RD203044,3/12/04,R:\Quantities\NEW_021303_r513bbdrainsum.xls

RD203044

| COMPUTED BY: | YJA | DATE: | 9/14/02 |
|---|---|---|---|
| CHECKED BY: | TLS | DATE: | 2/22/04 |

METRIC

| PROJECT NO. | SHEET NO. |
|---|---|
| R-0513BB | 3-G |

# 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SIZE / THICKNESS OR GAUGE | | | | | | | | | | | | | | | |
| **SHEET 21** | | | | | | | | | | | | | | | |
| -L- 214+80 | CL | 78 | | 44.79 | | | | | | | | | | | |
| -L- 214+80 | CL | 78 | 78A | | 43.05 | 42.92 | | | 26.4 | | | | | | |
| -L- 215+55 | CL | 79 | | | 41.67 | 41.67 | | | | | | | | | 57.6 |
| -L- 216+80 | CL | 80 | | 44.17 | | | | | | | | | | | |
| -L- 216+80 | CL | 80 | 80A | | 43.3 | 43.22 | | | 25.2 | | | | | | |
| **SHEET 22** | | | | | | | | | | | | | | | |
| -L- 218+31 | CL | 81 | | | 41.46 | 41.46 | | | | | | | | 51.6 | |
| -L- 218+80 | CL | 82 | | 43.54 | | | | | | | | | | | |
| -L- 218+80 | CL | 82 | 82A | | 41.91 | 41.79 | | | 26.4 | | | | | | |
| -L- 219+30 | CL | 83 | | | 41.40 | 41.40 | | | | | | | | 50.4 | |
| -L- 219+52 | CL | 84 | | 43.38 | | | | | | | | | | | |
| -L- 219+52 | CL | 84 | 84A | | 41.83 | 41.70 | | | 25.2 | | | | | | |
| -L- 220+30 | CL | 85 | | 43.60 | | | | | | | | | | | |
| -L- 220+30 | CL | 85 | 85A | | 41.82 | 41.69 | | | 26.4 | | | | | | |
| -L- 221+00 | CL | 86 | | | 41.47 | 41.47 | | | | | | | | 52.8 | |
| **SHEET 23** | | | | | | | | | | | | | | | |
| -L- 221+80 | CL | 87 | | 44.26 | | | | | | | | | | | |
| -L- 221+80 | CL | 87 | 87A | | 42.46 | 41.73 | | | 28.8 | | | | | | |
| -L- 22+58 | CL | 88 | | | 41.51 | 41.51 | | | | | | | | 57.6 | |
| **SHEET 24** | | | | | | | | | | | | | | | |
| -L- 224+60 | CL | 89 | | 44.24 | | | | | | | | | | | |
| -L- 224+60 | CL | 89 | 89A | | 42.44 | 42.04 | | | 27.6 | | | | | | |
| -L- 225+62 | CL | 90 | | 43.82 | | | | | | | | | | | |
| -L- 225+62 | CL | 90 | 90A | | 42.02 | 41.88 | | | 27.6 | | | | | | |
| -L- 226+01 | CL | 91 | | | 41.48 | 41.48 | | | | | | | 80.4 | | |
| -L- 226+40 | CL | 92 | | 44.31 | | | | | 27.6 | | | | | | |
| -L- 226+40 | CL | 92 | 92A | | 42.51 | 41.80 | | | | | | | | | |
| -L- 227+60 | CL | 93 | | 45.58 | | | | | | | | | | | |
| -L- 227+60 | CL | 93 | 93A | | 44.75 | 43.32 | | | 27.6 | | | | | | |
| **SHEET 25** | | | | | | | | | | | | | | | |
| -L- 229+60 | CL | 94 | | | 42.02 | 41.91 | | | | | | | | | 58.8 |
| -L- 230+20 | CL | 95 | | 45.16 | | | | | | | | | | | |
| -L- 230+20 | CL | 95 | 95A | | 43.66 | 42.88 | | | 27.6 | | | | | | |
| **SHEET 26** | | | | | | | | | | | | | | | |
| -L- 231+80 | CL | 96 | | 43.70 | | | | | | | | | | | |
| -L- 231+80 | CL | 96 | 96A | | 42.20 | 41.94 | | | 27.6 | | | | | | |
| -L- 232+13 | CL | 97 | | | 41.77 | 41.72 | | | | | 63.6 | | | | |
| -L- 232+55 | CL | 98 | | 43.36 | | | | | | | | | | | |
| -L- 232+55 | CL | 98 | 98A | | 41.93 | 41.79 | | | 27.6 | | | | | | |
| -L- 233+17 | CL | 99 | | | 41.54 | 41.52 | | | | | 55.2 | | | | |
| -L- 233+40 | CL | 100 | | 43.59 | | | | | | | | | | | |
| -L- 233+40 | CL | 100 | 100A | | 42.14 | 42.00 | | | 27.6 | | | | | | |
| -L- 234+20 | CL | 101 | | 43.83 | | | | | | | | | | | |
| -L- 234+20 | CL | 101 | 101A | | 42.33 | 42.14 | | | 27.6 | | | | | | |
| **SHEET TOTALS** | | | | | | | | 0.0 | 406.8 | 0.0 | 118.8 | 0.0 | 80.4 | 212.4 | 116.4 |

| STATION | BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) 300 | 400 | 450 | 600 | 800 | 900 | 1000 | 1200 | 375mm SIDE DRAIN PIPE | 450mm SIDE DRAIN PIPE | 750mm SIDE DRAIN PIPE | ENDWALLS STD. 838.01 STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. METERS R.C.P. | C.S.P. | QUANITIES FOR DRAINAGE STRUCTURES *TOTAL (m) FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0 THRU 1.50) | METERS A 1.5 THRU 3.00 | METERS 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| THICKNESS OR GAUGE | 1.63 | 1.63 | 1.63 | 1.63 | 2.01 | 2.01 | 2.01 | 2.01 | | | | | | | | | | | | |
| **SHEET 21** | | | | | | | | | | | | | | | | | | | | |
| -L- 214+80 | | | | | | | | | | | | | | 1 | 0.24 | | | | | |
| -L- 214+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 215+55 | | | | | | | | | | | | 9.2 | | | | | | | | |
| -L- 216+80 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 216+80 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 22** | | | | | | | | | | | | | | | | | | | | |
| -L- 218+31 | | | | | | | | | | | | 6.8 | | | | | | | | |
| -L- 218+80 | | | | | | | | | | | | | | 1 | 0.13 | | | | | |
| -L- 218+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 219+30 | | | | | | | | | | | | 6.8 | | | | | | | | |
| -L- 219+52 | | | | | | | | | | | | | | 1 | 0.06 | | | | | |
| -L- 219+52 | | | | | | | | | | | | | | | | | | | | |
| -L- 220+30 | | | | | | | | | | | | | | 1 | 0.28 | | | | | |
| -L- 220+30 | | | | | | | | | | | | | | | | | | | | |
| -L- 221+00 | | | | | | | | | | | | 6.8 | | | | | | | | |
| **SHEET 23** | | | | | | | | | | | | | | | | | | | | |
| -L- 221+80 | | | | | | | | | | | | | | 1 | 0.30 | | | | | |
| -L- 221+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 22+58 | | | | | | | | | | | | 6.8 | | | | | | | | |
| **SHEET 24** | | | | | | | | | | | | | | | | | | | | |
| -L- 224+60 | | | | | | | | | | | | | | 1 | 0.30 | | | | | |
| -L- 224+60 | | | | | | | | | | | | | | | | | | | | |
| -L- 225+62 | | | | | | | | | | | | | | 1 | 0.30 | | | | | |
| -L- 225+62 | | | | | | | | | | | | | | | | | | | | |
| -L- 226+01 | | | | | | | | | | | | 2.6 | | | | | | | | |
| -L- 226+40 | | | | | | | | | | | | | | 1 | 0.30 | | | | | |
| -L- 226+40 | | | | | | | | | | | | | | | | | | | | |
| -L- 227+60 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 227+60 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 25** | | | | | | | | | | | | | | | | | | | | |
| -L- 229+60 | | | | | | | | | | | | 4.6 | | | | | | | | |
| -L- 230+20 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 230+20 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 26** | | | | | | | | | | | | | | | | | | | | |
| -L- 231+80 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 231+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 232+13 | | | | | | | | | | | | | | | | | | | | |
| -L- 232+55 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 232+55 | | | | | | | | | | | | | | | | | | | | |
| -L- 233+17 | | | | | | | | | | | | | | | | | | | | |
| -L- 233+40 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 233+40 | | | | | | | | | | | | | | | | | | | | |
| -L- 234+20 | | | | | | | | | | | | | | 1 | | | | | | |
| -L- 234+20 | | | | | | | | | | | | | | | | | | | | |
| **SHEET TOTALS** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43.6 | 0 | 15 | 1.91 | 0 | 0 | | | |

| STATION | 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. 840.22 | 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 | TRAFFIC BEARING DI STD. 840.36 (EA) | MANHOLE STD. 840.51 | M.H. STD. 840.51 OR 840.53 | M.H. FRAME AND COVER STD. 840.54 | STL. GRATE & FRAME STD 840.37 (EA) | M.D.I. FRAME WITH GRATES STD. 840.20 | CONVERT D.I. TO J.B. | ADJUST D.I. | T.B.J.B. STD 840.34 | CONVERT J.B. TO 2GI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SHEET 21** | | | | | | | | | | | | | | | | | | | | |
| -L- 214+80 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 214+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 215+55 | | | | | | | | | | | | | | | | | | | | |
| -L- 216+80 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 216+80 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 22** | | | | | | | | | | | | | | | | | | | | |
| -L- 218+31 | | | | | | | | | | | | | | | | | | | | |
| -L- 218+80 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 218+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 219+30 | | | | | | | | | | | | | | | | | | | | |
| -L- 219+52 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 219+52 | | | | | | | | | | | | | | | | | | | | |
| -L- 220+30 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 220+30 | | | | | | | | | | | | | | | | | | | | |
| -L- 221+00 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 23** | | | | | | | | | | | | | | | | | | | | |
| -L- 221+80 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 221+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 22+58 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 24** | | | | | | | | | | | | | | | | | | | | |
| -L- 224+60 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 224+60 | | | | | | | | | | | | | | | | | | | | |
| -L- 225+62 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 225+62 | | | | | | | | | | | | | | | | | | | | |
| -L- 226+01 | | | | | | | | | | | | | | | | | | | | |
| -L- 226+40 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 226+40 | | | | | | | | | | | | | | | | | | | | |
| -L- 227+60 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 227+60 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 25** | | | | | | | | | | | | | | | | | | | | |
| -L- 229+60 | | | | | | | | | | | | | | | | | | | | |
| -L- 230+20 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 230+20 | | | | | | | | | | | | | | | | | | | | |
| **SHEET 26** | | | | | | | | | | | | | | | | | | | | |
| -L- 231+80 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 231+80 | | | | | | | | | | | | | | | | | | | | |
| -L- 232+13 | | | | | | | | | | | | | | | | | | | | |
| -L- 232+55 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 232+55 | | | | | | | | | | | | | | | | | | | | |
| -L- 233+17 | | | | | | | | | | | | | | | | | | | | |
| -L- 233+40 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 233+40 | | | | | | | | | | | | | | | | | | | | |
| -L- 234+20 | | | | 1 | | | 1 | | | | | | | | | | | | | |
| -L- 234+20 | | | | | | | | | | | | | | | | | | | | |
| **SHEET TOTALS** | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| STATION | PREFORMED SCOUR HOLE | 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 |
|---|---|---|---|---|---|---|
| **SHEET 21** | | | | | | |
| -L- 214+80 | | | | | | |
| -L- 214+80 | 1 | | | | | |
| -L- 215+55 | | | | | | EQUALIZER PIPE 0.3m @ 0.0 SLOPE |
| -L- 216+80 | | | | | | |
| -L- 216+80 | | | | | | |
| **SHEET 22** | | | | | | |
| -L- 218+31 | | | | | | EQUALIZER PIPE 0.3m @ 0.0 SLOPE |
| -L- 218+80 | | | | | | |
| -L- 218+80 | 1 | | | | | |
| -L- 219+30 | | | | | | EQUAILIZER PIPE 0.3m @ 0.0 SLOPE |
| -L- 219+52 | | | | | | |
| -L- 219+52 | 1 | | | | | |
| -L- 220+30 | | | | | | |
| -L- 220+30 | 1 | | | | | |
| -L- 221+00 | | | | | | EQUALIZER PIPE 0.3m @ 0.0 SLOPE |
| **SHEET 23** | | | | | | |
| -L- 221+80 | | | | | | |
| -L- 221+80 | 1 | | | | | |
| -L- 22+58 | | | | | | EQUALIZER PIPE 0.3m @ 0.0 SLOPE |
| **SHEET 24** | | | | | | |
| -L- 224+60 | | | | | | |
| -L- 224+60 | | | | | | |
| -L- 225+62 | | | | | | |
| -L- 225+62 | | | | | | |
| -L- 226+01 | | | | | | BURIED 0.18m BOTH ENDS @ 0% SLOPE |
| -L- 226+40 | | | | | | |
| -L- 226+40 | | | | | | |
| -L- 227+60 | | | | | | |
| -L- 227+60 | | | | | | |
| **SHEET 25** | | | | | | |
| -L- 229+60 | | | | | | BURIED 0.3m BOTH ENDS |
| -L- 230+20 | | | | | | |
| -L- 230+20 | | | | | | |
| **SHEET 26** | | | | | | |
| -L- 231+80 | | | | | | |
| -L- 231+80 | | | | | | |
| -L- 232+13 | | | | | | |
| -L- 232+55 | | | | | | |
| -L- 232+55 | | | | | | |
| -L- 233+17 | | | | | | |
| -L- 233+40 | | | | | | |
| -L- 233+40 | | | | | | |
| -L- 234+20 | | | | | | |
| -L- 234+20 | | | | | | |
| **SHEET TOTALS** | 5 | | | | 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 |

3/12/04