



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

October 27, 2021

Memorandum To: HL-0008K Scoping Meeting Attendees
From: Division 5 Project Manager
Zahid Baloch, PE
NCDOT Division 5 Office
Subject: Scoping Meeting for NC 42 at Hilltop Road (SR 2751). Extension of Hilltop Road. Revisions to intersections along NC 42 at Walter Myatt Road (SR 2756), Dwight Rowland Road (SR 2753), Panther Lake Road (SR 2748), and Hilltop Road, Wake County, NC.
WBS No. 49367.1.1, TIP No. HL-0008K

The North Carolina Department of Transportation (NCDOT) Division 5 is starting the project development, environmental, and engineering studies for TIP Project HL-0008K. (See the enclosed Vicinity Map.) The project proposes improvements at the intersections of NC 42 and Hilltop Road, Dwight Rowland Road/Panther Lake Road, and Walter Myatt Road, along with the possible extension of Hilltop Road south from Panther Lake Road to a new connection with Walter Myatt Road.

The project is included in NCDOT's 2020-2029 STIP but is only programmed for planning and environmental study. Funded as a bonus allocation project, NCDOT is preparing a Categorical Exclusion.

A virtual Scoping Meeting is scheduled for November 10, 2021 at 1:00 p.m. The purpose of this meeting is to begin early coordination with our agency partners 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/or 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.

Thank you for your assistance in the project development process. If you have any questions or comments concerning the project or the attached information, please contact NCDOT Division Project Engineer Zahid Baloch, PE at (919) 707-6012 or by email at zbaloch@ncdot.gov. Please include the Project Number (HL-0008K) in all correspondence.

Attachments
Project Data Sheets

North Carolina Department of Transportation
Project Data Sheet

Essential Project Information	
STIP Project Name	NC 42 at Hilltop Road (SR 2751); Hilltop Road Extension and Intersection Improvements.
STIP Number	HL-0008K
County	Wake
NCDOT Division	5
ROW Date	STIP: N/A; Proposed: July 2023
LET Date	STIP: N/A; Proposed: December 2024
Schedule Considerations	CAMPO Bonus Allocation funding constraints.
Cost Estimates	STIP: Programmed for planning and environmental study only at this time. Current Estimate (2021): TBD
Funding Type	Federal – CAMPO’s 2020 Bonus Allocation, Mobility and Safety

Proposed Project Details	
Project Description	NC 42 at Hilltop Road (SR 2751). Extension of Hilltop Road. Revisions to intersections along NC 42 at Walter Myatt Road (SR 2756), Dwight Rowland Road (SR 2753), Panther Lake Road (SR 2748), and Hilltop Road.
Project Limits	NC 42 from west of Walter Myatt Road to east of Hilltop Road and Hilltop Road north of NC 42 south to Walter Myatt Road.
Typical Section	NC 42 (two options): 2-lane divided, 4-lane divided Hilltop Road Ext.: 2-lane w/ shoulder
Access Control	None
Design Speed	NC 42: 60 mph Hilltop Road: 60 mph (north of Panther Lake Road) Dwight Rowland Road: 35mph Hilltop Road Extension: 45 mph (Option 1), 50 mph (Option 2)
Right-of-Way Width	Varies
Physical or Engineering Constraints	Intersecting streets currently at skew angles greater than acceptable under current design guidelines. The Willow Springs Baptist Church cemetery is located on the corner of Hilltop Road at Panther Lake Road.
Other Considerations	Six properties within the southern portion of the project study area are located within a Voluntary Agriculture District (VAD). Project is planned as an intersection improvements project that is independent of the proposed Future 401 Corridor; however, the project team is coordinating with CAMPO on that project to ensure consistent traffic/growth assumptions and public engagement messaging.
Survey Request Date	August 26, 2021
Design Plan	TBD

Proposed Project Details	
Construction Recommendation	TBD – More information will be provided once alternative selected and WZTC phasing has been developed.
Consultant Involvement	NTP for preliminary design through 30% plans and environmental documentation has been executed.

Project History	
Planning Studies	<p>CAMPO, Southwest Area Study (June 2019) Includes a Hot Spot Analysis along NC 42 that identifies the following recommendations incorporated into this study:</p> <ul style="list-style-type: none"> • Realign Dwight Rowland Road to follow existing Walter Myatt Road, to the north. Prevent turns onto Walter Myatt Road, to the south. • Remove the existing intersection of Dwight Rowland Road and Panther Lake Road. • Extend Hilltop Road, to the south, on new location to meet with Walter Myatt Road • Install traffic signals at the two remaining intersections.
SPOT Description	N/A
Feasibility Studies	N/A
Problem Statement	<p>From CAMPO Southwest Area Study (June 2019)</p> <p><i>The intersection of NC 42 and Walter Myatt Road / Dwight Rowland Road / Hilltop Road is currently aligned to have three unsignalized intersections too close together on a well-traveled and congested road (NC 42), making it difficult to turn from a minor street onto NC 42.</i></p>
Alternatives Previously Dismissed and Why	N/A

Purpose & Need	
Purpose (draft)	The purpose of the proposed project is to improve intersection operational efficiency and traffic flow.
Need(s) (draft)	The need for the project is based on deficiencies with the existing intersection configuration and regional network connectivity.
Supporting Data	Draft Capacity Analysis is being prepared.

Alternatives Currently Under Consideration	
Alternative 1 (A and B options)	<p>Extend Hilltop Road south from Panther Lake Road as a 2-lane roadway and construct intersection improvements at:</p> <ul style="list-style-type: none"> • Closure and removal of pavement on Dwight Rowland Road between Walter Myatt Road and NC 42, • Closure and removal of pavement on Panther Lake Road between NC 42 and Hilltop Road,

Alternatives Currently Under Consideration	
	<ul style="list-style-type: none"> • Re-align Dwight Rowland Road such that the intersection is located at the existing Walter Myatt Road intersection; and • Close the existing connection of Walter Myatt Road to NC 42. <p>Option A: Hilltop Road Extension assuming 45 mph design speed (shorter option).</p> <p>Option B: Hilltop Road Extension assuming 50 mph design speed (longer option).</p>
Alternative 2	<p>Hilltop Road is not extended to connect with Walter Myatt Road. Proposed intersection improvements include:</p> <ul style="list-style-type: none"> • Closure and removal of pavement on Dwight Rowland Road between Walter Myatt Road and NC 42, • Closure and removal of pavement on Panther Lake Road between NC 42 and Hilltop Road, and • Re-align Dwight Rowland Road such that the intersection is located at the existing Walter Myatt Road intersection. <p>** This alternative is pending completion of a traffic feasibility analysis.</p>

Public and Agency Coordination	
Anticipated Permits	Possibly USACE general permit, SHPO concurrence, USFWS
Federal Agency Involvement	FHWA – Lead Agency
Public Involvement Strategy	Standard public involvement with project website, public meeting. Coordination with other nearby projects as much as possible.
Merger Screening Date	November 10, 2021 (proposed)
Potential Merger Triggers	N/A

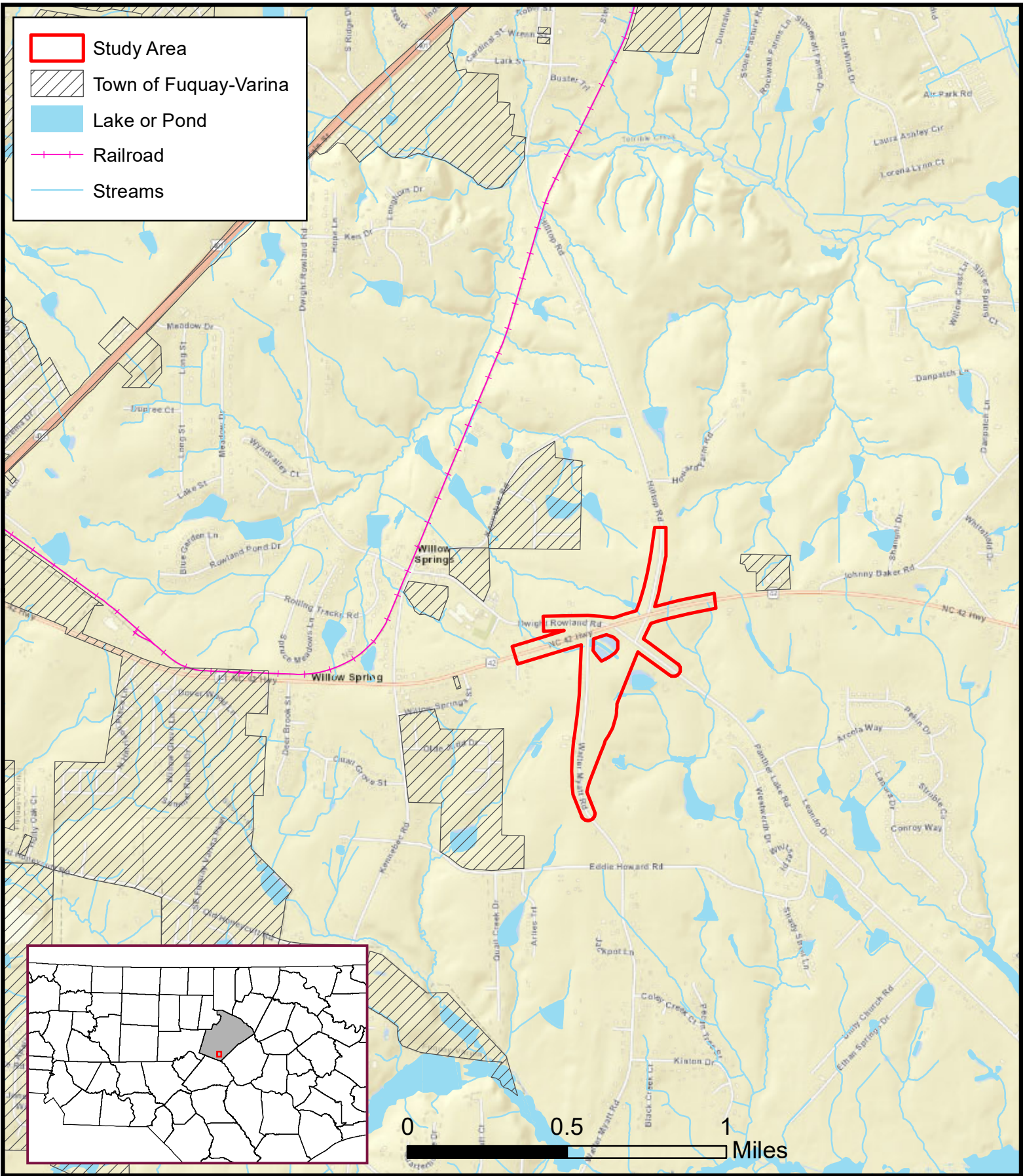
Existing Conditions	
Functional Classification	NC 42 – Minor Thoroughfare Hilltop north of NC 42 – Major Collector All other roads in study area – Local
Strategic Highway Corridor	No
AADT	NC 42 – 2019 ranges from 13,589 to 16,411 Hilltop Road – 2019 ranges from 3,833 to 5,233
Access Control	None
Typical Section	Two-lane
Right-of-Way Width	Varies
Posted Speed	Hilltop Road: 55 mph NC 42: 55 mph
Structures (bridges, RCBC, etc.)	None
Railroad Involvement	None



Existing Conditions	
Other Adjacent STIP Projects	<ul style="list-style-type: none"> • HL-0006 – Intersection Improvements on US 401 at Hilltop Needmore Road (SR 1393) / Airpark Road (SR 1752) / Hilltop Road (SR 2751), at Lake Wheeler Road (SR 1375), and at Dwight Rowland Road (SR 2573). Convert to reduced-conflict intersections and realign Hilltop Road to intersect opposite Lake Wheeler Road. ROW FY 2024 and construction FY 2025. • HL-0008G: Improve intersection at SR 1393 (Hilltop-Needmore Rd) and SR 1375 (Lake Wheeler Rd). Programmed for planning and environmental study only. • HL-0028: US 401 at SR 1404 (Mill Creek Drive/Ideal Lane) intersection improvements. ROW and construction FY 2022. • U-5751: US 401 at NC 55/NC 42 intersection improvements. ROW FY 2029; construction unfunded in future years. • R-2828: Future NC 540. Under construction. • U-5746: US 401 from WTCC to SR 1010 (Ten-Ten Road). Add lanes. ROW in progress. • U-6112: Proposed interchange US 401 at SR 1010. ROW FY 2027; construction unfunded in future years. • R-2609: US 401 Corridor Study

Preliminary Resource Inventory Table	
Utilities	Water line along NC 42. Others TBD
Hazardous Materials	None
Known Potentially-Eligible National Register of Historic Places Sites/Districts	Eligibility review of one structure/property underway (Rachels Family Funeral Home and adjacent cemetery).
Other Cultural Resources	None.
Wetlands	Wetlands located within project study area.
Streams	Unnamed tributaries within project study area.
FEMA Floodplain Detailed Study Area	None.
Water Supply Watersheds	None.
Riparian Buffer Rules	Neuse River Buffer Rules.
Active Agriculture	Active farming operations within the project study area, including six properties that participated in the Wake County VAD/EVAD program.
Parks, Greenways, Game Lands, Section 4(f) & Section 6(f) Properties	None.
Environmental Justice Populations	Census data indicates presence but there is no observation/local input to confirm.

Preliminary Resource Inventory Table	
Other Resources (i.e. Wild and Scenic Rivers, TVA, Scenic Byways, etc.)	N/A

Project Management Approval	
The need for the proposed change is sufficient to justify the impacts to the scope, schedule, and budget.	
Project Manager	
Name	
Signature	
Date	
Supervisor	
Name	
Signature	
Date	



Prepared by

 Prepared for


Sources: ESRI
 Basemap,

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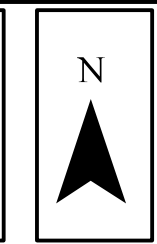
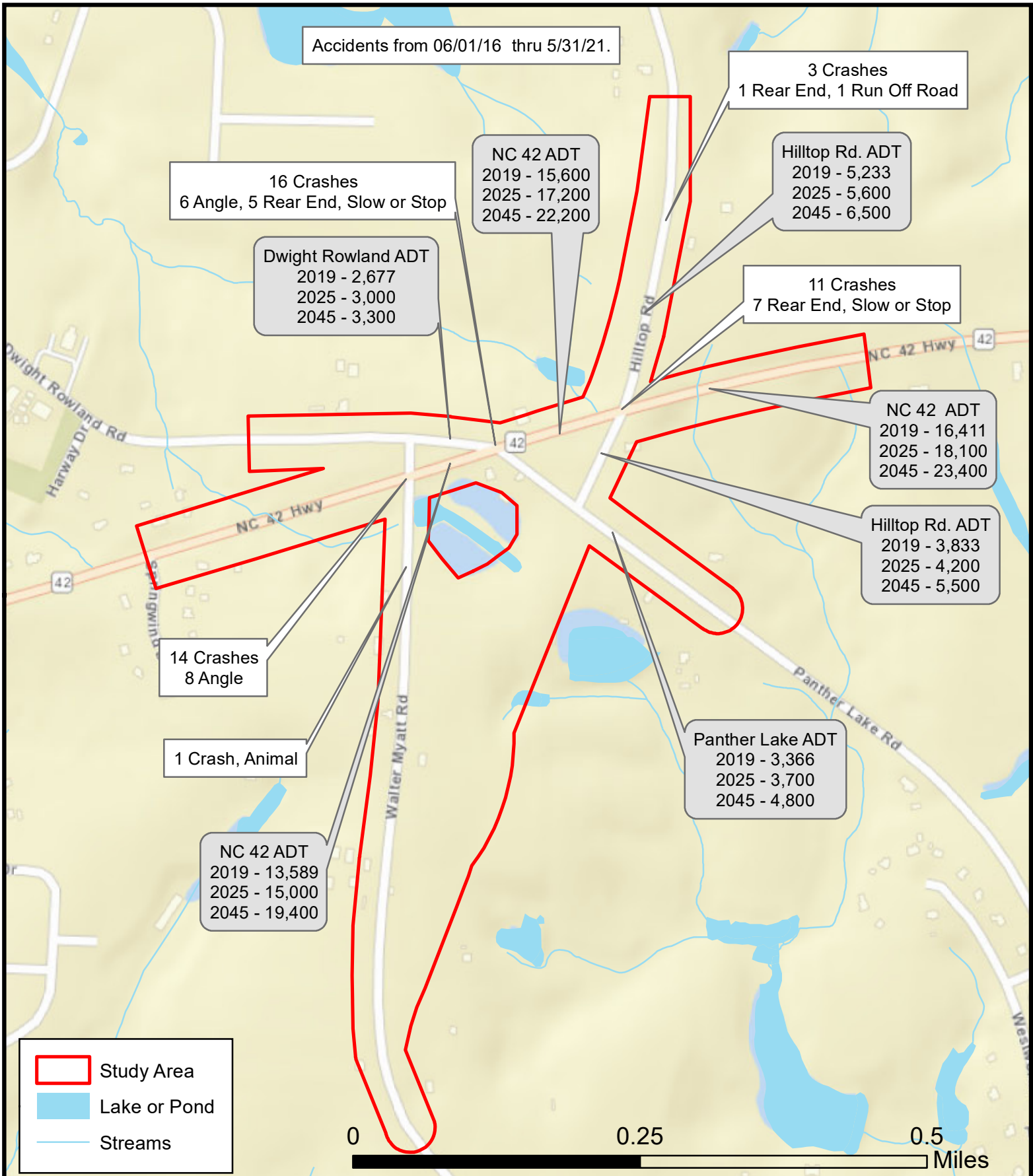




Figure 1
Date: 8/30/2021
Vicinity Map



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Sources: ESRI
 Basemap, NCDOT

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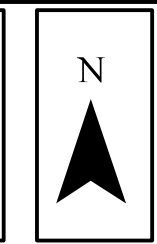











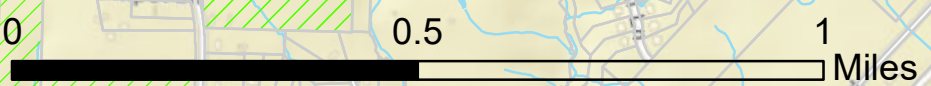
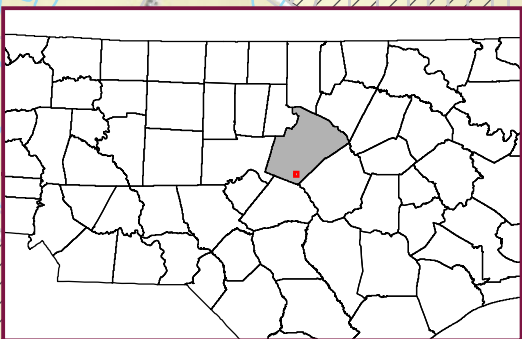
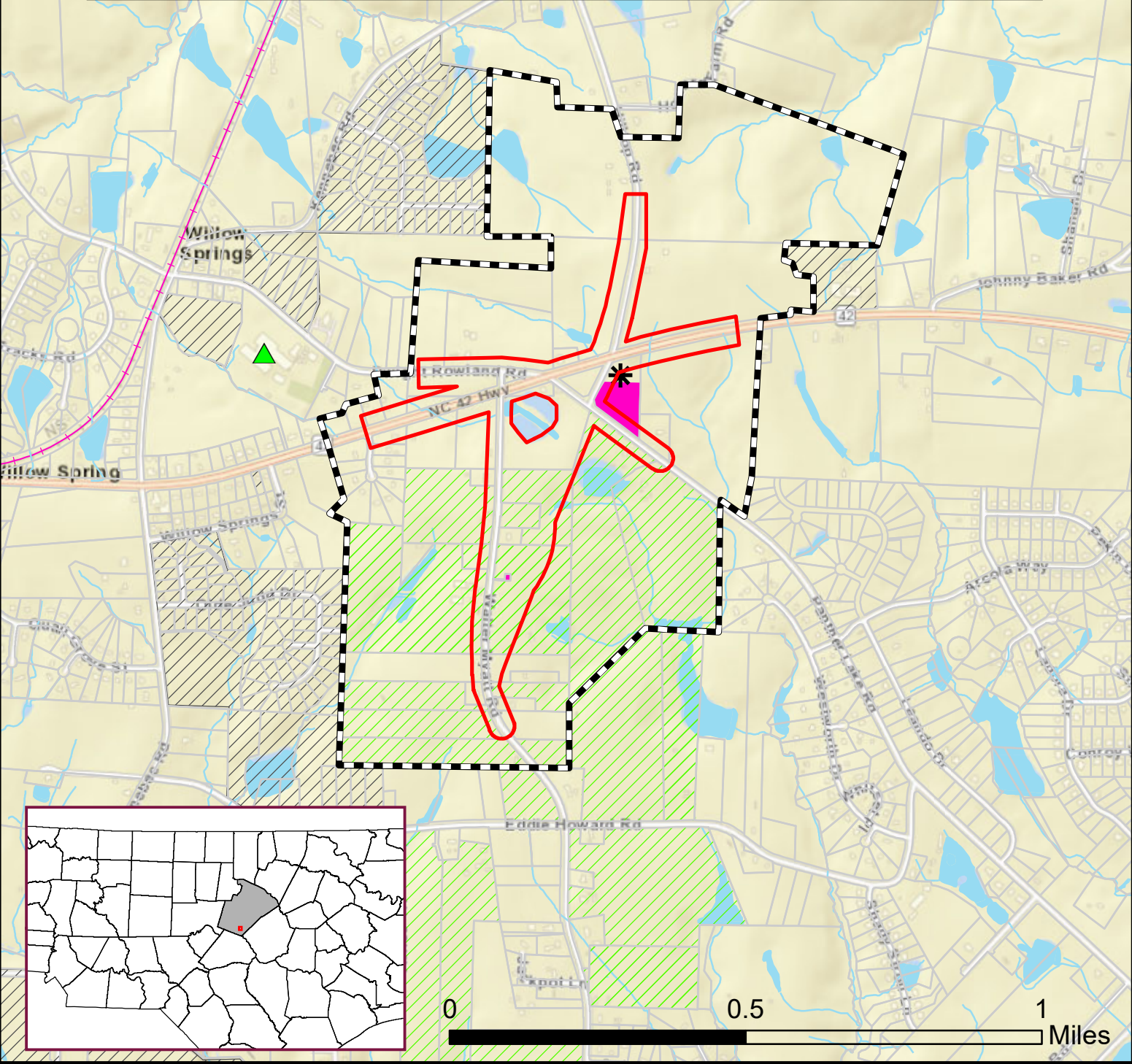



Figure 2
 Date: 10/7/2021
 Vehicle Crash and
 ADT Map

 Study Area	 Parcels	 Railroad
 DCIA	 Cemetery	 Streams
 Funeral Home	 Voluntary Agricultural Districts	
 Willow Springs Elementary School	 Town of Fuquay-Varina	
	 Lake or Pond	



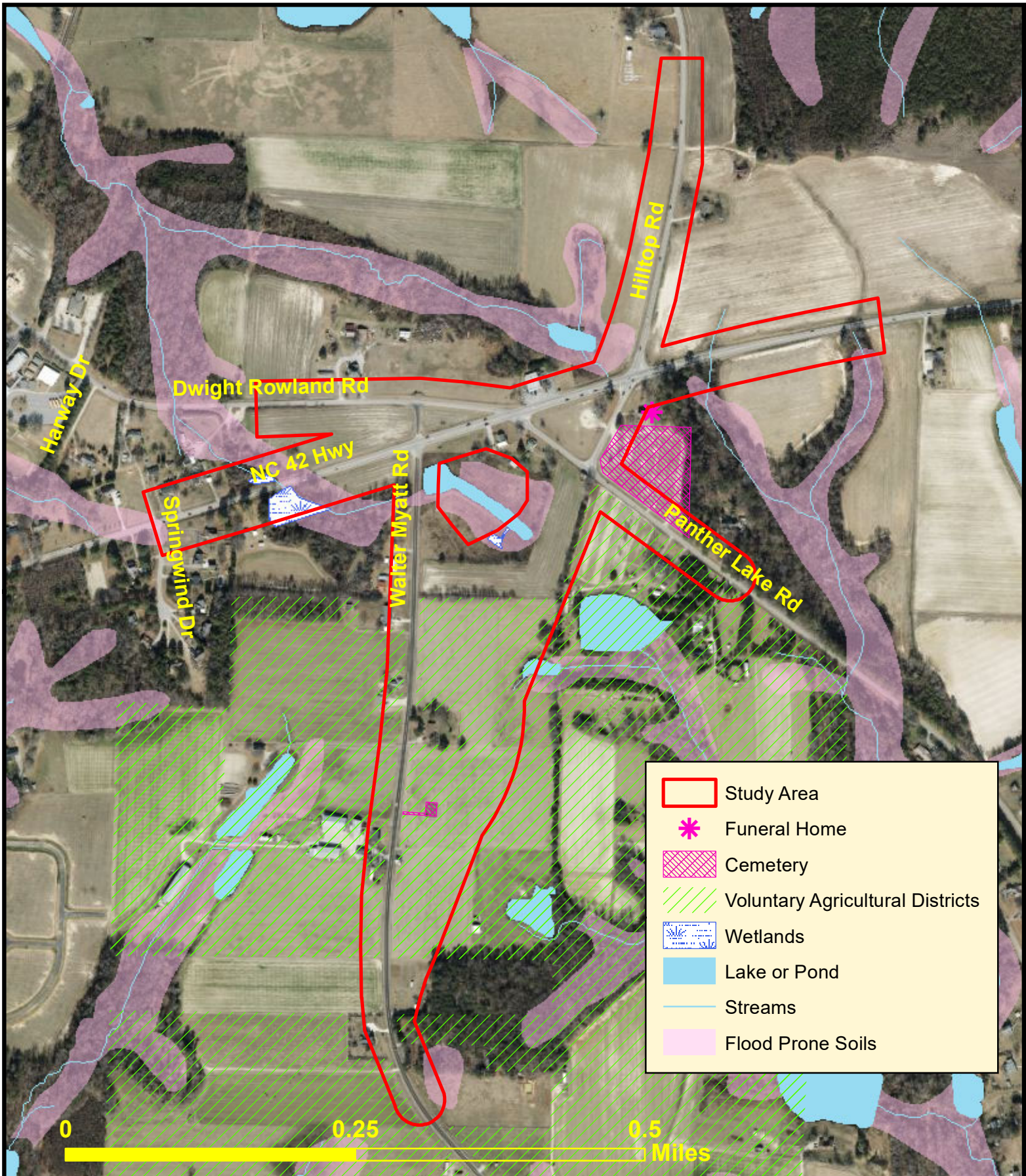
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Figure 3
 Date: 10/22/2021
 Community Context Map



	Study Area
	Funeral Home
	Cemetery
	Voluntary Agricultural Districts
	Wetlands
	Lake or Pond
	Streams
	Flood Prone Soils

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 Dewberry

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Sources: ESRI Basemap,

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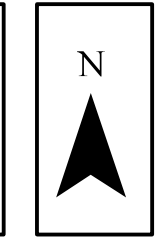


Figure 4
 Date: 10/22/2021
 Environmental Features
 Map