Type III Categorical Exclusion Action Classification Form

STIP Project No.	U-5717
WBS Element	50400.1.1
Federal Project No.	N/A

A. Project Description:

The proposed project involves converting the existing at-grade intersection at US 15-501 (Durham-Chapel Hill Boulevard) and Garrett Road (SR 1116) to an interchange. The project is in the City of Durham, Durham County. See Vicinity Map in Figure 1.

B. Description of Need and Purpose:

The purpose of the project is to reduce congestion and improve traffic operations at the intersection of US 15-501 and Garrett Road by achieving at least a LOS D by the project design year. Another desirable outcome is to enhance pedestrian and bicycle mobility at the intersection.

The Durham Chapel Hill Carrboro MPO Comprehensive Transportation Plan articulates a desire for US 15-501 between I-40 and US 15-501 Bypass to operate at Level of Service (LOS) D or better. The projected traffic volume for 2040 is projected to exceed the capacity of the roadway and operate at LOS F. The intersection of US 15-501 and Garrett Road is currently (2016) operating at LOS D and is projected to operate at LOS F in 2040. On average, drivers experience 45.1 seconds of delay during the morning peak and 46.6 seconds of delay during the afternoon peak. This delay is projected increase to 202.2 seconds of delay during the morning peak and 209.5 seconds of delay during the afternoon peak by 2040.

C. Categorical Exclusion Action Classification: Type III

D. Proposed Improvements

A tight diamond interchange is proposed for the at-grade intersection of US 15-501 and SR 1116 (Garrett Road). The at-grade intersection of US 15-501 and SR 1116 (Garrett Road) will be replaced with a grade separated six-lane bridge on US 15-501 over Garrett Road. The existing 30-foot grass median along US 15-501 will be transitioned to a 22-foot concrete median, from the New Hope Creek bridge to northbound Martin Luther King Parkway. The new one-span bridge is proposed to be 137 feet long, with 114 feet of clear roadway width.

Garrett Road is proposed to be widened to a four-lane, median-divided roadway, with two 11-foot travel lanes in each direction. Five-foot bicycle lanes and five-foot sidewalks are proposed along both sides of Garrett Road, from Millennium Drive to Falls Mountain Way. Median breaks are proposed at the following locations:

- Garrett Road and Falls Mountain Way (signalized)
- Oak Creek Village Shopping Center and Mark Jacobson Toyota (unsignalized)
- Garrett Road and Millennium Drive (signalized)

In addition, a 90-foot diameter roundabout is proposed at the existing T-intersection of Falls Mountain Way and SR 1333 (Chapel Hill Boulevard).

Retaining walls are proposed at various locations throughout the project (See Figure 3) to minimize right of way impacts.

The proposed design speed on Garrett Road is 45 mph, with a posted speed limit of 40 mph. The proposed design speed on US 15-501 is 50 mph, with a posted speed limit of 45 mph.

The proposed improvements are shown in Figure 3.

Cost estimates for the Recommended Alternative are provided below in Table 1.

Table 1: Cost Estimates for the Proposed Improvements

Right-of-Way	\$9,125,000 (September 2018)
Utilities	\$700,000 (November 2018 STIP)
Construction	\$27,700,000 (August 2018)
Total Cost	\$37,525,000*

^{*}Total cost is subject to Change

Preliminary impacts for the Preferred Alternative are shown below in Table 2.

Table 2: Impact Matrix for the Proposed Improvements

Table 2: Impact matrix for the		1
Resource		Impact
	Residential	0
Relocations	Business ¹	1
	Other	0
Minority/Low-Income Population	s (Disproportionate	0
Impacts)		
Community Facilities Impacted		0
Section 4(f) Impacts		0
Noise Receptor Impacts		2
Streams (linear feet)		158
Wetlands (acres)		0.09
	Dwarf wedgemussel	No Effect
	Smooth coneflower	No Effect
	Michaux's sumac	No Effect
Federally Protected Species	Atlantic Pigtoe	Unresolved ²
	Northern long-eared bat	May Affect, Likely to Adversely
		Affect (Programmatic Biological
		Conclusion)
Hazardous Materials Sites	·	8 – Low Impact

¹ In addition to the 1 business relocation, there will be a critical loss of parking for the building at 4221 Garrett Road, which houses nine business tenants. It cannot be determined at this time which businesses will want to vacate their lease so all nine are considered potential displacees.

