ORDER TO AVOID DELAY TO, OR INTERFERENCE WITH RAILROAD TRAFFIC, AND NOTIFY THE RAIL COMPANY 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET RW.10.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

POND EMBANKMENT

IN ORDER TO COMPLETE THE WORK OF PARTIALLY FILLING IN THE POND AT 7237 PICKERINGTON RD AND SHOWN ON SHEET P.399, SHEETING AND DEWATERING OF THAT PART OF THE POND WILL BE NEEDED IN ORDER TO PLACE EMBANKMENT AND COMPACT IT AS NEEDED TO ENSURE THE STABILITY OF THE SLOPE. THE EMBANKMENT IN BETWEEN THE EXISTING POND EDGE AND THE PROPOSED EDGE SHALL BE EMBANKMENT, USING NATURAL SOILS, 703.16.A.

THIS WORK SHALL BE PAID FOR USING THE FOLLOWING ITEM AND CARRIED TO THE GENERAL SUMMARY:

ITEM 203 - EMBANKMENT, USING NATURAL SOILS, 703.16.A — 890 CY

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING — LS (LUMP SUM)

EARTHWORK QUANTITY SUBSUMMARY

ROAD	203		659
	EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
	CY	CY	SY
US 33 (01/NHS/01)	14589	10906	34391
PICKERINGTON (04/STR/04)	21352	146323	59405
RAMP A (01/NHS/01)	1587	17204	7798
RAMP B (01/NHS/01)	4949	22619	13895
RAMP C (01/NHS/01)	1108	2513	4301
RAMP D (01/NHS/01)	1875	9472	8644
NORTH CONNECTOR (04/STR/04)	20745	8254	38699
SOUTH CONNECTOR (04/STR/04)	19153	29204	53334
ALLEN RD (01/NHS/01)	837	147	2762
ALLEN RD (01/NHS/01)	234	132	1281
SERVICE RD 1 (04/STR/04)	2462	4194	7345
SERVICE RD 2 (04/STR/04)	5212	2638	11085
DRIVE 1 (04/STR/04)	672	3970	3226
KING DITCH (04/STR/04)	1382	27	3572
CARRIED TO GENERAL SUMMARY	96157	257603	249738

GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MDW
REVIEWER TWG 12/09/24
PROJECT ID 77555
SHEET P.25 TOTAL 846

FAI-33-2.64

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SEQUENCE OF OPERATIONS

IT IS THE INTENT OF THIS SEQUENCE OF OPERATIONS TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER WHICH IS SAFE FOR THE TRAVELING PUBLIC. IT MAY BE NECESSARY FOR THE CONTRACTOR TO ALTERNATE BETWEEN PHASES IN ORDER TO MEET WORK RESTRICTIONS FOUND IN ODOT'S "DROP-OFFS IN WORK ZONES" STANDARD DRAWING MT-101.90.

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DEPARTMENT.

ALL WORK NOT SPECIFIED IN THE SEQUENCE OF OPERATIONS CAN BE COMPLETED ANYTIME DURING THE DURATION OF THE PROJECT AT THE APPROVAL OF THE ENGINEER.

THE PROJECT SHALL BE CONSTRUCTED IN FIVE PHASES. TWO THROUGH LANES SHALL BE MAINTAINED ON US-33 IN EACH DIRECTION AT ALL TIMES EXCEPT AS OTHERWISE NOTED. LOCAL TRAFFIC SHALL BE MAINTAINED TO ALL PROPERTIES ALONG PICKERINGTON ROAD AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

PRE-PHASE SEE SHEETS P.43 - P.83

PRE-PHASE SHALL CONSIST OF THE CONSTRUCTION OF TEMPORARY PICKERINGTON ROAD, THE PROPOSED CONNECTOR ROADWAYS, ACCESS ROADWAYS, AND DRIVEWAYS FOR EXISTING ACCESS POINTS. PICKERINGTON ROAD ACCESS TO US-33 (NORTH AND SOUTH OF US-33) SHALL BE MAINTAINED DURING THIS PHASE.

THE FOLLOWING WORK SHALL BE COMPLETED:
- CONSTRUCT TEMPORARY PICKERINGTON ROAD AND SERVICE ROADS
- WORK ZONE TRAFFIC SIGNAL AT US-33 AND TEMPORARY PICKERINGTON ROAD
- CONSTRUCT NORTH CONNECTOR INCLUDING CONNECTION TO THORN LANE
- CONSTRUCT SOUTH CONNECTOR INCLUDING CONNECTION TO THORN LANE
- CONSTRUCT ACCESS ROADS TO PROPERTIES ON PICKERINGTON ROAD (NORTH AND SOUTH OF US-33) FROM THE TEMPORARY PICKERINGTON ROAD

TWO LANE, TWO WAY TRAFFIC SHALL BE MAINTAINED ON PICKERINGTON ROAD AND BASIL WESTERN ROAD AT ALL TIMES EXCEPT AS REQUIRED TO CONSTRUCT THE TEMPORARY PICKERINGTON ROAD TIE-INS TO THE EXISTING PICKERINGTON ROAD PAVEMENT. THIS WORK SHALL BE COMPLETED USING A ONE LANE, TWO WAY OPERATION WITH FLAGGERS DURING ACTIVE WORKING HOURS ONLY.

THE TEMPORARY SIGNAL RAILROAD PREEMPTION SYSTEM, SIGNAL POLE-MOUNTED CCTV CAMERA AND THE FLASHING LIGHTS/AUTOMATIC GATES FOR THE TEMPORARY PICKERINGTON ROAD RR CROSSING SHALL COMPLETELY INSTALLED AND IN WORKING ORDER PRIOR TO THE TEMPORARY PICKERINGTON ROAD TRAFFIC SIGNAL BEING OPEN TO TRAFFIC. THE EXISTING PICKERINGTON ROAD TRAFFIC SIGNAL RAILROAD PREEMPTION SYSTEM AND CCTV CAMERA SHALL NOT BE DEACTIVATED AND DEMOLISHED PRIOR TO THE TEMPORARY PICKERINGTON ROAD TRAFFIC SIGNAL BEING ACTIVATED AND OPEN TO TRAFFIC. THE INSTALLATION OF THE FLASHING LIGHTS/AUTOMATIC GATES AT THE TEMPORARY PICKERINGTON ROAD RR CROSSING WILL BE PERFORMED BY THE RAILROAD'S CONTRACTOR AND WILL NOT BE COMPLETED UNTIL JUNE 1, 2026.

THE CONTRACTOR SHALL COMPLETE THE ROUGH GRADING FOR TEMPORARY PICKERINGTON ROAD, WITHIN THE LIMITS OF THE RR RIGHT-OF-WAY, BEFORE THE END OF 2025 TO FACILITATE THE WORK THAT IS TO BE COMPLETED BY THE RR'S CONTRACTOR.

BENADUM ROAD SHALL REMAIN OPEN TO TWO LANE, TWO WAY TRAFFIC EXCEPT FOR A PERIOD OF 14 CALENDAR DAYS WHERE THE ROAD SHALL BE CLOSED TO CONSTRUCT ITS CONNECTION TO TEMPORARY PICKERINGTON ROAD. AT THE END OF THE CLOSURE PERIOD, BENADUM ROAD SHALL BE REOPENED TO EXISTING PICKERINGTON ROAD UNTIL THE TEMPORARY ROADWAY IS READY TO BE OPENED.

PHASE 1 SEE SHEETS P.84 - P.99

PHASE 1 SHALL CONSIST OF THE CONSTRUCTION OF THE INTERCHANGE AT PICKERINGTON ROAD AND US-33. TWO LANES IN EACH DIRECTION SHALL BE MAINTAINED ON US-33 AT ALL TIMES DURING THIS PHASE EXCEPT AS NOTED BELOW. PICKERINGTON ROAD SHALL BE DIVERTED ONTO THE TEMPORARY PICKERINGTON ROAD ALIGNMENT AND THE TEMPORARY TRAFFIC SIGNAL AT US-33 AND PICKERINGTON ROAD SHALL BE PUT INTO CYCLING OPERATION.

INSTALL PORTABLE CONCRETE BARRIER ALONG THE INSIDE AND OUTSIDE SHOULDERS OF US-33 IN BOTH DIRECTIONS USING LANE CLOSURES AS PER ODOT SCD MT-95.30 PRIOR TO COMMENCING WORK ON PHASE 1. LANE CLOSURES ON US-33 SHALL NOT BE PERMITTED BETWEEN THE HOURS OF 7AM-9AM AND 3PM-6PM WEEKDAYS.

THE FOLLOWING WORK SHALL BE COMPLETED:
- CONSTRUCT NORTH CONNECTOR INCLUDING CONNECTION TO THORN LANE
- CONSTRUCT SOUTH CONNECTOR INCLUDING CONNECTION TO THORN LANE
- CONSTRUCT PORTION OF RAMP A AND RAMP D
- CONSTRUCT RAMP B AND RAMP C
- CONSTRUCT PICKERINGTON ROAD FROM THE SOUTH LIMITS TO APPROXIMATELY STA. 272+00
- CONSTRUCT TURN LANES ON PICKERINGTON ROAD AT THE FOLLOWING LOCATIONS:
  - SOUTH CONNECTOR
  - RAMP A & B INTERSECTION
  - RAMP C & D INTERSECTION
- BEGIN CONSTRUCTION OF THE PROPOSED TRAFFIC SIGNALS AT PICKERINGTON ROAD AND THE TWO RAMP INTERSECTIONS
- CONSTRUCT BRIDGE FAI-C0020-04.722 OVER THE INDIANA & OHIO RAILWAY
- CONSTRUCT BRIDGE FAI-C0020-04.734 OVER US-33
- WIDEN BRIDGE FAI-00033-02.920 OVER SYCAMORE CREEK AS REQUIRED FOR THE RAMP A TAPER
- CONSTRUCT BRIDGE FAI-00033-02.920 OVER SYCAMORE CREEK FOR RAMP D

UPON COMPLETION OF PHASE 1, RAMP C, THE NORTH AND SOUTH CONNECTOR ROADS, AND THE SERVICE ROADS SHALL BE FULLY OPEN TO TRAFFIC. TEMPORARY PICKERINGTON ROAD AND NEWLY CONSTRUCTED PICKERINGTON ROAD SHALL BOTH BE OPEN TO TRAFFIC FOR PHASE 2. THORN LANE INTERSECTIONS AT U.S. 33 SHALL BE CLOSED WITH BARRICADES AT THE CONCLUSION OF THIS STAGE, OR WHENEVER THE CONNECTOR ROADS HAVE BEEN COMPLETED SHOULD AN ALTERNATE METHOD OF MAINTENANCE OF TRAFFIC BE PERFORMED.

PHASE 2 SEE SHEETS P.100 - P.105

PHASE 2 SHALL CONSIST OF THE CONSTRUCTION OF BENADUM ROAD AND INTERSECTION AT PICKERINGTON ROAD. PORTIONS OF THE TEMPORARY PICKERINGTON ROAD SHALL ALSO BE REMOVED DURING THIS PHASE.

BENADUM ROAD SHALL BE CLOSED TO EASTBOUND TRAFFIC TO COMPLETE THE REALIGNMENT WEST OF PICKERINGTON ROAD. TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET P.33. WESTBOUND TRAFFIC SHALL BE MAINTAINED. THIS ONE-WAY CLOSURE SHALL BE RESTRICTED TO 30 CALENDAR DAYS. PROPOSED BENADUM ROAD TIE-IN TO THE EXISTING BENADUM ROAD ALIGNMENT SHALL BE COMPLETED WITH FLAGGERS DURING ACTIVE WORK HOURS ONLY.

PHASE 3 SEE SHEETS P.106 - P.117

PHASE 3A AND PHASE 3B SHALL CONSIST OF COMPLETING THE REMAINING PICKERINGTON ROAD WORK FROM STA. 272+00 TO BASIL WESTERN ROAD. PHASE 3A AND PHASE 3B MAY BE PERFORMED IN EITHER ORDER.

A ONE-WAY DETOUR SHALL BE UTILIZED TO DIVERT NORTHBOUND TRAFFIC AND MAINTAIN SOUTHBOUND ONLY TRAFFIC. NORTHBOUND TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET P.34 . THIS ONE-WAY CLOSURE SHALL BE RESTRICTED TO 60 CALENDAR DAYS.

PICKERINGTON ROAD SHALL BE OPEN TO TWO-WAY TRAFFIC UP TO STA. 266+00, WHERE SOUTHBOUND TRAFFIC SHALL BE MAINTAINED AND NORTHBOUND TRAFFIC SHALL BE DETOURED AS NOTED ABOVE. REMAINING PORTIONS OF TEMPORARY PICKERINGTON ROAD SHALL BE USED AS ACCESS TO US 33 FROM PICKERINGTON ROAD.

RAMP B SHALL REMAIN CLOSED AND WESTBOUND US-33 TRAFFIC SHALL CONTINUE TO USE THE TEMPORARY PICKERINGTON ROAD AS THE EXIT. RAMP C SHALL BE OPEN TO TRAFFIC.

THE FOLLOWING WORK SHALL BE COMPLETED:
PHASE 3A: CONSTRUCT RIGHT SIDE OF PICKERINGTON ROAD FROM STA. 272+00 TO BASIL WESTERN ROAD. THE TEMPORARY ROAD BETWEEN THE SERVICE ROAD AND STA. 272+00 SHALL BE REMOVED DURING THIS PHASE. RESIDENTIAL DRIVEWAY ACCESS SHALL BE MAINTAINED DURING THIS PHASE. SOUTHBOUND PICKERINGTON ROAD TRAFFIC SHALL BE MAINTAINED DURING THIS PHASE.

PHASE 3B: CONSTRUCT LEFT SIDE OF PICKERINGTON ROAD FROM STA. 272+00 TO BASIL WESTERN ROAD, AND PERFORM WORK ON NORTHWEST CORNER OF BASIL WESTERN AND PICKERINGTON ROAD INTERSECTION. THE TEMPORARY ROAD FROM STA. 272+00 TO BASIL WESTERN ROAD SHALL BE REMOVED. RESIDENTIAL DRIVEWAY ACCESS SHALL BE MAINTAINED DURING THIS PHASE. SOUTHBOUND PICKERINGTON ROAD TRAFFIC SHALL BE MAINTAINED DURING THIS PHASE.

PHASE 4 SEE SHEETS P.118 - P.127

PRIOR TO BEGINNING PHASE 4 WORK, RAMP B SHALL BE OPENED TO TRAFFIC. REMOVE ALL DRUMS AND BARRICADES USED DURING PREVIOUS PHASES ON RAMP B. THE PROPOSED TRAFFIC SIGNAL AT THE TOP OF RAMP B SHALL BE PUT INTO CYCLING OPERATION.

UPON REMOVAL OF THE WORK ZONE PAVEMENT AT THE PICKERINGTON ROAD AND BASIL WESTERN ROAD INTERSECTION, THE PROPOSED TRAFFIC SIGNAL CONSTRUCTION SHALL BEGIN AND BE COMPLETED IN THIS PHASE. THE TRAFFIC SIGNAL SHALL READY FOR CYCLING OPERATION PRIOR TO MOVING TO PHASE 5.

PHASE SHALL CONSIST OF COMPLETING RAMP A AND RAMP D. TWO LANES IN EACH DIRECTION SHALL BE MAINTAINED ON US-33 AT ALL TIMES DURING THIS PHASE EXCEPT AS NOTED BELOW. PICKERINGTON ROAD TRAFFIC ENTERING WESTBOUND U.S. 33 AND EASTBOUND U.S. 33 TRAFFIC EXITING TO PICKERINGTON ROAD SHALL BE DETOURED TO THE HILL RD/DILEY RD INTERCHANGE AS SHOWN ON SHEET P.35. THIS CLOSURE SHALL BE RESTRICTED TO 90 CALENDAR DAYS.

INSTALL PORTABLE CONCRETE BARRIER ALONG THE INSIDE AND OUTSIDE SHOULDERS OF US-33 IN BOTH DIRECTIONS USING LANE CLOSURES AS PER ODOT SCD MT-95.30 PRIOR TO COMMENCING WORK ON PHASE 4. LANE CLOSURES ON US-33 SHALL NOT BE PERMITTED BETWEEN THE HOURS OF 7AM-9AM AND 3PM-6PM WEEKDAYS.

PHASE 4 (CONTINUED)

THE FOLLOWING WORK SHALL BE COMPLETED:
- COMPLETE RAMP A AND RAMP D
- OPEN THE NEW INTERCHANGE TO TRAFFIC, INCLUDING ALL SIGNING, PAVEMENT MARKING, TRAFFIC SIGNALS, AND HIGHWAY LIGHTING.
- REMOVE TEMPORARY PICKERINGTON ROAD INTERSECTION AT US-33
- CONSTRUCT SERVICE ROAD CUL-DE-SAC
- REMOVE THORN LANE INTERSECTION PAVEMENT AT U.S. 33

PHASE 5 (NO PLAN SHEETS PROVIDED)

PHASE 5 SHALL CONSIST OF FULLY CLOSING THE U.S. 33 INTERSECTIONS WITH ALLEN ROAD.

THE FOLLOWING WORK SHALL BE COMPLETED:
- CLOSE THE ALLEN ROAD INTERSECTIONS WITH US-33 AND CUL-DE-SAC THE TWO STUBS NORTH OF US-33

PRIOR TO SWITCHING TRAFFIC TO THIS PHASE, ALL TRAFFIC SIGNALS SHALL BE UNDER STOP-AND-GO MODE UTILIZING THE PROPOSED TIMING PLANS FOR NORMAL OPERATION AS DETAILED IN THE PLANS.

WINDOW CONTRACT TABLE - PN129

DESCRIPTON OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE $ PER DAY	WORK WINDOW	
			START	END
BENADUM RD PRE-PHASE CLOSURE	14	$1,000	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE
BENADUM RD PHASE 2 CLOSURE	30	$1,000	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE
PICKERINGTON ROAD NORTH PHASE 3 CLOSURE	60	$6,500	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE
ALL WORK PHASE 4	120	$5,500	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER CTF

REVIEWER NAU 12/09/24

PROJECT ID 77555

SHEET P.28 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 8:12:48 AM USER: cmt008
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WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ #30773 FAI-33-2.45 TO 3.85 EB & WB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY
144 SIGN MNTH
(ASSUMING 4 DSL SIGN ASSEMBLIES FOR 36 MONTHS)

ITEM SPECIAL, WORK ZONE TRAFFIC SIGNAL

PROVIDE A SPAN WIRE WORK ZONE TRAFFIC SIGNAL AT THE INTERSECTION OF U.S. 33 AND TEMPORARY PICKERINGTON ROAD DURING PHASES 1, 2, 3A AND 3B. THE SIGNAL SHALL BE OPERATIONAL AT THE BEGINNING OF PHASE 1. THE SIGNAL SHALL REMAIN IN OPERATION UNTIL THE PROPOSED ROADWAY FOR PICKERINGTON ROAD OVER U.S. 33 IS OPEN TO TRAFFIC AT WHICH TIME THE SIGNAL SHALL THEN BE REMOVED. REMOVAL OF THE TRAFFIC SIGNAL SHALL BE INCIDENTAL TO THIS PAY ITEM.

ALL WORK ZONE TRAFFIC SIGNAL ITEMS SHALL BE AS PER C&MS 632 AND 633. PROVIDE A CONTROLLER CAPABLE OF OPERATING THE PHASING SHOWN IN THE PLANS AND CAPABLE OF UTILIZING A RADAR DETECTION SYSTEM.

THIS WORK ZONE TRAFFIC SIGNAL INCLUDES A RAILROAD PREEMPTION SYSTEM. THIS PREEMPTION SYSTEM WILL OPERATE WITH THE SAME PREEMPTION PHASING SEQUENCE AS THE EXISTING TRAFFIC SIGNAL. ALL EQUIPMENT, MATERIALS, AND PROGRAMMING FOR THIS PREEMPTION SYSTEM ARE INCIDENTAL TO THIS ITEM. THE CONTRACTOR SHALL COORDINATE WITH THE INDIANA OHIO RAILWAY TO CONNECT THE TEMPORARY TRAFFIC SIGNAL TO THE TEMPORARY RAILROAD CROSSING SYSTEM.

ITEM SPECIAL, WORK ZONE TRAFFIC SIGNAL 1 EACH

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION. IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE STATE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONST-RUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL FOLLOW THE PERMITTED LANE CLOSURE NOTE FOR PERMITTED CLOSURE TIMES. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY A LAW ENFORCEMENT OFFICER, HIRED BY THE CONTRACTOR:

U.S. 33 AND PICKERINGTON ROAD

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 – MAINTAINING TRAFFIC MISC.: SAFETY REPAIRS

FOR IMPACT ATTENUATOR OR GAUARDRAIL DAMAGED BY THE MOTORING PUBLIC, THE CONTRACTOR SHALL FOLLOW THE PROCESS OUTLINED IN CMS 107.15. IF NO ACCIDENT REPORT IS AVAILABLE, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FROM THE VARIOUS POSSIBLE RESPONDING AGENCIES THAT NO ACCIDENT REPORT IS AVAILABLE. FOR INCIDENTS WITH AN ACCIDENT REPORT AVAILABLE, BUT THE OWNER OR INSURANCE COMPANY IS NON-RESPONSIVE, COPIES OF THE COMMUNICATION SHALL BE SUBMITTED TO THE PROJECT PER CMS 107.15B. FOR BOTH CONDITIONS ABOVE, THE ENGINEER SHALL DETERMINE THE SAFETY ITEMS THAT MAY BE REPAIRED AND THE SAFETY ITEMS THAT SHALL BE REPLACED.

THE WORK WILL BE AS DIRECTED BY THE ENGINEER AND WILL INCLUDE ALL MAINTENANCE OF TRAFFIC COSTS ASSOCIATED WITH THE ACTIVITY. THE COST FOR EACH ITEM SHALL BE $1.00. THE FIXED AMOUNT SHOWN IN THE PROPOSAL IS INCLUDED (AS ANY OTHER BID ITEMS) IN THE TOTAL BID AMOUNT. THIS FIXED AMOUNT IS THE DEPARTMENT'S ESTIMATE OF THE TOTAL COST FOR THE REPAIR OR REPLACEMENT OF SAFETY ITEMS WITHIN THE WORK LIMITS AS DIRECTED BY THE ENGINEER. CMS TABLE 104.02-2 DOES NOT APPLY TO REDUCTIONS IN THIS CONTRACT ITEM. FORCE ACCOUNT RECORDS SHALL BE KEPT TO TRACK AND ULTIMATELY DETERMIN THE AMOUNT OF THE PAY ITEM USED. THIS ITEM SHALL INCLUDE PAYMENT FOR ALL WORK, INCIDENTALS, AND ALL ASSOCIATED COSTS FOR THE REPAIR OR REPLACEMENT OF DAMAGED SAFETY ITEMS AS DIRECTED BY THE ENGINEER.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER CTF

REVIEWER NAU 12/09/24

PROJECT ID 77555

SHEET P.31 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 10:09:47 AM USER: cmt008
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REF. NO.	SHEET NO.	PHASE	LOCATION	STATION FROM	STATION TO	SIDE	PART.	614 WORK ZONE RAISED PAVEMENT MARKER (WHITE) EACH	614 WORK ZONE RAISED PAVEMENT MARKER (WHITE/RED) EACH	614 WORK ZONE RAISED PAVEMENT MARKER (YELLOW/YELLOW) EACH	614 WORK ZONE CENTER LINE, CLASS I, 6", 642 PAINT MILE	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT FT	614 WORK ZONE ARROW, CLASS I, 642 PAINT EACH
A-1	P.87	PHASE 1	U.S. 33	159+88.00		RT	01/NHS/01							1
A-2	P.87	PHASE 1	U.S. 33	160+76.00		RT	01/NHS/01							1
A-3	P.87	PHASE 1	U.S. 33	161+64.00		RT	01/NHS/01							1
A-4	P.88	PHASE 1	U.S. 33	162+52.00		RT	01/NHS/01							1
A-5	NOT USED													
A-6	P.88	PHASE 1	U.S. 33	163+40.00		RT	01/NHS/01							1
A-7	NOT USED													
A-8	P.88	PHASE 1	U.S. 33	164+28.00		RT	01/NHS/01							1
A-9	P.88	PHASE 1	U.S. 33	164+28.00		RT	01/NHS/01							1
A-10	P.88	PHASE 1	U.S. 33	165+16.00		RT	01/NHS/01							1
A-11	P.88	PHASE 1	U.S. 33	165+16.00		RT	01/NHS/01							1
A-12	P.88	PHASE 1	U.S. 33	167+85.00		LT	01/NHS/01							1
A-13	P.88	PHASE 1	U.S. 33	168+73.00		LT	01/NHS/01							1
A-14	P.88	PHASE 1	U.S. 33	169+61.00		LT	01/NHS/01							1
A-15	P.88	PHASE 1	U.S. 33	170+49.00		LT	01/NHS/01							1
A-16	P.88	PHASE 1	U.S. 33	171+37.00		LT	01/NHS/01							1
A-17	P.89	PHASE 1	U.S. 33	172+25.00		LT	01/NHS/01							1
A-18	P.89	PHASE 1	U.S. 33	173+13.00		LT	01/NHS/01							1
A-19	P.91	PHASE 1	U.S. 33	192+33.00		RT	01/NHS/01							1
A-20	P.91	PHASE 1	U.S. 33	193+21.00		RT	01/NHS/01							1
A-21	P.91	PHASE 1	U.S. 33	194+09.00		RT	01/NHS/01							1
A-22	P.91	PHASE 1	U.S. 33	194+97.00		RT	01/NHS/01							1
A-23	P.91	PHASE 1	U.S. 33	195+85.00		RT	01/NHS/01							1
A-24	P.91	PHASE 1	U.S. 33	197+34.00		LT	01/NHS/01							1
A-25	P.91	PHASE 1	U.S. 33	198+22.00		LT	01/NHS/01							1
A-26	P.91	PHASE 1	U.S. 33	199+10.00		LT	01/NHS/01							1
A-27	P.96	PHASE 1	PICKERINGTON RD (TEMPORARY)	1255+60.00		LT	04/STR/04							1
A-28	P.96	PHASE 1	PICKERINGTON RD (TEMPORARY)	1256+48.00		LT	04/STR/04							1
A-29	P.96	PHASE 1	PICKERINGTON RD (TEMPORARY)	1257+36.00		LT	04/STR/04							1
CH-1	P.85 - P.87	PHASE 1	U.S. 33	132+86.00	158+70.00	RT	01/NHS/01	105				2584		
CH-2	P.85 - P.88	PHASE 1	U.S. 33	141+50.00	165+61.00	LT	01/NHS/01	99				2411		
CH-3	P.87 - P.88	PHASE 1	U.S. 33	159+78.00	165+49.00	RT	01/NHS/01		13			571		
CH-4	P.88	PHASE 1	U.S. 33	164+20.00	165+49.00	RT	01/NHS/01		4			129		
CH-5	P.88 - P.89	PHASE 1	U.S. 33	167+52.00	173+22.00	LT	01/NHS/01		13			570		
CH-6	P.88 - P.89	PHASE 1	U.S. 33	170+35.00	180+50.00	RT	01/NHS/01	52				1015		
CH-7	P.89 - P.91	PHASE 1	U.S. 33	172+25.00	199+03.00	LT	01/NHS/01	114				2678		
CH-8	P.91	PHASE 1	U.S. 33	192+00.00	196+18.00	RT	01/NHS/01		11			418		
CH-9	P.91 - P.92	PHASE 1	U.S. 33	192+00.00	207+03.00	RT	01/NHS/01	58				1503		
CH-10	P.91	PHASE 1	U.S. 33	197+00.00	199+03.00	LT	01/NHS/01		6			203		
CH-11	P.96	PHASE 1	PICKERINGTON RD (TEMPORARY)	1255+28.00	1258+03.00	LT	04/STR/04		8				275	
CL-1	P.94 - P.96	PHASE 1	PICKERINGTON RD (TEMPORARY)	1230+88.00	1253+83.00	CENTER	04/STR/04			30	0.43			
CL-2	P.94	PHASE 1	BENADUM RD	36+96.00	37+35.00	CENTER	04/STR/04			1	0.01			
CL-3	P.96 - P.99	PHASE 1	PICKERINGTON RD (TEMPORARY)	1255+25.00	283+80.00	CENTER	04/STR/04			37	0.54			
							SUBTOTAL	428	55	68				
TOTALS CARRIED TO P.42									551		0.98	12082	275	27

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
BAC

REVIEWER
KDW 12/09/24

PROJECT ID
77555

SHEET P.36 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 2:45:50 PM USER: cmt008
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MAINTENANCE OF TRAFFIC SUBSUMMARY

REF. NO.	SHEET NO.	PHASE	LOCATION	STATION FROM	STATION TO	SIDE	PART.	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL) EACH	614 WORK ZONE RAISED PAVEMENT MARKER EACH	614 BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	614 BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL) EACH	614 OBJECT MARKER, ONE WAY EACH	614 OBJECT MARKER, TWO WAY EACH	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT MILE	614 WORK ZONE CENTER LINE, CLASS I, 6", 642 PAINT MILE	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (WHITE) MILE	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (YELLOW) MILE	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT MILE	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT (YELLOW) FT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT FT	614 WORK ZONE ARROW, CLASS I, 642 PAINT EACH	614 WORK ZONE RAILROAD SYMBOL MARKING, CLASS I, 642 PAINT EACH	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	622 PORTABLE BARRIER, UNANCHORED FT
CH-15	P.121 - P.124	PHASE 4	U.S. 33	152+70.00	184+95.00	LT	01/NHS/01			113										3225									
CH-16	P.123 - P.124	PHASE 4	U.S. 33	178+00.00	185+00.00	RT	01/NHS/01			19										700									
CH-17	P.123 - P.124	PHASE 4	U.S. 33	178+00.00	185+00.00	RT	01/NHS/01			19										700									
CH-18	P.124	PHASE 4	U.S. 33	182+73.00	186+97.00	LT	01/NHS/01			12										424									
CH-19	P.124	PHASE 4	U.S. 33	182+73.00	186+97.00	LT	01/NHS/01			12										424									
DL-1	P.124 - P.125	PHASE 4	U.S. 33	185+00.00	199+50.00	RT	01/NHS/01															1450							
DL-2	P.124	PHASE 4	U.S. 33	186+97.00	191+83.00	LT	01/NHS/01															486							
EW-33	P.119 - P.123	PHASE 4	U.S. 33	132+86.00	178+00.00	RT	01/NHS/01										0.86												
EW-34	P.119 - P.124	PHASE 4	U.S. 33	141+50.00	182+73.00	LT	01/NHS/01			103							0.78												
EW-35	P.124 - P.125	PHASE 4	U.S. 33	416+81.00	424+57.34	LT	01/NHS/01										0.15												
				190+50.00	200+05.00	LT	01/NHS/01										0.18												
EW-36	P.124 - P.126	PHASE 4	U.S. 33	516+46.00	530+96.26	RT	01/NHS/01										0.27												
				199+50.00	207+17.00	RT	01/NHS/01										0.14												
							01/NHS/01																						
EY-9	P.119 - P.126	PHASE 4	U.S. 33	132+86.00	207+17.00	RT	01/NHS/01											1.41											
EY-10	P.119 - P.126	PHASE 4	U.S. 33	141+50.00	202+13.00	LT	01/NHS/01			103								1.15											
							01/NHS/01																						
IA-26	P.121	PHASE 4	U.S. 33	159+75.00		RT	01/NHS/01	1																					
IA-27	P.121	PHASE 4	U.S. 33	159+80.00		LT	01/NHS/01	1																					
IA-28	P.121	PHASE 4	U.S. 33	161+75.00		RT	01/NHS/01	1																					
IA-29	P.122	PHASE 4	U.S. 33	167+50.00		RT	01/NHS/01	1																					
IA-30	P.122	PHASE 4	U.S. 33	167+55.00		LT	01/NHS/01	1																					
IA-31	P.123	PHASE 4	U.S. 33	172+24.50		LT	01/NHS/01	1																					
IA-32	P.124	PHASE 4	U.S. 33	190+25.00		RT	01/NHS/01	1																					
IA-33	P.125	PHASE 4	U.S. 33	193+29.00		RT	01/NHS/01	1																					
IA-34	P.126	PHASE 4	U.S. 33	203+00.00		LT	01/NHS/01	1																					
IA-35	P.126	PHASE 4	U.S. 33	203+00.00		LT	01/NHS/01	1																					
LL-5	P.119 - P.126	PHASE 4	U.S. 33	132+86.00	207+17.00	RT	01/NHS/01			62					1.41														
LL-6	P.119 - P.121	PHASE 4	U.S. 33	141+50.00	152+70.00	LT	01/NHS/01			9					0.21														
LL-7	P.124 - P.125	PHASE 4	U.S. 33	184+95.00	199+14.00	LT	01/NHS/01			12					0.27														
PB-20	P.121 - P.123	PHASE 4	U.S. 33	159+65.00	172+24.50	LT	01/NHS/01				26		26																1260
PB-21	P.121 - P.122	PHASE 4	U.S. 33	160+00.00	167+50.00	RT	01/NHS/01				16		16																750
PB-22	P.121 - P.122	PHASE 4	U.S. 33	160+05.00	167+55.00	LT	01/NHS/01				16		16																750
PB-23	P.122 - P.122	PHASE 4	U.S. 33	162+00.00	168+50.00	RT	01/NHS/01				14		14																650
PB-24	P.124 - P.126	PHASE 4	U.S. 33	190+50.00	202+40.00	RT	01/NHS/01				25		25																1190
PB-25	P.124 - P.126	PHASE 4	U.S. 33	191+30.00	203+00.00	LT	01/NHS/01				24		24																1170
PB-26	P.124 - P.126	PHASE 4	U.S. 33	191+70.00	203+00.00	LT	01/NHS/01				24		24																1130
PB-27	P.125	PHASE 4	U.S. 33	193+53.41	197+53.41	RT	01/NHS/01				9		9																400
SUBTOTAL FROM THIS SHEET								10		464	154		154		1.89		2.38	2.56		5473		1936						7300
TOTALS CARRIED FROM P.36										551						0.98				12082	275				27			
TOTALS CARRIED FROM P.37								8	6	844	233	23	233	23	0.49		4.81		2.00								11779	12300
TOTALS CARRIED FROM P.38																								206		2		
TOTALS CARRIED FROM P.39									2	202		7		7		2.74			4.14		280		3471	141	3		71	310
TOTALS CARRIED FROM P.40									3	22		20		20		0.19			0.84		240			41	3			870
TOTALS CARRIED FROM P.41									6	33		26		26		0.39			1.20		130			66	1		652	1030
TOTALS CARRIED TO GENERAL SUMMARY								18	17	2116	387	76	387	76	2.38	4.30	9.75		8.18	17555	925	1936	3471	454	34	2	12502	21810

DESIGN AGENCY
CARPENTER MARKTY engineering

DESIGNER
BAC

REVIEWER
KDW 12/09/24

PROJECT ID
77555

SHEET P.42 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 2:46:35 PM USER: cmt008
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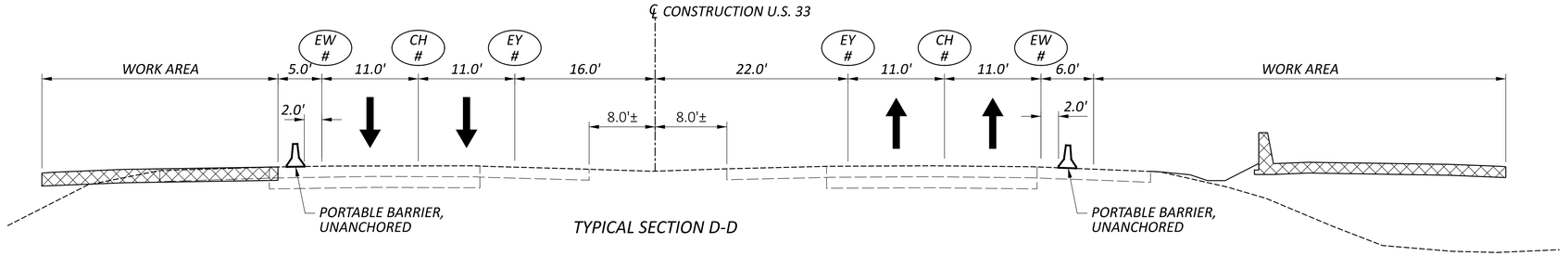
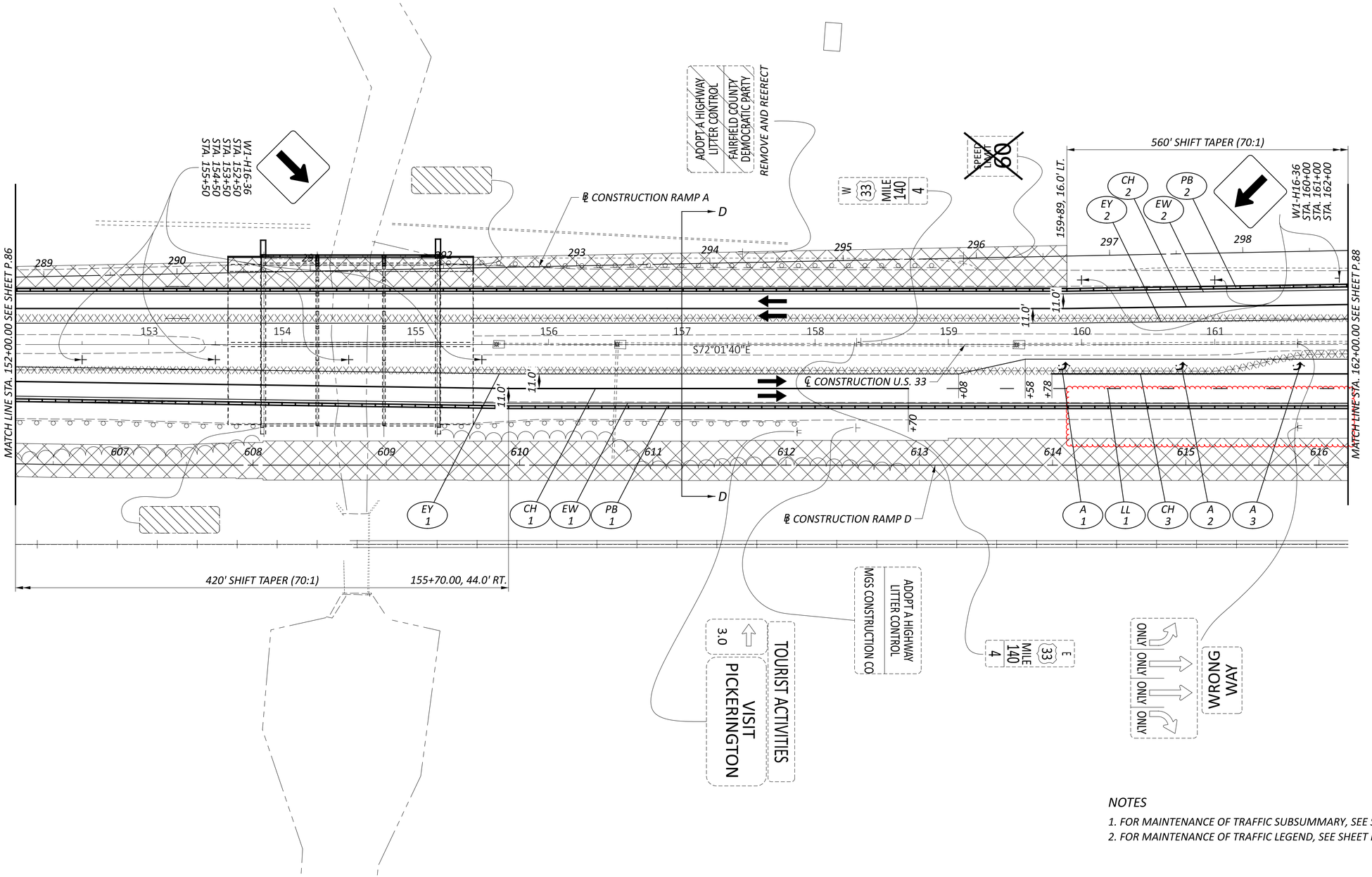


TYPICAL SECTION D-D



NOTES

1. FOR MAINTENANCE OF TRAFFIC SUBSUMMARY, SEE SHEETS P.36 - P.42
2. FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET P.84

HORIZONTAL SCALE IN FEET
0 20 40 80

MAINTENANCE OF TRAFFIC - U.S. 33
PHASE 1 - STA. 152+00.00 TO STA. 162+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER BAC
REVIEWER KDW 12/09/24
PROJECT ID 77555
SHEET P.87 TOTAL 846

FAI-33-2.64

MODEL: 77555_MP104 PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 2:46:48 PM USER: cmt008
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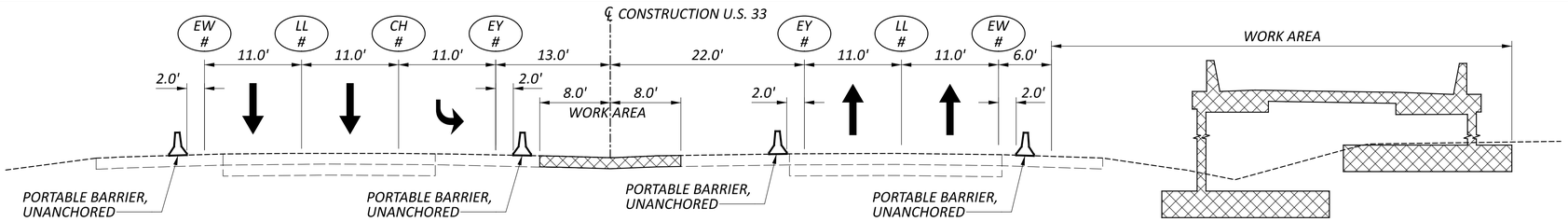
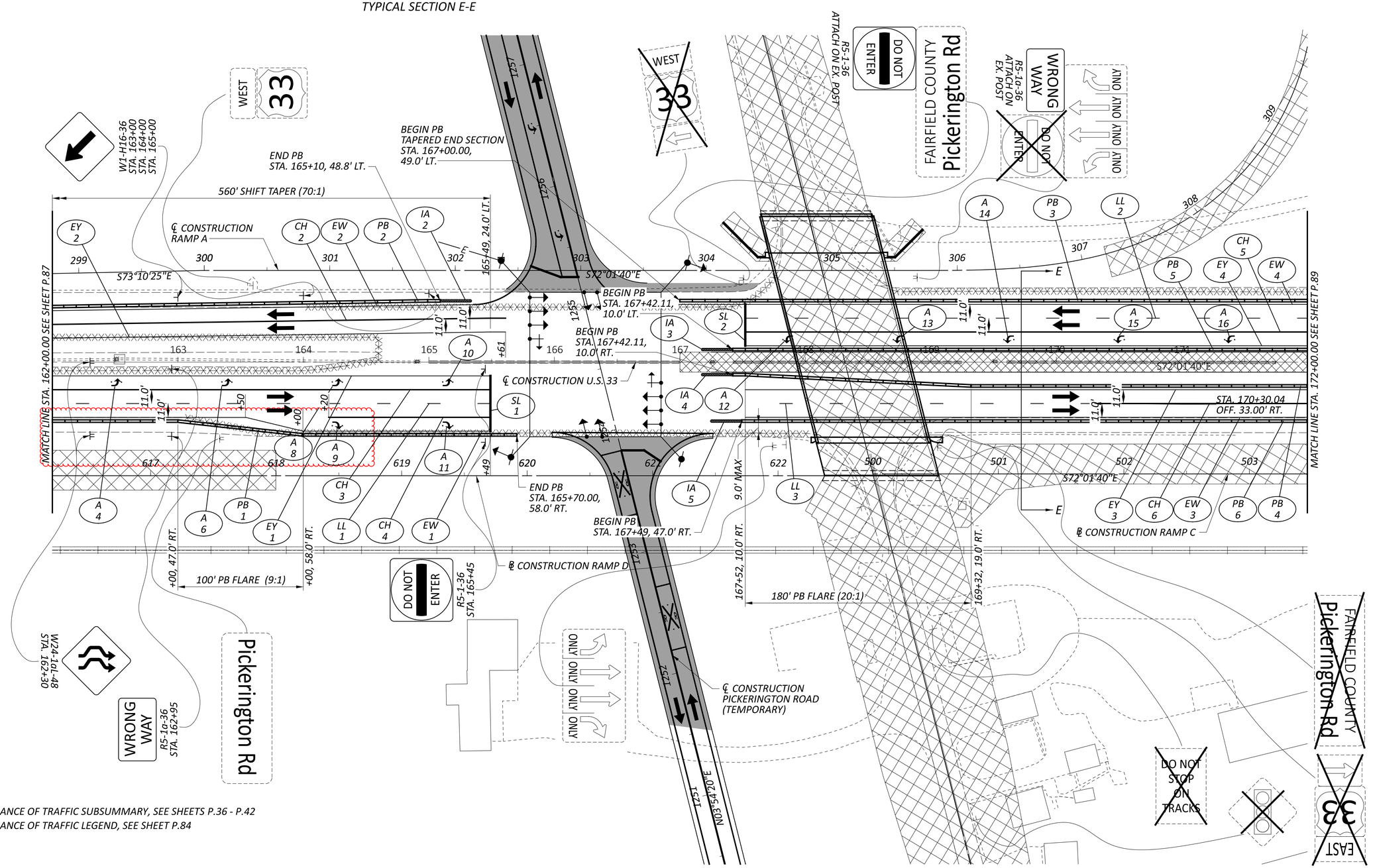


TYPICAL SECTION E-E



NOTES

1. FOR MAINTENANCE OF TRAFFIC SUBSUMMARY, SEE SHEETS P.36 - P.42
2. FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET P.84

HORIZONTAL SCALE IN FEET
0 20 40 80

MAINTENANCE OF TRAFFIC - U.S. 33
PHASE 1 - STA. 162+00.00 TO STA. 172+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	BAC
REVIEWER	KDW 12/09/24
PROJECT ID	77555
SHEET	P.88
TOTAL	846

FAI-33-2.64

MODEL: 77555_MP105 PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 2:46:52 PM USER: cmt008
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SHEET NUM.													PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.23	P.24	P.25	P.139B	P.139G	P.146	P.147	P.148	P.149	P.150	P.453	RW.10		01/NHS/01	02/NHS/08	03/NHS/13	04/STR/04						
																					ROADWAY	
LS													LS			LS	201	11000	LS		CLEARING AND GRUBBING	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, PICKERINGTON ROAD	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, THORN LANE	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, ALLEN ROAD (EAST)	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, ALLEN ROAD (WEST)	
						2			2							4	202	20010	4	EACH	HEADWALL REMOVED	
			15,721	12,201	1,057	2,954							16,778			15,155	202	23000	31,933	SY	PAVEMENT REMOVED	
					4,020	1,226										5,246	202	30000	5,246	SF	WALK REMOVED	
					212	743			1,375				693			1,637	202	35100	2,330	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
						26			66				66			26	202	35200	92	FT	PIPE REMOVED, OVER 24" DIAMETER	
					956	521							956			521	202	38000	1,477	FT	GUARDRAIL REMOVED	
					14	14							14			14	202	53100	28	EACH	MAILBOX REMOVED	
						3										3	202	58000	3	EACH	MANHOLE REMOVED	
						1			6				4			3	202	58100	7	EACH	CATCH BASIN REMOVED	
						1										1	202	62700	1	EACH	SEPTIC TANK REMOVED	
					7,750	264							7,750			264	202	75000	8,014	FT	FENCE REMOVED	
						1										1	202	75250	1	EACH	GATE REMOVED	
						1										1	202	98100	1	EACH	REMOVAL MISC.: STONE MAILBOX	P.26
						5										5	202	98100	5	EACH	REMOVAL MISC.: LARGE ROCK	P.26
						1										1	202	98100	1	EACH	REMOVAL MISC.: PRIVATE BRIDGE	P.26
	1															1	202	98100	1	EACH	REMOVAL MISC.: INSPECTION WELL	P.24
									2							2	202	98100	2	EACH	REMOVAL MISC.: CONCRETE BLOCK HEADWALL	P.26
	100												50			50	202	98200	100	FT	REMOVAL MISC.: CONDUIT	P.24
					1,651	247							1,651			247	202	98200	1,898	FT	REMOVAL MISC.: DECORATIVE FENCE WITH CONCRETE PILLARS	P.26
									860				860				202	98200	860	FT	REMOVAL MISC.: SLOTTED DRAIN	P.26
		96,157											25,179			70,978	203	10000	96,157	CY	EXCAVATION	
		257,603											62,993			194,610	203	20000	257,603	CY	EMBANKMENT	
	100												50			50	203	20001	100	CY	EMBANKMENT, AS PER PLAN	P.24
		890														890	203	22000	890	CY	EMBANKMENT, USING NATURAL SOILS, 703.16.A	
			14,062	28,558						4,518			14,277			32,861	204	10000	47,138	SY	SUBGRADE COMPACTION	
44													18			26	204	45000	44	HOUR	PROOF ROLLING	
			693	739									693			739	206	10500	1,432	TON	CEMENT	
			26,426	28,096									26,426			28,096	206	11000	54,522	SY	CURING COAT	
			4,476	25,412									4,476			25,412	206	15010	29,888	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
			21,950	2,684									21,950			2,684	206	15020	24,634	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
													LS			LS	206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
		LS														LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
							4,898	2,450					4,898			2,450	606	15050	7,348	FT	GUARDRAIL, TYPE MGS	
							2	2					2			2	606	26050	4	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
							4	2					4			2	606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
							6	1					6			1	606	26550	7	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
							6	4					6			4	606	35002	10	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							4						4				606	35102	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							1						1				606	60002	1	EACH	IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL)	
							2						2				606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 70 MPH, 24" WIDE	
							621						621				607	15000	621	FT	FENCE, TYPE 47	
							3,585	1,312					3,585			1,312	607	23000	4,897	FT	FENCE, TYPE CLT	
							4,206	1,312					4,206			1,312	607	70000	5,518	FT	FENCELINE SEEDING AND MULCHING	
							156						156				622	10100	156	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
							2,040						2,040				622	10160	2,040	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
							1,159						1,159				622	10180	1,159	FT	CONCRETE BARRIER, SINGLE SLOPE, 81"	
							1						1				622	24834	1	EACH	CONCRETE BARRIER END SECTION, 81" TO 57"	
							3						3				622	24850	3	EACH	CONCRETE BARRIER END SECTION, TYPE B1	
							1						1				622	25000	1	EACH	CONCRETE BARRIER END SECTION, TYPE D	
							5						5				622	25050	5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
							3						3				622	25080	3	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, 81"	
											14		14				623	40500	14	EACH	REFERENCE MONUMENT, TYPE A	
											12					12	623	40520	12	EACH	RIGHT-OF-WAY MONUMENT, TYPE B	
								15								15	SPECIAL	69050100	15	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	P.26

GENERAL SUMMARY

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 1:16:22 PM USER: cmt012
P:\OD\T\05\0004_FAI-33-3,18\77555\400-Engineering\Roadway\Sheets\77555_GG001.dgn

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/17/24

PROJECT ID 77555

SHEET P.128 TOTAL 846

SHEET NUM.											PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.24	P.139B	P.139G	P.148	P.149	P.151	P.152	P.153	P.154	P.453	P.547	01/NHS/01	02/NHS/08	03/NHS/13	04/STR/04						
																			DRAINAGE CONTINUED	
					44						*44*				*611*	*08900*	*44*	*FT*	*21" CONDUIT, TYPE B*	
					180						*180*				*611*	*09100*	*180*	*FT*	*21" CONDUIT, TYPE C*	
						98								*98*	*611*	*10400*	*98*	*FT*	*24" CONDUIT, TYPE B, 707.33*	
					200						*200*				*611*	*10600*	*200*	*FT*	*24" CONDUIT, TYPE C*	
						198								*198*	*611*	*13400*	*198*	*FT*	*30" CONDUIT, TYPE B, 707.33*	
						100								*100*	*611*	*13600*	*100*	*FT*	*30" CONDUIT, TYPE C, 707.33*	
					38						*38*				*611*	*25200*	*38*	*FT*	*66" CONDUIT, TYPE B*	
						140								*140*	*611*	*27000*	*140*	*FT*	*78" CONDUIT, TYPE A, 706.02*	
						43								*43*	*611*	*52304*	*43*	*FT*	*19" X 30" CONDUIT, TYPE C, 706.04*	
					142	*106*					*142*			*106*	*611*	*53500*	*248*	*FT*	*63" X 98" CONDUIT, TYPE A, 706.04*	
					60						*60*				*611*	*94700*	*60*	*FT*	*6' X 4' CONDUIT, TYPE A, 706.05*	
					171						*171*				*611*	*97010*	*171*	*FT*	*SLOTTED DRAIN, TYPE 2, 15"*	
100											*25*			*75*	*611*	*97400*	*100*	*FT*	*CONDUIT, MISC.: TYPE B FOR DRAINAGE CONTINUANCE*	*P.24*
100											*25*			*75*	*611*	*97400*	*100*	*FT*	*CONDUIT, MISC.: TYPE C FOR DRAINAGE CONTINUANCE*	*P.24*
100											*25*			*75*	*611*	*97400*	*100*	*FT*	*CONDUIT, MISC.: TYPE E FOR DRAINAGE CONTINUANCE*	*P.24*
100											*25*			*75*	*611*	*97400*	*100*	*FT*	*CONDUIT, MISC.: TYPE F FOR DRAINAGE CONTINUANCE*	*P.24*
					2	*2*					*2*			*2*	*611*	*98180*	*4*	*EACH*	*CATCH BASIN, NO. 3A*	
					1						*1*				*611*	*98370*	*1*	*EACH*	*CATCH BASIN, NO. 6*	
					4						*4*				*611*	*98410*	*4*	*EACH*	*CATCH BASIN, NO. 8*	
					3	*4*					*3*			*4*	*611*	*98470*	*7*	*EACH*	*CATCH BASIN, NO. 2-2B*	
					2	*4*					*2*			*4*	*611*	*98510*	*6*	*EACH*	*CATCH BASIN, NO. 2-3*	
					1						*1*				*611*	*98820*	*1*	*EACH*	*INLET, NO. 3D*	
					7						*7*				*611*	*99574*	*7*	*EACH*	*MANHOLE, NO. 3*	
1							*10*	*4*			*11*			*4*	*611*	*99710*	*15*	*EACH*	*PRECAST REINFORCED CONCRETE OUTLET*	
1														*1*	*611*	*99720*	*1*	*EACH*	*INSPECTION WELL*	
																			PAVEMENT	
	112,774	*682*									*112,774*			*682*	*254*	*01000*	*113,456*	*SY*	*PAVEMENT PLANING, ASPHALT CONCRETE (DEPTH = 3 1/4")*	
	5,907	*10,802*									*5,907*			*10,802*	*301*	*56000*	*16,709*	*CY*	*ASPHALT CONCRETE BASE, PG64-22, (449)*	
										157				*157*	*301*	*56100*	*157*	*CY*	*ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)*	
	6,641	*9,169*								*30*	*6,641*			*9,199*	*304*	*20000*	*15,840*	*CY*	*AGGREGATE BASE*	
	19,676	*7,556*								*142*	*19,676*			*7,698*	*407*	*20000*	*27,374*	*GAL*	*NON-TRACKING TACK COAT*	
	81	*1,697*								*528*	*129*			*2,177*	*411*	*10000*	*2,306*	*CY*	*STABILIZED CRUSHED AGGREGATE*	
	84	*1,796*									*84*			*1,796*	*441*	*10100*	*1,880*	*CY*	*ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M*	
	117	*2,513*									*117*			*2,513*	*441*	*10200*	*2,630*	*CY*	*ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)*	
										89				*89*	*441*	*70500*	*89*	*CY*	*ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)*	
										62				*62*	*441*	*70700*	*62*	*CY*	*ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)*	
	5,606										*5,606*				*442*	*10000*	*5,606*	*CY*	*ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)*	
	6,544										*6,544*				*442*	*10080*	*6,544*	*CY*	*ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)*	
										81				*81*	*451*	*10010*	*81*	*SY*	*6" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P*	
										95				*95*	*452*	*12010*	*95*	*SY*	*8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P*	
	13,515										*13,515*				*452*	*13020*	*13,515*	*SY*	*9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA*	
			128	*360*							*128*			*360*	*609*	*24510*	*488*	*FT*	*CURB, TYPE 4-C*	
			112								*112*				*609*	*54000*	*112*	*SY*	*6" CONCRETE TRAFFIC ISLAND*	
																			WATER WORK	
											299			*299*	*638*	*01140*	*299*	*FT*	*6" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR14*	
											178			*178*	*638*	*01710*	*178*	*FT*	*8" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR14*	
											5,203			*5,203*	*638*	*02750*	*5,203*	*FT*	*12" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR-14*	
											350			*350*	*638*	*07314*	*350*	*FT*	*30" STEEL PIPE ENCASEMENT, BORED OR JACKED*	
											10			*10*	*638*	*07800*	*10*	*EACH*	*6" GATE VALVE AND VALVE BOX*	
											1			*1*	*638*	*07900*	*1*	*EACH*	*8" GATE VALVE AND VALVE BOX*	
											3			*3*	*638*	*08100*	*3*	*EACH*	*12" GATE VALVE AND VALVE BOX*	
											2			*2*	*638*	*09800*	*2*	*EACH*	*12" X 12" TAPPING SLEEVE, VALVE AND VALVE BOX*	
											10			*10*	*638*	*10200*	*10*	*EACH*	*6" FIRE HYDRANT*	
											11			*11*	*638*	*10700*	*11*	*EACH*	*FIRE HYDRANT REMOVED AND DISPOSED OF*	
											1			*1*	*638*	*11102*	*1*	*EACH*	*METER AND VAULT REMOVED AND RESET*	
											1,035			*1,035*	*SPECIAL*	*63820768*	*1,035*	*FT*	*¾" POLYETHYLENE WATER SERVICE LINE (FAIRFIELD COUNTY)*	*P.551*
											2			*2*	*SPECIAL*	*63820884*	*2*	*EACH*	*CUT AND PLUG EXISTING 12" WATER LINE (FAIRFIELD COUNTY)*	*P.547*
											13			*13*	*SPECIAL*	*63820904*	*13*	*EACH*	*SERVICE BOX (FAIRFIELD COUNTY)*	*P.551*

GENERAL SUMMARY

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/17/24

PROJECT ID 77555

SHEET P.130 TOTAL 846

FAI-33-2.64

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		P.25	P.27	P.29	P.30	P.31	P.32	P.42	P.47	01/NHS/01	02/NHS/08	03/NHS/13	04/STR/04						
																		MAINTENANCE OF TRAFFIC	
									585				585	202	35100	585	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
			1,922							1,922				254	01000	1,922	SY	PAVEMENT PLANING, ASPHALT CONCRETE (DEPTH = 1.5")	
			106		10					106			10	407	20000	116	GAL	NON-TRACKING TACK COAT	
			100										100	410	12000	100	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
			100										100	410	13000	100	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
					50								50	441	70000	50	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
			80							80				442	20000	80	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	
									154				154	611	04200	154	FT	12" CONDUIT, TYPE A, 706.02	
									318				318	611	04900	318	FT	12" CONDUIT, TYPE D	
									35				35	611	05900	35	FT	15" CONDUIT, TYPE B	
									78				78	611	07200	78	FT	18" CONDUIT, TYPE A	
				1,000						800			200	614	11110	1,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
						1				1				SPECIAL	61411300	1	EACH	WORK ZONE TRAFFIC SIGNAL	P.31
								18		18				614	12380	18	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
								17					17	614	12384	17	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
			LS										LS	614	12420	LS		DETOUR SIGNING	
			5							5				614	12500	5	EACH	REPLACEMENT SIGN	
			25							25				614	12600	25	EACH	REPLACEMENT DRUM	
								2,116		2,116				614	12800	2,116	EACH	WORK ZONE RAISED PAVEMENT MARKER	
			50		50					10			90	614	13000	100	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
								387		387				614	13310	387	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
								76					76	614	13310	76	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
								387		387				614	13350	387	EACH	OBJECT MARKER, ONE WAY	
								76					76	614	13360	76	EACH	OBJECT MARKER, TWO WAY	
										100,000				614	18000	100,000	EACH	MAINTAINING TRAFFIC, MISC.: SAFETY REPAIRS	P.31
				36						36				614	18601	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.29
								2.38		2.38				614	20056	2.38	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
							4.39			4.39				614	20560	4.39	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
								4.3					4.3	614	21100	4.3	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
							2.88			0.04			2.84	614	21550	2.88	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
								9.75		9.75				614	22056	9.75	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
								8.18					8.18	614	22110	8.18	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
							4.92						4.92	614	22350	4.92	MILE	WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT	
							10.86			10.86				614	22360	10.86	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
								17,555		17,555				614	23110	17,555	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
								925					925	614	23200	925	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
							1,311						1,311	614	23680	1,311	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	
							5,381			5,381				614	23690	5,381	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
								1,936		1,936				614	24102	1,936	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
								3,471					3,471	614	25200	3,471	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	
								454		88			366	614	26200	454	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
							389			78			311	614	26610	389	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
								34		24			10	614	30200	34	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
							31			15			16	614	30650	31	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
								2					2	614	32200	2	EACH	WORK ZONE RAILROAD SYMBOL MARKING, CLASS I, 642 PAINT	
													LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
								12,502					12,502	615	20000	12,502	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
			1,100							500			600	616	10000	1,100	MGAL	WATER	
					50								50	617	10100	50	CY	COMPACTED AGGREGATE	
					10								10	617	25000	10	MGAL	WATER	
			8,650							8,650				618	40100	8,650	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
								21,810		18,590			3,220	622	41100	21,810	FT	PORTABLE BARRIER, UNANCHORED	
					1								1	642	00300	1	MILE	CENTER LINE, TYPE 1	
						144				144				808	18700	144	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
										LS				108	10000	LS		***INCIDENTALS***	
			LS							LS				614	11000	LS		CPM PROGRESS SCHEDULE	
										36				619	16020	36	MNTH	MAINTAINING TRAFFIC	
		LS								LS				623	10001	LS		FIELD OFFICE, TYPE C	
										LS				624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	P.25
																		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
MGM

