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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3100A	33

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21102 JAMES TIMOTHY JOHNSON
DocuSigned by: James Timothy Johnson
3/15/2019

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 025503 RICHARD L. MOORE
DocuSigned by: Richard L. Moore
3/15/2019

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

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NO LICENSE #C-0128
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TEL. (910) 343-1048 FAX: (910) 790-4282

-L1-

BEGIN GRADE
PI = 10+00.00
EL = 1,045.24'

PI = 10+90.00
EL = 1,045.58'
VC = 180'
K = 137

PI = 15+15.00
EL = 1,041.62'
VC = 200'
K = 185

PI = 17+60.00
EL = 1,036.69'
VC = 210'
K = 243

END GRADE
PI = 20+62.23
EL = 1,027.63'

PI = 20+00.00
EL = 1,029.79'

(+)0.3778% (−)0.9318% (−)0.9318% (−)2.0122% (−)2.0122% (−)2.8750% (−)2.8750% (−)3.4667%

SEE PLAN SHEET 21 & 22

-Y16-

PIPE HYDRAULIC DATA
18" RCP Sta.13+00 -Y16-

DRAINAGE AREA	= 1.58	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 3.17	CFS
DESIGN HW ELEVATION	= 1011.11	FT
100 YEAR DISCHARGE	= 3.48	CFS
100 YEAR HW ELEVATION	= 1011.27	FT
OVERTOPPING FREQUENCY	= Q > 500	YRS
OVERTOPPING DISCHARGE	= 11	CFS
OVERTOPPING ELEVATION	= 1012.52	FT

TIE TO -L-
STA 13+75.00
EL = 1,014.97'

BEGIN CONSTRUCTION
STA. 11+75.00

BEGIN GRADE
PI = 12+55.00
EL = 1,015.03'

END GRADE
PI = 13+39.49
EL = 1,014.25'

BLEND TO EXIST

(−)0.9232% (−)4.1520% (−)4.8444% (+)2.0276%

18" RCP

BEGIN DITCH GRADE LT -Y16- STA. 11+75.00 EL=1014.36'

BEGIN DITCH GRADE RT -Y16- STA. 12+55.00 EL=1012.43'

END DITCH GRADE LT -Y16- STA. 13+00.00 EL=1009.17'

END DITCH GRADE RT -Y16- STA. 13+00.00 EL=1010.25'

RIGHT DTICH - - - - -
LEFT DTICH -·-·-·-

SEE PLAN SHEET 5

-Y17-

TIE TO -L-
STA 10+00.00
EL = 999.82'

BEGIN GRADE
PI = 10+35.69
EL = 999.05'

PI = 10+80.00
EL = 996.68'
VC = 80'
K = 21

END GRADE
PI = 11+20.00
EL = 996.04'

BLEND TO EXIST

END CONSTRUCTION
STA. 12+00.00

(−)2.1575% (−)5.3487% (−)11.6000%

SEE PLAN SHEET 5

-Y18-

PIPE HYDRAULIC DATA
30" RCP Sta.10+74 -Y18-

DRAINAGE AREA	= 7.97	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 21	CFS
DESIGN HW ELEVATION	= 999.38	FT
100 YEAR DISCHARGE	= 23	CFS
100 YEAR HW ELEVATION	= 999.50	FT
OVERTOPPING FREQUENCY	= 100<Q<500	YRS
OVERTOPPING DISCHARGE	= 47	CFS
OVERTOPPING ELEVATION	= 1001.94	FT

TIE TO -L-
STA 10+00.00
EL = 1,003.21'

BEGIN GRADE
PI = 10+35.51
EL = 1,002.12'

END CONSTRUCTION
END GRADE
STA. 11+50.00
EL = 1,001.48'

(−)3.0696% (−)0.5583%

30" RCP

SEE PLAN SHEET 7

5/19/11 PM
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jorgensen