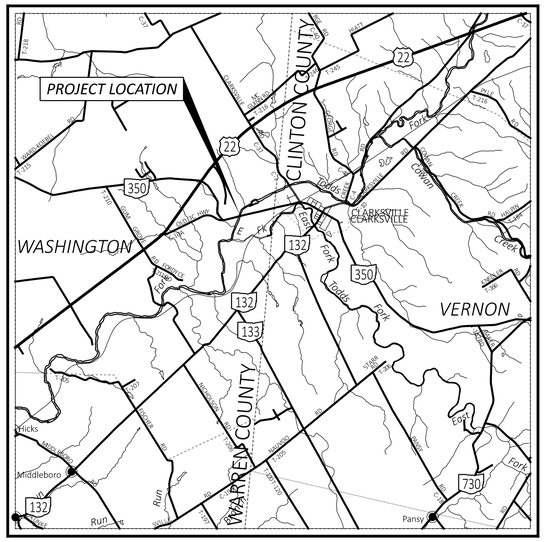
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

WAR-350-8.73

WASHINGTON TOWNSHIP

WARREN COUNTY



LOCATION MAP

LATITUDE: 39 °23'59" LONGITUDE: -84°00'05"

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

DESIGN DESIGNATION

CURRENT ADT (2024)	*1,600*
DESIGN YEAR ADT (2044)	*2,300*
DESIGN HOURLY VOLUME (2044)	*300*
DIRECTIONAL DISTRIBUTION	*60%*
TRUCKS (24 HOUR B&C)	*3%*
DESIGN SPEED	*60*
LEGAL SPEED	*55*

DESIGN FUNCTIONAL CLASSIFICATION:
05 - MAJOR COLLECTOR (RURAL)
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)

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 PRODUCTION
505 SOUTH S.R. 741 LEBANON, OHIO 45036

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E210512

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

COMPLETE STRUCTURE REPLACEMENT OF BRIDGE WAR-350-0873, WIDENING AND RESURFACING OF APPROACH PAVEMENT, UPGRADE GUARDRAIL TO TYPE MGS, RELOCATION OF EXISTING DRIVE AND OTHER MINOR ROADWAY IMPROVEMENTS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*1.62 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*0.25 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*1.87 ACRES*

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.

Tammy K. Campbell
Tammy K. Campbell, P.E.
District 08 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	*1/19/24*	*AS-1-15*	*1/20/23*			
BP-3.2	*1/18/19*	*AS-2-15*	*7/21/23*			
BP-4.1	*7/19/13*	*DS-1-92*	*7/15/22*			
		GSD-1-19	*7/19/24*			
MGS-1.1	*7/16/21*	*SICD-2-14*	*1/15/21*			
MGS-2.1	*1/19/18*	*TST-2-21*	*7/19/24*			
MGS-3.3	*7/16/21*					
MGS-4.2	*7/19/13*					
TC-65.10	*1/17/14*					
TC-65.11	*1/19/24*					
HL-50.21	*7/15/22*					

SUPPLEMENTAL SPECIFICATIONS

800-2023	*7/19/24*
832	*7/19/24*
846	*4/17/15*
878	*1/21/22*
894	*4/16/21*

SPECIAL PROVISIONS

ASBESTOS INSPECTION SPECIAL PROVISIONS 5/17/2023

WATERWAY PERMITS CONDITIONS SPECIAL PROVISIONS 8/5/2024

ENGINEER'S SEAL

STATE OF OHIO
GARRET T. FREEMAN
E-83489
REGISTERED
PROFESSIONAL ENGINEER

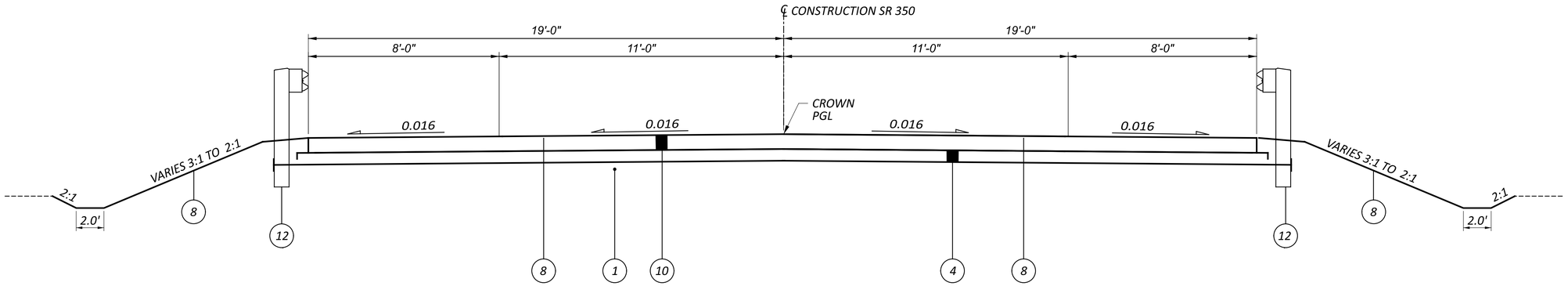
DESIGN AGENCY

DESIGNER: GTF
REVIEWER: JAO
PROJECT ID: 112975
SHEET: 1 TOTAL: 50

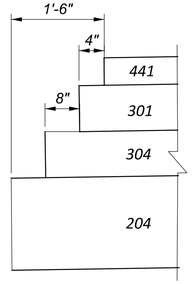
TITLE SHEET

WAR-SR 350-8.73

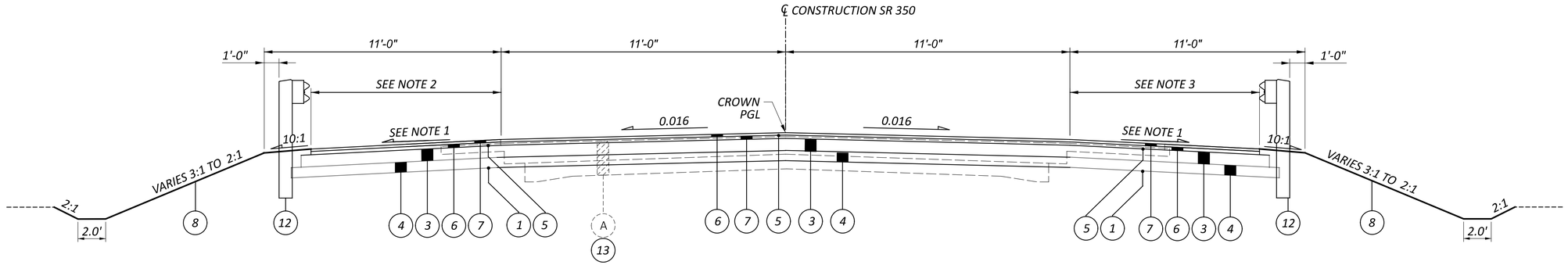
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/27/2025 TIME: 7:15:14 AM USER: gfreeman
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\02 Sold Projects\District 08\Warren\112975\400-Engineering\Roadway\Sheets\112975_GT001.dgn



APPROACH SLAB SECTION
STA. 990+50.26 TO STA. 990+84.26
STA. 992+54.47 TO STA. 992+84.47



BASE STEP DETAIL
(NOT TO SCALE)



TYPICAL SECTION - SR 350
FULL DEPTH PAVEMENT REPLACEMENT AND WIDENING
STA. 988+00.00 TO STA. 990+50.26
STA. 992+84.47 TO STA. 995+75.00

LEGEND

(A) EX. ±6 ASPHALT CONCRETE ON ±7" CONCRETE PAVEMENT

(1) ITEM 204 - SUBGRADE COMPACTION
(2) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (D = 3")
(3) ITEM 301 - 8" ASPHALT CONCRETE BASE, PG64-22 (449)
(4) ITEM 304 - 6" AGGREGATE BASE
(5) ITEM 407 - NON-TRACKING TACK COAT
(6) ITEM 441 - 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64-22
(7) ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICKNESS)
(8) ITEM 659 - SEEDING AND MULCHING
(9) ITEM 204 - EXCAVATION OF SUBGRADE, 12" DEPTH
(10) ITEM 526 - REINFORCED CONCRETE APPROACH SLAB, (T=17")
(11) ITEM 204 - GRANULAR MATERIAL, TYPE C
(12) ITEM 606 - GUARDRAIL, TYPE MGS
(13) ITEM 202 - PAVEMENT REMOVED
(14) ITEM 204 - GEOTEXTILE FABRIC

NOTES

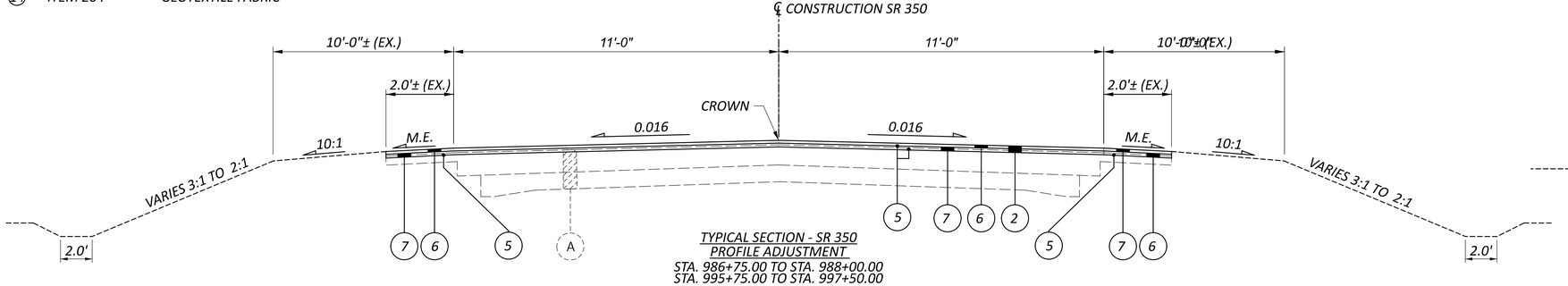
1) CROSS SLOPE = 0.04 FROM STA. 986+75.00 STA. 989+50.00
CROSS SLOPE VARIES FROM 0.04 AT STA. 989+50.00 TO 0.016 AT STA. 990+50.26
CROSS SLOPE VARIES FROM 0.016 AT STA. 992+84.47 TO 0.04 AT STA. 993+84.50
CROSS SLOPE = 0.04 FROM STA. 993+84.50 STA. 997+50.00

2) SHOULDER WIDTH = 2.0'± (MATCH EX.) FROM STA. 986+75.00 TO STA. 988+32.10
SHOULDER WIDTH VARIES FROM 2.7'± (EX.) AT STA. 988+32.10 TO 8.0' AT STA. 990+24.46
SHOULDER WIDTH = 8.0' FROM STA. 990+24.46 TO STA. 994+22.00
SHOULDER WIDTH VARIES FROM 8.0' AT STA. 994+22.00 TO 2.0'± (EX.) AT STA. 994+75.00
SHOULDER WIDTH = 2.0'± (MATCH EX.) FROM STA. 994+75.00 TO STA. 997+50.00

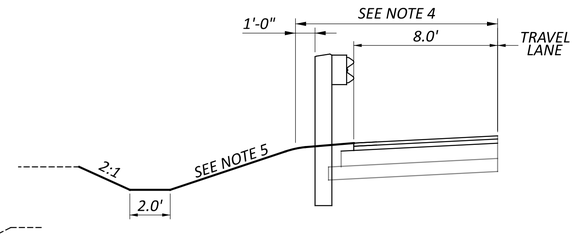
3) SHOULDER WIDTH = 2.0'± FROM STA. 986+75.00 TO STA. 989+60.80
SHOULDER WIDTH VARIES FROM 2.0'± AT STA. 989+60.80 TO 8.0' AT STA. 990+24.46
SHOULDER WIDTH = 8.0'± FROM STA. 990+24.46 TO STA. 993+46.89
SHOULDER WIDTH VARIES FROM 8.0' AT STA. 993+46.89 TO 2.3'± (EX.) AT STA. 994+75.00
SHOULDER WIDTH = 2.0'± (MATCH EX.) FROM STA. 994+75.00 TO STA. 997+50.00

4) GRADED SHOULDER WIDTH VARIES FROM 11.0' STA. 994+22.00 TO 2.0'± AT STA. 994+75.00

5) SIDESLOPE VARIES FROM 2:1± (EX.) AT STA. 995+00.00 TO 3:1 AT STA. 994+34.50
SIDESLOPE = 3:1 FROM STA. 994+34.50 TO STA. 993+75.00



TYPICAL SECTION - SR 350
PROFILE ADJUSTMENT
STA. 986+75.00 TO STA. 988+00.00
STA. 995+75.00 TO STA. 997+50.00



GRADING AT TYPE E ANCHOR ASSEMBLY
STA. 989+00.00 TO STA. 990+14.35

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER GTF
REVIEWER JAO
PROJECT ID 112975
SHEET 2 TOTAL 50

WAR-SR 350-8.73

UTILITIES

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

AES OHIO
1900 DRYDEN ROAD
DAYTON, OHIO 45439
937-331-4521 (WILLIAM GOURLEY)
WILLIAM.GOURLEY@AES.COM

CHARTER COMMUNICATIONS
10920 KENWOOD ROAD
BLUE ASH, OHIO 45242
513-386-5499 (KENT RIEGER)
KENT.RIEGER@CHARTER.COM

FRONTIER COMMUNICATIONS
241 SOUTH NELSON AVENUE
WILMINGTON, OHIO 45177
937-283-5735 (DAVID LONGWORTH)
DAVID.M.LONGWORTH@FTR.COM

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

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.

SEEDING AND MULCHING

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

659, TOPSOIL	511 CU. YD.
659, SEEDING AND MULCHING	4,605 SQ. YD.
659, REPAIR SEEDING AND MULCHING	230 SQ. YD.
659, COMMERCIAL FERTILIZER	0.62 TON
659, LIME	0.95 ACRES
659, WATER	24.9 M. GAL.

ITEM 203 EMBANKMENT, AS PER PLAN

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

WINDOW CONTRACT TABLE

USE THE FOLLOWING TABLE AS REFERRED TO IN THE PROPOSAL:

DESCRIPTION OR LOCATION OF CRITICAL WORK	CALENDER DAYS TO COMPLETE	DISINCENTIVE $ PER DAY	WORK WINDOW	
			START	END
COMPLETE ALL WORK REQUIRING CLOSURE OF ALL LANES OF TRAFFIC AND DETOUR & RETURN TRAFFIC TO THE ORIGINAL LANE CONFIGURATION	273	$1,300	CONTRACT EXECUTION DATE	11/1/2025

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 22 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: O.D.O.T. VRS
MONUMENT TYPE: IRON PINS

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 12B

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO SOUTH ZONE
COMBINED SCALE FACTOR: 1.00002576
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 IN U.S. SURVEY FEET.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.
ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN

WHERE DESIGNATED, EXISTING ANCHOR ASSEMBLIES INCLUDING ALL POSTS AND HARDWARE SHALL BE REMOVED. THIS ITEM SHALL ALSO INCLUDE THE REMOVAL OF THE ENTIRE CONCRETE ANCHOR AND CONCRETE ENCASEMENT. ALL HOLES LEFT AFTER REMOVAL OF ASSEMBLIES AND POSTS SHALL BE FILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER. PAYMENT SHALL INCLUDE ALL NECESSARY LABOR AND EQUIPMENT REQUIRED TO PERFORM THE WORK AS INDICATED ABOVE. PAYMENT SHALL BE AT THE UNIT BID PRICE.

ITEM	UNIT	DESCRIPTION
202	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN

PERMANENT PAVEMENT MARKINGS

THE CONTRACTOR SHALL REFERENCE ALL PAVEMENT MARKINGS INCLUDING AUXILIARY PAVEMENT MARKINGS BEFORE THE START OF THE RESURFACING OPERATION. THIS WILL BE NECESSARY ASSURE TO CORRECT PLACEMENT OF MARKINGS IN ORIGINAL LOCATIONS. FOR CENTER LINE MARKINGS, THE CONTRACTOR SHALL INSTALL THE PASSING/NO PASSING ZONE MARKINGS ACCORDING TO THE CURRENT CENTER LINE LOGS WEBSITE:

http://www.dot.state.oh.us/d08/Pages/NoPassingZone.aspx

PAYMENT FOR THIS OPERATION SHALL BE INCLUDED WITH EACH RESPECTIVE PAVEMENT MARKING ITEM.

ROUNDING

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

ITEM 623- CONSTRUCTION LAYOUT STAKES, AS PER PLAN

PRIOR TO THE START OF ROADWAY OPERATION, THE CONTRACTOR SHALL REFERENCE THE LENGTH OF THE PROJECT ON BOTH SIDES OF THE ROADWAY, IN A MANNER SATISFACTORY TO THE ENGINEER. THE PAVEMENT SHALL BE REFERENCED IN 1000' FEET INCREMENTS, OR IN INCREMENTS ACCEPTABLE TO THE ENGINEER, IN A SEMIPERMANENT CONDITION.

ASBESTOS ABATEMENT

AN ASBESTOS SURVEY FOR SFN 8305161 SCHEDULED FOR RENOVATION WORK WAS CONDUCTED ON 5/17/2023 BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. THE ASBESTOS SURVEY DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS.

ELECTRONIC SUBMISSION:

THE CONTRACTOR SHALL SUBMIT ELECTRONICALLY TO OEPA A COMPLETED NOTIFICATION OF DEMOLITION & RENOVATION FORM (NDRF) AND APPLICABLE FEES ALONG WITH THE ASBESTOS SURVEY REPORT. THE COMPLETED NDRF MUST BE SUBMITTED TO OEPA AT LEAST 10 DAYS PRIOR TO ANY DEMOLITION AND RENOVATION ACTIVITY. THE CONTRACTOR IS RESPONSIBLE FOR RETAINING AN ELECTRONIC COPY OF THE NDRF (IN PDF FORM) FOR SUBMISSION TO THE DISTRICT ENVIRONMENTAL STAFF AND ONE HARD COPY TO THE PROJECT ENGINEER.

(GO TO THE OEPA EBUSINESS CENTER AND SUBMIT THE DNRF AND PAYMENT ALONG WITH THE ASBESTOS SURVEY REPORT)

HARD COPY SUBMISSION:

THE CONTRACTOR MAY ELECT TO SUBMIT A HARD COPY OF THE COMPLETED NDRF AND PAYMENT ALONG WITH THE ASBESTOS SURVEY REPORT TO THE FOLLOWING:

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OHIO 43216-1049

OR

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W TOWN ST, SUITE 700
COLUMBUS, OHIO 43215

IF THE CONTRACTOR ELECTS TO SUBMIT A HARD COPY TO OEPA THEY ARE RESPONSIBLE FOR RETAINING A HARD COPY OF THE NDRF FOR SUBMISSION TO THE DISTRICT ENVIRONMENTAL STAFF AND A HARD COPY TO THE PROJECT ENGINEER.

BAT TREE RESTRICTIONS

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY-LISTED NORTHERN LONG-EARED AND INDIANA BATS, AND THE STATE-LISTED LITTLE BROWN AND TRICOLORED BATS. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THE CONTRACTOR SHALL DEMARCATE CLEARING LIMITS IN THE FIELD TO AVOID ANY UNAUTHORIZED TREE CLEARING. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

IN WATER WORK RESTRICTIONS

THE CONTRACTOR SHALL NOT WORK BELOW THE ORDINARY HIGH WATER MARK OF TODD FORK, OR INSTALL, MODIFY, OR REMOVE ANY EXISTING INSTREAM FILLS DURING THE ODNR INSTREAM WORK RESTRICTION PERIOD OF APRIL 15 TO JUNE 30.

GENERAL NOTES

DESIGN AGENCY

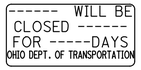
DESIGNER GTF
REVIEWER JAO
PROJECT ID 112975
SHEET 3 TOTAL 50

WAR-SR 350-8.73

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 270 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 5. A DISINCENTIVE SHALL BE ASSESED IN THE AMOUNT SPECIFIED IN THE WINDOW CONTRACT TABLE FOR EACH DAY THE ROADWAY IS NOT MAINTAINED WITH ONE LANE IN EACH DIRECTION BEYOND THE SPECIFIED LIMIT.

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 CHANGABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.)



W20-H14

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD 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.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	> 2 WEEKS	14 CALENDER DAYS PRIOR TO CLOSURE
	> 12 HOURS < 2 WEEKS	7 CALENDER DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 CALENDER 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.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES, PER SCD MT-101.60 AT THE FOLLOWING LOCATIONS:

STA. 986+25 & STA. 998+00

FOR MORE DETAILS SEE DETOUR PLAN ON THE SHEET 5

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 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.

MAINTENANCE OF TRAFFIC NOTES

WAR-SR 350-8.73

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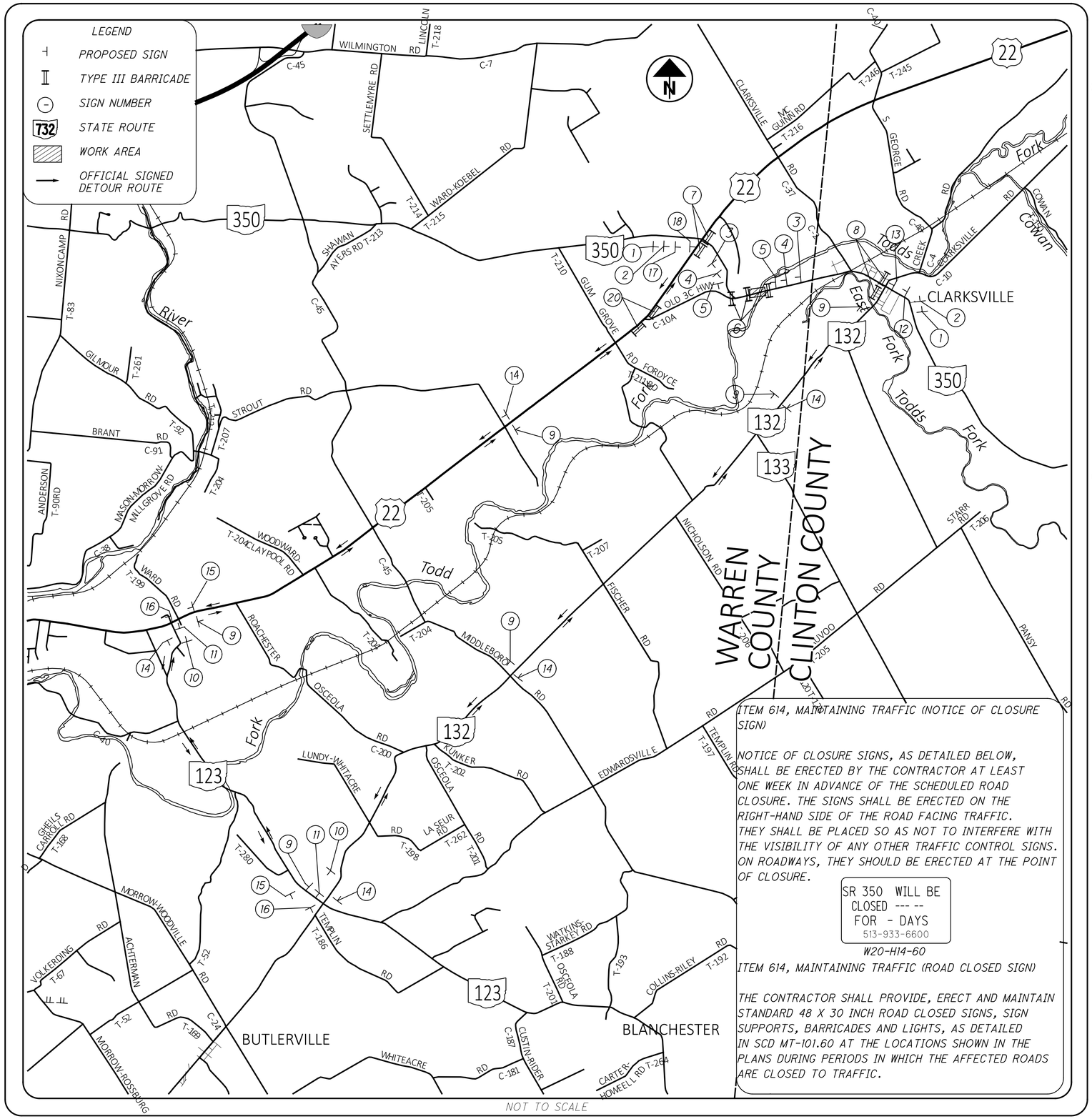
DESIGN AGENCY

DESIGNER GTF

REVIEWER JAO

PROJECT ID 112975

SHEET 4 TOTAL 50



(ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED BELOW, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD 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 THE POINT OF CLOSURE.

SR 350 WILL BE
CLOSED --- --
FOR - DAYS
513-933-6600

W20-H14-60

ITEM 614, MAINTAINING TRAFFIC (ROAD CLOSED SIGN)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE LOCATIONS SHOWN IN THE PLANS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

1. ROAD CLOSED AHEAD — W20-3-48
2. DETOUR 1500 FT — W20-2-48
3. ROAD WORK AHEAD — W20-1-48 WITH TYPE A WARNING LIGHT
4. ROAD CLOSED 1000 FT — W20-3-48 WITH TYPE A WARNING LIGHT
5. ROAD CLOSED 500 FT — W20-3-48
6. ROAD CLOSED — R11-2-48; 2 SIGNS PER DIRECTION ON TYPE III BARRICADES W/ 1 TYPE-B FLASHING WARNING LIGHT (PER SIGN)
7. ROAD CLOSED ¾ MILES AHEAD, LOCAL TRAFFIC ONLY, DETOUR → — R11-3a-60, M4-10R-48 ON TYPE III BARRICADES
8. ROAD CLOSED 1 ¼ MILES AHEAD, LOCAL TRAFFIC ONLY, DETOUR ← — R11-3a-60, M4-10L-48 ON TYPE III BARRICADES
9. DETOUR WEST 350 — M4-8-24, M3-4-24, M1-5-30
10. DETOUR WEST 350 ↱ — M4-8-24, M3-4-24, M1-5-30, M5-1R-24
11. DETOUR WEST 350 → — M4-8-24, M3-4-24, M1-5-30, M6-1R-24
12. DETOUR WEST 350 ↰ — M4-8-24, M3-4-24, M1-5-30, M5-1L-24
13. DETOUR WEST 350 ← — M4-8-24, M3-4-24, M1-5-30, M6-1L-24
14. DETOUR EAST 350 — M4-8-24, M3-2-24, M1-5-30
15. DETOUR EAST 350 ↰ — M4-8-24, M3-2-24, M1-5-30, M5-1L-24
16. DETOUR EAST 350 ← — M4-8-24, M3-2-24, M1-5-30, M6-1L-24
17. DETOUR EAST 350 ↱ — M4-8-24, M3-2-24, M1-5-30, M5-1R-24
18. DETOUR EAST 350 → — M4-8-24, M3-2-24, M1-5-30, M6-1R-24
19. ROAD CLOSED 8 ½ MILES AHEAD, LOCAL TRAFFIC ONLY — R11-3a-60 ON TYPE III BARRICADES
20. ROAD CLOSED AT SR 350, LOCAL TRAFFIC ONLY, DETOUR → — R11-3a-60, M4-10R-48 ON TYPE III BARRICADES

MAINTENANCE OF TRAFFIC
DETOUR MAP

WAR-SR 350-8.73

MODEL: Unified Sheet PAPERSIZE: 34x22 (in.) DATE: 8/30/2024 TIME: 11:43:10 AM USER: gfreeman
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DESIGN AGENCY

DESIGNER GTF
REVIEWER MAG
PROJECT ID 112975
SHEET 5 TOTAL 50

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	7	21	23										01/STR/10						
																		ROADWAY	
													LUMP	201	11000	LS		CLEARING AND GRUBBING	
	1,943												1,943	202	23000	1,943	SY	PAVEMENT REMOVED	
	375												375	202	38000	375	FT	GUARDRAIL REMOVED	
	4												4	202	42001	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	3
	2												2	202	42040	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
	1												1	202	53100	1	EACH	MAILBOX REMOVED	
		280											280	203	10000	280	CY	EXCAVATION	
		3,416											3,416	203	20001	3,416	CY	EMBANKMENT, AS PER PLAN	3
	748												748	203	35120	748	CY	GRANULAR MATERIAL, TYPE C	
	2,686												2,686	204	10000	2,686	SY	SUBGRADE COMPACTION	
	748												748	204	13000	748	CY	EXCAVATION OF SUBGRADE	
	2,143												2,143	204	50000	2,143	SY	GEOTEXTILE FABRIC	
	375												375	606	15050	375	FT	GUARDRAIL, TYPE MGS	
	2												2	606	26100	2	EACH	ANCHOR ASSEMBLY, TYPE E	
	4												4	606	26500	4	EACH	ANCHOR ASSEMBLY, TYPE T	
	4												4	606	34600	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2	
	1												1	SPECIAL	69050000	1	EACH	MAILBOX SUPPORT	3
													LUMP	SPECIAL	69071000	LS		ASBESTOS ABATEMENT, NOTIFICATION	3
													LUMP	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																		EROSION CONTROL	
			38										38	601	25000	38	CY	DUMPED ROCK FILL, TYPE A	
529													529	601	32004	529	CY	ROCK CHANNEL PROTECTION, TYPE A WITH GEOTEXTILE FABRIC	
511													511	659	00300	511	CY	TOPSOIL	
4,605													4,605	659	10000	4,605	SY	SEEDING AND MULCHING	
230													230	659	14000	230	SY	REPAIR SEEDING AND MULCHING	
0.62													0.62	659	20000	0.62	TON	COMMERCIAL FERTILIZER	
0.95													0.95	659	31000	0.95	ACRE	LIME	
24.9													24.9	659	35000	24.9	MGAL	WATER	
													1,157	670	00500	1,157	SY	SLOPE EROSION PROTECTION	
													40,000	832	30000	40,000	EACH	EROSION CONTROL	
													LUMP	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
													LUMP	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
													LUMP	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
																		DRAINAGE	
	2												2	602	20000	2	CY	CONCRETE MASONRY	
	72												72	611	04900	72	FT	12" CONDUIT, TYPE D	
																		PAVEMENT	
	813												813	254	01000	813	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 1.5")	
	503												503	301	56010	503	CY	ASPHALT CONCRETE BASE, PG64-28, (449)	
	447												447	304	20000	447	CY	AGGREGATE BASE	
	586												586	407	20000	586	GAL	NON-TRACKING TACK COAT	
	114												114	441	50000	114	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
	139												139	441	50300	139	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
																		TRAFFIC CONTROL	
													13	621	54000	13	EACH	RAISED PAVEMENT MARKER REMOVED	
													13	621	00100	13	EACH	RPM	
													0.36	644	00104	0.36	MILE	EDGE LINE, 6"	
													0.18	644	00300	0.18	MILE	CENTER LINE	
													0.08	646	10010	0.08	MILE	EDGE LINE, 6"	
													0.04	646	10200	0.04	MILE	CENTER LINE	
																		STRUCTURE OVER 20 FOOT SPAN (WAR-350-0873)	
																		SEE SHEET 24	
																		MAINTENANCE OF TRAFFIC	
													LUMP	614	12420	LS		DETOUR SIGNING	
																		INCIDENTALS	
													LUMP	614	11000	LS		MAINTAINING TRAFFIC	
													LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

WAR-SR 350-8.73

DESIGN AGENCY

DESIGNER GTF

REVIEWER JAO

PROJECT ID 112975

SHEET 6 TOTAL 50

PAVEMENT CALCULATIONS

PAVEMENT CALCULATIONS

PLAN SPLIT	ROUTE	STATION FROM	STATION TO	LENGTH	AVERAGE WIDTH	PAVEMENT AREA	202 PAVEMENT REMOVED	204 GRANULAR MATERIAL, TYPE C	204 SUBGRADE COMPACTION	204 GEOTEXTILE FABRIC	204 EXCAVATION OF SUBGRADE, 12" DEPTH	254 PAVEMENT PLANING ASPHALT CONCRETE DEPTH	254	301 ASPHALT CONCRETE BASE, PG64-22 THICK-NESS		304 AGGREGATE BASE THICK-NESS		407 NON TRACKING TACK COAT @ 0.09 GAL/SQ YD	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 THICK-NESS		441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) THICK-NESS		441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICK.) AVE. THICK-NESS		NOTES
				FT	FT	SQ YD	SQ YD	CU YD	SQ YD	SQ YD	CU YD	INCHES	SQ YD	INCHES	CU YD	INCHES	CU YD	GAL	INCHES	CU YD	INCHES	CU YD	INCHES	CU YD	
01/STR/10	SR 350	986+75.00	988+00.00	125	24.6	342						1.50	342					61.50	1.50	14			1.50	14	PAVEMENT WEDGE
01/STR/10	SR 350	988+00.00	988+32.10	32	24.6	88	73	31	88	88	31			8.00	20	6.00	16	15.79	1.25	3	1.75	4			BEGIN FULL DEPTH PAVEMENT REPLACEMENT
01/STR/10	SR 350	988+32.10	989+60.58	128	28.8	412	355	144	412	412	144			8.00	94	6.00	73	74.11	1.25	14	1.75	20			FULL DEPTH W/ SHOULDER WIDENING
01/STR/10	SR 350	989+60.58	990+00.00	39	33.2	145	145	51	145	145	51			8.00	33	6.00	26	26.14	1.25	5	1.75	7			FULL DEPTH W/ SHOULDER WIDENING
01/STR/10	SR 350	990+00.00	990+24.46	24	37.7	102	92	36	102	102	36			8.00	23	6.00	18	18.45	1.25	4	1.75	5			FULL DEPTH W/ SHOULDER WIDENING
01/STR/10	SR 350	990+24.46	990+54.26	30	38.0	126	126	44	126	126	44			8.00	28			33.97	1.25	4	1.75	6			FULL DEPTH AC PAVEMENT (SEE AS-2-15)
01/STR/10	SR 350	990+54.26	990+84.26	30	38.0	127	127	44	127	127	44			8.00	29	6.00	22	34.20	1.25	4	1.75	6			REAR APPROACH SLAB
01/STR/10	SR 350	990+84.26	992+54.47	170																					BRIDGE No.: WAR-350-0873
01/STR/10	SR 350	992+54.47	992+84.47	30	38.0	127	127	44	127	127	44			8.00	29	6.00	22	34.20	1.25	4	1.75	6			FORWARD APPROACH SLAB
01/STR/10	SR 350	992+84.47	993+09.47	25	38.0	106	106	37	106	106	37			8.00	24			28.50	1.25	4	1.75	5			FULL DEPTH AC PAVEMENT (SEE AS-2-15)
01/STR/10	SR 350	993+09.47	993+46.89	37	38.0	158	141	55	158	158	55			8.00	36	6.00	28	28.44	1.25	5	1.75	8			FULL DEPTH W/ SHOULDER WIDENING
01/STR/10	SR 350	993+46.89	994+22.00	75	36.2	302	269	105	302	302	105			8.00	68	6.00	53	54.42	1.25	10	1.75	15			FULL DEPTH W/ SHOULDER WIDENING
01/STR/10	SR 350	994+22.00	994+75.00	53	30.2	178	154	62	178	178	62			8.00	40	6.00	32	32.03	1.25	6	1.75	9			FULL DEPTH PAVEMENT REPLACEMENT
01/STR/10	SR 350	994+75.00	995+75.00	100	24.5	273	228	96	273	273	96			8.00	62	6.00	49	49.08	1.25	9	1.75	13			END FULL DEPTH PAVEMENT REPLACEMENT
01/STR/10	SR 350	995+75.00	997+50.00	175	24.2	470						1.50	470					84.68	1.50	20			1.50	20	PAVEMENT WEDGE
DRIVEWAYS																									
01/STR/10	SR 350	989+78.95		50	10.0	56			56							8.00	15								
01/STR/10	SR 350	989+89.53		20	10.0	22			22							8.00	6								
01/STR/10	DRIVE	0+00.00	1+75.00	175	18.0	350			350							8.00	86								
01/STR/10	DRIVE	1+75.00	2+25.00	50	20.7	115			115					5.00	16			10.34	1.50	5					DRIVEWAY APRON AT WAR-350 STA. 993+38
	TOTALS CARRIED TO GENERAL SUMMARY						1943	748	2686	2143	748		813		503		447	586		114		105		34	

WAR-SR 350-8.73

DESIGN AGENCY

DESIGNER GTF

REVIEWER JAO

PROJECT ID 112975

SHEET 7 TOTAL 50

BEGIN PROJECT
STA. 986+50.00
S.L.M. 8.65

FED NO. E210 (512)

CONSTRUCTION LIMITS

AERIAL TELEPHONE

VEG. FILTER STRIP #1 START
LATITUDE: 39°23'59.99"N
LONGITUDE: 84° 0'6.55"W

VEG. FILTER STRIP #1 END
LATITUDE: 39°24'0.21"N
LONGITUDE: 84° 0'5.98"W

END APPROACH
SLAB STA. 990+84.26

AERIAL TELEPHONE

℄ CONSTRUCTION S.R. 350

℄ CONSTRUCTION S.R. 350

℄ BRIDGE

N75°55'19"E

MATCH LINE STA. 992+39.50

BEGIN APPROACH
SLAB STA. 990+54.26

EXISTING BRIDGE
(TO BE REMOVED)

VEG. FILTER STRIP #2 START
LATITUDE: 39°23'59.33"N
LONGITUDE: 84° 0'6.12"W

AERIAL ELECTRIC
AES OHIO

VEG. FILTER STRIP #2 END
LATITUDE: 39°23'59.14"N
LONGITUDE: 84° 0'6.59"W

VEG. FILTER STRIP #3 START
LATITUDE: 39°24'0.83"N
LONGITUDE: 84° 0'3.21"W

PROP.
DITCH

VEG. FILTER STRIP #3 END
LATITUDE: 39°24'1.17"N
LONGITUDE: 84° 0'0.69"W

END PROJECT
STA. 997+65.00
S.L.M. 8.86

FED NO. E210 (512)

MATCH LINE STA. 992+39.50

END APPROACH SLAB
STA. 992+84.46

BEGIN APPROACH SLAB
STA. 992+54.47

12" TYPE D
CONDUIT

PROP.
DITCH

VEG. FILTER STRIP #4 END
LATITUDE: 39°24'0.30"N
LONGITUDE: 84° 0'1.05"W

VEG. FILTER STRIP #4 START
LATITUDE: 39°23'59.97"N
LONGITUDE: 84° 0'2.26"W

PROPOSED DRIVE

EXISTING DRIVE

CONSTRUCTION LIMITS

LEGEND

ROADWAY SIDE SLOPES USED AS VEGETATED FILTER STRIPS, THESE AREAS SHALL RECEIVE TOPSOIL AND SLOPE EROSION PROTECTION

PROJECT DESCRIPTION

COMPLETE STRUCTURE REPLACEMENT OF BRIDGE WAR-350-0873, WIDENING AND RESURFACING OF APPROACH PAVEMENT, GUARDRAIL UPGRADE TO TYPE MGS, RELOCATION OF EXISTING DRIVE AND OTHER MINOR ROADWAY IMPROVEMENTS.

NOTES

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

BENCHMARK DATA

BM #1 STA.	988+96.40,	ELEV.	797.39,	OFFSET	18.48 RT.,	IPIN
BM #2 STA.	994+33.12,	ELEV.	797.50,	OFFSET	17.60 LT.,	IPIN

PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY)..... 2.15 ACRES	RUNOFF COEFFICENT FOR PRE-CONSTRUCTION SITE 0.75
PROJECT EARTH DISTURBED AREA... 1.62 ACRES	RUNOFF COEFFICENT FOR POST-CONSTRUCTION SITE 0.80
ESTIMATED CONTRACTOR EARTH DISTURBED AREA..... 0.25 ACRES	POST CONSTRUCTION BMP: VEGETATED FILTER STRIPS
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE.... 0.36 ACRES	IMMEDIATE RECEIVING WATERS: TODD FORK
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE.... 0.48 ACRES	SUBSEQUENT RECEIVING WATER: LITTLE MIAMI RIVER

BMP TYPE	LATITUDE / LONGITUDE BEGIN		LATITUDE / LONGITUDE END		END TREATMENT CREDIT (ACRES)
VEGETATED FILTER STRIP 1	39.399997°	-84.001819°	39.400058°	-84.001661°	0.045
VEGETATED FILTER STRIP 2	39.399761°	-84.001831°	39.399814°	-84.001700°	0.048
VEGETATED FILTER STRIP 3	39.400231°	-84.000892°	39.400325°	-84.000192°	0.207
VEGETATED FILTER STRIP 4	39.399992°	-84.000628°	39.400083°	-84.000292°	0.116
			TREATMENT PROVIDED		0.42
			TREATMENT REQUIRED		0.41

HORIZONTAL SCALE IN FEET
0 10 20 40

PROJECT SITE PLAN
WAR-350-0873

DESIGN AGENCY

DESIGNER GTF
REVIEWER TRB
PROJECT ID 112975
SHEET 8 TOTAL 50

WAR SR350 8.73

MODEL: CLP_350 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/30/2024 TIME: 11:44:02 AM USER: gfreeman
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BEGIN PROJECT
STA. 986+50.00
S.L.M. 8.65

FED NO. E210 (512)

CONSTRUCTION LIMITS

AERIAL TELEPHONE

MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST

END APPROACH SLAB STA. 990+84.26

EX. GUARDRAIL (TO BE REMOVED)

BEGIN APPROACH SLAB STA. 990+54.26

GUARDRAIL, TYPE MGS

PROPOSED BRIDGE WAR-350-0873

EXISTING BRIDGE (TO BE REMOVED)

℄ CONSTRUCTION S.R. 350

N75°55'19"E

MATCH LINE STA. 991+50

+89.53 FIELD DRIVE 10' AGGREGATE

+78.95 FIELD DRIVE 10' AGGREGATE

ANCHOR ASSEMBLY, MGS TYPE T

AERIAL ELECTRIC AES OHIO

I.P.S.

