6/09/05

BM#6 EL 2.736
RR SPIKE IN 24" GUM
37.986m RT. -L- STA. 196+64.699

C&G GREENHORNE & O'MARA, INC.
5565 CENTERVIEW DRIVE, SUITE 107
RALEIGH, NORTH CAROLINA 27606
(919) 851-1919

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2539C	35

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 18206 ENGINEER ANNA C. KEENER
9-29-04

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 025603 ENGINEER RICHARD A. MOORE
9/29/04

CONST.REV.

R/W REV.

VPC 196+40.000 EL 3.975

VPT/VPC 197+00.000 EL 3.975

PROP GRADE LINE

(-)0.3000%

(+)0.3000%

(-)0.3000%

EXIST. GROUND LINE

VPT/VPC 199+40.000 EL 3.975

VPC 198+90.000 EL 3.825

VPT/VPC 199+40.000 EL 3.825

(-)0.3000%

(-)0.3000%

(+)0.3000%

(+)0.3000%

(-)0.3000%

PI = 196+70.000
EL = 3.885
L = 60.000
K = 100
DS = 120+ KM/H

PI = 197+70.000
EL = 4.185
L = 140.000
K = 233
DS = 120+ KM/H

PI = 199+15.000
EL = 3.750
L = 50.000
K = 83
DS = 120+ KM/H

PI = 199+65.000
EL = 3.900
L = 50.000
K = 83
DS = 110+ KM/H

SEE SHEET NO. 16 FOR -L- PLAN.

196+20 | 197+00 | 198+00 | 199+00 | 199+80

BM#7 EL 1.726
NAIL IN PP
35.829m RT. -L- STA. 200+15.429

VPT/VPC 199+90.000 EL 3.825

VPT/VPC 200+50.000 EL 3.995

VPT/VPC 201+40.000 EL 4.005

VPC 202+30.000 EL 3.622

VPT/VPC 202+44.000 EL 3.693

HYDRAULIC DATA
DRAINAGE AREA = 0.165 HA
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 0.238 CMS
DESIGN HW ELEVATION = 1.42 M
100 YR DISCHARGE = 0.291 CMS
100 YR ELEVATION = 1.43 M
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 0.575 CMS
OVERTOPPING ELEVATION = 2.895 M

-L- STA. 202+67
EL 1.345
BEGIN DITCH LT

HYDRAULIC DATA
DRAINAGE AREA = 33 HA
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 0.83 CMS
DESIGN HW ELEVATION = 1.30 M
100 YR DISCHARGE = 1.00 CMS
100 YR ELEVATION = 1.31 M
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 3.0 CMS
OVERTOPPING ELEVATION = 2.25 M

(+)0.6000%

(+)0.8000%

(-)0.3000%

(-)0.3000%

(+)0.3860%

(-)0.3750%

EXIST. GROUND LINE

PROP GRADE LINE

450 RCP

LATERAL 'V' DITCH (LT)

1.0%

1200 RCP

SPECIAL LATERAL 'V' DITCH (LT)

+0.500%

-L- STA. 202+20
EL 0.900
BEGIN DITCH LT

-L- STA. 202+65
EL 0.400
END DITCH LT

-L- STA. 203+40
EL 1.75
END DITCH LT

PI = 200+120.000
EL = 3.735
L = 60.000
K = 67
DS = 120+ KM/H

PI = 200+180.000
EL = 4.095
L = 60.000
K = 67
DS = 100+ KM/H

PI = 202+46.000
EL = 3.391
L = 50.000
K = 73
DS = 120+ KM/H

PI = 203+14.000
EL = 3.859
L = 86.000
K = 113
DS = 120+ KM/H

SEE SHEET NO. 17 FOR -L- PLAN.

199+80 | 200+00 | 201+00 | 202+00 | 203+00 | 203+40