



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

October 18, 2013

MEMORANDUM TO: Mr. Mike Mills, PE  
Division 7 Engineer

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

SUBJECT: Guilford County, Improvements to NC 68 from SR  
2111 to SR 4831; Federal Aid No. STP-0068(10);  
WBS No. 41877.1.1, **TIP W-5114.**

Please find attached the NCDWR (fka NCDWQ) General Permit for Isolated Wetlands and Waters for the above-referenced project. All environmental permits have been received for the construction of this project.

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

Cc:

Mr. Randy Garris, P.E. State Contract Officer  
Mr. Jerry Parker, Division Environ. Officer  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Jay Bennett, P.E., Roadway Design  
Mr. Art McMillan, P.E., Hydraulics  
Mr. Tom Koch, P.E., Structure Design  
Mr. Mark Staley, Roadside Environmental  
Mr. Ron Hancock, P.E., State Roadway Construction Engineer  
Mr. Eric Midkiff, P.E., PDEA Central Planning

MAILING ADDRESS:  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000  
FAX: 919-212-5785  
WEBSITE: NCDOT.GOV

LOCATION:  
CENTURY CENTER, BUILDING B  
1020 BIRCH RIDGE DRIVE  
RALEIGH NC 27610

## PROJECT COMMITMENTS

TIP Project No. W-5114  
NC 68 hazard elimination improvements from  
south of SR 2111 (East Harrell Rd.) to north of  
SR 4831 (Bartonshire Dr.)  
Guilford County  
Federal Aid Project No. STP-0068(10)  
WBS Element: 41877.1.1

### COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

#### Highway Division 7 Construction

- During construction, all materials resulting from clearing and grubbing, demolition or other operations will be removed from the project, burned or otherwise disposed of by the Contractor. Any burning done, will be done in accordance with applicable local laws and ordinances, and in accordance with the applicable regulations of the North Carolina SIP for air quality, in compliance with 15 NCAC 2D.0520. Care will be taken to insure burning will be done at the greatest distance practical from dwellings and not when atmospheric conditions are such as to create a hazard to the public. Burning will be performed under constant surveillance. Also during construction, measures will be taken to reduce the dust generated by construction, when the control of dust is necessary for the protection and comfort of motorists or area residents.
- If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream or river water.
- Sediment and erosion control measures, sufficient to protect water resources, must be implemented and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual* and the most recent version of NCS000250.
- Borrow/waste areas shall avoid wetlands to the maximum extent practical.
- Should construction activities encounter archaeological remains, or the suspicion of cultural deposits, the NCDOT Archaeology Group should be contacted as soon as possible for consultation.

#### Project Development and Environmental Analysis Unit, Roadway Design Unit, Highway Division 7 Construction

- The Haw River is subject to the Jordan Lake riparian buffer regulations; therefore *NCDOT Design Standards in Sensitive Watersheds* will be required for any project design, construction and maintenance performed within these riparian buffer zones
- Roadway design plans must provide treatment of storm water runoff through best management practices, as detailed in the most recent version of the *NCDWQ Stormwater Best Management Practices*.

## **COMMITMENTS FROM PERMITTING**

No special conditions were formulated during the permitting process.



STATE OF NORTH CAROLINA  
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PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

September 20, 2013

TO: File

FROM: Amy James, Environmental Specialist  
Natural Environment Section

SUBJECT: W-5114 Isolated and other non-404 jurisdictional wetlands and waters permit

The only impact on this project is to an isolated wetland, which is not considered waters of the U.S. by the U.S. Army Corps of Engineers. However, impacts to isolated wetlands are covered under the 'isolated and other non-404 jurisdictional wetlands and waters' permit issued by the N.C. Division of Water Resources (NCDWR). Under the current design, neither written notification to nor written concurrence from the NCDWR is required. The N.C. Department of Transportation (NCDOT) must comply with all conditions and descriptions in the attached permit drawings and state general permit. A permit modification may be required if any of the above conditions and descriptions cannot be met.

**MAILING ADDRESS:**  
N.C. DEPARTMENT OF TRANSPORTATION  
PDEA - NATURAL ENVIRONMENT SECTION  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1598

**TELEPHONE:** 919-707-6100

**FAX:** 919-212-5785

**WEBSITE:** [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**PHYSICAL ADDRESS:**  
CENTURY CENTER - BUILDING B  
1020 BIRCH RIDGE DR.  
RALEIGH, NC 27610-4328

STATE OF NORTH CAROLINA DEPARTMENT OF  
ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WATER QUALITY

STATE GENERAL PERMIT FOR IMPACTS TO ISOLATED AND  
OTHER NON-404 JURISDICTIONAL WETLANDS AND WATERS  
PERMIT NUMBER: IWGP100000

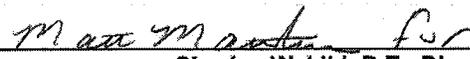
FOR PROJECTS IMPACTING LESS THAN OR EQUAL TO ONE (1) ACRE OF  
ISOLATED AND OTHER NON-404 WETLANDS, LESS THAN OR EQUAL TO THREE  
HUNDRED FEET (300) OF ISOLATED STREAMS AND/OR LESS THAN ONE-THIRD  
ACRE (1/3) OF ISOLATED SURFACE WATERS

In accordance with the provision of Article 21 of Chapter 143, General Statutes of North Carolina as amended and other lawful standards and regulations, including 15A NCAC 02H .1300 and 15A NCAC 02B .0200, promulgated and adopted by the North Carolina Environmental Management Commission.

Permission is hereby granted to all owners or operators of activities which impact isolated and other non-404 wetlands, isolated streams or other isolated waters in accordance with the conditions set forth in this General Permit.

This General Permit shall become effective on March 19, 2012.

This General Permit shall expire at midnight on March 18, 2017 or unless otherwise rescinded or until deemed appropriate by the Director of the NC Division of Water Quality (DWQ).

