



SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	7	21	23								01/STR/10	EXT	TOTAL				
											LUMP	201	11000	LS		<b>ROADWAY</b>	
	1,943										1,943	202	23000	1,943	SY	CLEARING AND GRUBBING	
	375										375	202	38000	375	FT	PAVEMENT REMOVED	
	4										4	202	42001	4	EACH	GUARDRAIL REMOVED	
	2										2	202	42040	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	3
	1										1	202	53100	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
		280									280	203	10000	280	CY	MAILBOX REMOVED	
		3,416									3,416	203	20001	3,416	CY	EXCAVATION	
	748										748	203	35120	748	CY	EMBANKMENT, AS PER PLAN	3
	2,686										2,686	204	10000	2,686	SY	GRANULAR MATERIAL, TYPE C	
	748										748	204	13000	748	CY	SUBGRADE COMPACTION	
	2,143										2,143	204	50000	2,143	SY	EXCAVATION OF SUBGRADE	
																GEOTEXTILE FABRIC	
	375										375	606	15050	375	FT		
	2										2	606	26100	2	EACH	GUARDRAIL, TYPE MGS	
	4										4	606	26500	4	EACH	ANCHOR ASSEMBLY, TYPE E	
	4										4	606	34600	4	EACH	ANCHOR ASSEMBLY, TYPE T	
	1										1	SPECIAL	69050000	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2	
											LUMP	SPECIAL	69071000	LS		MAILBOX SUPPORT	3
											LUMP	878	25000	LS		ASBESTOS ABATEMENT, NOTIFICATION	3
																INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																<b>EROSION CONTROL</b>	
			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	
																<b>DRAINAGE</b>	
	2										2	602	20000	2	CY	CONCRETE MASONRY	
	72										72	611	04900	72	FT	12" CONDUIT, TYPE D	
																<b>PAVEMENT</b>	
	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)	
																<b>TRAFFIC CONTROL</b>	
											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	
																<b>STRUCTURE OVER 20 FOOT SPAN (WAR-350-0873)</b>	
																SEE SHEET 24	
																<b>MAINTENANCE OF TRAFFIC</b>	
											LUMP	614	12420	LS		DETOUR SIGNING	
																<b>INCIDENTALS</b>	
											LUMP	614	11000	LS		MAINTAINING TRAFFIC	
											LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

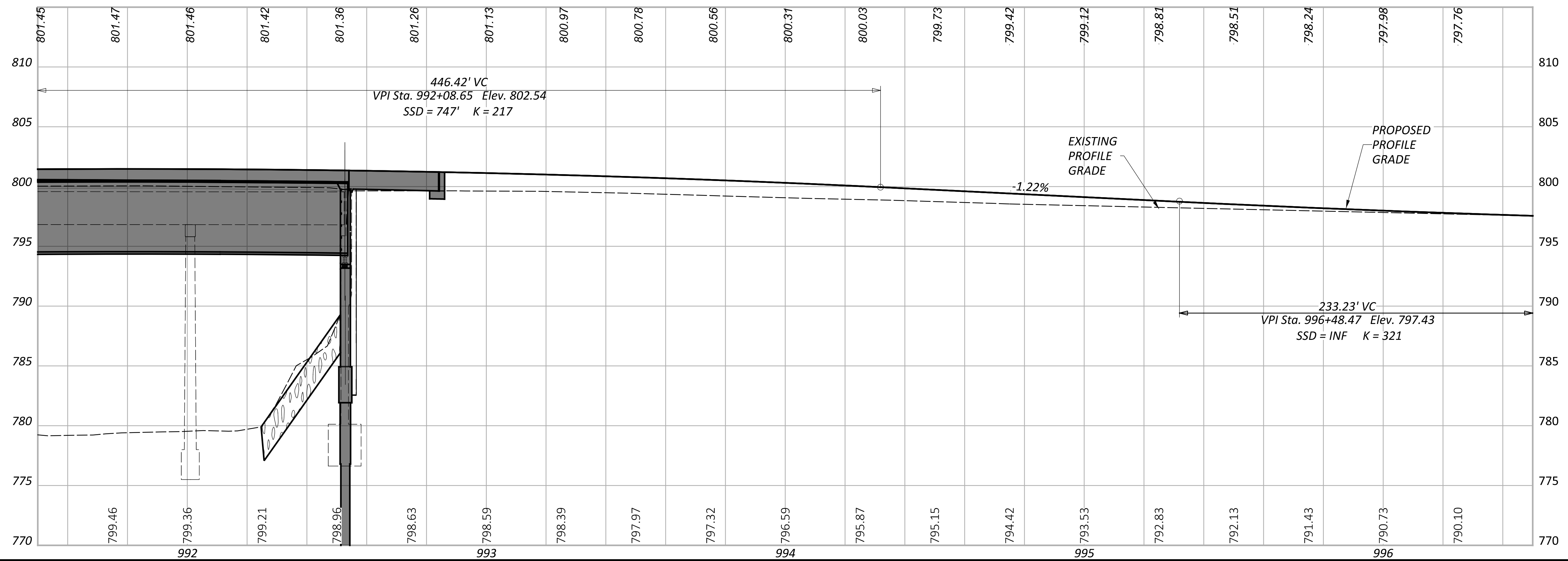
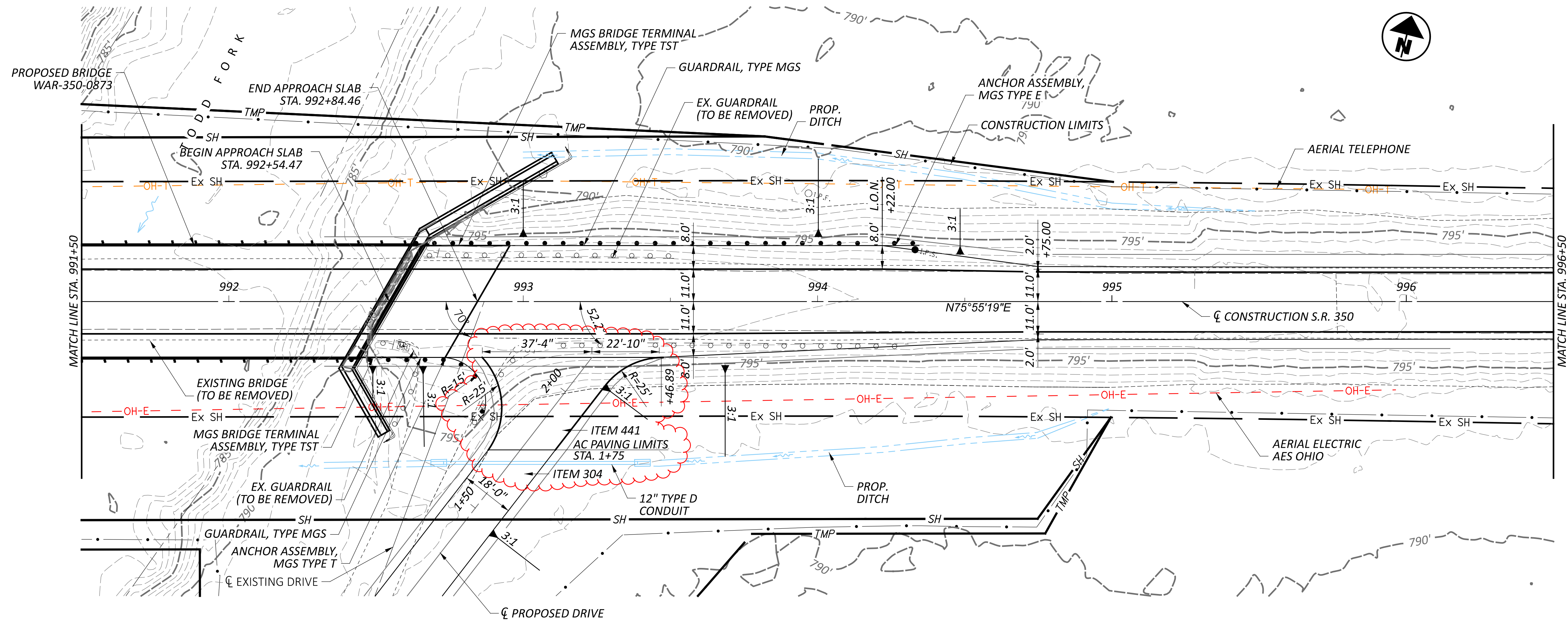
DESIGN AGENCY  
  
 DESIGNER  
 GTF  
 REVIEWER  
 JAO  
 PROJECT ID  
 112975  
 SHEET  
 6 | TOTAL  
 50

PAVEMENT CALCULATIONS																												
PLAN SPLIT	ROUTE	STATION		LENGTH	AVERAGE WIDTH	PAVEMENT AREA	202		204	204	204	204	204	254		301		304		407	441				NOTES			
		FROM	TO				PAVEMENT REMOVED	GRANULAR MATERIAL, TYPE C	SUBGRADE COMPACTION	GEOTEXTILE FABRIC	EXCAVATION OF SUBGRADE, 12" DEPTH	PAVEMENT PLANING ASPHALT CONCRETE		ASPHALT CONCRETE BASE, PG64-22		AGGREGATE BASE		NON TRACKING TACK COAT @ 0.09 GAL/SQ YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)		ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICK.)					
												DEPTH		THICK-NESS		THICK-NESS			THICK-NESS		THICK-NESS		THICK-NESS			AVE. THICK-NESS		
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	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		

PAVEMENT CALCULATIONS

DESIGN AGENCY  
  
 DESIGNER: GTF  
 REVIEWER: JAO  
 PROJECT ID: 112975  
 SHEET: 7 TOTAL: 50





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

DESIGN AGENCY



DESIGNER	GTF
REVIEWER	JAO
PROJECT ID	112975
SHEET	TOTAL
10	50



**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/FT<sup>2</sup>

**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 QCS WITH 3/8" 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  
 2 1/2" 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	TYPE	DIMENSIONS		
	TOTAL		A	B	C
DG601	5	3	$\frac{(3'-2")}{\cos(\phi)}$	3'-8 1/2"	
DG801	8	5	2'-8"	3'-7"	2'-4"

**BENDING DIAGRAMS**

REVISE DIMENSION  $\square$  IN SICD-2-14 AS SHOWN BELOW:

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

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

DESIGN AGENCY



DESIGNER  
GTF

REVIEWER  
CAH

PROJECT ID  
112975

SHEET TOTAL  
23 | 50

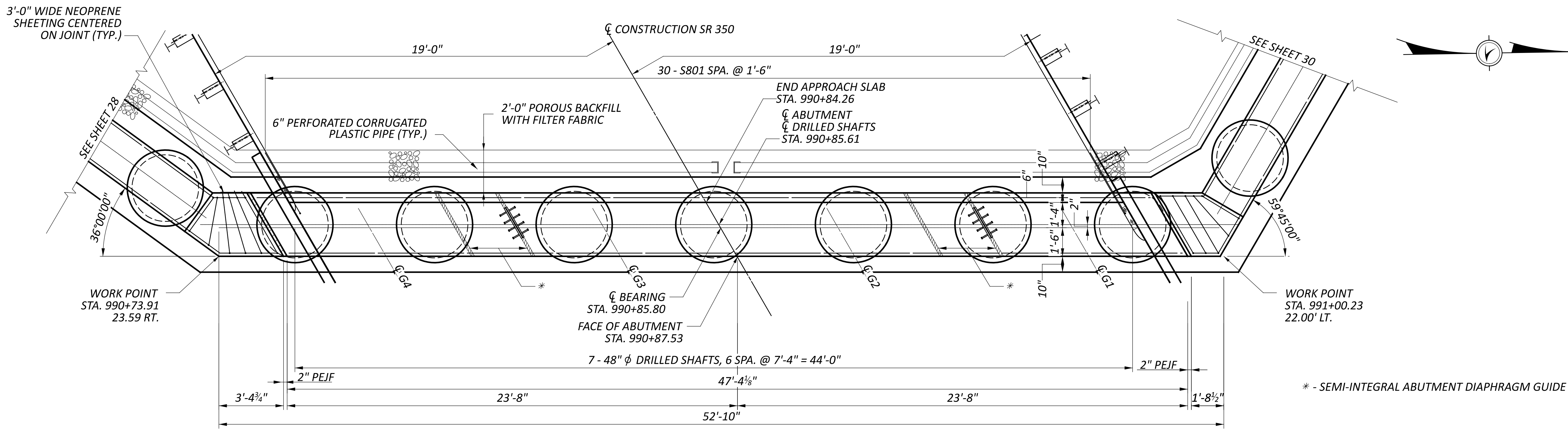


ESTIMATED QUANTITIES - STRUCTURE No.: WAR-350-0873 (01/STR/10 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPER.	GEN.	SEE SHEET	
202	11003	LUMP	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP		23
202	22900	98	SY	APPROACH SLAB REMOVED			98		
202	23500	623	SY	WEARING 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				

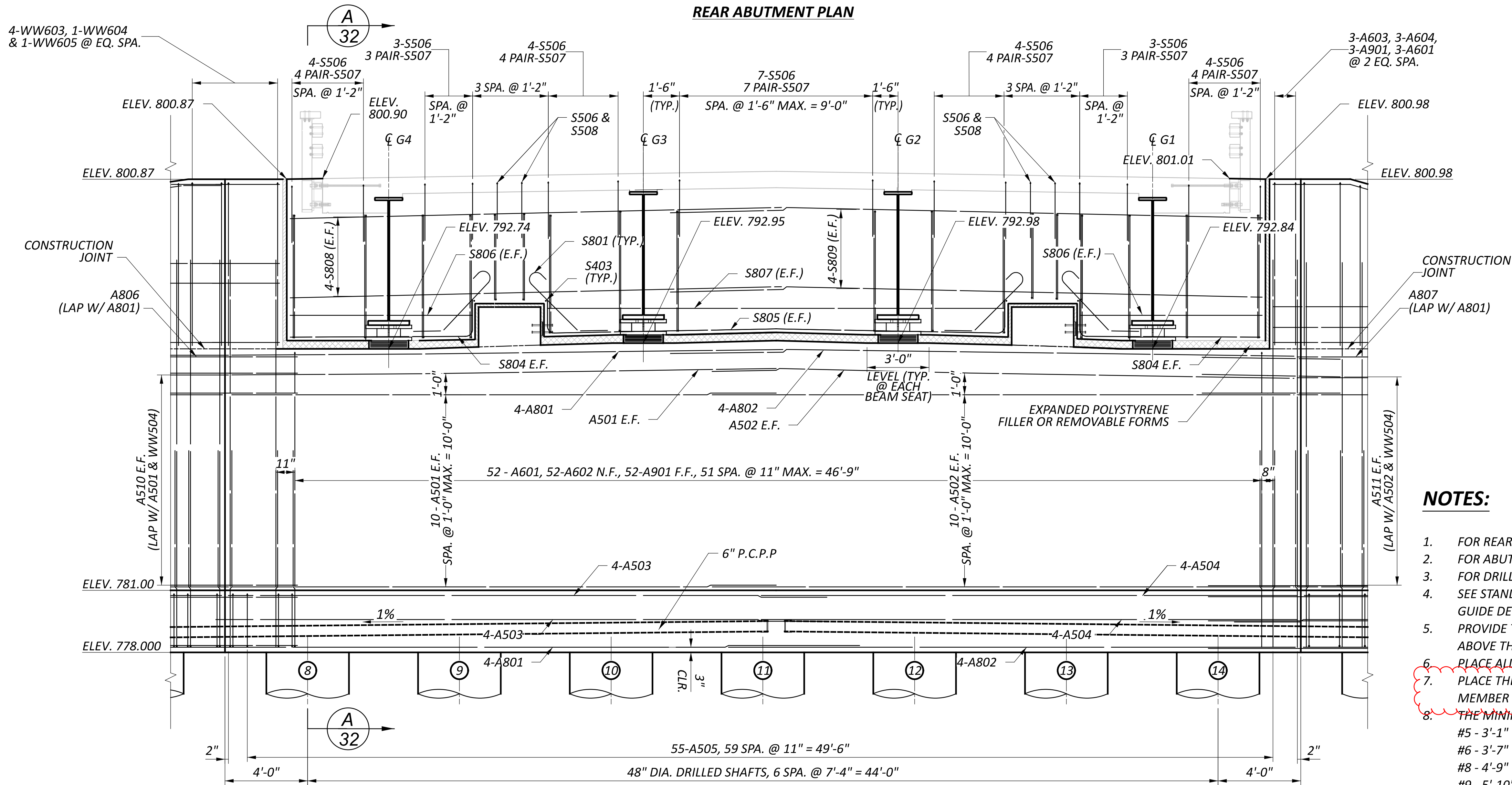
STRUCTURE ESTIMATED QUANTITIES  
 BRIDGE No.: WAR-350-0873  
 STATE ROUTE 350 OVER TODD'S FORK

SFN	
8306272	
DESIGN AGENCY	
DESIGNER	CHECKER
GTF	CAH
REVIEWER	
SRK	
PROJECT ID	
112975	
SUBSET	TOTAL
3	20
SHEET	TOTAL
24	50





REAR ABUTMENT PLAN



REAR ABUTMENT ELEVATION

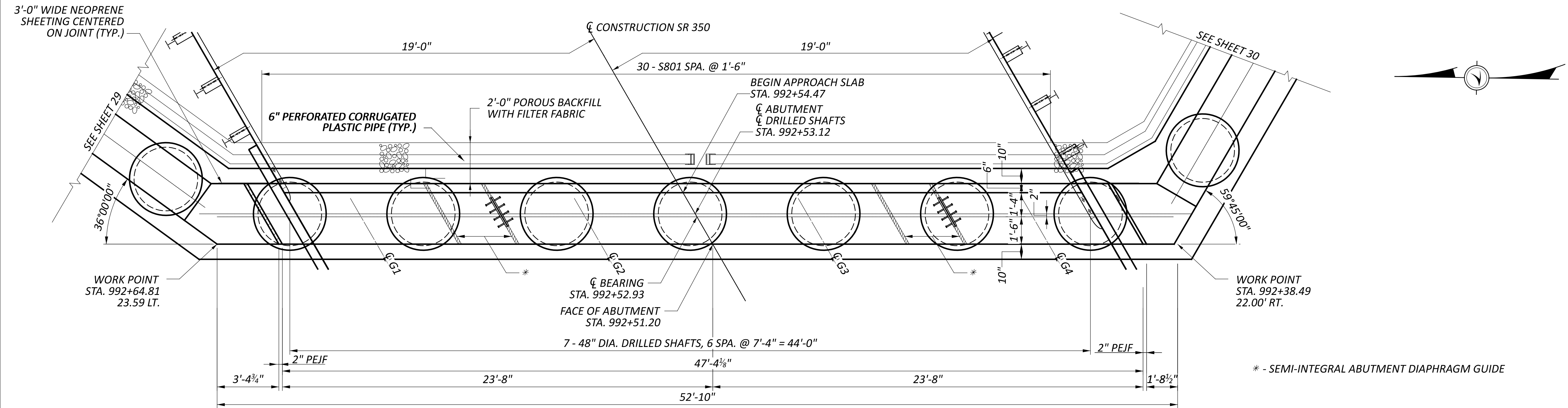
**NOTES:**

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)

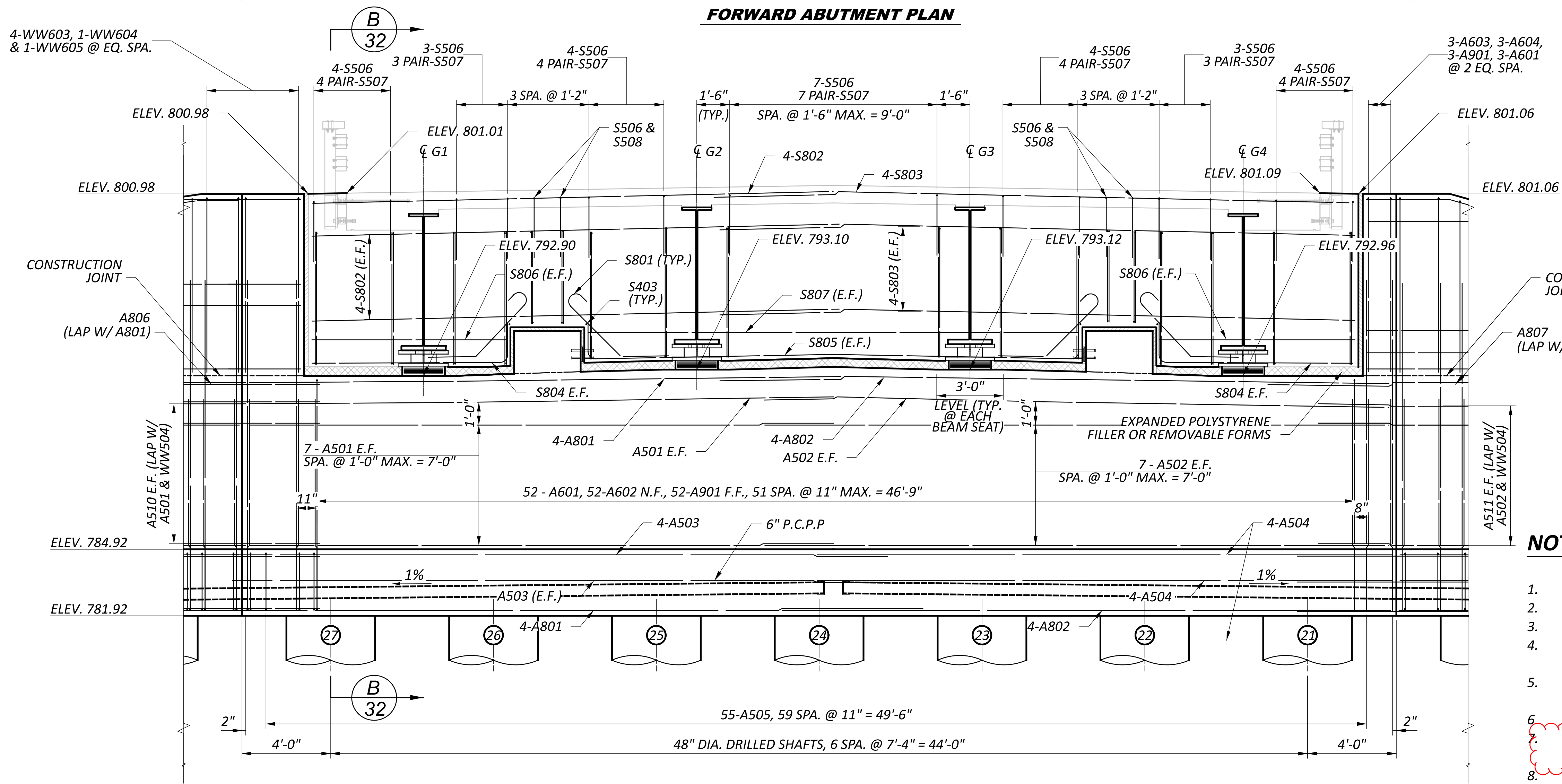
REAR ABUTMENT DETAILS  
 BRIDGE No.: WAR-350-0873  
 STATE ROUTE 350 OVER TODD'S FORK

