Docusign Envelope ID: E03116D9-9111-4A69-87F1-46AF0CF86082

5/28/99

# –L–
## US 21 BUS

MATCHLINE –L– STA 35+00.00
SEE SHEET 07

PIPE HYDRAULIC DATA
•0610 –L– Sta. 40+64

| | | |
|---|---|---|
| DRAINAGE AREA | = 3.8 | AC |
| DESIGN FREQUENCY | = 50 | YRS |
| DESIGN DISCHARGE | = 10 | CFS |
| DESIGN HW ELEVATION | = 1124.3 | FT |
| 100 YEAR DISCHARGE | = 11 | CFS |
| 100 YEAR HW ELEVATION | = 1124.4 | FT |
| OVERTOPPING FREQUENCY | = >500 (+) | YRS |
| OVERTOPPING DISCHARGE | = N/A | CFS |
| OVERTOPPING ELEVATION | = 1124.8 | FT |

BM#2
RAILROAD SPIKE SET IN 20" POPLAR
N = 894352' E = 1466072'
ELEV. = 1133.16'

BEGIN 2' SPEC. LATERAL BASE DITCH
–L– STA. 40+00.00 LT
EL=1124.18

PI = 39+10.00
EL = 1,124.83'
VC = 340'
K = 166

–L– STA. 40+79.04 LT
EL=1122.65

END GRADE
–L– STA 41+00.00
ELEV. 1127.68'

EXISTING 24" RCP

(–)0.5429%
(+)1.5000%
(–)1.9357%
(+)3.9111%
(+)0.4249%

INCIDENTAL MILLING
–L– STA 40+00
TO STA 41+00

END 2' SPEC. LATERAL BASE DITCH
–L– STA 41+50.00 LT
EL=1125.43

–L– STA 36+13.35=
–RAMPA– STA 10+00.00
NB RAMP FROM I-77

–L– STA 35+97.31=
–Y4– STA 13+76.70
SR 1350 (LITTLE MOUNTAIN RD)

–L– STA 35+81.31=
–LOOPA– STA 10+00.00
NB RAMP TO I-77

BEGIN 2' SPEC. LATERAL BASE DITCH
–L– STA. 39+85.15 RT
EL=1118.29

END 2' SPEC. LATERAL BASE DITCH
–L– STA. 40+47.52 RT
EL=1118.64

FOR –L– PLAN SEE SHEET 06

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

EXISTING GROUND
PROPOSED GRADE
LEFT DITCH GRADE
RIGHT DITCH GRADE

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5833 | 08 |

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 027418 MARCUS LOWERY
3/5/2026

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044158 BENJAMIN J HENSCHEL
3/5/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

# –Y1–
## SR 1392

BEGIN GRADE
–Y1– STA 11+00.00
ELEV. 1089.71'

PI = 11+82.00
EL = 1,086.67'
VC = 20'
K = 8

END GRADE
–Y1– STA 11+94.74=
–L– STA 18+61.28
(12' LT)
ELEV. 1086.53'

PROPOSED 18" RCP

(–)3.7073%
(+)4.0000%
(–)1.0989%

PIPE HYDRAULIC DATA
•0416 –Y1– Sta. 11+71

| | | |
|---|---|---|
| DRAINAGE AREA | = 1.3 | AC |
| DESIGN FREQUENCY | = 25 | YRS |
| DESIGN DISCHARGE | = 4.0 | CFS |
| DESIGN HW ELEVATION | = 1086.0 | FT |
| 100 YEAR DISCHARGE | = 4.7 | CFS |
| 100 YEAR HW ELEVATION | = 1086.1 | FT |
| OVERTOPPING FREQUENCY | = >500 (+) | YRS |
| OVERTOPPING DISCHARGE | = N/A | CFS |
| OVERTOPPING ELEVATION | = 1087.3 | FT |

–Y1– STA 12+06.74=
–L– STA 18+61.28
ELEV. 1087.01'

FOR –Y1– PLAN SEE SHEET 04

# –Y2–
## SR 1393

BEGIN GRADE
–Y2– STA 10+12.00=
–L– STA 18+64.72
(12' RT)
ELEV. 1087.62'

PI = 10+32.00
EL = 1,087.42'
VC = 40'
K = 14

PI = 11+15.00
EL = 1,084.15'
VC = 90'
K = 62

END GRADE
–Y2– STA 11+60.00
ELEV. 1083.03'

(–)1.0000%
(–)3.9398%
(–)2.4889%
(+)3.8333%

–Y2– STA 10+00.00=
–L– STA 18+64.39
ELEV. 1087.16'

INCIDENTAL MILLING
–Y2– STA 11+00
TO STA 11+60

FOR –Y2– PLAN SEE SHEET 04

# –DRW1–

BEGIN GRADE
–DRW1– STA 10+50.00
ELEV. 1093.21'

PI = 12+30.00
EL = 1,092.67'
VC = 220'
K = 21

PI = 13+90.00
EL = 1,108.67'
VC = 100'
K = 23

PI = 15+04.06
EL = 1,115.12'
VC = 45'
K = 12

END GRADE
–DRW1– STA 15+26.56=
–L– STA 23+70.82
(14.75' LT)
ELEV. 1115.57'

(–)0.3000%
(+)10.0000%
(+)11.0000%
(+)5.6549%
(+)2.0000%
(–)2.9566%

INCIDENTAL MILLING
–DRW1– STA 10+00
TO STA 11+00

PROPOSED 60" RCP

PIPE HYDRAULIC DATA
•0530–DRW1– Sta. 13+01

| | | |
|---|---|---|
| DRAINAGE AREA | = 70 | AC |
| DESIGN FREQUENCY | = 10 | YRS |
| DESIGN DISCHARGE | = 100 | CFS |
| DESIGN HW ELEVATION | = 1090.8 | FT |
| 100 YEAR DISCHARGE | = 140 | CFS |
| 100 YEAR HW ELEVATION | = 1092.1 | FT |
| OVERTOPPING FREQUENCY | = 500 | YRS |
| OVERTOPPING DISCHARGE | = 170 | CFS |
| OVERTOPPING ELEVATION | = 1093.0 | FT |

–DRW1– STA 15+41.78=
–L– STA 23+74.56
ELEV. 1115.12'

FOR –DRW1– PLAN SEE SHEET 05

8/13/2023
12:36:06
C:\Projects\NCDOT\B-5833\Roadway\Proj\b5833_rdy_pf1_08.dgn
User: mlowery