



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

February 18, 2022

Memorandum To: HL-0008J Scoping Meeting Attendees

FROM: Zahid Baloch NCDOT Project Manager
NCDOT Division 5

SUBJECT: **Project No HL-0008J-Intersection improvement by converting the current intersection to Continuous Green-T Intersection at NC 50 (Benston Road) and SR 2751 (Rand Road). Wake County.**

The North Carolina Department of Transportation (NCDOT) has begun studying the Intersection Improvement by converting to Continuous Green T Intersection at NC 50 (Benston Road) and SR 2751 (Rand Road) in Wake County.

The project is included in the North Carolina Department of Transportation's 2020-2029 State Transportation Improvement Program for Planning and Environmental Study. This project is funded through CAMPO bonus allocation project, NCDOT is preparing a Categorical Exclusion for this project. It is expected to have right of way in fiscal year 2024 and construction in fiscal year 2025. Figure 1 shows the vicinity map for the proposed project.

A virtual Scoping Meeting is scheduled for March 3, at 10:00 AM. The purpose of this meeting is to begin early coordination with our Internal NCDOT staff by discussing known information about the project and project area. Attached to this memo are the Project Data Sheets, mapping and other materials for this meeting; these are also available on the NCDOT Connect – SharePoint site. Please review this material and be prepared to discuss any additional known information regarding your resource and area of expertise as it may concern the project. We would especially appreciate any information you might have that would be helpful in identifying and evaluating important issues or topics that should be considered.

If you have any questions concerning the project, please contact Project Manager Zahid Baloch at 919-707-6012 or email at zbaloach@ncdot.gov. Please include the STIP Project Number (HL-0008J) in all correspondence and comments.

Sincerely,

Zahid M. Baloch, PE
Division 5 Senior Project Engineer
Attachment: Project Data Sheets

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 5 OFFICE
2612 NORTH DUKE STREET
DURHAM, NC 27704

Telephone: (919) 220-4600
Fax: (919) 560-3371
Customer Service: 1-877-368-4968

Location:
2612 NORTH DUKE STREET
DURHAM, NC 27704

Website: www.ncdot.gov

North Carolina Department of Transportation
Project Data Sheet

Essential Project Information	
STIP Project Name	Intersection improvement by converting the current intersection to Continuous Green-T Intersection at NC 50 (Benson Road) and SR 2751 (Rand Road). Wake County.
STIP Number	HL-0008J
County	Wake
NCDOT Division	5
ROW Date	02/6/2024 (Approximate)
LET Date	02/5/2025 (Approximate)
Schedule Considerations	Obligate construction funding by June 2025
Cost Estimates	2.25 million
Funding Type	Federal

Proposed Project Details	
Project Description	Intersection improvement by converting the current intersection to Continuous Green-T Intersection at NC 50 (Benson Road) and SR 2751 (Rand Road) and extension of southbound right-turn lane. Wake County.
Project Limits	NC 50 (Benson Road just South of Rand Road (SR 2728) to south of bridge over Swift Creek.
Typical Section	Two Lane Road
Access Control	No Control
Design Speed	55 (posted 50)
Right-of-Way Width	Variable minimum 60 Feet
Physical or Engineering Constraints	Swift Creek is located at the end of project. NCDOT did the eligibility report on Historic Properties Rand Farm (WA0344) located at 2518 Benson Road. Pin No.1619458482 (Rant-Bryan House) and one Farmstead Located at 1121 Rand Road Pin No.1619445820 on the northwest side of Benson Road in the study area. Historic Eligibility Report has concluded that these properties are not eligible for historic register. Town now owns this property.
Other Considerations	The Town recently approved plans for a large VA Clinic facility at the SW corner of the Rand Rd/NC 50 intersection. As part of that development, they are being required to install a MUP on NC 50 and sidewalk on Rand Road.
Survey Request Date	Preliminary Plan Sheet Mapping Received 05-13-2021
Design Plan	Division Design
Construction Recommendation	Design Bid Build (DPOC)
Consultant Involvement	Division is doing the work on Environmental Document in-house but for design work PEF will be acquired.

Project History	
Planning Studies	<p><u><i>CAMPO Adopted 2050 Metropolitan Transportation Plan</i></u> indicates the following within/at the project study area:</p> <ul style="list-style-type: none"> NC 50 (Benson Road) widening: Existing 2-lane Minor Thoroughfare to a Proposed 4-lane Boulevard with a design Horizon Year of 2040 (Project ID: A228a). <p><u><i>CAMPO Approved 2045 Bicycle/Pedestrian Map</i></u></p>

- NC 50 is considered as part of a Regional On-Road Bike/Ped Corridor.
- Rand Road is considered a Local Facility Bike/Ped Corridor
- An Off-Road Bike/Ped facility is located adjacent to NC 50 at the bridge on NC 50 over Swift Creek.

CAMPO Southeast Area Study Summary Workbook (August 2017)

indicates the following:

- Widening of NC 50 (Benson Road) in the project study area (Pages 41,42,47,48).
- Rand Road in the project study area as a recommended/proposed Share Lane and NC 50 in the project study area as a recommended/proposed Long-Term Bicycle Corridor (Recommended Bicycle Improvements, Pages 62,64).
- NC 50 (Benson Road) in the project study area as a recommended/proposed sidewalk (Recommended Pedestrian Improvements, Page 63,65)

Garner Forward Transportation Plan (June 2018)

NC 50 Study Corridor

-Indicates lack of sidewalks and curb/gutter infrastructure (Page 23).

Existing Pedestrian Facilities Map (page 47)

- Indicates no facilities in the project study area.
- Existing sidewalk exists in the adjacent Brittmore subdivision (outside the project study area).

Pedestrian Facilities Map (page 52)

- Indicates Proposed sidewalk along the full length of Rand Road in the project study area.
- Indicates Proposed sidewalk along the full length of NC 50 in the project study area.

Greenways and Bicycle Facilities Map (page 54)

- Indicates Sharrows as Proposed Bicycle Facilities along the full length of Rand Road in the project study area.
- Indicates Bike Lanes as Proposed Bicycle Facilities along the full length of NC 50 in the project study area.
- Indicates a Proposed Greenway or Side path along Swift Creek at the bridge on NC 50 over Swift Creek.

PlanWake (April 2021)

-Identifies the study area as a mixture of Community and Rural (page 21)

Wake County Transportation Plan (April 2003)

- Identifies Rand Road as a Community Street (Thoroughfare Plan; Figure 4.1-2) in the project study area.
- Identifies Rand Road as a needing a Wide Outside Lane (Thoroughfare Plan; Figure 5.1-2) in the project study area.
- Recommendations for the NC 50 south corridor includes widen to 4-lanes with a landscaped median and wide outside lanes from Rand Road to the planned Outer Loop interchange (Page 4-18).

SPOT Description	No SPOT Description
Feasibility Studies	No Feasibility Study was done for this project
Problem Statement	Intersection at Rand Road and NC 50 (Benson Road) functions poorly and improvement will reduce congestion at the intersection
Alternatives Previously Dismissed and Why	One Concept Design was done by Division 5

Purpose & Need	
Purpose	The purpose of the proposed project is to reduce congestion and delays at the (SR2728) Rand Road and NC 50 (Benson Road) intersection.
Need(s)	The existing intersection design needs improvements to accommodate the current and future traffic and reduce congestion at the intersection.
Supporting Data	Due to increased traffic at the intersection during peak hours a long que has been observed.

Alternatives Currently Under Consideration	
Alternative 1	CGT
Alternative 2	N/A

Public and Agency Coordination	
Anticipated Permits	TBD
Federal Agency Involvement	FHWA
Public Involvement Strategy	Website, newsletter, and possibly Public Meeting (TBD)
Merger Screening Date	It is anticipated that this will not be a Merger Project
Potential Merger Triggers	Currently there are no merger triggers

Existing Conditions	
Functional Classification	NC 50- Minor Arterial (NC Route) Rand Road – Local
Strategic Highway Corridor	N0
AADT	NC 50 (Benson Road) 2020 traffic was between 16,100-23,400 (vpd). 2045 Traffic forecast is to be 26,400-34,000 (vpd) SR 2728 (Rand Road) 2020 Traffic was 7,900 (vpd). 2045 traffic forecast is to be around 8,400 (vpd)
Access Control	No access control
Typical Section	Two lane Road
Right-of-Way Width	Varies 60-120 feet in the study area
Posted Speed	50 mile per hour on NC 50 (Benson Road) and 35-45 mile per hour on Rand Road.
Structures (bridges, RCBC, etc.)	One bridge over Swift Creek is outside of the study area
Railroad Involvement	No
Other Adjacent STIP Projects	HL-0008C is north of this project. Proposed 540 is to the south

Preliminary Resource Inventory Table	
Utilities	TBD
Hazardous Materials	Three (3) sites of concern were identified within the proposed study area. We anticipate low monetary and scheduling impacts resulting from these sites. (See Appendix A for location of geo environmental sites of concern).
Known Potentially-Eligible National Register of Historic Places Sites/Districts	This project may have Historic Property Rand Form (WA0344) located at 2518 Benson Road. Pin No.1619458482 (Rant-Bryan House) and one Farmstead Located at 1121 Rand Road Pin No.1619445820 on the Northwest of Benson Road in the study area. Historic Eligibility Report found this property is not eligible for historic register.
Other Cultural Resources	Not known at this time
Wetlands	In the vicinity of the project, the USFWS NWI mapping identifies possible wetlands adjacent to Swift Creek and NC 50, depicted as a Freshwater Forested/Shrub Wetland habitat classified as Palustrine Forested Broad-Leaved Deciduous Seasonally Flooded (PFO1C) and

	Semi permanently Flooded (PFO1F). The NRTR completed November 3, 2021, by the Division 5 Environmental Office identifies the location of a wetland area to east side of NC 50 approximately 1,000ft south of the bridge crossing. This wetland area is the only wetland delineated within the project study area.
Streams	In the vicinity of the project, Swift Creek (DWQ Classification 27-43-(8); Class C; NSW) in the Neuse River Basin is at the following approximate coordinates: (N 35.66090, W -78.60968). No impacts to Swift Creek nor its riparian buffers are anticipated as they are outside of the study area. The NRTR completed November 3, 2021, by the Division 5 Environmental Office identifies an unnamed tributary to Swift Creek crossing NC 50 approximately 300ft south of Rand Road. This stream is not depicted on the USGS topographic map nor the Soil Survey of Wake County and is the only stream delineated within the project study area.
FEMA Floodplain Detailed Study Area	Flood Hazard Zone AE, Flood Hazard Zone AE (Floodway) are identified along Swift Creek at Wake County Bridge 25 and parallel to Swift Creek along Benson Road.
Water Supply Watersheds	N/A
Riparian Buffer Rules	Neuse River Riparian Buffer Rule
Active Agriculture	N/A
Parks, Greenways, Game Lands, Section 4(f) & Section 6(f) Properties	TBD
Environmental Justice Populations	NO
Other Resources (i.e., Wild and Scenic Rivers, TVA, Scenic Byways, etc.)	Lake Benson is just North of study area

Project Management Approval

The need for the proposed change is sufficient to justify the impacts to the scope, schedule, and budget.

Project Manager

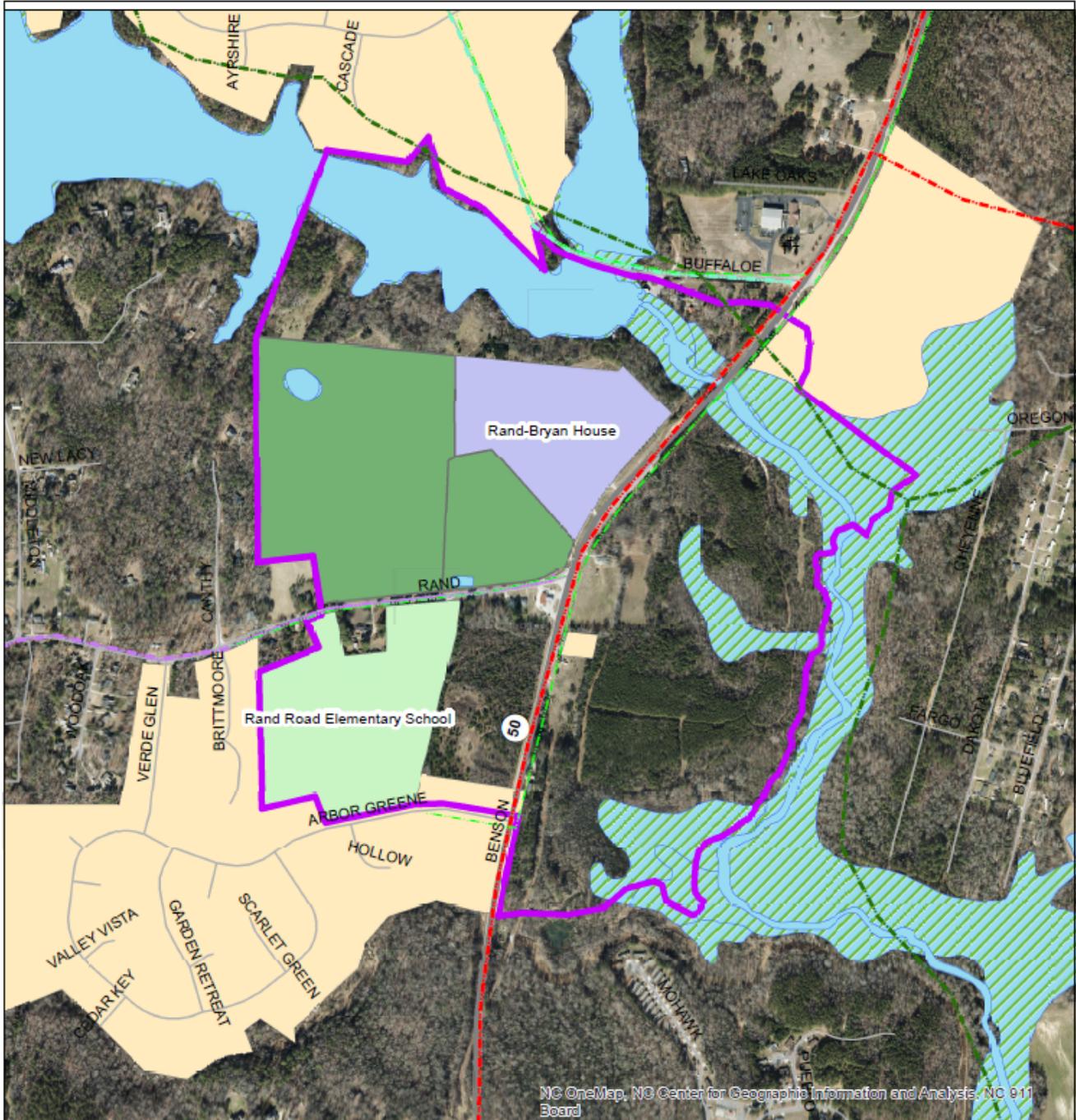
Name	Zahid Baloch
Signature	Zahid Baloch
Date	02/18/2022

Supervisor

Name	Ben Upshaw
Signature	<i>Ben Upshaw</i>
Date	02/18/2022

Attach General Study Area Map and CE Screening Report Here

COMMUNITY CONTEXT MAP



NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board

- | | | | |
|--------------------------|---------------|--------------------|------------------------------|
| STIP Points | Cemeteries | Hospital Locations | Direct Community Impact Area |
| STIP Roads | Churches | Private Schools | Water Bodies |
| Proposed Sidewalk | EMS Locations | Railroads | National Wetland Inventory |
| Proposed Greenway | | Streets | Rand Road Elementary |
| Proposed Bike Lanes | | | Active Farms |
| Proposed Paved Shoulders | | | Rand-Bryan House |
| Proposed Sharrows | | | Municipal Boundaries |



0 0.1 0.2 0.3 Miles

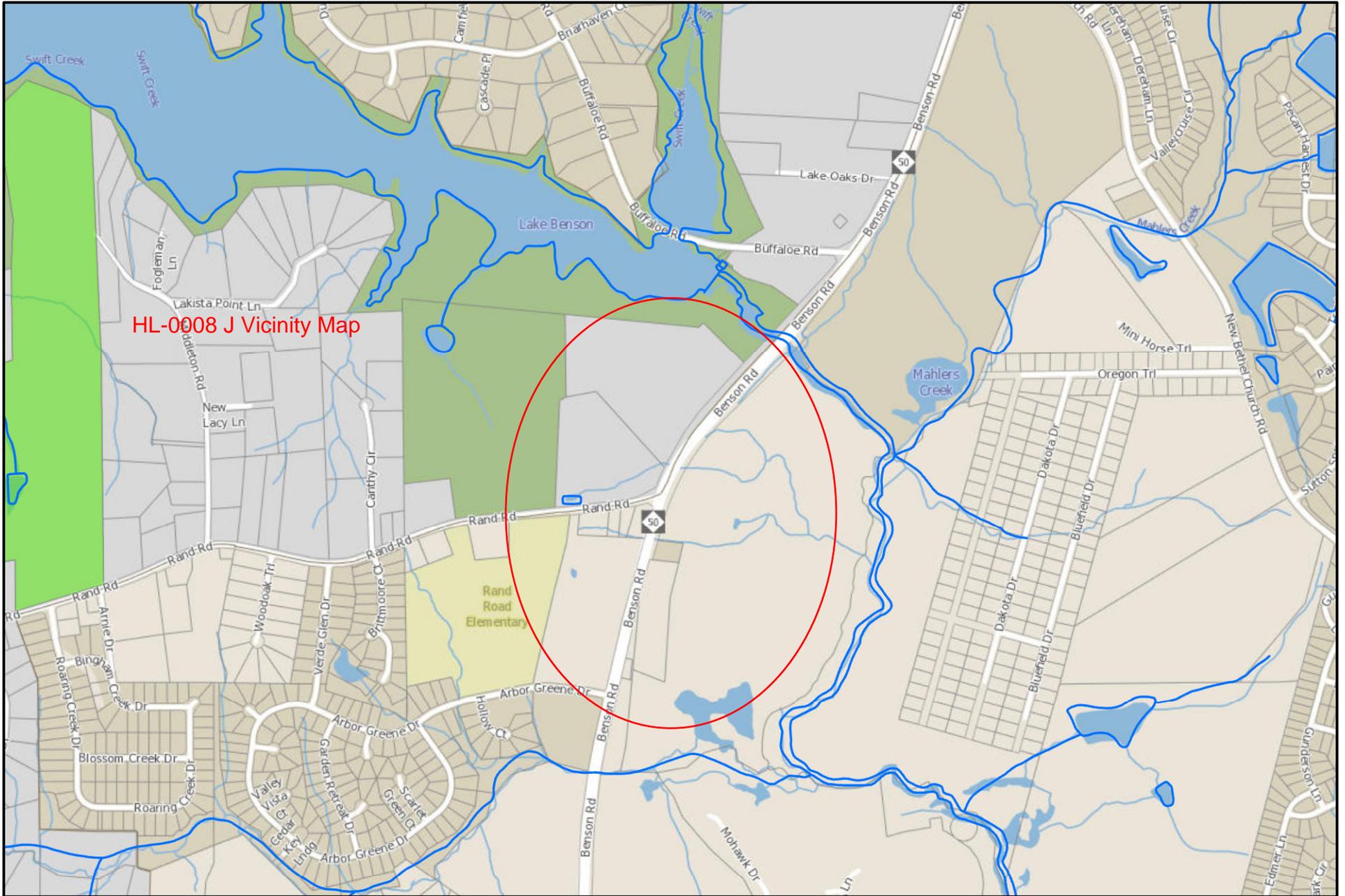
Community Context Map

HL-0008J Wake County
September 2021



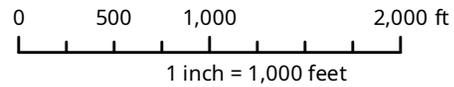
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HL-0008 J Vicinity Map

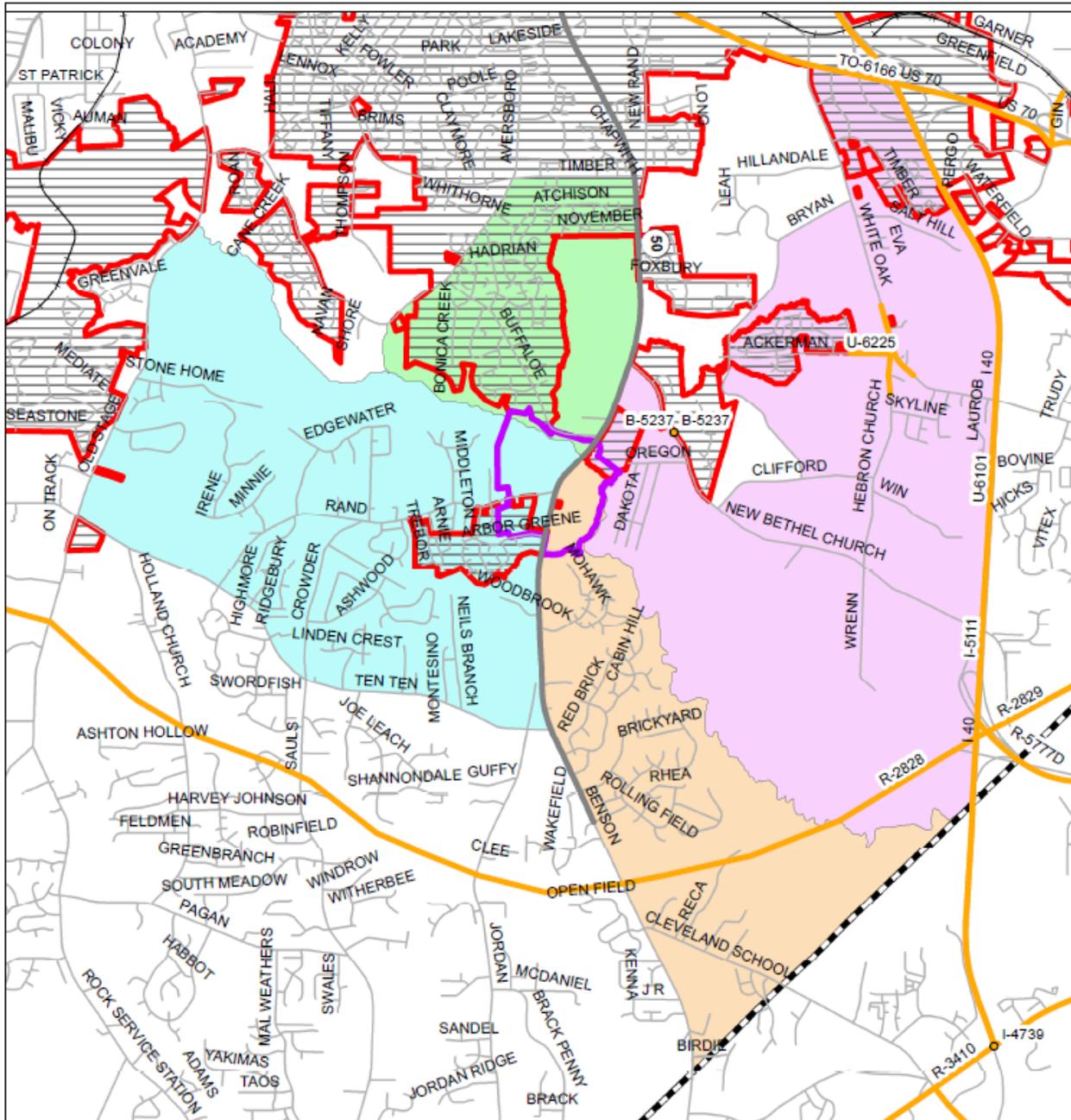
HL-0008J Vicinity Map



Disclaimer

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DEMOGRAPHIC STUDY AREA

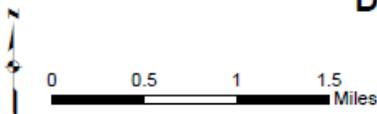


Legend

- | | | |
|---|--|--|
|  STIP Points |  Direct Community Impact Area | Demographic Study Area |
|  STIP Roads |  Counties |  CT 529.03 BG 1 |
|  Railroads |  Municipal Boundaries |  CT 529.02 BG 2 |
|  Streets | |  CT 528.08 BG 3 |
| | |  CT 528.08 BG 4 |

Demographic Study Area

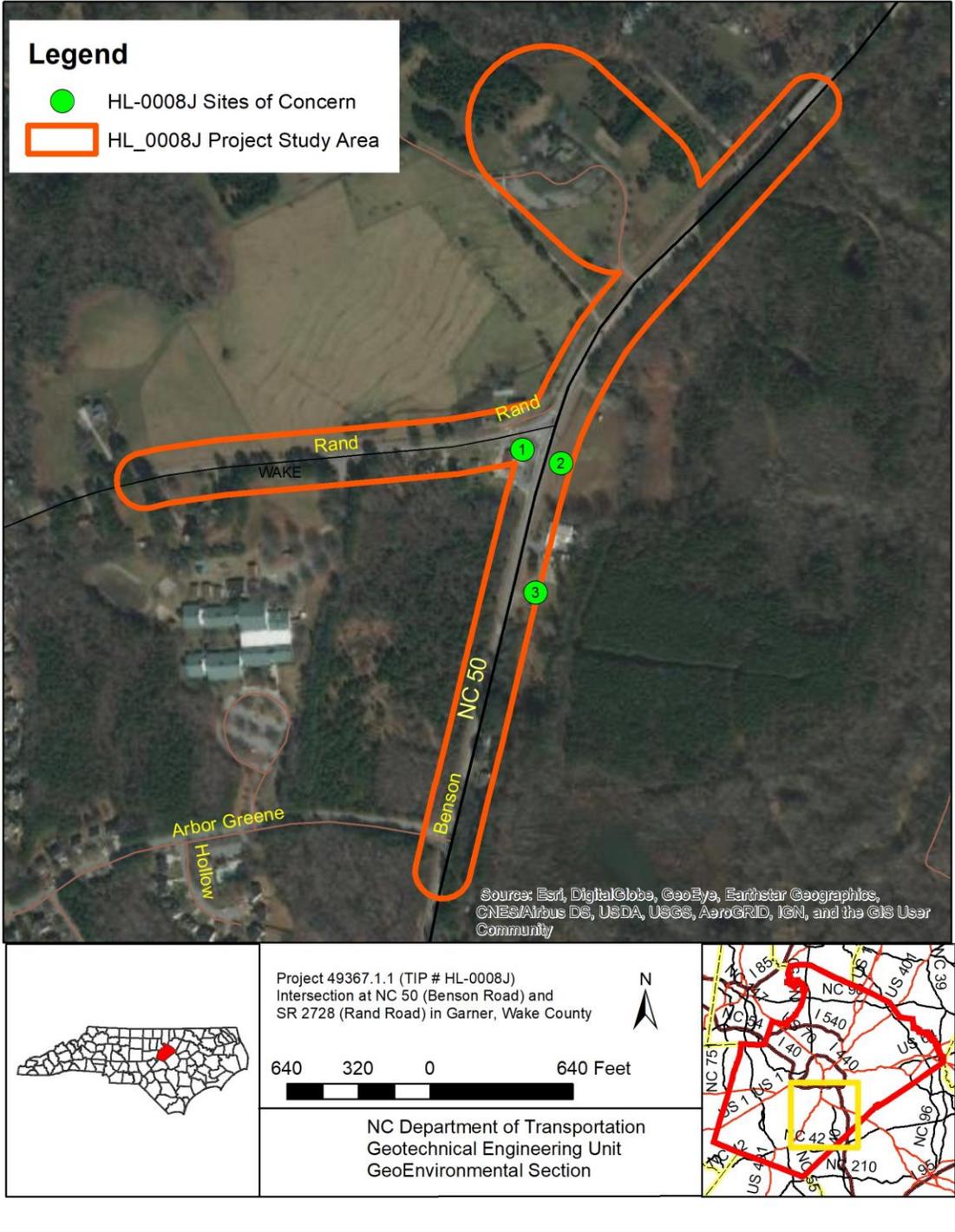
HL-0008J Wake County
September 2021



Data Sources: Imagery\Orthoimagery_Latest - NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board



Appendix A
Location of GeoEnvironmental Sites of Concern



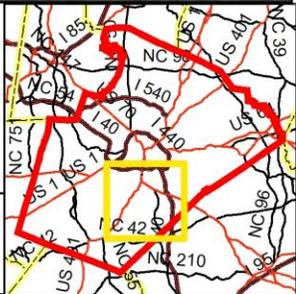
Project 49367.1.1 (TIP # HL-0008J)
 Intersection at NC 50 (Benson Road) and
 SR 2728 (Rand Road) in Garner, Wake County

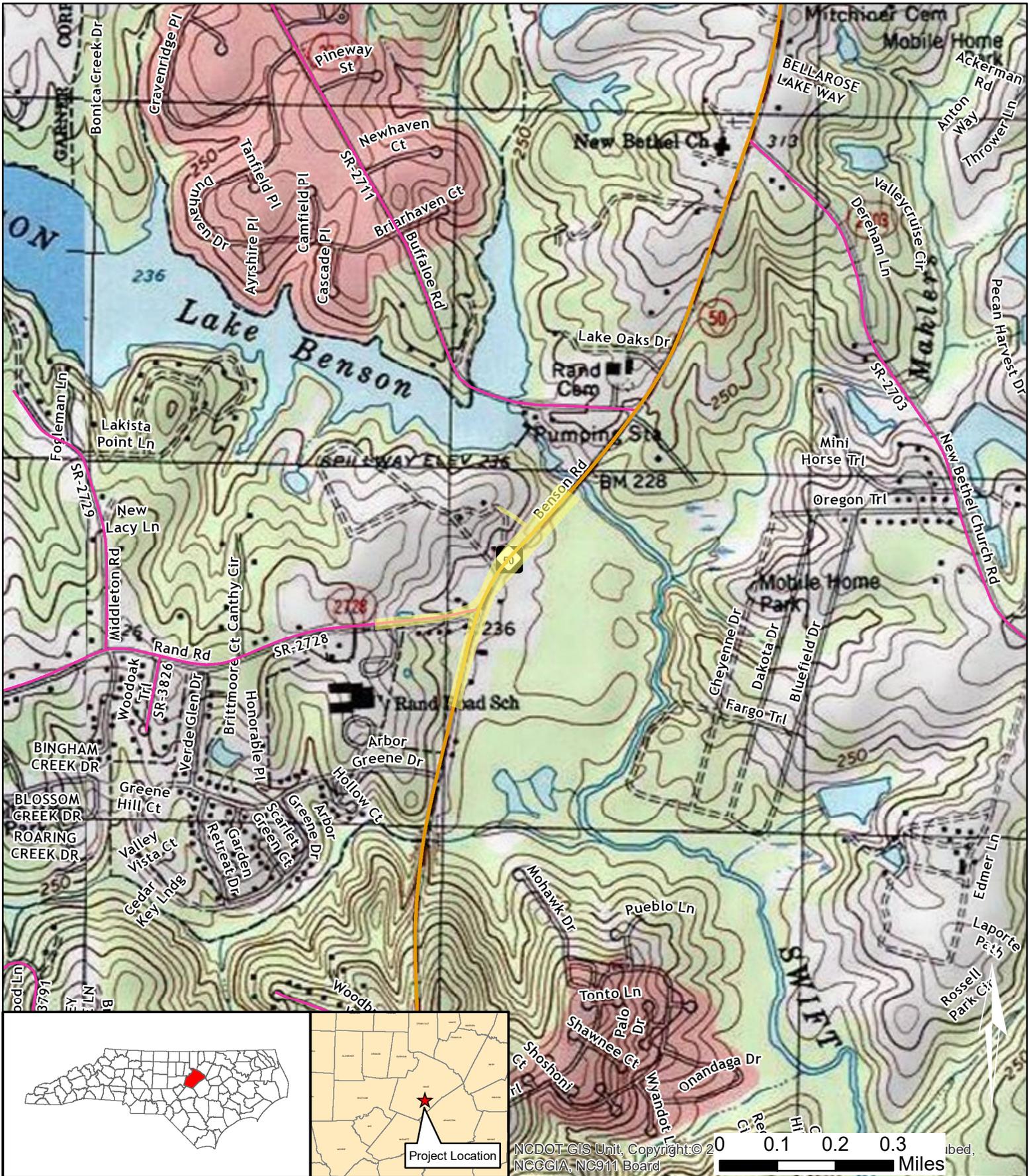


640 320 0 640 Feet



NC Department of Transportation
 Geotechnical Engineering Unit
 GeoEnvironmental Section





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North Carolina Department of Transportation
 Division of Highways

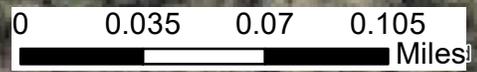
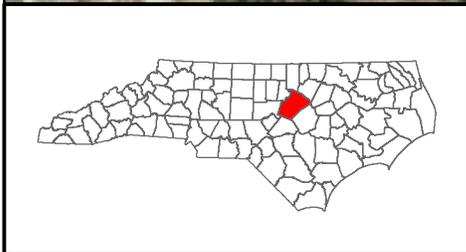
Widen NC 50 (Benson Rd.) between SR 2728 (Rand Rd.)
 and bridge over Swift Creek

Wake County

HL-0008J

Topographic





	North Carolina Department of Transportation Division of Highways		
	Widen NC 50 (Benson Rd.) between SR 2728 (Rand Rd.) and bridge over Swift Creek		
	Wake County	<table border="1"> <tr> <td>HL-0008J</td> </tr> <tr> <td>Delineation Aerial</td> </tr> </table>	HL-0008J
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