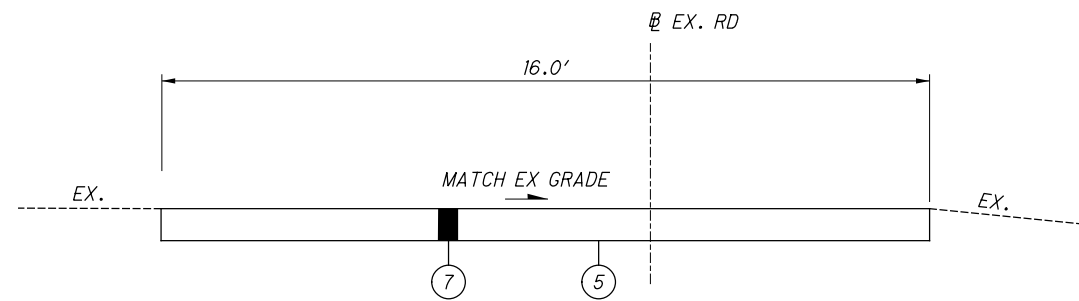
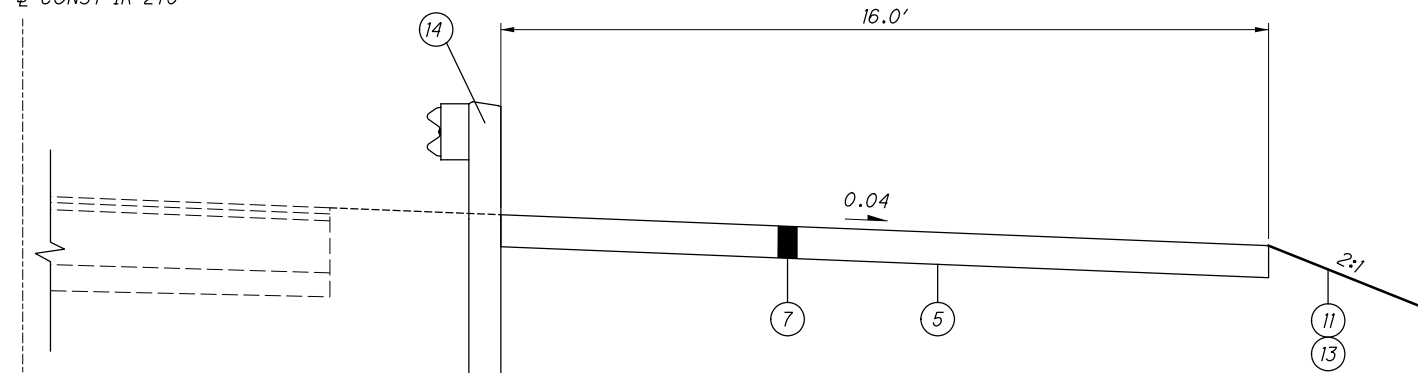


I:\ProjectData\CLE\0554\_CLE-275-7.71\Design\B-N\FinalSubmission\CADD\_Files\Roadway\Sheets\0554\_GY001.dgn Sheet 1/12/2021 5:46:40 AM gFreeman



STA. 10+00.00 TO STA. 10+18.67 (EX. RD.) - NO WORK REQUIRED  
 STA. 10+18.67 TO STA. 11+04.75 (EX. RD.)  
 STA. 11+04.75 TO STA. 12+87.48 (EX. RD.) - NO WORK REQUIRED  
 STA. 12+87.48 TO STA. 16+15.52 (EX. RD.)

CONST IR-275

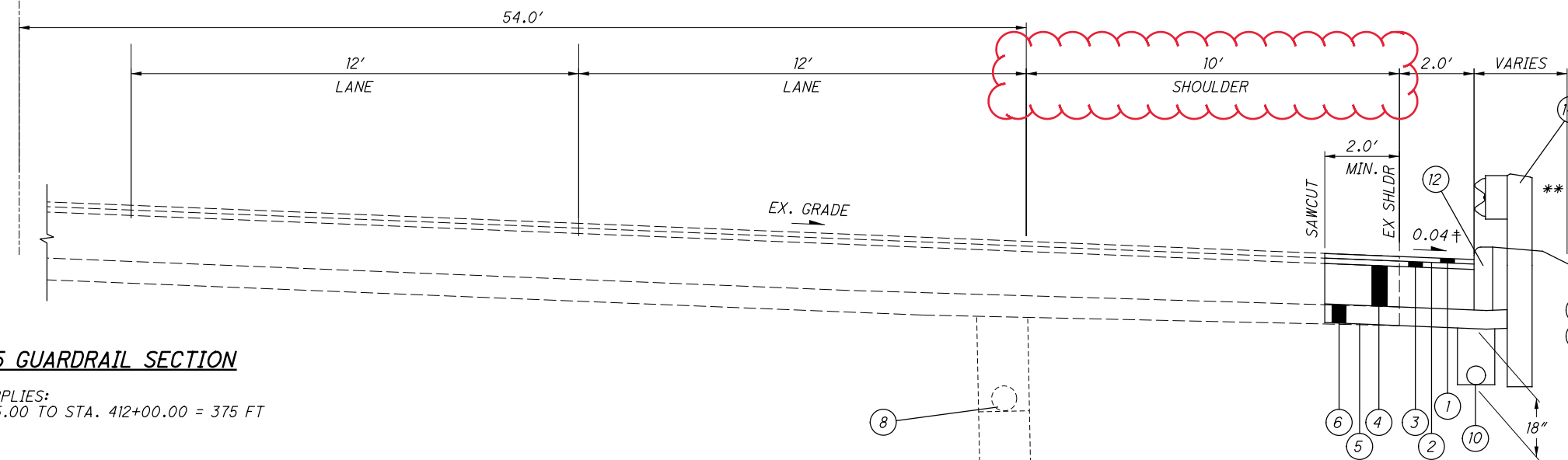


STA. 415+73.44 TO STA. 417+64.91 (IR 275)

