

P.01	3
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- | | | | |
|---|--------------------|---|---|
| A | EXISTING AGGREGATE | 1 | ITEM 304 - 6" AGGREGATE BASE |
| | | 2 | ITEM 304 - 8" AGGREGATE BASE, AS PER PLAN |
| | | 3 | ITEM 606 - GUARDRAIL, TYPE MGS |
| | | 4 | ITEM 659 - SEEDING AND MULCHING |
| | | 5 | ITEM 204 - SUBGRADE COMPACTION |

ROUNDING

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

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.

CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

UTILITIES

THERE ARE NO KNOWN UNDERGROUND UTILITIES ON THIS PROJECT.

SURVEYING PARAMETERS - OHIO STATE PLANE (NORTH/SOUTH)

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET 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:	TYBE B W/ RED "FISHBECK" CAP
VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM:	NAVD88
GEOID:	GEOID 12-B
HORIZONTAL POSITIONING	
REFERENCE FRAME:	NAD83(2011)
ELLIPSOID:	GRS80
COORDINATE SYSTEM:	OHIO STATE PLANE SOUTH
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
PROJECT ADJUSTMENT FACTOR:	1.00006936
ORIGIN OF COORDINATE SYSTEM:	0,0,0

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 CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

PROJECT CONTROL INFORMATION						
POINT	NORTHING (GRID)	EASTING (GRID)	NORTHING (GROUND)	EASTING (GROUND)	ELEVATION	DESCRIPTION
CP100	646954.3472	2408986.8596	646999.2231	2409153.9585	671.976	IPIN
CP101	646902.1445	2409262.0449	646947.0168	2409429.1629	682.517	IPIN
CP102	646580.2752	2409205.8225	646625.1251	2409372.9366	666.010	IPIN
CP103	646508.0723	2409466.9658	646552.9172	2409634.0980	669.583	IPIN
BM500	646887.9709	2409295.8864	646932.8422	2409463.0068	681.763	BM
BM501	646661.2094	2409222.3849	646706.0649	2409389.5002	665.844	BM

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 304 - AGGREGATE BASE, AS PER PLAN

THIS ITEM SHALL CONSIST OF ONLY ODOT #1 AND #2 AGGREGATE.

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 7 AM AND 7 PM. 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.

ITEM 615, ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 615, THIS ITEM SHALL INCLUDE A TEMPORARY ROAD CONSTRUCTED AS SHOWN ON SHEET 4 AND MAINTAINED AT ALL TIMES FOR MAINTENANCE OF TRAFFIC TO THE RESIDENTS OF TR 2214 WHEN ACCESS VIA THE EXISTING OR COMPLETED ROADWAY IS UNAVAILABLE. FOR PUBLIC USE, THE TEMPORARY ROAD FOR MAINTAINING TRAFFIC IS EXPECTED TO PERFORM SIMILARLY TO THE EXISTING STRUCTURE WITH OVERTOPPING EXPECTED DURING 50% ANNUAL EXCEEDANCE PROBABILITY EVENTS (2-YEAR STORM) OR GREATER.

SHARED USE OF THE TEMPORARY ROAD FOR CONSTRUCTION ACTIVITIES AND MAINTENANCE OF TRAFFIC WILL BE PERMITTED SO LONG AS PUBLIC ACCESS IS NOT IMPEDED. THE COST OF ALL WORK TO CONSTRUCT, MAINTAIN, AND REMOVE THE TEMPORARY ROAD SHALL BE INCLUDED IN THIS ITEM. WORK TO MAINTAIN THE TEMPORARY ROAD SHALL INCLUDE BUT NOT BE LIMITED TO MAINTAINING A STANDARD TEMPORARY DISCHARGE OF 468 CFS WITHIN THE WATERWAY, WITHOUT CAUSING THE WATER SURFACE TO EXCEED 666 FEET. PLACEMENT OF TEMPORARY FILL WITHIN THE WATERWAY USED TO CONSTRUCT THE TEMPORARY ROAD MUST BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR WATERWAY PERMITS. PROVIDE WORKING DRAWINGS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

ANY ADDITIONAL TEMPORARY ACCESS FILL NECESSARY FOR CONSTRUCTION ACTIVITIES SHALL BE INCIDENTAL TO THE PROJECT AND MUST BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR WATERWAY PERMITS.

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES BY USE OF THE EXISTING ROADWAY, THE COMPLETED ROADWAY, OR ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE
ITEM DURATION OF NOTICE DUE TO CLOSURE PERMITS & PIO

RAMP & ROAD CLOSURES >= 2 WEEKS 21 CALENDAR DAYS PRIOR TO CLOSURE

> 12 HOURS 14 CALENDAR DAYS
& < 2 WEEKS PRIOR TO CLOSURE

<= 12 HOURS 4 CALENDAR DAYS
PRIOR TO CLOSURE

LANE CLOSURES & RESTRICTIONS >= 2 WEEKS 14 CALENDAR DAYS PRIOR TO CLOSURE
< 2 WEEKS 5 BUSINESS DAYS PRIOR TO CLOSURE

START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES N/A 14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE
ITEM DURATION OF CLOSURE SIGN DISPLAYED TO PUBLIC

RAMP & ROAD CLOSURES >=2 WEEKS 14 CALENDAR DAYS PRIOR TO CLOSURE

ROAD CLOSURES > 12 HOURS 7 CALENDAR DAYS
& < 2 WEEKS PRIOR TO CLOSURE

CLOSURES <= 12 HOURS 2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 2 M. GAL.

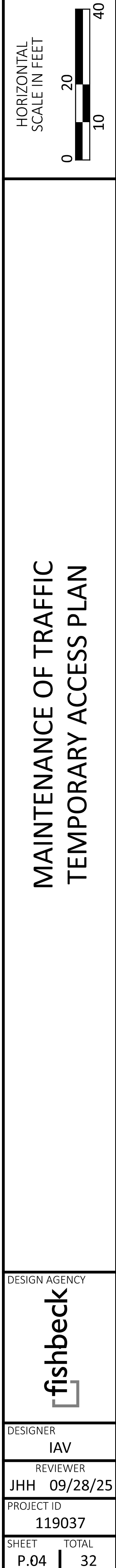
ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 304, AGGREGATE BASE 87 CU. YD

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.



SHEET NUMBER													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.03	P.06												1						
LS													LS	201	11000	LS		ROADWAY	
	79												79	203	10000	79	CY	CLEARING AND GRUBBING	
	985												985	203	20000	985	CY	EXCAVATION	
	409												409	204	10000	409	SY	EMBANKMENT	
	112.5												112.5	606	15050	112.5	FT	SUBGRADE COMPACTION	
																		GUARDRAIL, TYPE MGS	
	4												4	606	26550	4	EACH		
	4												4	606	35002	4	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
																		MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
																		EROSION CONTROL	
	99												99	659	00300	99	CY	TOPSOIL	
	891												891	659	10000	891	SY	SEEDING AND MULCHING	
	45												45	659	14000	45	SY	REPAIR SEEDING AND MULCHING	
	45												45	659	15000	45	SY	INTER-SEEDING	
	0.12												0.12	659	20000	0.12	TON	COMMERCIAL FERTILIZER	
	0.18												0.18	659	31000	0.18	ACRE	LIME	
	16												16	659	35000	16	MGAL	WATER	
													5,500	832	30000	5,500	EACH	EROSION CONTROL	
87																		PAVEMENT	
	63												150	304	20000	150	CY	AGGREGATE BASE	
	91												91	304	20001	91	CY	AGGREGATE BASE, AS PER PLAN	P.03
	2												2	630	84900	2	EACH	TRAFFIC CONTROL	
	2												2	630	86002	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
																		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
																		STRUCTURES OVER 20 FOOT SPAN	
																		FOR MOE-TR2214-0.414 ESTIMATED QUANTITIES	P.17
LS													LS	615	10001	LS		MAINTENANCE OF TRAFFIC	
	2												2	616	10000	2	MGAL	ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN	P.03
																		WATER	
													LS	614	11000	LS		INCIDENTALS	
													LS	623	10000	LS		MAINTAINING TRAFFIC	
													LS	624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

MDM

REVIEWER

JHH 09/28/25

PROJECT ID

119037

SHEET

P.05

TOTAL

32

REF NO.	SHEET NO.	STATION TO STATION			SIDE	606	606	606		630	630
						GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
			TO			FT	EACH	EACH		EACH	EACH
GR-1	P.07	1+93.83		2+44.71	LT	25	1	1			
GR-2	P.07	1+93.83		2+44.71	RT	25	1	1			
GR-3	P.07	3+45.29		3+97.05	LT	25	1	1			
GR-4	P.07	3+45.29		3+97.00	RT	37.5	1	1			
R-1	P.07	2+31.14			RT/LT				2	2	
TOTALS CARRIED TO GENERAL SUMMARY						112.5	4	4		2	2

SHEET NO.	STATION TO STATION			203	203		659	659	659	659	659	659	659
				EXCAVATION	EMBANKMENT		TOPSOIL	SEEDING AND MULCHING	REPAIR SEEDING AND MULCHING	INTER-SEEDING	COMMERCIAL FERTILIZER	LIME	WATER
				CY	CY		CY	SY	SY	SY	TON	ACRE	MGAL
		TO											
P.08	0+50.00		1+00.00	26	0		2.2	20	1	1	0.003	0.004	0.4
P.09	1+50.00		2+00.00	37	160		24.8	223	11.15	11.15	0.030	0.046	3.9
P.10	2+32.93		3+57.27	0	246		17.2	155	7.75	7.75	0.021	0.032	2.7
P.11	4+00.00		4+00.00	2	466		31.1	280	14	14	0.038	0.058	5.0
P.12	4+50.00		4+50.00	10	111		19.8	178	8.9	8.9	0.024	0.037	3.2
P.13	4+74.01		4+74.01	4	2		3.9	35	1.75	1.75	0.005	0.007	0.6
P.14	5+00.00		5+00.00	0	0		0.0	0	0	0	0.000	0.000	0.0
TOTALS CARRIED TO GENERAL SUMMARY				79	985		99	891	45	45	0.12	0.18	16

STATION RANGE			DISTANCE (D)	AVERAGE WIDTH (W)	CADD GENERATED AREA	204		304	304
			FT	FT	SQ YD	SUBGRADE COMPACTION		AGGREGATE BASE	AGGREGATE BASE, AS PER PLAN
0+86.48	TO	2+43.00	156.52	12.00	208.34			34.72	
					225.73	225.73			50.16
3+47.00		4+74.01	127.01	12.00	168.91			28.15	
					183.02	183.02			40.67
SUBTOTALS						408.75		62.88	90.83
TOTALS CARRIED TO GENERAL SUMMARY						409		63	91

SUB-SUMMARY

DESIGN AGENCY



DESIGNER

MDM

REVIEWER

JHH 09/28/25

PROJECT ID

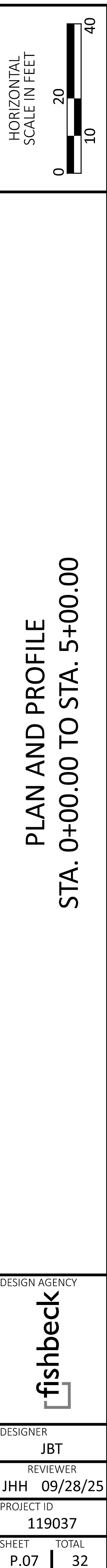
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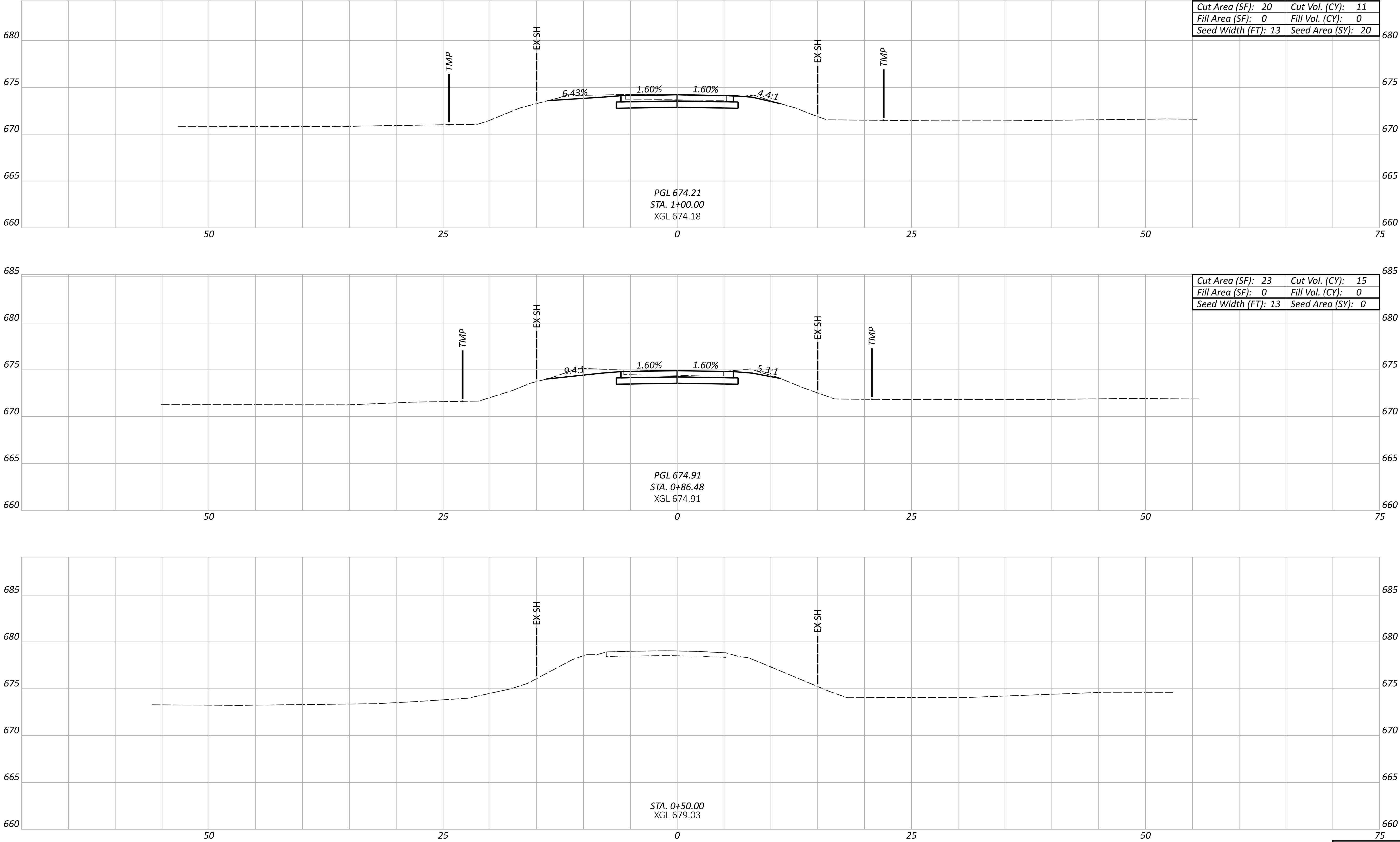
SHEET

P.06

TOTAL

32





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Cut Area (SF):	23	Cut Vol. (CY):	15
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Seed Width (FT):	13	Seed Area (SY):	0

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fishbeck

DESIGN AGENCY

JBT

DESIGNER

JHH 09/28/25

REVIEWER

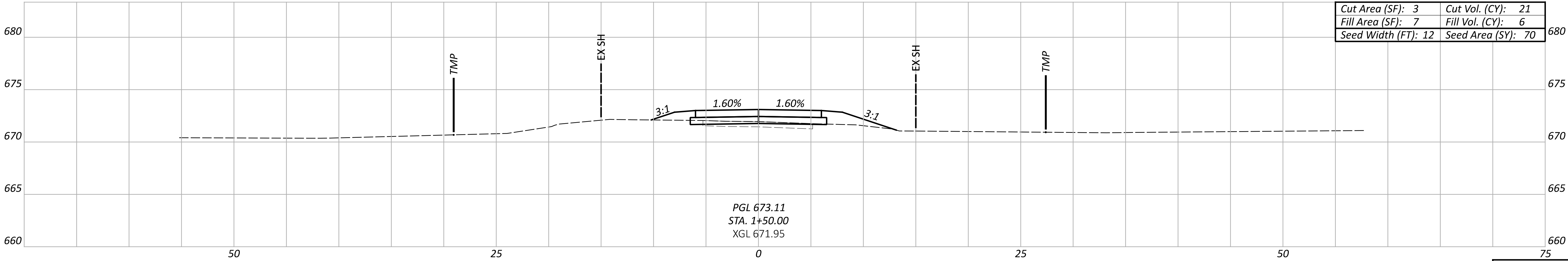
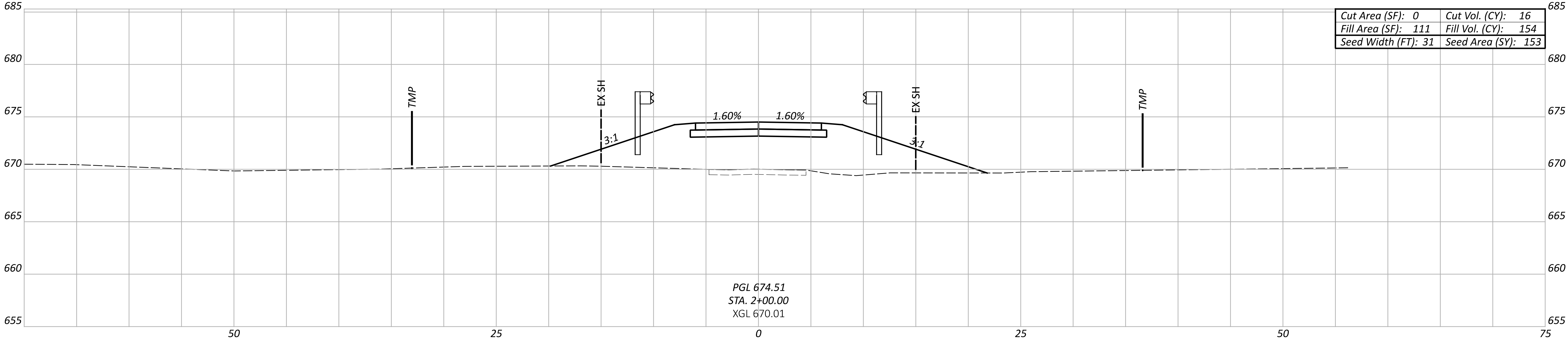
119037

PROJECT ID

SHEET TOTAL

P.08 32

CROSS SECTIONS
STA. 0+50.00 TO STA. 1+00.00



Sheet Totals		
Seeding	Cut	Fill
223	37	160

DESIGN AGENCY

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DESIGNER

JBT

REVIEWER

JHH 09/28/25

PROJECT ID

119037

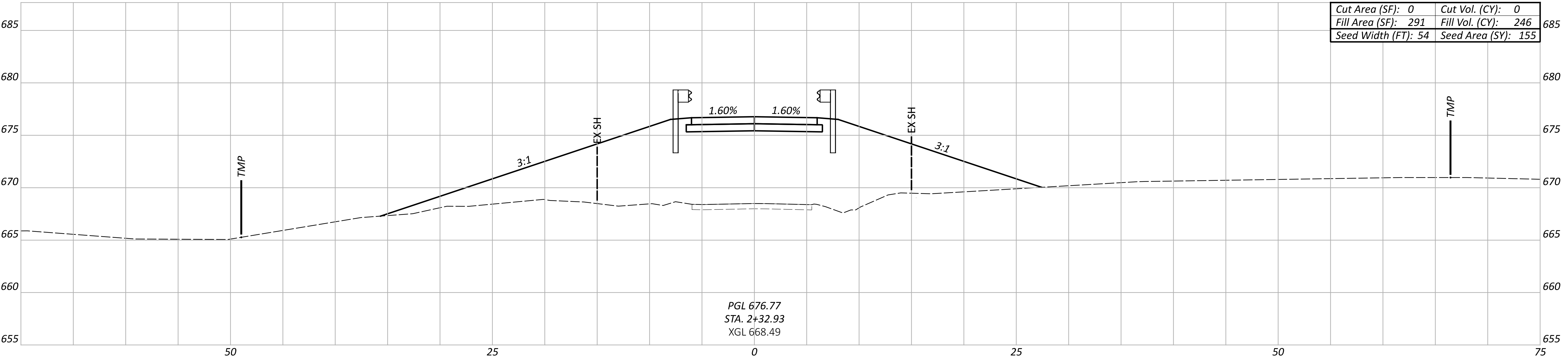
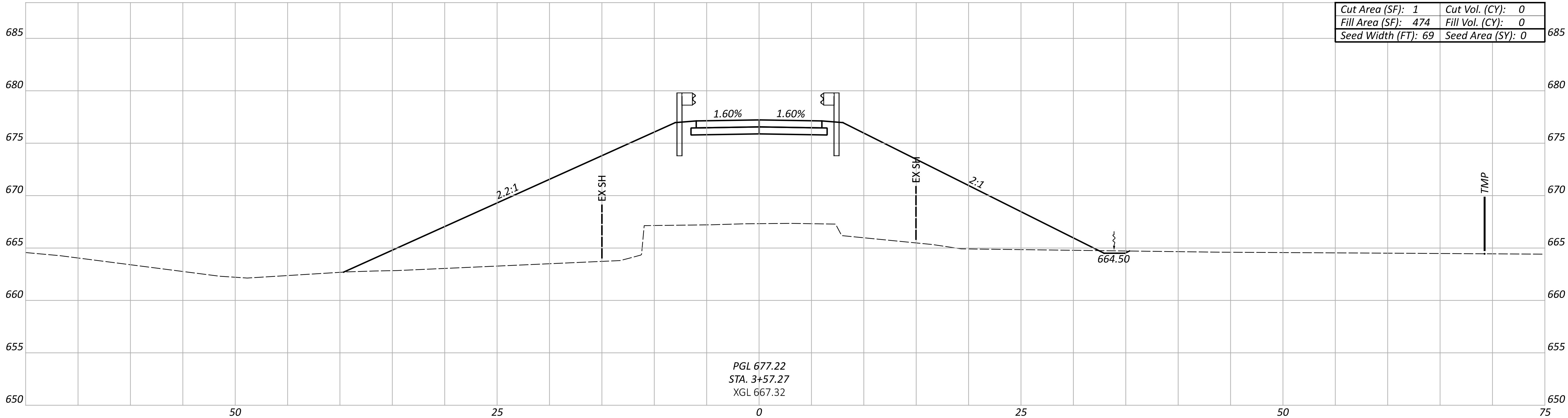
SHEET

