US004070AA

COMPUTED BY:	MLH	DATE:	09-13-21 Rev 4-20-22
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
I-5987B	3D-21

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 / SIZE / THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) 15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	C. S. PIPE 15 .064
		3081	3082		151.5	146.3		36							X			
LB3 824+00	1 RT	3110		163.7														
		3110	3116		159.9	159.1												
LB3 824+00	1 LT	3112		163.7														
		3112	3110		159.9	159.9												
LB3 829+00	1 RT	3120		168.9														
		3120	3126		165.1	161.7												
LB3 829+00	1 LT	3122		168.9														
		3122	3120		165.1	165.1												
LB3 839+00	1 RT	3210		173.1														
		3210	3216		164.1	164.7												
LB3 839+00	1 LT	3212		173.1														
		3212	3210		165.1	165.1												
		3218	3212		165.5	165.1												
LB3 834+00	1 LT	3222		171.5														
		3222	3224		167.7	167.6												
LB3 834+00	1 RT	3224		171.5														
		3224	3226		167.6	163.2												
LB3 845+06	1 RT	3310		173.9														
		3310	3316		170.0	169.4	0.6											
LB3 845+06	1 LT	3312		173.9														
		3312	3310		170.0	170.0												
LB3 846+50	1 LT	3321		174.2														
		3321	3323		170.3	170.3												
LB3 846+50	1 RT	3323		174.2														
		3323	3310		170.3	170.0												
LB3 856+00	1 LT	3402		174.0														
		3402	3412		170.2	169.7												
LB3 856+00	1 RT	3404		174.0														
		3404	3402		170.2	170.2												
LB3 857+00	1 RT	3410		173.5														
		3410	3412		169.7	169.7												
LB3 857+00	1 LT	3412		173.5														
		3412	3416		169.7	169.3	0.4											
LB3 861+87	1 RT	3420		171.6														
		3420	3422		167.3	167.2												
LB3 861+87	1 LT	3422		171.6														
		3422	3426		167.2	166.7	0.6											
		3431	3434		165.3	165.0												
LB3 864+83	1 LT	3432		172.5														
		3432	3430		165.0	164.7												
LB3 864+83	1 RT	3434		172.5														
		3434	3432		165.0	165.0												
LB3 867+00	1 RT	3440		173.0														
		3440	3442		168.3	168.3												
LB3 867+00	1 LT	3442		173.0														
		3442	3444		168.3	165.8												
LB3 871+17	1 RT	3510		171.3														
		3510	3512		166.7	166.6												
LB3 871+17	1 LT	3512		171.3														
							SHEET TOTALS	36										

FROM	TO	R. C. PIPE CLASS III 15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 15	18	24
3081	3082																	
3110																		
3110	3116																	
3112																		
3112	3110								4									
3120																		
3120	3126																	
3122																		
3122	3120								4									
3210																		
3210	3216																	
3212																		
3212	3210											4						
3218	3212																	
3222																		
3222	3224								4									
3224																		
3224	3226																	
3310																		
3310	3316								96									
3312																		
3312	3310								4									
3321																		
3321	3323								4									
3323																		
3323	3310								140									
3402																		
3402	3412								100									
3404																		
3404	3402								4									
3410																		
3410	3412								4									
3412																		
3412	3416								92									
3420																		
3420	3422								4									
3422																		
3422	3426								100									
3431	3434													108				
3432																		
3432	3430													104				
3434																		
3434	3432													4				
3440																		
3440	3442								4									
3442																		
3442	3444								104									
3510																		
3510	3512								4									
3512																		
SHEET TOTALS									672			4		216				

FROM	TO	16" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	24" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	36" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	16" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	24" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	30" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY
3081	3082															
3110																
3110	3116	48							48							
3112																
3112	3110															
3120																
3120	3126	56							56							
3122																
3122	3120															
3210																
3210	3216				56							56				2.000
3212																
3212	3210															
3218	3212				60							60				2.000
3222																
3222	3224															
3224																
3224	3226	60							60							
3310																
3310	3316															
3312																
3312	3310															
3321																
3321	3323															
3323																
3323	3310															
3402																
3402	3412															
3404																
3404	3402															
3410																
3410	3412															
3412																
3412	3416															
3420																
3420	3422															
3422																
3422	3426															
3431	3434															4.500
3432																
3432	3430															4.500
3434																
3434	3432															
3440																
3440	3442															
3442																
3442	3444															
3510																
3510	3512															
3512																
SHEET TOTALS		164			116				164			116				13.000

QUANTITIES FOR DRAINAGE STRUCTURES — NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)

FROM	TO	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 TBDI - SEE DETAIL, SHEET 2B-21	C.B. STD. 852.05	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 W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29
3081	3082																
3110		1															
3110	3116																
3112		1															
3112	3110																
3120		1															
3120	3126																
3122		1															
3122	3120																
3210		1	4.0														
3210	3216																
3212		1	3.0														
3212	3210																
3218	3212																
3222		1															
3222	3224																
3224		1															
3224	3226																
3310		1															
3310	3316																
3312		1															
3312	3310																
3321		1															
3321	3323																
3323		1															
3323	3310																
3402		1															
3402	3412																
3404		1															
3404	3402																
3410		1															
3410	3412																
3412		1															
3412	3416																
3420		1															
3420	3422																
3422		1															
3422	3426																
3431	3434																
3432		1															
3432	3430																
3434		1															
3434	3432																
3440		1															
3440	3442																
3442		1															
3442	3444																
3510		1															
3510	3512																
3512		1															
SHEET TOTALS		24	7.0														

FROM	TO	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME WITH TWO GRATES STD. 840.37	TEMP STEEL PLATE COVER MASONRY DRAINAGE	15" C.S. SLOTTED DRAIN PIPE	M.H. FRAME AND COVER STD. 840.54	ADJUST C.B.	ADJUST D.I.	15" SIDE DRAIN PIPE ELBOW	18" SIDE DRAIN PIPE ELBOW	24" SIDE DRAIN PIPE ELBOW	30" SIDE DRAIN PIPE ELBOW	36" SIDE DRAIN PIPE ELBOW	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
3081	3082																			
3110					1	1														
3110	3116																9			Flowable Fill: 2@18" RCP
3112					1	1														
3112	3110																			
3120					1	1														
3120	3126																			
3122					1	1														
3122	3120																		997	Pipe Removal: 15" RCP
3210					1	1														
3210	3216																			
3212					1	1														
3212	3210																			
3218	3212																6			Flowable Fill: 2@15" RCP
3222					1	1														
3222	3224																		705	Pipe Removal:15" RCP
3224					1	1														
3224	3226																			
3310					1	1														
3310	3316																			
3312					1	1														
3312	3310																			
3321					1	1														
3321	3323																			
3323					1	1														
3323	3310																			
3402					1	1														
3402	3412																			
3404					1	1														
3404	3402																			
3410					1	1														
3410	3412																			
3412					1	1														
3412	3416																			
3420					1	1														
3420	3422																			
3422					1	1														
3422	3426																			
3431	3434																			
3432					1	1														Traffic Bearing Precast Drainage Structure (840.46)
3432	3430																			
3434					1	1														Traffic Bearing Precast Drainage Structure (840.46)
3434	3432																			
3440					1	1														
3440	3442																			
3442					1	1														
3442	3444																			
3510					1	1														
3510	3512																			
3512					1	1														
SHEET TOTALS					24	24											15		1702	

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