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





**FORWARD ABUTMENT PLAN**



**FORWARD ABUTMENT ELEVATION**

\* - SEMI-INTEGRAL ABUTMENT DIAPHRAGM GUIDE

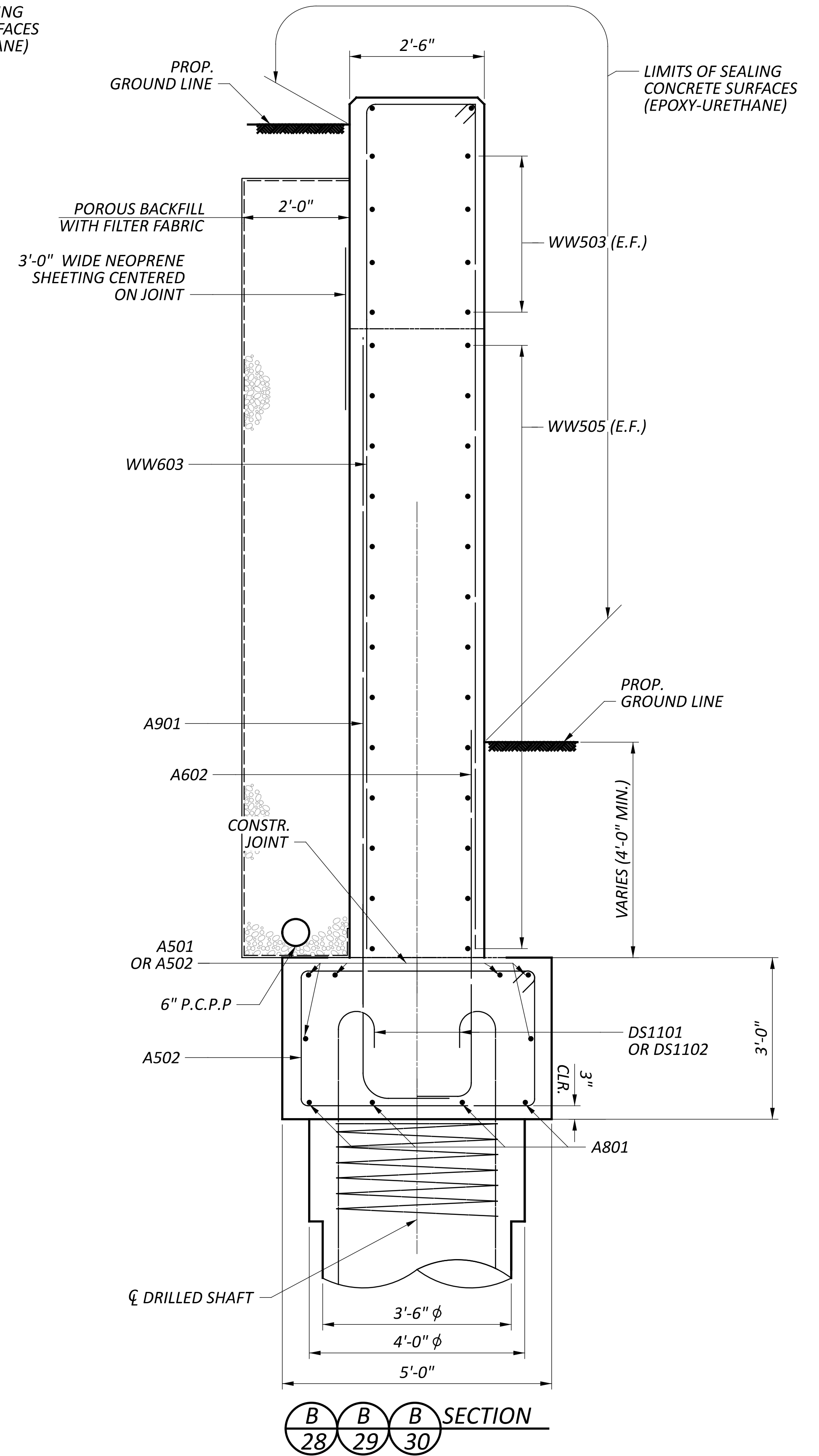
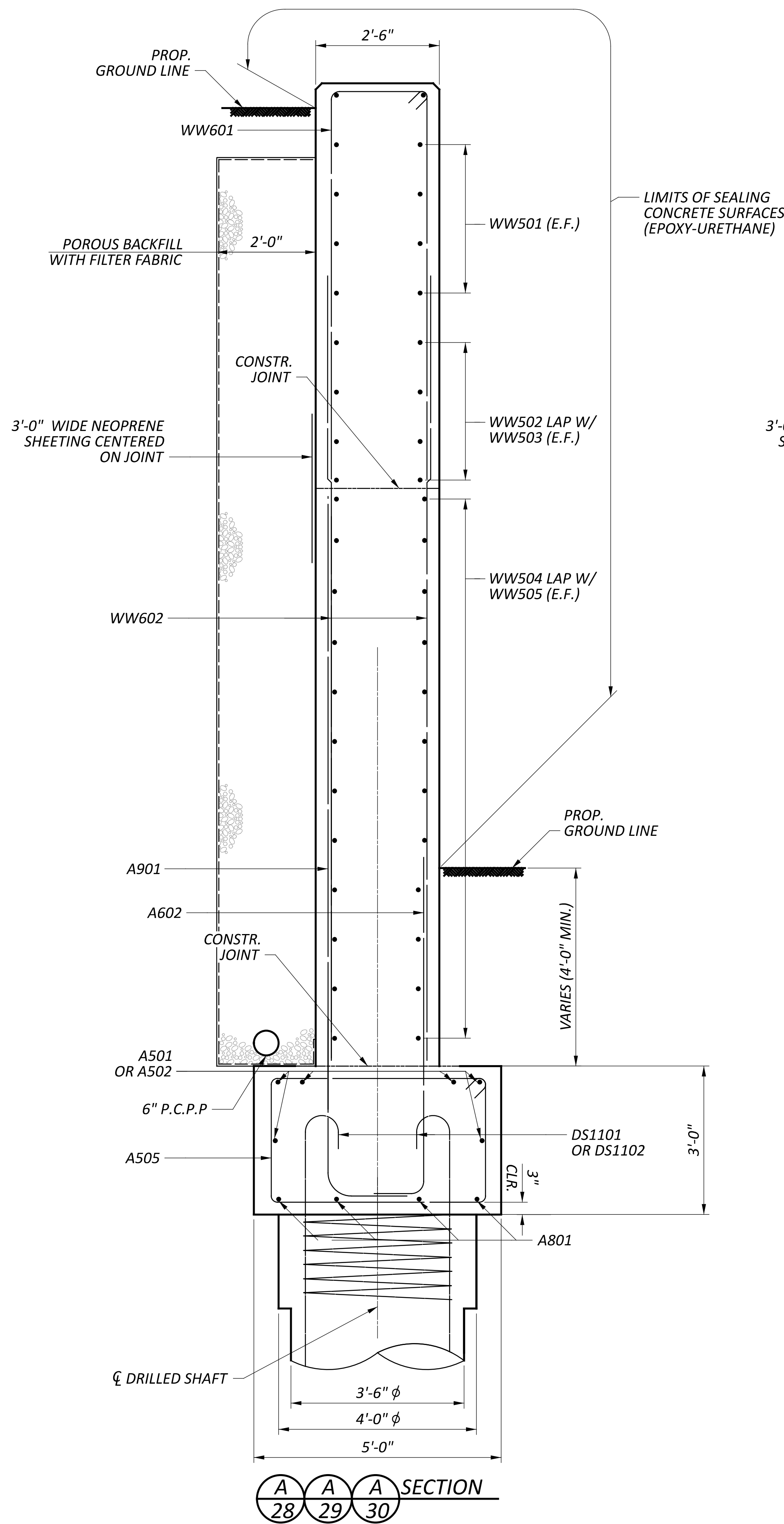
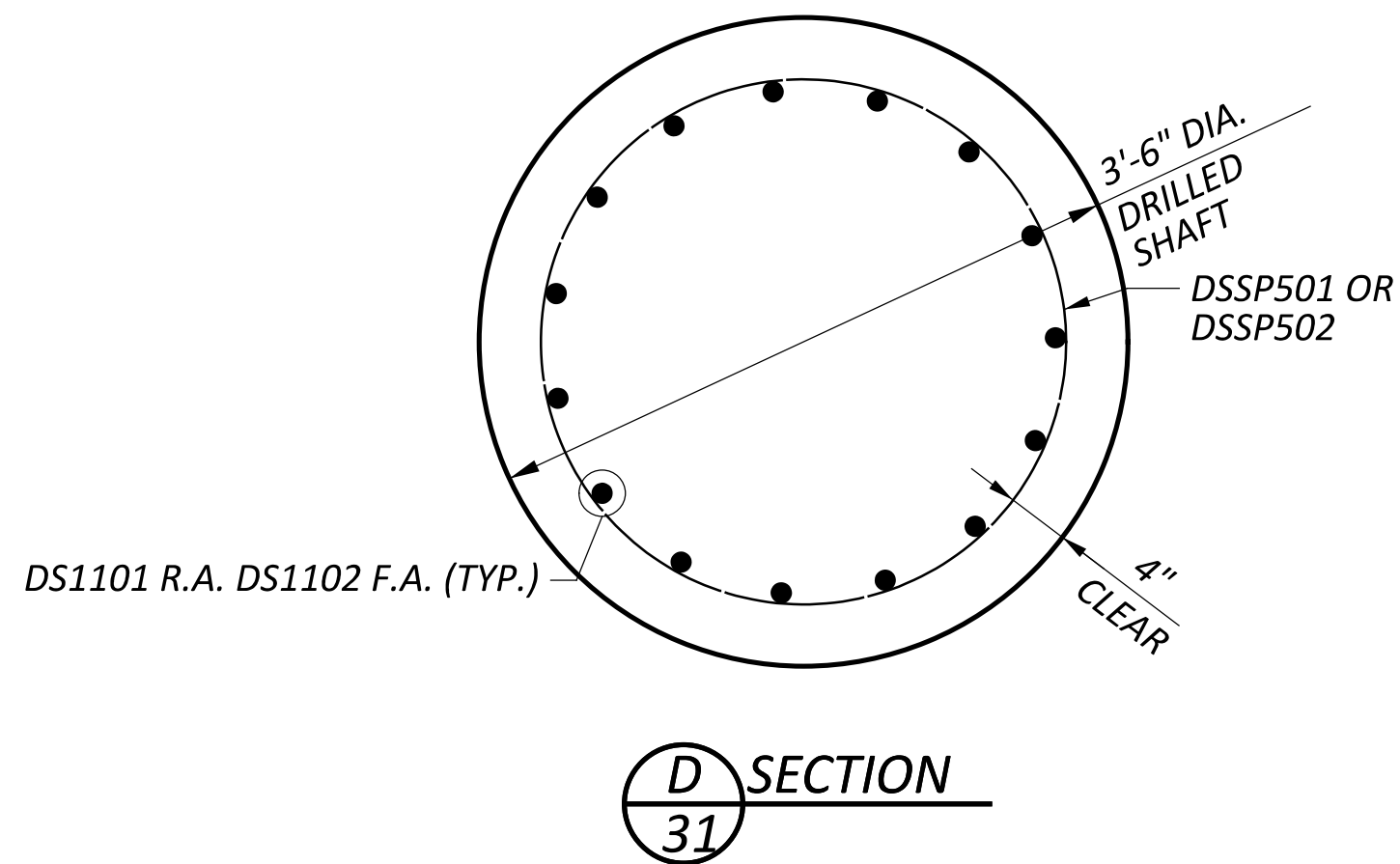
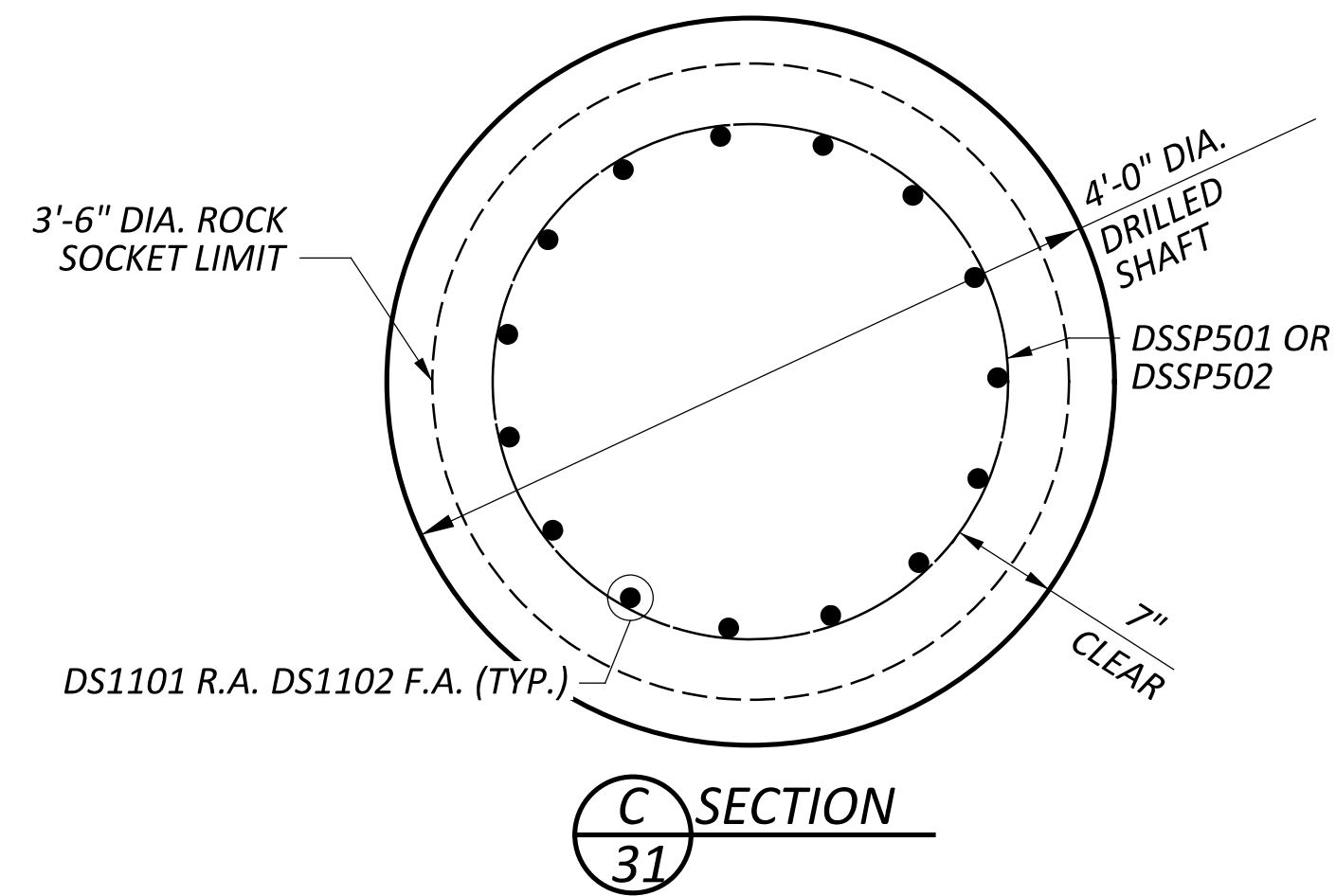
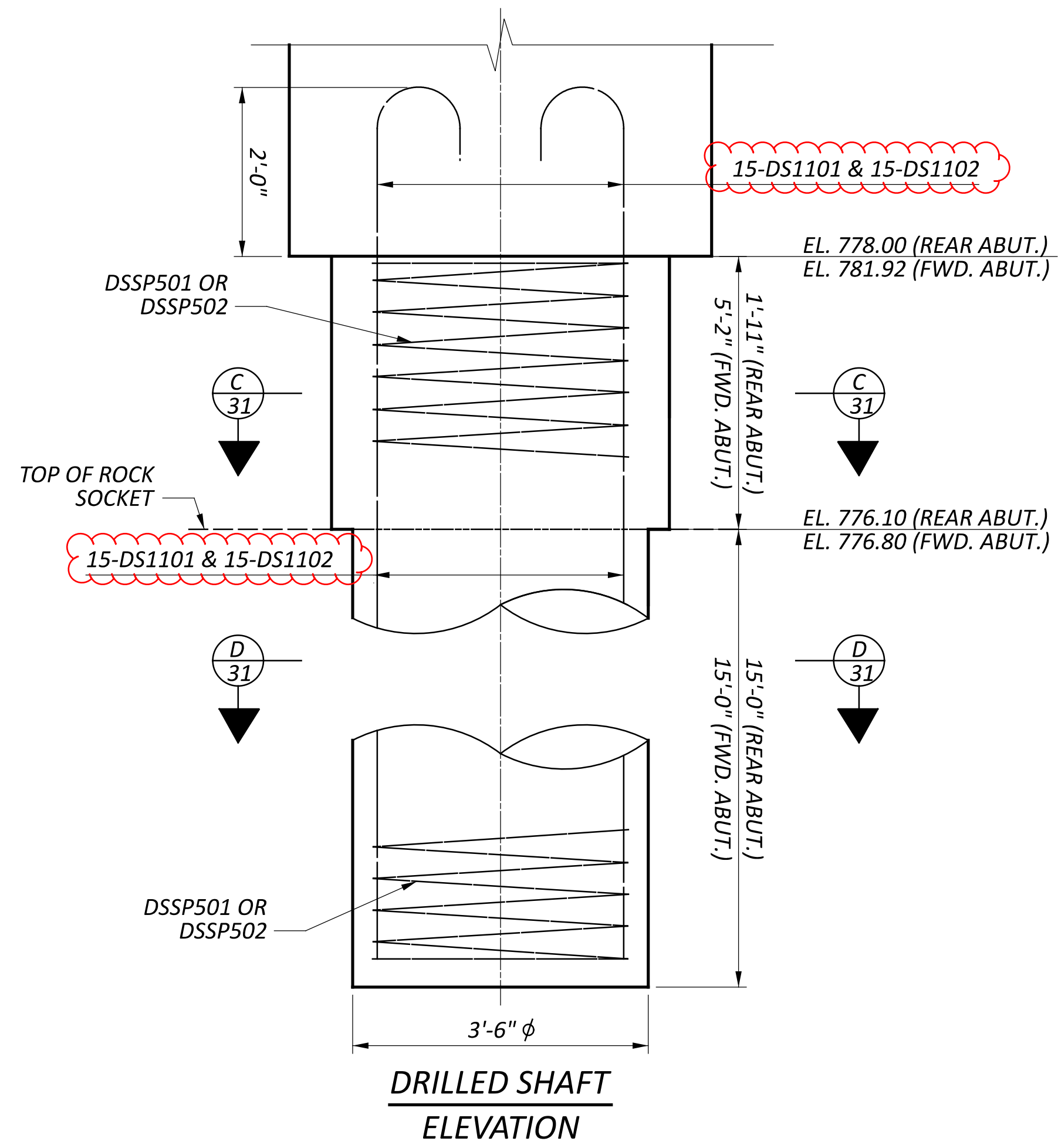
**NOTES:**

