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TGSBEN-LAPTOP

COMPUTED BY:	BAC	DATE:	04-20-21
CHECKED BY:	BJH	DATE:	04-20-21

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
15614.1075010	3D-2

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

LINE & STATION	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	C. S. PIPE (ALUMINIZED TYPE 2) 12 (0.079)	C.S. 15 (0.079)	C.S. 18 (0.079)	C.S. 24 (0.109)	C.S. 30 (0.138)	C.S. 36 (0.138)	C.S. 42 (0.168)	C.S. 48 (0.168)	R. C. PIPE CLASS IV 12	R.C. 15	R.C. 18	R.C. 24	R.C. 30	R.C. 36	R.C. 42	R.C. 48
I26 453+20	2 LT	0524																					
		0524	0526																				
I26 453+00	63 RT	0526		1655.6																			
		0526	0525		1649.1	1648.3	0.3															8	
I26 454+50	43 LT	0527		1668.7																			
		0527	0523		1665.2	1651.2												236					
I26 455+01	63 RT	0528		1668.1																			
		0528	0526		1662.3	1649.6	0.3														196		
I26 455+18	98 RT	0529																					
		0529	0528		1668.3	1662.3	0.8						40										
I26 457+05	43 LT	0530		1681.0																			
		0530	0527		1668.9	1665.2												256					
I26 457+07	3 LT	0531																					
		0531	0530																				
I26 457+72	43 LT	0532		1684.0																			
		0532	0530		1679.3	1676.2											64						
I26 457+13	62 RT	0533		1680.8																			
		0533	0528		1673.7	1662.8														208			
I26 459+01	63 RT	0534		1689.7																			
		0534	0533		1682.9	1673.7														184			
I26 460+72	43 LT	0535		1696.4																			
		0535	0532		1693.2	1679.3											296						
I26 460+99	63 RT	0536		1698.3																			
		0536	0534		1691.5	1682.9														196			
I26 453+29	113 RT	0537																					
		0537	0526		1660.6	1650.1	0.7					60											
I26 452+07	67 LT	0538		1645.2																			
		0538	0539		1638.5	1634.6	1.7			84													
		0539	0519		1631.6	1603.1	3.8						72										
HGR 35+74	49 RT	0540		1413.3																			
		0540	0510		1405.5	1402.5	3.8						20										
HGR 46+56	26 RT	0602		1553.1																			
		0602	0542																				
HGR 46+69	60 RT	0603		1569.8																			
		0603	0602		1555.1	1549.0	2.7						36										
I26 463+18	169 LT	0604		1651.4																			
		0604	0603		1634.5	1564.1	2.7						164										
		0605	0604		1697.7	1645.8	2.7						124										
I26 463+27	84 RT	0607																					
		0607	0606		1707.0	1700.7	1.2					24											
I26 465+49	43 LT	0608		1717.6																			
		0608	0605		1714.4	1700.7											228						
I26 465+10	1 LT	0609																					
		0609	0610																				
I26 465+00	63 RT	0610		1715.8																			
		0610	0606		1708.9	1700.2	0.5													180			
I26 467+85	43 LT	0611		1728.2																			
		0611	0608		1725.0	1714.4											232						
I26 467+59	1 RT	0612																					
		0612	0613																				
SHEET TOTALS										84		84	456				820	492		768	196	8	

FROM	TO	15" PIPE REHABILITAION CIPP LINER	18" PIPE REHABILITAION CIPP LINER	18" PIPE REHABILITATION SMOOTH WALL STEEL SLIP LINER (0.5" THICK)	24" PIPE REHABILITAION CIPP LINER	30" PIPE REHABILITAION CIPP LINER	36" PIPE REHABILITAION CIPP LINER	42" PIPE REHABILITAION CIPP LINER	42" PIPE REHABILITAION SOLID WALL THERMOPLASTIC SLIP LINER	18" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05
0524																						
0524	0526		68																			
0526													1	1.5								
0526	0525																					
0527													1									
0527	0523																					
0528													1	0.8								
0528	0526																					
0529																						
0529	0528																					
0530													1	5.0	2.1							
0530	0527																					
0531																						
0531	0530			40																		
0532													1									
0532	0530																					
0533													1	2.1								
0533	0528																					
0534													1	1.8								
0534	0533																					
0535													1									
0535	0532																					
0536													1	1.8								
0536	0534																					
0537																						
0537	0526																					
0538													1	1.7								
0538	0539																					
0539	0519																					
0540													1	2.8								
0540	0510																					
0602													1									
0602	0542						156															
0603													1	5.0	4.7							
0603	0602																					
0604													1	5.0	6.9							
0604	0603																					
0605	0604																					
0607																						
0607	0606																					
0608													1									
0608	0605																					
0609																						
0609	0610		64																			
0610													1	1.9								
0610	0606																					
0611													1									
0611	0608																					
0612																						
0612	0613		60																			
SHEET TOTALS			192	40			156						17	29.4	13.7							

