

MINIMUM CRITERIA DETERMINATION CHECKLIST

The following questions provide direction in determining when the Department is required to prepare environmental documents for state-funded construction and maintenance activities. Answer questions for Parts A through C by checking either “Yes” or “No”. Complete Part D of the checklist when Minimum Criteria Rule categories #8, 12(i) or #15 are used.

TIP Project No.: U-5744

WBS Element No.: 54031.1.FR1

Project Location: Garner – US 70/ NC 50 at SR 2026 (Hammond Road)/ SR 2812 (Timber Drive), Wake County

Project Description: North Carolina Department of Transportation (NCDOT) State Transportation Improvement Program (STIP) Project U-5744 proposes to upgrade the US 70/ NC 50 intersection with Hammond Road/Timber Drive in Garner to a Continuous Flow Intersection (CFI).¹ Partial control of access will be maintained for the project roadways with the exception of where U-turns will be allowed at signalized intersections along US 70/ NC 50. These locations occur on the south side of US 70/NC 50 at the Jessup Drive intersection, and on the north side at the entrances to Garner Towne Square and Stone Truck Parts. Improvements associated with U-5744 are anticipated to be contained within the existing right of way. An easement may be necessary at the eastern end of the project at the U-turn location in front of Stone Truck Parts.

U-5744 is located in northwest Garner (Wake County), near the southern edge of Raleigh. The area surrounding the project is mostly developed and consists primarily of commercial, retail, residential and institutional uses. US 70 is the main thoroughfare through Garner and provides access to regional routes near the project that include US 401 and I-40. It is an east-west principal arterial that parallels I-40 through much of North Carolina before it diverges in Wake County as it heads east towards the coast. NC 50 is a north-south minor arterial that traverses through the middle of Wake County and also provides access to numerous regional routes. Timber Drive is a minor arterial that provides network connectivity throughout Garner, and Hammond Road continues north into downtown Raleigh.

Purpose & Need: The purpose of the project is to relieve congestion and improve traffic operations. The project is needed to improve congestion as traffic volumes increase in the future.

¹ A CFI is an at-grade interchange configuration that removes the left-turn conflict from the main intersection which then allows traffic on the main line to move through the intersection for a longer period of time without having to stop for a red light. This is accomplished by crossing the left-turning traffic and the oncoming through traffic at a signalized left-turn bay placed several hundred feet before the intersection. Traffic from the left-turn bay crosses the opposing traffic and continues down to the CFI leg until it reaches the main intersection, allowing through traffic and left-turning traffic to move simultaneously

The Capital Area Metropolitan Planning Organization's (CAMPO's) *2040 Metropolitan Transportation Plan* proposes a new interchange at US 70/ NC 50/ Timber Drive and widening US 70/ NC 50 to a six-lane facility from US 401 to I-40. CAMPO'S draft *Southeast Area Study* also recommends widening US 70/NC 50 from US 401 to I-40.

US 70 is the main thoroughfare through Garner and provides access to regional routes near the project that include US 401 and I-40. NC 50 is a north-south minor arterial that cuts through the middle of Wake County and also provides access to numerous regional routes. Timber Drive is a minor arterial that provides network connectivity throughout Garner. According to the most recent Project Traffic Forecast (August 2017), 33,900 to 37,000 vehicles per day (vpd) travel on US 70/NC 50 and 20,000 to 23,000 vpd travel on Timber Drive within the project area.

Anticipated Permit or Consultation Requirements:

The project is within the Neuse River Basin where buffer rules apply. Therefore, Design Standards for Sensitive Watersheds will be implemented during project construction. NCDOT will attempt to avoid and minimize impacts to streams and wetlands to the greatest extent practicable during project design.

Stream and wetland impacts will be evaluated during the design and environmental permitting phase of the project to determine if Section 404 Nationwide Permit No. 14 can be used to permit jurisdictional impacts. Appropriate water quality certification permits and buffer authorization will be required from the NCDEQ DWR.

Special Project Information:

ALTERNATIVES CONSIDERED

No Build Alternative

The No Build Alternative is a "no-action" alternative to establish a baseline for comparing the effects associated with the Build Alternative. The No Build Alternative does not meet the transportation goals of NCDOT and the Town of Garner, fails to provide solutions to congestion and safety along the corridor, and does not satisfy the purpose and need for action.

Build Alternatives

CFI: This alternative proposes at-grade intersection improvements and a superstreet configuration with a directional crossovers to displace traffic, remove conflict points, and restrict left-turn movements on Hammond Road/ Timber Drive from westbound and eastbound lanes on US 70/ NC 50.

Single Point Urban Interchange (SPUI): This alternative proposes a grade-separated interchange, requiring a 250-foot bridge and retaining walls. A SPUI alternative is a grade-separated intersection configuration that allows one opposing pair of through movements

to bypass signalized control by way of an overpass, while all other movements must follow conventional signal control. In this proposed alternative, the north-south through movements (i.e., along SR 2812/ Timber Drive) are grade separated. The turning movements originating from the north-south approaches form a “frontage road” on the right-hand side of the roadway in both directions. Left turns from the ramps and on the cross street are aligned such that they oppose each other, eliminating a potential source of conflict. One three-phase signal is proposed for the SPUI design.

In addition, the US 70/ NC 50 is proposed to be three lanes throughout the study area in each direction under this alternative.

NCDOT Recommended Alternative – CFI

The Build Alternative 1 was studied in detail for the project.

This recommended alternative is an at-grade intersection configuration that removes the left-turn conflict from the main intersection which then allows higher green time for the main line. This is accomplished by crossing the left-turning traffic and the oncoming through traffic at a signalized left-turn bay placed several hundred feet before the intersection. Traffic from the left-turn bay crosses the opposing traffic and continues down to the CFI leg until it reaches the main intersection, allowing through traffic and left-turning traffic to move simultaneously. In this alternative, a CFI with displaced left turns along north-south approaches is proposed. Vehicles making a left from SR 2812/ Timber Drive are to stop at the midblock signal on the NB/SB approach and to cross over to the left-turn bay before entering US 70/ NC 50 at the main intersection. Additionally, the eastbound and westbound left turn traffic is rerouted from the Hammond Road/ Timber Drive at US 70 intersection to adjacent superstreet intersections. The eastbound vehicles continue east and make a U-turn at Garner Towne Square Driveway/Stone Driveway at US 70 intersection and ultimately make a right turn at the Hammond Road/ Timber Drive at US 70 intersection. The westbound vehicles continue west and make a U-turn at McCormick Street intersection at US 70 and ultimately make a right turn at the Hammond Road/ Timber Drive at US 70 intersection.

The CFI design operates as a set of two-phase signals. As part of the first phase, the traffic is permitted to enter the left-turn bay by crossing the oncoming traffic lanes during the signal phase serving the east-west (i.e. along US 70/ NC 50) traffic. The second signal phase, which serves the through traffic along Timber Drive, also serves the protected left-turn movements onto US 70/ NC 50. In addition, one access restriction for a driveway

located in the vicinity of the intersection are proposed under this scenario:

- The gas station at the southeast quadrant of US 70/ NC 50 and Jessup Drive will lose access to one of its three driveways.

Project Principal Features

The basic construction elements for the project are listed below:

- Existing conditions:
 - US 70/ NC 50: Three travel lanes with one WB left-turn lane, dual EB left-turn lanes, one WB right-turn lane, EB and WB right-turn lanes, variable width median, curb and gutter
 - Hammond Road/ Timber Drive: Two travel lanes with dual left-turn lanes and right-turn lane
- Proposed conditions include superstreet and directional crossover concepts:
 - US 70/ NC 50: Three 12-foot travel lanes, median, curb and gutter
 - Hammond Road/ Timber Drive: Two 12-foot travel lanes, 12-foot right-turn lane, dual 15-foot left-turn lanes, 12-foot slip lane, 8- to 12-foot variable median (8- to 12-feet along Hammond Road, 8- to 40-feet along Timber Drive), curb and gutter
- Water and sewer utility construction
- Concrete curb and gutter
- Sidewalk segment to replace existing, where disturbed
- Concrete monolithic islands

Table 1: Existing Conditions and Proposed Improvements

	Existing Conditions Base Year 2017	Proposed Improvements Design Year 2040
Posted Speed - miles per hour (mph)	US 70/ NC 50 EB: 45 mph Hammond Road/ Timber Drive: 35 mph	
Design Speed - miles per hour (mph)	US 70/ NC 50: 50 mph Hammond Road/ Timber Drive: 40 mph	
Typical Section	US 70/ NC 50: three- to five-lanes, median, curb and gutter Hammond Road/ Timber Drive: two- to five-lanes	CFI and Superstreet intersection concept. US 70/ NC 50: four- to six-lanes, median, curb and gutter Hammond Road/ Timber Drive: four- to five-lanes, median, curb and gutter
Right of Way	Varies 100-1,200 feet	Varies 100-1,200 feet
Traffic Volumes-AADT*	US 70/ NC 50: 20,000-23,000 vehicles Hammond Road/ Timber Drive: 33,900-37,000 vehicles	US 70/ NC 50: 20,200-26,000 vehicles Hammond Road/ Timber Drive: 46,600-52,200 vehicles
Access Control	Partial	Partial, CA at two U-turn locations
Bicycle Considerations	none	none
Pedestrian Considerations	Sidewalk segment east of Timber Drive, terminating at US 70/ NC 50	Replace existing where disturbed.

* Annual Average Daily Traffic

PROJECT SCHEDULE AND COST

The current schedule shown in the 2018-2027 STIP shows right of way acquisition beginning in FY 2019 and construction beginning in FY 2021.

Current estimated cost of the proposed improvements is \$58,000 for right of way, \$1,130,500 for utilities and \$8,400,000 for construction. The total estimated cost is \$9,588,500.

ENVIRONMENTAL EFFECTS

Natural Resources

A copy of the full technical report entitled *Natural Resources Technical Report US 70/ NC 50 and Hammond Road/ Timber Drive Improvements, Wake County, North Carolina* (March 2018) can be found in the NCDOT Division 5 project file.

No areas within the study area have been identified by the National Marine Fisheries Service (NMFS) as Essential Fish Habitat, anadromous fish waters, or Primary Nursery Areas (PNA) in the study area. There are no designated High Quality Waters (HQW) or water supply watersheds (WS-I or WS-II) within 1.0 mile downstream of the study area; however, Buck Branch at the eastern end of the project is classified as WS-III; NSW. There are no North Carolina 2014 Final 303(d) list of impaired waters within 1.0 mile of the study area, or no benthic monitoring sites, ambient monitoring system (AMS) sites, or NC Stream Fish Community Assessment Program sites within 1.0 mile downstream of the study area.

Jurisdictional Issues

Water resources in the study area are part of the Neuse River basin [US Geological Survey (USGS) Hydrologic Unit 03020201]. Twelve streams and four wetlands were identified in the study area.

The USACE and NCDWR conducted a jurisdictional determination visit on August 30, 2017. A total of 12 jurisdictional streams totaling 3,387 linear feet were identified in the study area. All jurisdictional streams in the study area have been designated as warm water streams for the purposes of stream mitigation. The preferred design alternative is anticipated to have minimal impact to jurisdictional streams in the study area.

Four jurisdictional wetlands totaling 0.36 acres were identified within the study area, with NCDWQ wetland ratings ranging from 21 to 47. The wetlands are within the Neuse River basin (USGS Hydrologic Unit 03020201). Wetlands were located within the Piedmont alluvial forest community type. The preferred design alternative is anticipated to have minimal impact to jurisdictional wetlands in the study area.

The project is located within the Neuse River Basin. The project is within an area where buffer rules will apply. Streamside riparian zones within the study area are protected under provisions of the Neuse River Buffer Rules administered by NCDWR.

Rare and Protected Species

As of June 27, 2018, the United States Fish and Wildlife (USFWS) lists six federally protected species for Wake County. A brief description of each species' habitat requirements follows, along with the Biological Conclusion rendered based on survey

results in the study area. Habitat requirements for each species are based on the current best available information from referenced literature and/or USFWS.

Table 4. Federally protected species listed for Wake County

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Rhus michauxii</i>	Michaux's sumac	E	Yes	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	No	No Effect
<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	E	Limited/ Poor	No Effect
<i>Elliptio lanceolata</i>	Yellow lance	T	Limited/ Poor	No Effect
<i>Elliptio steinstansana</i>	Tar River Spinymussel*	E	Limited/ Poor	No Effect
<i>Notropis mekistocholas</i>	Cape Fear Shiner**	E	Limited/ Poor	No Effect
<i>Fusconaia masoni</i>	Atlantic Pigtoe	P	Limited/Poor	No Effect

E – Endangered, T – Threatened, P – Proposed

* Not known to occur in the Swift Creek subbasin.

** Not known to occur in the Neuse River basin.

Michaux's sumac

Biological Conclusion: No Effect

Suitable habitat for Michaux's sumac is marginal along road shoulders and utility corridors in the study area. A review of the January 2018 North Carolina Natural Heritage Program (NCNHP) database indicates there are no known Michaux's sumac occurrences within 1.0 mile of the study area. Surveys for Michaux's Sumac were conducted by Three Oaks staff on June 16, 2017; no plants were found.

Red-cockaded woodpecker

Biological Conclusion: No effect

Suitable habitat for the red-cockaded woodpecker was determined to be absent within the study area. Therefore, surveys will not be necessary. A review of the January 2018 NCNHP database indicates there are no known RCW occurrences within 1.0 mile of the study area.

Dwarf wedgemussel

Biological Conclusion: No effect

Suitable habitat for dwarf wedgemussel may be present in the study area within Buck Branch. A review of the January 2018 NCNHP database indicates no known dwarf wedgemussel occurrences within 1.0 mile of the study area. Surveys were conducted by NCDOT biologists in August 2018 and concluded that habitat was not found and that impact to the species is very unlikely to occur.

Yellow lance

Biological Conclusion: No effect

Suitable habitat for the yellow lance may be present in the study area within Buck Branch. A review of the January 2018 NCNHP records indicates there are no known yellow lance occurrences within 1.0 mile of the study area. Surveys were conducted by NCDOT biologists in August 2018 and concluded that habitat was not found and that impact to the species is very unlikely to occur.

Tar River Spiny mussel

Biological Conclusion: No effect

The Tar River Spiny mussel is listed for Wake County, but is not known from the Swift Creek subbasin, where the project is located.

Cape Fear Shiner

Biological Conclusion: No effect

The Cape Fear Shiner is listed for Wake County, however the species is not known to occur in the Neuse River basin.

Atlantic Pigtoe

Biological Conclusion: No effect

Suitable habitat for the Atlantic Pigtoe may be present in the study area within Buck Branch. A review of the January 2018 NCNHP records indicates there are no known Atlantic Pigtoe occurrences within 1.0 mile of the study area. Surveys were conducted by NCDOT biologists in August 2018 and concluded that habitat was not found and that impact to the species is very unlikely to occur.

Note: Biological information on mussel species has been updated by use of Programmatic Biological Opinion for Bridge and Culvert Replacements/ Repairs/ Rehabilitations in Eastern North Carolina, NCDOT Divisions 1-8. Biological Conclusions for mussels should be revised following use of the PBO for any culvert or bridge work on the project.

Northern long-eared bat

The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is “May Affect, Likely to Adversely Affect”. The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Wake County, where TIP U-5744 is located.

Bald Eagle and Golden Eagle Protection Act

The bald eagle is protected under the Bald and Golden Eagle Protection Act, and enforced by the USFWS. Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water.

Since foraging habitat was determined to be present, a survey of the study area and the area within 660 feet of the project limits was conducted on February 23, 2017; no eagles were observed, nor were their nests. A review of the January 2018 NCNHP database indicates no known eagle occurrences within 1.0 mile of the study area. Due to the lack of known occurrences within a mile, the lack of field observations, and the minimal impact anticipated for this project, it has been determined that this project will not affect this species.

A full copy of the project Natural Resource Technical Report and Aquatic Survey Report is available in the Division 5 Project File.

PUBLIC INVOLVEMENT

A Local Officials Informational Meeting (LOIM) public meeting was held on March 27, 2018 from 2:00 to 3:00 at The Capital Church, 1308 US 70 W, in Garner. Following the LOIM, an informal public meeting was held at the same location. The purpose of the meeting was to educate the public on the roadway improvements planned for US 70/ NC 50 and Hammond Road/ Timber Drive and to encourage public participation. Meeting materials included a project handout, project comment form, Title VI form, project aerial maps, and a visualization station, where video clips were played to describe each of the CFI and SPUI configurations in detail.

A total of 27 written comment forms were received during the public comment period, which was open until April 27, 2018. In addition, a petition was signed by 125 residents in strong favor of the CFI.

- 145 (including petition signatures) of the comments were in favor of the project in general.
 - 137 were in favor of the CFI
 - 8 were in favor of the SPUI
- In addition to the comments and petition expressing favor for the CFI, other concerns expressed during public involvement activities included maintaining turning movements at Jessup Drive and US 70, the Greenbrier Estates Homeowner's Association expressed interest in maintaining access and ensuring adequate barrier between the road and the neighboring houses, and The Capital Church expressed that there be no encroachment upon their property.

RELOCATIONS OF RESIDENCES AND BUSINESSES

A majority of the improvements are anticipated to be within the existing right of way. No relocations are anticipated with this project.

HISTORIC PROPERTIES

AECOM Technical Services of North Carolina, Inc. (AECOM) prepared a Historic Structures Survey report in February 2018 in support of the project. The following is an excerpt from that report, and the full document may be found in the Division 5 project file.

NCDOT conducted a preliminary investigation that identified five potentially historic resources within the Area of Potential Effects (APE) that required historic architectural assessment. It requested that AECOM evaluate these resources and provide a written report that included: photographs of the resources and landscape; historic and architectural contexts (as needed); evaluation of National Register of Historic Places (NRHP) eligibility; comparisons to similar types of resources in the region; and carefully delineated and justified NRHP boundaries, if appropriate.

As a result of its analysis, AECOM recommends that the Greenbrier Estates Historic District is eligible for NRHP listing under Criteria A and C, and the (former) Greenbrier 66 Service Station is eligible for NRHP listing under Criterion C. AECOM further recommends that the Capital Pentecostal Holiness Church, the Raleigh First Church of the Nazarene, and the Garner Animal Hospital are not NRHP-eligible (Table 5).

Table 5: NRHP Recommendations/ Criteria

Resource Name	NC HPO Survey Site #	NRHP Recommendation/Criteria
Greenbrier Estates Historic District	WA8354	Eligible/Criteria A and C
(former) Greenbrier 66 Service Station	WA8353	Eligible/Criterion C
Raleigh First Church of the Nazarene	WA8351	Not eligible
Capital Pentecostal Holiness Church	WA8350	Not eligible
Garner Animal Hospital	WA8352	Not eligible

An Effects Assessment meeting for the project was held with NCDOT and the North Carolina State Historic Property Office (NC HPO) on October 30, 2018. After review, the project was determined to have No effect on eligible historic resources in the area. Coordination forms for historic properties are attached to this report.

A full copy of the project Historical Surveys Report is available in the Division 5 Project File.

PART A: MINIMUM CRITERIA

Item 1 to be completed by the Engineer.

YES

NO

1. Is the proposed project listed as a type and class of activity allowed under the Minimum Criteria Rule in which environmental documentation is not required?

If the answer to number 1 is “no”, then the project does not qualify as a minimum criteria project. A state environmental assessment is required.

If yes, under which category? **8a**

If either category #8, #12(i) or #15 is used complete Part D of this checklist.

PART B: MINIMUM CRITERIA EXCEPTIONS

Items 2 – 4 to be completed by the Engineer.

YES

NO

2. Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality impacts?
3. Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact to human health or the environment?
4. Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications, that an uncommon concern for its environmental effects has been expressed to the Department?

Item 5-8 to be completed by Division Environmental Officer.

5. Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value?
6. Will the proposed activity endanger the existence of a species on the Department of Interior's threatened and endangered species list?
7. Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or ground water impacts?

- | | YES | NO |
|---|--------------------------|-------------------------------------|
| 8. Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits or shellfish, finfish, wildlife, or their natural habitats | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If any questions 2 through 8 are answered “yes”, the proposed project may not qualify as a Minimum Criteria project. A state environmental assessment (EA) may be required. For assistance, contact:

Manager, Environmental Analysis Unit
 1598 Mail Service Center
 Raleigh, NC 27699-1598
 (919) 707 – 6000
 Fax: (919) 212-5785

PART C: COMPLIANCE WITH STATE AND FEDERAL REGULATIONS

- | <i>Items 9- 12 to be completed by Division Environmental Officer.</i> | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 9. Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Does the action require the placement of temporary or permanent fill in waters of the United States? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11. Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12. Is the proposed action located in an Area of Environmental Concern, as defined in the coastal Area Management Act? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | <i>Items 13 – 15 to be completed by the Engineer.</i> | | |
|--|--------------------------|-------------------------------------|
| 13. Does the project require stream relocation or channel changes? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Cultural Resources

- | | | |
|---|--------------------------|-------------------------------------|
| 14. Will the project have an “effect” on a property or site listed on the National Register of Historic Places? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Questions in Part “C” are designed to assist the Engineer and the Division Environmental Officer in determining whether a permit or consultation with a state or federal resource agency may be required. If any questions in Part “C” are answered “yes”, follow the appropriate permitting procedures prior to beginning project construction.

PART D:(To be completed when either category #8, 12(i) or #15 of the rules are used.)

Items 16- 22 to be completed by Division Environmental Officer.

- | | |
|--|--|
| 16. Project length: | <u>1.32 miles</u> |
| 17. Right of Way width: | <u>Varies 100-1,200 feet</u> |
| 18. Project completion date: | <u>36 months from
FY 2019 let</u> |
| 19. Total acres of newly disturbed ground surface: | <u>2.8 Acres</u> |
| 20. Total acres of wetland impacts: | <u>Undetermined</u> |
| 21. Total linear feet of stream impacts: | <u>Undetermined</u> |
| 22. Project purpose: | <u>The purpose of the
project is to relieve
congestion and improve
traffic operations.</u> |

If Part D of the checklist is completed, send a copy of the entire checklist document to:

Don G. Lee
State Roadside Environmental Engineer
Mail Service Center 1557
Raleigh, NC 27699-1557
(919) 707-2920
Fax (919) 715-2554
Email: dlee@ncdot.gov

Consulting Project Manager:

Steven L Brown

Date: 11/15/18

Steven L. Brown, PE
HDR

Reviewed By:

DocuSigned by:
Zahid Baloch
5E9297F958C0481...

Date: 11/20/2018

Zahid Baloch, PE
Division 5 Project Development Engineer

DocuSigned by:
Ben Upshaw
CD8EB110D8E54E5...

Date: 11/20/2018

Ben Upshaw, PE
Division 5 Project Delivery Team Lead for
Division Engineer

PROJECT COMMITMENTS:

US 70/ NC 50 at SR 2026 (Hammond Road)/ SR 2812 (Timber Drive)
Wake County
W.B.S. No. 54031.1.FR1
STIP No. U-5744

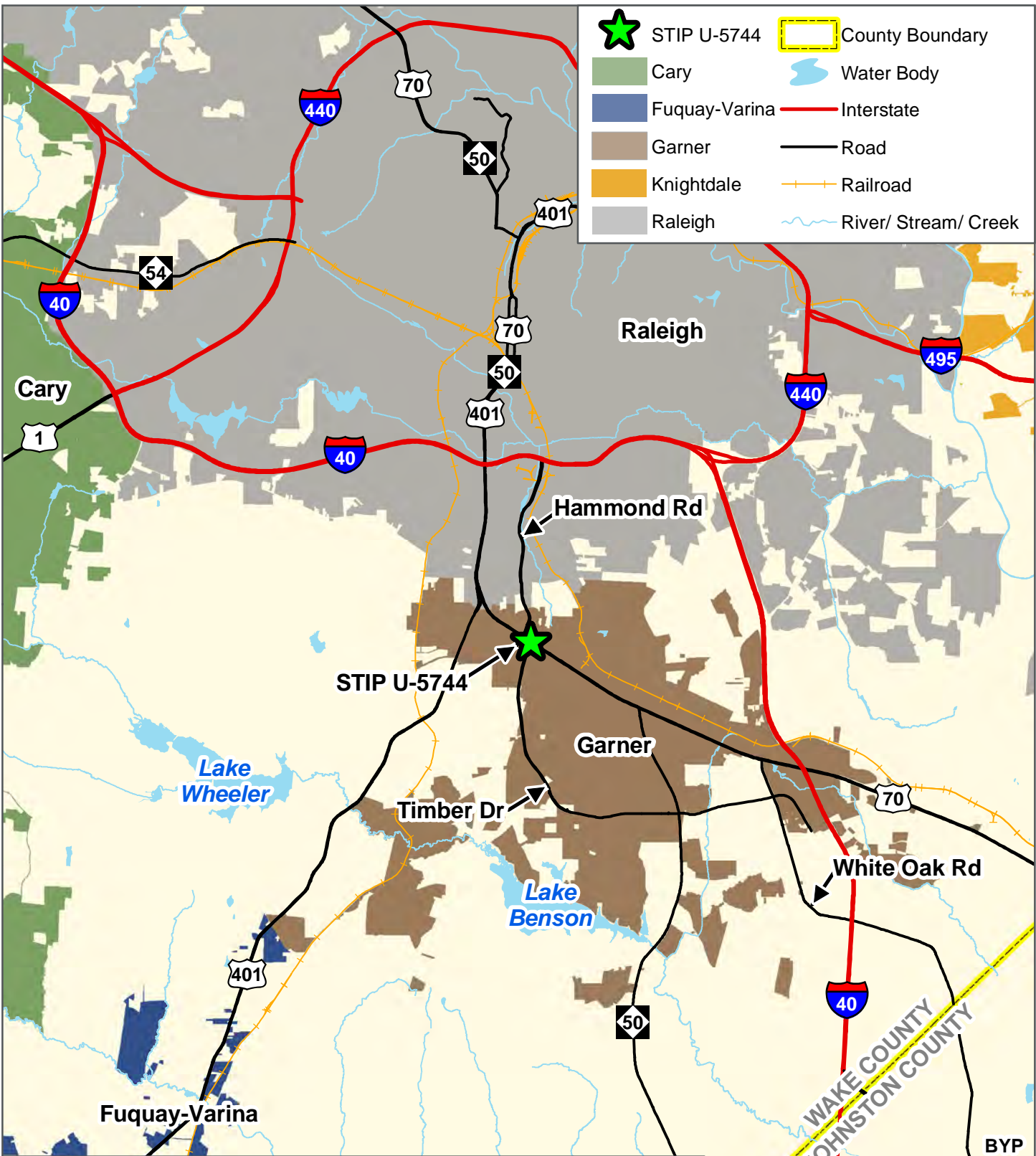
This “Green Sheet” lists the project commitments made to minimize, mitigate, or avoid project impacts beyond those necessary to comply with applicable federal and state requirements and regulations.

Division 5

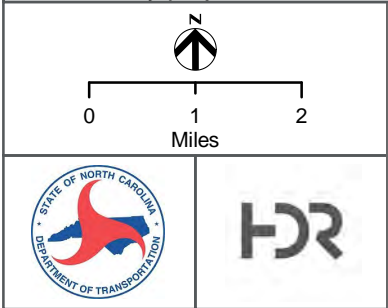
Sidewalks are included in this project. This should be included in a municipal agreement prepared and executed prior to construction for the Town of Garner’s participation and matching cost share, based on the municipal population.

ATTACHMENTS

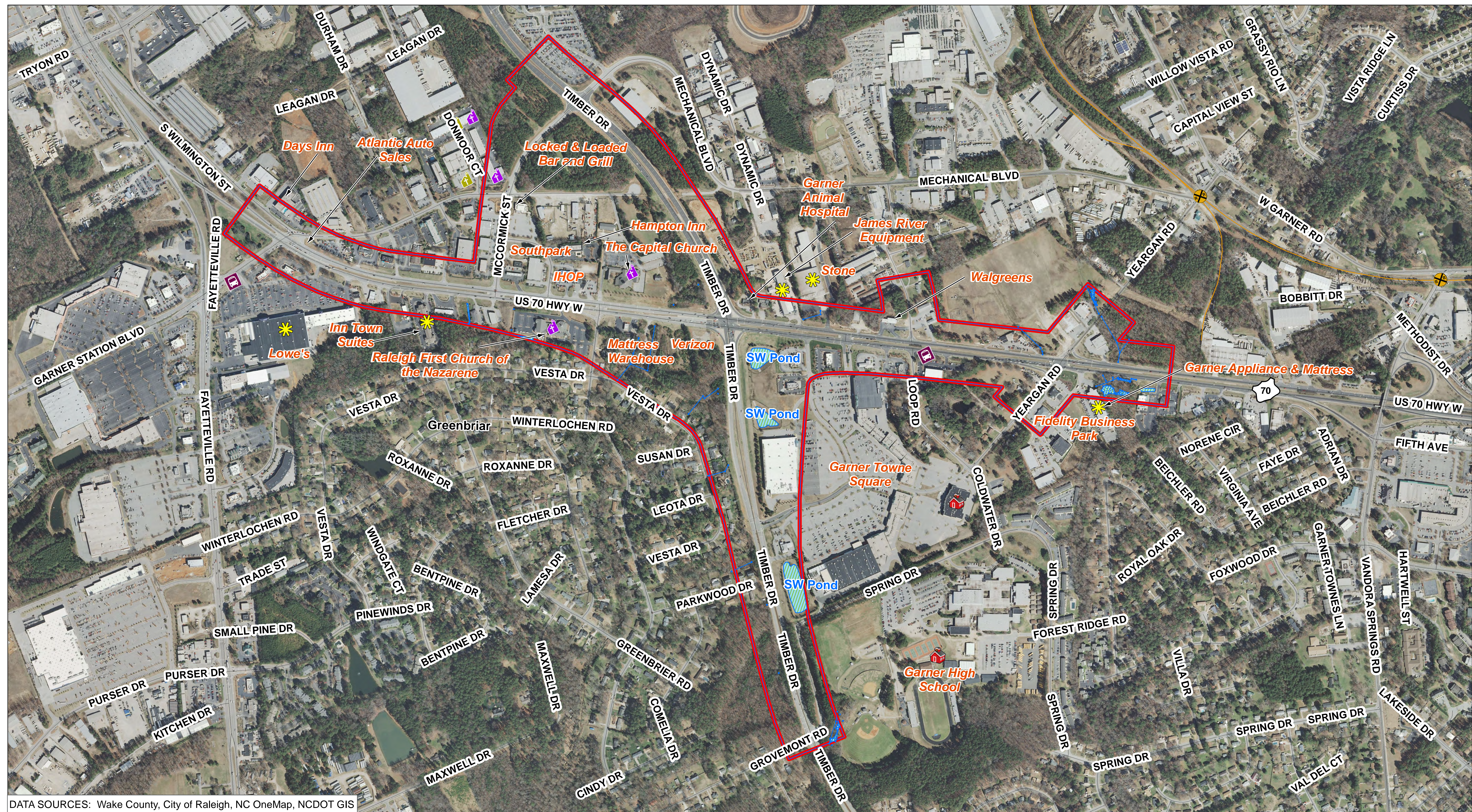
FIGURES



DATA SOURCES: Wake County, City of Raleigh, NC OneMap, NCDOT GIS
 NOTE: Only project area roads are shown for map clarity.

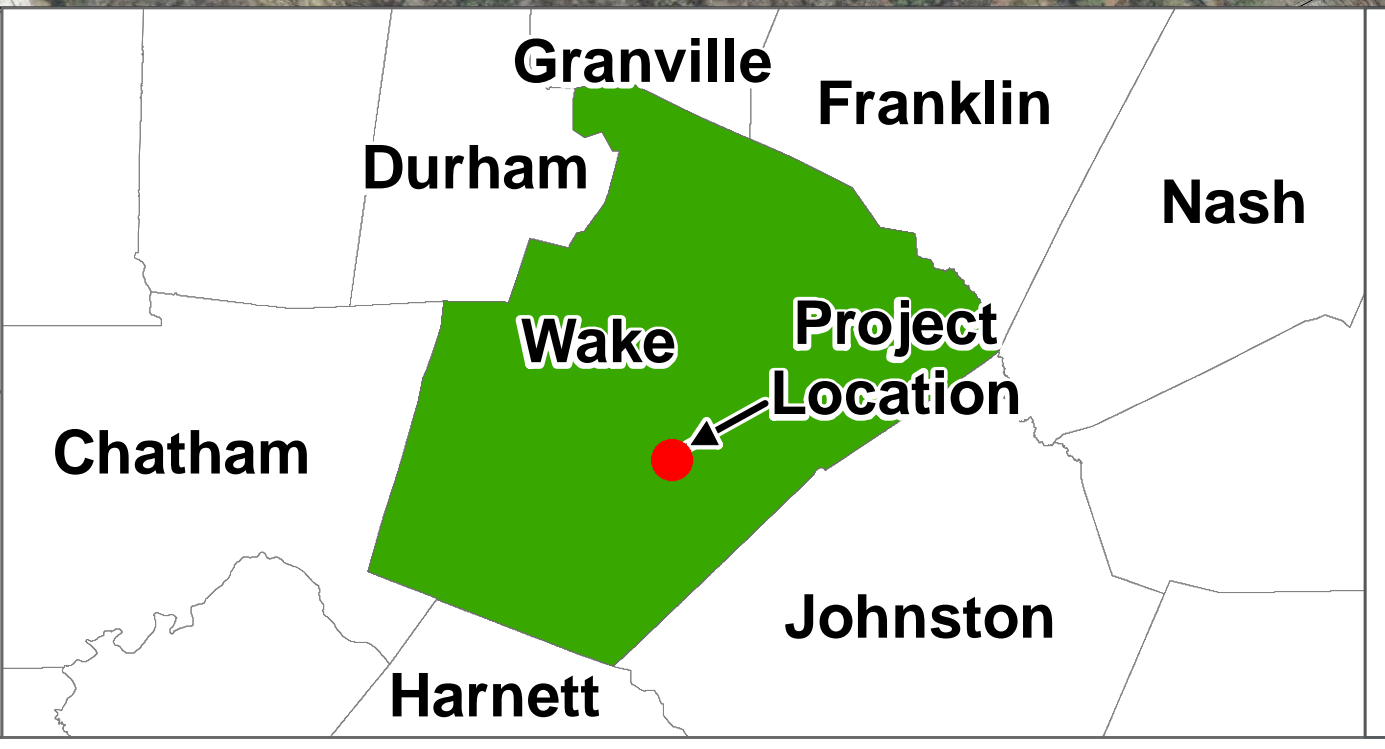


VICINITY MAP
 STIP Project U-5744
 Convert At-Grade Intersection at
 US 70/ NC 50 and SR 2026
 (Hammond Road)/ SR 2812
 (Timber Drive) to an Interchange.
 Garner, Wake County
 MARCH 2017



DATA SOURCES: Wake County, City of Raleigh, NC OneMap, NCDOT GIS

0 1,000 Feet 2,000



Bus Stop	Rail Crossing	Jurisdictional Feature
Notable Business/Facility	Railroad	Jurisdictional Feature
Place of Worship	Local Street	Study Area
Place of Worship (Hispanic)		
School		

EI **P**

**STIP U-5744
PROPOSED INTERCHANGE AT US 70/NC 50
AND HAMMOND ROAD/TIMBER DRIVE
WAKE COUNTY**

MARCH 2018



US 70 / NC 50 INTERSECTION WITH
SR 2026 (HAMMOND ROAD) / SR 2812
(TIMBER ROAD)

WAKE COUNTY

TIP PROJECT U-5744
WBS NO. 54031.I.FRI

PUBLIC MEETING MAP



PUBLIC MEETING MAP

TIP PROJECT U-5744
WBS NO. 54031.I.FRI

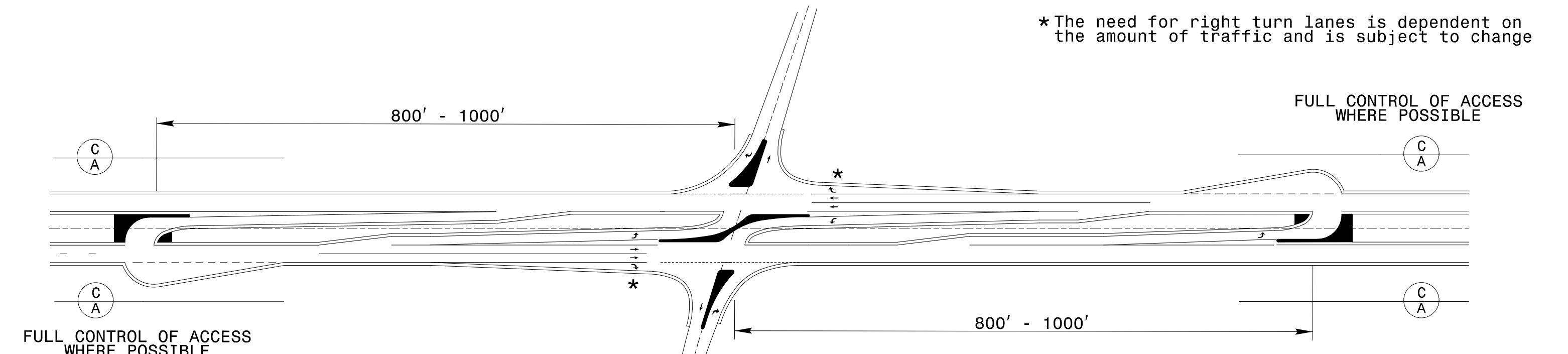
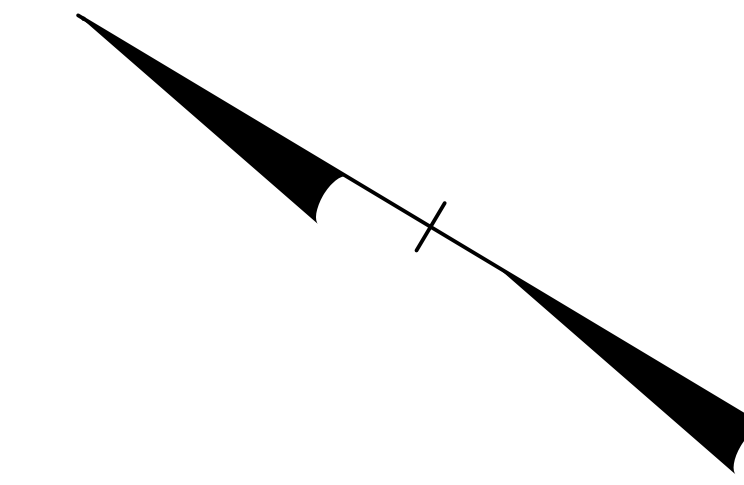
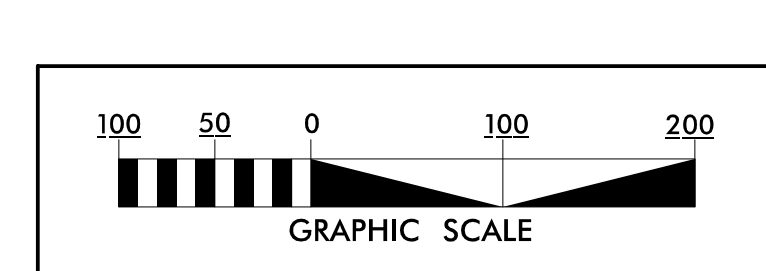
WAKE COUNTY

Intersection of US-70 / NC 50 &
Hammond Rd / Timber Drive
Continuous Flow Intersection / Superstreet
Wake County, NC

ALTERNATIVE 1
SHEET 1 OF 1

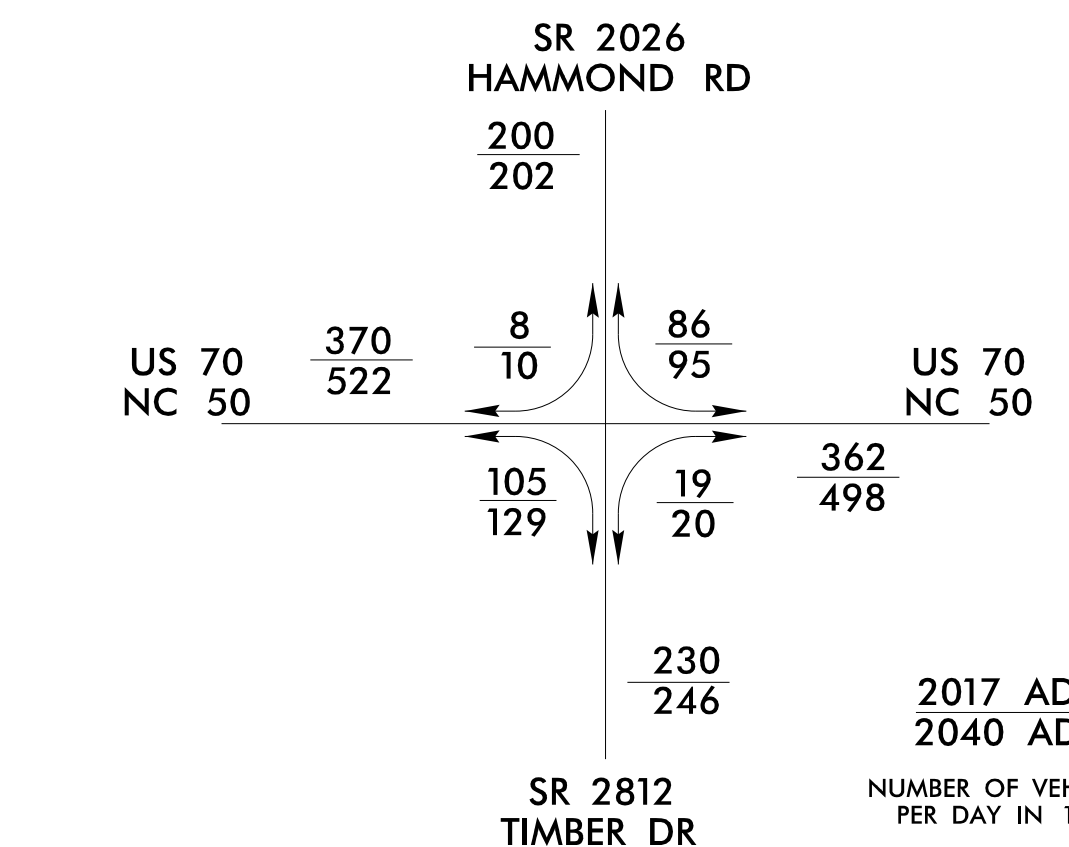
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



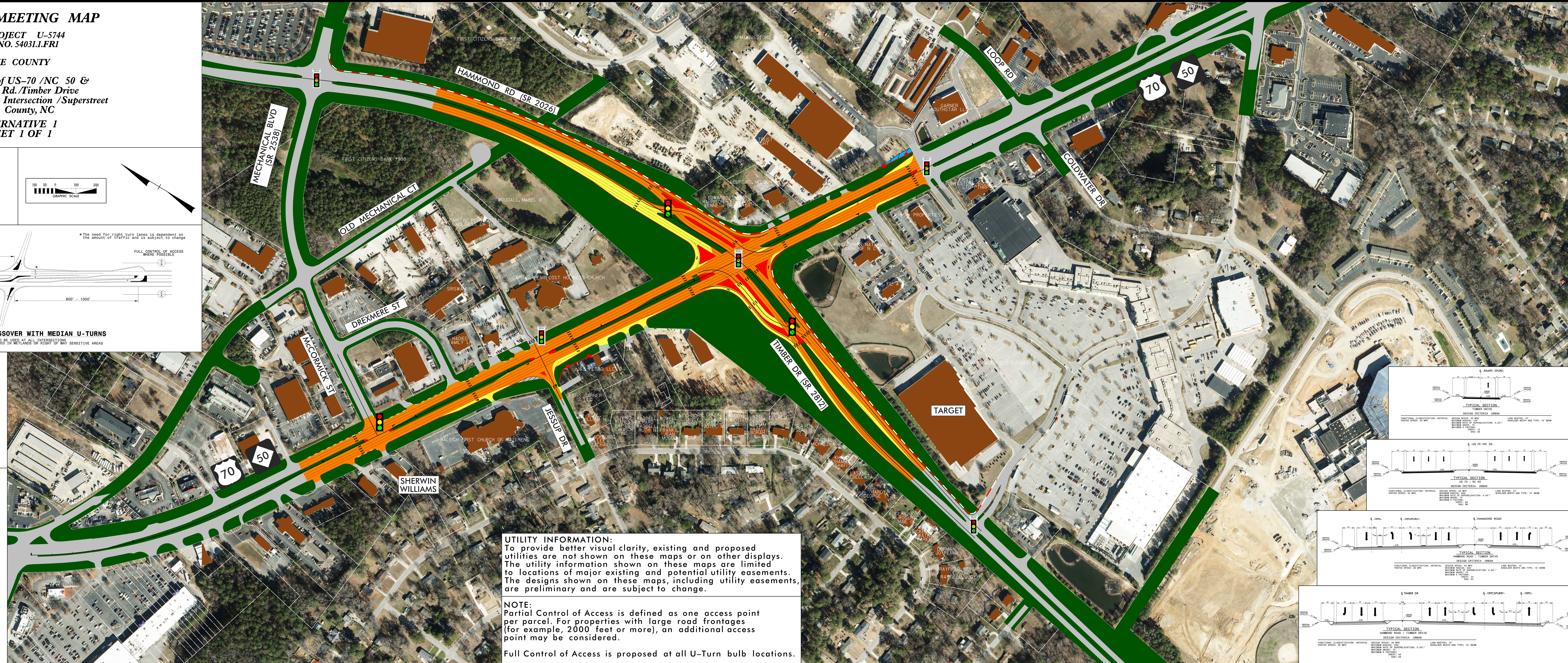
DIRECTIONAL CROSSOVER WITH MEDIAN U-TURNS

U-TURN KNUCKLES NOT TO BE PLACED IN WETLANDS OR RIGHT OF WAY SENSITIVE AREAS



LEGEND

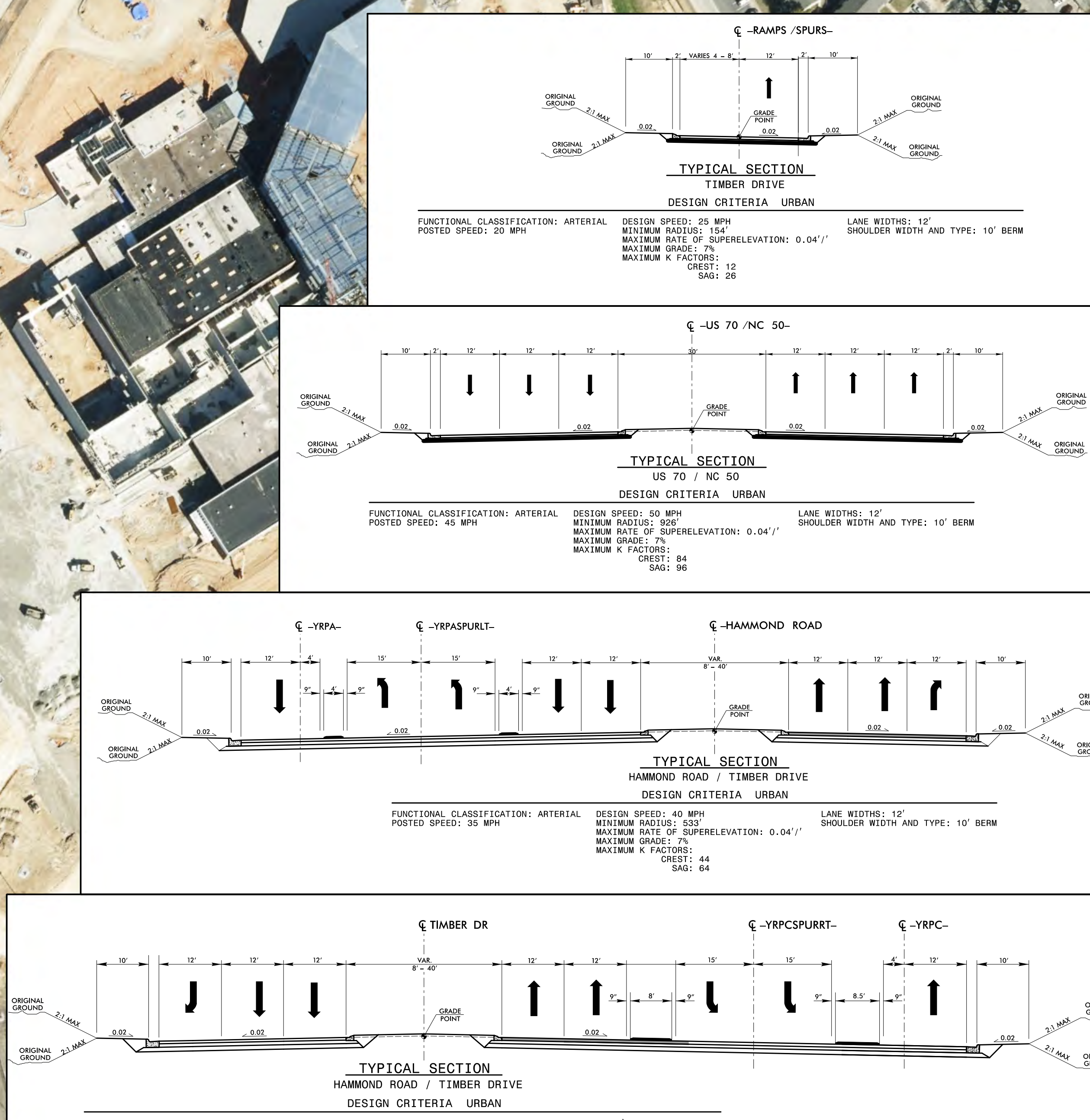
- BUILDINGS
- EXISTING RIGHT OF WAY
- PROPOSED POTENTIAL IMPACT AREA
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- EXISTING ROADWAY TO BE RESURFACED
- PROPOSED ROADWAY
- PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER, EXPRESSWAY GUTTER
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
- PROPOSED CONTROL OF ACCESS
- PROPERTY LINES
- EXISTING TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL



UTILITY INFORMATION:
To provide better visual clarity, existing and proposed utilities are not shown on these maps or on other displays. The utility information shown on these maps are limited to locations of major existing and potential utility easements. The designs shown on these maps, including utility easements, are preliminary and are subject to change.

NOTE:
Partial Control of Access is defined as one access point per parcel. For properties with large road frontages (for example, 2000 feet or more), an additional access point may be considered.

Full Control of Access is proposed at all U-Turn bulb locations.



PUBLIC MEETING MAP

TIP PROJECT U-5744
WBS NO. 54031.I.FRI

WAKE COUNTY

US 70 / NC 50 INTERSECTION WITH
SR 2026 (HAMMOND ROAD) / SR 2812
(TIMBER ROAD)



**CULTURAL RESOURCES
COORDINATION**



NO 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: U-5744 County: Wake
 WBS No: 54031.1.FR1 Document: State EA/FONSI
 F.A. No: Funding: State Federal

Federal Permit Required? Yes No Permit Type: USACE

Project Description: The project involves the conversion of an at-grade intersection to an interchange on US 70/NC 50 at SR 2026 (Hammond Road)/SR 2812 (Timber Drive) in Wake County, North Carolina. The archaeological Area of Potential Effects (APE) encompasses the entire project study area as depicted on the attached mapping.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

Permitting and funding information was reviewed for determining the level of archaeological input required by state and federal laws. Based on the submitted "request for cultural resources review" form, the project is state-funded with federal permit interaction. As such, Section 106 of the National Historic Preservation Act will apply to the project and the United States Army Corps of Engineers will serve as the lead federal agency. Next, construction design and other data was examined (when applicable) to define the character and extent of potential impacts to the ground surfaces embracing the project locale. Since no refinements have been made nor a preferred alternative selected for the project, the APE will encompass the entire project study area.

Once an APE was outlined, a map review and site file search was conducted at the Office of State Archaeology (OSA) on Thursday, August 31, 2017. No archaeological sites are situated within or directly adjacent to the project study area.

Examination of NRHP, State Study Listed (SL), Locally Designated (LD), Determined Eligible (DE), and Surveyed Site (SS) properties employing resources available on the NCSHPO website is important in establishing the location of noteworthy historic occupations related to a perspective construction impact area. A cross-check of these mapped resources concluded that none of the above properties with potential contributing archaeological components are situated within or proximal to the APE. In addition, historic maps of Wake County were appraised to identify former structure locations, land use patterns, or other confirmation of historic occupation in the project vicinity. Archaeological/historical reference materials were inspected as well. In general, the cultural background review established that no previously recorded archaeological sites, NRHP properties, or cemeteries are located within the APE. Based on cultural-historical factors, the APE is considered to have a low potential for the documentation of archaeological resources.

Further, topographic, geologic, flood boundary, and NRCS soil survey maps were referenced to evaluate pedological, geomorphological, hydrological, and other environmental determinants that may have resulted in past occupation at this location. Aerial and on-ground photographs (NCDOT Spatial Data Viewer) and the Google Street View map application (when amenable) were also examined/utilized for additional assessment of disturbances, both natural and human induced, which compromise the integrity of archaeological sites. Environmental/impact factors do not suggest a heightened potential for archaeological resource recovery.

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

The entire project study area and APE has been heavily disturbed by commercial development. Significant, intact, and preserved archaeological deposits eligible for NRHP listing are unlikely to be present in the defined APE. As currently proposed as a state-funded project with federal permit interaction, no further consultation is advocated. A finding of "no archaeological survey required" is considered appropriate.

SUPPORT DOCUMENTATION

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

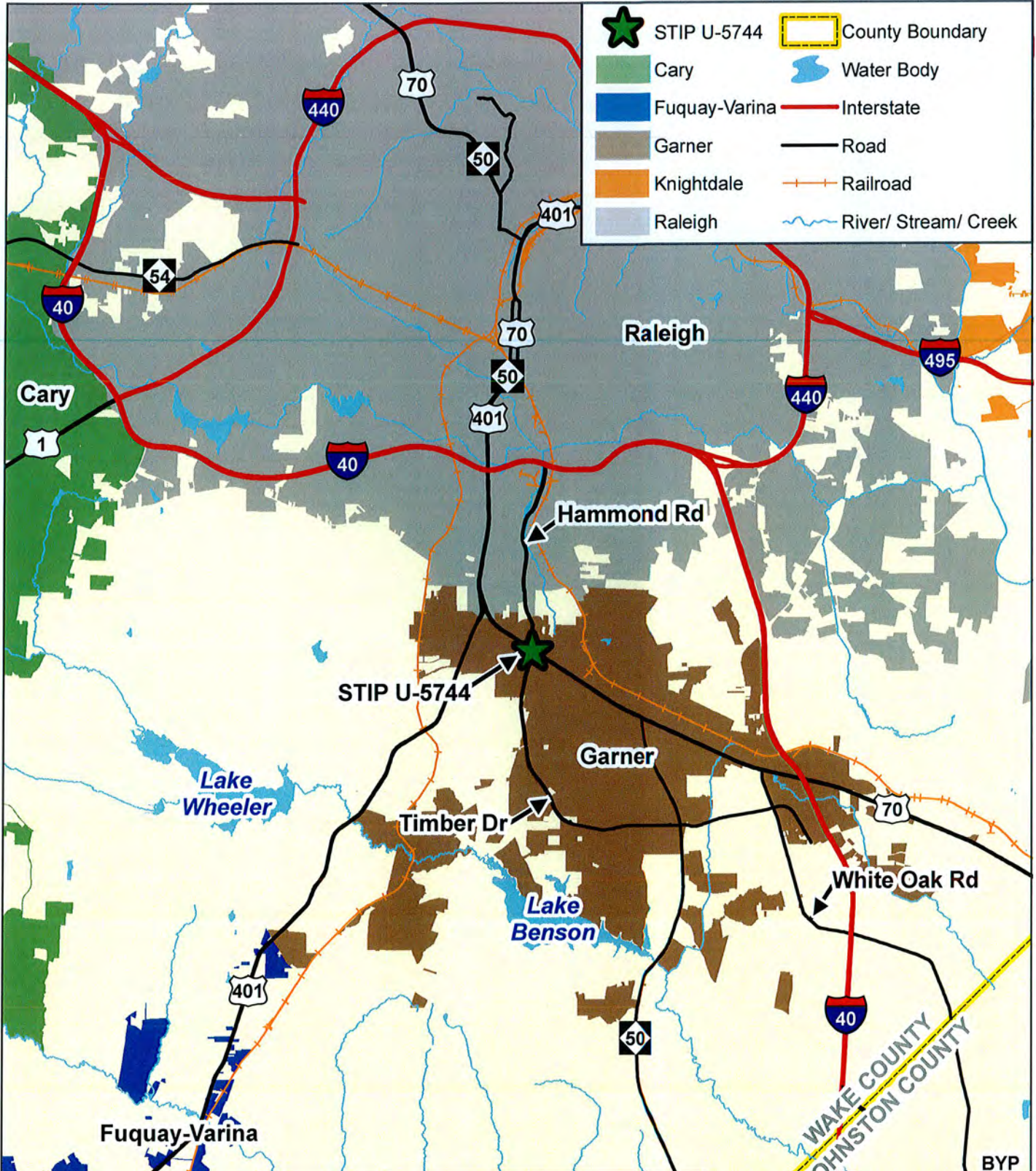
FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

Eric Halverson

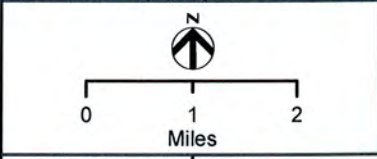
 NCDOT

9-1-2017



- STIP U-5744
- County Boundary
- Cary
- Fuquay-Varina
- Garner
- Knightdale
- Raleigh
- Water Body
- Interstate
- Road
- Railroad
- River/ Stream/ Creek

DATA SOURCES: Wake County, City of Raleigh, NC OneMap, NCDOT GIS
 NOTE: Only project area roads are shown for map clarity.



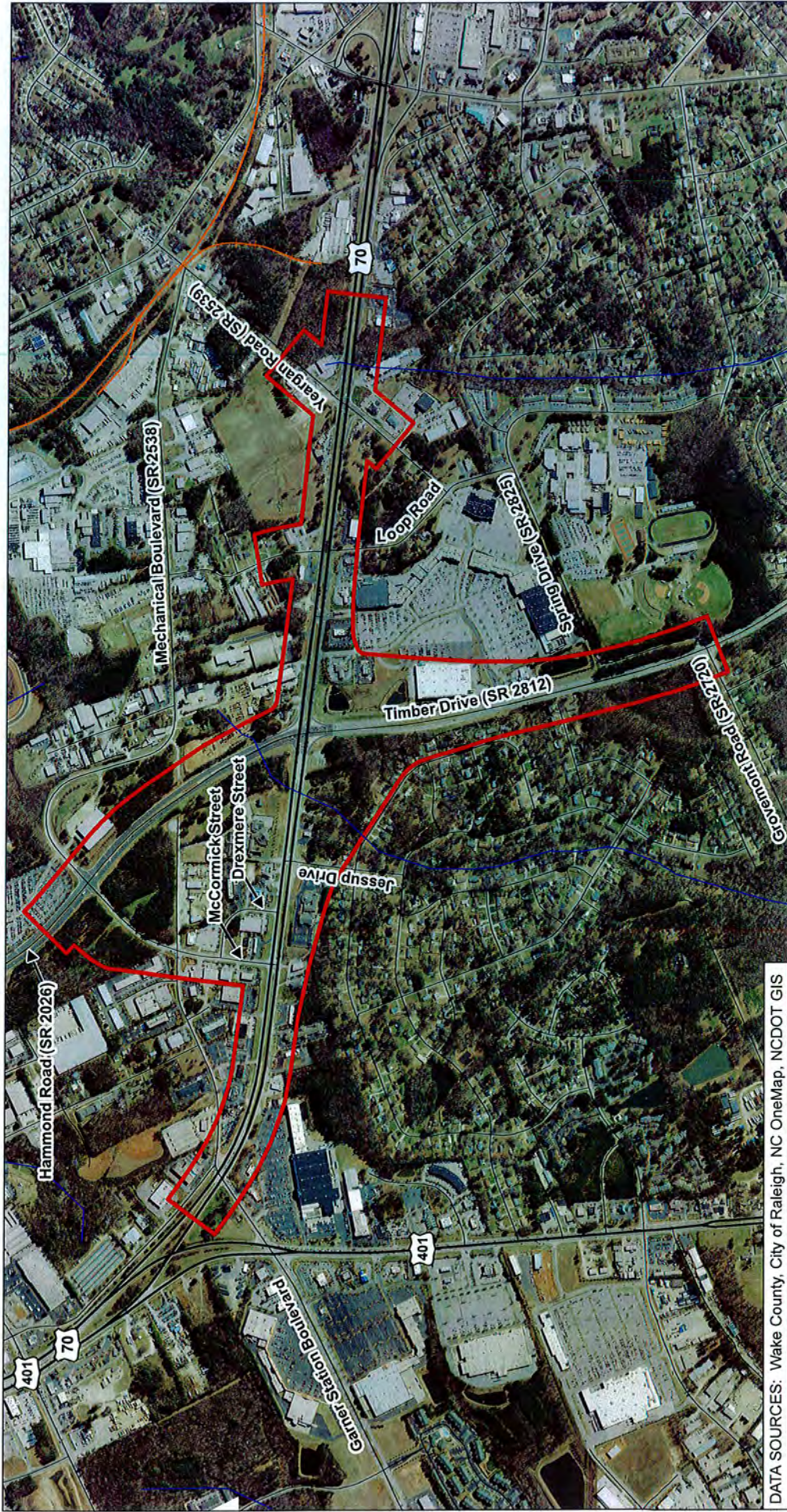
VICINITY MAP
 STIP Project U-5744
 Convert At-Grade Intersection at
 US 70/ NC 50 and SR 2026
 (Hammond Road)/ SR 2812
 (Timber Drive) to an Interchange.
 Garner, Wake County



HR ICA

Wake County
 North Carolina Counties

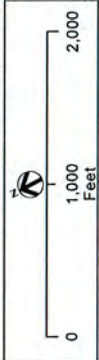
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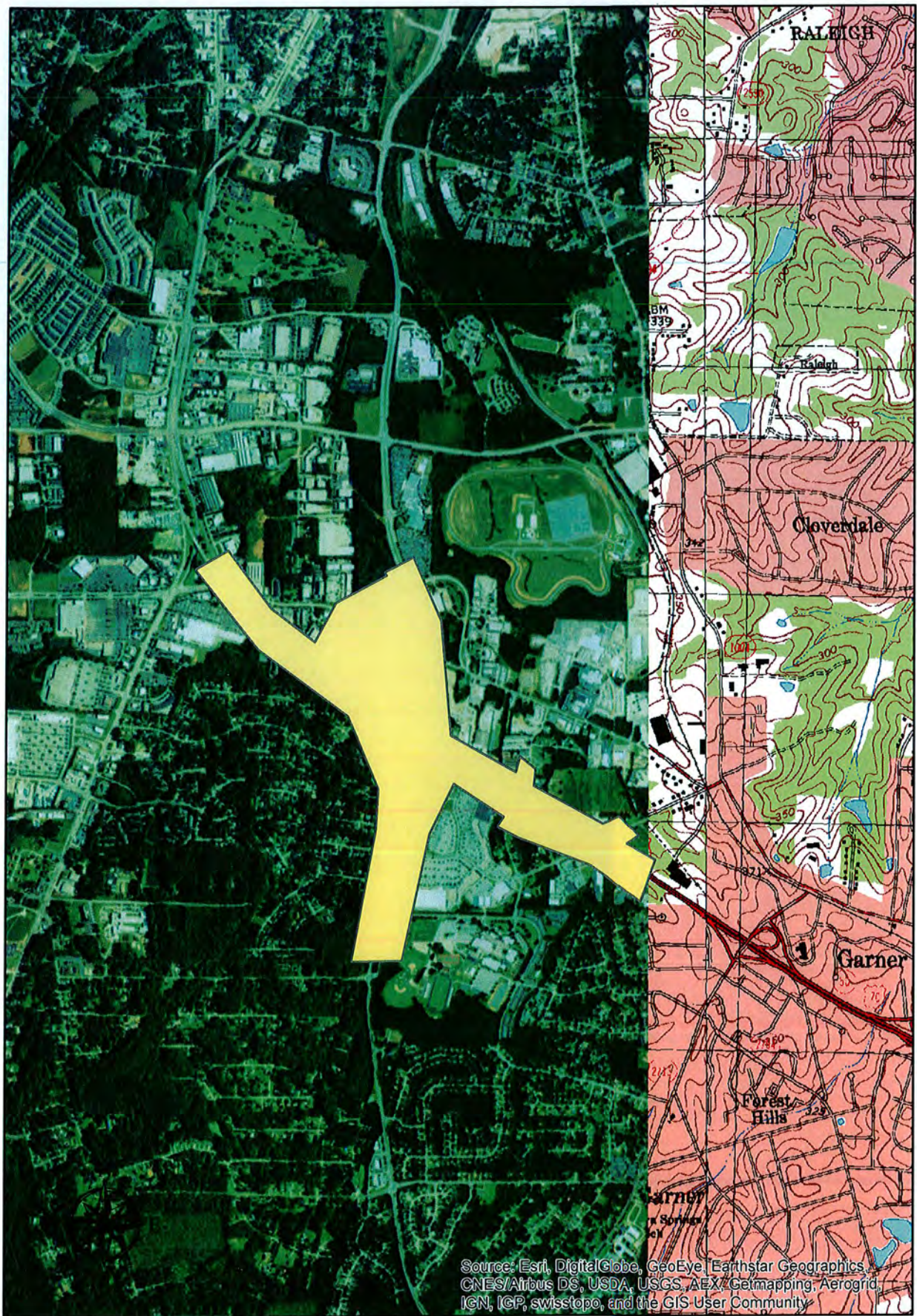


STUDY AREA MAP
 STIP U-5744
 PROPOSED INTERCHANGE AT
 US 70/ HAMMOND ROAD/ TIMBER DRIVE
 WAKE COUNTY

JANUARY 2017

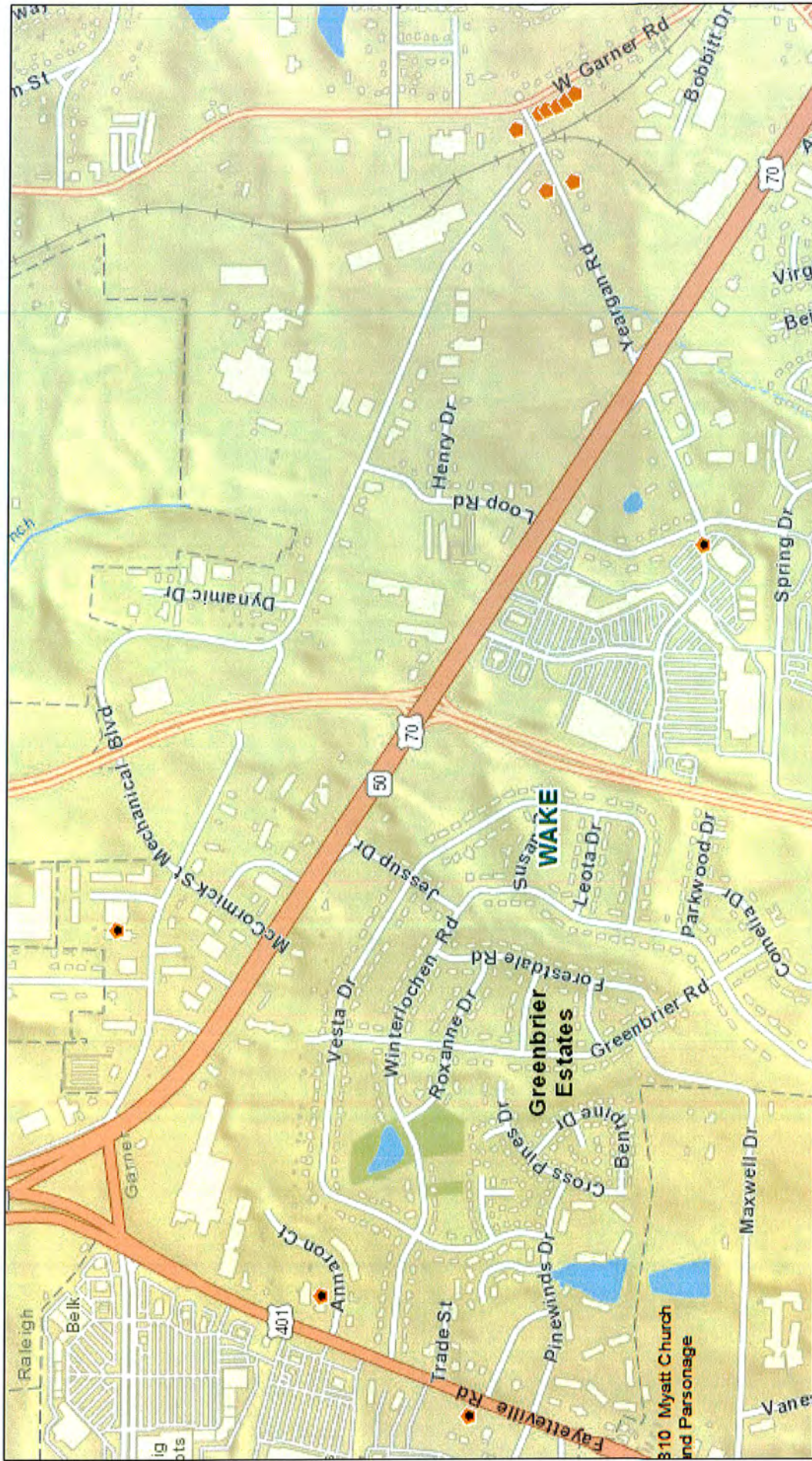
DATA SOURCES: Wake County, City of Raleigh, NC OneMap, NCDOT GIS





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

ARC-GIS image relating the boundaries and location of the Area of Potential Effects (APE) in Wake County, North Carolina.



Portion of NCSHPO web service map illustrating the location of the project APE. Note the absence of NRHP properties in the vicinity.

17-07-0008



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

Project No:	U-5744	County:	Wake
WBS No.:	54031.FR1	Document Type:	State EA
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
<u>Project Description:</u> Convert at-grade intersection to an interchange at US 70/NC 50 and SR 2812 (Timber Drive)			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

<u>Description of review activities, results, and conclusions:</u> On July 19, 2017 a search of NC HPOWEB GIS Service map reveals that the in the Area of Potential Effects for this project includes a number of properties over 50 years of age. An architectural historian will need to conduct a site survey to determine if further evaluation is needed.
--

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

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

Shelby Reap

July 19, 2017

NCDOT Architectural Historian

Date

Anticipated Fieldwork Completion Date: January 19, 2018



17-07-0008



HISTORIC ARCHITECTURE AND LANDSCAPES
****EFFECTS ASSESSMENT 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

Project No:	U-5744	County:	Wake
WBS No.:	54031.1.FR1	Document Type:	State EA/FONSI
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
<u>Project Description:</u> Convert at-grade intersection to an interchange at US 70/NC 50 and SR 2812 (Timber Drive)			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

On July 19, 2017 a search of NC HPOWEB GIS Service map revealed that the Area of Potential Effects (APE) includes a number of properties over 50 years of age. On July 19, 2017 an NCDOT architectural historian conducted a windshield survey and recommended that several properties be evaluated for National Register eligibility. In March 16, 2018 the evaluation report was delivered to the North Carolina Historic Preservation Office (HPO). That report recommended that one property, the Greenbrier 66 Service station (WA8353) and one historic district, Greenbrier Estates are eligible for National Register listing. In a letter dated April 30, 2018, HPO concurred with our recommendation but requested an adjustment to the boundary for the property. A copy of that correspondence and a map showing the boundary is attached. An Assessment of Effects will be required for this property.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- ****EFFECTS ASSESSMENT REQUIRED****

Shelby Reap

May 1, 2018

NCDOT Architectural Historian

Date



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 30, 2018

MEMORANDUM

TO: Shelby Reap
Office of Human Environment
NCDOT Division of Highways

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

SUBJECT: Historic Structures Survey Report, Conversion of At-Grade Intersection to an Interchange at US 70/NC 50 and SR 2812 (Timber Road), U-5744, PA 17-07-0008, Wake County, ER 18-0644

Thank you for your March 16, 2018, letter, transmitting the report for the above-referenced undertaking. We have reviewed the report and offer the following comments.

We concur that the following two properties are eligible for listing in the National Register of Historic Places.

- Greenbrier Estates Historic District (WA8354) is eligible under Criteria A and C for the reasons stated. While we agree with the overall assessment, we do not completely agree with all the author's Contributing/Non-contributing assessments. Alterations to carports do not necessarily render a house noncontributing. It depends on how the alteration is done. In this case, however, there is a solid majority of contributing resources even with the conservative approach to alterations. Extending the period of significance to 1975 appears to be acceptable as there appears to be very little construction after 1975.
- (former) Greenbrier 66 Service Station (WA8353): There are quite a few batwing stations surviving in North Carolina and many of them are altered. In addition to those cited, we are aware of one on Tunnel Road in East Asheville and one in Charlotte. In any event, we agree that this particular example is eligible under Criterion C for the reasons stated. We would, however, reduce the boundary of the property by cutting it off at the edge of the treed area behind the station.

We concur that the following properties are not eligible for listing in the National Register for the reasons outlined in the report.

- Raleigh First Church of the Nazarene (WA8351)
- Capital Pentecostal Holiness Church (WA8350)
- Garner Animal Hospital (WA8352)



HPO Data Layers

Background View



WA8353 (former) Greenbrier
BB Station 2018

WA8354 Greenbrier Estates
Historic District 2018

WAKE

400m
1000ft

Search Results

Latitude: 35.722400 Longitude: -78.657205 Scale: 1:9,027.9



17-07-0008



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

Project No.:	U-5744	County:	Wake
WBS No.:	54031.1.FR1	Document Type:	State EA/FONSI
Fed. Aid No.:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
<u>Project Description:</u> Convert intersection of US 70/NC 50 and SR 2812 (Timer Dr) to a Continuous Flow Interchange.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

On May 1, 2018 a review of NC HPOWEB GIS online map revealed that this project is in the in the vicinity of the Greenbrian 66 Service Station (WA8353) and Greenbrier Estates Historic District (WA8354). An effects meeting conducted on October 30, 2018 resulting in the following findings.

ASSESSMENT OF EFFECTS

Property Name:	Greenbrier Estates Historic District	Status:	NR
Survey Site No.:	WA8354	PIN:	
Effects <input checked="" type="checkbox"/> No Effect <input type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
<u>Effects Determination</u> Stays within existing R.O.W. No more visual or audible intrusion than with existing intersection.			
<u>List of Environmental Commitments:</u>			

Property Name:	Greenbrier 66 Service Station	Status:	NR
Survey Site No.:	WA8353	PIN:	
Effects			
<input checked="" type="checkbox"/> No Effect <input type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
Effects Determination			
Stays within existing ROW. No more visual or audible intrusion than existing interchange.			
List of Environmental Commitments:			

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE

Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

Shelby Reap _____ Oct. 30, 2018 _____
 NCDOT Architectural Historian Date

Renee Hedrick-Earley _____ 10.30.18 _____
 State Historic Preservation Office Representative Date

 Representative, Federal Agency Date



US 70 / NC 50 INTERSECTION WITH SR 2026 (HAMMOND ROAD) / SR 2812 (TIMBER ROAD)

WAKE COUNTY

TIP PROJECT U-5744
WBS NO. 54031.1.FRI

PUBLIC MEETING MAP



PUBLIC MEETING MAP

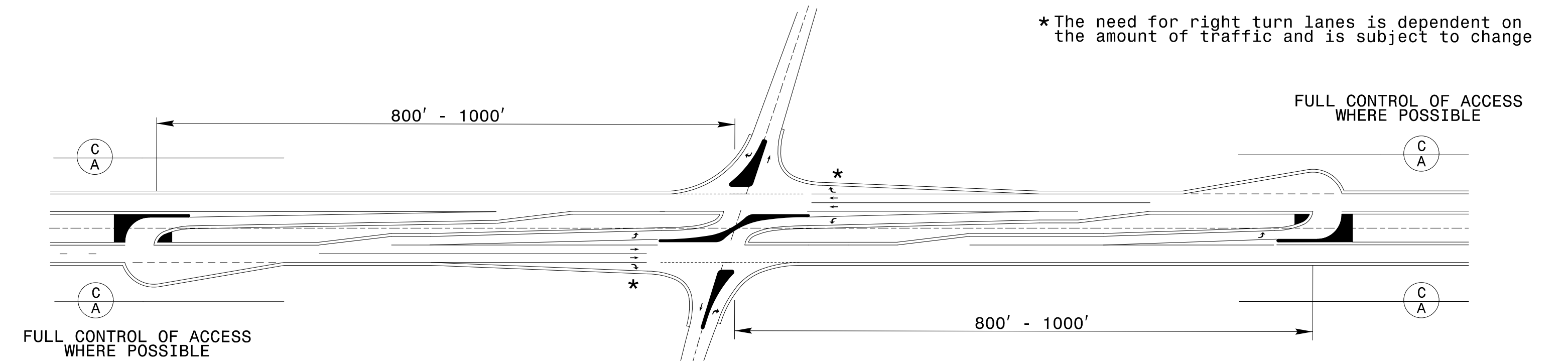
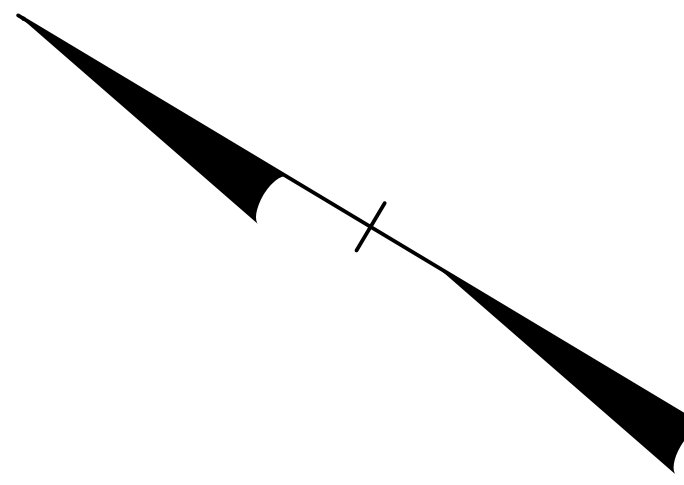
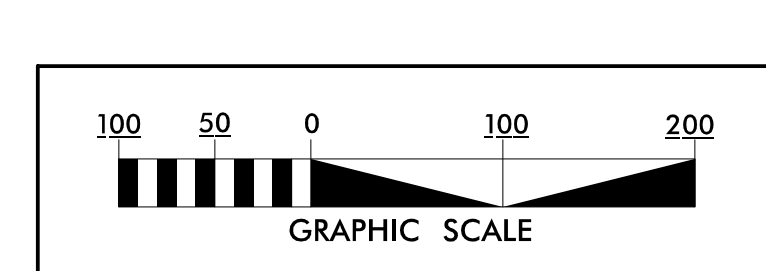
TIP PROJECT U-5744
WBS NO. 54031.1.FRI

WAKE COUNTY

Intersection of US-70 / NC 50 &
Hammond Rd. / Timber Drive
Continuous Flow Intersection / Superstreet
Wake County, NC
ALTERNATIVE 1
SHEET 1 OF 1

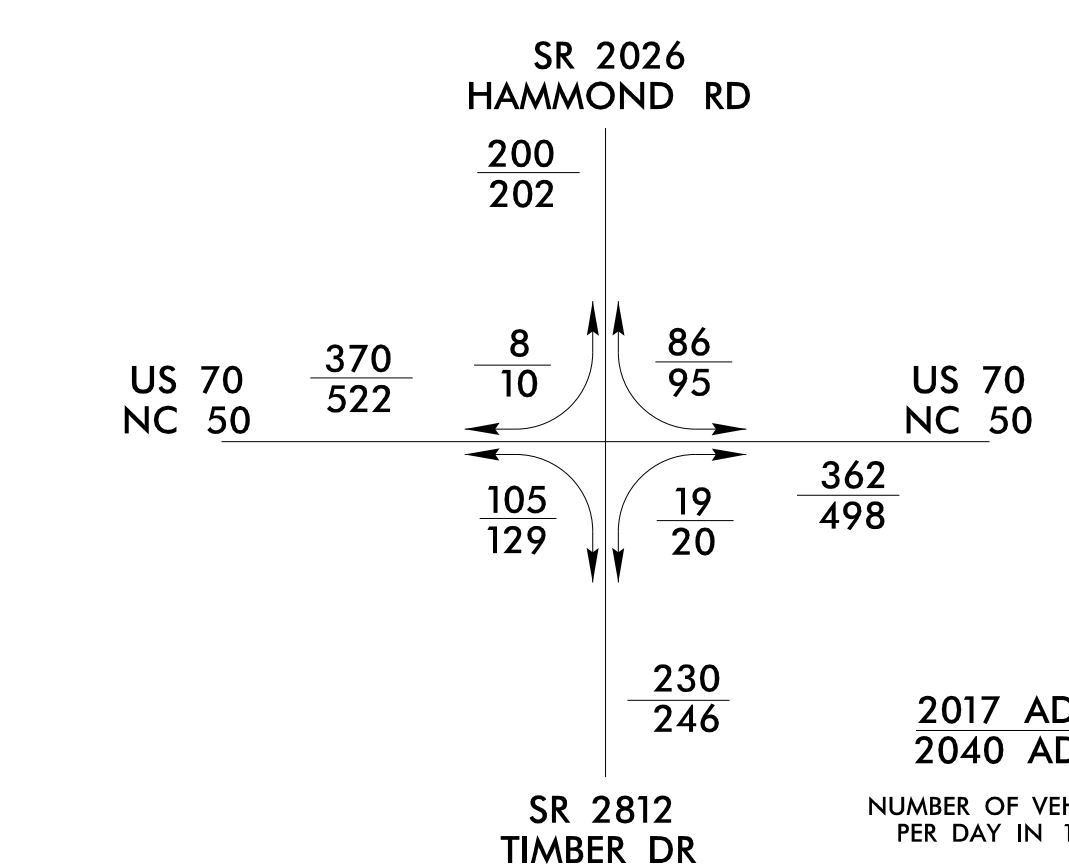
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



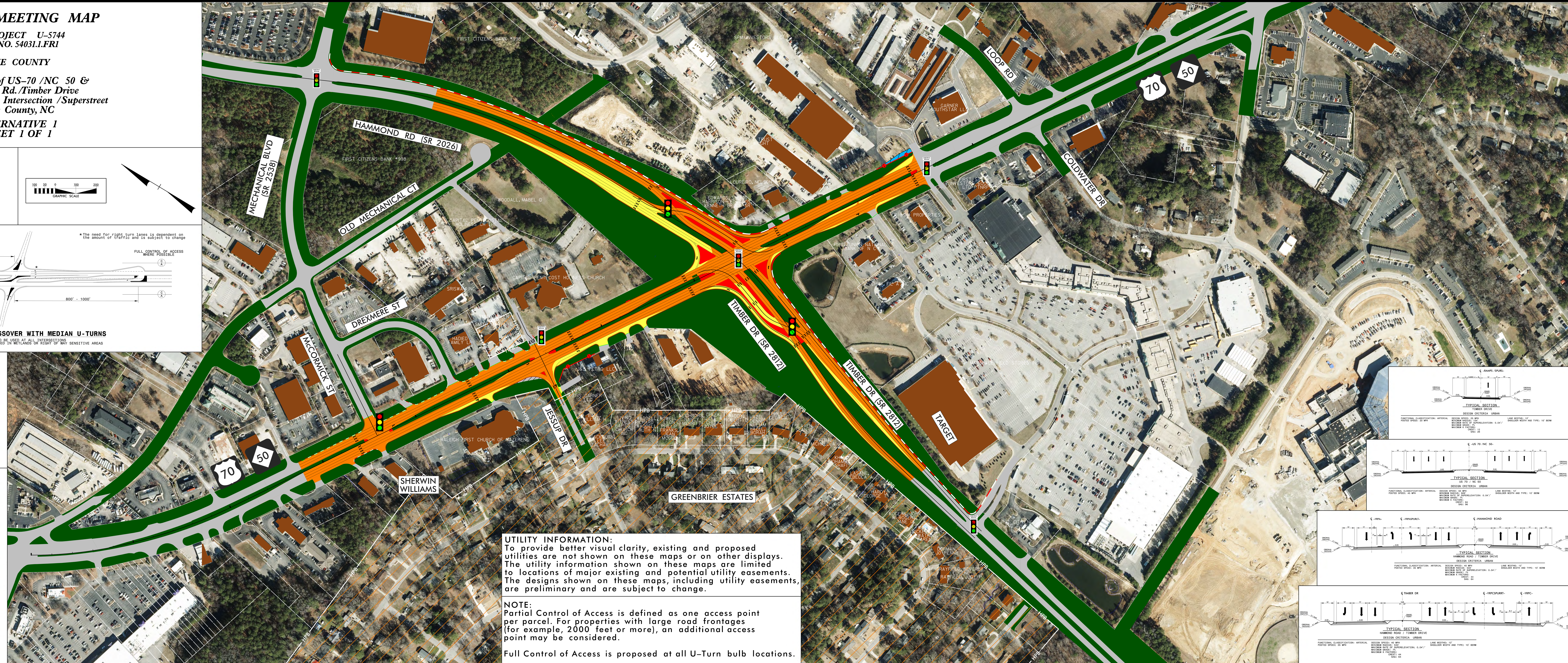
DIRECTIONAL CROSSOVER WITH MEDIAN U-TURNS

U-TURN KNUCKLES NOT TO BE PLACED IN WETLANDS OR RIGHT OF WAY SENSITIVE AREAS



LEGEND

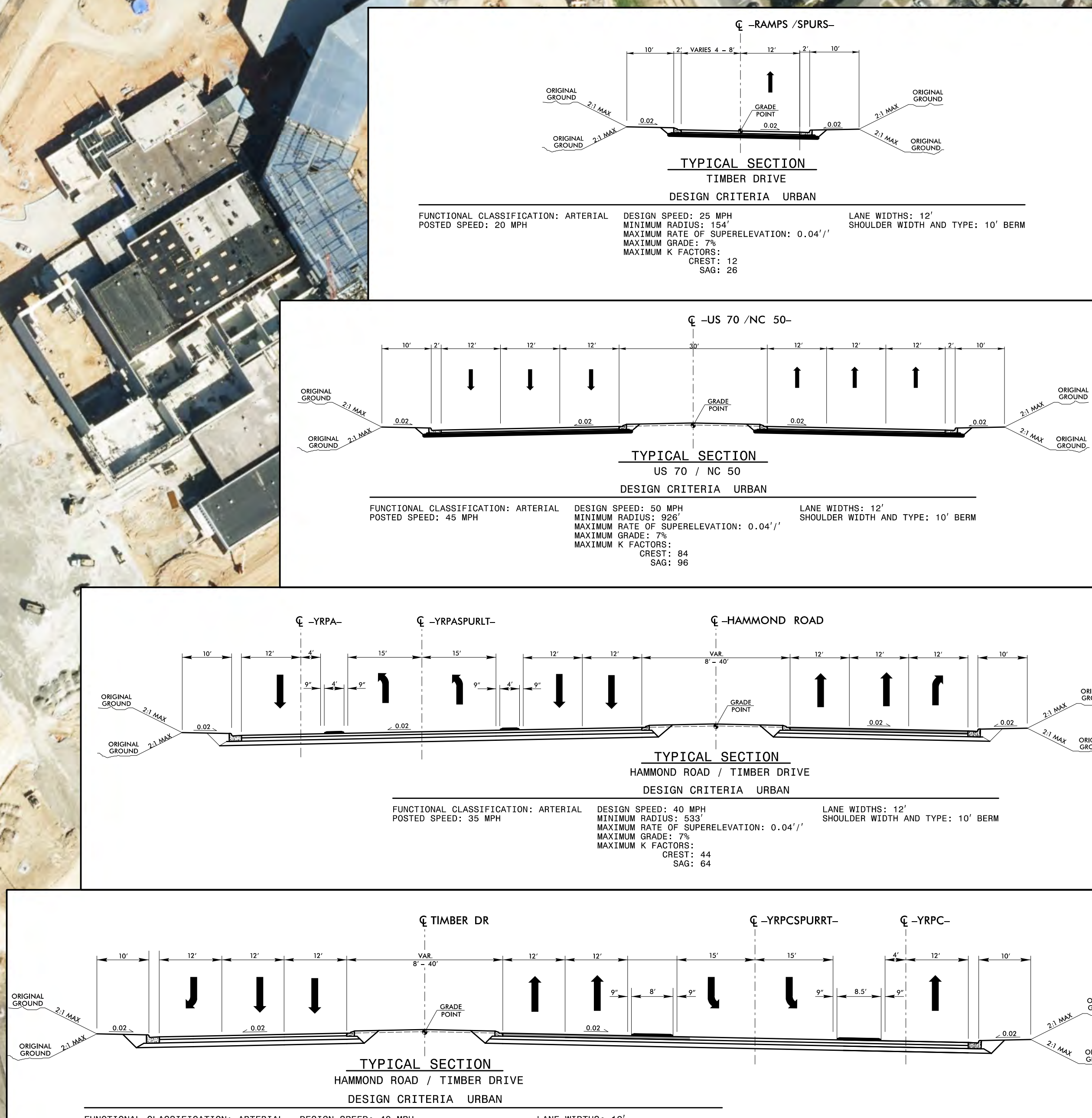
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- EXISTING RIGHT OF WAY
- PROPOSED POTENTIAL IMPACT AREA
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- EXISTING ROADWAY TO BE RESURFACED
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UTILITY INFORMATION:
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NOTE:
Partial Control of Access is defined as one access point per parcel. For properties with large road frontages (for example, 2000 feet or more), an additional access point may be considered.

Full Control of Access is proposed at all U-Turn bulb locations.



PUBLIC MEETING MAP

TIP PROJECT U-5744
WBS NO. 54031.1.FRI

WAKE COUNTY

US 70 / NC 50 INTERSECTION WITH SR 2026 (HAMMOND ROAD) / SR 2812 (TIMBER ROAD)



PUBLIC INVOLVEMENT



Intersection Improvements at U.S. 70/N.C. 50 and Hammond Rd/Timber Dr

March 27th, 2018 Informal Public Meeting

INTRODUCTION

On Tuesday, March 27th the North Carolina Department of Transportation (NCDOT), with assistance from HDR, held an informal public hearing for the Intersection Improvements at U.S. 70/N.C. 50 and Hammond Road (S.R. 2026)/Timber Drive (S.R. 2812). This hearing was held at The Capital Church, located at 1308 US 70 W in Garner, NC. The purpose of this meeting was to provide the public with information on the project, review project designs, and gather comments about the project. A total of 102 individuals signed in to the meeting.

MEETING FORMAT

Prior to the informal public hearing a Local Officials Informational meeting was held for public officials from 2:00 to 3:00 PM. These officials were invited to attend the meeting before the public in order to voice any concerns. At 4:00 PM, the open public meeting took place until 7:00 PM. The meeting consisted of an informal, open house style format. Display maps were presented at the meetings showing traffic control, right of way, and the two proposed alternatives.

MEETING MATERIALS

A variety of informational materials were developed to educate attendees about the different alternatives including display maps and a handout.

- Handout [see **Appendix A**]
- Sign-in Sheets [see **Appendix B**]
- Comments [see **Appendix C**]
- Questions and Suggestions [see **Appendix D**]
- Petition [see **Appendix E**]
- Postcard Invitations and Title VI Form [see **Appendix F**]

General Comments

To collect feedback during the public meeting, comment forms were made available and attached to the project handout. The comment form asked for contact information and provided space for the comment itself. Comments could be submitted during the meeting or following the meeting until April 27th.



A total of 27 written comments were received as a result of the public meeting. These comments were received in the form of written comments from the public meeting, written letters sent by mail, and comments sent via email. The comments can be found in **Appendix C**.

- **145 (Including petition signatures) of the comments were in favor of the project in general.**
 - **137 were in favor of the Continuous Flow Intersection.**
 - **8 were in favor of the Single Point Urban Intersection.**

Individuals who commented recorded the amount of times they used the intersection per week.

- 17 individuals use the intersection more than 10 times.
- 3 individuals use the intersection from 5 to 10 times.
- 1 individual uses the intersection less than 5 times.

Commenters also recorded their method of transportation when using the intersection.

- 21 individuals drive
- 1 individual bikes
- 1 individual walks

A petition was signed by residents in strong favor of the Continuous Flow Intersection. A total of 125 citizens signed the petition. (**Appendix E**)

Title VI Public Involvement Forms were also provided at the meeting. (**Appendix F**)

OUTREACH

Communication

The NCDOT Public Involvement Unit provided a mailing list for the project totaling 1249 names and addresses. Postcard invitations were sent by mail to landowners, residents, and local officials. Postcard invitations (**Appendix F**) were sent out as notifications before the meeting.



Appendix A: Handout



Intersection Improvements at U.S. 70/N.C. 50 and Hammond Road (S.R. 2026)/Timber Drive (S.R. 2812) Public Meeting – March 27, 2018 State Transportation Improvement Program (STIP) Project No. U-5744

Public Meeting Overview

This public meeting is one of the first steps to present project related information and concepts to the public for input. This input will help identify and minimize environmental impacts. Comments received at this public meeting will aid the project team in developing project alternatives to study in detail.

Project Description

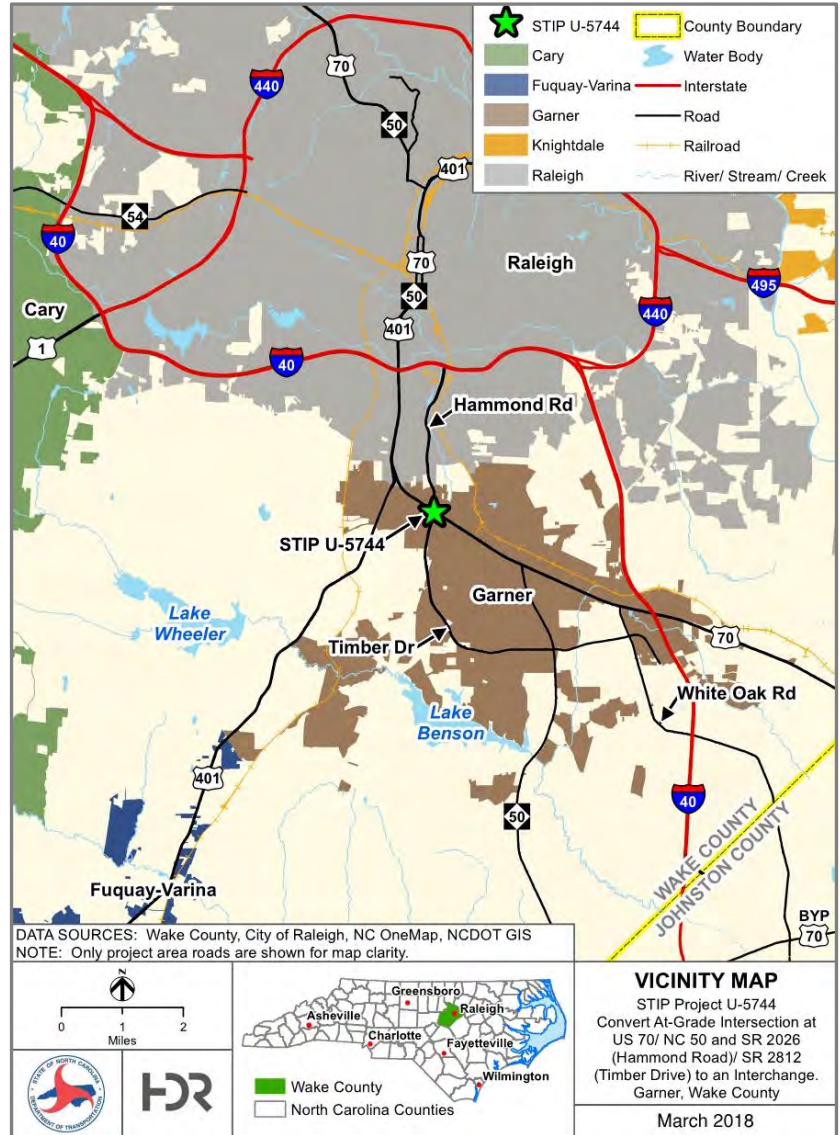
The N.C. Department of Transportation proposes to upgrade the U.S. 70/N.C. 50 at-grade intersection with Hammond Road (S.R. 2026)/Timber Drive (S.R. 2812) in Garner. Possible improvements include conversion to an interchange or a reconfiguration of the existing at-grade intersection. The proposed intersection upgrade is located in northwest Garner (Wake County), near the southern edge of Raleigh. This project is included in the State Transportation Improvement Program (STIP) as Project No. U-5744. Right-of-way acquisition is scheduled for summer of 2019 and construction is scheduled to begin in winter of 2020.

Purpose and Need

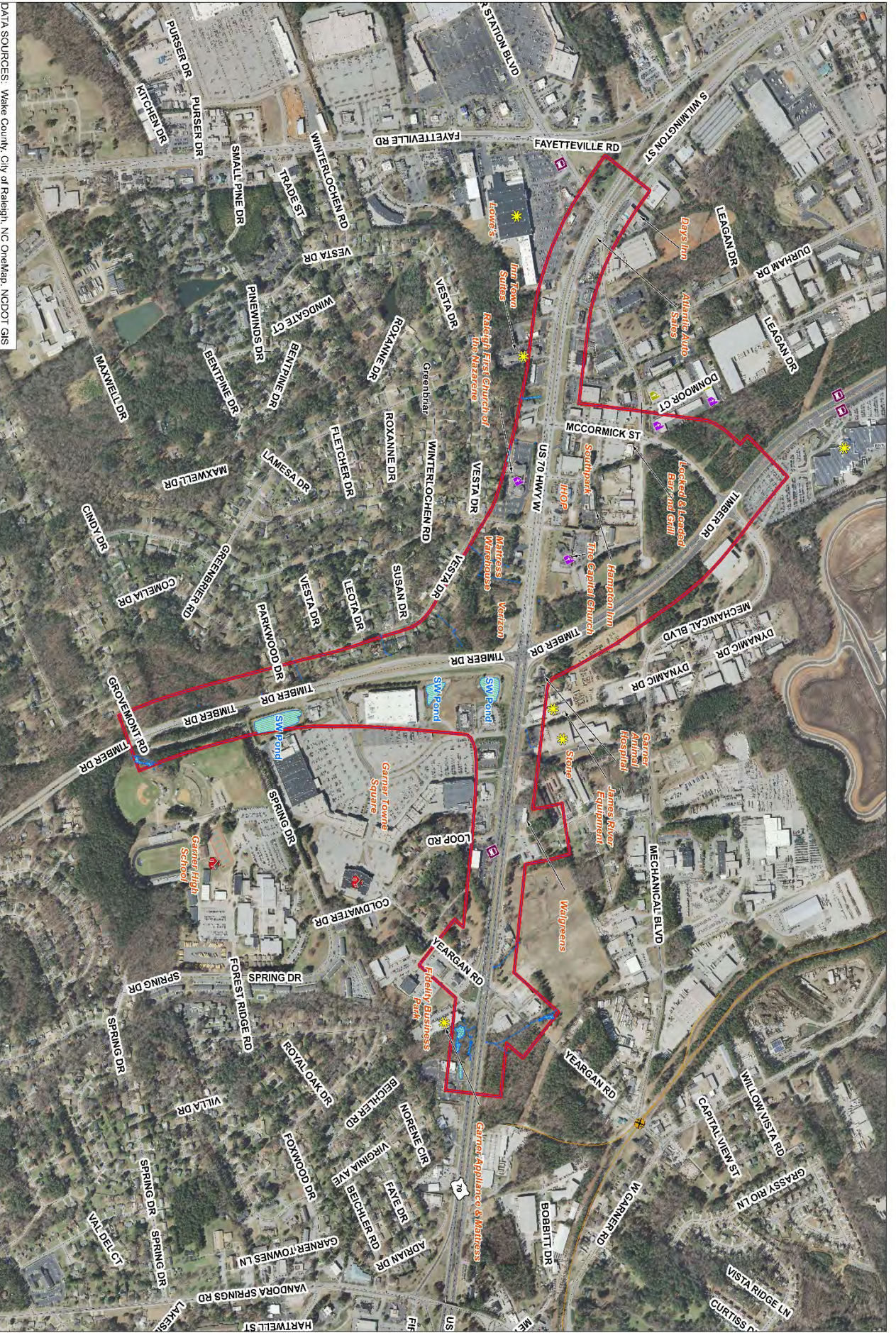
The purpose of the project is to relieve congestion and improve traffic operations. The project is needed to improve congestion as traffic volumes increase in the future.

The Capital Area Metropolitan Planning Organization's (CAMPO's) *2040 Metropolitan Transportation Plan* proposes a new interchange at U.S. 70/N.C. 50/Timber Drive and widening U.S. 70/N.C. 50 to a six-lane facility from U.S. 401 to I-40. CAMPO'S draft *Southeast Area Study* also recommends widening U.S. 70/N.C. 50 from U.S. 401 to I-40.

U.S. 70 is the main thoroughfare through Garner and provides access to regional routes near the project that include U.S. 401 and I-40. N.C. 50 is a north-south minor arterial that cuts through the middle of Wake County and also provides access to numerous regional routes. Timber Drive is a minor arterial that provides network connectivity throughout Garner. According to the most recent Project Traffic Forecast (August 2017), 33,900 to 37,000 vehicles per day (vpd) travel on U.S. 70/N.C. 50 and 20,000 to 23,000 vpd travel on Timber Drive within the project area.



Connecting people, products, and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina.



DATA SOURCES: Wake County, City of Raleigh, NC Ordinance, NCDOT GIS



HDR



- Bus Stop
- Notable Business/Facility
- Place of Worship
- School
- Rail Crossing
- Railroad
- Jurisdictional Feature
- Local Street
- Jurisdictional Feature
- Study Area

ENVIRONMENTAL FEATURES MAP
 STIP U-5744
 PROPOSED INTERCHANGE AT US 70/NC 50
 AND HAMMOND ROAD/TIMBER DRIVE
 WAKE COUNTY

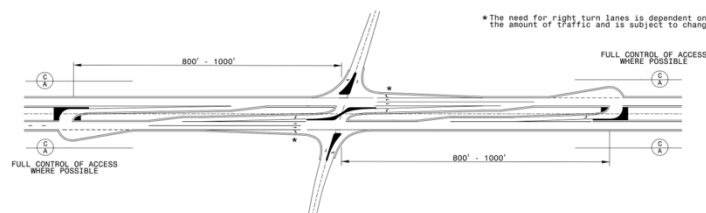
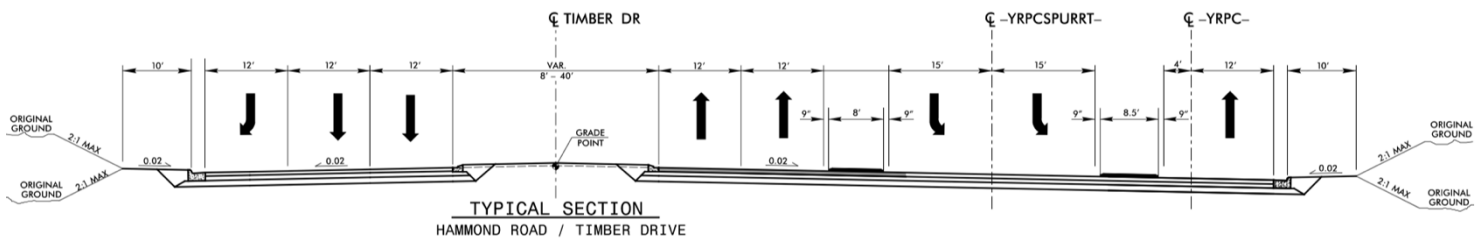
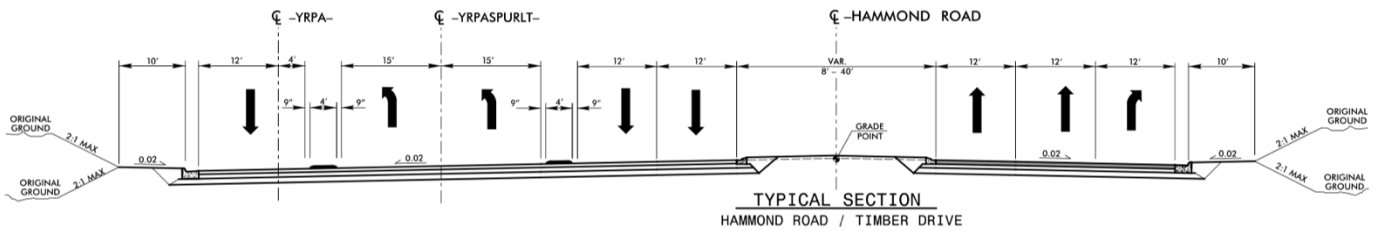
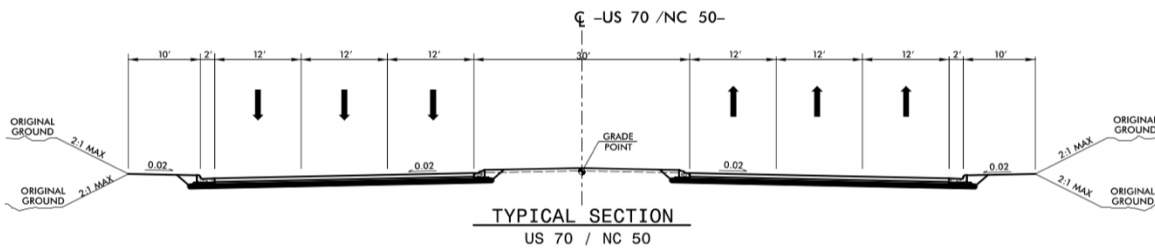
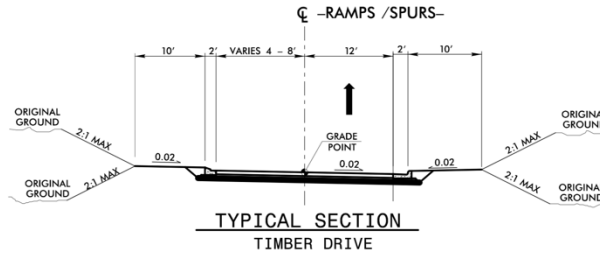
MARCH 2018

Project Alternative Design Concepts

These two concepts are currently being considered by the NCDOT project team for the proposed improvements. The illustrations represent high level concepts.

Alternative 1: Continuous Flow Intersection

Typical Sections



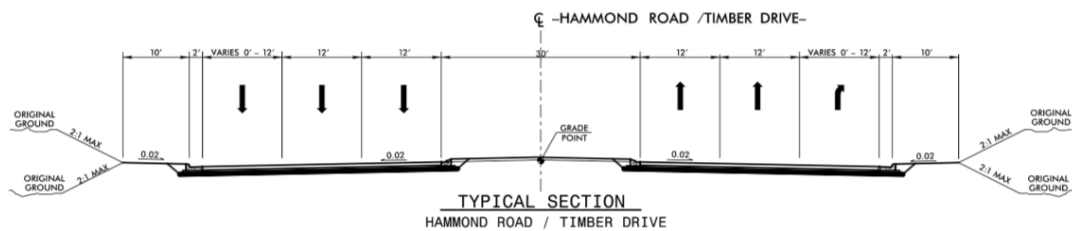
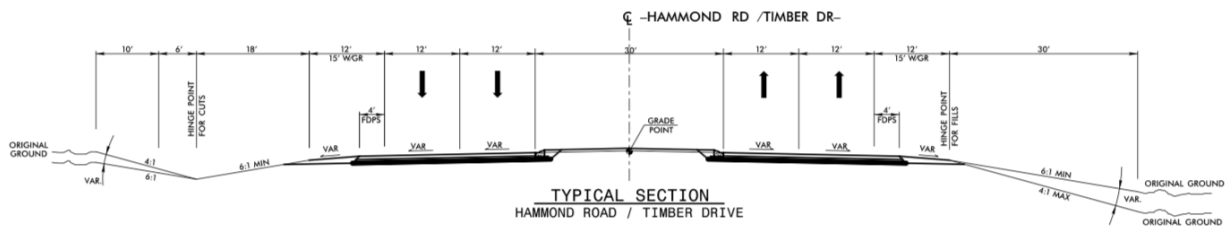
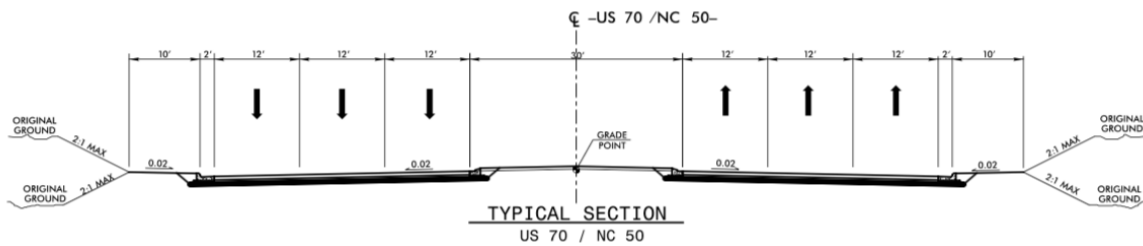
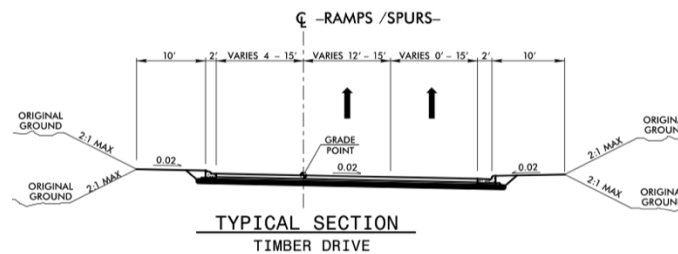
POTENTIALLY TO BE USED AT ALL INTERSECTIONS
U-TURN KNUCKLES NOT TO BE PLACED IN WETLANDS OR RIGHT OF WAY SENSITIVE AREAS

Project Alternative Design Concepts

These two concepts are currently being considered by the NCDOT project team for the proposed improvements. The illustrations represent high level concepts.

Alternative 2 Single-Point Urban Interchange

Typical Sections



Study Alternatives Comparison

	Alternative 1 – Continuous Flow Intersection/Superstreet	Alternative 2- Single Point Urban Interchange
Intersection Type	At Grade, Displaced Traffic and Superstreet	Grade Separated (Bridged) Interchange
Major Structures	N/A	250' Bridge, Retaining Walls

Preliminary/Potential Impacts		
Relocations		
Residential	0	0
Business	2	3
Non-Profit*	0	0
Total	2	3
Right of Way		
Area of Potential Impact (Acres)	0.64	0.74
Environmental		
Minority/Low Income Populations Disproportionately Impacted?	None	None
Historic Properties (Adverse Effect)	Survey Pending	Survey Pending
Community Facilities	0	0
Noise Impacts	Study Pending	Study Pending
Forested Areas (acres)	0	0
Wetlands (acres)	0	0
Streams (linear feet)	298	358
Surface Water (acres)***	0	0
Endangered Species	No Effect	No Effect
Costs		
Right of Way	\$1,000,000	\$2,000,000
Construction	\$7,000,000	\$15,000,000
Total	\$8,000,000	\$17,000,000



US 70/NC 50 and Hammond Road/Timber Drive Intersection, Looking West



US 70/NC 50 and Hammond Road/Timber Drive Intersection, Looking North

Project Status and Next Steps

NCDOT has begun design, environmental, and community studies to evaluate the project area and determine any potential positive or negative impacts to the human and natural environment. The project team will thoroughly review all public input resulting from the public meeting as well as comments received throughout the planning and design process. Comments and input will be considered in the detailed design alternative analysis and development of the environmental document.

Once alternatives have been analyzed and the environmental document is complete, a Design Public Hearing will be held to give the opportunity for public comment on the design alternatives for the project. The final design alternative will then be selected and the final environmental document will be prepared by the end of 2018.

Next Steps	Date*
Select Alternative, Conduct Design and Environmental Studies	Ongoing
Approval of Environmental Document	Winter 2018
Preliminary Plans Complete	Winter 2018
Right of Way Acquisition	Summer 2019
Construction Begins	Winter 2020

*Schedules are subject to change.

Project Contact Information

A copy of the public meeting map can be viewed on the NCDOT public meetings website at: <https://www.ncdot.gov/projects/publicmeetings/> Type "P-5744" (without quotes) in the search field to locate the link for this project.

Project information, interactive maps, polls, and online comment submission are available on the project website at <https://publicinput.com/US70timberhammond>

If you need additional information or would like to discuss the project further, please contact the following project representative:

Zahid Baloch, PE
NCDOT Division 5
2612 North Duke Street
Durham, N.C. 27704
Phone: (919) 707-6012
Email: zbaloch@ncdot.gov

NCDOT will provide interpretive services upon request for persons who do not speak English, or have a limited ability to read, speak or understand English. Kindly request it by calling 1-800-481-6494.

Aquellas personas que hablan español y no hablan inglés, o tienen limitaciones para leer, hablar o entender inglés, podrían recibir servicios de interpretación si los solicitan llamando al 1-800-481-6494.

U-5744 Public Meeting Facts

Date 5/27/2018

Time 2:00 PM - Local Officials

4:00-7:00 PM-Public Meeting

Location The Capital Church

Fellowship Hall

1308 US 70 W

Garner, NC

Local Officials Attendees 9

Public Attendees 84

Total Number of Comments 27