

## PROJECT DATA SHEET

Date: 5/15/2018  
Rev.: 8/3/2018

STIP No.: U-5891	County: Wake
Federal-aid No.: State Funded	WBS No.: 44706.1.1
NCDOT Division: 5	Scoping Meeting Date: August 16, 2018

### Project Description: NC 50 (Creedmoor Road) – Widening

- Length: 5.5 miles
- Termini (US Hwy / SR): I-540 to north of NC 98 (Durham Road)
- MPO / RPO: CAMPO
- NEPA / 404 Merger Candidate? ☐ Yes ☐ No ☒ Unknown, TBD
- General Description of Project:

NC 50 (Creedmoor Road) From I-540 to North of NC 98. Widen to multilane divided roadway.

### Design Data (Existing Conditions):

- Functional Classification: Minor Arterial
- Strategic Highway Corridor: No
- Type of Access Control: No Control with Partial Access Control at 2 interchanges.
- Typical Section: 2 lanes
- Right of Way: Varies
- Posted Speed: 45 mph from 540 to Bella Hill Drive, where it transitions to 55 mph. Remainder of corridor is 55 mph, except for intersection areas where a caution sign indicates 45 mph.
- Structure Inventory (bridges, RCBC, Walls, etc):

*Culverts:* 910969 (triple 7' x 9'), 910971 (triple 8' x 9')

*Bridges:* Two three-lane Bridges on I-540 over NC 50: 911037, and 911038.

Two-lane Bridge on NC 98 over NC 50: 910012.

- Other TIP Projects in the Area

The following projects are based on the State Transportation Improvement Program (STIP) dated August 2017:

**STIP I-5982** I-40 in Durham to I-495/US 64/ US 264 in Knightdale. Construct managed shoulders.

- Railroad Involvement:

None

### Initial Scoping Comments:

NC 50 (Creedmoor Rd) is a two-lane highway operating over capacity. It is a heavily travelled connector between I-540 and NC 98, with 10,400 vehicles per day (vpd) just north of NC 98 to 34,900 vpd just south of I-540. Maximum capacity for a Rural two-lane highway level of service D in the Piedmont is approximately 12,400 vpd. This project is included in the 2040 CAMPO Metropolitan Transportation Plan (Project A444).

A feasibility study for this project was completed in February 2018.

### Traffic Data (AADT):

<b>Scenario</b>	<b>AADT Range</b>
2018 Base Year No-Build	10,400-34,900
2018 Base Year Build	11,700-35,600
2045 Design Year No-Build	17,800-44,800
2045 Design Year Build	21,800-45,600