P.09

TOTAL

32

CROSS SECTIONS
STA. 1+50.00 TO STA. 2+00.00



CROSS SECTIONS
STA. 2+32.93 TO STA. 3+57.27

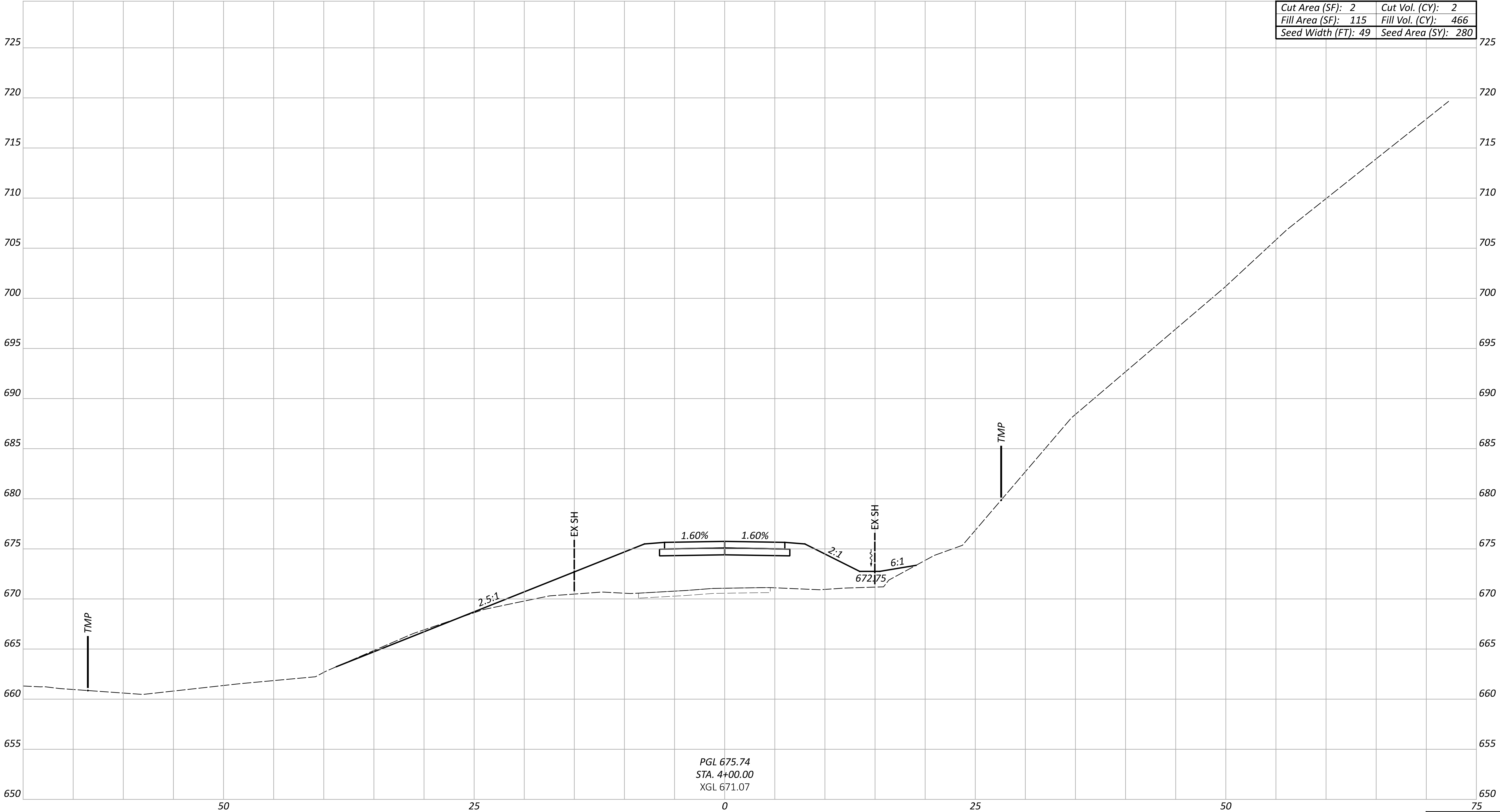
DESIGN AGENCY
fishbeck

DESIGNER
JBT

REVIEWER
JHH 09/28/25

PROJECT ID
119037

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
155	0	246	P.10	32



CROSS SECTIONS
STA. 4+00.00

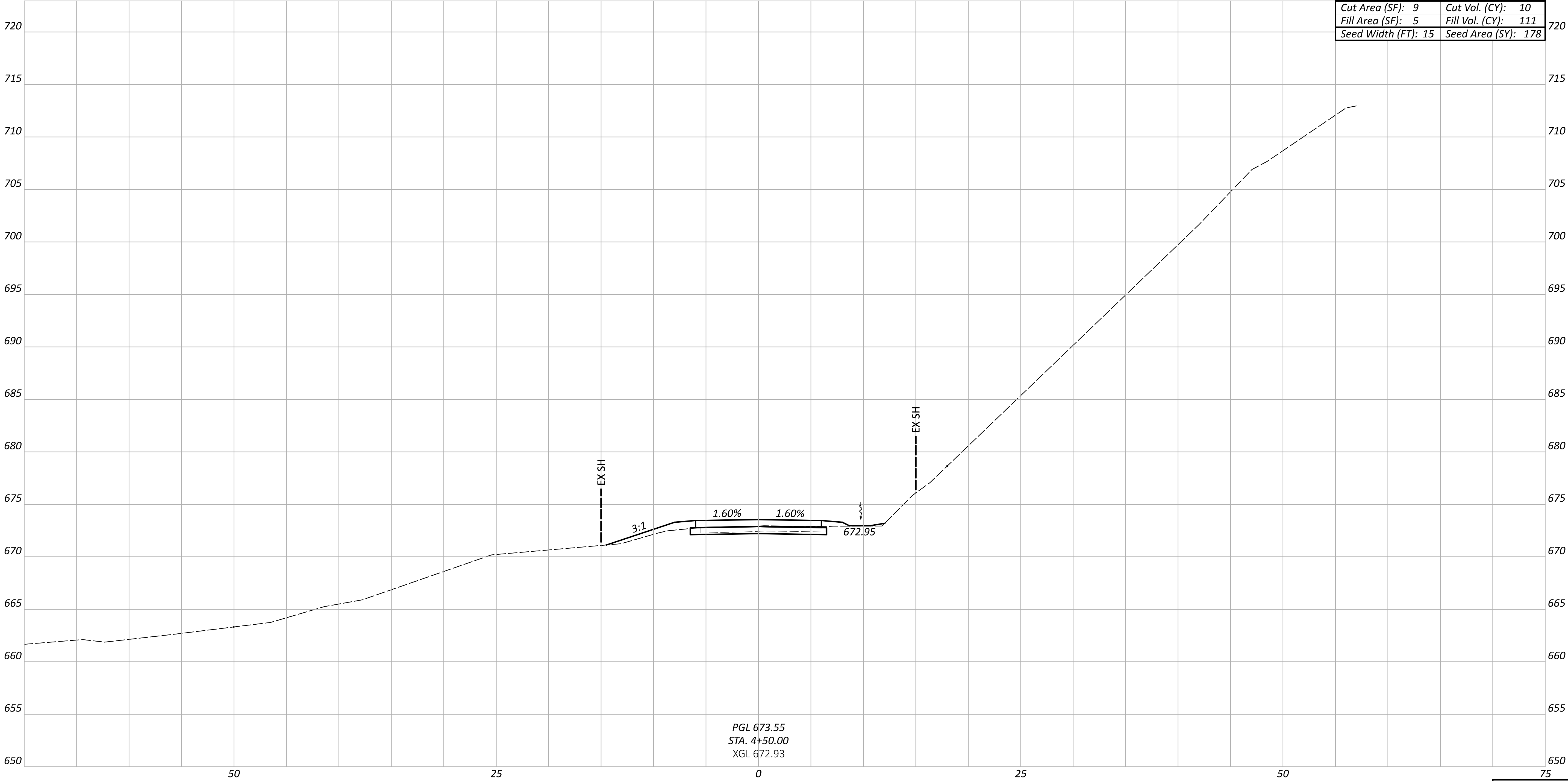
DESIGN AGENCY
fishbeck

DESIGNER
JBT

REVIEWER
JHH 09/28/25

PROJECT ID
119037

Sheet Totals			SHEET TOTAL	
Seeding	Cut	Fill	P.11	32
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Fill Area (SF):	5	Fill Vol. (CY):	111
Seed Width (FT):	15	Seed Area (SY):	178

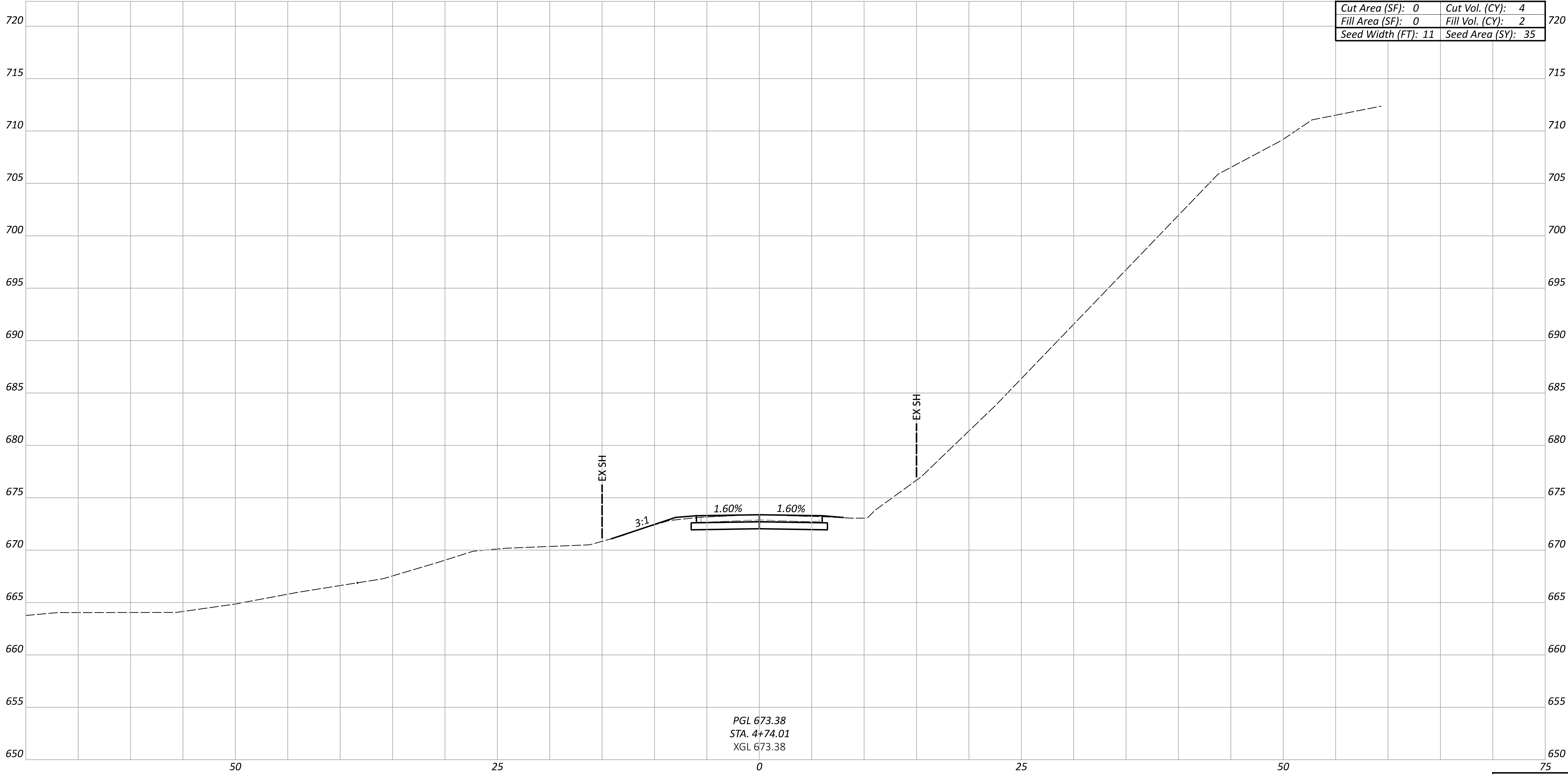
PGL 673.55
STA. 4+50.00
XGL 672.93

Sheet Totals		
Seeding	Cut	Fill
178	10	111

SHEET	TOTAL
P.12	32

	DESIGN AGENCY
	JBT
	REVIEWER
JHH	09/28/25
PROJECT ID	
119037	

CROSS SECTIONS
STA. 4+50.00



PGL 673.38
STA. 4+74.01
XGL 673.38

Sheet Totals			PROJECT ID	
Seeding	Cut	Fill	SHEET	TOTAL
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CROSS SECTIONS
STA. 4+74.01

DESIGN AGENCY

fishbeck

DESIGNER

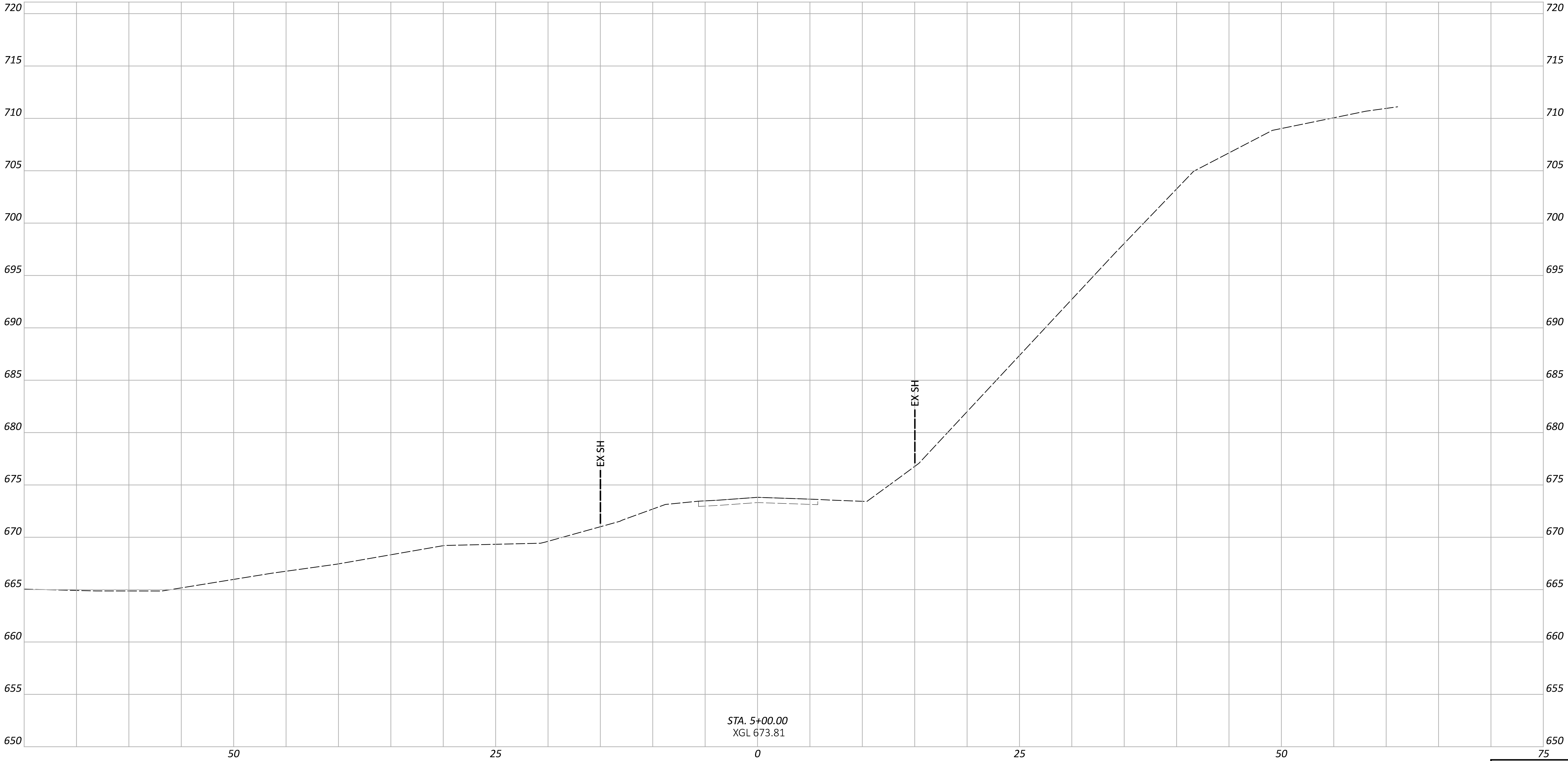
JBT

REVIEWER

JHH 09/28/25

PROJECT ID

119037



Sheet Totals		
Seeding	Cut	Fill
0	0	0

DESIGN AGENCY	
fishbeck	
DESIGNER	
JBT	
REVIEWER	
JHH 09/28/25	
PROJECT ID	
119037	
SHEET	TOTAL
P.14	32

CROSS SECTIONS
STA. 5+00.00

PROFILE ALONG C R/W & CONSTRUCTION TR 2214

SFN		5631115	
DESIGN AGENCY 			
DESIGNER		CHECKER	
MLF		MT	
REVIEWER			
JBD 09/30/25			
PROJECT ID			
119037			
SUBSET		TOTAL	
1		14	
SHEET		TOTAL	
P.15		32	

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- DS-1-92 DATED (REVISED) 7-15-22
- PSID-1-13 DATED (REVISED) 7-19-24
- SICD-1-21 DATED (REVISED) 1-19-24
- SICD-2-14 DATED (REVISED) 1-15-21
- TST-1-99 DATED (REVISED) 1-15-21

AND TO THE FOLLOWING STANDARD CONSTRUCTION DRAWING(S):

- DM-1.1 DATED 7-17-20

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

- 800 DATED 7-19-24

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 10th 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.

REDUNDANCY

THE FOLLOWING ITEM(S) WERE CONSIDERED NON-REDUNDANT FOR DESIGN AND INCLUDE A LOAD MODIFIER EQUAL TO 1.05 IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.4.: DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 (101'-8" LENGTH)

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

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC5, WITH 3/8 IN MAX AGGREGATE SIZE - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

CONCRETE REINFORCEMENT:
EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

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

DESIGN DATA

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI

WELDED WIRE FABRIC:
YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND:
AREA = 0.217 SQ.IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

MONOLITHIC WEARING SURFACE

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

ROCK-SOCKETED SHAFTS

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 407.2 KIPS AT THE REAR ABUTMENT AND 393 KIPS AT THE FORWARD ABUTMENT. THE REAR ABUTMENT SHAFTS INCLUDE AN ADDITIONAL 30.2 KIPS OF FACTORED LOAD PER SHAFT TO ACCOUNT FOR POSSIBLE DOWNDRAG LOADING. THE FORWARD ABUTMENT SHAFTS INCLUDE AN ADDITIONAL 16.0 KIPS OF FACTORED LOAD PER SHAFT TO ACCOUNT FOR POSSIBLE DOWNDRAG LOADING. THE MAXIMUM FACTORED LOADS ARE RESISTED BY TIP RESISTANCE. AT THE REAR ABUTMENT, THE FACTORED TIP RESISTANCE IS 11,406 KIPS. AT THE FORWARD ABUTMENT, THE FACTORED TIP RESISTANCE IS 4,594 KIPS.

DECK PLACEMENT DESIGN ASSUMPTIONS

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

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 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"

ROCK CHANNEL PROTECTION, TYPE A WITH FILTER, AS PER PLAN

ALL REQUIREMENTS FOR ITEM 601 SHALL APPLY EXCEPT THAT USE OF DEMOLISHED CONCRETE RUBBLE FROM THE EXISTING STRUCTURE SHALL BE PERMITTED FOR USE AS ROCK CHANNEL PROTECTION PROVIDED IT IS THE APPROPRIATE SIZE AND ANY PROTRUDING REINFORCING HAS BEEN CUT OFF.

BRIDGE DECK SURFACE FINISH

ALL REQUIREMENTS FOR ITEM 511 SHALL APPLY EXCEPT THAT THE CONTRACTOR SHALL HAVE THE OPTION TO USE A VIBRATORY CONCRETE SCREED AND TINED FINISH FOR THE BRIDGE DECK CONCRETE.

ABBREVIATIONS

- ABUT. - ABUTMENT
- APPR. - APPROACH
- ADT - AVERAGE DAILY TRAFFIC
- ADTT - AVERAGE DAILY TRUCK TRAFFIC
- BRG. - BEARING
- BM - BENCHMARK
- BTWN. - BETWEEN
- BOT. - BOTTOM
- BTA - BRIDGE TERMINAL ASSEMBLY
- C/C - CENTER-TO-CENTER
- CL - CENTERLINE
- C.J. - CONSTRUCTION JOINT
- CLR. - CLEAR
- CMS OR C&MS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
- CONST. - CONSTRUCTION
- CFS - CUBIC FEET PER SECOND
- Ø - DIAMETER
- DWG. - DRAWING
- D.S. - DRILLED SHAFT
- E.F. - EACH FACE
- EA. - EACH
- ES - EACH SIDE
- EL. OR ELEV. - ELEVATION
- EMBED. - EMBEDMENT
- EQ. - EQUAL
- EX. - EXISTING
- EXP. - EXPANSION
- F/F - FACE-TO-FACE
- F.A. - FORWARD ABUTMENT
- F.F. - FAR FACE
- FL - FLOWLINE
- FT. - FOOT
- FWD. - FORWARD
- FWS - FUTURE WEARING SURFACE
- LT. - LEFT
- MAX. - MAXIMUM
- MGS - MIDWEST GUARDRAIL SYSTEM
- MIN. - MINIMUM
- N.F. - NEAR FACE
- NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE
- NO. - NUMBER
- OHWM - ORDINARY HIGH WATER MARK
- O/O - OUT-TO-OUT
- PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE
- PL - PLATE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- Q - FLOW
- R.A. - REAR ABUTMENT
- REQ'D - REQUIRED
- RT. - RIGHT
- ROW OR R/W - RIGHT-OF-WAY
- SER. - SERIES
- SPA. - SPACED OR SPACES
- SF - SQUARE FEET
- STA. - STATION
- STD. - STANDARD
- T&B - TOP & BOTTOM
- T/R - TOP OF ROCK
- T.O.S. - TOE OF SLOPE
- TST - TWIN STEEL TUBE
- TYP. - TYPICAL
- U.N.O. - UNLESS NOTED OTHERWISE
- V - VELOCITY
- VPI - VERTICAL POINT OF INTERSECTION
- WWR - WELDED WIRE REINFORCEMENT

GENERAL NOTES
BRIDGE NO. MOE-T2214-00.414
TR2214 OVER SUNFISH CREEK

SFN	
5631115	
DESIGN AGENCY	
fishbeck	
DESIGNER	CHECKER
MLF	MT
REVIEWER	
JBD 09/30/25	
PROJECT ID	
119037	
SUBSET	TOTAL
2	14
SHEET	TOTAL
P.16	32

ESTIMATED QUANTITIES					CALC.	DATE	CHK'D	DATE
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENTS	MLF	6/9/2025	MT	6/10/2025
					SUPER	GENERAL	TOTAL	SHT. REF.
202	11002	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN				LS	
503	11100	LS	COFFERDAMS AND EXCAVATION BRACING				LS	
503	21100	CY	UNCLASSIFIED EXCAVATION				70	
509	10000	LB	EPOXY COATED STEEL REINFORCEMENT	7,143	13,844		20,987	
511	34444	CY	CLASS QC2 CONCRETE, BRIDGE DECK				62	
511	33500	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE				4	
511	43512	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING				102	
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	62	198		250	
513	10201	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN				4,817	11/14
515	15020	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 (100 FT)				3	
515	20000	EACH	INTERMEDIATE DIAPHRAGMS				6	
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER				121	
516	14020	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL				68	
516	44300	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-0" x 1'-6" x 2.586" BEARING PAD & 1'-1" x 1'-7" x 1½" LOAD PLATE)				6	
517	70000	FT	RAILING (TWIN STEEL TUBE)				210	
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC				50	
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE				78	
518	40012	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE				98	
524	94604	FT	DRILLED SHAFTS, 30" DIAMETER, INTO BEDROCK				56	
524	94702	FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK				60	
601	21050	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT				8	
601	32001	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER, AS PER PLAN				126	2/14
611	99710	EACH	PRECAST REINFORCED CONCRETE OUTLET				4	

ESTIMATED QUANTITIES
BRIDGE NO. MOE-T2214-00.414
TR2214 OVER SUNFISH CREEK

SFN
5631115

DESIGN AGENCY
fishbeck

DESIGNER
MT

CHECKER
MLF

REVIEWER
JBD 09/30/25

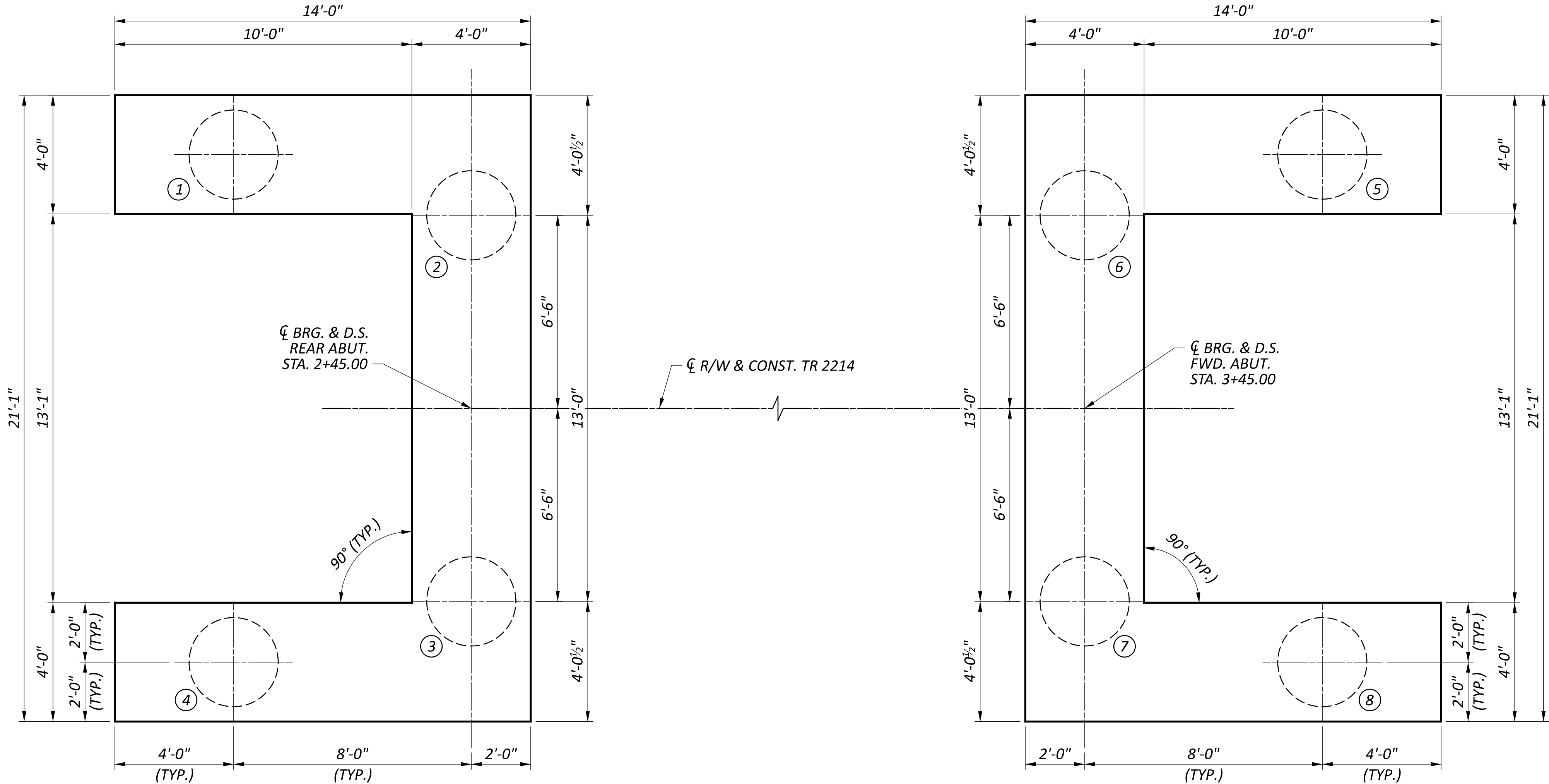
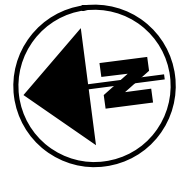
PROJECT ID
119037

SUBSET
3

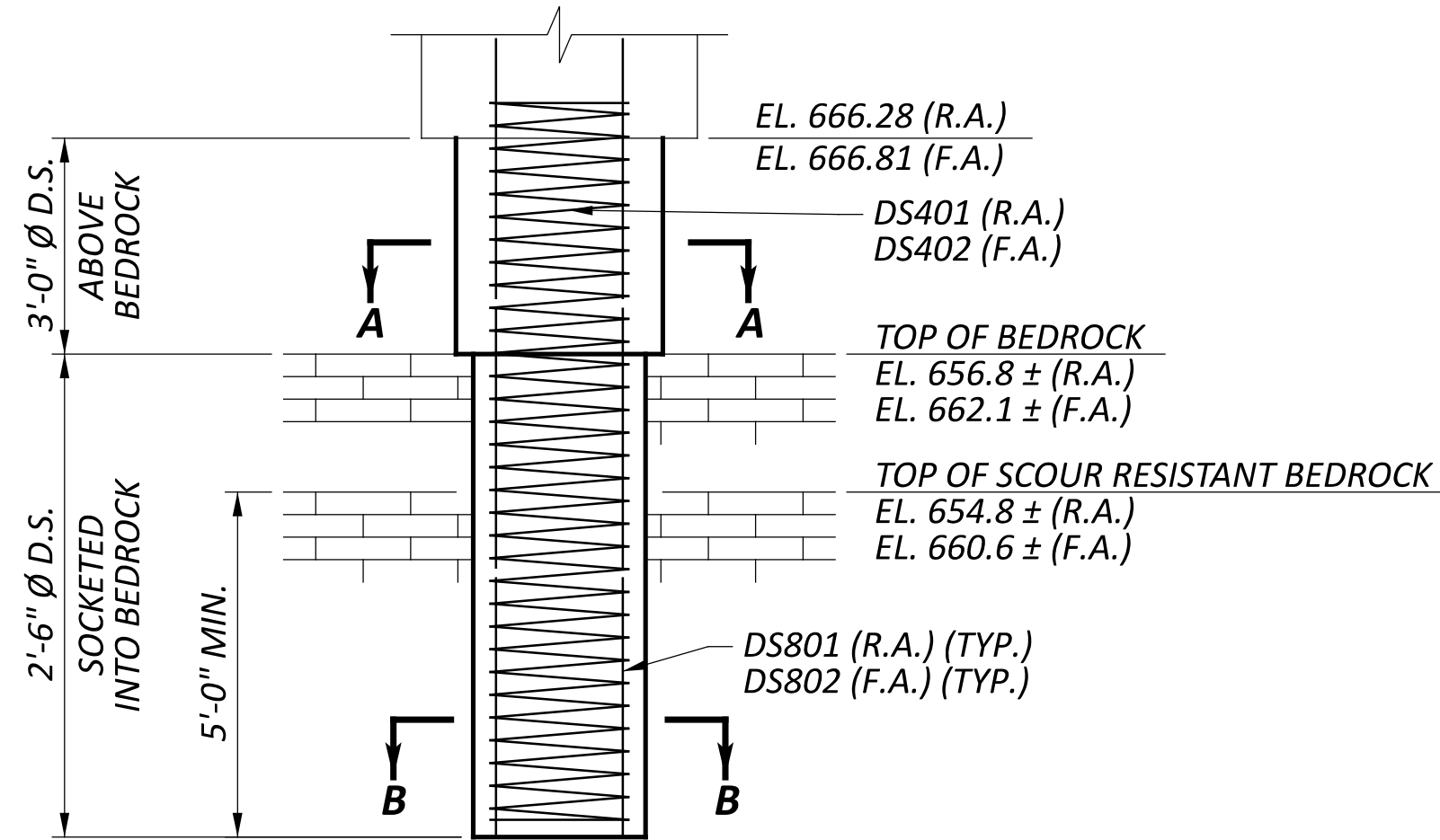
TOTAL
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SHEET
P.17

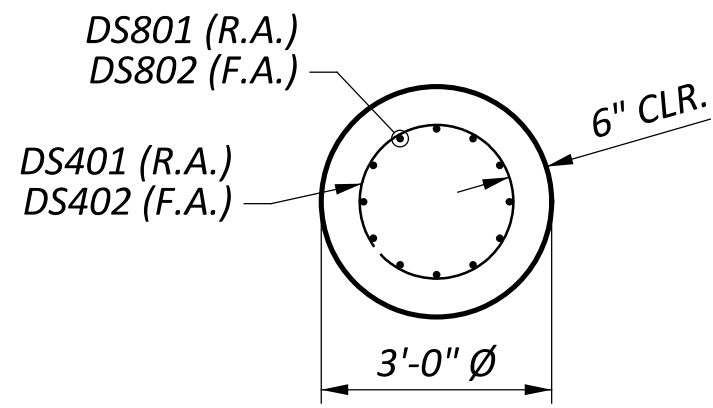
TOTAL
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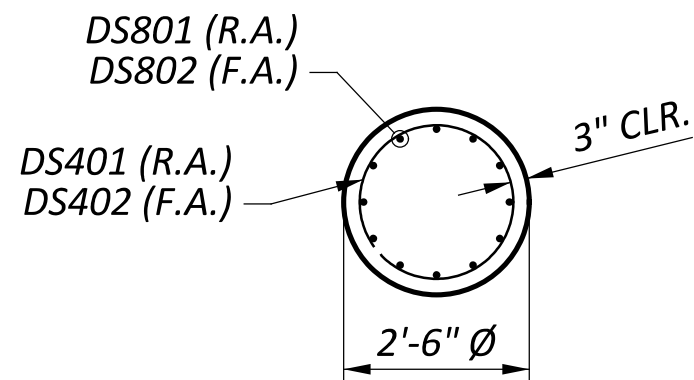
FOUNDATION PLAN



TYPICAL DRILLED SHAFT SECTION



SECTION A-A



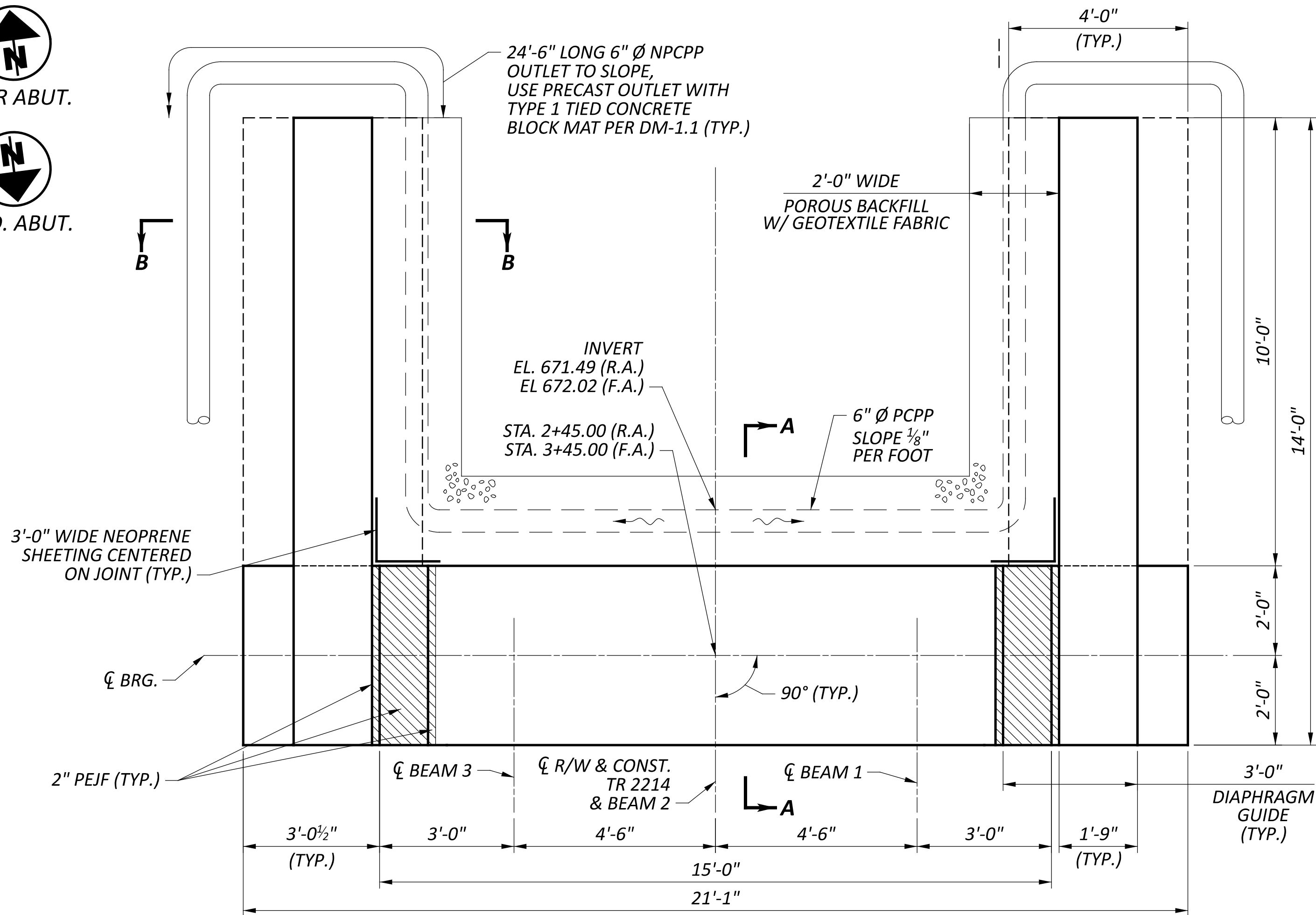
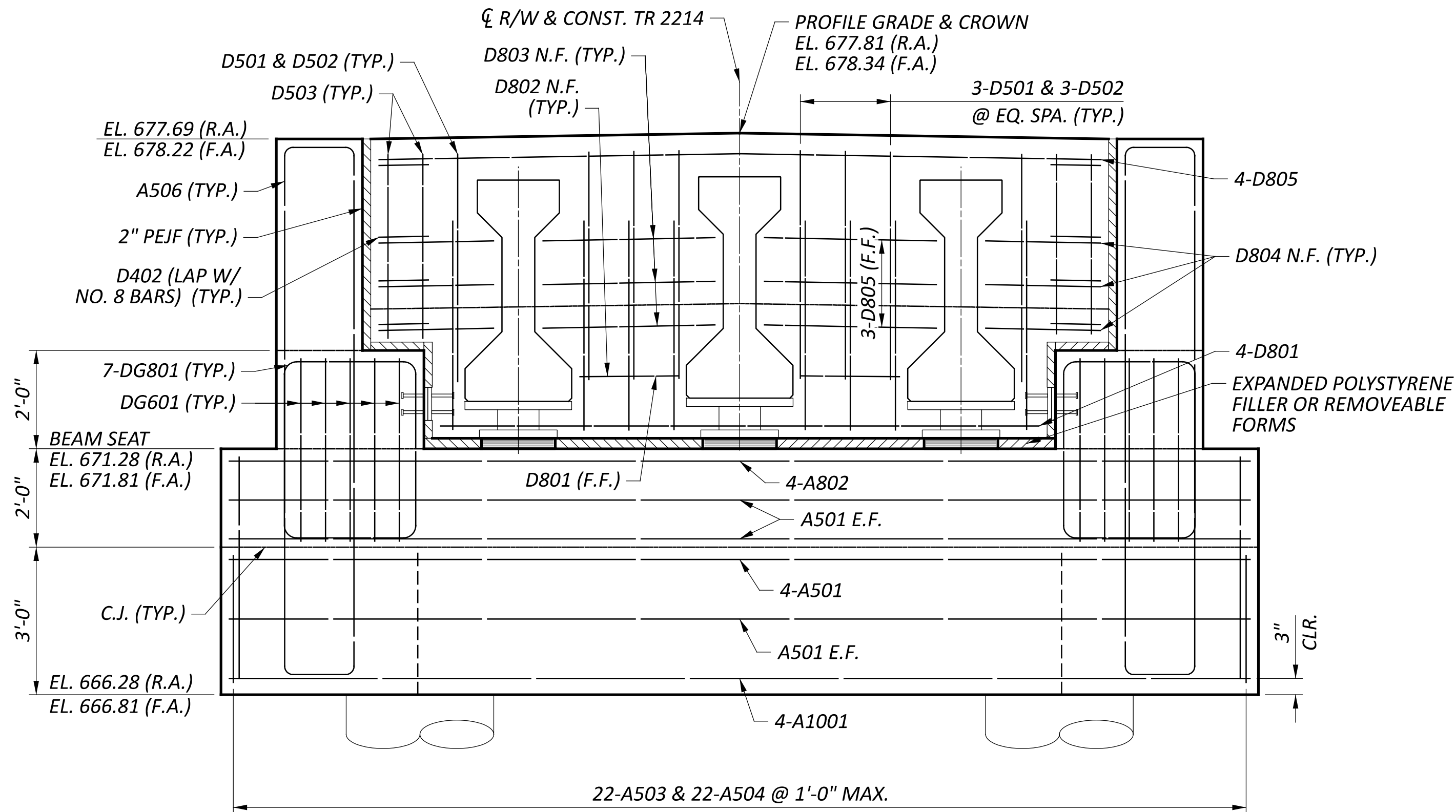
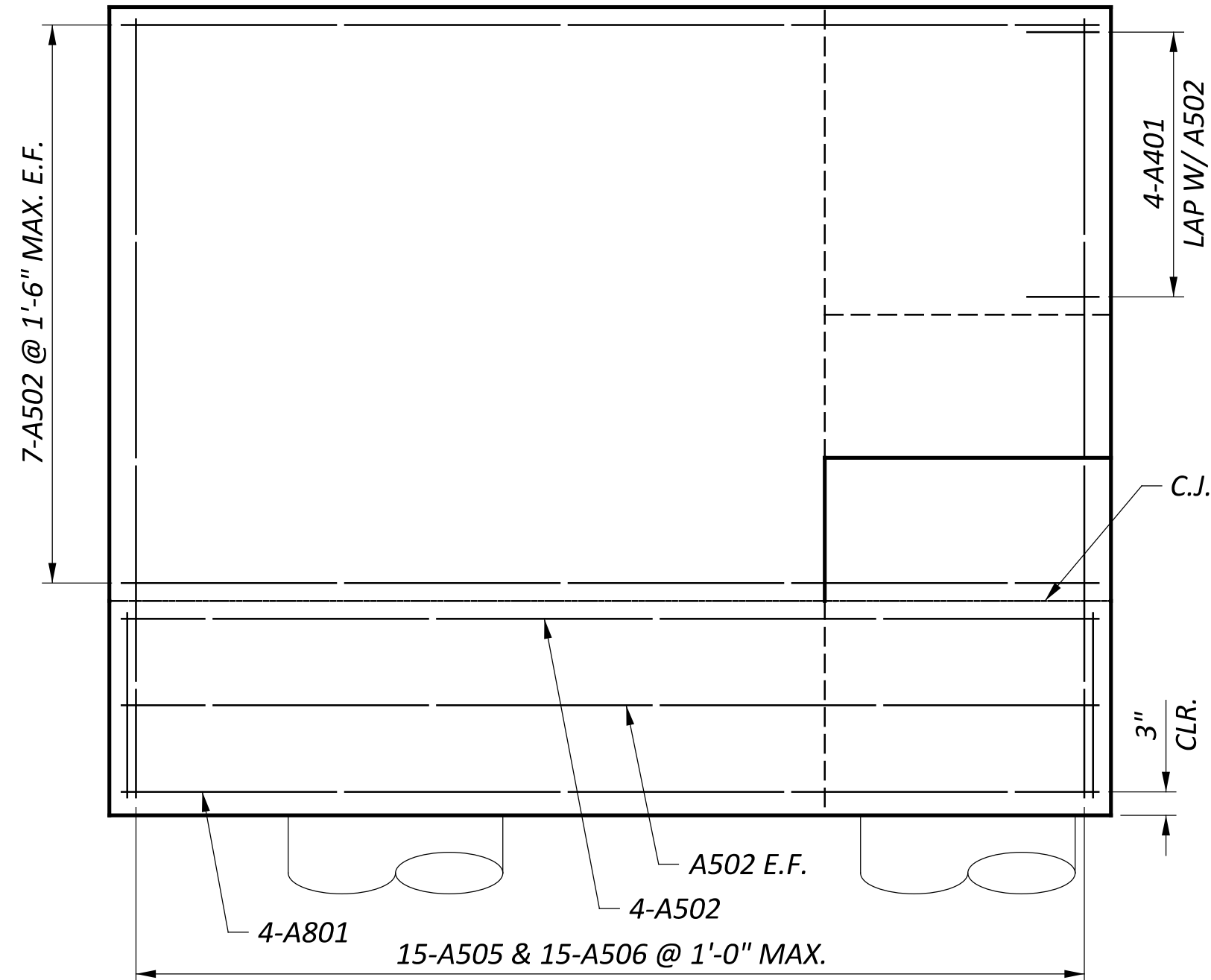
SECTION B-B

LEGEND:

(#) UNIQUE DRILLED SHAFT NUMBER

NOTES:

1. FOR ABUTMENT PLAN, ELEVATION, AND SECTIONS, SEE SHEETS 5.6 / 14 .

**ABUTMENT PLAN****ABUTMENT ELEVATION****WINGWALL ELEVATION**
(NORTHWEST WINGWALL SHOWN, OTHERS SIMILAR)**NOTES:**

- FOR SECTIONS A-A & B-B, SEE SHEET 6 / 14.
- FOR FOUNDATION PLAN, SEE SHEET 4 / 14.
- FOR SEMI-INTEGRAL DIAPHRAGM GUIDE NOTES AND DETAILS NOT SHOWN, SEE SCD SICD-2-14.
- ABUTMENT DIAPHRAGM CONCRETE:
PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

ABUTMENT PLAN & ELEVATION
BRIDGE NO. MOE-T2214-00.414
TR2214 OVER SUNFISH CREEK

SFN
5631115

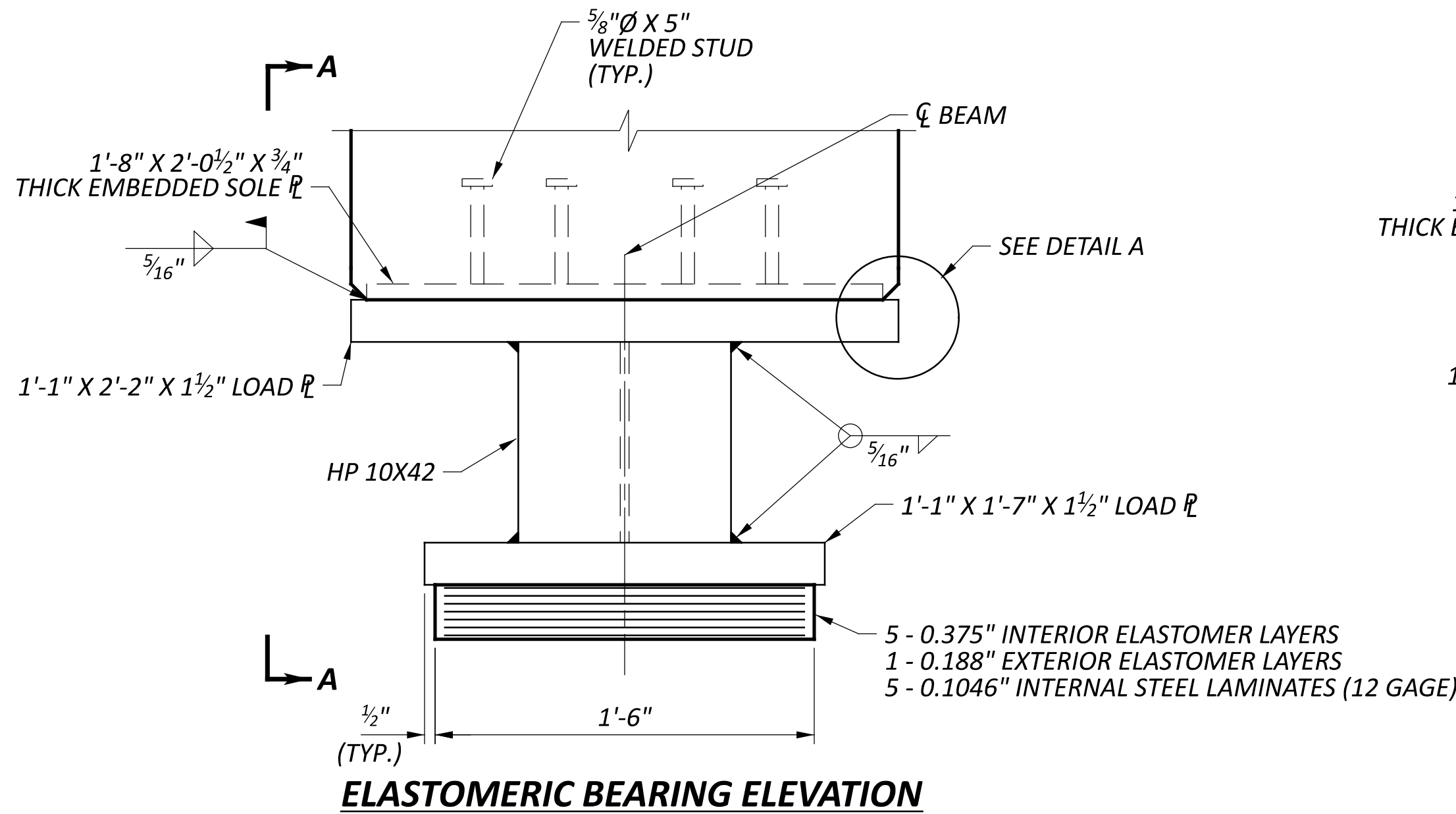
DESIGN AGENCY

fishbeck

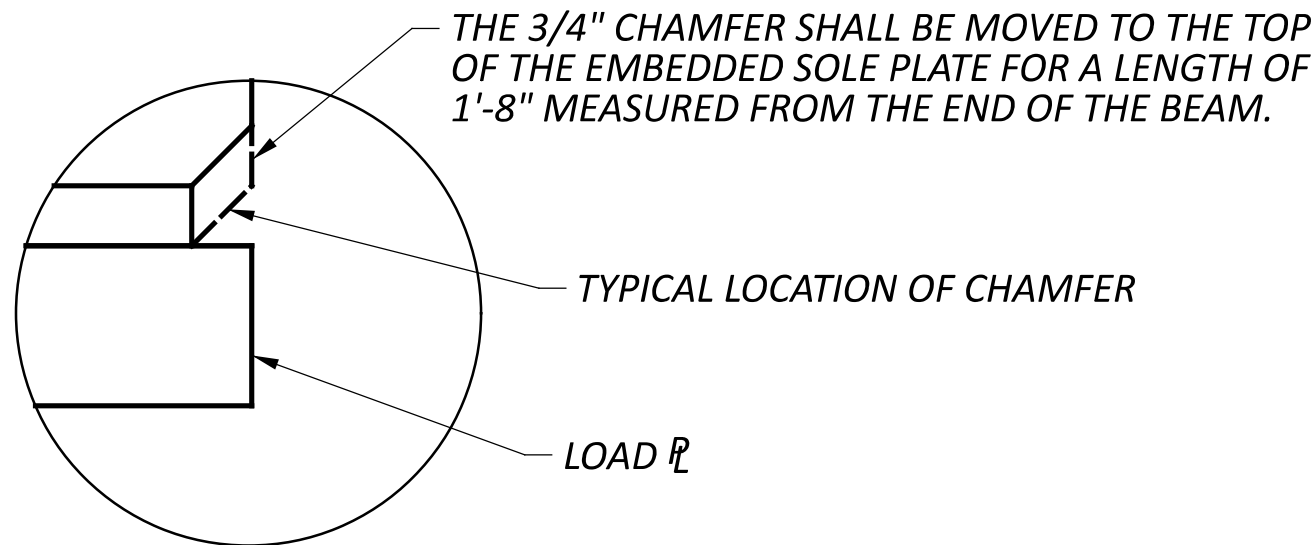
DESIGNER
MLFCHECKER
MTREVIEWER
JBD 09/30/25PROJECT ID
119037SUBSET
5TOTAL
14SHEET
P.19TOTAL
32



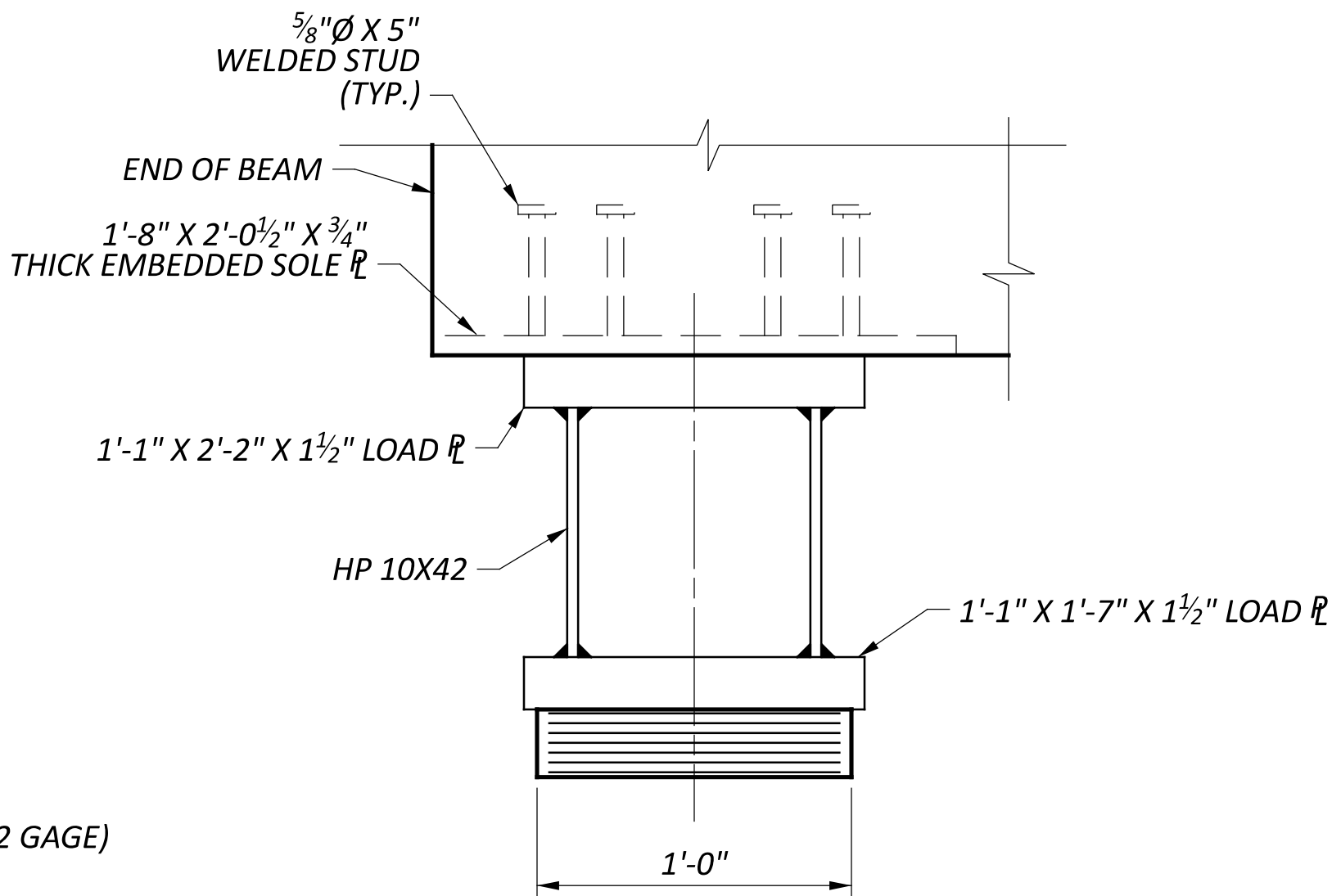
1. FOR ABUTMENT PLAN & ELEVATION, SECTION CUT LOCATIONS,
AND ADDITIONAL NOTES, SEE SHEET 5 / 14.



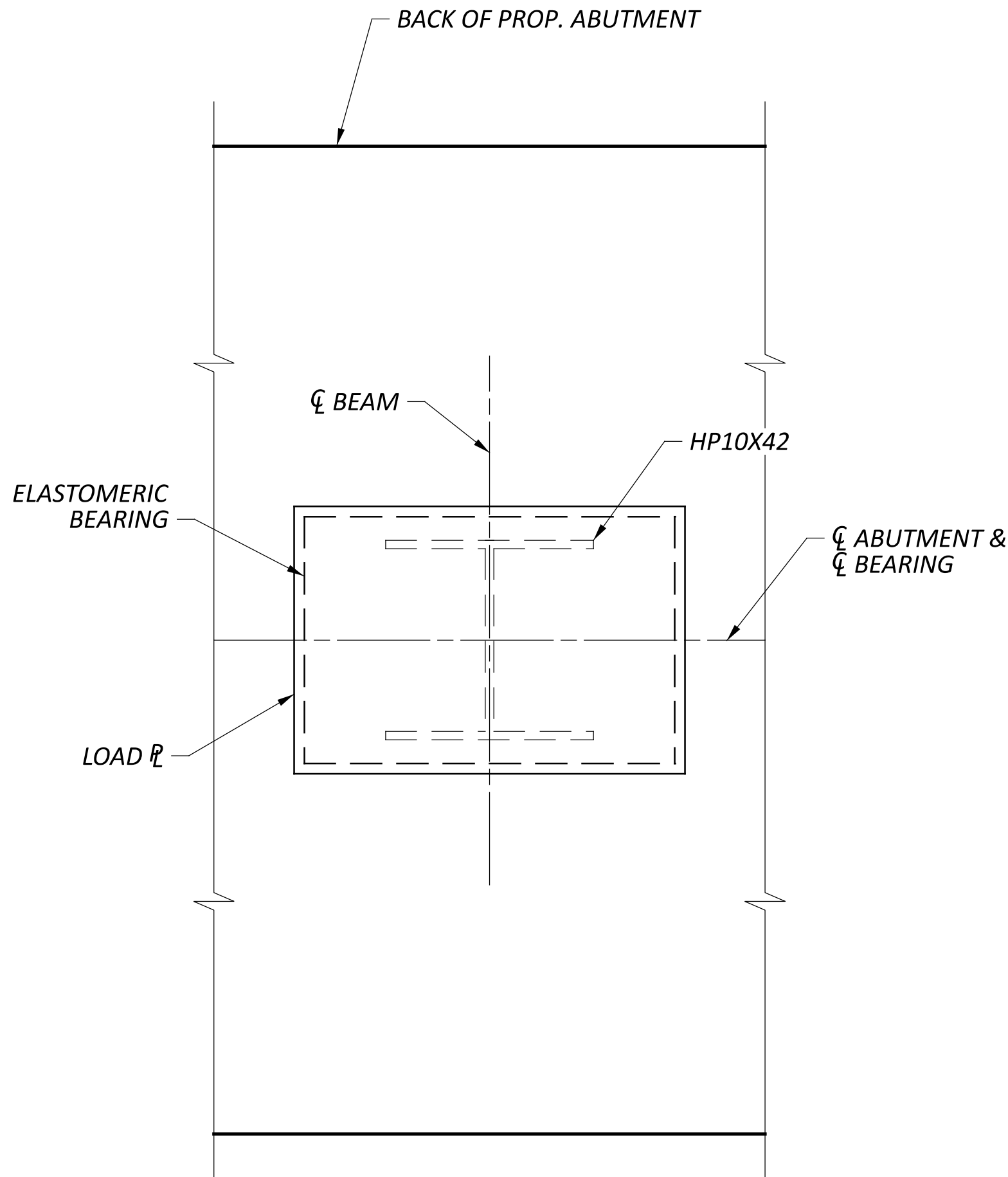
ELASTOMERIC BEARING ELEVATION



DETAIL A



VIEW A-A



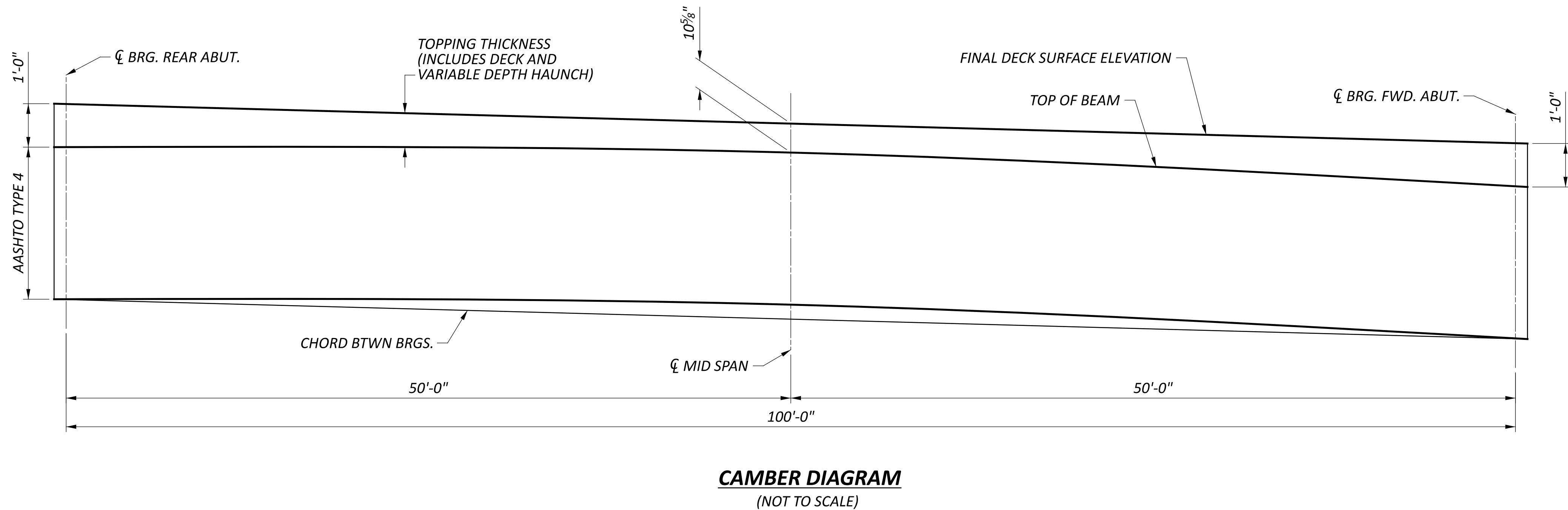
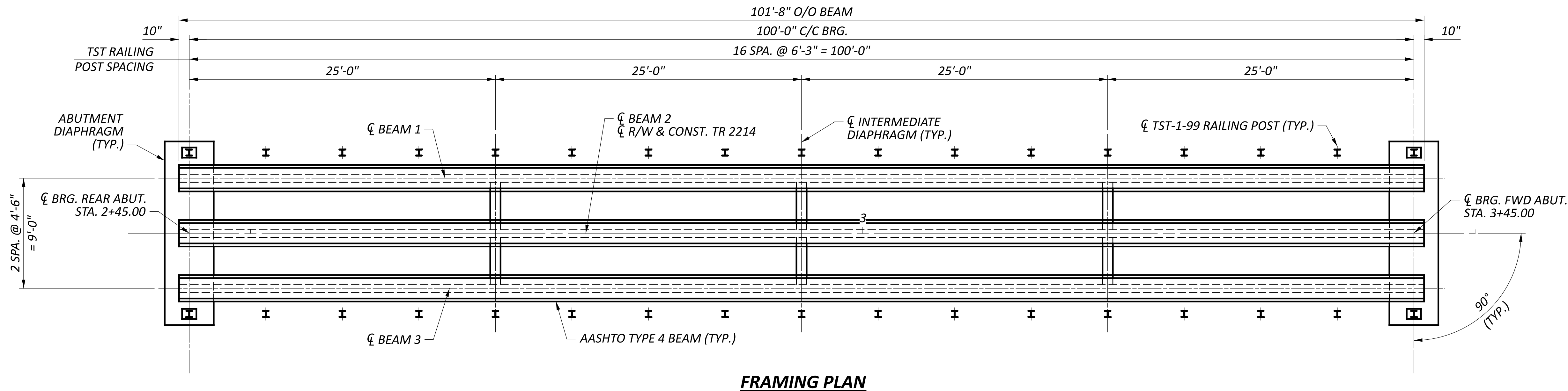
ABUTMENT BEARING PLAN

BEVELED HP SHAPE HEIGHT TABLE	
BEARING LOCATION	HEIGHT
R.A.	6"
F.A.	6"

LAMINATED ELASTOMERIC BEARING DATA					
BEARING LOCATION	BEARING TYPE	NUMBER REQUIRED	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)
R.A.	EXPANSION	3	103.13	58.37	161.50
F.A.	EXPANSION	3	103.13	58.37	161.50

NOTES:

- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS UPSTATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
- ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 STEEL AND SHALL BE GALVANIZED ACCORDING TO C&MS 711.02.
- THE LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE. LOADS ARE UNFACTORED.
- LOCATE HEADED STUDS IN THE I-BEAM TO AVOID PRESTRESSING STRANDS. DETAILED SHOP DRAWINGS SHALL BE SUBMITTED BY THE PRESTRESS BEAM MANUFACTURER FOR THE EMBEDMENT PLATE.
- ALL HEADED STUDS SHALL BE 5/8" DIAMETER, ASTM A108 AND SHALL BE GALVANIZED ACCORDING TO C&MS 711.02.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, STEEL LOAD PLATES, AND STEEL HP SHAPES. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
- FOR ADDITIONAL NOTES AND DETAILS SEE STD. DWG. PSID-1-13.

