

# PROJECT COMMITMENTS

T.I.P Project No. R-2241A  
US 501 from NC 49 in Roxboro to SR 1521 (Mountain Street)  
Person County  
Federal Aid Project No. MASTP-501(1)  
WBS Element 34406.2.3

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### **Project Development and Environmental Analysis**

Approximately 0.7 hectares (1.75 acres) of wetlands will be impacted by the proposed project. Compensatory mitigation for the wetland impacts will be coordinated with the COE, who has discretionary authority over this issue

*For Section A, 1.22 acres of wetlands will be impacted. Compensatory mitigation for wetland impacts will be coordinated with COE as needed*

It is anticipated that 22 streams and one pond will be crossed by the project as proposed. Upon final determination of the quantity of impacts, the final decision concerning compensatory mitigation for the stream impacts will be made by the DWQ

*For Section A, 2965 feet of stream impacts are anticipated. NCDOT will coordinate with DWQ concerning the compensatory mitigation requirements.*

### **Hydraulics Unit and Project Development and Environmental Analysis Branch**

No channel modifications are anticipated. However, if stream channel relocation is required for any of the impacted stream crossings, consultation with the US Fish and Wildlife Service (FWS) and the NC Wildlife Resources Commission (WRC) will be required. Relocated streams will be designed to have similar characteristics (depth, width, and substrate) as the original stream. This also includes re-establishment of streamside vegetation.

### **Location and Surveys Unit**

Currently, it is anticipated that 20 geodetic survey markers will be impacted by this project. The N.C. Geodetic Survey will be contacted prior to construction regarding the relocation of these markers.

## COMMITMENTS FROM PERMITTING

There are no special conditions from permitting.



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
69 DARLINGTON AVENUE  
WILMINGTON, NORTH CAROLINA 28403-1343

October 07, 2014

Regulatory Division/1200A

Action ID: SAW-2009-00439; TIP No. R-2241A

J. R. Hopkins, P.E.  
North Carolina Department of Transportation, Division Five  
2612 North Duke Street  
Durham, North Carolina 27587

Dear Mr. Hopkins:

Reference the Department of the Army permit issued to the North Carolina Department of Transportation (NCDOT) on June 6, 2012, to authorize the discharge of fill material into waters of the United States, for construction of Section A of the US 501 improvements (TIP No. R-2241A), from NC 49 in Roxboro to SR 1602 (Jesse Banks Road), in Person County, North Carolina, and the subsequent modifications dated August 27, 2013 and December 17, 2013. Also, please reference your August 19, 2014 letter, requesting modification of the permit for a net increase of temporary impacts to streams, for a revision to Site 7A. These changes in impacts result from a field design modification to reflect actual field conditions and to eliminate continued migration of a head cut upstream from the pipe culvert at Sta 34+80-L-RT, Plan Sheets 10 and 11, Site 7A. Additional mitigation is not proposed because there will be no long-term loss of stream function.

We have reviewed the requested modification, and determined that it is appropriate and reasonable, and that no public notice is required for this modification. Therefore, the permit is hereby modified to include the changes listed and shown in the modified drawings in the August 19, 2014 modification request, for a net increase of temporary impacts to streams of 39 linear feet, as shown on the enclosed drawings. This section of the project will now permanently impact 3,608 linear feet of streams (including 3,184 linear feet of stream with more than minimal function) and 2.38 acre of wetlands, impact 525 linear feet of streams for stream bank stabilization, and temporarily impact 630 linear feet of streams.

All other conditions of the previously modified permit, including the mitigation requirement and the permit expiration date of December 31, 2017, remain applicable.

Should you have any questions, please call Mr. Eric Alsmeyer at (919) 554-4884, extension 23.

