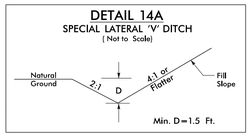
DocuSign Envelope ID: FEC680E6-CB45-4C69-A809-6B6D3CC7F073

PROJECT REFERENCE NO.	SHEET NO.
A-0009CA	EC-33/CONSTJ4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
201 W. MARION ST–STE 200
SHELBY, NC 28150
PH (704) 476–0003
CORP. LICENSE NO.: C–0275

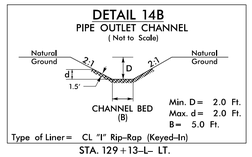
NAD 83/2011

DETAIL 14A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



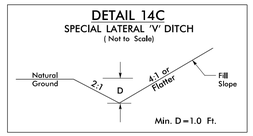
FROM STA.127+00 TO STA.127+25–L– LT.
FROM STA.127+80 TO STA.128+00–L– LT.

DETAIL 14B
PIPE OUTLET CHANNEL
(Not to Scale)



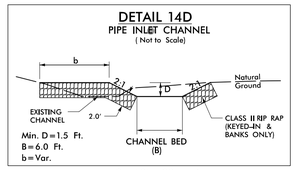
STA. 129+13–L– LT.

DETAIL 14C
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



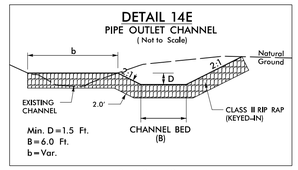
FROM STA.129+50 TO STA.130+70–L– LT.
FROM STA.131+50 TO STA.132+00–L– LT.
FROM STA.130+00 TO STA.131+00–L– RT.

DETAIL 14D
PIPE INLET CHANNEL
(Not to Scale)



STA.135+20–L– RT.

DETAIL 14E
PIPE OUTLET CHANNEL
(Not to Scale)



STA.134+40–L– LT.

For Slopes Excavated Greater Than 10 feet Install Matting for Erosion Control on Entire Slope as Work Allows.

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

32 x 16 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 14.4

26 x 13 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 14.5

60 x 10 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 14.3

66 x 11 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 14.1

MATCH LINE STA –L– 124+00.00
MATCH TO SHEET NO. 13

MATCH LINE STA –L– 138+00.00
MATCH TO SHEET NO. 15

PIPE OUTLET CHANNEL
SEE DETAIL 14B
S=1.0%
L=12'
EST. 15 CY DDE
CL 'I' RIP-RAP
EST. 15 TONS

BURY INVERT 1.0'
BELOW STREAM BED

TRANSITION STONE
CL 'B' RIP-RAP
EST. 5 TONS
GEOTEXTILE
EST. 10 SY

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 14C

TIE –L– TYP. CUT DITCH
TO EXISTING DITCH
S=1.7%
SEE DETAIL 14A

TIE –L– TYP. CUT DITCH
TO EXISTING DITCH
S=3.6%
SEE DETAIL 14A

RETAIN

RETAIN

PIPE OUTLET CHANNEL
SEE DETAIL 14E
S=1.8%
L=40'
EST. 90 CY DDE
CL 'II' RIP-RAP
EST. 100 TONS

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 14C

BURY INVERT 1.0'
BELOW STREAM BED

CL 'I' RIP-RAP
EST. 2 TON
GEOTEXTILE
EST. 6 SY

ROD AND LUG
WITH GASKETS
(ELBOWS)

TRENCHLESS INSTALLATION
48" WELDED STEEL
(THICKNESS 0.9375")

FLOWABLE
FILL

REMOVE

REMOVE EX. R/W

SPRING BOX

FLOWABLE
FILL

TRANSITION STONE
CL 'B' RIP-RAP
EST. 5 TONS
GEOTEXTILE
EST. 10 SY

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 14C

BURY INVERT 1.0'
BELOW STREAM BED

CL 'I' RIP-RAP
EST. 2 TON
GEOTEXTILE
EST. 6 SY

BURY INVERT 1.0'
BELOW STREAM BED

PIPE INLET CHANNEL
SEE DETAIL 14D
S=1.8%
L=40'
EST. 30 CY DDE
CL 'II' RIP-RAP
EST. 50 TONS

SHOULDER BERM GUTTER
–L– STA. 137+25 TO 141+50, LT

SHOULDER BERM GUTTER
–L– STA. 133+90 TO 142+00, RT

360' SHIFTING TAPER

36 GILBERT D. LANCE, ET AL

KENDRA J. GRADY VAUGHN, ET AL, TRUSTEES

PROP. DRIVE

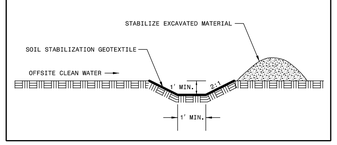
DO NOT DISTURB SEPTIC

DWAYNE SELLERS

37 THOMAS A. CARPENTER

38 DAVID M. DENTON, TRUSTEE

40 JAMES H. MYERS

39 THOMAS A. CARPENTER

CLEAN WATER DIVERSION
CWD CWD CWD CWD CWD CWD
(Not to Scale)