



**US Army Corps
Of Engineers**
Wilmington District

PUBLIC NOTICE

Issue Date: September 22, 2022
Comment Deadline: October 24, 2022
Corps Action ID Number: SAW- 2017-00322

The Wilmington District, Corps of Engineers (Corps) received information from the North Carolina Department of Transportation (NCDOT) regarding a potential future requirement for Department of the Army authorization to discharge dredged or fill material into waters of the United States, associated with improving the US 401 intersection with NC 55/NC 42 and the NC 55 intersection with NC 42. Also proposed is the construction of a connector road from NC 55 to Judd Parkway in Fuquay-Varina, Wake County, North Carolina. The project is identified in NCDOT's 2020-2029 State Transportation Improvement Program (STIP) as Project Number U-5751. Right of way is scheduled to begin in 2028. Construction is programmed for future years beyond the STIP horizon and is unfunded.

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:

<https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>

Applicant: North Carolina Department of Transportation (NCDOT)
Project Management Unit
Attn: Rachelle Beauregard
Project Manager
1582 Mail Service Center
Raleigh, North Carolina 27699-1582

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)

Public Meeting

NCDOT held a virtual public meeting to provide information and solicit comments about the proposed alternatives being considered for this project, on March 22, 2022. NCDOT has provided the Corps with all of the responses to the public meeting and comment period.

In order to more fully integrate Section 404 permit requirements with the National Environmental Policy Act of 1969, and to give careful consideration to our required public interest review and 404(b)(1) compliance determination, the Corps is soliciting public comment on the merits of this proposal and on the alternatives considered. At the close of this comment period, the District Commander will evaluate and consider the comments received, as well as the expected adverse and beneficial effects of the proposed road construction, to select the least environmentally damaging practicable alternative (LEDPA). The District Commander is not authorizing construction of the proposed project at this time. A final DA permit may be issued only after our review process is complete, impacts to the aquatic environment have been minimized to the maximum extent practicable, and a compensatory mitigation plan for unavoidable impacts has been approved.

Location

Location Description: The project improves approximately three miles in Fuquay-Varina, North Carolina in Wake County. The project includes the US 401 intersection with NC 55/NC 42 and NC 55 intersection with NC 42 and constructs a connector from NC 55 to Judd Parkway (State Road 5056). The study area boundary for this project encompasses the proposed transportation improvements (Figure 1).

Nearest Town: Fuquay-Varina

Nearest Waterway: Terrible Creek

River Basin: Neuse River (HUC 03020201)

Latitude/Longitude: West end: 35.6019 N, -78.8046 W; East end: 35.5905 N, -78.73805 W

Existing Site Conditions

Wake County is located within the Piedmont region of central North Carolina. The project begins at NC 42 and ends at NC 55 (North Broad Street). Towards NC 55, the project is within the Fuquay-Varina municipal limit with unincorporated areas primarily east of the Stewart Street/Judd Parkway intersection. The project area includes a mix of residential, commercial, and agricultural properties with some vacant lots that are heavily wooded or open land. Residential development is primarily subdivisions of single-family homes along the south side of Judd Parkway with commercial uses at the NC 55/Judd Parkway intersection and on US 401. South of the NC 55/NC 42 intersection, land uses consist of undeveloped or agricultural land interspersed with commercial uses.

Terrible Creek and its tributaries are the main waterway crossing through the project corridor on the north end of the project. Tributaries to Black Creek are found in the southern part of the project corridor.

Applicant's Stated Purpose

The purpose of the proposed project is to improve traffic flow at and near the intersections of US 401 with NC 42-55 and NC 55 with NC 42. The purpose is also to provide a roadway connection between NC 55 and Judd Parkway in Fuquay-Varina. Measures of effectiveness (MOE) may include travel delay and queue lengths.

Based on a number of local and regional transportation studies, the local community would experience continued and future congestion at the US 401/NC 42-55 and NC 42/NC 55 intersections with the existing roadway network. A more efficient connection to Judd Parkway would also aid the northwest to southeast traffic that passes through the project vicinity.

Project Description

The NCDOT STIP Project No. U-5751 would be approximately three miles in length and would consist of improving the US 401 intersection with NC 55/NC 42. The project would also include improvements to the NC 55 intersection with NC 42 and the construction of a connector road from NC 55 to Judd Parkway in Fuquay-Varina, Wake County. It would include grade separation of the new Judd Parkway connector over the Norfolk Southern Railroad and US 401.

Various intersection improvements or new traffic signals would occur depending on the alternative.

Proposed improvements for the connector would include four 12-foot travel lanes, a variable median up to 30 feet, curb and gutter, pedestrian facilities and reinforced concrete box culverts (RCBC) at stream crossing. It is anticipated approximately 130 feet of right of way would be required for the connector. Partial control of access is proposed.

Project Benefits

- Regional Travel

The proposed project would improve traffic operations and mobility by addressing existing and future congestion at the US 401/NC 55/NC 42 and NC 55/NC 42 intersections. The connector would provide the traveling public an alternative route between US 401 and NC 55. Realignment and widening of NC 55/NC 42 would improve safety, traffic operations and congestion with median-divided roadways, additional capacity, and improved access to and from US 401.

- Traffic Levels of Service with Project

A traffic capacity analysis was conducted for the project for the year 2045. The analysis of the signalized intersections in the 2045 Build Alternative(s) 1 and 2 scenario shows that all intersections in the AM and PM peak hours are anticipated to operate at level of service (LOS) D or better. Four of the six unsignalized intersections in this scenario are anticipated to have at least one movement experience operations below LOS D in either the AM or

PM peak hours. The four intersections are US 401 (Main Street) at SR 1403 (Wilbur Jones Road), NC 55 (Broad Street) at Fayetteville Street, NC 55 (Broad Street) at Bengal Boulevard, and Judd Parkway at Products Road. These failing intersections are not located along the connector and were not evaluated for potential intersection improvements as part of this project.

Due to limitations with the number of existing outbound lanes and the scope of the project, some locations would experience higher than anticipated queuing. These limitations would occur at the intersections of the connector at Sunset Lake Road and Judd Parkway, and NC 55 at NC 42.

The analysis of the signalized intersections in the 2045 Build Alternative 3 scenario indicates that all intersections in the AM and PM peak hours are anticipated to operate at LOS D or better with the exception of intersection the connector at SR 1301 (Sunset Lake Road). That intersection is anticipated to operate at LOS E in both the AM and PM peak hours. Three of the five unsignalized intersections in this scenario are anticipated to have at least one movement experience operations below LOS D in either the AM or PM peak hours. The three intersections are US 401 (Main Street) at SR 1403 (Wilbur Jones Road), NC 55 (Broad Street) at Fayetteville Street, and NC 55 (Broad Street) at Bengal Boulevard. These failing unsignalized intersections are not located along the proposed connector and were not evaluated for potential intersection improvements as part of this project. Additionally, it should be noted that these intersections also are anticipated to fail in Alternative(s) 1 and 2. Increased queuing was observed near Products Road. Similar limitations to the scope of the project were observed in this alternative, as in Alternatives 1 and 2, which would cause some locations to experience higher queues than would be required if additional outbound receiving lanes were present.

- Safety

Within a five-year span (02/01/2015-01/31/2020), 1094 crashes were found to have occurred within the five corridor sections, with 704 of those crashes happening along US 401 or NC 55 (Broad Street). None of the facilities studied experienced a crash with a fatality in the past five years but 21.8% or 239 of the crashes on the corridors involved an injury. When reviewing the severity indices, the corridors studied were observed to all have severity indices below the statewide averages found in NCDOT's 2015-2017 Crash Rates Report. From the crash summaries, it was found that the left turn, angle, and rear end crash types were the most predominant crash types in the study area. Crashes of these types are typically located in areas with high congestion. With the proposed connector roadway reducing congestion, the corridors may experience a reduction in overall number of crashes. Additionally, eight of the crashes involved a pedestrian with four of the five corridors experiencing at least one crash involving a pedestrian. The addition of sidewalks to the connector roadway could lead to a reduction in crashes involving pedestrians.

By increasing the number of lanes along Judd Parkway, the proposed project would be expected to have a positive impact on vehicular safety. The proposed project would likely make it safer for large trucks and local traffic. The proposed dual lanes in each direction would allow faster traffic to pass slower moving vehicles without using the opposing traffic lane, making head-on and rear-end collisions less likely. Emergency response time should

improve with construction of the project. By reducing the congestion on Judd Parkway, emergency vehicles traveling within or through this area would likely have a reduction in emergency response time.

Detailed Study Alternatives (DSA)

Concurrence on the alternatives for detailed study was reached at a NEPA/404 Merger Team meeting held on February 20, 2020. Team members agreed on the study alternatives described below:

- **No-Build Alternative**

The No-Build Alternative would not provide any substantial improvements to US 401 within the study area; only typical maintenance activities would occur. The No-Build Alternative would not meet the purpose and need of the project.

- **Build Alternatives**

Three build alternatives have been developed that satisfy the purpose and need for the project. The alternatives alignments are shown on **Figure 2**, and a summary of the environmental effects for the alternatives is shown in **Table 1**. All three alternatives propose to realign NC 42 which intersects NC 55 approximately 2,800 feet to the south of the existing NC 42/NC 55 intersection. The proposed connector diverges from existing NC 55 to the west and grade separates over US 401 and the Norfolk Southern Railway. The three alternatives then begin to diverge from one another north of the proposed bridge over the railroad. All three alternatives converge back together on existing Judd Parkway east of Stewart Street and follow Judd Parkway to intersect NC 55. All alternatives assume a four-lane median divided facility with partial control of access. Differences between the three alternatives are outlined below

Alternative 1

This alternative's alignment crosses US 401 and the railroad the same as the other two alignments but continues along a northeast alignment heading for a longer distance before curving to the west to intersect Sunset Lake Road. Alternative 1 and Alternative 2 have the same alignments west of Sunset Lake Road.

Alternative 2

This alternative alignment clips the northeast corner of the Abiding Presence Lutheran Church property and curves around to the north of the residential area that is located on the west side of Sunset Lake Road. It ties into Judd Parkway just to the east of Stewart Street.

Alternative 3

This alternative is the southernmost alignment. It intersects Sunset Lake Road at Products Road, utilizes a portion of existing Products Road, and ties into existing Judd Parkway.]

Table 1: Summary of Environmental Effects			
	Alternative 1	Alternative 2	Alternative 3
Length (mi)	3.4	3.4	3.4
Historic Architecture Resources	No Impacts Anticipated		
Archaeological Sites	None	None	None
Section 4(f) sites	No Impacts Anticipated		
Disproportionate Environmental Justice Impacts	None	None	None
Railroad Crossing	One proposed grade-separated crossing of the Northern Southern Railroad		
Geoenvironmental Sites of Concern¹	Two sites will be impacted by all 3 alternatives 1-Allstates Auto Sales and Inspection Station/Brake Repair; 2-Rowland (Non-Regulated Landfill)		
Section 6(f) Resources¹	None	None	None
Church/Cemeteries displaced¹	None	None	None
School Properties¹	None	None	None
Greenways	Proposed Wake County Greenway along Terrible Creek and Judd Parkway		
Voluntary Agricultural Districts¹ (ac)	6.5	0.5	>0.1
Relocations			
Business	4	3	3
Residential	18	12	10
TOTAL	22	15	13
Threatened & Endangered Species			
Terrestrial	No Effect	No Effect	No Effect
Aquatic³	MA-NLAA	MA-NLAA	MA-NLAA
Water Resources¹			
Wetlands²(#/ ac)	15 / 7.2	15 / 7.4	17 / 5.7
Streams² (# / ac)	10 / 2,043	11 / 2,307	13 / 1,336
Ponds² (# / ac)	2 / 0.7	0 / 0	0 / 0
Stormwater Pond (# / ac)	0 / 0	0 / 0	3 / 0.1
Stream Buffers (sq ft)	Neuse River Basin		
FEMA 100 Year Flood Zone (ac)	3.0	3.0	0.6
NCRS Farmland Soils¹			
Prime farmland if drained (ac)	2.4	7.3	2.0
Farmland of statewide importance (ac)	37.6	31.0	30.3
All areas of prime farmland	8.2	9.6	8.9
TOTAL:	48.2	47.9	41.2
Cost Estimates			
Right-of-Way	\$39,146,000	\$34,471,000	\$33,876,000
Utilities	\$2,621,000	\$2,621,000	\$2,518,000
Construction	\$56,000,000	\$68,300,000	\$66,600,000
TOTAL	\$97,767,000	\$105,392,000	\$102,994,000

NOTES:

MA – NLAA (May Affect, Not Likely to Adversely Affect)

1. Impacts calculated based on a slope stakes limits plus a 25-foot buffer.

2. According to Preliminary Jurisdictional Determinations dated September 11, 2017 and May 17, 2021.

3. Cape Fear shiner is No Effect

Farmland

Fuquay-Varina is part of the Raleigh urbanized area according to the U.S. Census. The study area is also primarily land within a municipal boundary. Considering these two factors, it is not subject to provisions of the Farmland Protection Policy Act (FPPA).

Wake County has an adopted Voluntary Agricultural District (VAD) ordinance to encourage the preservation of farmland. Wake County does not have an Enhanced Voluntary Agricultural District (EVAD) ordinance. There are two parcels participating in the Wake County VAD program in the project area. They are east of Sunset Lake Road and south of Terrible Creek and are only affected by Alternative 1.

Waters of the United States

All the Build Alternatives have the potential to cause impacts on waters of the United States. These impacts are identified on Figure 2. Jurisdictional streams and wetlands in the study area are part of the Neuse River basin [US Geological Survey (USGS) Hydrologic Unit 03020201].

Avoidance, Minimization and Compensatory Mitigation

Through development of the preliminary designs of the DSAs, NCDOT has attempted to avoid or minimize impacts to streams and wetlands to the greatest practicable extent. However, total avoidance of streams and wetlands by the proposed project is not possible. Judd Parkway in the project area crosses several large stream and wetland systems. Streams and wetlands are on both sides of the road; widening to either side of the road will affect the streams and wetlands. NCDOT will continue to seek ways to avoid and minimize impacts in further design efforts for the selected Alternative.

The purpose of compensatory mitigation is to offset unavoidable functional losses to the aquatic environment resulting from project impacts to waters of the United States. NCDOT will investigate potential on-site compensatory mitigation opportunities prior to submitting a Section 404 permit application. If on-site mitigation is not feasible, or a sufficient amount of mitigation is not available on-site, mitigation will be provided by the NC Department of Environmental Quality - Division of Mitigation Services (NCDEQ-DMS).

Cultural Resources

The Federal Highway Administration (FHWA) is the lead federal agency for compliance with Section 106 of the National Historic Preservation Act (NHPA) for this project. The proposed project is subject to compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and implemented by the Advisory Council on Historic Preservations' Regulations for Compliance with Section 106, codified as 36 CFR Part 800. Section 106 requires federal agencies to take into account their undertakings (federally-funded, licenses, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council a reasonable opportunity to comment on such undertakings.

Architectural Resources

The Historic Architectural Resources Survey Report for U-5751 was completed in October 2021. The report evaluated the Jones-Johnson Farm (WA0570), Edward Sexton House (WA0573), Kemp B. Johnson House (WA0567), Five Points Concrete-Block Houses (WA8328), and Powell Brothers Warehouse (WA7488). The report recommendations are in **Table 2**.

Table 2: Architectural Resources

Property Name and Site Number	Address or Streets	PIN	NRHP Eligibility recommendation
Jones-Johnson Farm (WAD570)	7116 Sunset Lake Road	0667758185	Remain Eligible Under Criteria A and C
Edward Sexton House (WAD573)	1440 N. Main Street	0667805946	Not Eligible
Kemp B. Johnson House (WAD567)	7116 Johnson Pond Road	0677022505	Remain Listed Under Criterion C
Five Points Concrete-Block Houses (WA8328)	1700 Five Points Lane (WA8320)	0677119823	Not Eligible
	1712 Five Points Lane (WA8321)	0677119958	
	1718 Five Points Lane (WA8322)	0677220041	
	1830 Eakes Street (WA8323)	0677222028	
Powell Brothers Warehouse (WA7488)	1730 Five Points Lane	0677225246	Not Eligible

Archaeological Resources

On May 29, 2020, a NCDOT Archaeologist determined there are no national register eligible or listed archaeological sites present for U-5751. The findings are based on the October 2019 revised study area encompassing 937.3 acres, which is also the revised archaeological area of potential effects (APE). Project U-5751 is in compliance with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

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

The FHWA is the lead federal agency for this project and is the federal agency responsible for making determinations and requesting concurrence with these determinations (if other than a “no effect”) from the U.S. Fish and Wildlife Service (USFWS), in accordance with Section 7(a)(2) of the Endangered Species Act (ESA). 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 Heritage Database. As of August 2022, the U.S. Fish and Wildlife Service (USFWS) lists eight federally protected species for the project study area, as shown in Table 3.

Table 3: Federally Protected Species for the Project Study Area

Scientific Name	Common Name	Federal Status
<i>Picoides borealis</i>	Red-cockaded woodpecker	Endangered
<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	Endangered
<i>Noturus furiosus</i>	Carolina madtom	Endangered
<i>Elliptio lanceolata</i>	Yellow lance	Threatened
<i>Notropis mekistocholas</i>	Cape Fear shiner	Endangered
<i>Fusconaia masoni</i>	Atlantic pigtoe	Threatened
<i>Rhus michauxii</i>	Michaux's sumac	Endangered
<i>Necturus lewisi</i>	Neuse River waterdog	Threatened

Compliance with the requirements of ESA Section 7 consultation must be completed prior to issuance of any authorization to impact waters of the U.S.

Evaluation

The eventual decision whether to issue a permit or verification letter for the use of a general 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 various alternatives and the associated impacts of this proposed activity. Any comments received will be considered by the Corps for the selection of the alternative to carry forward and the potential decision whether to issue, modify, condition, or deny a permit for this proposal. To make these decisions, 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.

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, October 24, 2022. Comments should be submitted to Eric Alsmeyer, Raleigh Regulatory Field Office, 3331 Heritage Trade Drive, Suite 105 , Wake Forest, North Carolina 27587, telephone (919) 554-4884, extension 23. Comments may also be submitted to NCDOT_REG@usace.army.mil