Source: VHB Traffic Forecast Draft Report for STIP Project No. U-5891

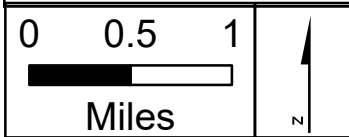
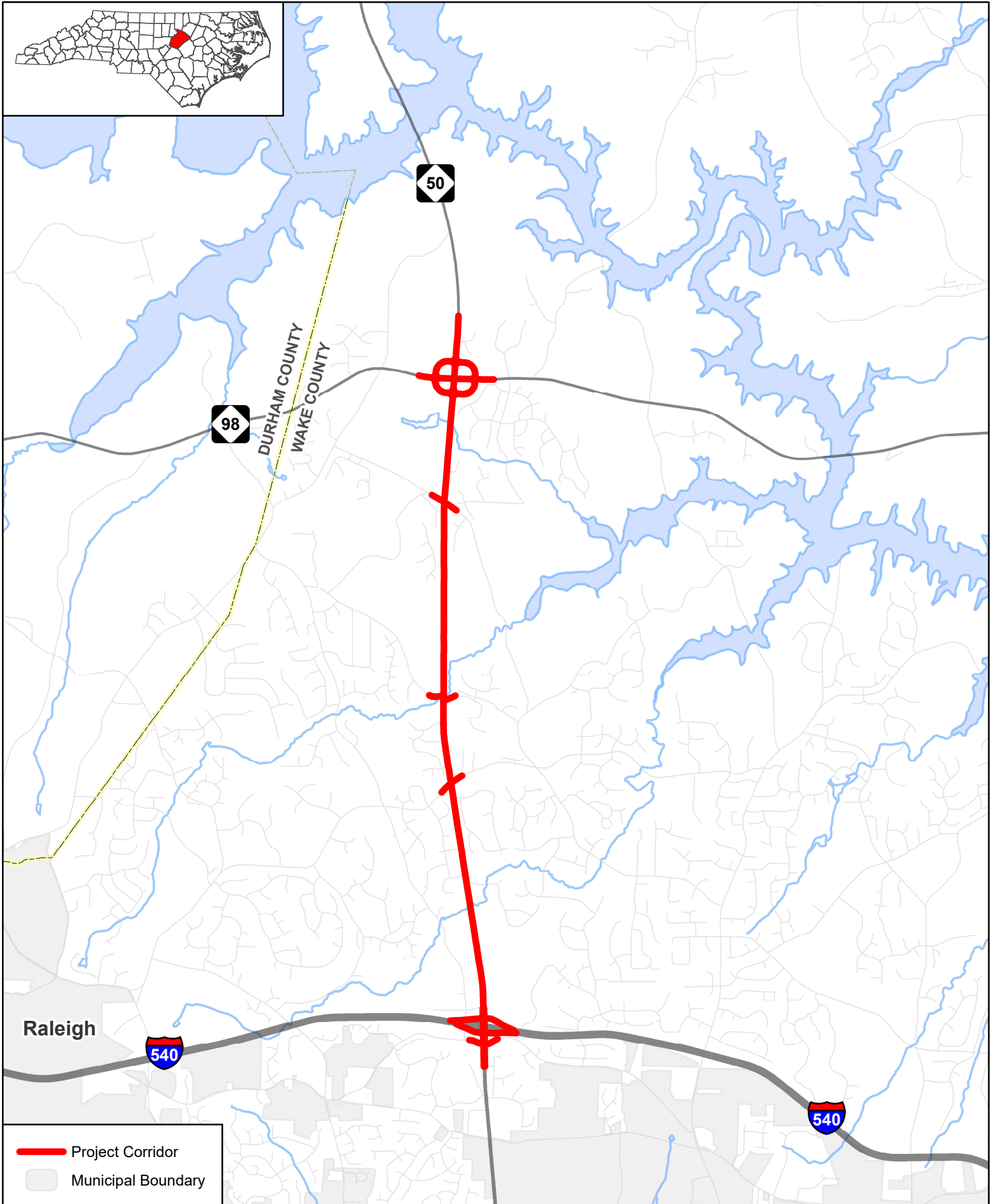
Note: Concepts being considered are: 4-lane traditional and 4-lane superstreet widenings with raised median.

### Cost Estimates:

	Construction	Right-of-Way	Total
TIP Estimate (2017)	\$45,375,000	\$20,000,000	\$65,375,000
Current Estimate	NA	NA	NA

### Project Schedule:

	Preliminary	Production
Environmental Document (SEA/FONSI)	July 2019/December 2020	July 2019
Right-of-Way	October 2021	July 2020
Construction	October 2024	July 2022



