



US Army Corps  
Of Engineers  
Wilmington District

# PUBLIC NOTICE

Issue Date: February 24, 2017  
Comment Deadline: March 26, 2017  
Corps Action ID Number: SAW-2017-00266

The Wilmington District, Corps of Engineers (Corps) has received an application from The City of Wilmington seeking Department of the Army authorization to place fill material within waters of the U.S. for the purpose of conducting a stream restoration and floodplain management project along Clear Run Branch, in the City of Wilmington, New Hanover County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at:

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>

**Applicant:** City of Wilmington  
Attn: Mr. Sterling Cheatham, City Manager  
Post Office Box 1810  
Wilmington, North Carolina 28402

**AGENT (if applicable):** Moffatt & Nichol  
Attn: Mr. Jason Doll  
4700 Falls of Neuse Road, Suite 300  
Raleigh, North Carolina 27609

## Authority

The Corps evaluates this application and decides whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of the following Statutory Authorities:

- Section 404 of the Clean Water Act (33 U.S.C. 1344)
- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

## **Location**

Directions to Site: From downtown Wilmington proceed east on Market Street, south on College Road, left on Oriole Drive and then right on College Acres Drive. The upstream section of the project area begins near College Acres Drive between Clear Run Drive and Carleton Drive.

Project Area (acres): approximately 27 acres

Nearest Town: Wilmington

Nearest Waterway: Clear Run Branch

River Basin: White Oak

Latitude and Longitude: 34.232N, -77.866W

## **Existing Site Conditions**

The project area begins approximately 200 feet upstream of the intersection of College Acres Drive and Clear Run Drive and runs downstream along Clear Run Branch to the project terminus near the intersection of Teal Street and Rill Road. The area upstream of the project area is comprised of dense commercial development that has been subject to substantial flooding along College Avenue and New Center Drive. Clear Run Branch drains into Bradley Creek, which flows into the Atlantic Intercostal Waterway (AIWW). The project area has been divided into four reaches consisting of the Headwater Reach, Upper Reach, Middle Reach and Lower Reach.

The Headwater Reach consists of the area approximately 200 feet upstream of the intersection of College Acres Drive and Clear Run Branch to approximately 250 feet below the intersection. This reach receives flow from the commercial area across College Drive and is laterally constrained by adjacent residential development and an existing sewer line.

The Upper Reach of the project area consists of the approximately 2,000 feet of stream downstream of the Headwater Reach and extends to just upstream of Myna Circle. This section of stream is bordered on the north by residential development and is a severely incised and unstable reach of Clear Run Branch that is unable to access the floodplain.

The Middle Reach consists of 1,000 to 1,500 feet beginning just upstream of Myna Circle and continuing downstream. This section of Clear Run Branch becomes reconnected to its floodplain. The Middle Reach contains sections of spoil piles adjacent to the stream channel.

The Lower Reach consists of the remaining 3,000 to 3,500 feet to the project terminus near the footbridge at Teal Street. The channel is moderately stable and is connected to an expansive floodplain.

## **Applicant's Stated Purpose**

The applicant states “The overall purpose and need of the project is to design and install a stable stream channel that can safely accommodate high flows from upstream development and alleviate flooding along the channel. The project intends to address a number of factors through implementation. First, the stream channel is very unstable and actively eroding. This both contributes sediment to downstream reaches of Bradley Creek and the erosion also threatens adjacent property and existing structures. Second, flooding is common at this location in the upper watershed notably along College Avenue and New Center Drive. A separate project is underway to enlarge the stormwater pipes in this area to carry more stormwater to alleviate the flooding but the channel in this reach will need to be designed to accommodate these higher flows. Third, road flooding presently occurs at College Acres Drive and Mallard Drive during large storms. This project will address this flooding by providing larger culverts under these roads.”

## **Project Description**

The project proposes to design and install a stable stream channel that can safely accommodate high flows from upstream development and alleviate flooding along the channel. The project proposes to culvert approximately 410 feet of stream channel, restore and enhance approximately 2,000 feet of stream channel and to restore 0.16 acres of Riverine Swamp Forest in order to address streambank instability and stream incision issues as well as localized flooding at two neighborhood roads.

Due to lateral constraints, specifically adjacent residences and an existing sewer line, and the presence of an unstable channel, the section of the system from approximately 200 feet upstream of College Acres Drive and approximately 210 feet downstream would be culverted. This culverted section would transition into a confined channel utilizing block wall or gabion structures to contain high energy flow leaving the culvert which would be followed by a section of boulder step pools to further reduce stream energy.

Activities within the upper reach would consist of the installation of step-pool sequencing using rock structures that will allow for energy dissipation from energy gradients coming from upstream. Downstream sections within the upper reach, which contain lower stream bed slopes will utilize woody structure to control hydraulic energy and to maintain a stable channel.

Within the middle reach several existing spoil piles deposited along the riparian corridor have restricted stream access to the floodplain. The project proposes to remove these spoil piles and to construct a new floodplain bench along portions of the stream. Disturbed areas will be revegetated with native vegetation.

Activities in the Lower Reach will consist of the replacement of an existing culvert at Mallard Drive. An increased culvert will allow for greater capacity and reduce flood risk

in the area upstream of the existing culvert. Additional invasive vegetation control and plantings with native vegetation will also occur.

### **Avoidance and Minimization**

The applicant states in the permit application that the project will be self-mitigating since the loss of 410 feet of low quality stream will be offset by approximately 2,000 linear feet of a stable channel that has restored access to its floodplain and approximately 500 feet of enhanced channel with increased floodplain capacity and restored wetland hydrology in approximately 0.16 acres of riparian wetlands that will be accomplished through the removal of relic spoil piles and replanting.

The applicant has also evaluated additional alternatives as required under Section 404(b)(1) of the Clean Water Act to ensure that the proposed project is the least environmentally damaging practicable alternative including the use of upstream stormwater detention areas and the use of spot stabilization throughout the channel.

### **Compensatory Mitigation**

The project proposes the permanent loss of waters of the U.S. associated with the installation of 410 feet of culvert. The applicant states that as the remainder of the project consists of the restoration and enhancement of 2,000 feet of stream channel and the restoration of approximately 0.16 acres of wetlands the project will be self-mitigating and they are therefore not proposing any additional compensatory mitigation.

### **Essential Fish Habitat**

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, this Public Notice initiates the Essential Fish Habitat (EFH) consultation requirements. The Corps' initial determination is that the proposed project would not effect EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

### **Cultural Resources**

Pursuant to Section 106 of the National Historic Preservation Act of 1966, Appendix C of 33 CFR Part 325, and the 2005 Revised Interim Guidance for Implementing Appendix C, the District Engineer consulted district files and records and the latest published version of the National Register of Historic Places and initially determines that:

- Should historic properties, or properties eligible for inclusion in the National Register, be present within the Corps' permit area; the proposed activity requiring

the DA permit (the undertaking) is a type of activity that will have no potential to cause an effect to an historic properties.

- No historic properties, nor properties eligible for inclusion in the National Register, are present within the Corps' permit area; therefore, there will be no historic properties affected. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Properties ineligible for inclusion in the National Register are present within the Corps' permit area; there will be no historic properties affected by the proposed work. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; however, the undertaking will have no adverse effect on these historic properties. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; moreover, the undertaking may have an adverse effect on these historic properties. The Corps subsequently initiates consultation with the SHPO (or THPO).
- The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

### **Endangered Species**

Pursuant to the Endangered Species Act of 1973, the Corps reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information:

- The Corps determines that the proposed project would not affect federally listed endangered or threatened species or their formally designated critical habitat.
- The Corps determines that the proposed project may affect, not likely to adversely affect federally listed endangered or threatened

species or their formally designated critical habitat. The Corps will conduct consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

- The Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. The Corps will make a final determination on the effects of the proposed project upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

### **Other Required Authorizations**

The Corps forwards this notice and all applicable application materials to the appropriate State agencies for review.

**North Carolina Division of Water Resources (NCDWR):** The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice, combined with the appropriate application fee, at the NCDWR Central Office in Raleigh constitutes initial receipt of an application for a 401 Certification. A waiver will be deemed to occur if the NCDWR fails to act on this request for certification within sixty days of receipt of a complete application. Additional information regarding the 401 Certification may be reviewed at the NCDWR Central Office, 401 and Buffer Permitting Unit, 512 North Salisbury Street, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for a 401 Certification should do so, in writing, by March 26, 2017:

NCDWR Central Office  
Attention: Ms. Karen Higgins, 401 and Buffer Permitting Unit  
(USPS mailing address): 1617 Mail Service Center, Raleigh, NC 27699-1617

Or,

(physical address): 512 North Salisbury Street, Raleigh, North Carolina 27604

### **North Carolina Division of Coastal Management (NCDCM):**

- The application did not include a certification that the proposed work complies with and would be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2 (b)(2) the Corps cannot issue a Department of Army (DA) permit for the proposed work until the applicant submits such a certification to the Corps and the NCDCM, and the NCDCM notifies the Corps that it concurs with the

applicant's consistency certification. As the application did not include the consistency certification, the Corps will request, upon receipt, concurrence or objection from the NCDCM.

- Based upon all available information, the Corps determines that this application for a Department of Army (DA) permit does not involve an activity which would affect the coastal zone, which is defined by the Coastal Zone Management (CZM) Act (16 U.S.C. § 1453).

## **Evaluation**

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

## **Commenting Information**

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidated State viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings

shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, March 26, 2017. Comments should be submitted to Kyle Dahl, Wilmington Regulatory Field Office, 69 Darlington Avenue, Wilmington, North Carolina 28403 , at (910) 251-4469.

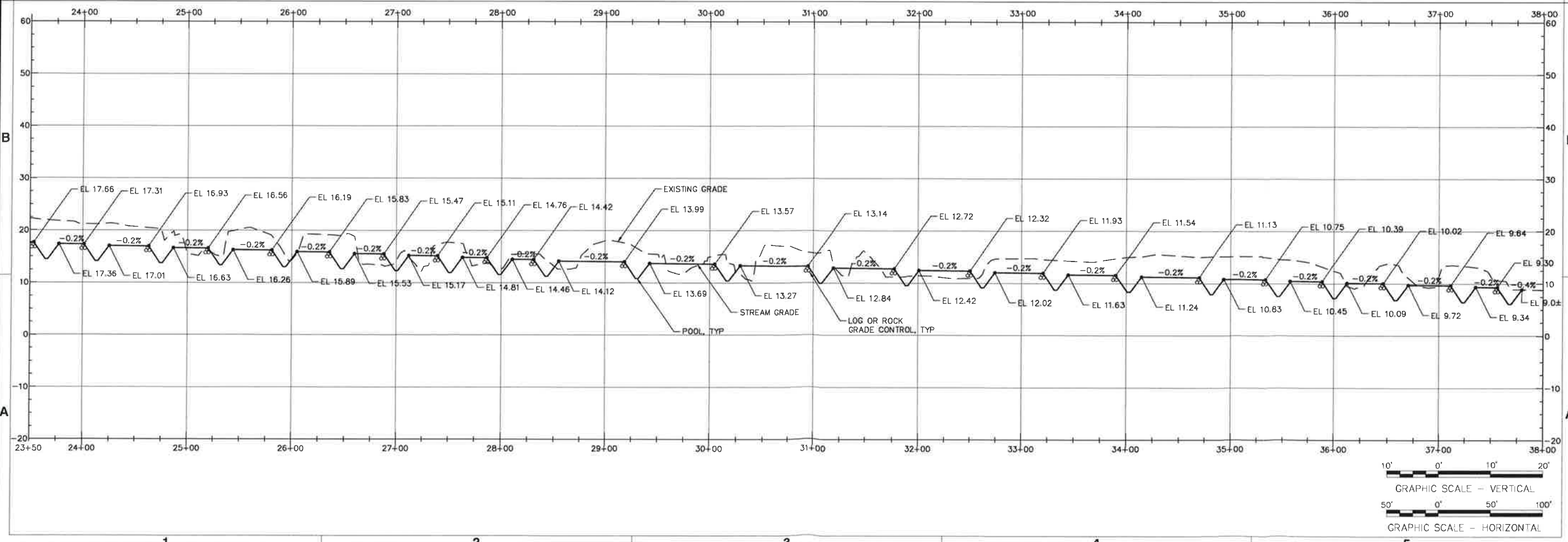
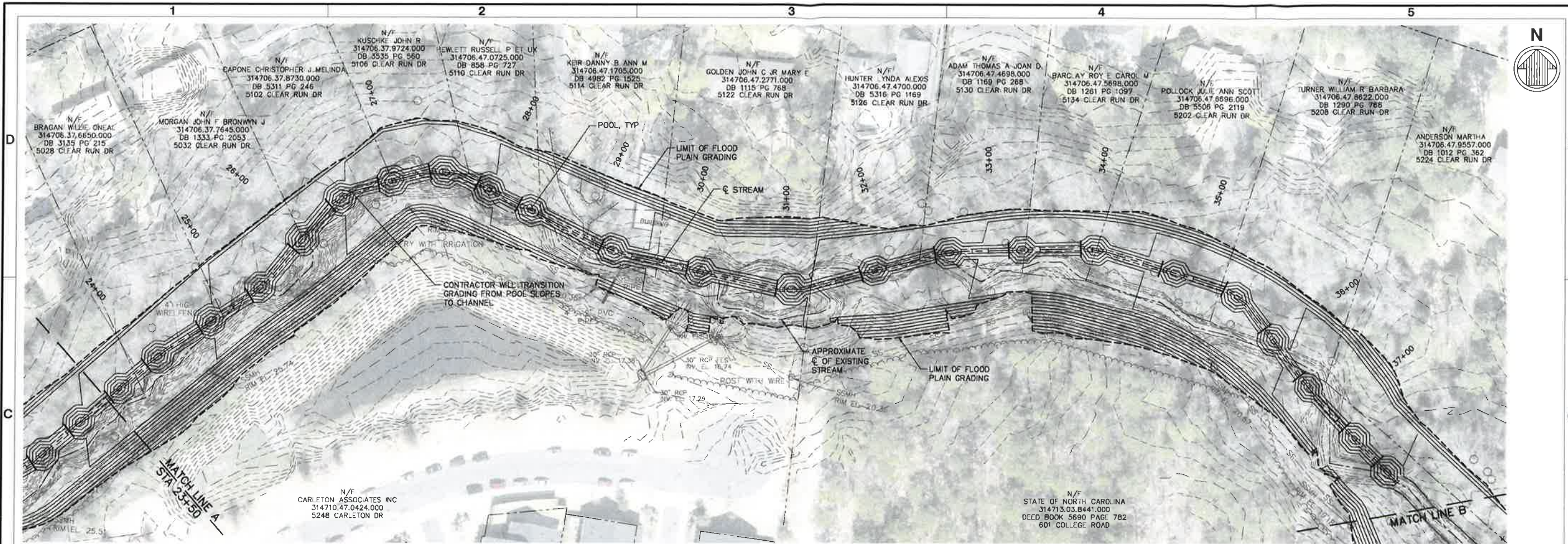