REVIEWER
TWG 12/17/24

PROJECT ID
77555

SHEET P.135 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 3:05:35 PM USER: cml008
P:\ODT\05\0004_FAI-33-3.1\77555\400-Engineering\Roadway\Sheets\77555_GG008.dgn

LOCATION	STATION FROM	STATION TO	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	206 CEMENT	206 CURING COAT	206 12" CEMENT STABILIZED SUBGRADE	206 14" CEMENT STABILIZED SUBGRADE	254 PAVEMENT PLANING, ASPHALT CONCRETE (3 ¼" DEPTH)	301 5" ASPHALT CONCRETE BASE, (449)	301 9" ASPHALT CONCRETE BASE, (449)	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT (0.055 GAL/SY)	407 NON-TRACKING TACK COAT (0.085 GAL/SY)	411 8" STABILIZED CRUSHED AGGREGATE	441 1 ¼" ASPHALT SURFACE COURSE, TYPE 1, (446), PG70-22M	441 1 ¾" ASPHALT INTERMEDIATE COURSE, TYPE 2, (446)	442 1 ½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	442 1 ¾" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5MM, TYPE A (446)	452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA
				FT	FT	SF	SF	SY	SY	TON	SY	SY	SY	SY	CY	CY	CY	GAL	GAL	CY	CY	CY	CY	CY	SY
U.S. 33 EASTBOUND																									
	132+86.00	153+59.46	RT	2073.46			86709.00							9634.33				529.89	818.92				401.43	468.34	
	139+50.00	141+00.00	RT	150.00	17.33	2599.50												31.77					12.03	14.04	
	139+50.00	141+00.00	RT	150.00	17.92	2688.00										74.67		16.43							
	139+50.00	141+00.00	RT	150.00	18.67	2800.50											51.86								
	139+50.00	141+00.00	RT	150.00	18.84	2826.00				8.12	314.00		314.00												
	155+43.46	248+75.00	RT	9331.54			412567.00							45840.78				2521.24	3896.47				1910.03	2228.37	
	166+95.00	169+70.00	MED	275.00	16.00	4400.00										122.22	81.48	80.67					20.37	23.77	
	166+25.00	167+87.86	RT	162.86	14.00	2280.04												27.87					10.56	12.32	
	166+25.00	167+87.86	RT	162.86	14.58	2375.04										65.97		14.51							
	166+25.00	167+87.86	RT	162.86	15.33	2497.19											46.24								
	166+25.00	167+87.86	RT	162.86	15.50	2524.33				7.26	280.48		280.48												
	167+87.86	169+15.47	RT	127.61	14.00	1786.54												10.92					8.27		
	167+87.86	169+15.47	RT	127.61	15.67	1999.65				5.75	222.18		222.18			55.55	37.03	24.44						10.80	
	169+15.47	169+65.00	RT	49.53	13.00	643.89												7.87					2.98	3.48	
	169+15.47	169+65.00	RT	49.53	13.58	672.78										18.69		4.11							
	169+15.47	169+65.00	RT	49.53	14.33	709.93											13.15								
	169+15.47	169+65.00	RT	49.53	14.50	718.18				2.06	79.80		79.80												
	172+85.00	175+25.00	RT	240.00	12.00	2880.00												35.20					13.33	15.56	
	172+85.00	175+25.00	RT	240.00	12.58	3019.20										83.87		18.45							
	172+85.00	175+25.00	RT	240.00	13.33	3199.20											59.24								
	172+85.00	175+25.00	RT	240.00	13.50	3240.00				9.32	360.00		360.00												
U.S. 33 WESTBOUND																									
	132+86.00	153+59.46	LT	2073.46			93449.00							10383.22				571.08	882.57				432.63	504.74	
APPROACH SLAB	153+59.46	153+84.46	LT	25.00	11.67	291.75											5.40								
	153+59.46	153+84.46	LT	25.00	12.67	316.75			35.19																
APPROACH SLAB	155+18.46	155+43.46	LT	25.00	11.67	291.75											5.40								
	155+18.46	155+43.46	LT	25.00	12.67	316.75			35.19																
	155+43.46	248+75.00	LT	9331.54			422243.00							46915.89				2580.37	3987.85				1954.83	2280.63	
	190+50.00	191+91.67	LT	141.67	17.52	2482.06										68.95		45.50					11.49	13.41	
	190+50.00	191+91.67	LT	141.67	21.79	3086.99											57.17								
	190+50.00	191+91.67	LT	141.67	22.58	3198.91				9.20	355.43		355.43												
	191+91.67	202+00.00	LT	1008.33	2.27	2288.91		118.66								63.58		41.96					10.60	12.36	
	191+91.67	202+00.00	LT	1008.33	6.54	6594.48											122.12								
	191+91.67	202+00.00	LT	1008.33	7.33	7391.06				21.25	821.23		821.23												
REMOVALS	139+50.00	150+55.26	RT	1105.26			12180.69	1353.41																	
	148+71.01	153+59.16	LT	488.15			6157.08	684.12																	
	155+43.45	170+44.40	LT	1500.95			13700.16	1522.24																	
	161+00.00	175+65.00	MED	1465.00			15113.63	1679.29																	
	166+25.00	169+65.00	RT	340.00			6087.60	676.40																	
	172+85.00	175+25.00	RT	240.00			2880.00	320.00																	
	177+99.63	199+49.63	RT	2150.00			30800.07	3422.23																	
	182+72.75	191+91.67	LT	918.92			10789.38	1198.82																	
	191+45.00	202+20.00	MED	1075.00			8524.10	947.12																	
	195+86.73	197+27.70	RT	140.97			3457.59	384.18																	
	196+14.70	196+99.92	LT	85.22			13979.43	1553.27																	
TOTALS CARRIED TO SHEET P.139B								13860	70	63	2433	0	2433	112774	0	553	479	6562	9586	0	0	0	4789	5588	0

PAVEMENT QUANTITIES - U.S. 33

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
BAC

REVIEWER
TWG 12/09/24

PROJECT ID
77555

SHEET P.136 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 2:58:03 PM USER: cml012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GQ001.dgn

LOCATION	STATION FROM	STATION TO	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	206 CEMENT	206 CURING COAT	206 12" CEMENT STABILIZED SUBGRADE	206 14" CEMENT STABILIZED SUBGRADE	254 PAVEMENT PLANING, ASPHALT CONCRETE (3 ¼" DEPTH)	301 5" ASPHALT CONCRETE BASE, (449)	301 9" ASPHALT CONCRETE BASE, (449)	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT (0.055 GAL/SY)	407 NON-TRACKING TACK COAT (0.085 GAL/SY)	411 8" STABILIZED CRUSHED AGGREGATE	441 1 ¼" ASPHALT SURFACE COURSE, TYPE 1, (446), PG70-22M	441 1 ¾" ASPHALT INTERMEDIATE COURSE, TYPE 2, (446)	442 1 ½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	442 1 ¾" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5MM, TYPE A (446)	452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA
				FT	FT	SF	SY	SY	SY	TON	SY	SY	SY	SY	CY	CY	CY	GAL	GAL	CY	CY	CY	CY	CY	SY
ALLEN ROAD (SOUTH)																									
	35+25.00	36+02.00		77.00	18.98	1461.46													17.86		5.64	7.89			
	35+25.00	36+02.00		77.00	19.65	1513.05									23.35										
	35+25.00	36+02.00		77.00	20.65	1590.05			176.67								29.45								
	35+25.00	36+02.00		77.00	21.65	1667.05																			
SHOULDER LT	35+25.00	36+02.00		77.00	3.45	29.52														0.73					
SHOULDER RT	35+25.00	36+02.00		77.00	3.81	32.60														0.80					
CUL-DE-SAC																									
	36+02.00	37+29.97		127.97	76.63	9498.00	81.25												116.09		36.64	51.30			
	36+02.00	37+29.97		127.97	77.65	9936.87									153.35										
	36+02.00	37+29.97		127.97	79.19	10133.94											187.67								
	36+02.00	37+29.97		127.97	81.25	10397.56			1155.28																
SHOULDER	36+02.00	37+29.97		127.97			1593.15													39.34					
ALLEN ROAD (NORTH)																									
	69+27.98	69+75.00		47.02	19.77	929.59													11.36		3.59	5.02			
	69+27.98	69+75.00		47.02	20.44	960.95									14.83										
	69+27.98	69+75.00		47.02	21.44	1007.97											18.67								
	69+27.98	69+75.00		47.02	22.44	1054.99			117.22																
SHOULDER LT	69+27.98	69+75.00		47.02	3.54	18.49														0.46					
SHOULDER RT	69+27.98	69+75.00		47.02	3.81	19.91														0.49					
CUL-DE-SAC																									
	67+95.19	69+07.62		112.43	87.22	9806.14													119.85		37.83	52.97			
	67+95.19	69+07.62		112.43	88.38	9936.56									153.34										
	67+95.19	69+07.62		112.43	90.13	10133.32											187.65								
	67+95.19	69+07.62		112.43	92.48	10397.53			1155.28																
SHOULDER	67+60.00	69+07.62		147.62			1593.15													39.34					
REMOVALS	35+25.00	38+68.78		343.78			7093.50	788.17																	
	39+97.58	40+89.78		92.20			1778.09	197.57																	
	64+93.37	65+59.72		66.35			1355.40	150.60																	
	66+83.44	69+75.00		291.56			6524.49	724.94																	
SUBTOTAL THIS SHEET								1861	2604	0	0	0	0	0	345	0	423	0	265	81	84	117	0	0	0
SUBTOTAL SHEET P.136								13860	70	63	2433	0	2433	112774	0	553	479	6562	9586	0	0	0	4789	5588	0
SUBTOTAL SHEET P.137								0	2770	175	6749	0	6749	0	0	1639	1548	1066	0	0	0	0	266	313	2481
SUBTOTAL SHEET P.138								0	3561	139	5025	0	5025	0	0	708	1368	462	0	0	0	0	116	135	5140
SUBTOTAL SHEET P.139								0	1721	290	11203	3459	7744	0	0	2662	2137	1735	0	0	0	0	435	508	1894
SUBTOTAL SHEET P.139A								0	3336	26	1017	1017	0	0	0	0	685	0	0	0	0	0	0	0	4000
TOTALS CARRIED TO GENERAL SUMMARY (01/NHS/01)								15721	14062	693	26426	4476	21950	112774	5907		6641	19676		81	84	117	5606	6544	13515

PAVEMENT QUANTITIES - ALLEN ROAD

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER BAC

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.139B TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 2:58:04 PM USER: cm1012
P:\ODT\05\0004_FAI-33-3.18\77555400-Engineering\Roadway\Sheets\77555_GQ006.dgn

LOCATION	STATION		SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	206 CEMENT	206 CURING COAT	206 12" CEMENT STABILIZED SUBGRADE	206 14" CEMENT STABILIZED SUBGRADE	254 PAVEMENT PLANING, ASPHALT CONCRETE (3 ¼" DEPTH)	301 5" ASPHALT CONCRETE BASE, (449)	301 6" ASPHALT CONCRETE BASE, (449)	301 9" ASPHALT CONCRETE BASE, (449)	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT (0.055 GAL/SY)	407 NON-TRACKING TACK COAT (0.085 GAL/SY)	411 8" STABILIZED CRUSHED AGGREGATE	441 1 ½" ASPHALT SURFACE COURSE, TYPE 1, (446), PG70-22M	441 1 ¾" ASPHALT INTERMEDIATE COURSE, TYPE 2, (446)
	FROM	TO		FT	FT	SF	SF	SY	SY	TON	SY	SY	SY	SY	CY	CY	CY	CY	GAL	GAL	CY	CY	CY
PICKERINGTON ROAD																							
	255+16.43	255+78.82		62.39	82.01	5116.60											142.13		93.80			19.74	27.64
	255+16.43	255+78.82		62.39	84.90	5296.91												98.09					
	255+16.43	255+78.82		62.39	85.86	5356.81			595.20														
	255+78.82	261+00.00		521.18	70.52	36753.61													449.21			141.80	198.51
	255+78.82	261+00.00		521.18	71.57	37300.85											1036.13		227.95				
	255+78.82	261+00.00		521.18	72.91	37999.23												703.69					
	255+78.82	261+00.00		521.18	73.21	38155.59			4239.51														
	261+00.00	263+90.06		290.06	56.00	16243.36													198.53			62.67	87.73
	261+00.00	263+90.06		290.06	57.17	16581.76											460.60		101.33				
	261+00.00	263+90.06		290.06	58.67	17016.85												315.13					
	261+00.00	263+90.06		290.06	59.00	17113.54			1901.50														
	263+90.06	265+00.00		109.94	54.25	5964.24													72.90			23.01	32.21
	263+90.06	265+00.00		109.94	55.42	6092.51											169.24		37.23				
	263+90.06	265+00.00		109.94	56.92	6257.78												115.88					
	263+90.06	265+00.00		109.94	57.25	6294.06			699.34														
	265+00.00	271+82.37		682.37	41.72	28468.48													347.95			109.83	153.76
	265+00.00	271+82.37		682.37	42.89	29264.57											812.90		178.84				
	265+00.00	271+82.37		682.37	44.38	30283.58												560.81					
	265+00.00	271+82.37		682.37	44.72	30515.59				87.73	3390.62	3390.62											
	271+82.37	275+00.00		317.63	32.00	10164.16													124.23			39.21	54.90
	271+82.37	275+00.00		317.63	33.17	10534.73											292.63		64.38				
	271+82.37	275+00.00		317.63	34.67	11011.17												203.91					
	271+82.37	275+00.00		317.63	35.00	11117.05				31.96	1235.23	1235.23											
	275+00.00	275+50.00		50.00	38.00	1900.00													23.22			7.33	10.26
	275+00.00	275+50.00		50.00	39.17	1958.33											54.40		11.97				
	275+00.00	275+50.00		50.00	40.17	2008.33												37.19					
	275+00.00	275+50.00		50.00	41.00	2050.00				5.89	227.78	227.78											
	275+50.00	279+25.00		375.00	44.00	16500.00													201.67			63.66	89.12
	275+50.00	279+25.00		375.00	45.17	16937.50											470.49		103.51				
	275+50.00	279+25.00		375.00	46.67	17500.00												324.07					
	275+50.00	279+25.00		375.00	47.00	17625.00				50.67	1958.33	1958.33											
	279+25.00	280+75.00		150.00	63.01	9451.50													115.52			36.46	51.05
	279+25.00	280+75.00		150.00	64.43	9664.50											268.46		59.06				
	279+25.00	280+75.00		150.00	66.24	9936.00												184.00					
	279+25.00	280+75.00		150.00	66.65	9997.50				28.74	1110.83	1110.83											
	280+75.00	281+65.00		90.00			6135.00							681.67					37.49	57.94		23.67	33.14
	280+93.95	281+45.09	RT	51.14	11.61	593.74													7.26			2.29	3.21
	280+93.95	281+45.09	RT	51.14	12.47	637.72											17.71		3.90				
	280+93.95	281+45.09	RT	51.14	13.55	692.95												12.83					
	280+93.95	281+45.09	RT	51.14	13.79	705.22				2.03	78.36	78.36											
	280+95.83	281+65.00	LT	69.17	23.24	1607.51													19.65			6.20	8.68
	280+95.83	281+65.00	LT	69.17	24.50	1694.66											47.07		10.36				
	280+95.83	281+65.00	LT	69.17	26.11	1806.03												33.44					
	280+95.83	281+65.00	LT	69.17	26.46	1830.24				5.26	203.36	203.36											
REMOVALS	236+00.00	252+39.61	LT/RT	1639.61			31707.84	3523.09															
	254+95.62	280+75.00	LT/RT	2579.38			64741.36	7193.48															
TOTALS CARRIED TO SHEET P.139G								10717	7436	212	8205	8205	0	682	0	0	3772	2589	2490	58	0	536	750

PAVEMENT QUANTITIES - PICKERINGTON ROAD

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
BAC

REVIEWER
TWG 12/09/24

PROJECT ID
77555

SHEET P.139D TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 2:58:05 PM USER: cml012
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PAVEMENT QUANTITIES - SERVICE ROADS

LOCATION	STATION FROM	STATION TO	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	206 CEMENT	206 CURING COAT	206 12" CEMENT STABILIZED SUBGRADE	206 14" CEMENT STABILIZED SUBGRADE	254 PAVEMENT PLANING, ASPHALT CONCRETE (3 ¼" DEPTH)	301 5" ASPHALT CONCRETE BASE, (449)	301 6" ASPHALT CONCRETE BASE, (449)	301 9" ASPHALT CONCRETE BASE, (449)	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT (0.055 GAL/SY)	407 NON-TRACKING TACK COAT (0.085 GAL/SY)	411 8" STABILIZED CRUSHED AGGREGATE	441 1 ¼" ASPHALT SURFACE COURSE, TYPE 1, (446), PG70-22M	441 1 ¾" ASPHALT INTERMEDIATE COURSE, TYPE 2, (446)
				FT	FT	SF	SF	SY	SY	TON	SY	SY	SY	SY	CY	CY	CY	CY	GAL	GAL	CY	CY	CY
SERVICE ROAD 1																							
	10+22.33	10+60.56		38.23	45.99	1758.20													21.49			6.78	9.50
	10+22.33	10+60.56		38.23	46.95	1794.90									27.70								
	10+22.33	10+60.56		38.23	48.39	1849.95												34.26					
	10+22.33	10+60.56		38.23	50.32	1923.73			213.75														
	10+60.56	15+30.84		470.28	24.00	11286.72													137.95			43.54	60.96
	10+60.56	15+30.84		470.28	24.67	11600.40									179.02								
	10+60.56	15+30.84		470.28	25.67	12070.68												223.53					
	10+60.56	15+30.84		470.28	27.00	12697.56			1410.84														
SHOULDER	10+60.56	15+30.84		470.28	8.00	3762.24															92.89		
SERVICE ROAD 1 CUL-DE-SAC																							
	15+30.84	17+10.00		179.16	62.94	11276.33													137.82			43.50	60.91
	15+30.84	17+10.00		179.16	63.77	11425.03									176.31								
	15+30.84	17+10.00		179.16	65.01	11647.19												215.69					
	15+30.84	17+10.00		179.16	66.68	11946.39			1327.38														
SHOULDER	15+30.84	17+10.00		179.16			1798.69														44.41		
SERVICE ROAD 2																							
	22+24.78	26+71.98		447.20	24.00	10732.80													131.18			41.41	57.97
	22+24.78	26+71.98		447.20	24.67	11031.08									170.23								
	22+24.78	26+71.98		447.20	25.67	11478.28												212.56					
	22+24.78	26+71.98		447.20	27.00	12074.40			1341.60														
	26+71.98	28+36.52		164.54	33.80	5561.45													67.97			21.46	30.04
	26+71.98	28+36.52		164.54	34.47	5671.20									87.52								
	26+71.98	28+36.52		164.54	35.38	5821.43												107.80					
	26+71.98	28+36.52		164.54	36.80	6055.07			672.79														
	28+36.52	28+74.79		38.27	56.67	2168.76													26.51			8.37	11.71
	28+36.52	28+74.79		38.27	57.53	2201.67									33.98								
	28+36.52	28+74.79		38.27	58.82	2251.04												41.69					
	28+36.52	28+74.79		38.27	59.26	2267.88			251.99														
SHOULDER	22+24.78	28+36.52		611.74	8.00	4893.92															120.84		
SERVICE ROAD 2 CUL-DE-SAC																							
	20+75.00	22+24.78		149.78	64.39	9644.00													117.87			37.21	52.09
	20+75.00	22+24.78		149.78	65.22	9768.65									150.75								
	20+75.00	22+24.78		149.78	66.48	9957.37												184.40					
	20+75.00	22+24.78		149.78	68.17	10210.50			1134.50														
SHOULDER	20+75.00	22+24.78		149.78			1526.74														37.70		
SUBTOTAL THIS SHEET								0	6353	0	0	0	0	0	826	0	0	1020	641	0	296	202	283
SUBTOTAL SHEET P.139C								0	9024	81	2684	0	2684	0	0	1667	0	1912	1088	0	0	343	481
SUBTOTAL SHEET P.139D								10717	7436	212	8205	8205	0	682	0	0	3772	2589	2490	58	0	536	750
SUBTOTAL SHEET P.139E								1484	3750	230	8873	8873	0	0	3218	0	0	2005	1242	0	790	392	549
SUBTOTAL SHEET P.139F								0	1995	216	8335	8335	0	0	1320	0	0	1643	2038	0	612	322	450
TOTALS CARRIED TO GENERAL SUMMARY (04/STR/04)								12201	28558	739	28096	25412	2684	682	10802			9169	7556		1697	1796	2513

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	BAC
REVIEWER	TWG 12/09/24
PROJECT ID	77555
SHEET	P.139G
TOTAL	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 2:58:06 PM USER: cm012
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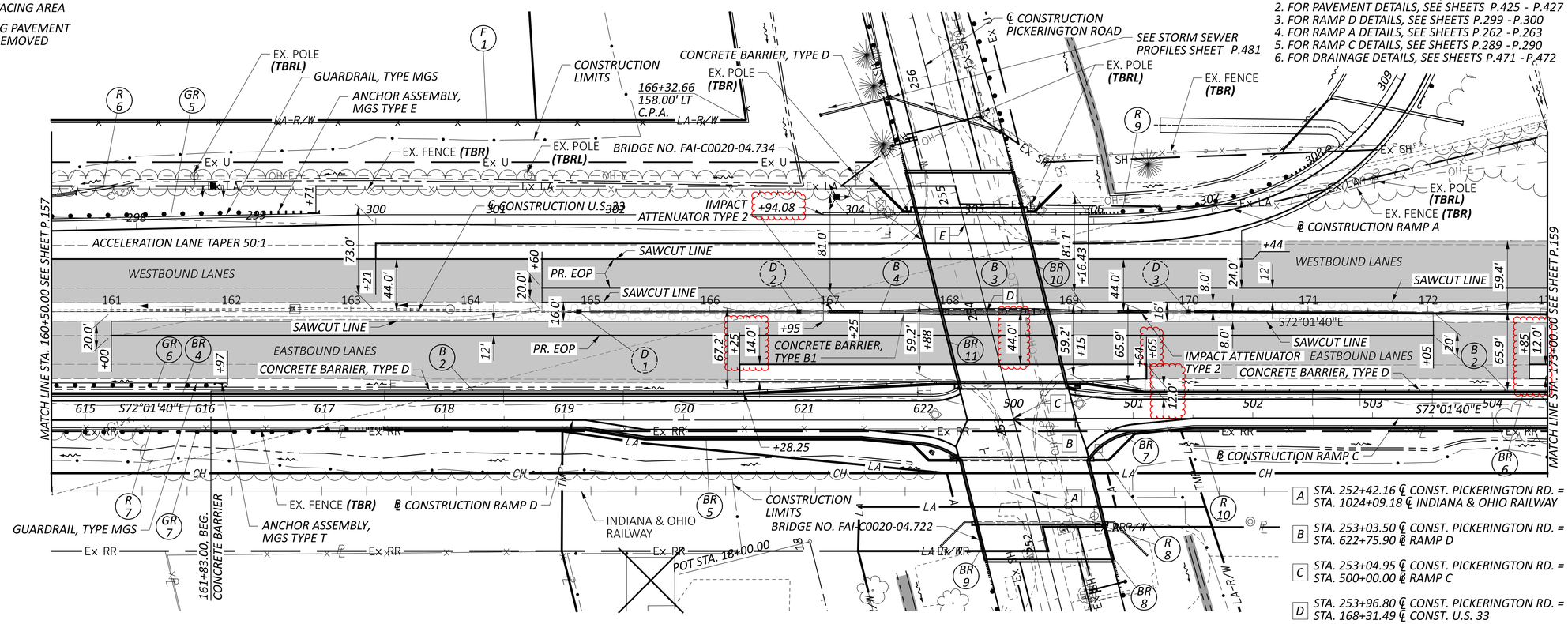
LEGEND

- RESURFACING AREA
- EXISTING PAVEMENT TO BE REMOVED

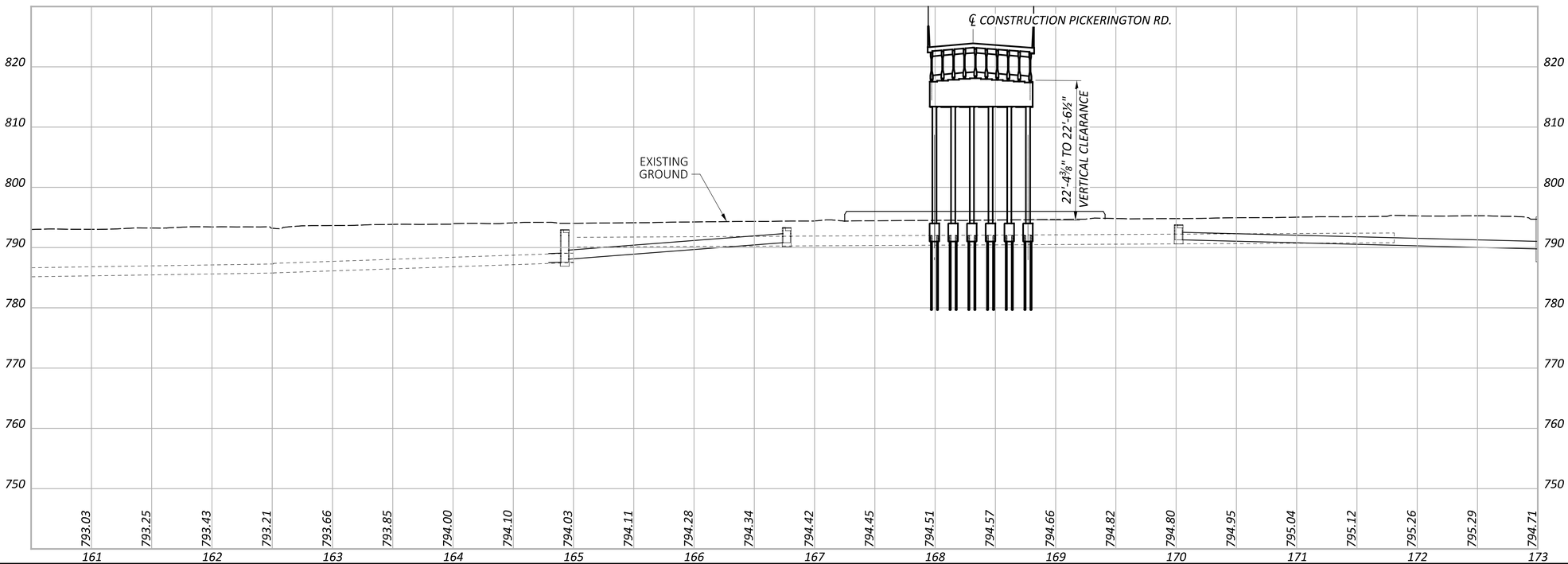
NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR PAVEMENT DETAILS, SEE SHEETS P.425 - P.427
3. FOR RAMP D DETAILS, SEE SHEETS P.299 - P.300
4. FOR RAMP A DETAILS, SEE SHEETS P.262 - P.263
5. FOR RAMP C DETAILS, SEE SHEETS P.289 - P.290
6. FOR DRAINAGE DETAILS, SEE SHEETS P.471 - P.472



HORIZONTAL SCALE IN FEET
0 25 50 100

- A STA. 252+42.16 ℄ CONST. PICKERINGTON RD. = STA. 1024+09.18 ℄ INDIANA & OHIO RAILWAY
- B STA. 253+03.50 ℄ CONST. PICKERINGTON RD. = STA. 622+75.90 ℄ RAMP D
- C STA. 253+04.95 ℄ CONST. PICKERINGTON RD. = STA. 500+00.00 ℄ RAMP C
- D STA. 253+96.80 ℄ CONST. PICKERINGTON RD. = STA. 168+31.49 ℄ CONST. U.S. 33
- E STA. 254+72.06 ℄ CONST. PICKERINGTON RD. STA. 304+92.18 ℄ RAMP A



PLAN AND PROFILE - U.S. 33
STA. 160+50.00 TO STA. 173+00.00

DESIGN AGENCY: CARPENTER MARTY engineering

DESIGNER: JJL

REVIEWER: TWG 12/09/24

PROJECT ID: 77555

SHEET: P.158 | TOTAL: 846

FAI-33-2.64

MODEL: CIX_U033 - Plan 3 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 2:44:21 PM USER: cmt012
P:\ODT\05\0004_FAI-33.3.18\77555\400-Engineering\Roadway\Sheets\77555_GP003.dgn

LEGEND

RESURFACING AREA

EXISTING PAVEMENT TO BE REMOVED

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR PAVEMENT DETAILS, SEE SHEETS P.428 - P.430,
3. FOR STORM SEWER DETAILS, SEE SHEET P.481 - P.482
4. FOR RAMP B DETAILS, SEE SHEET P.273 - P.274
5. FOR RAMP C DETAILS, SEE SHEET P.289 - P.290
6. FOR DRAINAGE PLAN AND PROFILE, SEE SHEETS P.472 - P.473

HORIZONTAL SCALE IN FEET 0 25 50 100

MATCH LINE STA. 173+00.00 SEE SHEET P.158

MATCH LINE STA. 185+50.00 SEE SHEET P.160

STREAM 1 (KING DITCH)

EX. POLE -(TBRL)-

℄ CONSTRUCTION RAMP B

CONSTRUCTION LIMITS

END DECELERATION LANE RAMP B
℄ RAMP B STA. 416+81.21 =
℄ CONSTRUCTION U.S. 33 STA. 182+72.66, 93.96' LT

RAMP B

EX. FENCE (TBR)

SAWCUT LINE

PR. EOP

℄ CONSTRUCTION U.S. 33

WESTBOUND LANES

EASTBOUND LANES

SEE STORM PROFILE SHEET P.481

GUARDRAIL, TYPE MGS

AA, MGS TYPE T

ACCELERATION LANE TAPER 50:1

S73°10'26"E

VFS #4

℄ CONSTRUCTION RAMP C

INDIANA & OHIO RAILWAY

CONCRETE BARRIER, TYPE D

SEE STORM PROFILE SHEET P.480

BEGIN ACCELERATION LANE RAMP C
℄ RAMP C STA. 509+46.19 =
℄ CONSTRUCTION U.S. 33 STA. 178+00.00, 87.00' RT.

D 9 FOR DETAILS SEE SHEET $DF002

D 11 FOR DETAILS SEE SHEET $DF002

D 10 FOR DETAILS SEE SHEET $DF002

EXISTING GROUND

795.22 795.30 795.43 794.73 795.15 795.24 795.44 795.59 795.16 795.44 795.52 795.76 795.74 795.82 795.50 795.76 795.84 795.97 796.13 796.28 795.64 796.25 796.50 796.58 796.65

PLAN AND PROFILE - U.S. 33
STA. 173+00.00 TO STA. 185+50.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER JJL

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.159 TOTAL 846

FAI-33-2.64

MODEL: CLX_U033 - Plan 4 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 2:44:55 PM USER: cmt012
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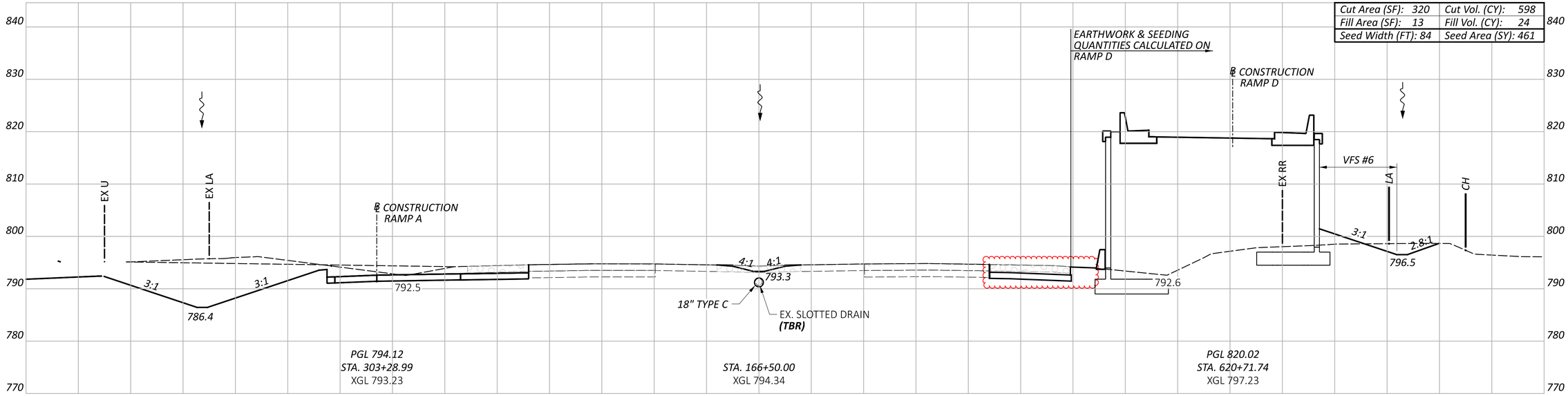
LEGEND

EXISTING PAVEMENT TO BE REMOVED

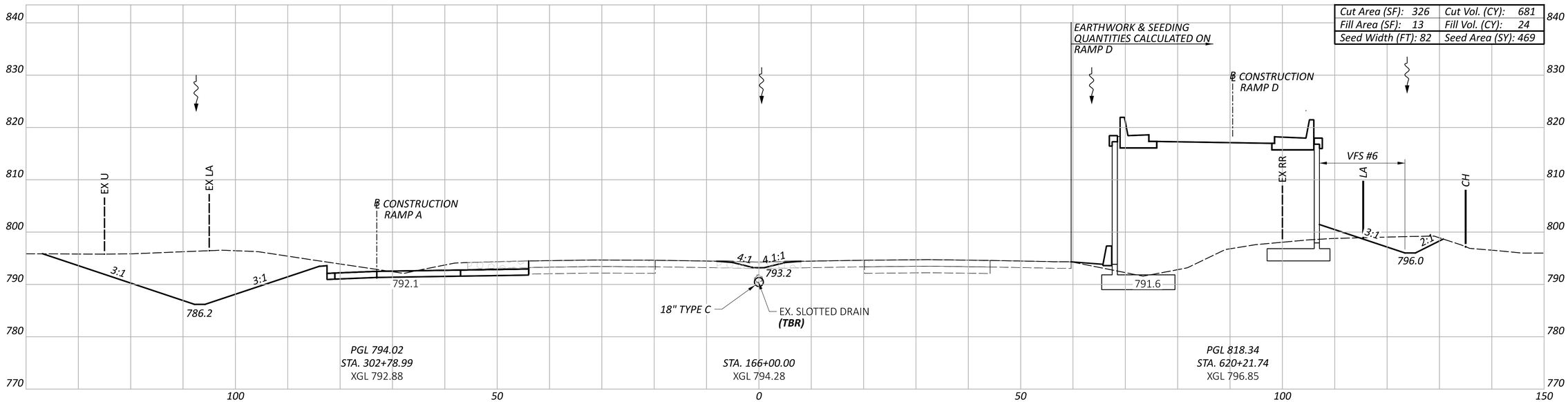


Cut Area (SF): 320	Cut Vol. (CY): 598
Fill Area (SF): 13	Fill Vol. (CY): 24
Seed Width (FT): 84	Seed Area (SY): 461

PGL 794.12
STA. 303+28.99
XGL 793.23

STA. 166+50.00
XGL 794.34

PGL 820.02
STA. 620+71.74
XGL 797.23



Cut Area (SF): 326	Cut Vol. (CY): 681
Fill Area (SF): 13	Fill Vol. (CY): 24
Seed Width (FT): 82	Seed Area (SY): 469

PGL 794.02
STA. 302+78.99
XGL 792.88

STA. 166+00.00
XGL 794.28

PGL 818.34
STA. 620+21.74
XGL 796.85

CROSS SECTIONS - U.S. 33
STA. 166+00 TO STA. 166+50.00

FAI-33-2.64

MODEL: Sheet 22 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 12:29:11 PM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_XS000.dgn

Sheet Totals		
Seeding	Cut	Fill
930	1279	48

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
MGM

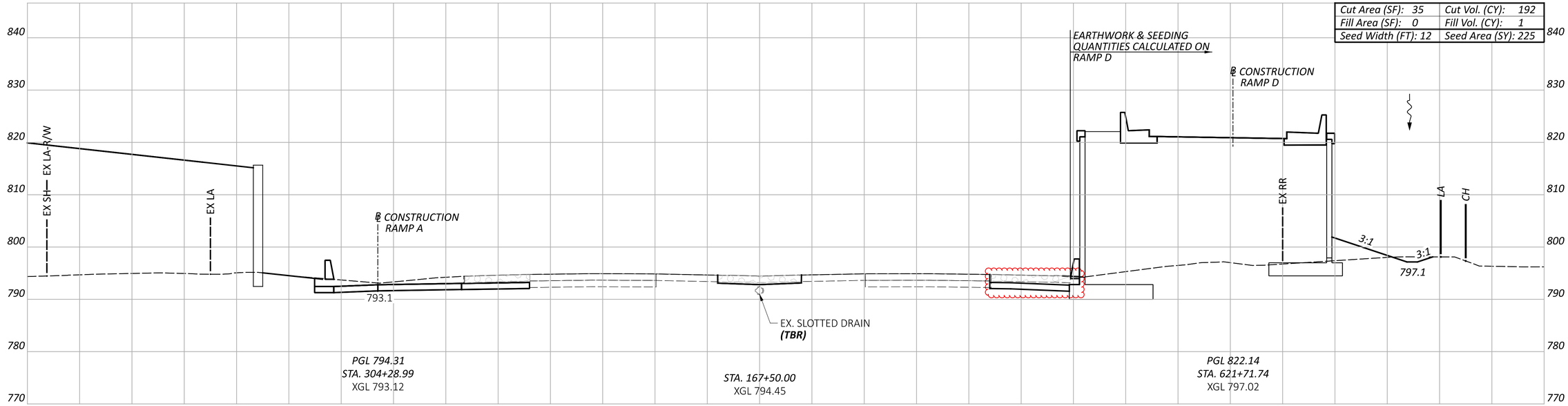
REVIEWER
TWG 12/09/24

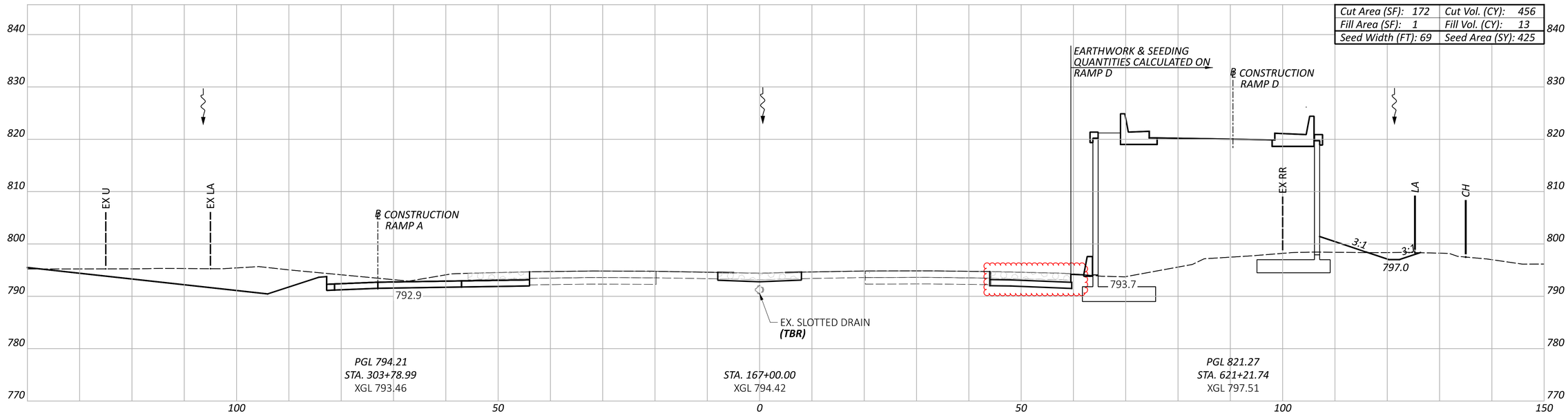
PROJECT ID
77555

SHEET P.187 TOTAL 846

LEGEND

EXISTING PAVEMENT TO BE REMOVED





CROSS SECTIONS - U.S. 33
STA. 167+00.00 TO STA. 167+50.00

Sheet Totals		
Seeding	Cut	Fill
650	648	14

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.188 TOTAL 846

FAI-33-2.64

MODEL: Sheet 23 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 12:29:22 PM USER: cmt012
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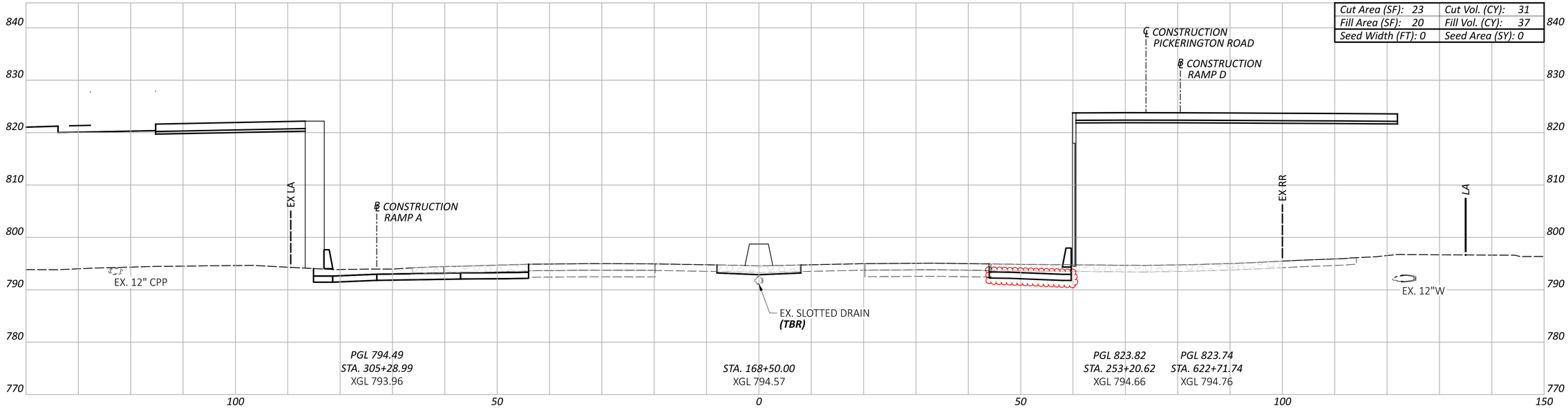
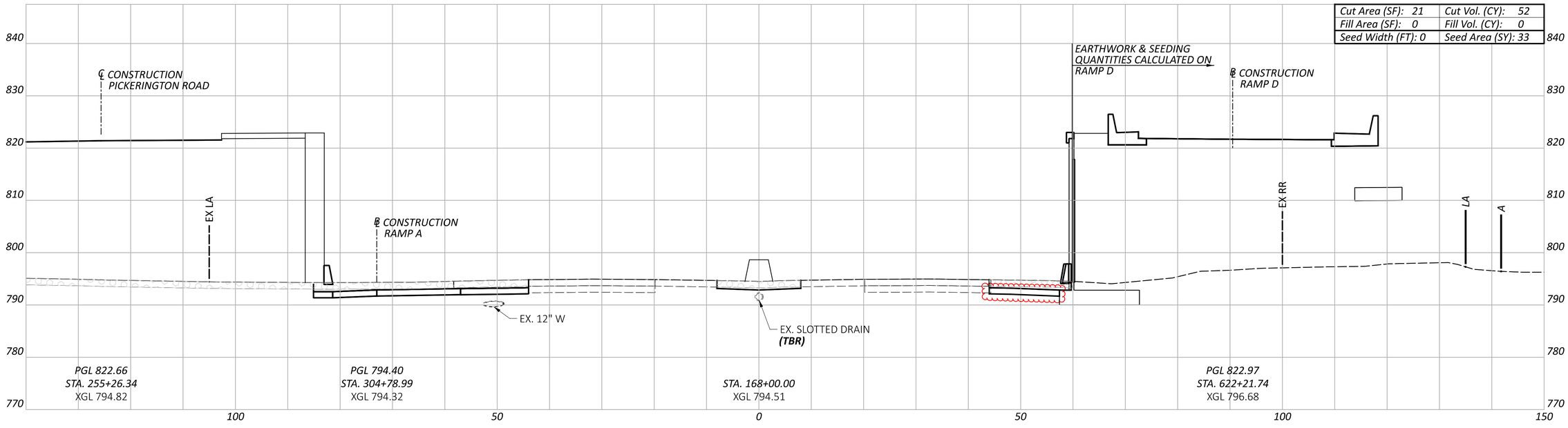
LEGEND

EXISTING PAVEMENT TO BE REMOVED





CROSS SECTIONS - U.S. 33
STA. 168+00.00 TO STA. 168+50.00

Sheet Totals		
Seeding	Cut	Fill
33	83	37

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.189 | TOTAL 846

FAI-33-2.64

MODEL: Sheet 24 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 12:29:25 PM USER: cmt012
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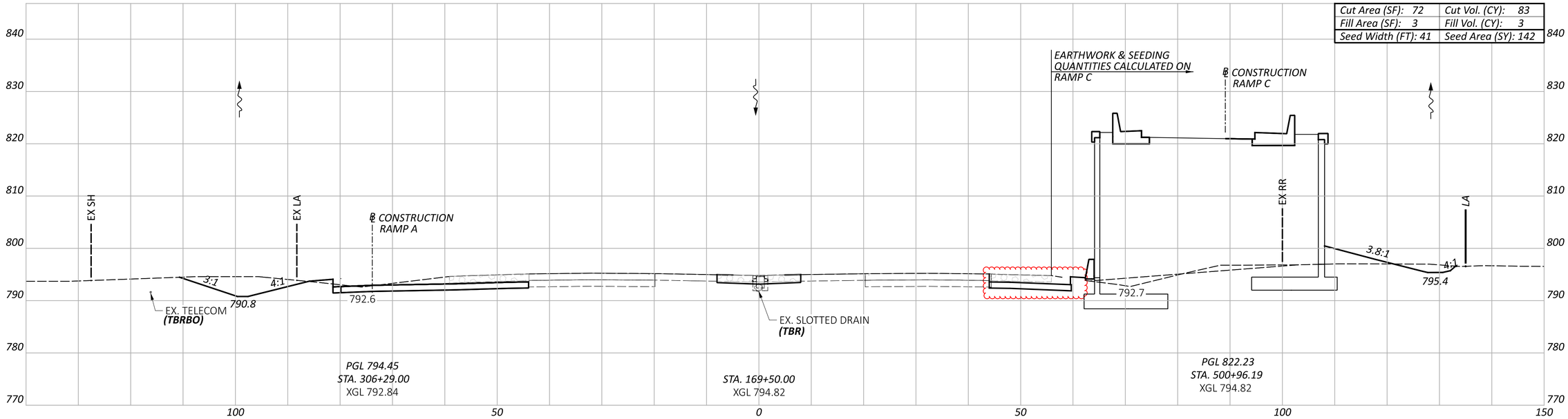
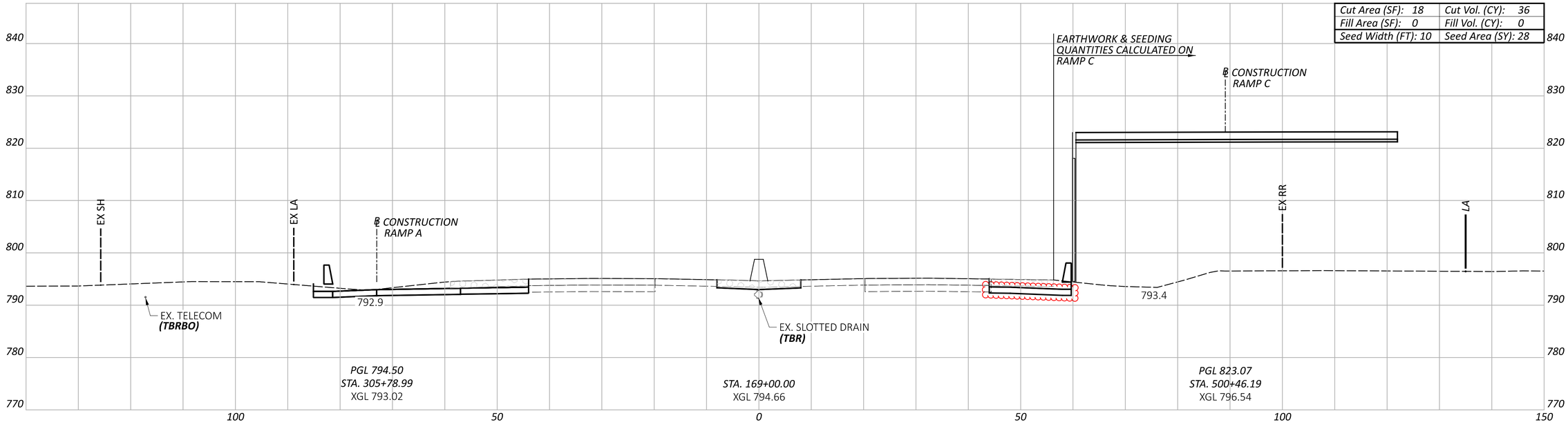
LEGEND

EXISTING PAVEMENT TO BE REMOVED





CROSS SECTIONS - U.S. 33
STA. 169+00.00 TO STA. 169+50.00

Sheet Totals		
Seeding	Cut	Fill
170	119	3

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.190 TOTAL 846

FAI-33-2.64

MODEL: Sheet 25 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 12:29:27 PM USER: cmt012
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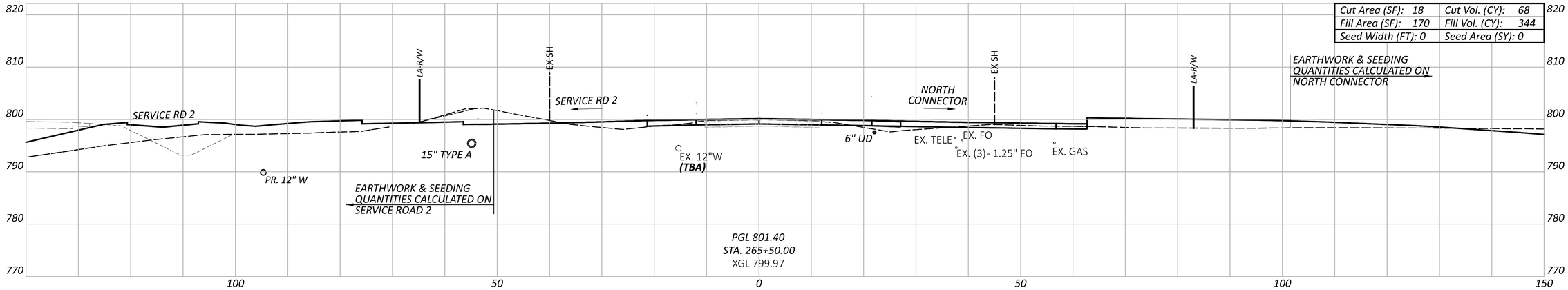
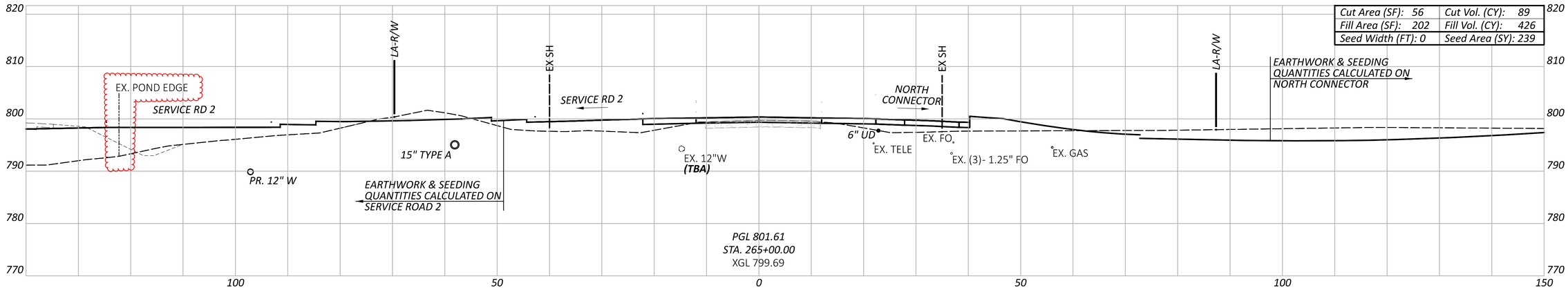
CROSS SECTIONS - PICKERINGTON ROAD
STA. 264+50.00 TO STA. 265+50.00

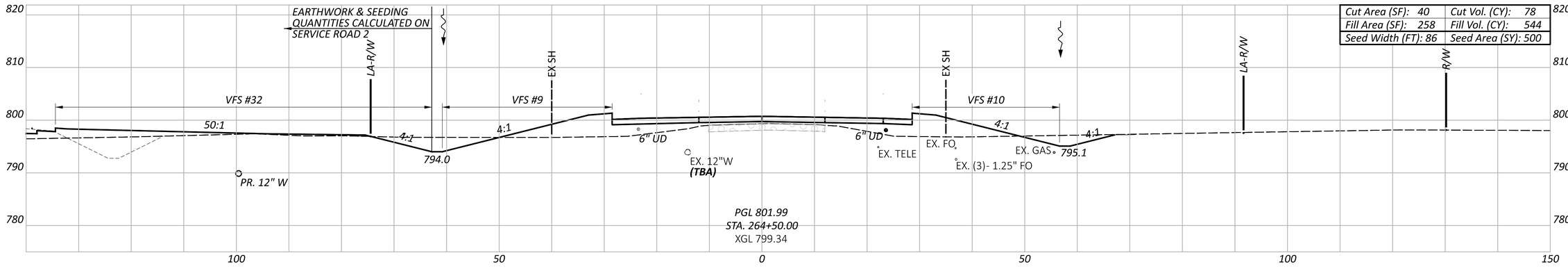
EXISTING PAVEMENT TO BE REMOVED



Cut Area (SF): 18	Cut Vol. (CY): 68
Fill Area (SF): 170	Fill Vol. (CY): 344
Seed Width (FT): 0	Seed Area (SY): 0



Cut Area (SF): 56	Cut Vol. (CY): 89
Fill Area (SF): 202	Fill Vol. (CY): 426
Seed Width (FT): 0	Seed Area (SY): 239



Cut Area (SF): 40	Cut Vol. (CY): 78
Fill Area (SF): 258	Fill Vol. (CY): 544
Seed Width (FT): 86	Seed Area (SY): 500

Sheet Totals		
Seeding	Cut	Fill
739	235	1344

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.250 TOTAL 846

FAI-33-2.64

MODEL: Sheet 25 PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 11:40:27 AM USER: cmt012
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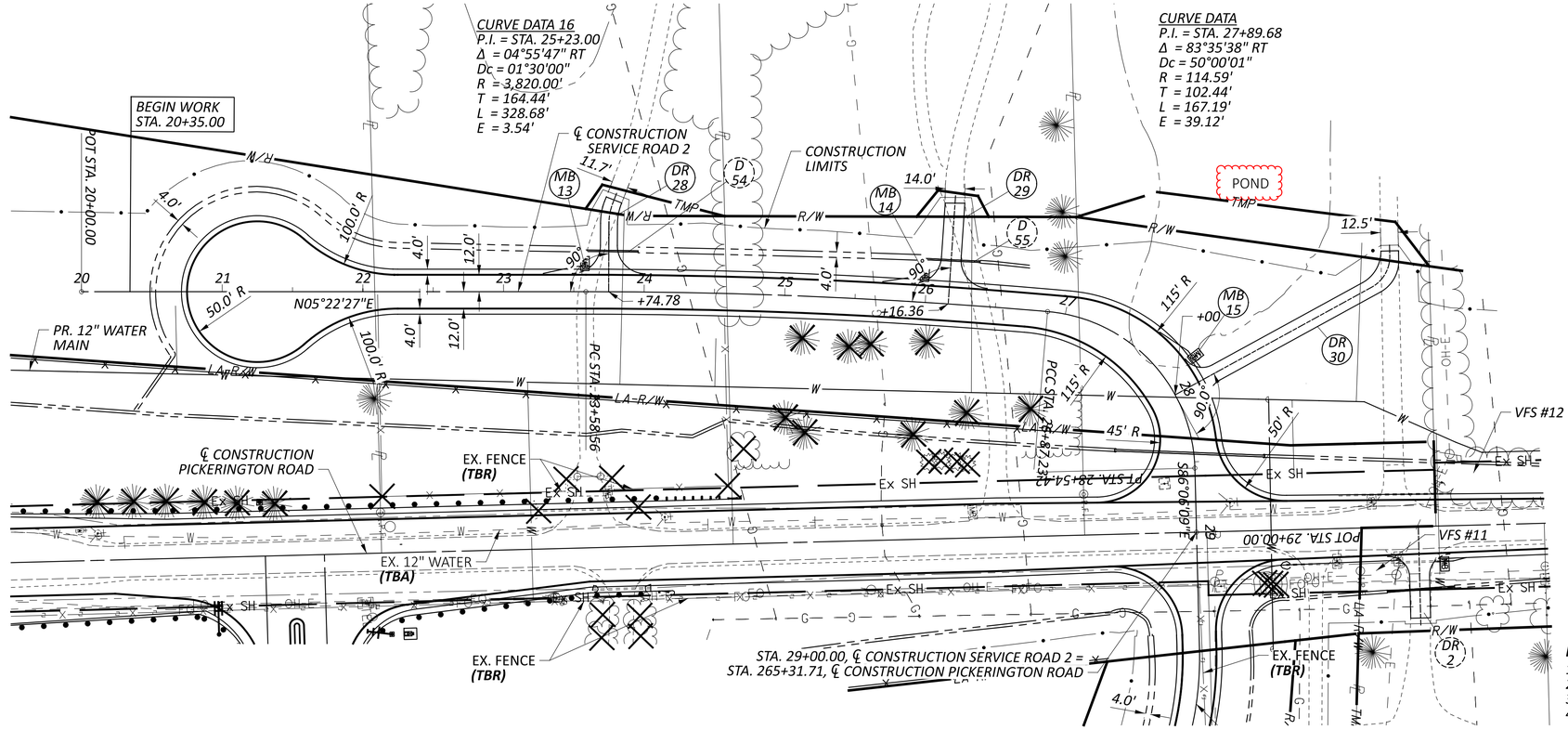