Sincerely,



Kevin P. Landers  
Colonel, U.S. Army  
District Commander

Enclosure

Copies Furnished:

Ms. Amy Chapman  
Division of Water Quality  
North Carolina Department of  
Environment and Natural Resources  
1650 Mail Service Center  
Raleigh, NC 27699-1650

Mr. Clarence Coleman  
Federal Highway Administration  
310 New Bern Ave., Rm 410  
Raleigh, North Carolina 27601-1442

Ms. Rachelle Beauregarde  
North Carolina Department of Transportation  
Division of Highways  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

John E. Skvarla, III  
Secretary

August 28, 2014

Richard W. Hancock, PE, Manager  
Project Development and Environmental Analysis  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina, 27699-1548

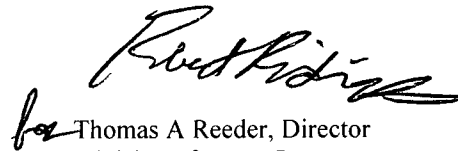
Subject: MODIFICATION to 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for Proposed improvements to US 501 North in Person County, Federal Aid Project No. STP-501(1), State Project No. 34406.2.3, TIP No. R-2241A.  
NCDWR Project No. 20120073 version 4.

Dear Mr. Hancock:

Attached hereto is a modification of Certification No. 3910 issued to The North Carolina Department of Transportation (NCDOT) dated March 23, 2012.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

  
Thomas A Reeder, Director  
Division of Water Resources

Attachments

cc: Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office  
Chris Murray, Division 5 Environmental Officer  
Rachelle Beauregard, NCDOT Natural Environment Unit  
File Copy

**MODIFICATION to 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS**

**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations. This certification authorizes the NCDOT to impact 2.39 acres of jurisdictional wetlands and 4,356 linear feet of jurisdictional streams in Person County. The project shall be constructed pursuant to the application dated received January 26, 2012 and modification request dated August 19, 2014. The authorized impacts are as described below:

<b>Additional (or Decrease) to Stream Impacts in the Roanoke River Basin</b>		
<b>Site</b>	<b>Streambank Stabilization to Perennial Stream (linear ft)</b>	<b>Temporary Impacts to Perennial Stream (linear ft)</b>
7A	+ 39	- 39

The application provides adequate assurance that the discharge of fill material into the waters of the Roanoke River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated received January 26, 2012 and modification requests received August 2, 2012, December 6, 2013 and August 19, 2014. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

**Conditions of Certification:**

1. . All conditions in the previous versions of this Certification for this project still apply.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission.  
The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings  
6714 Mail Service Center  
Raleigh, NC 27699-6714  
Telephone: (919)-431-3000, Facsimile: (919)-431-3100

A copy of the petition must also be served on DENR as follows:

Mr. Lacy Presnell, General Counsel  
Department of Environment and Natural Resources  
1601 Mail Service Center

This the 28th day of August 2014

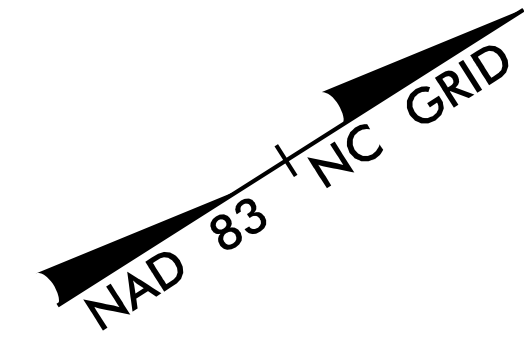
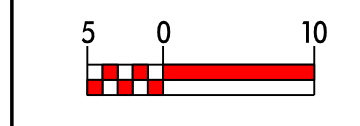
DIVISION OF WATER RESOURCES

A large, stylized handwritten signature in black ink, appearing to read "Robert Reeder".A small, handwritten signature or set of initials in black ink, possibly "for".

