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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
I-5883/I-5986B	127

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 027373 ENGINEER SUSAN C. LANCASTER
DocuSign Susan C Lancaster 5/11/2021
4FB985A28CEF495...

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON
DocuSign Joshua G Dalton 5/11/2021
4980ABB9409403...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker Engineering, Inc.
Michael Baker INTERNATIONAL
8000 Regency Pkwy Suite 600 Cary, NC 27518 NC License: F-1084

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27606
NC COA No. C-0890

-SR17-

240.93'

BEG SPEC CUT
V DITCH
PI STA=23+60 -SRI7- RT
ELEV=238.20

END SPEC CUT
V DITCH
PI STA=27+37 -SRI7- RT
ELEV=237.07

PI = 28+50.00
EL = 243.13'
VC = 550'
K = 183
DS = 60 mph

PIPE HYDRAULIC DATA
2@42" RCP Sta. 34+79 -SRI7-

DRAINAGE AREA	= 34.2	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 95	CFS
DESIGN HW ELEVATION	= 228.7	FT
100 YEAR DISCHARGE	= 100	CFS
100 YEAR HW ELEVATION	= 228.8	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 110+	CFS
OVERTOPPING ELEVATION	= 231.4	FT

231.42'

PI = 34+00.00
EL = 228.83'
VC = 550'
K = 145
DS = 60 mph

(+)0.4000%
(-)2.6000%
PROPOSED GRADE
(-) 0.3000%
(-) 0.3000%
(-) 0.5333%
36" RCP
(-) 2.6522%
(-) 0.3170%
(-)2.6000%
(+)1.2000%
2@42" RCP
(-) 0.3509%
PROPOSED UNDERCUT
PROPOSED UNDERCUT
PI STA=25+00 -SRI7- LT
ELEV=234.70
PIPE HYDRAULIC DATA
36" RCP Sta. 28+52 -SRI7-

DRAINAGE AREA	= 12.5	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 44	CFS
DESIGN HW ELEVATION	= 236.7	FT
100 YEAR DISCHARGE	= 49	CFS
100 YEAR HW ELEVATION	= 237.0	FT
OVERTOPPING FREQUENCY	= 500 +	YRS
OVERTOPPING DISCHARGE	= 55 +	CFS
OVERTOPPING ELEVATION	= 238.3	FT

PI STA=31+05 -SRI7- LT
ELEV=226.60
EXISTING GROUND
END SPEC CUT 2' BASE DITCH
BEG SPEC LAT 3' BASE DITCH
PI STA=28+75 -SRI7- LT
ELEV=232.70
END SPEC LAT
3' BASE DITCH
PI STA=34+52 -SRI7- LT
ELEV=225.50
BEG SPEC LAT
4' BASE DITCH
PI STA=35+00 -SRI7- RT
ELEV=225.00

FOR -SRI7- ALIGNMENT, SEE SHEET 32 & 33

250 240 230 220 210 200
23 24 25 26 27 28 29 30 31 32 33 34 35 36

-SR17-

237.42'

BEG SPEC CUT
2' BASE DITCH
PI STA=36+33 -SRI7- RT
ELEV=224.70

PI STA=36+83 -SRI7- RT
ELEV=224.90

PI = 41+50.00
EL = 237.83'
VC = 315'
K = 176
DS = 60 mph

PIPE HYDRAULIC DATA
18" RCP Sta. 46+67 -SRI7-

DRAINAGE AREA	= 1.6	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 8	CFS
DESIGN HW ELEVATION	= 234.0	FT
100 YEAR DISCHARGE	= 8	CFS
100 YEAR HW ELEVATION	= 234.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 9+	CFS
OVERTOPPING ELEVATION	= 235.0	FT

236.04'

PI = 46+70.00
EL = 234.77'
VC = 175'
K = 144
DS = 60 mph

PROPOSED GRADE
(+)1.2000%
(-)0.5885%
(+) 0.2999%
(-)0.5885%
(+)0.6289%
18" RCP
(-) 0.3809%
(+) 0.4000%
(+) 2.2120%
END SPEC CUT 2' BASE DITCH
BEG SPEC CUT V DITCH
PI STA=39+00 -SRI7- RT
ELEV=229.70
PROPOSED UNDERCUT
END SPEC
CUT V DITCH
PI STA=46+67 -SRI7- RT
ELEV=232.00
EXISTING GROUND
END SPEC LAT
4' BASE DITCH
PI STA=36+14 -SRI7- RT
ELEV=224.60

FOR -SRI7- ALIGNMENT, SEE SHEET 33 & 34

260 250 240 230 220 210 200
36 37 38 39 40 41 42 43 44 45 46 47 48 49

IL WAY-2021\00-48
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$$$$USERNAME$$$$