**ACCESS DRIVE**

CONST IR-275

† 0.04 OR RATE OF SUPER IF GREATER  
 \* FOR TYPICAL ASPHALT EDGE COURSE DETAIL, SEE DETAIL "A" THIS SHEET  
 \*\* FOR GUARDRAIL, SEE DETAIL "B" THIS SHEET

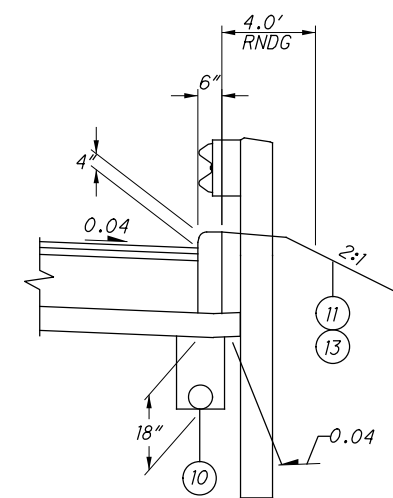


**IR - 275 GUARDRAIL SECTION**

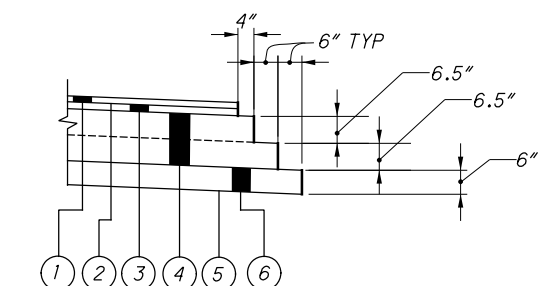
SECTION APPLIES:  
 STA 408+25.00 TO STA. 412+00.00 = 375 FT

LEGEND

- ① ITEM 442 - 1 1/2" ASPHALT CONCRETE (SC), 12.5 MM, TYPE A (446)
- ② ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (@ 0.04 GAL/SY)
- ③ ITEM 442 - 1 3/4" ASPHALT CONCRETE (IC), 19 MM, TYPE A (446)
- ④ ITEM 302 - 13" ASPHALT CONCRETE BASE
- ⑤ ITEM 204 - SUBGRADE COMPACTION
- ⑥ ITEM 304 - 6" AGGREGATE BASE
- ⑦ ITEM 304 - 8" AGGREGATE BASE
- ⑧ ITEM 707 - EX. 6" SHALLOW METAL PIPE UNDERDRAIN
- ⑨ ITEM 605 - EX. 6" SHALLOW PIPE UNDERDRAINS
- ⑩ ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP
- ⑪ ITEM 659 - SEEDING AND MULCHING
- ⑫ ITEM 609 - CURB TYPE 4-C, AS PER PLAN
- ⑬ ITEM 659 - 6" TOPSOIL
- ⑭ ITEM 606 - GUARDRAIL, TYPE 5



**\*\* DETAIL "B" GUARDRAIL LONG POST DETAIL**



**\* DETAIL "A" ASPHALT EDGE COURSE DETAIL**

TYPICAL SECTIONS

CLE-275-7.71

I:\ProjectData\CLE\0554\_CLE-275-7.7\Design\B-N\Final Submission\CADD\_Files\Roadway\Sheets\0554\_GG00(Revised).dgn Sheet 1/12/2021 7:39 AM g.freeman

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	MDH	CHECKED	SCS
4	5	8	9	26	01/IMS/BR	EXT	TOTAL													
LUMP															<b>ROADWAY</b>					
		82				82	201	11000	LS						CLEARING AND GRUBBING					
		375				375	202	35000	SY						PAVEMENT REMOVED					
				10,845		10,845	203	10000	CY						GUARDRAIL REMOVED					
				10,863		10,863	203	20000	CY						EXCAVATION					
				920		920	203	35141	CY						EMBANKMENT					4
															GRANULAR MATERIAL, TYPE E, AS PER PLAN					
		1,840				1,840	204	50001	SY						GEOTEXTILE FABRIC, AS PER PLAN					4
		1,021				1,021	204	10000	SY						SUBGRADE COMPACTION					
		375				375	606	13000	FT						GUARDRAIL, TYPE 5					
						60	606	18500	EACH						GUARDRAIL POST, 9 FEET					
						LUMP	878	25000	LS						INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS					
															<b>EROSION CONTROL</b>					
		224				224	601	21000	SY						TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT					
		12				12	601	32200	CY						ROCK CHANNEL PROTECTION, TYPE C WITH FILTER					
		151				151	601	32000	CY						ROCK CHANNEL PROTECTION, TYPE A WITH FILTER					
		2				2	659	00100	EACH						SOIL ANALYSIS TEST					
		739				739	659	00300	CY						TOPSOIL					
		6,658				6,658	659	10000	SY						SEEDING AND MULCHING					
		333				333	659	14000	SY						REPAIR SEEDING AND MULCHING					
		0.93				0.93	659	20000	TON						COMMERCIAL FERTILIZER					
		1.38				1.38	659	31000	ACRE						LIME					
		37				37	659	35000	MGAL						WATER					
		333				333	659	15000	SY						INTER-SEEDING					
				85		85	670	00720	SY						DITCH EROSION PROTECTION MAT, TYPE B					
						25,000	832	30000	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>					
				1,904		1,904	518	40000	FT						6" PERFORATED CORRUGATED PLASTIC PIPE					
					0.6	0.6	602	20000	CY						CONCRETE MASONRY					
					389	389	605	14000	FT						6" BASE PIPE UNDERDRAINS					
					339	339	611	01500	FT						6" CONDUIT, TYPE F					
					58	58	611	06100	FT						15" CONDUIT, TYPE C					
					127	127	611	06700	FT						15" CONDUIT, TYPE F, 707.02 TYPE C OR 707.21					
					18	18	611	07400	FT						18" CONDUIT, TYPE B, 706.02					
					2	2	611	98450	EACH						CATCH BASIN, NO. 2-2A					
					4	4	611	99710	EACH						PRECAST REINFORCED CONCRETE OUTLET					
															<b>PAVEMENT</b>					
					368	368	252	01500	FT						FULL DEPTH PAVEMENT SAWING					
					60	60	301	46000	CY						ASPHALT CONCRETE BASE, PG64-22					
					262	262	304	20000	CY						AGGREGATE BASE					
					7	7	407	10000	GAL						TACK COAT					
					7	7	442	20000	CY						ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)					
					8	8	442	20100	CY						ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5 MM, TYPE A (448)					
					362	362	609	24511	FT						CURB, TYPE 4-C, AS PER PLAN					4
															<b>MAINTENANCE OF TRAFFIC</b>					
		4				4	614	18601	SNMT						PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN					5
		65				65	616	10000	MGAL						WATER					
															<b>STRUCTURE 20 FOOT SPAN AND UNDER</b>					
															FOR STRUCTURE QUANTITIES SEE SHEET 36					
															<b>INCIDENTALS</b>					
		LUMP				LUMP	614	11000	LS						MAINTAINING TRAFFIC					
						LUMP	623	10000	LS						CONSTRUCTION LAYOUT STAKES AND SURVEYING					
						LUMP	624	10000	LS						MOBILIZATION					

