COMPUTED BY:	C.MOORE	DATE:	9/1/2016
CHECKED BY:	S. BONDOR	DATE:	9/1/2016

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-3440	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 %	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	DO NOT USE PVC
Y15 11+50	20	LT	1221		714.8																
			1221	1219		710.3	705.5	4.1													
L 122+24	49	RT	1222		720.9																
			1222	1233		716.2	713.7	0.7			100							X	X		
L 122+27	0	CL	1223		722.2																
			1223	1222		716.9	716.2	0.4			52							X	X	X	X
L 121+70	70	LT	1224		721.8																
			1224	1225		717.6	717.3			68											
L 122+36	73	LT	1225		727.3																
			1225	1223		717.1	716.9				72							X	X	X	X
L 125+11	44	RT	1227		733.5																
			1227	1226		724.0	716.0	3.3													
L 124+97	59	LT	1228		731.5																
			1228	1235		726.0	725.9				16										
L 125+88	43	LT	1229		736.9																
			1229	1235		731.9	725.9			88								X	X		
Y16 11+86	21	LT	1230		733.0																
			1230	1234		728.8	726.7			44											
Y16 12+47	28	RT	1231		730.9																
			1231	1234		726.9	726.7			52								X	X	X	X
L 122+65	5	LT	1232		723.9																
			1232	1223		719.7	717.1			40								X	X	X	X
Y15 11+06	37	LT	1233		718.2																
			1233	1221		713.7	710.3	0.8			52							X	X		
Y16 12+28	20	LT	1234		732.5																
			1234	1235		726.7	725.9			84								X	X		
L 124+97	44	LT	1235		734.2																
			1235	1227		725.9	724.0	0.5			88							X	X	X	X
L 118+00	58	RT	1236		708.6																
			1236	1200		699.7	693.7	1.9													
L 114+00	41	LT	1240		707.5																
			1240	1202		703.3	701.8			104								X	X		
L 115+73	41	LT	1241		706.0																
			1241	1201		701.8	701.6			24								X	X		
L 41+99	79931	RT	1242		704.0																
			1242	1204		701.1	700.7				52							X	X	X	X
Y15 12+20	24	LT	1244	1245		699.1	698.9														
Y13 11+71	14	RT	1246	1243		717.8	716.0			68								X	X	X	X
L 117+00	12	LT	1250		710.4																
			1250	1203		706.1	703.4			28								X	X	X	X
L 128+31	41	LT	1302		746.9																
			1302	1301		741.6	719.0	0.6													
L 128+31	41	RT	1303		746.9																
			1303	1302		741.8	741.6					80						X	X	X	X
L 128+31	54	RT	1304		746.9																
			1304	1303		742.7	742.6			16											
			1306	1305		753.0	742.2	2.2													
L 134+37	41	LT	1306		762.4																
L 134+37	41	RT	1307		762.4																
			1307	1306		754.6	754.4			84								X	X	X	X
							SHEET TOTALS			700	432	80									

LINE & STATION	FROM	TO	C. S. PIPE 12 (.064)	15 (.064)	18 (.064)	24 (.064)	30 (.079)	36 (.079)	42 (.109)	48 (.109)	R. C. PIPE CLASS III 12	15	18	24	30	R. C. PIPE CLASS IV 12	15	48	54	60	42" WELDED STEEL PIPE 0.1094" THICK GRADE B NOT IN SOIL	42" WELDED STEEL PIPE 0.1094" THICK GRADE B IN SOIL	36" WELDED STEEL PIPE 0.1094" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.1094" THICK, GRADE B IN SOIL	15" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	DRAINAGE STRUCTURE MASONRY FT
Y15 11+50	1221																										
	1221	1219			36																						
L 122+24	1222																										
	1222	1233																									
L 122+27	1223																										
	1223	1222																									
L 121+70	1224																										
	1224	1225																									
L 122+36	1225																										
	1225	1223																									
L 125+11	1227																										
	1227	1226			48																						
L 124+97	1228																										
	1228	1235																									
L 125+88	1229																										
	1229	1235																									
Y16 11+86	1230																										
	1230	1234																									
Y16 12+47	1231																										
	1231	1234																									
L 122+65	1232																										
	1232	1223																									
Y15 11+06	1233																										
	1233	1221																									
Y16 12+28	1234																										
	1234	1235																									
L 124+97	1235																										
	1235	1227																									
L 118+00	1236																										
	1236	1200				52																					
L 114+00	1240																										
	1240	1202																									
L 115+73	1241																										
	1241	1201																									
L 41+99	1242																										
	1242	1204																									
Y15 12+20	1244	1245																60									
Y13 11+71	1246	1243																									
L 117+00	1250																										
	1250	1203																									
L 128+31	1302																										
	1302	1301				56																					
L 128+31	1303																										
	1303	1302																									
L 128+31	1304																										
	1304	1303																									
	1306	1305						40																			
L 134+37	1306																										
L 134+37	1307																										
	1307	1306																									
SHEET TOTALS					84	108		40										60									

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. DETAIL 2C-10 OR 2C-14	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16
Y15 11+50	1221		1			1			1						
	1221	1219													
L 122+24	1222		1			1			1						
	1222	1233													
L 122+27	1223		1	0.3						1				1	1
	1223	1222													
L 121+70	1224		1			1	1								
	1224	1225													
L 122+36	1225		1	5.0	0.2	1		1							
	1225	1223													
L 125+11	1227		1	4.5		1			1						
	1227	1226													
L 124+97	1228		1	0.5								1			
	1228	1235													
L 125+88	1229		1			1		1							
	1229	1235													
Y16 11+86	1230		1											1	1
	1230	1234													
Y16 12+47	1231		1			1		1							
	1231	1234													
L 122+65	1232		1							1				1	1
	1232	1223													
Y15 11+06	1233		1			1			1						
	1233	1221													
Y16 12+28	1234		1			1			1						
	1234	1235													
L 124+97	1235		1	3.2		1		1							
	1235	1227													
L 118+00	1236		1	3.9		1			1						
	1236	1200													
L 114+00	1240		1			1			1						
	1240	1202													
L 115+73	1241		1			1	1								
	1241	1201													
L 41+99	1242		1												
	1242	1204													
Y15 12+20	1244	1245													
Y13 11+71	1246	1243													
L 117+00	1250		1							1					
	1250	1203													
L 128+31	1302		1	0.3		1		1							
	1302	1301													
L 128+31	1303		1	0.1		1		1							
	1303	1302													
L 128+31	1304		1											1	1
	1304	1303													
	1306	1305													
L 134+37	1306		1	4.4		1		1							
L 134+37	1307		1	2.8		1			1						
	1307	1306													
SHEET TOTALS			24	25.0	0.2	17	2	7	8	3		1		4	4

LINE & STATION	FROM	TO	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/ 2 GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	DRIVEWAY D.I. STD. 840.30	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. FRAME AND COVER STD. 840.54	ADJUST MH	15" C.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	30" C.S. ELBOW	36" C.S. ELBOW	48" C.S. ELBOW	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
Y15 11+50	1221																													
	1221	1219																												
L 122+24	1222																													
	1222	1233																												
L 122+27	1223																													
	1223	1222																												
L 121+70	1224																													
	1224	1225																												
L 122+36	1225																													
	1225	1223																												
L 125+11	1227																													
	1227	1226																		1										
L 124+97	1228																													
	1228	1235																												
L 125+88	1229																													
	1229	1235																												
Y16 11+86	1230																													
	1230	1234																												
Y16 12+47	1231																													
	1231	1234																												
L 122+65	1232																													
	1232	1223																												
Y15 11+06	1233																													
	1233	1221																												
Y16 12+28	1234																													
	1234	1235																												
L 124+97	1235																													
	1235	1227																												
L 118+00	1236																													
	1236	1200																			1									
L 114+00	1240																													
	1240	1202																												
L 115+73	1241																													
	1241	1201																												
L 41+99	1242													1																
	1242	1204																												
Y15 12+20	1244	1245																												
Y13 11+71	1246	1243																												
L 117+00	1250						1										1													
	1250	1203																												
L 128+31	1302																													
	1302	1301																			1									
L 128+31	1303																													
	1303	1302																												
L 128+31	1304																													
	1304	1303																												
	1306	1305																					1							
L 134+37	1306																													
L 134+37	1307																													
	1307	1306																												
SHEET TOTALS							1								1		1				1	2		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

MOORECO