FROM	TO	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	M.H. FRAME AND VENTED M.H. GRATE	ENERGY DISSIPATOR J.B. SEE DETAIL 2D-1	SPITTER BOX SEE DETAIL 2D-4	SPECIAL DESIGN J.B. W/ MH SEE DETAIL 2D-8	HINGED GRATE	G.D.I. TYPE "A" EXTRA DEPTH, SEE DETAIL 2D-12	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	ADJUST C.B.	ADJUST D.I.	15" C.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	30" C.S. ELBOW	36" C.S. ELBOW	SPEC. DSN. PIPE CONNECTION, SEE DETAIL 2D-11	BERM DITCH OUTLET STD. 850.11 (PER EACH)	PIPE CLEANOUT EA	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
0524																																												
0524	0526																																											RETAIN AND LINE W/ CIPP
0526						1						1																																
0526	0525																																											
0527							1			1																																		
0527	0523																																											
0528						1						1																																
0528	0526																																											
0529																										1																		FOREBAY #2, SEE DETAIL 2D-20
0529	0528																																			1	1							ROD & LUG W/ GASKETS & ELBOW, 10 GAGE SPC. DSN. PIPE CONNECTION - 0528
0530										1																	1																	2GI-A SPECIAL DESIGN
0530	0527																																											
0531																																												
0531	0530																																											RETAIN AND LINE W/ 18" WSP
0532							1			1																																		
0532	0530																																											
0533						1						1																																
0533	0528																																											
0534						1						1																																
0534	0533																																											
0535							1			1																																		
0535	0532																																											
0536						1						1																																
0536	0534																																											
0537																										1																		FOREBAY #1, SEE DETAIL 2D-18
0537	0526																																		1		1							ROD & LUG W/ GASKETS & ELBOW, 10 GAGE SPC. DSN. PIPE CONNECTION - 0526
0538																	1				1																							JB W/ MH
0538	0539																																				2							ROD & LUG W/ GASKETS, 14 GAGE SPC. DSN. PIPE CONNECTION - 0538 & 0539
0539	0519																																			2	2							ROD & LUG W/ GASKETS & 2 ELBOWS, 10 GAGE SPC. DSN. PIPE CONECTION - 0539 & 0519
0540																						2	1																					ENERGY DISSIPATOR JB, VENTED MH'S (BOLTED)
0540	0510																																				2							ROD & LUG W/ GASKETS, 10 GAGE SPC. DSN. PIPE CONNECTION - 0540 & 0510
0602		1																																										OTCB-4
0602	0542																																											RETAIN AND LINE W/ CIPP
0603																						1			1																			SPECIAL DESIGN JB W/ VENTED MH (BOLTED)
0603	0602																																				2							ROD & LUG W/ GASKETS, 10 GAGE SPC. DSN. PIPE CONNECTION - 0603 & 0602
0604																						1			1																			SPECIAL DESIGN JB W/ VENTED MH (BOLTED)
0604	0603																																			2	2							ROD & LUG W/ GASKETS & 2 ELBOWS, 10 GAGE SPC. DSN. PIPE CONNECTION - 0604 & 0603
0605	0604																																			2	2							ROD & LUG W/ GASKETS & 2 ELBOWS, 10 GAGE SPC. DSN. PIPE CONNECTION - 0605 & 0604
0607																										1																		FOREBAY #3, SEE DETAIL 2D-23
0607	0606																																		1		1							ROD & LUG W/ GASKETS & ELBOW, 10 GAGE SPC. DSN. PIPE CONNECTION - 0606
0608							1			1																																		
0608	0605																																											
0609																																												
0609	0610																																											RETAIN AND LINE W/ CIPP
0610						1						1																																
0610	0606																																											
0611							1			1																																		
0611	0608																																											
0612																																												
0612	0613																																											RETAIN AND LINE W/ CIPP
SHEET TOTALS		1				6	5			6		6					1				1	4	1		2	3	1								2	7	15							

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT