



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

August 2, 2012

MEMORANDUM TO: Mr. Richard Hancock, PE  
Division 8 Engineer

FROM: Philip S. Harris, P.E., Section Head  
Natural Environment Section  
Project Development and Environmental Analysis Unit

SUBJECT: Lee County, US 421-NC 87, Sanford Bypass from west of SR  
1400 to west of US 1-15-501; Federal Aid Project STPNHF-  
421(2); WBS 34431.1.1; **TIP R-2417AA**

Attached are the modifications to the U.S. Army Corps of Engineers Section 404 Individual Permit and the NC DWQ Section 401 Certification. All environmental permits have been received for this project.

A copy of this permit package will be posted on the NCDOT website at:  
<http://www.ncdot.gov/doh/preconstruct/pe/neu/permit.html>

Cc: w/o attachment (see website for attachments):

Mr. Art King, Division Environmental Officer  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Jay Bennett, P.E., Roadway Design Unit  
Mr. Mark Staley, Roadside Environmental Unit  
Mr. Jay McInnis, P.E., PDEA Planning Engineer



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A handwritten signature in black ink, appearing to read "E. S. Harris".

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Mr. Mark Staley, Roadside Environmental Unit  
Mr. Art McMillan, P.E., Hydraulics

## PROJECT COMMITMENTS

US 421-NC 87  
Sanford Bypass  
US 421/NC 87 (Sanford Bypass)  
from west of SR 1400 to west of US 1-15-501 (R-2417AA)  
Lee County  
Federal-Aid Project STPNHF-421(2)  
WBS Element 34431.1.1  
TIP Project R-2417AA

Current status, changes or additions to the project commitments as shown in the environmental document for the project are printed in *italics*.

### **Commitments Developed Through Project Development and Design**

#### **Roadside Environmental Unit**

NCDOT best management practices for protection of surface waters will be followed during construction of this project to prevent siltation of nearby streams.

*This is a standard NCDOT procedure.*

High Quality Water (HQW) erosion control measures will be utilized for portions of the project west of SR 1415 in order to minimize the project's effect on streams located in the North Carolina Wildlife Resources Commission (NCWRC) proposed critical habitat for the Cape Fear Shiner (see Section V-A-4-a of the environmental assessment).

*This project commitment does not apply to R-2417C; this commitment will be implemented during construction of portions of the project west of SR 1415 (R-2417AA).*

#### **Structure Design Unit**

1.2 meter (4-foot) wide shoulders and 1,372 mm (54-inch) handrails are proposed on both sides of the proposed bridge carrying SR 1002 (Lower Moncure Road) over the proposed bypass. US Bike Route 1 and the Carolina Connection Bicycle Highway are both signed along SR 1002 at its crossing with the proposed bypass.

*This project commitment does not apply to R-2417C; the subject bridge is located on another portion of the proposed bypass (R-2417BA). The recommended shoulder width and handrail height have been included on design plans for that project.*

## **Hydraulics Unit/Structure Design Unit**

Required drainage for the proposed dual bridges over Big Buffalo Creek will be studied during the design phase of the project, and if practical and safe, deck drains for the proposed bridges will be designed not to discharge directly into the creek.

*This environmental commitment does not apply to R-2417C; the subject bridge is located on R-2417AA. This commitment will be implemented during final design for project R-2417AA.*

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

Archaeological field surveys will be conducted along the preferred alternative for the project prior to completion of the final environmental document.

*Archaeological field surveys within the preferred corridor for the project have been completed and a report documenting the results of these surveys was sent to the State Historic Preservation Office for review and comment. No archaeological sites potentially eligible for the National Register of Historic Places were found within the preferred corridor. In a letter dated December 5, 1997, the State Historic Preservation Office concurred that no additional archaeological work is required for this project.*

## **Project Development and Environmental Analysis Branch/Roadway Design Unit**

Noise barriers are likely at three potential locations. This determination is based on traffic noise studies performed to date for the proposed project. If during final design conditions substantially change, the abatement measures might not be provided. NCDOT will monitor new development in the vicinity of the proposed bypass until the date of the design public hearing. A final decision on the installation of noise abatement measures will be made upon completion of the public involvement process (see Section V-J-5 of the environmental assessment).

*The potential noise barrier locations are located along another section of the proposed bypass (TIP Project R-2417 AB). A noise barrier was recommended at one of the potential locations in the design noise report and was constructed.*

NCDOT will provide local governments with information regarding the location of the noise impact area for the proposed bypass (see Section V-J of the environmental assessment) for their use in land-use planning.

*Copies of the environmental assessment for this project were provided to local officials. This document contained information regarding the location of the noise impact area for the proposed bypass. In addition, design noise reports were prepared for other sections of the bypass (R-2417AA and R-2417AB). These reports were also provided to local officials.*

## **Roadway Design Unit/Design Services Unit**

Project construction will not involve the use of San-Lee Park property or result in noise impacts to the park (see Section V-C-4 of the environmental assessment).

*San-Lee Park is located along another section of the proposed bypass (R-2417BB). The property boundaries for San-Lee Park were incorrectly shown on the preliminary mapping for the project. A minor adjustment in the alignment for the bypass was made from what was shown at the design public hearing prior to right of way acquisition in order to avoid the park. The project will not involve the use of San-Lee Park property.*

## **Project Development and Environmental Analysis Branch/Roadway Design Unit**

NCDOT will coordinate with local officials as the proposed project progresses regarding the status of the county's greenway plan, and a possible greenway which might cross the proposed bypass within Section A. Currently, the county does not have an approved greenway plan.

*Lee County has not completed its greenway plan; however, two planned greenways will cross the proposed bypass along other projects (R-2417AA and R-2417BA). These greenways are located along Big Buffalo and Little Buffalo Creeks. NCDOT has coordinated with the City of Sanford regarding these proposed greenways. These greenways were planned following completion of environmental studies for the proposed bypass and were not addressed in the environmental document. NCDOT will continue to coordinate with the City as both projects progress.*

## **Commitments Developed Through 404/401 Permitting for R-2417AA**

In addition to the original special conditions, the following conditions shall be adhered to:

### **Natural Environment Unit**

#### **404 Condition:**

1. The permittee and current and subsequent property owners shall maintain the Sandy Creek, Blue Tract, and Deaton Mitigation sites in their natural conditions, as altered by in the mitigation plans, in perpetuity. Prohibited activities within the mitigation sites specifically include, but are not limited to: the construction or placement of roads, walkways, buildings, signs, or structures of any kind (i.e., billboards, interior fences, etc.); filling, grading, excavation, leveling, or any other earth moving activity or activity that may alter the drainage patterns on the property; the cutting, mowing, destruction, removal, or other damage of any vegetation; disposal or storage of any debris, trash, garbage, or other waste material; except as may be authorized by the mitigation plans, or subsequent modifications that are approved by the Corps of Engineers. In addition, the

permittee shall take no action, whether on or off the mitigation properties, which will adversely impact the wetlands or streams on the mitigation properties, except specifically authorized by this permit, or subsequent modifications that are approved by the Corps of Engineers.

401 Condition:

1. Compensatory mitigation for 1.59 acres of riverine wetlands and 1,314 linear feet of streams are required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands and streams through the North Carolina Ecosystem Enhancement Program (EEP). EEP has agreed to implement the mitigation for 1.58 acres of riverine wetlands and 1,130 linear feet of stream as per a letter dated May 4, 2009. DWQ is requiring mitigation for all riverine wetland impacts and all perennial stream impacts (exceeding 150 linear feet of impact per stream, including riprap bank stabilization). Therefore, prior to wetland and stream impacts, NCDOT must provide documentation demonstrating EEP's ability to provide the remaining mitigation which is required for this project (0.01 acres of wetland impact and 184 linear feet of stream impact).

*Action completed*

**Division 8**

404 Condition:

1. Special Condition ff shall be modified to read: "The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Wilmington Regulatory Field Office, prior to any work within jurisdictional waters and wetlands within Section R-2417AA to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall notify the Corps of Engineers Project Manager a minimum of thirty (30) days in advance of the scheduled meetings in order to provide that individual with ample opportunity to schedule and participate in the required meetings. One copy of the final half-size construction drawings shall be furnished to the Corps of Engineers Project Manager prior to the pre-construction meeting."

401 Conditions:

1. At Permit Site #1, a 24" culvert discharges to Patterson Creek at an approximate 90 degree angle. NCDOT is advised that if stream bank destabilization occurs as a result of this alignment, corrective actions to stabilize the stream will be required.
2. At Permit Site #2b, a ditch ties into Patterson Creek such that storm flows will be directed upstream once they exit the ditchline. NCDOT is advised that if the

stream destabilizes in this area due to backwater or other conditions caused by the ditchline alignment, corrective actions to stabilize the stream will be required.

3. At Permit Sites #4 and #7, ditches tie into the streams at an approximate 90 degree angle. NCDOT is advised that if stream bank destabilization occurs as a result of this alignment, corrective actions to stabilize the stream will be required.
4. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due to biological criteria exceedances, specifically Big Buffalo Creek, shall not discharge stormwater directly to surface waters. Stormwater shall be treated using appropriate best management practices (e.g., vegetated conveyances, constructed wetlands, detention ponds, etc.) prior to discharging to surface waters.

### **Hydraulics Unit/Division 8**

401 Condition for R-2417C and R-2417AA:

1. Placement of culverts and other structures in waters, streams and wetlands shall be below the elevation of the streambed by one (1) foot for all culverts with a diameter greater than 48 inches and 20 percent of the culvert diameter for culverts having a diameter of less than 48 inches, to allow for low flow passage of water and aquatic life. Design and placement of culverts and other structures, including temporary erosion control measures, shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWQ for guidance on how to proceed and to determine whether or not a modification to this certification will be required.

### **Commitments Developed Through 404/401 Permit Modifications for R-2417AA January 2012**

#### **Division 8**

At Permit Site 5, NCDOT will design and install a series of rock veins on the outlet end of the 54" RCP to create a natural stream profile and enhance aquatic organism passage. NCDOT will coordinate these efforts with the Division of Water Quality and provide "as-built" drawings when completed.

#### **Roadside Environmental/Division 8**

For the 517 linear feet of streams being impacted due to site dewatering activities and temporary crossings, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.

All flow diversion, dewatering and temporary stream crossing activities shall be conducted in accordance with the “Best Management Practices for Construction Maintenance Activities” manual dated August 2003.

**Commitments Developed Through 404/401 Permit Modifications for R-2417AA  
June 2012**

**Roadside Environmental/Division 8**

404 Conditions:

1. All flow diversion, dewatering, and temporary stream crossing activities shall be conducted in accordance with the “Best Management Practices for Construction Maintenance Activities” manual dated August 2003.
2. All temporary fill shall be removed and all waters of the United States shall be returned to pre-construction grade immediately upon completion of the work.

**Division 8**

404 Conditions:

1. All work authorized by this permit modification must be performed in strict compliance with the attached plans, which are part of the permit.

401 Conditions:

1. As-built drawings of the proposed action shall be submitted to the NC DWQ Transportation Permitting Unit within 30-days of the completion of the action.
2. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated April 10, 2002 and all other corresponding modifications still apply except where superseded by this certification.



REPLY TO  
ATTENTION OF:

Regulatory Division

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

June 19, 2012



Subject: Action ID No. 2008-20899, TIP No. R-2417, US 421-NC 87 Sanford Bypass, Lee County, North Carolina.

Dr. Gregory J. Thorpe, Ph.D.  
Environmental Management Director  
Project Development & Environmental Analysis  
1548 Mail Service Center  
Raleigh, N.C. 27699-1598

Dear Dr. Thorpe:

I am responding to your request dated June 15, 2012 for modification to the existing Department of the Army (DA) permit issued for the above referenced project on May 28, 2002.

The permit modification is proposed to include additional impacts that were not authorized by the May 28, 2002 Department of the Army permit. The project impacts proposed in the modification request include an additional 25 linear feet of stream impact for bank stabilization and 0.01 acre of temporary stream impacts for dewatering purposes.

I have determined that the proposed project modifications described above are minor and are not contrary to the public interest and therefore, the DA permit is hereby modified. It is understood that all conditions of the original permit and subsequent modifications remain applicable and that the expiration date is unchanged.

The permit modifications are as follows:

- 1. All flow diversion, dewatering and temporary stream crossing activities shall be conducted in accordance with the "Best Management Practices for Construction Maintenance Activities" manual, dated August 2003.**
- 2. All temporary fill shall be removed and all waters of the United States shall be returned to pre-construction grade immediately upon completion of the work.**
- 3. All work authorized by this permit modification must be performed in strict compliance with the attached plans, which are part of the permit.**

Should you have any questions, please contact Mr. Ronnie Smith, Wilmington Field Office, Regulatory Division, at telephone (910) 251-4829.

Sincerely



*for*

Steven A. Baker  
Colonel, U.S. Army  
District Commander

Copies Furnished w/ attachments:

Ms. Rachelle Beauregard  
North Carolina Department of Transportation  
Project Development and Analysis Branch  
1548 Mail Service Center  
Raleigh, NC 27699-1598

Mr. Richard Hancock, PE  
Division Engineer, Division 8  
North Carolina Department of Transportation  
902 North Sandhills Boulevard  
Aberdeen, NC 28315

Mr. Art King  
Division Engineer, Division 8  
North Carolina Department of Transportation  
902 North Sandhills Boulevard  
Aberdeen, NC 28315

Copies furnished w/out attachments:

Mr. Mason Herndon  
NCDENR-DWQ  
225 Green Street, Suite 214  
Fayetteville, NC 28301-5094

Mr. Travis W. Wilson  
NC Wildlife Resource Commission  
1142 I-85 Service Rd.  
Creedmoor, North Carolina 27522

Mr. Gary Jordan  
U.S. Fish and Wildlife Service  
Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

Mr. Chris Militcher  
NEPA Section  
U.S. Environmental Protection Agency - Region IV  
61 Forsyth Street  
Atlanta, Georgia 30303

Ms. Renee Gledhill-Early  
North Carolina Department of Cultural Resources  
4617 Mail Service Center  
Raleigh, North Carolina 27699

Electronic Copies Furnished  
CESAW-RG-L/Smith  
CESAW-RG-L/Beter  
CESAW-RG/McLendon

SAW 2008-20899

WBS: 34431.3.7 (R-2417AA)  
CONTRACT NO.: C202331

Procedure for repair of Streambank @ Buffalo Creek:

1. Place PCB (Portable Concrete Barrier) wrapped in filter fabric in existing stream channel to contain sediment and dewater site.
2. Remove sediment deposits within stream channel.
3. Excavate/Reshape existing streambank slope to allow for placement of Class 1 Rip Rap
4. Place Coir Fiber Material in excavated streambank section
5. Place Class 1 Rip Rap in area approx.. 2ft. thick.

Per attached map/plan sheets: Current disturbed area = 475.85 sq. ft.



" No See "

North Carolina Department of Environment and Natural Resources  
Division of Water Quality

Beverly Eaves Perdue  
Governor

Charles Wakild, P.E.  
Director

Dee Freeman  
Secretary

North Carolina Division of Water Quality  
Transportation Permitting Unit  
In-Field Minor 401 Water Quality Certification, Buffer Certification and Isolated Waters Permit  
Modification

Project Name / TIP Project No.: Sansard Bypass / R-2417AA Date: June 18, 2012  
DOT Division: 8 County: Lee DWQ Project No. / Permit Type: 00-1432 / Indiv.  
DOT Staff: Art King DWQ Staff: Mason Herndon  
ACE Staff: Bonnie Smith DWQ Regional Office: FRO

Modification Description:

Permit site 4 [-L- 52408 (LT/RT)] Place Class I  
rip rap for bank stabilization along 25 ft of  
Big Buffalo Creek to repair bank washout that  
occurred during a heavy rain event on May 14, 2012.

