LPA20664,7/23/2004,Y:\Roadway\Projects\Dot\ncdot\U2408\proj\U2408 Drainage_summaries 9-13-04.xls

COMPUTED BY: JD DATE: 5/6/2004

CHECKED BY: JSD DATE: 5/6/2004

LPA20664

METRIC

PROJECT NO. U-2408 SHEET NO. 3G

# STATE OF NORTH CAROLINA
# DIVISION OF HIGHWAYS

## *LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 1200mm & UNDER)*

| STATION | LOCATION (LT, RT, OR CL) | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 300 | 375 | 450 | 600 | 750 | 900 | 1050 | 1200 | BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) 300 (1.63) | 400 (1.63) | 450 (1.63) | 600 (1.63) | 800 (2.01) | 900 (2.01) | 1000 (2.01) | 1200 (2.01) | 375mm SIDE DRAIN PIPE | 450mm SIDE DRAIN PIPE | 600mm SIDE DRAIN PIPE | ENDWALLS STD. 838.01 OR STD 638.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. METERS R.C.P. | C.S.P. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -L- 38+78.5 | RT | 122 | | 255.53 | 254.59 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 122 | 124 | | 254.59 | 254.47 | | | 42.0 | | | | | | | | | | | | | | | | | | | |
| -L- 39+07.5 | RT | 123 | | 255.30 | 254.61 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 123 | 125 | 255.30 | 254.61 | 254.55 | | | 13.2 | | | | | | | | | | | | | | | | | | | |
| -L- 39+20 | RT | 125 | | 255.60 | 254.55 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 125 | 124 | | 254.55 | 254.47 | | | 4.8 | | | | | | | | | | | | | | | | | | | |
| -L- 39+20 | RT | 124 | | 255.65 | 254.47 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 124 | 126 | | 254.47 | 254.22 | | | | 85.2 | | | | | | | | | | | | | | | | | | |
| -L- 40+06.5 | RT | 126 | | 256.44 | 254.22 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 126 | 127 | | 254.22 | 253.68 | | | | 76.8 | | | | | | | | | | | | | | | | | | |
| -L- 40+59 | RT | 132 | | 256.00 | 255.31 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 132 | 131 | | 255.31 | 255.29 | | | 7.2 | | | | | | | | | | | | | | | | | | | |
| -L- 40+65 | RT | 131 | | 256.96 | 255.29 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 131 | 130 | | 255.29 | 255.21 | | | 20.4 | | | | | | | | | | | | | | | | | | | |
| -L- 41+00 | RT | 133 | | 257.37 | 256.45 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 133 | 130 | | 256.45 | 255.21 | | | 16.8 | | | | | | | | | | | | | | | | | | | |
| -L- 40+84.5 | RT | 130 | | 256.00 | 255.21 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 130 | 127 | | 255.21 | 254.91 | | | 7.2 | | | | | | | | | | | | | | | | | | | |
| -L- 41+67.5 | RT | 139 | | 257.50 | 256.81 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 139 | 138 | | 256.81 | 256.79 | | | 6.0 | | | | | | | | | | | | | | | | | | | |
| -L- 41+67.5 | RT | 138 | | 258.09 | 256.79 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 138 | 136 | | 256.79 | 255.78 | | | 18.0 | | | | | | | | | | | | | | | | | | | |
| -L- 41+49.5 | RT | 137 | | 256.50 | 255.81 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 137 | 136 | | 255.81 | 255.78 | | | 8.4 | | | | | | | | | | | | | | | | | | | |
| -L- 41+49.5 | RT | 136 | | 257.91 | 255.78 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 136 | 134 | | 255.78 | 254.68 | | | 28.8 | | | | | | | | | | | | | | | | | | | |
| -L- 41+20 | RT | 135 | | 255.40 | 254.71 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 135 | 134 | | 254.71 | 254.68 | | | 8.4 | | | | | | | | | | | | | | | | | | | |
| -L- 41+21 | RT | 134 | | 257.60 | 254.68 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 134 | 127 | | 254.68 | 253.68 | | | 36.0 | | | | | | | | | | | | | | | | | | | |
| -L- 40+84.5 | RT | 127 | | 257.24 | 253.68 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 127 | 128 | | 253.68 | 253.59 | | | | | | 28.8 | | | | | | | | | | | | | | | | |
| -L- 40+85 | LT | 128 | | 255.40 | 253.59 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 128 | 128A | | 253.59 | 251.31 | | | | | | 72.0 | | | | | | | | | | | | | | | | |
| -L- 41+27 | LT | 128A | | 252.66 | 251.31 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 128A | 129 | | 251.31 | 250.25 | | | | | | 57.6 | | | | | | | | | | | | | | | | |
| -L- 41+04.5 | LT | 129 | | | 250.25 | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 43+07 | RT | 144 | | 259.09 | 258.17 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 144 | 140 | | 258.17 | 258.06 | | | 14.4 | | | | | | | | | | | | | | | | | | | |
| -L- 42+93.5 | RT | 140 | | 258.98 | 258.06 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 140 | 141 | | 258.06 | 257.97 | | | 28.8 | | | | | | | | | | | | | | | | | | | |
| -Y15- 10+64.5 | LT | 141 | | 259.17 | 257.97 | | | | | | | | | | | | | | | | | | | | | | | |
| | | 141 | 142 | | 257.97 | 257.79 | | | 32.4 | | | | | | | | | | | | | | | | | | | |
| -Y15A- 10+36 | LT | 142 | | 259.31 | 257.73 | | | | | | | | | | | | | | | | | | | | | | | |
| SHEET SUBTOTAL | | | | | | | | | 292.8 | 162.0 | 0.0 | 158.4 | | | | | | | | | | | | | | | | |

| STATION | STRUCTURE NO. FROM | STRUCTURE NO. TO | QUANITIES FOR DRAINAGE STRUCTURES PER EACH (0 THRU 1.50) | *TOTAL L.M. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') METERS A 1.5 THRU 3.00 | B 3.00 AND ABOVE | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATE STD. 840.16 | M.D.I. TYPE "A" STD. 840.17 OR 840.26 | M.D.I. TYPE "B" STD. 840.18 OR 840.27 | M.D.I. TYPE "D" STD. 840.19 OR 840.28 | M.D.I. FRAME WITH GRATE STD. 840.20 | M.D.I. FRAME WITH TWO GRATES STD. 840.22 | M.D.I. (N.S.) FRAME WITH GRATE STD. 840.24 | M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24 | J.B. STD. 840.31 OR 840.32 | O.T.C.B. STD. 840.04 OR STD. 840.05 | T.B.J.B. STD. 840.34 | MANHOLE STD. 840.51 | M.H. STD. 840.51 OR 840.53 | M.H. FRAME AND COVER STD. 840.54 | T.B.D.I. STD. 840.35 OR STD. 840.36 | STEEL FRAME WITH TWO GRATES, STD. 840.37 | CORR. STEEL ELBOWS NO. & SIZE | CONC. COLLARS CL. "B" $M^3$ STD. 840.72 | CONC. & BRICK PIPE PLUG, $M^3$ STD. 840.71 | PIPE REMOVAL (METERS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -L- 38+78.5 | 122 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 122 | 124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 39+07.5 | 123 | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 123 | 125 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 39+20 | 125 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | D.I. |
| | 125 | 124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 39+20 | 124 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 124 | 126 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 40+06.5 | 126 | | 1 | 0.7 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. - E.D. |
| | 126 | 127 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 40+59 | 132 | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 132 | 131 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 40+65 | 131 | | 1 | 0.2 | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | C.B. - E.D. |
| | 131 | 130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+00 | 133 | | 1 | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 133 | 130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 40+84.5 | 130 | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 130 | 127 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+67.5 | 139 | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 139 | 138 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+67.5 | 138 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 138 | 136 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+49.5 | 137 | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 137 | 136 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+49.5 | 136 | | 1 | 0.6 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. - E.D. |
| | 136 | 134 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+20 | 135 | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 135 | 134 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+21 | 134 | | 1 | 1.4 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. - E.D. |
| | 134 | 127 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 40+84.5 | 127 | | 1 | 1.5 | 0.6 | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. - E.D. |
| | 127 | 128 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 40+85 | 128 | | 1 | 0.3 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | J.B. W/ M.H. COVER |
| | 128 | 128A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+27 | 128A | | 1 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | D.I. |
| | 128A | 129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 41+04.5 | 129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 43+07 | 144 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 144 | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -L- 42+93.5 | 140 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 140 | 141 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -Y15- 10+64.5 | 141 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | C.B. |
| | 141 | 142 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -Y15A- 10+36 | 142 | | 1 | 0.1 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | J.B. W/ M.H. |
| SHEET SUBTOTAL | | | 22 | 4.8 | | 13 | 2 | 0 | 11 | 7 | 7 | | | | | | | | 1 | | 1 | | | 2 | 0 | 0 | 0 | 0 | 0 | | |

ABBREVIATIONS

| | |
|---|---|
| C.B. | CATCH BASIN |
| N.D.I. | NARROW DROP INLET |
| D.I. | DROP INLET |
| M.D.I. | MEDIAN DROP INLET |
| M.D.I.(N.S.) | MEDIAN 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 |