Tom Reeder  
Director

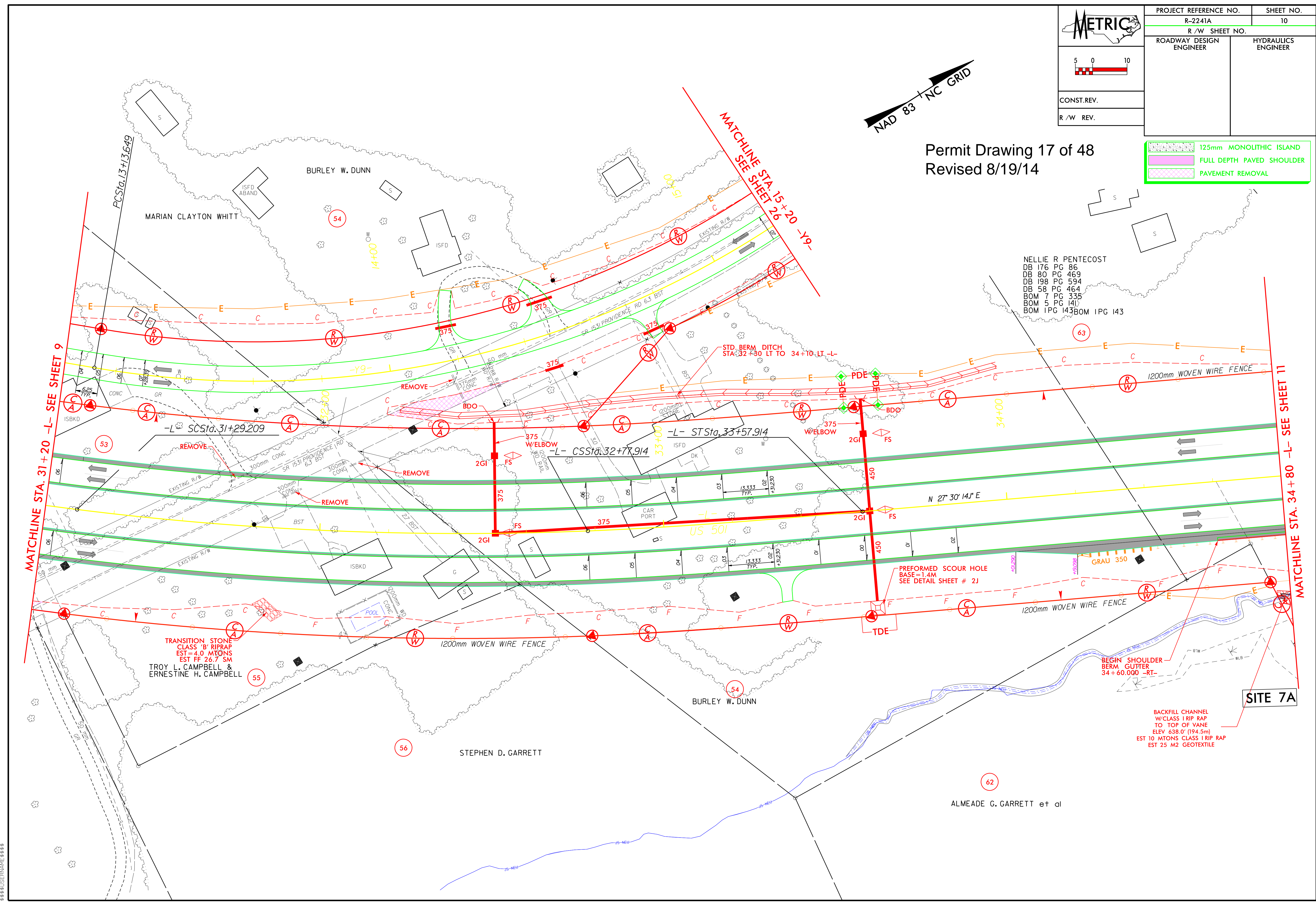
STV / Ralph Whitehead Associates, Inc.  
 1000 West Morehead St., Ste. 200  
 Charlotte, NC 28208  
 NC License Number F-0991

PROJECT REFERENCE NO. R-2241A		SHEET NO. 10
R / W SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
CONST. REV.		
R / W REV.		



