DocuSign Envelope ID: 63FF4D1D-2E41-400B-B009-2E7051E46347

COMPUTED BY: KA/MH DATE: 5/4/2017

CHECKED BY: BM DATE: 5/4/2017

# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
# DIVISION OF HIGHWAYS

| PROJECT NO. | SHEET NO. |
|---|---|
| I-5786 | 3D-3 |

**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) SIZE / THICKNESS OR GAUGE: 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105+50 -L- | LT | 1107 | | 176.8 | 171.9 | | | | | | | | | | | | | | |
| | | 1107 | 1108 | | 171.9 | 171.9 | | | | | | | | | | | | | |
| 105+50 -L- | LT | 1108 | | 176.6 | 171.9 | | | | | | | | | | | | | | |
| | | 1108 | 1110 | | 171.9 | 171.7 | | | | | | | | | | | | | |
| 106+00 -L- | RT | 1109 | | 176.7 | 171.8 | | | | | | | | | | | | | | |
| | | 1109 | 1110 | | 171.8 | 171.7 | | | | | | | | | | | | | |
| 106+00 -L- | | 1110 | | 176.7 | 171.7 | | | | | | | | | | | | | | |
| | | 1110 | 1112 | | 171.7 | 171.5 | | | | | | | | | | | | | |
| 107+00 -L- | LT | 1111 | | 176.8 | 172.1 | | | | | | | | | | | | | | |
| | | 1111 | 1112 | | 172.1 | 172.1 | | | | | | | | | | | | | |
| 107+00 -L- | RT | 1112 | | 176.8 | 163.3 | | | | | | | | | | | | | | |
| 112+87 -L- | | 1113 | | 180.8 | 166.4 | | | | | | | | | | | | | | |
| | | 1113 | 1114 | | 166.4 | 166.4 | | | | | | | | | | | | | |
| 112+87 -L- | | 1114 | | 180.9 | 166.4 | | | | | | | | | | | | | | |
| 116+16 -L- | LT | 1201 | | 183.3 | 167.7 | | | | | | | | | | | | | | |
| | | 1201 | 1202 | | 167.7 | 167.7 | | | | | | | | | | | | | |
| 116+23 -L- | RT | 1202 | | 183.2 | 167.7 | | | | | | | | | | | | | | |
| 125+86 -L- | LT | 1203 | | 189.9 | 187.1 | | | | | | | | | | | | | | |
| | | 1203 | 1204 | | 187.1 | 187.1 | | | | | | | | | | | | | |
| 125+86 -L- | RT | 1204 | | 190.4 | 187.1 | | | | | | | | | | | | | | |
| | | 1204 | 1205 | | 187.1 | 185.1 | | | | | | | | | | | | | |
| 125+87 -L- | RT | 1205 | | 189.8 | 185.1 | | | | | | | | | | | | | | |
| | | 1205 | 1206 | | 185.1 | 185.1 | | | | | | | | | | | | | |
| 125+87 -L- | RT | 1206 | | 189.3 | 185.1 | | | | | | | | | | | | | | |
| 125+87 -L- | RT | 1207 | | 186.1 | | | | | | | | | | | | | | | |
| | | 1207 | 1208 | | 184.9 | 184.9 | | | | | | | | | | | | | |
| 135+00 -L- | LT | 1301 | | 190.6 | 187.9 | | | | | | | | | | | | | | |
| | | 1301 | 1302 | | 187.9 | 187.6 | | | | | | | | | | | | | |
| 136+00-L- | | 1302 | | 190.6 | | | | | | | | | | | | | | | |
| | | 1302 | 1303 | | 187.6 | 183.5 | | | | | | | | | | | | | |
| 136+88 -L- | LT | 1303 | | 190.7 | 182.8 | | | | | | | | | | | | | | |
| | | 1303 | 1304 | | 182.8 | 182.6 | | | | | | | | | | | | | |
| 136+88 -L- | RT | 1304 | | 190.7 | 182.6 | | | | | | | | | | | | | | |
| 144+68 -L- | LT | 1401 | | 191.5 | 186.8 | | | | | | | | | | | | | | |
| | | 1401 | 1402 | | 186.8 | 186.8 | | | | | | | | | | | | | |
| 144+68 -L- | RT | 1402 | | 191.6 | 186.8 | | | | | | | | | | | | | | |
| SHEET TOTALS | | | | | | | | | | | | | | | | | | | |

