

PUBLIC NOTICE
MEDINA COUNTY HIGHWAY ENGINEER
PID: 118427 MED-TR 145-0.91
WALL ROAD BRIDGE 3 REPLACEMENT - SUPERSTRUCTURE AND PARTIAL
SUBSTRUCTURE DEMOLITION, TOTAL BRIDGE CONSTRUCTION, AND
CONSTRUCTION INSPECTION
REQUEST FOR STATEMENT OF QUALIFICATIONS (RFQ)

The Medina County Highway Engineer is soliciting statement of qualifications for inspection services for the superstructure demolition, substructure rehabilitation, and construction of the Wall Road Bridge Project (T.H. 145, Bridge No. 3). This project will be administered by the County as an ODOT local-let state exchange LPA project. Only consultants who have engineers/inspectors with bridge construction experience and who are on ODOT's current pre-qualified list for the following Engineering Service will be considered;

- Construction Inspector/Engineer

Current awarded Construction Cost: \$752,818.93

Scope of Services:

The inspection of the bridge demolition and construction shall be in accordance with the "State of Ohio Department of Transportation, Construction and Material Specifications," dated January 1, 2023, except when modified by the contract documents, plans, supplemental specifications or proposal notes.

The existing structure to be demolished is a single span, steel I beam bridge, 16 feet wide and approximately 53 feet long with a corrugated metal deck with an asphalt overlay. The existing structure is supported on old bridge stone abutments, and spans the River Styx. Abutments will be partially removed and left in place. The proposed structure will be a single span, concrete box beam bridge on integral concrete abutments, 28 feet wide (two 10 foot lanes and a 4 foot guardrail offset), and 68 feet long with a 8" minimum concrete deck.

The new roadway pavement will vary in width with approximately 6 feet graded shoulders. The new roadway should be tapered to meet the existing pavement and roadway width at a 25 to 1 rate. The project is expected to include about 500 feet of work including the bridge.

The contractor will be given 90 days to complete the contract, with a completion date of October 11, 2025. Approximate start date for the project is at or around April 1, 2025. The Inspection consultant should expect 10-12 weeks of full time inspection with in this time frame.

Additional information on the project and the "Requirements for Statement of Qualifications, Programmatic Selection Process" can be found on the County Engineers website at <https://engineer.medinaco.org/> under the "Legal" section.

Selection Procedures:

The County Engineer will rank consultants based on the Statement of Qualifications. Qualifications should include resumes and names of likely primary inspector and their replacement/backup for the above mentioned job. The County Engineer may select a consultant based on the Statement of Qualifications, or select two to three firms to interview. The County will then choose the firm best qualified to be invited to negotiate a contract.

All questions are to be submitted via email to ehollopeter@medinaco.org.

Firms interested in being considered for selection should respond by submitting 1 copy of the Statement of Qualifications to the following address by 4:00 PM on **February 28th, 2025**.

Medina County Engineer's Office
Attention: Emry Hollopeter
791 W. Smith Road
Medina, OH 44256

Responses received after 4:30 PM on the response due date will not be considered.

Requirements for Statement of Qualifications, Programmatic Selection Process

A. Instructions for Preparing and Submitting a Statement of Qualifications

1. Provide the information requested in the Statement of Qualifications Content (Item B below), in the same order listed, in a letter signed by an officer of the firm. Do not send additional forms, resumes, brochures, or other material.
2. Statement of Qualifications shall be limited to twenty (20) 8½" x 11" single sided pages.
3. Please adhere to the following requirements in preparing and binding Statement of Qualifications:
 - a. Please use a minimum font size of 12-point and maintain margins of 1" on all four sides.
 - b. Page numbers must be centered at the bottom of each page.
 - c. Use 8½" x 11" paper only.
 - d. Bind Statement of Qualifications by stapling at the upper left hand corner only. Do not utilize any other binding system.
 - e. Do not provide tabbed inserts or other features that may interfere with machine copying.

B. Statement of Qualifications Content

1. List all subconsultants, and the type of work to be performed by each subconsultant.
2. List the Project Manager and other key staff members, including key subconsultant staff. Include staff members that will be responsible for the work, and the project responsibility of each.

Address the experience of the key staff members on similar projects, and the staff qualifications relative to the selection subfactors noted.

3. Describe the capacity of your staff and their ability to perform the work in a timely manner, relative to present workload, and the availability of the assigned staff.
4. Provide a description of your Project Approach, not to exceed two pages. Address your firm's: 1) Technical approach; 2) Understanding of the project; 3) Your firm's qualifications for the project; 4) Knowledge and experience concerning relevant ODOT and local standards, procedures and guidance documents; 5) Innovative ideas; 6) Your firm's project specific plan for ensuring increased quality, reduced project delivery time and reduced project costs.

Items 1 thru 3 must be included within the 20-page body of the RFQ. Remaining space within the twenty (20) pages may be utilized to provide personnel resumes or additional information concerning general qualifications.

MEDINA COUNTY ENGINEER'S OFFICE

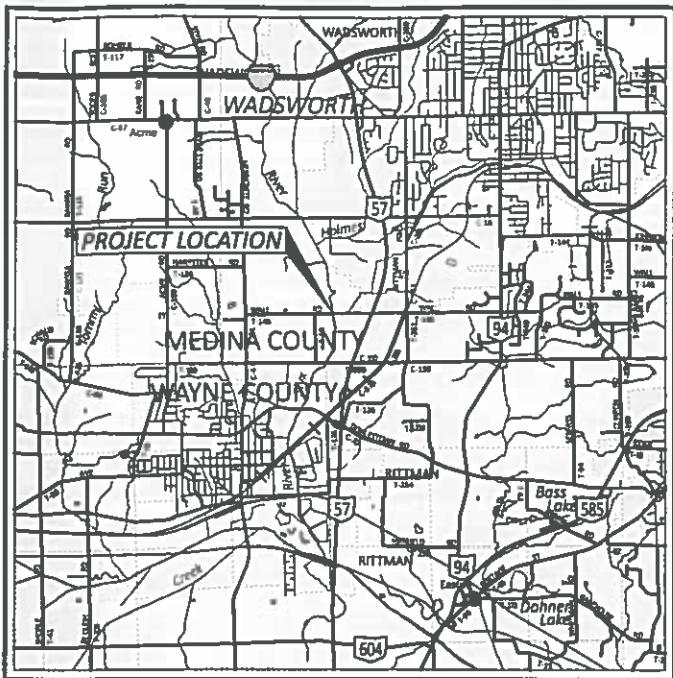
MED-145-00.91

WALL ROAD BRIDGE 3

SPANNING RIVER STYX, WADSWORTH TOWNSHIP

MEDINA COUNTY

PROPOSED SFN: 5235406



LOCATION MAP

LATITUDE: 40°59'44.49" LONGITUDE: 81°45'47.39"



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

DESIGN DESIGNATION

CURRENT ADT (2023)	556
DESIGN YEAR ADT (2043)	556
DESIGN HOURLY VOLUME (20)	
DIRECTIONAL DISTRIBUTION	0.50
TRUCKS (24 HOUR B&C)	28
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
LOCAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

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)

ENGINEER'S SEAL



SIGNED: *David Earl Buchanan*

INDEX OF SHEETS:

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STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/21/22	800-2023	7/21/23
BP-3.2	1/18/19	832	7/21/23
BP-4.1	7/19/13		
MGS-1.1	7/16/21		
MGS-2.1	1/19/18		
MGS-3.3	7/16/21		
AS-1-15	1/20/23		
BD-1-11	7/20/18		
DS-1-92	7/15/22		
PSBD-2-07	7/20/18		
TST-1-99	1/15/21		

FEDERAL PROJECT NUMBER

NONE

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THE PROJECT WORK INVOLVES THE REPLACEMENT OF THE BRIDGE MED-00145-0091 CARRYING TH 145 (WALL ROAD) OVER RIVER STYX. THE BRIDGE IS LOCATED APPROXIMATELY 0.19 MILES EAST OF NEWCOMER ROAD. THIS PROJECT INVOLVES PAVEMENT REPLACEMENT, GUARDRAIL REPLACEMENT, AND FIELD DRIVE REPLACEMENT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.9 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.7 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 5.

Andrew J. Conrad 10-9-2024
Medina County Engineer

David Buchanan
Medina County Commissioner, President

David Buchanan
Medina County Commissioner

Orin Swartz
Medina County Commissioner

MED-145-00.91

MODEL: Sheet_Survey_PAPER: 34x22 (in.) DATE: 8/25/2024 TIME: 10:29:42 AM USER: dbuchanan Z:\projects\10075-4650-Engineering\118427\118427_07001.dgn

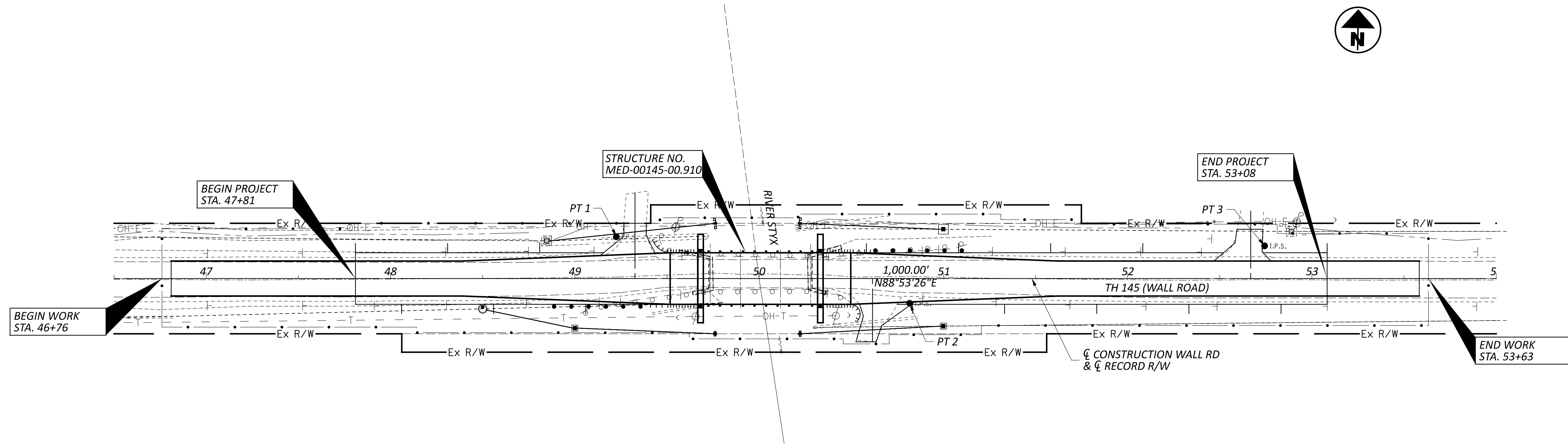


PLAN PREPARED BY:
COMPASS INFRASTRUCTURE GROUP
2800 CORPORATE EXCHANGE DR., SUITE 100
COLUMBUS, OH

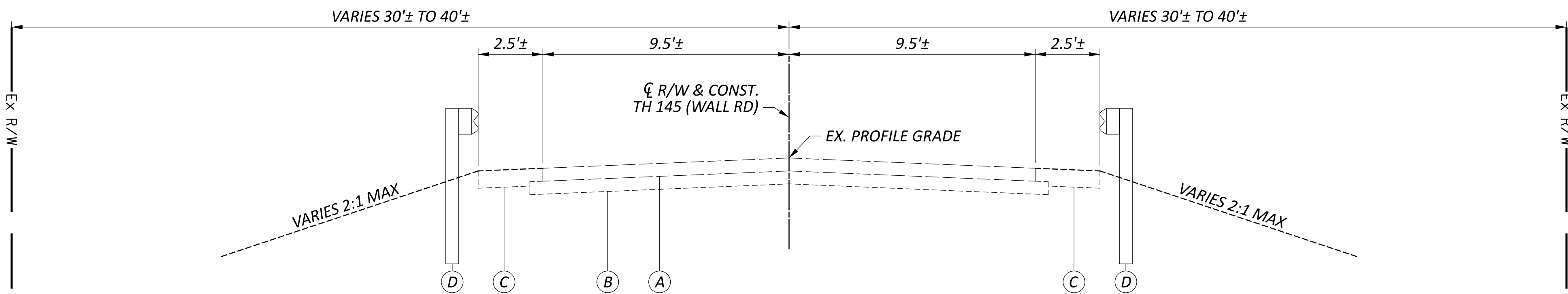
DESIGN AGENCY	COMPASS INFRASTRUCTURE GROUP
DESIGNER	CDH
REVIEWER	CCJ
PROJECT ID	118427
SHEET	1
TOTAL	34

TITLE SHEET

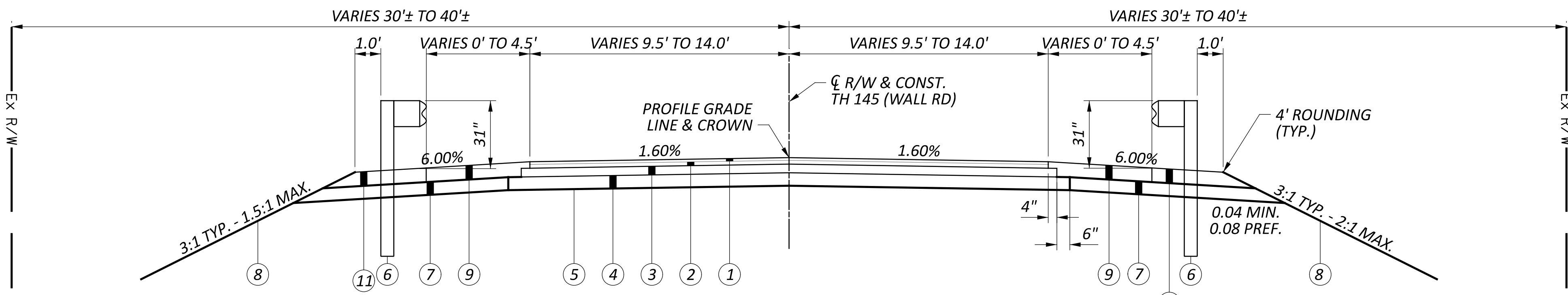
PRIMARY PROJECT CONTROL INFORMATION						
POINT NUMBER	STATION	OFFSET	GROUND COORDINATES U.S. SURVEY FEET		ELEV.	DESCRIPTION
			NORTHING	EASTING		
1	49+22.50	22.68' LT	485064.607	2171816.322	960.981	Iron Pin Set
2	50+81.67	13.41' RT	485031.608	2171976.159	960.591	Iron Pin Set
3	52+74.34	17.77' LT	485066.51	2172168.182	958.931	Iron Pin Set



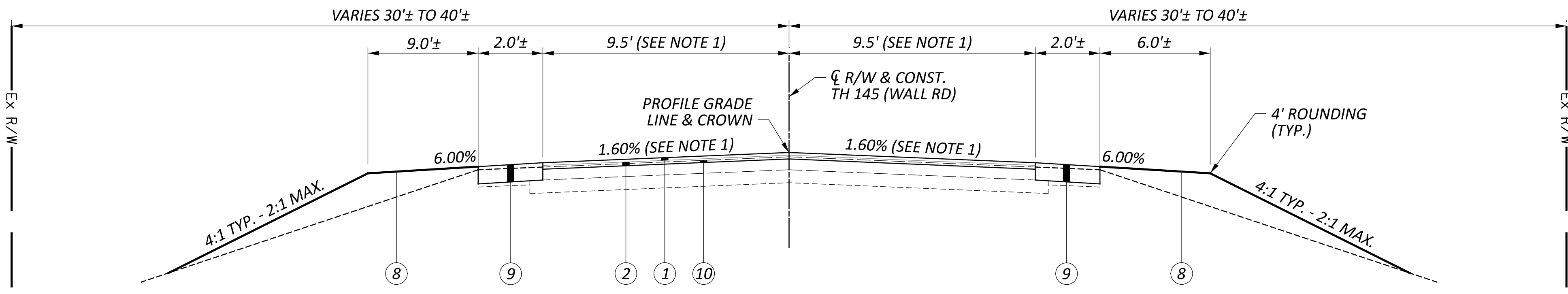
SCHEMATIC PLAN
 STA. 46+50.00 TO STA. 54+00.00



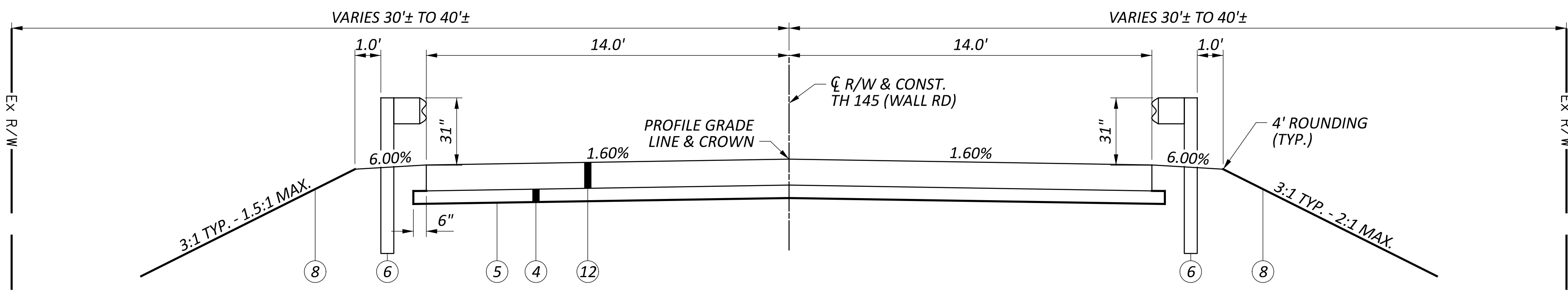
EXISTING TYPICAL SECTION - TH 145 (WALL ROAD)
 STA. 46+80.95 TO 49+72.74
 STA. 50+28.74 TO 53+58.24



PROPOSED FULL DEPTH TYPICAL SECTION - TH 145 (WALL ROAD)
 STA. 47+80.95 TO 49+51.74
 STA. 50+49.74 TO 53+08.24



PROPOSED RESURFACING TYPICAL SECTION - TH 145 (WALL ROAD)
 STA. 46+80.95 TO 47+80.95
 STA. 53+08.24 TO 53+58.24



PROPOSED APPROACH SLAB SECTION - TH 145 (WALL ROAD)
 STA. 49+51.74 TO 49+66.74
 STA. 50+34.74 TO 50+49.74

LEGEND:

- ① ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (T = 1.25")
- ② ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), PG64-22 (T = 1.75")
- ③ ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (T = 4")
- ④ ITEM 304 - AGGREGATE BASE (T = 6")
- ⑤ ITEM 204 - SUBGRADE COMPACTION
- ⑥ ITEM 606 - GUARDRAIL, TYPE MGS
- ⑦ ITEM 605 - AGGREGATE DRAINS
- ⑧ ITEM 659 - SEEDING AND MULCHING, CLASS 2
- ⑨ ITEM 411 - STABILIZED CRUSHED AGGREGATE (T = 8")
- ⑩ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (T = 1")
- ⑪ ITEM 203 - ROADWAY EMBANKMENT
- ⑫ ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T = 12")
- (A) EX. ASPHALT PAVEMENT (T = 6" ASSUMED)
- (B) EX. AGGREGATE BASE (T = 6" ASSUMED)
- (C) EX. STABILIZED AGGREGATE (T = 8" ASSUMED)
- (D) EXISTING GUARDRAIL

NOTES:

1. TRANSITION PAVEMENT WIDTH AND CROSS SLOPE TO MATCH EXISTING AT BEGIN/END PROJECT LIMITS. SEE PLAN SHEETS FOR GUARDRAIL LIMITING STATIONS AND OFFSETS
- 2.



GENERAL

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:

ELECTRIC
CITY OF WADSWORTH
ATTN: SUSAN HALE
120 MAPLE STREET
WADSWORTH, OH 44281
(330) 335-2700
SHALE@WADSWORHTHCITY.ORG

COMMUNICATION
FRONTIER COMMUNICATION
111 N ELMWOOD AVE
MEDINA, OH 44256
(330) 558-1660

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 9PM AND 7AM. 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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON PROJECTS. SEE SHEET 2 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 RTN
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: 18

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE NORTH ZONE
COMBINED SCALE FACTOR:
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 CMS 623.

UNITS ARE U.S. SURVEY FEET.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

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.

ENVIRONMENTAL

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE. THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THE PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT HTTP://WWW.EPA.OHIO.GOV/ASBESTOS AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM OR ASBESTOS PROGRAM
OHIO EPA, DAPC OHIO EPA, DAPC
P.O. BOX 1049 50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43216 COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

- 1. THE CONTRACTOR'S NAME AND ADDRESS
- 2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
- 3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS TO BE USED

BASIS FOR PAYMENT - THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ROADWAY

ITEM 204 - PROOF ROLLING

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

ITEM 204 - PROOF ROLLING 1 HOUR

ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2, AS PER PLAN

THIS ITEM SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2 IN THE AREAS SHOWN ON THE PLANS. THESE SHALL BE INSTALLED PER ODOT SCD MGS-3.3 AND THE DETAILS CONTAINED IN THESE PLANS. ALL PAYMENT FOR THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2, AS PER PLAN.

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 ODOT'S 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.

EROSION CONTROL

SEEDING AND MULCHING

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

ITEM 651 - TOPSOIL STOCKPILED 190 CU. YD.
ITEM 652 - PLACING STOCKPILED TOPSOIL 190 CU. YD.
ITEM 659 - SEEDING AND MULCHING 1898 SQ. YD.
CLASS 2 WITH FERTILIZER, HYDRAULICALLY SPREAD.
ITEM 659 - WATER 9 M. GAL

APPLY SEEDING AND MULCHING 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.

MAINTENANCE OF TRAFFIC

ITEM 614 - MAINTAINING TRAFFIC

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614 - DETOUR SIGNING

SIZE AND PLACEMENT OF DETOUR SIGNS (M4-9) SHOULD FOLLOW THE REQUIREMENTS OF THE ODOT SECTION 6F.03, SECTION 2A.11 AND TABLE 6F-01.

DETOUR SIGNING SHALL PROVIDE DRIVERS ADEQUATE TIME TO CLEARLY READ THE SIGNS AND MAKE THE PROPER DECISIONS AT EACH REQUIRED TURNING MOVEMENT. THE DESIGNATED DETOUR ROUTE SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

- APPROXIMATELY 1500 FEET PRIOR TO TIP OF THE PAINTED GORE AT AN INTERCHANGE WHEN EXITING A HIGH SPEED (45 MPH OR HIGHER) FACILITY.

- AT OR NEAR THE EXISTING SIGN IN THE GORE OF AN INTERCHANGE RAMP.

- AT OR NEAR THE FIRST EXISTING LANE ASSIGNMENT SIGN ON AN INTERCHANGE EXIT RAMP.

- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT THE END OF AN EXIT RAMP.

- APPROXIMATELY 500 FEET PRIOR TO A REQUIRED TURN AT AN INTERSECTION NOT CONTROLLED BY A STOP SIGN (FOR 45 MPH OR HIGHER ONLY).

- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT AN INTERSECTION.

- EVERY TWO MILES ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS OUTSIDE A CITY.

- EVERY TWO BLOCKS ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS WITHIN A CITY.

- AT ANY OTHER INTERSECTION OR DECISION POINT WHERE THE DETOUR ROUTE IS CONTRARY TO THE NORMAL, EXPECTED TURNING MANUEVER OR OTHERWISE UNCLEAR.

DETOUR SIGNS SHALL BE PLACED, WHEN POSSIBLE, NEXT TO BUT NOT BLOCKING EXISTING ROUTE MARKERS OR LANE ASSIGNMENT SIGNS. DETOUR SIGNS SHALL NOT OBSCURE OR BE OBSCURED BY OTHER EXISTING OR TEMPORARY SIGNS.

DETOUR SIGNS SHALL BE ERECTED AND/OR UNCOVERED PRIOR TO THE ROAD OR RAMP BEING CLOSED TO TRAFFIC BUT NO EARLIER THAN FOUR HOURS PRIOR TO THE CLOSURE. DETOUR SIGNS SHALL BE COVERED AND/OR REMOVED NO LATER THAN FOUR HOURS FOLLOWING THE ROAD OR RAMP RE-OPENING TO TRAFFIC.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING OF SIGNS, MAINTAINING SIGNS, AND TIMELY COVERING AND/OR REMOVING SIGNS AND SUPPORTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - DETOUR SIGNING = LUMP SUM

BALLOON LEGEND

- DV-## DRIVEWAYS
- G-## GUARDRAIL
- GR-## GUARDRAIL REMOVED
- D-## PIPE OR CONDUIT
- DR-## PIPE REMOVED
- S-## PROPOSED SIGN
- SR-## SIGN REMOVED

DESIGN AGENCY



COMPASS
INFRASTRUCTURE GROUP

DESIGNER

CDH

REVIEWER

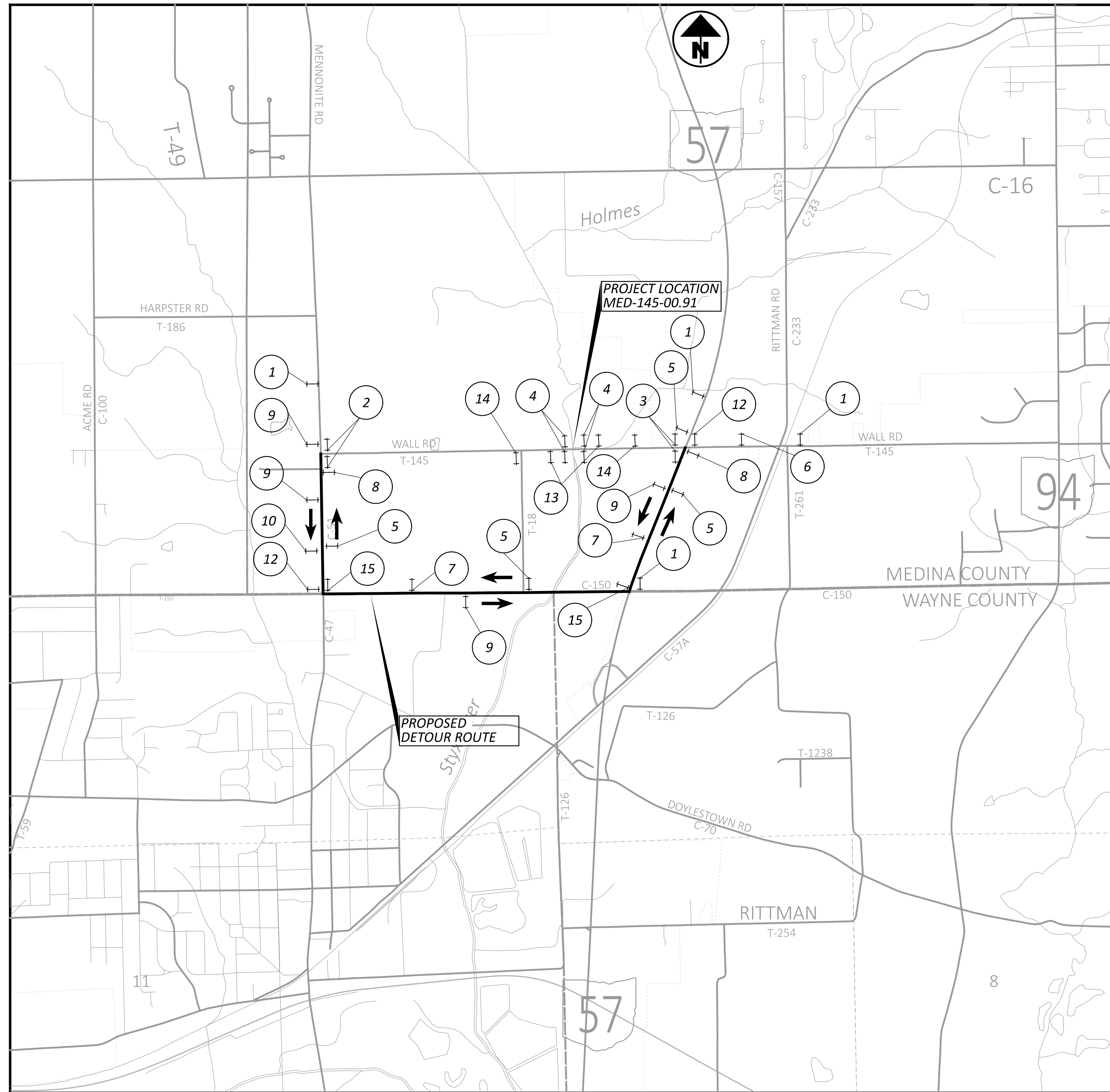
CCJ 11/01/23

PROJECT ID

118427

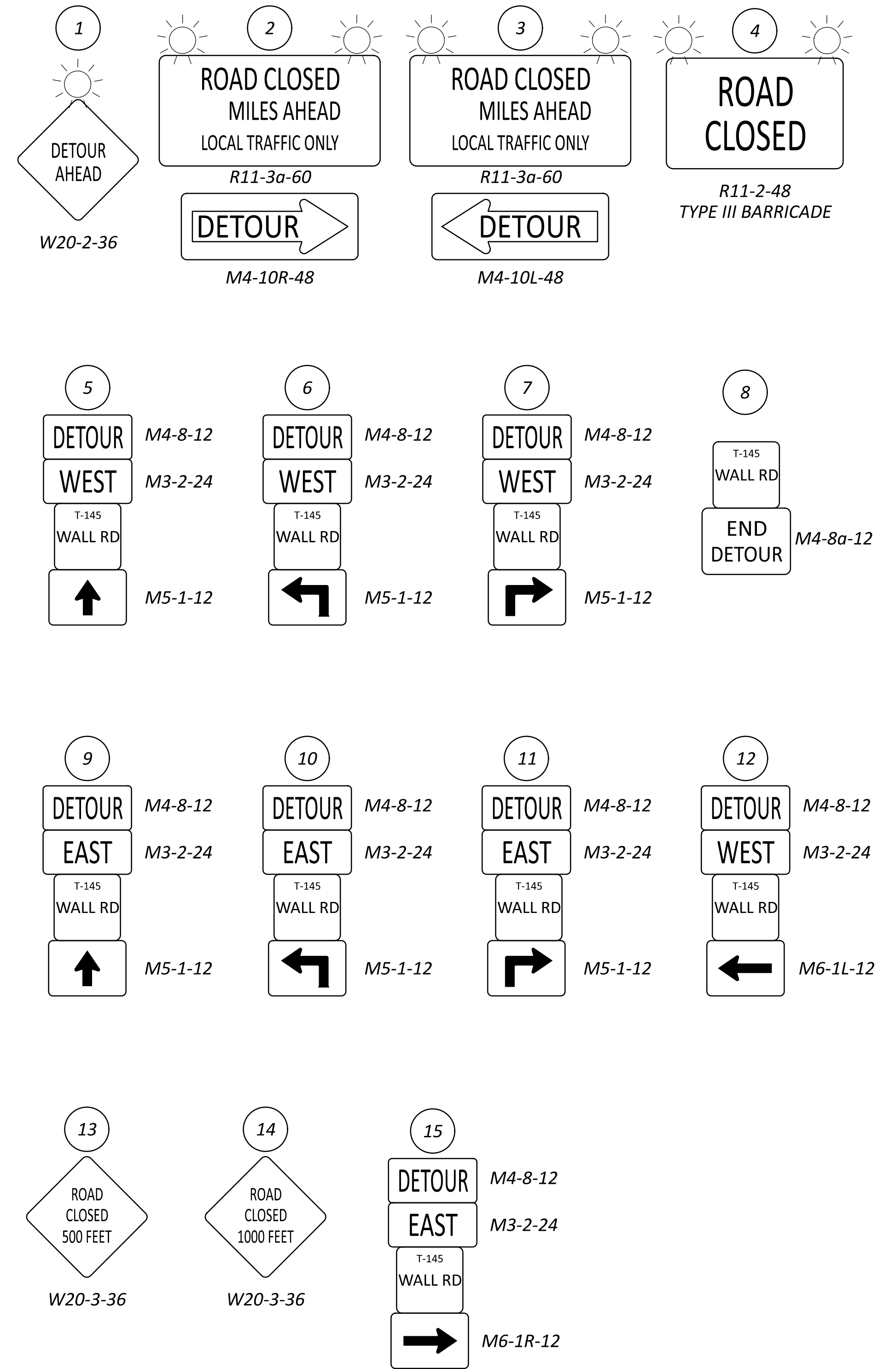
SHEET TOTAL

4 34



DETOUR PLAN - SEGMENT 1 DETAIL
NOT TO SCALE

SIGN LEGEND:



LEGEND:



MED-145-00.91

MODEL: 9inkw_SunVr_PAPER SIZE: 34x22 (in.) DATE: 1/8/2025 TIME: 8:22:01 AM USER: mmoellendick
Z:\Projects\10705\MDCED TH US BR 3118427\400\Engineering\Drawings\Sheets\118427_G0001.dgn

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.		
OFFICE	CALCS							4	7	18	22		EXT	TOTAL		NOTE: STRUCTURE QUANTITIES CAN BE FOUND ON SHEET 22			
																ROADWAY			
							LS						201	11000	LS	CLEARING AND GRUBBING			
									140				202	38000	140	FT	GUARDRAIL REMOVED		
													203	10000	283	CY	EXCAVATION		
													203	20000	905	CY	EMBANKMENT		
1,258													204	10000	1,258	SY	SUBGRADE COMPACTION		
							1						204	45000	1	HOUR	PROOF ROLLING		
													606	15050	125	FT	GUARDRAIL, TYPE MGS		
									125				606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E		
									4				606	34601	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2, AS PER PLAN	4	
																	EROSION CONTROL		
													651	10000	190	CY	TOPSOIL STOCKPILED		
							190						652	10000	190	CY	PLACING STOCKPILED TOPSOIL		
													659	10000	1,898	SY	SEEDING AND MULCHING		
													659	35000	9	MGAL	WATER		
																	DRAINAGE		
													202	35100	210	FT	PIPE REMOVED, 24" AND UNDER		
													202	35200	175	FT	PIPE REMOVED, OVER 24"		
													602	20000	2	CY	CONCRETE MASONRY		
													605	31100	174	FT	AGGREGATE DRAINS		
													611	06100	130	FT	15" CONDUIT, TYPE C		
													611	07600	80	FT	18" CONDUIT, TYPE C		
													611	16600	175	FT	36" CONDUIT, TYPE C		
													611	98450	2	EACH	CATCH BASIN, NO. 2-2A		
													611	98541	1	EACH	CATCH BASIN, NO. 2-4, AS PER PLAN	4	
													611	98634	1	EACH	CATCH BASIN RECONSTRUCTED TO GRADE		
													611	99574	1	EACH	MANHOLE, NO. 3		
																	PAVEMENT		
317													254	01000	317	SY	PAVEMENT PLANING, ASPHALT CONCRETE		
117													301	56000	117	CY	ASPHALT CONCRETE BASE, PG64-22, (449)		
170									15				304	20000	185	CY	AGGREGATE BASE		
74													407	10000	148	GAL	TACK COAT		
71													411	10000	71	CY	STABILIZED CRUSHED AGGREGATE		
47													441	70000	47	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22		
66													441	70200	66	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)		
																	TRAFFIC CONTROL		
													620	31200	29	EACH	REMOVAL OF DELINEATOR		
													630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		
																	STRUCTURE OVER 20 FOOT SPAN (SFN: 5235406)		
													202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	21	
													190	21100	190	CY	UNCLASSIFIED EXCAVATION		
													507	00100	1,120	FT	STEEL PILES HP10X42, FURNISHED		
													507	00150	1,050	FT	STEEL PILES HP10X42, DRIVEN		
													509	10000	15,739	LB	EPOXY COATED STEEL REINFORCEMENT		
													510	10000	14	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		
													511	53014	48	CY	CLASS QC3 CONCRETE, MISC.:CLASS QC3 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	21	
													511	43510	97	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING		
													512	10100	50	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
													515	12050	7	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB21-48, (66'-0" LONG)		
													516	13900	30	SF	2" PREFORMED EXPANSION JOINT FILLER		
													516	14014	32	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL		
													516	43100	28	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE)9"W X 9"L X 1 13/16"H		
													517	70000	140	FT	RAILING (TWIN STEEL TUBE)		
													518	21200	67	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		
													162	SPECIAL	51822300	162	FT	STEEL DRIP STRIP	21
													518	40000	96	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		
													518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		
													523	20000	2	EACH	DYNAMIC LOAD TESTING		
													526	10000	93	SY	REINFORCED CONCRETE APPROACH SLABS (T=12")		
													601	34400	9	CY	ROCK CHANNEL PROTECTION, WITH GROUT (2'-0" THICK)		
																	MAINTENANCE OF TRAFFIC		
																	DETOUR SIGNING		
																	INCIDENTALS		
																	MAINTAINING TRAFFIC		
LS																	CONSTRUCTION LAYOUT STAKES AND SURVEYING		
LS																	MOBILIZATION		

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER
CDH


REVIEWER
CCJ 11/01/23

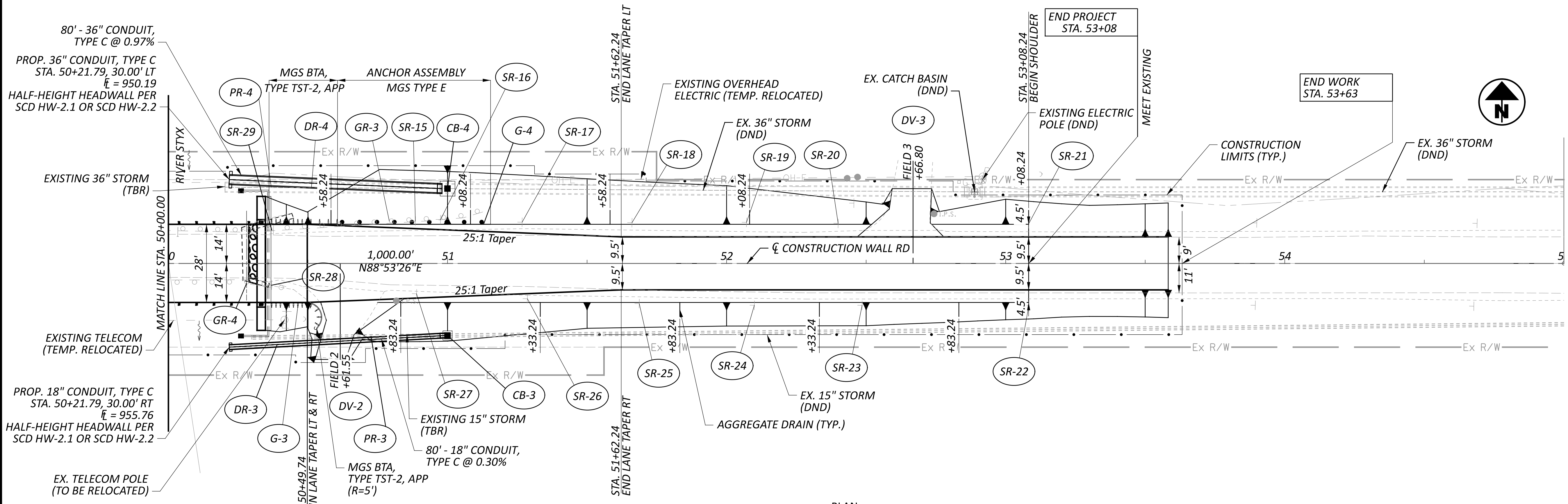
PROJECT ID
118427

SHEET TOTAL
6 34

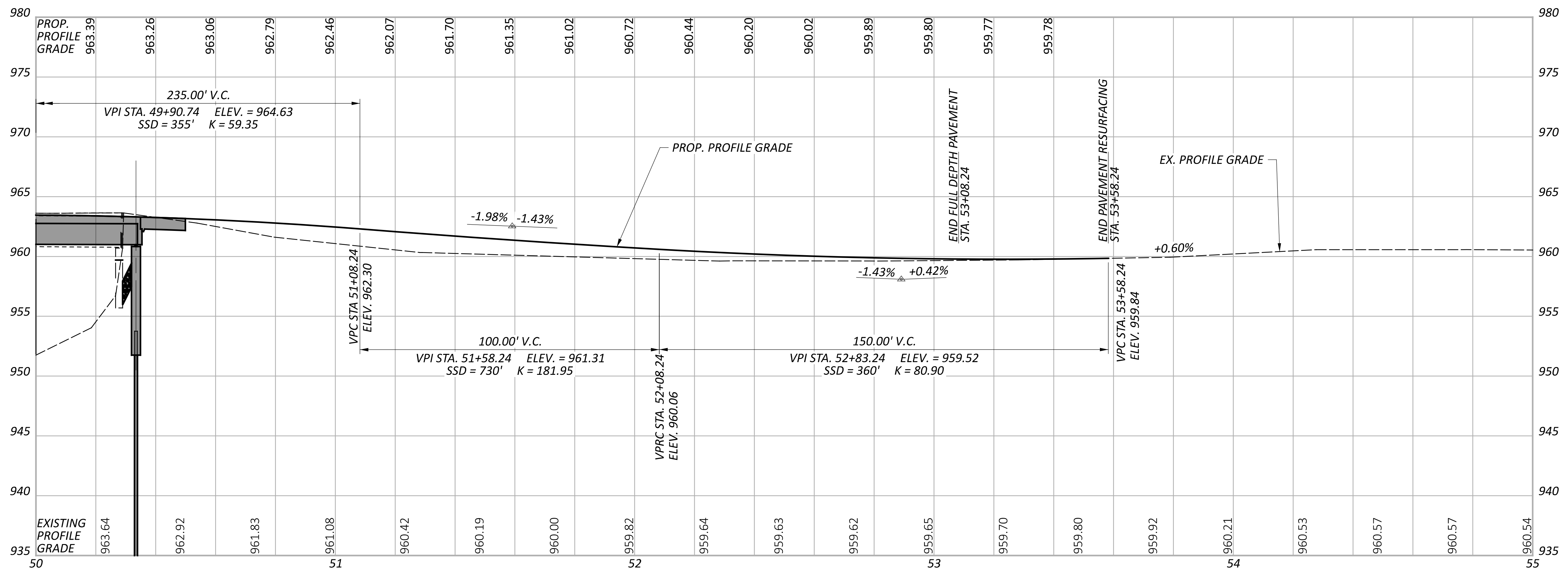
REF. NO.	SHEET NO.	STATION		SIDE	202	202	202	304	602	606	606	606	611	611	611	606	606	606	606	620	620
					GUARDRAIL REMOVED	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	AGGREGATE BASE (6 IN.)	CONCRETE MASONRY	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE E	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2, AS PER PLAN	15" CONDUIT, TYPE C	18" CONDUIT, TYPE C	36" CONDUIT, TYPE C	CATCH BASIN, NO. 2-2A	CATCH BASIN, NO. 2-4, AS PER PLAN	CATCH BASIN RECONSTRUCTED TO GRADE	MANHOLE, NO. 3	REMOVAL OF DELINEATOR	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
		FROM	TO		FT	FT	FT	CY	CY	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH
GR-1	8	49+02.98	50+00.00	RT	49																
GR-2	8	49+45.99	50+00.00	LT	11																
GR-3	9	50+00.00	51+12.61	LT	64																
GR-4	9	50+26.71	50+42.06	RT	16																
G-1	8	48+86.05	49+67.93	RT						62.5	1	1									
G-2	8	49+42.20	49+67.93	RT							1	1									
G-3	9	50+33.55	50+54.99	LT							1	1									
G-4	9	50+33.55	51+15.43	RT						62.5	1	1									
PR-1	8	48+80.00	49+75.00	LT			95														
PR-2	8	48+50.00	49+80.00	RT		130															
PR-3	9	50+20.00	51+00.00	RT		80															
PR-4	9	50+20.00	51+00.00	LT			80														
DR-1	8	48+80.00	49+75.00	LT											95						
DR-2	8	48+50.00	49+80.00	RT								130									
DR-3	9	50+00.00	51+00.00	RT									80								
DR-4	9	50+20.00	51+00.00	LT										80							
CB-1	8	49+00.00		RT					0.25						1						
CB-2	8	48+80.00		LT					0.75								1				
CB-3	9	51+00.00		RT					0.30						1						
CB-4	9	51+00.00		LT					0.70							1					
MH-1	8	48+50.00		RT														1			
SR-1	8	49+24.68		RT																1	
SR-2	8	49+57.49		RT																1	
SR-3	8	49+58.16		LT																1	1
SR-4	8	49+13.19		RT																1	
SR-5	8	48+73.78		RT																1	
SR-6	8	48+30.36		RT																1	
SR-7	8	47+91.17		RT																1	
SR-8	8	47+52.23		RT																1	
SR-9	8	47+00.56		RT																1	
SR-10	8	47+00.68		LT																1	
SR-11	8	47+52.26		LT																1	
SR-12	8	48+30.01		LT																1	
SR-13	8	48+74.79		LT																1	
SR-14	8	49+10.42		LT																1	
SR-15	9	50+88.48		LT																1	1
SR-16	9	50+97.47		LT																1	
SR-17	9	51+26.72		LT																1	
SR-18	9	51+66.10		LT																1	
SR-19	9	52+07.13		LT																1	
SR-20	9	52+39.98		LT																1	
SR-21	9	53+08.33		LT																1	
SR-22	9	53+08.32		RT																1	
SR-23	9	52+48.55		RT																1	
SR-24	9	52+09.95		RT																1	
SR-25	9	51+68.70		RT																1	
SR-26	9	51+28.61		RT																1	
SR-27	9	50+88.90		RT																1	
SR-28	9	50+36.97		RT																1	
SR-29	9	50+37.63		LT																1	
DV-1	8	49+32.67		LT				6													
DV-2	9	50+61.55		RT				4													
DV-3	9	52+66.80		LT				5													
TOTALS CARRIED TO GENERAL SUMMARY					140	210	175	15	2	125	4	4	130	80	175	2	1	1	1	29	2

ESTIMATED QUANTITIES

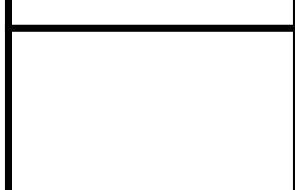
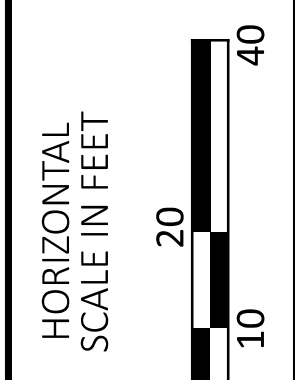
DESIGN AGENCY

COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23
 PROJECT ID
 118427
 SHEET TOTAL
 7 34



PLAN



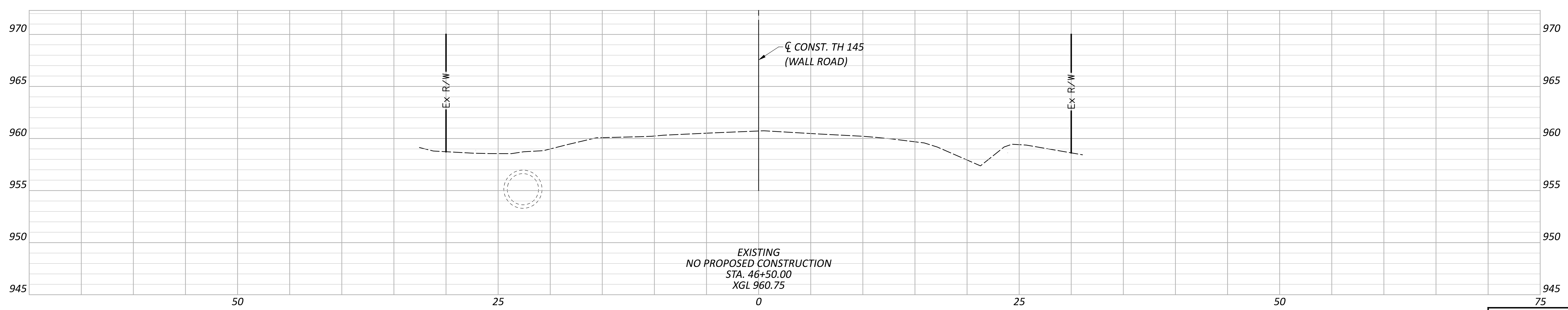
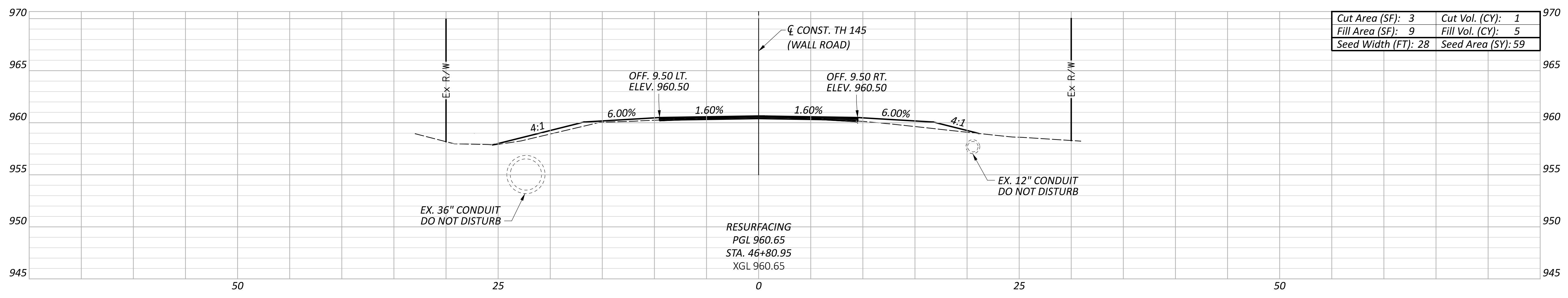
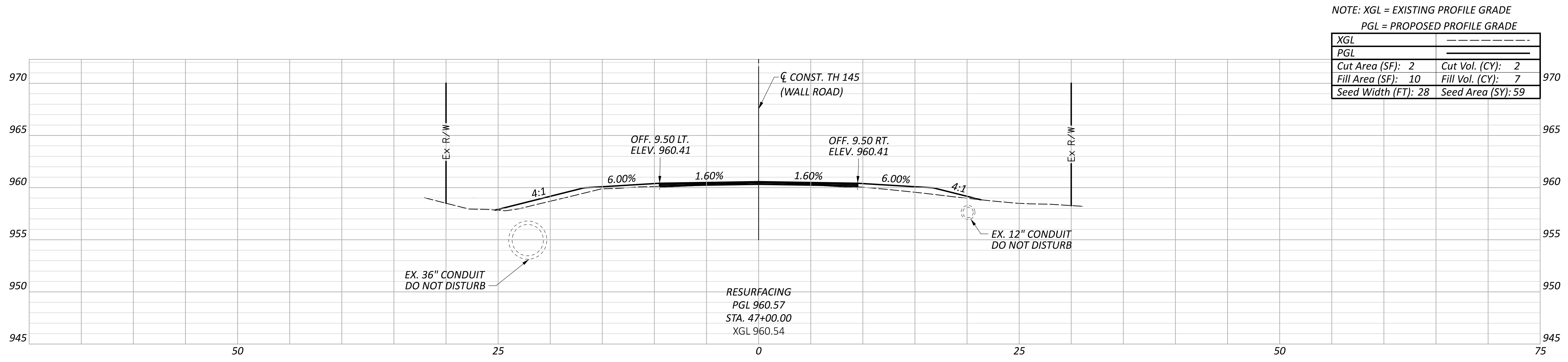
PROFILE ALONG C CONST. WALL ROAD



PLAN AND PROFILE
 STA. 50+00.00 TO STA. 55+00.00

DESIGN AGENCY

 COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23
 PROJECT ID
 118427
 SHEET TOTAL
 9 34

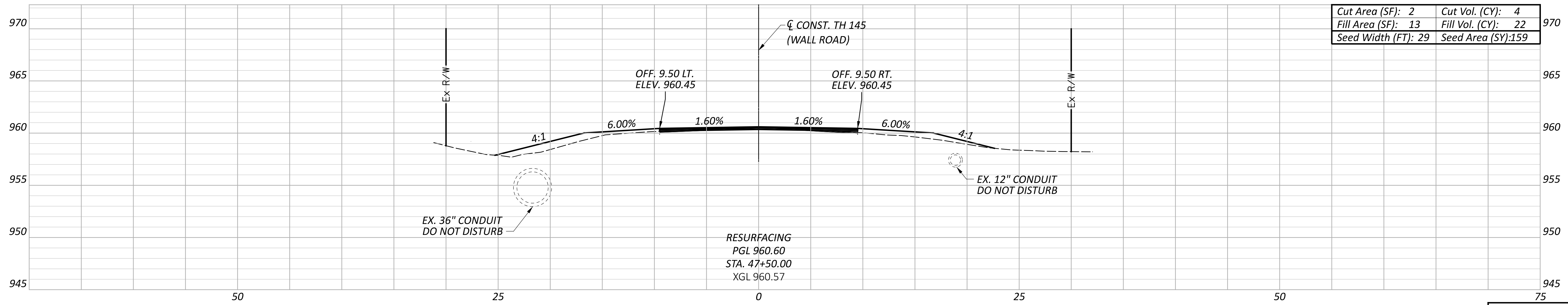
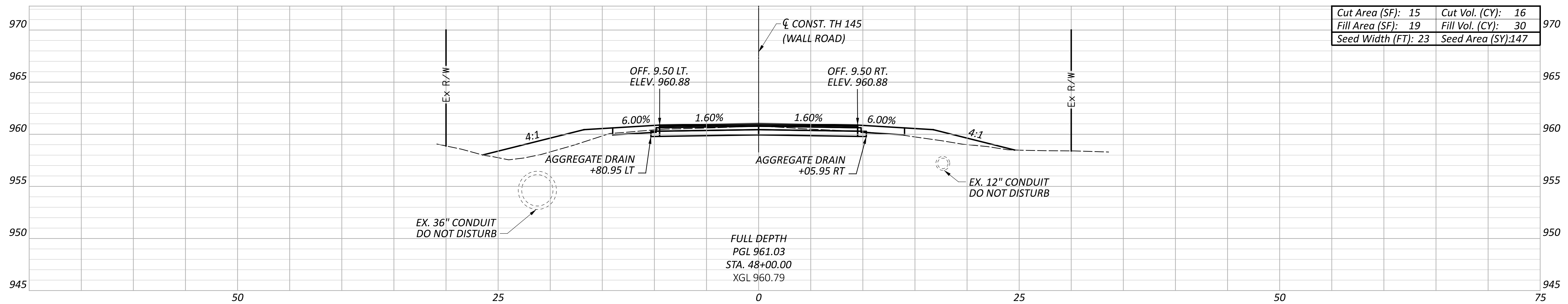
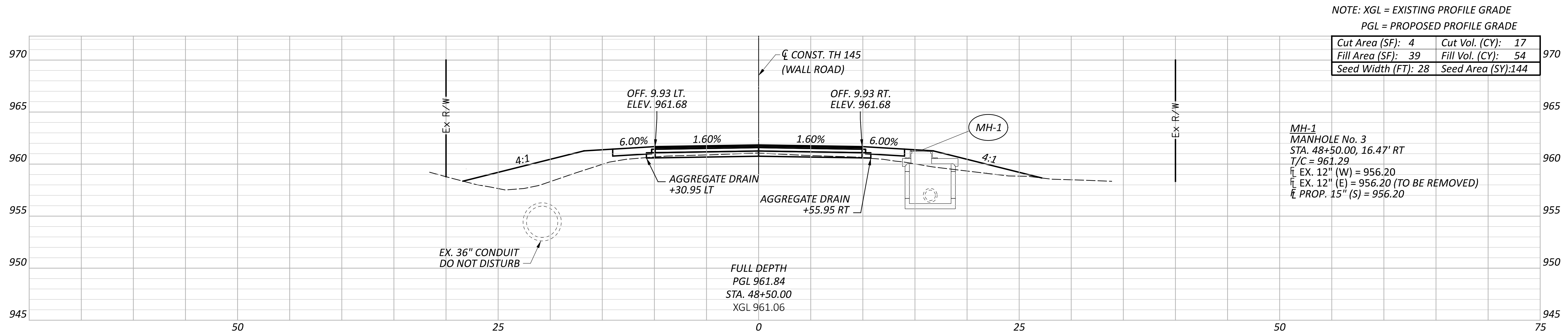


CROSS SECTIONS
 STA. 46+50.00 TO STA. 47+00.00

DESIGN AGENCY

COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23

Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
118	3	12	10	34



CROSS SECTIONS
 STA. 47+50.00 TO STA. 48+50.00

DESIGN AGENCY

COMPASS
 INFRASTRUCTURE GROUP

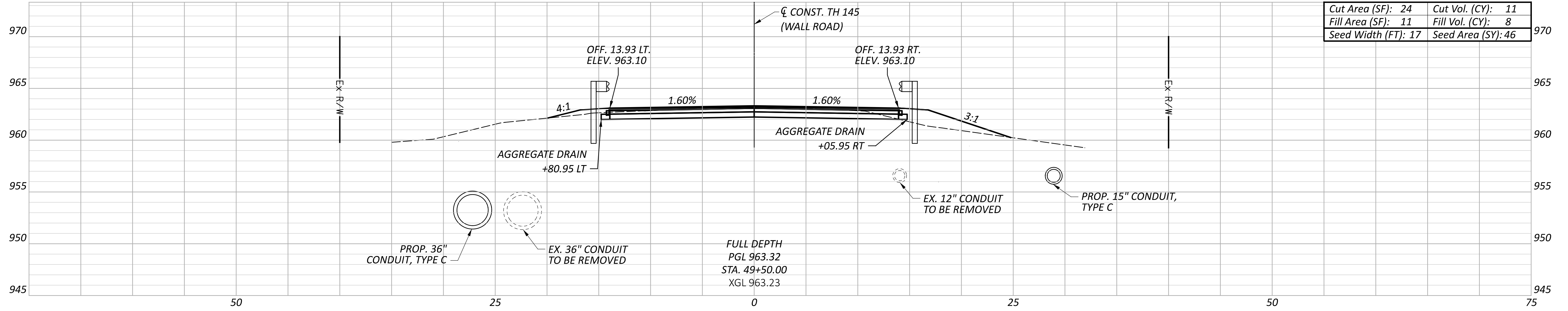
DESIGNER
 CDH

REVIEWER
 CCJ 11/01/23

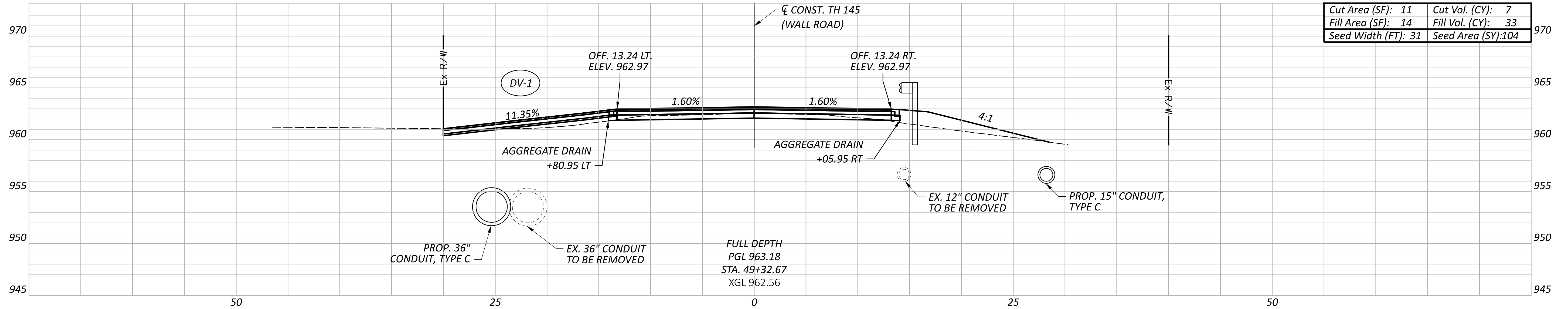
PROJECT ID
 118427

Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
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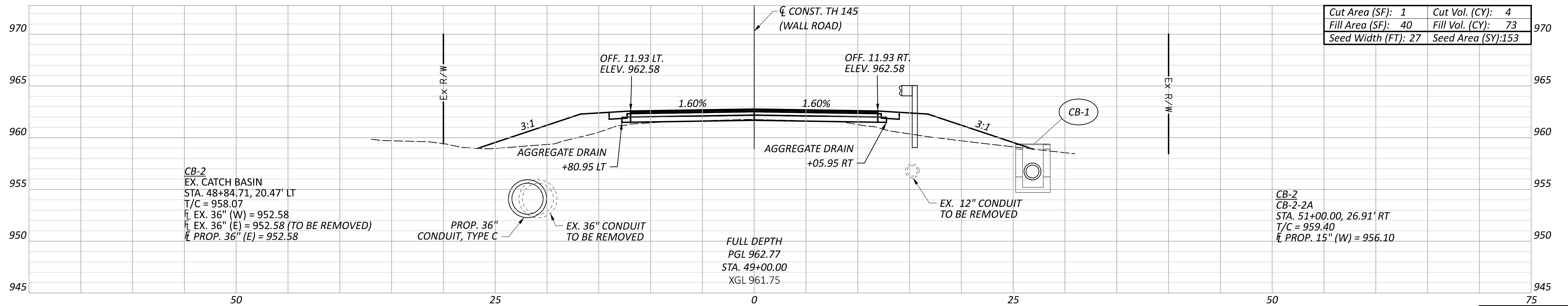
NOTE: XGL = EXISTING PROFILE GRADE
 PGL = PROPOSED PROFILE GRADE



Cut Area (SF): 24	Cut Vol. (CY): 11
Fill Area (SF): 11	Fill Vol. (CY): 8
Seed Width (FT): 17	Seed Area (SY): 46



Cut Area (SF): 11	Cut Vol. (CY): 7
Fill Area (SF): 14	Fill Vol. (CY): 33
Seed Width (FT): 31	Seed Area (SY): 104



Cut Area (SF): 1	Cut Vol. (CY): 4
Fill Area (SF): 40	Fill Vol. (CY): 73
Seed Width (FT): 27	Seed Area (SY): 153

CB-2
 EX. CATCH BASIN
 STA. 48+84.71, 20.47' LT
 T/C = 958.07
 EX. 36" (W) = 952.58
 EX. 36" (E) = 952.58 (TO BE REMOVED)
 PROP. 36" (E) = 952.58

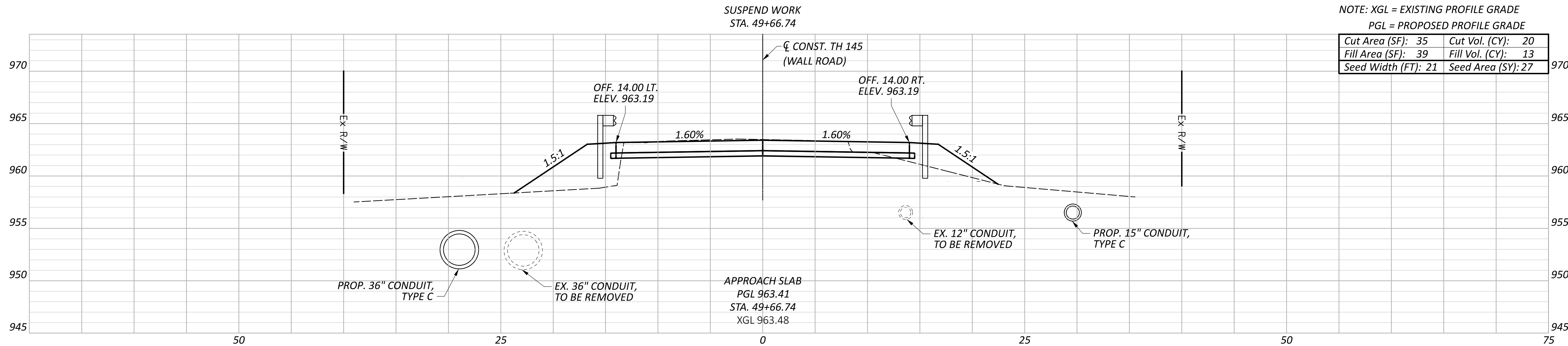
CB-2
 CB-2-2A
 STA. 51+00.00, 26.91' RT
 T/C = 959.40
 PROP. 15" (W) = 956.10

CROSS SECTIONS
 STA. 49+00.00 TO STA. 49+50.00

DESIGN AGENCY

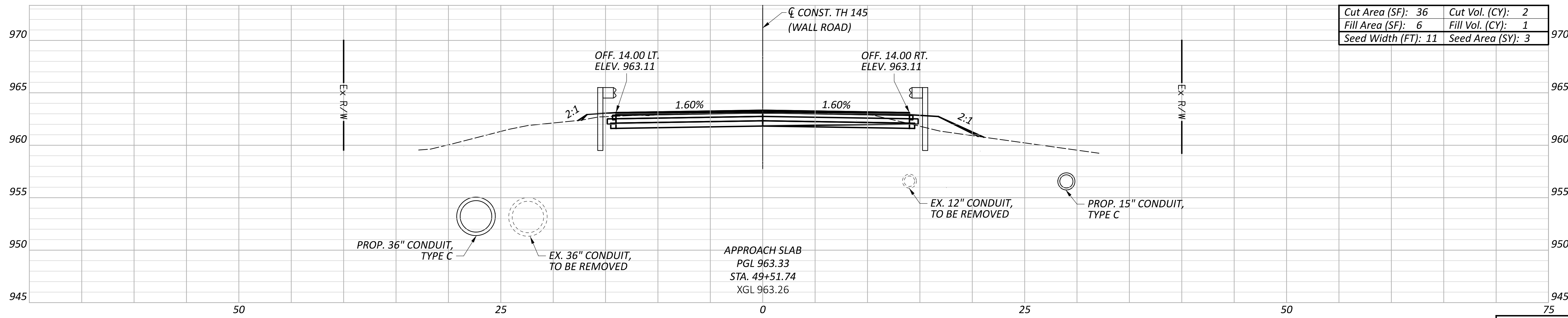
 COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23

Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
303	22	114	12	34



NOTE: XGL = EXISTING PROFILE GRADE
 PGL = PROPOSED PROFILE GRADE

Cut Area (SF): 35	Cut Vol. (CY): 20
Fill Area (SF): 39	Fill Vol. (CY): 13
Seed Width (FT): 21	Seed Area (SY): 27



Cut Area (SF): 36	Cut Vol. (CY): 2
Fill Area (SF): 6	Fill Vol. (CY): 1
Seed Width (FT): 11	Seed Area (SY): 3

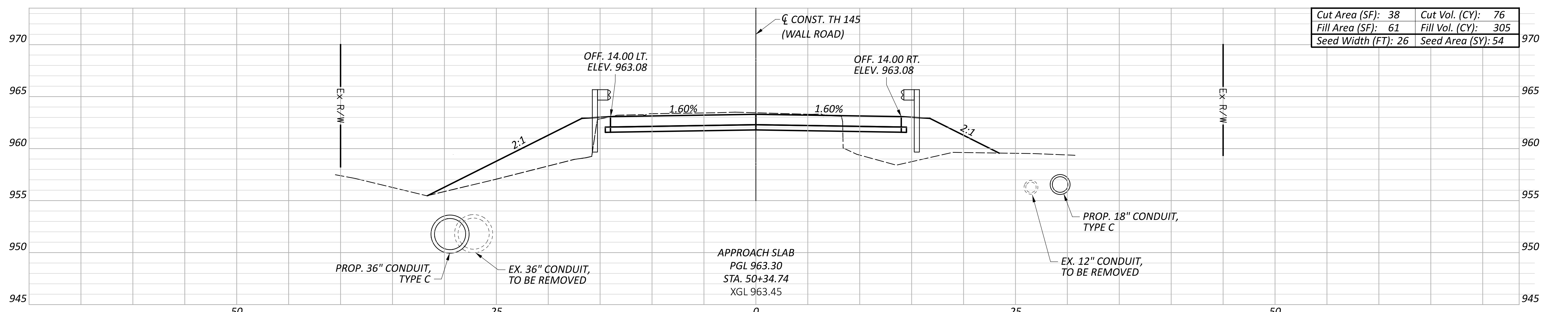
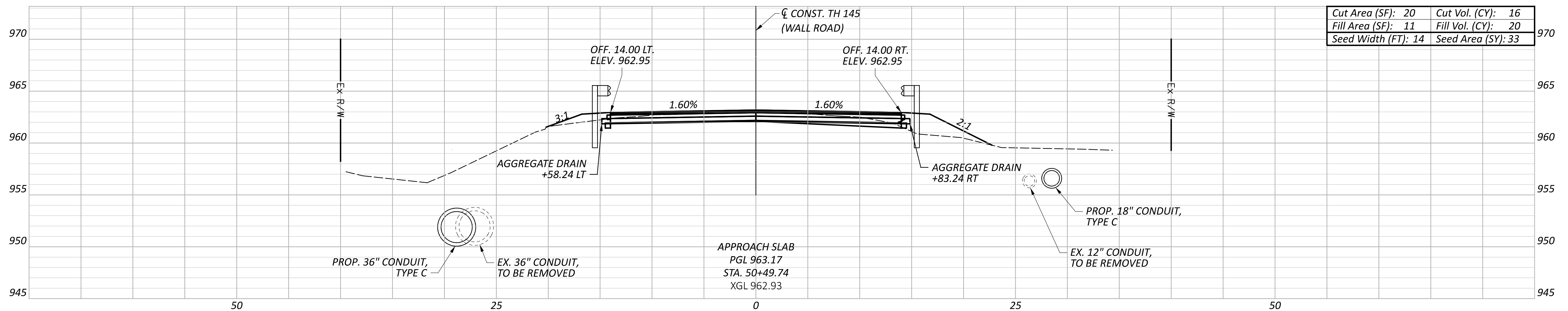
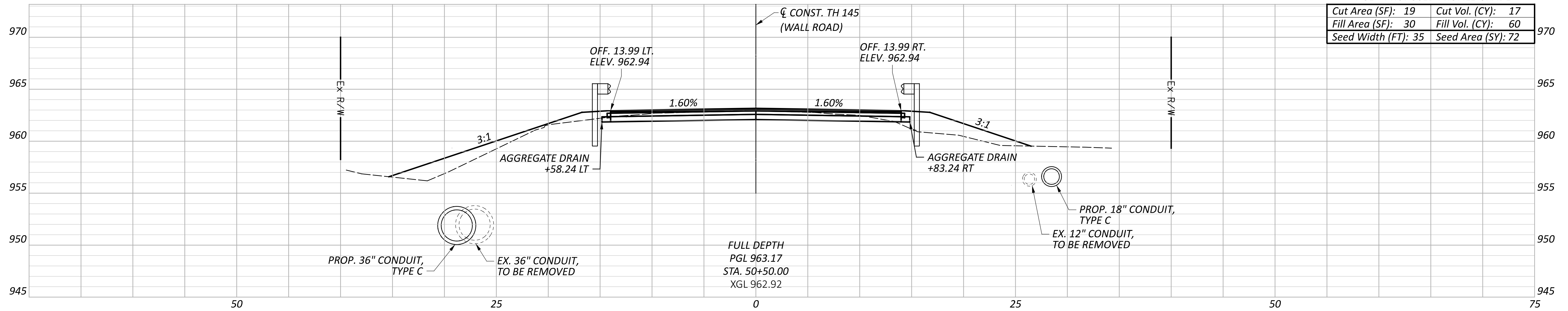
Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
29	22	13	13	34

CROSS SECTIONS
 STA. 49+51.74 TO STA. 49+66.74

DESIGN AGENCY

COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23
 PROJECT ID
 118427

NOTE: XGL = EXISTING PROFILE GRADE
 PGL = PROPOSED PROFILE GRADE



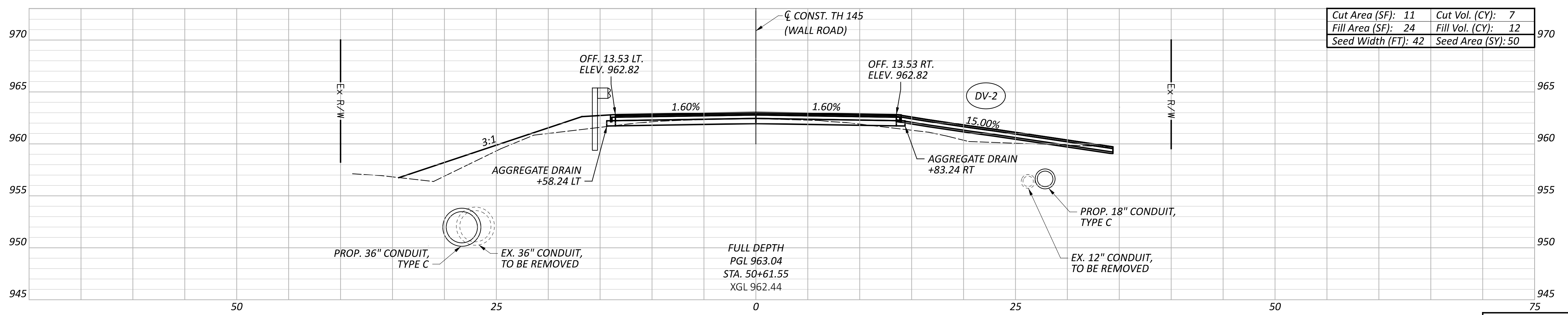
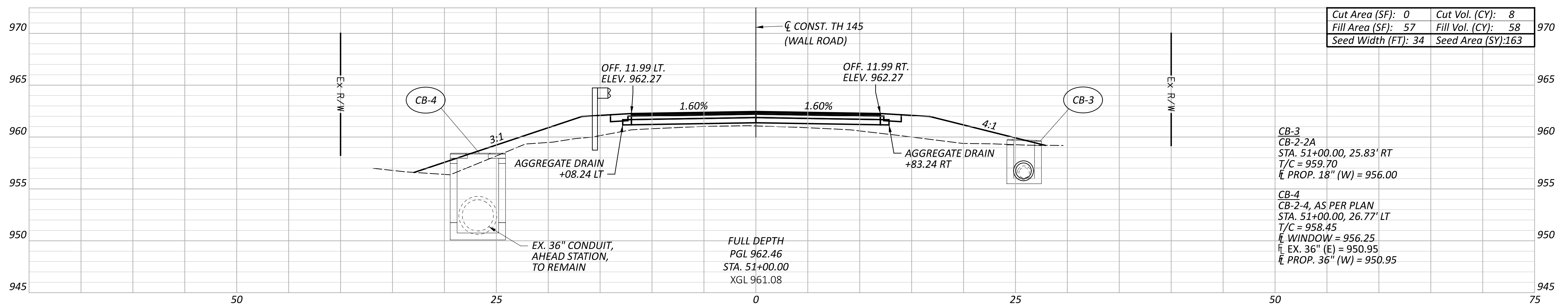
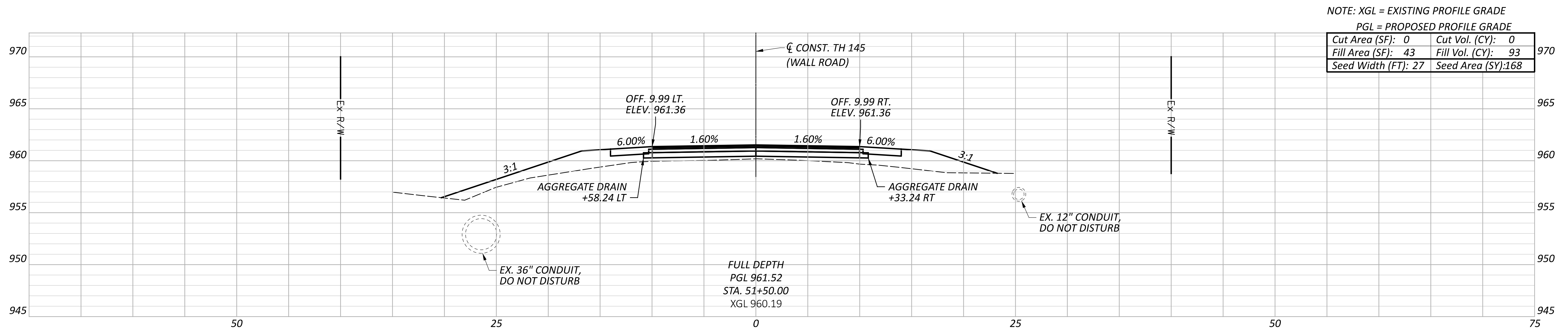
RESUME
 STA. 50+34.74

Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
159	109	385	14	34

CROSS SECTIONS
 STA. 50+34.74 TO STA. 50+50.00

DESIGN AGENCY

COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23
 PROJECT ID
 118427

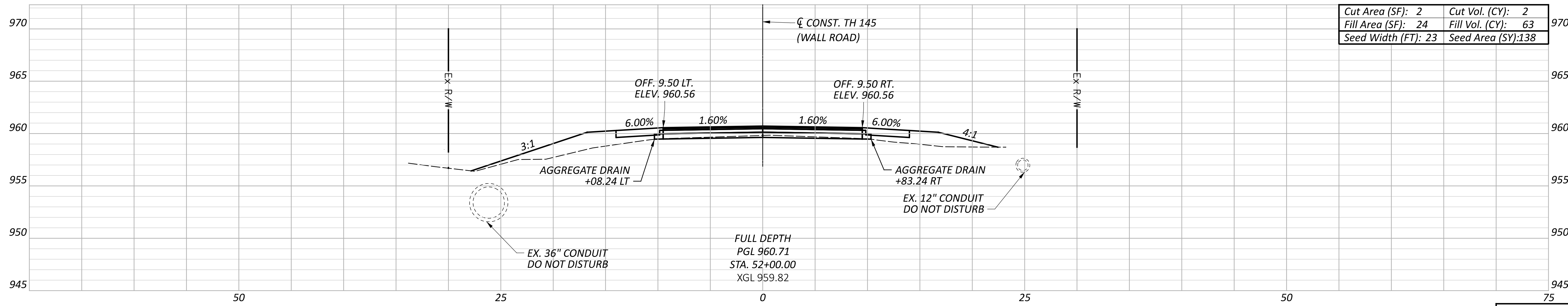
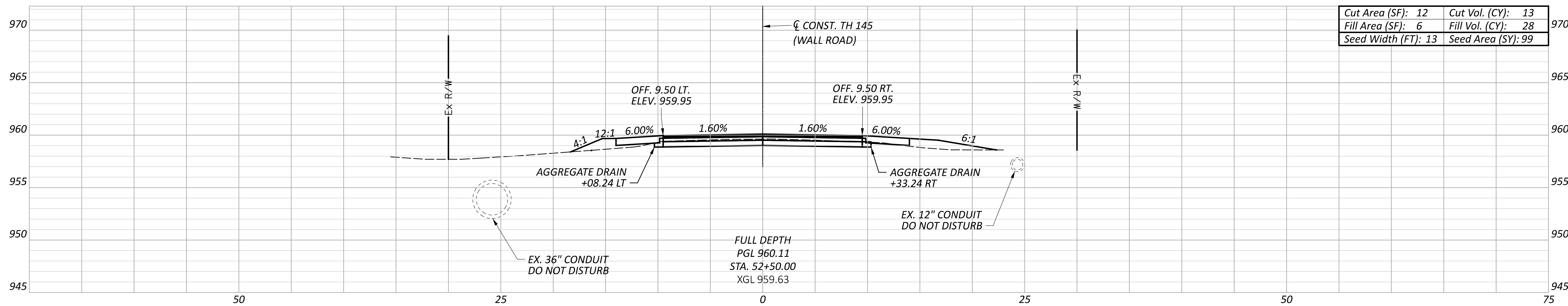
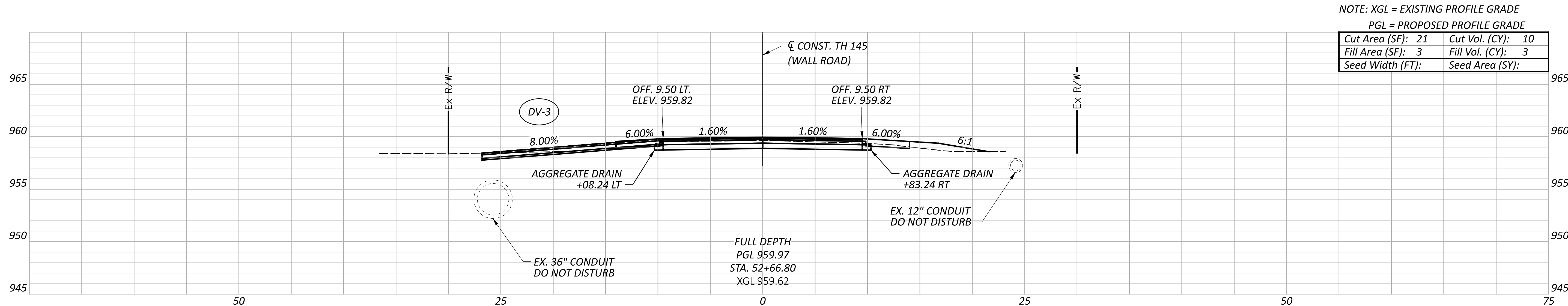


CROSS SECTIONS
 STA. 50+61.55 TO STA. 51+50.00

DESIGN AGENCY

 COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23
 PROJECT ID

Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
382	14	162	15	34

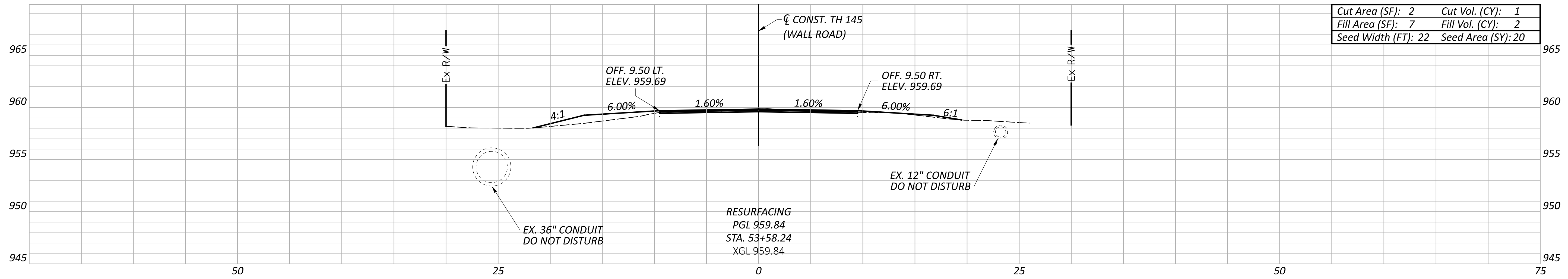


CROSS SECTIONS
 STA. 52+00.00 TO STA. 52+66.80

DESIGN AGENCY

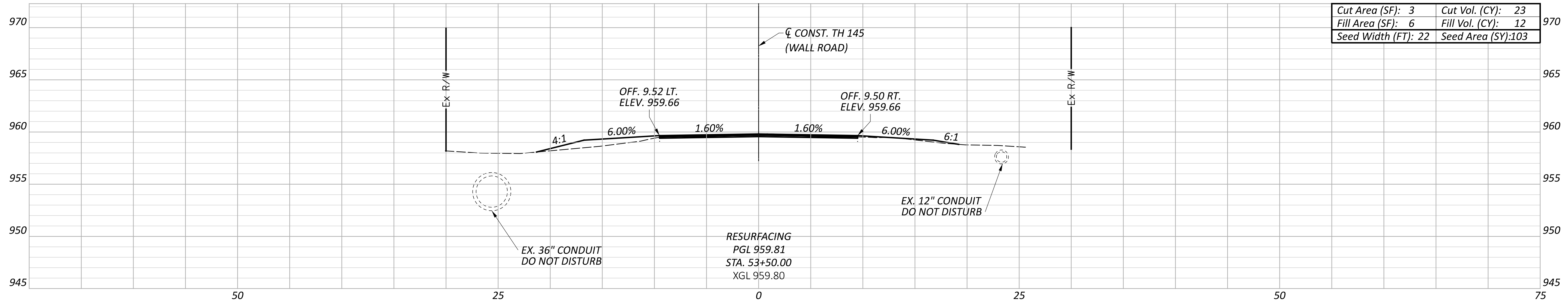
 COMPASS
 INFRASTRUCTURE GROUP
 DESIGNER
 CDH
 REVIEWER
 CCJ 11/01/23
 PROJECT ID

Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
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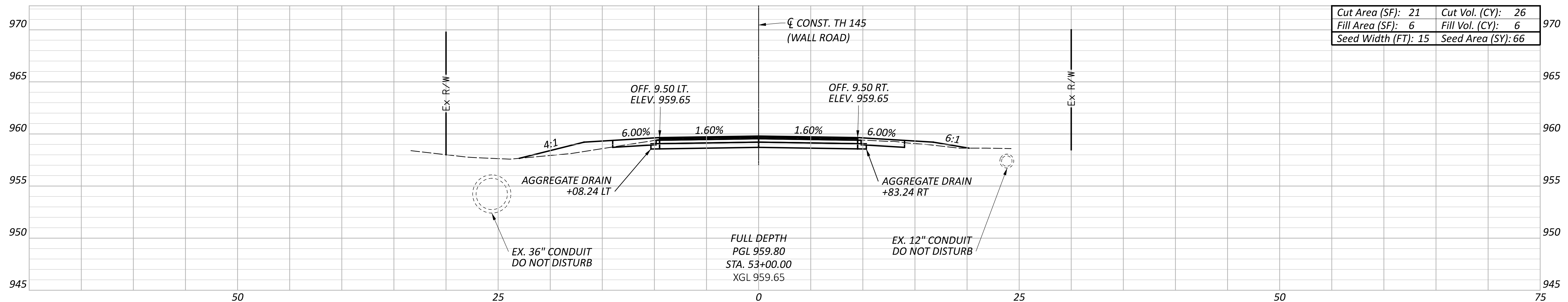


NOTE: XGL = EXISTING PROFILE GRADE
 PGL = PROPOSED PROFILE GRADE

Cut Area (SF): 2	Cut Vol. (CY): 1
Fill Area (SF): 7	Fill Vol. (CY): 2
Seed Width (FT): 22	Seed Area (SY): 20



Cut Area (SF): 3	Cut Vol. (CY): 23
Fill Area (SF): 6	Fill Vol. (CY): 12
Seed Width (FT): 22	Seed Area (SY): 103



Cut Area (SF): 21	Cut Vol. (CY): 26
Fill Area (SF): 6	Fill Vol. (CY): 6
Seed Width (FT): 15	Seed Area (SY): 66

CROSS SECTIONS
 STA. 53+00.00 TO STA. 53+58.24

DESIGN AGENCY



DESIGNER

CDH

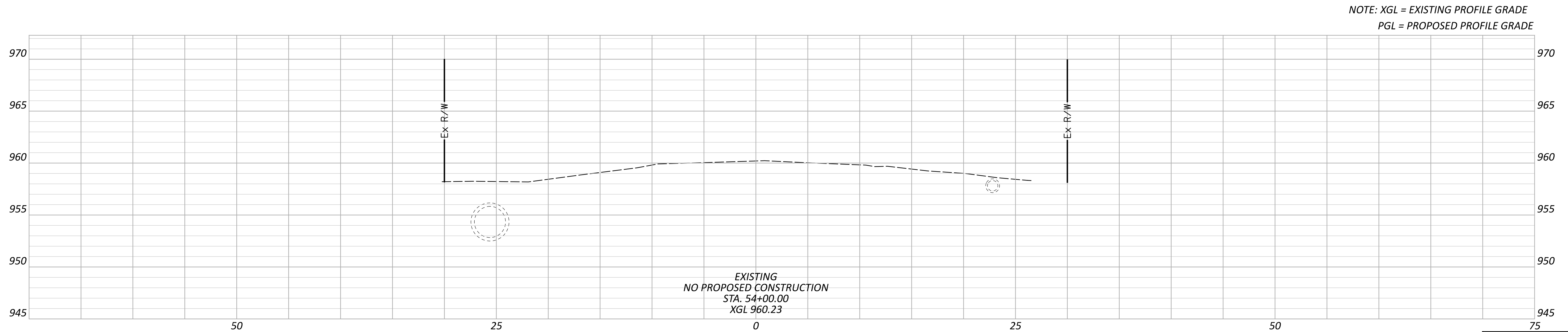
REVIEWER

CCJ 11/01/23

PROJECT ID

118427

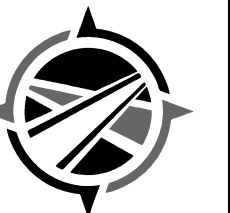
Sheet Totals			118427	
Seeding	Cut	Fill	SHEET	TOTAL
189	49	20	17	34