Ex SH

OH-T

OH-E

SH

TMP

795'

790'

800'

785'

987

988

989

990

991

+32.10

+75.00

+60.80

+24.46

R = 10'

3:1

8.0'

11.0'

9.4'

10.3'

9.7'

10.8'

2.5'

1.7'

2.6'

2.2'

90°

104°

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - SR 350
STA. 986+00 TO STA. 991+50

EXISTING PROFILE GRADE

PROPOSED PROFILE GRADE

-0.28%

+1.00%

233.75' VC
VPI Sta. 987+68.57 Elev. 798.60
SSD = INF K = 199

446.42' VC
VPI Sta. 992+08.65 Elev. 802.54
SSD = 747' K = 217

798.92 798.83 798.77 798.75 798.76 798.82 798.92 799.05 799.23 799.44 799.69 799.94 800.19 800.44 800.67 800.88 801.05 801.20 801.31 801.39 801.45

798.95 798.88 798.81 798.77 798.73 798.68 798.67 798.67 798.67 798.68 798.75 798.76 798.89 798.99 799.10 799.27 799.47 799.61 799.70 799.69

810 805 800 795 790 785 780 775 770

987 988 989 990 991

DESIGN AGENCY

DESIGNER GTF
REVIEWER JDO
PROJECT ID 112975
SHEET 9 TOTAL 50

WAR-350-0873

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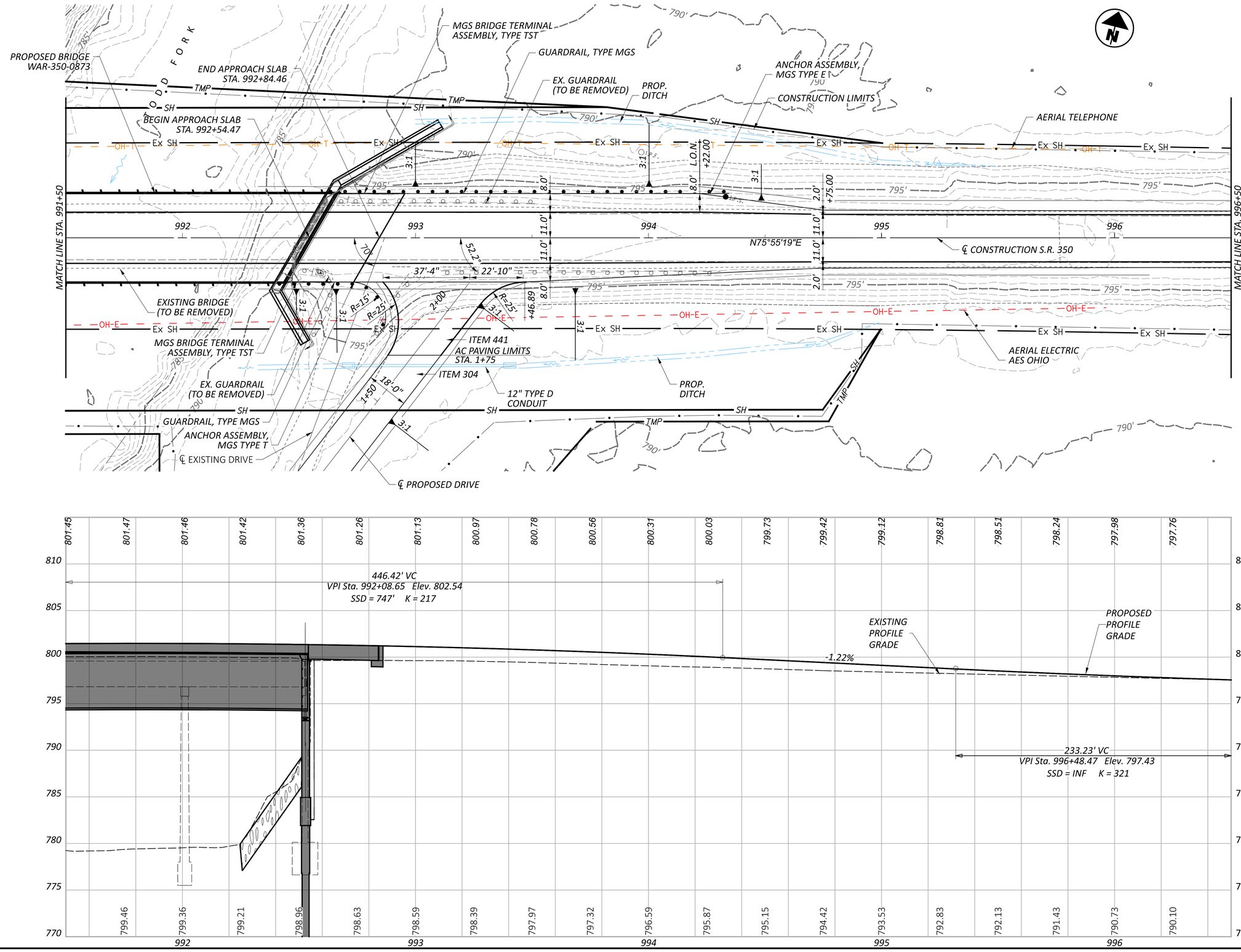

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - SR 350
STA. 991+50 TO STA. 996+50

WAR-SR 350-8.73

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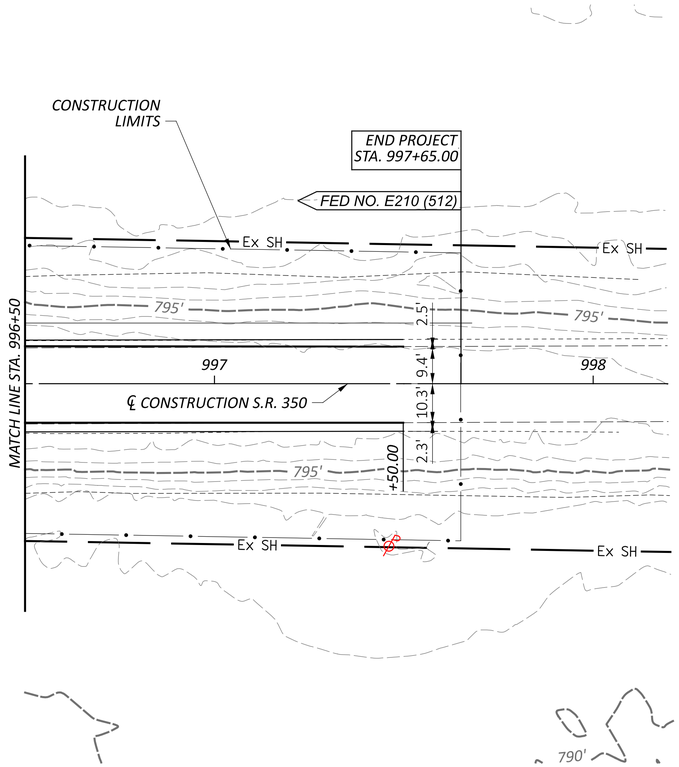
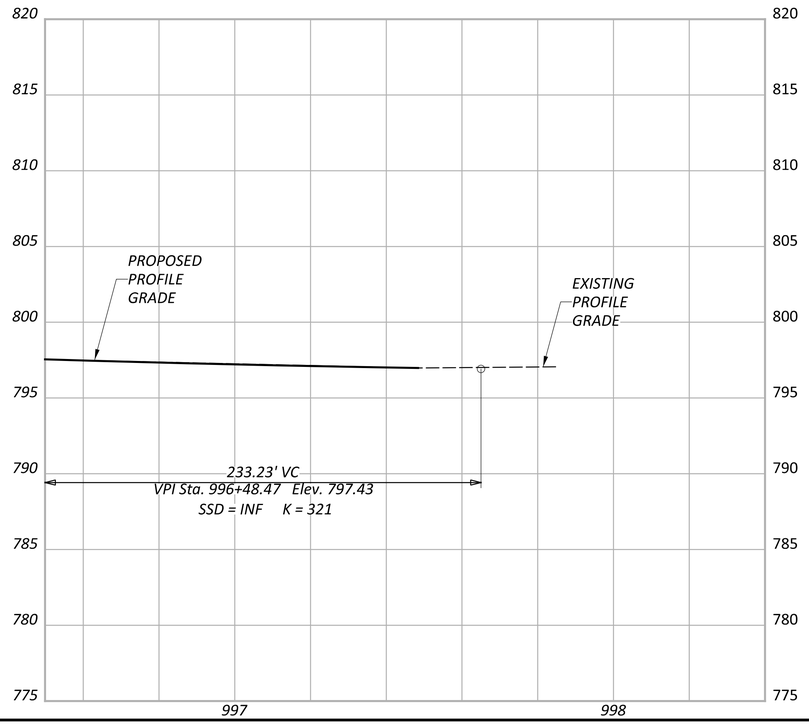
DESIGN AGENCY

DESIGNER GTF
REVIEWER JAO
PROJECT ID 112975
SHEET 10 TOTAL 50





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE
STA. 996+50 TO STA. 998+00

DESIGN AGENCY

DESIGNER GTF

REVIEWER JAO

PROJECT ID 112975

SHEET 11 TOTAL 50

WAR-SR 350-8.73

MODEL: CLP_351 - Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/30/2024 TIME: 12:54:15 PM USER: gfreeman
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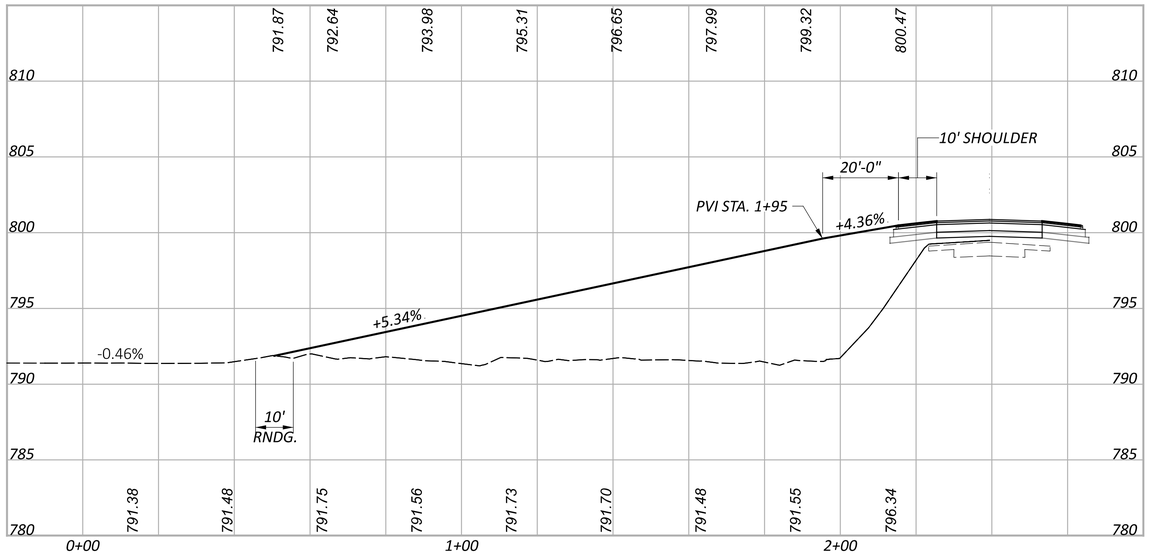
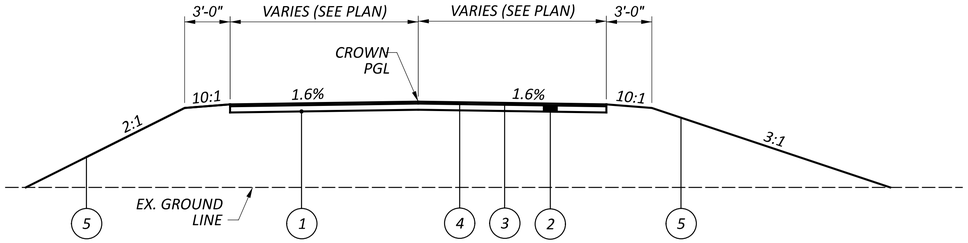


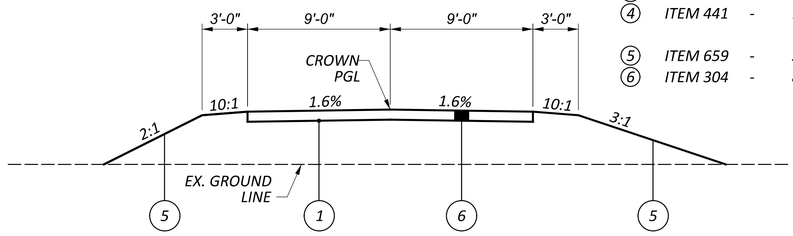
DRIVE PROFILE
WAR-350 STA. 993+38



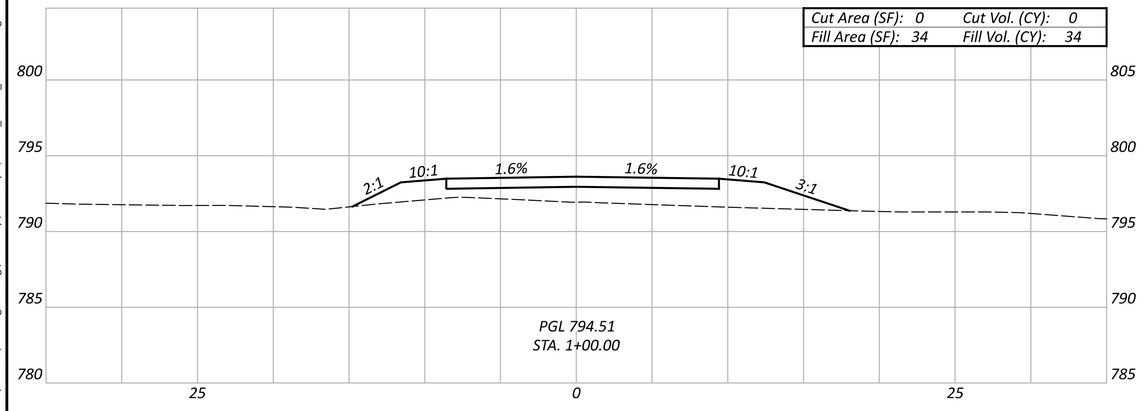
TYPICAL SECTION
PROPOSED DRIVE - APRON

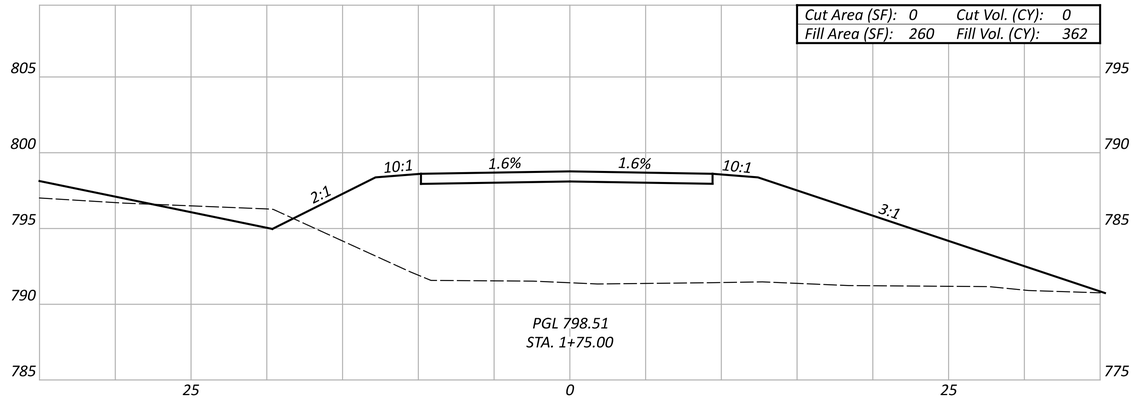
LEGEND

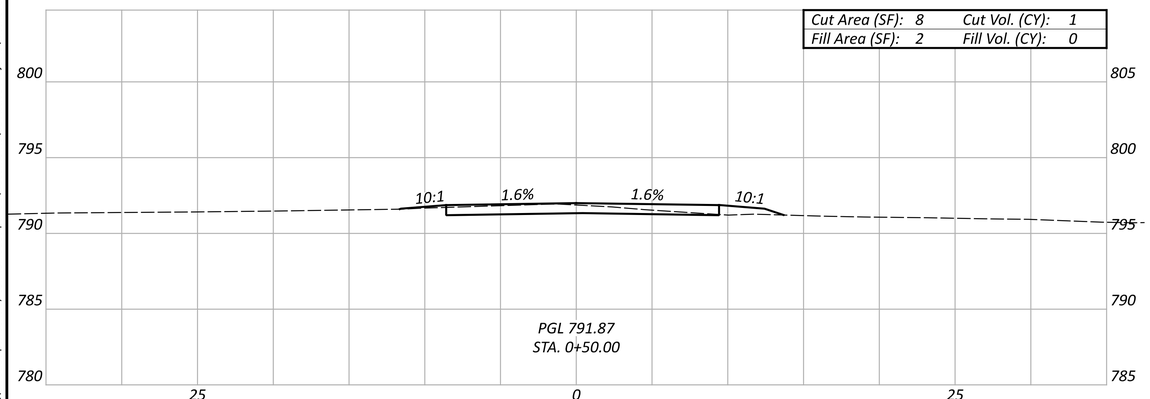
(1)	ITEM 204	-	SUBGRADE COMPACTION
(2)	ITEM 301	-	5" ASPHALT CONCRETE BASE, PG64-22 (449)
(3)	ITEM 407	-	NON-TRACKING TACK COAT
(4)	ITEM 441	-	1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64-22
(5)	ITEM 659	-	SEEDING AND MULCHING
(6)	ITEM 304	-	8" AGGREGATE BASE

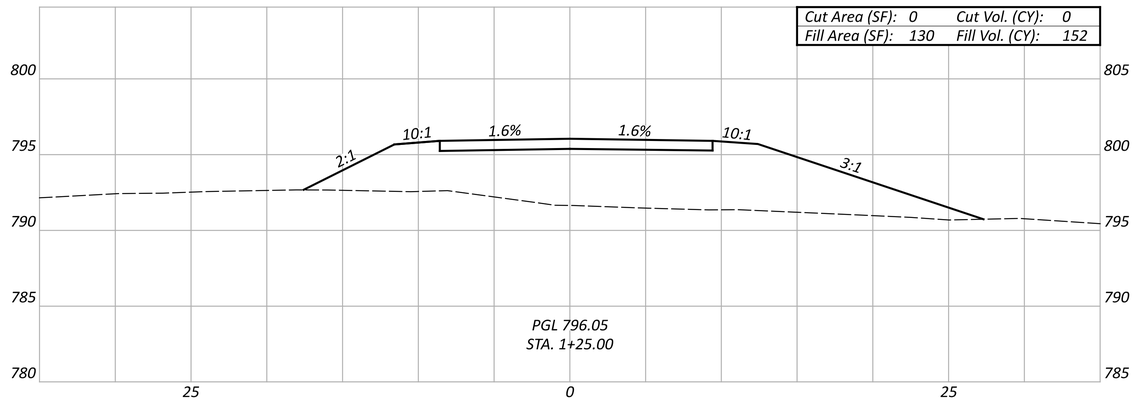


TYPICAL SECTION
PROPOSED DRIVE - NORMAL SECTION









DRIVEWAY DETAILS
STATE ROUTE 350 - STA. 993+38

DESIGN AGENCY

DESIGNER GTF

REVIEWER JAO

PROJECT ID 112975

SHEET 12 TOTAL 50

WAR-SR 350-8.73

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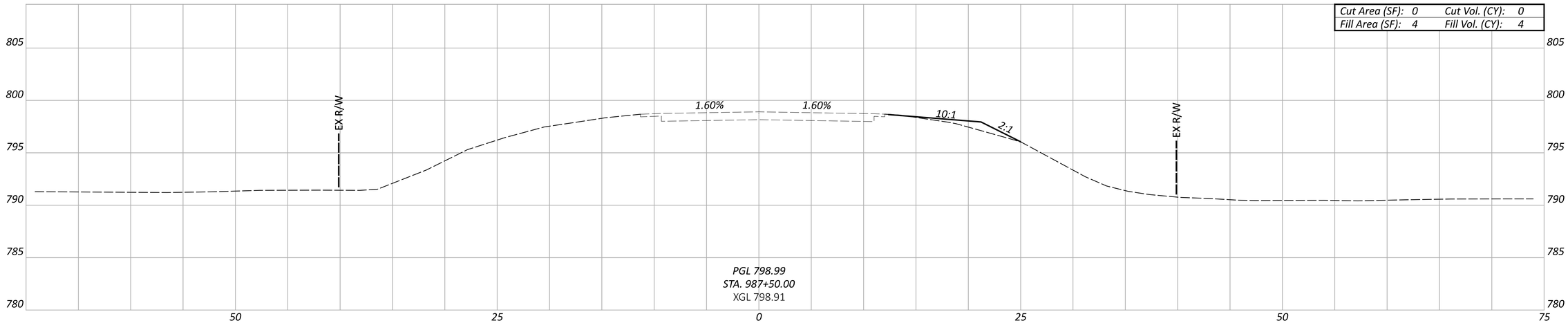

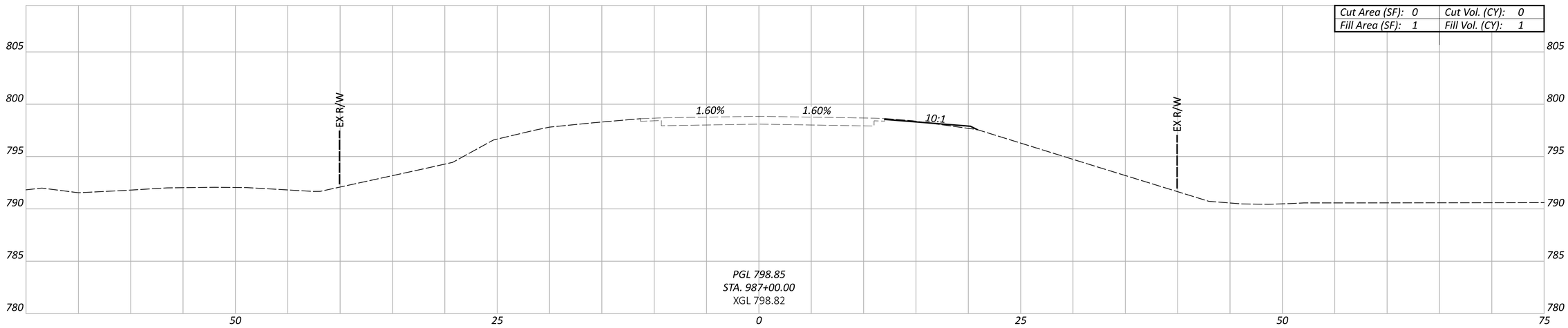

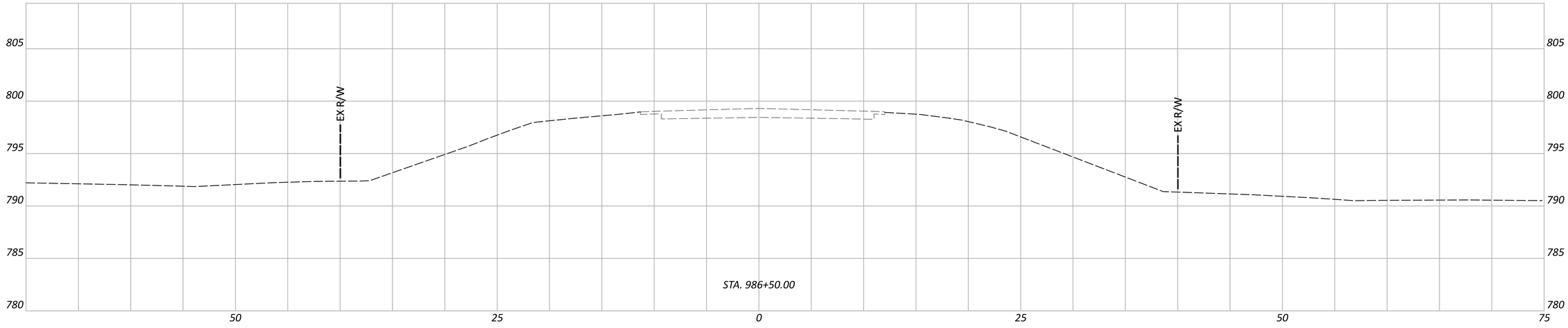

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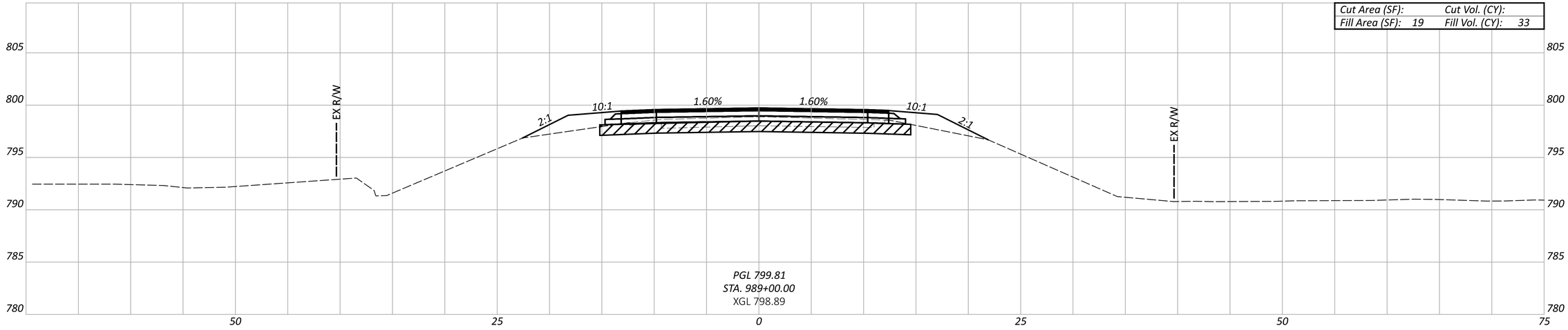
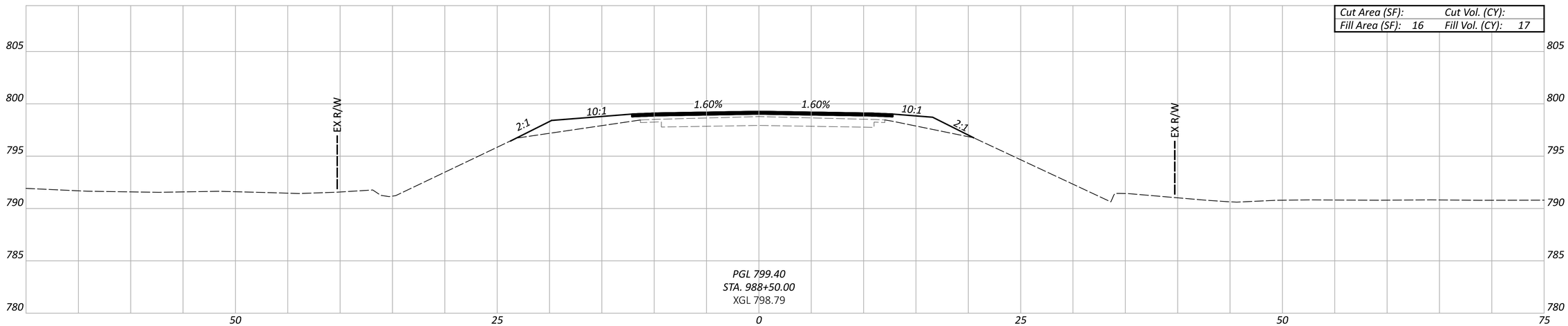
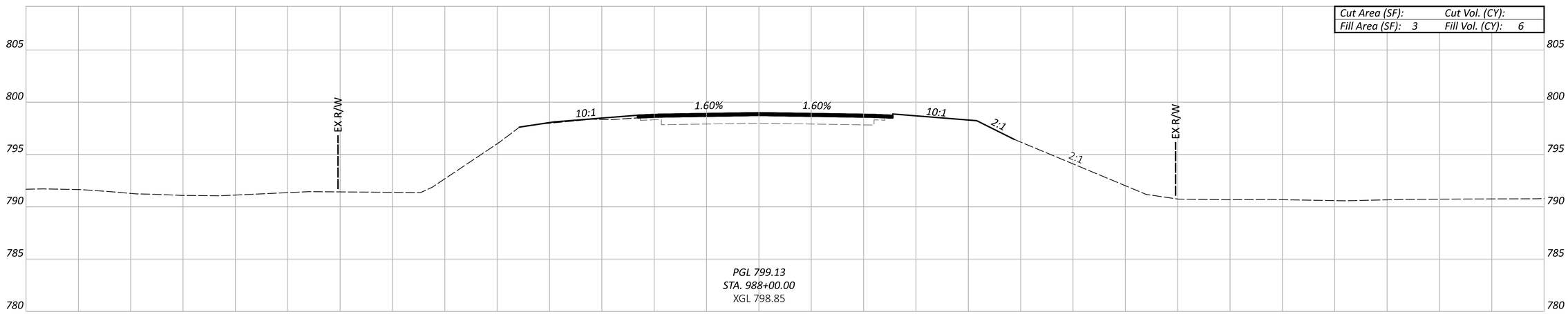
CROSS SECTIONS
STA. 986+50 TO STA. 987+50

DESIGN AGENCY

DESIGNER: GTF
REVIEWER: JAO
PROJECT ID: 112975
SHEET: 13 TOTAL: 50







CROSS SECTIONS
STA. 988+00 TO STA. 989+00

WAR-SR 350-8.73

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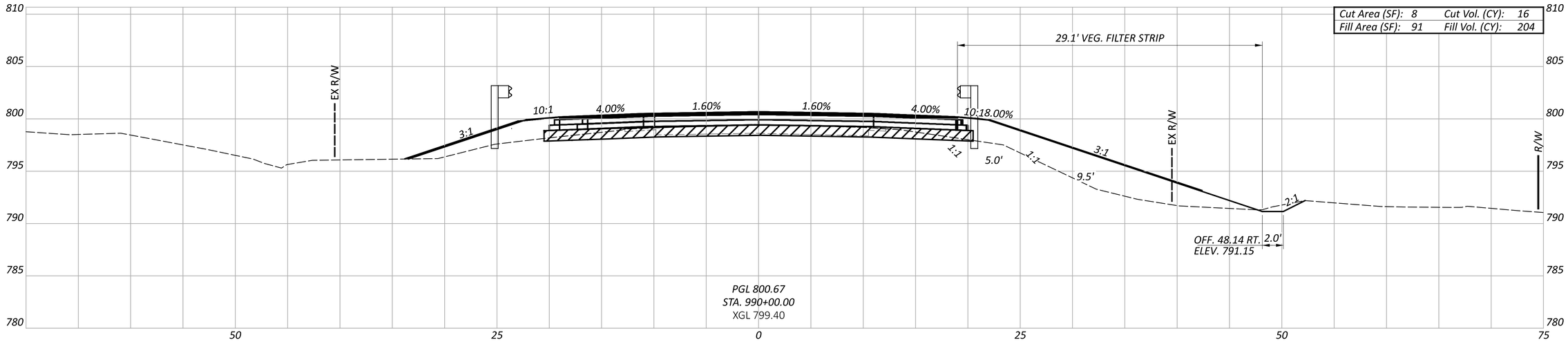
DESIGN AGENCY

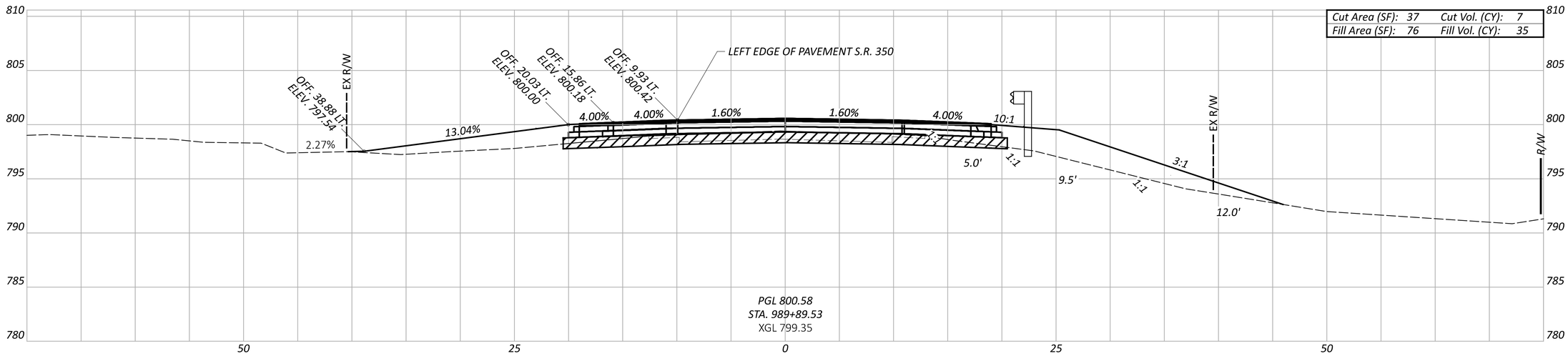
DESIGNER GTF

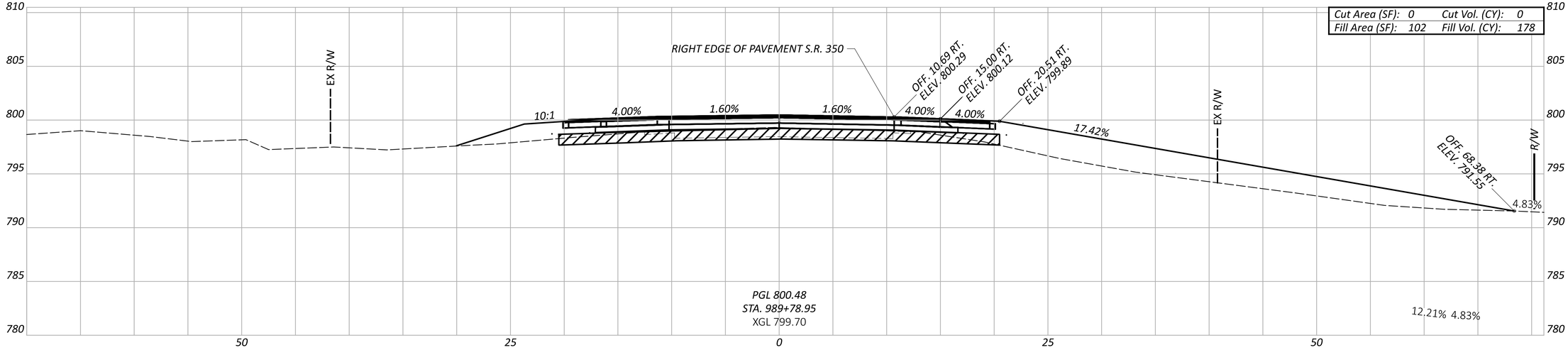
REVIEWER JAO

PROJECT ID 112975

SHEET 14 TOTAL 50







CROSS SECTIONS
STA. 989+50 TO STA. 990+00

DESIGN AGENCY

DESIGNER
GTF

REVIEWER
JAO

PROJECT ID
112975

SHEET 15 TOTAL 50

WAR-SR 350-8.73

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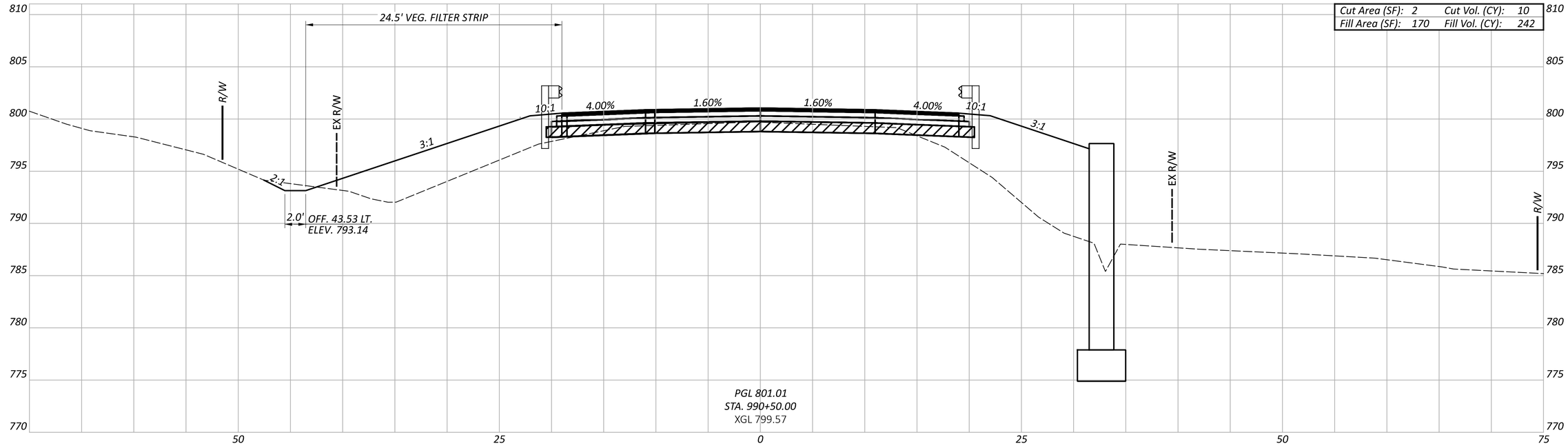
BRIDGE WAR-350-0873
STA. 991+00.00



Cut Area (SF):	*2*	*Cut Vol. (CY):*	*10*
Fill Area (SF):	*170*	*Fill Vol. (CY):*	*242*

CROSS SECTIONS
STA. 990+50 TO STA. 991+00

WAR-SR 350-8.73

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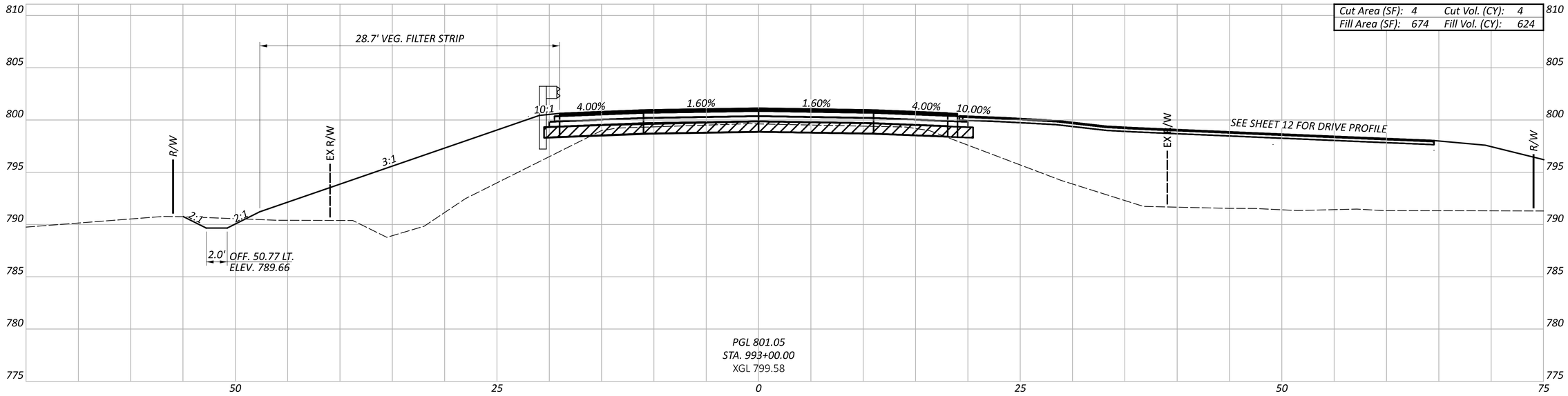
DESIGN AGENCY