**Project Vicinity**

Prepared by: VHB Date: August 2018

**STIP No. U-5891**  
NC 50 From I-540 to north of NC 98  
Wake County



## Purpose and Need Data:

### Draft Project Need:

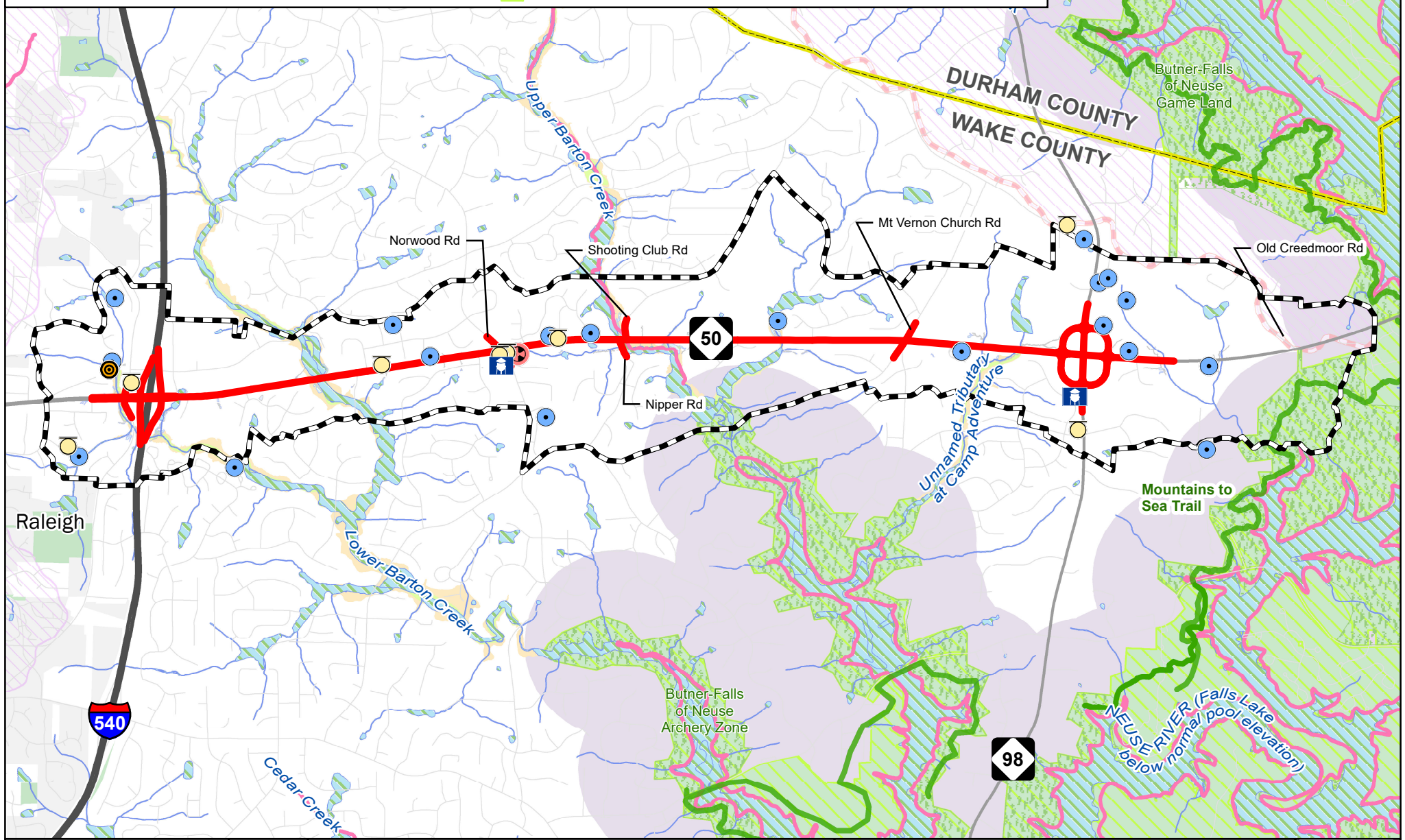
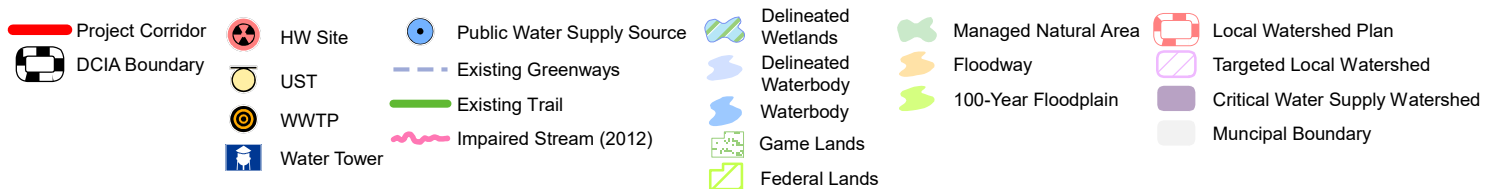
The primary need for the proposed action is to address:

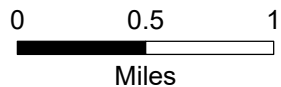
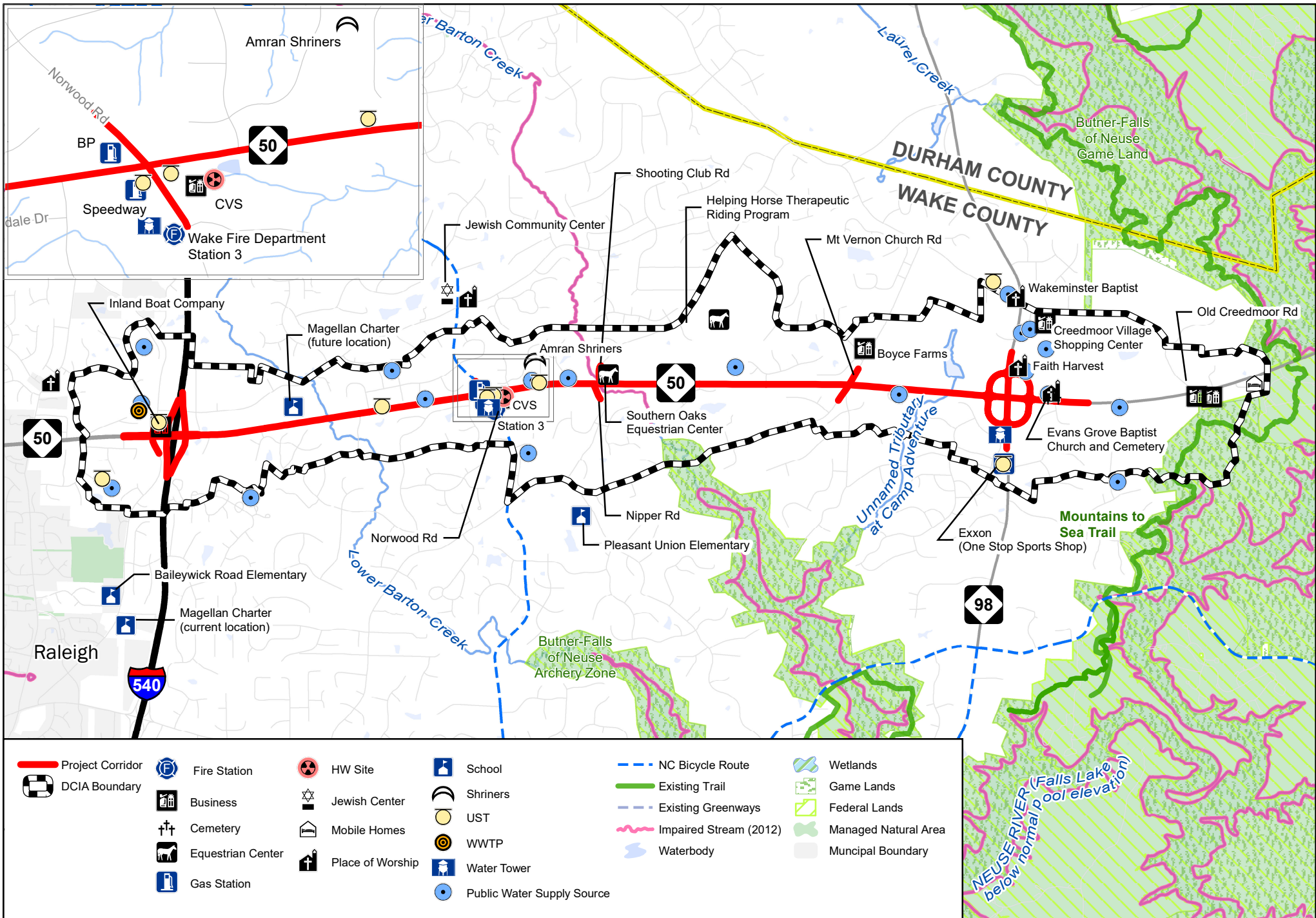
**NC 50 as a two-lane highway is operating over capacity. The existing volumes (2018 AADT) from just south of I-540 to just north of NC 98 range from 10,400 to 34,900 vehicles per day (VPD). Maximum capacity for a Rural two-lane highway level of service D in the Piedmont is approximately 12,400 vpd.**

