

# **Appendix B**

## **Agency Correspondence**



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

October 24, 2017

Matt Clarke, P.E.  
North Carolina Department of Transportation  
P.O. Box 3165  
Wilson, North Carolina 27895

Dear Mr. Clarke:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental effects of the proposed NC 42 improvements from NC 50 to US 70 Business in Johnston County, North Carolina (TIP No. R-3410). These comments provide information in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

Section 7(a)(2) of the Endangered Species Act requires that all federal action agencies (or their designated non-federal representatives), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally threatened or endangered species. The federally endangered Dwarf Wedgemussel (*Alasmidonta heterodon*) and the federally proposed threatened Yellow Lance (*Elliptio lanceolata*) are known to occur in the Swift Creek Watershed. The replacement of bridges along this project may have adverse effects to these species.

A formal Section 7 consultation may be required for this project. A formal Section 7 consultation can require up to 135 days for completion once a complete initiation package is received from the federal action agency. This initiation package includes a biological assessment/evaluation prepared by the federal action agency. It is imperative that sufficient time be included in the project schedule to allow for the Section 7 consultation process to be completed. During project design, communication with the Service is vital in order to develop conservation measures which will minimize effects to the Dwarf Wedgemussel and Yellow Lance and expedite the Section 7 process. In general, in-water work should be minimized to the extent practical, and the most stringent erosion control measures must be implemented.

The development of a Section 7 Programmatic Agreement is underway between the North Carolina Department of Transportation and the Service for potential effects of bridge replacement projects on listed mussel species. Assuming its timely completion, this agreement may apply to this project.

For road improvement projects such as widening, realignment, bridge replacement, and culvert replacement, the Service recommends the following general conservation measures to avoid or minimize impacts to fish and wildlife resources:

1. Wetland, forest and designated riparian buffer impacts should be avoided and minimized to the maximum extent practical. Areas exhibiting high biodiversity or ecological value important to the watershed or region should be avoided. Highway projects should be aligned along or adjacent to existing roadways, utility corridors or other previously disturbed areas in order to minimize habitat loss and fragmentation. Highway shoulder and median widths should be reduced through wetland areas;
2. If unavoidable wetland or stream impacts are proposed, a plan for compensatory mitigation to offset unavoidable impacts should be provided early in the planning process;
3. Crossings of streams and associated wetland systems should use existing crossings and/or occur on a bridge structure wherever feasible. Bridges should be long enough to allow for sufficient wildlife passage along stream corridors. Where bridging is not feasible, culvert structures that maintain natural water flow and hydraulic regimes without scouring or impeding fish and wildlife passage should be employed;
4. Off-site detours should be used rather than construction of temporary, on-site bridges. For projects requiring an on-site detour in wetlands or open water, such detours should be aligned along the side of the existing structure which has the least and/or least quality of fish and wildlife habitat. At the completion of construction, the detour area should be entirely removed and the impacted areas be replanted with appropriate tree species;
5. In streams utilized by anadromous fish, the NCDOT policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage" should be implemented;
6. Where possible, avoid the use of riprap on the top of the bank under bridges to allow for wildlife passage under the bridge;
7. "Best Management Practices (BMP) for Construction and Maintenance Activities" should be implemented;
8. Bridge designs should include provisions for roadbed and deck drainage to flow through a vegetated buffer prior to reaching the affected stream. This buffer should be large enough to alleviate any potential effects from run-off of storm water and pollutants;
9. Bridge designs should not alter the natural stream and stream-bank morphology or impede fish passage. To the extent possible, piers and bents should be placed outside the bank-full width of the stream; and
10. Bridges and approaches should be designed to avoid any fill that will result in damming or constriction of the channel or flood plain. If spanning the flood plain is not feasible,

culverts should be installed in the flood plain portion of the approach to restore some of the hydrological functions of the flood plain and reduce high velocities of flood waters within the affected area.

The Service appreciates the opportunity to comment on this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

  
for Pete Benjamin  
Field Supervisor

Electronic copy:

Tom Steffens, USACE, Washington, NC  
Travis Wilson, NCWRC, Creedmoor, NC  
Chad Coggins, NCDOT, Wilson, NC  
Leza Mundt, Simpson Engineers & Associates, Cary, NC



ROY COOPER  
Governor

MICHAEL S. REGAN  
Secretary

S. JAY ZIMMERMAN  
Director

October 19, 2017

**MEMORANDUM**

To: Leza Mundt, Senior Planner, Simpson Engineers & Associates  
From: Rob Ridings, NC Division of Water Resources, Transportation Permitting Branch  
Subject: Scoping comments on proposed improvements to NC 42 in Johnston County, State Project No. 38857.1.R1.2, TIP No. R-3410.

Reference your correspondence received October 18, 2017 in which you requested comments for the referenced project. Preliminary analysis of the project reveals the potential for multiple impacts to streams, buffers and jurisdictional wetlands in the project area. More specifically, impacts to:

Stream Name	River Basin & Subbasin	Stream Classifications	Stream Index Number	303(d) Listing?
Buffalo Branch	NEU 03	C; NSW	27-43-15-11	No
Mill Branch	NEU 03	C; NSW	27-43-15-12	No
Swift Creek	NEU 02	C; NSW	27-43-(8)	Yes
White Oak Creek	NEU 02	C; NSW	27-43-11	No
Little Creek	NEU 02	C; NSW	27-43-12	Yes

Further investigations at a higher resolution should be undertaken to verify the presence of other streams and/or jurisdictional wetlands in the area. In the event that any jurisdictional areas are identified, the Division of Water Resources requests that NCDOT consider the following environmental issues for the proposed project:

**Project Specific Comments:**

1. Buffalo Branch, Mill Branch, White Oak Creek and their tributaries are class C; NSW waters of the State. The NCDWR is very concerned with sediment and erosion impacts that could result from this project. The NCDWR recommends that highly protective sediment and erosion control BMPs be implemented to reduce the risk of nutrient runoff to these streams. Additionally, to meet the requirements of NCDOT's NPDES permit NCS0000250 the NCDWR requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual.
2. Swift Creek, Little Creek, and their tributaries are class C; NSW; 303(d) impaired waters of the State. The NCDWR is very concerned with sediment and erosion impacts that could result from this project. The NCDWR recommends that the most protective sediment and erosion control BMPs be implemented in accordance with *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) to reduce the risk of further impairment to these streams. Additionally, to meet the requirements of NCDOT's NPDES permit NCS0000250 the NCDWR requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual.



State of North Carolina | Environmental Quality

1617 Mail Service Center | Raleigh, North Carolina 27699-1617

3. This project is within the Neuse River Basin. Riparian buffer impacts shall be avoided and minimized to the greatest extent possible pursuant to 15A NCAC 2B.0233. New development activities located in the protected 50-foot wide riparian areas within the basin shall be limited to “uses” identified within and constructed in accordance with 15A NCAC .02B .0295. Buffer mitigation may be required 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 buffer mitigation plan, including use of the North Carolina Division of Mitigation Services, must be provided to the NCDWR prior to approval of the Water Quality Certification. Buffer mitigation may be required 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 buffer mitigation plan, coordinated with the North Carolina Division of Mitigation Services, must be provided to the NCDWR prior to approval of the Water Quality Certification.

#### **General Project Comments:**

1. The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.
2. Environmental impact statement alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Tool* box manual, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.
3. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission’s Rules (15A NCAC 2H.0506[h]), mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. North Carolina Division of Mitigation Services may be available for assistance with wetland mitigation.
4. In accordance with the Environmental Management Commission’s Rules (15A NCAC 2H.0506[h]), mitigation will be required for impacts of greater than 150 linear feet to any perennial stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The North Carolina Division of Mitigation Services may be available for assistance with stream mitigation.
5. Future documentation, including the 401 Water Quality Certification Application, shall continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.
6. The NCDWR is very concerned with sediment and erosion impacts that could result from this project. The NCDOT shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.
7. An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis shall conform to the NC Division of Water Resource Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.

8. The NCDOT is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, and rip rap to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.
9. Where streams must be crossed, the NCDWR prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts should be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, the NCDOT should not install the bridge bents in the creek, to the maximum extent practicable.
10. Whenever possible, the NCDWR prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) should not be placed in the stream when possible.
11. 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. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual for approved measures.
12. Sediment and erosion control measures should not be placed in wetlands or streams.
13. Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas will need to be presented in the 401 Water Quality Certification and could precipitate compensatory mitigation.
14. The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater shall not be permitted to discharge directly into streams or surface waters.
15. Based on the information presented in the document, the magnitude of impacts to wetlands and streams may require an Individual Permit application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection of water quality to ensure that water quality standards are met and no wetland or stream uses are lost. Final permit authorization will require the submittal of a formal application by the NCDOT and written concurrence from the NCDWR. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.
16. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
17. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species shall be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.
18. Unless otherwise authorized, placement of culverts and other structures in waters and streams shall be placed 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 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary

erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required.

19. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
20. If foundation test borings are necessary; it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3883/Nationwide Permit No. 6 for Survey Activities.
21. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.
22. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of the NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
23. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.
24. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment shall be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.
25. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.
26. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

Thank you for requesting our input at this time. The NCDOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact Rob Ridings at 919-707-8786.



**From:** [Gledhill-earley, Renee](#)  
**To:** [Leza Mundt](#)  
**Cc:** [Furr, Mary Pope](#); [Wilkerson, Matt T](#)  
**Subject:** RE: [External] R-3410, NC 42 Widening, Johnston Co., Request for Scoping Comments  
**Date:** Wednesday, October 18, 2017 2:08:59 PM  
**Attachments:** [image002.png](#)

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Leza:

This is a project covered by the PA between FHWA, NCDOT and SHPO. Please contact Mary Pope and Matt to determine how to proceed. They will need to help you with USACE and 106.