DESIGNER
GTF

REVIEWER
JAO

PROJECT ID
112975

SHEET 16 | TOTAL 50



BRIDGE WAR-350-0873
STA. 992+50.00

CROSS SECTIONS
STA. 992+50 TO STA. 993+00

WAR-SR 350-8.73

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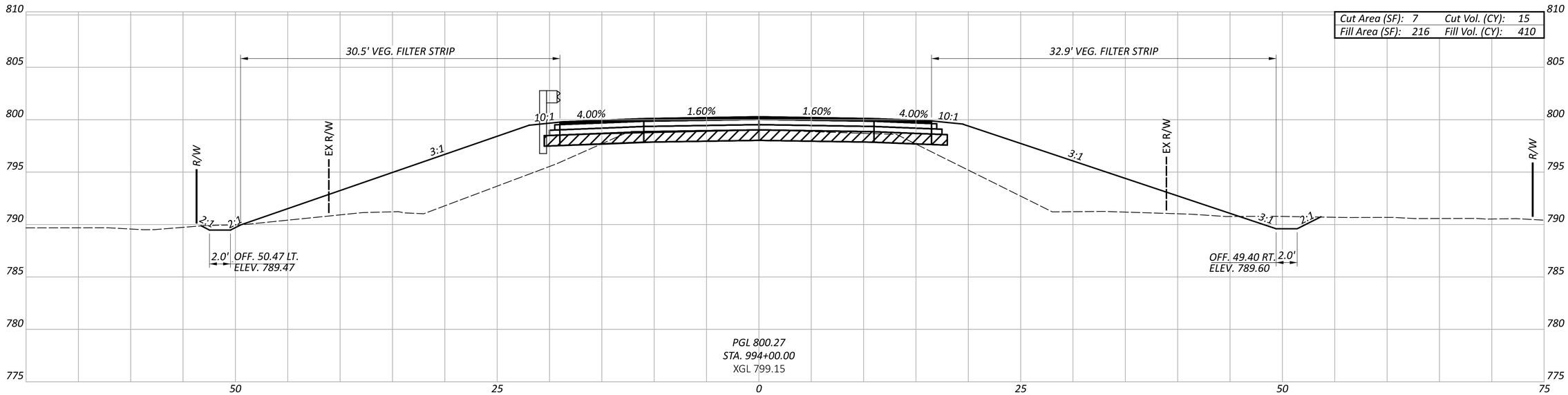
DESIGN AGENCY

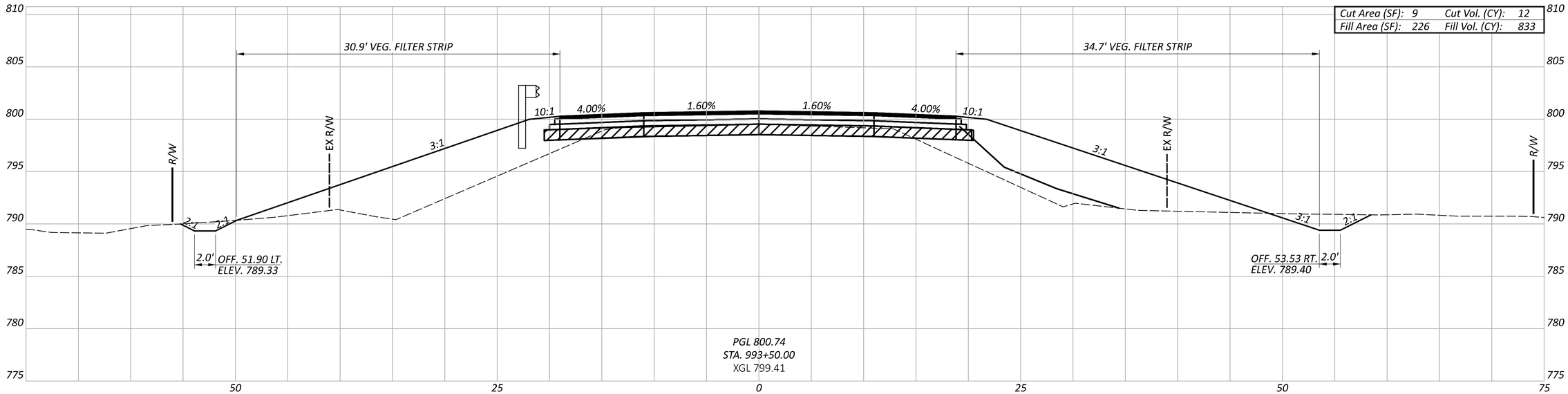
DESIGNER GTF

REVIEWER JAO

PROJECT ID 112975

SHEET 17 TOTAL 50





CROSS SECTIONS
STA. 993+50 TO STA. 994+00

WAR-SR 350-8.73

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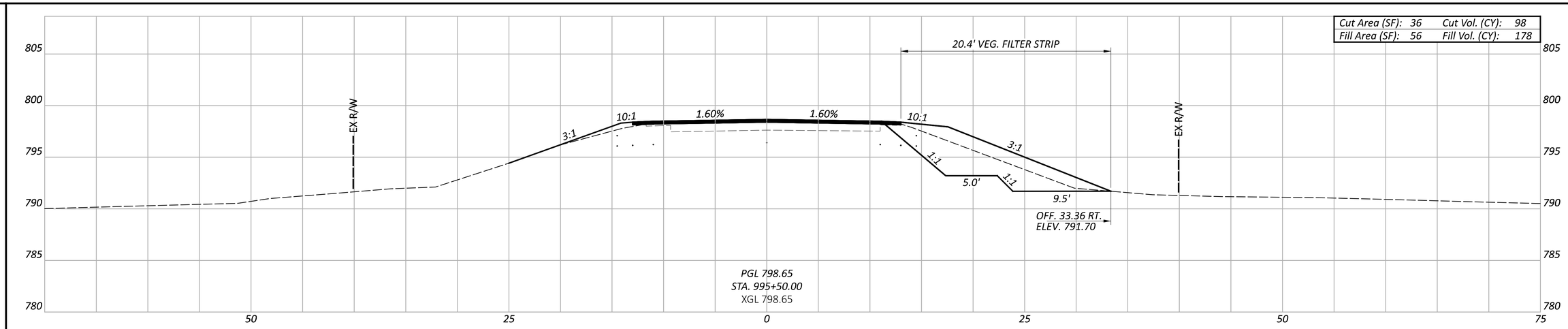
DESIGN AGENCY

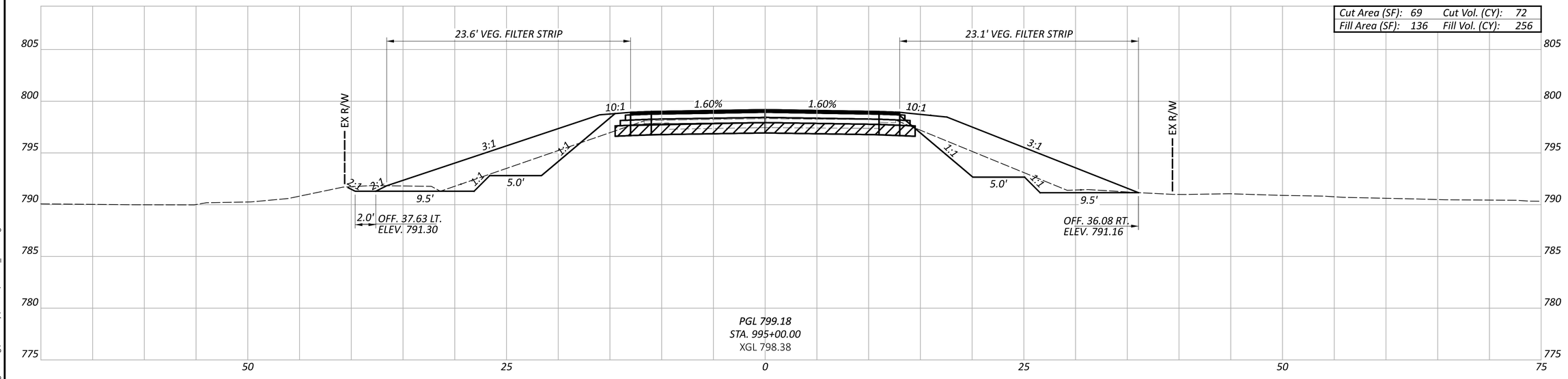
DESIGNER: GTF

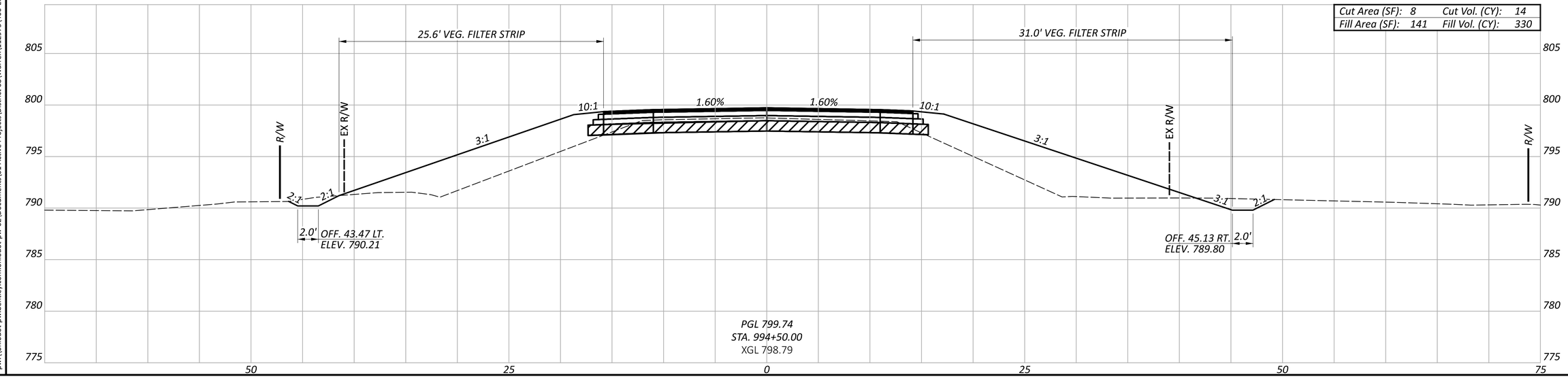
REVIEWER: JAO

PROJECT ID: 112975

SHEET: 18 TOTAL: 50







CROSS SECTIONS
STA. 994+50 TO STA. 995+50

WAR-SR 350-8.73

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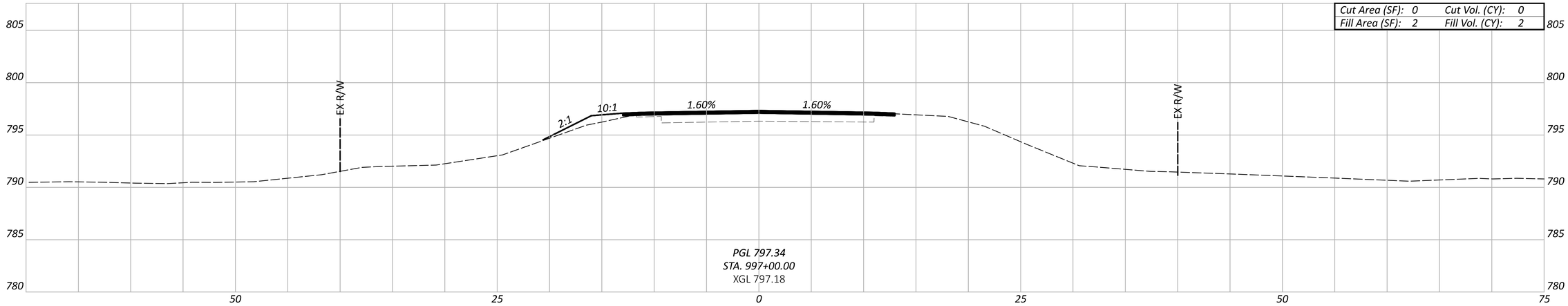
DESIGN AGENCY

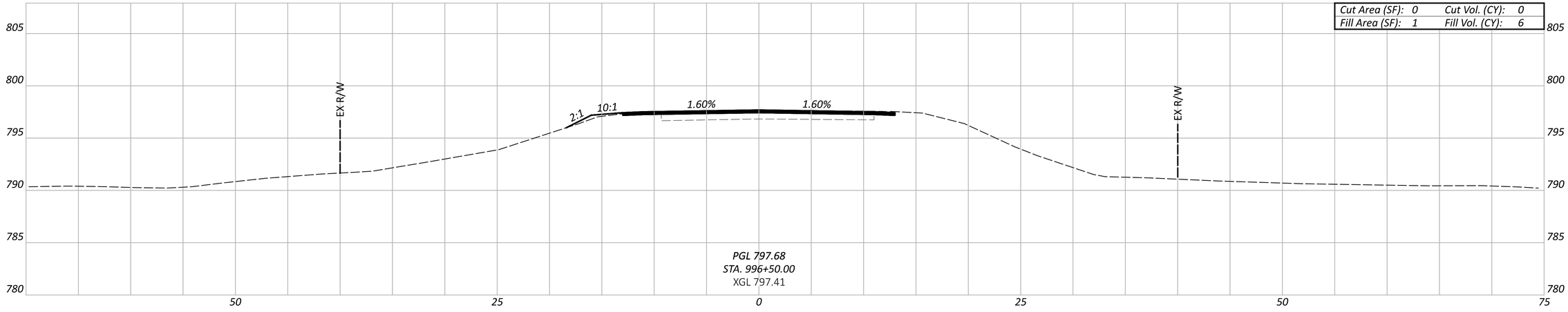
DESIGNER
GTF

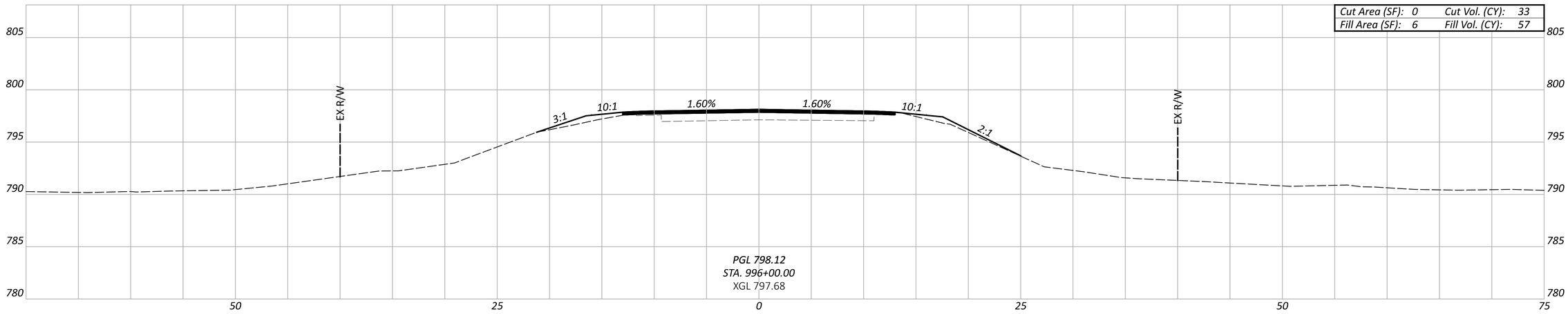
REVIEWER
JAO

PROJECT ID
112975

SHEET 19 TOTAL 50







CROSS SECTIONS
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WAR-SR 350-8.73

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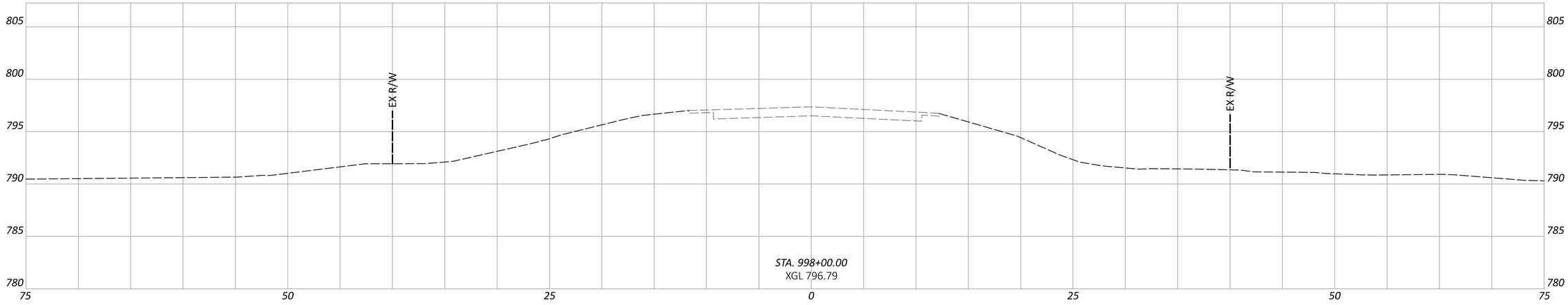
DESIGN AGENCY

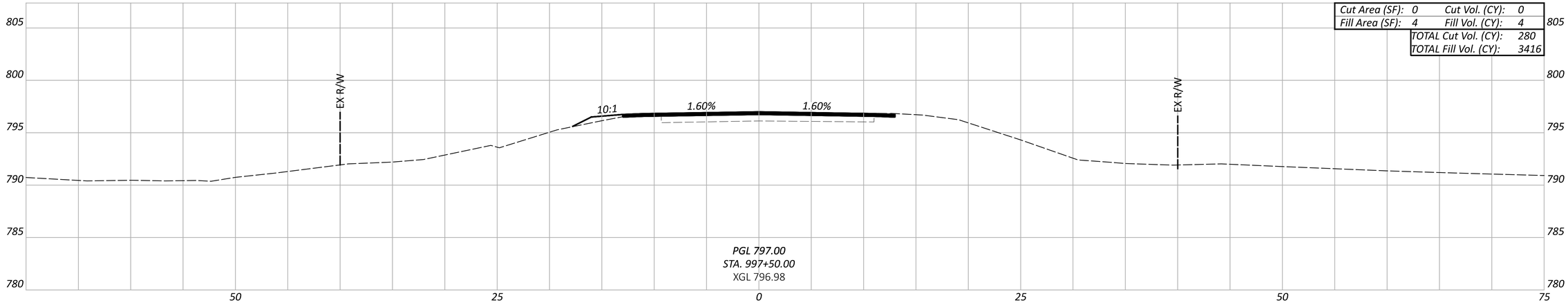
DESIGNER
GTF

REVIEWER
JAO

PROJECT ID
112975

SHEET 20 | TOTAL 50





CROSS SECTIONS
STA. 997+50 TO STA. 998+00

DESIGN AGENCY

DESIGNER: GTF

REVIEWER: JAO

PROJECT ID: 112975

SHEET: 21 TOTAL: 50

WAR-SR 350-8.73

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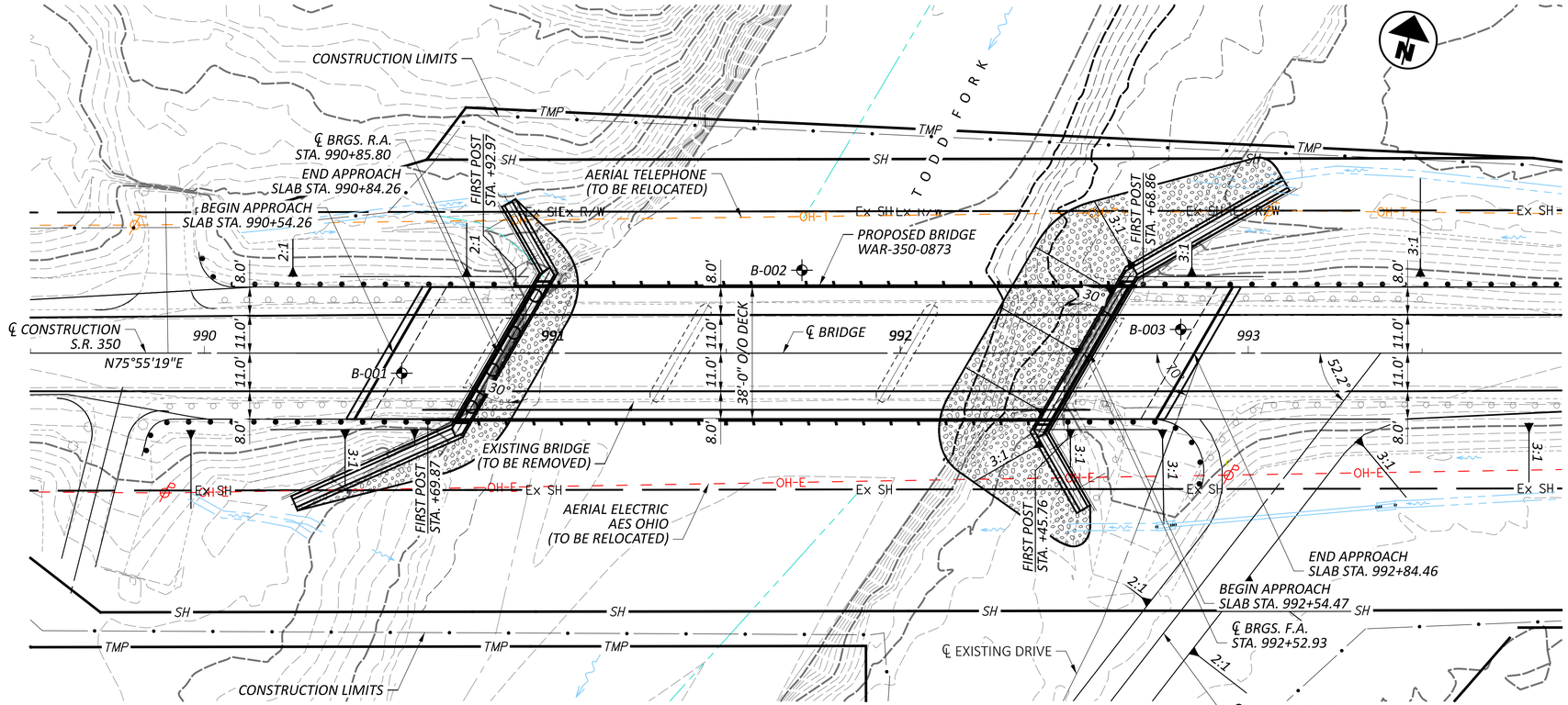
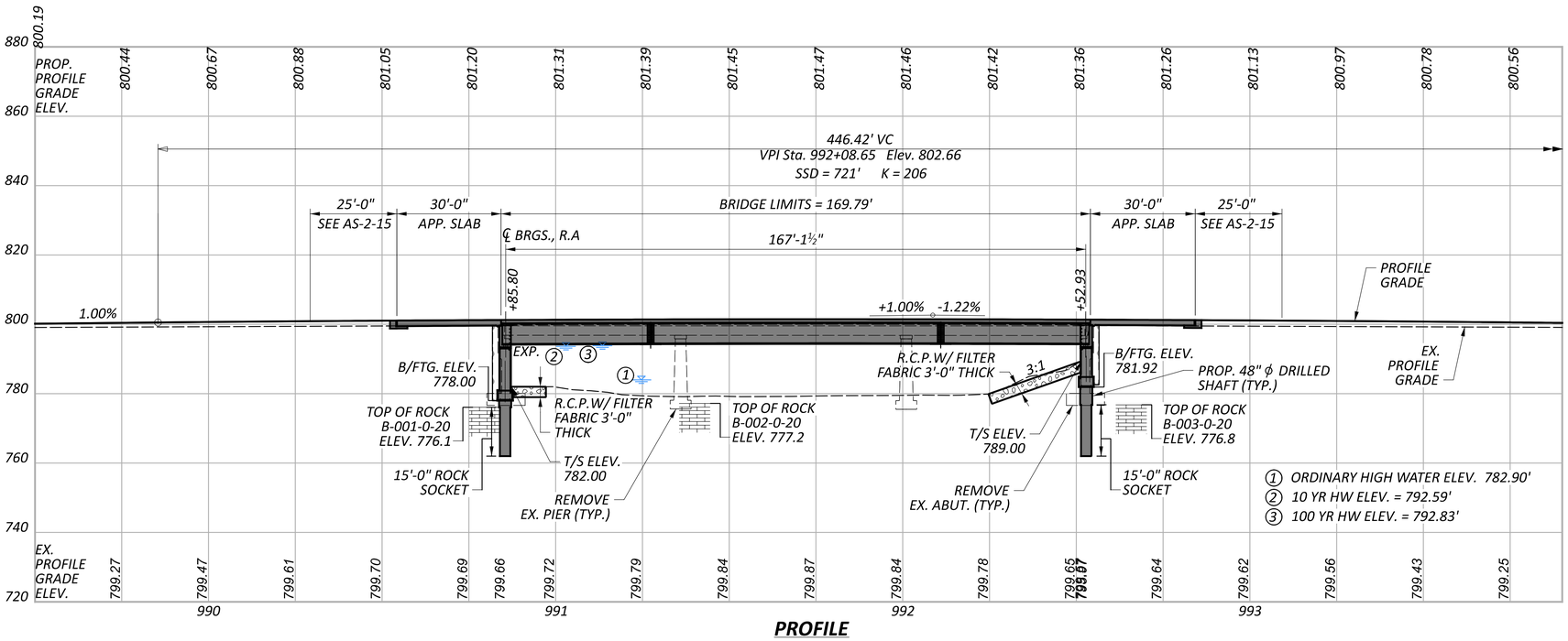


PLAN



PROFILE

BENCHMARK DATA

BM #1 STA.	988+96.33,	ELEV.	797.39 ,	OFFSET	18.43 RT.,	IPIN
BM #2 STA.	994+33.07,	ELEV.	797.50 ,	OFFSET	15.68 LT.,	IPIN

NOTES

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

DESIGN TRAFFIC:

2024 ADT =	1,600	2024 ADTT =	16
2044 ADT =	2,300	2044 ADTT =	23
DIRECTIONAL DISTRIBUTION =	0.60		

LEGEND

- PROJECT BORING LOCATION
- ROCK CHANNEL PROTECTION, TYPE A WITH FILTER FABRIC

HYDRAULIC DATA

DRAINAGE AREA = 147 SQ. MILES
Q (10% AEP) = 16,050 CFS V (10% AEP) = 8.6 FT/S
Q (1% AEP) = 23,930 CFS V (1% AEP) = 11.6 FT/S
OHWM ELEV. = 782.90'
STRUCTURE CLEARS THE 10 YEAR DESIGN HW BY 0.91 FEET.

EXISTING STRUCTURE

TYPE: PRESTRESSED CONCRETE NON-COMPOSITE BOX BEAMS WITH REINFORCED CONCRETE ABUTMENTS.

SPANS: 50.20'±, 63.27'±, 50.20'±
ROADWAY: 28'-0"± FACE/FACE RAIL
LOADING: HS20-44
SKEW: 30°± L.F.
WEARING SURFACE: 3"± ASPHALT WEARING SURFACE
APPROACH SLABS: NON-STANDARD (3' LONG)
ALIGNMENT: TANGENT
CROWN: NORMAL
STRUCTURE FILE NUMBER: 8305161
DATE BUILT: ORIGINAL CONCRETE ABUTMENTS: 1931
SUPERSTRUCTURE REPLACEMENT: 1976
DISPOSITION: TO BE REMOVED

PROPOSED STRUCTURE

TYPE: SINGLE SPAN STEEL GIRDER SUPERSTRUCTURE WITH SEMI-INTEGRAL REINFORCED CONCRETE ABUTMENTS ON DRILLED SHAFTS

SPAN: 167'-1½" (C/C BRGS.)
ROADWAY: 38'-0" FACE/FACE RAIL
LOADING: HL93 + 0.06 KSF FUTURE WEARING SURFACE
SKEW: 30°00'00"
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-15 (30'-0" LONG)
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
DECK AREA: 6,452 SF
COORDINATES: LATITUDE 39°23'59.80" N
LONGITUDE 84°00'05.70" W

SITE PLAN
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	CAH
REVIEWER	RSK 10-09-24
PROJECT ID	112975
SUBSET	1
TOTAL	20
SHEET	22
TOTAL	50

WAR-SR 350-8.73

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	*REVISED 1-20-23*
AS-2-15	*REVISED 7-21-23*
DS-1-92	*REVISED 7-15-22*
GSD-1-19	*REVISED 1-15-21*
SICD-2-14	*REVISED 1-19-24*
TST-2-21	*DATED 7-16-21*

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS

800	*DATED 4-21-23*
846	*DATED 4-17-15*

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 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

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

DESIGN DATA

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

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (DECK SLAB, APPROACH SLAB)

CONCRETE CLASS QC5 WITH ⅜" MAX. AGGREGATE SIZE - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFTS)

GALVANIZED STEEL REINFORCEMENT – MINIMUM YIELD STRENGTH 60-KSI (DECK SLAB, ABUTMENTS, APPROACH SLABS, & DRILLED SHAFTS)

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

DECK PROTECTION METHOD

GALVANIZED STEEL REINFORCEMENT
2½" CONCRETE COVER
STEEL DRIP STRIP
SEALING OF CONCRETE SURFACES

MONOLITHIC WEARING SURFACE

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

BRIDGE SCOUR

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

	REAR ABUTMENT	*FORWARD ABUTMENT*
DESIGN FLOOD	*775.13*	*775.83*
CHECK FLOOD	*775.82*	*776.52*

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

REMOVE ABUTMENTS IN THEIR ENTIRETY TO ELEV. OF APPROXIMATELY 776.50.

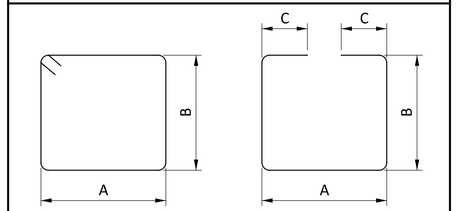
REMOVE PIERS TO ELEV. 777.70. BACKFILL THE CAVITY CREATED BY REMOVAL OF PIERS IN THE STREAM BED WITH DUMP ROCK FILL, TYPE A.

SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN

CONSTRUCT THE SEMI-INTEGRAL ABUTMENT DIAPHRAGM GUIDE PER SICD-2-14 WITH THE EXCEPTION OF THE DIMENSIONS PROVIDED IN THE REINFORCING STEEL LIST. REVISE THE REINFORCING STEEL LIST FOR THE DG601 & DG801 AS SHOWN BELOW:

MARK	NUMBER TOTAL	TYPE	DIMENSIONS A	B	C
DG601	5	3	$\frac{(3'\text{-}0")}{\cos(\phi)}$	3'-8½"	
DG801	8	5	2'-8"	3'-7"	2'-4"

BENDING DIAGRAMS



REVISE DIMENSION ■ IN SICD-2-14 AS SHOWN BELOW:

■ = 0.5 $\left[\frac{(3'\text{-}4")}{\cos(\phi)} - (2'\text{-}0)\right]$

ROCK-SOCKETED SHAFTS

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 497 KIPS AT THE ABUTMENTS THIS LOAD IS RESISTED BY TIP RESISTANCE.

LATERALLY LOADED DRILLED SHAFTS

THE MAXIMUM FACTORED INTERNAL LOAD AND BENDING MOMENT TO BE SUPPORTED BY EACH DRILLED SHAFT ARE 72 KIPS, AND 395 KIP-FEET, RESPECTIVELY. THESE LOADS PRODUCE A MAXIMUM FACTORED BENDING MOMENT OF 796 KIP-FEET, AND A MAXIMUM FACTORED SHEAR OF 210 KIPS, WITHIN THE DRILLED SHAFT.

ITEM 894 - THERMAL INTEGRITY PROFILER (T.I.P.) TEST

PERFORM INTEGRITY TESTING ON THREE OF THE DRILLED SHAFTS AT THE REAR ABUTMENT AND THE FORWARD ABUTMENT BY THERMAL INTEGRITY PROFILING (TIP). PERFORM TIP TESTING PER ASTM D7949, "STANDARD TEST METHODS FOR THERMAL INTEGRITY PROFILING OF CONCRETE DEEP FOUNDATIONS," METHOD B, AND PER SUPPLEMENTAL SPECIFICATION 894.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

PREPARE AND PROVIDE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING.

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 2.37 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

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

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ABUTMENTS AND DECK OVERHANGS: SEAL SURFACES AS NOTED IN THE BRIDGE PLANS, WITH EPOXY-URETHANE, USING FEDERAL STANDARD COLOR NUMBER 17778 (LIGHT NEUTRAL)

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL

THE COLOR OF THE FINISH COAT FOR ALL STRUCTURAL STEEL SHALL BE FEDERAL COLOR NO. FS-595C-14277 (LIGHT GREEN)

ITEM 524 DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK, AS PER PLAN
ITEM 524 DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK, AS PER PLAN
ITEM 526 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN

FURNISH GALVANIZED STEEL REINFORCEMENT 709.16 IN LIEU OF EPOXY COATED STEEL REINFORCEMENT FOR REINFORCED CONCRETE APPROACH SLABS AND FOR DRILLED SHAFTS.

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

ABUT. - ABUTMENT
APPR. - APPROACH
BTM. - BOTTOM
BRG. - BEARING
BRGS. - BEARINGS
℄ - CENTERLINE
C/C - CENTER TO CENTER
CIP - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT
CLR. - CLEARANCE
CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONC. - CONCRETE
CONSTR. - CONSTRUCTION
CONTR. - CONTRACTION
CU YD - CUBIC YARD
DIA. - DIAMETER
E.F. - EACH FACE
ELEV., EL. - ELEVATION
EQ. - EQUAL
EX. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F.F. - FAR FACE
F.S. - FIELD SPLICE
FT/FT - FOOT PER FOOT
FTG. - FOOTING
FWD. - FORWARD
GALV. = GALVANIZED
GEN. - GENERAL
LF - LEFT FORWARD
LT. - LEFT
MAX. - MAXIMUM
MIN. - MINIMUM
MISC. - MISCELLANEOUS
MOT - MAINTENANCE OF TRAFFIC
N.F. - NEAR FACE
N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
NO./# - NUMBER
O/O - OUT TO OUT
P.C.P.P - PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
PG - PROFILE GRADE
PGL - PROFILE GRADE LINE
PROP. - PROPOSED
PT - POINT OF TANGENCY
PVC - POINT OF VERTICAL CURVATURE
PVI - POINT OF VERTICAL INTERSECTION
PVT - POINT OF VERTICAL TANGENCY
R. - RADIUS
R.A. - REAR ABUTMENT
RF - RIGHT FORWARD
RT. - RIGHT
R/W - RIGHT OF WAY
SAN. - SANITARY
SER. - SERIES
SHT. - SHEET
S.O. - SERIES OF
SPA. - SPACES OR SPACING
SR - STATE ROUTE
STA. - STATION
STD. - STANDARD
STM. - STORM
STR. - STRAIGHT
TBM - TEMPORARY BENCH MARK
TEMP. - TEMPORARY
T.O.S. - TOE OF SLOPE
T/PARAPET - TOE OF PARAPET
T/T - TOE TO TOE
TYP. - TYPICAL
U.G. - UNDERGROUND
VAR. - VARIES
VC - VERTICAL CURVE
VERT. - VERTICAL
W/O - WITHOUT

STRUCTURE GENERAL NOTES

DESIGN AGENCY

DESIGNER GTF
REVIEWER CAH
PROJECT ID 112975
SHEET 23 TOTAL 50

WAR-SR 350-8.73

ESTIMATED QUANTITIES - STRUCTURE No.: WAR-350-0873 (01/STR/10 FUNDING SPLIT)								
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPER.	GEN.	SEE SHEET
202	11003	LUMP	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP	23
202	22900	98	SY	APPROACH SLAB REMOVED			98	
202	23500	623	SY	WEARING COURSE REMOVED		623		
503	11100	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING			LUMP	
503	21302	LUMP	LS	UNCLASSIFIED EXCAVATION, INCLUDING SHALE			LUMP	
509	26000	104,799	LB	GALVANIZED STEEL REINFORCEMENT	48360	56439		
511	34446	278	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK		278		
511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	4			23
511	43512	549	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	549			
512	10100	441	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	359	82		
512	33000	55	SY	TYPE 2 WATERPROOFING	55			
513	10280	315,090	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4		315090		
513	20000	2700	EACH	WELDED STUD SHEAR CONNECTORS		2700		
514	00060	14,217	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT		14217		
514	00066	14,217	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT		14217		
514	10000	8	EACH	FINAL INSPECTION REPAIR		8		
516	10010	86.5	FT	ARMORLESS PREFORMED JOINT SEAL			86.5	
516	13600	4	SF	1" PREFORMED EXPANSION JOINT FILLER	4			
516	13900	121	SF	2" PREFORMED EXPANSION JOINT FILLER	121			
516	14020	96	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	96			
516	44300	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (22"x23"x4.428")			8	
517	70100	345.72	FT	RAILING (THREE STEEL TUBE BRIDGE RAILING)		345.72		
518	21200	278	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	278			
SPECIAL	51822300	340	FT	STEEL DRIP STRIP		340		
518	40000	240	FT	6" PERFORATED CORRUGATED PLASTIC PIPE			240	
518	40010	50	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS			50	
524	94805	510	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK, AS PER PLAN	510			23
524	94903	119	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK, AS PER PLAN	119			23
526	30011	254	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN			254	23
526	90030	86.5	FT	TYPE C INSTALLATION			86.5	
625	33000	2	EACH	STRUCTURE GROUNDING SYSTEM			2	
894	10000	6	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST	6			

STRUCTURE ESTIMATED QUANTITIES
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272