Modification Sketch:

" See attached drawing "

MH 6-18-12  
ack 6-18-12



This in-field modification is required for the following reason(s):

- The information contained in the application or presented in support thereof is incorrect in the following manner:

\_\_\_\_\_

- Conditions under which the original certification was issued have changed in the following manner:

Bank scour occurred where sediment basin discharged into creek during heavy rain event

This in-field modification is valid only if issued by an authorized agent of the NC Division of Water Quality, Transportation Permitting Unit<sup>1</sup>.

This in-field modification authorizes the NCDOT to

Place rip rap along 25 ft of creek for bank stabilization to repair bank scour.

in Lee County. The project shall be constructed as described in the Modification Description and Sketch on Page 1 of this document dated June 18, 2012 to improve/construct the section of R-2417 RA that extends from -L- 52+08 LT/RT to N/A. The approved design is that described in the modification Description and Modification Sketch on Page 1 of this document dated June 18, 2012. Any further changes to the original Water Quality Certification dated April 10, 2007 require a formal written modification request.

The description of the proposed action provides adequate assurance that the proposed action in the Cape Fear 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 or PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth. Should your project change, you are required to notify the DWQ 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. 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 Storm Water, Non-discharge and Water Supply watershed regulations. This Modification Approval shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Modification Approval:

1. As-built drawings of the proposed action shall be submitted to the NC DWQ Transportation Permitting Unit within 30-days of the completion of the action.
2. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated April 10, 2007 and all other corresponding modifications still apply except where superseded by this certification.

MH 6-18-12  
ACK 6-18-12

3. Additional Conditions:

N/A

Failure to construct the proposed action as described in the Modification Description and Sketch on Page 1 of this document and/or violations of any condition herein set forth may result in revocation of this modification approval and any condition herein set forth may result in revocation of this modification approval and may result in criminal and/or civil penalties. This modification approval shall become null and void unless the above conditions are made conditions of the federal 404 and/or Coastal Area Management Act Permit. If the Corps of Engineers requires a formal written modification to the 404 permit for the proposed action, the NC DWQ must require a formal written modification to the 401 WQC, and therefore, this in-field modification is invalid. If additional (wetland, stream, buffer) impacts for this project (now or in the future) exceed (one acre, 150 linear feet, or one-third of an acre/150 linear feet, respectively), or if mitigation is required above and beyond the current mitigation requirements for this project, this in-field modification is invalid and a formal written modification is required.

This in-field modification is effective upon the date the last party signs this document. This in-field modification is made upon mutual agreement between DOT and DWQ as indicated by the signatures below and is, therefore, not subject to appeal by either party. Appeals by third parties must be made within sixty (60) days of notification pursuant to the contested case provisions of the Administrative Procedure Act, N.C. Gen. Stat. §150B-23 et seq.

DWQ Staff Signature: Mason Handley

Date: June 18, 2012

\* DOT Staff Signature: Pat C. Ho

Date: 6-18-2012

Staff Signature: \_\_\_\_\_

Date: \_\_\_\_\_

<sup>1</sup> — An authorized agent of the Transportation Permitting Unit is defined as DWQ staff that are DOT-funded and review and issue 401 Water Quality Certifications for DOT projects. These staff include Central Office and Regional Office personnel.