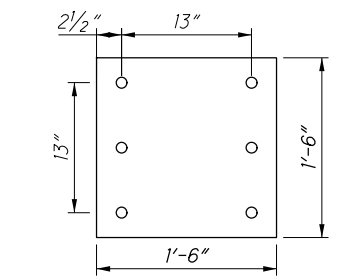
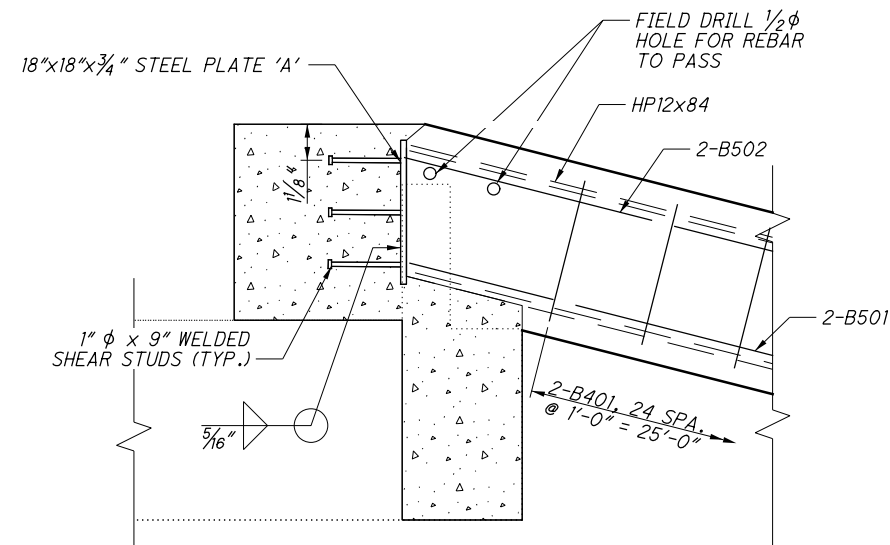
GENERAL SUMMARY

CLE-275-7.71

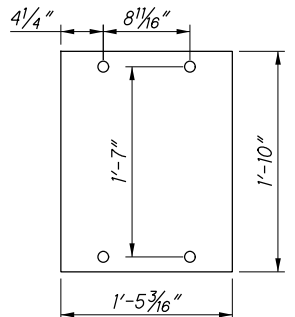
I:\Project+Data\CLE-275-7.7\Design\B-N\FinalSubmission\CADD\_Files\Roadway\Sheets\10554\_GS00(Revised).dgn Sheet 1/12/2021 1:16:26 AM gfreeman