DESIGN AGENCY

DESIGNER	CHECKER
GTF	CAH

REVIEWER: SRK

PROJECT ID: 112975

SUBSET	TOTAL
3	20

SHEET	TOTAL
24	50

WAR-SR 350-8.73

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/29/2024 TIME: 11:19:36 AM USER: gfreeman
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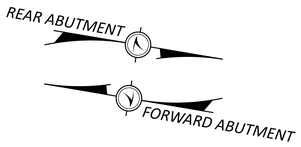
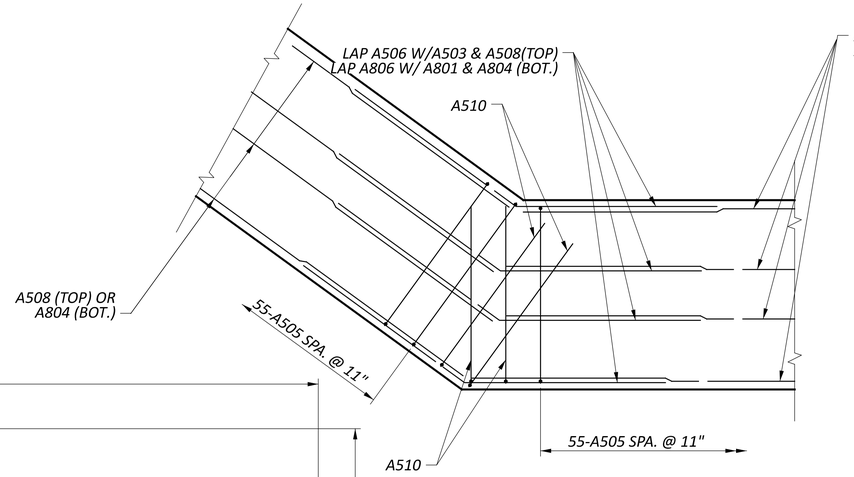
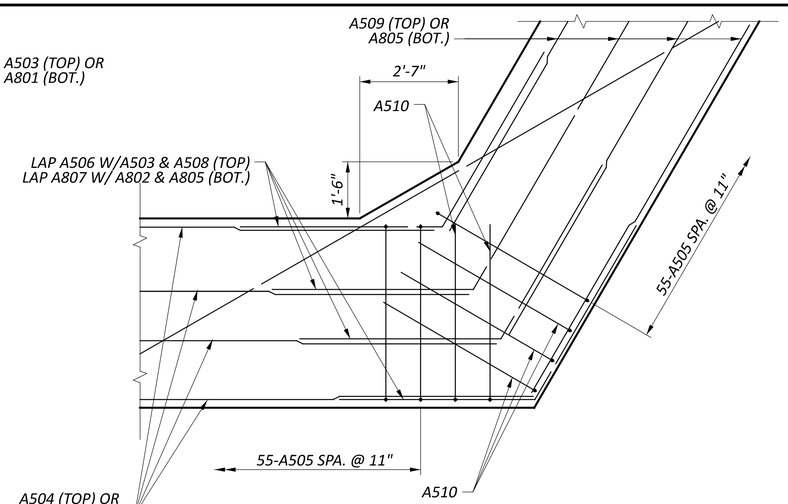
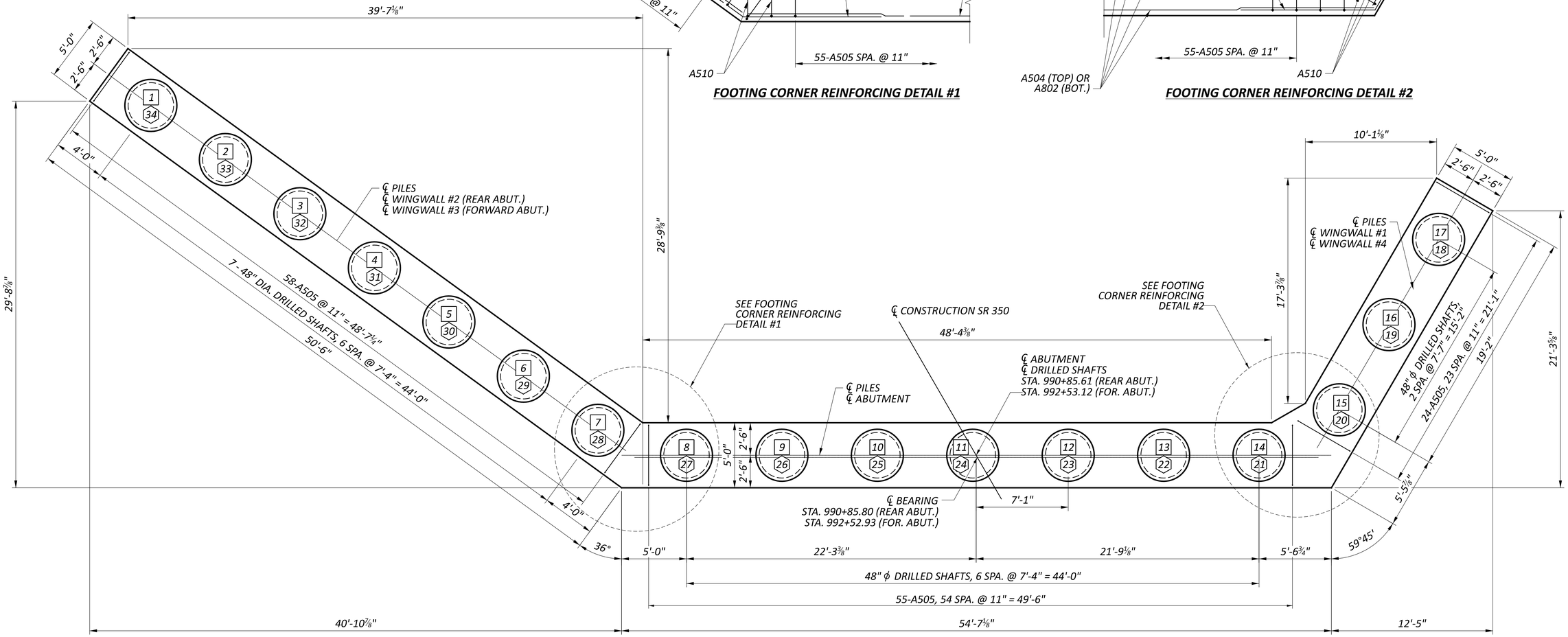




FOOTING CORNER REINFORCING DETAIL #1



FOOTING CORNER REINFORCING DETAIL #2



FOOTING PLAN

NOTES:

1. FOR ABUTMENT SECTION AND DETAILS, SEE SHEET 32.
2. FOR REAR ABUTMENT WINGWALL DETAILS, SEE SHEET 31.
3. FOR DRILLED SHAFT REINFORCING SEE SHEETS 31 & 32.
4. THE MINIMUM LAP LENGTHS ARE AS FOLLOWS:
   #5 - 3'-1" (HORIZONTAL)
   #8 - 4'-9" (HORIZONTAL)

LEGEND:

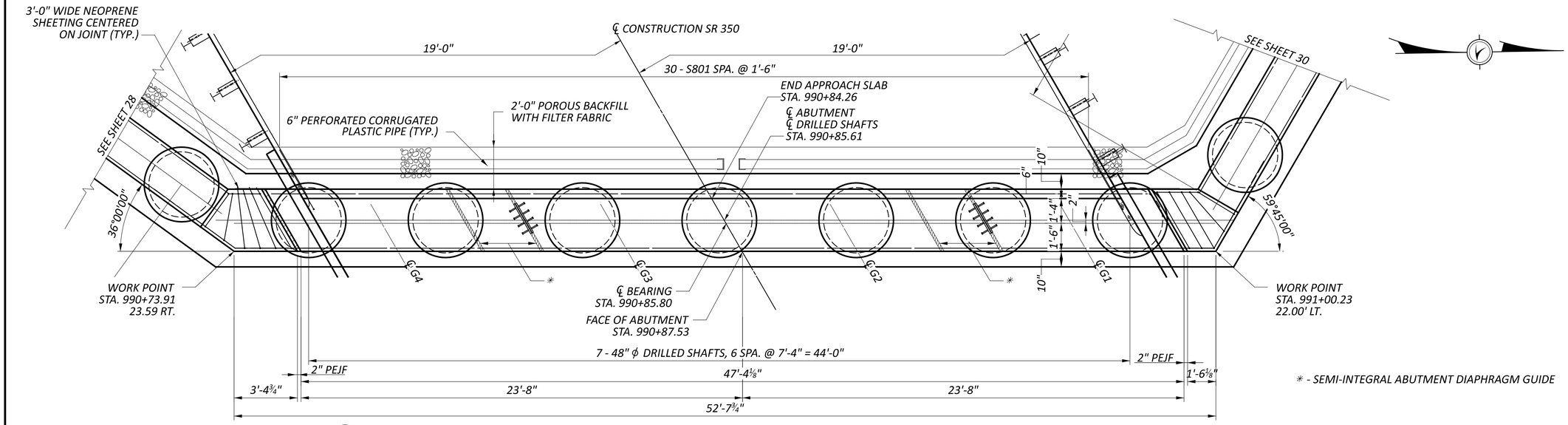
[#] - SHAFT NUMBER (REAR ABUTMENT)

⟨#⟩ - SHAFT NUMBER (FORWARD ABUTMENT)

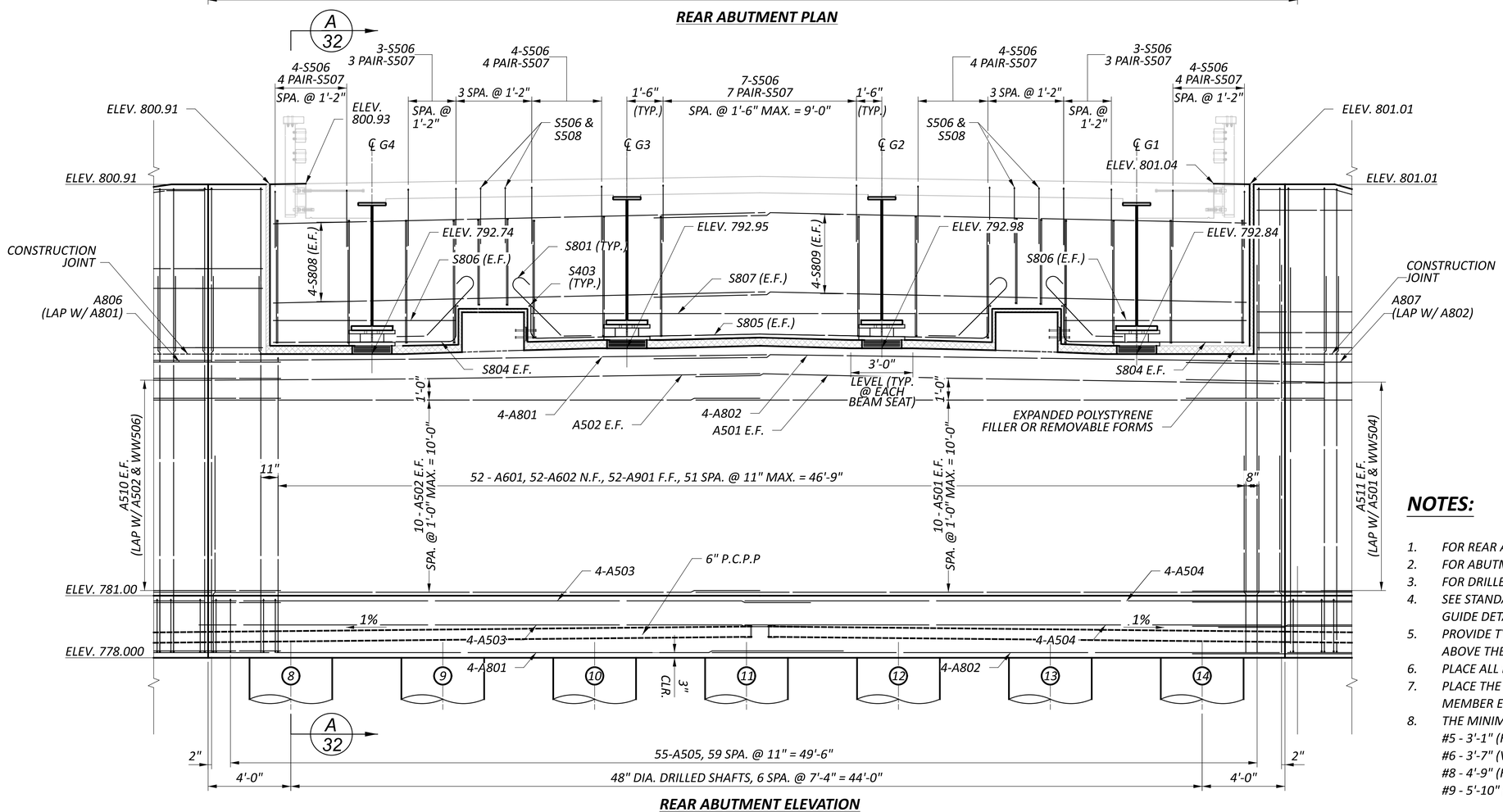
FOOTING PLAN
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	CAH
REVIEWER	SRK
PROJECT ID	112975
SUBSET	4
TOTAL	20
SHEET	25
TOTAL	50

WAR-SR 350-8.73



REAR ABUTMENT PLAN



REAR ABUTMENT ELEVATION

NOTES:

1. FOR REAR ABUTMENT SECTION AND DETAILS, SEE SHEET 32.
2. FOR ABUTMENT FOUNDATION PLAN SEE SHEET 25.
3. FOR DRILLED SHAFT REINFORCING SEE SHEETS 31 & 32.
4. SEE STANDARD SICD-2-14 FOR ADDITIONAL DIAPHRAGM GUIDE DETAILS.
5. PROVIDE TYPE 2 WATERPROOFING AT ALL CONSTRUCTION JOINTS ABOVE THE FOOTING ADJACENT TO BACKFILL.
6. PLACE ALL DIAPHRAGM REINFORCING STEEL PARALLEL WITH BEAMS.
7. PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE.
8. THE MINIMUM LAP LENGTHS ARE AS FOLLOWS:
   #5 - 3'-1" (HORIZONTAL)
   #6 - 3'-7" (VERTICAL)
   #8 - 4'-9" (HORIZONTAL)
   #9 - 5'-10" (VERTICAL)

REAR ABUTMENT DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER SRK
REVIEWER CAH
PROJECT ID 112975
SUBSET 5 | TOTAL 20
SHEET 26 | TOTAL 50

WAR-SR 350-8.73

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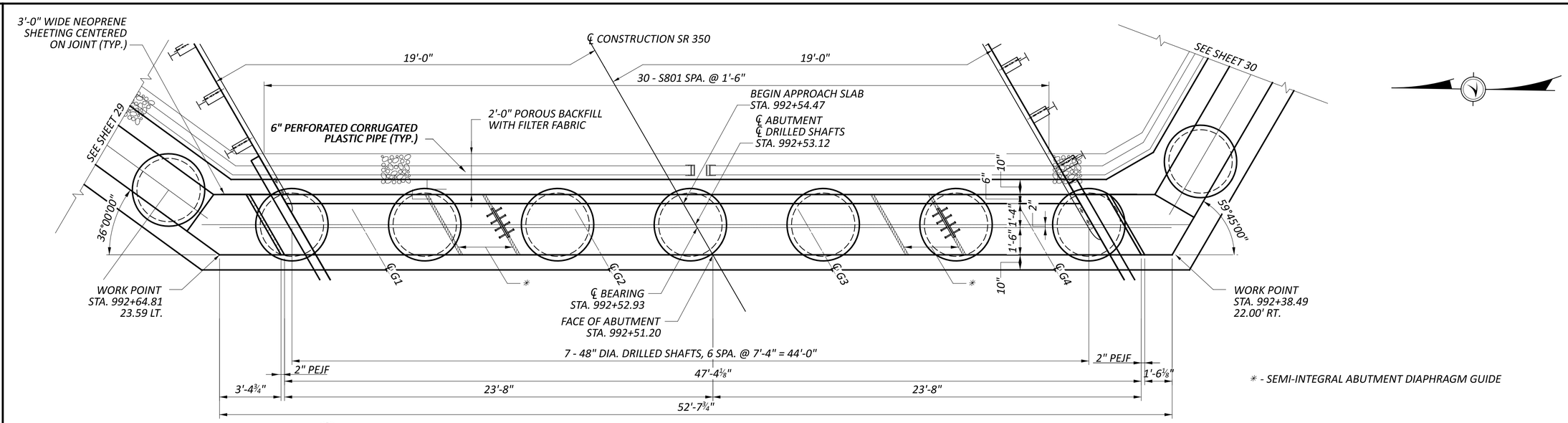
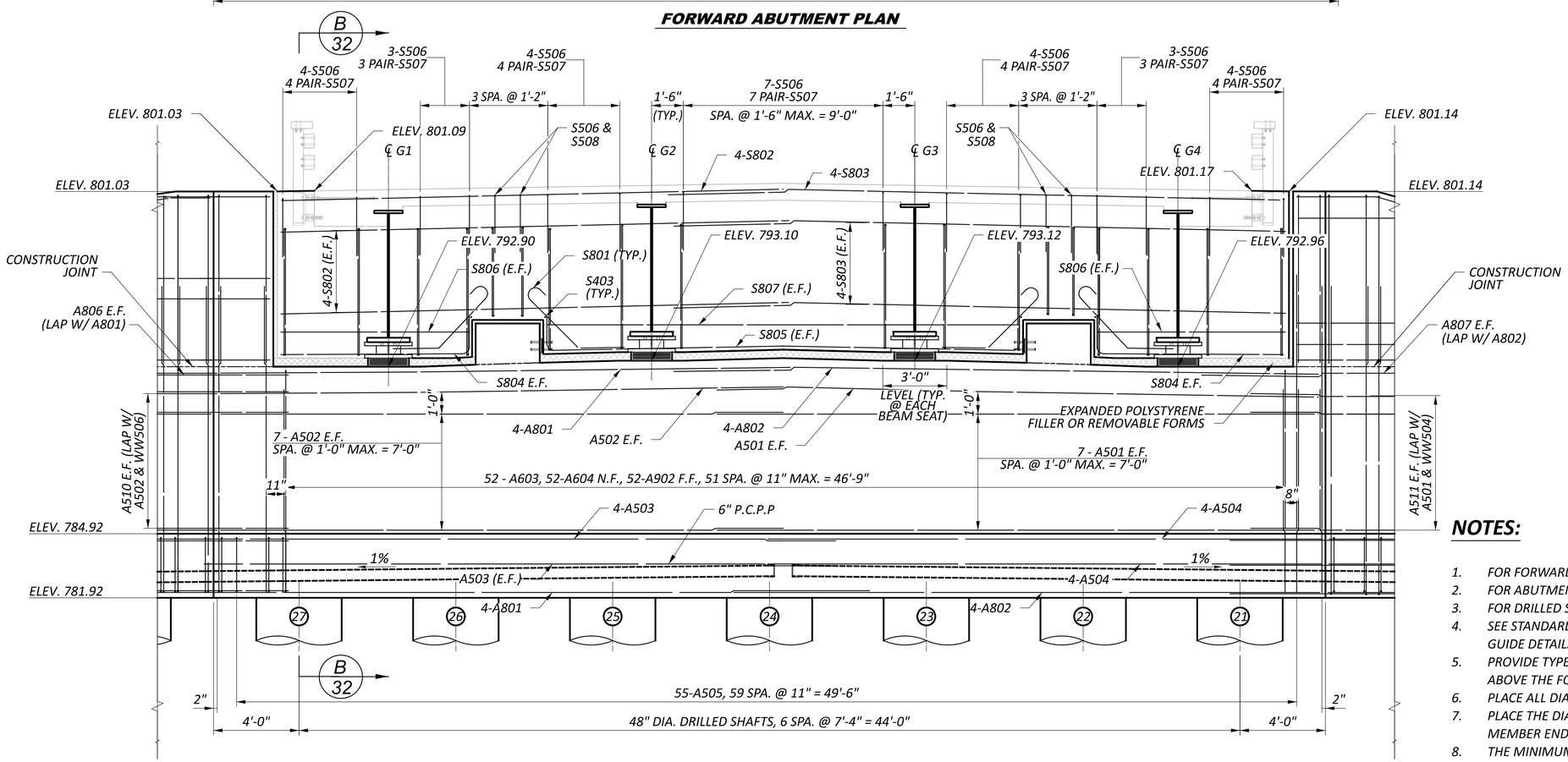


FORWARD ABUTMENT PLAN



FORWARD ABUTMENT ELEVATION

NOTES:

1. FOR FORWARD ABUTMENT SECTION AND DETAILS, SEE SHEET 32.
2. FOR ABUTMENT FOUNDATION PLAN SEE SHEET 25.
3. FOR DRILLED SHAFT REINFORCING SEE SHEETS 31 & 32.
4. SEE STANDARD SICD-2-14 FOR ADDITIONAL DIAPHRAGM GUIDE DETAILS.
5. PROVIDE TYPE 2 WATERPROOFING AT ALL CONSTRUCTION JOINTS ABOVE THE FOOTING ADJACENT TO BACKFILL.
6. PLACE ALL DIAPHRAGM REINFORCING STEEL PARALLEL WITH BEAMS.
7. PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE.
8. THE MINIMUM LAP LENGTHS ARE AS FOLLOWS:
   #5 - 3'-1" (HORIZONTAL)
   #6 - 3'-7" (VERTICAL)
   #8 - 4'-9" (HORIZONTAL)
   #9 - 5'-10" (VERTICAL)

FORWARD ABUTMENT DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER SRK
REVIEWER CAH
PROJECT ID 112975
SUBSET 6 | TOTAL 20
SHEET 27 | TOTAL 50

WAR-SR 350-8.73

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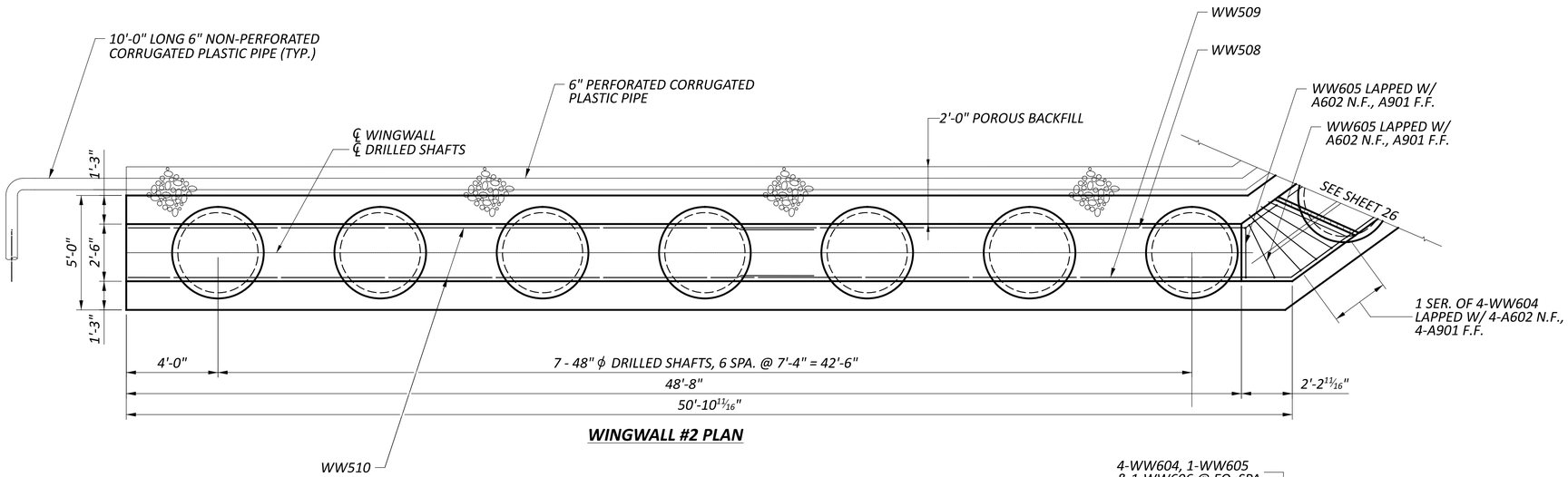
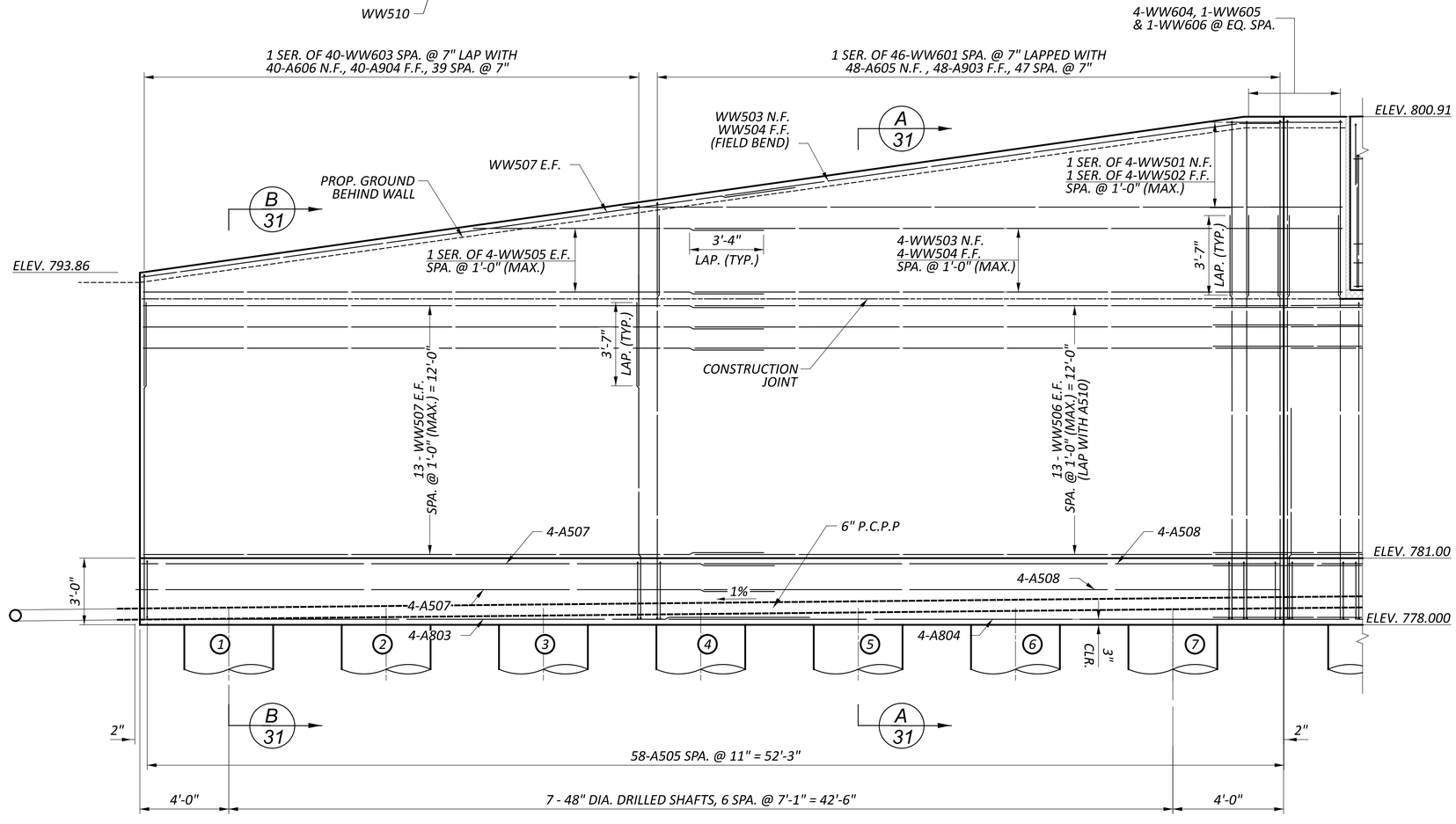


WINGWALL #2 PLAN



WINGWALL #2 ELEVATION

NOTES:

1. FOR WINGWALL SECTIONS AND DETAILS, SEE SHEET 31.
2. FOR ABUTMENT FOUNDATION PLAN SEE SHEET 25.
3. FOR DRILLED SHAFT REINFORCING SEE SHEET 31.
4. PROVIDE TYPE 2 WATERPROOFING AT ALL CONSTRUCTION JOINTS ABOVE THE FOOTING ADJACENT TO BACKFILL.
6. THE MINIMUM LAP LENGTHS ARE AS FOLLOWS:
   #5 - 3'-1" (HORIZONTAL)
   #6 - 3'-7" (VERTICAL)
   #8 - 4'-9" (HORIZONTAL)
   #9 - 5'-10" (VERTICAL)

WINGWALL DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	7
TOTAL	20
SHEET	28
TOTAL	50

WAR-SR 350-8.73

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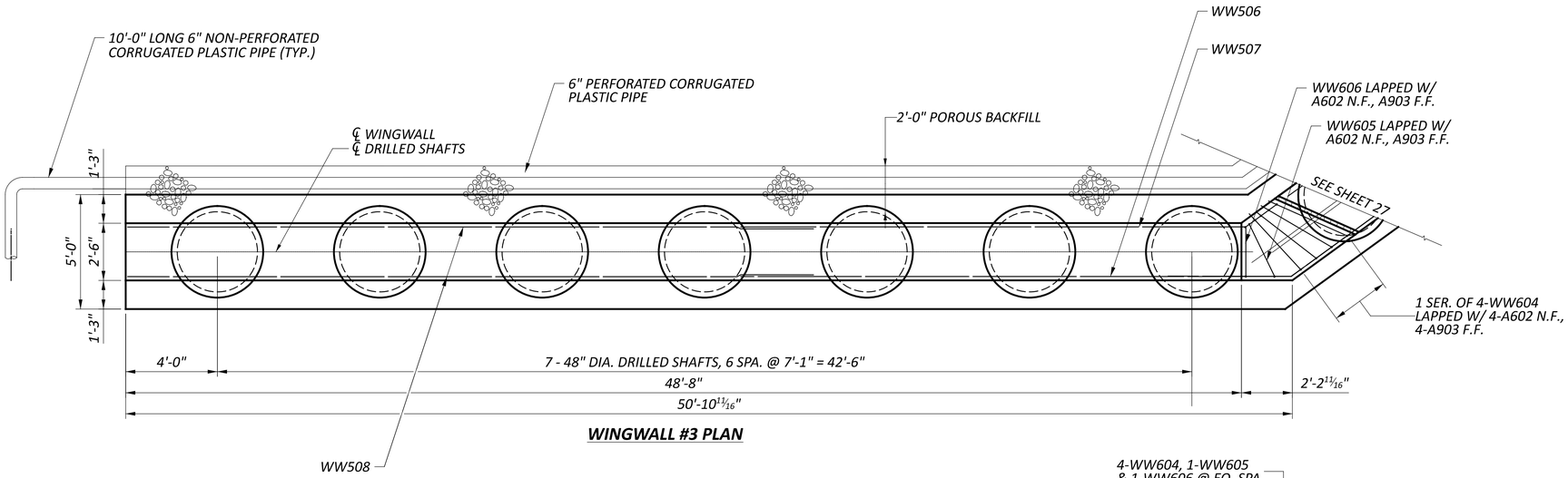
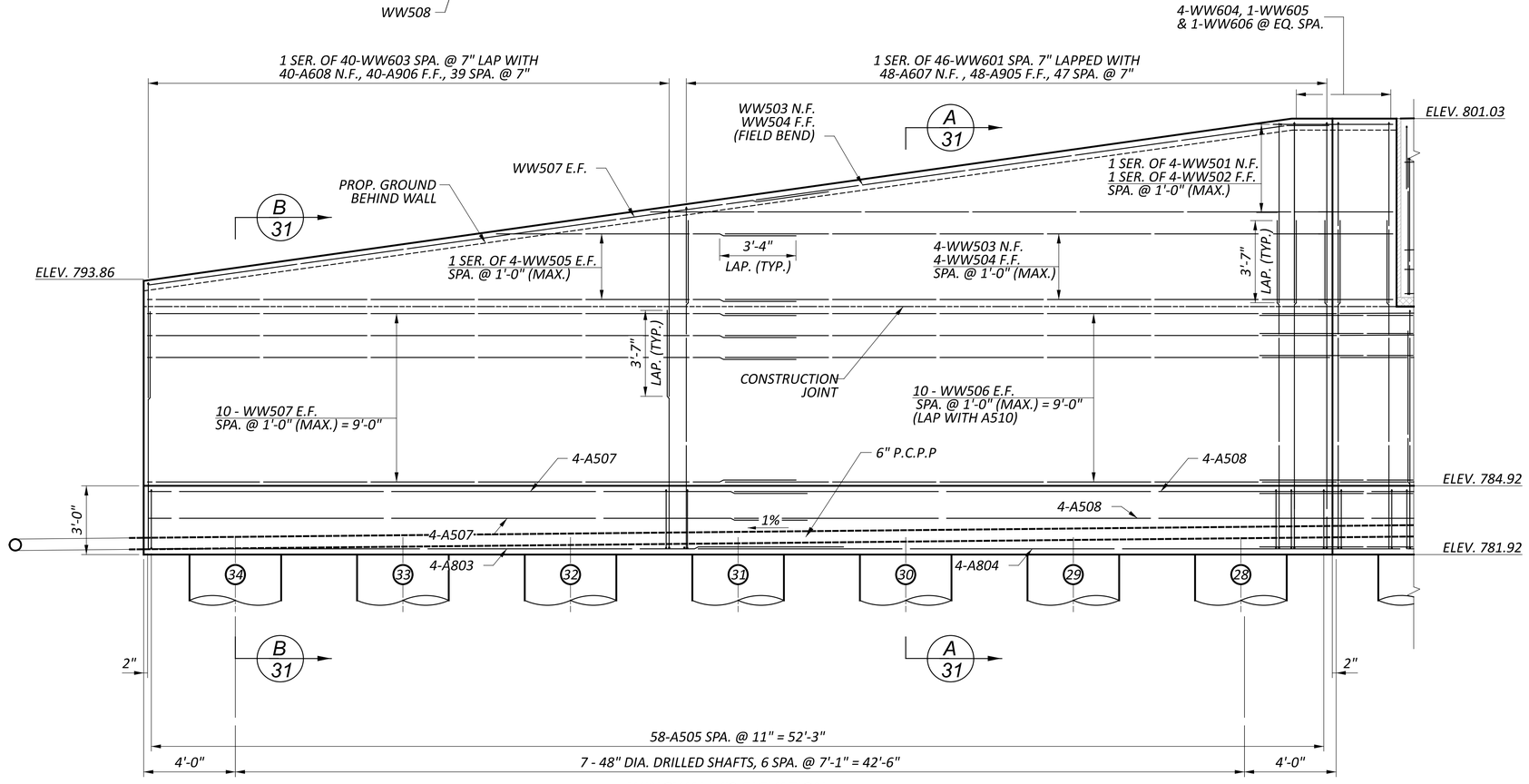


WINGWALL #3 PLAN



WINGWALL #3 ELEVATION

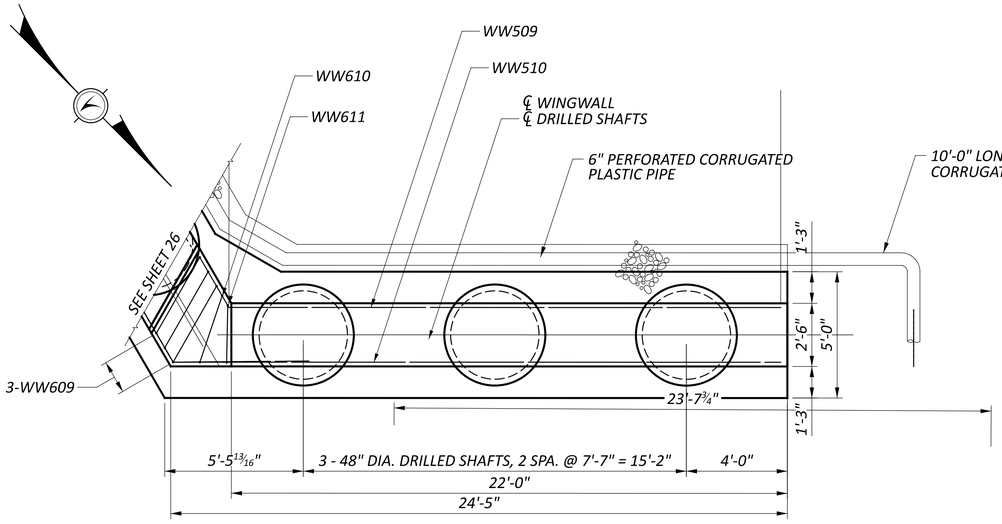
NOTES:

1. FOR WINGWALL SECTIONS AND DETAILS, SEE SHEET 31.
2. FOR ABUTMENT FOUNDATION PLAN SEE SHEET 25.
3. FOR DRILLED SHAFT REINFORCING SEE SHEET 31.
4. PROVIDE TYPE 2 WATERPROOFING AT ALL CONSTRUCTION JOINTS ABOVE THE FOOTING ADJACENT TO BACKFILL.
6. THE MINIMUM LAP LENGTHS ARE AS FOLLOWS:
   #5 - 3'-1" (HORIZONTAL)
   #6 - 3'-7" (VERTICAL)
   #8 - 4'-9" (HORIZONTAL)
   #9 - 5'-10" (VERTICAL)

WINGWALL DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	8
TOTAL	20
SHEET	29
TOTAL	50

WAR-SR 350-8.73



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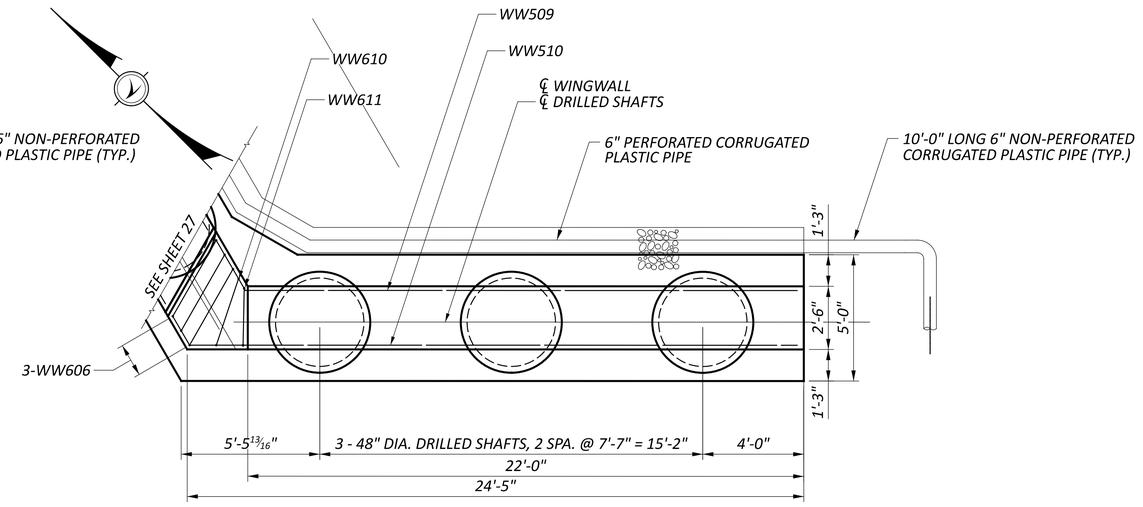

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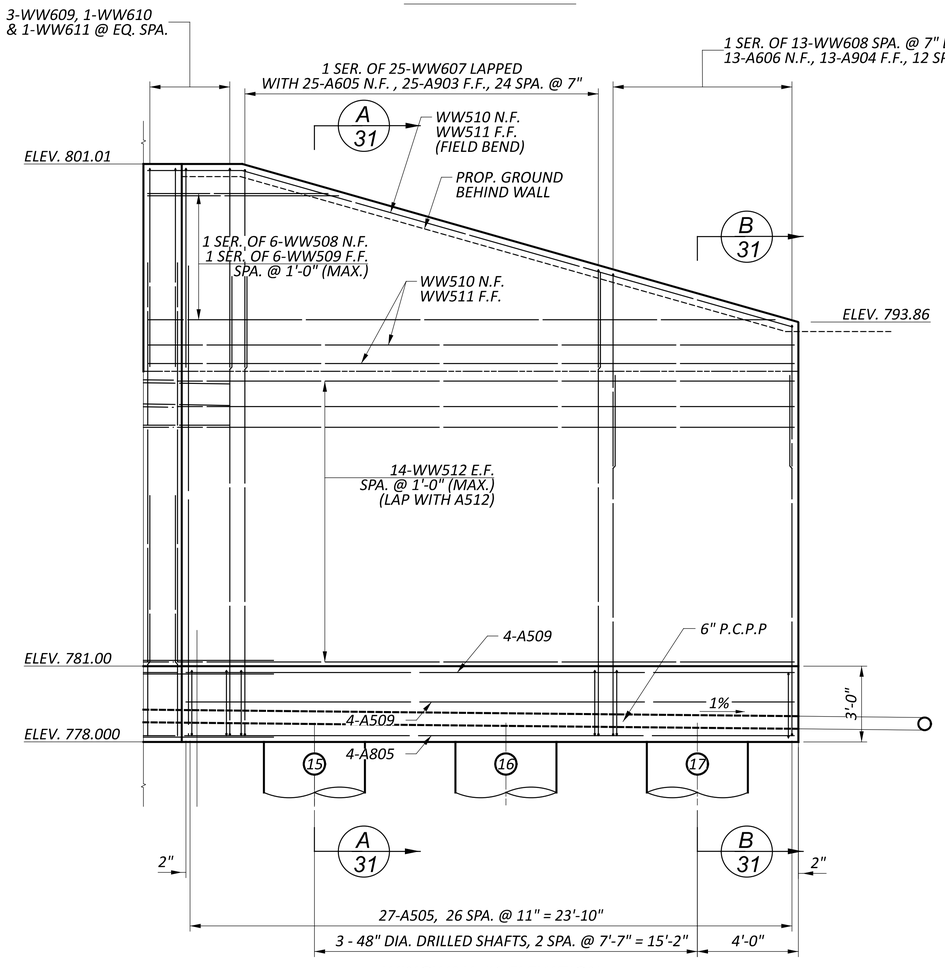
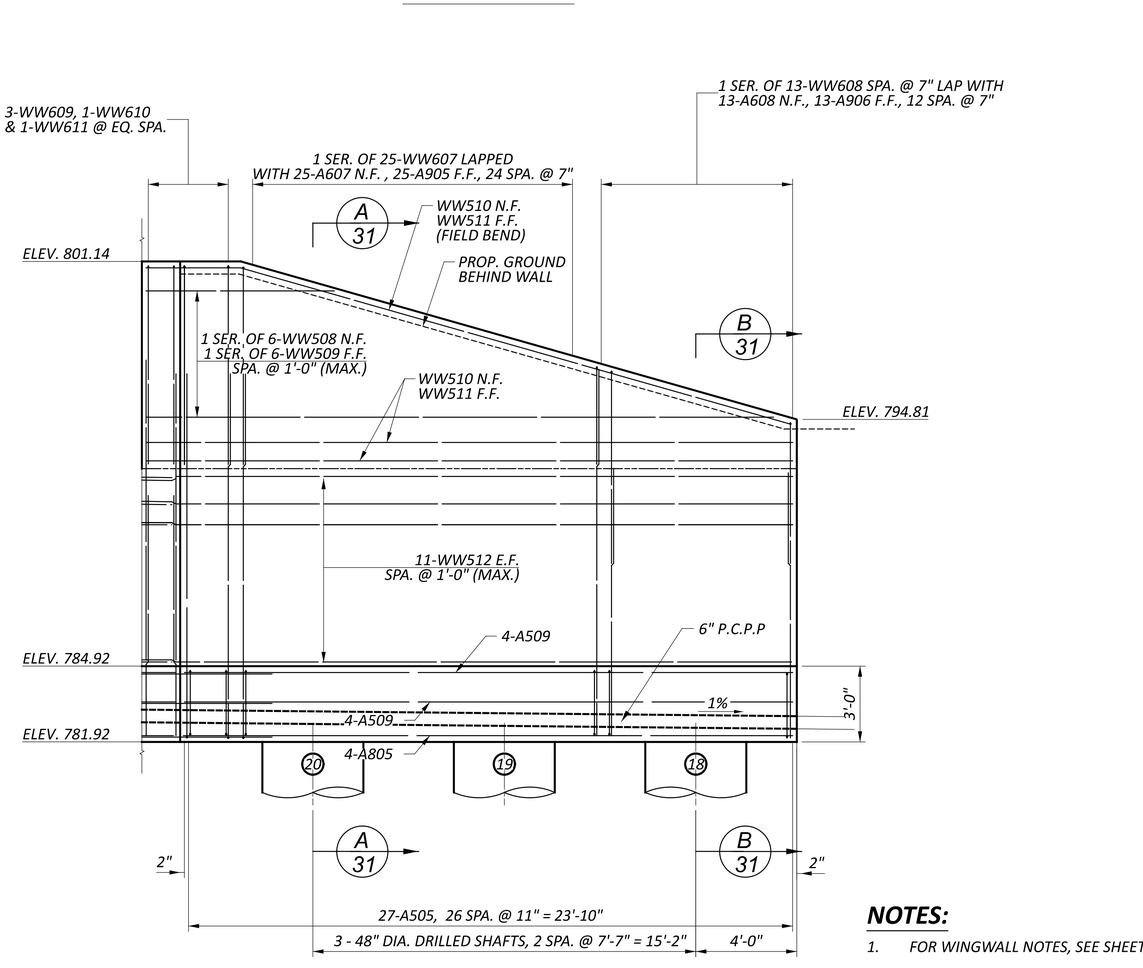


