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BELAM-NEW

COMPUTED BY:	DJS	DATE:	04/19/2023
CHECKED BY:	BNE	DATE:	04/19/2023

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2707D	3D-9

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 % | Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) SIZE 15 | 18 | 24 | 30 | 36 | 42 | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE HDPE | DO NOT USE PVC | DO NOT USE PP PIPE | C. S. PIPE THICKNESS OR GAUGE 15 .064 | 18 .064 | 24 .064 | 36 .079 | 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 30 | 48 | 42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN | 48" R.C. PIPE CULVERTS, CONTRACTOR DESIGN | 16" WELDED STEEL PIPE 0.281" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL) | 18" WELDED STEEL PIPE 0.312" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL) | 30" WELDED STEEL PIPE 0.500" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL) | 42" WELDED STEEL PIPE 0.625" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL) | 48" WELDED STEEL PIPE 0.688" THICK, GRADE B (50% IN SOIL, 50% 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)) A 0' THRU 5' EACH | B 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 | 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/ 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.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | SPRING BOX STD. 840.41 | M.H. FRAME AND COVER STD. 840.54 | CONVERT EXISTING D.I. TO J.B. w/ MH | 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 | 18" SLUICE GATE (25" SIZE SLUICE GATE) | 24" SLUICE GATE (32" SIZE SLUICE GATE) | 30" SLUICE GATE (38.75" SIZE SLUICE GATE) | BERM DITCH OUTLET STD. 850.10 | BERM DITCH OUTLET STD. 850.11 | 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 |
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