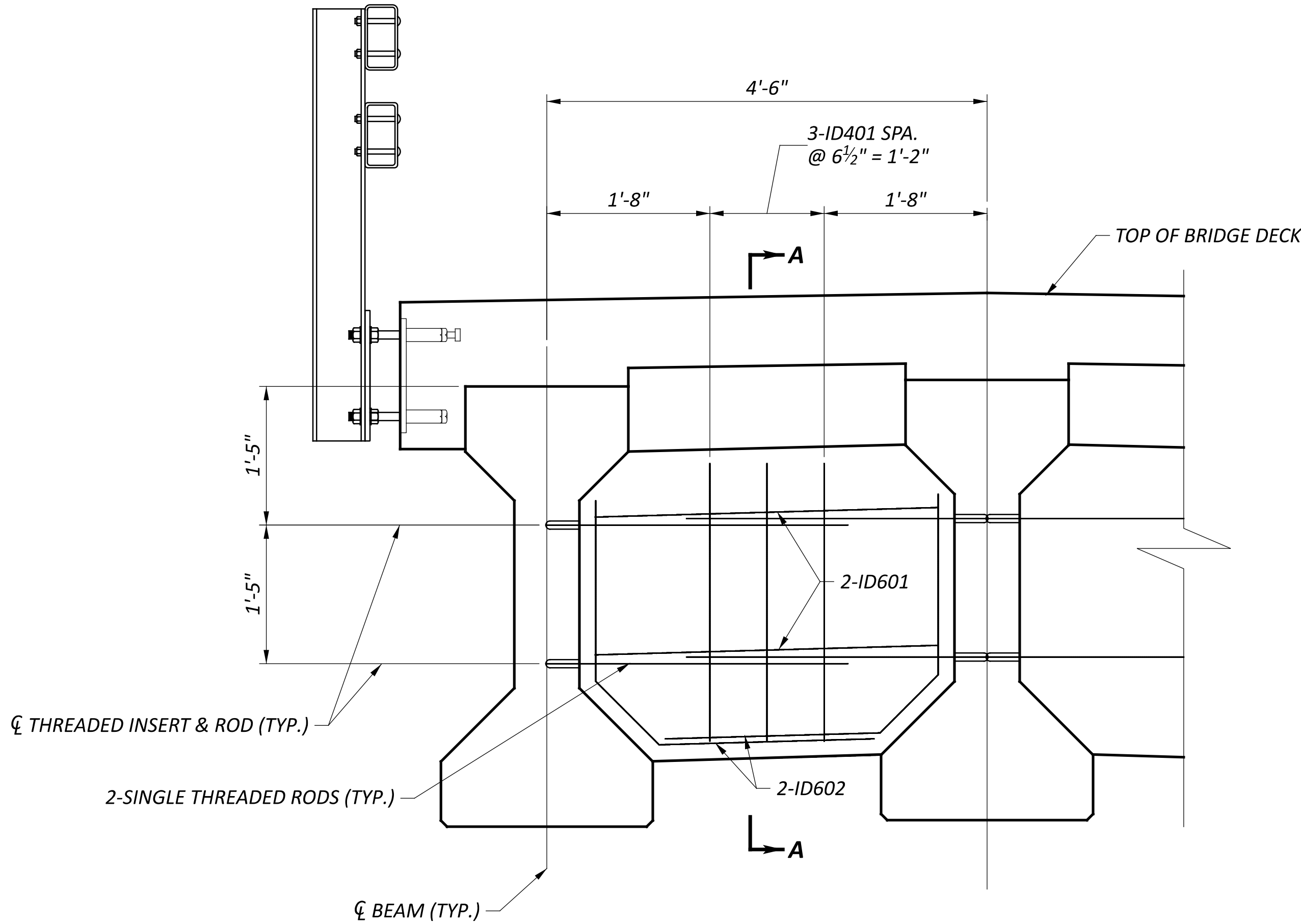
**NOTES:**

- CAMBER:
ESTIMATED CAMBER AT DAY 0 (D_0) IS 1.34 INCHES.
ESTIMATED CAMBER AT DAY 30 (D_{30}) IS 2.30 INCHES.
DEFLECTION DUE TO REMAINING DEAD LOAD (E.G. CONCRETE DECK, DIAPHRAGMS, BRIDGE RAILING, ETC.) IS 1.01 INCH.
THE BEAM SEAT ELEVATIONS ASSUME ESTIMATED CAMBER D30 WITH A SACRIFICIAL HAUNCH THICKNESS OF 2.16 INCHES AT CENTERLINE OF BEAM.
- DECK SLAB THICKNESS FOR CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK CONCRETE IS MEASURED ACCORDING TO C&MS 511. IN ADDITION TO THE DESIGN SLAB THICKNESS, THE QUANTITY INCLUDES A VARIABLE HAUNCH THICKNESS THAT PROVIDES AN ALLOWANCE FOR: VERTICAL GRADE ADJUSTMENT, BEAM CAMBER AND ADDITIONAL SACRIFICIAL HAUNCH THICKNESS.

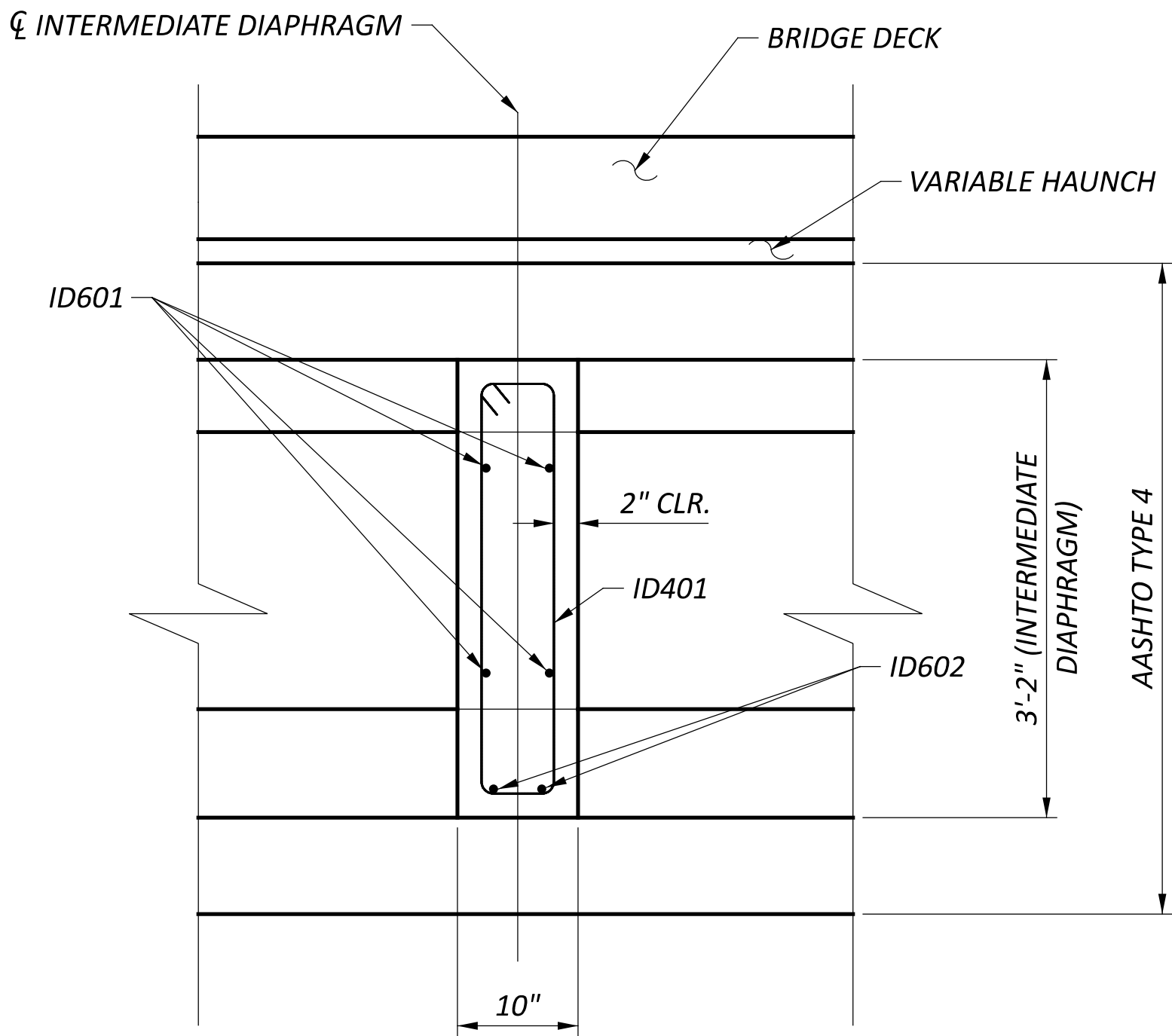


1. B401 AND B402 BARS SHALL BE EPOXY COATED.
2. INITIAL TENSION LOAD = 43.95 KIP/STRAND
HOLD-DOWN FORCE REQUIRED = 15.07 K
3. FOR ADDITIONAL NOTES AND DETAILS NOT SHOWN,
REFER TO STANDARD DRAWING PSID-1-13.
4. ADJUST SPACING OF STEEL REINFORCING AS REQUIRED
TO CLEAR EMBEDDED STEEL PLATE END WELDED STUDS.

BEAM MATERIALS & REINFORCEMENT												
CONCRETE STRENGTHS		B301 BARS REQ'D		B302 BARS REQ'D		B401 BARS REQ'D		B402 BARS REQ'D		B403 BARS REQ'D		BEAM WEIGHT (LBS)
f'ci	f'c											
5,000 psi	7,000 psi	92		34		86		4		92		82,188
BEAM PRESTRESSING STRANDS												
BEAM MARK	NUMBER OF STRANDS PER ROW										TOTAL STRANDS	
	END SECTION							MID-SPAN				
	①	②	③	④	⑤	⑥	⑦	①	②	③		④
B1-B3	8	8	4	1	1	1	1	9	9	5	1	24



INTERMEDIATE DIAPHRAGM PARTIAL ELEVATION

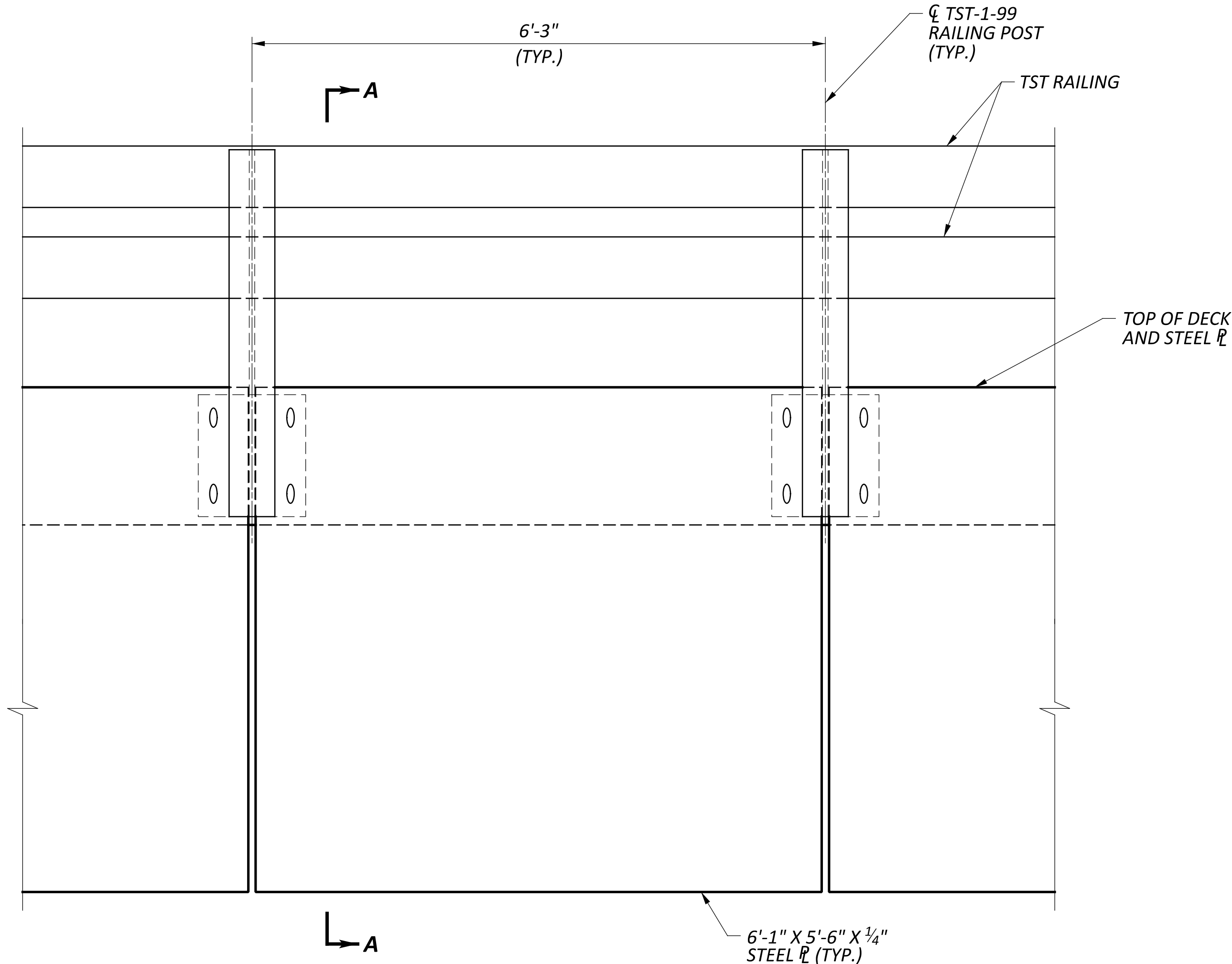


SECTION A-A

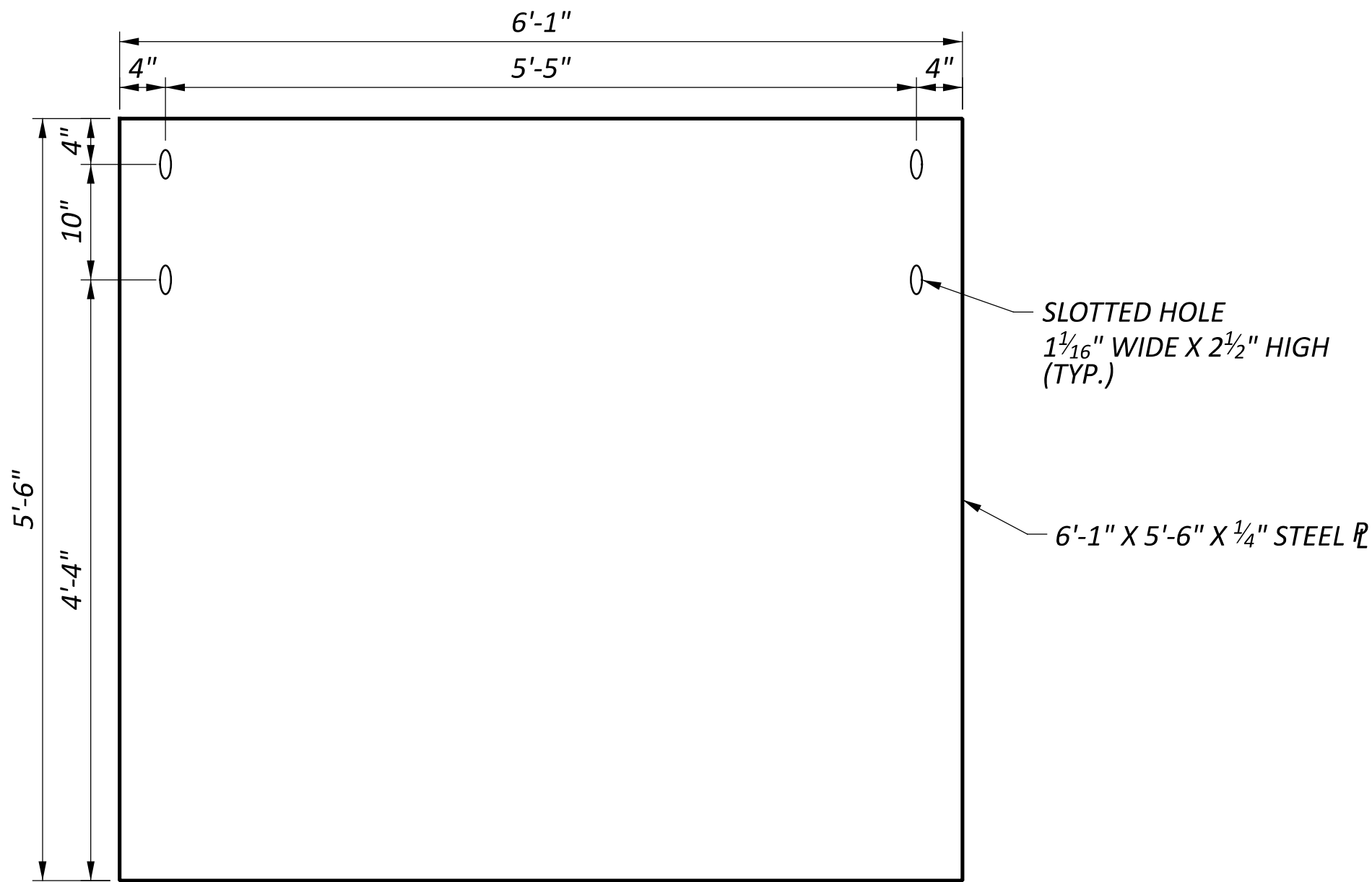
NOTES:
1. FOR ADDITIONAL NOTES AND DETAILS NOT SHOWN,
REFER TO STANDARD DRAWING PSID-1-13.

INTERMEDIATE DIAPHRAGM DETAILS
BRIDGE NO. MOE-T2214-00.414
TR2214 OVER SUNFISH CREEK

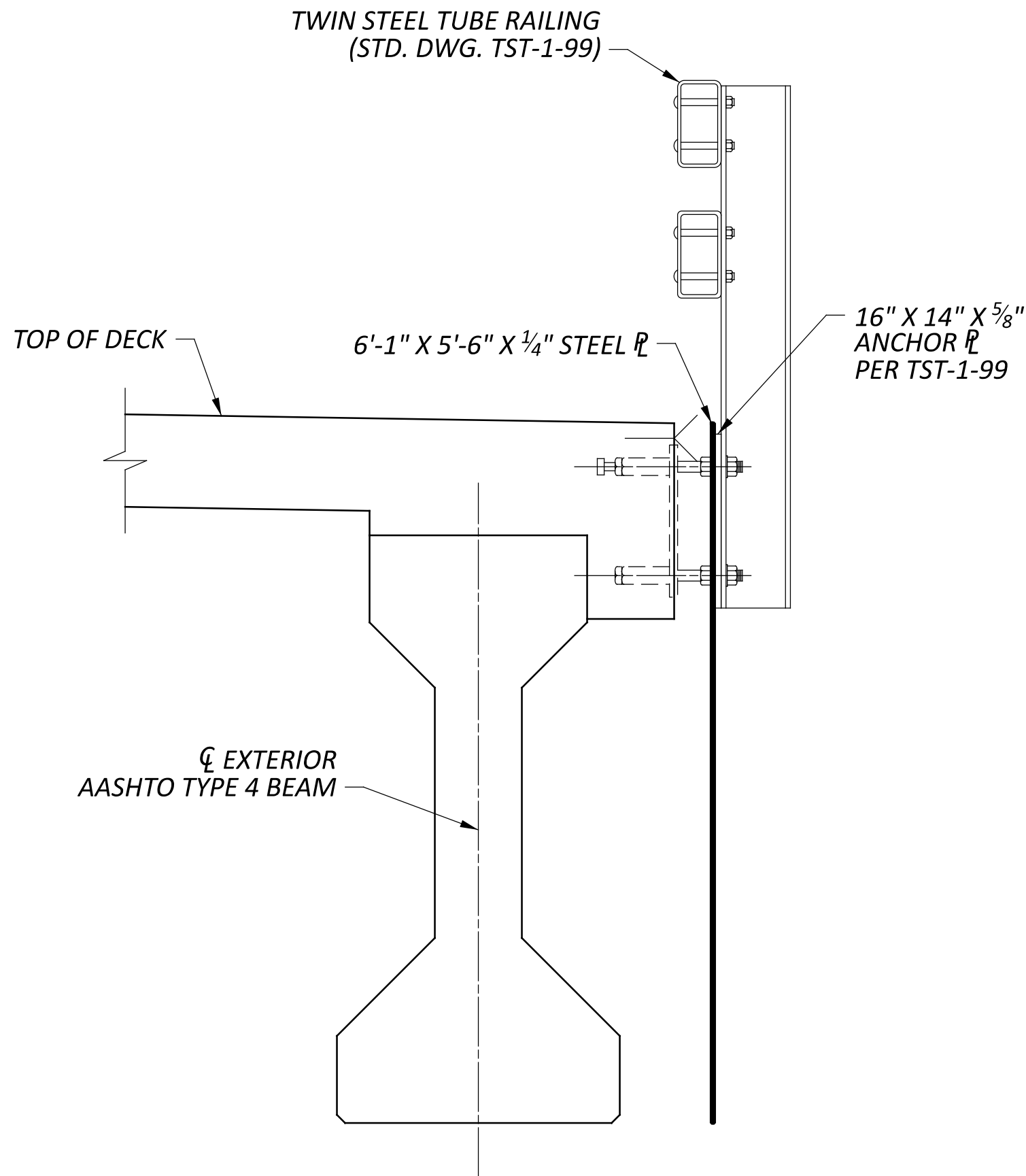
SFN	
5631115	
DESIGN AGENCY	
fishbeck	
DESIGNER	CHECKER
MT	MLF
REVIEWER	
JBD	09/30/25
PROJECT ID	
119037	
SUBSET	TOTAL
10	14
SHEET	TOTAL
P.24	32



ELEVATION



6'-1" X 5'-6" X 1/4" STEEL PLATE DETAIL
(14 REQUIRED)



SECTION A-A

NOTES:

1. THE 6'-1" X 5'-6" X 1/4" STEEL PLATE AS DETAILED ON THIS SHEET SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE BRIDGE TO SERVE AS BEAM PROTECTION. ADDITIONAL HOLES MAY BE INCLUDED IN FABRICATION FOR SHIPPING AND ERECTION PURPOSES AT NO ADDITIONAL COST. A PERFORATED STEEL PLATE ALTERNATIVE MAY BE CONSIDERED TO REDUCE WEIGHT BUT MUST BE APPROVED BY THE COUNTY PRIOR TO FABRICATION. PAYMENT IS INCLUDED WITH ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN.
2. TWIN STEEL TUBE RAILING SHALL BE PER STANDARD DRAWING TST-1-99 EXCEPT WITH THE ADDITIONAL STEEL PLATE INCLUDED AS SHOWN.
3. FOR THE TWIN STEEL TUBE RAILING POST LAYOUT, SEE SHEET 8 / 14 .

