Docusign Envelope ID: F183D5DC-DBE2-4B01-8882-5C791E97C2B9

REVISIONS

–Y– SR 1386 (BELLS LAKE RD.)

LEFT DITCH
RIGHT DITCH

DRMP
DRMP, INC.
5808 FARRINGDON PLACE
RALEIGH, NC 27609
(919) 872-5115
NC LICENSE NO. F-1524
www.drmp.com

PROJECT REFERENCE NO.	SHEET NO.
HL–0008Q	9
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 050515 ENGINEER KAYLA M POLITO
12/3/2025

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044113 ENGINEER RYAN P MITCHELL
12/2/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PIPE HYDRAULIC DATA
18" RCP–IV @ –Y– 106+50

DRAINAGE AREA	=	1.00 AC
DESIGN FREQUENCY	=	25 YR
DESIGN DISCHARGE	=	3 CFS
DESIGN HW ELEVATION	=	375.1 FT
100 YEAR DISCHARGE	=	3 CFS
100 YEAR HW ELEVATION	=	375.1 FT
OVERTOPPING FREQUENCY	=	500+ YR
OVERTOPPING DISCHARGE	=	18.6 CFS
OVERTOPPING ELEVATION	=	378.8 FT

PI = 102+00.00
EL = 384.54'
VC = 100'
K = 139

PI = 105+75.00
EL = 378.85'
VC = 200'
K = 99

PI = 107+40.00
EL = 379.67'
VC = 130'
K = 143

–Y– PC STA. 101+50.00
EL. = 384.94'

–Y– PT STA. 102+50.00
EL. = 383.78'

–Y– PC STA. 104+75.00
EL. = 380.37'

–Y– PC/PT STA. 106+75.00
EL. = 379.35'

–Y– PI STA. 108+90.22 = –L– STA. 19+89.78
EL. = 381.78'

–Y– PT STA. 108+05.00
EL. = 380.58'

–Y– STA. 107+00.00 RT
EL. = 374.80'

–Y– STA. 107+50.00 LT
EL. = 373.70'

–Y– STA. 107+50.00 RT
EL. = 376.75'

–0.8000%
–1.5169%
+0.4951%
+1.4045%
+1.3144%
2.20%
2.29%
4.00%
3.90%
2.34%
3.80%
3.40%

BEGIN GRADE –Y– STA. 101+50.00
END MILL & OVERLAY
EL. = 384.94'

BEGIN CONSTRUCTION
BEGIN MILL & OVERLAY
–Y– STA. 101+10.00

PROPOSED GRADE
EXISTING GROUND
EXIST. 18" PIPE

BEGIN SPECIAL LAT V DITCH
–Y– STA. 105+50.00 RT
EL. = 377.20'

–Y– STA. 106+50.00 RT
EL. = 375.00'

–Y– STA. 106+85.00 RT
EL. = 374.20'

BEGIN SPECIAL LAT V DITCH
–Y– STA. 107+00.00 LT
EL. = 372.00'

END SPECIAL LAT V DITCH
BEGIN SPECIAL LAT V DITCH

END SPECIAL LAT V DITCH
–Y– STA. 108+00.00 RT
EL. = 377.92'

END SPECIAL LAT V DITCH
–Y– STA. 108+50.00 LT
EL. = 377.50'

FOR –Y– PLAN VIEW, SEE SHEETS NO. 6–7

410 400 390 380 370

101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

–Y– SR 1386 (BELLS LAKE RD.)

LEFT DITCH
RIGHT DITCH

PIPE HYDRAULIC DATA
18" RCP–IV @ –Y– 109+25

DRAINAGE AREA	=	1.35 AC
DESIGN FREQUENCY	=	25 YR
DESIGN DISCHARGE	=	3 CFS
DESIGN HW ELEVATION	=	380.0 FT
100 YEAR DISCHARGE	=	3 CFS
100 YEAR HW ELEVATION	=	380.0 FT
OVERTOPPING FREQUENCY	=	200+ YR
OVERTOPPING DISCHARGE	=	7.6 CFS
OVERTOPPING ELEVATION	=	381.3 FT

PI = 112+15.00
EL = 386.05'
VC = 510'
K = 143

BM#2
BY STA 17+85
S 49^ 46' 25.30" W
DIST 55.55
ELEV. 382.87

–Y– PC STA. 109+60.00
EL. = 382.70'

–Y– PT STA. 114+70.00
EL. = 380.30'

+1.3144%
–2.2532%
4.00%
0.30%
0.26%
0.70%
1.92%
2.68%
2.56%
1.80%

EXISTING GROUND
PROPOSED GRADE
PROP. 18" RCP

–Y– STA. 110+50.00 LT
EL. = 381.00'

BEGIN SPECIAL LAT V DITCH
–Y– STA. 110+00.00 LT
EL. = 379.00'

BEGIN SPECIAL LAT V DITCH
–Y– STA. 112+00.00 RT
EL. = 382.23'

END SPECIAL LAT V DITCH
–Y– STA. 112+50.00 RT
EL. = 382.10'

–Y– STA. 113+00.00 LT
EL = 380.25'

–Y– STA. 113+50.00 LT
EL. = 379.90'

BEGIN SPECIAL LAT V DITCH
–Y– STA. 114+50.00 RT
EL. = 379.09'

END SPECIAL LAT V DITCH
–L– STA. 114+00.00 LT
EL. = 378.94'

–Y– STA. 115+50.00 RT
EL. = 376.47'

END GRADE –Y– STA. 115+00.00
BEGIN MILL & OVERLAY
EL. = 379.63'

–Y– STA. 115+00.00 RT
EL. = 377.75'

END SPECIAL LAT V DITCH
–Y– STA. 115+65.00 RT
EL. = 376.20'

END CONSTRUCTION
END MILL & OVERLAY
–Y– STA. 117+00.00

FOR –Y– PLAN VIEW, SEE SHEETS NO. 6–7

400 390 380 370 360

109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00

10/9/2025
J:\Projects\HL0008Q_Rdy_prf109.dgn
User: krorbes