  
Charles Wakild, P.E., Director  
Division of Water Quality  
By the Authority of the  
NC Environmental Management Commission

## State General Permit No. IWGP100000

This General Permit is issued in conformity with the requirements of North Carolina Division of Water Quality (DWQ) Regulations in 15A NCAC 02H .1300 for the discharge of fill material to isolated and other non-404 wetlands and isolated waters of the State of North Carolina. This Permit may be rescinded when deemed appropriate by the Director of DWQ after appropriate public notice.

Public Notice requirement – A separate Public Notice and Individual Permit will be required for all projects which propose to impact greater than 300 linear feet of isolated streams, greater than one (1) acre of isolated and other non-404 wetlands, or greater than one-third (1/3) acre of other isolated waters in accordance with 15A NCAC 02H .1303. For impacts equal to or below these thresholds, this General Permit is applicable without additional Public Notice.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

**Activities meeting any one (1) of the following thresholds or circumstances require written approval from the Division of Water Quality (the "Division"):**

- a) Any impacts to isolated streams involving excavation or dredging; or
- b) Any stream relocation; or
- c) Any impacts to isolated streams and/or buffers in the Neuse, Tar-Pamlico, or Catawba River Basins or in the Randleman, Jordan or Goose Creek Watersheds (or any other basin or watershed with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) *unless* the activities are listed as "EXEMPT" from these rules or a Buffer Authorization Certificate is issued through N.C. Division of Coastal Management (DCM) delegation for "ALLOWABLE" activities; or
- d) Total isolated stream impacts within the project boundaries equal to or greater than 150 linear feet of intermittent and/or perennial stream, including temporary and/or permanent impacts; or
- e) Temporary or permanent impacts equal to or greater than one-tenth (1/10) acre of isolated and other non-404 wetlands or isolated lakes and ponds; or
- f) Any impacts to isolated and other non-404 wetlands adjacent to waters designated as: ORW, SA, WS-I, WS-II, or Trout, or isolated and other non-404 wetlands contiguous to waters designated as a North Carolina or National Wild and Scenic River; or
- g) Any impacts to isolated and other non-404 wetlands classified in accordance with 15A NCAC 02B .0101(e)(7) as Unique Wetlands (UWL); or  
Any impact associated with a high density project (as defined in Item (A)(iv) of the **401 Stormwater Requirements**) that is not subject to either a state stormwater program (such as, but not limited to, Coastal Counties, HQW, ORW or state-implemented Phase II NPDES) or a certified community's stormwater program; or
- h) Any impact associated with a Notice of Violation or an enforcement action for violation(s) of DWQ Wetland Rules (15A NCAC 02H .0500), Isolated Wetland Rules (15A NCAC 02H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 02B .0200).

In accordance with North Carolina General Statute 143-215.3D(e), any application for an Isolated Wetland General or Individual Permit must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted. This payment shall be the higher of the two fees.

**Activities included in this General Permit that do not meet one of the thresholds listed above do not require written approval from the Division of Water Quality as long as they comply with the Conditions of Permit listed below. If any of these Conditions cannot be met, then written approval from the Division is required.**

# State General Permit No. IWGP100000

## Conditions of Permit:

### 1. Totaling and Reporting of Impacts

Isolated Streams - Impacts to isolated streams as determined by the Division of Water Quality shall be measured as the length of the centerline of the normal flow channel. Permanent and/or temporary stream impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used (if any). Stream relocations and streambed and/or bank hardening are considered to be permanent stream impacts. Any activity that results in a loss of use of stream functions including but not limited to filling, relocating, flooding, excavation, dredging and complete shading shall be considered stream impacts.

Impacts to streams shall include streams enclosed by bottomless culverts, bottomless arches or other spanning structures unless the entire structure (including construction impacts) spans the entire bed and both banks of the stream, is only used for a road, driveway or path crossing, and is not mitered to follow the stream pattern. Impacts for dam footprints and flooding will count toward the threshold for stream impacts, but flooding upstream of the dam will not count towards mitigation requirements as long as no filling, excavation, relocation or other modification of the existing stream dimension, pattern or profile occurs. Any filling, excavation, relocation or other modification of the existing stream (other than flooding) must re-establish the same dimensions, patterns and profiles of the existing channel (or those of a stable reference reach if the existing channel is unstable)

Isolated Lakes and Ponds – Impacts to isolated waters other than streams and wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary water impacts shall be enumerated on the entire project for all impacts proposed regardless of which 404 Nationwide Permits are used (if any). Any activity that results in a loss of use of aquatic functions including but not limited to filling, draining, and dredging shall be considered waters impacts.

Isolated and Other Non-404 Wetlands - Impacts to isolated and other non-404 wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary wetland impacts shall be enumerated on the entire project for all impacts. Any activity that results in a loss of use of wetland functions including but not limited to filling, excavating, draining, and flooding shall be considered wetland impacts. Impacts to wetlands shall include activities that change the hydrology of a wetland.

### 2. No Impacts Beyond those Authorized in the Written Approval or Beyond the Threshold of Use of this Permit

No waste, spoil, solids, or fill of any kind shall occur in isolated and other non-404 wetlands, isolated waters, or isolated riparian areas beyond the footprint of the impacts depicted in the Pre-Construction Notification, as authorized in the written approval from the Division, or beyond the thresholds established for use of this Permit without written authorization, including incidental impacts. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur. Approved plans and specifications for this project are incorporated by reference and are enforceable parts of this permit.

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### 3. Standard Erosion and Sediment Control Practices

Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices and if applicable, comply with the specific conditions and requirements of the NPDES Construction Stormwater Permit issued to the site:

- a. Design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- b. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- c. Reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
- d. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
- e. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-I, WS-II, High Quality (HQW), or Outstanding Resource (ORW) waters, then the sedimentation and erosion control designs must comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watersheds*.

### 4. No Sediment and Erosion Control Measures in Wetlands or Waters

Sediment and erosion control measures shall not be placed in wetlands or waters. Exceptions to this condition require application submittal to and written approval by the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, then design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands, stream beds, or banks, adjacent to or upstream and downstream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources (DLR) or locally delegated program has released the specific area within the project.

### 5. Construction Stormwater Permit NCG010000

An NPDES Construction Stormwater Permit is required for construction projects that disturb one (1) or more acres of land. This Permit allows stormwater to be discharged during land disturbing construction activities as stipulated in the conditions of the permit. If your project is covered by this permit, full compliance with permit conditions including the erosion & sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required. A copy of the general permit (NCG010000), inspection log sheets, and other information may be found at <http://portal.ncdenr.org/web/wq/ws/su/npdessw#tab-w>.

The North Carolina Department of Transportation (NCDOT) shall be required to be in full compliance with the conditions related to construction activities within the most recent version of their individual NPDES (NCS000250) stormwater permit.

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### 6. Construction Moratoriums and Coordination

If activities must occur during periods of high biological activity (i.e. sea turtle nesting, fish spawning, or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities.

All moratoriums on construction activities established by the NC Wildlife Resources Commission (WRC), US Fish and Wildlife Service (USFWS), NC Division of Marine Fisheries (DMF), or National Marine Fisheries Service (NMFS) to lessen impacts on trout, anadromous fish, larval/post-larval fishes and crustaceans, or other aquatic species of concern shall be implemented. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium.

Work within the twenty-five (25) designated trout counties or identified state or federal endangered or threatened species habitat shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.

### 7. Work in the Dry

All work in or adjacent to stream waters shall be conducted so that the flowing stream does not come in contact with the disturbed area. Approved best management practices from the most current version of the NC Sediment and Erosion Control Manual, or the NC DOT Construction and Maintenance Activities Manual, such as sandbags, rock berms, cofferdams, and other diversion structures shall be used to minimize excavation in flowing water. Exceptions to this condition require application submittal to and written approval by the Division.

### 8. Riparian Area Protection (Buffer) Rules

Activities located in the protected riparian areas (whether jurisdictional wetlands or not), within the Neuse, Tar-Pamlico, or Catawba River Basins or in the Randleman, Jordan, or Goose Creek Watersheds (or any other basin or watershed with buffer rules) shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 02B .0233, .0259, .0243, .0250, .0267 and .0605, and shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices. All buffer rule requirements, including diffuse flow requirements, must be met.

9. If concrete is used during the construction, then all necessary measures shall be taken to prevent direct contact between uncured or curing concrete and waters of the state. Water that inadvertently contacts uncured concrete shall not be discharged to waters of the state due to the potential for elevated pH and possible aquatic life/ fish kills.

### 10. Compensatory Mitigation

In accordance with 15A NCAC 02H .1305 (c) & (d), compensatory mitigation may be required for losses of equal to or greater than 150 linear feet of streams (intermittent and perennial) and/or equal to or greater than one (1) acre of total wetland impacts, including all impacts to 404 and non-404 wetlands (see examples in "**Attachment B**" at the end of this Permit). If collective wetland impacts, including 404 and non-404 wetlands, are equal to or greater than one (1) acre, compensatory mitigation is required. If the project requires a mitigation plan, but is otherwise below the written approval thresholds described above, the applicant may provide a courtesy copy of the Pre-Construction Notification along with a copy of the mitigation plan. For linear, public transportation projects, impacts equal to or exceeding 150 linear feet per stream shall require mitigation.

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Buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "Allowable with Mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules.

A determination of buffer, wetland and stream mitigation requirements shall be made for any General Permit. Design and monitoring protocols shall follow the US Army Corps of Engineers Wilmington District *Stream Mitigation Guidelines* (April 2003), or its subsequent updates. Compensatory mitigation plans shall be submitted for written Division approval as required in those protocols. The mitigation plan must be implemented and/or constructed before any impacts occur on site. Alternatively, the Division will accept payment into an in-lieu fee program or a mitigation bank. In these cases, proof of payment shall be provided to the Division before any impacts occur on site.

11. Relocated stream designs should include the same dimensions, patterns, and profiles as the existing channel (or a stable reference reach if the existing channel is unstable), to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30-foot wide wooded and an adjacent 20-foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating appropriate erosion control matting materials and seedling establishment is allowable, however matting that incorporates plastic mesh and/or plastic twine shall not be used in wetlands, riparian buffers or floodplains as recommended by the North Carolina Sediment and Erosion Control Manual. Rip-rap, A-Jacks, concrete, gabions or other hard structures may be allowed if it is necessary to maintain the physical integrity of the stream; however, the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage. Please note that if the stream relocation is conducted as a stream restoration as defined in the US Army Corps of Engineers Wilmington District, April 2003 *Stream Mitigation Guidelines* (or its subsequent updates), the restored length may be used as compensatory mitigation for the impacts resulting from the relocation.

### 12. Stormwater Management Plan Requirements

All applications shall address stormwater management throughout the entire project area per the 401 Stormwater Requirements, referenced herein as "**Attachment A**" at the end of this Permit.

13. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*. Exceptions to this condition require written approval by the Division.

### 14. Placement of Culverts and Other Structures in Waters and Wetlands

Culverts required for this project shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert.

Placement of culverts and other structures in waters and streams must be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than or equal to 48 inches, to allow low flow passage of water and aquatic life.

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When topographic constraints indicate culvert slopes of greater than 5%, culvert burial is not required, provided that all alternative options for flattening the slope have been investigated and aquatic life movement/ connectivity has been provided when possible (rock ladders, crossvanes, etc). Notification to the Division including supporting documentation to include a location map of the culvert, culvert profile drawings, and slope calculations shall be provided to the Division 60 days prior to the installation of the culvert.

When bedrock is present in culvert locations, culvert burial is not required provided that there is sufficient documentation of the presence of bedrock. Notification to the Division including supporting documentation such as, but not limited to, a location map of the culvert, geotechnical reports, photographs, etc shall be provided to the Division a minimum of 60 days prior to the installation of the culvert. If bedrock is discovered during construction, then the Division shall be notified by phone or email within 24 hours of discovery.

If other site-specific topographic constraints preclude the ability to bury the culverts as described above and/or it can be demonstrated that burying the culvert would result in destabilization of the channel, then exceptions to this condition require application submittal to, and written approval by, the Division of Water Quality, regardless of the total impacts to streams or wetlands from the project.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. Additionally, when roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native, woody vegetation and other soft stream bank stabilization techniques must be used where practicable instead of riprap or other bank hardening methods.

15. If this General Permit is used to access building sites, then all lots owned by the applicant must be buildable without additional impacts to streams or wetlands. The applicant is required to provide evidence that the lots are buildable without requiring additional impacts to wetlands, waters, or buffers if required to do so in writing by the Division. For road construction purposes, this Permit shall only be utilized from natural high ground to natural high ground.
16. Deed notifications or similar mechanisms shall be placed on all retained jurisdictional wetlands, waters, and protective buffers within the project boundaries in order to assure compliance for future wetland, water, and buffer impact. These mechanisms shall be put in place at the time of recording of the property or of individual lots, whichever is appropriate. A sample deed notification can be downloaded from the Division's web site at <http://portal.ncdenr.org/web/wq/swp/ws/401/certsandpermits/apply/forms>. The text of the sample deed notification may be modified as appropriate to suit to a specific project. Documentation of deed notifications shall be provided to the Division upon request.
17. If an environmental document is required under the National or State Environmental Policy Act (NEPA or SEPA), then this General Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse.
18. In the twenty (20) coastal counties, the appropriate DWQ Regional Office must be contacted to determine if Coastal Stormwater Regulations will be required.

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19. This General Certification does not relieve the applicant of the responsibility to obtain all other required Federal, State, or Local approvals.
20. The applicant/permittee and their authorized agents shall conduct all activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act), and any other appropriate requirements of State and Federal Law. If the Division determines that such standards or laws are not being met, including failure to sustain a designated or achieved use, or that State or Federal law is being violated, or that further conditions are necessary to assure compliance, then the Division may reevaluate and modify this General Water Quality Certification.
21. When written authorization is required for use of this certification, upon completion of all permitted impacts included within the approval and any subsequent modifications, the applicant shall be required to return the certificate of completion attached to the approval. One copy of the certificate shall be sent to the DWQ Central Office in Raleigh at 1650 Mail Service Center, Raleigh, NC, 27699-1650.
22. Additional site-specific conditions, including monitoring and/or modeling requirements, may be added to the written approval letter for projects proposed under this Water Quality Certification in order to ensure compliance with all applicable water quality and effluent standards.
23. This certification grants permission to the director, an authorized representative of the Director, or DENR staff, upon the presentation of proper credentials, to enter the property during normal business hours.

This General Permit shall expire five (5) years from the date of issuance of the written letter from the Division. The conditions in effect on the date of issuance of Certification for a specific project shall remain in effect for the life of the project, regardless of the expiration date of this Permit.

Non-compliance with or violation of the conditions herein set forth by a specific project may result in revocation of this General Certification for the project and may also result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for Individual Permit for any project in this category of activity if it is determined that the project is likely to have a significant adverse effect upon water quality, including state or federally listed endangered or threatened aquatic species, or degrade the waters so that existing uses of the wetland or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

*History Note:* This Isolated Wetlands General Permit replaces the Isolated Wetlands General Permit (IWGP100000) issued on October 31, 2008 and October 3, 2003. This General Permit is rescinded five (5) years from the effective date or unless otherwise rescinded or until deemed appropriate by the Director of the Division of Water Quality.

# State General Permit No. IWGP100000

## Attachment A: 401 Stormwater Requirements

The requirements listed below shall be implemented in order to comply with Condition 12 of this General Permit. For the North Carolina Department of Transportation, compliance with NCDOT's Individual NPDES permit NCS000250 shall serve to satisfy the 401 and Isolated Wetland Stormwater Requirements.<sup>1</sup>

- A. **Design and Implementation Requirements.** All projects, regardless of project area, amount of built-upon area or amount of jurisdictional impact, shall meet the following stormwater design requirements:
- i. **Non-Erosive Discharge to Streams and Wetlands.** Stormwater conveyances that discharge to streams and wetlands must discharge at a non-erosive velocity prior to entering the stream or wetland during the peak flow from the ten-year storm.<sup>2</sup>
  - ii. **Vegetated Setbacks.** A 30-foot wide vegetated setback must be maintained adjacent to streams, rivers and tidal waters in areas that are not subject to a state Riparian Area Protection Rule or other more stringent vegetated setback requirements. The width of the setback shall be measured horizontally from the normal pool elevation of impounded structures, the top-of-bank of streams and rivers, and the mean high waterline of tidal waters, perpendicular to shoreline. Vegetated setback and filters required by state rules or local governments may be met concurrently with this requirement and may contain coastal, isolated or 404 jurisdictional wetlands. Non-jurisdictional portions of the vegetated setback may be cleared and graded, but must be planted with and maintained in grass or other vegetative or plant material.<sup>3</sup>
  - iii. **Construction and Operation.** The stormwater management plan must be constructed and operational before any permanent building or other structure is occupied or utilized at the site. The stormwater management plan, including drainage patterns, must be maintained in perpetuity.<sup>4</sup>
  - iv. **Coordination with Other Stormwater Programs.** Projects that are subject to another Division of Water Quality (DWQ) stormwater program, including (but not limited to) the 20 Coastal Counties, HQW, ORW or state-implemented Phase II NPDES, or a Certified Community's stormwater management program, must be constructed and maintained in compliance with the approved stormwater management plan.<sup>5</sup>
  - v. **Stormwater Design Requirements for Projects Not Covered Under Item (iv).** Projects that are not subject to another DWQ stormwater program or a Certified Community's stormwater program shall meet all of the following requirements:
    - a. **Low Density.** A site is low density if all the following requirements are met:
      1. The development has a built upon area of twenty-four percent (24%) or less, considering both current and future development. When determining the amount of built upon area, coastal wetlands shall be included; however, ponds, lakes and rivers as specified in North Carolina's Schedule of Classifications shall be excluded. If a portion of project has a density greater than 24%, the higher density area must be located in an upland area and away from surface waters and drainageways to the maximum extent practicable.<sup>6</sup>
      2. All stormwater runoff from the built upon areas is transported primarily via vegetated conveyances designed in accordance with the most recent version of the *NC DWQ Stormwater Best Management Practices Manual*. Alternative designs may be approved if the applicant can show that the design provides

## State General Permit No. IWGP100000

equal or better water quality protection than the practices specified in the manual. The project must not include a stormwater collection system (such as piped conveyances) as defined in 15A NCAC 02B .0202(60).<sup>7</sup>

- b. **High Density.** Projects that do not meet the Low Density requirements shall meet the following requirements:
1. Stormwater runoff from the entire site must be treated by structural stormwater controls (BMPs) that are designed to remove eighty-five percent (85%) of the average annual amount of Total Suspended Solids (TSS). Stormwater runoff that drains directly to Nutrient Sensitive Waters (NSW) must also be treated to remove thirty percent (30%) of Total Nitrogen (TN) and Total Phosphorus (TP).<sup>8</sup>
  2. All BMPs must be designed in accordance with the version of the *NC DWQ Stormwater Best Management Practices Manual* that is in place on the date of stormwater management plan submittal. Alternative designs may be approved if the applicant can show that the design provides equal or better water quality protection than the practices specified in the manual.<sup>9</sup>
  3. DWQ may add specific stormwater management requirements on a case-by-case basis in order to ensure that a proposed activity will not violate water quality standards.<sup>10</sup>
  4. DWQ may approve Low Impact Developments (LIDs) that meet the guidance set forth in the *Low Impact Development: A Guidebook for North Carolina*.<sup>11</sup>
  5. Proposed new development undertaken by a local government solely as a public road project shall follow the requirements of the NC DOT BMP Toolbox rather than Items (1)-(4) above.<sup>12</sup>

- B. **Submittal Requirements.** The submittal requirements listed below apply only to projects that require written authorization as indicated in the applicable General Certification as well as projects that require an Isolated Wetlands Permit. **Any required documentation shall be sent to the Wetlands, Buffers and Stormwater Compliance and Permitting Unit at 1650 Mail Service Center, Raleigh, NC 27699-1650.**
- i. **Projects that are Subject to Another DWQ Stormwater Program:** If the project is subject to another DWQ stormwater program, such as the 20 Coastal Counties, HQW, ORW or state-implemented Phase II NPDES, then the applicant shall submit a copy of the stormwater approval letter before any impacts occur on site.<sup>13</sup>
  - ii. **Projects that are Subject to a Certified Community's Stormwater Program.** If the project is subject to a certified local government's stormwater program, then the applicant shall submit one set of approved stormwater management plan details and calculations with documentation of the local government's approval before any impacts occur on site.<sup>5</sup>
  - iii. **Projects Not Covered Under Items (i) or (ii).** If the project is not subject to another DWQ Stormwater Program or a Certified Community's stormwater program, then it shall be reviewed and approved by the DWQ through the Water Quality Certification authorization process.
- a. **Low Density.** For low density projects, the applicant shall submit two copies of the DWQ Low Density Supplement Form with all required items.<sup>13</sup>

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- b. **High Density.** For high density projects, the applicant shall submit two copies of a DWQ BMP Supplement Form and all required items at the specified scales for each BMP that is proposed.<sup>13</sup>
- iv. **Phasing.** Stormwater management plans may be phased on a case-by-case basis, with the submittal of a final stormwater management plan per Items (i)-(iii) above required for the current phase and a conceptual stormwater management plan for the future phase(s). The stormwater management plan for each future phase must be approved by the appropriate entity before construction of that phase is commenced. The approved stormwater management plan for each future phase must be constructed and operational before any permanent building or other structure associated with that phase is occupied.<sup>14</sup>
- v. **Stormwater Management Plan Modifications.** The stormwater management plan may not be modified without prior written authorization from the entity that approved the plan. If the project is within a Certified Community, then the applicant shall submit one set of approved stormwater management plan details and calculations with documentation of the local government's approval for record-keeping purposes. If the project is subject to DWQ review, then the applicant shall submit two copies of the appropriate Supplement Forms per Item (iii) above for any BMPs that have been modified for DWQ's review and approval.<sup>15</sup>

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<sup>1</sup> The stormwater requirement for 401 applications is codified in 15A NCAC 02H .0506(b)(5) and (c)(5).

<sup>2</sup> Non erosive discharge rates are required in SL 2008-211§2(b)(1). The 10-year design storm standard is codified in 15A NCAC 02H .1008(f)(2) and .1008(g)(1).

<sup>3</sup> 30-foot vegetated setbacks are required in SL 2006-246§9(d), SL 2008-211§2(b), 15A NCAC 02H .1006(2)(c) and .1007(1)(a).

<sup>4</sup> Construction and maintenance of the stormwater plan is necessary to satisfy 15A NCAC 02H .0506(b)(5).

<sup>5</sup> Conveys application procedure to streamline the permitting process and reduce any unnecessary duplication in the review of stormwater management plans.

<sup>6</sup> Low density built upon area thresholds are set in SL 2006-246§9(c) and SL 2008-211§2(b).

<sup>7</sup> The requirement for low density development to use vegetated conveyances is codified in SL 2006-246§9(c), SL 2008-211§2(b), 15A NCAC 02H .1006(2)(b) and .1007(1)(a). The Stormwater BMP Manual is also referenced in 15A NCAC 02B .0265(3)(a) and .0277(4)(e).

<sup>8</sup> 85% TSS removal is required in SL 2006-246§9(d), SL 2008-211§2(b), 15A NCAC 02H .1006(2)(c), 15A NCAC 02H .1007(1)(a). The 30% TN and TP removal requirements for NSW waters are set forth in 15A NCAC 02B .0232, 15A NCAC 02B .0257(a)(1), 15A NCAC 02B .0265(3)(a) and 15A NCAC 02B .0277(4).

<sup>9</sup> The Stormwater BMP Manual is also referenced in 15A NCAC 02B .0265(3)(a) and .0277(4)(e).

<sup>10</sup> The requirement for DWQ to ensure that water quality standards are protected before issuing a 401 certification is codified in 15A NCAC 02H .0506.

<sup>11</sup> The LID Toolbox is also referenced in 15A NCAC 02B .0277(4)(g).

<sup>12</sup> The term "public road project" is defined in 15A NCAC 02B .0265(3)(a).

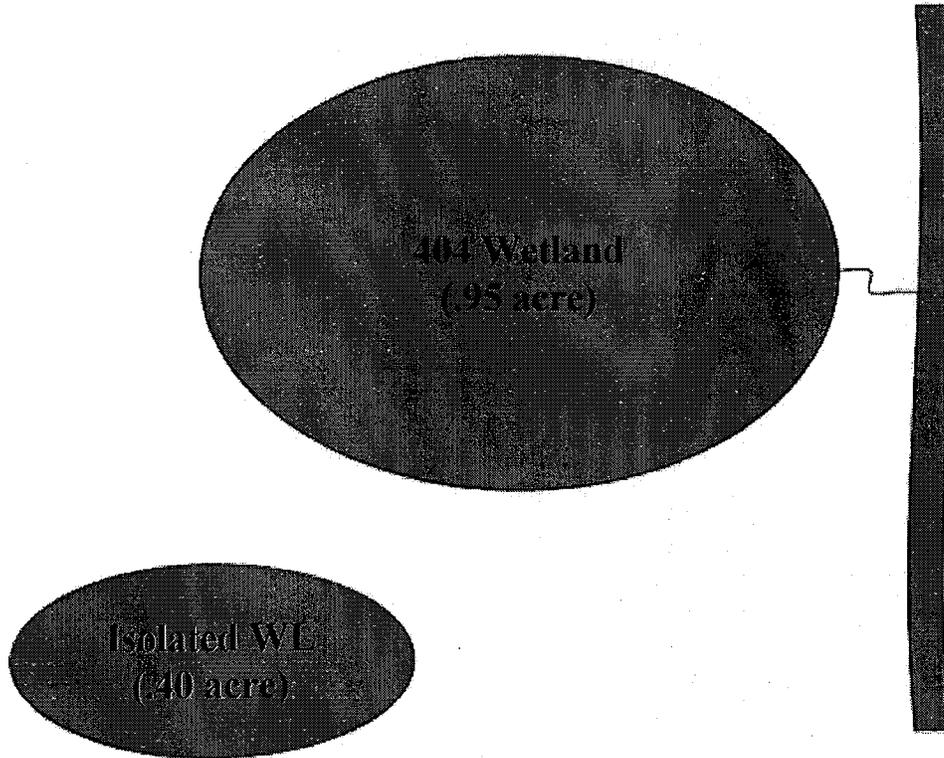
<sup>13</sup> Conveys application procedure to streamline the permitting process.

<sup>14</sup> Phased development is addressed as a "common plan of development" in 15A NCAC 02H .1003(3).

<sup>15</sup> Procedures for modifying stormwater plans are set forth in 15A NCAC 02H .1011.

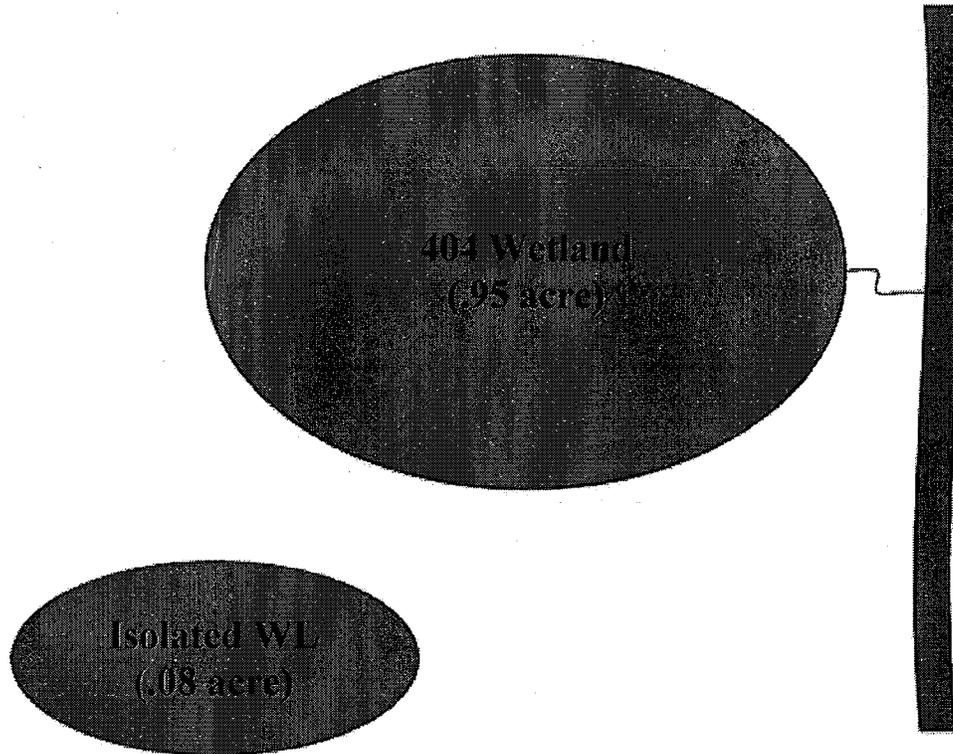
Attachment B

Example 1: Wetland Impacts and Compensatory Mitigation

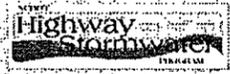


In this example, the applicant proposes to fill 0.95 acre of 404 wetlands and 0.40 acre of isolated wetlands. Since the Isolated impact is over the IWGP10000 threshold, written concurrence is required for the Isolated fill, in addition to the 404 fill. The applicant should note both impacts on the PCN and seek the Isolated General Permit AND the appropriate General Certification. Compensatory mitigation is required since total wetland impacts exceed one (1) acre.

**Example 2: Wetland Impacts and Compensatory Mitigation**

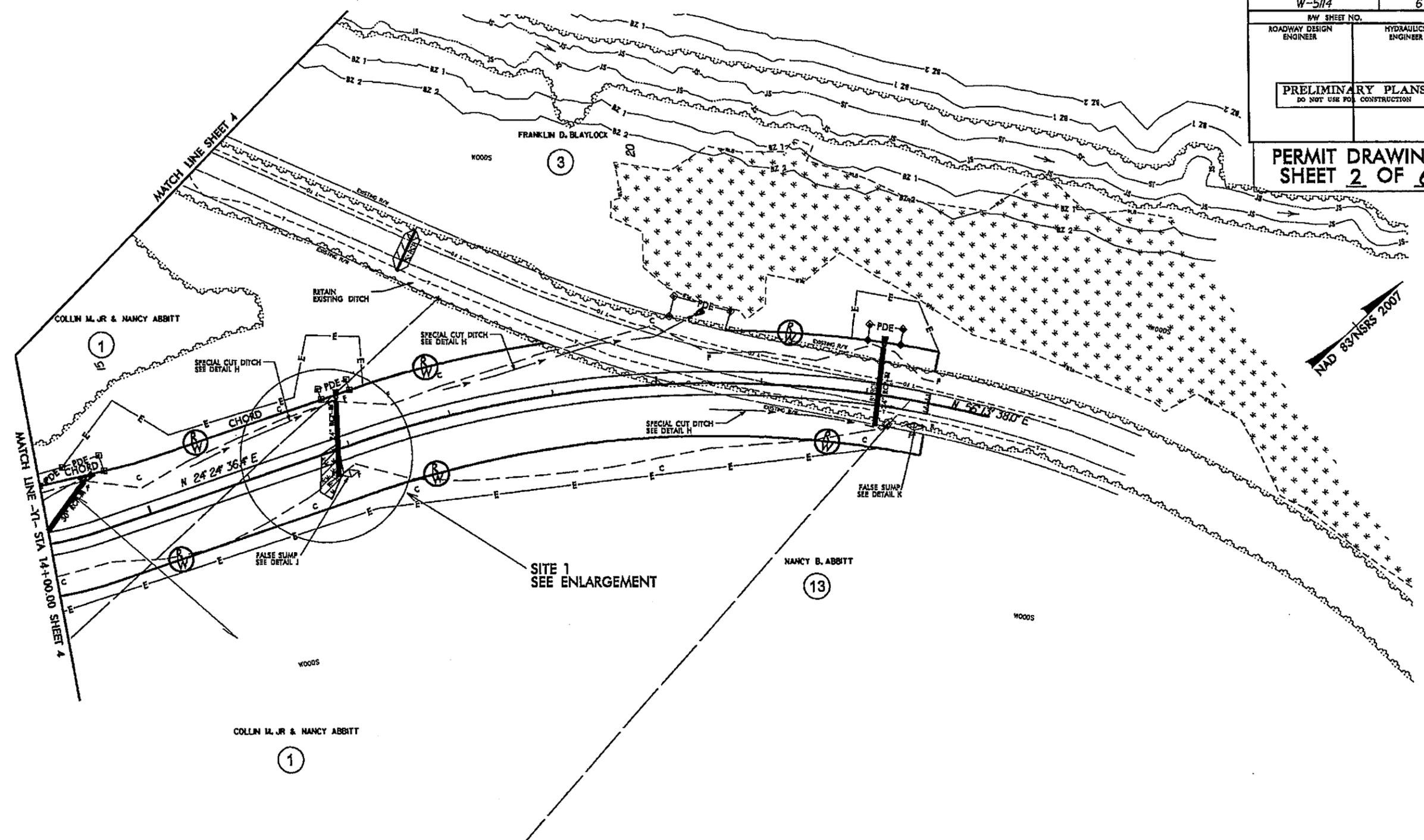


In this example, the applicant proposes to fill 0.95 acre of 404 wetlands and 0.08 acre of Isolated wetlands. Since the Isolated impact is under the IWGP100000 threshold, written concurrence is not required for the Isolated fill. However, this impact should be noted on the PCN submitted for written concurrence on the 404 wetland fill. Compensatory mitigation is required since total wetland impacts exceed one (1) acre.

		North Carolina Department of Transportation Highway Stormwater Program <b>STORMWATER MANAGEMENT PLAN</b> FOR LINEAR ROADWAY PROJECTS			
(Version 1.2; Released July 2012)				Page 1 of 1	
Project/TIP No.: 41877.1.1		County(ies): Guilford			
<b>General Project Information</b>					
Project No.:	41877.1.1		Project Type:	Roadway Widening (safety)	
NCDOT Contact:	Craig Freeman		Contractor / Designer:		
	Address:	NCDOT- Hydraulics Unit 1590 Mail Service Center Raleigh, NC 27699-1590		Address:	
	Phone:	919-707-6700		Phone:	
	Email:	cafreeman2@ncdot.gov		Email:	
City/Town:	Oak Ridge and Stokesdale		County(ies):	Guilford	
River Basin(s):	Cape Fear		CAMA County?	No	
Primary Receiving Water:	Haw River		NCDWQ Stream Index No.:	16-1(a)	
NCDWQ Surface Water Classification for Primary Receiving Water		Primary:	Class C		
		Supplemental:	Nutrient Sensitive Waters (NSW)		
Other Stream Classification:	None				
303(d) Impairments:	Biological impairment				
Buffer Rules in Effect	Subject-Jordan Lake				
<b>Project Description</b>					
Project Length (lin. Miles or feet):	0.485 mi.		Surrounding Land Use:	woods with some residential development	
	<b>Proposed Project</b>		<b>Existing Site</b>		
Project Built-Up Area (ac.)	ac.		ac.		
Typical Cross Section Description:	2 12' lanes with varying width center turn lane. 8' shoulders including 4' FDPS or 11' shoulders with guardrail				
Average Daily Traffic (veh/hr/day):	Design/Future: 2014/2034 16550/17550		Existing:		
General Project Narrative:	The proposed design was adjusted to be able to retain the existing 3 @ 10"x13" RCBC and eliminate stream impacts. The removal of 2 cross pipes are replaced with open ditches. There is one outfall near wetlands, -Y1- Sta. 20+50 +/-, which has non-erosive velocities(V10=2.3 fps). All other proposed drainage ties to existing outfalls. There are no outfalls to the Buffer Zones.				
<b>References</b>					



8/17/99



REVISIONS

-YI-

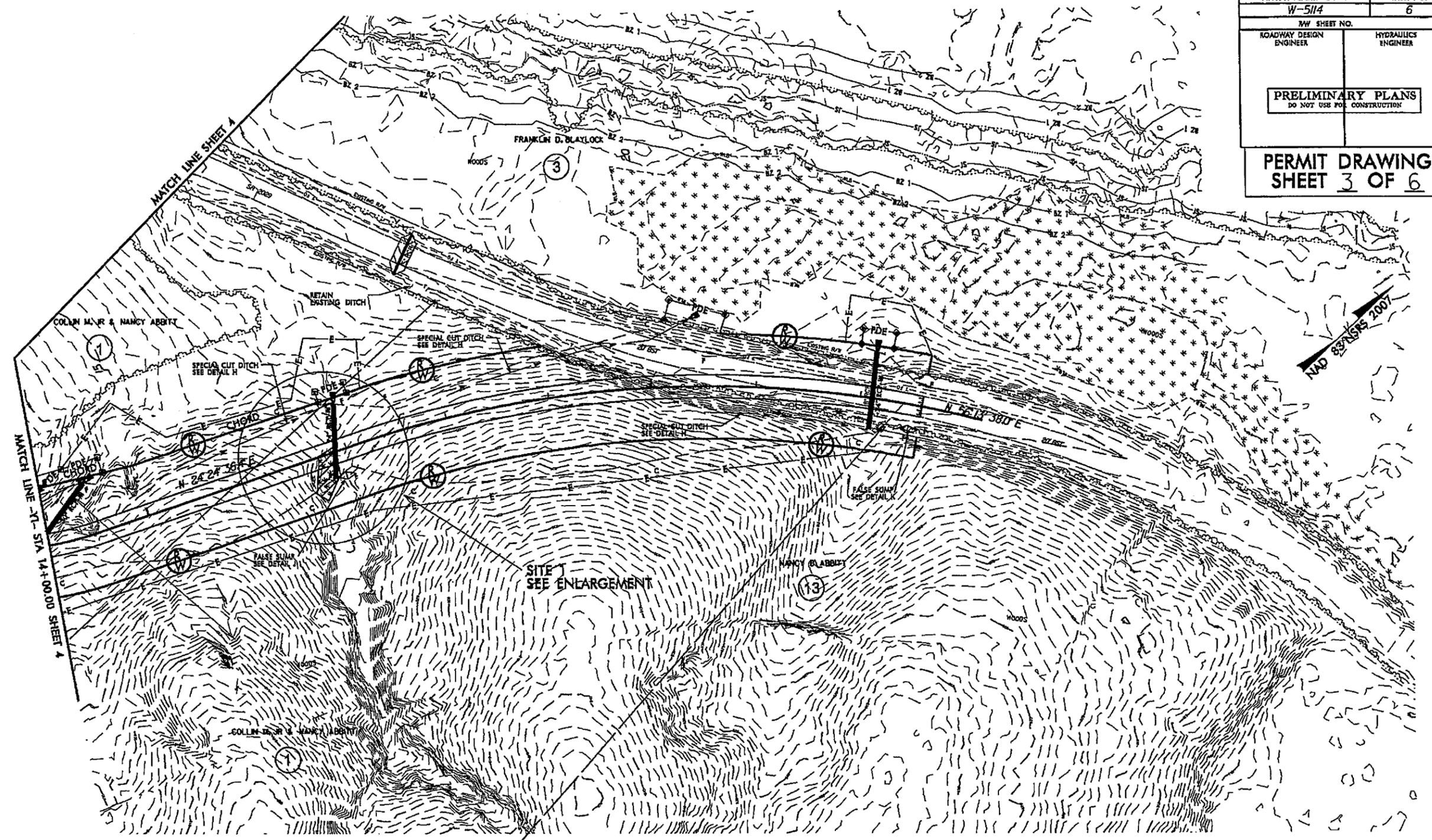
PI Sta 12+83.67	PI Sta 20+10.00
$\Delta = 63^{\circ} 55' 50.6''$ (LT)	$\Delta = 31^{\circ} 49' 01.6''$ (RT)
D = 16' 51' 06.1"	D = 5' 24' 18.9"
L = 379.37'	L = 588.63'
T = 212.17'	T = 302.12'
R = 340.00'	R = 1060.00'
SE = SEE PLANS	SE = SEE PLANS
RO = SEE PLANS	RO = SEE PLANS
DS = 35 mph	DS = 55 mph

DENOTES FILL IN WETLAND

8/17/99

REVISIONS

PROJECT REFERENCE NO. W-5114		SHEET NO. 6	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
<b>PERMIT DRAWING</b> SHEET 3 OF 6			



MATCH LINE -YI- STA 14+00.00 SHEET 4

MATCH LINE SHEET A

SITE 1  
SEE ENLARGEMENT

-YI-

PI Sta 12+83.67	PI Sta 20+10.00
$\Delta = 63^{\circ} 55' 50.6"$ (LT)	$\Delta = 31^{\circ} 49' 01.6"$ (RT)
D = 16' 51" 06.7	D = 5' 24" 18.9
L = 379.37'	L = 588.63'
T = 212.17'	T = 302.12'
R = 340.00'	R = 1060.00'
SE = SEE PLANS	SE = SEE PLANS
RO = SEE PLANS	RO = SEE PLANS
DS = 35 mph	DS = 55 mph

DENOTES FILL IN WETLAND

6-21-2013  
SJSYKES  
W5114\_Hyd\_prm\_wet\_con.dgn

PAVEMENT REMOVAL  
FOR -YI- PROFILE, SEE SHEET NO. 8





**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	YI 16+80	24" RCP	0.02									
<b>TOTALS:</b>			0.02									

**N.C.D.O.T.**  
 DIVISION OF HIGHWAYS  
 GULFORD COUNTY  
 PROJECT: 41877.1.1 (W-5114)  
 GRADING, PAVING AND DRAINAGE  
 ALONG NC 68 OVER  
 HAW RIVER

ATN Revised 3/31/05