5/28/99

PROJECT REFERENCE NO.	SHEET NO.
A-0009CA	24

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35018 JIMMY L. TERRY
5/31/2022

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044158 BENJAMIN J. HENEGAR
5/31/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
201 W. MARION ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

-L-

CULVERT HYDRAULIC DATA
3@ 11'x9' RCBC -L- Sta.113+69

DRAINAGE AREA	= 10.7	Sqmi
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 2960	CFS
DESIGN HW ELEVATION	= 2084.2	FT
100 YEAR DISCHARGE	= 3570	CFS
100 YEAR HW ELEVATION	= 2086.0	FT
OVERTOPPING FREQUENCY	= 200(+/-)	YRS
OVERTOPPING DISCHARGE	= 4200	CFS
OVERTOPPING ELEVATION	= 2087.7	FT

END SPECIAL LATERAL BASE DITCH
-L- STA.110+50.00 LT
EL=2082.23

(+) 1.7800%

EXISTING 3@ 11'x9' RCBC

PI = 116+95.00
EL = 2,093.00'
VC = 330'
K = 117
DS = 55 MPH

(+)1.2229%

(+)4.0526%

BEGIN SPECIAL LATERAL BASE DITCH
-L- STA.118+50.00 RT
EL=2092.32

(+)7.5800%

END SPECIAL LATERAL BASE DITCH
-L- STA.119+50.00 RT
EL=2099.90

(+)4.0526%

(-)0.9447%

PI = 121+80.00
EL = 2,112.66'
VC = 570'
K = 114
DS = 55 MPH

FOR -L- PLAN, SEE SHEET NO. 13

110 111 112 113 114 115 116 117 118 119 120 121 122 123 124

2,150 2,140 2,130 2,120 2,110 2,100 2,090 2,080 2,070

PIPE HYDRAULIC DATA
*1407-L- Sta.129+29

DRAINAGE AREA	= 30	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 75	CFS
DESIGN HW ELEVATION	= 2105.7	FT
100 YEAR DISCHARGE	= 80	CFS
100 YEAR HW ELEVATION	= 2105.9	FT
OVERTOPPING FREQUENCY	= >500(+)	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= 2107.9	FT

END SPECIAL LATERAL 'V' DITCH
-L- STA.131+00.00 RT
EL=2109.77

BEGIN SPECIAL LATERAL 'V' DITCH
-L- STA.130+00.00 RT
EL=2104.42

PI = 128+70.00
EL = 2,106.14'
VC = 510'
K = 137
DS = 60 MPH

(-)0.9447%

(+)2.7175%

PROPOSED 54" RCP

BEGIN SPECIAL LATERAL 'V' DITCH
-L- STA.129+50.00 LT
EL=2106.63

(+) 1.0333%

(+) 5.3500%

(+) 4.4400%

END SPECIAL LATERAL 'V' DITCH
-L- STA.132+00.00 LT
EL=2112.62

BEGIN SPECIAL LATERAL 'V' DITCH
-L- STA.131+50.00 LT
EL=2110.40

END SPECIAL LATERAL 'V' DITCH
-L- STA.130+70.00 LT
EL=2107.87

PIPE HYDRAULIC DATA
*1409-L- Sta.134+71

DRAINAGE AREA	= 61.4	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 140	CFS
DESIGN HW ELEVATION	= 2114.6	FT
100 YEAR DISCHARGE	= 150	CFS
100 YEAR HW ELEVATION	= 2114.8	FT
OVERTOPPING FREQUENCY	= 200	YRS
OVERTOPPING DISCHARGE	= 160	CFS
OVERTOPPING ELEVATION	= 2115.2	FT

PROPOSED 66" RCP

FOR -L- PLAN, SEE SHEET NO. 14

124 125 126 127 128 129 130 131 132 133 134 135 136 137 138

2,150 2,140 2,130 2,120 2,110 2,100 2,090 2,080 2,070

5/10/2022
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User:mlvin