OK 6-18-12

WBS: 34431.3.7 (R-2417AA)  
CONTRACT NO.: C202331

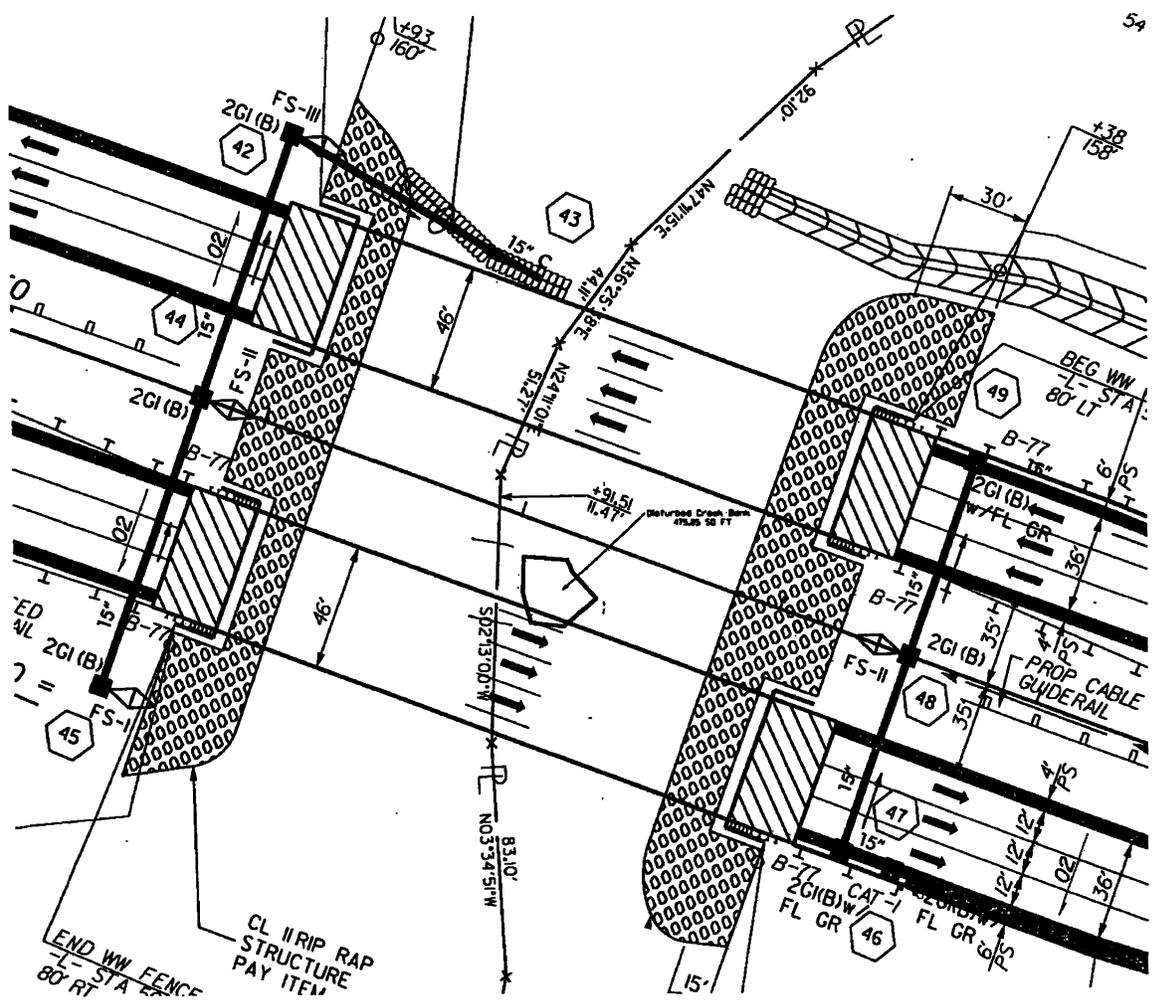
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5. Place Class 1 Rip Rap in area approx.. 2ft. thick.

Per attached map/plan sheets: Current disturbed area = 475.85 sq. ft.

*L = 25 FT*

*MA 6-18-12*  
*ACK 6-18-12*



MT 6-18-12  
 CLK 6-18-12

