COMPUTED BY: KCBE DATE: 6/29/2016

CHECKED BY: RAM DATE: 9/6/2016

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-3100A	3D-4

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

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

| STATION | LOCATION (LT, RT, OR CL) | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | C.S. PIPE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS III 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS IV 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | ** R.C. PIPE (CLASS V) | *** RC PIPE CULVERTS, CONTRACTOR DESIGN | **** RC PIPE CULVERTS, CONTRACTOR DESIGN | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P. | C.S.P. | QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL. "B") PER EACH (0' THRU 5.0') | LIN. FT. A 5.0' THRU 10.0' | B 10.0' AND ABOVE | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | CONCRETE TRANSITIONAL SECTION DROP INLET STD. 852.06 | D.I. STD. 840.14 OR STD. 840.15 | D.I. STD. 840.16 | D.I. FRAME WITH TWO GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR 840.26 | G.D.I. TYPE "B" STD. 840.18 OR 840.27 | G.D.I. TYPE "D" STD. 840.19 OR 840.28 | G.D.I. (W.S. FLAT) FRAME WITH TWO GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME WITH TWO GRATES STD. 840.22 | G.D.I. (W.S. SAG) FRAME WITH GRATE STD. 840.22 | G.D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29 | OPEN THROAT C.B. STD. 840.04 OR STA. 840.05 | M.H. STD. 840.51, STD. 840.52, OR STD. 840.53 | M.H. FRAME AND COVER STD. 840.54 | J.B. STD. 840.31 OR 840.32 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | G.D.I. (N.S. SAG) FRAME WITH TWO GRATES STD. 840.24 | BERM DRAINAGE OUTLET STD. 838.10 | BERM DRAINAGE OUTLET STD. 838.11 | CONC. TRANSITIONAL SECTION FOR DI (EA) [SEE DETAIL 2C-2] | CONVERT EXISTING D.I. TO J.B. WITH M.H. | PARALLEL PIPE END SECTION STD. 310.02 15" | 18" | 24" | C.S. ELBOWS 15" | 18" | 24" | PREFORMED SCOUR HOLE | FLOWABLE FILL | CONC. AND BRICK PIPE PLUG (C.Y.) STD. 840.71 | PIPE REMOVAL LIN. FT. | REMARKS |
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