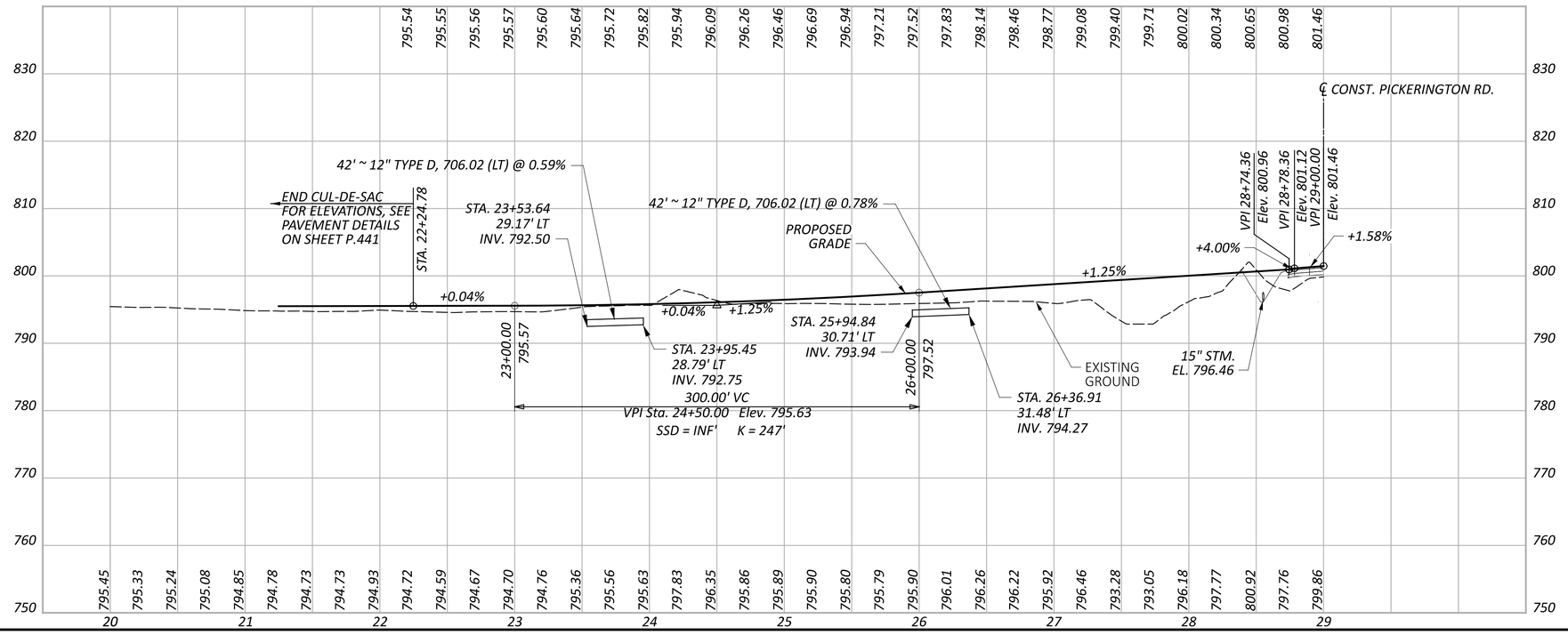

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR CULVERT DETAILS, SEE SHEET P.492
3. FOR DRAINAGE PLAN AND PROFILE, SEE SHEET P.477
4. FOR DRIVE DETAILS, SEE SHEETS P.453 , P.462

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN AND PROFILE - SERVICE ROAD 2
STA. 20+00.00 TO STA. 29+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER BAC
REVIEWER TWG 12/09/24
PROJECT ID 77555
SHEET P.399 TOTAL 846

FAI-33-2.64

MODEL: CLP_service road 2 - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 10:36:53 AM USER: cmt012
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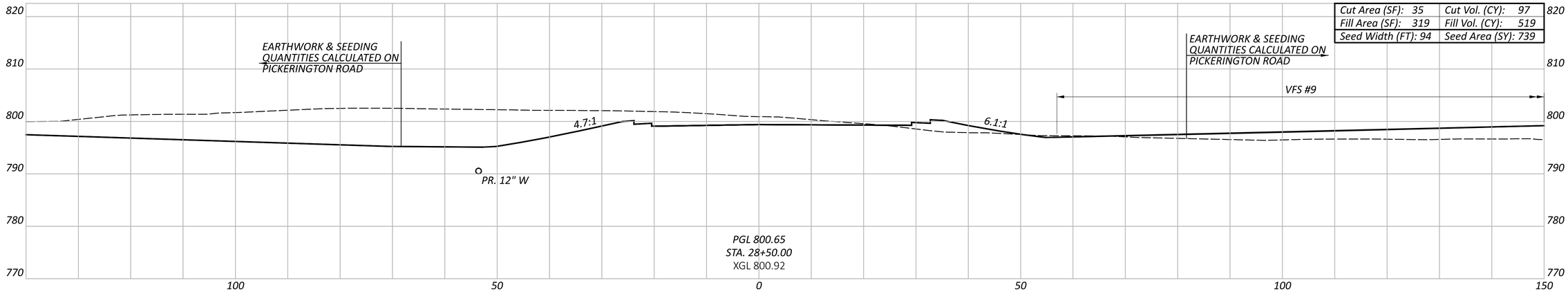

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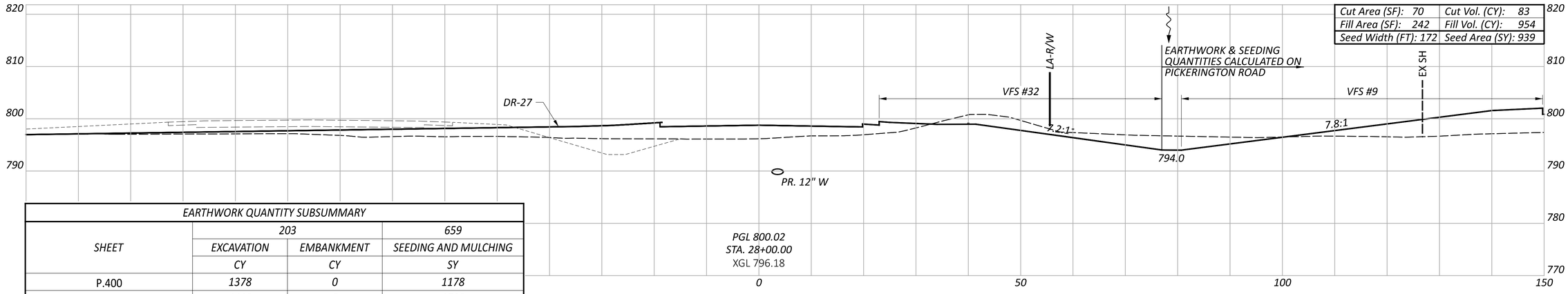
FOR CULVERT DETAIL AT STA. 28+43.90 SEE SHEET P.492



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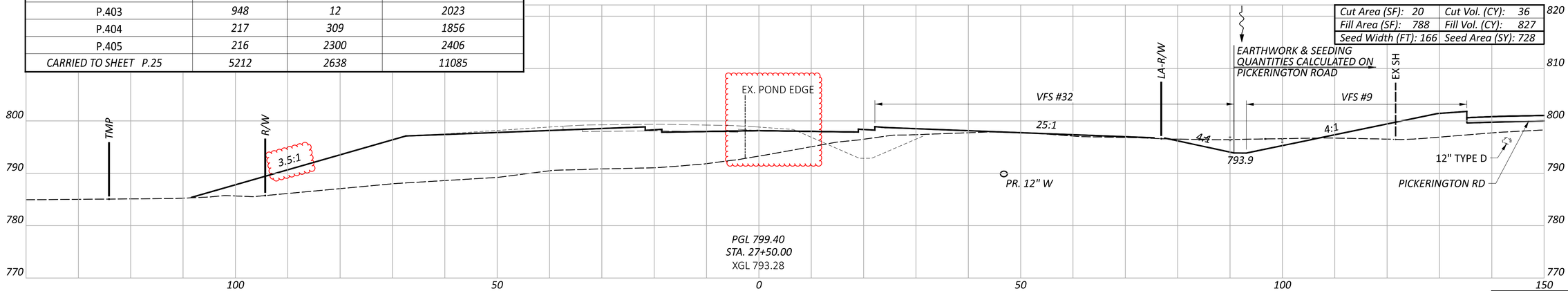
EARTHWORK QUANTITY SUBSUMMARY			
SHEET	203		659
	EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
	CY	CY	SY
P.400	1378	0	1178
P.401	1410	8	1700
P.402	1043	9	1922
P.403	948	12	2023
P.404	217	309	1856
P.405	216	2300	2406
CARRIED TO SHEET P.25	5212	2638	11085



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Sheet Totals		
Seeding	Cut	Fill
2406	216	2300

CROSS SECTIONS - SERVICE ROAD 2
STA. 27+50.00 TO STA. 28+50.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
BAC

REVIEWER
TWG 12/09/24

PROJECT ID
77755

SHEET P.405 TOTAL 846

FAI-33-2.64

MODEL: CLP_service road 2 - 27+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 10:45:17 AM USER: cmt012
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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING:

SBR-1-20	REVISED	7-19-2024
VPF-1-24	DATED	7-19-2024

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATION:

SS840	REVISED	7-19-2024

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (COPING, FOOTING, MOMENT SLAB)

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (RAILING)

CONCRETE REINFORCEMENT:
GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (WALLS, MOMENT SLABS, FOOTINGS)

GFRP REINFORCEMENT (PARAPET)

STEEL CIP PILES - ASTM A252 GRADE 3 - YIELD STRENGTH 45 KSI

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

CONSTRUCTION CLEARANCE

MAINTAIN A CONSTRUCTION CLEARANCE OF 14 FEET HORIZONTALLY FROM THE CENTER OF THE TRACKS AND 22 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF THE TRACKS AT ALL TIMES.

DESIGN SUBMITTALS

THE CONTRACTOR IS HEREBY NOTIFIED THAT THE RETAINING WALL SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS PROVIDED IN THESE NOTES. AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT RETAINING WALL DETAIL DESIGN PLANS (4 SETS), DESIGN CALCULATIONS (2 SETS), AND SHOP DRAWINGS PER 501.04 TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL BY THE DIRECTOR. THE PLANS SHALL BE SUBMITTED EIGHT WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE WALLS AND THE CONTRACTOR SHALL ALLOW FOUR WEEKS FOR THE REVIEW BY ODOT.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 55 KIPS PER PILE FOR THE PILES SUPPORTING WALLS 3 AND 4 IN FOOTING SEGMENTS 27, 28, AND 41.

WALL FOOTING PILES:
12" CAST-IN-PLACE REINFORCED CONCRETE PILES 25 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 0.250 INCHES FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES.

ITEM 203, SPECIAL - ENGINEERED FILL: LOW DENSITY CELLULAR CONCRETE FILL, CLASS II &
ITEM 203, SPECIAL - ENGINEERED FILL: LOW DENSITY CELLULAR CONCRETE FILL, CLASS III

IN ADDITION TO THE REQUIREMENTS LISTED IN SPECIAL PROVISION: LOW DENSITY CELLULAR CONCRETE FILL, THE FOLLOWING REQUIREMENTS SHALL BE MET:

A. MATERIALS
1. ADMIXTURES
701.10 MICRO-SILICA, 701 GGBF SLAG, OR FLY ASH SHALL BE CLASS C OR CLASS F AND COMPATIBLE WITH FOAMING AGENT.

B. CONSTRUCTION METHODS
1. PLACEMENT
TOP OF THE CLASS III CCF SHALL NOT BE LESS THAN 2'-0" BELOW THE TOP OF PAVEMENT.

DO NOT PLACE CCF INTO AN AREA OF STANDING WATER.

DO NOT PLACE REINFORCEMENTS AT COLD JOINTS. SUPPORT REINFORCEMENTS IN A LEVEL POSITION THROUGHOUT THEIR LENGTH AND KEEP THEM AT LEAST 6 INCHES ABOVE THE PREVIOUS DAY'S COLD JOINT.

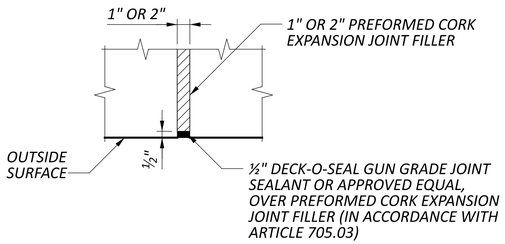
ITEM 511 - CONCRETE, MISC: WALL SLAB

PLACE 6" THICK SLAB OF UNREINFORCED CLASS QC1 CONCRETE AS SHOWN ON SHEET 35/41 . ONCE CONCRETE HAS CURED ENOUGH TO PLACE SAWCUTTING EQUIPMENT, GROOVE SLAB WITH 2" DEEP GROOVING TOOL AT THE CONTRACTION JOINT LOCATIONS DETAILED IN THE PLAN. ALL CONCRETE, SAWCUTTING, LABOR, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR ITEM 511 - CONCRETE, MISC: WALL SLAB (CY).

ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN AND ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1"AND 2" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVE MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, OR ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

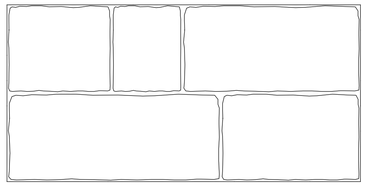
ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(PRECAST WALLS)

ALL AESTHETIC TREATMENTS FOR THE PRECAST WALLS SHALL MATCH THE EXISTING MSE WALLS LOCATED AT FAI-33-5.60 PID ,76938 CARROLL INTERCHANGE, IN COLOR AND PATTERN.

AN AESTHETIC TREATMENT SYSTEM SHALL BE SUCH TO DUPLICATE CLOSELY THE APPEARANCE OF INDIGENOUS SANDSTONE. THE SURFACE FINISH SHALL BE PATTERN #1102-R2 FROM CUSTOM ROCK INTERNATIONAL OR AN APPROVED EQUAL MEETING THE DETAILS SHOWN ON THIS PAGE. THE INTEGRALLY COLORED CONCRETE USING CHROMIX ADMIXTURES SHALL BE COLOR C-21 ADOBE TAN OR 1010 BROWNSTONE AS PROVIDED BY SIKA CORPORATION, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. TWO PRECONSTRUCTION PANELS WILL BE REQUIRED, ONE WITH C-21 ADOBE TAN AND ONE WITH 1010 BROWNSTONE. THE DIRECTOR WILL DECIDE THE COLOR FROM THE TEST SAMPLES.

TWO PRECONSTRUCTION TEST SAMPLES SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST SAMPLES DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PRECAST WALL PANELS OR INTEGRALLY COLORED CONCRETE. THE TEST SAMPLE MUST PASS APPROVAL. FAILURE WILL CONSTITUTE PLACEMENT OF ANOTHER TEST SAMPLE. A FIVE FOOT BY FIVE FOOT TEST SAMPLE SHOULD BE MADE. THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS AND PATTERN AS USED ON THE PROJECT. THE SAMPLE SHOULD BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND INTEGRALLY COLORED CONCRETE THAT WILL BE USED TO MAKE THE WALL PANELS. AFTER APPROVAL THE CONCRETE TEST SAMPLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE INTEGRALLY COLORED, CONCRETE, SURFACE FINISH, TEST SAMPLES AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE SQ. FT. PAYMENT FOR ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(PRECAST WALLS).



CUSTOM ROCK INTERNATIONAL (C.R.I.)
PATTERN # 1102-R2 OR APPROVED EQUAL

RECTANGULAR CUT STONE (15" COURSING HEIGHT):
MAX RELIEF = 2"
AVERAGE RELIEF = 1½"
STONE SIZES (LENGTH) = 2' TO 6'

ARCHITECTURAL WALL ELEVATION

NOTE: CORNER ELEMENTS SHALL HAVE THE SAME AESTHETIC TREATMENT AS THE WALL PANELS.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

FABRICATE AND INSTALL THE VANDAL PROTECTION FENCE AS DETAILED IN THIS PLAN AND STANDARD DRAWING VPF-1-24. THE VANDAL PROTECTION FENCE SHALL BE 6'-0" STRAIGHT FENCE. THE COATING SYSTEM USED FOR THIS FENCE SHALL BE MODIFIED AS FOLLOWS. IF NOT ALREADY SPECIFIED IN VPF-1-24, ALL STEEL COMPONENTS SHALL RECEIVE PVC COATING IN ADDITION TO THE STANDARD SURFACE TREATMENTS. ALL THREADED ASSEMBLY COMPONENTS (I.E. THREAD LENGTH OF BOLTS, NUTS, AND WASHERS) WILL BE EXCLUDED FROM THIS ADDITIONAL COATING REQUIREMENT. PVC COATINGS SHALL CONFORM TO EITHER ASTM F668 CLASS 2A OR 2B (MESH, WIRE, ETC.), ASTM F626-14 (FENCE FITTINGS, ETC.), OR ASTM F1043-16 (FRAMEWORK, POSTS, RAILS, ETC.).

DUE TO THE ADDITIONAL THICKNESS OF THIS COATING SYSTEM, THE POTENTIAL EXISTS THAT TYPICAL FITTINGS MAY REQUIRE THEIR SIZES INCREASED ABOVE THE STANDARD SIZES SHOWN IN STD. DWG. VPF-1-24. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/FABRICATOR TO TEST ALL FENCE COMPONENTS FOR FIT-UP AT THE FABRICATION STAGE AND TO INCORPORATE ANY SIZE-UP ADJUSTMENTS TO ENSURE EASE OF FIELD INSTALLATION AND ERECTION. THE FINAL COLOR FOR ALL PVC COATED FENCE COMPONENTS SHALL BE BLACK (CLOSELY APPROACHING AMS 595A-17038). HANDLE ALL PVC COATED MATERIALS WITH CARE. IF THE PVC COATING IS DAMAGED, REPLACE THE DAMAGED FENCE COMPONENT(S) AT NO COST TO THE DEPARTMENT.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LINEAR FEET BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN.

GENERAL NOTES
WALLS

WFN VARIES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	JMV

REVIEWER
GDJ 10-18-23

PROJECT ID
77555

SUBSET	TOTAL
3	41

SHEET	TOTAL
P.505	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 10:14:52 AM USER: CMT013
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ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS

A. DESCRIPTION

THIS BID ITEM CONSISTS OF PRECAST WALLS MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH THIS SPECIFICATION AND DESIGNED IN ACCORDANCE WITH THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

PRECAST WALL PANELS ARE SHOWN AND DETAILED IN THE PLANS WITH A 10 INCH STRUCTURAL THICKNESS AND A 2 INCH AESTHETIC THICKNESS. OTHER STRUCTURAL WALL THICKNESSES ARE ACCEPTABLE PROVIDING THEY MEET ALL THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED TO ACCOMMODATE ALTERNATE WALL DIMENSIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DESIGN DATA

CONCRETE - COMPRESSIVE STRESS 4 KSI

CONCRETE REINFORCEMENT:
- GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

WELDED WIRE FABRIC - MINIMUM YIELD STRENGTH 70 KSI

C. MATERIALS - CONCRETE

THE CONCRETE FOR THE WALL SECTIONS SHALL BE COMPOSED OF PORTLAND CEMENT, FINE AND COARSE AGGREGATES, ADMIXTURES AND WATER. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C150, TYPE I, II, OR III. THE AIR ENTRAINING ADMIXTURE SHALL CONTAIN 6% ± 2% ENTRAINED AIR, AND SLUMP SHALL BE MAINTAINED WITH THE RANGE OF 1" TO 4". THE SLUMP MAY BE INCREASED TO 7" PROVIDED THE INCREASE IS ACHIEVED BY THE ADDITION OF A CHEMICAL WATER-REDUCING ADMIXTURE APPROVED BY THE ENGINEER.

THE CONCRETE USED FOR THIS ITEM SHALL BE COLORED AS DESCRIBED IN THE ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMINER)(PRECAST WALLS) NOTE.

D. MATERIALS AND REINFORCING HARDWARE

REINFORCEMENT SHALL CONSIST OF WELDED WIRE FABRIC CONFORMING TO ASTM A185, OR DEFORMED BILLET-STEEL BARS CONFORMING TO ASTM A615, A616, OR A617, GRADE 60.

E. SHOP DRAWING REQUIREMENTS

THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING.
- ALL STRUCTURAL DESIGN AND LOADING INFORMATION
- A PLAN VIEW
- ALL ELEVATION VIEWS
- ALL DIMENSIONS

MANUFACTURING SHALL NOT BEGIN UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED SHOP DRAWINGS HAS BEEN RECEIVED.

F. TESTING AND INSPECTION

ACCEPTABILITY OF THE CONCRETE FOR THE PRECAST PANELS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATIONS AND VISUAL INSPECTIONS. THE CONCRETE STRENGTH REQUIREMENTS FOR THE PRECAST PANELS SHALL BE CONSIDERED ATTAINED REGARDLESS OF CURING AGE WHEN COMPRESSION TEST RESULTS INDICATE STRENGTH WILL CONFORM TO 28-DAY SPECIFICATIONS AS STATED BELOW. THE MANUFACTURER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER. PANELS UTILIZING TYPE I OR TYPE II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL WHEN 7-DAY INITIAL STRENGTHS EXCEED 85 PERCENT OF THE 28-DAY REQUIREMENTS. PANELS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL PRIOR TO 28 DAYS ONLY WHEN COMPRESSIVE STRENGTH TEST RESULTS INDICATE THAT THE STRENGTH EXCEEDS THE 28-DAY SPECIFICATION.

G. MANUFACTURE

THE AGGREGATES, CEMENT AND WATER SHALL BE PROPORTIONED AND MIXED IN A BATCH MIXER TO PRODUCE A HOMOGENEOUS CONCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE NOTES. THE PROPORTION OF PORTLAND CEMENT IN THE MIXTURE SHALL NOT BE LESS THAN 564 POUNDS PER CUBIC YARD OF CONCRETE.

THE WALL SECTIONS SHALL BE CURED FOR A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH IN 28 DAYS OR LESS. ANY ONE OF THE METHODS OF CURING OR COMBINATION THEREOF SHALL BE USED:

STEAM CURING - THE SECTIONS MAY BE LOW PRESSURE, STEAM CURED BY A SYSTEM THAT WILL MAINTAIN A MOIST ATMOSPHERE.

WATER CURING - THE SECTIONS MAY BE WATER CURED BY ANY METHOD THAT WILL KEEP THE SECTIONS MOIST.

THE FORMS USED IN MANUFACTURE SHALL BE SUFFICIENTLY RIGID AND ACCURATE TO MAINTAIN THE SECTIONS DIMENSIONS WITHIN THE PERMISSIBLE VARIATIONS GIVEN THESE NOTES. ALL CASTING SURFACE SHALL BE OF SMOOTH MATERIAL.

THE WALL SECTION SHALL BE STORED IN SUCH A MANNER TO PREVENT CRACKING OR DAMAGES.

THE FRONT FACE OF THE REINFORCED CONCRETE PANELS SHALL HAVE AN AESTHETIC FINISH AS SHOWN IN THE PLANS. CAULKING BETWEEN PRECAST PANELS SHALL BE IN ACCORDANCE WITH THE PLAN DETAILS. THE BACK SIDE OF THE REINFORCED CONCRETE PANELS SHALL HAVE A UNIFORM SURFACE FINISH AND SHALL BE ROUGH SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

ALL PANELS SHALL BE MANUFACTURED WITH ALL PANEL DIMENSIONS WITHIN 1/4".

H. COMPRESSIVE STRENGTH

ACCEPTANCE OF THE CONCRETE PANELS WITH RESPECT TO COMPRESSIVE STRENGTH WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS. A PRODUCTION LOT IS DEFINED AS A GROUP OF PANELS THAT WILL BE REPRESENTED BY A SINGLE COMPRESSIVE STRENGTH SAMPLE AND WILL CONSIST OF EITHER 6 PANELS OR A SINGLE DAY'S PRODUCTION, WHICHEVER IS LESS.

DURING THE PRODUCTION OF THE CONCRETE PANELS THE MANUFACTURER WILL RANDOMLY SAMPLE THE CONCRETE IN ACCORDANCE WITH ASTM C172. A SINGLE COMPRESSIVE STRENGTH SAMPLE, CONSISTING OF A MINIMUM OF FOUR CYLINDERS, WILL BE RANDOMLY SELECTED FOR EVERY PRODUCTION LOT.

CYLINDERS FOR COMPRESSIVE STRENGTH TESTS SHALL BE 6" DIA. X 1'-0" SPECIMENS PREPARED IN ACCORDANCE WITH ASTM C31. FOR EVERY COMPRESSIBLE STRENGTH SAMPLE, A MINIMUM OF 2 CYLINDERS WILL BE CURED IN THE SAME MANNER AS THE PANELS AND TESTED AT APPROXIMATELY 7 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE CYLINDERS WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A TEST RESULT WHICH WILL DETERMINE THE INITIAL STRENGTH OF THE CONCRETE. IN ADDITION, 2 CYLINDERS SHALL BE CURED IN ACCORDANCE WITH ASTM C31 AND TESTED AT 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE TWO CYLINDERS, WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A COMPRESSIVE STRENGTH TEST RESULT WHICH WILL DETERMINE THE COMPRESSIVE STRENGTH OF THE PRODUCTION LOT.

IF THE INITIAL STRENGTH TESTS RESULTS INDICATE A COMPRESSIVE STRENGTH IN EXCESS OF 4 KSI, THEN THESE TESTS RESULTS WILL BE UTILIZED AS THE COMPRESSIVE STRENGTH TEST RESULT FOR THE PRODUCTION LOT AND THE REQUIREMENT FOR TESTING AT 28 DAYS WILL BE WAIVED FOR THAT PARTICULAR PRODUCTION LOT.

ACCEPTANCE OF A PRODUCTION LOT WILL BE MADE IF THE COMPRESSIVE STRENGTH TEST RESULT IS GREATER THAN OR EQUAL TO 4 KSI. IF THE RESULT IS LESS THAN 4 KSI, THE ACCEPTANCE OF THE PRODUCTION LOT WILL BE BASED ON ITS MEETING THE FOLLOWING THREE ACCEPTANCE CRITERIA:
- 90% OF THE COMPRESSIVE STRENGTH TEST RESULTS FOR THE OVERALL PRODUCTION SHALL EXCEED 4 KSI.
- THE AVERAGE OF ANY SIX CONSECUTIVE COMPRESSIVE STRENGTH TEST RESULTS SHALL EXCEED 4 KSI.
- NO INDIVIDUAL COMPRESSIVE STRENGTH TEST RESULT SHALL FALL BELOW 3.6 KSI.

IN THE EVENT THAT A PRODUCTION LOT FAILS TO MEET THE SPECIFIED COMPRESSIVE STRENGTH REQUIREMENTS, THE PRODUCTION LOT SHALL BE REJECTED. SUCH REJECTION SHALL PREVAIL UNLESS THE MANUFACTURER, AT THEIR OWN EXPENSE, OBTAINS AND SUBMITS EVIDENCE ACCEPTABLE TO THE ENGINEER THAT THE STRENGTH AND QUALITY OF THE CONCRETE PLACED WITHIN THE PANELS OF THE PRODUCTION LOT IS ACCEPTABLE. IF SUCH EVIDENCE CONSISTS OF TESTS MADE ON CORES TAKEN FROM THE PANELS WITHIN THE PRODUCTION LOT. THE CORES SHALL BE OBTAINED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS OF ASTM C42.

I. REJECTION

PANELS SHALL BE SUBJECT TO REJECTION BECAUSE OF FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
- DEFECTS THAT INDICATE IMPERFECT MOLDING
- DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURED CONCRETE
- DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE SEALING OF CONCRETE SURFACE TREATMENT OR TO AESTHETIC SURFACE TREATMENTS
- CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER
- STAINED FORM FACES, DUE TO FORM OIL, CURING, OR OTHER CONTAMINANTS
- SIGNS OF AGGREGATE SEGREGATION
- CRACKS WIDER THAN 0.01 INCHES, PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK. REPAIR ALL CRACKS THAT ARE SMALLER
- PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES
- UNUSABLE LIFTING INSERTS
- EXPOSED REINFORCING STEEL
- INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH

EITHER REPLACE DAMAGED PRECAST WALL PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL; PERFORM REPAIRS WITH THE ACCEPTANCE OF THE ENGINEER. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

J. MARKING

THE DATE OF MANUFACTURE, THE PRODUCTION LOT NUMBER AND THE PIECE MARK SHALL BE CLEARLY SCRIBED ON THE BACK SURFACE OF EACH PANEL.

K. CONCRETE LEVELING PAD

THE CONCRETE LEVELING PAD (MUD SLAB) SHALL BE CONSTRUCTED WITH CONCRETE HAVING A STRENGTH THAT IS NOT LESS THAN 3.5 KSI AND SHALL HAVE SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT THE PANELS AT THE BOTTOM OF THE WALL IN A LEVEL POSITION DURING INSTALLATION.

A 4" (MIN.) THICK UNREINFORCED CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE PAD SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE PLACING WALL PANELS ON THE LEVELING PAD.

L. WALL ERECTION

PANELS ARE HANDLED BY MEANS OF A LIFTING DEVICE CONNECTED TO THE LIFTING INSERT WHICH IS CAST INTO THE UPPER EDGE OR BACK SIDE OF THE PANELS. ALL PANELS SHALL BE BRACED TO RESIST THE TEMPORARY CONSTRUCTION LOADS INCLUDING WIND LOADS, PRIOR TO FOOTING CONSTRUCTION.

M. BASIS OF PAYMENT

PAYMENT FOR ITEM 530- SPECIAL - STRUCTURES: PRECAST WALL PANELS COVERS ALL WORK DESCRIBED ABOVE.

FOUNDATION BEARING RESISTANCE

PRECAST WALL PANEL FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM STRENGTH LIMIT STATE BEARING PRESSURE OF 2.27 KIPS PER SQUARE FOOT FOR WALLS 1 & 2 AND 3.34 KIPS PER SQUARE FOOT FOR WALLS 3 AND 4. THE FACTORED BEARING RESISTANCE IS 2.21 KIPS PER SQUARE FOOT FOR WALLS 1 & 2 AND 2.28 KIPS PER SQUARE FOOT FOR WALLS 3 AND 4.