WINGWALL #1 ELEVATION



WINGWALL #4 ELEVATION

NOTES:

1. FOR WINGWALL NOTES, SEE SHEET 29.

WAR-SR 350-8.73

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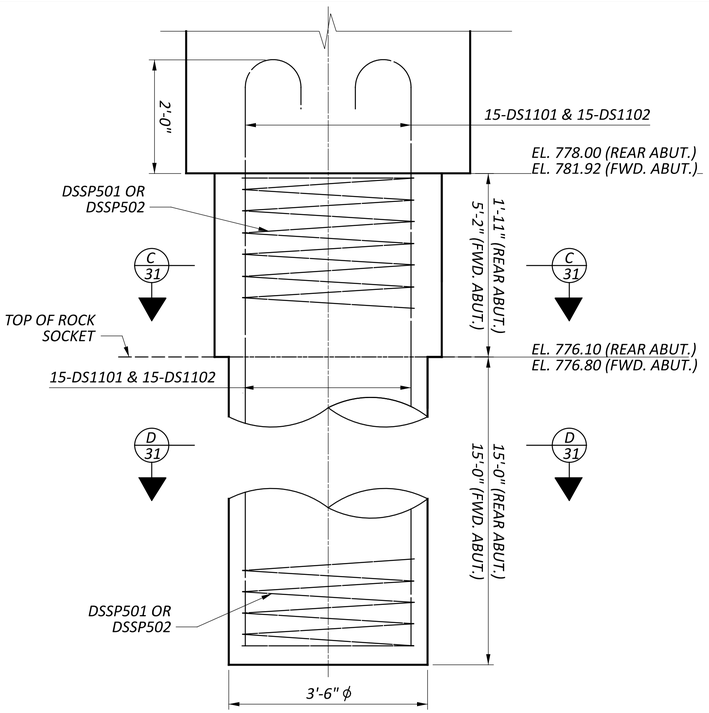
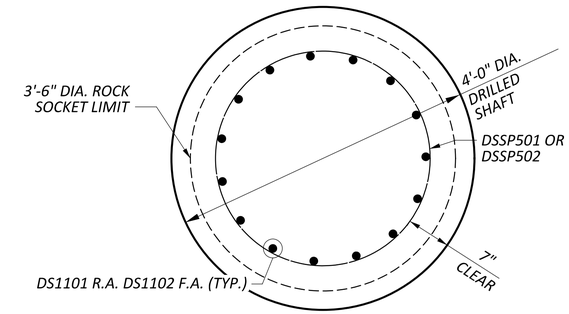
WINGWALL DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

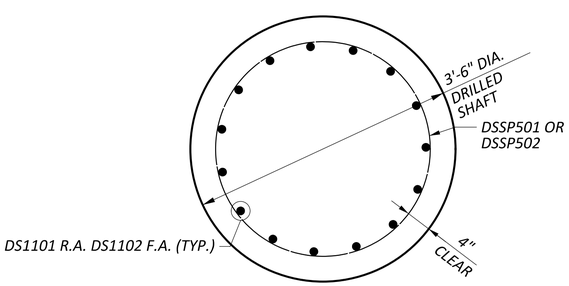
SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	9
TOTAL	20
SHEET	30
TOTAL	50



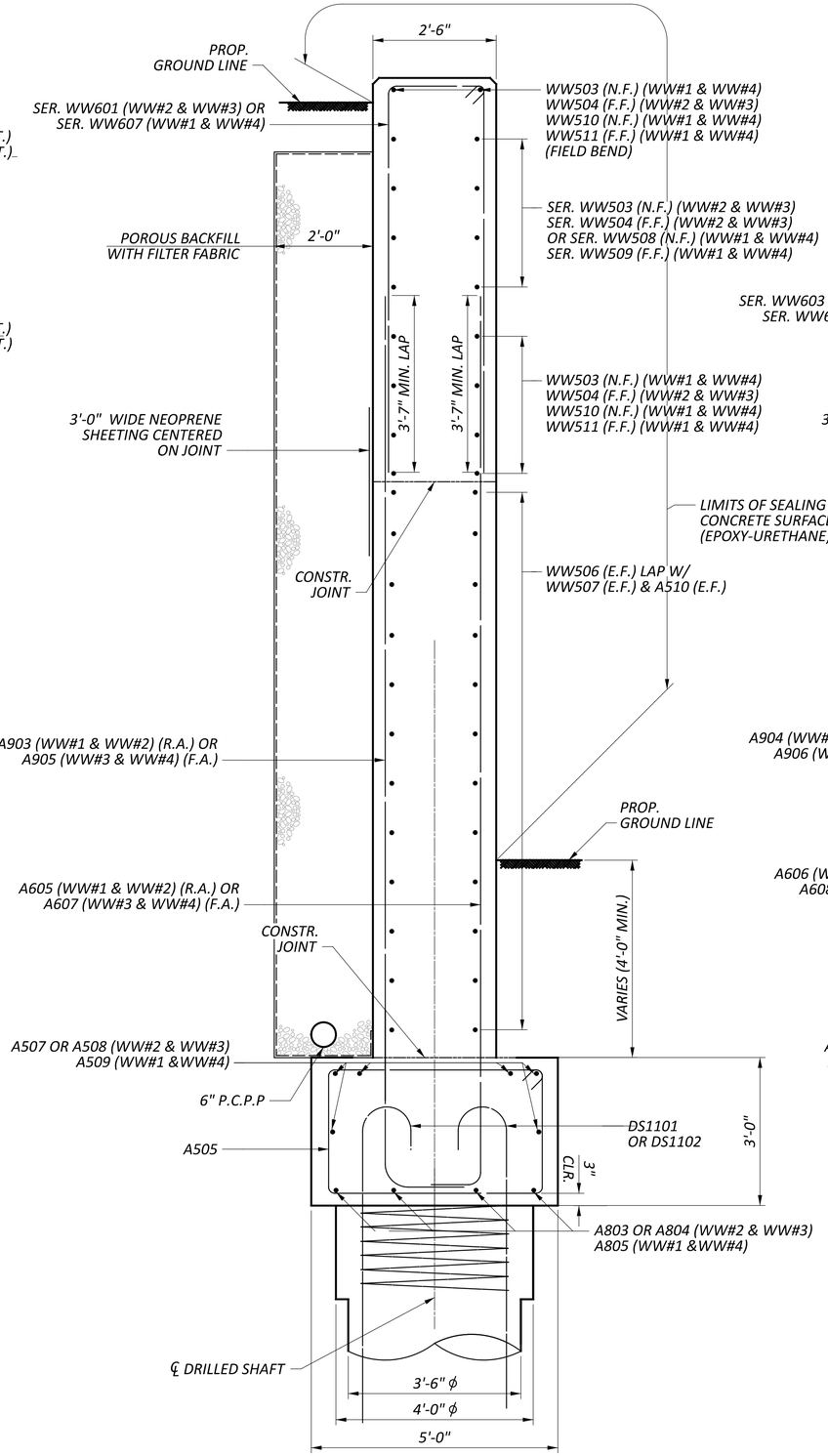
DRILLED SHAFT
ELEVATION



C 31 SECTION



D 31 SECTION



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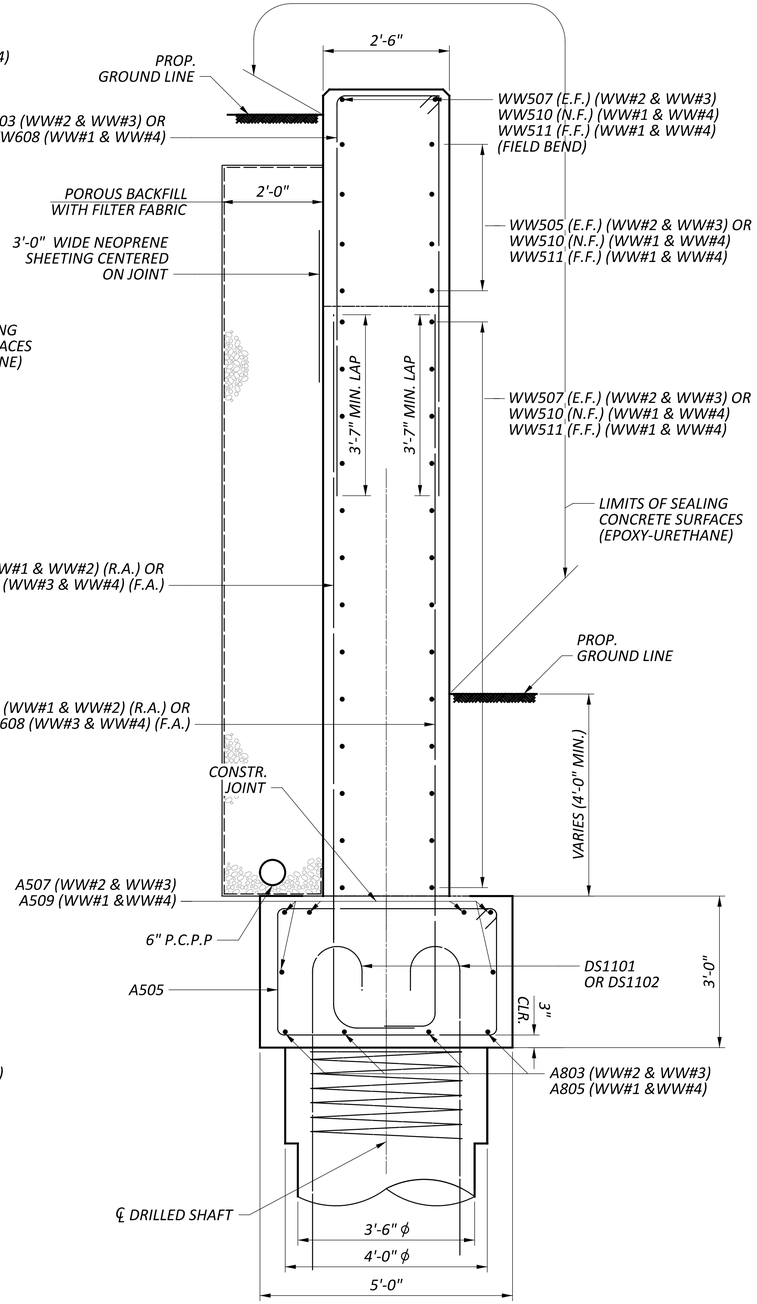

B 28 B 29 B 30 SECTION

WINGWALL SECTIONS

BRIDGE No.: WAR-350-0873

STATE ROUTE 350 OVER TODD'S FORK

WAR-SR 350-8.73

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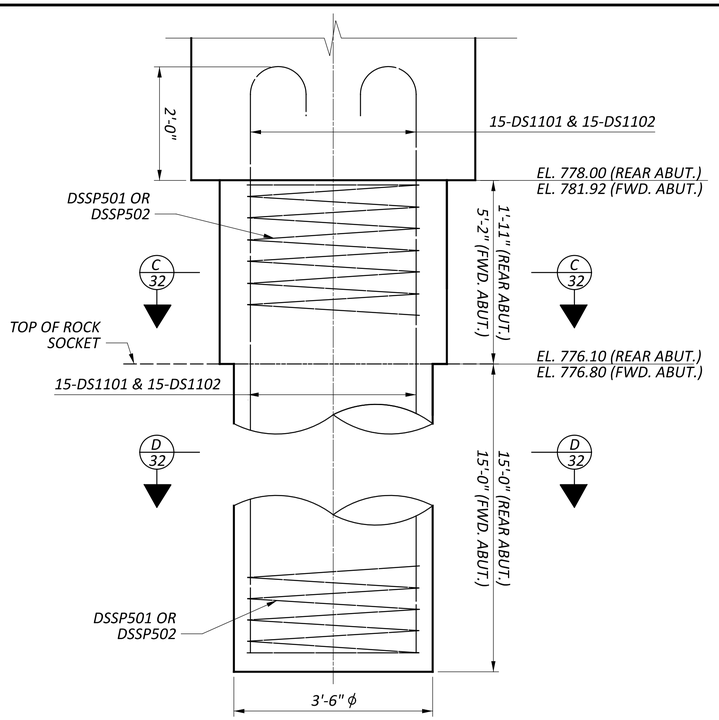
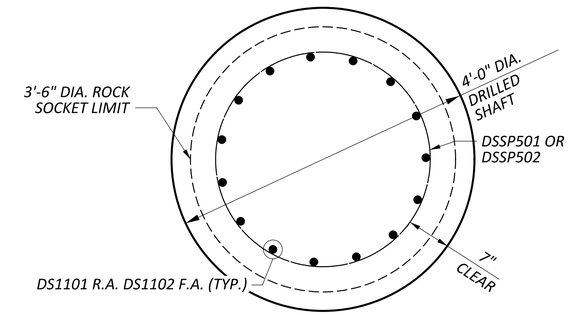
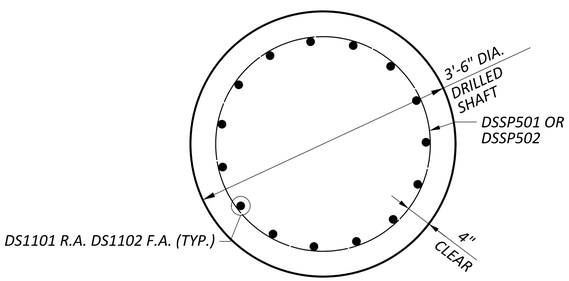
SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH 10-03-24
PROJECT ID	112975
SUBSET	10
TOTAL	20
SHEET	31
TOTAL	50



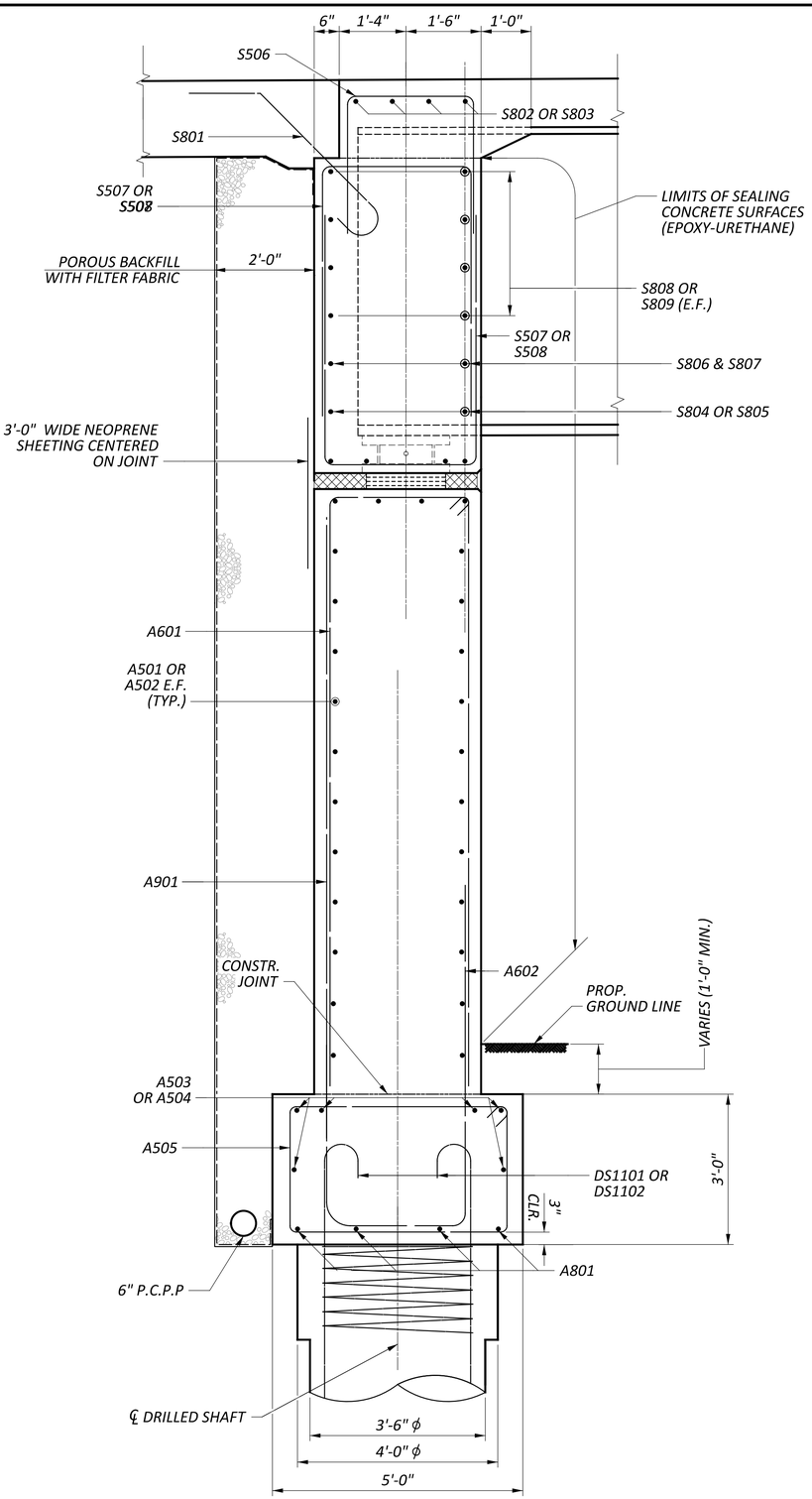
DRILLED SHAFT ELEVATION



C 32 SECTION



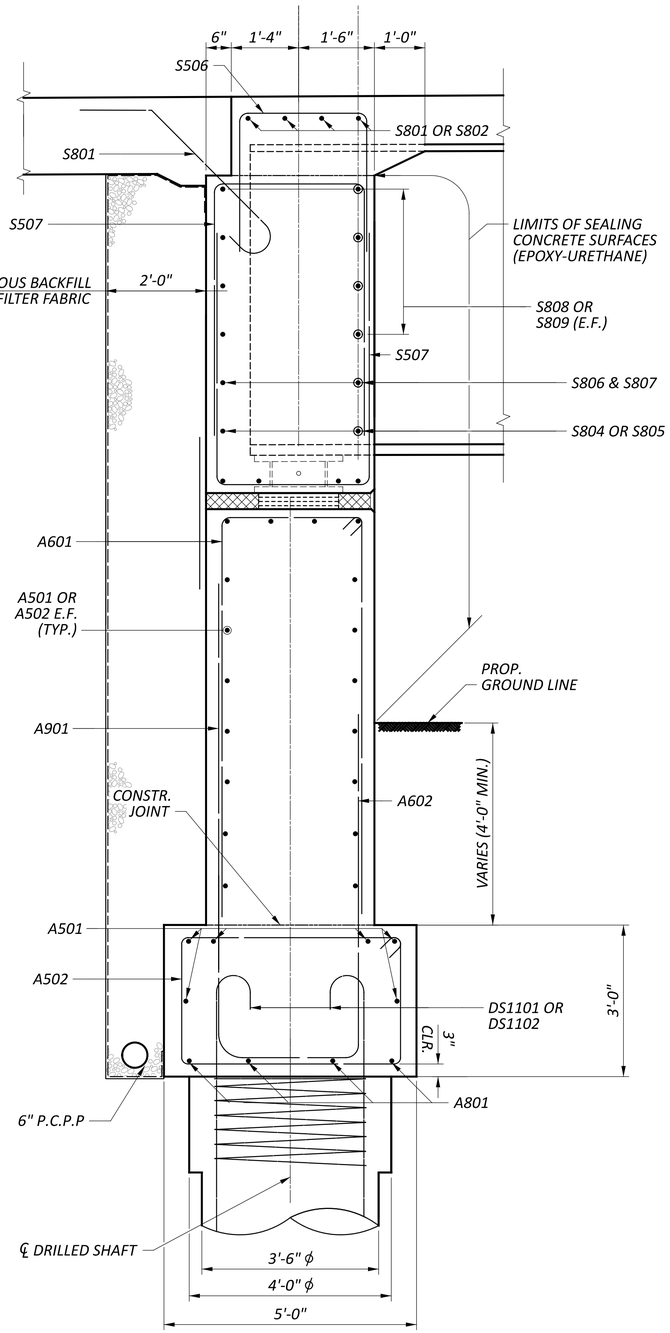
D 30 SECTION



A 26 SECTION

NOTES:

1. FOR ABUTMENT NOTES, SEE SHEETS 26 & 27.
2. DO NOT APPLY EPOXY-URETHANE SEALER TO THE CONCRETE SURFACES UNDER THE BEARINGS.
3. POROUS BACKFILL WITH FILTER FABRIC SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO THE BOTTOM OF THE APPROACH SLAB, AND LATERALLY TO THE ENDS OF WINGWALLS.



B 27 SECTION

ABUTMENT SECTIONS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

WAR-SR 350-8.73

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/29/2024 TIME: 12:37:38 PM USER: gfreeman
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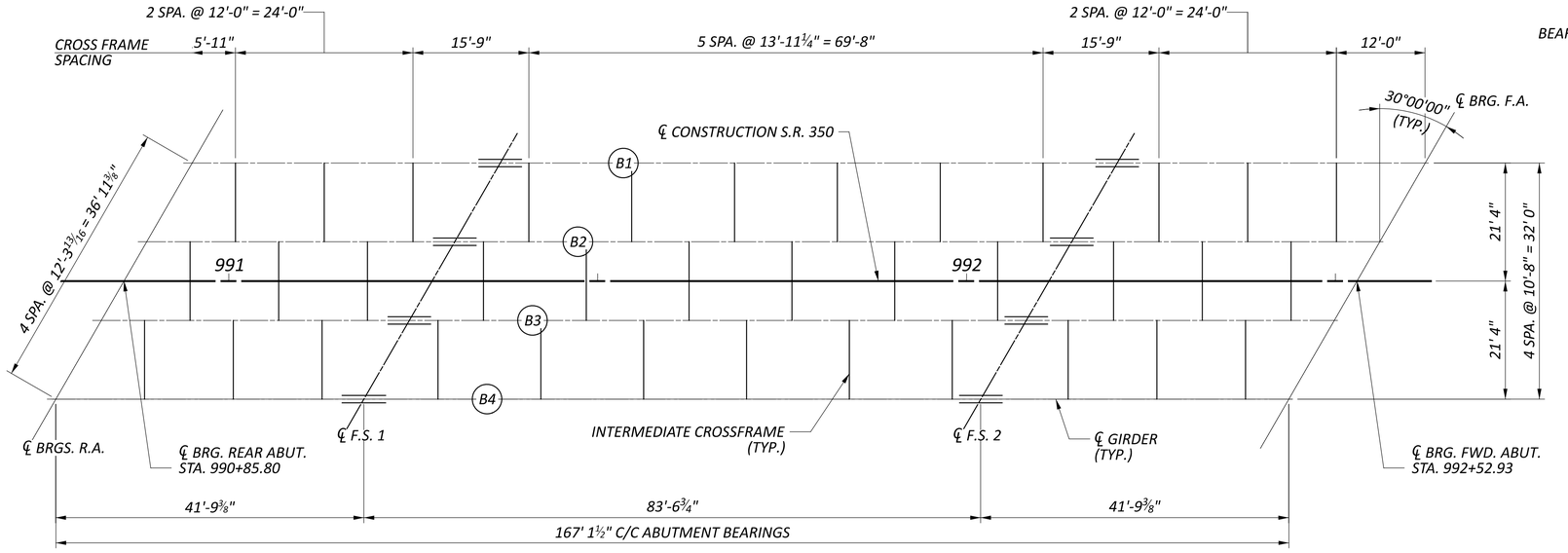
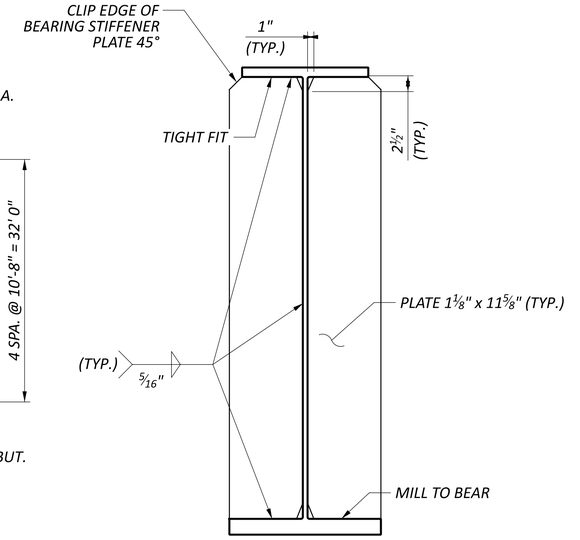
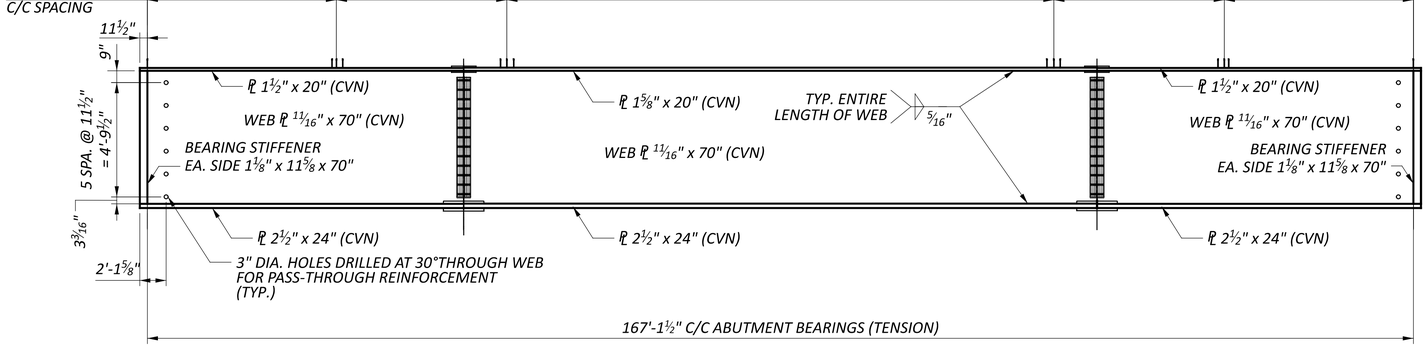
SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER CAH
REVIEWER SRK
PROJECT ID 112975
SUBSET 11 | TOTAL 20
SHEET 32 | TOTAL 50



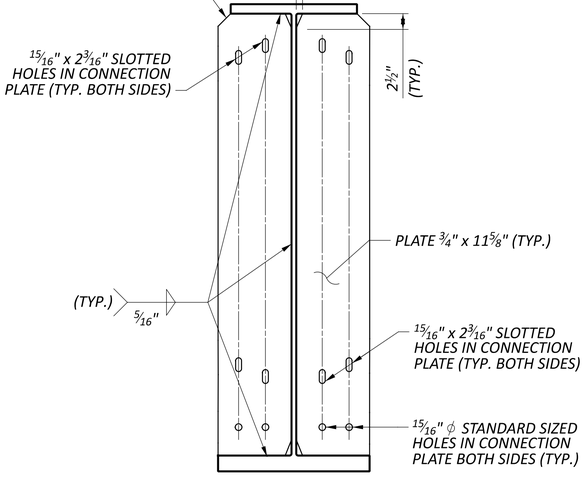
FRAMING PLAN



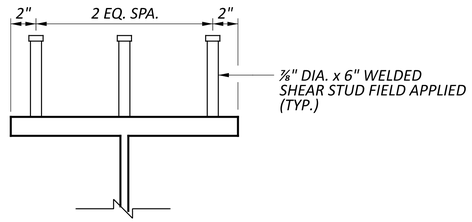
BEARING STIFFENER DETAIL



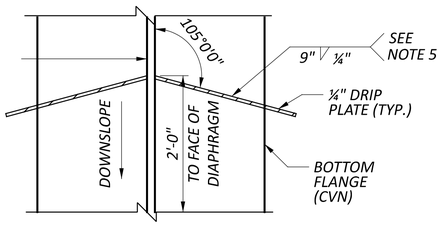
GIRDER ELEVATION



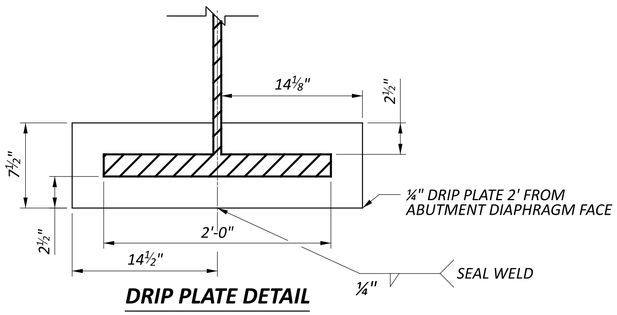
INTERMEDIATE STIFFENER AT CROSSFRAME DETAIL



SHEAR CONNECTOR DETAIL



PLAN VIEW - DRIP DETAIL



DRIP PLATE DETAIL

NOTES:

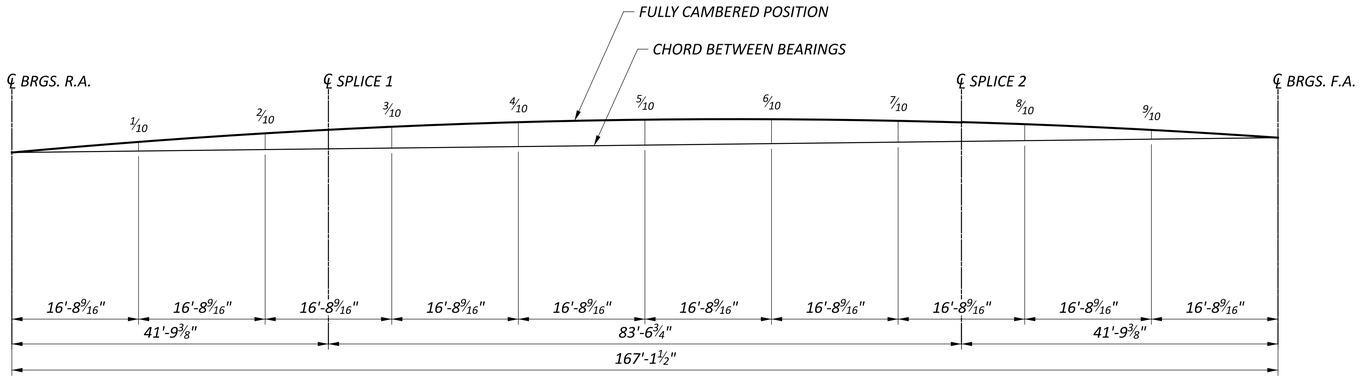
1. ALL DIMENSIONS ARE HORIZONTAL.
2. SEE ODOT STANDARD DRAWING GSD-1-19 FOR INTERMEDIATE CROSSFRAME DETAILS. THE CONTRACTOR SHALL UTILIZE THE TYPE C INTERMEDIATE CROSSFRAME SHOWN ON THE ODOT STANDARD DRAWING GSD-1-19.
3. SEE SHEET 37 FOR INTERMEDIATE CROSSFRAME DETAILS.

FRAMING PLAN & GIRDER ELEVATION
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER SRK
REVIEWER CAH
PROJECT ID 112975
SUBSET 12 | TOTAL 12
SHEET 33 | TOTAL 50

WAR-SR 350-8.73

STRUCTURAL STEEL DEFLECTION & CAMBER TABLE													
GIRDER NUMBER		REAR ABUTMENT	SPAN LOCATION										FORWARD ABUTMENT
			1/10 SPAN	2/10 SPAN	SPLICE 1	3/10 SPAN	4/10 SPAN	5/10 SPAN	6/10 SPAN	7/10 SPAN	SPLICE 2	8/10 SPAN	9/10 SPAN	
G1	DEFLECTION DUE TO WEIGHT OF STEEL	0	11/16	1 5/16	1 9/16	1 3/4	2 1/16	2 3/16	2 1/16	1 3/4	1 9/16	1 5/16	11/16	0
	DEFLECTION DUE TO NON-COMP. DECK CONCRETE	0	1 7/16	2 11/16	3 1/4	3 11/16	4 5/16	4 9/16	4 5/16	3 11/16	3 1/4	2 11/16	1 7/16	0
	DEFLECTION DUE TO REMAINING DEADLOAD	0	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	0
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0	13/16	1 3/8	1 5/8	1 13/16	2 1/16	2 1/8	2 1/16	1 13/16	1 5/8	1 3/8	13/16	0
	REQUIRED SHOP CAMBER	0	2 15/16	5 7/16	6 1/2	7 3/8	8 9/16	8 15/16	8 9/16	7 3/8	6 1/2	5 7/16	2 15/16	0
G2-G3	DEFLECTION DUE TO WEIGHT OF STEEL	0	3/4	1 3/8	1 11/16	1 15/16	2 1/4	2 3/8	2 1/4	1 15/16	1 11/16	1 3/8	3/4	0
	DEFLECTION DUE TO NON-COMP. DECK CONCRETE	0	1 7/8	3 9/16	4 1/4	4 7/8	5 11/16	6	5 11/16	4 7/8	4 1/4	3 9/16	1 7/8	0
	DEFLECTION DUE TO REMAINING DEADLOAD	0	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/16	1/16	1/16	1/16	0
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0	13/16	1 3/8	1 5/8	1 13/16	2 1/16	2 1/8	2 1/16	1 13/16	1 5/8	1 3/8	13/16	0
	REQUIRED SHOP CAMBER	0	3 7/16	6 7/16	7 10/16	8 11/16	10 1/16	10 9/16	10 1/16	8 11/16	7 10/16	6 7/16	3 7/16	0
G4	DEFLECTION DUE TO WEIGHT OF STEEL	0	11/16	1 5/16	1 9/16	1 3/4	2 1/16	2 3/16	2 1/16	1 3/4	1 9/16	1 5/16	11/16	0
	DEFLECTION DUE TO NON-COMP. DECK CONCRETE	0	1 7/16	2 11/16	3 1/4	3 11/16	4 5/16	4 9/16	4 5/16	3 11/16	3 1/4	2 11/16	1 7/16	0
	DEFLECTION DUE TO REMAINING DEADLOAD	0	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	0
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0	13/16	1 3/8	1 5/8	1 13/16	2 1/16	2 1/8	2 1/16	1 13/16	1 5/8	1 3/8	13/16	0
	REQUIRED SHOP CAMBER	0	2 15/16	5 7/16	6 1/2	7 3/8	8 9/16	8 15/16	8 9/16	7 3/8	6 1/2	5 7/16	2 15/16	0



CAMBER DIAGRAM

ALL CHORDS REFERENCED TO TOP OF WEB

GIRDER DEFLECTIONS AND CAMBER
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272

DESIGN AGENCY

DESIGNER	CHECKER
GTF	CAH

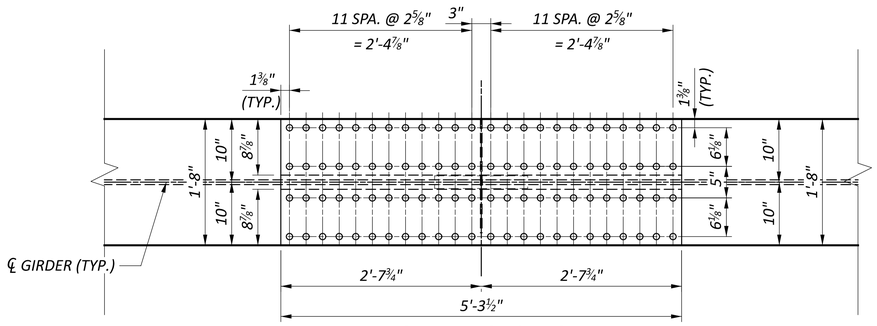
REVIEWER: SRK

PROJECT ID: 112975

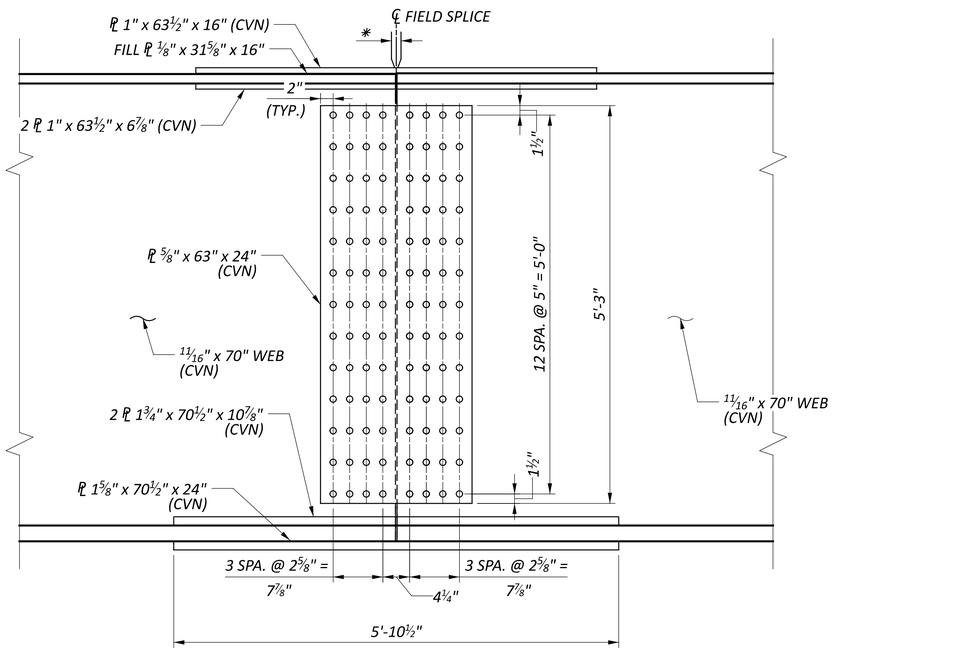
SUBSET	TOTAL
13	20

SHEET	TOTAL
34	50

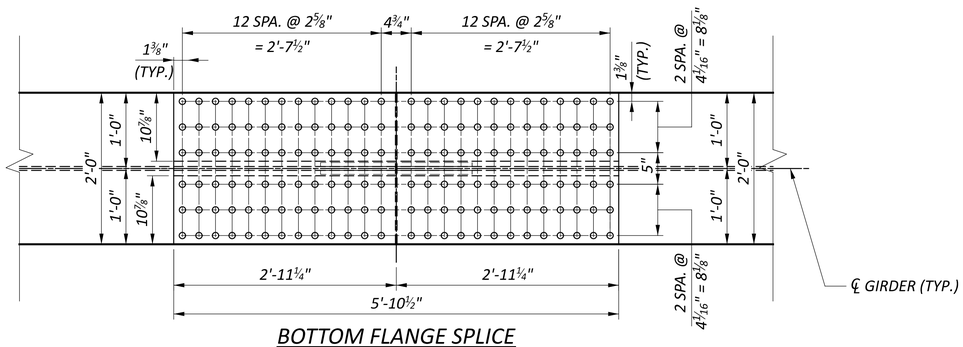
WAR-SR 350-8.73



TOP FLANGE SPLICE



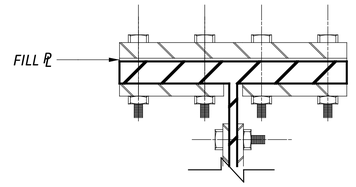
WEB SPLICE



BOTTOM FLANGE SPLICE

SPLICE DETAILS

(SPLICE 1 SHOWN, SPLICE 2 SIMILAR, MIRRORED)



BOLT DETAIL

(FIELD SPLICE 1 SHOWN, FIELD SPLICE 2 SIMILAR)

NOTES:

1. ALL BOLTS SHALL BE ⅞" DIAMETER, HIGH STRENGTH ASTM F3125 GRADE A325 TYPE I.
2. ALL STRUCTURAL STEEL FOR SPLICE PLATES SHALL BE ASTM A709 GRADE 50.
3. WHERE A PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
4. BOLTED FLANGE SPLICES ASSUME THREADS ARE EXCLUDED FROM THE SHEAR PLANE. THE BOLTS SHALL NOT HAVE THREADS LOCATED WHERE THE BOLT PASSES THROUGH THE GIRDER FLANGES.