- FOR FORWARD ABUTMENT SECTION AND DETAILS, SEE SHEET 32.
- FOR ABUTMENT FOUNDATION PLAN SEE SHEET 25.
- FOR DRILLED SHAFT REINFORCING SEE SHEETS 31 & 32.
- SEE STANDARD SICD-2-14 FOR ADDITIONAL DIAPHRAGM GUIDE DETAILS.
- PROVIDE TYPE 2 WATERPROOFING AT ALL CONSTRUCTION JOINTS ABOVE THE FOOTING ADJACENT TO BACKFILL.
- PLACE ALL DIAPHRAGM REINFORCING STEEL PARALLEL WITH BEAMS.
- PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE.
- 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

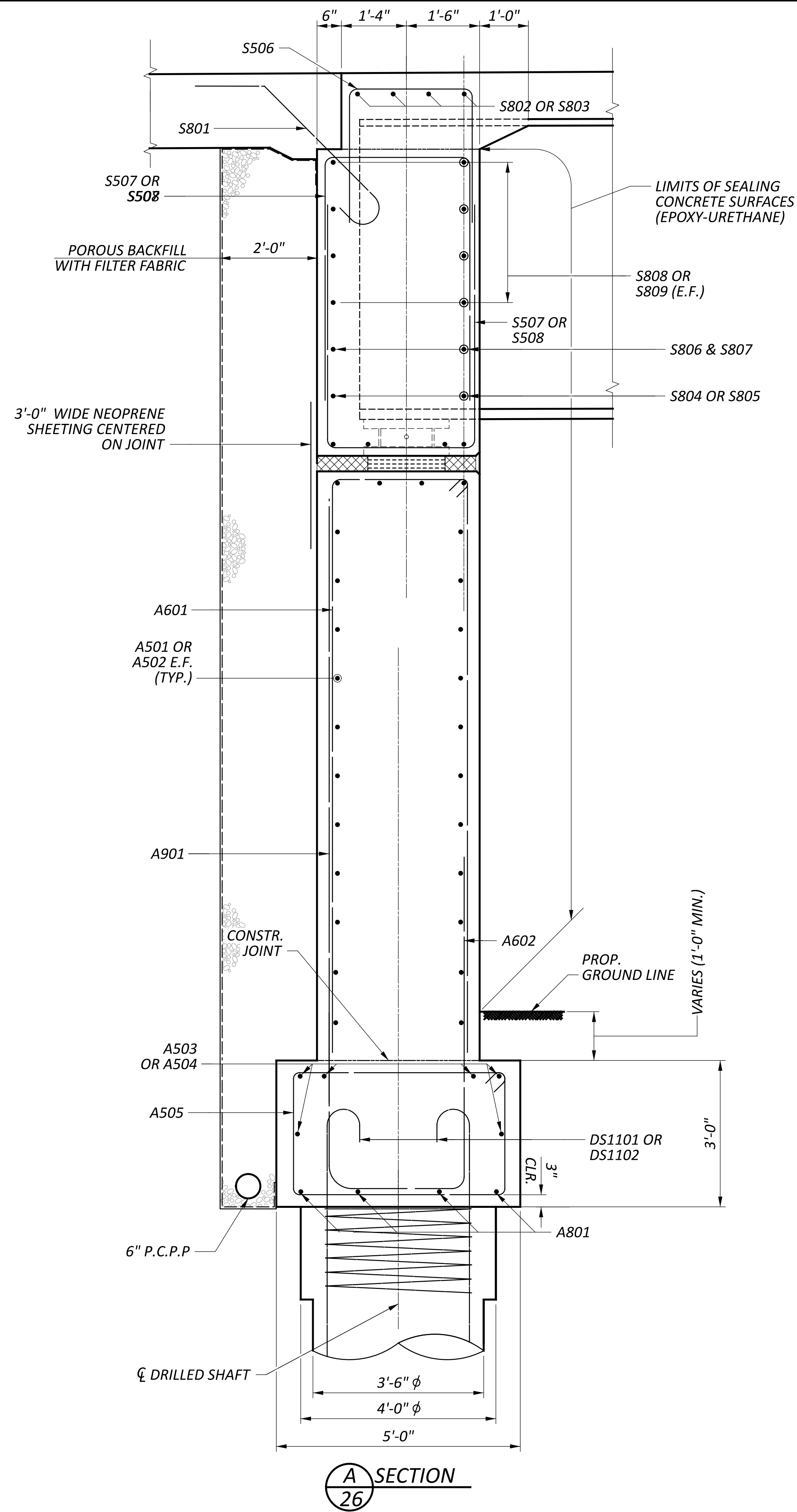
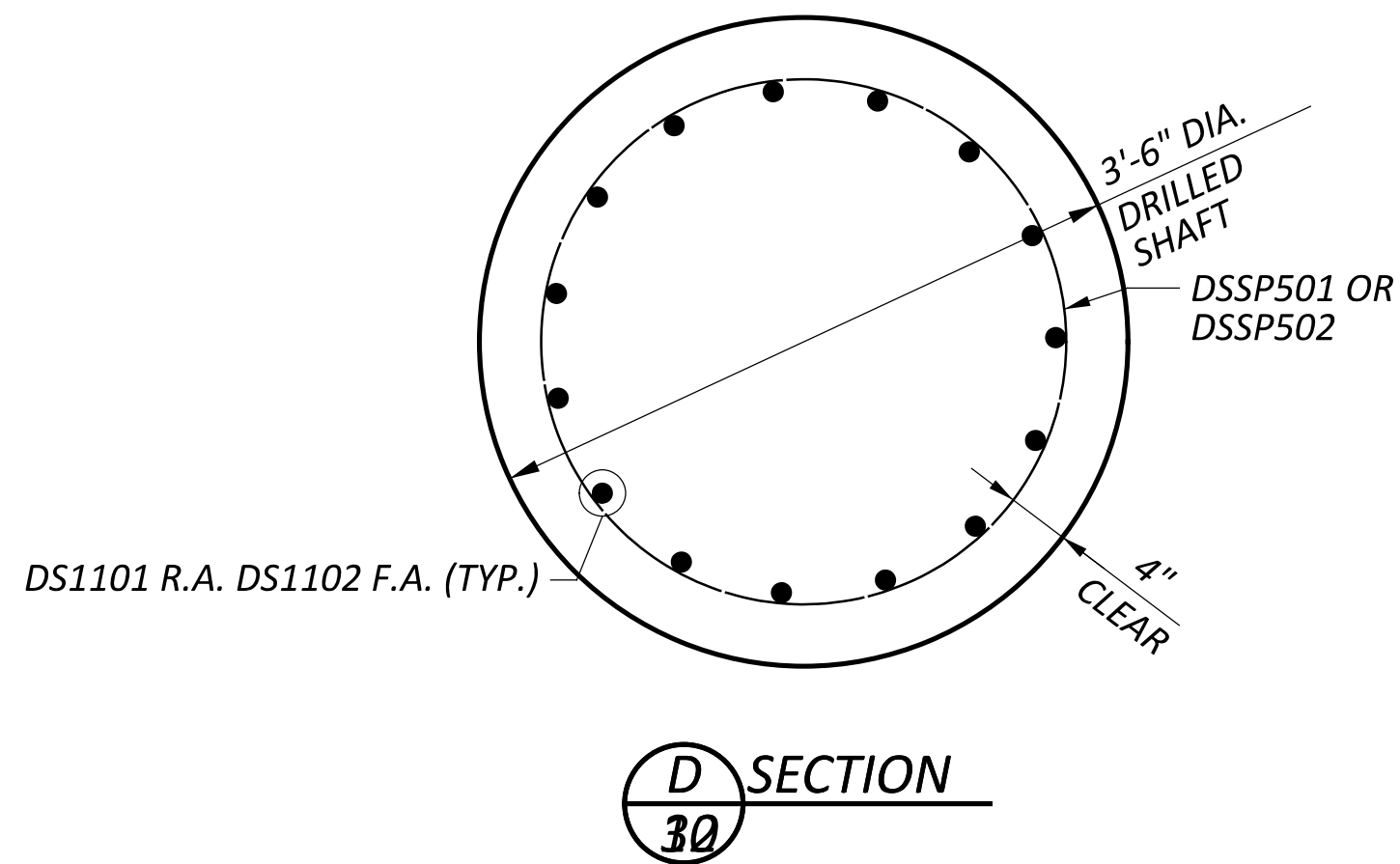
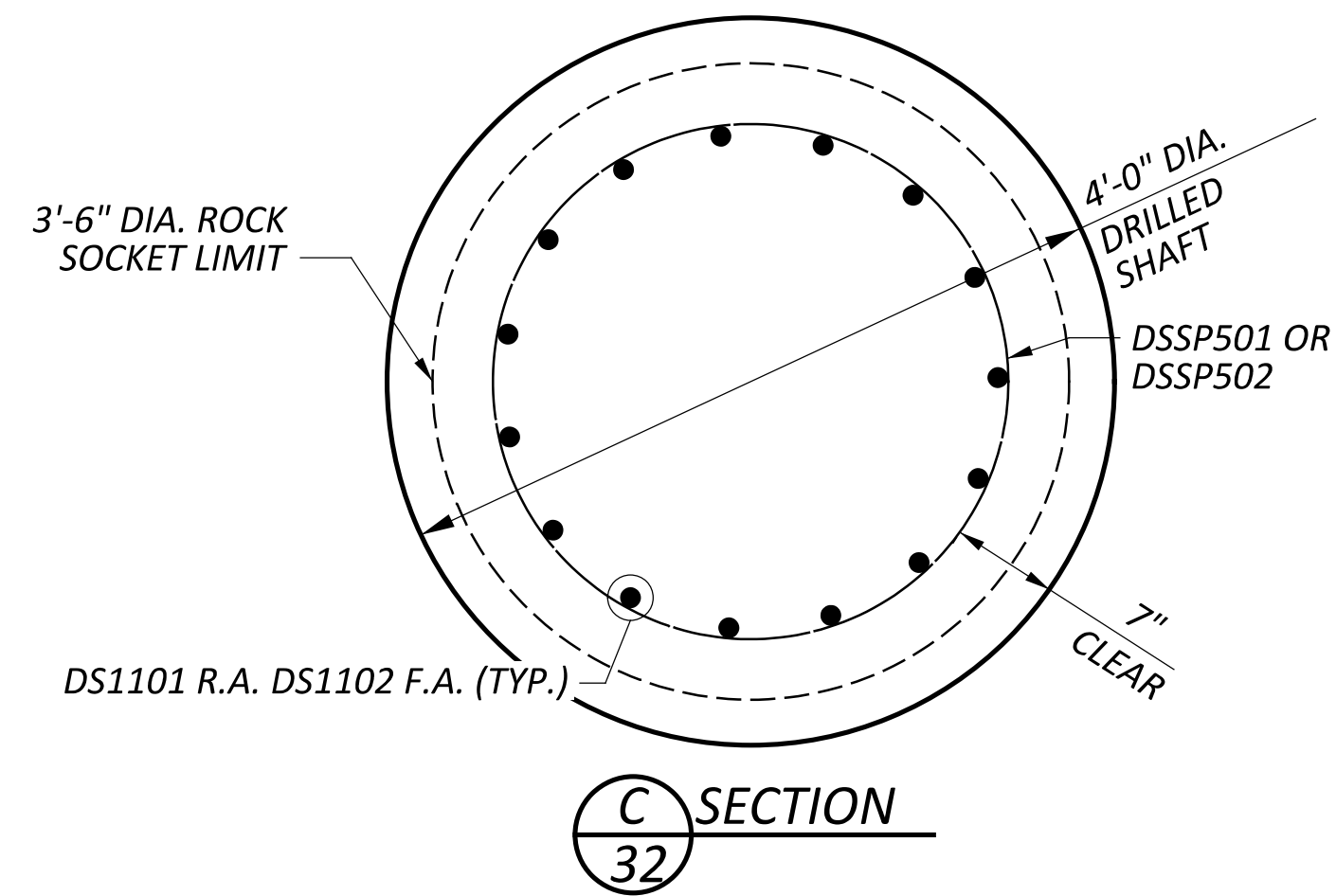
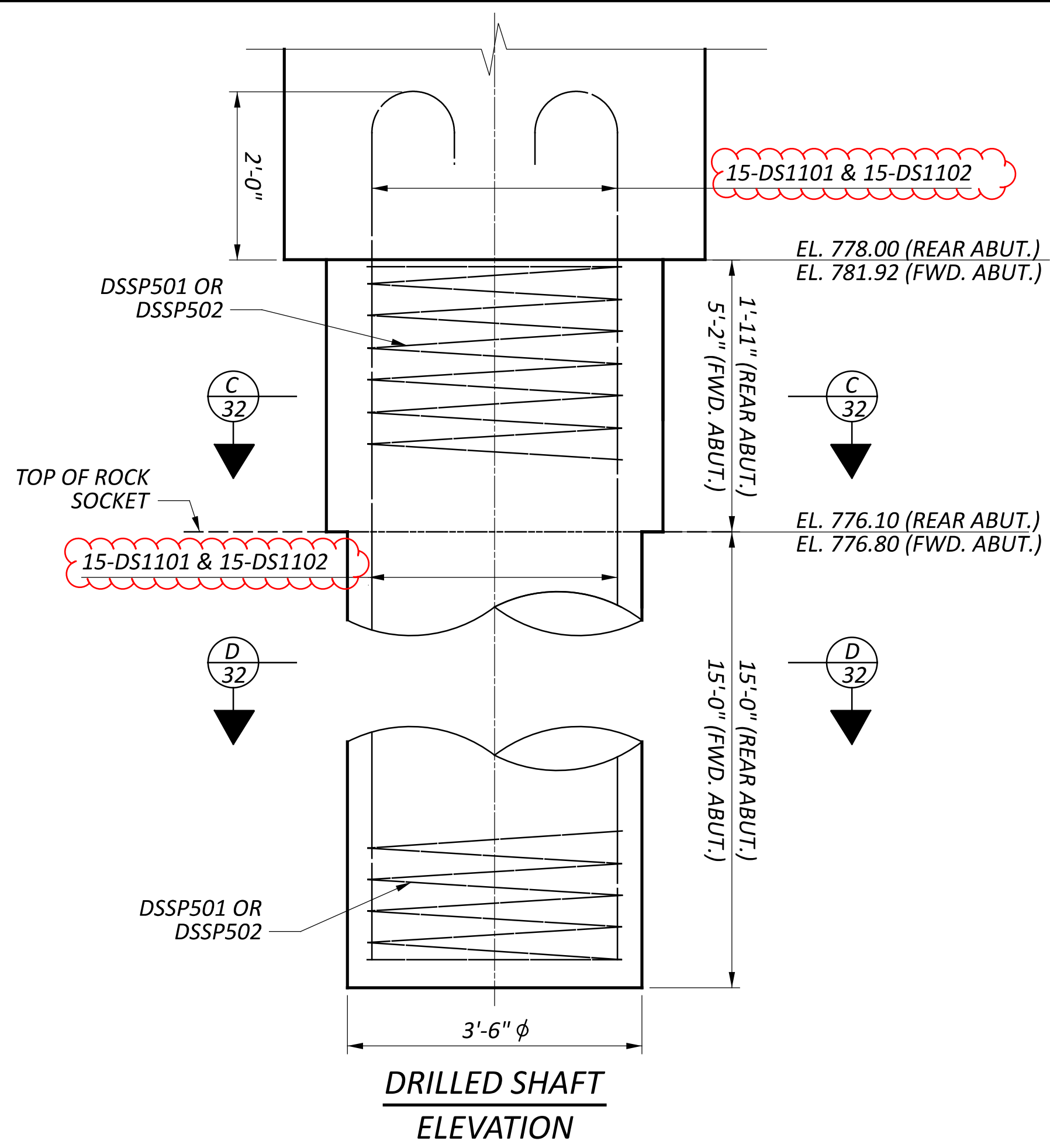
SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	6
TOTAL	20
SHEET	27
TOTAL	50





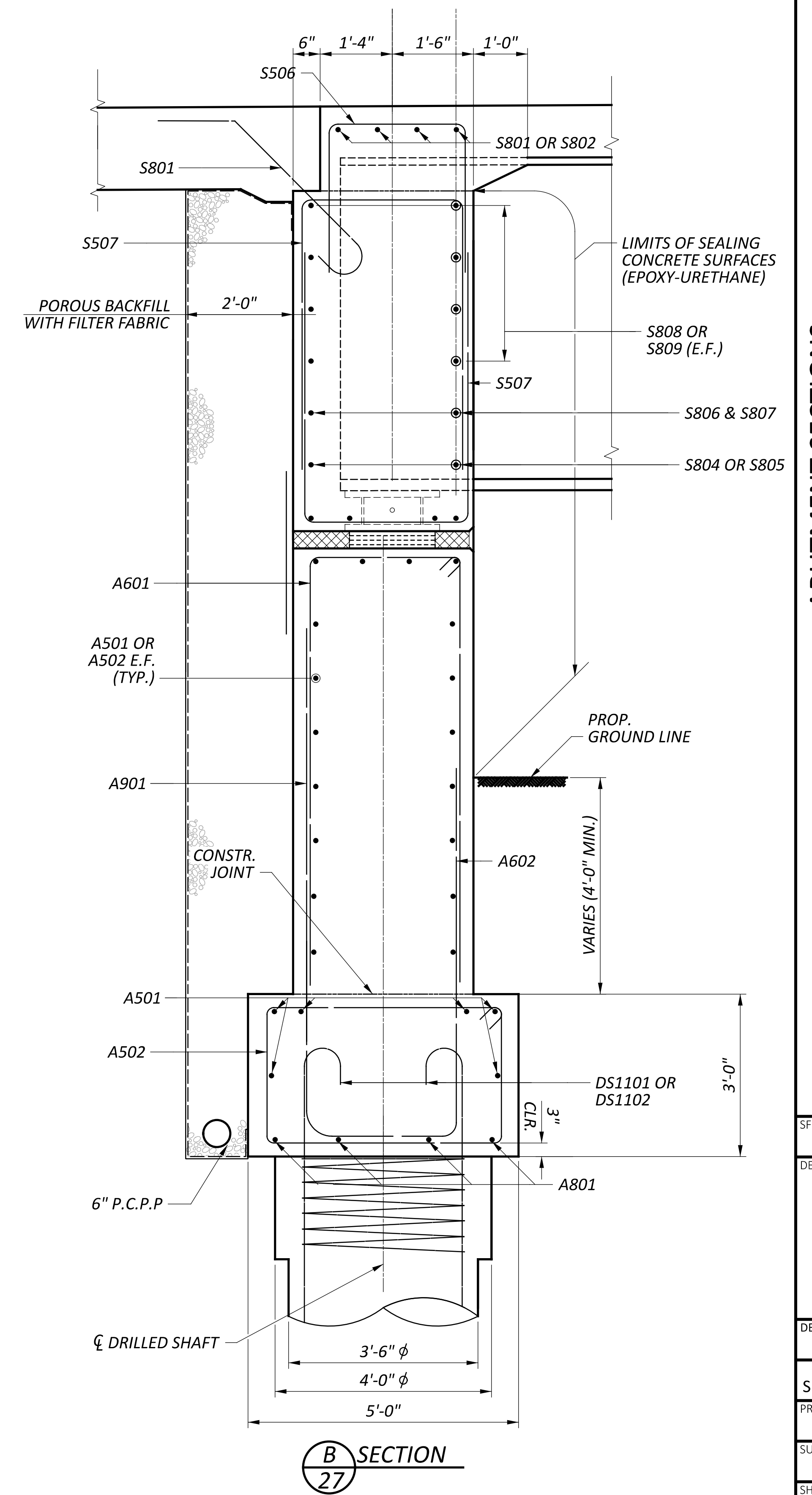
SFN	8306272
DESIGN AGENCY	
DESIGNER	GTF
CHECKER	SRK
REVIEWER	CAH
PROJECT ID	112975
SUBSET	10
TOTAL	20
SHEET	31
TOTAL	50





**NOTES:**

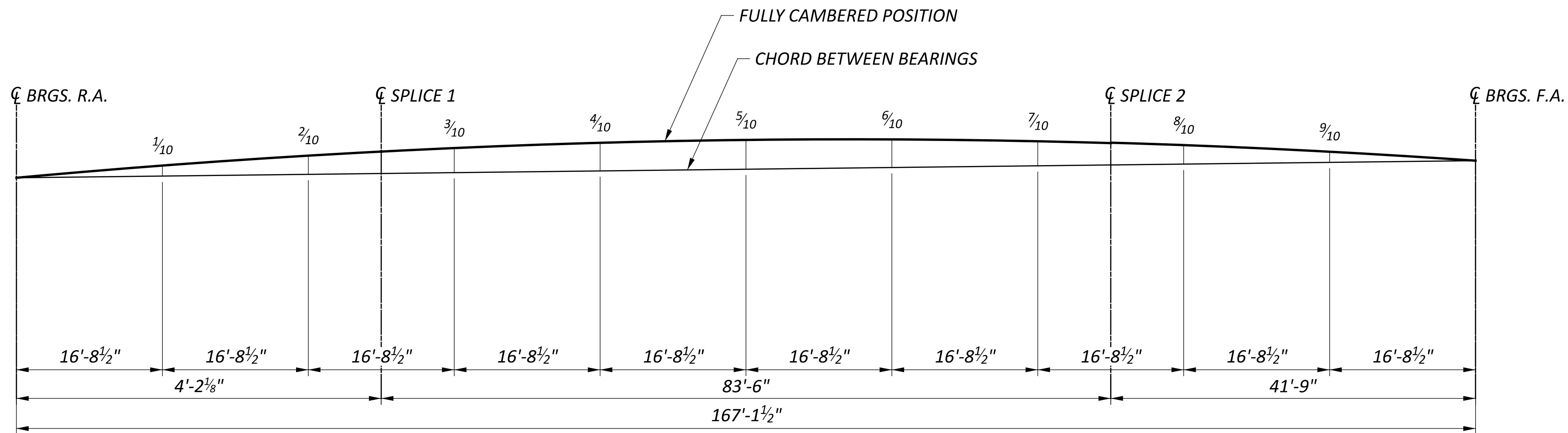
1. FOR ABUTMENT NOTES, SEE SHEETS 26 & 27.
2. DO NOT APPLY EPOXY-URETHANE SEALER TO THE CONCRETE SURFACES UNDER THE BEARINGS.
3. POROUS BACKFILL WITH FILTER FABRIC SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO THE BOTTOM OF THE APPROACH SLAB, AND Laterally TO THE ENDS OF WINGWALLS.



SFN	8306272
DESIGN AGENCY	
DESIGNER	CHECKER
GTF	CAH
SRK	REVIEWER
PROJECT ID	112975
SUBSET	TOTAL
11	20
SHEET	TOTAL
32	50



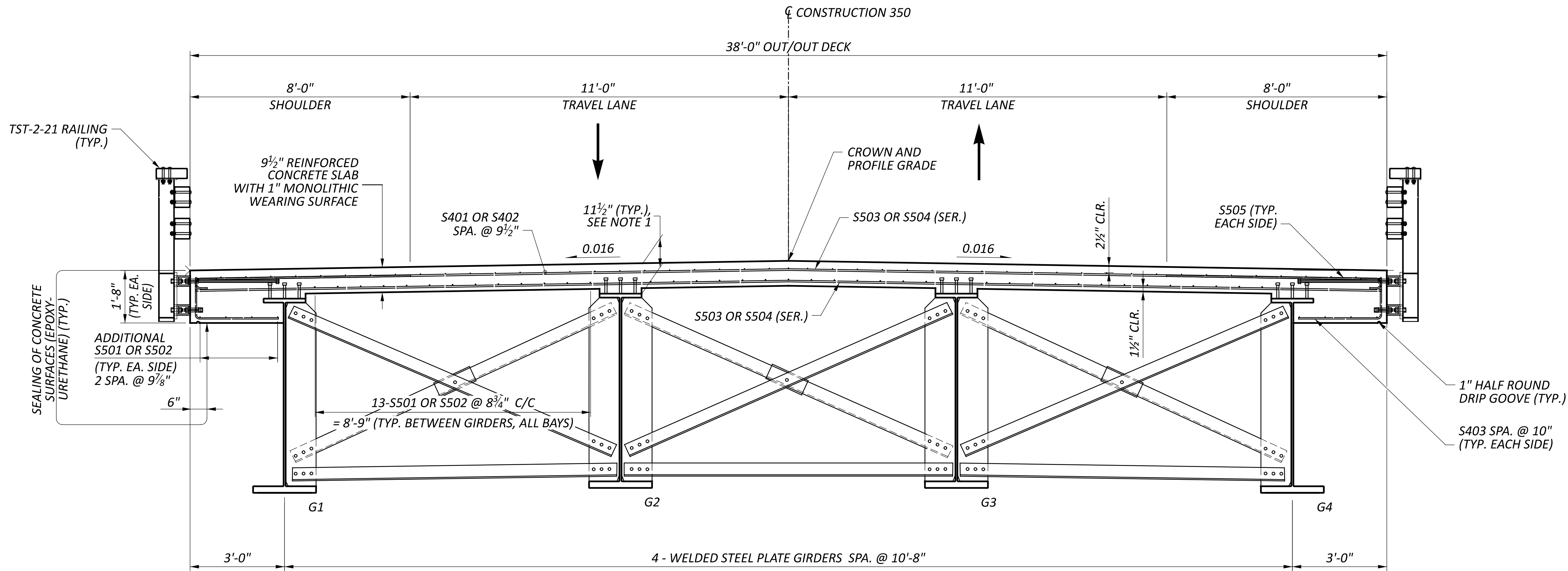
GIRDER NUMBER		REAR ABUTMENT	SPAN LOCATION										FORWARD ABUTMENT	
			1/10 SPAN	2/10 SPAN	SPLICE 1	3/10 SPAN	4/10 SPAN	5/10 SPAN	6/10 SPAN	7/10 SPAN	SPLICE 2	8/10 SPAN		9/10 SPAN
G1	DEFLECTION DUE TO WEIGHT OF STEEL	0	3/4	1 7/16	1 11/16	1 15/16	2 1/4	2 3/8	2 1/4	1 11/16	1 15/16	1 7/16	3/4	0
	DEFLECTION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



**CAMBER DIAGRAM**  
 ALL CHORDS REFERENCED TO TOP OF WEB



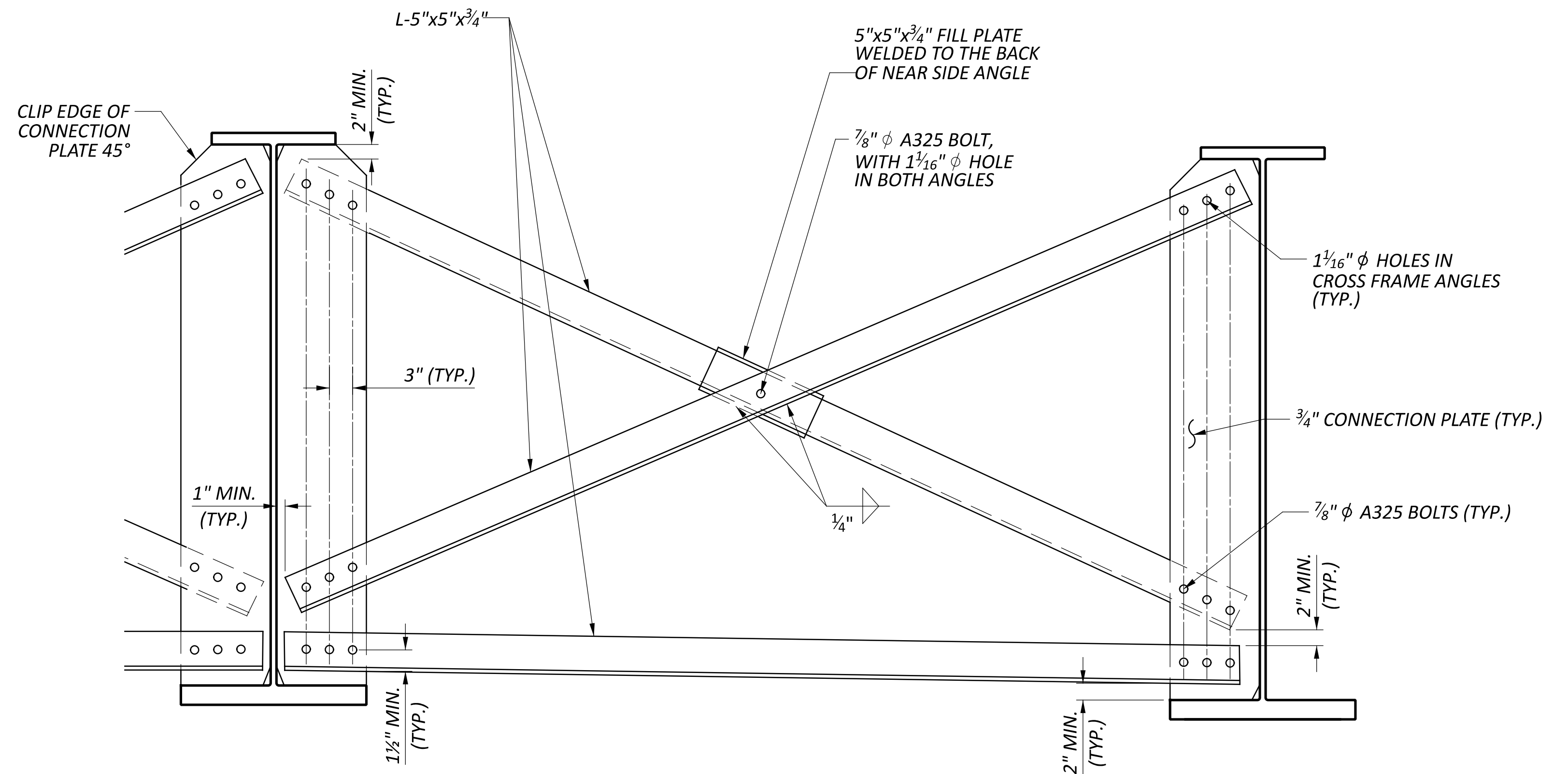




**TRANSVERSE SECTION**

**NOTES**

- SEE SCD TST-2-21 FOR ADDITIONAL BRIDGE RAILING DETAILS.
- 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 5/8" 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.
- COVER OVER REINFORCING STEEL SHALL BE 2" TO SURFACES OF CONCRETE UNLESS OTHERWISE NOTED.
- HIGH STRENGTH BOLTS SHALL BE 7/8" DIAMETER A325 UNLESS OTHERWISE NOTED.
- 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**

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

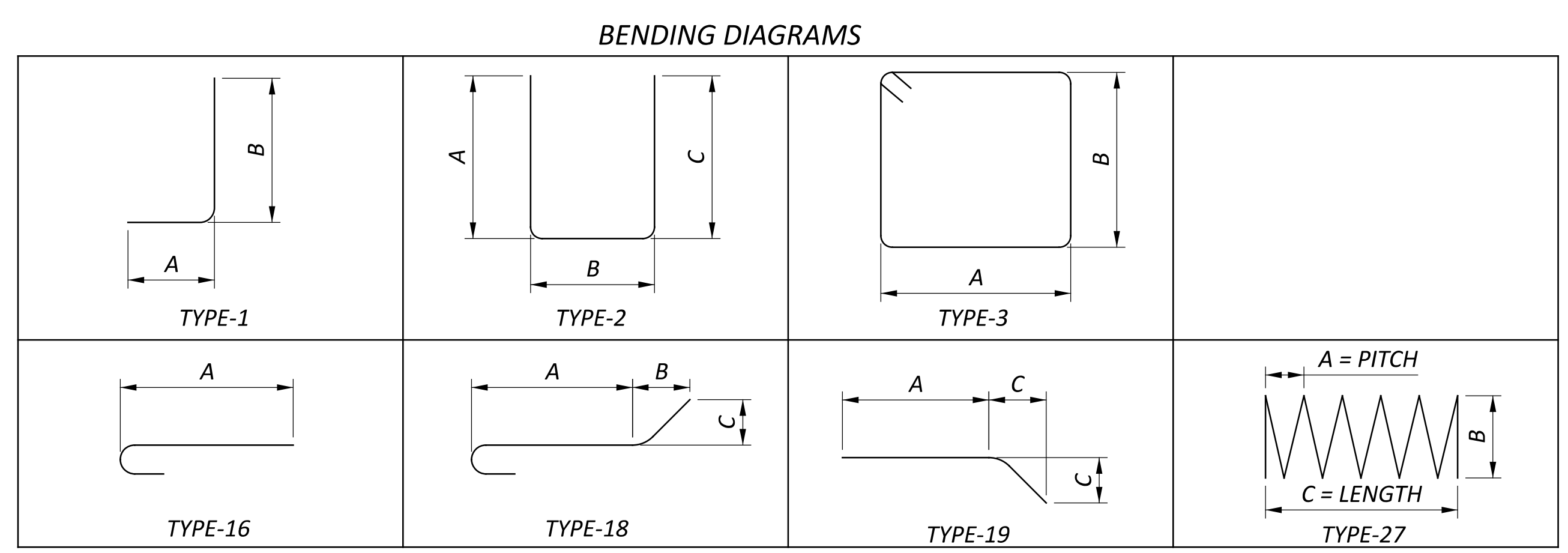


MARK	NUMBER						LENGTH	WEIGHT	TYPE	DIMENSIONS				
	REAR ABUT.	FORWARD ABUT.	WINGWALL #1	WINGWALL #2	WINGWALL #3	WINGWALL #4				TOTAL	A	B	C	INC
<b>ABUTMENTS</b>														
A501	22	16					38	30'-0"	1189	STR				
A502	22	16					38	25'-7"	1014	STR				
A503	6	6					12	30'-0"	375	STR				
A504	6	6					12	27'-6"	344	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 3/4"	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					104	26'-2"	4087	2	11'-9"	3'-0"	11'-9"	
A602	52	52					104	7'-10"	1224	1	1'-1 1/2"	6'-10"		
A603	52	52					104	18'-6"	2890	2	7'-10 3/4"	3'-0"	7'-10 3/4"	
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	52					104	10'-9"	3801	1	1'-6 1/2"	9'-6"		
WW501				1 SR OF	1 SR OF		2 SR OF	10'-8" TO		19	7'-8" TO	2'-5 3/4"	1'-9"	7'-0 1/4"
				4	4		4	31'-9"			28'-9"			
				1 SR	1 SR		2 SR	8'-11"			7'-2 1/2"			
WW502				OF	OF		OF	TO	163	19	TO	1'-5 1/4"	1'-0"	7'-0 3/4"
				4	4		4	30'-2"			28'-5"			
WW503				5	5		10	33'-0"	344	19	30'-0"	2'-5 3/4"	1'-9"	
WW504				5	5		10	31'-9"	330	19	30'-0"	1'-5 1/4"	1'-0"	
				2 SR	2 SR		4 SR	9'-4"						
WW505				OF	OF		OF	TO	289	STR				5'-3 3/4"
				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	6'-7"			5'-3 1/2"			
WW508				OF			OF	TO	192	19	TO	0'-8"	1'-1 1/4"	3'-6 1/4"
				6			6	24'-2"			22'-10 3/4"			
				1 SR			1 SR	7'-6"			5'-3 1/2"			
WW509				OF			OF	TO	204	19	TO	1'-2"	1'-11 3/4"	3'-6 1/4"
				6			6	25'-2"			22'-10 3/4"			
WW510				2			4	24'-11"	104	19	23'-7 3/4"	0'-8"	1'-1 1/4"	
WW511				2			4	25'-11"	108	19	23'-7 3/4"	1'-2"	1'-11 3/4"	
WW512				28			50	24'-2"	1260	STR				
				1 SR	1 SR		2 SR	17'-6"			4'-1 1/4"		4'-1 1/4"	
WW601				OF	OF		OF	TO	1205	2	TO	2'-2"	TO	1'-10 1/2"
				29	29		29	10'-1"			7'-10"		7'-10"	
WW602				94	94		188	15'-10"	4477	STR				
				1 SR	1 SR		2 SR	26'-10"			12'-5 3/4"		12'-5 3/4"	
WW603				OF	OF		OF	TO	2350	2	TO	2'-2"	TO	0'-1 1/2"
				26	26		26	33'-4"			15'-8 3/4"		15'-8 3/4"	
				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 1/4"		
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	17'-6"			4'-1"		4'-1"	
WW607				OF	OF		2 SR	TO	620	2	TO	2'-2"	TO	1'-8 3/4"
				15	15		15	10'-0"			7'-10"		7'-10"	
				1 SR			1 SR	28'-6"			13'-4"		13'-4"	
WW608				OF	OF		OF	TO	829	2	TO	2'-2"	TO	0'-3 1/4"
				9	9		9	32'-10"			15'-6"		15'-6"	
WW609				3	3		6	18'-10"	170	2	7'-10"	3'-5 1/2"	7'-10"	
WW610				1	1		2	18'-1"	54	2	7'-10"	2'-9 1/4"	7'-10"	
WW611				1	1		2	17'-8"	53	2	7'-10"	2'-4 1/4"	7'-10"	
<b>SUB-TOTAL</b>								40,786						

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FORWARD ABUT.	TOTAL				A	B	C	D	R	INC
<b>ABUTMENT DIAPHRAGMS</b>												
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 1/4"	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 3/4"				
S805	2	2	4	24'-11"	266	2	1'-7"	22'-1 1/2"	1'-7"			
S806	4	4	8	8'-9"	187	STR						
S807	2	2	4	22'-1"	236	STR						
<b>SUB-TOTAL</b>					7,574							

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FORWARD ABUT.	TOTAL				A	B	C	D	R	INC
<b>ABUTMENT DRILLED SHAFTS (FOR INFORMATION ONLY)</b>												
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 3/4"	2'-10"	21'-9"			
DSSP502		17	17	544'-4"	9652	27	0'-3 3/4"	2'-10"	18'-6"			
<b>SUB-TOTAL</b>					113,045							

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS							
					A	B	C	D	E	R	INC	
<b>DECK</b>												
S401	294	30'-0"	5892	STR								
S402	49	10'-0"	327	STR								
S403	816	4'-5"	2407	2	0'-8"	1'-4"	2'-7 1/2"					
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 3/4"
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								
<b>SUB-TOTAL</b>			56,439									



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

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