GENERAL NOTES
WALLS

WFN VARIES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	JMV

REVIEWER
GDJ 10-18-23

PROJECT ID
77555

SUBSET	TOTAL
4	41

SHEET	TOTAL
P.506	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 10:16:24 AM USER: CMT013
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Structures\Wall_001\Sheets\77555_001_WN002.dgn

DESIGN: BWR
DATE: 12/9/24

CHECK: SMH
DATE: 12/9/24

ESTIMATED QUANTITIES

WALL 1	WALL 2	WALL 3	WALL 4	GENERAL	MOMENT SLAB	ITEM	ITEM EXT	TOTAL 01/NHS/01	UNIT	DESCRIPTION	SEE SHEET NO.
				1573		203	20000	1573	CY	EMBANKMENT	
				30597		203	98000	30597	CY	ROADWAY, MISC.: LOW DENSITY CELLULAR CONCRETE FILL, CLASS II	3
				3275		203	98000	3275	CY	ROADWAY, MISC.: LOW DENSITY CELLULAR CONCRETE FILL, CLASS III	3
				8874		503	21100	8874	CY	UNCLASSIFIED EXCAVATION	
		LS	LS			505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
		160	80			507	00500	240	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
		200	100			507	00550	300	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
53992	99449	76402	94951		211522	509	26000	536316	LB	GALVANIZED STEEL REINFORCEMENT	
					38122	509	30020	38122	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
73	120	104	104			511	34450	401	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
468	902	648	735		1612	511	46512	4365	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
8	15	6	4			511	71100	33	CY	CONCRETE, MISC.: WALL SLAB	3
852	1532	1204	1351		2290	512	10050	7229	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
574	929	774	819			512	33000	3096	SY	TYPE 2 WATERPROOFING	
1865	3152	2670	2676			516	13601	10363	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
					83	516	13901	83	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
480	792	684	685			516	31010	2641	FT	2" DEEP JOINT SEALER	
	168					518	21200	168	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
	315					518	40000	315	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	83					518	40010	83	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
		1				523	20000	1	EACH	DYNAMIC LOAD TESTING	
10266	16294	14310	14843			SPECIAL	53000600	55713	SF	STRUCTURES: PRECAST WALL PANELS	4
8238	12482	11412	12078			SPECIAL	53000600	44210	SF	STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(PRECAST WALLS)	3
33						607	39901	33	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	3, 35
480	792	684	685			840	26000	2641	FT	CONCRETE COPING	

ESTIMATED QUANTITIES
WALLS 1-4 AND MOMENT SLAB

WFN
VARIES

DESIGN AGENCY
CARPENTER MARTY Engineering

DESIGNER	CHECKER
JMV	BWR

REVIEWER
GDJ 10-18-23

PROJECT ID
77555

SUBSET	TOTAL
5	41

SHEET	TOTAL
P.507	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 10:22:46 AM USER: CMT013
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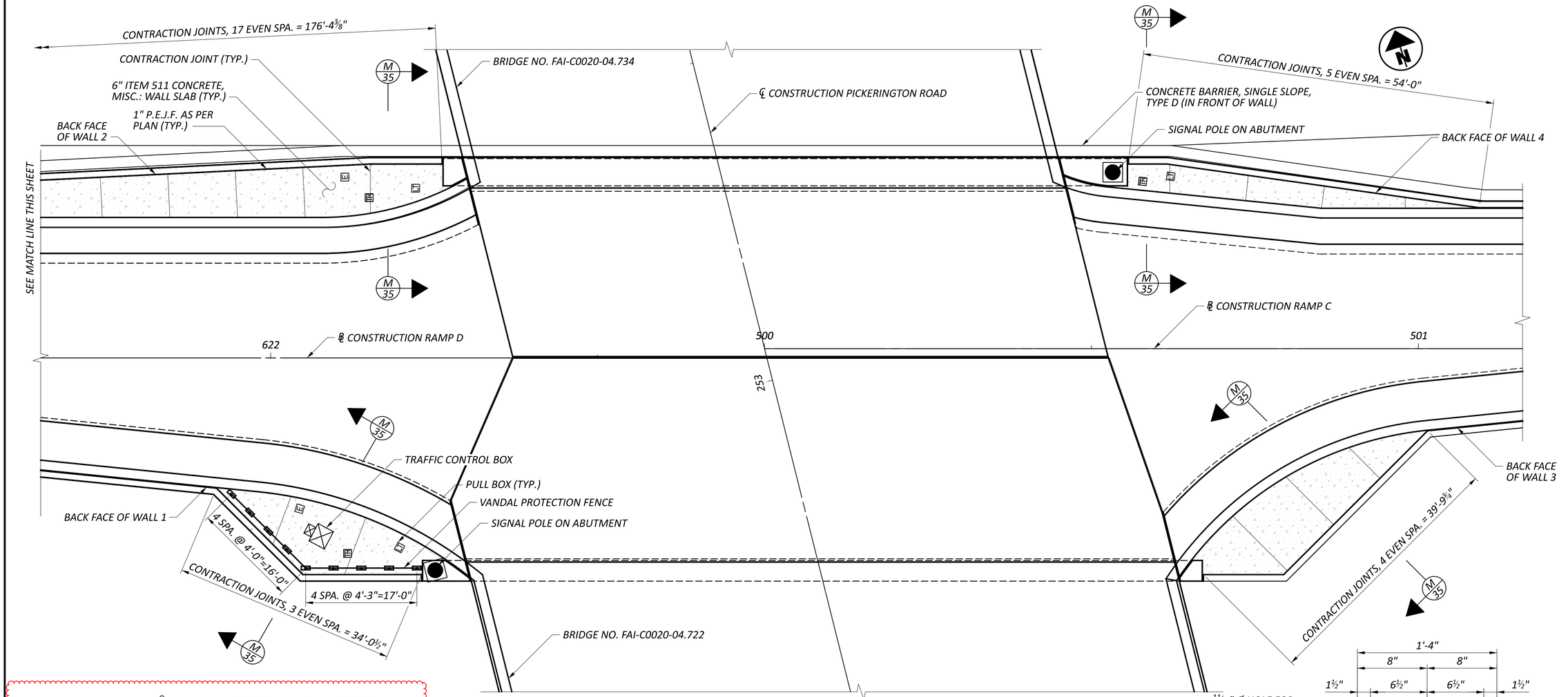

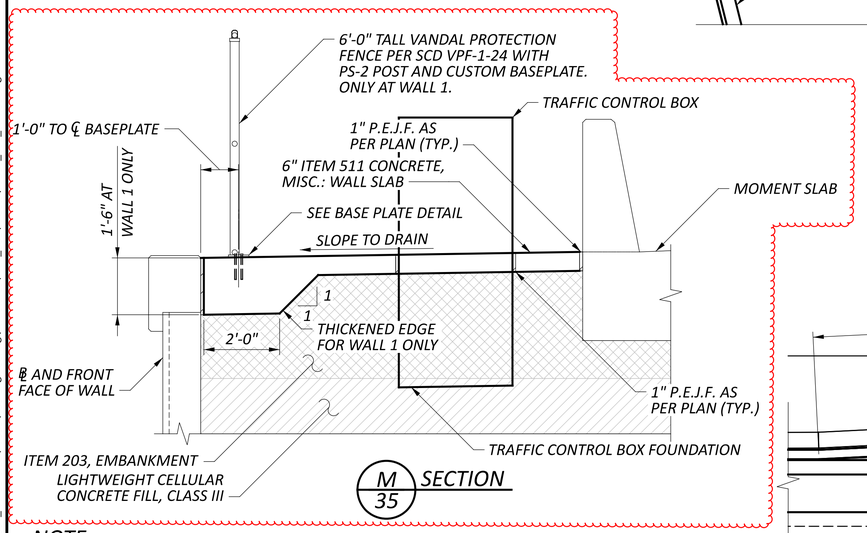

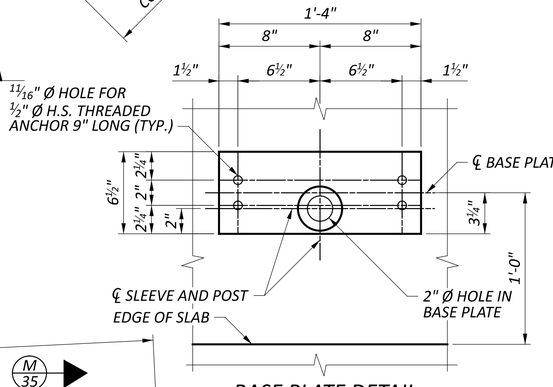

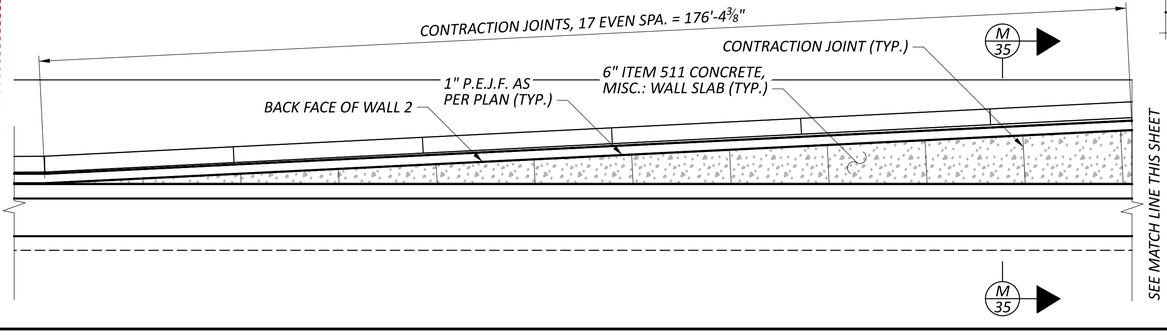

NOTE

SEE SIGNAL PLANS FOR ADDITIONAL NOTES AND DETAILS.

MISCELLANEOUS WALL DETAILS

FAI-33-2.64

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WFN VARIES

DESIGN AGENCY CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	JMV

REVIEWER GDJ 10-23-23

PROJECT ID 77555

SUBSET	TOTAL
35	41

SHEET	TOTAL
P.537	846

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1-20-2023
AS-2-15	REVISED	7-21-2023
CPA-1-08	REVISED	1-19-2024
CS-1-08	REVISED	1-15-2021
SBR-1-20	REVISED	7-19-2024

DESIGN LOADING

VEHICULAR LIVE LOAD: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.06 KIPS/FT^2

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:
GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (SUBSTRUCTURES, SUPERSTRUCTURES, APPROACH SLAB)

GFRP REINFORCEMENT (PARAPET)

STEEL CIP PILES - ASTM A252 GRADE 3 - YIELD STRENGTH 45 KSI

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING PILES, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A 30 CALENDAR DAY WAITING PERIOD HAS ELAPSED. THE ENGINEER MAY ADJUST THE LENGTH OF THE WAITING PERIOD BASED ON SETTLEMENT PLATFORM READINGS. AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE ABUTMENT PILES TO THE UBV.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE (UBV) IS 238 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENT PILES. THE UBV IS 300 KIPS PER PILE FOR THE PIER PILES. THE UBV FOR THE PIER PILES INCLUDES AN ADDITIONAL 1.7 KIPS PER PILE DUE TO THE POSSIBILITY OF LOSING 1.2 FT. OF FRICTIONAL RESISTANCE DUE TO SCOUR. DRIVE THE PIER PILES TO THE UBV OR A TIP ELEVATION OF 716.1, WHICHEVER IS DEEPER.

REAR ABUTMENT PILES:
12 INCH DIAMETER PILES 75 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

PIER PILES:
12 INCH DIAMETER PILES 55 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

FORWARD ABUTMENT PILES:
12 INCH DIAMETER PILES 80 FEET LONG, ORDER LENGTH

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 0.375" FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES.

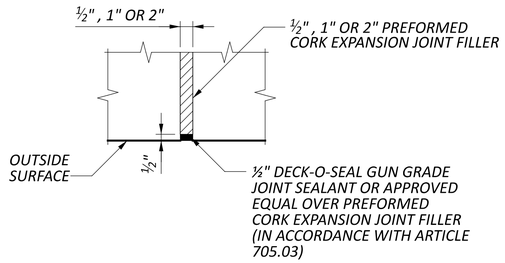
FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAIL SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

ITEM 516 - ½" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN
ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN
ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL ½" P.E.J.F., AS PER PLAN, 1" P.E.J.F., AS PER PLAN, AND 2" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ⅛" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION OR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - ½" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, AND ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

SCOUR ELEVATIONS

THE DESIGN FLOOD AND CHECK FLOOD SCOUR ELEVATIONS ARE PROVIDED BELOW:

	REAR ABUTMENT	PIER 1	PIER 2	FORWARD ABUTMENT
DESIGN FLOOD	N/A	771.08	767.61	N/A
CHECK FLOOD	N/A	771.40	767.93	N/A

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO C&MS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

ITEM SPECIAL - SETTLEMENT PLATFORMS

DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER.

SETTLEMENT READINGS SHALL BE TAKEN WEEKLY DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). IN ORDER TO CREATE THE GRAPH, USE THE SETTLEMENT PLATFORM SPREADSHEET LOCATED AT HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/ENGINEERING/GEOTECHNICAL/GEOTECHNICAL_DOCUMENTS/BLANK_SETTLEMENT_READING_PLOTS-ENGLISH.XLS IN THE OGE WEBSITE PUBLICATIONS AND DOCUMENTS SECTION. A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE OFFICE OF GEOTECHNICAL ENGINEERING, ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

VIBRATING WIRE SETTLEMENT MONITORING PLATFORMS MAY BE CONSIDERED IN LIEU OF THE CONVENTIONAL SETTLEMEMT PLATFORMS. THE CONTRACTOR SHALL PROVIDE DETAILS OF THE PROPOSED VIBRATING WIRE SETTLEMEMT PLATFORMS AS WELL AS DESIGN DRAWINGS OF THE PROPOSED PLATFORM AND CABLING LAYOUT TO ODOT AT LEAST 14 DAYS PRIOR TO CONSTRUCTION.

THE DESIGN DRAWINGS SHALL ILLUSTRATE THE PROPOSED SETTLEMENT VIBRATING WIRE SETTLEMENT PLATFORM LOCATIONS WITH ALL EXISTING AND PROPOSED SITE FEATURES TO VERIFY THE PROPOSED CABLINg SHALL NOT CONFLICT WITH EXISTING FACILITIES, PROPOSED FACILITIES OR UTILITIES.

THE CONTRACTOR SHALL IDENTIFY, SET AND MAINTAiN AN APPROPRIATE NUMBER OF FIXED BENCHMARKS, REFERENcE POINTS, ETC. TO FACILITATE THE SURVEYING OF THE SETTLEMENT PLATFORMS.

MATERIALS: SOUND LUMBER SUCH AS 19MM (3/4-INCH) EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 64MM (2-1/2-INCH) STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 915MM X 915MM X 3.2MM (36" X 36" X 1/8") MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT THE CONTRACTOR'S OPTION.

CONSTRUCTION METHODS: THE PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. THE PIPE SHALL BE FIRMLY SECURED TO THE PLATFORM AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. THE PIPE SHALL BE MARKED AT INTERVALS TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

THE CONTRACTOR SHALL PROTECT SETTLEMENT PLATFORMS FROM CONSTRUCTION TRAFFIC/ACTIVITIES USING APPROPRIATE METHODS SUCH AS BARRICADES, CONES, GUARD-STAKES WITH HIGH VISIBILITY RIBBON, ETC. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE THE SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED. PLATFORMS OR PIPES DAMAGED OR DISPLACED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR PROPER CONDITION AT THE CONTRACTOR'S EXPENSE.

PRIOR TO PAVING, THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF 600MM (TWO FEET) BELOW THE FINISHED SURFACE OF THE SUBGRADE OR FINISHED GROUND SURFACE, WHICHEVER IS APPLICABLE.

WAITING PERIOD:
THE ENGINEER WILL CONSIDER THE WAITING PERIOD COMPLETE WHEN CONSECUTIVE SETTLEMENT READINGS, RECORDED AFTER EMBANKMENT CONSTRUCTION IS COMPLETE AND AT LEAST ONE WEEK (168 HOURS) APART, RESULT IN ELEVATION DIFFERENCES EQUAL TO OR LESS THAN 1/8 INCH.

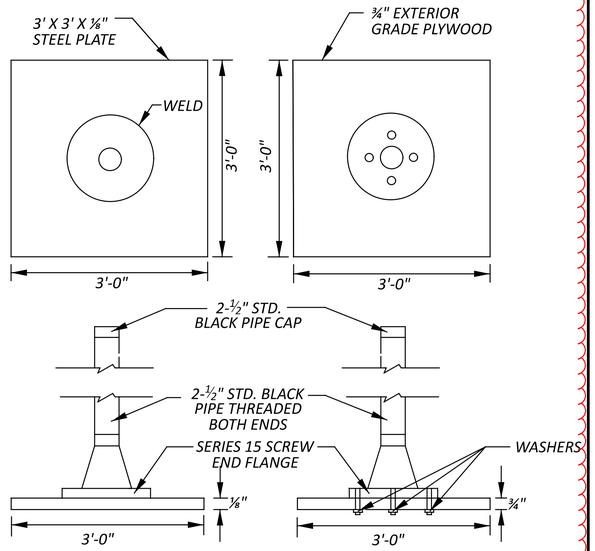
SEE PILE DRIVING CONSTRAINTS NOTES FOR MORE INFORMATION REGARDING WAITING PERIOD.

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER. ONE SETTLEMENT PLATFORM AT EACH ABUTMENT IS REQUIRED.

BASIS OF PAYMENT: PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR "ITEM SPECIAL SETTLEMENT PLATFORMS" WHICH IS COMPENSATION FOR CONSTRUCTING MAINTAINING, AND MONITORING THE SETTLEMENT PLATFORMS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.

SETTLEMENT PLATFORMS

NOT TO SCALE



NOTES

1. SETTLEMENT PLATFORMS SHALL BE PLACED AT EACH ABUTMENT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. CONTRACTOR HAS OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.
3. CONTRACTOR SHALL FURNISH MATERIALS AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL.

SETTLEMENT PLATFORM TABLE

WALL	SETTLEMENT PLATE DESIGNATION	STATION	OFFSET	CALCULATED ESTIMATED SETTLEMENTS	
				SETTLEMENT READING	SETTLEMENT READING
REAR ABUT.	S.P.1				
FWD. ABUT.	S.P.2				

GENERAL NOTES

BRIDGE NO. FAI-00033-02.920S
U.S. 33 RAMP D OVER SYCAMORE CREEK

SFN 2300487
DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER	CHECKER
JZ	GDJ

REVIEWER STK 10-16-23
PROJECT ID 77555
SUBSET 2 TOTAL 18
SHEET P.690 TOTAL 846

FAI-33-2.64

DESIGN: JZ DATE: 12/03/2024		CHECK: STK DATE: 12/03/2024		ESTIMATED QUANTITIES					
ABUTMENTS	PIERS	SUPERSTRUCTURE	GENERAL	ITEM	ITEM EXT	TOTAL 02/NHS/08	UNIT	DESCRIPTION	SEE SHEET NO.
			2	SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	2
			LS	503	11100	LS	-	COFFERDAMS AND EXCAVATION BRACING	
			LS	503	21300	LS	-	UNCLASSIFIED EXCAVATION	
			LS	505	11100	LS	-	PILE DRIVING EQUIPMENT MOBILIZATION	
870	1200			507	00500	2070	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
930	1320			507	00550	2250	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
5661	18724	69125		509	26000	93510	LB	GALVANIZED STEEL REINFORCEMENT	
		4779		509	30020	4779	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
		295		511	32212	295	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	
		51		511	34450	51	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
	56			511	41012	56	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
67				511	43512	67	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
	48			511	46512	48	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
41	151	314	19	512	10050	525	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
48				516	13201	48	SF	½" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
69				516	13601	69	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
42				516	13901	42	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
87				516	14014	87	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
			54	516	14600	54	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB	16
			54	516	31010	54	FT	2" DEEP JOINT SEALER	
59				518	21200	59	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
87				518	40000	87	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
27				518	40010	27	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
1	1			523	20000	2	EACH	DYNAMIC LOAD TESTING	
			130	526	15011	130	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN	2

ESTIMATED QUANTITIES
BRIDGE NO. FAI-00033-02.920S
U.S. 33 RAMP D OVER SYCAMORE CREEK

SFN 2300487

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
JZ	STK

REVIEWER
GDJ 9-13-24

PROJECT ID
77555

SUBSET	TOTAL
3	18

SHEET	TOTAL
P.691	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 10:30:55 AM USER: CMT013
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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1-20-2023
AS-2-15	REVISED	7-21-2023
PSBD-2-07	REVISED	7-20-2018
SBR-1-20	REVISED	7-19-2024
VPF-1-24	DATED	7-19-2024

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:

SS840	DATED	7-19-2024

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

VEHICULAR LIVE LOAD: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.06 KIPS/FT ^{2}

DESIGN DATA

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (ABUTMENT FOOTINGS)

CONCRETE CLASS QC SCC WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (ABUTMENTS)

CONCRETE REINFORCEMENT:
GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (DECK, APPROACH SLABS, ABUTMENTS)

GFRP REINFORCEMENT (PARAPET)

STEEL CIP PILES - ASTM A252 GRADE 3 - YIELD STRENGTH 45 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 9 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5 KSI

PRESTRESSING STRANDS:
AREA = 0.167 SQ.IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)
INITIAL TENSION LOAD = 33.75 KIP/STRAND

CONSTRUCTION CLEARANCE

MAINTAIN A CONSTRUCTION CLEARANCE OF 14 FEET HORIZONTALLY FROM THE CENTER OF THE TRACKS AND 22 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF THE TRACKS AT ALL TIMES.

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

BEARING PAD SHIMS

PLACE 1/8" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 8 INCHES BY 10 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE DEPARTMENT WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - 1/8" PREFORMED BEARING PAD, TYPE CDP. ANY UNUSED SHIMS WILL BECOME THE PROPERTY OF THE STATE.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 287 KIPS PER PILE FOR THE REAR ABUTMENT.
THE ULTIMATE BEARING VALUE IS 313 KIPS PER PILE FOR THE FORWARD ABUTMENT.

REAR ABUTMENT PILES:
16" CAST-IN-PLACE REINFORCED CONCRETE PILES 65 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

FORWARD ABUTMENT PILES:
16" CAST-IN-PLACE REINFORCED CONCRETE PILES 65 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 0.250 INCHES FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES.

ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN

ABUTMENT FOOTING CONCRETE NOT INCLUDED.

ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC INTO THE BRIDGE ABUTMENT CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC SCC MEETING A DESIGN STRENGTH OF 4,000 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE ASTM C1116, TYPE III.

THE CLASS QC SCC CONCRETE FOR THE ABUTMENTS SHALL MEET THE FOLLOWING CRITERIA:
- WATER/CEMENT RATIO = 0.40 MAXIMUM
- MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 MAX.) MEETING ASTM C1116, TYPE III SHALL BE ADDED TO THE MIX.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AN ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURER'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT, AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING THAT BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OF EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CY, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIER'S CHOICE OF ADMIXTURES DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS.

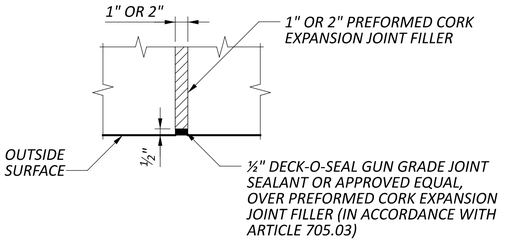
IF A TRIAL MIX IS REQUIRED, PAYMENT SHALL BE INCLUDED WITH ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN.

THE CONCRETE USED FOR THIS ITEM SHALL BE TINTED WITH THE ADMIXTURES FROM SIKA CORPORATION, OR AN APPROVED EQUAL, AS DESCRIBED IN AESTHETIC TREATMENT NOTE ON SHEET 3.

ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN AND ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1"AND 2" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVE MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, OR ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN:

FURNISH APPROACH SLABS ACCORDING TO C&MS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE CONCRETE, STEEL REINFORCEMENT, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

FABRICATE AND INSTALL THE VANDAL PROTECTION FENCE AS DETAILED IN THIS PLAN AND STANDARD DRAWING VPF-1-24. THE VANDAL PROTECTION FENCE SHALL BE 6'-0" STRAIGHT FENCE. THE COATING SYSTEM USED FOR THIS FENCE SHALL BE MODIFIED AS FOLLOWS. IF NOT ALREADY SPECIFIED IN VPF-1-24, ALL STEEL COMPONENTS SHALL RECEIVE PVC COATING IN ADDITION TO THE STANDARD SURFACE TREATMENTS. ALL THREADED ASSEMBLY COMPONENTS (I.E. THREAD LENGTH OF BOLTS, NUTS, AND WASHERS) WILL BE EXCLUDED FROM THIS ADDITIONAL COATING REQUIREMENT. PVC COATINGS SHALL CONFORM TO EITHER ASTM F668 CLASS 2A OR 2B (MESH, WIRE, ETC.), ASTM F626-14 (FENCE FITTINGS, ETC.), OR ASTM F1043-16 (FRAMEWORK, POSTS, RAILS, ETC.).

DUE TO THE ADDITIONAL THICKNESS OF THIS COATING SYSTEM, THE POTENTIAL EXISTS THAT TYPICAL FITTINGS MAY REQUIRE THEIR SIZES INCREASED ABOVE THE STANDARD SIZES SHOWN IN STD. DWG. VPF-1-24. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/FABRICATOR TO TEST ALL FENCE COMPONENTS FOR FIT-UP AT THE FABRICATION STAGE AND TO INCORPORATE ANY SIZE-UP ADJUSTMENTS TO ENSURE EASE OF FIELD INSTALLATION AND ERECTION. THE FINAL COLOR FOR ALL PVC COATED FENCE COMPONENTS SHALL BE BLACK (CLOSELY APPROACHING AMS 595A-17038). HANDLE ALL PVC COATED MATERIALS WITH CARE. IF THE PVC COATING IS DAMAGED, REPLACE THE DAMAGED FENCE COMPONENT(S) AT NO COST TO THE DEPARTMENT.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LINEAR FEET BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN.

GENERAL NOTES

BRIDGE NO. FAI-C0020-04.722
PICKERINGTON ROAD OVER INDIANA & OHIO RAILWAY

SFN 2300003

DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER	CHECKER
BWR	AMR

REVIEWER: WHM 11-3-23

PROJECT ID: 77555

SUBSET	TOTAL
2	29

SHEET	TOTAL
P.708	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 10:44:05 AM USER: brussell
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ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS

A. DESCRIPTION

THIS BID ITEM CONSISTS OF PRECAST WALLS MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH THIS SPECIFICATION AND DESIGNED IN ACCORDANCE WITH THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

PRECAST WALL PANELS ARE SHOWN AND DETAILED IN THE PLANS WITH A 10 INCH STRUCTURAL THICKNESS AND A 2 INCH AESTHETIC THICKNESS. OTHER STRUCTURAL WALL THICKNESSES ARE ACCEPTABLE PROVIDING THEY MEET ALL THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED TO ACCOMMODATE ALTERNATE WALL DIMENSIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DESIGN DATA

CONCRETE - COMPRESSIVE STRESS 4 KSI

CONCRETE REINFORCEMENT:
- GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

WELDED WIRE FABRIC - MINIMUM YIELD STRENGTH 70 KSI

C. MATERIALS - CONCRETE

THE CONCRETE FOR THE WALL SECTIONS SHALL BE COMPOSED OF PORTLAND CEMENT, FINE AND COARSE AGGREGATES, ADMIXTURES AND WATER. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C150, TYPE I, II, OR III. THE AIR ENTRAINING ADMIXTURE SHALL CONTAIN 6% ± 2% ENTRAINED AIR, AND SLUMP SHALL BE MAINTAINED WITH THE RANGE OF 1" TO 4". THE SLUMP MAY BE INCREASED TO 7" PROVIDED THE INCREASE IS ACHIEVED BY THE ADDITION OF A CHEMICAL WATER-REDUCING ADMIXTURE APPROVED BY THE ENGINEER.

THE CONCRETE USED FOR THIS ITEM SHALL BE COLORED AS DESCRIBED IN THE ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (CIP/PRECAST WALLS) NOTE.

D. MATERIALS AND REINFORCING HARDWARE

REINFORCEMENT SHALL CONSIST OF WELDED WIRE FABRIC CONFORMING TO ASTM A185, OR DEFORMED BILLET-STEEL BARS CONFORMING TO ASTM A615, A616, OR A617, GRADE 60.

E. SHOP DRAWING REQUIREMENTS

THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING.
- ALL STRUCTURAL DESIGN AND LOADING INFORMATION
- A PLAN VIEW
- ALL ELEVATION VIEWS
- ALL DIMENSIONS

MANUFACTURING SHALL NOT BEGIN UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED SHOP DRAWINGS HAS BEEN RECEIVED.

F. TESTING AND INSPECTION

ACCEPTABILITY OF THE CONCRETE FOR THE PRECAST PANELS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATIONS AND VISUAL INSPECTIONS. THE CONCRETE STRENGTH REQUIREMENTS FOR THE PRECAST PANELS SHALL BE CONSIDERED ATTAINED REGARDLESS OF CURING AGE WHEN COMPRESSION TEST RESULTS INDICATE STRENGTH WILL CONFORM TO 28-DAY SPECIFICATIONS AS STATED BELOW. THE MANUFACTURER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER. PANELS UTILIZING TYPE I OR TYPE II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL WHEN 7-DAY INITIAL STRENGTHS EXCEED 85 PERCENT OF THE 28-DAY REQUIREMENTS. PANELS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL PRIOR TO 28 DAYS ONLY WHEN COMPRESSIVE STRENGTH TEST RESULTS INDICATE THAT THE STRENGTH EXCEEDS THE 28-DAY SPECIFICATION.

G. MANUFACTURE

THE AGGREGATES, CEMENT AND WATER SHALL BE PROPORTIONED AND MIXED IN A BATCH MIXER TO PRODUCE A HOMOGENEOUS CONCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE NOTES. THE PROPORTION OF PORTLAND CEMENT IN THE MIXTURE SHALL NOT BE LESS THAN 564 POUNDS PER CUBIC YARD OF CONCRETE.

THE WALL SECTIONS SHALL BE CURED FOR A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH IN 28 DAYS OR LESS. ANY ONE OF THE METHODS OF CURING OR COMBINATION THEREOF SHALL BE USED:

STEAM CURING - THE SECTIONS MAY BE LOW PRESSURE, STEAM CURED BY A SYSTEM THAT WILL MAINTAIN A MOIST ATMOSPHERE.

WATER CURING - THE SECTIONS MAY BE WATER CURED BY ANY METHOD THAT WILL KEEP THE SECTIONS MOIST.

THE FORMS USED IN MANUFACTURE SHALL BE SUFFICIENTLY RIGID AND ACCURATE TO MAINTAIN THE SECTIONS DIMENSIONS WITHIN THE PERMISSIBLE VARIATIONS GIVEN THESE NOTES. ALL CASTING SURFACE SHALL BE OF SMOOTH MATERIAL.

THE WALL SECTION SHALL BE STORED IN SUCH A MANNER TO PREVENT CRACKING OR DAMAGES.

THE FRONT FACE OF THE REINFORCED CONCRETE PANELS SHALL HAVE AN AESTHETIC FINISH AS SHOWN IN THE PLANS. CAULKING BETWEEN PRECAST PANELS SHALL BE IN ACCORDANCE WITH THE PLAN DETAILS. THE BACK SIDE OF THE REINFORCED CONCRETE PANELS SHALL HAVE A UNIFORM SURFACE FINISH AND SHALL BE ROUGH SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

ALL PANELS SHALL BE MANUFACTURED WITH ALL PANEL DIMENSIONS WITHIN 1/4".

H. COMPRESSIVE STRENGTH

ACCEPTANCE OF THE CONCRETE PANELS WITH RESPECT TO COMPRESSIVE STRENGTH WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS. A PRODUCTION LOT IS DEFINED AS A GROUP OF PANELS THAT WILL BE REPRESENTED BY A SINGLE COMPRESSIVE STRENGTH SAMPLE AND WILL CONSIST OF EITHER 6 PANELS OR A SINGLE DAY'S PRODUCTION, WHICHEVER IS LESS.

