



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

June 4, 2018

MEMORANDUM TO: Internal/External Scoping Meeting Attendees

FROM: Bob Deaton, Senior Project Manager
Central Project Management Unit

SUBJECT: Internal/External Scoping Meeting for I-40/I-440/US-1/US-64
Interchange Reconstruction, Wake County, NC, STIP Project I-5703

The Project Management Unit has started the project development, environmental and engineering studies for the subject project. The project is included in the NCDOT 2018 – 2027 State Transportation Improvement Program (STIP) and is scheduled for right-of-way acquisition and construction to begin in fiscal year 2022 as a Design-Build project.

An Internal/External Scoping Meeting has been scheduled for June 14, 2018, from 3:00pm-5:00pm in the Structure Design Conference Room C in Building A of the NCDOT Century Center (1000 Birch Ridge Drive) in Raleigh.

The general purpose of this meeting is to begin early coordination with NCDOT Units, agency partners, and local government by discussing the known information and issues of concern. Project Data Sheets, mapping, and other materials for this meeting area located on [CONNECT](#) and the [PDEA Merger website](#). Please review the material and be prepared to discuss any additional known information regarding your resource and/or area of expertise.

Thank you for your assistance in the project development process. Comments and questions concerning the project or the Project Data Sheets can be directed to me at (919)707-6017 or by email at rdeaton@ncdot.gov. You may also contact Rob Hanson of Atkins at (919)431-5266 or by email at Robert.Hanson@atkinsglobal.com. If you cannot attend the meeting, please forward your comments by June 20, 2018. Please include the STIP Project Number, I-5703, in all correspondence and comments.

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*1000 Birch Ridge Drive
BUILDING A
RALEIGH, NC 27610*

Bridge/ Culvert Inventory:

Bridges

8 total bridges on I-40 from west to east:

- Bridge No. 580 carrying Cary Town Boulevard over I-40
- Bridge No. 228 carrying SR 1315 (Buck Jones Road) over I-40/US 64
- Bridge No. 582 carrying I-40 over I-440/US 1/ US 64
- Bridge No. 583 carrying I-40 over I-440/US 1/ US 64
- Bridge No. 584 carrying I-40 over I-440/US 1/ US 64
- Bridge No. 585 carrying I-40 over I-440/US 1/ US 64
- Bridge No. 253 carrying SR 1319(Jones Franklin Road) over I-40/US 64
- Bridge No. 558 carrying SR 1321 (Avent Ferry Road) over I-40
- Bridge No. 271 carrying SR 1427 (Lake Dam Road) over I-40
- Bridge Nos. 281 (WB) and 276 (EB) carrying I-40 over SR 1571 (Gorman Street)
- Bridge No. 286 carrying SR 1348 (Trailwood Drive) over I-40

4 total bridges on I-440/US-1 from north to south:

- Bridge No. 185 carrying SR 1319 (Jones Franklin Road) over I-440/US 1/ US 64
- Bridge No. 178 carrying SR 131 (Walnut Street) over I-440/US 1/ US 64
- Bridge No. 649 carrying Crossroads Boulevard over I-440/US 1/ US 64
- Bridge No. 635 carrying SR 3977 (SE Cary Parkway) over I-440/US 1/ US 64

2 total culverts on I-40 from west to east:

- Culvert No. 587 – North of bridge No. 228
- Culvert No. 586 – Under SR 1315 (Buck Jones) on northeastern side of I-40

1 total culvert on I-440/US 1:

- Culvert No. 588 – Just south of JF bridge; carries over Lake Johnson stream

Source: Bridge Location Map - NCDOT Management Systems and Assessments Unit - Mapping Section

Functional Classification:

Interstate

Strategic Transportation Corridor Information:

Part of Corridor Q and L. Corridor Q is the most important cross-state corridor carrying high truck and passenger volumes through the core of the state. Corridor L (US 1) is a primary route for travel north to Virginia and the mid-Atlantic coast region.

CTP/Thoroughfare Plan Designation (Facility Type):

CAMPO MTP (Interstate)

Air Quality Status:

Non-attainment

Maintenance

Attainment

Horizon Completion Year (Long Range Trans. Plan):

2025

Traffic (AADT):

	Year	Range of Traffic
Current Year (counts):	(2015)	78,000 – 138,000
Design Year:	(2040)	119,300 – 176,200

% TTST:

4

% Dual:

6

**Design year traffic volumes presented are from U-2719 forecast. Updated traffic forecast will be obtained.*

Design Standards Applicable:



AASHTO



3R

Railroad Involvement:

Not Applicable

Utility Involvement:

Major Overhead Power Line

Natural/ Human Environmental Features:

Preliminary Corridor Resources Inventory Table
(Potential impacts are within existing right-of-way unless otherwise noted.)

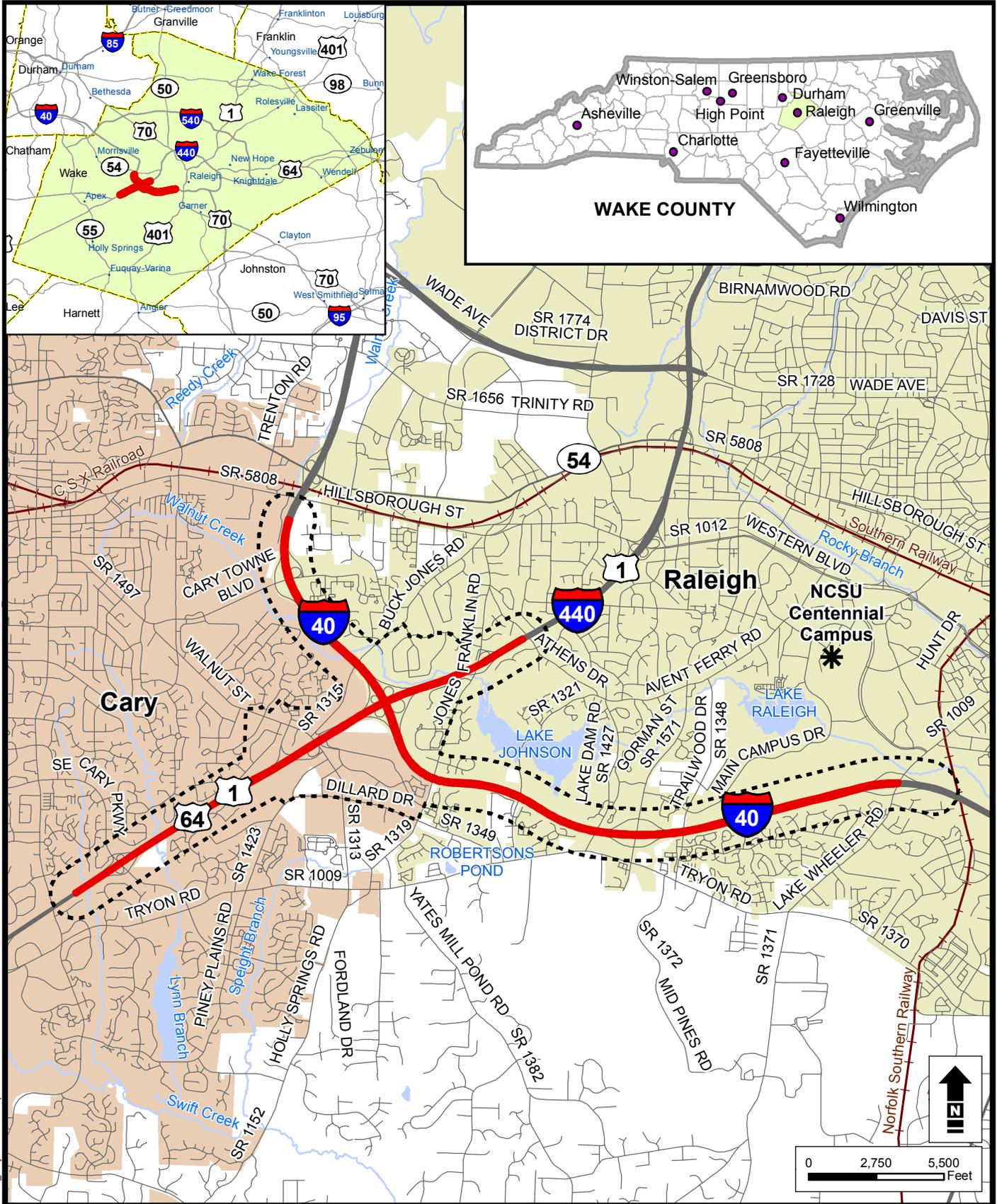
Resource/Measure	I-5703
Length of project (to tenth of miles)	4 miles –from STIP Description, but potentially 5.5 miles
Potential for Interchanges or RR crossings (#)	<u>Interchanges - 7</u> Along I-40: Cary Town Blvd, I-40/I-440/US 1/US 64, Gorman Street, and Lake Wheeler Road Along I-440/US 1: Jones Franklin Road, I-40/I-440/US 1/US 64, Crossroads Blvd and Walnut St, and SE Cary Parkway <u>Intersections - 0</u> <u>RR crossings – 1</u> One railroad crossing is located slightly west of the Lake Wheeler Road interchange on I-40 <u>Cross Streets/Bridges – 5</u> Along I-40: Buck Jones Road, Jones Franklin Road, Avent Ferry Road, Lake Dam Road, and Trailwood Drive).
Other Infrastructure (# of Wastewater treatment plants, transmission pipelines, etc.)	To be determined.
Suspected/known Hazardous Materials sites (#)	<u>Underground Storage Tanks – 18</u> Underground storage tanks (UST) are located within or adjacent to the project study area 3 additional registered/regulated hazardous material handling sites are also located within the study area.
National Register or eligible sites, districts, or other historic properties (#)	<u>State Register Historic Sites (Surveyed Only) – 16</u> 16 “Surveyed Only” sites are located within or adjacent to the project study area.

Resource/Measure	I-5703
Community facilities such as medical centers, nursing homes, churches, schools, cemeteries, etc. (#)	<p><u>Located inside of study area</u></p> <ul style="list-style-type: none"> - Waltonwood Cary Parkway Retirement Community - Fellowship Preschool - South Hills Shopping Center - Crossroads Plaza Mall - Connections Church - Cary Christian Church - Agape Korean UMC - Hope Community Church - Grace Christian School - Ephesus Baptist Church <p><u>Located adjacent to study area</u></p> <ul style="list-style-type: none"> - The Church of Jesus Christ of Latter-day Saints - Fellowship of Christ – EPC - Cary Fire Station #3 - Cary Church of Christ - Dillard Drive Middle School - Dillard Drive Elementary School - Watts Chapel Baptist Church - Raleigh Fire Department #20 - Raleigh Church of Christ - Centennial Campus Middle School - St Barnabas United Methodist Church - Philadelphia Missionary Baptist Church - All Saints Antiochian Orthodox Church
Residential/Business Relocates	To be determined
Wetlands (est. acres <i>in study area</i> rounded to whole acre)	<ul style="list-style-type: none"> - Freshwater Emergent Wetland: Less than 1 acre - Freshwater Forested/Shrub Wetland: 34 acres - Freshwater Pond: 22 acres - Lake: 2 acres - Riverine: 25 acres
Streams (# of streams and number of linear feet)	<p>3 major streams cross through the project study area</p> <ul style="list-style-type: none"> - Long Branch - Lynn Branch - Walnut Creek <p>Multiple minor streams cross the project study area</p>
Critical Water Supply Watersheds	The Swift Creek Water Supply Watershed is located within the project vicinity.
Riparian Buffer rules apply (yes/no/part)	Yes. Neuse River Basin

Resource/Measure	I-5703
Area in active agriculture (nearest acre)	N/A. Project is located within an urbanized area.
Parks, Greenways, Game Lands, Land and Water Conservation Fund Properties, etc. (#)	<p><u>Within Project Study Area - 12</u></p> <ul style="list-style-type: none"> - Lake Johnson - Thomas G. Crowder Woodland Center - Lonnie Poole Golf Course - Walnut Creek Trail - Walnut Creek Trail Connector - Walnut Street Park - MacDonald Woods Park - Marla Dorrel Park - Future Park - WakeMed Soccer Park - Conservation Spurgeon Lane - Walnut Street Park <p>*A future park is also planned within the study area in the Trailwood Glen neighborhood.</p> <p><u>Adjacent to Project Study Area - 6</u></p> <ul style="list-style-type: none"> - Carolina Pines Park - Upper Walnut Creek Greenway - Kaplan Park - Powell Drive Park - Lake Raleigh - State Farmers Market
Identified Critical Habitat/species under ESA (yes/no/part)	<p>Yes. As of April 4, 2018, listed ESA species in Wake County:</p> <p><u>Endangered:</u></p> <ul style="list-style-type: none"> - Cape Fear shiner - Red Cockaded Woodpecker - Dwarf wedgemussel - Tar River spiny mussel - Michaux's sumac <p><u>Threatened:</u></p> <ul style="list-style-type: none"> - Yellow lance <p><u>Bald and Golden Eagle Protection Act:</u></p> <ul style="list-style-type: none"> - Bald eagle
FEMA Buyout Properties	No
Other known/suspected resources or issues: (identify; e.g. Low-income or minority community) (#)	Minority and low-income populations are present within the study area.

NOTE: This table is intended to be used in conjunction with the Environmental Features Map.

* Data points taken from NC DEQ's Waste Management GIS Data and Maps have the following disclaimer: "NC DENR staff have compiled this dataset to the best of their abilities using the resources available to them. NC DENR neither verifies nor guarantees the accuracy, reliability, or completeness of any data provided. NC DENR provides this data without warranty of any kind whatsoever, either express or implied, and shall not be liable for incidental, consequential, or special damages arising out of the use of any data provided herein." <https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/waste-management-gis-maps>



I-5703_ProjectLocationExpanded.mxd_JNL_05.11.2018



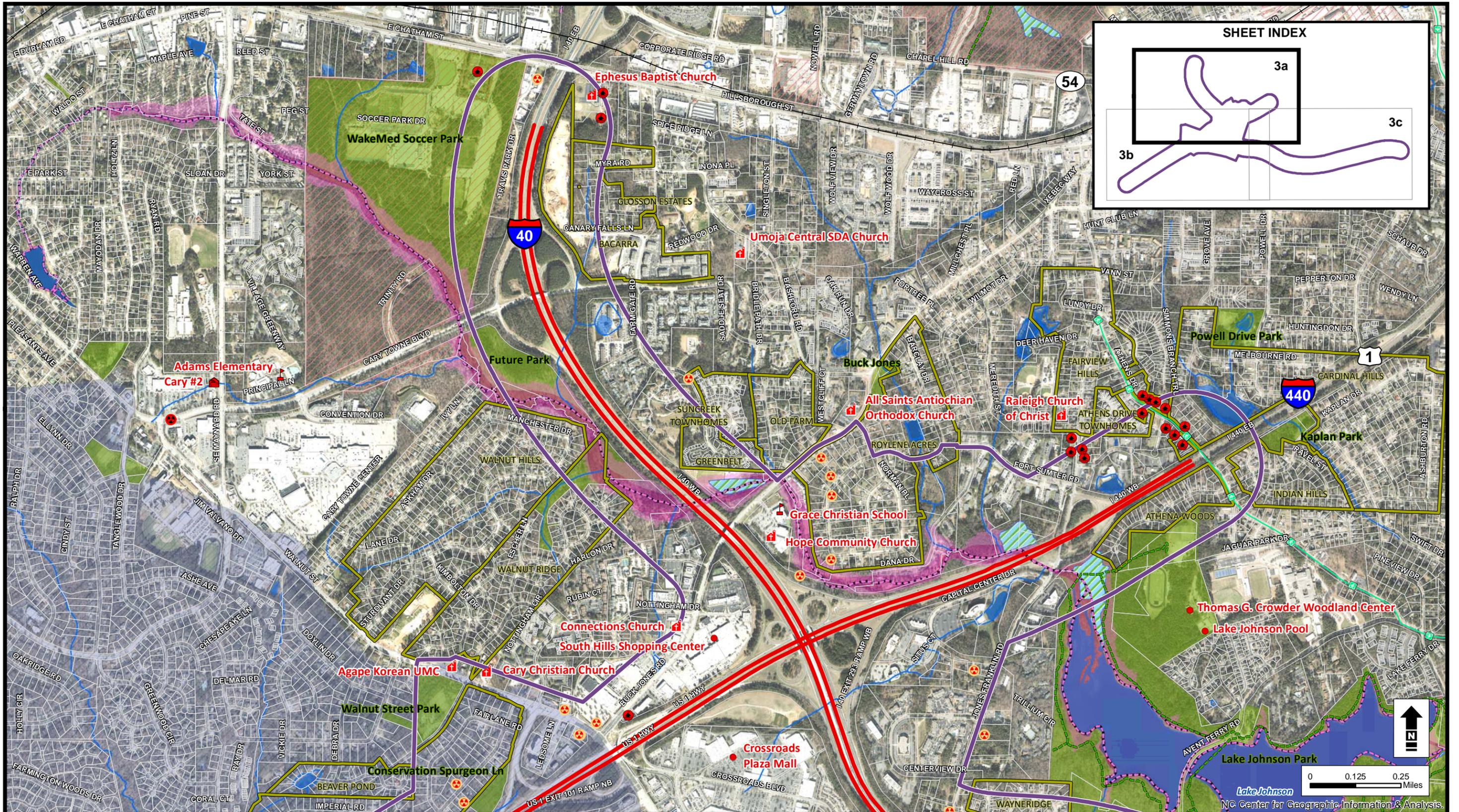
LEGEND

- Study Limits
- - - Preliminary Study Area

Source: ESRI, NCDOT, Wake County, NCOneMap.

PROJECT LOCATION MAP
 I-440 / US 1 / US 64 INTERCHANGE IN RALEIGH
 RECONSTRUCT INTERCHANGE
 WAKE COUNTY
 STIP PROJECT I-5703

FIGURE 1



1-5703_Scoping_FeaturesMapAerials.mxd JNL 06.21.2018

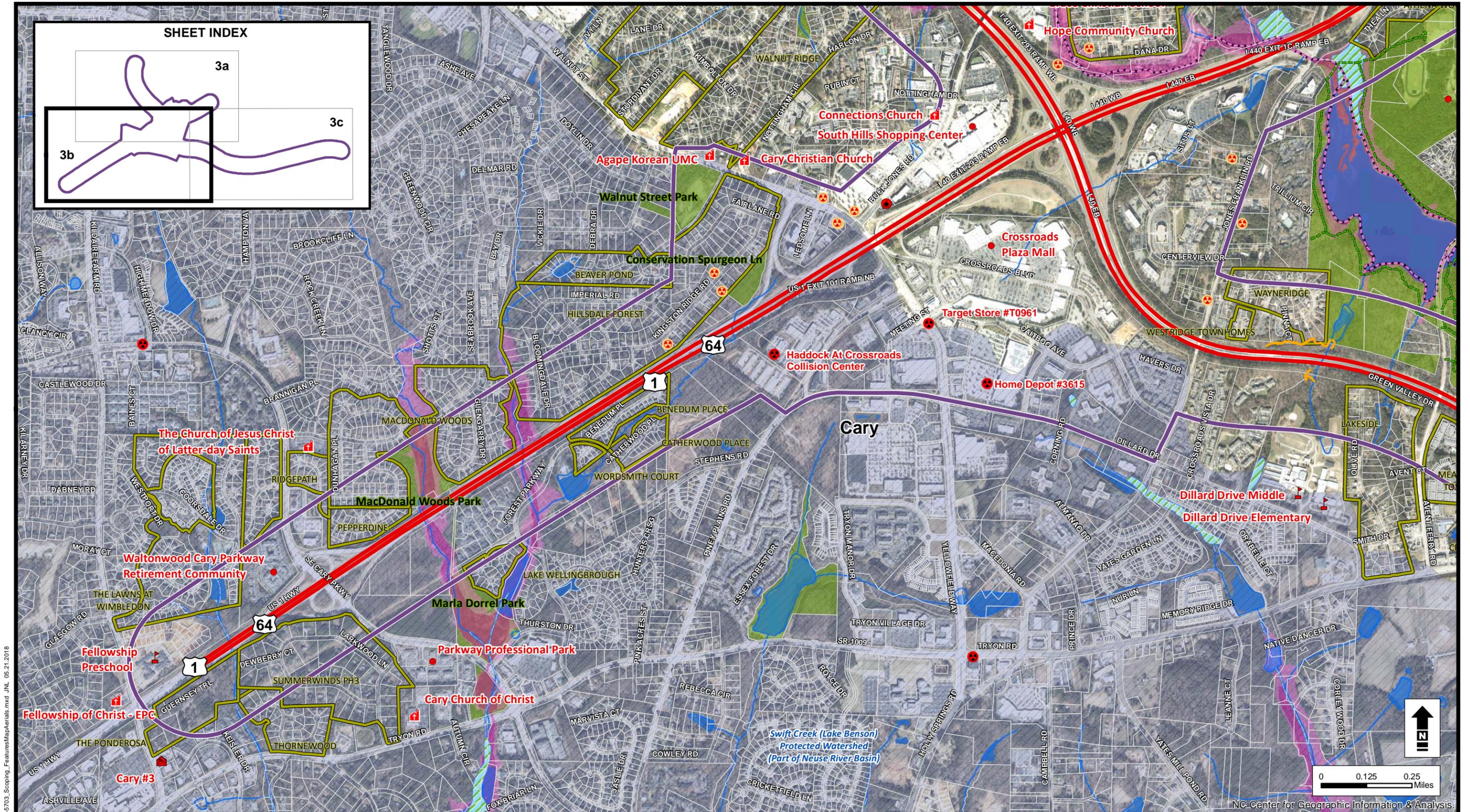


LEGEND	
	Preliminary Study Area
	Study Limits
	Church
	Fire Station
	State Register Historic Site (Surveyed Only)
	Notable Features
	Schools
	On Street Bike Facilities
	Trail (Greenways)
	Jurisdictional Streams (From Fortify Design Plans)
	Underground Storage Tank
	Hazardous Waste Site
	Railroad
	303(d) Streams
	Major Streams
	NWI Wetlands
	Floodway
	100 Year Floodplain
	Parks and Open Space
	Lakes
	State Owned Land
	Area Subdivisions
	Parcel Boundary
	Protected Watershed

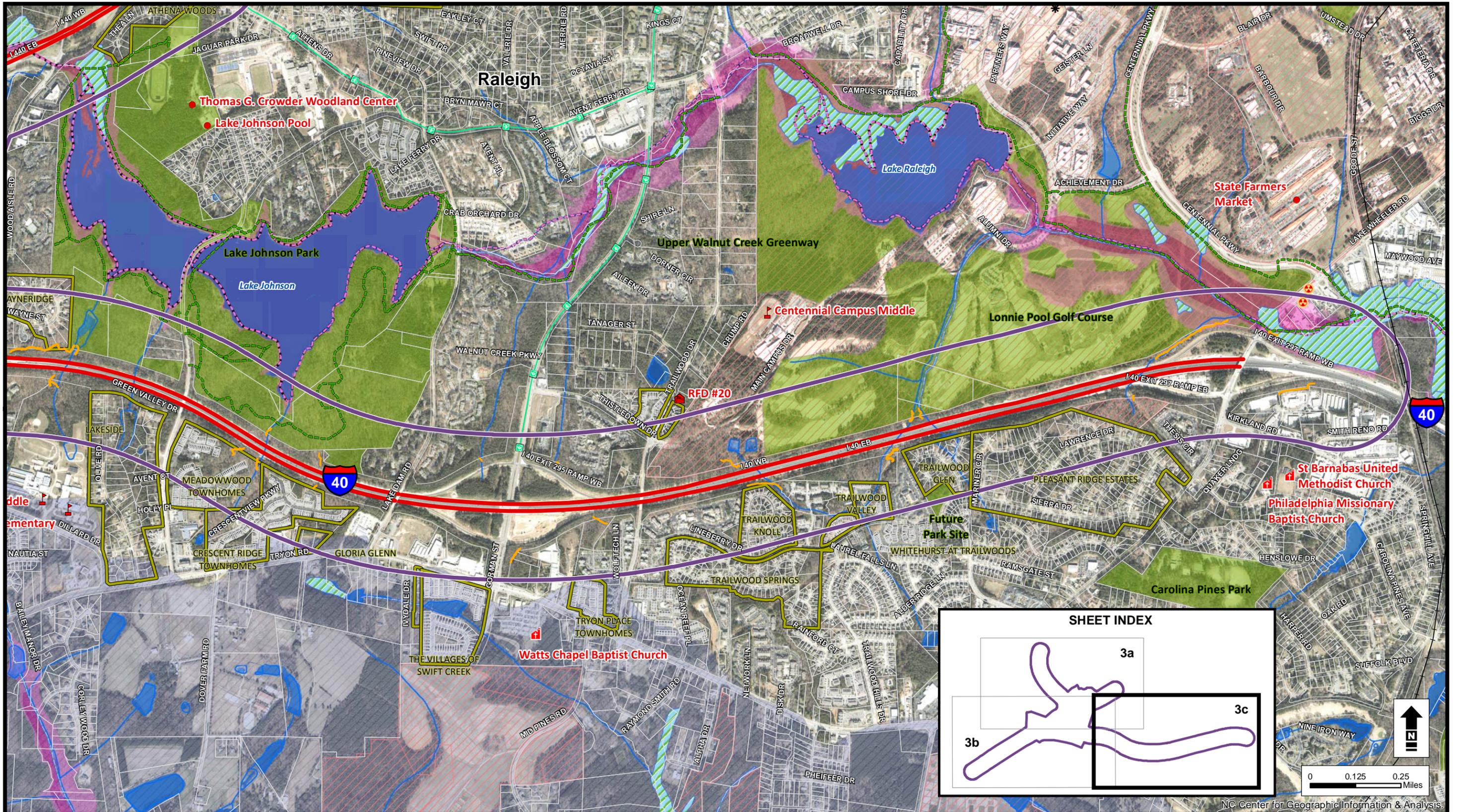
ENVIRONMENTAL FEATURES
 I-440 / US 1 / US 64 INTERCHANGE IN RALEIGH
 RECONSTRUCT INTERCHANGE
 WAKE COUNTY
 STIP PROJECT I-5703

Source: ESRI, NCDOT, Wake County, NCOneMap.

FIGURE 3a



I-5703_Scoping_FeaturesMapAerials.mxd JNL 06.21.2018



1-5703_Scoping_FeaturesMapAerials.mxd JNL 06.21.2018



LEGEND

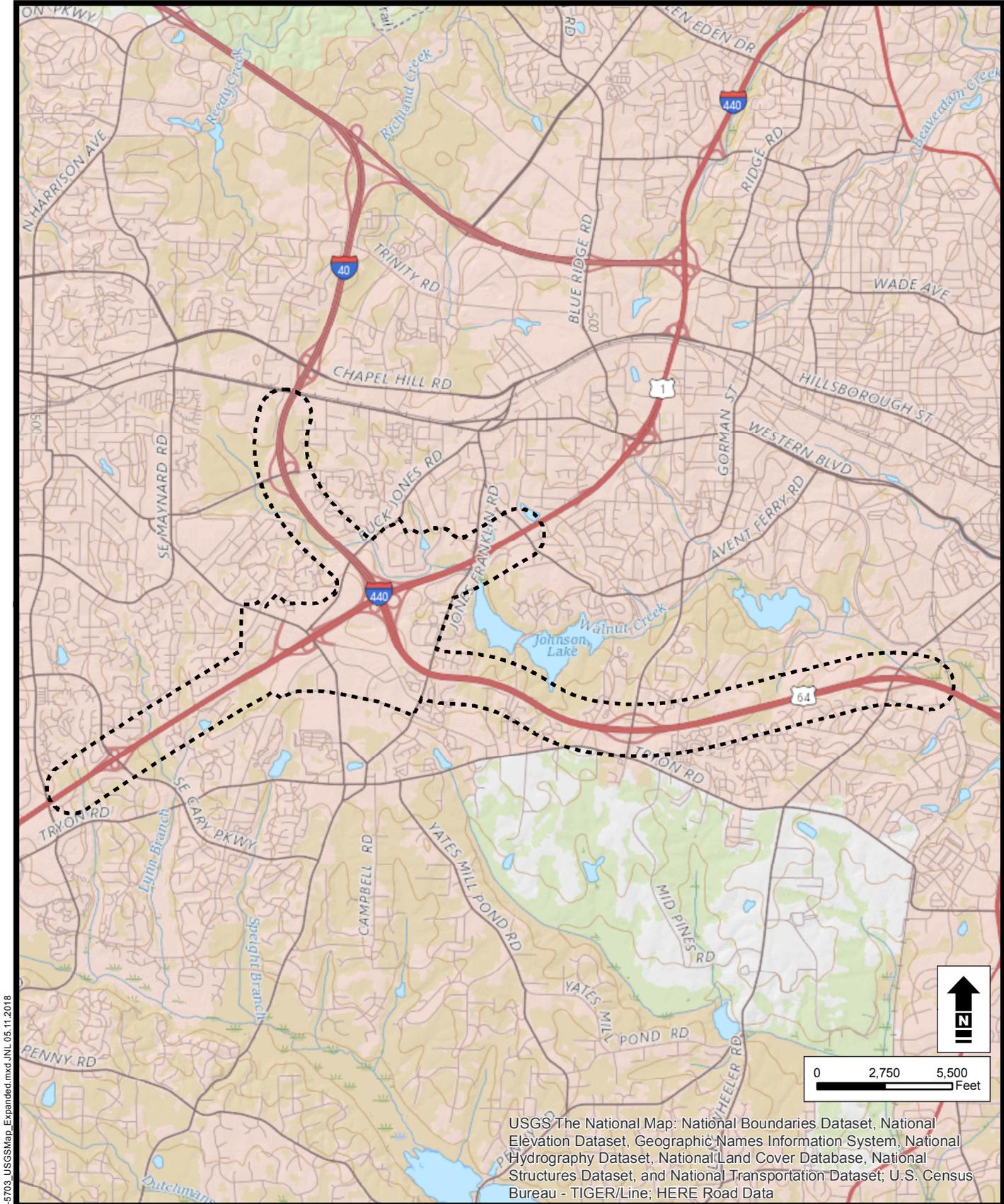
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|--|--|--------------------------|----------------------|---------------------|
| Preliminary Study Area | Notable Features | Underground Storage Tank | NWI Wetlands | State Owned Land |
| Study Limits | Schools | Hazardous Waste Site | Floodway | Area Subdivisions |
| Church | On Street Bike Facilities | Railroad | 100 Year Floodplain | Parcel Boundary |
| Fire Station | Trail (Greenways) | 303(d) Streams | Parks and Open Space | Protected Watershed |
| State Register Historic Site (Surveyed Only) | Jurisdictional Streams (From Fortify Design Plans) | Major Streams | Lakes | |

NC Center for Geographic Information & Analysis

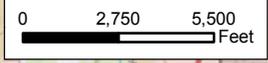
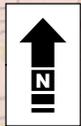
ENVIRONMENTAL FEATURES
 I-440 / US 1 / US 64 INTERCHANGE IN RALEIGH
 RECONSTRUCT INTERCHANGE
 WAKE COUNTY
 STIP PROJECT I-5703

Source: ESRI, NCDOT, Wake County, NCOneMap.

FIGURE 3c



I-5703_USGSMap_Expanded.mxd JNL 05.11.2018



USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data



LEGEND

- Preliminary Study Area

Source: Raleigh West 7.5-Minute Quadrangle
7.5-Minute Quadrangle from ESRI ArcGIS Online Server
(services.arcgisonline.com).

USGS MAP
I-440 / US 1 / US 64 INTERCHANGE IN RALEIGH
RECONSTRUCT INTERCHANGE
WAKE COUNTY

STIP PROJECT I-5703

FIGURE 4