EXTERIOR BEAM PROTECTION
BRIDGE NO. MOE-T2214-00.414
TR2214 OVER SUNFISH CREEK

SFN
5631115

DESIGN AGENCY

fishbeck

DESIGNER
MLF

CHECKER
MT

REVIEWER
JBD 09/30/25

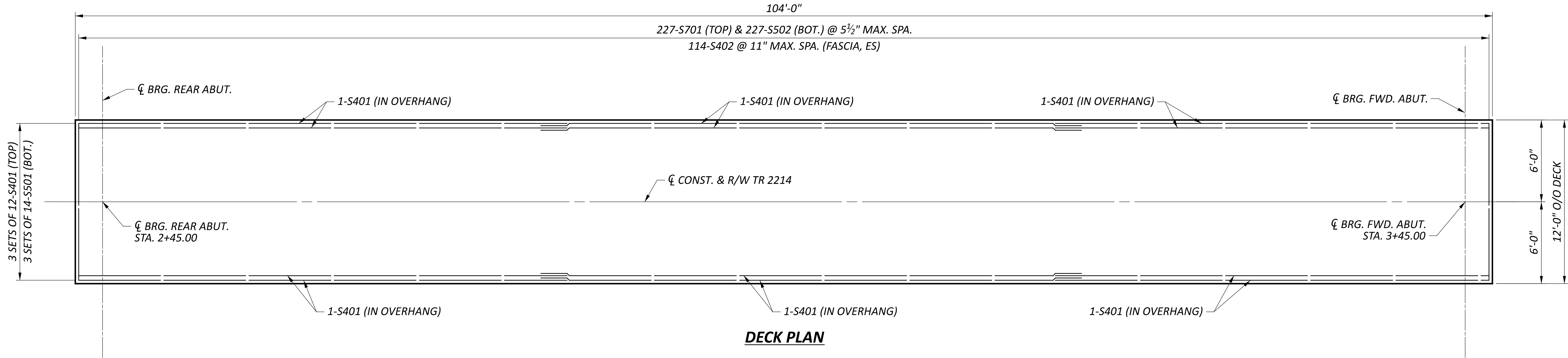
PROJECT ID
119037

SUBSET
11

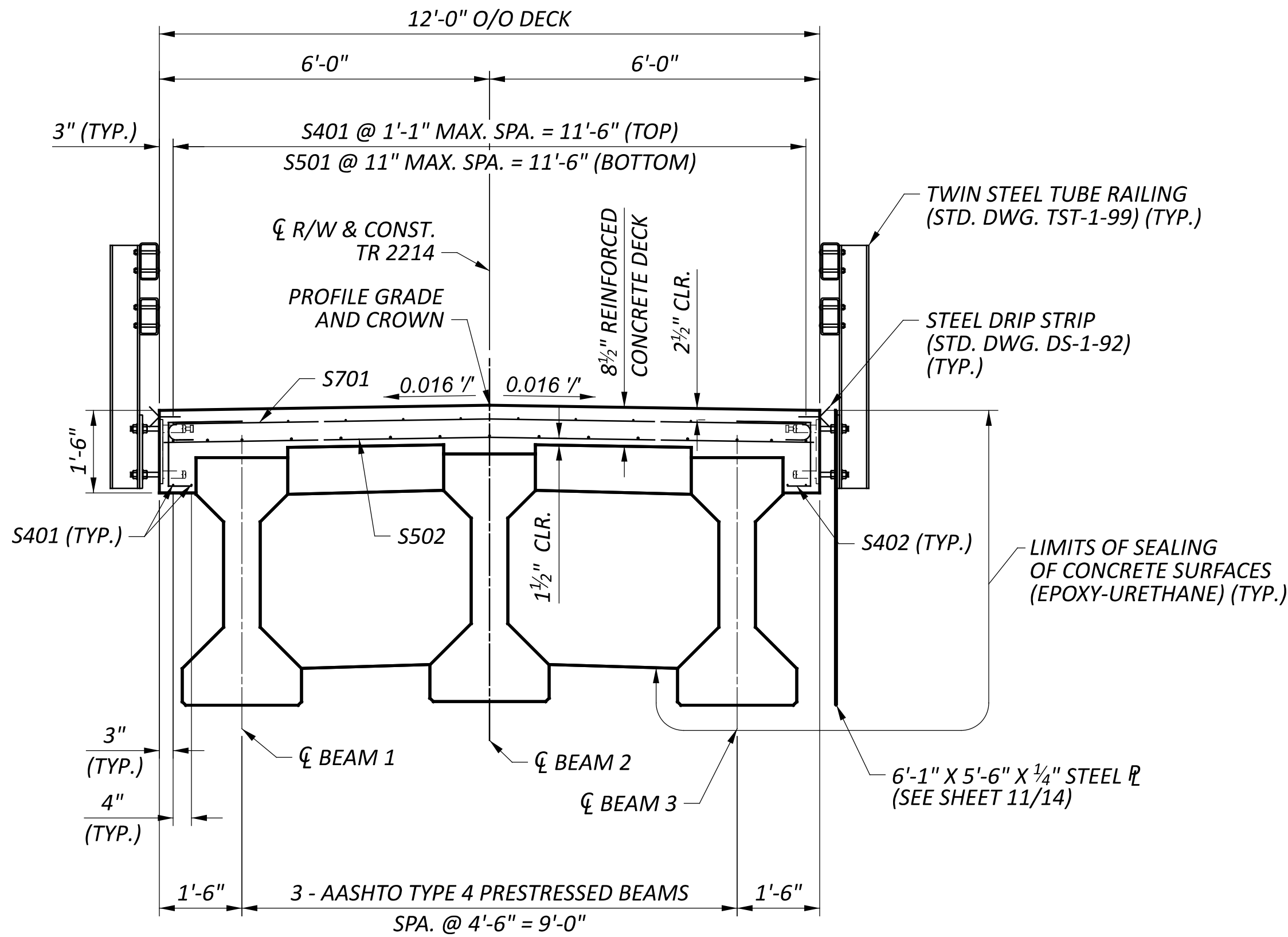
TOTAL
14

SHEET
P.25

TOTAL
32



DECK PLAN



TRANSVERSE SECTION

NOTES:

- LAP SPLICE LENGTHS:
#4 BARS = 1'-11"
#5 BARS = 2'-5"

DECK PLAN AND TRANSVERSE SECTION
BRIDGE NO. MOE-T2214-00.414
TR2214 OVER SUNFISH CREEK

SFN	
5631115	
DESIGN AGENCY	
fishbeck	
DESIGNER	CHECKER
MT	MLF
REVIEWER	
JBD 09/30/25	
PROJECT ID	
119037	
SUBSET	TOTAL
12	14
SHEET	TOTAL
P.26	32



FINAL DECK SURFACE ELEVATION

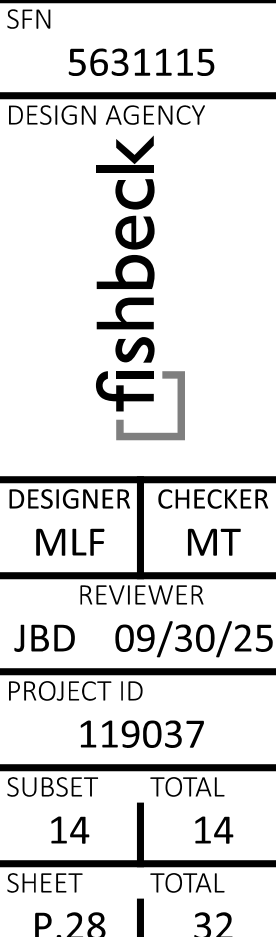
SCREED ELEVATIONS

TOP OF HAUNCH ELEVATIONS



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

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
DRILLED SHAFTS											
DS401	4	16'-9"	743	27	0'-4"	2'-0"					
DS402	4	11'-5"	507	27	0'-4"	2'-0"					
DS801	48	19'-0"	2435	STR							
DS802	48	13'-8"	1752	STR							
SUB-TOTAL			5437	LBS (FOR INFORMATION ONLY)							
ABUTMENTS											
A401	16	3'-3"	35	2	1'-0"	1'-5"	1'-0"				
A501	20	20'-9"	433	STR							
A502	80	13'-8"	1140	STR							
A503	44	13'-1"	600	3	3'-8"	2'-7"					
A504	44	17'-1"	784	3	3'-8"	4'-7"					
A505	60	13'-1"	819	3	3'-8"	2'-7"					
A506	60	25'-5"	1591	3	1'-5"	11'-0"					
A801	16	13'-8"	584	STR							
A802	8	20'-9"	443	STR							
A1001	8	20'-9"	714	STR							
SUB-TOTAL			7143	LBS							
DIAPHRAGM GUIDES											
DG601	20	15'-2"	456	3	3'-8"	3'-8 1/2"					
DG801	28	13'-8"	1022	5	2'-8"	3'-7"	2'-4"				
SUB-TOTAL			1477	LBS (FOR INFORMATION ONLY)							
ABUTMENT DIAPHRAGMS											
D401	12	4'-0"	32	STR							
D402	16	5'-6"	59	2	1'-0"	3'-8"	1'-0"				
D501	16	16'-9"	280	3	3'-8"	4'-5"					
D502	16	12'-9"	213	2	4'-8"	3'-8"	4'-8"				
D503	8	15'-5"	129	3	3'-8"	3'-9"					
D801	8	12'-2"	260	STR							
D802	4	2'-0"	21	STR							
D803	12	3'-6"	112	STR							
D804	12	2'-4"	75	STR							
D805	8	14'-8"	313	STR							
D806	6	14'-8"	235	STR							
D807	2	12'-2"	65	STR							
SUB-TOTAL			1493	LBS							
INTERMEDIATE DIAPHRAGMS											
ID401	18	7'-2"	86	3	0'-6"	2'-10"					
ID601	24	3'-6"	126	STR							
ID602	24	4'-8"	168	13	1'-9"	0'-7 3/4"	0'-7 3/4"	2'-1"			
SUB-TOTAL			380	LBS (FOR INFORMATION ONLY)							
DECK											
S401	48	35'-10"	1149	STR							
S402	228	1'-11"	292	2	0'-8"	1'-1"	0'-4"				
S501	42	36'-2"	1584	STR							
S502	227	11'-8"	2762	STR							
S701	227	13'-6"	6264	17	11'-8"						
SUB-TOTAL			12051	LBS							



PROJECT DESCRIPTION

THE PROJECT DESIGNATED AS MOE-TR 2214-0.06 INVOLVES REPLACEMENT OF AN EXISTING BRIDGE ALONG TR 2214 OVER SUNFISH CREEK IN SALEM TOWNSHIP, MONROE COUNTY, OHIO. THE PROPOSED STRUCTURE AND ROADWAY PROFILE WILL BE RAISED TO REDUCE FLOODING/OVERTOPPING. THE BRIDGE WILL CONSIST OF A SINGLE SPAN, PRESTRESSED CONCRETE I- BEAM SUPERSTRUCTURE WITH COMPOSITE CONCRETE DECK AND SEMI-INTEGRAL STUB ABUTMENTS SUPPORTED ON DRILLED SHAFT FOUNDATIONS.

HISTORIC RECORDS

HISTORIC GEOTECHNICAL RECORDS WERE SEARCHED ON THE ODOT TIMS WEBSITE. NO HISTORIC STRUCTURE BORING DATA WAS AVAILABLE FOR THE EXISTING BRIDGE.

GEOLOGY

ACCORDING TO THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), PHYSIOGRAPHIC REGIONS OF OHIO, THE PROJECT SITE IS IN THE UNGLACIATED LITTLE SWITZERLAND PLATEAU REGION, WHICH IS IN THE ALLEGHENY PLATEAUS SECTION OF OHIO. THE GEOLOGY OF THIS REGION CONSISTS OF PLEISTOCENE- AGE RED AND BROWN SILTY-CLAY LOAM COLLUVIUM, LANDSLIDE DEPOSITS.

ACCORDING TO THE BEDROCK GEOLOGIC MAP OF OHIO (2006), THE UNDERLYING BEDROCK WITHIN THE PROJECT AREA CONSISTS OF PENNSYLVANIAN- AGE SHALE, SILTSTONE, LIMESTONE, SANDSTONE, AND COAL OF THE MONONGAHELA GROUP.

ACCORDING TO THE ODNR'S MINES OF OHIO WEBSITE, NO DEEP MINES HAVE BEEN MAPPED BELOW THE STRUCTURE. HOWEVER, A MINE ENTRY FOR THE OKEY MCCONNELL MINE ON SUNFISH CREEK (ME-OGS-027) IS LOCATED ABOUT 185 FEET SOUTHWEST OF THE SOUTHERN ABUTMENT OF THE EXISTING BRIDGE. THE UNIONTOWN NO. 10 COAL WAS MINED AT THE OFFSET LOCATION.

ACCORDING TO THE ODNR'S KARST INTERACTIVE MAP, NO KARST FEATURES HAVE BEEN IDENTIFIED IN THE IMMEDIATE VICINITY OF THE PROJECT.

RECONNAISSANCE

A MOST RECENT SITE VISIT WAS PERFORMED BY AN ENGINEER FROM CTL ON MARCH 23, 2024. THE EXISTING BRIDGE (SFN: 5631114) IS A 3-SPAN CONTINUOUS CONCRETE SLAB BRIDGE WITH GRAVITY TYPE ABUTMENTS AND PIERS ON SPREAD FOOTINGS. SUNFISH CREEK FLOWS BELOW THE STRUCTURE. DURING THE SITE RECONNAISSANCE, CRACKS WERE OBSERVED ON THE CONCRETE BRIDGE DECK. ADDITIONALLY, SIGNS OF EROSION WERE NOTED ALONG THE STREAM BANK. THE SURROUNDING LAND USE OF THE PROJECT AREA WAS NOTED AS BEING WOODED AND RURAL RESIDENTIAL. SUBSURFACE EXPLORATION

TWO (2) STRUCTURE TEST BORINGS, IDENTIFIED AS B- 001- 0- 24 AND B- 002- 0- 24, WERE PERFORMED FOR THIS PROJECT. THE BORINGS WERE PERFORMED WITH A TRACK MOUNTED DRILL RIG UTILIZING 3.25-INCH INSIDE DIAMETER (I.D) HOLLOW STEM AUGERS (HSA) ON APRIL 19, 2024. STANDARD PENETRATION TESTS (SPTS) WERE CONDUCTED USING A 140- POUND AUTOMATIC HAMMER, FALLING 30 INCHES, TO DRIVE 2-INCH OUTSIDE DIAMETER (O.D) SPLIT BARREL SAMPLERS. ROCK CORING WAS PERFORMED IN THE BORINGS USING AN NQ SIZE CORE BARREL WITH A DIAMOND BIT. THE HAMMER SYSTEM USED WAS CALIBRATED ON NOVEMBER 4, 2022. THE ENERGY TRANSFER RATIO ASSOCIATED WITH THE AUTOMATIC SPT HAMMER WAS 79.3 PERCENT.

EXPLORATION FINDINGS

BELOW THE SURFACE COVER OR FROM GROUND SURFACE, THE BORINGS EXHIBITED LAYERS OF GRAVEL AND/OR STONE FRAGMENTS WITH SAND (A- 1- b), GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT (A-2-4), SANDY SILT (A-4a), SILT AND CLAY (A-6a), OR CLAY (A-7-6) EXTENDING DOWN TO THE TOP OF ROCK.

BENEATH THE SOIL OVERBURDEN, BORINGS B-001-0-24 AND B-002-0-24 ENCOUNTERED THE TOP OF BEDROCK AT DEPTHS 4.0 FEET AND 13.0 FEET BELOW GROUND SURFACE, CORRESPONDING TO ELEVATIONS 662.1 FEET AND 656.8 FEET, RESPECTIVELY. THE UPPER PORTION OF THE BEDROCK WAS AUGERED AND SAMPLED USING SOIL TECHNIQUES. ROCK CORING WAS PERFORMED IN BORINGS B-001-0-24 AND B-002-0-24 BELOW THE AUGERABLE BEDROCK AT DEPTHS OF 5.5 FEET AND 15.0 FEET, RESPECTIVELY. THE BEDROCK WAS DESCRIBED AS SHALE, LIMESTONE OR INTERBEDDED SHALE AND LIMESTONE.

GROUNDWATER WAS ENCOUNTERED IN TEST BORINGS B-001-0-24 AND B-002-0-24 AT DEPTHS 4 FEET AND 7 FEET BELOW EXISTING GRADE, CORRESPONDING TO ELEVATIONS 662.1 FEET AND 662.8 FEET, RESPECTIVELY.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 19, 2024.

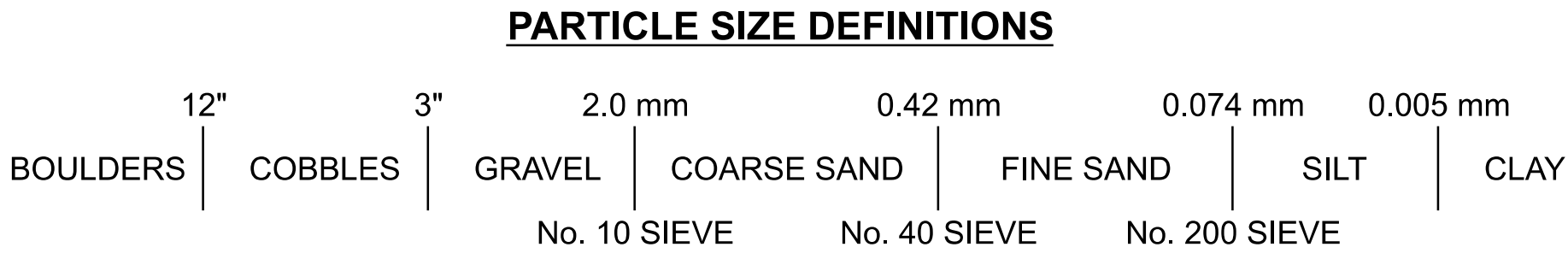
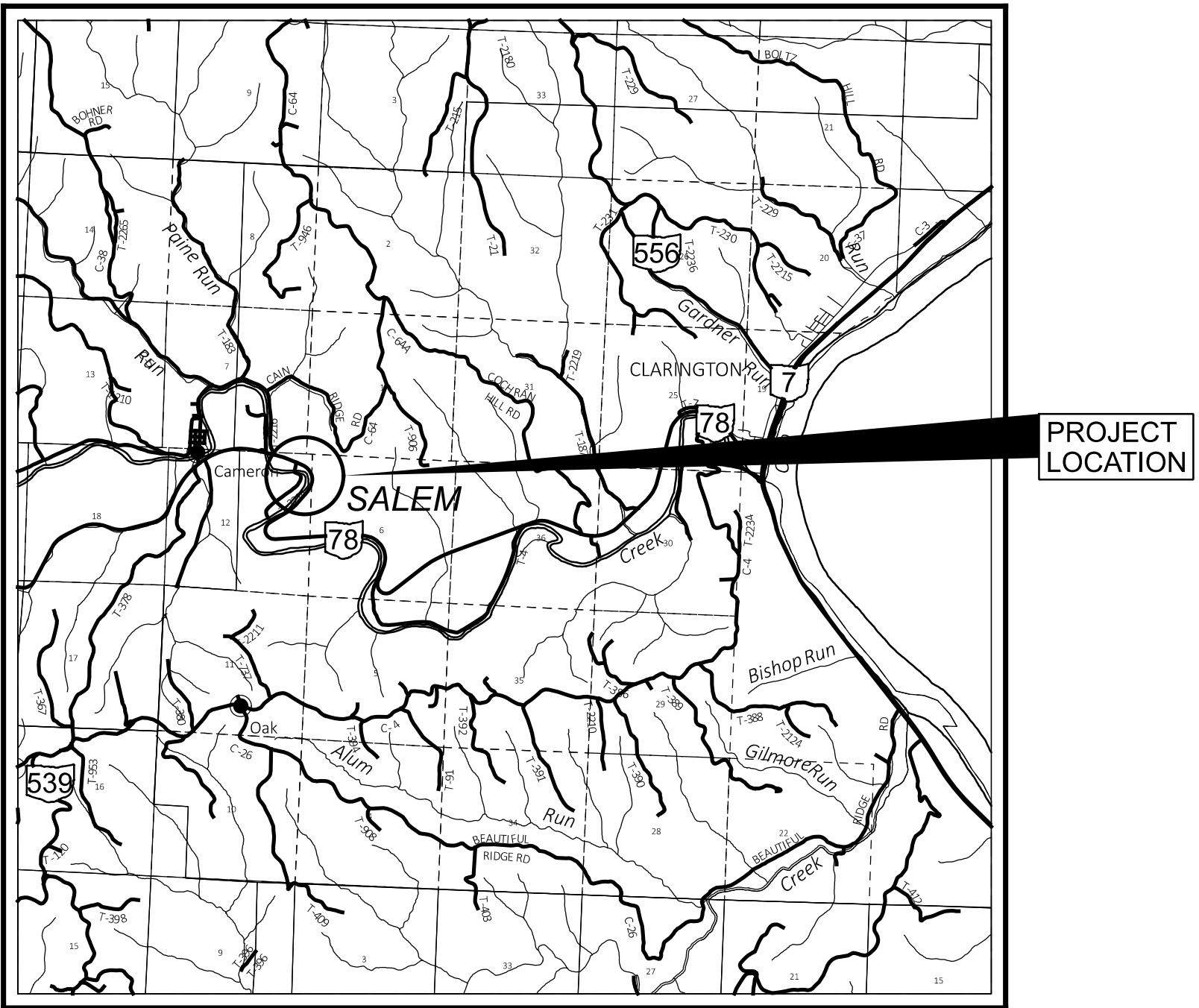
AVAILABLE INFORMATION

THE SOIL AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE GEOTECHNICAL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