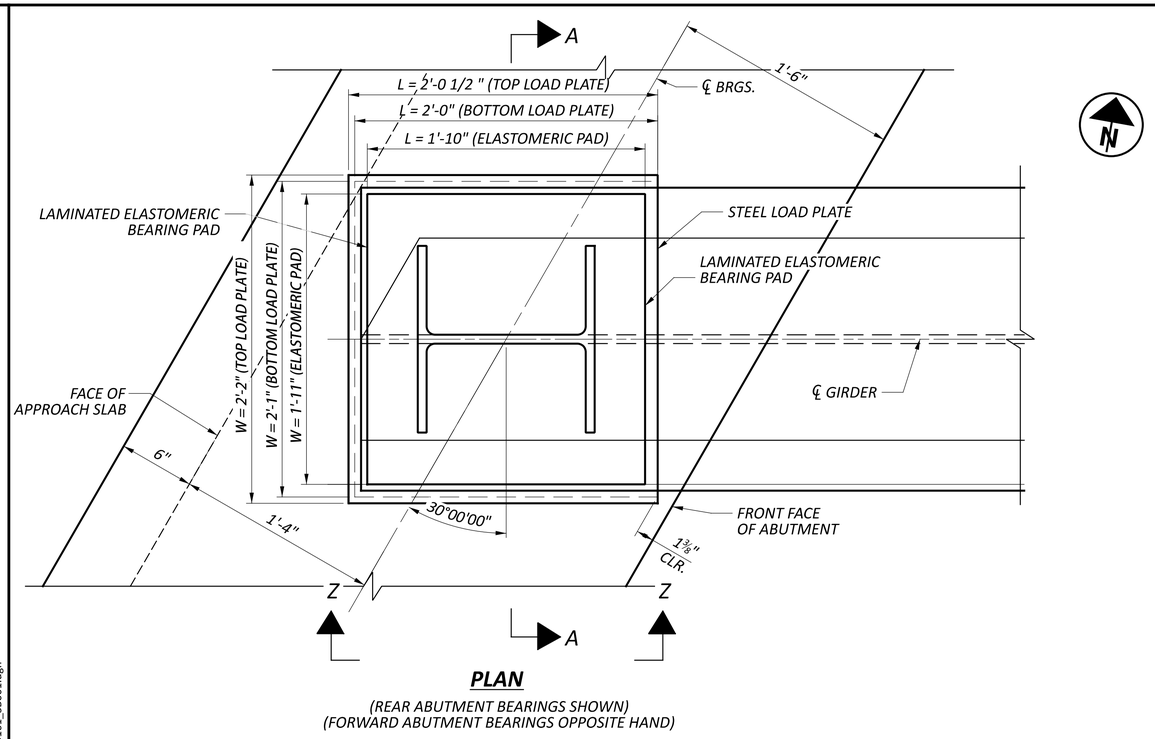
LEGEND:

* = ¼" MAXIMUM OPENING FOR WEB AND FLANGES

SPLICE DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

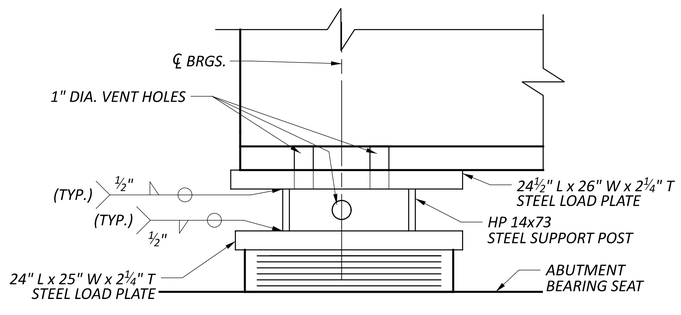
SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	14
TOTAL	14
SHEET	35
TOTAL	50

WAR-SR 350-8.73

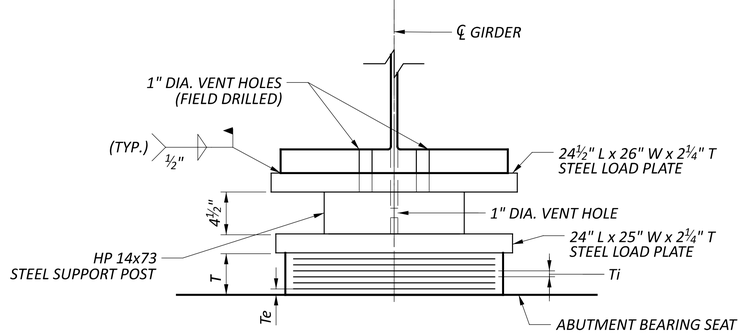


PLAN

(REAR ABUTMENT BEARINGS SHOWN)
(FORWARD ABUTMENT BEARINGS OPPOSITE HAND)



VIEW Z-Z



SECTION A-A

NOTES:

1. 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.
2. STEEL LOAD PLATES SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL (A709, GRADE 50).
3. SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION, GIRDER LINE, AND SUBSTRUCTURE LOCATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
4. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
5. THE LOAD PLATES, HP SUPPORTS, AND ALL OTHER STEEL ITEMS IN THE ABUTMENT BEARING SYSTEMS, SHALL BE PRIME PAINTED OR METALLIZED AS DESCRIBED IN CMS 516.03.
6. IF STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40° F AND THE BEARING SHEAR DEFLECTION EXCEEDS ⅛ OF THE BEARING HEIGHT AT 60° F (±) 10° F, THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (±) 10° F

FORWARD AND REAR ABUTMENT ELASTOMERIC PAD DATA FOR EXISTING BEAMS

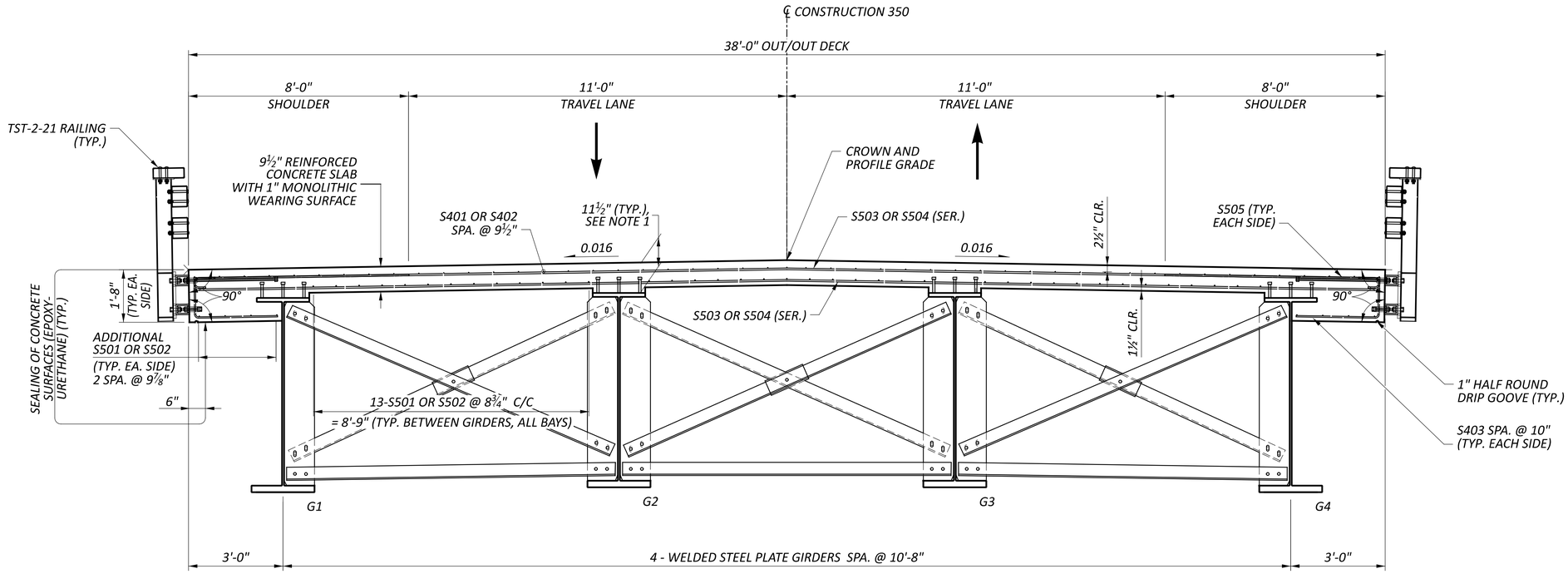
	SUB-STRUCTURE	ELASTOMERIC PAD							REACTIONS		
		T	NO. OF INTER. LAYERS	ti	te	STEEL LAMINATES NO.	STEEL LAMINATES THICK.	TYPE	DEAD LOAD (KIPS)	LIVE* LOAD (KIPS)	MAXIMUM DESIGN LOAD (K)
WAR-350-0873	ABUTMENTS	4.428"	5	0.600"	0.400"	6	0.1046"	EXP.	277.74	156.31	434.05

ti = THICKNESS OF INTERNAL ELASTOMER LAYER, te = THICKNESS OF EXTERNAL ELASTOMER LAYER
* W/O IMPACT

ELASTOMERIC BEARING DETAILS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER SRK
REVIEWER CAH
PROJECT ID 112975
SUBSET 15 | TOTAL 20
SHEET 36 | TOTAL 50

WAR-SR 350-8.73

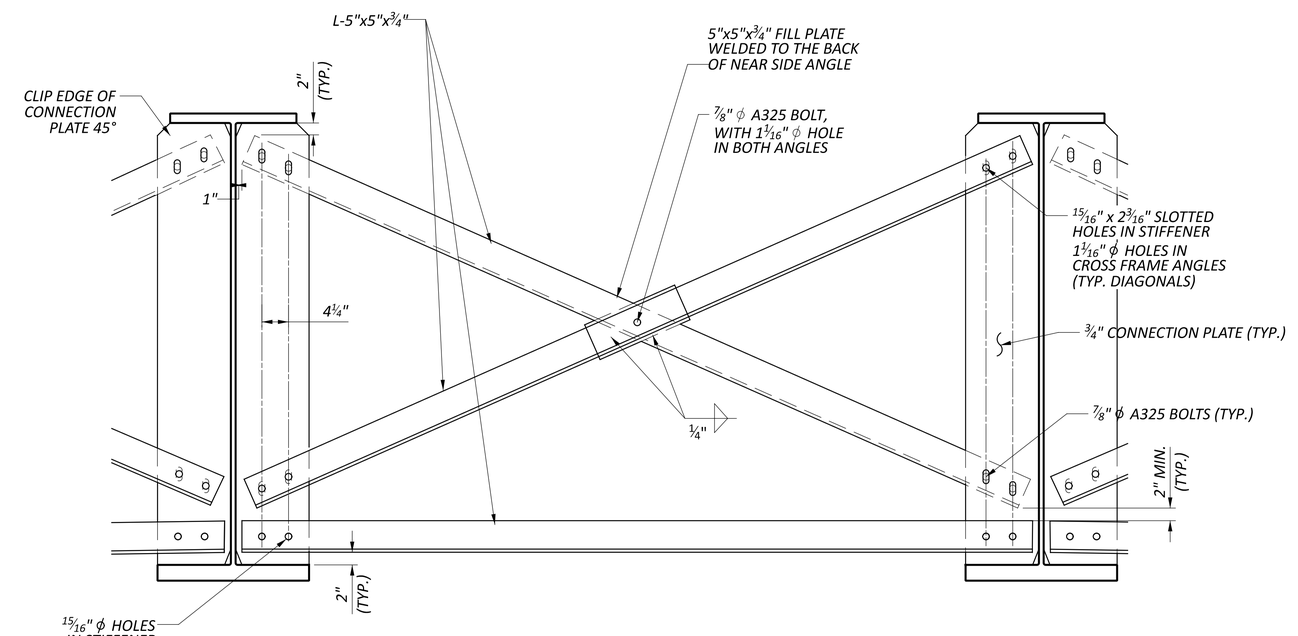


TRANSVERSE SECTION

NOTES

1. SEE SCD TST-2-21 FOR ADDITIONAL BRIDGE RAILING DETAILS.
2. THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3 ⅝" INCHES AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED PER CMS 511.23.
3. COVER OVER REINFORCING STEEL SHALL BE 2" TO SURFACES OF CONCRETE UNLESS OTHERWISE NOTED.
4. HIGH STRENGTH BOLTS SHALL BE ⅞" DIAMETER A325 UNLESS OTHERWISE NOTED.
5. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.



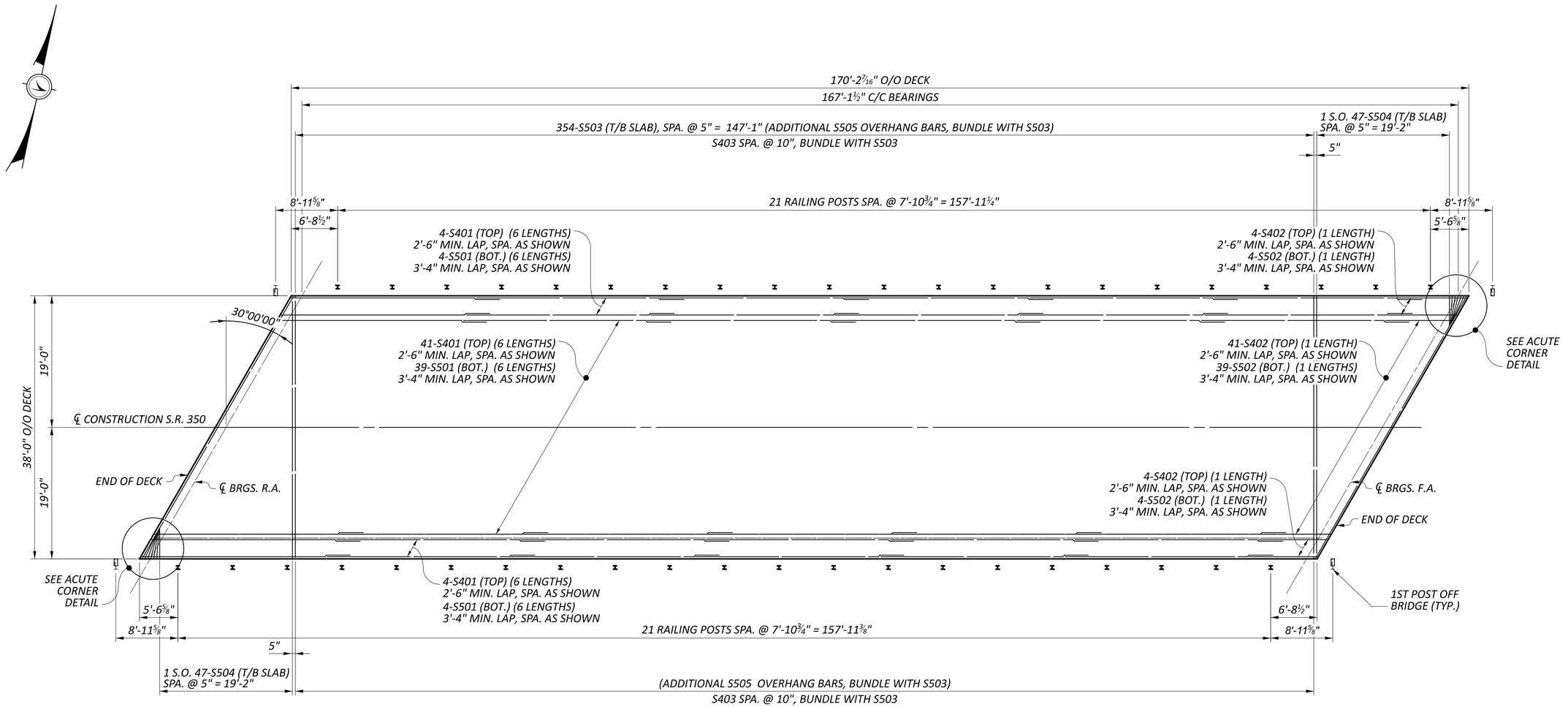
INTERMEDIATE CROSSFRAME DETAIL

TRANSVERSE SECTION
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

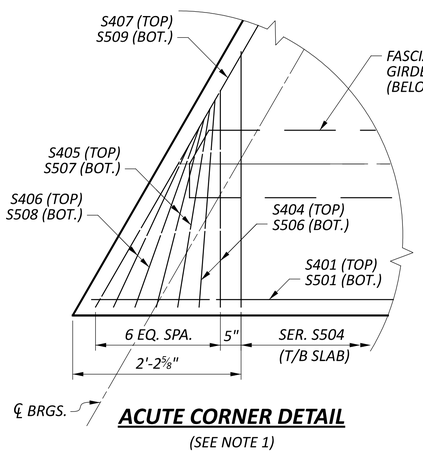
SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	16
TOTAL	20
SHEET	37
TOTAL	50

WAR-SR 350-8.73

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/27/2025 TIME: 8:52:39 AM USER: gfreeman
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\02 Solid Projects\District 08\Warren\112975\400-Engineering\Structures\SFN_8305161\Sheets\112975_SFN_8305161_ST001_REV.dgn



DECK SLAB REINFORCING STEEL LAYOUT



ACUTE CORNER DETAIL

(SEE NOTE 1)

NOTES:

1. FAN BARS S404 - S406 & S506 - S508 SO THAT EACH BAR GOES FROM EDGE OF DECK TO INSIDE EDGE OF TOP FLANGE OF FASCIA GIRDER
2. SEE SHEET 37 FOR SPACING OF LONGITUDINAL REINFORCING STEEL
3. REBAR SPACING SHALL BE MEASURED PERPENDICULAR TO CENTERLINE OF CONSTRUCTION.
4. REINFORCMENT SHALL BE LAPPED THE FOLLOWING DISTANCES AT A MINIMUM

   #4 - 2'-6"
   #5 - 3'-4"
5. REFER TO STD. DWG. TST-2-21 FOR ADDITIONAL BRIDGE RAILING DETAILS.

DECK PLAN
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER SRK
REVIEWER CAH
PROJECT ID 112975
SUBSET 17 | TOTAL 20
SHEET 38 | TOTAL 50

WAR-SR 350-8.73

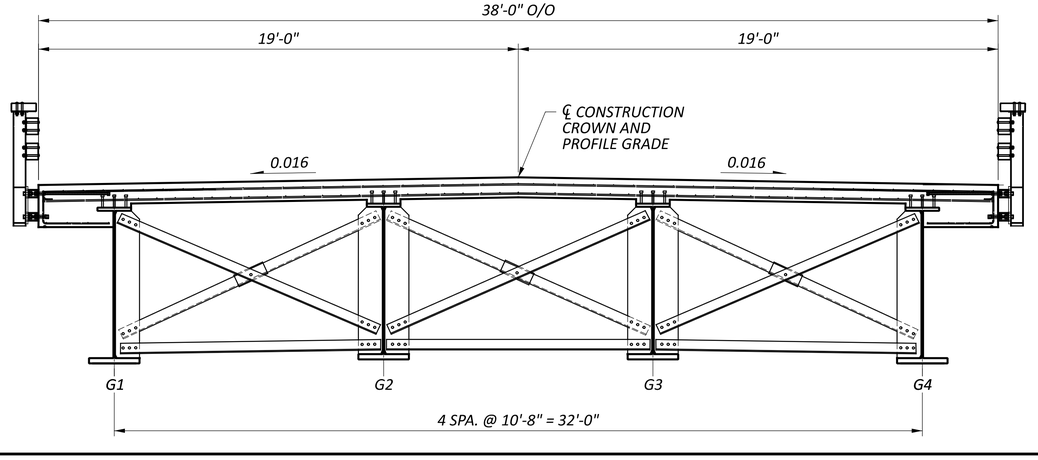
SCREED, TOP OF HAUNCH, AND FINAL DECK ELEVATIONS

ELEVATION LOCATION		CL R.A. BRGS.	1/10 SPAN	2/10 SPAN	SPLICE 1	3/10 SPAN	4/10 SPAN	5/10 SPAN	6/10 SPAN	SPLICE 2	7/10 SPAN	8/10 SPAN	9/10 SPAN	CL F.A. BRGS.
LEFT EDGE OF DECK	STATION	990+96.77	991+13.48	991+30.20	991+38.55	991+46.91	991+63.62	991+80.34	991+97.05	992+13.76	992+22.12	992+30.47	992+47.19	992+63.90
	PROFILE GRADE ELEVATION	801.29	801.37	801.43	801.46	801.48	801.52	801.54	801.55	801.54	801.53	801.52	801.49	801.44
	FINAL DECK SURFACE ELEVATION	801.04	801.11	801.16	801.19	801.20	801.23	801.24	801.24	801.22	801.21	801.19	801.15	801.09
	DEAD LOAD DEFLECTION	0.00	-0.20	-0.38	-0.46	-0.53	-0.62	-0.65	-0.62	-0.53	-0.46	-0.38	-0.20	0.00
	SCREED ELEVATION	801.04	801.31	801.55	801.65	801.73	801.84	801.89	801.85	801.75	801.67	801.58	801.35	801.09
	TOP OF HAUNCH ELEVATION	800.25	800.52	800.76	800.85	800.94	801.05	801.10	801.06	800.96	800.88	800.79	800.56	800.30
G1	STATION	990+95.04	991+11.75	991+28.46	991+36.82	991+45.18	991+61.89	991+78.60	991+95.32	992+12.03	992+20.39	992+28.74	992+45.46	992+62.17
	PROFILE GRADE ELEVATION	801.34	801.41	801.46	801.49	801.50	801.53	801.54	801.54	801.53	801.52	801.50	801.46	801.40
	FINAL DECK SURFACE ELEVATION	801.08	801.15	801.21	801.23	801.25	801.28	801.29	801.29	801.27	801.26	801.25	801.20	801.15
	DEAD LOAD DEFLECTION	0.00	-0.20	-0.38	-0.46	-0.53	-0.62	-0.65	-0.62	-0.53	-0.46	-0.38	-0.20	0.00
	SCREED ELEVATION	801.08	801.36	801.59	801.69	801.77	801.89	801.93	801.90	801.80	801.72	801.63	801.41	801.15
	TOP OF HAUNCH ELEVATION	800.29	800.56	800.80	800.90	800.98	801.10	801.14	801.11	801.01	800.93	800.84	800.62	800.36
G2	STATION	990+88.88	991+05.59	991+22.31	991+30.66	991+39.02	991+55.73	991+72.44	991+89.16	992+05.87	992+14.23	992+22.58	992+39.30	992+56.01
	PROFILE GRADE ELEVATION	801.31	801.38	801.44	801.47	801.49	801.52	801.54	801.55	801.54	801.53	801.51	801.48	801.43
	FINAL DECK SURFACE ELEVATION	801.22	801.30	801.36	801.38	801.40	801.44	801.46	801.46	801.45	801.44	801.43	801.39	801.34
	DEAD LOAD DEFLECTION	0.00	-0.24	-0.44	-0.53	-0.61	-0.71	-0.75	-0.71	-0.61	-0.53	-0.44	-0.24	0.00
	SCREED ELEVATION	801.22	801.53	801.80	801.92	802.01	802.15	802.20	802.17	802.06	801.97	801.87	801.63	801.34
	TOP OF HAUNCH ELEVATION	800.43	800.74	801.01	801.12	801.22	801.36	801.41	801.38	801.27	801.18	801.08	800.84	800.55
CL CONST. S.R. 350	STATION	990+85.80	991+02.51	991+19.23	991+27.58	991+35.94	991+52.65	991+69.37	991+86.08	992+02.79	992+11.15	992+19.50	992+36.22	992+52.93
	PROFILE GRADE ELEVATION	801.29	801.37	801.43	801.46	801.48	801.52	801.54	801.55	801.54	801.53	801.52	801.49	801.44
	FINAL DECK SURFACE ELEVATION	801.29	801.37	801.43	801.46	801.48	801.52	801.54	801.55	801.54	801.53	801.52	801.49	801.44
	DEAD LOAD DEFLECTION	0.00	-0.24	-0.44	-0.53	-0.61	-0.71	-0.75	-0.71	-0.61	-0.53	-0.44	-0.24	0.00
	SCREED ELEVATION	801.29	801.61	801.88	801.99	802.09	802.23	802.29	802.26	802.15	802.06	801.96	801.72	801.44
	TOP OF HAUNCH ELEVATION	800.50	800.81	801.09	801.20	801.30	801.44	801.49	801.47	801.36	801.27	801.17	800.93	800.65
G3	STATION	990+82.72	990+99.43	991+16.15	991+24.50	991+32.86	991+49.57	991+66.29	991+83.00	991+99.71	992+08.07	992+16.43	992+33.14	992+49.85
	PROFILE GRADE ELEVATION	801.28	801.36	801.42	801.45	801.47	801.51	801.54	801.55	801.54	801.53	801.52	801.49	801.45
	FINAL DECK SURFACE ELEVATION	801.19	801.27	801.34	801.37	801.39	801.43	801.45	801.46	801.46	801.45	801.44	801.41	801.36
	DEAD LOAD DEFLECTION	0.00	-0.24	-0.44	-0.53	-0.61	-0.71	-0.75	-0.71	-0.61	-0.53	-0.44	-0.24	0.00
	SCREED ELEVATION	801.19	801.51	801.78	801.90	802.00	802.14	802.20	802.17	802.06	801.98	801.88	801.64	801.36
	TOP OF HAUNCH ELEVATION	800.40	800.72	800.99	801.11	801.21	801.35	801.41	801.38	801.27	801.19	801.09	800.85	800.57
G4	STATION	990+76.56	990+93.28	991+09.99	991+18.34	991+26.70	991+43.41	991+60.13	991+76.84	991+93.55	992+01.91	992+10.27	992+26.98	992+43.69
	PROFILE GRADE ELEVATION	801.25	801.33	801.40	801.43	801.46	801.50	801.53	801.54	801.55	801.54	801.53	801.51	801.47
	FINAL DECK SURFACE ELEVATION	800.99	801.07	801.14	801.17	801.20	801.24	801.27	801.29	801.29	801.28	801.28	801.25	801.21
	DEAD LOAD DEFLECTION	0.00	-0.20	-0.38	-0.46	-0.53	-0.62	-0.65	-0.62	-0.53	-0.46	-0.38	-0.20	0.00
	SCREED ELEVATION	800.99	801.28	801.53	801.64	801.73	801.86	801.92	801.90	801.81	801.75	801.66	801.45	801.21
	TOP OF HAUNCH ELEVATION	800.20	800.49	800.74	800.84	800.94	801.07	801.13	801.11	801.02	800.95	800.87	800.66	800.42
RIGHT EDGE OF DECK	STATION	990+74.83	990+91.54	991+08.26	991+16.61	991+24.97	991+41.68	991+58.40	991+75.11	991+91.82	992+00.18	992+08.53	992+25.25	992+41.96
	PROFILE GRADE ELEVATION	801.24	801.32	801.39	801.42	801.45	801.50	801.53	801.54	801.55	801.54	801.53	801.51	801.47
	FINAL DECK SURFACE ELEVATION	800.93	801.02	801.09	801.12	801.15	801.19	801.22	801.24	801.24	801.24	801.23	801.21	801.17
	DEAD LOAD DEFLECTION	0.00	-0.20	-0.38	-0.46	-0.53	-0.62	-0.65	-0.62	-0.53	-0.46	-0.38	-0.20	0.00
	SCREED ELEVATION	800.93	801.22	801.47	801.58	801.67	801.81	801.87	801.85	801.77	801.70	801.62	801.41	801.17
	TOP OF HAUNCH ELEVATION	800.14	800.43	800.68	800.79	800.88	801.02	801.08	801.06	800.98	800.91	800.82	800.62	800.37

NOTES

1. *SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.*

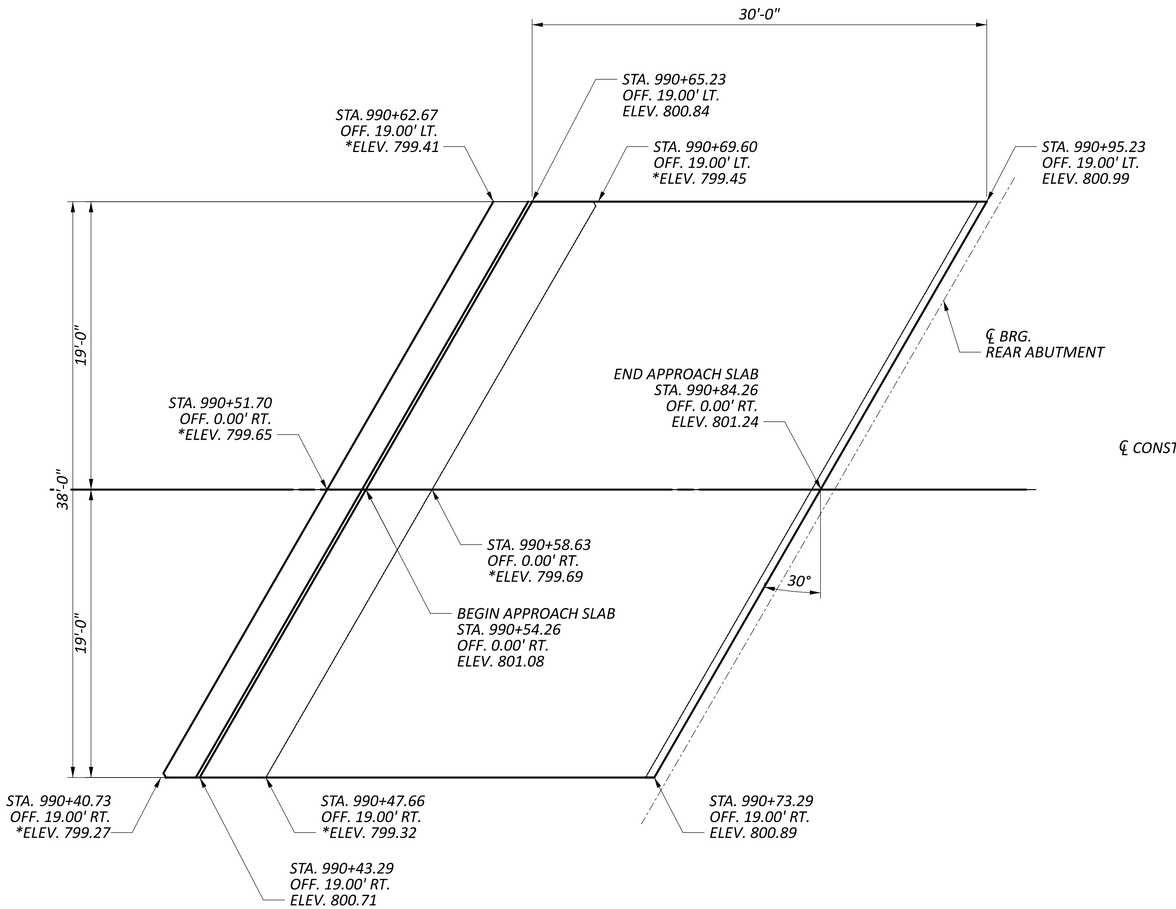
2. *THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED PER CMS 511.23.*

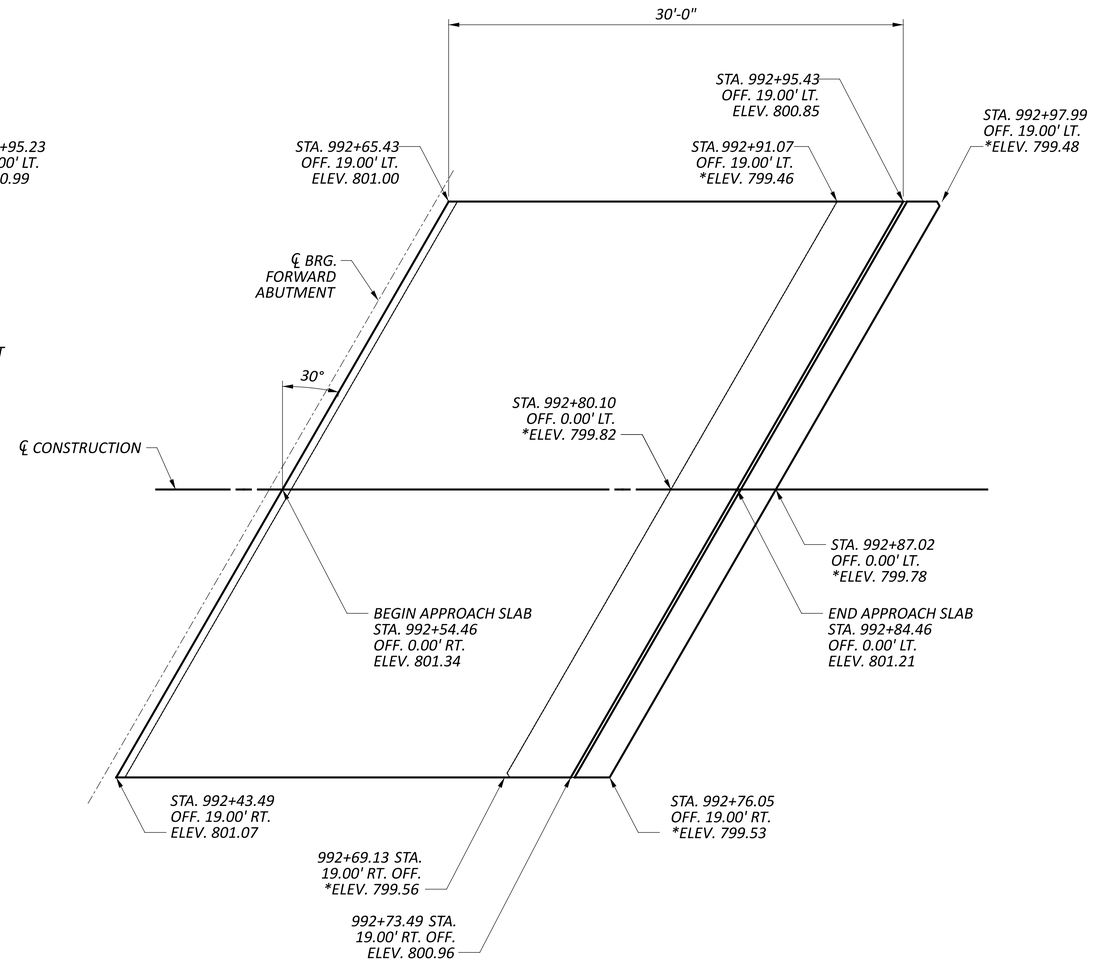


SCREED TABLES
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER CAH
REVIEWER SRK
PROJECT ID 112975
SUBSET 18 | TOTAL 20
SHEET 39 | TOTAL 50

WAR-SR 350-8.73





LEGEND

** - SLEEPER SLAB ELEVATION*

NOTES

1. SEE STD. DWGS. AS-1-15 AND AS-2-15 FOR ADDITIONAL NOTES AND DETAILS.

2. SLEEPER SLAB ELEVATIONS ARE TAKEN AT THE TOP OF THE SLEEPER SLAB.

APPROACH SLABS
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	19
TOTAL	20
SHEET	40
TOTAL	50

WAR-SR 350-8.73

WAR-SR 350-8.73

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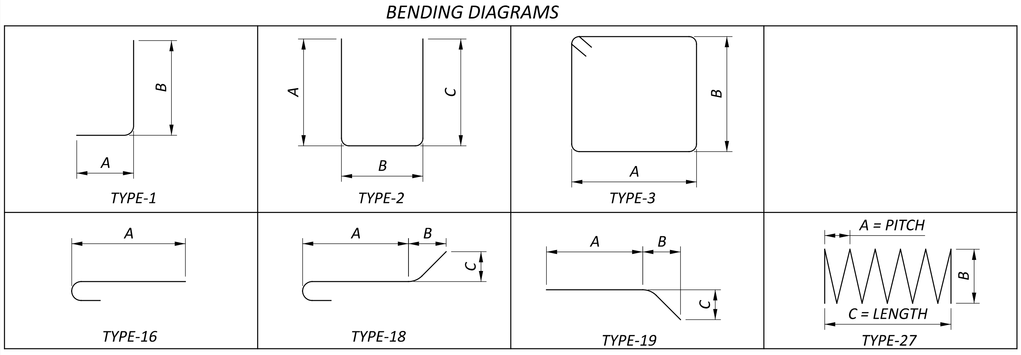
MARK	NUMBER							LENGTH	WEIGHT	TYPE	DIMENSIONS			
	REAR ABUT.	FORWARD ABUT.	WINGWALL #1	WINGWALL #2	WINGWALL #3	WINGWALL #4	TOTAL				A	B	C	INC
ABUTMENTS														
A501	22	16					38	30'-0"	1189	STR				
A502	22	16					38	25'-7"	1014	STR				
A503	8	8					12	30'-0"	500	STR				
A504	8	8					12	27'-6"	459	STR				
A505	55	55	58	58	27	27	280	15'-2"	4429	3	4'-8"	2'-7"		
A507				6	6		12	30'-0"	375	STR				
A508	8	8					16	23'-7"	394	STR				
A509				6	6		12	24'-1"	301	STR				
A510	9	9					18	11'-7"	217	2	4'-8"	2'-5 ¾"	4'-8"	
A511	17	14					31	6'-11"	224	19	3'-6"	2'-10"	2'-0"	
A512	17	14					31	6'-11"	224	19	3'-6"	1'-9"	3'-0"	
A601	52						52	17'-2"	1341	2	6'-5 ¾"	3'-0"	8'-0"	
A602	52						52	11'-9"	918	1	1'-1 ½"	10'-9"		
A603		52						18'-4"	1432	2	7'-10"	3'-0"	7'-10"	
A604		52						8'-2"	638	1	1'-1 ½"	7'-2"		
A605			30	52				19'-5"	2392	1	1'-1 ½"	18'-5"		
A606			13	40				15'-3"	1214	1	1'-1 ½"	14'-3"		
A607					52	30		15'-5"	1899	1	1'-1 ½"	14'-5"		
A608					40	13		11'-4"	903	1	1'-1 ½"	10'-4"		
A801	4	4					8	30'-2"	644	STR				
A802	4	4					8	30'-8"	655	STR				
A803				4	4		8	30'-0"	641	STR				
A804				4	4		8	27'-2"	580	STR				
A805			4			4	8	24'-1"	514	STR				
A806	5	5					10	10'-8"	285	19	5'-4"	4'-4"	3'-2"	
A807	5	5					10	10'-8"	285	19	5'-4"	2'-8"	4'-8"	
A901	52							15'-6"	2740	1	1'-6 ½"	14'-3"		
A902		52						11'-0"	1945	1	1'-6 ½"	9'-9"		
A903			30	52				19'-8"	5484	1	1'-6 ½"	18'-5"		
A904			13	40				15'-6"	2793	1	1'-6 ½"	14'-3"		
A905					52	30		15'-9"	4391	1	1'-6 ½"	14'-6"		
A906					40	13		11'-7"	2088	1	1'-6 ½"	10'-4"		
				1 SR	1 SR		2 SR	10'-8"			7'-8"			
WW501				OF	OF		OF	TO	177	19	TO	2'-5 ¾"	1'-9"	7'-0 ¼"
				4	4		4	31'-9"			28'-9"			
				1 SR	1 SR		2 SR	8'-11"			7'-2 ½"			
WW502				OF	OF		OF	TO	163	19	TO	1'-5 ¼"	1'-0"	7'-0 ¾"
				4	4		4	30'-2"			28'-5"			
WW503				5	5		10	33'-0"	344	19	30'-0"	2'-5 ¾"	1'-9"	
WW504				5	5		10	31'-9"	330	19	30'-0"	1'-5 ¼"	1'-0"	
				2 SR	2 SR		4 SR	9'-4"						
WW505				OF	OF		OF	TO	289	STR				5'-3 ¾"
				4	4		4	25'-3"						
WW506				26	20		46	26'-6"	1271	STR				
WW507				28	22		50	30'-0"	1565	STR				
			1 SR			1 SR	2 SR	6'-7"			5'-3 ½"			
WW508			OF			OF	OF	TO	192	19	TO	0'-8"	1'-1 ¾"	3'-6 ¼"
			6			6	6	24'-2"			22'-10 ¾"			
			1 SR			1 SR	2 SR	7'-6"			5'-3 ½"			
WW509			OF			OF	OF	TO	204	19	TO	1'-2"	1'-11 ¾"	3'-6 ¼"
			6			6	6	25'-2"			22'-10 ¾"			
WW510			2			2	4	24'-11"	104	19	23'-7 ¾"	0'-8"	1'-1 ¾"	
WW511			2			2	4	25'-11"	108	19	23'-7 ¾"	1'-2"	1'-11 ¾"	
WW512			28			22	50	24'-2"	1260	STR				
				1 SR	1 SR		2 SR	9'-8"			3'-11"		3'-11"	
WW601				OF	OF		OF	TO	1876	2	TO	2'-2"	TO	0'-1"
				46	46		46	17'-6"			7'-10"		7'-10"	
				1 SR	1 SR		2 SR	11'-10"			5'-0"		5'-0"	
WW603				OF	OF		OF	TO	1783	2	TO	2'-2"	TO	
				40	40		40	17'-10"			8'-0"		8'-0"	
				1 SR	1 SR		2 SR	18'-4"				3'-0"		
WW604				OF	OF		OF	TO	222	2	7'-10"	TO	7'-10"	0'-1"
				4	4		4	18'-8"				3'-3 ¼"		
WW605				1	1		2	18'-0"	54	2	7'-10"	2'-7"	7'-10"	
WW606				1	1		2	17'-7"	53	2	7'-10"	2'-3"	7'-10"	
			1 SR			1 SR	2 SR	9'-6"			3'-10"		3'-10"	
WW607			OF			OF	OF	TO	1014	2	TO	2'-2"	TO	0'-1"
			25			25	25	17'-6"			7'-10"		7'-10"	
			1 SR			1 SR	2 SR	13'-2"			5'-8"		5'-8"	
WW608			OF			OF	OF	TO	1152	2	TO	2'-2"	TO	
			25			25	25	17'-6"			7'-10"		7'-10"	
WW609			3			3	6	18'-10"	170	2	7'-10"	3'-5 ½"	7'-10"	
WW610			1			1	2	18'-1"	54	2	7'-10"	2'-9 ¼"	7'-10"	
WW611			1			1	2	17'-8"	53	2	7'-10"	2'-4 ¼"	7'-10"	
								SUB-TOTAL	55,546					

BENDING DIAGRAMS



SHEET	TOTAL	SUBSET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	CHECKER		DESIGN AGENCY	SFN
41	50	20	20	112975	CAH	GTF	SRK			8306272

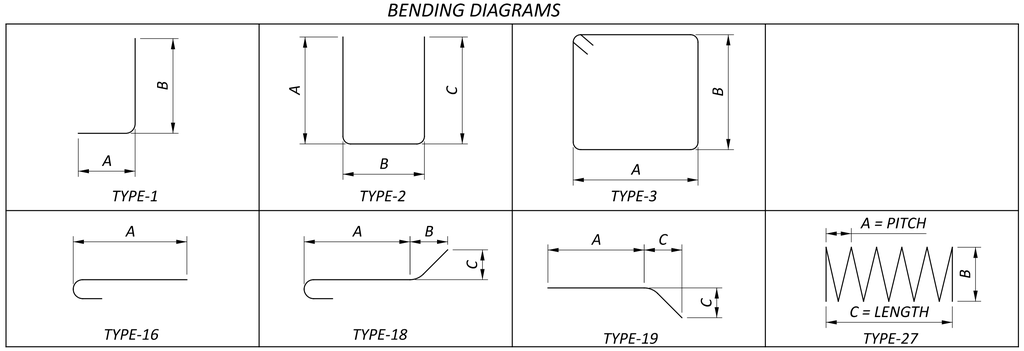
REINFORCING STEEL LIST
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FORWARD ABUT.	TOTAL				A	B	C	D	R	INC
ABUTMENT DIAPHRAGMS												
S506	33	33	66	7'-5"	511	2	2'-9"	2'-2"	2'-9"			
S507	58	58	116	12'-9"	1543	2	5'-0"	3'-0"	5'-0"			
S508	8	8	16	11'-1"	185	2	4'-2"	3'-0"	4'-2"			
S801	34	34	68	5'-9"	1044	18	3'-6 ¼"	1'-0"	1'-0"			
S802	12	12	24	22'-9"	1458	STR						
S803	12	12	24	30'-0"	1923	STR						
S804	4	4	8	10'-4"	221	1	1'-9"	8'-9 ¾"				
S805	2	2	4	24'-11"	266	2	1'-7"	22'-1 ½"	1'-7"			
S806	4	4	8	8'-9"	187	STR						
S807	2	2	4	22'-1"	236	STR						
				SUB-TOTAL	7,574							

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FORWARD ABUT.	TOTAL				A	B	C	D	R	INC
ABUTMENT DRILLED SHAFTS (FOR INFORMATION ONLY)												
DS1101	255		255	23'-9"	64354	16	22'-2"					
DS1102		255	255	20'-6"	27774	16	18'-11"					
DSSP501	17		17	635'-4"	11265	27	0'-3 ¾"	2'-10"	21'-9"			
DSSP502		17	17	544'-4"	9652	27	0'-3 ¾"	2'-10"	18'-6"			
				SUB-TOTAL	113,045							

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
DECK											
S401	294	30'-0"	5892	STR							
S402	49	10'-0"	327	STR							
S403	816	4'-5"	2407	2	0'-8"	1'-4"	2'-7 ½"				
S404	2	4'-3"	6	STR							
S405	2	4'-0"	5	STR							
S406	2	3'-9"	5	STR							
S407	2	43'-6"	58	STR							
											0'-8 ¾"
S501	282	30'-0"	8824	STR							
S502	47	10'-0"	490	STR							
S503	710	37'-8"	27893	STR							
	4 SR	5'-0"									
S504	OF	TO	4078	STR							
	46	37'-6"									
S505	816	7'-5"	6312	16	6'-10"						
S506	4	4'-3"	18	STR							
S507	4	4'-0"	17	STR							
S508	4	3'-9"	16	STR							
S509	2	43'-6"	91	STR							
		SUB-TOTAL	56,439								

BENDING DIAGRAMS



REINFORCING STEEL LIST
BRIDGE No.: WAR-350-0873
STATE ROUTE 350 OVER TODD'S FORK

SFN 8306272
DESIGN AGENCY
DESIGNER GTF | CHECKER SRK
REVIEWER CAH
PROJECT ID 112975
SUBSET 20 | TOTAL 20
SHEET 41 | TOTAL 50

WAR-SR 350-8.73

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PROJECT DESCRIPTION

COMPLETE STRUCTURE REPLACEMENT OF BRIDGE NO. WAR-350-0873, WIDENING AND RESURFACING OF APPROACH PAVEMENT, UPGRADE GUARDRAIL TO TYPE MGS, RELOCATION OF EXISTING DRIVE, AND OTHER MINOR ROADWAY IMPROVEMENTS.

HISTORIC RECORDS

NO HISTORICAL GEOTECHNICAL RECORDS WERE FOUND FOR THIS PROJECT.

GEOLOGY

THE PROJECT IS LOCATED WITHIN THE ILLINOIAN GLACIATED ALLEGHENY PLATEAU PHYSIOGRAPHIC REGION WHICH IS CHARACTERIZED AS A DISSECTED PLATEAU WITH RUGGED HILLSIDES AND MODERATE RELIEF. RIDGETOPS ARE COMPRISED OF GLACIALLY DEPOSITED DRIFT AND LOESS, BUT ARE GENERALLY ABSENT DUE TO BEDROCK SLOPES. COLLUVIAL SOILS ARE PRESENT AT THE BASE OF THE HILLSIDES. THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) INTERACTIVE GEOLOGIC MAP INDICATES THAT THE MAJORITY OF THE PROJECT AREA IS COMPRISED OF ALLUVIAL SOILS AT THE GROUND SURFACE EXCEPT AT THE REAR ABUTMENT WHICH IS COMPRISED OF GROUND MORAINE GLACIAL SOILS. TODD FORK IS PRESENT WITHIN AN INCISED BEDROCK VALLEY. THE PROJECT AREA IS UNDERLAIN BY THE ARNHEIM FORMATION WHICH IS PREDOMINATELY COMPRISED OF SHALE WITH IRREGULAR NODULAR TO WAVY LIMESTONE BEDS WITH SHALE AND LIMESTONE FROM THE WAYNESVILLE FORMATION PRESENT UNDERLYING THE HILLSIDE TO THE NORTH.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNEL FROM THE DISTRICT (D8) AND OFFICE OF GEOTECHNICAL ENGINEERING (OGE) ON DECEMBER 21, 2020. THE EXISTING STRUCTURE WAS NOTED AS BEING IN POOR CONDITION WITH CRACKING AND SPALLING OF THE CONCRETE. PAVEMENT APPROACHING THE BRIDGE WAS NOTED TO BE IN FAIR TO POOR CONDITION. THE REAR APPROACH IS SUPPORTED ON MINOR EMBANKMENT FILL TO THE SOUTH AND AT GRADE LEADING INTO A HILLSIDE TO THE NORTH. AT THE FORWARD APPROACH, THE ENTIRE ROADWAY IS SUPPORTED ON EMBANKMENT FILLS. NO SIGNS OF INSTABILITY WERE NOTED WITHIN THE EMBANKMENT FILLS. WITHIN THE STREAM CHANNEL SEDIMENT BUILDUP COMPRISED OF PREDOMINATELY GRAVEL, COBBLES, AND BOULDERS WAS NOTED ALONG THE REAR ABUTMENT AND AT THE CENTER PIER. IMMEDIATELY NORTH OF THE BRIDGE SHALE AND LIMESTONE ASSOCIATED WITH THE WAYNESVILLE FORMATION IS EXPOSED WITHIN THE CUT BANK. THE IMMEDIATE RIPARIAN CORRIDOR AND THE HILLSIDE TO THE NORTHWEST OF THE PROJECT ARE WOODED. THE REMAINING QUADRANTS ARE AGRICULTURAL FIELDS.

SUBSURFACE EXPLORATION

THREE (3) BORINGS, B-001-0-20 THROUGH B-003-0-20, WERE COMPLETED AS PART OF THE SUBSURFACE EXPLORATION BETWEEN JANUARY 12 AND 27, 2021. B-001-0-20 AND B-003-0-20 WERE DRILLED WITH A TRUCK MOUNTED CME55 ROTARY DRILL RIG, USING 3.25-INCH I.D. HOLLOW STEM AUGERS. B-002-0-20 WAS COMPLETED WITH A TRACK MOUNTED CME850 ROTARY DRILL RIG, USING 3.75-INCH I.D. HOLLOW STEM AUGERS. AUGERS WERE ADVANCED THROUGH THE OVERBURDEN SOILS INTO WEATHERED BEDROCK WITH DISTURBED SAMPLES COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT CONTINUOUS AND 2.5-FOOT INTERVALS. THE CME55 HAMMER SYSTEM WAS CALIBRATED ON APRIL 15, 2020, WITH AN AVERAGE DRILL ROD ENERGY RATIO (ER) OF 84%. THE CME850 HAMMER SYSTEM WAS CALIBRATED MAY 1, 2019, WITH AN ER OF 89%. THE BORINGS WERE ADVANCED INTO BEDROCK AND SAMPLED (AASHTO T225) USING AN N SERIES WIRELINE CORE BARREL, WATER METHOD.

EXPLORATION FINDINGS

BORINGS B-001-0-20 AND B-003-0-20 WERE COMPLETED WITHIN THE EXITING APPROACH ROADWAY ENCOUNTERING 12-INCHES OF ASPHALT UNDERLAIN BY 6-INCHES OF CONCRETE. BENEATH THE SURFACE MATERIALS THE BORINGS ENCOUNTERED PREDOMINANTLY COHESIVE EMBANKMENT FILLS CONSISTING OF SANDY SILT (A-4a), SILT AND CLAY (A-6a), AND SILTY CLAY (A-6b) RANGING FROM MEDIUM STIFF TO HARD IN CONSISTENCY AND DAMP TO MOIST IN CONDITION. B-001-0-20 ENCOUNTERED NON-COHESIVE SOILS AT ELEVATION (EL.) 781.1 FEET COMPRISED OF STONE FRAGMENTS WITH SAND AND SILT (A-2-4) AND STONE FRAGMENTS WITH SAND (A-1-a) IN MEDIUM DENSE COMPACTNESS AND MOIST CONDITION. B-003-0-20 ENCOUNTERED MEDIUM DENSE STONE FRAGMENTS BETWEEN EL. 796.5 AND 795.0 FEET. B-003-0-20 ENCOUNTERED A SLIGHTLY ORGANIC SANDY SILT (A-4a) AT EL. 788.5 FEET. THIS RESULT IS PRESENTED IN TABULAR FORM, SEE ORGANIC CONTENT BY LOSS ON IGNITION TEST TABLE. THE SLIGHTLY ORGANIC SANDY SILT (A-4a) IN B-003-0-20 PROBABLY REPRESENTS THE ORIGINAL GROUND SURFACE IS UNDERLAIN BY MEDIUM DENSE STONE FRAGMENTS WITH SAND (A-1-b) AT EL. 786.0 FEET IN DAMP CONDITION. BEDROCK WAS ENCOUNTERED IN BOTH B-001-0-20 AND B-003-0-20 AT EL. 776.1 AND 776.8 FEET, RESPECTIVELY. B-002 WAS COMPLETED WITHIN A SEDIMENT BAR IN THE STREAM CHANNEL NEXT TO THE EXISTING CENTRAL PIER ENCOUNTERING VERY LOOSE GRAVEL (A-1-a) WITH COBBLES AND BOULDERS EXTENDING TO TOP OF BEDROCK AT EL. 777.2 FEET.

BEDROCK ENCOUNTERED WITHIN THE BORINGS WAS PREDOMINATELY A POORLY FISSILE CALCAREOUS SHALE WHICH WAS VERY WEAK TO WEAK AND CONTAINED THIN LIMESTONE LAYERS AND NODULES. UNCONFINED COMPRESSIVE STRENGTH TESTING OF THE SHALE RANGED FROM 22 TO 1,459 PSI. A SLAKE DURABILITY TEST WAS COMPLETED IN B-002-0-20 WITH SDI RESULTS OF 70.5% AND 71.1%. THESE TEST RESULTS ARE PRESENTED IN TABULAR FORM, SEE BEDROCK TEST SUMMARY TABLE. ALL BORINGS WERE TERMINATED IN THIS SHALE UNIT. WITHIN THE CUT BANK, IMMEDIATELY NORTHWEST OF THE BRIDGE, INTERBEDDED SHALE (70%) AND LIMESTONE (30%) WAS NOTED. THE LIMESTONE WAS NOTED AS BEING FOSSILIFEROUS AND IN A HIGHLY WEATHERED CONDITION.

EXPLORATION NOTES CONTINUED, SEE SHEET 2.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL OR STONE FRAGMENTS	A-1-a	3	-
STONE FRAGMENTS WITH SAND	A-1-b	4	1
STONE FRAGMENTS WITH SAND AND SILT	A-2-4	1	-
SANDY SILT	A-4a	3	4
SILT AND CLAY	A-6a	3	-
SILTY CLAY	A-6b	1	2
	TOTAL	15	7
BOULDERY ZONE	VISUAL		
SHALE	VISUAL		
PAVEMENT = X = APPROXIMATE THICKNESS	VISUAL		

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND 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" OF PENETRATION AT REFUSAL.

X/Y/D" — NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X = NUMBER OF BLOWS FOR 6 INCHES (UNCORRECTED). Y/D" = NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.

W — INDICATES FREE WATER ELEVATION.

▽ — INDICATES WATER AT COMPLETION.

● — INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.

γ — INDICATES UNIT WEIGHT OF ROCK.

Id2 — INDICATES SLAKE DURABILITY TEST, ASTM D4644.

LOI — INDICATES ORGANIC CONTENT BY LOSS ON IGNITION, AASHTO T267.

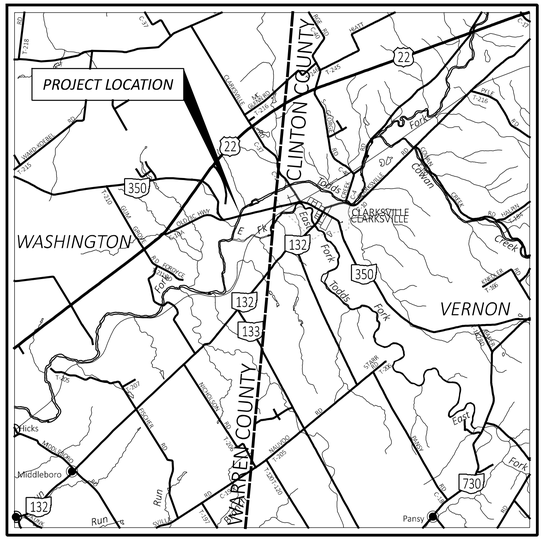
NP — INDICATES A NON-PLASTIC SAMPLE.

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 TOP OF ROCK ELEVATION.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS |	COBBLES |	GRAVEL |	COARSE SAND |	FINE SAND |	SILT | CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE	

RECON. -	AMJ,AWS	12/21/20
DRILLING -	PPP,BKW	01/12-27/21
DRAWN -	ARR	08/28/24
REVIEWED -	SAT	08/29/24

GEOTECHNICAL PROFILE - BRIDGE

BRIDGE NO. WAR-350-0873 OVER TODD FORK

DESIGN AGENCY

DESIGNER ARR

REVIEWER SAT 08/29/24

PROJECT ID 112975

SUBSET 1 | TOTAL 9

SHEET 42 | TOTAL 50

WAR-SR 350-8.73

MODEL: Geotechnical Profile Cover PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 12:57:47 PM USER: aross3
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\Geotechnical\Sheets\112975_ZC001.dgn

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 2022.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, 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.

BEDROCK SCOUR SAMPLES						
BORING ID	SAMPLE ID	SAMPLE ELEVATION	ERODIBILITY INDEX (K)	τ_c VALUE (psf)	$D_{50, EQUIV}$ (mm)	EROSION CATEGORY (EC)
B-001-0-20	NQ2-1	775.8' - 770.8'	250	83.56	4,001	6.00

BEDROCK TEST SUMMARY					
BORING ID	SAMPLE ELEVATION	SAMPLE DEPTH	Qu (PSI)	SDI (%)	LITHOLOGY
B-001-0-20	773.3' - 772.9'	26.3' - 26.7'	22	-	SHALE
	769.6' - 769.2'	30.0' - 30.4'	456	-	SHALE
	760.7' - 760.2'	38.9' - 39.4'	527	-	SHALE
B-002-0-20	776.2' - 775.2'	4.0' - 5.0'	-	70.5	SHALE
	772.9' - 772.5'	7.3' - 7.7'	664	-	SHALE
	768.9' - 768.4'	11.3' - 11.8'	-	71.1	SHALE
	767.5' - 767.1'	12.7' - 13.1'	994	-	SHALE
	763.7' - 763.3'	16.5' - 16.9'	587	-	SHALE
B-003-0-20	776.5' - 776.1'	23.0' - 23.4'	1,459	-	SHALE
	768.5' - 768.1'	31.0' - 31.4'	1,076	-	SHALE
	767.5' - 766.9'	32.0' - 32.6'	1,063	-	SHALE

ORGANIC CONTENT BY LOSS ON IGNITION TEST				
BORING ID	SAMPLE ID	SAMPLE ELEVATION	SAMPLE DEPTH	LOI (%)
B-003-0-20	SS-6	788.5' - 787.0'	11.0' - 12.5'	2.9

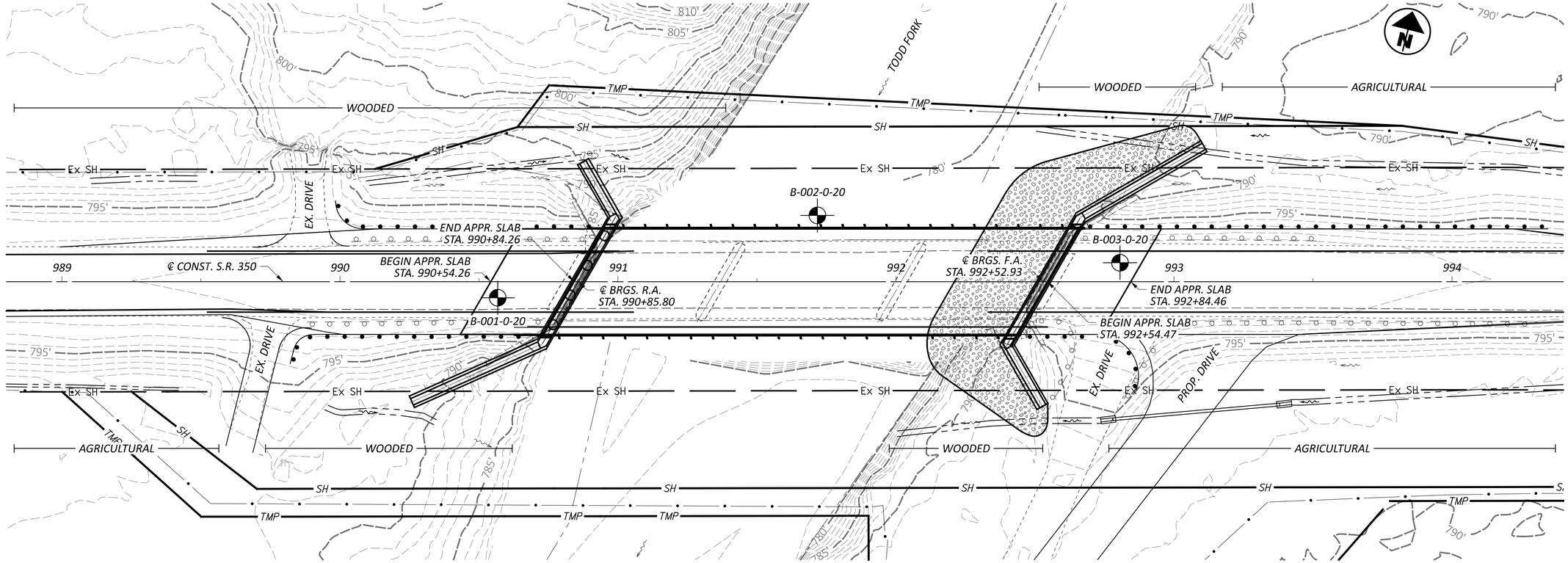
GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK
EXPLORATION NOTES, CONT.

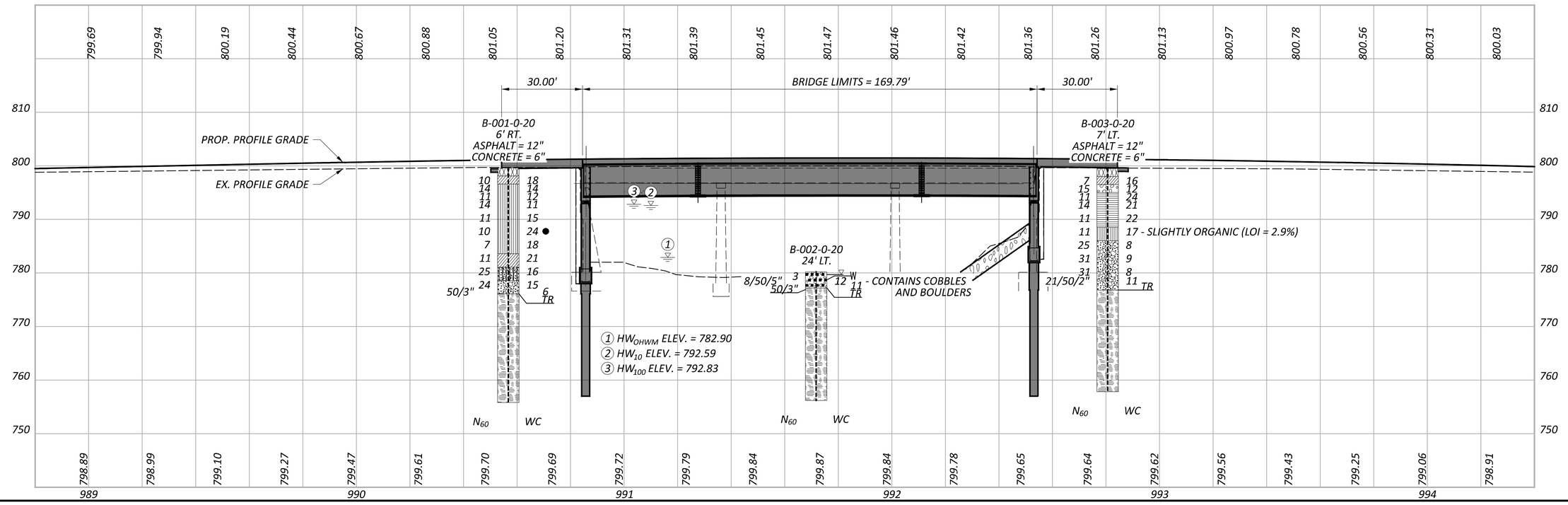
DESIGN AGENCY

DESIGNER ARR
REVIEWER SAT 08/29/24
PROJECT ID 112975
SUBSET 2 | TOTAL 9
SHEET 43 | TOTAL 50

WAR-SR 350-8.73

MODEL: Geotechnical Profile Cover cont. PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 12:57:48 PM USER: aross3
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\Geotechnical\Sheets\112975_ZC001.dgn





HORIZONTAL SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK

DESIGN AGENCY

DESIGNER ARR
REVIEWER SAT 08/29/24
PROJECT ID 112975
SUBSET 3 TOTAL 9
SHEET 44 TOTAL 50

WAR-SR 350-8.73

MODEL: CLP_350 - Plan 1 [Sheet] PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 12:58:01 PM USER: aross3
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WAR-SR 350-8.73

MODEL: B-001-0-20 Boring Log PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 12:58:07 PM USER: aross3
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\Geotechnical\Sheets\112975_ZL001.dgn

PROJECT: WAR-350-8.73	DRILLING FIRM / OPERATOR: ODOT / CAREY	DRILL RIG: CME 55 TRUCK	STATION / OFFSET: 990+57, 6' RT.
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / WILLIAMS	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 350
PID: 112975 SFN: 8306272 (P)	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 4/15/20	ELEVATION: 799.6 (ft) EOB: 43.8 ft.
START: 1/26/21 END: 1/26/21	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 84	LAT / LONG: 39.399912, -84.001676

EXPLORATION ID B-001-0-20 — PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
ASPHALT (12") & CONCRETE (6")	799.6																	
	798.1																	
STIFF, BROWN, **SILT AND CLAY**, SOME SAND, LITTLE GRAVEL, DAMP	796.6		4 3 4	10	17	SS-1	-	14	12	16	35	23	34	19	15	18	A-6a (7)	
STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL AND STONE FRAGMENTS, DAMP			5 4 6	14	89	SS-2	1.00	19	9	16	32	24	23	14	9	14	A-4a (4)	
@4.5'; HARD			6 3 5	11	67	SS-3	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
@6.0'; VERY STIFF			5 4 6	14	89	SS-4	2.25	-	-	-	-	-	-	-	-	11	A-4a (V)	
@8.5'; MEDIUM STIFF, CONTAINS WOOD FRAGMENTS			4 4 4	11	39	SS-5	0.75	-	-	-	-	-	-	-	-	15	A-4a (V)	
@11.0'; STIFF, TRACE GRAVEL AND STONE FRAGMENTS, CONTAINS WOOD FRAGMENTS			3 3 4	10	100	SS-6	1.00	-	-	-	-	-	-	-	-	24	A-4a (V)	
@13.5'; MEDIUM STIFF			2 2 3	7	83	SS-7	0.50	6	8	34	29	23	25	15	10	18	A-4a (3)	
	783.6																	
STIFF, GRAY, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL AND STONE FRAGMENTS, MOIST			3 4 4	11	100	SS-8	1.25	6	2	33	28	31	27	14	13	21	A-6a (6)	
	781.1																	
MEDIUM DENSE, GRAY AND BROWN, **STONE FRAGMENTS WITH SAND AND SILT**, LITTLE CLAY, MOIST			3 11 7	25	44	SS-9	-	44	10	14	20	12	NP	NP	NP	16	A-2-4 (0)	
	778.6																	
MEDIUM DENSE, BROWN, **STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST			6 8 9	24	61	SS-10	-	61	11	9	14	5	NP	NP	NP	15	A-1-b (0)	
	776.1	TR																
SHALE, GRAY, MODERATELY WEATHERED, VERY WEAK, VERY THIN TO THIN BEDDED, CALCAREOUS, POORLY FISSILE, FOSSILIFEROUS, CONTAINS LIMESTONE GRAVEL CLASTS, BLOCKY, GOOD; RQD 53%, REC 100%.			50/3"	-	100	SS-11	-	-	-	-	-	-	-	-	-	6	Rock (V)	
@ 26.3' - 26.7'; γ = 142 pcf; Qu = 22 psi @26.7' - 26.9'; LIMESTONE, STRONG			25		100	NQ2-1											CORE	
@29.4'; SLIGHTLY WEATHERED. @29.8' - 29.9'; LIMESTONE, STRONG @ 30.0' - 30.4'; γ = 160 pcf; Qu = 456 psi			52		100	NQ2-2											CORE	
@31.8' - 32.0'; LIMESTONE, STRONG																		
@34.6' - 34.8'; LIMESTONE, STRONG @34.8' - 36.5'; MODERATELY WEATHERED			50		100	NQ2-3											CORE	
@36.5' - 36.8'; LIMESTONE, STRONG																		
@37.9' - 38.8'; HIGHLY FRACTURED																		
@ 38.9' - 39.4'; γ = 157 pcf; Qu = 527 psi @39.5' - 39.6'; CLAY SEAM			85		100	NQ2-4											CORE	
@41.6' - 41.9'; LIMESTONE, STRONG	755.8	EOB																

NOTES: LAT/LONG/ELEV FROM DISTRICT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 8/27/24 06:41 - X:\GINT\PROJECTS\2021 COMPLETE\600820.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
45	4	112975	SAT 08/29/24	ARR	
TOTAL 50	TOTAL 9				

GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK
BORING LOG FOR B-001-0-20

MODEL: B-002-0-20 Boring Log PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 12:58:15 PM USER: aross3
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\Geotechnical\Sheets\112975_ZL001.dgn

PROJECT: WAR-350-8.73	DRILLING FIRM / OPERATOR: ODOT / BINKLEY	DRILL RIG: CME 850R TRACKED	STATION / OFFSET: 991+72, 24' LT.	EXPLORATION ID B-002-0-20
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / PAINTER	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 350	
PID: 112975 SFN: 8306272 (P)	DRILLING METHOD: 3.75" HSA / NQ2	CALIBRATION DATE: 5/1/19	ELEVATION: 780.2 (ft) EOB: 24.0 ft.	PAGE 1 OF 1
START: 1/12/21 END: 1/20/21	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 89	LAT / LONG: 39.400073, -84.001310	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
VERY LOOSE, BROWN AND GRAY, **GRAVEL**, LITTLE SAND, TRACE SILT, TRACE CLAY, CONTAINS COBBLES AND BOULDERS, WET	780.2	▽ 779.7	0 1 1	3	0	SS-1	-	76	6	10	5	3	17	13	4	12	A-1-a (0)	
@1.5'; VERY DENSE, TRACE SAND, CONTAINS LARGE GRAVEL		W 778.7	8 50/5"	-	73	SS-2	-	87	4	5	3	1	NP	NP	NP	12	A-1-a (0)	
	777.2	TR	50/3"	-	100	SS-3	-	-	-	-	-	-	-	-	-	11	Rock (V)	
SHALE, GRAY, SLIGHTLY WEATHERED, VERY WEAK TO WEAK, VERY THIN TO THIN BEDDED, CALCAREOUS, POORLY FISSILE, FOSSILIFEROUS, CONTAINS LIMESTONE GRAVEL CLASTS, BLOCKY, GOOD; RQD 59%, REC 100%. @ 4.0' - 5.0'; Id2 = 70.5%			38		100	NQ2-1											CORE	
@ 7.3' - 7.7'; γ = 161 pcf; Qu = 664 psi																		
@8.0' - 8.4'; MODERATELY TO HIGHLY WEATHERED																		
@ 11.3' - 11.8'; Id2 = 71.1%			73		100	NQ2-2											CORE	
@ 12.7' - 13.1'; γ = 162 pcf; Qu = 994 psi																		
@ 16.5' - 16.9'; γ = 160 pcf; Qu = 587 psi			63		100	NQ2-3											CORE	
			62		100	NQ2-4											CORE	
@22.6' - 22.9'; LIMESTONE, LIGHT GRAY, STRONG, FOSSILIFEROUS	756.2	EOB																

NOTES: LAT/LONG/ELEV FROM DISTRICT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NONE

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 8/27/24 09:21 - X:\GINT\PROJECTS\2021 COMPLETE\600820.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
46 TOTAL 50	5 TOTAL 9	112975	SAT 08/29/24	ARR	

GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK
BORING LOG FOR B-002-0-20

WAR-SR 350-8.73

MODEL: B-003-0-20 Boring Log PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 12:58:21 PM USER: aross3
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\Geotechnical\Sheets\112975_ZL001.dgn

PROJECT: WAR-350-8.73	DRILLING FIRM / OPERATOR: ODOT / CAREY	DRILL RIG: CME 55 TRUCK	STATION / OFFSET: 992+81, 7' LT.
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / WILLIAMS	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 350
PID: 112975 SFN: 8306272 (P)	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 4/15/20	ELEVATION: 799.5 (ft) EOB: 41.7 ft.
START: 1/27/21 END: 1/27/21	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 84	LAT / LONG: 39.400105, -84.000922

EXPLORATION ID B-003-0-20 — PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
ASPHALT (12") & CONCRETE (6")	799.5																	
	798.0																	
STIFF, BROWN, **SILT AND CLAY**, SOME GRAVEL AND STONE FRAGMENTS, SOME SAND, MOIST	796.5		3 2 3	7	33	SS-1	2.00	28	9	16	26	21	26	14	12	16	A-6a (3)	
MEDIUM DENSE, BROWN, **STONE FRAGMENTS**, SOME SAND, TRACE SILT, TRACE CLAY, WET	795.0		10 7 4	15	33	SS-2	-	57	18	11	10	4	NP	NP	NP	12	A-1-a (0)	
STIFF, GRAY AND BROWN, **SILTY CLAY**, LITTLE GRAVEL AND STONE FRAGMENTS, LITTLE SAND, MOIST			5 4 4	11	44	SS-3	1.50	19	6	8	30	37	36	19	17	24	A-6b (9)	
			3 4 6	14	72	SS-4	1.00	-	-	-	-	-	-	-	-	21	A-6b (V)	
@8.5'; REDDISH BROWN AND BROWN			4 5 3	11	78	SS-5	1.25	-	-	-	-	-	-	-	-	22	A-6b (V)	
	788.5																	
MEDIUM STIFF, DARK BROWN, **SANDY SILT**, LITTLE CLAY, SLIGHTLY ORGANIC (LOI = 2.9%), MOIST			3 3 5	11	100	SS-6	0.75	0	2	46	36	16	25	17	8	17	A-4a (3)	
	786.0																	
MEDIUM DENSE, BROWN, **STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, DAMP			4 6 12	25	78	SS-7	-	47	15	16	15	7	21	16	5	8	A-1-b (0)	
@16.0'; DENSE			12 10 12	31	72	SS-8	-	57	12	9	15	7	21	17	4	9	A-1-b (0)	
@18.5'; BROWN AND GRAY			8 8 14	31	100	SS-9	-	62	9	9	12	8	22	16	6	8	A-1-b (0)	
			21 50/2"	-	100	SS-10	-	-	-	-	-	-	-	-	-	11	A-1-b (V)	
	776.8	TR																
SHALE, GRAY, MODERATELY WEATHERED, WEAK, VERY THIN TO THIN BEDDED, CALCAREOUS, POORLY FISSLE, FOSSILIFEROUS, CONTAINS LIMESTONE CLASTS, BLOCKY, GOOD; RQD 54%, REC 96%. @22.7' - 23.7'; PREDOMINATELY LIMESTONE @ 23.0' - 23.4'; γ = 164 pcf; Qu = 1,459 psi			45		92	NQ2-1											CORE	
@27.5' - 28.9'; SEVERELY WEATHERED/ CLAY LAYER @28.7' - 29.6'; HIGHLY FRACTURED @ 31.0' - 31.4'; γ = 162 pcf; Qu = 1,076 psi			32		93	NQ2-2											CORE	
@ 32.0' - 32.6'; γ = 162 pcf; Qu = 1,063 psi			65		100	NQ2-3											CORE	
			75		100	NQ2-4											CORE	
	757.8	EOB																

NOTES: LAT/LONG/ELEV FROM DISTRICT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 8/27/24 06:41 - X:\GINT\PROJECTS\2021 COMPLETE\600820.GPJ

SHEET	TOTAL	SUBSET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
47	50	6	9	112975	SAT 08/29/24	ARR	

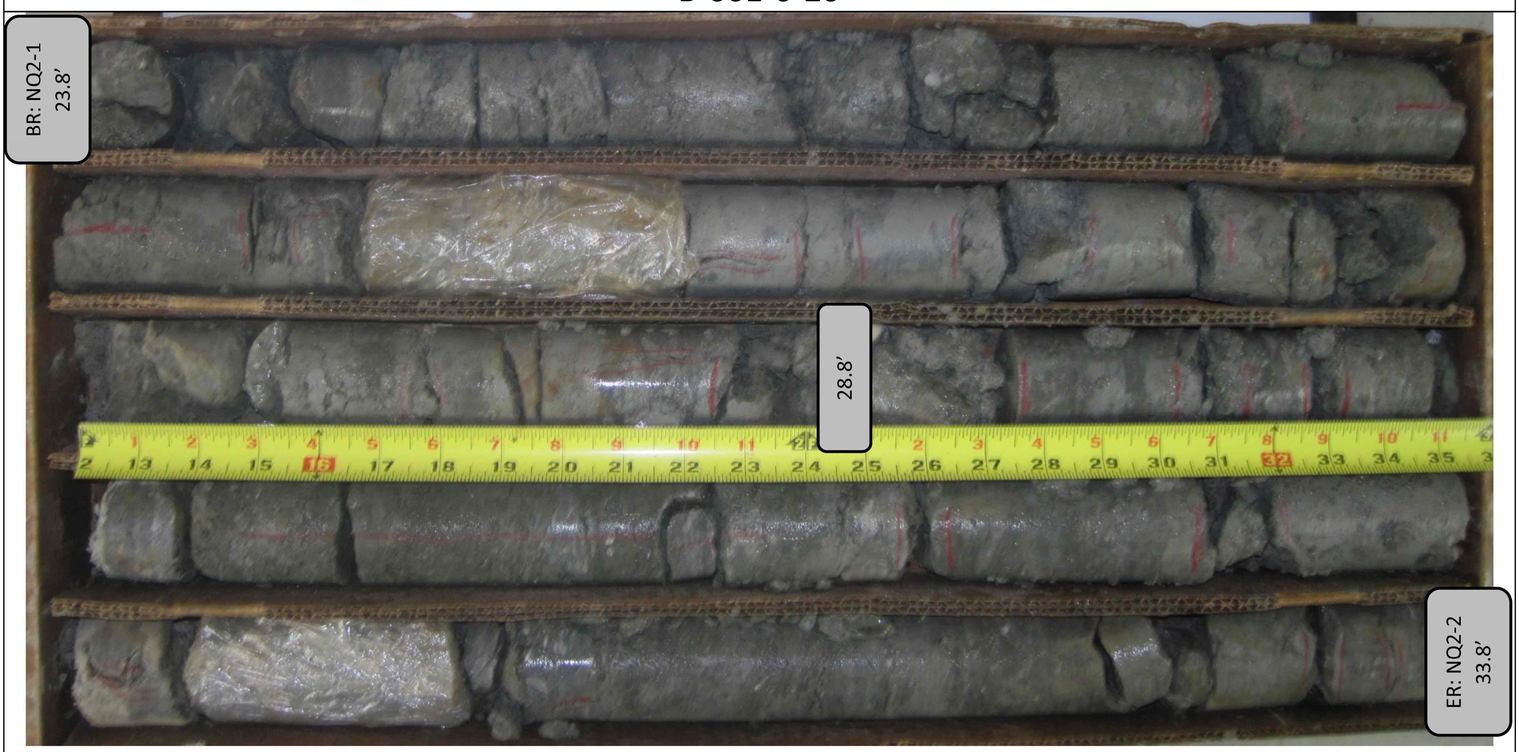
GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK
BORING LOG FOR B-003-0-20