Figure 1: Clear Run Branch Stream Project Vicinity, Location, and Extent



**CLEAR RUN RESTORATION  
VICINITY MAP**  
Wilmington, North Carolina





Rev.	Date	By	Appr.

**CITY OF WILMINGTON  
CLEAR RUN  
STREAM RESTORATION  
PLAN AND PROFILE**

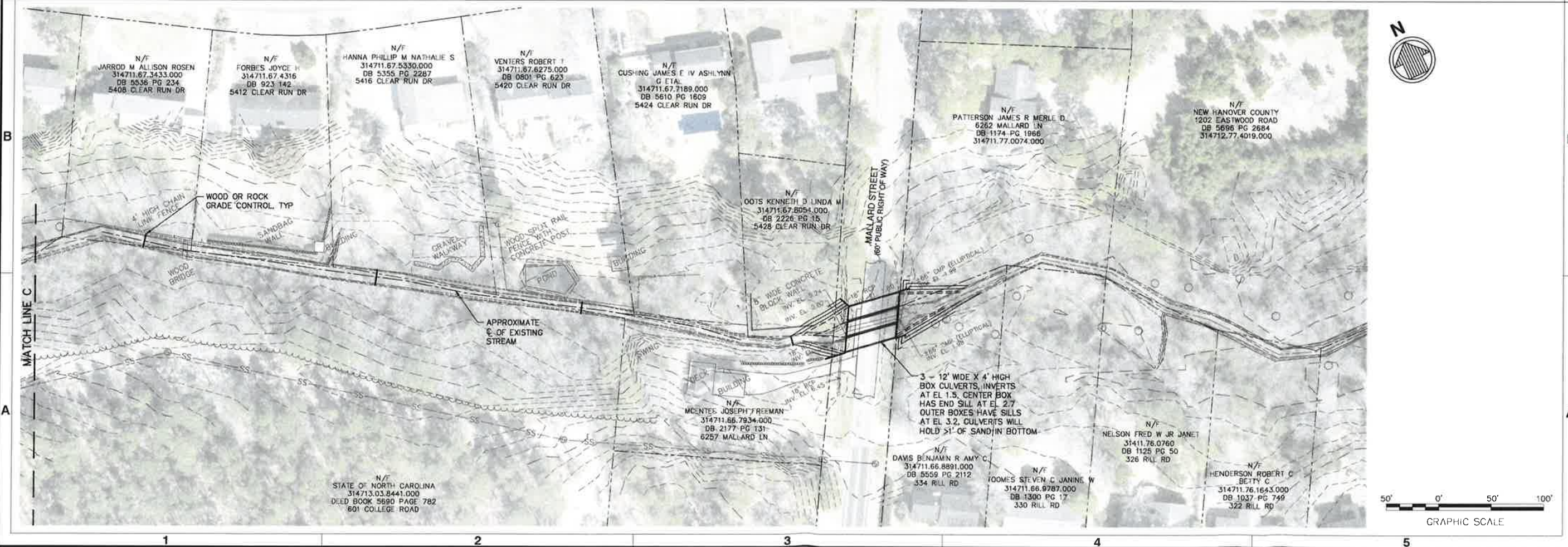
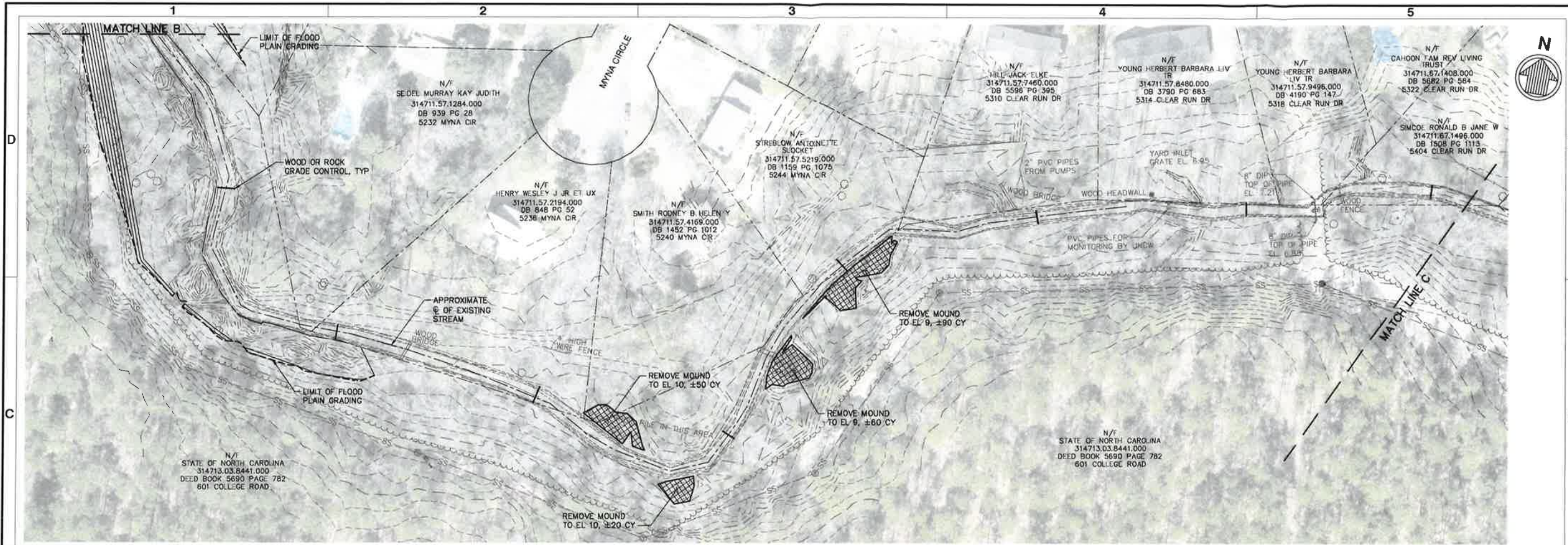
Designed by: SMITH	Drawn by: KOONS	Checked by: DOLL	Submitted by: MORTARI & NICHOL
Date: JANUARY 2017	MAN Project No: 8341	Opening: 50ft	Drawing Scale: NOTED
Plot Date:	Plot Scale:		

**moffatt & nichol**  
 1100 W. HILLSIDE DRIVE, SUITE 300  
 WILMINGTON, NC 27409  
 910.727.4228

SEAL

Sheet Reference Number:  
**P02**

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Mark	Description	Date	Appr.

CITY OF WILMINGTON  
**CLEAR RUN  
 STREAM RESTORATION**  
 PLAN

Designed by: SMITH	Date: JANUARY 2017
Drawn by: KOONS	Plan Project No: B34
Reviewed by: DOOL	Drawing Scale: NOTED
Submitted by: MOFFATT & NICHOI	Plot Scale:

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Sheet Reference Number:  
**P03**