² The Atlantic Pigtoe is a recently proposed species for Durham County.

E. Special Project Information:

Alternatives

Interchange Location

Only one location, US 15-501 and Garrett Road (SR 1116) was studied for the proposed interchange.

Interchange Configuration

Three interchange configuration options were considered:

- <u>Tight Diamond Interchange US 15-501 over Garrett Road</u>. This interchange configuration proposes a tight diamond at the at-grade intersection of US 15-501 and Garrett Road. The existing at-grade intersection of US 15-501 and Garrett Road would be replaced with a grade-separated multi-lane bridge on US 15-501 over Garrett Road. This is the preferred alternative.
- <u>Tight Diamond Interchange Garrett Road over US 15-501</u>. This interchange configuration proposes a tight diamond at the at-grade intersection of US 15-501 and Garrett Road. The existing at-grade intersection would be replaced with a grade-separated multi-lane bridge on Garrett Road over US 15-501. This alternative was not selected because of constructability challenges and impacts to the proposed Durham-Orange Light Rail project.
- Teardrop Roundabout Interchange. A teardrop roundabout interchange was considered for the intersection. The at-grade intersection at US 15-501 and Garrett Road would be replaced with a multi-lane bridge on US 15-501 over Garrett Road and dual roundabouts on Garrett Road on either side of US 15-501. This alternative was not selected because of increased right-of-way impacts and concerns about the ability to safely accommodate bicyclists and pedestrians.

Transportation Systems Management Alternative

Transportation Systems Management includes improvements such as signal improvements, geometric improvements, and transit. While these enhancements could improve traffic operations at the intersection, they alone could not bring the level of service to the desired level. This alternative would not meet the purpose of the project and is, therefore, not recommended.

Improve Existing Roadways

Improving existing roads would require extensive widening of both US 15-501 and Garrett Road. The level of widening needed to achieve the desired level of service would involve extensive right-of-way and environmental impacts and it would be cost-prohibitive. It also would be inconsistent with the City's desire to improve bicycle and pedestrian travel at the intersection. For these reasons, this alternative is not recommended.

No-Build Alternative

The No-Build alternative is the least expensive alternative and would involve the least environmental and right of way impacts. However, the No-Build does not meet the project's purpose of improving traffic operations at the intersection. It is, therefore, not recommended.

Public Involvement Summary

Public Meeting – October 9, 2015

An open-house public meeting was held on October 9, 2015 at the Cresset Church on Garrett Road to share the preliminary designs for the three interchange alternatives being considered for the project. The meeting was advertised in the local English and Spanish language newspapers, on the radio, and on the project webpage. Postcard announcements were mailed to approximately 4,000 nearby residents and property owners.

During the public meeting, NCDOT and consultant staff were available to answer questions and listen to feedback from citizens. Meeting attendees were invited to provide written comments at the meeting or afterward until October 24. A total of 85 people signed in to the meeting, and 47 comments were received during the comment period.

Local Officials Meeting – October 5, 2018

A local officials meeting, held on October 5, 2018, was attended by 13 representatives of the City of Durham, Durham County, Durham-Chapel Hill-Carrboro MPO, and GoTriangle.

Business Owners Meeting - October 9, 2019

An open house style meeting of business owners in the study area was held immediately prior to the public meeting on October 9. It was attended by five people.

Most people who provided comments were in favor of an interchange to alleviate traffic congestion at the intersection. Based on written responses, most favored Alternative A, which is NCDOT's preferred alternative. There were also many comments in favor of Alternative C. There was little support for Alternative B. A summary of concerns received at the October 5 and October 9 meetings is listed below:

- Access to businesses near the intersection, particularly the gas station and Oak Creek Village Shopping Center.
- Bicycle and pedestrian accommodations at the proposed interchange.
- Right-of-way impacts, including loss of parking to businesses.
- Coordination with GoTriangle regarding bus stop locations, amenities and ADA accessible landing pads.

Maintenance of Traffic

Traffic on US 15-501 and Garrett Road will be maintained at all times during construction of the proposed project. Lane closures may be necessary during project construction but will not be permitted during periods of peak traffic volumes. A detailed traffic maintenance plan will be completed during final design.

Technical Reports

The following technical reports were prepared for the project and can be found in the project file:

- Natural Resources Technical Report
- Natural Resources Technical Report Addendum
- Community Characteristics Report
- Community Impact Assessment
- Traffic and Crash Analysis Report
- Traffic Noise Analysis

F. Project Impact Criteria Checklists:

Type III A	<u>ctions</u>	Yes	No
The C	posed improvement is identified as a Type III Class of Action answer all questions categorical Exclusion will require FHWA approval. questions are marked "yes" then additional information will be required for those on G.		ns in
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	\boxtimes	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?		\boxtimes
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?		\boxtimes
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?		\boxtimes
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?		\boxtimes
6	Does the project include a determination under Section 4(f)?		\boxtimes
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?		\boxtimes
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?		\boxtimes
9	Is the project located in anadromous fish spawning waters?		\boxtimes
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	\boxtimes	
11	Does the project impact waters of the United States in any of the designated mountain trout streams?		\boxtimes
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?		\boxtimes
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?		\boxtimes
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?		\boxtimes
15	Does the project involve hazardous materials and/or landfills?	\boxtimes	
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	\boxtimes	
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?		×
18	Does the project require a U.S. Coast Guard (USCG) permit?		\boxtimes
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?		\boxtimes

20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?					
Type III	Actions (continued)	Yes	No			
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?		×			
22	Does the project involve any changes in access control?	\boxtimes				
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?		\boxtimes			
24	Will maintenance of traffic cause substantial disruption?		\boxtimes			
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?		×			
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?		×			
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?		×			
28	Is the project considered a Type I under the NCDOT's Noise Policy?	×				
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?		×			
30	Are there other issues that arose during the project development process that affected the project decision?		×			

G. Additional Documentation as Required from Section F

Response to Question 1 – Potential Effects on Listed Species

Northern Long-Eared Bat: The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the NLEB in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is "May Affect, Likely to Adversely Affect". The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Division 5.

Response to Question 10 – Buffer Rules

The study area is within the Jordan Lake Watershed of the Cape Fear River basin. Streamside riparian zones are protected within this watershed under provisions of the Jordan Lake Buffer Rules administered by NCDWR.

Response to Question 15 - Hazardous Materials and Landfills

Seven (7) UST facilities, one (1) surficial spills/dumping of waste oil site were identified within the project area. The anticipated impact is low for all resources; however, a detailed Phase II study is recommended prior to construction.

Response to Question 16 – Regulatory floodway or work affecting the base floodplain (100-year flood) elevations

Due to extension of the culvert there will be impacts to the floodplain (100-year flood) elevation. The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Response to Question 22 – Access Control

US 15-501 in the project area is currently partial access control. The construction of the proposed interchange will necessitate full control of access on US 15-501 in the project area.

A public meeting was held on October 9, 2018. Most commenters were in favor of the project and written and verbal responses indicated a preference for Alternative A, which is NCDOT's preferred alternative. Primary concerns involve access to businesses near the intersection. NCDOT has held numerous meetings with business and property owners and has revised the design to minimize impacts to the properties.

Response to Question 28 – Traffic Noise

Highway Traffic Noise

<u>Introduction</u>

In accordance with Title 23 Code of Federal Regulations Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (Title 23 CFR 772) and the North Carolina Department of Transportation *Traffic Noise Policy*, each Type I highway project must be analyzed for predicted traffic noise impacts. In general, Type I projects are proposed State or Federal highway projects for construction of a highway or interchange on new location, improvements of an existing highway that substantially changes the horizontal or vertical alignment or increases the vehicle capacity, or projects that involve new construction or substantial alteration of transportation facilities such as weigh stations, rest stops, ride-share lots or toll plazas.

Traffic noise impacts are determined through implementing the current Traffic Noise Model (TNM) approved by the Federal Highway Administration (FHWA) and following procedures detailed in Title 23 CFR 772, the NCDOT Traffic Noise Abatement Policy and the NCDOT Traffic Noise Analysis and Abatement Manual. When traffic noise impacts are predicted, examination and evaluation of alternative noise abatement measures must be considered for reducing or eliminating these impacts. Temporary and localized noise impacts will likely occur as a result of project construction activities. Construction noise control measures will be incorporated into the project plans and specifications.

Traffic Noise Impacts and Noise Contours

The maximum number of receptors in the Design Year 2040 Build Alternative predicted to become impacted by future traffic noise is shown in the table below. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels.

The maximum extent of the 71- and 66- dB(A) noise level contours measured from the center of US 15-501 is 70 feet and 140 feet, respectively.

Predicted Traffic Noise Impacts by Alternative*

Alternative	Residential (NAC B)	Places of Worship/Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
No-Build	1	0	0	1
Build	1	1	0	2

^{*}Per TNM2.5 and in accordance with 23 CFR Part 772

No-Build Alternative

The Traffic Noise Analysis also considered traffic noise impacts for the "No-Build" alternative. If the proposed project does not occur, 1 receptor is predicted to experience traffic noise impacts and the future traffic noise levels will increase by approximately 1 dB(A). Based upon research, humans barely detect noise level changes of 2-3 dBA. A 5-dBA change is more readily noticeable. Therefore, most people working and living near the roadway will not notice this predicted increase.

Traffic Noise Abatement Measures

Measures for reducing or eliminating the traffic noise impacts were considered for all impacted receptors in the Build alternative. The primary noise abatement measures evaluated for highway projects include highway alignment changes, traffic system management measures, establishment of buffer zones, noise barriers and noise insulation (NAC D only). For each of these measures, benefits versus costs (reasonableness), engineering feasibility, effectiveness and practicability and other factors were included in the noise abatement considerations.

Substantially changing the highway alignment to minimize noise impacts is not considered to be a viable option for this project due to engineering and/or environmental factors. Traffic system management measures are not considered viable for noise abatement due to the negative impact they would have on the capacity and level of service of the proposed roadway. Costs to acquire buffer zones for impacted receptors will exceed the NCDOT base dollar value of \$22,500 plus any allowable incremental increase (as defined in the NCDOT Traffic Noise Manual) per benefited receptor, causing this abatement measure to be unreasonable.

Noise Barriers

Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise.

Noise barriers are not feasible for this project because there is only the one predicted traffic noise impact within two of the three Noise Study Areas (NSA) evaluated for this project. The third evaluated NSA contains no traffic noise impacts. Consequently. no further consideration for noise abatement is necessary in accordance with the 2016 NCDOT Traffic Noise Policy, which states, "Noise of 5 dB(A) must be achieved for at least two impacted receptors" to meet the NCDOT feasibility criteria. This criterion is not obtainable for either of the impacted NSAs due to both containing only one single impacted receptor, when two are required for abatement consideration. Policy, the construction of noise walls is unlikely and no further noise analysis is recommended.

Summary

Based on this preliminary study, traffic noise abatement is not recommended, no noise abatement measures are proposed, and the construction of noise walls is unlikely. This evaluation completes the highway traffic noise requirements of Title 23 CFR Part 772. No additional noise analysis will be performed for this project unless warranted by a substantial change in the project's design concept or scope.

In accordance with NCDOT Traffic Noise Abatement Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Categorical Exclusion (CE). For development occurring after this date, local governing bodies are responsible to ensure that noise compatible designs are utilized along the proposed facility.

H. Project Commitments

Durham County
SR 1116 (Garrett Road), Convert At-Grade Intersection to Interchange
Federal Project No.
WBS No.
TIP No. U-5717

NCDOT Division Five

This project involves construction activities on or adjacent to a FEMA-regulated stream(s). Therefore, the Division will submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying the drainage structure(s) and roadway embankment located within the 100-year floodplain were built as shown in the construction plans, both vertically and horizontally.

A Phase II GeoEnvironmental Investigation will be performed for sites of concern that will be impacted by the project. Right of Way Acquisition recommendations will be provided prior to the right of way being acquired. Contaminated soil, underground fuel storage tanks, and ground water monitoring wells in conflict with the project will be removed prior to let or addressed in a Project Special Provision.

A detailed traffic maintenance plan will be completed during final design.

NCDOT Hydraulics Unit

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Ι. Categorical Exclusion Approval

STIP Project No.	U-5717
WBS Element	50400.1.1
Federal Project No.	N/A

Prepared By:

11/26/2018

Date

Nicole H. Bennett, AICP

DocuSigned by: Wich H. Bennett

WSP

North Carolina Department of Transportation **Prepared For:**

Reviewed By:

Zalid Baloch 11/26/2018

Zahid Baloch, PE, Project Manager Date

NCDOT

NCDOT certifies that the proposed action qualifies as a Type III Categorical Exclusion.

11/27/2018

Date

Ben Upshaw

Joey Hopkins, F.E. Division Engineer, Division 5 North Carolina Department of Transportation

FHWA Approval:

11/27/2018

Edward Pancausee

DocuSigned by:

John F. Sullivan, III, PE, Division Administrator Date

Federal Highway Administration

EIS RELOCATION REPORT

North Carolina Department of Transportation RELOCATION ASSISTANCE PROGRAM

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Fred of Barkly	9/10/2018			
Right of Way Agent	Date		Relocation Coordinator	Date

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST ESTIMATE REQ	UEST	X
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RELOCATION EIS REPORT

NEW REQU	EST:	UPDATE REQUEST Update to Estimate		Revision	ON REQUE to Est on No.:	Contraction of the last of the
DATE RECEIV	'ED: <u>07/23/18</u>	DATE ASSIGNED: 07	7/23/18	# of Alterna	ates Reques	sted: <u>1</u>
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WBS ELEMENT: 50	0400.1.1 COUNT	Y: Durham DIV: 5	APPRAISA	AL OFFICE: 2		
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TYPE OF PLANS:	HEARING MAPS [LOCATION MAP AERIAL] VICINITY] PRELIMINA	ARY⊠ CONCE	EPTUAL
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CHURCH / NON – PROFIT:	-0- \$-0-				
MISC:	-	\$-			
SIGNS:	-	\$-			
LAND, IMPROVEMENTS, & DAMAGES:	: \$ 7,975,000 +/-				
ACQUISTION:	\$ 625,000 +/-				

TOTAL ESTIMATED R/W COST: \$ 9,125,000 +/-

NOTES: Based on the modified 25% plans dated 8/13/2018 for this project, there may be as many as seven (7) or more tax parcels in addition to the fourteen (14) original parcels. Since the Consultant has not provided any area calculations for those tax parcels, my area calculations are very rough for any additional R/W or Temporary Construction Easements .. "TCEs". Also, my questions about any existing full control or even partial access along the US 15-501 Corridor have not been answered by Division 5's Brian Rogers. Formerly, during my initial inspections, there was existing chain link fencing indicating possible existing full and partial control of access along US 15-501's and parallel frontage or Service Road East of it's intersection with Garrett Road. On recent visits, most of that fencing has been removed except for the section from "Falls Mountain Way's" intersection with the existing frontage or Service Road ... SR 1363 .. "Chapel Hill Boulevard" easterly towards the "LaQuinta Inn & Suites" hotel. This estimate is presently based upon the premise that the original fences location denoted some existing full and partial control of access along US 15-501's frontage parcels before any fencing was removed.

^{**} The estimated number of above relocatees includes those parcels where the proposed acquisition areas involve relocation of livable or business units only. **

Thus, this R/W Estimate may need to be revised if those assumptions are false. If additional "PUEs" for relocation of various utilities or Drainage are finally determined, then this Estimate will also need to be revised.

17-08-0012



HISTORIC ARCHICTECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

	PROJE	CT INFORMATI	ON
Project No:	U-5717	County:	Durham
WBS No.:	50400.3.1	Document Type:	State EA/FONSI
Fed. Aid No:		Funding:	State
Federal Permit(s):	☐ Yes ⊠ No	Permit Type(s):	n/a
Permu(s): Project Descrip	ntion:	1 ype(s).	
Convert an at-g	rade intersection to an inter	change US 15/501	at SR 1116 (Garrett Rd).
			NO A LAND COL DEG DELL'HOLL
			ND LANDSCAPES REVIEW
	review activities, results, an		uis designations neeten and
Review of HPO	quad maps, relevant backg	ground reports, histo	oric designations roster, and
indexes was und	dertaken on August 29, 201	7. Based on this rev	view there are no NR, DE, LL, SL,
or SS in the Are	ea of Potential Effects (APE	.). There are no Nat	tional Register listed properties in
the APE. No su	rvey required. This project	is compliant with	North Carolina General Statute
			s, or licenses, then please notify
			on 106 of the National Historic
Preservation A	ct will be required. Shou	ld the project limi	ts or design change [including
		notify NCDOT H	listoric Architecture as additional
review may be			
			r reasonably predicting that there
are no unident	tified significant historic	<u>architectural or la</u>	indscape resources in the project
area: Using HPC	OGIS website and county tax	data provides reliab	le information regarding the structures
in the APE. The	se combined utilities are cons	idered valid for the	purposes of determining the likelihood
of historic resour	ces being present.		
	SUPPOR	Γ DOCUMENTA	ΓΙΟΝ
⊠Map(s) [Previous Survey Info.	⊠Photos	Correspondence Design Plans
	FINDING BY NCDOT	T ARCHITECTIII	RAL HISTORIAN
Historic Archite	ecture and Landscapes NO		
THSIOTIC ATCITIC	otare and Landscapes 140	JUNIUM REQU	
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Shell	an Read	;	Wa 29, 2017
NCDOT Archit	ectural Historian		Date
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17-08-0012