MODEL: B-001-0-20 Rock Core Photos PAPERSIZE: 17x11 (in.) DATE: 8/30/2024 TIME: 1:02:00 PM USER: aross3
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\Geotechnical\Sheets\112975_ZD001.dgn

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

Office of Geotechnical Engineering

B-001-0-20

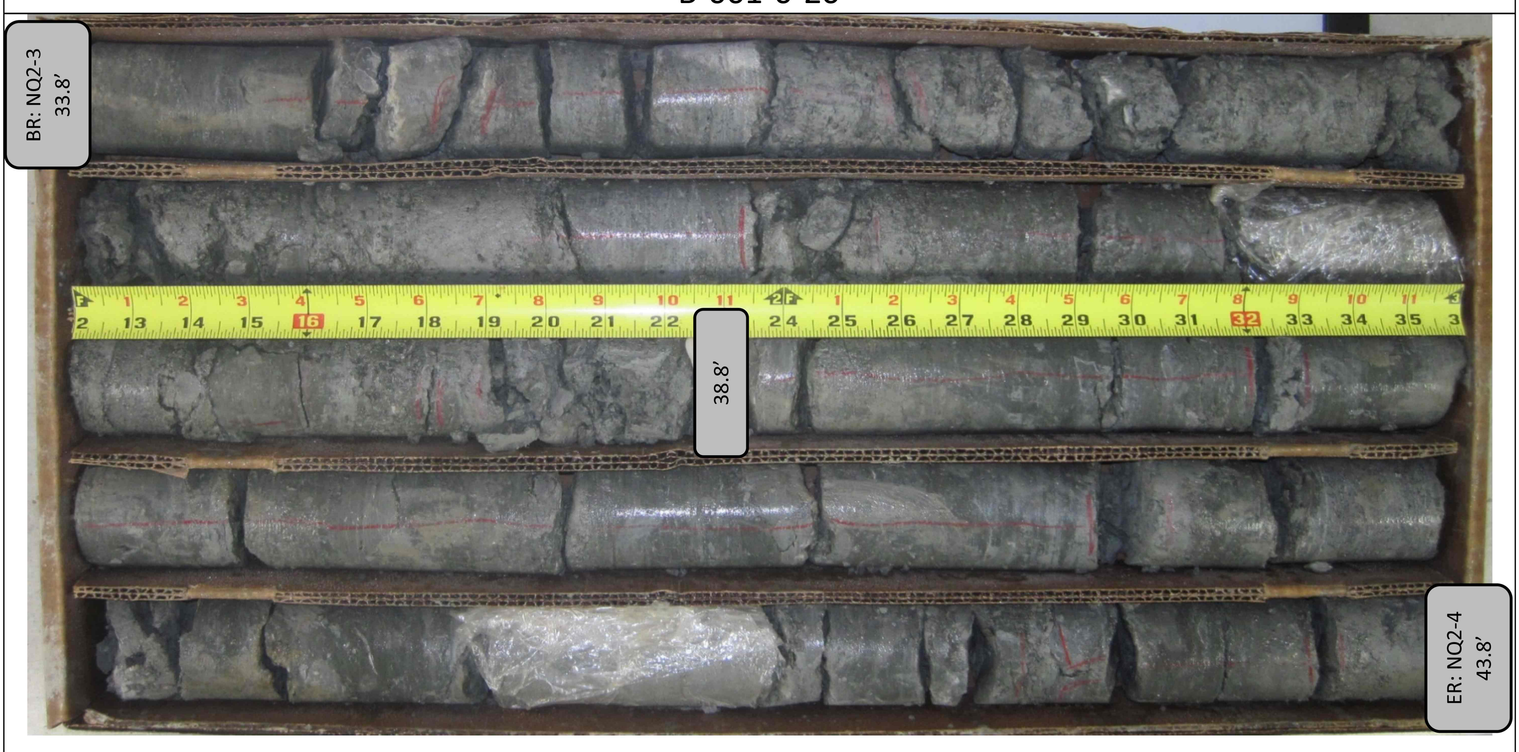


Run #:	Depth		Recovery		RQD	
NQ2-1	23.8'	28.8'	60/60	100%	15/60	25%
NQ2-2	28.8'	33.8'	60/60	100%	31/60	52%
WAR-350-8.73 PID 112975						

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

Office of Geotechnical Engineering

B-001-0-20



Run #:	Depth		Recovery		RQD	
NQ2-3	33.8'	38.8'	60/60	100%	30/60	50%
NQ2-4	38.8'	43.8'	60/60	100%	51/60	85%
WAR-350-8.73 PID 112975						

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
48 TOTAL 50	7 TOTAL 9	112975	SAT 08/29/24	ARR	

GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK
ROCK CORE PHOTOS FOR B-001-0-20

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

Office of Geotechnical Engineering

B-002-0-20

Run #:	Depth		Recovery		RQD	
NQ2-1	4.0'	9.0'	60/60	100%	23/60	38%
NQ2-2	9.0'	14.0'	60/60	100%	44/60	73%
WAR-350-8.73 PID 112975						

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

Office of Geotechnical Engineering

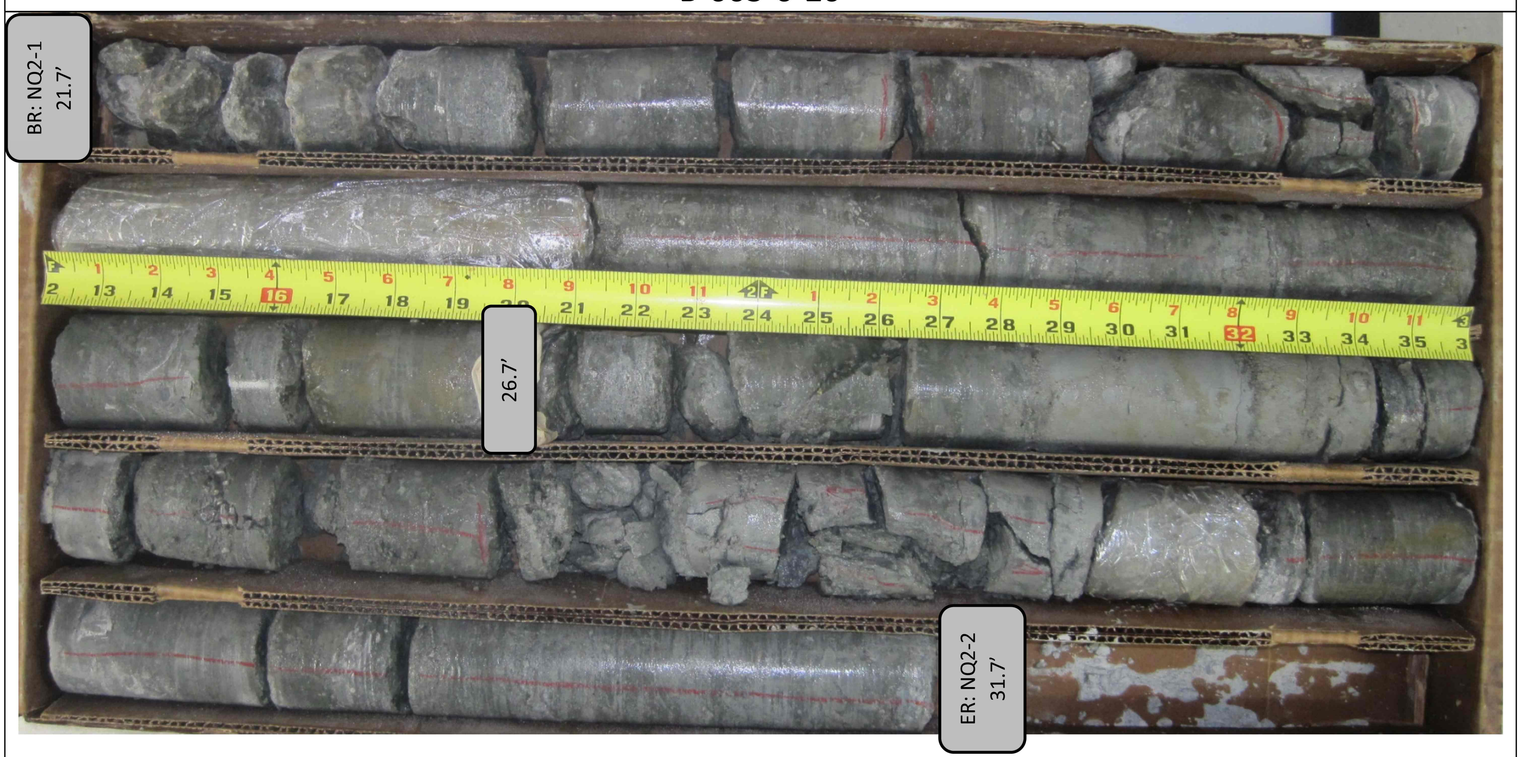
B-002-0-20

Run #:	Depth		Recovery		RQD	
NQ2-3	14.0'	19.0'	60/60	100%	38/60	63%
NQ2-4	19.0'	24.0'	60/60	100%	37/60	62%
WAR-350-8.73 PID 112975						

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

Office of Geotechnical Engineering

B-003-0-20



Run #:	Depth		Recovery		RQD	
NQ2-1	21.7'	26.7'	55/60	92%	27/60	45%
NQ2-2	26.7'	31.7'	56/60	93%	19/60	32%

WAR-350-8.73 PID 112975

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

Office of Geotechnical Engineering

B-003-0-20

Run #:	Depth		Recovery		RQD	
NQ2-3	31.7'	36.7'	60/60	100%	39/60	65%
NQ2-4	36.7'	41.7'	60/60	100%	45/60	75%

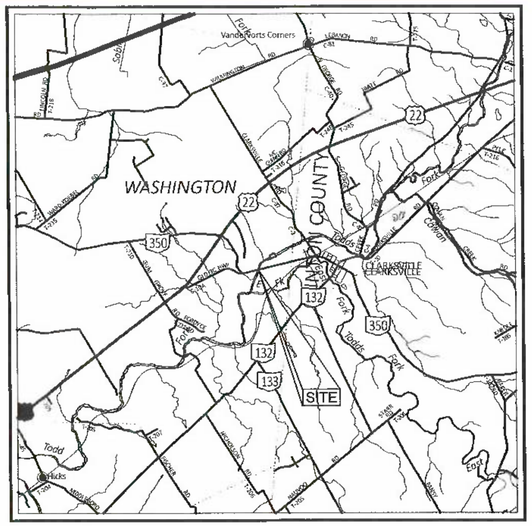
WAR-350-8.73 PID 112975

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
50	9	112975	SAT 08/29/24	ARR	
TOTAL 50	TOTAL 9				

GEOTECHNICAL PROFILE - BRIDGE
BRIDGE NO. WAR-350-0873 OVER TODD FORK
ROCK CORE PHOTOS FOR B-003-0-20

RIGHT OF WAY
LEGEND SHEET
WAR-SR 350-8.73

MILITARY SURVEY No. 2754
WASHINGTON TOWNSHIP
WARREN COUNTY-OHIO



LOCATION MAP

LATITUDE: 39°23'59.7" LONGITUDE: -84°00'04.5"

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.

LIST OF UTILITY OWNERS

AES Ohio
1900 Dryden Rd
Dayton, OH 45439
937-554-9063 (William Ward)
William.Ward@aes.com

Frontier Communications
241 South Nelson Avenue
Wilmington, OH 45177
937-283-5735 (David Longworth)
David.M.Longworth@ftr.com

INDEX OF SHEETS:

VOLUME____, PLAT NO.____
WARREN COUNTY ENGINEER'S RECORD OF LAND SURVEY'S

PRELIMINARY ACCESS APPROVAL

___ GRANTED ___NOT APPLICABLE

NEIL F. TUNISON, P.E., P.S.
WARREN COUNTY ENGINEER

PROJECT DESCRIPTION
REPLACE BRIDGE WAR-350-08.73
OVER TODDS FORK CREEK

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

TYPES OF TITLE LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
A = AERIAL EASEMENT
SL = SLOPE EASEMENT
PRE = PROPERTY RIGHT EASEMENT

CONVENTIONAL SYMBOLS

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

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)

I, William H, Helmick, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation on March 24, 2022. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, South Zone on NAD 83 (2011) datum. The Project Coordinates (US Survey feet) are relative to State Plane Grid Coordinates (meters or US Survey feet) by a Project Adjustment Factor multiplier of 1.00000. As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A 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.

William H. HELMICK Professional Land Surveyor No. 8030, Date: 04/25/2023

PLANS PREPARED BY:

FIRM NAME : ODOT DIST. 8
R/W DESIGNER: HELMICK
R/W REVIEWER: THOMPSON
FIELD REVIEWER: THOMPSON
PRELIMINARY FIELD REVIEW DATE: 04/01/23
TRACINGS FIELD REVIEW DATE: 04/20/23
OWNERSHIP UPDATED BY: THOMPSON
DATE COMPLETED: 04/26/23
PLAN COMPLETION DATE: 04/25/23

SURVEYORS SEAL

STATE OF OHIO
WILLIAM H. HELMICK
8030
REGISTERED
PROFESSIONAL SURVEYOR

RIGHT OF WAY LEGEND SHEET

DESIGN AGENCY

DESIGNER WHH
REVIEWER JCT 05-01-23
PROJECT ID 112975
SUBSET RW. 1 TOTAL RW. 6
SHEET TOTAL

WAR-350-8.73

MODEL: Sheet PAPERSIZE: 36x22 (in.) DATE: 5/18/2023 TIME: 12:08:33 PM USER: whelmick
Dw:\\odot-pw.bentley.com:odot-pw-02\Documents\01Active Projects\District 08\Warren\W2975 400-Engineering\RW\Sheets\W2975_RL001.dgn

OTHER REFERENCES:

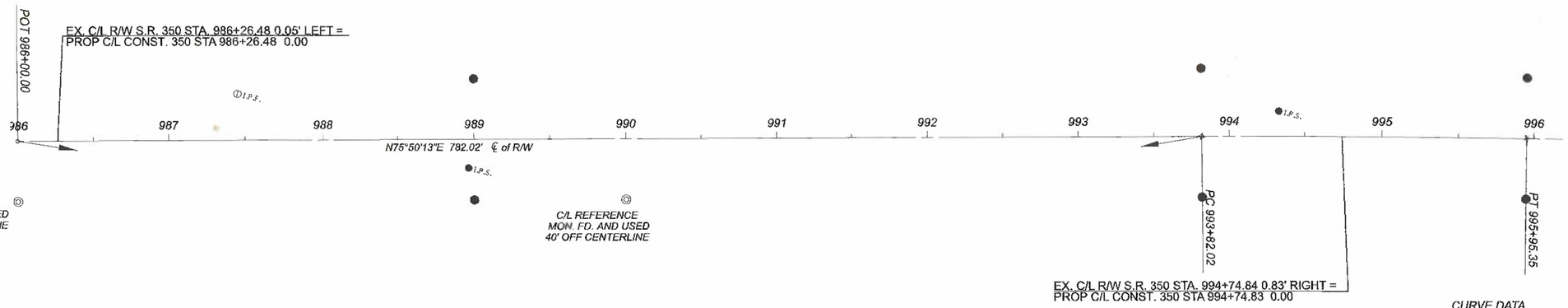
WARREN COUNTY SURVEYS:
VOL. 34, PG. 48
VOL. 35, PG. 248
VOL. 123, PG. 77
VOL. 127, PG. 71
VOL. 130, PG. 85
VOL. 136, PG. 19
VOL. 137, PG. 61
PLATS:
FIRST ADDITION TO
SPRING HAVEN
VOL. 43, PG. 42

CLINTON COUNTY SURVEYS:
VOL. 11, PG. 163
VOL. 16, PG. 45
VOL. 35, PG. 224
VOL. 44, PG. 85

WAR-SR 350-8.73
WARREN COUNTY, OHIO
WASHINGTON TOWNSHIP
MILITARY SURVEY NO. 2754

RECEIVED _____, 20 ____
RECORDED _____, 20 ____
BOOK _____ PAGE _____
COUNTY RECORDER

HORIZONTAL SCALE IN FEET
0 20 40 80



CENTERLINE CONSTRUCTION S.R. 350

Station	OFF. Northing	Easting
986+26.48	0.00 513299.84	1543754.51
994+74.83	0.00 513506.20	1544577.38

Direction: N75°55'19"E
Length: 848.35

CURVE DATA
P.I. = Sta. 994+88.69
Δ = 01°04'00" RT
Dc = 00°30'00"
R = 11,459.16'
T = 106.67'
L = 213.33'
E = .5'
CHORD LENGTH = 213.33'
CHORD BEARING = S 76°22'13"W

PROJECT CONTROL

POSITIONING METHOD:	OHIO REAL TIME NETWORK (2011)
MONUMENT TYPE:	TYPE B
VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM:	NAVD 88
GEOID:	18
HORIZONTAL POSITIONING	
REFERENCE FRAME:	NAD83 (2011)
ELLIPSOID:	GRS 80
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM:	OHIO STATE PLANE SOUTH (3702)
COMBINED SCALE FACTOR:	1.0000000000
ORIGIN OF COORDINATE SYSTEM	
EASTING (X):	0.0000
NORTHING (Y):	0.0000
UNITS ARE IN U.S. SURVEY FEET	

MONUMENT TABLE

CENTERLINE of S R 350		PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION		R/W MON. EXPECTED TO BE DISTURBED	
STATION	OFFSET	NORTHING (Y)	EASTING (X)	MON. ASSY.	REF. MON.	R/W MON.	DESCRIPTION
989+00.00	-40	513405.50	1544009.94		1		TYPE A
989+00.00	40	513327.93	1544029.51		1		TYPE A
993+82.02	-45	513528.29	1544476.08		1		TYPE A
993+82.02	40	513445.87	1544496.88		1		TYPE A
995+95.35	-40	513573.89	1544685.35		1		TYPE A
995+95.35	40	513495.97	1544703.48		1		TYPE A
TOTAL CARRIED TO GENERAL SUMMARY SHEET					6		

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

PROJECT CONTROL:

PointName	Station	Offset	Northing	Easting	Elevation	Code
CALCPT4	986+00.00	-0.00	513293.31	1543728.85		C/L R/W CALC PT
CALCPT3	986+63.39	0.00	513308.82	1543790.31		PC C/L RW CALCPT
CALCPT2	995+95.35	0.00	513534.93	1544694.42		PT C/L RW CALCPT
CONSCL1	986+26.48	-0.05	513299.84	1543754.51		CONSTRUCTION C/L CALC PT
CONSCL2	994+74.84	0.83	513506.20	1544577.38		CONSTRUCTION C/L CALCPT
SV1	994+33.07	-16.57	513513.12	1544532.64	797.50	IPINS
SV2	988+96.37	18.83	513347.57	1544020.81	797.39	IPINS
WHVA101	990+00.00	40.00	513352.40	1544126.48		CMON C/L REF. MON
WHVA102	986+00.00	40.00	513254.53	1543738.63		CMON C/L REF. MON

I, WILLIAM H. HELMICK, P.S. have conducted a survey of the existing conditions for the Ohio Department of Transportation between March, 2022 and December, 2023. The results of that survey are contained herein. See the Survey Parameters note affixed to these plans for the horizontal and vertical survey parameters used for this project. As a part of this project, I have reestablished the locations of the existing boundary lines, the existing center line of Right of Way and the existing Right of Way limits as necessary for the property takes contained herein. As a part of this project I have established the proposed boundary lines, calculated the Gross Take, present road occupied (PRO), Net Take and Net Residue herein. As a part of this work, right of way monuments will be set at the locations shown herein per the Memorandum of Understanding between the Board of Registration for Engineers and Surveyors and the Ohio Department of Transportation dated 9-22-2010. All of my work contained herein was conducted in accordance with the Ohio Administrative Code Chapter 4733-37 Standards for Boundary Surveys unless so noted. The words "I and my" as used herein are to mean that either myself or someone working under my direct supervision.

WILLIAM H. HELMICK PROFESSIONAL SURVEYOR No. 8030 DATE: 5/19/23

BASIS FOR BEARINGS:

ALL BEARINGS SHOWN ARE FOR PROJECT USE ONLY. BEARINGS ARE BASED ON GPS OBSERVATIONS OF THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (2011) GEOID 18 AS ESTABLISHED BY THE OHIO REAL TIME NETWORK.

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING OHIO DEPARTMENT OF TRANSPORTATION PLANS: "I.C.H. NO. 10. SEC. "S" WARREN COUNTY. RIGHT OF WAY PLANS" DATED 1931 WAR-22/3 (10.70-19.00) STATIONING IS FROM THE ABOVE MENTIONED PLANS.

SURVEYORS SEAL

STATE OF OHIO
WILLIAM H. HELMICK
8030
REGISTERED
PROFESSIONAL SURVEYOR

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

WAR-SR 350-8.73
CENTERLINE PLAT

DESIGN AGENCY

DESIGNER WHH
REVIEWER JCT 05-01-23
PROJECT ID 112975
SHEET RW. 2 TOTAL RW. 6

WAR-SR 350-8.73

MODEL: CL\cl - Plan [Sheet3 PAPERSIZE: 34x22 (in.) DATE: 5/15/2023 TIME: 2:45:02 PM USER: whelmick
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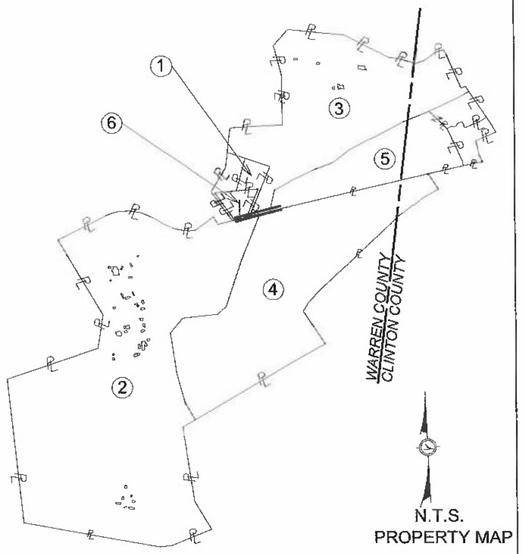
WAR-SR 350-8.73
WARREN COUNTY, OHIO
WASHINGTON TOWNSHIP
MILITARY SURVEY NO. 2754



HORIZONTAL SCALE IN FEET
0 50 100 200

1
DOUGLAS KENT TEAFORD &
CELESTE RENEE'E FORLER-TEAFORD
5.0564 ACRES
PAR. NO. 1410202020
6004 DRIFTWOOD CT
MAINEVILLE OH 45039

3
WILLIAM C. O'BRYAN
110.75 ACRES
PAR. NO. 1410200012
183 SPRING HILL RD
CLARKSVILLE OH 45113

5
STINGLEY FARMS LLC
7.30 ACRES
PAR. NO. 310050518000100
3658 HARVEYSBURG RD
WAYNESVILLE OH 45068

6
JACOB JONES
5.1144 ACRES
PAR. NO. 1410202018
1356 SHEPHERDS WAY
CLARKSVILLE OH 45113

5
STINGLEY FARMS LLC
32.604 ACRES
PAR. NO. 1404100001
3658 HARVEYSBURG RD
WAYNESVILLE OH 45068

2
JOY OUTDOOR EDUCATION
CENTER FOUNDATION, INC.
316.791 ACRES
PAR. NO. 1409100007
10117 OLD 3C HIGHWAY
CLARKSVILLE 45113

4
EILEEN ALLEN & EUGENA SCHAEFER,
CO-TRUSTEES OF THE VINCENT A. WALTER TRUST
151.275 ACRES
PAR. NO. 1404300006
10701 ROUTE 350
CLARKSVILLE 45113

5
STINGLEY FARMS LLC
7.30 ACRES
PAR. NO. 310050518000000
3658 HARVEYSBURG RD
WAYNESVILLE OH 45068

4
EILEEN ALLEN & EUGENA SCHAEFER,
CO-TRUSTEES OF THE VINCENT A. WALTER TRUST
5.193 ACRES
PAR. NO. 310050518000100
10701 ROUTE 350
CLARKSVILLE 45113

POT 986+00.00
PC 993+82.02
PT 995+35.35
STATE ROUTE 350
TODDS FORK
WARREN COUNTY
CLINTON COUNTY
986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004
1SH 2SH 3SH 4SH 5SH 1T 2T 3T 4T TMP Ex SH SH O.P.F.

WAR-SR 350-8.73 PROPERTY MAP

DESIGN AGENCY

DESIGNER	WHH
REVIEWER	JCT 05-01-23
PROJECT ID	112975
SUBSET	RW. 3
TOTAL	RW. 6

WAR-350-8.73

MODEL: SC20_1 - ALL PROP MAP-2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/15/2023 TIME: 12:39:34 PM USER: whelmick
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\RW\Sheets\112975_RM002.dgn

TOTAL NUMBER OF :

5 OWNERSHIPS 0 TOTAL TAKES

8 PARCELS 0 OWNERSHIPS W/ STRUCTURES INVOLVED

ALL AREAS IN

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE NET TAKE = GROSS TAKE - PRO IN TAKE (c) = CALCULATED AREA

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO DEPARTMENT OF TRANSPORTATION. UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1SH	DOUGLAS K. & CELESTE R. TEAFORD	3,5,6	2022	28442	1410202020	5.0564	0.037	0.0069	0.00	0.0069		5.0125			WARREN COUNTY DEED DOC. #2022-028442		
2SH	JOY OUTDOOR EDUCATION	3,5,6	5080	746	1409100007	316.791	4.366	0.1208	0.00	0.1208			312.3042				
2T		3,5,6						0.057		0.057					GRADING AND DRIVE PURPOSE		
3SH	WILLIAM C. O'BRYAN	3,5,6	5555	436	1410200012	110.75	0.323	0.1179	0.00	0.1179		110.3091					
3T		3,5,6						0.0548	0.00	0.0548					GRADING PURPOSE		
		3	836	405	300010606000000	15.291	0.54								CLINTON COUNTY		
4SH	EILEEN ALLEN & EUGENA SCHAEFER	3,5,6	4589	915	1404300006	151.275	2.341	0.3124	0.00	0.3124			148.6216				
4T		3,5,6						0.3874	0.00	0.3874					GRADING AND DRIVE PURPOSE		
		3	725	394	30004010100000	5.19	0.418								NO TAKE - CLINTON COUNTY		
5SH	STINGLEY FARMS LLC	3,5,6	5781	556	1404100001	32.604	2.051	0.0138	0.00	0.0138		30.5392					
		3	859	807	310050518000000	24.651	0.965								NO TAKE - CLINTON COUNTY		
		3	2022	678	310050518000100	7.3	0.414								NO TAKE - CLINTON COUNTY DEED DOC. #2022-00000678		
6	JACOB JONES	3,5,6	2020	50513	141020218	5.1144									NO TAKE - WARREN COUNTY DEED DOC. #2020-050513		

TYPES OF TITLE LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
A = AERIAL EASEMENT
SL = SLOPE EASEMENT
PRE = PROPERTY RIGHT EASEMENT

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

** DENOTES RIGHT OF WAY ENCROACHMENT*

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

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY		DATE:
OWNERSHIP VERIFIED BY		DATE:
DATE COMPLETED		

WAR-SR 350-8.73 SUMMARY SHEET

DESIGN AGENCY

DESIGNER WHH

REVIEWER JCT 05-01-23

PROJECT ID 112975

SUBSET RW. 4 TOTAL RW. 6

WAR-350-8.73

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 4/17/2023 TIME: 11:07:56 AM USER: whehrick
pw:\\chiodo-pw.bentley.com:chiodo-pw-02\Documents\01 Active Projects\District 08\Warren\112975\400-Engineering\RW\Sheets\112975_RS001.dgn

WAR-SR 350-8.73
WARREN COUNTY, OHIO
WASHINGTON TOWNSHIP
MILITARY SURVEY NO. 2754

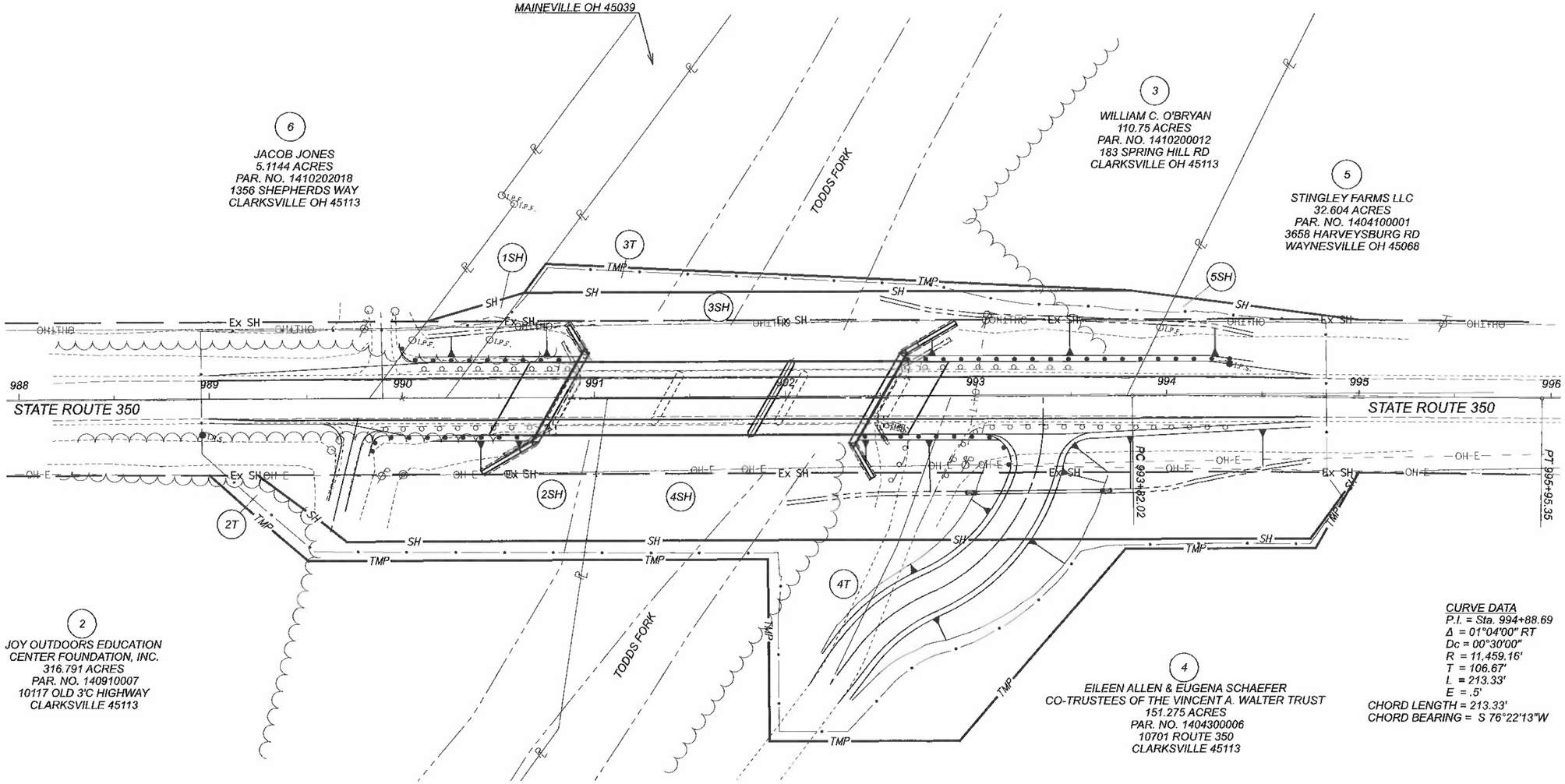
HORIZONTAL SCALE IN FEET
0 15 30 60

1
DOUGLAS KENT TEAFORD &
CELESTE RENEE'E FORLER-TEAFORD
5.0564 ACRES
PAR. NO. 1410202020
6004 DRIFTWOOD CT
MAINEVILLE OH 45039

6
JACOB JONES
5.1144 ACRES
PAR. NO. 1410202018
1356 SHEPHERDS WAY
CLARKSVILLE OH 45113

3
WILLIAM C. O'BRYAN
110.75 ACRES
PAR. NO. 1410200012
183 SPRING HILL RD
CLARKSVILLE OH 45113

5
STINGLEY FARMS LLC
32.604 ACRES
PAR. NO. 1404100001
3658 HARVEYSBURG RD
WAYNESVILLE OH 45068



2
JOY OUTDOORS EDUCATION
CENTER FOUNDATION, INC.
316.791 ACRES
PAR. NO. 140910007
10117 OLD 3'C HIGHWAY
CLARKSVILLE 45113

4
EILEEN ALLEN & EUGENA SCHAEFER
CO-TRUSTEES OF THE VINCENT A. WALTER TRUST
151.275 ACRES
PAR. NO. 1404300006
10701 ROUTE 350
CLARKSVILLE 45113

CURVE DATA
P.I. = Sta. 994+88.69
Δ = 01°04'00" RT
Dc = 00°30'00"
R = 11,459.16'
T = 106.67'
L = 213.33'
E = .5'
CHORD LENGTH = 213.33'
CHORD BEARING = S 76°22'13"W

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

WAR-SR 350-8.73
RIGHT OF WAY TOPO SHEET

DESIGN AGENCY

DESIGNER WHH
REVIEWER JCT 05-01-23
PROJECT ID 112975
SUBSET RW. 5 TOTAL RW. 6

WAR-350-8.73

MODEL: CLX_I - Plan (Sheet) PAPERSIZE: 34x22 (in.) DATE: 5/15/2023 TIME: 1:59:41 PM USER: whelmick
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WAR-SR 350-8.73
WARREN COUNTY, OHIO
WASHINGTON TOWNSHIP
MILITARY SURVEY NO. 2754

HORIZONTAL SCALE IN FEET
0 15 30 60

1
DOUGLAS KENT TEAFORD &
CELESTE RENEE'E FORLER-TEAFORD
5.0564 ACRES
PAR. NO. 1410202020
6004 DRIFTWOOD CT
MAINEVILLE OH 45039

3
WILLIAM C. O'BRYAN
110.75 ACRES
PAR. NO. 1410200012
183 SPRING HILL RD
CLARKSVILLE OH 45113

5
STINGLEY FARMS LLC
32.604 ACRES
PAR. NO. 1404100001
3658 HARVEYSBURG RD
WAYNESVILLE OH 45068

6
JACOB JONES
5.1144 ACRES
PAR. NO. 1410202018
1356 SHEPHERDS WAY
CLARKSVILLE OH 45113

A S22°54'18"W 18.80'
B N22°54'18"E 18.80'
C N59°30'05"E 53.33'
D S75°50'13"W 39.85'
E S12°24'53"W 13.38'
F CURVE DATA
DELTA: 00° 05' 07"
RADIUS: 11499.16'
TANGENT: 8.56'
LENGTH: 17.11'
CHORD: 17.11'
CHORD BEARING N 75° 52' 46"E
G CURVE DATA
RADIUS: 11499.16'
LENGTH: 101.28'
TANGENT: 50.64'
CHORD: 101.28'
CHORD BEARING N 76° 10' 28"E

STA. 990+63.94 OFF. 55.00' LT.
STA. 990+75.27 OFF. 70.00' LT.
STA. 990+12.76 OFF. 40.00' LT.
STA. 989+00.00 OFF. 40.00' LT.
STA. 993+82.02 OFF. 55.00' LT.
STA. 994+05.02 OFF. 51.98' LT.
STA. 993+82.02 OFF. 45.00' LT.
STA. 995+00.00 OFF. 40.00' LT.
STA.1016+59.67 OFF. 0.00' LT.
STA. 990+52.61 OFF. 40.00' LT.
STA. 993+82.02 OFF. 40.00' LT.
STA. 993+99.07 OFF. 40.00' LT.
STA. 995+95.35 OFF. 40.00' LT.
STA. 991+06.90 OFF. 0.00' LT.
STA. 993+79.13 OFF. 0.00' LT.
STA. 989+25.00 OFF. 40.00' RT.
STA. 990+22.39 OFF. 0.00' LT.
STA. 991+00.63 OFF. 40.00' RT.
STA. 995+00.00 OFF. 40.00' RT.
STA. 989+00.00 OFF. 40.00' RT.
STA. 989+70.00 OFF. 75.00' RT.
STA. 990+95.14 OFF. 75.00' RT.
STA. 993+82.02 OFF. 40.00' RT.
STA. 994+75.27 OFF. 74.62' RT.
STA. 995+95.35 OFF. 40.00' RT.
STA. 994+77.88 OFF. 79.60' RT.
STA. 989+50.00 OFF. 85.00' RT.
STA. 990+93.58 OFF. 85.00' RT.
STA. 991+90.00 OFF. 85.00' RT.
STA. 993+77.64 OFF. 80.00' RT.
STA. 991+90.00 OFF. 180.00' RT.
STA. 992+90.00 OFF. 180.00' RT.

STATE ROUTE 350
988 989 990 991 992 993 994 995 996
S75°50'13"W
N75°50'13"E 318.08'
N78°38'11"E 307.12'
S75°50'13"W 329.41'
N83°20'52"E 23.30'
N83°20'52"E 96.11'
N22°54'18"E 50.13'
S 75°50'13"W 84.51'
S75°50'13"W 272.23'
S05°15'13"E 40.49'
N12°24'53"E 44.71'
S 76° 53' 58" W 2064.32'
N75°50'13"E 175.63'
N75°50'13"E 281.39'
N75°50'13"E 125.14'
N75°50'13"E 379.52'
S75°50'13"W 143.58'
S75°50'13"W 96.42'
S75°50'13"W 99.58'
S75°50'13"W 100.00'
S66°17'17"E 57.01'
N62°10'33"W 67.27'
N14°09'47"W 95.00'
S27°04'03"W 132.97'
S05°15'13"E
S12°24'53"W
PC 993+82.02
PT 995+95.35
WARREN COUNTY
CLINTON COUNTY
TODDS FORK CREEK
TMP
SH
Ex SH

2
JOY OUTDOOR EDUCATION
CENTER FOUNDATION, INC.
316.791 ACRES
PAR. NO. 1409100007
10117 OLD 3C HIGHWAY
CLARKSVILLE 45113

4
EILEEN ALLEN & EUGENA SCHAEFER
CO-TRUSTEES OF THE VINCENT A. WALTER TRUST
151.275 ACRES
PAR. NO. 1404300006
10701 ROUTE 350
CLARKSVILLE 45113

H N21°45'46"E 42.47'
I S05°15'13"E 10.12'
J S15°25'34"W 45.30'
K S05°15'13"E 35.43'
L CURVE DATA
RADIUS: 11419.16'
TANGENT: 58.78'
LENGTH: 117.57'
CHORD: 117.56'
CHORDBEARING N 76° 07' 55"E
M S75°50'13"W 2.89'
N N75°50'13"E 25.00'

C1 CURVE DATA
P.I. = Sta. 994+88.69
Δ = 01°04'00" RT
Dc = 00°30'00"
R = 11,459.16'
T = 106.67'
L = 213.33'
E = .5'
CHORD LENGTH = 213.33'
CHORD BEARING = S 76°22'13"W

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

DESIGN AGENCY

DESIGNER WHH
REVIEWER JCT 05-01-23
PROJECT ID 112975
SUBSET RW. 6 TOTAL RW. 6

WAR-SR 350-8.73
RIGHT OF WAY BOUNDARY

WAR-350-8.73

MODEL: CLX_I - WAR350 [Sheet] PAPERSIZE: 11x17in) DATE: 6/26/2023 TIME: 2:48:45 PM USER: whelmick
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