REF NO.	SHEET NO.	STATION TO STATION						202	202	204	606	203	204	REF NO.	SHEET NO.	STATION TO STATION				601	601	601	670	REF NO.	SHEET NO.	STATION TO STATION				518			
		PAVEMENT REMOVED, ASPHALT	GUARDRAIL REMOVED	SUBGRADE COMPACTION	GUARDRAIL, TYPE 5	GRANULAR MATERIAL, TYPE E, AS PER PLAN	GEOTEXTILE FABRIC, AS PER PLAN									TIED CONCRETE BLOCK MAT, TYPE 2 UNDERLAYMENT	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	DITCH EROSION PROTECTION MAT, TYPE B							6" PERFORATED CORRUGATED PLASTIC PIPE							
		SY	FT	SY	FT	CY	SY	FT	CY	SY	FT	CY			SY	FT	CY	SY			FT												
		IR 275														IR 275											IR 275						
12		408+25.00	RT	TO	412+00.00	RT	82	375		375	432	865	12		408+25.00	RT		144															
12		415+73.44	RT	TO	416+64.91	RT			313				12		409+75.00	RT		79	7						12		408+50.31	RT	TO	411+74.95	RT	949	
		BL LEFT STA 10+00.00, BL LEFT =STA 404+56.6, 303.38', LT IR 275														BL LEFT STA 10+00.00, BL LEFT =STA 404+56.6, 303.38', LT IR 275											BL LEFT STA 10+00.00, BL LEFT =STA 404+56.6, 303.38', LT IR 275						
11		10+25.25	LT	TO	11+25.00	LT					261	521	12		10+25.25	LT		1							11		10+25.25	LT	TO	11+25.00	LT	501	
		BL RIGHT STA 20+00.00, BL RIGHT =STA 409+43.16, 270.22', RT IR 275														BL RIGHT STA 20+00.00, BL RIGHT =STA 409+43.16, 270.22', RT IR 275											BL RIGHT STA 20+00.00, BL RIGHT =STA 409+43.16, 270.22', RT IR 275						
4, 12		20+50.00	LT/RT	TO	21+00.00	LT/RT					183	367	12		20+50.00	RT	TO	21+43.73	RT			151			12		20+50.00	LT/RT	TO	21+00.00	LT/RT	353	
4, 12		21+75.00	LT/RT	TO	22+00.00	LT/RT					44	87	12		20+75.00	LT						85			12		21+74.75	LT/RT	TO	22+20.00	LT/RT	101	
		BL EX ACCESS RD																															
12		10+18.67	LT/RT	TO	11+04.75	LT/RT			151																								
13		12+87.48	LT/RT	TO	16+02.70	LT/RT			557																								
<b>ROADWAY SUMMARY</b>													<b>EROSION CONTROL SUMMARY</b>											<b>MISCELLANEOUS STRUCTURE</b>									
TOTALS CARRIED TO GENERAL SUMMARY							82	350	1021	350	920	1840	TOTALS CARRIED TO GENERAL SUMMARY							224	12	151	85	TOTALS CARRIED TO GENERAL SUMMARY							1904		

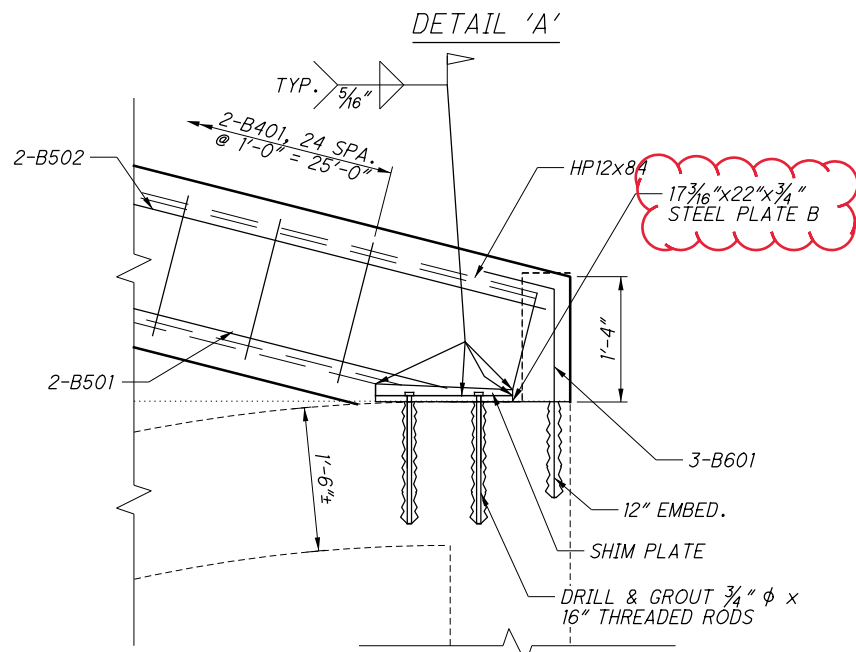
I:\ProjectData\CLE-275-7.1N\Design\Drainage\Sheets\110554.DC001.dgn Sheet 1/12/2021 7:34:23 AM gfreeman



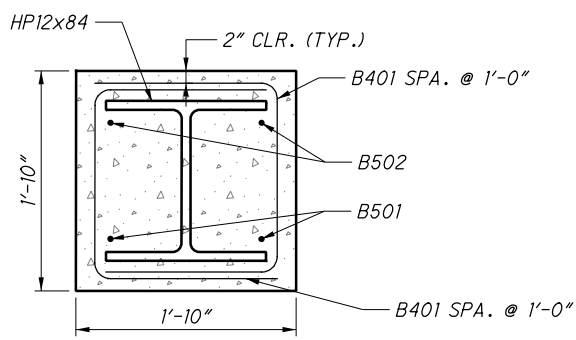
STEEL PLATE 'A' DETAIL



STEEL PLATE 'B' DETAIL



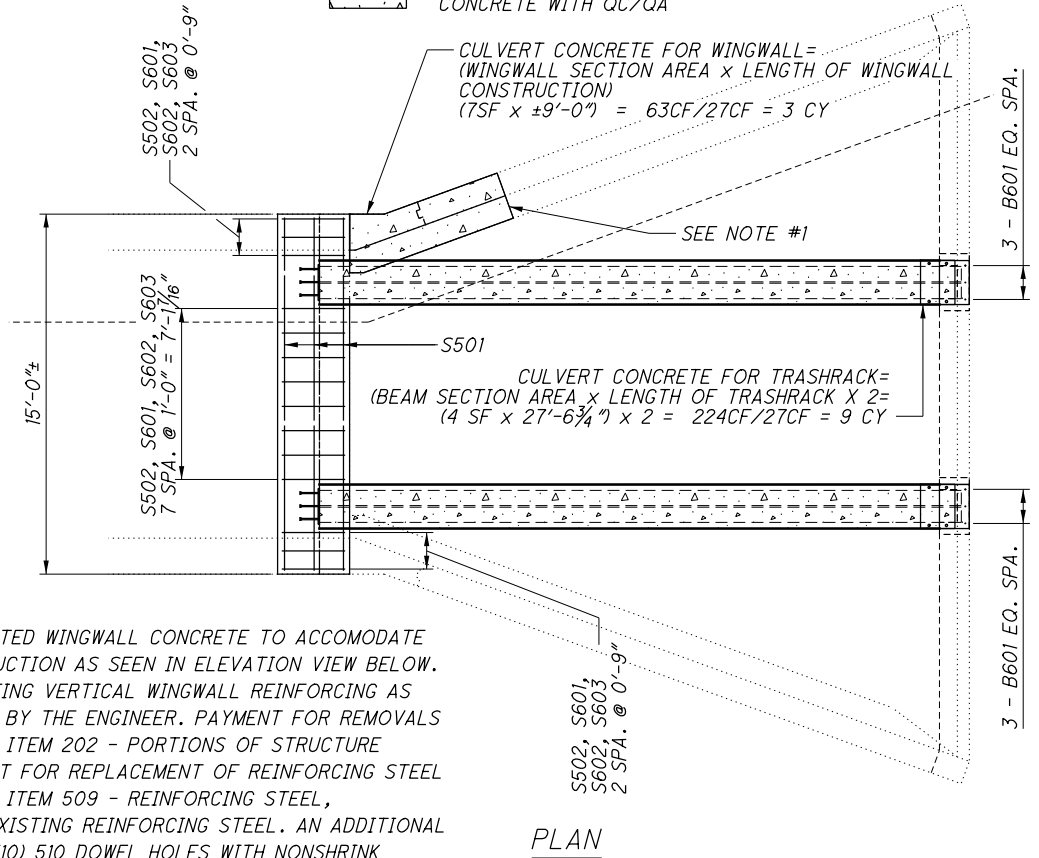
DETAIL 'B'



BEAM SECTION

LEGEND

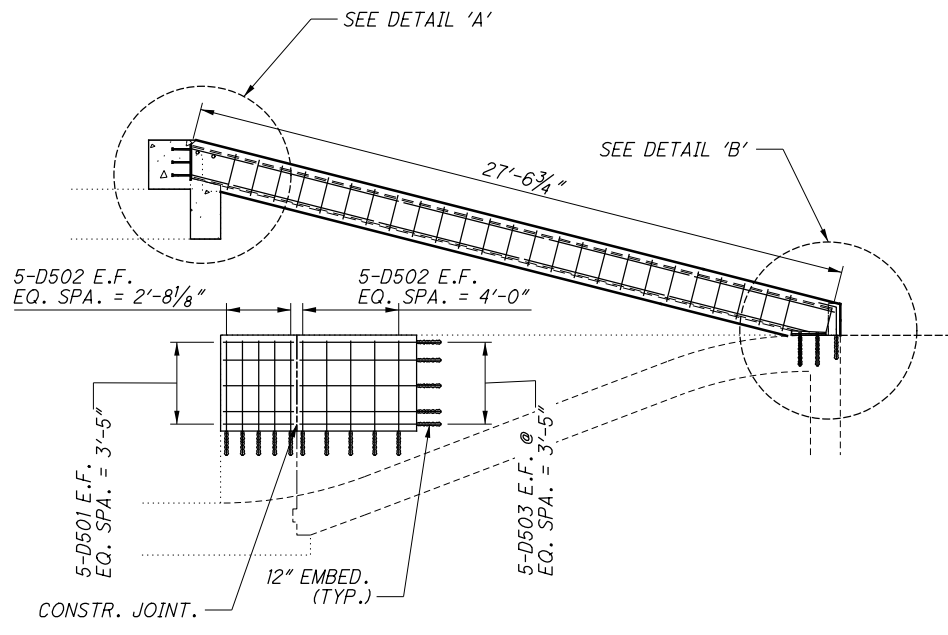
ITEM 511 - CLASS QC3 CONCRETE, MISC.: CULVERT CONCRETE WITH QC/QA



PLAN

NOTE #1:

REMOVE DETERIORATED WINGWALL CONCRETE TO ACCOMODATE PROPOSED CONSTRUCTION AS SEEN IN ELEVATION VIEW BELOW. REPLACE ANY EXISTING VERTICAL WINGWALL REINFORCING AS DEEMED NECESSARY BY THE ENGINEER. PAYMENT FOR REMOVALS TO BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED. PAYMENT FOR REPLACEMENT OF REINFORCING STEEL TO BE INCLUDED IN ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL. AN ADDITIONAL QUANTITY OF TEN (10) 510 DOWEL HOLES WITH NONSHRINK GROUT HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR DOWELING OF REPLACEMENT STEEL.

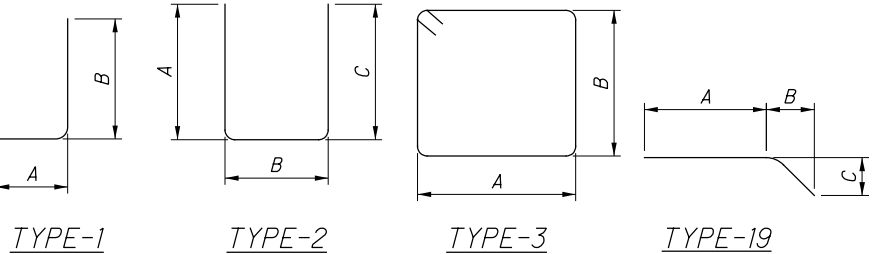


TRASHRACK ELEVATION

NOTE #2:

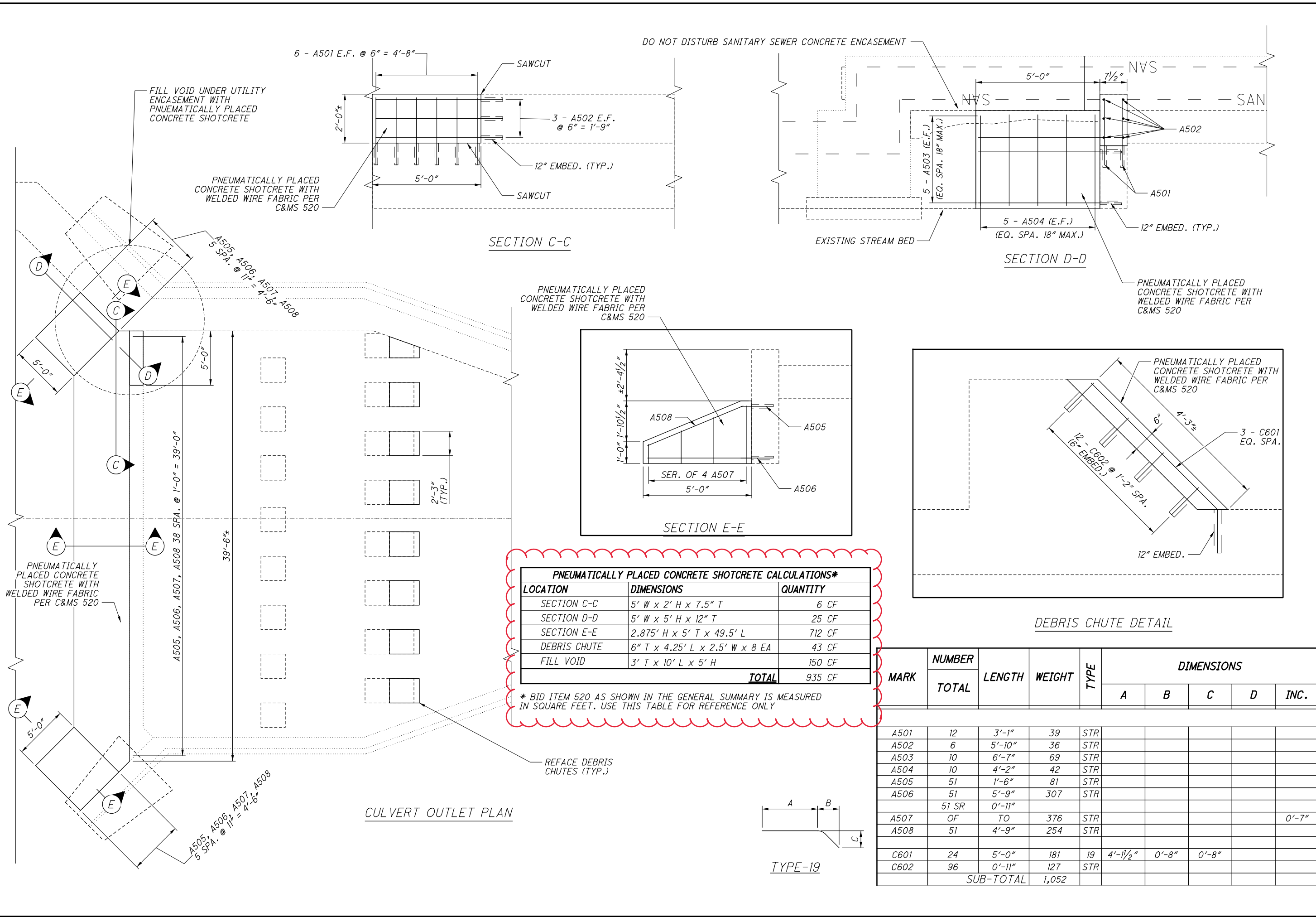
SEAL ALL SURFACES OF PROPOSED CONCRETE CONSTRUCTION AT THE INLET AS SHOWN ON THIS SHEET WITH EPOXY-URETHANE SEALER. CONCRETE SURFACES TO BE SEALED ENTIRELY ARE AS FOLLOVED. TRASHRACK CONCRETE ENCASEMENT, RECONSTRUCTED CULVERT HEADWALL AND RECONSTRUCTED INLET WINGWALL.

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS				
					A	B	C	D	E
<b>CULVERT INLET</b>									
S501	13	14'-8"	199	STR					
S502	14	9'-4"	136	3	0'-10"	3'-6"			
S601	14	2'-6"	53	1	0'-9"	1'-10 1/2"			
S602	14	9'-5"	198	3	2'-7 1/2"	1'-7 1/2"			
S603	14	6'-1"	128	2	2'-10 1/2"	2'-8 1/2"	0'-10"		
B401	50	5'-5"	181	2	1'-10"	1'-11 1/2"	1'-10"		
B501	2	23'-6"	49	STR					
B502	2	27'-8"	58	STR					
*B601	6	2'-11"	26	19	2'-2"	0'-8 3/4"	0'-2 1/4"		
D501	10	2'-11"	30	STR					
D502	20	4'-9"	99	STR					
D503	10	5'-10"	61	STR					
<b>SUB-TOTAL</b>			<b>1,218</b>						



\* INDICATES THE USE OF GALVANIZED REINFORCING STEEL.