| STATION | WELDED STEEL PIPE SIZE / THICKNESS OR GAUGE: 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS III SIZE: 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS IV SIZE: 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105+50 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
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| 105+50 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
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| 106+00 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
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| 106+00 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
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| 107+00 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 107+00 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| 112+87 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
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| 112+87 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| 116+16 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
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| 116+23 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| 125+86 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 4 | | | | | | | |
| 125+86 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 312 | | | | | | | |
| 125+87 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 8 | | | | | | | |
| 125+87 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| 125+87 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 8 | | | | | | | |
| 135+00 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 96 | | | | | | | |
| 136+00-L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 84 | | | | | | | |
| 136+88 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| 136+88 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| 144+68 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 4 | | | | | | | |
| 144+68 -L- | | | | | | | | | | | | | | | | | | | | | | | | |
| SHEET TOTALS | | | | | | | | | | | | | | | | | 516 | 4 | 160 | 8 | | | | |

| STATION | * = 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. | ENDWALLS CU. YARDS: C.S.P. | QUANTITIES FOR DRAINAGE STRUCTURES: PER EACH (0' THRU 5.0') | LIN. FT. A: 5.0' THRU 10.0' | LIN. FT. B: 10.0' AND ABOVE | "TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL. "B") | C.B. STD. 840.01 OR STD. 840.02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105+50 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 105+50 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 106+00 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 106+00 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 107+00 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 107+00 -L- | | | | | | | | 1 | 5 | 3.5 | | |
| 112+87 -L- | | | | | | | | 1 | 5 | 4.4 | | |
| | | | | | | | | | | | | |
| 112+87 -L- | | | | | | | | 1 | 5 | 4.5 | | |
| 116+16 -L- | | | | | | | | 1 | 5 | 5.6 | | |
| | | | | | | | | | | | | |
| 116+23 -L- | | | | | | | | 1 | 5 | 5.5 | | |
| 125+86 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 125+86 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 125+87 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 125+87 -L- | | | | | | | | 1 | | | | |
| 125+87 -L- | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 135+00 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 136+00-L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 136+88 -L- | | | | | | | | 1 | 2.9 | | | |
| | | | | | | | | | | | | |
| 136+88 -L- | | | | | | | | 1 | 3.1 | | | |
| 144+68 -L- | | | | | | | | 1 | | | | |
| | | | | | | | | | | | | |
| 144+68 -L- | | | | | | | | 1 | | | | |
| SHEET TOTALS | | | | | | | | 20 | 31 | 23.5 | | |

| STATION | FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE: E | F | G | CONCRETE TRANSITIONAL SECTION: DROP INLET | CATCH BASIN | D.I. STD. 840.14 OR STD. 840.15 | 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. FRAME WITH GRATE STD. 840.20 | G.D.I. FRAME WITH TWO GRATES STD. 840.20 | G.D.I. FRAME WITH TWO GRATES STD. 840.22 | G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24 | G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24 | J.B. STD. 840.31 OR 840.32 | FRAME w/ COVER, STD. 840.54 | ADJUST D.I. | CONV. EXIST DI TO J.B. | T.B.D.I. STD. 840.35 | G.D.I. (N.S.) FRAME WITH GRATE STD. 840.29 | T.B.J.B. STD. 840.34 | FLOWABLE FILL (C.Y.) | G.D.I. TYPE "A" EXTRA DEPTH (SEE DETAIL SHEET 2C-16) | DRAINAGE PIPE ELBOWS NO. & SIZE | CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | CONC. COLLARS CL. "B" C.Y. STD. 840.72 | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105+50 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 105+50 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 106+00 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 106+00 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 107+00 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 107+00 -L- | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| 112+87 -L- | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 112+87 -L- | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| 116+16 -L- | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 116+23 -L- | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| 125+86 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125+86 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125+87 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | 0.399 | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125+87 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125+87 -L- | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.399 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 135+00 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 136+00-L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 136+88 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 136+88 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| 144+68 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 144+68 -L- | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | | | | | | ADJUST DI FOR TRAFFIC PHASING |
| SHEET TOTALS | | | | | | | | 2 | 13 | | 20 | | | | | | 20 | | | | | | 5 | | | | | 0.798 | |

**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.) | (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 |