RAL-2UA2440BPJ

COMPUTED BY: CGM DATE: 3/06/14

CHECKED BY: JRR DATE:

PROJECT NO.	SHEET NO.
U-2579B	3D-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

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	TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	SIDE DRAIN PIPE (STATEWIDE TIER) (RCP, CSP, CAAP, HDPE, or PVC) 15	18	24	30	36	42	48	DO NOT USE RCP	C. S. PIPE (SE: SHOP ELONGATED) 15 .064	18 .064	24 .064	30 .064	36 .079	42 .109
478+20 -L-	LT	0001																			
		0001	1A		882.0	874.6			16						X						
478+20 -L-	LT	1A		877.6	874.1																
		1A	0002		874.1	873.8															
478+20 -L-	CL	0002		879.8	872.3																
		0002	0003		872.3	871.3															
482+50 -L-	LT	0003		877.5	871.3																
		0003	OUT		871.3	862.0							184								
482+50 -L-	RT	0004		883.4	875.6																
		0004	0002		875.6	872.3							432								
483+00 -L-	CL	0011		884.0	875.7																
		0011	0004		875.7	875.6							52								
483+40 -L-	LT	0006		882.2	879.2																
		0006	0011		879.2	877.8															
32+30 -Y1-	LT	0005		909.0	906.2																
		0005	0006		906.2	879.4		72							X						
34+96 -Y1-	LT	0010		881.1	877.6																
		0010	0011		877.6	877.3															
35+70 -Y1-	LT	0009		905.4	902.5																
		0009	0010		902.5	878.4		76							X						
35+74 -Y1-	LT	0008		908.6	905.8																
		0008	0009		905.8	902.5		40													
35+85 -Y1-	RT	0007		908.8	906.1																
		0007	0008		906.1	905.8															
486+55 -L-	CL	0037		888.8	876.8																
		0037	0011		876.8	875.7							356								
12+80 -Y1LPA-	LT	0023		886.9	881.8																
		0023	0037		881.8	877.8															
12+80 -Y1LPA-	LT	0022		886.3	883.5																
		0022	0023		883.5	883.1		24													
13+18 -Y1LPA-	RT	0021		886.0	883.0																
		0021	0023		883.0	882.8															
13+05 -Y1LPA-	RT	0020		888.1	885.4																
		0020	0021		885.4	883.3		28													
14+50 -Y1-LPA-	LT	0019		889.7	885.4																
		0019	0023		885.4	882.3															
14+59 -Y1LPA-	LT	0018		889.0	886.2																
		0018	0019		886.2	886.2		24													
15+00 -Y1LPA-	RT	0017		890.1	886.6																
		0017	0019		886.6	885.4															
23+14 -Y1RPA-	LT	0016		897.9	894.4																
		0016	0017		894.4	886.6				276											
SHEET TOTALS								264	16	276			1024								

LINE & STATION	FROM	TO	R. C. PIPE CLASS III 15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	42	48	R. C. PIPE CLASS V 24	30	36	8" DIP (DUCTILE IRON PIPE)	42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	48" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	36" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	18" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	30" WELDED STEEL PIPE, 0.500, TRENCLESS INSTALLATION	36" WELDED STEEL PIPE, 0.500, TRENCLESS INSTALLATION	42" WELDED STEEL PIPE, 0.625, TRENCLESS INSTALLATION	48" WELDED STEEL PIPE, 0.625, TRENCLESS INSTALLATION	ENDWALLS STD. 838.01 OR STD. 838.11 OR 838.80 (UNLESS NOTED OTHERWISE) CY
478+20 -L-	0001																											
	0001	1A																										
478+20 -L-	1A																											
	1A	0002			104																							
478+20 -L-	0002																											
	0002	0003						104																				
482+50 -L-	0003																											
	0003	OUT																										
482+50 -L-	0004																											
	0004	0002																										
483+00 -L-	0011																											
	0011	0004																										
483+40 -L-	0006																											
	0006	0011		108																								
32+30 -Y1-	0005																											
	0005	0006																										
34+96 -Y1-	0010																											
	0010	0011			100																							
35+70 -Y1-	0009																											
	0009	0010																										
35+74 -Y1-	0008																											
	0008	0009																										
35+85 -Y1-	0007																											
	0007	0008								100																		
486+55 -L-	0037																											
	0037	0011																										
12+80 -Y1LPA-	0023																											
	0023	0037											136															
12+80 -Y1LPA-	0022																											
	0022	0023																										
13+18 -Y1LPA-	0021																											
	0021	0023									64																	
13+05 -Y1LPA-	0020																											
	0020	0021																										
14+50 -Y1-LPA-	0019																											
	0019	0023			160																							
14+59 -Y1LPA-	0018																											
	0018	0019																										
15+00 -Y1LPA-	0017																											
	0017	0019										76																
23+14 -Y1RPA-	0016																											
	0016	0017																										
SHEET TOTALS				108	364			104		100	64	76	136															

LINE & STATION	FROM	TO	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	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	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. (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/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.D.I. STD. 840.36	STEEL GRATE AND FRAME STD. 840.37	SPRING BOX STD. 840.41	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING O.T.C.B. TO 2GI
478+20 -L-	0001																											
	0001	1A																										
478+20 -L-	1A		1													1			1									
	1A	0002																										
478+20 -L-	0002		1	2.5											1				1									
	0002	0003																										
482+50 -L-	0003		1	1.2											1				1									
	0003	OUT																										
482+50 -L-	0004		1	2.8																		1				1		
	0004	0002																										
483+00 -L-	0011		1	3.3											1				1									
	0011	0004																										
483+40 -L-	0006		1													1			1									
	0006	0011																										
32+30 -Y1-	0005		1													1				1								
	0005	0006																										
34+96 -Y1-	0010		1													1			1									
	0010	0011																										
35+70 -Y1-	0009		1													1			1									
	0009	0010																										
35+74 -Y1-	0008		1													1			1									
	0008	0009																										
35+85 -Y1-	0007		1													1					1							
	0007	0008																										
486+55 -L-	0037		1	5.0	2.0										1				1									
	0037	0011																										
12+80 -Y1LPA-	0023		1			1	1																					
	0023	0037																										
12+80 -Y1LPA-	0022		1													1			1									
	0022	0023																										
13+18 -Y1LPA-	0021		1													1			1									
	0021	0023																										
13+05 -Y1LPA-	0020		1													1			1									
	0020	0021																										
14+50 -Y1-LPA-	0019		1			1		1																				
	0019	0023																										
14+59 -Y1LPA-	0018		1													1			1									
	0018	0019																										
15+00 -Y1LPA-	0017		1													1			1									
	0017	0019																										
23+14 -Y1RPA-	0016		1													1			1									
	0016	0017																										
SHEET TOTALS			20	14.8	2.0	2	1	1							4	13			15	1	1	1				1		

LINE & STATION	FROM	TO	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	15" C.S. PIPE ELBOW	18" C.S. PIPE ELBOW	24" C.S. PIPE ELBOW	42" C.S. PIPE ELBOW	BERM DITCH OUTLET STD. 850.10	MODIFIED CONC. FLUME	PREFORMED SCOUR HOLE (PER EACH)	ENERGY DISSIPATION BASIN	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
478+20 -L-	0001											1								BERM DITCH OUTLET
	0001	1A		1																
478+20 -L-	1A																			SHOULDER DRAIN OUTLET
	1A	0002																		
478+20 -L-	0002																			
	0002	0003																		
482+50 -L-	0003																			SHOULDER DRAIN OUTLET
	0003	OUT													1					ENERGY DIS BASIN
482+50 -L-	0004																			
	0004	0002																		
483+00 -L-	0011																			
	0011	0004																		
483+40 -L-	0006																			SHOULDER DRAIN OUTLET
	0006	0011																		
32+30 -Y1-	0005																			
	0005	0006	2																	
34+96 -Y1-	0010																			SHOULDER DRAIN OUTLET
	0010	0011																		
35+70 -Y1-	0009																			
	0009	0010	2																	
35+74 -Y1-	0008																			
	0008	0009																		
35+85 -Y1-	0007																			
	0007	0008																		
486+55 -L-	0037																			
	0037	0011																		
12+80 -Y1LPA-	0023																			
	0023	0037																		
12+80 -Y1LPA-	0022																			
	0022	0023																		
13+18 -Y1LPA-	0021																			
	0021	0023																		
13+05 -Y1LPA-	0020																			SHOULDER DRAIN OUTLET
	0020	0021																		
14+50 -Y1-LPA-	0019																			
	0019	0023																		
14+59 -Y1LPA-	0018																			
	0018	0019																		
15+00 -Y1LPA-	0017																			
	0017	0019																		
23+14 -Y1RPA-	0016																			
	0016	0017																		
SHEET TOTALS			4	1								1			1					

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