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

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PKI			VIAILIN

Project No:	U-5717	County:	Durham
WBS No:	50400.3.1	Document:	State EA & FONSI
F.A. No:	na	Funding:	State
Federal Permit Requ	ired?	No Permit T	Type: na

Project Description: The North Carolina Department of Transportation (NCDOT) intends to improve the intersection at US 15/501 and SR 1116, Garrett Road in Durham. Currently the intersection includes a six-lane dived section with 30-foot grass median on US 15/501 and a two-lane facility on SR 1116. The proposed improvements would include a six-lane dived section with 30-foot grass median on US 15/501 and a grade separation on SR 1116. No preliminary designs were available at the time of the request for archaeological input, but a study area was provided. For the purposes of the archaeological review, this study area was considered to be the area of potential effects (APE). Thus the APE is estimated to encompass 75.1 acres (more than 30.39 hectares).

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

The initial review of the site maps and files archived at the North Carolina Office of State Archaeology was conducted on September 19, 2017. A handful of archaeological sites were recorded within a .5-mile radius of the proposed project including sites: 31DH23, 31DH24, 31DH25, 31DH466, 31DH679, and 31DH680. In particular, sites 31DH23, 31DH25, and 31DH679, fall within the limits of the proposed APE. Very little information could be found at the office of State Archaeology regarding these resources. Sites 31DH23-25 appear to all have been recorded by amateur archaeologists with the Research Laboratories of Anthropology (now Research Laboratories of Archaeology) at the University of North Carolina at Chapel Hill in 1958 (RLA 2017a). All three of these sites appear to have produced lithic assemblages composed of chipped stone tools (generally bifaces and projectile points) and debitage (RLA 2017b, RLA 2017c). Aerial photographs of these locations indicate that all three of these sites have almost certainly been destroyed by landscape development. Site 31DH466 has almost certainly been destroyed by residential development adjacent the ramp connecting Martin Luther King Jr. Boulevard and US 15/501 (via SR 2733). Almost no information could be found regarding sites 31DH679 and 680 could be found. The aerial photographs suggest that portions of these sites may have been destroyed. There is a possibility that some parts of site 31DH679 survived beyond the northern edge of the proposed APE.

The alignment for a proposed light rail corridor in Durham and Orange Counties was investigated in 2015 and 2016 by archaeologists with AECOM on behalf of the Research Triangle Regional Public Transportation Authority, but the portions that pass through the current APE were not selected for intensive archaeological survey (Jorgenson et al. 2017).

An examination of the data presented on the North Carolina State Historic Preservation Office HPOWEB GIS Service (http://gis.ncdcr.gov/hpoweb/) reveals the following recorded historic property locations

within .5-mile of the proposed project: the AMF Durham Bowling Alley (DH3723); the original location of the Clifton & Leah Garrett Farm (DH2313); the W.W. Garrett House (DH2312); the Garrett Tenant House (DH 2315); the William N. Patterson House (DH2500); a historic barn associated with the Patterson House (DH3722); and the Ernst Garrett House (DH2316). The AMF Durham Bowling Alley and the original location of the Clifton & Leah Garrett Farm appear to be the only two of these resources within or immediately adjacent the proposed APE. The Clifton & Leah Garrett Farm appears to have been destroyed by a residential development.

An examination of soils in Durham County presented on the National Resources Conservation Service Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx) indicates that the following soil types fall within the delineated APE: Chewacla and Wehadkee soils, 0 to 2 percent slopes, frequently flooded (Ch); Creedmoor sandu loam, 2 to 6 percent slopes (CrB); Creedmoor sandy loam, 6 to 10 percent slopes (CrC); Granville sandy loam, 2 to 6 percent slopes (MfB); Urban land (Ur); White Store sandy loam, 2 to 6 percent slopes (WsB); White Store sandy loam, 6 to 10 percent slopes (WsC); and White Store sandy loam, 10 to 25 percent slopes (WsE).

No further archaeological investigations are required for the project within the area established as the current APE. Should the project change to include a federal action (such as funding or permitting), further consultation will be necessary. In the unlikely event that archaeological remains are encountered during the intersection improvements, work should cease in that area and the NCDOT Archaeology Group should be notified immediately.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

The project, as currently proposed, requires no federal funding or permitting that would necessitate compliance with Section 106 of the National Historic Preservation Act. Additionally, no archaeological resources listed on the National Register of Historic Places have been recorded within the proposed APE. For those reasons alone, no archaeological survey would be required. But, it is also clear that the APE is dominated by landforms that have been drastically altered by modern development (predominantly commercial, transportation, and residential). While some archaeological resources may have survived the evolution of this modern landscape, it is very unlikely that any within the current APE would retain significance.

References Cited:

Jorgenson, M. W., D. F. Cassedy, P. A. Sittig, and M. A. Brown

2017 *Phase I Archaeological Survey; Durham-Orange Light Rail Transit Project*, Ms. On file, North Carolina Department of Natural and Cultural Resources, Raleigh.

University of North Carolina at Chapel Hill Research Laboratories of Archaeology (RLA) 2017a RLA Site Catalog. Electronic Document,

http://rla.unc.edu/Collections/RLA_Site_Catalog.pdf, accessed September 19, 2017.

2017b RLA Accession Record. Electronic Document, http://rla.unc.edu/Collections/RLA_Accession_Record.pdf, accessed September 19, 2017.

2017c RLA Specimen Catalog (accession nos. 701 to 2019), http://rla.unc.edu/Collections/RLA_Specimen_Catalog_(701-2019).pdf, accessed September 19, 2017.

Project Tracking No.:

17-08-0012

SUPPORT D	OCUMENTATION		
See attached:		Photos	Correspondence
FINDING BY	NCDOT ARCHAEOLOGIST		
NO ARCHAE	OLOGY SURVEY REQUIRED		
Shu (the state of the s		September 19, 2017
NCDOT ARC	HAEOLOGIST		Date

17-08-0012



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

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Project No:	U-5717	County:	Durham
WBS No:	50400.3.1	Document:	Federal CE
F.A. No:	na	Funding:	State
Federal Permit Requ	ired?	No Permit T	ype: na

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17-08-0012

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No further archaeological investigations are required for the project within the area established as the current APE. Should the project change to include a larger footprint than covered by the current APE, further consultation will be necessary. In the unlikely event that archaeological remains are encountered during the intersection improvements, work should cease in that area and the NCDOT Archaeology Group should be notified immediately.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

It is also clear that the APE is dominated by landforms that have been drastically altered by modern development (predominantly commercial, transportation, and residential). While some archaeological resources may have survived the evolution of this modern landscape, it is very unlikely that any within the current APE would retain significance.

References Cited:

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2017 *Phase I Archaeological Survey; Durham-Orange Light Rail Transit Project*, Ms. On file, North Carolina Department of Natural and Cultural Resources, Raleigh.

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2017c RLA Specimen Catalog (accession nos. 701 to 2019), http://rla.unc.edu/Collections/RLA_Specimen_Catalog_(701-2019).pdf, accessed September 19, 2017.

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See attached:	\boxtimes Map(s)	☐ Previous Survey Info	☐ Photos	Correspondence
	Other: soil	l map		

Project Tracking No.:

17-08-0012

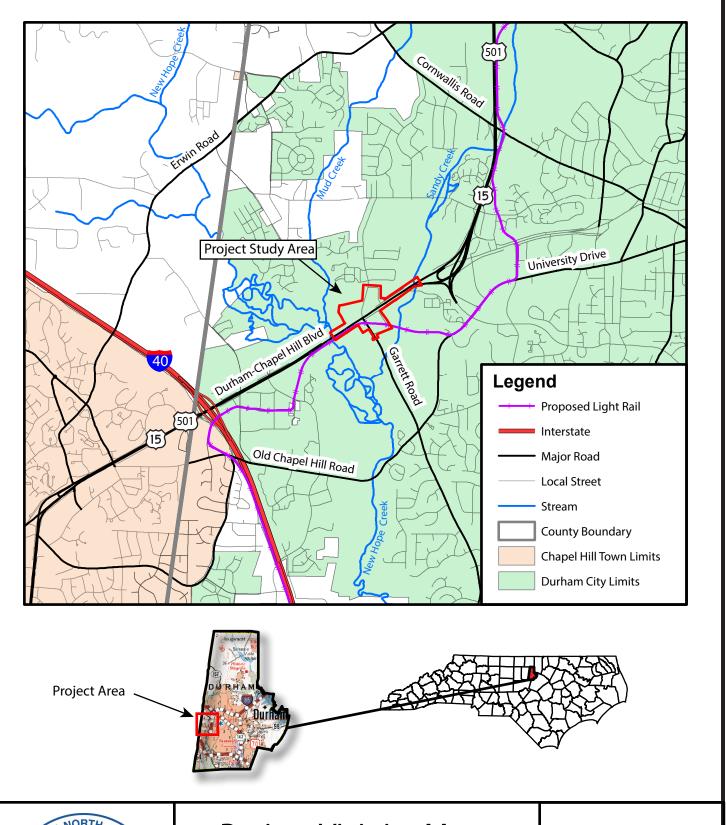
FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

July 12, 2018

NCDOT ARCHAEOLOGIST

Date

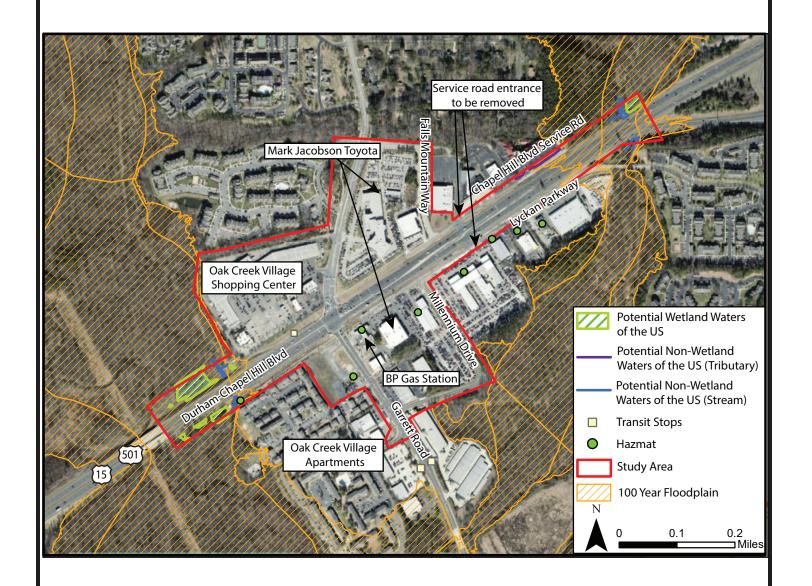




Project Vicinity Map

U-5717 - Durham County SR 1116 (Garrett Road), Convert at-grade intersection to interchange

Figure 1

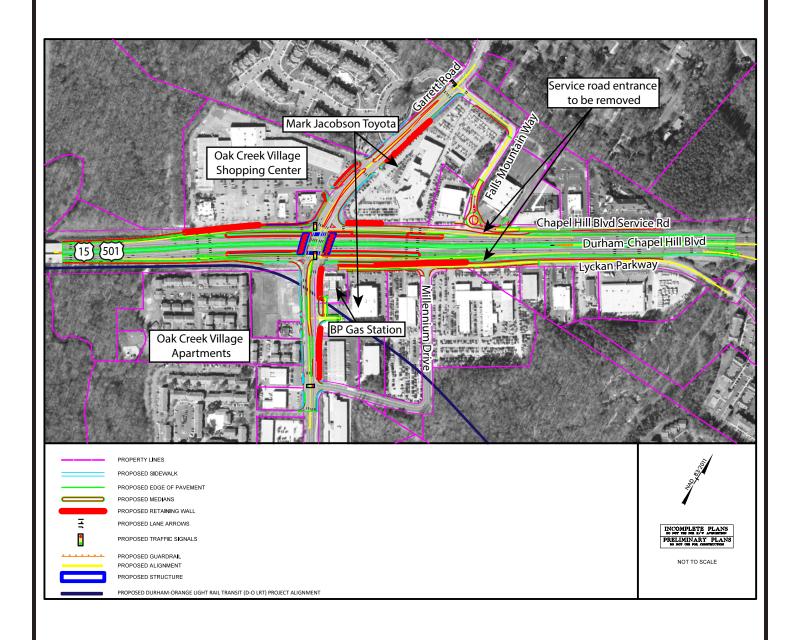




Environmental Features

U-5717 - Durham County SR 1116 (Garrett Road), Convert at-grade intersection to interchange

Figure 2





Proposed Improvements

U-5717 - Durham County SR 1116 (Garrett Road), Convert at-grade intersection to interchange

Figure 3