### Draft Project Purpose:

The primary purpose for the proposed action is to:

**Decrease congestion and enhance mobility to achieve a goal of Level of Service D in the design year 2045, and to provide an improved north-south arterial connection in the region.**





## Community Context

Prepared by: VHB

Date: August 2018

STIP No. U-5891

NC 50 From I-540 to north of NC 98

Wake County



## Preliminary Corridor Resources Inventory Table

Resource/Measure	Study Area
Length of Study Area (to tenth of miles)	6.8*
Potential for Interchanges or RR crossings (#)	None
Other Infrastructure (# of Wastewater treatment plants, transmission pipelines, etc.)	Wildwood Green Wastewater treatment plant
Suspected/known Hazardous Material sites (#)	1 – Hazardous Site (CVS), USTs throughout the corridor
National Register or eligible sites, districts, or other historic properties (#)	None - Properties are surveyed only
Community facilities such and hospitals, nursing homes, churches, schools, cemeteries, etc.) (#)	<i>School (1)</i> - Magellan Charter (future location) <i>Places of Worship (3)</i> – Faith Harvest, Evans Grove Baptist Church and Cemetery, Wakeminster Baptist <i>Community (3)</i> – Shriners, Wake Fire Department Station 3, Water tower
Potentially Affected Properties Reported in the Project Scope Report Screening Checklist	142
VHB NRTR Jurisdictional Wetlands (est. acres rounded to whole acre)	12.42
VHB NRTR Streams (# of streams and number of linear feet)	47 streams, 27,362 feet
Critical Water Supply Watersheds (rounded to nearest acre)	0
Riparian Buffer rules apply (yes/no/part)	Yes
Area in active agriculture (nearest acre)	Several active farms (primarily horse farms and pasturelands) along this portion of NC 50 - acreage TBD
Parks, Greenways, Game Lands, Land and Water Conservation Fund Properties, etc.) (#)	<i>Greenway</i> - Proposed along Lower Barton Creek (crossing NC 50 about 9/10ths of a mile north of I-540), request at least 10 feet vertical clearance and at least 14 foot width) <i>Game Lands</i> - Butner-Fall of Neuse Archery Zone/Game Lands within study area -NC bicycle route and existing greenways also pass directly through the project corridor. Crossings are seen at Norwood Rd, Lower Barton Creek, Upper

	Barton Creek, Falls Lake and Unnamed Tributary at Camp Adventure.
Identified Critical habitat/species under ESA (yes/no/part)	Yes – Red-cockaded woodpecker and Michaux’s Sumac
FEMA Buyout Properties	No
Other known/suspected resources or issues: (identify; e.g. Low-income or minority community) (#)	-Wake County has a significant Hispanic population, but not necessarily in this area – recommended to present everything in English/Spanish due to Wake County presence. -No low-income/minority groups have been identified

\*STIP lists project length as 5.5 miles; however, planned improvements will extend the project length approximately 1/4 mile on both termini.

NOTE: This table is to be used in conjunction with the Environmental Screening and Community Context Screening Maps for the purposes of evaluating the feasibility of potential corridors. Use of the table without the aid of mapping may lead to misinformed decisions.