DURING THE PRODUCTION OF THE CONCRETE PANELS THE MANUFACTURER WILL RANDOMLY SAMPLE THE CONCRETE IN ACCORDANCE WITH ASTM C172. A SINGLE COMPRESSIVE STRENGTH SAMPLE, CONSISTING OF A MINIMUM OF FOUR CYLINDERS, WILL BE RANDOMLY SELECTED FOR EVERY PRODUCTION LOT.

CYLINDERS FOR COMPRESSIVE STRENGTH TESTS SHALL BE 6" DIA. X 1'-0" SPECIMENS PREPARED IN ACCORDANCE WITH ASTM C31. FOR EVERY COMPRESSIBLE STRENGTH SAMPLE, A MINIMUM OF 2 CYLINDERS WILL BE CURED IN THE SAME MANNER AS THE PANELS AND TESTED AT APPROXIMATELY 7 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE CYLINDERS WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A TEST RESULT WHICH WILL DETERMINE THE INITIAL STRENGTH OF THE CONCRETE. IN ADDITION, 2 CYLINDERS SHALL BE CURED IN ACCORDANCE WITH ASTM C31 AND TESTED AT 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE TWO CYLINDERS, WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A COMPRESSIVE STRENGTH TEST RESULT WHICH WILL DETERMINE THE COMPRESSIVE STRENGTH OF THE PRODUCTION LOT.

IF THE INITIAL STRENGTH TESTS RESULTS INDICATE A COMPRESSIVE STRENGTH IN EXCESS OF 4 KSI, THEN THESE TESTS RESULTS WILL BE UTILIZED AS THE COMPRESSIVE STRENGTH TEST RESULT FOR THE PRODUCTION LOT AND THE REQUIREMENT FOR TESTING AT 28 DAYS WILL BE WAIVED FOR THAT PARTICULAR PRODUCTION LOT.

ACCEPTANCE OF A PRODUCTION LOT WILL BE MADE IF THE COMPRESSIVE STRENGTH TEST RESULT IS GREATER THAN OR EQUAL TO 4 KSI. IF THE RESULT IS LESS THAN 4 KSI, THE ACCEPTANCE OF THE PRODUCTION LOT WILL BE BASED ON ITS MEETING THE FOLLOWING THREE ACCEPTANCE CRITERIA:
- 90% OF THE COMPRESSIVE STRENGTH TEST RESULTS FOR THE OVERALL PRODUCTION SHALL EXCEED 4 KSI.
- THE AVERAGE OF ANY SIX CONSECUTIVE COMPRESSIVE STRENGTH TEST RESULTS SHALL EXCEED 4 KSI.
- NO INDIVIDUAL COMPRESSIVE STRENGTH TEST RESULT SHALL FALL BELOW 3.6 KSI.

IN THE EVENT THAT A PRODUCTION LOT FAILS TO MEET THE SPECIFIED COMPRESSIVE STRENGTH REQUIREMENTS, THE PRODUCTION LOT SHALL BE REJECTED. SUCH REJECTION SHALL PREVAIL UNLESS THE MANUFACTURER, AT THEIR OWN EXPENSE, OBTAINS AND SUBMITS EVIDENCE ACCEPTABLE TO THE ENGINEER THAT THE STRENGTH AND QUALITY OF THE CONCRETE PLACED WITHIN THE PANELS OF THE PRODUCTION LOT IS ACCEPTABLE. IF SUCH EVIDENCE CONSISTS OF TESTS MADE ON CORES TAKEN FROM THE PANELS WITHIN THE PRODUCTION LOT. THE CORES SHALL BE OBTAINED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS OF ASTM C42.

I. REJECTION

PANELS SHALL BE SUBJECT TO REJECTION BECAUSE OF FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
- DEFECTS THAT INDICATE IMPERFECT MOLDING
- DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURED CONCRETE
- DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE SEALING OF CONCRETE SURFACE TREATMENT OR TO AESTHETIC SURFACE TREATMENTS
- CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER
- STAINED FORM FACES, DUE TO FORM OIL, CURING, OR OTHER CONTAMINANTS
- SIGNS OF AGGREGATE SEGREGATION
- CRACKS WIDER THAN 0.01 INCHES, PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK. REPAIR ALL CRACKS THAT ARE SMALLER
- PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES
- UNUSABLE LIFTING INSERTS
- EXPOSED REINFORCING STEEL
- INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH

EITHER REPLACE DAMAGED PRECAST WALL PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL; PERFORM REPAIRS WITH THE ACCEPTANCE OF THE ENGINEER. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

J. MARKING

THE DATE OF MANUFACTURE, THE PRODUCTION LOT NUMBER AND THE PIECE MARK SHALL BE CLEARLY SCRIBED ON THE BACK SURFACE OF EACH PANEL.

K. CONCRETE LEVELING PAD

THE CONCRETE LEVELING PAD (MUD SLAB) SHALL BE CONSTRUCTED WITH CONCRETE HAVING A STRENGTH THAT IS NOT LESS THAN 3.5 KSI AND SHALL HAVE SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT THE PANELS AT THE BOTTOM OF THE WALL IN A LEVEL POSITION DURING INSTALLATION.

A 4" (MIN.) THICK UNREINFORCED CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE PAD SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE PLACING WALL PANELS ON THE LEVELING PAD.

L. WALL ERECTION

PANELS ARE HANDLED BY MEANS OF A LIFTING DEVICE CONNECTED TO THE LIFTING INSERT WHICH IS CAST INTO THE UPPER EDGE OR BACK SIDE OF THE PANELS. ALL PANELS SHALL BE BRACED TO RESIST THE TEMPORARY CONSTRUCTION LOADS INCLUDING WIND LOADS, PRIOR TO FOOTING CONSTRUCTION.

M. BASIS OF PAYMENT

PAYMENT FOR ITEM 530- SPECIAL - STRUCTURES: PRECAST WALL PANELS COVERS ALL WORK DESCRIBED ABOVE.

VOLUME OF THE EMBEDDED PORTION OF PRECAST WALL HAS NOT BEEN SUBTRACTED FROM FOOTING CONCRETE VOLUME. QUANTITY TO BE ADJUSTED BASED ON SELECTED WALL FABRICATOR.

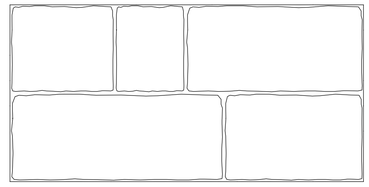
ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(CIP/PRECAST WALLS)

ALL AESTHETIC TREATMENTS FOR THE PRECAST WALLS SHALL MATCH THE EXISTING MSE WALLS LOCATED AT FAI-33-5.60 PID ,76938 CARROLL INTERCHANGE, IN COLOR AND PATTERN.

AN AESTHETIC TREATMENT SYSTEM SHALL BE SUCH TO DUPLICATE CLOSELY THE APPEARANCE OF INDIGENOUS SANDSTONE. THE SURFACE FINISH SHALL BE PATTERN #1102-R2 FROM CUSTOM ROCK INTERNATIONAL OR AN APPROVED EQUAL MEETING THE DETAILS SHOWN ON THIS PAGE. THE INTEGRALLY COLORED CONCRETE USING CHROMIX ADMIXTURES SHALL BE COLOR C-21 ADOBE TAN OR 1010 BROWNSTONE AS PROVIDED BY SIKA CORPORATION, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. TWO PRECONSTRUCTION PANELS WILL BE REQUIRED, ONE WITH C-21 ADOBE TAN AND ONE WITH 1010 BROWNSTONE. THE DIRECTOR WILL DECIDE THE COLOR FROM THE TEST SAMPLES.

TWO PRECONSTRUCTION TEST SAMPLES SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST SAMPLES DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PRECAST WALL PANELS OR INTEGRALLY COLORED CONCRETE. THE TEST SAMPLE MUST PASS APPROVAL. FAILURE WILL CONSTITUTE PLACEMENT OF ANOTHER TEST SAMPLE. A FIVE FOOT BY FIVE FOOT TEST SAMPLE SHOULD BE MADE. THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS AND PATTERN AS USED ON THE PROJECT. THE SAMPLE SHOULD BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND INTEGRALLY COLORED CONCRETE THAT WILL BE USED TO MAKE THE WALLS. AFTER APPROVAL THE CONCRETE TEST SAMPLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE INTEGRALLY COLORED, CONCRETE, SURFACE FINISH, TEST SAMPLES AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE SQ. FT. PAYMENT FOR ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(CIP/PRECAST WALLS).



CUSTOM ROCK INTERNATIONAL (C.R.I.)
PATTERN # 1102-R2 OR APPROVED EQUAL

RECTANGULAR CUT STONE (15" COURSING HEIGHT):
MAX RELIEF = 2"
AVERAGE RELIEF = 1½"
STONE SIZES (LENGTH) = 2' TO 6'

ARCHITECTURAL WALL ELEVATION

NOTE: CORNER ELEMENTS SHALL HAVE THE SAME AESTHETIC TREATMENT AS THE WALL PANELS.

GENERAL NOTES
BRIDGE NO. FAI-C0020-04.722
PICKERINGTON ROAD OVER INDIANA & OHIO RAILWAY

SFN 2300003
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER BWR | CHECKER AMR
REVIEWER WHM 11-3-23
PROJECT ID 77555
SUBSET 3 | TOTAL 29
SHEET P.709 | TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 10:57:21 AM USER: CMT013
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DESIGN: BWR DATE: 4/17/25		CHECK: STK 4/21/2025		ESTIMATED QUANTITIES				
ABUTMENTS	SUPERSTRUCTURE	GENERAL	ITEM	ITEM EXT	TOTAL 02/NHS/08	UNIT	DESCRIPTION	SEE SHEET NO.
		LS	503	21300	LS	-	UNCLASSIFIED EXCAVATION	
		LS	505	11100	LS	-	PILE DRIVING EQUIPMENT MOBILIZATION	
8280			507	00700	8280	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
8970			507	00750	8970	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
98569	29707		509	26000	128276	LB	GALVANIZED STEEL REINFORCEMENT	
	2422		509	30020	2422	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
	158		511	34447	158	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	21
	26		511	34450	26	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
696			511	45723	696	CY	CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN	2
519			511	46512	519	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
795	143	52	512	10050	990	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
111			512	33000	111	SY	TYPE 2 WATERPROOFING	
	26		515	12050	26	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB21-48, (55'-6' LONG)	
	17		516	13601	17	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
42			516	13900	42	SF	2" PREFORMED EXPANSION JOINT FILLER	
137			516	13901	137	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
255			516	14020	255	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
		106	516	14600	106	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	25
		106	516	31010	106	FT	2" DEEP JOINT SEALER	
52			516	41100	52	EACH	$\frac{1}{8}$" PREFORMED BEARING PAD, TYPE CDP	
104			516	43200	104	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (8'' X 10'' X 2.043'')	
346			518	21200	346	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
197			518	40000	197	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
64			518	40010	64	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
2			523	20000	2	EACH	DYNAMIC LOAD TESTING	
		729	526	30011	729	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN	2
		1985	SPECIAL	53000600	1985	SF	STRUCTURES: PRECAST WALL PANELS	3
		6867	SPECIAL	53000600	6867	SF	STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(CIP/PRECAST WALLS)	3
		100	607	39901	100	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	2, 23
		81	840	26000	81	FT	CONCRETE COPPING	

ESTIMATED QUANTITIES
BRIDGE NO. FAI-C0020-04.722
PICKERINGTON ROAD OVER INDIANA & OHIO RAILWAY

SFN 2300003

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	STK

REVIEWER
WHM 11-3-23

PROJECT ID
77555

SUBSET	TOTAL
4	29

SHEET	TOTAL
P.710	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 11:35:39 AM USER: brussell
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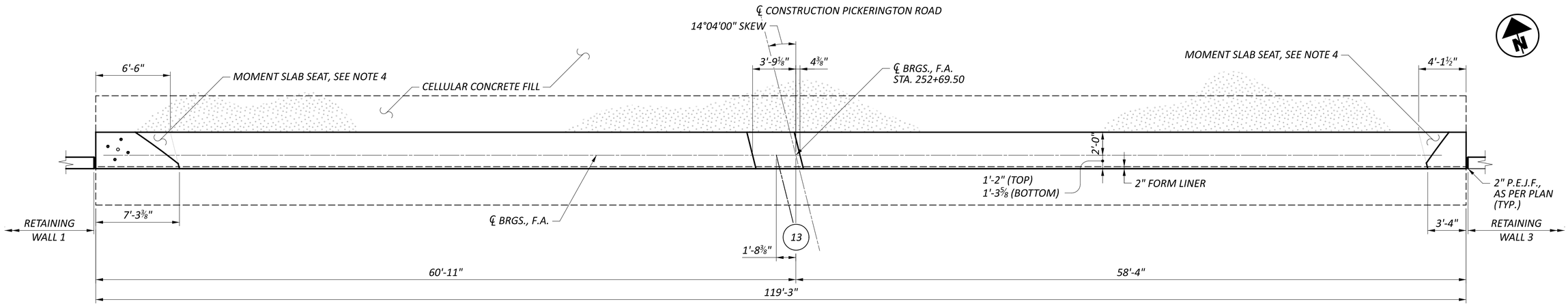
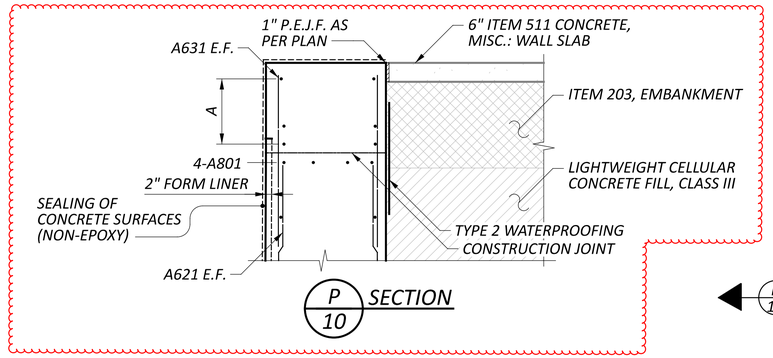


PLAN

DIAPHRAGM NOT SHOWN FOR CLARITY



P 10 SECTION

NOTES

1. MINIMUM LAP SPLICE LENGTHS:
   #6 BAR = 38 INCHES
   #8 BAR = 50 INCHES
2. ABUTMENT CONCRETE:
   DO NOT PLACE THE ABUTMENT CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT UNTIL THE PRESTRESSED CONCRETE BOX BEAMS HAVE BEEN ERECTED.
3. REFER TO STANDARD DRAWING TC-21.21 FOR ADDITIONAL NOTES AND DETAILS.
4. PLACE BOND BREAKER ON CONCRETE SURFACE PRIOR TO PLACING MOMENT SLAB. THICKEN MOMENT SLAB TO BEAR ON ABUTMENT SEAT.

LEGEND

A - 3-A626 & 3-A627 TIES , 2 SPA. @ 1'-1" = 2'-2", 4-A501 TIES SPACED AT 3", THEN 2 SPA. @ 11"

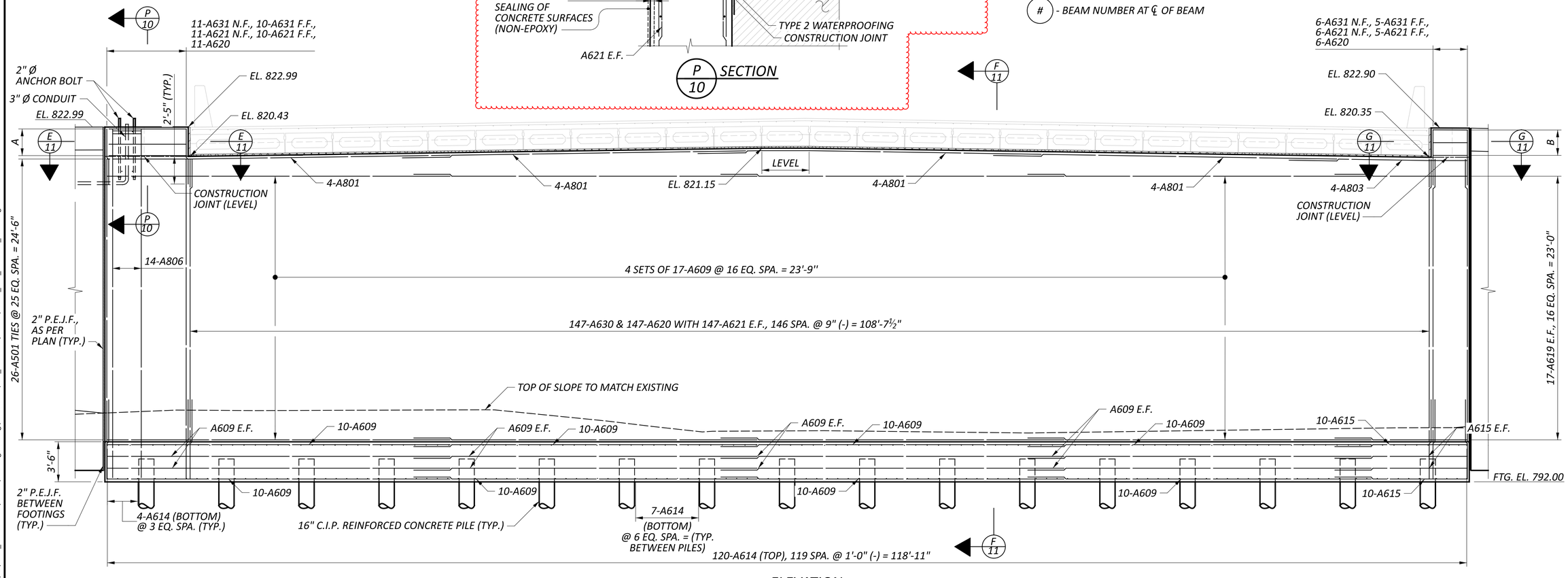
B - 3-A628 & 3-A629 TIES, 2 SPA. @ 1'-1" = 2'-2"

E.F. - EACH FACE

F.F. - FAR FACE

N.F. - NEAR FACE

(#) - BEAM NUMBER AT ℄ OF BEAM



ELEVATION

FORWARD ABUTMENT DETAILS
BRIDGE NO. FAI-C0020-04.722
PICKERINGTON ROAD OVER INDIANA & OHIO RAILWAY

SFN 2300003
DESIGN AGENCY CARPENTER MARTY Transportation
DESIGNER BWR | CHECKER AMR
REVIEWER WHM 11-3-23
PROJECT ID 77555
SUBSET 10 | TOTAL 29
SHEET P.716 | TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 4:11:08 PM USER: brussell
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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1-20-2023
AS-2-15	REVISED	7-21-2023
PSID-1-13	REVISED	7-19-2024
SBR-1-20	REVISED	7-19-2024
SICD-2-14	REVISED	1-15-2021
VPF-1-24	DATED	7-19-2024

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:

SS840	DATED	7-19-2024

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

VEHICULAR LIVE LOAD: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.06 KIPS/FT²

DESIGN DATA

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE, APPROACH SLABS, APPROACH SLAB PARAPETS, DIAPHRAGMS)

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (PIER AND ABUTMENT FOOTINGS)

CONCRETE CLASS QC SCC CONCRETE WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (ABUTMENTS) AND 4.5 KSI (PARAPET ON DECK)

CONCRETE REINFORCEMENT:
GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (DECK, APPROACH SLABS, ABUTMENTS, PIER)

GFRP REINFORCEMENT
(PARAPETS)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

STEEL CIP PILES - ASTM A252 GRADE 3 - YIELD STRENGTH 45 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5 KSI

WELDED WIRE REINFORCEMENT:
YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND:
AREA = 0.217 SQ. IN. 0.6'' Ø
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)
INITIAL TENSION LOAD = 43.95 KIP/STRAND

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

DECK PLACEMENT DESIGN ASSUMPTIONS:

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

AN EIGHT WHEEL FINISHING MACHINE WITH MAXIMUM WHEEL LOAD OF 2.24 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103''.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65''

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17''), AS PER PLAN:

FURNISH APPROACH SLABS ACCORDING TO C&MS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE CONCRETE, STEEL REINFORCEMENT, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 391 KIPS PER PILE FOR THE REAR ABUTMENT.
THE ULTIMATE BEARING VALUE IS 408 KIPS PER PILE FOR THE PIER.
THE ULTIMATE BEARING VALUE IS 329 KIPS PER PILE FOR THE FORWARD ABUTMENT.

REAR ABUTMENT PILES:
16" CAST-IN-PLACE REINFORCED CONCRETE PILES 45 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

PIER PILES:
16" CAST-IN-PLACE REINFORCED CONCRETE PILES 60 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

FORWARD ABUTMENT PILES:
16" CAST-IN-PLACE REINFORCED CONCRETE PILES 60 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

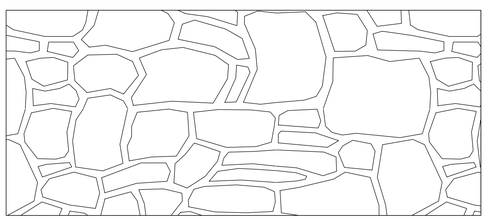
PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 0.250 INCHES FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES AT THE ABUTMENTS AND PIER.

ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (PARAPET)

THE SURFACE TREATMENTS REFERENCED BELOW ARE INTENDED FOR PROCEDURE, TEXTURE, AND APPEARANCE REFERENCE.

ONE FULL SCALE PATTERNED PRECONSTRUCTION TEST PANEL SHALL BE PROVIDED FOR APPROVAL BY THE DISTRICT 5 BRIDGE SECTION. IF THE TEST PANEL DOES NOT MEET THE APPROVAL OF THE DISTRICT 5 BRIDGE SECTION, THE RESULT WILL BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANEL WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. THE CONTRACTOR SHALL PROVIDE AN END SECTION OF THE PARAPET, AS SHOWN IN THE PLAN, SHOWING THAT THEY CAN ACHEIVE THE FORMLINING APPLICATION AS DETAILED. THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN INTENDED TO BE USED ON THE PROJECT. THE PANEL SHALL BE OF THE SAME CEMENT AND AGGREGATE SOURCE THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANEL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE SURFACE FINISH, TEST PANELS, AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM SPECIAL 530, STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(PARAPET).



ARCHITECTURAL SURFACE - ELEVATION

THE FOLLOWING SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
SPEC FORMLINERS, INC.	WASHINGTON DRYSTACK #1581	MAX RELIEF: 1½" LINER THICKNESS: 2⅝" STONE SIZE: 4" TO 24"
CUSTOM ROCK INTERNATIONAL	NEW ENGLAND DRYSTACK #12003	MAX RELIEF: 1⅜" LINER THICKNESS: 2¼" STONE SIZE: 3" TO 24"
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL

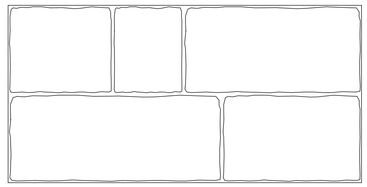
ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (CIP/PRECAST WALLS)

ALL AESTHETIC TREATMENTS FOR THE PRECAST WALLS SHALL MATCH THE EXISTING MSE WALLS LOCATED AT FAI-33-5.60 PID ,76938 CARROLL INTERCHANGE, IN COLOR AND PATTERN.

AN AESTHETIC TREATMENT SYSTEM SHALL BE SUCH TO DUPLICATE CLOSELY THE APPEARANCE OF INDIGENOUS SANDSTONE. THE SURFACE FINISH SHALL BE PATTERN #1102-R2 FROM CUSTOM ROCK INTERNATIONAL OR AN APPROVED EQUAL MEETING THE DETAILS SHOWN ON THIS PAGE. THE INTEGRALLY COLORED CONCRETE USING CHROMIX ADMIXTURES SHALL BE COLOR C-21 ADOBE TAN OR 1010 BROWNSTONE AS PROVIDED BY SIKA CORPORATION, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. TWO PRECONSTRUCTION PANELS WILL BE REQUIRED, ONE WITH C-21 ADOBE TAN AND ONE WITH 1010 BROWNSTONE. THE DIRECTOR WILL DECIDE THE COLOR FROM THE TEST SAMPLES.

TWO PRECONSTRUCTION TEST SAMPLES SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST SAMPLES DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PRECAST WALL PANELS OR INTEGRALLY COLORED CONCRETE. THE TEST SAMPLE MUST PASS APPROVAL. FAILURE WILL CONSTITUTE PLACEMENT OF ANOTHER TEST SAMPLE. A FIVE FOOT BY FIVE FOOT TEST SAMPLE SHOULD BE MADE. THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS AND PATTERN AS USED ON THE PROJECT. THE SAMPLE SHOULD BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND INTEGRALLY COLORED CONCRETE THAT WILL BE USED TO MAKE THE WALL PANELS. AFTER APPROVAL THE CONCRETE TEST SAMPLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE INTEGRALLY COLORED, CONCRETE, SURFACE FINISH, TEST SAMPLES AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE SQ. FT. PAYMENT FOR ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)(CIP/PRECAST WALLS).



ARCHITECTURAL SURFACE - ELEVATION

CUSTOM ROCK INTERNATIONAL (C.R.I.)
PATTERN # 1102-R2 OR APPROVED EQUAL

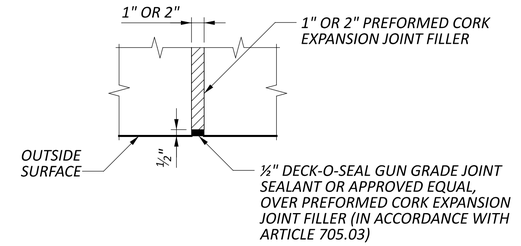
RECTANGULAR CUT STONE (15" COURSING HEIGHT):
MAX RELIEF = 2"
AVERAGE RELIEF = 1½"
STONE SIZES (LENGTH) = 2' TO 6'

NOTE: CORNER ELEMENTS SHALL HAVE THE SAME AESTHETIC TREATMENT AS THE WALL PANELS.

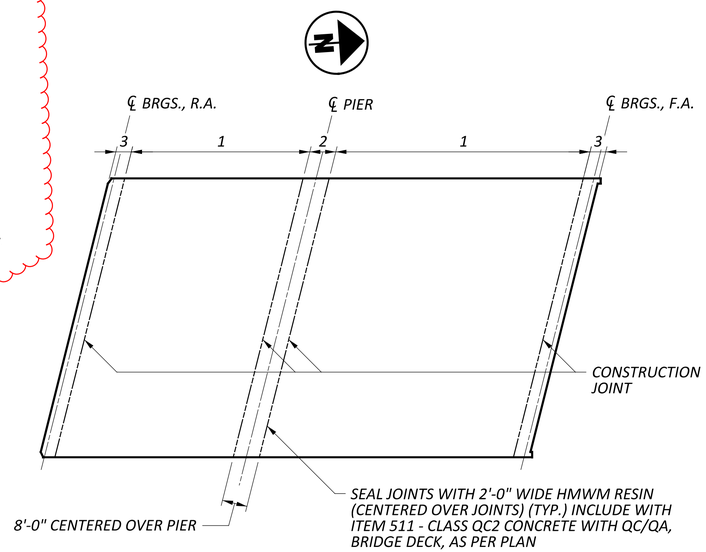
ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN AND ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1"AND 2" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVE MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, OR ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.



DECK POURING SEQUENCE PLAN

NOTES

1. SECTION 2 SHALL NOT BE POURED PRIOR TO SECTION 1 WITHOUT APPROVAL OF THE ENGINEER. SEQUENCE OF SECTION 1 POURS SHALL BE DETERMINED BY THE CONTRACTOR. CONTINUOUS DECK POUR PROCEDURES, WHICH PROCEED FROM END TO END OF THE BRIDGE AND PLACE THE PIER DIAPHRAGM CONCRETE CONCURRENTLY WITH THE DECK CONCRETE, MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN ADJACENT SPANS WILL BE PLACED BEFORE THE PIER DIAPHRAGM CONCRETE HAS REACHED ITS INITIAL SET.

2. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET.

GENERAL NOTES
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN 2300001

DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER	CHECKER
JMV	AMR

REVIEWER GDJ 10-20-23

PROJECT ID 77555

SUBSET	TOTAL
2	39

SHEET	TOTAL
P.737	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/7/2025 TIME: 10:12:01 AM USER: CMT013
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ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN AND 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC INTO THE BRIDGE DECK PARAPET CONCRETE AND ABUTMENT CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC SCC MEETING A DESIGN STRENGTH OF 4.5 KSI FOR PARAPETS AND 4.0 KSI FOR ABUTMENTS, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE ASTM C1116, TYPE III.

THE CLASS QC SCC CONCRETE SHALL MEET THE FOLLOWING CRITERIA:
- WATER/CEMENT RATIO = 0.40 MAXIMUM
- MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 MAX.) MEETING ASTM C1116, TYPE III SHALL BE ADDED TO THE MIX.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AN ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURER'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT, AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING THAT BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OF EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CY, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIER'S CHOICE OF ADMIXTURES DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS.

PAYMENT FOR TRIAL MIXES SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

THE ABUTMENT CONCRETE SHALL BE TINTED WITH THE ADMIXTURES FROM SIKA CORPORATION, OR AN APPROVED EQUAL, AS DESCRIBED IN ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (CIP/PRECAST WALLS) NOTE.

ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN

ABUTMENT FOOTING CONCRETE NOT INCLUDED.

ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS

A. DESCRIPTION

THIS BID ITEM CONSISTS OF PRECAST WALLS MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH THIS SPECIFICATION AND DESIGNED IN ACCORDANCE WITH THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

PRECAST WALL PANELS ARE SHOWN AND DETAILED IN THE PLANS WITH A 10 INCH STRUCTURAL THICKNESS AND A 2 INCH AESTHETIC THICKNESS. OTHER STRUCTURAL WALL THICKNESSES ARE ACCEPTABLE PROVIDING THEY MEET ALL THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED TO ACCOMMODATE ALTERNATE WALL DIMENSIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DESIGN DATA

CONCRETE - COMPRESSIVE STRESS 4.0 KSI

CONCRETE REINFORCEMENT:
- GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

WELDED WIRE FABRIC - MINIMUM YIELD STRENGTH 70 KSI

C. MATERIALS - CONCRETE

THE CONCRETE FOR THE WALL SECTIONS SHALL BE COMPOSED OF PORTLAND CEMENT, FINE AND COARSE AGGREGATES, ADMIXTURES AND WATER. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C150, TYPE I, II, OR III. THE AIR ENTRAINING ADMIXTURE SHALL CONTAIN 6% ± 2% ENTRAINED AIR, AND SLUMP SHALL BE MAINTAINED WITH THE RANGE OF 1" TO 4". THE SLUMP MAY BE INCREASED TO 7" PROVIDED THE INCREASE IS ACHIEVED BY THE ADDITION OF A CHEMICAL WATER-REDUCING ADMIXTURE APPROVED BY THE ENGINEER.

