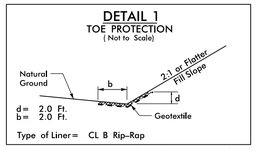
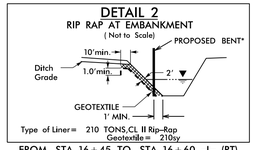
PROJECT REFERENCE NO.	SHEET NO.
B-4659	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL 1
TOE PROTECTION
(Not to Scale)



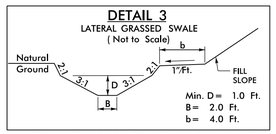
FROM STA. 12+05 TO STA. 14+40 –L– (LT)
FROM STA. 18+50 TO STA. 19+75 –L– (LT)

DETAIL 2
RIP RAP AT EMBANKMENT
(Not to Scale)



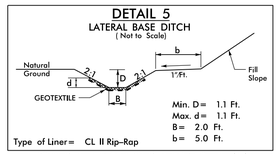
FROM STA. 16+45 TO STA. 16+60 –L– (RT)
FROM STA. 15+65 TO 15+95 –L– (LT & RT)*
FROM STA. 16+25 TO 16+50 –L– (LT & RT)*

DETAIL 3
LATERAL GRASSED SWALE
(Not to Scale)



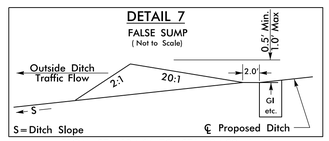
FROM STA. 16+55 TO STA. 18+15.3 –L– (RT)

DETAIL 5
LATERAL BASE DITCH
(Not to Scale)



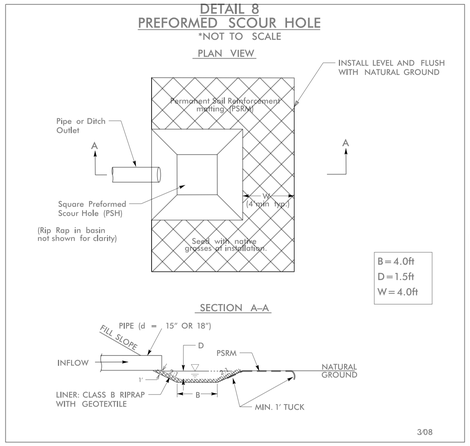
FROM STA. 17+20 TO STA. 18+50 –L– (LT)

DETAIL 7
FALSE SUMP
(Not to Scale)



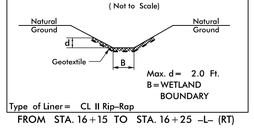
FROM STA. 19+64 TO STA. 19+90 –L– LT

DETAIL 8
PREFORMED SCOUR HOLE
*NOT TO SCALE



STA. 14+50 –L– (RT)

DETAIL 6
COUNTER SUNK RIP RAP PAD
(Not to Scale)



FROM STA. 16+15 TO STA. 16+25 –L– (RT)