Permit Drawing 17 of 48  
 Revised 8/19/14

	125mm MONOLITHIC ISLAND
	FULL DEPTH PAVED SHOULDER
	PAVEMENT REMOVAL



NELLIE R PENTECOST  
 DB 176 PG 86  
 DB 80 PG 469  
 DB 198 PG 594  
 DB 58 PG 464  
 BOM 7 PG 335  
 BOM 5 PG 141  
 BOM 1PG 143 BOM 1PG 143

TRANSITION STONE  
 CLASS 'B' RIPRAP  
 EST = 4.0 MTONS  
 EST FF 26.7 SM  
 TROY L. CAMPBELL &  
 ERNESTINE H. CAMPBELL

BACKFILL CHANNEL  
 W/CLASS 1 RIP RAP  
 TO TOP OF VANE  
 ELEV 638.0' (194.5m)  
 EST 10 MTONS CLASS 1 RIP RAP  
 EST 25 M2 GEOTEXTILE

SITE 7A

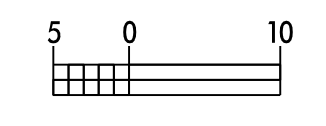
\*\*\*\*\*SYTIME\*\*\*\*\*  
 \*\*\*\*\*DUFRAN\*\*\*\*\*

ALMADE G. GARRETT et al

STV/Ralph Whitehead Associates, Inc.  
 1000 West Morehead St., Ste. 200  
 Charlotte, NC 28208  
 NC License Number F-0991



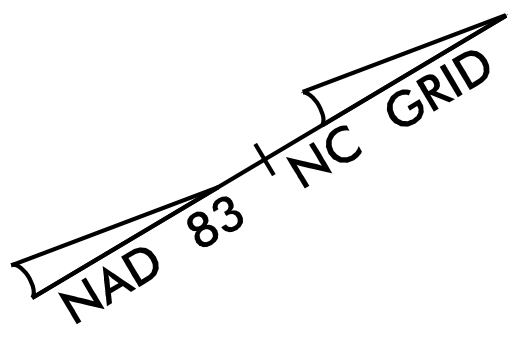
PROJECT REFERENCE NO. R-2241A	SHEET NO. 11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R/W REV.	



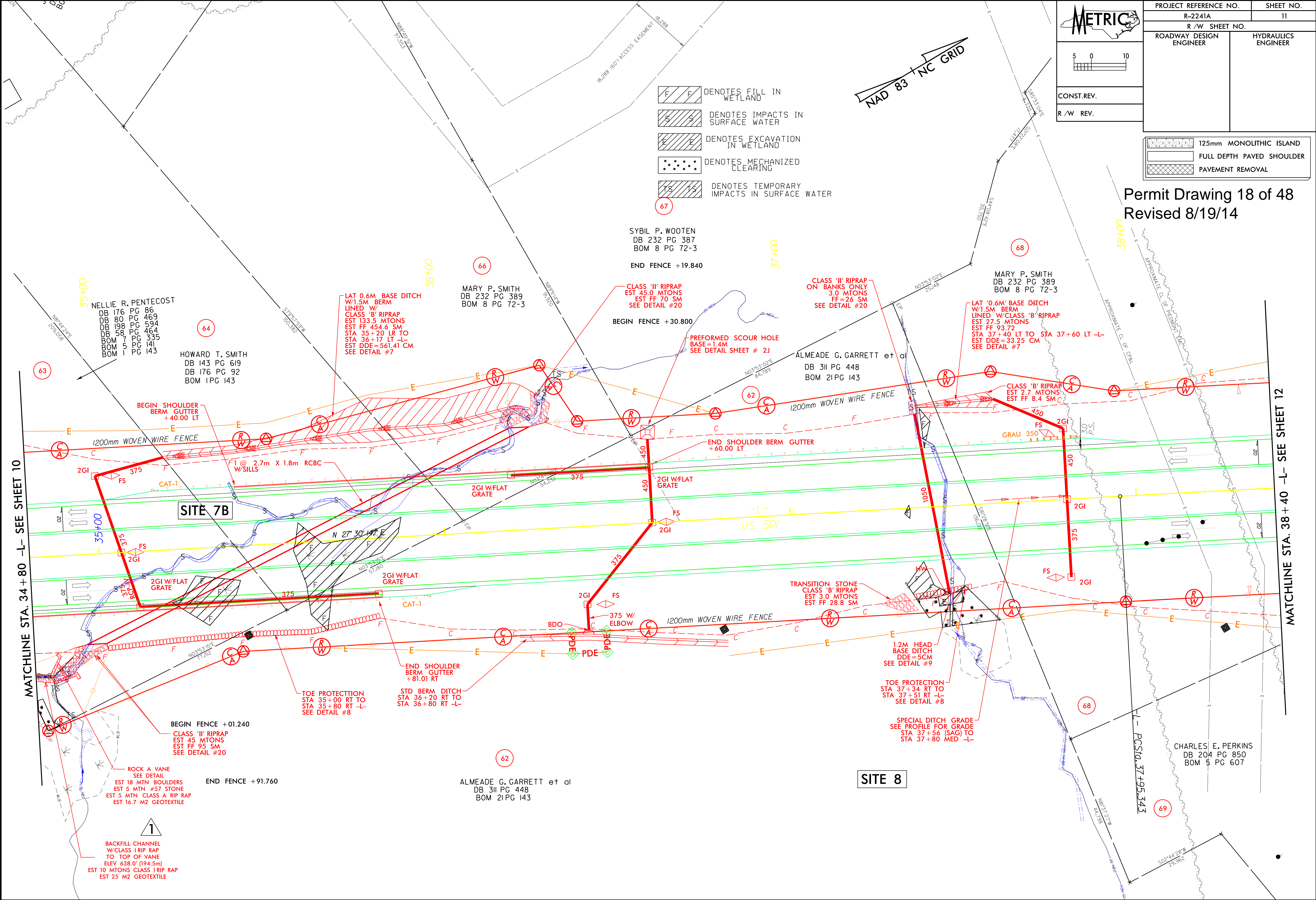
125mm MONOLITHIC ISLAND
FULL DEPTH PAVED SHOULDER
PAVEMENT REMOVAL

Permit Drawing 18 of 48  
 Revised 8/19/14

- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVISIONS  
 08-04-14 - ADDED ROCK VANE AT +/- STA. 34+65 RT.



\*\*\*\*\*ST TIME\*\*\*\*\*  
 \*\*\*\*\*REF TIME\*\*\*\*\*



**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS					
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
1	13+28/13+62 -L-	3@3mx3m RCBC							0.03	<0.01	138	26	
	Stream Bank Stabilization								0.03		125		
2	15+12/15+59 -L- LT	750mm CSP	0.11		0.01	0.06							
3 *	19+21/19+23 -L- RT	Fill							<0.01		23		
4	20+84/20+89 -L-	2@2.4mx2.4m RCBC							0.02	0.01	112	39	
	Stream Bank Stabilization								0.02		59		
5	20+89/21+45 -L-	Fill	0.22			0.06							
6 *	24+98/25+10 -L- RT	900mm RCP							<0.01	<0.01	23	20	
	Stream Bank Stabilization								<0.01		23		
7A	34+93/36+38 -L-	2.7mx1.8m RCBC	0.13			<0.01			0.03	0.01	518	69	
	Stream Bank Stabilization								0.02		121		
7B *	35+38/35+51 -L- LT	Fill							<0.01		59		
8	37+33/37+55 -L-	1050mm RCP	0.02		<0.01	0.03			0.01	<0.01	194	36	
	Stream Bank Stabilization								<0.01		13		
9	40+05/40+70 -L-	1500mm RCP							0.04	<0.01	279	33	
	Stream Bank Stabilization								<0.01		16		
10 *	11+55/11+82 -Y13- LT	900mm CSP							0.01	<0.01	92	43	
	Stream Bank Stabilization								<0.01		20		
11	50+41/51+25 -L-	1200mm RCP	<0.01						0.02	0.01	282	85	
	Stream Bank Stabilization								0.01		52		
12	51+47/51+91 -L-	750mm RCP	0.12										
13	53+13/53+79 -L-	900mm RCP	0.17		<0.01	0.07			0.01	<0.01	246	72	
<b>SUB TOTALS:</b>			<b>0.77</b>		<b>0.01</b>	<b>0.21</b>			<b>0.26</b>	<b>0.03</b>	<b>2395</b>	<b>423</b>	

\* Note: Stream Impacts are Non-Mitigatable.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PERSON COUNTY  
WBS - 34406.1.1 (R-2241A)

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Revised

**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
14	57+12/57+55 -L-	1200mm RCP	0.09		<0.01			0.02	<0.01	262	23	
	Stream Bank Stabilization							<0.01		13		
15	63+41/66+32 -L-	1350mm RCP	0.36			0.03		0.03	<0.01	653	75	
	Stream Bank Stabilization							<0.01		13		
16	64+72/64+99 -L- LT	Pond Removal						0.10				
17	67+35/69+11 -L-	1350 RCP	0.47		0.15	0.18		0.01	<0.01	148	62	
	Stream Bank Stabilization							0.01		36		
18 *	76+03/76+90 -L-	750mm/900mm RCP						0.02	0.01	364	203	
	Stream Bank Stabilization							<0.01		10		
19	77+72/79+54 -L-	Fill	0.01			0.10						
<b>SUB TOTALS:</b>			0.92		0.15	0.31		0.20	0.01	1499	364	
<b>TOTALS:</b>			1.69		0.16	0.53		0.45	0.04	3894	787	

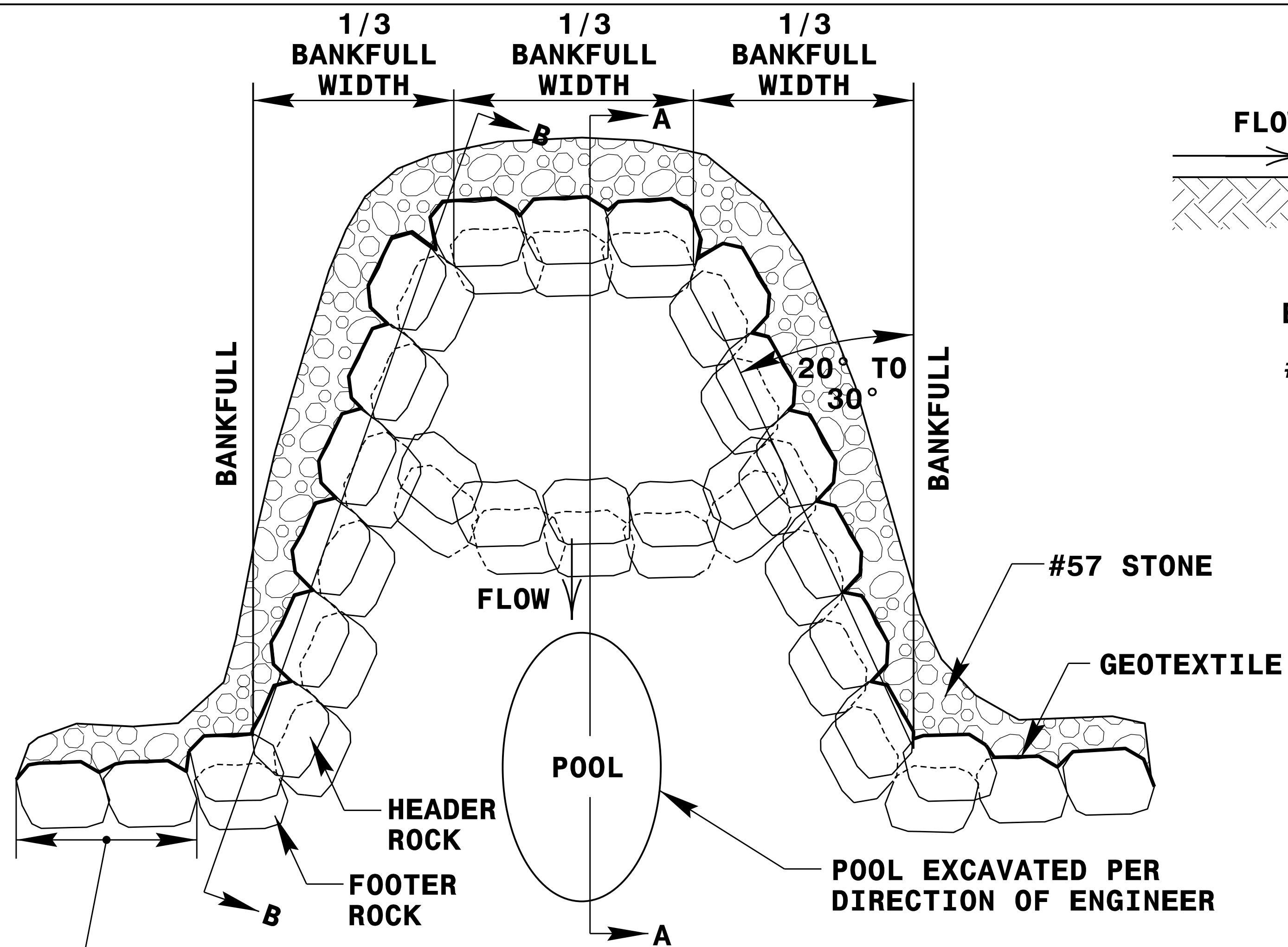
\* Note: Stream Impacts are Non-Mitigatable.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PERSON COUNTY  
WBS - 34406.1.1 (R-2241A)