THE CONCRETE USED FOR THIS ITEM SHALL BE COLORED AS DESCRIBED IN THE ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (CIP/PRECAST WALLS) NOTE.

D. MATERIALS AND REINFORCING HARDWARE

REINFORCEMENT SHALL CONSIST OF WELDED WIRE FABRIC CONFORMING TO ASTM A185, OR DEFORMED BILLET-STEEL BARS CONFORMING TO ASTM A615, A616, OR A617, GRADE 60.

E. SHOP DRAWING REQUIREMENTS

THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING.
- ALL STRUCTURAL DESIGN AND LOADING INFORMATION
- A PLAN VIEW
- ALL ELEVATION VIEWS
- ALL DIMENSIONS

MANUFACTURING SHALL NOT BEGIN UNTIL WRITTEN APPROVAL OF THE SUBMITTED SHOP DRAWINGS HAS BEEN RECEIVED.

F. TESTING AND INSPECTION

ACCEPTABILITY OF THE CONCRETE FOR THE PRECAST PANELS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATIONS AND VISUAL INSPECTIONS. THE CONCRETE STRENGTH REQUIREMENTS FOR THE PRECAST PANELS SHALL BE CONSIDERED ATTAINED REGARDLESS OF CURING AGE WHEN COMPRESSION TEST RESULTS INDICATE STRENGTH WILL CONFORM TO 28-DAY SPECIFICATIONS AS STATED BELOW. THE MANUFACTURER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER. PANELS UTILIZING TYPE I OR TYPE II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL WHEN 7-DAY INITIAL STRENGTHS EXCEED 85 PERCENT OF THE 28-DAY REQUIREMENTS. PANELS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL PRIOR TO 28 DAYS ONLY WHEN COMPRESSIVE STRENGTH TEST RESULTS INDICATE THAT THE STRENGTH EXCEEDS THE 28-DAY SPECIFICATION.

G. MANUFACTURE

THE AGGREGATES, CEMENT AND WATER SHALL BE PROPORTIONED AND MIXED IN A BATCH MIXER TO PRODUCE A HOMOGENEOUS CONCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE NOTES. THE PROPORTION OF PORTLAND CEMENT IN THE MIXTURE SHALL NOT BE LESS THAN 564 POUNDS PER CUBIC YARD OF CONCRETE.

THE WALL SECTIONS SHALL BE CURED FOR A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH IN 28 DAYS OR LESS. ANY ONE OF THE METHODS OF CURING OR COMBINATION THEREOF SHALL BE USED:

STEAM CURING - THE SECTIONS MAY BE LOW PRESSURE, STEAM CURED BY A SYSTEM THAT WILL MAINTAIN A MOIST ATMOSPHERE.

WATER CURING - THE SECTIONS MAY BE WATER CURED BY ANY METHOD THAT WILL KEEP THE SECTIONS MOIST.

THE FORMS USED IN MANUFACTURE SHALL BE SUFFICIENTLY RIGID AND ACCURATE TO MAINTAIN THE SECTIONS DIMENSIONS WITHIN THE PERMISSIBLE VARIATIONS GIVEN THESE NOTES. ALL CASTING SURFACE SHALL BE OF SMOOTH MATERIAL.

THE WALL SECTION SHALL BE STORED IN SUCH A MANNER TO PREVENT CRACKING OR DAMAGES.

THE FRONT FACE OF THE REINFORCED CONCRETE PANELS SHALL HAVE AN AESTHETIC FINISH AS SHOWN IN THE PLANS. CAULKING BETWEEN PRECAST PANELS SHALL BE IN ACCORDANCE WITH THE PLAN DETAILS. THE BACK SIDE OF THE REINFORCED CONCRETE PANELS SHALL HAVE A UNIFORM SURFACE FINISH AND SHALL BE ROUGH SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

ALL PANELS SHALL BE MANUFACTURED WITH ALL PANEL DIMENSIONS WITHIN 1/4".

H. COMPRESSIVE STRENGTH

ACCEPTANCE OF THE CONCRETE PANELS WITH RESPECT TO COMPRESSIVE STRENGTH WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS. A PRODUCTION LOT IS DEFINED AS A GROUP OF PANELS THAT WILL BE REPRESENTED BY A SINGLE COMPRESSIVE STRENGTH SAMPLE AND WILL CONSIST OF EITHER 6 PANELS OR A SINGLE DAY'S PRODUCTION, WHICHEVER IS LESS.

DURING THE PRODUCTION OF THE CONCRETE PANELS THE MANUFACTURER WILL RANDOMLY SAMPLE THE CONCRETE IN ACCORDANCE WITH ASTM C172. A SINGLE COMPRESSIVE STRENGTH SAMPLE, CONSISTING OF A MINIMUM OF FOUR CYLINDERS, WILL BE RANDOMLY SELECTED FOR EVERY PRODUCTION LOT.

CYLINDERS FOR COMPRESSIVE STRENGTH TESTS SHALL BE 6" DIA. X 1'-0" SPECIMENS PREPARED IN ACCORDANCE WITH ASTM C31. FOR EVERY COMPRESSIBLE STRENGTH SAMPLE, A MINIMUM OF 2 CYLINDERS WILL BE CURED IN THE SAME MANNER AS THE PANELS AND TESTED AT APPROXIMATELY 7 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE CYLINDERS WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A TEST RESULT WHICH WILL DETERMINE THE INITIAL STRENGTH OF THE CONCRETE. IN ADDITION, 2 CYLINDERS SHALL BE CURED IN ACCORDANCE WITH ASTM C31 AND TESTED AT 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE TWO CYLINDERS, WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A COMPRESSIVE STRENGTH TEST RESULT WHICH WILL DETERMINE THE COMPRESSIVE STRENGTH OF THE PRODUCTION LOT.

IF THE INITIAL STRENGTH TESTS RESULTS INDICATE A COMPRESSIVE STRENGTH IN EXCESS OF 4 KSI, THEN THESE TESTS RESULTS WILL BE UTILIZED AS THE COMPRESSIVE STRENGTH TEST RESULT FOR THE PRODUCTION LOT AND THE REQUIREMENT FOR TESTING AT 28 DAYS WILL BE WAIVED FOR THAT PARTICULAR PRODUCTION LOT.

ACCEPTANCE OF A PRODUCTION LOT WILL BE MADE IF THE COMPRESSIVE STRENGTH TEST RESULT IS GREATER THAN OR EQUAL TO 4 KSI. IF THE RESULT IS LESS THAN 4 KSI, THE ACCEPTANCE OF THE PRODUCTION LOT WILL BE BASED ON ITS MEETING THE FOLLOWING THREE ACCEPTANCE CRITERIA:
- 90% OF THE COMPRESSIVE STRENGTH TEST RESULTS FOR THE OVERALL PRODUCTION SHALL EXCEED 4 KSI.
- THE AVERAGE OF ANY SIX CONSECUTIVE COMPRESSIVE STRENGTH TEST RESULTS SHALL EXCEED 4 KSI.
- NO INDIVIDUAL COMPRESSIVE STRENGTH TEST RESULT SHALL FALL BELOW 3.6 KSI.

IN THE EVENT THAT A PRODUCTION LOT FAILS TO MEET THE SPECIFIED COMPRESSIVE STRENGTH REQUIREMENTS, THE PRODUCTION LOT SHALL BE REJECTED. SUCH REJECTION SHALL PREVAIL UNLESS THE MANUFACTURER, AT THEIR OWN EXPENSE, OBTAINS AND SUBMITS EVIDENCE ACCEPTABLE TO THE ENGINEER THAT THE STRENGTH AND QUALITY OF THE CONCRETE PLACED WITHIN THE PANELS OF THE PRODUCTION LOT IS ACCEPTABLE. IF SUCH EVIDENCE CONSISTS OF TESTS MADE ON CORES TAKEN FROM THE PANELS WITHIN THE PRODUCTION LOT. THE CORES SHALL BE OBTAINED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS OF ASTM C42.

I. REJECTION

PANELS SHALL BE SUBJECT TO REJECTION BECAUSE OF FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
- DEFECTS THAT INDICATE IMPERFECT MOLDING
- DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURED CONCRETE
- DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE SEALING OF CONCRETE SURFACE TREATMENT OR TO AESTHETIC SURFACE TREATMENTS
- CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER
- STAINED FORM FACES, DUE TO FORM OIL, CURING, OR OTHER CONTAMINANTS
- SIGNS OF AGGREGATE SEGREGATION
- CRACKS WIDER THAN 0.01 INCHES, PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK. REPAIR ALL CRACKS THAT ARE SMALLER
- PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES
- UNUSABLE LIFTING INSERTS
- EXPOSED REINFORCING STEEL
- INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH

EITHER REPLACE DAMAGED PRECAST WALL PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL; PERFORM REPAIRS WITH THE ACCEPTANCE OF THE ENGINEER. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

J. MARKING

THE DATE OF MANUFACTURE, THE PRODUCTION LOT NUMBER AND THE PIECE MARK SHALL BE CLEARLY SCRIBED ON THE BACK SURFACE OF EACH PANEL.

K. CONCRETE LEVELING PAD

THE CONCRETE LEVELING PAD (MUD SLAB) SHALL BE CONSTRUCTED WITH CONCRETE HAVING A STRENGTH THAT IS NOT LESS THAN 3.5 KSI AND SHALL HAVE SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT THE PANELS AT THE BOTTOM OF THE WALL IN A LEVEL POSITION DURING INSTALLATION.

A 4" (MIN.) THICK UNREINFORCED CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE PAD SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE PLACING WALL PANELS ON THE LEVELING PAD.

L. WALL ERECTION

PANELS ARE HANDLED BY MEANS OF A LIFTING DEVICE CONNECTED TO THE LIFTING INSERT WHICH IS CAST INTO THE UPPER EDGE OR BACK SIDE OF THE PANELS. ALL PANELS SHALL BE BRACED TO RESIST THE TEMPORARY CONSTRUCTION LOADS INCLUDING WIND LOADS, PRIOR TO FOOTING CONSTRUCTION.

M. BASIS OF PAYMENT

PAYMENT FOR ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS COVERS ALL WORK DESCRIBED ABOVE.

VOLUME OF THE EMBEDDED PORTION OF PRECAST WALL HAS NOT BEEN SUBTRACTED FROM FOOTING CONCRETE VOLUME AND TO ADJUST QUANTITY BASED ON SELECTED WALL FABRICATOR.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

FABRICATE AND INSTALL THE VANDAL PROTECTION FENCE AS DETAILED IN THIS PLAN AND STANDARD DRAWING VPF-1-24. THE VANDAL PROTECTION FENCE SHALL BE 6'-0" STRAIGHT FENCE. THE COATING SYSTEM USED FOR THIS FENCE SHALL BE MODIFIED AS FOLLOWS. IF NOT ALREADY SPECIFIED IN VPF-1-24, ALL STEEL COMPONENTS SHALL RECEIVE PVC COATING IN ADDITION TO THE STANDARD SURFACE TREATMENTS. ALL THREADED ASSEMBLY COMPONENTS (I.E. THREAD LENGTH OF BOLTS, NUTS, AND WASHERS) WILL BE EXCEPTED FROM THIS ADDITIONAL COATING REQUIREMENT. PVC COATINGS SHALL CONFORM TO EITHER ASTM F668 CLASS 2A OR 2B (MESH, WIRE, ETC..), ASTM F626-14 (FENCE FITTINGS, ETC.), OR ASTM F1043-16 (FRAMEWORK, POSTS, RAILS, ETC.).

DUE TO THE ADDITIONAL THICKNESS OF THIS COATING SYSTEM, THE POTENTIAL EXISTS THAT TYPICAL FITTINGS MAY REQUIRE THEIR SIZES INCREASED ABOVE THE STANDARD SIZES SHOWN IN STD. DWG. VPF-1-24. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/FABRICATOR TO TEST ALL FENCE COMPONENTS FOR FIT-UP AT THE FABRICATION STAGE AND TO INCORPORATE ANY SIZE-UP ADJUSTMENTS TO ENSURE EASE OF FIELD INSTALLATION AND ERECTION. THE FINAL COLOR FOR ALL PVC COATED FENCE COMPONENTS SHALL BE BLACK (CLOSELY APPROACHING AMS-595A-17038). HANDLE ALL PVC COATED MATERIALS WITH CARE. IF THE PVC COATING IS DAMAGED, REPLACE THE DAMAGED FENCE COMPONENT(S) AT NO COST TO THE DEPARTMENT.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LINEAR FEET BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN.

GENERAL NOTES (CONTINUED)
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN 2300001
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER AMR | CHECKER BWR
REVIEWER GDJ 10-20-23
PROJECT ID 77555
SUBSET 3 | TOTAL 39
SHEET P.738 | TOTAL 846

FAI-33-2.64

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DESIGN: AMR
DATE: 5-6-25

CHECK: SMH
DATE: 5-6-25

ESTIMATED QUANTITIES

ABUTMENTS	PIER	SUPERSTRUCTURE	GENERAL	ITEM	ITEM EXT	TOTAL 02/NHS/08	UNIT	DESCRIPTION	SEE SHEET NO.
			LS	503	21300	LS	-	UNCLASSIFIED EXCAVATION	
			LS	505	11100	LS	-	PILE DRIVING EQUIPMENT MOBILIZATION	
6370	1320			507	00700	7690	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
6990	1440			507	00750	8430	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
104202	28685	135703		509	26000	268590	LB	GALVANIZED STEEL REINFORCEMENT	
		5424		509	30020	5424	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
2				511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
		573		511	34447	573	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	2, 23
			9	511	34450	9	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
		51		511	34463	51	CY	CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	3
	103			511	41012	103	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
831				511	45723	831	CY	CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN	3
475	63			511	46512	538	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
623	234	738	57	512	10050	1652	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
102				512	33000	102	SY	TYPE 2 WATERPROOFING	
		10		515	15020	10	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 (64'-7" LONG)	
		10		515	15020	10	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 (88'-7" LONG)	
		36		515	20000	36	EACH	INTERMEDIATE DIAPHRAGMS	
		17		516	13601	17	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
51				516	13900	51	SF	2" PREFORMED EXPANSION JOINT FILLER	
238				516	13901	238	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
220				516	14020	220	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
			92	516	14600	92	FT	STRUCTURAL JOINT OR JOINT SEALER MISC.: EMSEAL WITH SLEEPER SLAB (REAR)	36
			88	516	14600	88	FT	STRUCTURAL JOINT OR JOINT SEALER MISC.: EMSEAL WITH SLEEPER SLAB (FORWARD)	36
			88	516	31010	88	FT	2" DEEP JOINT SEALER	
		10		516	44100	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (13" X 18" X 2.648" PAD WITH 14" X 19" X 2" LOAD PLATE)	
		10		516	44100	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (13" X 18" X 2.648" PAD WITH 14" X 39" X 2" LOAD PLATE)	
		20		516	44100	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (13" X 18" X 2.648" PAD WITH 14" X 26" X 2" LOAD PLATE)	
348				518	21200	348	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
184				518	40000	184	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
55				518	40010	55	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			3	523	20000	3	EACH	DYNAMIC LOAD TESTING	
			556	526	30011	556	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN	2
1994				SPECIAL	53000600	1994	SF	STRUCTURES: PRECAST WALL PANELS	3
		708		SPECIAL	53000600	708	SF	STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (PARAPET)	2
4335				SPECIAL	53000600	4335	SF	STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER) (CIP/PRECAST WALLS)	2
		301		607	39901	301	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	2
89				840	26000	89	FT	CONCRETE COPING	

ESTIMATED QUANTITIES
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN
2300001

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
AMR	SMH

REVIEWER
GDJ 10-20-23

PROJECT ID
77555

SUBSET	TOTAL
4	39

SHEET	TOTAL
P.739	846

FAI-33-2.64

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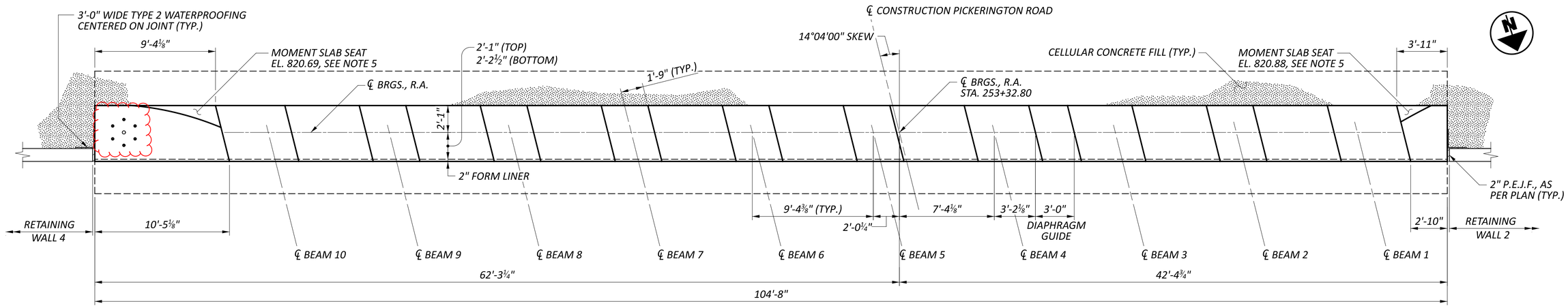


PLAN

DIAPHRAGM NOT SHOWN FOR CLARITY

NOTES

1. MINIMUM LAP SPLICE LENGTH:
   #6 BAR = 38 INCHES
   #8 BAR = 50 INCHES
2. REFER TO SHEET 5/39 FOR FOOTING DETAILS.
3. REFER TO STD. DWG. SICD-2-14 FOR ADDITIONAL NOTES AND DETAILS FOR DIAPHRAGM GUIDE. REFER TO SHEET 8/39 FOR DIAPHRAGM GUIDE REINFORCEMENT DETAILS.
4. CAREFULLY PLACE REINFORCEMENT TO AVOID INTERFERENCE WITH BEARING ANCHORS. REFER TO SHEET 8/39 FOR BEARING ANCHOR PLAN.
5. PLACE BOND BREAKER ON CONCRETE SURFACE PRIOR TO PLACING MOMENT SLAB.

LEGEND

E.F. - EACH FACE

F.F. - FAR FACE

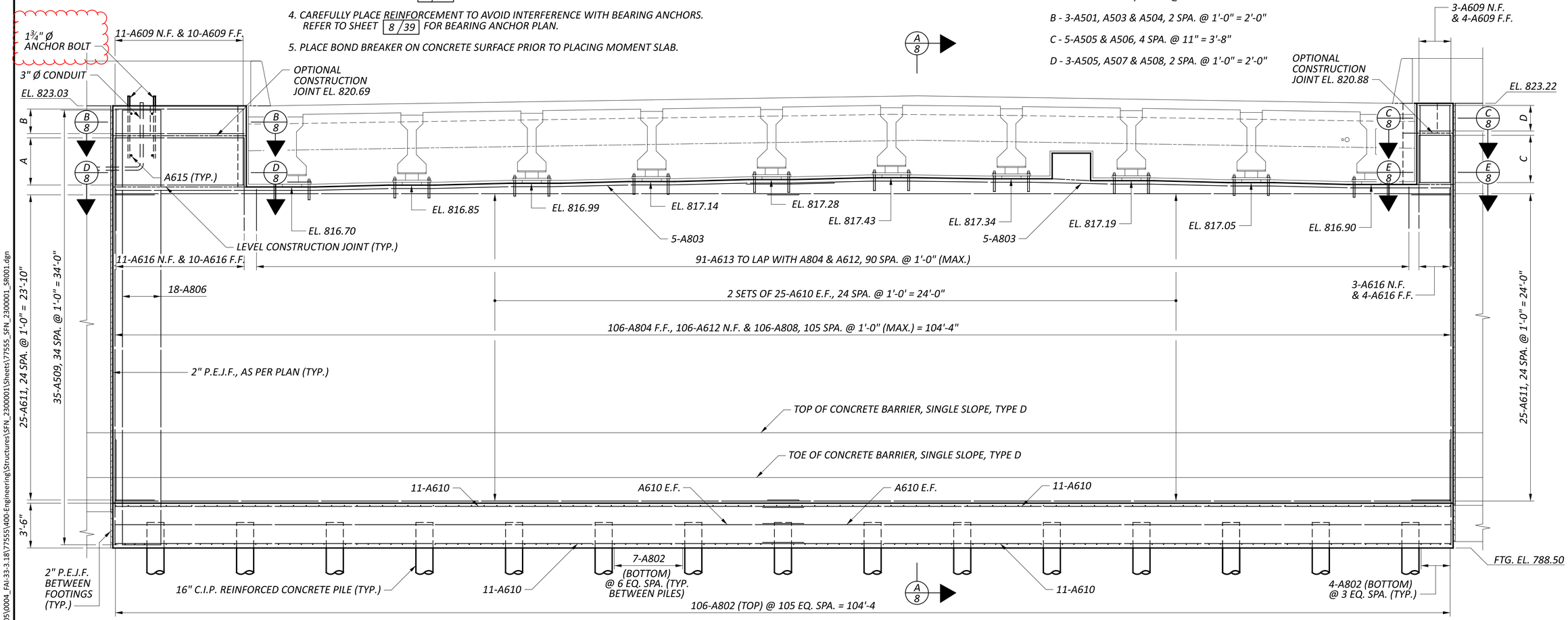
N.F. - NEAR FACE

A - 5-A501 & A502, 4 SPA. @ 11" = 3'-8"

B - 3-A501, A503 & A504, 2 SPA. @ 1'-0" = 2'-0"

C - 5-A505 & A506, 4 SPA. @ 11" = 3'-8"

D - 3-A505, A507 & A508, 2 SPA. @ 1'-0" = 2'-0"



ELEVATION

REAR ABUTMENT DETAILS
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN 2300001
DESIGN AGENCY CARPENTER MARTY Transportation
DESIGNER LYH | CHECKER AMR
REVIEWER GDJ 10-20-23
PROJECT ID 77555
SUBSET 7 | TOTAL 39
SHEET P.742 | TOTAL 846

FAI-33-2.64

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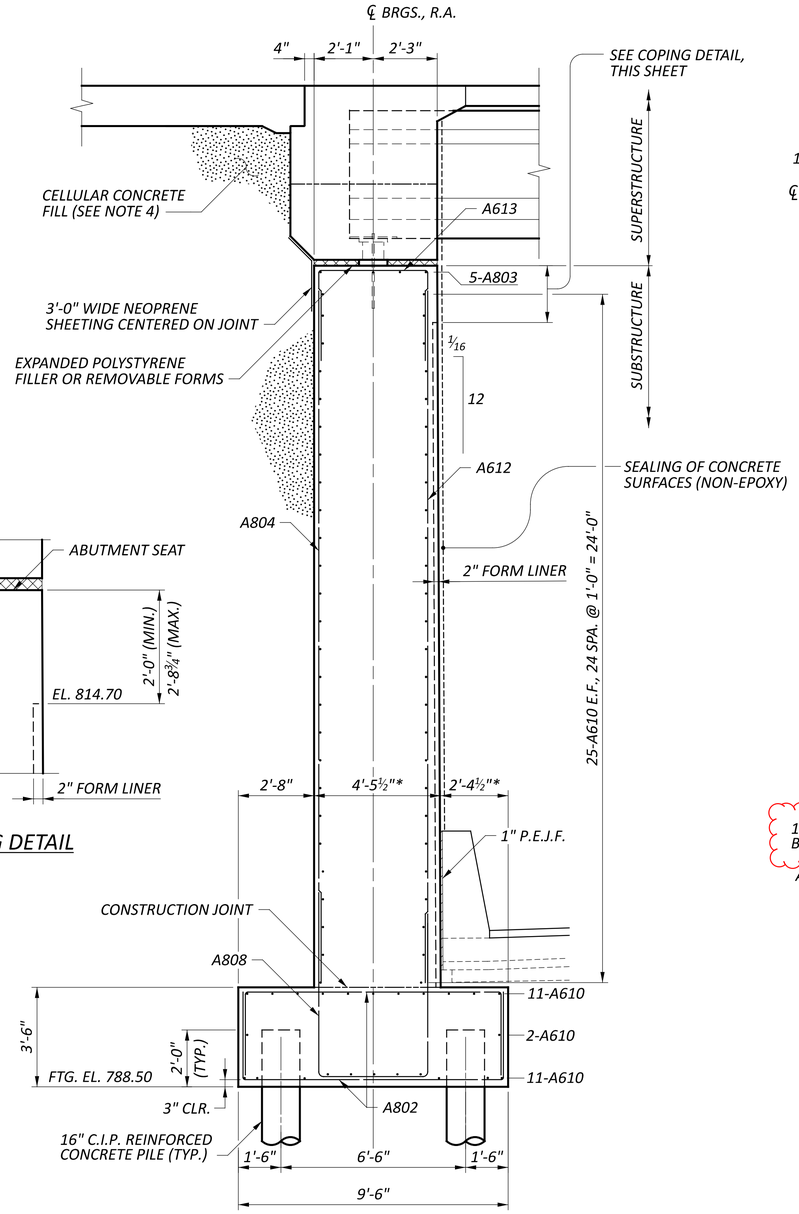
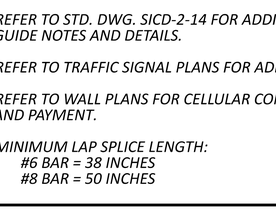
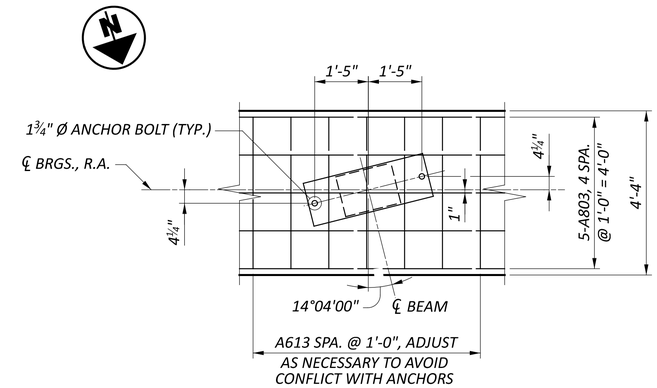


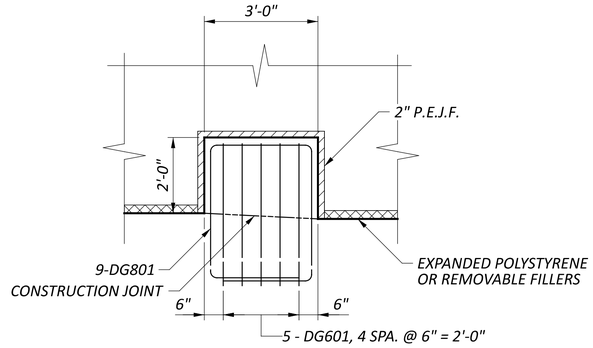
A 7 SECTION



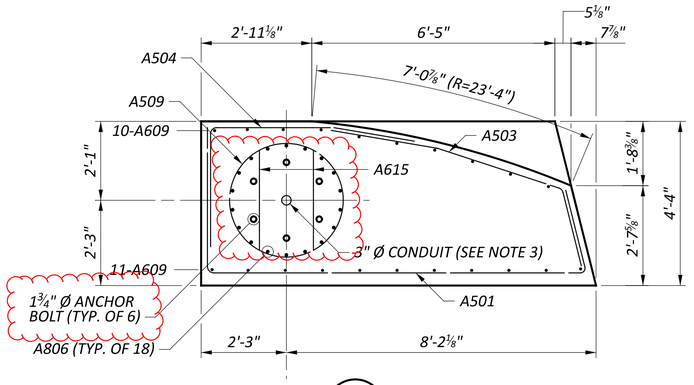
COPING DETAIL



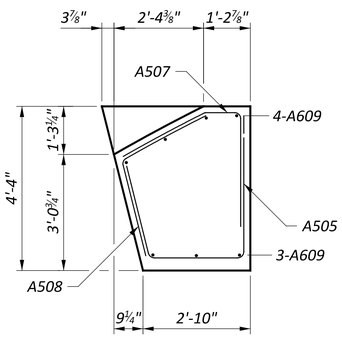
BEARING ORIENTATION & ANCHOR PLAN



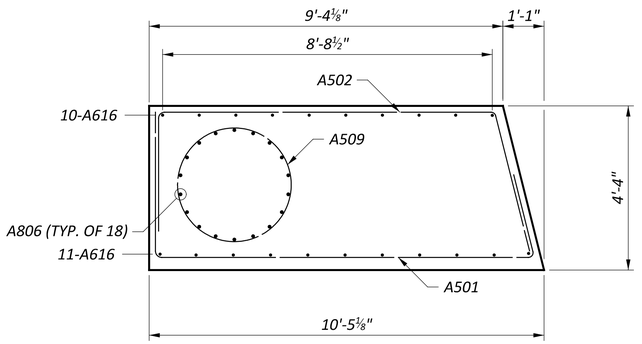
DIAPHRAGM GUIDE DETAIL



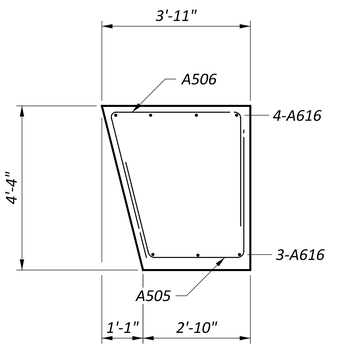
B 7 SECTION



C 7 SECTION



D 7 SECTION



E 7 SECTION

NOTES

1. REFER TO SHEETS 18/39 & 19/39 FOR DIAPHRAGM DETAILS.
2. REFER TO STD. DWG. SICD-2-14 FOR ADDITIONAL DIAPHRAGM GUIDE NOTES AND DETAILS.
3. REFER TO TRAFFIC SIGNAL PLANS FOR ADDITIONAL NOTES AND DETAILS
4. REFER TO WALL PLANS FOR CELLULAR CONCRETE FILL DETAILS AND PAYMENT.
5. MINIMUM LAP SPLICE LENGTH:
   #6 BAR = 38 INCHES
   #8 BAR = 50 INCHES

LEGEND

E.F. - EACH FACE

* - DIMENSION TAKEN AT TOP OF FOOTING

REAR ABUTMENT DETAILS
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN 2300001
DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
LYH	AMR

REVIEWER: GDJ 10-20-23
PROJECT ID: 77555
SUBSET 8 | TOTAL 39
SHEET P.743 | TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/8/2025 TIME: 8:55:07 AM USER: CMIT013
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