LEGEND

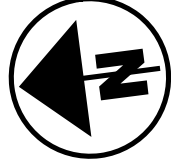
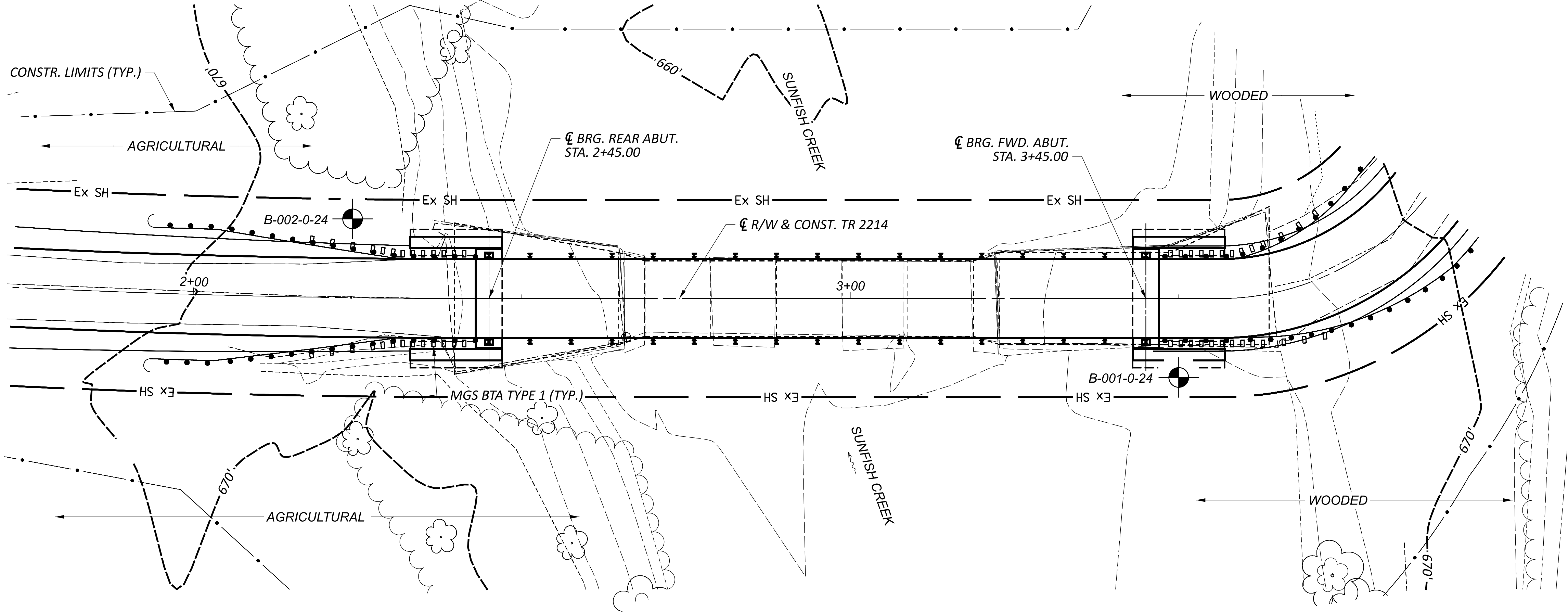
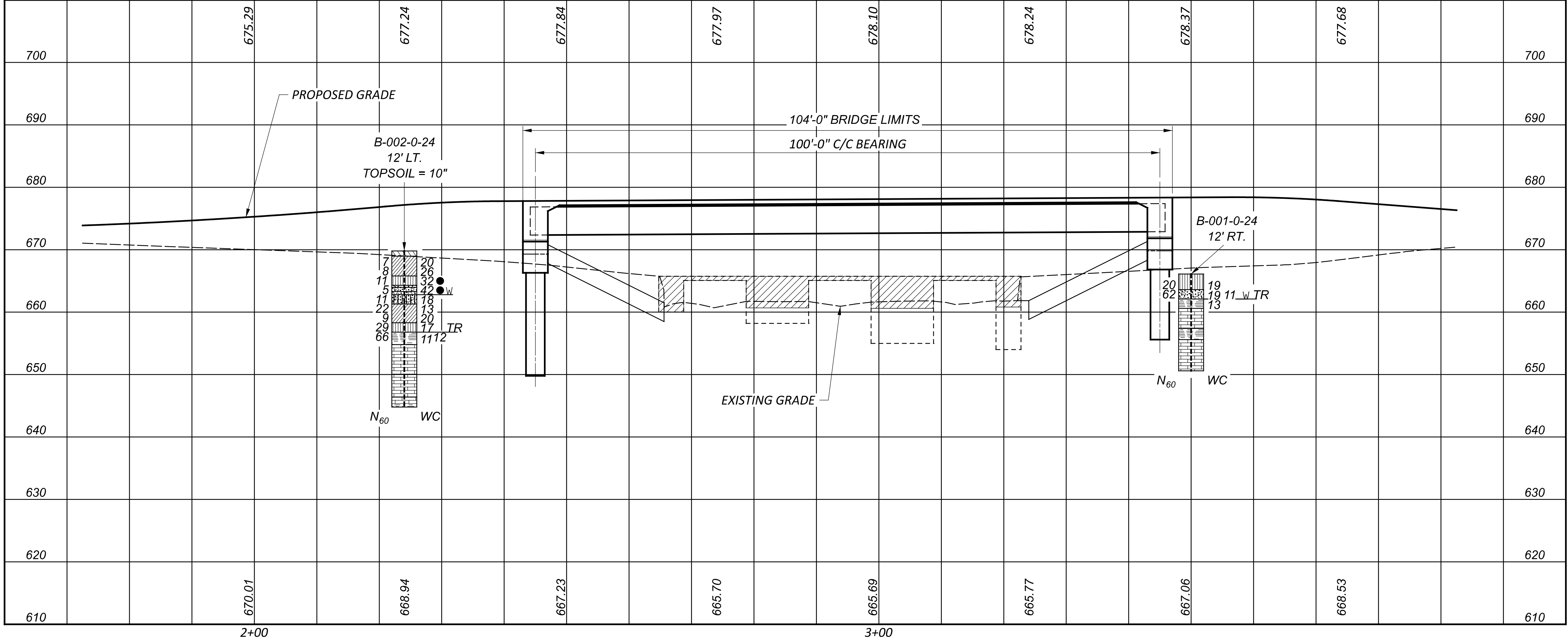
DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b (0)	1	0
GRAVEL AND/OR STONE FRAGMENTS W/SAND AND SILT	A-2-4 (0)	1	0
SANDY SILT	A-4a (4)	3	0
SILT AND CLAY	A-6a (8)	2	2
CLAY	A-7-6 (18)	1	0
	TOTAL	8	2
INTERBEDDED SHALE AND LIMESTONE	VISUAL		
LIMESTONE	VISUAL		
SHALE	VISUAL		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		
EXPLORATION LOCATION - PLAN VIEW			
DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
WC	INDICATES WATER CONTENT IN PERCENT.		
N ₆₀	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.		
X/D"	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X/D" = NUMBER OF BLOWS (UNCORRECTED) FOR D" PENETRATION AT REFUSAL.		
W—	INDICATES FREE WATER ELEVATION.		
●	INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.		
NP	INDICATES A NON-PLASTIC SAMPLE.		
NQ	"N" SERIES ROCK CORE BARREL OF "Q" WIRELINE BIT SIZE.		
Qu	INDICATES UNCONFINED COMPRESSION TEST, ASTM D7012.		
SS	INDICATES A SPLIT-SPOON SAMPLE.		
TR	INDICATES THE TOP OF ROCK.		

SCOUR SAMPLES						
BORING ID	SAMPLE ID.	ELEVATION (ft.)	D ₅₀ (mm)	T _c (PSF)	D _{50, equiv} (mm)	EROSION CATEGORY (EC)
B-001-0-24 (FORWARD ABUTMENT)	SS-1	665.1 - 663.6	0.2432	0.0051	0.2432	1.463
	SS-2	663.6 - 662.1	1.1155	0.0233	1.1155	2.257
	SS-3	662.1 - 660.6	N/A	1.4557	69.6831	3.408
B-002-0-24 (REAR ABUTMENT)	SS-4	664.3 - 662.8	0.0116	0.0851	4.0728	3.612
	SS-5	662.8 -661.3	0.5353	0.0112	0.5353	1.874
	SS-6	661.3 - 659.8	0.0102	0.7113	34.0567	3.075
	SS-8	658.3 - 656.8	0.0129	0.4270	20.4435	2.975
	SS-9 & 10	656.8 - 654.8	N/A	0.6389	30.5827	3.408



RECON. - SM 03/23/2024
DRILLING - CTL 04/19/2024
DRAWN - NKS 07/08/2025
REVIEWED - JG 07/08/2025

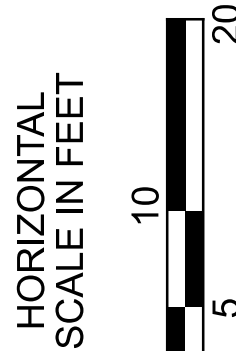
BEDROCK TEST SUMMARY				
BORING ID	SAMPLE ELEVATION (FEET)	SAMPLE DEPTH (FEET)	Qu (PSI)	LITHOLOGY
B-001-0-24	655.6-655.1	10.5-11.0	5,200	Limestone
	654.8-654.0	15.0-15.8	12,910	Limestone
B-002-0-24	649.8-649.1	20.0-20.7	13,120	Limestone



GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. MOE-TR2214-0006
TR2214 OVER SUNFISH CREEK



DESIGNER	N.K.S
REVIEWER	SM
PROJECT ID	119037
SUBSET	2
SHEET	P.30
TOTAL	4
TOTAL	32



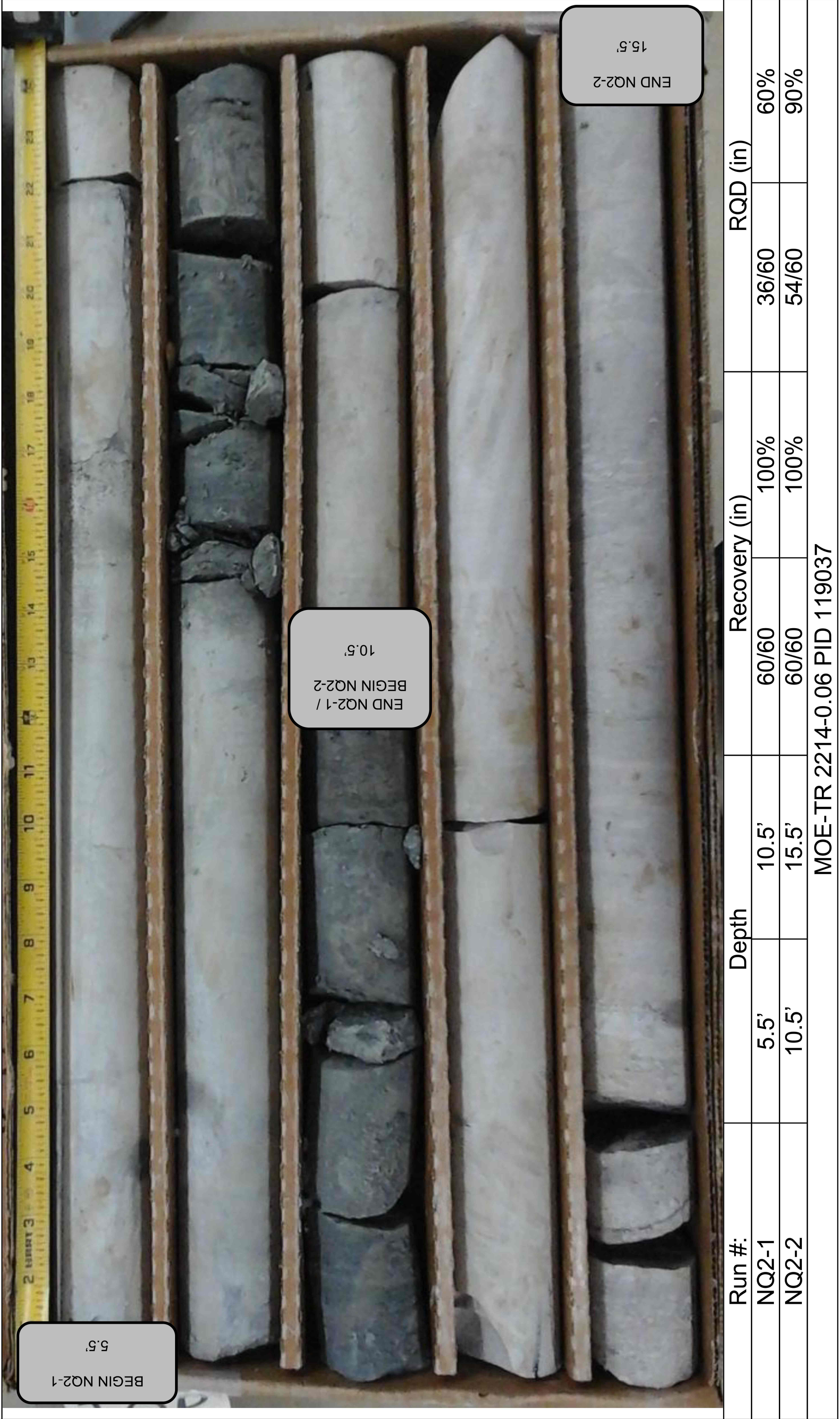
PROJECT: MOE-TR 2214-0.06		DRILLING FIRM / OPERATOR: _____		CTL / TOM		DRILL RIG: CME 55 #393		STATION / OFFSET: 3+50, 12' RT.						EXPLORATION ID	
TYPE: BRIDGE		SAMPLING FIRM / LOGGER: _____		CTL / TOM		HAMMER: CME AUTOMATIC		ALIGNMENT: TR 2214						B-001-0-24	
PID: 119037 SFN: 5631114		DRILLING METHOD: 3.25" HSA / NQ2				CALIBRATION DATE: 11-4-22		ELEVATION: 666.1 (MSL) EOB: 15.5 ft.						PAGE	
START: 4-19-24 END: 4-19-24		SAMPLING METHOD: SPT / NQ2				ENERGY RATIO (%): 79.3		LAT / LONG: 39.764800, -80.931600						1 OF 1	
MATERIAL DESCRIPTION AND NOTES				ELEV.		SPT/ RQD		REC SAMPLE ID		GRADATION (%)		ATTERBERG		HOLE	
				666.1						GR CS FS SI CL LL PL WC		ODOT CLASS (G)		SEALED	
STIFF, BROWN, SANDY SILT, SOME GRAVEL, LITTLE CLAY, MOIST				663.6		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		SS-1		10 19 24 13 27 18 9				A-4a (0)	
VERY DENSE, BROWN AND GRAY, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, MOIST				662.1		16 17 18 19 20 21 22 23 24		SS-2		10 19 24 13 27 18 9				A-1-b (0)	
SHALE, GRAY, SEVERLY WEATHERED, WEAK				660.6		25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50		SS-3		10 19 24 13 27 18 9				Rock (V)	
LIMESTONE, GRAY, SLIGHTLY WEATHERED, MODERATELY STRONG; ROD 95%, REC 100%.				657.4		51 52 53 54 55 56 57 58 59 60		SS-4		10 19 24 13 27 18 9				Rock (V)	
SHALE, GRAY, MODERATELY WEATHERED, WEAK TO SLIGHTLY STRONG; ROD 0%, REC 100%.				655.6		61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80		NQ2-1		10 19 24 13 27 18 9				CORE	
LIMESTONE, GRAY, SLIGHTLY WEATHERED, MODERATELY STRONG; ROD 90%, REC 100% @10.5'-11.0'; Unit Weight = 156.5 Pcf, Qu = 5,200 psi				650.6		81 82 83 84 85 86 87 88 89 90		NQ2-2		10 19 24 13 27 18 9				CORE	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 23-1-25 19.54 - D:\DEPT 05\COL\24050003COL\DOWN\NL\OADS\24050003COL.GPJ

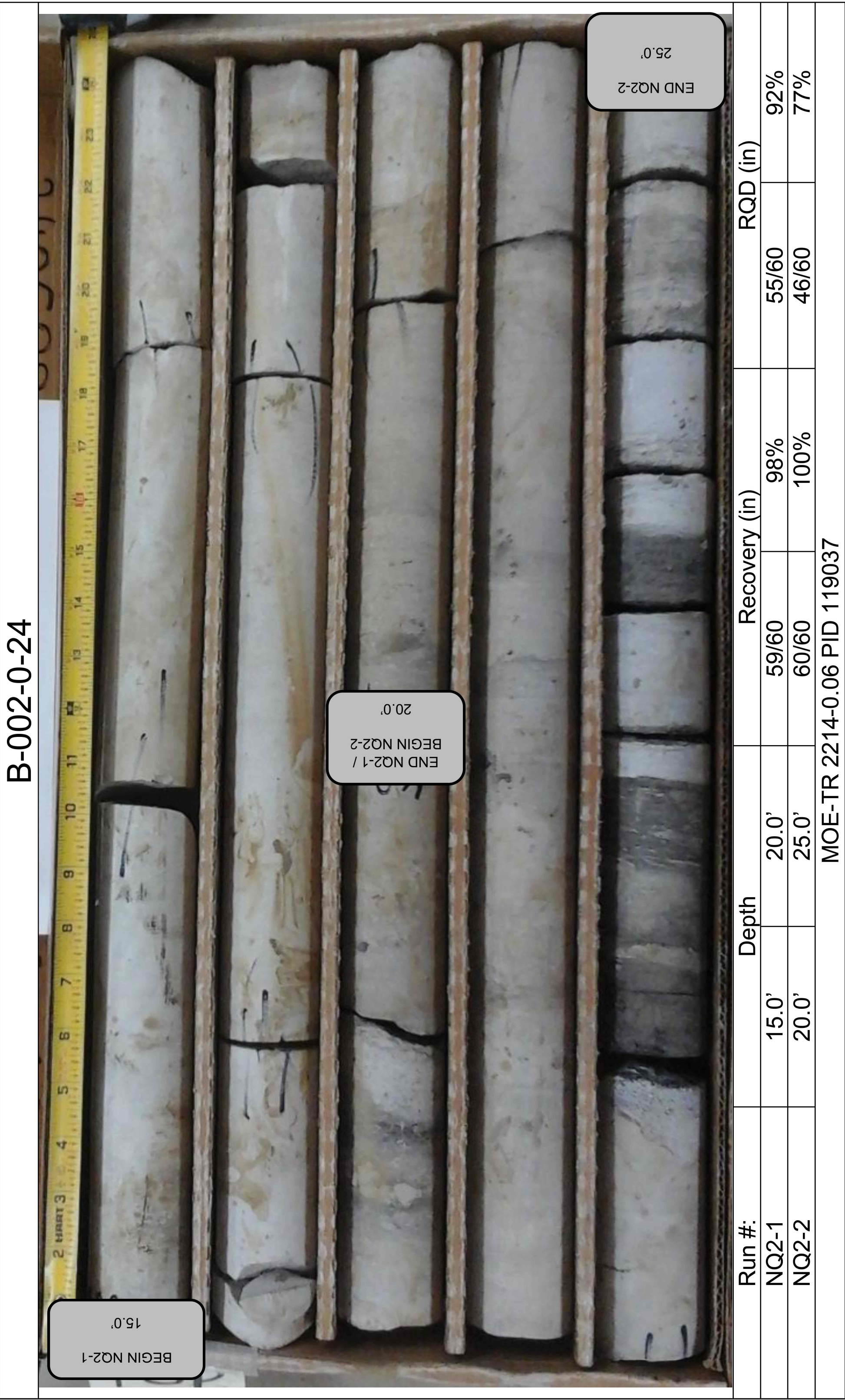
NOTES: CAVED AT 5'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL MIXED WITH BENTONITE GROUT

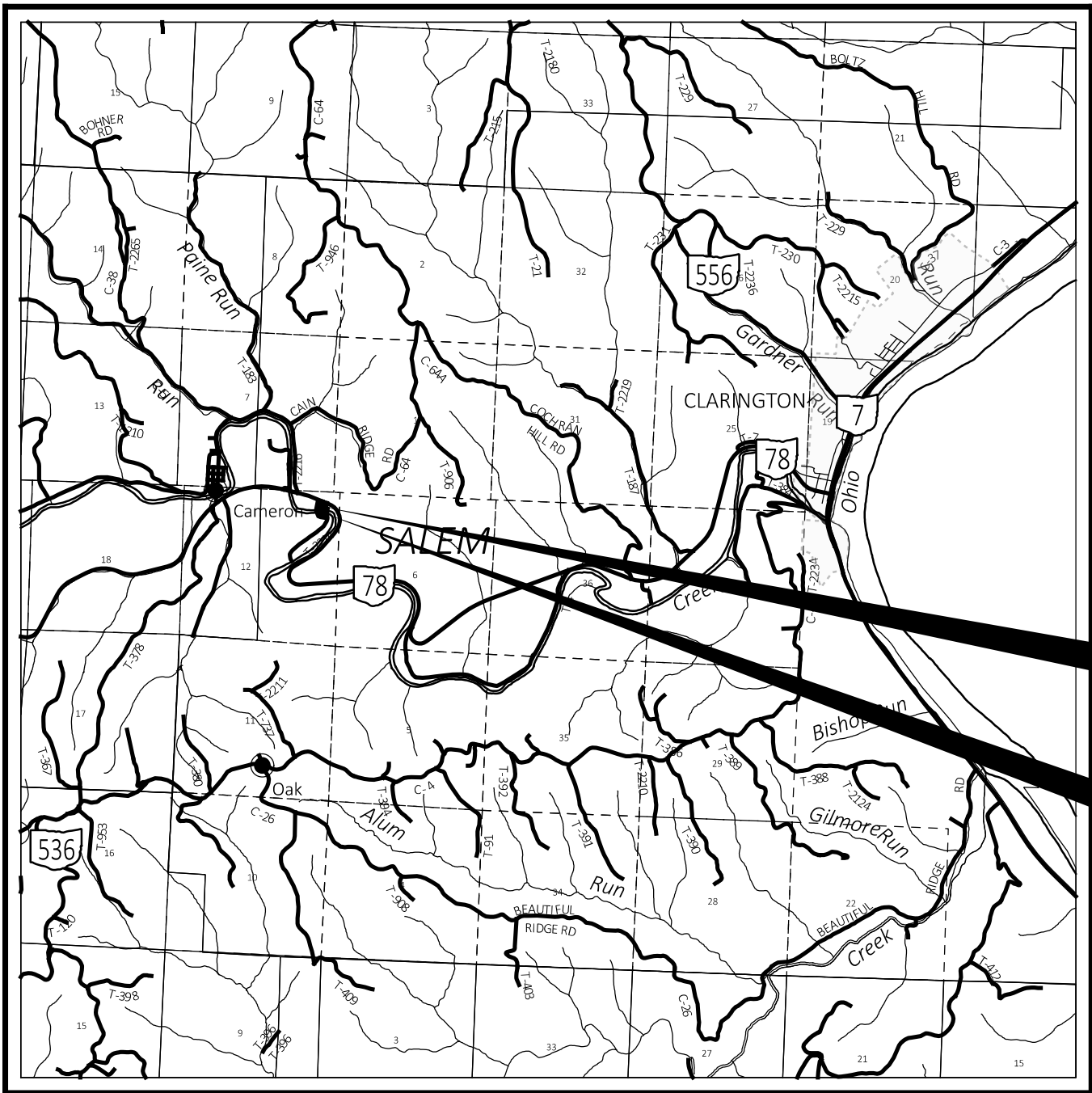


B-001-0-24



PROJECT: MOE-TR 2214-0.06		DRILLING FIRM / OPERATOR:		CTL / TOM		DRILL RIG: CME 55 #393		STATION / OFFSET: 2+24, 12' LT.				EXPLORATION ID													
TYPE: BRIDGE		SAMPLING FIRM / LOGGER:		CTL / TOM		HAMMER: CME AUTOMATIC		ALIGNMENT: TR 2214				B-002-0-24													
PID: 119037 SFN: 5631114		DRILLING METHOD: 3.25" HSA / NQ2		SPT / NQ2		CALIBRATION DATE: 11-4-22		ELEVATION: 669.8 (MSL) EOB: 25.0 ft.				PAGE													
START: 4-19-24 END: 4-19-24		SAMPLING METHOD:		SPT / NQ2		ENERGY RATIO (%): 79.3		LAT / LONG: 39.765200, 80.931400				1 OF 1													
MATERIAL DESCRIPTION AND NOTES						ELEV.	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)			ATTERBERG			ODOT CLASS (GI)	HOLE SEALED						
TOPSOIL (10") VERY STIFF, BROWN, SILT AND CLAY, SOME SAND, MOIST @2.5'; STIFF STIFF BROWN, SANDY SILT, LITTLE CLAY, LITTLE GRAVEL, WET STIFF, BROWN AND GRAY, CLAY, "AND" SILT, LITTLE GRAVEL, TRACE SAND, WET MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, MOIST VERY STIFF, BROWN, SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, DAMP @10.0'; STIFF, MOIST VERY STIFF, BROWN AND RED, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP SHALE, GRAY, SEVERLY WEATHERED, WEAK. LIMESTONE, GRAY, SLIGHTLY WEATHERED, STRONG; RQD 94%, REC 99% @15.0'-15.8"; Unit Weight = 159.3 pcf, Qu=12,910 psi @20.0'-20.7"; Unit Weight = 159.6 pcf, Qu=13,120 psi INTERBEDDED LIMESTONE (50%) AND SHALE (50%), RQD 32%, REC. 100% LIMESTONE, GRAY, MODERATELY WEATHERED, STRONG; SHALE, GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG.						669.8						GR	CS	FS	SI	CL	LL	PL	PI	WC					
						668.9																			
							1	2	7	100	SS-1	2.75	0	5	27	44	24	31	19	12	20			A-6a (7)	
							2	3	8	100	SS-2	1.00	-	-	-	-	-	-	-	-	-	26		A-6a (V)	
							3	3	11	100	SS-3	1.00	18	12	22	31	17	30	20	10	32			A-4a (3)	
							4	6	5	56	SS-4	1.50	14	2	8	42	34	42	24	18	42			A-7-6 (12)	
							5	2	4	11	89	SS-5	-	36	16	18	21	9	NP	NP	18			A-2-4 (0)	
							6	4	22	67	SS-6	4.00	10	6	7	39	38	28	17	11	13			A-6a (8)	
							7	2	9	100	SS-7	-	-	-	-	-	-	-	-	-	20			A-6a (V)	
							8	9	29	100	SS-8	4.00	1	8	8	49	34	27	17	10	17			A-4a (8)	
							9	13	66	78	SS-9	4.50	-	-	-	-	-	-	-	-	12			Rock (V)	
							10	16	-	-	SS-10	-	-	-	-	-	-	-	-	-	11			Rock (V)	
							11	34																	
							12	60/3'																	
							13																		
							14																		
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	25																								
	EOB																								