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Revised

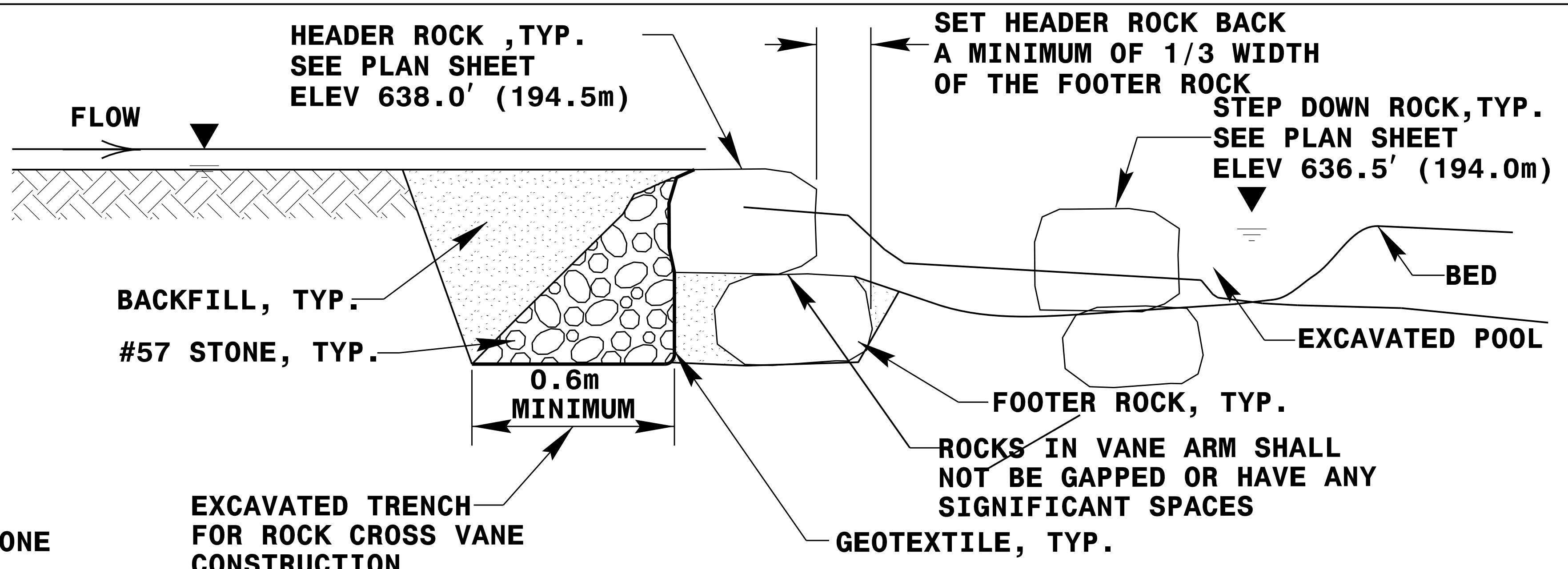


**PLAN VIEW**

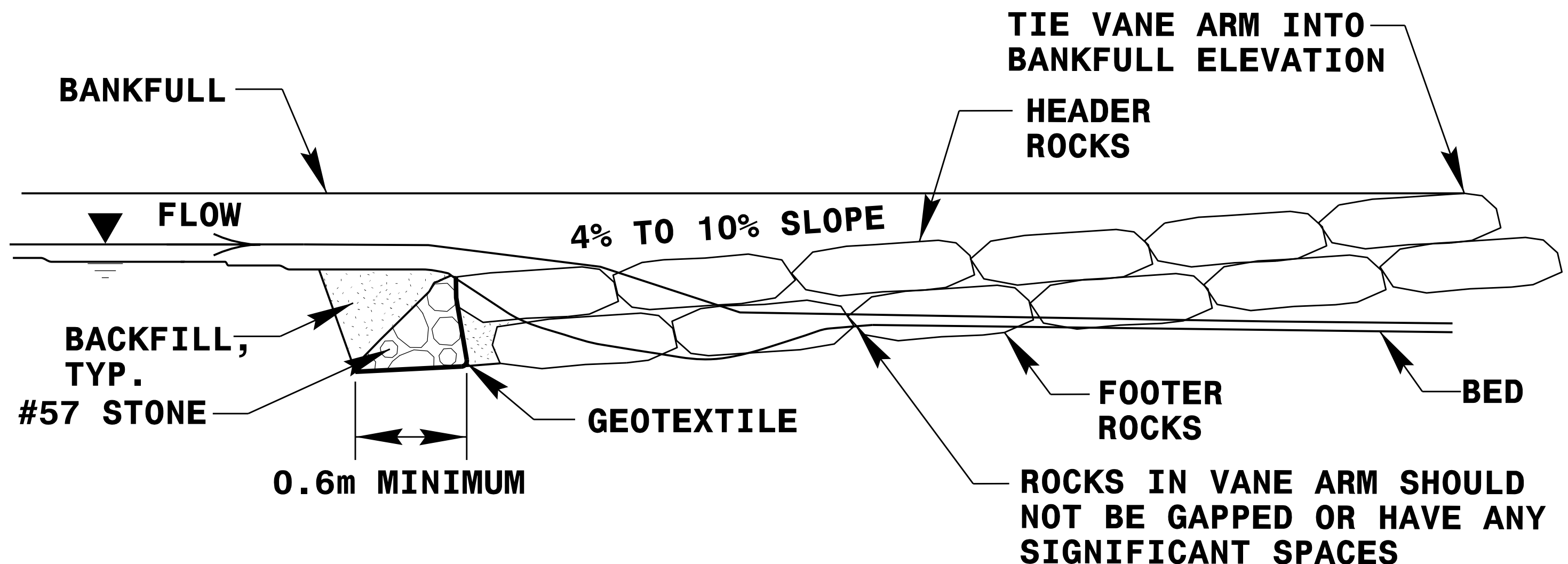
BOULDER DIMENSIONS			
SITE	HEIGHT	LENGTH	WIDTH
34+85 RT	4' (1.2m)	3' (0.9m)	2' (0.6m)

**ROCK A VANE DETAIL**

NOT TO SCALE



**SECTION A-A**



**SECTION B-B**

- 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 BANKFULL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.
  5. POOL DEPTH SHOULD BE 2 TO 3 TIMES BANKFULL DEPTH.