PROJECT REFERENCE NO.	SHEET NO.
U-2579B	2D-1
R/W SHEET NO.	

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 9334 ENGINEER W. HENRY WELLS, JR.

DocuSigned by: W. Henry Wells, Jr. 7/16/2014

0B0CFCC7B4B2AEE...

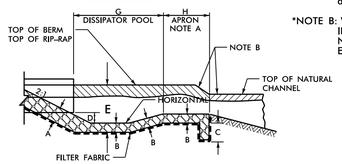
DETAIL

RIP-RAPPED ENERGY DISSIPATOR BASIN

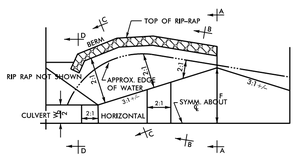
*NOTE A: IF EXIT VELOCITY OF BASIN IS SPECIFIED, EXTEND BASIN AS REQUIRED TO OBTAIN SUFFICIENT CROSS SECTIONAL AREA AT SECTION A-A SUCH THAT Q des/(CROSS SECTION AREA AT SEC. A-A) = SPECIFIED VELOCITY.

*NOTE B: WARP BASIN TO CONFORM TO NATURAL STREAM CHANNEL. TOP OF RIP-RAP IN FLOOR OF BASIN SHOULD BE AT SAME ELEVATION OR LOWER THAN NATURAL CHANNEL BOTTOM AT SEC. A-A. PROVIDE SMOOTH TRANSITION FROM END OF APRON TO NATURAL CHANNEL WIDTH.

℄ SECTION



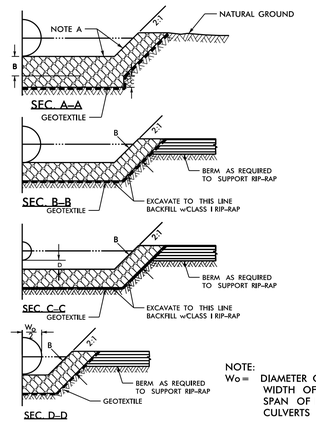
HALF PLAN



DIM.	RIP RAP BASIN #							
	1	2	3	4	5	6	7	8
A	3							
B	2							
C	2							
D	3							
E	5							
F	20							
G	25							
H	6							

*ALL DIMENSIONS APPROXIMATE IN ?

BASIN #	LOCATION (AT OUTLET)
1	556+00 -L- RT
2	
3	
4	
5	
6	
7	
8	



NOTE:
W_O = DIAMETER OF PIPE, WIDTH OF BOX OR SPAN OF PIPE-ARCH CULVERTS

5/05

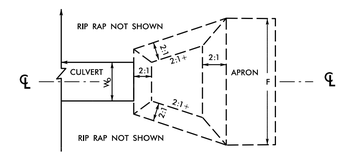
DETAIL

RIP-RAPPED ENERGY DISSIPATOR BASIN

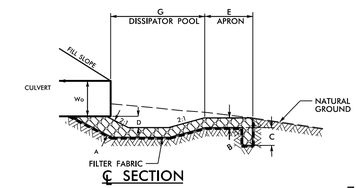
DIM. (ft)	RIP RAP BASIN # 1		
A	3		
B	2		
C	2		
D	3		
E	6		
F	37		
G	28		

ALL DIMENSIONS APPROXIMATE

BASIN #	LOCATION (AT OUTLET)
1	476+50 -L- RT



PLAN



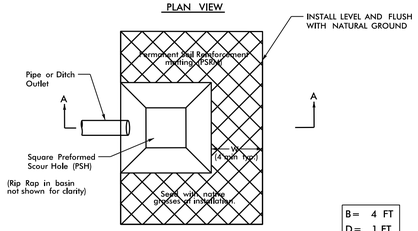
℄ SECTION

7/08

PREFORMED SCOUR HOLE

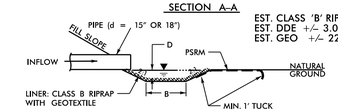
*NOT TO SCALE

PLAN VIEW



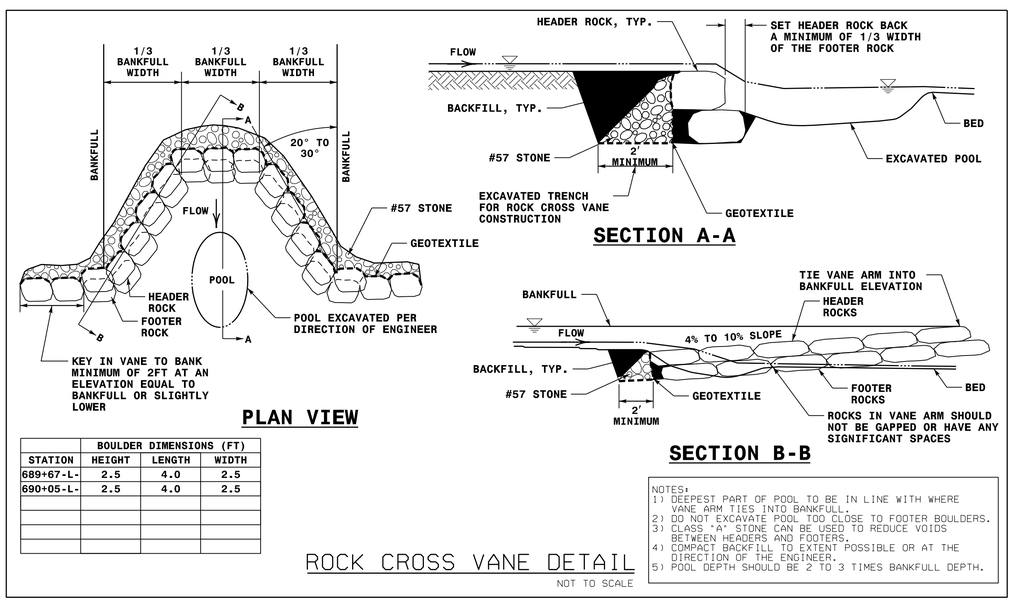
B = 4 FT
D = 1 FT
W = 4 FT

SECTION A-A



EST. CLASS 'B' RIPRAP +/- 3 TONS
EST. DDE +/- 3.0 CY
EST. GEO +/- 22 SY

3/08



	BOULDER DIMENSIONS (FT)		
STATION	HEIGHT	LENGTH	WIDTH
689+67-L-	2.5	4.0	2.5
690+05-L-	2.5	4.0	2.5

NOTES:
1) DEEPEST PART OF POOL TO BE IN LINE WITH WHERE VANE ARM TIES INTO BANKFULL.
2) DO NOT EXCAVATE POOL TOO CLOSE TO FOOTER BOULDERS.
3) CLASS 'A' STONE CAN BE USED TO REDUCE VOIDS BETWEEN HEADERS AND FOOTERS.
4) COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.
5) POOL DEPTH SHOULD BE 2 TO 3 TIMES BANKFULL DEPTH.

ROCK CROSS VANE DETAIL

NOT TO SCALE

DETAIL

(NOT TO SCALE)

MULTI-BARREL LOW FLOW CHANNEL,SILLS AND FLOOD PLAIN

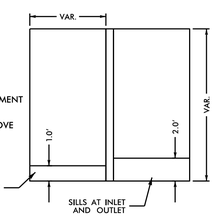
*NOTES:

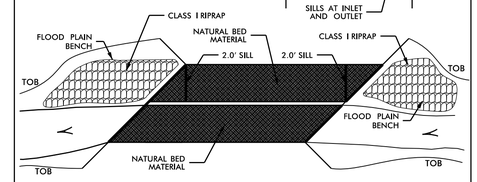
1) BED MATERIAL SHALL BE EXCAVATED AND STOCKPILED DURING INSTALLATION OF THE CULVERTS AND SILLS. THE NATURAL BED MATERIALS SHALL THEN BE PLACED IN THE CULVERT TO THE SPECIFIED ELEVATION.

2) SILLS ARE TO BE 1.0 FT. WIDE, CAST SEPARATELY AND ATTACHED BY DOWELS.

3) CLASS 'B' RIP RAP MAY BE USED TO SUPPLEMENT NATURAL BED MATERIAL.

4) DO NOT SET ELEVATION OF HIGH SILL ABOVE BANK FULL.





PLAN VIEW

1/12

7/16/2014
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