Thanks,

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**Renee Gledhill-Earley**

Environmental Review Coordinator

State Historic Preservation Office

109 E Jones St MSC 4617 Raleigh, NC 27699  
919 807 6579 office



*Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.*

**Please Note:** Requests for project review or responses to our review comments should be sent to our Environmental Review mailbox at [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov) Otherwise, I will have to return your request and ask that you send it to the proper mailbox. This will cause delays in your project. Information on email project submittal is at: [http://www.hpo.ncdcr.gov/er/er\\_email\\_submittal.html](http://www.hpo.ncdcr.gov/er/er_email_submittal.html)

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**From:** Leza Mundt [mailto:[lmundt@simpsonengr.com](mailto:lmundt@simpsonengr.com)]  
**Sent:** Wednesday, October 18, 2017 1:37 PM  
**To:** Gledhill-earley, Renee <[renee.gledhill-earley@ncdcr.gov](mailto:renee.gledhill-earley@ncdcr.gov)>  
**Subject:** [External] R-3410, NC 42 Widening, Johnston Co., Request for Scoping Comments

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you verify that the attachment and content are safe. Send all suspicious email as an attachment to [report.spam@nc.gov](mailto:report.spam@nc.gov).

Good afternoon,

On behalf of NCDOT Highway Division 4, I am sending a scoping letter and scoping packet for your review and comments. The proposed project involves widening NC 42 from NC 50 to US 70 Business in Johnston County.

Please note that the I-40 / NC 42 interchange is not included in the R-3410 project study area. Improvements to the interchange are planned under STIP No. I-4739.

If you have any questions or would like additional information, please feel free to contact me at this email address or the number below. You can also contact the NCDOT project manager, Matt Clarke at [wmclarke@ncdot.gov](mailto:wmclarke@ncdot.gov) or at 252.640.6419.

We look forward to receiving your comments on the project.

Sincerely,  
Leza

Leza Wright Mundt  
Senior Planner  
Simpson Engineers & Associates  
5640 Dillard Drive, Suite 200  
Cary, NC 27518  
919.852.0468 ext. 244

**From:** [Alsmeyer, Eric C CIV USARMY CESAW \(US\)](#)  
**To:** [Leza Mundt](#)  
**Cc:** "[Clarke, Matthew](#)"  
**Subject:** RE:R-3410, NC 42 Widening, Johnston Co., Request for Scoping Comments; AID SAW-2017-01097.  
**Date:** Wednesday, November 08, 2017 10:20:13 AM  
**Attachments:** [image001.png](#)

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Leza: In response to the request for scoping comments:

The project corridor crosses the floodplains of Buffalo, Swift, White Oak and Little Creeks. The Johnston County Soil Survey shows that the corridor crosses potentially hydric Wehadkee, Altavista, Toisnot, Goldsboro, and Bibb soils in several areas throughout the corridor. The National Wetland Inventory map shows that the corridor crosses areas of palustrine, forested wetlands, at Buffalo, Swift, and Little Creeks. Based on the mapping, it is likely that the project would impact wetlands and tributaries regulated under Section 404 of the Clean Water Act. No historic properties eligible for listing on the National Register of Historic Places occur within the study area, per GIS mapping. As noted in US Fish and Wildlife's October 24, 2017 letter, the federally endangered Dwarf Wedgemussel (*Alasmidonta heterodon*) and the federally proposed threatened Yellow Lance (*Elliptio lanceolata*) occur in the Swift Creek Watershed (Swift and White Oak Creeks), per GIS mapping.

A Preliminary Jurisdictional Determination review has been requested, and I am in the process of scheduling the PJD site meeting, likely in late November or early December.

Please reply or call if you have any questions or if I may serve you in any other way.

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0).

Thank you,

*Eric A*

Eric Alsmeyer  
Project Manager

Regulatory Division Office  
US Army Corps of Engineers, Wilmington District  
3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587  
Tel: (919) 554-4884, x23  
Fax: (919) 562-0421  
Regulatory Homepage: <http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>



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**From:** Leza Mundt [mailto:[lmundt@simpsonengr.com](mailto:lmundt@simpsonengr.com)]  
**Sent:** Wednesday, October 18, 2017 1:28 PM  
**To:** Alsmeyer, Eric C CIV USARMY CESAW (US) <[Eric.C.Alsmeyer@usace.army.mil](mailto:Eric.C.Alsmeyer@usace.army.mil)>

**Cc:** 'Clarke, Matthew' <wmclarke@ncdot.gov>

**Subject:** [EXTERNAL] R-3410, NC 42 Widening, Johnston Co., Request for Scoping Comments

Good afternoon,

On behalf of NCDOT Highway Division 4, I am sending a scoping letter and scoping packet for your review and comments. The proposed project involves widening NC 42 from NC 50 to US 70 Business in Johnston County.

Please note that the I-40 / NC 42 interchange is not included in the R-3410 project study area. Improvements to the interchange are planned under STIP No. I-4739.

If you have any questions or would like additional information, please feel free to contact me at this email address or the number below. You can also contact the NCDOT project manager, Matt Clarke at [wmclarke@ncdot.gov](mailto:wmclarke@ncdot.gov) or at 252.640.6419.

We look forward to receiving your comments on the project.

Sincerely,  
Leza

Leza Wright Mundt  
Senior Planner  
Simpson Engineers & Associates  
5640 Dillard Drive, Suite 200  
Cary, NC 27518  
919.852.0468 ext. 244



## ⊠ North Carolina Wildlife Resources Commission ⊠

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Gordon Myers, Executive Director

### MEMORANDUM

TO: Matt Clarke, P.E.  
NCDOT, Project Manager

FROM: Travis Wilson, Highway Project Coordinator  
Habitat Conservation Program

DATE: November 2, 2017

SUBJECT: Response to the start of study notification regarding fish and wildlife concerns for the proposed widening of NC 42 from NC 50 to US 70 in Clayton, Johnston County North Carolina. TIP project: R-3410.

This memorandum responds to a request for our concerns regarding impacts on fish and wildlife resources resulting from the subject project. Biologists on the staff of the N. C. Wildlife Resources Commission (NCWRC) have reviewed the proposed improvements. Our comments are provided in accordance with certain provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Swift Creek and White Oak Creek are located within the project study area. Both stream systems are Significant Natural Heritage Areas and contain records of multiple state and federal listed species including:

Dwarf wedgemussel (*Alasmidonta heterodon*: state E, federal E)  
Triangle floater (*Alasmidonta undulata*: state T)  
Yellow lance (*Elliptio lanceolata*: state E, FSC)  
Roanoke slabshell (*Elliptio roanokensis*: state T)  
Atlantic pigtoe (*Fusconaia masoni*: state E, FSC)  
Eastern lampmussel (*Lampsilis radiata*: state T)  
Creeper (*Strophitus undulatus*: state T)

While NCWRC is concerned with the potential for direct impacts to occur during the construction of the project there is greater concern regarding potential alterations in the hydrology of these systems as a result of increased impervious surface from the road widening. NCDOT should design the storm water plan for this project to reduce the sharp peak high flow

events resulting from impervious runoff, as well as follow design standards for sensitive watersheds.

To help further facilitate document preparation and the review process our general informational needs are outlined below:

1. Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species. Potential borrow areas to be used for project construction should be included in the inventories. A listing of designated plant species can be developed through consultation with:

NC Natural Heritage Program  
Dept. of Environment & Natural Resources  
1601 Mail Service Center  
Raleigh, NC 27699-1601.  
[WWW.ncnhp.org](http://WWW.ncnhp.org)

and,

NCDA Plant Conservation Program

P. O. Box 27647  
Raleigh, N. C. 27611  
(919) 733-3610

2. Description of any streams or wetlands affected by the project. The need for channelizing or relocating portions of streams crossed and the extent of such activities.
3. Cover type maps showing wetland acreages impacted by the project. Wetland acreages should include all project-related areas that may undergo hydrologic change as a result of ditching, other drainage, or filling for project construction. Wetland identification may be accomplished through coordination with the U. S. Army Corps of Engineers (COE). If the COE is not consulted, the person delineating wetlands should be identified and criteria listed.
4. Cover type maps showing acreages of upland wildlife habitat impacted by the proposed project. Potential borrow sites should be included.
5. The extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands).
6. Mitigation for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality as well as quantitative losses.
7. A cumulative impact assessment section which analyzes the environmental effects of highway construction and quantifies the contribution of this individual project to environmental degradation.

8. A discussion of the probable impacts on natural resources which will result from secondary development facilitated by the improved road access.
9. If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be included in the environmental document, and all project sponsors should be identified.

Thank you for the opportunity to provide input in the early planning stages for this project. If we can further assist your office, please contact me at (919) 707-0370.



**NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR  
LISTED ARCHAEOLOGICAL SITES  
PRESENT FORM**



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

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**PROJECT INFORMATION**

Project No:	<b>R-3410</b>	County:	<b>Johnston</b>
WBS No:	<b>38857.1.1</b>	Document:	<b>State EA/FONSI</b>
F.A. No:	<b>NA</b>	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Permit Type:	<b>N/A</b>

**Management Summary**

On November 9, 2016, Environmental Corporation of America (ECA) was retained to perform an archaeological survey and evaluation for the proposed widening of NC 42 from its intersection with NC 50 to US 70 Business in Clayton, Johnston County, North Carolina. The Study Area measures approximately 8 miles in length and 600 feet in width from the centerline of NC 42 and also extends up to 2,000 feet along intersecting roadways.

During ECA's investigation of the Study Area, a total of six archaeological sites (31JT494\*\*, 31JT495, 31JT496, 31JT497\*\*, 31JT498, and 31JT499\*\*) were newly identified (Table 3). Of these, two archaeological sites yielded prehistoric artifacts (31JT495 and 31JT496), two sites yielded historic artifacts (31JT494\*\* and 31JT497\*\*), and one isolated find (31JT498) produced one prehistoric quartz flake. Two previously recorded prehistoric sites (31JT129 and 31JT171) were also located. Though a portion of 31JT171 was identified, the majority of the site could not be assessed due to the objections of two property owners. In addition, attempts to relocate the previously recorded site 31JT128 were unsuccessful; however, though the site form on record stated the site was unassessed for inclusion to the NRHP, Loftfield (1979), the original recorder of the site, stated no further action was required. The Simeon Gower Cemetery (31JT499\*\*) was also assessed and was determined not eligible for inclusion to the NRHP.

ECA believes that, since 31JT171 could not be fully delineated and investigated due to the objections of property landowners, further study would be necessary to determine whether the site is eligible for inclusion to the NRHP. ECA is of the opinion that the remaining archaeological sites do not retain sufficient integrity to demonstrate their potential significance to important research questions concerning the history or prehistory of the area, as required by criterion D of the NHPA. It is recommended that the project area be cleared for the proposed construction activities as it relates to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. § 470).



16-07-0024



## ARCHAEOLOGICAL SURVEY REQUIRED FORM

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



### PROJECT INFORMATION

Project No: **R-3410** County: **Johnston**  
 WBS No: **38857.1.1** Document: **State EA/FONSI**  
 F.A. No: **N/A** Funding:  State  Federal

Federal Permit Required?  Yes  No Permit Type: **Not Specified**

**Project Description:** The NCDOT is proposing to widen NC 42 from its intersection with NC 50 to US 70 Business in Clayton, with the exception of the NC 42 interchange with I-40. Currently, NC 42 is typically a 2-lane road with shoulders, widening at the intersections. As proposed, NC 42 will become a 4-lane facility with a median. Project length measures about 8.00 miles. The preliminary Study Area is a 600-foot corridor centered along NC 42, beginning 2,000 feet west of NC 50 to Hamby Street in Clayton, just east of US 70 Business. The Study Area would also extend up to 2,000 feet along the major Y-lines, including NC 50, Old Drug Store Road, Cornwallis Road, Government Road, Amelia Church Road, Guy Road, and Barber Mill Road. Overall, the Study Area will encompass about 595 acres, inclusive of all existing roadways and development.

### SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW: *SURVEY REQUIRED*

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

This project was originally received on Tuesday, July 19, 2016. In order to proceed with this review, additional information was requested; however, no information has been received yet. A Study Area was, therefore, generated based on information provided to the Historic Architecture Group. A map review and site file search was conducted at the Office of State Archaeology (OSA) on Thursday, August 4, 2016. Large-scale archaeological surveys for the Clayton Bypass (TIP# R-2552 [Roberts and Butler 1992]) and the I-40 corridor from the Raleigh Beltline to NC 50 (TIP# I-10 [Loftfield 1979 and Padgett 1984]) have been conducted within the area. Small-scale archaeological surveys have also been conducted in select locations along the NC 42 corridor. At least thirteen (13) archaeological sites have been recorded within one-half mile of the entire corridor for the proposed project. Digital copies of HPO's maps (Edmondson, Garner, and Clayton Quadrangles) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpoweb/>) were last reviewed on Tuesday, August 23, 2016. There are numerous historic architectural resources located within or adjacent to the Study Area; however, intact archaeological deposits associated with these resources are not anticipated within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the archaeological APE.

Although State funds will be utilized for this project, a Federal permit will be required. Although temporary and/or permanent easements may not be necessary, additional ROW along the overall corridor and its various Y-lines may be required. The overall dimensions of the Study Area will capture any areas

**16-07-0024**

to be impacted beyond the NCDOT's existing ROW. At this time, we are in compliance with NC GS 121-12a since there are no eligible (i.e. National Register-listed) archaeological resources located within the project's Study Area that would require our attention. Based on the description of the project and the size of the Study Area, activities may take place beyond the NCDOT's existing ROW, which varies between 60 to 100 feet wide. From an environmental perspective, the Study Area can be classified as agricultural/commercial/industrial/suburban, consisting primarily of NC 42 (and its intersecting roadways) and the immediately adjacent property. However, intact pockets of undeveloped land and buffers adjacent to streams/rivers that have not been previously surveyed are present along the corridor. Various soil types occur throughout the Study Area. To remain consistent with previous surveys in the area, the testing methodology put forth for the Clayton Bypass (Roberts 1991:50-1) should be followed. Based on survey results from Garrow and Herbert (1981), Kimball (1977), Loftfield (1979), and Ward (1982), soil types considered to have a high probability for archaeological resources include: Appling, Norfolk, and Wedowee. Soil types considered to have a moderate probability for archaeological resources include: Marlboro, Altavista, Cecil, Cowarts, Durham, Fuqua, and Tomotley. Soil types considered to have a low probability for archaeological resources include: Varina, Wehadkee, Wagram, Goldsboro, Nason, Pacolet, Lynchburg, Grantham, Rains, Rion, and Augusta. Areas containing moderate to high probability soil types that have not been disturbed by development and/or have not been subjected to previous archaeological survey/review work will require formal archaeological investigations. It should also be determined whether archaeological components associated with the Austin Mill Site (JT0660) and the Sanders-Hairr House (JT0006) occur within the Study Area. In addition, Sites 31JT129 and 31JT171 are situated within the Study Area, and have not been fully assessed for the National Register of Historic Places (NRHP). The locations of both archaeological sites should be re-established to confirm whether the sites are still present and have not been impacted by development. Finally, the Simeon Gower Cemetery on Cleveland School Road should be properly documented and evaluated. The Office of State Archaeology (OSA) has reviewed several projects within the vicinity of the proposed Study Area for environmental compliance, including borrow pits/mining areas (ER 99-7480, ER 09-2149), utilities (ER 10-0744, ER 11-2098), wetlands restoration (ER 05-1608), commercial development (CH 05-0402, ER 11-2035), and housing/institutional development (ER 06-1009, CH 09-1362, ER 12-0397, CH 12-1085, ER 15-2703), just to name a few. Archaeological surveys were recommended for large-scale projects (e.g. a natural gas pipeline and a hospital expansion) that would impact previously undisturbed property. In addition, archaeological surveys have been conducted for transportation-related projects on new location (TIP# R-2552 [Clayton Bypass] and TIP# I-10 [I-40 Corridor to Benson]). Thus, archaeological surveys were recommended and conducted for projects involving areas of undisturbed land situated in upland settings along drainages, i.e. favorable topographic and hydrological situations. Based on the information provided, an archaeological survey is, therefore, recommended for the proposed project. A visual inspection of the entire Study Area should be conducted, followed then by systematic archaeological excavations within areas of moderate to high archaeological probability, focusing on areas of moderately well-drained to well-drained soils that have not been impacted by modern development. None of the property within the Study Area that requires further investigation is owned by the State of North Carolina so a State Archaeological Resources Protection Act (ARPA) permit should not be necessary. Should the description of this project change or design plans be made available prior to construction, additional consultation regarding archaeology will be required.

## SUPPORT DOCUMENTATION

See attached:  Map(s)     Previous Survey Info     Photos     Correspondence  
 Photocopy of County Survey Notes    Other:

**FINDING BY NCDOT ARCHAEOLOGIST – SURVEY REQUIRED**

*Paul J Mohler*  
NCDOT ARCHAEOLOGIST

August 24, 2016

Date

**PROPOSED FIELDWORK COMPLETION DATE**

February 24, 2017

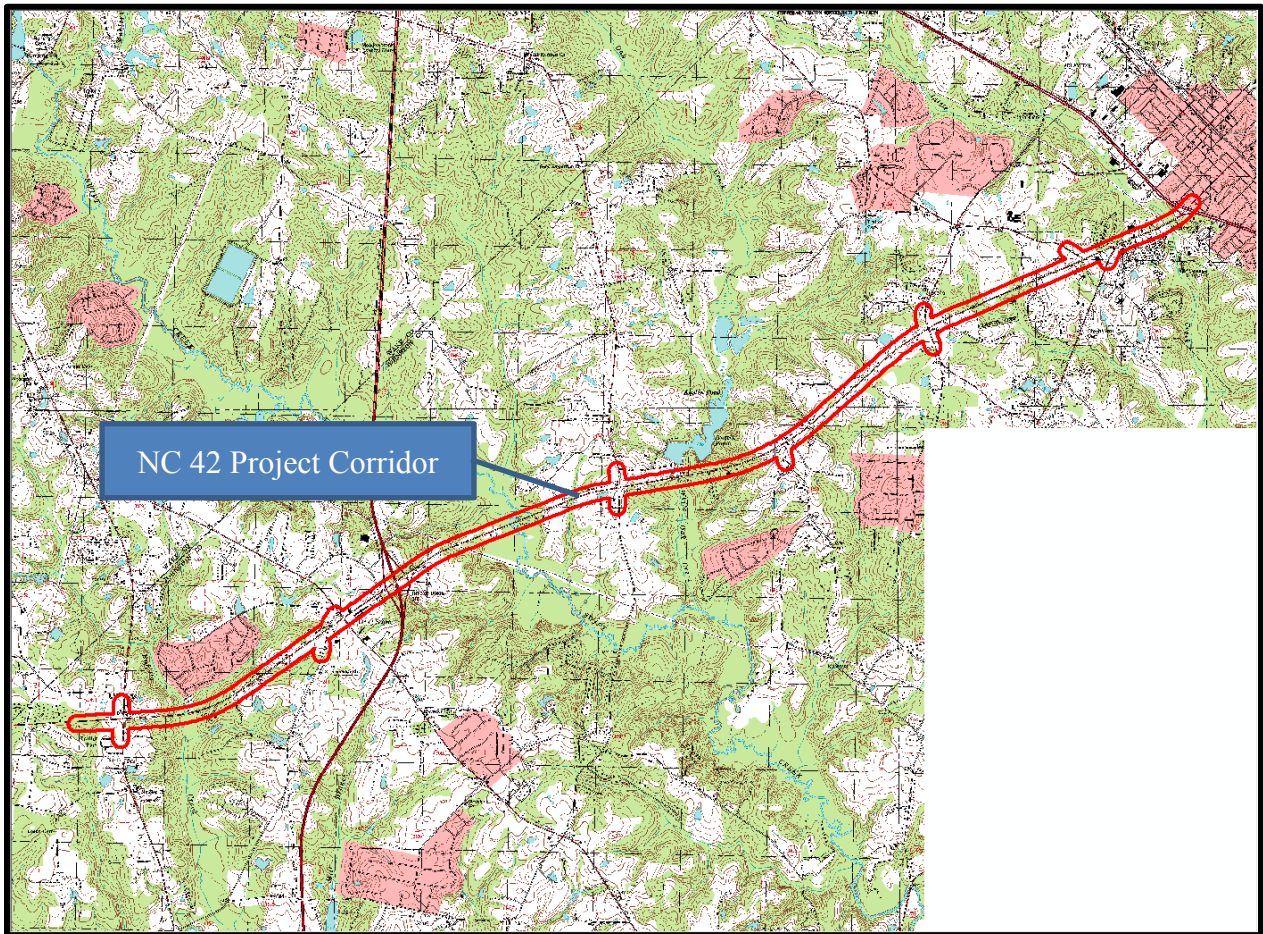
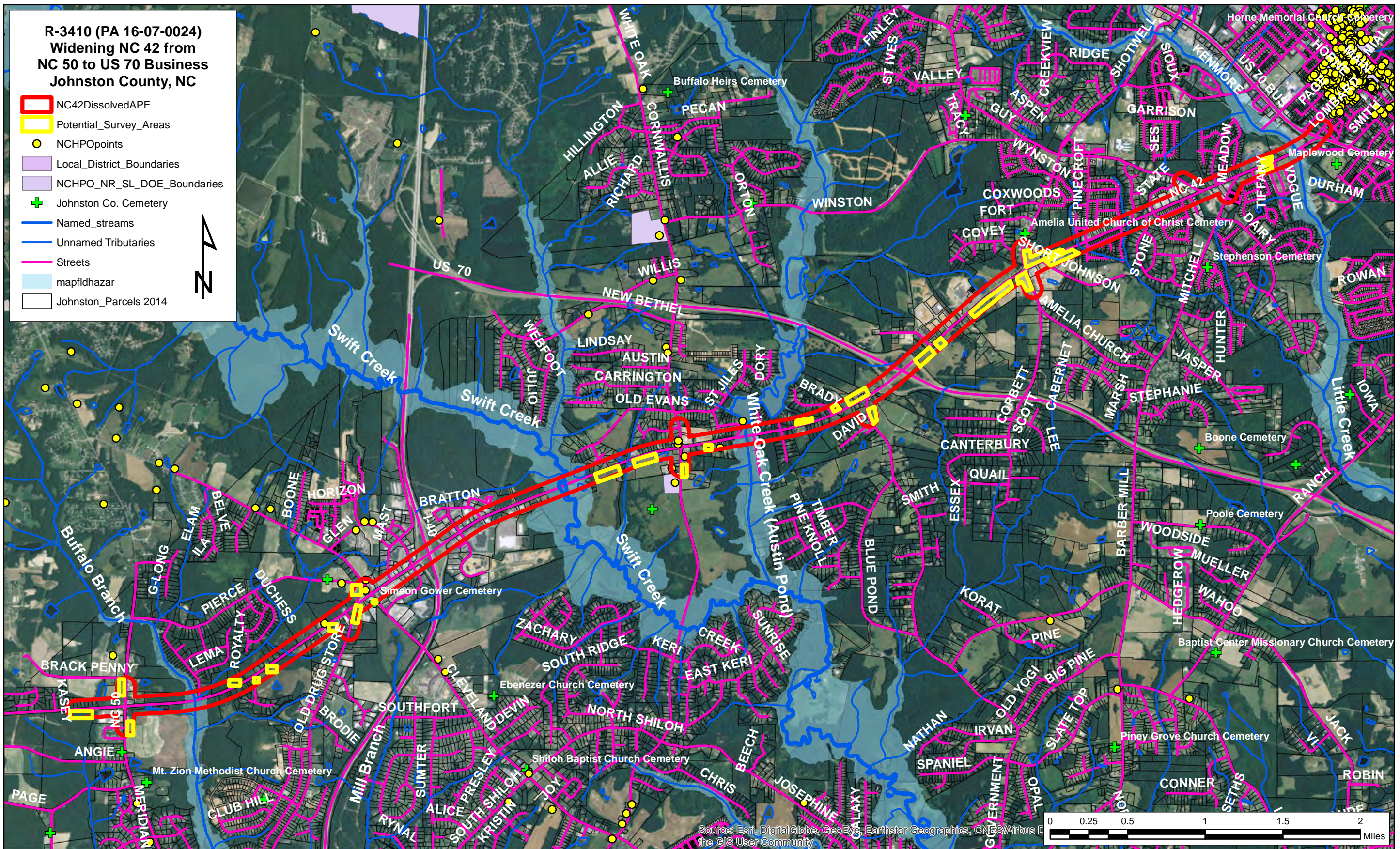


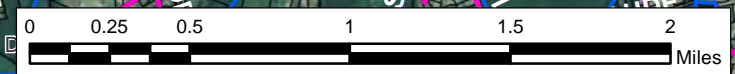
Figure 1: Edmondson, NC (USGS 1964 [PR1973]), Garner, NC (USGS 1964 [PR1973]), and Clayton, NC (USGS 1964 [PR1973]).

**R-3410 (PA 16-07-0024)**  
**Widening NC 42 from**  
**NC 50 to US 70 Business**  
**Johnston County, NC**

- NC42DissolvedAPE
- Potential\_Survey\_Areas
- NCHPOpoints
- Local\_District\_Boundaries
- NCHPO\_NR\_SL\_DOE\_Boundaries
- Johnston Co. Cemetery
- Named\_streams
- Unnamed Tributaries
- Streets
- mapfldhazar
- Johnston\_Parcels 2014



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus





## HISTORIC ARCHITECTURE AND LANDSCAPES ASSESSMENT OF EFFECTS 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.

### PROJECT INFORMATION

<b>Project No:</b>	R-3410	<b>County:</b>	Johnston
<b>WBS No.:</b>	38857.1.1	<b>Document Type:</b>	
<b>Fed. Aid No:</b>	STBG-0042(073) STBG-0042(074)	<b>Funding:</b>	State    X Federal
<b>Federal Permit(s):</b>	X Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	Not specified in review request
<b>Project Description:</b> Widen NC 42 from Hamby Street in Clayton to W of NC 50 from two lanes to four lanes with median, including improvement of selected Y-lines (no off-site detour planned).			

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

*Description of review activities, results, and conclusions:* HPOWeb reviewed on 3 August 2016 and yielded one NR, one SL (determined ineligible 2013), 12 SS, and no LD or DE properties in the Area of Potential Effects (APEs). Johnston County current GIS mapping, aerial photography, and tax information indicated a developed APE with cleared, predominantly residential, commercial and agricultural properties and some cultivated fields and woodland (viewed 3 August 2016). The APE is centered on NC 42 from 2000 feet W of NC 50, 300 feet N of Hamby Street in Clayton, and 300 feet to either side (N-S) of the NC 42 centerline and extends 2000 feet along Barber Mill, Guy, Amelia Church, Government, Cornwallis, and Old Drugstore Roads and 300 feet to either side of their centerlines to encompass all proposed construction activities as currently defined. Approximately 60 properties in the APE contain resources predating 1970, including the National Register-listed Sanders-Hairr House (JT0006), but most are unexceptional (many altered) examples of their types and need no further investigation. The presence of several recorded and unrecorded, pre-1970s resources of possible significance and the National Register-listed property, as well as the minimal design information then available, justified the need for field investigation and evaluation. A small expansion of the study area in the vicinity of Barber Mill Road (April 2018) yielded no additional resources of concern. The comprehensive county architectural survey and update (1980; 2003-4), as well as later studies, recorded no resources in the APE apart from the Sanders-Hairr House and the Lewis Jones (formerly Austin) House (JT1984). Google Maps "Street View" and other visuals confirmed the presence and relative placement of resources within APE (viewed 3 August 2016 and 11 April 2018). The project is subject to review under both GS 121-12(a) and Section 106.

NCDOT Historic Architecture engaged Cardno, Inc. of Raleigh to carry out a National Register assessment of the Home of the Keeper of Records and Seals (JT1983) (the Keeper's House), the Lewis Jones House (JT1984), Lombardy Park Survey Area (JT1985), and a reassessment of the listed Sander-Hairr House (JT0006), presented in a February 2018 technical report available on Connect NCDOT (<https://connect.ncdot.gov>). In April 2018 the North Carolina Historic Preservation Office (HPO) concurred that the Home of the Keeper of Records and Seals (JT1983) is eligible for listing in the National Register and the Sanders-Hairr House continues to warrant its National Register status (see attached correspondence). HPO also agreed that the Lewis Jones House and Lombardy Park are not eligible. HPO also agreed to the proposed National Register boundary for the Keeper's House with several adjustments, as well as that established for the Sanders-Hairr House (see attached).

**ASSESSMENT OF EFFECTS**

<i>Property Name:</i>	Sanders-Hairr House	<i>Status:</i>	NR
<i>Survey Site No.:</i>	JT0006	<i>PIN:</i>	163700-76-0525
<i>Effects</i>			
<input type="checkbox"/> No Effect <input checked="" type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
<u><i>Explanation of Effects Determination:</i></u>			
Proposed construction activities will not directly impact any component resources of historic property. No ROW acquisition.			
<u><i>List of Environmental Commitments:</i></u>			
None.			
<i>Property Name:</i>	Home of the Keeper of Records and Seals	<i>Status:</i>	DE
<i>Survey Site No.:</i>	JT1983	<i>PIN:</i>	165807-78-3922
<i>Effects</i>			
<input type="checkbox"/> No Effect <input checked="" type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
<u><i>Explanation of Effects Determination:</i></u>			
Widening shifted to north away from stone wall (wall located in existing ROW). Proposed construction activities will not impact any component resources of historic property. Access to be preserved.			
<u><i>List of Environmental Commitments:</i></u>			
Install protective fencing and signage for stone wall during construction; note "temporary construction area" on plans.			

**FHWA Intends to use the State Historic Preservation Office's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f): -**

R-3410, Johnston County

**SUPPORT DOCUMENTATION**

X Map(s)     Previous Survey Info.    Photos    X Correspondence    Design Plans

**FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE**

Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

*Vanessa C. Patrick*

NCDOT Architectural Historian

*15 May 2018*

Date

*Reese Medhill-Easley*

State Historic Preservation Office Representative

*5.15.18*

Date

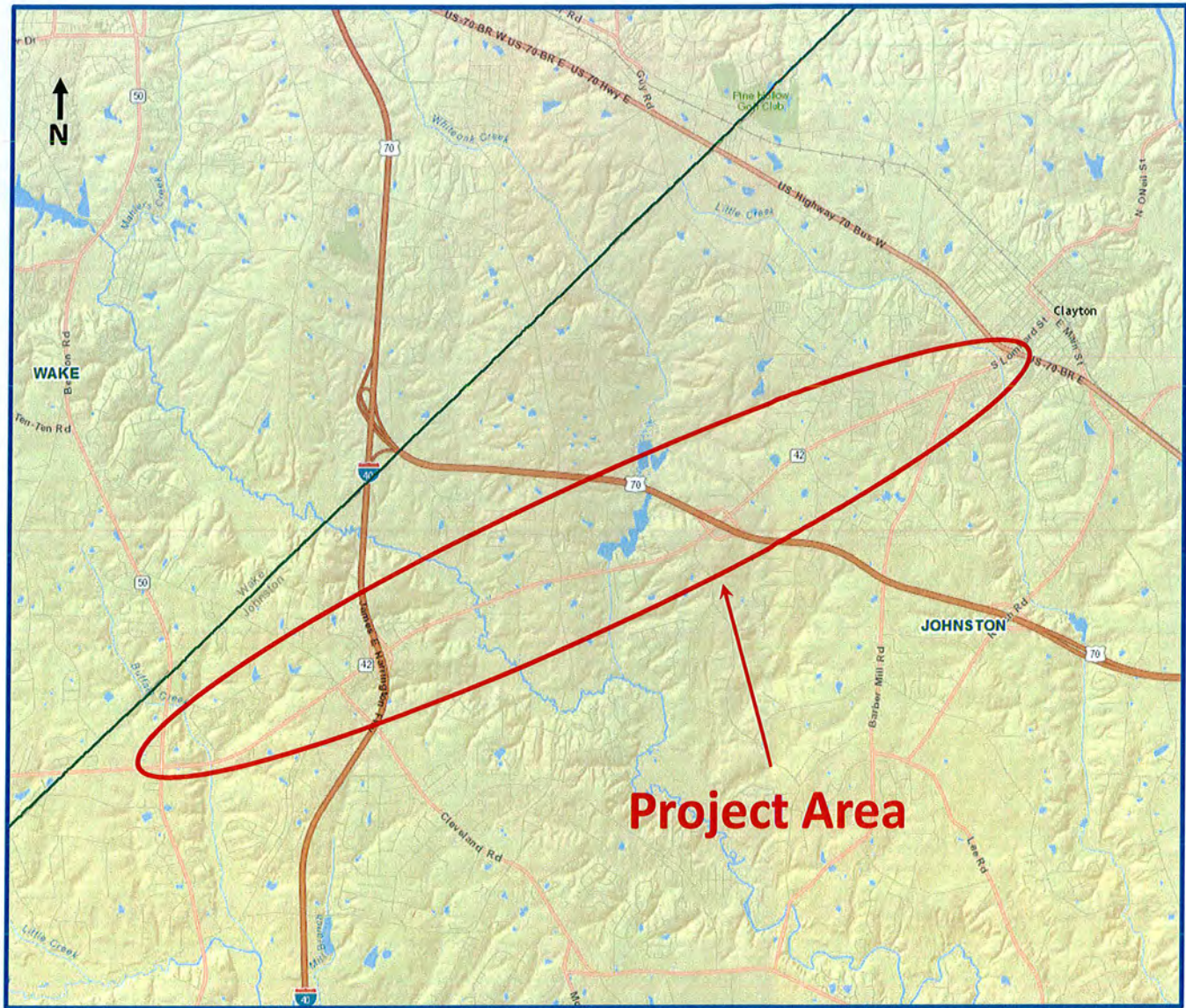
*Ronald E. [Signature]*

Federal Agency Representative

*5-15-18*

Date

R-3410, Johnston County



R-3410

NC 42 Widening

Johnston County

WBS No. 38857.1.1

Base map: HPOWeb, nts





North Carolina Department of Natural and Cultural Resources  
State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Roy Cooper  
Secretary Susi H. Hamilton

Office of Archives and History  
Deputy Secretary Kevin Cherry

April 12, 2018

MEMORANDUM

TO: Vanessa Patrick  
Human Environment Unit  
NC Department of Transportation

FROM: Renee Gledhill-Earley *Renee Gledhill-Earley*  
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report, Widening of NC 42 from Hamby Street in  
Clayton to West of NC 30, R-3410, PA 16-07-0024, Johnston County, ER 18-0561

Thank you for your March 12, 2018, memorandum transmitting the above-referenced report. We have reviewed the report and offer the following comments.

We concur that the house and stone fence that comprise the **Home of Keeper of Records and Seals (JT1983)** are eligible for listing in the National Register of Historic Places as the only surviving elements of the Pythian Orphanage. As such, it meets Criterion A in the area of social history. The house, described as a "subdued" example of the Tudor Revival style, does not rise to the level of significance necessary to meet Criterion C and it lacks sufficient integrity for Criterion C due to the later shed roof added to the terrace in front of the side wing, a significant alteration. The stone fence might also meet Criterion A in the area of government due to its construction by the Works Progress Administration. The boundary for the property, especially the fence, is insufficient. For the fence, we recommend the edge of pavement along South Lombard Street/NC42 and Barber Mill Road to the driveway cut with a setback of at least twenty feet from the back of the fence and returning to the tax parcel for the house.

We concur that the **Sanders-Hairr House (JT0006)** continues to be eligible for the National Register and the boundaries are appropriate.

We concur that **Lombardy Park Survey Area (JT1985)** is not eligible for listing in the National Register for the reasons stated in the report. We would note that the description and tables, divided into portions of the survey area and APE, were extremely difficult to follow.

We also agree that the **Lewis Jones House (JT1984)** is also not eligible and that its history, as presented, is difficult to follow.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov). In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT, [mfurr@ncdot.gov](mailto:mfurr@ncdot.gov)



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

**Memorandum**

To: Renee Gledhill-Earley  
Environmental Review Coordinator  
North Carolina State Historic Preservation Office

From: Vanessa E. Patrick  
Architectural Historian  
NCDOT - Historic Architecture

Date: April 16, 2018

Subject: *Historic Structures Survey Report – Widening of NC 42 from Hamby Street in Clayton to West of NC 50, Johnston County, North Carolina. T.I.P. No. R-3410. PA No. 16-07-0024. ER 18-0561.*

---

Thank you for your recent comments on the above report. We are pleased that you concur with our recommendations that the **Home of the Keeper of Records and Seals** (“Keeper’s House”) (JT1983) is eligible and the **Lombardy Park Survey Area** (JT1985) and **Lewis Jones House** (JT1984) are not eligible for listing in the National Register of Historic Places. We will adjust the proposed National Register boundary for the Keeper’s House according to your suggestions.

We will consider the Keeper’s House, as well as the National Register-listed **Sanders-Hairr House** (JT0006), at an upcoming effects consultation. NCDOT engineers are aware of the properties’ status and will provide us with more fully developed project plans and other design information when available.

As always, your help is greatly appreciated. Should questions arise, please contact me at [vepatrick@ncdot.gov](mailto:vepatrick@ncdot.gov) or 919-707-6082.

V.E.P.

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
HUMAN ENVIRONMENT SECTION  
MSC 1598  
RALEIGH, NC 27699-1598

*Telephone:* (919)-707-6000  
*Fax:* (919)-212-5785  
*Customer Service:* 1-877-368-4968

*Website:* [www.ncdot.gov](http://www.ncdot.gov)