CARRIED FROM SHEET	203 EXCAVATION CU. YD.	203 EMBANKMENT CU. YD.	659 SEEDING AND MULCHING SQ. YD.
10	3	12	118
11	38	105	450
12	22	114	303
13	22	13	29
14	109	385	159
15	14	162	382
16	26	94	268
17	49	20	189
TOTALS	283	905	1898

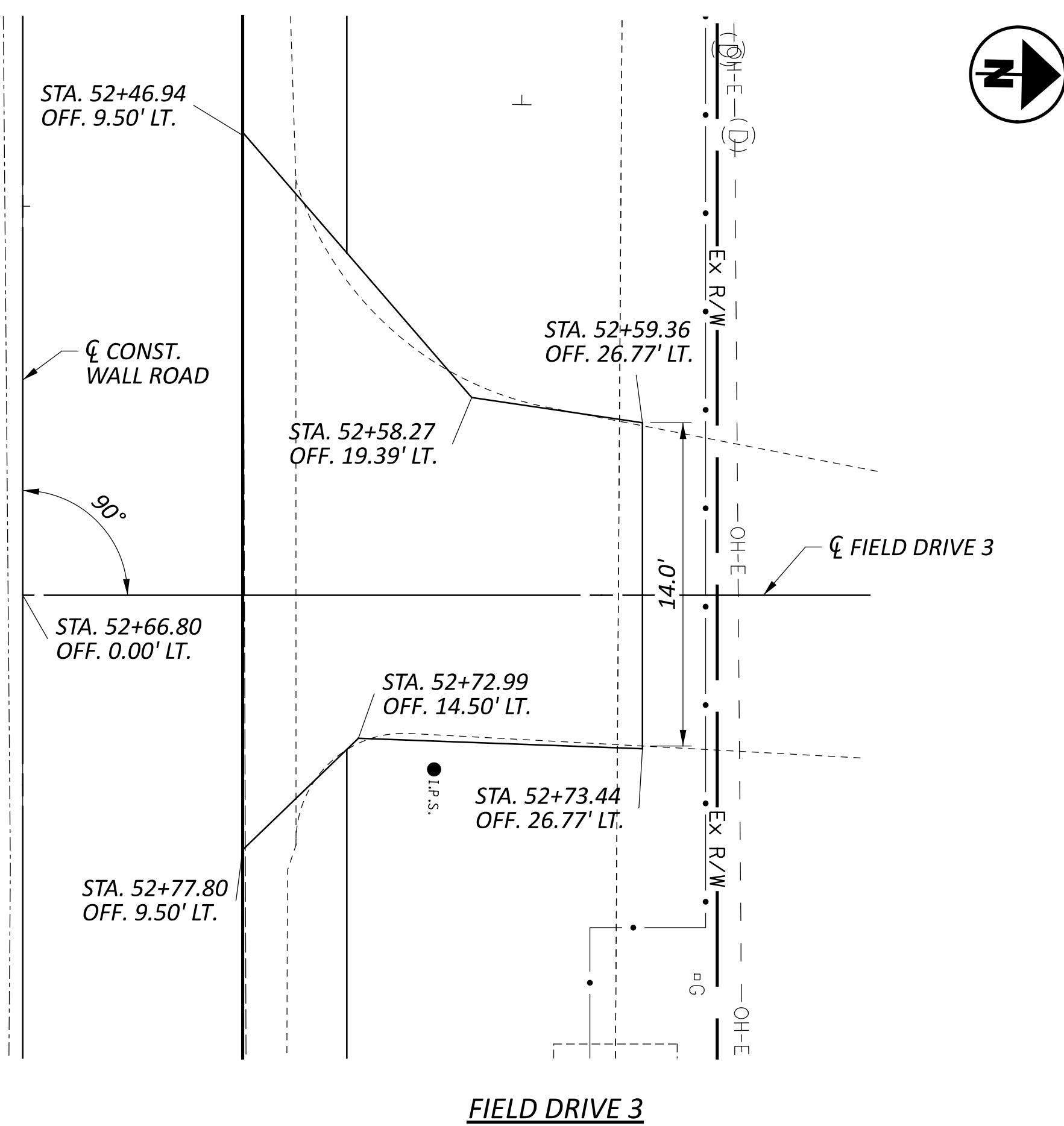
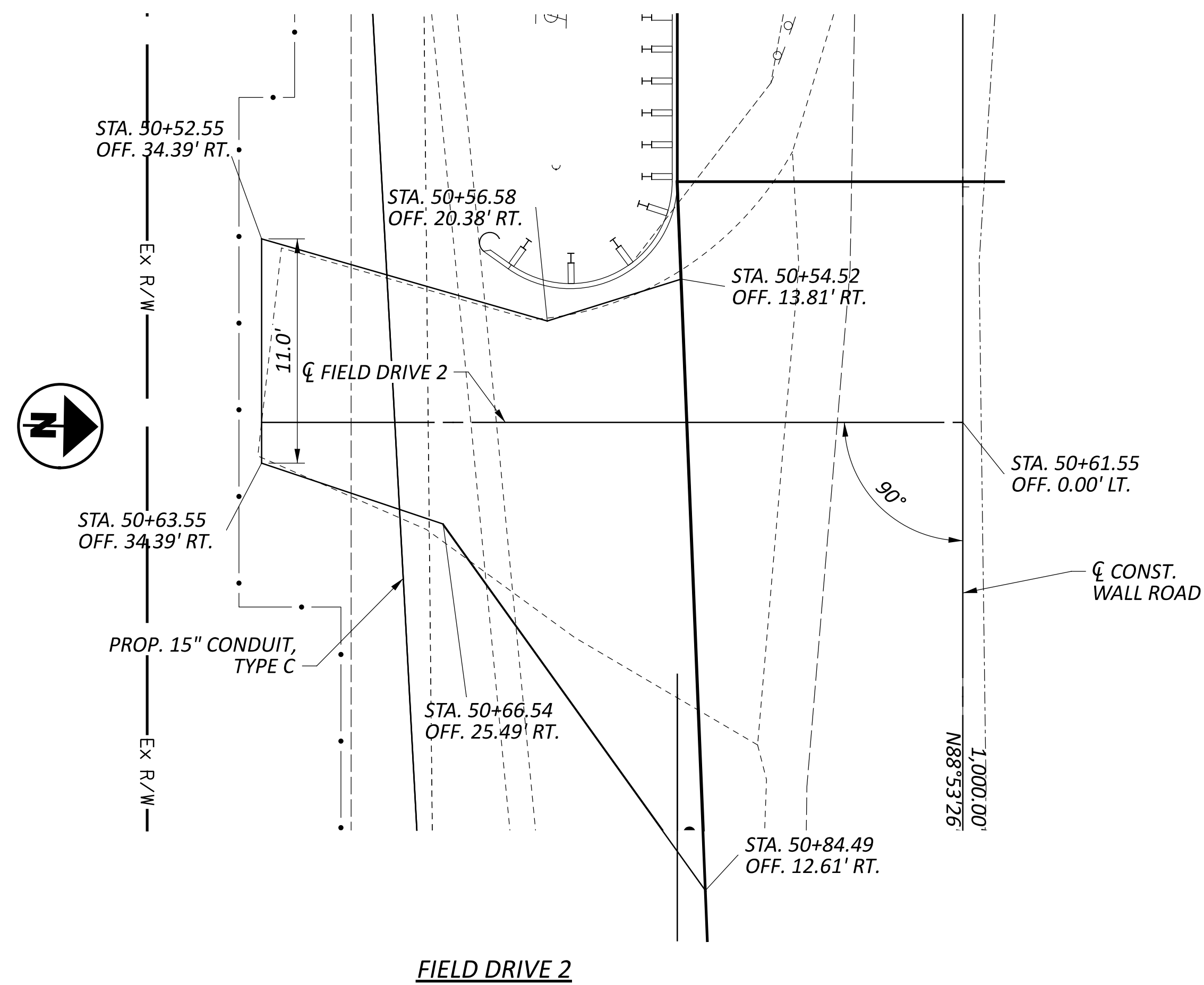
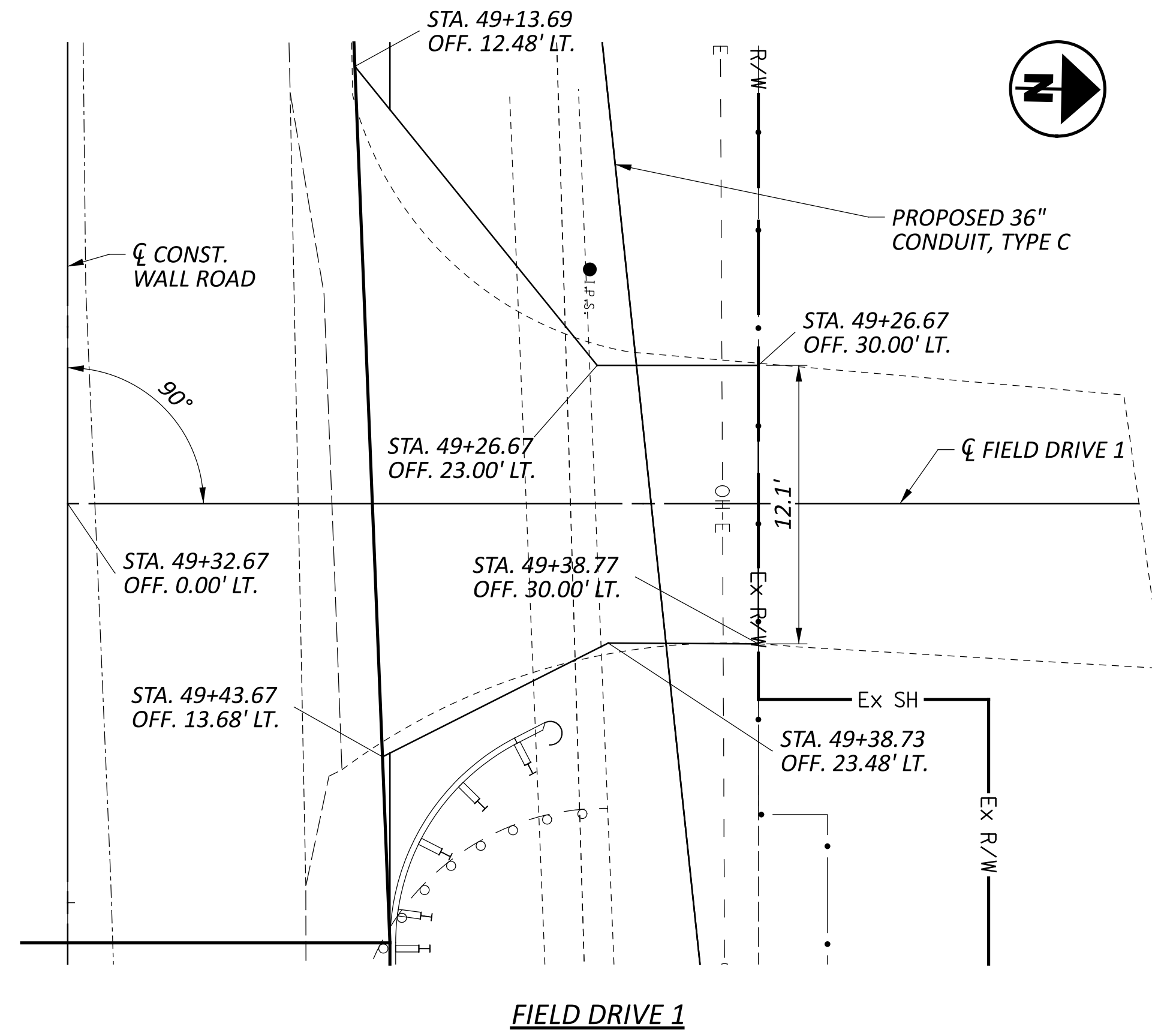
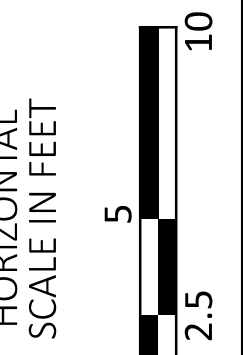
TOTALS CARRIED TO GENERAL SUMMARY

Sheet Totals			PROJECT ID	
Seeding	Cut	Fill	SHEET	TOTAL
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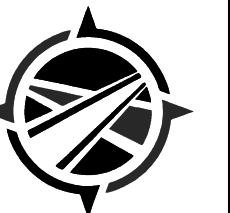
NOTES:

1. FIELD DRIVE BUILD-UP SHALL CONSIST OF ITEM 304 - AGGREGATE BASE (T = 6").



**FIELD DRIVE DETAILS
 DR-1, DR-2, AND DR-3**

DESIGN AGENCY



COMPASS
 INFRASTRUCTURE GROUP

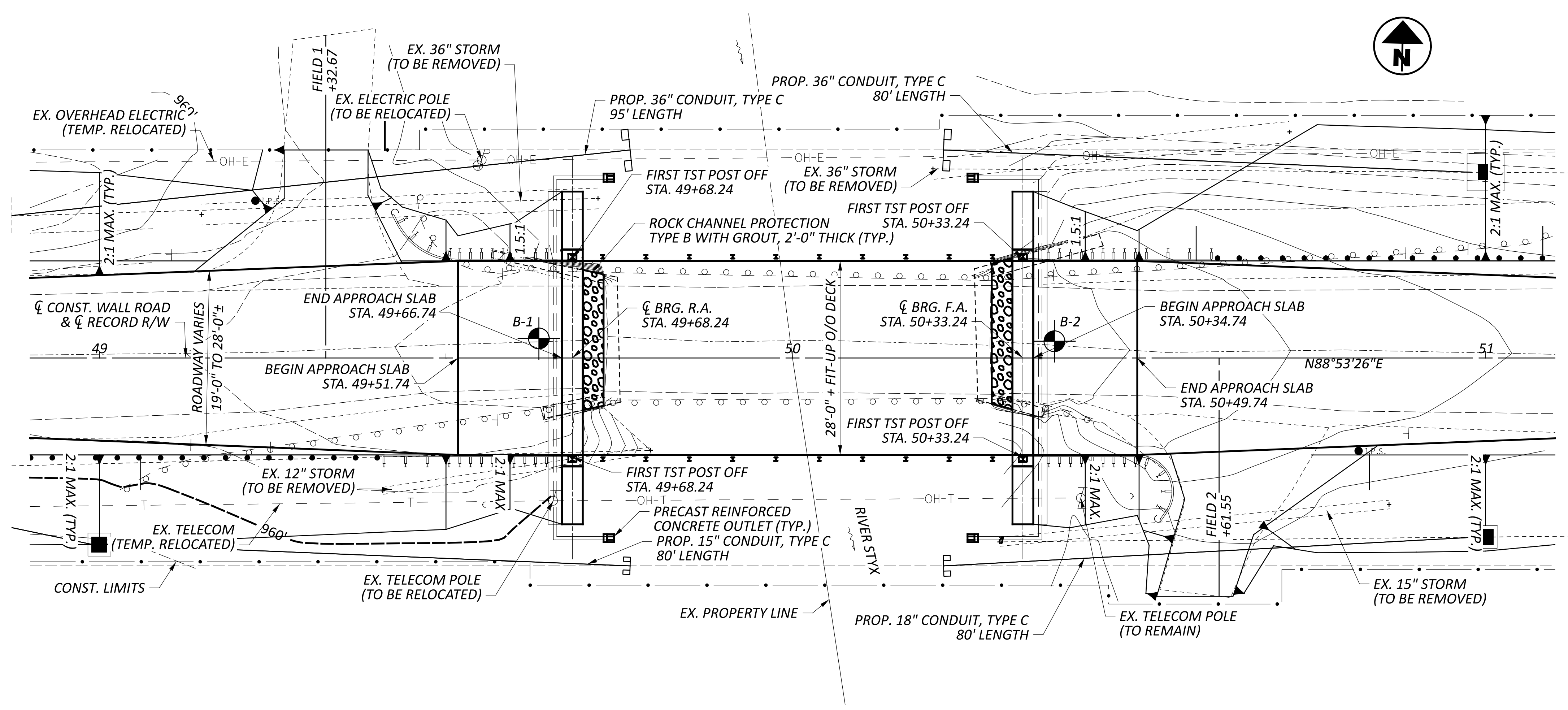
DESIGNER
 CDH

REVIEWER
 CJJ 11/01/23

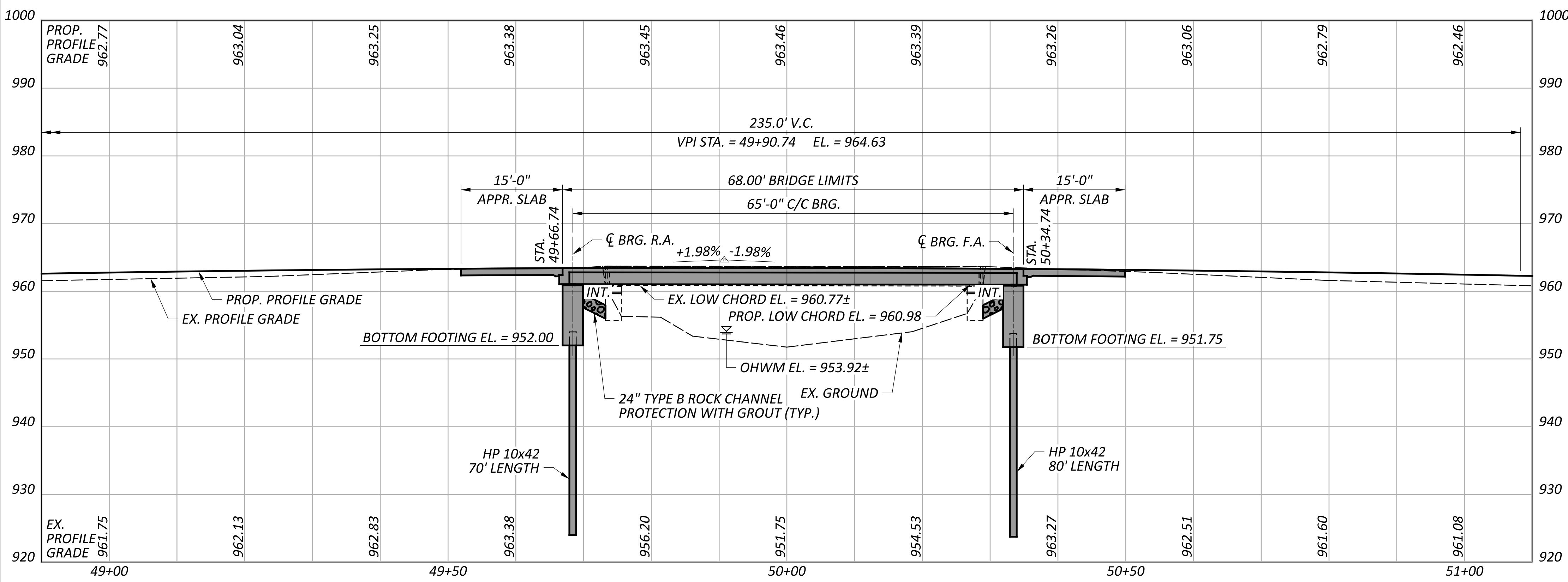
PROJECT ID
 118427

SHEET TOTAL
 19 34

MODEL: CLP_1 - Plan PAPER SIZE: 34x22 (in.) DATE: 6/25/2024 TIME: 10:30:11 AM USER: dbuchanan
 Z:\Projects\10075-MCEO TH 145 BR 3\118427\400-Engineering\Structures\SFN_5235405_Sheets\118427_SFN_5235405_SPO01.dgn



PLAN



PROFILE ALONG CONST. WALL ROAD

BENCHMARK DATA

BM #1 STA.	49+22.50,	ELEV.	960.98,	OFFSET	22.68,	LT.
BM #2 STA.	50+81.67,	ELEV.	960.59,	OFFSET	13.41,	RT.
BM #3 STA.	52+74.34,	ELEV.	958.93,	OFFSET	17.77,	LT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 2/34.

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DRIVE PIPES NOT SHOWN IN PROFILE FOR CLARITY.

DESIGN TRAFFIC:

2022 ADT =	556	2022 ADTT =	28
2043 ADT =	556	2043 ADTT =	28
DIRECTIONAL DISTRIBUTION =		0.50	

LEGEND

◆ BORING LOCATION

HYDRAULIC DATA (FROM RECORD PLANS)

OHWM = 953.92±

EXISTING STRUCTURE

TYPE: SINGLE SPAN STEEL BEAM WITH STEEL PAN DECK AND ASPHALT WEARING SURFACE ON BRIDGE STONE ABUTMENTS

SPANS: 54'-6± C/C BRG.

ROADWAY: 16'-0± F/F RAILING

LOADING: HS20-44

SKEW: NONE

WEARING SURFACE: 3"± ASPHALT CONCRETE

APPROACH SLABS: NONE

ALIGNMENT: TANGENT

CROWN: 0.016± FT/FT

STRUCTURE FILE NUMBER: 5235405

DATE BUILT: 1971

DISPOSITION: STRUCTURE TO BE REPLACED

PROPOSED STRUCTURE

TYPE: SINGLE SPAN PRECAST, PRESTRESSED ADJACENT CONCRETE BEAM WITH CONCRETE DECK ON INTEGRAL REINFORCED CONCRETE ABUTMENTS ON FRICTION PILES

CLEARSPAN: 62' (FACE-TO-FACE OF ABUTMENTS)

SPANS: 65'-0" C/C BRG.

ROADWAY: 28'-0" F/F RAILING

LOADING: HL93 AND 0.060 KSF FUTURE WEARING SURFACE

SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 15'-0" LONG (AS-1-15)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

DECK AREA: 1904 SF

PROPOSED FILE STRUCTURE NUMBER: 5235406

COORDINATES: LATITUDE 40° 59' 44.49" N

LONGITUDE 81° 45' 47.4" W

SITE PLAN
 BRIDGE NO. MED-00145-00.910
 TH 145 OVER RIVER STYX

SFN	5235406
DESIGN AGENCY	
DESIGNER	CDH
CHECKER	DEB
REVIEWER	
PROJECT ID	118427
SUBSET	TOTAL
1	15
SHEET	TOTAL
20	34

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFERENCE SHALL BE MADE TO THE STANDARD DRAWINGS:

AS-1-15	REVISED	1/20/23
BD-1-11	REVISED	7/20/18
DS-1-92	REVISED	7/15/22
PSBD-2-07	REVISED	7/20/18
TST-1-99	REVISED	1/15/21

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 INCLUDES:

VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT²

DESIGN DATA:

- CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
- CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS:

COMPRESSIVE STRENGTH (FINAL) - 5 KSI
COMPRESSIVE STRENGTH (RELEASE) - 7 KSI

PRESTRESSING STRAND:

AREA = 0.167 IN² (7-WIRE STRAND)
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.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05 AND 105.02. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 183 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENT PILES.

ABUTMENT PILES:

HP10X42 PILES 75 FEET LONG, ORDER LENGTH REAR ABUTMENT
HP10X42 PILES 85 FEET LONG, ORDER LENGTH FWD. ABUTMENT
2 DYNAMIC LOAD TESTING ITEMS (1 EACH ABUTMENT)

PILE SPLICES:

IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN C&MS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICER FROM THE FOLLOWING MANUFACTURER (OR APPROVED EQUAL):

ASSOCIATED PILE AND FITTING CORPORATION
8 WOOD HOLLOW RD., PLAZA 1
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

PILE DRIVING:

USE A PILE DRIVING HAMMER OF A MAXIMUM RATED ENERGY OF 43,000 FOOT-POUNDS TO INSTALL THE PILES. ENSURE THAT STRESSES IN THE PILES DURING DRIVING DO NOT EXCEED 45 POUNDS PER SQUARE INCH.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING CONCRETE REINFORCEMENT TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

ITEM 511 - CLASS QC3 CONCRETE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 511, SUPERSTRUCTURE CONCRETE SHALL INCLUDE 2" POLYPROPYLENE STRUCTURAL FIBER REINFORCING AT A RATE DOSAGE RATE OF 3 LB/CY. THE ORIENTATION OF THE SAWED GROOVES SHALL BE TRANSVERSE TO THE CENTERLINE OF CONSTRUCTION. THE USE OF ES INTERNAL CURE IS PROHIBITED. ALL LABOR, MATERIALS, EQUIPMENT, AND OTHER INCIDENTAL REQUIRED TO PERFORM THE WORK SHALL BE PAID WITH ITEM 511
- CLASS QC3 CONCRETE, SUPERSTRUCTURE, AS PER PLAN

FURNISH MATERIAL MEETING THE REQUIREMENTS OF ASTM C578 TYPE IV. NEATLY CUT MATERIAL AS NECESSARY TO ALLOW FOR PROPER INSTALLATION. JOINTS AT ABUTTING PIECES SHALL BE SEALED WITH DUCT TAPE. ALLOWABLE TOLERANCE FOR THE TOTAL THICKNESS OF THE MATERIAL SHALL BE -0", +1/2". DO NOT PLACE MORE THAN TWO LAYERS OF POLYSTYRENE TO ACHIEVE TOTAL THICKNESS.

PILES DRIVEN TO FULL ESTIMATED LENGTH WITH PILE/SOIL SETUP

THE ULTIMATE BEARING VALUE (UBV) IS 183 KIPS PER PILE FOR THE HP10X42 ABUTMENT PILES. PART OF THE UBV WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES.


DRIVE THE FIRST TWO PILES AT THE EACH ABUTMENT TO THE FULL ESTIMATED LENGTH OF 70 FEET (75 FEET ORDER LENGTH) AT THE REAR ABUTMENT AND 80 FEET (85 FEET ORDER LENGTH) AT THE FORWARD ABUTMENT. PERFORM DYNAMIC LOAD TESTING ON BOTH PILES WHILE DRIVING. AFTER DRIVING AND TESTING THE FIRST TWO PILES, DRIVE THE REMAINING PILES IN THE SUBSTRUCTURE TO THE SAME DEPTH AS THE FIRST TWO PILES. AFTER DRIVING ALL PILES TO THE ESTIMATED LENGTH, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A PERIOD OF 10 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON BOTH OF THE FIRST TWO PILES. INCLUDE COSTS FOR ALL LABOR MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE RESTRIKE FOR PAYMENT WITH ITEM 523 DYNAMIC LOAD TESTING, AS PER PLAN.

SUBMIT ALL TEST RESULTS TO THE ENGINEER. IF THE RESTRIKE TEST RESULTS INDICATE THAT BOTH PILES ACHIEVED THE REQUIRED UBV, ALL PILES IN THE SUBSTRUCTURE MAY BE ACCEPTED BY THE ENGINEER. IF THE RESTRIKE TEST RESULTS INDICATE THAT EITHER OF THE TWO PILES DID NOT ACHIEVE THE REQUIRED UBV, IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH ADDITIONAL RESTRIKE TESTING OR DRIVING CRITERIA FOR THE PILING IN THE SUBSTRUCTURE WITH THE ASSISTANCE OF THE GEOTECHNICAL ENGINEER. IF DIRECTED BY THE ENGINEER, PERFORM ADDITIONAL RESTRIKE TESTING OR DRIVE ALL PILES IN THE SUBSTRUCTURE TO THE ESTABLISHED DRIVING CRITERIA. THE COUNTY WILL PAY FOR SPLICING OF THE PILES BEYOND THE ESTIMATED LENGTH PROVIDED IN THE PLANS UNDER C&MS 109.05 WITH A NEGOTIATED PRICE PER SPLICE. ALL COSTS EXCEPT FOR ADDITIONAL DRIVING LENGTH AND PILE SPLICING ARE CONSIDERED INCIDENTAL TO ITEM 523 DYNAMIC LOAD TESTING, AS PER PLAN.

