REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-3303	12
R /W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 022999 ENGINEER GREG S. PURVIS
WANG ENGINEERING
15200 WESTON PARKWAY
SUITE 101
CARY, NC 27513

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 9334 ENGINEER W. HENRY WELLS IV
10-30-04
SUNGATE DESIGN GROUP
915 JONES FRANKLIN ROAD
RALEIGH, NC 27606

METRIC 5 0 10

CONST.REV.

R /W REV.

SEE SHEET 14 FOR -Y4- PROFILE
SEE SHEET 15 FOR -Y5- PROFILE

NC GRID NAD 83

TS Sta. 39+80.666 -L-

SC Sta. 40+45.666 -L-

ROGER ALLRED, SR. ET AL
DB 752 PG 746
PB 16 PG 79

BL-27
PINC 37+35.834
STA. 40+23.539 -L-
0.969 m RT.

POC Sta. 40+18.714 -L- =
POT Sta. 12+95.120 -Y4-

BL-26
PINC 36+62.251
STA. 39+49.945 -L-
0.381m RT.

MATCHLINE STA. 39+30.000
SEE SHEET 11

100.0m TAPER

S 26° 02' 57.9" E

PARALELL PIPE END SECTION

2GI TYPE 'D'

MATCHLINE 12+80.000 -Y4-
SEE SHEET 14

ROGER ALLRED, SR. ET AL
DB 752 PG 746
PB 16 PG 79

-L-
PIs Sta 40+24.014
Os = 4° 39' 19.0"
Ls = 65.000
LT = 43.348
ST = 21.680

4m LEVEL SPREADER
SEE DETAIL SHEET 2-A
3 CM DDE

BL-28
PINC 38+28.007
STA. 41+15.840 -L-
1.312 m RT.

SPECIAL LAT 'V' DITCH
STA 41+00 -L- RT TO
STA 41+10 -L- RT
SEE DETAIL #6

GRAU-350

CLASS 'B' RIPRAP
1.8 MTNS
5.9 SM FF

PDE

DETAIL 6
SPECIAL LATERAL 'V' DITCH
(Not To Scale)

Natural Ground, 2d, D, Adjor Flatter, Fill Slope
Min. D = 0.5 m

STA. 41+00.000 -L- RT. TO STA. 41+10.000 -L- RT.

DETAIL 8
LATERAL 'V' DITCH
(Not To Scale)

Natural Ground, d, 2d, b, .08m/m, Fill Slope
Min. D = 0.5 m
b = 1.5 m

STA. 41+10.000 -L- RT. TO STA. 41+40.000 -L- RT.
132 CM DDE

DETAIL 3
LATERAL 'V' DITCH
(Not To Scale)

Natural Ground, d, 2d, b, 2d, .08m/m, Fill Slope, Filter Fabric
Min. D = 0.5 m
Max. d = 0.3 m
b = 1.5 m

Type of Liner = CLASS 'B' RIPRAP

STA. 41+40.000 -L- RT. TO STA. 41+60.000 -L- RT.
7 CM DDE, 12.8 MTNS CL. B & 26.8 SM FF

LAT 'V' DITCH
W/1.5m BERM LINED
W/CLASS 'B' RIPRAP
STA 41+40 -L- RT TO
STA 41+60 -L- RT
SEE DETAIL #3
7 CM DDE, 12.8 MTNS CL. B
& 26.8 SM FF

LAT 'V' DITCH
W/1.5m BERM
STA 41+10 -L- RT TO
STA 41+40 -L- RT
SEE DETAIL #8
132 CM DDE

CLASS 'B' RIPRAP
4.5 MTNS
13.4 SM FF

-L-
PI Sta 42+16.167
Δ = 46° 10' 20.8" (LT)
L = 322.345
T = 170.501
R = 400.000
Se = 0.08
Se runoff = 65
Tro = 16

RICHARD & RUBY HENDERSON
DB 644 PG 629
PB 16 PG 79

-L-
PI Sta 12+21.586
Δ = 17° 48' 31.5" (LT)
L = 155.411
T = 78.337
R = 500.000
Se = Exist.Se
See XS

RICHARD & RUBY HENDERSON
DB 644 PG 629
PB 16 PG 79

BL-29
PINC 39+49.764
STA. 42+35.319 -L-
12.588 m RT.

MATCHLINE SEE SHEET 13
STA. 42+70.000

OBLITERATE AND REMOVE

GUARDRAIL TERMINAL SECTION W/ OBJECT MARKERS

RETAIN EXISTING ROAD DITCH

GRADE CUT DITCH TO DRAIN AROUND CUDE-SAC

POT Sta. 13+08.659 -Y5-
END CONSTRUCTION
PT Sta. 12+98.659 -Y5-

JAMES FRAZIER
DB 706 PG 456

TBM #1
36.814m RT. -BL- STA. 39+98.938
ELEV. 137.255

-L-
PI = 40+72.400
EL = 141.953
K = 71.8
VC = 379.301 m
DS = 100 km/h

+3.979%

-1.300%

PROPOSED GRADE

-0.300%

+00.000 RT.
EL = 137.080

Special Lat. "V" Ditch Rt.

+40.000 RT.
EL = 136.960

-0.300%

+60.000 RT.
EL = 135.500

750

EXISTING GROUND

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.

DRAINAGE AREA	= 3.0 HA
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 0.65 CMS
DESIGN HW ELEVATION	= 136.23 M
100 YEAR DISCHARGE	= 0.76 CMS
100 YEAR HW ELEVATION	= 136.31 M
OVERTOPPING FREQUENCY	= + 500 YRS
OVERTOPPING DISCHARGE	= + 1.2 CMS
OVERTOPPING ELEVATION	= 137.2 M

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