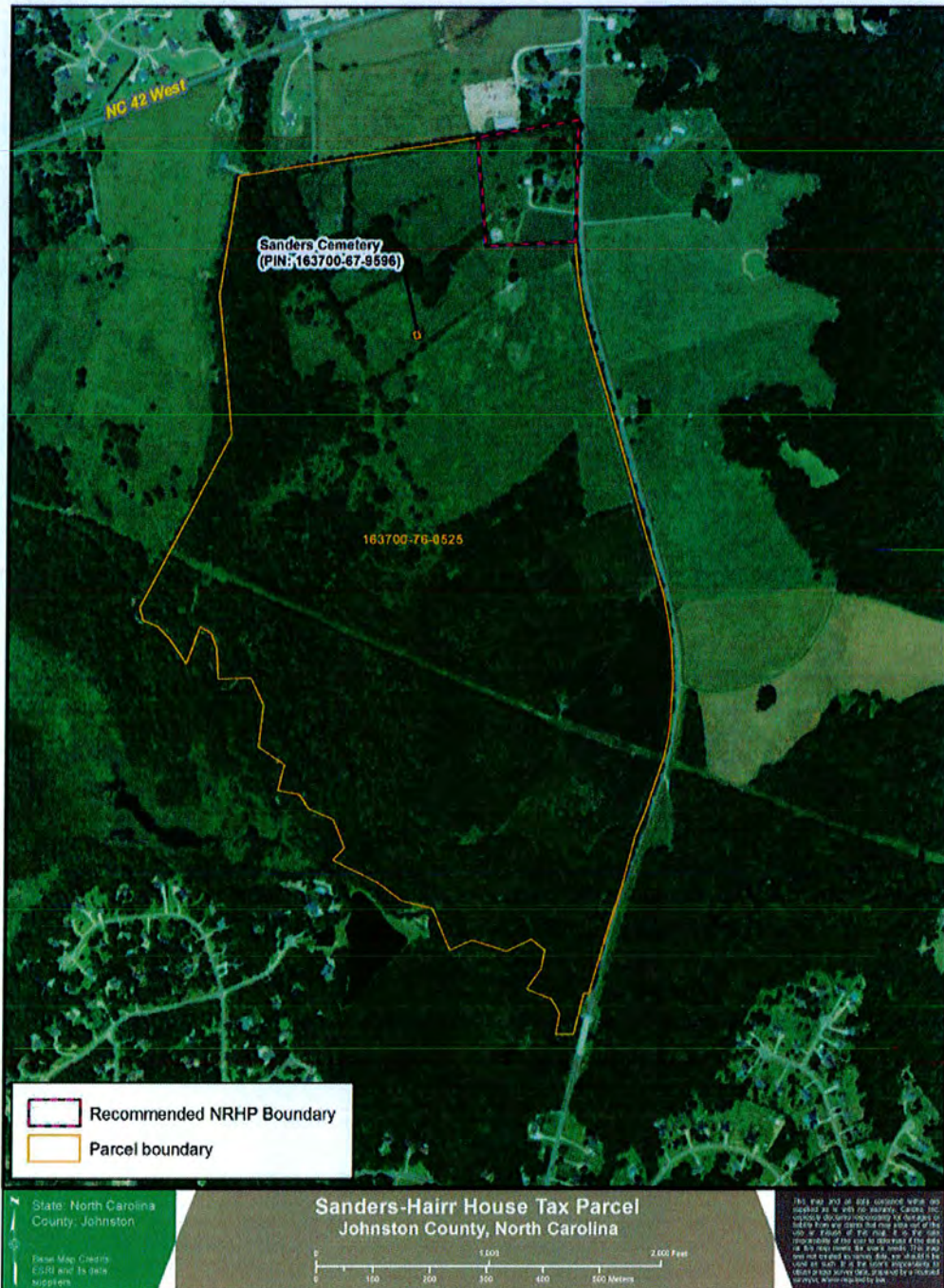
*Location:*  
1020 BIRCH RIDGE DRIVE  
RALEIGH, NC 27610



**Proposed National Register Boundary**  
**Home of Keeper of Records and Seals (JT1983)**  
**1101 South Lombard Street (NC 42)**

Follows western, southern, and eastern bounds of existing tax parcel (PIN: 165807-78-3922) (to existing ROW at east along Woodbriar Road). Northern boundary follows existing edge-of-pavement of NC 42 and Barber Mill Road. Southern boundary west of tax parcel positioned twenty feet south of stone wall, terminating on north side of driveway cut on Barber Mill Road as illustrated.

Base map: Current Johnston County GIS, nts



**Proposed National Register Boundary  
Sanders-Hairr House (JT0006-NR)**

N = northern current parcel line

W = 600 feet south along farm path from a point  
525 feet west of Cornwallis Road

S = meets W boundary line approximately 30 feet south of concrete barn  
foundations and runs due east to Cornwallis Road

E = existing ROW, west side Cornwallis Road



## HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

### Expanded Study Area – Supplements 2016 Survey Needed 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.

#### PROJECT INFORMATION

<b>Project No:</b>	R-3410	<b>County:</b>	Johnston
<b>WBS No.:</b>	38857.1.1	<b>Document Type:</b>	
<b>Fed. Aid No:</b>		<b>Funding:</b>	X State    Federal
<b>Federal Permit(s):</b>	X Yes    No	<b>Permit Type(s):</b>	Not specified in review request
<b>Project Description:</b> Widen NC 42 from Hamby Street in Clayton to W of NC 50 from two lanes to four lanes with median, including improvement of selected Y-lines (no off-site detour planned).			

#### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS:** THIS REVIEW ADDRESSES THE EXPANSION OF THE ORIGINAL PROJECT STUDY AREA IN THE VICINITY OF BARBER MILL ROAD AND DAIRY ROAD (SEE ATTACHED). HPOWeb reviewed on 11 April 2018 and yielded no NR, SL, LD, DE, or SS properties in the expanded study area. Johnston County current GIS mapping, aerial photography, and tax information indicated a developed landscape with residential, commercial, and governmental resources dating from the late 1970s to the 2000s (viewed 11 April 2018). The several pre-1970 resources are unexceptional, some also altered, examples of their types. The project is reviewed under both GS 121-12(a) and Section 106.

**No architectural survey is required for the expanded study area as currently defined.**

**WHY THE AVAILABLE INFORMATION PROVIDES A RELIABLE BASIS FOR REASONABLY PREDICTING THAT THERE ARE NO UNIDENTIFIED SIGNIFICANT HISTORIC ARCHITECTURAL OR LANDSCAPE RESOURCES IN THE PROJECT AREA:** Most of the expanded study area was considered in the original screening of the entire project area in 2016 and reviewed again as part of the recent addition. The comprehensive county architectural survey and update (1980; 2003-2004), as well as later studies, record no resources in the expanded study area. No National Register-listed or -eligible properties are present. Google Maps "Street View" and other graphics confirm the absence of significant architectural and landscape resources in the expanded study area.

**Should any aspect of the project design change, please notify NCDOT Historic Architecture as additional review may be necessary.**

#### SUPPORT DOCUMENTATION

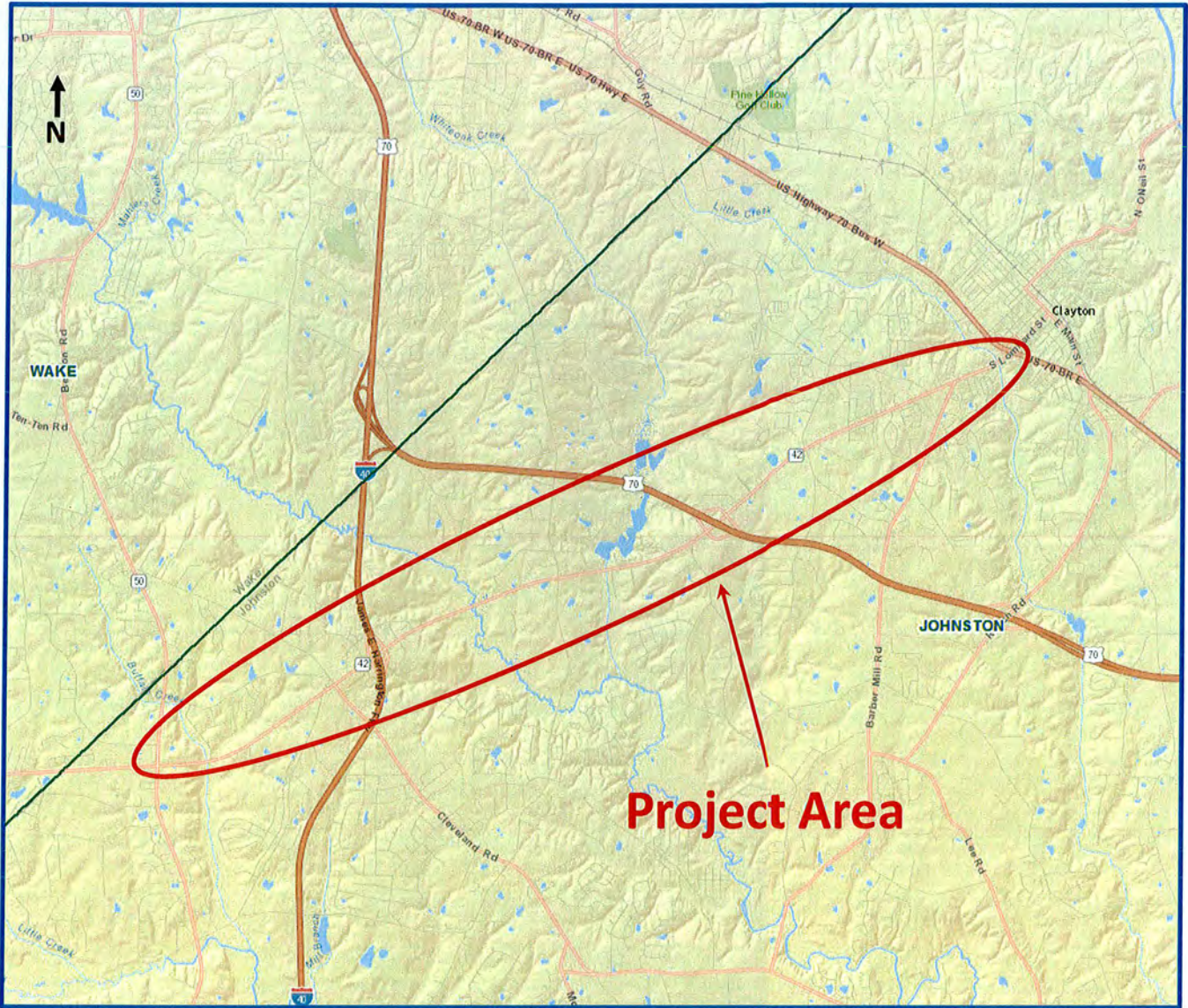
X Map(s)     Previous Survey Info.     Photos     Correspondence     Design Plans

#### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

NCDOT Architectural Historian

12 April 2018  
Date



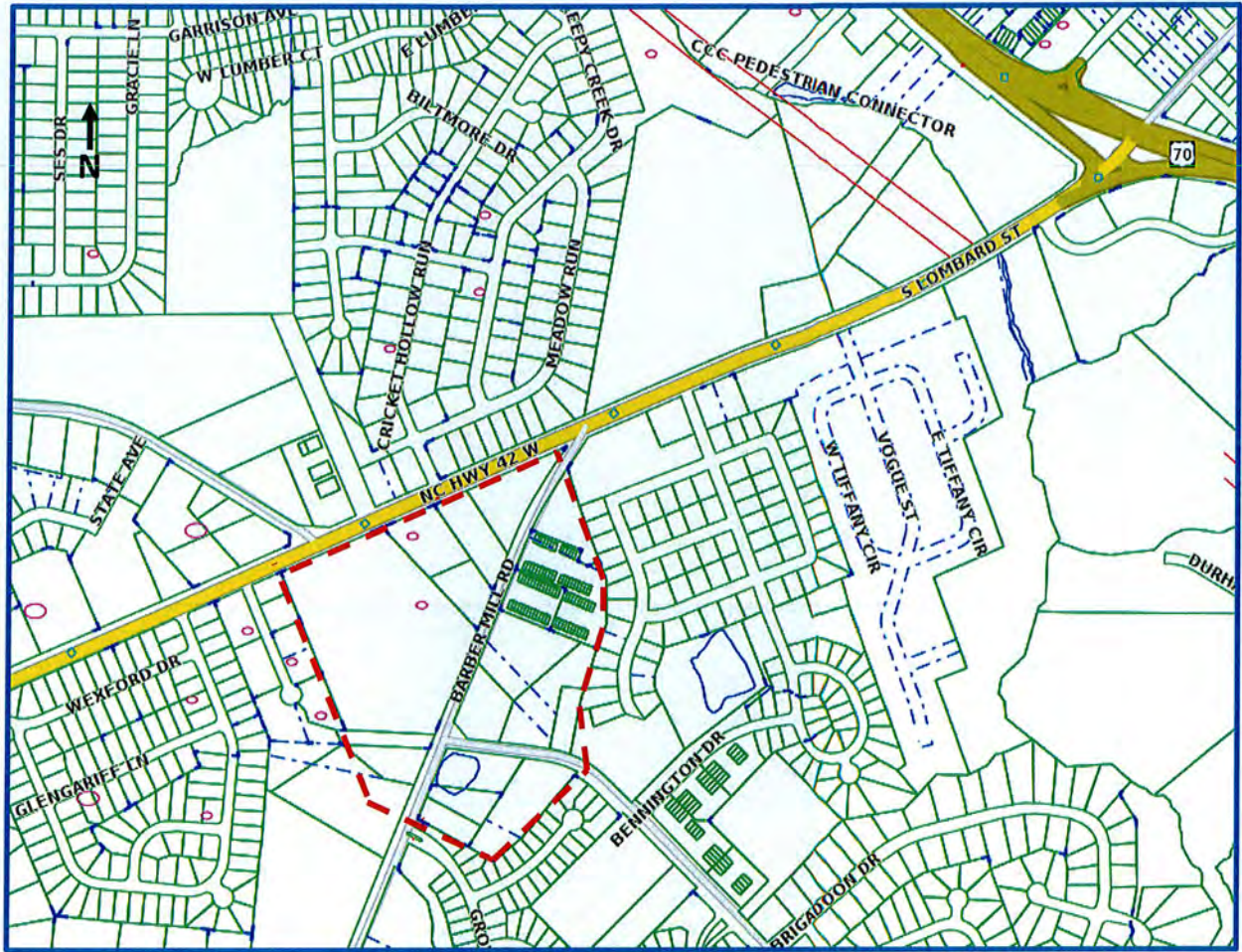
R-3410

NC 42 Widening

Johnston County

WBS No. 38857.1.1

Base map: HPOWeb, nts



R-3410

NC 42 Widening

Johnston County

**Expanded Study Area - -**

Base map: Current Johnston County GIS, nts



16-07-0024



## HISTORIC ARCHITECTURE AND LANDSCAPES \*\*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.

### PROJECT INFORMATION

<b>Project No:</b>	R-3410	<b>County:</b>	Johnston
<b>WBS No.:</b>	38857.1.1	<b>Document Type:</b>	
<b>Fed. Aid No.:</b>		<b>Funding:</b>	X State    Federal
<b>Federal Permit(s):</b>	X Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	Not specified in review request
<b>Project Description:</b> Widen NC 42 from Hamby Street in Clayton to W of NC 50 from two lanes to four lanes with median, including improvement of selected Y-lines (no off-site detour planned).			

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**Description of review activities, results, and conclusions:** HPOWeb reviewed on 3 August 2016 and yielded one NR, one SL, 12 SS, and no LD or DE properties in the Area of Potential Effects (APEs). Johnston County current GIS mapping, aerial photography, and tax information indicated a developed APE with cleared, predominantly residential, commercial and agricultural properties and some cultivated fields and woodland (viewed 3 August 2016). The APE is centered on NC 42 from 2000 feet W of NC 50, 300 feet N of Hamby Street in Clayton, and 300 feet to either side (N-S) of the NC 42 centerline and extends 2000 feet along Barber Mill, Guy, Amelia Church, Government, Cornwallis, and Old Drugstore Roads and 300 feet to either side of their centerlines to encompass all proposed construction activities as currently defined. Approximately 60 properties in the APE contain resources predating 1970, including the National Register-listed Sanders-Hairr House (JT0006), the study-listed Gower-Bundy House (JT0760), and three cemeteries. The presence of multiple recorded and unrecorded, pre-1970s resources and the National Register-listed property, as well as the minimal design information currently available, justify the need for field investigation and evaluation. The project will be reviewed under both GS 121-12(a) and Section 106.

### SUPPORT DOCUMENTATION

X Map(s)     Previous Survey Info.     Photos     Correspondence     Design Plans

### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- \*\*SURVEY REQUIRED\*\*

*Vanessa C. Patrick*

NCDOT Architectural Historian

*19 August 2016*

Date

**MAYOR**  
Jody L. McLeod

**TOWN MANAGER**  
Adam Lindsay

**TOWN ATTORNEY**  
Parker Poe



**MAYOR PRO TEM**  
Michael Grannis

**COUNCIL MEMBERS**  
R.S. "Butch" Lawter, Jr.  
Art Holder  
Jason Thompson  
Bobby Bunn

January 31, 2018

Matt Clarke, P.E.  
Project Development Engineer  
NCDOT, Highway Division 4  
P.O. Box 3165  
Wilson, NC 27895-3165

**Re: NC Hwy 42 West widening project (State Project#: 38857.1.1, TIP#: R-3410) in Clayton, NC**

Dear Mr. Clarke,

At the request of the preliminary design team and in the interest of establishing consensus and understanding of the requirements and responsibilities of the different stakeholders involved in the impending widening of NC Hwy 42 West, please review and respond to the following requests related to the operational improvements and infrastructure investments planned within Clayton's jurisdiction. This letter is intended to be the beginning of a conversation regarding the proposed widening and associated improvements.

It is the Town's understanding that:

1. The NC Hwy 42 West widening project is currently scheduled for construction in calendar year 2022, with the potential for a fast-tracked design/build process that may result in an advanced construction schedule (approx. 2019 or 2020).
2. Given the current population of Clayton (est. ~20,260), and in accordance with the NCDOT Policy and Procedure Manual, Chapter 28, Sidewalks (28/1), that
  - a. The Town will be responsible for 30% of the costs of Town-requested pedestrian facilities (new sidewalks, multi-use trails, and greenways) along the roadway;
  - b. Existing pedestrian facilities will be replaced entirely by NCDOT; and
  - c. The cost of bridges and associated pedestrian facilities are funded exclusively by NCDOT.



3. The current roadway cross-section under consideration for the entirety of the Town's jurisdiction (town limits and extraterritorial jurisdiction) is Typical Section No. 2, for TIP-3410, which includes curb-and-gutter throughout, a 23'± vegetated or landscaped median, two 12' travel lanes in each direction, a 5' wide bicycle lane on the outside of the travel lanes, and a 10'± "berm" on the outside of the curb (aka graded, vegetated shoulder).

The Town also respectfully requests your consideration and accommodation of the following items. Where appropriate, please indicate if these costs will be born entirely by the Town or if they will be subject to the cost-sharing outlined in #2.a. above.

1. Because of the urban nature of the corridor within the Town's jurisdiction, the Town requests that pedestrian and cyclist (aka "bike/ped") accommodations be included in the design. Given the dense nature of development expected in the corridor and the proposed speeds on the roadway, the preferred cross-section design is to have bike/ped accommodations on both sides of the road, separated from the vehicular travel lanes, or "outside of the curb". Research shows that when collisions occur between cyclists and automobiles at speeds greater than 30± mph, the outcome is nearly always fatal for the cyclist. Therefore, given the nature of planned bike/ped facilities in the area, the Town would like to collaboratively explore the option of modifying the standard NCDOT road cross section (Typical Section No. 2). The modifications would leave the travel lanes and median intact, but would take the asphalt from the typical cross-section's 5' wide on-street bike lanes and transfer that funding (dollar-for-dollar) from inside the curb to outside the curb, to create a separated (off-street) bike/ped facility within the proposed ultimate right-of-way. The ideal scenario for bike/ped accommodations would be a 10' wide multi-use trail (aka greenway) on the north side of the roadway (off-street and behind the curb) paired with a sidewalk on the south side of the road. Due to current fiscal restraints, and if the relocation of facilities within the right-of-way is agreeable, the exact nature of improvements will need to be determined in the near future. If this concept is agreeable, the Town would like permission to work with NCDOT's roadway design consultant to develop a new (modified) typical roadway section, to be used within Clayton's jurisdiction.
2. Being that NC 42 West is a major gateway, the Town requests a vegetated median throughout the project corridor, with upgraded landscaping in the median at select locations along the roadway. Gateway and branding signage and decorative lighting would also potentially be located in the median at these locations. Please advise as to what further conversation must occur to solidify accommodations for these plans.
3. With the urban and high-density nature of the area, pedestrian crosswalks and signals should be present at every signalized intersection. This is especially

important since a 12-year old child was struck and killed by a motorist while crossing this road in 2016, in the vicinity of West Clayton Elementary School.

4. The school zone signs in the vicinity of West Clayton Elementary School should be upgraded to signs with flashing lights that are automatically activated during school pick-up/drop-off times. Any other appropriate pavement markings in this location are requested.
5. The Town strongly supports the realignment of the Barber Mill Road intersection to a new location alongside the Public Works Operations Building. This realignment coincides with the Town-planned Southern Connector Blvd (STIP project R-3618), and would also help rectify the unsafe conditions at the current Barber Mill Road intersection. The Town is willing to close one or more access points to the Public Works Operations Building in support of this realignment, but requests that the access drive on NC Hwy 42 West remain intact, or at most, be reduced to a right-in/right-out condition.
6. Due to existing traffic safety and congestion concerns, the full intersection at Regency Drive should be reduced to a right-in/right-out condition.
7. Where the Little Creek Greenway intersects NC Hwy 42 W just north of Little Creek, the Town has adopted plans to continue the greenway across the road and to the south. This location is not near any signalized intersection, but will necessitate a bike/ped crossing. At the current time, a grade-separated crossing is not feasible, and so an at-grade, mid-block crossing is requested. Given the high traffic volume in this area, a high-visibility crossing is required, similar to a HAWK crossing or Pedestrian Hybrid Beacon (PHB). A sufficient pedestrian refuge in the median is also requested.
8. The Town requests that traffic splitter islands (aka "pedestrian refuge") should be appropriately vegetated or landscaped and provide a safe refuge for pedestrians and cyclists, as appropriate.
9. Concern exists about the numerous underground water and sewer lines running parallel to NC Hwy 42 in this corridor, and the Town would like to discuss the process and responsibility for replacement should conflict with the widening occur. Please provide a point of contact. In particular, the following facilities are of concern at this time:
  - a. 16-inch waterline from Hwy 70 Business bridge over Lombard Street to Hwy 70 (north side)
  - b. 6-inch waterline from Regency Drive to Barber Mill Road (south side)
  - c. 8-inch gravity sewer main from Little Creek to Woodbriar Road (south side)
  - d. 6-inch force main from JMH to Walnut Creek Drive (south side)
  - e. 8-inch force main from Walnut Creek Drive to Little Creek (south side)
10. The Town is considering replacement and upsizing of the perpendicular gravity sewer line crossing between the Little Creek bridge and Regency Drive. Please provide information regarding the proper time to discuss this further.

11. Please review and advise on the potential to improve the bridge at Little Creek, to improve water flow and maintain vehicular passage during larger storm events.
12. Mast arm traffic signals may be requested at select signalized intersections, with illuminated road name signs.
13. The Town will need to lay conduit (maximum diameter 6") in the following locations for purposes of running electric feeder and transmission lines in the future:
  - a. Under NC Hwy 42 at the intersection of Barber Mill Road and West Clayton Elementary School driveway.
  - b. Under Regency Drive with the current electric feeder line.
  - c. Under NC Hwy 42 at the Clayton Operations Center, to the junction enclosure located at 660 NC Hwy 42W.

Thank you for your consideration of these concerns, comments, and questions. If you have any questions, please contact me. I look forward to working with you on this project.

Sincerely,



David L. DeYoung, AICP  
Economic & Community Development Director  
([ddeyoung@townofclaytonnc.org](mailto:ddeyoung@townofclaytonnc.org))

Cc:

- Leza Mundt, Senior Transportation Planner, Simpson Engineers & Associates ([lmundt@simpsonengr.com](mailto:lmundt@simpsonengr.com))
- Robin Maycock, Senior Environmental Manager, Louis Berger ([rmaycock@louisberger.com](mailto:rmaycock@louisberger.com))
- Jiles Harrell, NCDOT District Engineer, ([jpharrell@ncdot.gov](mailto:jpharrell@ncdot.gov))
- Ronnie Keeter, NCDOT Highway Division 4, Division Engineer ([rkeeter@ncdot.gov](mailto:rkeeter@ncdot.gov))
- The Mayor and Town Council of the Town of Clayton
- Adam Lindsay, Town Manager, Town of Clayton ([alindsay@townofclaytonnc.org](mailto:alindsay@townofclaytonnc.org))
- Kimberly Moffett, Town Clerk, Town of Clayton ([kmoffett@townofclaytonnc.org](mailto:kmoffett@townofclaytonnc.org))
- Tim Simpson, Public Works Director, Town of Clayton ([tsimpson@townofclaytonnc.org](mailto:tsimpson@townofclaytonnc.org))
- Rich Cappola, Engineering & Inspections Director, Town of Clayton ([rcappola@townofclaytonnc.org](mailto:rcappola@townofclaytonnc.org))
- Jay McLeod, Senior Planner, ([jwmcleod@townofclaytonnc.org](mailto:jwmcleod@townofclaytonnc.org))



**Meeting Summary  
September 14, 2017**

**SUBJECT:** R-3410 Pre-Merger Screening Meeting

**TIME / DATE:** 10:00 a.m. / Thursday, August 14, 2017

**LOCATION:** US Army Corps of Engineers Office, 3331 Heritage Trade Dr., Suite 105, Wake Forest, NC

**SUMMARY BY:** Leza Wright Mundt, Simpson Engineers & Associates

**ATTENDANCE:**

Matt Clarke	Division 4, NCDOT
Chad Coggins	Division 4, NCDOT
Ronnie Keeter	Division 4, NCDOT
Eric Alsmeyer	USACE
Ross Sullivan	USACE
Bill Marley	FHWA
George Hoops	FHWA
Rob Ridings	DWR
Robin Maycock	Louis Berger
Douglas Parker	Louis Berger
Martha Register	Simpson Engineers & Associates
Leza Wright Mundt	Simpson Engineers & Associates

**MATERIALS DISTRIBUTED:** Agenda, Environmental Features Map, typical sections and design criteria.

**MEETING SUMMARY:** The purpose of the meeting was to determine whether the project should be placed into the Merger Process and identify the probable Section 404 Permits to be used for project construction. The following summarizes the discussion and decisions reached.

Martha Register provided a project overview, noting the purpose and need will be about traffic congestion and travel delay. Traffic volumes nearly double between 2016 and the 2040 design year. The project will involve one “best fit” alternative alignment. The project is separated into two sections by the I-4739 interchange improvement project for the NC 42/I-40 interchange.

The project is being processed as a Type III Categorical Exclusion.

Wetland and stream delineations were completed the week of September 8. Three Oaks (SEA’s subconsultant for natural resources) will contact Eric Alsmeyer for a field review. The preliminary delineation data was overlaid onto the environmental features map and reviewed by the meeting attendees. Preliminary jurisdictional resources within the 500’ wide study corridor include:

- Wetlands: 14.3 acres
- Streams: 12,160 linear feet
- Ponds: 3.1 acres

It was noted that the impacts calculated on the preliminary design construction limits, will be less.

Upon reviewing the environmental features map, Eric Alsmeyer stated that the only jurisdictional issue he identified as a concern was the crossing at Buffalo Creek. The project team will explore minimization options at that location.

Two historic properties are located along the corridor. Neither are near, or adjacent, to jurisdictional resources. Therefore, competing resources is not expected to be a concern for this project.

Federally-protected freshwater mussel surveys were completed in the study area's four largest perennial streams: Buffalo Creek, Swift Creek, White Oak Creek, and Little Creek. Additionally, tributaries were also evaluated for potential habitat. No T&E mussels populations were found within the study area. However, the listed Dwarf Wedgemussel, proposed Yellow Lance, and the petitioned Atlantic Pigtoe and Neuse River Waterdog are all known from other recent surveys in the Swift Creek watershed.

Chad Coggins and George Hoops summarized the on-going efforts of the US Fish and Wildlife Service (FWS) and FHWA in developing a Programmatic Agreement for a Biological Opinion on the likely effects to the protected mussel species in the Swift Creek basin. A substantial number of transportation and bridge replacement projects are planned within the basin. A programmatic approach to mitigating effects is seen as the best way to ensure the mussels' continued viability. Once approved, the PA and the mitigation measures proposed therein will be implemented for the NC 42 widening project. The draft is expected to be approved in December, 2017, though it could be as late as April, 2018. If not approved when the CE is complete, a "green sheet" commitment will be included stating that the NCDOT will comply with the measures contained within the PA.

It was noted that other federally-protected species listed for Johnston County include the red-cockaded woodpecker, Michaux's sumac, and bald eagle. Martha noted that it is unlikely that any of these species occur within the project study area.

Robin Maycock asked if the biologists were surveying for bats under the bridges. It was agreed that Three Oaks will be asked to survey for bats, even though no protected bat species is currently listed for Johnston County.

Section 404 permits that may be used for the project include a Nationwide Permit 23, a Regional Permit 31, or possibly a Nationwide Permit 14. However, Regional Permit 31 will not be available if the project is not in Merger. Eric stated it is unlikely that an Individual Permit will be necessary.

The applicability of the formal Merger Process to the R-3410 project was discussed. Rob Ridings and Eric concluded that it is not necessary to take the project through Concurrence Point 4A of the formal Merger Process, unless there are substantial objections from other Merger Team members. It was agreed that the agencies would be updated regarding design components such as curb and gutter sections, bridges, culverts, and other relevant features. The project team will inform Eric and Rob if the

“best fit” alignment moves into a jurisdictional resource. The project team will meet with Eric and Rob to update them on avoidance and minimization measures as the preliminary design progresses.

The project will enter the Merger Process at Concurrence Points 4B and 4C.

It was noted that coordination with the I-4739 interchange project is important in ensuring that the minimization efforts and hydraulic design of both projects work together.