DocuSign Envelope ID: 29E2B00B-5E6B-4715-86A2-5B0DA04C91DF

5/28/99

BM #5 ELEVATION = 1038.02'
N = 560676.18 E = 1042573.29
-RP_E- STATION 15+10.84
15.08' LEFT
BRIDGE SPIKE IN BASE 12" BEECH

-RP_E-

PIPE HYDRAULIC DATA

DRAINAGE STRUCTURE NO.0556

DRAINAGE AREA	= 8.4	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 30	CFS
DESIGN HW ELEVATION	= 1029.4	FT
100 YEAR DISCHARGE	= 32	CFS
100 YEAR HW ELEVATION	= 1029.5	FT
OVERTOPPING FREQUENCY	= >500	YRS
OVERTOPPING DISCHARGE	= >75	CFS
OVERTOPPING ELEVATION	= 1045.0	FT

BEGIN GRADE
STA.10+00.00 -RP_E-
EL.= 1036.46

PI = 12+75.00
EL = 1,040.81'
VC = 100'
K = 312
DS = 80 MPH

PI = 16+75.00
EL = 1,048.41'
VC = 200'
K = 182
DS = 70 MPH

PI = 21+90.00
EL = 1,063.86'
VC = 255'
K = 29
DS = 35 MPH

(+)1.5800%
(+)1.9000%
(+)3.0000%
(-)15.7000%
(+)1.6000%
(+) 2.0000%

PROPOSED GRADE
EXISTING GROUND
30" RCP
PROPOSED CULVERT
2@10'x7' RCBC W/SILLS

BEGIN BRIDGE
-RP_E- STA. 22+45 +/-

END BRIDGE
-RP_E- STA. 23+22 +/-

END LAT 'V' DITCH W/RIP RAP
PI STA=17+90 -RP_E- LT
ELEV=1028.30

BEG LAT 'V' DITCH W/RIP RAP
PI STA=17+00 -RP_E- LT
ELEV=1026.50

BEG LAT 'V' DITCH
PI STA=23+75 -RP_E- LT
ELEV=1031.00

1051.92

PLANS PREPARED BY :	PROJECT REFERENCE NO.	SHEET NO.
PARSONS RALEIGH, NORTH CAROLINA, (919) 854-1345 NC LICENSE NO. F-0246 FOR NORTH CAROLINA DEPT. OF TRANSPORTATION	I-4729A	9
SUNGATE DESIGN GROUP, P.A. 905 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27606 TEL (919) 859-2243 FAX (919) 859-6058 ENG FIRM LICENSE NO. C-690	ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 37950 ENGINEER JASON M. PARKS 20CE4A8B7C1B4A8... 8/14/2017	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 026971 ENGINEER JOSHUA P. HOLLAND 1089A08C1B8A4... 8/14/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BM #17 ELEVATION = 1060.08'
N = 562068.64 E = 1043501.06
-RP_E- STATION 33+47.42
89.88' LEFT
RR SPIKE IN BASE 24" SWEET GUM

-RP_E-

END GRADE
STA.33+59.80 -RP_E-
EL.= 1065.39

PI = 26+50.00
EL = 1,037.64'
VC = 535'
K = 49
DS = 35 MPH

PI = 29+90.00
EL = 1,055.25'
VC = 135'
K = 45
DS = 40 MPH

PI = 32+30.00
EL = 1,060.46'
VC = 160'
K = 98
DS = 50 MPH

(-)15.7000%
(+)5.1800%
(+)12.1700%
(+)3.8000%
(-) 0.5000%
(-) 1.5000%
(+) 4.0000%
(+) 1.3000%

PROPOSED GRADE
EXISTING GROUND

BEG LAT 'V' DITCH
PI STA=24+50
-RPE- RT
ELEV=1030.30

PI STA=25+10 -RPE- RT
ELEV=1030.00

END LAT 'V' DITCH
PI STA=28+00
-RPE- RT
ELEV=1033.0

PI STA=25+10 -RP_E- LT
ELEV=1029.00

END LAT
'V' DITCH
PI STA=26+00 -RP_E- LT
ELEV=1030.30

NOTE:
SEE SHEETS 5 & 7 FOR -RP_E- PLAN

14-AUG-2017 08:05
I:\2014\07\29\04\Highway\Proj\I-4729A_RDY_PFL_09.dgn
$$$$USERNAME$$$$