I:\ProjectData\CLE-275-7.7\Design\Drainage\Sheets\110554.DC002.dgn Sheet 1/12/2021 6:39:21 AM gfreeman



**PNEUMATICALLY PLACED CONCRETE SHOTCRETE CALCULATIONS\***

LOCATION	DIMENSIONS	QUANTITY
SECTION C-C	5' W x 2' H x 7.5" T	6 CF
SECTION D-D	5' W x 5' H x 12" T	25 CF
SECTION E-E	2.875' H x 5' T x 49.5' L	712 CF
DEBRIS CHUTE	6" T x 4.25' L x 2.5' W x 8 EA	43 CF
FILL VOID	3' T x 10' L x 5' H	150 CF
<b>TOTAL</b>		<b>935 CF</b>

\* BID ITEM 520 AS SHOWN IN THE GENERAL SUMMARY IS MEASURED IN SQUARE FEET. USE THIS TABLE FOR REFERENCE ONLY

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS				
					A	B	C	D	INC.
A501	12	3'-1"	39	STR					
A502	6	5'-10"	36	STR					
A503	10	6'-7"	69	STR					
A504	10	4'-2"	42	STR					
A505	51	1'-6"	81	STR					
A506	51	5'-9"	307	STR					
	51 SR	0'-11"							
A507	OF	TO	376	STR					0'-7"
A508	51	4'-9"	254	STR					
C601	24	5'-0"	181	19	4'-1/2"	0'-8"	0'-8"		
C602	96	0'-11"	127	STR					
<b>SUB-TOTAL</b>			<b>1,052</b>						



I:\ProjectData\CLE-275-7.71\Design\Drainage\Sheets\10554\_DS001.dgn Sheet 1/12/2021:27:49 PM g.freeman

ESTIMATED QUANTITIES - STRUCTURE No.: CLE-275-7.71 (01/IMS/BR FUNDING SPLIT)						
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	SHEET	
202	11200	LUMP	LS	PORTIONS OF STRUCTURE REMOVED		
202	98500	1600	CY	REMOVAL MISC.: WOODY DEBRIS REMOVAL	36	
503	11101	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	36	
509	10000	2244	LB	EPOXY COATED REINFORCING STEEL		
509	20000	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL	36	
509	40000	26	LB	REINFORCING STEEL, MISC.: GALVANIZED REBAR	36	
510	10001	48	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	36	
511	53014	18	CY	CLASS QC3 CONCRETE , MISC: CULVERT INLET CONCRETE WITH QC/QA	31	
512	10100	80	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	32	
513	10020	LUMP	LS	STRUCTURAL STEEL MEMBERS, LEVEL 1	32	
516	14600	69	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: FIELD INJECTION OF EXISTING JOINTS WITH HIGH DENSITY POLYURETHANE FOAM	34	
519	11101	334	SF	PATCHING OF CONCRETE STRUCTURE, AS PER PLAN	34	
520	10000	486	SF	PNEUMATICALLY PLACED CONCRETE SHOTCRETE	33	

REINFORCING STEEL, MISC.: GALVANIZED REBAR

PROVIDE GALVANIZED REINFORCING STEEL FOR B601 BARS. GALVANIZED STEEL WILL CONFORM TO ASTM A 767, CLASS 1. THE GALVANIZED COATED REINFORCING STEEL WILL MEET ALL OTHER REQUIREMENTS OF 509. IF THE GALVANIZED SURFACE BECOMES DAMAGED DURING HANDLING IN THE FIELD, REPAIRS WILL CONFORM TO ASTM A 780. FURNISH CERTIFIED MATERIAL ACCORDING TO SUPPLEMENT 1068.

JOINT SEALER, MISC.: FIELD INJECTION OF EXISTING JOINT WITH HIGH DENSITY POLYURETHANE FOAM

THIS WORK CONSISTS OF INJECTING THE VERTICAL JOINT AT THE LOCATIONS SHOWN IN THE PLANS WITH HIGH DENSITY POLYURETHANE (HDP). SUPPLY A CLOSED-CELL HIGH-DENSITY POLYURETHANE (TIGER FOAM OR APPROVED EQUAL) MEETING THE PROPERTIES SPECIFIED BELOW. FOR APPROVAL AT LEAST 24 HOURS PRIOR TO THE BEGINNING OF WORK, SUPPLY THE TECHNICAL SPECIFICATIONS TO THE PROJECT ENGINEER.

PROPERTY	ASTM TEST	REQUIRED VALUE
MATERIAL DENSITY	D1622	1.2 LB/CU FT
TENSILE STRENGTH	D1623	20 PSI MINIMUM
COMPRESSION STRENGTH	D1621	7 PSI MINIMUM
WATER ABSORPTION	D2127	LESS THAN 2% VOLUME

FOR VERIFICATION PURPOSES, THE CONTRACTOR SHALL ALLOW THE PROJECT ENGINEER UNLIMITED ACCESS TO ALL EQUIPMENT, HDP MATERIAL DATA SHEETS AND ANY OTHER PRINTED HDP INFORMATION RELATED TO THE PROJECT.

REMOVE STONES AND OTHER FOREIGN MATERIALS WITHIN THE VERTICAL JOINT BEFORE APPLICATION OF THE FOAM. PREPARE THE APPLICATION SURFACE AND INSTALL THE PRODUCT AS PER THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. REMOVE ANY EXCESS POLYURETHANE MATERIAL REMAINING AFTER APPLICATION IS COMPLETE AND SUBSEQUENTLY SEAL WITH EPOXY-URETHANE SEALER (FEDERAL COLOR #17778).

THE DEPARTMENT WILL MEASURE THE ACTUAL LENGTH OF THE JOINT TO BE SEALED BY HIGH DENSITY POLYURETHANE FOAM. PAYMENT FOR ACCEPTED QUANTITIES COMPLETE IN PLACE WILL BE MADE AT CONTRACT PRICE FOR:

JOINT SEALER, MISC.: FIELD INJECTION OF EXISTING JOINT WITH HIGH DENSITY POLYURETHANE FOAM

ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO PLACE PROPERLY THE HDP SHALL BE INCLUDED IN THE COST OF THE BID ITEM.