ABBREVIATIONS:

APPR.	APPROACH
BRG.	BEARING
B/T	BETWEEN
C/C	CENTER TO CENTER
CL	CENTERLINE
CLR.	CLEAR
CONST.	CONSTRUCTION
DIA.	DIAMETER
E.F.	EACH FACE
EL.	ELEVATION
EX.	EXISTING
EXT.	EXTERIOR
F.A.	FORWARD ABUTMENT
INT.	INTERIOR
MAX.	MAXIMUM
O/O	OUT TO OUT
P.E.J.F.	PERFORMED EXPANSION JOINT FILLER
PROP.	PROPOSED
R.A.	REAR ABUTMENT
S.O.	SERIES OF
SPA.	SPACING
STA.	STATION
TYP.	TYPICAL

STRUCTURE GENERAL NOTES
BRIDGE NO. MED-00145-00.910
TH 145 OVER RIVER STYX

SFN	
5235406	
DESIGN AGENCY	
	
COMPASS INFRASTRUCTURE GROUP	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ 11/01/23	
PROJECT ID	
118427	
SUBSET	TOTAL
2	15
SHEET	TOTAL
21	34

BY: CDH
 CHECKED: DEB

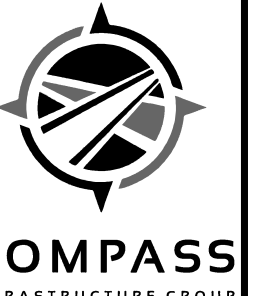
DATE: 11/2/2023
 DATE: 1/5/2024

PID: 118427
 SFN: 5235406

ESTIMATED QUANTITIES									
ITEM	EXT.	QUANTITY	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	SUPER-STRUCTURE	GENERAL	REF. SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					
503	21100	190	CY	UNCLASSIFIED EXCAVATION	94	96			
507	00100	1120	FT	STEEL PILES HP10X42, FURNISHED	525	595			
507	00150	1050	FT	STEEL PILES HP10X42, DRIVEN	490	560			
509	10000	15739	LB	EPOXY COATED STEEL REINFORCEMENT	4807	4838	6094		
510	10000	14	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	7	7			
511	53014	48	CY	CLASS QC3 CONCRETE, SUPERSTRUCTURE, AS PER PLAN			48		
511	43510	97	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	48	49			
512	10100	103	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	24	26	52.5		
515	12050	7	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB21-48 (66'-0" LONG)			7		
516	13900	30	SF	2" PREFORMED EXPANSION JOINT FILLER	15	15			
516	14014	32	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	16	16			
516	43100	28	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (9"W X 9"L X 1 13/16"H)			28		
517	70000	140	FT	RAILING (TWIN STEEL TUBE)			140		
518	21200	67	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	33	34			
SPECIAL	51822300	162	FT	STEEL DRIP STRIP			162		
518	40000	96	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	48	48			
518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	40	40			
523	20001	2	EACH	DYNAMIC LOAD TESTING, AS PER PLAN	1	1			2 / 15
526	10000	93	SY	REINFORCED CONCRETE APPROACH SLABS (T=12")				93	
601	34400	9	CY	ROCK CHANNEL PROTECTION, TYPE B, WITH GROUT (2'-0" THICK)				9	

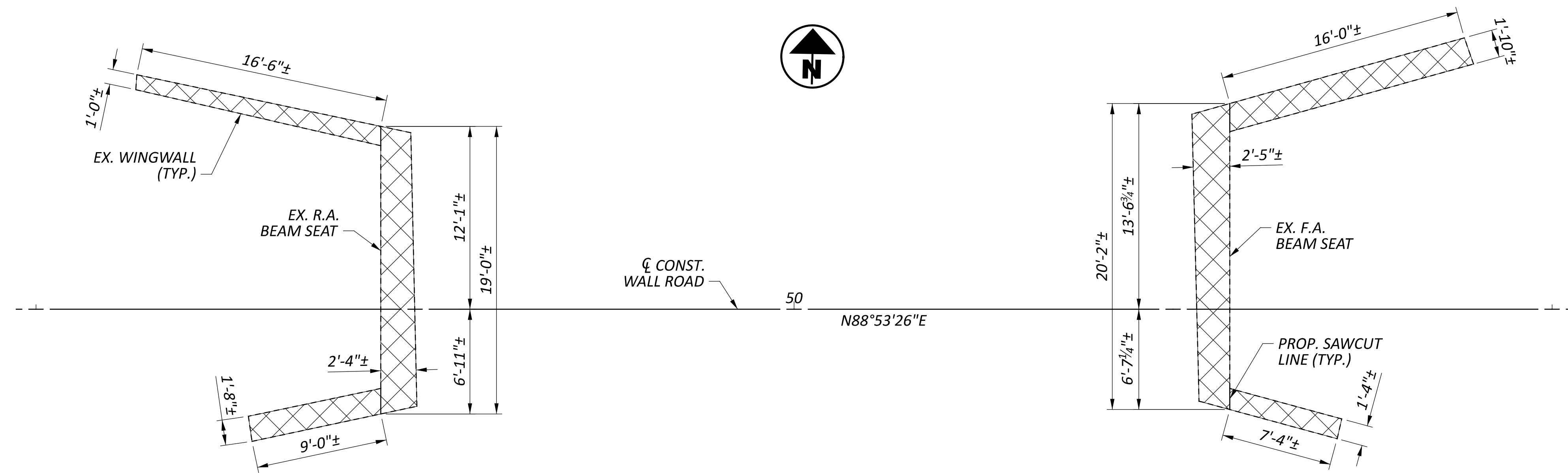
STRUCTURE ESTIMATE QUANTITIES
 BRIDGE NO. MED-00145-00.910
 TH 145 OVER RIVER STYX

SFN
 5235406
 DESIGN AGENCY

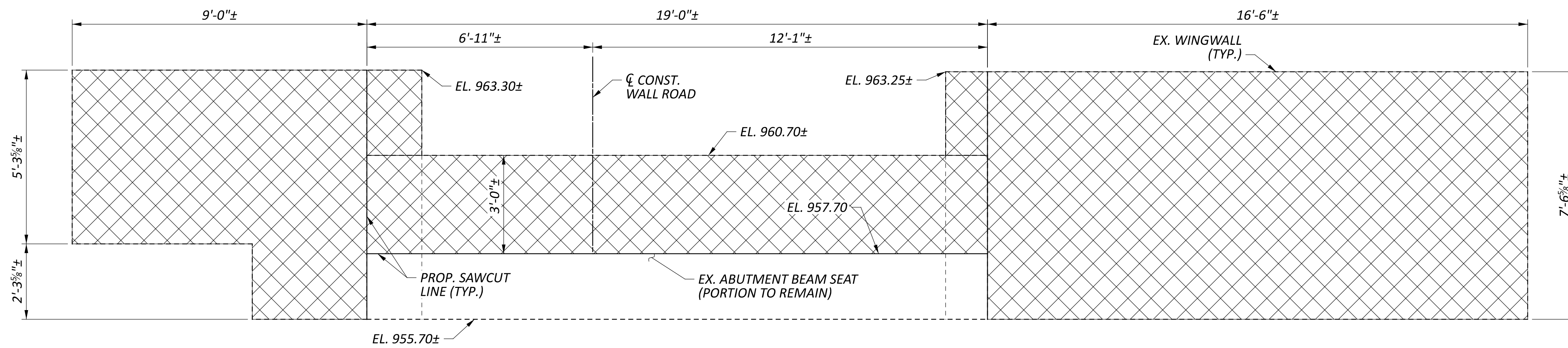


DESIGNER: CDH
 CHECKER: DEB
 REVIEWER: CCI 11/01/23
 PROJECT ID: 118427

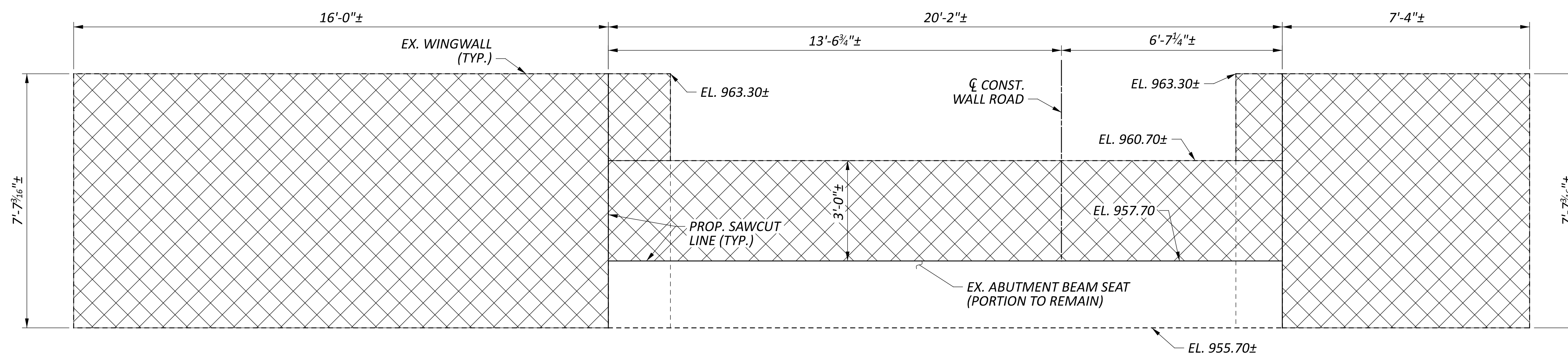
SUBSET	TOTAL
3	15
SHEET	TOTAL
22	34



EXISTING ABUTMENT REMOVAL PLAN



REAR ABUTMENT REMOVAL ELEVATION



FORWARD ABUTMENT REMOVAL ELEVATION

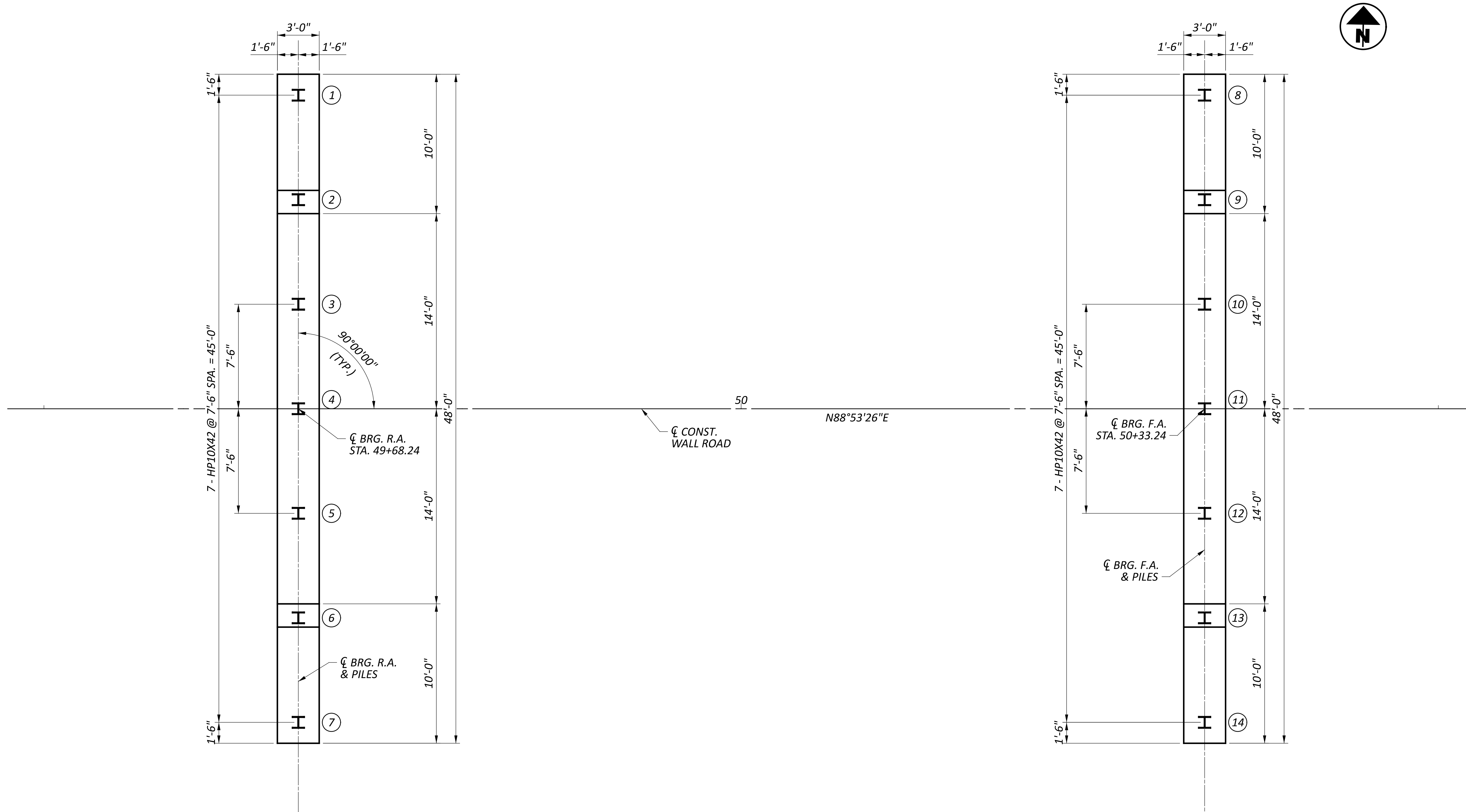
LEGEND:

- ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20' FOOT SPAN, AS PER PLAN

NOTES:

1. EXISTING REINFORCEMENT NOT SHOWN FOR CLARITY.

SFN 5235406	
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ 11/01/23	
PROJECT ID	
118427	
SUBSET	TOTAL
4	15
SHEET	TOTAL
23	34



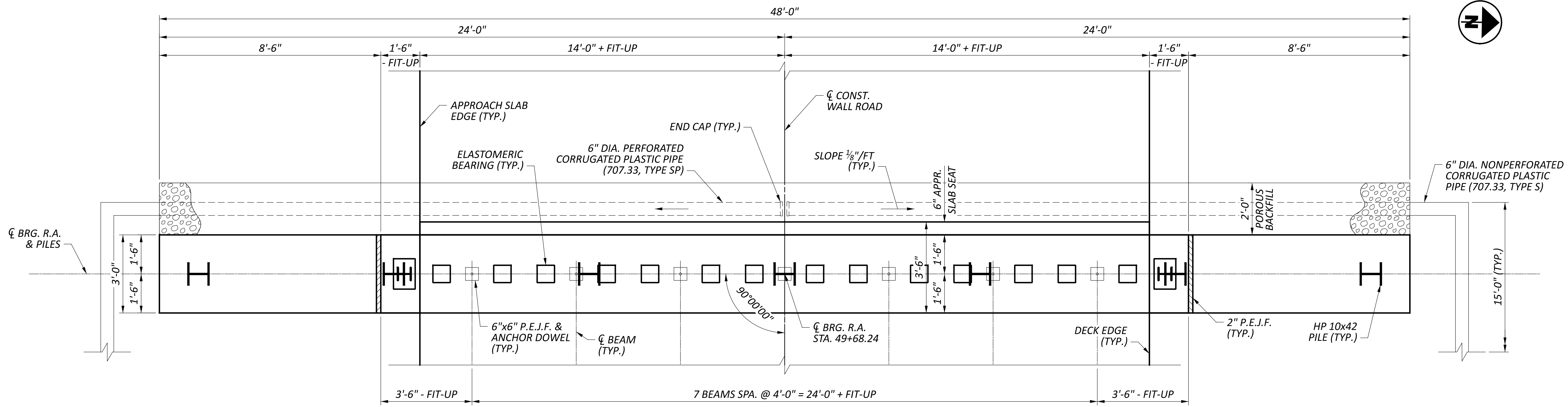
FOUNDATION PLAN

PILE DATA							
LOCATION	PILE NO.	ESTIMATED LENGTH	PILE ORDER LENGTH	CUT-OFF ELEVATION	PILE TIP ELEVATION	REMARK	PILE SIZE
REAR ABUTMENT	1-7	70'	75'	954.00	884.00	VERTICAL	HP 10x42
FORWARD ABUTMENT	8-14	80'	85'	953.75	873.75	VERTICAL	HP 10x42
TOTAL		1,050'	1,120'				

LEGEND:

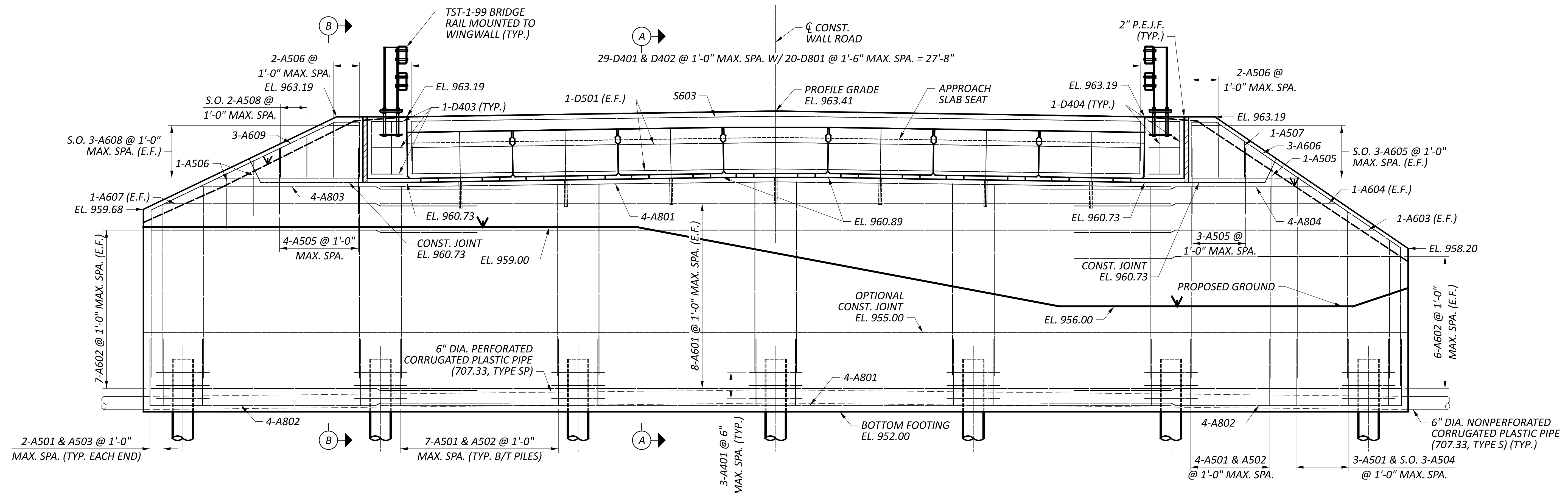
- I - VERTICAL STEEL PILE
- (X) - PILE NUMBER

SFN	5235406
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ	11/01/23
PROJECT ID	
118427	
SUBSET	TOTAL
5	15
SHEET	TOTAL
24	34



REAR ABUTMENT PLAN

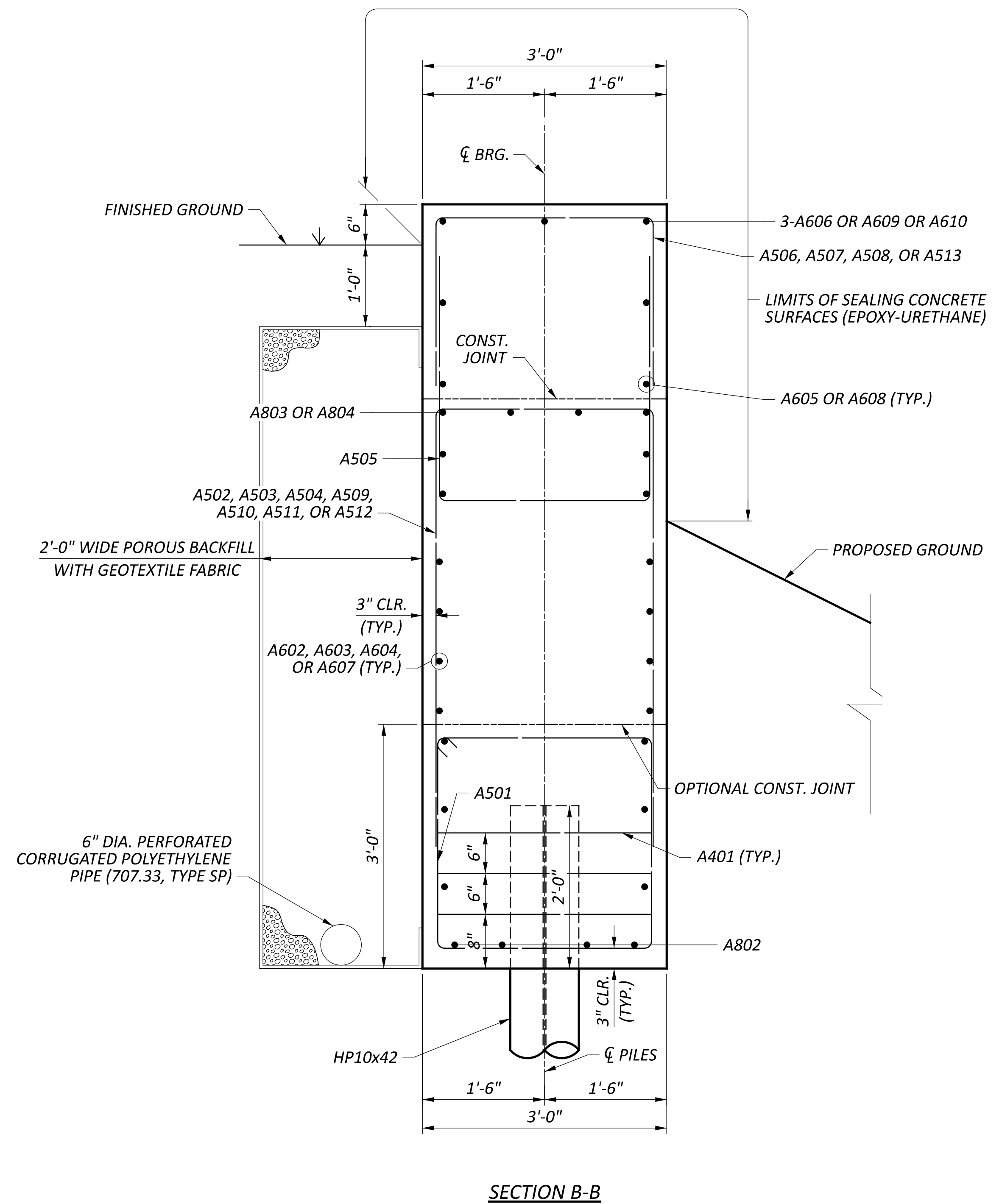
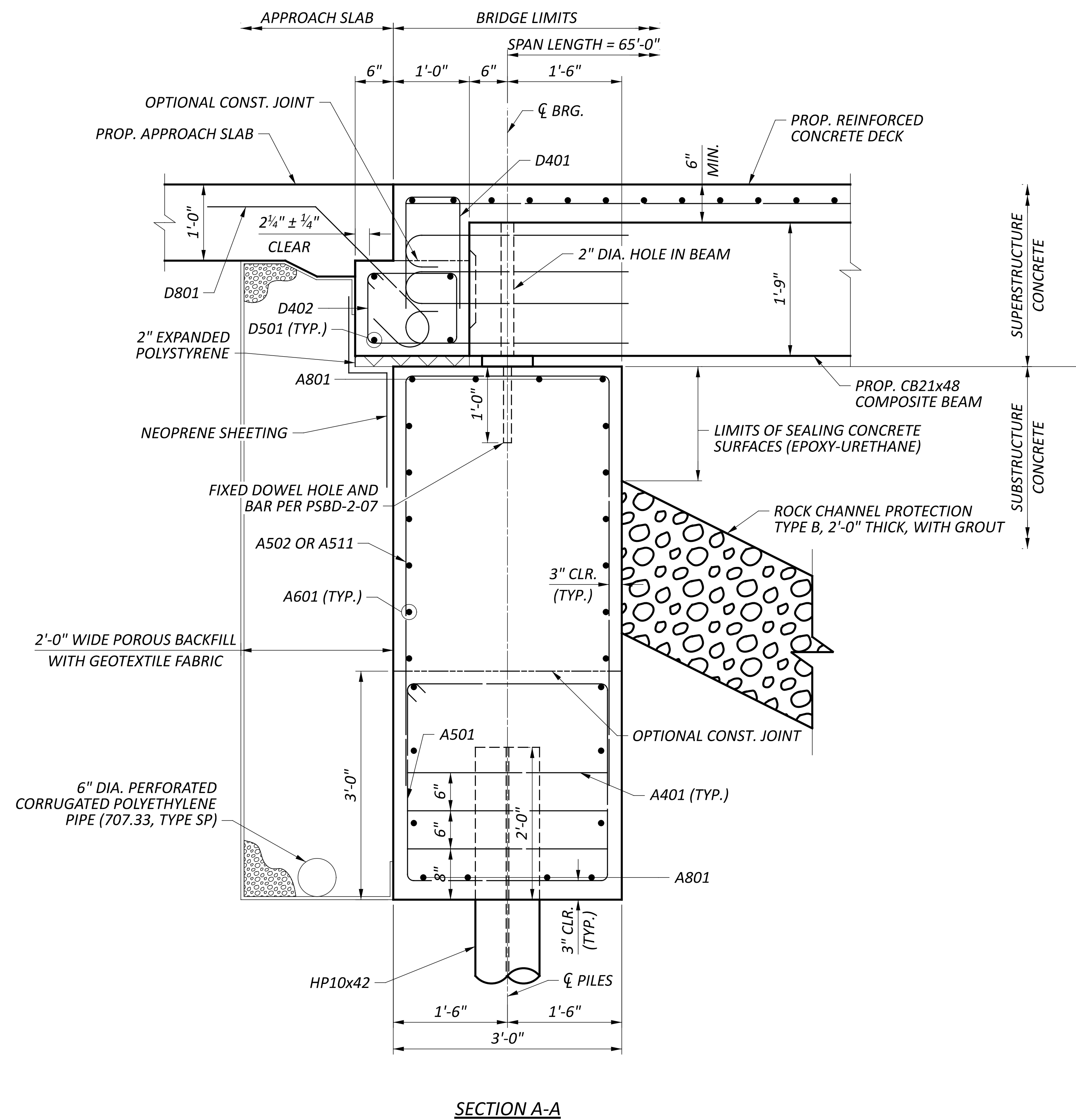
- NOTES:**
- FOR SECTIONS A-A AND B-B, SEE SHEET 8/15.
 - MINIMUM LAP LENGTHS (PER BDM):
 #5 - 2'-5"
 #6 - 3'-8"
 #8 - 4'-11"



REAR ABUTMENT ELEVATION

REAR ABUTMENT PLAN AND ELEVATION
 BRIDGE NO. MED-00145-00.910
 TH 145 OVER RIVER STYX

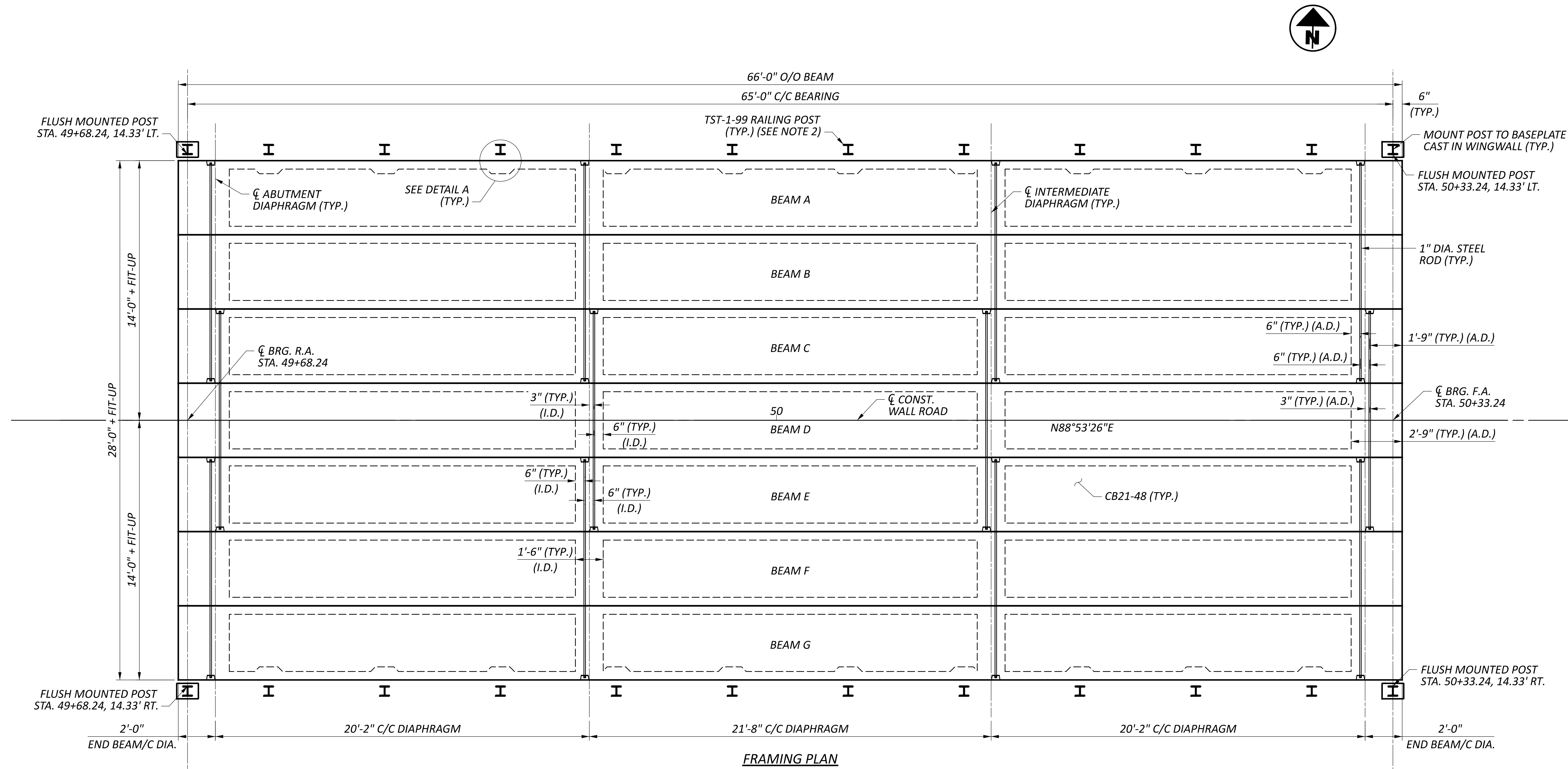
SFN	5235406
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ	11/01/23
PROJECT ID	118427
SUBSET	TOTAL
6	15
SHEET	TOTAL
25	34



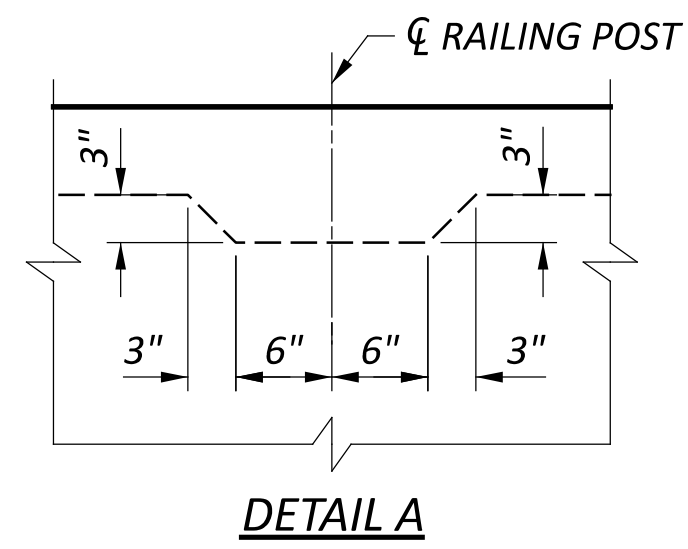
NOTES:

- FOR ABUTMENT PLAN AND ELEVATION, SEE SHEETS 6/15 AND 7/15.
- PROVIDE A 1" DEEP SHEAR KEY CENTERED IN THE BEAM. THE SHEAR KEY HEIGHT SHALL BE 10¹/₂" AND THE WIDTH SHALL BE 3'-2".
- ACCURATELY PLACE CONCRETE REINFORCEMENT IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTLING OF BEARING ANCHORS.
- DO NOT PLACE CONCRETE ABOVE THE WINGWALL CONSTRUCTION JOINT UNTIL AFTER THE BOX BEAMS HAVE BEEN PLACED.
- FOR ANCHOR DOWEL BAR DETAILS, SEE STD. DWG. PSBD-2-07.
- INSTALL A 3'-0" WIDE STRIP OF NEOPRENE SHEETING CENTERED ON THE JOINT AND EXTENDING 1'-0" MINIMUM BELOW BEAM SEAT.

