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METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2911A	36

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 028434 ENGINEER BRYAN M. PALMER
3-12-04
SEAL NOT VALID UNLESS SIGNED AND DATED

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 12786 ENGINEER STEVEN M. BONDON
3/2/04
SEAL NOT VALID UNLESS SIGNED AND DATED

TBM7 RR SPIKE IN 600MM OAK TREE
STA.29+67.039 -L- 16.699m LT. EL. =260.124

-3.5057%

PVC 31+10.000 EL =255.315

PI = 32+50.000
EL = 250.407
VC = 280 m
K = 37
100 km/h

-3.5057%

+4.0000%

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.47

DRAINAGE AREA	= 3.7	HA
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 1.14	CMS
DESIGN HW ELEVATION	= 247.31	M
100 YEAR DISCHARGE	= 1.23	CMS
100 YEAR HW ELEVATION	= 247.36	M
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 2.10	CMS
OVERTOPPING ELEVATION	= 249.00	M

900mm

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 14.5	CMS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 244.62	M
BASE DISCHARGE	= 16.2	CMS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 244.76	M
OVERTOPPING DISCHARGE	= 68.0	CMS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 253.03	M

3.7 m X 2.1 m RCBC

SEE SHEET 10 FOR -L- PLAN

-L-

+60 +80 30 +20 +40 +60 +80 31 +20 +40 +60 +80 32 +20 +40 +60 +80 33 +20

PI = 35+62.369
EL = 262.902
VC = 84.740 m
K = 90
100 km/h

+3.0585%

+4.0000%

+3.0585%

PVT 33+90.000 EL =256.007

PVC 35+19.999 EL =261.107

PVT 36+04.739 EL =264.198

PVC 36+14.870 EL =264.417

STA. 35+84.000
EL = 254.300

(-) 2.2000%

(+) 0.5000%

STA. 36+33.000
EL = 253.200

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.57

DRAINAGE AREA	= 39.0	HA
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 6.20	CMS
DESIGN HW ELEVATION	= 245.11	M
100 YEAR DISCHARGE	= 9.60	CMS
100 YEAR HW ELEVATION	= 245.49	M
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 23.40	CMS
OVERTOPPING ELEVATION	= 252.49	M

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.61

DRAINAGE AREA	= 4.6	HA
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 1.45	CMS
DESIGN HW ELEVATION	= 254.32	M
100 YEAR DISCHARGE	= 1.59	CMS
100 YEAR HW ELEVATION	= 254.51	M
OVERTOPPING FREQUENCY	= 200+	YRS
OVERTOPPING DISCHARGE	= 2.22	CMS
OVERTOPPING ELEVATION	= 255.00	M

900mm

1800mm

SEE SHEET 11 FOR -L- PLAN

-L-

+20 +40 +60 +80 34 +20 +40 +60 +80 35 +20 +40 +60 +80 36 +20 +40 +60 +80

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Date: 3/12/2004 Time: 8:09:42 AM
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