ITEM 202 REMOVAL MISC.: WOODY DEBRIS REMOVAL

THE CONTRACTOR SHALL FURNISH ALL MATERIAL, EQUIPMENT, LABOR, AND INCIDENTAL ITEMS, INCLUDING MOBILIZATION, NECESSARY TO PROPERLY REMOVE AND DISPOSE OF ALL DEBRIS ACCUMULATED ON AND AROUND THE CULVERT INLET. DISPOSE OF DEBRIS MATERIAL OFFSITE ACCORDING TO C&MS 105.16, 105.17 AND 201.02.B

THE QUANTITIES SHOWN IN THE PLANS ARE BASED OF FIELD MEASUREMENTS AND OBSERVATIONS. THE ESIMATED CUBIC YARD QUANTITIES INLCUDE AIR VOIDS INHERANT IN STREAM DEPOSITED PILES OF WOODY DEBRIS, AND REPRESENT THE VOLUME OF SPACE OCCUPIED BY THE DEBRIS PILES, NOT THE VOLUME OF THE DEBRIS MATERIAL ONLY. THE VOLUME OF THE MATERIAL SHALL BE AGREED UPON PRIOR TO THE DEBRIS BEING REMOVED.

PAYMENT FOR ALL THE ABOVE WILL BE MADE AT THE CONTRACT BID PRICE FOR ITEM 202 REMOVAL MISC.: WOODY DEBRIS REMOVAL

DESIGN DATA

CLASS QC1 CONCRETE WITH QC/QA, HEADWALL  
CLASS QC1 CONCRETE WITH QC/QA, CULVERT  
-COMPRESSIVE STRENGTH 4.0 KSI

EPOXY COATED REINFORCING STEEL - ASTM A775 MINIMUM YIELD STRENGTH 60 KSI  
GALVANIZED REINFORCING STEEL - ASTM A767 MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 MINIMUM YEILD STRENGTH 50 KSI

STRUCTURAL STEEL PLATES AND THREADED RODS SHALL BE GALVANIZED PER C&MS 711.02

REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

STRUCTURAL STEEL MEMBERS, LEVEL 1

PAYMENT FOR THE PROPOSED BEAM SECTIONS, STEEL PLATES, INCIDENTALS ASSOCIATED WITH THEIR INTALLATION ARE INCLUDED WITH ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL 1. FURNISH STRUCTURAL STEEL SHAPES, PLATES AND THREADED RODS ACCORDING TO C&MS 711.01. THE THREADED RODS SHALL CONFORM TO ASTM A 449. GALVANIZE ALL STRUCTURAL PLATES, AND THREADED RODS IN ACCORDANCE WITH C&MS 711.02.

ITEM 510, DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN:

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURE-ER'S INSTALLATION INSTRUCTIONS PUBLISHED IN THE ICC-ES REPORTS LISTED BELOW.

[WWW.ICC-ES.ORG/EVALUATION REPORTS/](http://WWW.ICC-ES.ORG/EVALUATION REPORTS/)

THE HOLES FOR THE ADHESIVE ANCHORS SHALL BE DRILLED WITH A HAMMER DRILL AND CARBIDE BIT. PRIOR TO THE INSTALLATION OF THE ANCHORS, THE HOLES SHALL BE CLEANED AND DRIED IN A MANNER CONSISTENT WITH THE MANUFACTURER'S REQUIREMENTS FOR DRY CONCRETE.

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

HILTI HIT-HY 200 ADHESIVE ANCHORS  
ICC-ES REPORT ESR-3187)

DEWALT PURE110+ EPOXY ADHESIVE ANCHOR SYSTEM  
(ICC-ES REPORT ESR-3298)

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS  
ICC-ES REPORT ESR-4057)

ATC ULTRABOND HS-ICC ADHESIVE ANCHOR SYSTEM  
(ICC-ES REPORT ESR-4094)

COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

COFFERDAMS AND EXCAVATION BRACING INSTALLED FOR THE PROJECT ARE FOR DEWATERING THE WORK AREA. COFFERDAMS AND EXCAVATION BRACING DESIGN, CONSTRUCTION, AND REIMBURSEMENT FOR DAMAGE IS BASED ON CMS 503. THE CONTRACTOR MUST COMPLY WITH THE IN-STREAM RESTRICTION IN THE SPECIAL PROVISIONS - WATERWAY PERMIT. ADDING FILL TO OR EXCAVATING FROM THE STREAM TO DEWATER THE WORK AREA REQUIRES A TEMPORARY ACCESS FILL (TAF) SUBMISSION PER THE SPECIAL PROVISIONS. FILLING THE EXCAVATED AREA AFTERWARDS IS CONSIDERED A PERMANENT FILL AND MAY VIOLATE THE WATERWAY PERMIT'S THRESHOLDS OF IMPACTS.

IF THE CONTRACTOR WILL USE PUMPS TO DEWATER THE SITE OR DIVERT FLOW AROUND THE WORK SITE, THEN THE CONTRACTOR WILL NEED TO SIZE THE PUMP(S) AND/OR DIVERSION TO HANDLE TWICE THE HIGHEST MONTHLY FLOW WITHOUT PRODUCING A RISE IN THE BACKWATER ABOVE THE OHWM. ACCORDING TO STREAMSTATS, TWICE THE HIGHEST MONTHLY FLOW THAT NEEDS TO BYPASS THE DEWATERED WORK SITE IS 20.6 CFS. ALL WORK ASSOCIATED WITH COFFERDAMS AND EXCAVATION BRACING, INCLUDING ALL REQUIREMENTS OF THE TAF SUBMISSION, SHALL BE PAID FOR WITH THE COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN PAY ITEM.

DESIGN AGENCY: OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE  
 DATE: 8/26/20  
 REVIEWED: CAH  
 DRAWN: GTF  
 DESIGNED: GTF  
 CHECKED: GTF  
 STRUCTURE FILE NUMBER: 1305689  
 STRUCTURE No.: CLE-275-0771  
 CARRYING HALL RUN  
**CULVERT REPAIR ESTIMATED QUANTITIES & NOTES**  
 CLE - 275 - 7.71  
 PID No. 110554  
 5 / 5  
 36  
 43