LOCATION MAP

LATITUDE: 39°45'50" LONGITUDE: 80°55'55"

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: TYPE B W/ RED "FISHBECK" CAP

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEIOD: GEIOD18

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE COORDINATES, SOUTH ZONE
COMBINED SCALE FACTOR: 1.00006936 (GRID TO GROUND)
ORIGIN OF COORDINATE SYSTEM: 0,0,0

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig


Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

CONVENTIONAL SYMBOLS

County Line	-----	Edge of Shoulder (Ex)	-----
Township Line	-----	Edge of Shoulder (Pr)	-----
Section Line	-----	Ditch / Creek (Ex)	-----
Corporation Line	----- or -----	Ditch / Creek (Pr)	-----
Fence Line (Ex)	-----x-----x----- (Pr) -----x-----x-----	Tree Line (Ex)	-----
Center Line	-----	Ownership Hook Symbol	Example -----
Right of Way (Ex)	----- Ex R/W -----	Property Line Symbol	Example -----
Right of Way (Pr)	----- R/W -----	Break Line Symbol	Example -----
Standard Highway Ease.(Ex)	----- Ex SH -----	Tree (Pr) Tree (Ex) Shrub (Ex)	-----
Standard Highway Ease.(Pr)	----- SH -----	Tree (Remove) Shrub (Remove)	-----
Temporary Right of Way	----- TMP -----	Evergreen (Ex) Stump	-----
Channel Ease. (Pr)	----- CH -----	Evergreen (Remove) Stump (Remove)	-----
Utility Ease. (Ex)	----- Ex U -----	Wetland (Pr) Grass (Pr) Aerial Target	-----
Railroad	----- or -----	Post (Ex) Mailbox (Ex) Mailbox (Pr)	-----
Guardrail (Ex)	----- (Pr) -----	Light (Ex) Telephone Marker (Ex) TEL	-----
Construction Limits	-----	Fire Hydrant (Ex) Water Meter (Ex)	-----
Edge of Pavement (Ex)	-----	Water Valve (Ex) Utility Valve Unknown (Ex.)	-----
Edge of Pavement (Pr)	-----	Telephone Pole (Ex) Power Pole (Ex)	-----
		Light Pole (Ex)	-----

INDEX OF SHEETS:

LEGEND SHEET	1
TOPO SHEET (INCLUDES PROPERTY MAP)	2
BOUNDARY SHEET (INCLUDES SUMMARY OF ADDITIONAL R/W)	3

STRUCTURE KEY

	RESIDENTIAL
	COMMERCIAL
	OUT-BUILDING

TYPES OF TITLE LEGEND:
T = TEMPORARY EASEMENT

RIGHT OF WAY LEGEND SHEET

MOE - TR2214-0.06 BRIDGE REPLACEMENT

MONROE COUNTY, OHIO SALEM TOWNSHIP

SECTION 12, TOWN 3 N, RANGE 4 W

FEDERAL PROJECT NUMBER:
E240(476)

PROJECT DESCRIPTION:
REPLACEMENT OF EXISTING BRIDGE MOE-TR 2214-0.06 (SFN: 5631115),
TOWNSHIP ROAD 2214 OVER SUNFISH CREEK WITH MINIMAL APPROACH
WORK.

PLANS PREPARED BY:

FIRM NAME : FISHBECK
R/W DESIGNER: TODD STUART
R/W REVIEWER: JOSHUA MIHELICIC
FIELD REVIEWER: JOSHUA MIHELICIC
PRELIMINARY FIELD REVIEW DATE: MAY 2024
OWNERSHIP UPDATED BY: JOSHUA MIHELICIC
DATE COMPLETED: 10-02-2025
FIELD REVIEWER: JOSHUA MIHELICIC
FINAL FIELD REVIEW DATE: 10-02-2025
FINAL R/W PLAN DATE: 10-02-2025

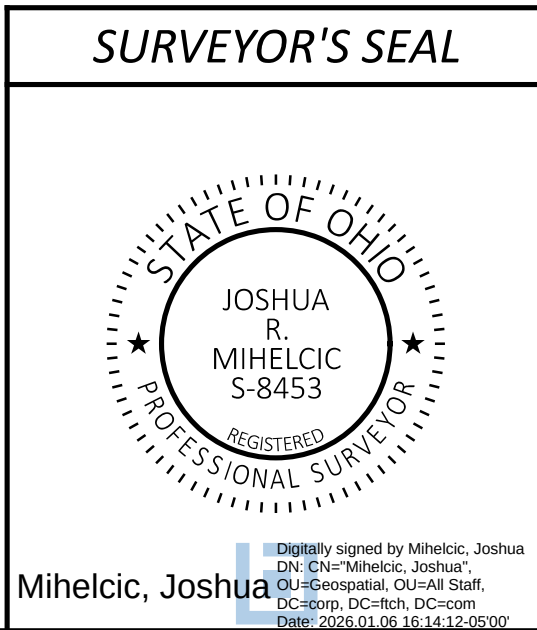
UTILITY OWNERS	
NAME & ADDRESS	NAME & ADDRESS
MUNICIPALITY MONROE COUNTY ENGINEER'S OFFICE 47134 MOORE RIDGE RD WOODSFIELD, OHIO 43793 ATTN: AMY ZWICK PH: 740.472.2537 AZWICK@MONROECOUNTYENGINEER.COM	

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

I, Joshua R. Mihelcic, P. S. have conducted a survey of the existing conditions for Salem Township during the months of April & May 2024. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, South Zone, NAD 83(2011). Coordinates herein are Ground Coordinates and distances are Ground distances. Scale the Ground Coordinates about point 0,0,0 by the Project Adjustment Factor of 0.99993064. As a part of this project I have reestablished the locations of the existing property lines and the existing centerline of Right of Way for property takes contained herein. As a part of this project I have established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire the parcels as shown herein. As a part of this work, I will set right of way monuments at the property line intersections with the proposed right of way, points along the proposed right of way and/or angle points on the proposed right of way, and other points as shown herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Joshua R. Mihelcic, Professional Land Surveyor of Ohio, No. 8453

Date: 10-02-2025



DESIGN AGENCY

fishbeck

DESIGNER

TES

REVIEWER

JRM 10-02-25

PROJECT ID

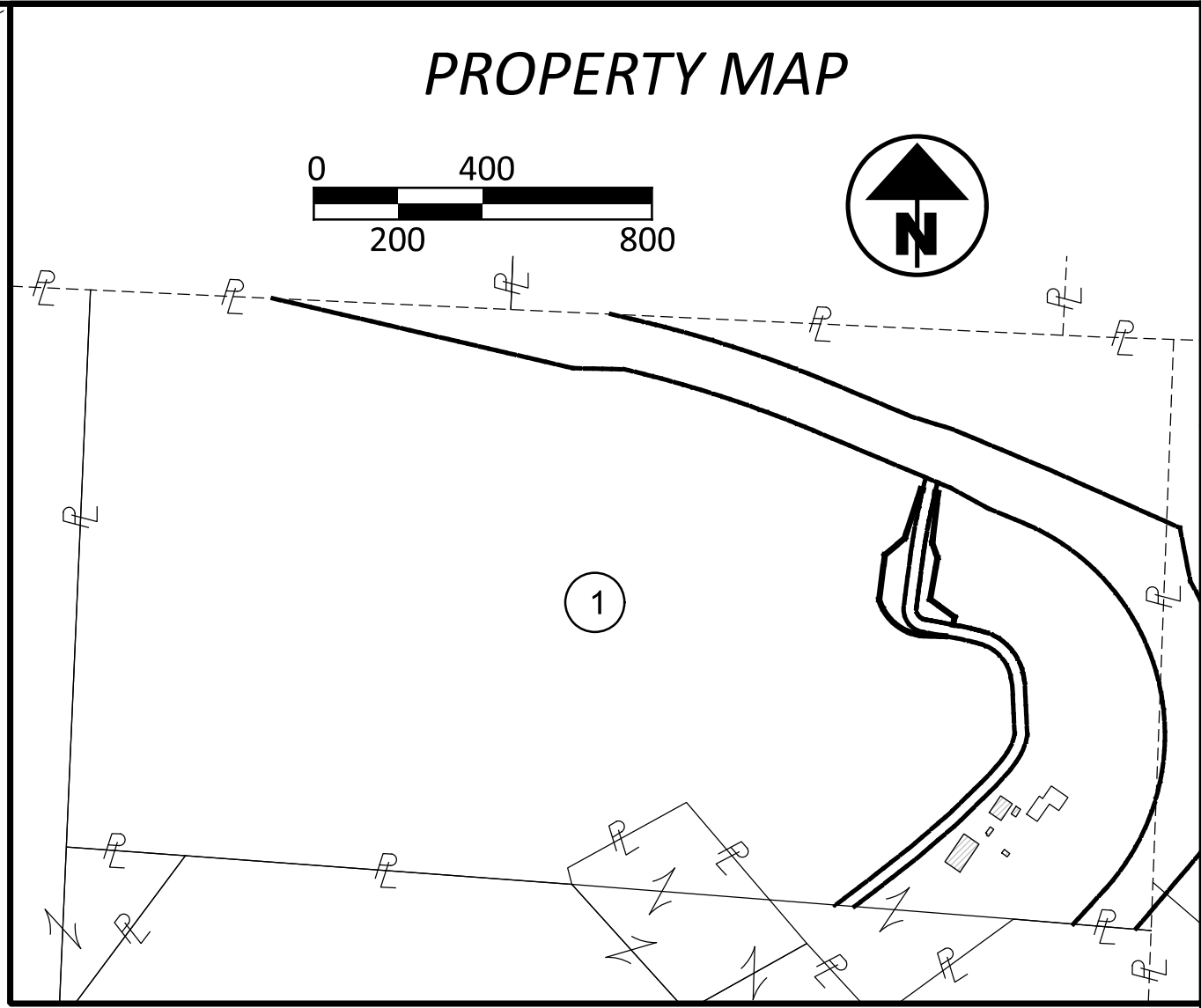
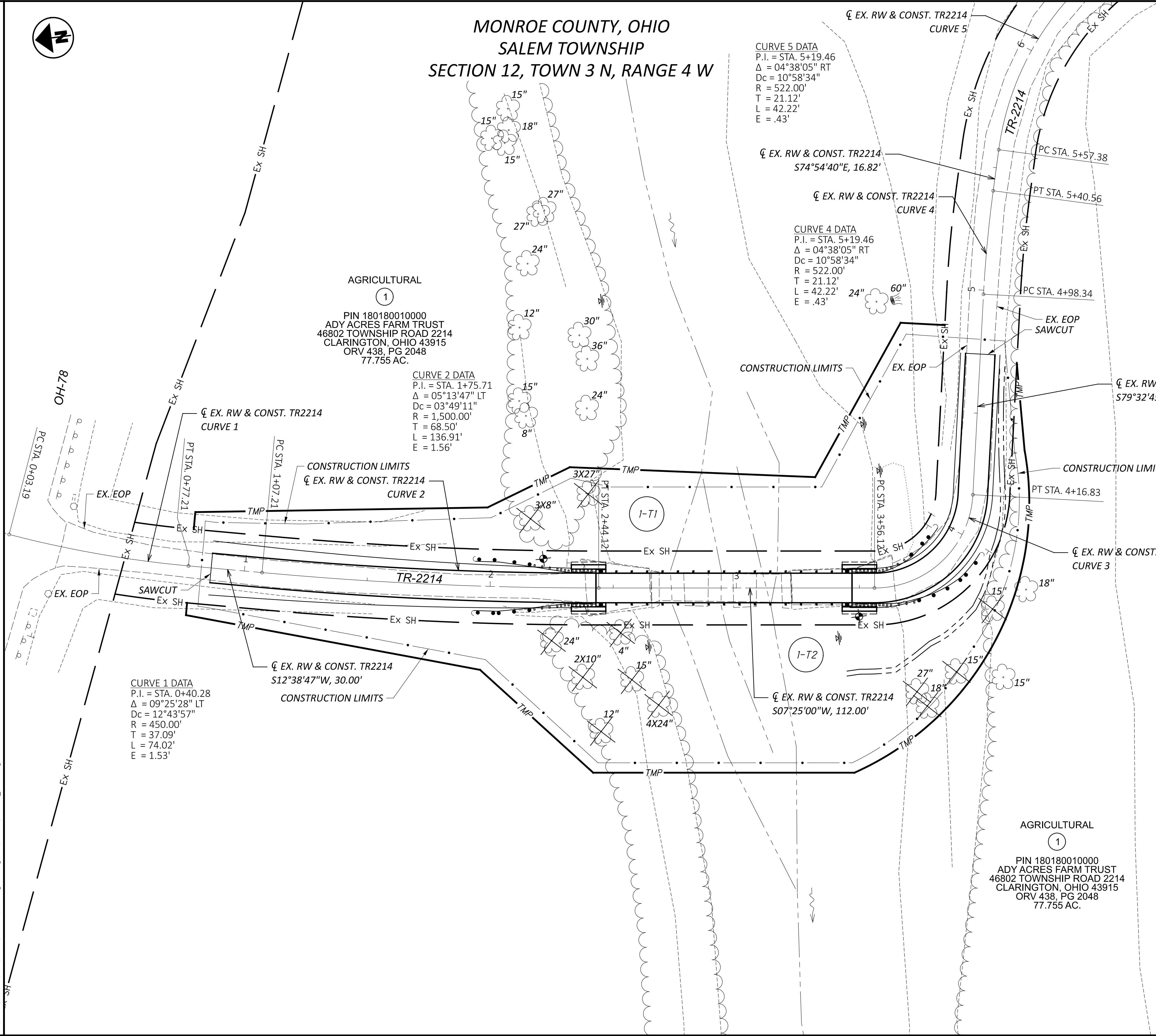
119037

SHEET

R.1

TOTAL

3



STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

RIGHT OF WAY TOPO SHEET
(INCLUDES PROPERTY MAP)

DESIGN AGENCY



DESIGNER

TES

REVIEWER

JRM 10-02-25

PROJECT ID

119037

SHEET

R.2

TOTAL

3

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: JOSHUA MIHELIC		DATE: 10-02-2025
OWNERSHIP VERIFIED BY: JOSHUA MIHELIC		DATE: 10-02-2025
DATE COMPLETED: OCTOBER 2, 2025		

PARCEL NO.	OWNER	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		REMARKS
		BOOK	PAGE								LEFT	RIGHT	
1-T1	ADY ACRES FARM TRUST	438	2048	18018001000	77.755	-	0.2065	0.0000	0.2065				FOR GRADING IMPROVEMENTS, (2) TREES
1-T2							0.2958	0.0000	0.2958				FOR GRADING IMPROVEMENTS, (10) TREES
				TOTAL			0.5023	0.0000	0.5023				

MONROE COUNTY, OHIO
SALEM TOWNSHIP
SECTION 12, TOWN 3 N, RANGE 4 W

RIGHT OF WAY CURVE DATA

CURVE	CENTRAL ANGLE	RADIUS	CURVE LENGTH	CHORD LENGTH	CHORD BEARING
ER1	86°57'45"	25.00'	37.94'	34.41'	N36°03'53"W
ER2	05°13'47"	1485.00'	135.54'	135.50'	N10°01'53"E
ER3	05°13'47"	1515.00'	138.28'	138.23'	S10°01'53"W
ER4	86°57'45"	55.00'	83.48'	75.69'	S36°03'53"E
PR1	76°10'39"	120.00'	159.55'	148.05'	N54°46'56"W

LINE	BEARING	DISTANCE
A	S77°21'13"E	7.00'
B	S06°30'34"W	118.69'
C	S18°40'03"E	37.19'
D	S09°44'37"W	99.69'
E	S53°36'24"E	71.67'
F	S10°27'15"W	18.00'
G	N79°32'45"W	68.17'
H	N07°25'00"E	112.00'
I	N12°38'47"E	29.21'
J	S12°38'47"W	29.21'
K	S07°25'00"W	112.00'
L	S79°32'45"E	54.17'
M	N87°40'33"W	35.36'
N	N07°25'03"E	106.11'
O	N49°40'33"E	62.09'
P	N17°57'36"E	121.50'
Q	S77°21'13"E	5.00'

CURVE 2 DATA
P.I. = STA. 1+75.71
Δ = 05°13'47" LT
Dc = 03°49'11"
R = 1,500.00'
T = 68.50'
L = 136.91'
E = 1.56'

CURVE 5 DATA
P.I. = STA. 5+19.46
Δ = 04°38'05" RT
Dc = 10°58'34"
R = 522.00'
T = 21.12'
L = 42.22'
E = .43'

CURVE 4 DATA
P.I. = STA. 5+19.46
Δ = 04°38'05" RT
Dc = 10°58'34"
R = 522.00'
T = 21.12'
L = 42.22'
E = .43'

TOTAL NUMBER OF :
1 OWNERSHIP 0 TOTAL TAKES
2 PARCELS 0 OWNERSHIPS W/ STRUCTURES INVOLVED

TYPES OF TITLE LEGEND:
T = TEMPORARY EASEMENT

RECORD AREA - TOTAL PRO - NET TAKE = **NET RESIDUE**
GROSS TAKE - PRO IN TAKE = **NET TAKE**
ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
MONROE COUNTY
UNLESS OTHERWISE SHOWN.

NOTE: ALL TEMPORARY PARCELS TO
BE OF 18 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY
EASEMENTS TO BE USED FOR STORAGE OF
MATERIAL OR EQUIPMENT BY THE CONTRACTOR
UNLESS NOTED OTHERWISE.

BASIS OF EXISTING CL OF R/W AND R/W WIDTH:

EXISTING CL OF R/W ESTABLISHED BASED ON OCCUPATION OF
EXISTING ROADWAY SINCE A ROAD RECORD DOES NOT EXIST FOR THE
TOWNSHIP ROAD, PER THE MONROE COUNTY ENGINEER'S OFFICE. R/W
WIDTH OF 30 FEET WAS DETERMINED BASED ON MONROE COUNTY
ENGINEER'S OFFICE.

CURVE 3 DATA
P.I. = STA. 3+94.05
Δ = 86°57'45" LT
Dc = 143°14'22"
R = 40.00'
T = 37.93'
L = 60.71'
E = 15.13'

CURVE 1 DATA
P.I. = STA. 0+40.28
Δ = 09°25'28" LT
Dc = 12°43'57"
R = 450.00'
T = 37.09'
L = 74.02'
E = 1.53'

MONUMENT TABLE

MONUMENT TABLE					
MONUMENT	☼ OF RIGHT OF WAY CORDUROY RD		PROJECT COORDINATES SEE SURVEY CERTIFICATION		
NAME	STATION	OFFSET	NORTH (Y)	EAST (X)	DESCRIPTION
MN 1	-	-	647050.7610'	2406334.0717'	5/8" IRON PIN FOUND
MN 2	-	-	646873.2807'	2406940.4264'	CAPPED IRON PIN FOUND
MN 3	-	-	647332.1816'	2406970.7850'	CHISELED "X" IN CONCRETE MONUMENT
MN 4	-	-	647320.9581'	2407261.3865'	OHROW PLATE IN CONCRETE MONUMENT

MONUMENT TABLE:
EXISTING MONUMENTATION HAS BEEN LABELED WITH A NUMBER WHEN LOCATED ON THE BOUNDARY SHEETS.
MONUMENTS NOT SHOWN ARE STILL DESCRIBED IN THE TABLE, SINCE THEY ARE RELEVANT TO THE RESOLUTION PROCESS.



RIGHT OF WAY BOUNDARY SHEET
(INCLUDES SUMMARY OF ADDITIONAL R/W)

DESIGN AGENCY



DESIGNER

TES

REVIEWER

JRM 10-02-25

PROJECT ID

119037

SHEET

R.3

TOTAL
3

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY:	JOSHUA MIHELIC	DATE: 10-02-2025
OWNERSHIP VERIFIED BY:	JOSHUA MIHELIC	DATE: 10-02-2025
DATE COMPLETED:	OCTOBER 2, 2025	