SFN	5235406
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CJ 11/01/23	
PROJECT ID	
118427	
SUBSET	TOTAL
8	15
SHEET	TOTAL
27	34



FRAMING PLAN

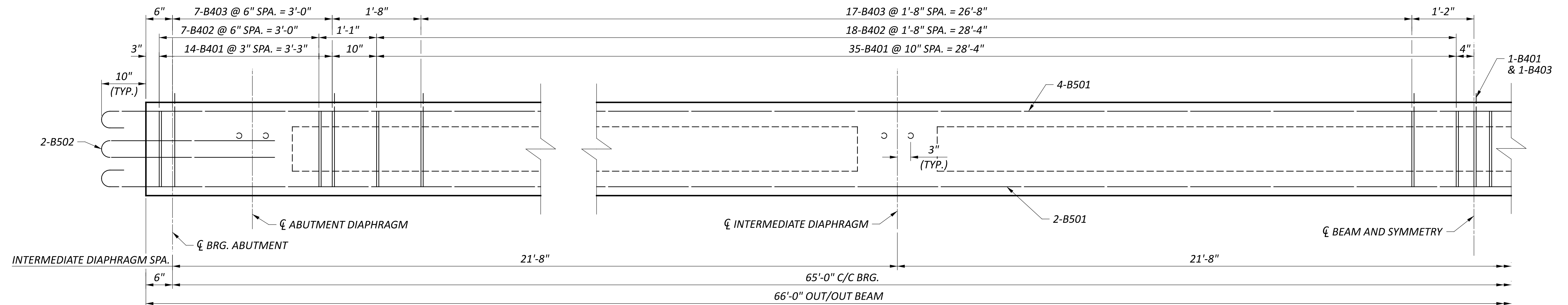


LEGEND:
 A.D. ABUTMENT DIAPHRAGM
 I.D. INTERMEDIATE DIAPHRAGM

NOTES:
 1. FOR ADDITIONAL BEAM DETAILS, SEE ODOT STD. DWG. PSBD-2-07.

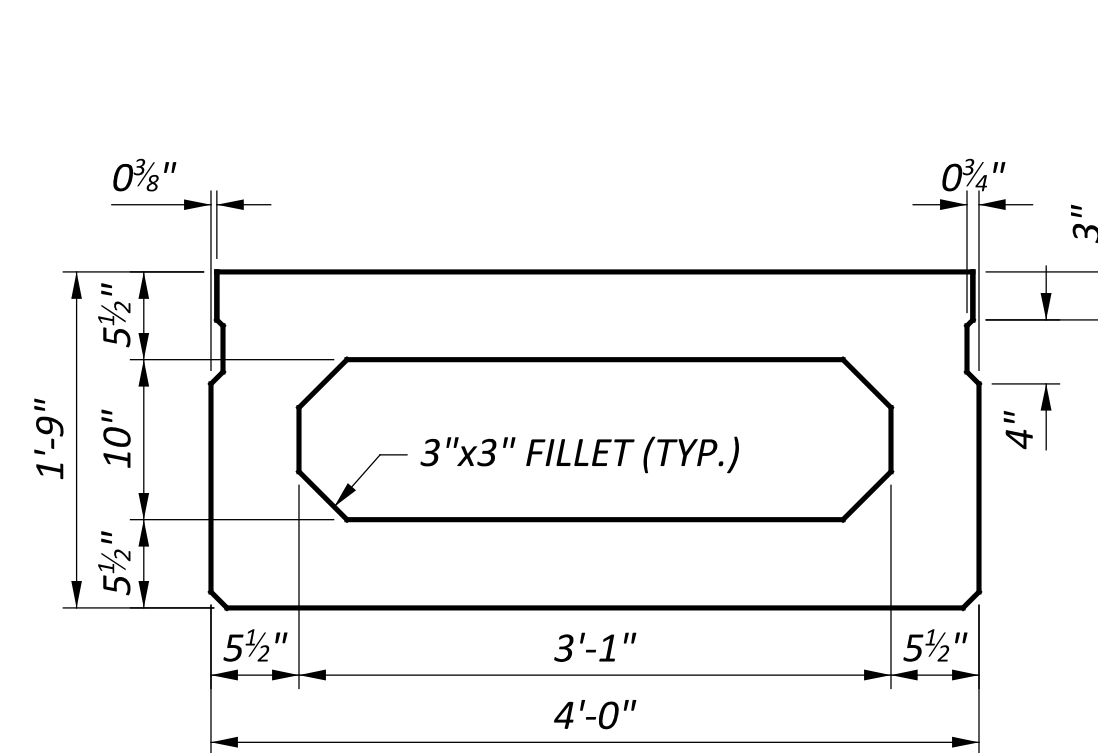
FRAMING PLAN
 BRIDGE NO. MED-00145-00.910
 TH 145 OVER RIVER STYX

SFN	5235406
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ 11/01/23	
PROJECT ID	
118427	
SUBSET	TOTAL
9	15
SHEET	TOTAL
28	34

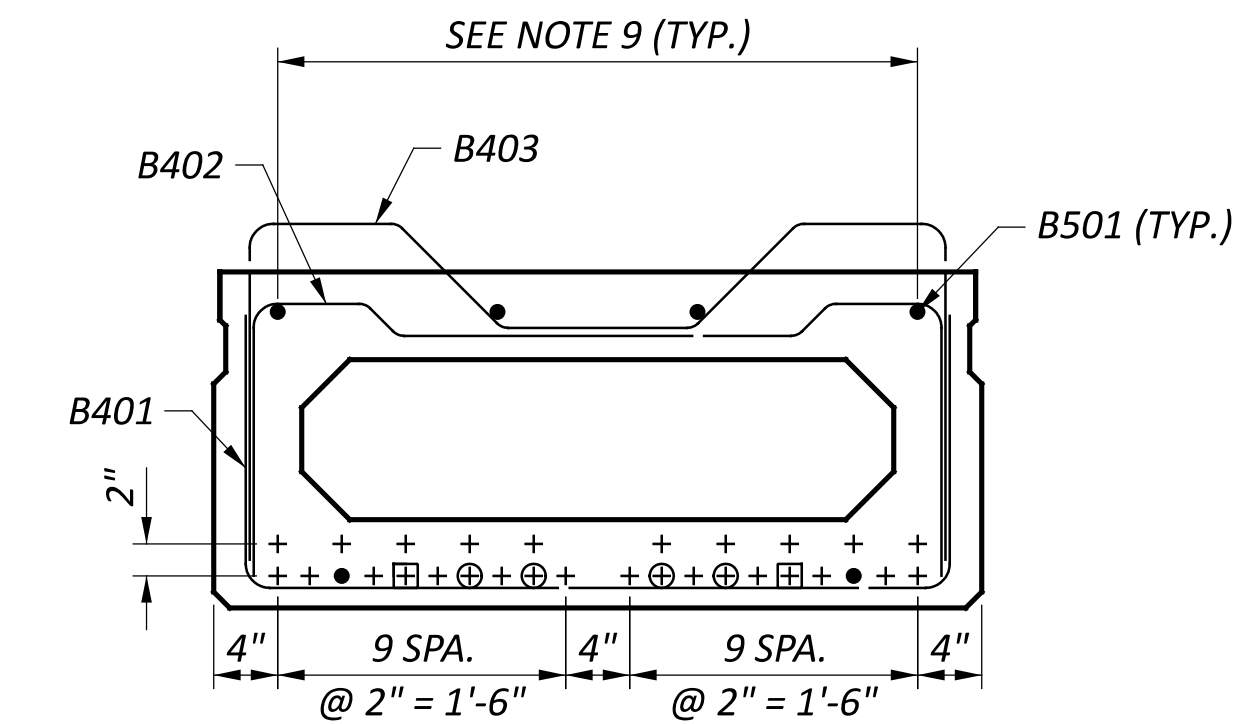


CB21x48 BEAM ELEVATION

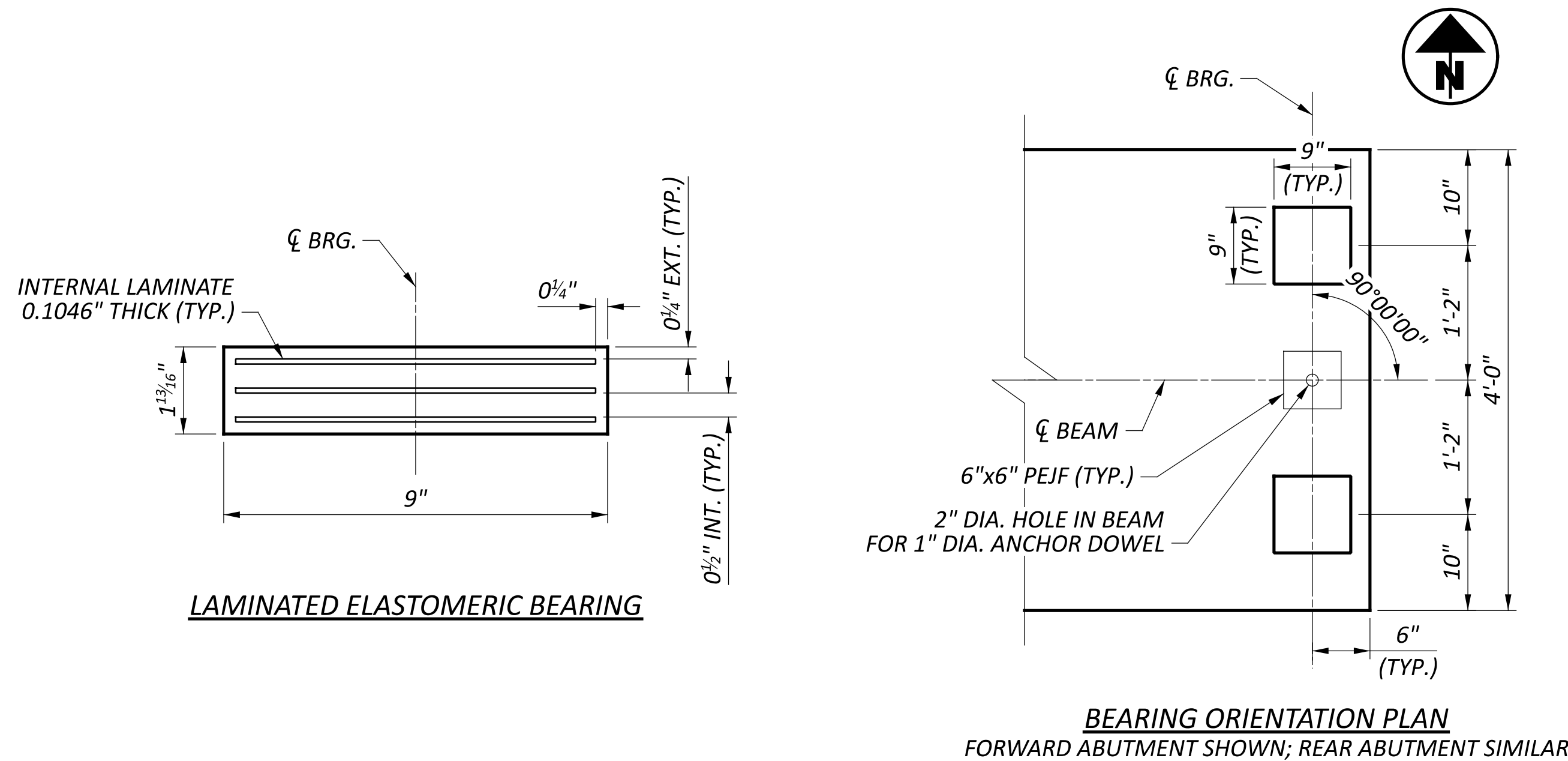
LAMINATED ELASTOMERIC BEARINGS				
LOCATION	NO. REQUIRED	UNFACTORED DEAD LOAD (KIPS)	UNFACTORED LIVE LOAD (KIPS)	UNFACTORED TOTAL LOAD (DL+LL) (KIPS)
REAR ABUTMENT	14	23	16	39
FORWARD ABUTMENT	14	23	16	39



CB21x48 BEAM SECTION



CB21x48 STRAND PATTERN

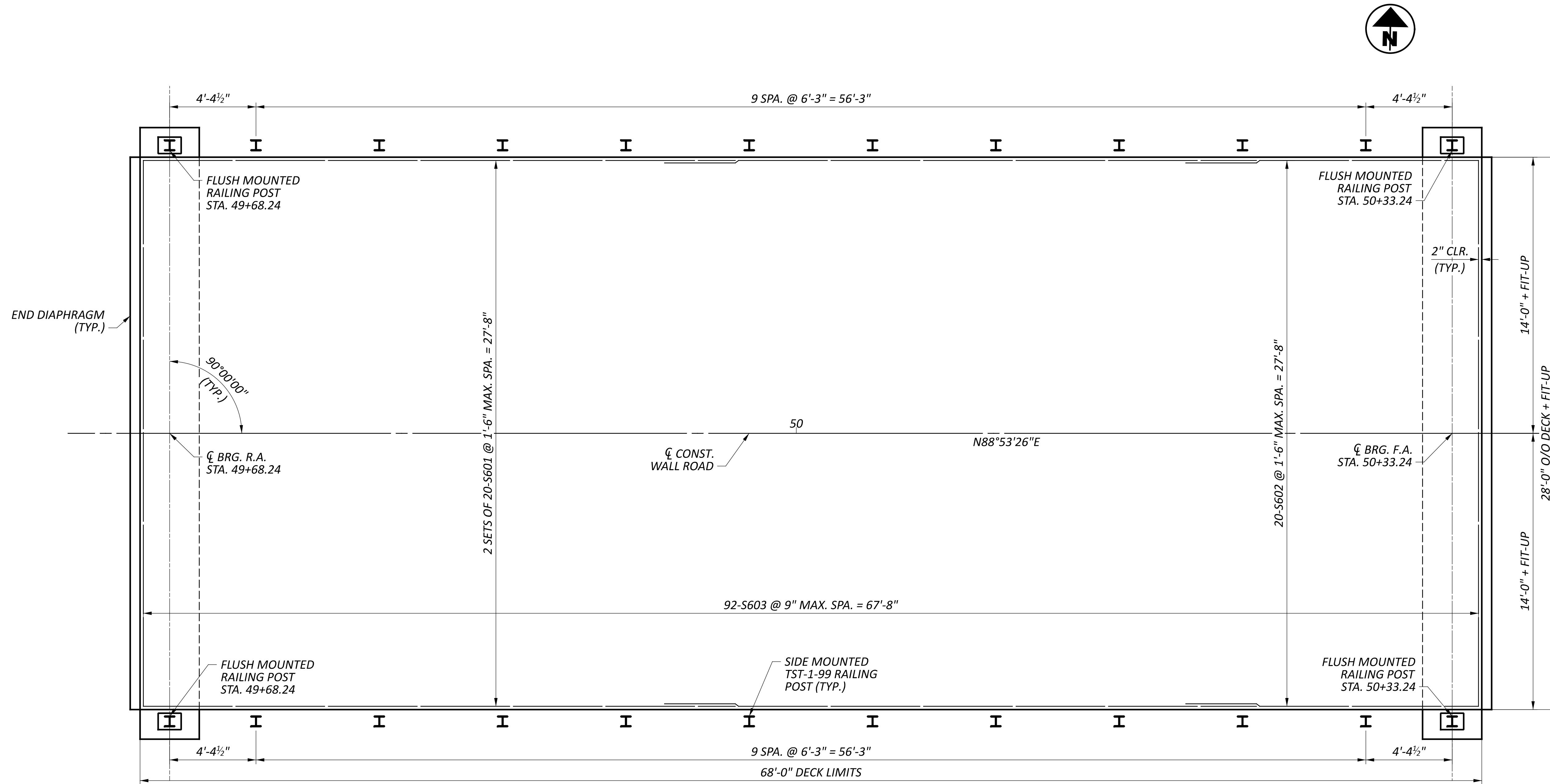


LEGEND:

- - REINFORCING STEEL
- + - PRESTRESSED STRAND
- ⊕ - PRESTRESSED STRAND, DEBONDED 6'-0"
- ⊞ - PRESTRESSED STRAND, DEBONDED 2'-0"

NOTES:

1. FOR ADDITIONAL PRESTRESSED BOX BEAM DETAILS NOT SHOWN, SEE STD. DWG. PSBD-2-07.
2. FOR FRAMING PLAN, SEE SHEET 9/15.
3. ALL BEAM STRANDS ARE 0.520 INCH DIAMETER 270K LOW RELAXATION WITH A TOTAL CROSS SECTIONAL AREA OF 0.167 SQ. IN.
4. OMIT SHEAR KEY ON THE OUTSIDE OF EXTERIOR BEAMS.
5. PROVIDE A 1" DEEP SHEAR KEY CENTERED IN THE BEAMS AT EACH END. THE SHEAR KEY HEIGHT SHALL BE 10 1/2" AND THE WIDTH SHALL BE 3'-2".
6. 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.
7. PAYMENT FOR ITEM 515 PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL I, CB21-48, SHALL ALSO INCLUDE SMOOTH ANCHOR DOWEL BAR AND GROUT.
8. SHOP DRAWINGS SHALL INCLUDE TOTAL WEIGHT OF EACH BEAM
9. SHOP DRAWINGS SHALL INCLUDE BEAM INTERNAL MILD STEEL SPACING

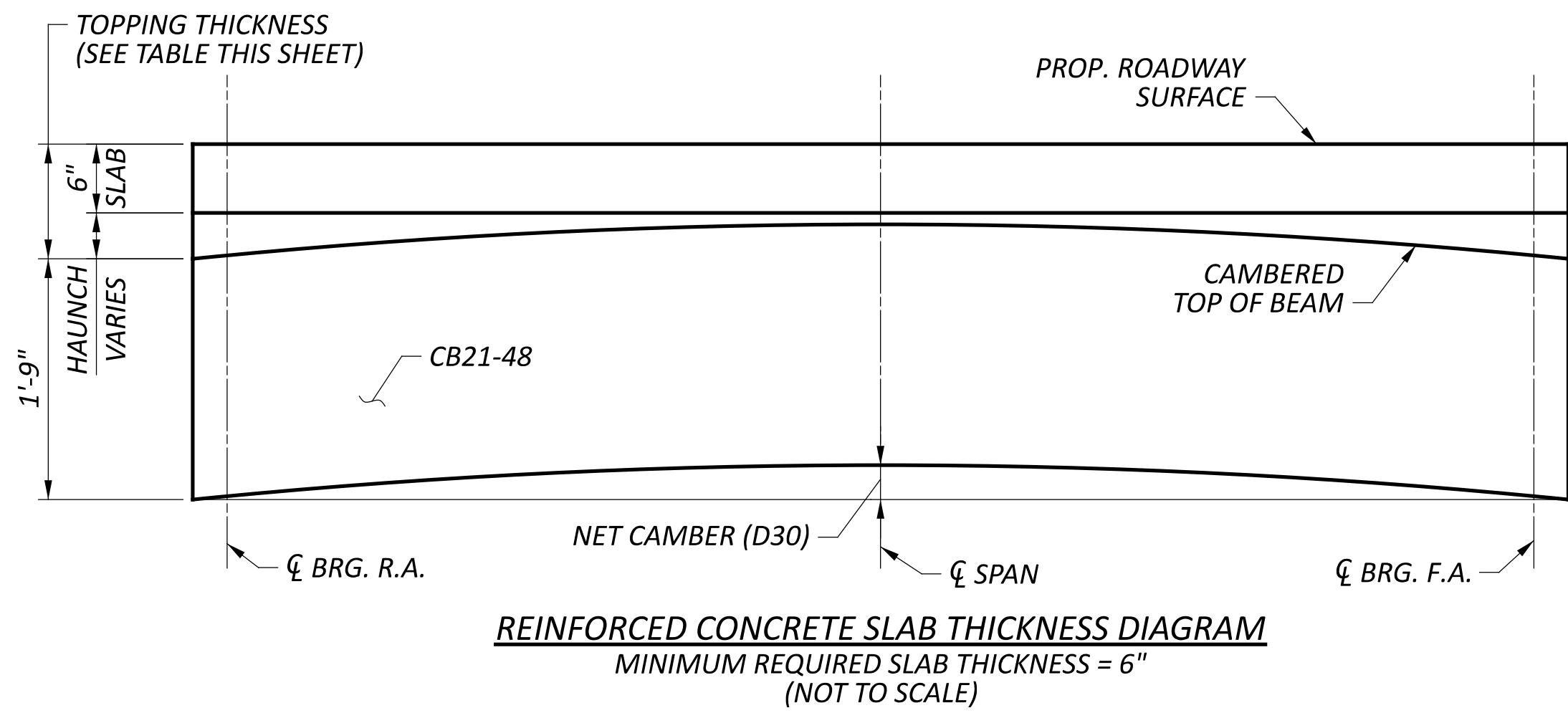
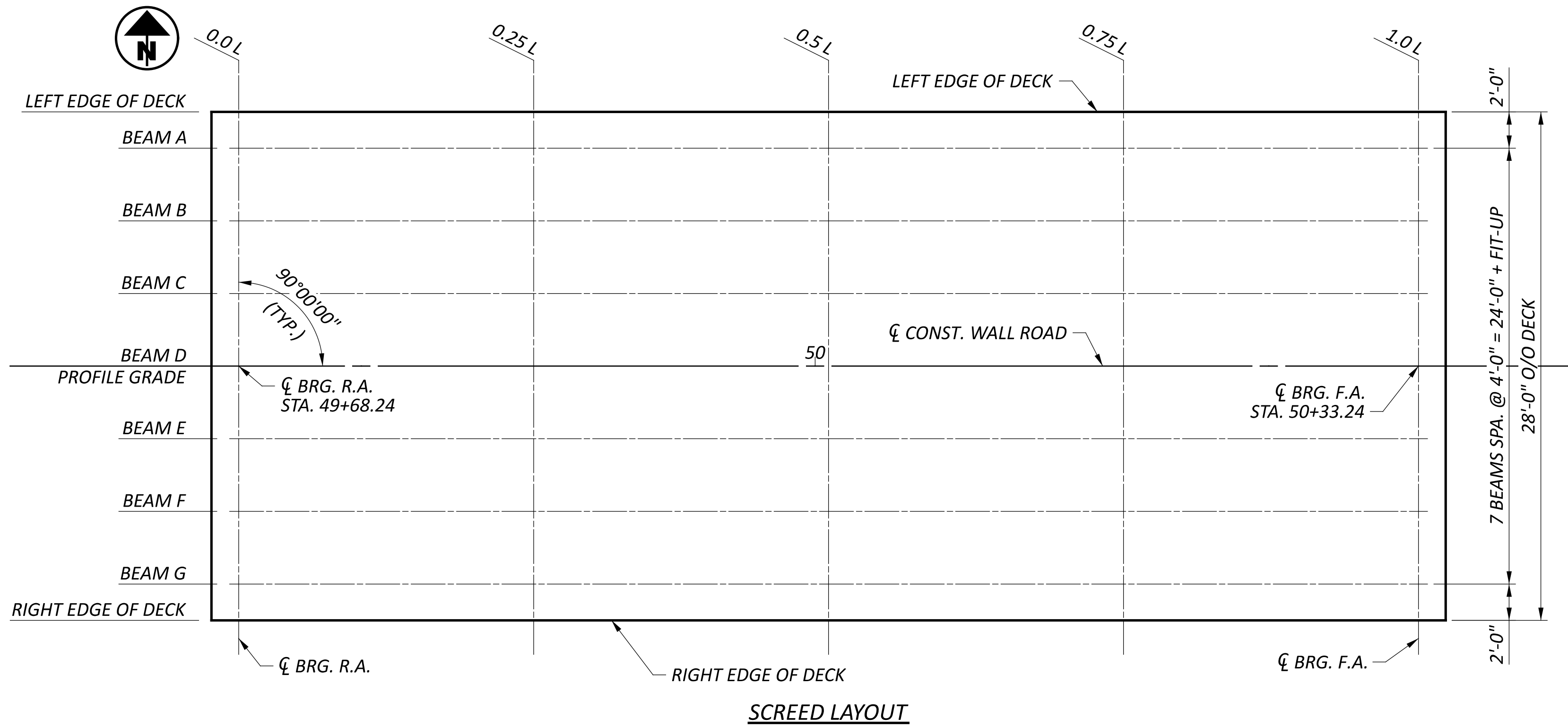


DECK PLAN

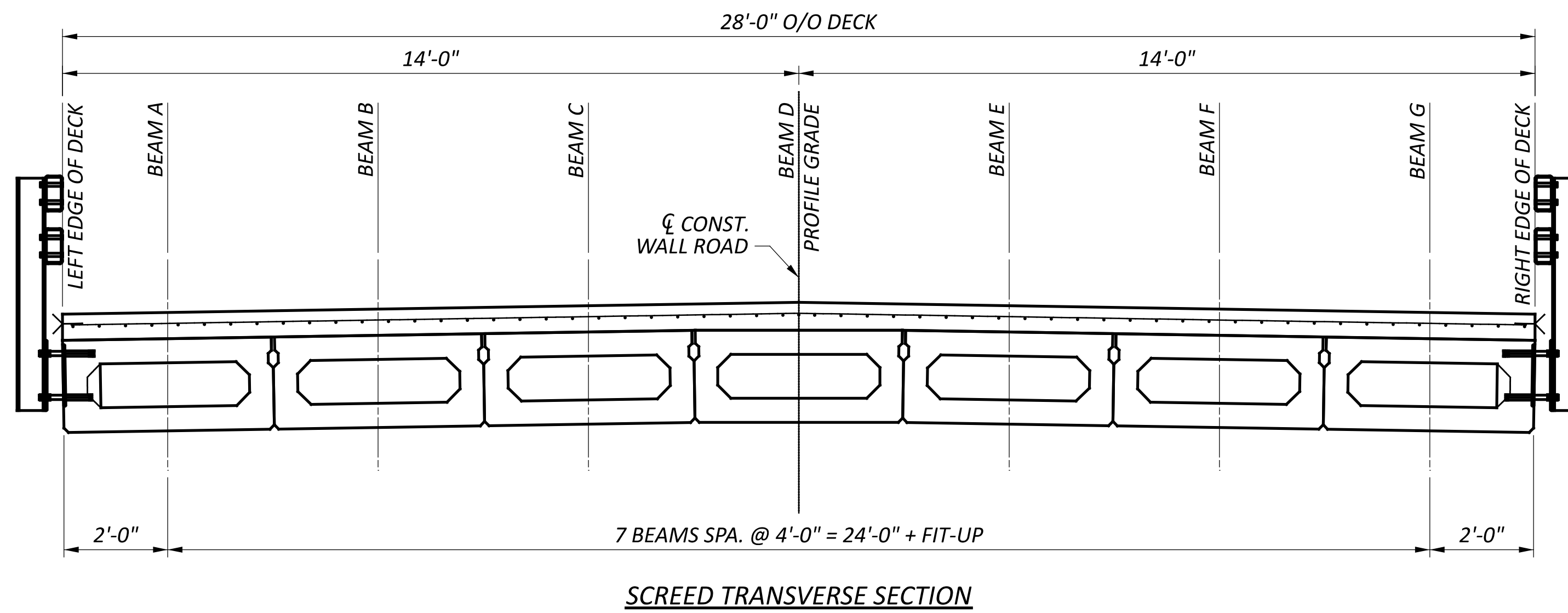
- NOTES:**
- MINIMUM LAP SPLICE LENGTH (PER BDM): #6 = 3'-7"
 - FOR REINFORCING STEEL LIST, SEE SHEET 15/15.
 - FOR BEAM CAMBER, TOPPING THICKNESS, AND HAUNCH THICKNESS, SEE SHEET 12/15.
 - LONGITUDINAL BAR SPACINGS ARE MEASURED PERPENDICULAR TO CL CONSTRUCTION AND TRANSVERSE BAR SPACINGS ARE MEASURED ALONG CL CONSTRUCTION.

