COMPUTED BY: BEH DATE: 9/17/2014
CHECKED BY: BCS DATE: 9/25/2014

PROJECT REFERENCE NO.	SHEET NO.
B–4822	3D–1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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"

SUB–REGIONAL & REGIONAL
LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & 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) SIZE 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
								THICKNESS OR GAUGE											
–L– 15+68	LT	404		2112.4'						20									
	LT	404	405		2109.6'	2106.4'										X			
	RT	401	402		2115.1'	2113.0'				36									
–L– 18+66	RT	402		2115.5'															
	RT	402	406		2113.0'	2111.4'				24									
–L– 18+42	RT	406		2113.9'															
	RT	406	403		2111.4'	2110.0'				44									
–L– 13+40	RT	407							28										
PROJECT TOTAL									48	104									

C.S. PIPE SIZE	12"	15"	18"	24"	36"	42"	48"
THICKNESS OR GAUGE		.064	.064	.064	.079	.109	.109

R.C. PIPE (CLASS III) SIZE	15"	18"	24"	30"	36"	42"	48"

R.C. PIPE (CLASS IV) SIZE	12"	15"	18"	24"	30"	36"	42"	48"

	** R. C. PIPE (CLASS V)	*** R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	**** R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	CU. YDS. 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'	LIN. FT. 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 CATCH BASIN	DROP INLET	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. (N.S.) FRAME WITH TWO FLAT GRATES STD. 840.29	T.B.D.I. STD. 840.35	J.B. STD. 840.31 OR 840.22	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	DRAINAGE PIPE ELBOWS	PIPE REMOVAL LIN.FT.	REMARKS
–L– 15+68								1											
																		2–15"	
																			FILL EX. DITCH, COVER PROP. 18" RCP BY EXTENDING SHOULDER SLOPE TO NG GRADE TO DRAIN TO DI
–L– 18+66								1								1	1		REMOVE 18" CMP
																		22	USE 1.5:1 SLOPES FROM UTILITY BOX TO DI
–L– 18+42								1								1	1	30	REMOVE 18" CMP
–L– 13+40																			
PROJECT TOTAL								3								2	2	52	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX