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8/17/99

REVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| WBS 47851 | 4 |
| R/W SHEET NO. | |

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 39283 ENGINEER
DocuSigned by: KENNETH L. HUTCHENS
4/26/2019

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 40801 ENGINEER
DocuSigned by: PAUL A. CAMERON
4/26/2019

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

M A Engineering Consultants, Inc.
NC License: F-0160
598 East Chatham Street Suite 137 Cary, NC 27511
Phone: 919.297.0220 Fax: 919.297.0221

ALL DRIVEWAY RADII ARE 10' UNLESS SHOWN OTHERWISE.

-L-
PI Sta 12+20.69
△ = 2° 17' 45.6" (LT)
D = 0° 54' 34.0"
L = 252.46'
T = 126.25'
R = 6,300.00'

PI Sta 16+53.76
△ = 1° 24' 44.5" (LT)
D = 0° 42' 26.5"
L = 199.67'
T = 99.84'
R = 8,100.00'

-Y-
PI Sta 11+23.20
△ = 63° 49' 11.1" (RT)
D = 57° 17' 44.8"
L = 111.39'
T = 62.27'
R = 100.00'
SE = 0.04
R0 = 80'
V = STOP COND.

NAD 83 / NA 2011

**DETAIL SLV1**
SPECIAL LATERAL 'V' DITCH
( Not to Scale)
Natural Ground, 2:1, D, 4:1 or Flatter, Fill Slope
Min. D = 1.2 Ft.
FROM -Y- STA. 10+25 TO STA. 11+00 LT

**DETAIL CV1**
CUT DITCH
( Not to Scale)
Natural Ground, 2:1, D, 2:1 or Flatter, Front Ditch Slope
Min. D = 2 Ft.
FROM -Y- STA. 11+00 TO STA. 13+00 LT

BM #3
8" SPIKE SET IN ROOT OF A 36" MAPLE
N 52° 03' 31.7" E (493.08') FROM -Y- POT STA. 13+65.03
EL. 2702.81'

BM #1
8" SPIKE SET IN BASE OF 24" WHITE OAK
N 68° 32' 31.3" W (148.55') FROM -L- POT STA. 10+00.00
EL. 2720.81'

BM #2
8" SPIKE SET IN ROOT OF A 15" DOGWOOD
-L- STA. 17+51.54 (29.88' LT)
EL. 2707.91'

**PIPE HYDRAULIC DATA**
-Y- Sta. 12+29

| | | |
|---|---|---|
| DRAINAGE AREA | = 12 | AC |
| DESIGN FREQUENCY | = 25 | YRS |
| DESIGN DISCHARGE | = 17 | CFS |
| DESIGN HW ELEVATION | = 2713.6 | FT |
| 100 YEAR DISCHARGE | = 27 | CFS |
| 100 YEAR HW ELEVATION | = 2715.1 | FT |
| OVERTOPPING FREQUENCY | = 100 | YRS |
| OVERTOPPING DISCHARGE | = 27 | CFS |
| OVERTOPPING ELEVATION | = 2714.9 | FT |

4/26/2019
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