DECK PLAN
 BRIDGE NO. MED-00145-00.910
 TH 145 OVER RIVER STYX

SFN 5235406	
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ	11/01/23
PROJECT ID	
118427	
SUBSET	TOTAL
11	15
SHEET	TOTAL
30	34



TOPPING THICKNESS (IN)			
LOCATION	BRG. R.A.	MID-SPAN	BRG. F.A.
BEAM A	7.21	6.14	6.60
BEAM B	7.21	6.14	6.60
BEAM C	7.21	6.14	6.60
BEAM D	7.58	6.52	6.98
BEAM E	7.21	6.14	6.60
BEAM F	7.21	6.14	6.60
BEAM G	7.21	6.14	6.60

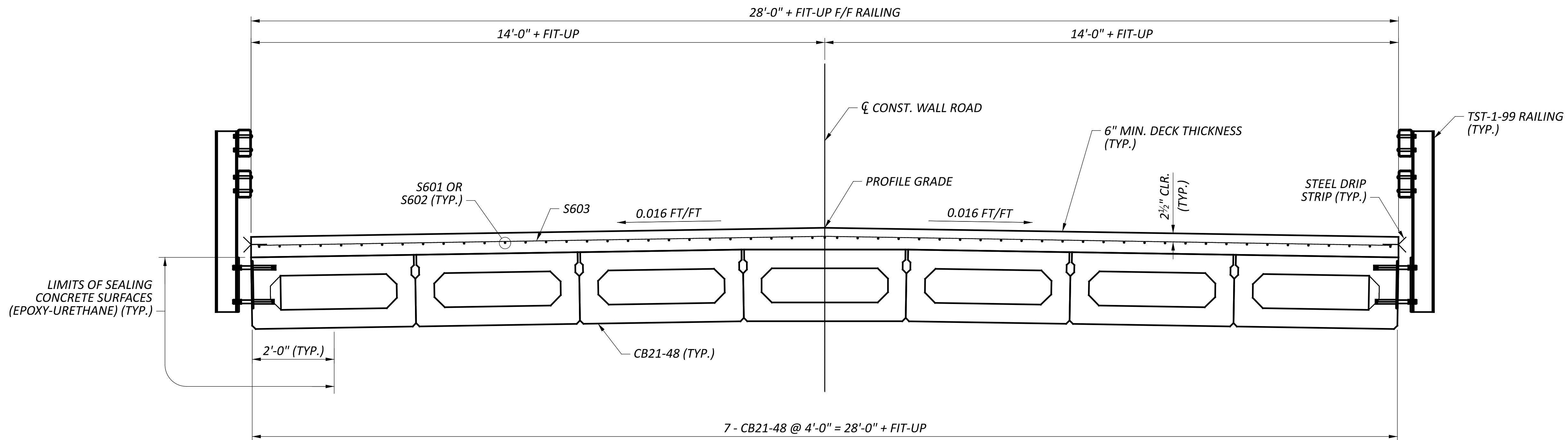


SCREED ELEVATIONS						
LOCATION		REAR ABUT.	¼ POINT	½ POINT	¾ POINT	FWD. ABUT.
LEFT EDGE OF DECK	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	SCREED ELEVATION	963.20	963.29	963.31	963.24	963.09
PROFILE GRADE	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	SCREED ELEVATION	963.42	963.51	963.52	963.45	963.31
RIGHT EDGE OF DECK	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	SCREED ELEVATION	963.20	963.29	963.31	963.24	963.09

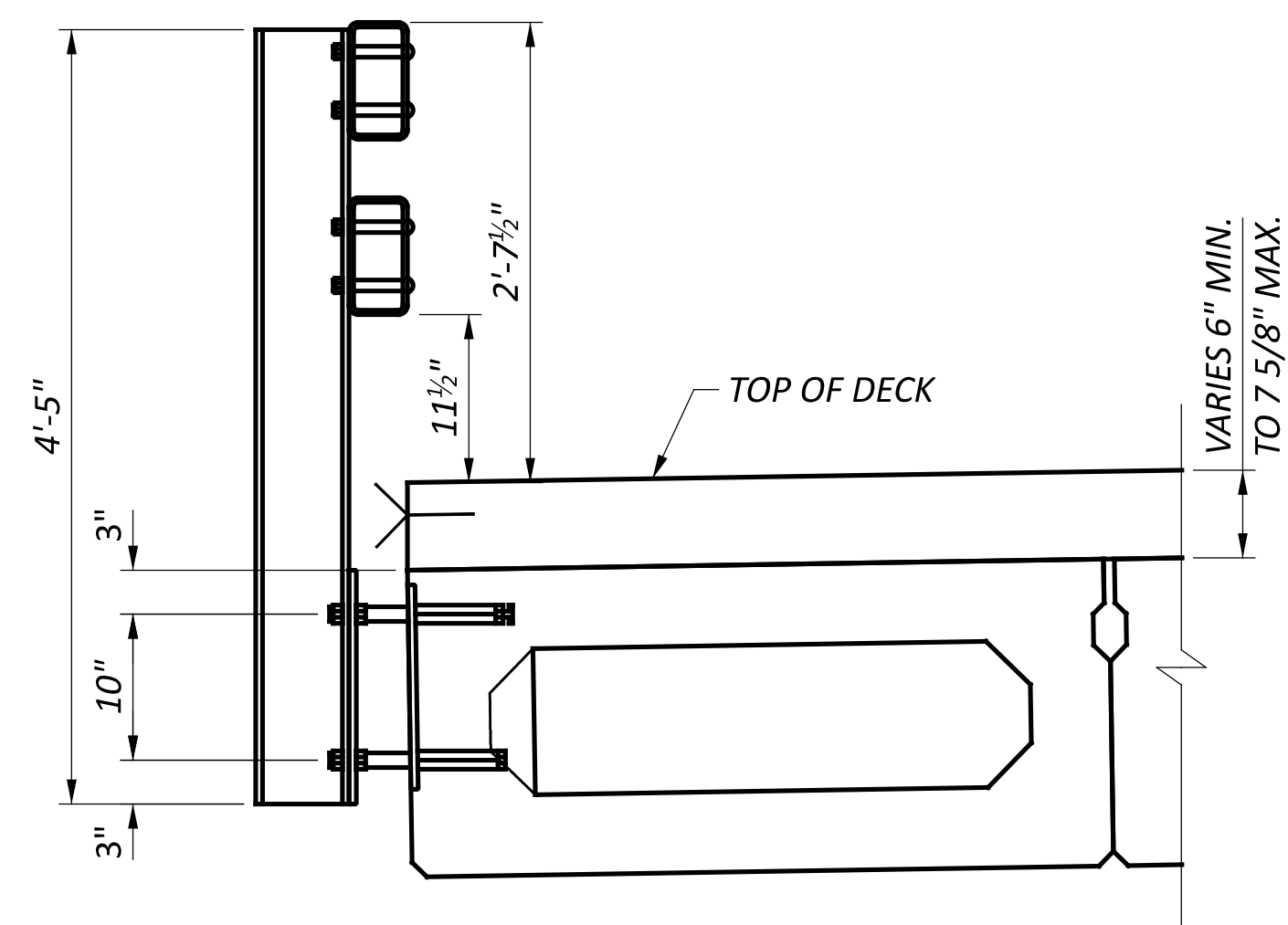
FINAL DECK ELEVATION						
LOCATION		REAR ABUT.	¼ POINT	½ POINT	¾ POINT	FWD. ABUT.
LEFT EDGE OF DECK	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.20	963.24	963.24	963.19	963.09
BEAM A	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.23	963.27	963.27	963.22	963.12
BEAM B	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.30	963.33	963.33	963.28	963.19
BEAM C	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.36	963.40	963.39	963.34	963.25
BEAM D	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.42	963.46	963.45	963.41	963.31
PROFILE GRADE	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.42	963.46	963.45	963.41	963.31
BEAM E	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.36	963.40	963.39	963.34	963.25
BEAM F	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.30	963.33	963.33	963.28	963.19
BEAM G	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.23	963.27	963.27	963.22	963.12
RIGHT EDGE OF DECK	STATION	49+68.24	49+84.49	50+00.74	50+16.99	50+33.24
	FINAL DECK ELEVATION	963.20	963.24	963.24	963.19	963.09

NOTES:

- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
- CAMBER:
ESTIMATED CAMBER AT DAY 0 (D0) IS 1⁹/₁₆"
ESTIMATED CAMBER AT DAY 30 (D30) IS 2¹¹/₁₆"
DEFLECTIONS DUE TO REMAINING DEAD LOAD (E.G. CONCRETE DECK, BARRIERS, ETC.) IS 1³/₁₆"
THE BEAM SEAT ELEVATIONS ASSUME ESTIMATE CAMBER (D30).
- DECK SLAB THICKNESS FOR CONCRETE QUANTITY:
THE ESTIMATED QUANTITY OF DECK CONCRETE IS MEASURE ACCORDING TO CMS 511. IN ADDITION TO THE DESIGN SLAB THICKNESS, THE QUANTITY INCLUDES A VARIABLE HAUNCH THICKNESS THAT PROVIDES AN ALLOWANCE FOR: VERTICAL GRADE ADJUSTMENT AND BEAM CAMBER.



TRANSVERSE SECTION



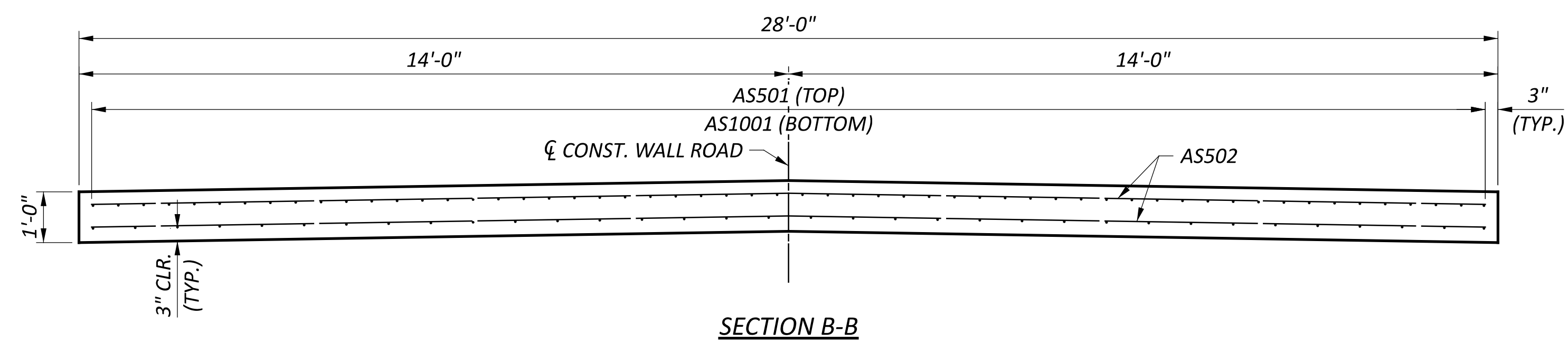
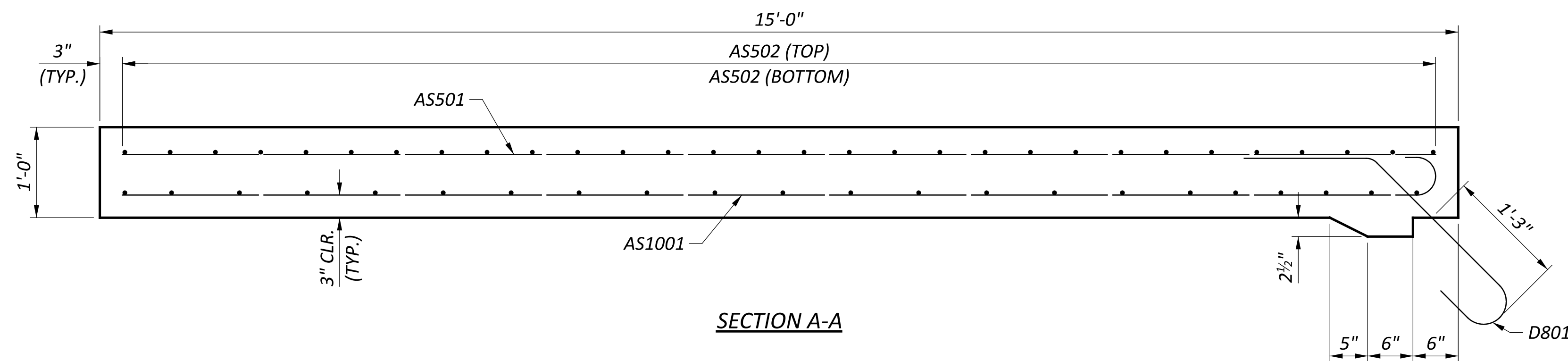
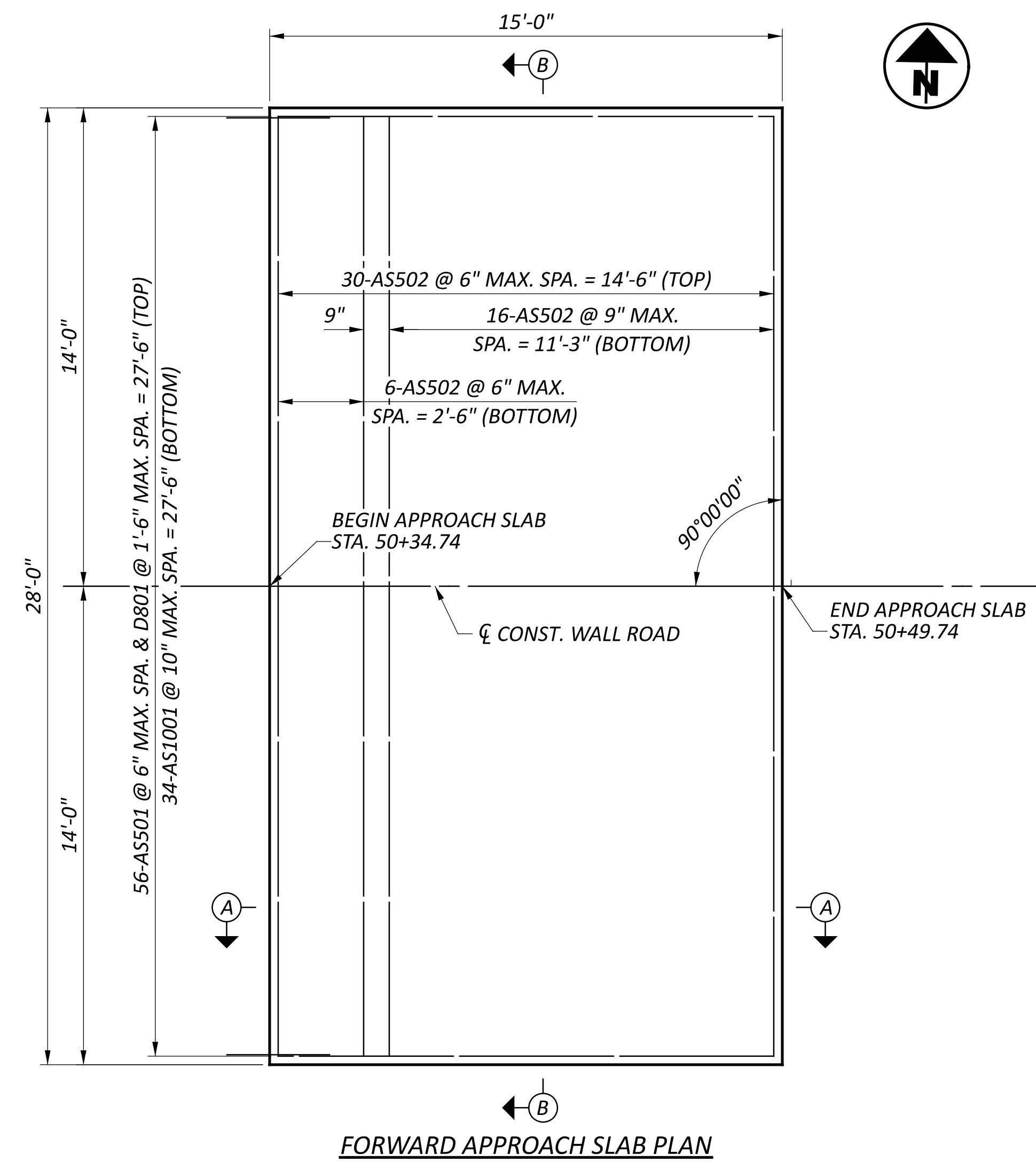
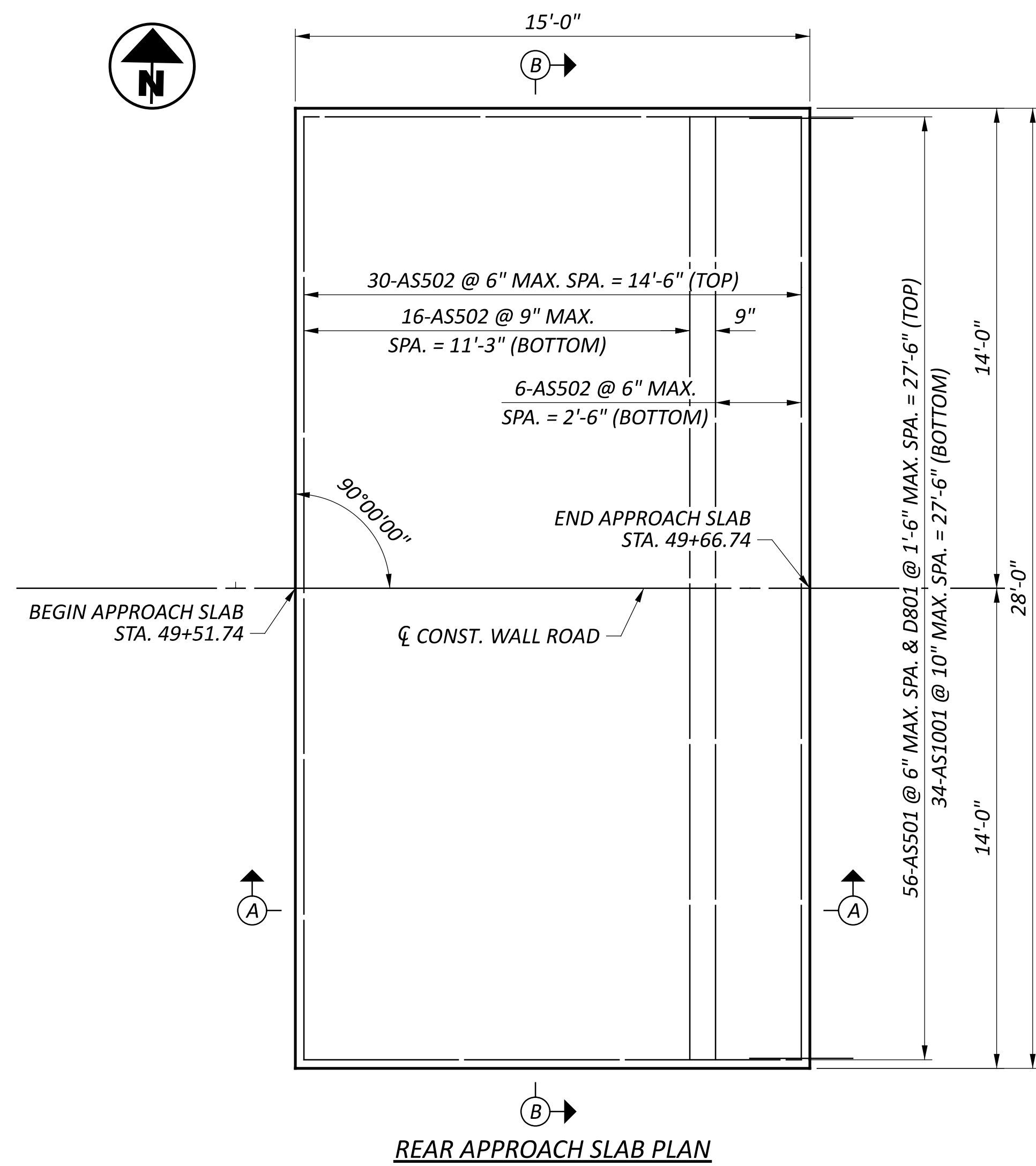
CB21-48 BEAM SECTION AT RAILING

NOTES:

- FOR DRIP STRIP NOTES AND DETAILS, SEE STD. DWG. DS-1-92.
- FOR REINFORCING SCHEDULE, SEE SHEET 15/15.

TRANSVERSE SECTION
 BRIDGE NO. MED-00145-00.910
 TH 145 OVER RIVER STYX

SFN	5235406
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ	11/01/23
PROJECT ID	
118427	
SUBSET	TOTAL
13	15
SHEET	TOTAL
32	34

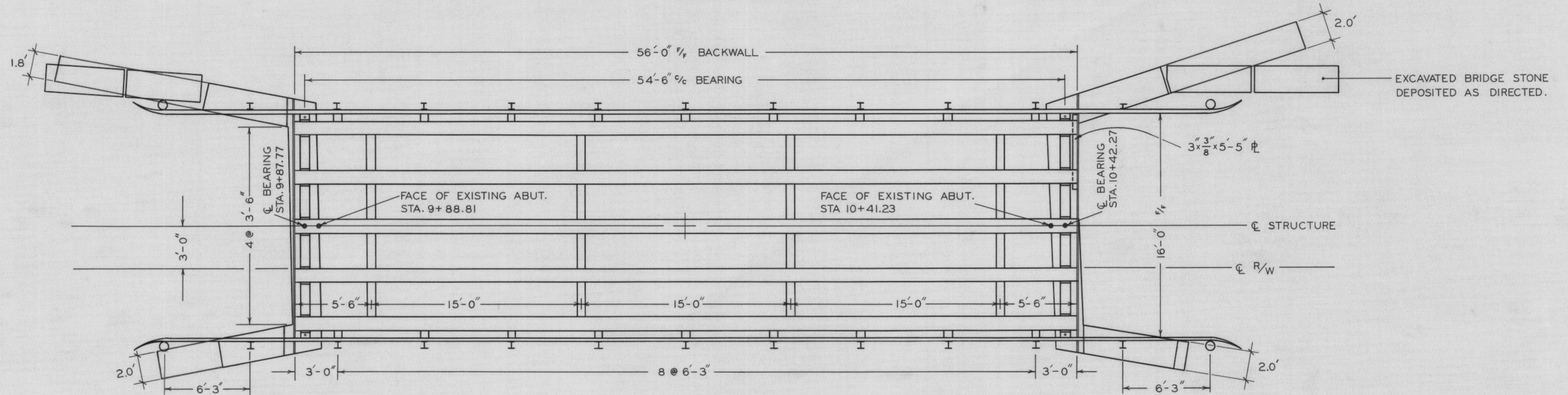


NOTES:

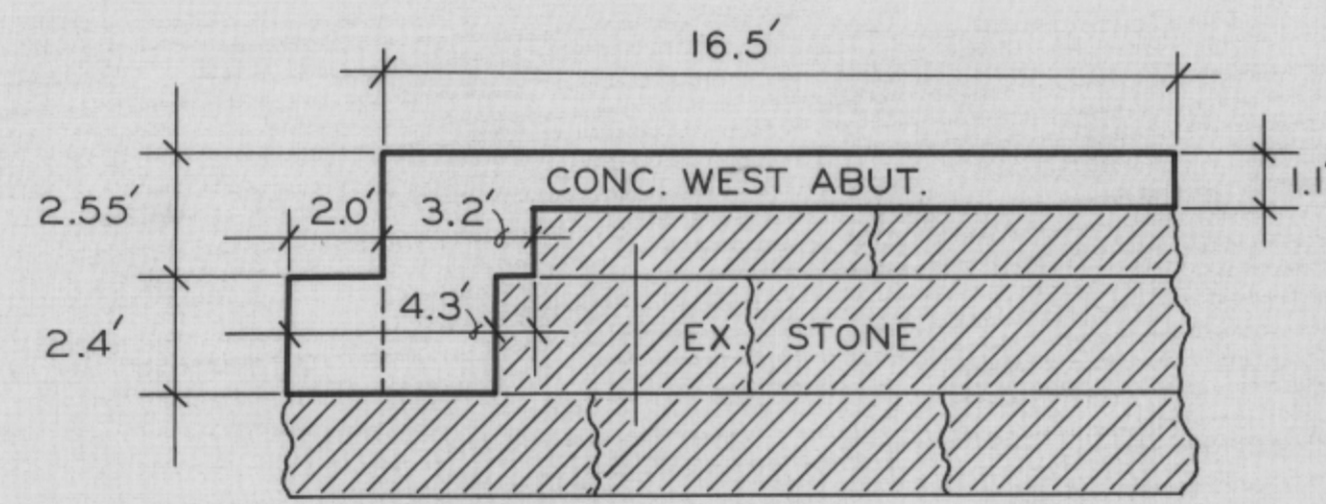
- FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. AS-1-15.
- FOR REINFORCING LIST, SEE SHEET 15/15.
- LONGITUDINAL BAR SPACINGS ARE MEASURED PERPENDICULAR TO ϕ CONSTRUCTION AND TRANSVERSE BAR SPACINGS ARE MEASURED ALONG ϕ CONSTRUCTION.

SFN	5235406
DESIGN AGENCY	
DESIGNER	CHECKER
CDH	DEB
REVIEWER	
CCJ 11/01/23	
PROJECT ID	
118427	
SUBSET	TOTAL
14	15
SHEET	TOTAL
33	34

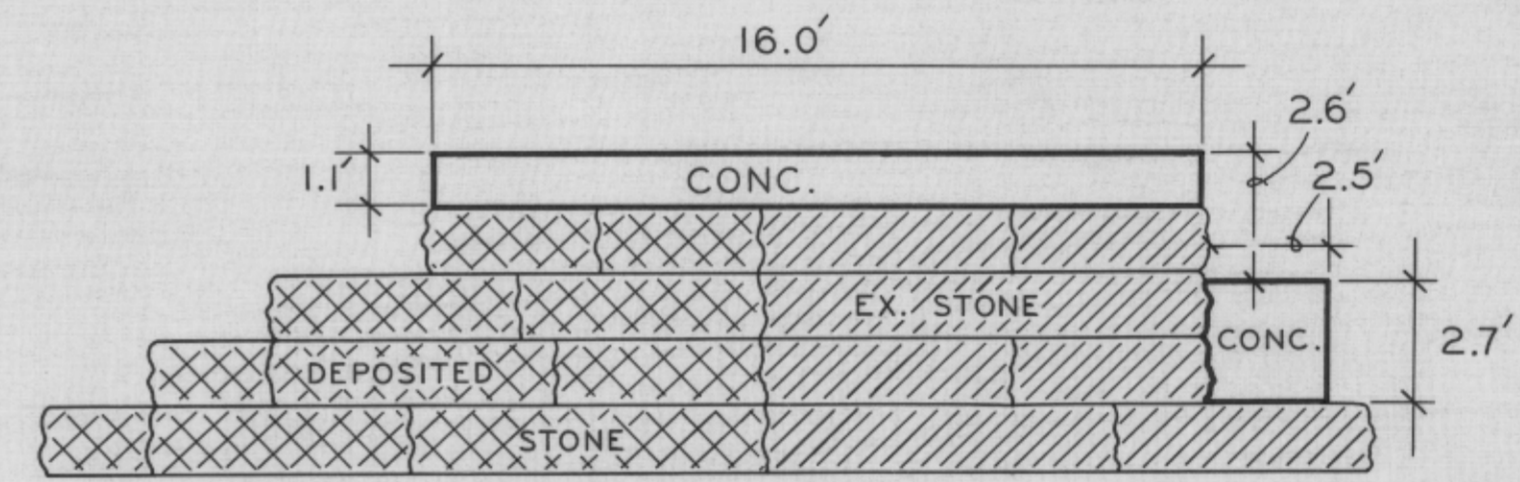
PINS FOR ϕ BEARING MOVED
3" AHEAD ON WEST ABUTMENT.



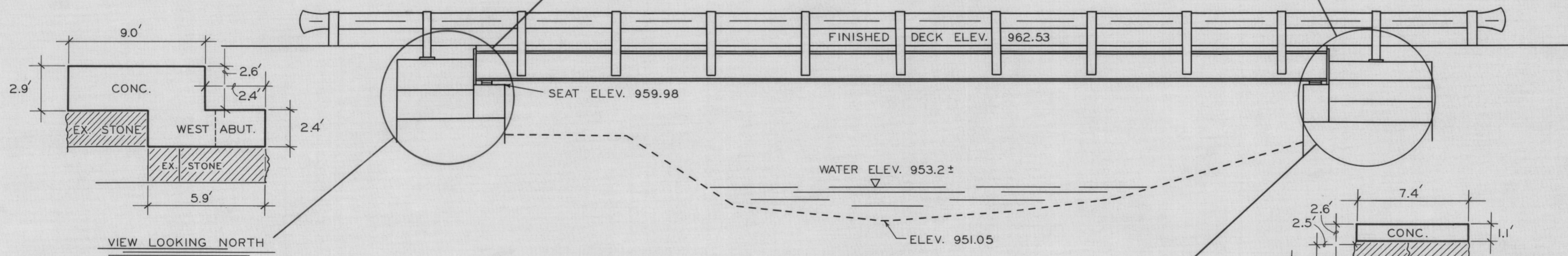
EXCAVATED BRIDGE STONE
DEPOSITED AS DIRECTED.



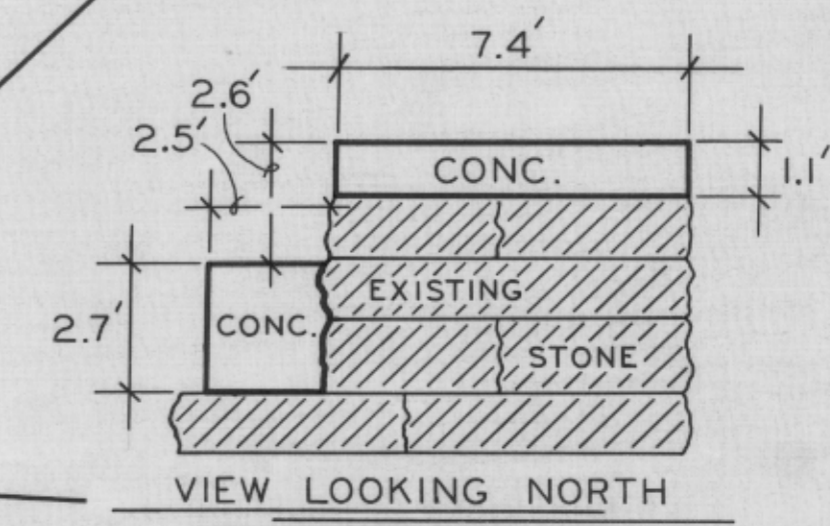
VIEW LOOKING SOUTH



VIEW LOOKING SOUTH



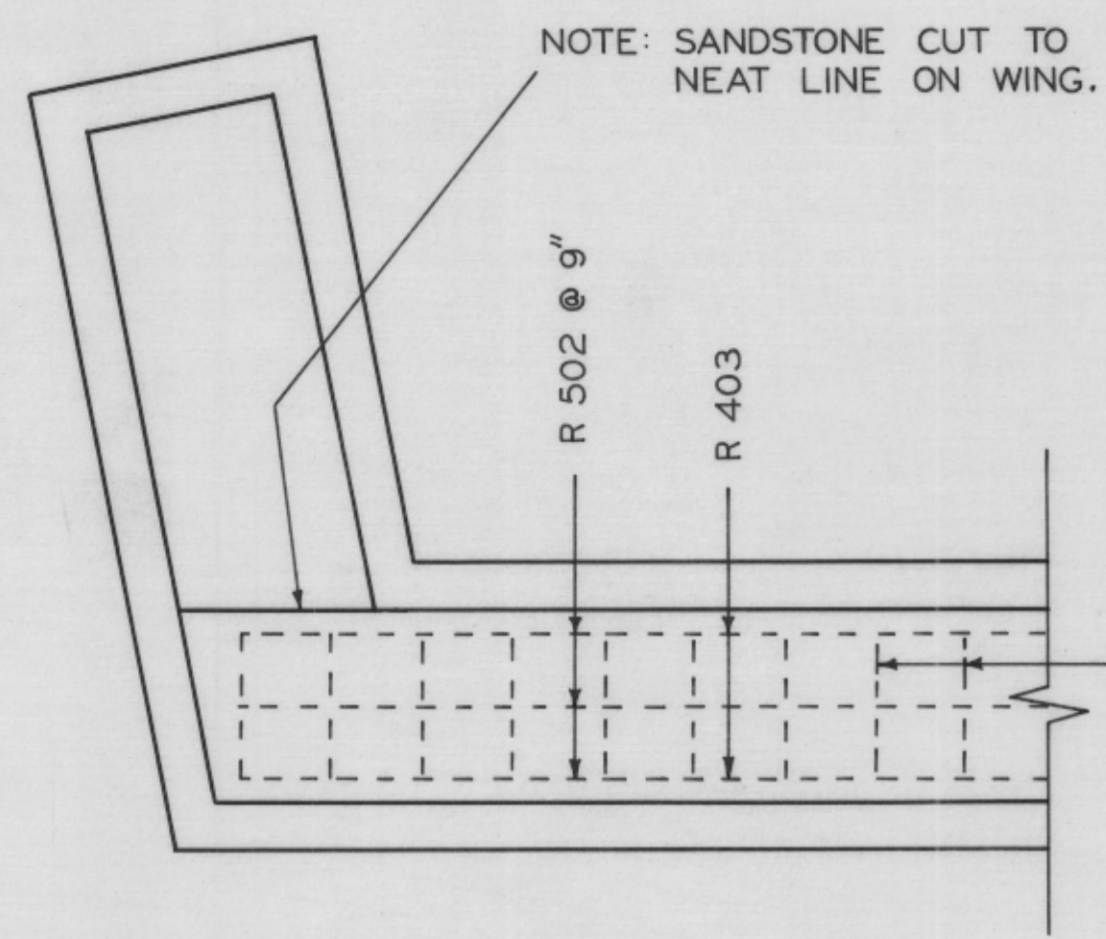
VIEW LOOKING NORTH



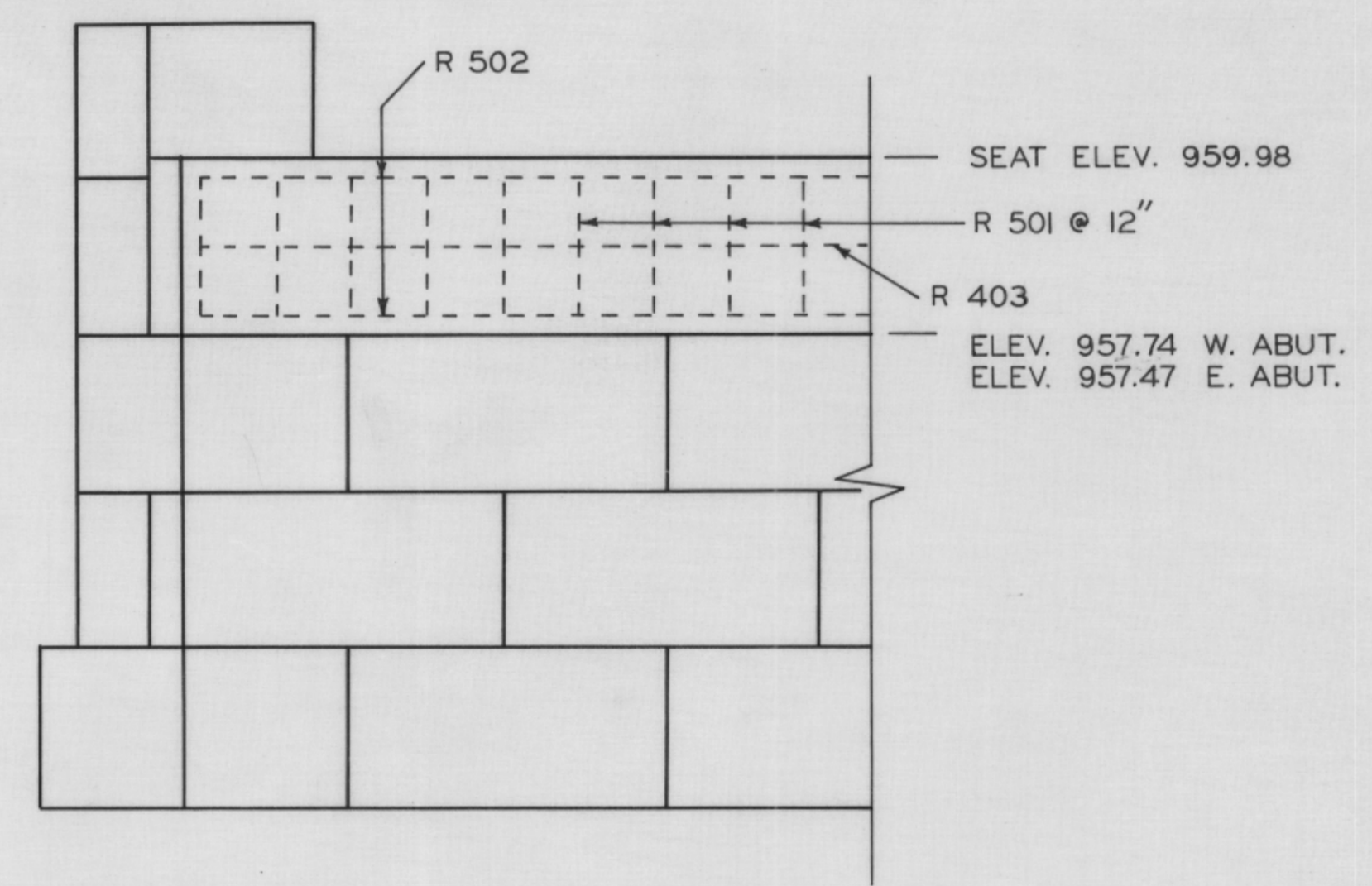
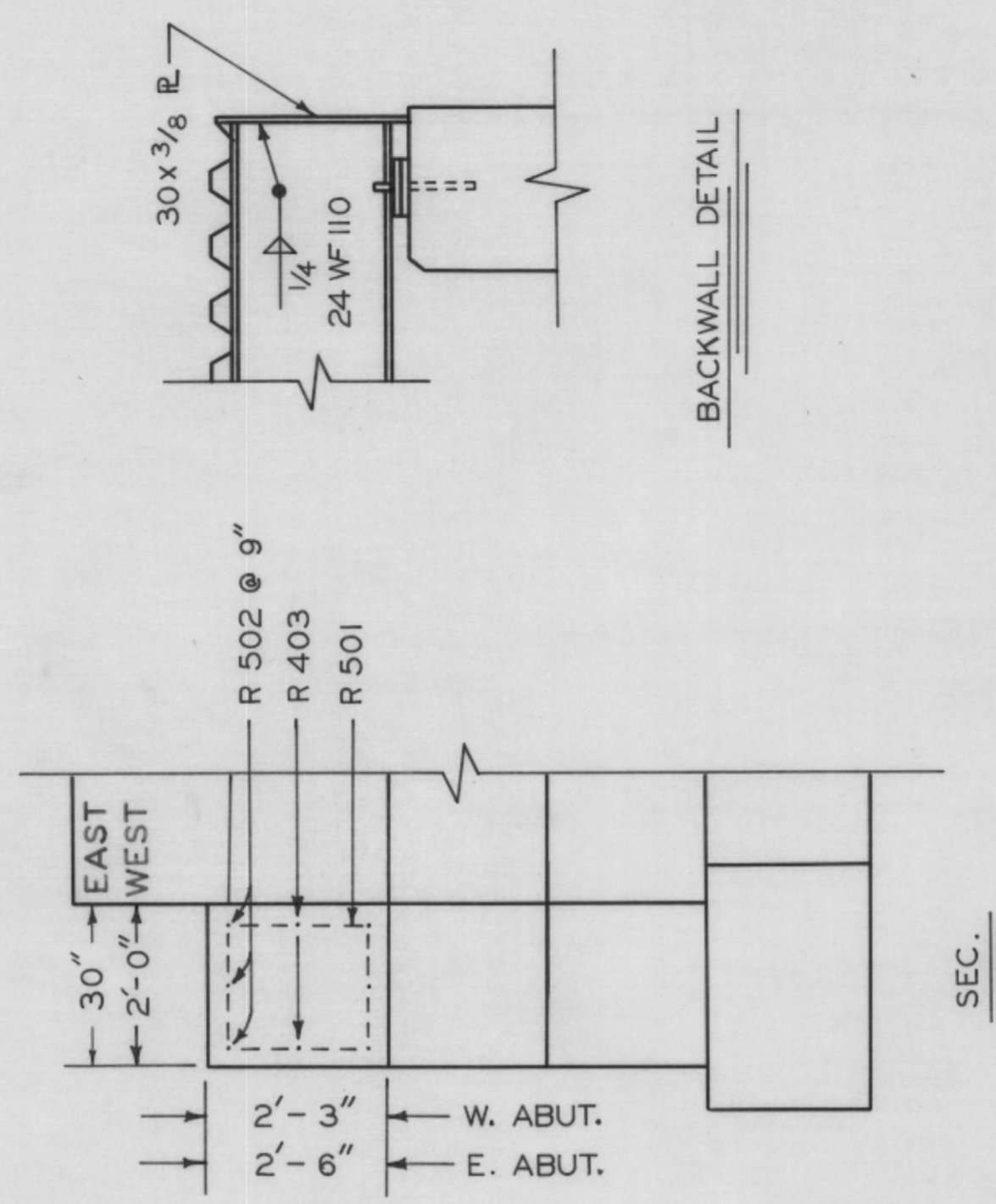
VIEW LOOKING NORTH

MICROFILMED

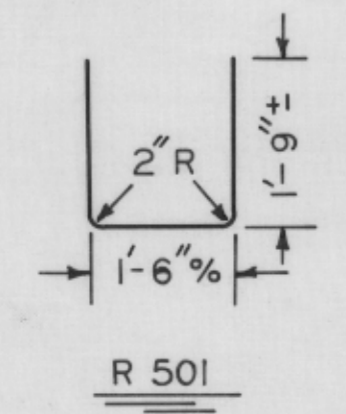
BRIDGE OVER RIVER STYX
WADSWORTH TWP.
BRIDGE 3 T.H. 145
990' EAST OF T.H. 18
MEDINA COUNTY ENGINEER
1971 HS 20-44



PLAN



ELEVATION



NOTE: 3" CLEARANCE BETWEEN ALL BARS & SURFACE OF CONC.

- GENERAL NOTES
1. THE 1969 STANDARD SPECIFICATIONS FOR MATERIALS AND CONSTRUCTION OF THE STATE OF OHIO, DEPT. OF HIGHWAYS SHALL GOVERN THIS PROJECT UNLESS OTHERWISE ORDERED BY THE MEDINA COUNTY ENGINEER.
 2. ALL STRUCTURAL STEEL, INCLUDING THE CORRUGATED BRIDGE FLOORING, SHALL BE OF THE GRADE AND TYPE KNOWN AS A242 WEATHERING STEEL AND SHALL BE CAPABLE OF DEVELOPING A PERMANENT, DENSE, TIGHTLY ADHERENT, PROTECTIVE OXIDE COATING. GUARDRAIL POSTS SHALL BE A36 GALVANIZED.
 3. ALL WELD MATERIAL MUST BE EQUIVALENT TO THE BASE MATERIAL IN STRENGTH, CORROSION RESISTENCE AND WEATHERED APPEARANCE.
 4. IF BEARING PLATES ARE TO BE FIELD SPLICED, THEY SHALL BE OF SUCH LENGTH THAT THE SPLICE DOES NOT OCCUR UNDER A JOIST. THEY SHALL BE BUTT WELDED ALL AROUND AND THE BOTTOM WELD SHALL BE GROUND FLUSH.
 5. THE COUNTY WILL FURNISH THE MATERIAL AND PERFORM THE WORK ON THE ITEMS INDICATED (X) IN THE GENERAL SUMMARY.

513 STRUCTURAL STEEL				
QUANT	MEMBER	LENGTH	DESCRIPTION	WT.(LBS.)
5	24WF 110	56'-0"	JOIST	30,800
16	12 WF 31	3'-5 1/2"	DIAPHRAGMS	1,712
18	12 WF 31	1'-2"	POST BRACKET	648
18	6 1/2 x 3/4 R @ 16.6%	1'-0"	POST BRACKET	299
10	8 x 3/4 R @ 20.4%	1'-2"	BEARING R	237
2	8 x 3/4 R @ 20.4%	16'-0"	BEARING R	653
2	30 x 3/8 R @ 38.3%	19'-0"	BACKWALL	1,456
4	1 1/2" @ 4.2%	1'-3"	ANCHOR DOWELS	21
APPROX. TOTAL				35,826

NOTE: STRUCTURAL STEEL SHALL INCLUDE ALL NECESSARY DRILLING, WELDING, BOLTS, PLATES, AND ERECTION.

509 REINFORCING STEEL SCHEDULE								
LOCATION	MARK	DIA.	PCS.	LENGTH	WT/FT	TOT. LENGTH	TOT. WT.	REMARKS
EAST ABUT.	R 501	5/8	38	4'-10"	1.043	183'-8"	192	BEND/DETAIL
" "	R 502	5/8	6	18'-0"	1.043	108'-0"	113	STRAIGHT
" "	R 403	1/2	2	18'-0"	0.668	36'-0"	24	STRAIGHT
WEST ABUT.	R 501	5/8	38	4'-10"	1.043	183'-8"	192	BEND/DETAIL
" "	R 502	5/8	6	18'-0"	1.043	108'-0"	113	STRAIGHT
" "	R 403	1/2	2	18'-0"	0.668	36'-0"	24	STRAIGHT
APPROX. TOTAL (LBS)							658	

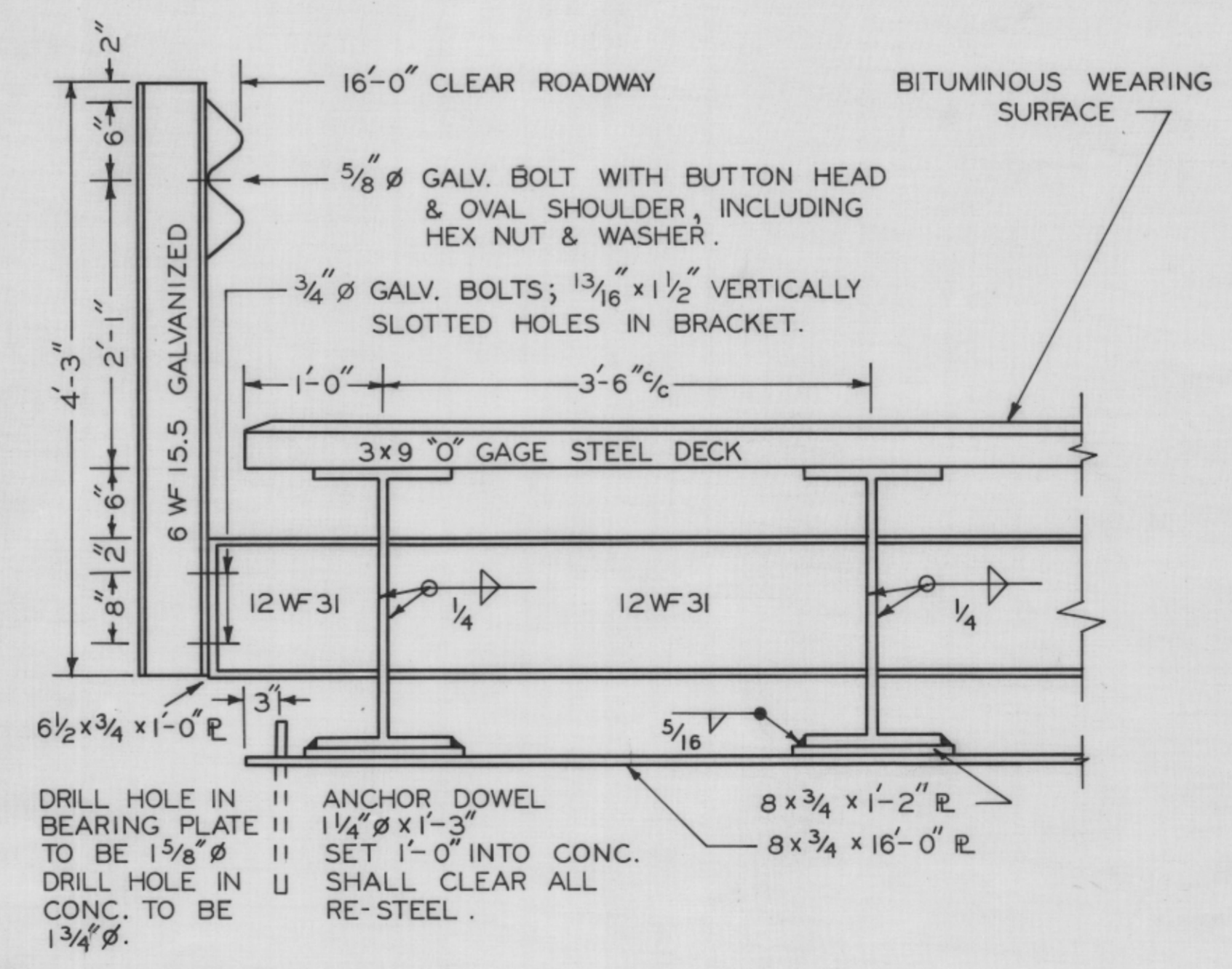
511 CLASS "C" CONC.		
LOCATION	APPROX. QUANT.	
EAST ABUT.	3 1/2 CU. YDS.	
WEST ABUT.	8 CU. YDS.	

EXCAVATION		
ITEM	DESCRIPTION	APPX. QUANT.
202	UNCLASSIFIED	16 CU. YDS.
202	STRUCTURE	LUMP

BACKFILL		
ITEM	LOCATION	APPX. QUANT.
203	ROADWAY	— CU. YDS.
203	EMBANKMENT	— CU. YDS.

GENERAL SUMMARY			
ITEM	APPX. QUANT.	UNIT	DESCRIPTION
* 202	—	LUMP	REMOVAL OF EXISTING STRUCTURE
* 202	16	CU. YDS.	UNCLASSIFIED EXCAVATION
* 203	—	CU. YDS.	ROADWAY
* 203	—	CU. YDS.	EMBANKMENT
* 405	13 1/2	CU. YDS.	BITUMINOUS WEARING COURSE
* 407	140	GAL.	TACK COAT
* 509	658	LBS.	REINFORCING STEEL
* 511	6 1/2	CU. YDS.	CLASS "C" CONCRETE
* 513	—	LUMP	BEAM BRIDGE AS PER PLAN INCL. 18 GALV. POST
* 606	150	LIN. FT.	GALVANIZED DEEP BEAM RAILING (TYPE II)
* 606	4	EACH	TREATED WOOD POSTS
* 606	4	EACH	6" WF STEEL POSTS
* 614	—	LUMP	MAINTAINING TRAFFIC
	896	SQ. FT.	5/16-3x9 CORR. STR. STL. R BRIDGE FLOORING
	—	LUMP	PREMIUM ON INDUSTRIAL INSURANCE

* SEE GENERAL NOTES

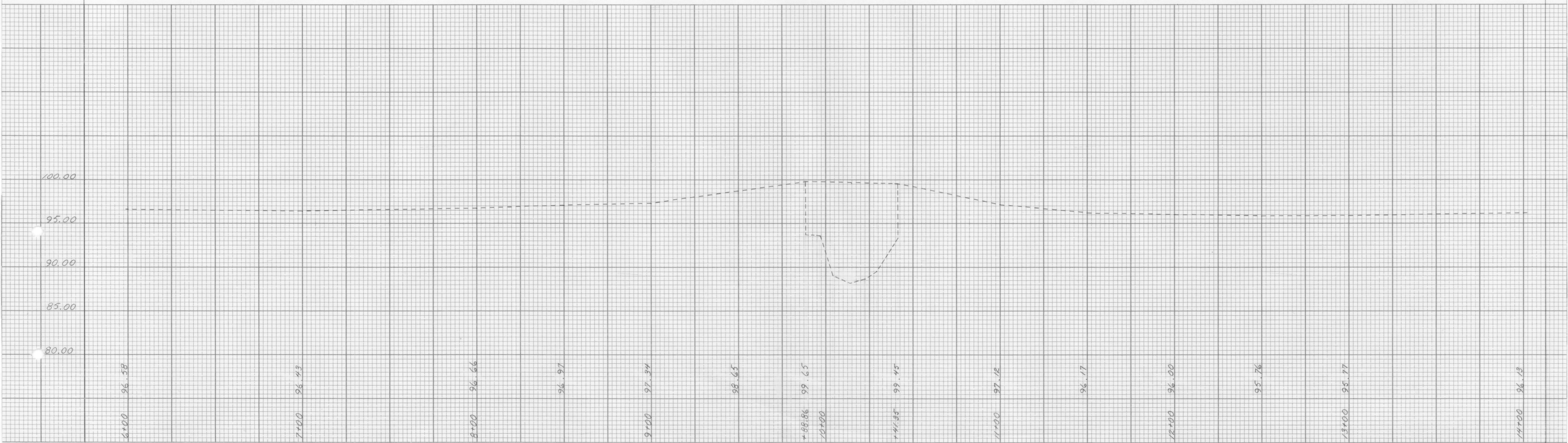
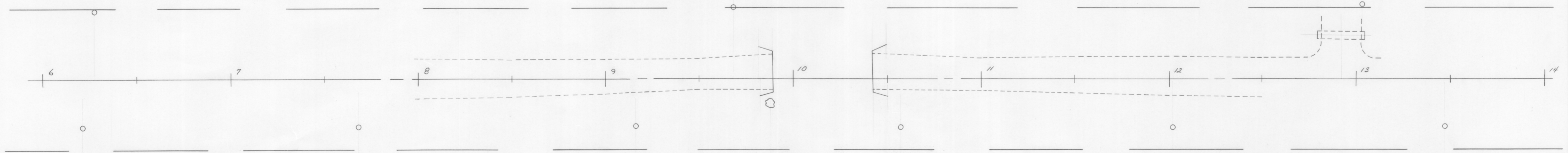


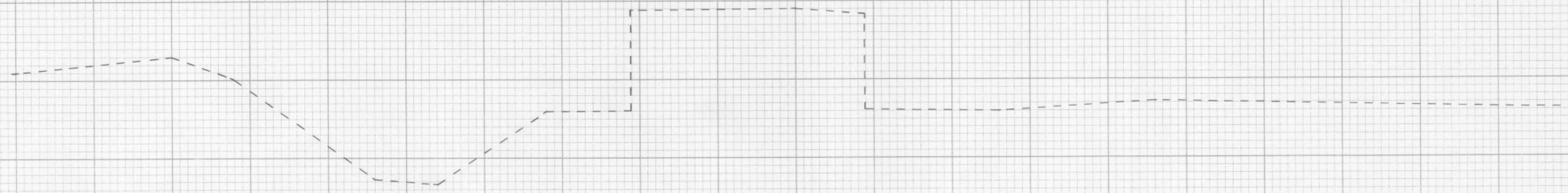
DIAPHRAGM & POST BRACKET DETAIL

BRIDGE 3 T.H.145

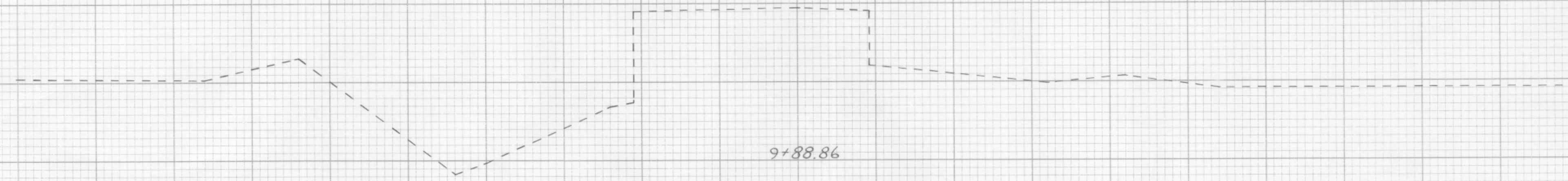
ABUTMENT DETAIL

MICROFILMED

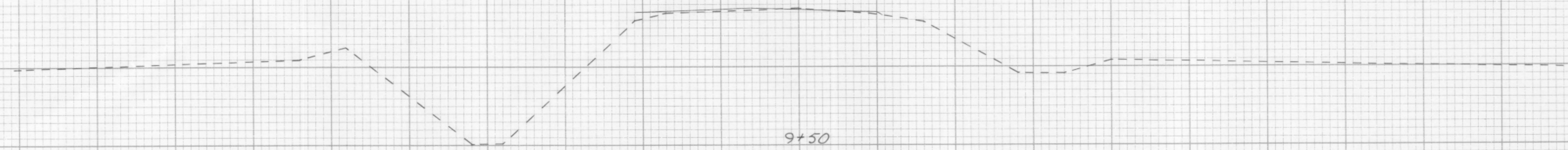




10+41.35



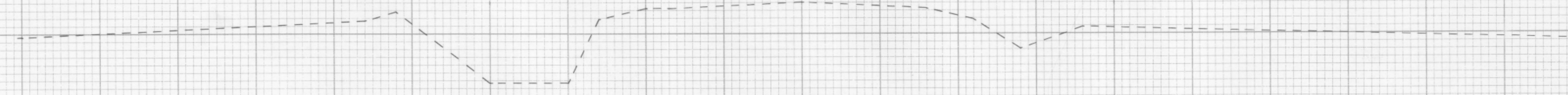
9+88.86



9+50



9+00



8+50



8+00

70

60

50

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30

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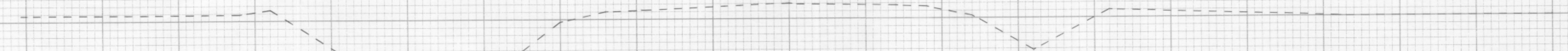
50

60

70



12+50



12+00



11+50



11+00