DETAIL 4
CLASS II RIP-RAPPED ENERGY DISSIPATOR BASIN

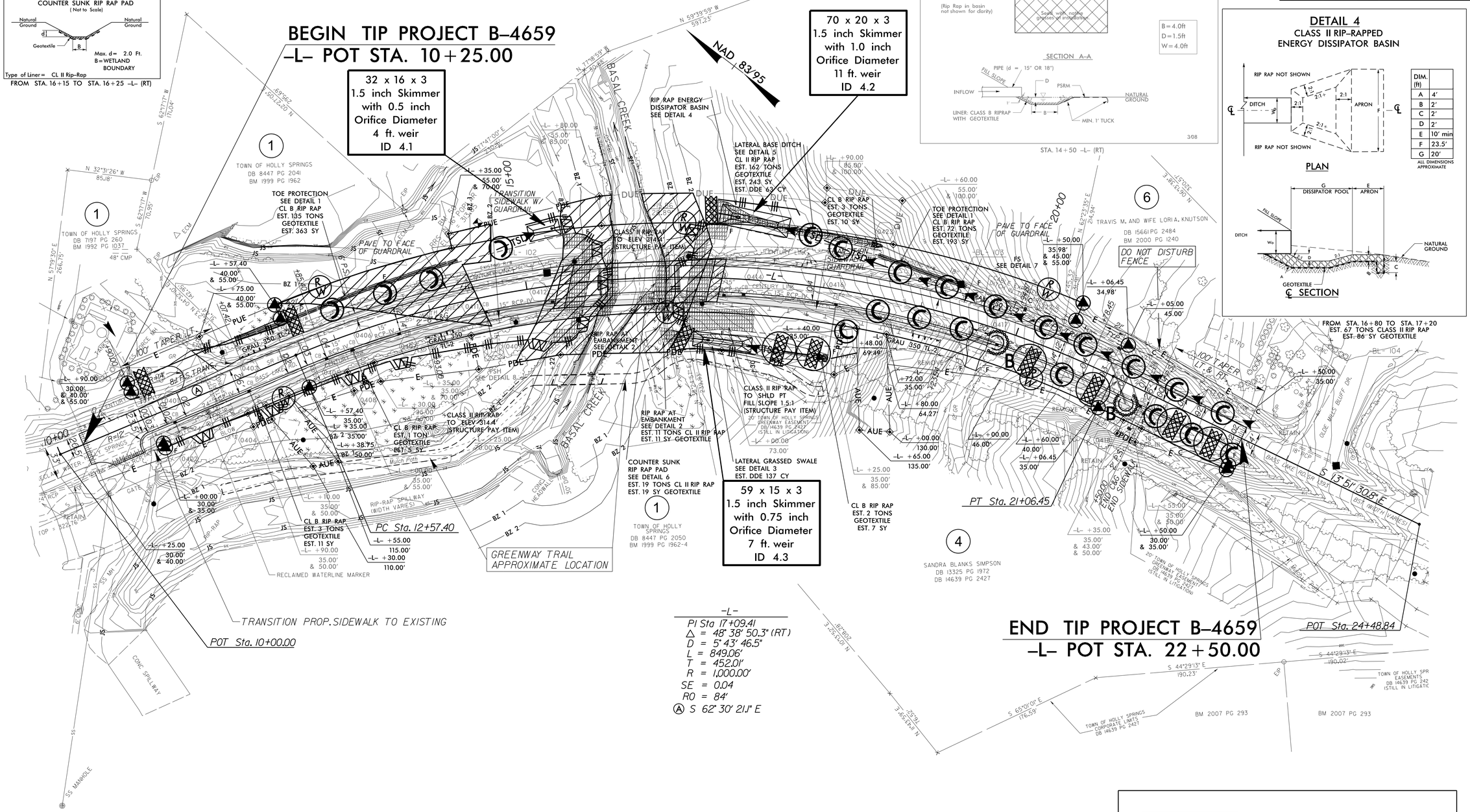
DIM. (ft)	
A	4'
B	2'
C	2'
D	2'
E	10' min
F	23.5'
G	20'

ALL DIMENSIONS APPROXIMATE

PLAN

℄ SECTION

BEGIN TIP PROJECT B–4659
–L– POT STA. 10+25.00



–L–
PI Sta 17+09.41
△ = 48° 38' 50.3" (RT)
D = 5° 43' 46.5"
L = 849.06'
T = 452.01'
R = 1,000.00'
SE = 0.04
R0 = 84'
Ⓐ S 62° 30' 21.1" E

END TIP PROJECT B–4659
–L– POT STA. 22+50.00

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR CONSTRUCTION SHEET 4

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

8/17/99

03-DEC-2014 13:53
R:\Environmental\Hydraulics\Design\B4659_EC_psh4.dgn